

# 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 17:51:43
Data source version	GOMOS/6.01
Start time of products	26-08-2002 (26AUG2002 00:00:00)
Stop time of products	27-08-2002 (27AUG2002 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	38
Nb of prods with errors	0

## 2. Summary of processed GOM\_NL\_\_2P products.

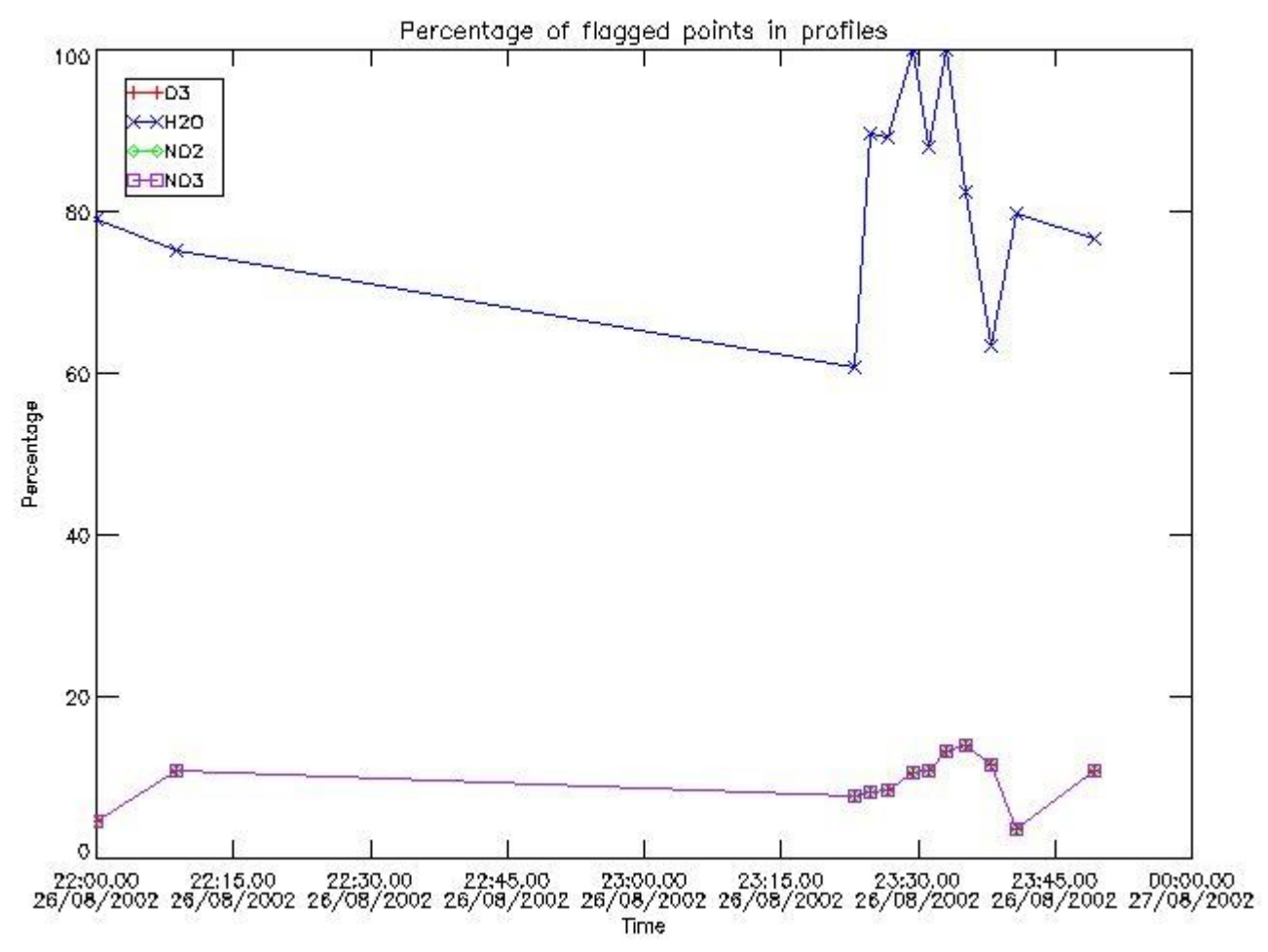
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20020826_220004_000001112009_00001_02560_2475.N1	26-AUG-2002 22:00:04	Dark	110.50	165	34Gam Eri	2.9500	3200.0	221	2560	No
2	GOM_NL__2PRFIN20020826_220844_000000472009_00001_02560_2476.N1	26-AUG-2002 22:08:44	Dark	47.000	9	Alp Eri	0.45300	24000.	94	2560	No
3	GOM_NL__2PRFIN20020826_221335_000000392009_00001_02560_2477.N1	26-AUG-2002 22:13:35	Straylight	38.500	148	Alp Tuc	2.8780	4100.0	77	2560	No
4	GOM_NL__2PRFIN20020826_221546_000000392009_00001_02560_2478.N1	26-AUG-2002 22:15:46	Straylight	39.000	45	Alp Pav	1.9400	26000.	78	2560	No
5	GOM_NL__2PRFIN20020826_221713_000000422009_00001_02560_2479.N1	26-AUG-2002 22:17:13	Straylight	42.000	31	Alp Gru	1.7340	15200.	84	2560	No
6	GOM_NL__2PRFIN20020826_222005_000000412009_00001_02560_2480.N1	26-AUG-2002 22:20:05	Straylight	40.500	172	Gam Gru	3.0030	13100.	81	2560	No
7	GOM_NL__2PRFIN20020826_222617_000000442009_00001_02560_2481.N1	26-AUG-2002 22:26:17	Bright	44.000	142	49Del Cap	2.8500	8900.0	88	2560	No
8	GOM_NL__2PRFIN20020826_222928_000000442009_00001_02560_2482.N1	26-AUG-2002 22:29:28	Bright	44.000	154	22Bet Aqr	2.8990	5700.0	88	2560	No
9	GOM_NL__2PRFIN20020826_223107_000000442009_00001_02560_2483.N1	26-AUG-2002 22:31:07	Bright	43.500	162	34Alp Aqr	2.9440	5350.0	87	2560	No
10	GOM_NL__2PRFIN20020826_223422_000000402009_00001_02560_2484.N1	26-AUG-2002 22:34:22	Bright	39.500	11	53Alp Aql	0.76500	8000.0	79	2560	No
11	GOM_NL__2PRFIN20020826_223745_000000562009_00001_02560_2485.N1	26-AUG-2002 22:37:45	Bright	55.500	90	54Alp Peg	2.4870	11000.	111	2560	No
12	GOM_NL__2PRFIN20020826_224055_000000382009_00001_02560_2486.N1	26-AUG-2002 22:40:55	Bright	38.000	92	53Eps Cyg	2.5000	4500.0	76	2560	No
13	GOM_NL__2PRFIN20020826_224242_000000362009_00001_02560_2487.N1	26-AUG-2002 22:42:42	Bright	35.500	66	37Gam Cyg	2.2080	5900.0	71	2560	No
14	GOM_NL__2PRFIN20020826_224405_000000402009_00001_02560_2488.N1	26-AUG-2002 22:44:05	Bright	40.000	19	50Alp Cyg	1.2460	10500.	80	2560	No
15	GOM_NL__2PRFIN20020826_224728_000000792009_00001_02560_2489.N1	26-AUG-2002 22:47:28	Bright	78.500	58	21Alp And	2.0730	11000.	157	2560	No
16	GOM_NL__2PRFIN20020826_225242_000000452009_00001_02560_2490.N1	26-AUG-2002 22:52:42	Bright	45.000	74	11Bet Cas	2.2680	6600.0	90	2560	No
17	GOM_NL__2PRFIN20020826_225453_000000492009_00001_02560_2491.N1	26-AUG-2002 22:54:53	Bright	49.000	76	27Gam Cas	2.3000	30000.	98	2560	No
18	GOM_NL__2PRFIN20020826_225644_000000392009_00001_02560_2492.N1	26-AUG-2002 22:56:44	Bright	38.500	49	1Alp UMi	1.9900	6300.0	77	2560	No
19	GOM_NL__2PRFIN20020826_230151_000000992009_00001_02560_2493.N1	26-AUG-2002 23:01:51	Bright	98.500	73	57Gam1And	2.2600	13100.	197	2560	No
20	GOM_NL__2PRFIN20020826_230606_000000892009_00001_02560_2494.N1	26-AUG-2002 23:06:06	Bright	89.000	175	39Del Per	3.0100	19400.	178	2560	No
21	GOM_NL__2PRFIN20020826_230815_000002552009_00001_02560_2495.N1	26-AUG-2002 23:08:15	Twilight	255.00	173	4Bet Tri	3.0040	8900.0	510	2560	No
22	GOM_NL__2PRFIN20020826_231329_000000532009_00001_02560_2496.N1	26-AUG-2002 23:13:29	Bright	53.000	24	66Alp Gem	1.5800	10200.	106	2560	No
23	GOM_NL__2PRFIN20020826_231555_000000652009_00001_02560_2497.N1	26-AUG-2002 23:15:55	Twilight	65.000	28	12Bet Tau	1.6500	15200.	130	2560	No
24	GOM_NL__2PRFIN20020826_231854_000000492009_00001_02560_2498.N1	26-AUG-2002 23:18:54	Twilight	49.000	44	24Gam Gem	1.9280	11000.	98	2560	No
25	GOM_NL__2PRFIN20020826_232102_000000522009_00001_02560_2499.N1	26-AUG-2002 23:21:02	Twilight	52.000	8	10Alp CMi	0.40000	6500.0	104	2560	No
26	GOM_NL__2PRFIN20020826_232259_000000662009_00001_02560_2500.N1	26-AUG-2002 23:22:59	Dark	65.500	14	58Alp Ori	0.87000	3000.0	131	2560	No
27	GOM_NL__2PRFIN20020826_232450_000000682009_00001_02560_2501.N1	26-AUG-2002 23:24:50	Dark	68.000	27	24Gam Ori	1.6360	26000.	136	2560	No
28	GOM_NL__2PRFIN20020826_232646_000000612009_00001_02560_2502.N1	26-AUG-2002 23:26:46	Dark	61.000	33	50Zet Ori	1.7660	30000.	122	2560	No
29	GOM_NL__2PRFIN20020826_232926_000000482009_00001_02560_2503.N1	26-AUG-2002 23:29:26	Dark	48.000	47	2Bet CMa	1.9760	28000.	96	2560	No
30	GOM_NL__2PRFIN20020826_233113_000000472009_00001_02560_2504.N1	26-AUG-2002 23:31:13	Dark	46.500	23	21Eps CMa	1.5020	26000.	93	2560	No
31	GOM_NL__2PRFIN20020826_233308_000000432009_00001_02560_2505.N1	26-AUG-2002 23:33:08	Dark	42.500	70	Zet Pup	2.2460	39000.	85	2560	No
32	GOM_NL__2PRFIN20020826_233507_000000402009_00001_02560_2506.N1	26-AUG-2002 23:35:07	Dark	40.000	34	Gam2Vel	1.7930	23000.	80	2560	No
33	GOM_NL__2PRFIN20020826_233802_000000442009_00001_02560_2507.N1	26-AUG-2002 23:38:02	Dark	44.000	2	Alp Car	-0.73600	7000.0	88	2560	No
34	GOM_NL__2PRFIN20020826_234042_000001392009_00002_02561_2475.N1	26-AUG-2002 23:40:42	Dark	139.00	165	34Gam Eri	2.9500	3200.0	278	2561	No
35	GOM_NL__2PRFIN20020826_234921_000000482009_00002_02561_2476.N1	26-AUG-2002 23:49:21	Dark	47.500	9	Alp Eri	0.45300	24000.	95	2561	No
36	GOM_NL__2PRFIN20020826_235411_000000412009_00002_02561_2477.N1	26-AUG-2002 23:54:11	Straylight	40.500	148	Alp Tuc	2.8780	4100.0	81	2561	No
37	GOM_NL__2PRFIN20020826_235622_000000412009_00002_02561_2478.N1	26-AUG-2002 23:56:22	Straylight	41.000	45	Alp Pav	1.9400	26000.	82	2561	No
38	GOM_NL__2PRFIN20020826_235749_000000442009_00002_02561_2479.N1	26-AUG-2002 23:57:49	Straylight	43.500	31	Alp Gru	1.7340	15200.	87	2561	No

## 3. Quality information per product

In this section it is plotted some information contained in the Quality Summary data set of

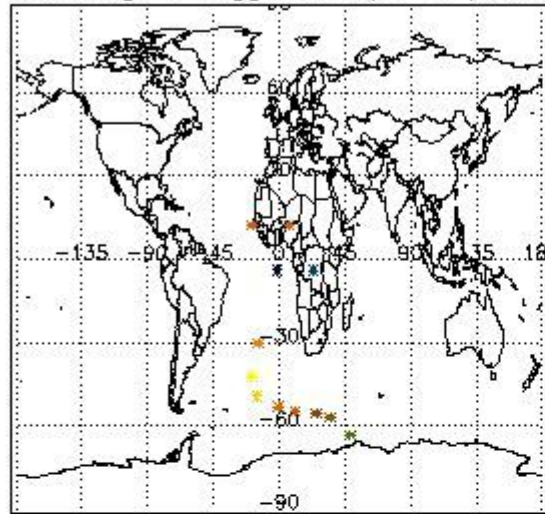
the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

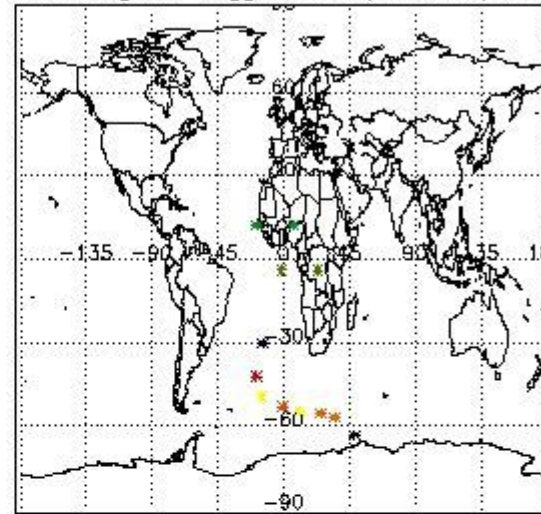


### 3.2 Plot quality information per product (world map)

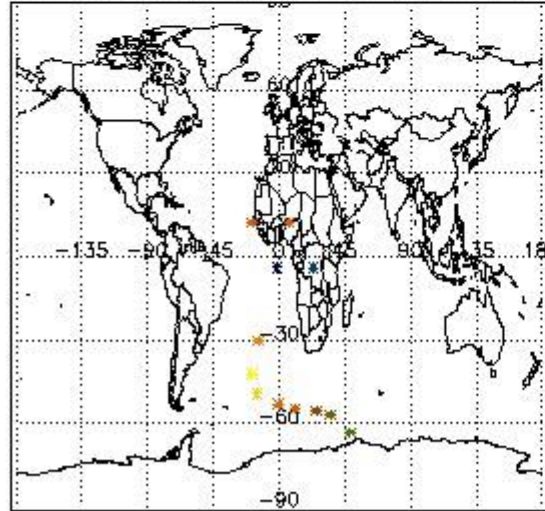
Percentage of flagged data per O3 profile



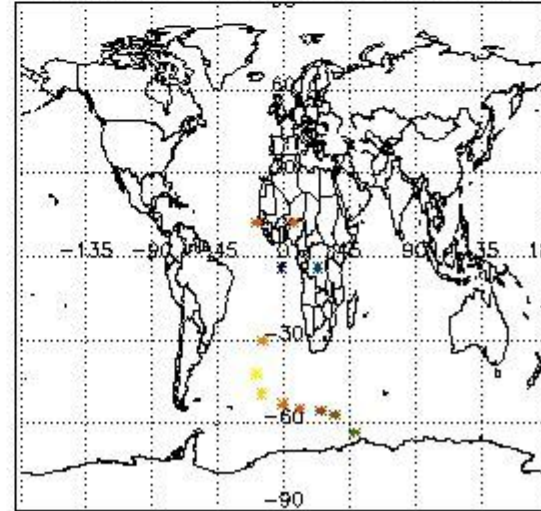
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

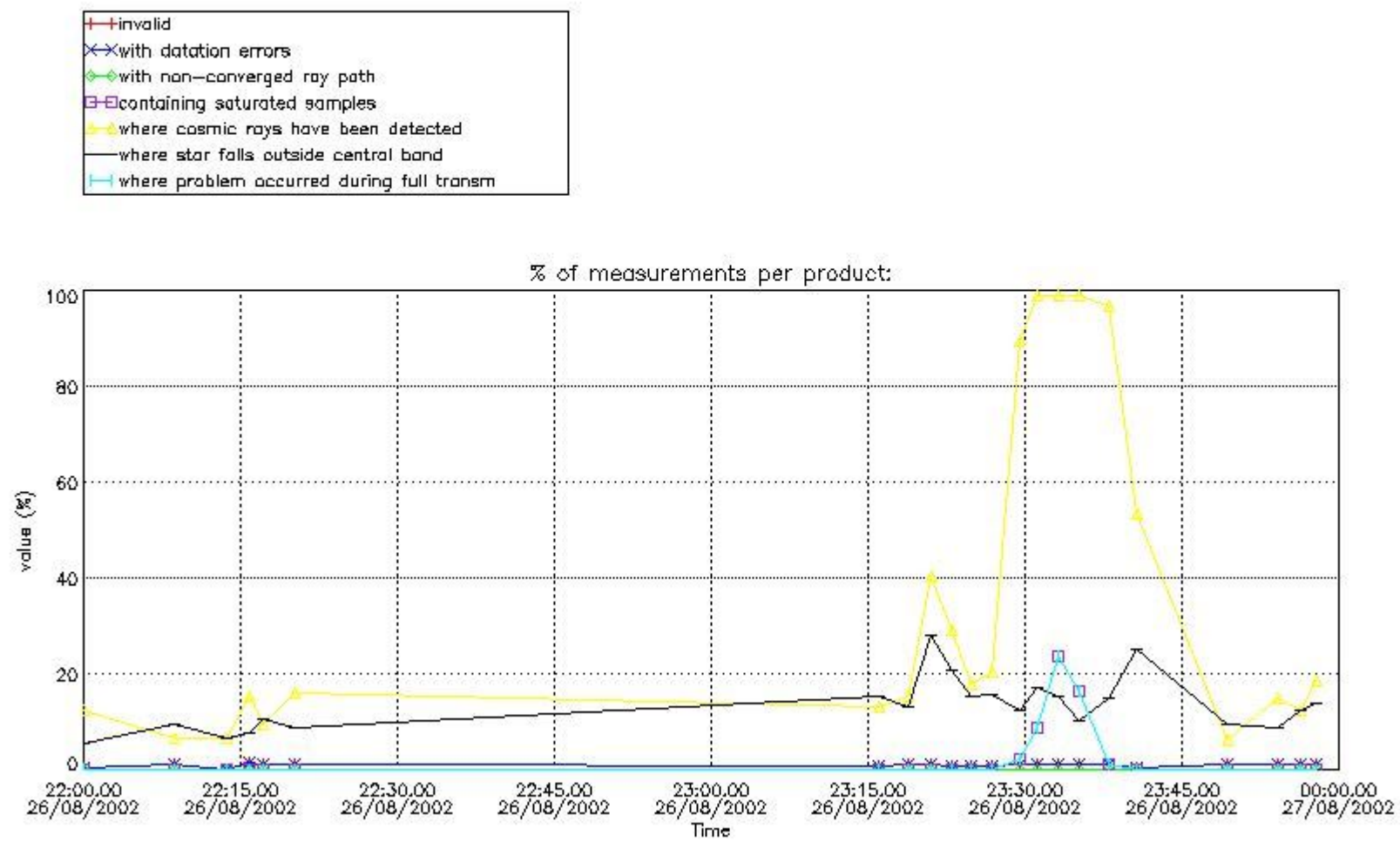


#### 4. Level 1 quality information per product

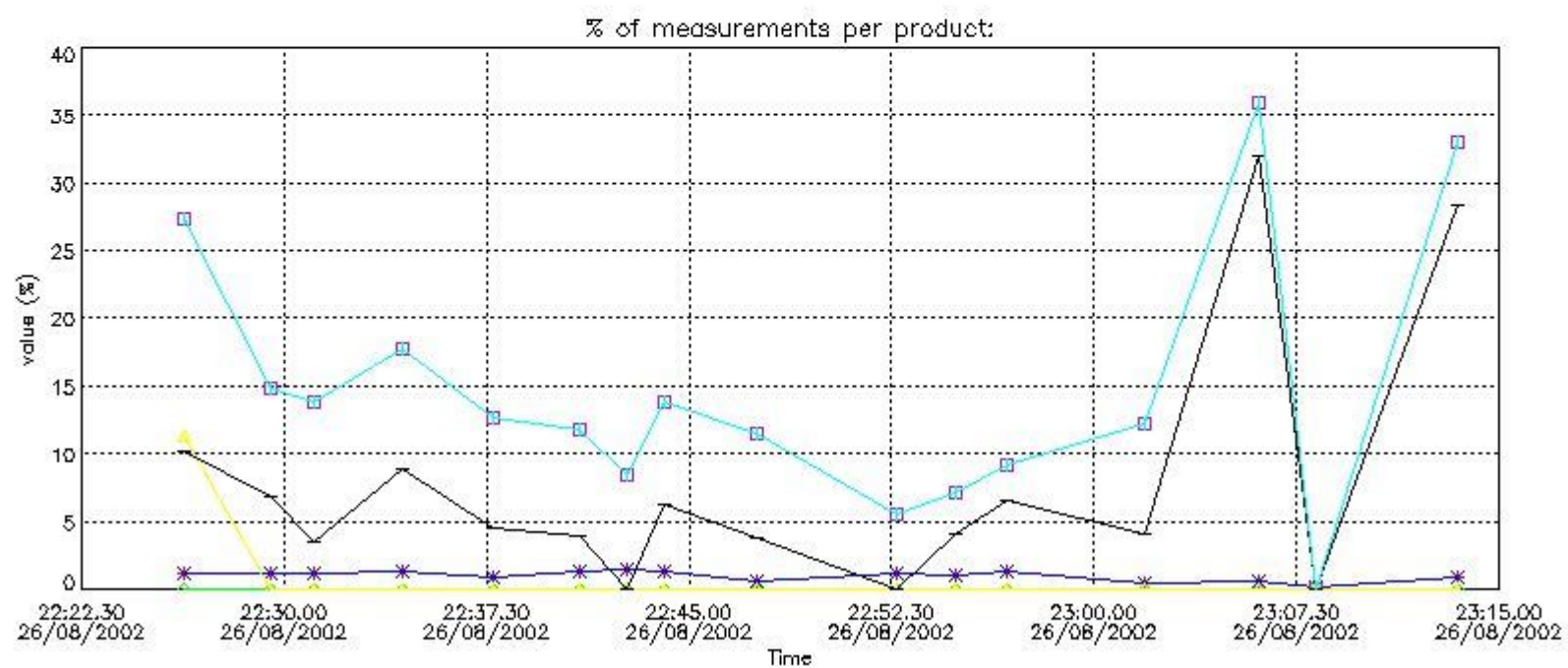
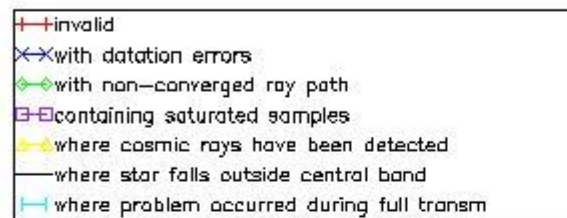
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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



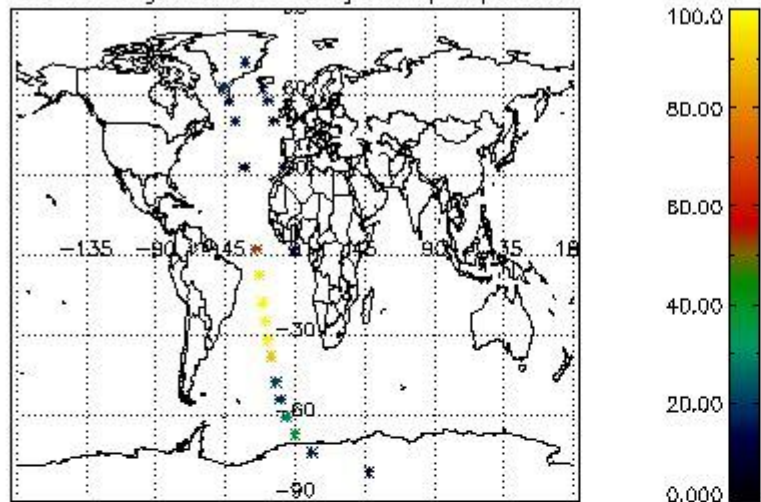
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



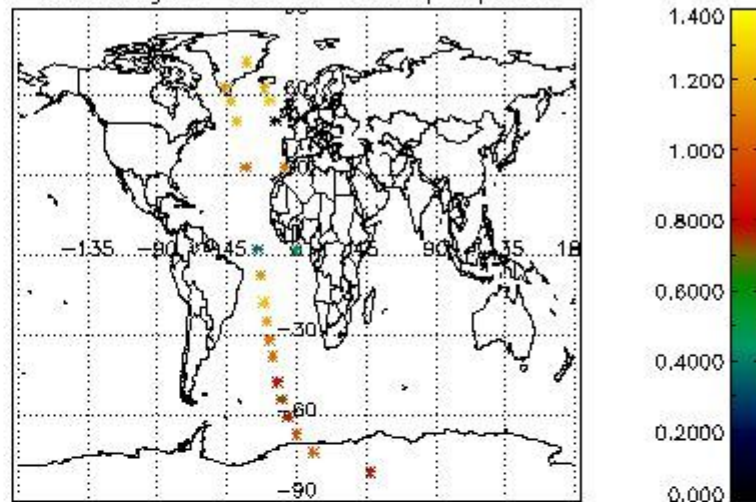
4.2 Plot quality information per product coming from level 1b processing (world map)

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

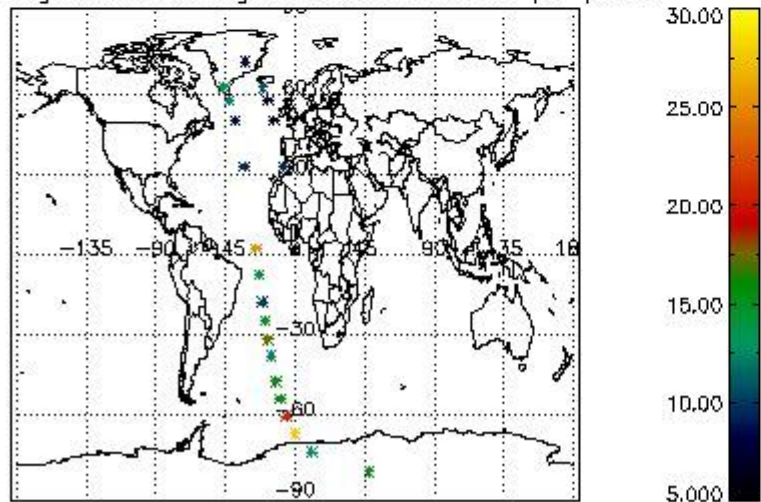
Percentage of cosmic ray hits per profile



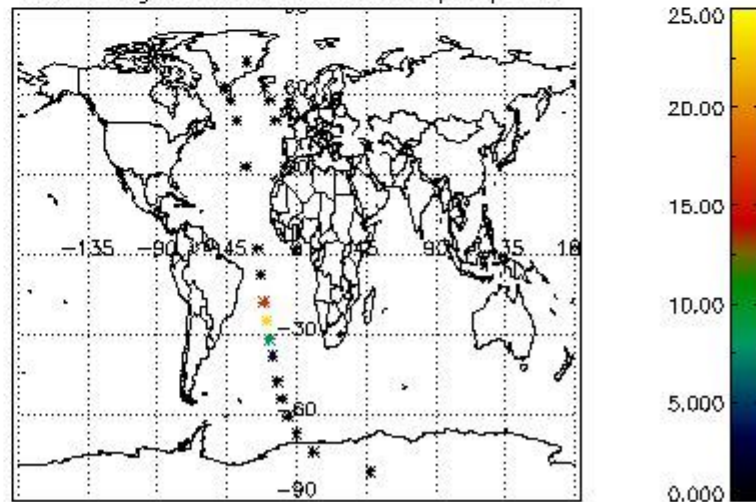
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

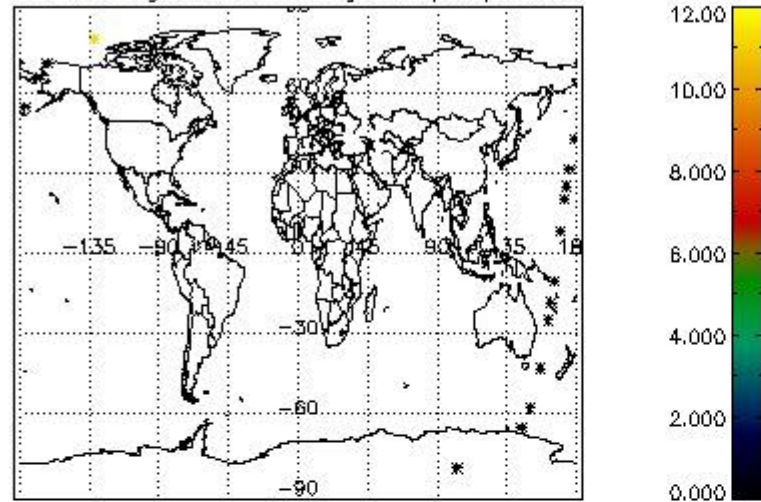


Percentage of saturation errors per profile

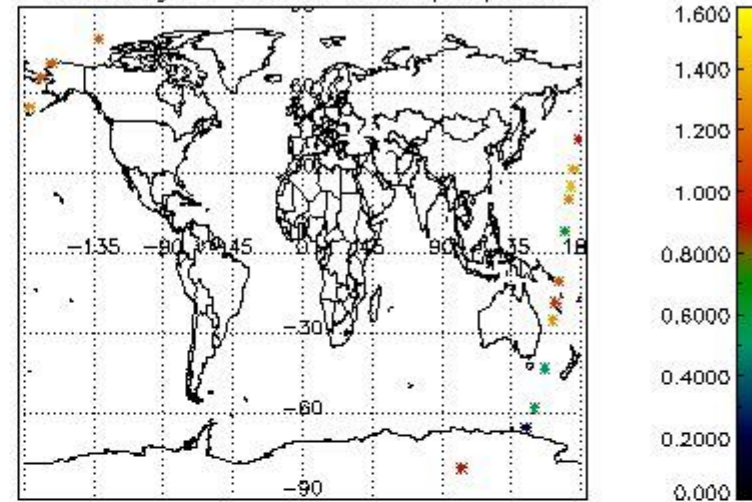


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

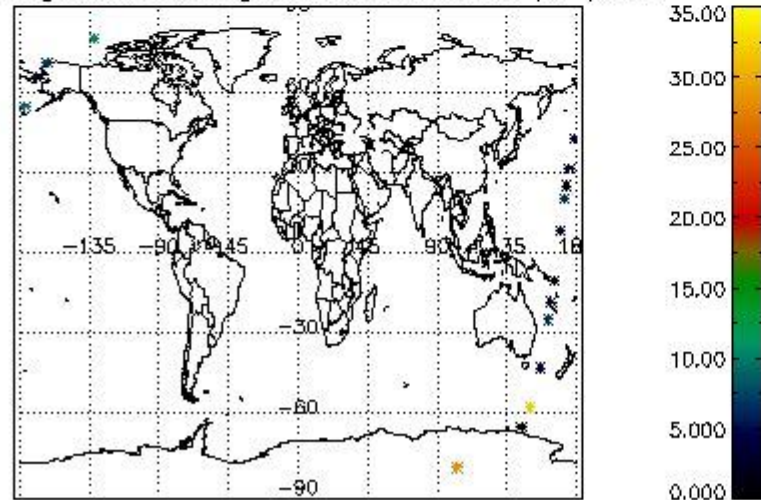
Percentage of cosmic ray hits per profile



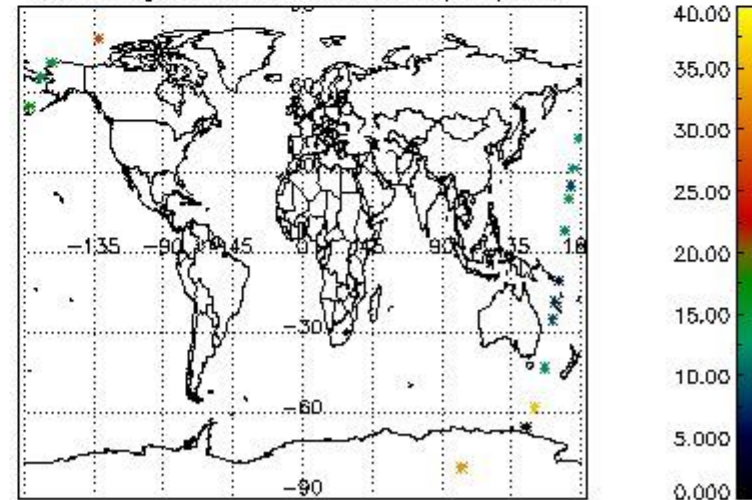
Percentage of datation errors per profile



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.

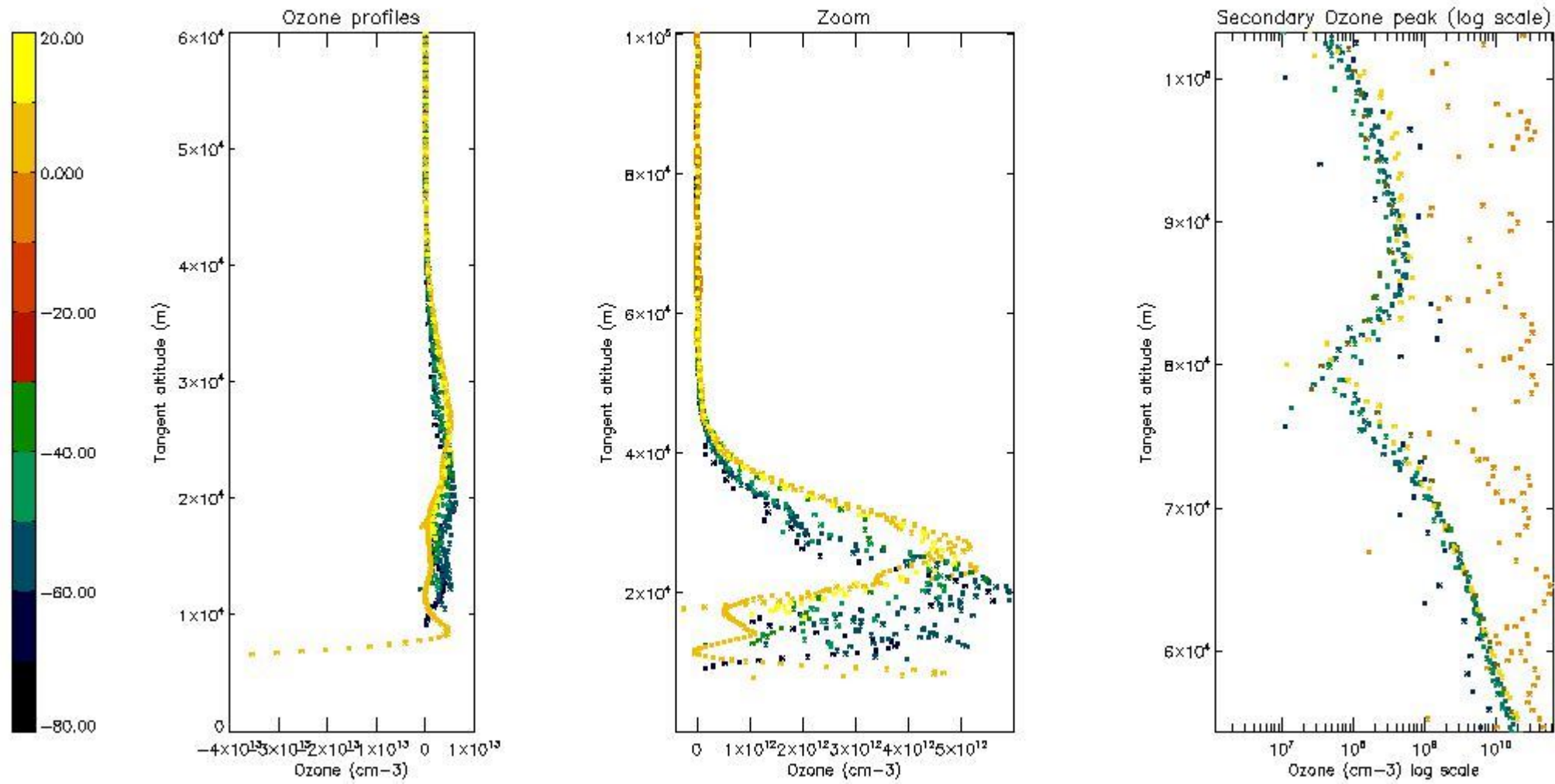
Criteria	% of total production
All STD	35
STD < 20	19



STD < 10	17
STD < 5	13

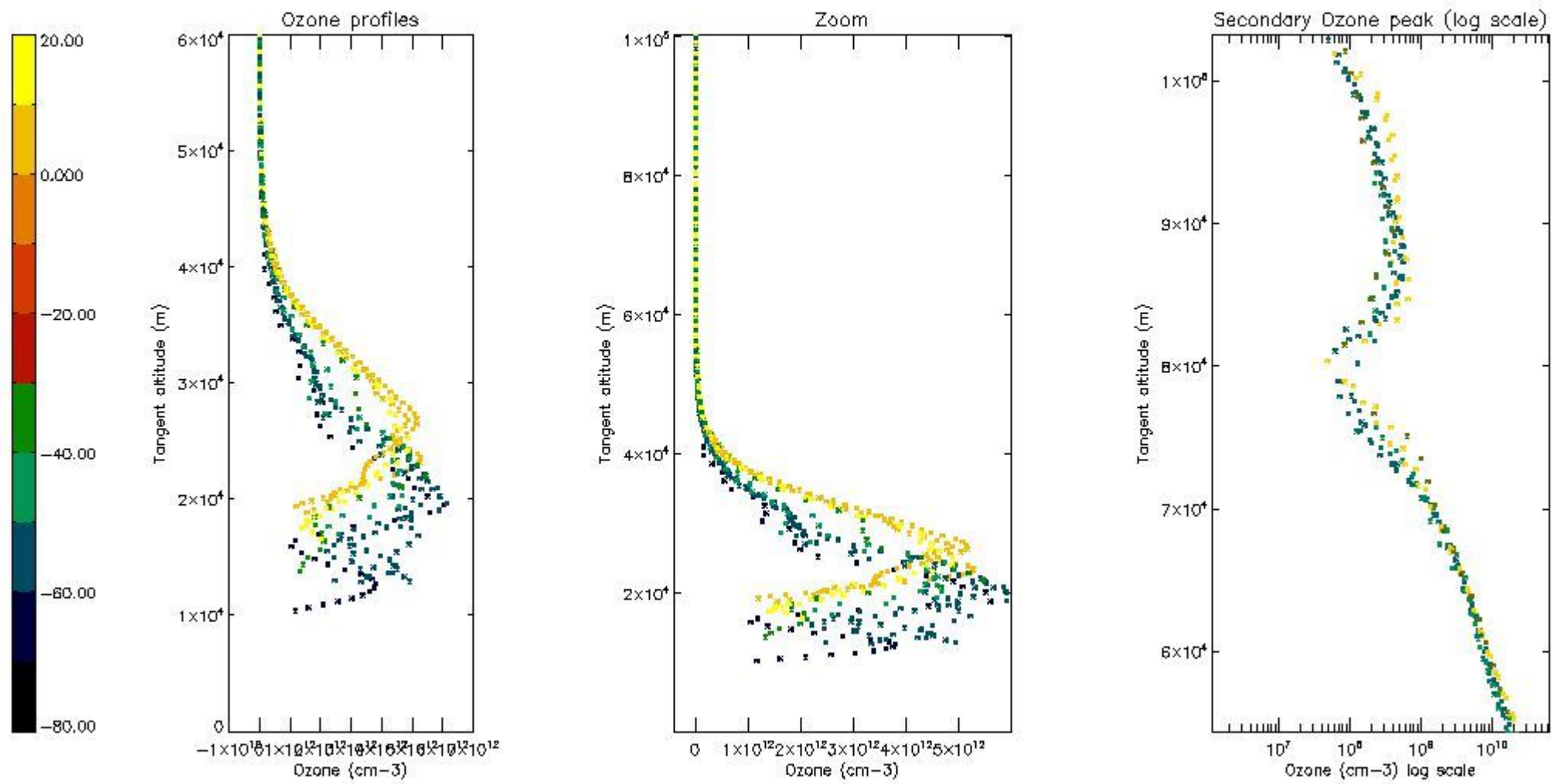
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



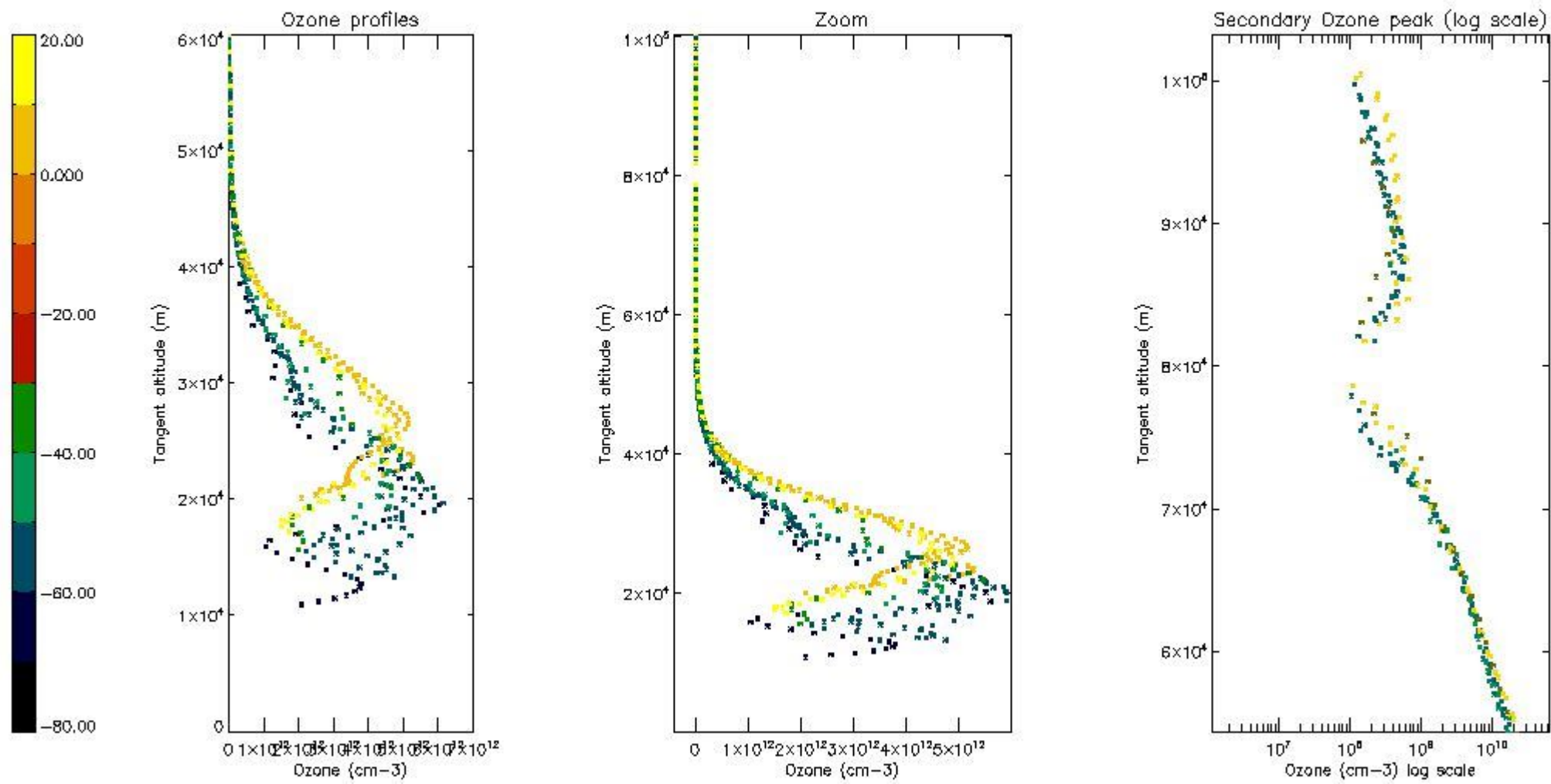
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



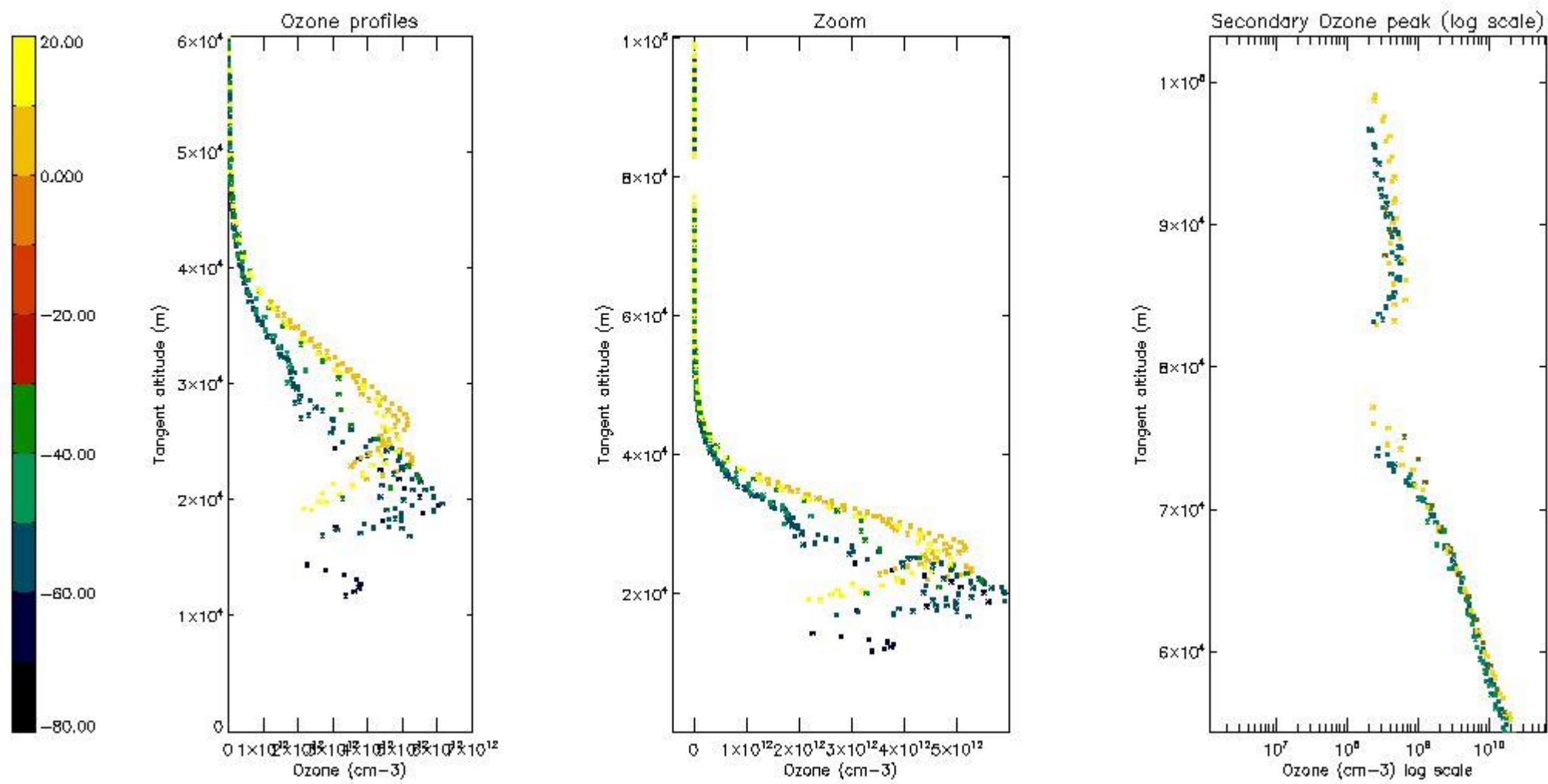
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



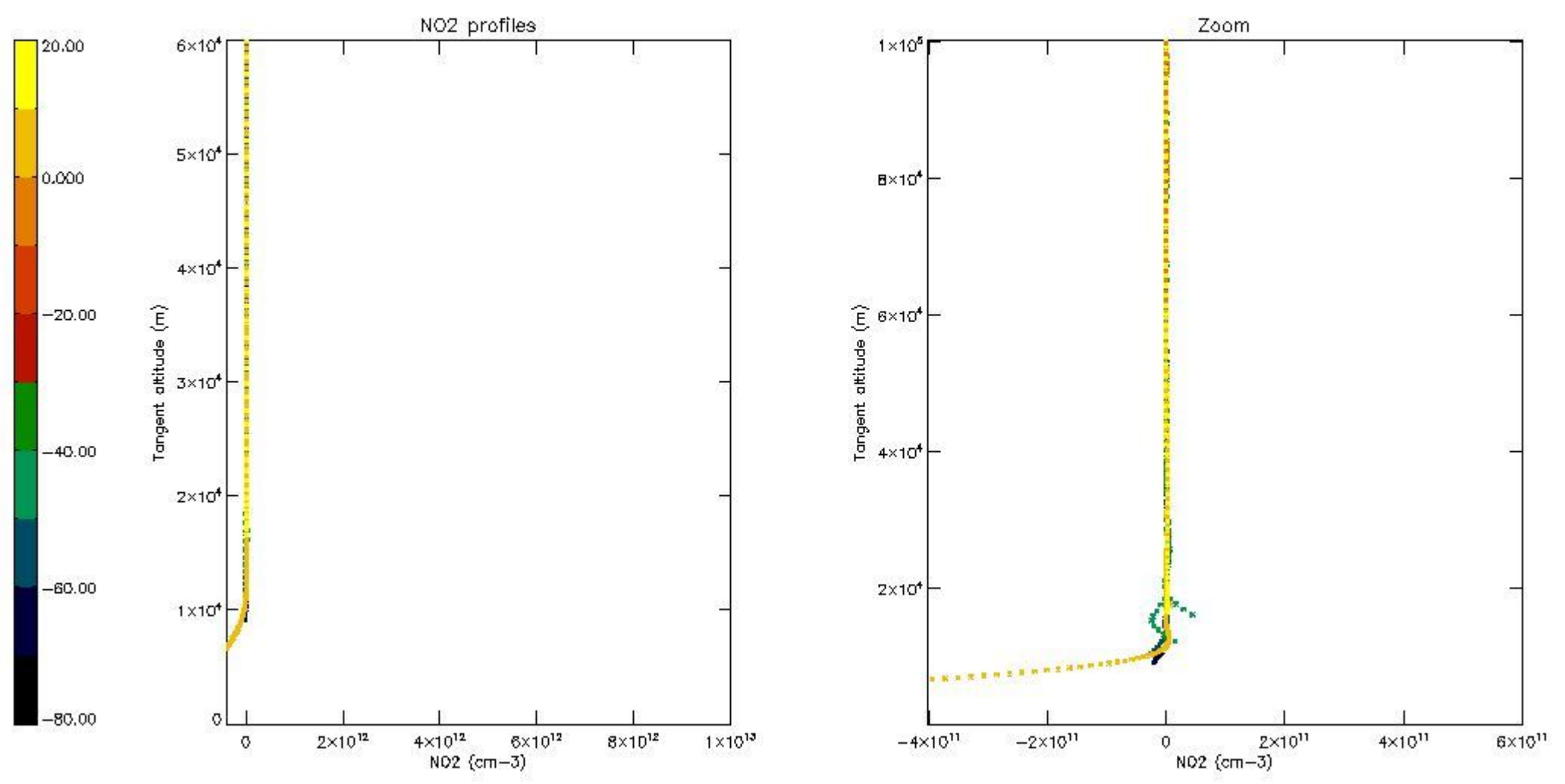
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



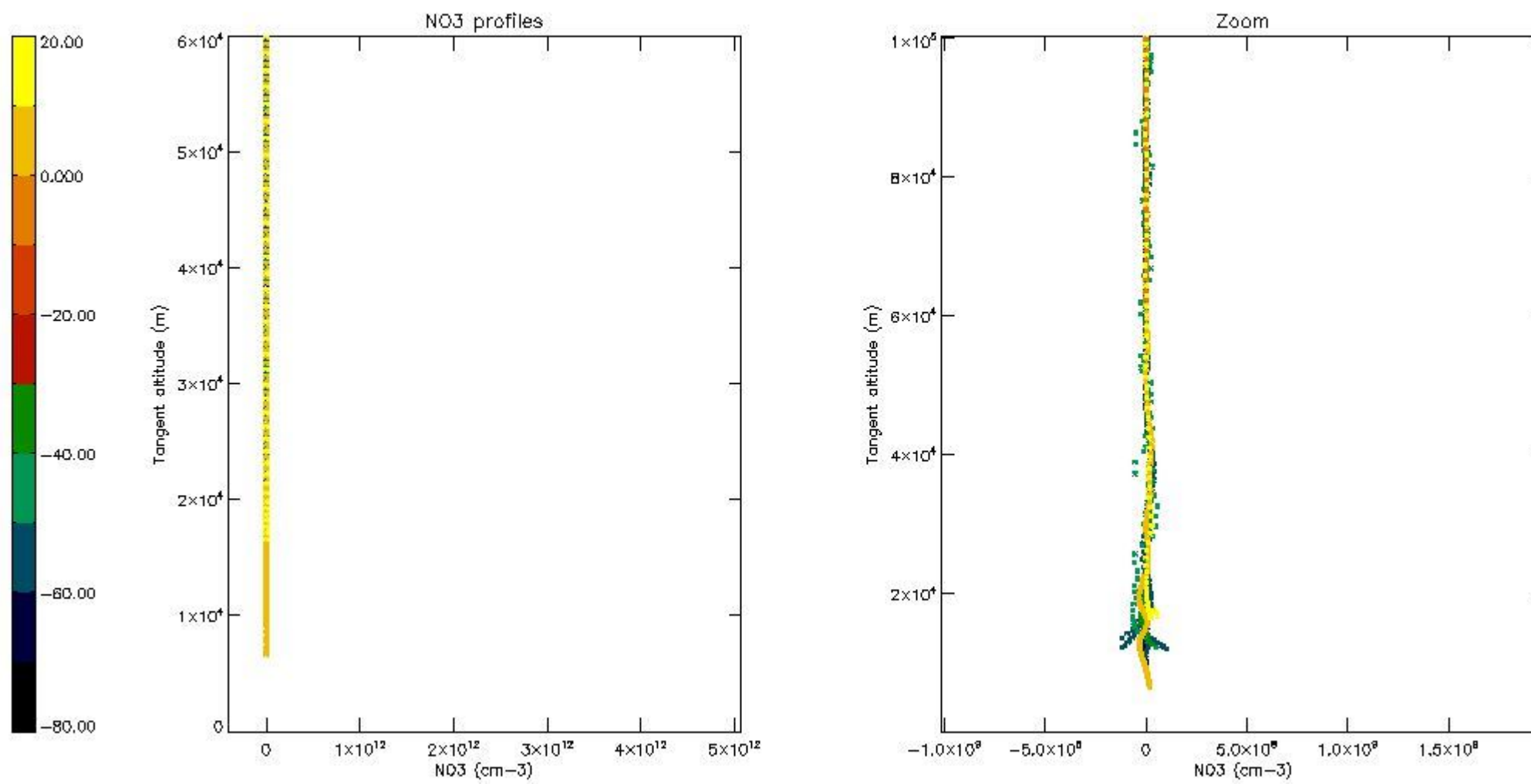
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

The colorbar represents the latitude.



## 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-AUG-2002 22:00:04
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	26-AUG-2002 22:00:04
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	26-AUG-2002 22:00:04

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

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

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

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

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

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

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

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

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

#### [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 17:51:43
Data source version	GOMOS/6.01
Start time of products	26-08-2002 (26AUG2002 00:00:00)
Stop time of products	27-08-2002 (27AUG2002 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	38
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__2PRFIN20020826_220004_000001112009_00001_02560_2475.N1	26-AUG-2002 22:00:04	Dark	110.50	165	34Gam Eri	2.9500	3200.0	221	2560	No
2	GOM_NL__2PRFIN20020826_220844_000000472009_00001_02560_2476.N1	26-AUG-2002 22:08:44	Dark	47.000	9	Alp Eri	0.45300	24000.	94	2560	No
3	GOM_NL__2PRFIN20020826_221335_000000392009_00001_02560_2477.N1	26-AUG-2002 22:13:35	Straylight	38.500	148	Alp Tuc	2.8780	4100.0	77	2560	No
4	GOM_NL__2PRFIN20020826_221546_000000392009_00001_02560_2478.N1	26-AUG-2002 22:15:46	Straylight	39.000	45	Alp Pav	1.9400	26000.	78	2560	No
5	GOM_NL__2PRFIN20020826_221713_000000422009_00001_02560_2479.N1	26-AUG-2002 22:17:13	Straylight	42.000	31	Alp Gru	1.7340	15200.	84	2560	No
6	GOM_NL__2PRFIN20020826_222005_000000412009_00001_02560_2480.N1	26-AUG-2002 22:20:05	Straylight	40.500	172	Gam Gru	3.0030	13100.	81	2560	No
7	GOM_NL__2PRFIN20020826_222617_000000442009_00001_02560_2481.N1	26-AUG-2002 22:26:17	Bright	44.000	142	49Del Cap	2.8500	8900.0	88	2560	No
8	GOM_NL__2PRFIN20020826_222928_000000442009_00001_02560_2482.N1	26-AUG-2002 22:29:28	Bright	44.000	154	22Bet Aqr	2.8990	5700.0	88	2560	No
9	GOM_NL__2PRFIN20020826_223107_000000442009_00001_02560_2483.N1	26-AUG-2002 22:31:07	Bright	43.500	162	34Alp Aqr	2.9440	5350.0	87	2560	No
10	GOM_NL__2PRFIN20020826_223422_000000402009_00001_02560_2484.N1	26-AUG-2002 22:34:22	Bright	39.500	11	53Alp Aql	0.76500	8000.0	79	2560	No
11	GOM_NL__2PRFIN20020826_223745_000000562009_00001_02560_2485.N1	26-AUG-2002 22:37:45	Bright	55.500	90	54Alp Peg	2.4870	11000.	111	2560	No
12	GOM_NL__2PRFIN20020826_224055_000000382009_00001_02560_2486.N1	26-AUG-2002 22:40:55	Bright	38.000	92	53Eps Cyg	2.5000	4500.0	76	2560	No
13	GOM_NL__2PRFIN20020826_224242_000000362009_00001_02560_2487.N1	26-AUG-2002 22:42:42	Bright	35.500	66	37Gam Cyg	2.2080	5900.0	71	2560	No
14	GOM_NL__2PRFIN20020826_224405_000000402009_00001_02560_2488.N1	26-AUG-2002 22:44:05	Bright	40.000	19	50Alp Cyg	1.2460	10500.	80	2560	No
15	GOM_NL__2PRFIN20020826_224728_000000792009_00001_02560_2489.N1	26-AUG-2002 22:47:28	Bright	78.500	58	21Alp And	2.0730	11000.	157	2560	No
16	GOM_NL__2PRFIN20020826_225242_000000452009_00001_02560_2490.N1	26-AUG-2002 22:52:42	Bright	45.000	74	11Bet Cas	2.2680	6600.0	90	2560	No
17	GOM_NL__2PRFIN20020826_225453_000000492009_00001_02560_2491.N1	26-AUG-2002 22:54:53	Bright	49.000	76	27Gam Cas	2.3000	30000.	98	2560	No
18	GOM_NL__2PRFIN20020826_225644_000000392009_00001_02560_2492.N1	26-AUG-2002 22:56:44	Bright	38.500	49	1Alp UMi	1.9900	6300.0	77	2560	No
19	GOM_NL__2PRFIN20020826_230151_000000992009_00001_02560_2493.N1	26-AUG-2002 23:01:51	Bright	98.500	73	57Gam1And	2.2600	13100.	197	2560	No
20	GOM_NL__2PRFIN20020826_230606_000000892009_00001_02560_2494.N1	26-AUG-2002 23:06:06	Bright	89.000	175	39Del Per	3.0100	19400.	178	2560	No
21	GOM_NL__2PRFIN20020826_230815_000002552009_00001_02560_2495.N1	26-AUG-2002 23:08:15	Twilight	255.00	173	4Bet Tri	3.0040	8900.0	510	2560	No
22	GOM_NL__2PRFIN20020826_231329_000000532009_00001_02560_2496.N1	26-AUG-2002 23:13:29	Bright	53.000	24	66Alp Gem	1.5800	10200.	106	2560	No
23	GOM_NL__2PRFIN20020826_231555_000000652009_00001_02560_2497.N1	26-AUG-2002 23:15:55	Twilight	65.000	28	12Bet Tau	1.6500	15200.	130	2560	No
24	GOM_NL__2PRFIN20020826_231854_000000492009_00001_02560_2498.N1	26-AUG-2002 23:18:54	Twilight	49.000	44	24Gam Gem	1.9280	11000.	98	2560	No
25	GOM_NL__2PRFIN20020826_232102_000000522009_00001_02560_2499.N1	26-AUG-2002 23:21:02	Twilight	52.000	8	10Alp CMi	0.40000	6500.0	104	2560	No
26	GOM_NL__2PRFIN20020826_232259_000000662009_00001_02560_2500.N1	26-AUG-2002 23:22:59	Dark	65.500	14	58Alp Ori	0.87000	3000.0	131	2560	No
27	GOM_NL__2PRFIN20020826_232450_000000682009_00001_02560_2501.N1	26-AUG-2002 23:24:50	Dark	68.000	27	24Gam Ori	1.6360	26000.	136	2560	No
28	GOM_NL__2PRFIN20020826_232646_000000612009_00001_02560_2502.N1	26-AUG-2002 23:26:46	Dark	61.000	33	50Zet Ori	1.7660	30000.	122	2560	No
29	GOM_NL__2PRFIN20020826_232926_000000482009_00001_02560_2503.N1	26-AUG-2002 23:29:26	Dark	48.000	47	2Bet CMa	1.9760	28000.	96	2560	No
30	GOM_NL__2PRFIN20020826_233113_000000472009_00001_02560_2504.N1	26-AUG-2002 23:31:13	Dark	46.500	23	21Eps CMa	1.5020	26000.	93	2560	No
31	GOM_NL__2PRFIN20020826_233308_000000432009_00001_02560_2505.N1	26-AUG-2002 23:33:08	Dark	42.500	70	Zet Pup	2.2460	39000.	85	2560	No
32	GOM_NL__2PRFIN20020826_233507_000000402009_00001_02560_2506.N1	26-AUG-2002 23:35:07	Dark	40.000	34	Gam2Vel	1.7930	23000.	80	2560	No
33	GOM_NL__2PRFIN20020826_233802_000000442009_00001_02560_2507.N1	26-AUG-2002 23:38:02	Dark	44.000	2	Alp Car	-0.73600	7000.0	88	2560	No
34	GOM_NL__2PRFIN20020826_234042_000001392009_00002_02561_2475.N1	26-AUG-2002 23:40:42	Dark	139.00	165	34Gam Eri	2.9500	3200.0	278	2561	No
35	GOM_NL__2PRFIN20020826_234921_000000482009_00002_02561_2476.N1	26-AUG-2002 23:49:21	Dark	47.500	9	Alp Eri	0.45300	24000.	95	2561	No
36	GOM_NL__2PRFIN20020826_235411_000000412009_00002_02561_2477.N1	26-AUG-2002 23:54:11	Straylight	40.500	148	Alp Tuc	2.8780	4100.0	81	2561	No
37	GOM_NL__2PRFIN20020826_235622_000000412009_00002_02561_2478.N1	26-AUG-2002 23:56:22	Straylight	41.000	45	Alp Pav	1.9400	26000.	82	2561	No
38	GOM_NL__2PRFIN20020826_235749_000000442009_00002_02561_2479.N1	26-AUG-2002 23:57:49	Straylight	43.500	31	Alp Gru	1.7340	15200.	87	2561	No

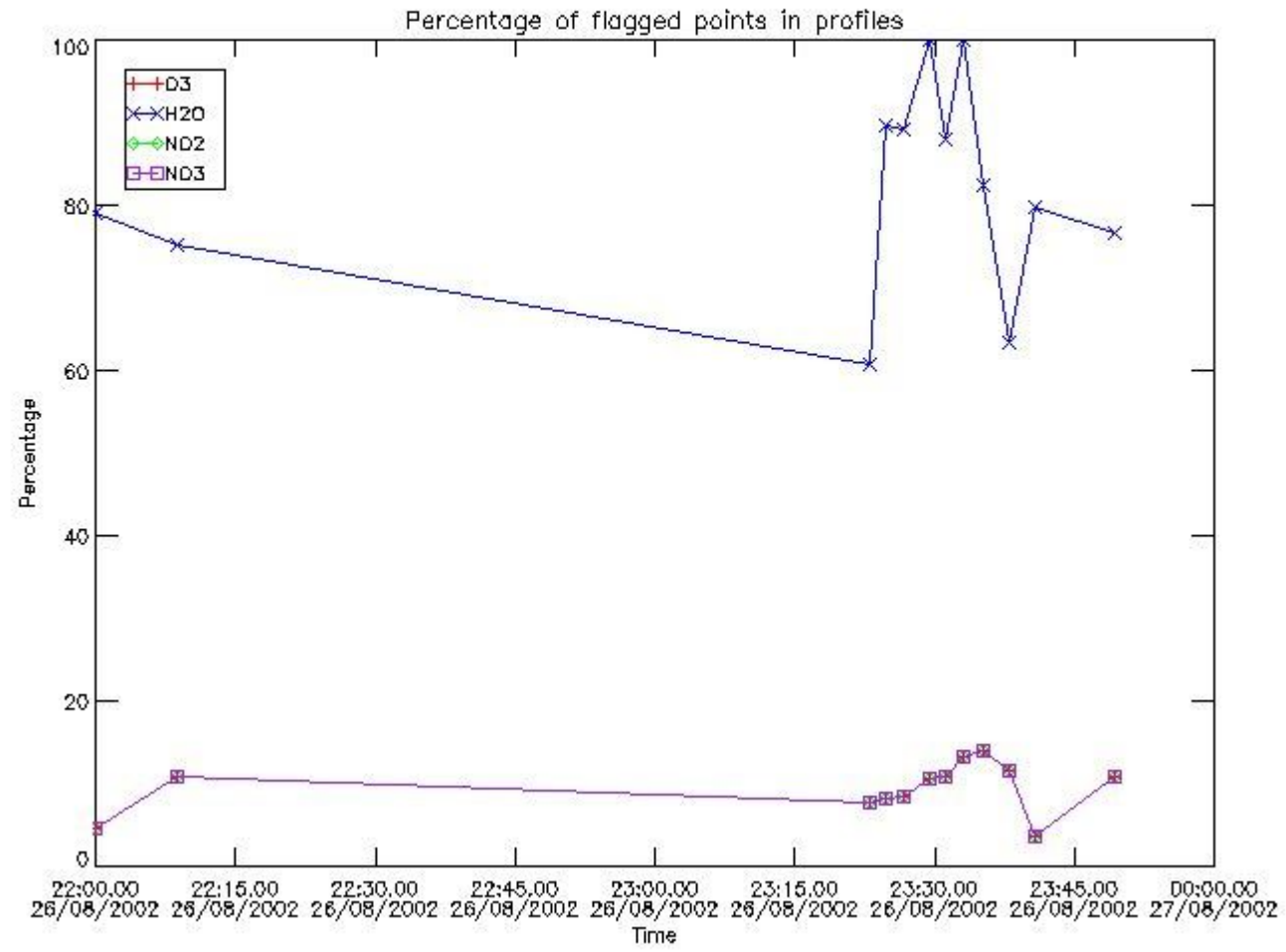
## 3. Quality information per product

In this section it is plotted some information contained in the Quality Summary data set of



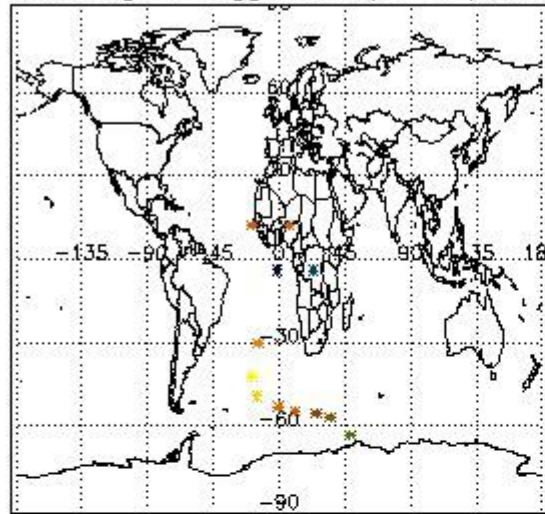
the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

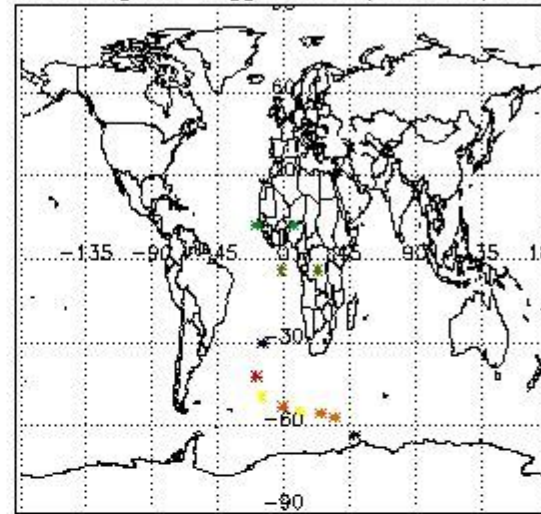


### 3.2 Plot quality information per product (world map)

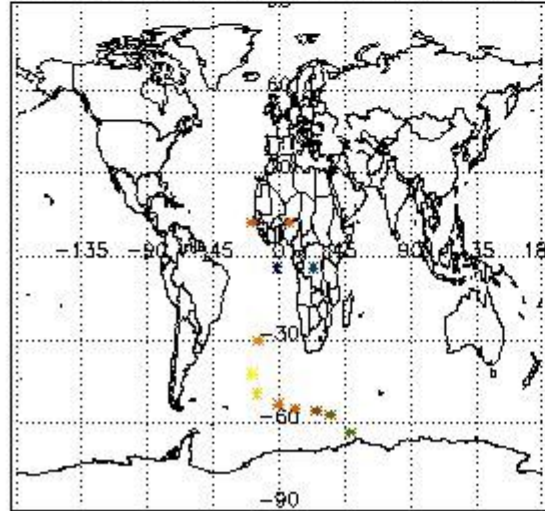
Percentage of flagged data per O3 profile



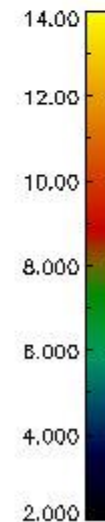
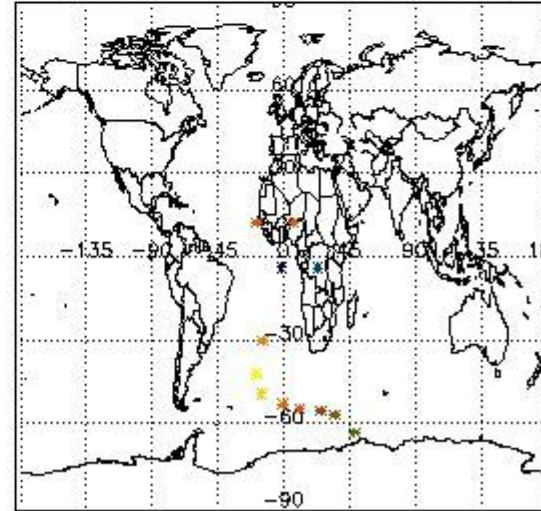
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

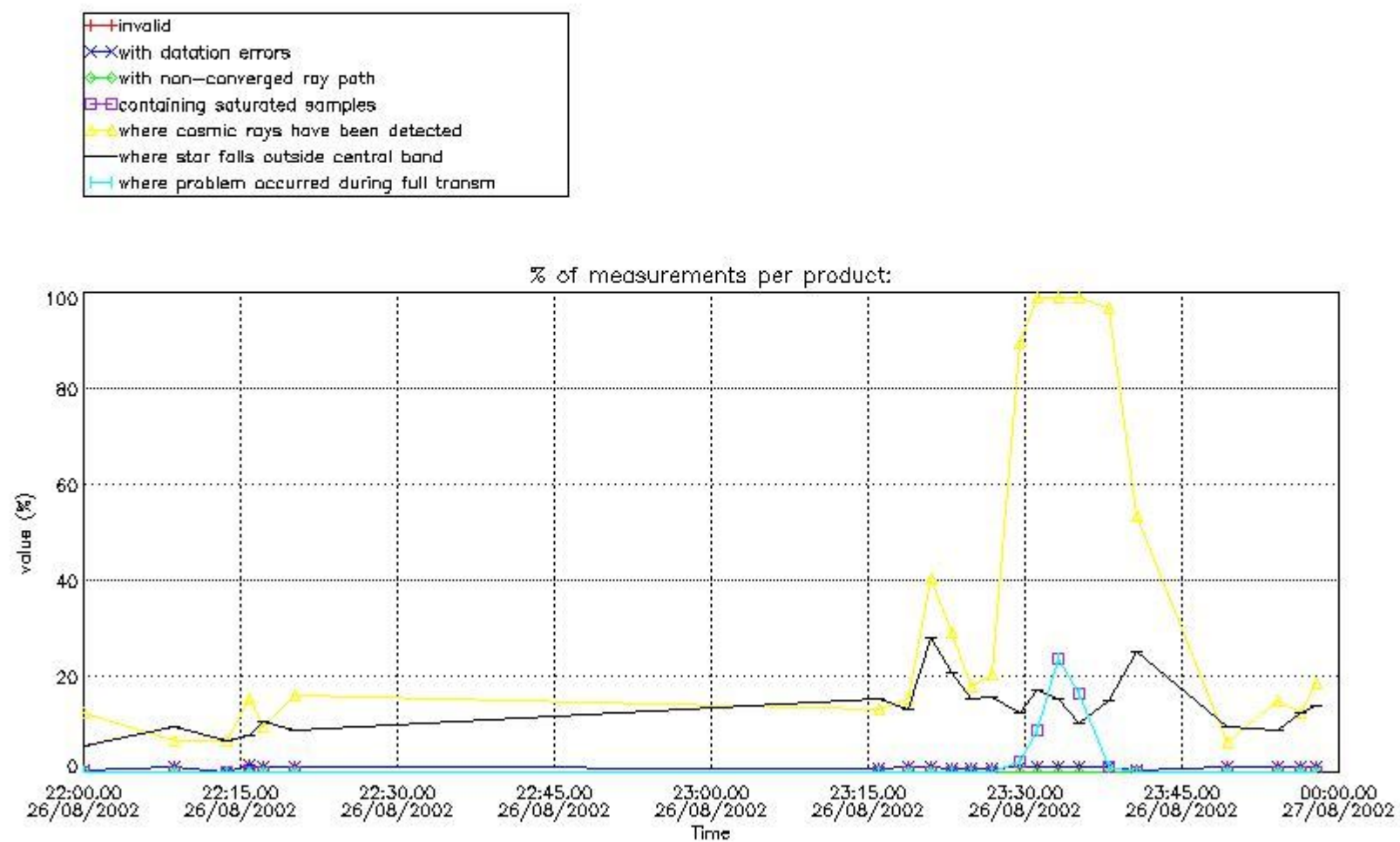


#### 4. Level 1 quality information per product

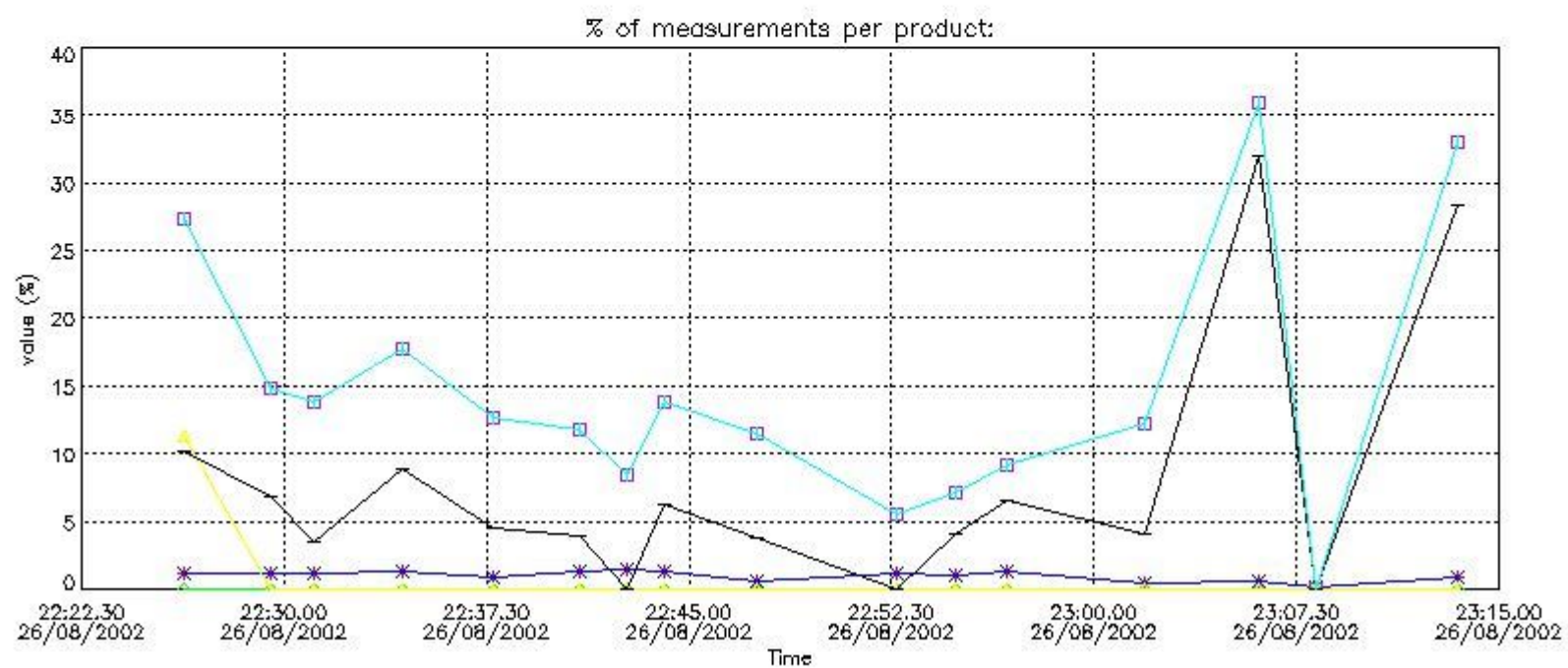
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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



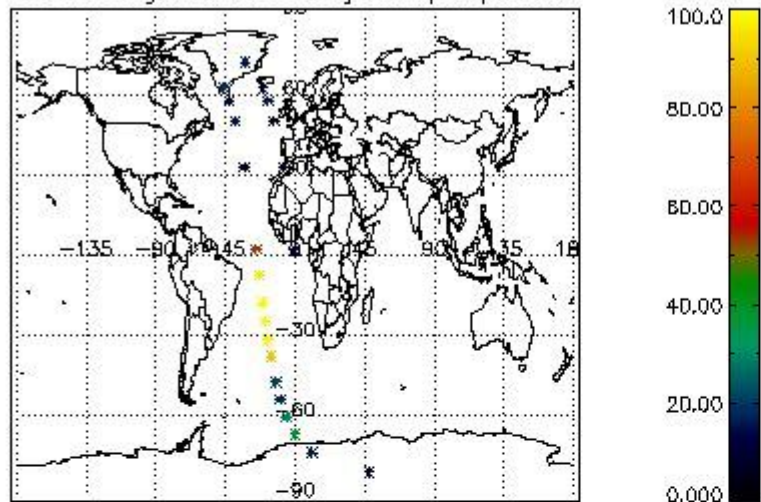
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



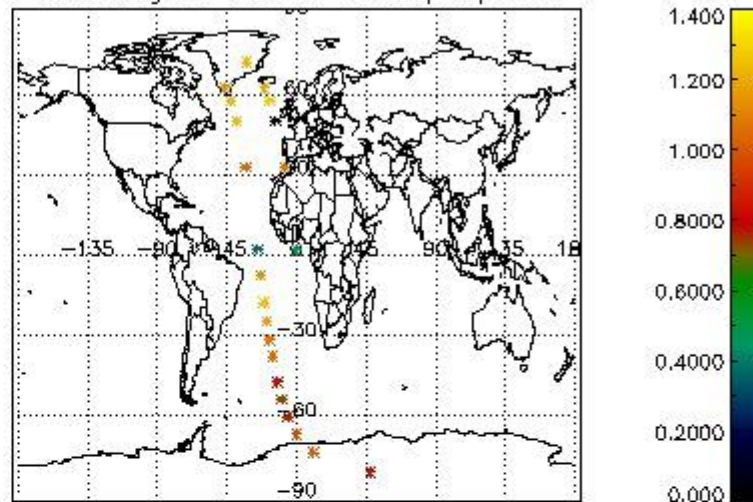
4.2 Plot quality information per product coming from level 1b processing (world map)

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

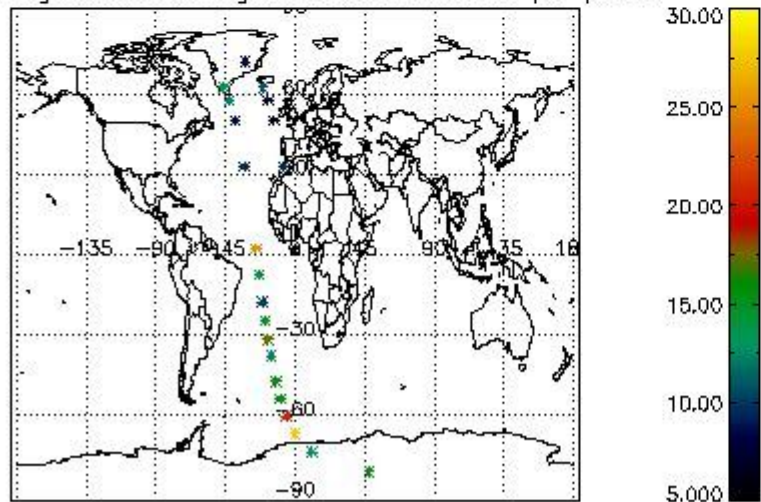
Percentage of cosmic ray hits per profile



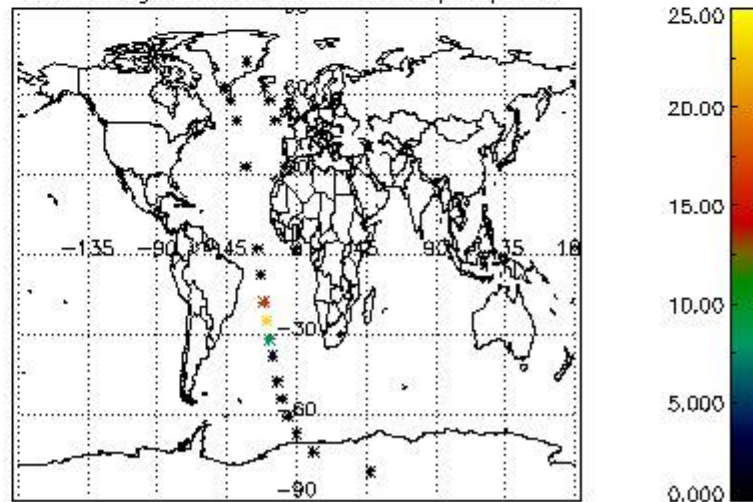
Percentage of datation errors per profile



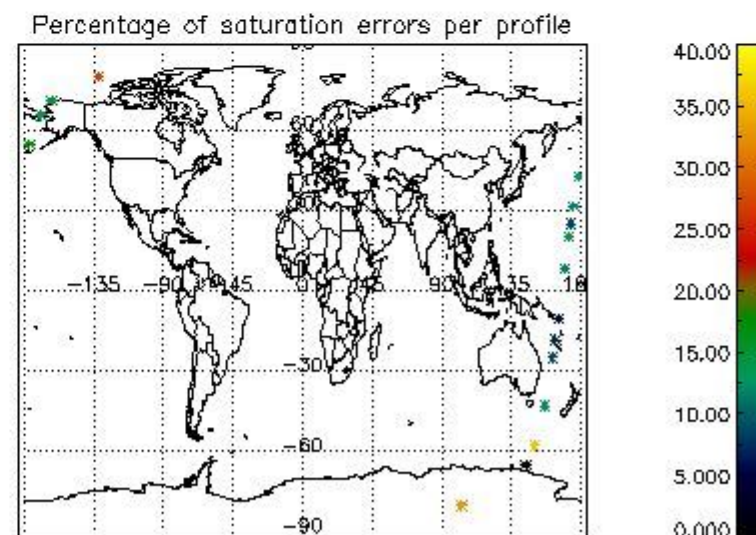
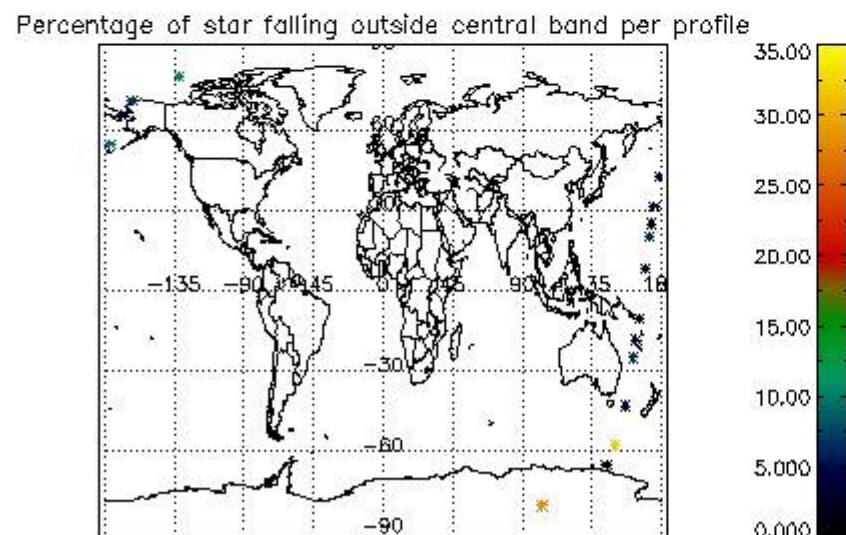
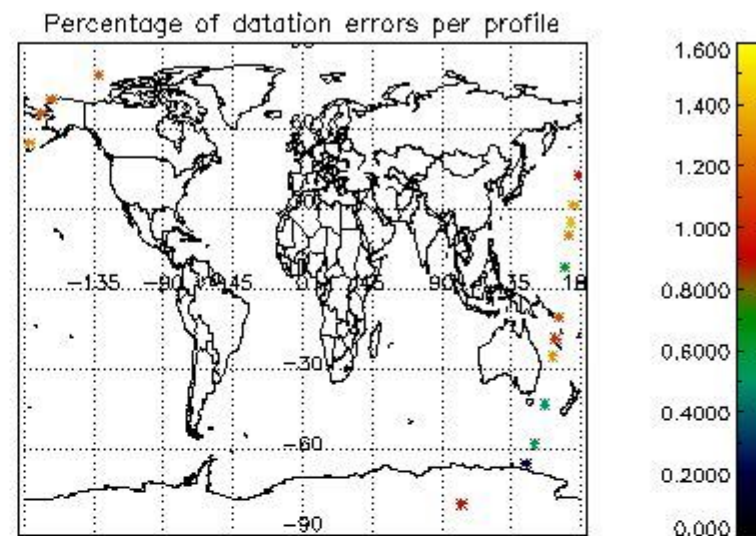
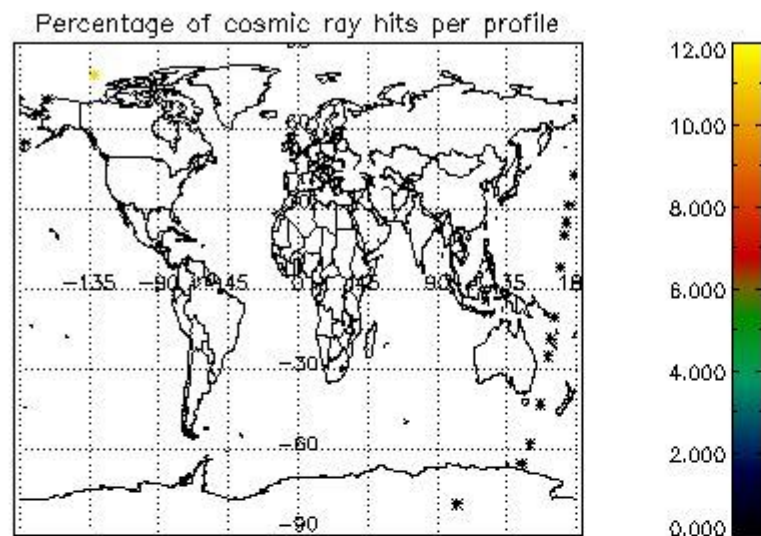
Percentage of star falling outside central band per profile



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

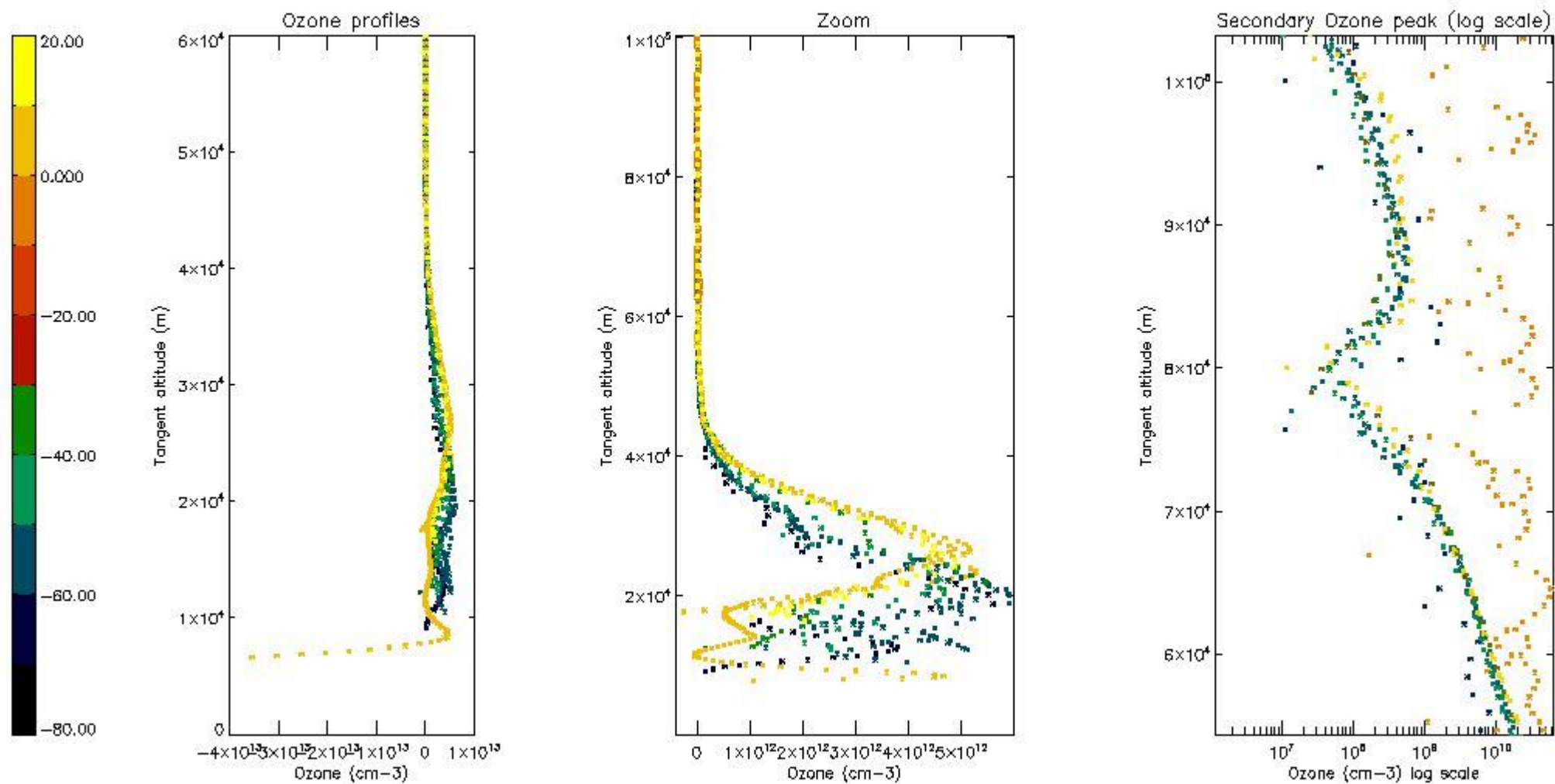
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	35
STD < 20	19

STD < 10	17
STD < 5	13

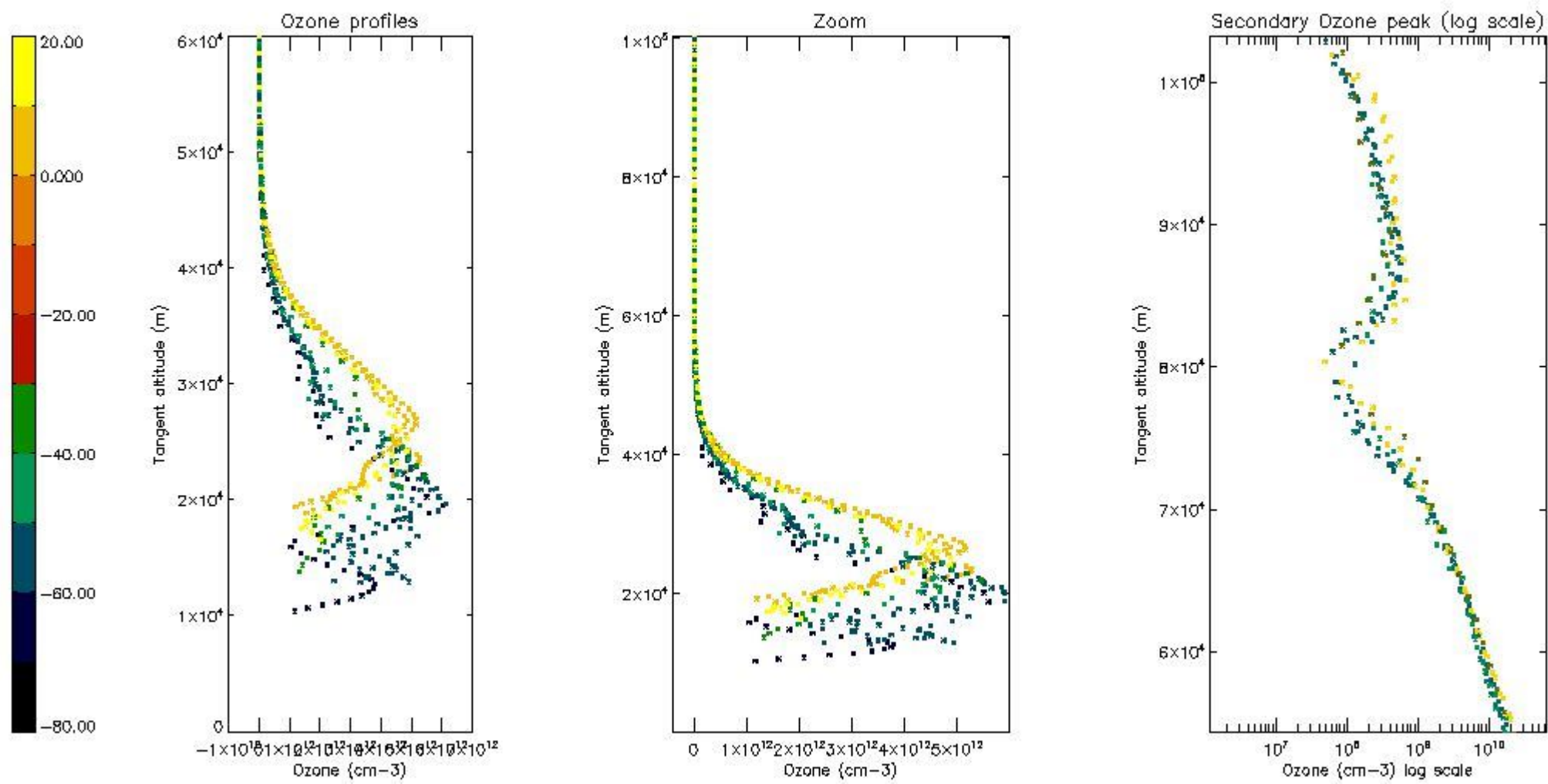
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

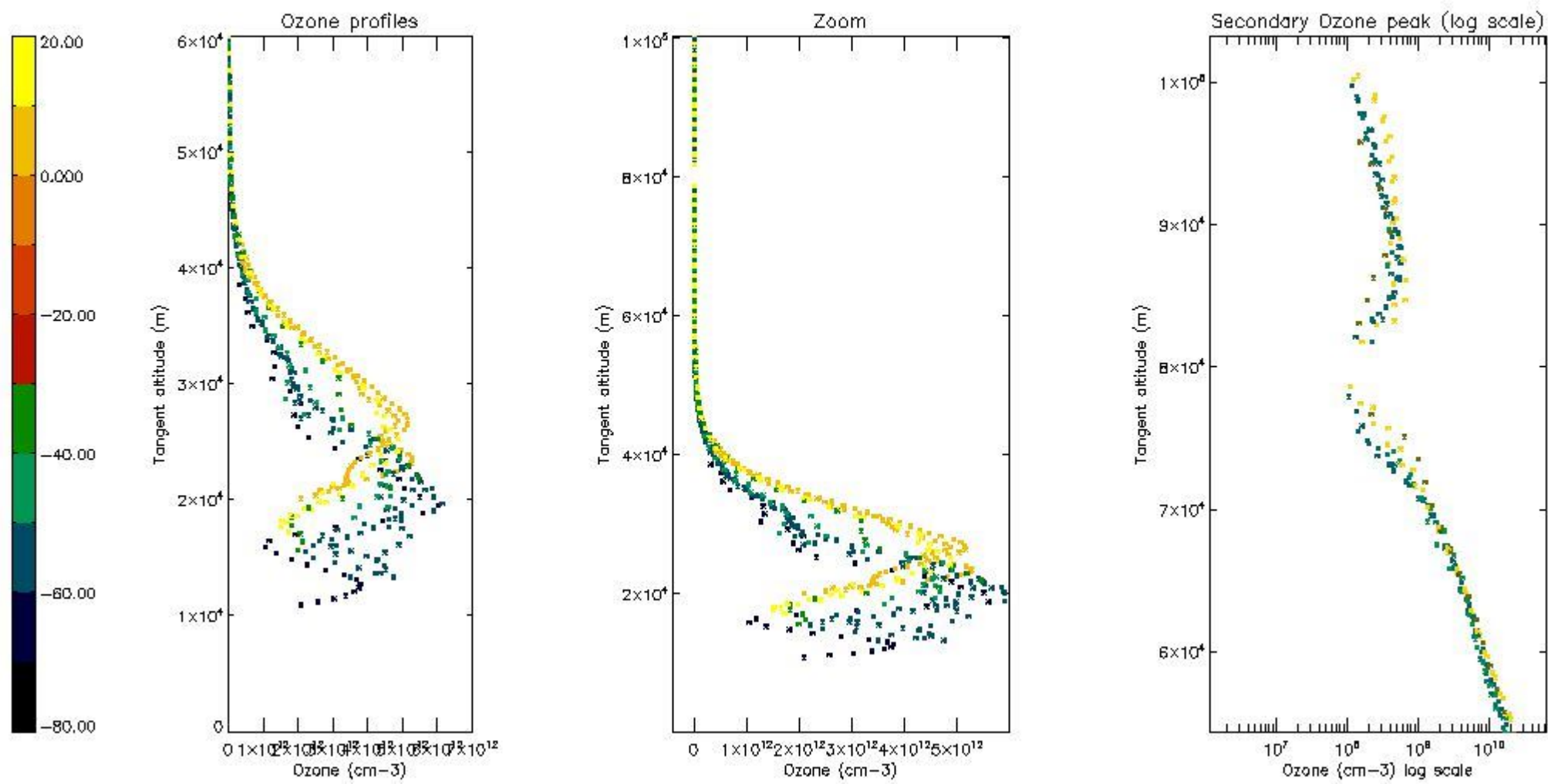
The colorbar represents the latitude.



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

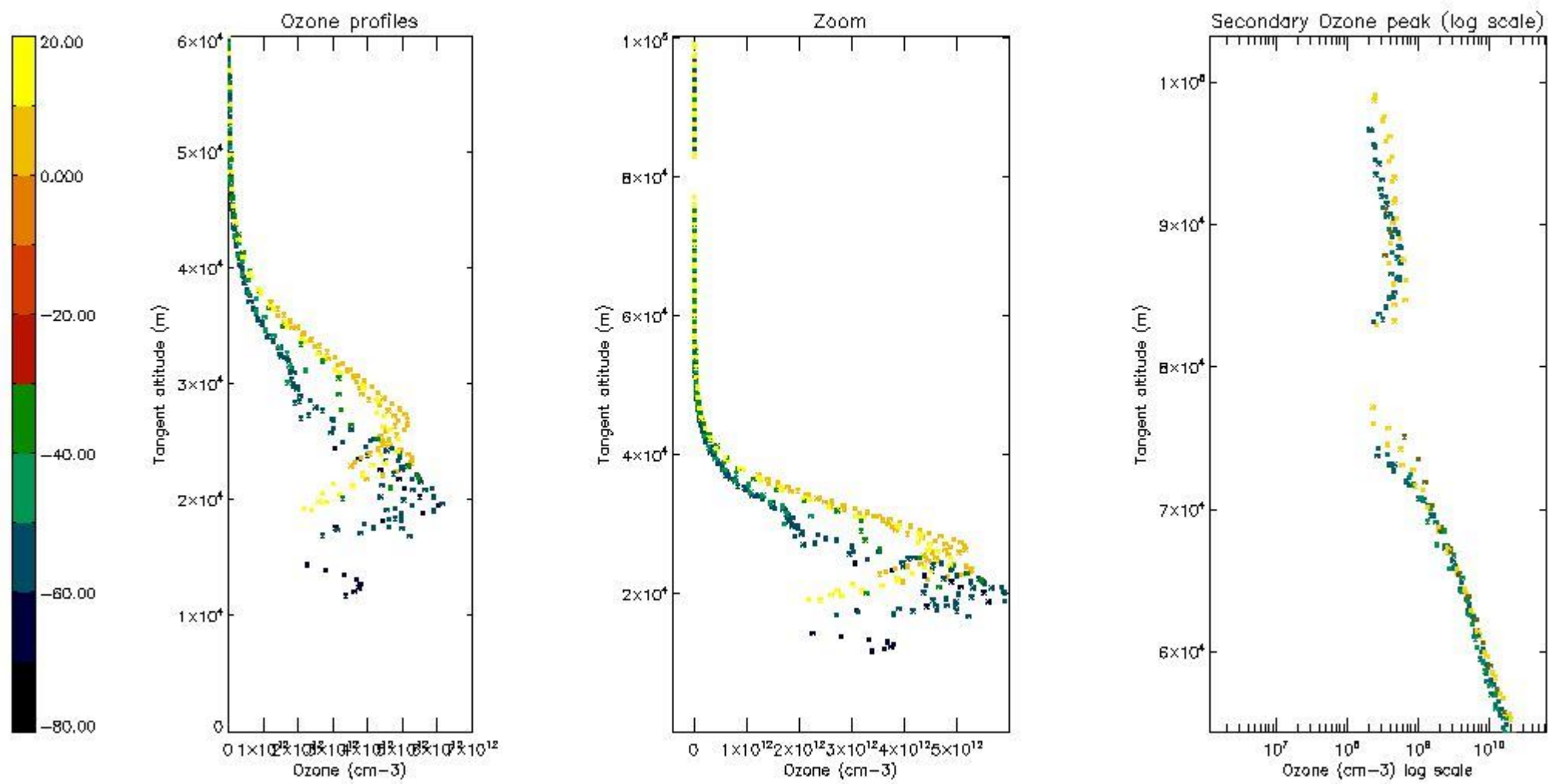
The colorbar represents the latitude.





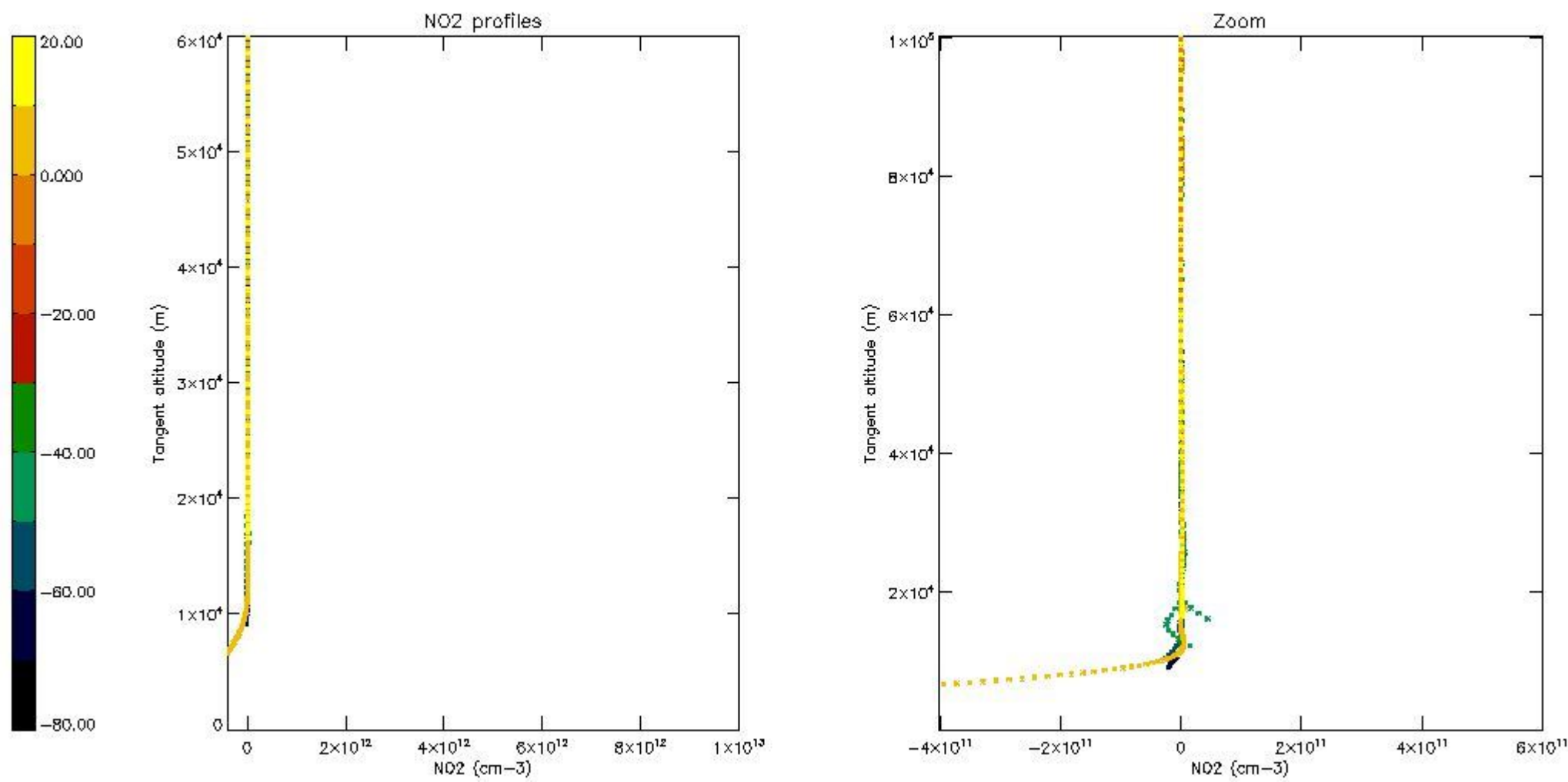
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



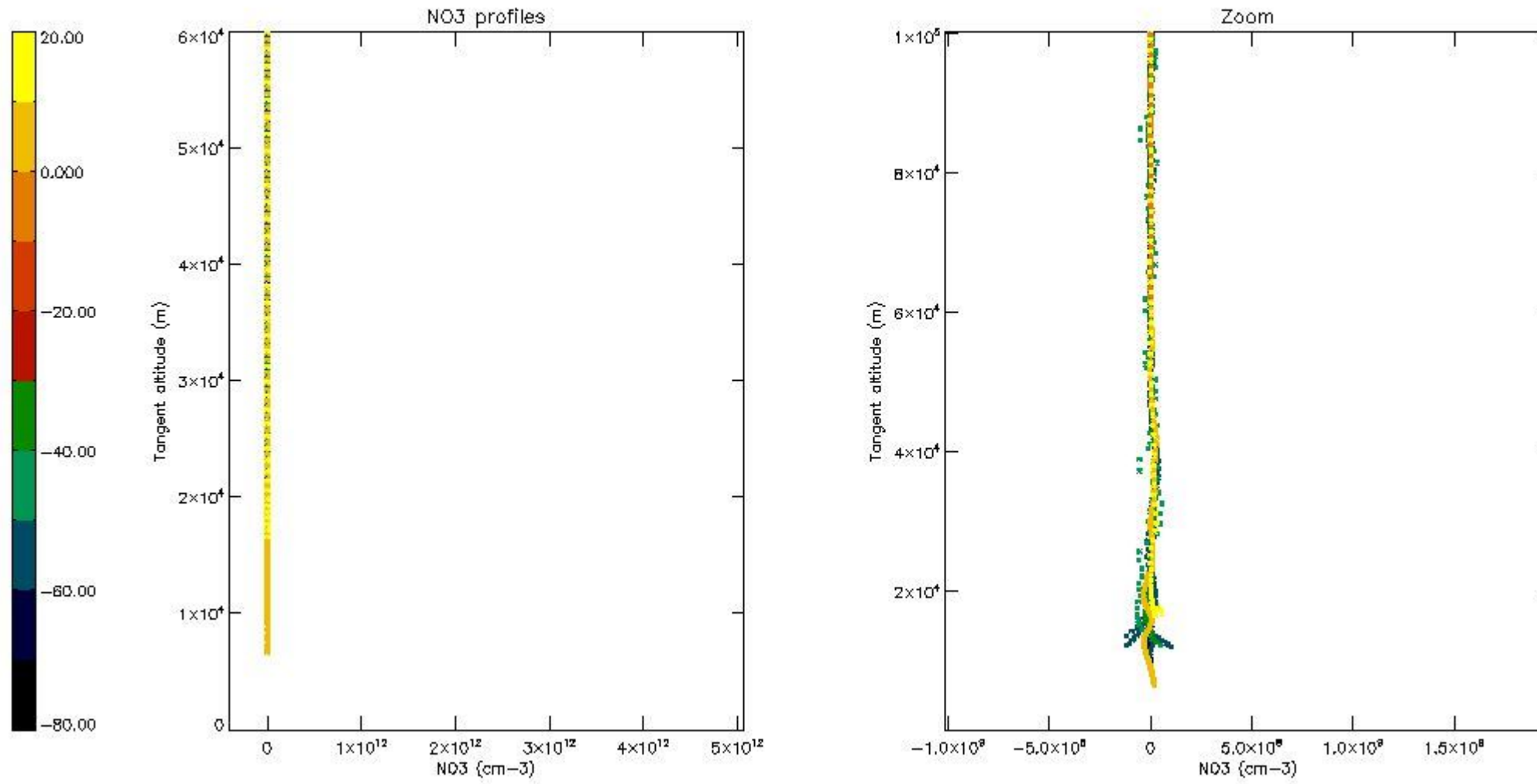
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

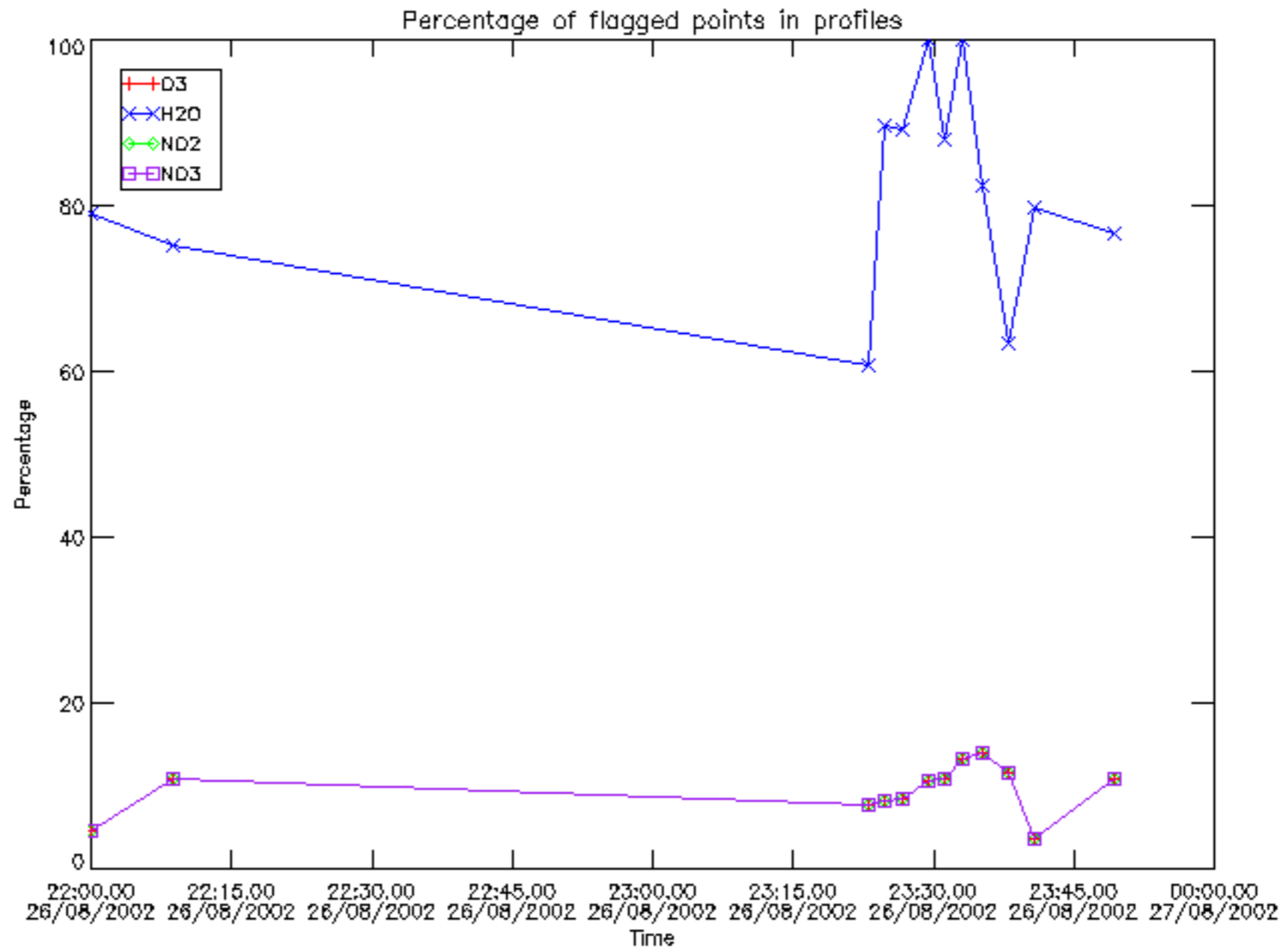
The colorbar represents the latitude.



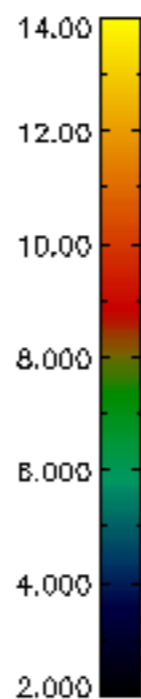
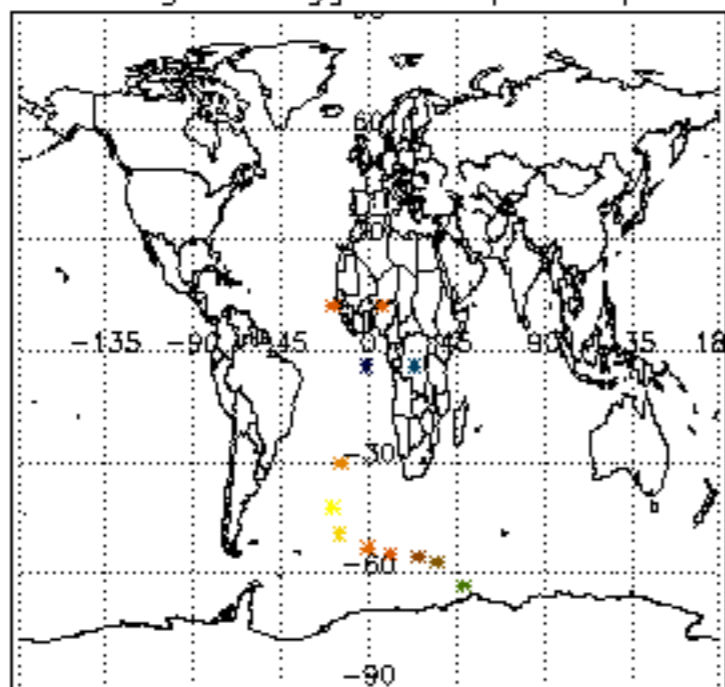
## 6. Auxiliary Data Files used for the production reported in section 2

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.

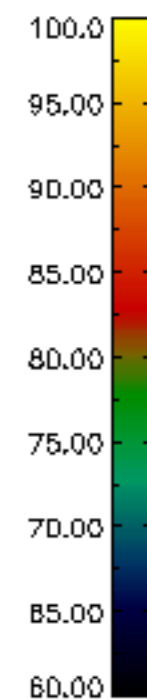
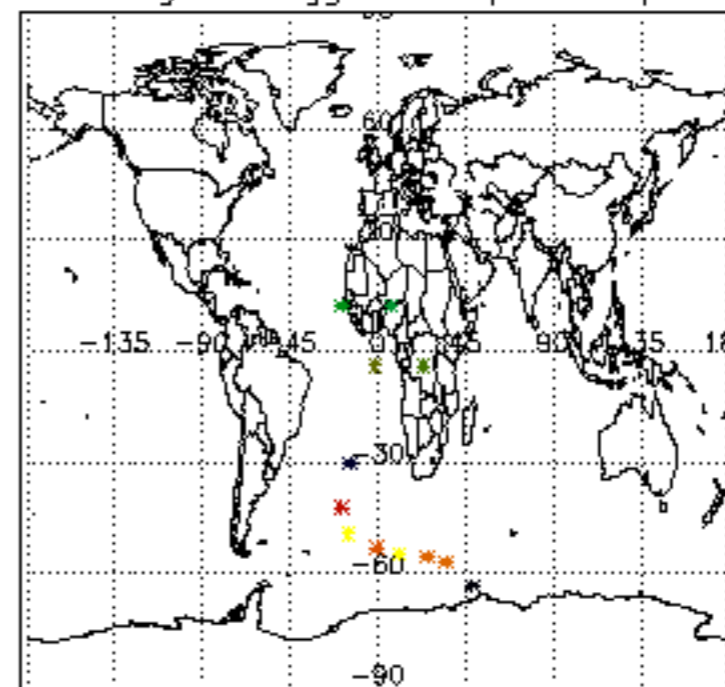
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	26-AUG-2002 22:00:04
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	26-AUG-2002 22:00:04
CROSS_SECTIONS_FILE	GOM_CR2_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	26-AUG-2002 22:00:04



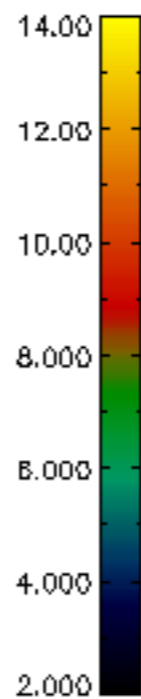
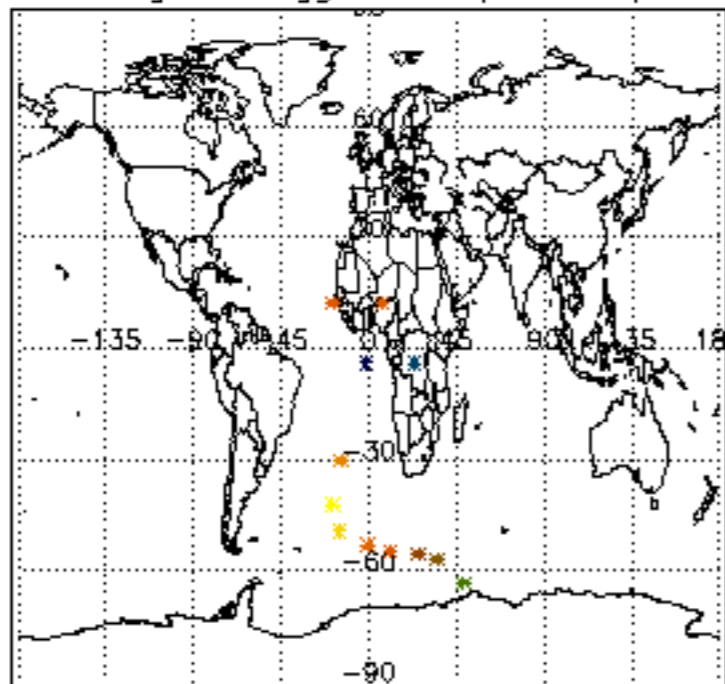
Percentage of flagged data per D3 profile



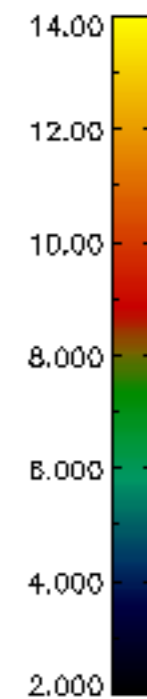
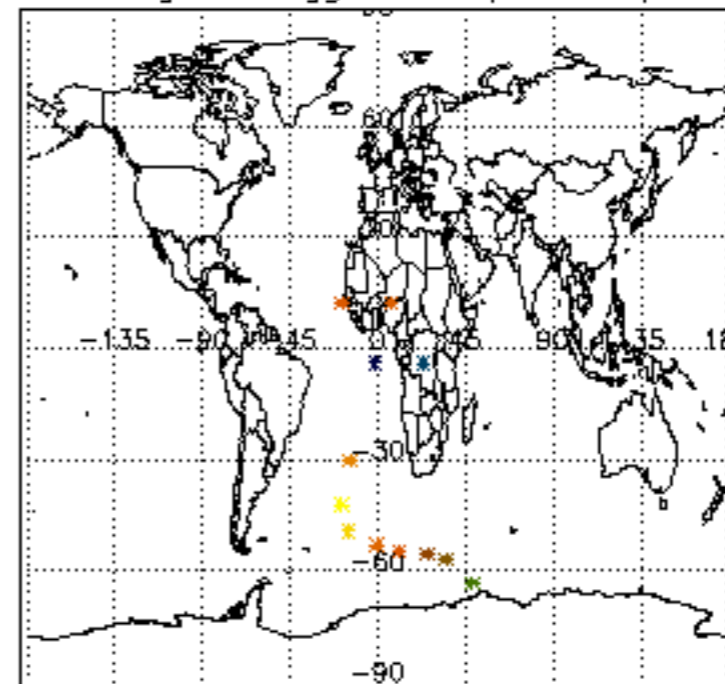
Percentage of flagged data per H2O profile

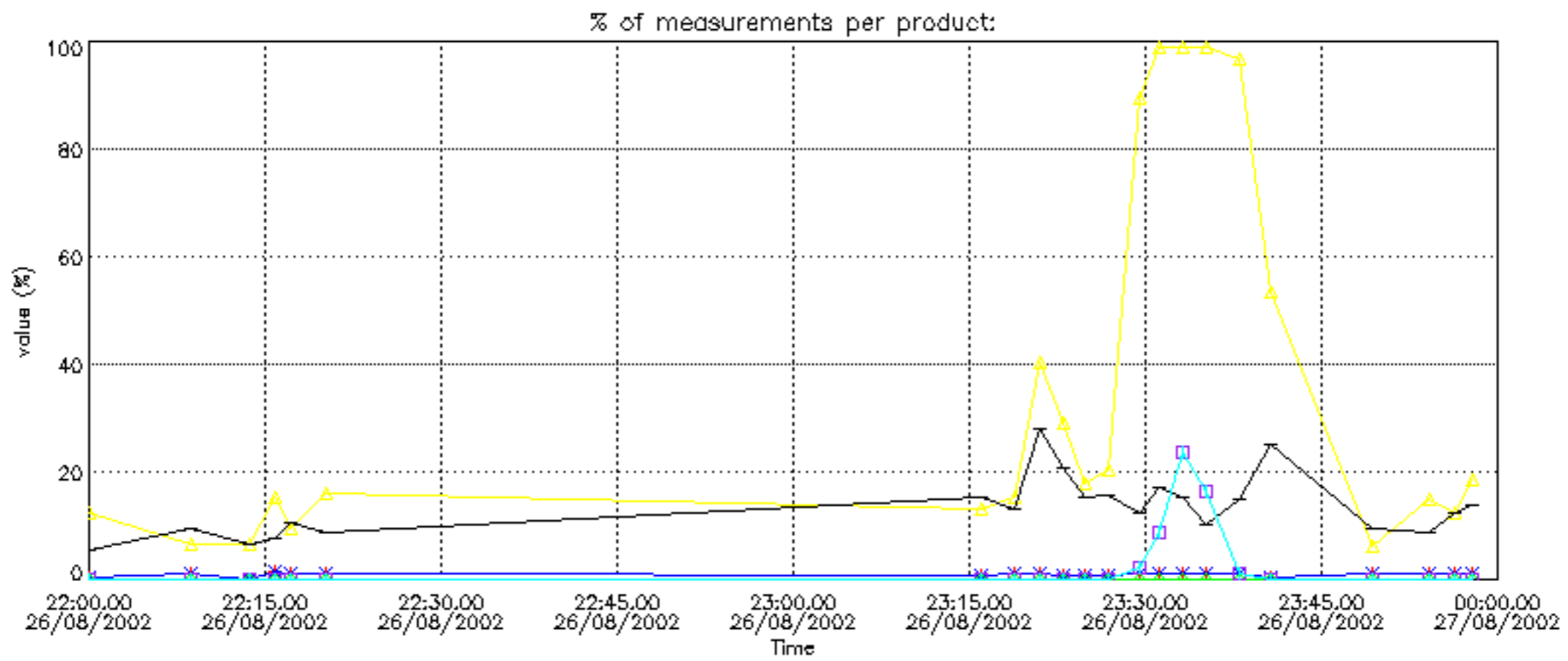


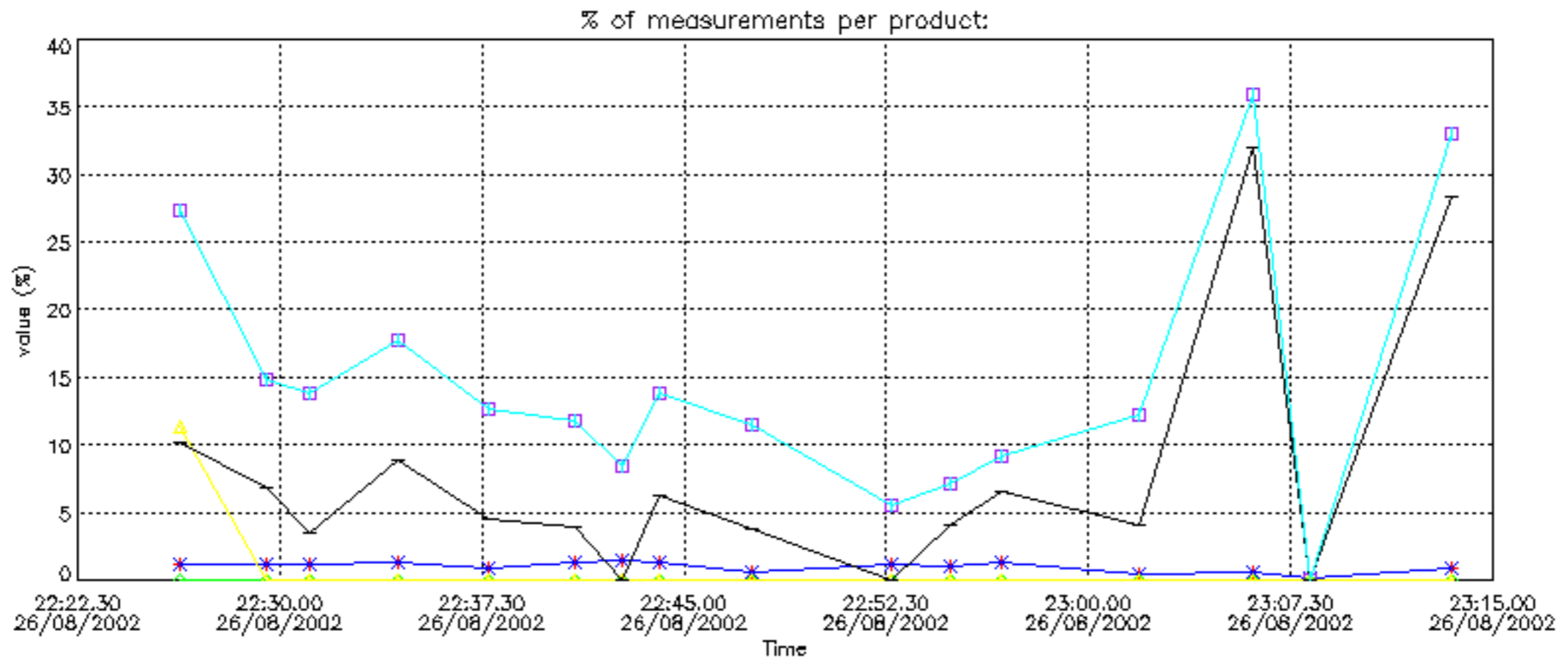
Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

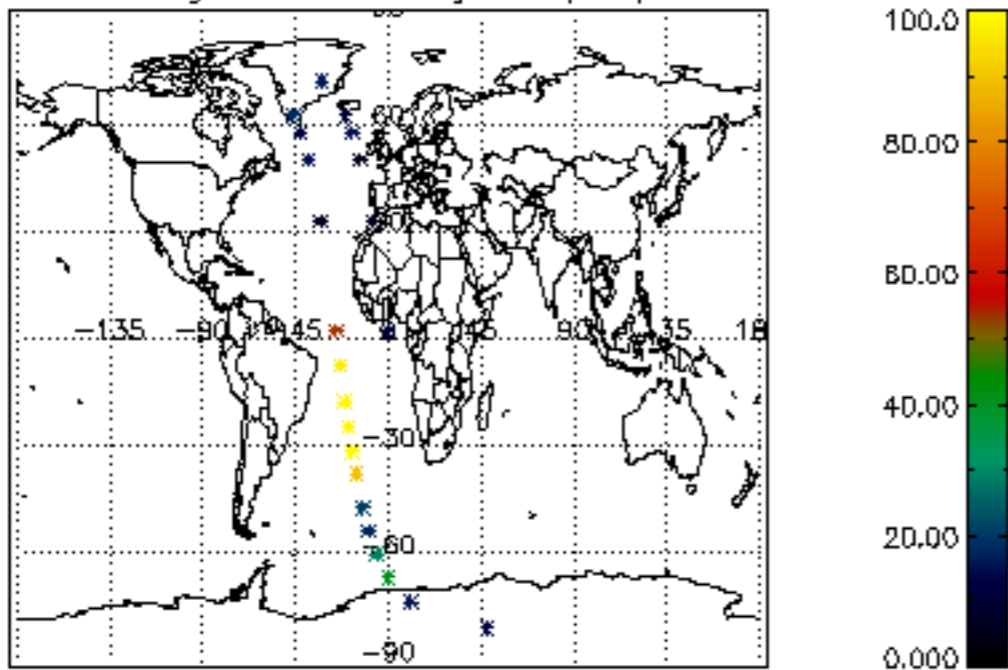




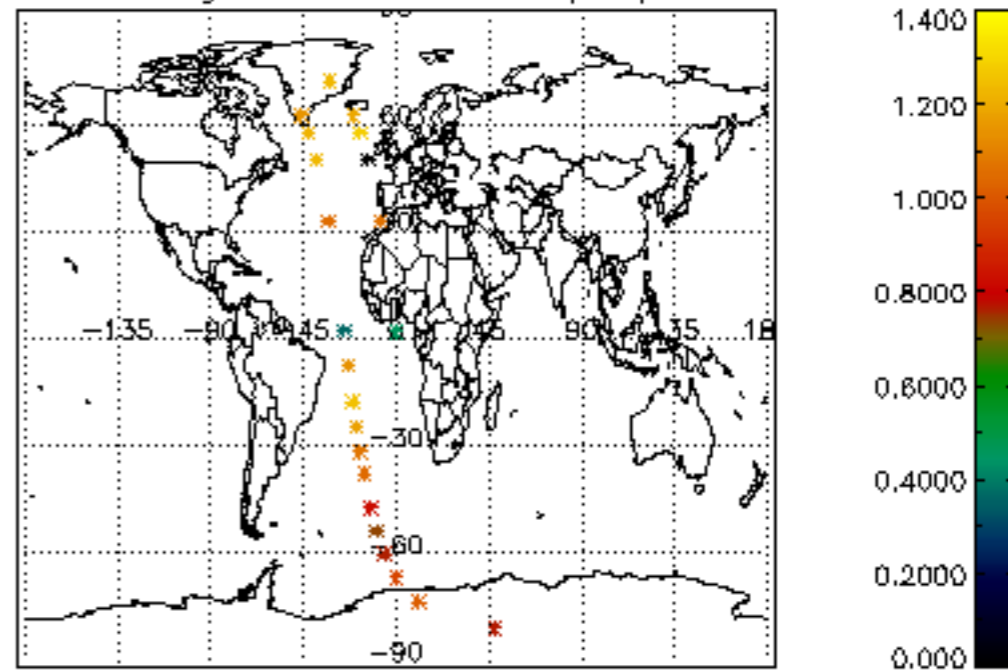




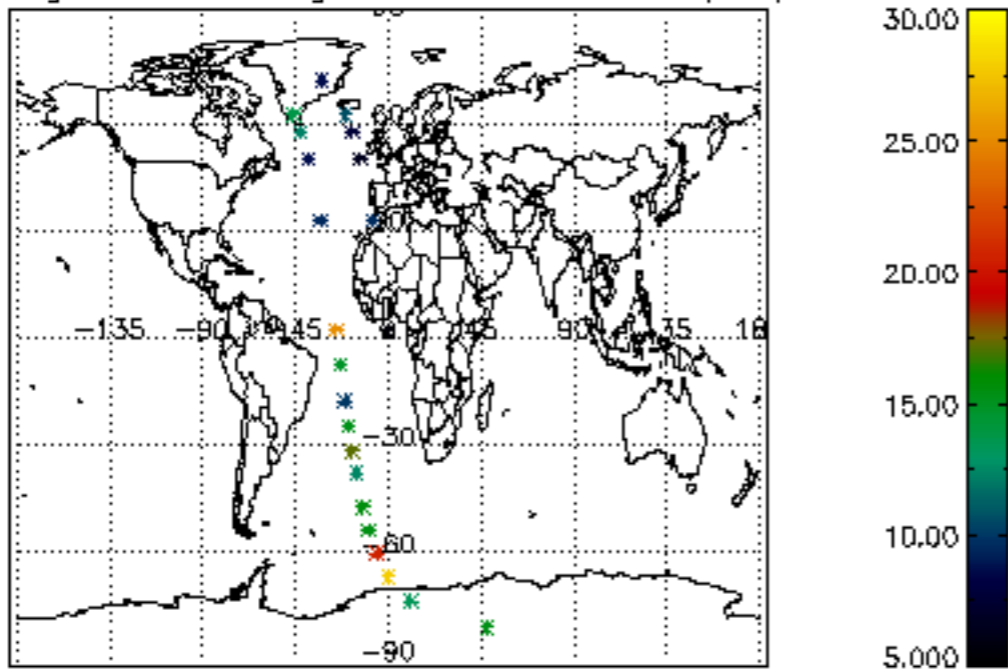
Percentage of cosmic ray hits per profile



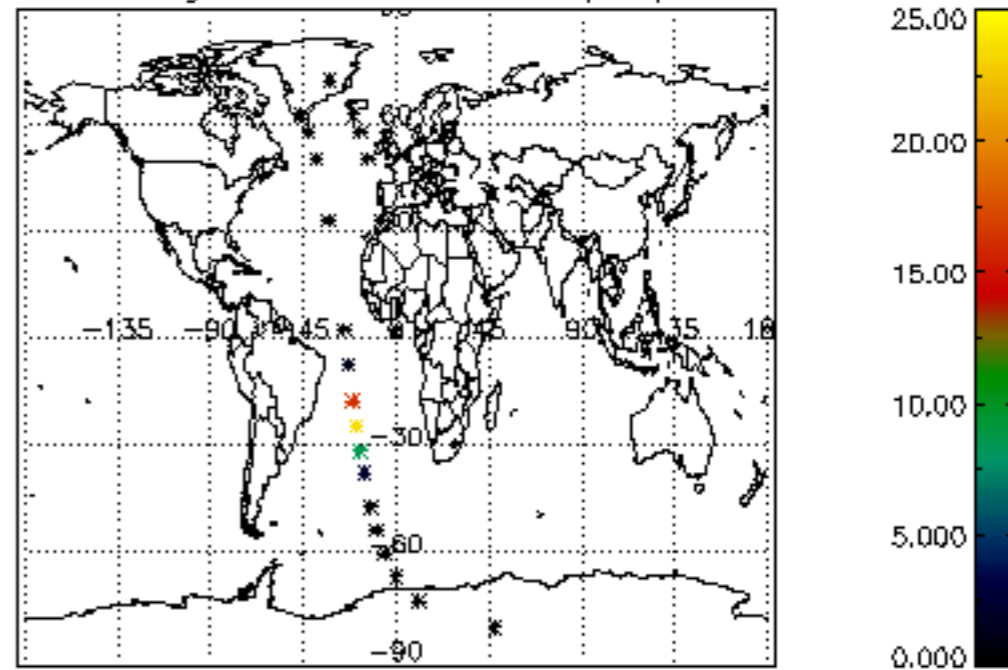
Percentage of datation errors per profile



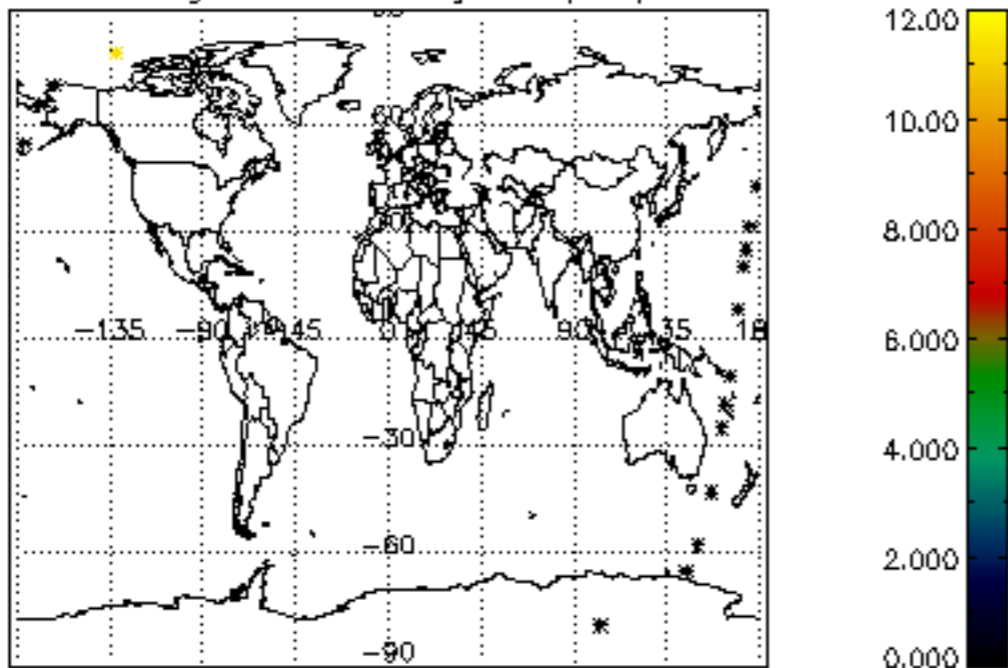
Percentage of star falling outside central band per profile



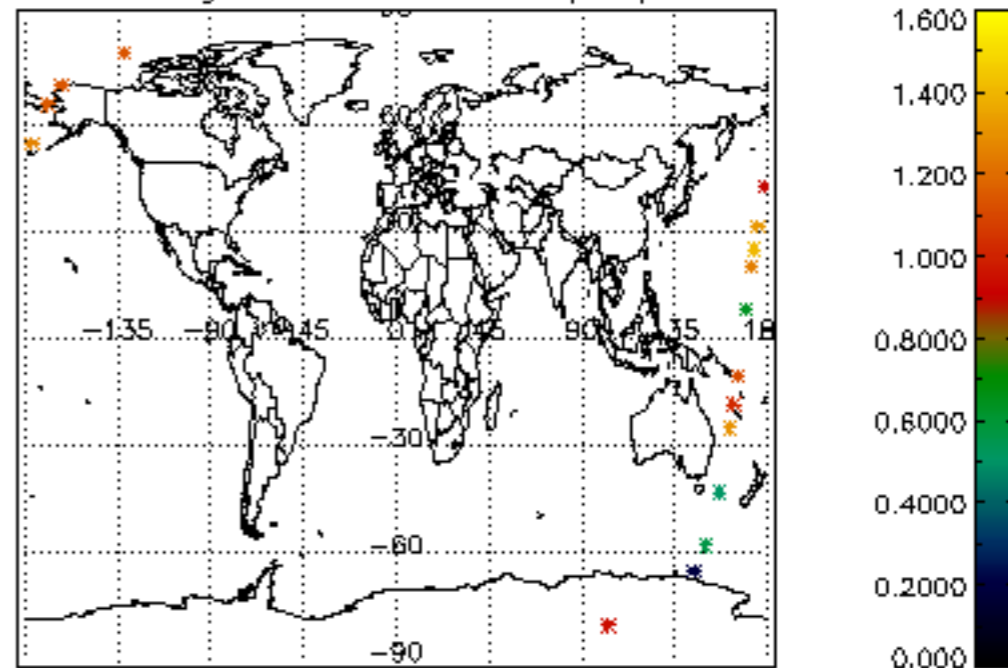
Percentage of saturation errors per profile



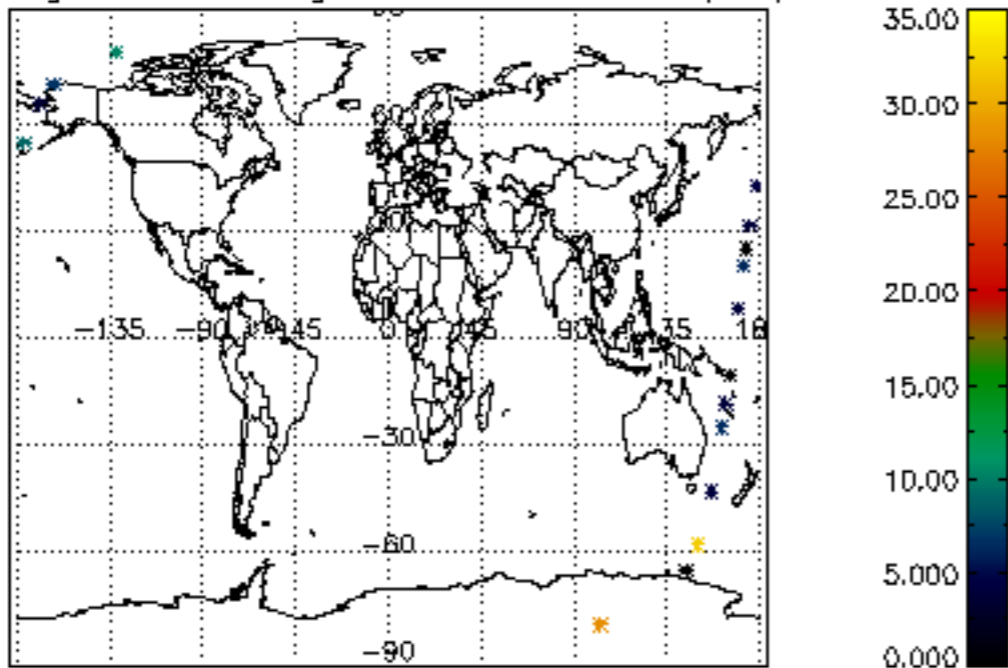
Percentage of cosmic ray hits per profile



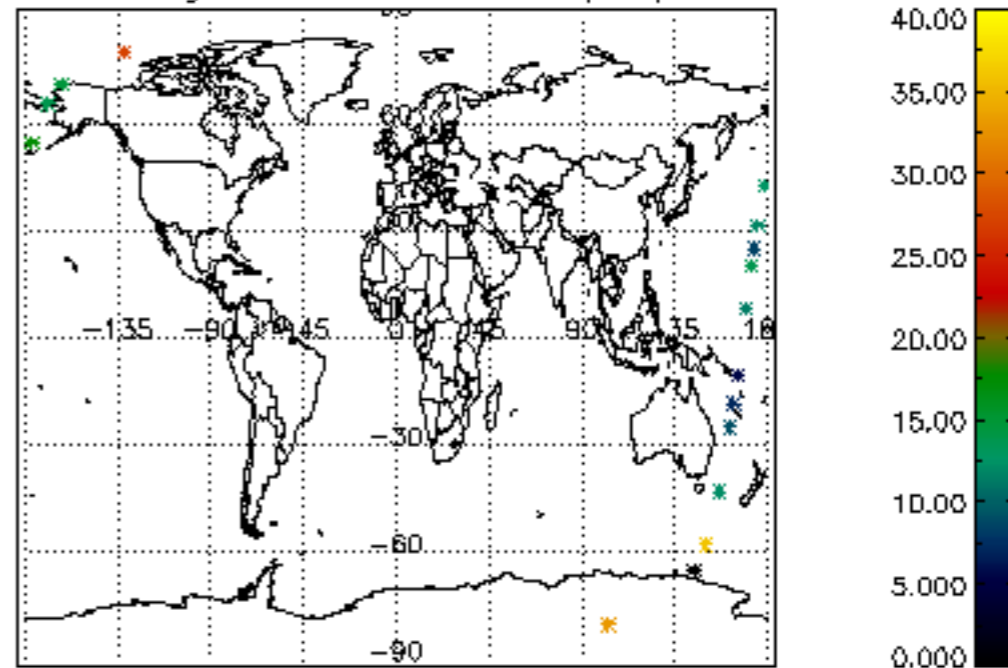
Percentage of datation errors per profile

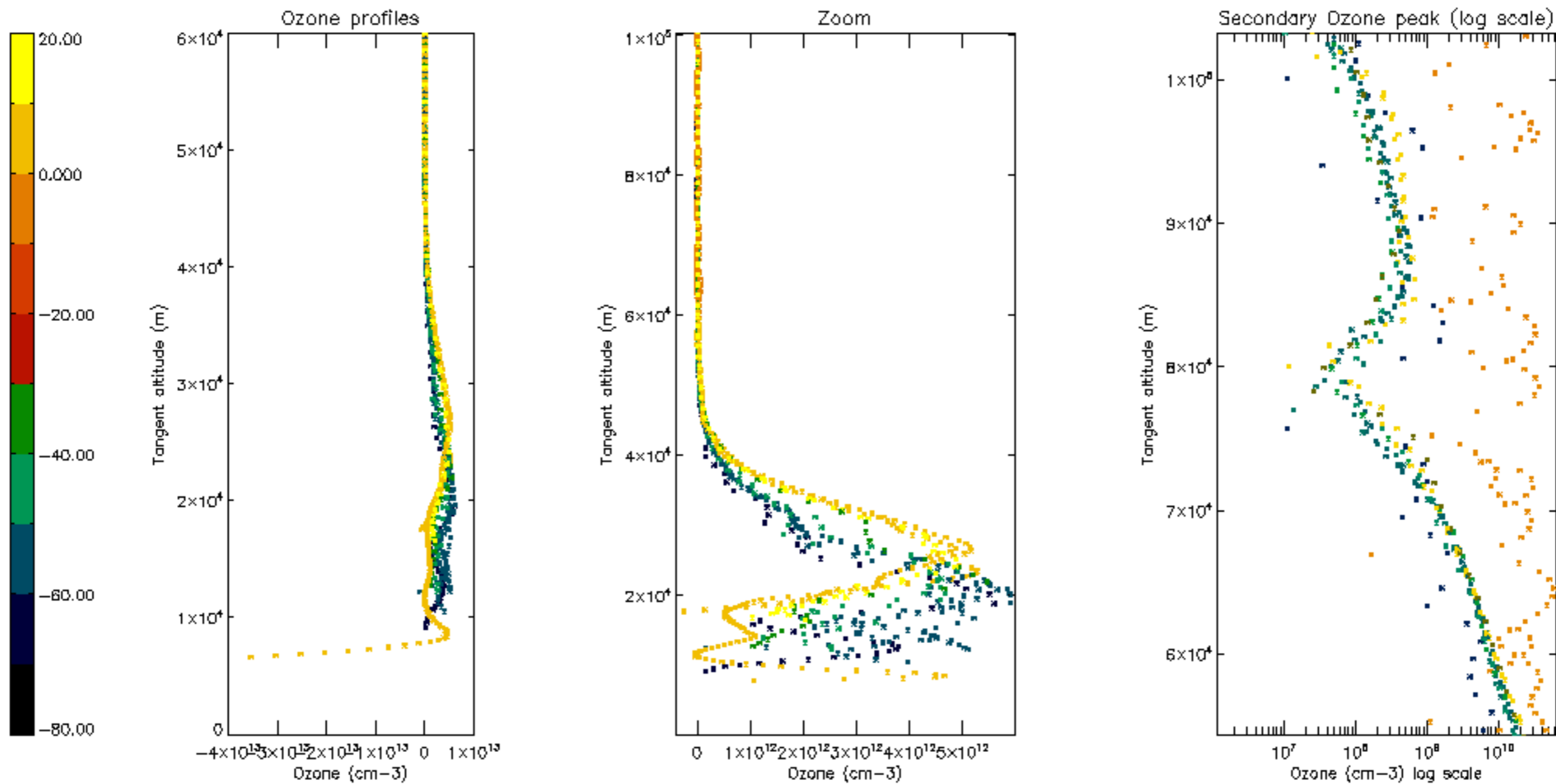


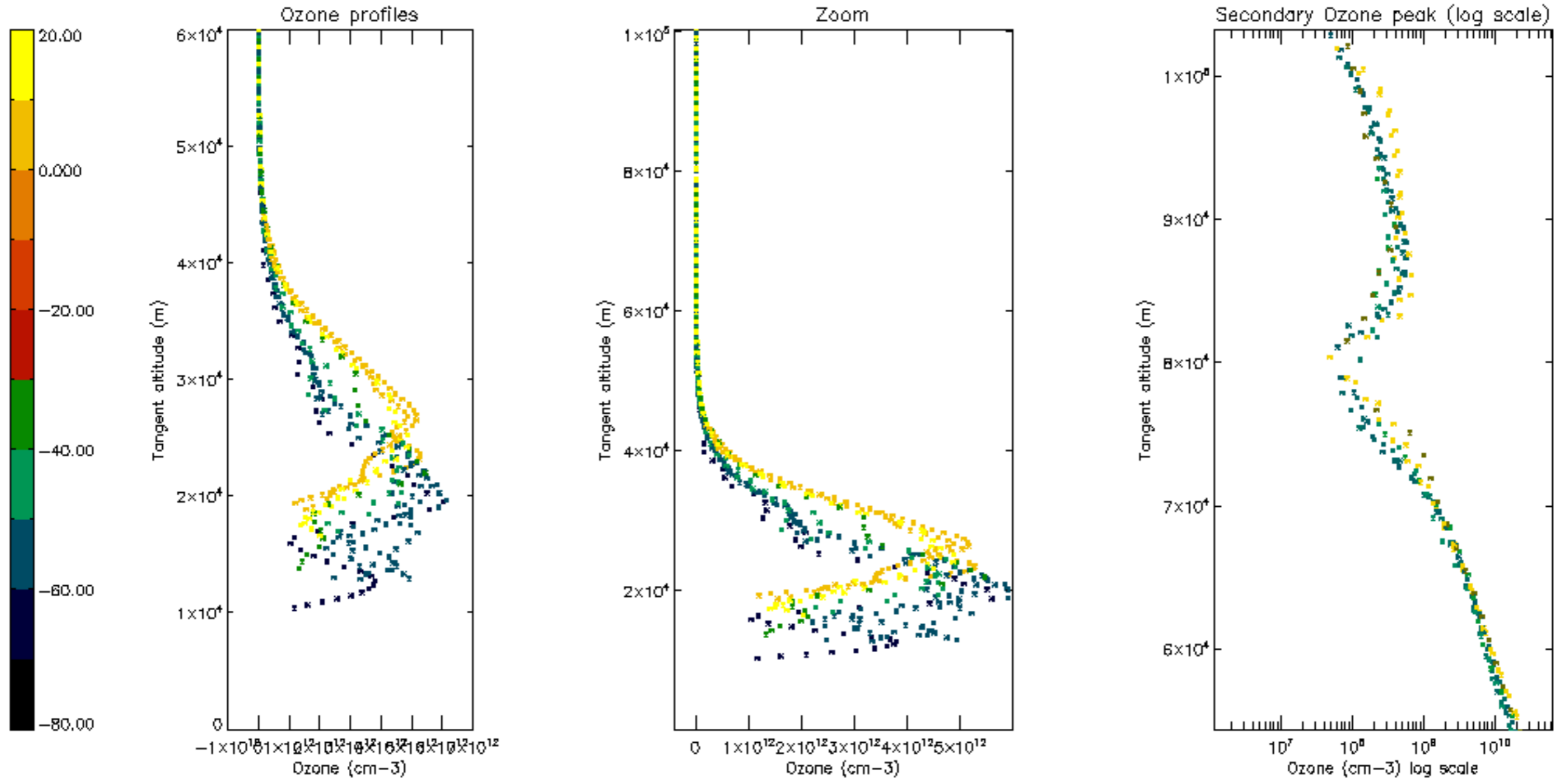
Percentage of star falling outside central band per profile

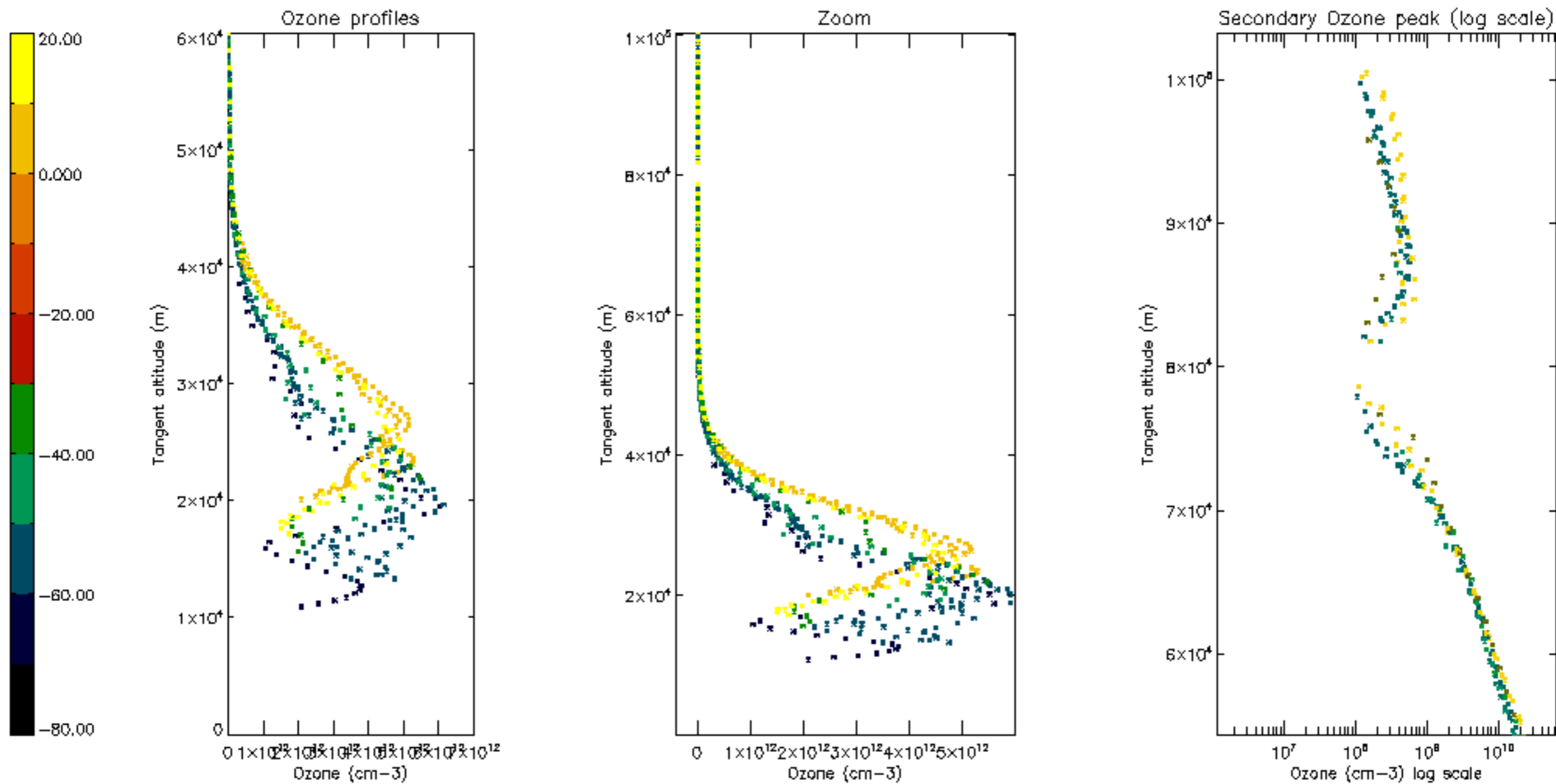


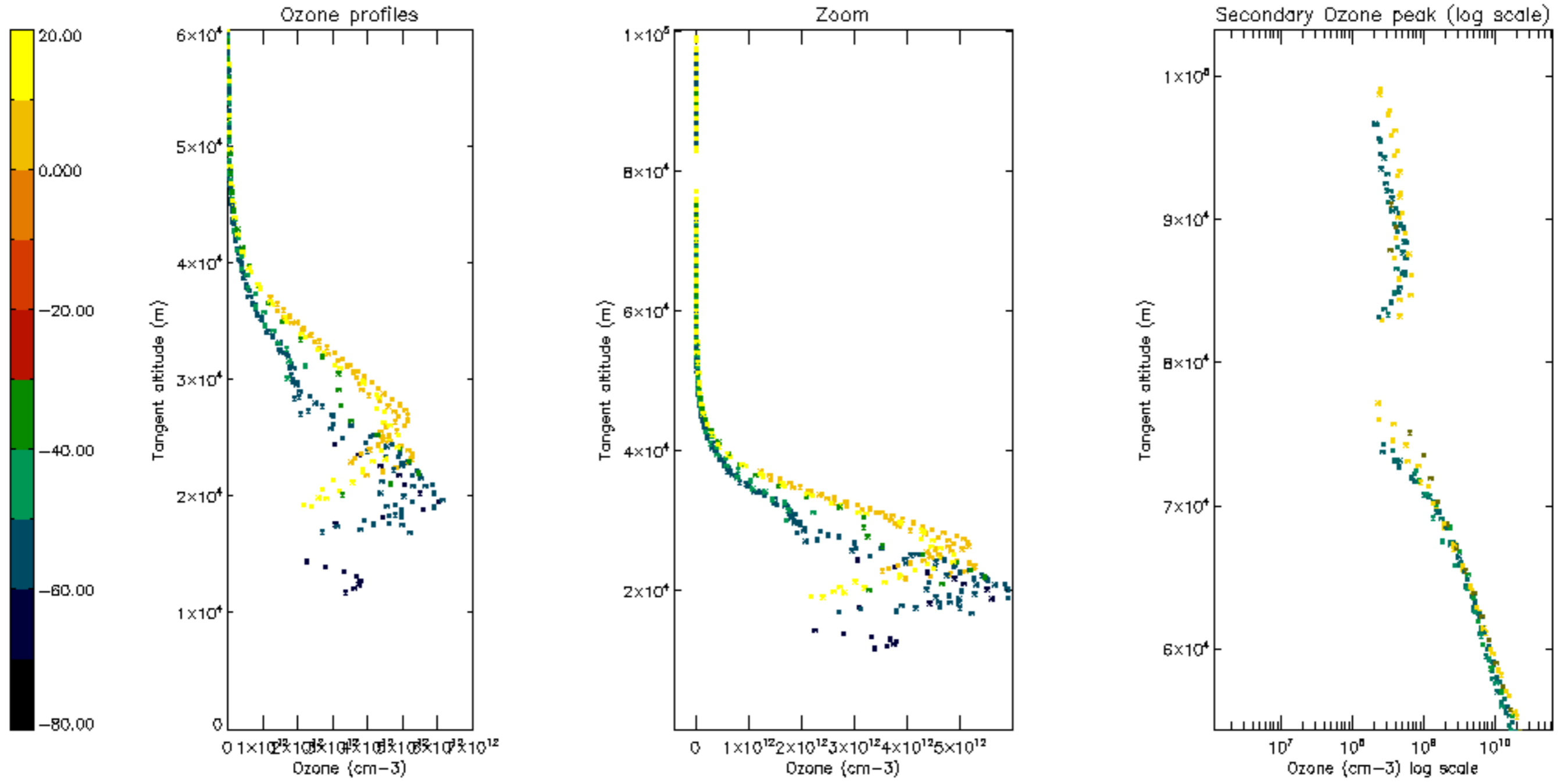
Percentage of saturation errors per profile

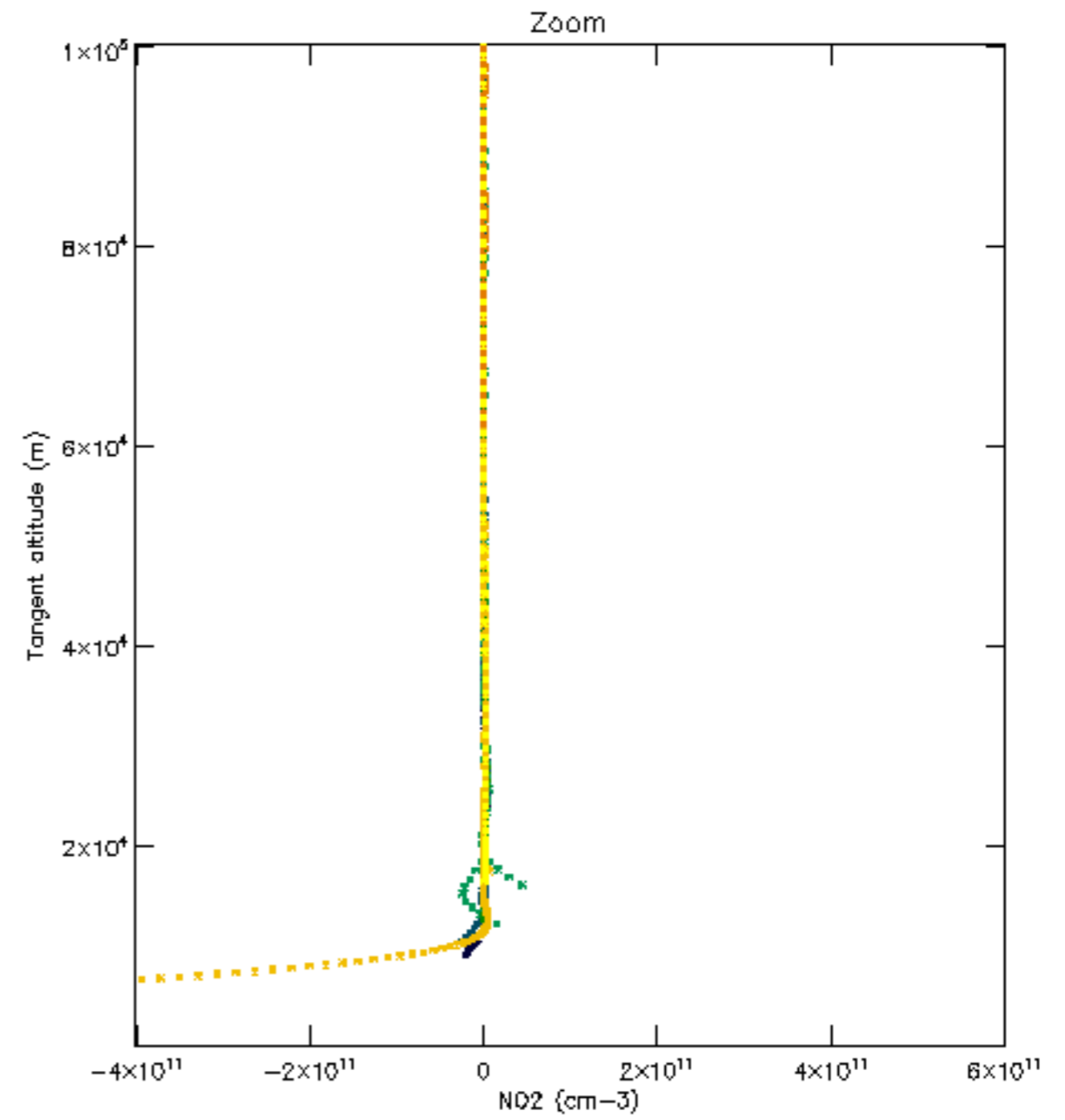
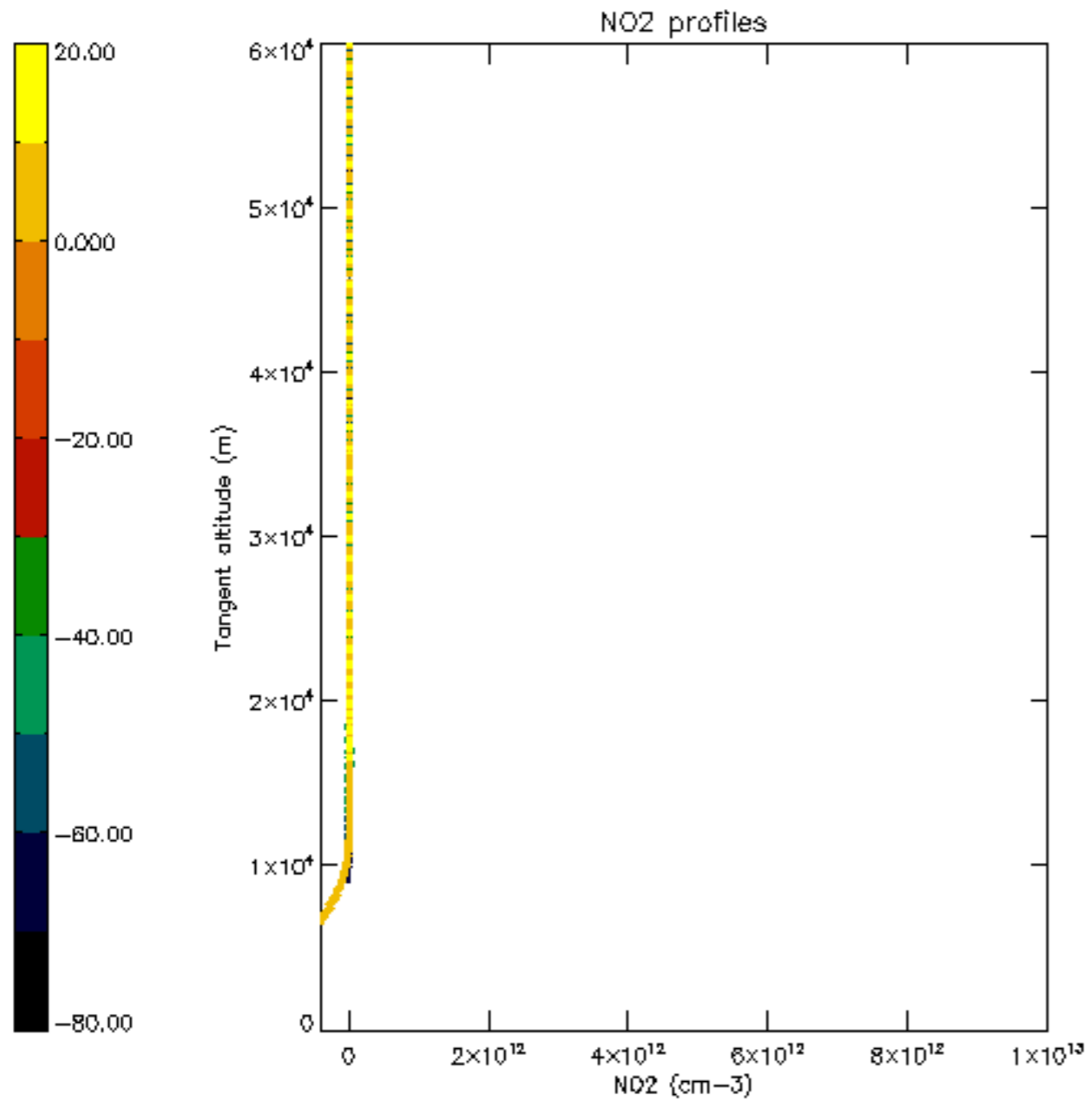


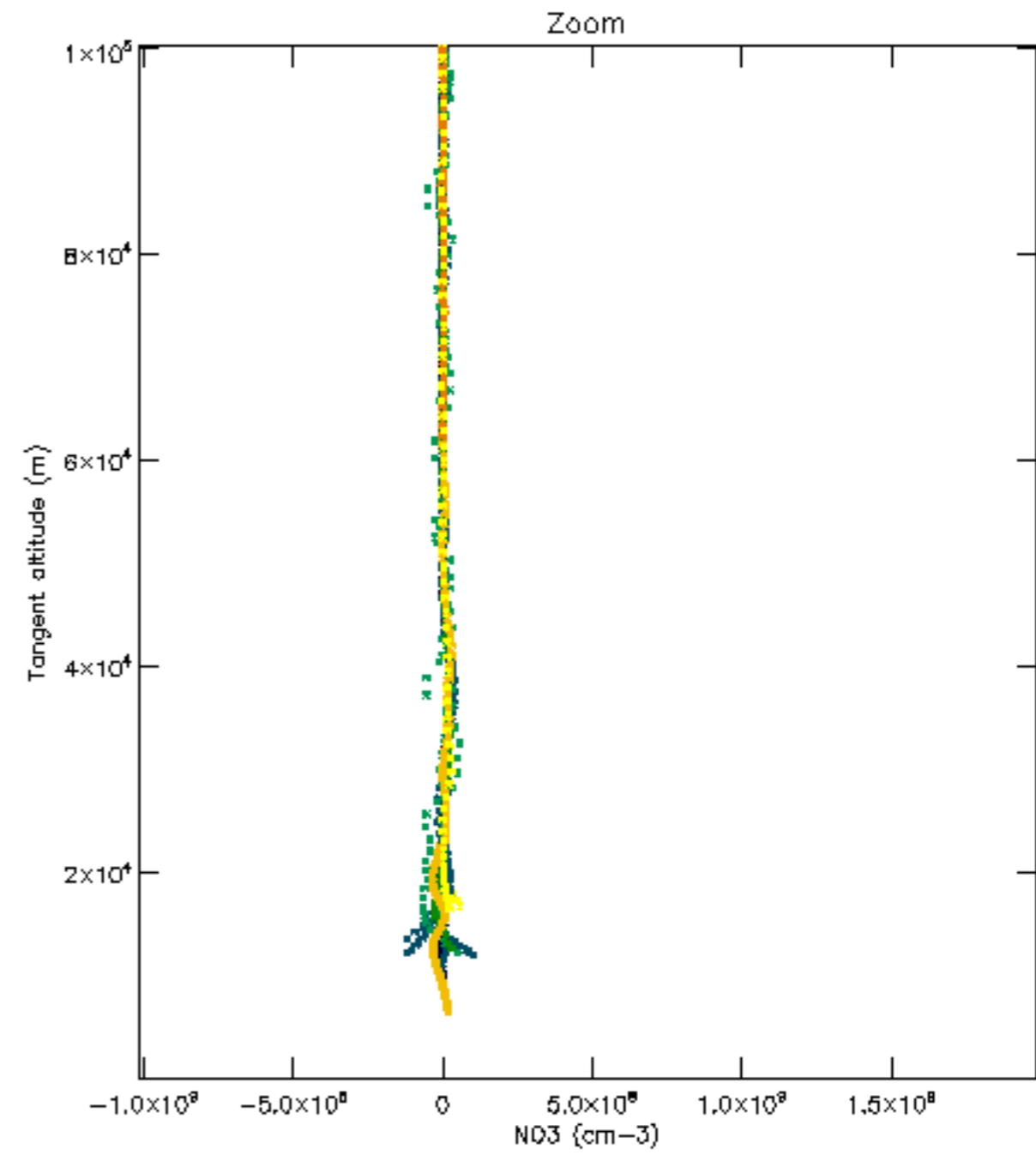
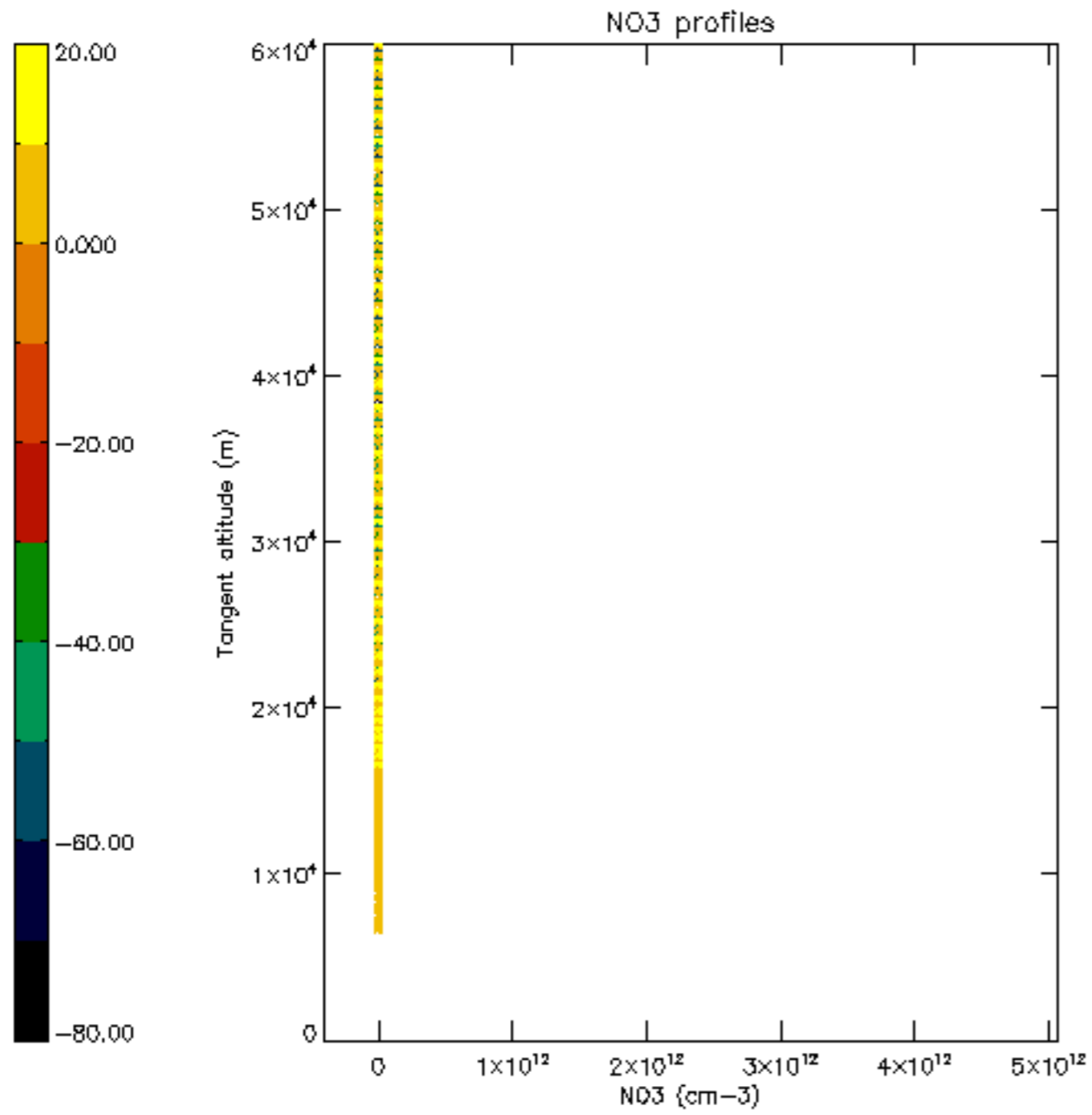




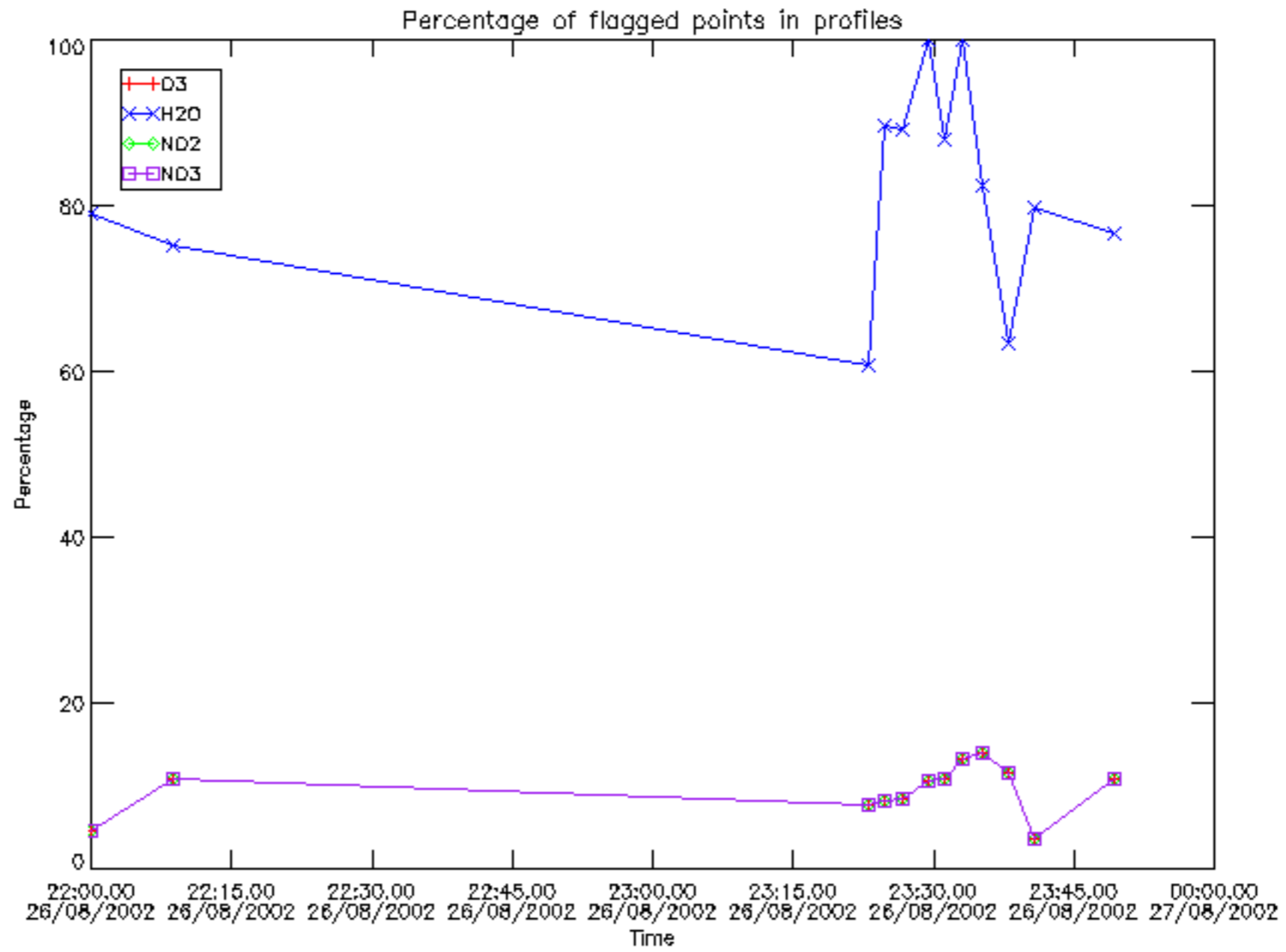




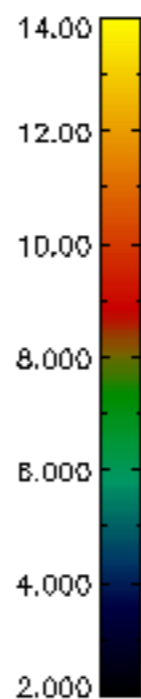
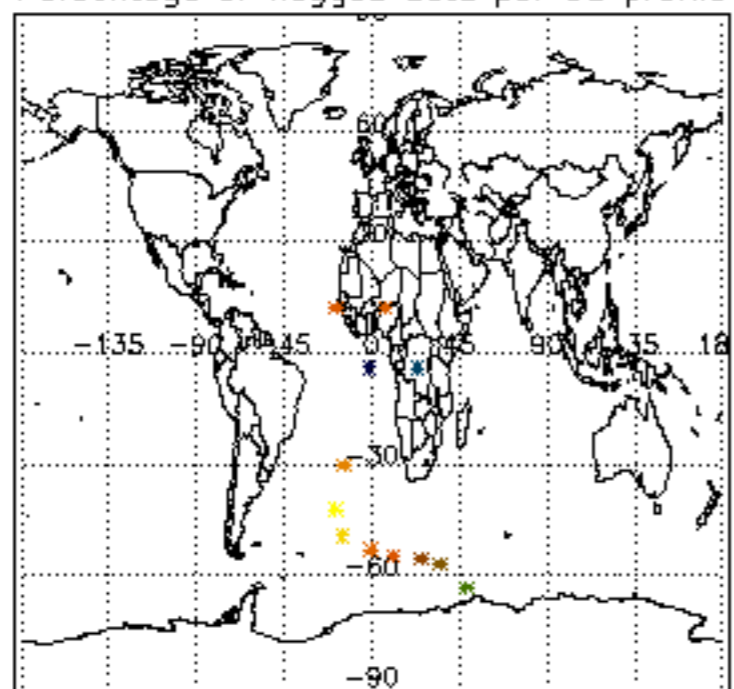




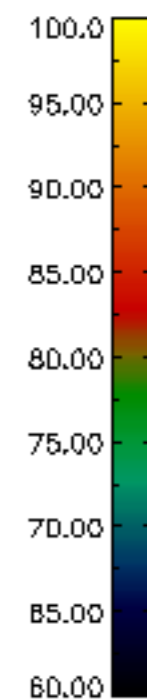
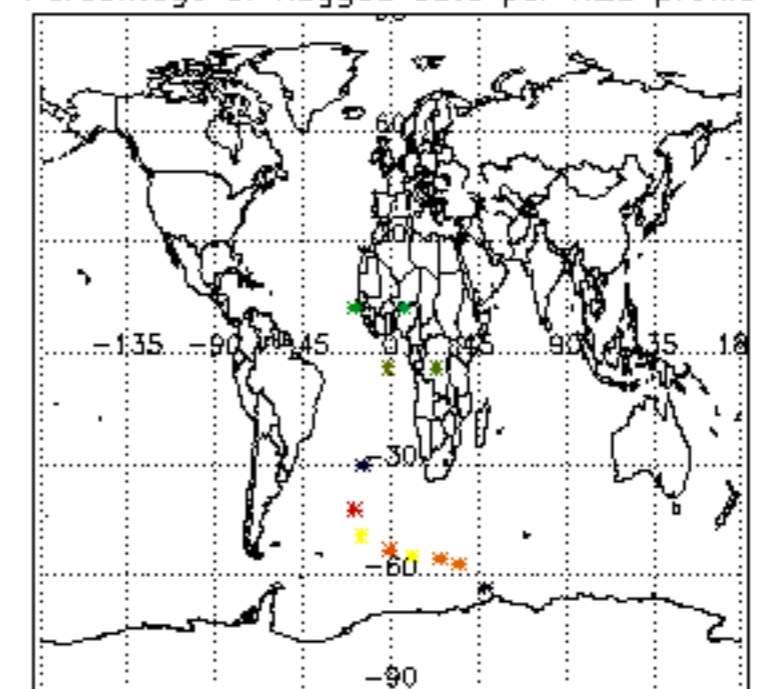




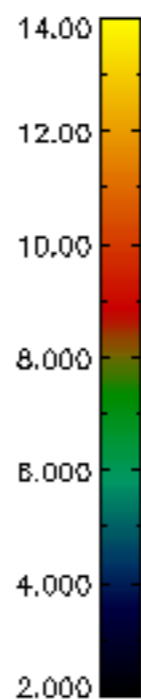
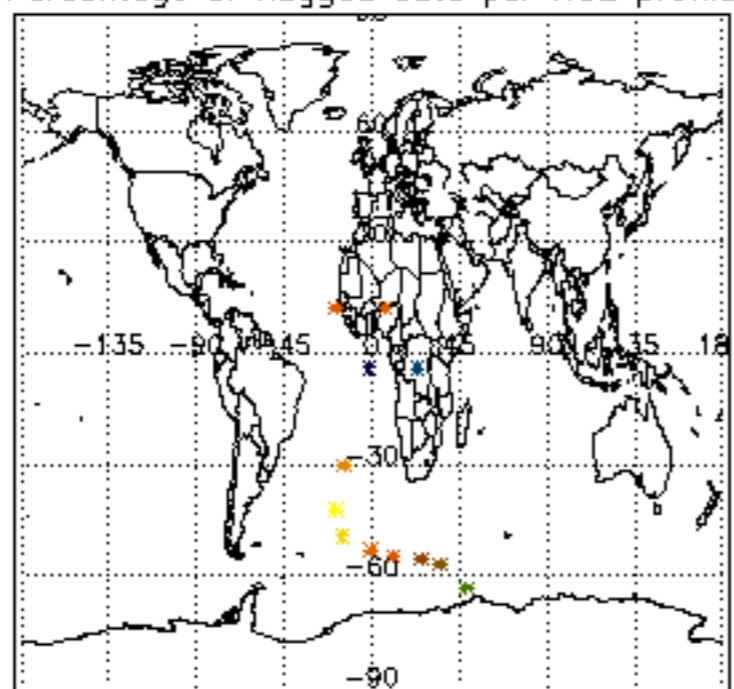
Percentage of flagged data per D3 profile



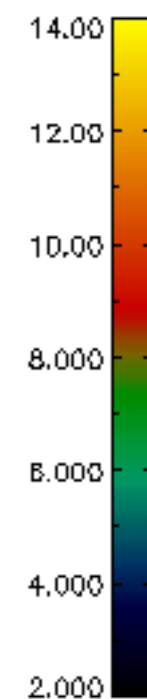
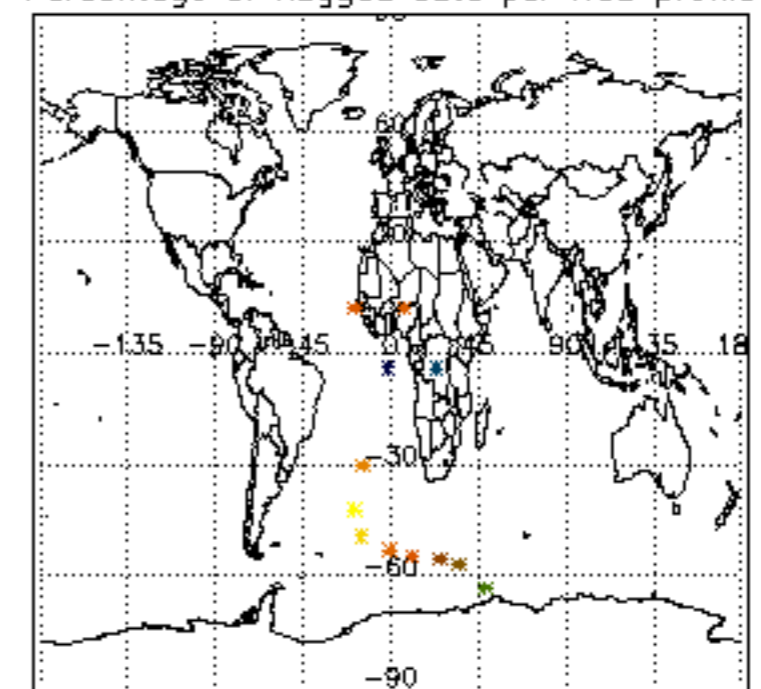
Percentage of flagged data per H2O profile

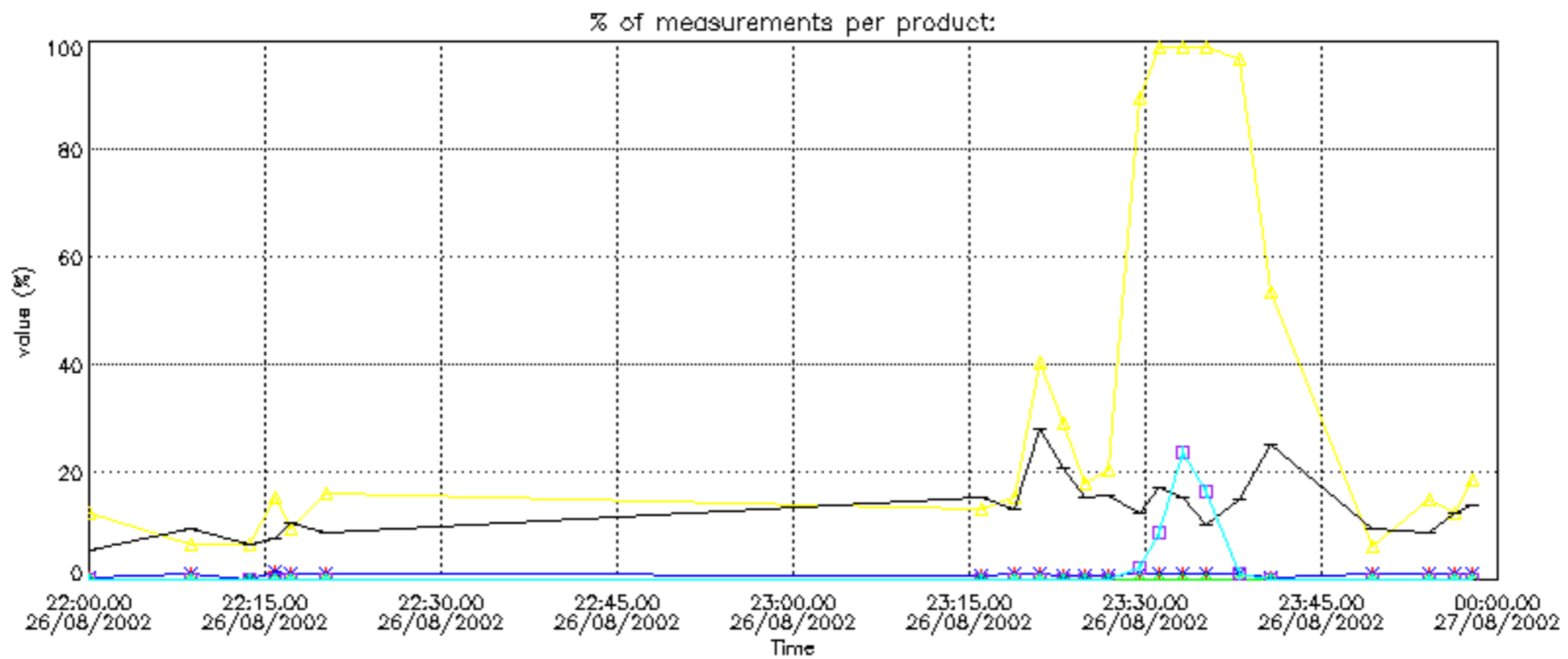


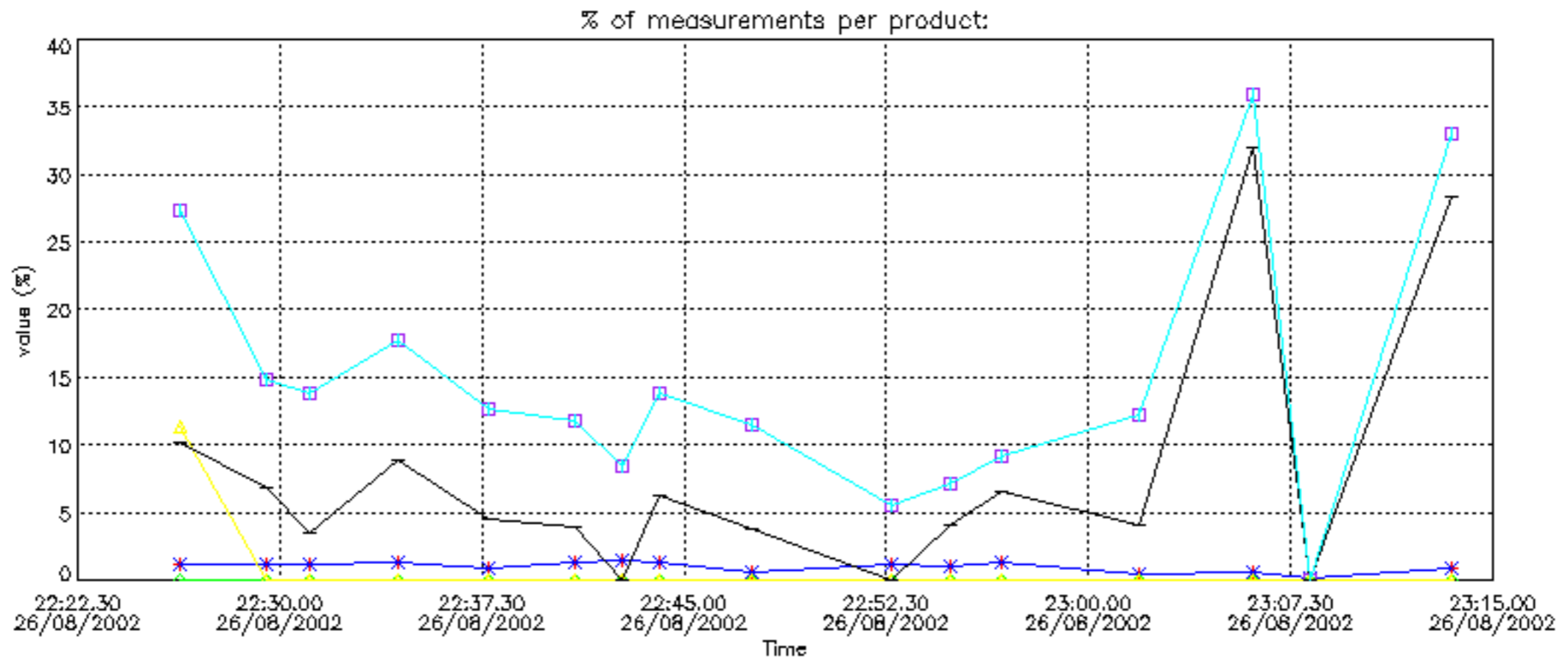
Percentage of flagged data per NO2 profile



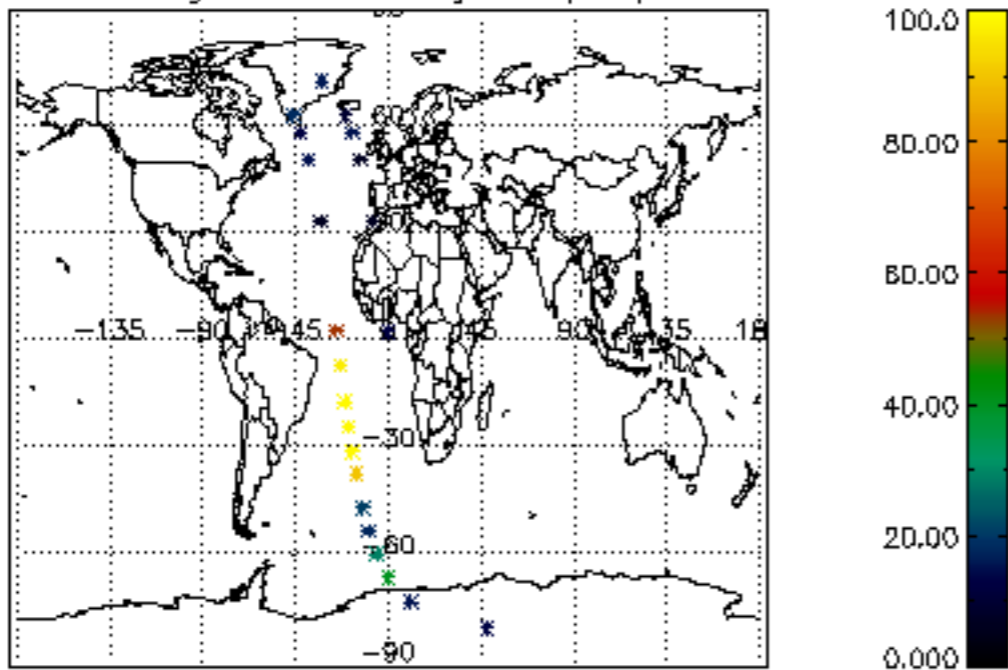
Percentage of flagged data per NO3 profile



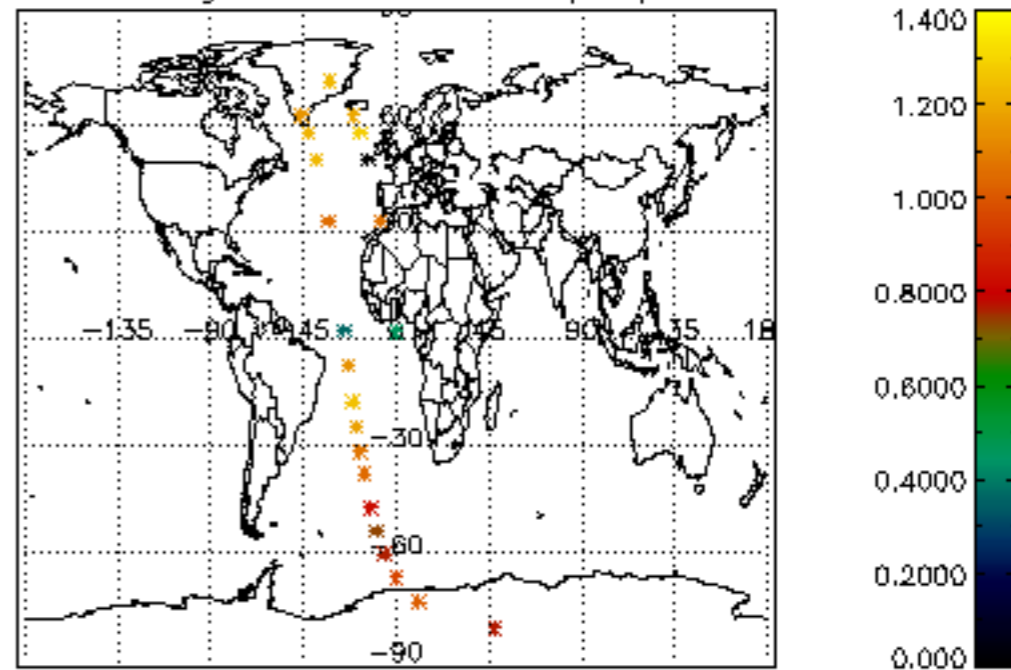




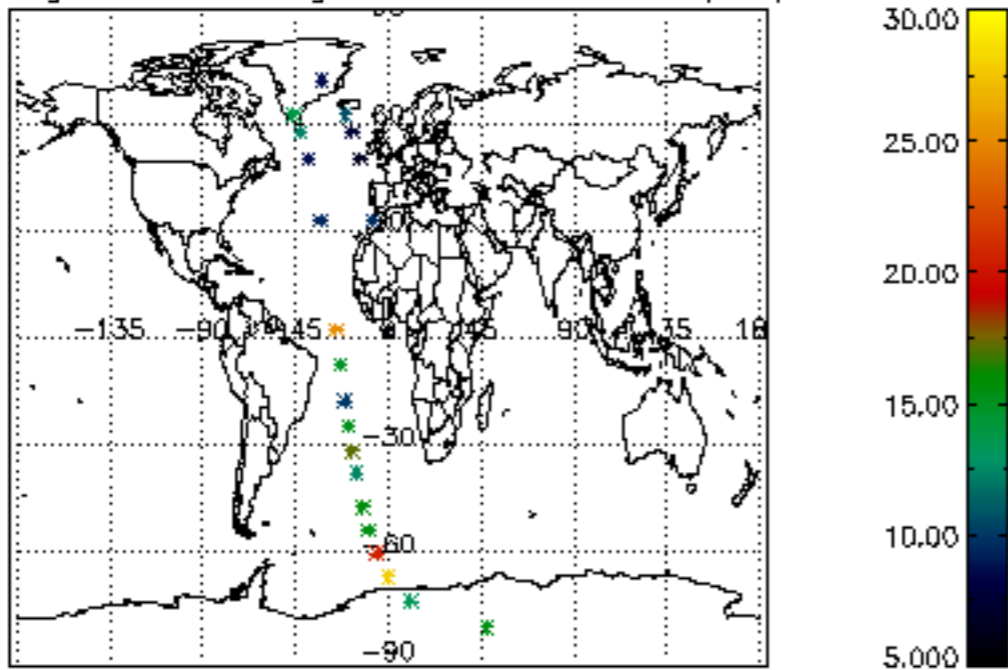
Percentage of cosmic ray hits per profile



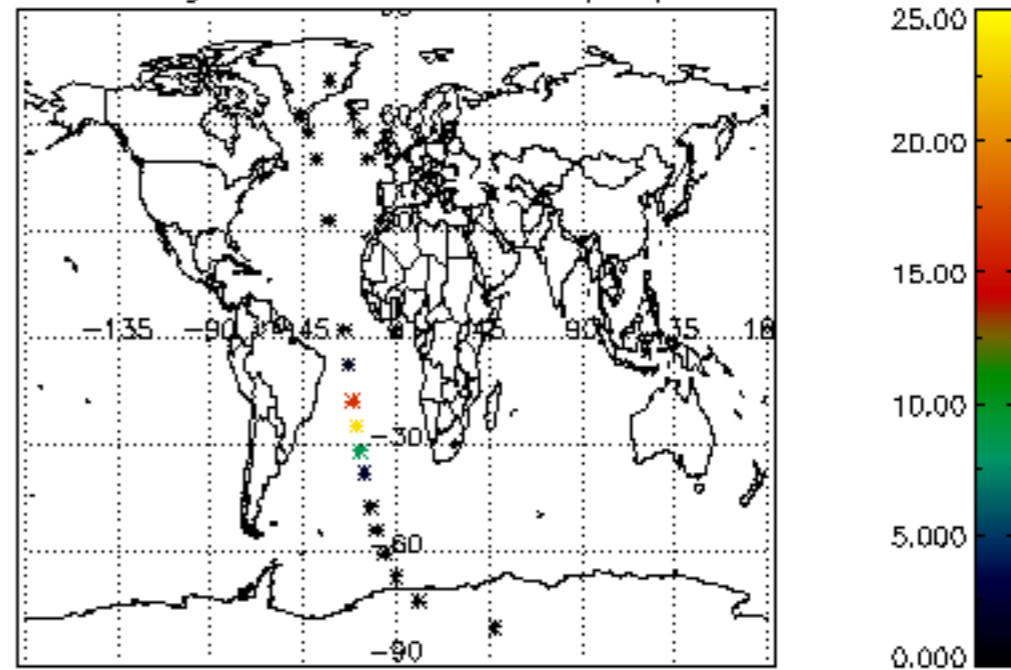
Percentage of datation errors per profile



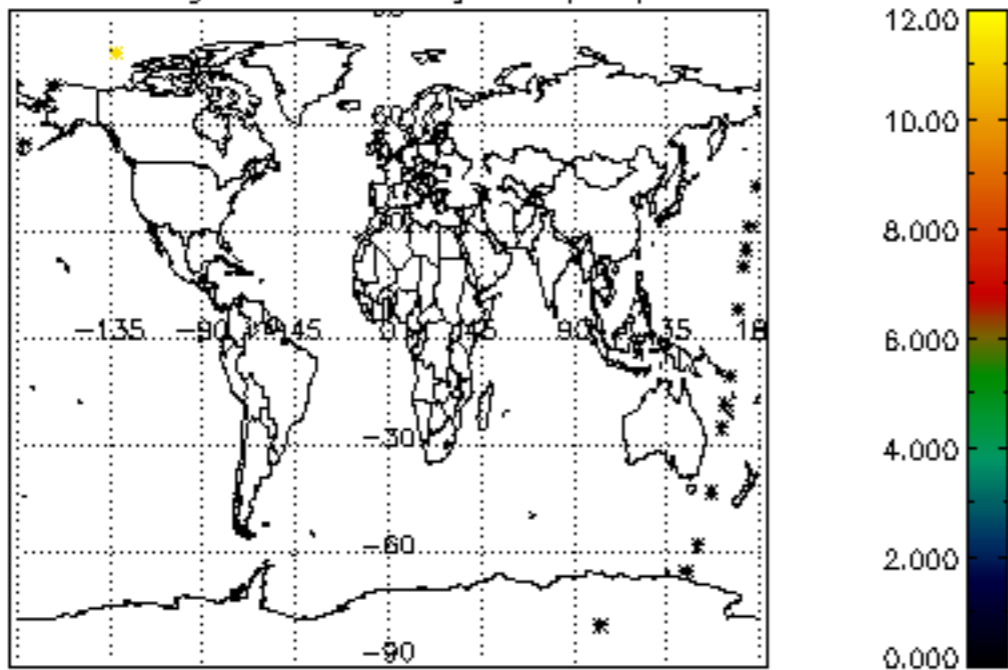
Percentage of star falling outside central band per profile



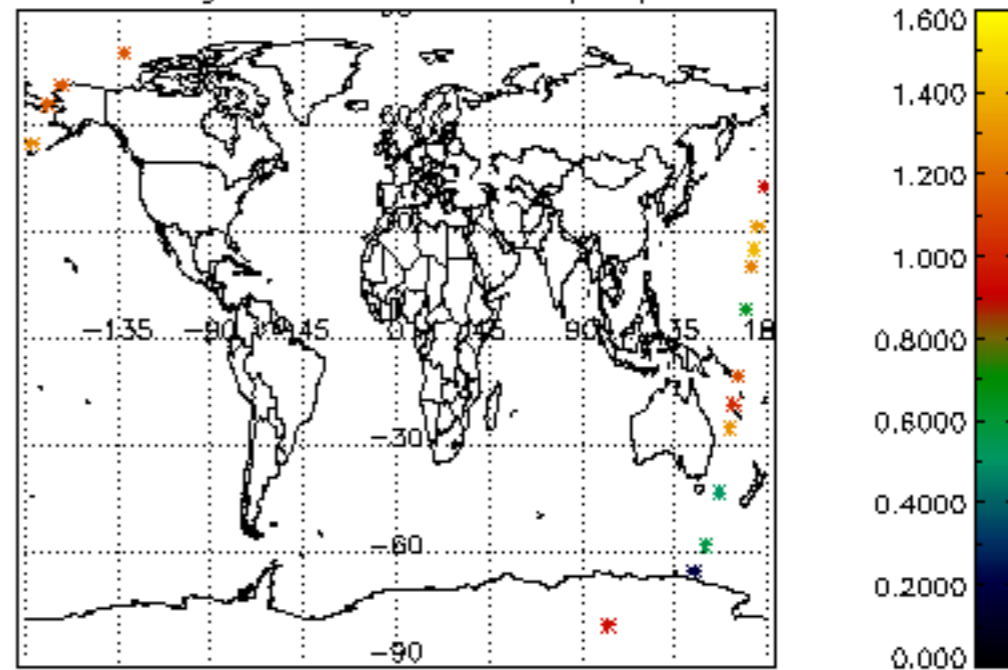
Percentage of saturation errors per profile



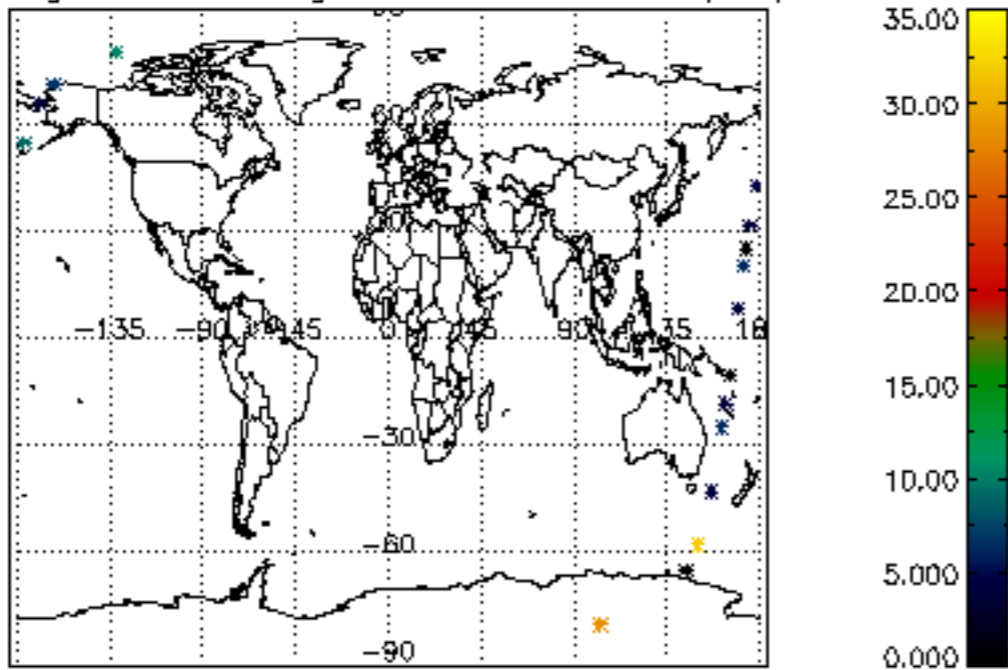
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

