

GOMOS Level 2 Daily Report

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This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM_NL__2P). It is intended to monitor some important parameters that will impact the quality of these products. A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

Item	Value
Time of report generation	24APR2013 17:46:14
Data source version	GOMOS/6.01
Start time of products	18-09-2011 (18SEP2011 00:00:00)
Stop time of products	19-09-2011 (19SEP2011 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	159
Nb of prods with errors	0

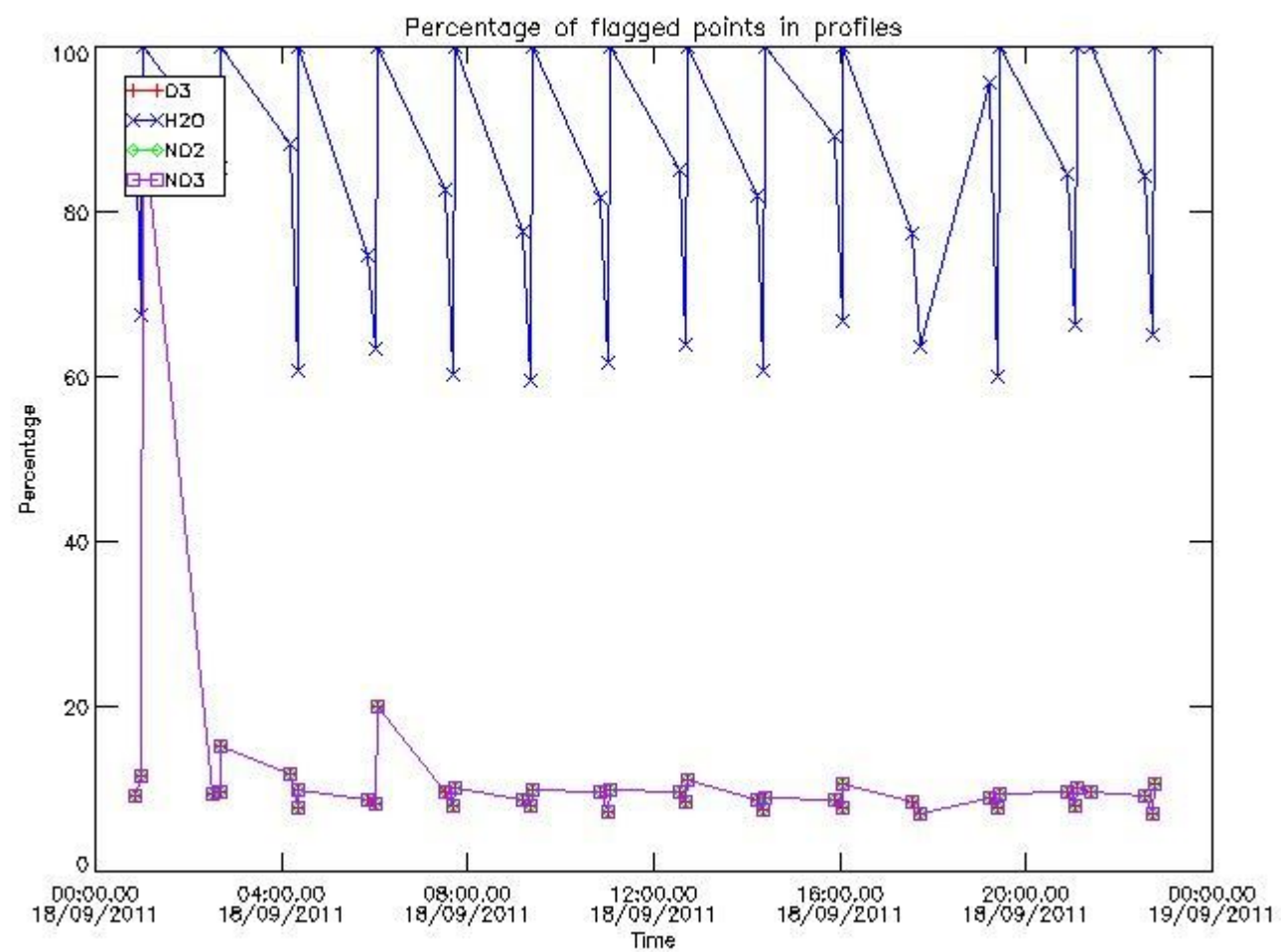
2. Summary of processed GOM_NL__2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20110918_000313_000000393106_00361_49944_6548.N1	18-SEP-2011 00:03:13	Bright	39.000	90	54Alp Peg	2.4870	11000.	78	49944	No
2	GOM_NL__2PRFIN20110918_000701_000000413106_00361_49944_6549.N1	18-SEP-2011 00:07:01	Bright	40.500	93	53Bet Peg	2.5200	3100.0	81	49944	No
3	GOM_NL__2PRFIN20110918_000847_000000463106_00361_49944_6550.N1	18-SEP-2011 00:08:47	Bright	46.000	58	21Alp And	2.0730	11000.	92	49944	No
4	GOM_NL__2PRFIN20110918_001705_000000423106_00361_49944_6551.N1	18-SEP-2011 00:17:05	Bright	41.500	74	11Bet Cas	2.2680	6600.0	83	49944	No
5	GOM_NL__2PRFIN20110918_001847_000000433106_00361_49944_6552.N1	18-SEP-2011 00:18:47	Bright	42.500	76	27Gam Cas	2.3000	30000.	85	49944	No
6	GOM_NL__2PRFIN20110918_004138_000000483106_00361_49944_6553.N1	18-SEP-2011 00:41:38	Bright	48.000	24	66Alp Gem	1.5800	10200.	96	49944	No
7	GOM_NL__2PRFIN20110918_005036_000000553106_00361_49944_6554.N1	18-SEP-2011 00:50:36	Dark	55.000	8	10Alp CMi	0.40000	6500.0	110	49944	No
8	GOM_NL__2PRFIN20110918_010005_000000673106_00361_49944_6555.N1	18-SEP-2011 01:00:05	Dark	66.500	1	9Alp CMA	-1.4400	11000.	133	49944	No
9	GOM_NL__2PRFIN20110918_010208_000000503106_00361_49944_6556.N1	18-SEP-2011 01:02:08	Dark	50.000	23	21Eps CMA	1.5020	26000.	100	49944	No
10	GOM_NL__2PRFIN20110918_012523_000000433106_00362_49945_6567.N1	18-SEP-2011 01:25:23	Straylight	43.000	84	Alp Phe	2.3970	4500.0	86	49945	No
11	GOM_NL__2PRFIN20110918_013249_000000563106_00362_49945_6568.N1	18-SEP-2011 01:32:49	Twilight_stray	55.500	52	16Bet Cet	2.0370	4500.0	111	49945	No
12	GOM_NL__2PRFIN20110918_014327_000000403106_00362_49945_6569.N1	18-SEP-2011 01:43:27	Bright	39.500	90	54Alp Peg	2.4870	11000.	79	49945	No
13	GOM_NL__2PRFIN20110918_014715_000000393106_00362_49945_6570.N1	18-SEP-2011 01:47:15	Bright	39.000	93	53Bet Peg	2.5200	3100.0	78	49945	No
14	GOM_NL__2PRFIN20110918_014900_000000483106_00362_49945_6571.N1	18-SEP-2011 01:49:00	Bright	47.500	58	21Alp And	2.0730	11000.	95	49945	No
15	GOM_NL__2PRFIN20110918_015719_000000413106_00362_49945_6572.N1	18-SEP-2011 01:57:19	Bright	41.000	74	11Bet Cas	2.2680	6600.0	82	49945	No
16	GOM_NL__2PRFIN20110918_015900_000000433106_00362_49945_6573.N1	18-SEP-2011 01:59:00	Bright	43.000	76	27Gam Cas	2.3000	30000.	86	49945	No
17	GOM_NL__2PRFIN20110918_022152_000000463106_00362_49945_6574.N1	18-SEP-2011 02:21:52	Bright	45.500	24	66Alp Gem	1.5800	10200.	91	49945	No
18	GOM_NL__2PRFIN20110918_023051_000000593106_00362_49945_6575.N1	18-SEP-2011 02:30:51	Dark	59.000	8	10Alp CMi	0.40000	6500.0	118	49945	No
19	GOM_NL__2PRFIN20110918_024020_000000593106_00362_49945_6576.N1	18-SEP-2011 02:40:20	Dark	58.500	1	9Alp CMA	-1.4400	11000.	117	49945	No
20	GOM_NL__2PRFIN20110918_024223_000000473106_00362_49945_6577.N1	18-SEP-2011 02:42:23	Dark	46.500	23	21Eps CMA	1.5020	26000.	93	49945	No
21	GOM_NL__2PRFIN20110918_030538_000000453106_00363_49946_6578.N1	18-SEP-2011 03:05:38	Straylight	44.500	84	Alp Phe	2.3970	4500.0	89	49946	No
22	GOM_NL__2PRFIN20110918_031304_000000573106_00363_49946_6579.N1	18-SEP-2011 03:13:04	Twilight_stray	56.500	52	16Bet Cet	2.0370	4500.0	113	49946	No
23	GOM_NL__2PRFIN20110918_032341_000000403106_00363_49946_6580.N1	18-SEP-2011 03:23:41	Bright	39.500	90	54Alp Peg	2.4870	11000.	79	49946	No
24	GOM_NL__2PRFIN20110918_032729_000000563106_00363_49946_6581.N1	18-SEP-2011 03:27:29	Bright	56.000	93	53Bet Peg	2.5200	3100.0	112	49946	No
25	GOM_NL__2PRFIN20110918_032913_000000463106_00363_49946_6582.N1	18-SEP-2011 03:29:13	Bright	46.000	58	21Alp And	2.0730	11000.	92	49946	No
26	GOM_NL__2PRFIN20110918_033732_000000383106_00363_49946_6583.N1	18-SEP-2011 03:37:32	Bright	38.000	74	11Bet Cas	2.2680	6600.0	76	49946	No
27	GOM_NL__2PRFIN20110918_033914_000000523106_00363_49946_6584.N1	18-SEP-2011 03:39:14	Bright	51.500	76	27Gam Cas	2.3000	30000.	103	49946	No
28	GOM_NL__2PRFIN20110918_040206_000000653106_00363_49946_6585.N1	18-SEP-2011 04:02:06	Bright	65.000	24	66Alp Gem	1.5800	10200.	130	49946	No
29	GOM_NL__2PRFIN20110918_041105_000000643106_00363_49946_6586.N1	18-SEP-2011 04:11:05	Dark	64.000	8	10Alp CMi	0.40000	6500.0	128	49946	No
30	GOM_NL__2PRFIN20110918_042036_000000663106_00363_49946_6587.N1	18-SEP-2011 04:20:36	Dark	65.500	1	9Alp CMA	-1.4400	11000.	131	49946	No
31	GOM_NL__2PRFIN20110918_042237_000000523106_00363_49946_6588.N1	18-SEP-2011 04:22:37	Dark	52.000	23	21Eps CMA	1.5020	26000.	104	49946	No
32	GOM_NL__2PRFIN20110918_044552_000000483106_00364_49947_6605.N1	18-SEP-2011 04:45:52	Straylight	47.500	84	Alp Phe	2.3970	4500.0	95	49947	No
33	GOM_NL__2PRFIN20110918_045318_000000553106_00364_49947_6606.N1	18-SEP-2011 04:53:18	Twilight_stray	55.000	52	16Bet Cet	2.0370	4500.0	110	49947	No
34	GOM_NL__2PRFIN20110918_050355_000000403106_00364_49947_6607.N1	18-SEP-2011 05:03:55	Bright	39.500	90	54Alp Peg	2.4870	11000.	79	49947	No
35	GOM_NL__2PRFIN20110918_050743_000000413106_00364_49947_6608.N1	18-SEP-2011 05:07:43	Bright	40.500	93	53Bet Peg	2.5200	3100.0	81	49947	No
36	GOM_NL__2PRFIN20110918_050927_000000473106_00364_49947_6609.N1	18-SEP-2011 05:09:27	Bright	46.500	58	21Alp And	2.0730	11000.	93	49947	No
37	GOM_NL__2PRFIN20110918_051746_000000413106_00364_49947_6610.N1	18-SEP-2011 05:17:46	Bright	41.000	74	11Bet Cas	2.2680	6600.0	82	49947	No
38	GOM_NL__2PRFIN20110918_051927_000000423106_00364_49947_6611.N1	18-SEP-2011 05:19:27	Bright	41.500	76	27Gam Cas	2.3000	30000.	83	49947	No
39	GOM_NL__2PRFIN20110918_054220_000000463106_00364_49947_6612.N1	18-SEP-2011 05:42:20	Bright	45.500	24	66Alp Gem	1.5800	10200.	91	49947	No
40	GOM_NL__2PRFIN20110918_055120_000000583106_00364_49947_6613.N1	18-SEP-2011 05:51:20	Dark	58.000	8	10Alp CMi	0.40000	6500.0	116	49947	No
41	GOM_NL__2PRFIN20110918_060051_000000623106_00364_49947_6614.N1	18-SEP-2011 06:00:51	Dark	62.000	1	9Alp CMA	-1.4400	11000.	124	49947	No
42	GOM_NL__2PRFIN20110918_060252_000000563106_00364_49947_6615.N1	18-SEP-2011 06:02:52	Dark	56.000	23	21Eps CMA	1.5020	26000.	112	49947	No

3. Quality information per product

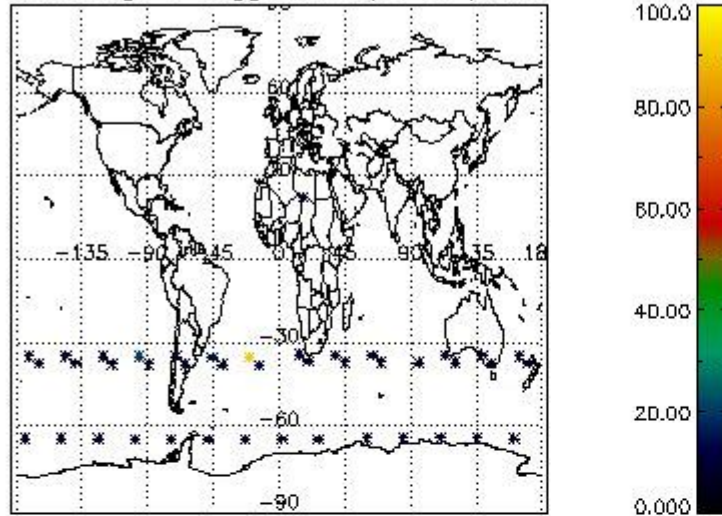
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

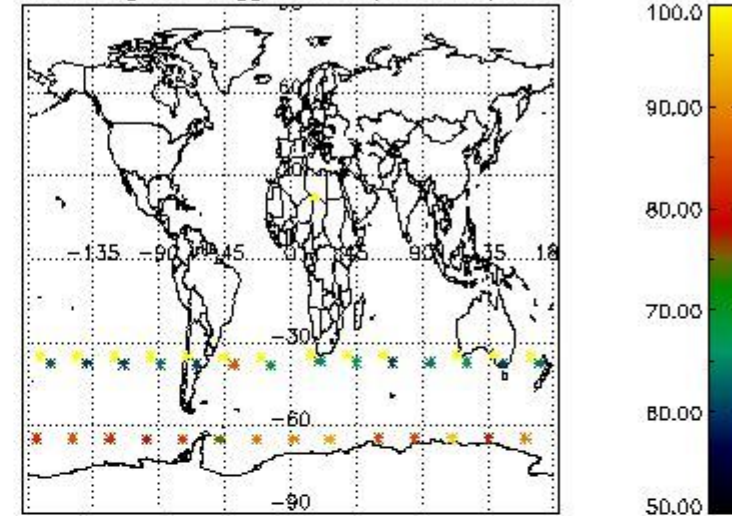


3.2 Plot quality information per product (world map)

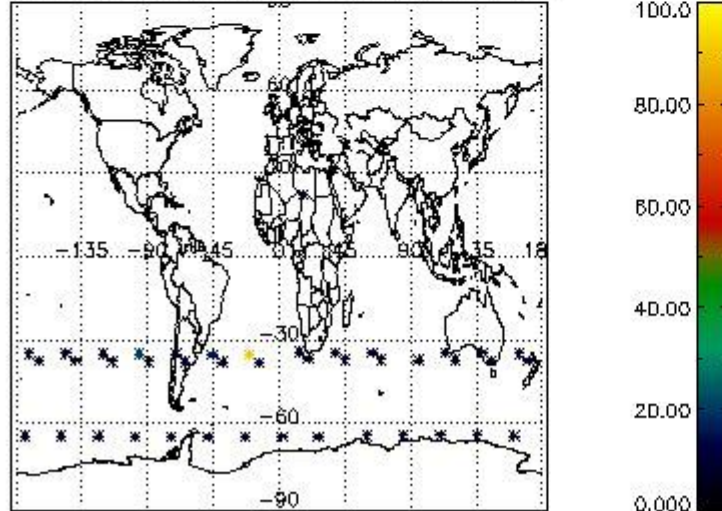
Percentage of flagged data per O3 profile



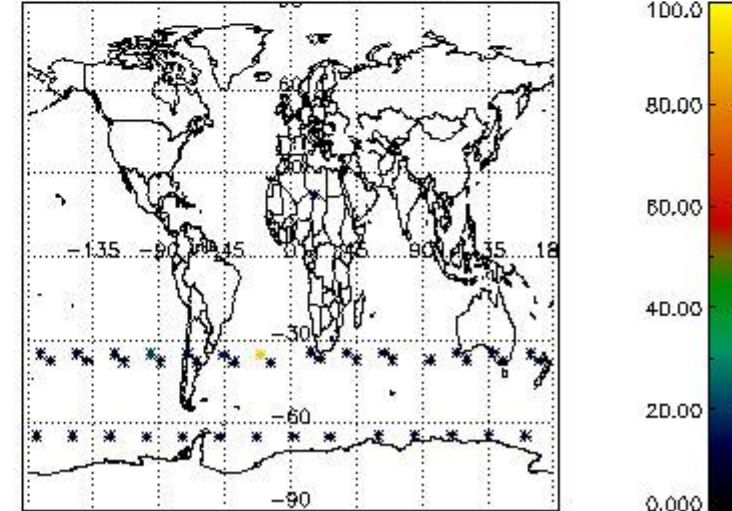
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

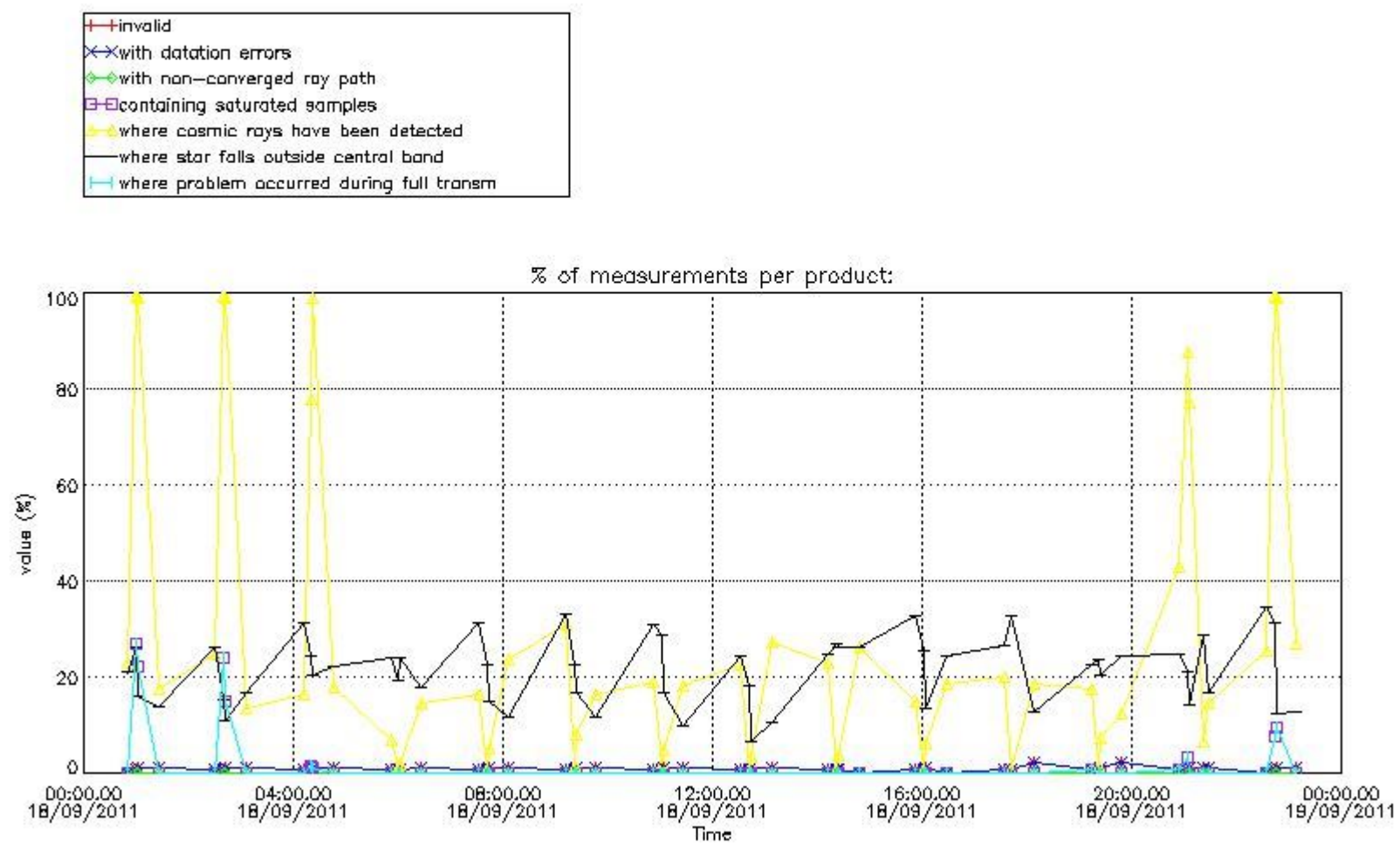


4. Level 1 quality information per product

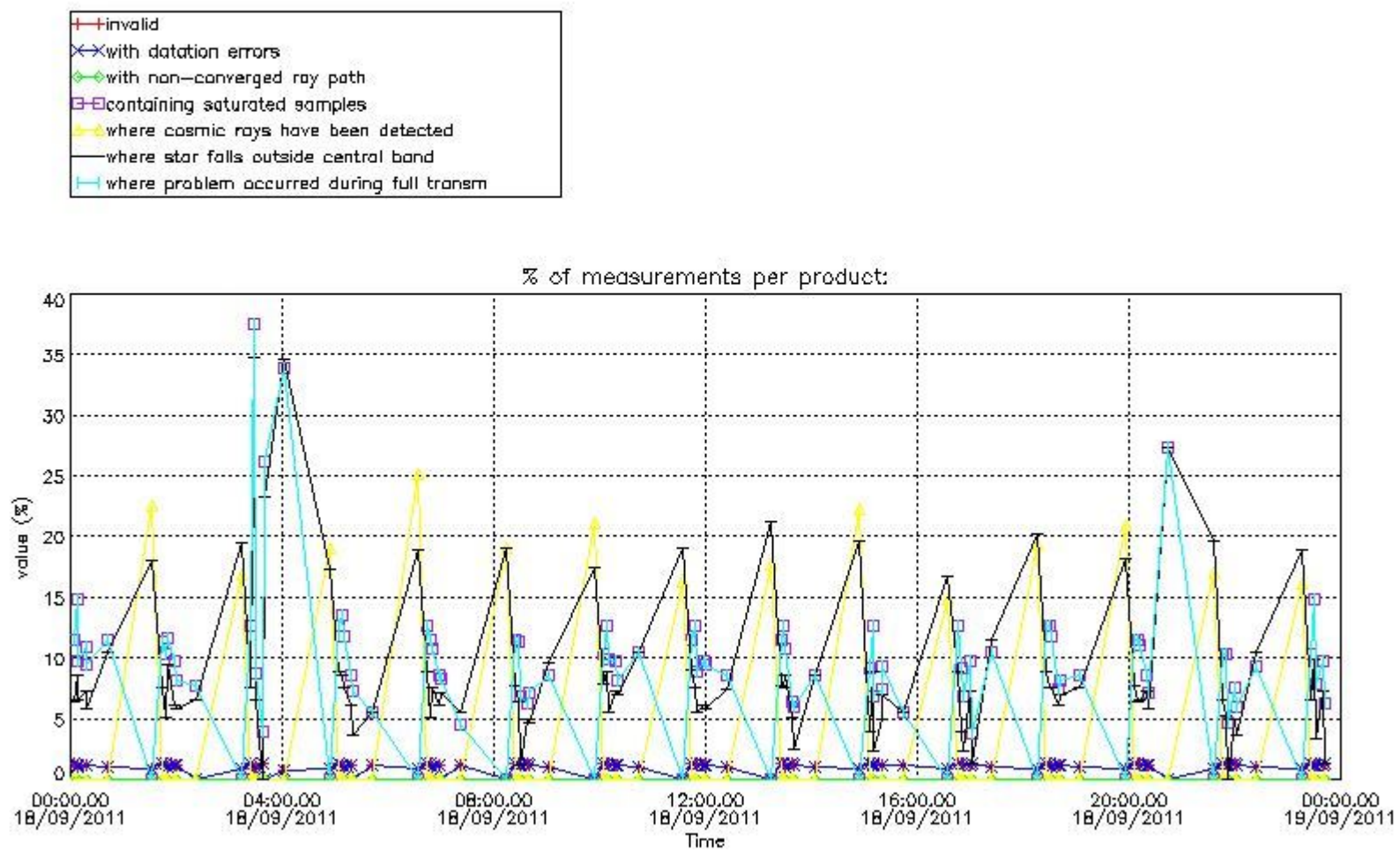
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



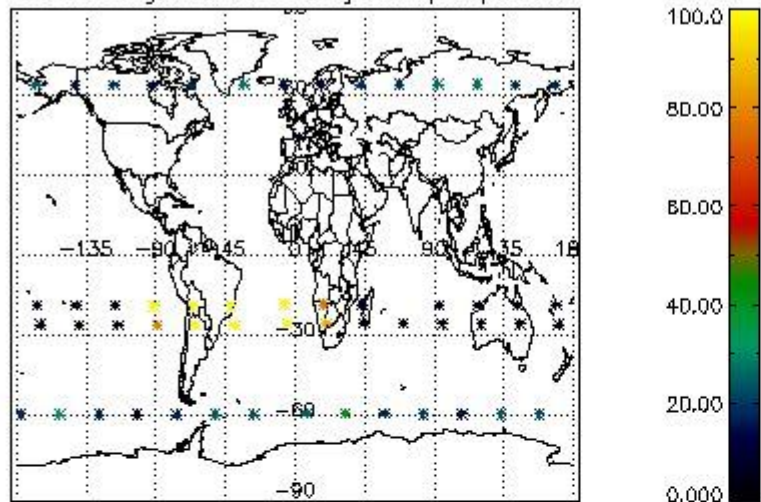
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



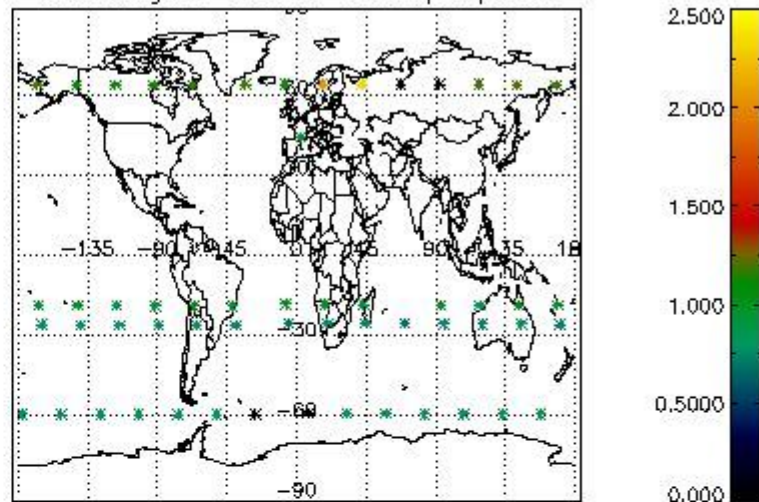
4.2 Plot quality information per product coming from level 1b processing (world map)

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

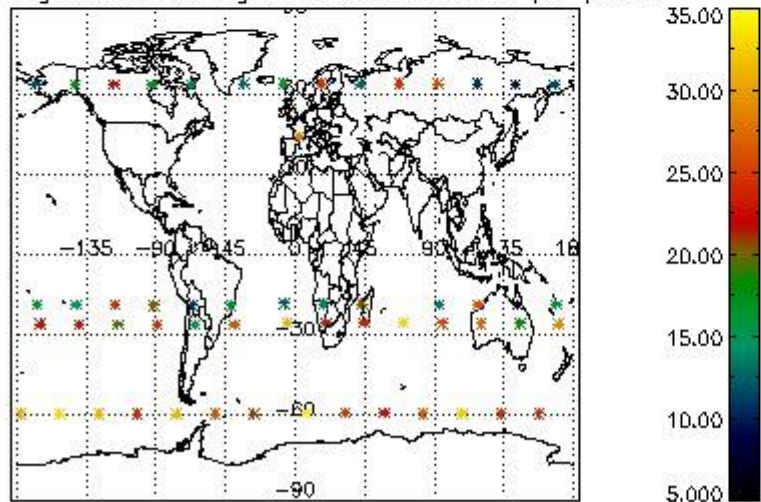
Percentage of cosmic ray hits per profile



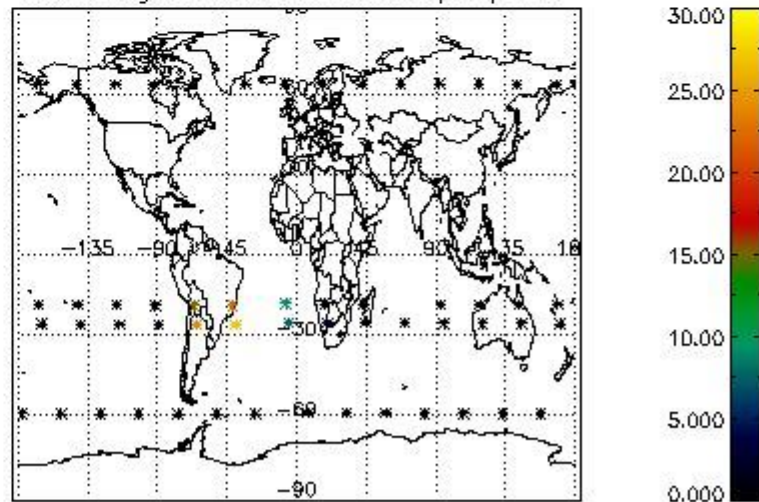
Percentage of datation errors per profile



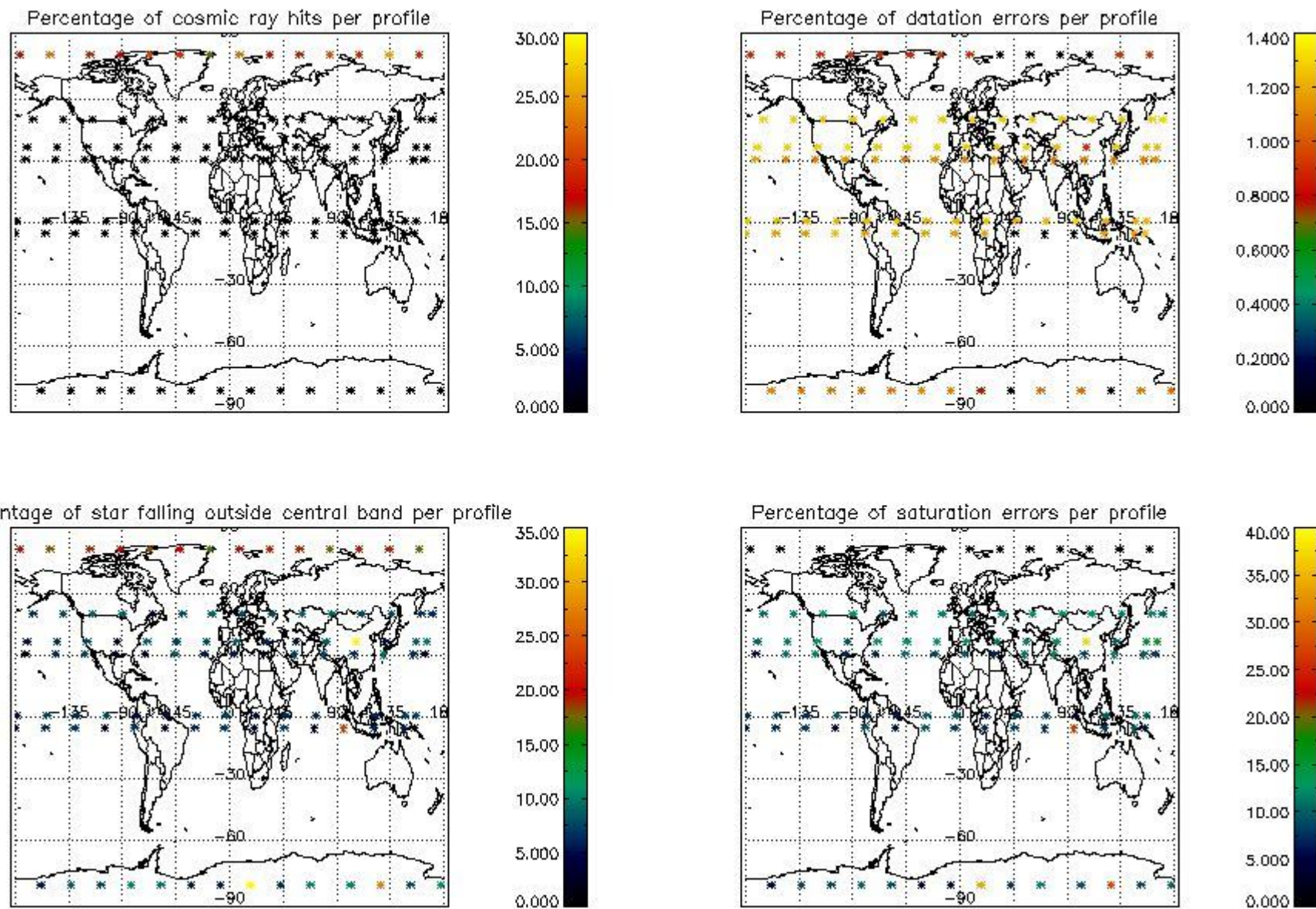
Percentage of star falling outside central band per profile



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

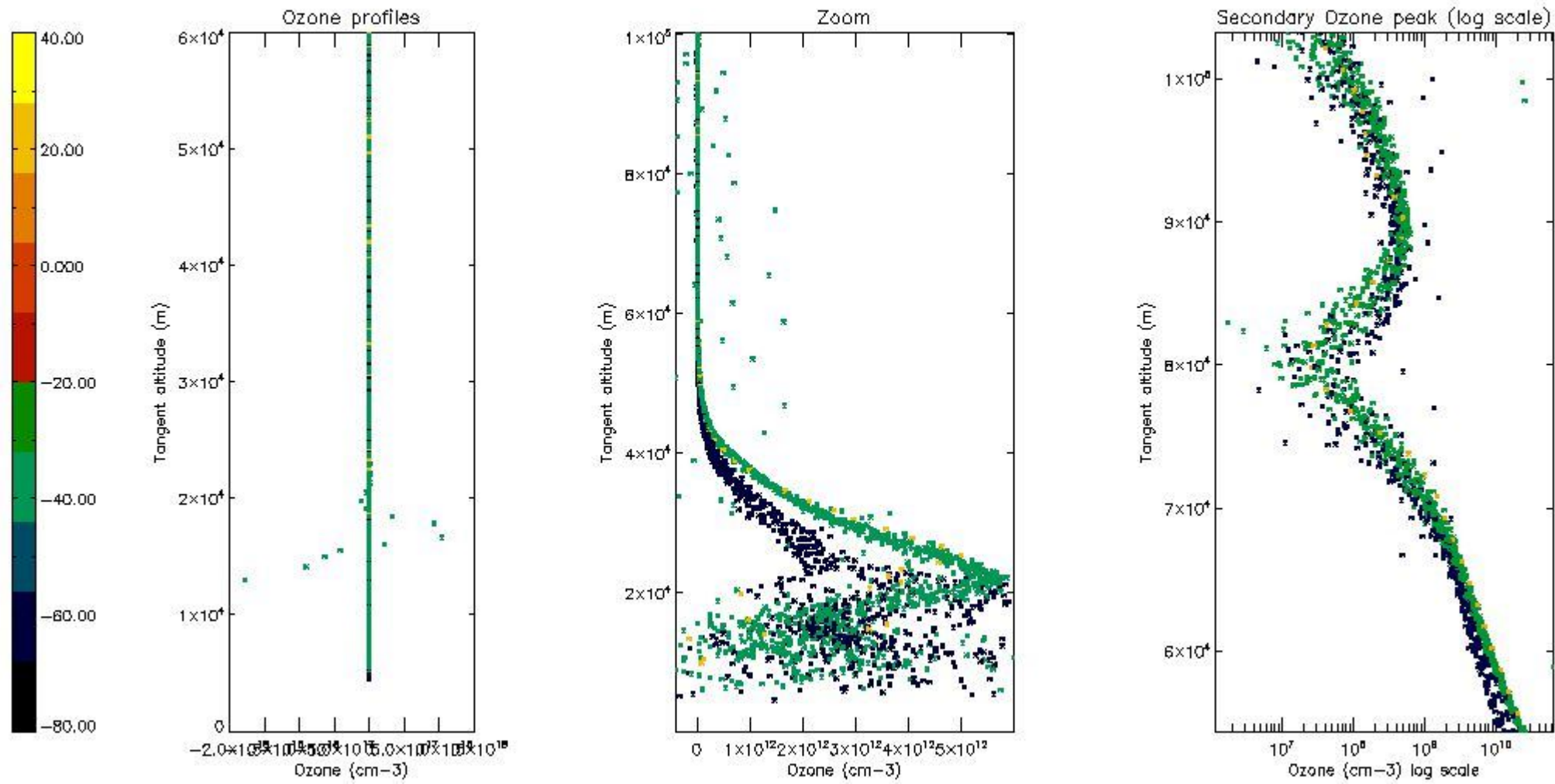
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	33
STD < 20	22

STD < 10	19
STD < 5	16

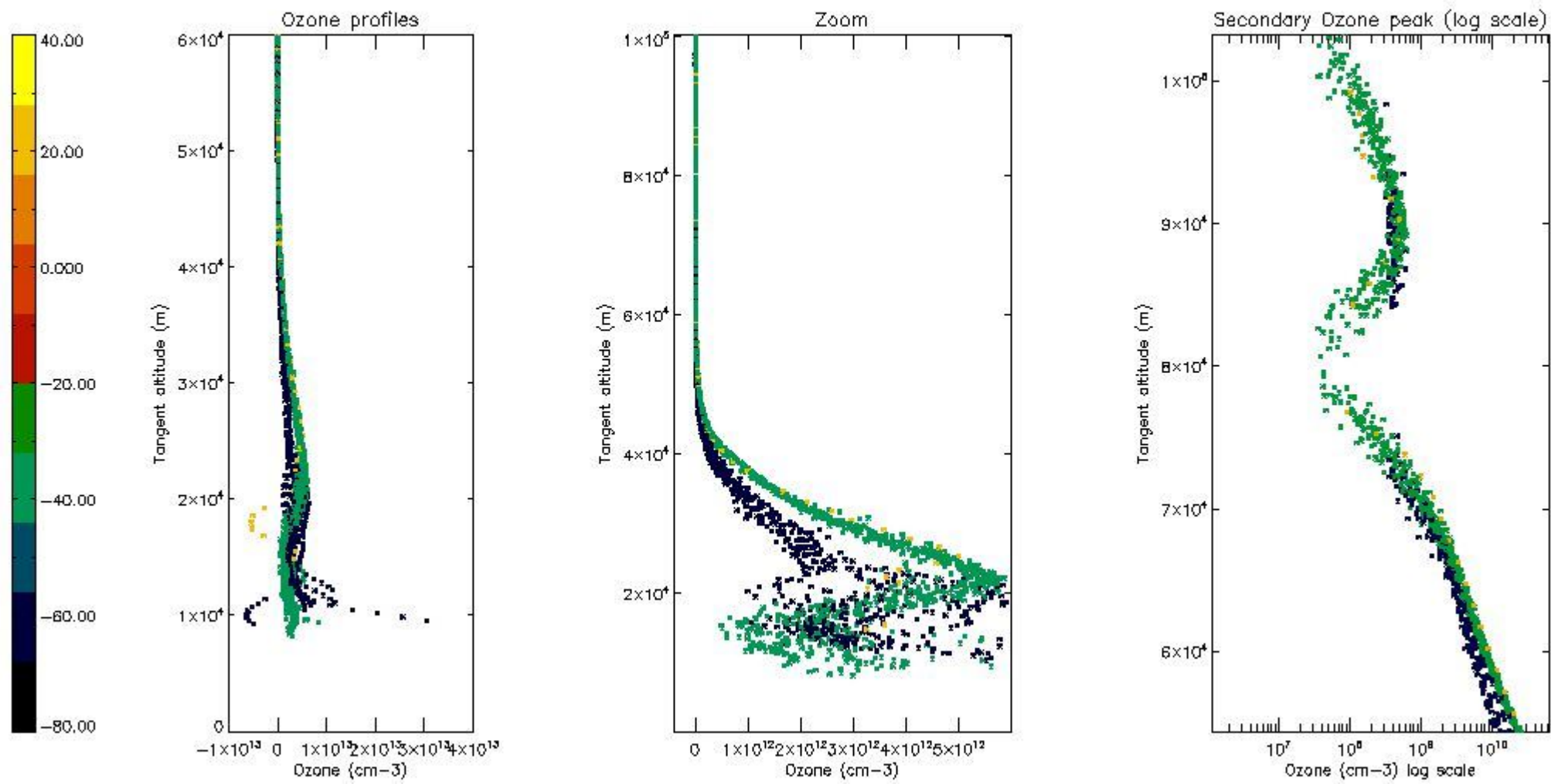
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



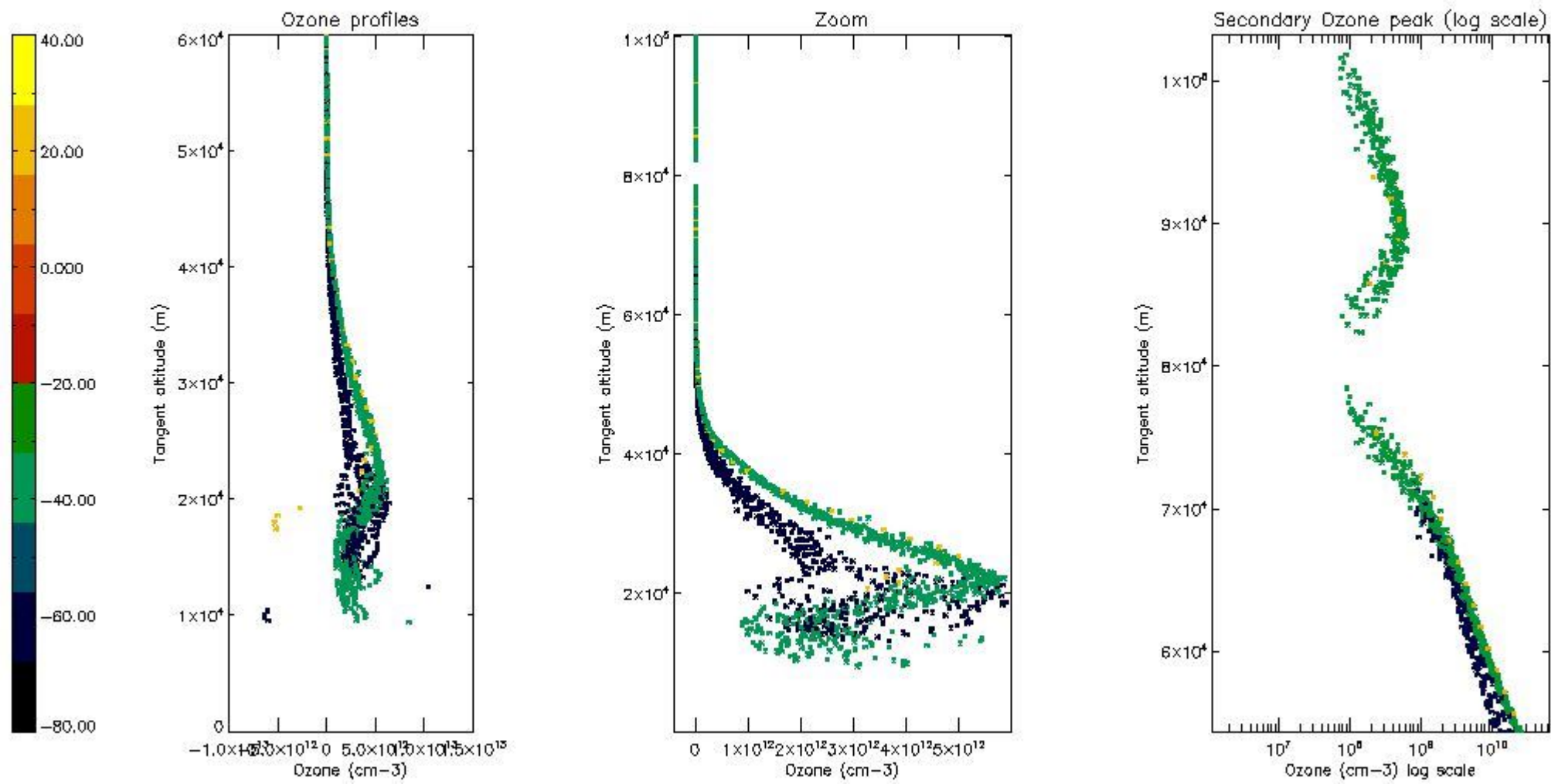
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



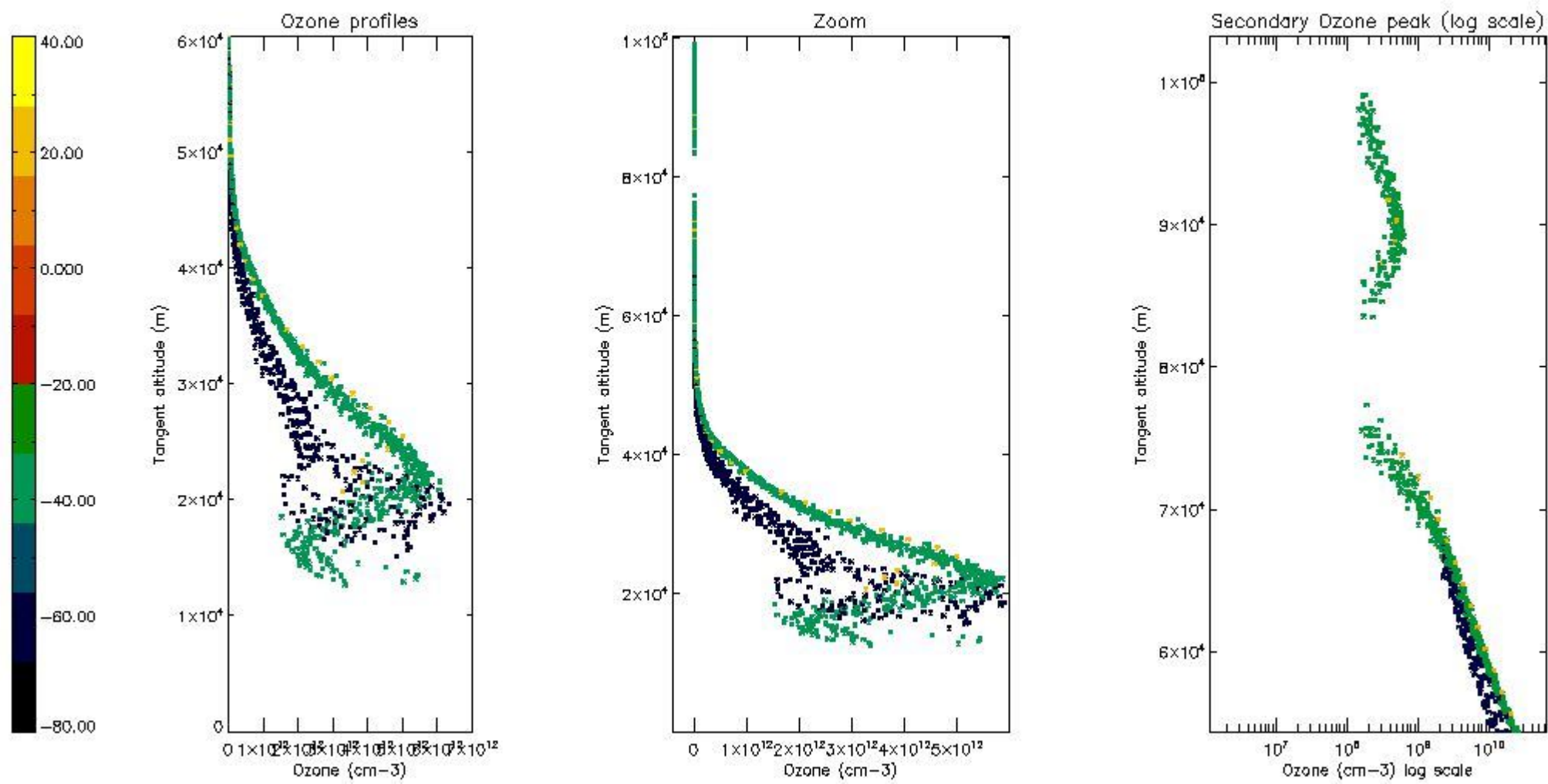
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



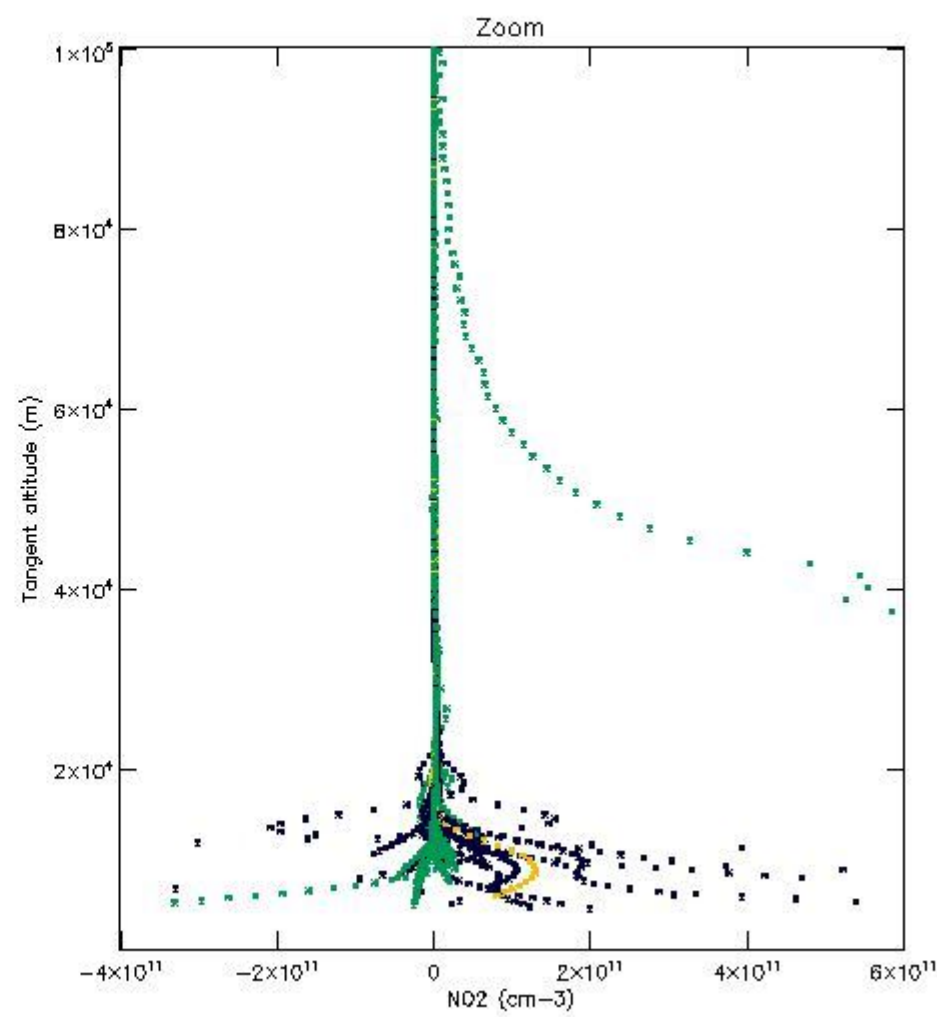
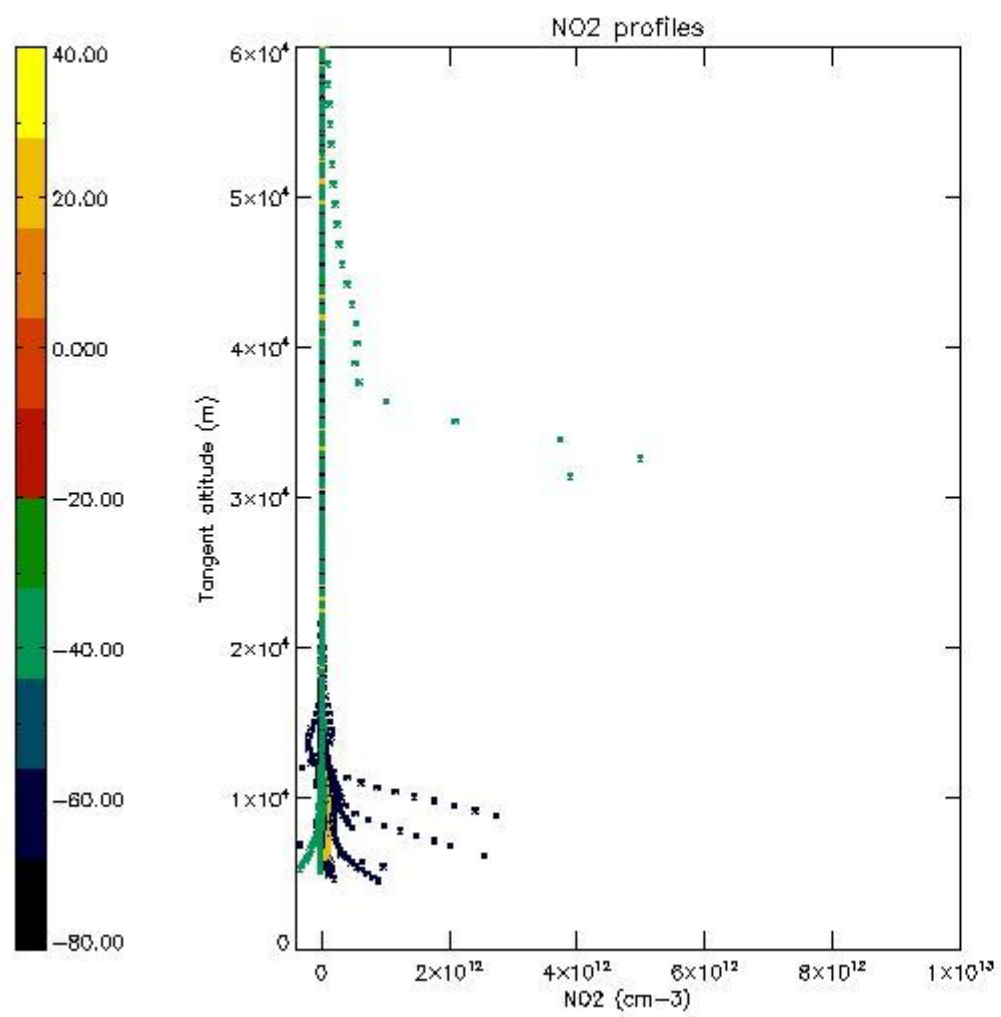
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



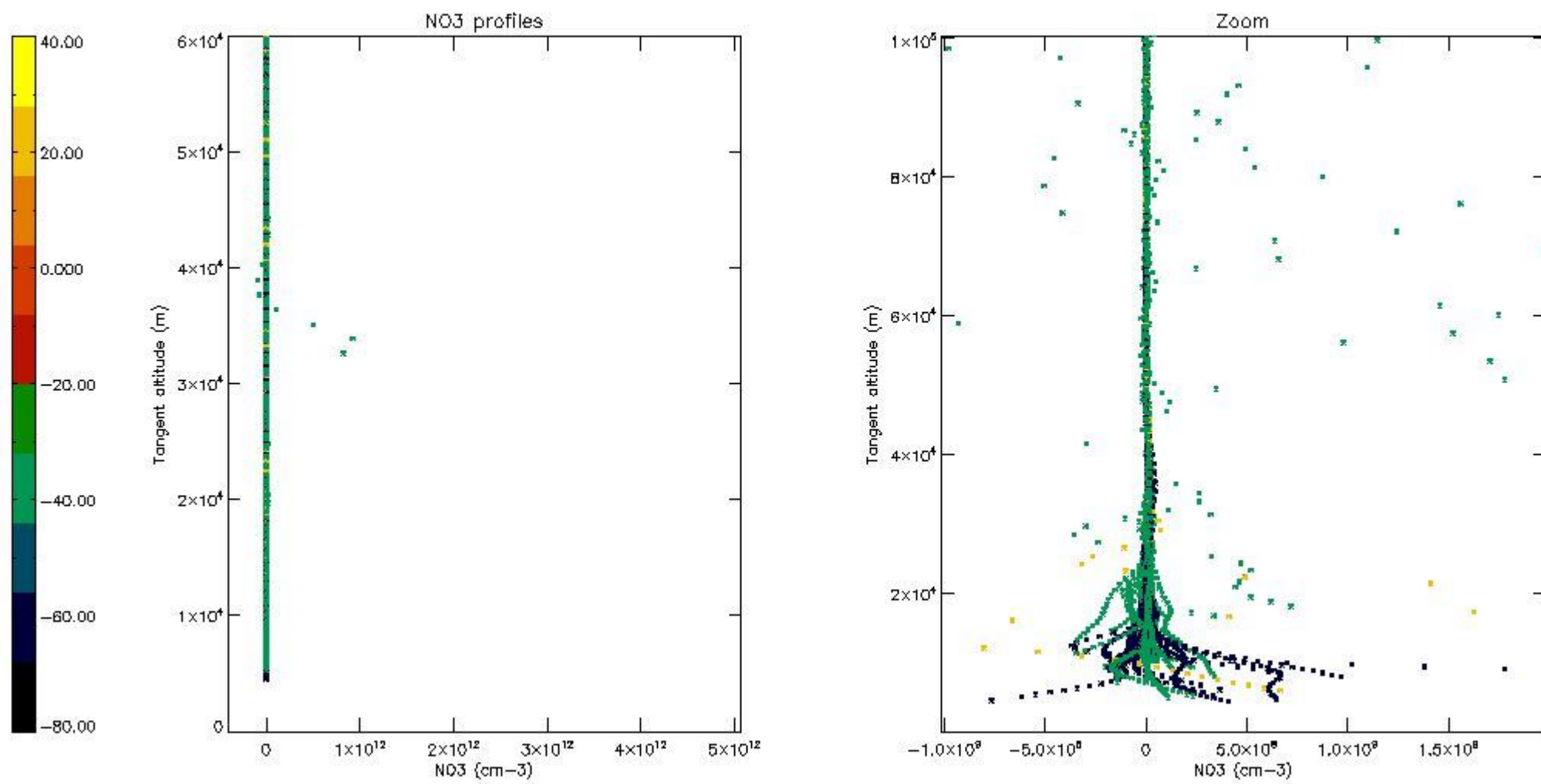
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



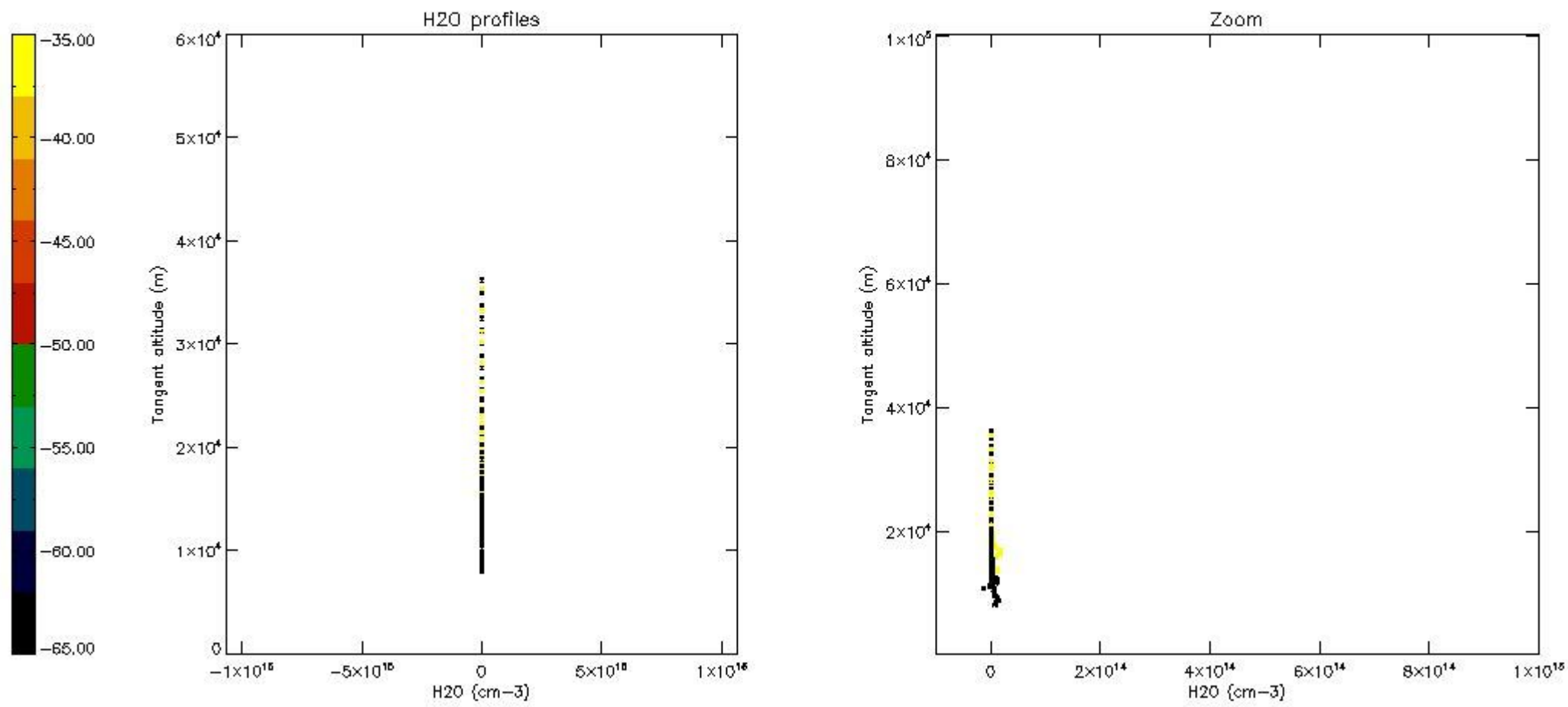
5.7 Plot NO3 profiles for all STD (dark without errors)

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-SEP-2011 00:03:13
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	18-SEP-2011 00:03:13
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	18-SEP-2011 00:03:13

GOMOS Level 2 Daily Report

SUMMARY

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[3. Level 2 Quality information per product](#)

[3.1 Plot of level 2 quality information per product \(time dependant\)](#)

[3.2 Plot of level 2 quality information per product \(world map\)](#)

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

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

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

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

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

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

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

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

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

[5.2 Plot ozone profiles for all STD \(dark without errors\)](#)

[5.3 Plot ozone profiles where STD < 20% \(dark without errors\)](#)

[5.4. Plot ozone profiles where STD < 10% \(dark without errors\)](#)

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

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

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

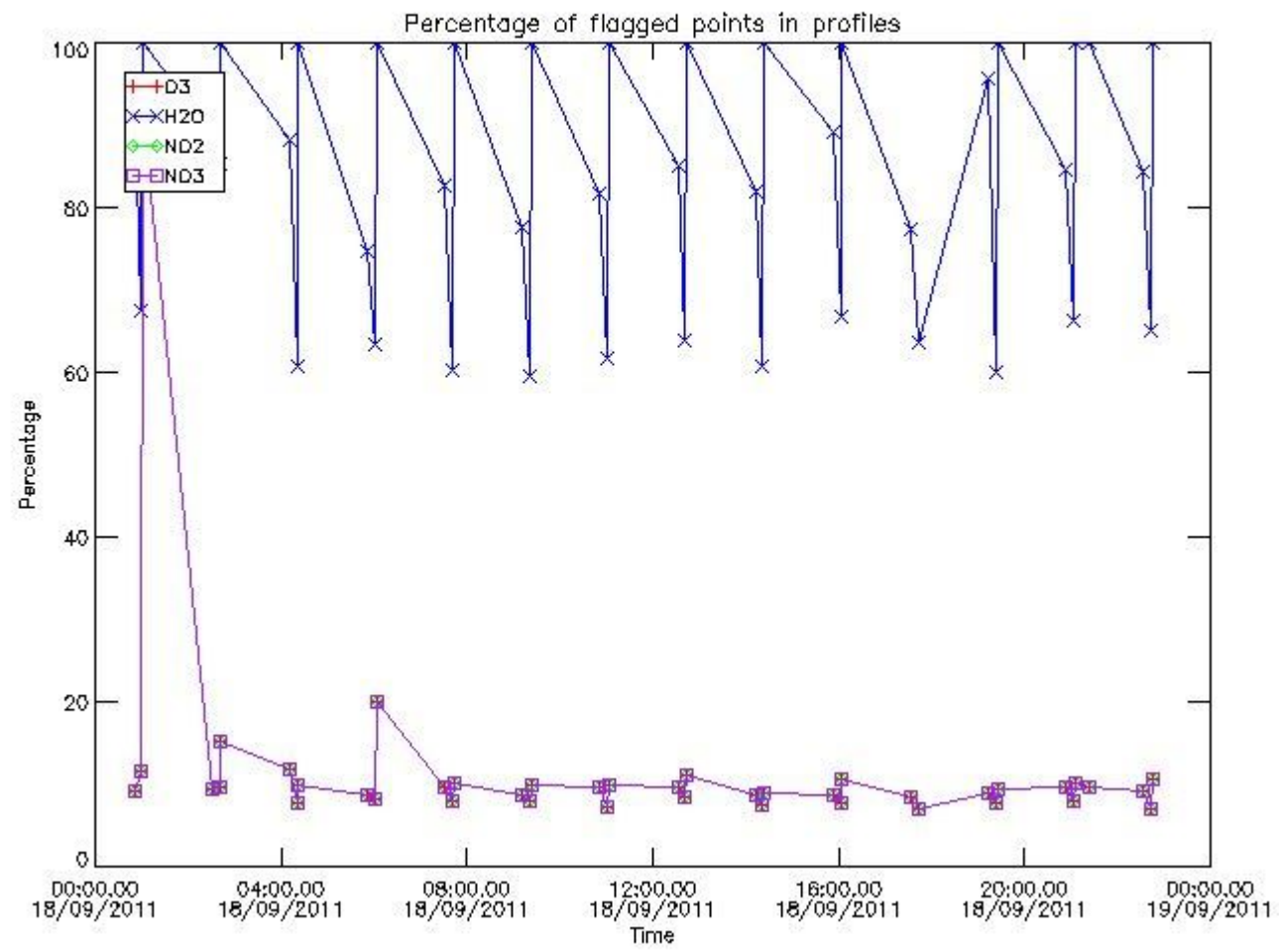
[5.8 Plot H2O profiles \(only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors\) for all STD](#)

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

3. Quality information per product

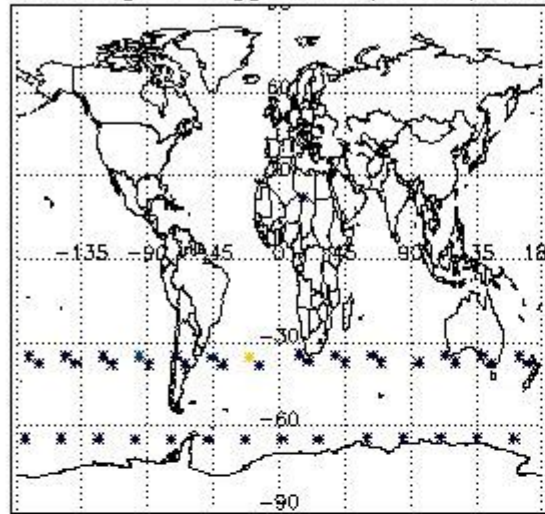
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

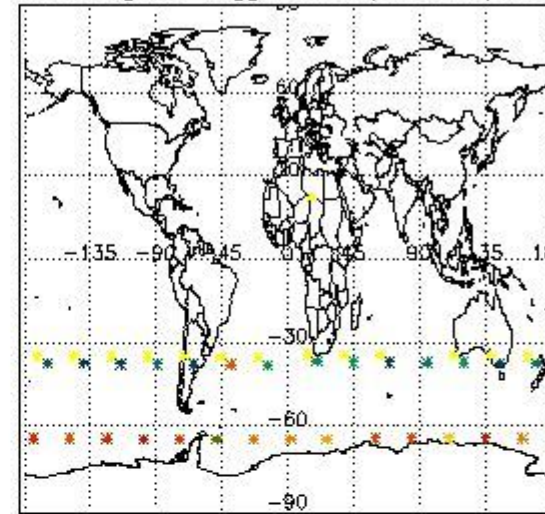


3.2 Plot quality information per product (world map)

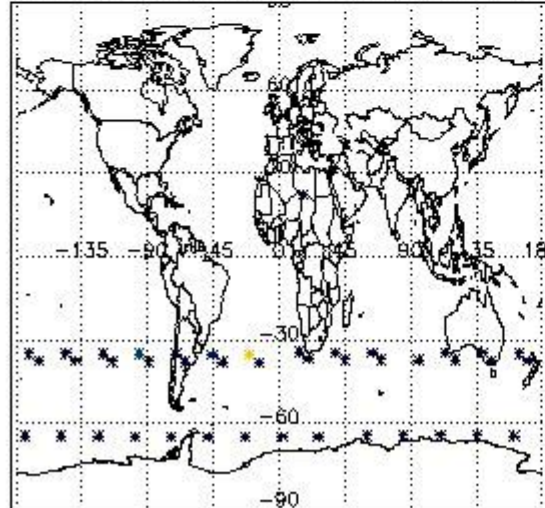
Percentage of flagged data per O3 profile



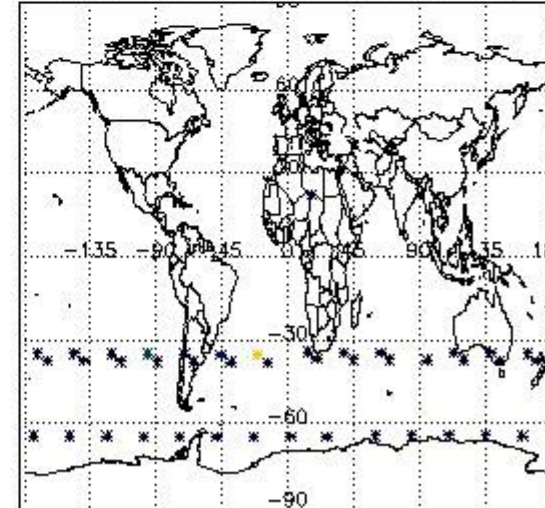
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

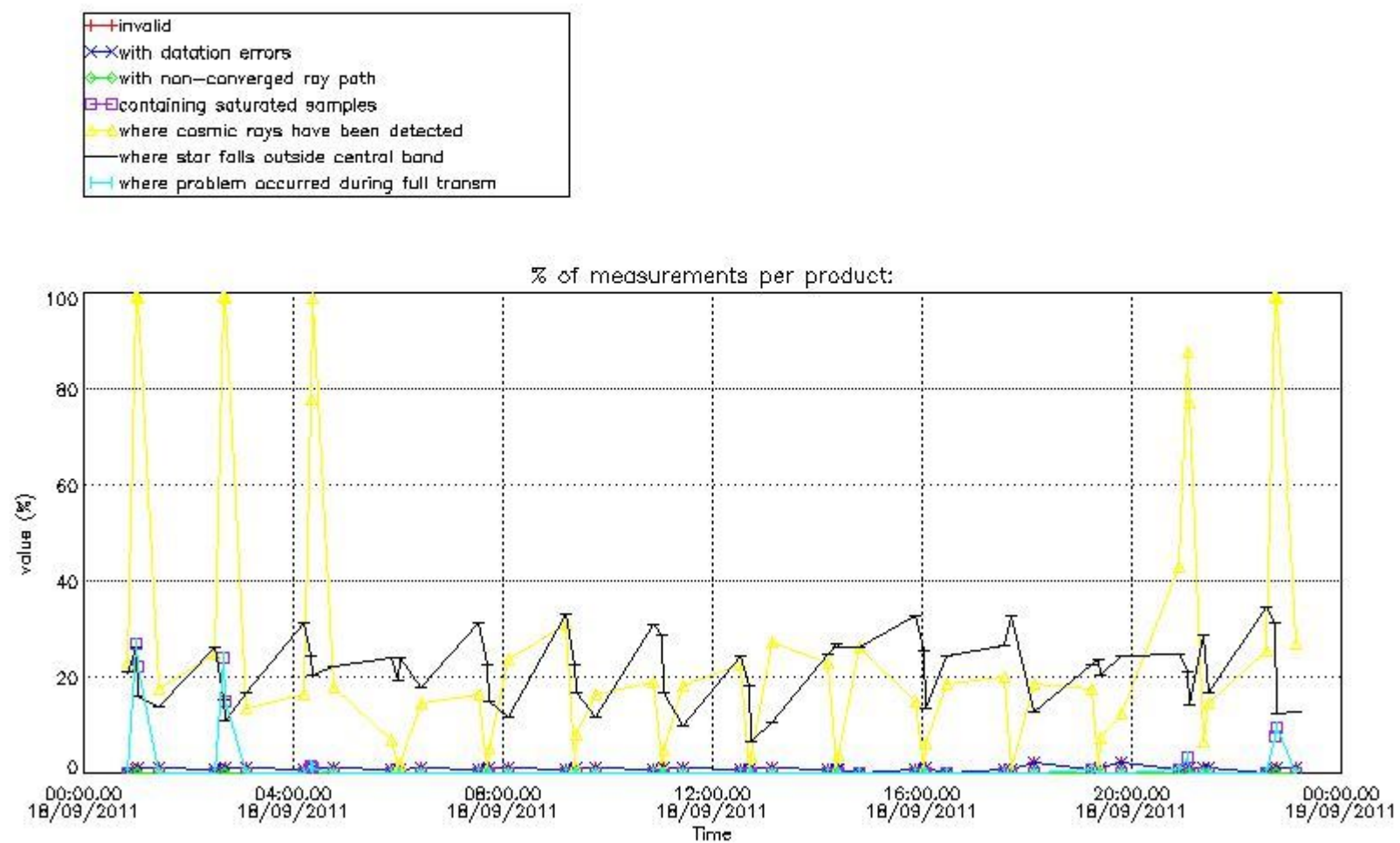


4. Level 1 quality information per product

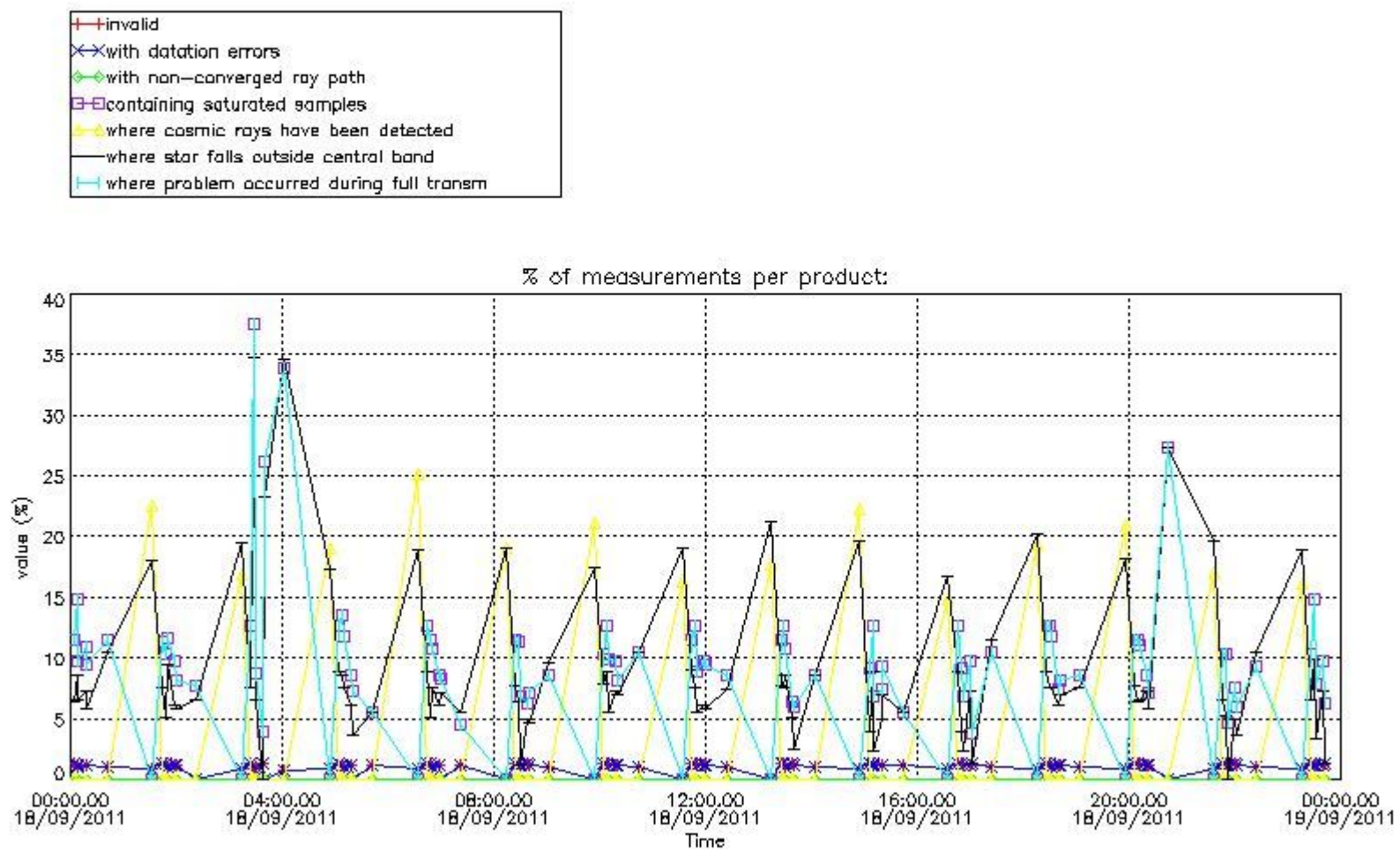
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



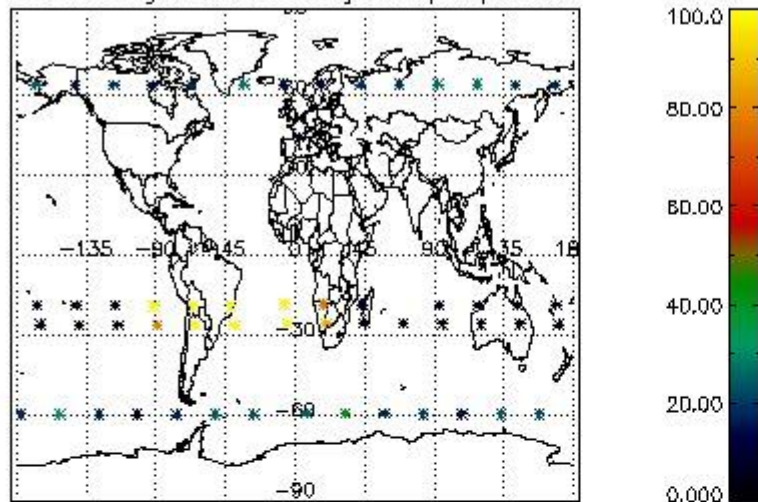
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



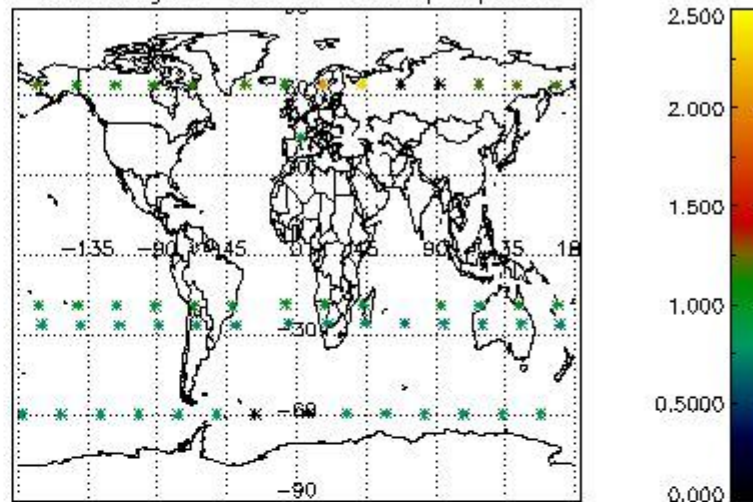
4.2 Plot quality information per product coming from level 1b processing (world map)

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

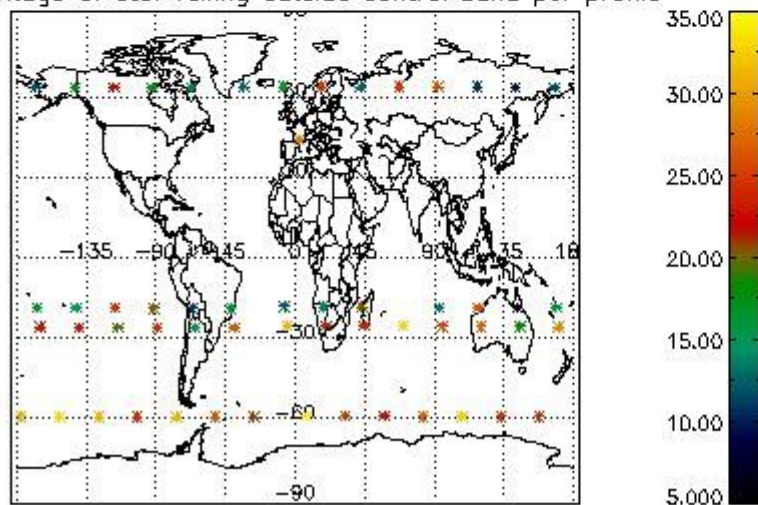
Percentage of cosmic ray hits per profile



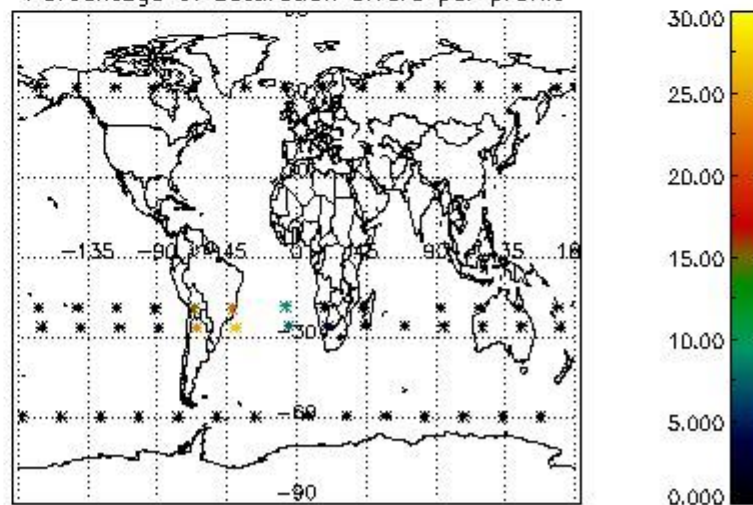
Percentage of datation errors per profile



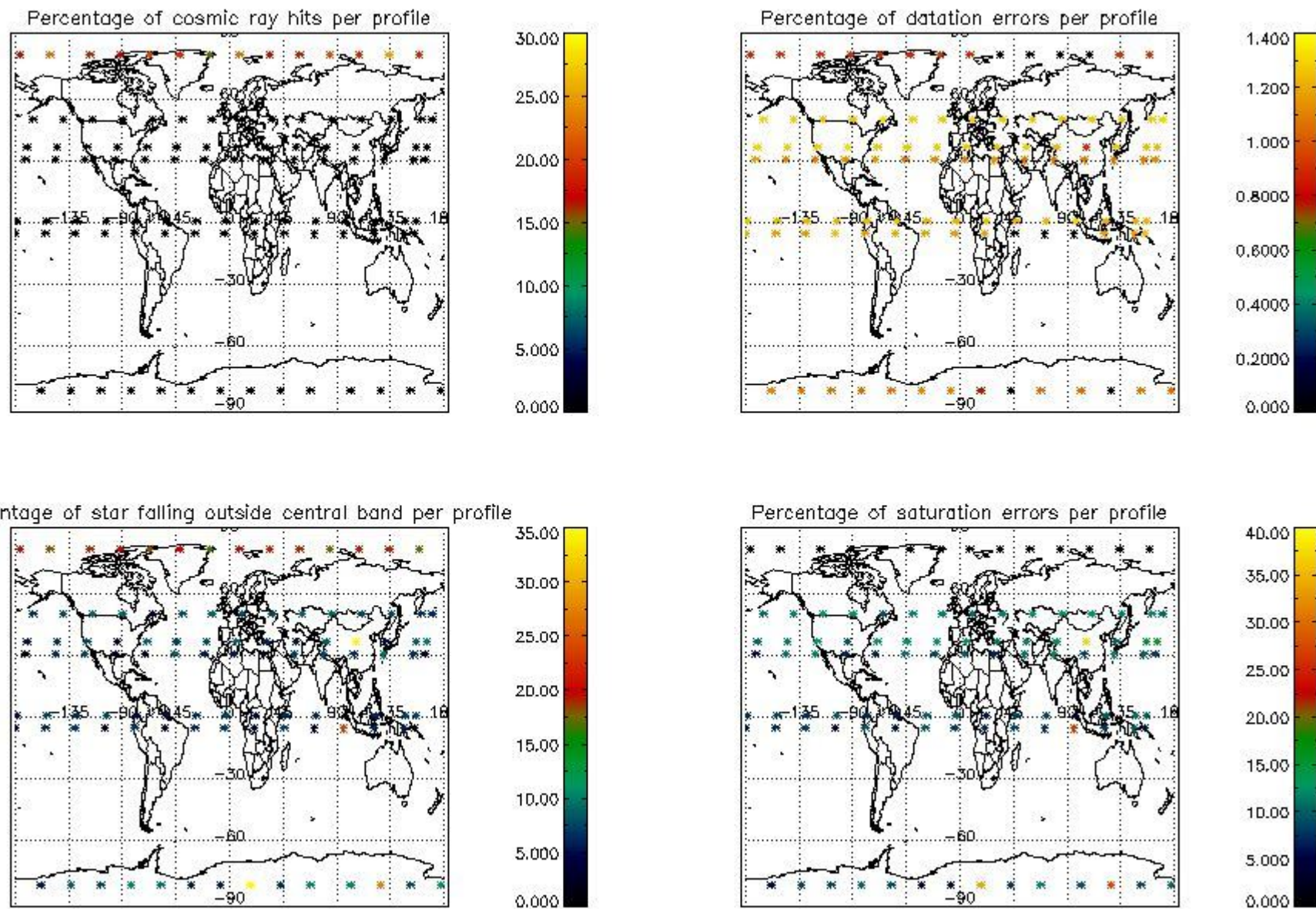
Percentage of star falling outside central band per profile



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

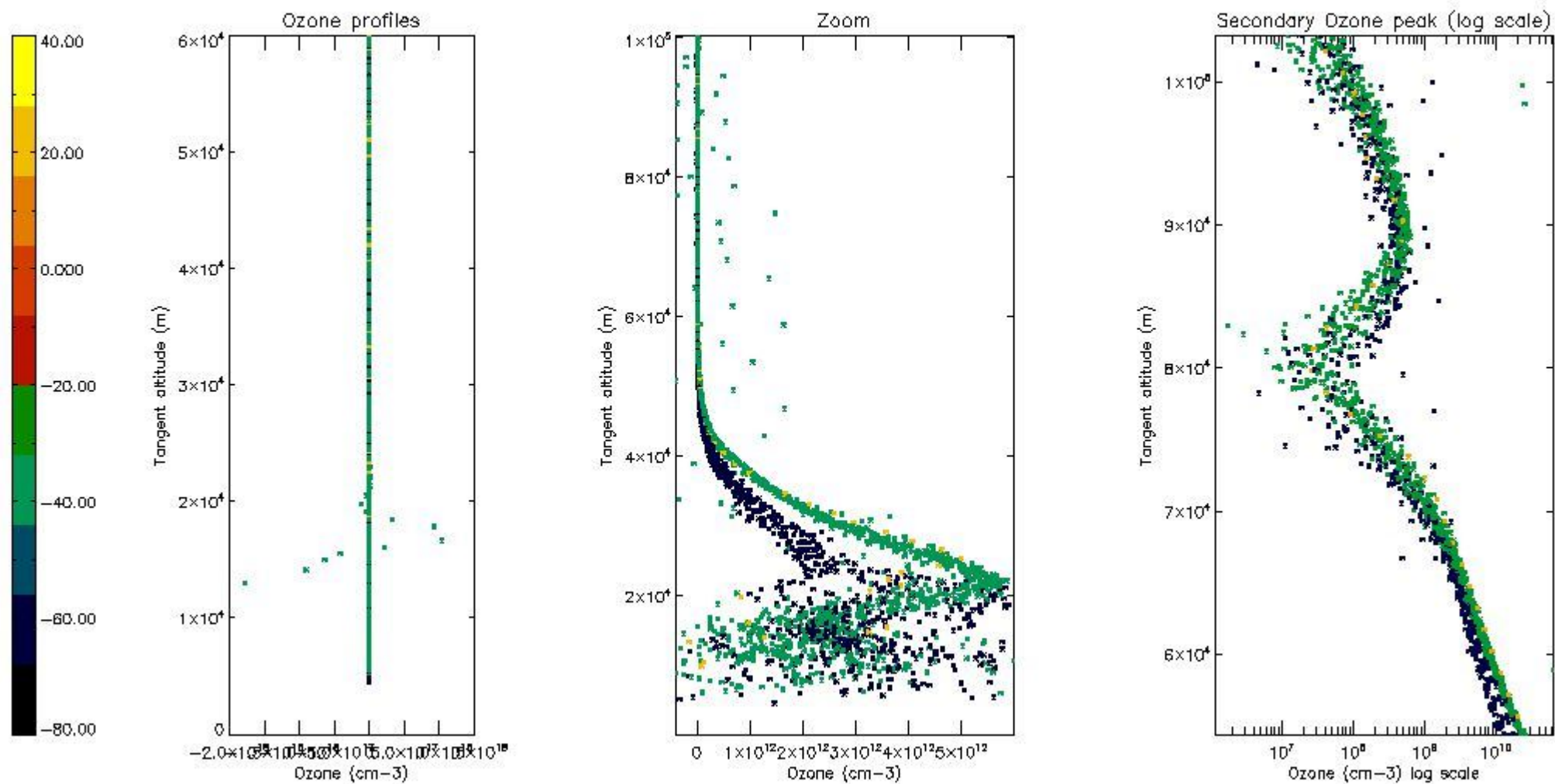
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	33
STD < 20	22

STD < 10	19
STD < 5	16

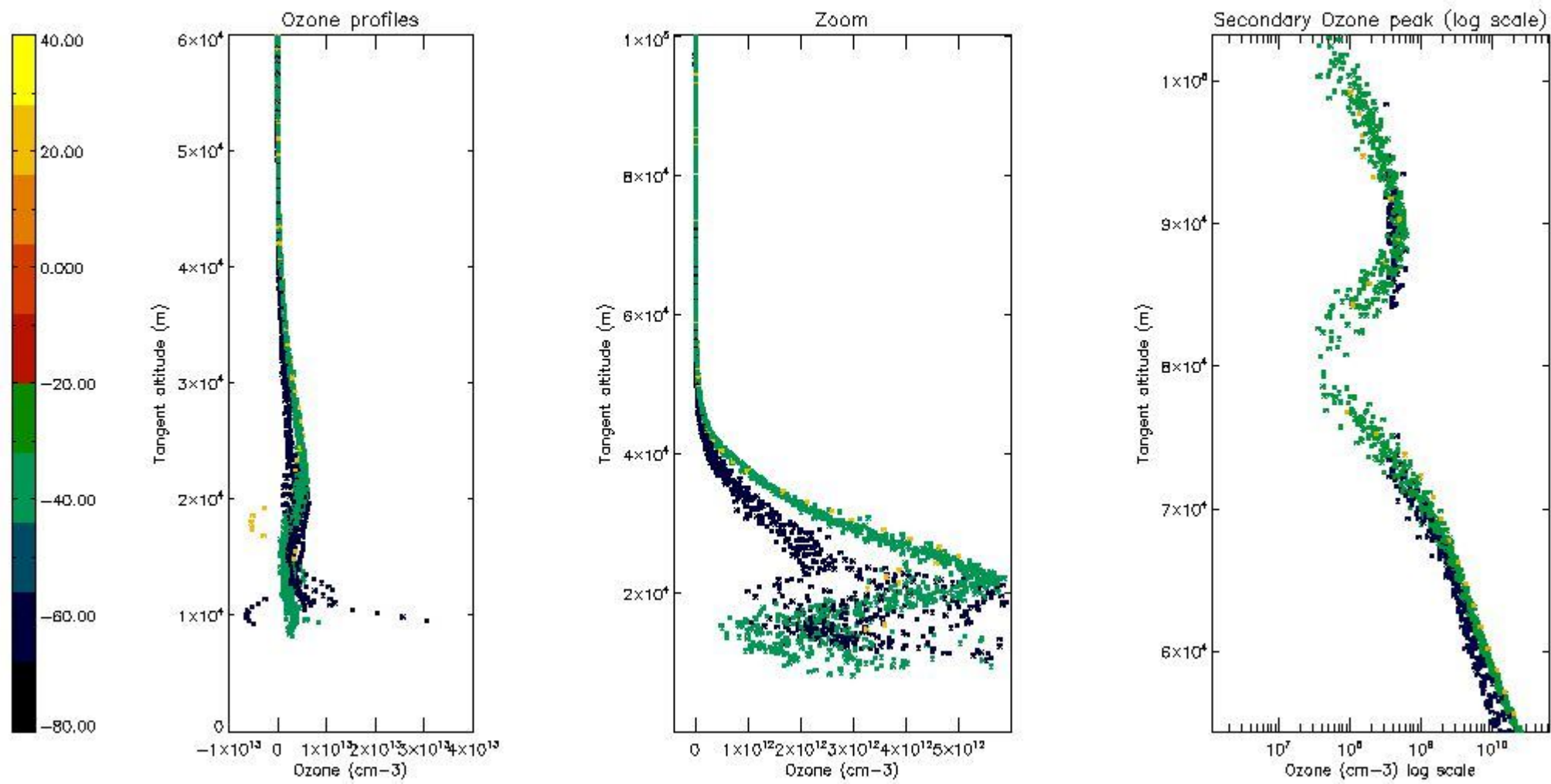
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



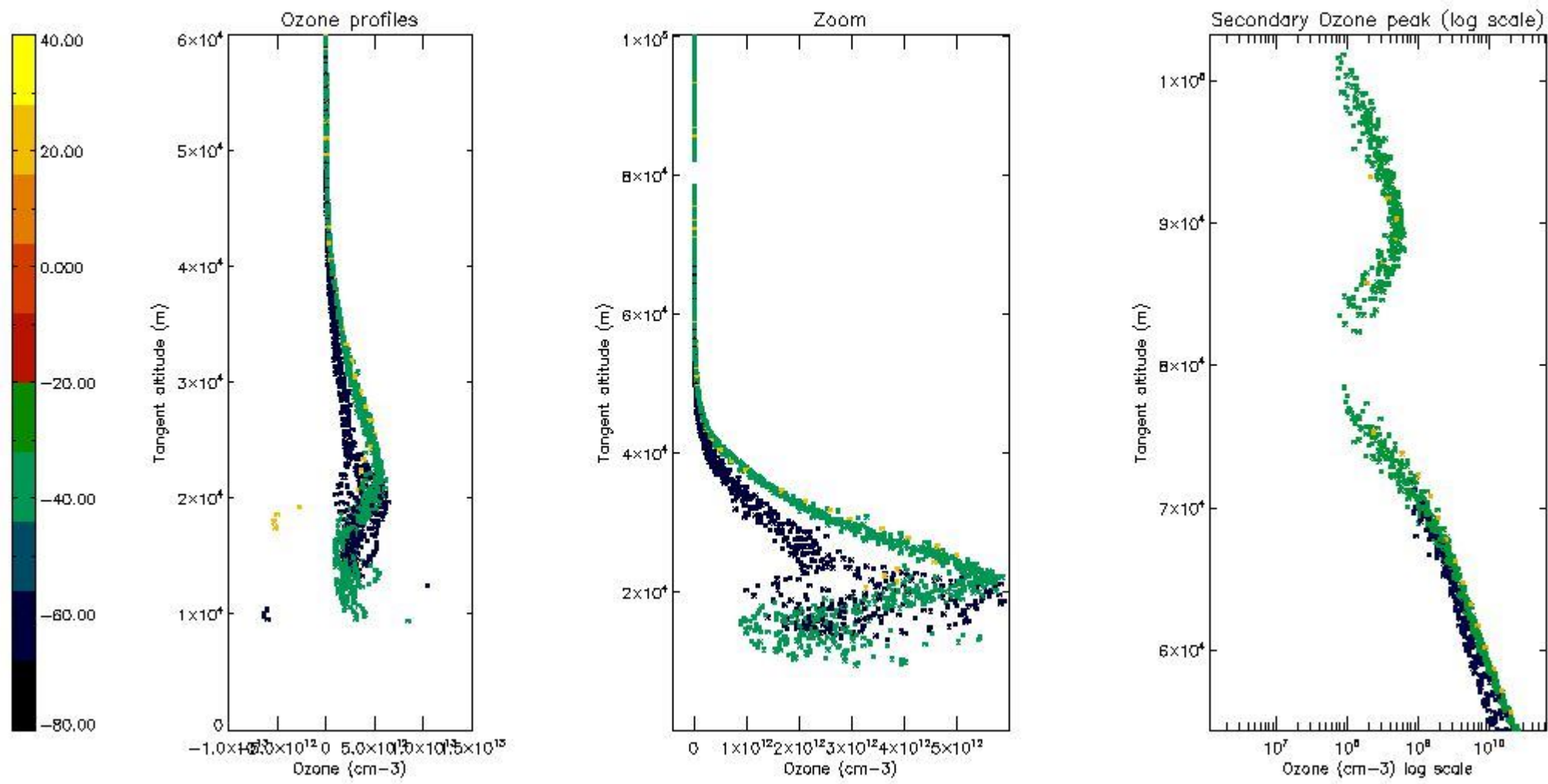
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



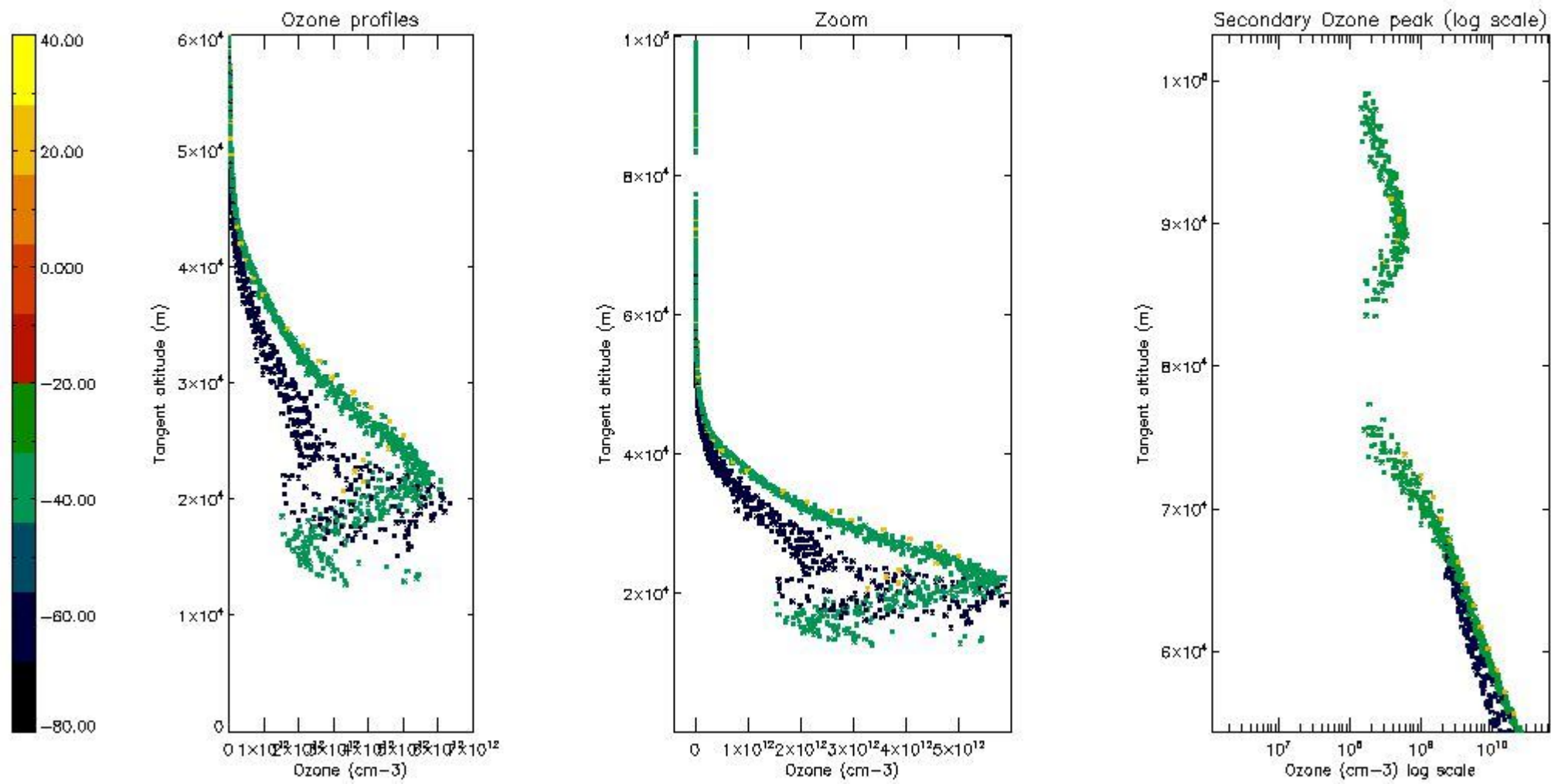
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



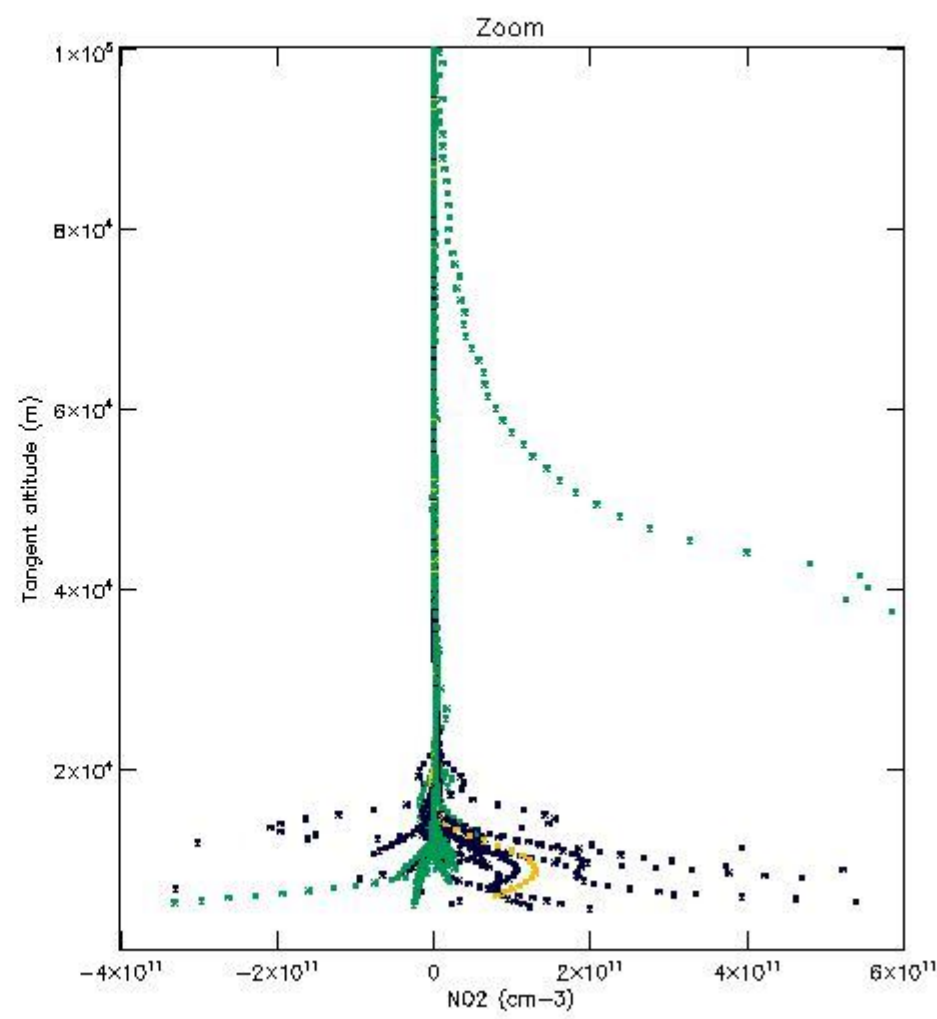
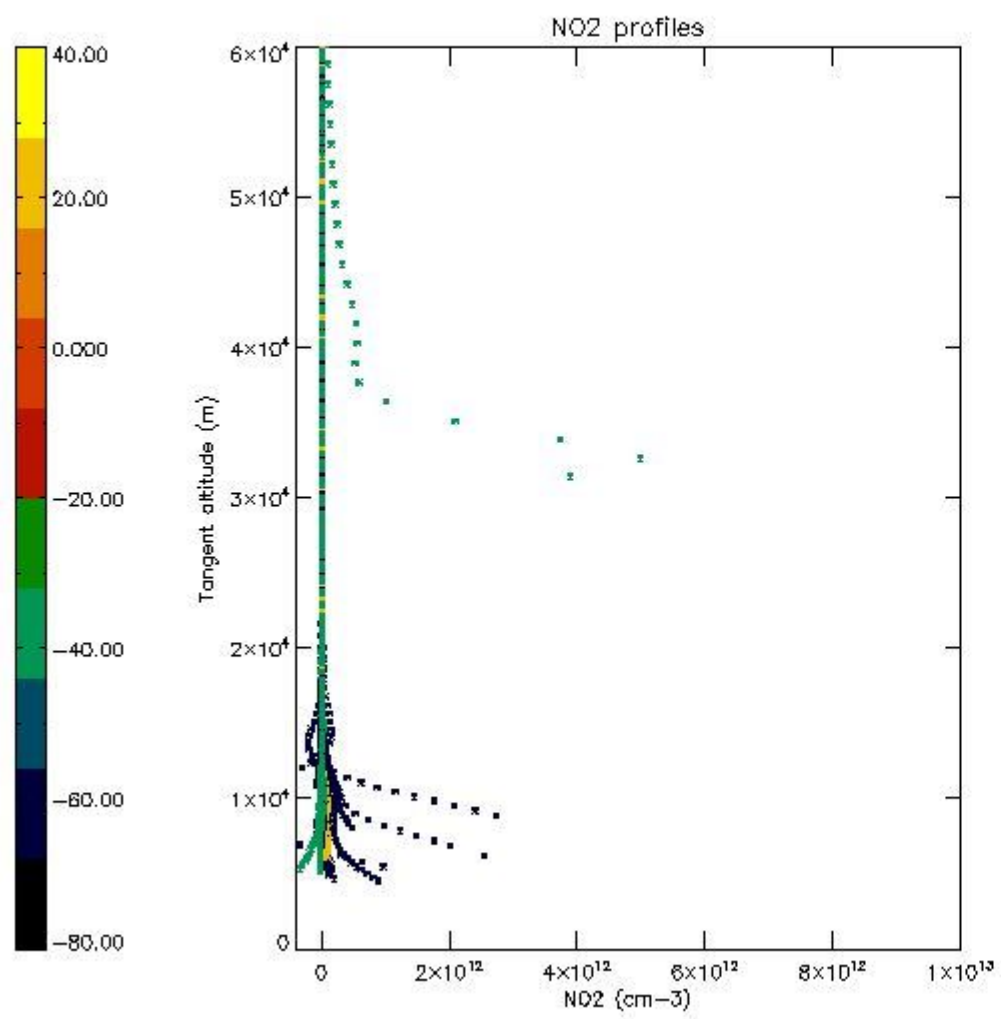
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



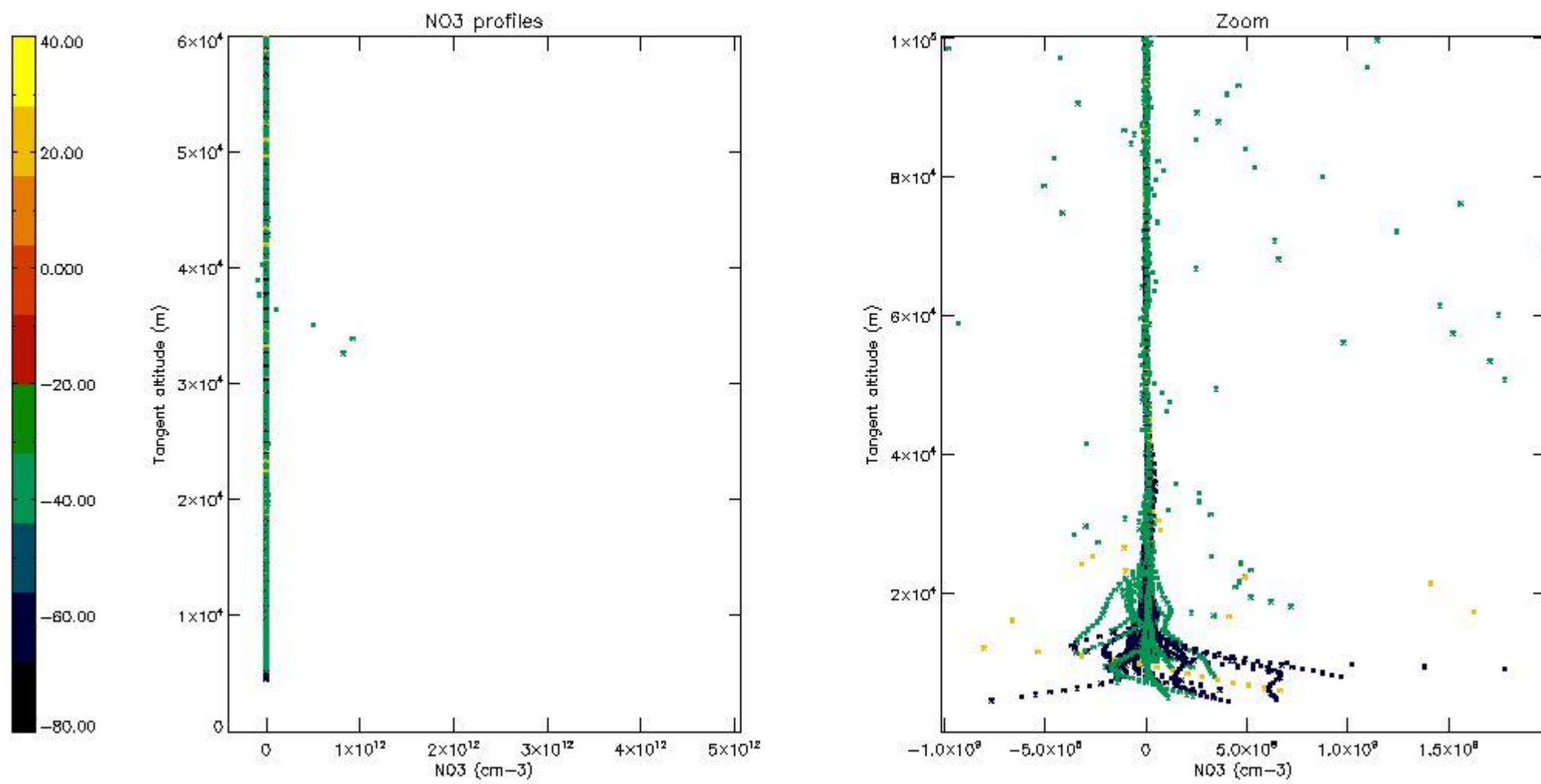
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



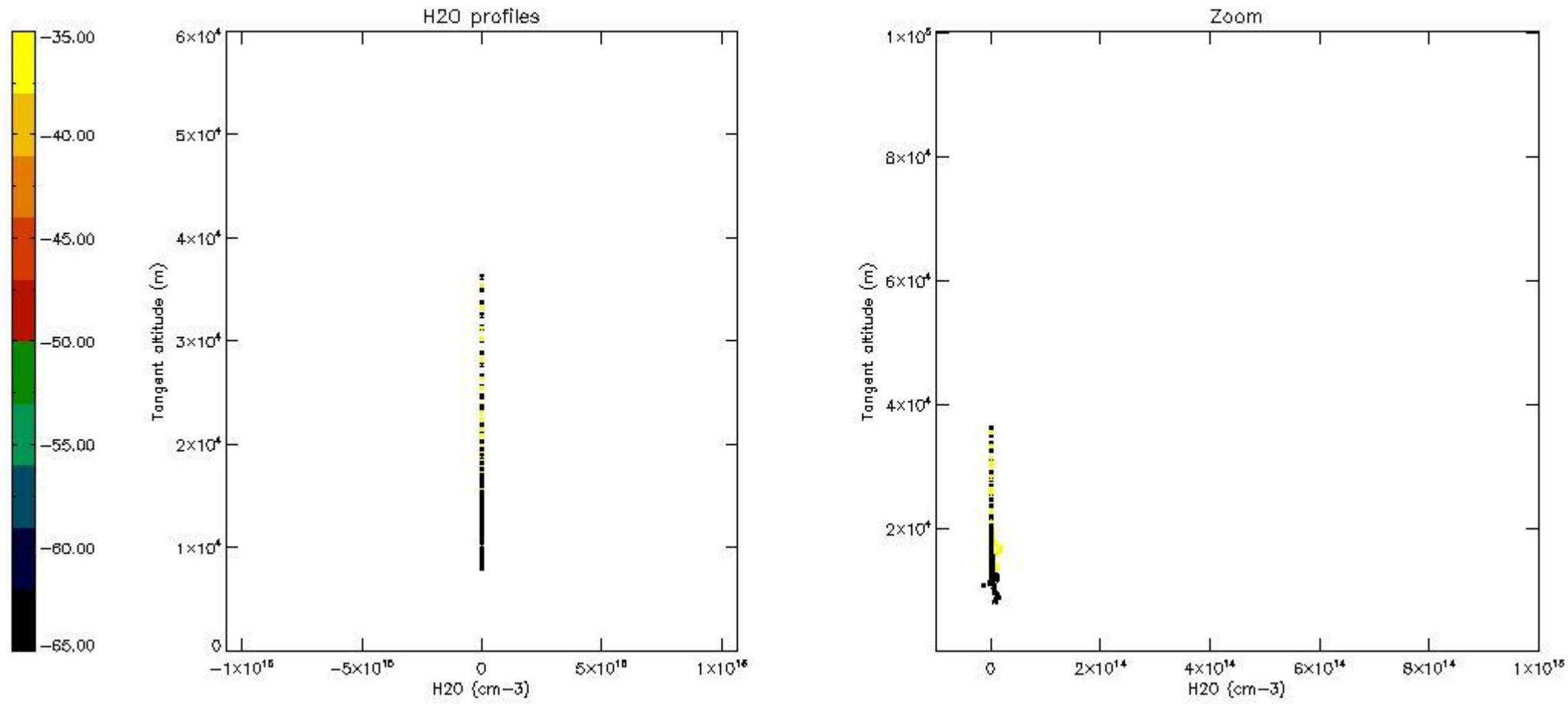
5.7 Plot NO₃ profiles for all STD (dark without errors)

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)

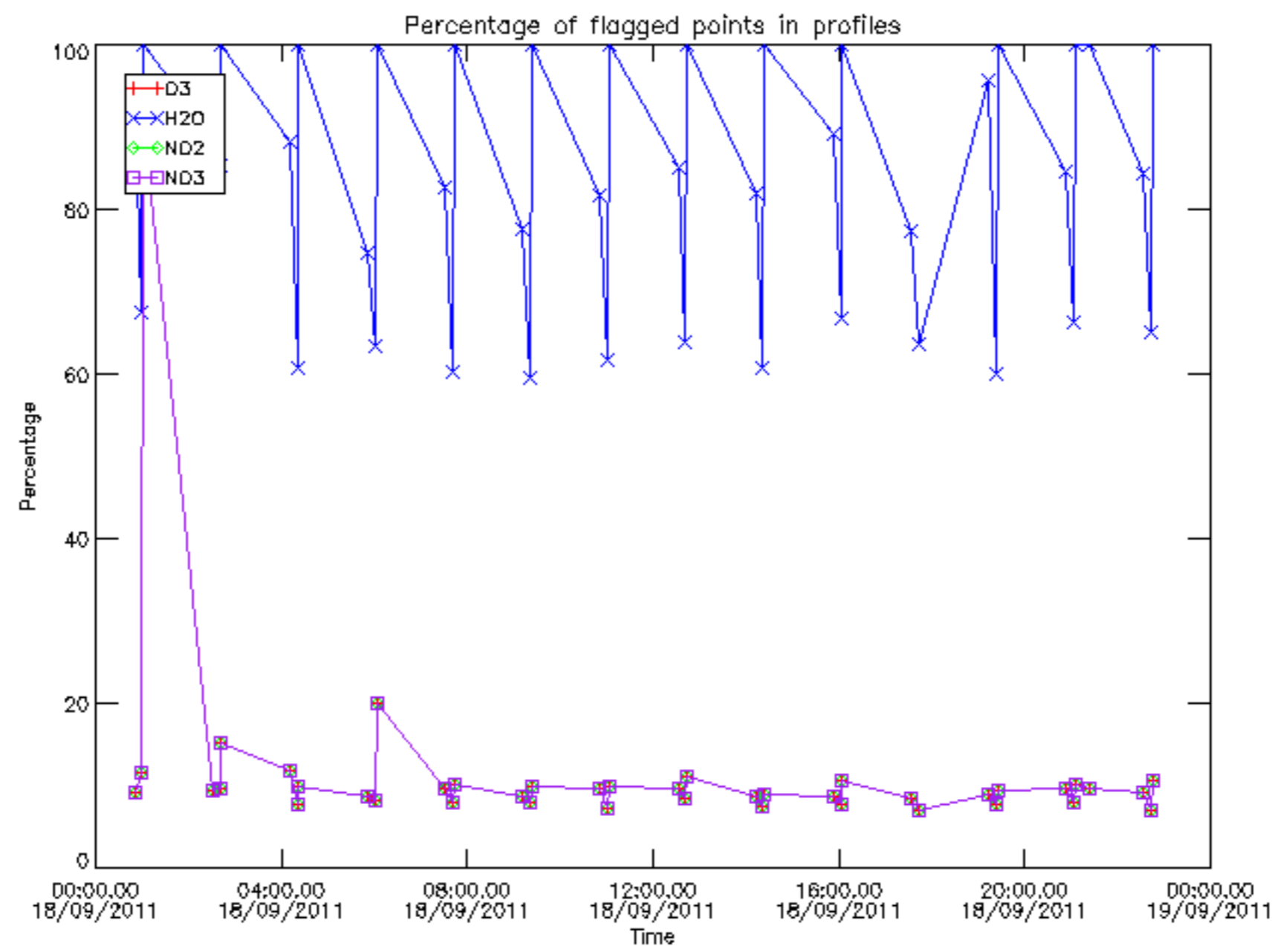
The colorbar represents the latitude.



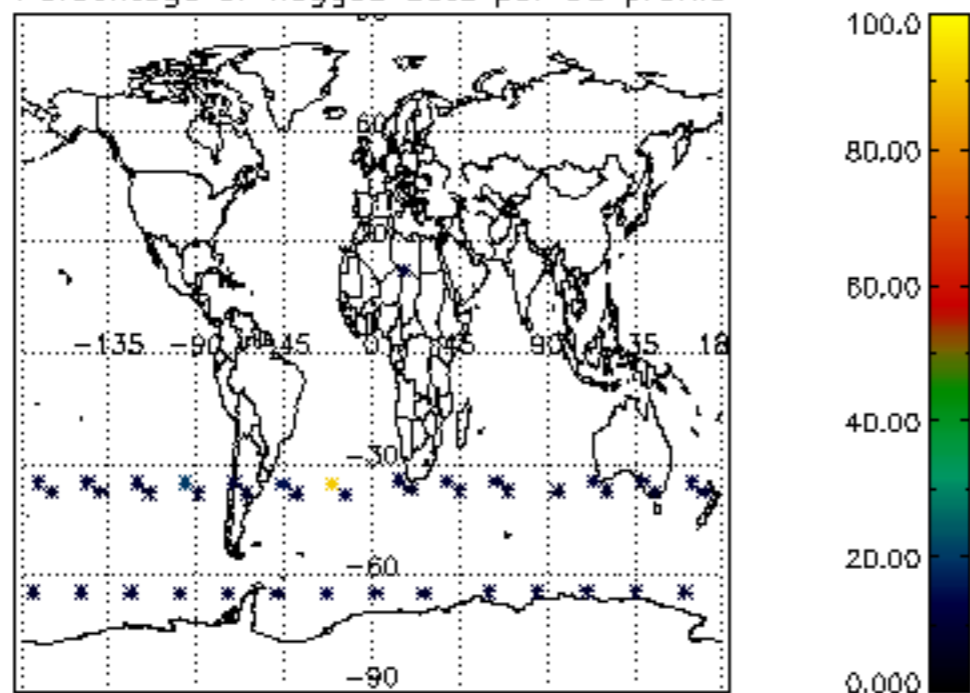
6. Auxiliary Data Files used for the production reported in section 2

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.

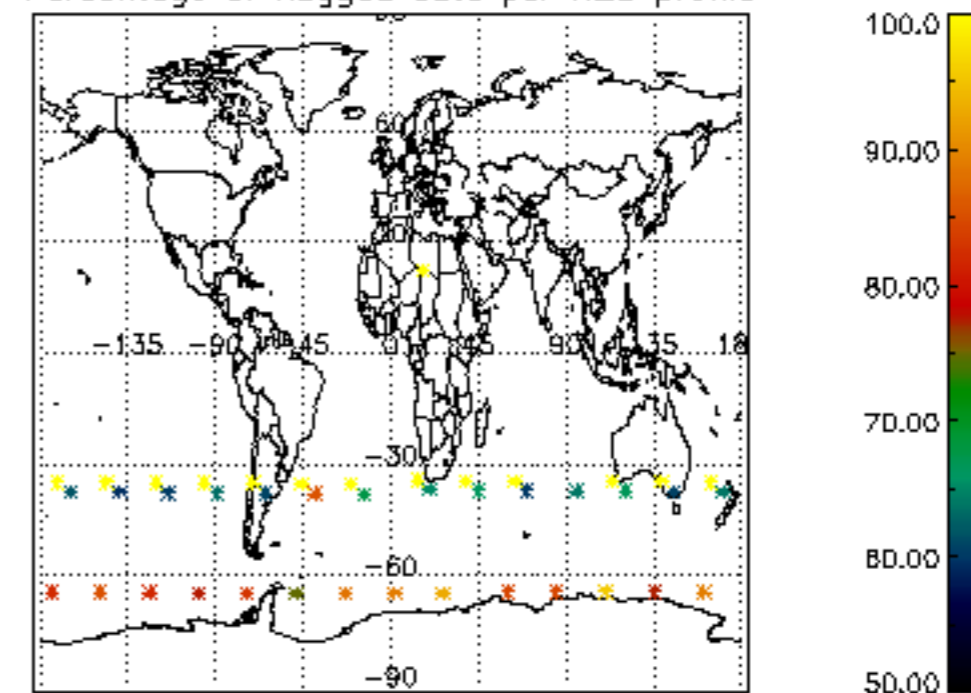
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	18-SEP-2011 00:03:13
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	18-SEP-2011 00:03:13
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	18-SEP-2011 00:03:13



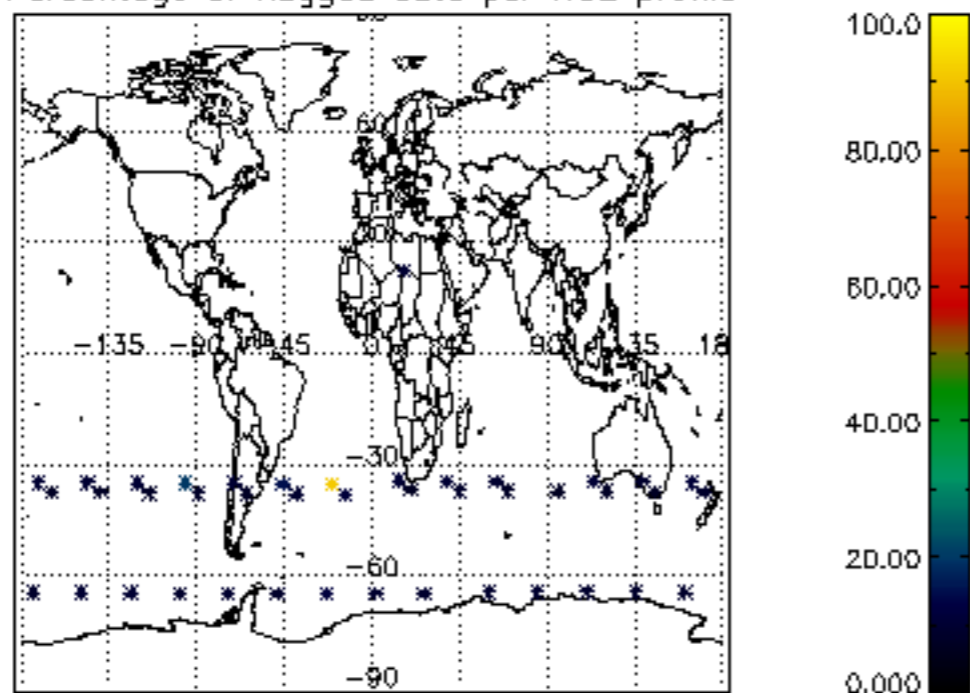
Percentage of flagged data per D3 profile



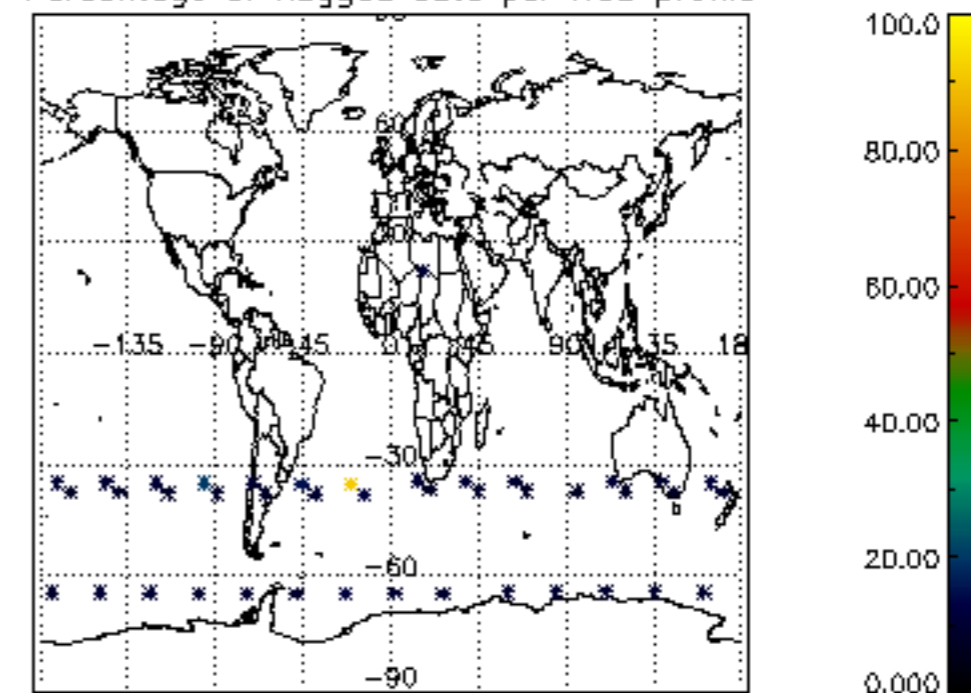
Percentage of flagged data per H2O profile

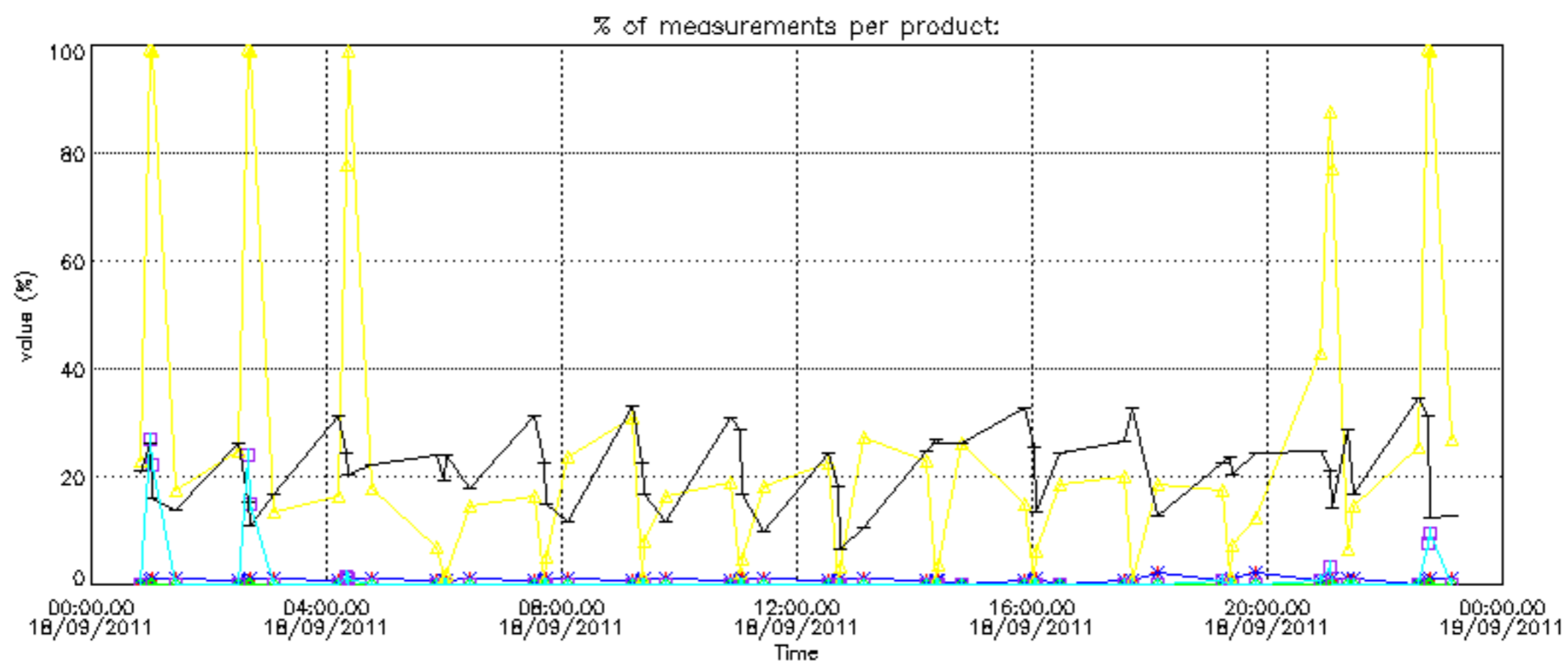
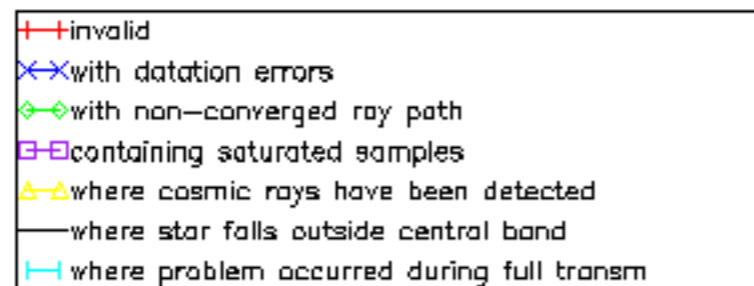


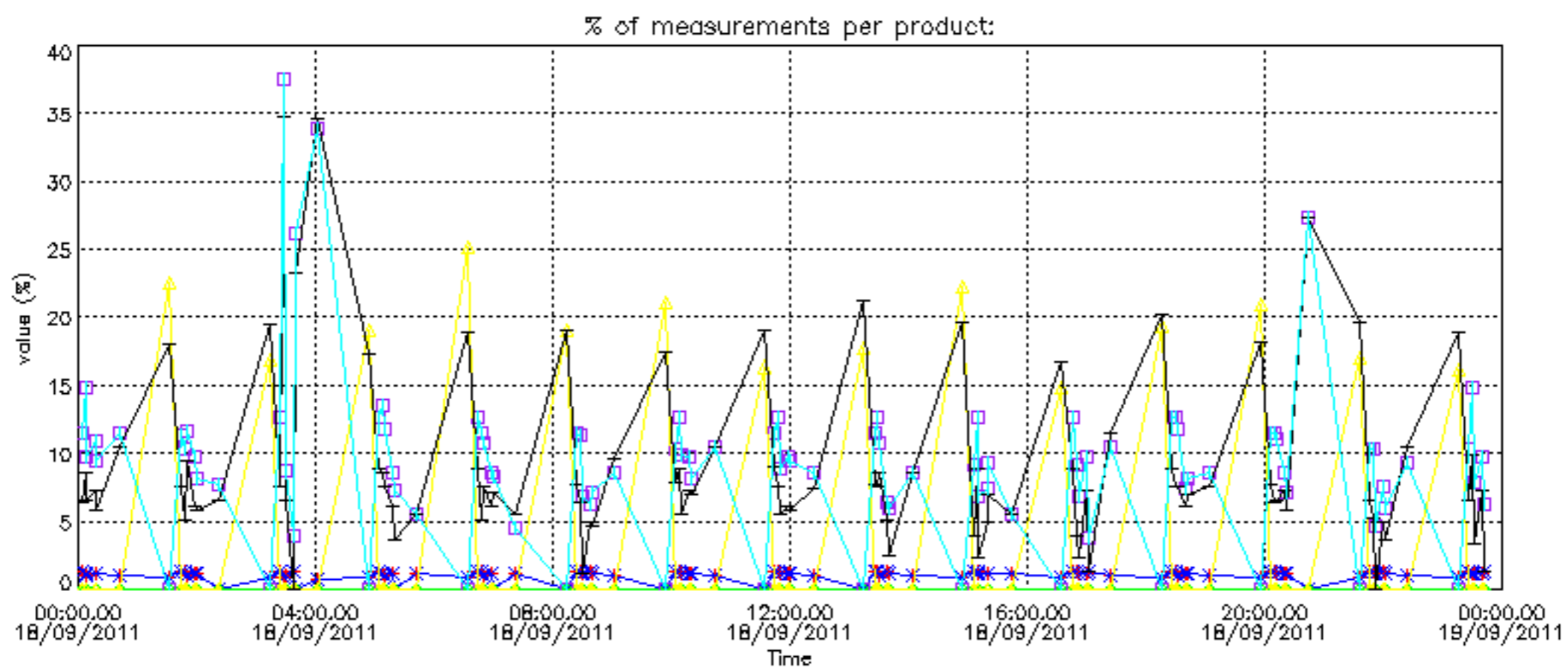
Percentage of flagged data per NO2 profile



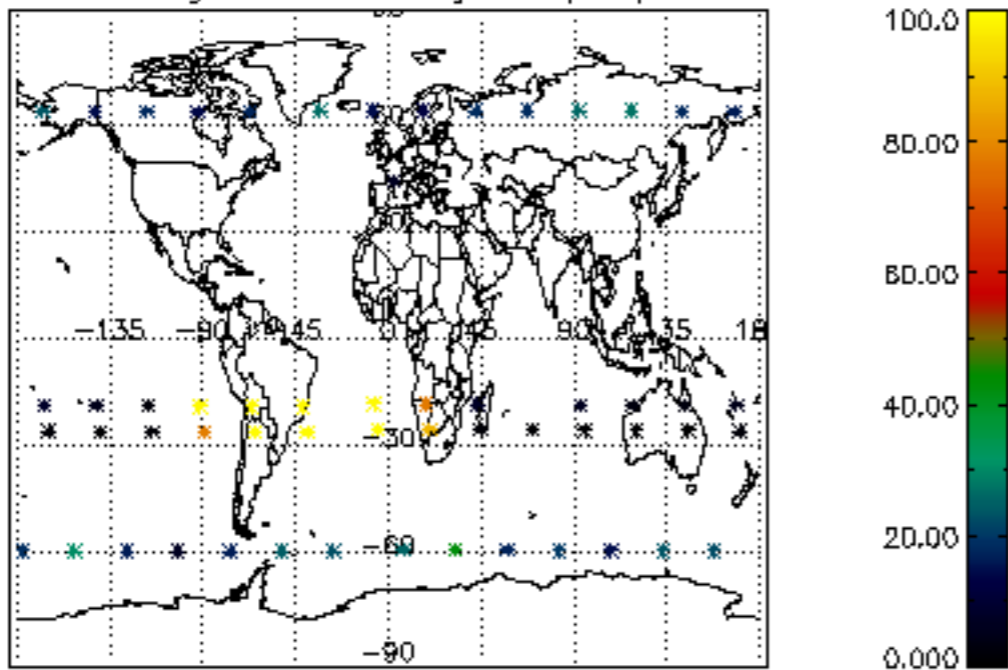
Percentage of flagged data per NO3 profile



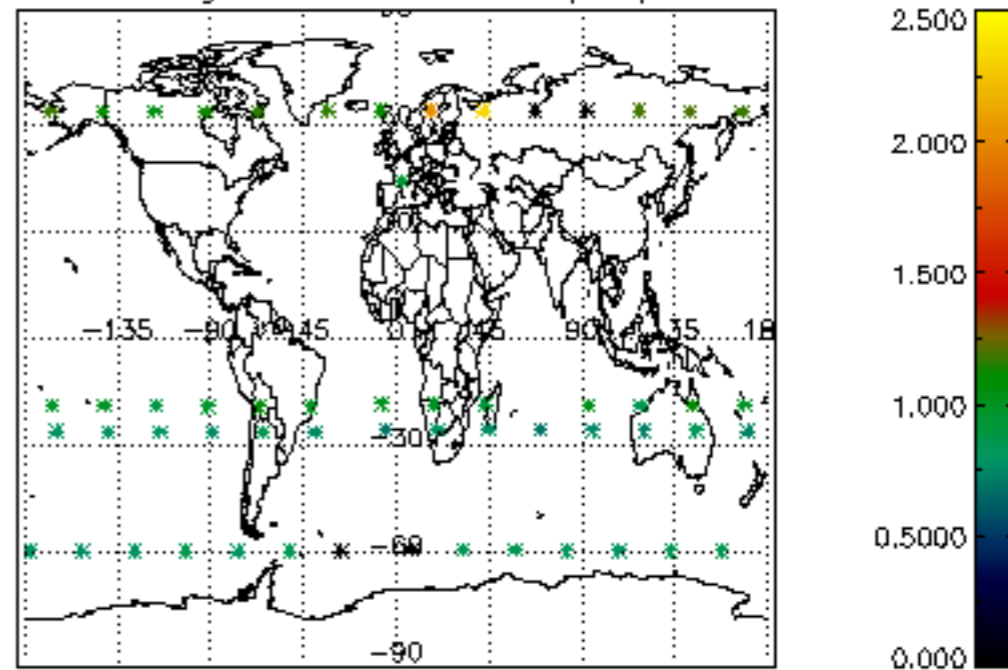




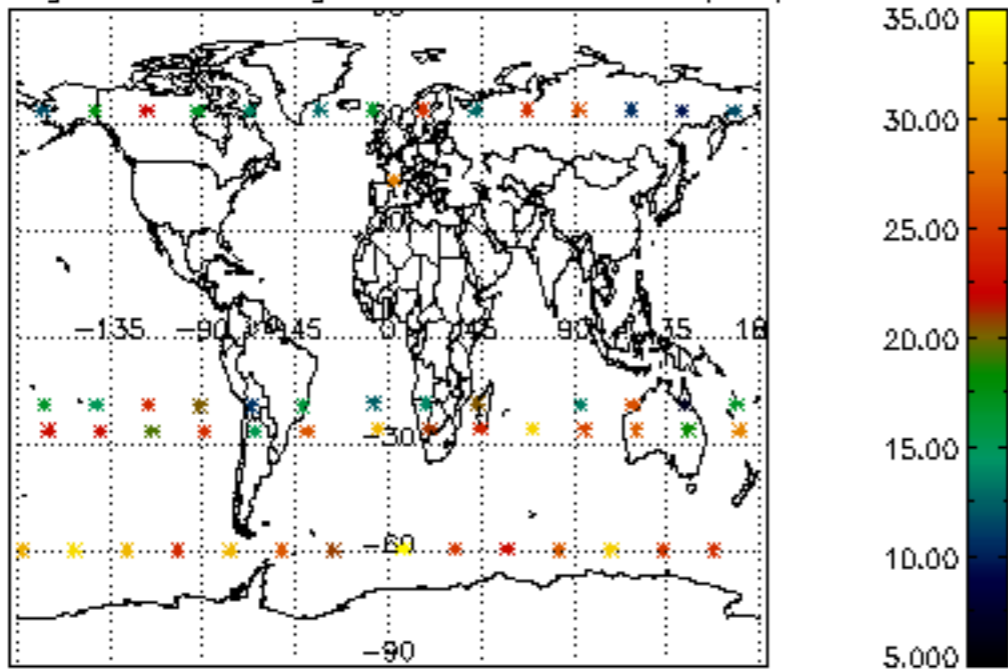
Percentage of cosmic ray hits per profile



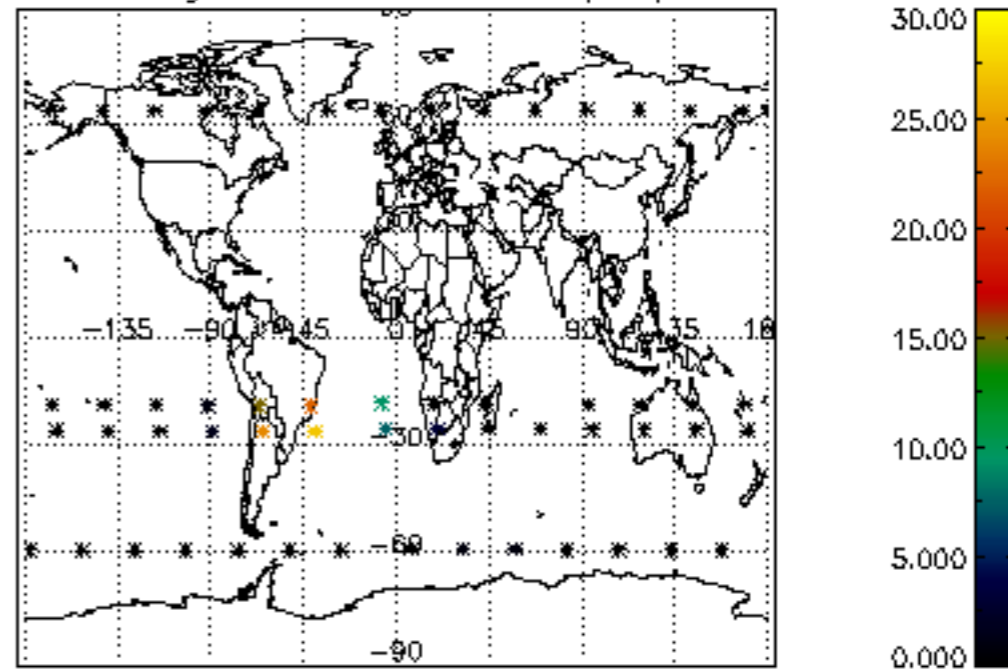
Percentage of datation errors per profile



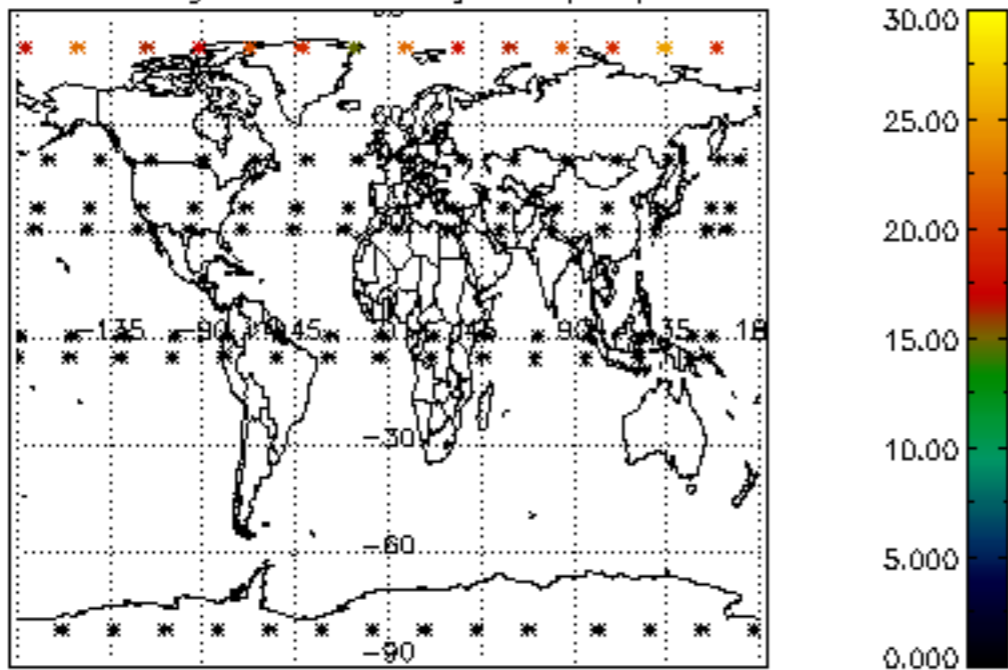
Percentage of star falling outside central band per profile



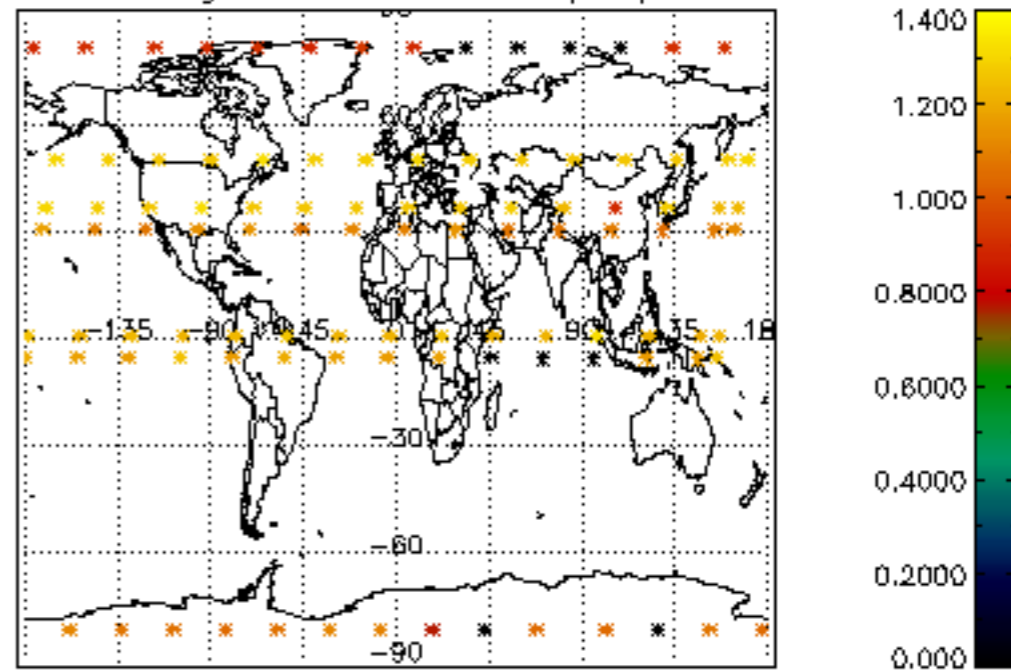
Percentage of saturation errors per profile



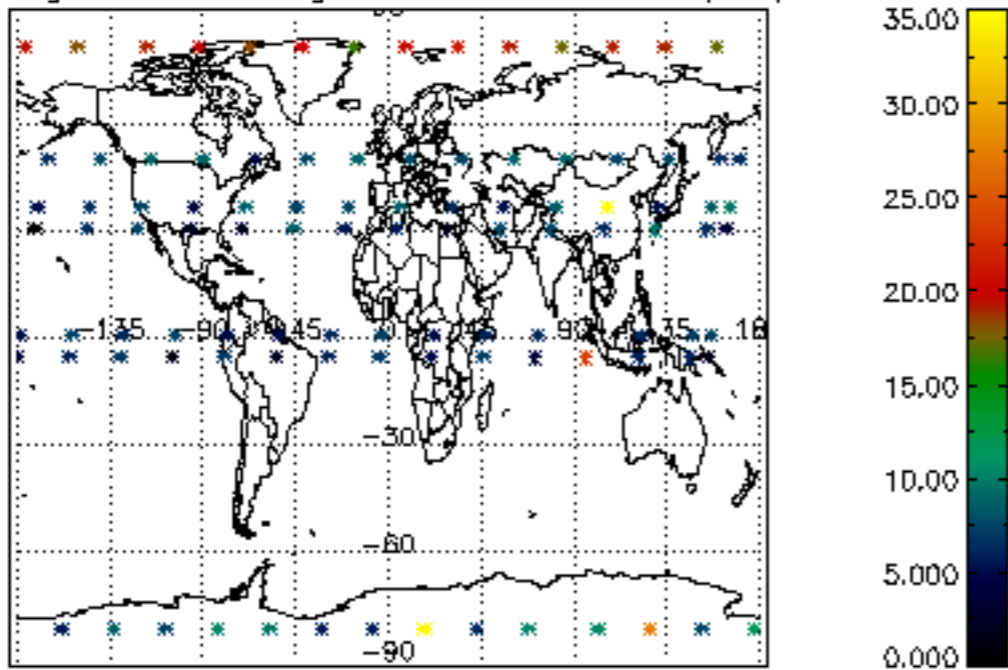
Percentage of cosmic ray hits per profile



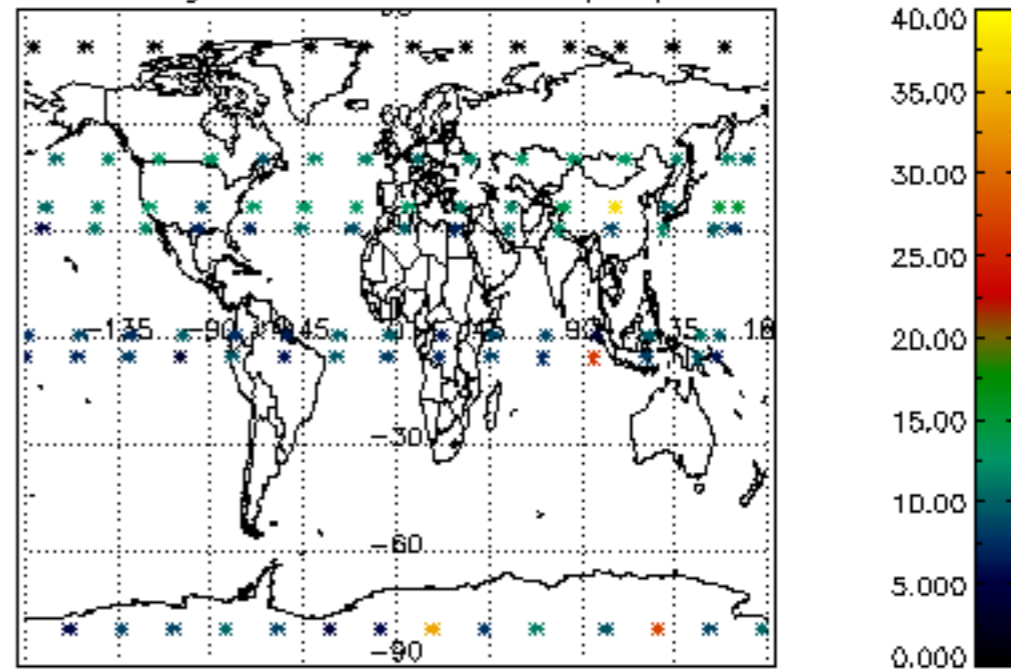
Percentage of datation errors per profile

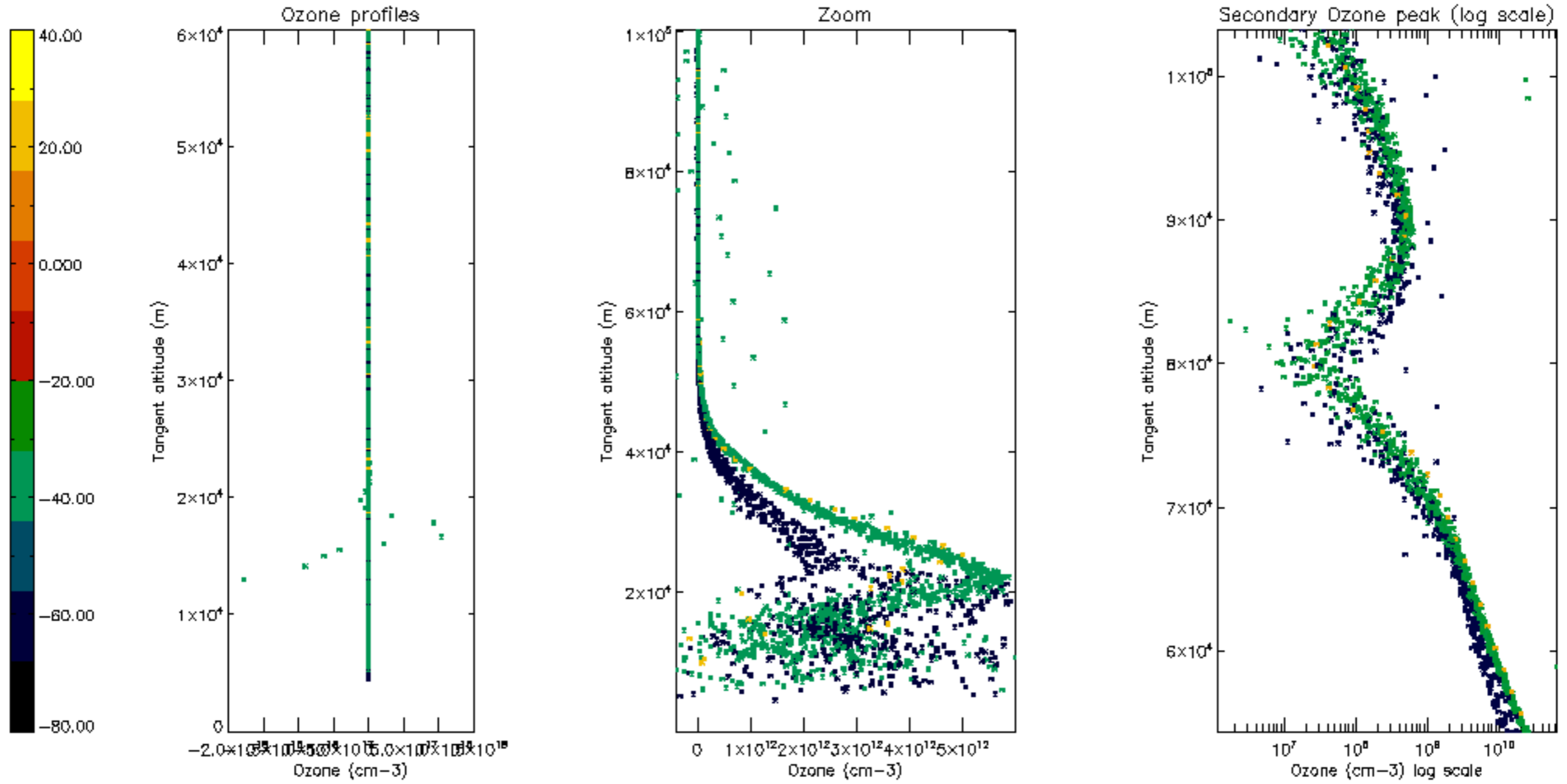


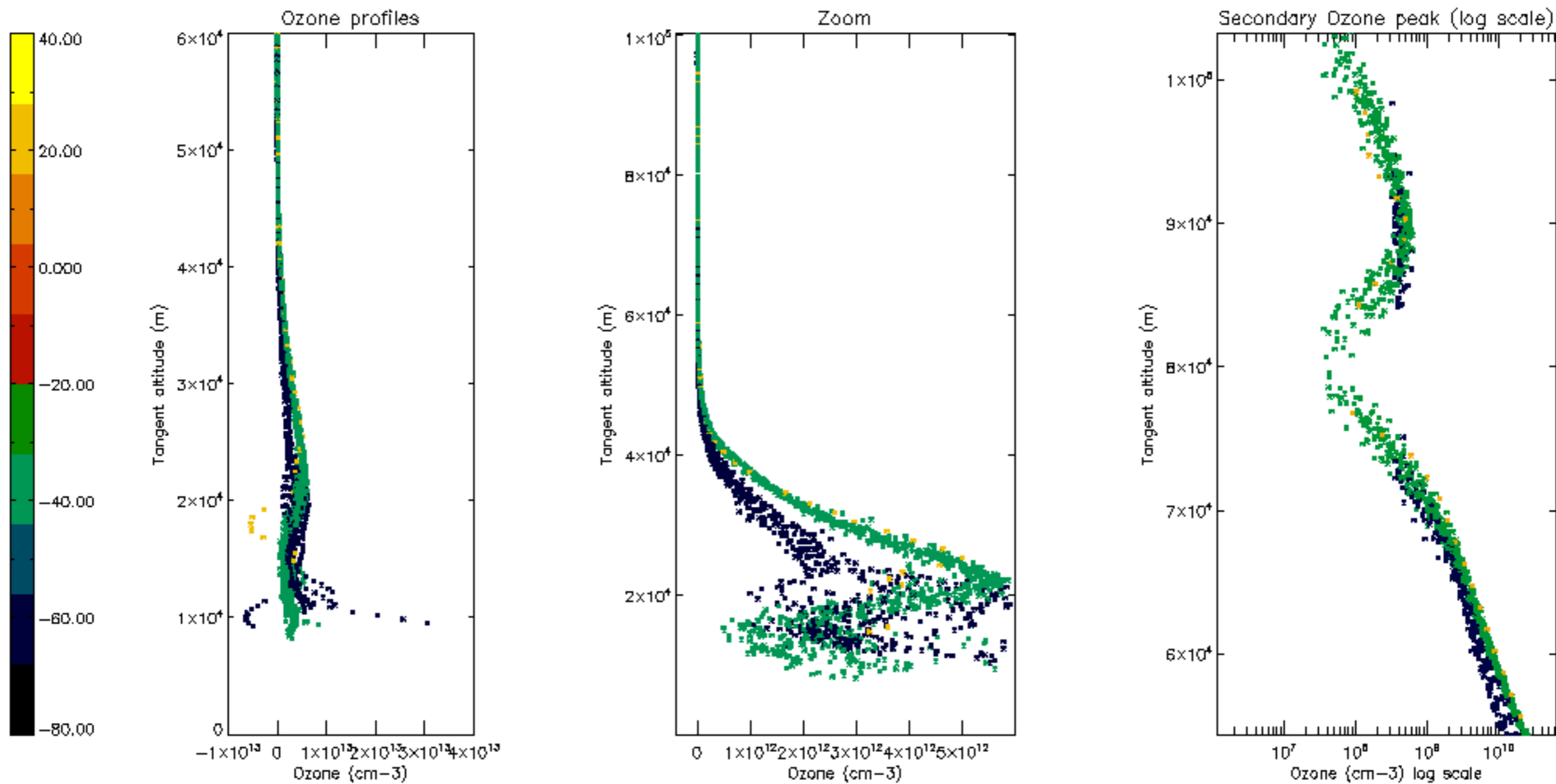
Percentage of star falling outside central band per profile

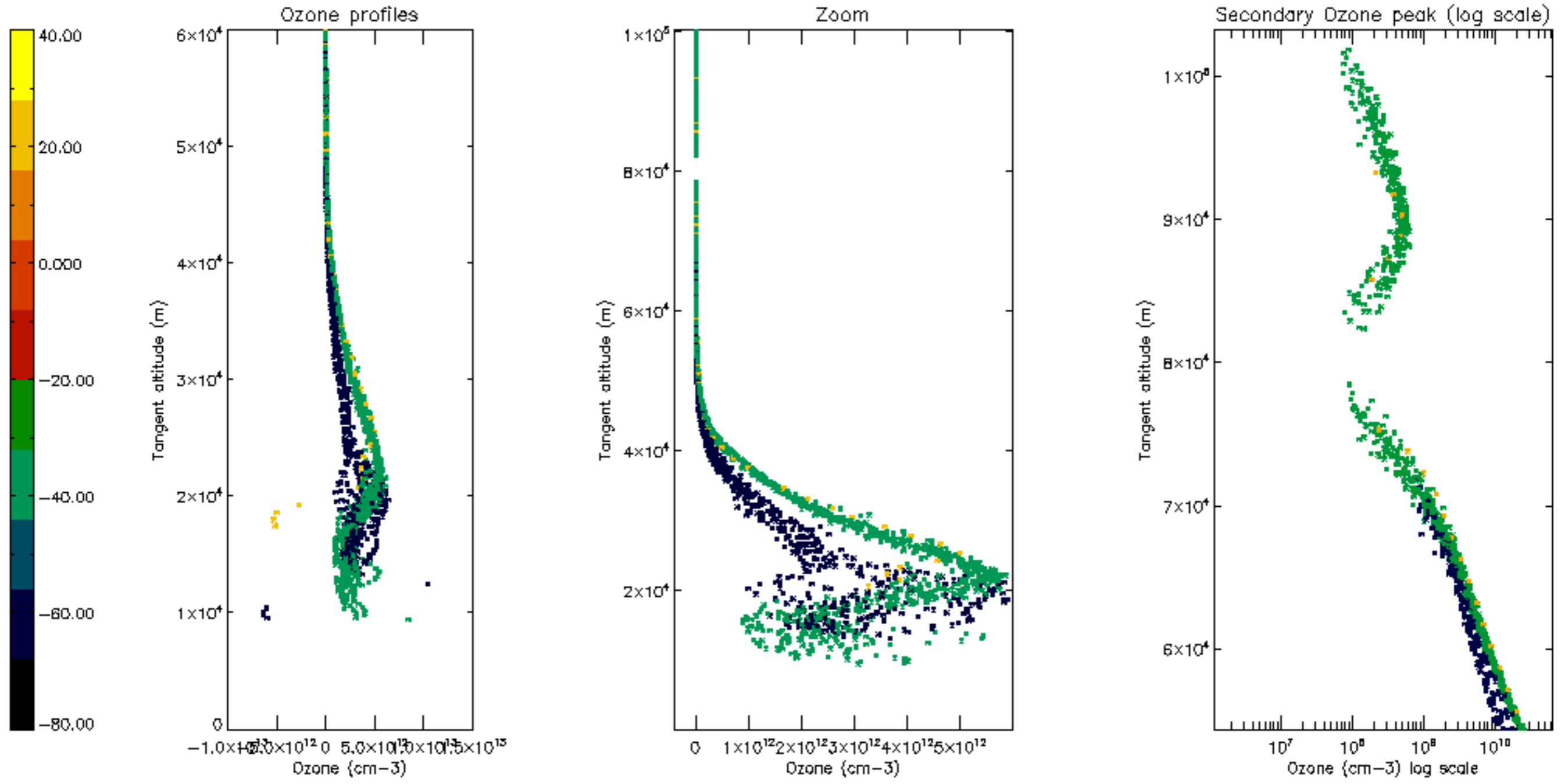


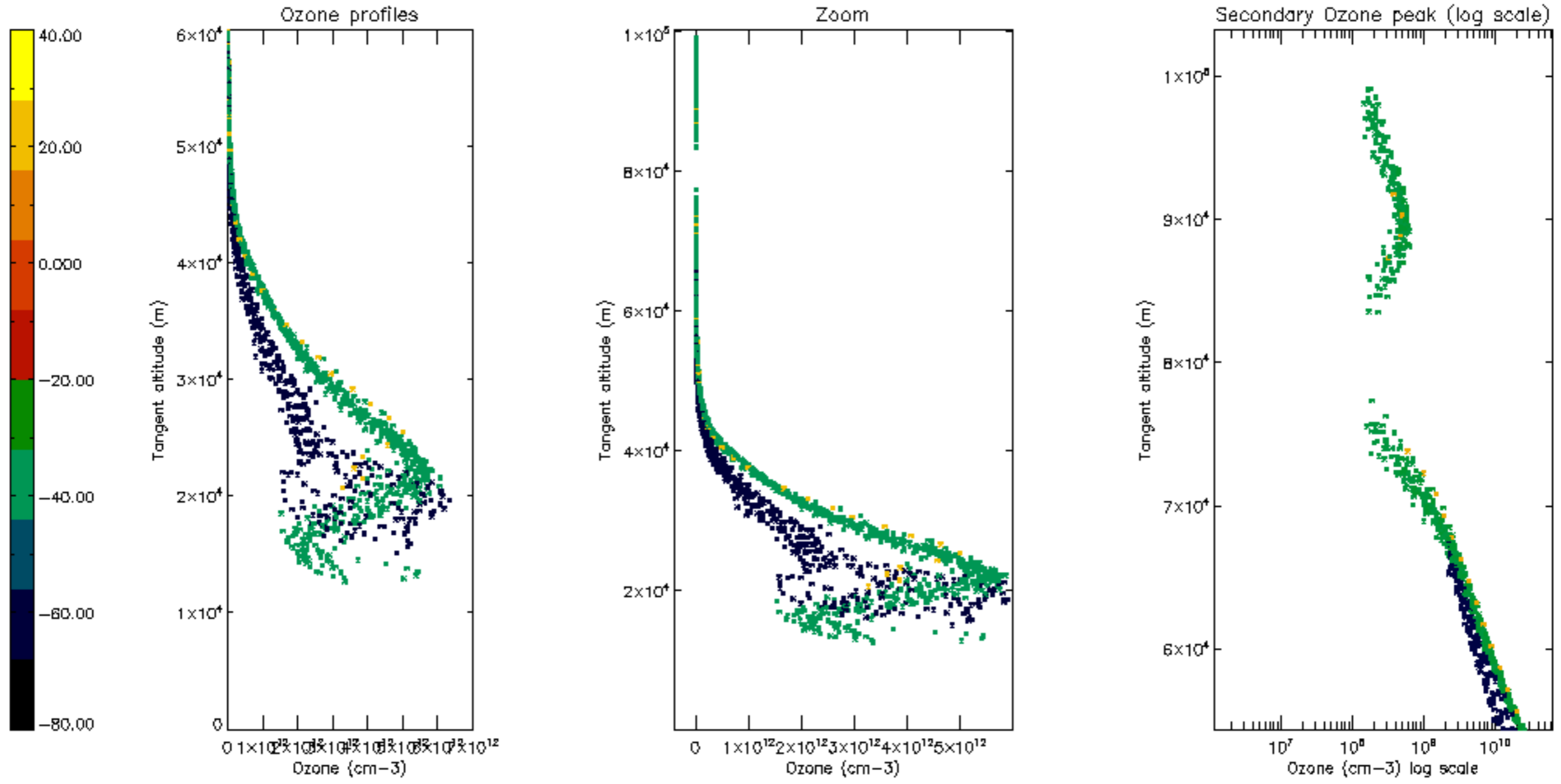
Percentage of saturation errors per profile

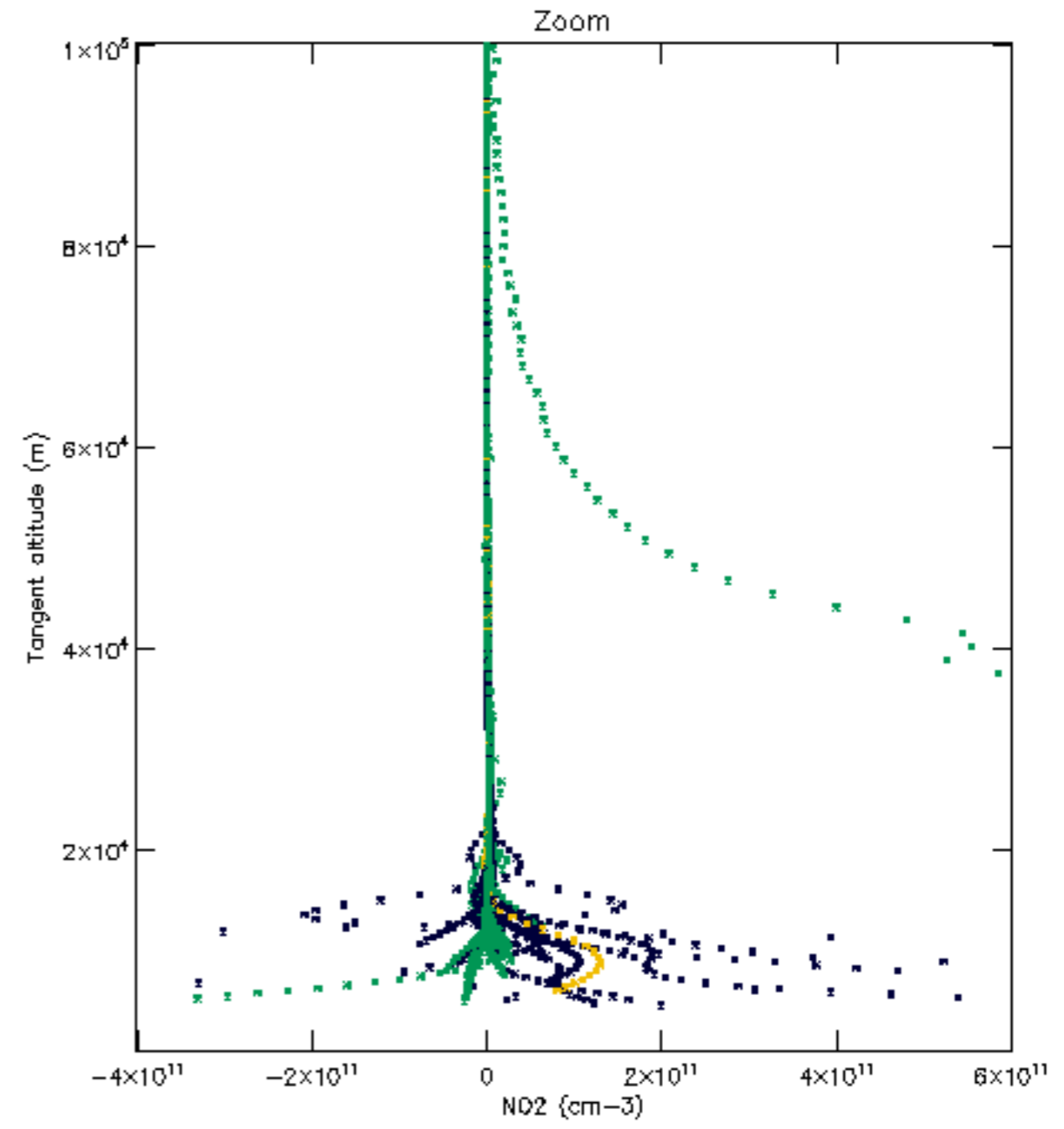
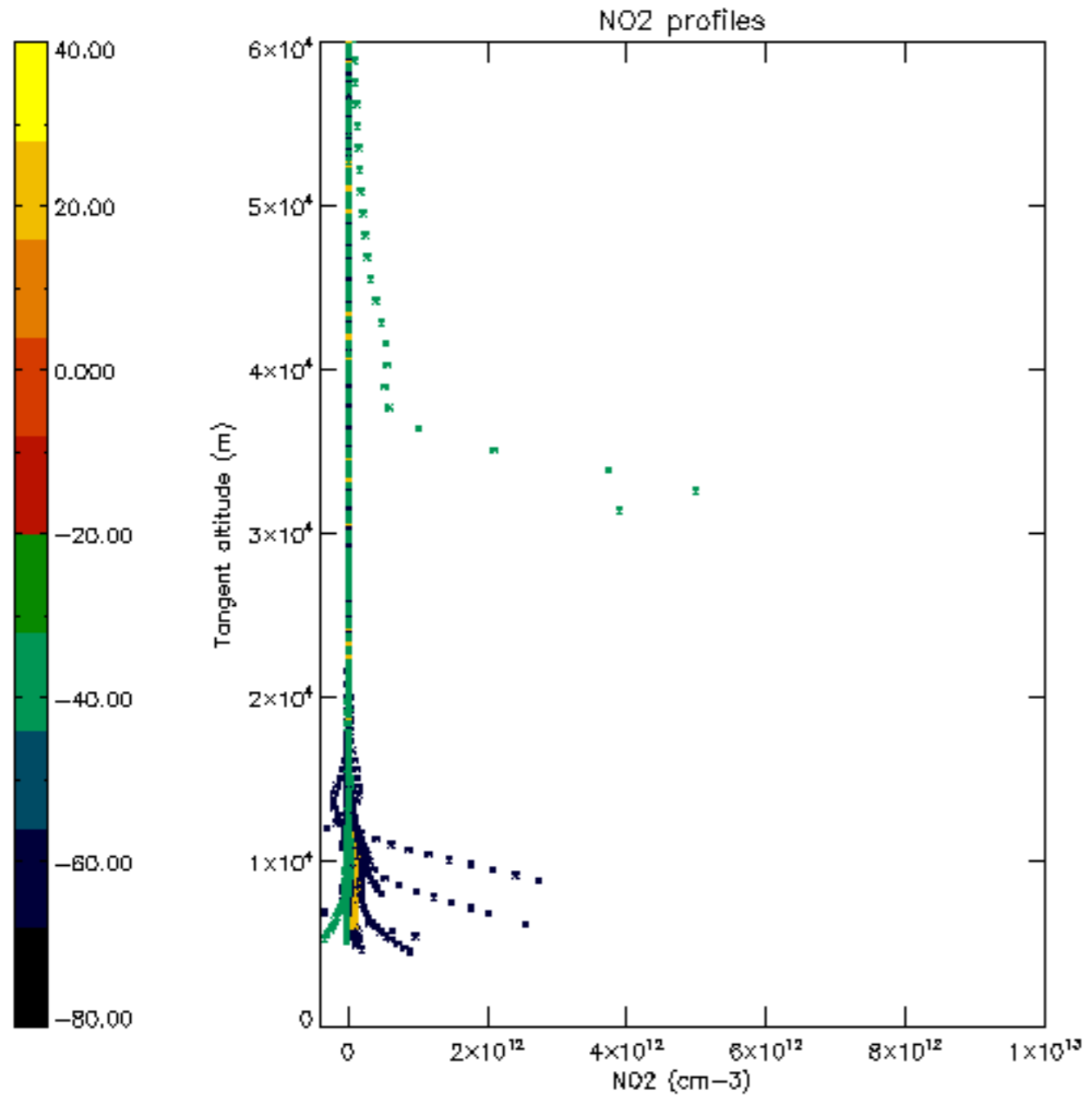


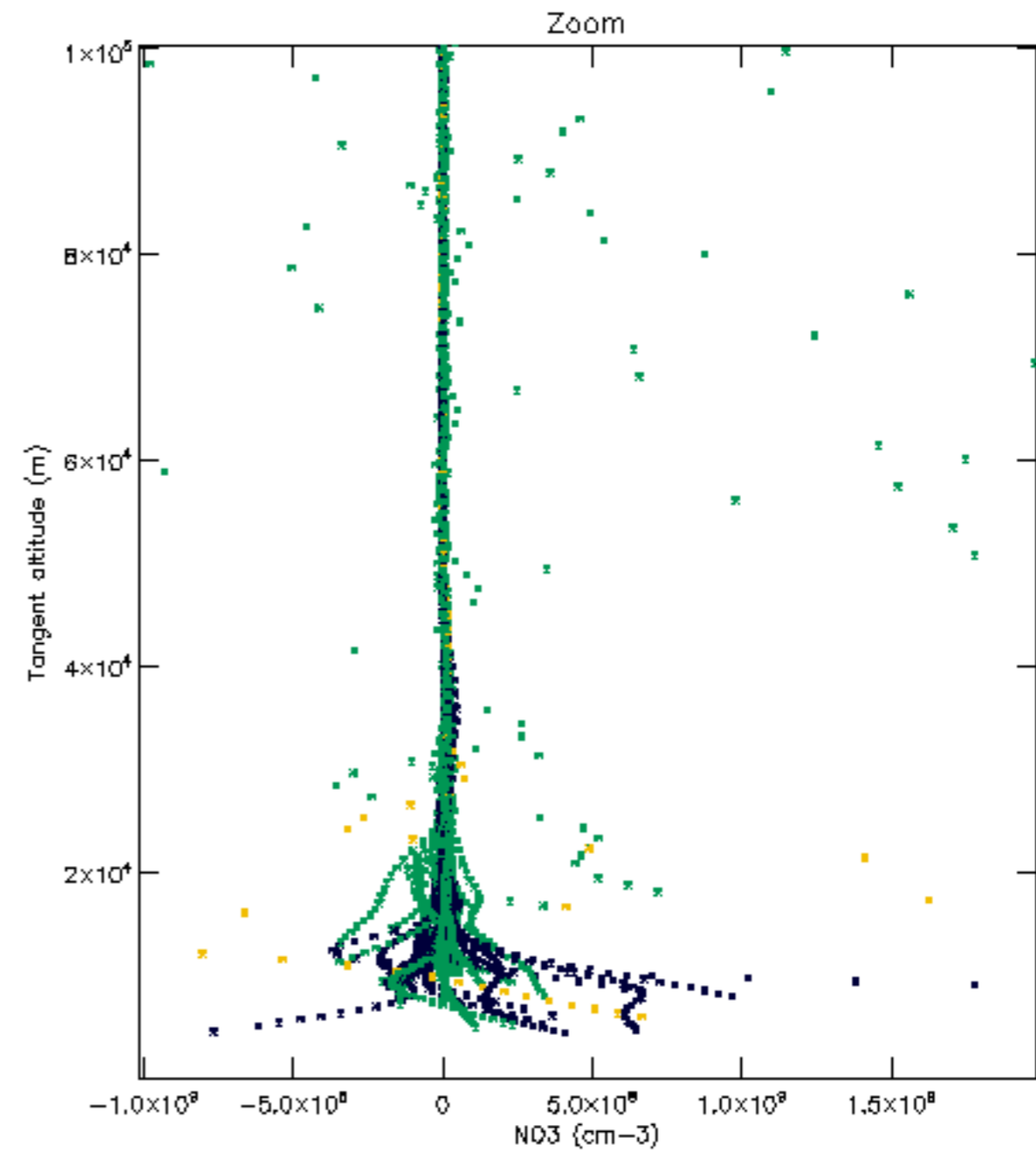
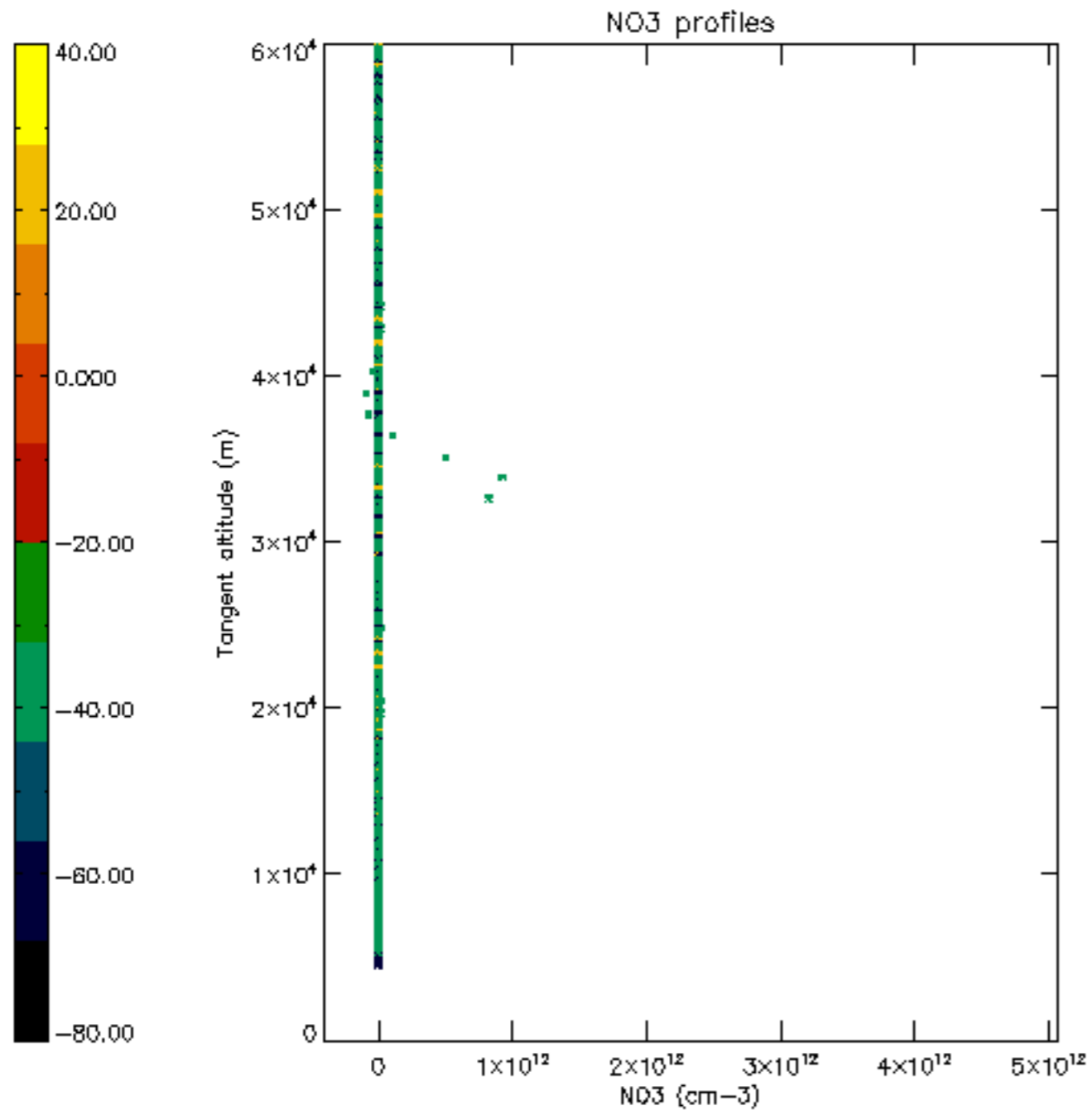


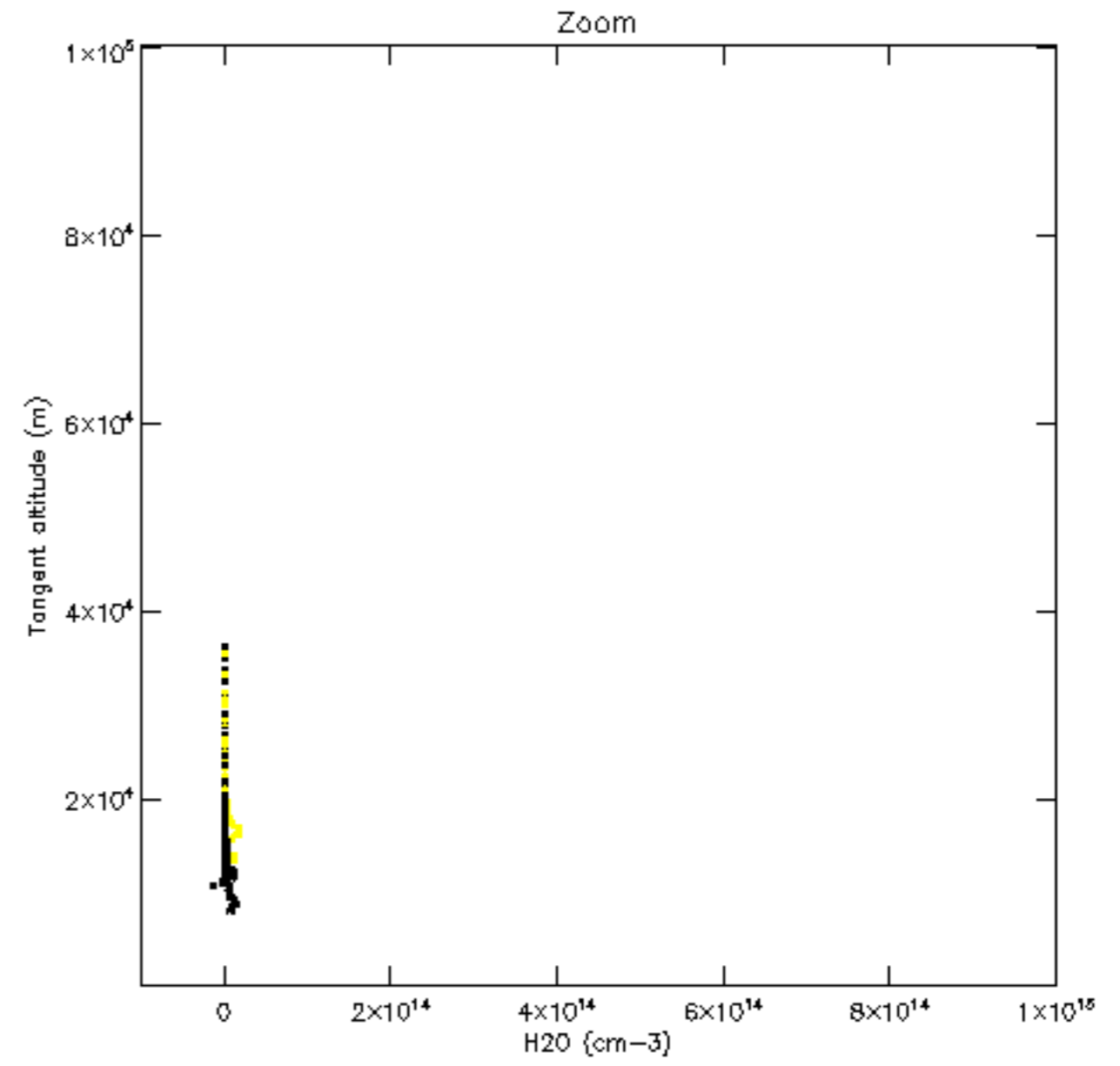
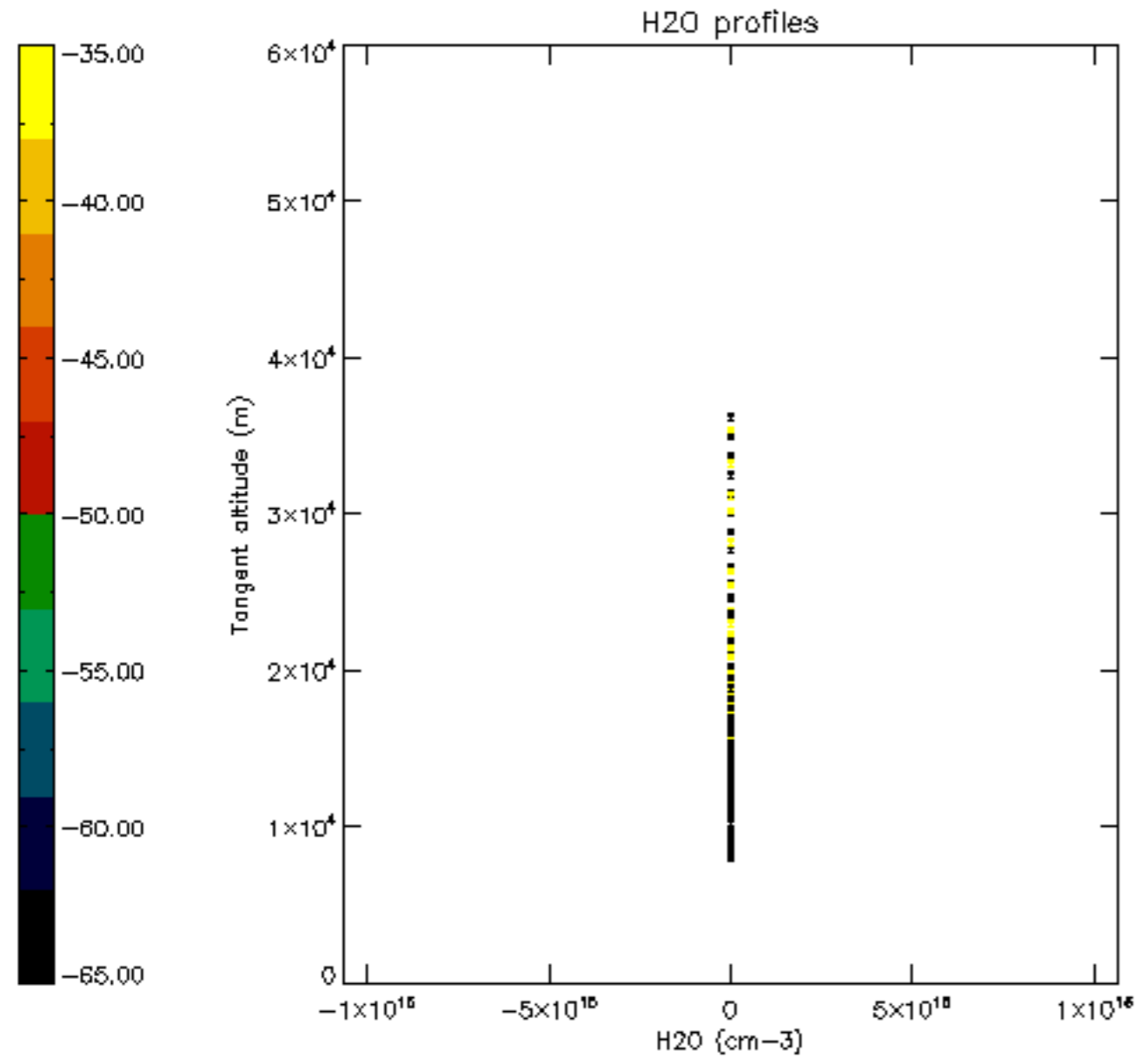


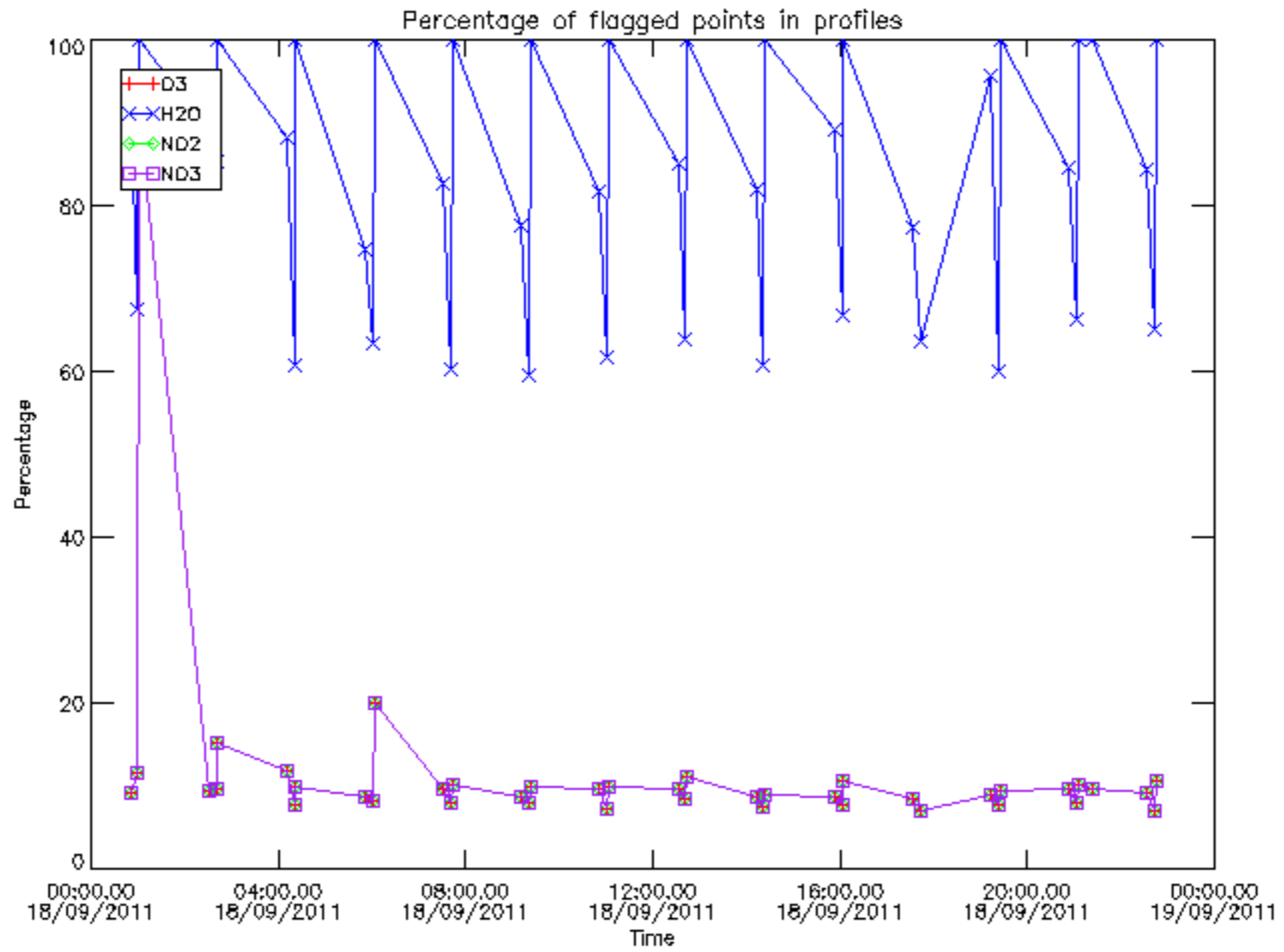




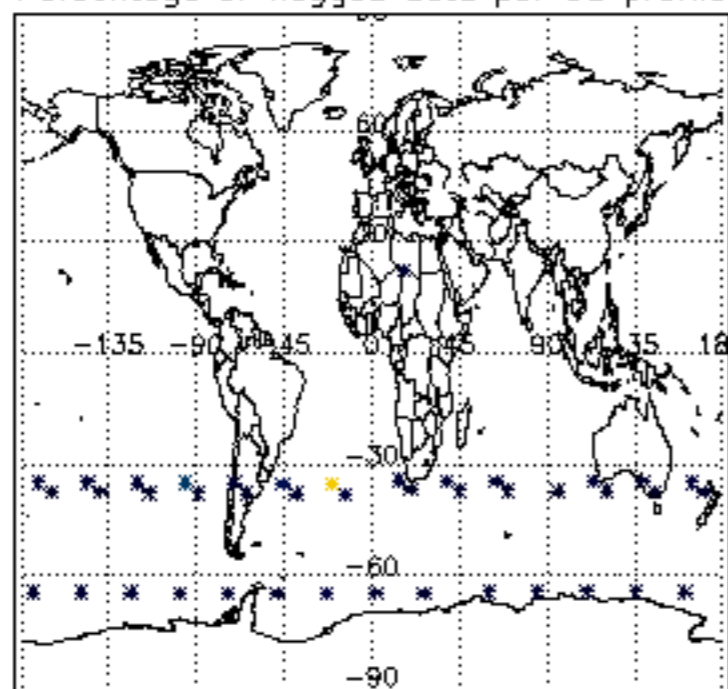




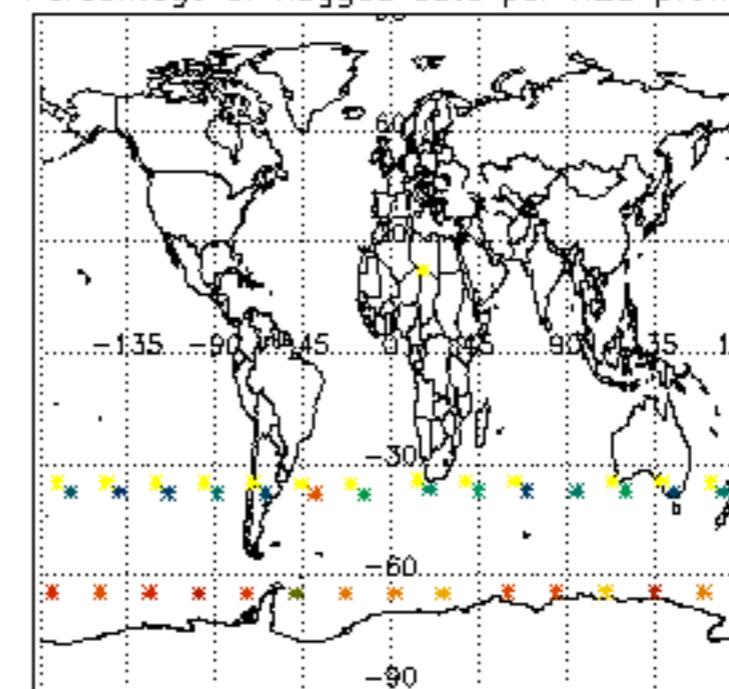




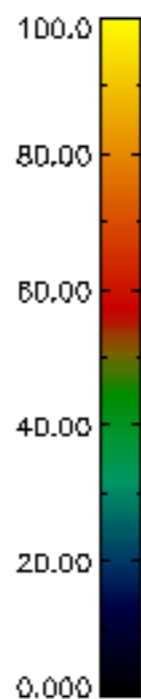
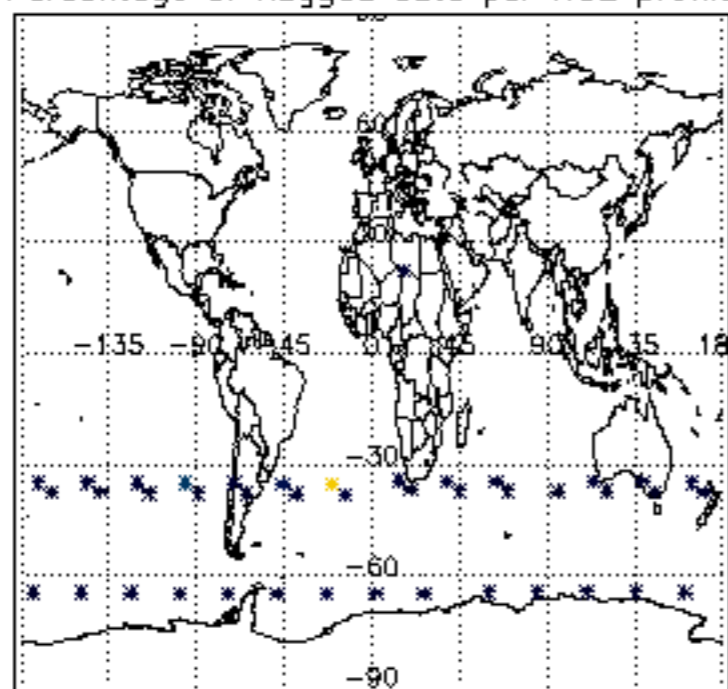
Percentage of flagged data per D3 profile



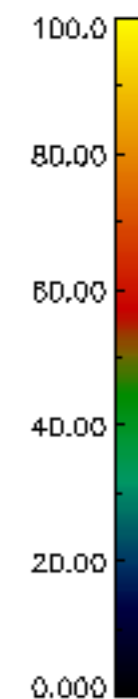
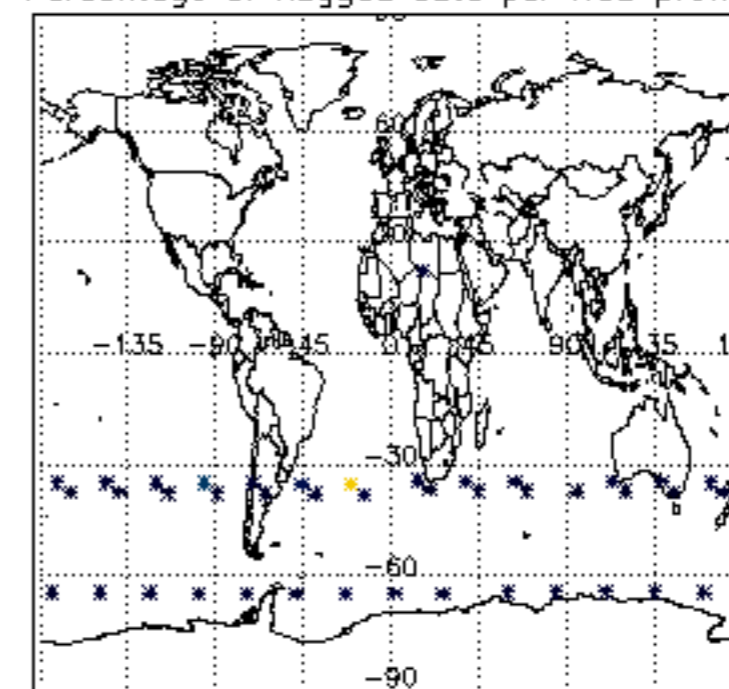
Percentage of flagged data per H2O profile

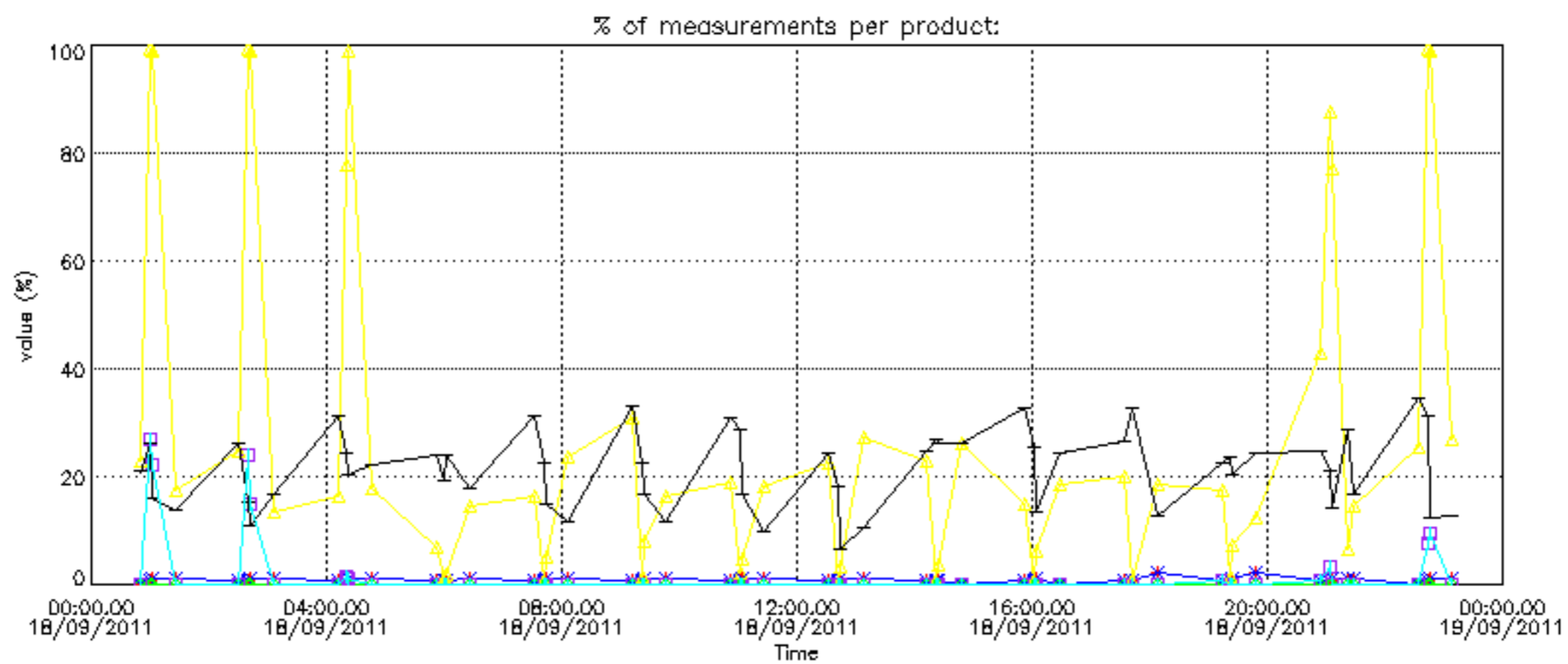


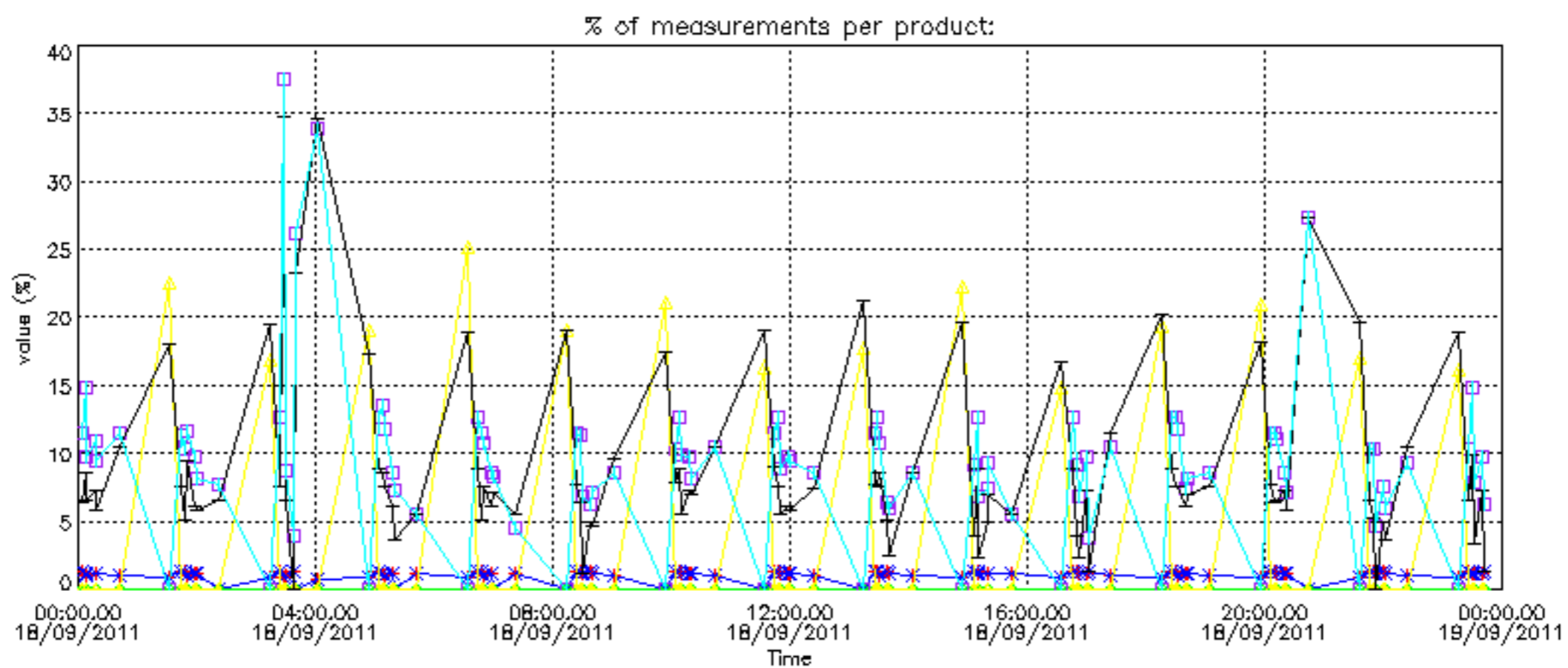
Percentage of flagged data per NO2 profile



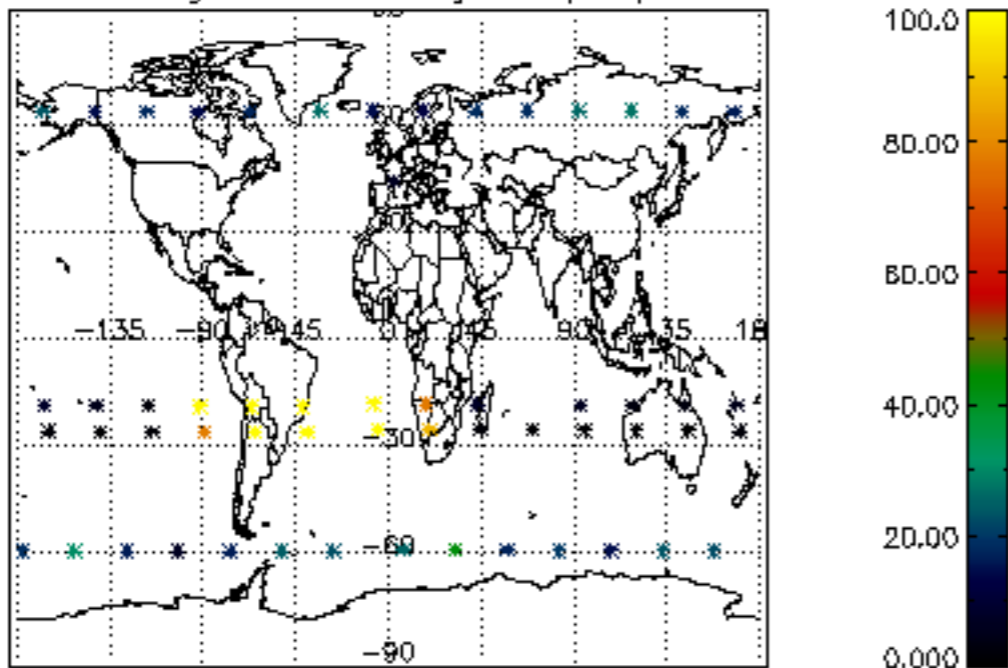
Percentage of flagged data per NO3 profile



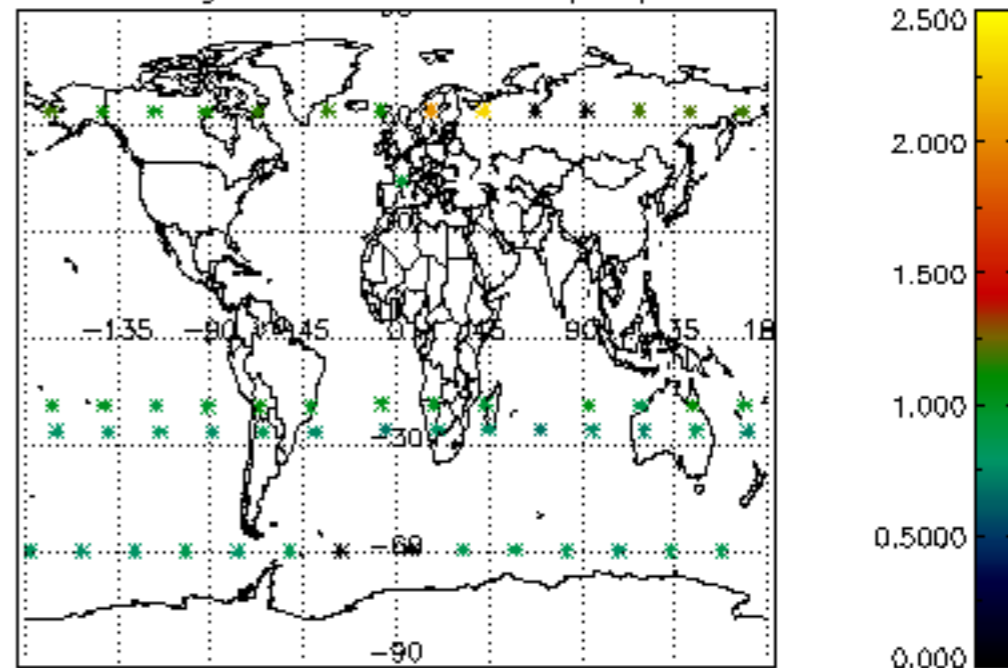




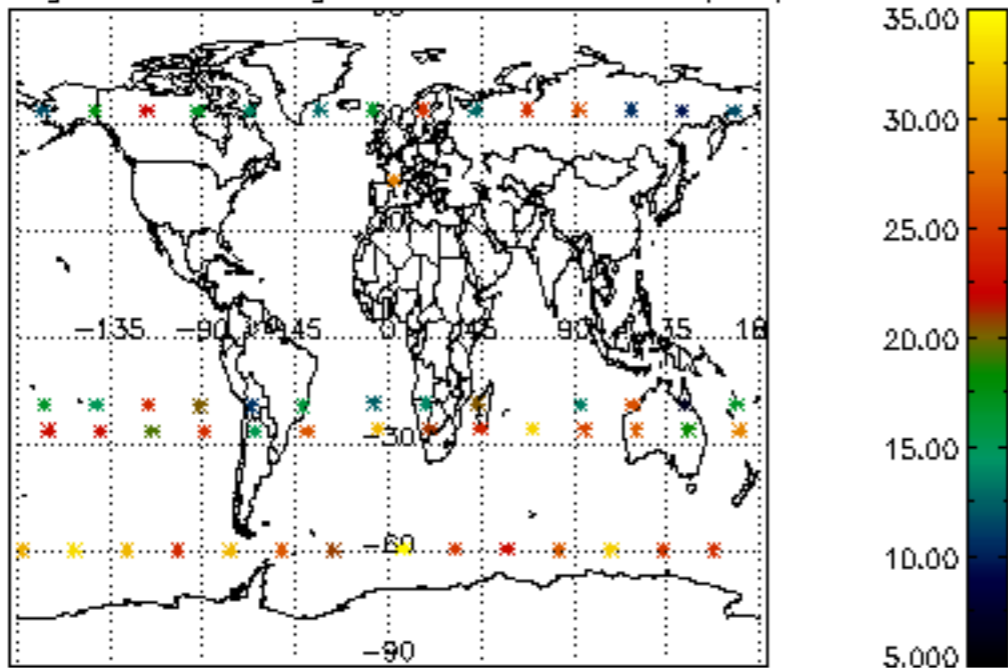
Percentage of cosmic ray hits per profile



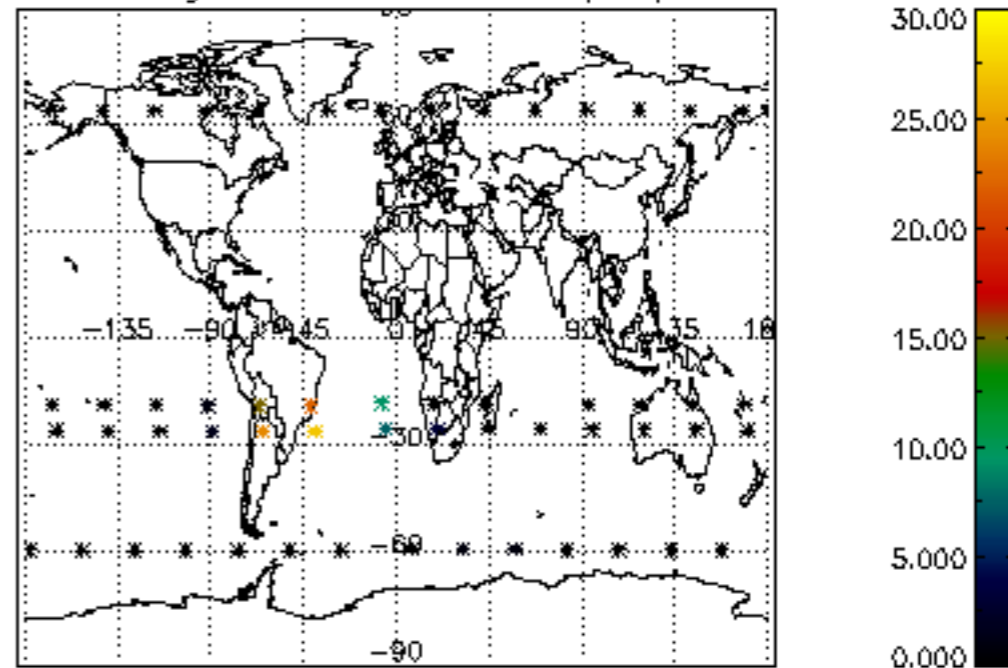
Percentage of datation errors per profile



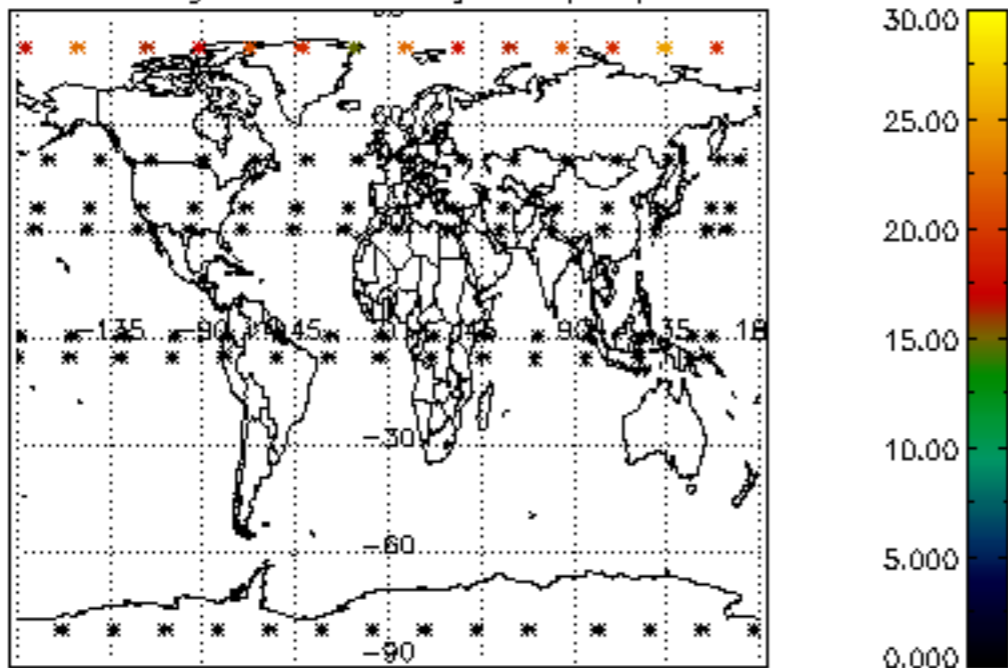
Percentage of star falling outside central band per profile



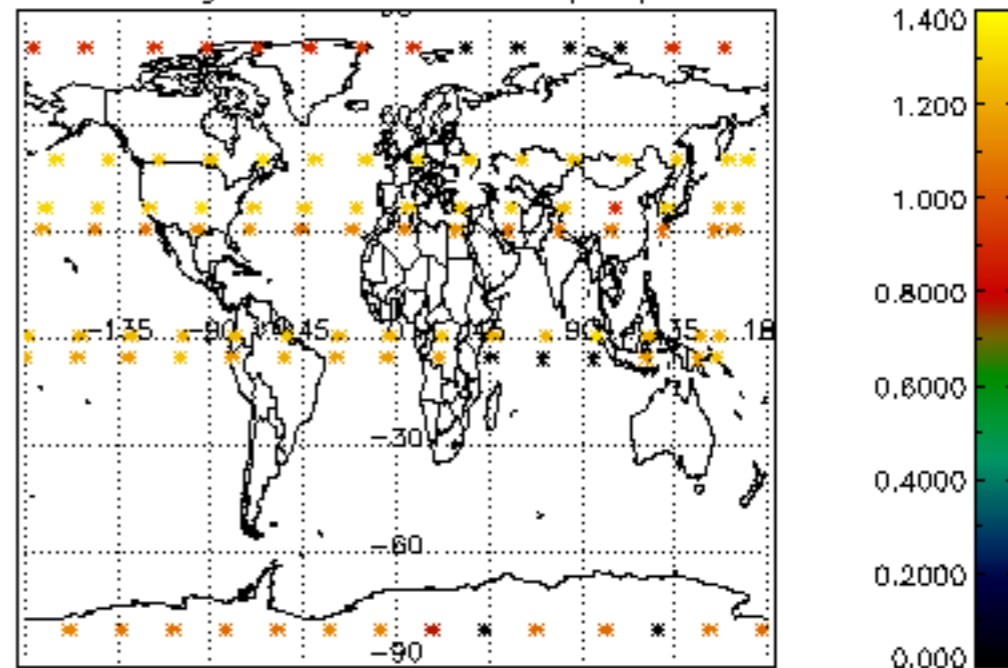
Percentage of saturation errors per profile



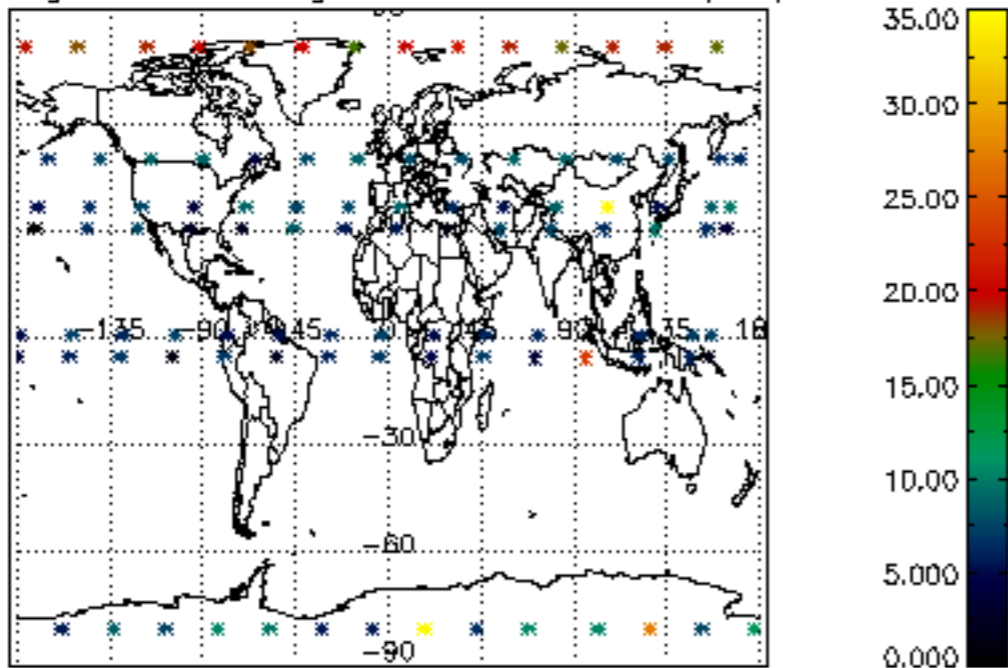
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

