

# GOMOS Level 2 Daily Report

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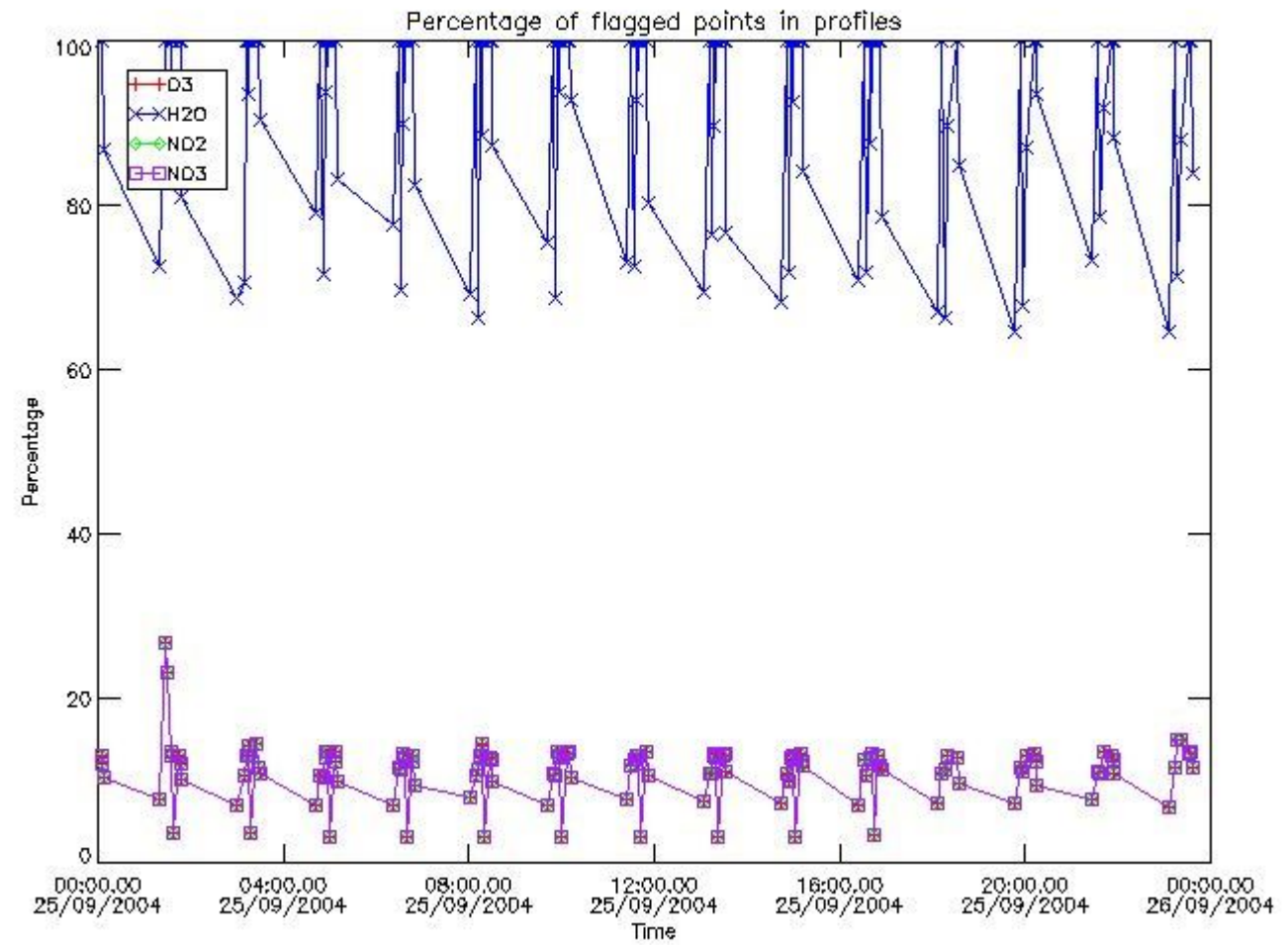






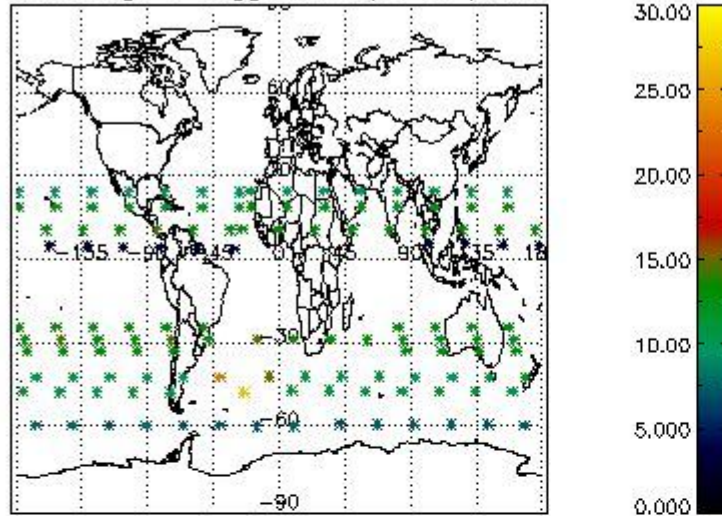




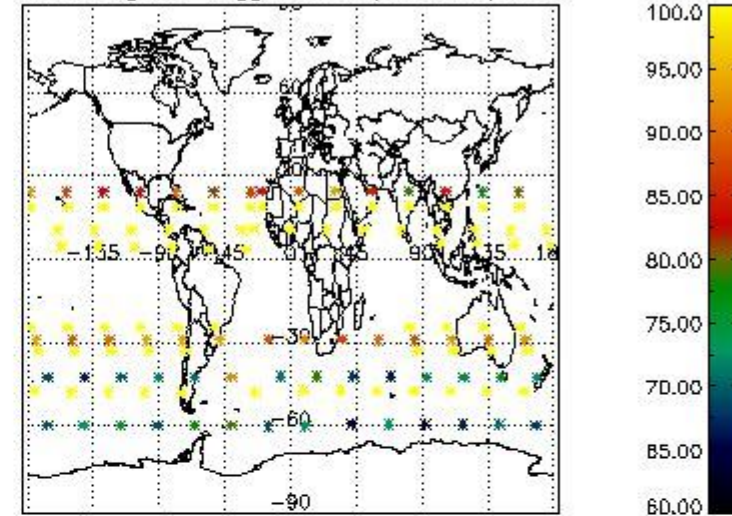


3.2 Plot quality information per product (world map)

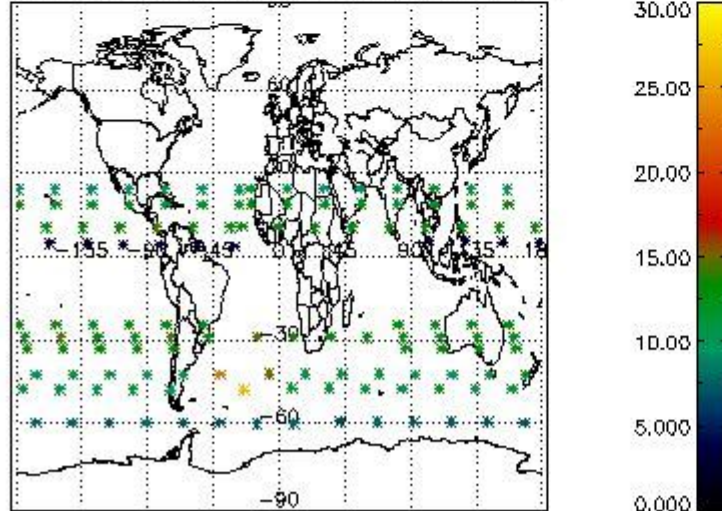
Percentage of flagged data per O3 profile



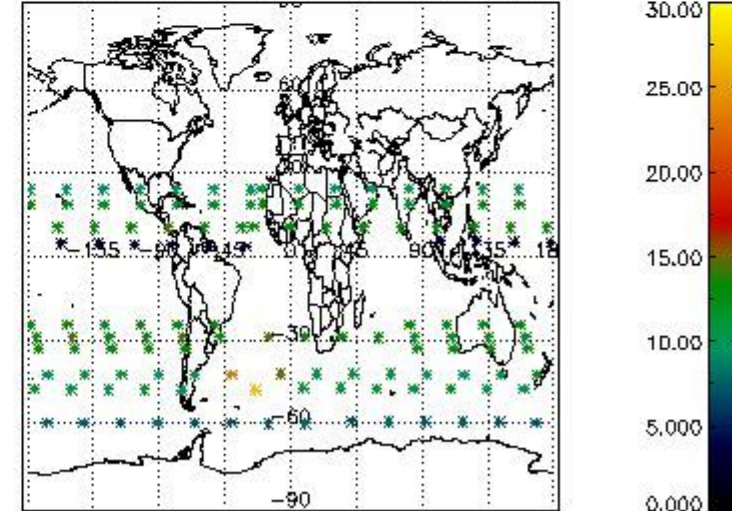
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

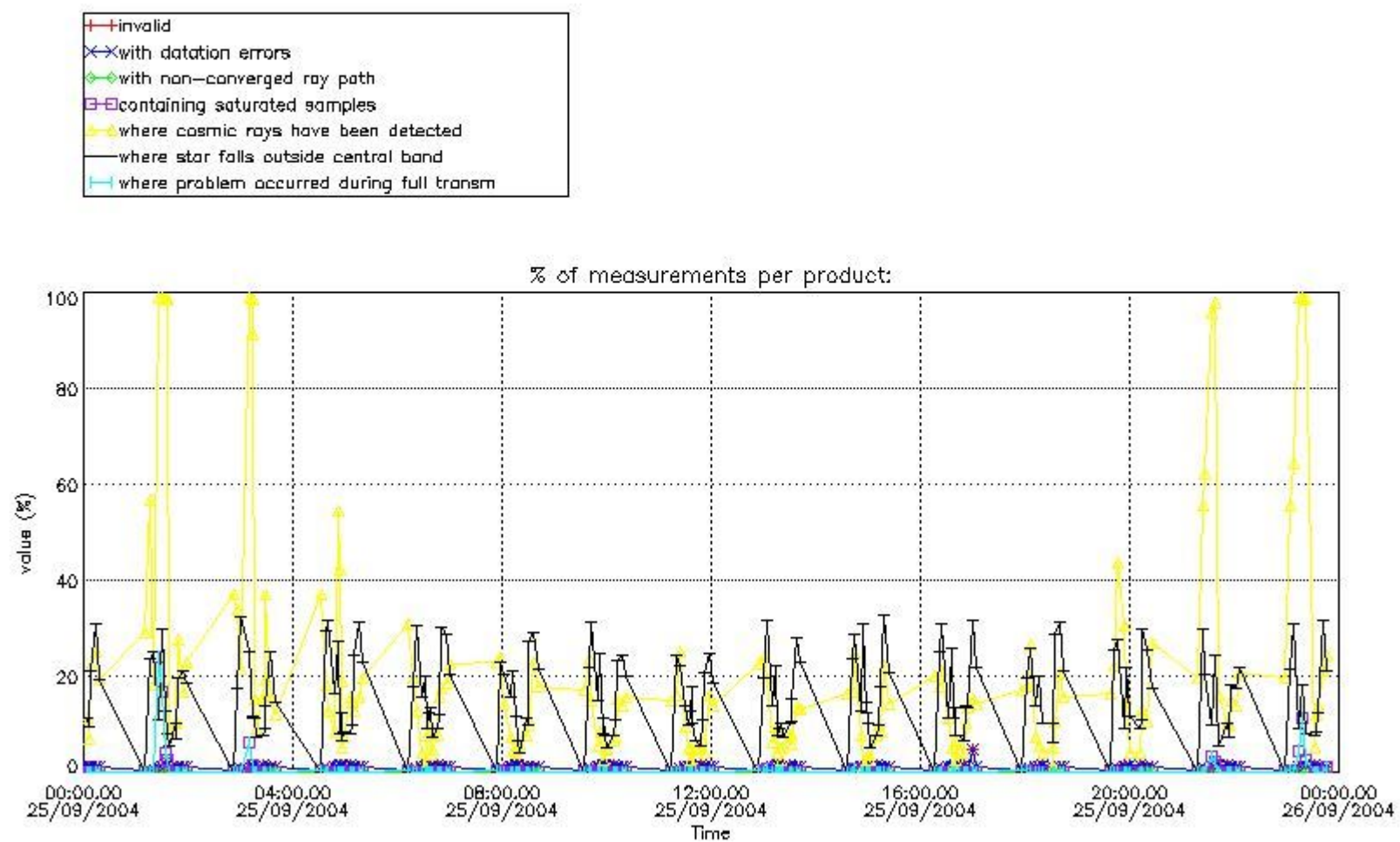


#### 4. Level 1 quality information per product

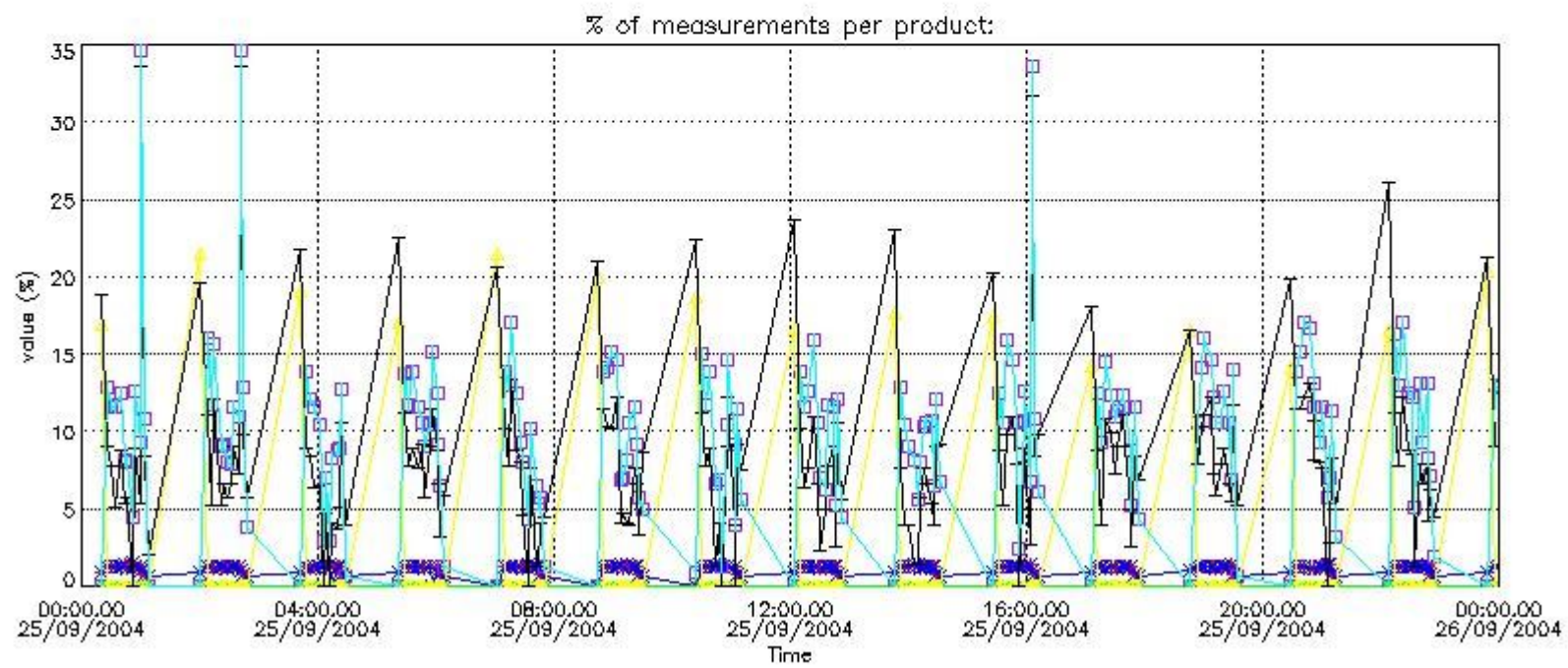
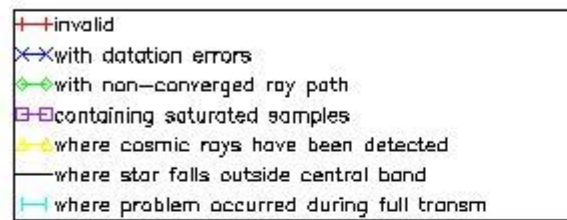
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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

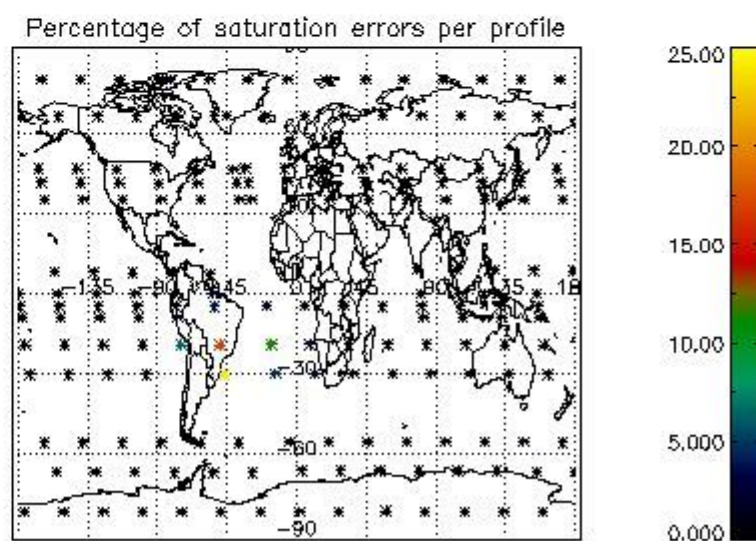
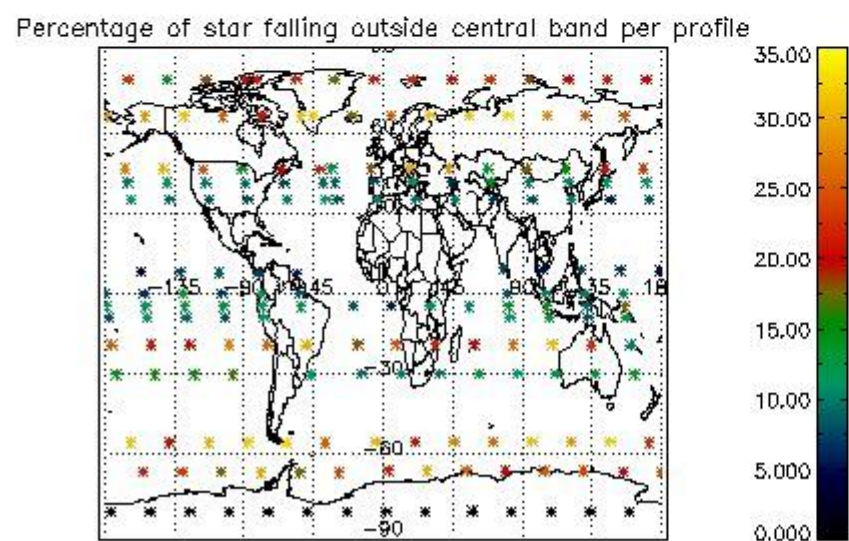
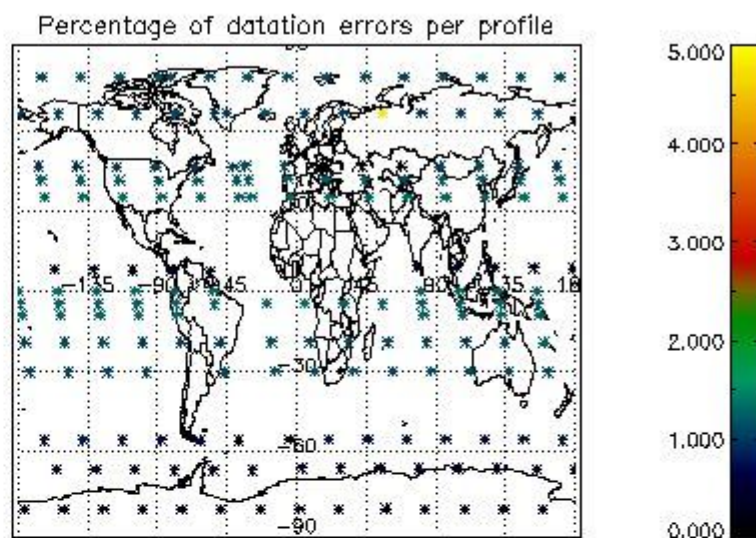
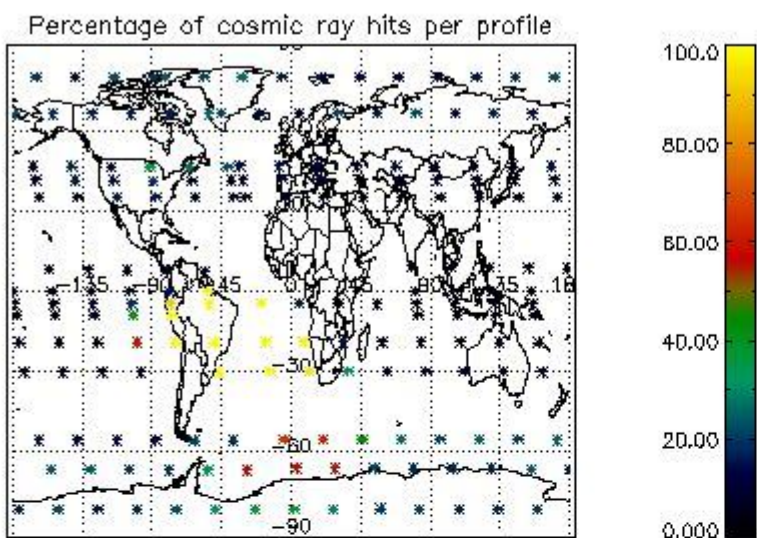


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

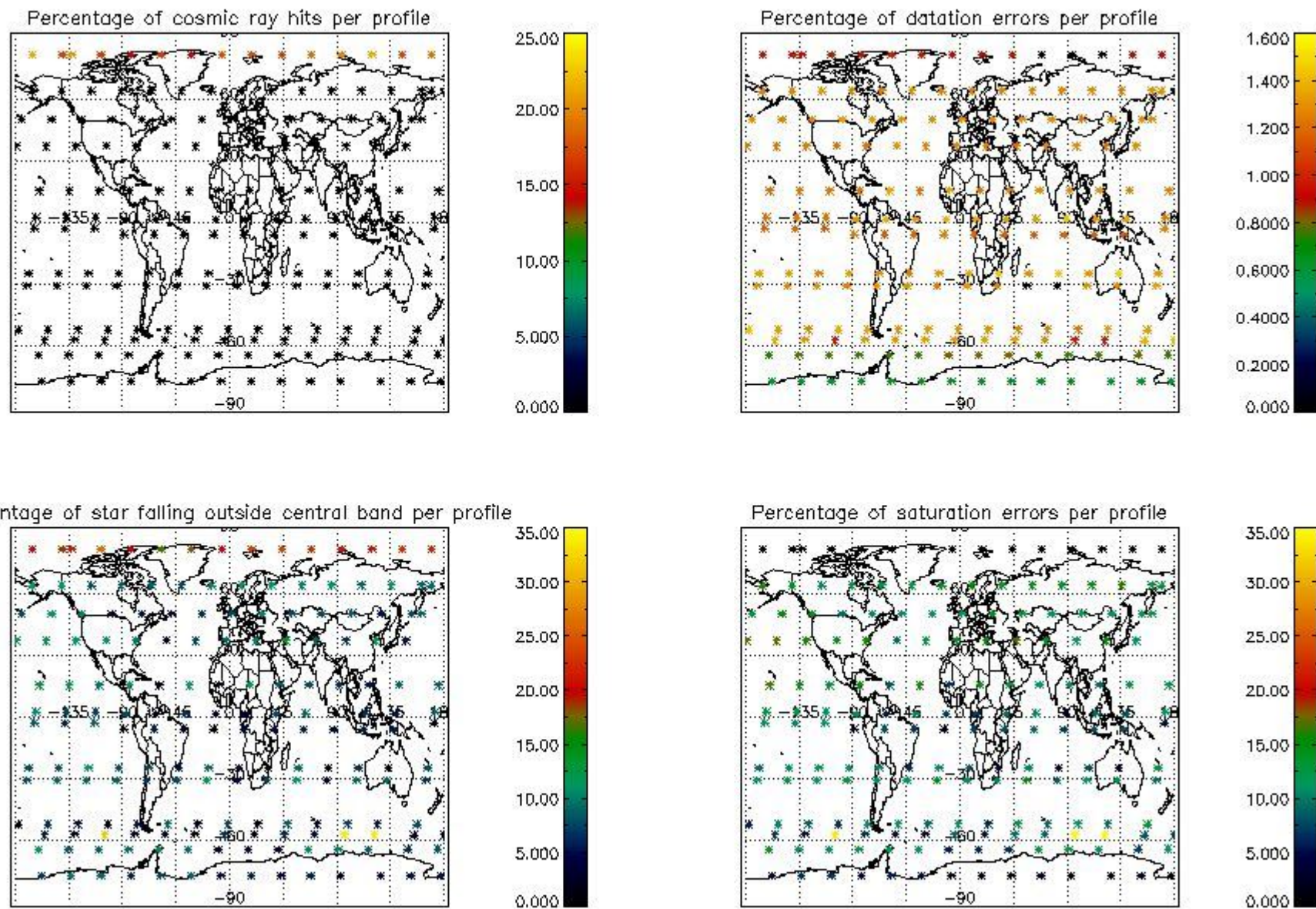


*4.2 Plot quality information per product coming from level 1b processing (world map)*

*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

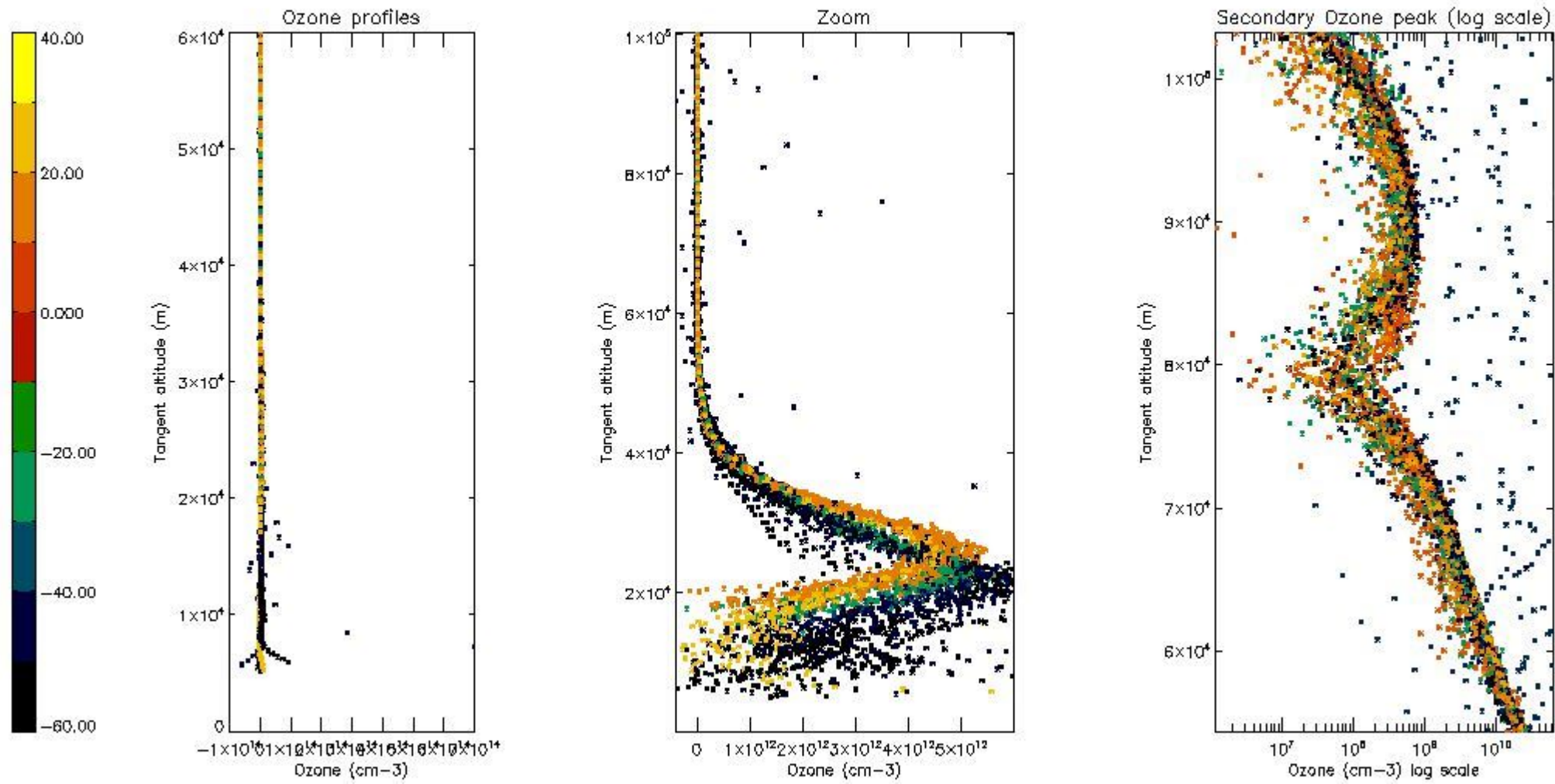
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	32
STD < 20	19

STD < 10	16
STD < 5	10

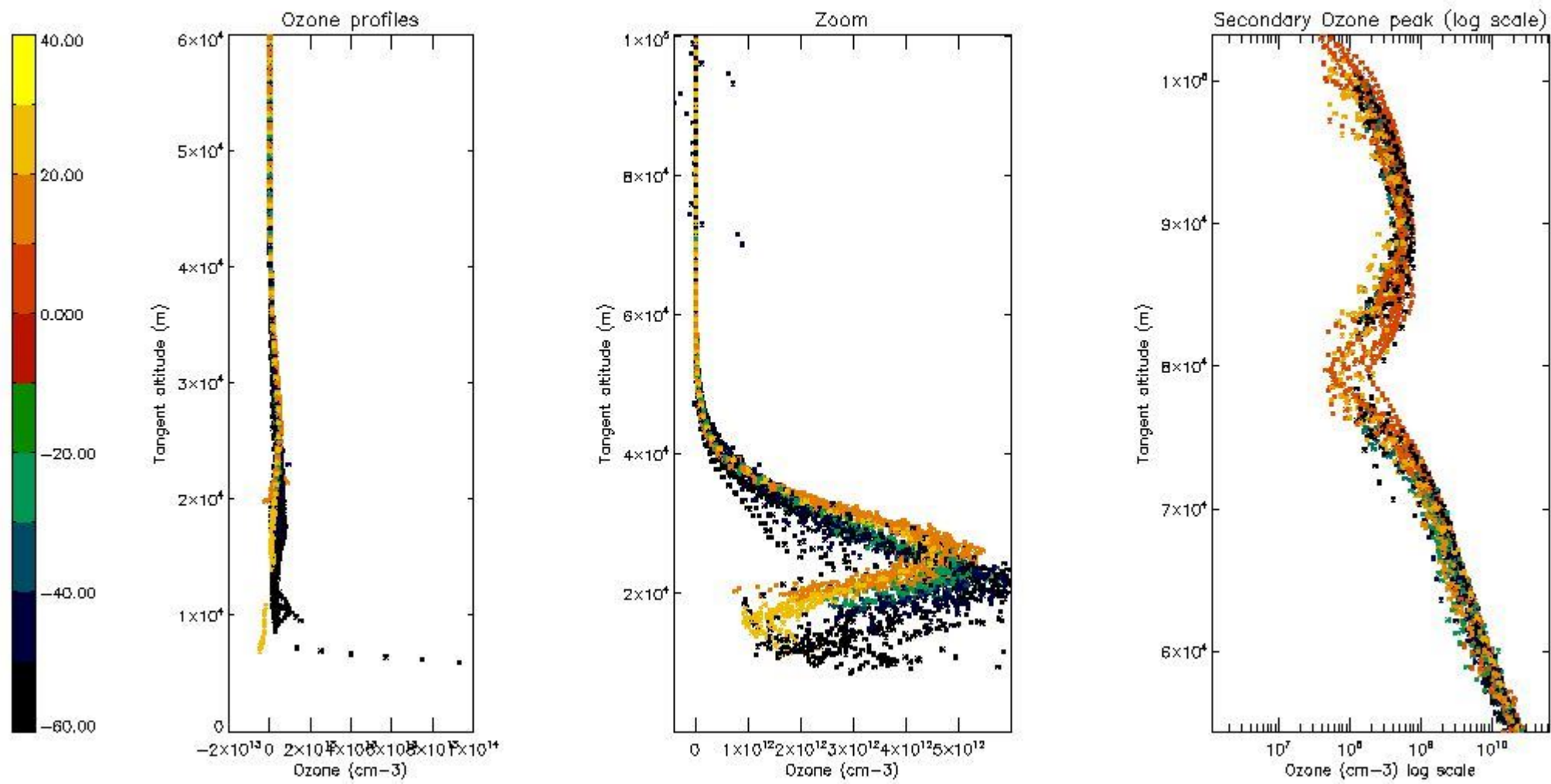
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

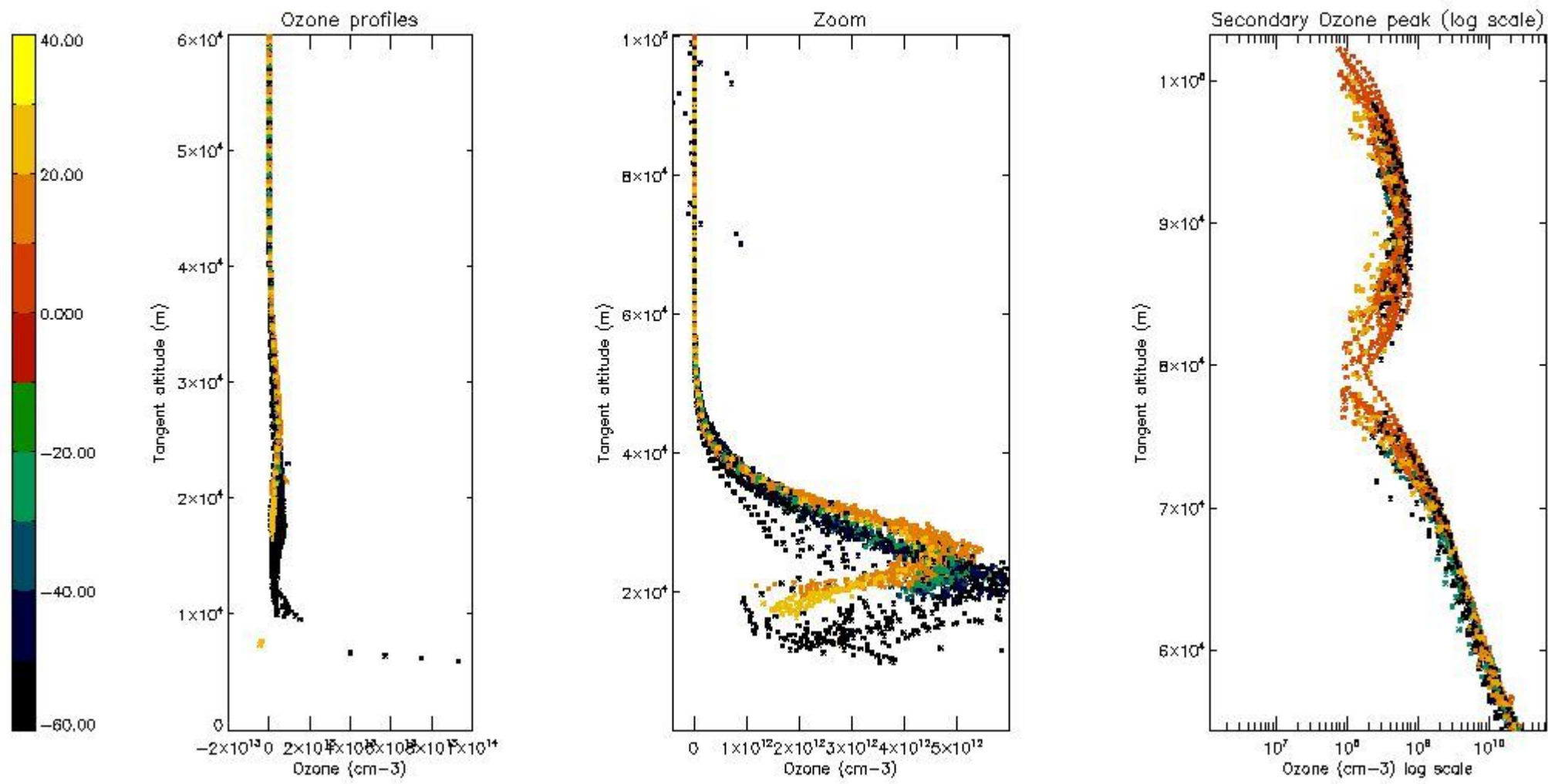
The colorbar represents the latitude.



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

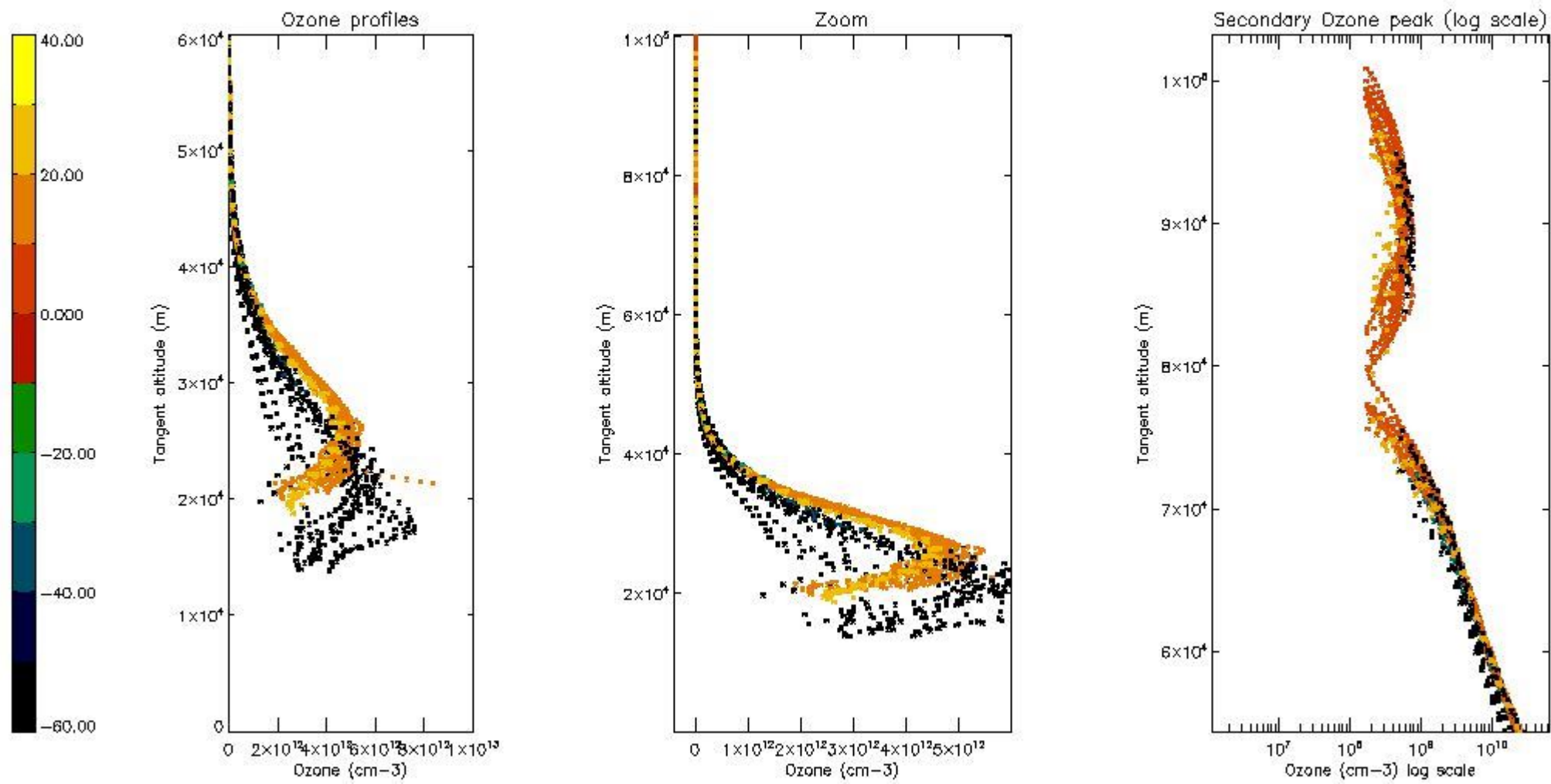
The colorbar represents the latitude.





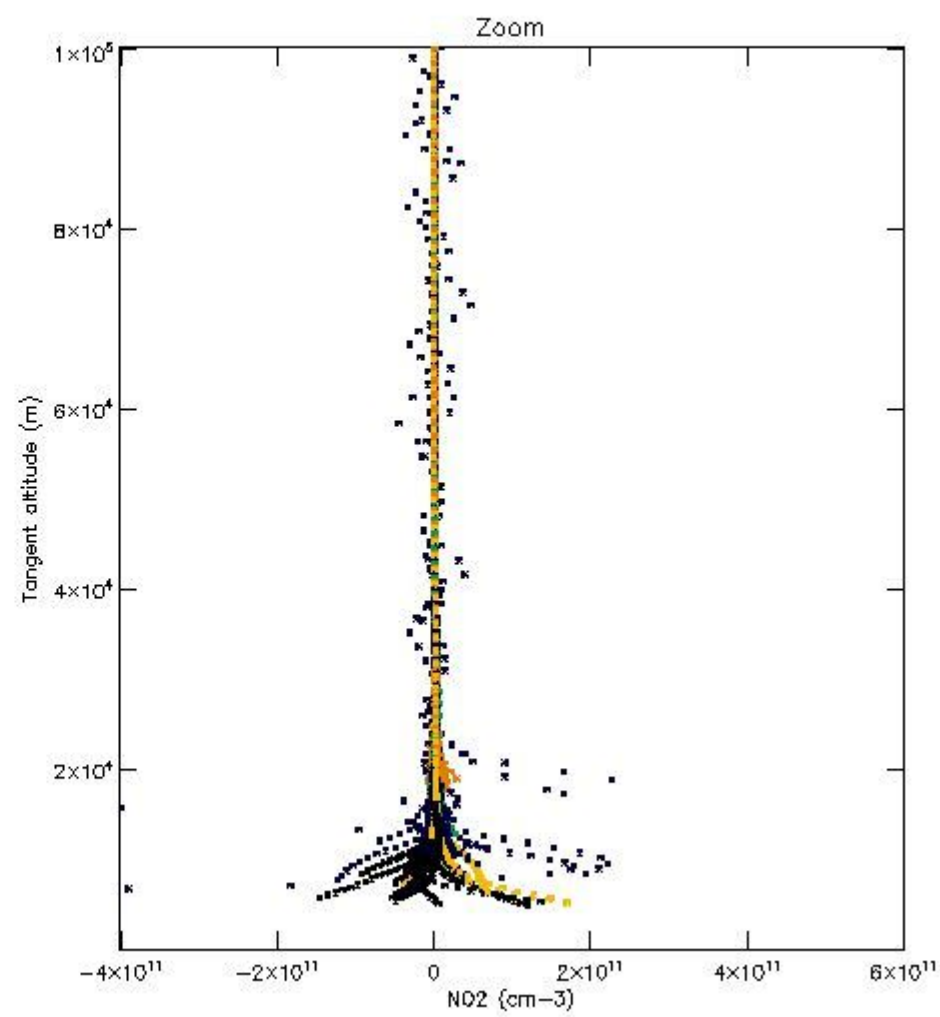
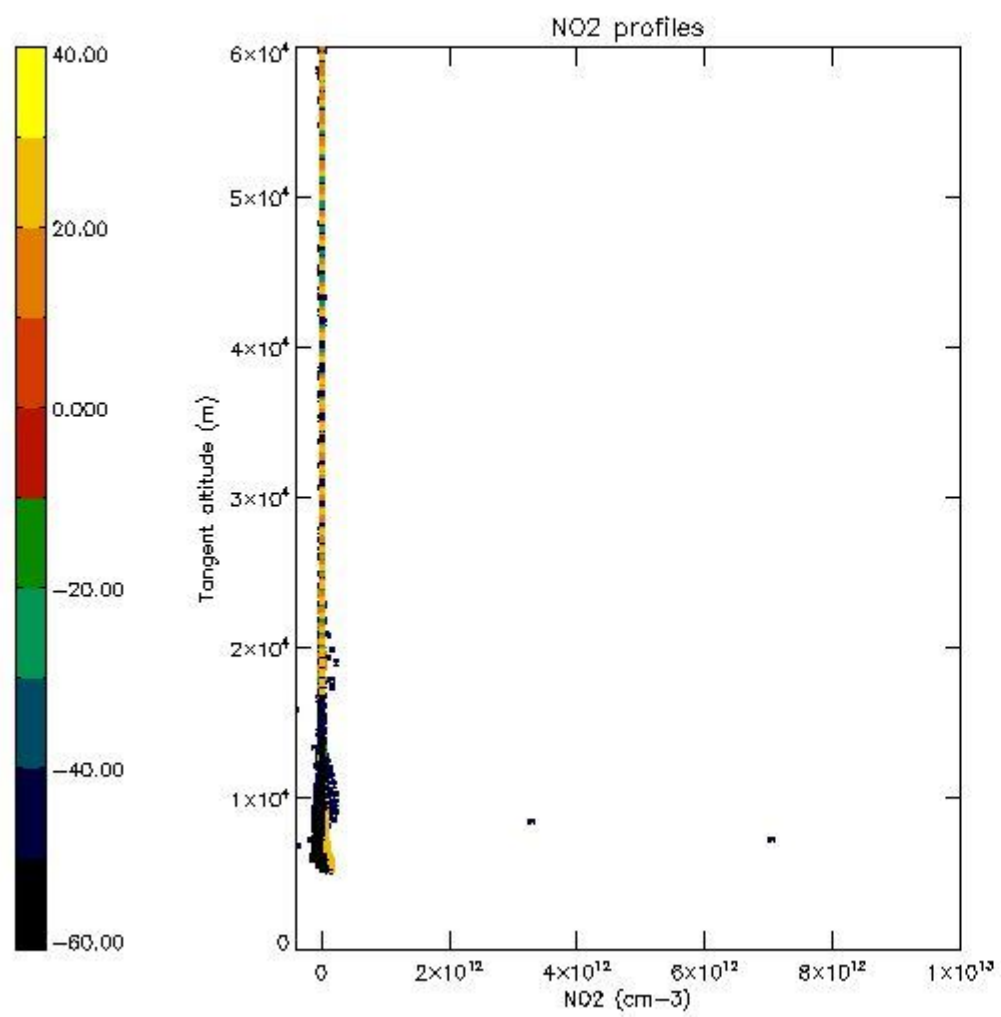
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



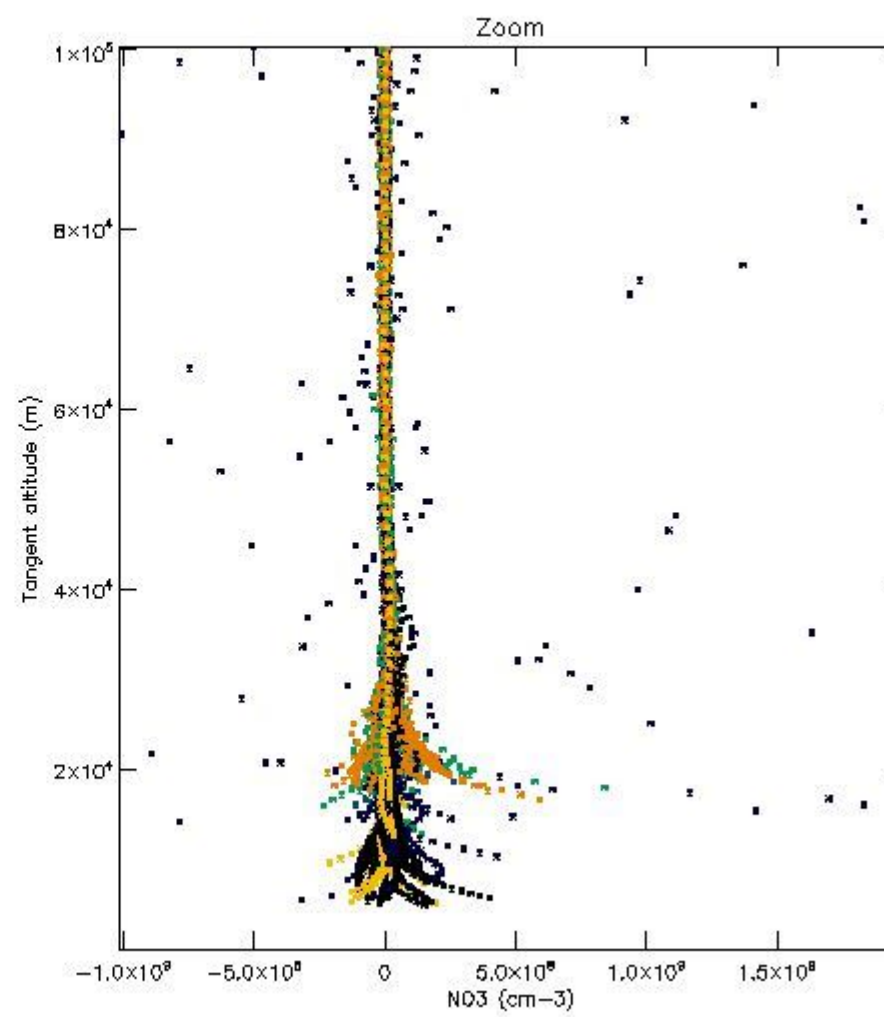
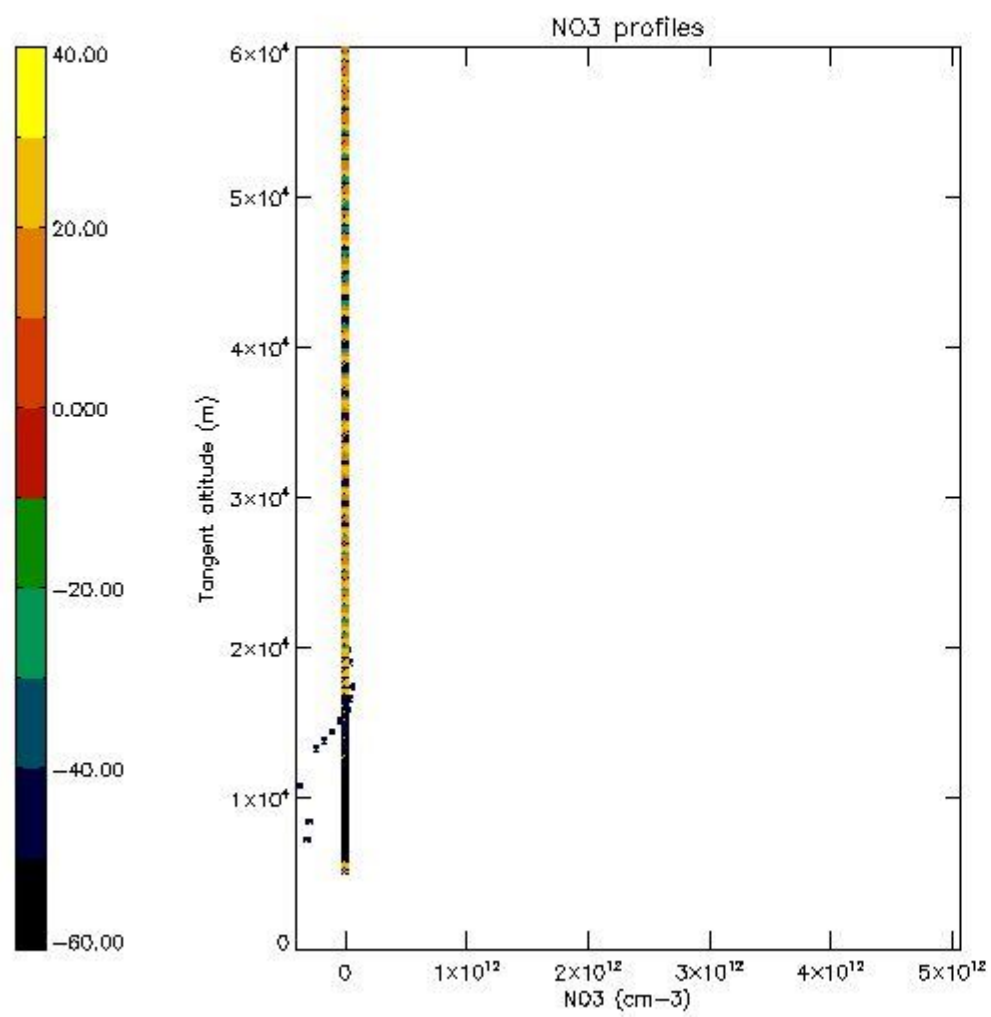
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



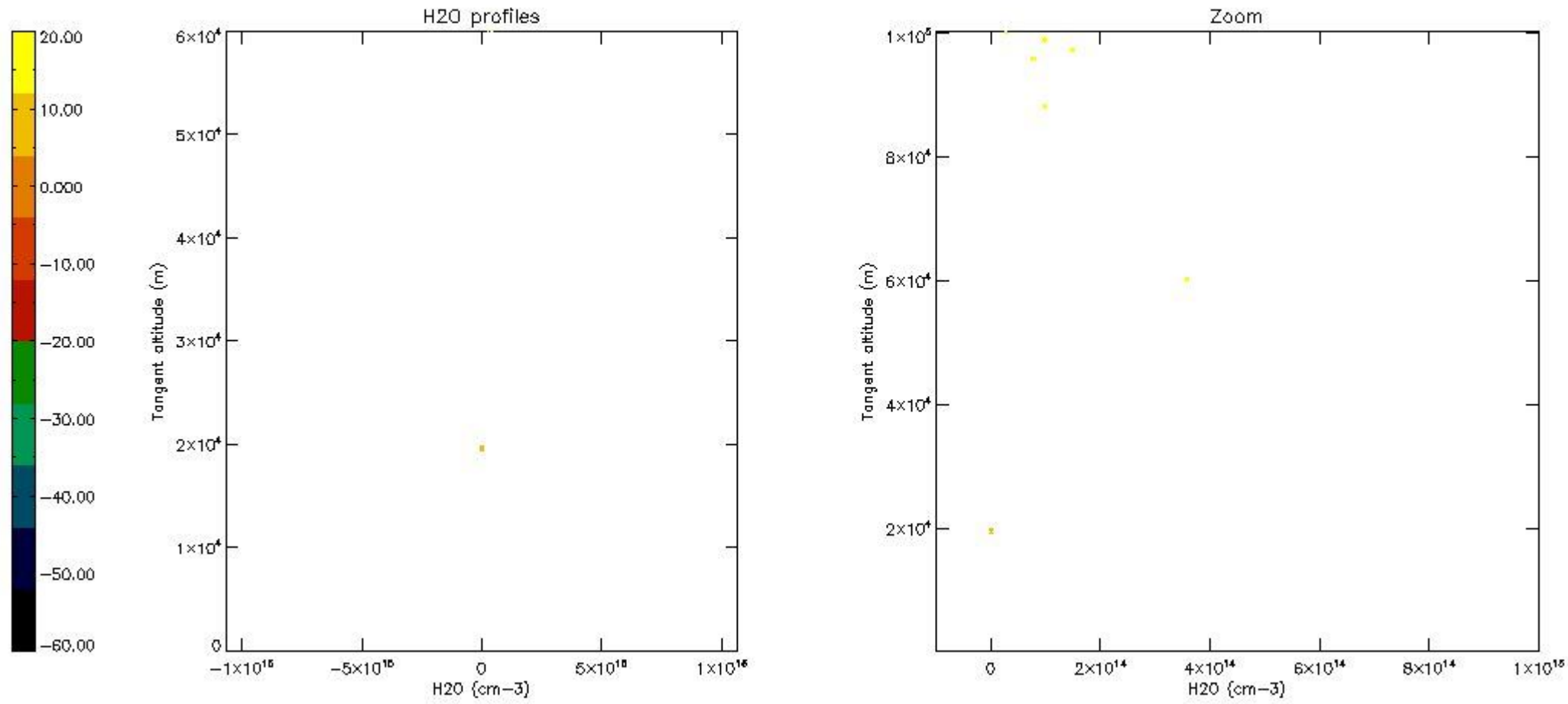
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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

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

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	25-SEP-2004 00:04:27
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	25-SEP-2004 00:04:27
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	25-SEP-2004 00:04:27

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##### [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](#)

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#### [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](#)













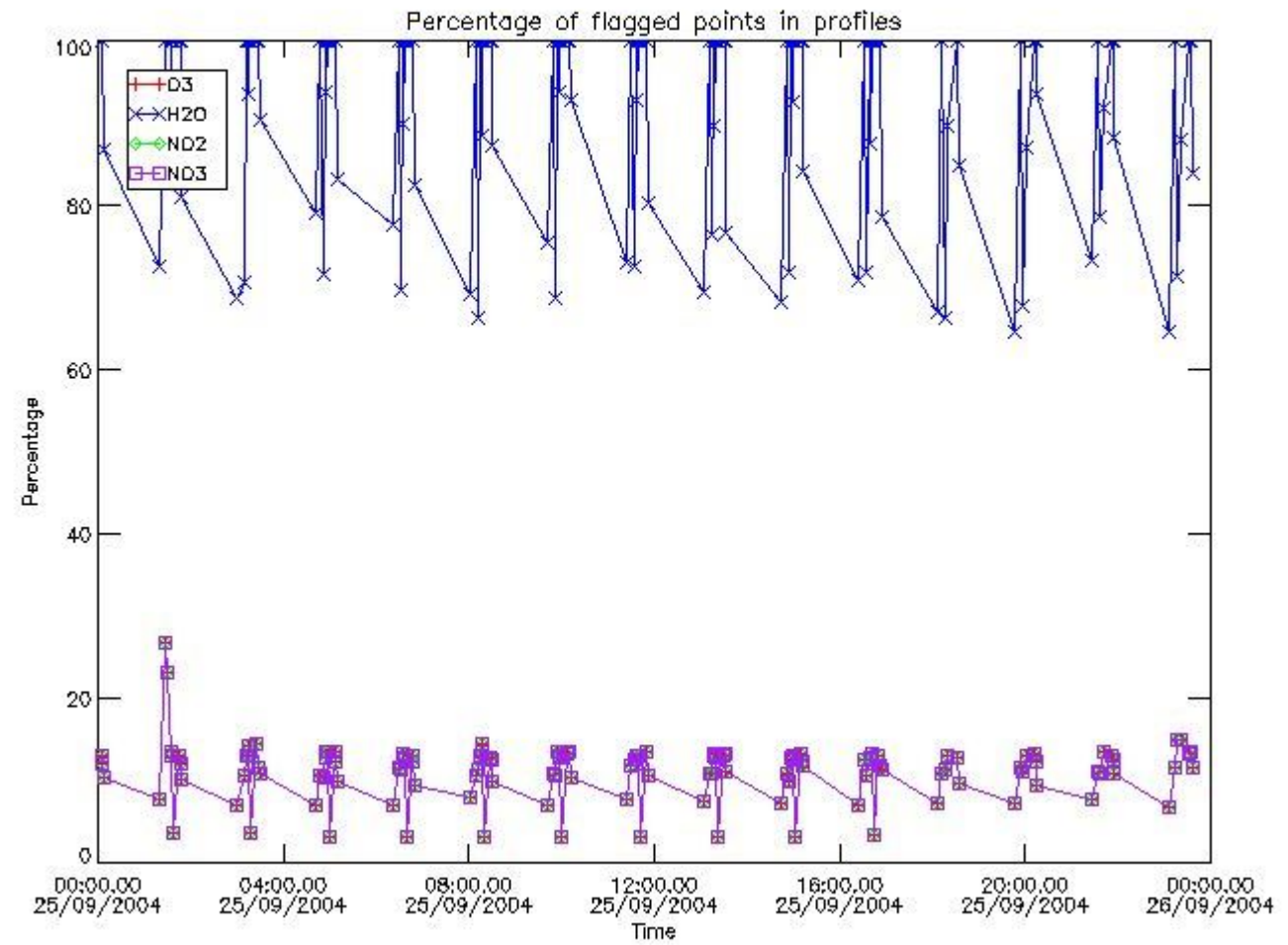


338	GOM_NL__2PRFIN20040925_213400_000000462030_00372_13452_4462.N1	25-SEP-2004 21:34:00	Dark	45.500	132	15Rho Pup	2.8030	6900.0	91	13452	No
339	GOM_NL__2PRFIN20040925_213704_000000472030_00372_13452_4463.N1	25-SEP-2004 21:37:04	Dark	47.000	65	Lam Vel	2.2040	4400.0	94	13452	No
340	GOM_NL__2PRFIN20040925_214104_000000382030_00372_13452_4464.N1	25-SEP-2004 21:41:04	Dark	37.500	71	lot Car	2.2460	7700.0	75	13452	No
341	GOM_NL__2PRFIN20040925_215217_000000392030_00373_13453_4441.N1	25-SEP-2004 21:52:17	Dark	39.000	135	Bet Hyi	2.8200	5800.0	78	13453	No
342	GOM_NL__2PRFIN20040925_215406_000000412030_00373_13453_4442.N1	25-SEP-2004 21:54:06	Dark	40.500	143	Alp Hyi	2.8570	7200.0	81	13453	No
343	GOM_NL__2PRFIN20040925_215533_000000472030_00373_13453_4443.N1	25-SEP-2004 21:55:33	Dark	47.000	9	Alp Eri	0.45300	24000.	94	13453	No
344	GOM_NL__2PRFIN20040925_220115_000000432030_00373_13453_4444.N1	25-SEP-2004 22:01:15	Straylight	43.000	63	Bet Gru	2.1500	2800.0	86	13453	No
345	GOM_NL__2PRFIN20040925_220550_000000462030_00373_13453_4445.N1	25-SEP-2004 22:05:50	Straylight	46.000	18	24Alp PsA	1.1660	9700.0	92	13453	No
346	GOM_NL__2PRFIN20040925_220810_000000582030_00373_13453_4446.N1	25-SEP-2004 22:08:10	Twilight_and_stray	57.500	52	16Bet Cet	2.0370	4500.0	115	13453	No
347	GOM_NL__2PRFIN20040925_221430_000000402030_00373_13453_4447.N1	25-SEP-2004 22:14:30	Bright	40.000	162	34Alp Aqr	2.9440	5350.0	80	13453	No
348	GOM_NL__2PRFIN20040925_221828_000000392030_00373_13453_4448.N1	25-SEP-2004 22:18:28	Bright	38.500	90	54Alp Peg	2.4870	11000.	77	13453	No
349	GOM_NL__2PRFIN20040925_222210_000000412030_00373_13453_4449.N1	25-SEP-2004 22:22:10	Bright	41.000	93	53Bet Peg	2.5200	3100.0	82	13453	No
350	GOM_NL__2PRFIN20040925_222818_000000402030_00373_13453_4450.N1	25-SEP-2004 22:28:18	Bright	40.000	19	50Alp Cyg	1.2460	10500.	80	13453	No
351	GOM_NL__2PRFIN20040925_223153_000000412030_00373_13453_4451.N1	25-SEP-2004 22:31:53	Bright	41.000	74	11Bet Cas	2.2680	6600.0	82	13453	No
352	GOM_NL__2PRFIN20040925_223323_000000402030_00373_13453_4452.N1	25-SEP-2004 22:33:23	Bright	39.500	76	27Gam Cas	2.3000	30000.	79	13453	No
353	GOM_NL__2PRFIN20040925_223931_000000382030_00373_13453_4453.N1	25-SEP-2004 22:39:31	Bright	38.000	49	1Alp UMi	1.9900	6300.0	76	13453	No
354	GOM_NL__2PRFIN20040925_224114_000000382030_00373_13453_4454.N1	25-SEP-2004 22:41:14	Bright	37.500	60	7Bet UMi	2.0810	3950.0	75	13453	No
355	GOM_NL__2PRFIN20040925_224719_000000382030_00373_13453_4455.N1	25-SEP-2004 22:47:19	Bright	38.000	36	50Alp UMa	1.8000	6300.0	76	13453	No
356	GOM_NL__2PRFIN20040925_224848_000000362030_00373_13453_4456.N1	25-SEP-2004 22:48:48	Bright	36.000	82	48Bet UMa	2.3650	10600.	72	13453	No
357	GOM_NL__2PRFIN20040925_225049_000000642030_00373_13453_4457.N1	25-SEP-2004 22:50:49	Bright	63.500	42	34Bet Aur	1.9000	10200.	127	13453	No
358	GOM_NL__2PRFIN20040925_225456_000000792030_00373_13453_4458.N1	25-SEP-2004 22:54:56	Bright	79.000	107	37The Aur	2.6490	11000.	158	13453	No
359	GOM_NL__2PRFIN20040925_225833_000002552030_00373_13453_4459.N1	25-SEP-2004 22:58:33	Twilight_and_stray	255.00	114	3lot Aur	2.6930	4600.0	510	13453	No
360	GOM_NL__2PRFIN20040925_230411_000001272030_00373_13453_4460.N1	25-SEP-2004 23:04:11	Straylight	126.50	151	13Mu Gem	2.8900	3000.0	253	13453	No
361	GOM_NL__2PRFIN20040925_230721_000000752030_00373_13453_4461.N1	25-SEP-2004 23:07:21	Dark	74.500	8	10Alp CMi	0.40000	6500.0	149	13453	No
362	GOM_NL__2PRFIN20040925_231437_000000452030_00373_13453_4462.N1	25-SEP-2004 23:14:37	Dark	44.500	132	15Rho Pup	2.8030	6900.0	89	13453	No
363	GOM_NL__2PRFIN20040925_231740_000000442030_00373_13453_4463.N1	25-SEP-2004 23:17:40	Dark	44.000	65	Lam Vel	2.2040	4400.0	88	13453	No
364	GOM_NL__2PRFIN20040925_232141_000000382030_00373_13453_4464.N1	25-SEP-2004 23:21:41	Dark	37.500	71	lot Car	2.2460	7700.0	75	13453	No
365	GOM_NL__2PRFIN20040925_233252_000000392030_00374_13454_4643.N1	25-SEP-2004 23:32:52	Dark	38.500	135	Bet Hyi	2.8200	5800.0	77	13454	No
366	GOM_NL__2PRFIN20040925_233441_000000422030_00374_13454_4644.N1	25-SEP-2004 23:34:41	Dark	41.500	143	Alp Hyi	2.8570	7200.0	83	13454	No
367	GOM_NL__2PRFIN20040925_233609_000000442030_00374_13454_4645.N1	25-SEP-2004 23:36:09	Dark	44.000	9	Alp Eri	0.45300	24000.	88	13454	No
368	GOM_NL__2PRFIN20040925_234151_000000522030_00374_13454_4646.N1	25-SEP-2004 23:41:51	Straylight	52.000	63	Bet Gru	2.1500	2800.0	104	13454	No
369	GOM_NL__2PRFIN20040925_234626_000000452030_00374_13454_4647.N1	25-SEP-2004 23:46:26	Straylight	45.000	18	24Alp PsA	1.1660	9700.0	90	13454	No
370	GOM_NL__2PRFIN20040925_234845_000000542030_00374_13454_4648.N1	25-SEP-2004 23:48:45	Twilight_and_stray	54.000	52	16Bet Cet	2.0370	4500.0	108	13454	No
371	GOM_NL__2PRFIN20040925_235506_000000392030_00374_13454_4649.N1	25-SEP-2004 23:55:06	Bright	38.500	162	34Alp Aqr	2.9440	5350.0	77	13454	No
372	GOM_NL__2PRFIN20040925_235904_000000392030_00374_13454_4650.N1	25-SEP-2004 23:59:04	Bright	39.000	90	54Alp Peg	2.4870	11000.	78	13454	No

### 3. Quality information per product

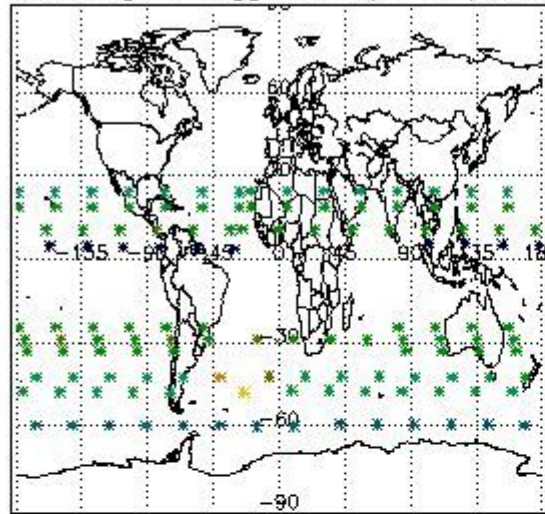
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

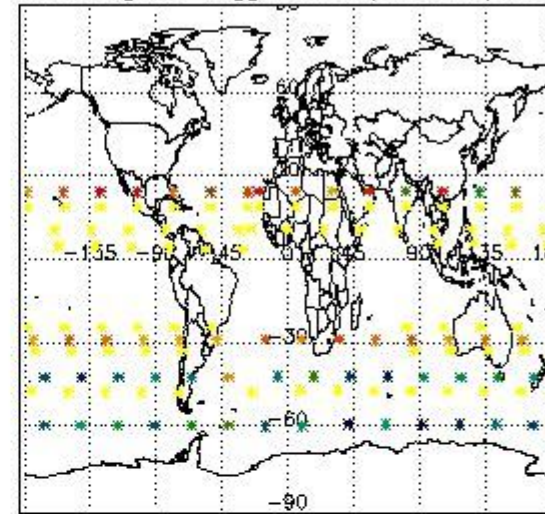


3.2 Plot quality information per product (world map)

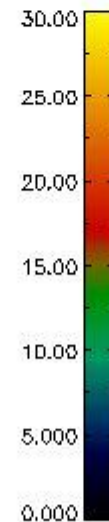
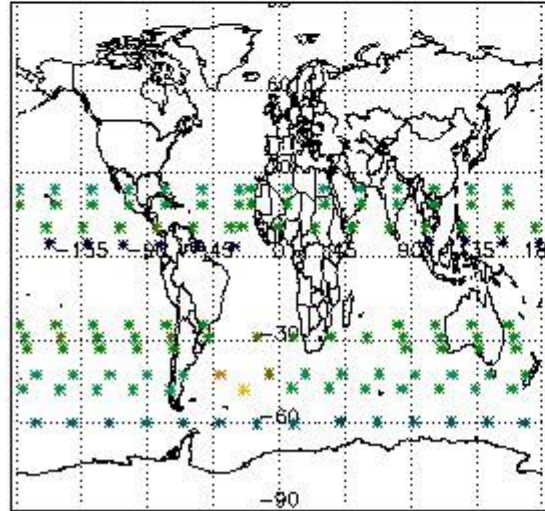
Percentage of flagged data per O3 profile



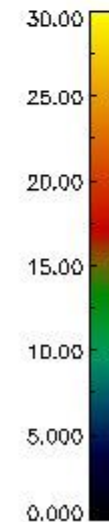
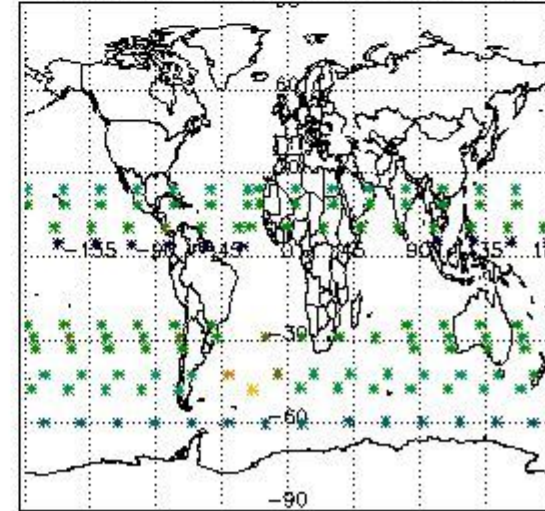
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

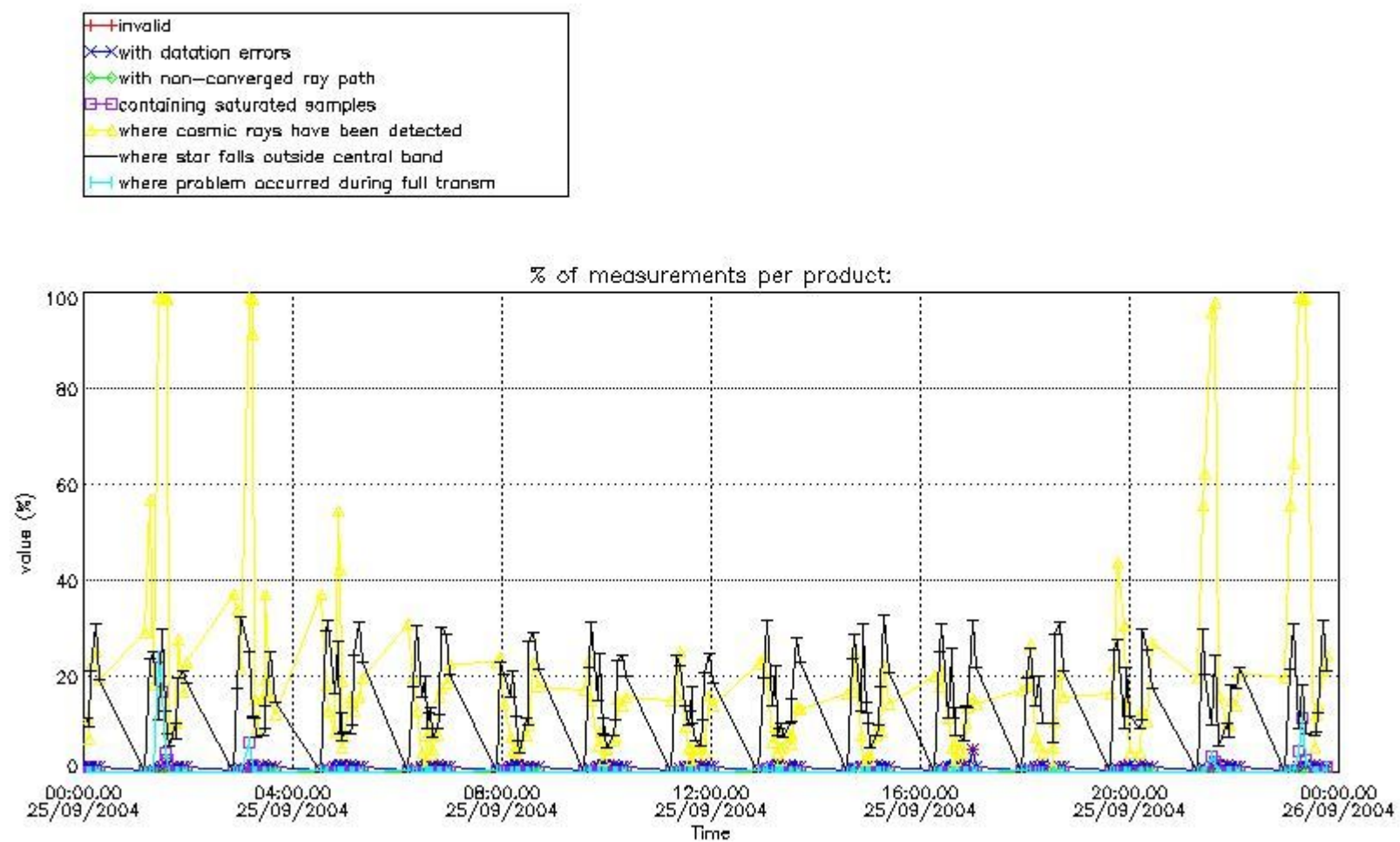


#### 4. Level 1 quality information per product

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.

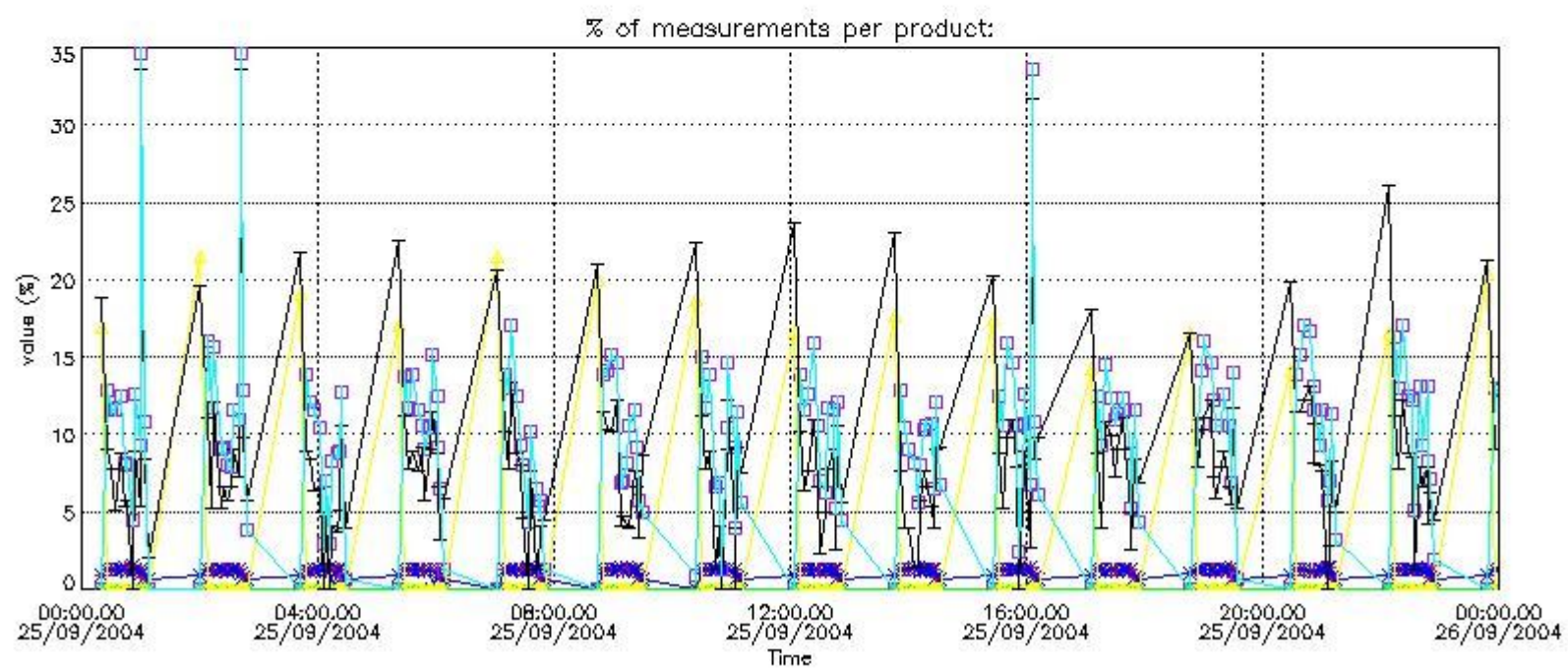
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

###### 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

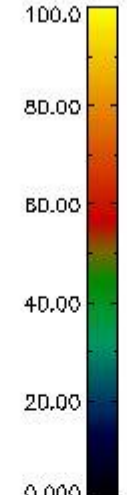
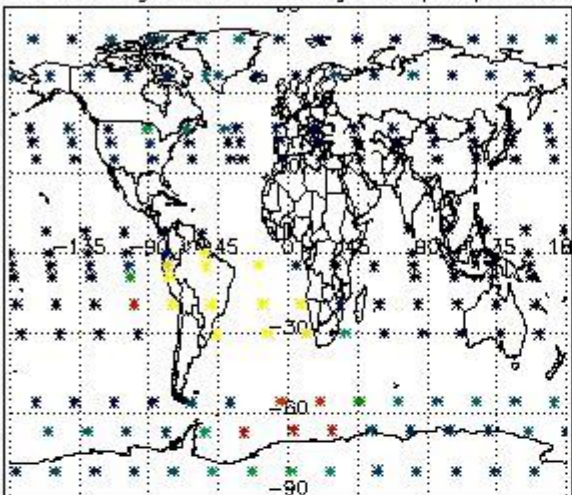




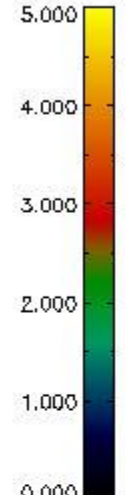
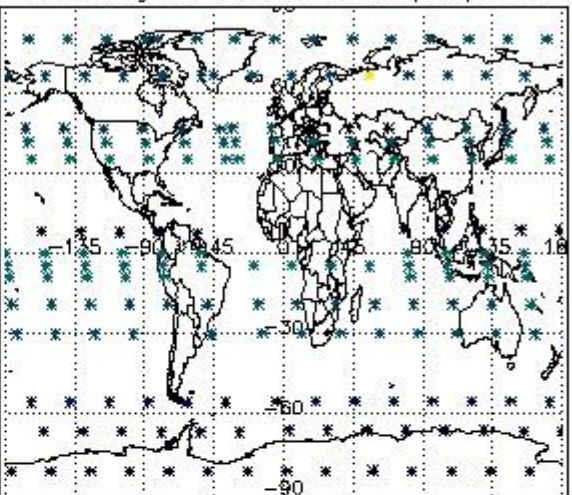
*4.2 Plot quality information per product coming from level 1b processing (world map)*

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

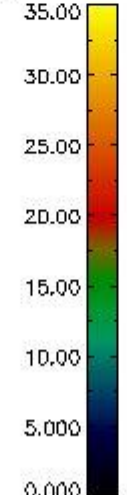
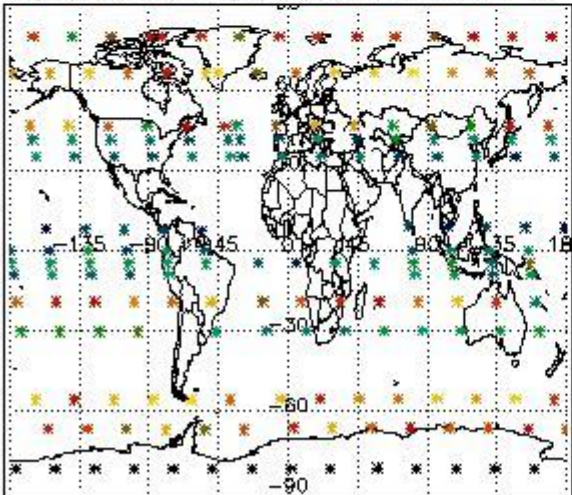
Percentage of cosmic ray hits per profile



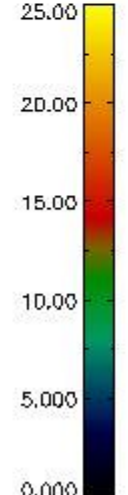
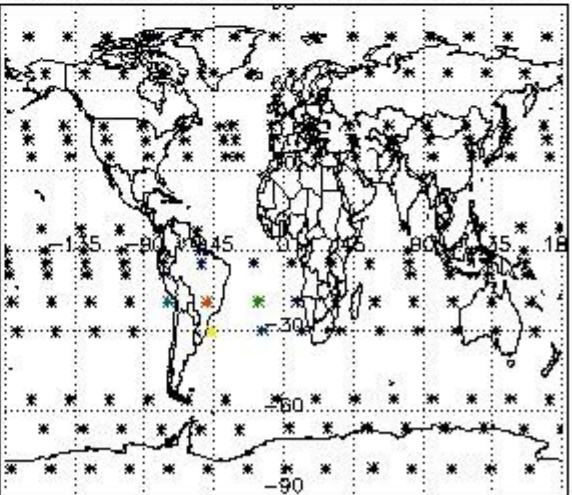
Percentage of datation errors per profile



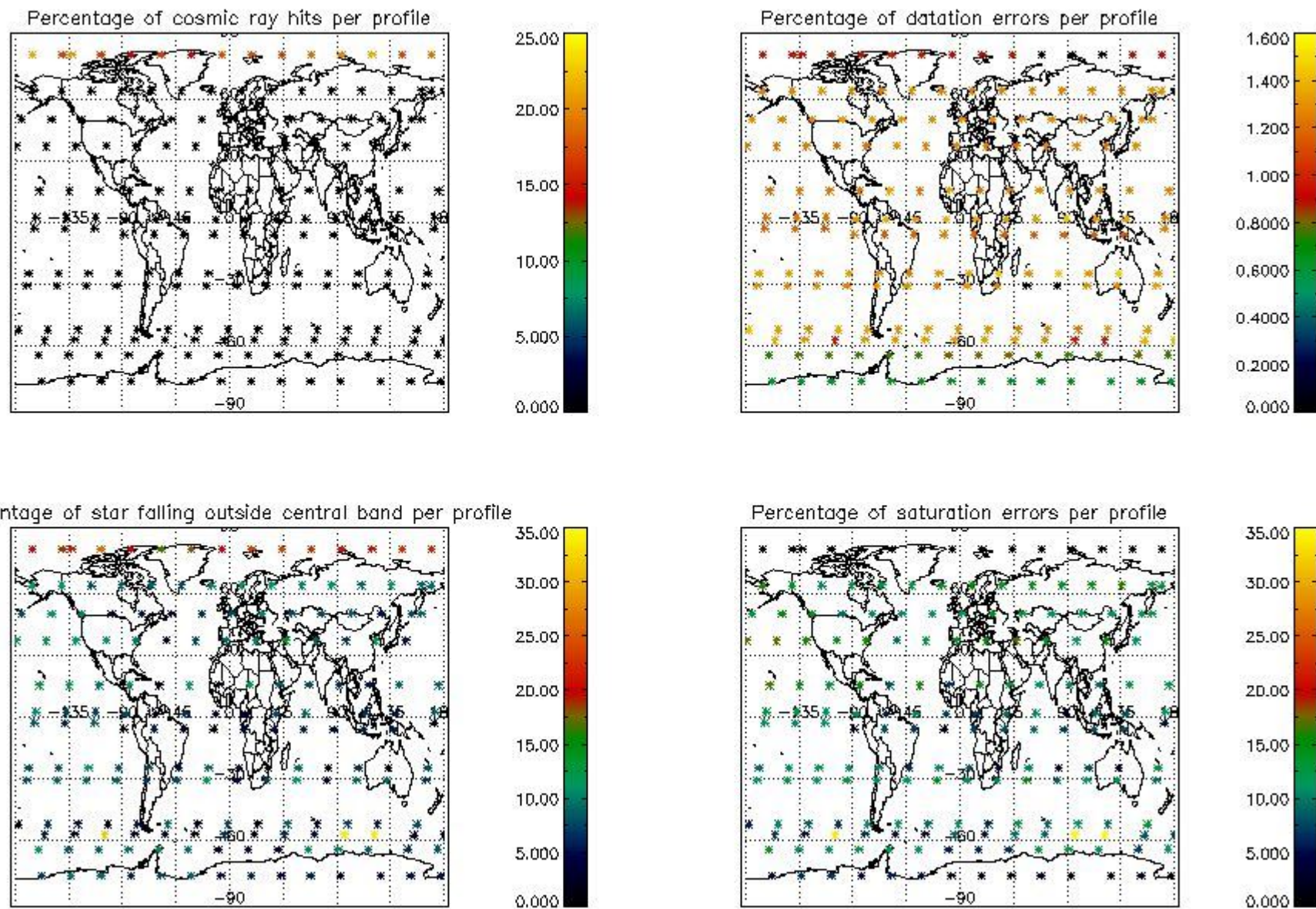
Percentage of star falling outside central band per profile



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

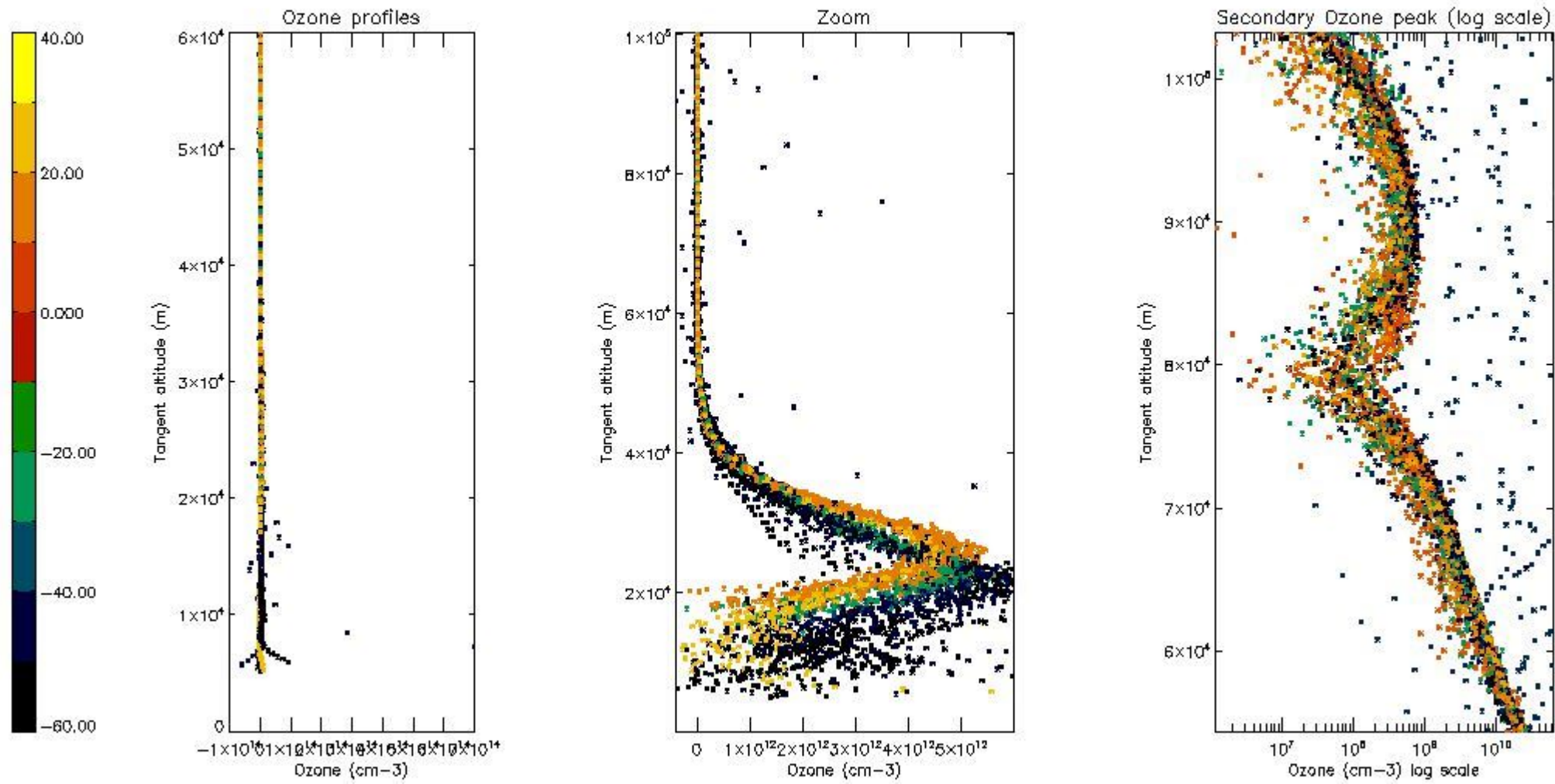
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	32
STD < 20	19

STD < 10	16
STD < 5	10

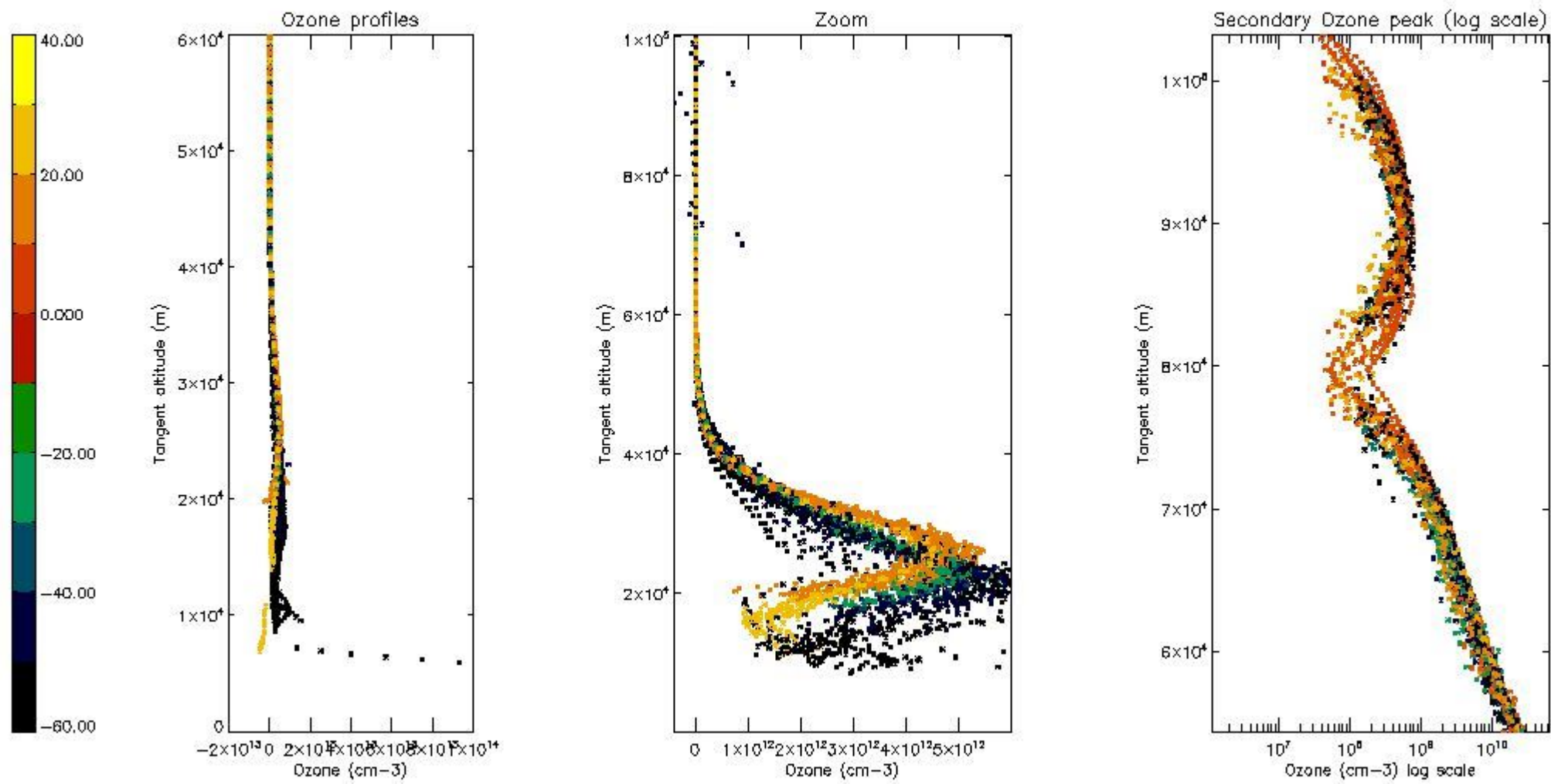
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



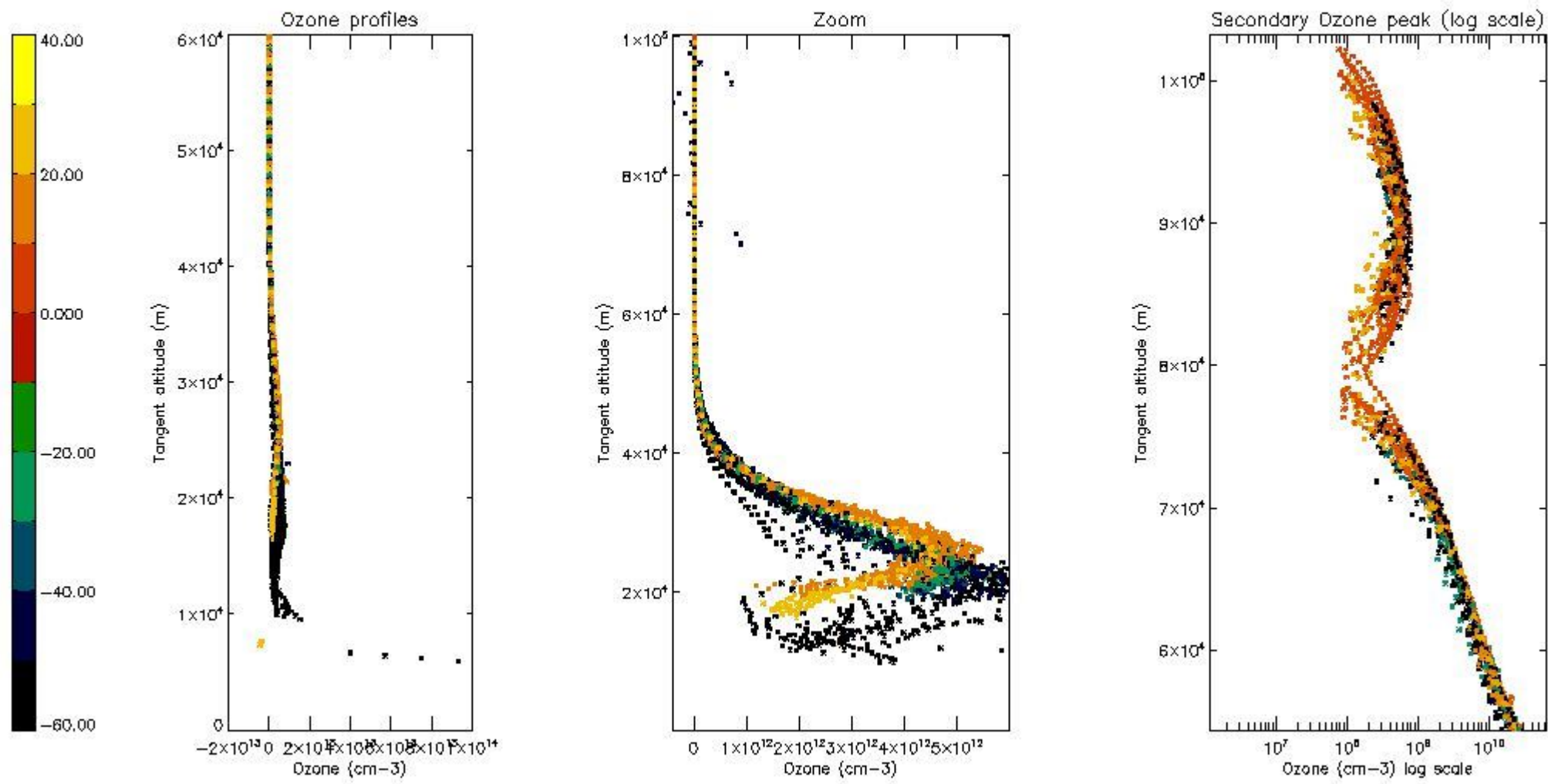
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



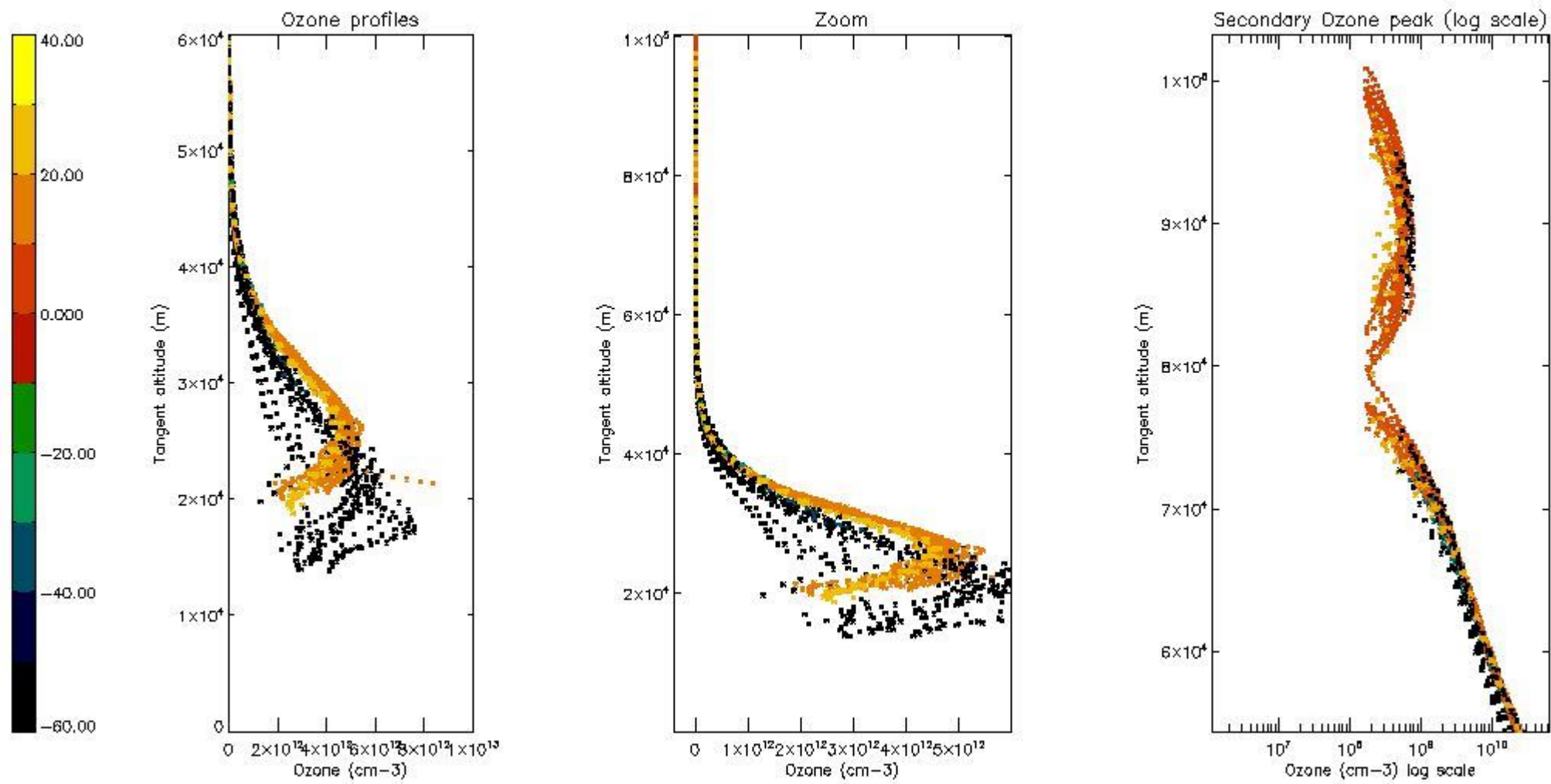
5.4 Plot ozone profiles where  $STD < 10\%$  (dark without errors)

The colorbar represents the latitude.



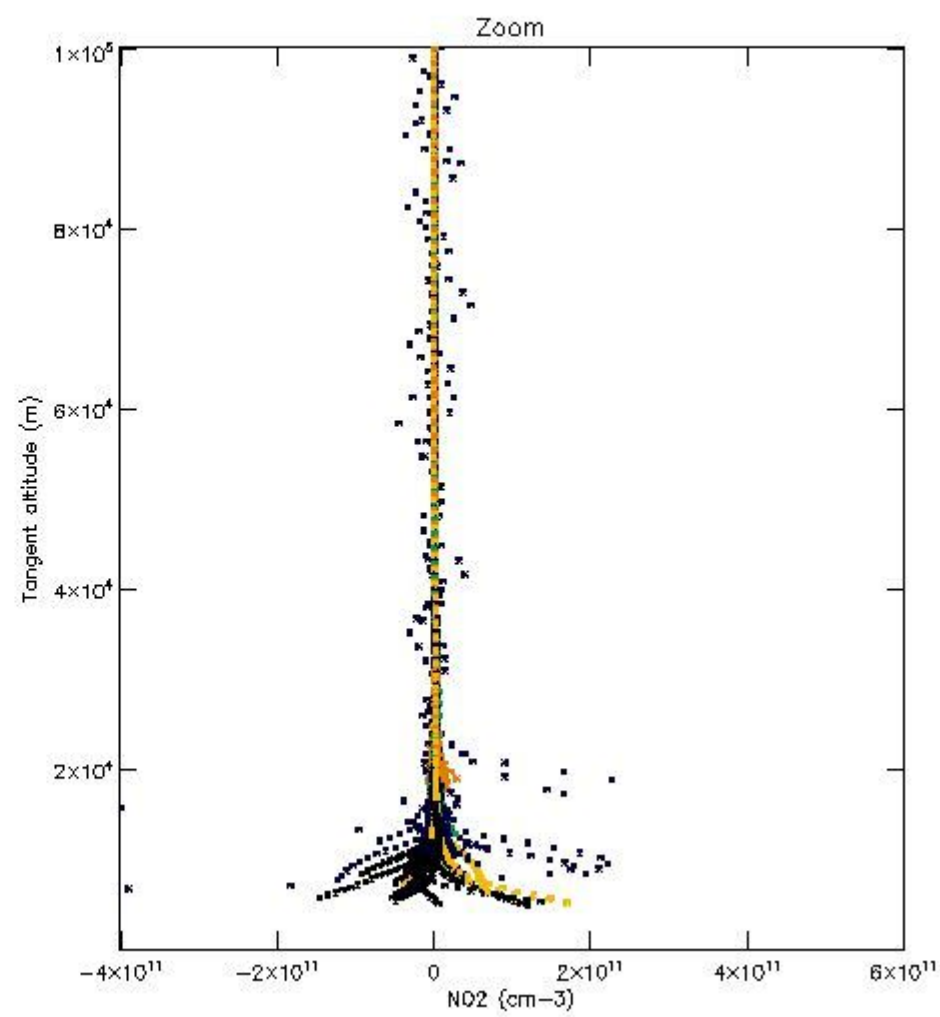
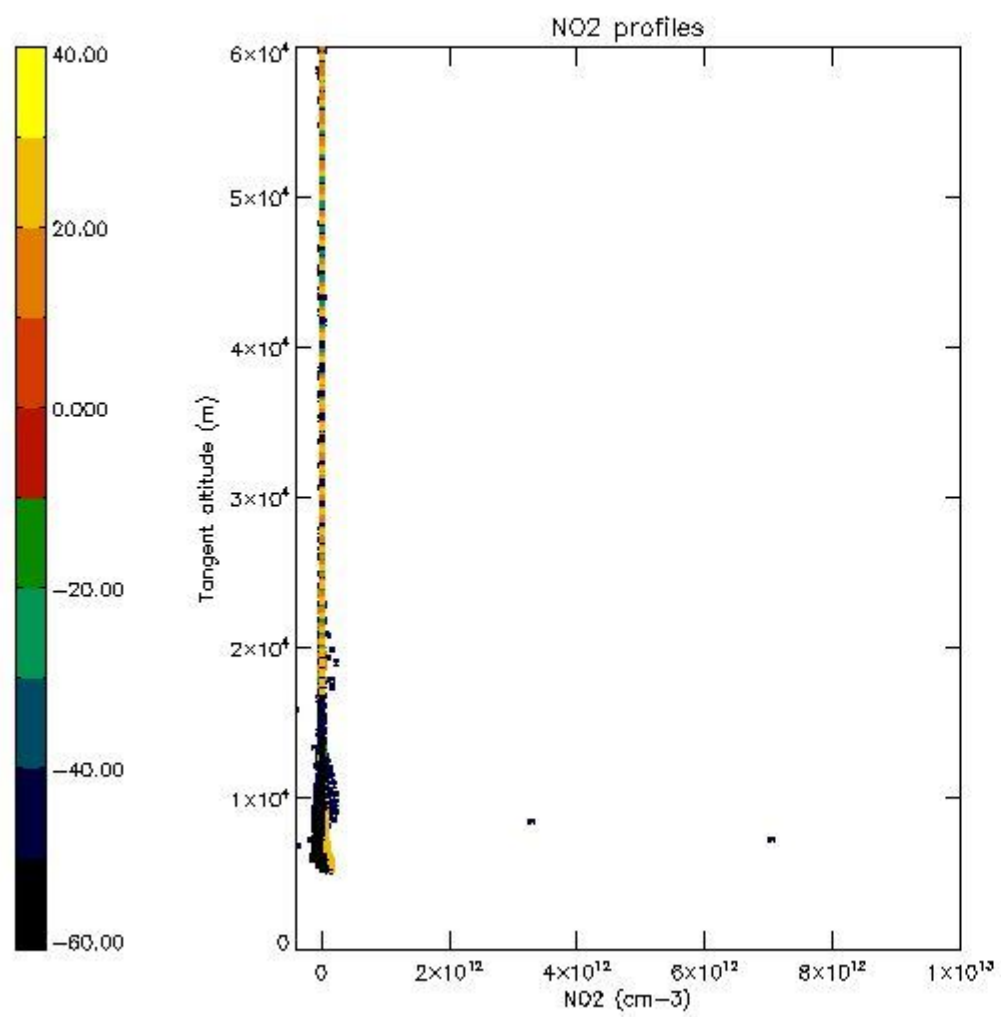
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



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

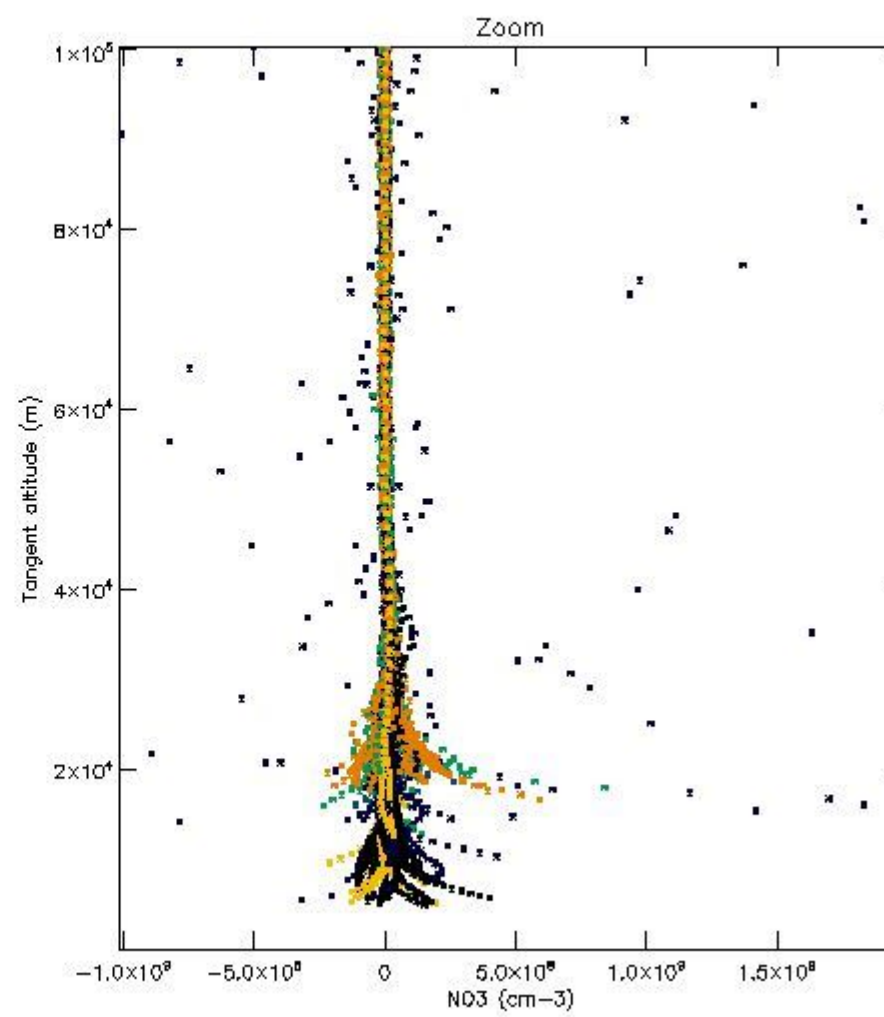
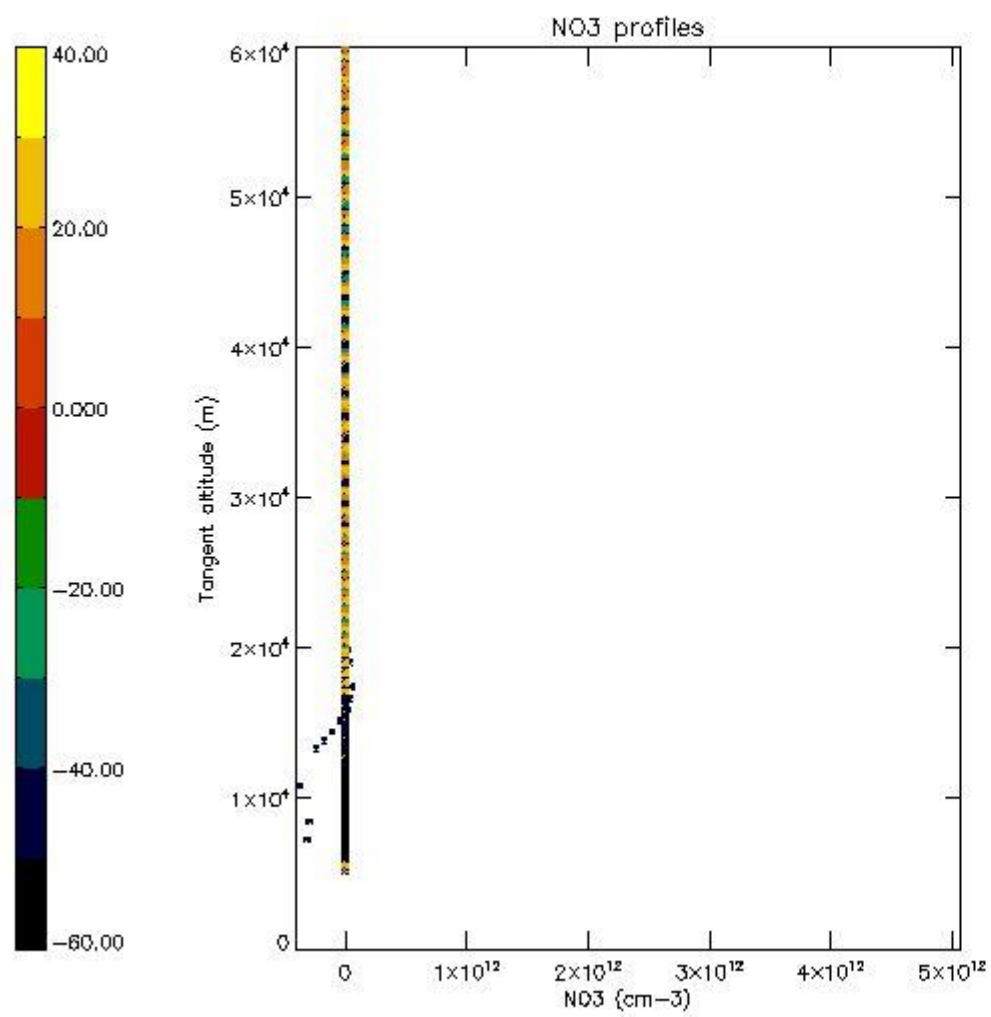
The colorbar represents the latitude.



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

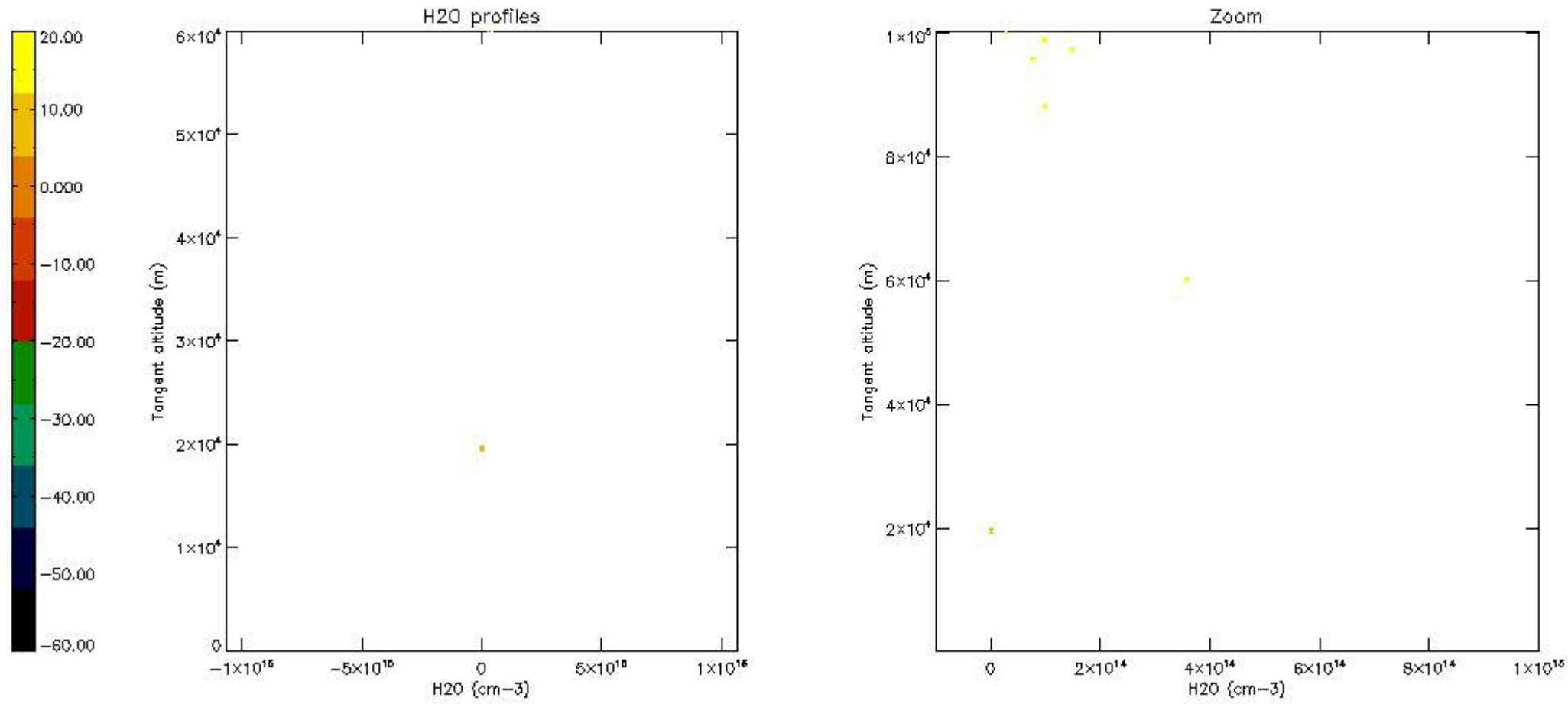
The colorbar represents the latitude.





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

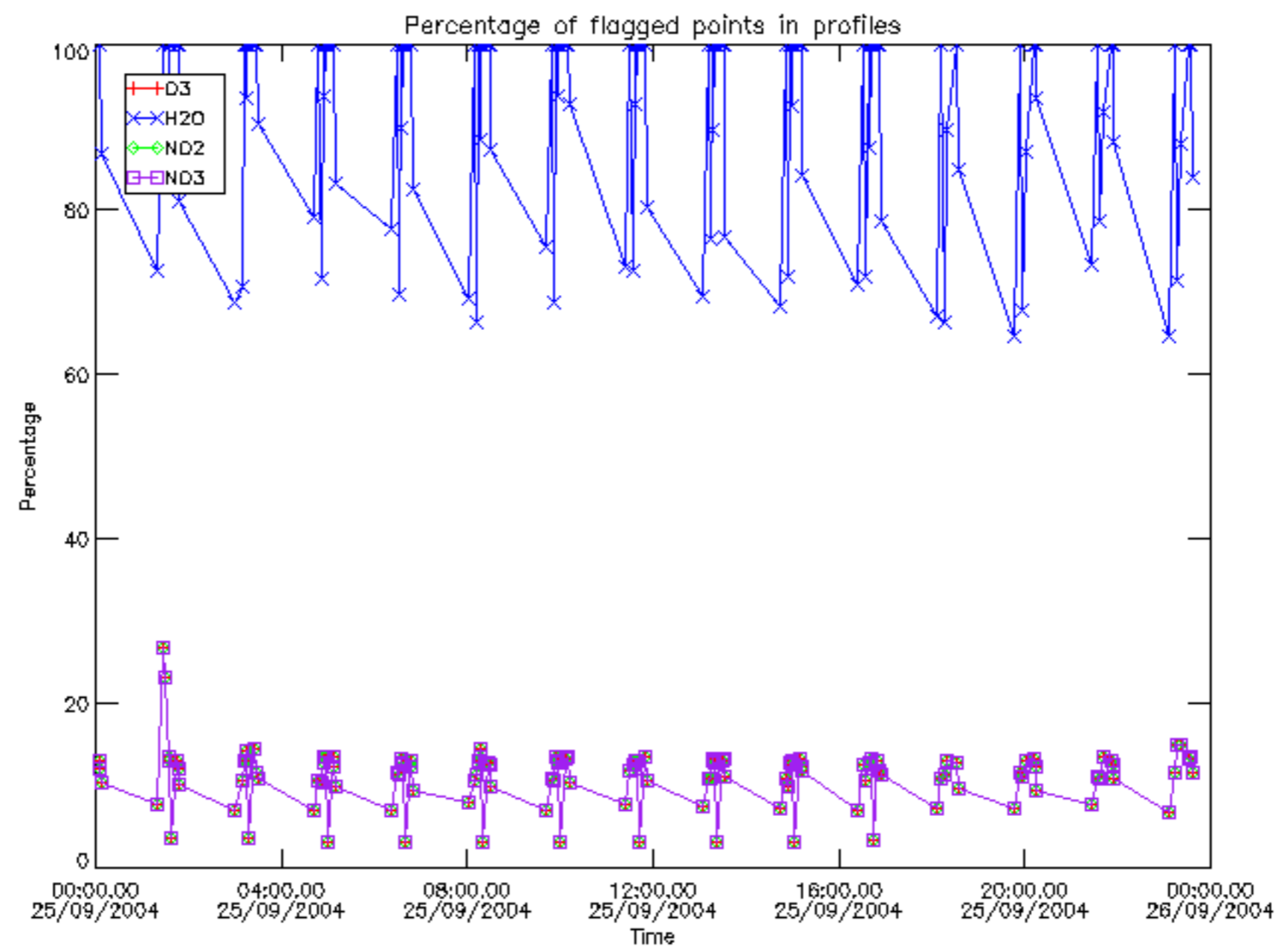
The colorbar represents the latitude.



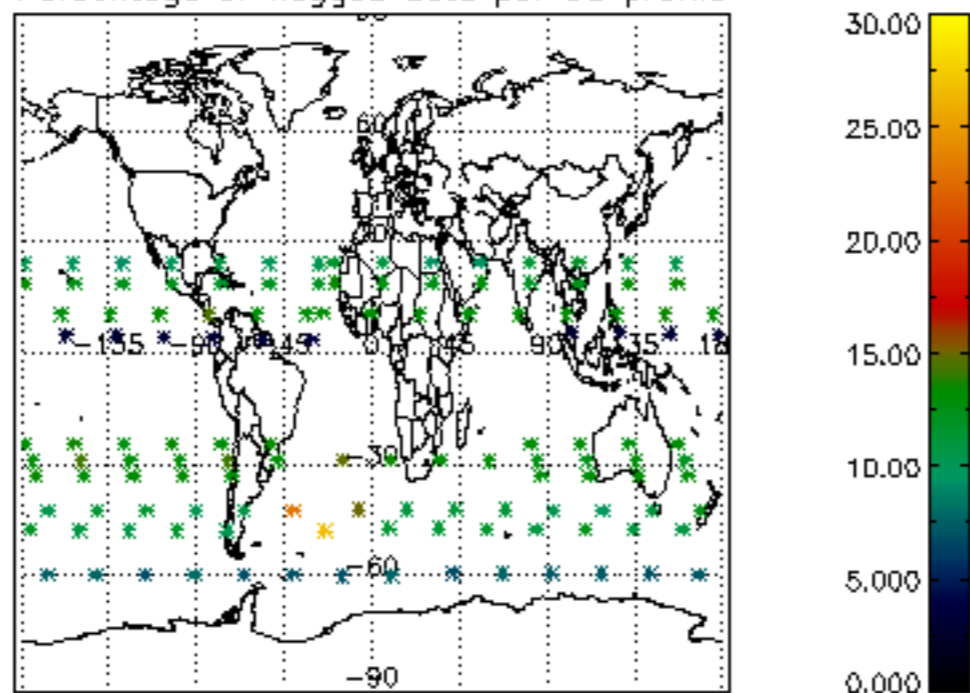
## 6. Auxiliary Data Files used for the production reported in section 2

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

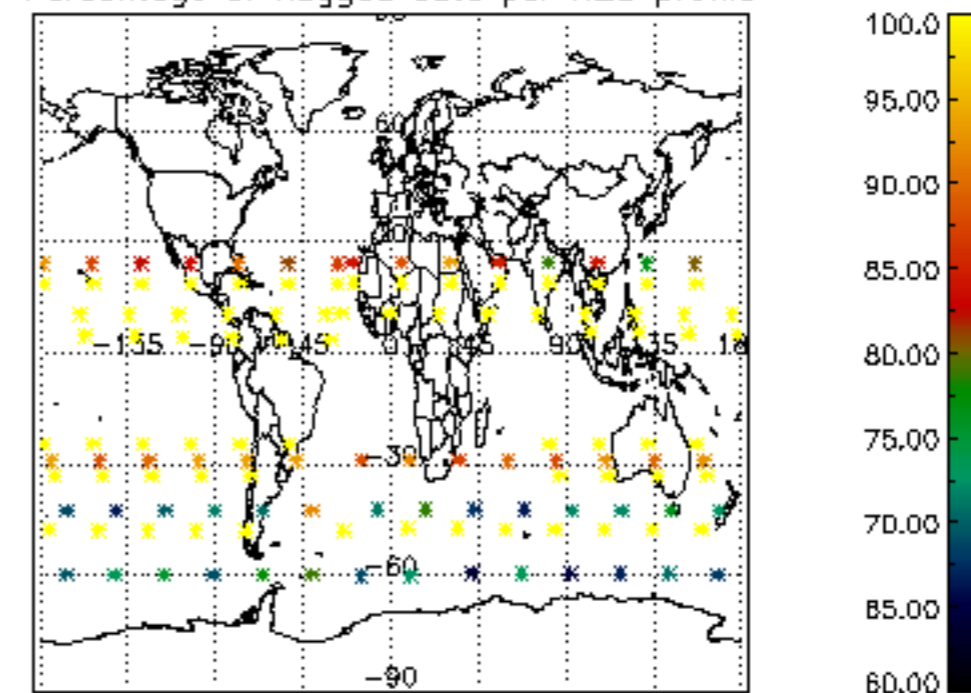
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	25-SEP-2004 00:04:27
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	25-SEP-2004 00:04:27
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	25-SEP-2004 00:04:27



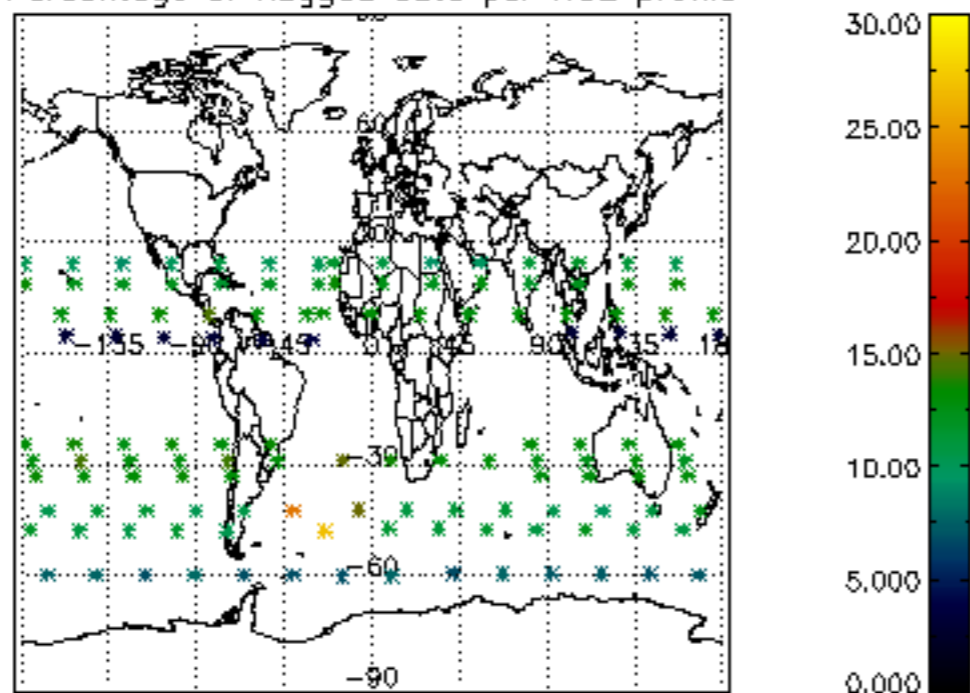
Percentage of flagged data per D3 profile



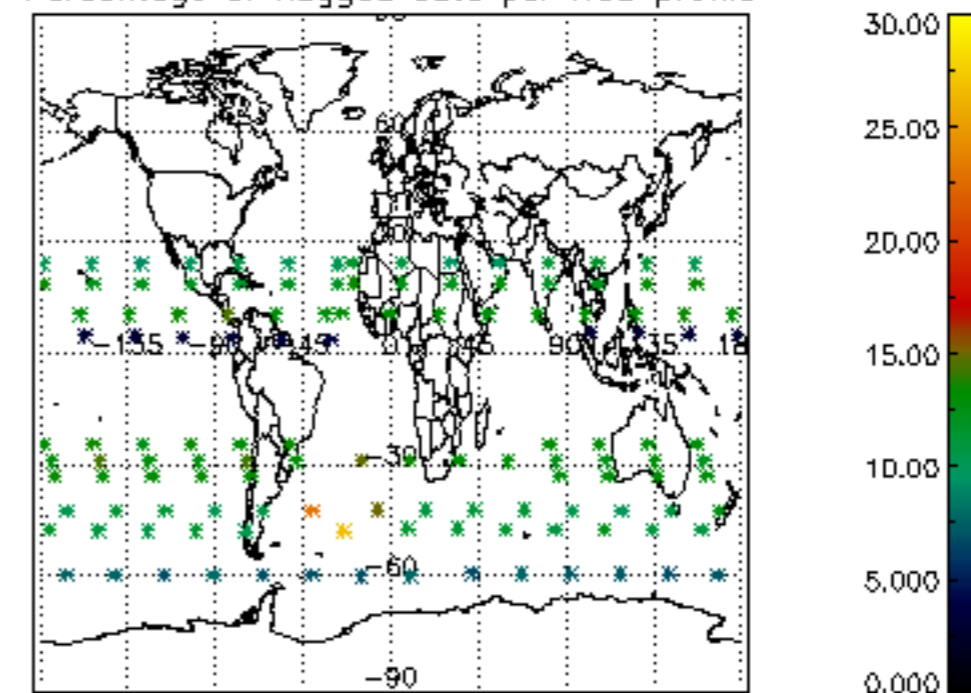
Percentage of flagged data per H2O profile

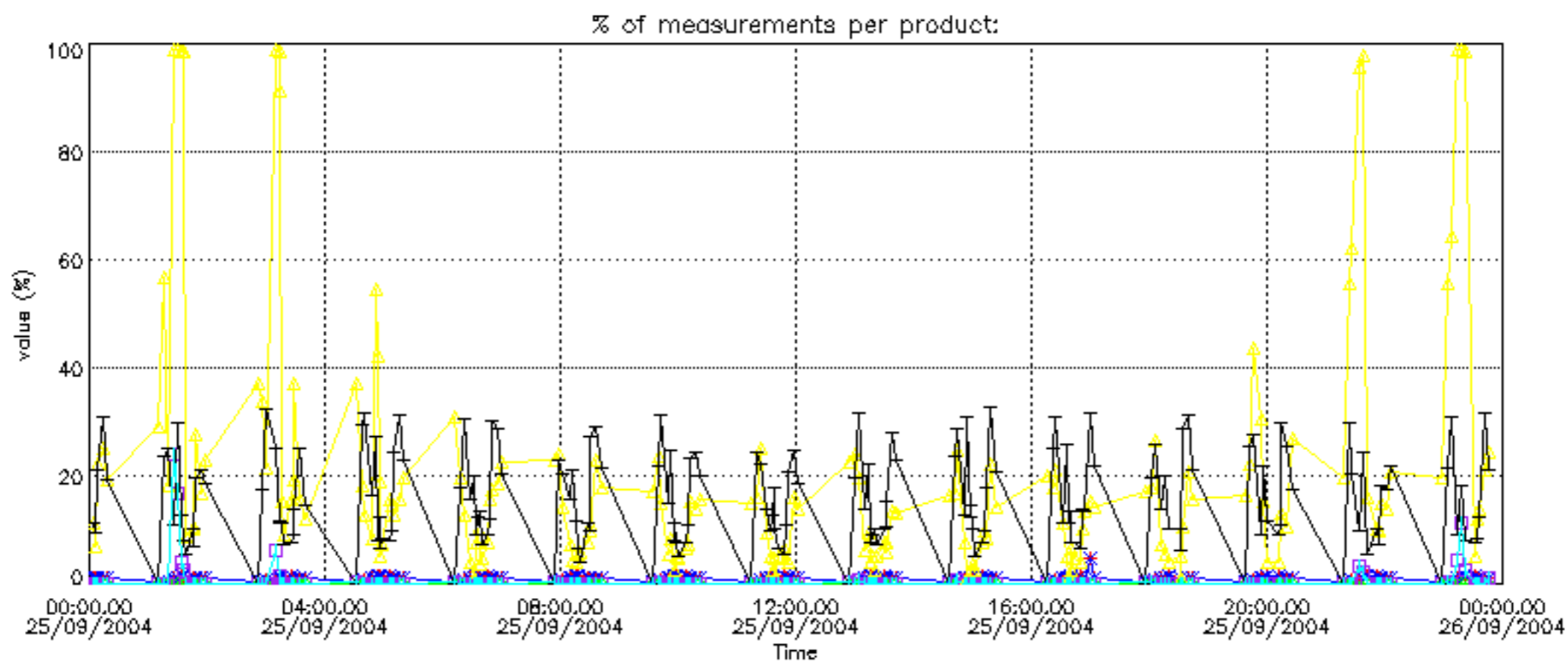


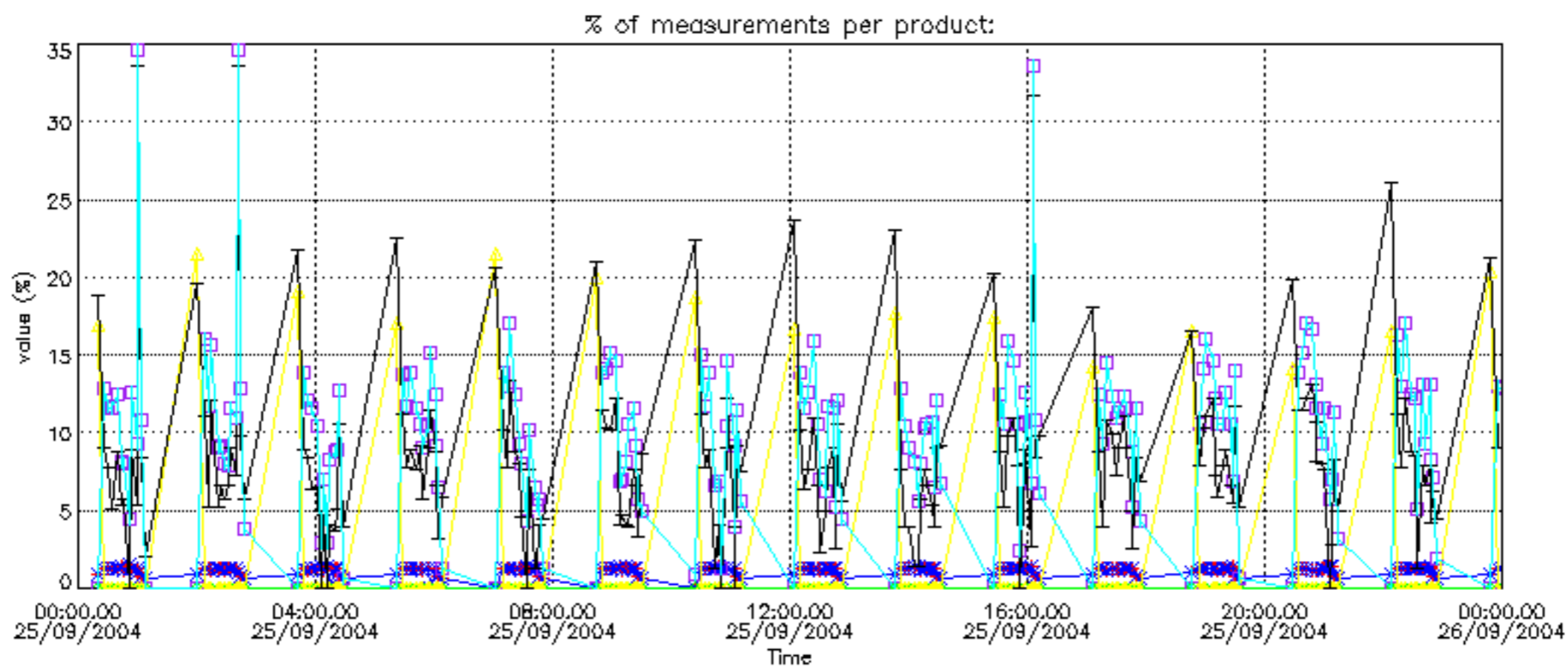
Percentage of flagged data per NO2 profile



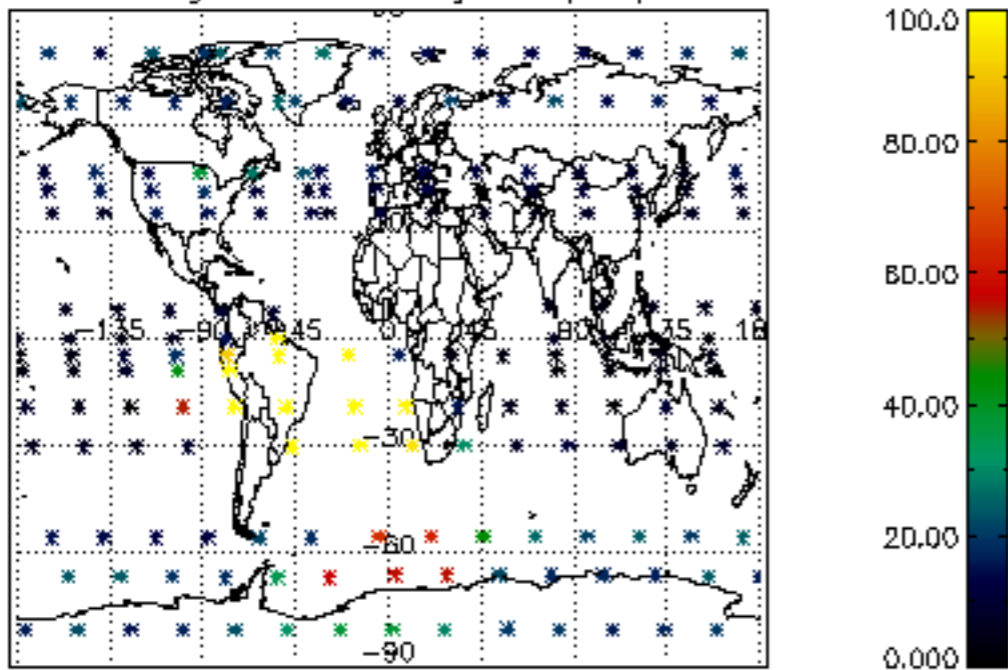
Percentage of flagged data per NO3 profile



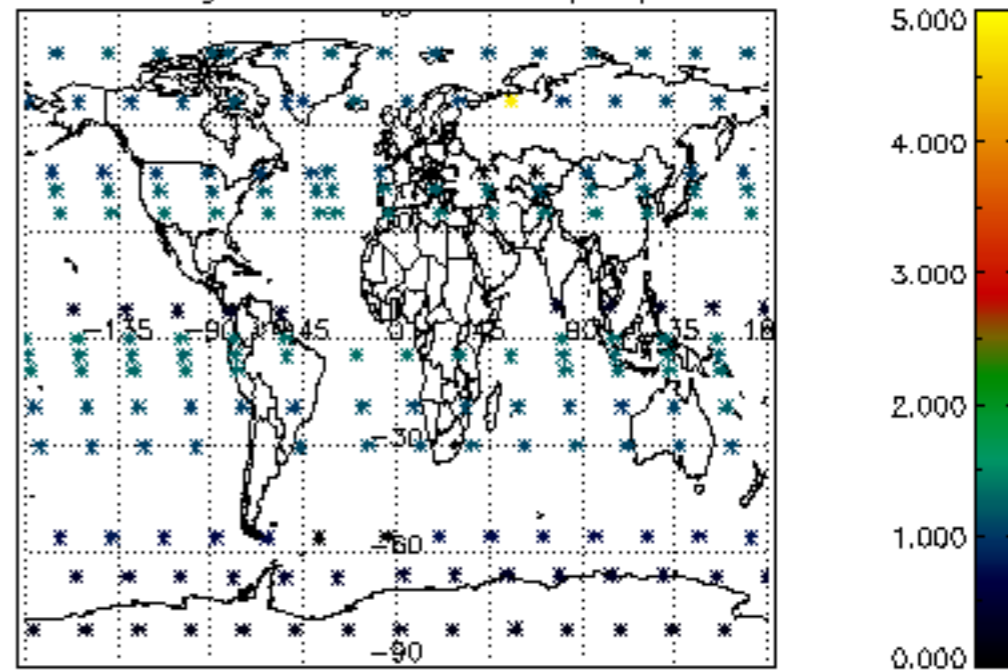




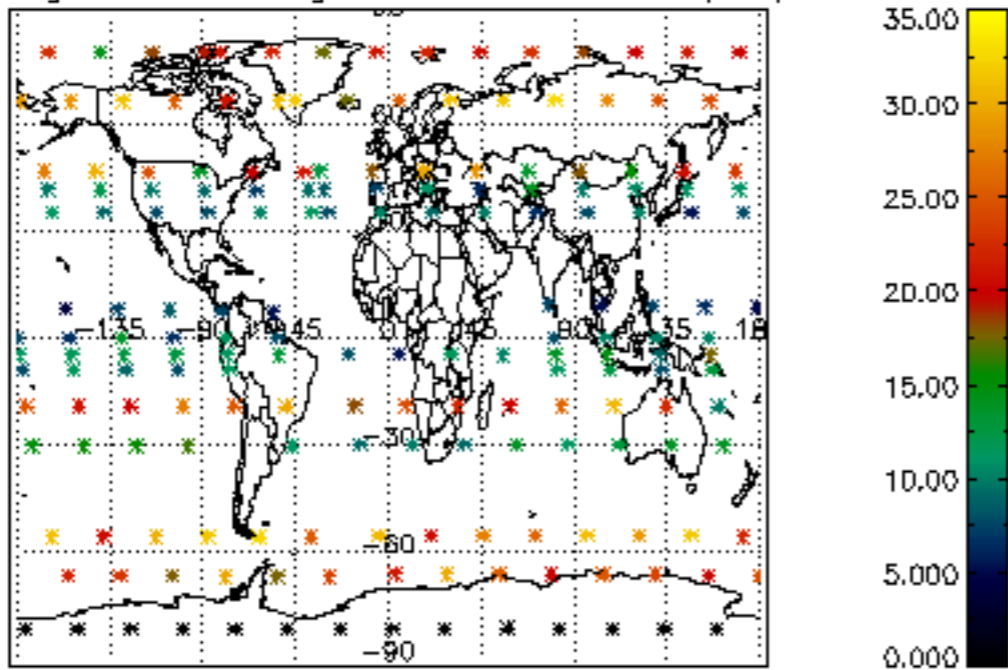
Percentage of cosmic ray hits per profile



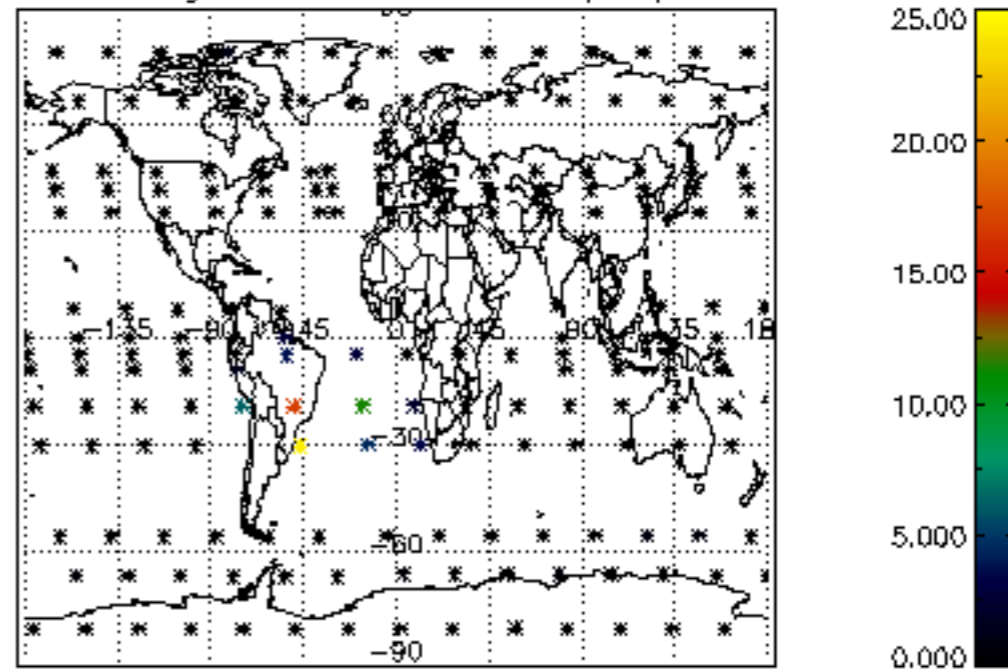
Percentage of datation errors per profile



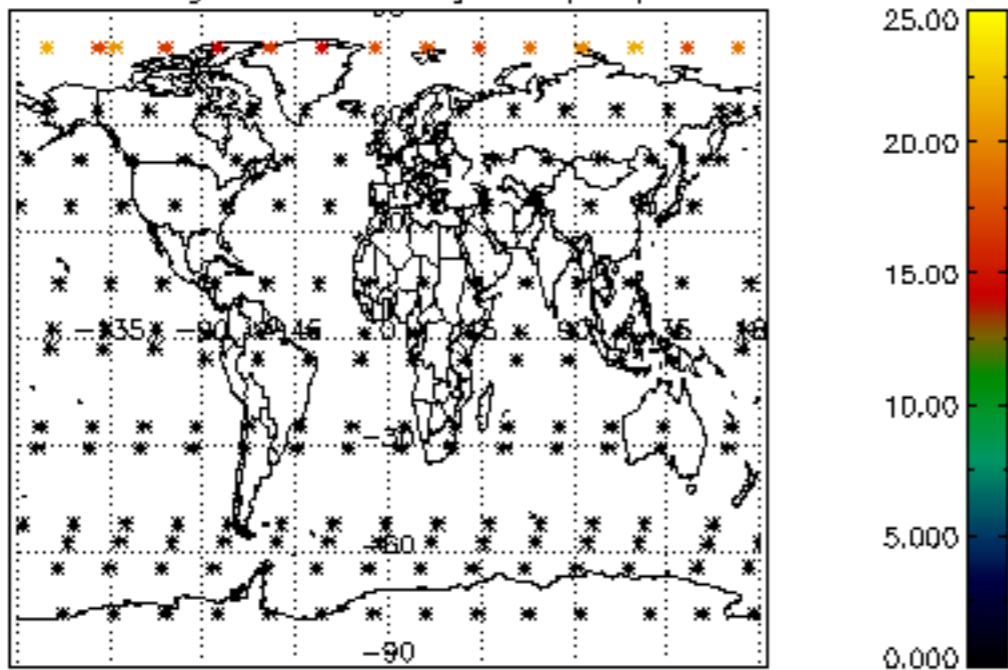
Percentage of star falling outside central band per profile



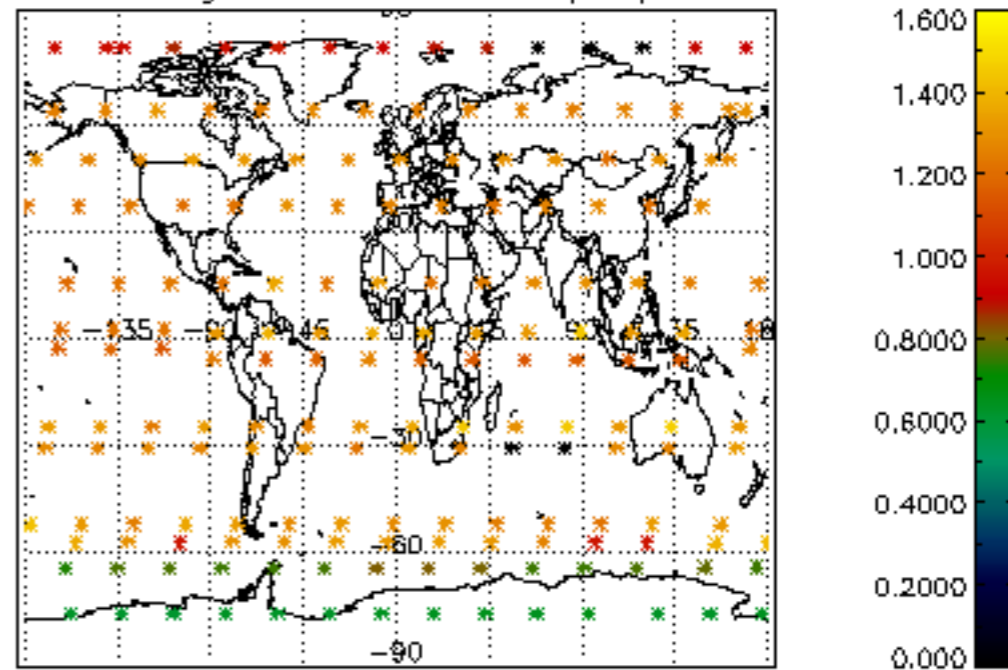
Percentage of saturation errors per profile



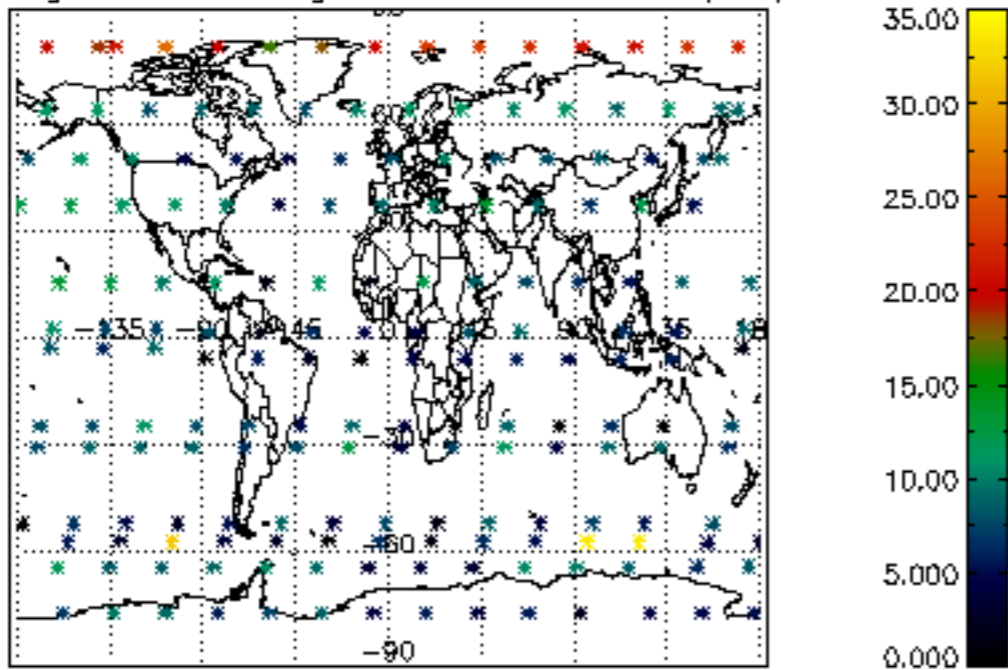
Percentage of cosmic ray hits per profile



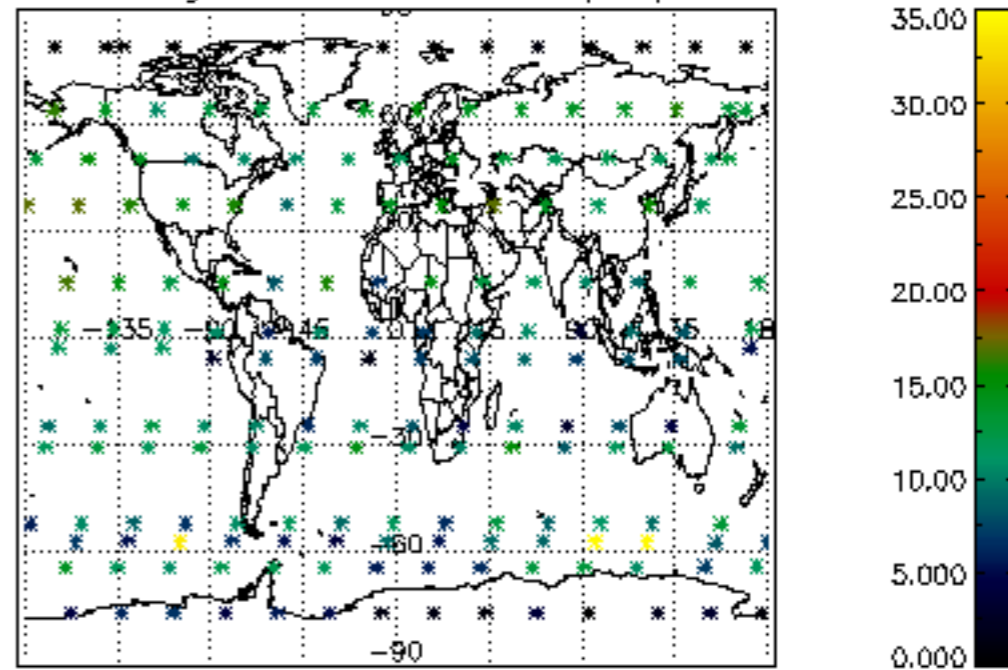
Percentage of datation errors per profile



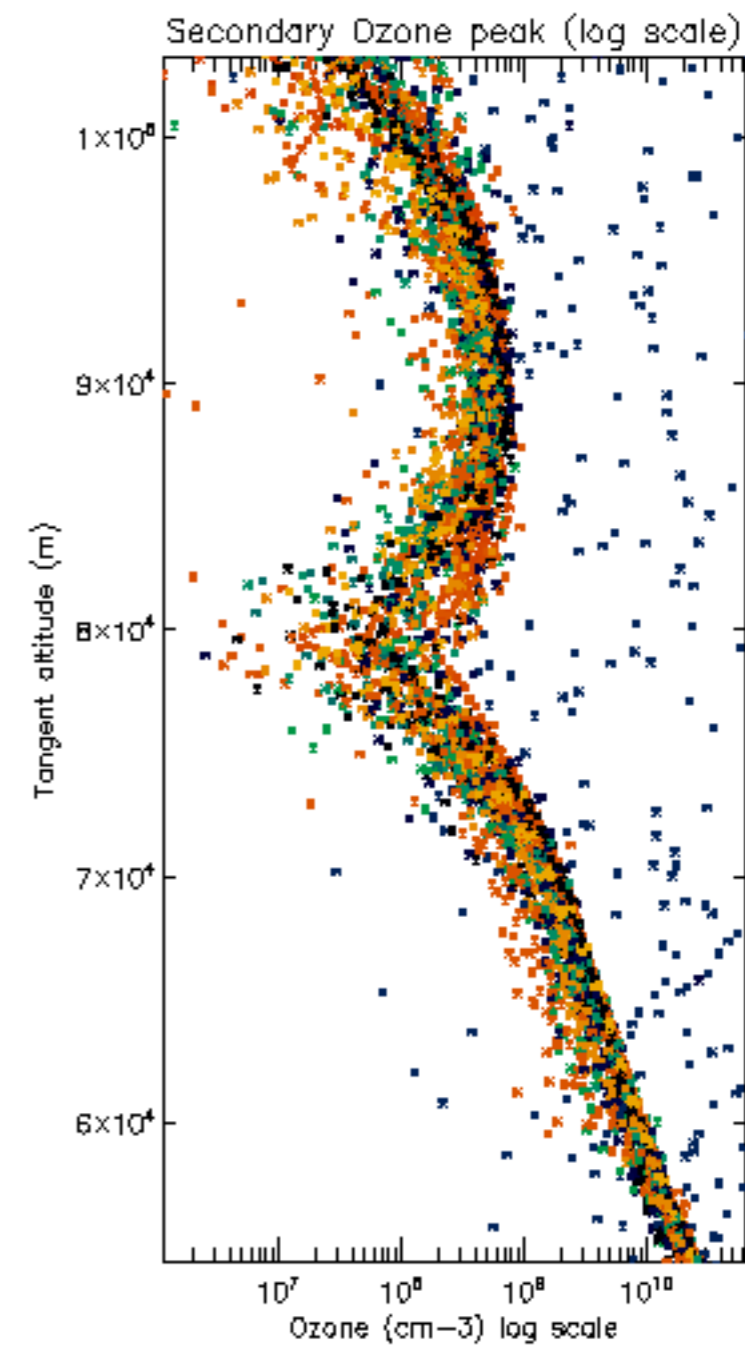
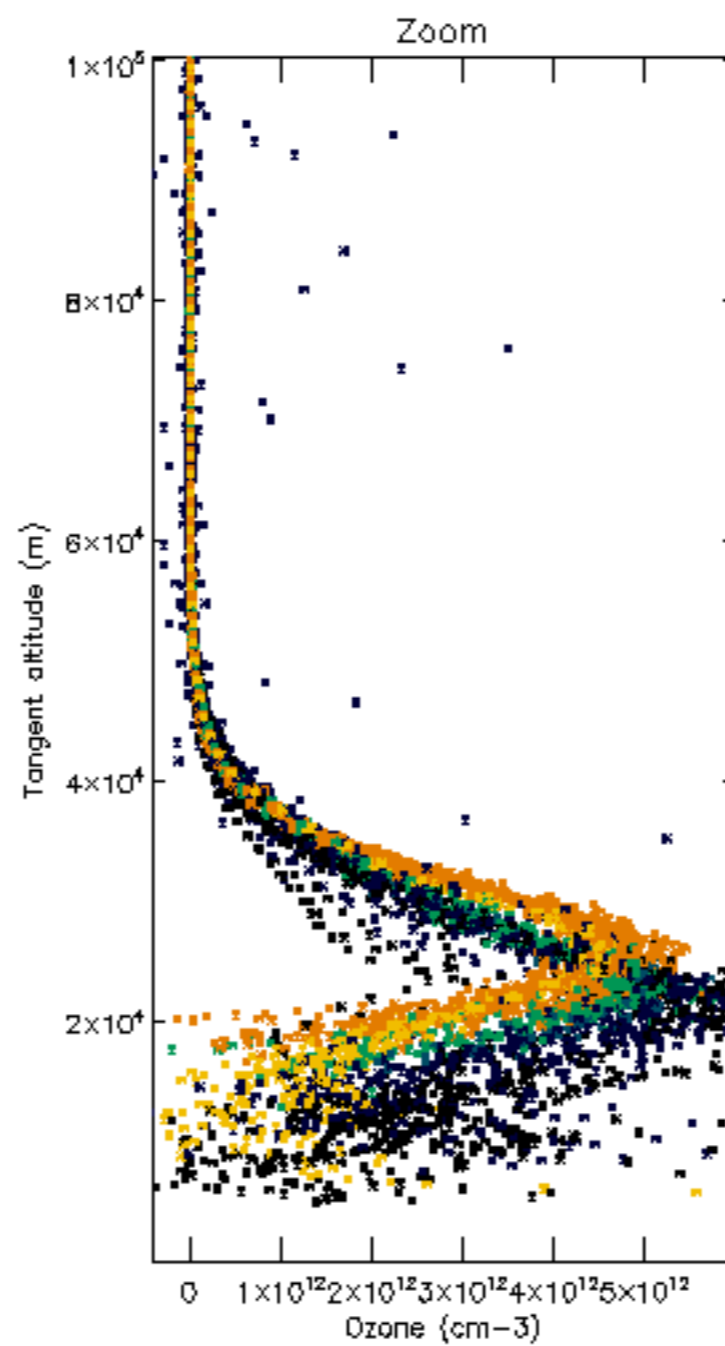
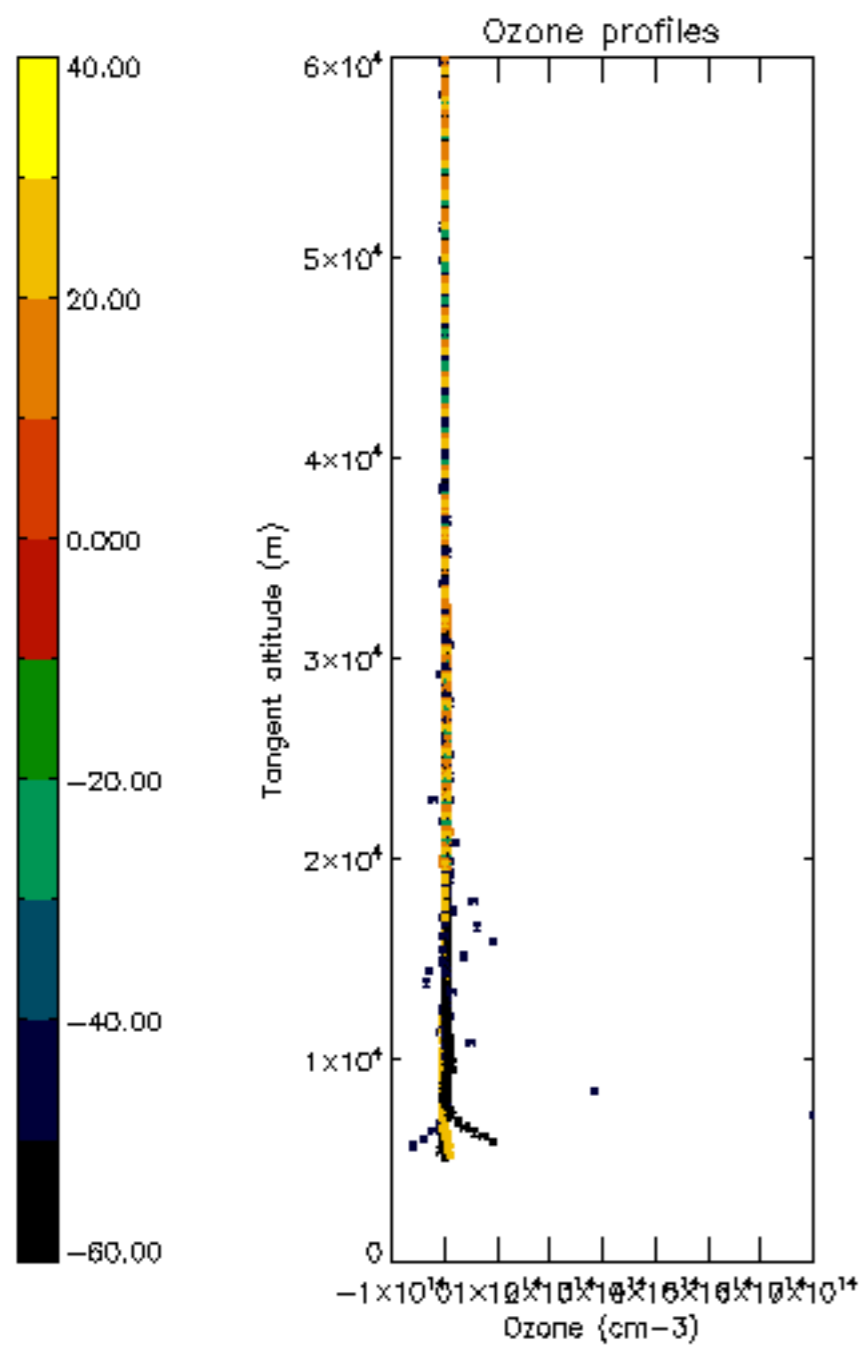
Percentage of star falling outside central band per profile

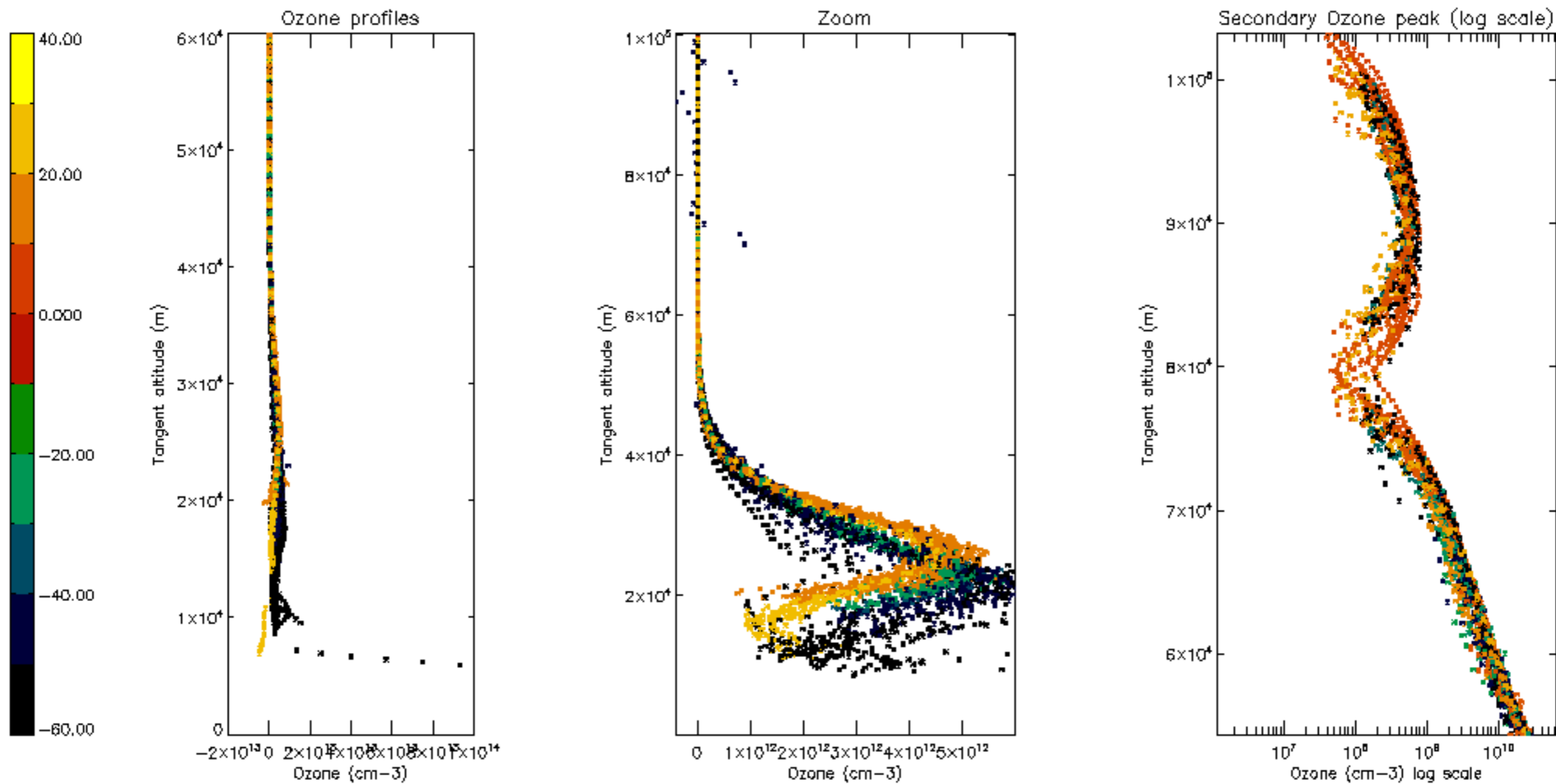


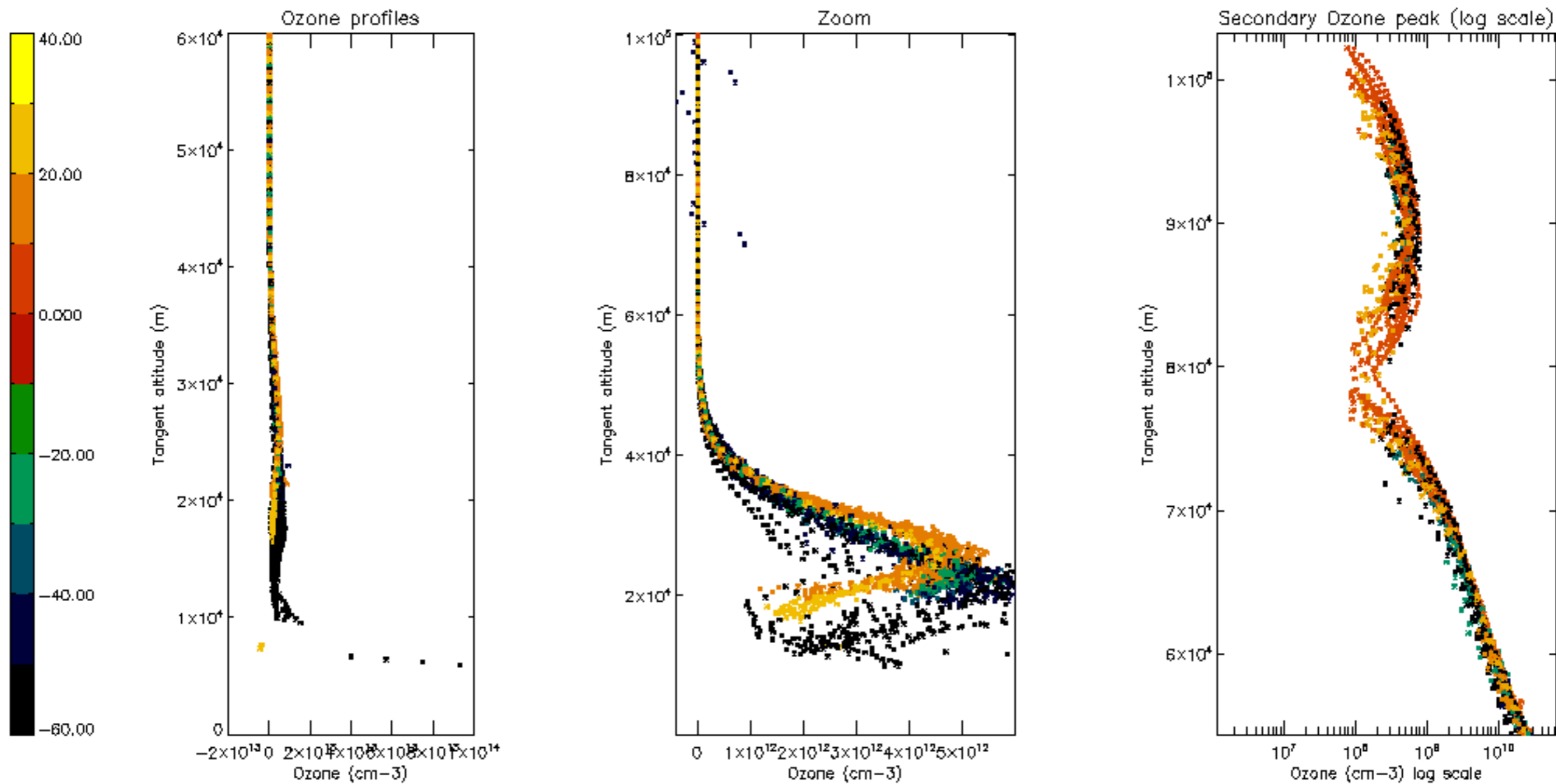
Percentage of saturation errors per profile

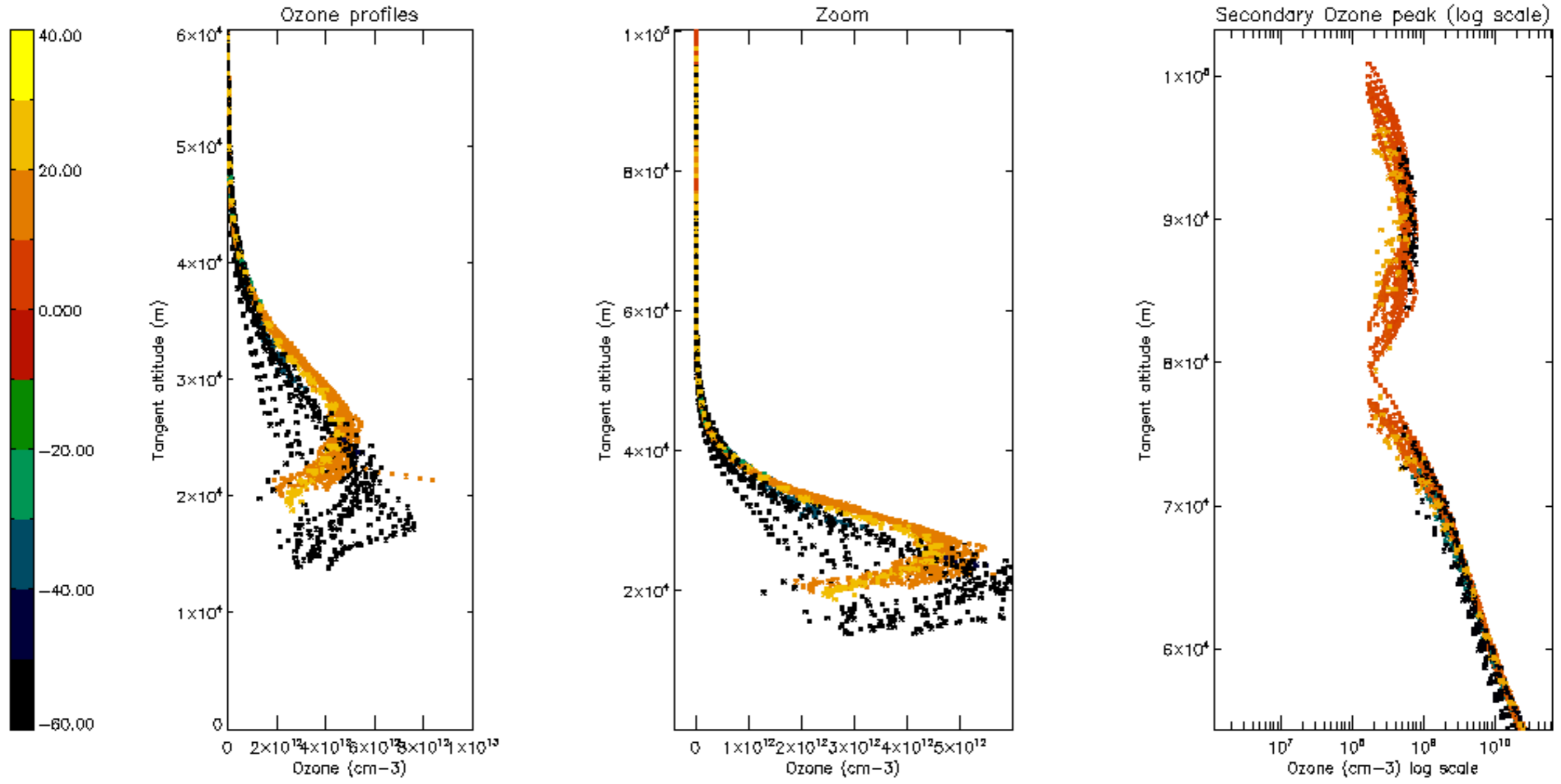


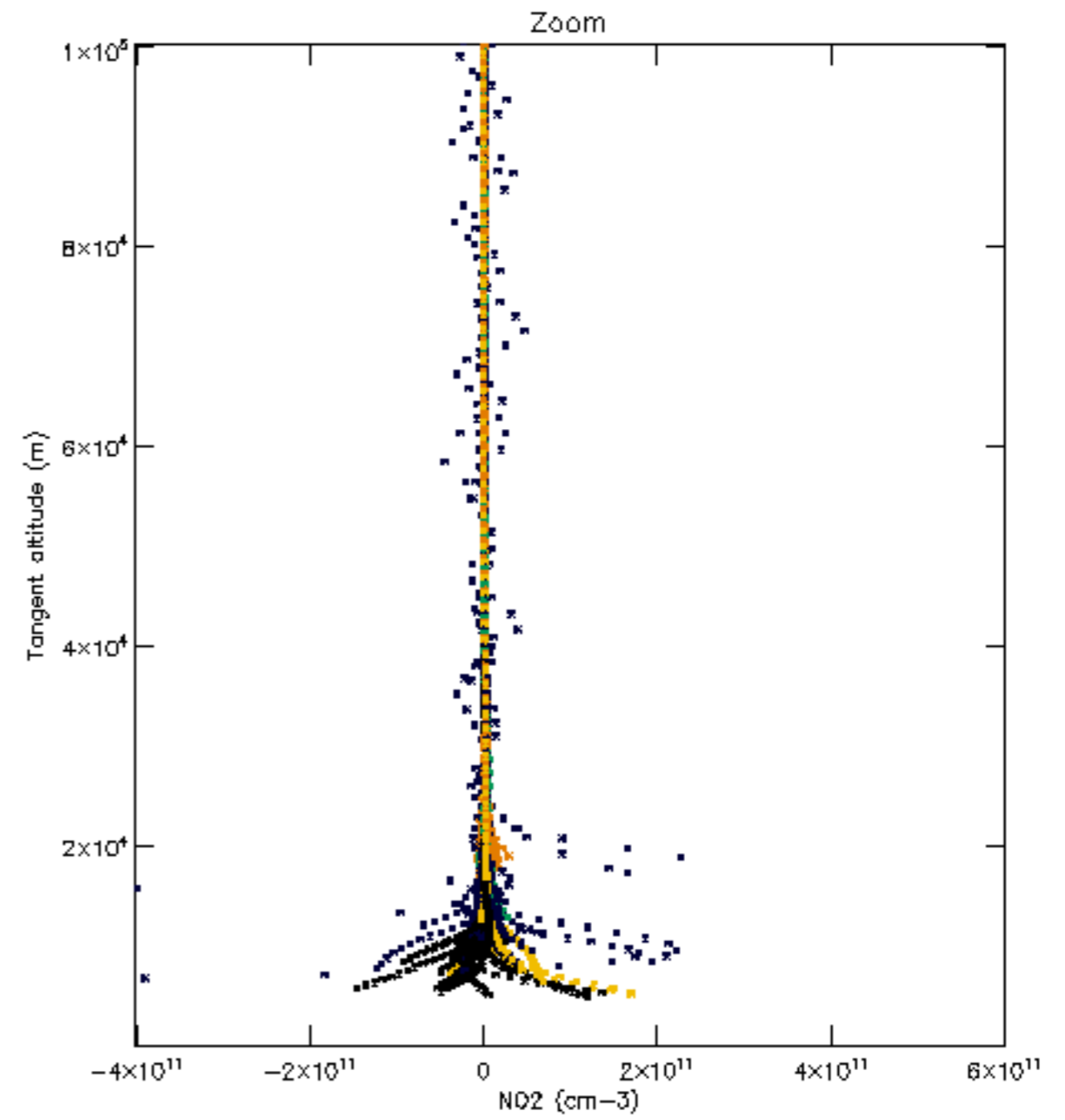
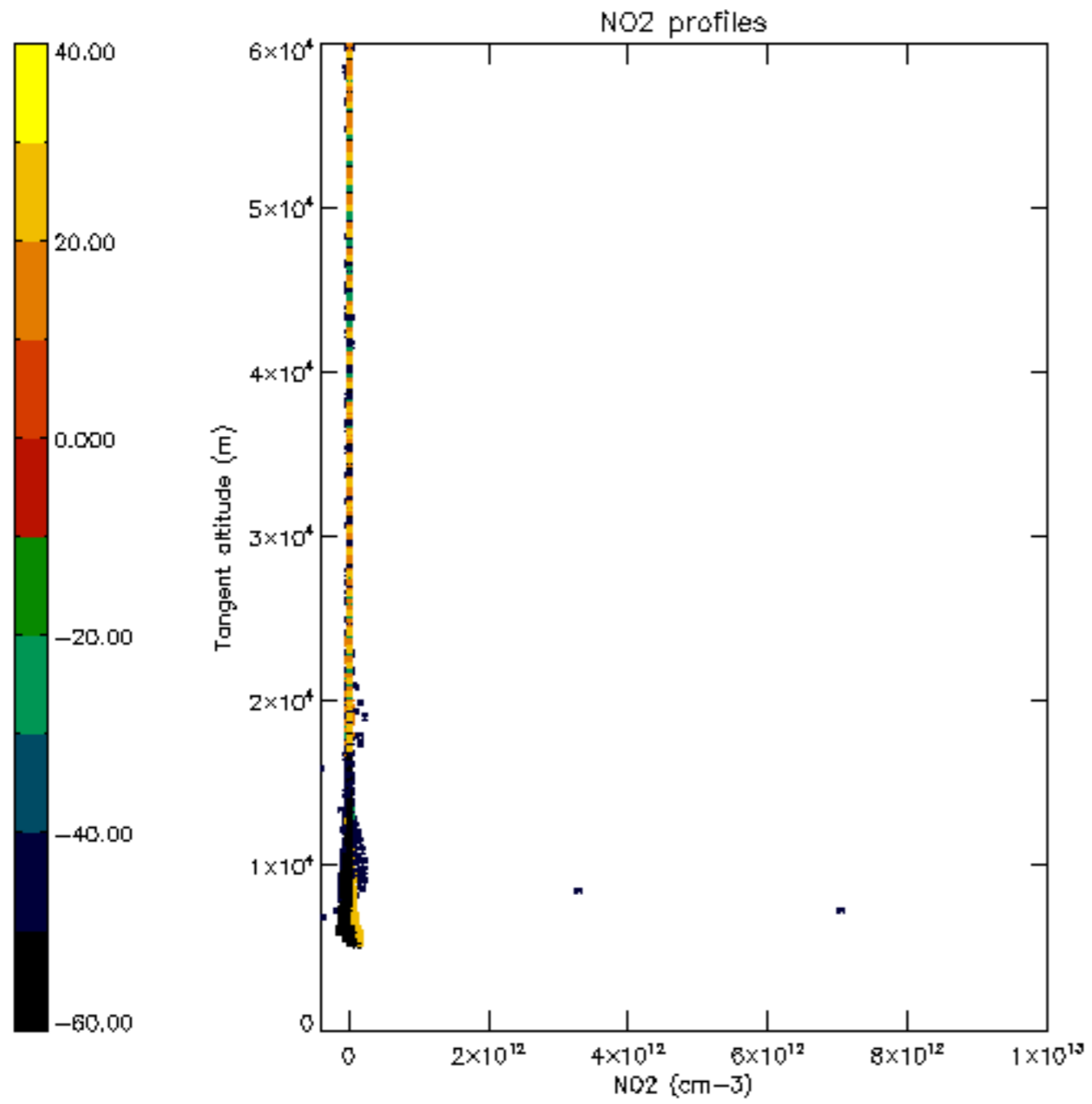


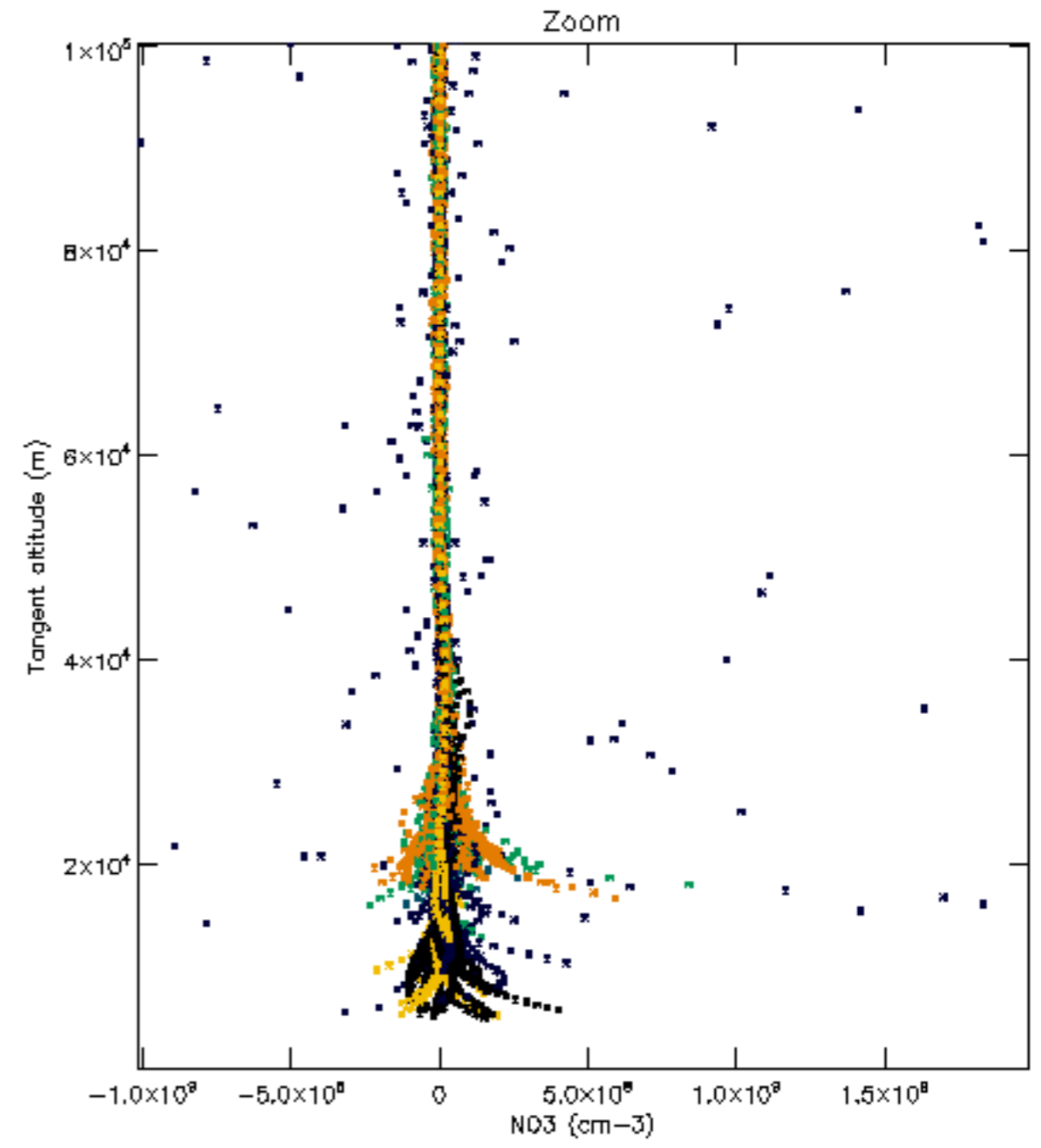
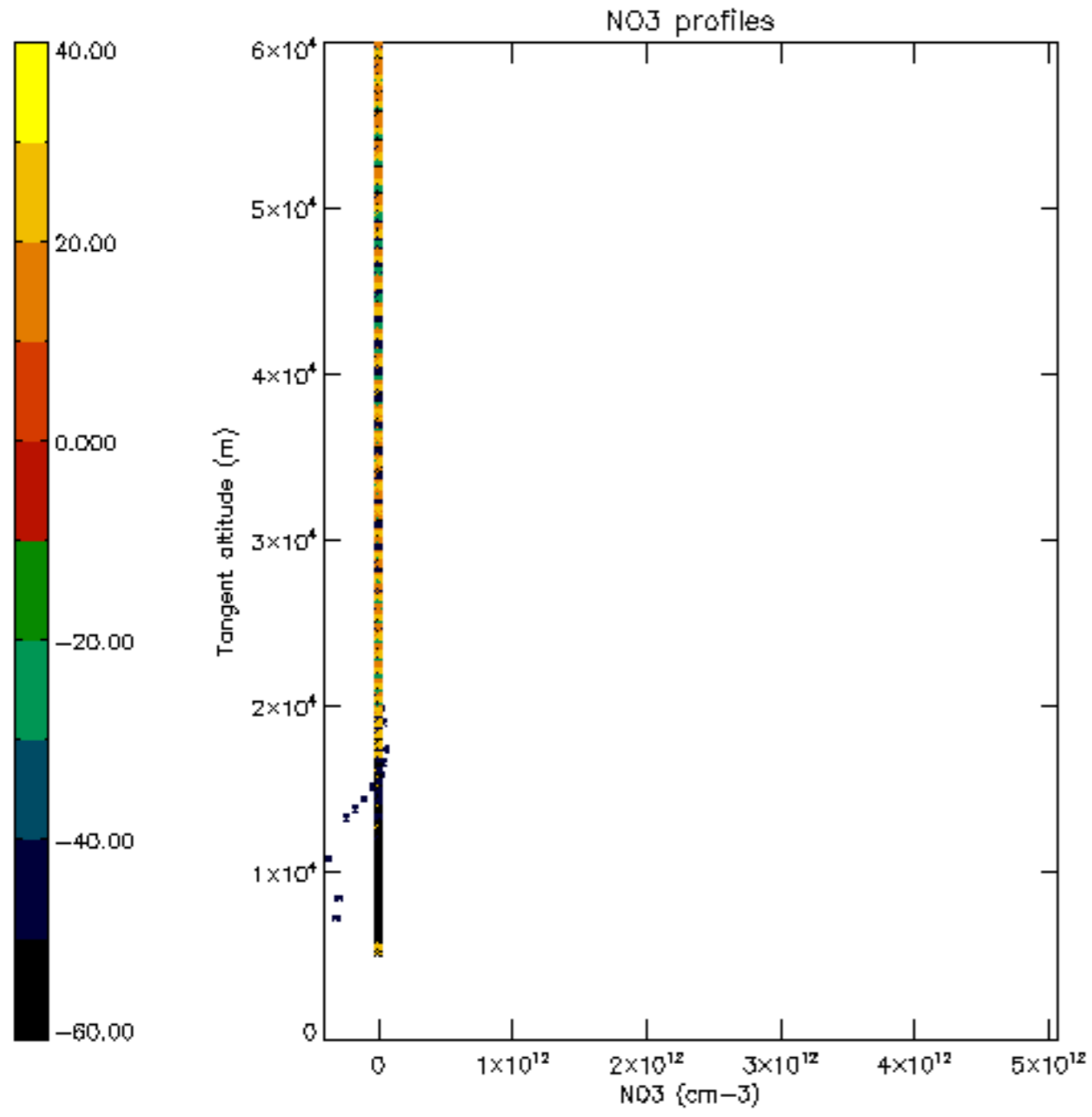


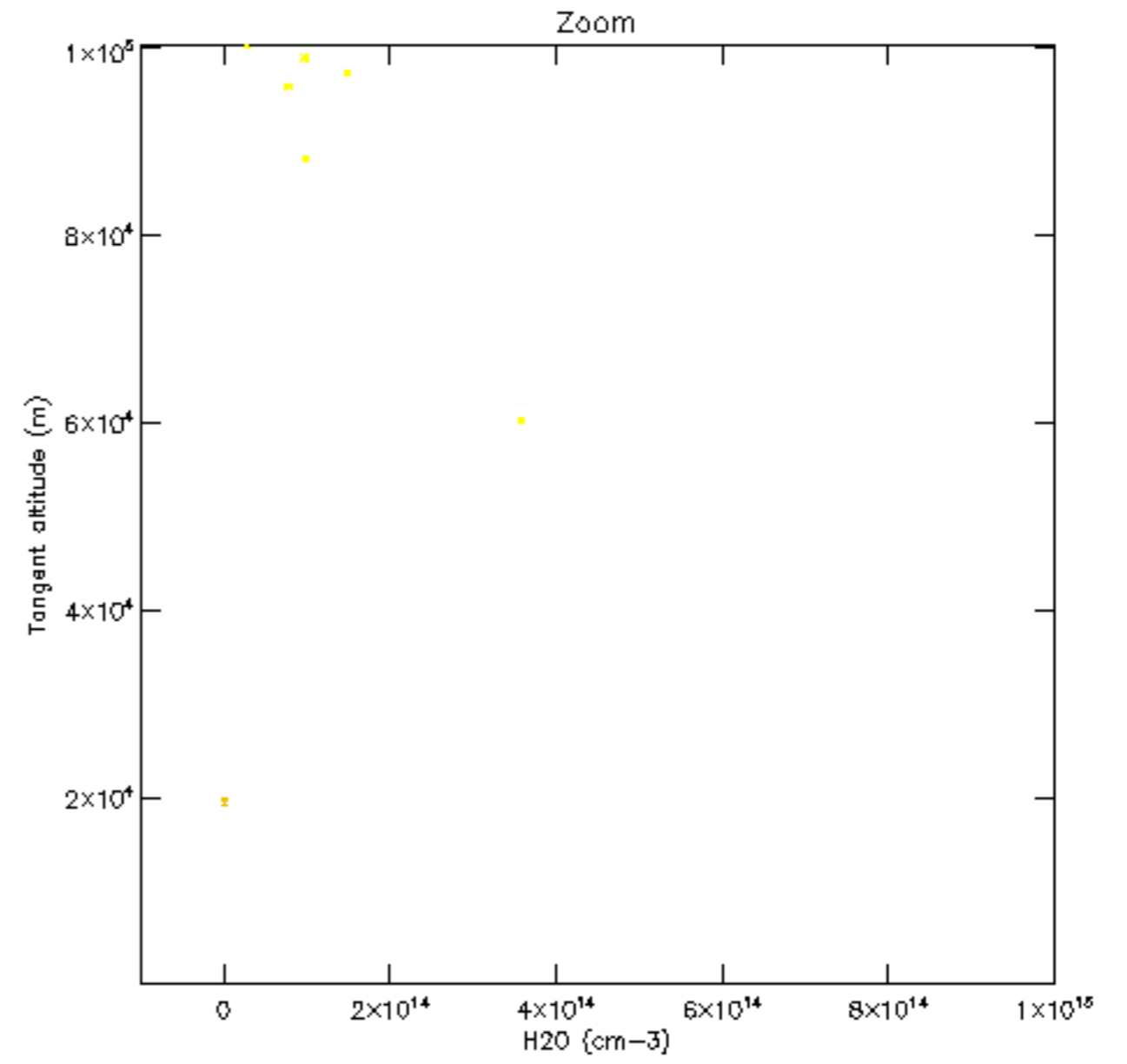
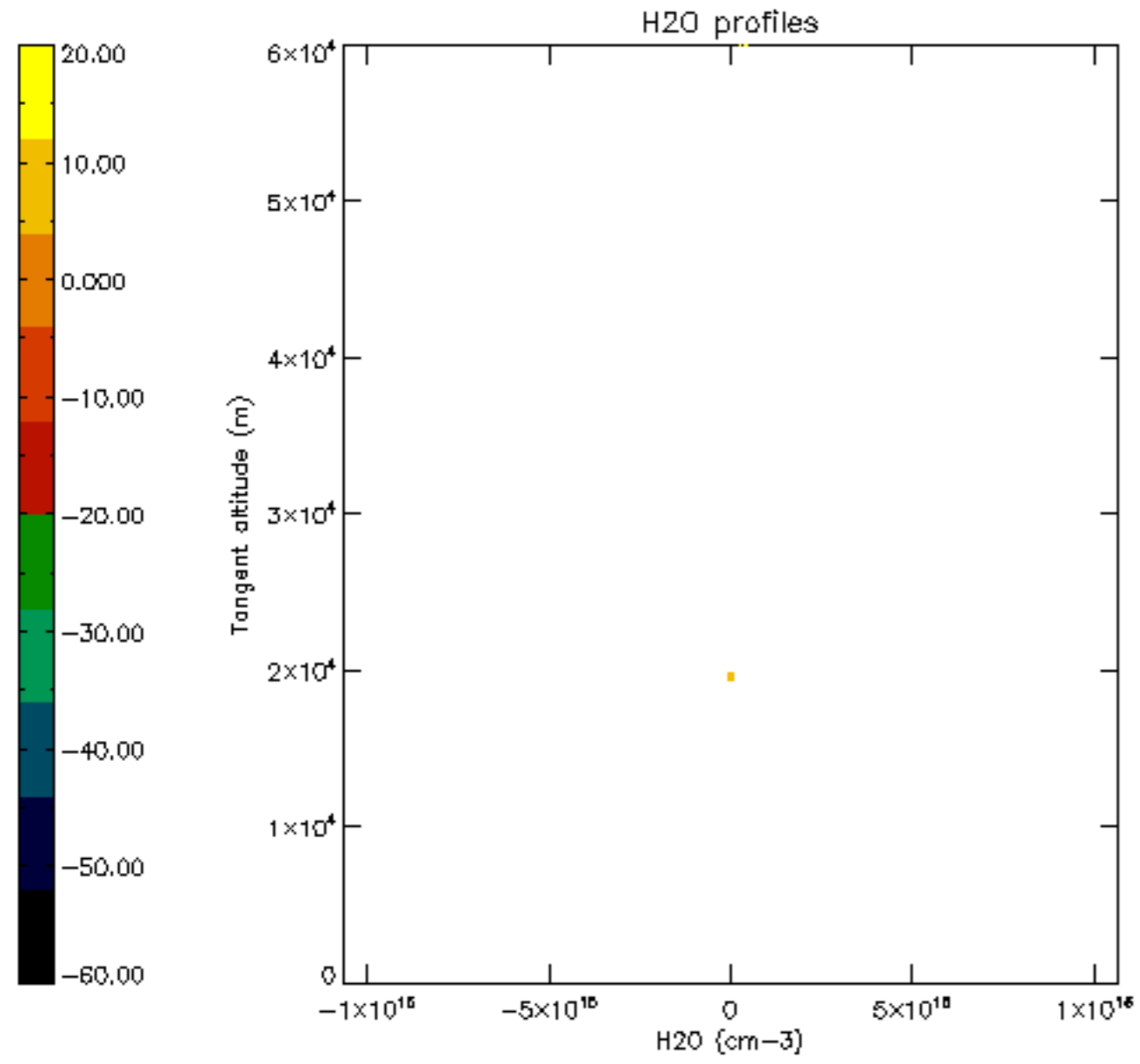


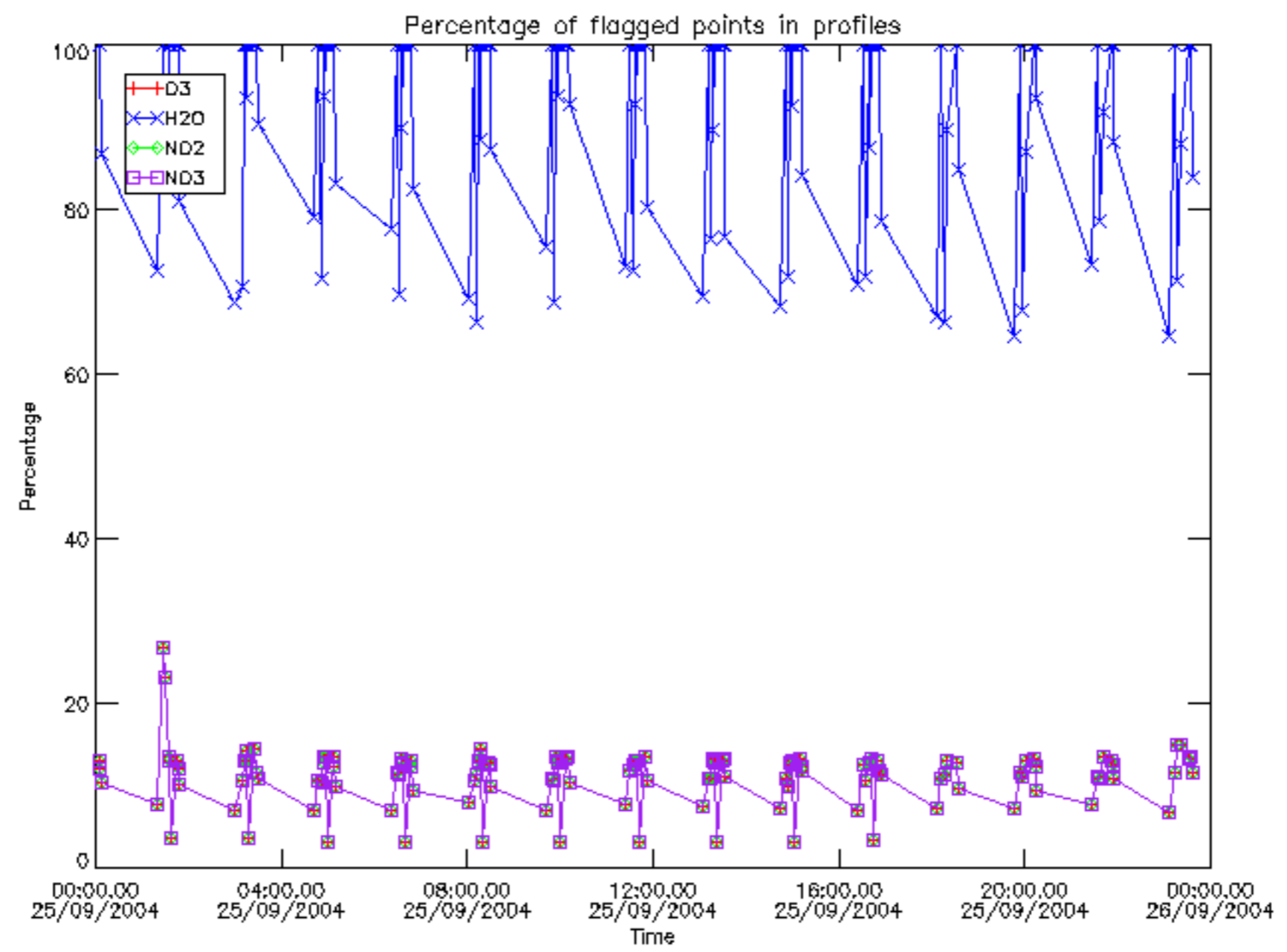






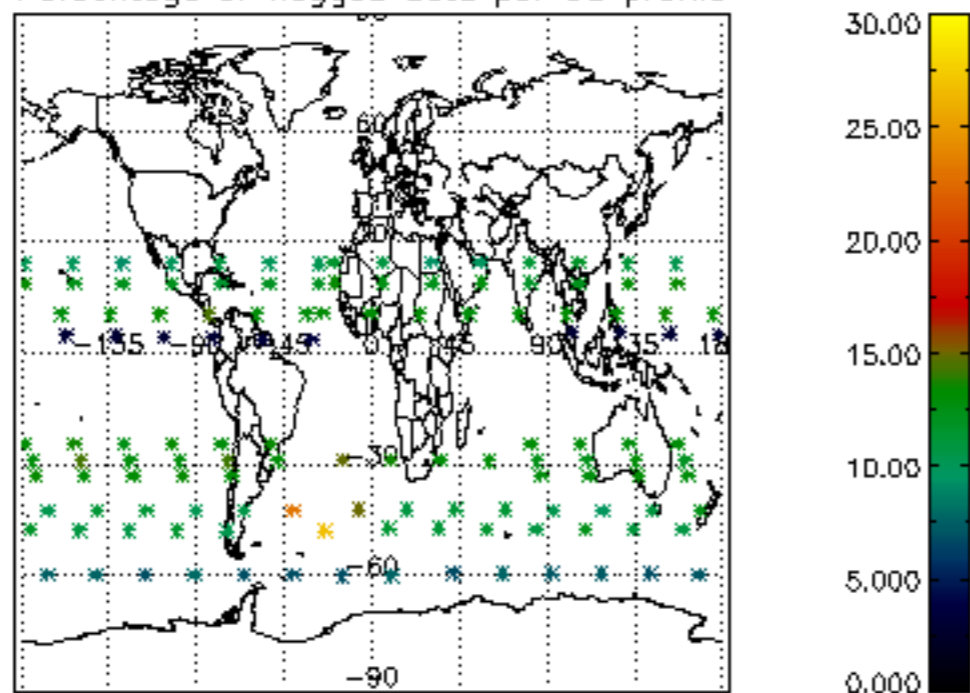




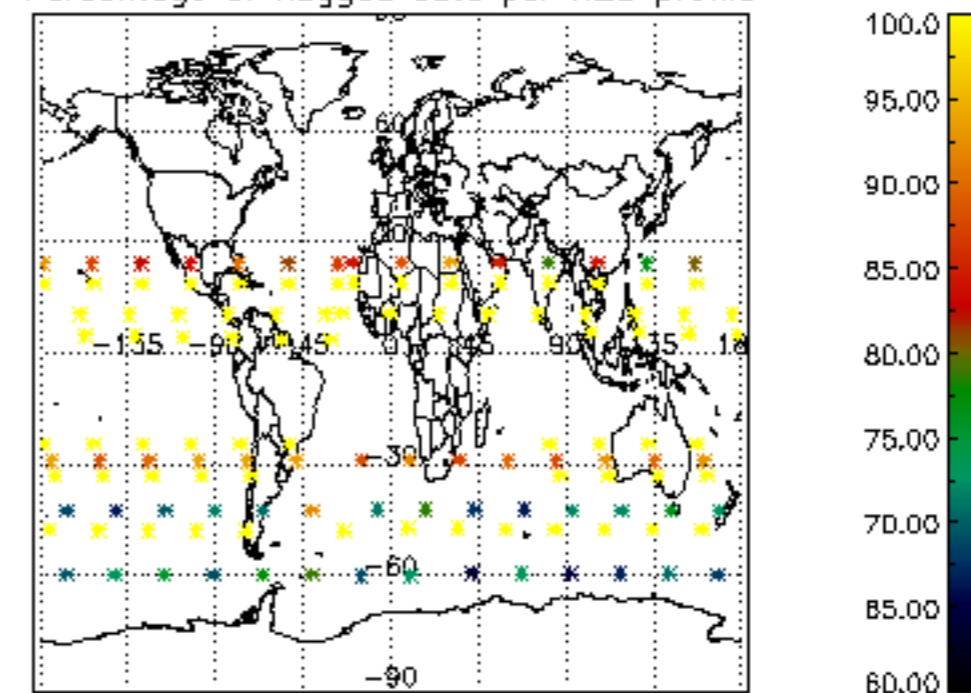




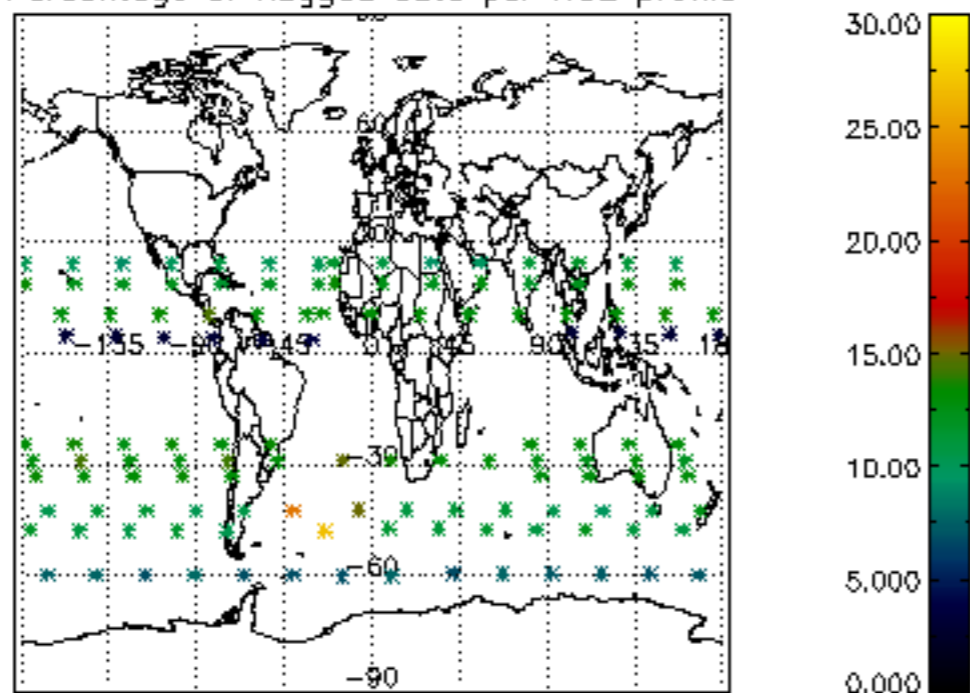
Percentage of flagged data per D3 profile



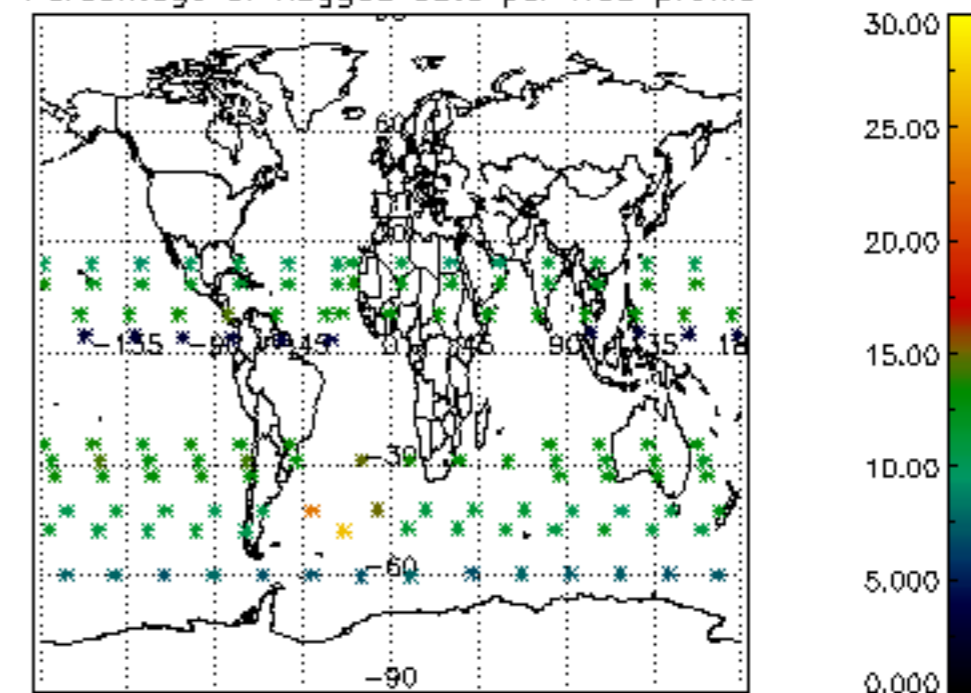
Percentage of flagged data per H2O profile

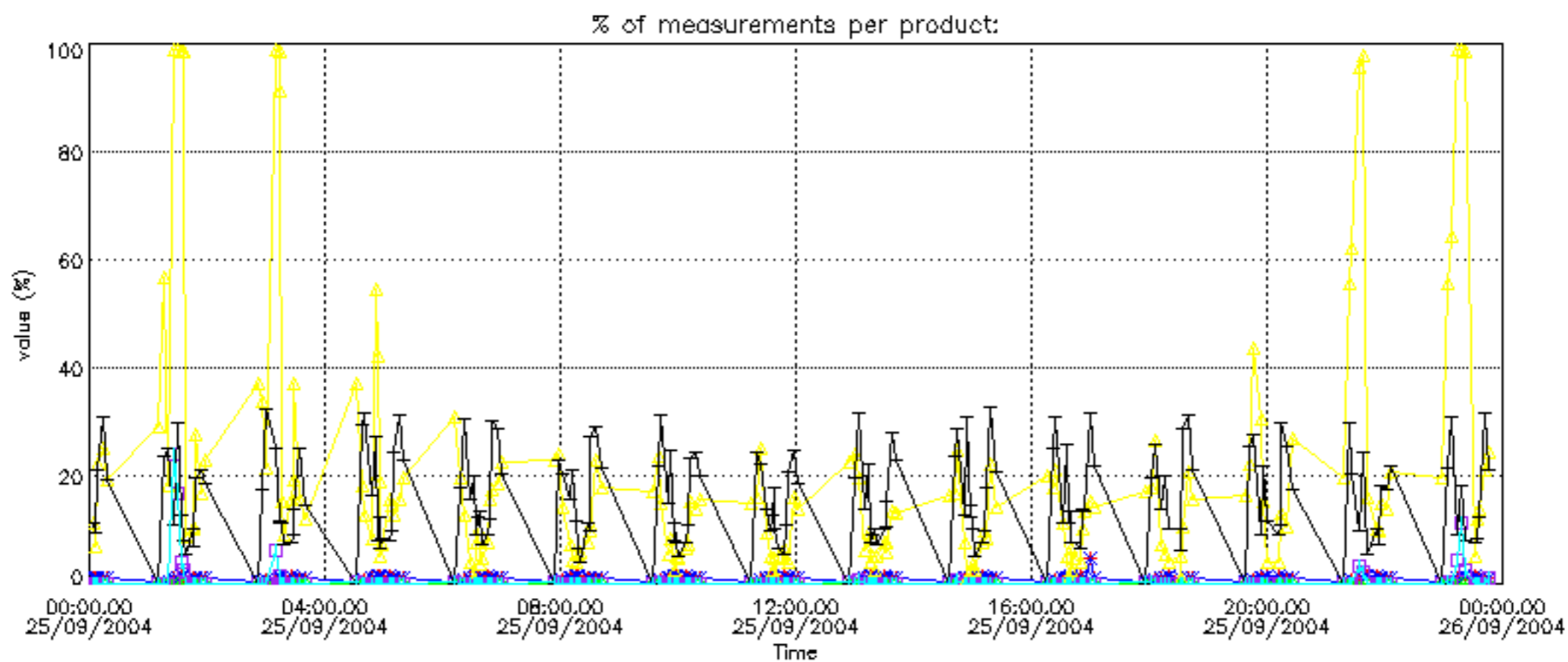


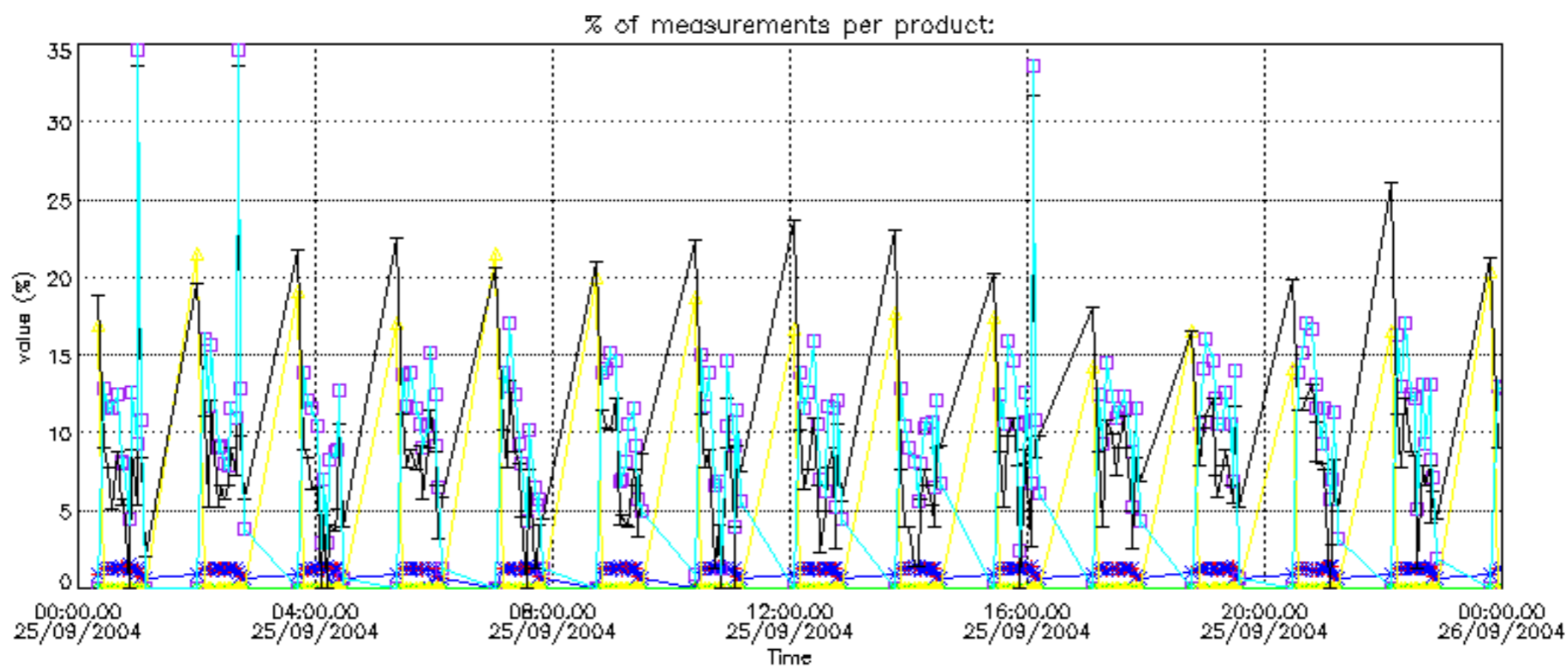
Percentage of flagged data per NO2 profile



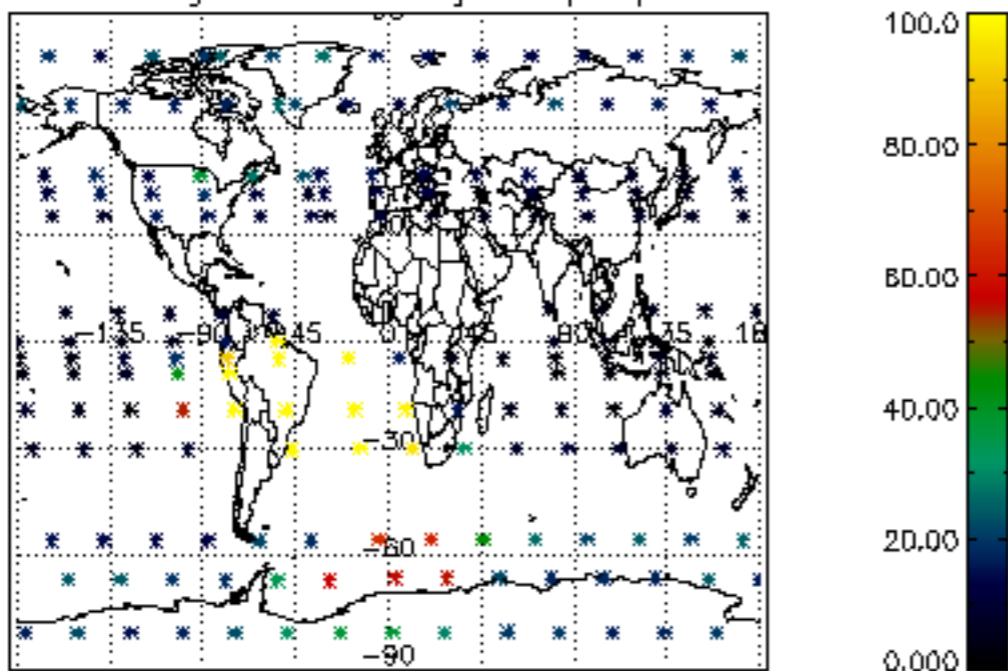
Percentage of flagged data per NO3 profile



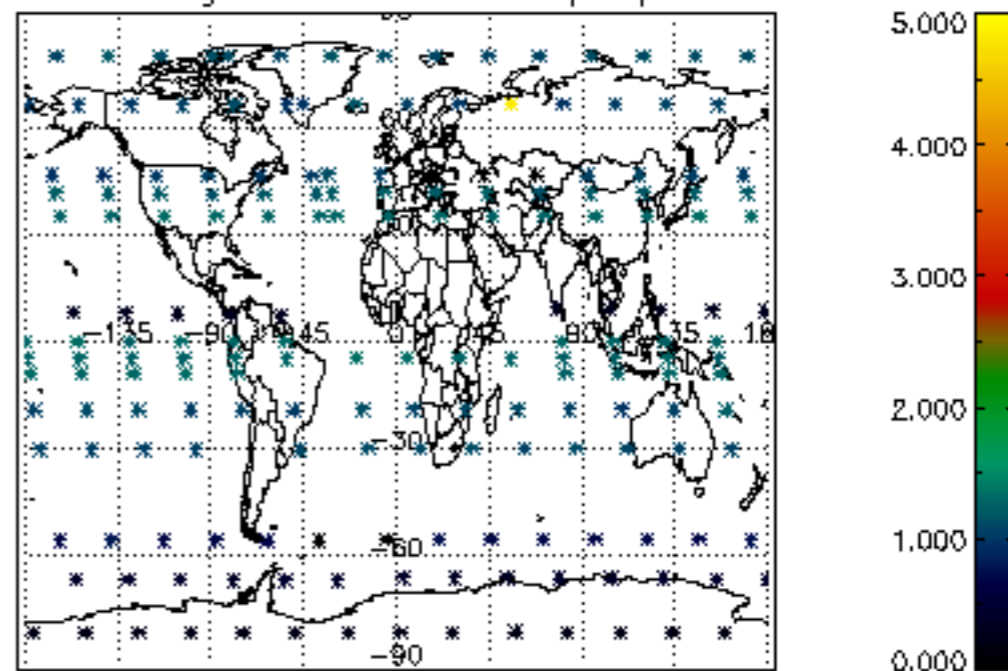




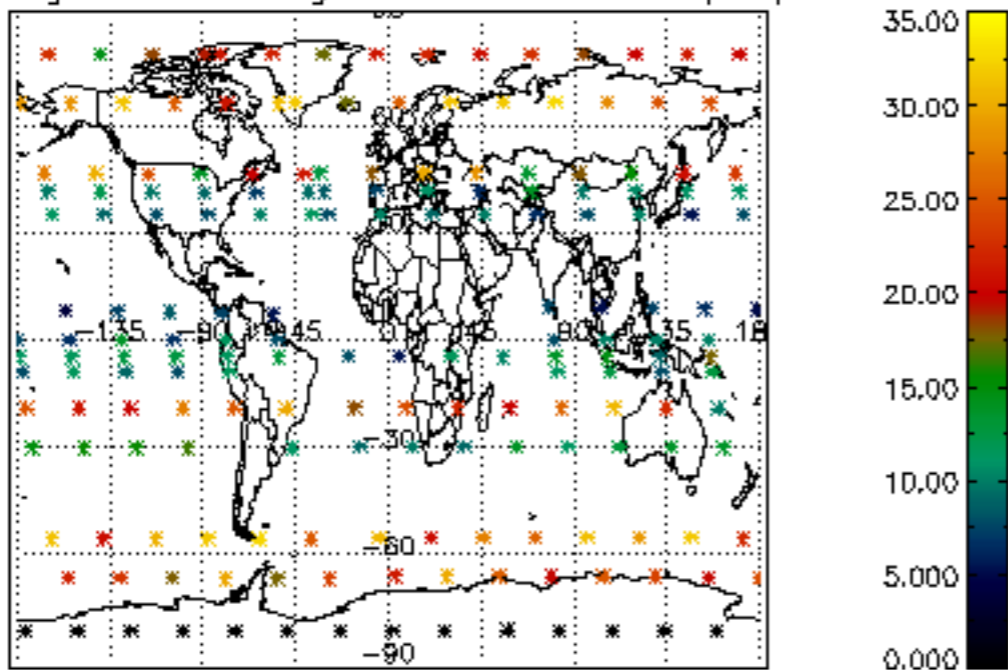
Percentage of cosmic ray hits per profile



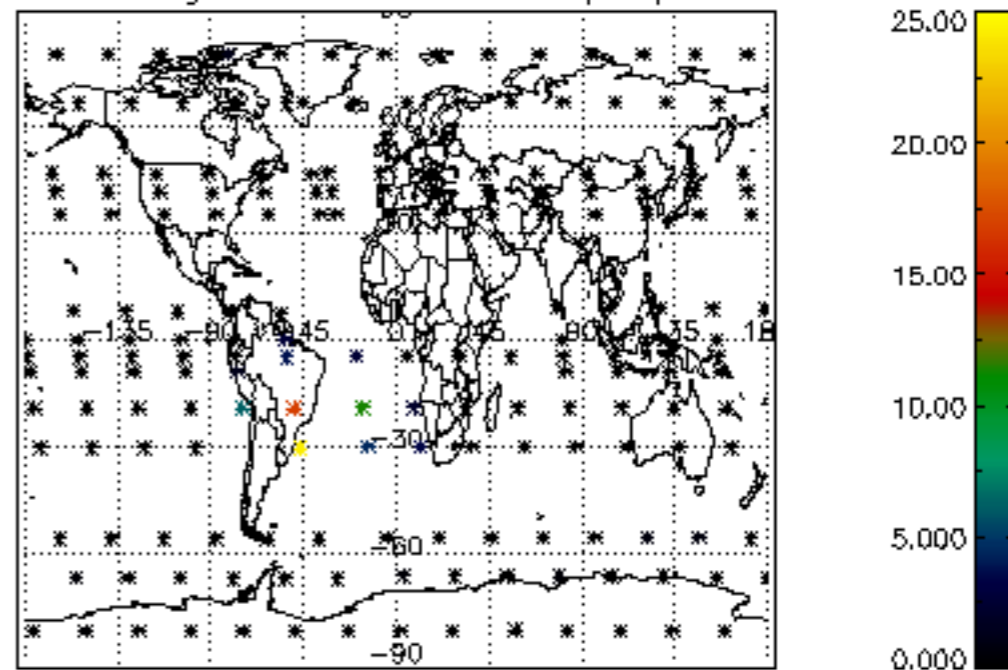
Percentage of datation errors per profile



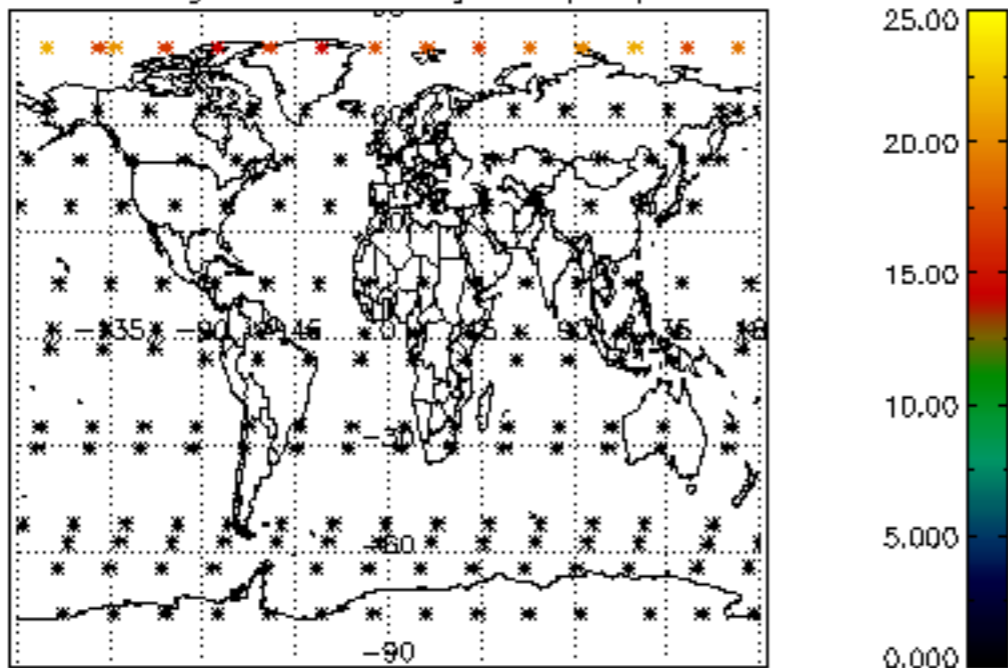
Percentage of star falling outside central band per profile



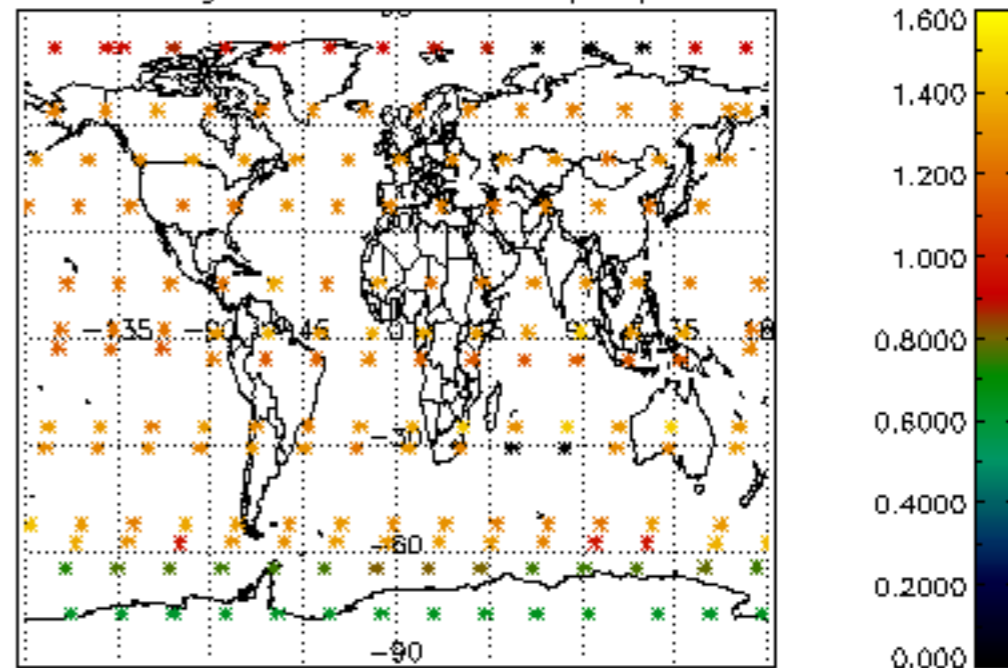
Percentage of saturation errors per profile



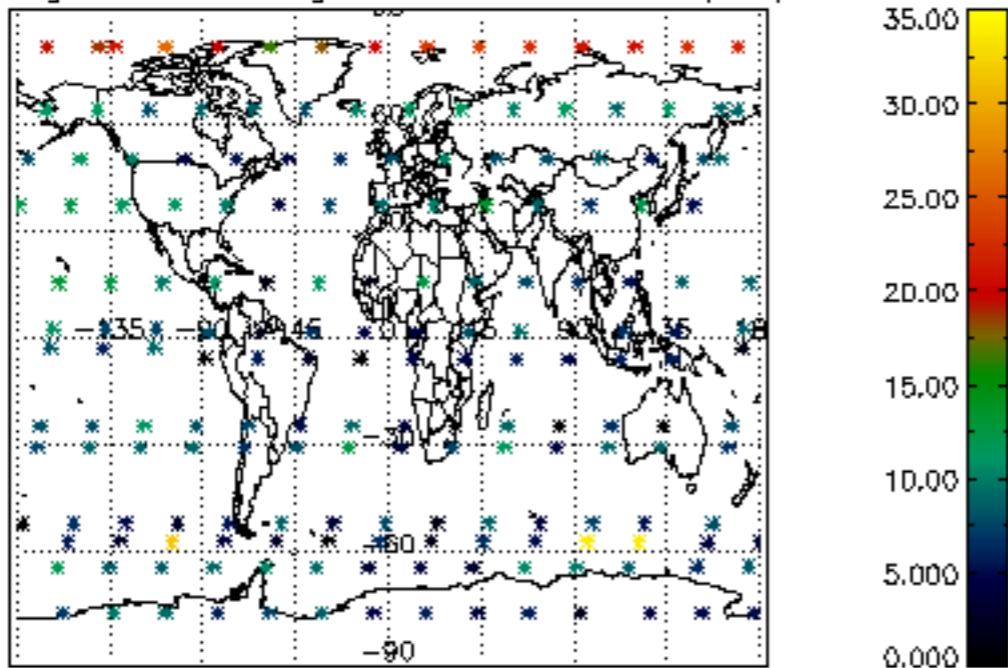
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

