

# 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	24APR2013 07:04:32
Data source version	GOMOS/6.01
Start time of products	28-12-2006 (28DEC2006 00:00:00)
Stop time of products	29-12-2006 (29DEC2006 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	374
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__2PRFIN20061228_000046_000000402054_00131_25235_5903.N1	28-DEC-2006 00:00:46	Dark	40.000	12	Alp1Cru	0.77500	30000.	80	25235	No
2	GOM_NL__2PRFIN20061228_000406_000000382054_00131_25235_5904.N1	28-DEC-2006 00:04:06	Dark	37.500	124	The Car	2.7640	30000.	75	25235	No
3	GOM_NL__2PRFIN20061228_000612_000000382054_00131_25235_5905.N1	28-DEC-2006 00:06:12	Dark	38.000	29	Bet Car	1.6720	10200.	76	25235	No
4	GOM_NL__2PRFIN20061228_000751_000000422054_00131_25235_5906.N1	28-DEC-2006 00:07:51	Dark	42.000	91	Kap Vel	2.4900	26000.	84	25235	No
5	GOM_NL__2PRFIN20061228_001329_000000432054_00131_25235_5907.N1	28-DEC-2006 00:13:29	Dark	43.000	2	Alp Car	-0.73600	7000.0	86	25235	No
6	GOM_NL__2PRFIN20061228_001636_000000502054_00131_25235_5908.N1	28-DEC-2006 00:16:36	Dark	50.000	117	Pi Pup	2.7060	3800.0	100	25235	No
7	GOM_NL__2PRFIN20061228_001915_000000402054_00131_25235_5909.N1	28-DEC-2006 00:19:15	Straylight	40.000	108	Alp Col	2.6520	15200.	80	25235	No
8	GOM_NL__2PRFIN20061228_002328_000000462054_00131_25235_5910.N1	28-DEC-2006 00:23:28	Straylight	45.500	47	2Bet CMa	1.9760	28000.	91	25235	No
9	GOM_NL__2PRFIN20061228_002650_000000522054_00131_25235_5911.N1	28-DEC-2006 00:26:50	Straylight	52.000	7	19Bet Ori	0.10000	14000.	104	25235	No
10	GOM_NL__2PRFIN20061228_002846_000000422054_00131_25235_5912.N1	28-DEC-2006 00:28:46	Straylight	42.000	30	46Eps Ori	1.6940	30000.	84	25235	No
11	GOM_NL__2PRFIN20061228_003125_000000502054_00131_25235_5913.N1	28-DEC-2006 00:31:25	Twilight_stray	49.500	14	58Alp Ori	0.87000	3000.0	99	25235	No
12	GOM_NL__2PRFIN20061228_003401_000000492054_00131_25235_5914.N1	28-DEC-2006 00:34:01	Bright	48.500	13	87Alp Tau	0.86700	3800.0	97	25235	No
13	GOM_NL__2PRFIN20061228_003526_000000452054_00131_25235_5915.N1	28-DEC-2006 00:35:26	Bright	44.500	176	23Zet Tau	3.0200	22000.	89	25235	No
14	GOM_NL__2PRFIN20061228_003731_000000392054_00131_25235_5916.N1	28-DEC-2006 00:37:31	Bright	39.000	28	12Bet Tau	1.6500	15200.	78	25235	No
15	GOM_NL__2PRFIN20061228_004227_000000412054_00131_25235_5917.N1	28-DEC-2006 00:42:27	Bright	40.500	6	13Alp Aur	0.080000	3400.0	81	25235	No
16	GOM_NL__2PRFIN20061228_005430_000000332054_00131_25235_5918.N1	28-DEC-2006 00:54:30	Bright	33.000	49	1Alp UMi	1.9900	6300.0	66	25235	No
17	GOM_NL__2PRFIN20061228_005903_000000382054_00131_25235_5919.N1	28-DEC-2006 00:59:03	Bright	37.500	60	7Bet UMi	2.0810	3950.0	75	25235	No
18	GOM_NL__2PRFIN20061228_010245_000000362054_00131_25235_5920.N1	28-DEC-2006 01:02:45	Bright	35.500	119	14Eta Dra	2.7270	4700.0	71	25235	No
19	GOM_NL__2PRFIN20061228_011329_000000392054_00131_25235_5921.N1	28-DEC-2006 01:13:29	Bright	39.000	83		2.3780	11000.	78	25235	No
20	GOM_NL__2PRFIN20061228_011841_000000342054_00131_25235_5922.N1	28-DEC-2006 01:18:41	Bright	34.000	102	24Alp Ser	2.6000	4250.0	68	25235	No
21	GOM_NL__2PRFIN20061228_012336_000000542054_00131_25235_5923.N1	28-DEC-2006 01:23:36	Bright	54.000	104	27Bet Lib	2.6140	13100.	108	25235	No
22	GOM_NL__2PRFIN20061228_012607_000000422054_00131_25235_5924.N1	28-DEC-2006 01:26:07	Bright	42.000	122	9Alp2Lib	2.7470	9700.0	84	25235	No
23	GOM_NL__2PRFIN20061228_013253_000000422054_00131_25235_5925.N1	28-DEC-2006 01:32:53	Dark	41.500	54	5The Cen	2.0550	4500.0	83	25235	No
24	GOM_NL__2PRFIN20061228_013426_000000382054_00131_25235_5926.N1	28-DEC-2006 01:34:26	Dark	37.500	78	Alp Lup	2.3040	28000.	75	25235	No
25	GOM_NL__2PRFIN20061228_013544_000000402054_00131_25235_5927.N1	28-DEC-2006 01:35:44	Dark	39.500	95	Zet Cen	2.5450	26000.	79	25235	No
26	GOM_NL__2PRFIN20061228_013820_000000422054_00132_25236_5920.N1	28-DEC-2006 01:38:20	Dark	41.500	10	Bet Cen	0.61000	28000.	83	25236	No
27	GOM_NL__2PRFIN20061228_014122_000000422054_00132_25236_5921.N1	28-DEC-2006 01:41:22	Dark	41.500	12	Alp1Cru	0.77500	30000.	83	25236	No
28	GOM_NL__2PRFIN20061228_014442_000000402054_00132_25236_5922.N1	28-DEC-2006 01:44:42	Dark	39.500	124	The Car	2.7640	30000.	79	25236	No
29	GOM_NL__2PRFIN20061228_014648_000000382054_00132_25236_5923.N1	28-DEC-2006 01:46:48	Dark	37.500	29	Bet Car	1.6720	10200.	75	25236	No
30	GOM_NL__2PRFIN20061228_014828_000000422054_00132_25236_5924.N1	28-DEC-2006 01:48:28	Dark	42.000	91	Kap Vel	2.4900	26000.	84	25236	No
31	GOM_NL__2PRFIN20061228_015405_000000472054_00132_25236_5925.N1	28-DEC-2006 01:54:05	Dark	47.000	2	Alp Car	-0.73600	7000.0	94	25236	No
32	GOM_NL__2PRFIN20061228_015712_000000512054_00132_25236_5926.N1	28-DEC-2006 01:57:12	Dark	50.500	117	Pi Pup	2.7060	3800.0	101	25236	No
33	GOM_NL__2PRFIN20061228_015951_000000392054_00132_25236_5927.N1	28-DEC-2006 01:59:51	Straylight	39.000	108	Alp Col	2.6520	15200.	78	25236	No
34	GOM_NL__2PRFIN20061228_020404_000000452054_00132_25236_5928.N1	28-DEC-2006 02:04:04	Straylight	45.000	47	2Bet CMa	1.9760	28000.	90	25236	No
35	GOM_NL__2PRFIN20061228_020726_000000502054_00132_25236_5929.N1	28-DEC-2006 02:07:26	Straylight	50.000	7	19Bet Ori	0.10000	14000.	100	25236	No
36	GOM_NL__2PRFIN20061228_020922_000000442054_00132_25236_5930.N1	28-DEC-2006 02:09:22	Straylight	43.500	30	46Eps Ori	1.6940	30000.	87	25236	No
37	GOM_NL__2PRFIN20061228_021201_000000562054_00132_25236_5931.N1	28-DEC-2006 02:12:01	Twilight_stray	56.000	14	58Alp Ori	0.87000	3000.0	112	25236	No
38	GOM_NL__2PRFIN20061228_021437_000000522054_00132_25236_5932.N1	28-DEC-2006 02:14:37	Bright	52.000	13	87Alp Tau	0.86700	3800.0	104	25236	No
39	GOM_NL__2PRFIN20061228_021601_000000452054_00132_25236_5933.N1	28-DEC-2006 02:16:01	Bright	44.500	176	23Zet Tau	3.0200	22000.	89	25236	No
40	GOM_NL__2PRFIN20061228_021807_000000402054_00132_25236_5934.N1	28-DEC-2006 02:18:07	Bright	39.500	28	12Bet Tau	1.6500	15200.	79	25236	No
41	GOM_NL__2PRFIN20061228_022303_000000442054_00132_25236_5935.N1	28-DEC-2006 02:23:03	Bright	43.500	6	13Alp Aur	0.080000	3400.0	87	25236	No
42	GOM_NL__2PRFIN20061228_023506_000000332054_00132_25236_5936.N1	28-DEC-2006 02:35:06	Bright	32.500	49	1Alp UMi	1.9900	6300.0	65	25236	No











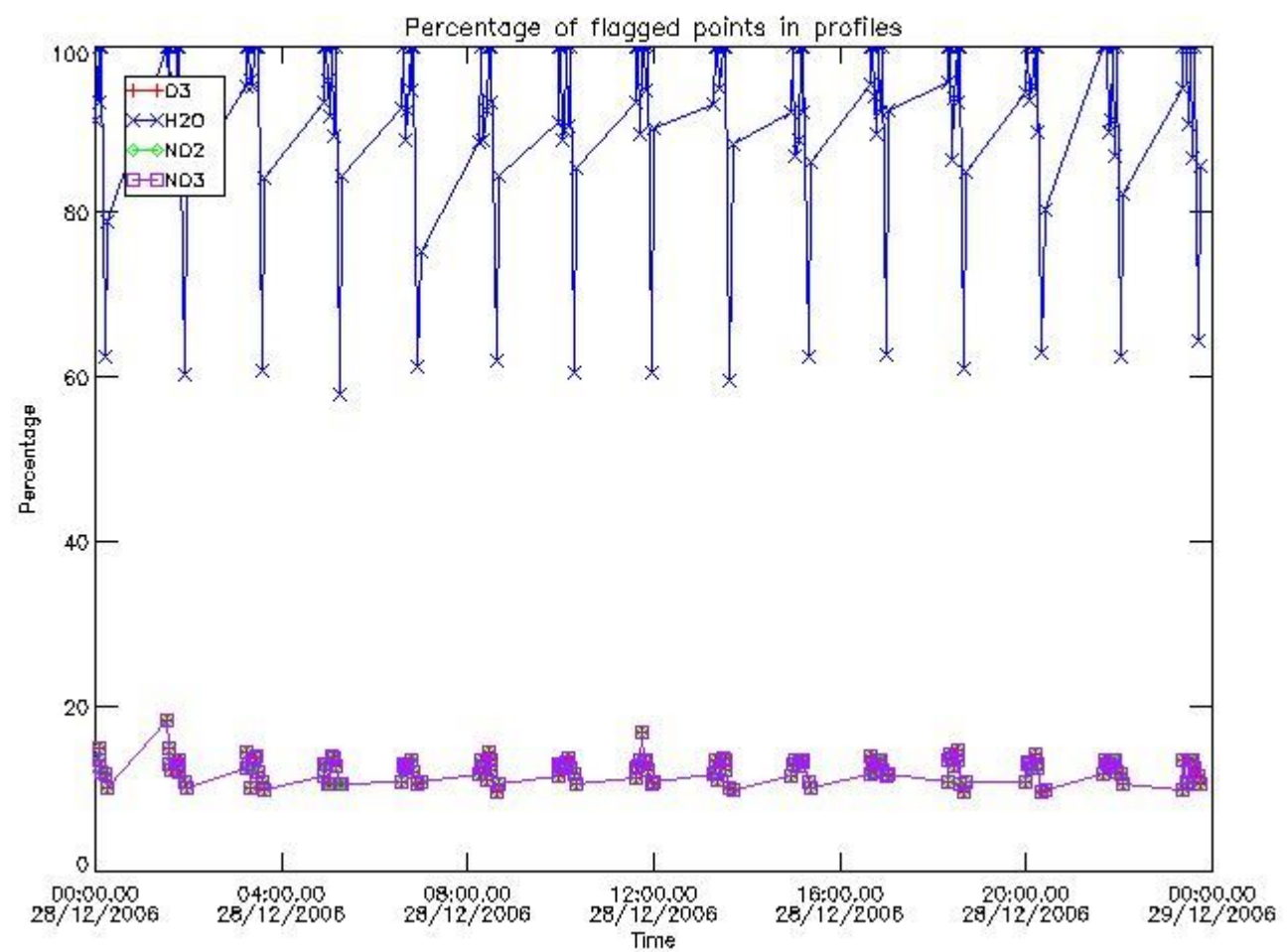
338	GOM_NL__2PRFIN20061228_214535_000000392054_00144_25248_6210.N1	28-DEC-2006 21:45:35	Dark	39.000	10	Bet Cen	0.61000	28000.	78	25248	No
339	GOM_NL__2PRFIN20061228_214840_000000402054_00144_25248_6211.N1	28-DEC-2006 21:48:40	Dark	40.000	12	Alp1Cru	0.77500	30000.	80	25248	No
340	GOM_NL__2PRFIN20061228_215200_000000382054_00144_25248_6212.N1	28-DEC-2006 21:52:00	Dark	38.000	124	The Car	2.7640	30000.	76	25248	No
341	GOM_NL__2PRFIN20061228_215404_000000382054_00144_25248_6213.N1	28-DEC-2006 21:54:04	Dark	38.000	29	Bet Car	1.6720	10200.	76	25248	No
342	GOM_NL__2PRFIN20061228_215547_000000432054_00144_25248_6214.N1	28-DEC-2006 21:55:47	Dark	42.500	91	Kap Vel	2.4900	26000.	85	25248	No
343	GOM_NL__2PRFIN20061228_220120_000000432054_00144_25248_6215.N1	28-DEC-2006 22:01:20	Dark	43.000	2	Alp Car	-0.73600	7000.0	86	25248	No
344	GOM_NL__2PRFIN20061228_220429_000000482054_00144_25248_6216.N1	28-DEC-2006 22:04:29	Dark	48.000	117	Pi Pup	2.7060	3800.0	96	25248	No
345	GOM_NL__2PRFIN20061228_220705_000000392054_00144_25248_6217.N1	28-DEC-2006 22:07:05	Straylight	39.000	108	Alp Col	2.6520	15200.	78	25248	No
346	GOM_NL__2PRFIN20061228_221117_000000432054_00144_25248_6218.N1	28-DEC-2006 22:11:17	Straylight	43.000	47	2Bet CMa	1.9760	28000.	86	25248	No
347	GOM_NL__2PRFIN20061228_221438_000000442054_00144_25248_6219.N1	28-DEC-2006 22:14:38	Straylight	44.000	7	19Bet Ori	0.10000	14000.	88	25248	No
348	GOM_NL__2PRFIN20061228_221634_000000452054_00144_25248_6220.N1	28-DEC-2006 22:16:34	Straylight	45.000	30	46Eps Ori	1.6940	30000.	90	25248	No
349	GOM_NL__2PRFIN20061228_221911_000000572054_00144_25248_6221.N1	28-DEC-2006 22:19:11	Tw_i_and_stray	57.000	14	58Alp Ori	0.87000	3000.0	114	25248	No
350	GOM_NL__2PRFIN20061228_222149_000000522054_00144_25248_6222.N1	28-DEC-2006 22:21:49	Bright	52.000	13	87Alp Tau	0.86700	3800.0	104	25248	No
351	GOM_NL__2PRFIN20061228_222311_000000422054_00144_25248_6223.N1	28-DEC-2006 22:23:11	Bright	42.000	176	23Zet Tau	3.0200	22000.	84	25248	No
352	GOM_NL__2PRFIN20061228_222517_000000372054_00144_25248_6224.N1	28-DEC-2006 22:25:17	Bright	37.000	28	12Bet Tau	1.6500	15200.	74	25248	No
353	GOM_NL__2PRFIN20061228_223012_000000402054_00144_25248_6225.N1	28-DEC-2006 22:30:12	Bright	40.000	6	13Alp Aur	0.080000	3400.0	80	25248	No
354	GOM_NL__2PRFIN20061228_224217_000000322054_00144_25248_6226.N1	28-DEC-2006 22:42:17	Bright	32.000	49	1Alp UMi	1.9900	6300.0	64	25248	No
355	GOM_NL__2PRFIN20061228_224649_000000372054_00144_25248_6227.N1	28-DEC-2006 22:46:49	Bright	37.000	60	7Bet UMi	2.0810	3950.0	74	25248	No
356	GOM_NL__2PRFIN20061228_225033_000000362054_00144_25248_6228.N1	28-DEC-2006 22:50:33	Bright	36.000	119	14Eta Dra	2.7270	4700.0	72	25248	No
357	GOM_NL__2PRFIN20061228_230052_000000362054_00144_25248_6229.N1	28-DEC-2006 23:00:52	Bright	35.500	67	5Alp CrB	2.2210	11000.	71	25248	No
358	GOM_NL__2PRFIN20061228_230631_000000352054_00144_25248_6230.N1	28-DEC-2006 23:06:31	Bright	34.500	102	24Alp Ser	2.6000	4250.0	69	25248	No
359	GOM_NL__2PRFIN20061228_231128_000000362054_00144_25248_6231.N1	28-DEC-2006 23:11:28	Bright	36.000	104	27Bet Lib	2.6140	13100.	72	25248	No
360	GOM_NL__2PRFIN20061228_231401_000000442054_00144_25248_6232.N1	28-DEC-2006 23:14:01	Tw_i_and_stray	44.000	122	9Alp2Lib	2.7470	9700.0	88	25248	No
361	GOM_NL__2PRFIN20061228_232049_000000512054_00144_25248_6233.N1	28-DEC-2006 23:20:49	Dark	51.000	54	5The Cen	2.0550	4500.0	102	25248	No
362	GOM_NL__2PRFIN20061228_232218_000000382054_00144_25248_6234.N1	28-DEC-2006 23:22:18	Dark	37.500	78	Alp Lup	2.3040	28000.	75	25248	No
363	GOM_NL__2PRFIN20061228_232612_000000472054_00145_25249_2045.N1	28-DEC-2006 23:26:12	Dark	47.000	10	Bet Cen	0.61000	28000.	94	25249	No
364	GOM_NL__2PRFIN20061228_232916_000000492054_00145_25249_2046.N1	28-DEC-2006 23:29:16	Dark	48.500	12	Alp1Cru	0.77500	30000.	97	25249	No
365	GOM_NL__2PRFIN20061228_233236_000000382054_00145_25249_2047.N1	28-DEC-2006 23:32:36	Dark	38.000	124	The Car	2.7640	30000.	76	25249	No
366	GOM_NL__2PRFIN20061228_233440_000000382054_00145_25249_2048.N1	28-DEC-2006 23:34:40	Dark	37.500	29	Bet Car	1.6720	10200.	75	25249	No
367	GOM_NL__2PRFIN20061228_233623_000000412054_00145_25249_2049.N1	28-DEC-2006 23:36:23	Dark	41.000	91	Kap Vel	2.4900	26000.	82	25249	No
368	GOM_NL__2PRFIN20061228_234156_000000482054_00145_25249_2050.N1	28-DEC-2006 23:41:56	Dark	48.000	2	Alp Car	-0.73600	7000.0	96	25249	No
369	GOM_NL__2PRFIN20061228_234505_000000492054_00145_25249_2051.N1	28-DEC-2006 23:45:05	Dark	48.500	117	Pi Pup	2.7060	3800.0	97	25249	No
370	GOM_NL__2PRFIN20061228_234741_000000412054_00145_25249_2052.N1	28-DEC-2006 23:47:41	Straylight	40.500	108	Alp Col	2.6520	15200.	81	25249	No
371	GOM_NL__2PRFIN20061228_235153_000000442054_00145_25249_2053.N1	28-DEC-2006 23:51:53	Straylight	44.000	47	2Bet CMa	1.9760	28000.	88	25249	No
372	GOM_NL__2PRFIN20061228_235514_000000452054_00145_25249_2054.N1	28-DEC-2006 23:55:14	Straylight	44.500	7	19Bet Ori	0.10000	14000.	89	25249	No
373	GOM_NL__2PRFIN20061228_235710_000000452054_00145_25249_2055.N1	28-DEC-2006 23:57:10	Straylight	45.000	30	46Eps Ori	1.6940	30000.	90	25249	No
374	GOM_NL__2PRFIN20061228_235947_000000572054_00145_25249_2056.N1	28-DEC-2006 23:59:47	Tw_i_and_stray	57.000	14	58Alp Ori	0.87000	3000.0	114	25249	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.

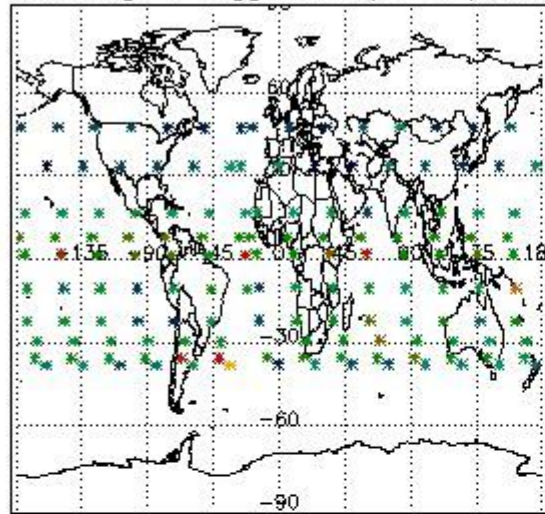
#### 3.1 Plot quality information per product (time dependant)



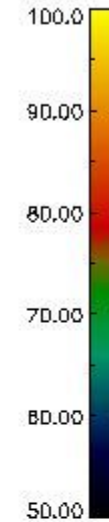
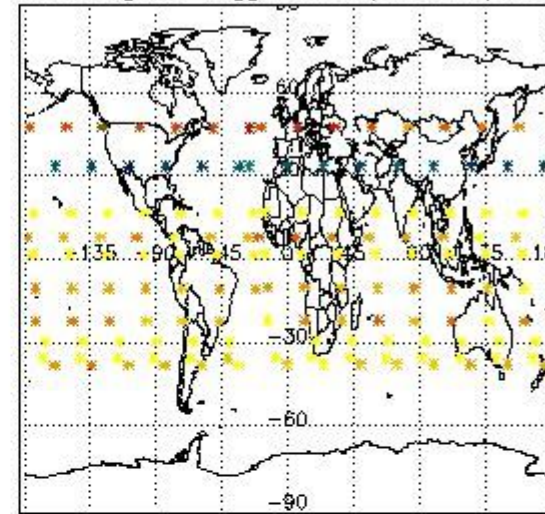


*3.2 Plot quality information per product (world map)*

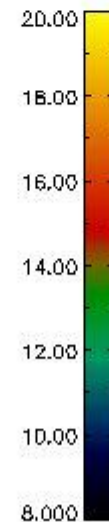
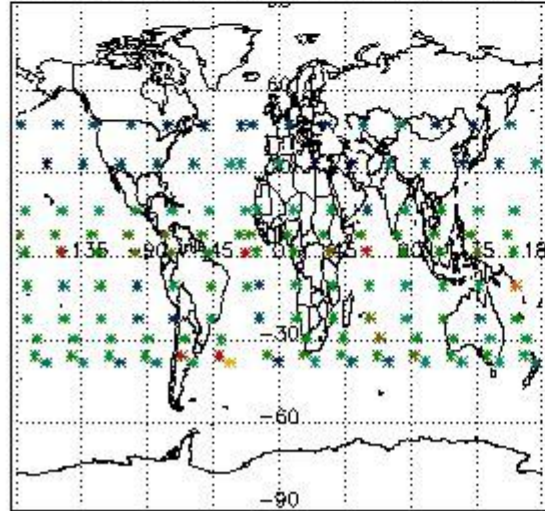
Percentage of flagged data per O3 profile



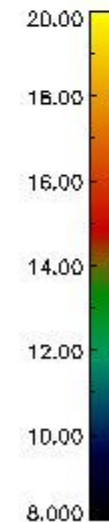
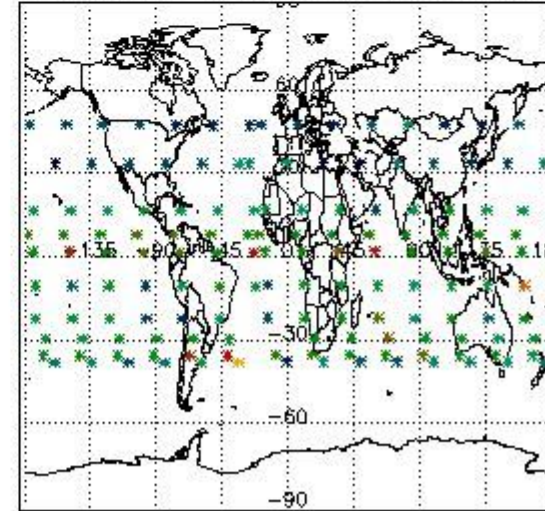
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

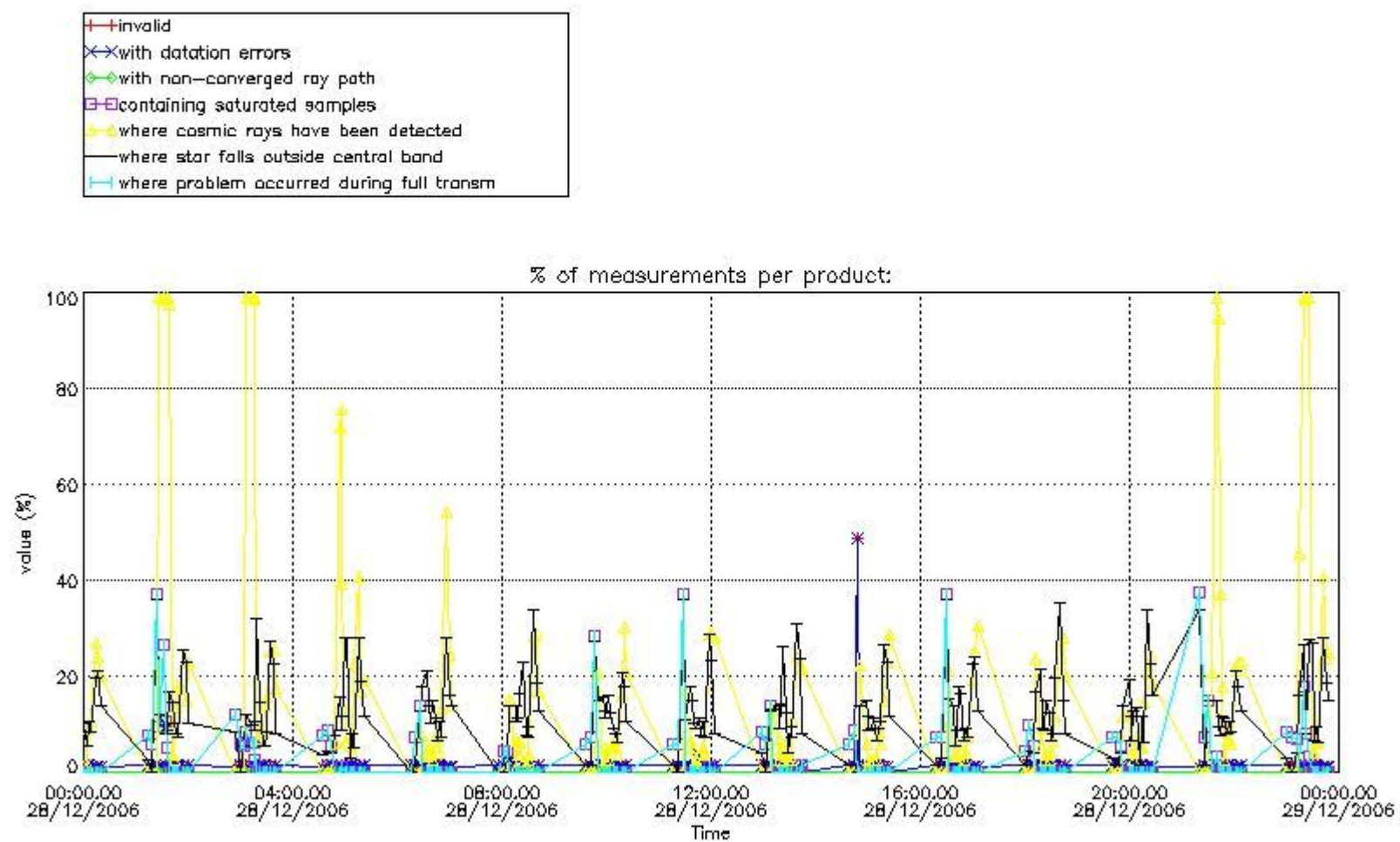


#### 4. Level 1 quality information per product

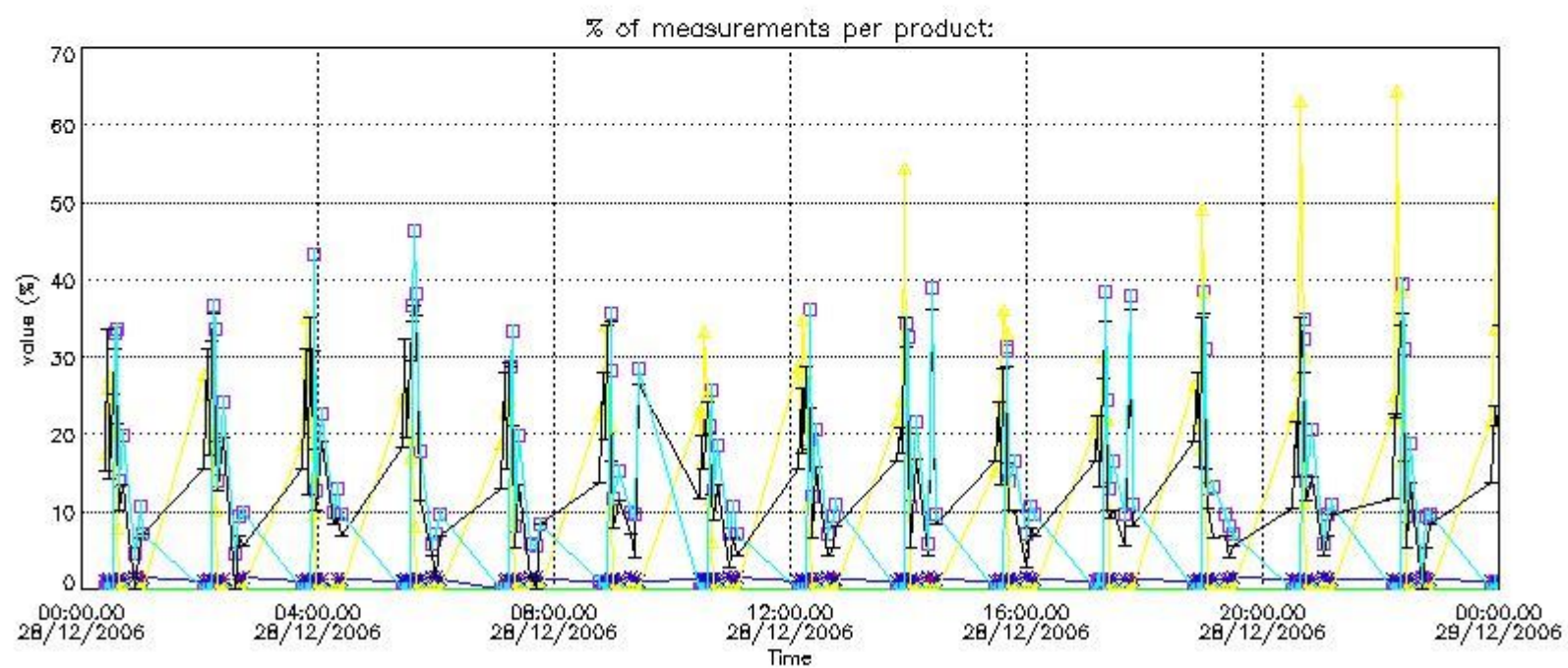
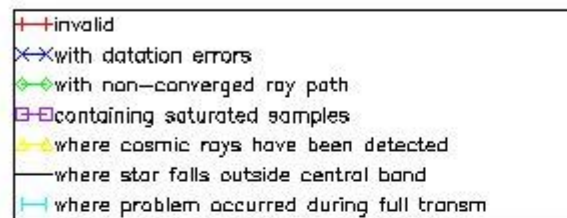
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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

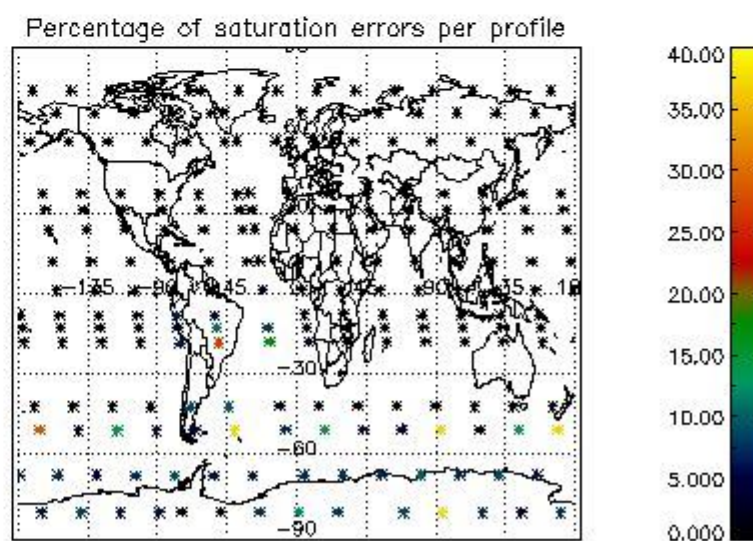
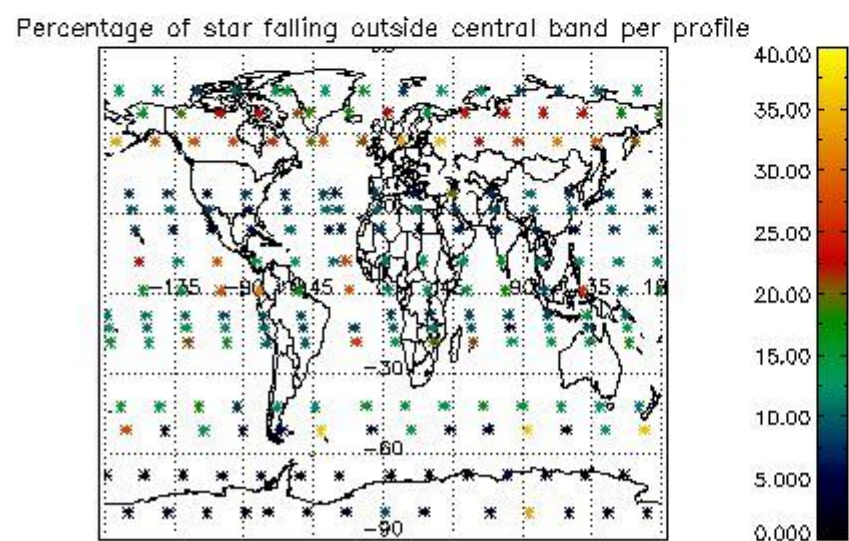
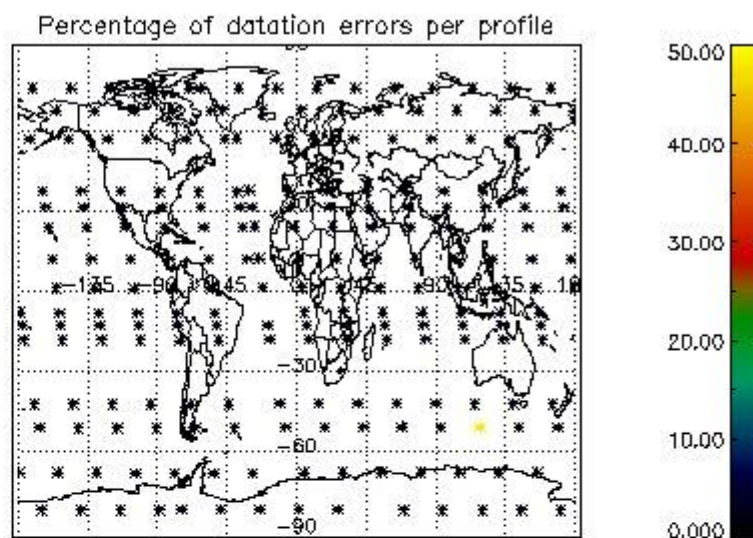
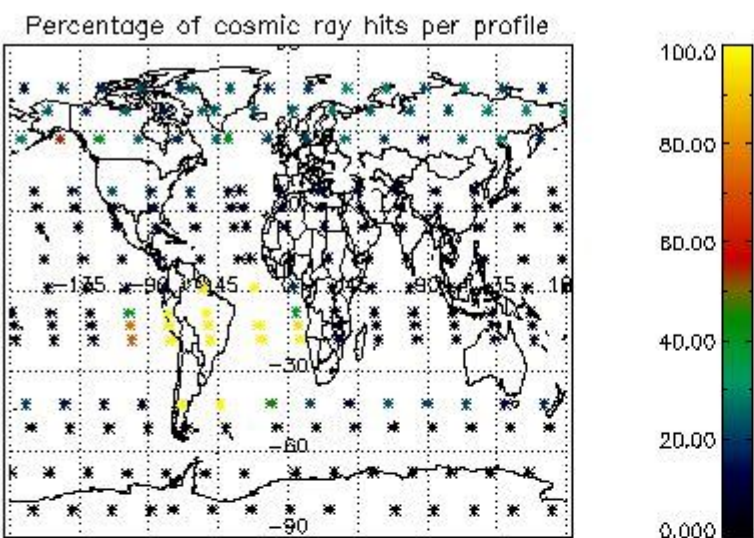


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

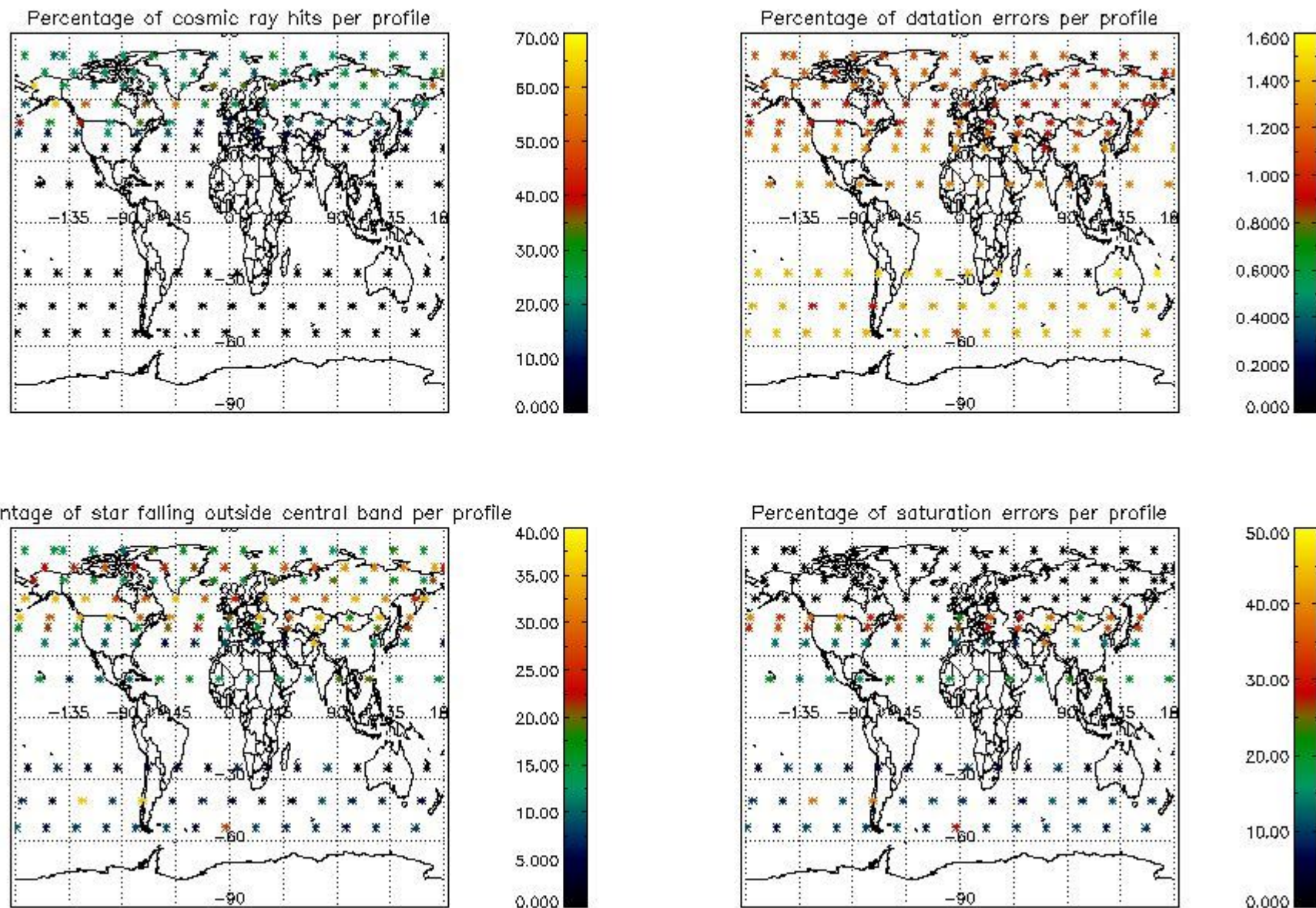


#### 4.2 Plot quality information per product coming from level 1b processing (world map)

##### 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

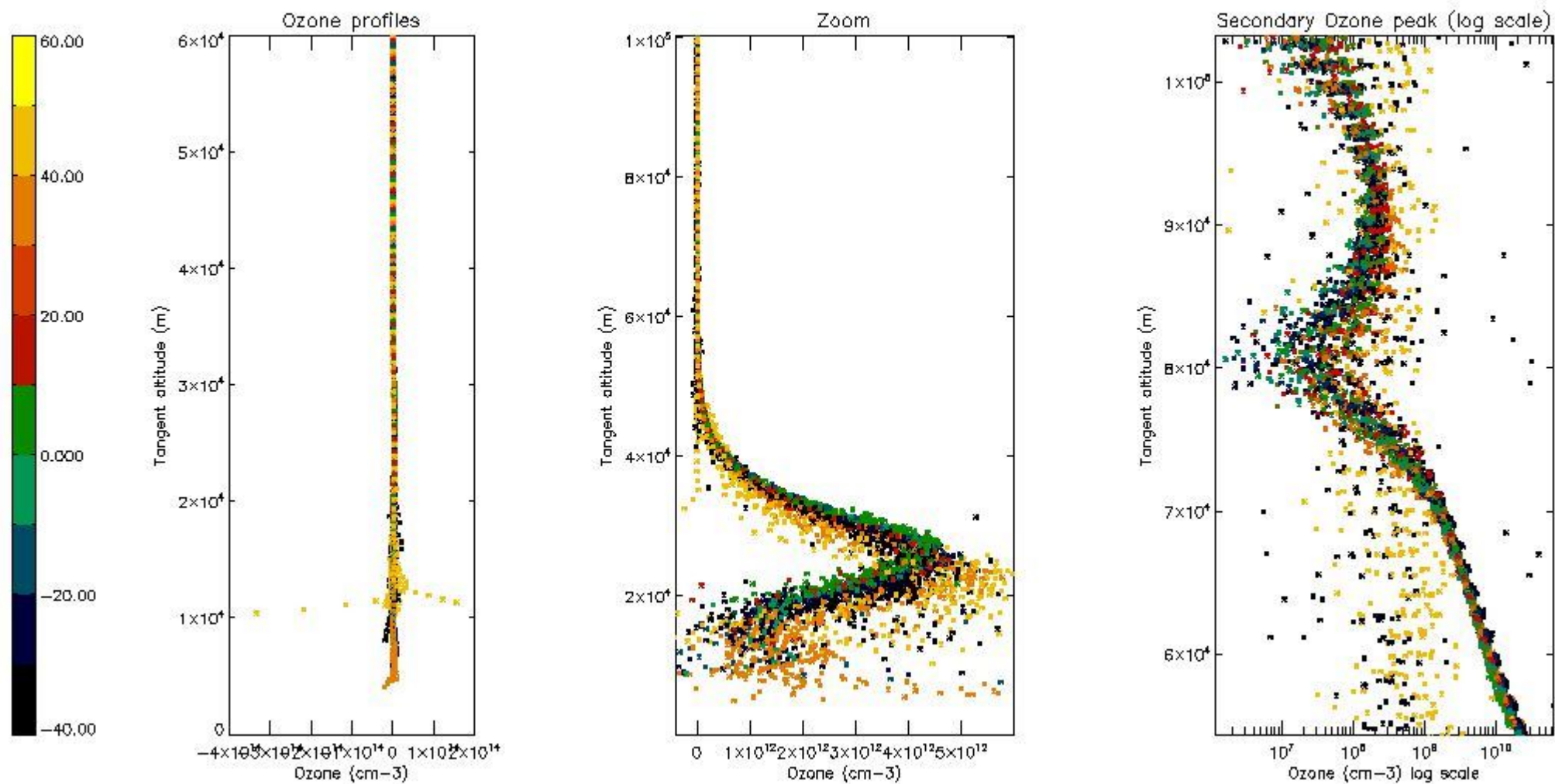
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	40
STD < 20	23

STD < 10	19
STD < 5	14

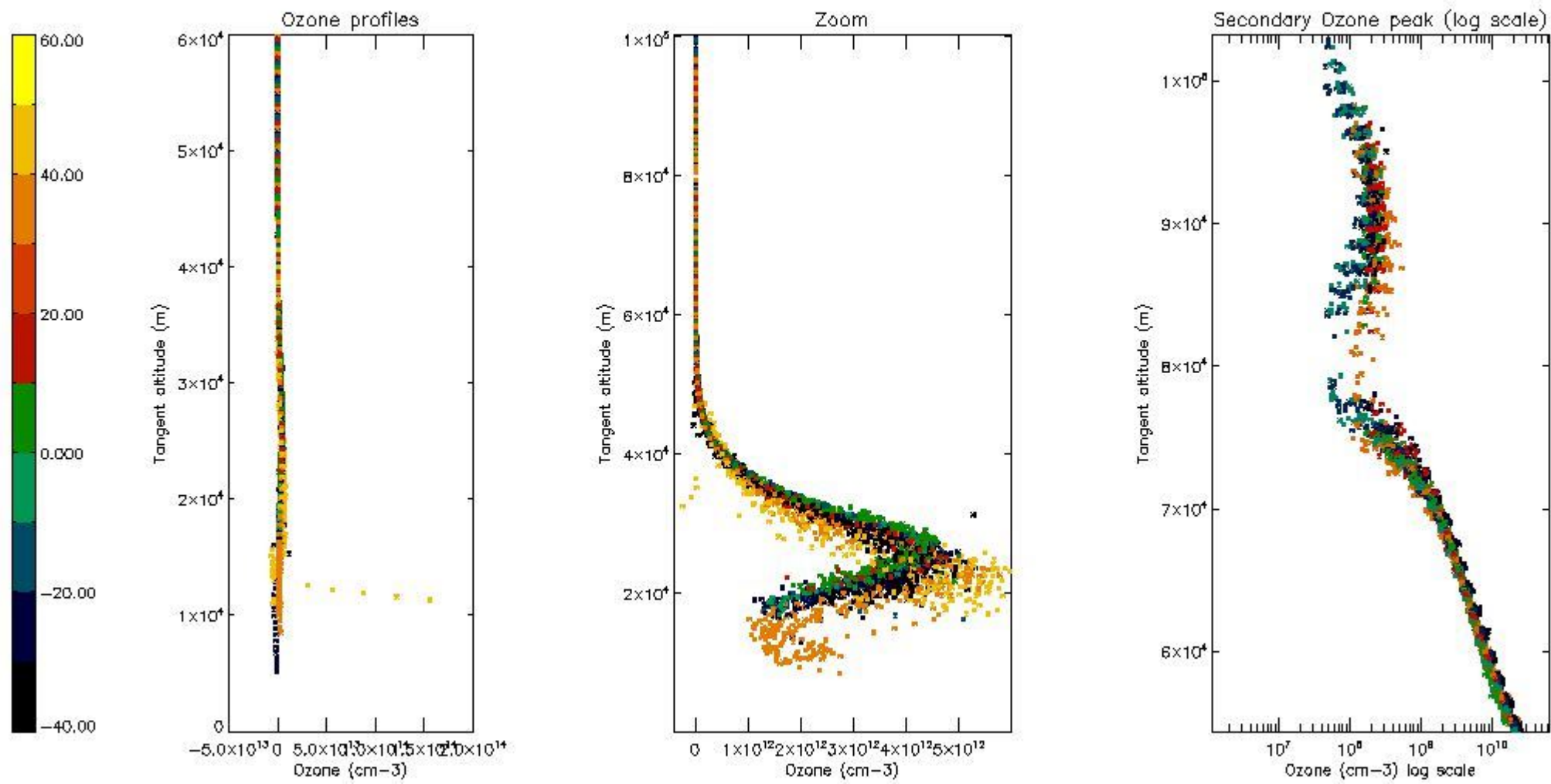
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

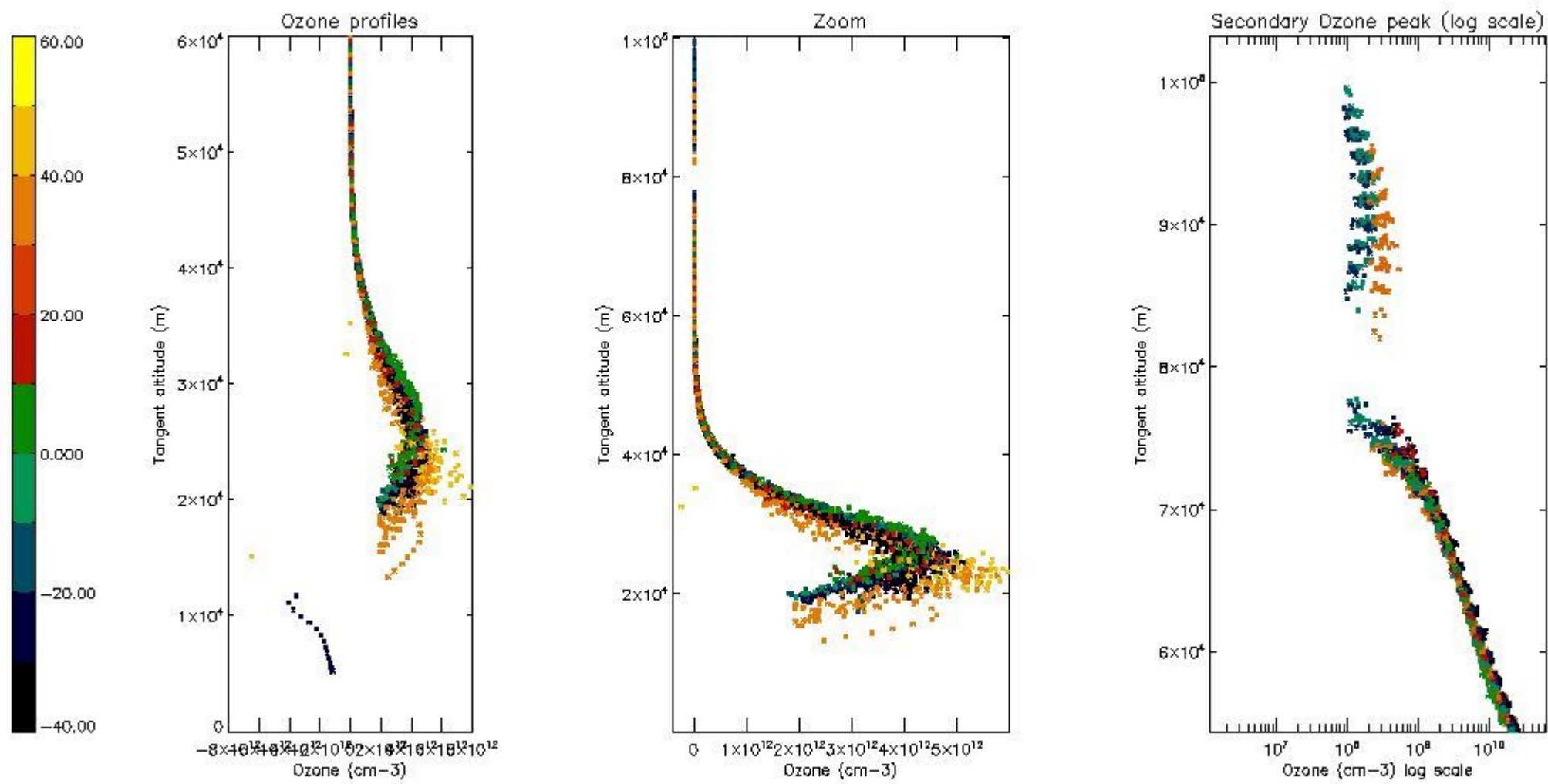
The colorbar represents the latitude.



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

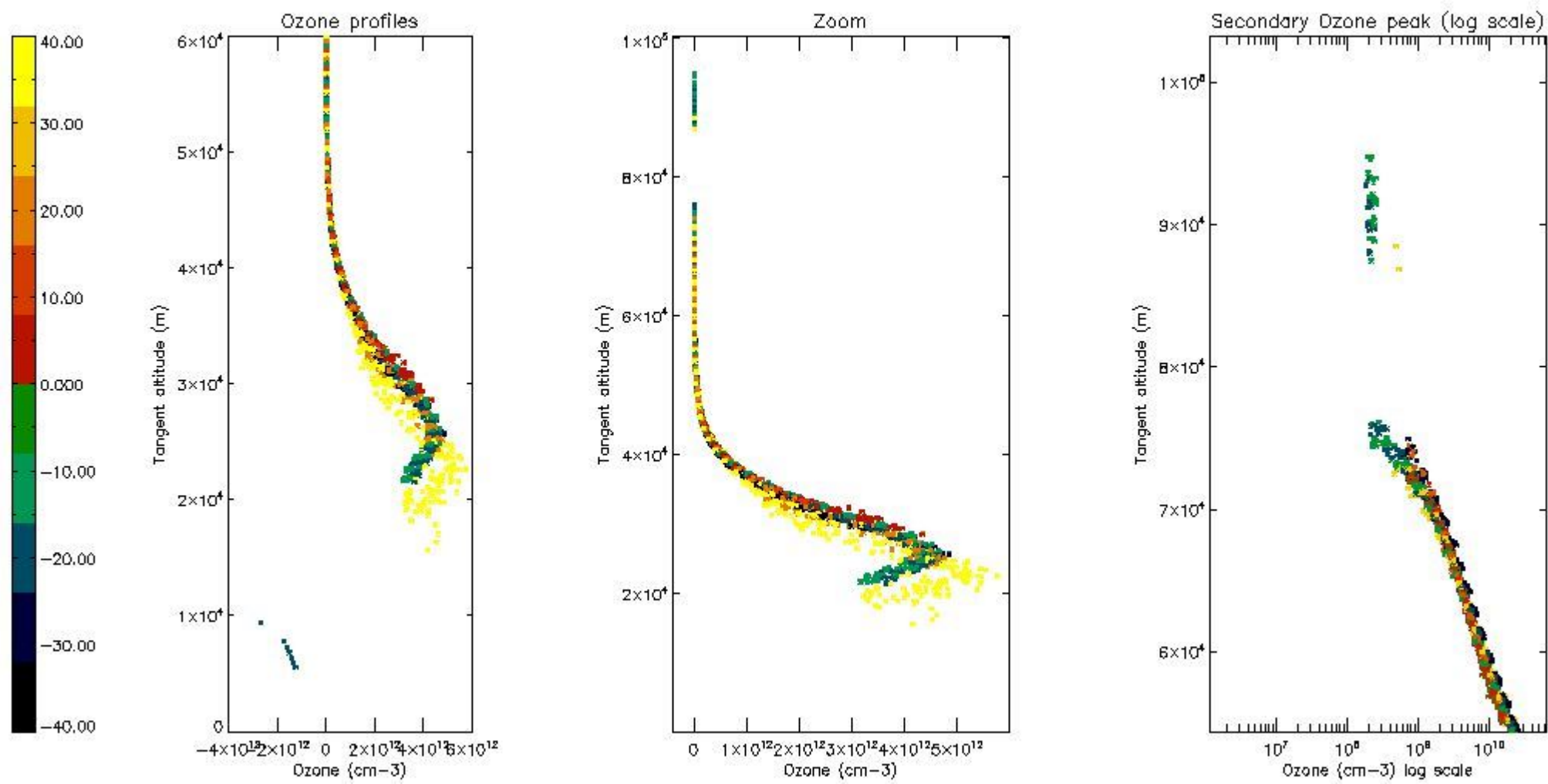
The colorbar represents the latitude.





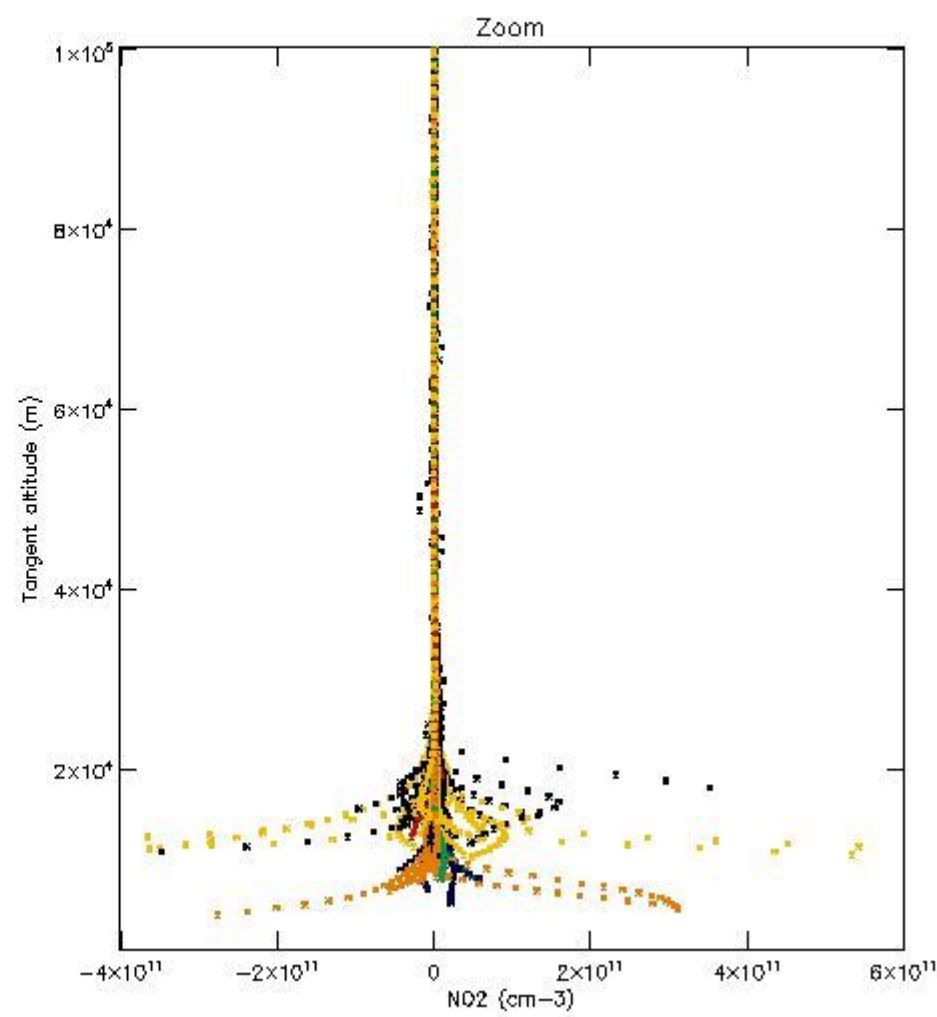
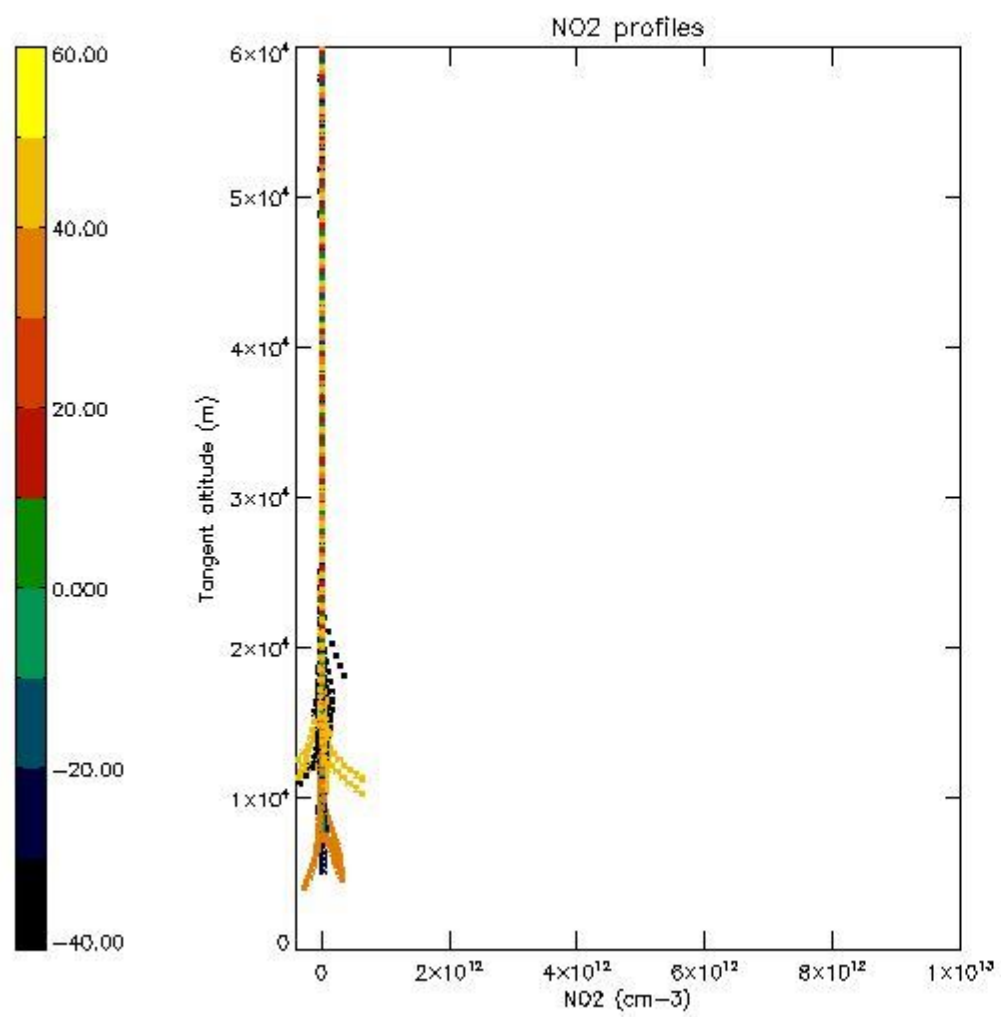
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



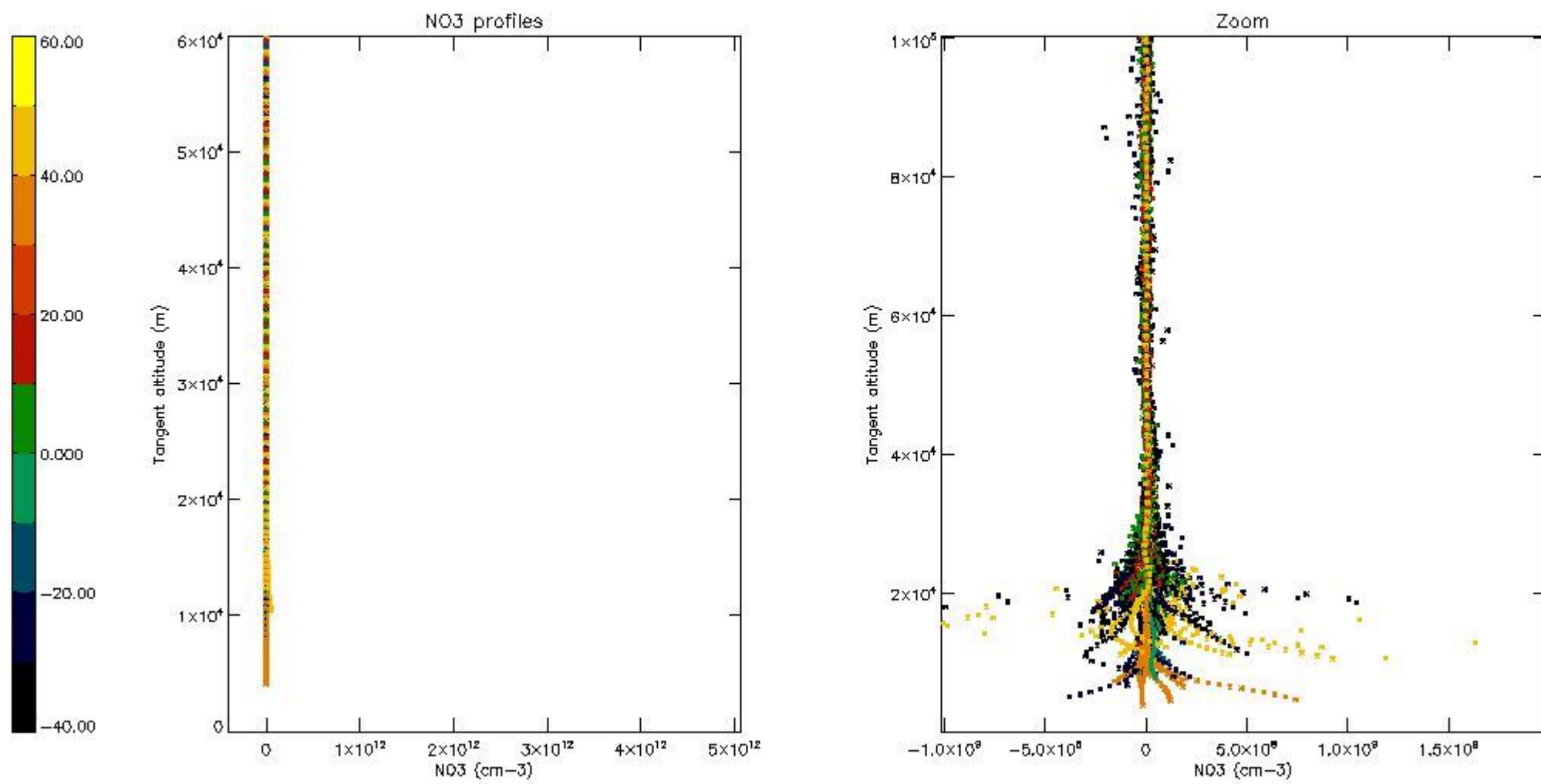
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



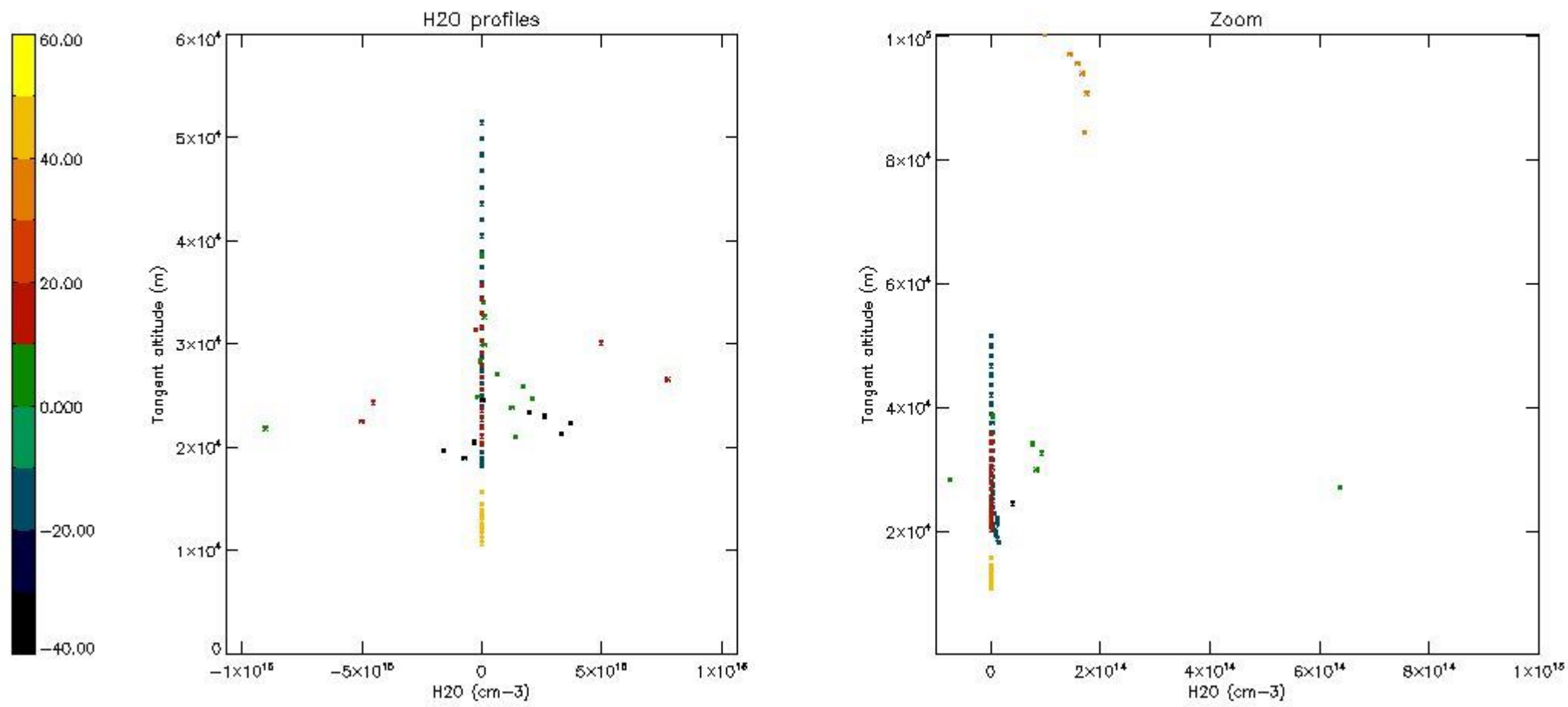
*5.7 Plot NO3 profiles for all STD (dark without errors)*

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	28-DEC-2006 00:00:46
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	28-DEC-2006 00:00:46
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	28-DEC-2006 00:00:46

# 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](#)













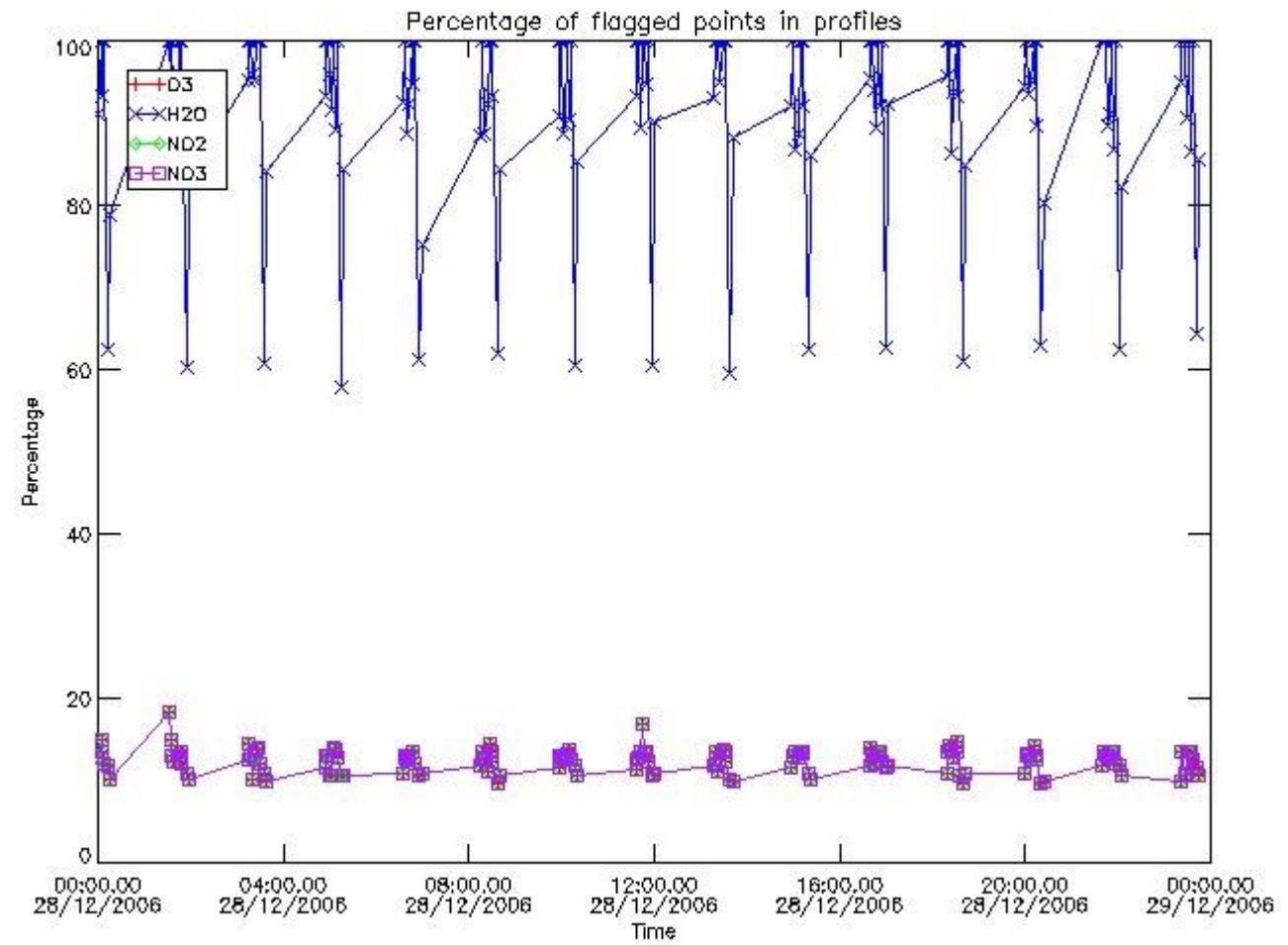


338	GOM_NL__2PRFIN20061228_214535_000000392054_00144_25248_6210.N1	28-DEC-2006 21:45:35	Dark	39.000	10	Bet Cen	0.61000	28000.	78	25248	No
339	GOM_NL__2PRFIN20061228_214840_000000402054_00144_25248_6211.N1	28-DEC-2006 21:48:40	Dark	40.000	12	Alp1Cru	0.77500	30000.	80	25248	No
340	GOM_NL__2PRFIN20061228_215200_000000382054_00144_25248_6212.N1	28-DEC-2006 21:52:00	Dark	38.000	124	The Car	2.7640	30000.	76	25248	No
341	GOM_NL__2PRFIN20061228_215404_000000382054_00144_25248_6213.N1	28-DEC-2006 21:54:04	Dark	38.000	29	Bet Car	1.6720	10200.	76	25248	No
342	GOM_NL__2PRFIN20061228_215547_000000432054_00144_25248_6214.N1	28-DEC-2006 21:55:47	Dark	42.500	91	Kap Vel	2.4900	26000.	85	25248	No
343	GOM_NL__2PRFIN20061228_220120_000000432054_00144_25248_6215.N1	28-DEC-2006 22:01:20	Dark	43.000	2	Alp Car	-0.73600	7000.0	86	25248	No
344	GOM_NL__2PRFIN20061228_220429_000000482054_00144_25248_6216.N1	28-DEC-2006 22:04:29	Dark	48.000	117	Pi Pup	2.7060	3800.0	96	25248	No
345	GOM_NL__2PRFIN20061228_220705_000000392054_00144_25248_6217.N1	28-DEC-2006 22:07:05	Straylight	39.000	108	Alp Col	2.6520	15200.	78	25248	No
346	GOM_NL__2PRFIN20061228_221117_000000432054_00144_25248_6218.N1	28-DEC-2006 22:11:17	Straylight	43.000	47	2Bet CMa	1.9760	28000.	86	25248	No
347	GOM_NL__2PRFIN20061228_221438_000000442054_00144_25248_6219.N1	28-DEC-2006 22:14:38	Straylight	44.000	7	19Bet Ori	0.10000	14000.	88	25248	No
348	GOM_NL__2PRFIN20061228_221634_000000452054_00144_25248_6220.N1	28-DEC-2006 22:16:34	Straylight	45.000	30	46Eps Ori	1.6940	30000.	90	25248	No
349	GOM_NL__2PRFIN20061228_221911_000000572054_00144_25248_6221.N1	28-DEC-2006 22:19:11	Tw_i_and_stray	57.000	14	58Alp Ori	0.87000	3000.0	114	25248	No
350	GOM_NL__2PRFIN20061228_222149_000000522054_00144_25248_6222.N1	28-DEC-2006 22:21:49	Bright	52.000	13	87Alp Tau	0.86700	3800.0	104	25248	No
351	GOM_NL__2PRFIN20061228_222311_000000422054_00144_25248_6223.N1	28-DEC-2006 22:23:11	Bright	42.000	176	23Zet Tau	3.0200	22000.	84	25248	No
352	GOM_NL__2PRFIN20061228_222517_000000372054_00144_25248_6224.N1	28-DEC-2006 22:25:17	Bright	37.000	28	12Bet Tau	1.6500	15200.	74	25248	No
353	GOM_NL__2PRFIN20061228_223012_000000402054_00144_25248_6225.N1	28-DEC-2006 22:30:12	Bright	40.000	6	13Alp Aur	0.080000	3400.0	80	25248	No
354	GOM_NL__2PRFIN20061228_224217_000000322054_00144_25248_6226.N1	28-DEC-2006 22:42:17	Bright	32.000	49	1Alp UMi	1.9900	6300.0	64	25248	No
355	GOM_NL__2PRFIN20061228_224649_000000372054_00144_25248_6227.N1	28-DEC-2006 22:46:49	Bright	37.000	60	7Bet UMi	2.0810	3950.0	74	25248	No
356	GOM_NL__2PRFIN20061228_225033_000000362054_00144_25248_6228.N1	28-DEC-2006 22:50:33	Bright	36.000	119	14Eta Dra	2.7270	4700.0	72	25248	No
357	GOM_NL__2PRFIN20061228_230052_000000362054_00144_25248_6229.N1	28-DEC-2006 23:00:52	Bright	35.500	67	5Alp CrB	2.2210	11000.	71	25248	No
358	GOM_NL__2PRFIN20061228_230631_000000352054_00144_25248_6230.N1	28-DEC-2006 23:06:31	Bright	34.500	102	24Alp Ser	2.6000	4250.0	69	25248	No
359	GOM_NL__2PRFIN20061228_231128_000000362054_00144_25248_6231.N1	28-DEC-2006 23:11:28	Bright	36.000	104	27Bet Lib	2.6140	13100.	72	25248	No
360	GOM_NL__2PRFIN20061228_231401_000000442054_00144_25248_6232.N1	28-DEC-2006 23:14:01	Tw_i_and_stray	44.000	122	9Alp2Lib	2.7470	9700.0	88	25248	No
361	GOM_NL__2PRFIN20061228_232049_000000512054_00144_25248_6233.N1	28-DEC-2006 23:20:49	Dark	51.000	54	5The Cen	2.0550	4500.0	102	25248	No
362	GOM_NL__2PRFIN20061228_232218_000000382054_00144_25248_6234.N1	28-DEC-2006 23:22:18	Dark	37.500	78	Alp Lup	2.3040	28000.	75	25248	No
363	GOM_NL__2PRFIN20061228_232612_000000472054_00145_25249_2045.N1	28-DEC-2006 23:26:12	Dark	47.000	10	Bet Cen	0.61000	28000.	94	25249	No
364	GOM_NL__2PRFIN20061228_232916_000000492054_00145_25249_2046.N1	28-DEC-2006 23:29:16	Dark	48.500	12	Alp1Cru	0.77500	30000.	97	25249	No
365	GOM_NL__2PRFIN20061228_233236_000000382054_00145_25249_2047.N1	28-DEC-2006 23:32:36	Dark	38.000	124	The Car	2.7640	30000.	76	25249	No
366	GOM_NL__2PRFIN20061228_233440_000000382054_00145_25249_2048.N1	28-DEC-2006 23:34:40	Dark	37.500	29	Bet Car	1.6720	10200.	75	25249	No
367	GOM_NL__2PRFIN20061228_233623_000000412054_00145_25249_2049.N1	28-DEC-2006 23:36:23	Dark	41.000	91	Kap Vel	2.4900	26000.	82	25249	No
368	GOM_NL__2PRFIN20061228_234156_000000482054_00145_25249_2050.N1	28-DEC-2006 23:41:56	Dark	48.000	2	Alp Car	-0.73600	7000.0	96	25249	No
369	GOM_NL__2PRFIN20061228_234505_000000492054_00145_25249_2051.N1	28-DEC-2006 23:45:05	Dark	48.500	117	Pi Pup	2.7060	3800.0	97	25249	No
370	GOM_NL__2PRFIN20061228_234741_000000412054_00145_25249_2052.N1	28-DEC-2006 23:47:41	Straylight	40.500	108	Alp Col	2.6520	15200.	81	25249	No
371	GOM_NL__2PRFIN20061228_235153_000000442054_00145_25249_2053.N1	28-DEC-2006 23:51:53	Straylight	44.000	47	2Bet CMa	1.9760	28000.	88	25249	No
372	GOM_NL__2PRFIN20061228_235514_000000452054_00145_25249_2054.N1	28-DEC-2006 23:55:14	Straylight	44.500	7	19Bet Ori	0.10000	14000.	89	25249	No
373	GOM_NL__2PRFIN20061228_235710_000000452054_00145_25249_2055.N1	28-DEC-2006 23:57:10	Straylight	45.000	30	46Eps Ori	1.6940	30000.	90	25249	No
374	GOM_NL__2PRFIN20061228_235947_000000572054_00145_25249_2056.N1	28-DEC-2006 23:59:47	Tw_i_and_stray	57.000	14	58Alp Ori	0.87000	3000.0	114	25249	No

### 3. Quality information per product

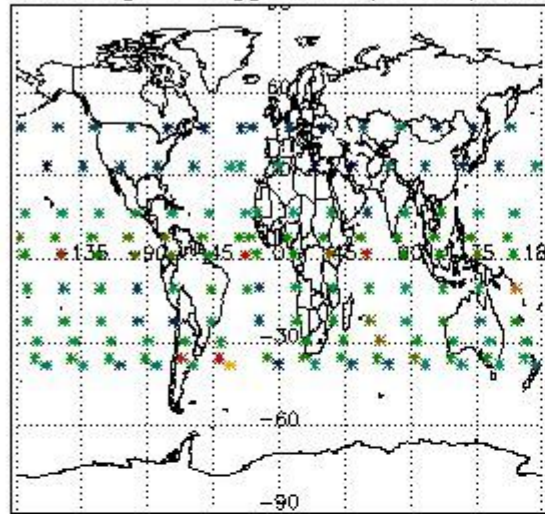
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

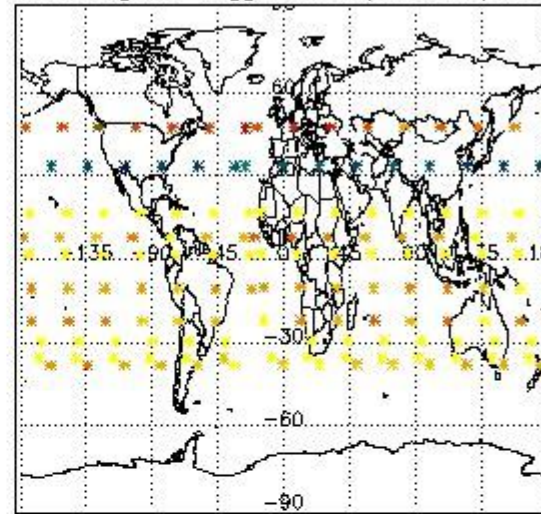


3.2 Plot quality information per product (world map)

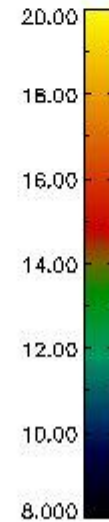
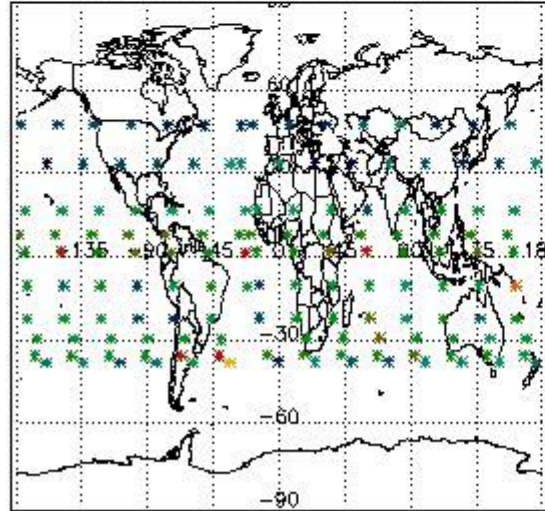
Percentage of flagged data per O3 profile



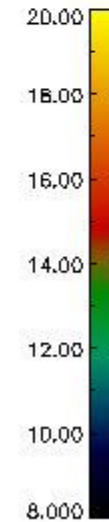
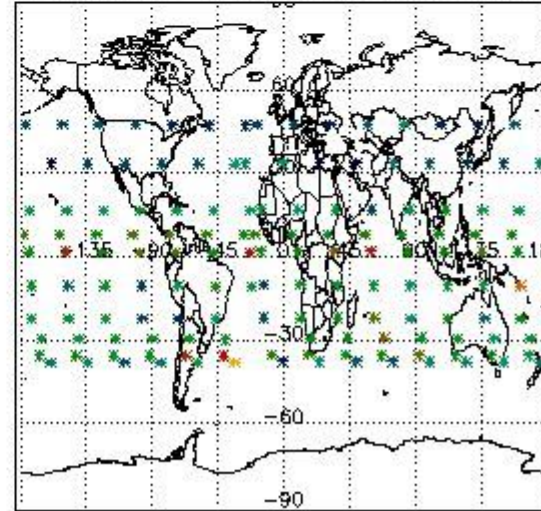
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

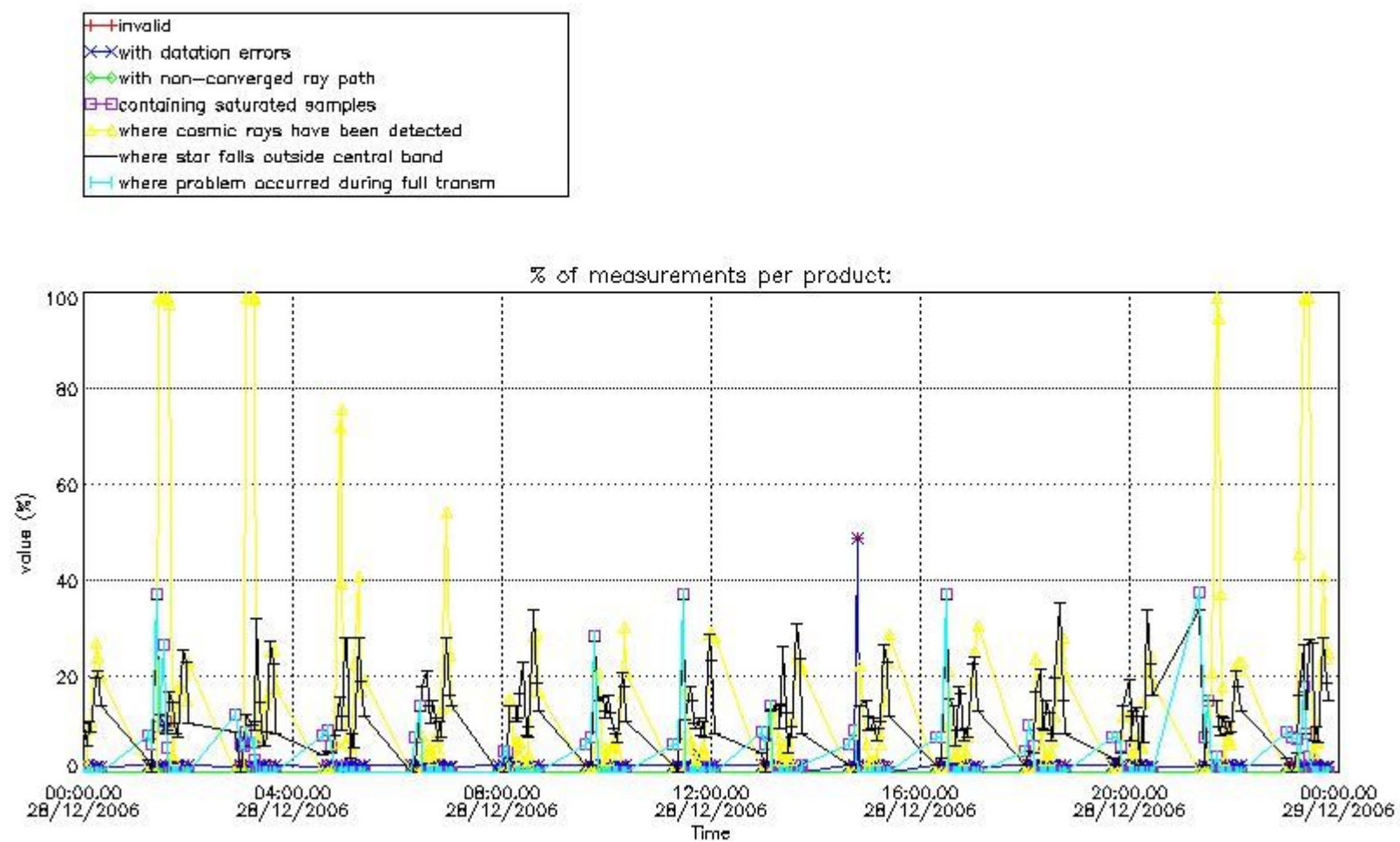


#### 4. Level 1 quality information per product

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.

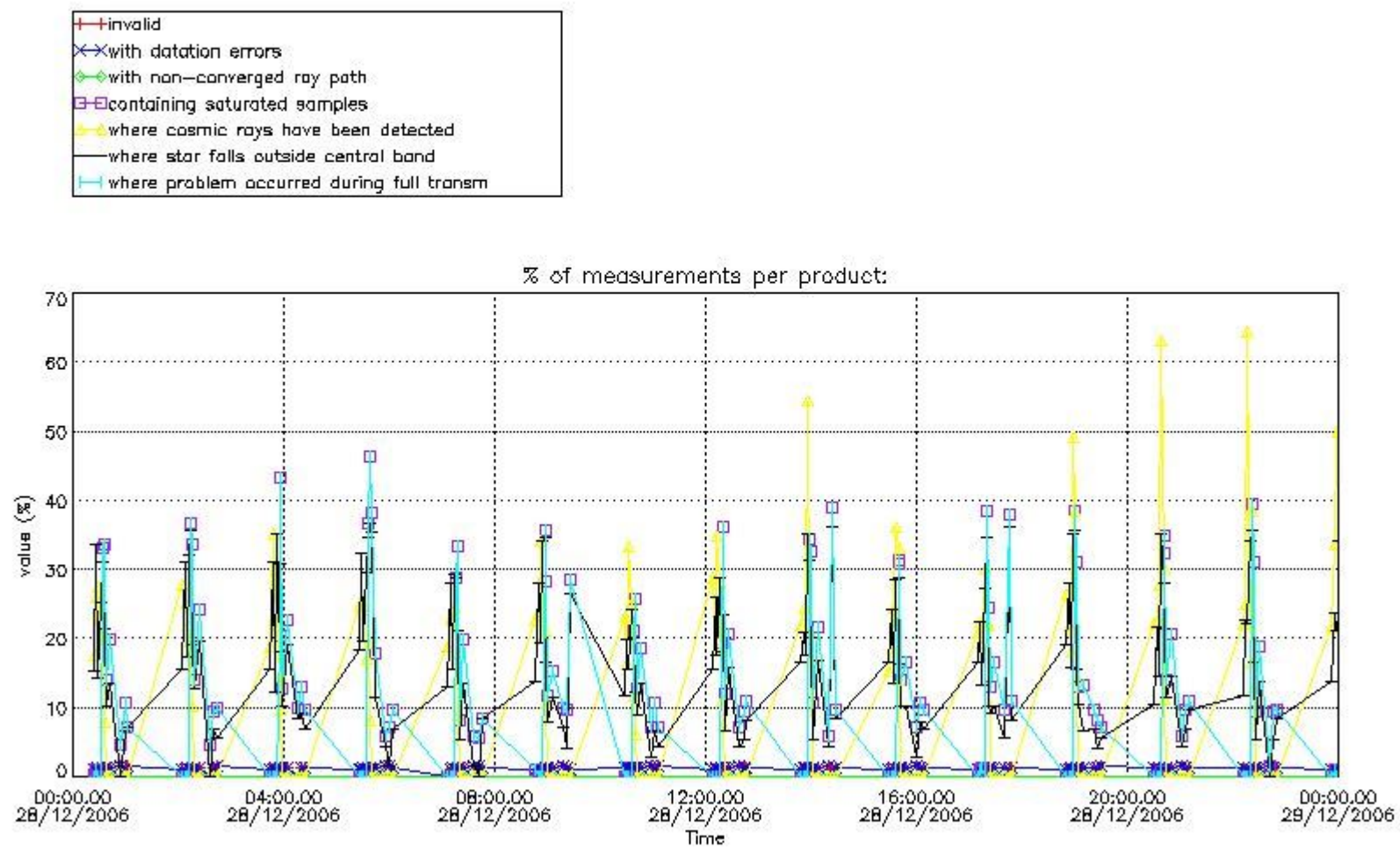
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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

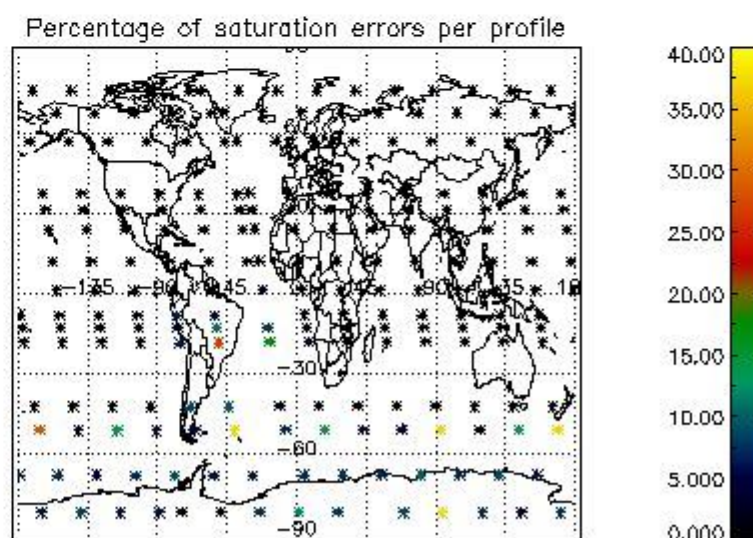
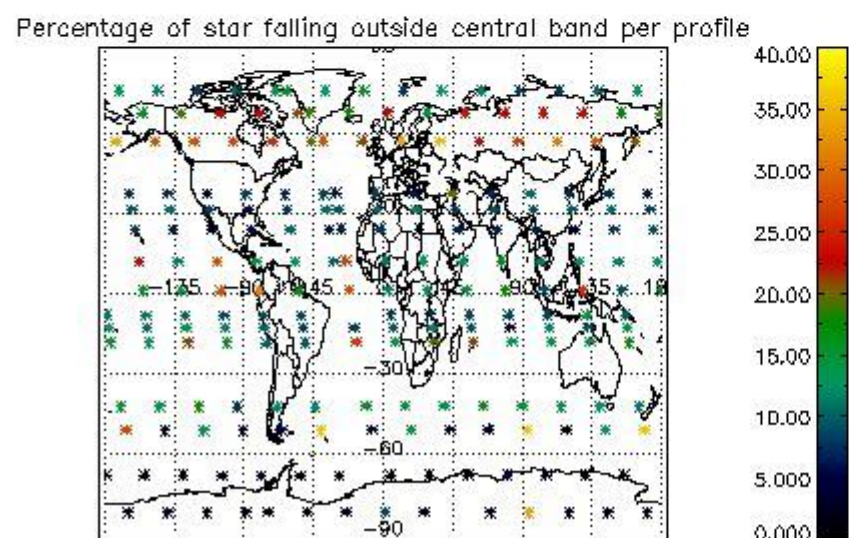
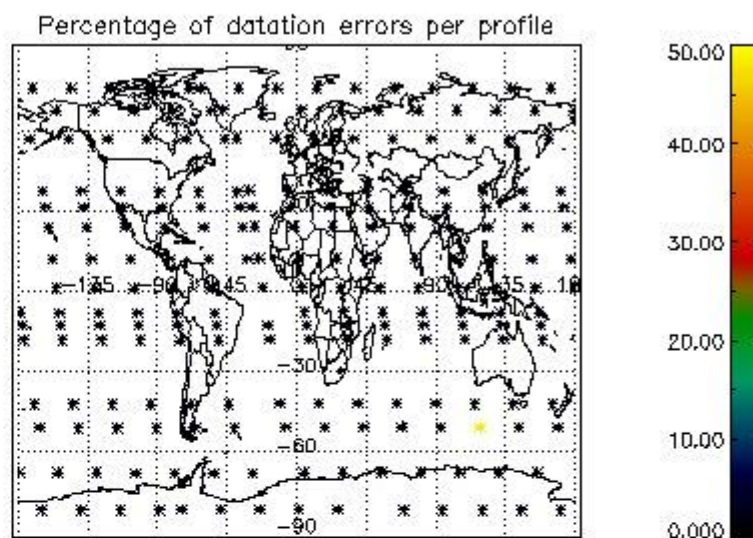
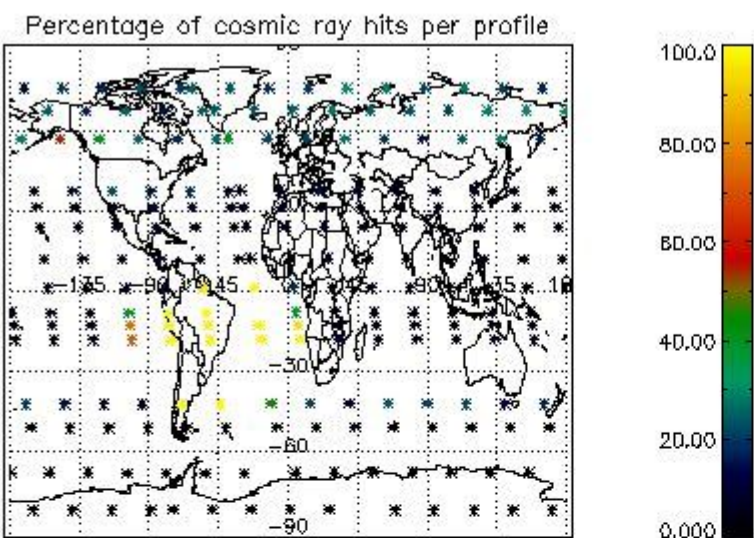


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

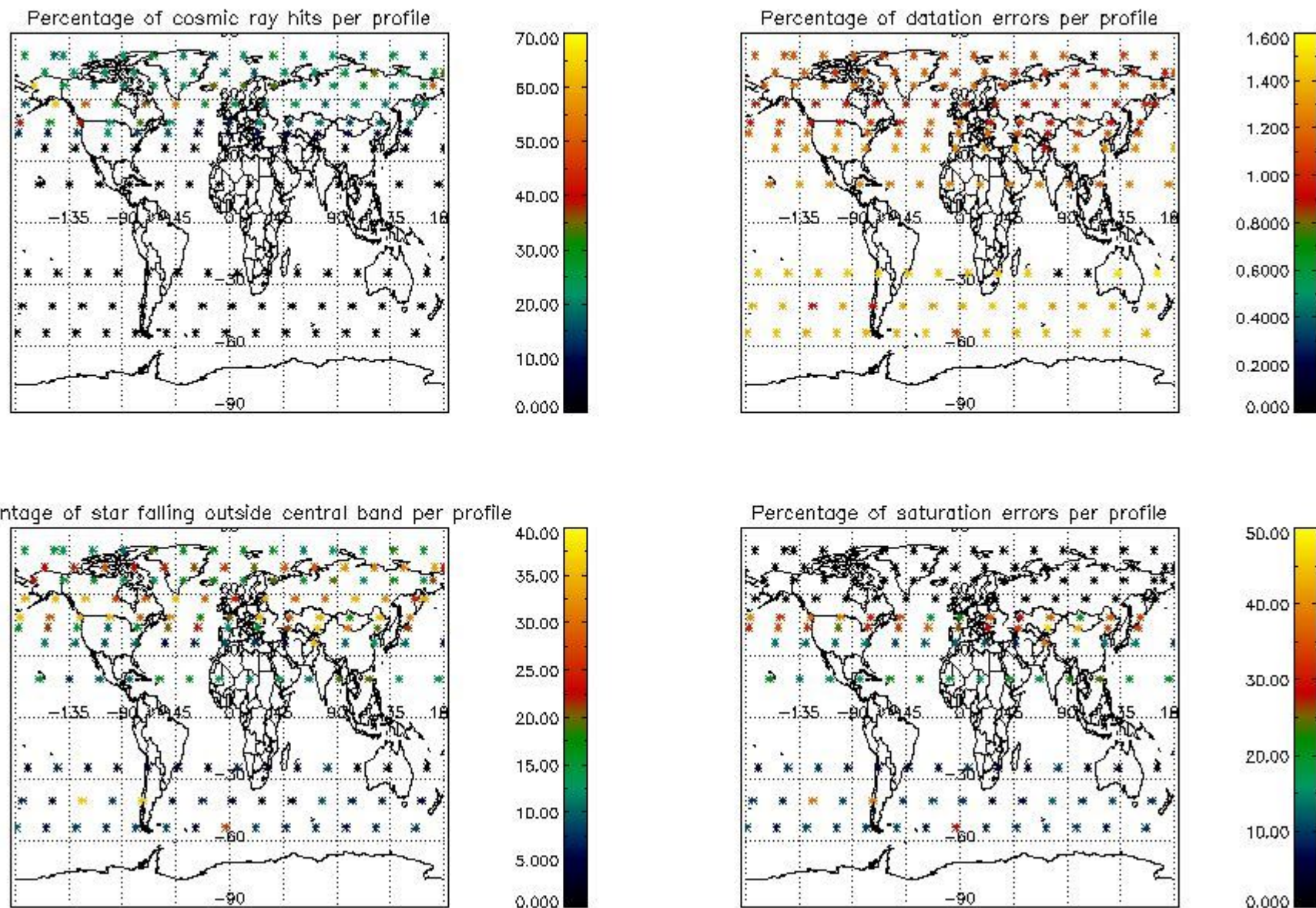




4.2 Plot quality information per product coming from level 1b processing (world map)  
 4.2.1 Plot level 1 quality information per product (world map): ENVISAT ASCENDING passes



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

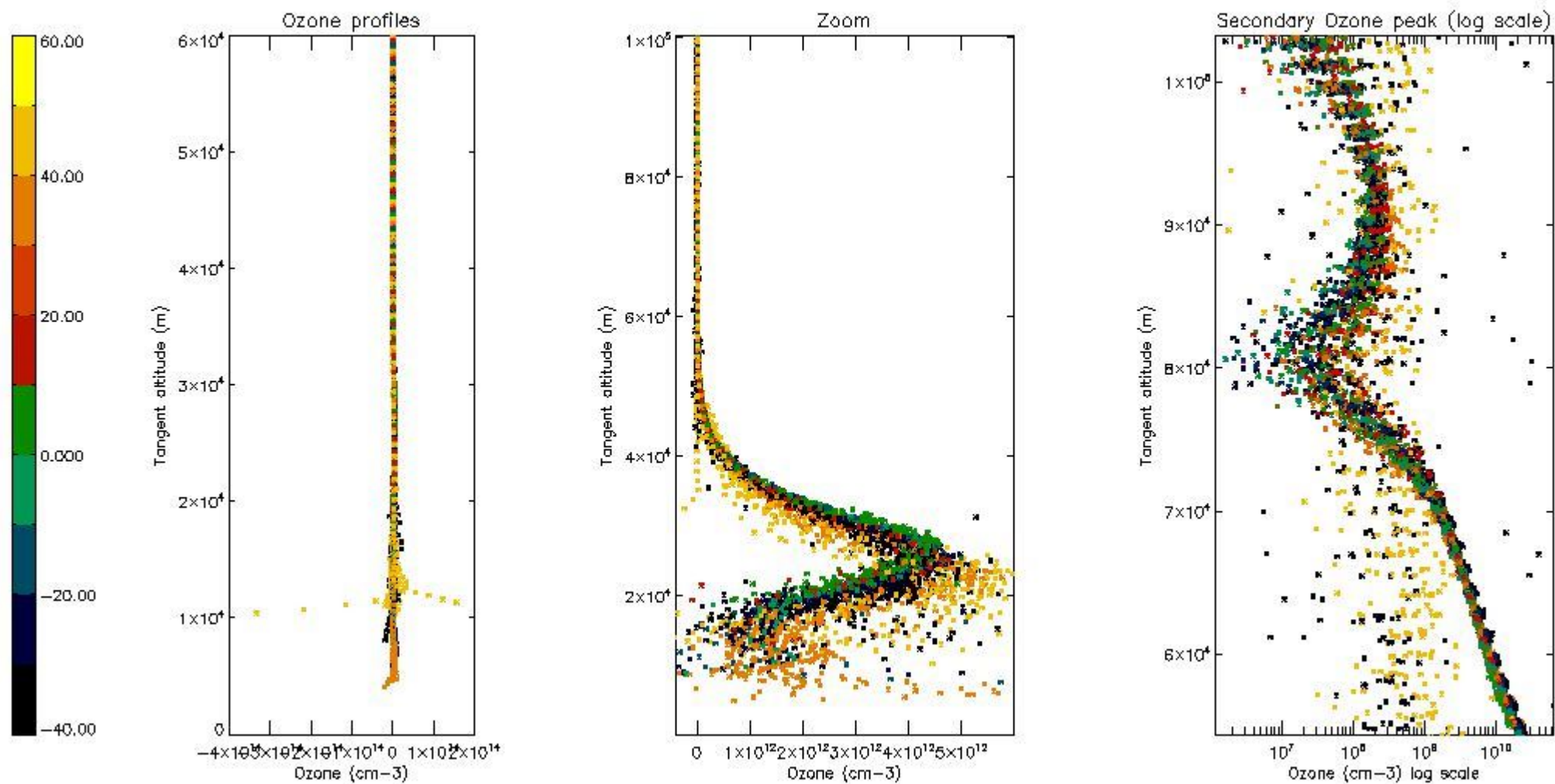
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	40
STD < 20	23

STD < 10	19
STD < 5	14

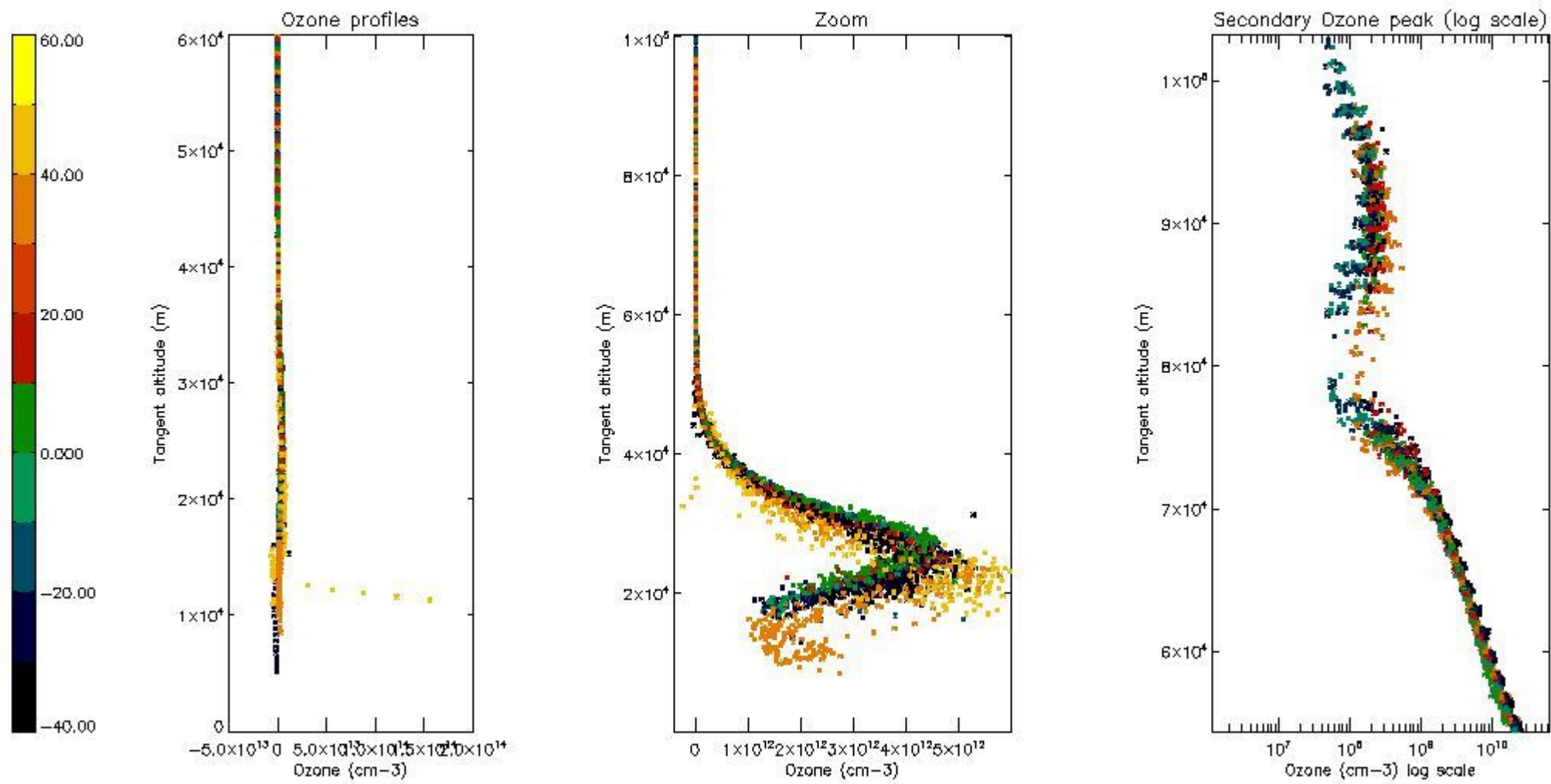
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



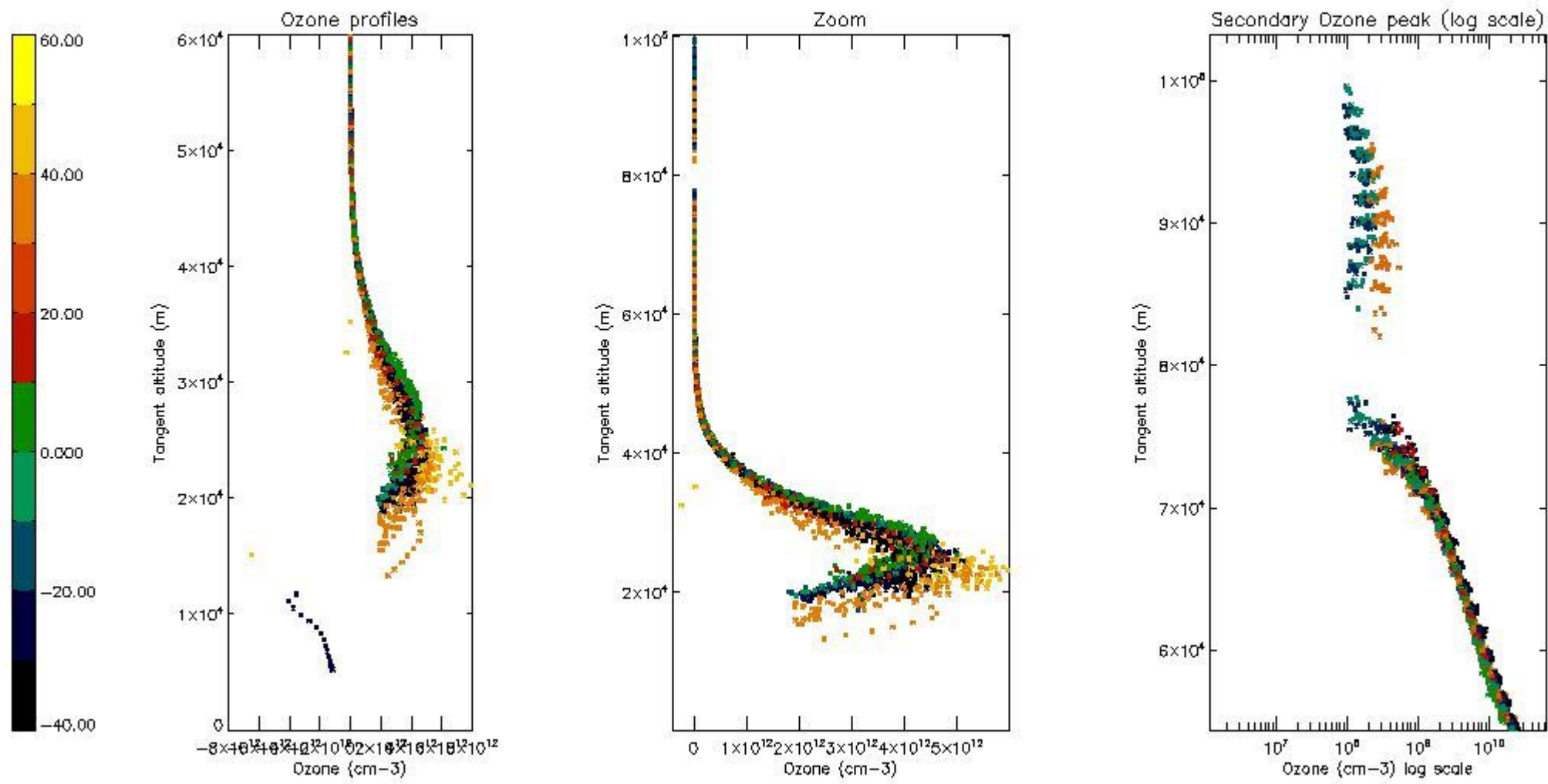
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



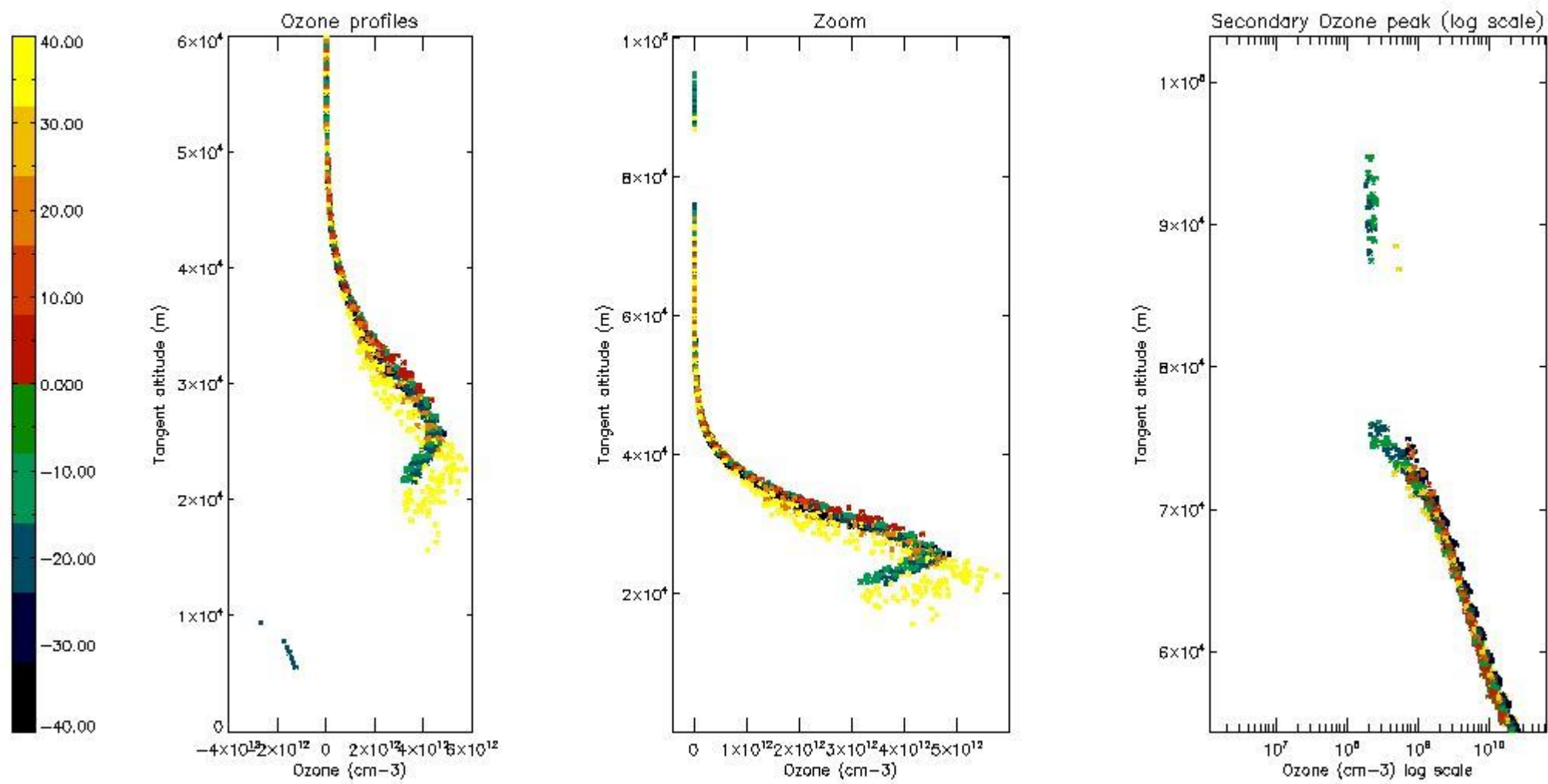
*5.4 Plot ozone profiles where  $STD < 10\%$  (dark without errors)*

The colorbar represents the latitude.



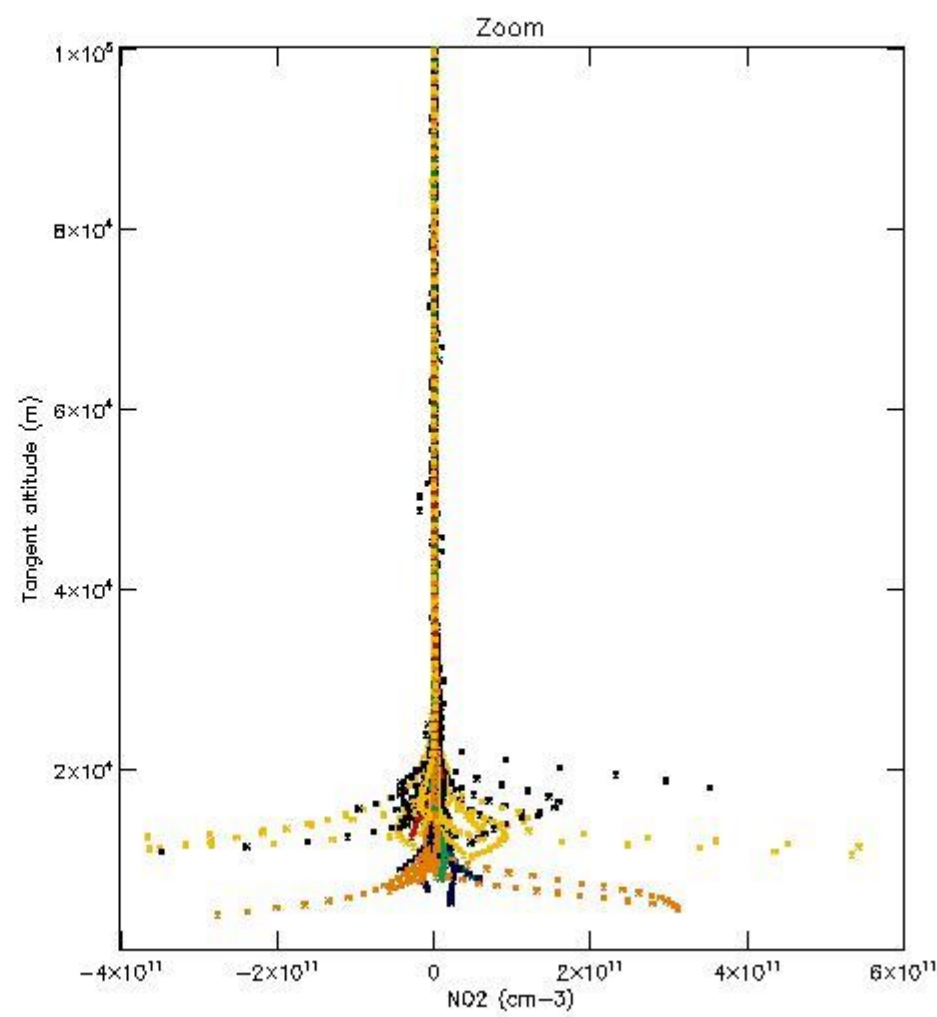
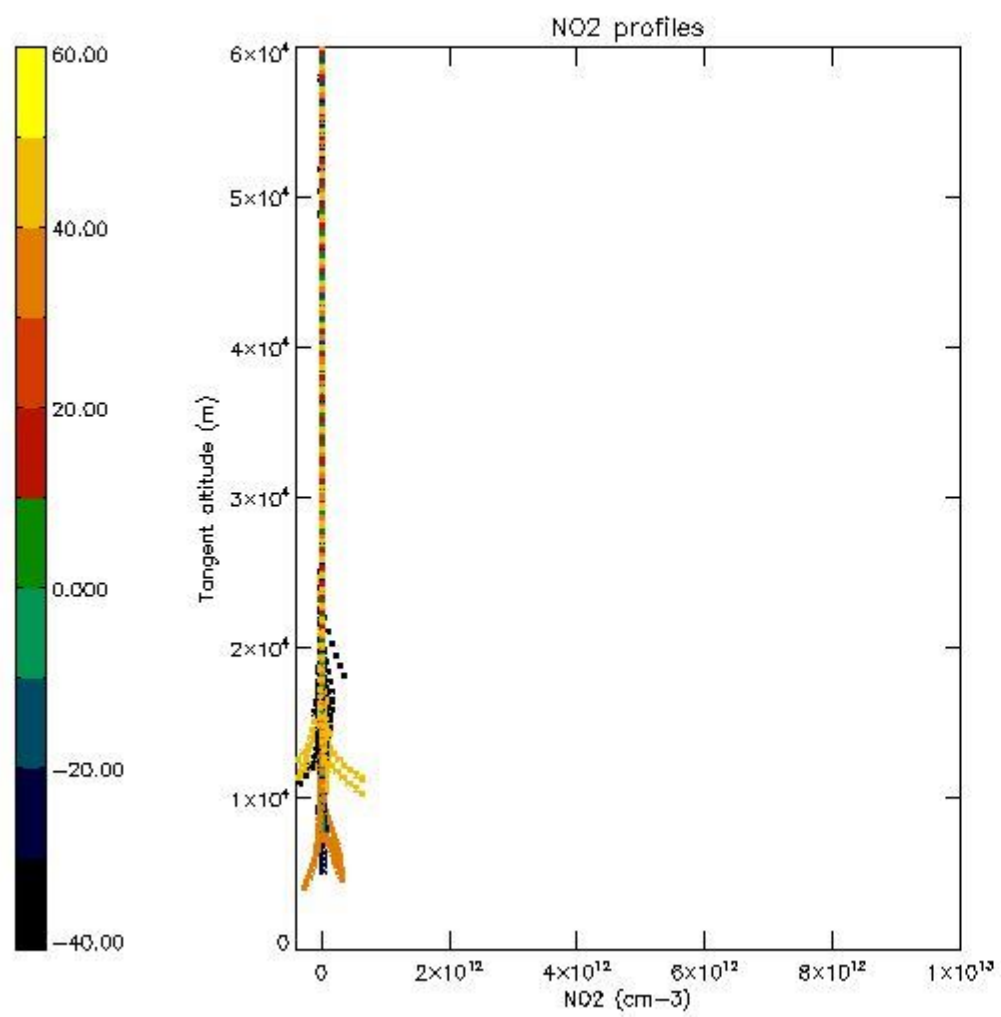
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



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

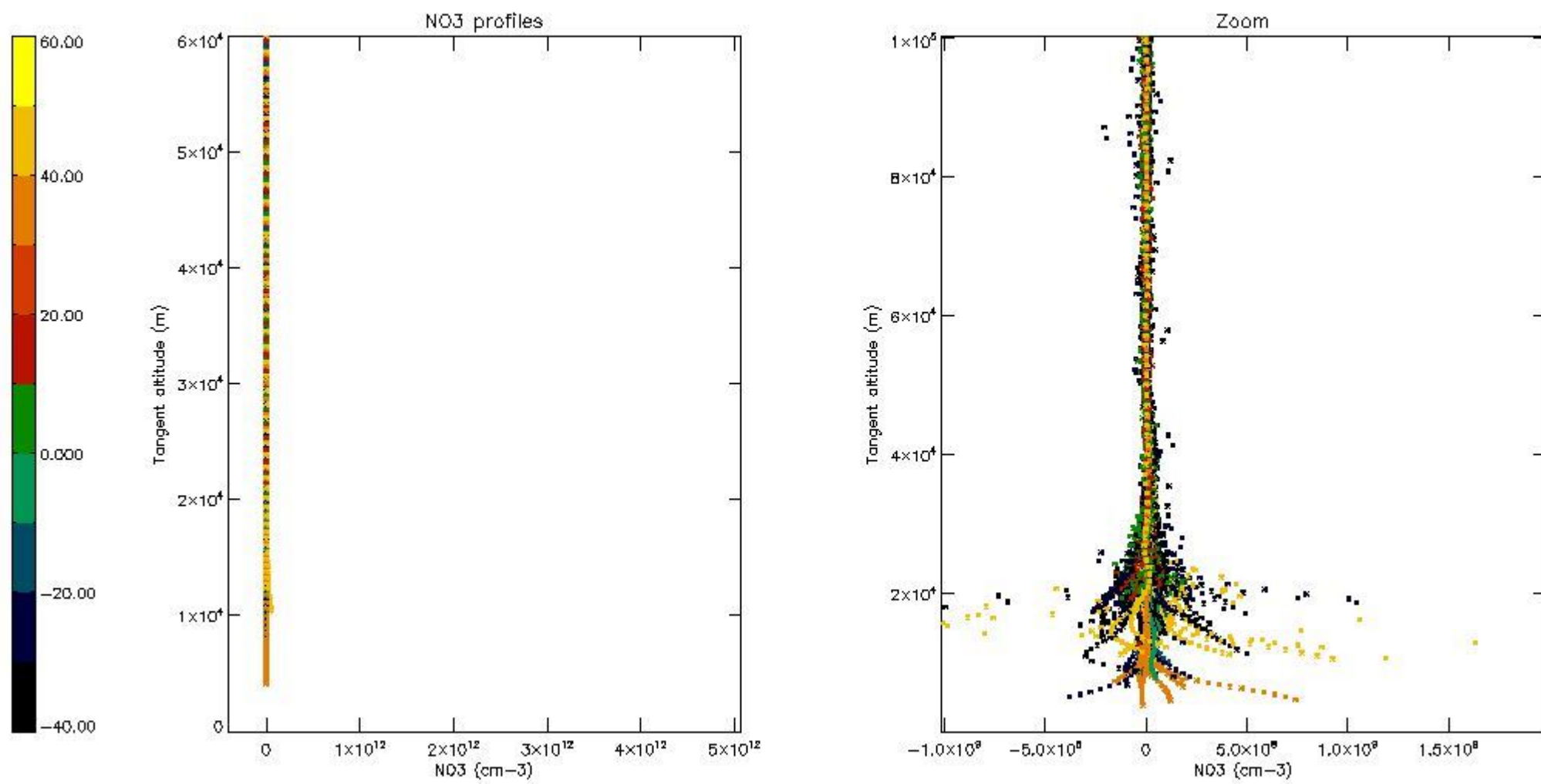
The colorbar represents the latitude.



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

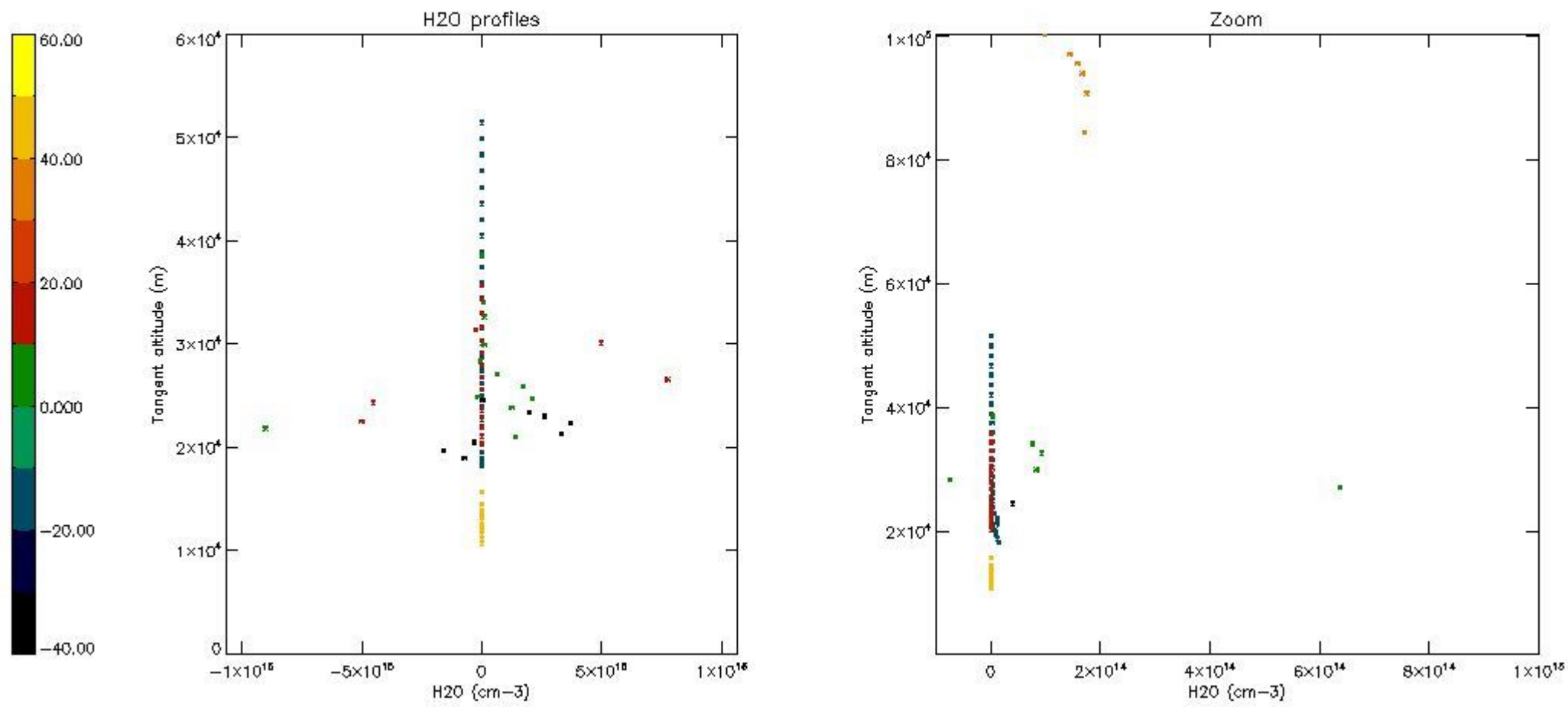
The colorbar represents the latitude.





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

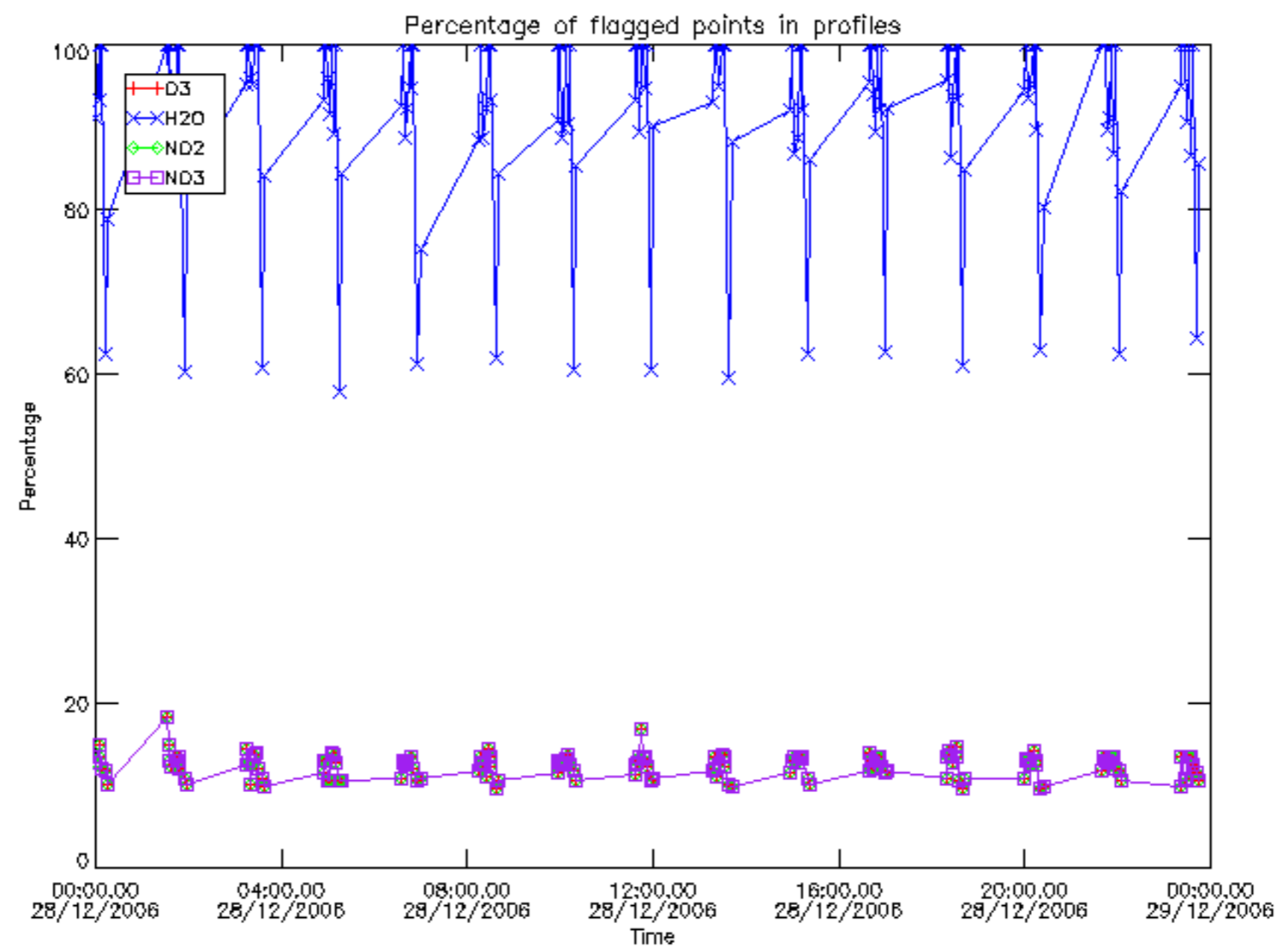
The colorbar represents the latitude.



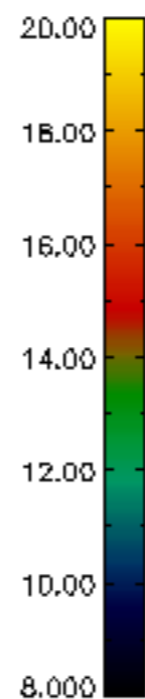
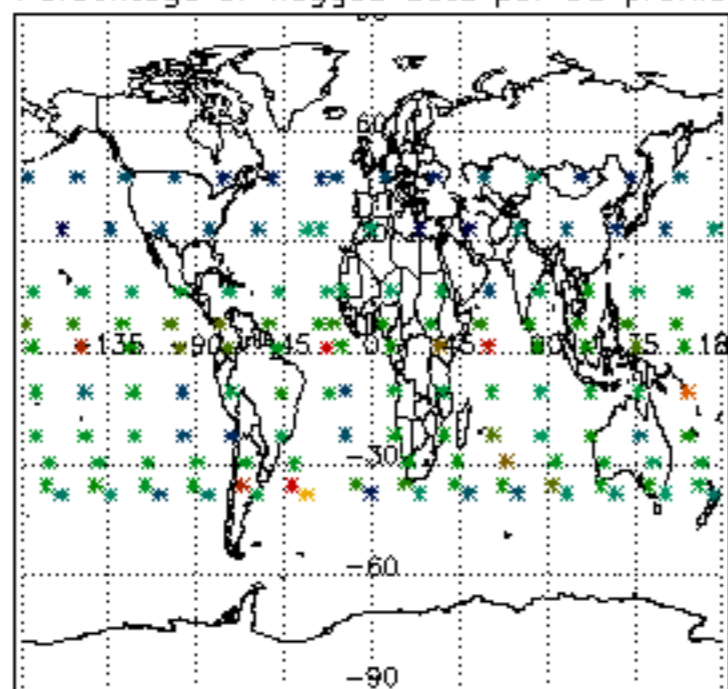
## 6. Auxiliary Data Files used for the production reported in section 2

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

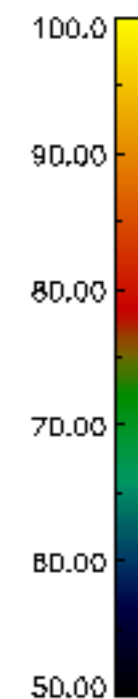
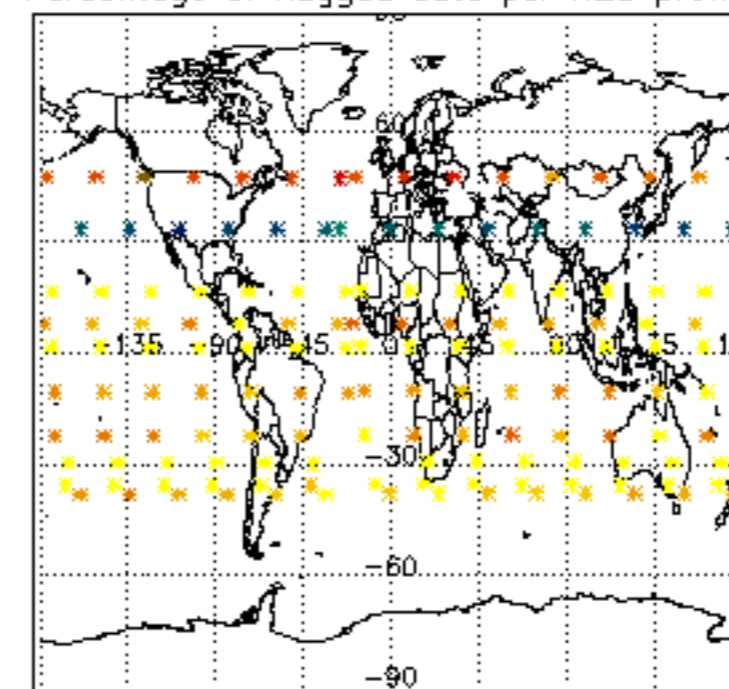
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	28-DEC-2006 00:00:46
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	28-DEC-2006 00:00:46
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	28-DEC-2006 00:00:46



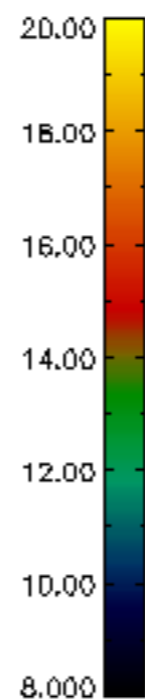
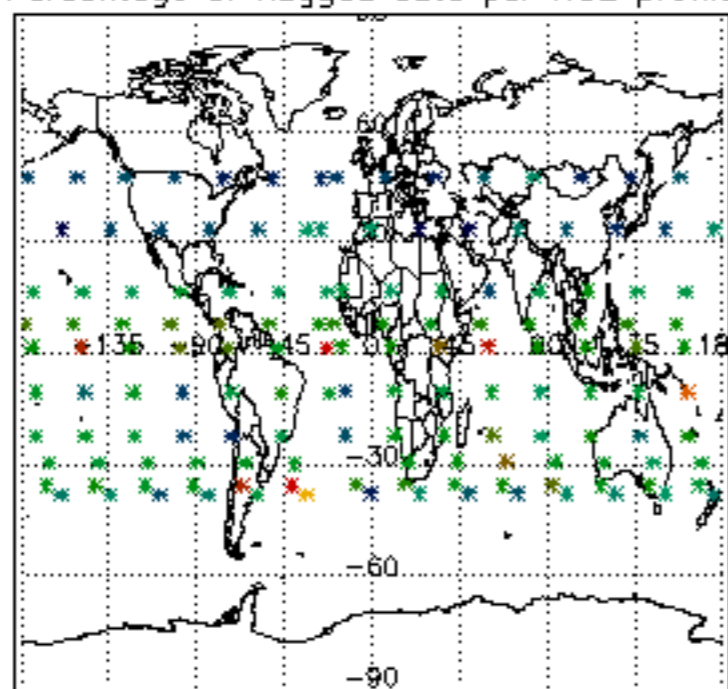
Percentage of flagged data per D3 profile



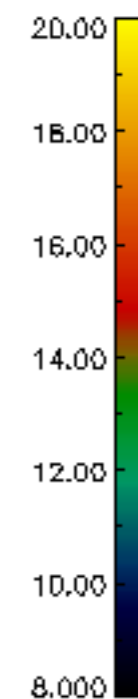
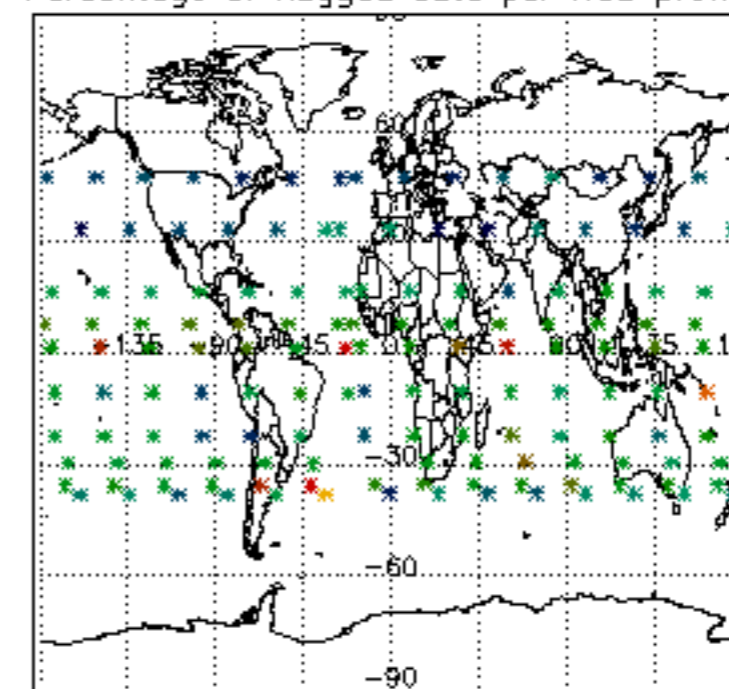
Percentage of flagged data per H2O profile

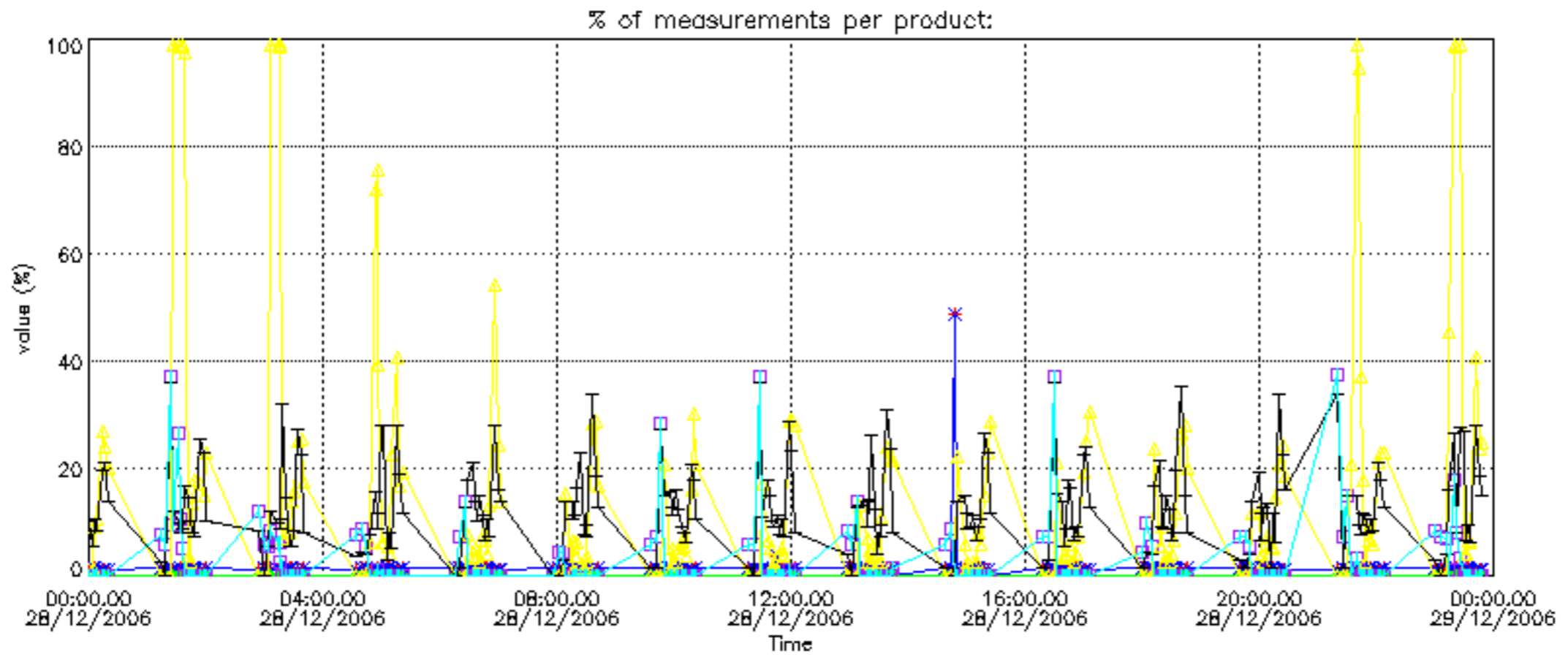


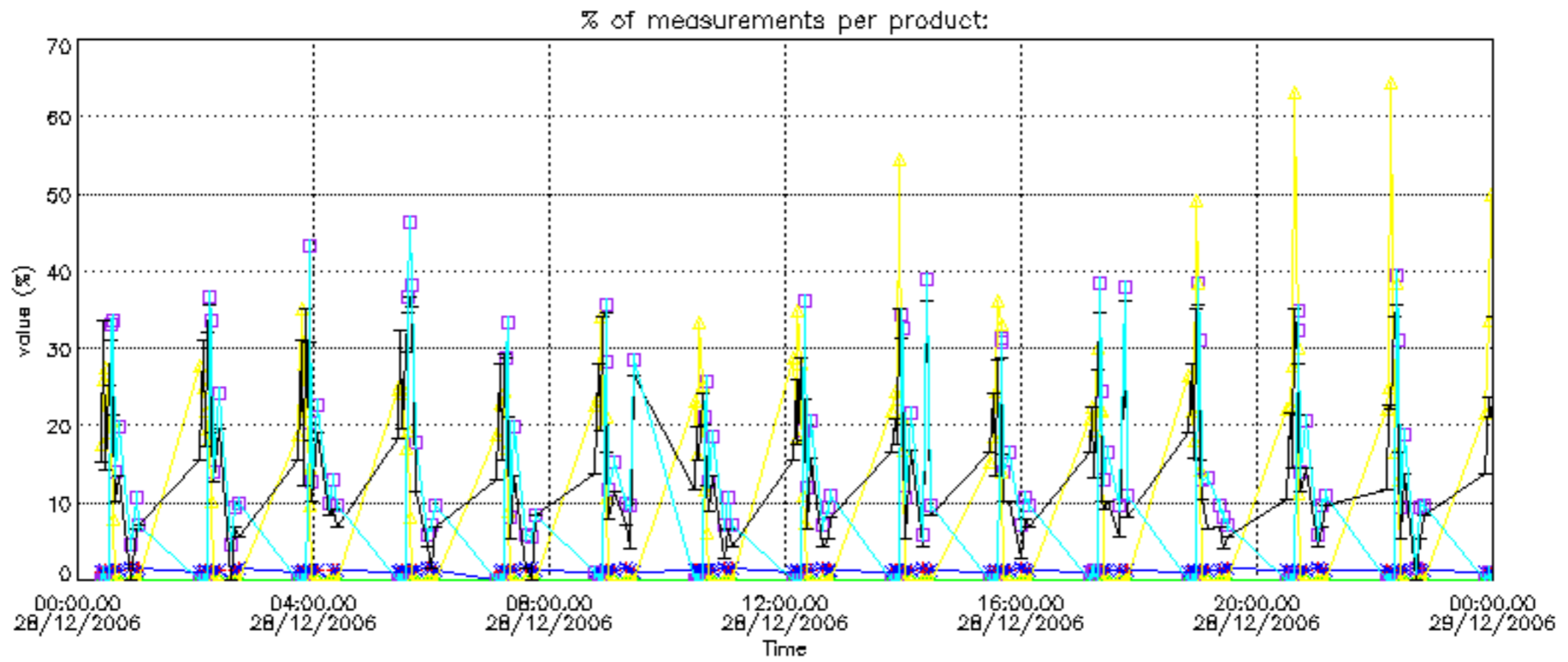
Percentage of flagged data per NO2 profile



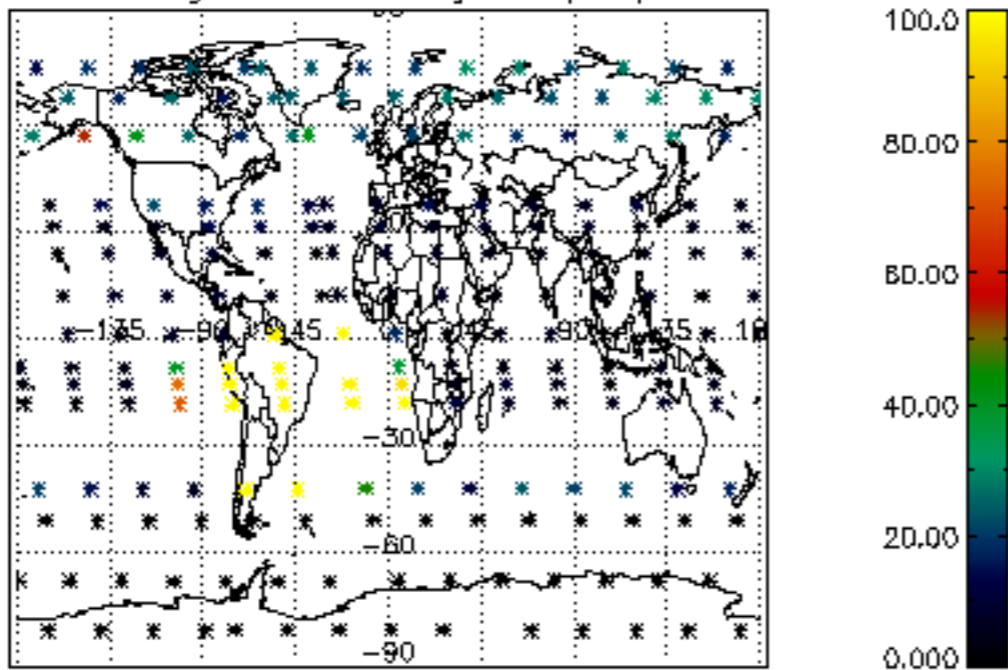
Percentage of flagged data per NO3 profile



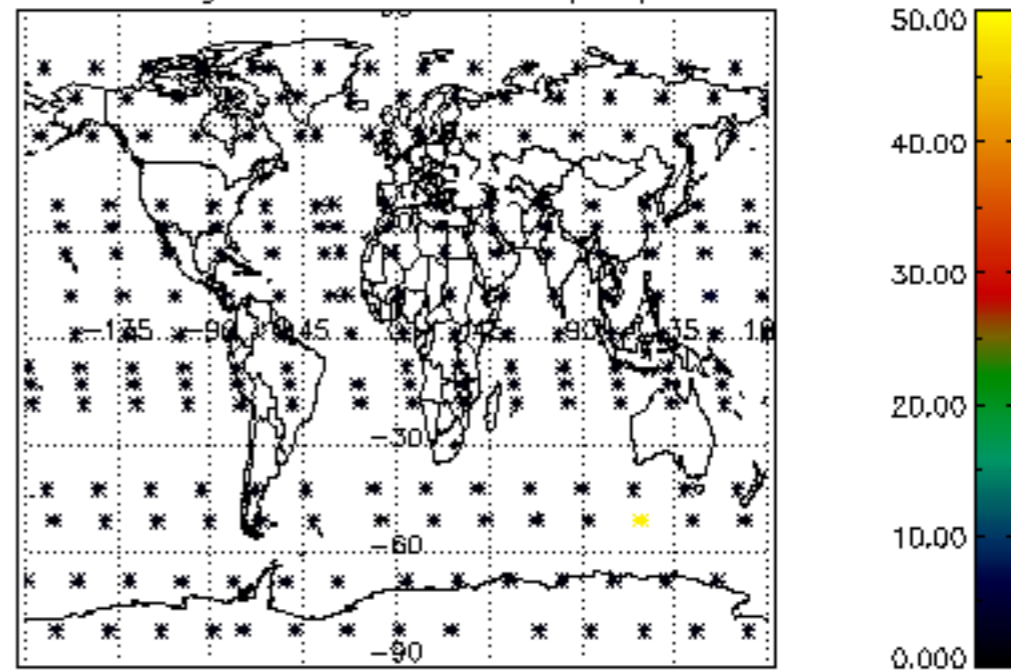




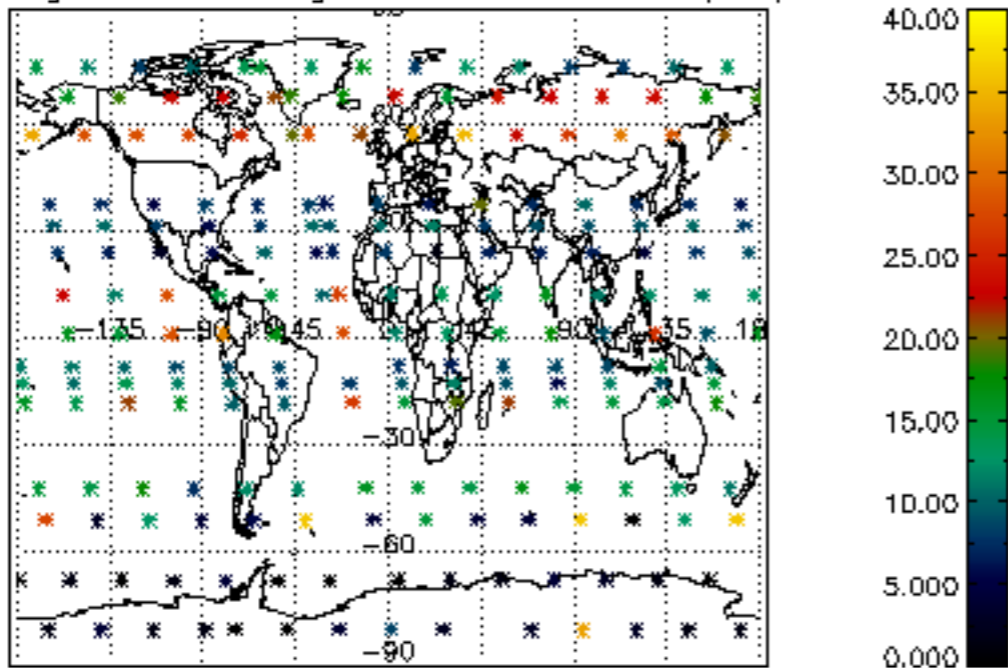
Percentage of cosmic ray hits per profile



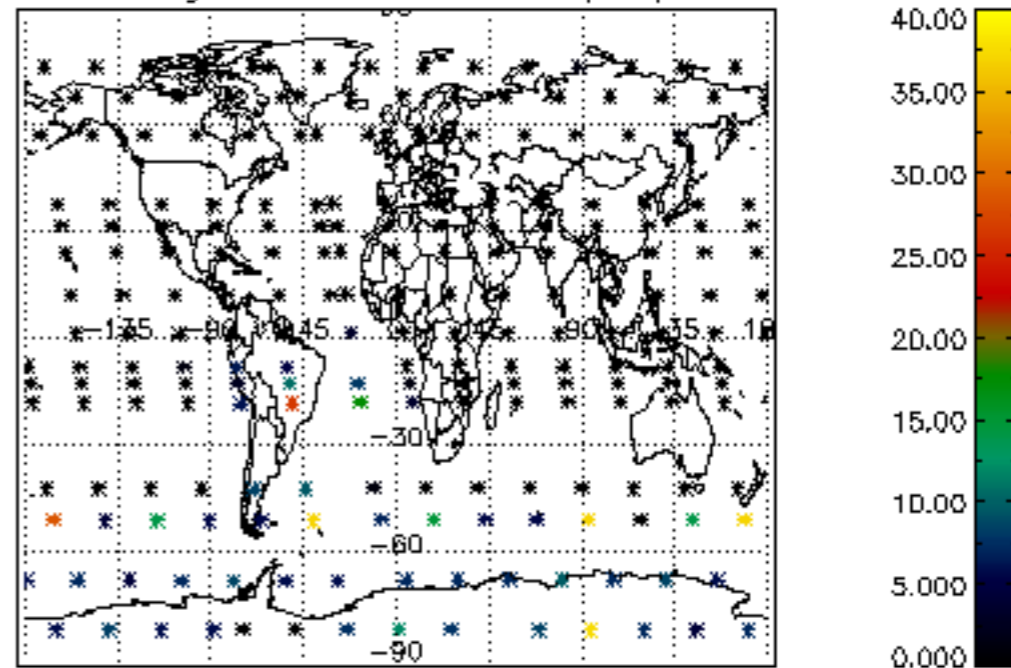
Percentage of datation errors per profile



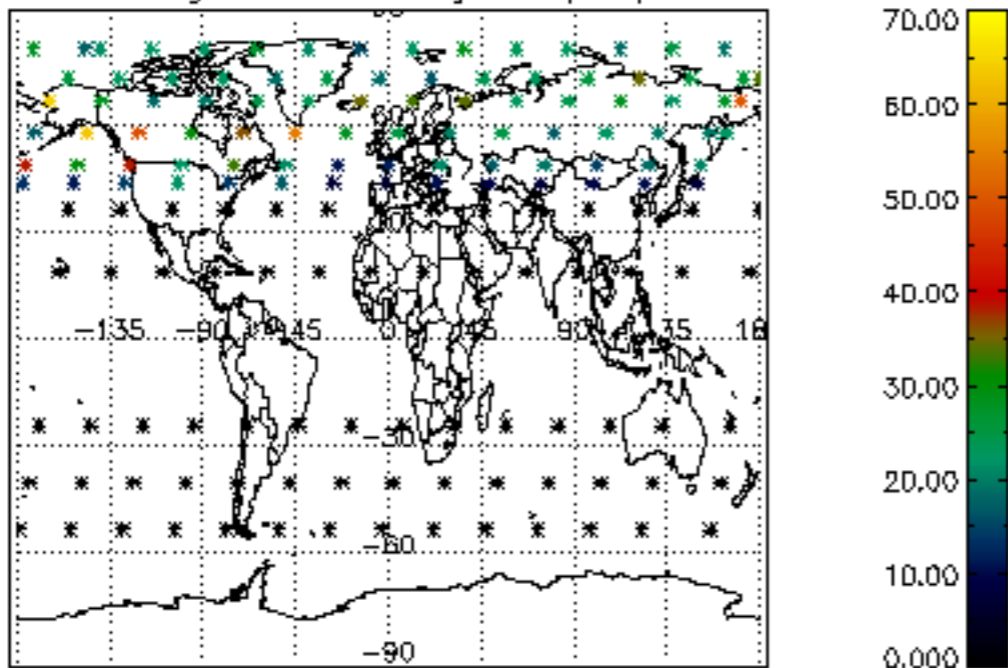
Percentage of star falling outside central band per profile



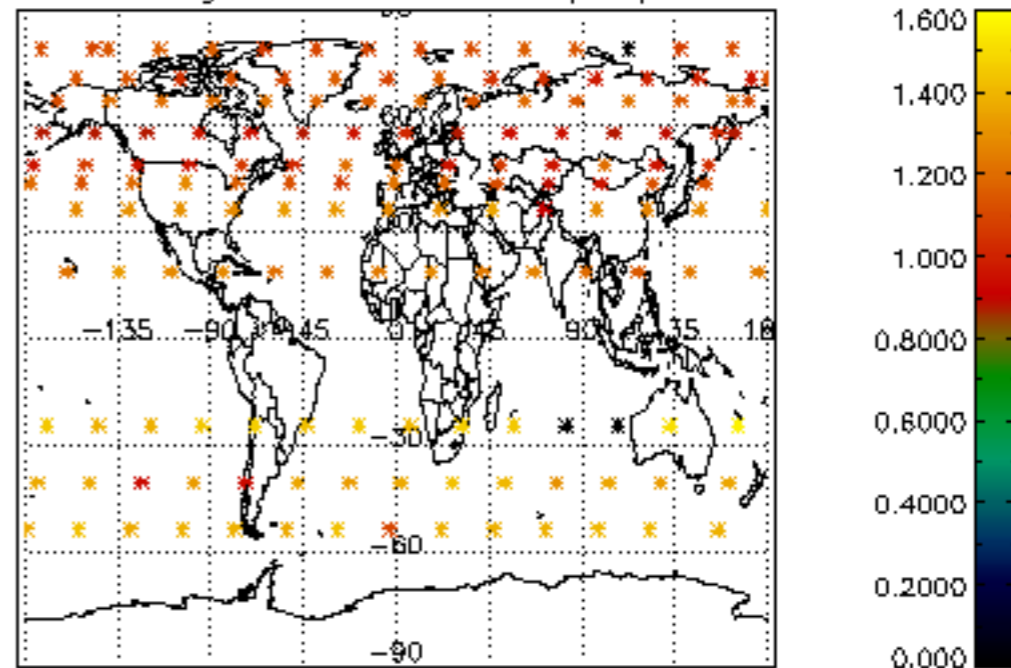
Percentage of saturation errors per profile



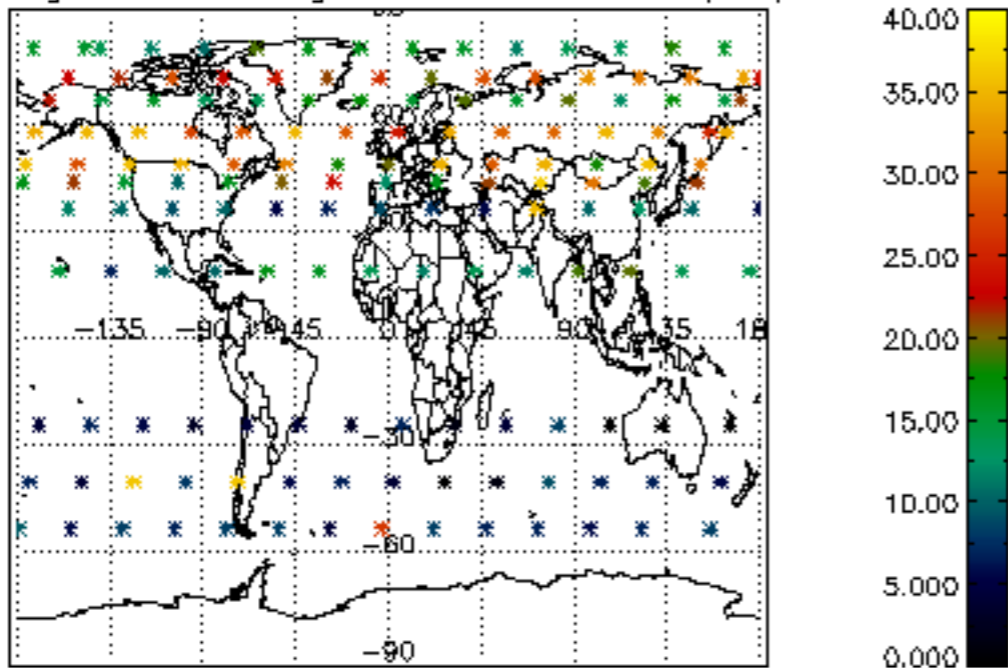
Percentage of cosmic ray hits per profile



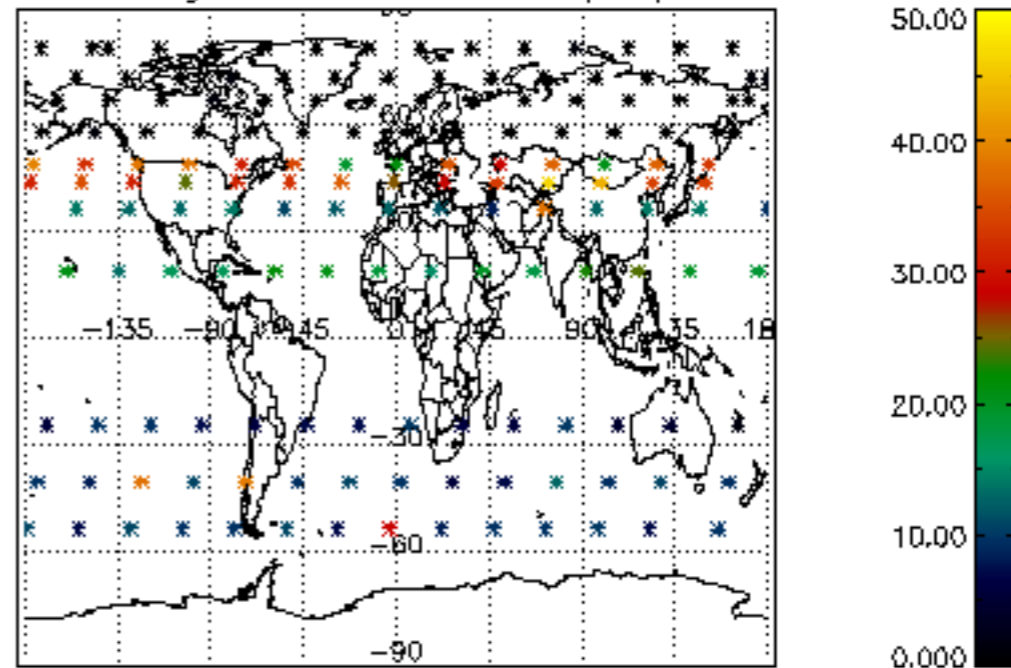
Percentage of datation errors per profile



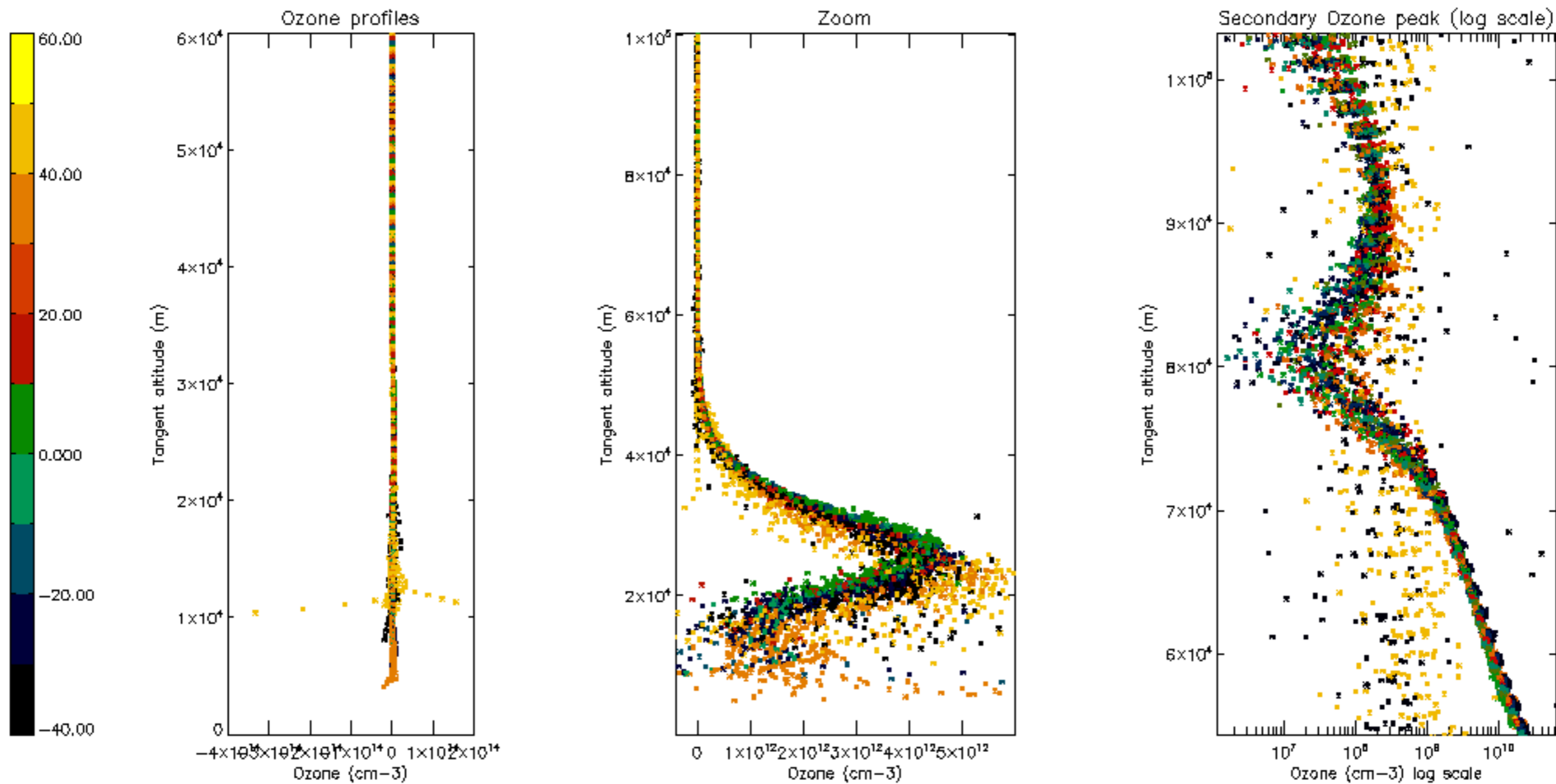
Percentage of star falling outside central band per profile

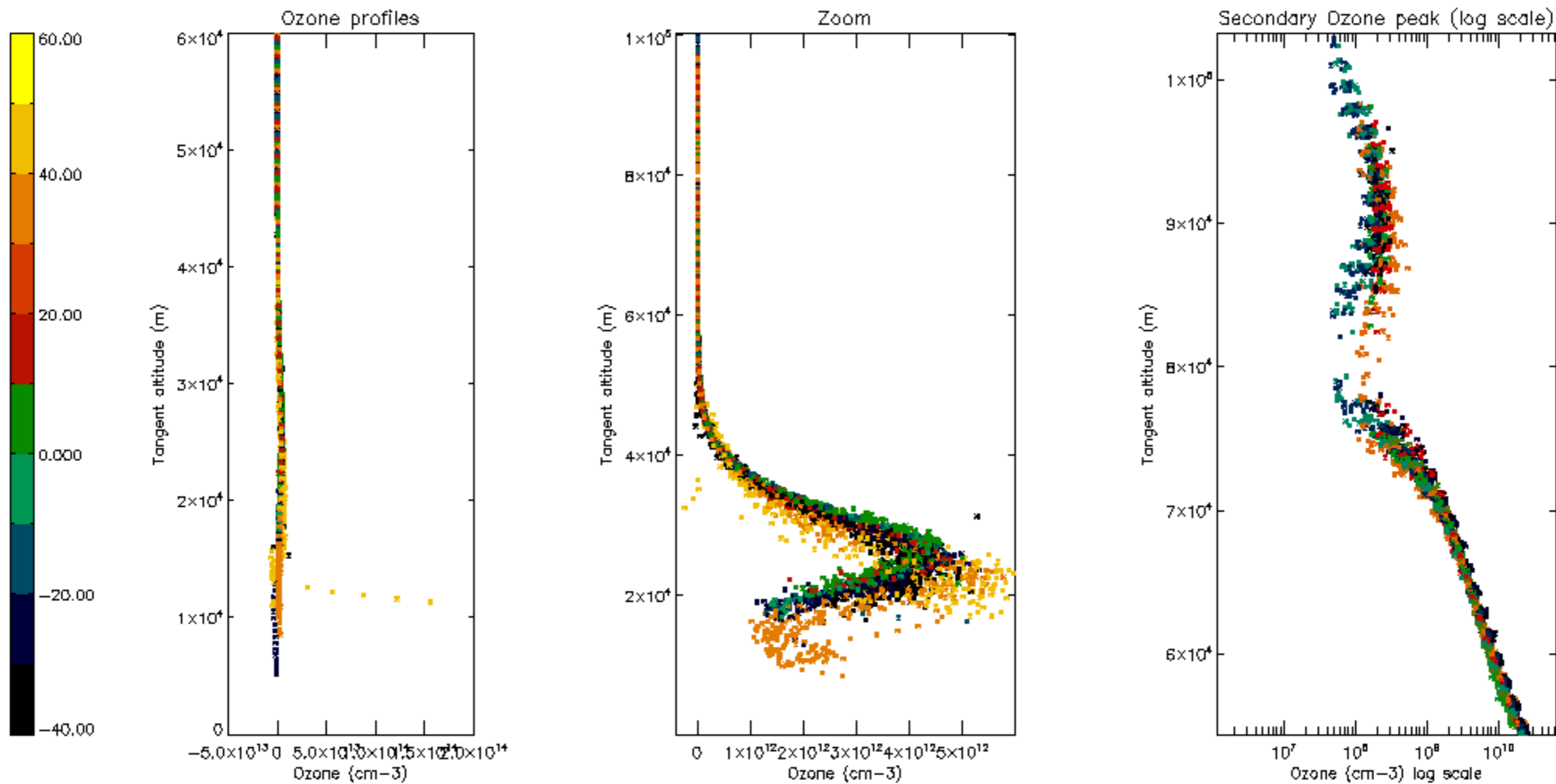


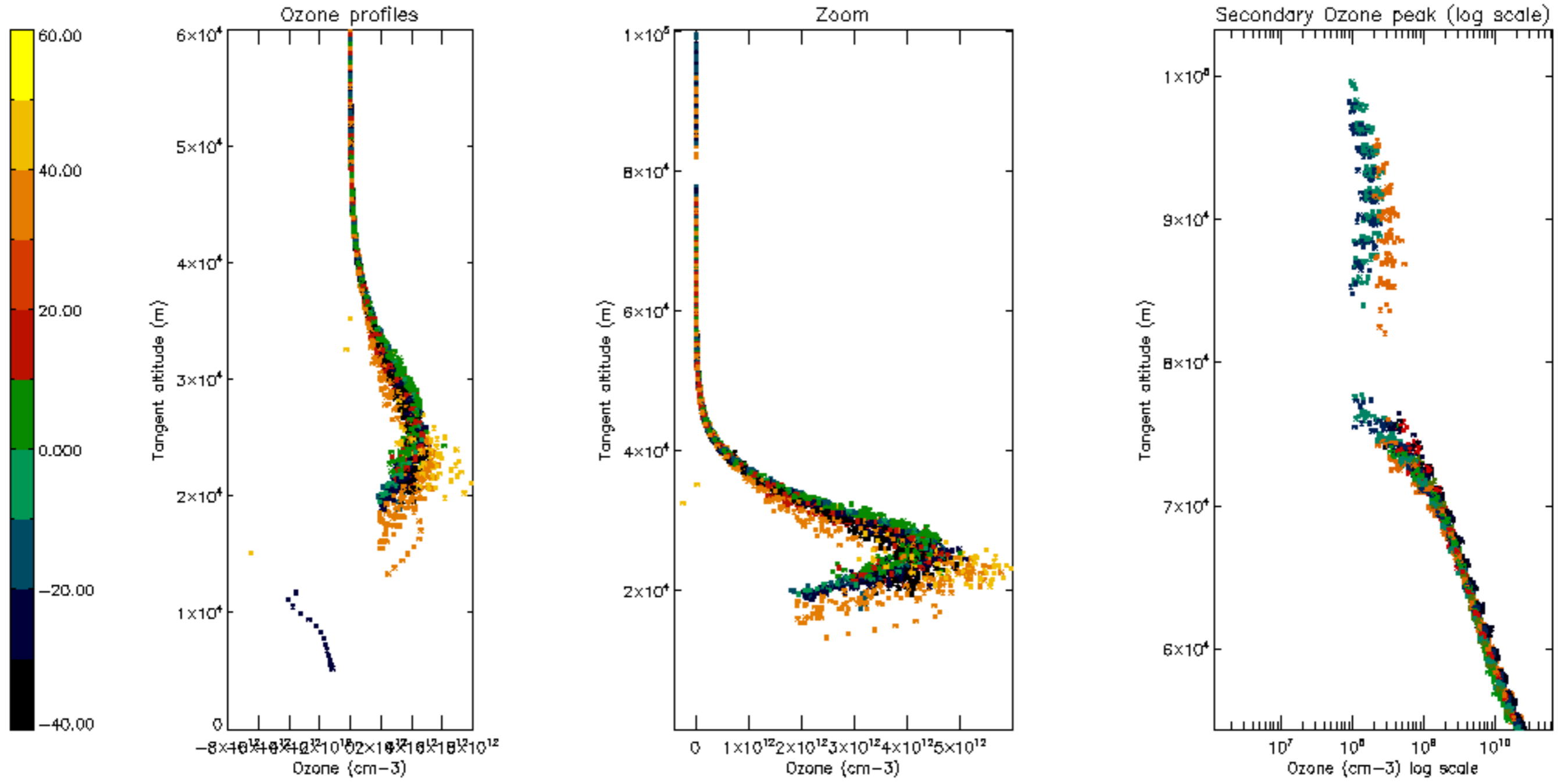
Percentage of saturation errors per profile

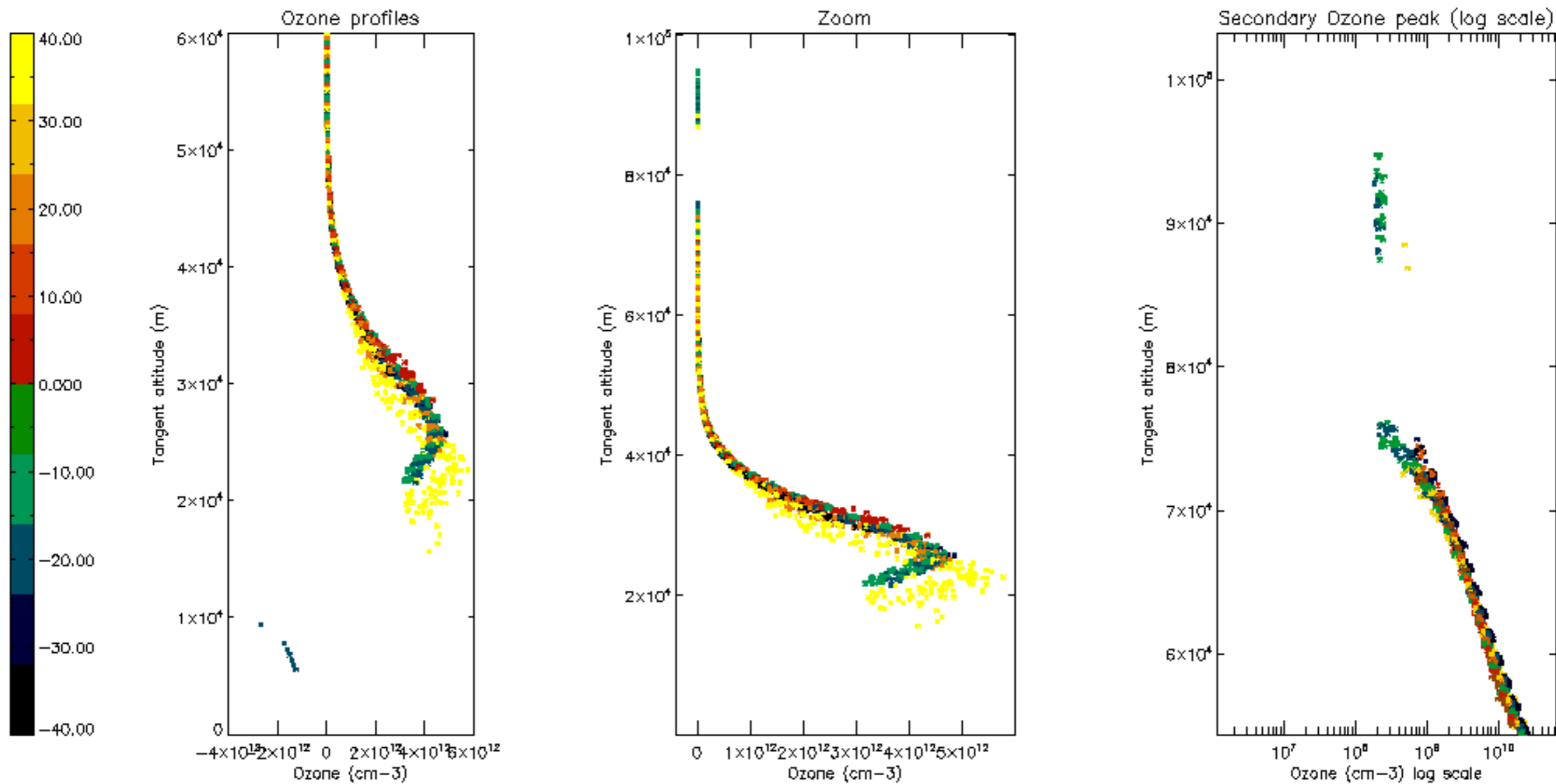


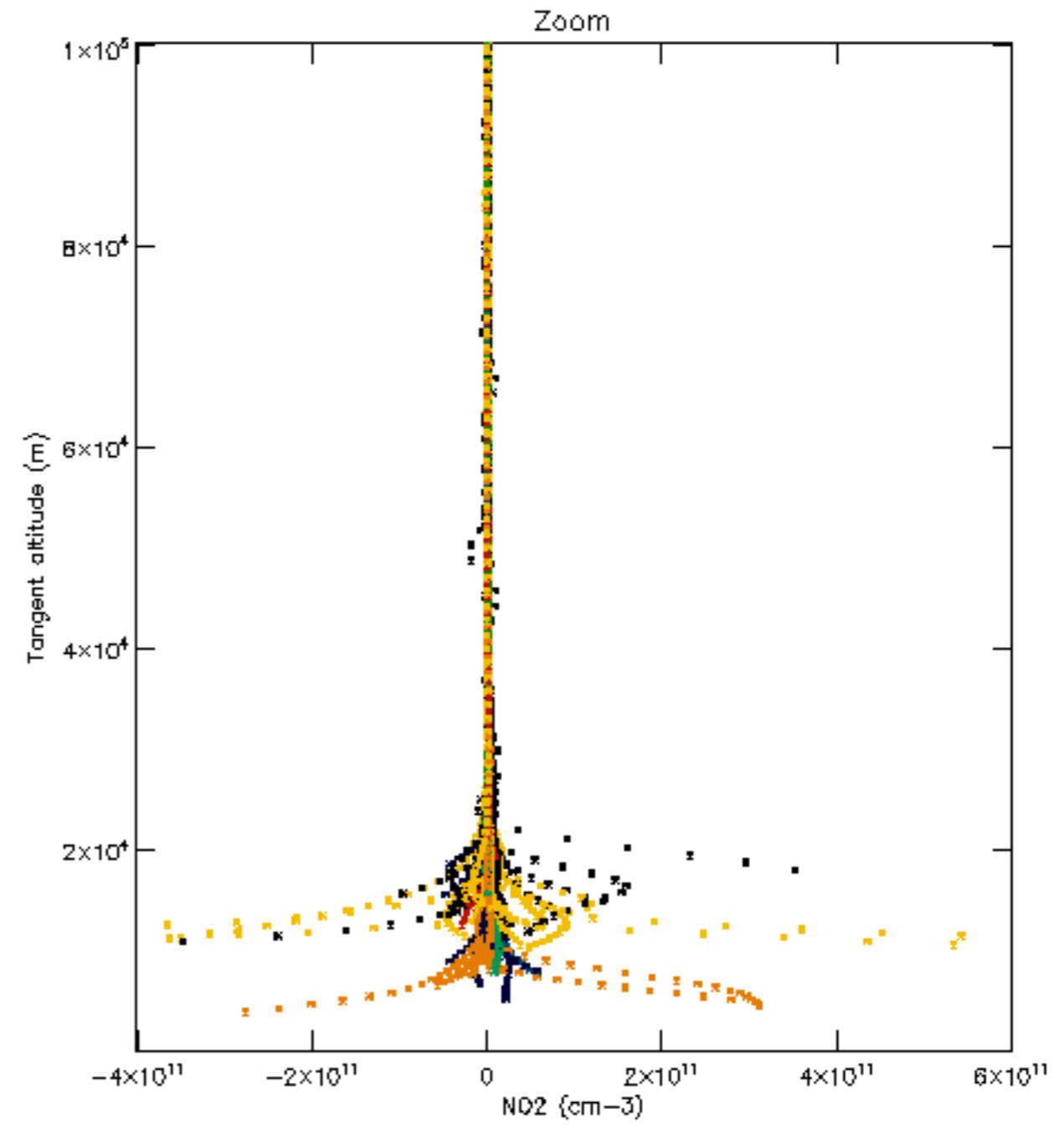
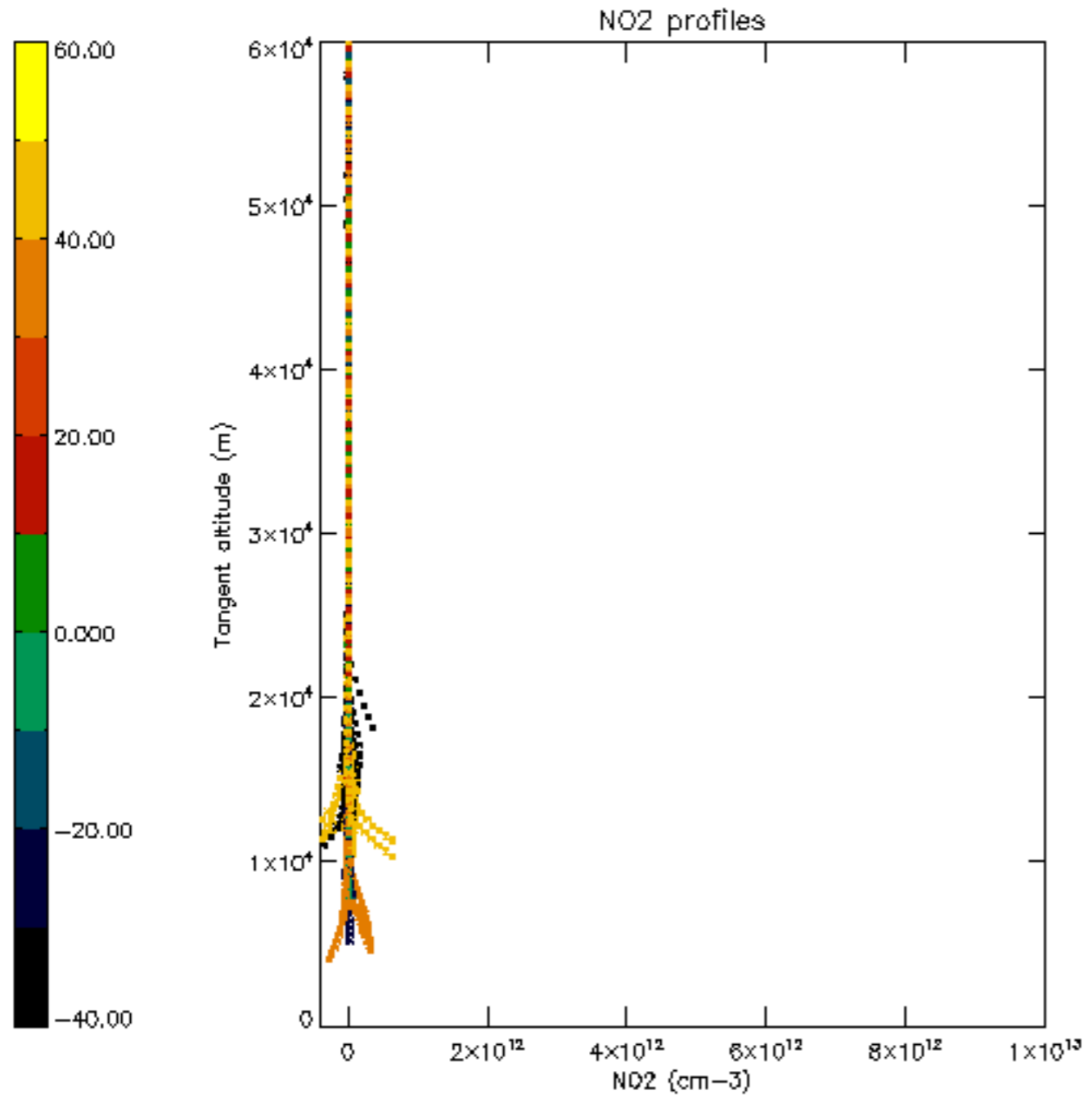


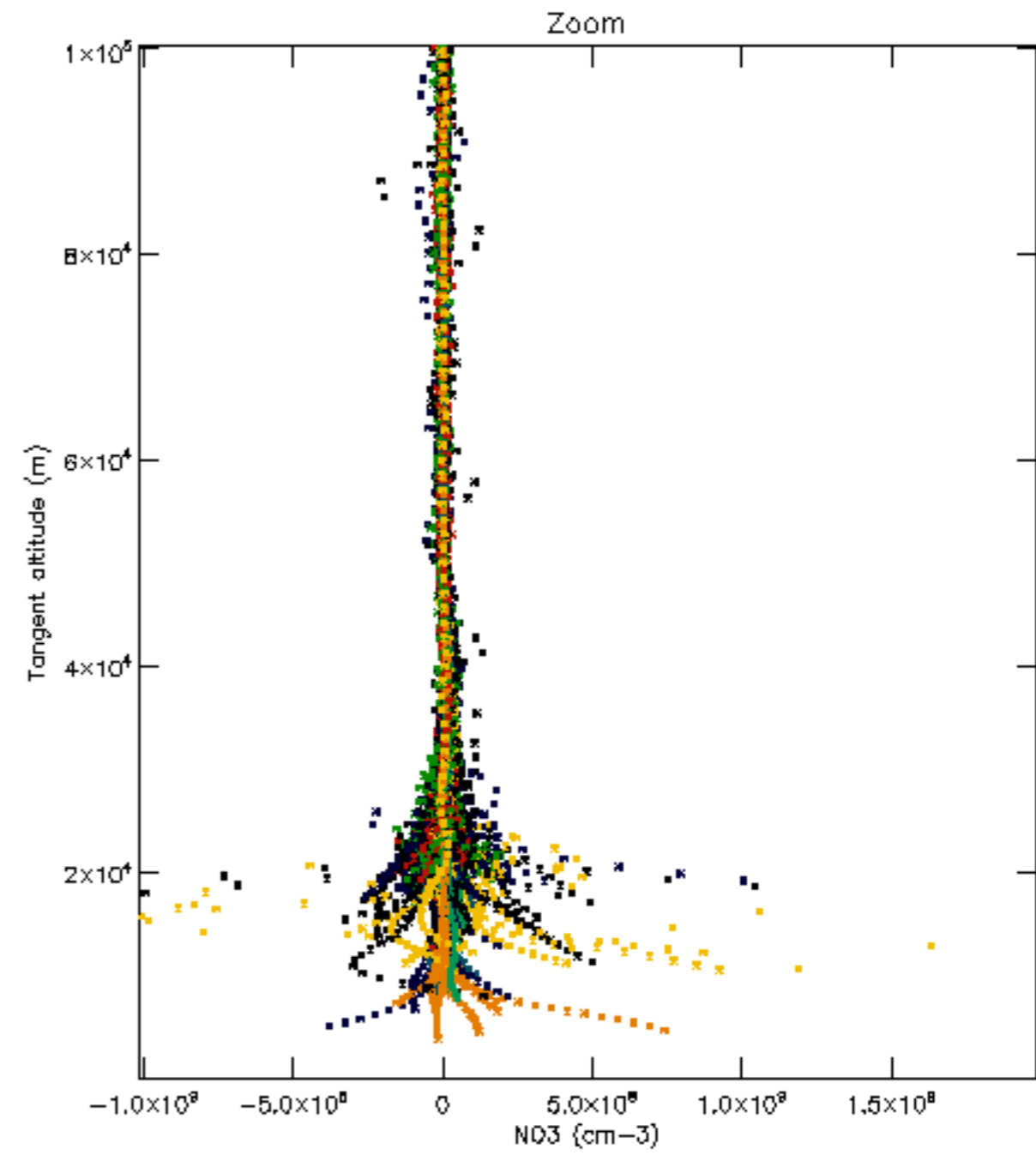
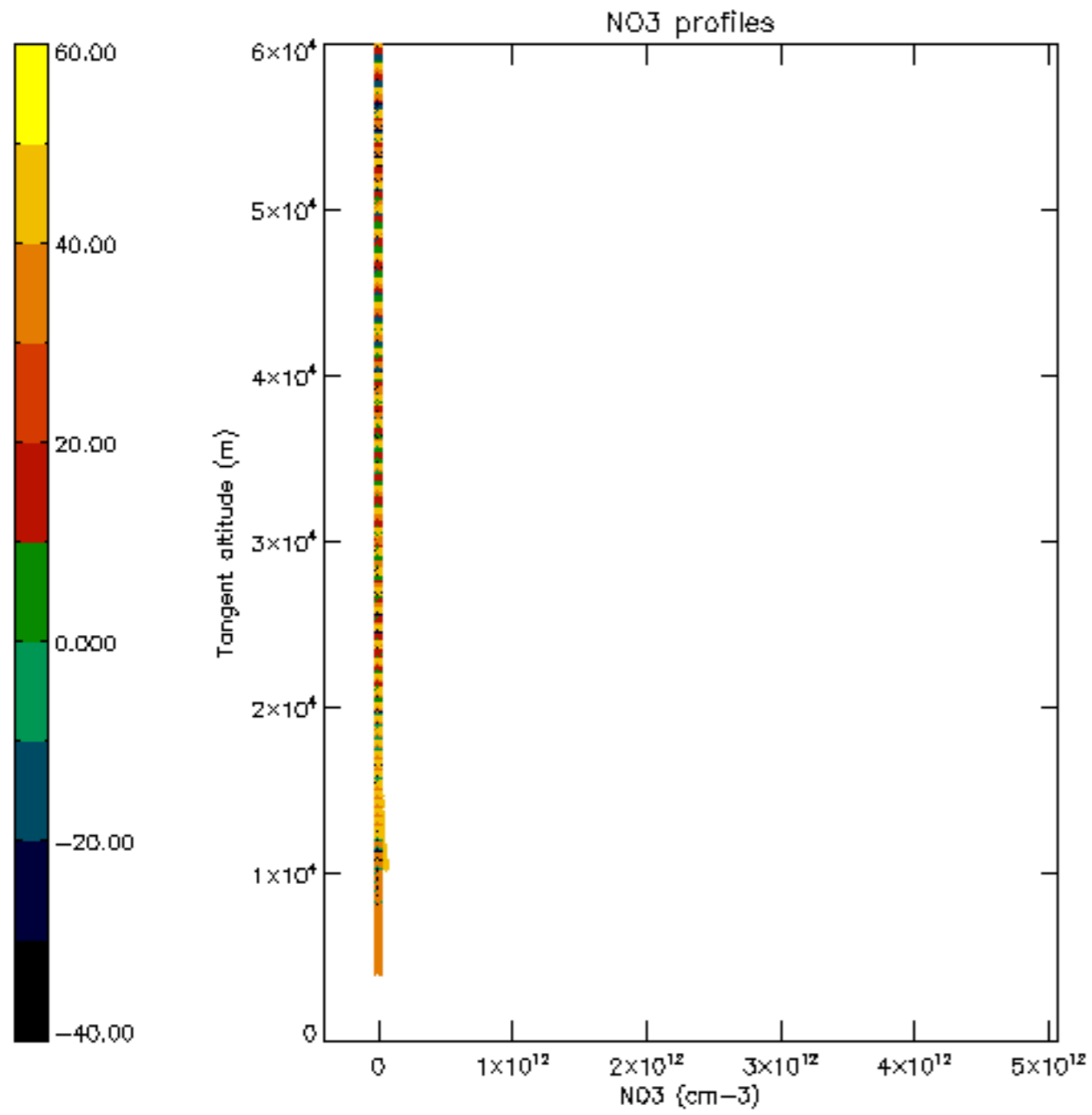


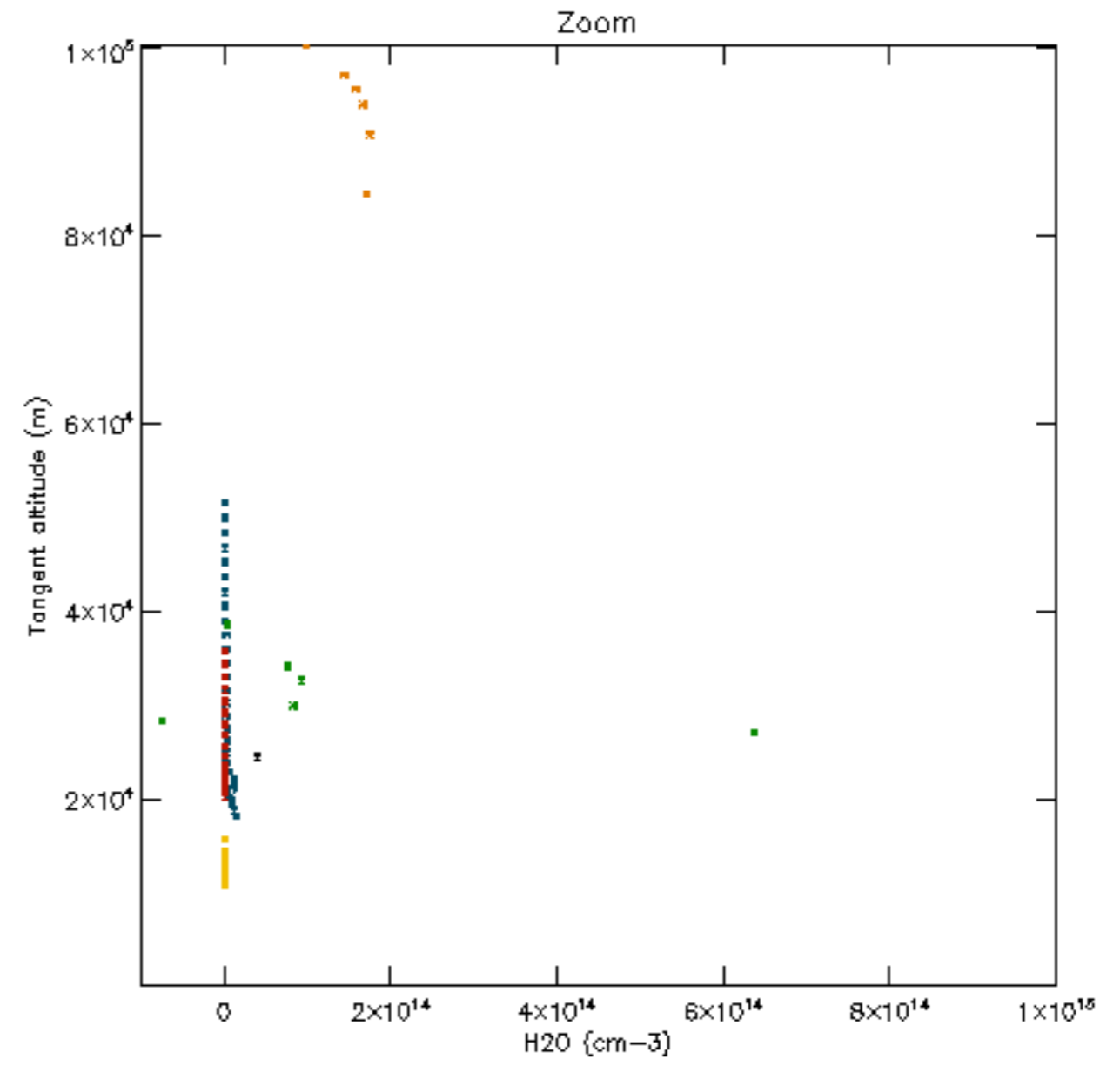
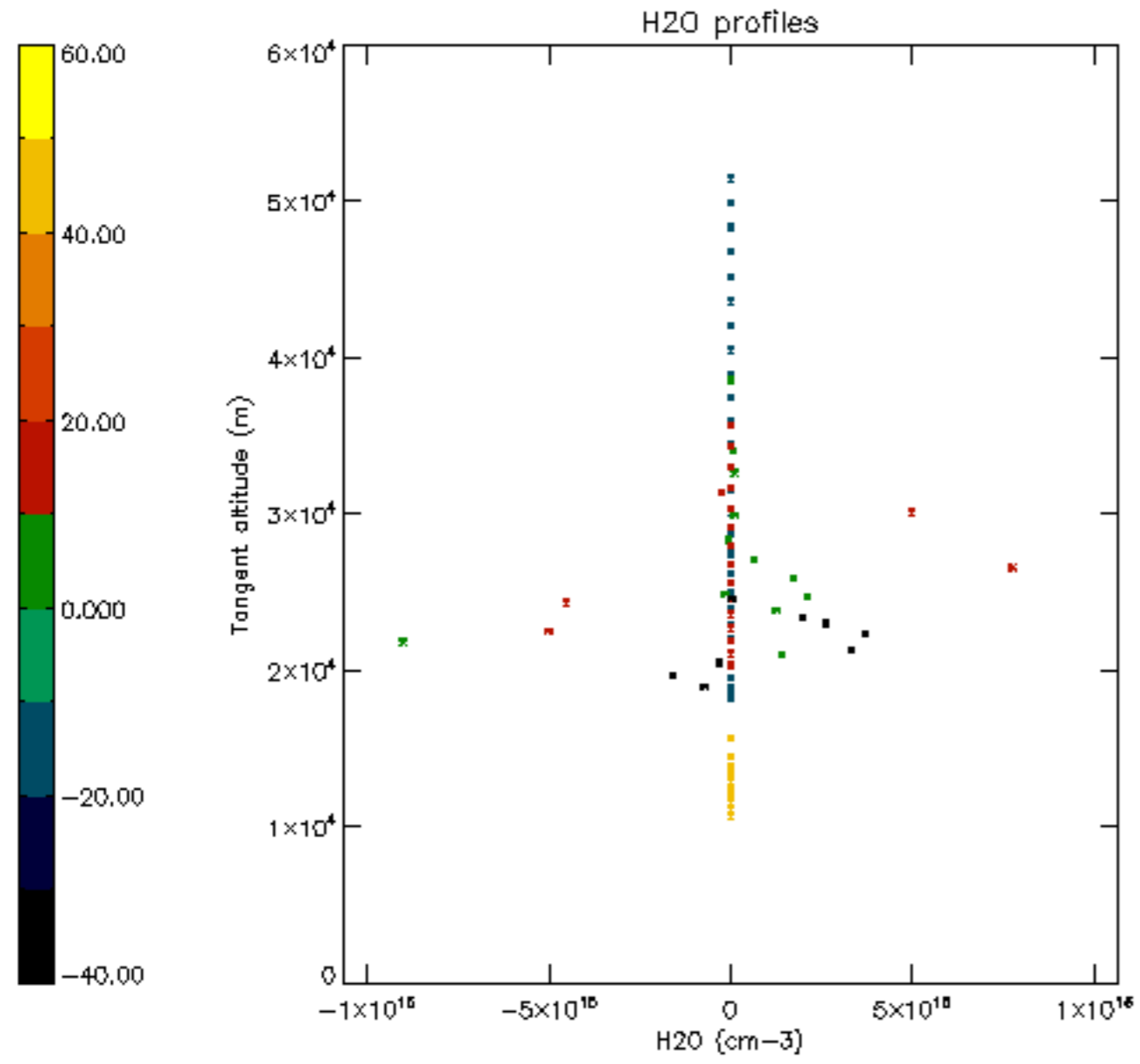


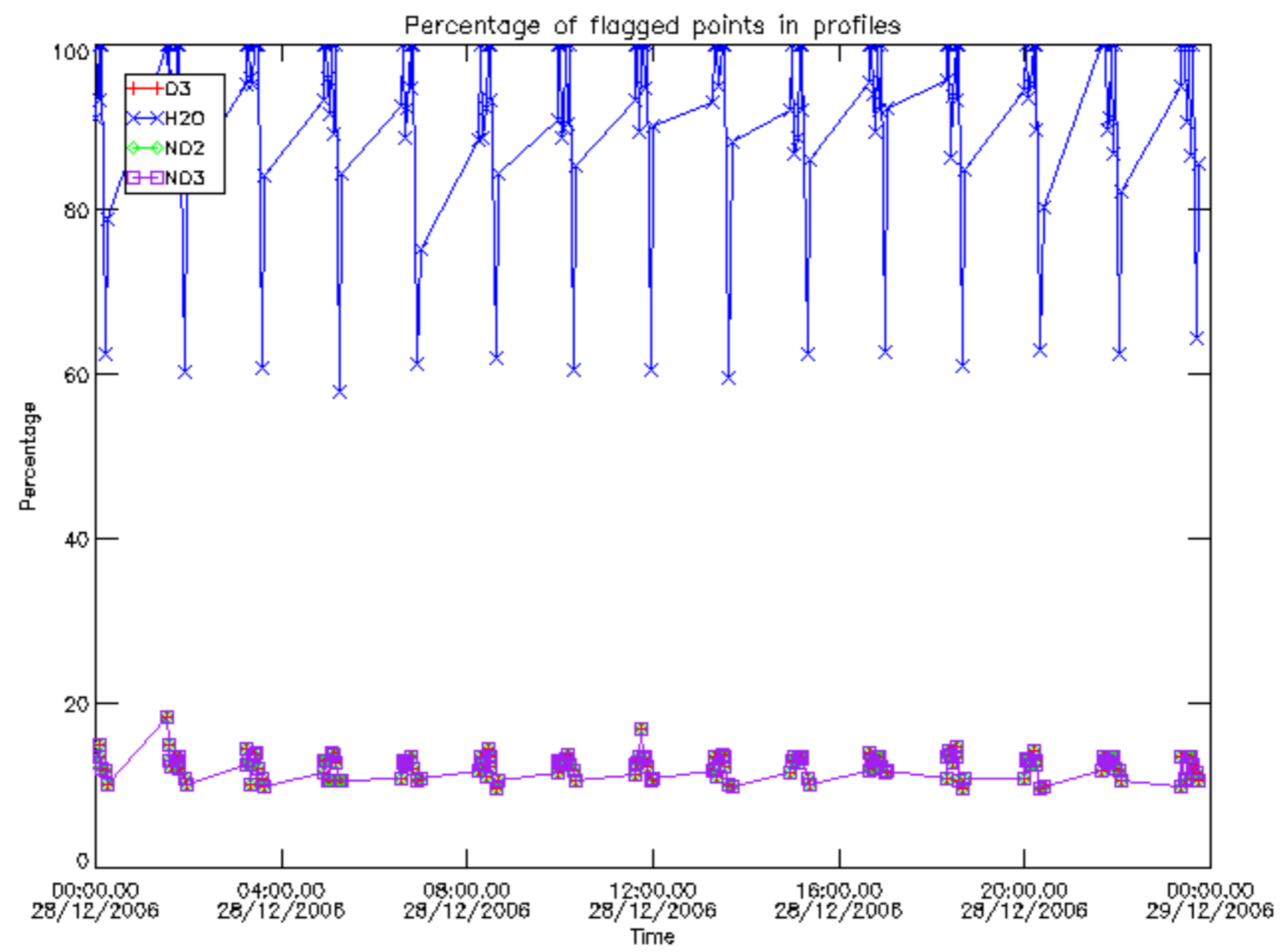






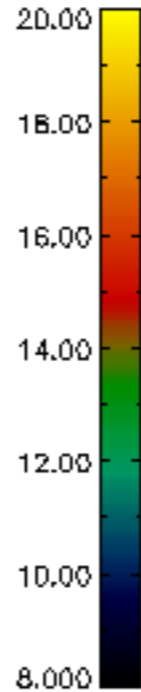
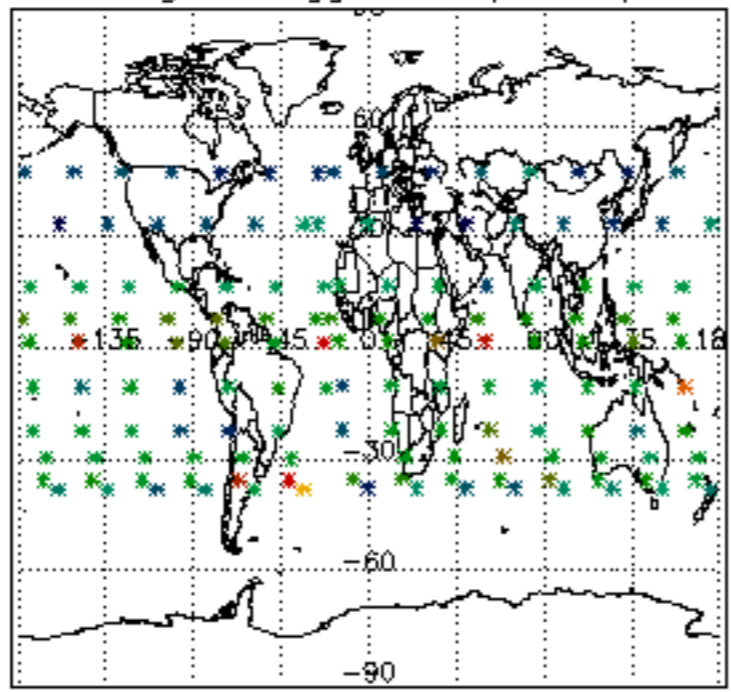




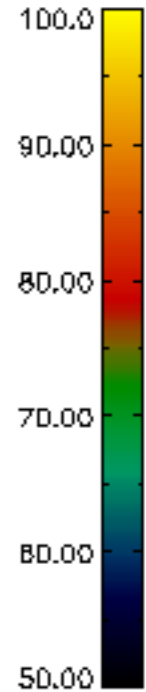
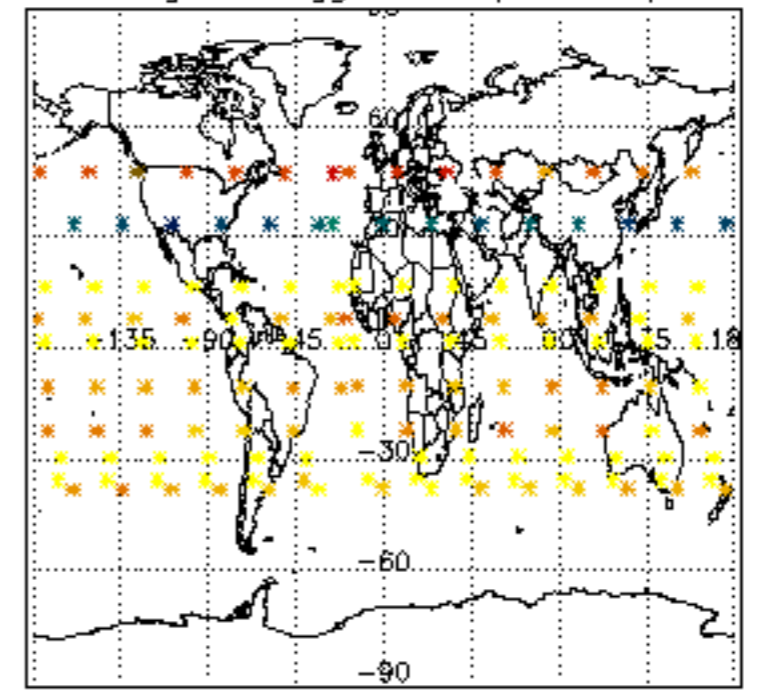




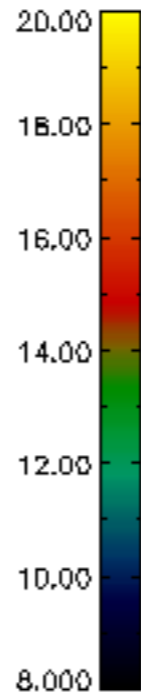
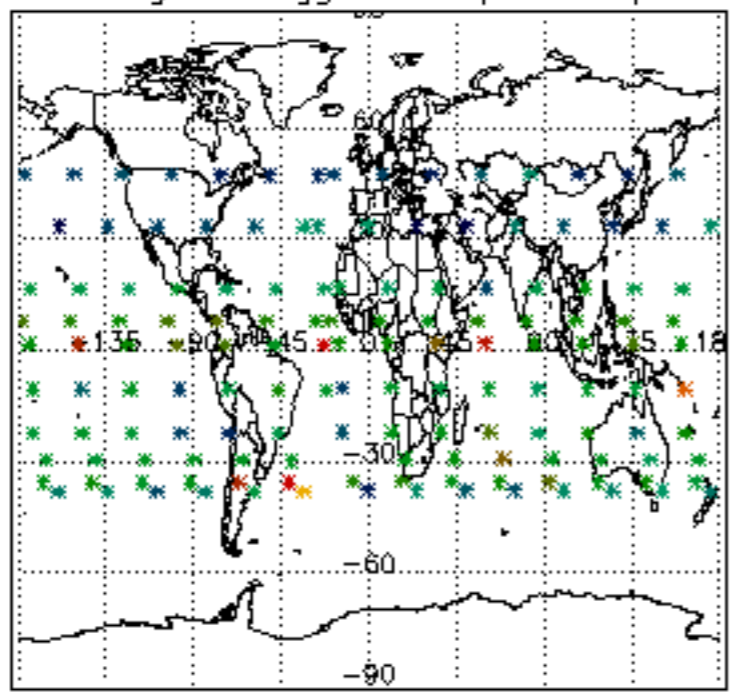
Percentage of flagged data per D3 profile



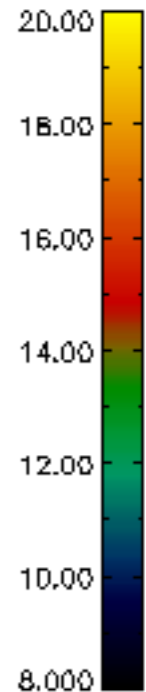
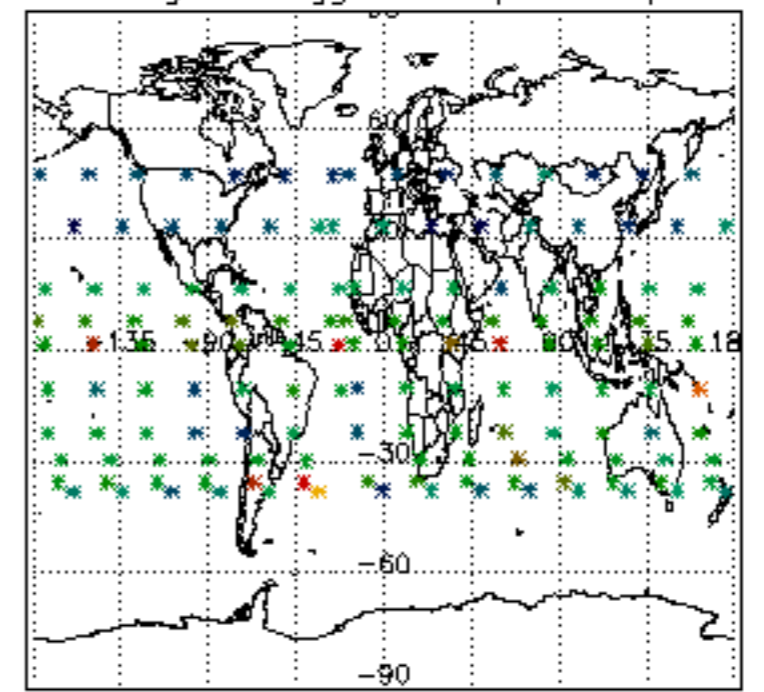
Percentage of flagged data per H2O profile

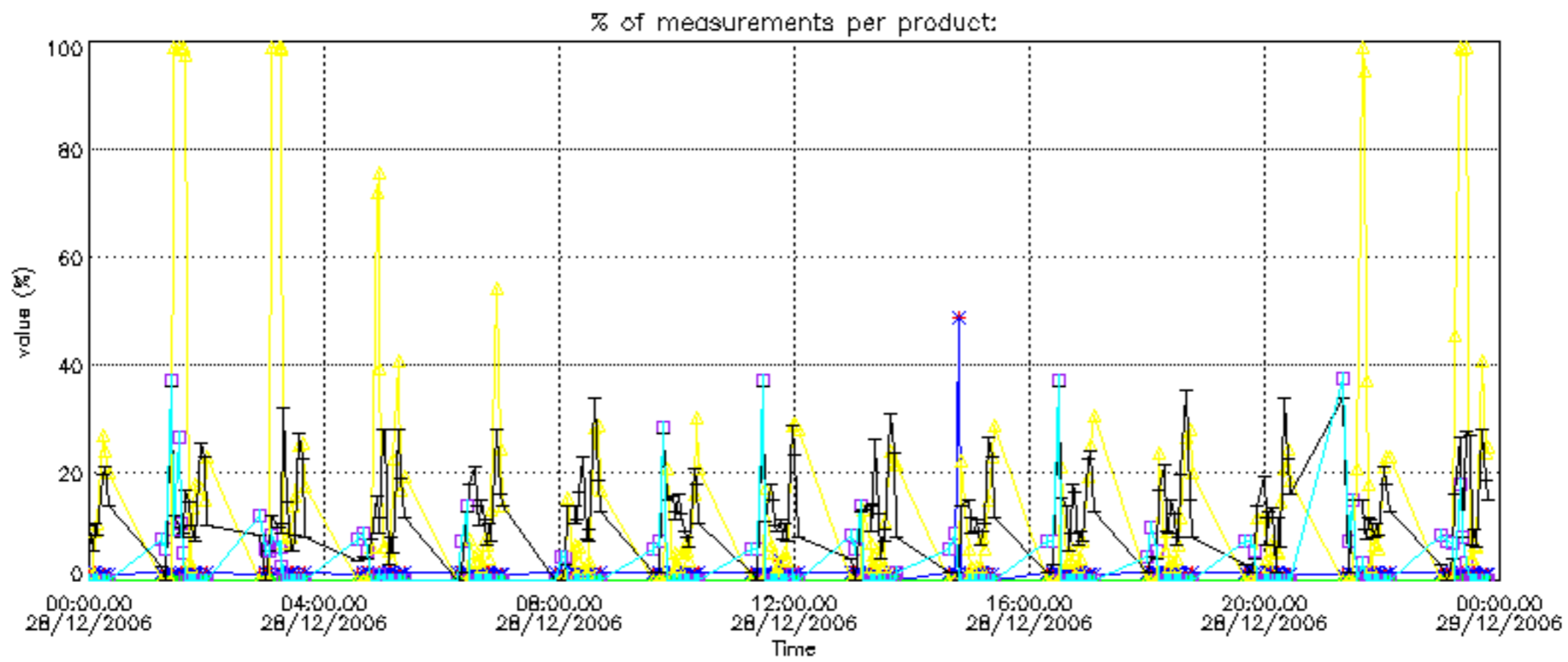
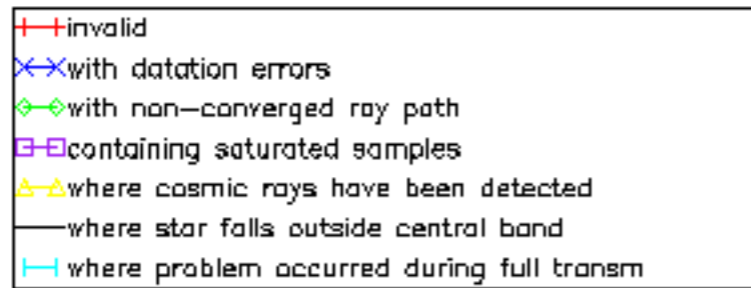


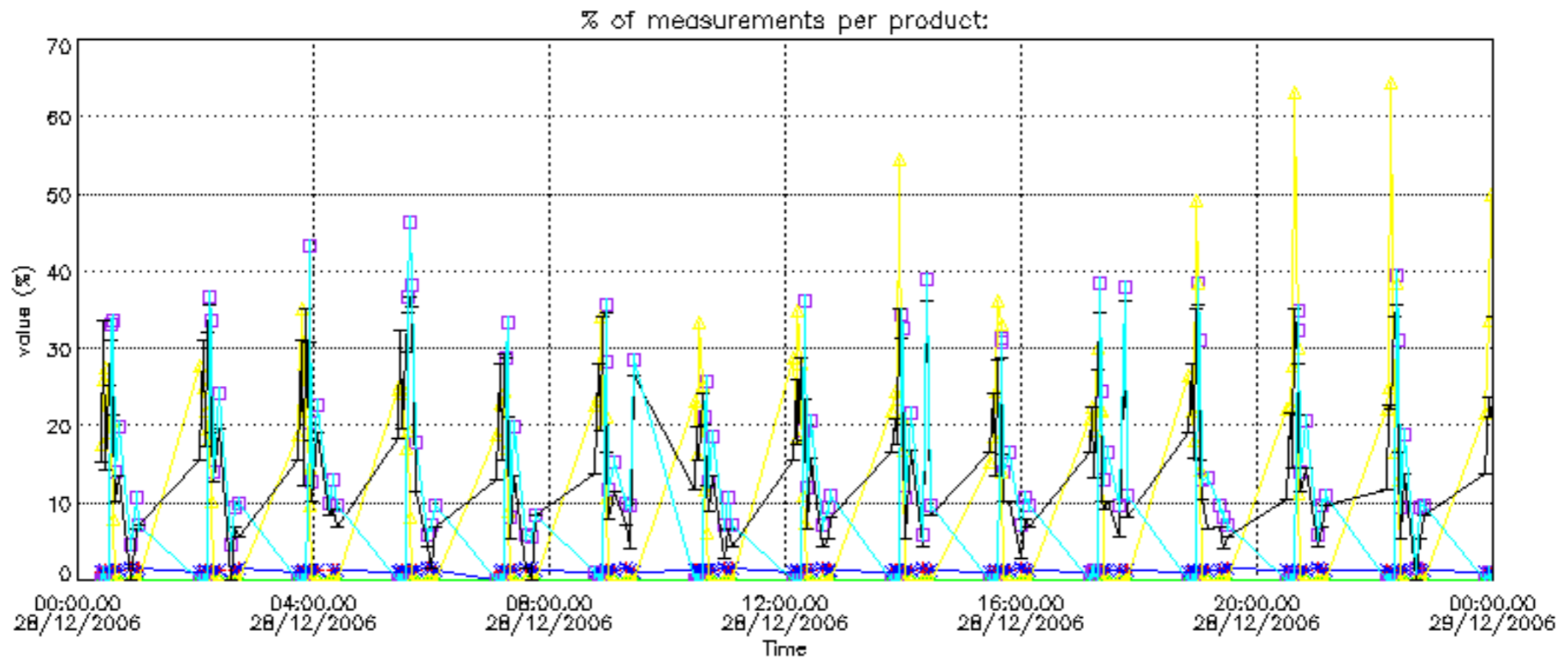
Percentage of flagged data per NO2 profile



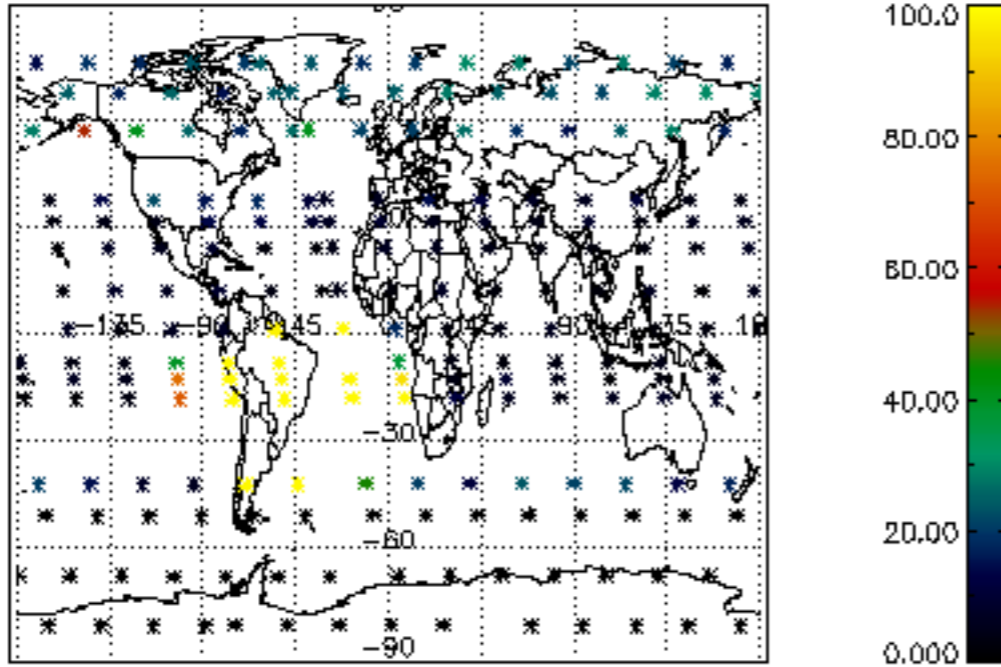
Percentage of flagged data per NO3 profile



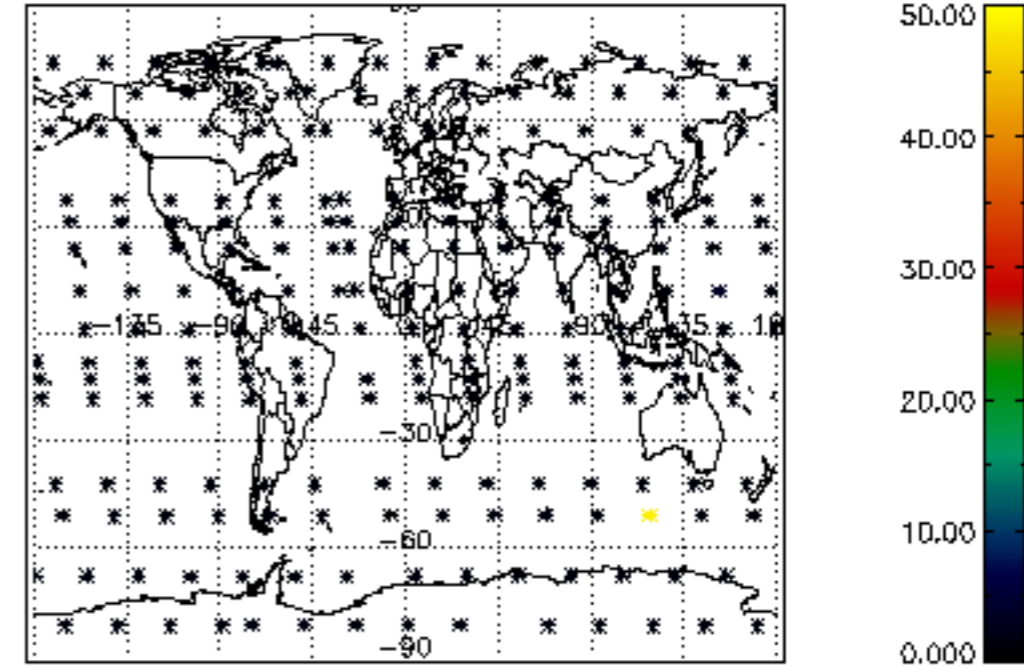




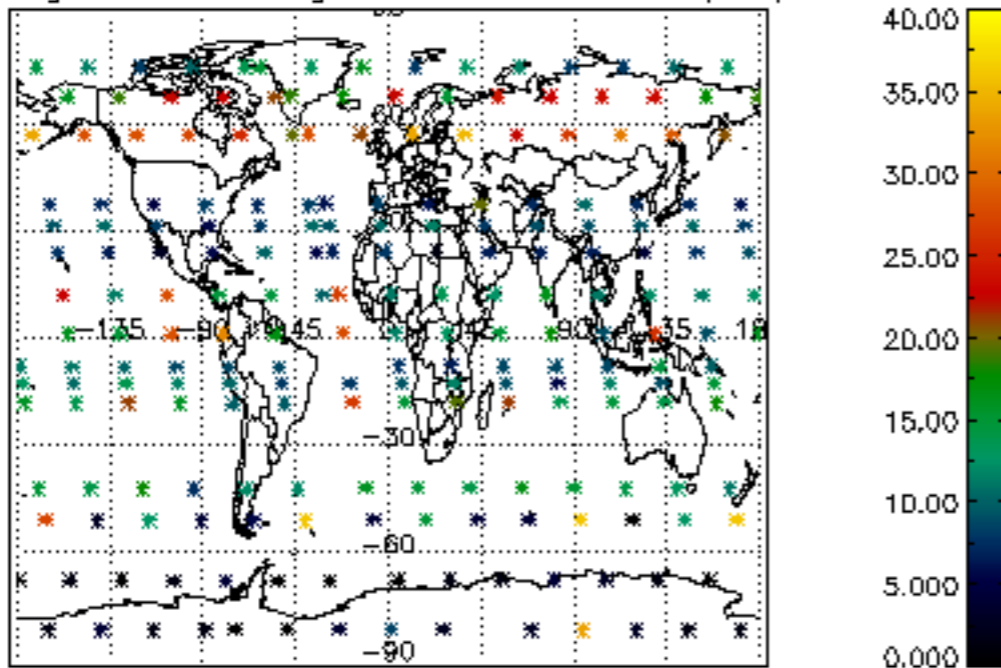
Percentage of cosmic ray hits per profile



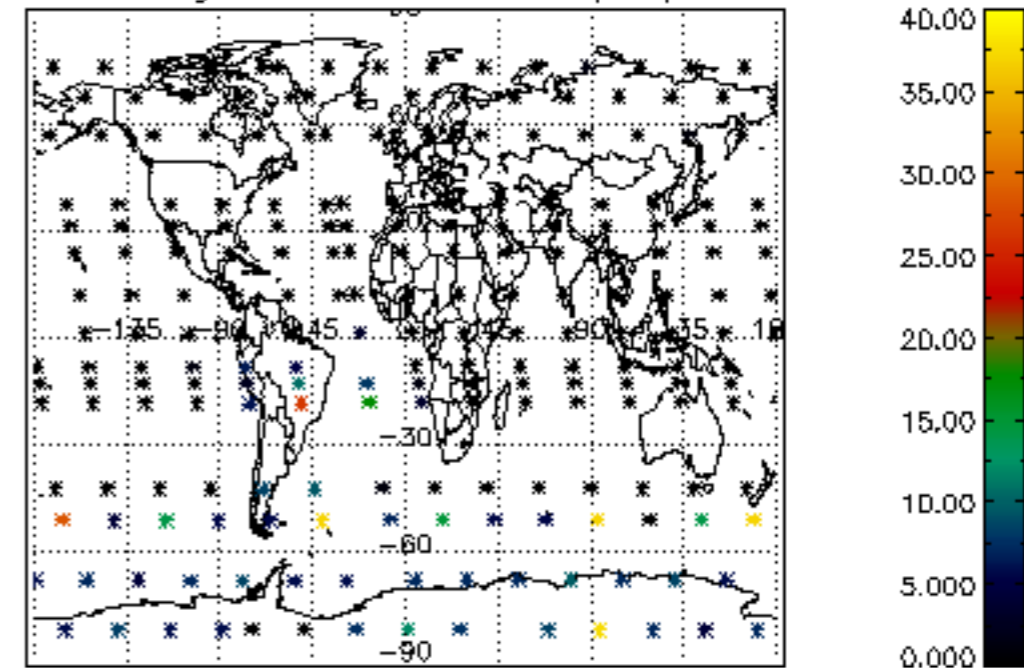
Percentage of datation errors per profile



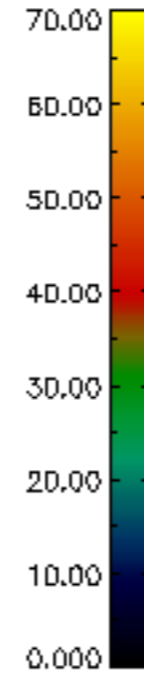
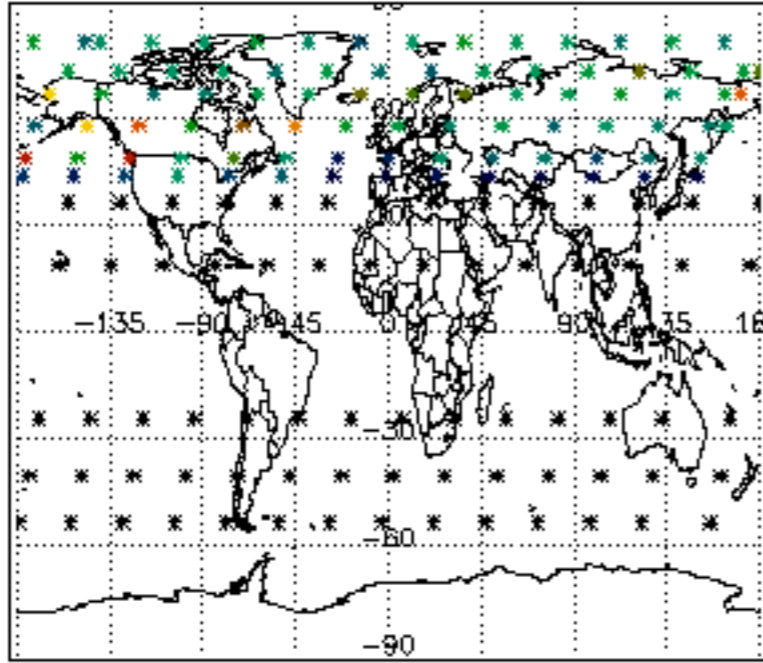
Percentage of star falling outside central band per profile



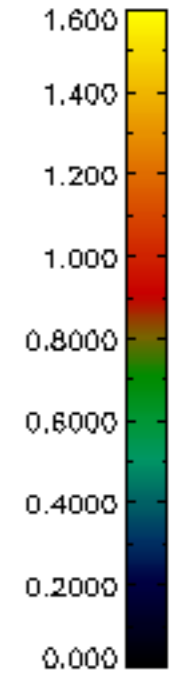
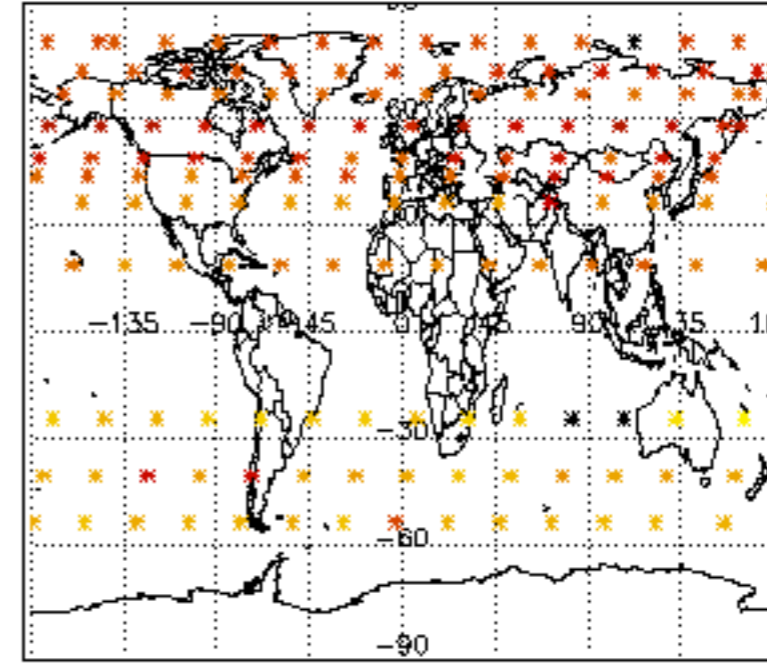
Percentage of saturation errors per profile



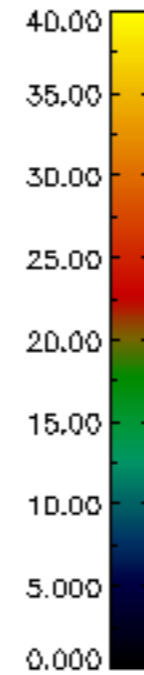
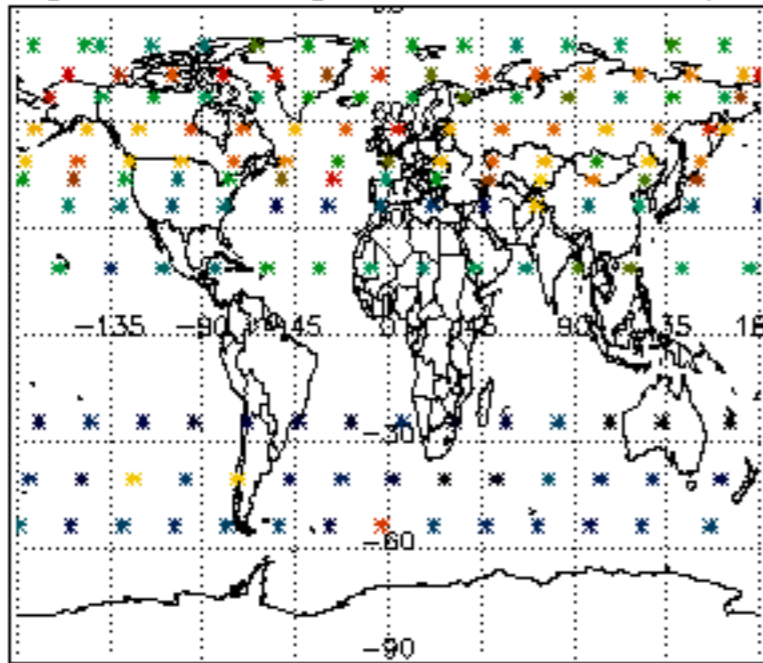
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

