

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](#)

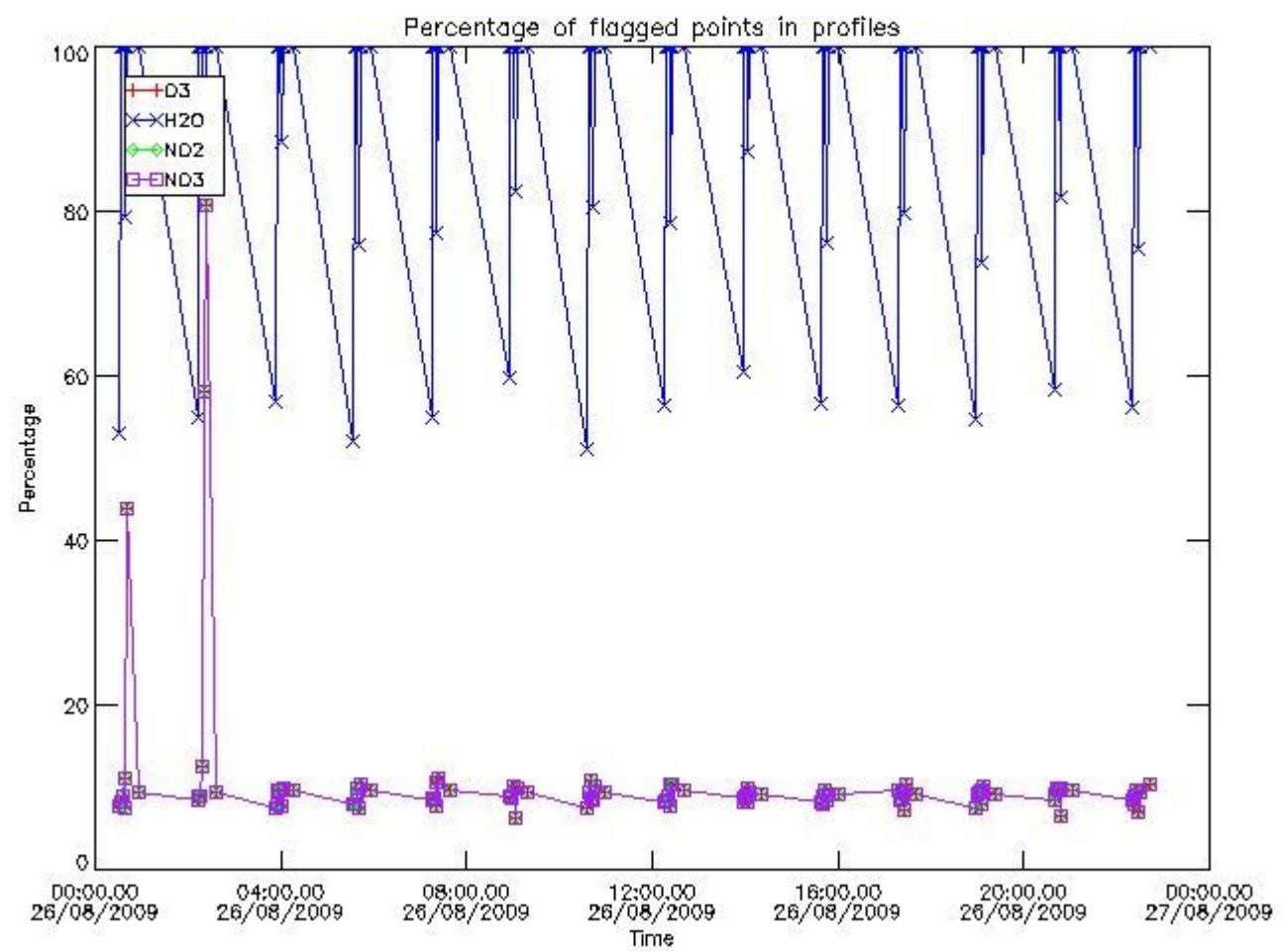
[6. Auxiliary Data Files used for the production reported in section 2](#)

220	GOM_NL_2PRFIN20090826_203206_000000572082_00028_39160_1294.N1	26-AUG-2009 20:32:06	Twilight	57.000	28	12Bet Tau	1.6500	15200.	114	39160	No
221	GOM_NL_2PRFIN20090826_203504_000000462082_00028_39160_1295.N1	26-AUG-2009 20:35:04	Twilight	46.000	44	24Gam Gem	1.9280	11000.	92	39160	No
222	GOM_NL_2PRFIN20090826_203913_000000612082_00028_39160_1296.N1	26-AUG-2009 20:39:13	Dark	60.500	14	58Alp Ori	0.87000	3000.0	121	39160	No
223	GOM_NL_2PRFIN20090826_204102_000000612082_00028_39160_1297.N1	26-AUG-2009 20:41:02	Dark	60.500	27	24Gam Ori	1.6360	26000.	121	39160	No
224	GOM_NL_2PRFIN20090826_204259_000000572082_00028_39160_1298.N1	26-AUG-2009 20:42:59	Dark	56.500	30	46Eps Ori	1.6940	30000.	113	39160	No
225	GOM_NL_2PRFIN20090826_204455_000000532082_00028_39160_1299.N1	26-AUG-2009 20:44:55	Dark	52.500	56	53Kap Ori	2.0650	30000.	105	39160	No
226	GOM_NL_2PRFIN20090826_204636_000000802082_00028_39160_1300.N1	26-AUG-2009 20:46:36	Dark	79.500	7	19Bet Ori	0.10000	14000.	159	39160	No
227	GOM_NL_2PRFIN20090826_204901_000000522082_00028_39160_1301.N1	26-AUG-2009 20:49:01	Dark	52.000	139	9Bet Lep	2.8330	5600.0	104	39160	No
228	GOM_NL_2PRFIN20090826_210252_000000532082_00029_39161_1299.N1	26-AUG-2009 21:02:52	Dark	53.000	157	The1Eri	2.9060	9300.0	106	39161	No
229	GOM_NL_2PRFIN20090826_211131_000000532082_00029_39161_1300.N1	26-AUG-2009 21:11:31	Straylight	52.500	84	Alp Phe	2.3970	4500.0	105	39161	No
230	GOM_NL_2PRFIN20090826_211803_000000492082_00029_39161_1301.N1	26-AUG-2009 21:18:03	Straylight	48.500	18	24Alp PsA	1.1660	9700.0	97	39161	No
231	GOM_NL_2PRFIN20090826_212754_000000592082_00029_39161_1302.N1	26-AUG-2009 21:27:54	Bright	59.000	162	34Alp Aqr	2.9440	5350.0	118	39161	No
232	GOM_NL_2PRFIN20090826_213056_000000392082_00029_39161_1303.N1	26-AUG-2009 21:30:56	Bright	38.500	61	8Eps Peg	2.1000	3900.0	77	39161	No
233	GOM_NL_2PRFIN20090826_213838_000000442082_00029_39161_1304.N1	26-AUG-2009 21:38:38	Bright	44.000	164	44Eta Peg	2.9480	5400.0	88	39161	No
234	GOM_NL_2PRFIN20090826_214927_000000462082_00029_39161_1305.N1	26-AUG-2009 21:49:27	Bright	45.500	74	11Bet Cas	2.2680	6600.0	91	39161	No
235	GOM_NL_2PRFIN20090826_215139_000000482082_00029_39161_1306.N1	26-AUG-2009 21:51:39	Bright	47.500	76	27Gam Cas	2.3000	30000.	95	39161	No
236	GOM_NL_2PRFIN20090826_220547_000000592082_00029_39161_1307.N1	26-AUG-2009 22:05:47	Bright	58.500	6	13Alp Aur	0.080000	3400.0	117	39161	No
237	GOM_NL_2PRFIN20090826_220911_000000452082_00029_39161_1308.N1	26-AUG-2009 22:09:11	Bright	44.500	107	37The Aur	2.6490	11000.	89	39161	No
238	GOM_NL_2PRFIN20090826_221242_000000612082_00029_39161_1309.N1	26-AUG-2009 22:12:42	Twilight	60.500	28	12Bet Tau	1.6500	15200.	121	39161	No
239	GOM_NL_2PRFIN20090826_221541_000000462082_00029_39161_1310.N1	26-AUG-2009 22:15:41	Twilight	46.000	44	24Gam Gem	1.9280	11000.	92	39161	No
240	GOM_NL_2PRFIN20090826_221949_000000612082_00029_39161_1311.N1	26-AUG-2009 22:19:49	Dark	61.000	14	58Alp Ori	0.87000	3000.0	122	39161	No
241	GOM_NL_2PRFIN20090826_222138_000000642082_00029_39161_1312.N1	26-AUG-2009 22:21:38	Dark	63.500	27	24Gam Ori	1.6360	26000.	127	39161	No
242	GOM_NL_2PRFIN20090826_222335_000000572082_00029_39161_1313.N1	26-AUG-2009 22:23:35	Dark	56.500	30	46Eps Ori	1.6940	30000.	113	39161	No
243	GOM_NL_2PRFIN20090826_222532_000000542082_00029_39161_1314.N1	26-AUG-2009 22:25:32	Dark	53.500	56	53Kap Ori	2.0650	30000.	107	39161	No
244	GOM_NL_2PRFIN20090826_222713_000000742082_00029_39161_1315.N1	26-AUG-2009 22:27:13	Dark	73.500	7	19Bet Ori	0.10000	14000.	147	39161	No
245	GOM_NL_2PRFIN20090826_222938_000000542082_00029_39161_1316.N1	26-AUG-2009 22:29:38	Dark	54.000	139	9Bet Lep	2.8330	5600.0	108	39161	No
246	GOM_NL_2PRFIN20090826_224329_000000542082_00030_39162_1334.N1	26-AUG-2009 22:43:29	Dark	53.500	157	The1Eri	2.9060	9300.0	107	39162	No
247	GOM_NL_2PRFIN20090826_225208_000000512082_00030_39162_1335.N1	26-AUG-2009 22:52:08	Straylight	50.500	84	Alp Phe	2.3970	4500.0	101	39162	No
248	GOM_NL_2PRFIN20090826_225839_000000512082_00030_39162_1336.N1	26-AUG-2009 22:58:39	Straylight	51.000	18	24Alp PsA	1.1660	9700.0	102	39162	No
249	GOM_NL_2PRFIN20090826_230830_000000402082_00030_39162_1337.N1	26-AUG-2009 23:08:30	Bright	40.000	162	34Alp Aqr	2.9440	5350.0	80	39162	No
250	GOM_NL_2PRFIN20090826_231132_000000562082_00030_39162_1338.N1	26-AUG-2009 23:11:32	Bright	56.000	61	8Eps Peg	2.1000	3900.0	112	39162	No
251	GOM_NL_2PRFIN20090826_231913_000000472082_00030_39162_1339.N1	26-AUG-2009 23:19:13	Bright	46.500	164	44Eta Peg	2.9480	5400.0	93	39162	No
252	GOM_NL_2PRFIN20090826_233002_000000422082_00030_39162_1340.N1	26-AUG-2009 23:30:02	Bright	41.500	74	11Bet Cas	2.2680	6600.0	83	39162	No
253	GOM_NL_2PRFIN20090826_233214_000000472082_00030_39162_1341.N1	26-AUG-2009 23:32:14	Bright	47.000	76	27Gam Cas	2.3000	30000.	94	39162	No
254	GOM_NL_2PRFIN20090826_234623_000000592082_00030_39162_1342.N1	26-AUG-2009 23:46:23	Bright	58.500	6	13Alp Aur	0.080000	3400.0	117	39162	No
255	GOM_NL_2PRFIN20090826_234947_000000462082_00030_39162_1343.N1	26-AUG-2009 23:49:47	Bright	45.500	107	37The Aur	2.6490	11000.	91	39162	No
256	GOM_NL_2PRFIN20090826_235318_000000612082_00030_39162_1344.N1	26-AUG-2009 23:53:18	Twilight	61.000	28	12Bet Tau	1.6500	15200.	122	39162	No
257	GOM_NL_2PRFIN20090826_235617_000000442082_00030_39162_1345.N1	26-AUG-2009 23:56:17	Twilight	43.500	44	24Gam Gem	1.9280	11000.	87	39162	No

3. Quality information per product

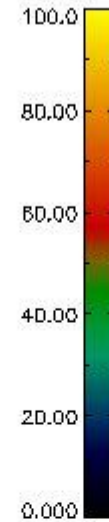
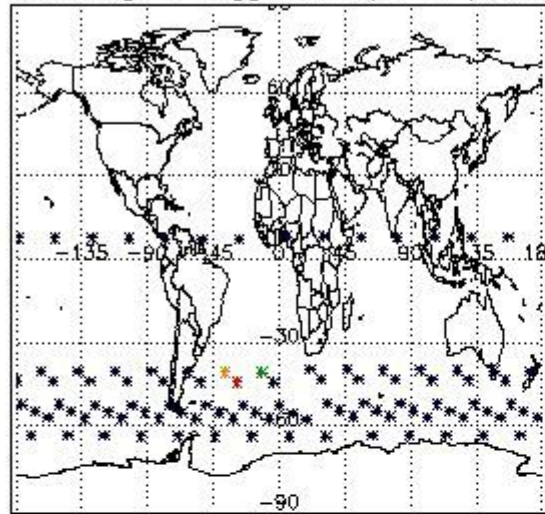
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

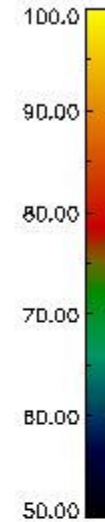
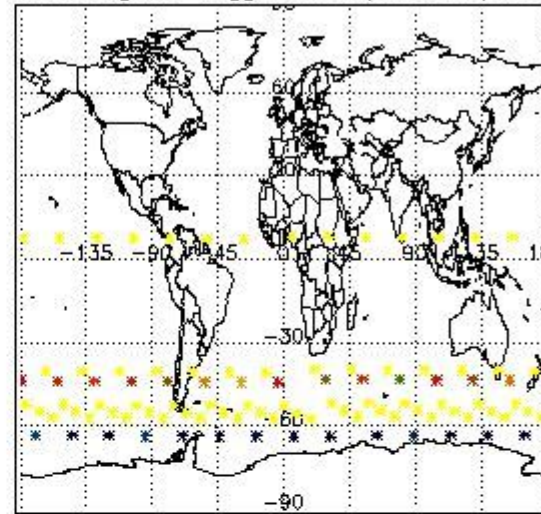


3.2 Plot quality information per product (world map)

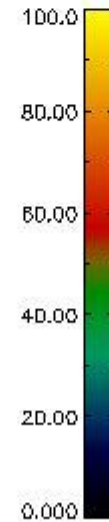
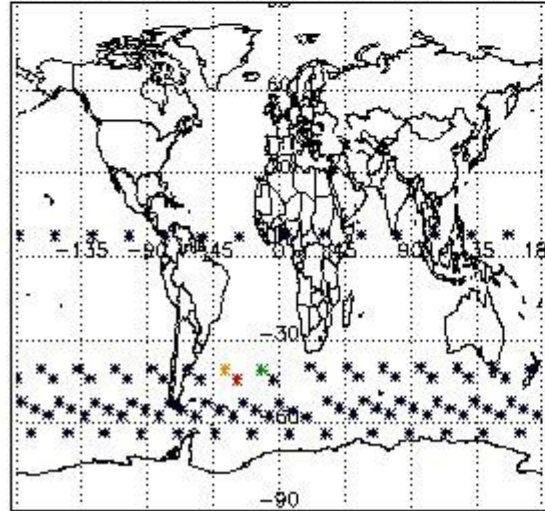
Percentage of flagged data per O3 profile



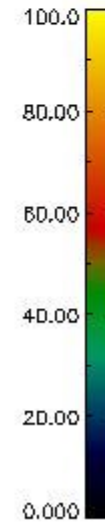
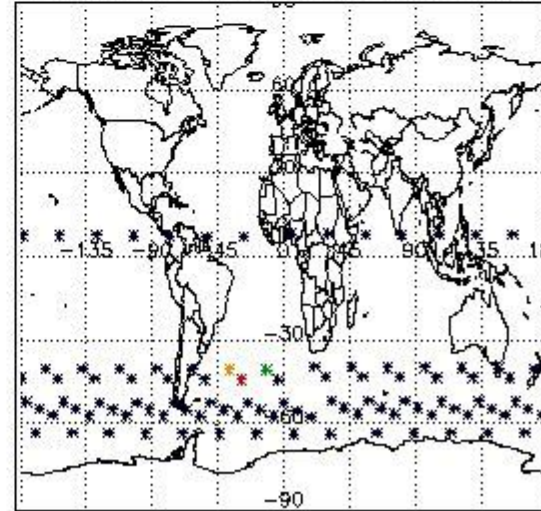
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

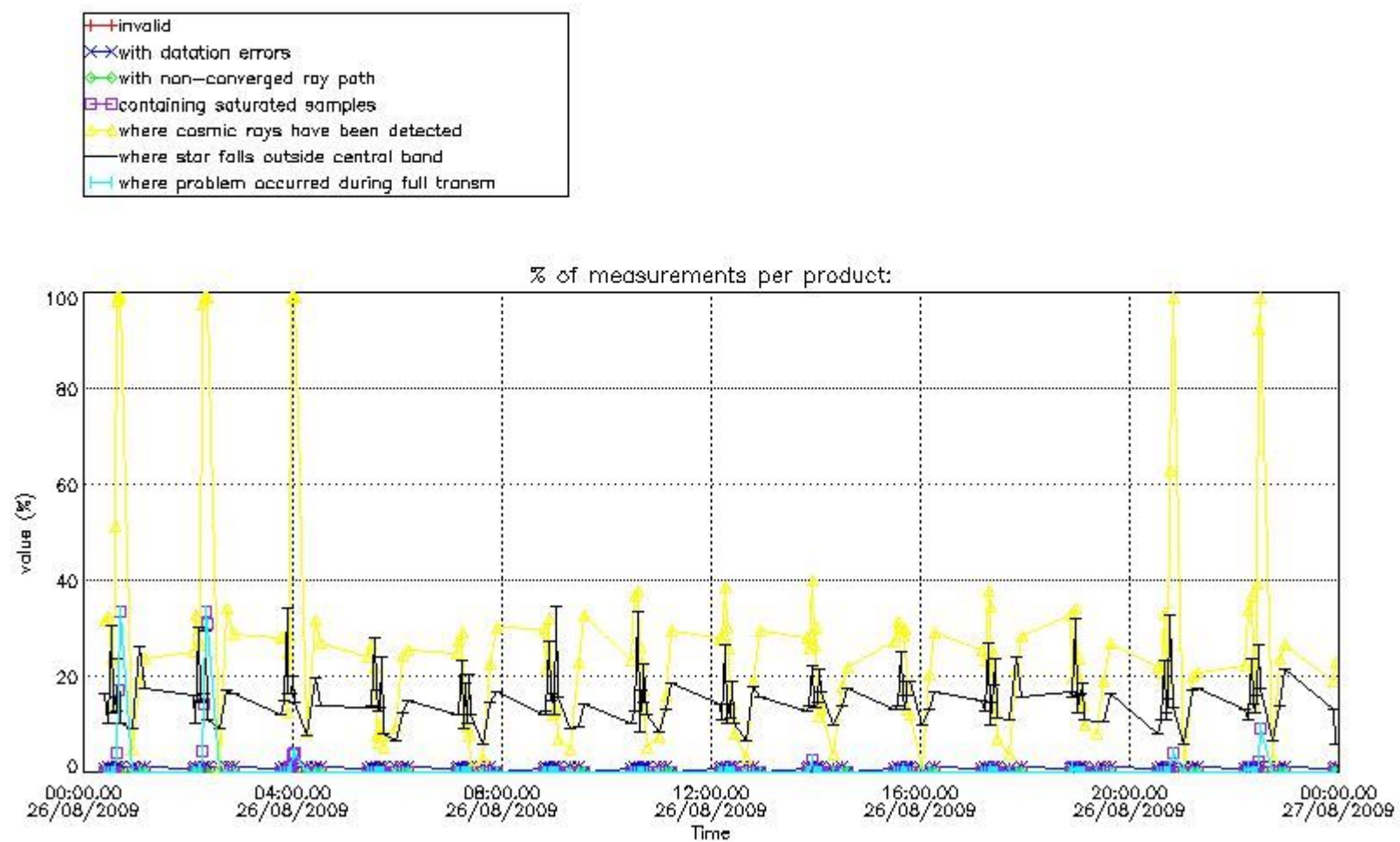


4. Level 1 quality information per product

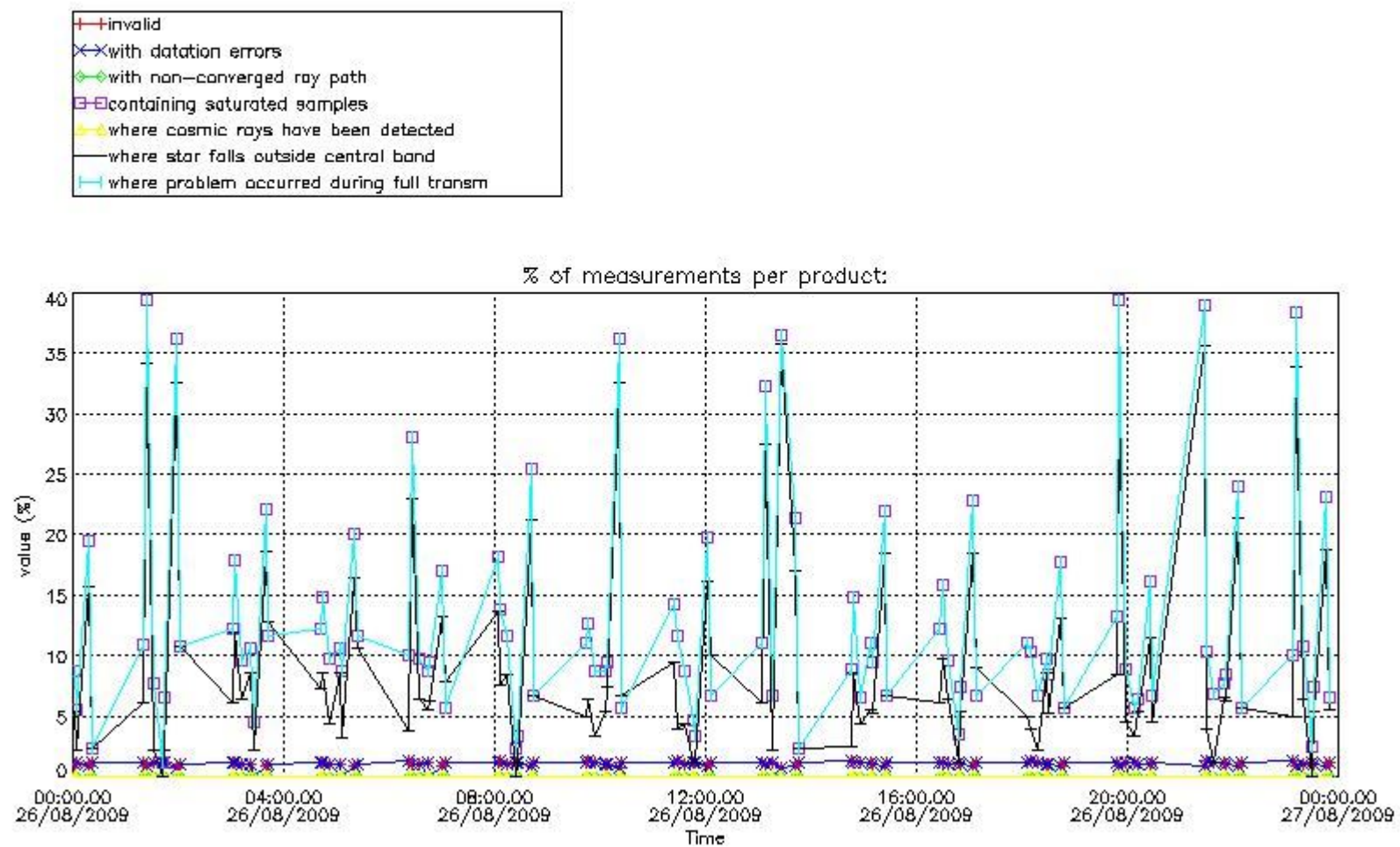
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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

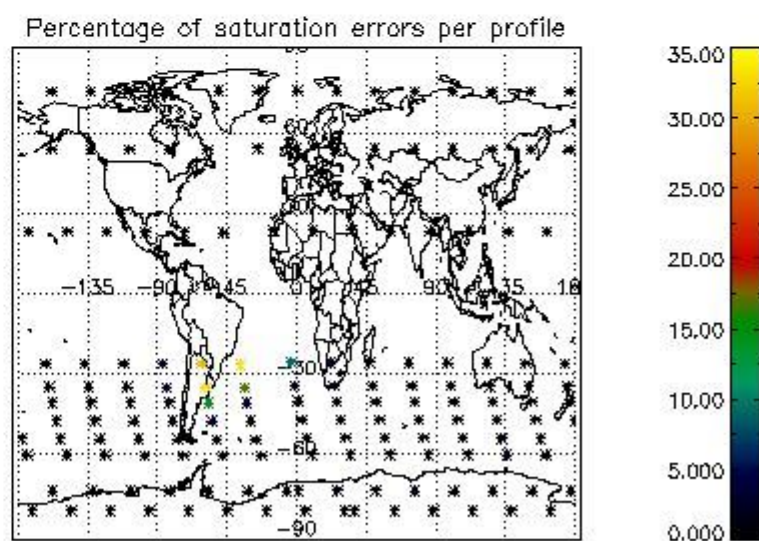
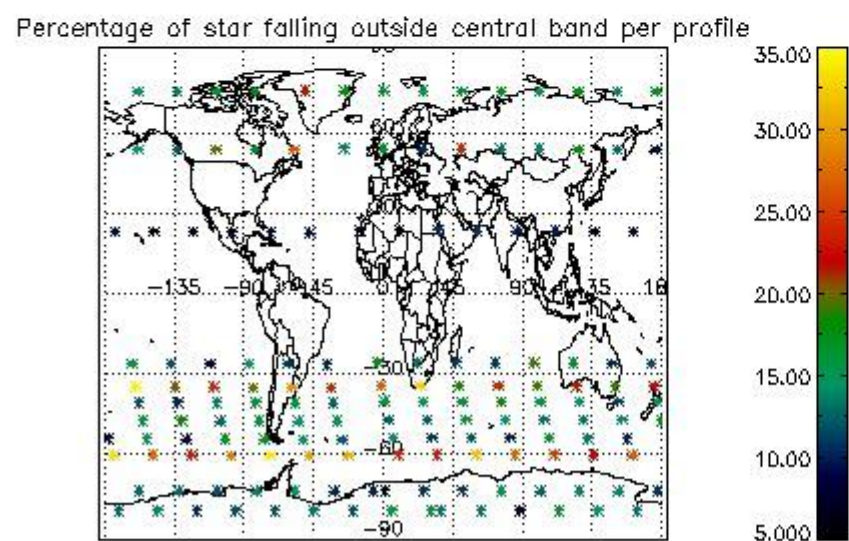
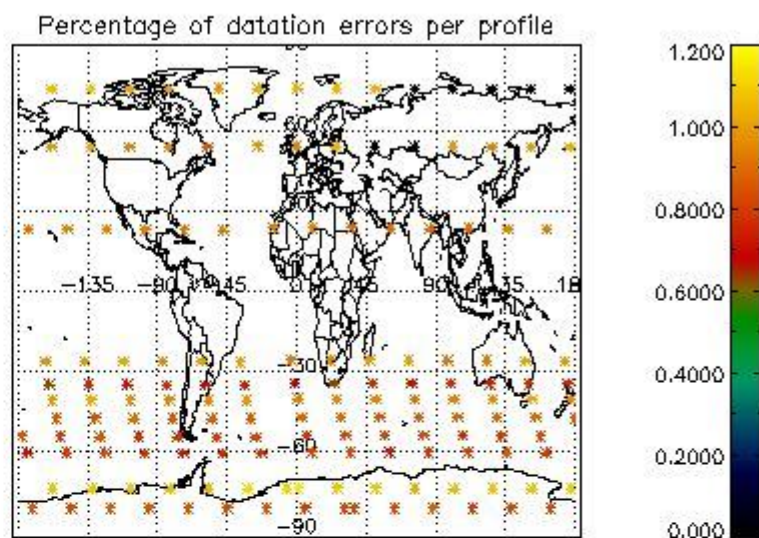
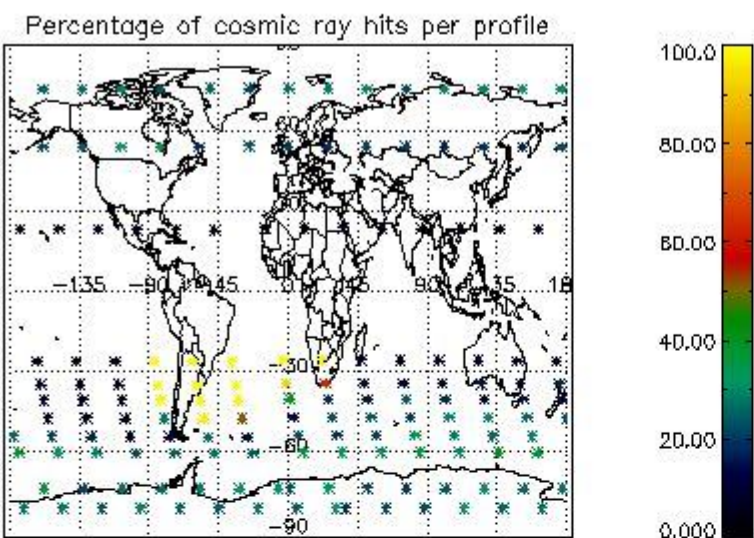


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

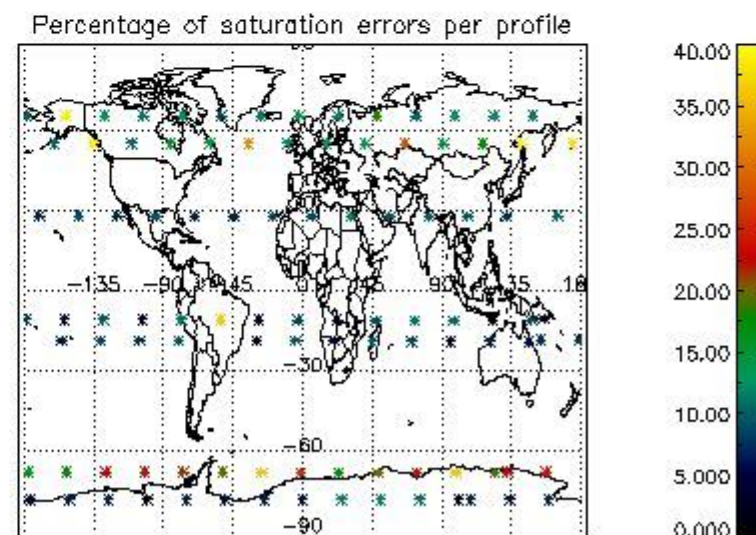
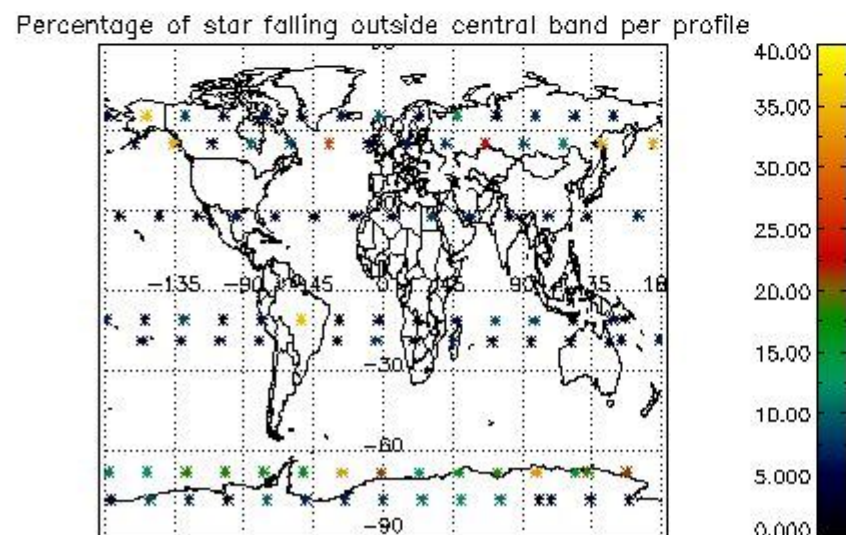
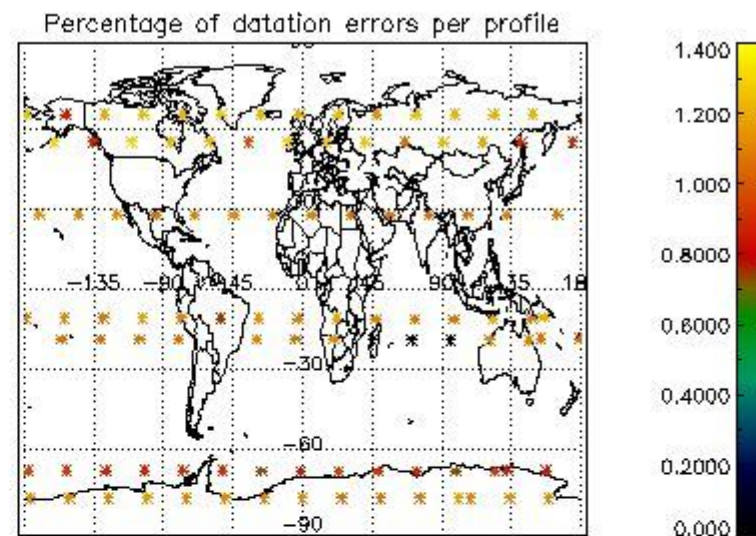
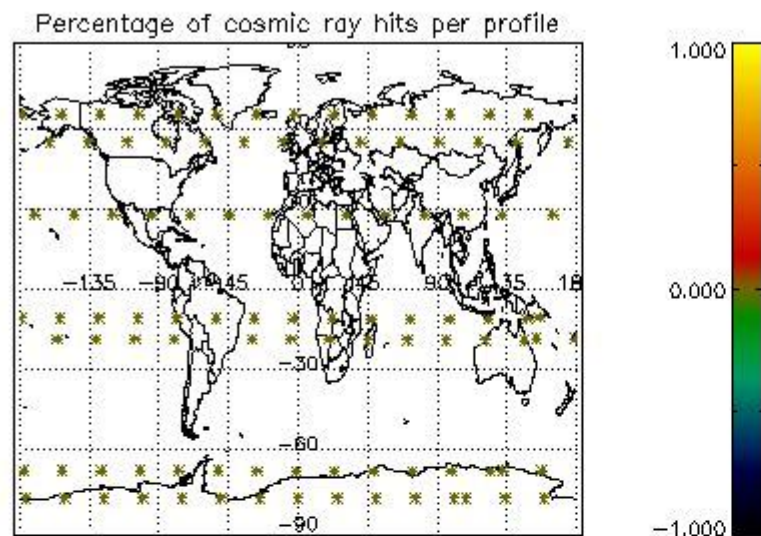


4.2 Plot quality information per product coming from level 1b processing (world map)

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



4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile. This information is written to the parameter GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/o3_std of the level 2 products. The table below shows the statistics for given STD ranges.

The statistics are given with respect to the overall valid production:

- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

The 'Criteria' is applied to valid points of dark limb products:

- Products in dark limb illumination condition: GOM_NL__2P/NL_SUMMARY_QUALITY/obs_ill_cond=0
- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

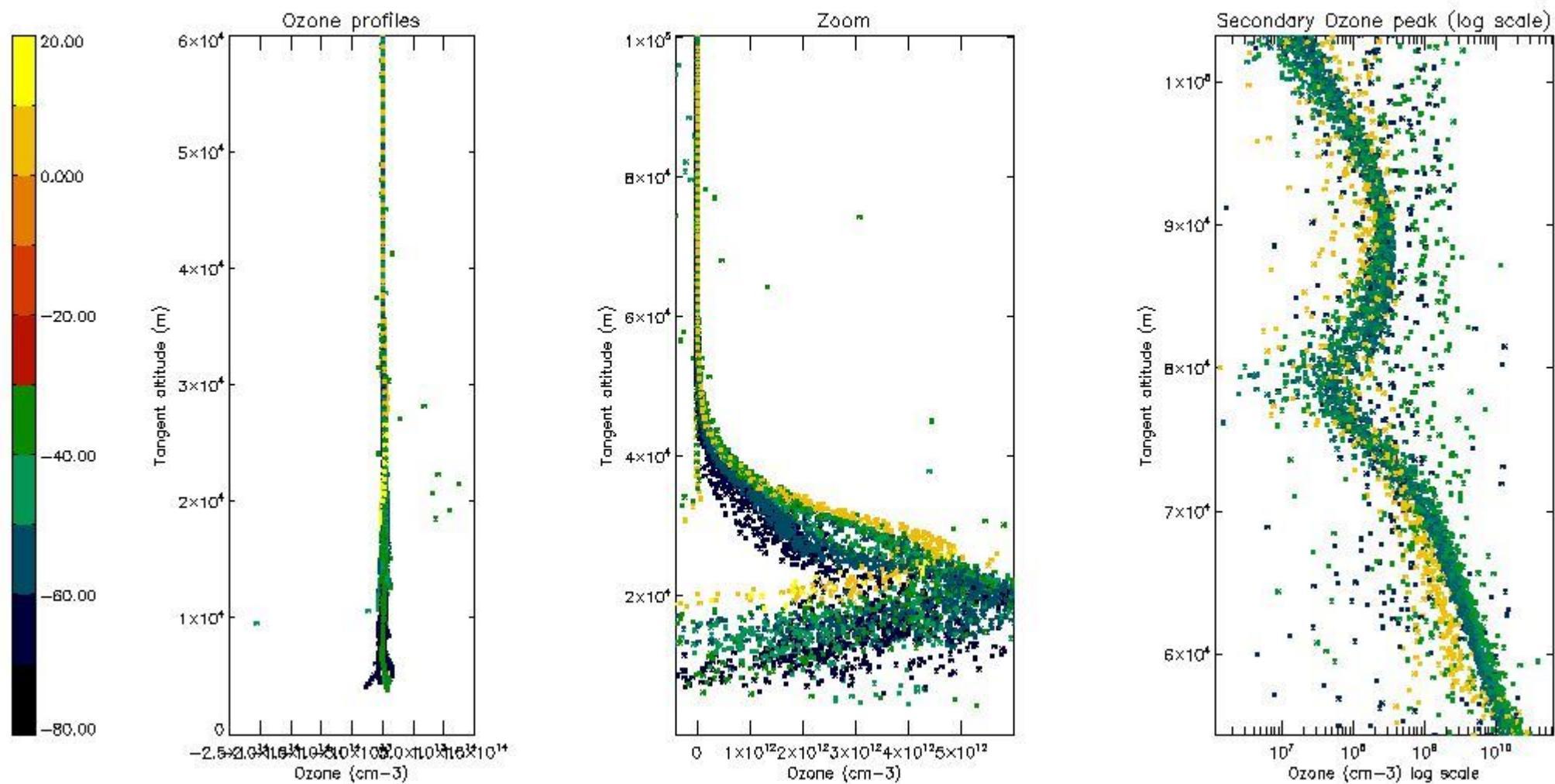
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	43
STD < 20	24

STD < 10	19
STD < 5	13

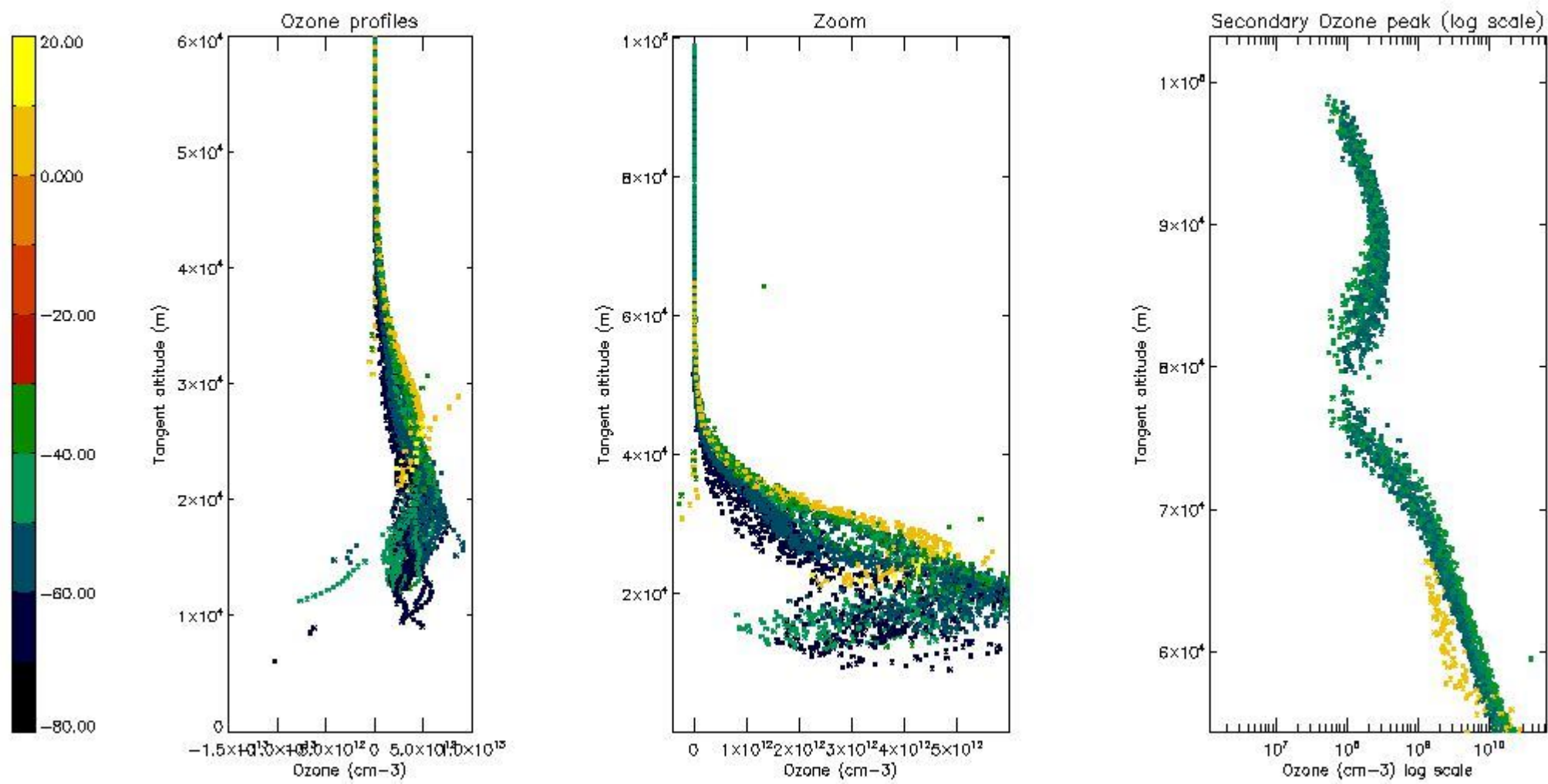
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



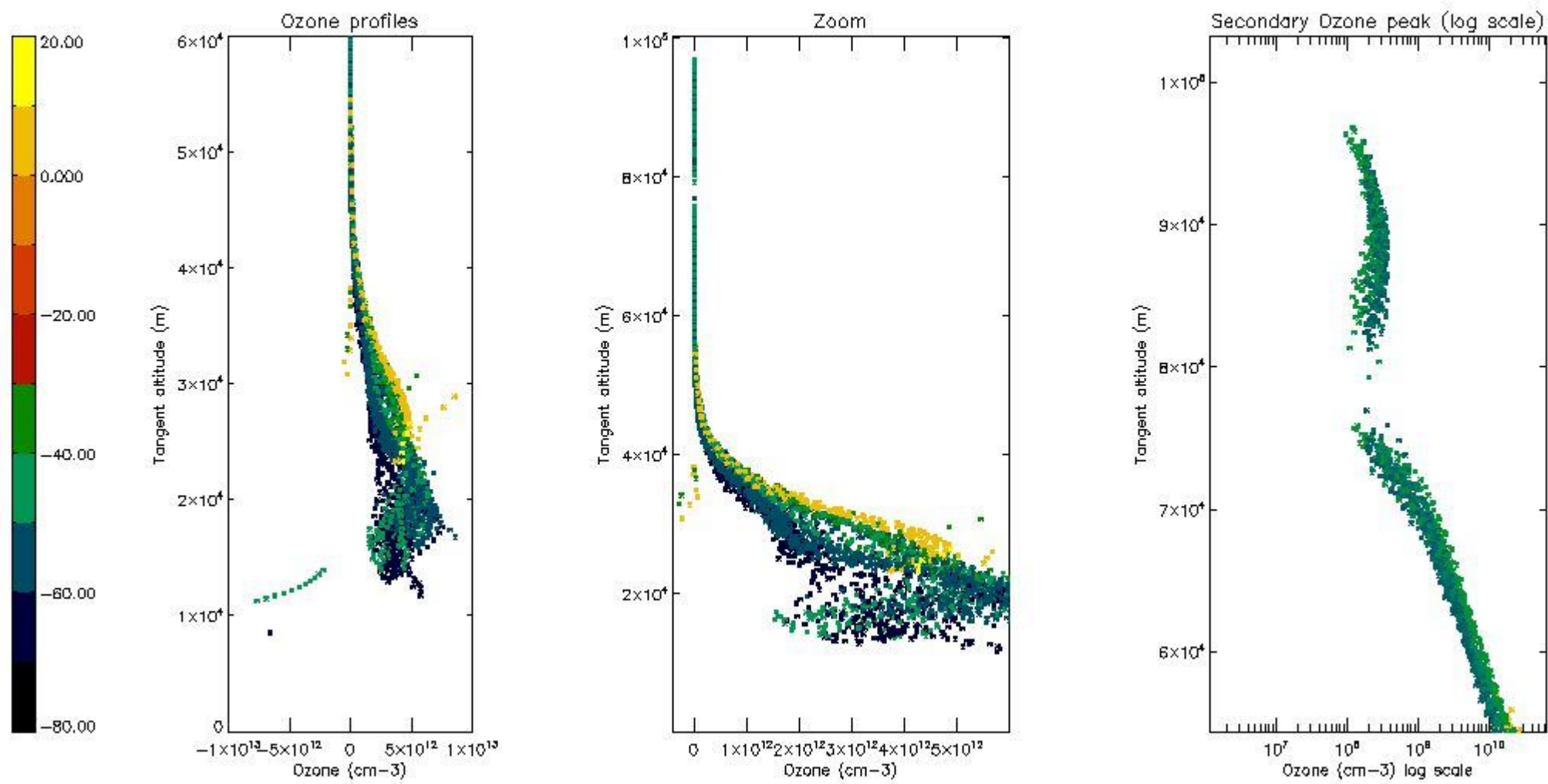
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



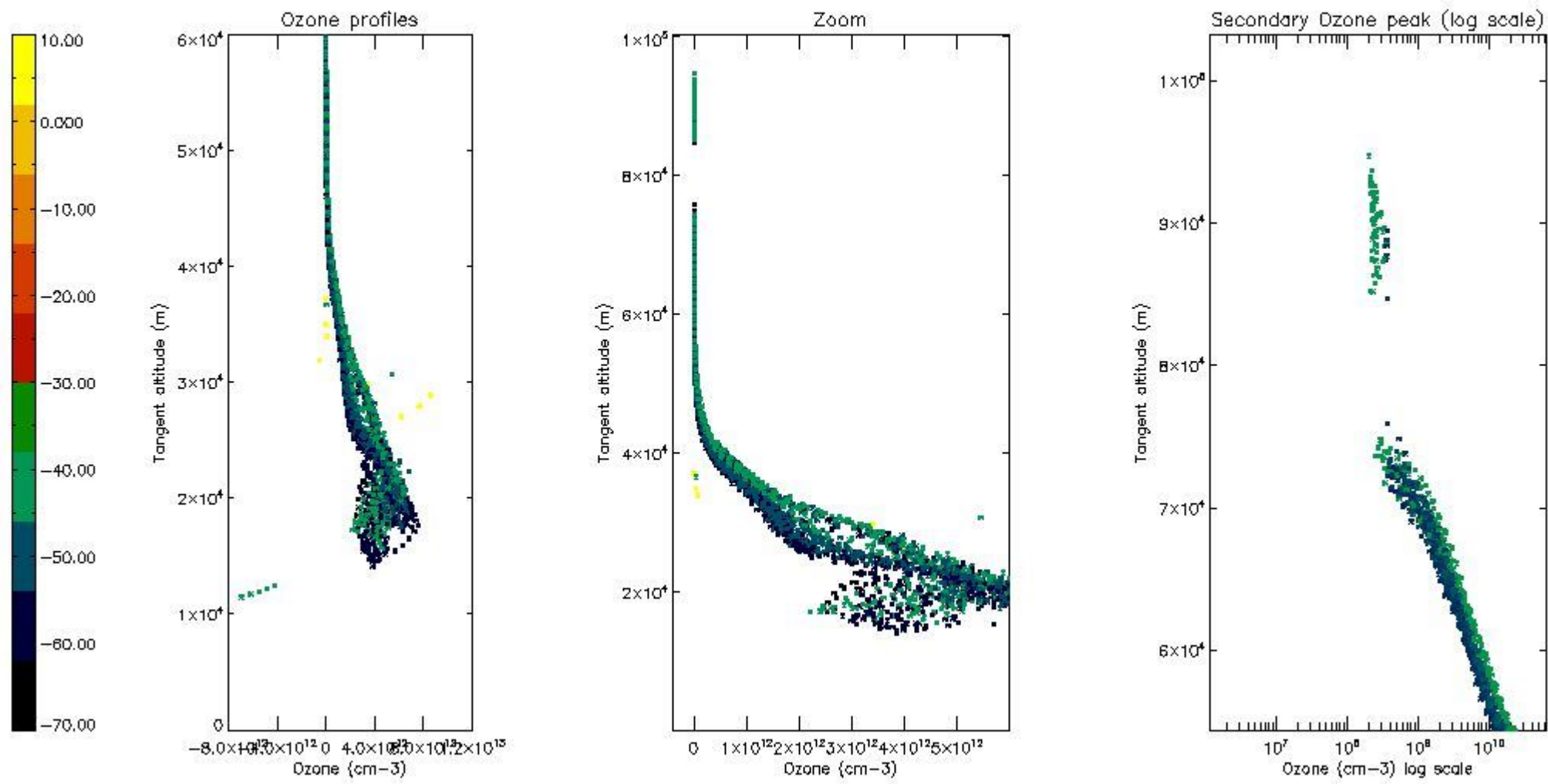
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



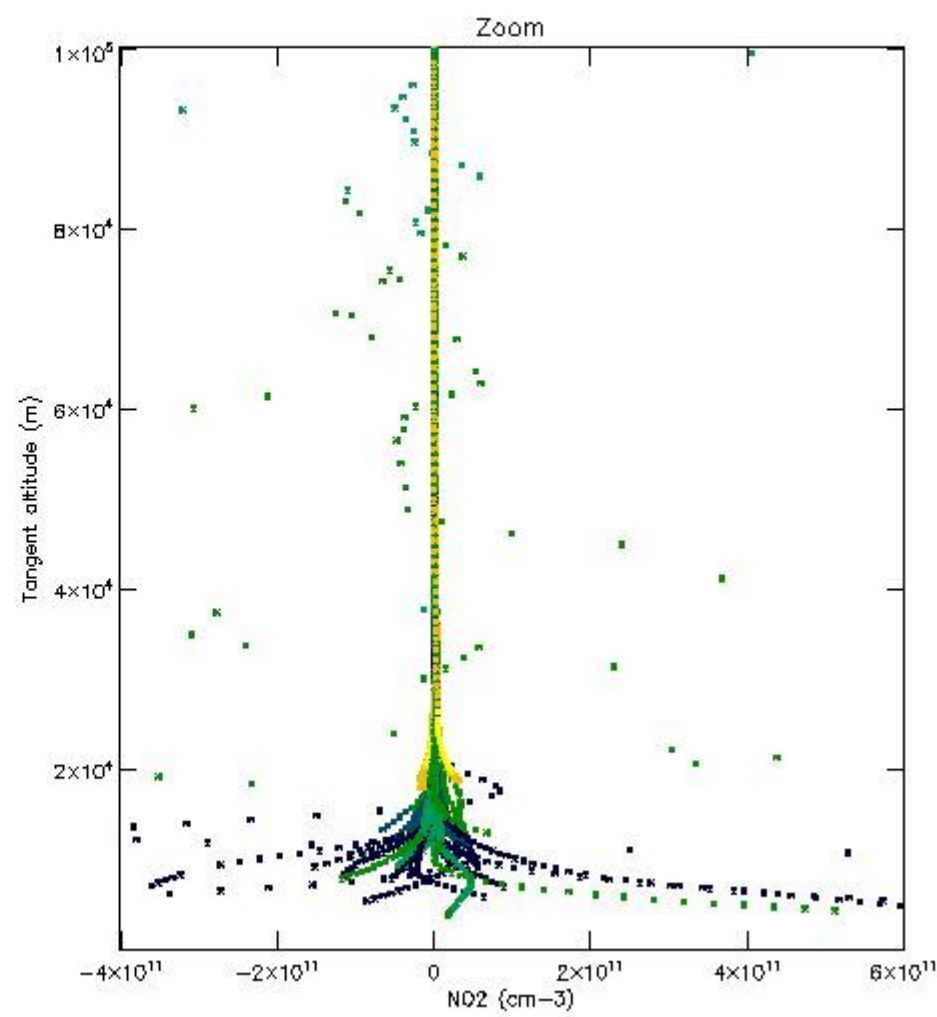
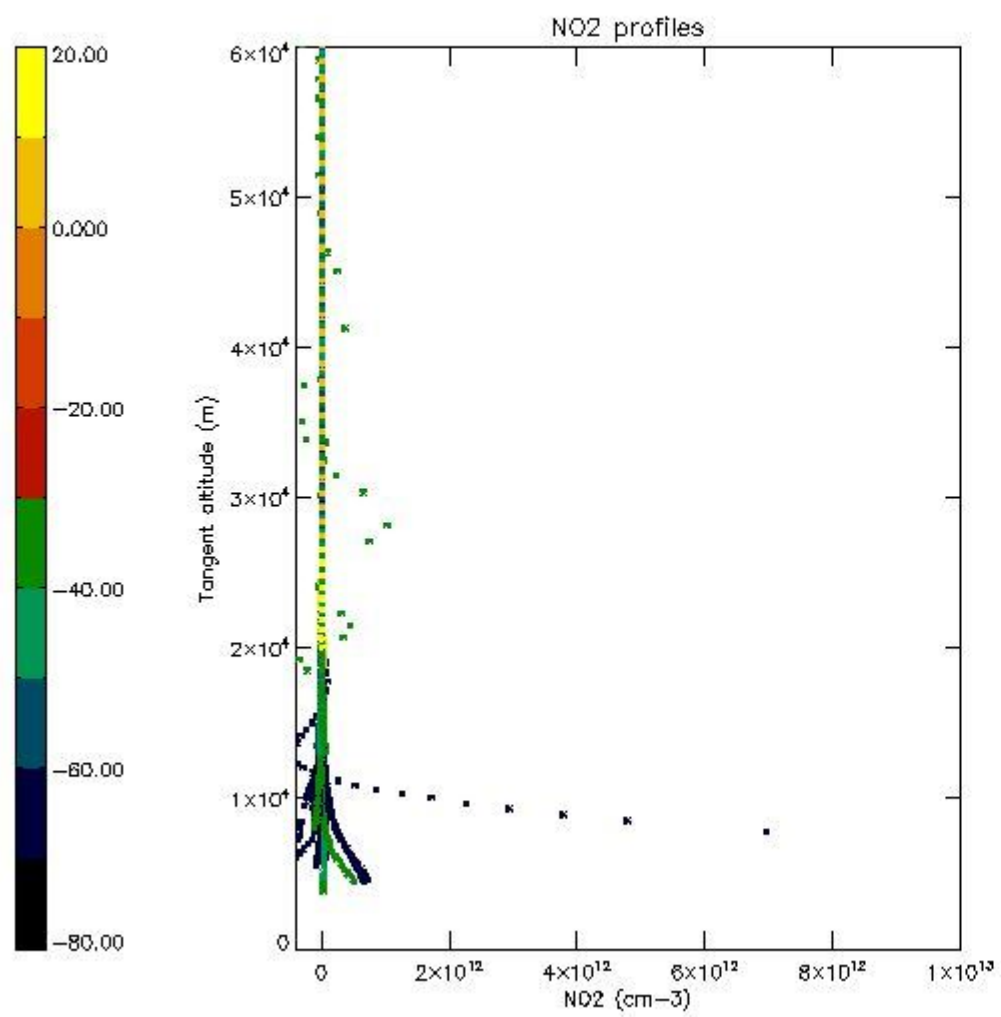
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



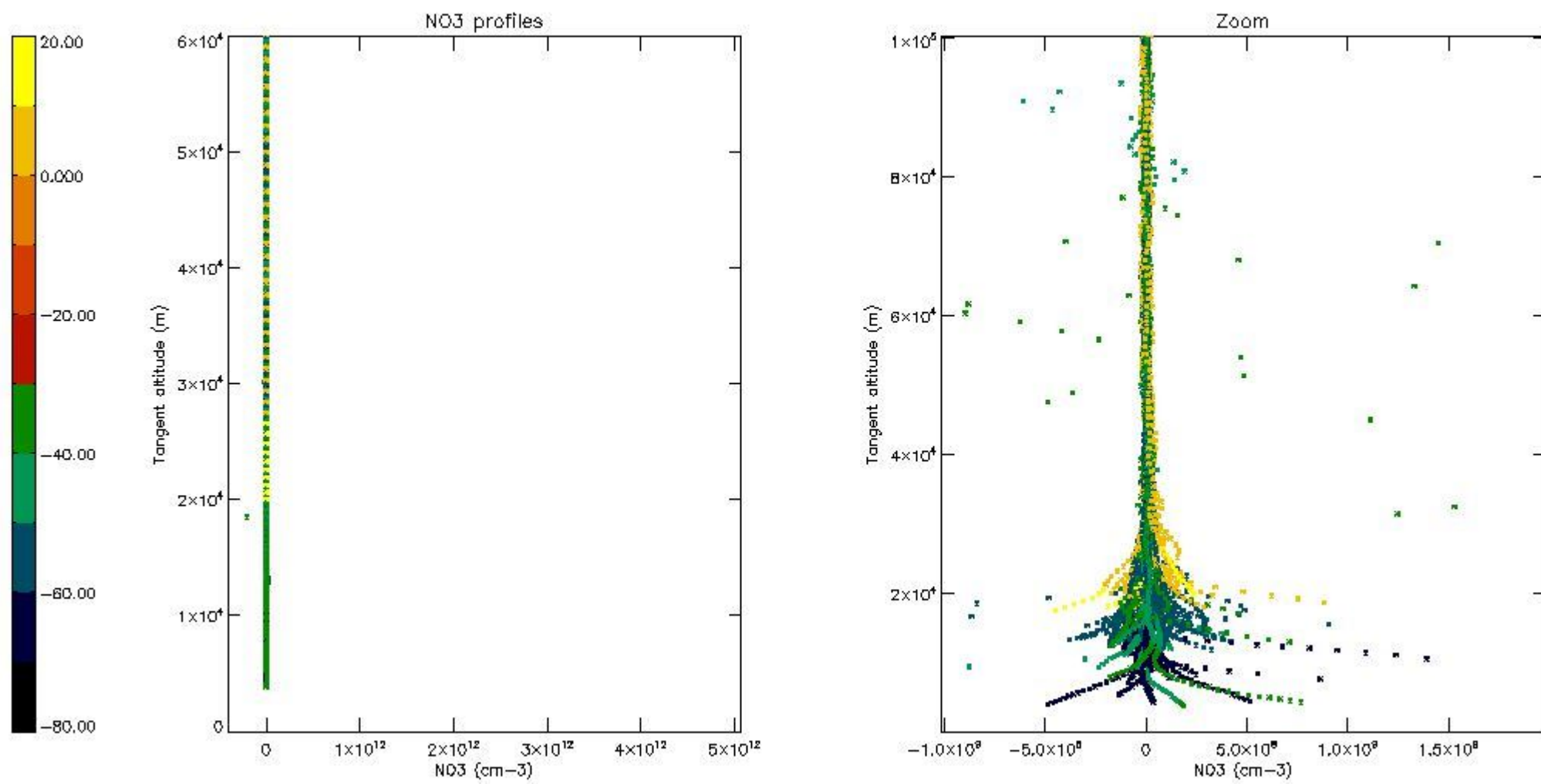
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



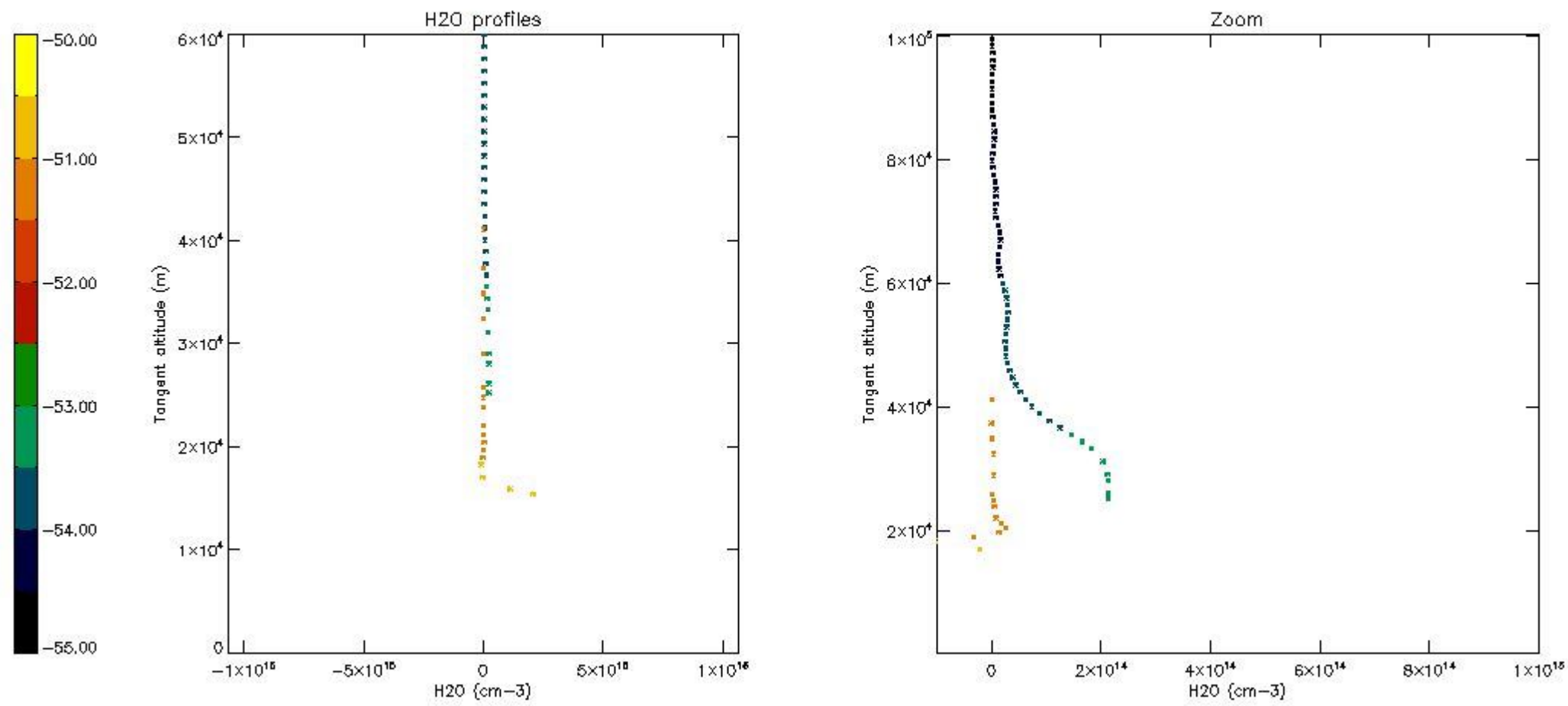
5.7 Plot NO3 profiles for all STD (dark without errors)

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	26-AUG-2009 00:01:49
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	26-AUG-2009 00:01:49
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	26-AUG-2009 00:01:49

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

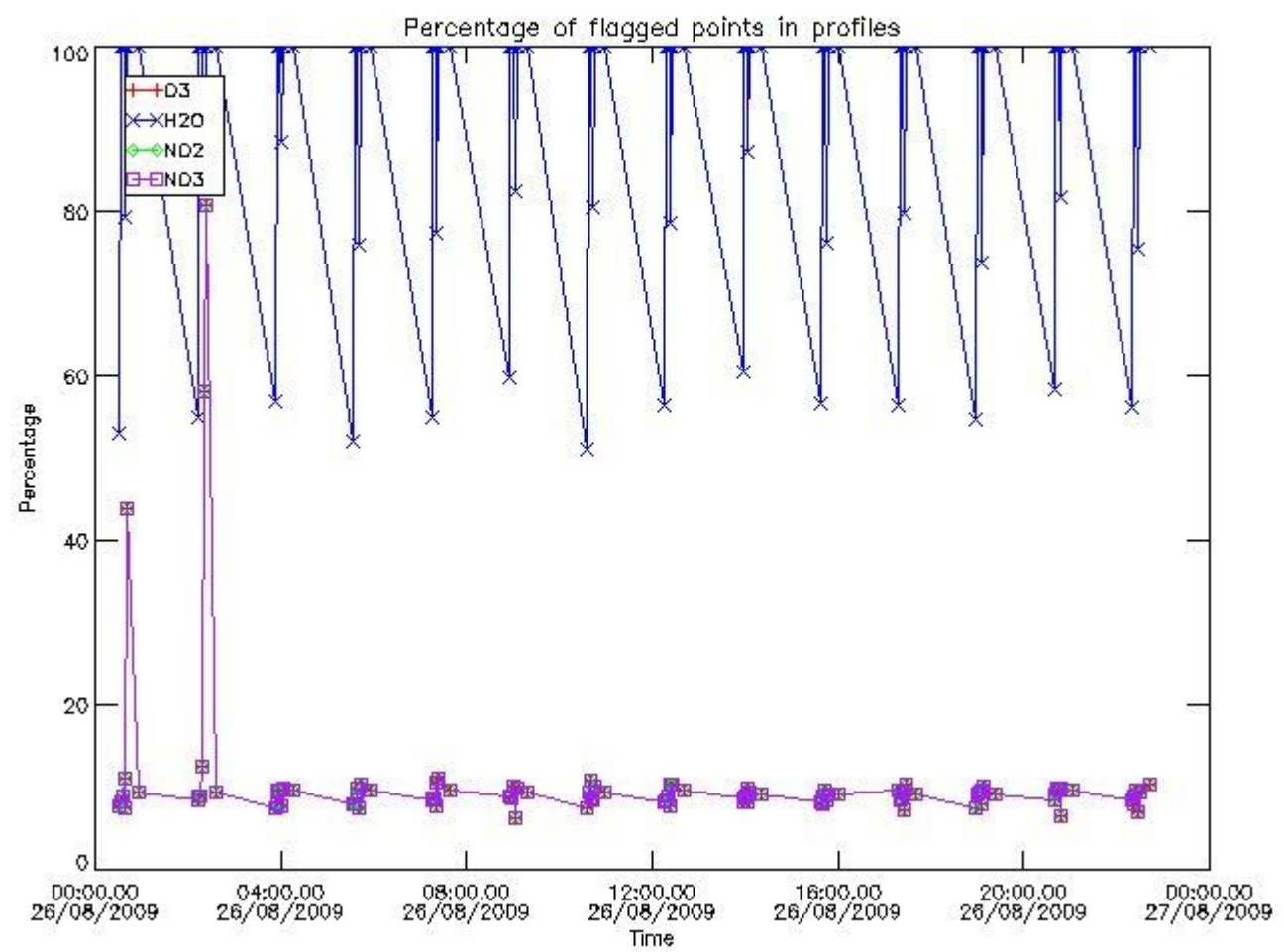
[5.5. Plot ozone profiles where STD < 5% \(dark without errors\)](#)

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

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

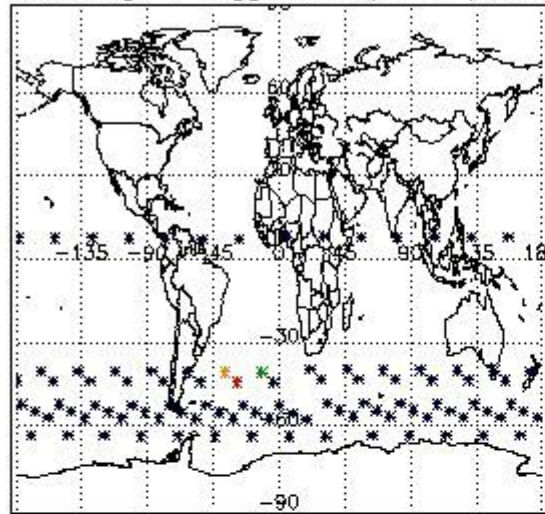
[5.8 Plot H2O profiles \(only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors\) for all STD](#)

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

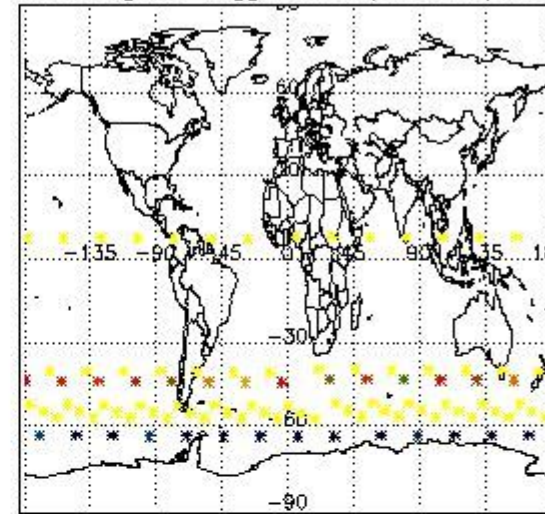


3.2 Plot quality information per product (world map)

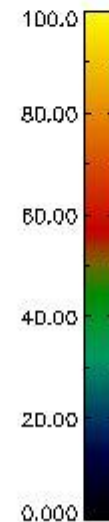
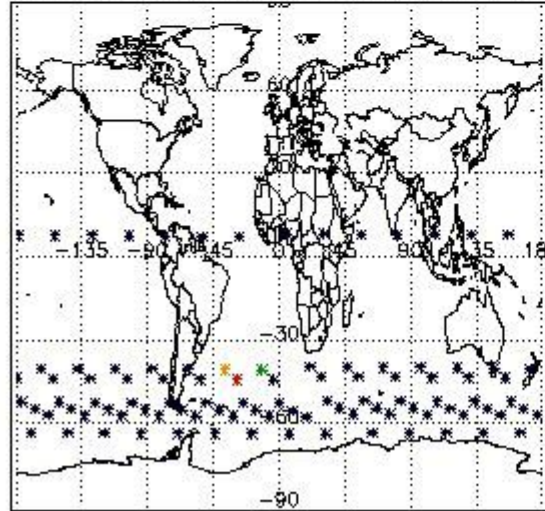
Percentage of flagged data per O3 profile



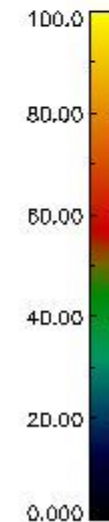
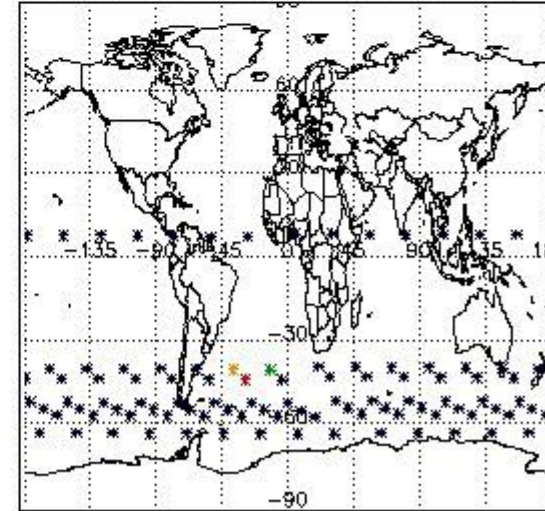
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

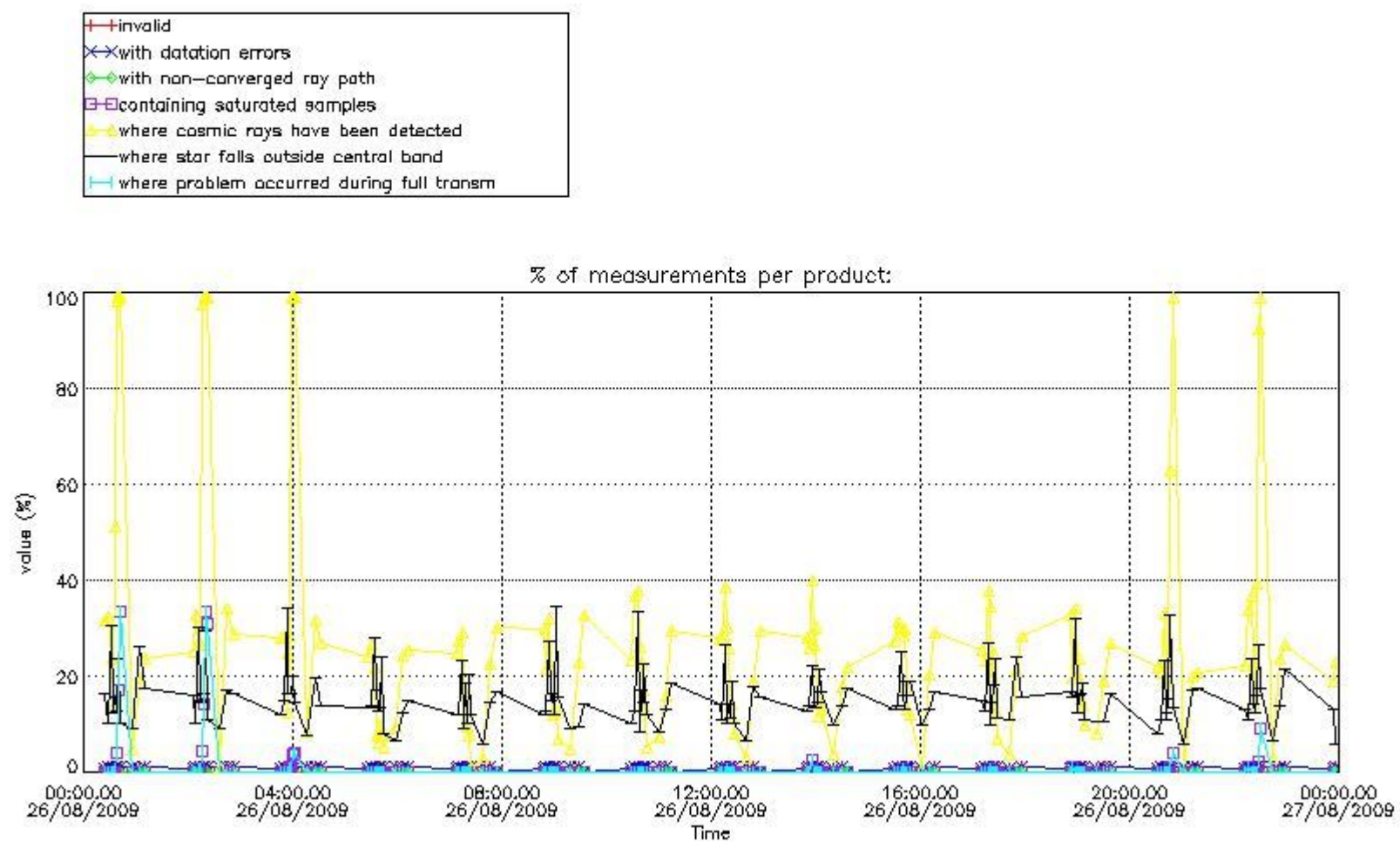


4. Level 1 quality information per product

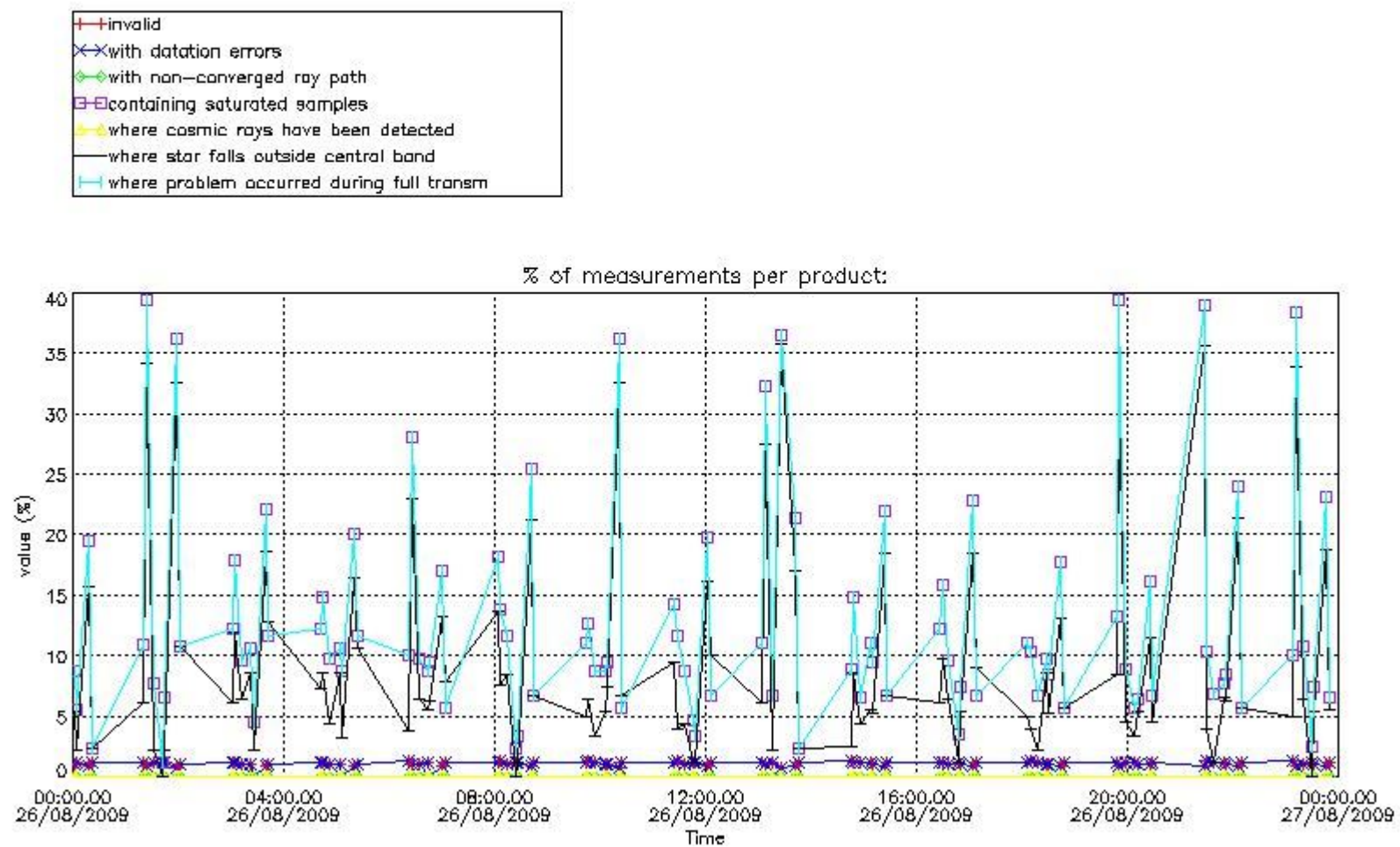
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



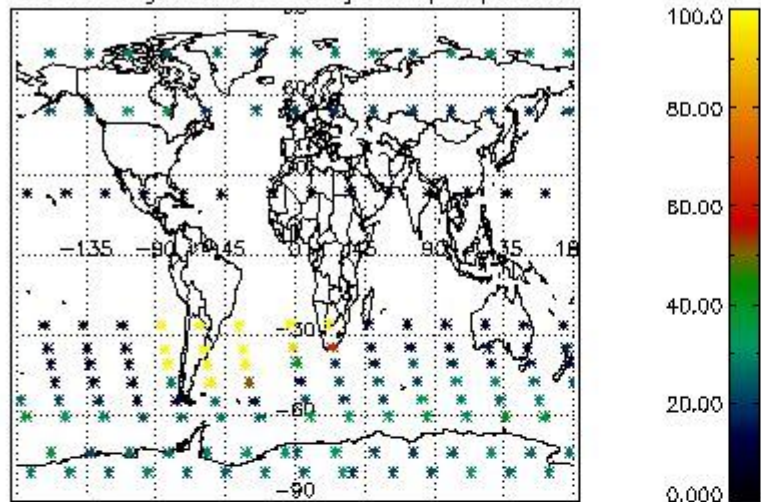
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



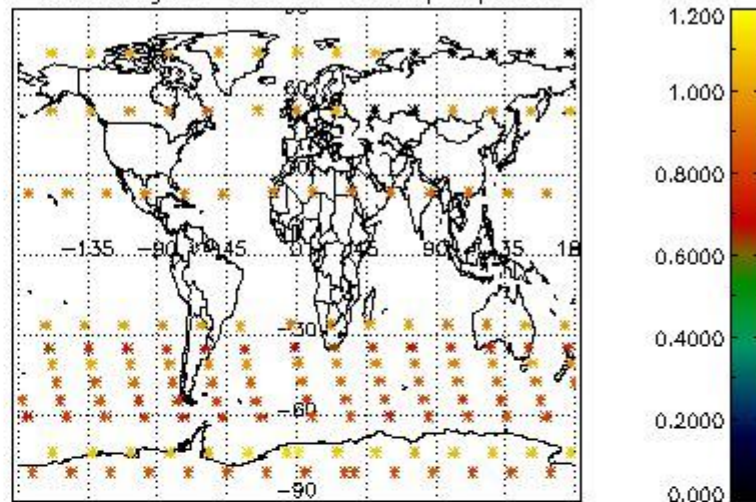
4.2 Plot quality information per product coming from level 1b processing (world map)

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

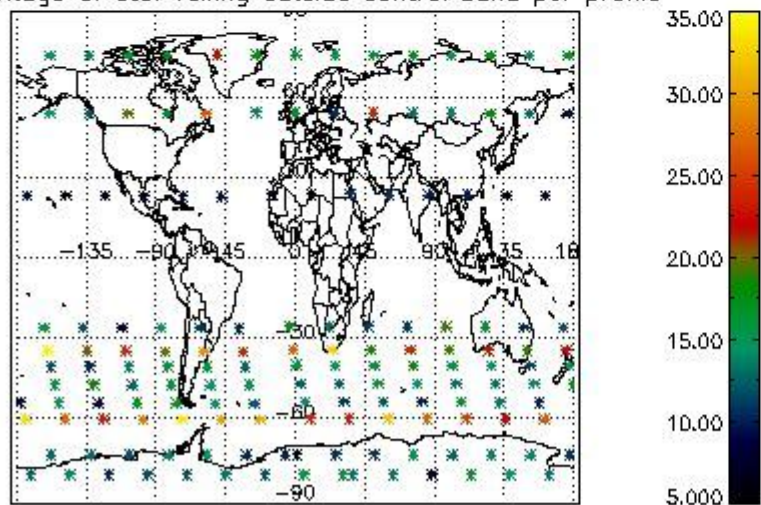
Percentage of cosmic ray hits per profile



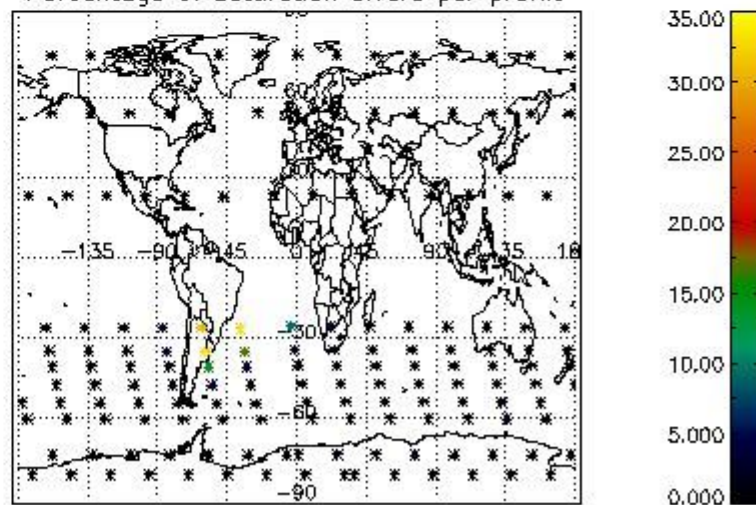
Percentage of datation errors per profile



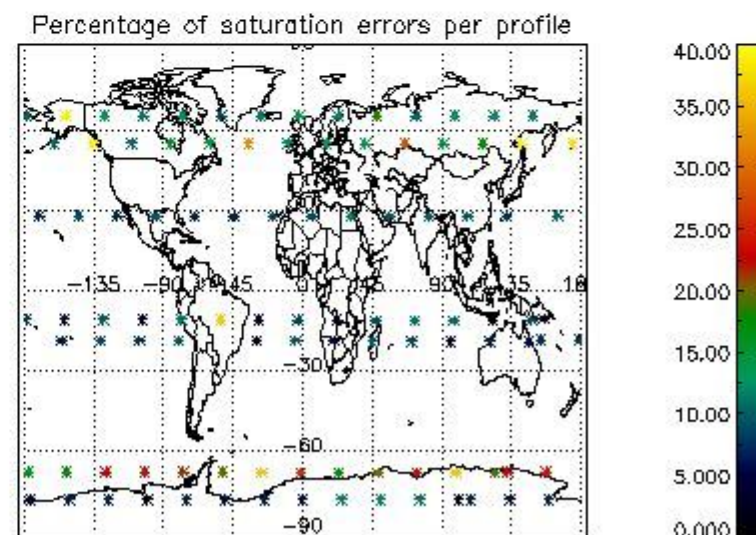
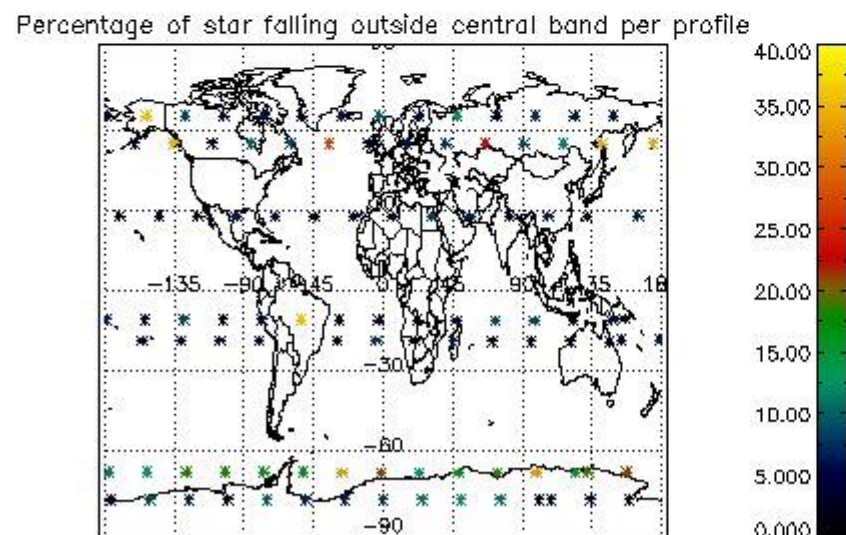
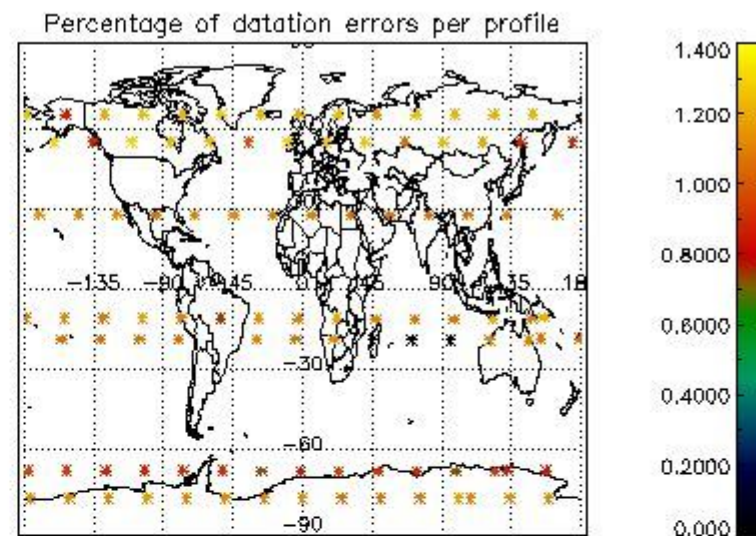
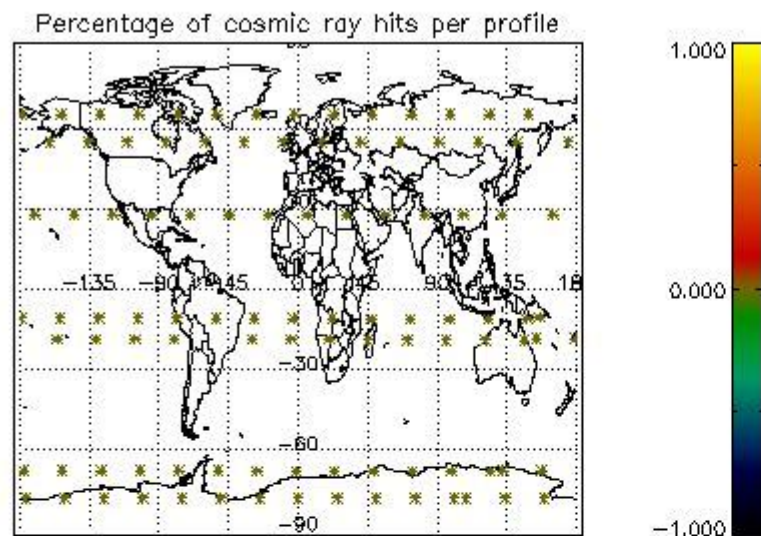
Percentage of star falling outside central band per profile



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

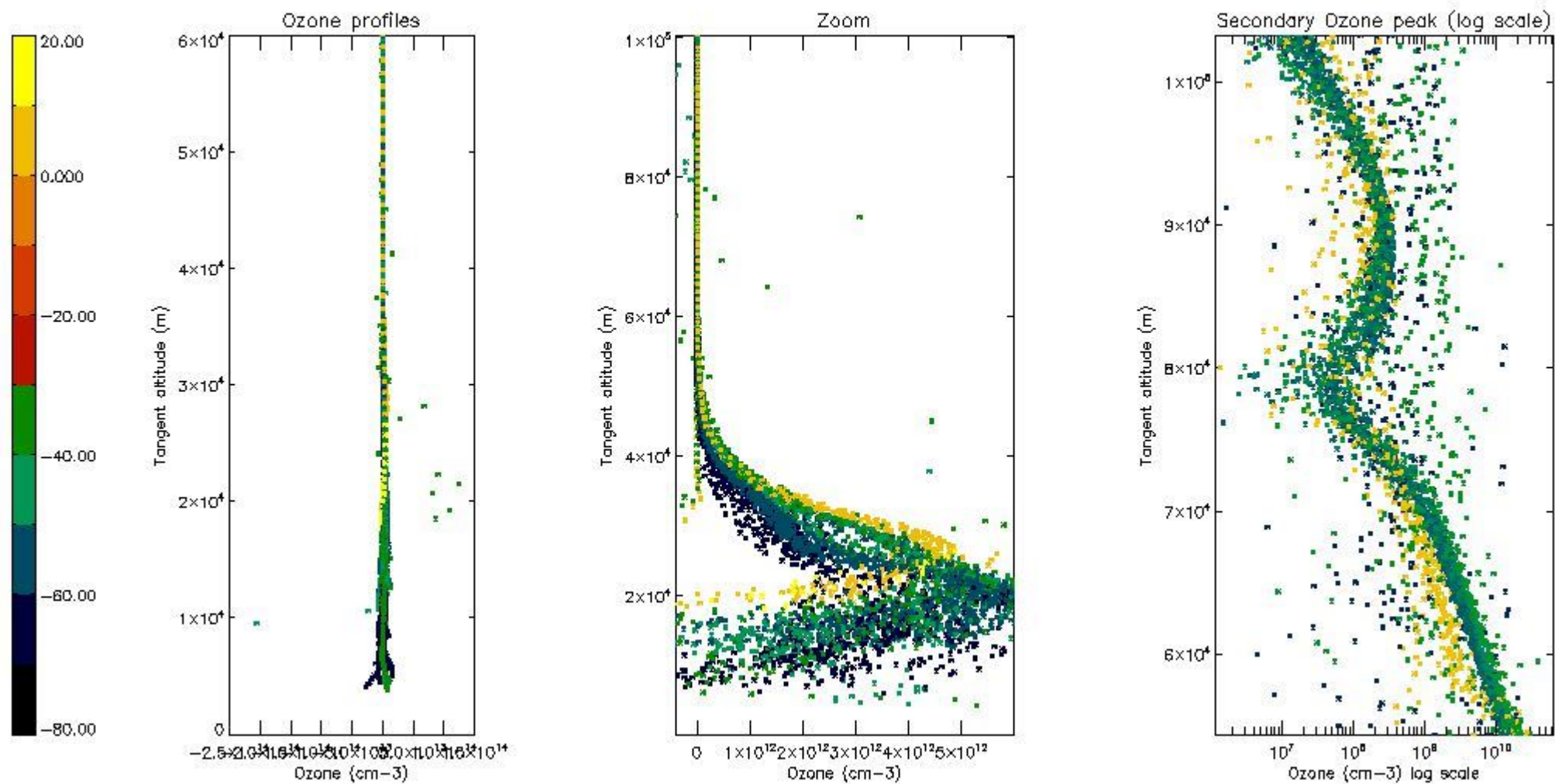
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	43
STD < 20	24

STD < 10	19
STD < 5	13

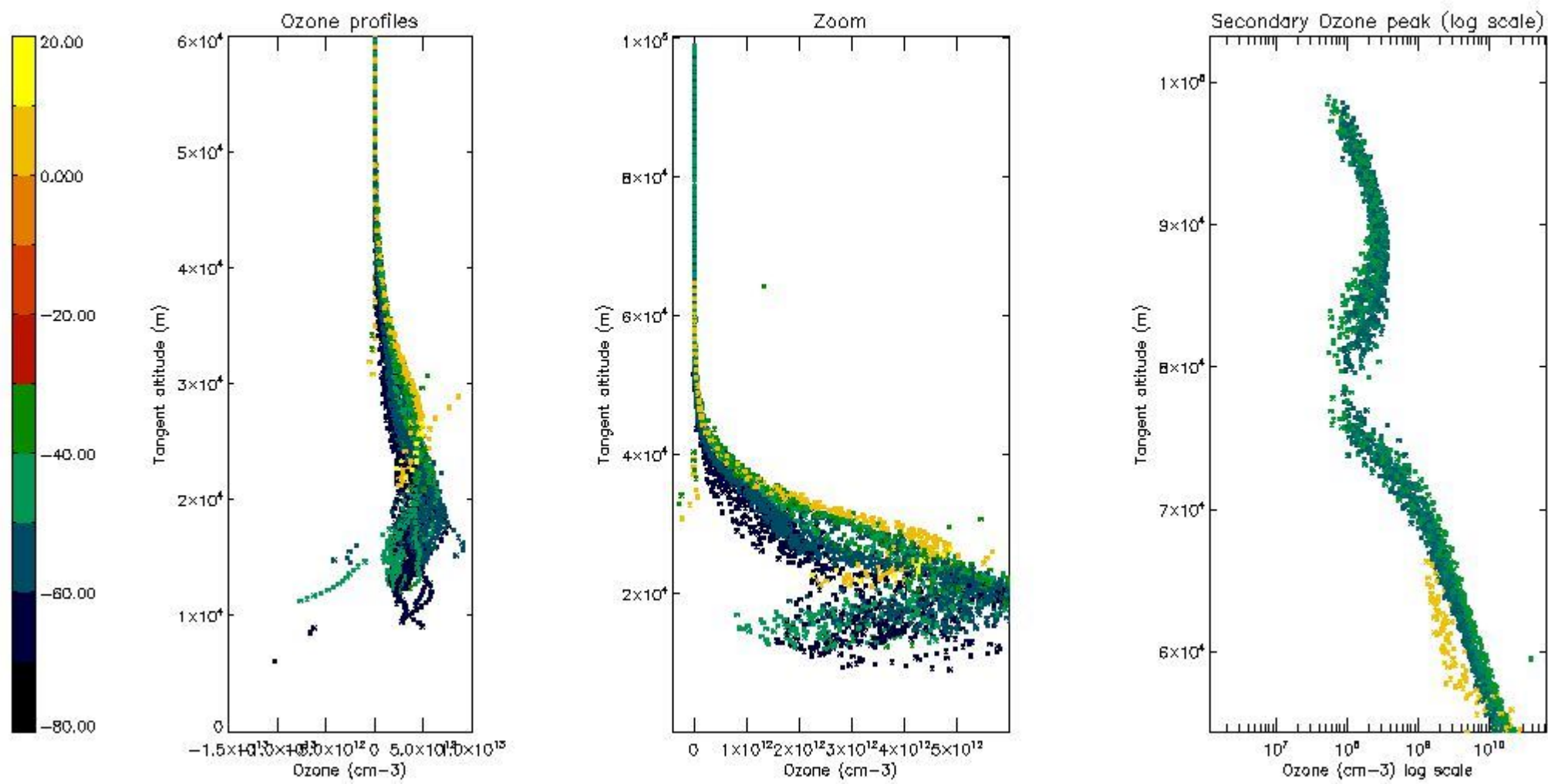
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



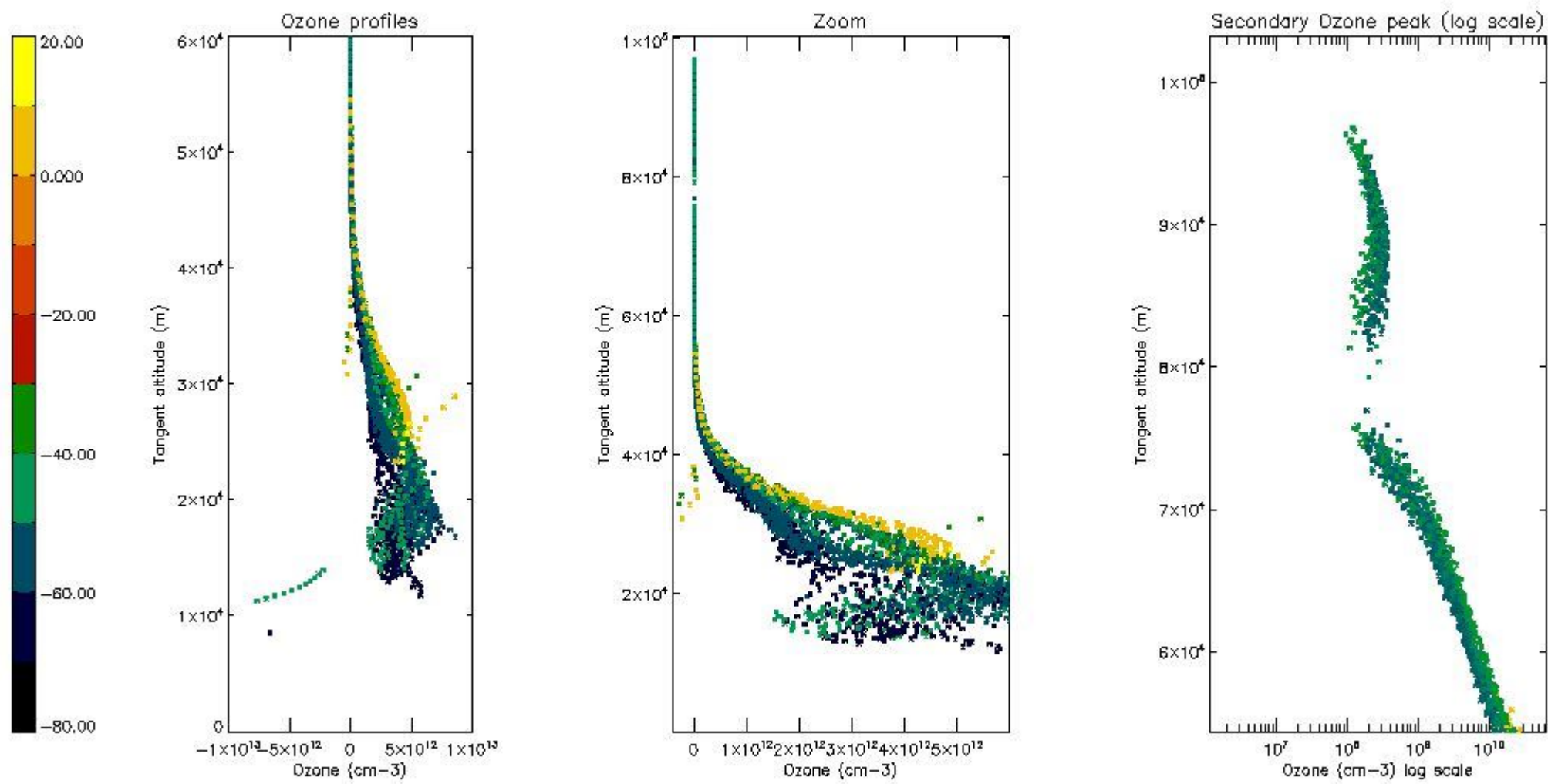
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



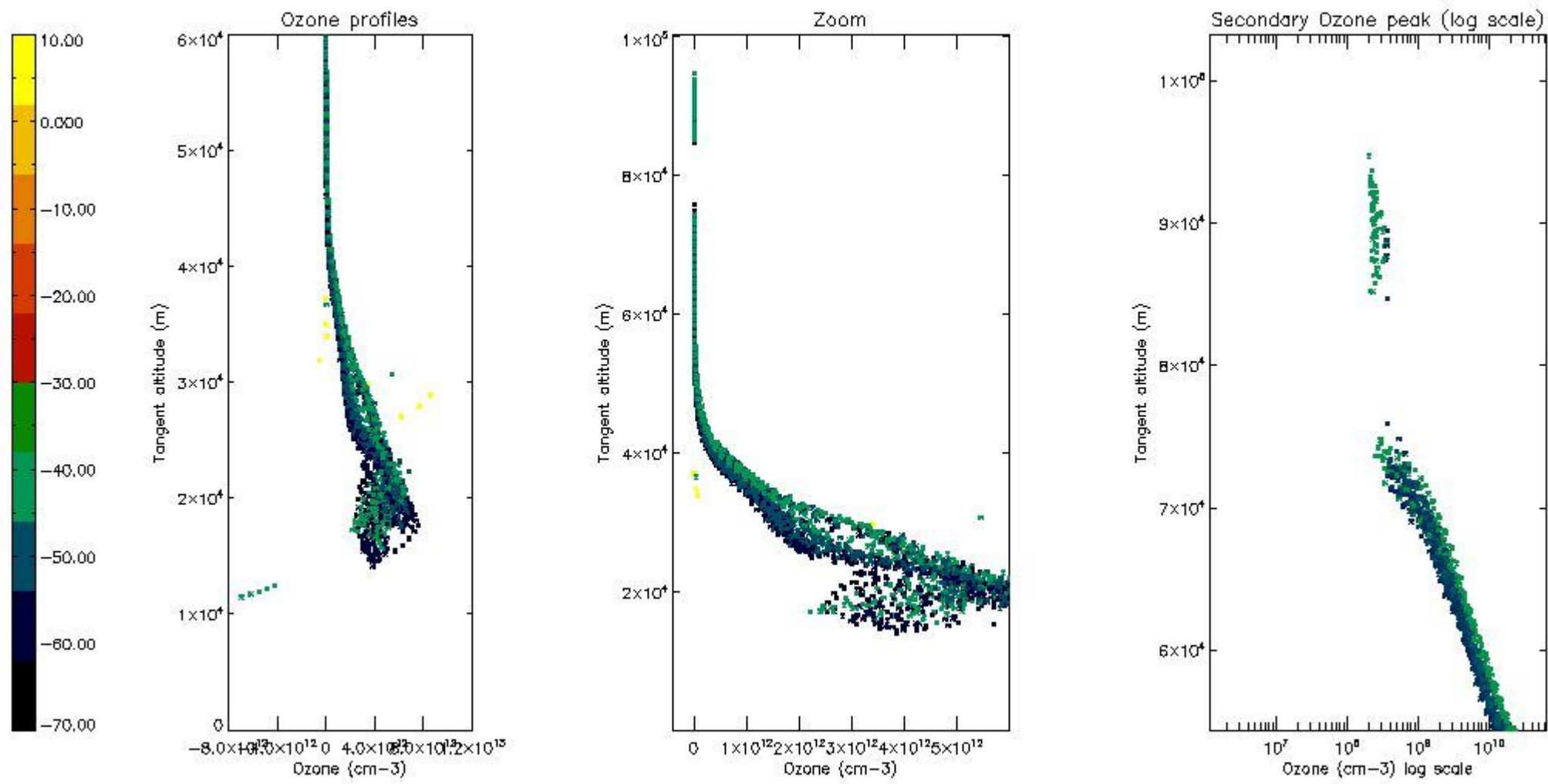
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



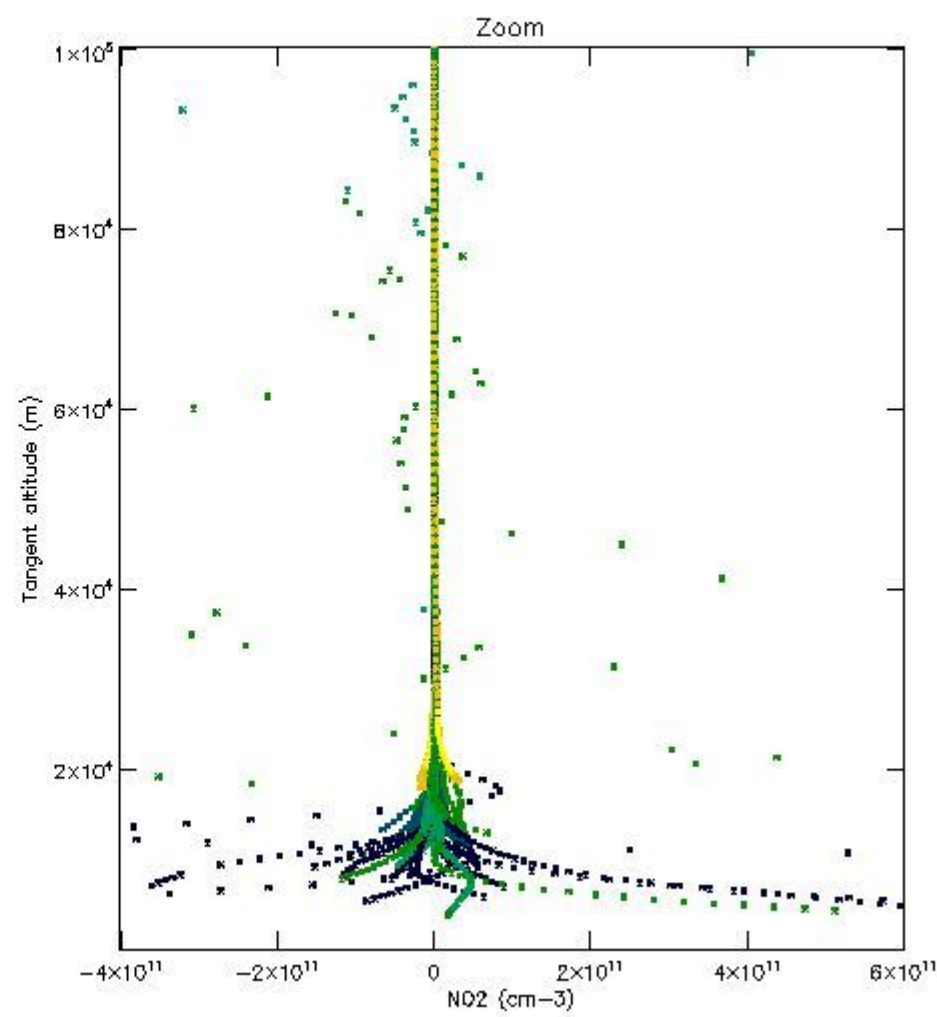
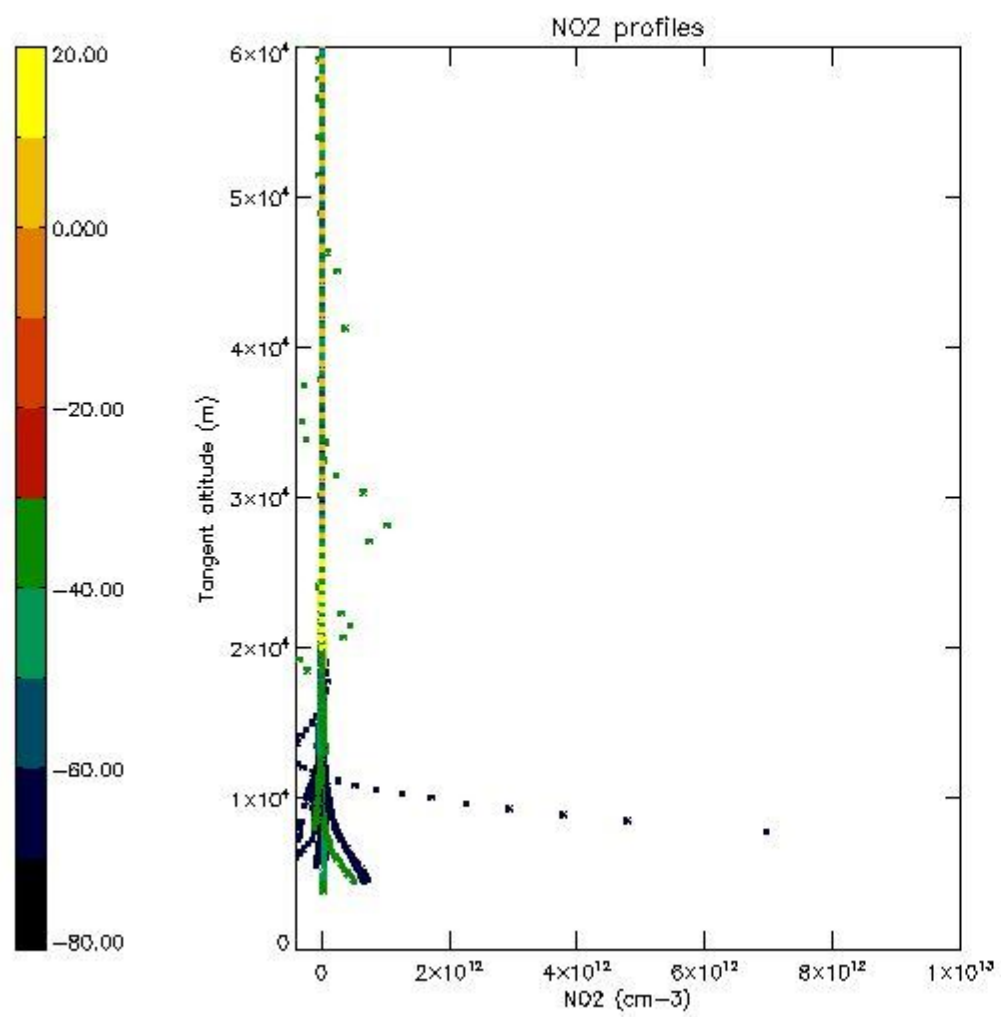
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



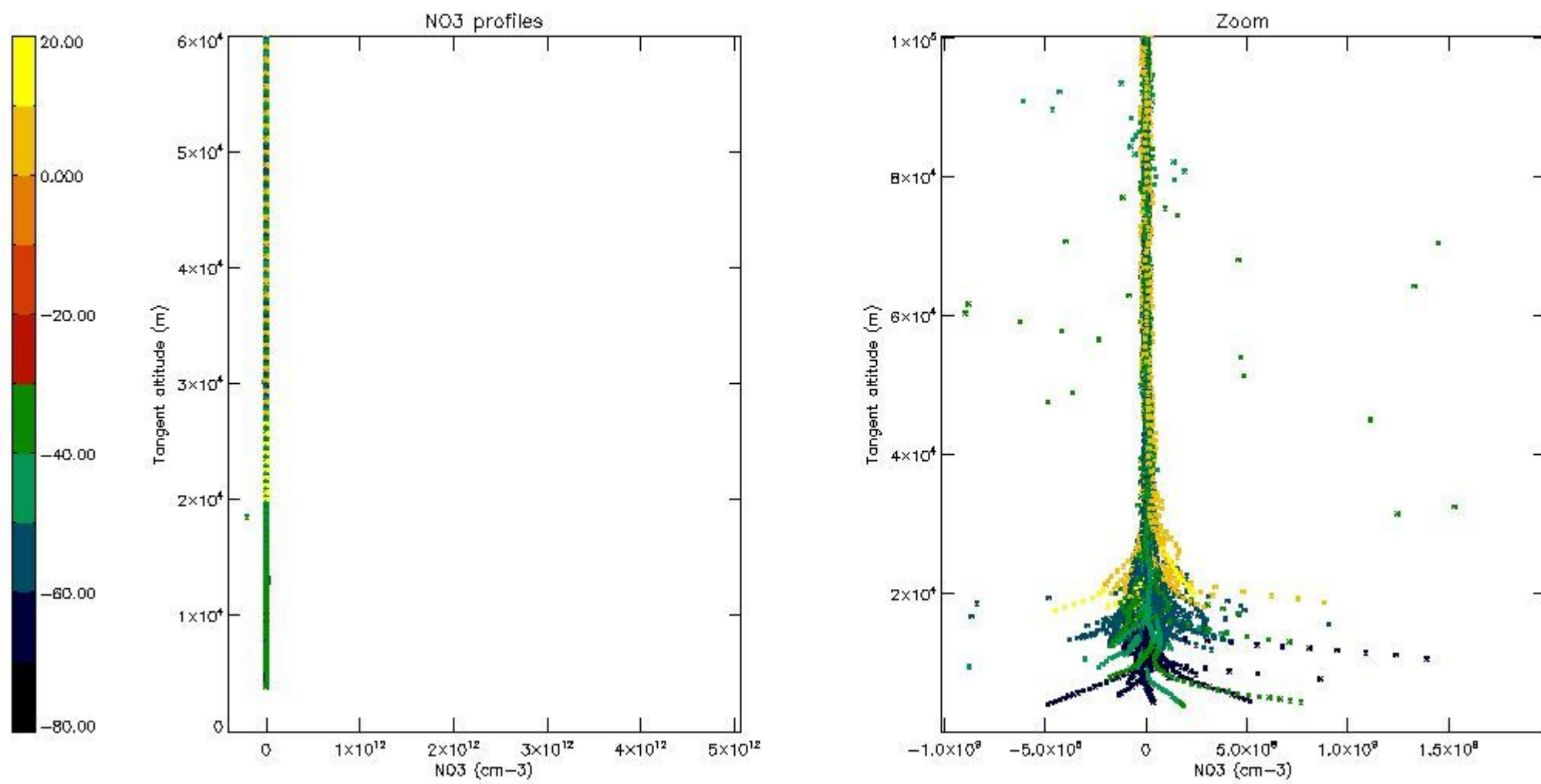
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



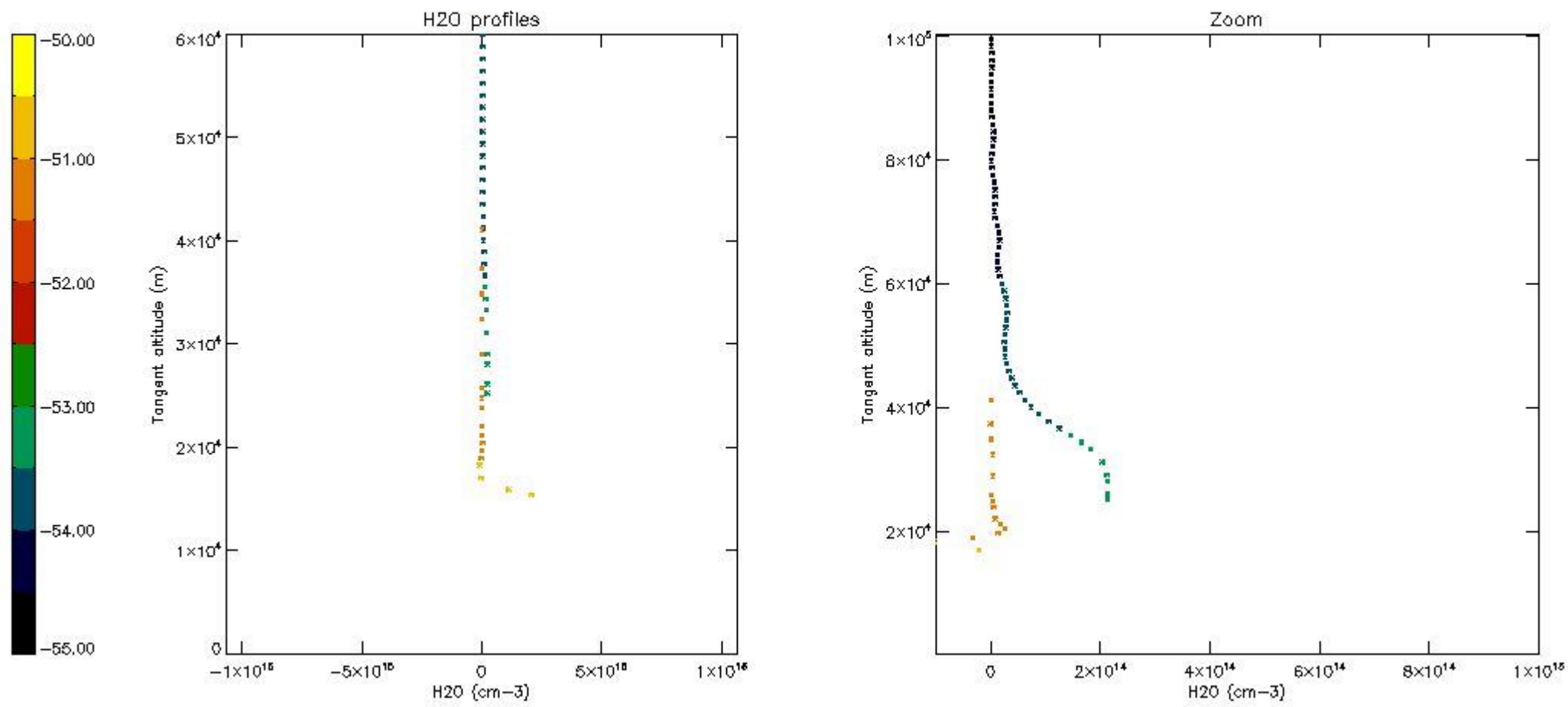
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

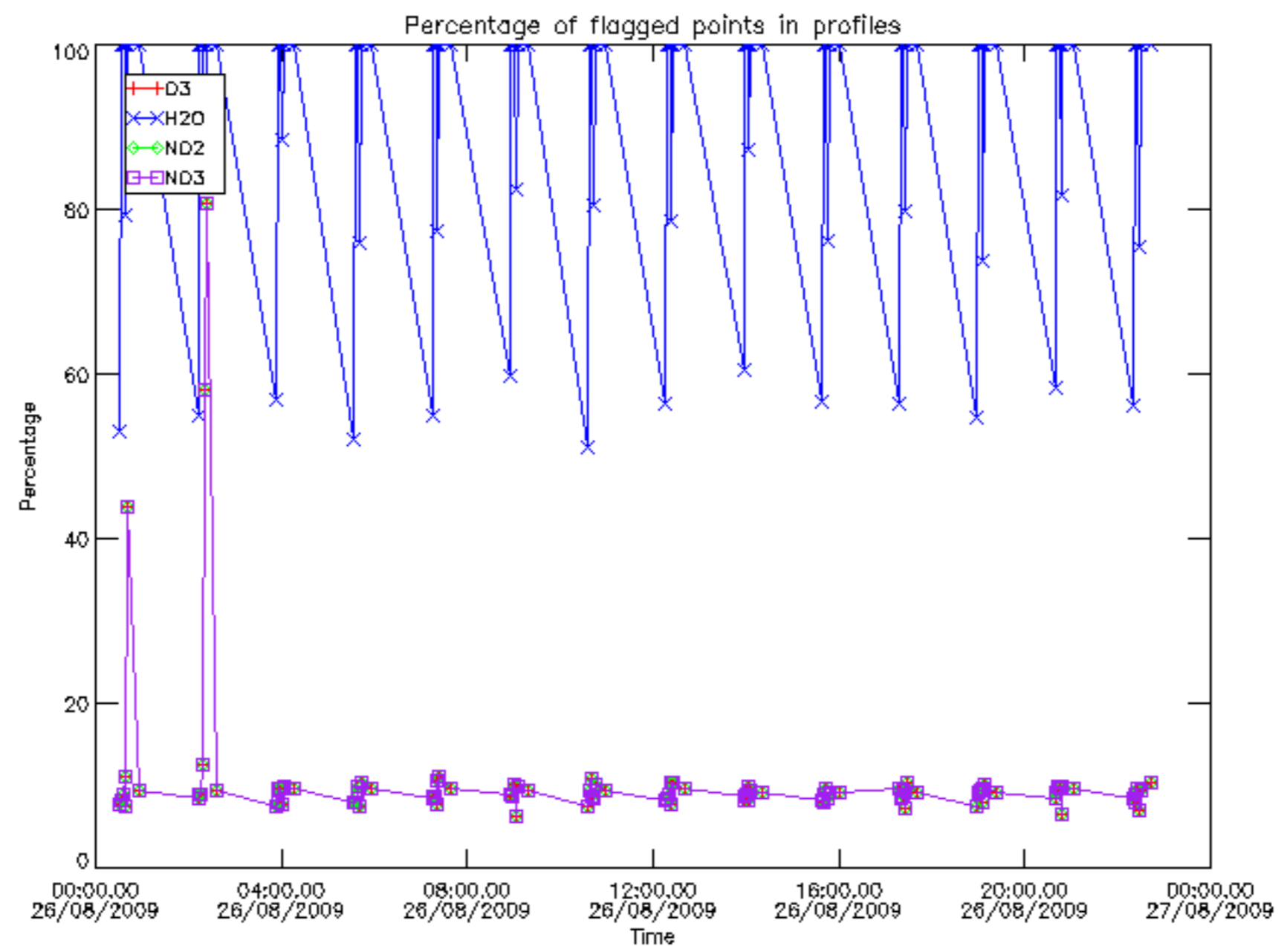
The colorbar represents the latitude.



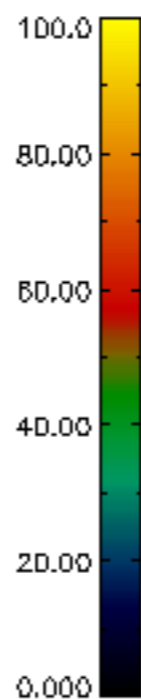
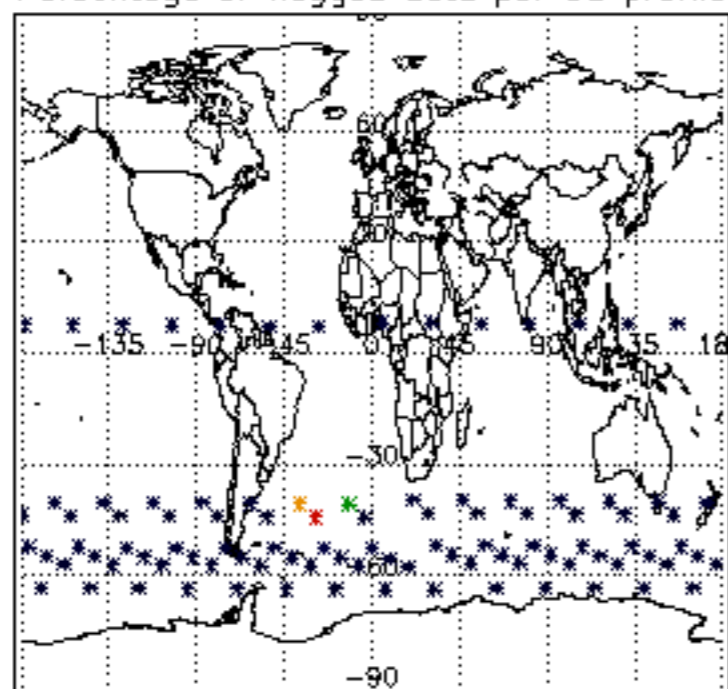
6. Auxiliary Data Files used for the production reported in section 2

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.

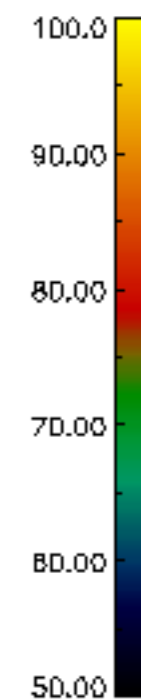
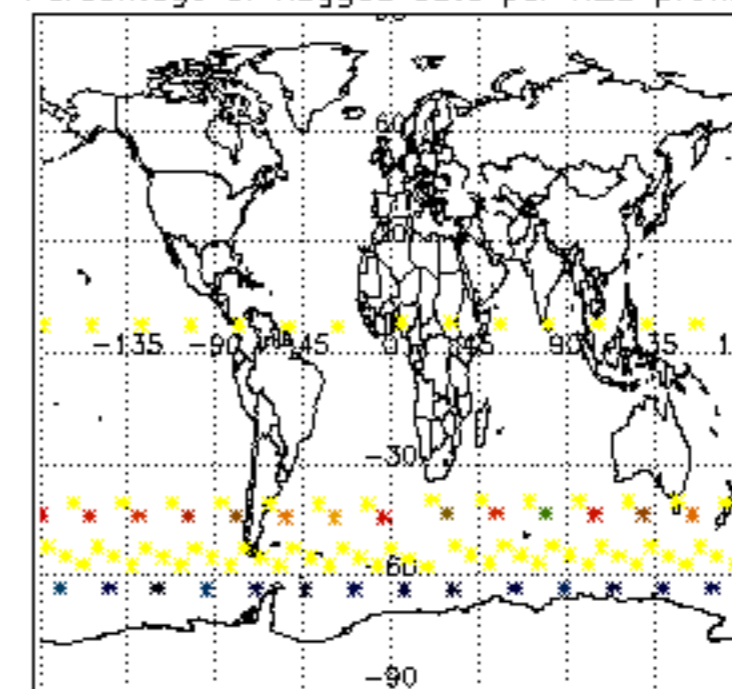
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	26-AUG-2009 00:01:49
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	26-AUG-2009 00:01:49
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	26-AUG-2009 00:01:49



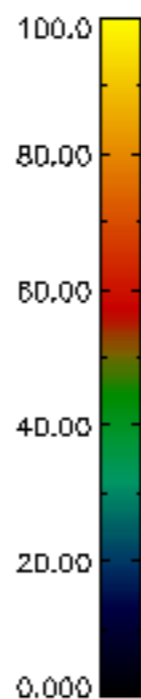
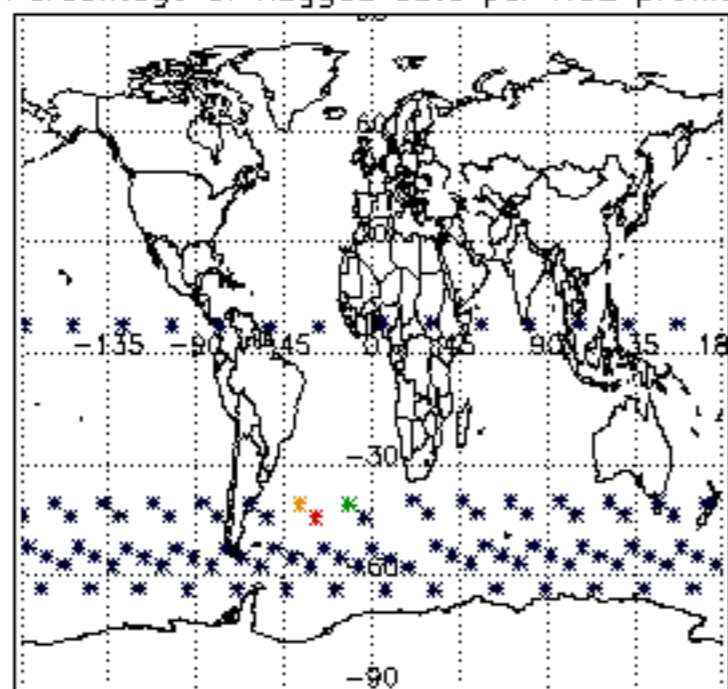
Percentage of flagged data per D3 profile



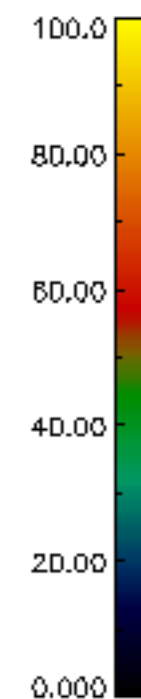
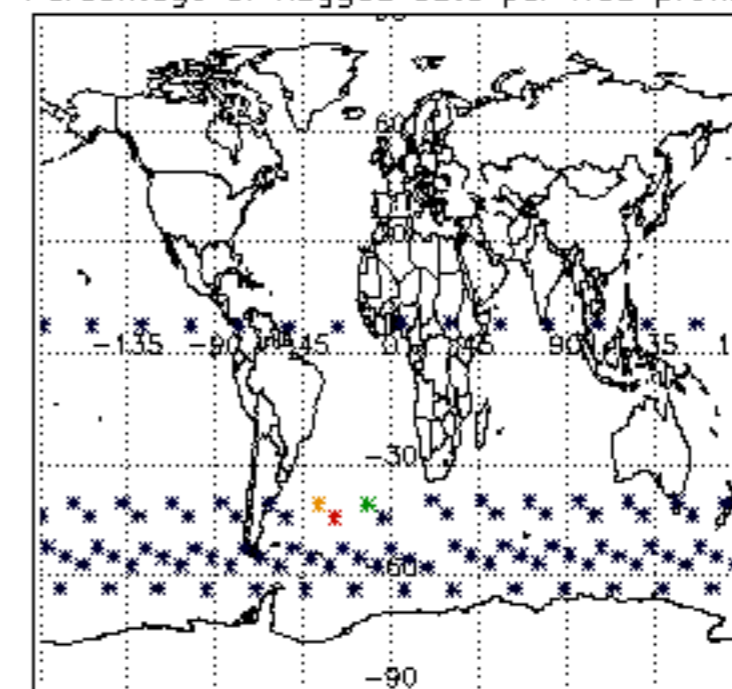
Percentage of flagged data per H2O profile

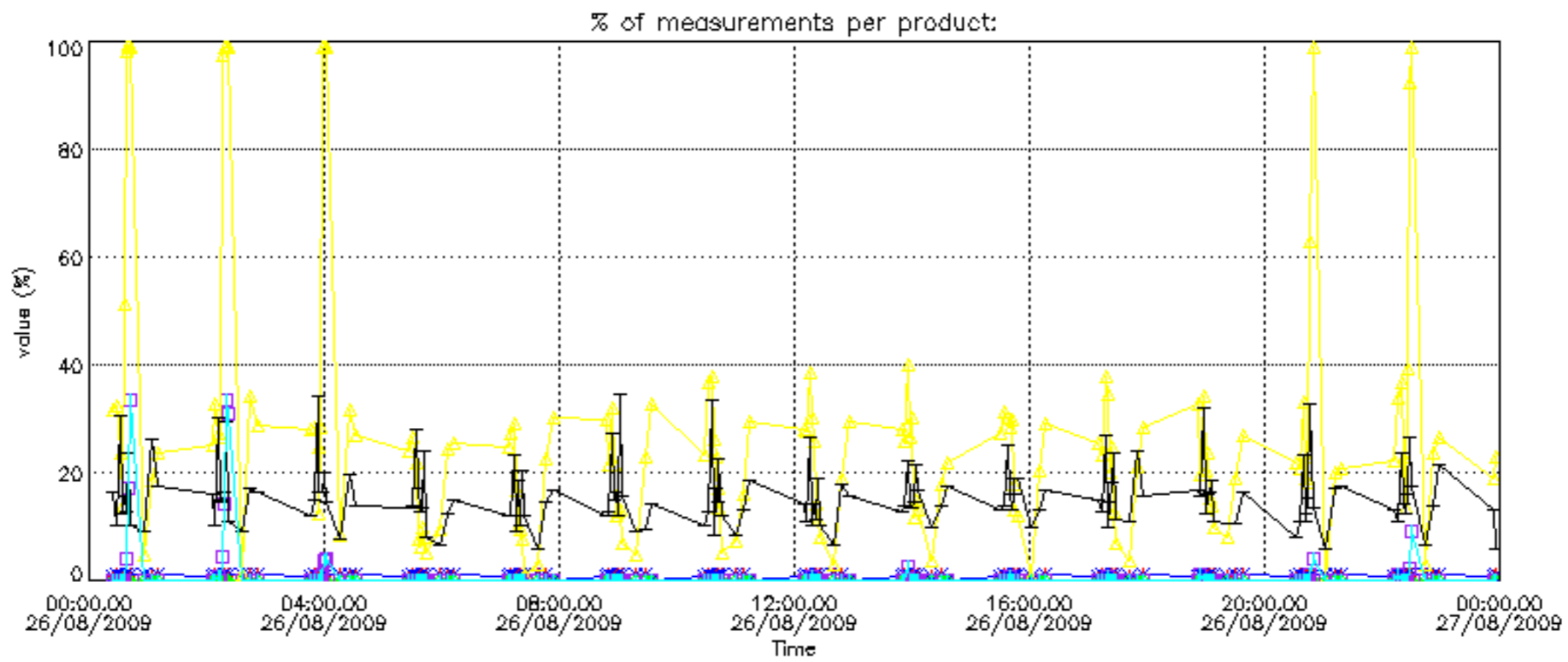


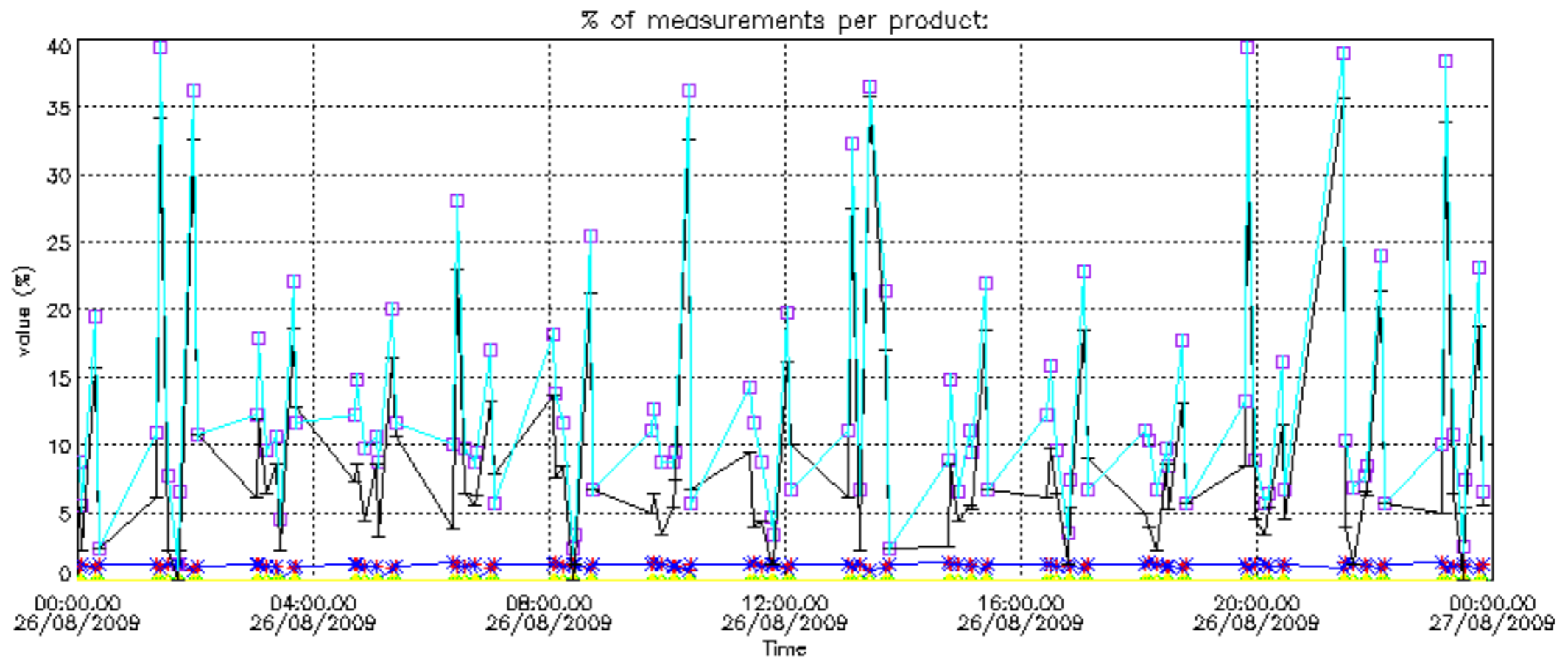
Percentage of flagged data per NO2 profile



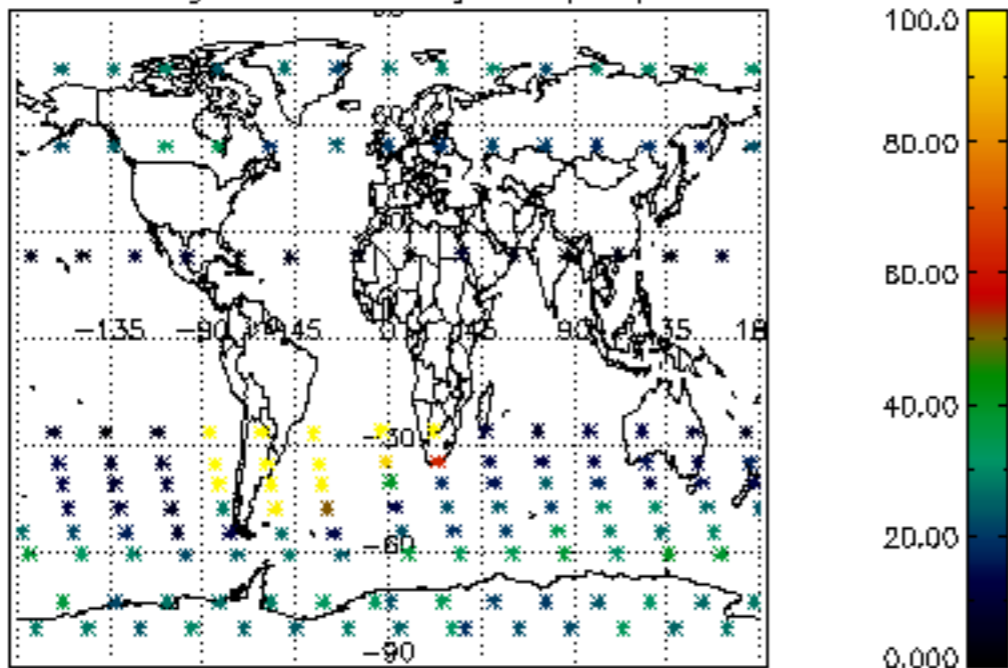
Percentage of flagged data per NO3 profile



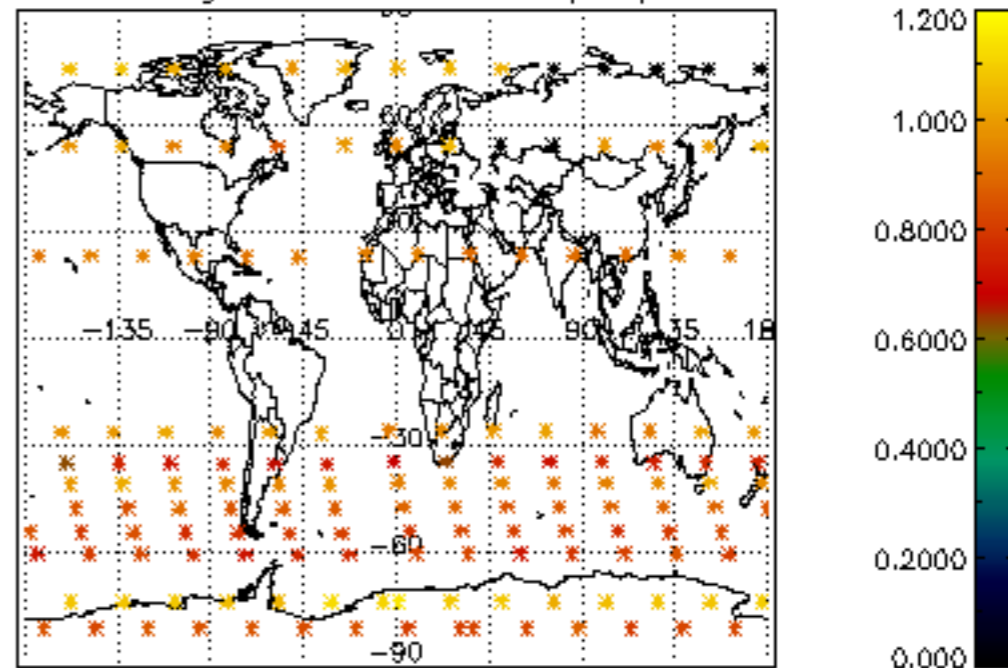




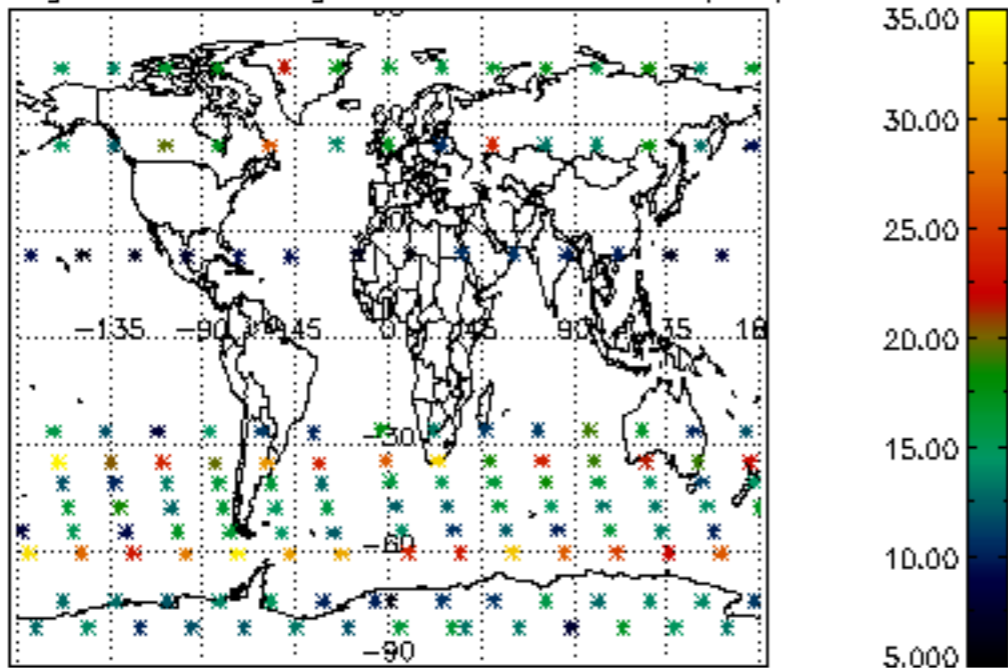
Percentage of cosmic ray hits per profile



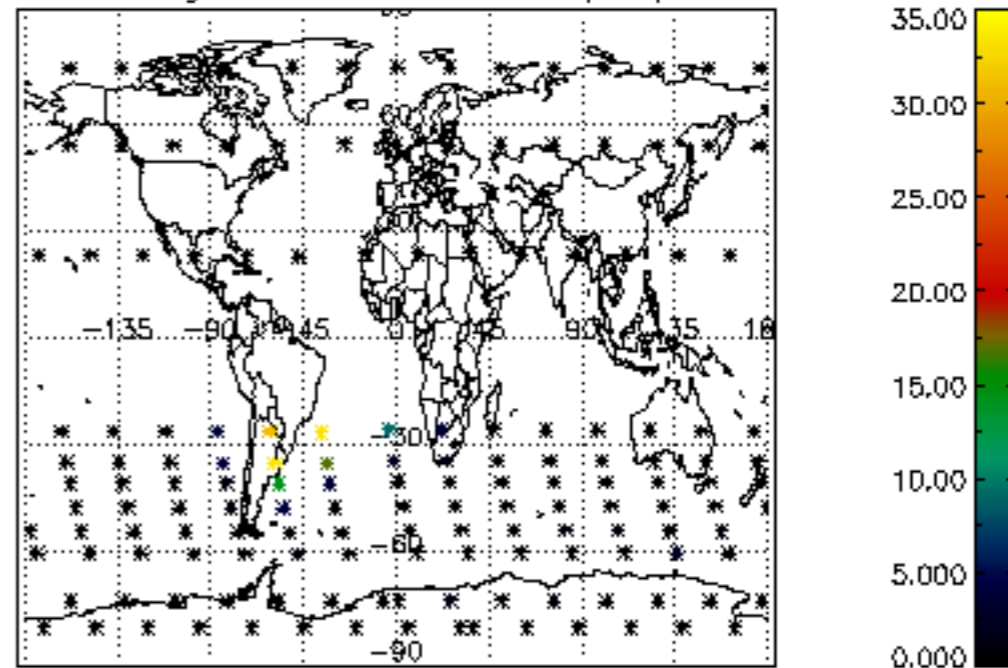
Percentage of datation errors per profile



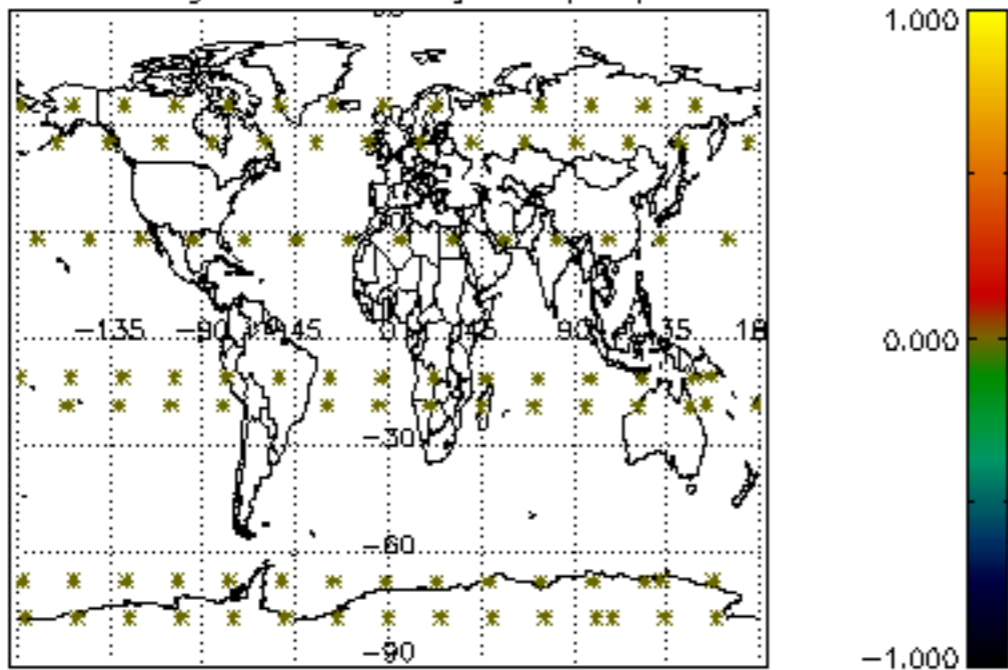
Percentage of star falling outside central band per profile



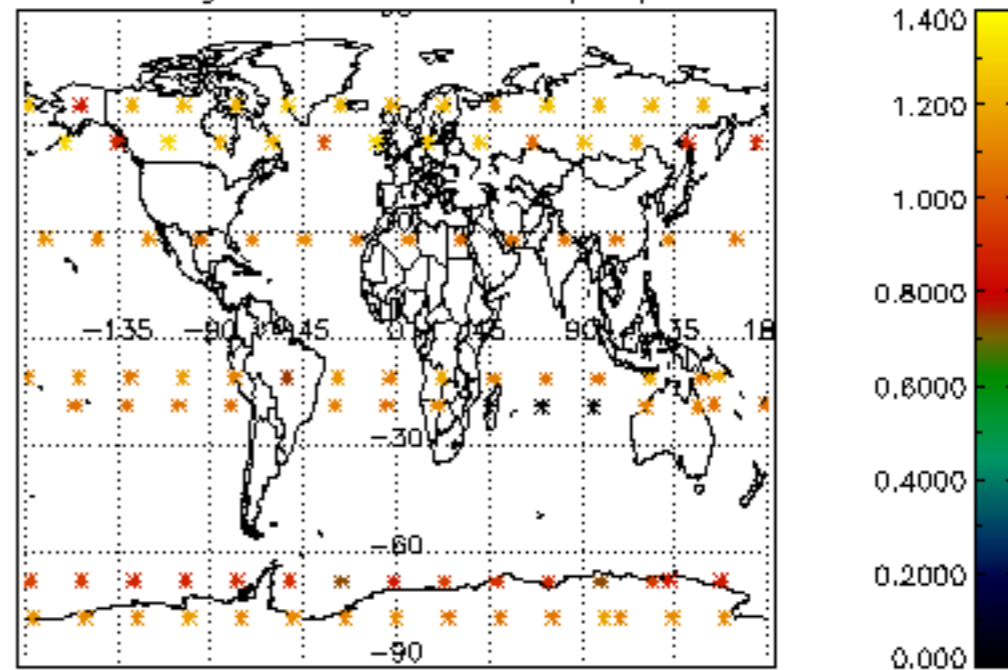
Percentage of saturation errors per profile



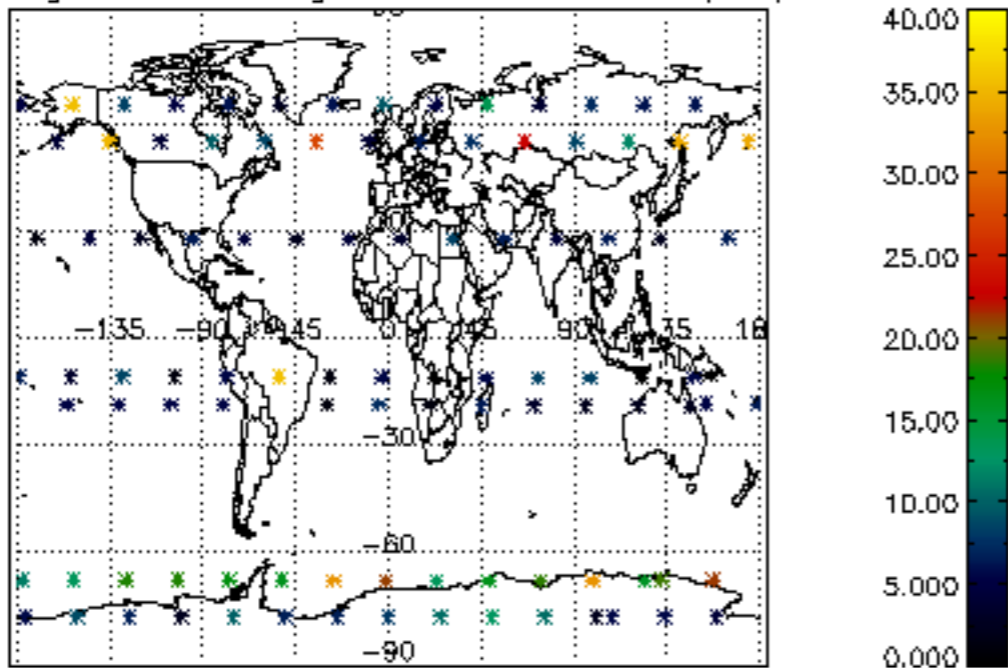
Percentage of cosmic ray hits per profile



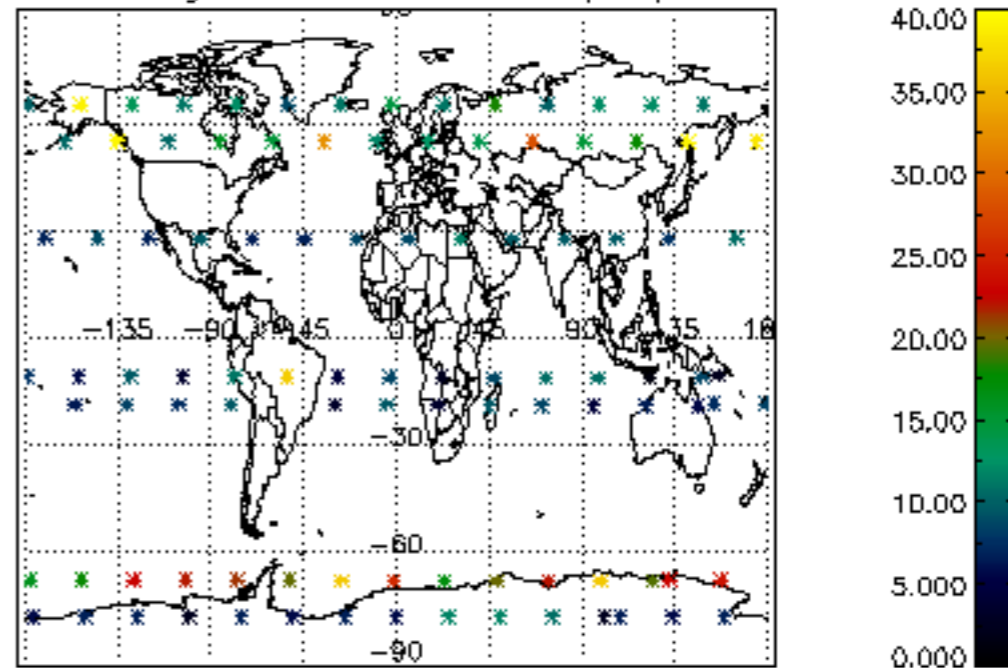
Percentage of datation errors per profile

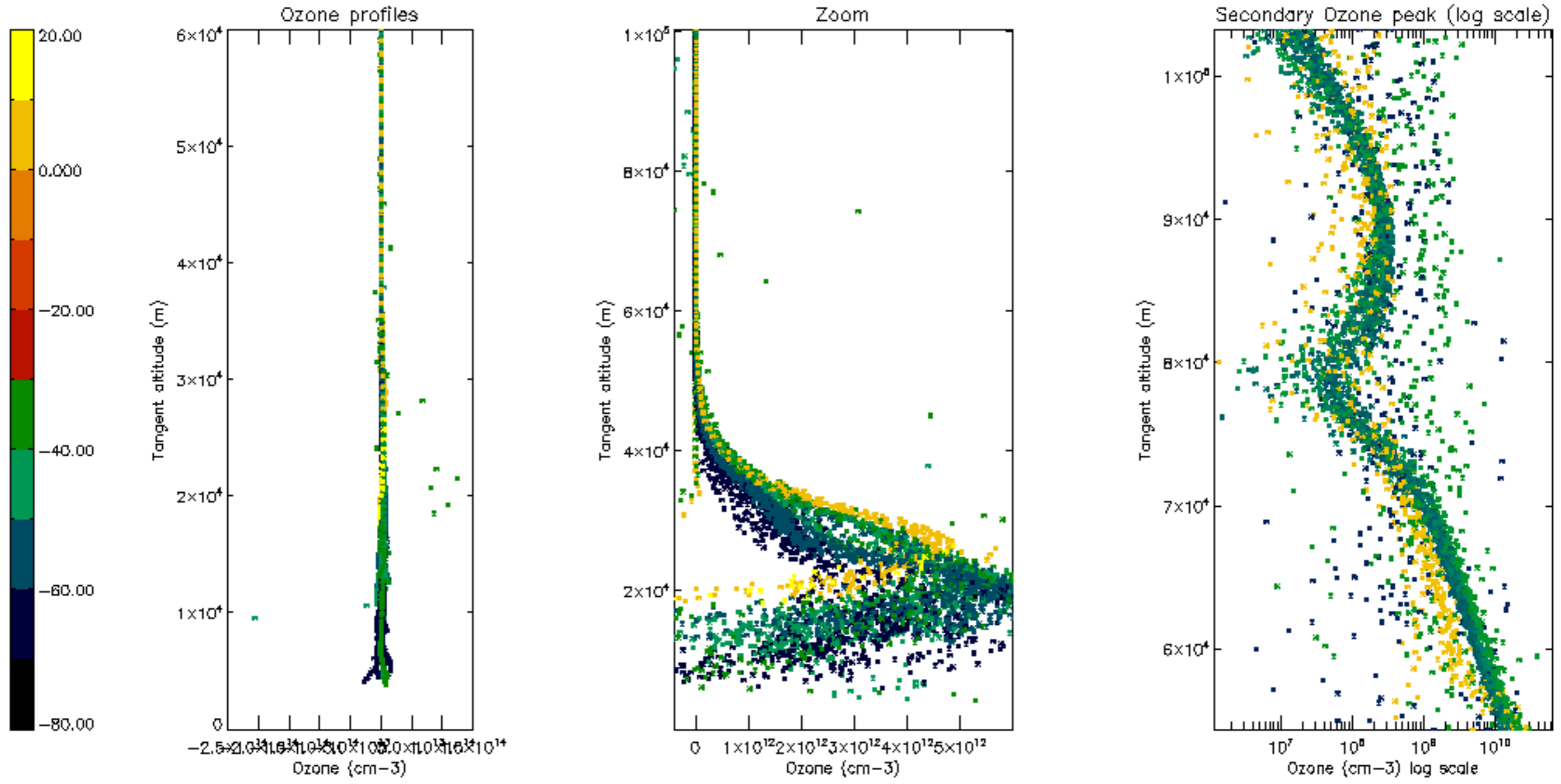


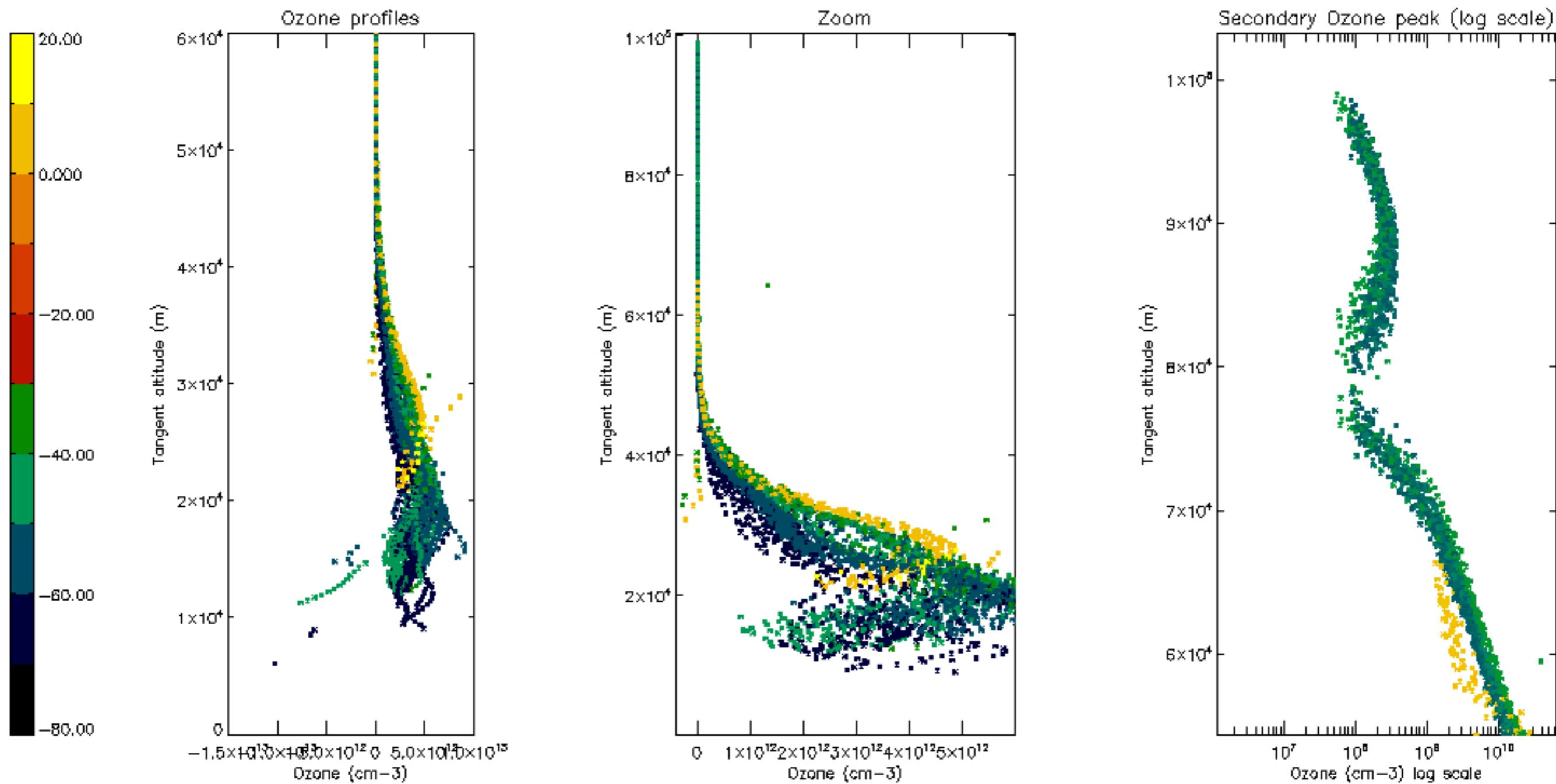
Percentage of star falling outside central band per profile

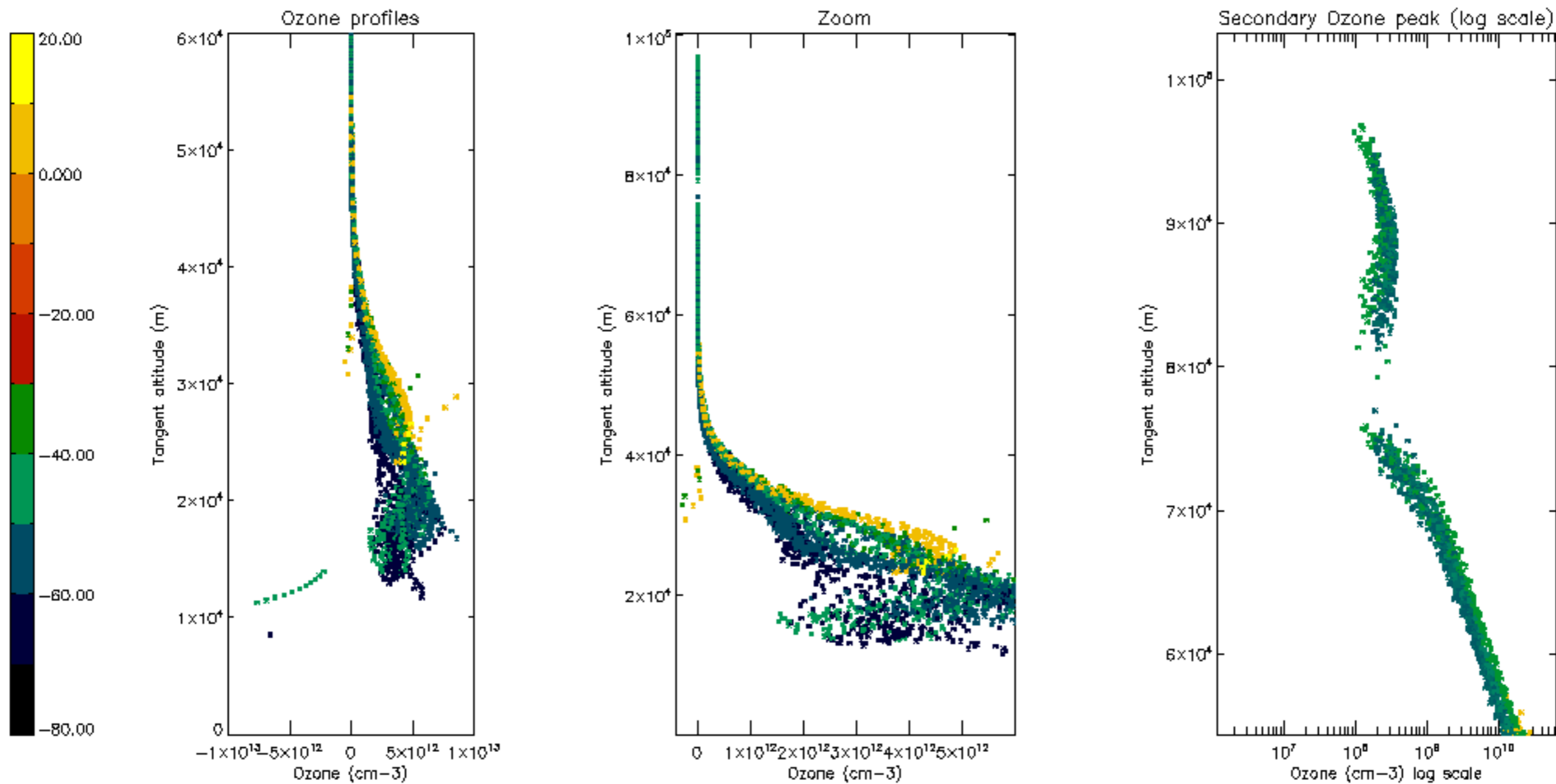


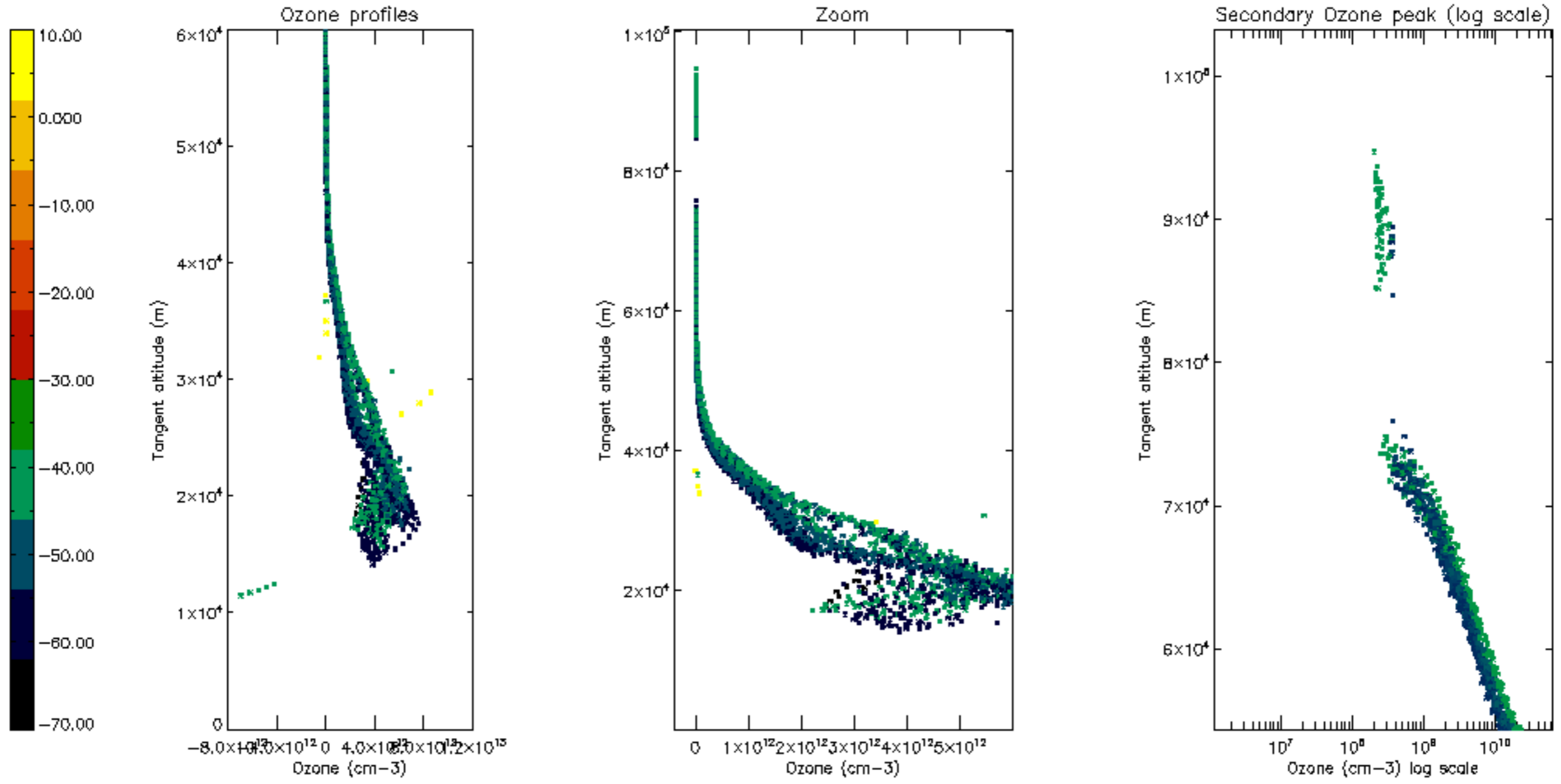
Percentage of saturation errors per profile

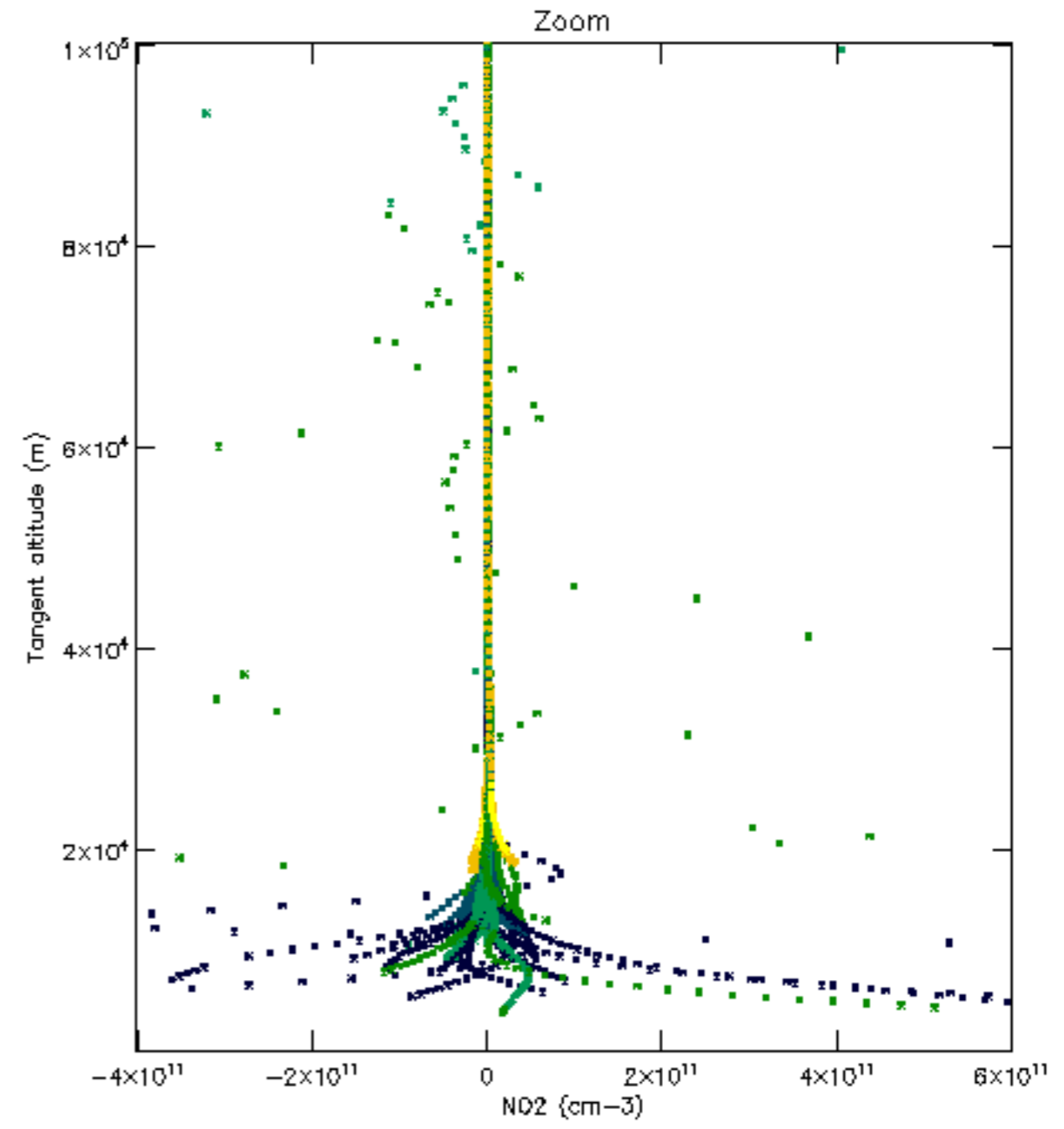
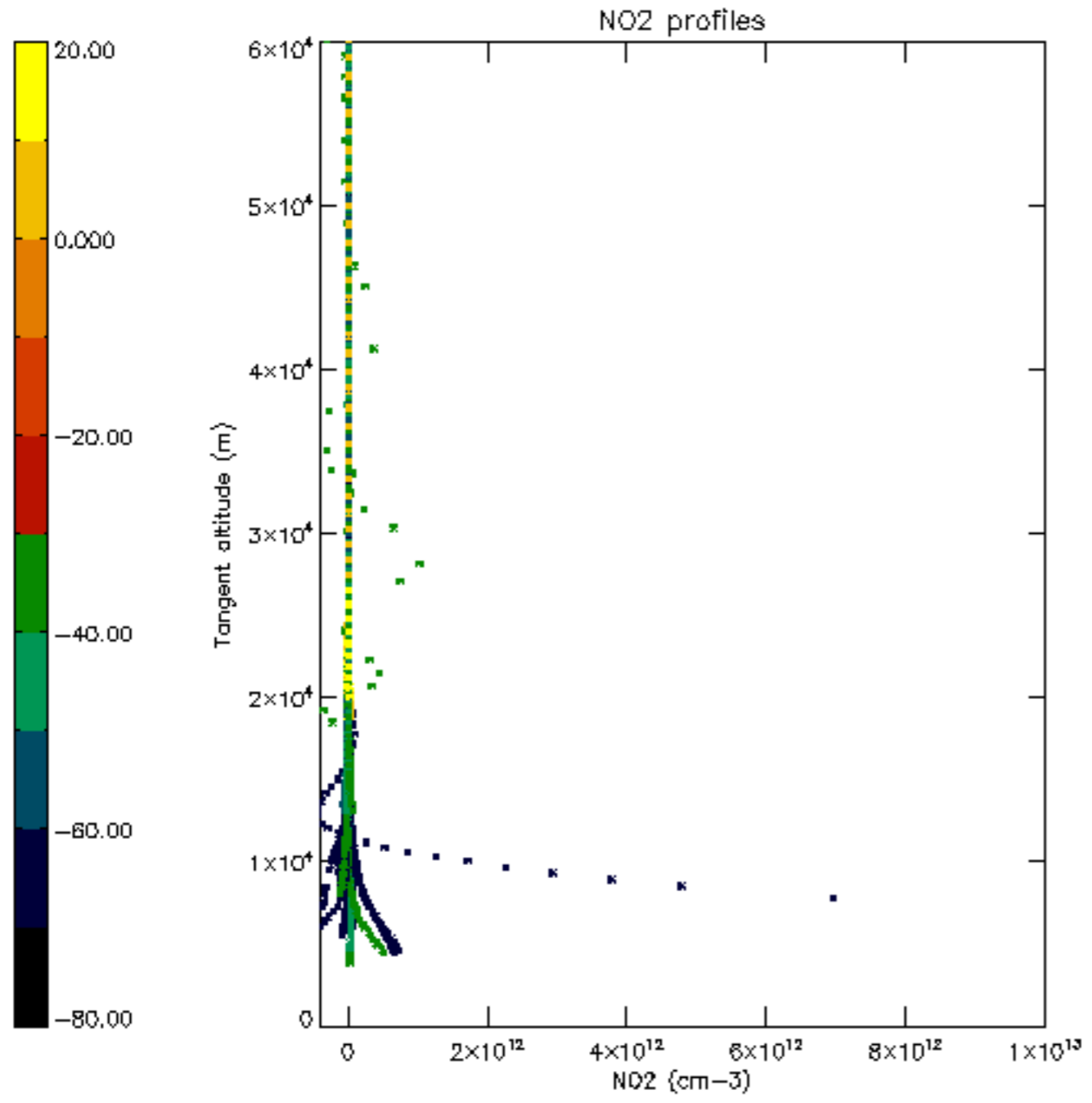


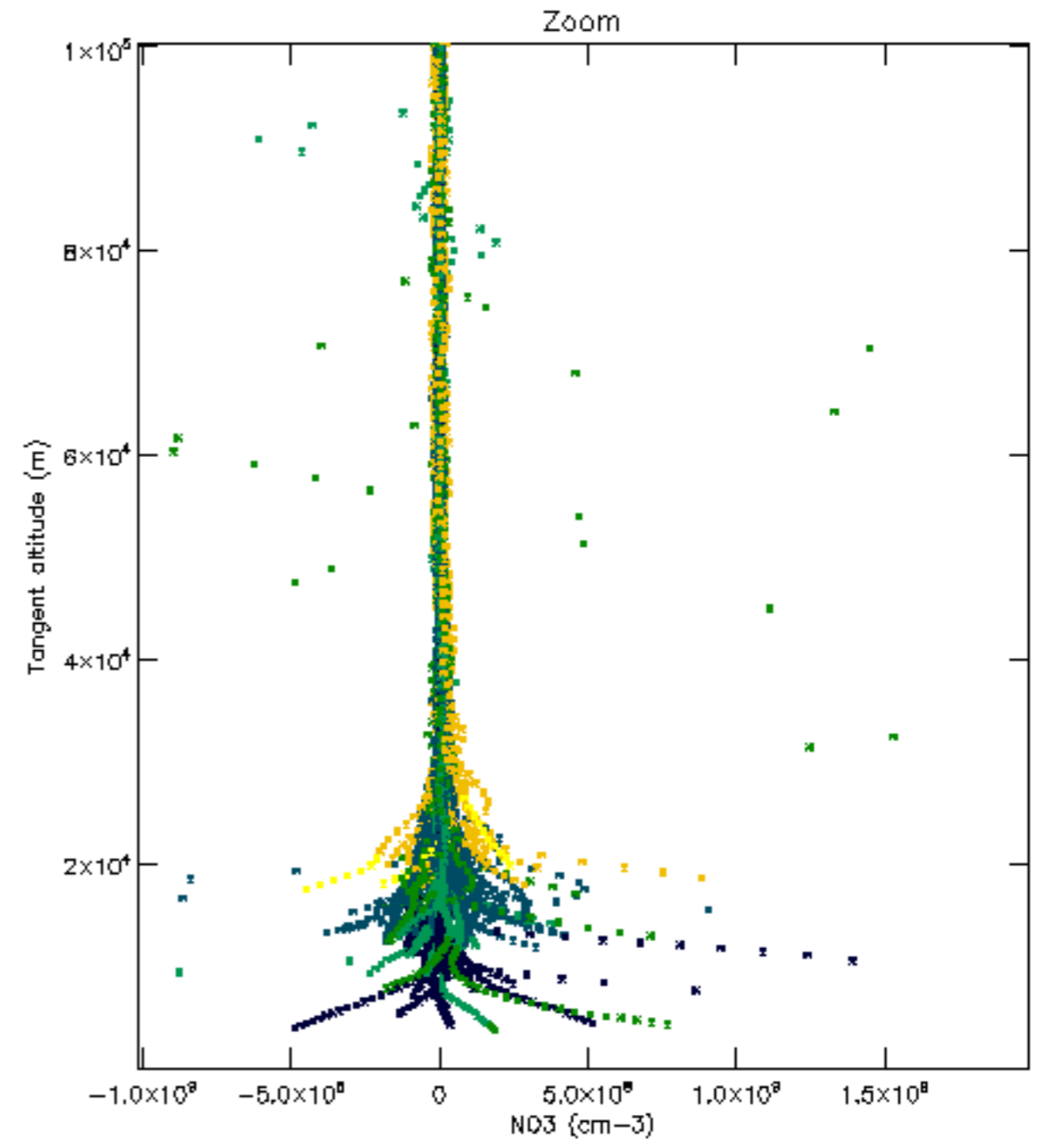
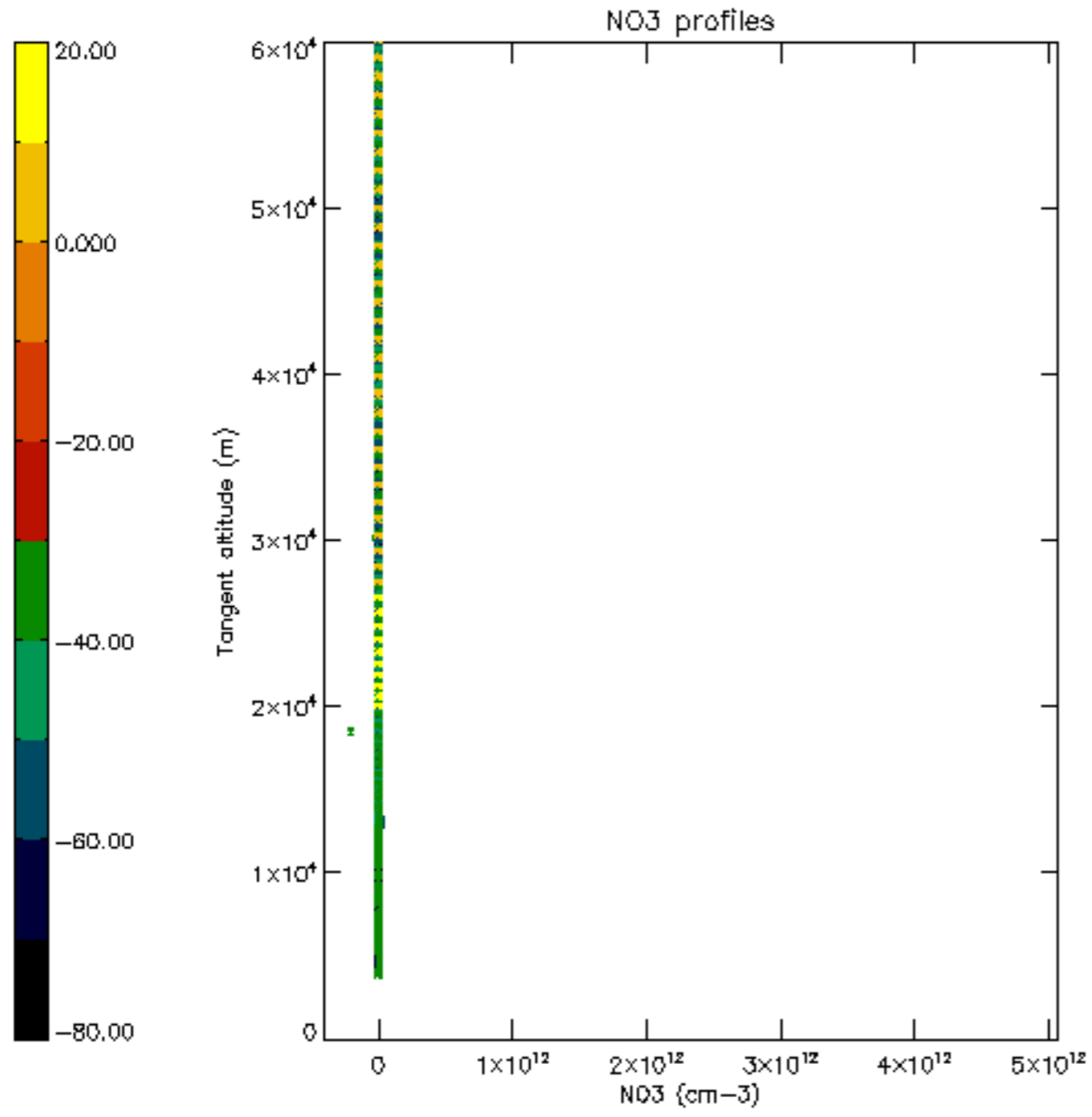


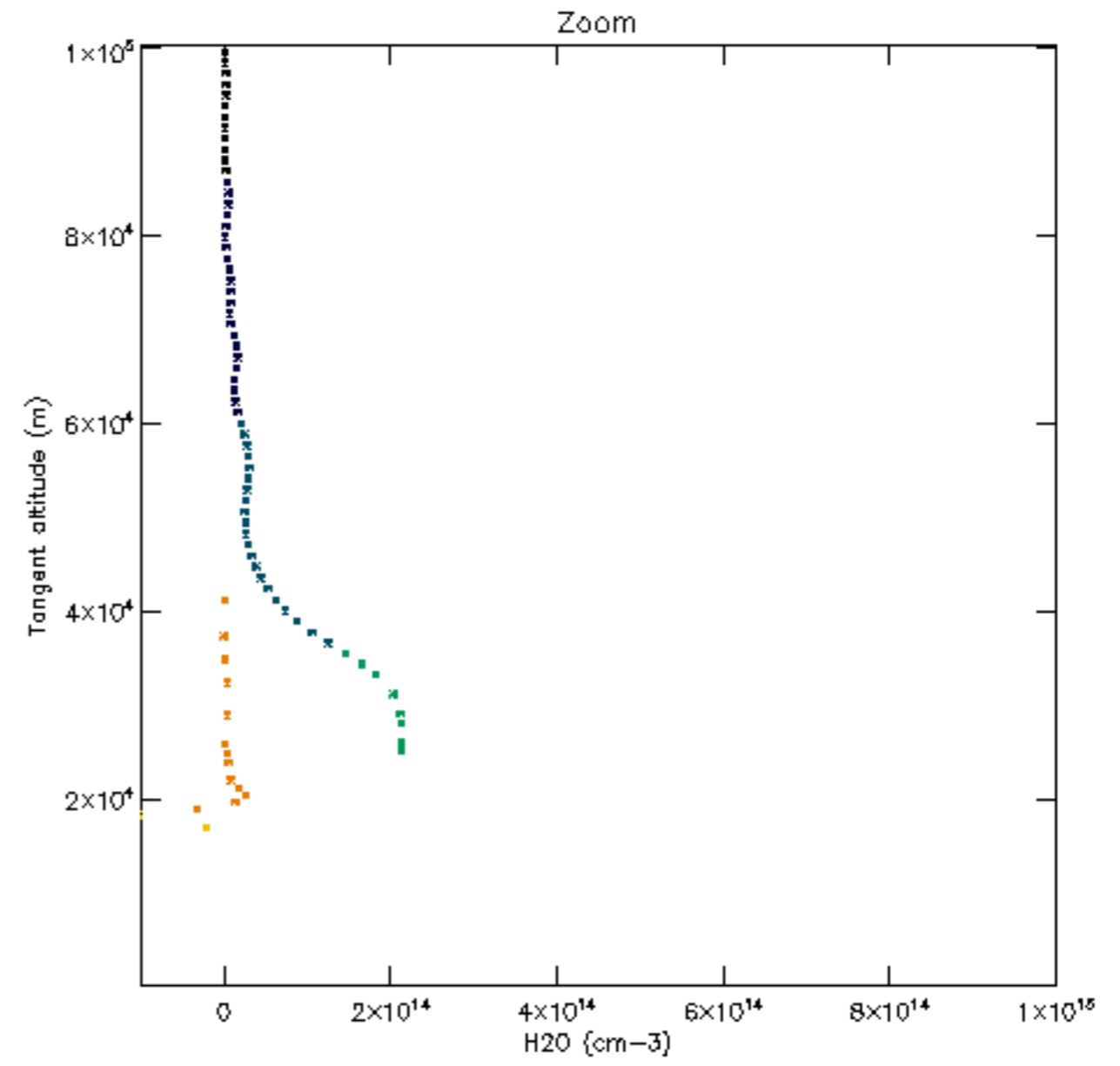
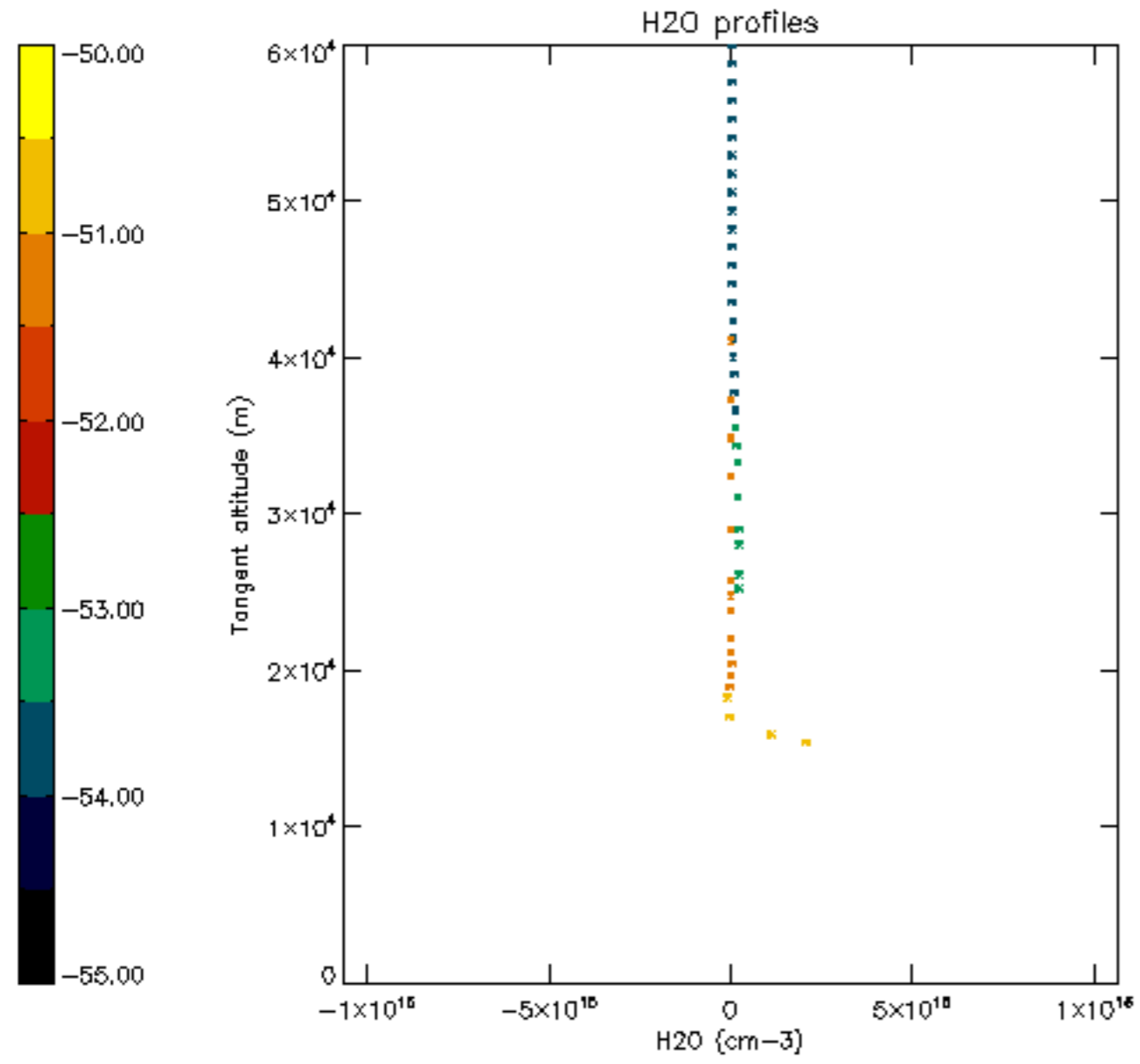


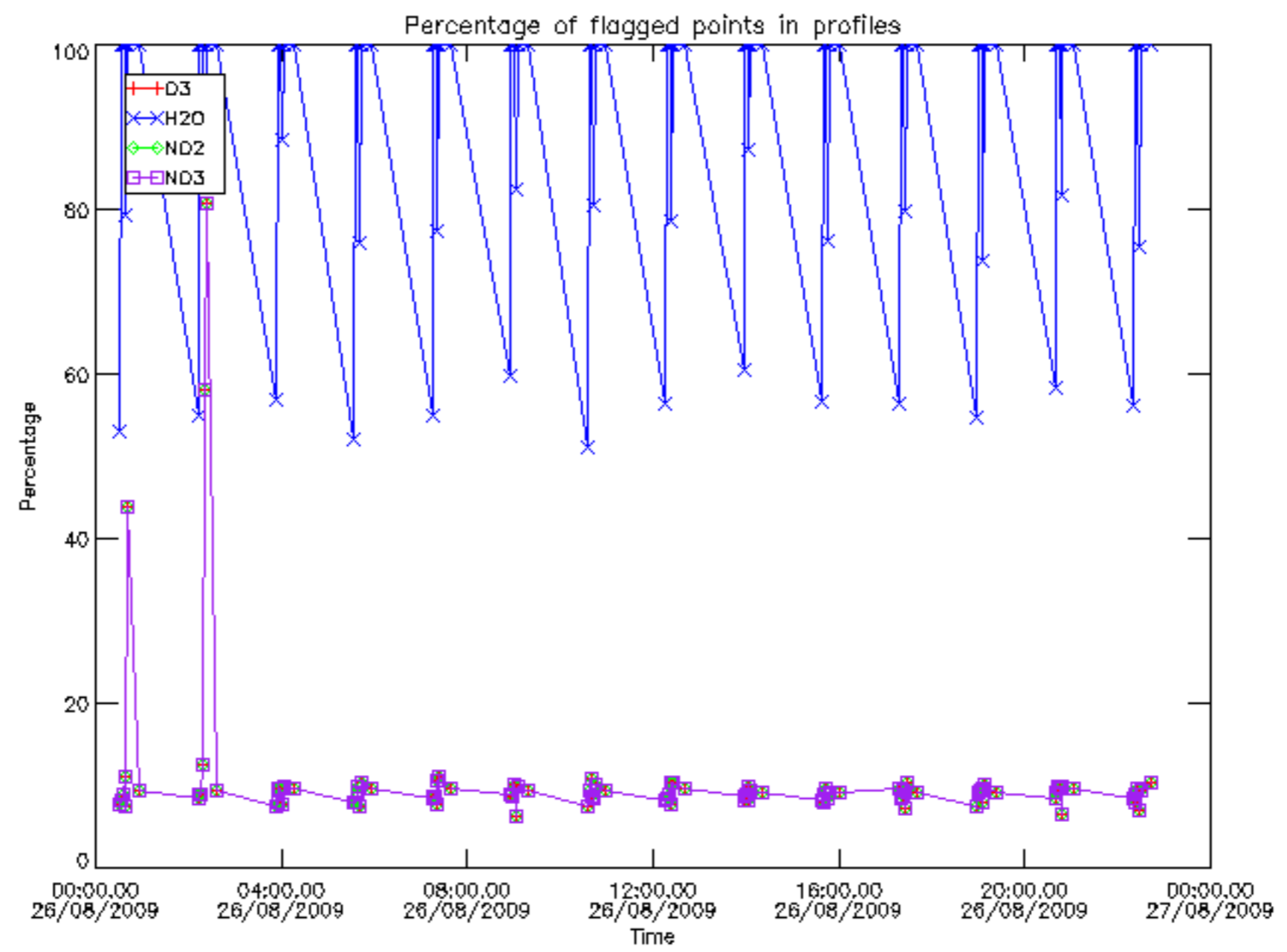




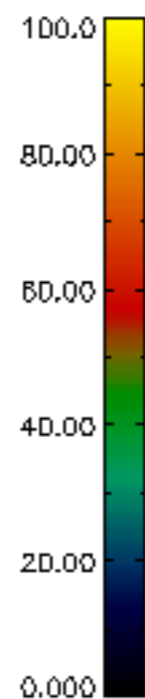
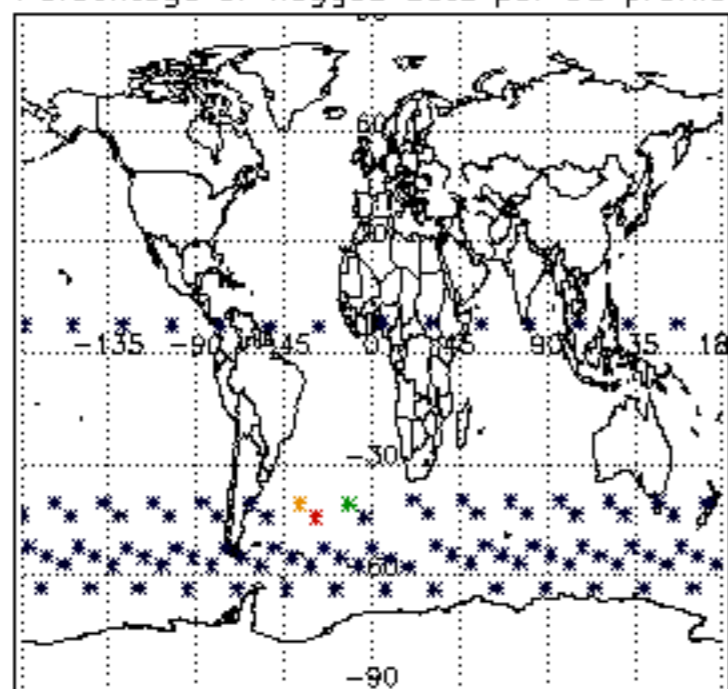




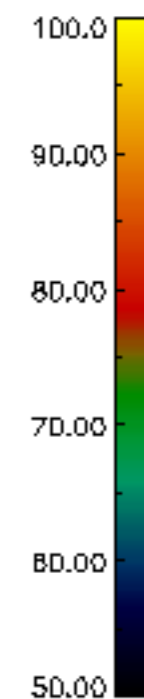
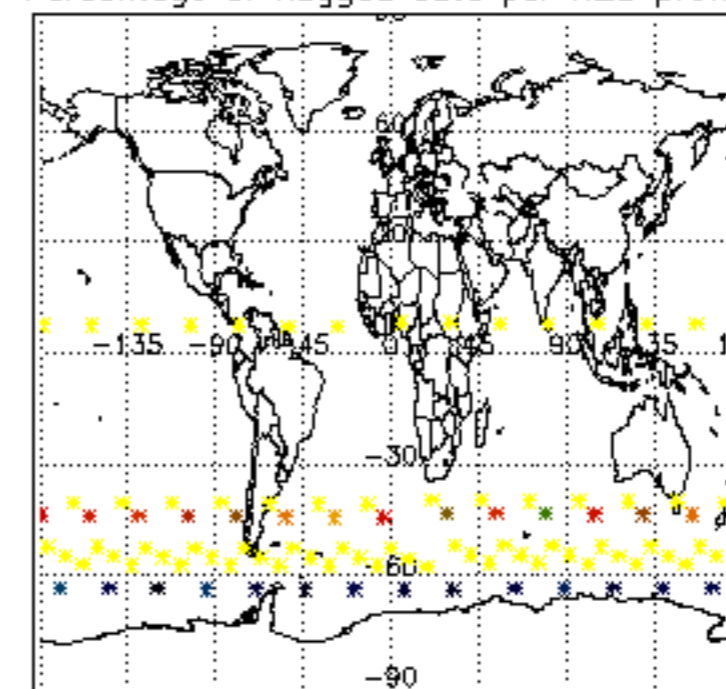




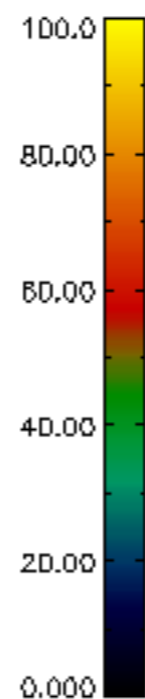
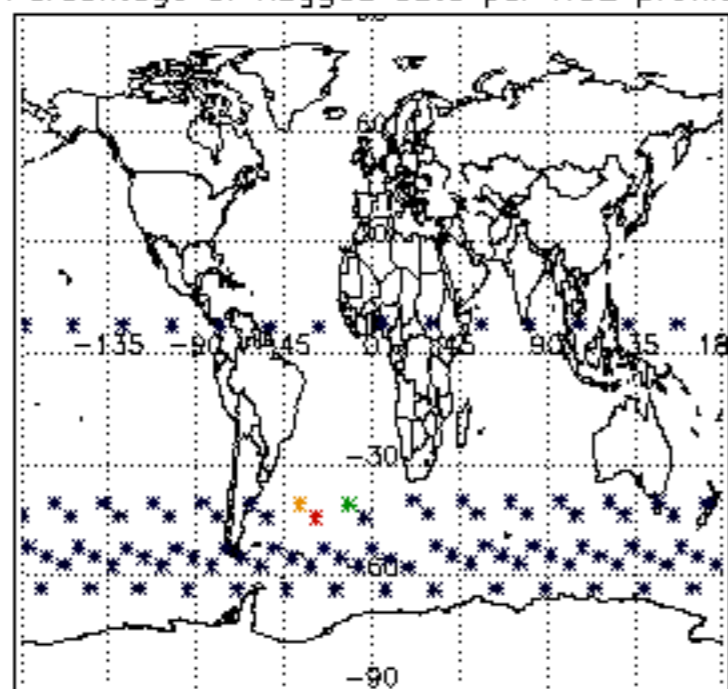
Percentage of flagged data per D3 profile



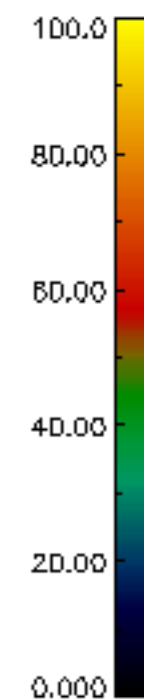
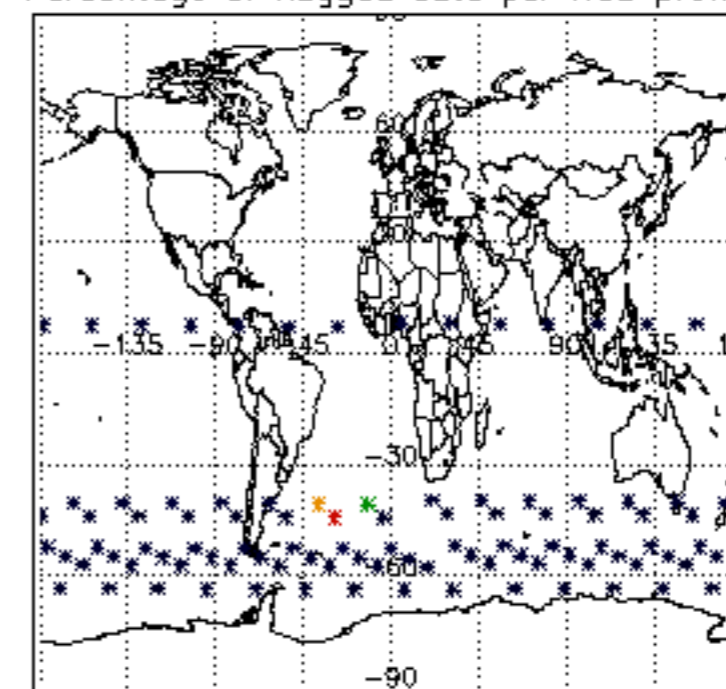
Percentage of flagged data per H2O profile

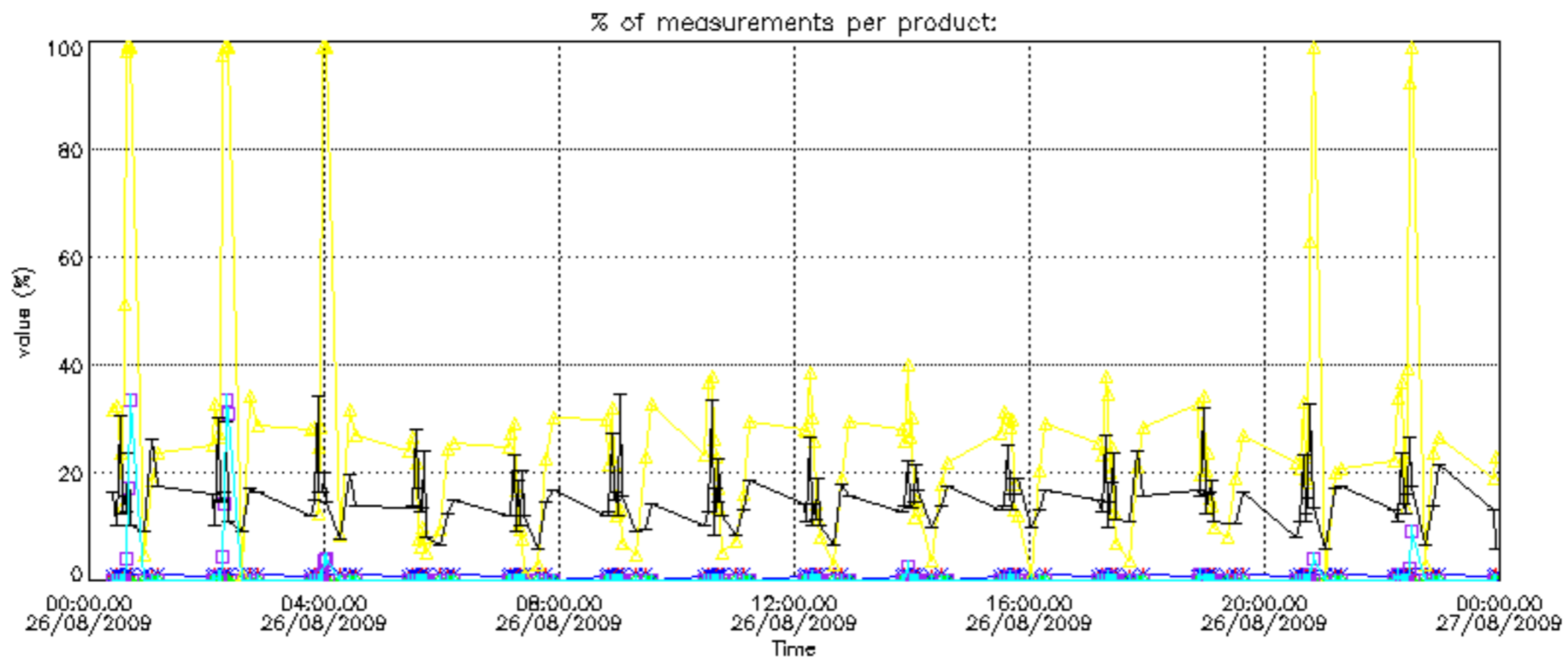


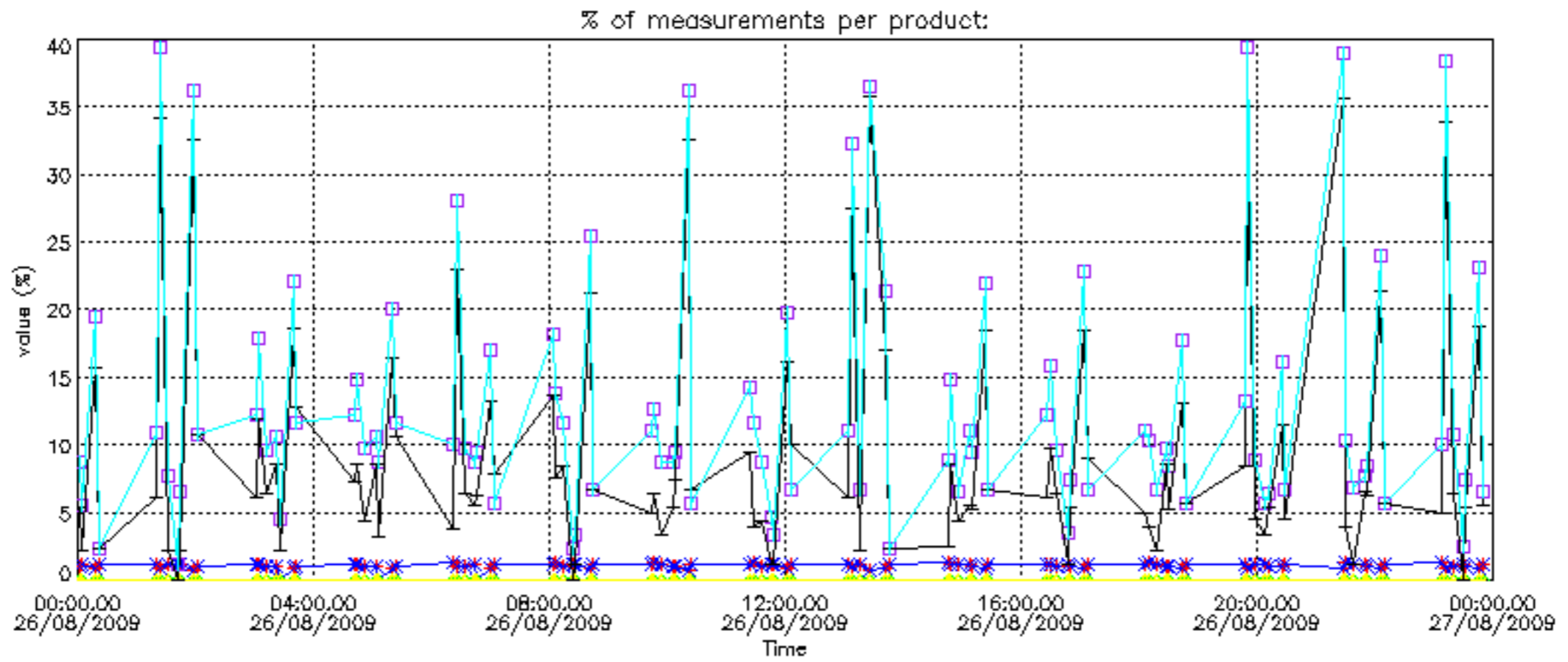
Percentage of flagged data per NO2 profile



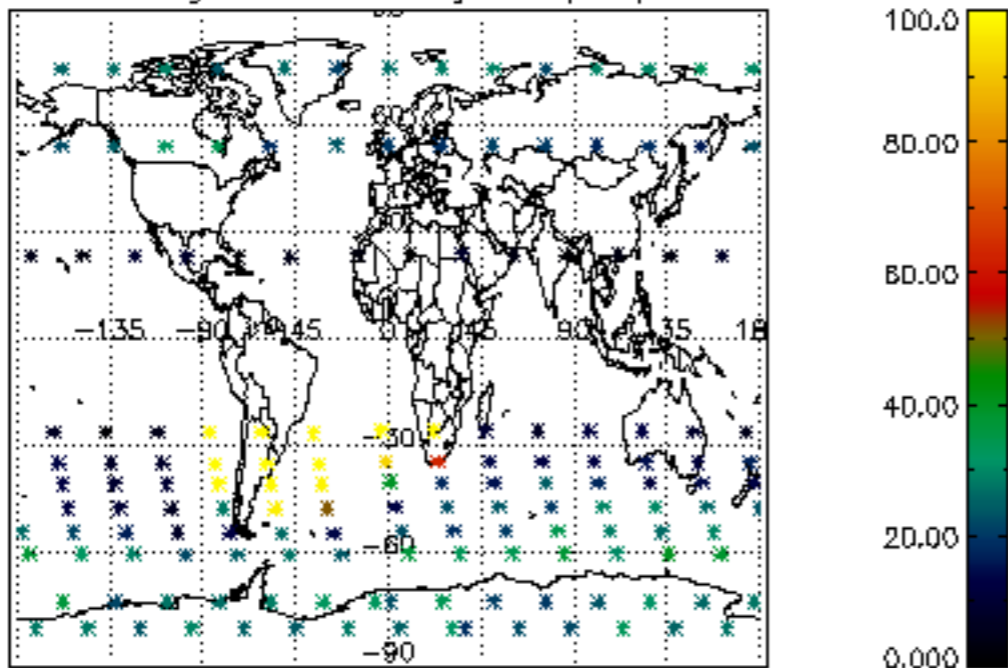
Percentage of flagged data per NO3 profile



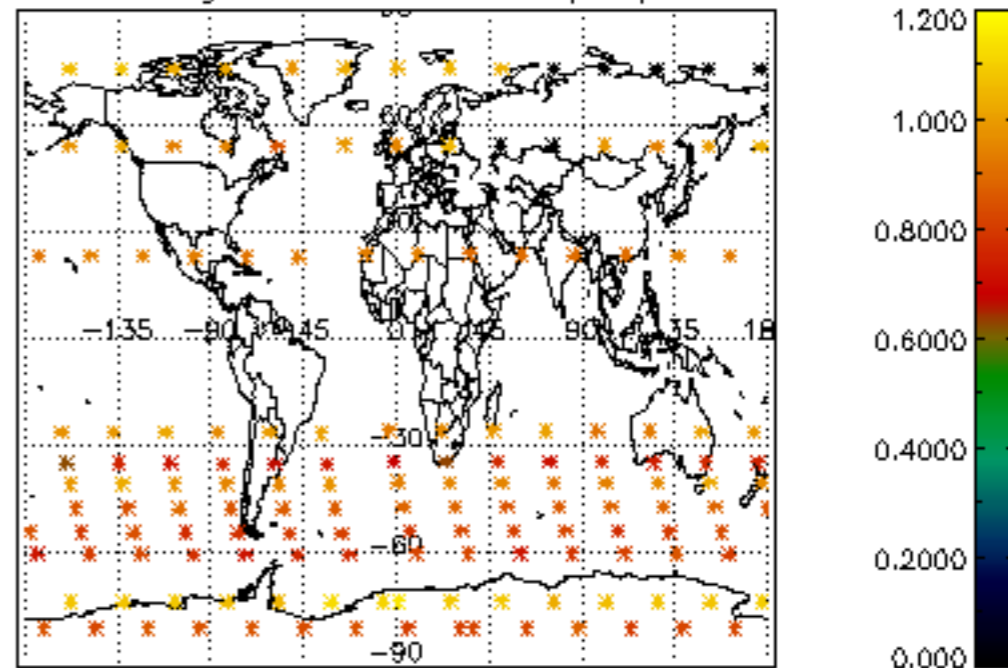




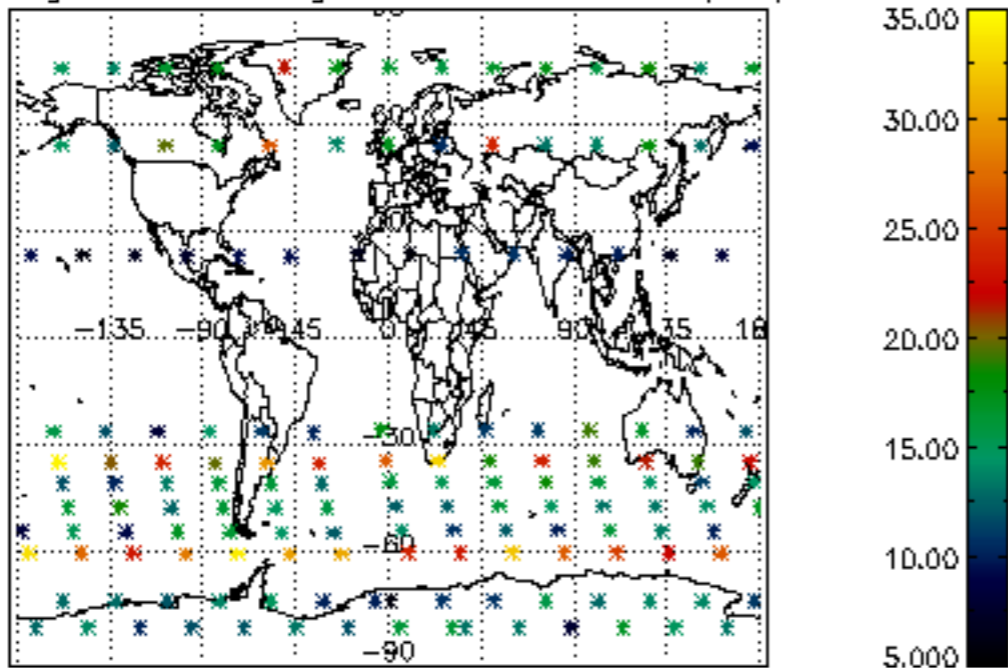
Percentage of cosmic ray hits per profile



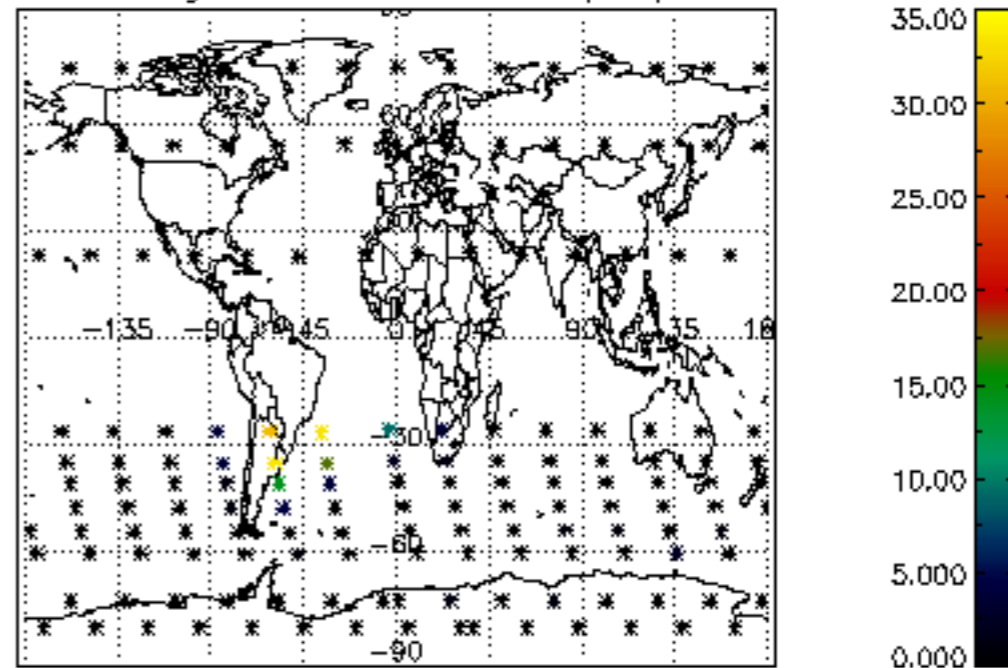
Percentage of datation errors per profile



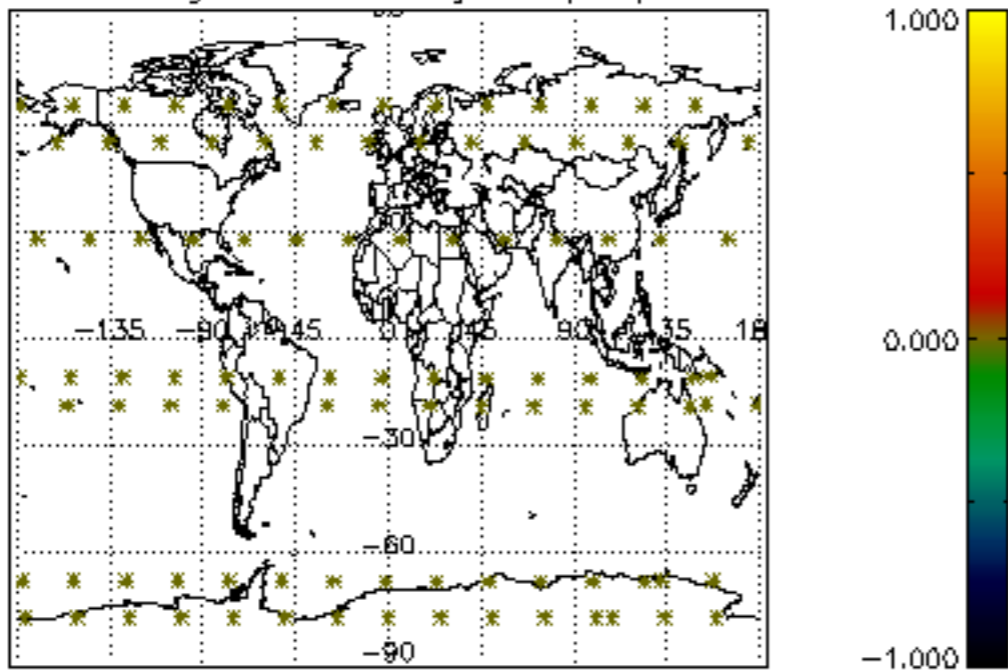
Percentage of star falling outside central band per profile



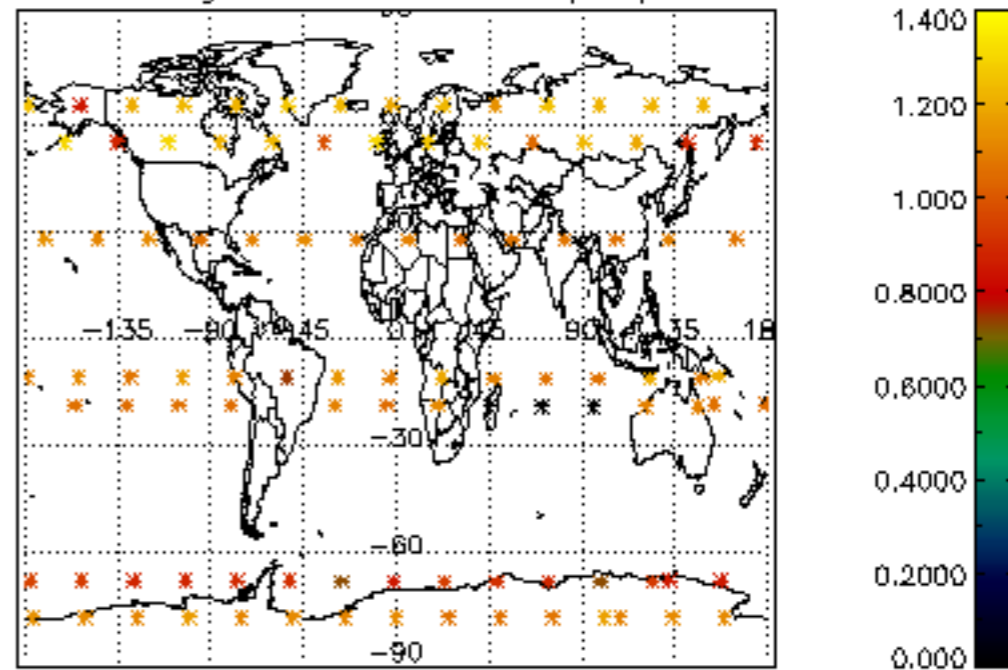
Percentage of saturation errors per profile



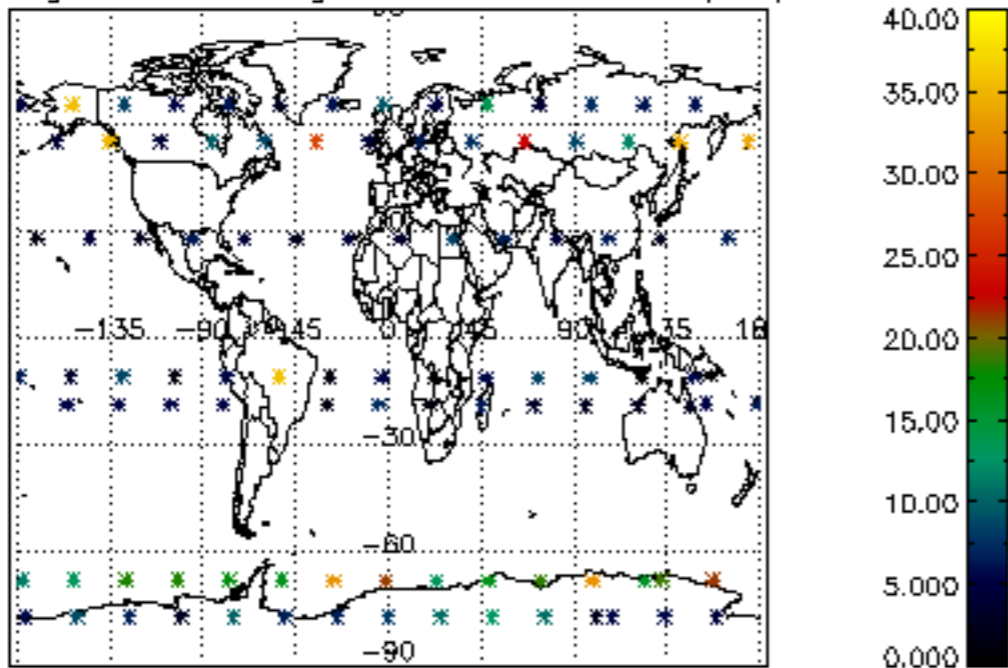
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

