

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	26APR2013 12:52:43
Data source version	GOMOS/6.01
Start time of products	20-09-2009 (20SEP2009 00:00:00)
Stop time of products	21-09-2009 (21SEP2009 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	157
Nb of prods with errors	0

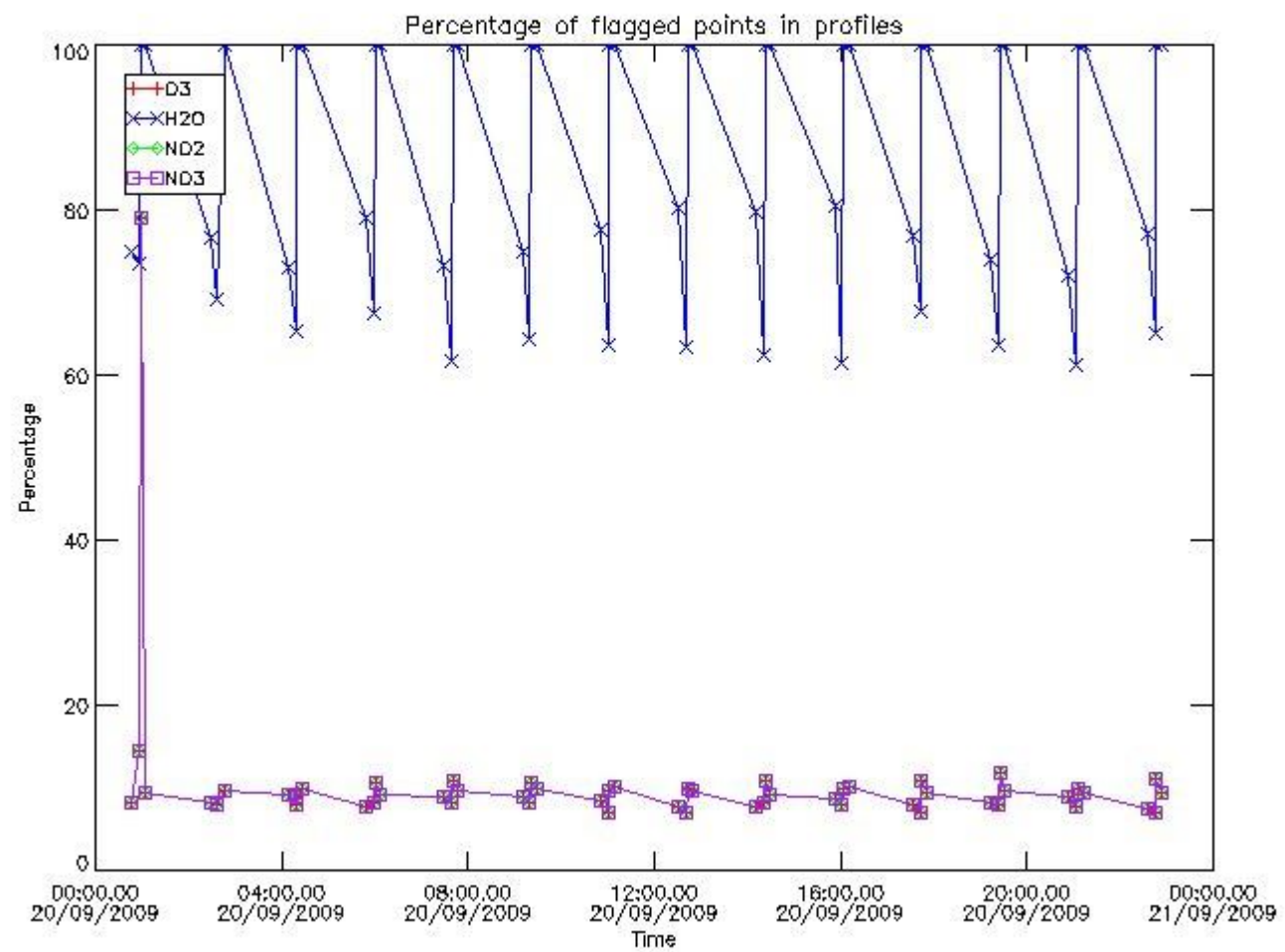
2. Summary of processed GOM_NL__2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20090920_000005_00000452082_00374_39506_7904.N1	20-SEP-2009 00:00:05	Bright	45.000	140	88Gam Peg	2.8340	26000.	90	39506	No
2	GOM_NL__2PRFIN20090920_000428_00000462082_00374_39506_7905.N1	20-SEP-2009 00:04:28	Bright	45.500	58	21Alp And	2.0730	11000.	91	39506	No
3	GOM_NL__2PRFIN20090920_001250_00000412082_00374_39506_7906.N1	20-SEP-2009 00:12:50	Bright	40.500	74	11Bet Cas	2.2680	6600.0	81	39506	No
4	GOM_NL__2PRFIN20090920_001431_00000422082_00374_39506_7907.N1	20-SEP-2009 00:14:31	Bright	42.000	76	27Gam Cas	2.3000	30000.	84	39506	No
5	GOM_NL__2PRFIN20090920_003737_00000472082_00374_39506_7908.N1	20-SEP-2009 00:37:37	Bright	47.000	24	66Alp Gem	1.5800	10200.	94	39506	No
6	GOM_NL__2PRFIN20090920_004643_00000622082_00374_39506_7909.N1	20-SEP-2009 00:46:43	Dark	61.500	8	10Alp CMi	0.40000	6500.0	123	39506	No
7	GOM_NL__2PRFIN20090920_005624_00000702082_00374_39506_7910.N1	20-SEP-2009 00:56:24	Dark	70.000	1	9Alp CMa	-1.4400	11000.	140	39506	No
8	GOM_NL__2PRFIN20090920_005821_00000512082_00374_39506_7911.N1	20-SEP-2009 00:58:21	Dark	50.500	23	21Eps CMa	1.5020	26000.	101	39506	No
9	GOM_NL__2PRFIN20090920_010443_00000542082_00375_39507_7937.N1	20-SEP-2009 01:04:43	Dark	54.000	108	Alp Col	2.6520	15200.	108	39507	No
10	GOM_NL__2PRFIN20090920_011627_00000532082_00375_39507_7938.N1	20-SEP-2009 01:16:27	Straylight	52.500	157	The1Eri	2.9060	9300.0	105	39507	No
11	GOM_NL__2PRFIN20090920_012859_00000552082_00375_39507_7939.N1	20-SEP-2009 01:28:59	Twilight_stray	54.500	52	16Bet Cet	2.0370	4500.0	109	39507	No
12	GOM_NL__2PRFIN20090920_014041_00000452082_00375_39507_7940.N1	20-SEP-2009 01:40:41	Bright	45.000	140	88Gam Peg	2.8340	26000.	90	39507	No
13	GOM_NL__2PRFIN20090920_014503_00000442082_00375_39507_7941.N1	20-SEP-2009 01:45:03	Bright	43.500	58	21Alp And	2.0730	11000.	87	39507	No
14	GOM_NL__2PRFIN20090920_015325_00000412082_00375_39507_7942.N1	20-SEP-2009 01:53:25	Bright	40.500	74	11Bet Cas	2.2680	6600.0	81	39507	No
15	GOM_NL__2PRFIN20090920_015506_00000412082_00375_39507_7943.N1	20-SEP-2009 01:55:06	Bright	41.000	76	27Gam Cas	2.3000	30000.	82	39507	No
16	GOM_NL__2PRFIN20090920_021812_00000482082_00375_39507_7944.N1	20-SEP-2009 02:18:12	Bright	47.500	24	66Alp Gem	1.5800	10200.	95	39507	No
17	GOM_NL__2PRFIN20090920_022720_00000632082_00375_39507_7945.N1	20-SEP-2009 02:27:20	Dark	62.500	8	10Alp CMi	0.40000	6500.0	125	39507	No
18	GOM_NL__2PRFIN20090920_023701_00000642082_00375_39507_7946.N1	20-SEP-2009 02:37:01	Dark	63.500	1	9Alp CMa	-1.4400	11000.	127	39507	No
19	GOM_NL__2PRFIN20090920_024521_00000542082_00376_39508_7945.N1	20-SEP-2009 02:45:21	Dark	53.500	108	Alp Col	2.6520	15200.	107	39508	No
20	GOM_NL__2PRFIN20090920_025704_00000522082_00376_39508_7946.N1	20-SEP-2009 02:57:04	Straylight	52.000	157	The1Eri	2.9060	9300.0	104	39508	No
21	GOM_NL__2PRFIN20090920_030935_00000552082_00376_39508_7947.N1	20-SEP-2009 03:09:35	Twilight_stray	54.500	52	16Bet Cet	2.0370	4500.0	109	39508	No
22	GOM_NL__2PRFIN20090920_032116_00000462082_00376_39508_7948.N1	20-SEP-2009 03:21:16	Bright	45.500	140	88Gam Peg	2.8340	26000.	91	39508	No
23	GOM_NL__2PRFIN20090920_032538_00000442082_00376_39508_7949.N1	20-SEP-2009 03:25:38	Bright	44.000	58	21Alp And	2.0730	11000.	88	39508	No
24	GOM_NL__2PRFIN20090920_033401_00000402082_00376_39508_7950.N1	20-SEP-2009 03:34:01	Bright	40.000	74	11Bet Cas	2.2680	6600.0	80	39508	No
25	GOM_NL__2PRFIN20090920_033541_00000392082_00376_39508_7951.N1	20-SEP-2009 03:35:41	Bright	38.500	76	27Gam Cas	2.3000	30000.	77	39508	No
26	GOM_NL__2PRFIN20090920_035849_00000572082_00376_39508_7952.N1	20-SEP-2009 03:58:49	Bright	56.500	24	66Alp Gem	1.5800	10200.	113	39508	No
27	GOM_NL__2PRFIN20090920_040756_00000562082_00376_39508_7953.N1	20-SEP-2009 04:07:56	Dark	56.000	8	10Alp CMi	0.40000	6500.0	112	39508	No
28	GOM_NL__2PRFIN20090920_041738_00000642082_00376_39508_7954.N1	20-SEP-2009 04:17:38	Dark	64.000	1	9Alp CMa	-1.4400	11000.	128	39508	No
29	GOM_NL__2PRFIN20090920_041935_00000572082_00376_39508_7955.N1	20-SEP-2009 04:19:35	Dark	56.500	23	21Eps CMa	1.5020	26000.	113	39508	No
30	GOM_NL__2PRFIN20090920_042558_00000522082_00377_39509_7953.N1	20-SEP-2009 04:25:58	Dark	51.500	108	Alp Col	2.6520	15200.	103	39509	No
31	GOM_NL__2PRFIN20090920_043741_00000532082_00377_39509_7954.N1	20-SEP-2009 04:37:41	Straylight	53.000	157	The1Eri	2.9060	9300.0	106	39509	No
32	GOM_NL__2PRFIN20090920_045011_00000542082_00377_39509_7955.N1	20-SEP-2009 04:50:11	Twilight_stray	54.000	52	16Bet Cet	2.0370	4500.0	108	39509	No
33	GOM_NL__2PRFIN20090920_050152_00000462082_00377_39509_7956.N1	20-SEP-2009 05:01:52	Bright	45.500	140	88Gam Peg	2.8340	26000.	91	39509	No
34	GOM_NL__2PRFIN20090920_050614_00000482082_00377_39509_7957.N1	20-SEP-2009 05:06:14	Bright	48.000	58	21Alp And	2.0730	11000.	96	39509	No
35	GOM_NL__2PRFIN20090920_051436_00000402082_00377_39509_7958.N1	20-SEP-2009 05:14:36	Bright	40.000	74	11Bet Cas	2.2680	6600.0	80	39509	No
36	GOM_NL__2PRFIN20090920_051617_00000422082_00377_39509_7959.N1	20-SEP-2009 05:16:17	Bright	41.500	76	27Gam Cas	2.3000	30000.	83	39509	No
37	GOM_NL__2PRFIN20090920_053925_00000462082_00377_39509_7960.N1	20-SEP-2009 05:39:25	Bright	46.000	24	66Alp Gem	1.5800	10200.	92	39509	No
38	GOM_NL__2PRFIN20090920_054833_00000672082_00377_39509_7961.N1	20-SEP-2009 05:48:33	Dark	67.000	8	10Alp CMi	0.40000	6500.0	134	39509	No
39	GOM_NL__2PRFIN20090920_055815_00000622082_00377_39509_7962.N1	20-SEP-2009 05:58:15	Dark	62.000	1	9Alp CMa	-1.4400	11000.	124	39509	No
40	GOM_NL__2PRFIN20090920_060012_00000482082_00377_39509_7963.N1	20-SEP-2009 06:00:12	Dark	48.000	23	21Eps CMa	1.5020	26000.	96	39509	No
41	GOM_NL__2PRFIN20090920_060635_00000552082_00378_39510_7980.N1	20-SEP-2009 06:06:35	Dark	55.000	108	Alp Col	2.6520	15200.	110	39510	No
42	GOM_NL__2PRFIN20090920_061818_00000552082_00378_39510_7981.N1	20-SEP-2009 06:18:18	Straylight	54.500	157	The1Eri	2.9060	9300.0	109	39510	No

3. Quality information per product

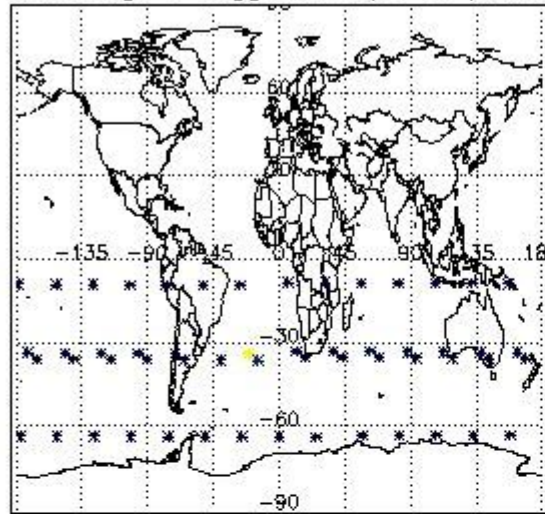
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

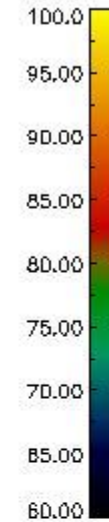
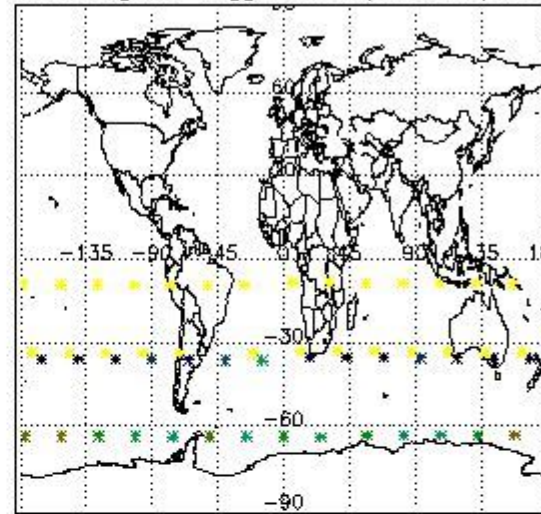


3.2 Plot quality information per product (world map)

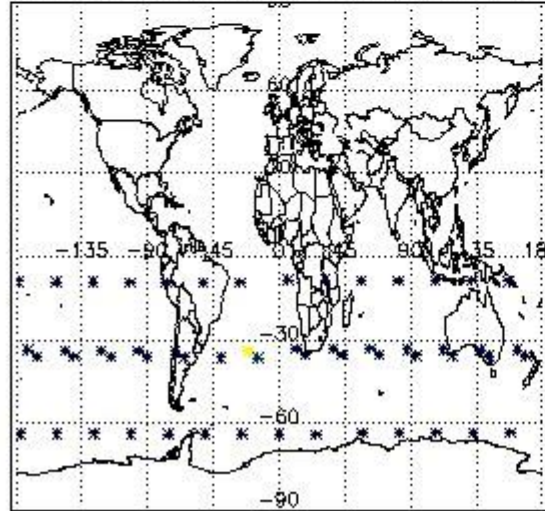
Percentage of flagged data per O3 profile



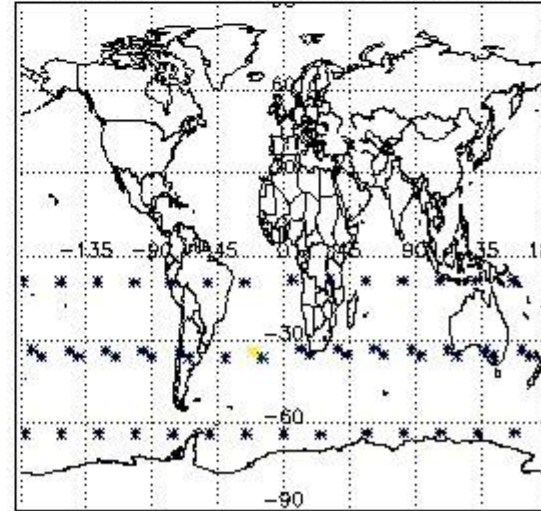
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

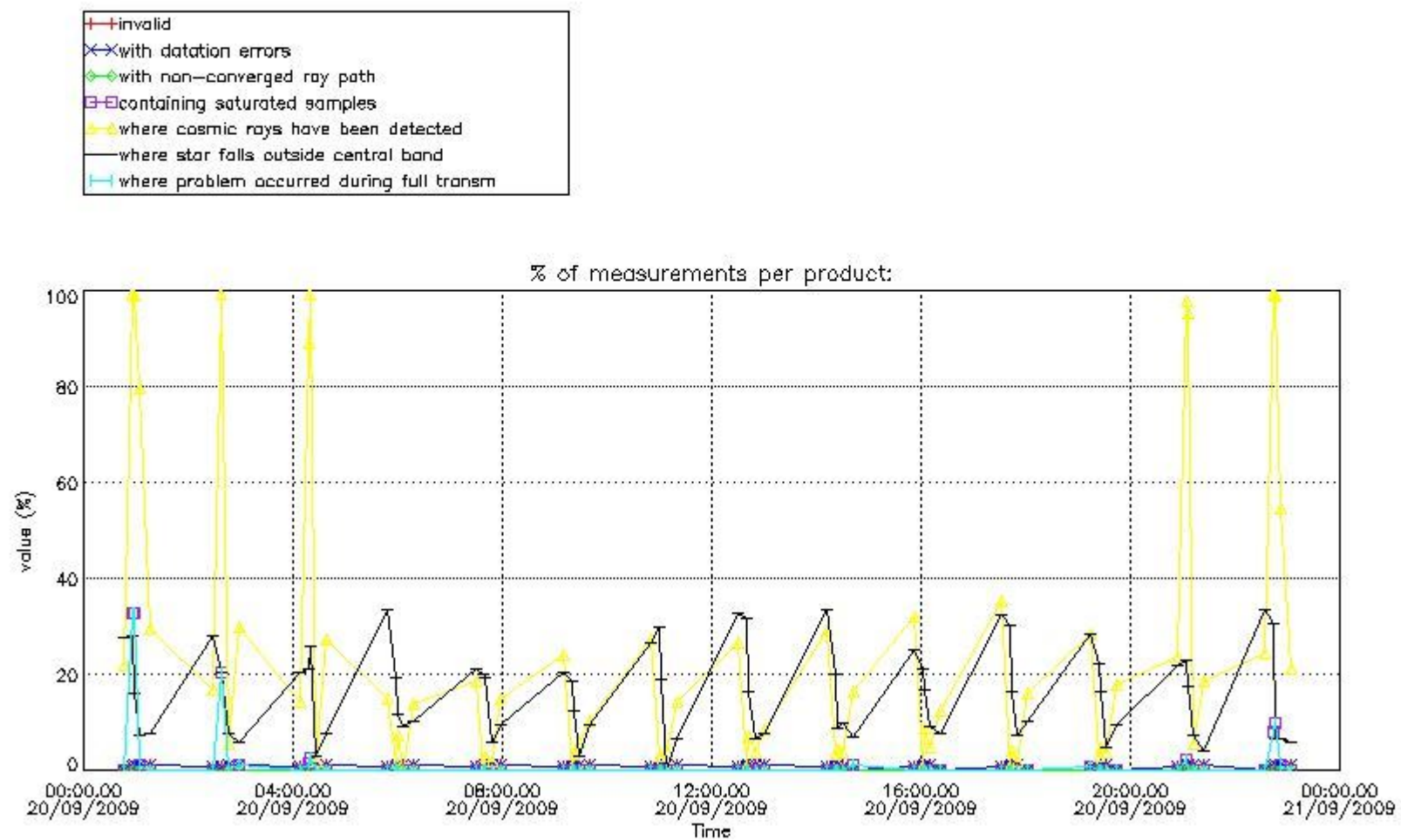


4. Level 1 quality information per product

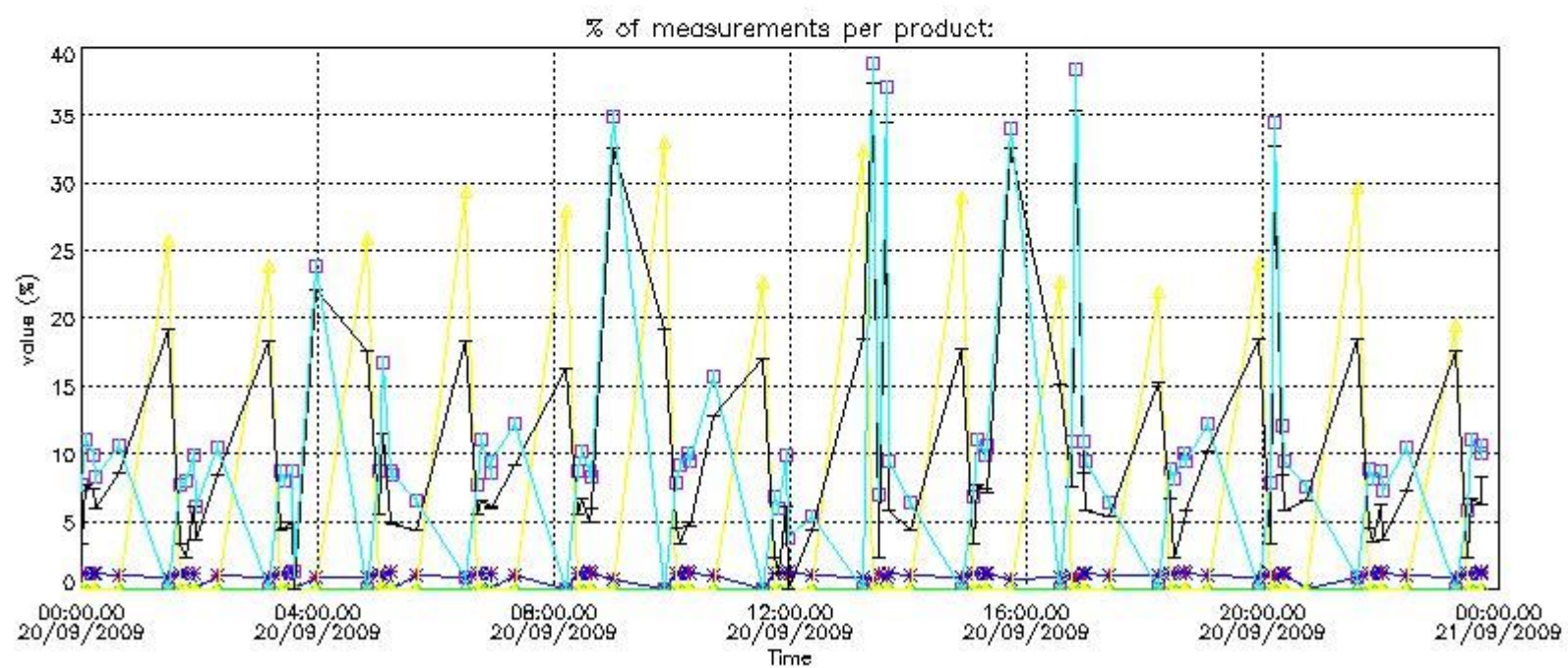
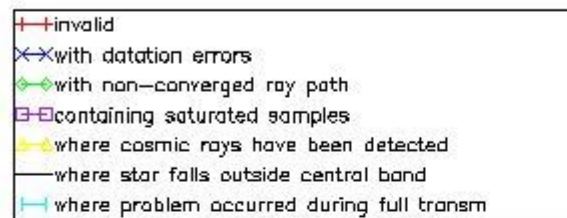
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



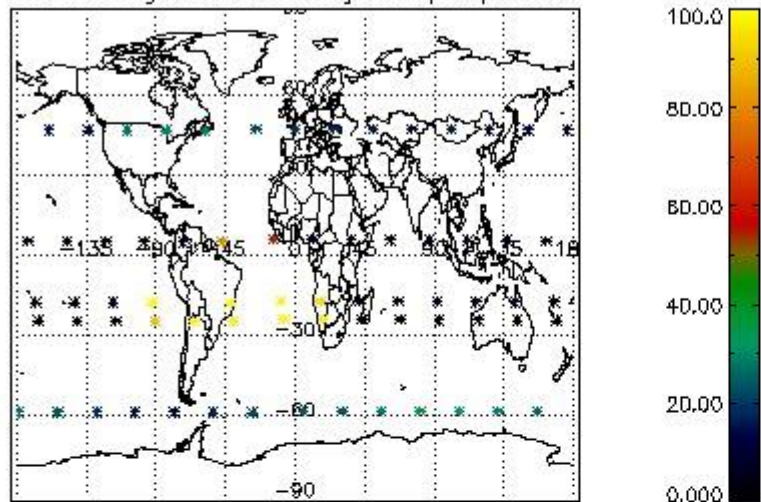
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



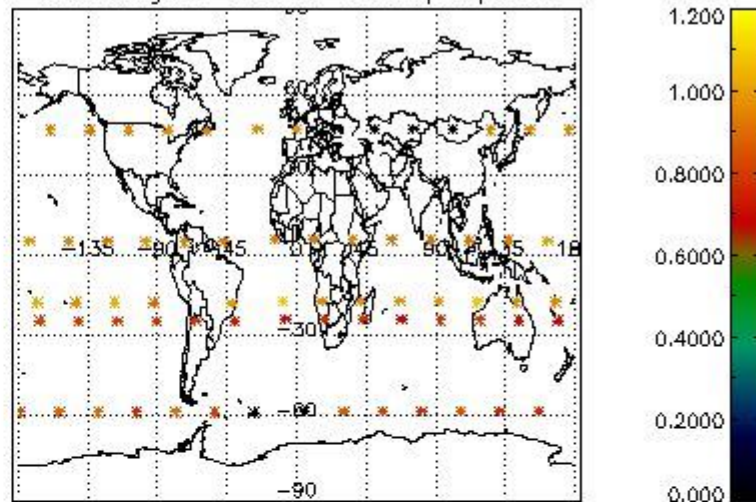
4.2 Plot quality information per product coming from level 1b processing (world map)

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

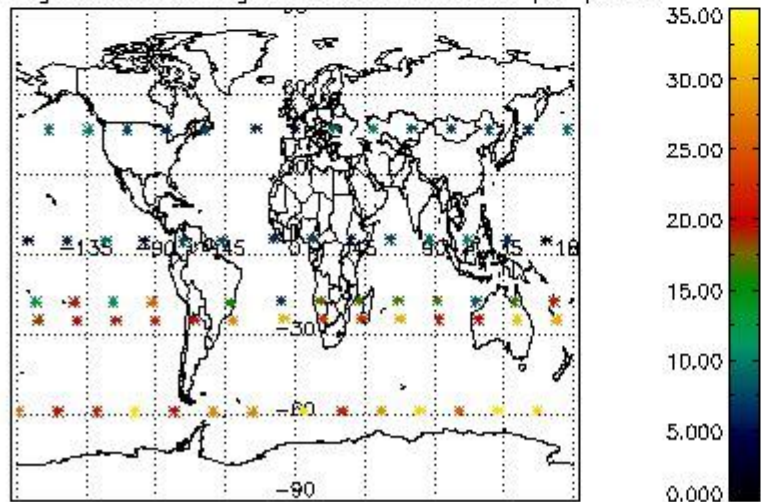
Percentage of cosmic ray hits per profile



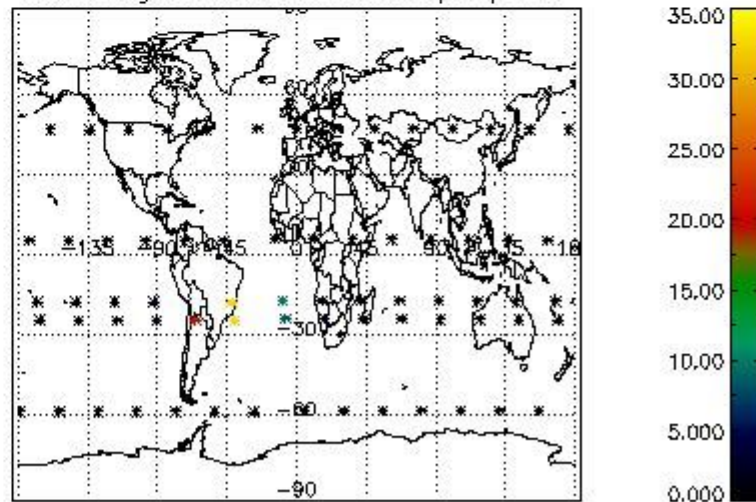
Percentage of datation errors per profile



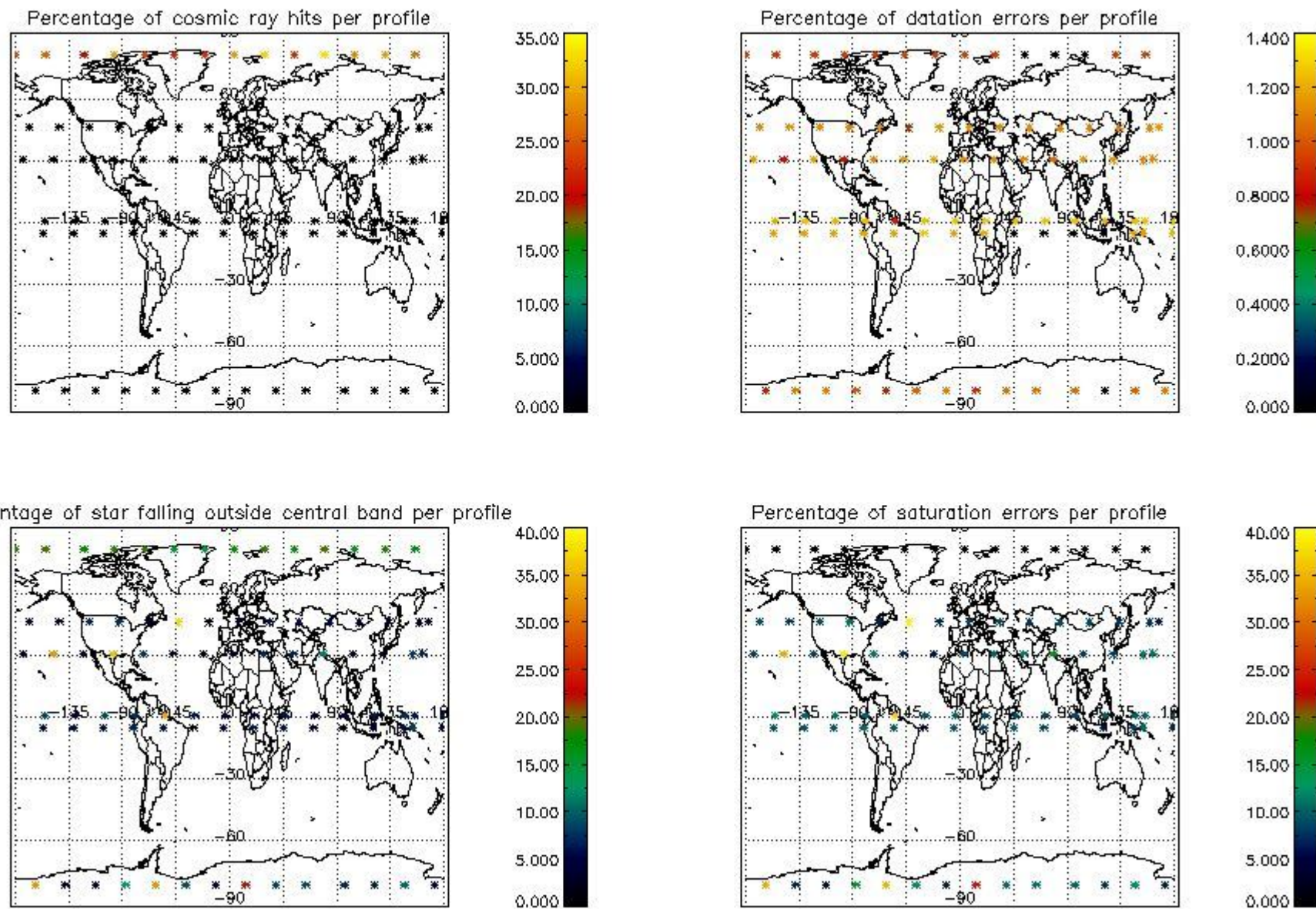
Percentage of star falling outside central band per profile



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

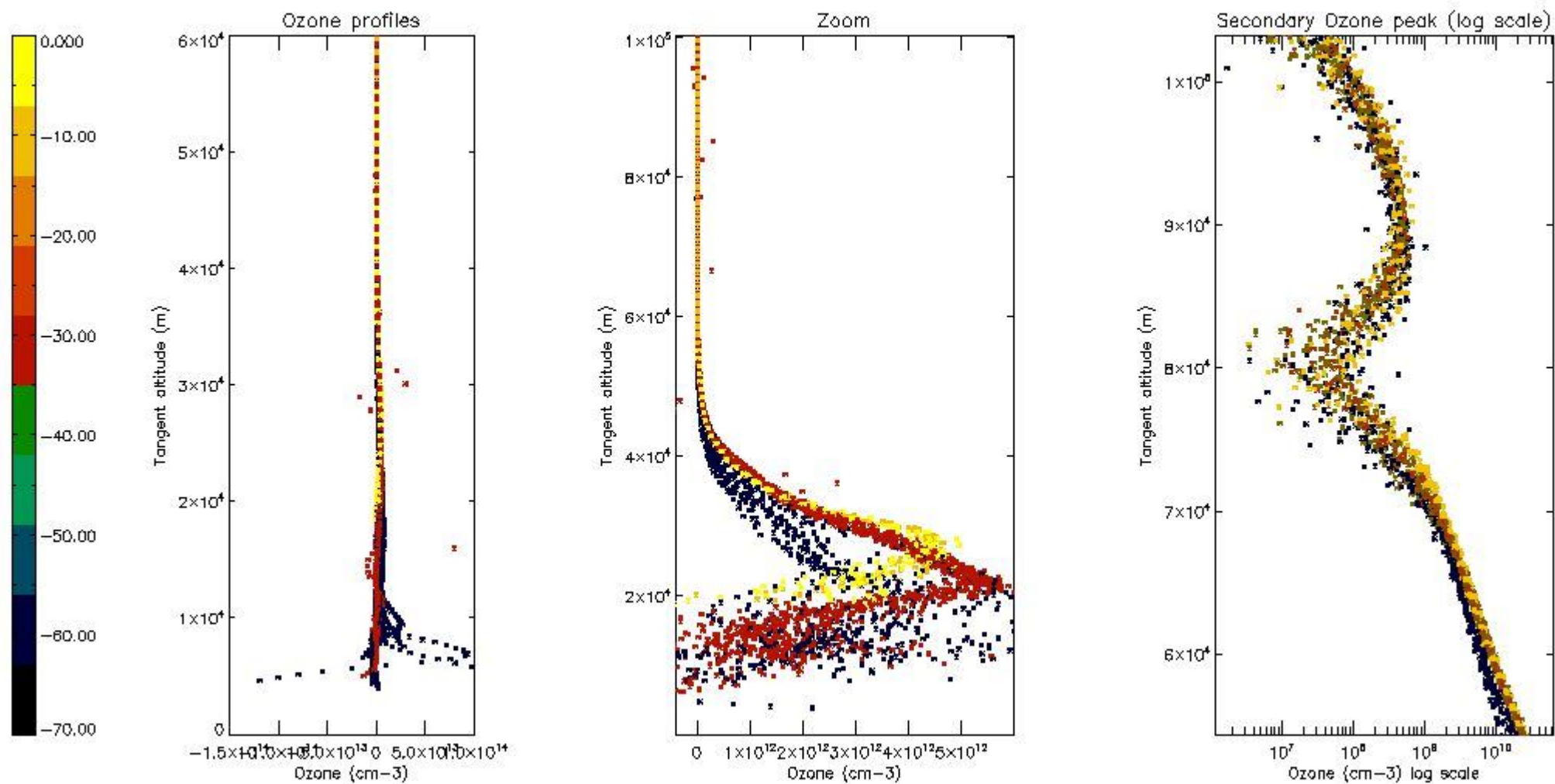
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	41
STD < 20	28

STD < 10	24
STD < 5	20

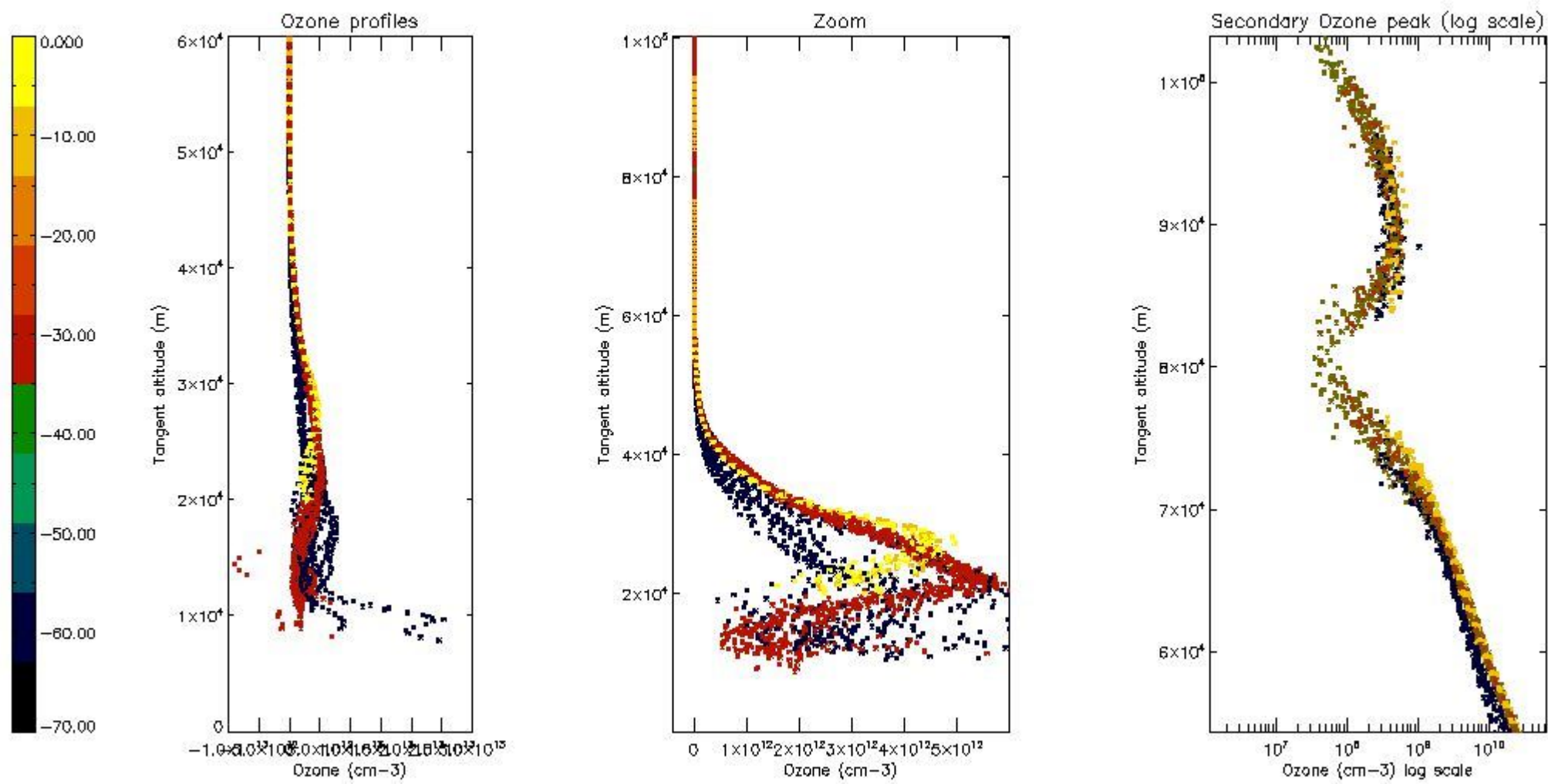
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



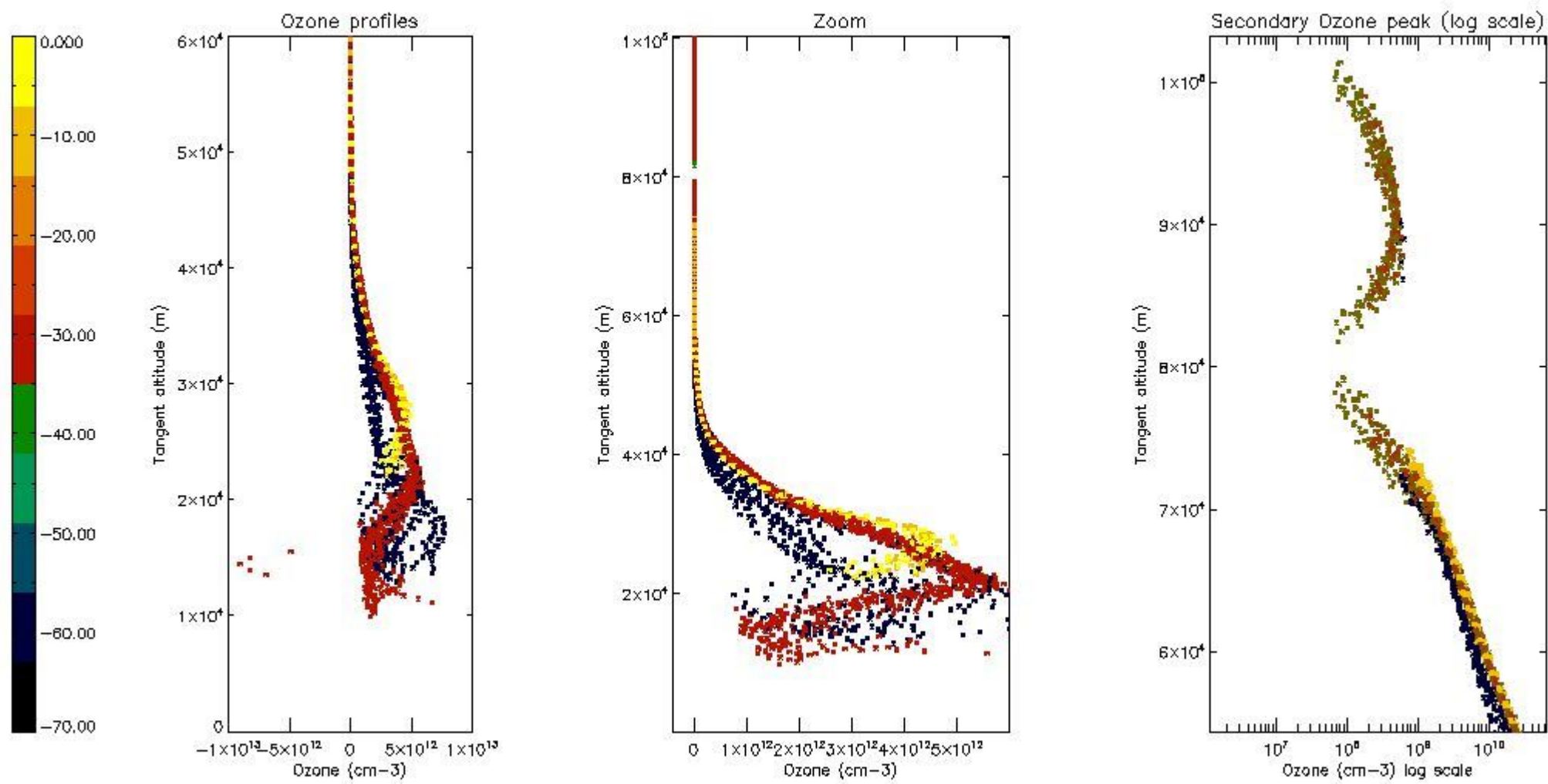
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



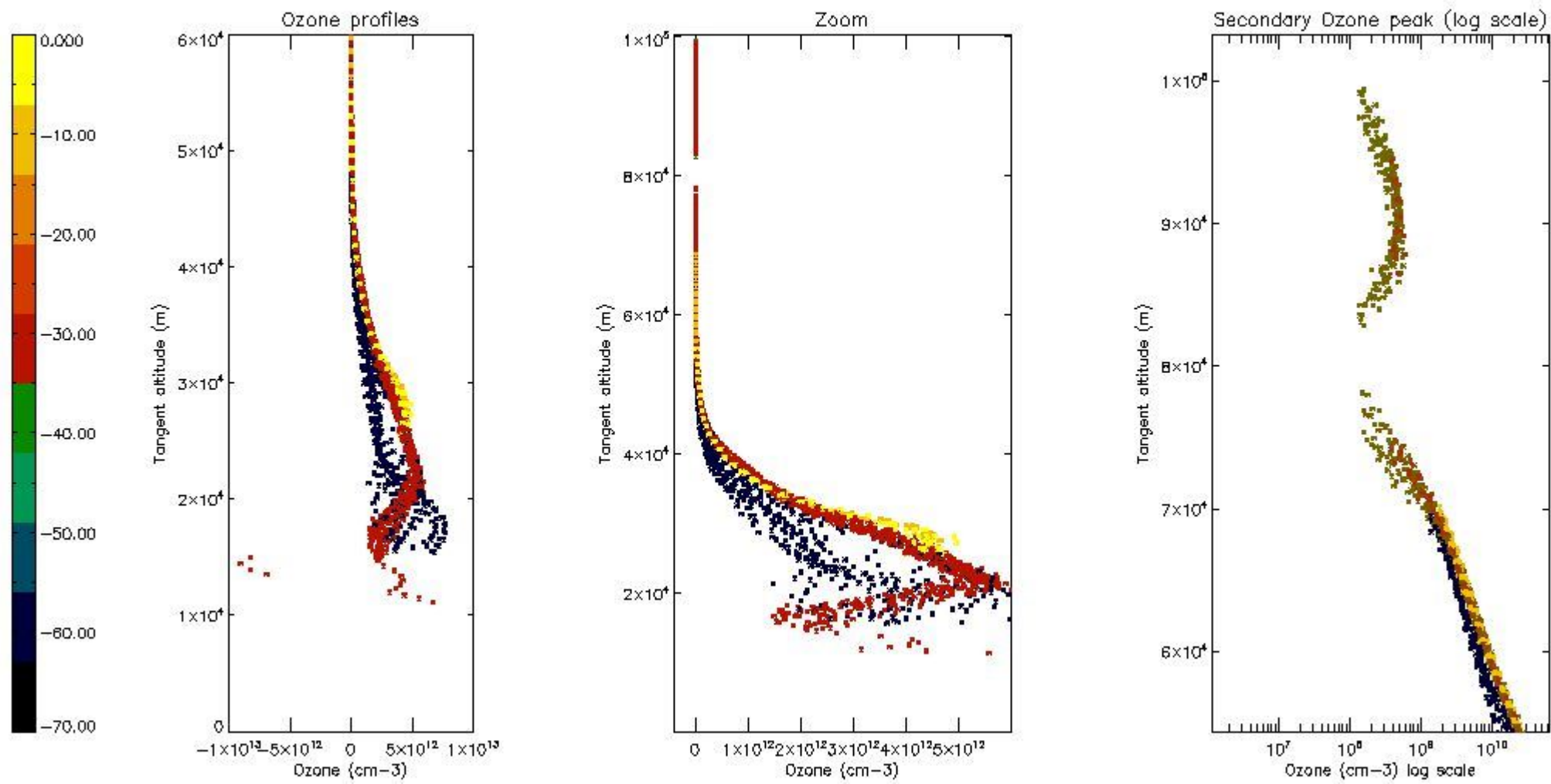
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



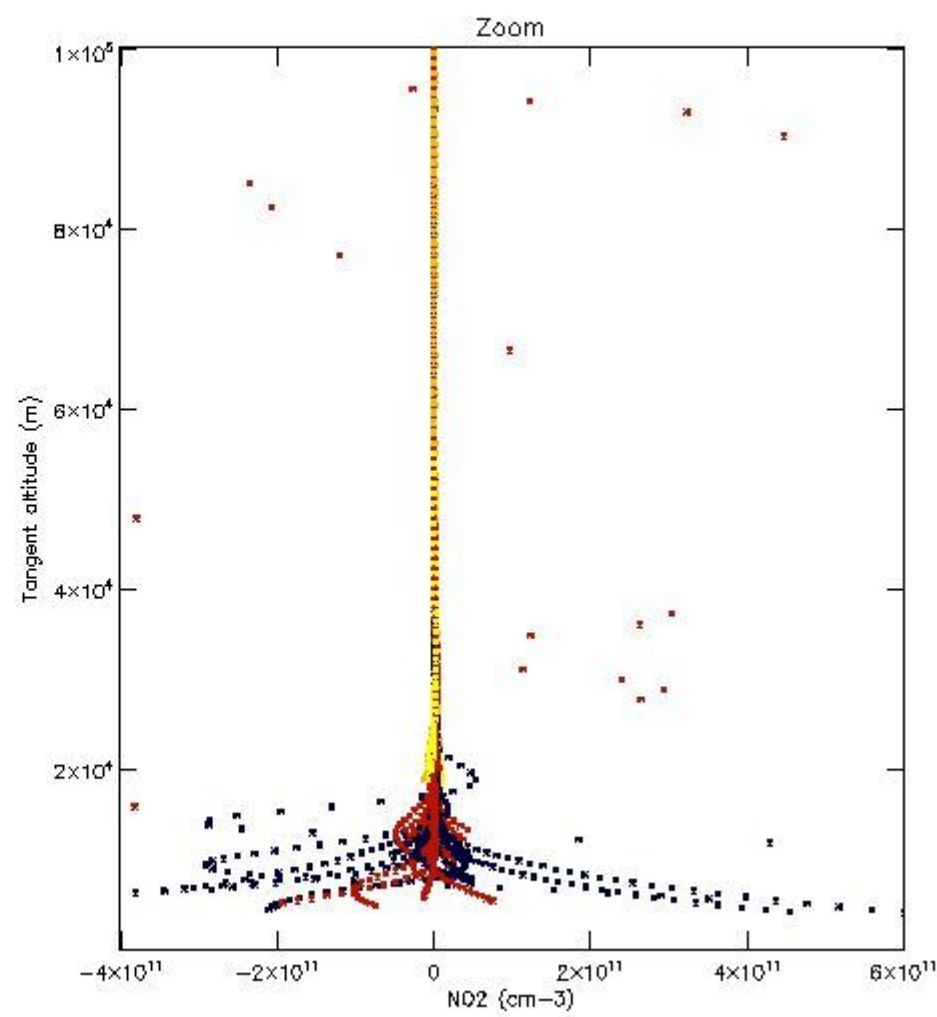
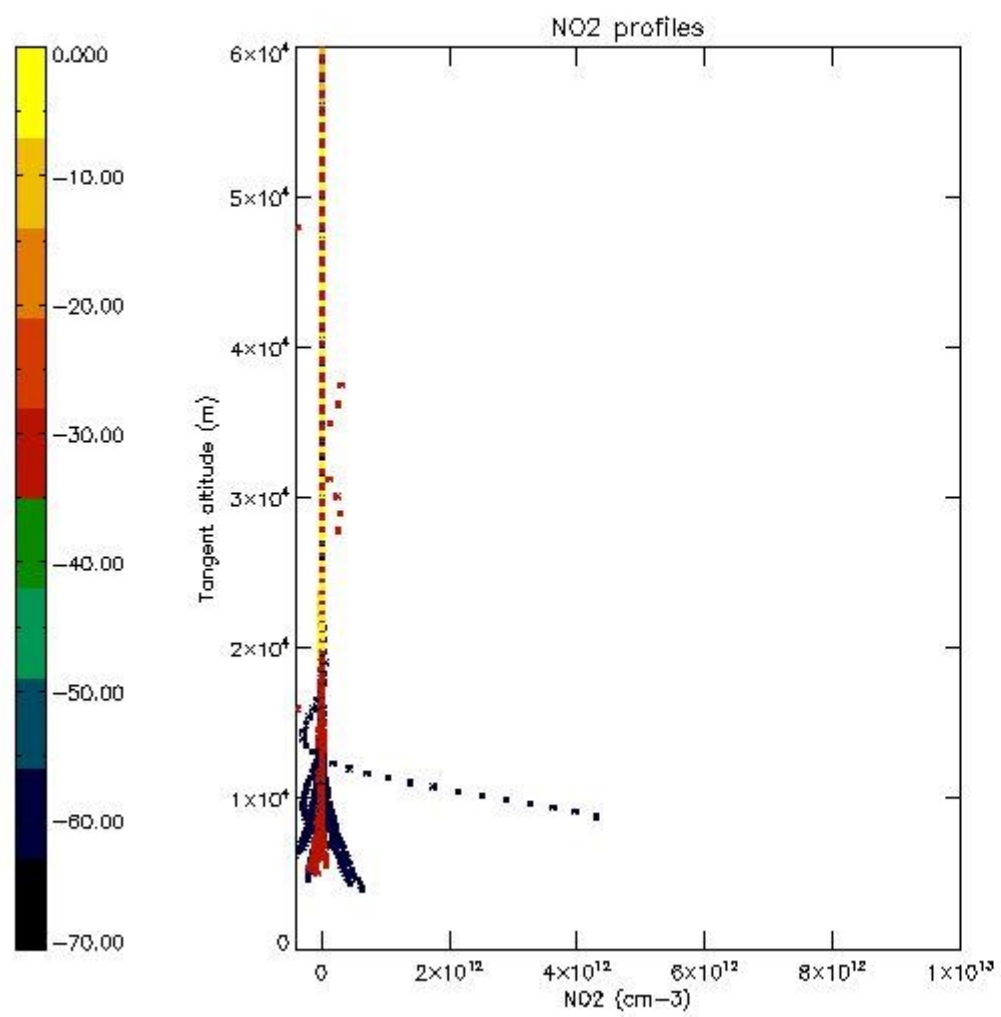
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



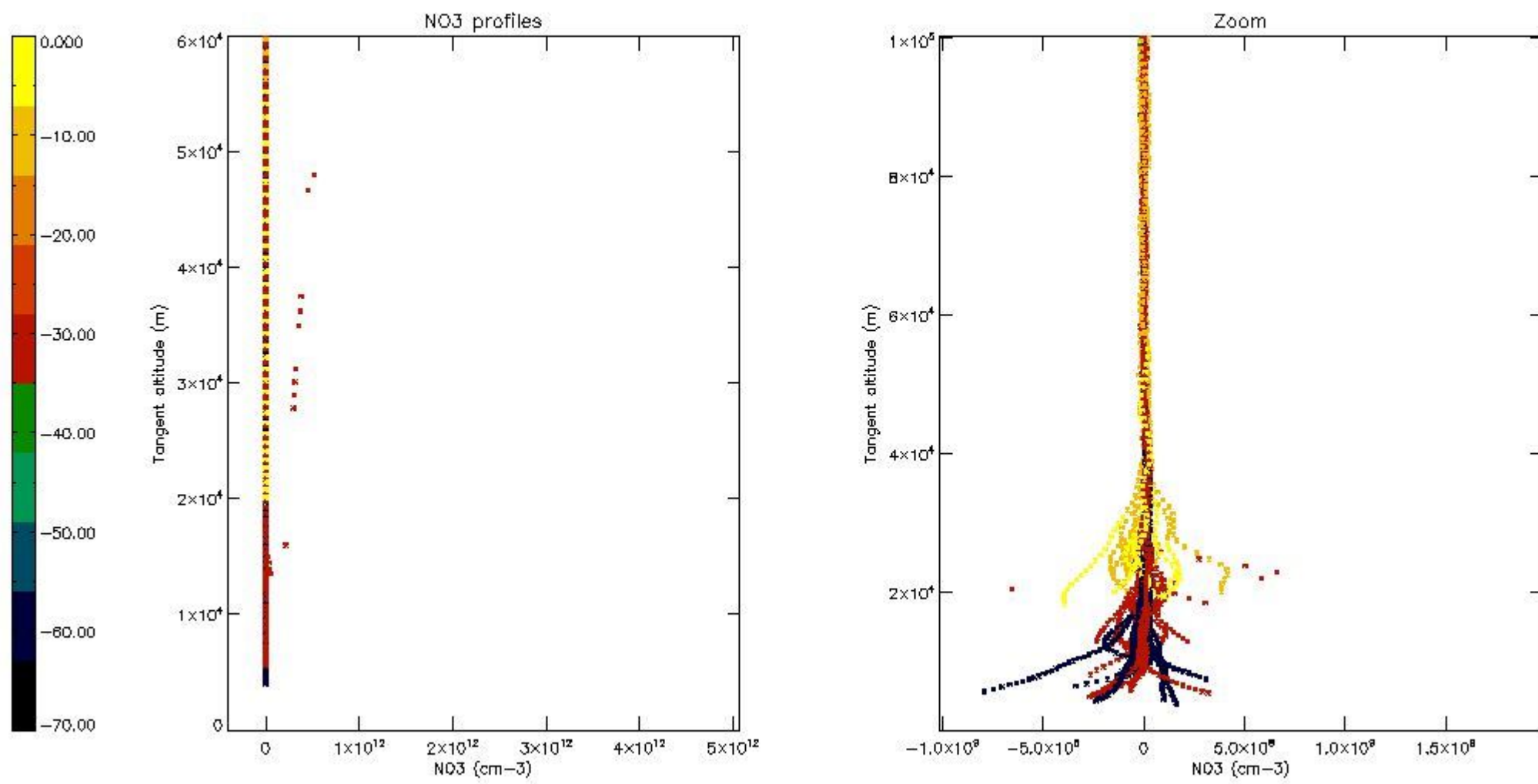
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



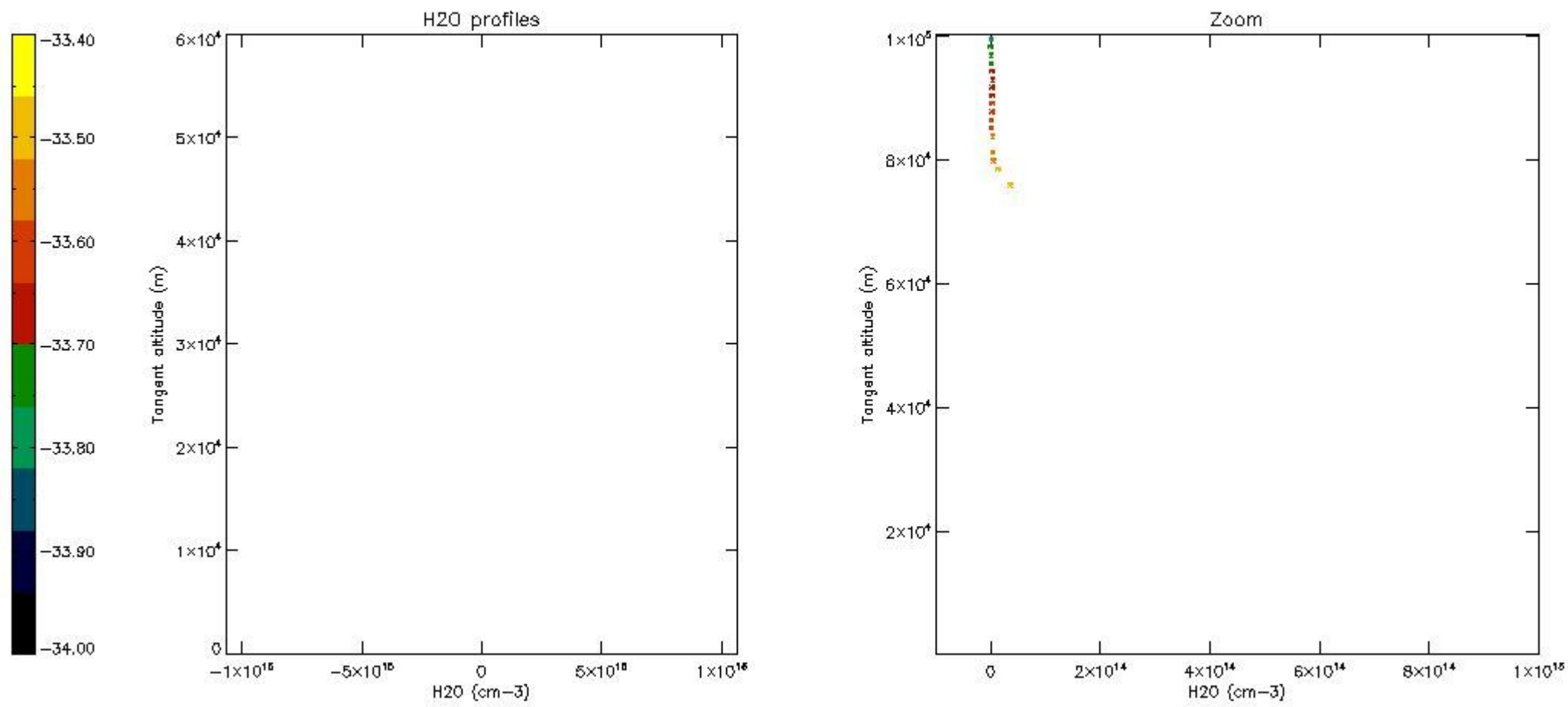
5.7 Plot NO3 profiles for all STD (dark without errors)

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	20-SEP-2009 00:00:05
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	20-SEP-2009 00:00:05
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	20-SEP-2009 00:00:05

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

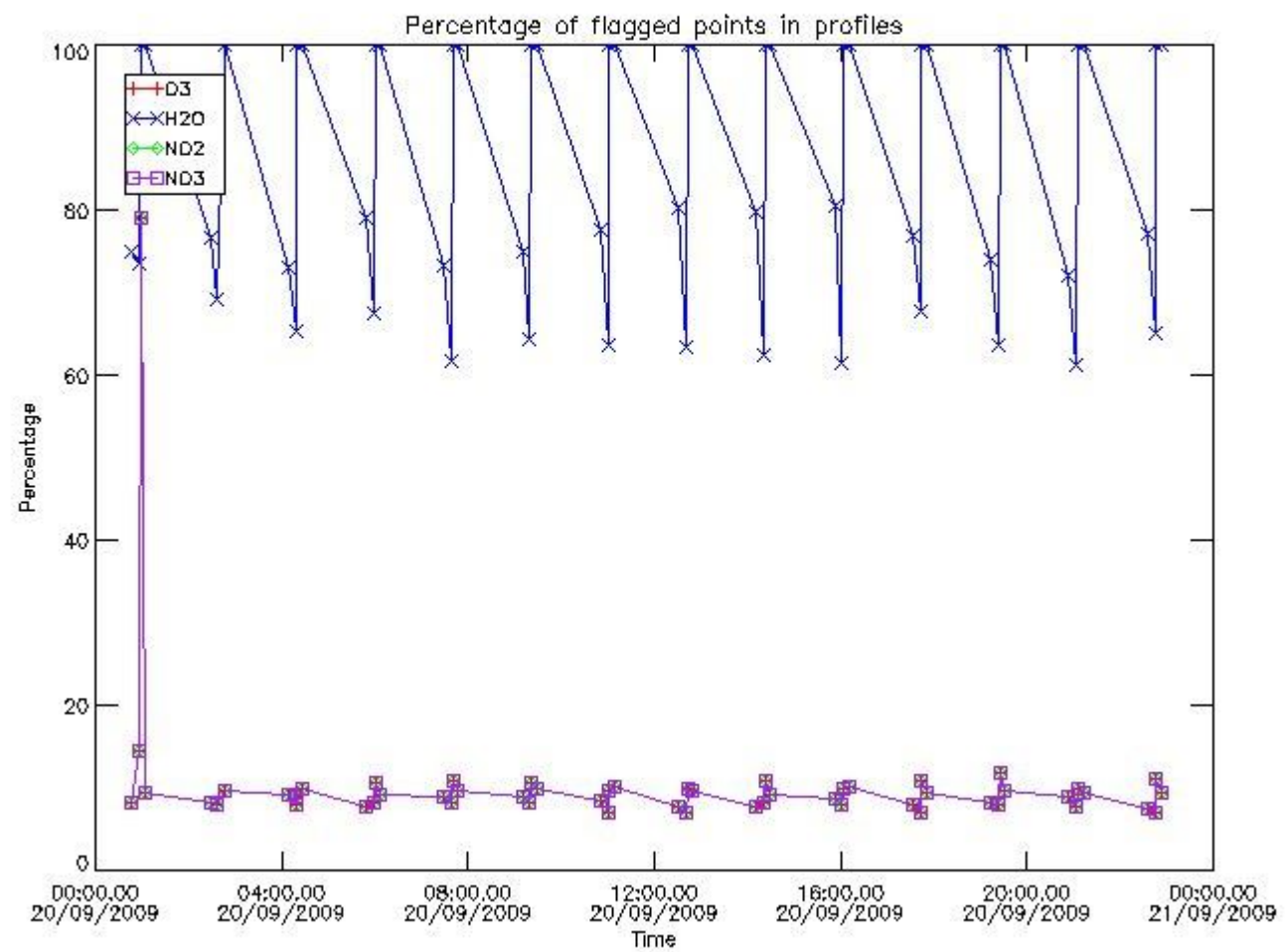
[5.8 Plot H2O profiles \(only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors\) for all STD](#)

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

3. Quality information per product

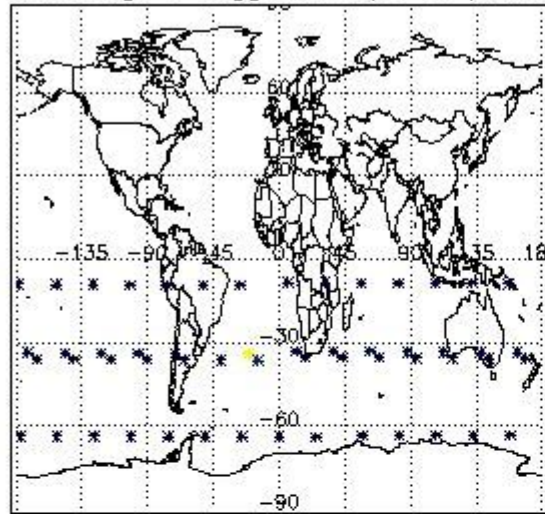
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

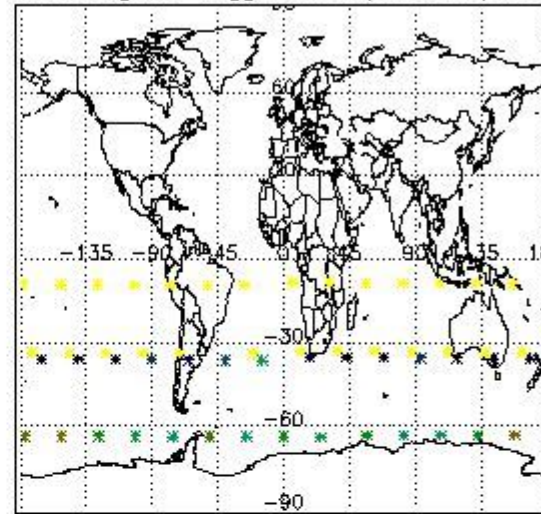


3.2 Plot quality information per product (world map)

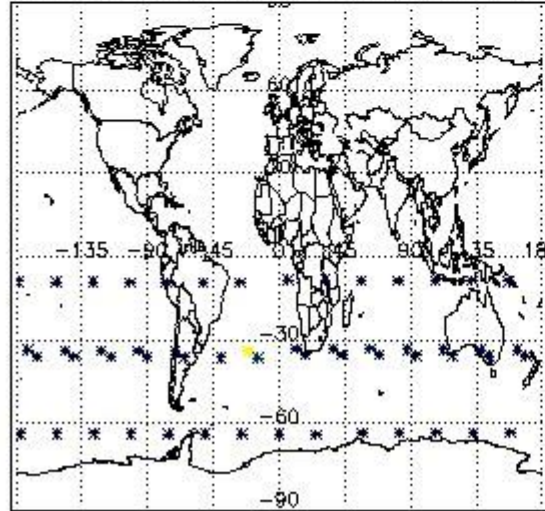
Percentage of flagged data per O3 profile



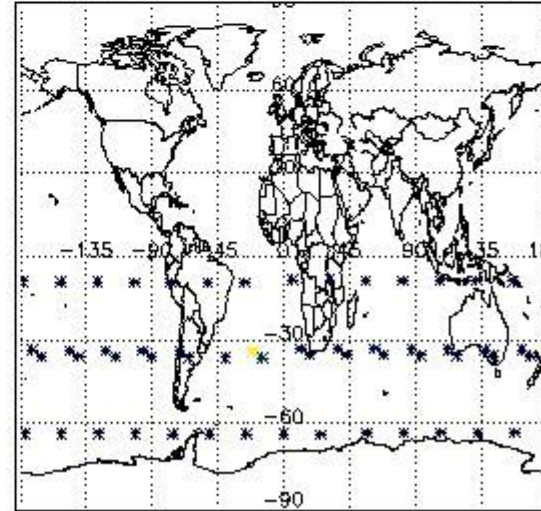
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

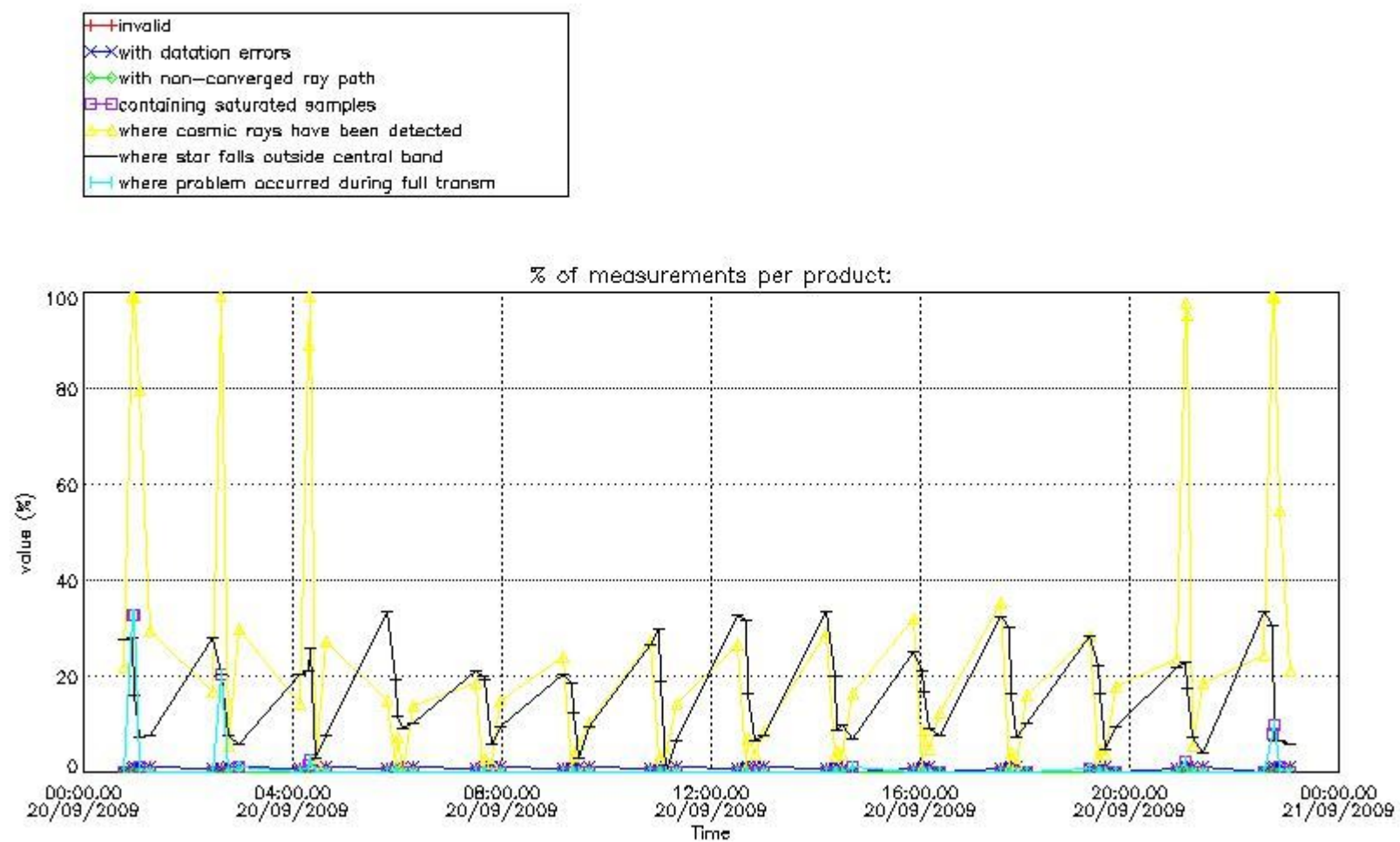


4. Level 1 quality information per product

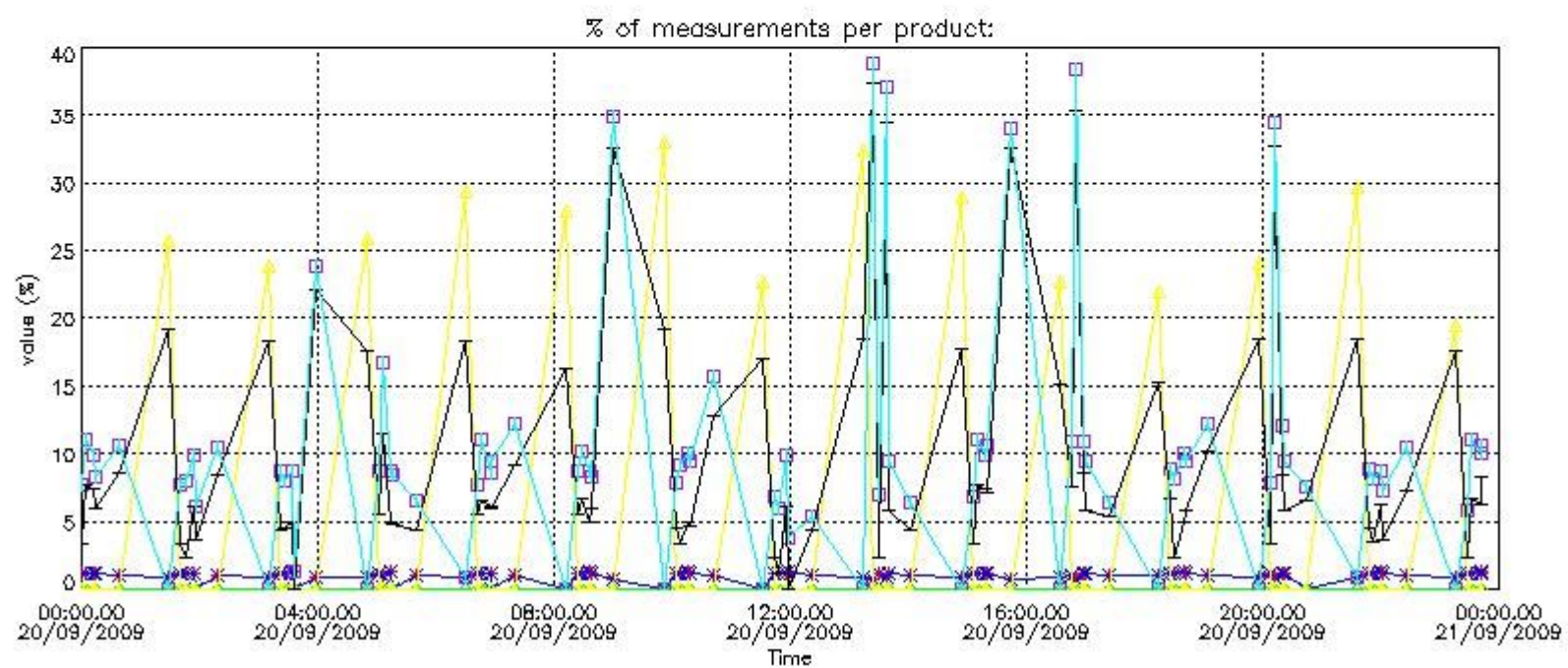
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



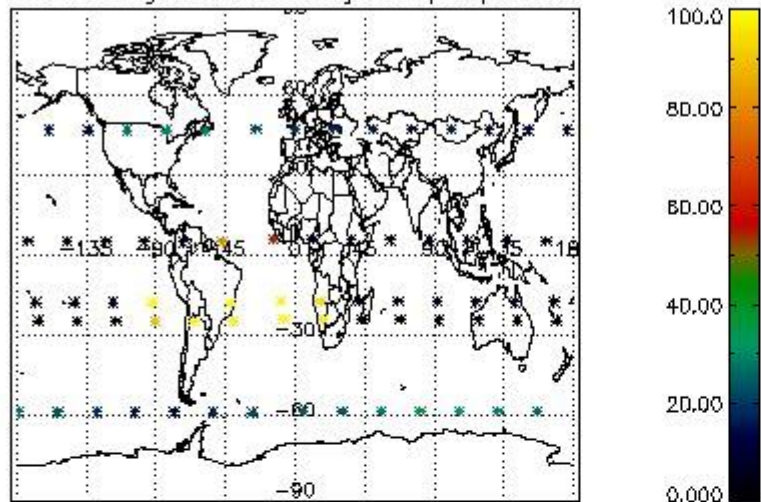
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



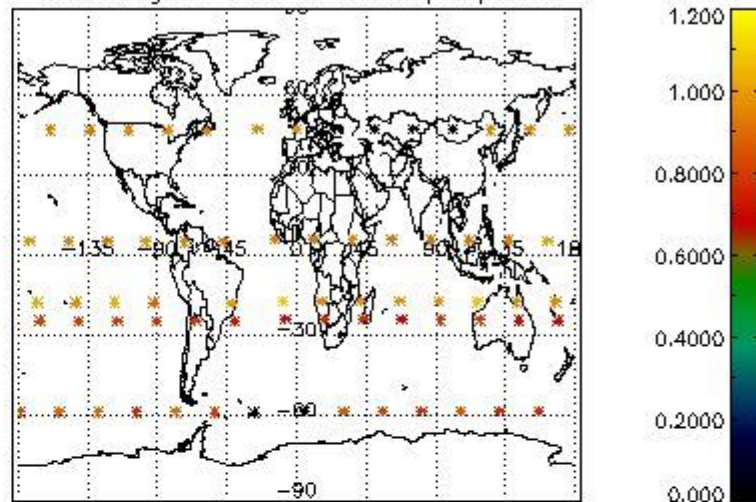
4.2 Plot quality information per product coming from level 1b processing (world map)

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

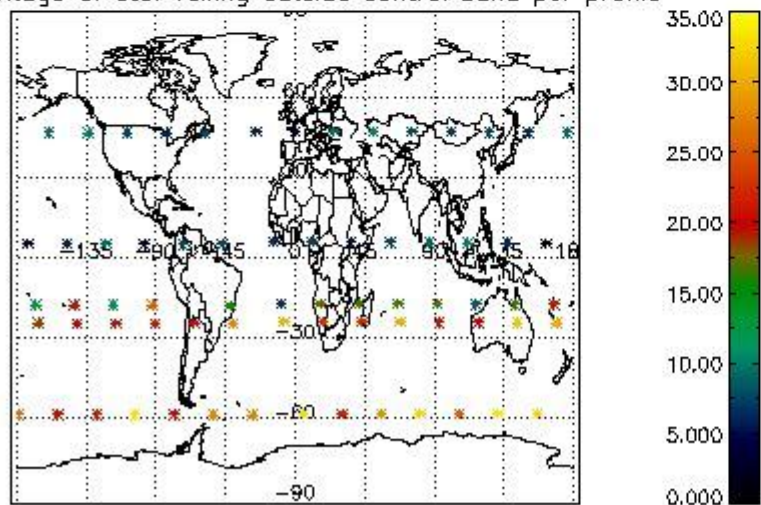
Percentage of cosmic ray hits per profile



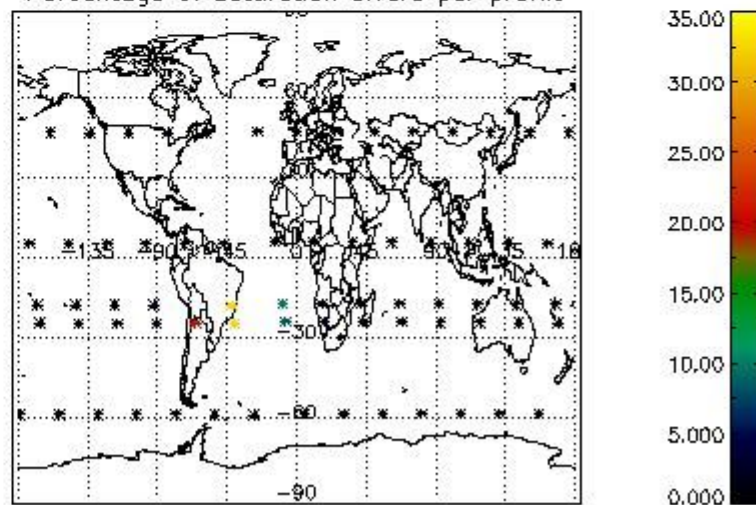
Percentage of datation errors per profile



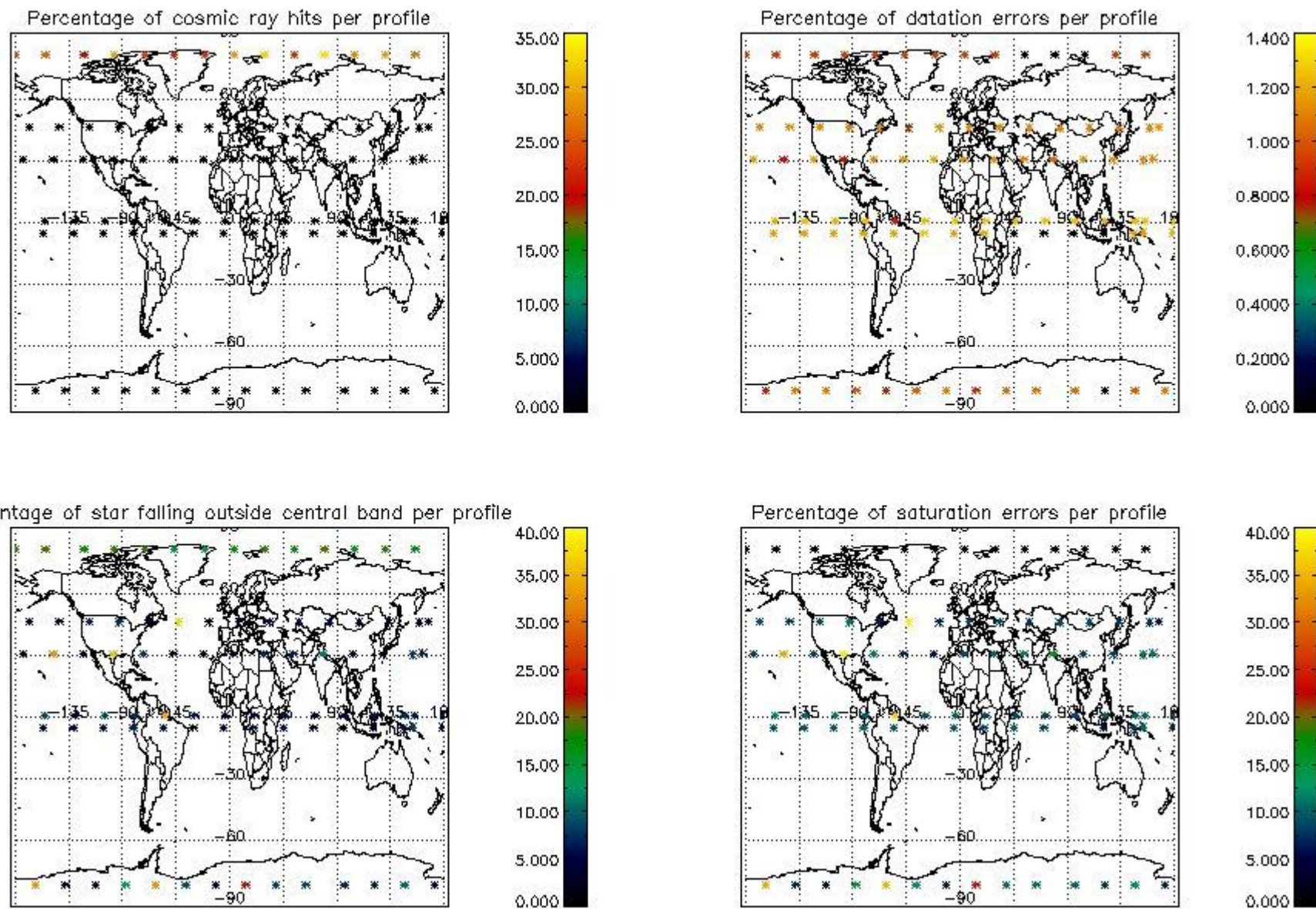
Percentage of star falling outside central band per profile



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

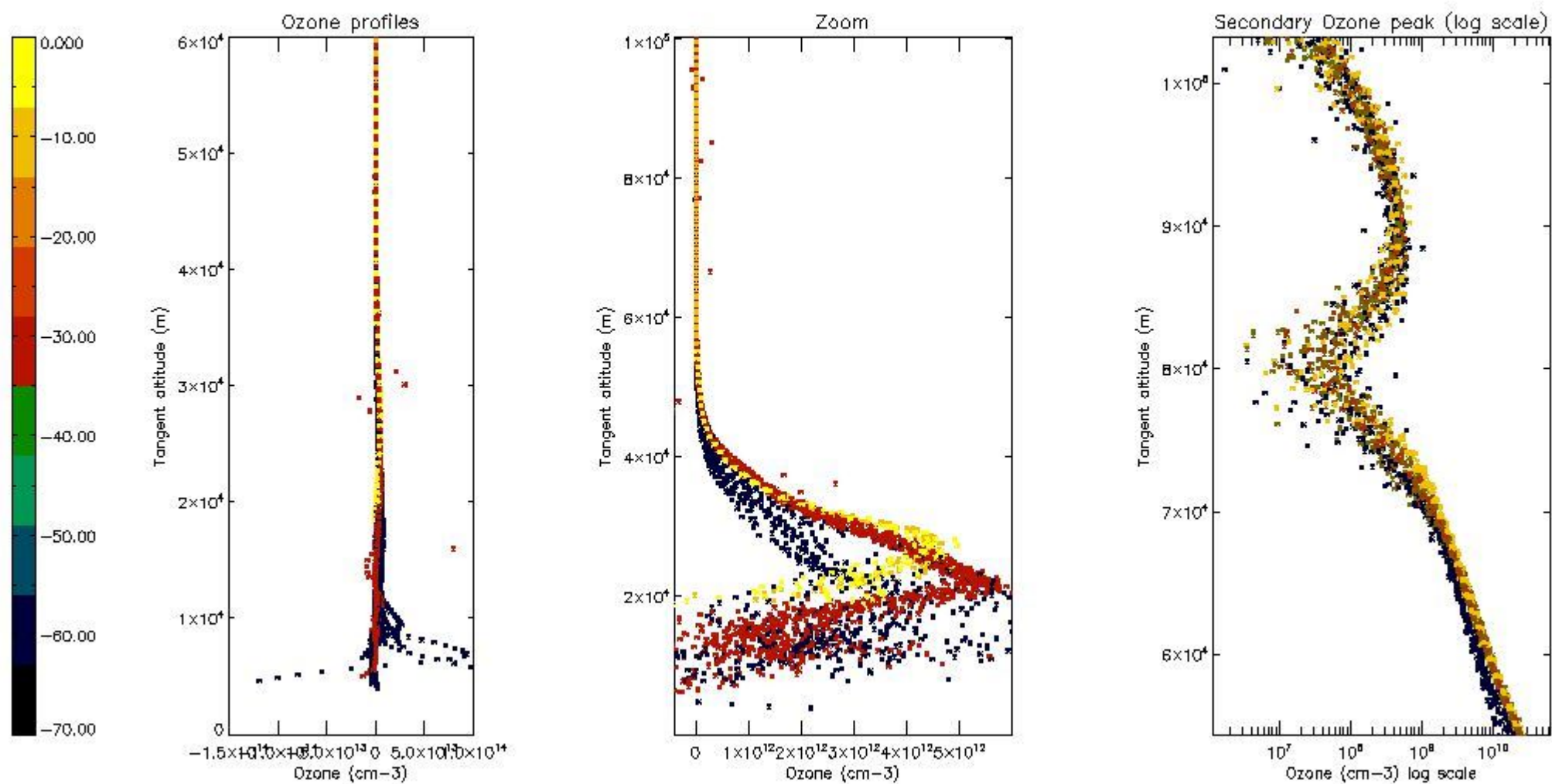
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	41
STD < 20	28

STD < 10	24
STD < 5	20

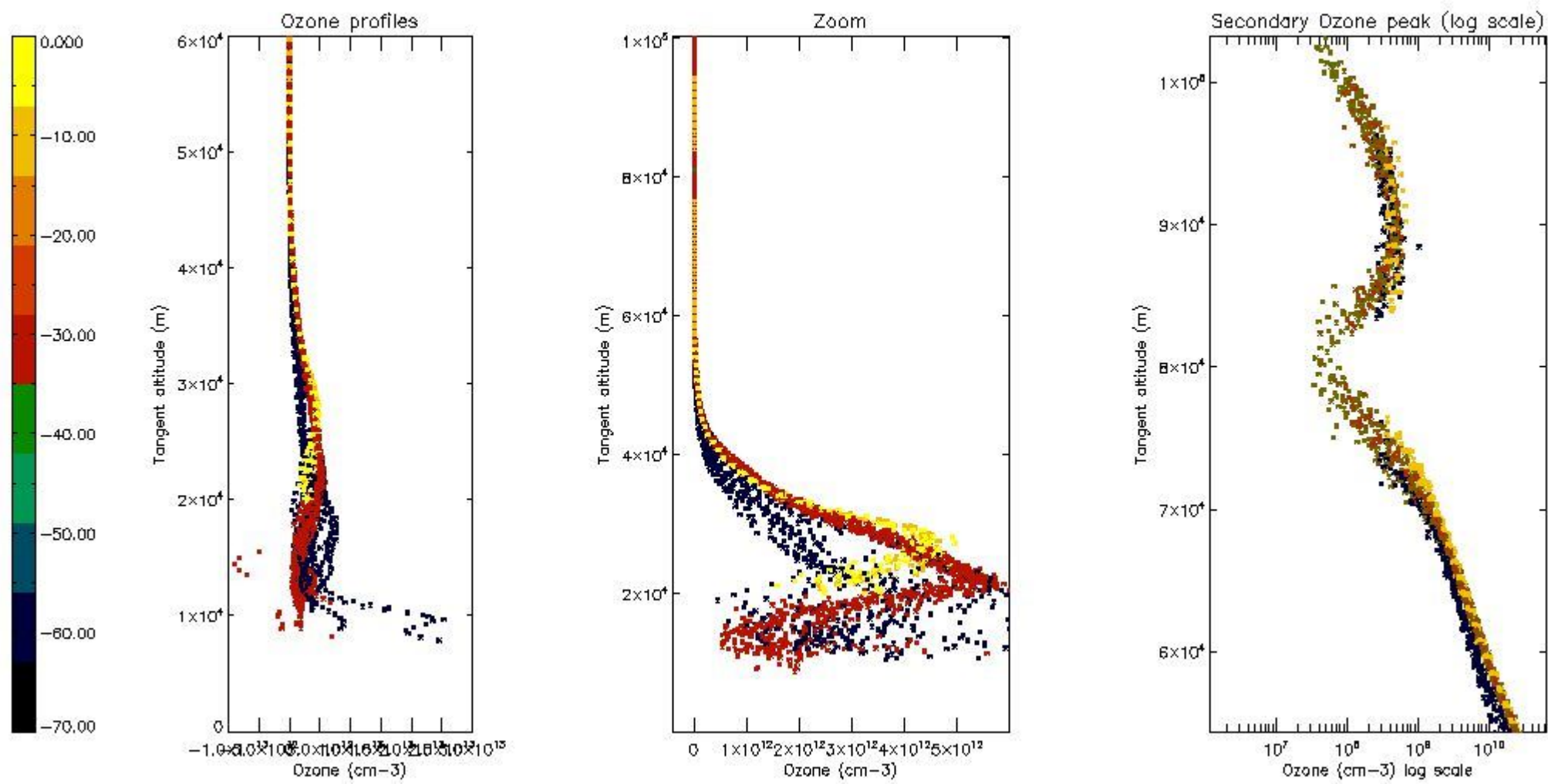
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



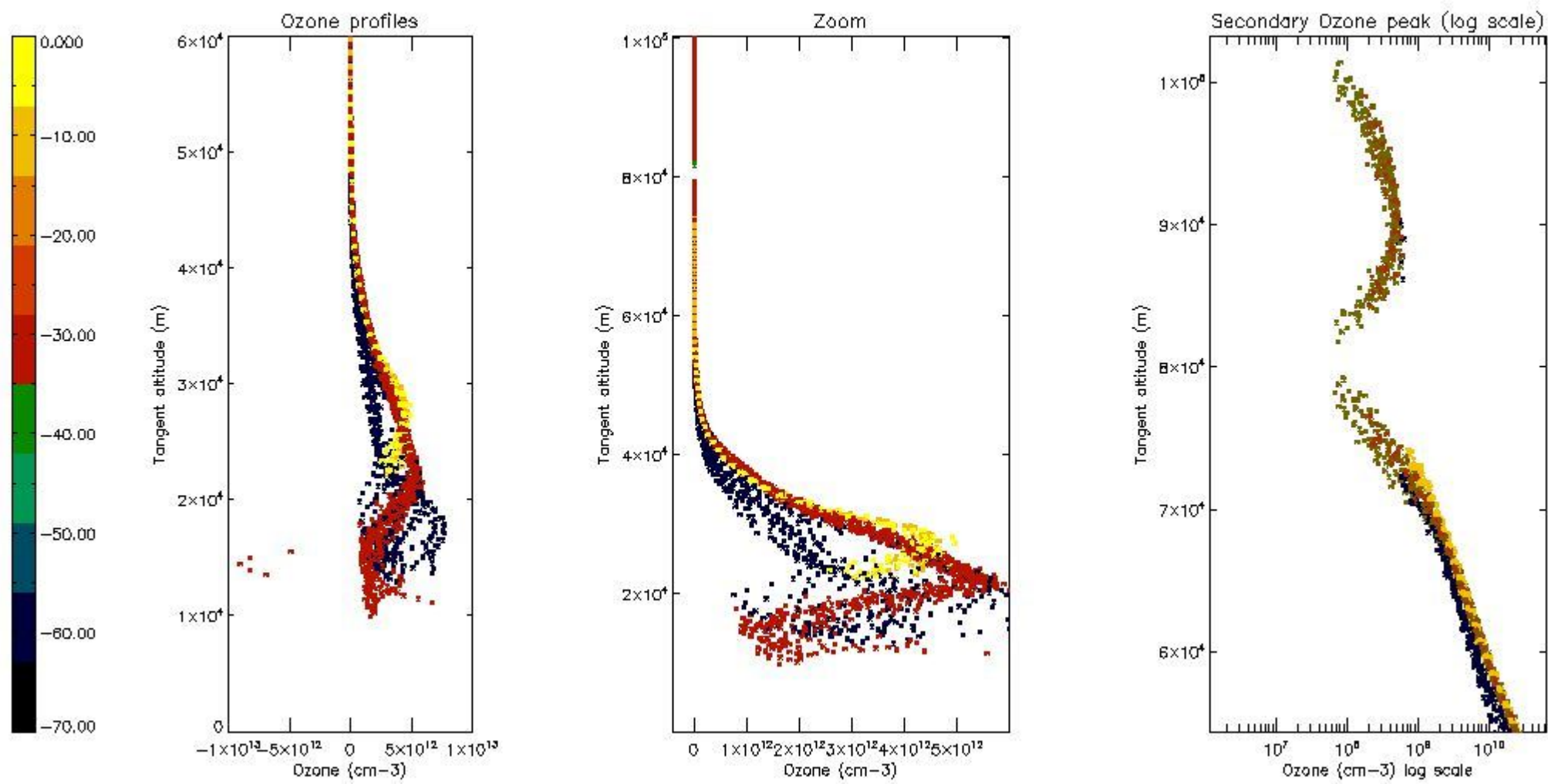
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



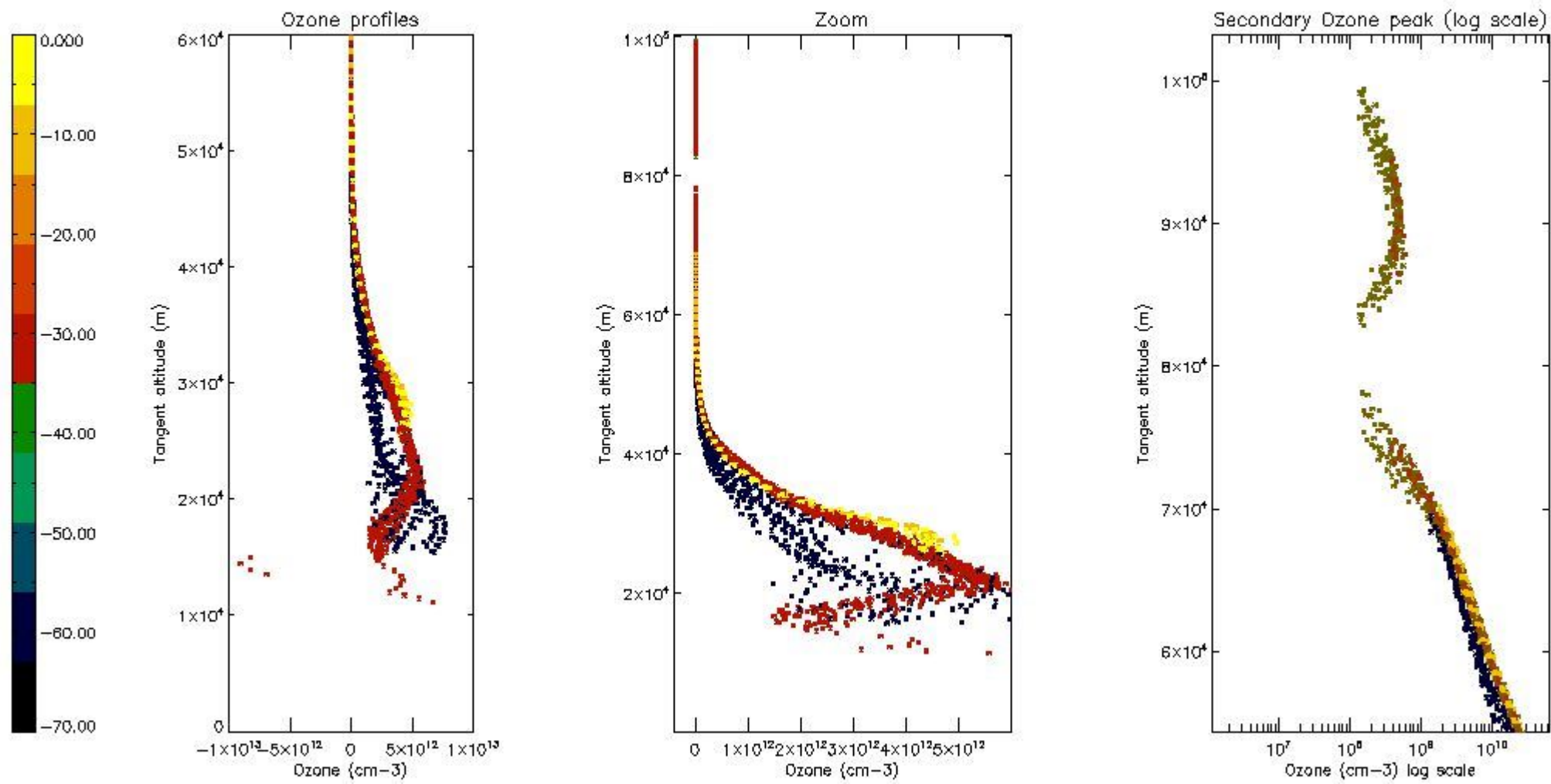
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



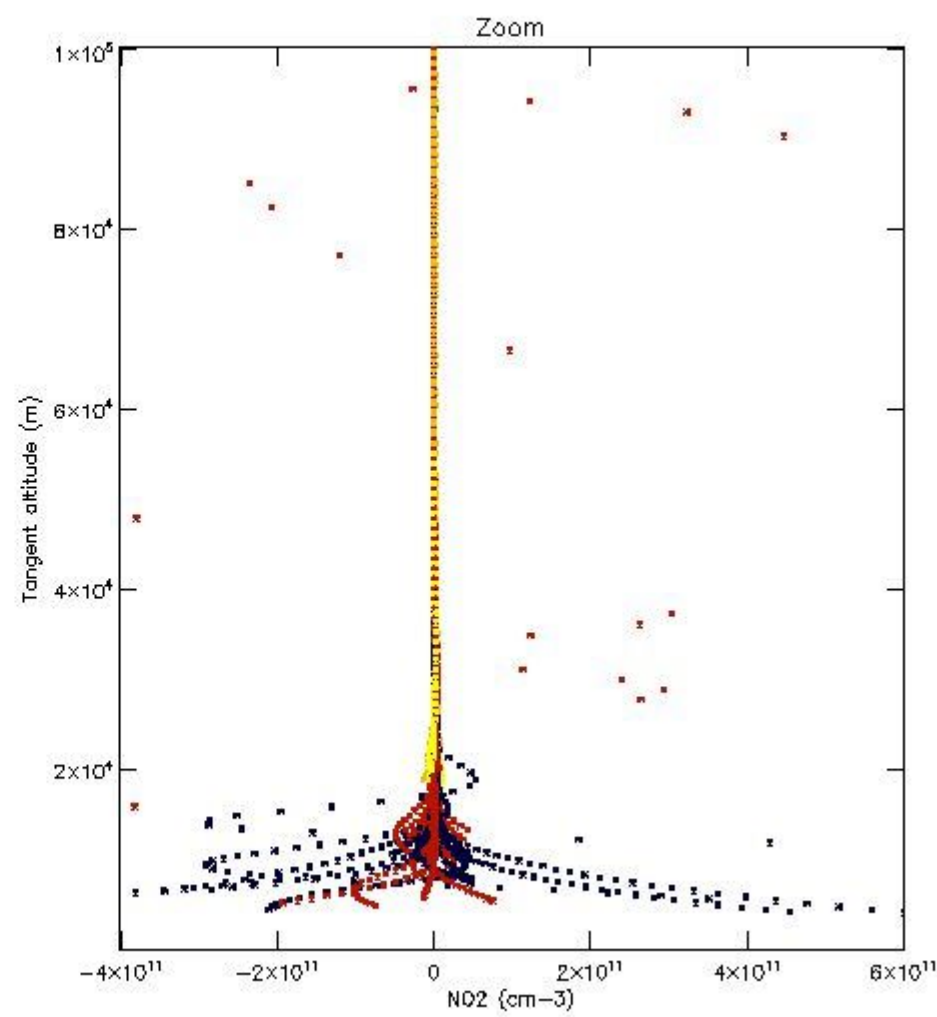
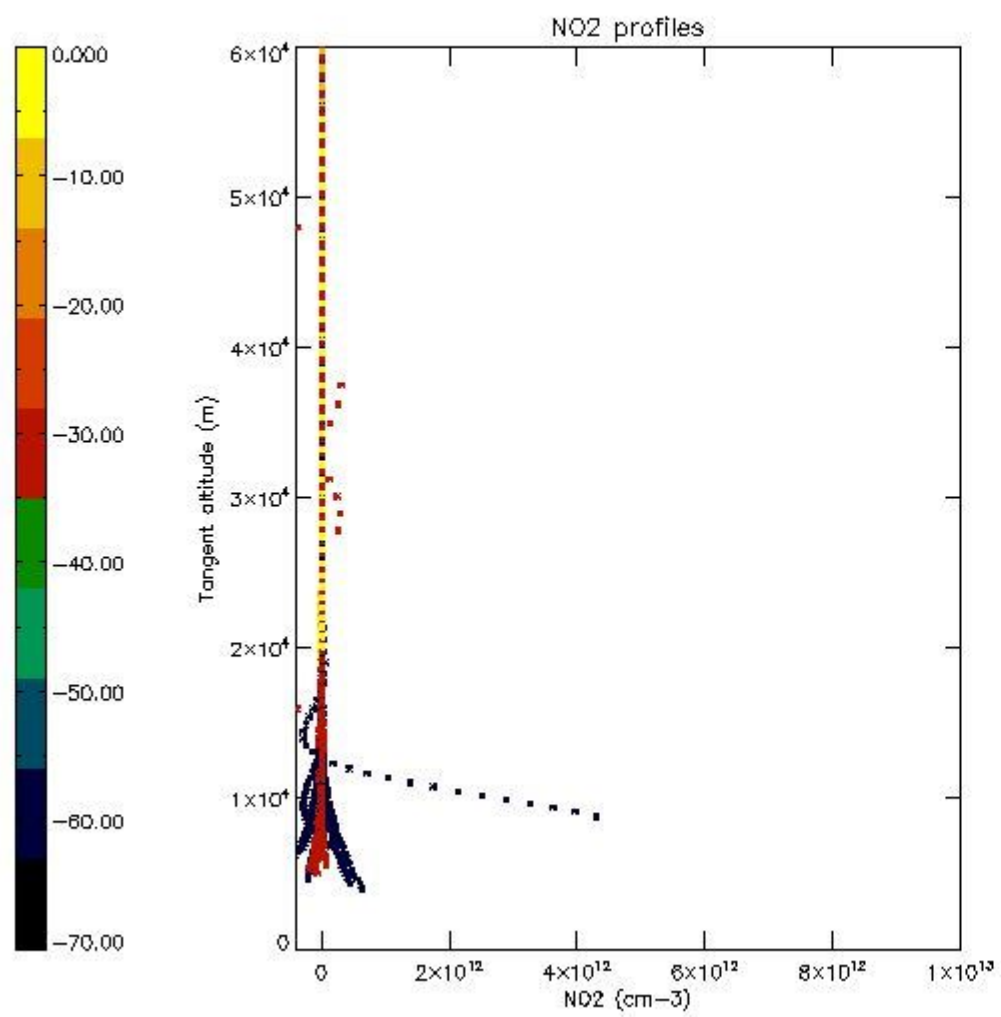
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



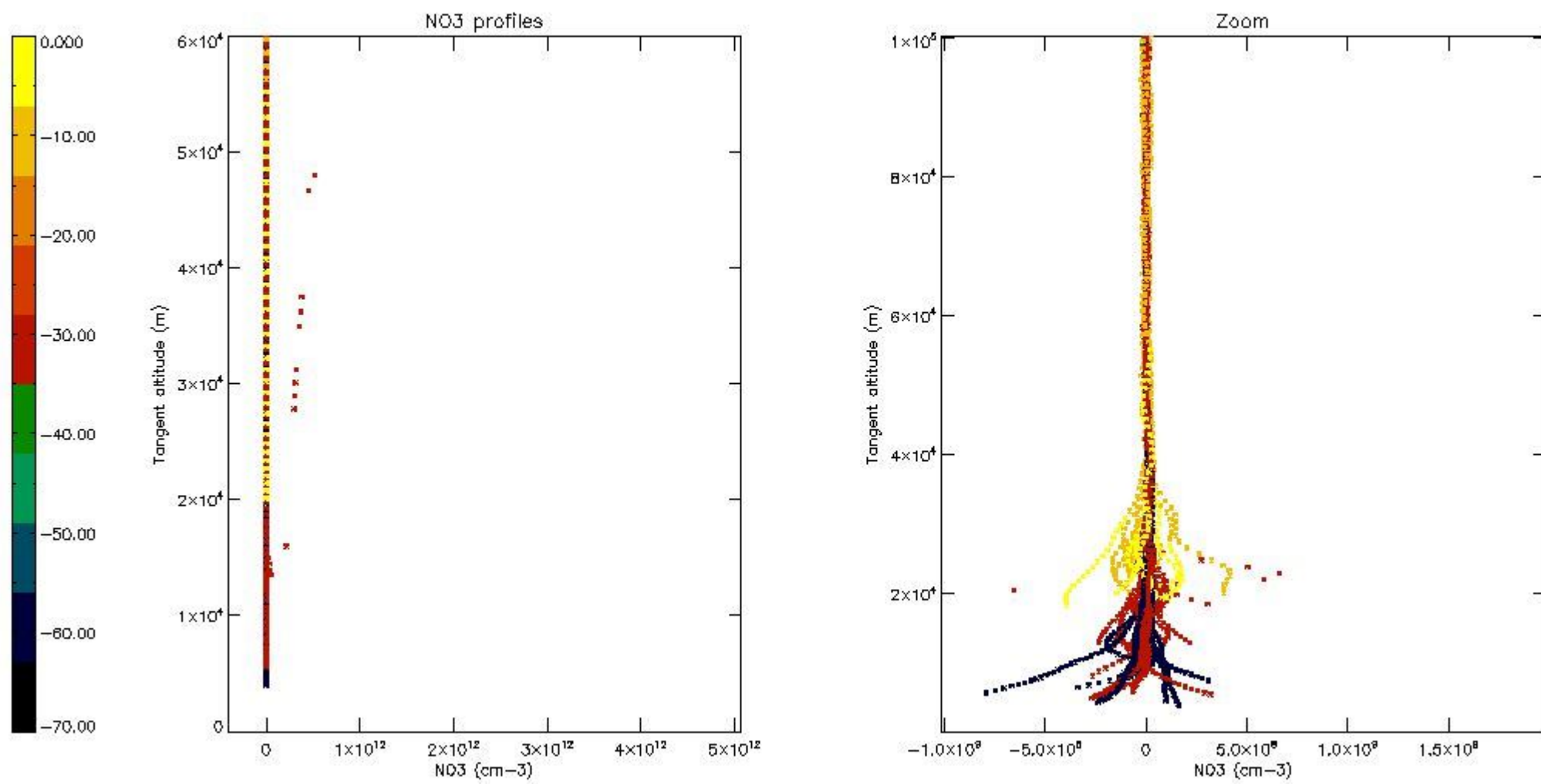
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



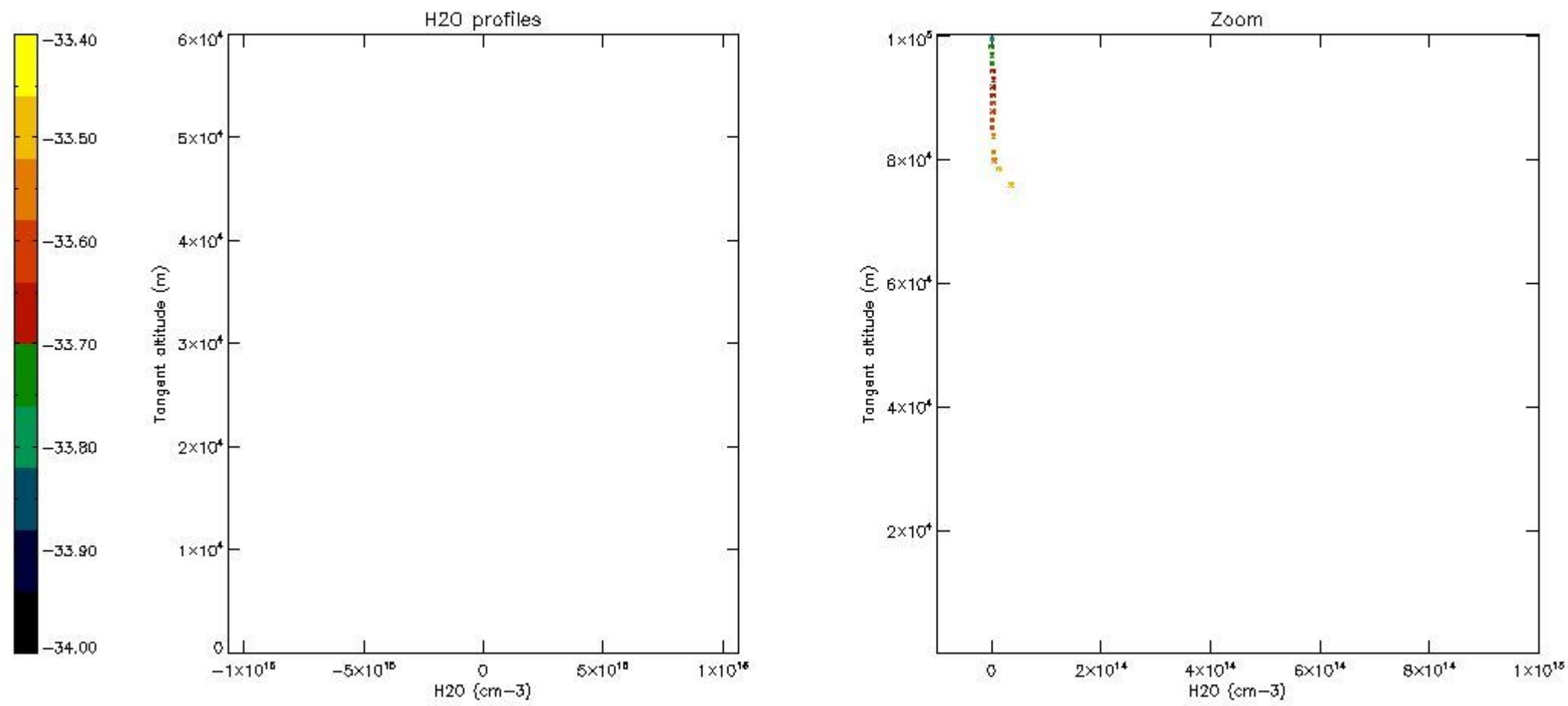
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

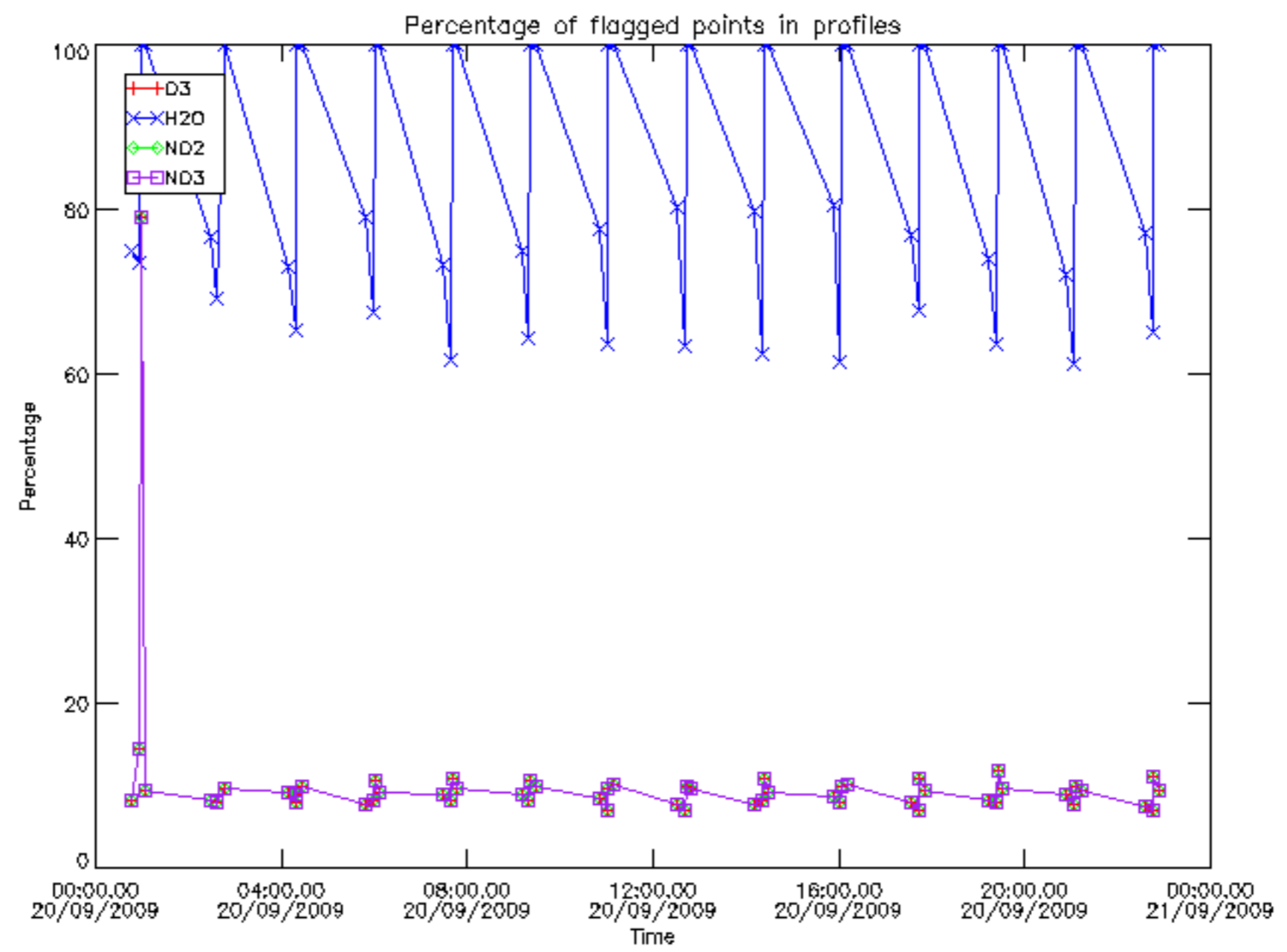
The colorbar represents the latitude.



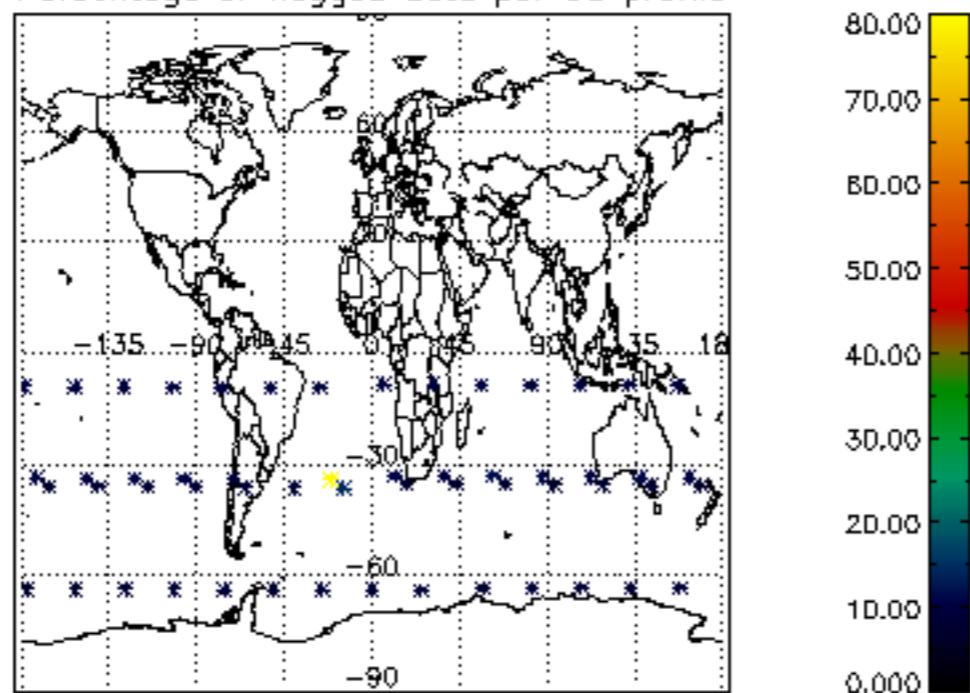
6. Auxiliary Data Files used for the production reported in section 2

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.

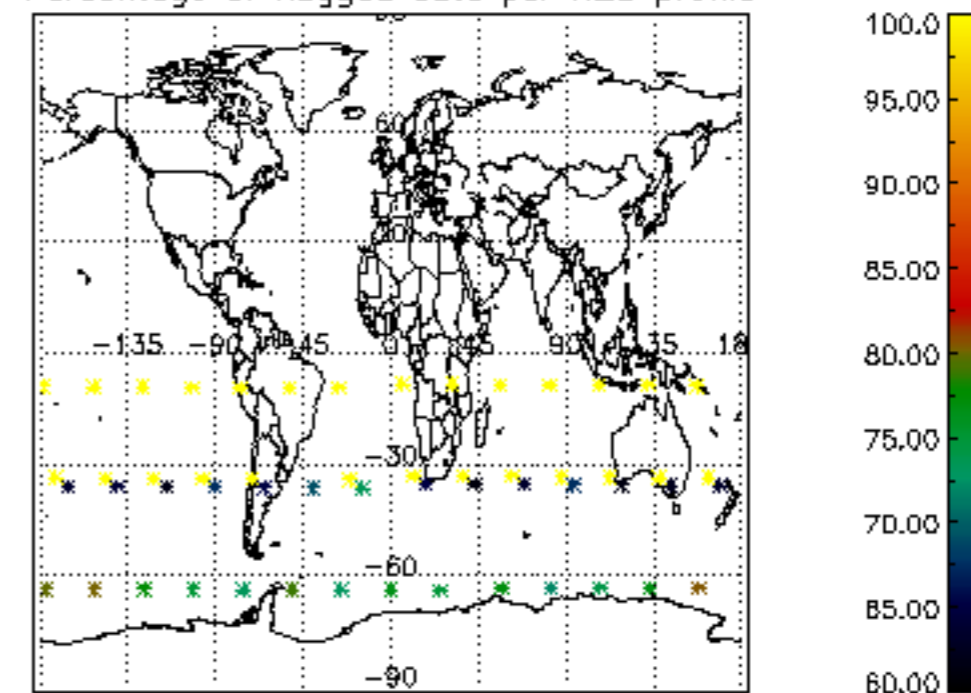
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	20-SEP-2009 00:00:05
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	20-SEP-2009 00:00:05
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	20-SEP-2009 00:00:05



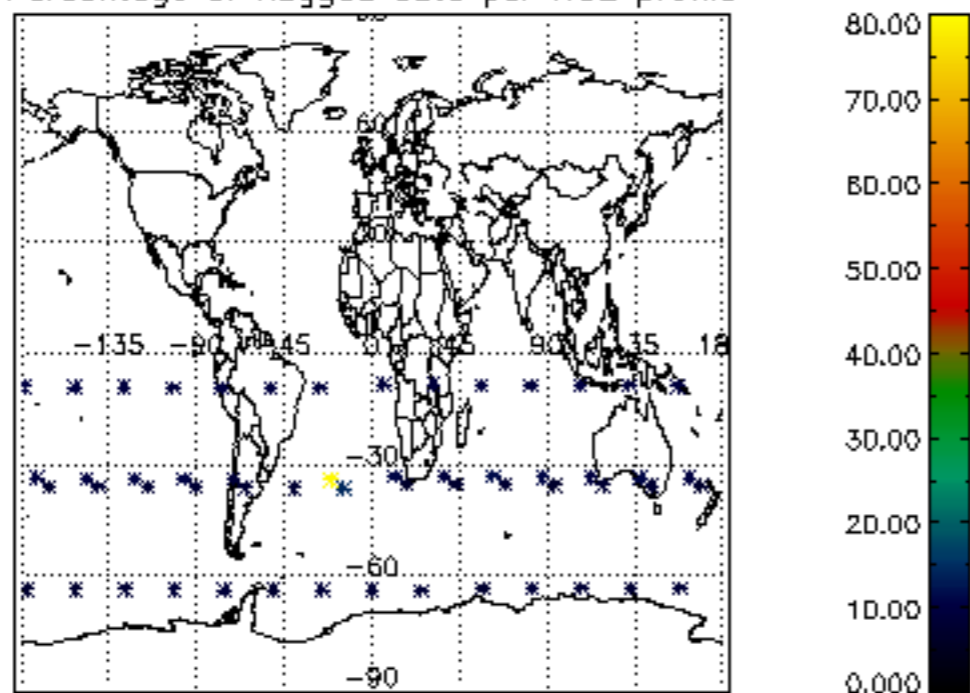
Percentage of flagged data per D3 profile



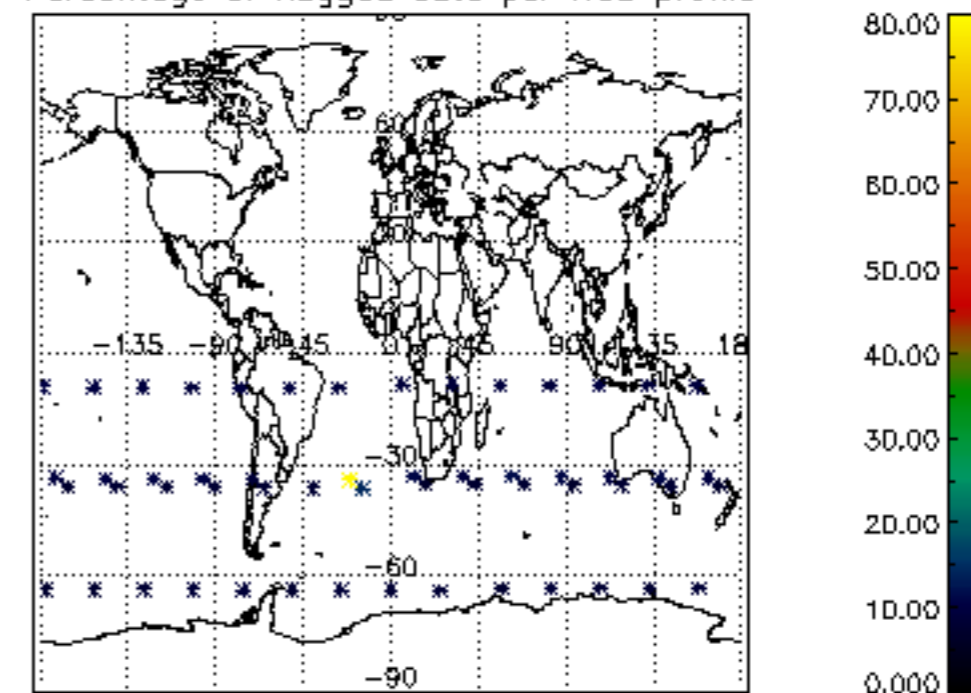
Percentage of flagged data per H2O profile

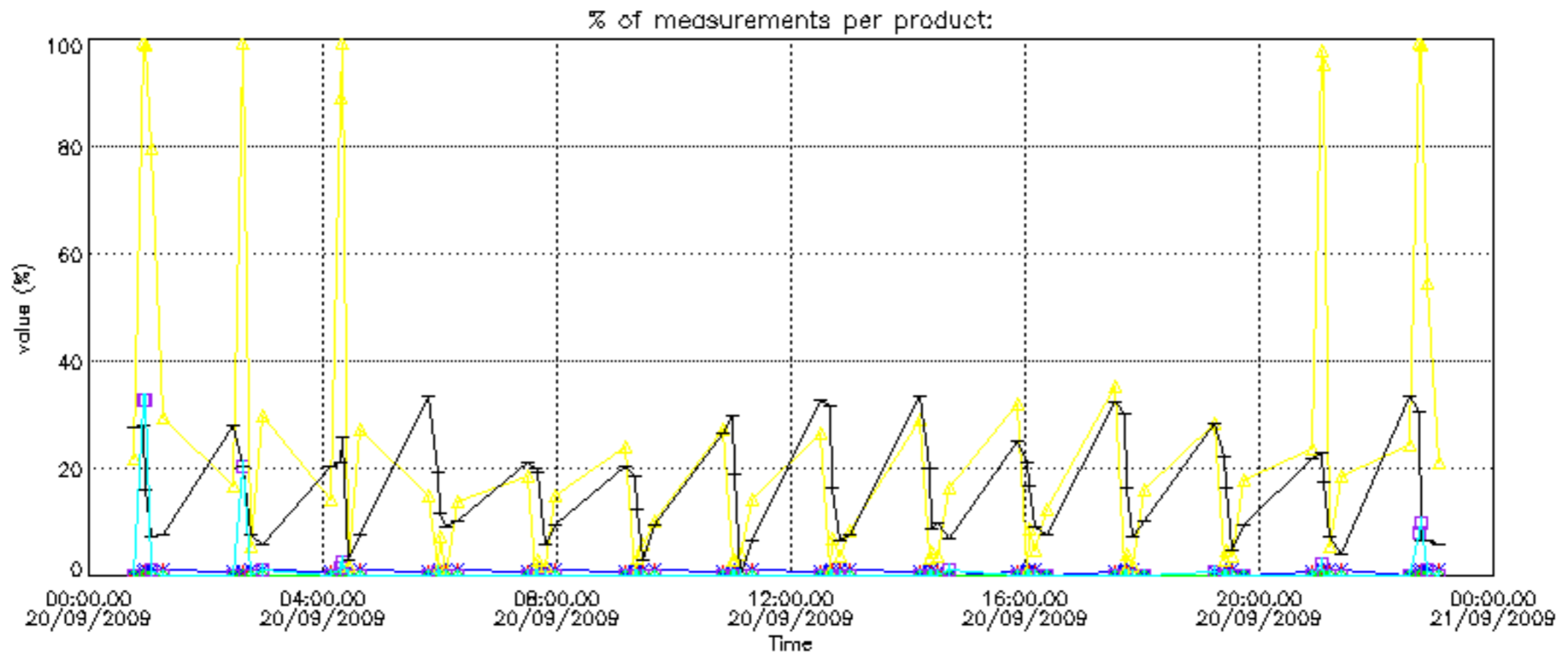


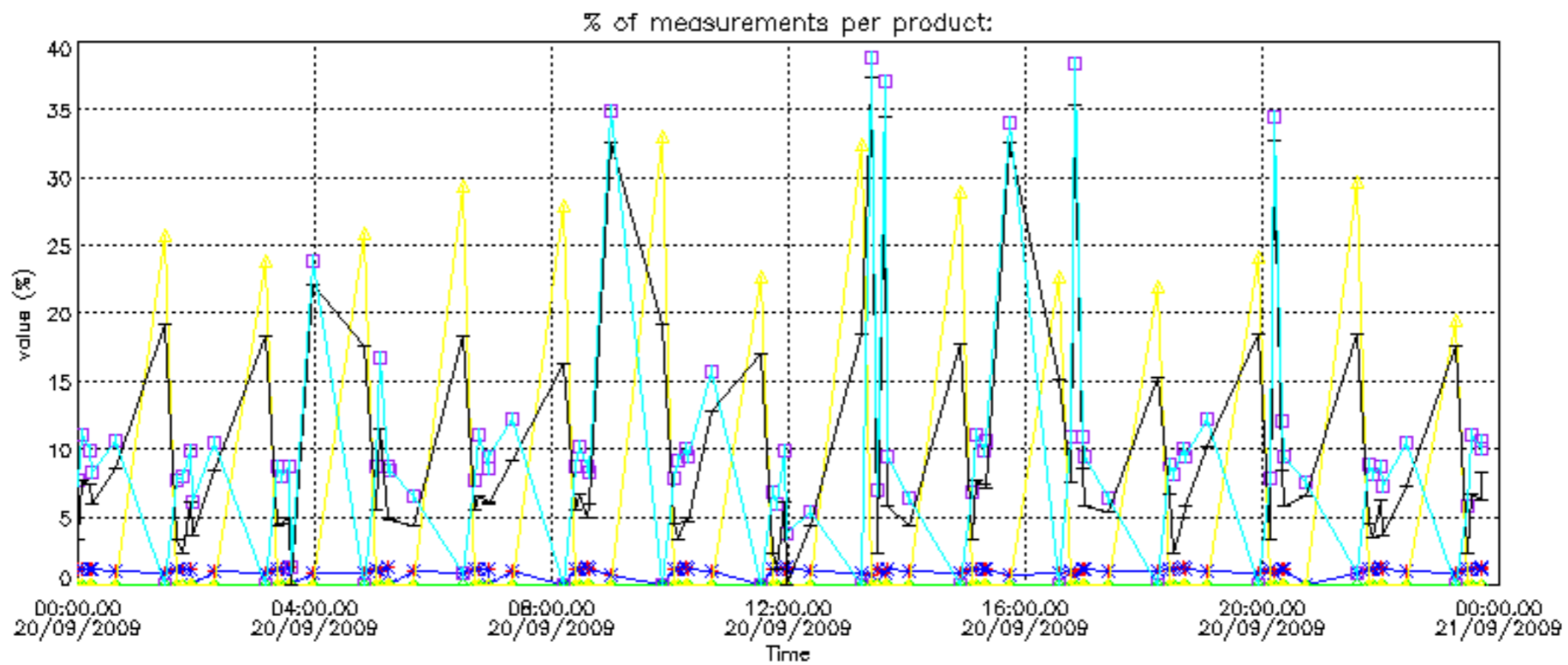
Percentage of flagged data per NO2 profile



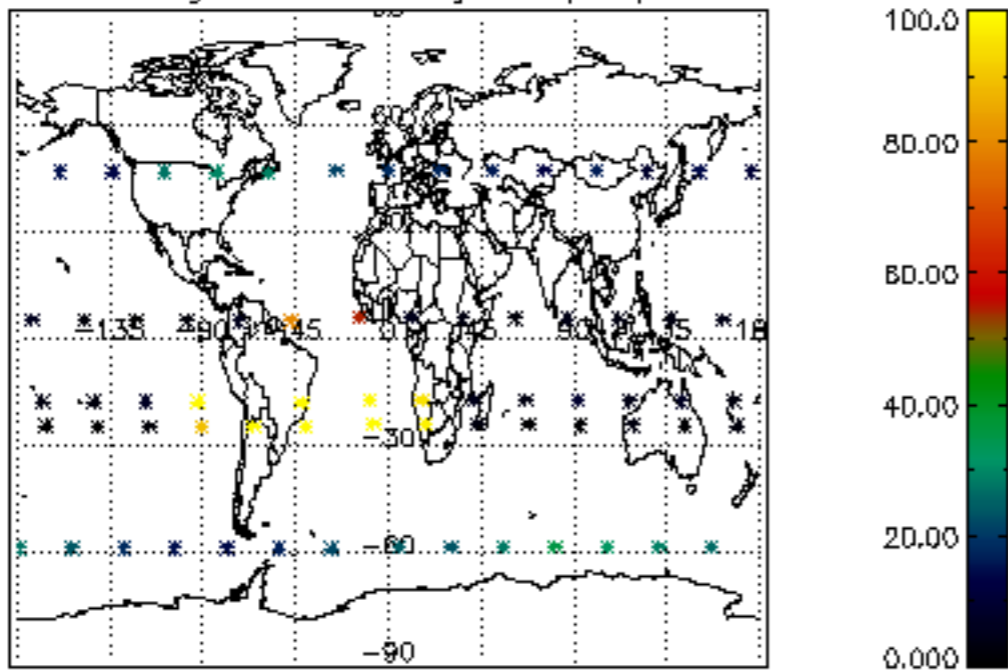
Percentage of flagged data per NO3 profile



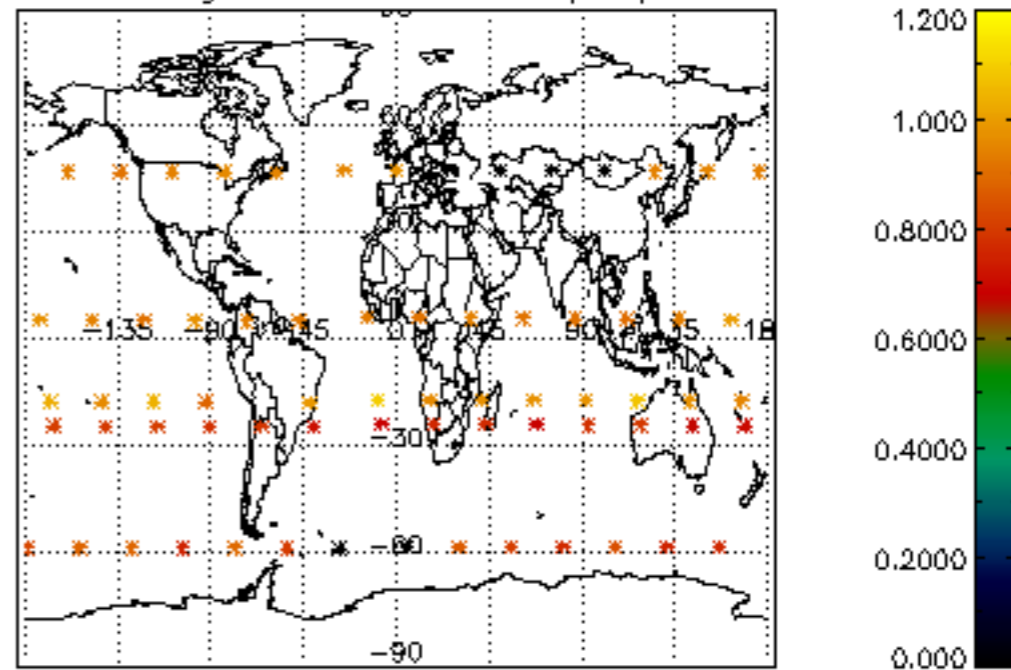




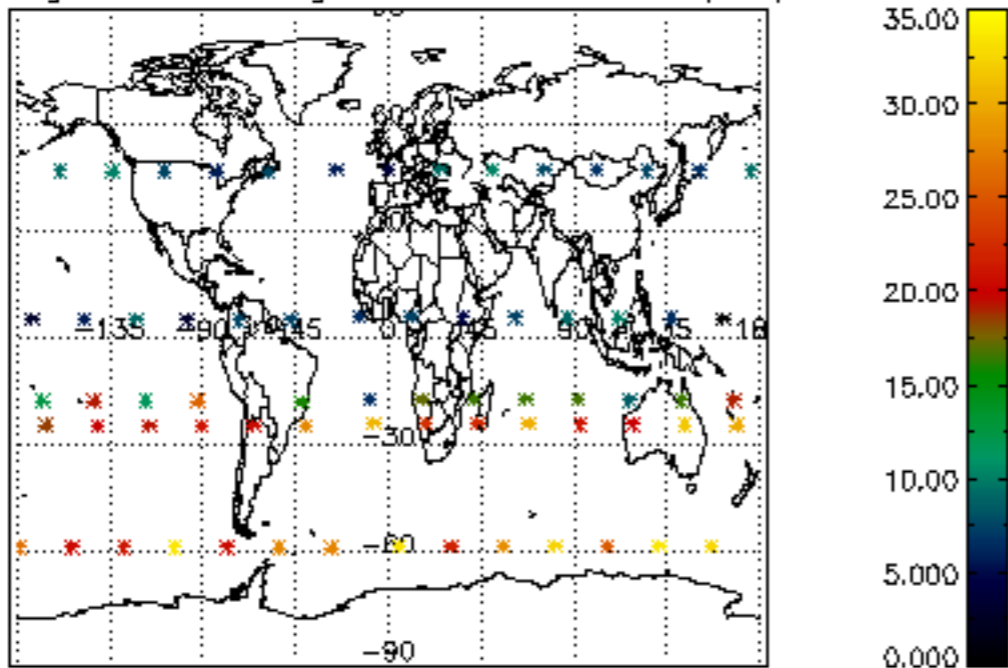
Percentage of cosmic ray hits per profile



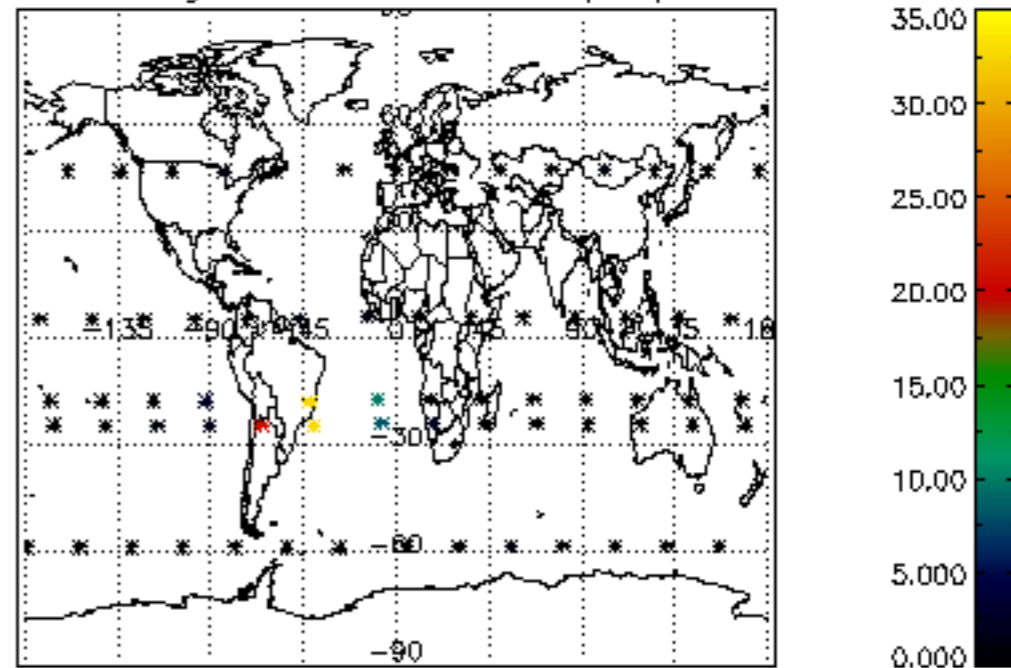
Percentage of datation errors per profile



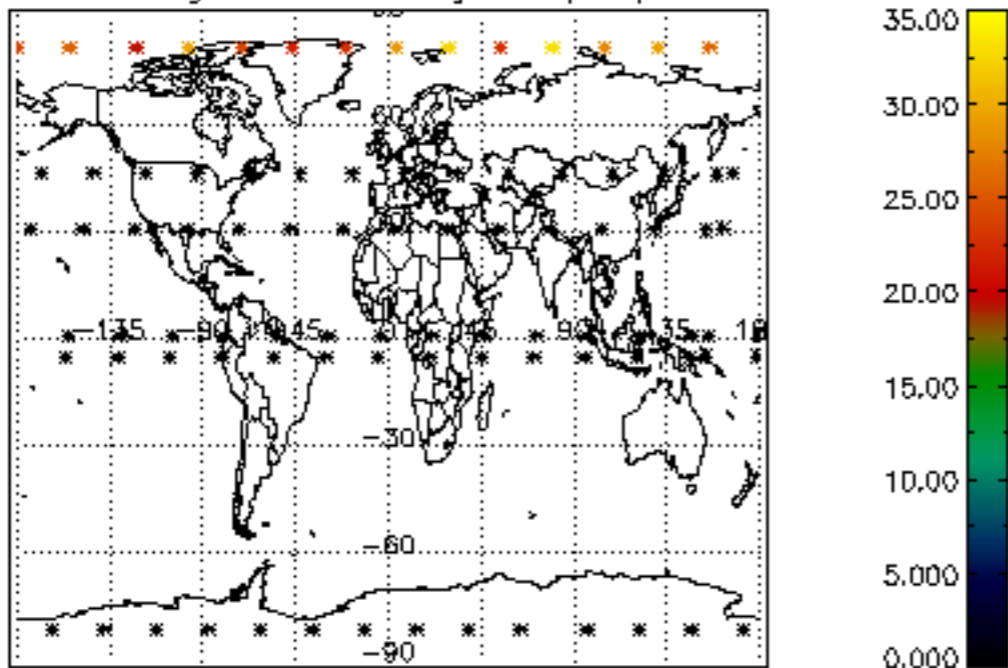
Percentage of star falling outside central band per profile



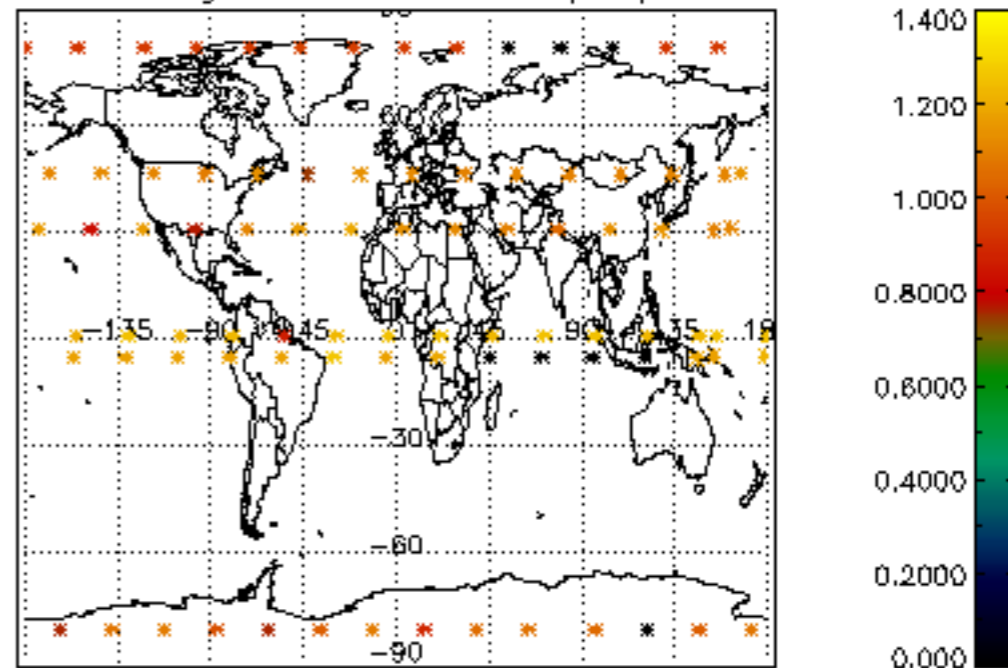
Percentage of saturation errors per profile



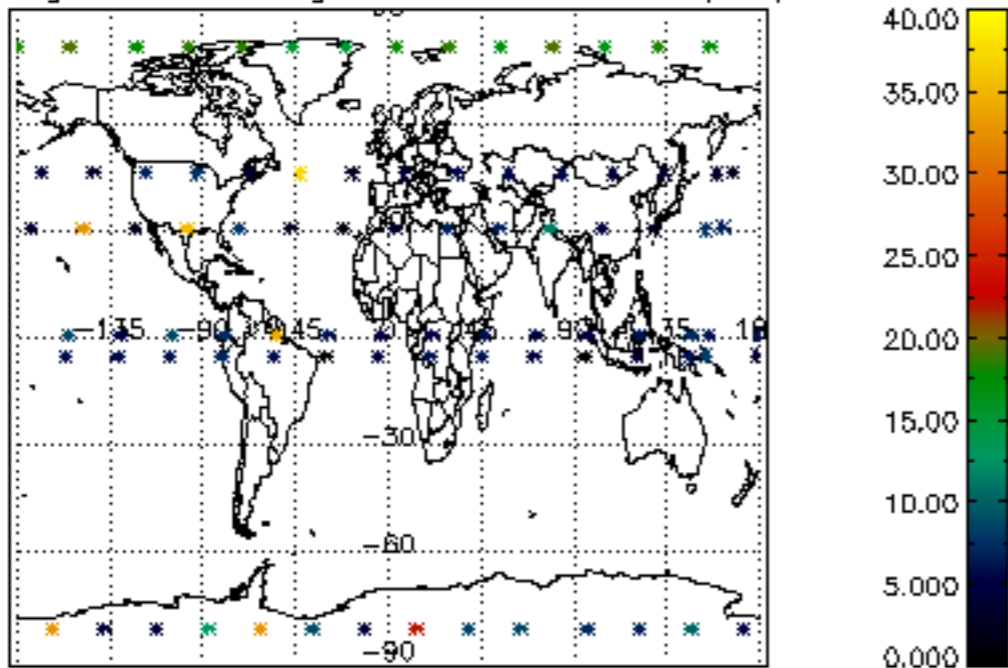
Percentage of cosmic ray hits per profile



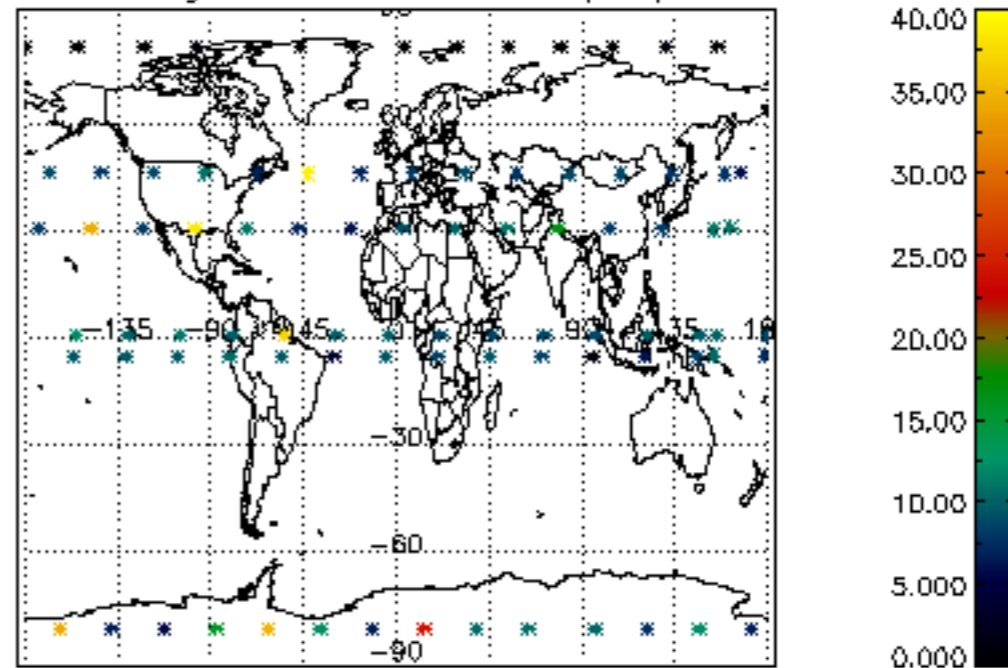
Percentage of datation errors per profile

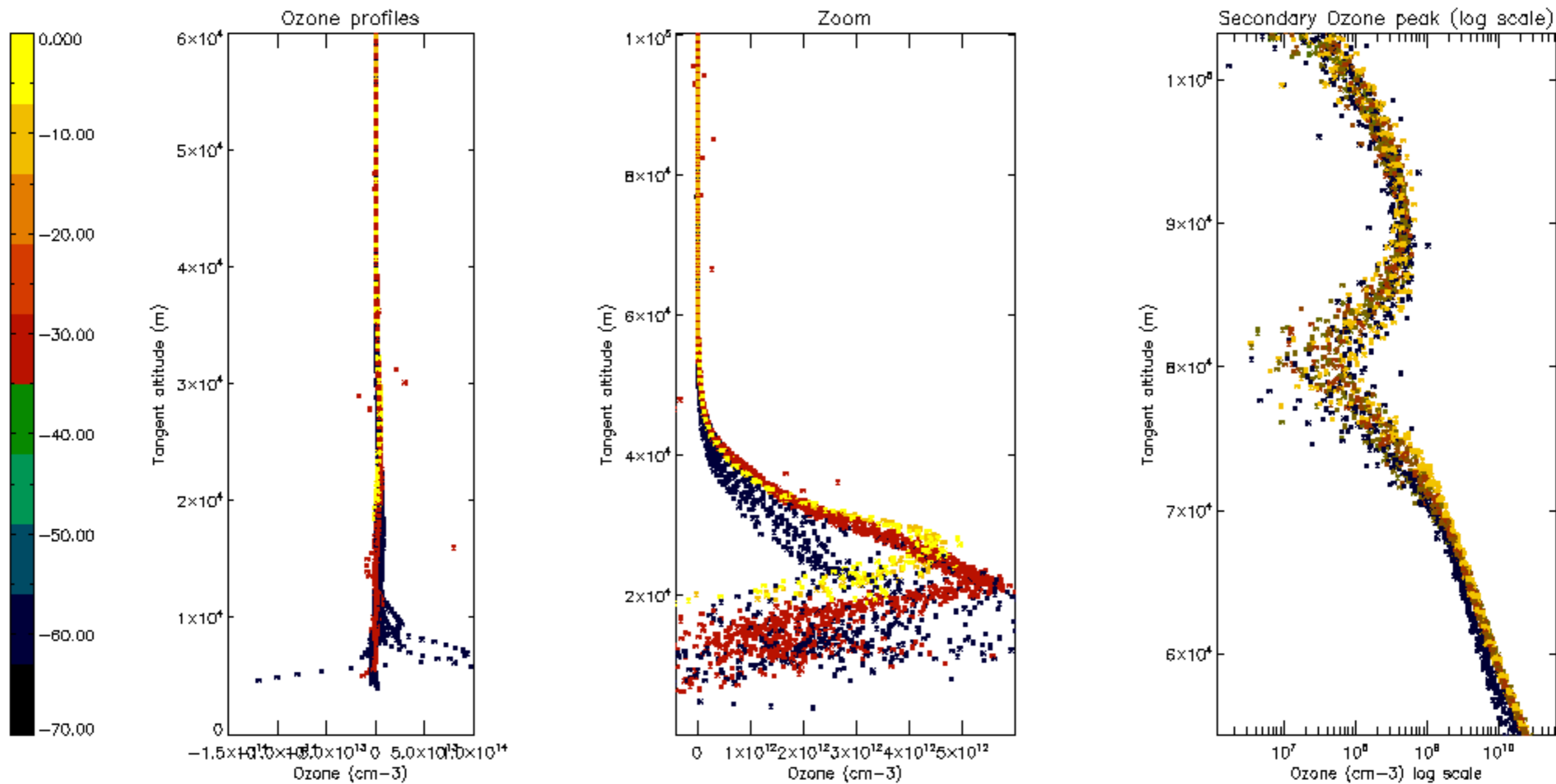


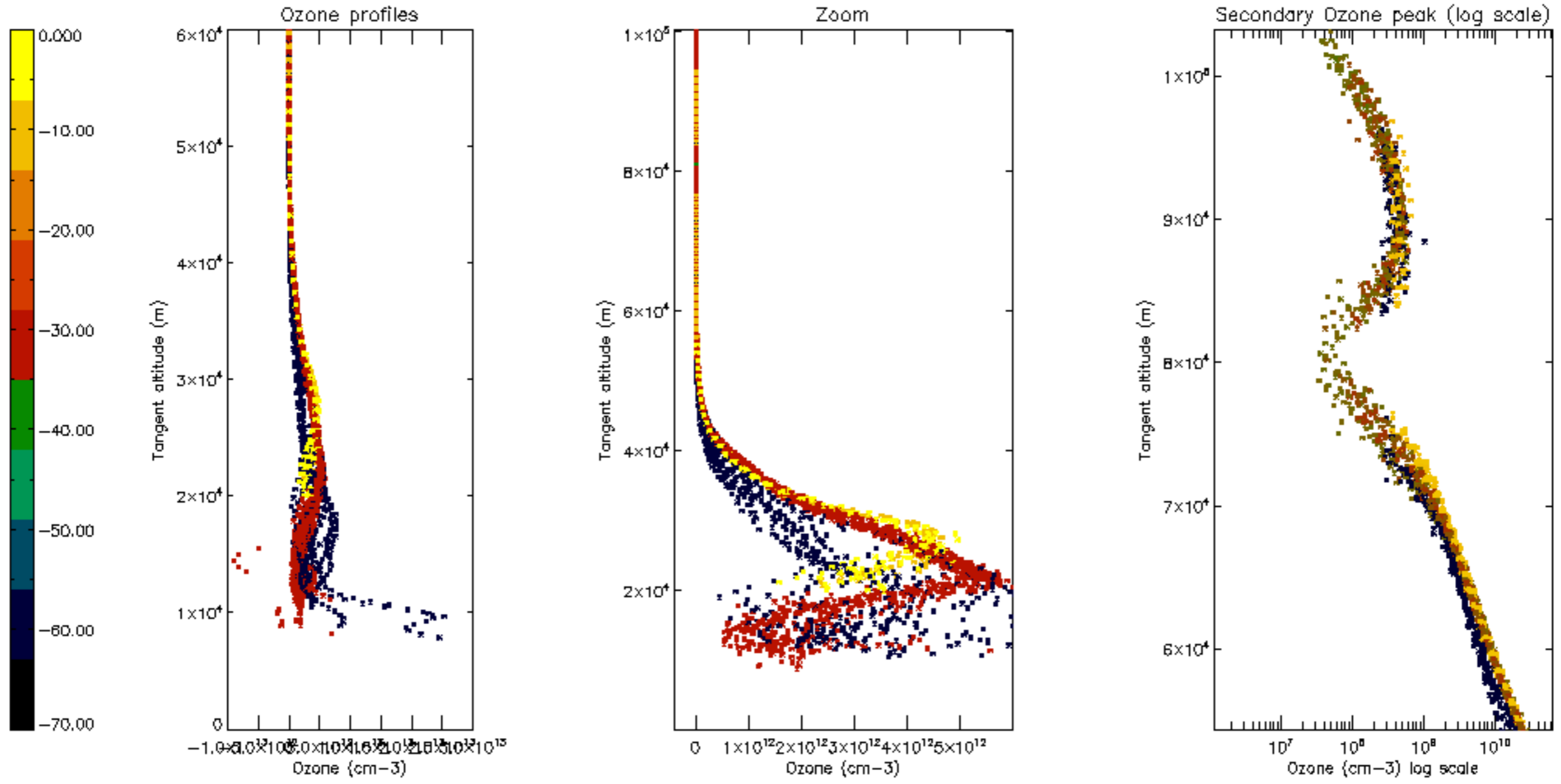
Percentage of star falling outside central band per profile

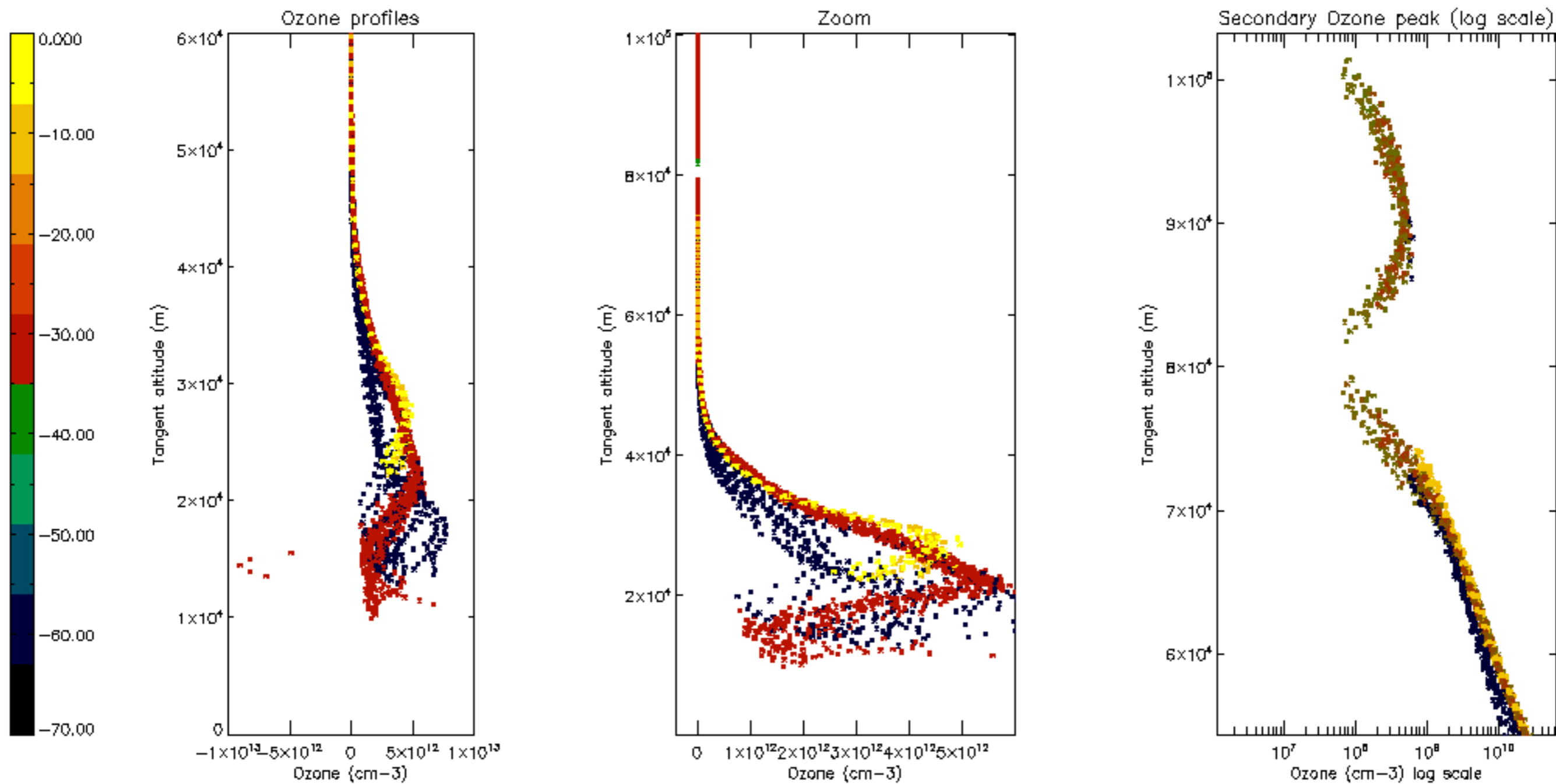


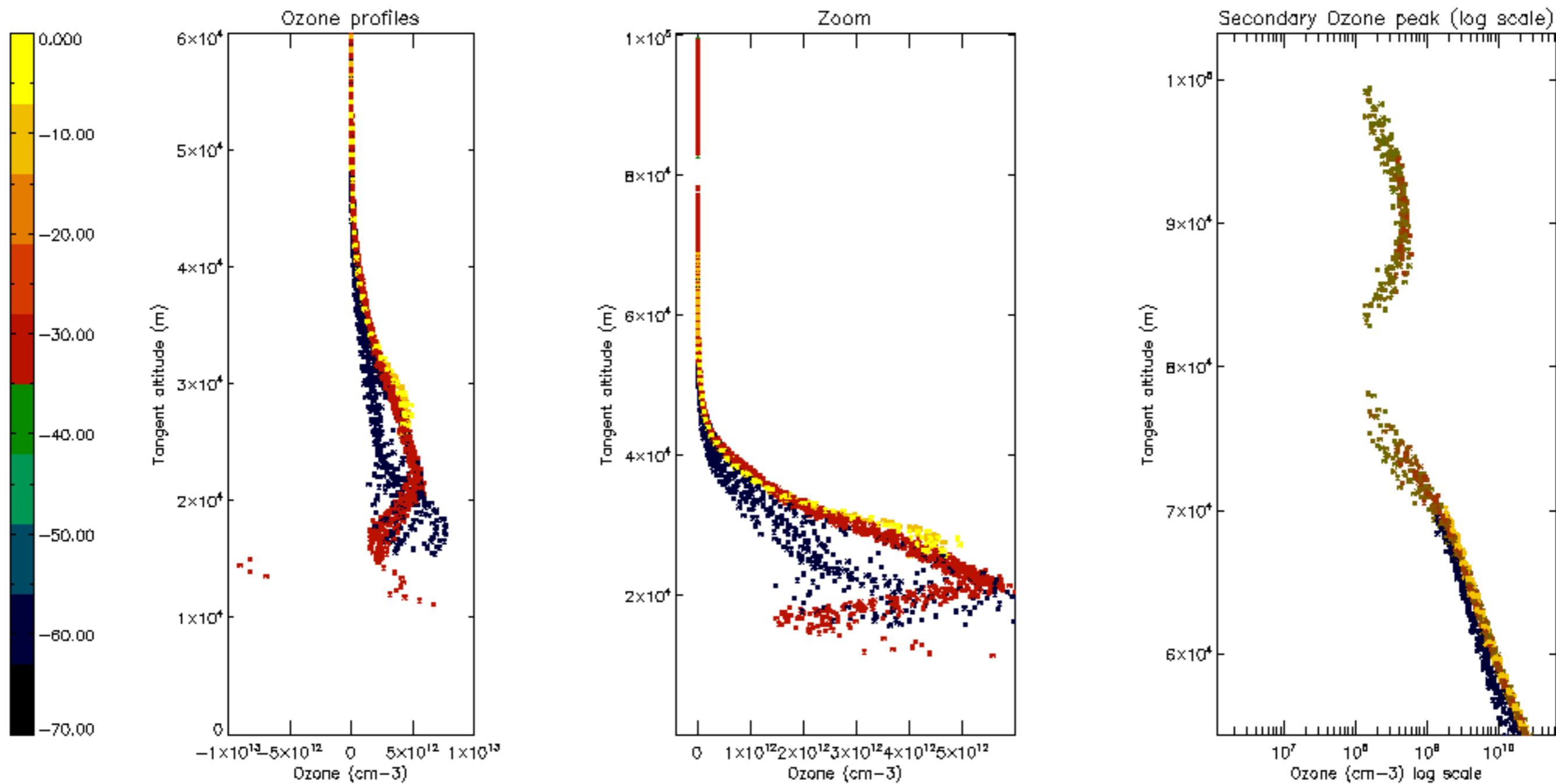
Percentage of saturation errors per profile

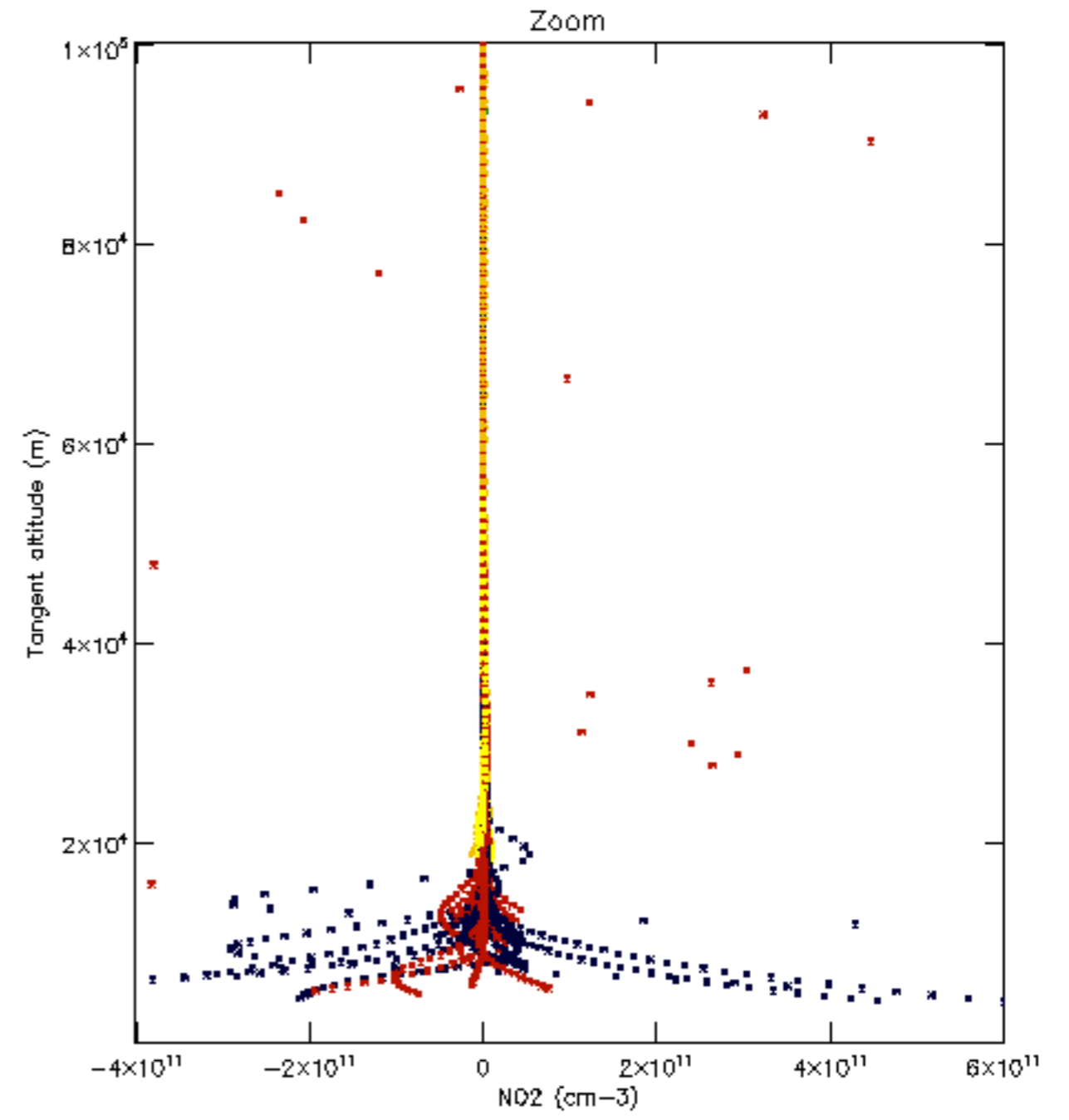
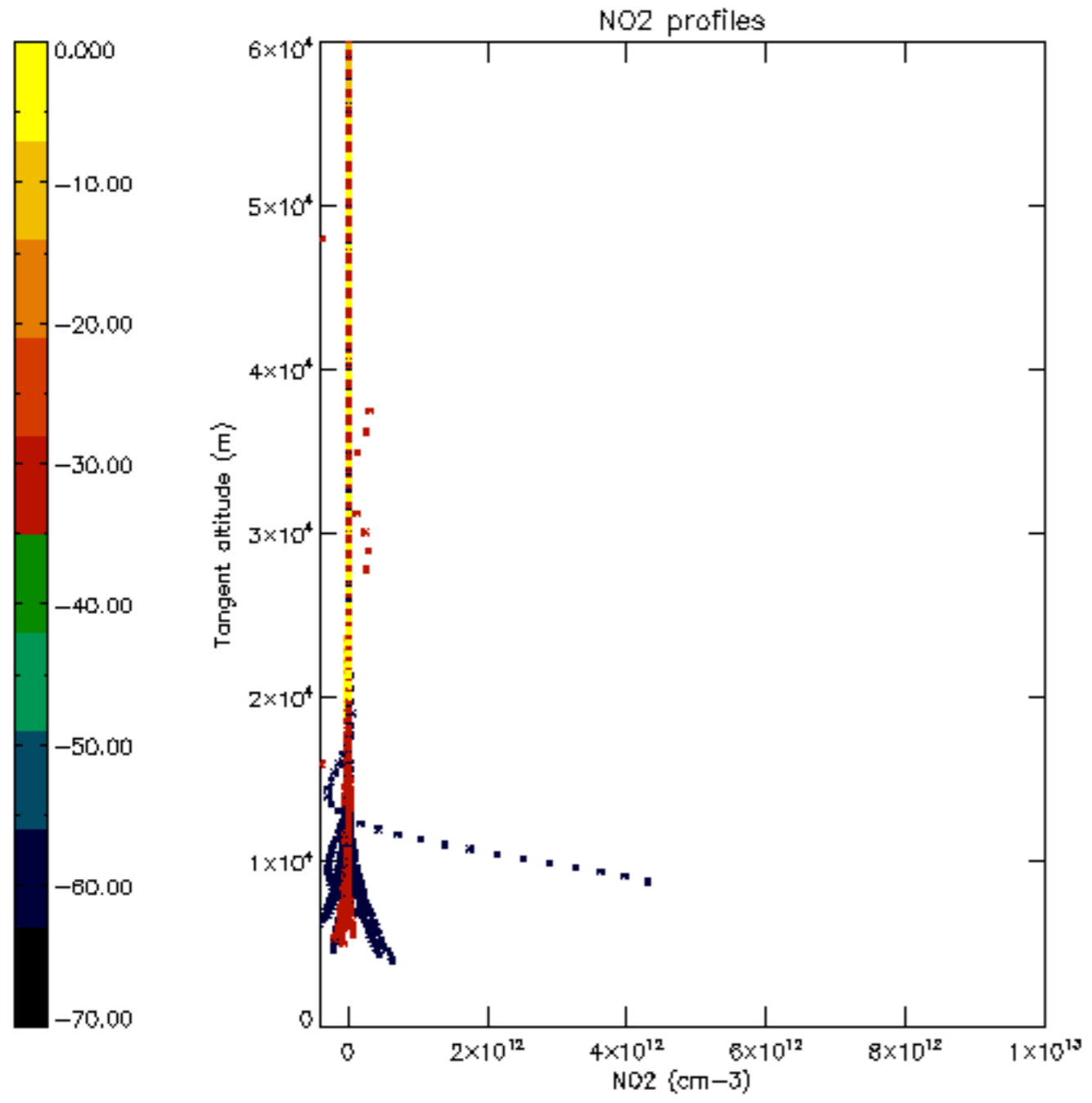


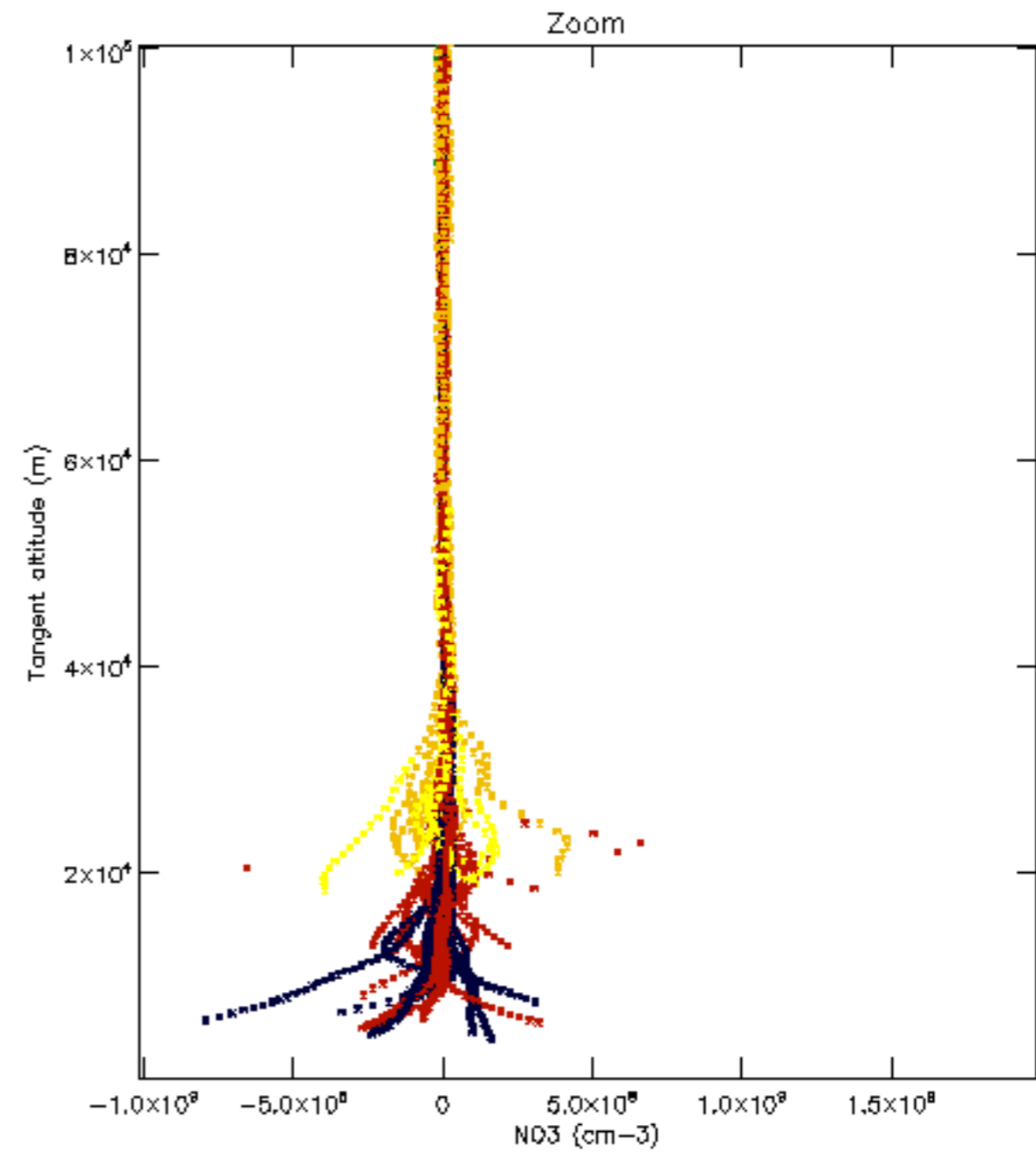
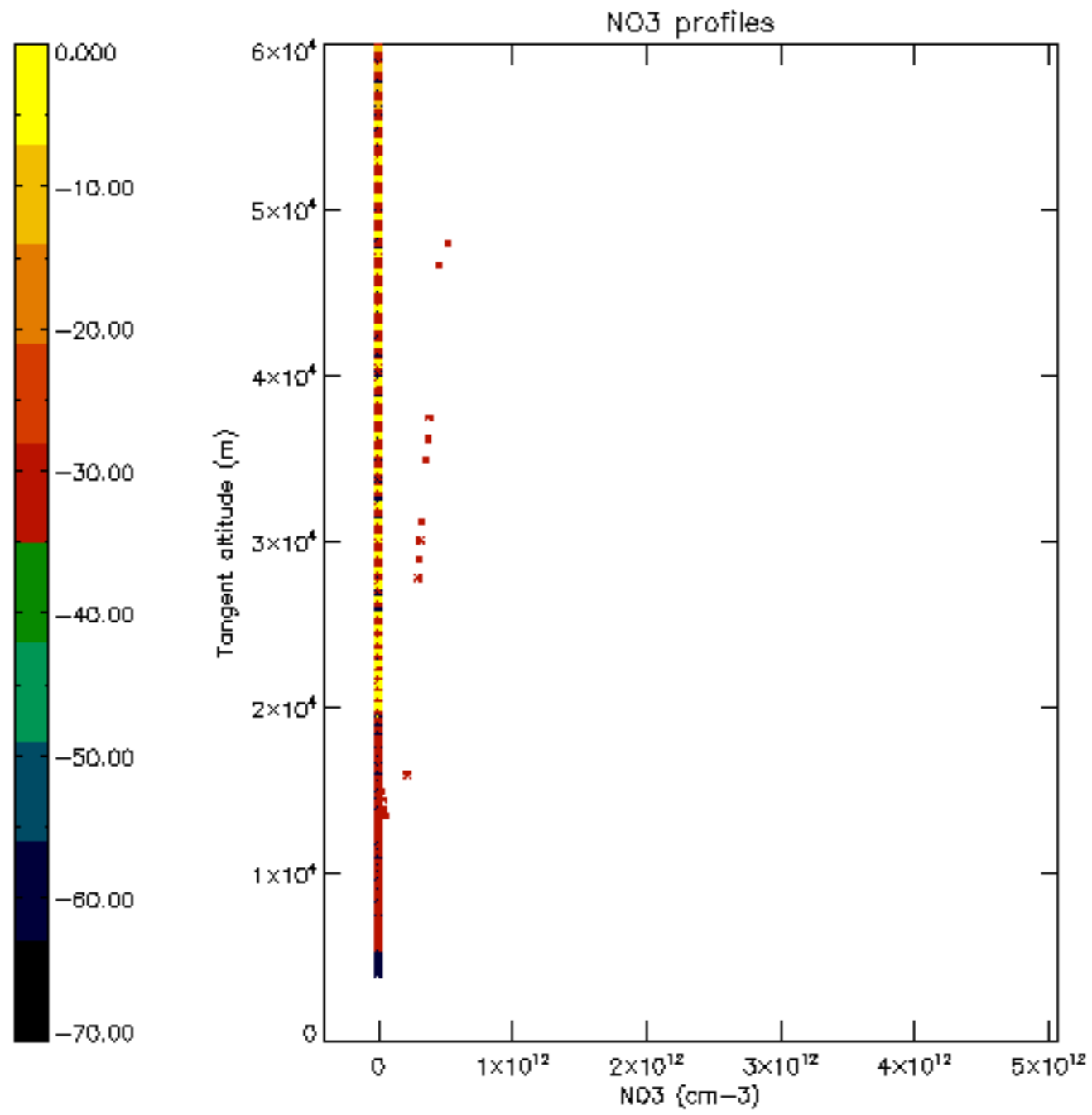


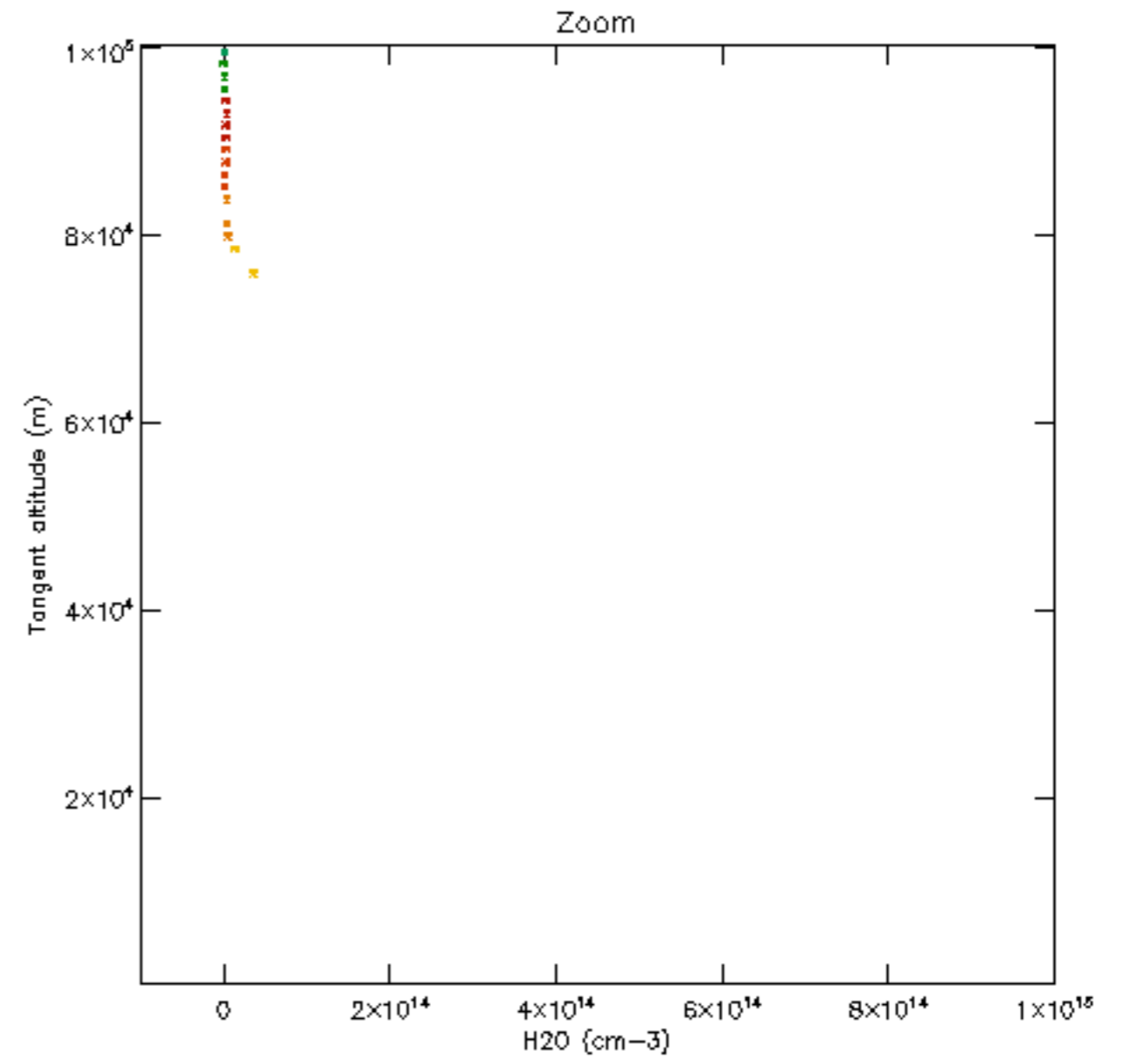
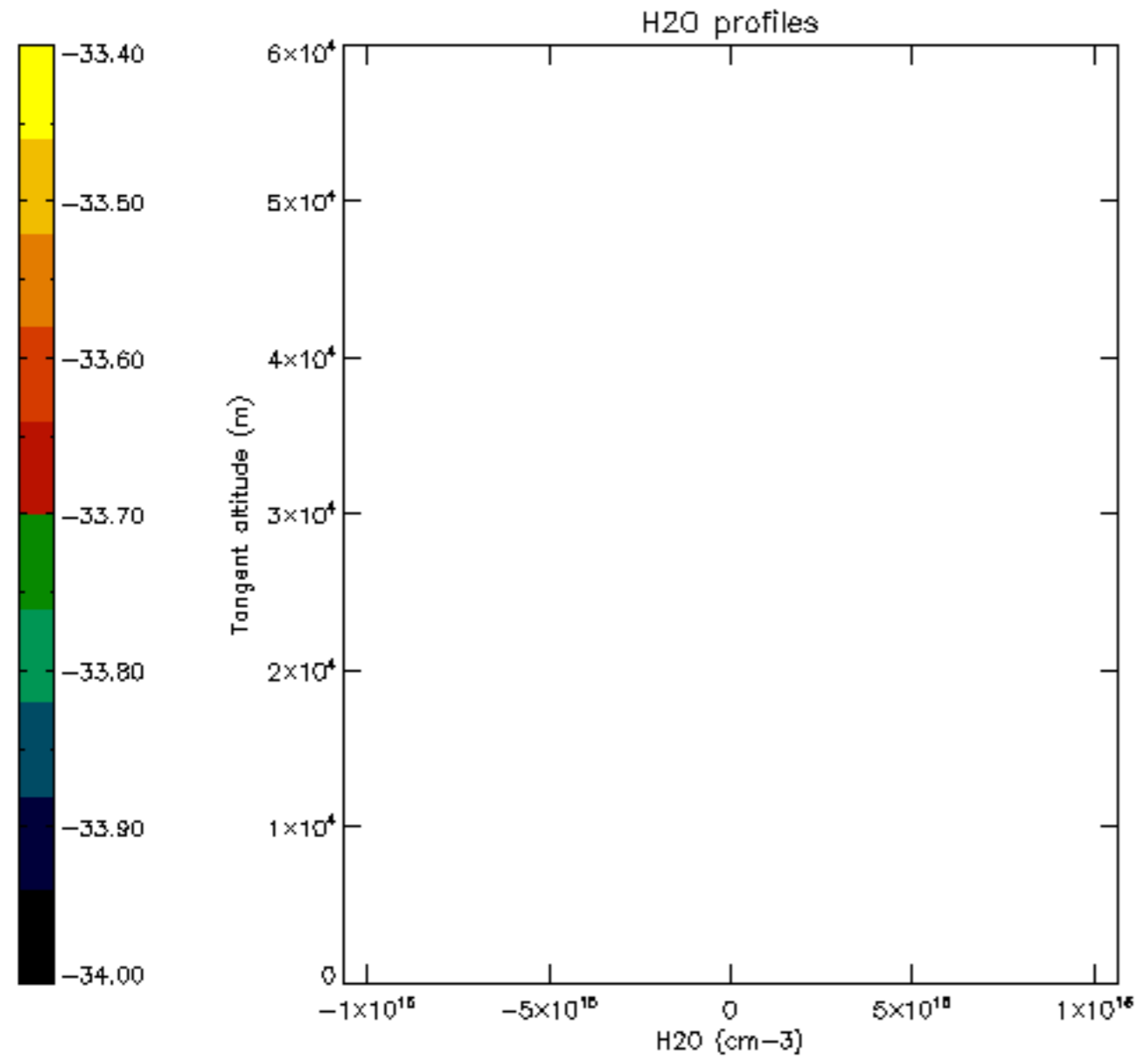


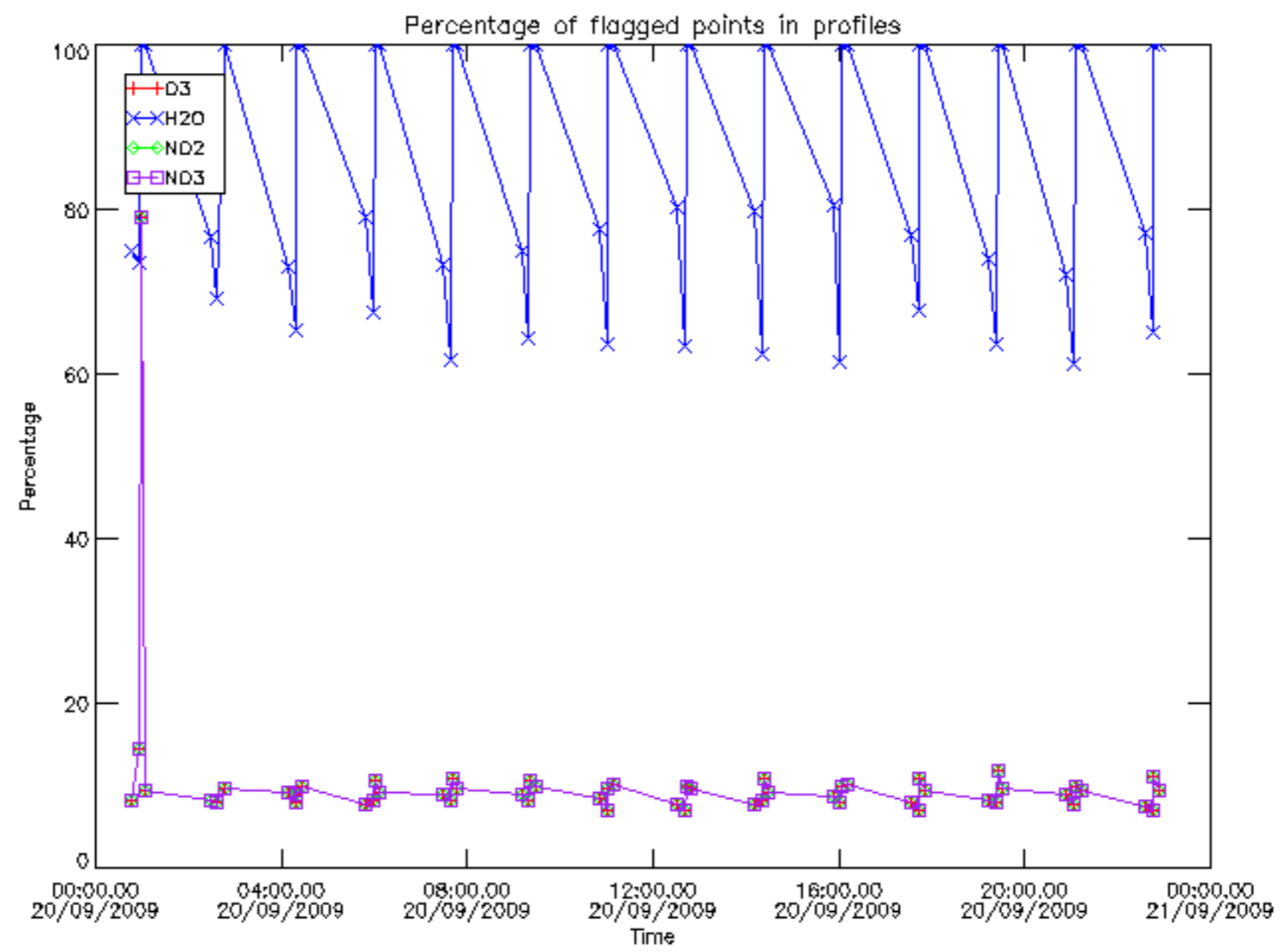




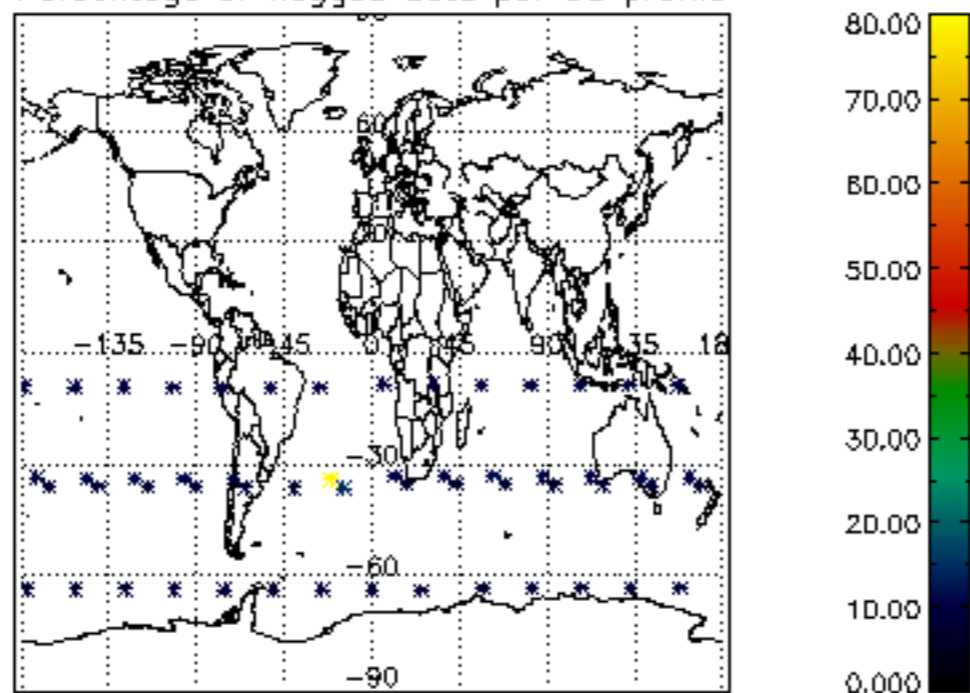




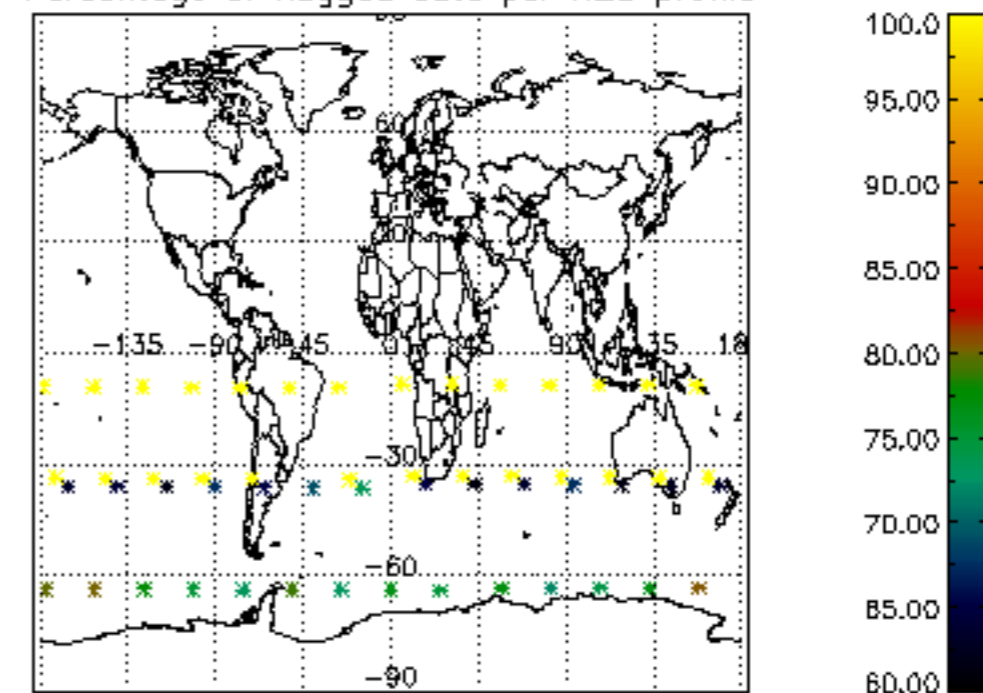




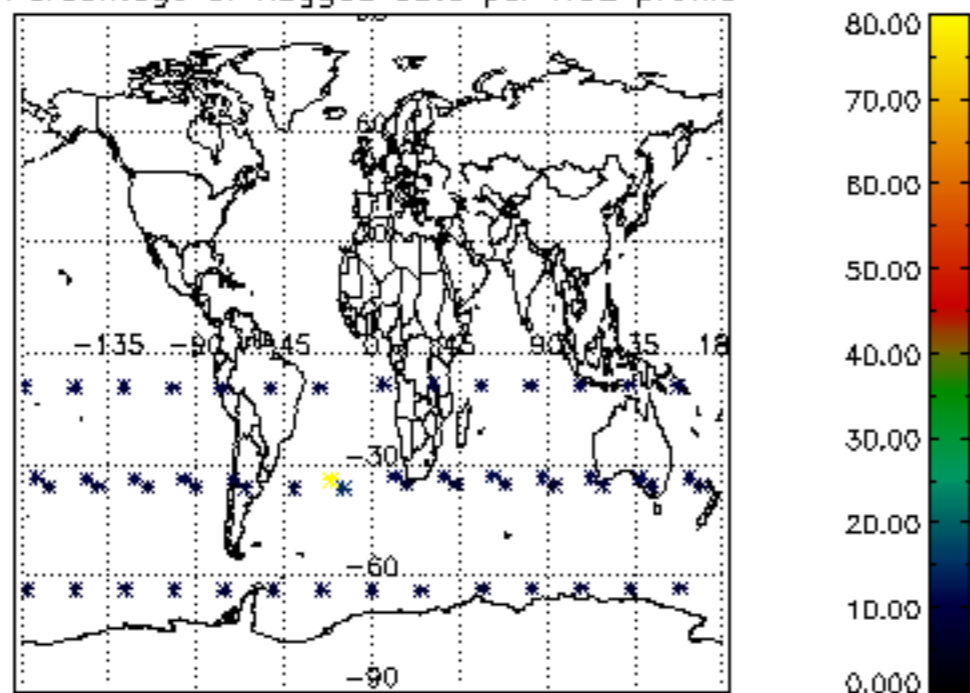
Percentage of flagged data per D3 profile



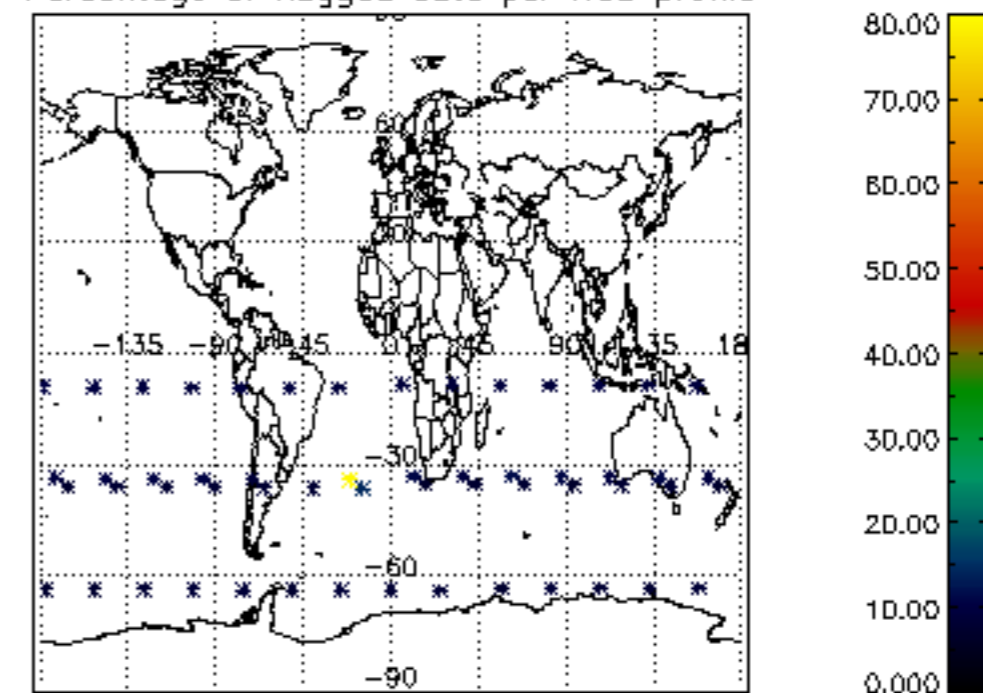
Percentage of flagged data per H2O profile

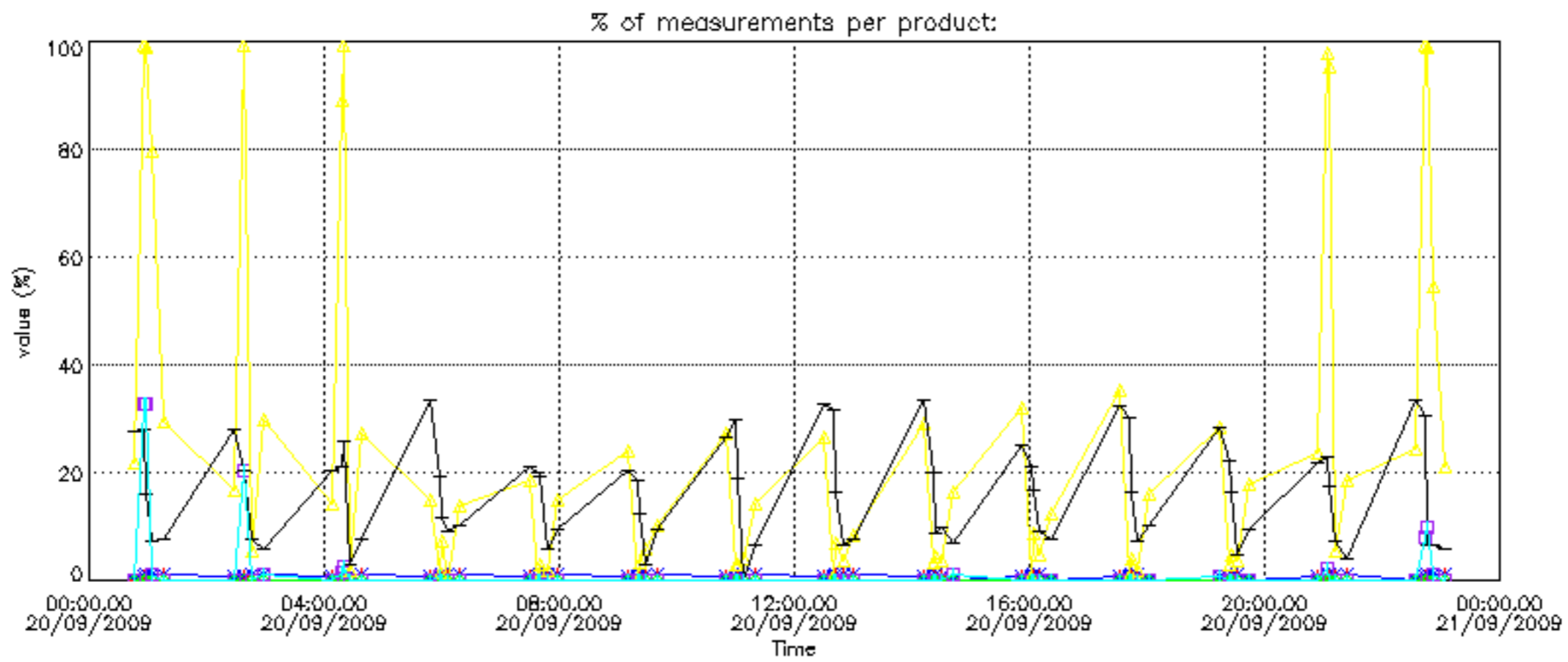


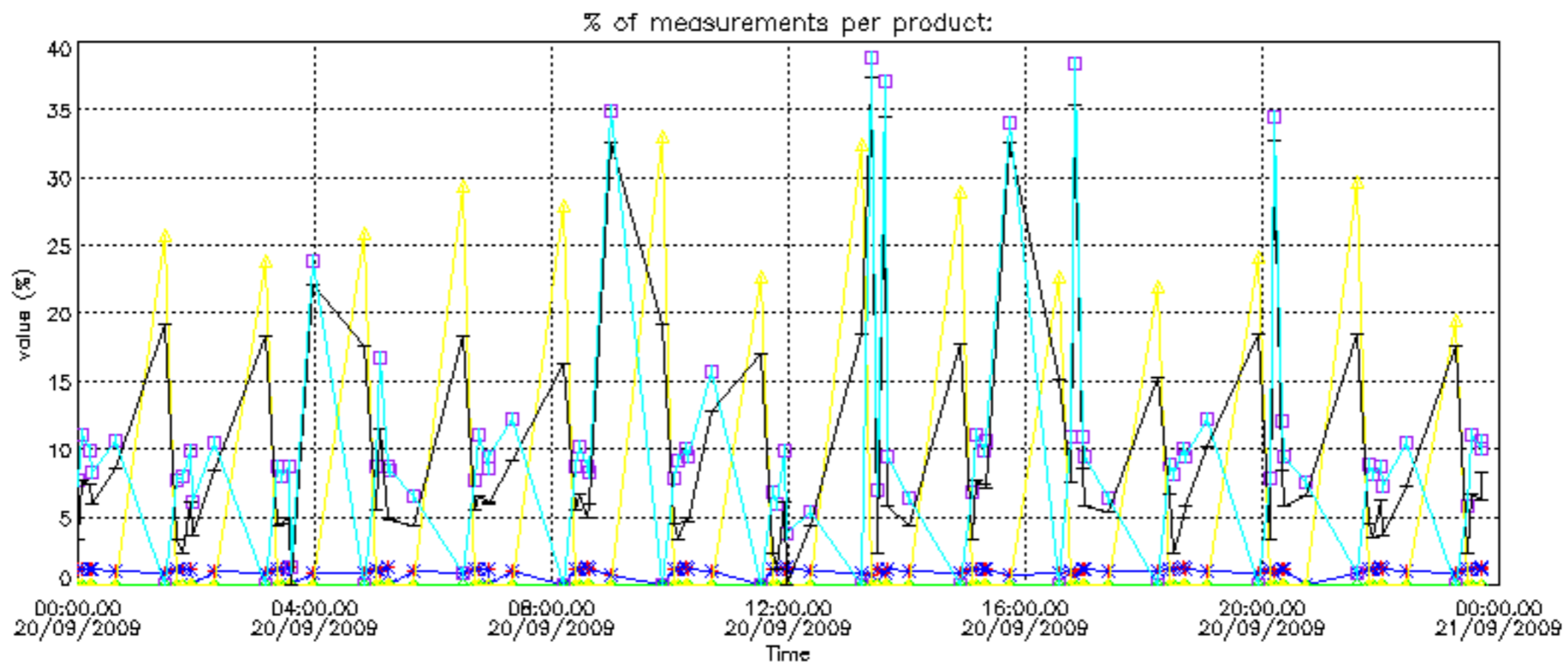
Percentage of flagged data per NO2 profile



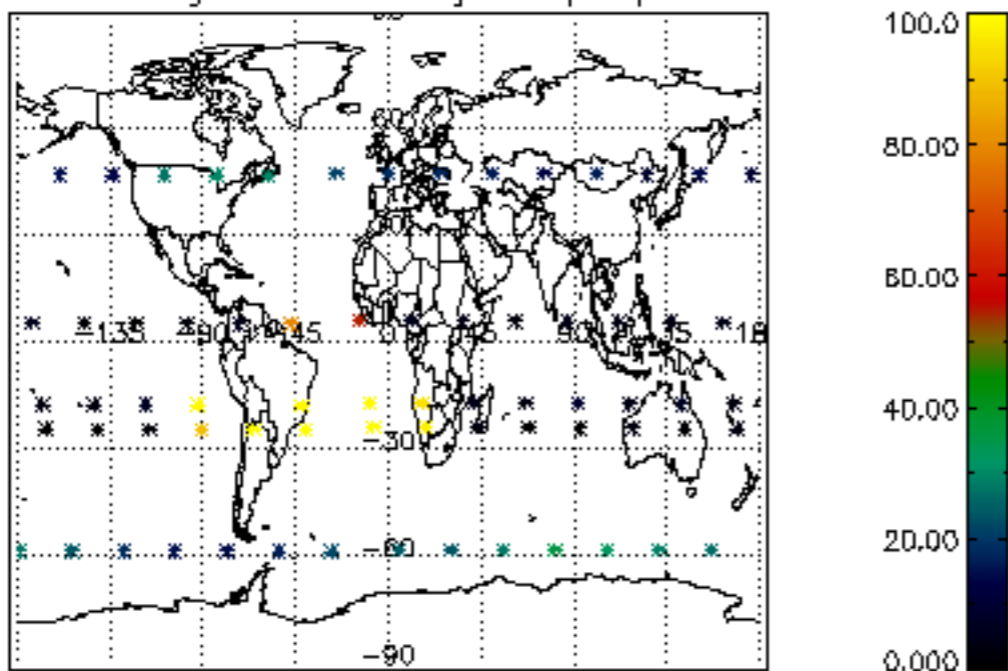
Percentage of flagged data per NO3 profile



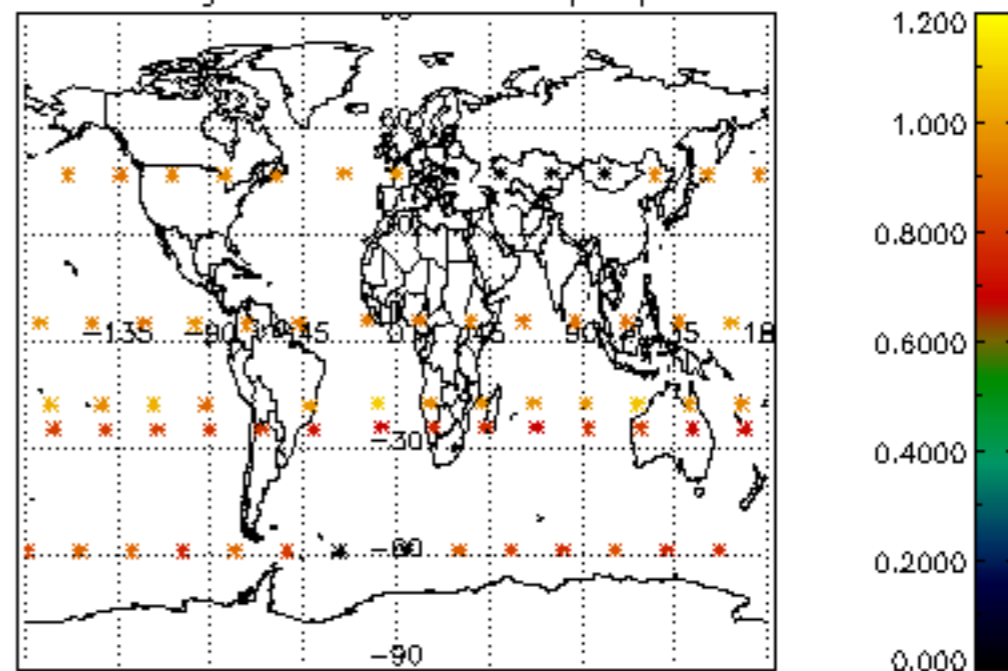




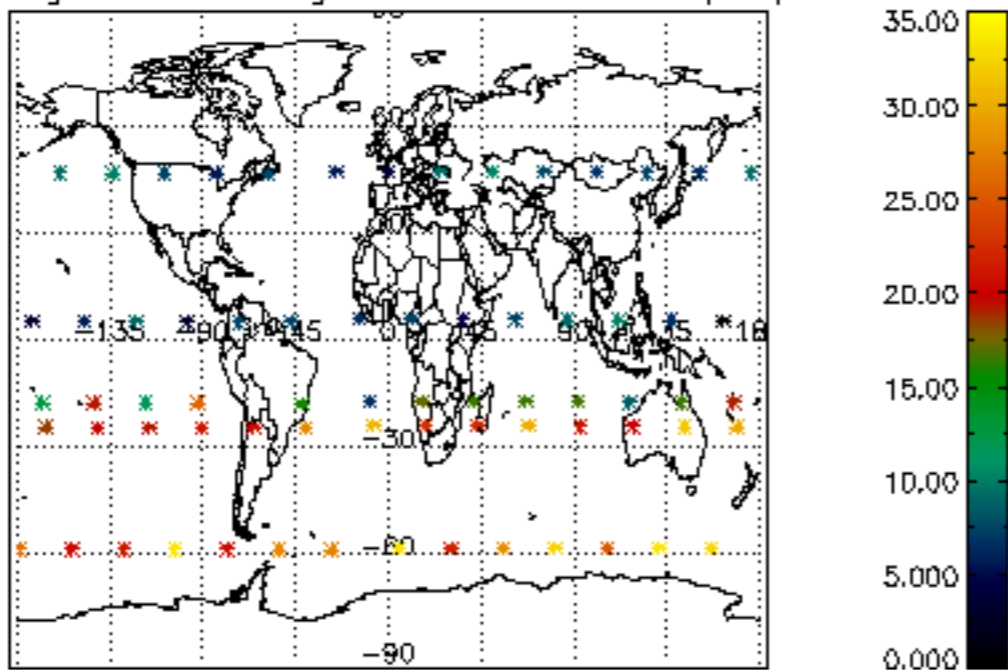
Percentage of cosmic ray hits per profile



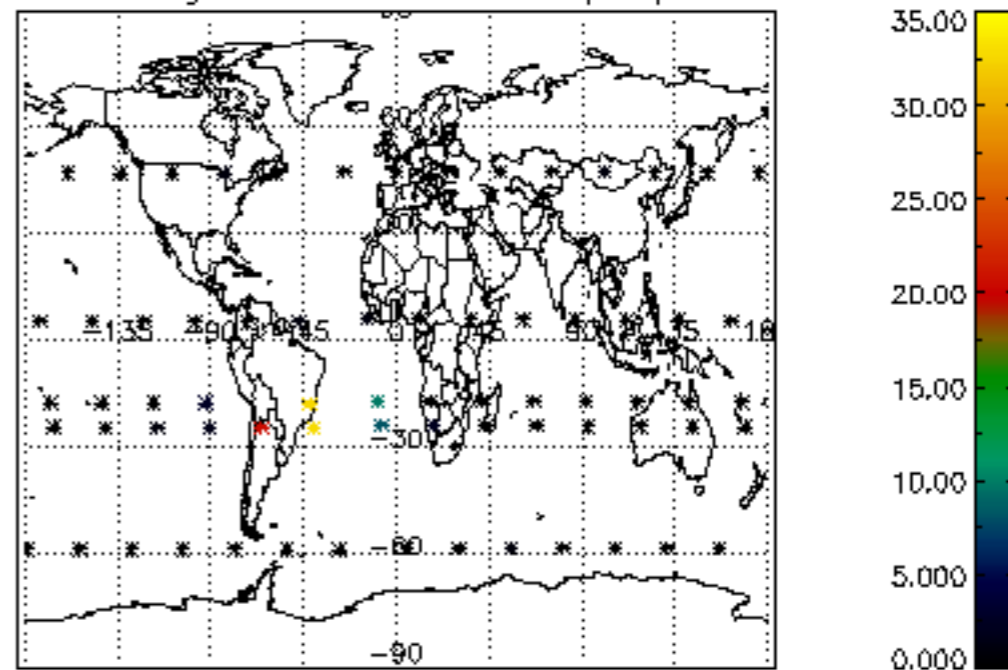
Percentage of datation errors per profile



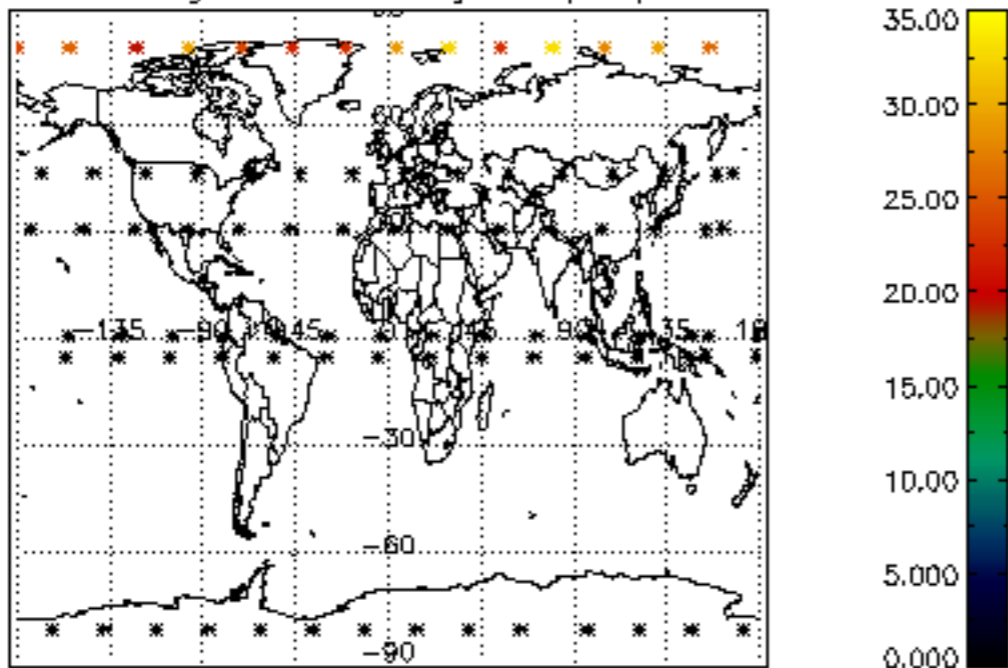
Percentage of star falling outside central band per profile



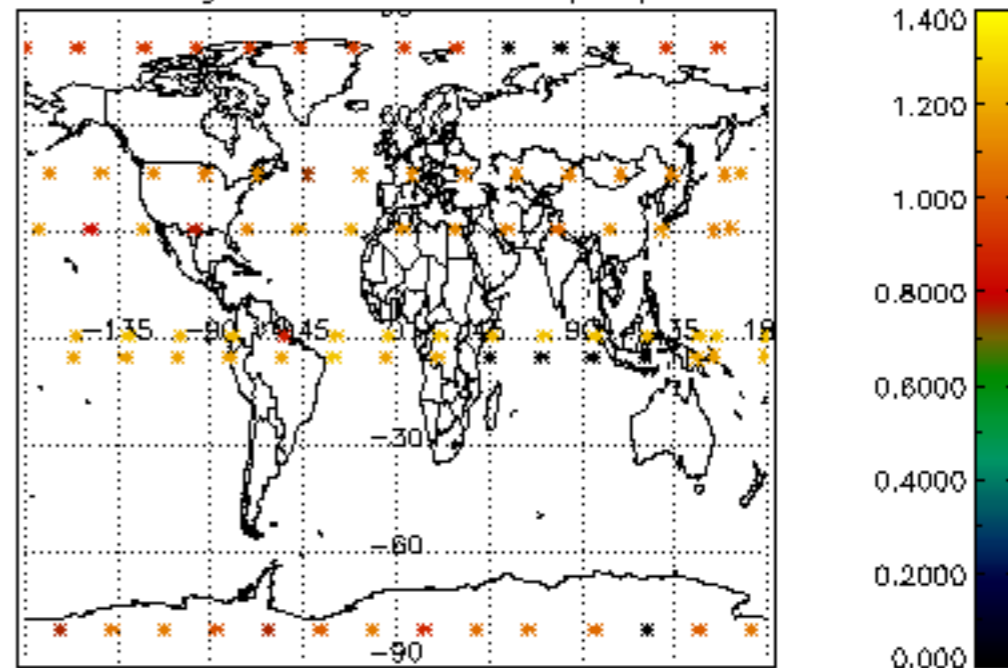
Percentage of saturation errors per profile



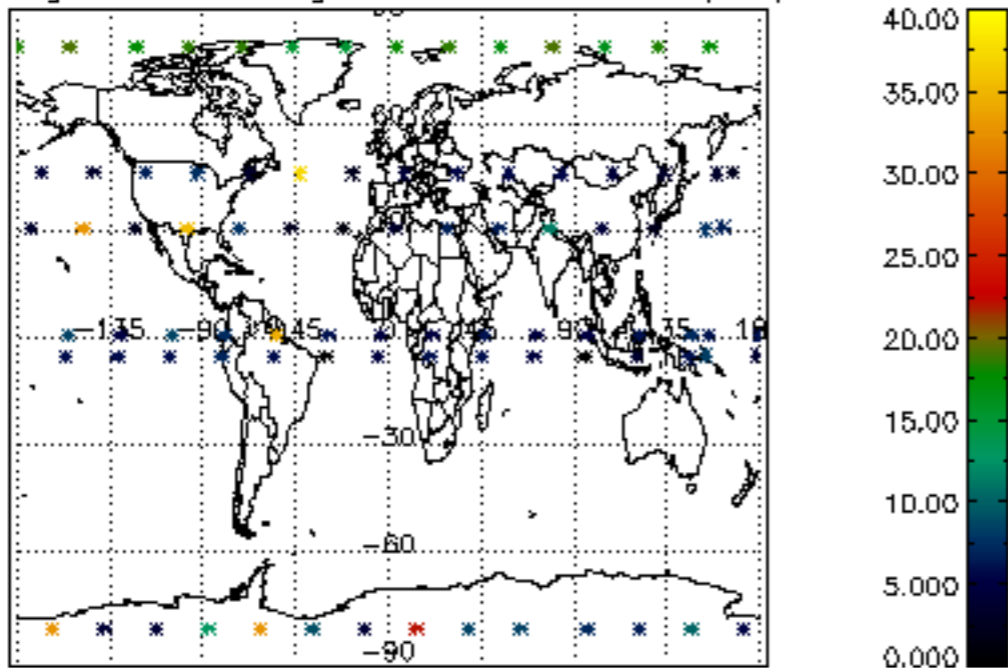
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

