

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% \(dark without errors\)](#)

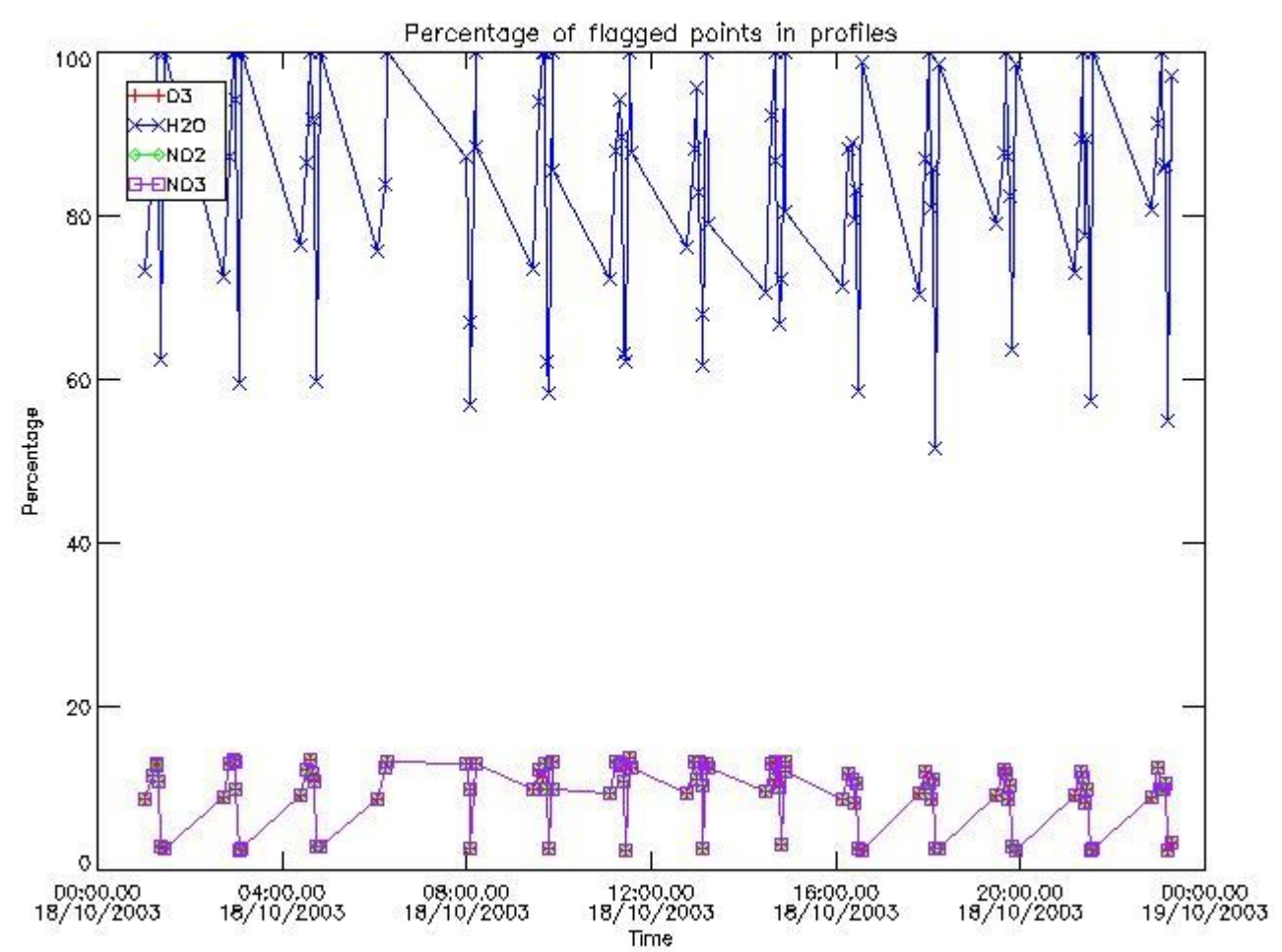
[5.5. Plot ozone profiles where STD < 5% \(dark without errors\)](#)

[5.6 Plot NO2 profiles for all STD \(dark without errors\)](#)

[5.7 Plot NO3 profiles for all STD \(dark without errors\)](#)

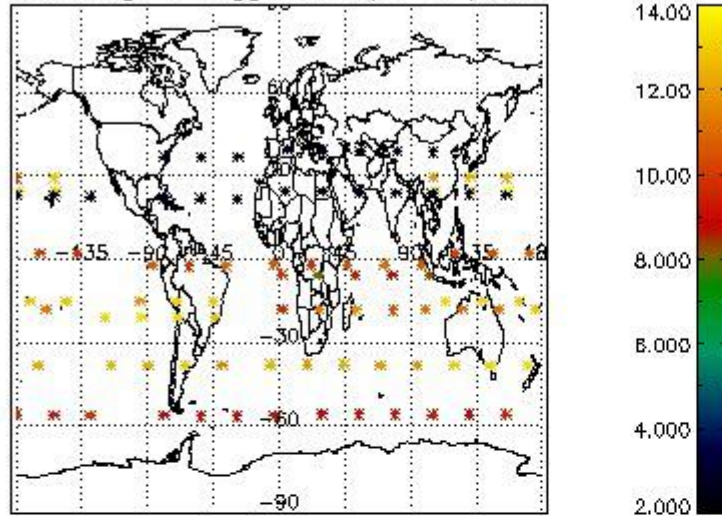
[5.8 Plot H2O profiles \(only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors\) for all STD](#)

[6. Auxiliary Data Files used for the production reported in section 2](#)

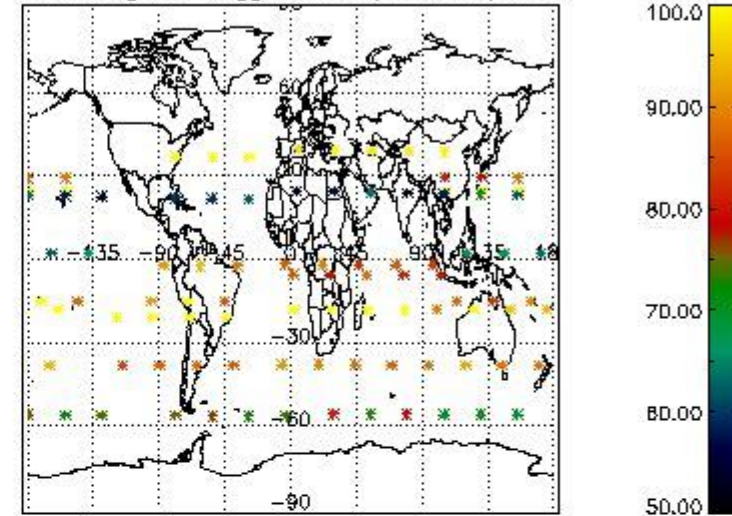


3.2 Plot quality information per product (world map)

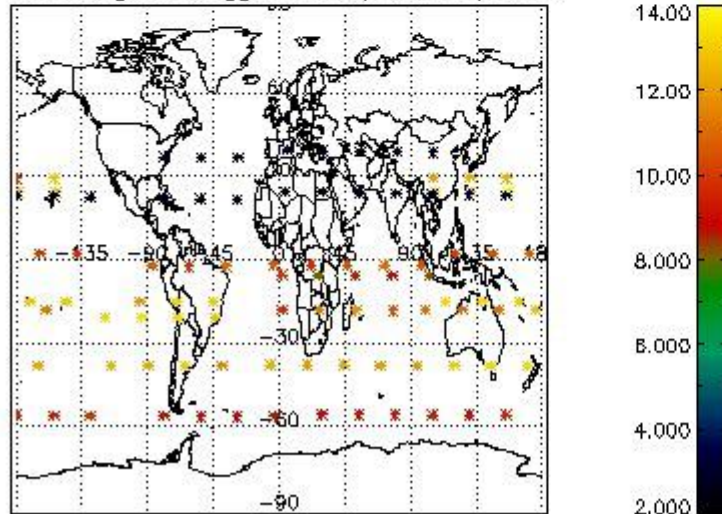
Percentage of flagged data per O3 profile



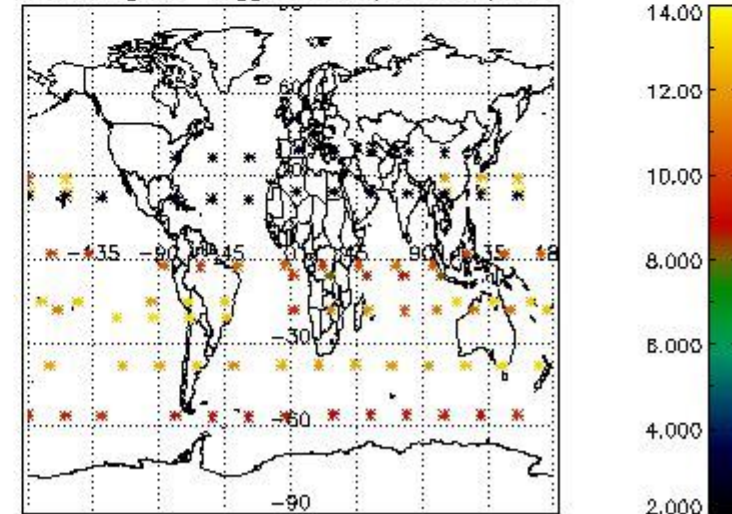
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

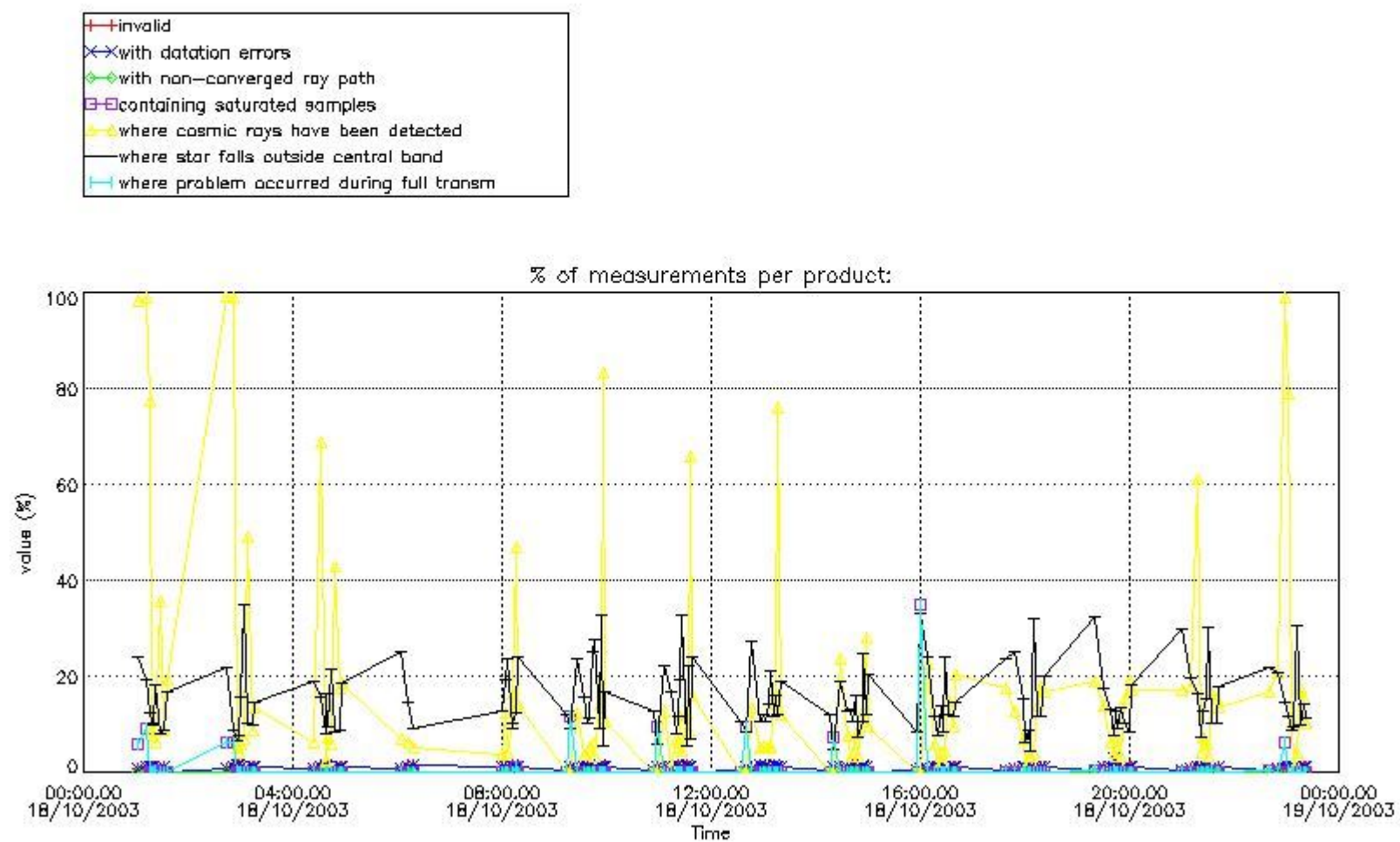


4. Level 1 quality information per product

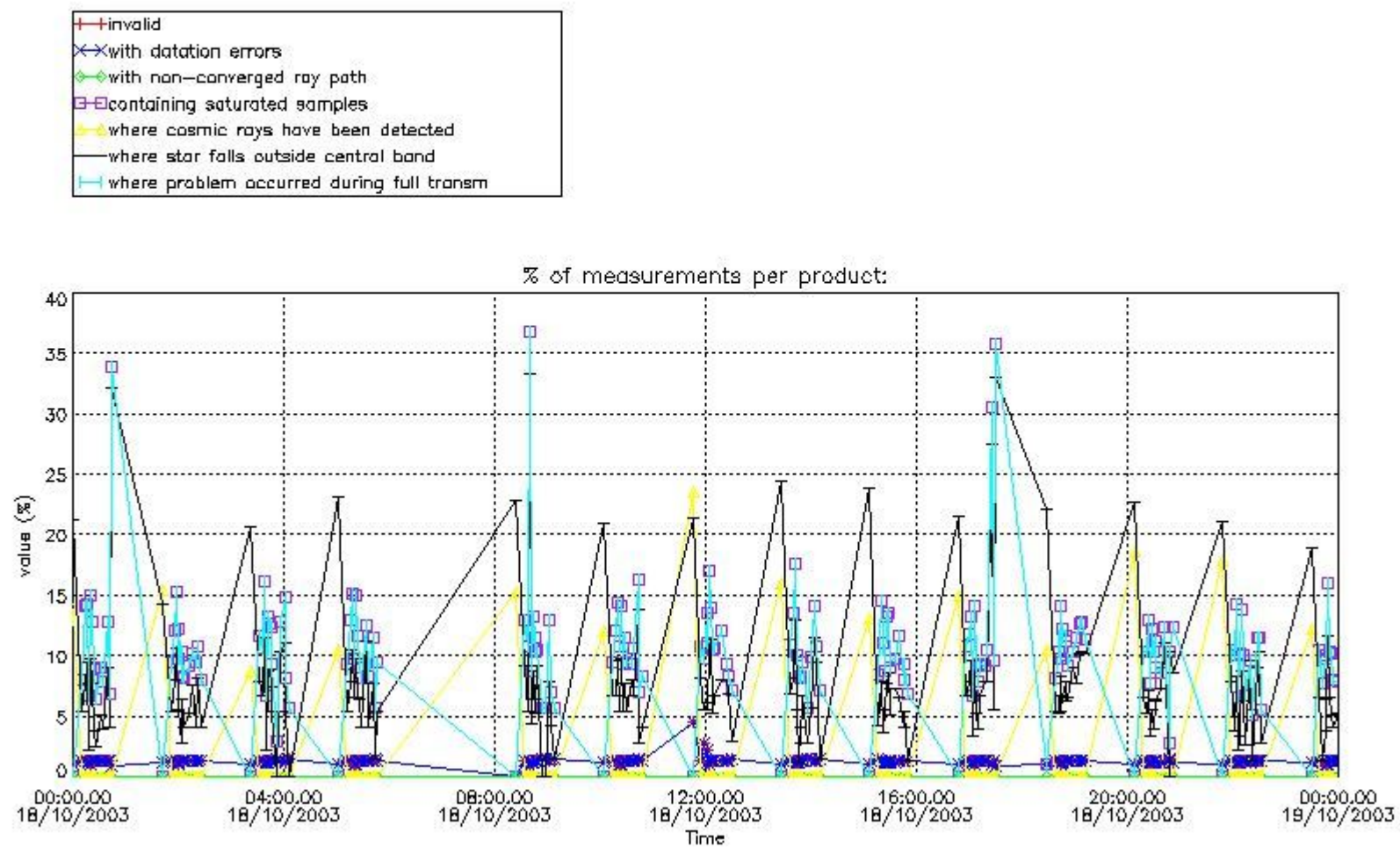
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



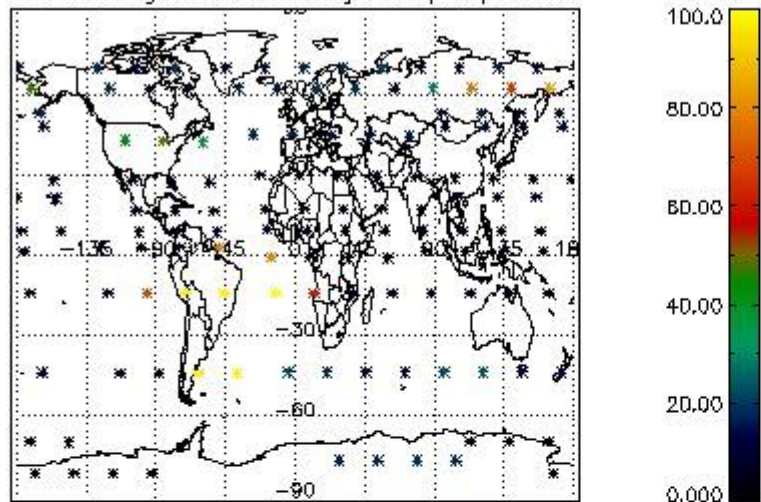
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



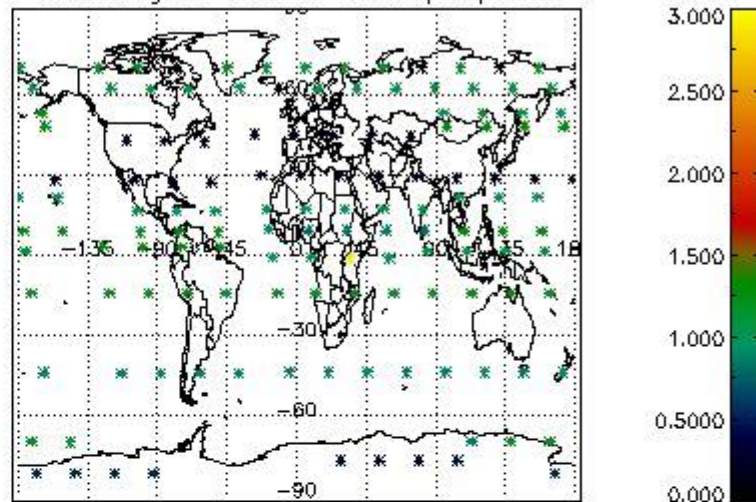
4.2 Plot quality information per product coming from level 1b processing (world map)

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

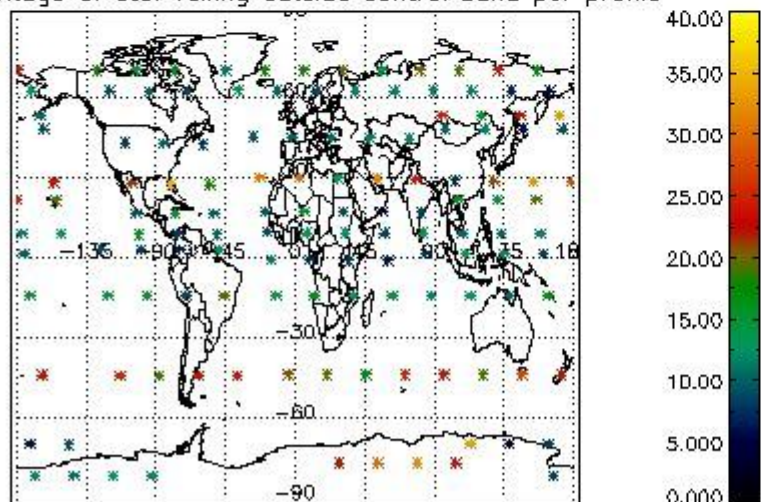
Percentage of cosmic ray hits per profile



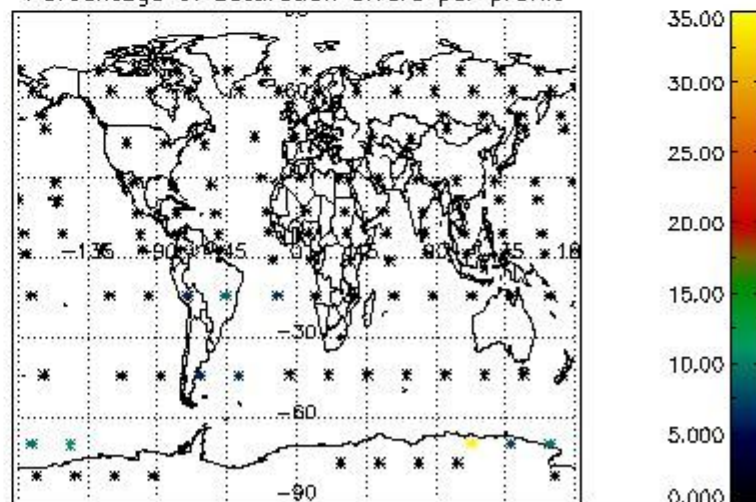
Percentage of datation errors per profile



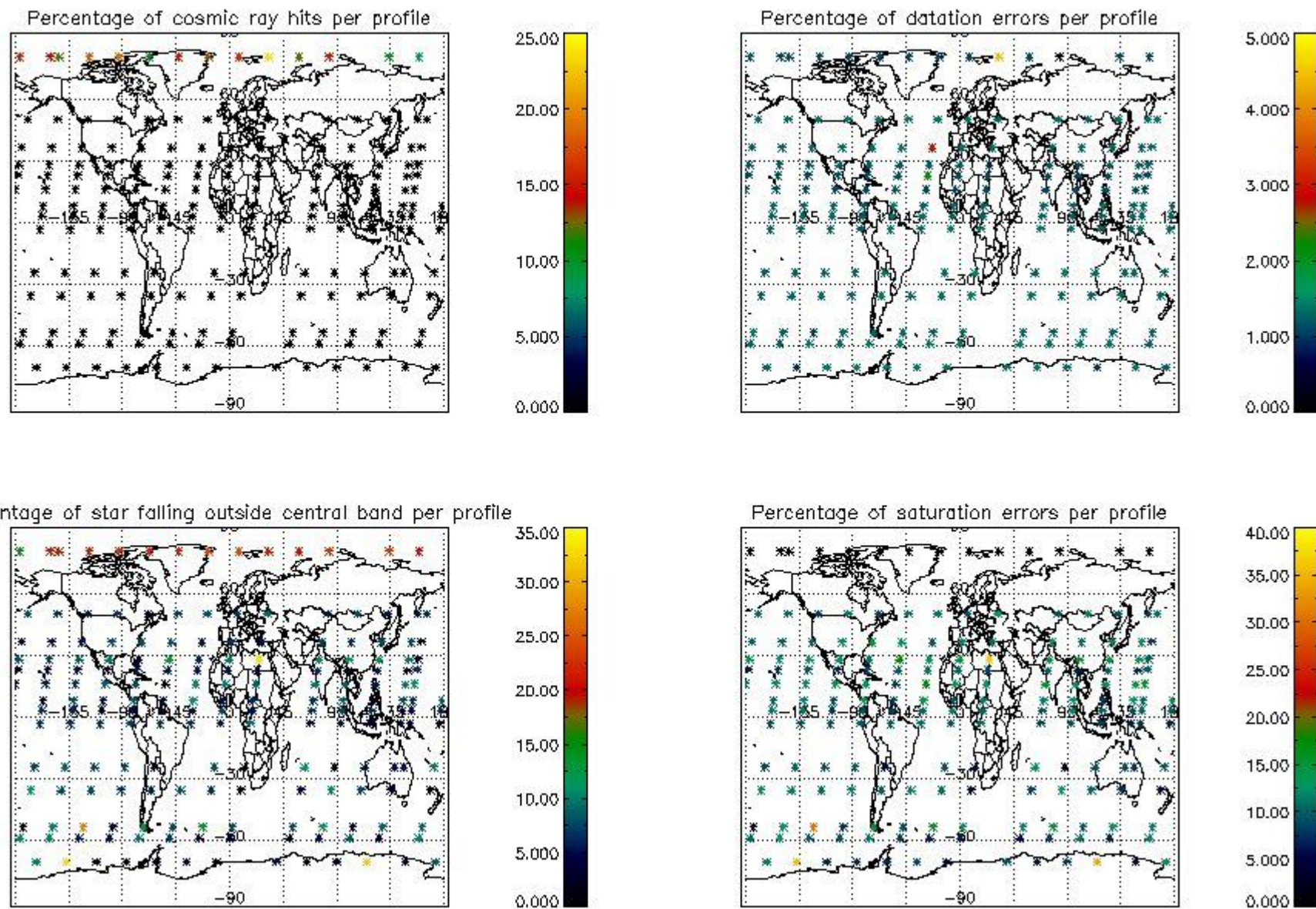
Percentage of star falling outside central band per profile



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

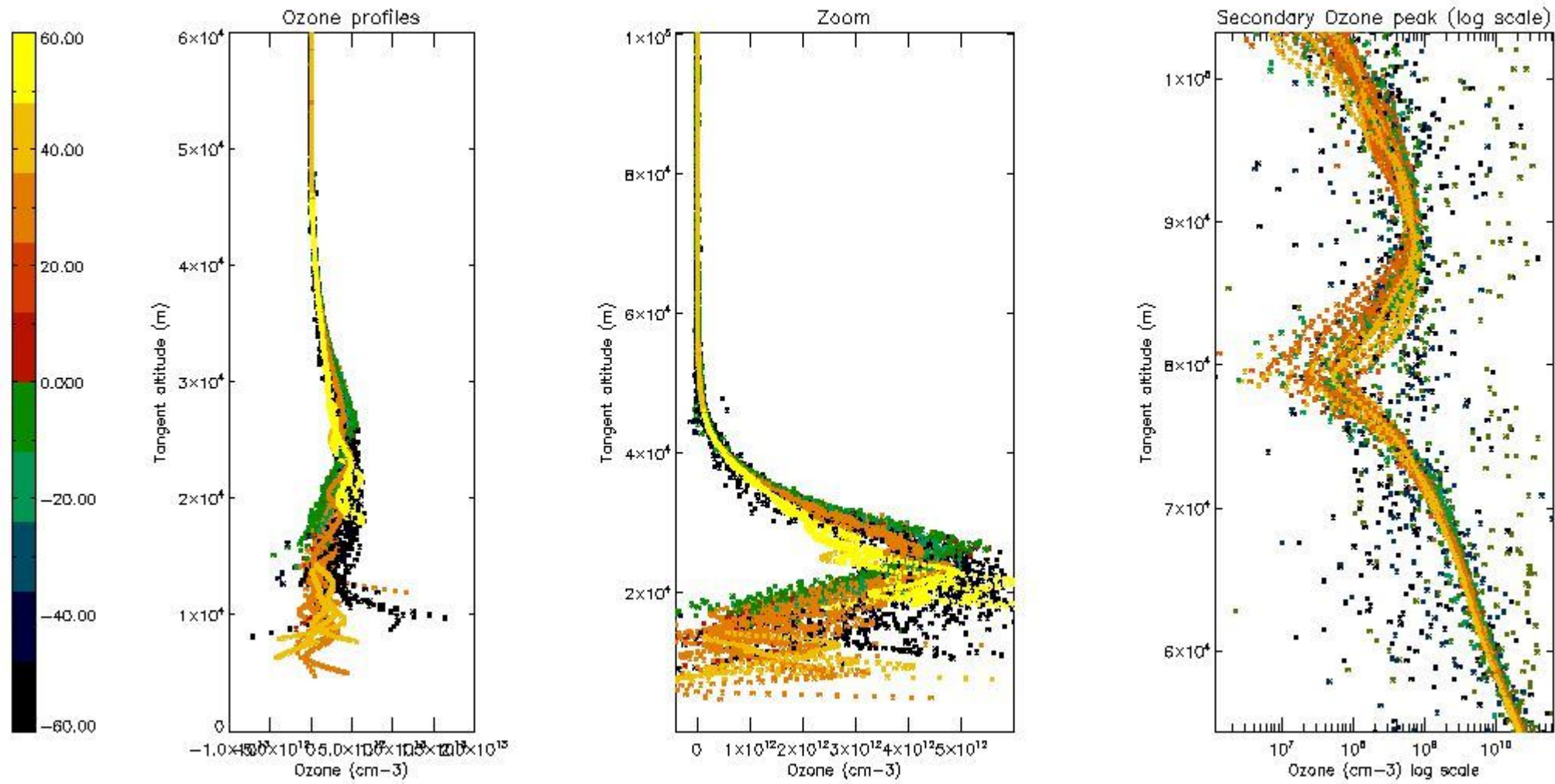
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	46
STD < 20	30

STD < 10	28
STD < 5	24

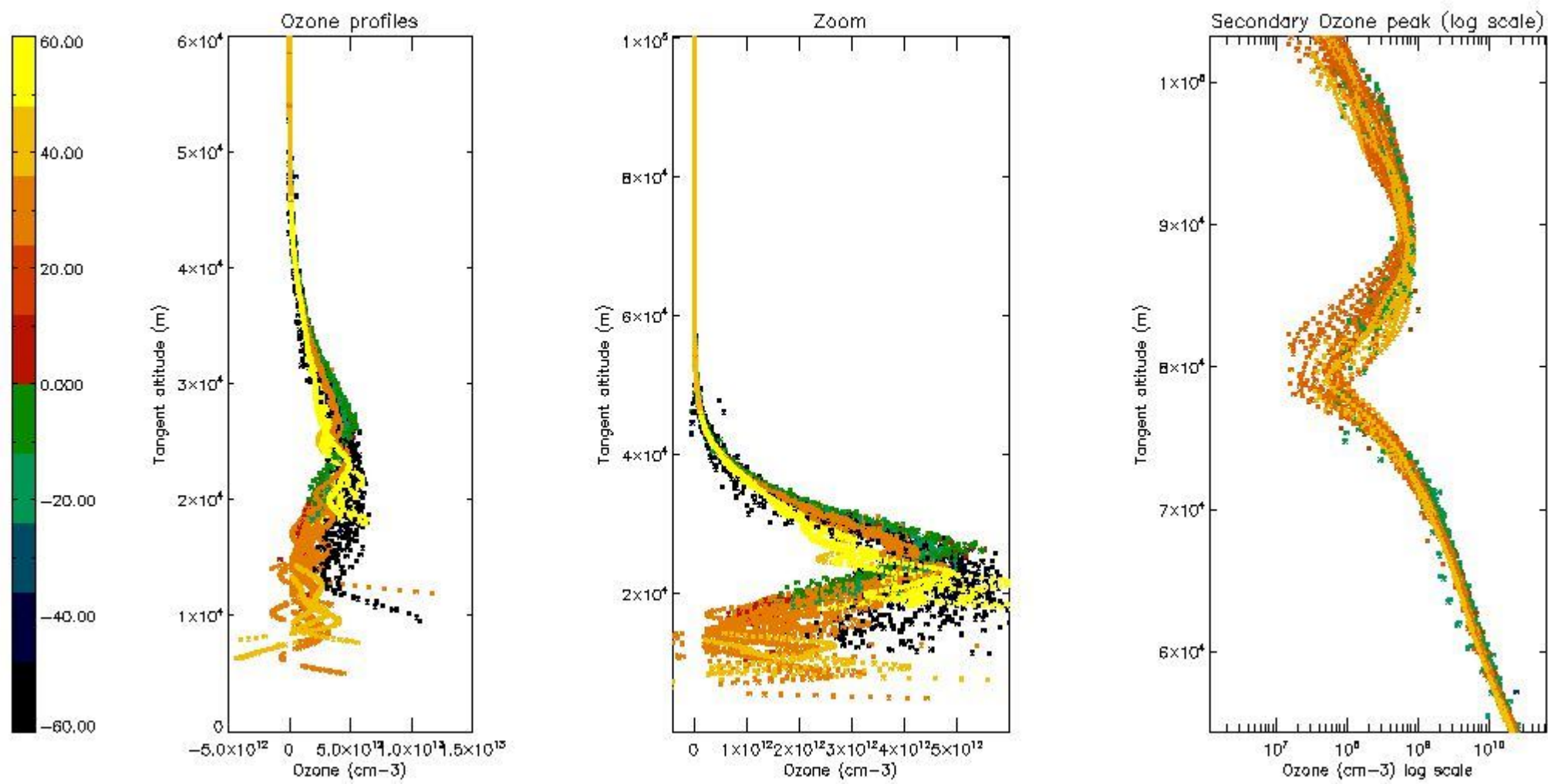
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



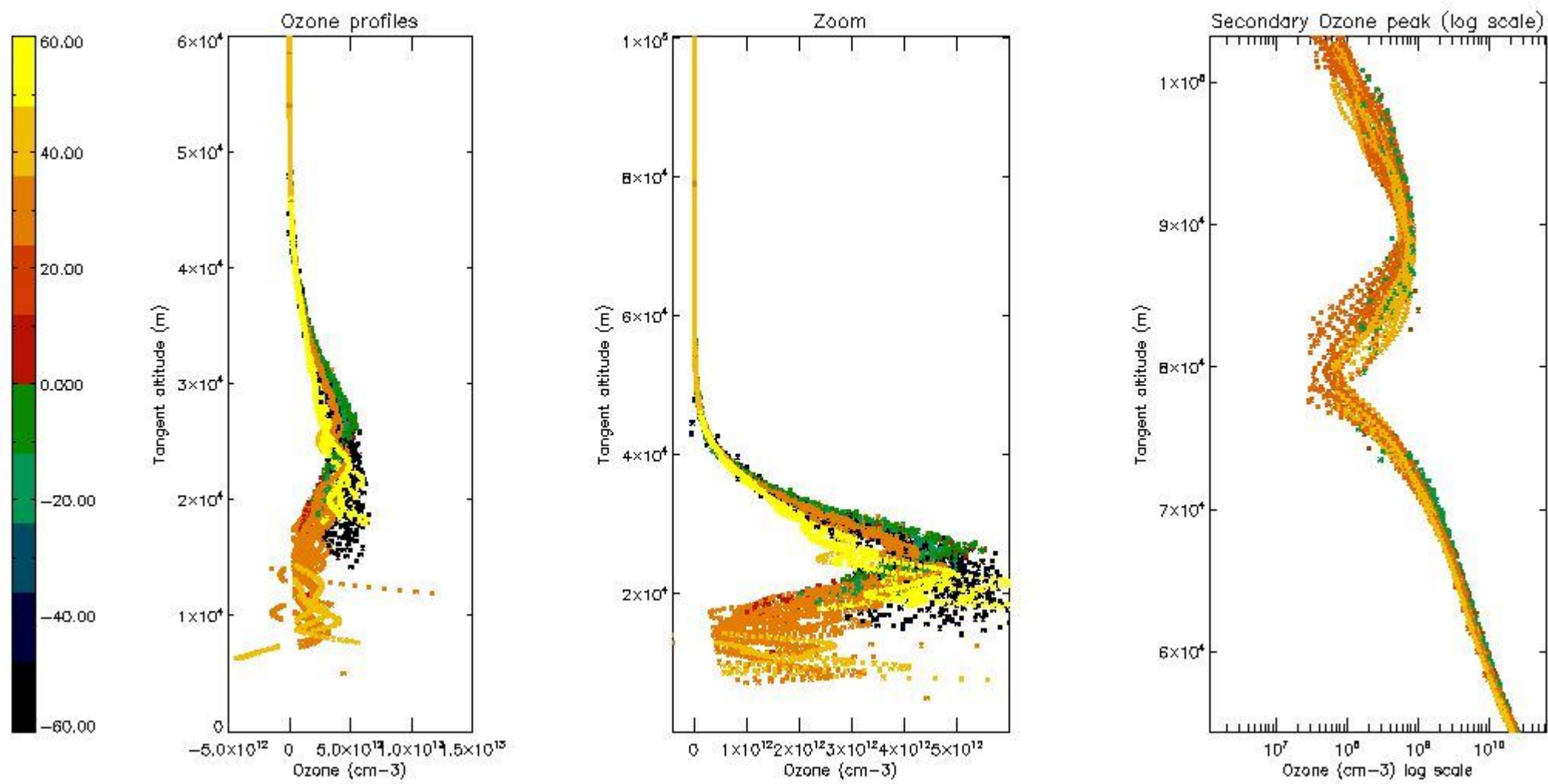
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



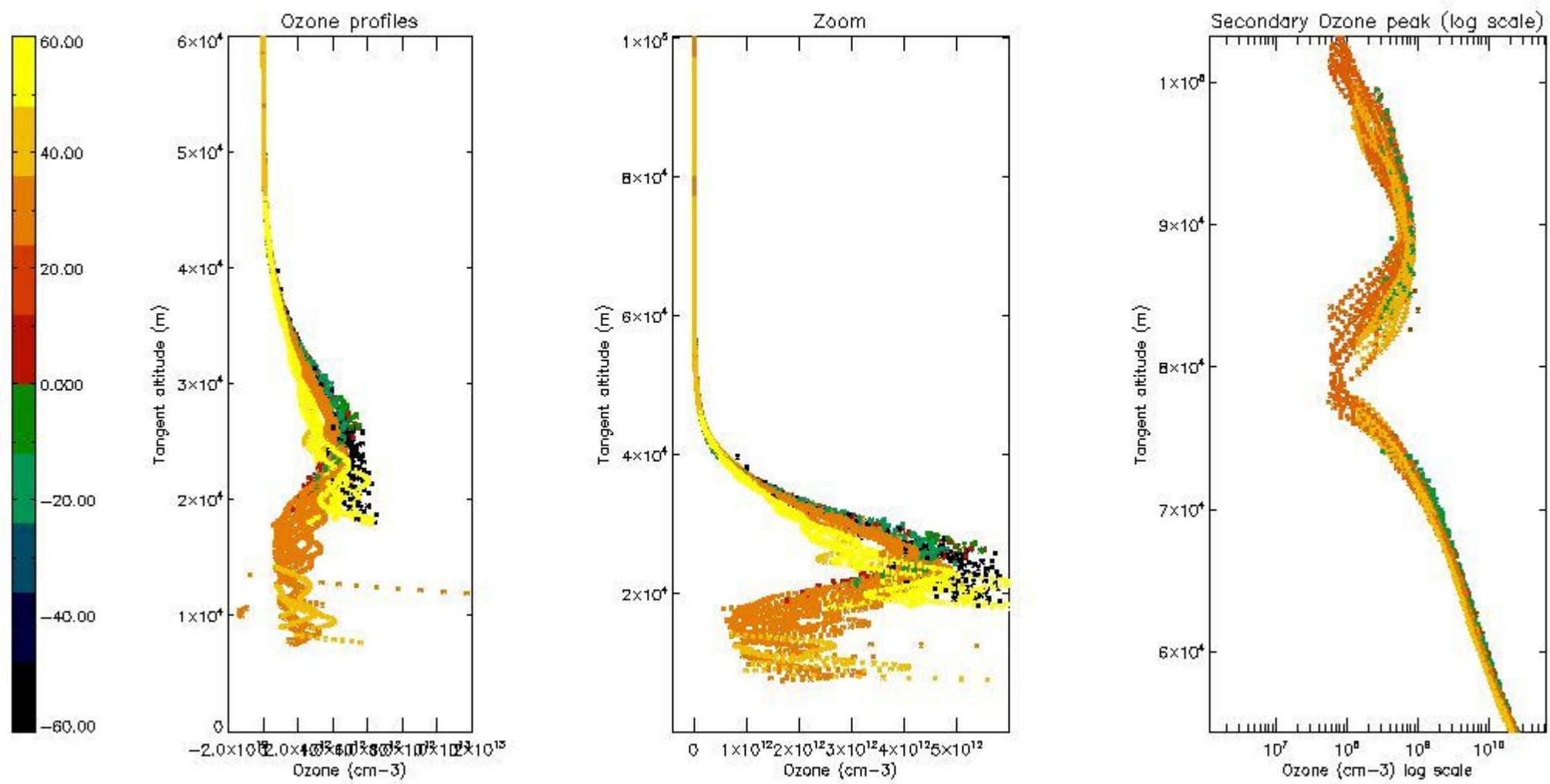
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



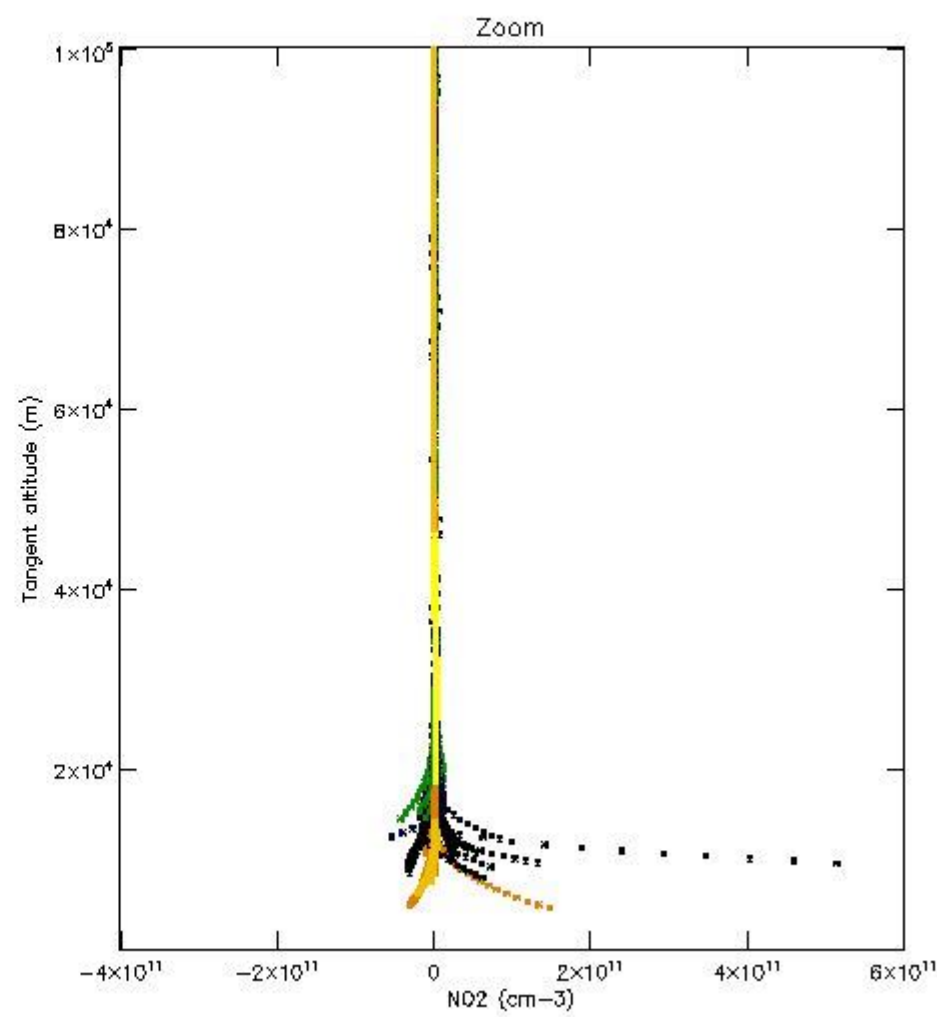
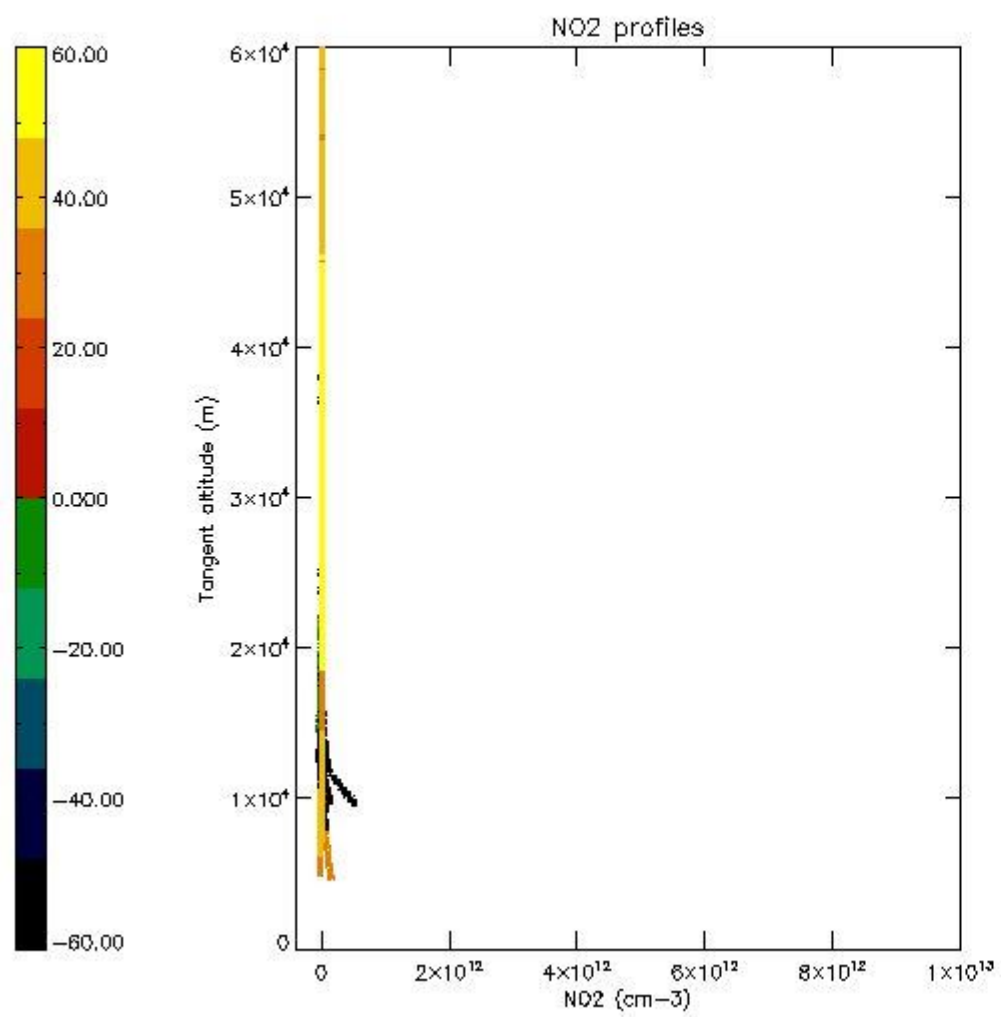
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



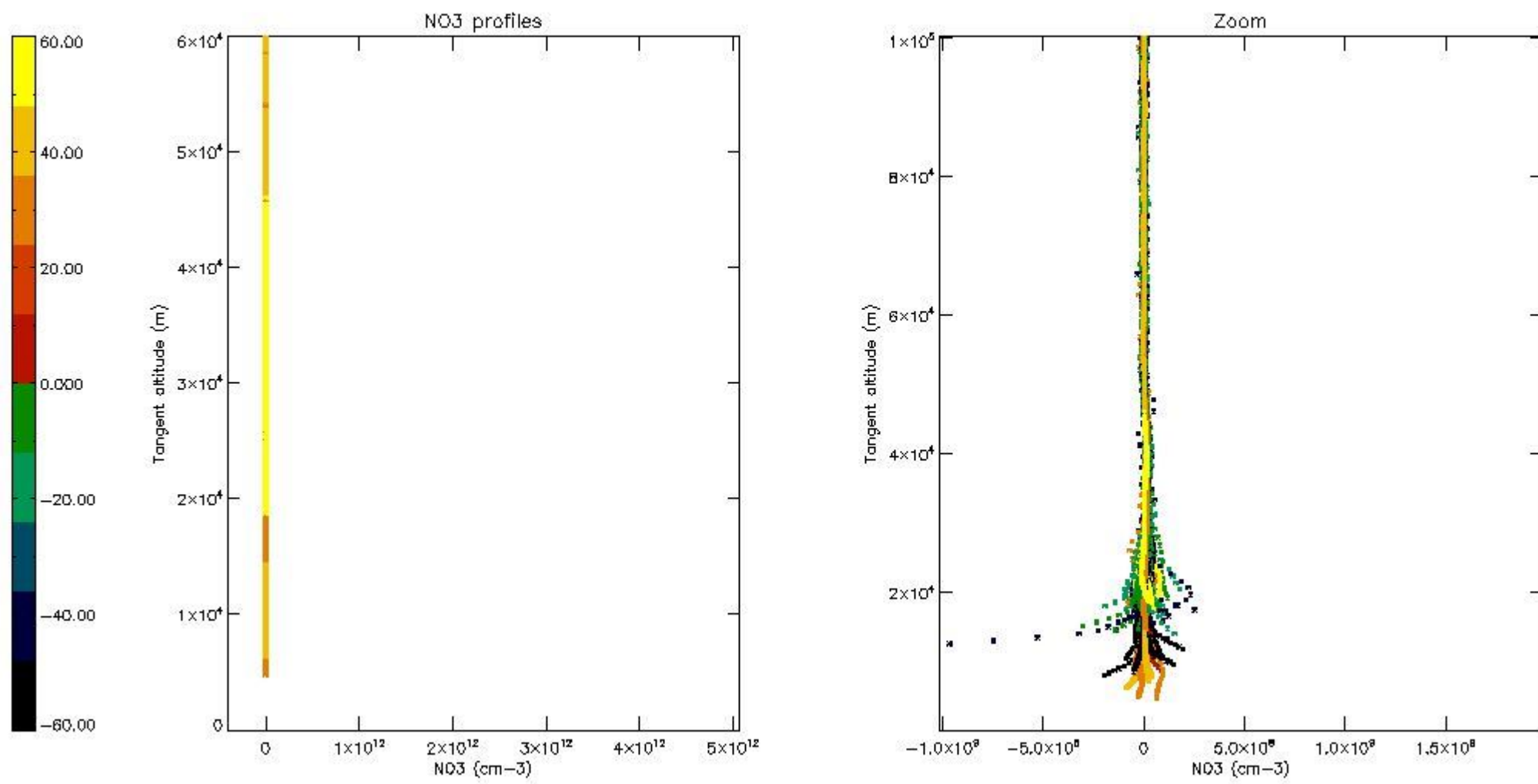
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



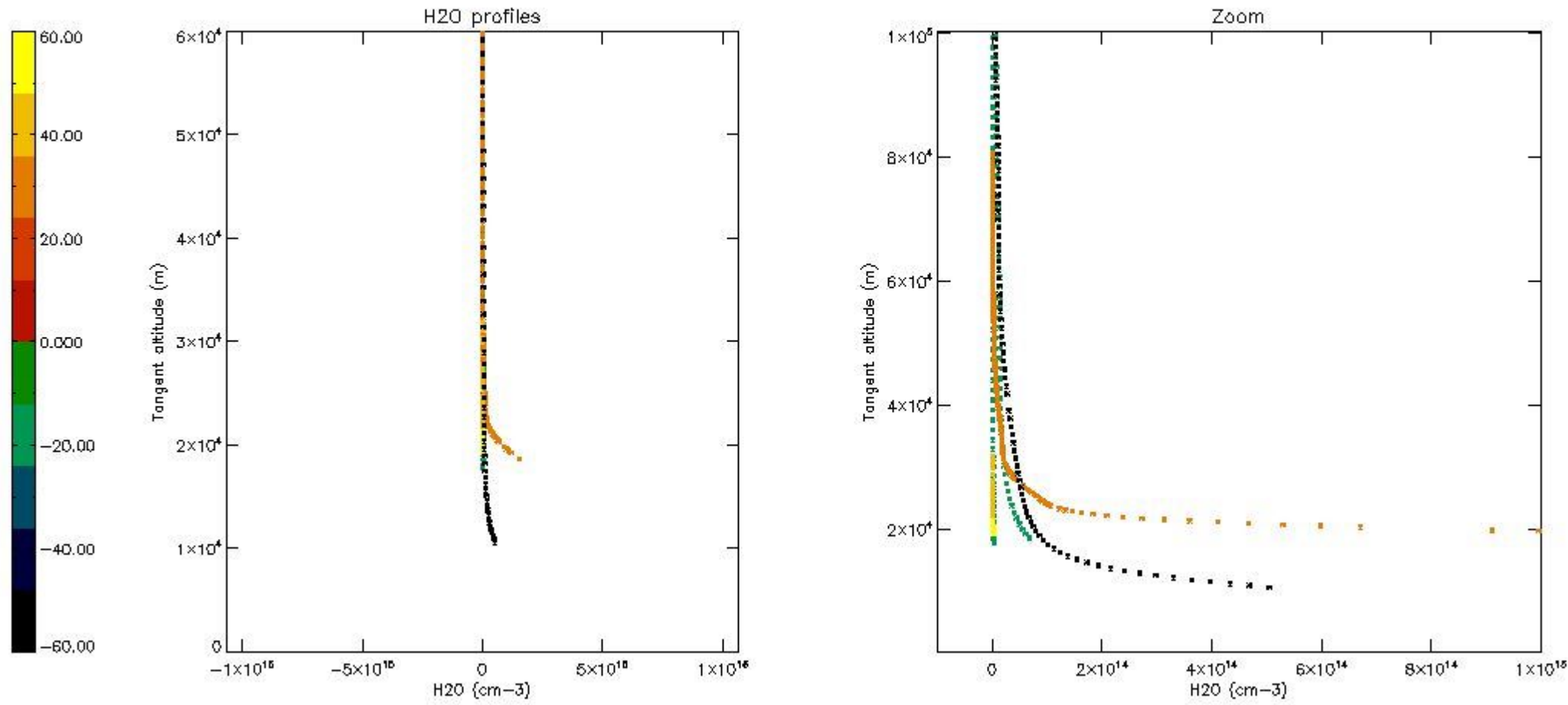
5.7 Plot NO3 profiles for all STD (dark without errors)

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	18-OCT-2003 00:00:59
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	18-OCT-2003 00:00:59
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	18-OCT-2003 00:00:59

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](#)

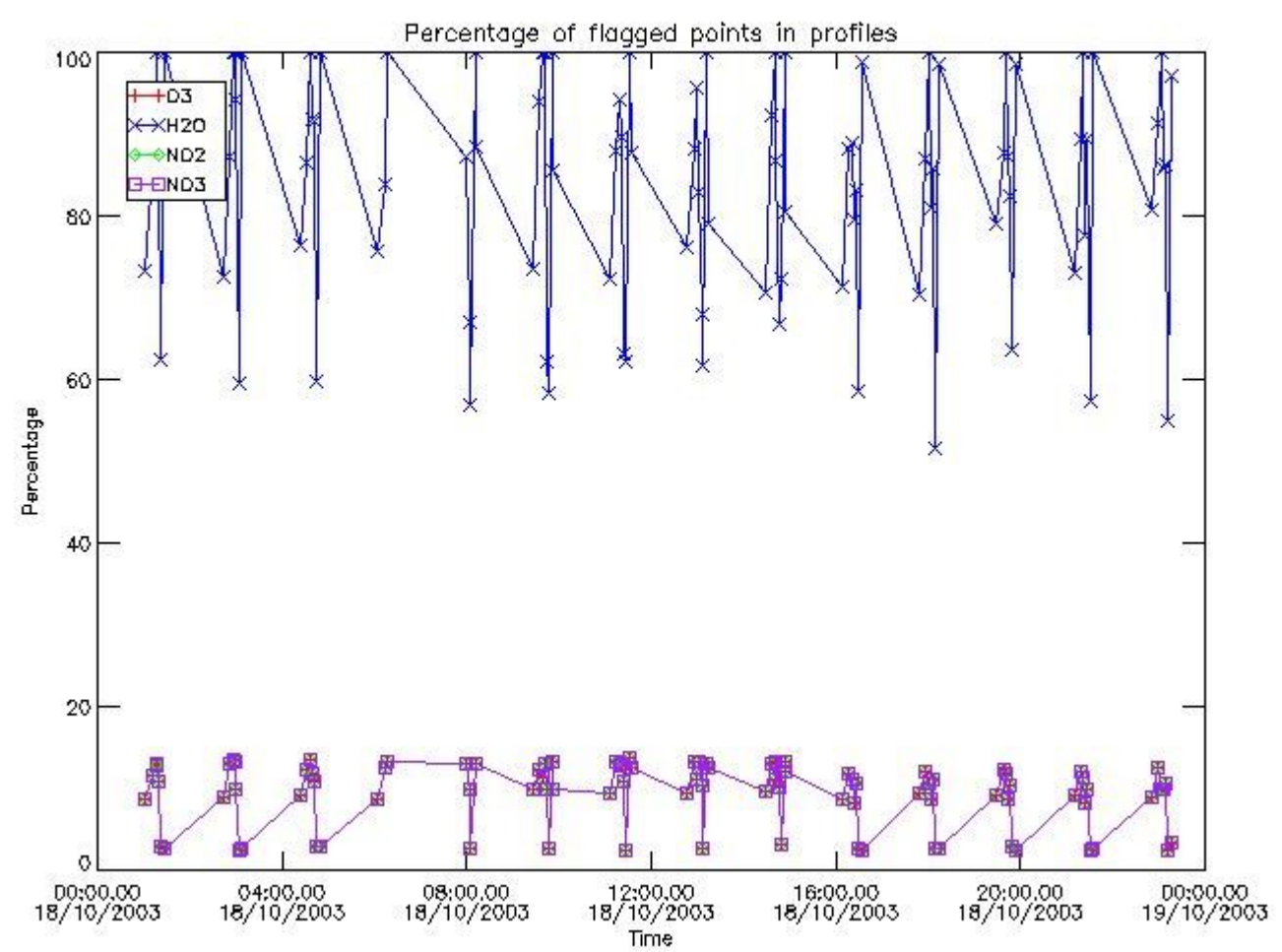
[6. Auxiliary Data Files used for the production reported in section 2](#)

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	19APR2013 22:03:39
Data source version	GOMOS/6.01
Start time of products	18-10-2003 (18OCT2003 00:00:00)
Stop time of products	19-10-2003 (19OCT2003 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	327
Nb of prods with errors	0

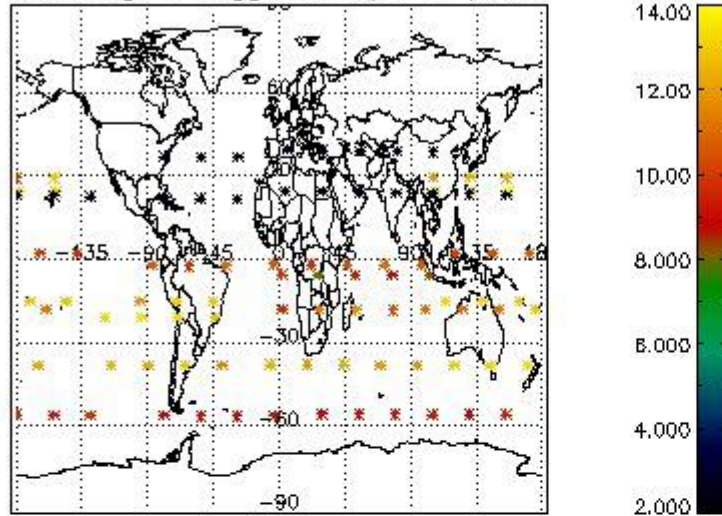
2. Summary of processed GOM_NL__2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20031018_000059_000000472020_00460_08530_9482.N1	18-OCT-2003 00:00:59	Straylight	47.000	52	16Bet Cet	2.0370	4500.0	94	8530	No
2	GOM_NL__2PRFIN20031018_001035_000000382020_00460_08530_9483.N1	18-OCT-2003 00:10:35	Bright	37.500	140	88Gam Peg	2.8340	26000.	75	8530	No
3	GOM_NL__2PRFIN20031018_001432_000000392020_00460_08530_9484.N1	18-OCT-2003 00:14:32	Bright	39.000	58	21Alp And	2.0730	11000.	78	8530	No
4	GOM_NL__2PRFIN20031018_001656_000000422020_00460_08530_9485.N1	18-OCT-2003 00:16:56	Bright	42.000	53	43Bet And	2.0480	3300.0	84	8530	No
5	GOM_NL__2PRFIN20031018_001825_000000452020_00460_08530_9486.N1	18-OCT-2003 00:18:25	Bright	45.000	173	4Bet Tri	3.0040	8900.0	90	8530	No
6	GOM_NL__2PRFIN20031018_002019_000000472020_00460_08530_9487.N1	18-OCT-2003 00:20:19	Bright	46.500	73	57Gam1And	2.2600	13100.	93	8530	No
7	GOM_NL__2PRFIN20031018_002231_000000392020_00460_08530_9488.N1	18-OCT-2003 00:22:31	Bright	39.000	68	18Alp Cas	2.2250	4500.0	78	8530	No
8	GOM_NL__2PRFIN20031018_002350_000000402020_00460_08530_9489.N1	18-OCT-2003 00:23:50	Bright	39.500	76	27Gam Cas	2.3000	30000.	79	8530	No
9	GOM_NL__2PRFIN20031018_002531_000000402020_00460_08530_9490.N1	18-OCT-2003 00:25:31	Bright	39.500	89	5Alp Cep	2.4510	8000.0	79	8530	No
10	GOM_NL__2PRFIN20031018_003133_000000392020_00460_08530_9491.N1	18-OCT-2003 00:31:33	Bright	39.000	49	1Alp UMi	1.9900	6300.0	78	8530	No
11	GOM_NL__2PRFIN20031018_003440_000000382020_00460_08530_9492.N1	18-OCT-2003 00:34:40	Bright	38.000	60	7Bet UMi	2.0810	3950.0	76	8530	No
12	GOM_NL__2PRFIN20031018_003949_000000392020_00460_08530_9493.N1	18-OCT-2003 00:39:49	Bright	39.000	36	50Alp UMa	1.8000	6300.0	78	8530	No
13	GOM_NL__2PRFIN20031018_004123_000000372020_00460_08530_9494.N1	18-OCT-2003 00:41:23	Bright	36.500	82	48Bet UMa	2.3650	10600.	73	8530	No
14	GOM_NL__2PRFIN20031018_004447_000000532020_00460_08530_9495.N1	18-OCT-2003 00:44:47	Bright	53.000	174	52Psi UMa	3.0040	4400.0	106	8530	No
15	GOM_NL__2PRFIN20031018_010241_000000592020_00460_08530_9496.N1	18-OCT-2003 01:02:41	Dark	58.500	48	30Alp Hya	1.9770	4100.0	117	8530	No
16	GOM_NL__2PRFIN20031018_011107_000000442020_00460_08530_9497.N1	18-OCT-2003 01:11:07	Dark	44.000	113	Mu Vel	2.6920	5000.0	88	8530	No
17	GOM_NL__2PRFIN20031018_011559_000000402020_00461_08531_0157.N1	18-OCT-2003 01:15:59	Dark	40.000	159	Ups Car	2.9200	7200.0	80	8531	No
18	GOM_NL__2PRFIN20031018_011733_000000402020_00461_08531_0158.N1	18-OCT-2003 01:17:33	Dark	39.500	29	Bet Car	1.6720	10200.	79	8531	No
19	GOM_NL__2PRFIN20031018_011945_000000472020_00461_08531_0159.N1	18-OCT-2003 01:19:45	Dark	46.500	161	Tau Pup	2.9310	4500.0	93	8531	No
20	GOM_NL__2PRFIN20031018_012244_000001762020_00461_08531_0160.N1	18-OCT-2003 01:22:44	Dark	175.50	1	9Alp CMa	-1.4400	11000.	351	8531	No
21	GOM_NL__2PRFIN20031018_012701_000001992020_00461_08531_0161.N1	18-OCT-2003 01:27:01	Dark	198.50	47	2Bet CMa	1.9760	28000.	397	8531	No
22	GOM_NL__2PRFIN20031018_013243_000000462020_00461_08531_0162.N1	18-OCT-2003 01:32:43	Straylight	45.500	157	The1Eri	2.9060	9300.0	91	8531	No
23	GOM_NL__2PRFIN20031018_013502_000000422020_00461_08531_0163.N1	18-OCT-2003 01:35:02	Straylight	41.500	84	Alp Phe	2.3970	4500.0	83	8531	No
24	GOM_NL__2PRFIN20031018_014136_000000422020_00461_08531_0164.N1	18-OCT-2003 01:41:36	Straylight	42.000	52	16Bet Cet	2.0370	4500.0	84	8531	No
25	GOM_NL__2PRFIN20031018_015112_000000372020_00461_08531_0165.N1	18-OCT-2003 01:51:12	Bright	37.000	140	88Gam Peg	2.8340	26000.	74	8531	No
26	GOM_NL__2PRFIN20031018_015509_000000382020_00461_08531_0166.N1	18-OCT-2003 01:55:09	Bright	37.500	58	21Alp And	2.0730	11000.	75	8531	No
27	GOM_NL__2PRFIN20031018_015732_000000432020_00461_08531_0167.N1	18-OCT-2003 01:57:32	Bright	42.500	53	43Bet And	2.0480	3300.0	85	8531	No
28	GOM_NL__2PRFIN20031018_015901_000000462020_00461_08531_0168.N1	18-OCT-2003 01:59:01	Bright	46.000	173	4Bet Tri	3.0040	8900.0	92	8531	No
29	GOM_NL__2PRFIN20031018_020054_000000452020_00461_08531_0169.N1	18-OCT-2003 02:00:54	Bright	45.000	73	57Gam1And	2.2600	13100.	90	8531	No
30	GOM_NL__2PRFIN20031018_020307_000000372020_00461_08531_0170.N1	18-OCT-2003 02:03:07	Bright	36.500	68	18Alp Cas	2.2250	4500.0	73	8531	No
31	GOM_NL__2PRFIN20031018_020427_000000392020_00461_08531_0171.N1	18-OCT-2003 02:04:27	Bright	39.000	76	27Gam Cas	2.3000	30000.	78	8531	No
32	GOM_NL__2PRFIN20031018_020610_000000372020_00461_08531_0172.N1	18-OCT-2003 02:06:10	Bright	37.000	89	5Alp Cep	2.4510	8000.0	74	8531	No
33	GOM_NL__2PRFIN20031018_021210_000000382020_00461_08531_0173.N1	18-OCT-2003 02:12:10	Bright	38.000	49	1Alp UMi	1.9900	6300.0	76	8531	No
34	GOM_NL__2PRFIN20031018_021516_000000402020_00461_08531_0174.N1	18-OCT-2003 02:15:16	Bright	39.500	60	7Bet UMi	2.0810	3950.0	79	8531	No
35	GOM_NL__2PRFIN20031018_022025_000000372020_00461_08531_0175.N1	18-OCT-2003 02:20:25	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	8531	No
36	GOM_NL__2PRFIN20031018_022159_000000372020_00461_08531_0176.N1	18-OCT-2003 02:21:59	Bright	37.000	82	48Bet UMa	2.3650	10600.	74	8531	No
37	GOM_NL__2PRFIN20031018_022523_000000382020_00461_08531_0177.N1	18-OCT-2003 02:25:23	Bright	37.500	174	52Psi UMa	3.0040	4400.0	75	8531	No
38	GOM_NL__2PRFIN20031018_024317_000000572020_00461_08531_0178.N1	18-OCT-2003 02:43:17	Dark	57.000	48	30Alp Hya	1.9770	4100.0	114	8531	No
39	GOM_NL__2PRFIN20031018_025143_000000402020_00461_08531_0179.N1	18-OCT-2003 02:51:43	Dark	39.500	113	Mu Vel	2.6920	5000.0	79	8531	No
40	GOM_NL__2PRFIN20031018_025635_000000382020_00462_08532_0157.N1	18-OCT-2003 02:56:35	Dark	38.000	159	Ups Car	2.9200	7200.0	76	8532	No
41	GOM_NL__2PRFIN20031018_025809_000000392020_00462_08532_0158.N1	18-OCT-2003 02:58:09	Dark	38.500	29	Bet Car	1.6720	10200.	77	8532	No
42	GOM_NL__2PRFIN20031018_030021_000000522020_00462_08532_0159.N1	18-OCT-2003 03:00:21	Dark	51.500	161	Tau Pup	2.9310	4500.0	103	8532	No

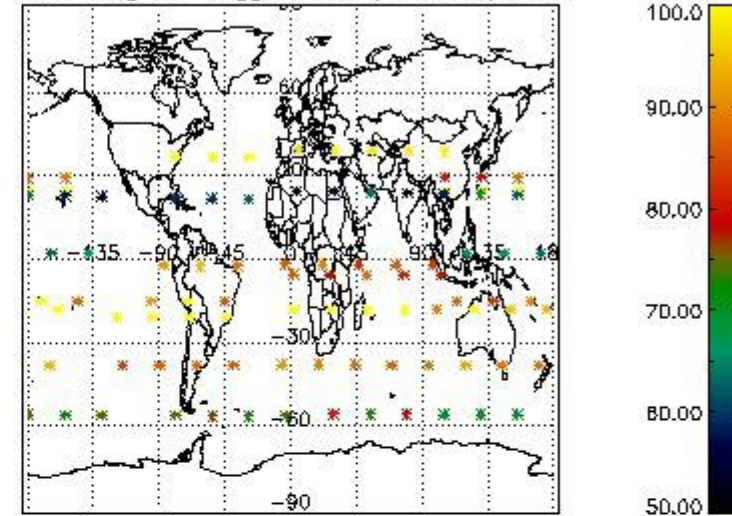


3.2 Plot quality information per product (world map)

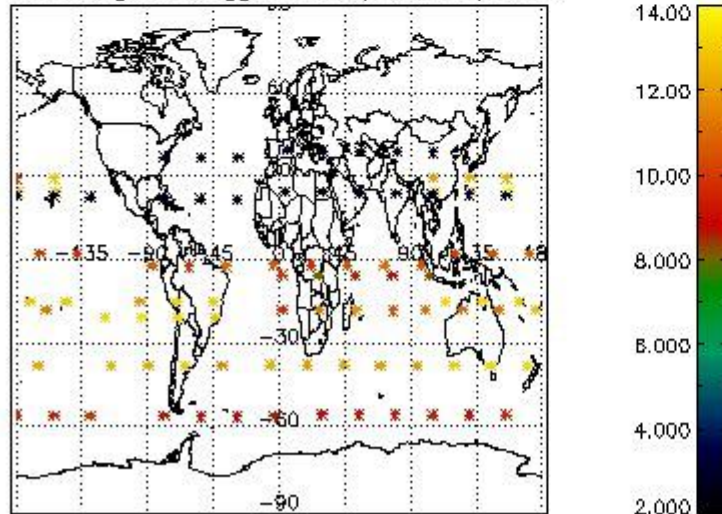
Percentage of flagged data per O3 profile



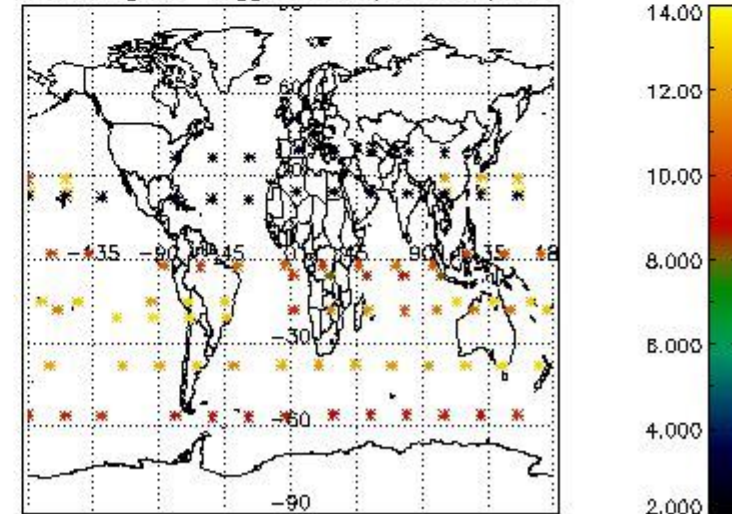
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

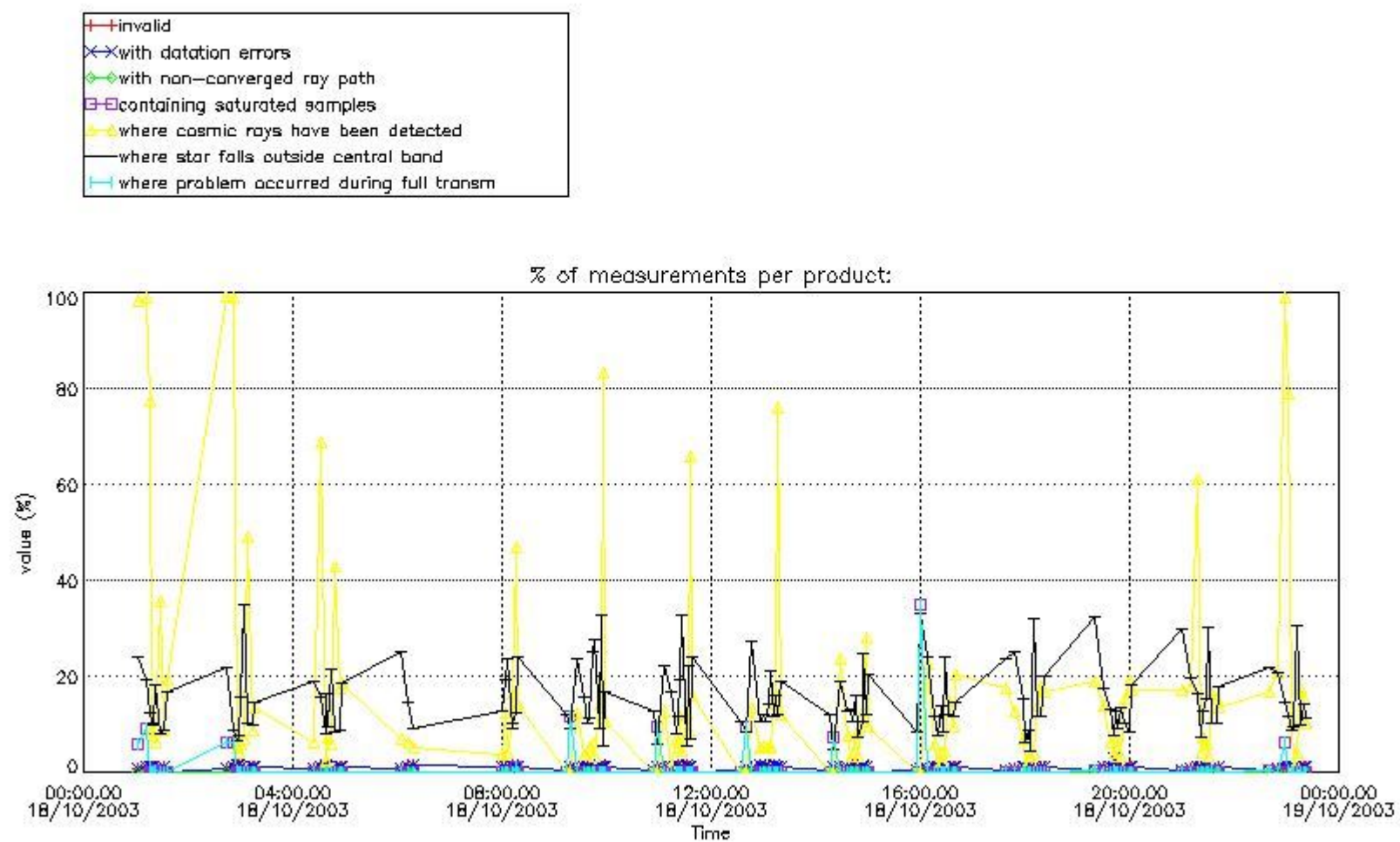


4. Level 1 quality information per product

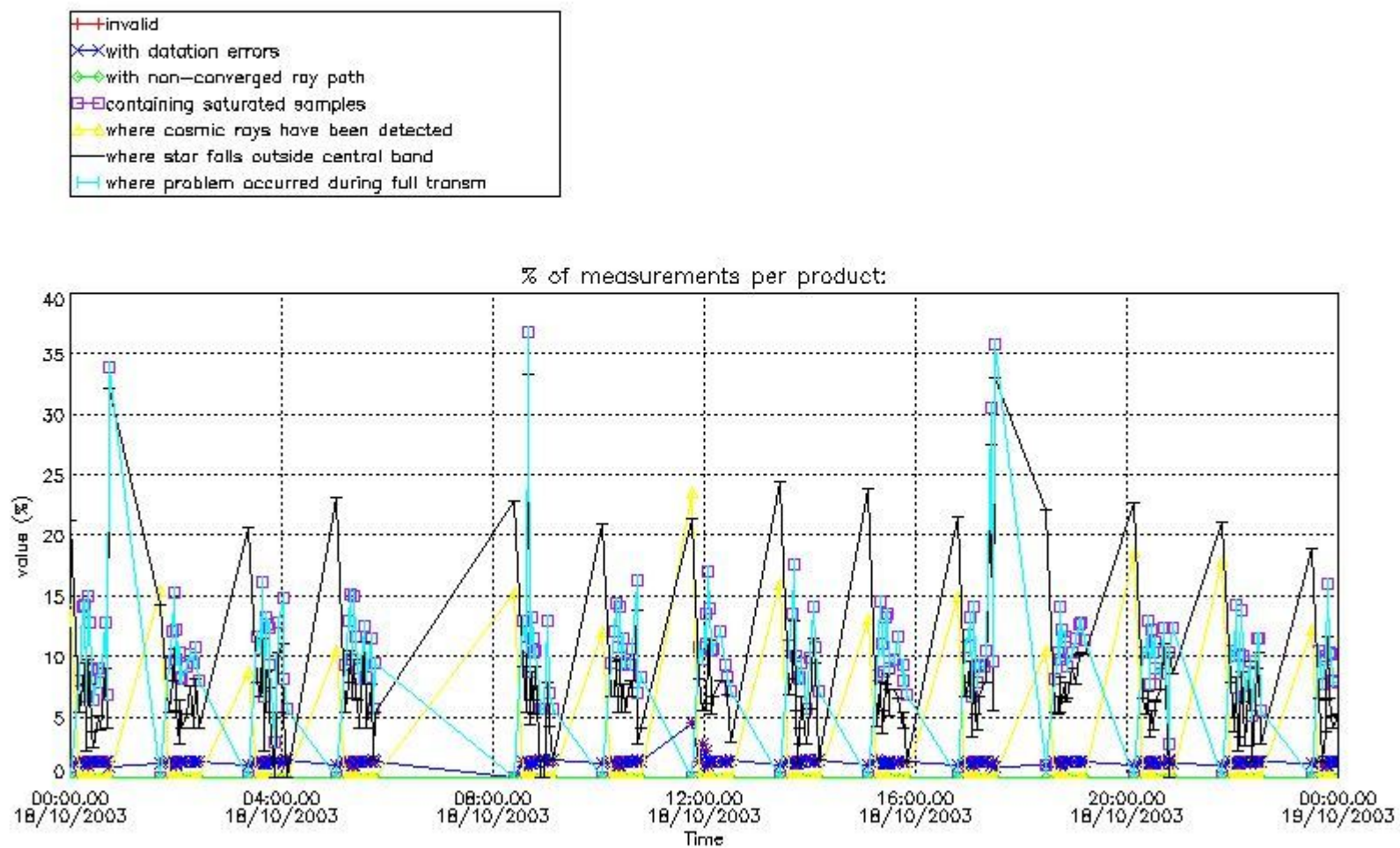
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



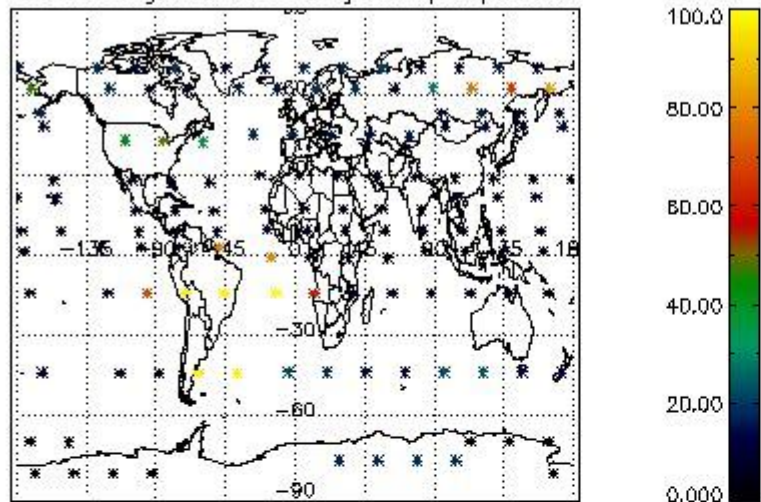
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



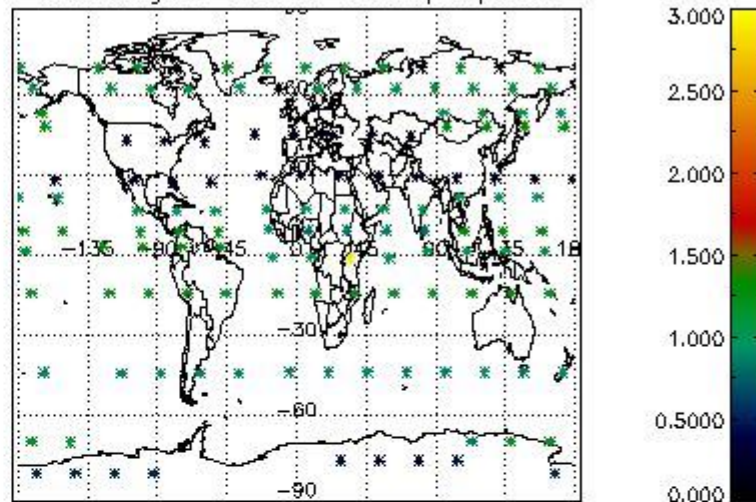
4.2 Plot quality information per product coming from level 1b processing (world map)

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

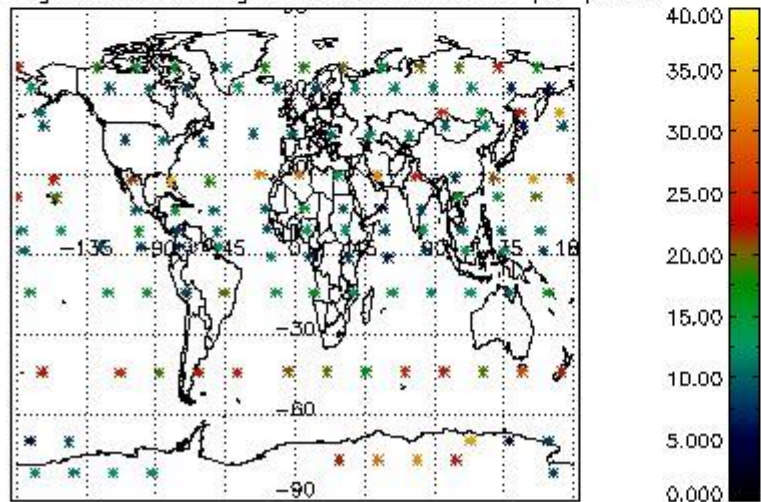
Percentage of cosmic ray hits per profile



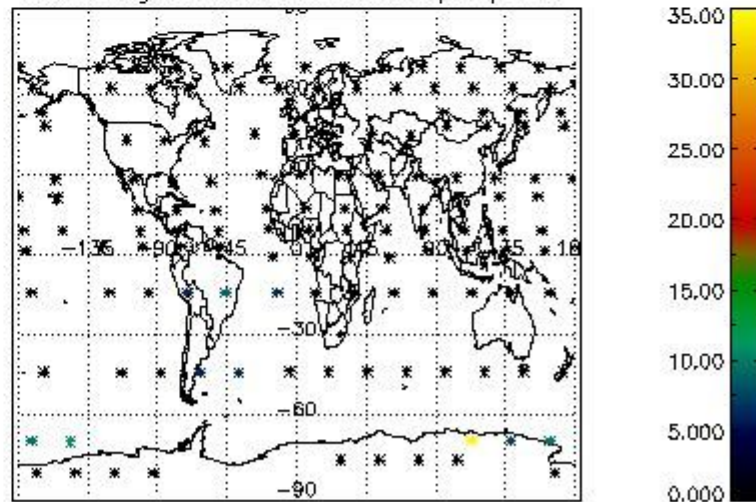
Percentage of datation errors per profile



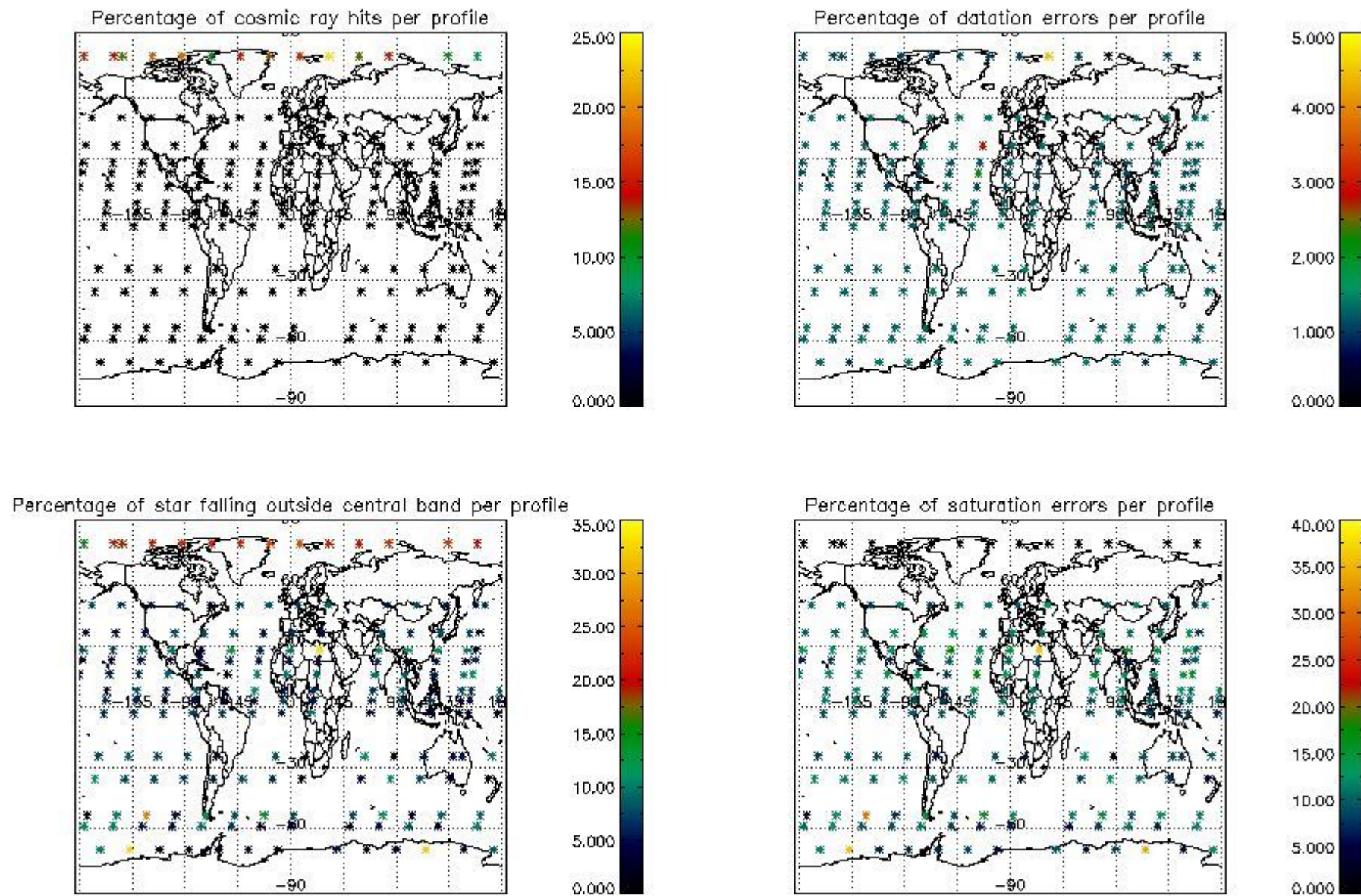
Percentage of star falling outside central band per profile



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

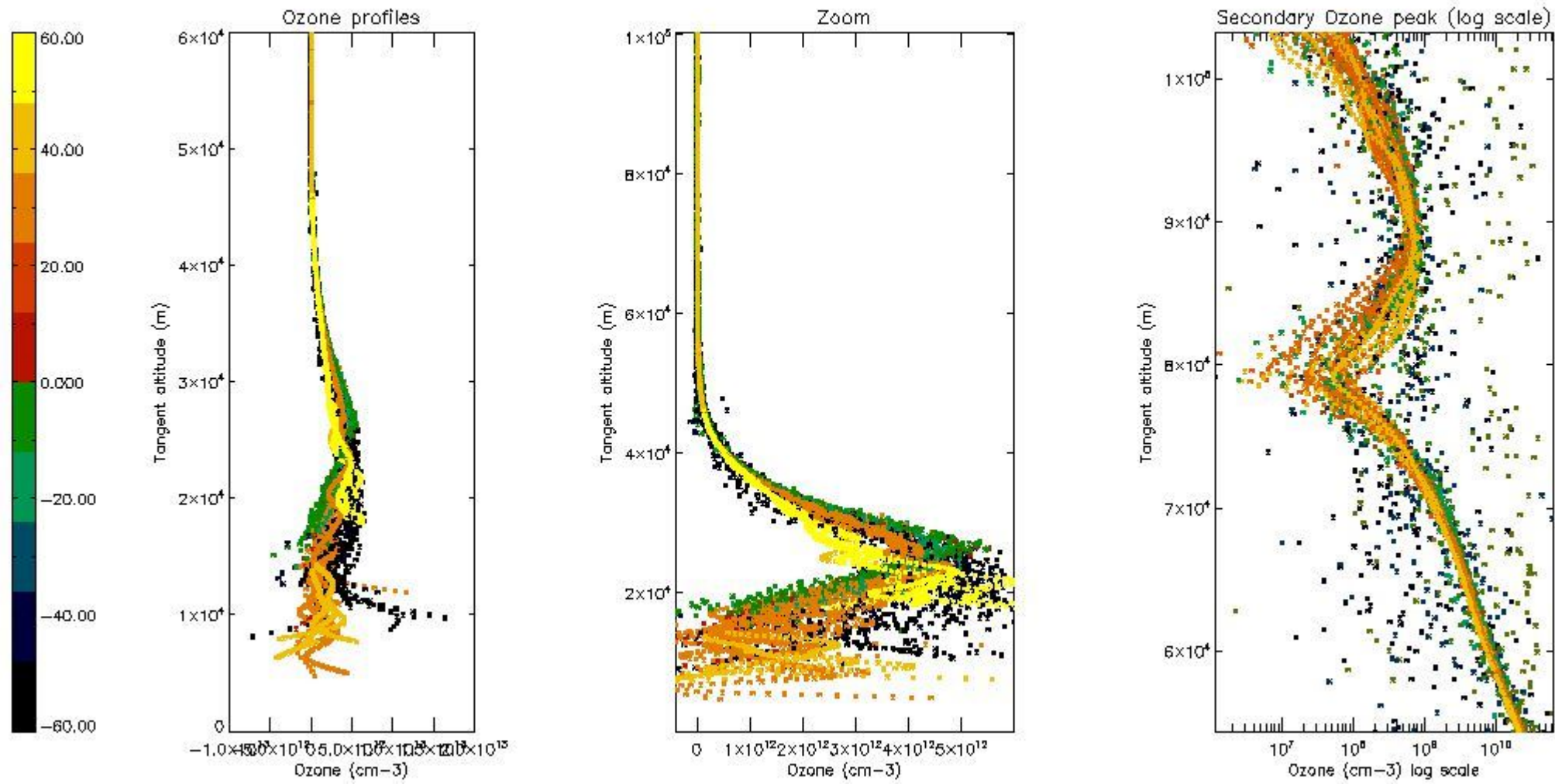
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	46
STD < 20	30

STD < 10	28
STD < 5	24

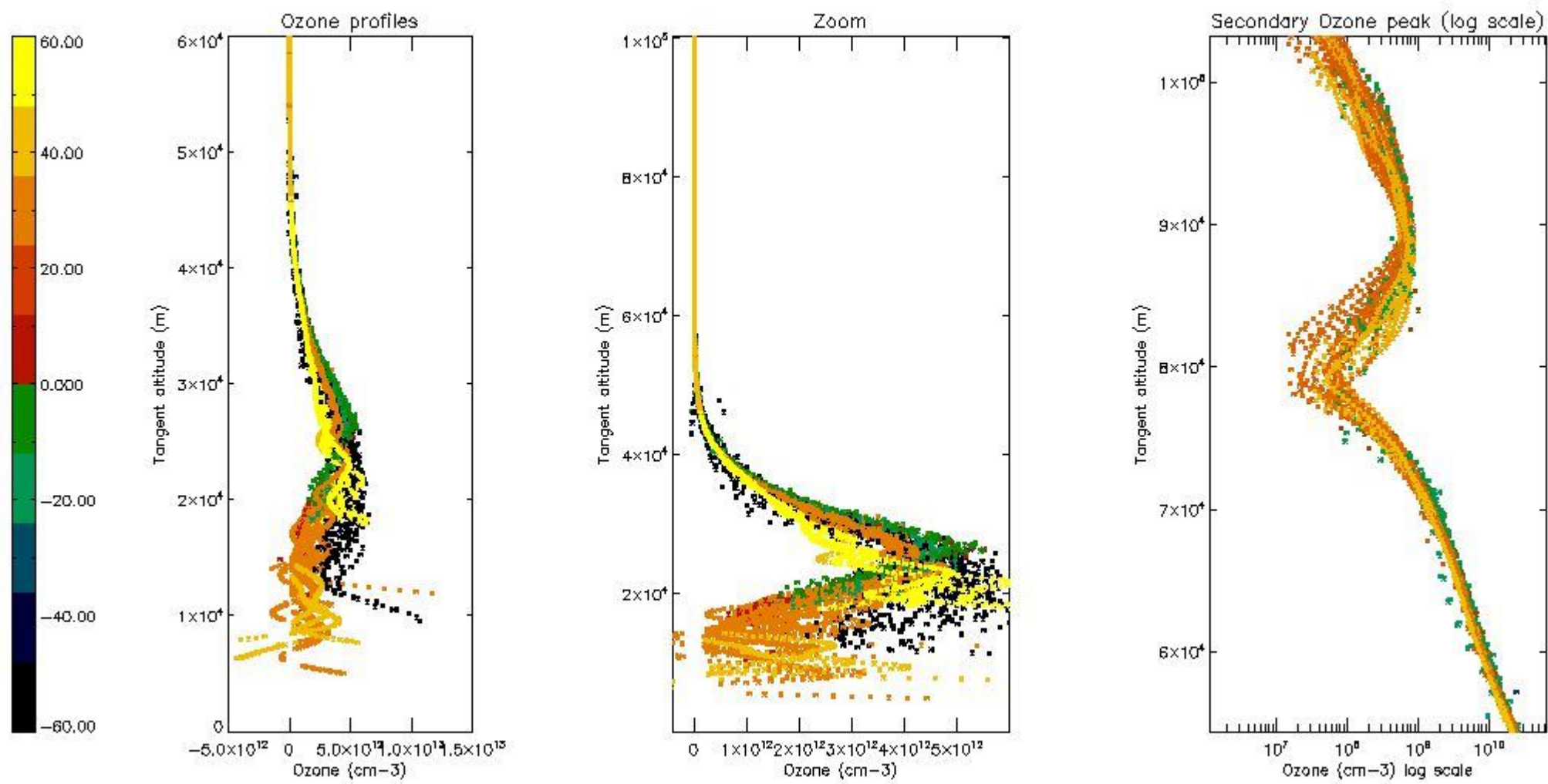
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



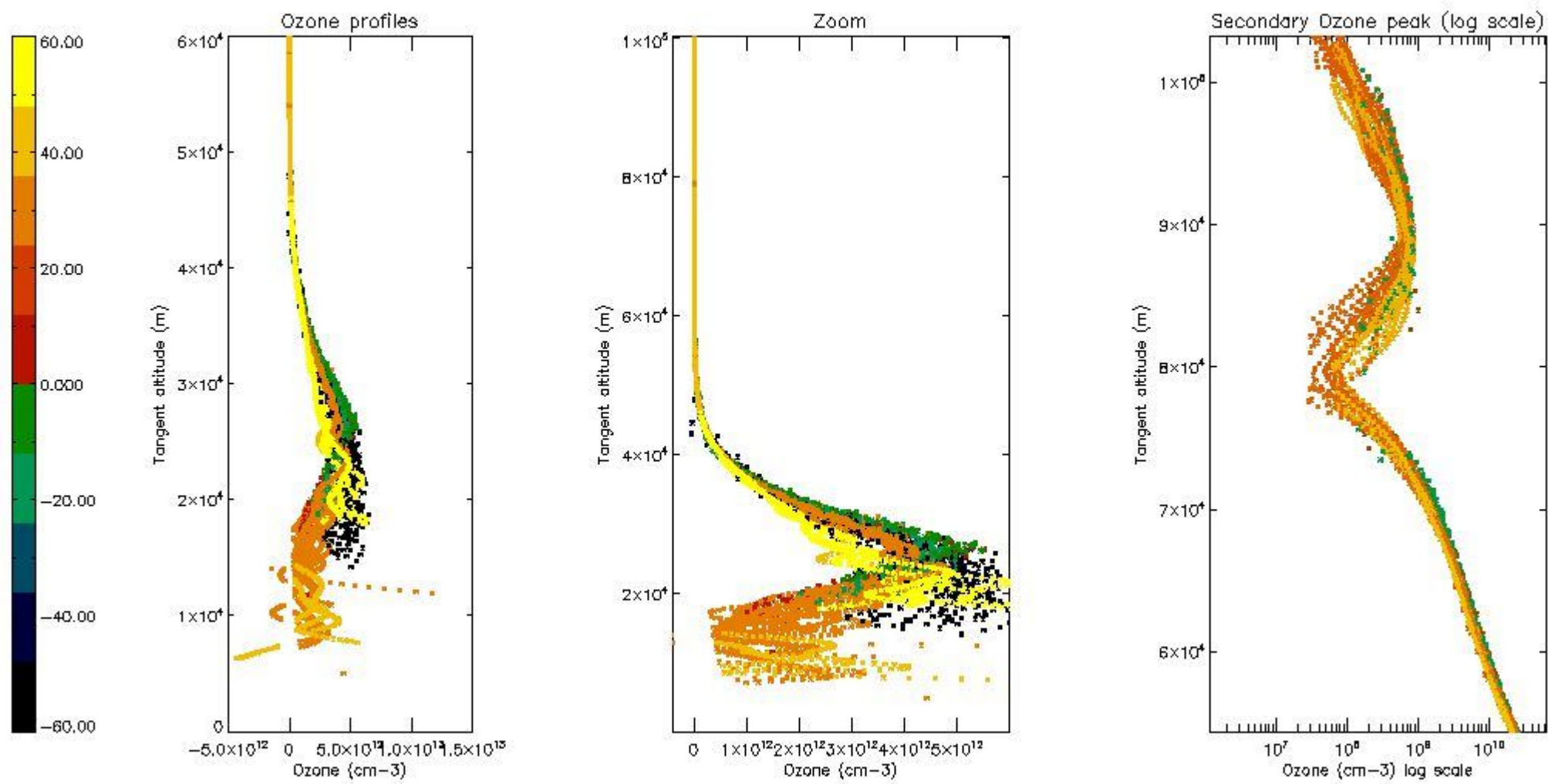
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



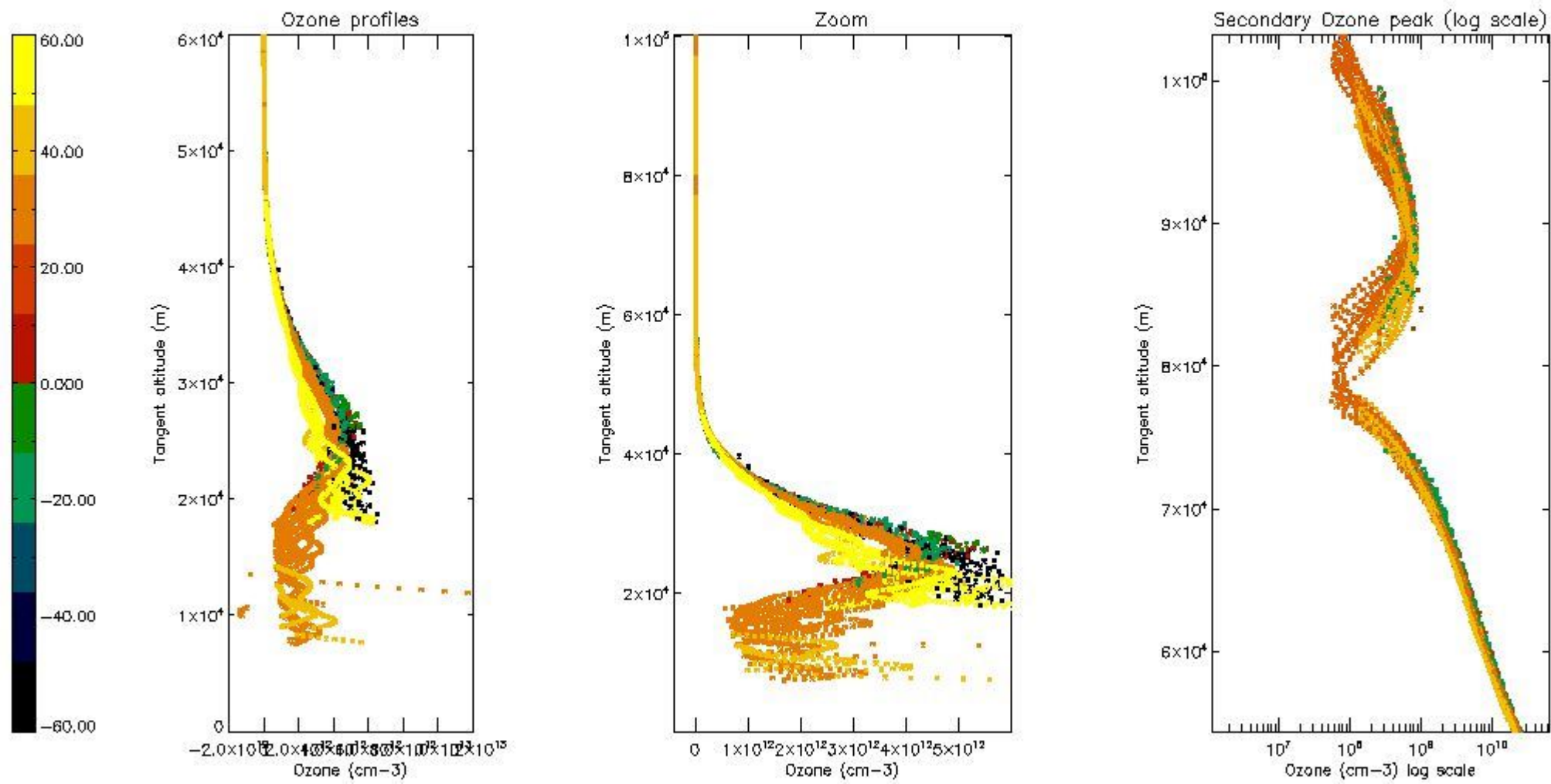
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



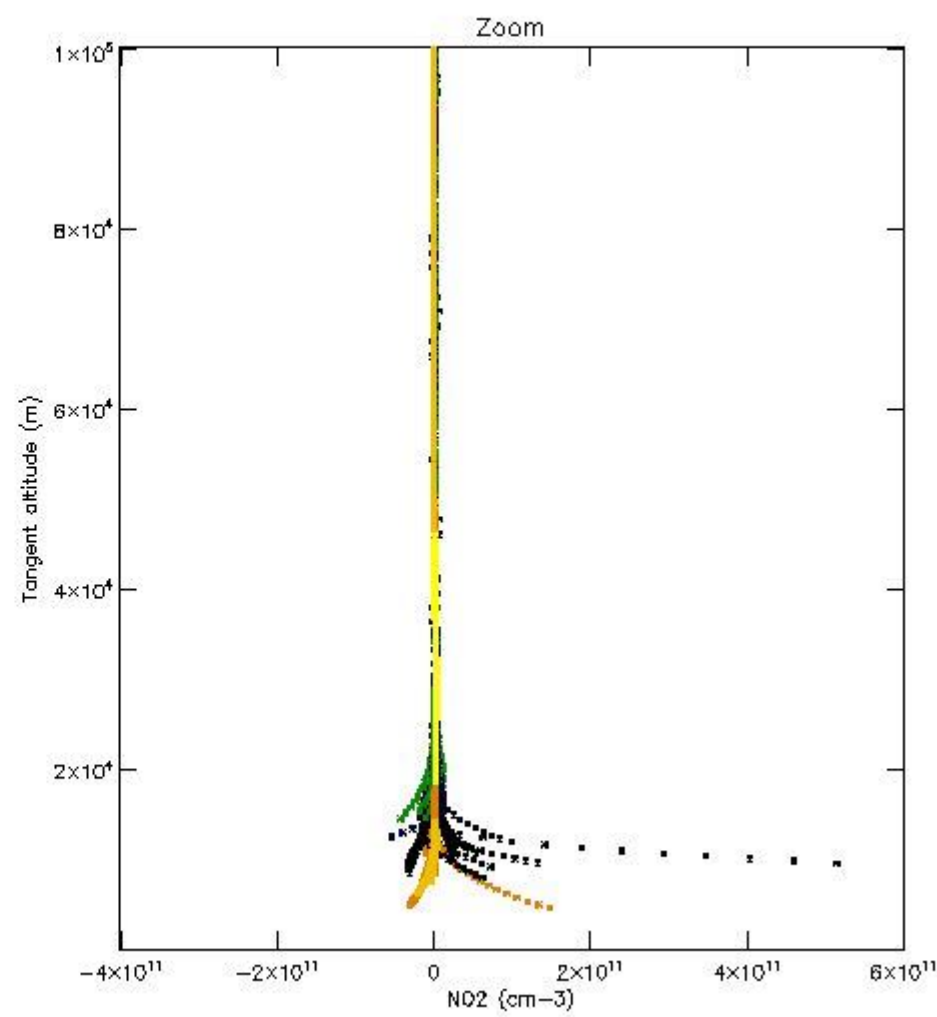
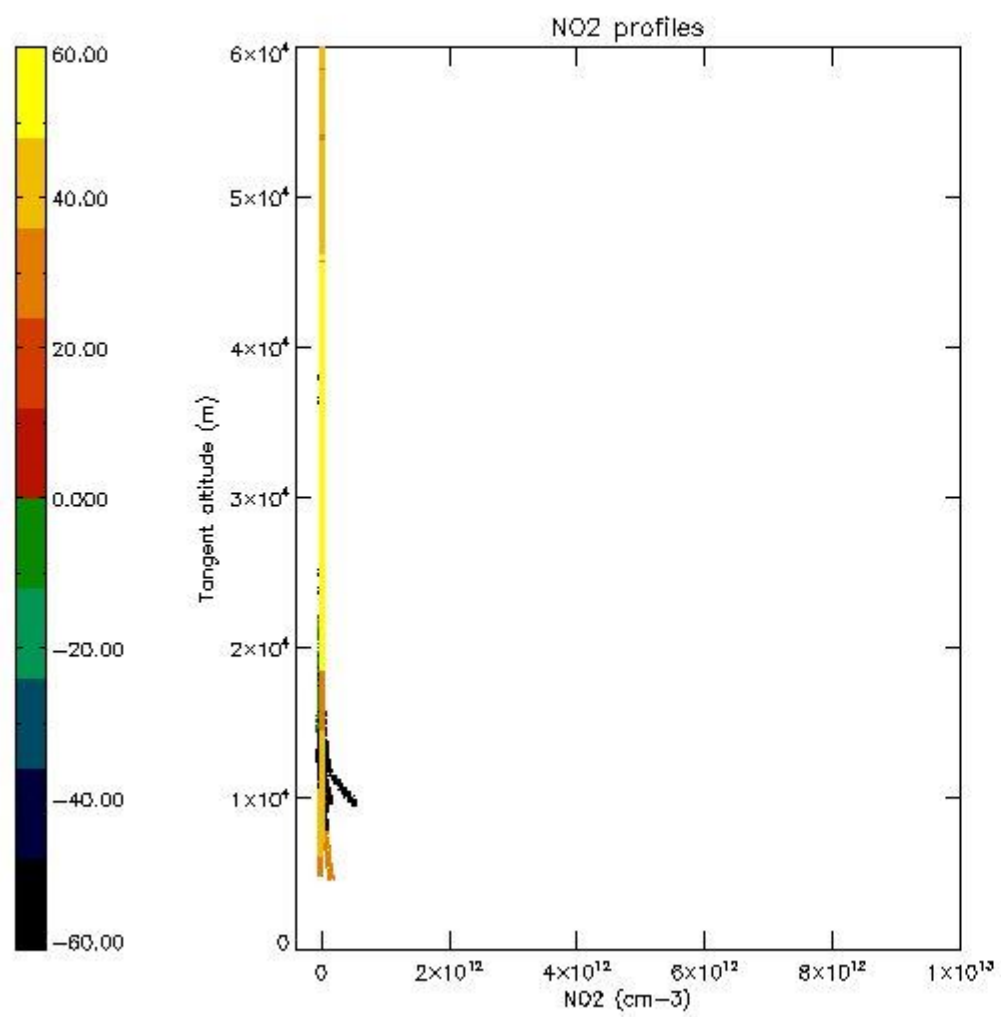
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



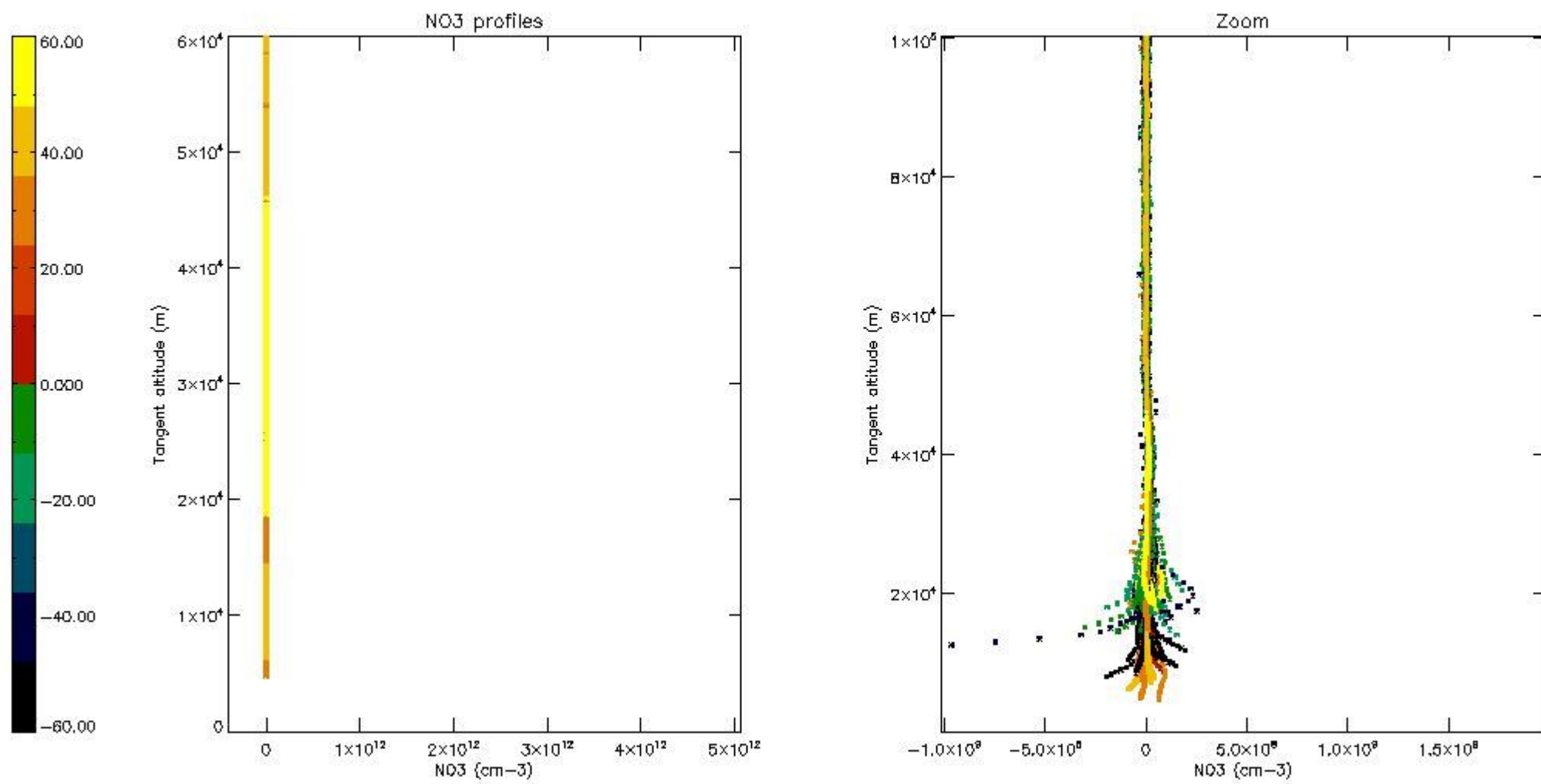
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



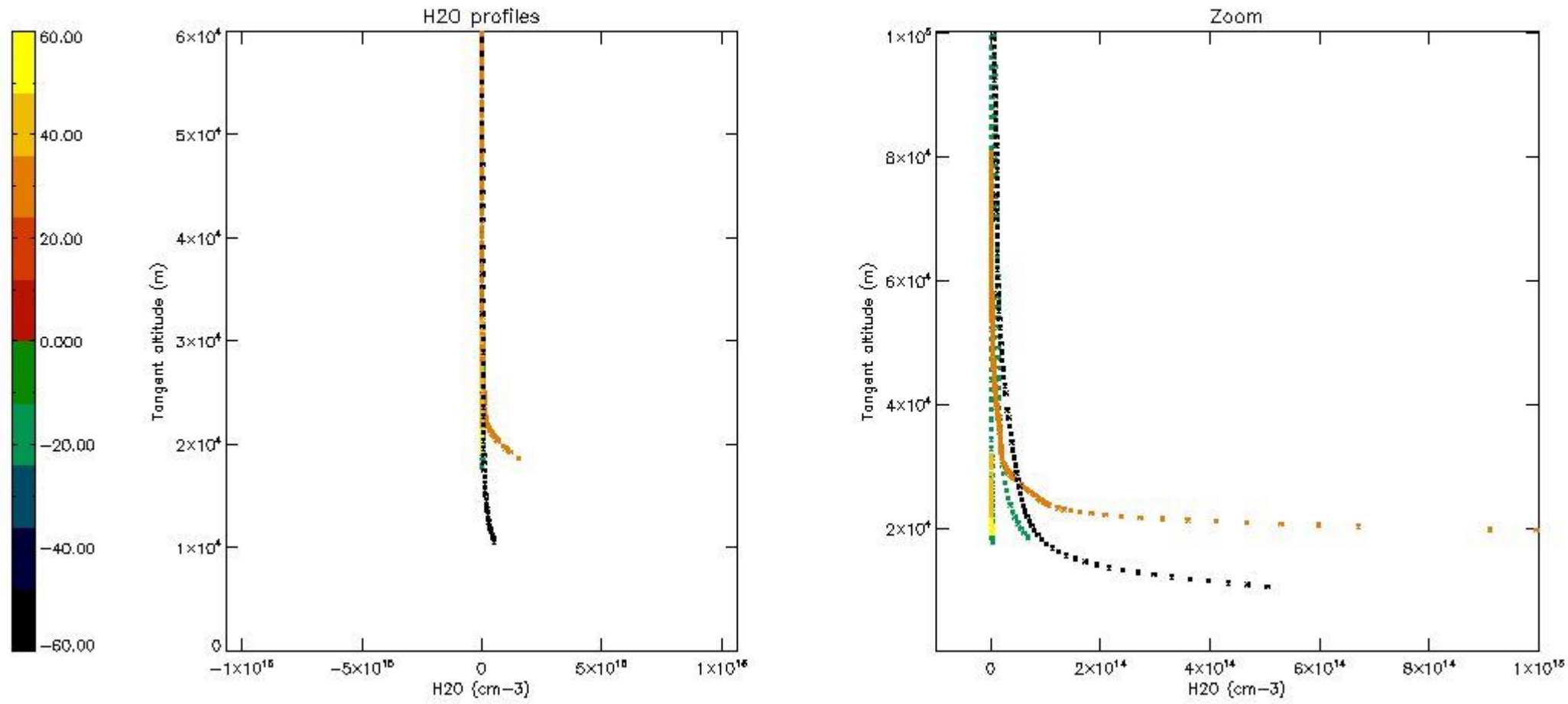
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

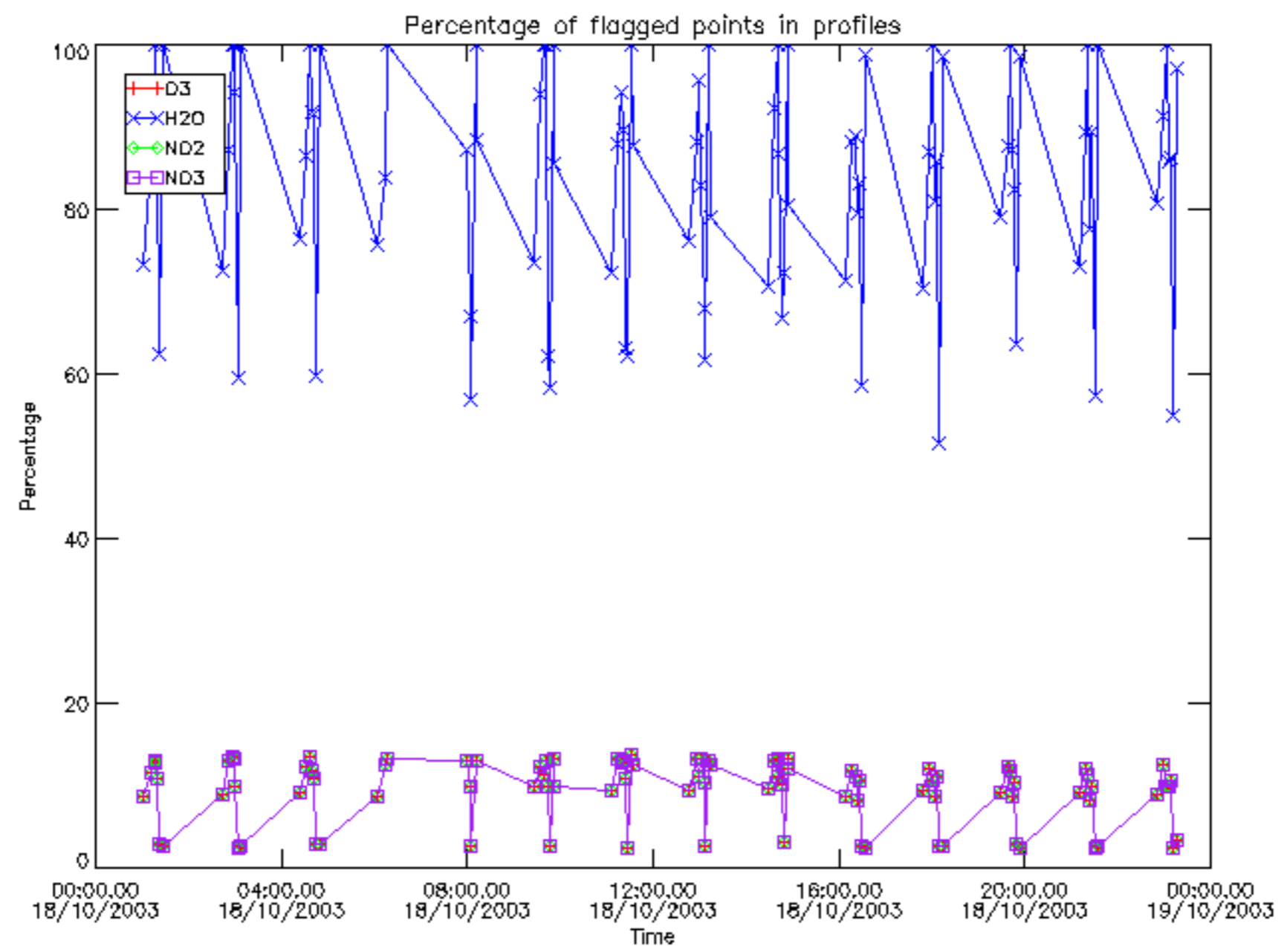
The colorbar represents the latitude.



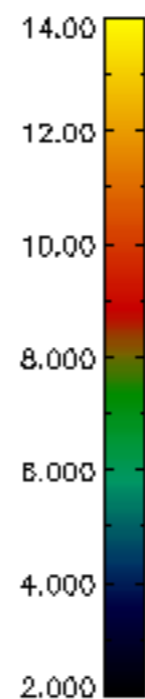
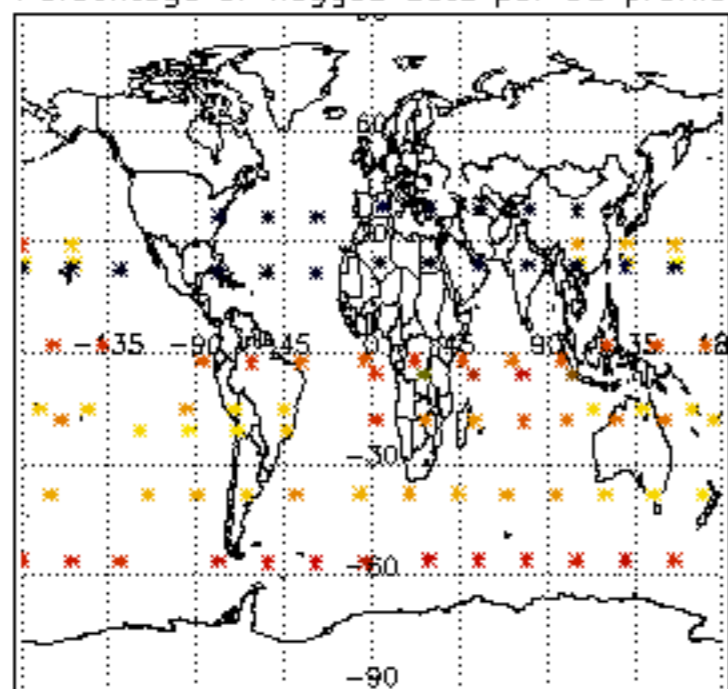
6. Auxiliary Data Files used for the production reported in section 2

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.

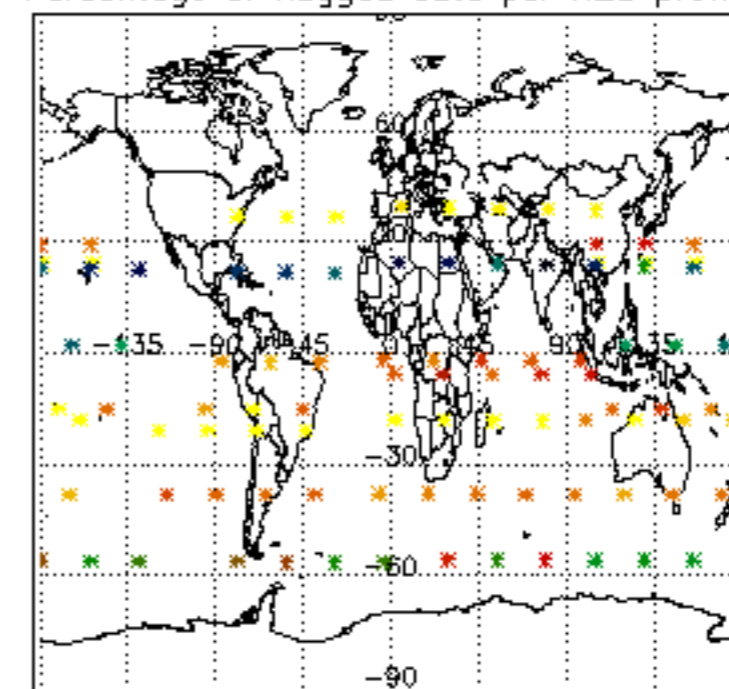
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	18-OCT-2003 00:00:59
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	18-OCT-2003 00:00:59
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	18-OCT-2003 00:00:59



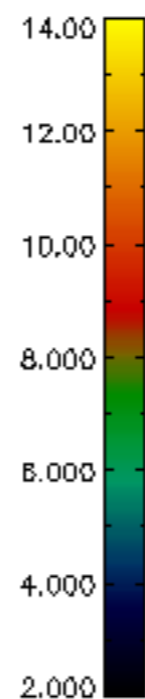
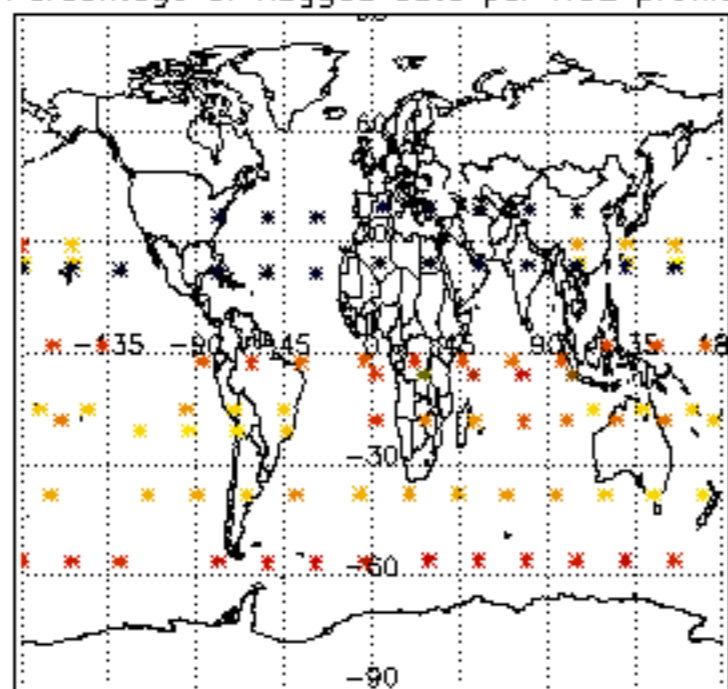
Percentage of flagged data per D3 profile



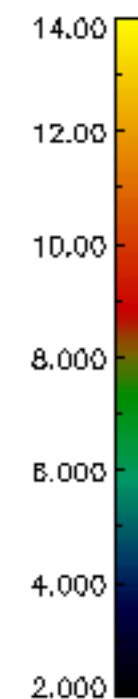
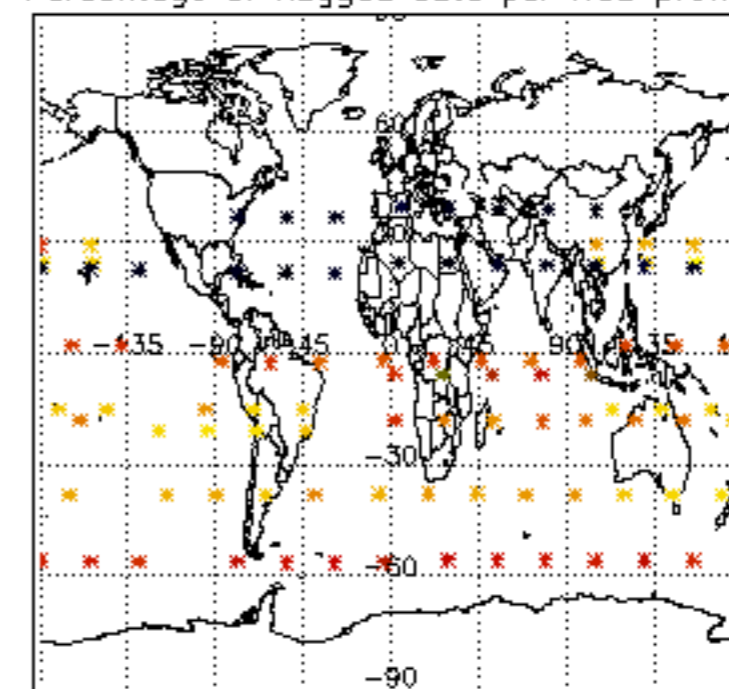
Percentage of flagged data per H2O profile

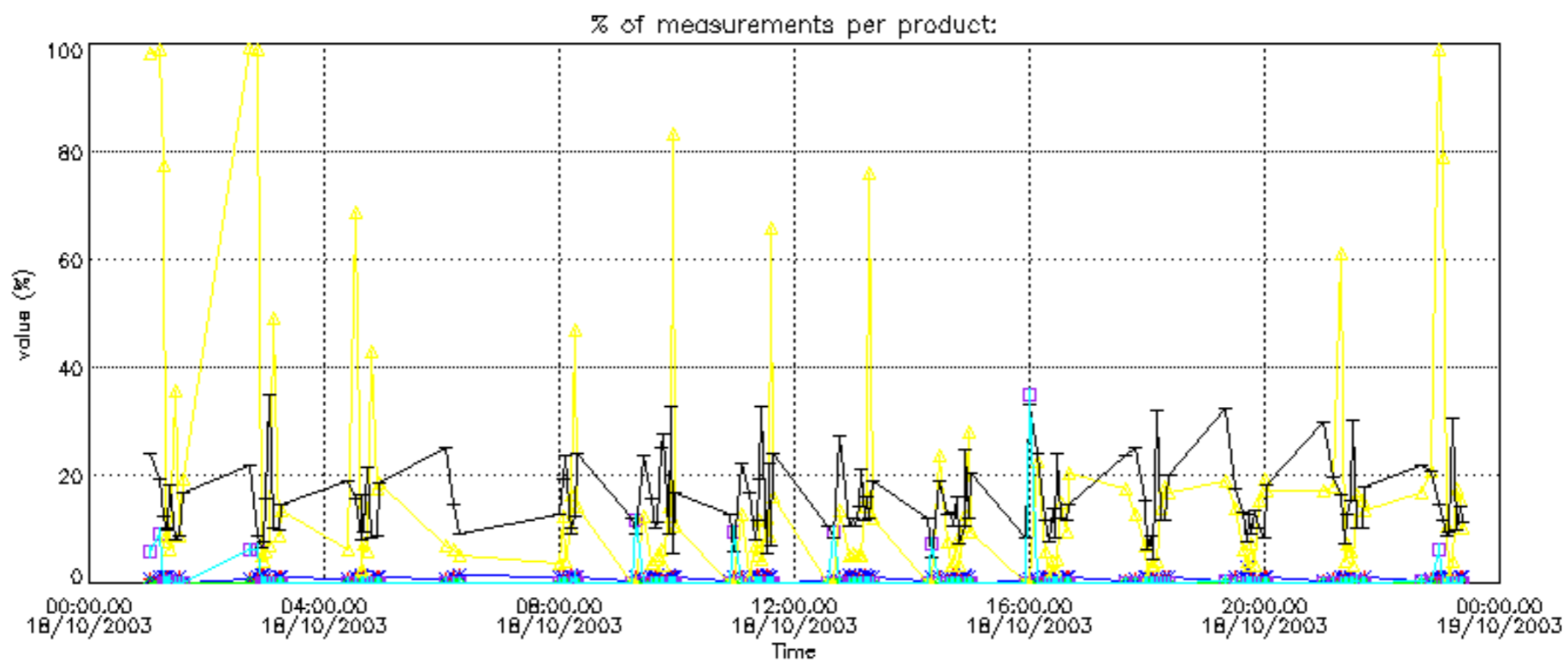


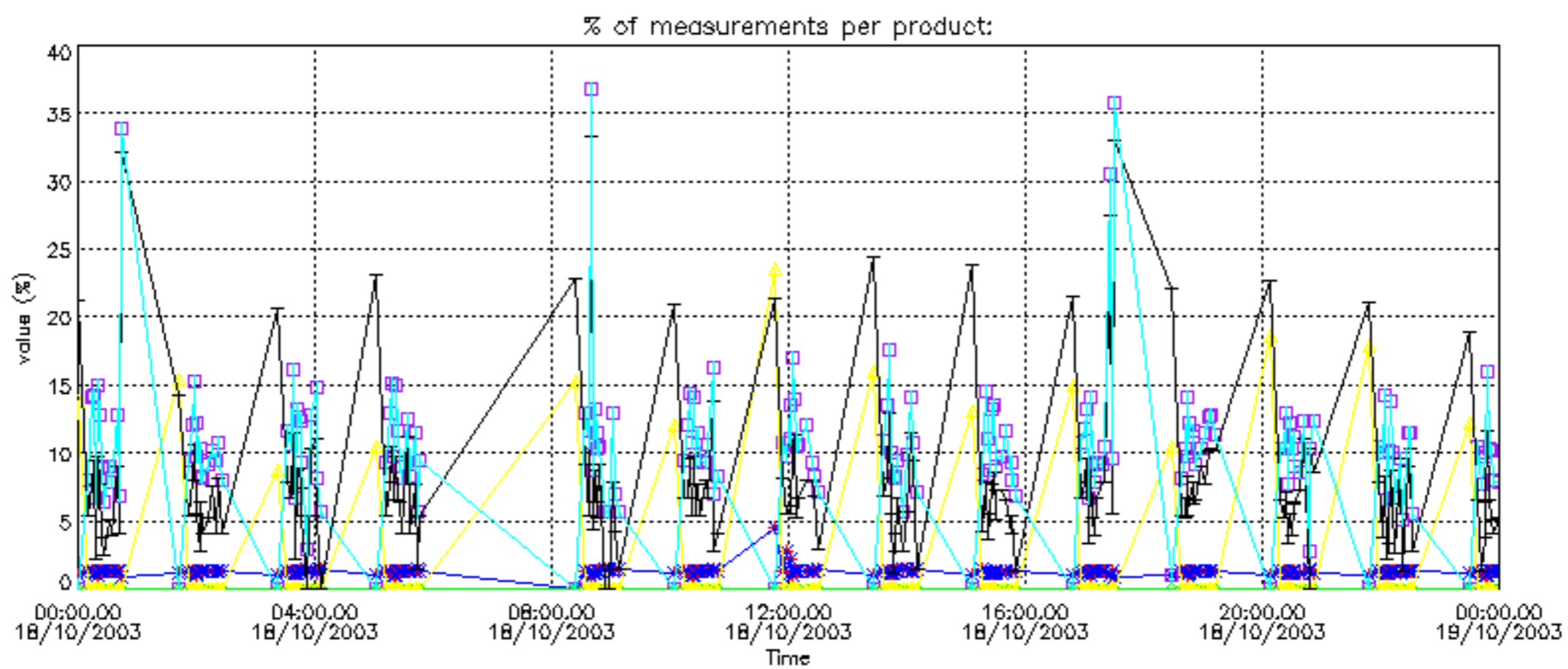
Percentage of flagged data per NO2 profile



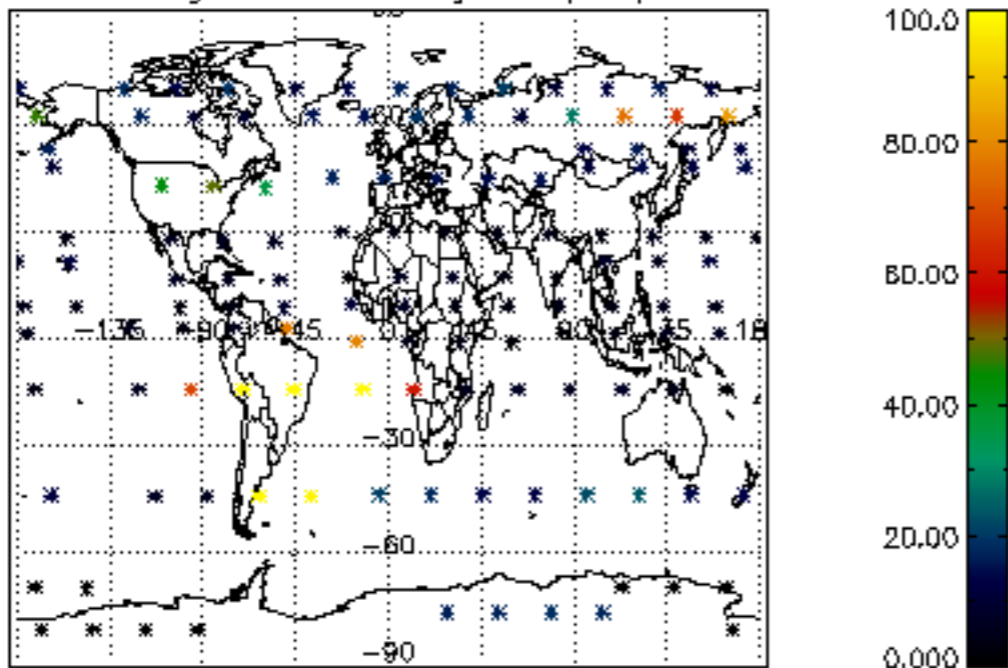
Percentage of flagged data per NO3 profile



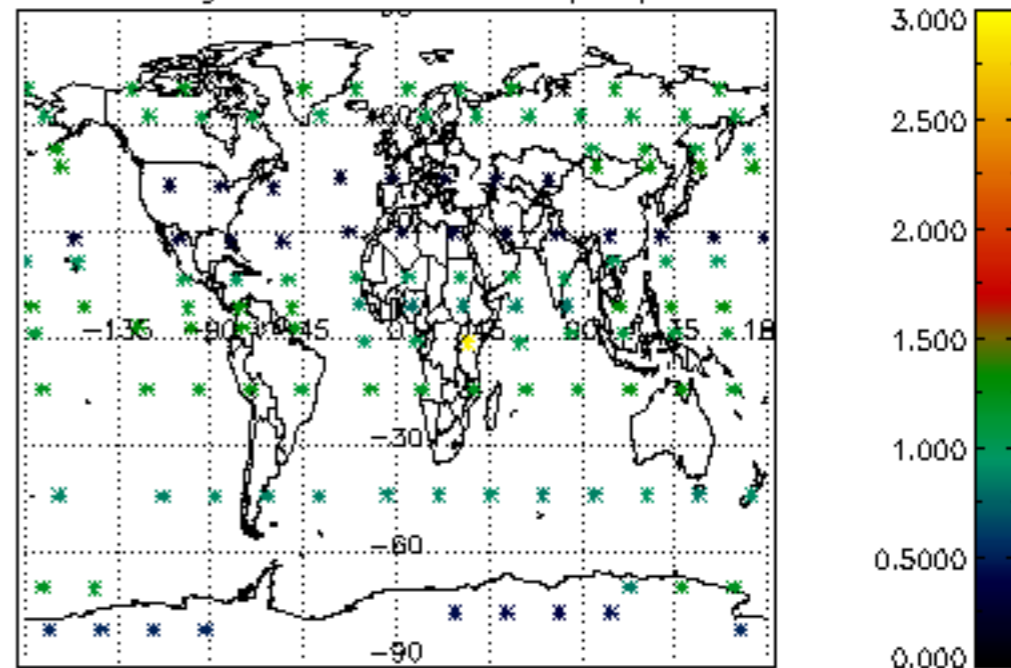




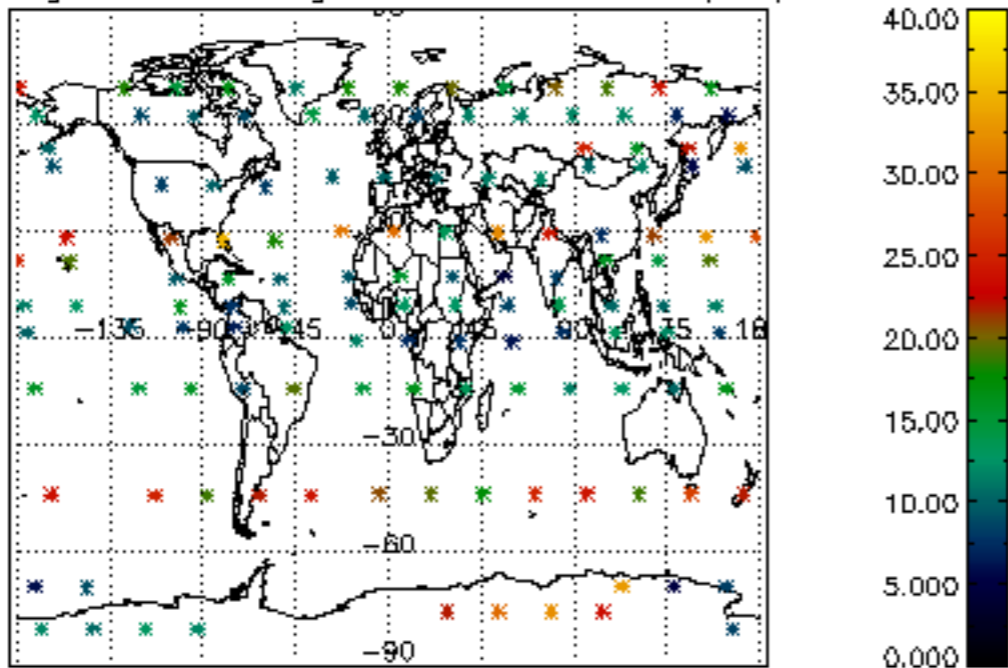
Percentage of cosmic ray hits per profile



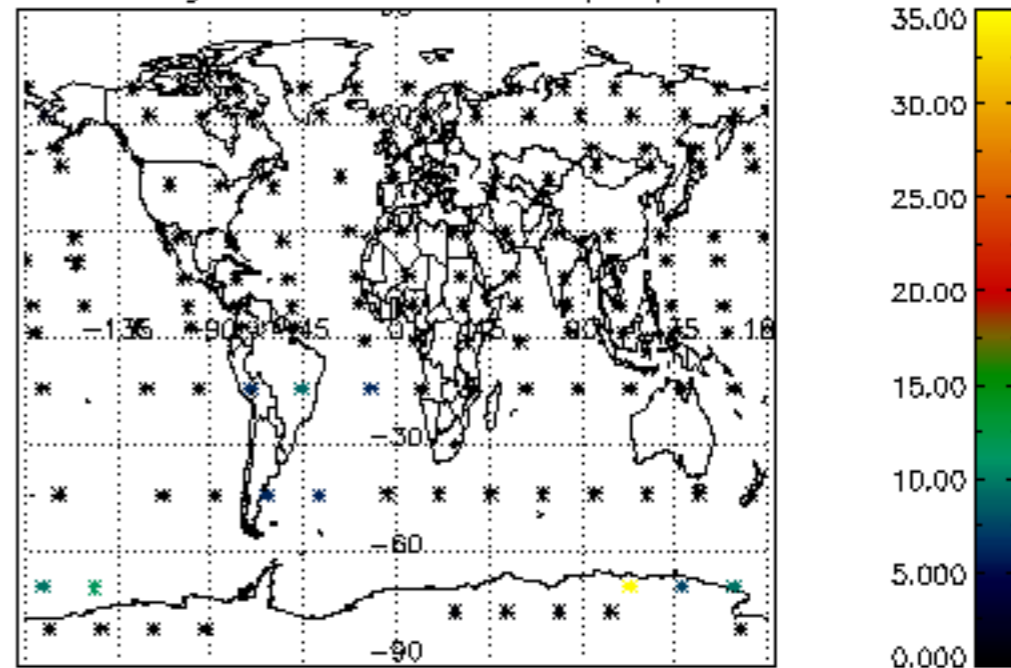
Percentage of datation errors per profile



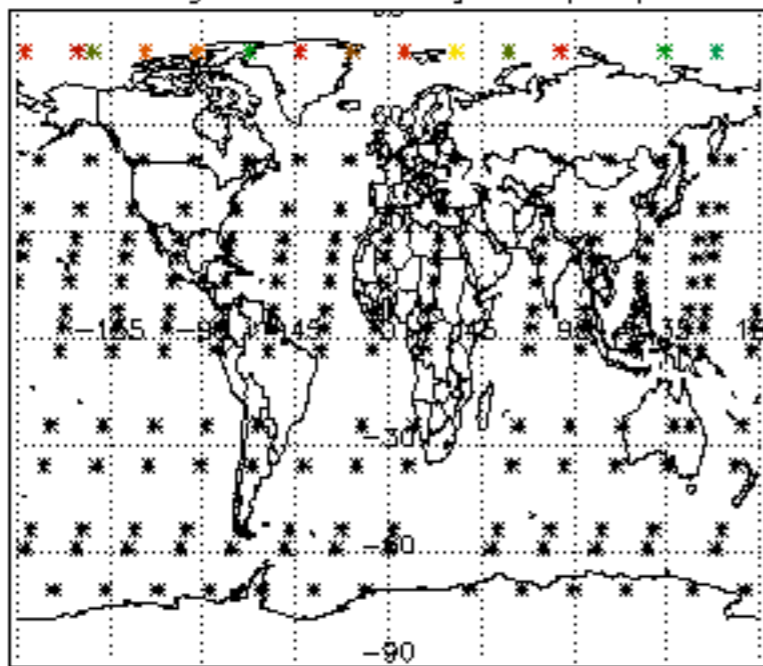
Percentage of star falling outside central band per profile



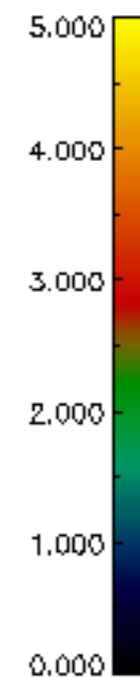
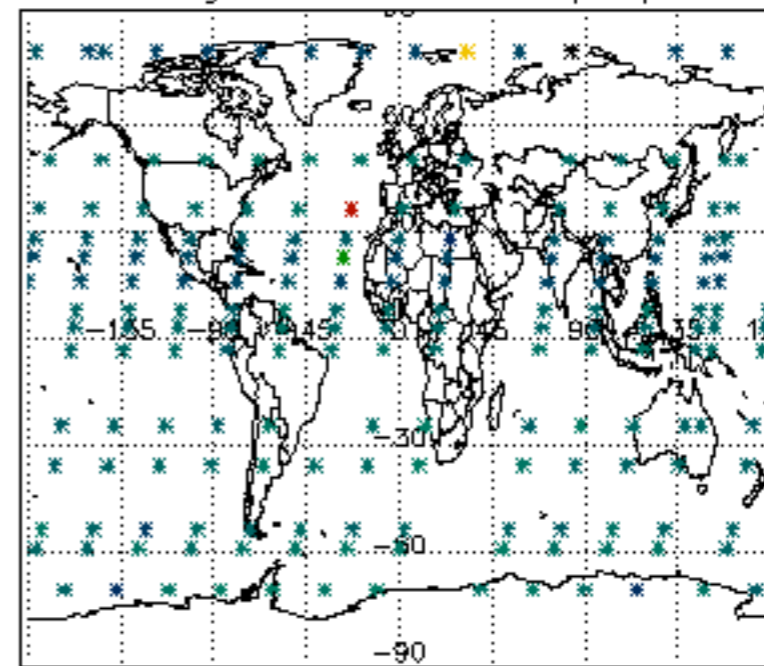
Percentage of saturation errors per profile



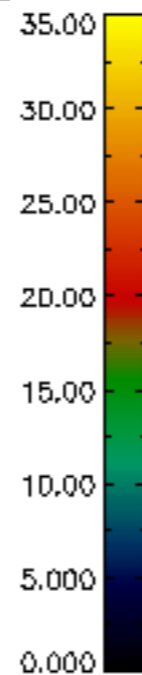
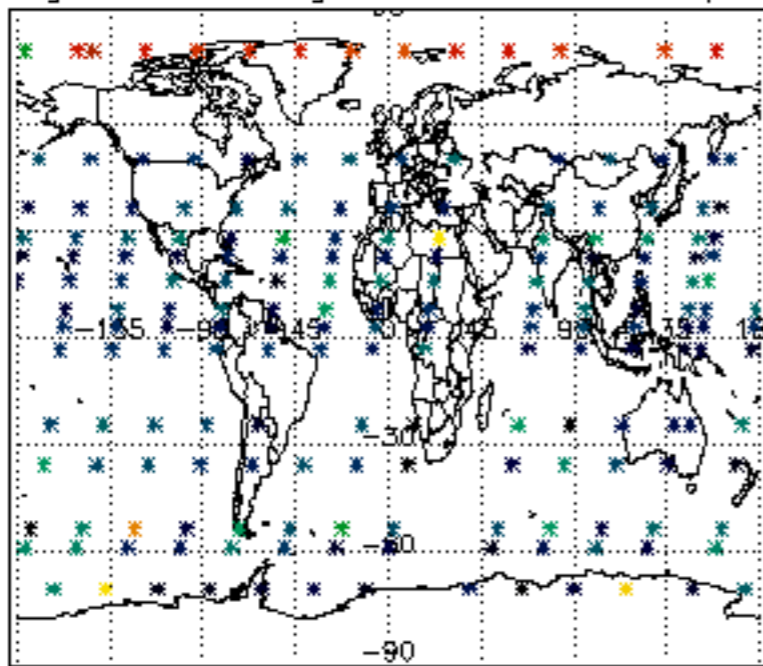
Percentage of cosmic ray hits per profile



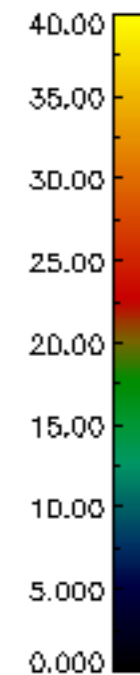
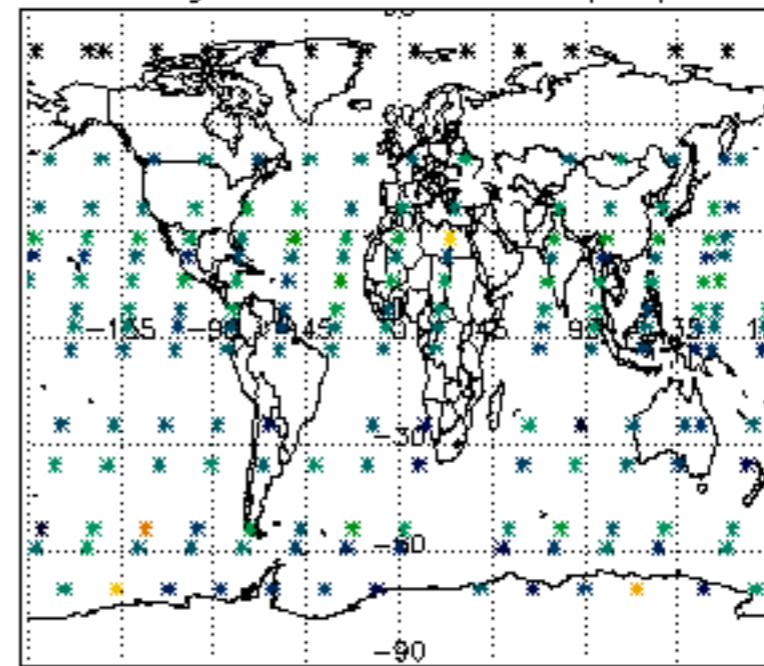
Percentage of datation errors per profile

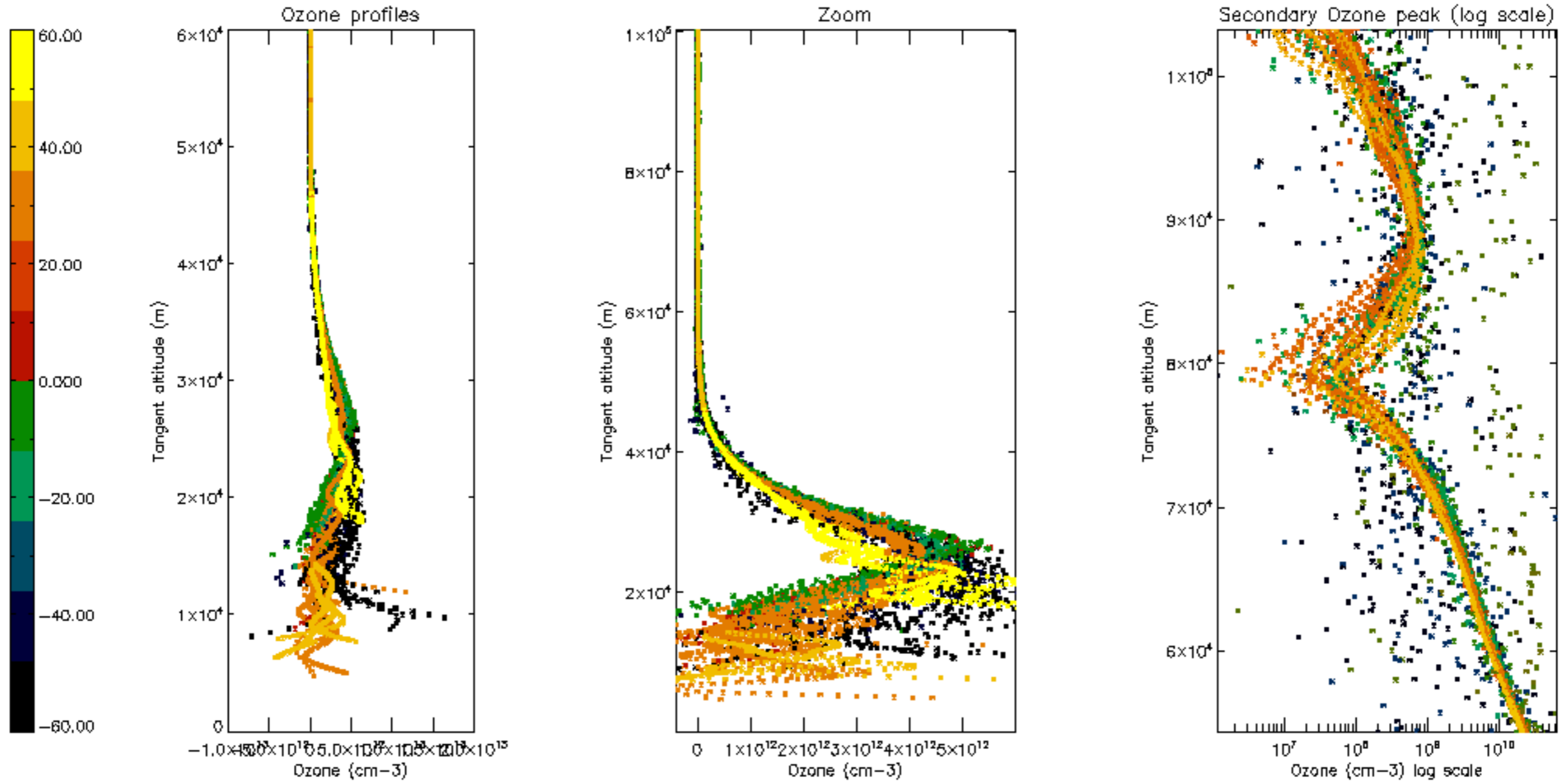


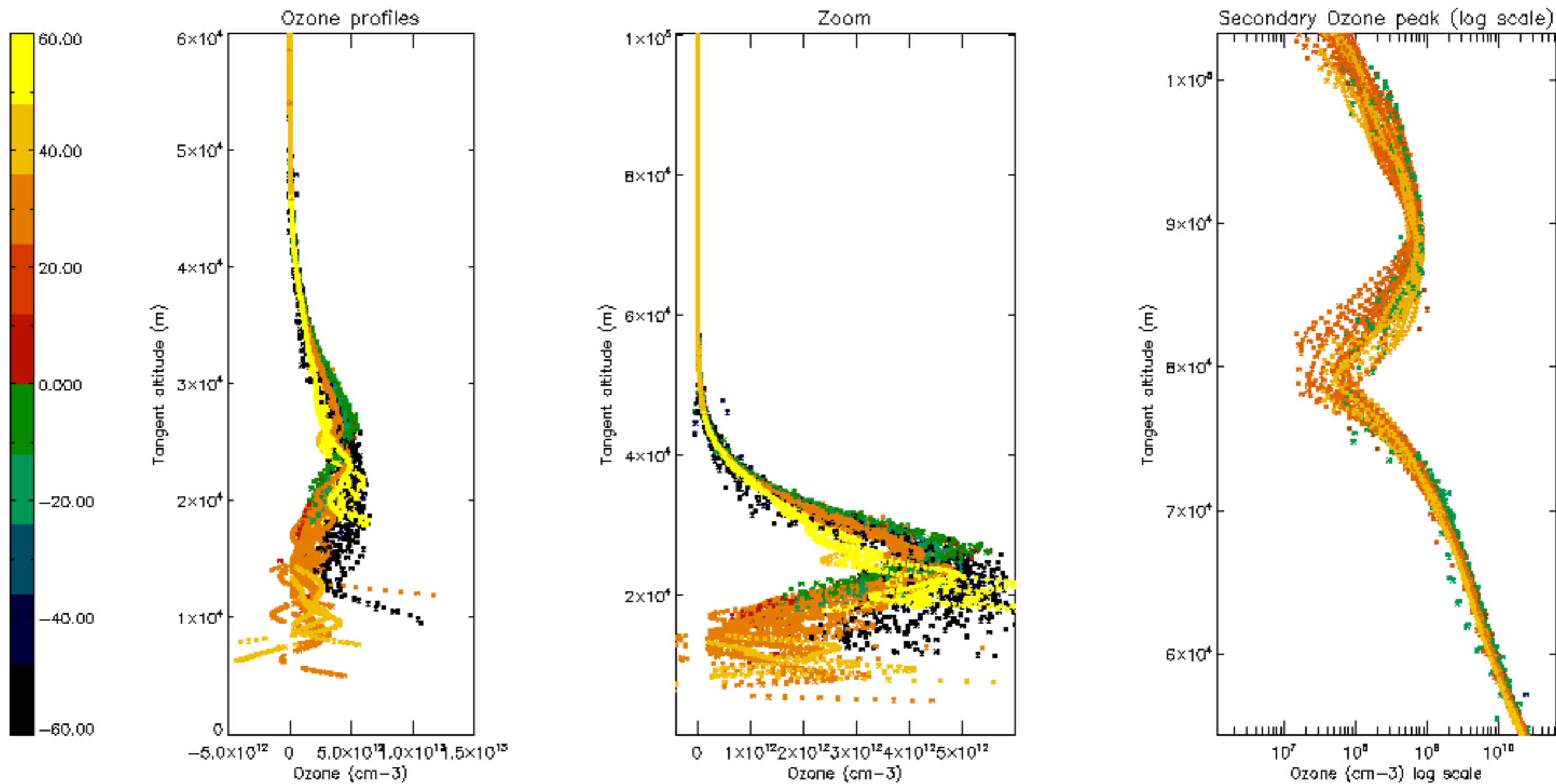
Percentage of star falling outside central band per profile

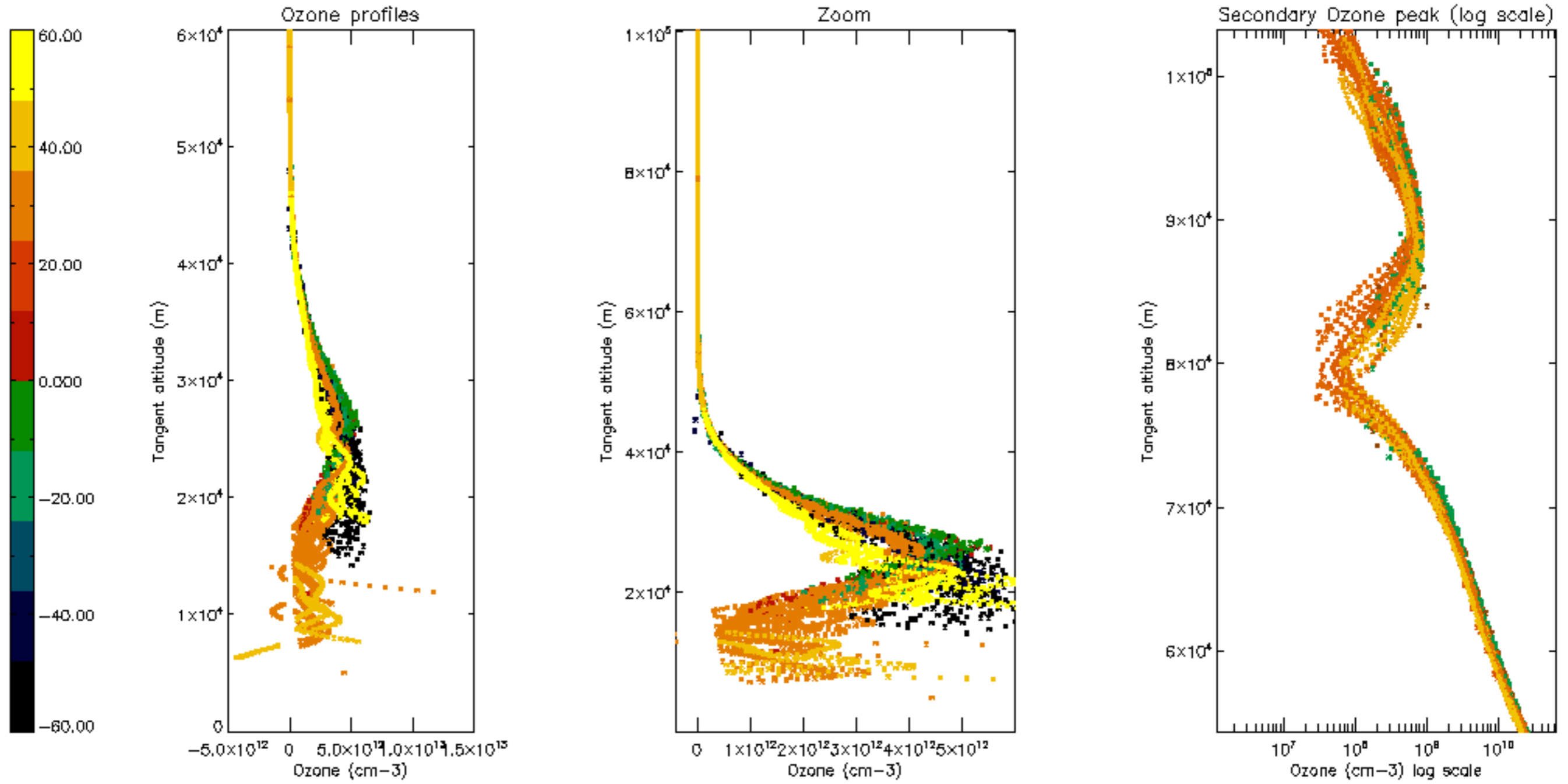


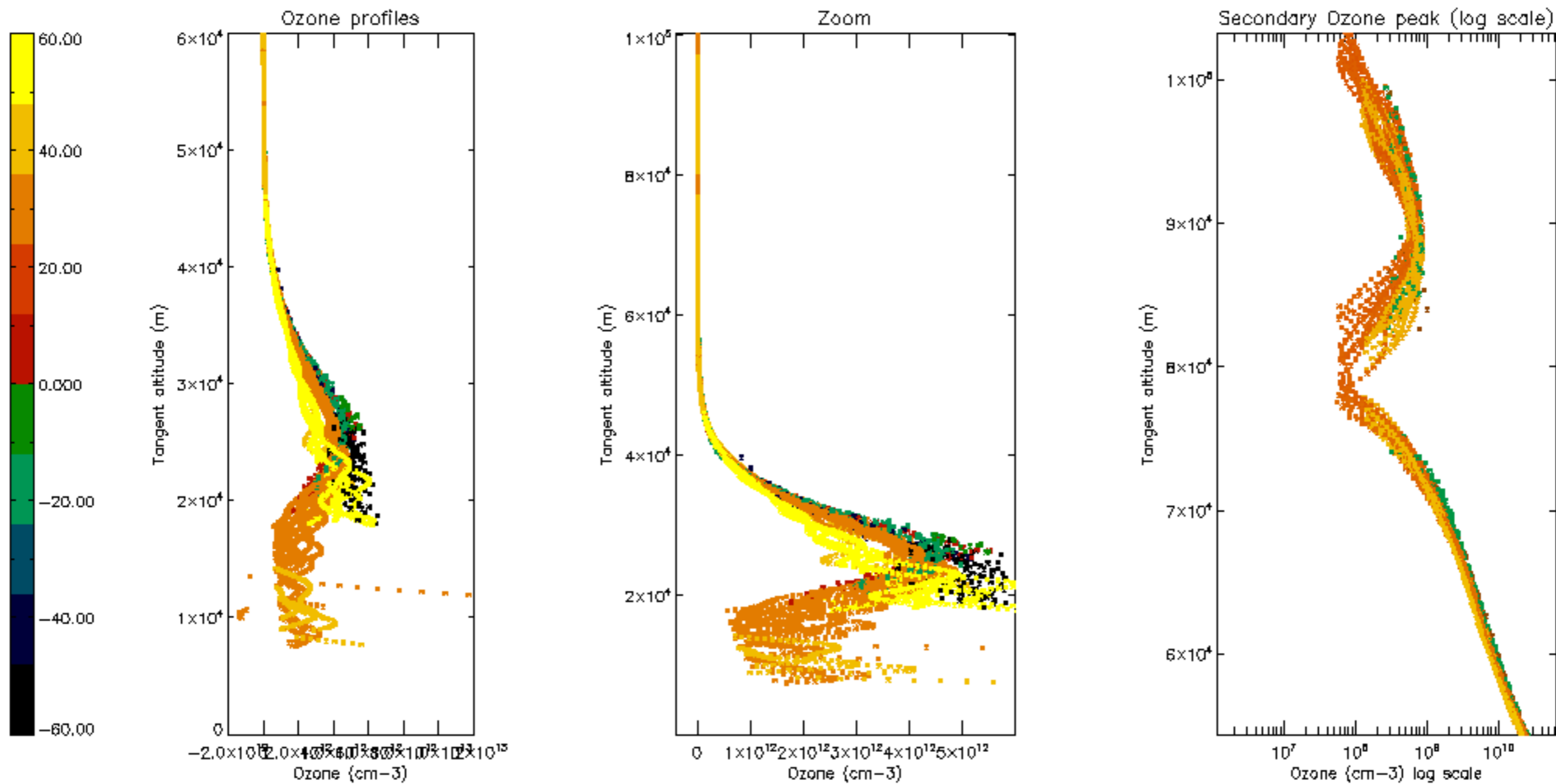
Percentage of saturation errors per profile

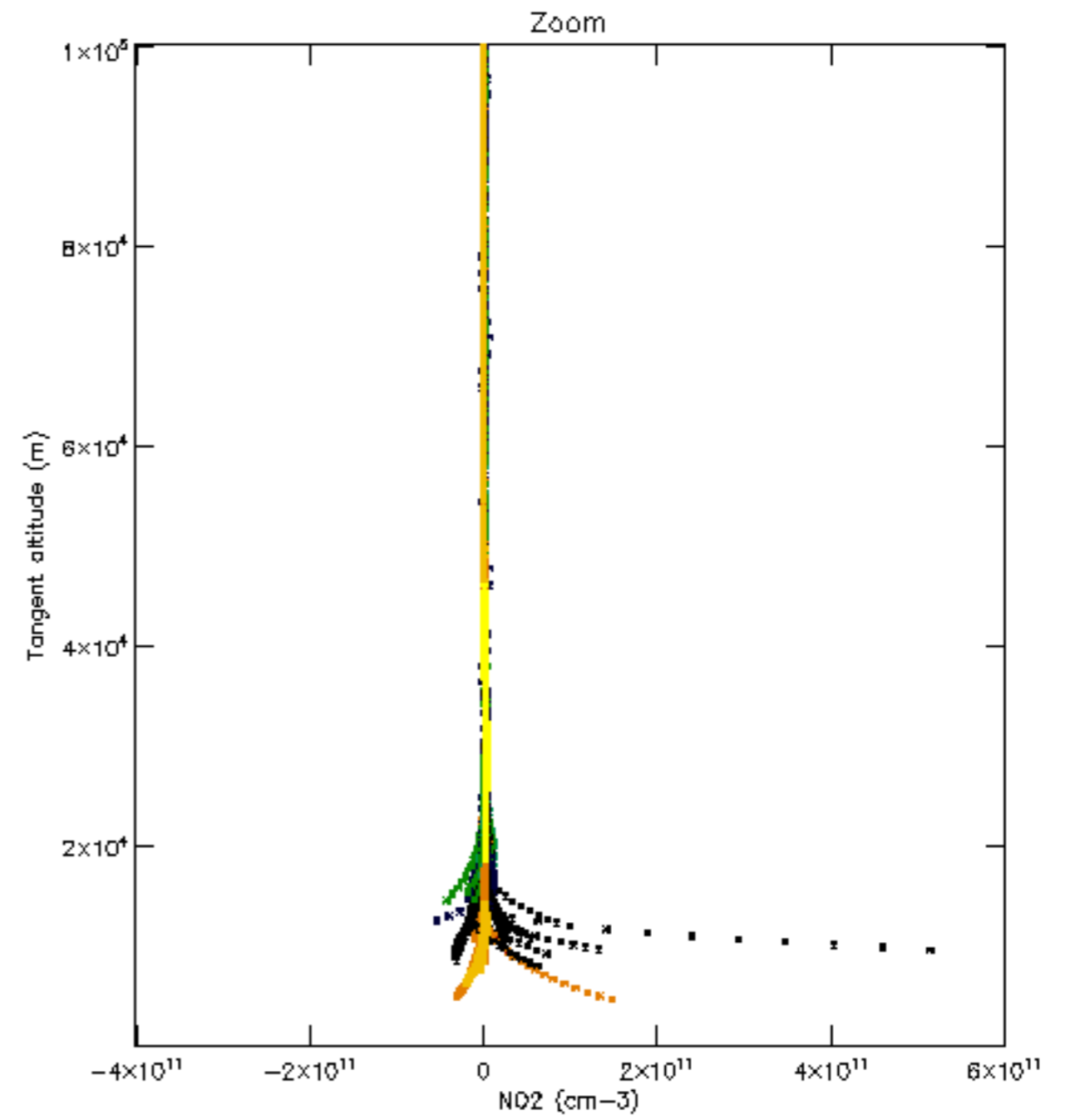
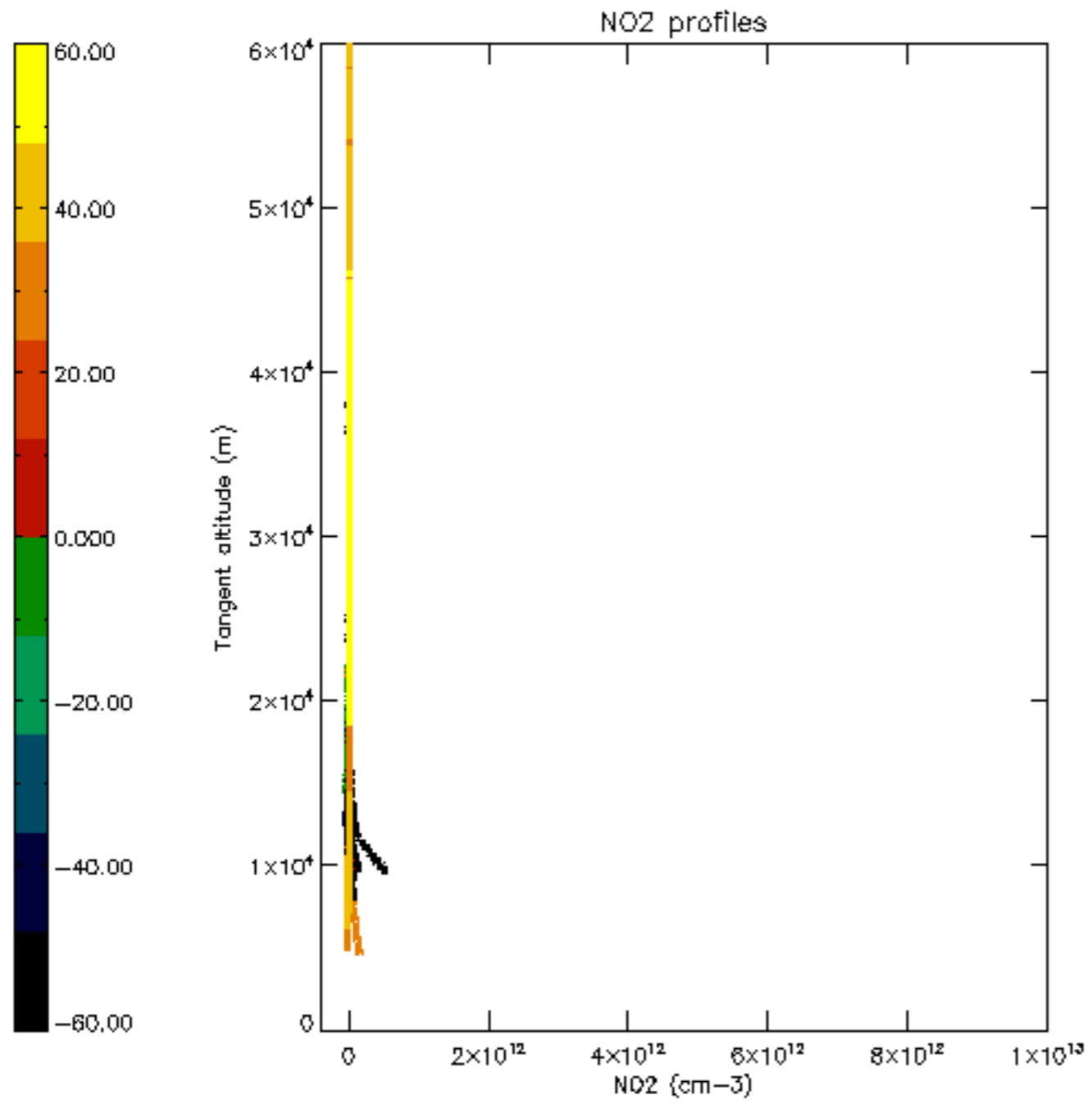


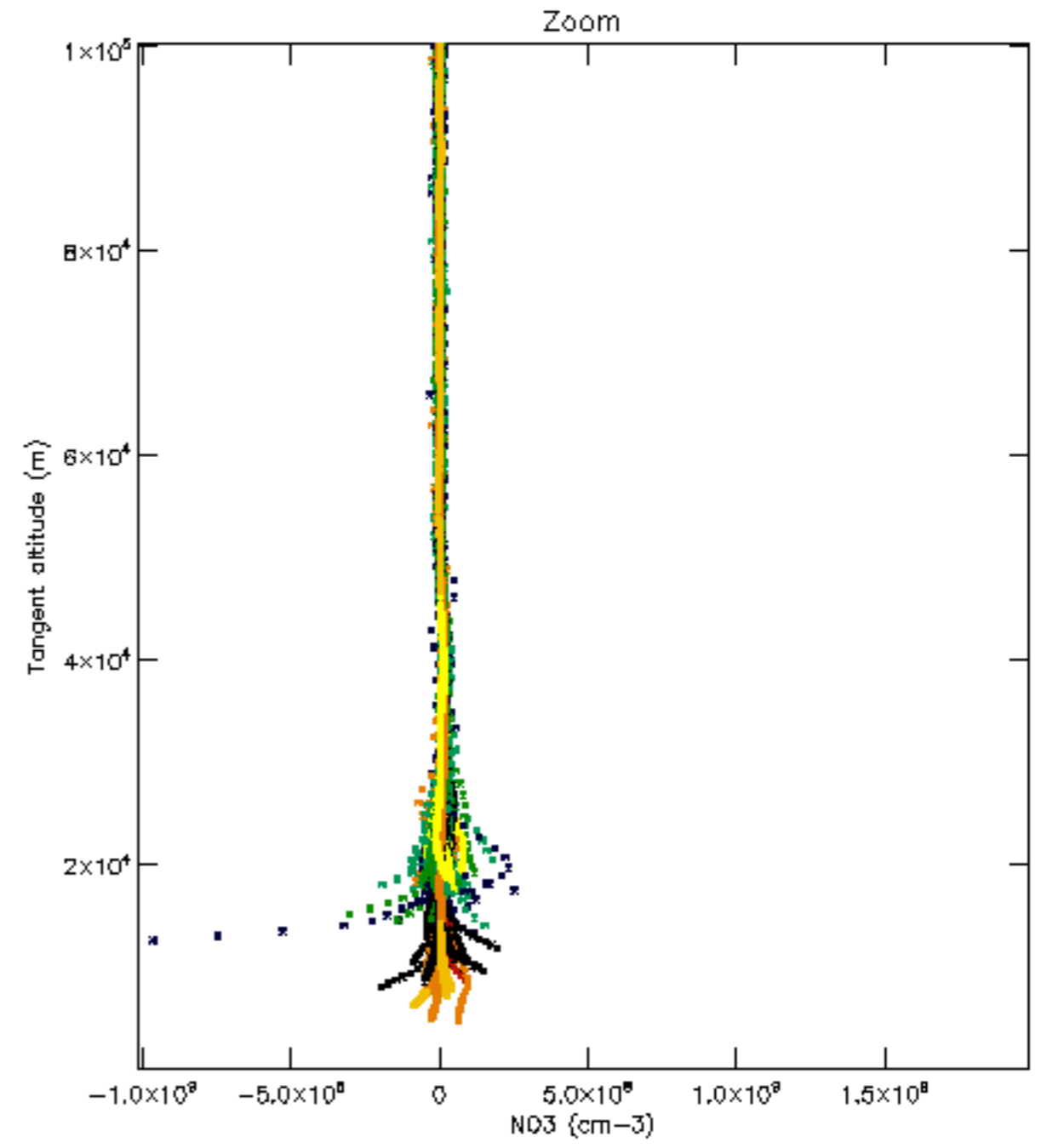
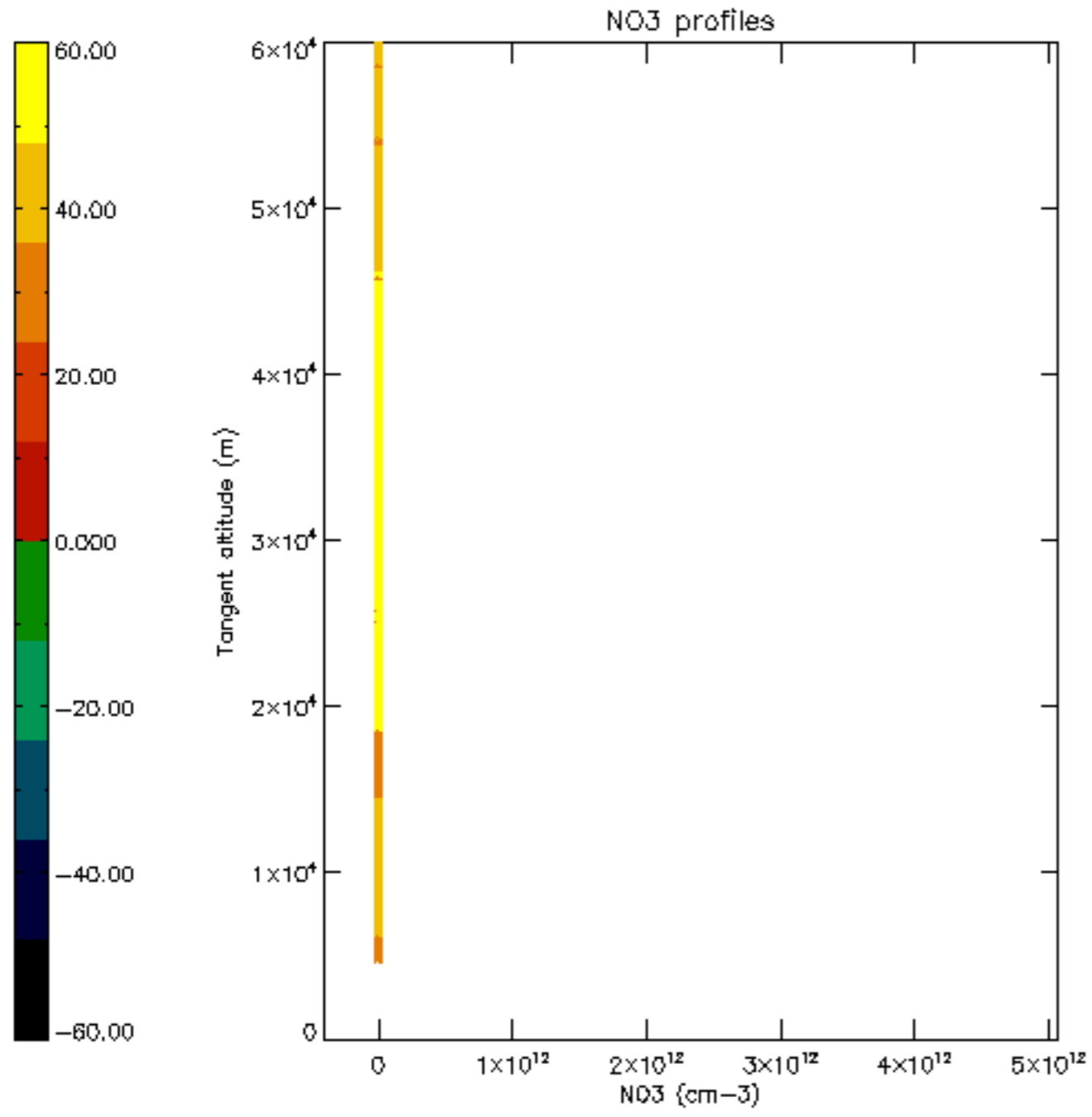


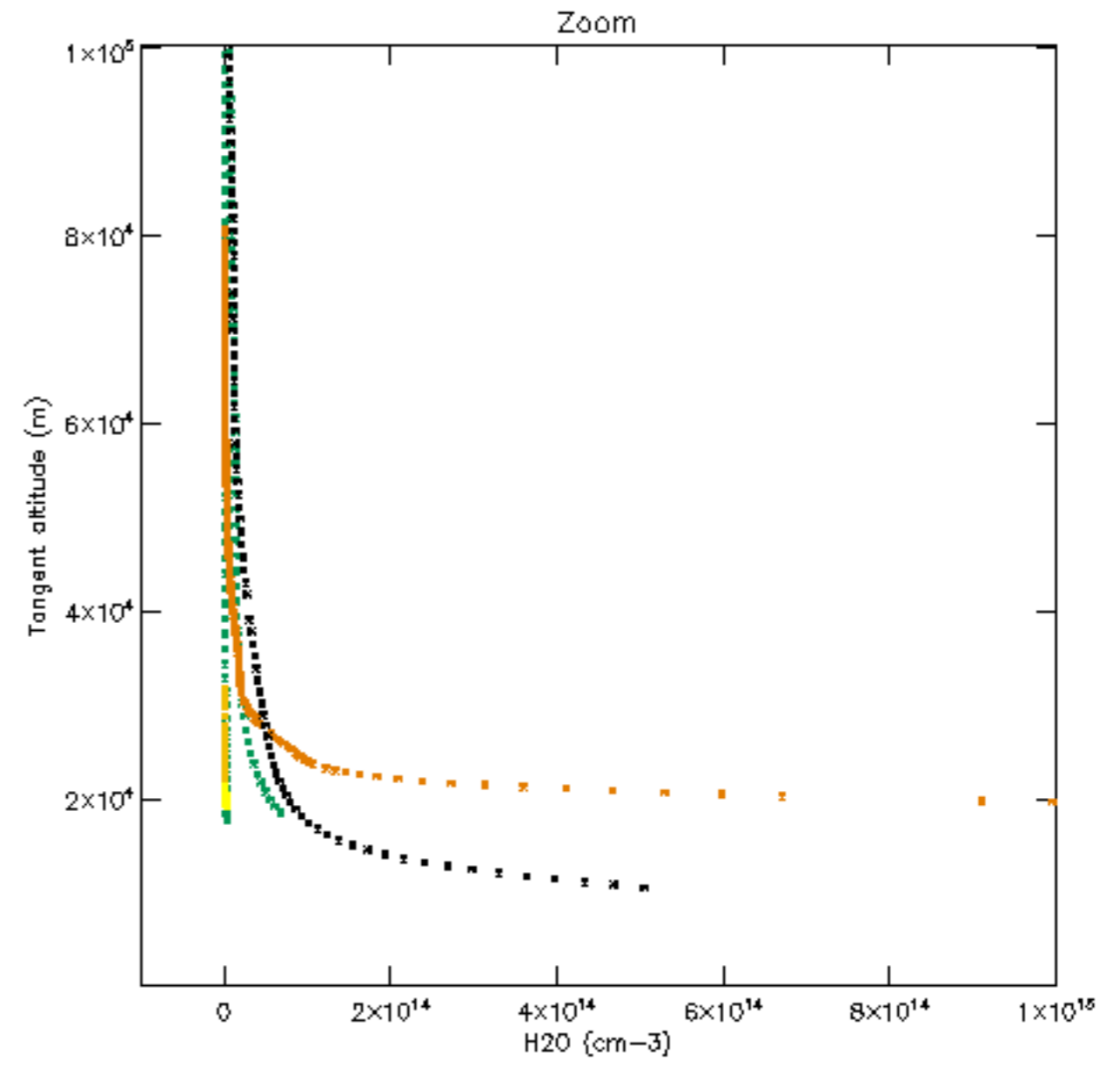
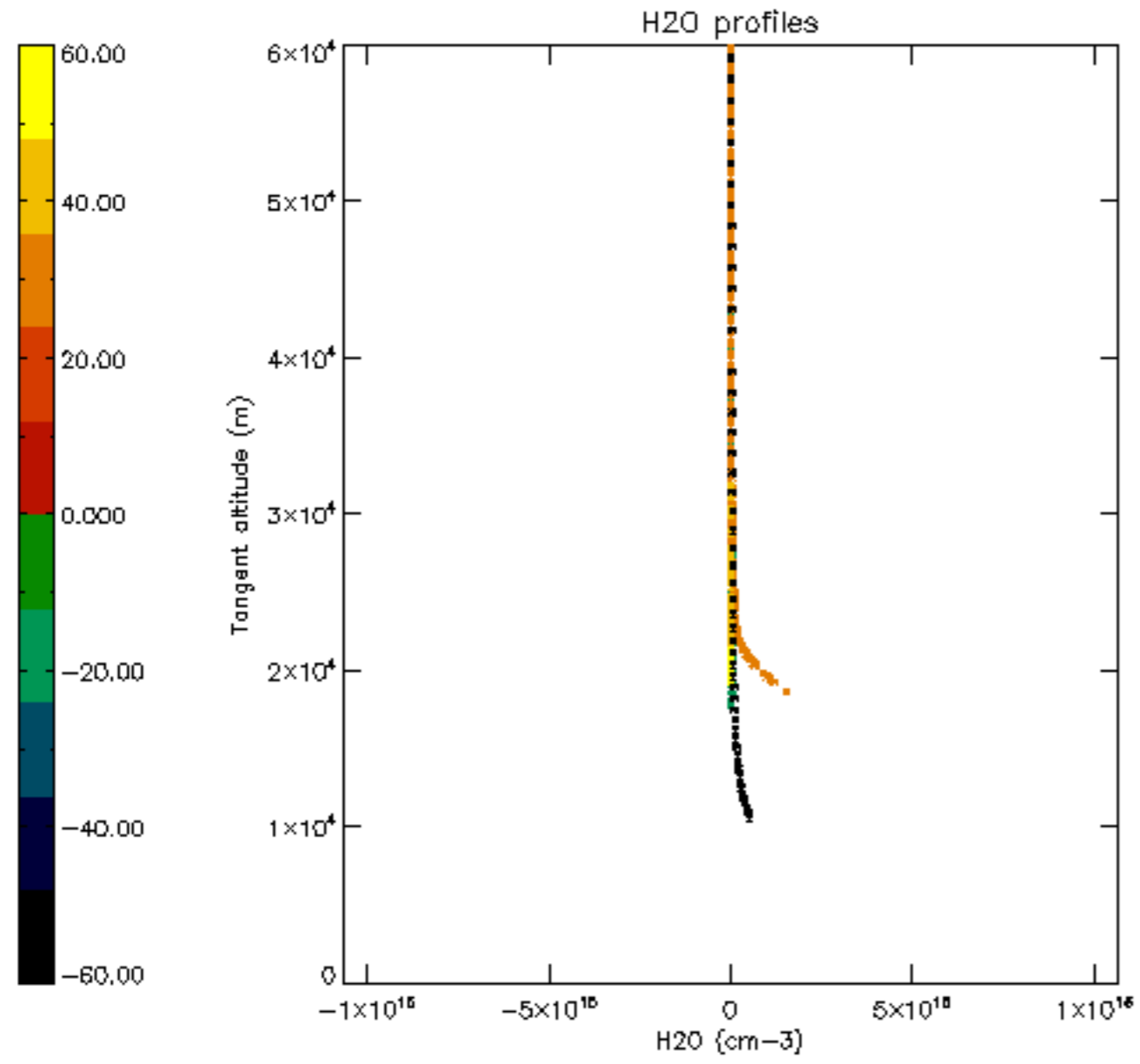


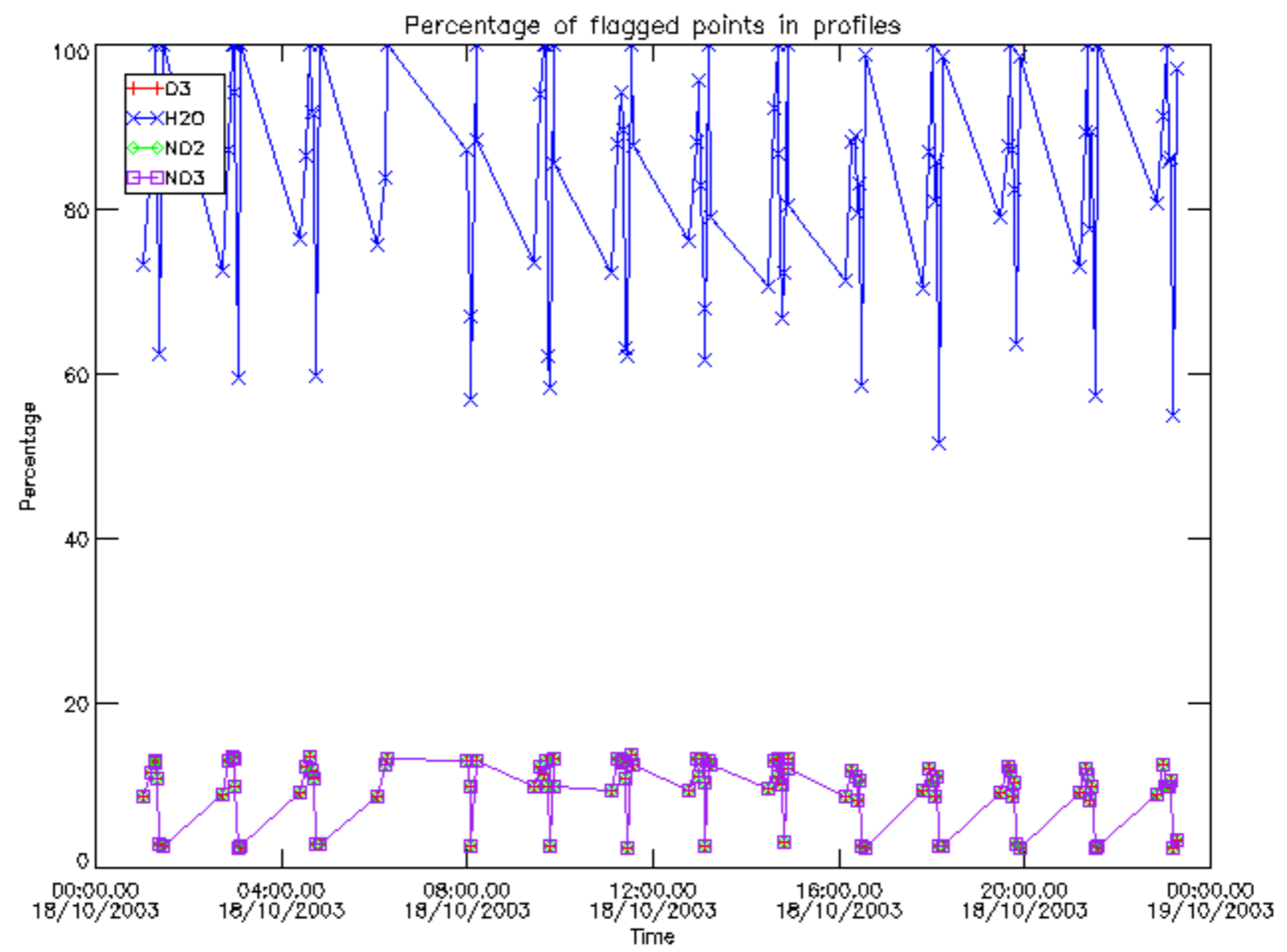




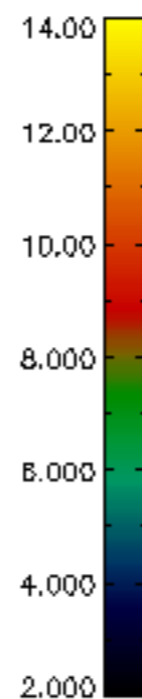
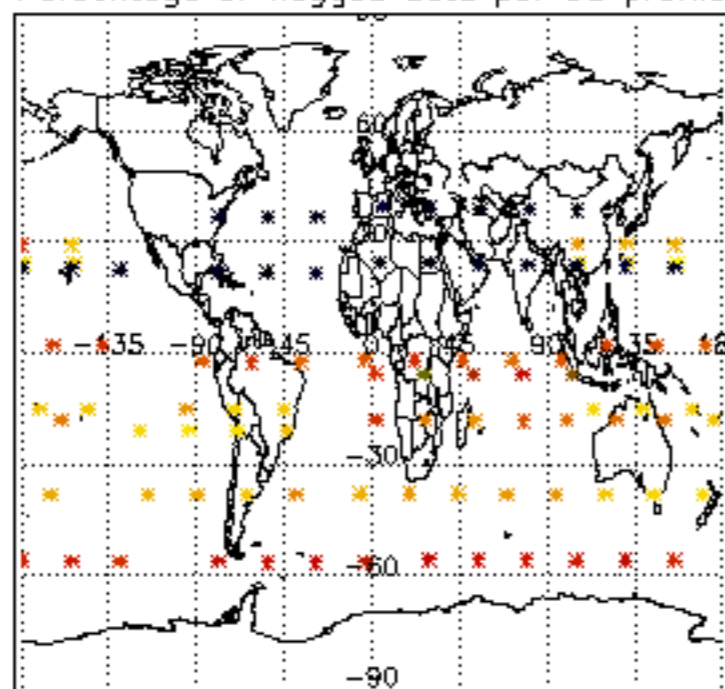




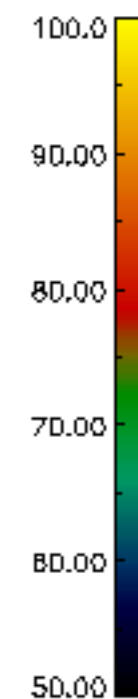
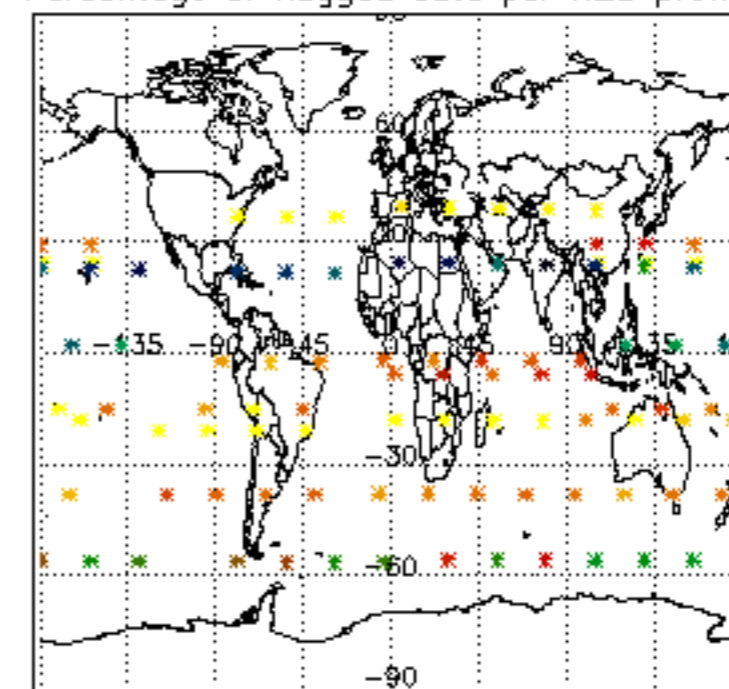




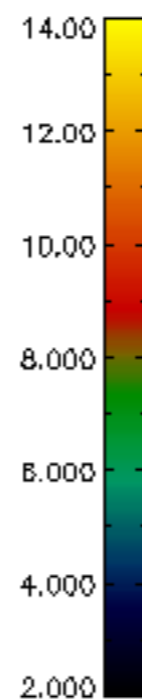
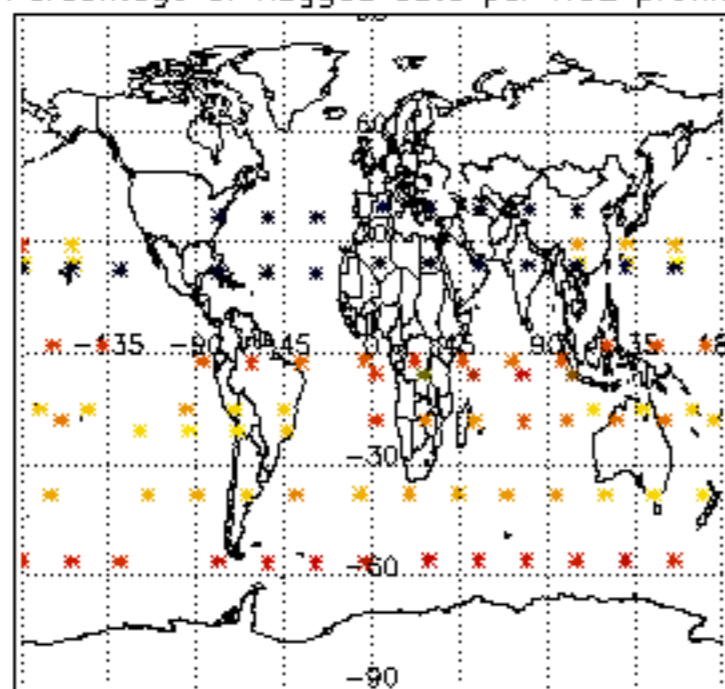
Percentage of flagged data per D3 profile



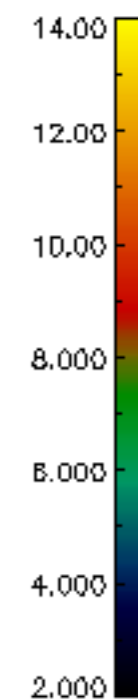
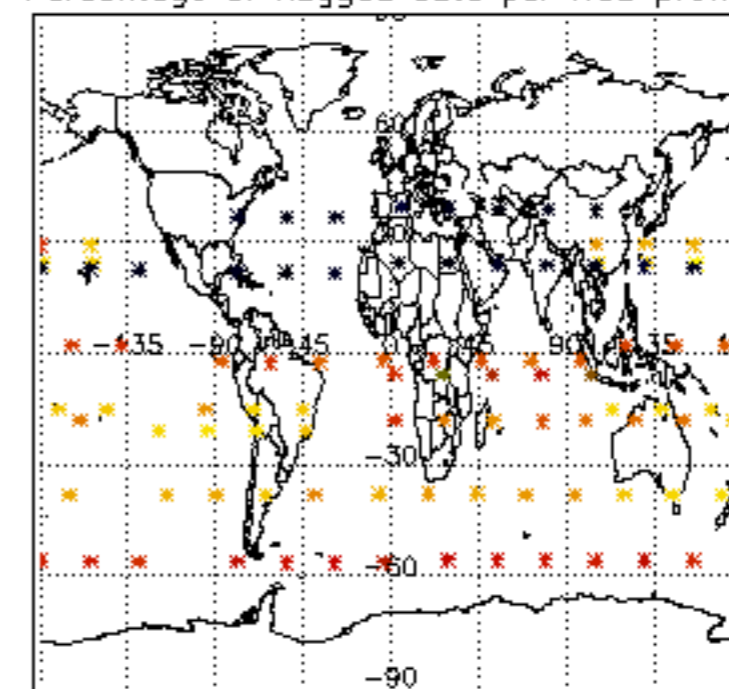
Percentage of flagged data per H2O profile

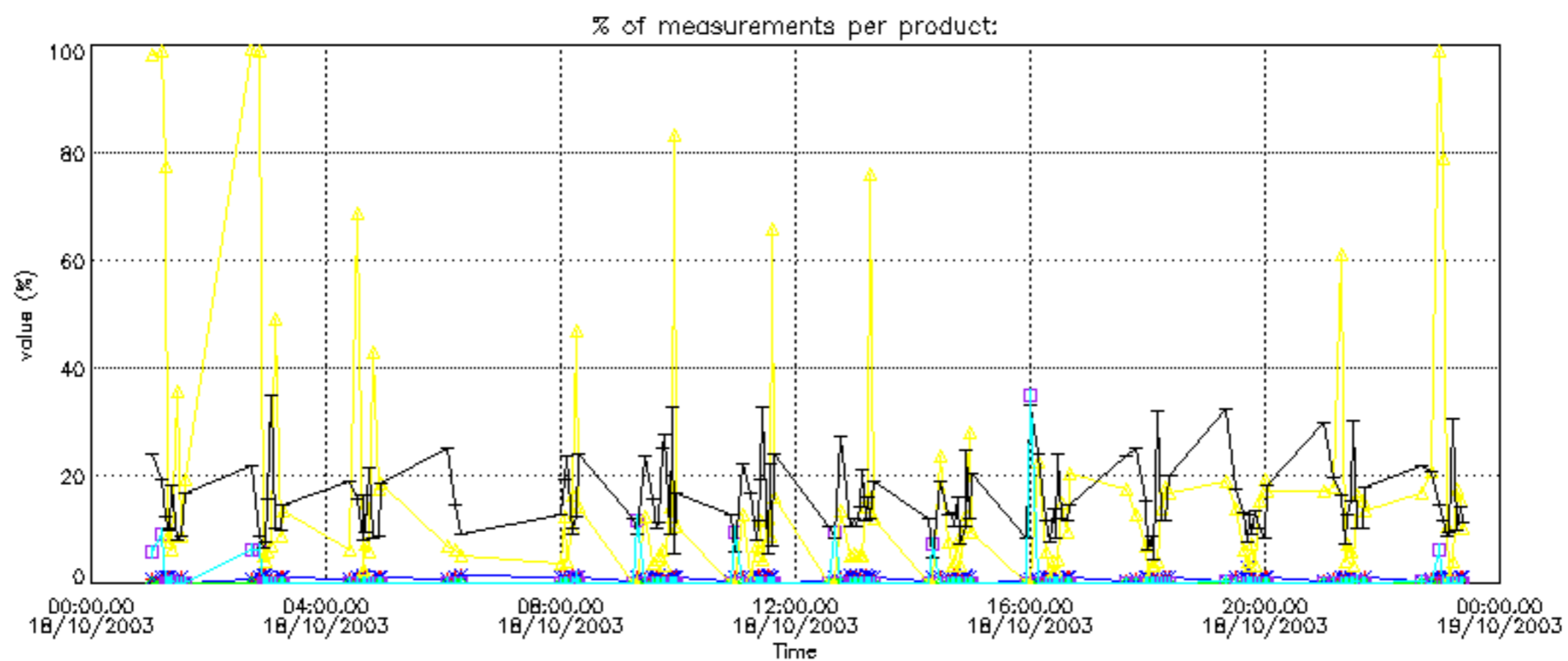
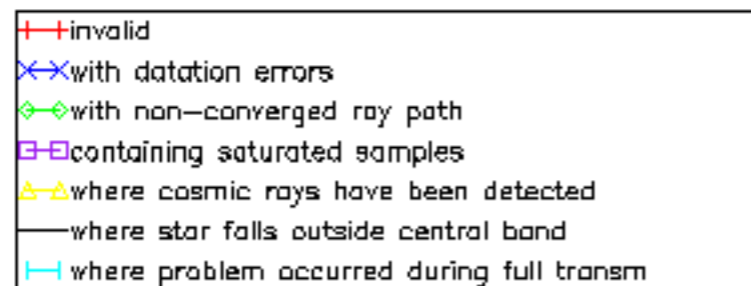


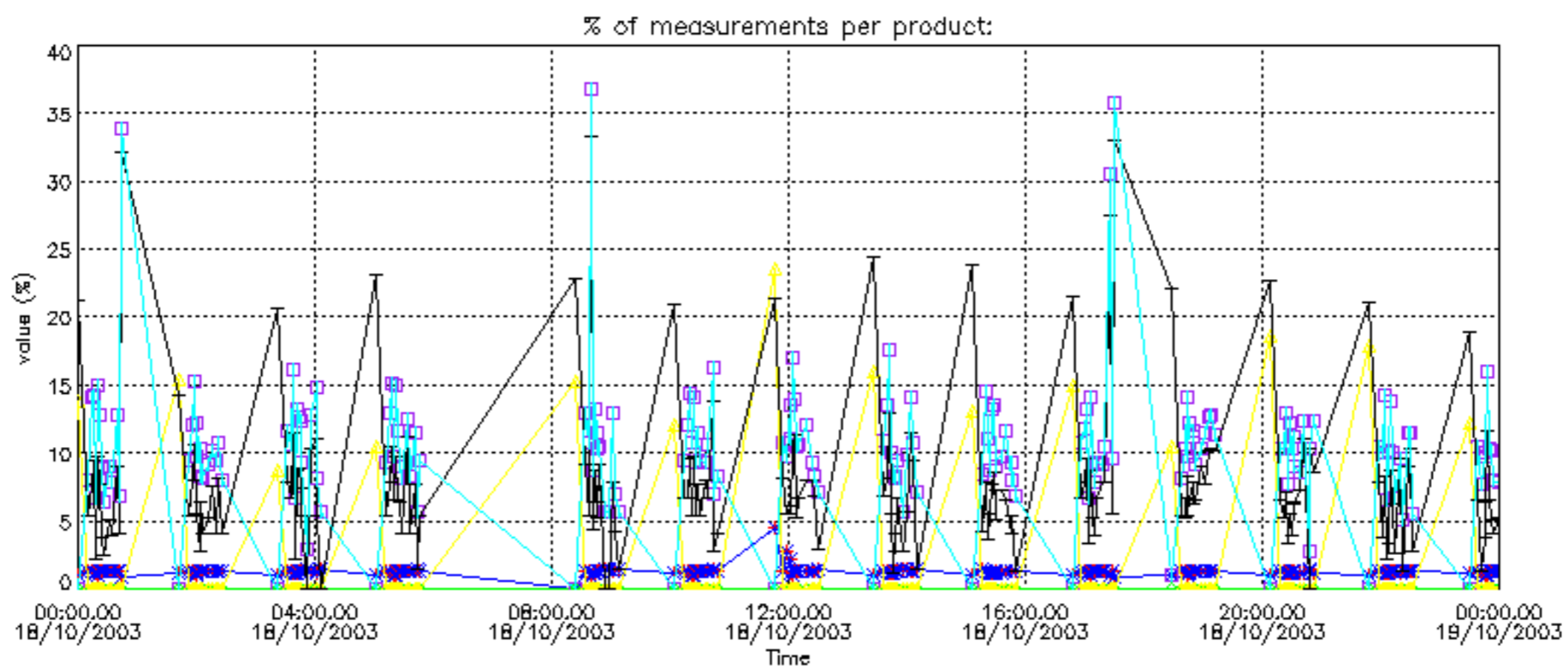
Percentage of flagged data per NO2 profile



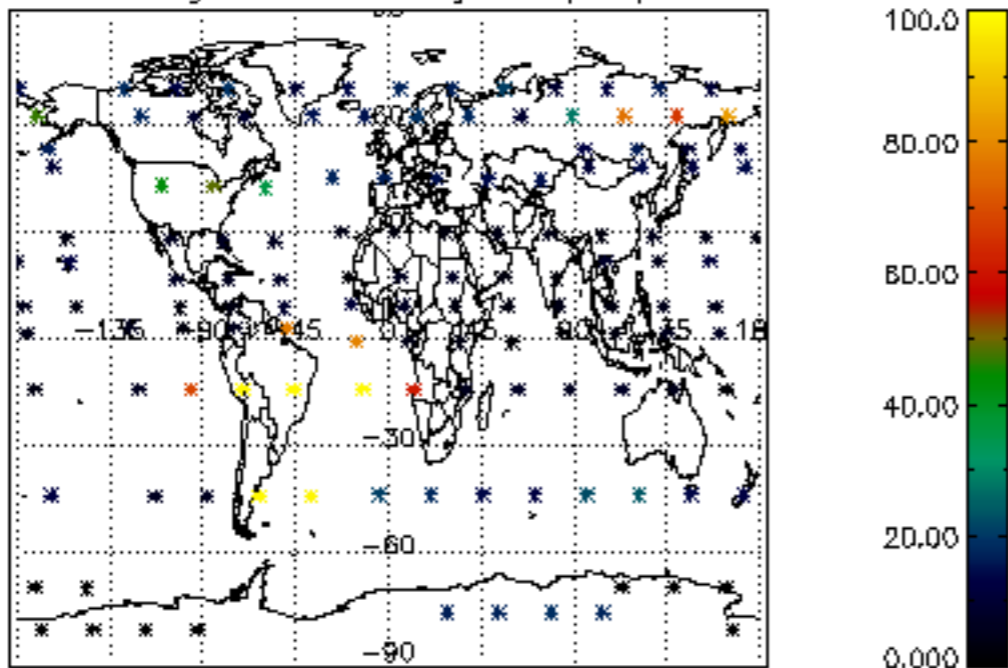
Percentage of flagged data per NO3 profile



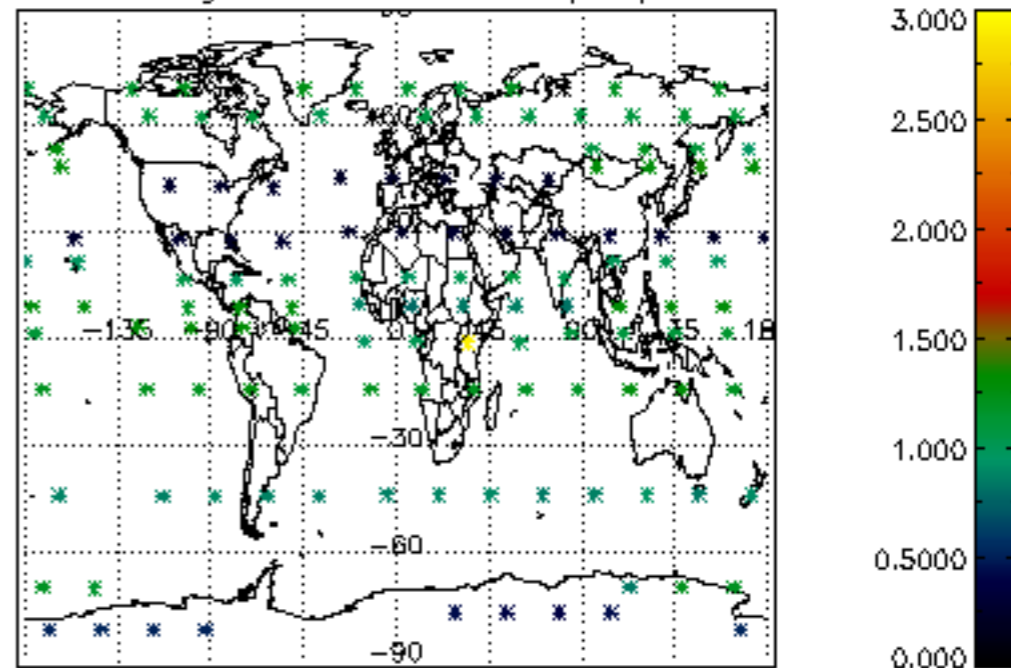




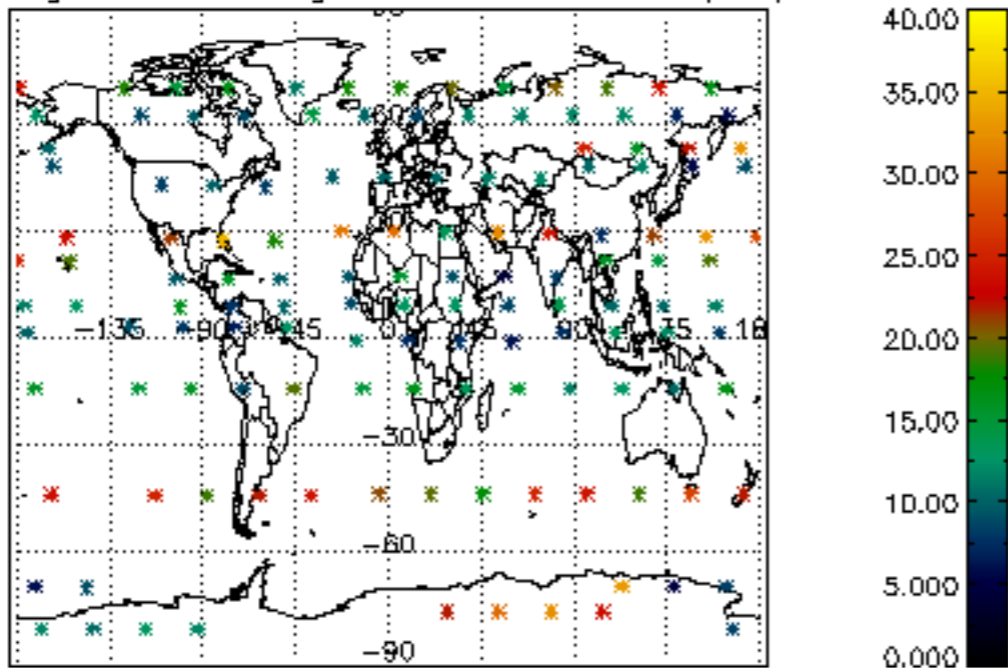
Percentage of cosmic ray hits per profile



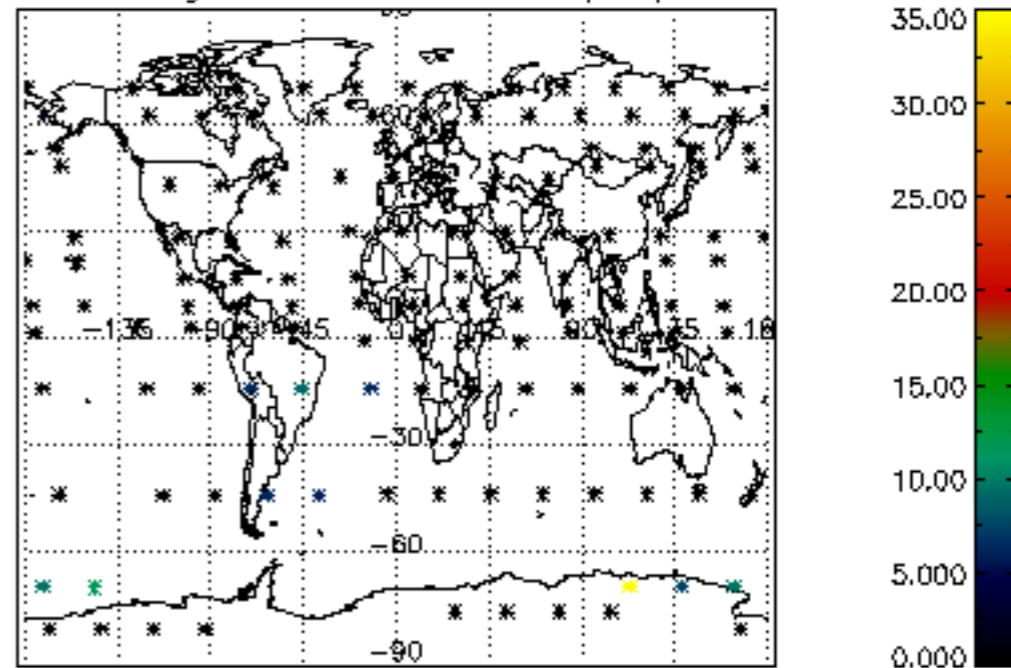
Percentage of datation errors per profile



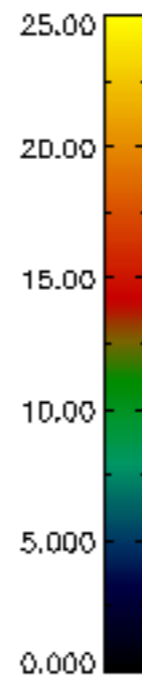
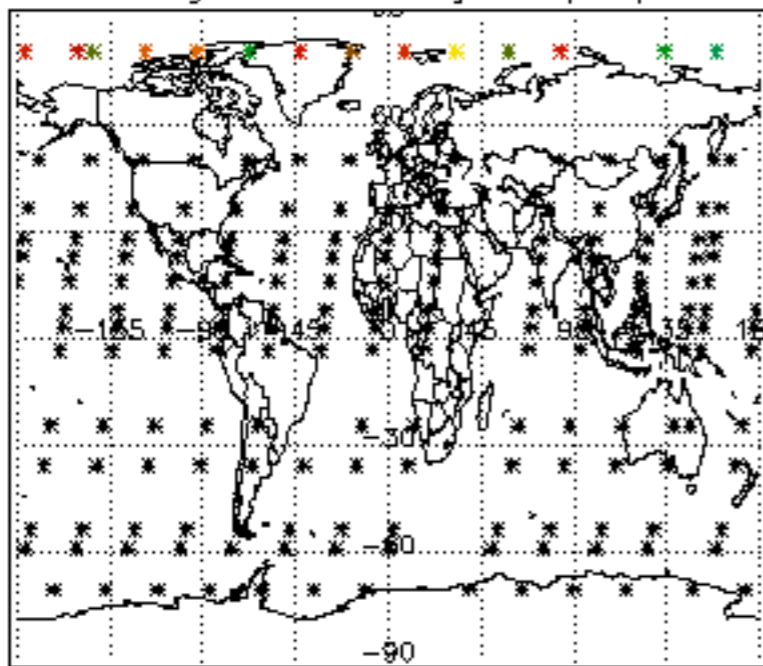
Percentage of star falling outside central band per profile



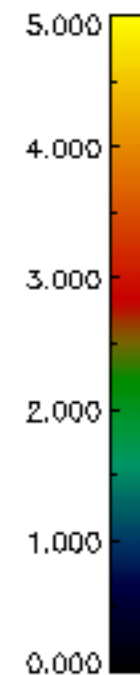
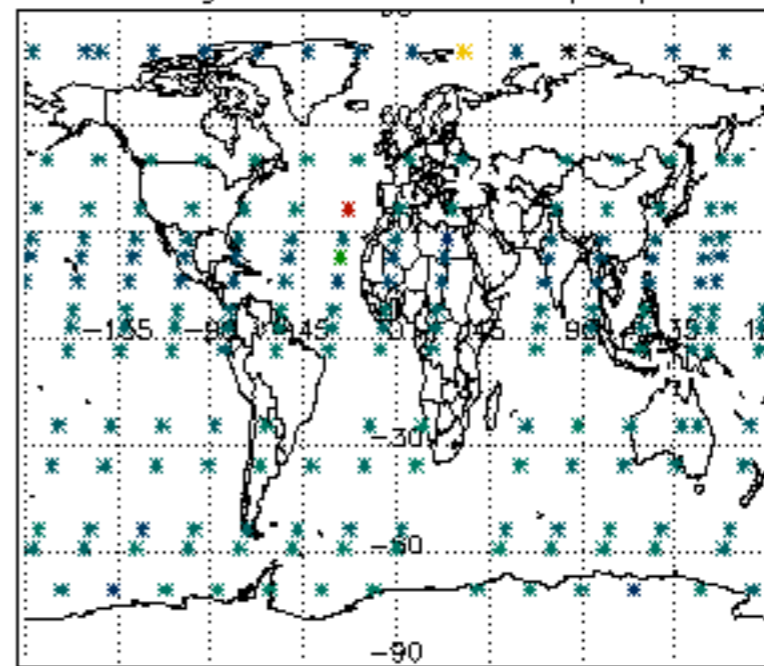
Percentage of saturation errors per profile



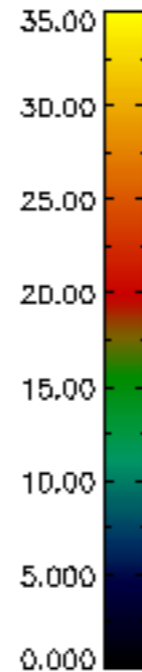
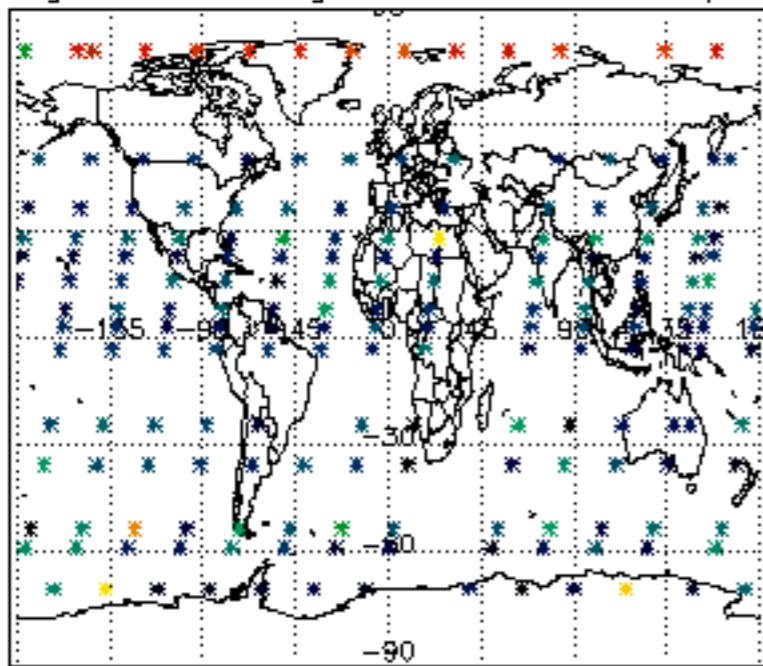
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

