

GOMOS Level 2 Daily Report

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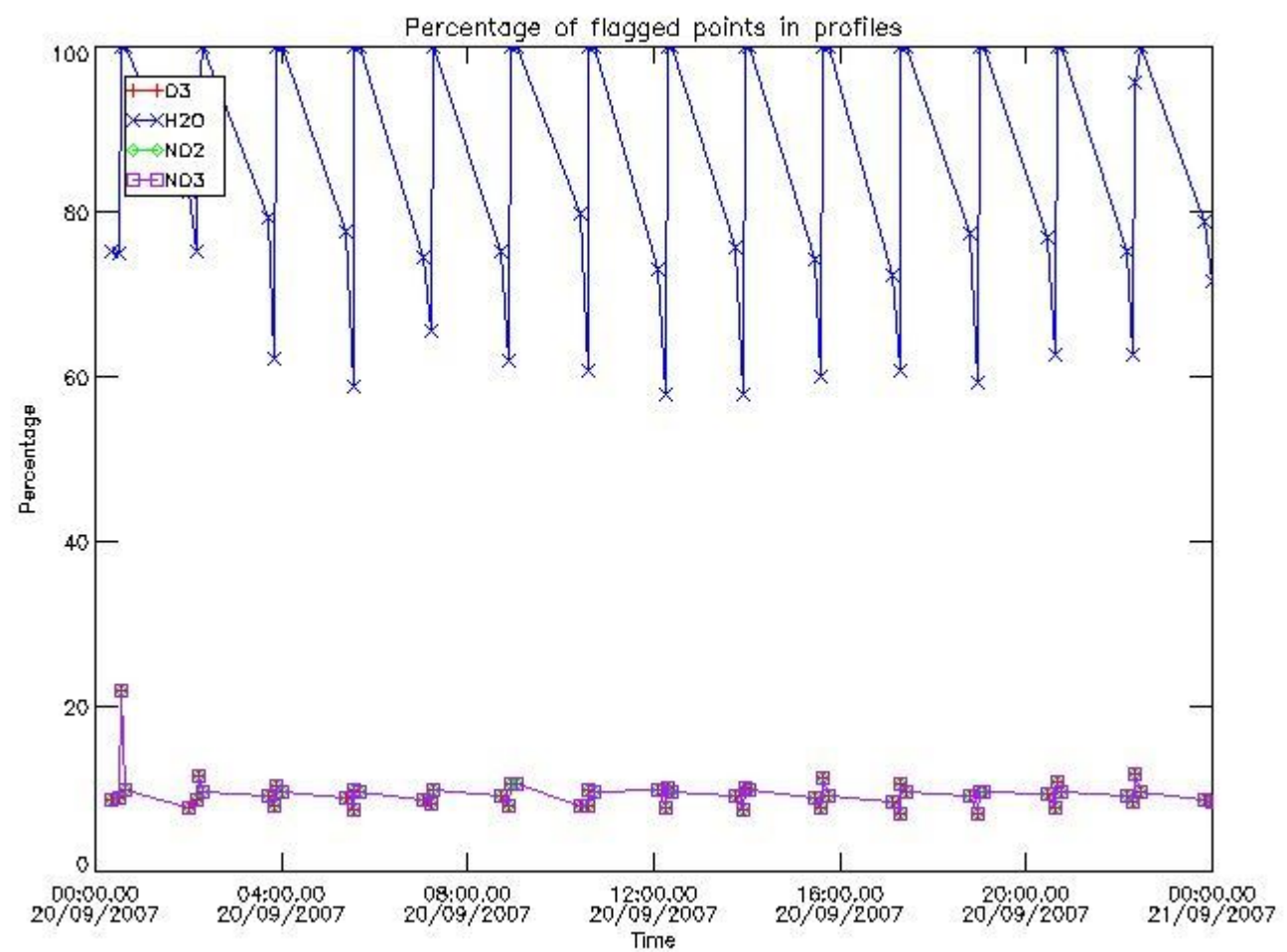
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161	GOM_NL__2PRFIN20070920_205758_000000542061_00444_29055_7118.N1	20-SEP-2007 20:57:58	Straylight	54.000	157	The1Eri	2.9060	9300.0	108	29055	No
162	GOM_NL__2PRFIN20070920_210301_000000532061_00444_29055_7119.N1	20-SEP-2007 21:03:01	Straylight	52.500	84	Alp Phe	2.3970	4500.0	105	29055	No
163	GOM_NL__2PRFIN20070920_211025_000000572061_00444_29055_7120.N1	20-SEP-2007 21:10:25	Twl_and_stray	56.500	52	16Bet Cet	2.0370	4500.0	113	29055	No
164	GOM_NL__2PRFIN20070920_212100_000000392061_00444_29055_7121.N1	20-SEP-2007 21:21:00	Bright	38.500	90	54Alp Peg	2.4870	11000.	77	29055	No
165	GOM_NL__2PRFIN20070920_212447_000000412061_00444_29055_7122.N1	20-SEP-2007 21:24:47	Bright	41.000	93	53Bet Peg	2.5200	3100.0	82	29055	No
166	GOM_NL__2PRFIN20070920_212626_000000442061_00444_29055_7123.N1	20-SEP-2007 21:26:26	Bright	43.500	58	21Alp And	2.0730	11000.	87	29055	No
167	GOM_NL__2PRFIN20070920_213450_000000402061_00444_29055_7124.N1	20-SEP-2007 21:34:50	Bright	39.500	74	11Bet Cas	2.2680	6600.0	79	29055	No
168	GOM_NL__2PRFIN20070920_213630_000000422061_00444_29055_7125.N1	20-SEP-2007 21:36:30	Bright	42.000	76	27Gam Cas	2.3000	30000.	84	29055	No
169	GOM_NL__2PRFIN20070920_215939_000000662061_00444_29055_7126.N1	20-SEP-2007 21:59:39	Bright	66.000	24	66Alp Gem	1.5800	10200.	132	29055	No
170	GOM_NL__2PRFIN20070920_220849_000000672061_00444_29055_7127.N1	20-SEP-2007 22:08:49	Dark	66.500	8	10Alp CMi	0.40000	6500.0	133	29055	No
171	GOM_NL__2PRFIN20070920_221833_000000662061_00444_29055_7128.N1	20-SEP-2007 22:18:33	Dark	66.000	1	9Alp CMa	-1.4400	11000.	132	29055	No
172	GOM_NL__2PRFIN20070920_222029_000000482061_00444_29055_7129.N1	20-SEP-2007 22:20:29	Dark	47.500	23	21Eps CMa	1.5020	26000.	95	29055	No
173	GOM_NL__2PRFIN20070920_222653_000000532061_00445_29056_7124.N1	20-SEP-2007 22:26:53	Dark	53.000	108	Alp Col	2.6520	15200.	106	29056	No
174	GOM_NL__2PRFIN20070920_223835_000000542061_00445_29056_7125.N1	20-SEP-2007 22:38:35	Straylight	54.000	157	The1Eri	2.9060	9300.0	108	29056	No
175	GOM_NL__2PRFIN20070920_224337_000000432061_00445_29056_7126.N1	20-SEP-2007 22:43:37	Straylight	43.000	84	Alp Phe	2.3970	4500.0	86	29056	No
176	GOM_NL__2PRFIN20070920_225101_000000602061_00445_29056_7127.N1	20-SEP-2007 22:51:01	Twl_and_stray	60.000	52	16Bet Cet	2.0370	4500.0	120	29056	No
177	GOM_NL__2PRFIN20070920_230136_000000382061_00445_29056_7128.N1	20-SEP-2007 23:01:36	Bright	37.500	90	54Alp Peg	2.4870	11000.	75	29056	No
178	GOM_NL__2PRFIN20070920_230523_000000392061_00445_29056_7129.N1	20-SEP-2007 23:05:23	Bright	38.500	93	53Bet Peg	2.5200	3100.0	77	29056	No
179	GOM_NL__2PRFIN20070920_230702_000000452061_00445_29056_7130.N1	20-SEP-2007 23:07:02	Bright	44.500	58	21Alp And	2.0730	11000.	89	29056	No
180	GOM_NL__2PRFIN20070920_231525_000000402061_00445_29056_7131.N1	20-SEP-2007 23:15:25	Bright	40.000	74	11Bet Cas	2.2680	6600.0	80	29056	No
181	GOM_NL__2PRFIN20070920_231705_000000432061_00445_29056_7132.N1	20-SEP-2007 23:17:05	Bright	43.000	76	27Gam Cas	2.3000	30000.	86	29056	No
182	GOM_NL__2PRFIN20070920_234015_000000662061_00445_29056_7133.N1	20-SEP-2007 23:40:15	Bright	66.000	24	66Alp Gem	1.5800	10200.	132	29056	No
183	GOM_NL__2PRFIN20070920_234926_000000592061_00445_29056_7134.N1	20-SEP-2007 23:49:26	Dark	59.000	8	10Alp CMi	0.40000	6500.0	118	29056	No
184	GOM_NL__2PRFIN20070920_235910_000000602061_00445_29056_7135.N1	20-SEP-2007 23:59:10	Dark	60.000	1	9Alp CMa	-1.4400	11000.	120	29056	No

3. Quality information per product

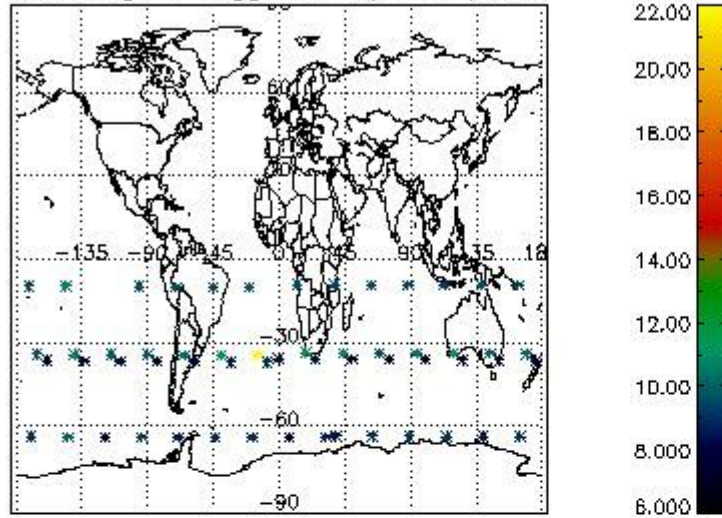
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

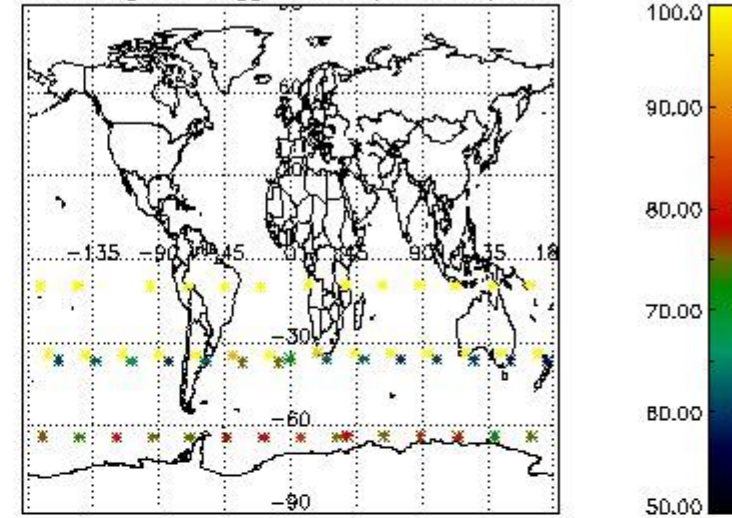


3.2 Plot quality information per product (world map)

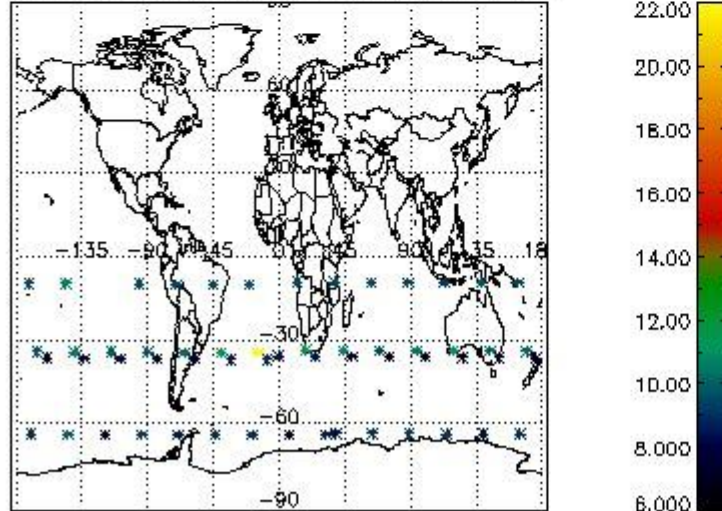
Percentage of flagged data per O3 profile



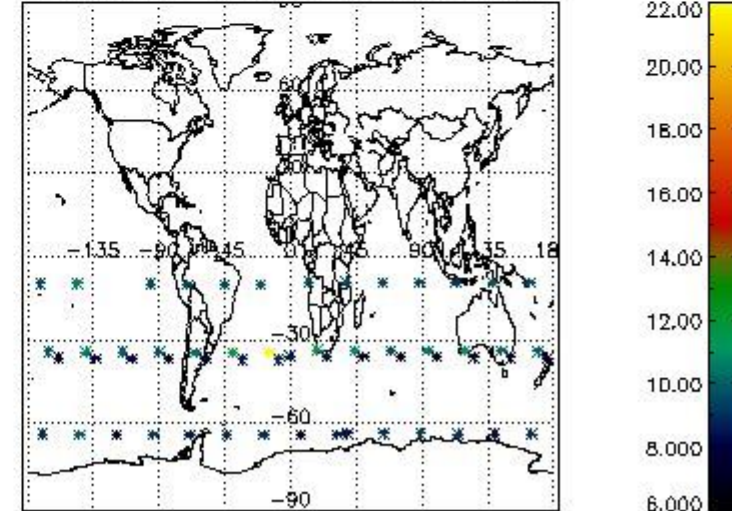
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

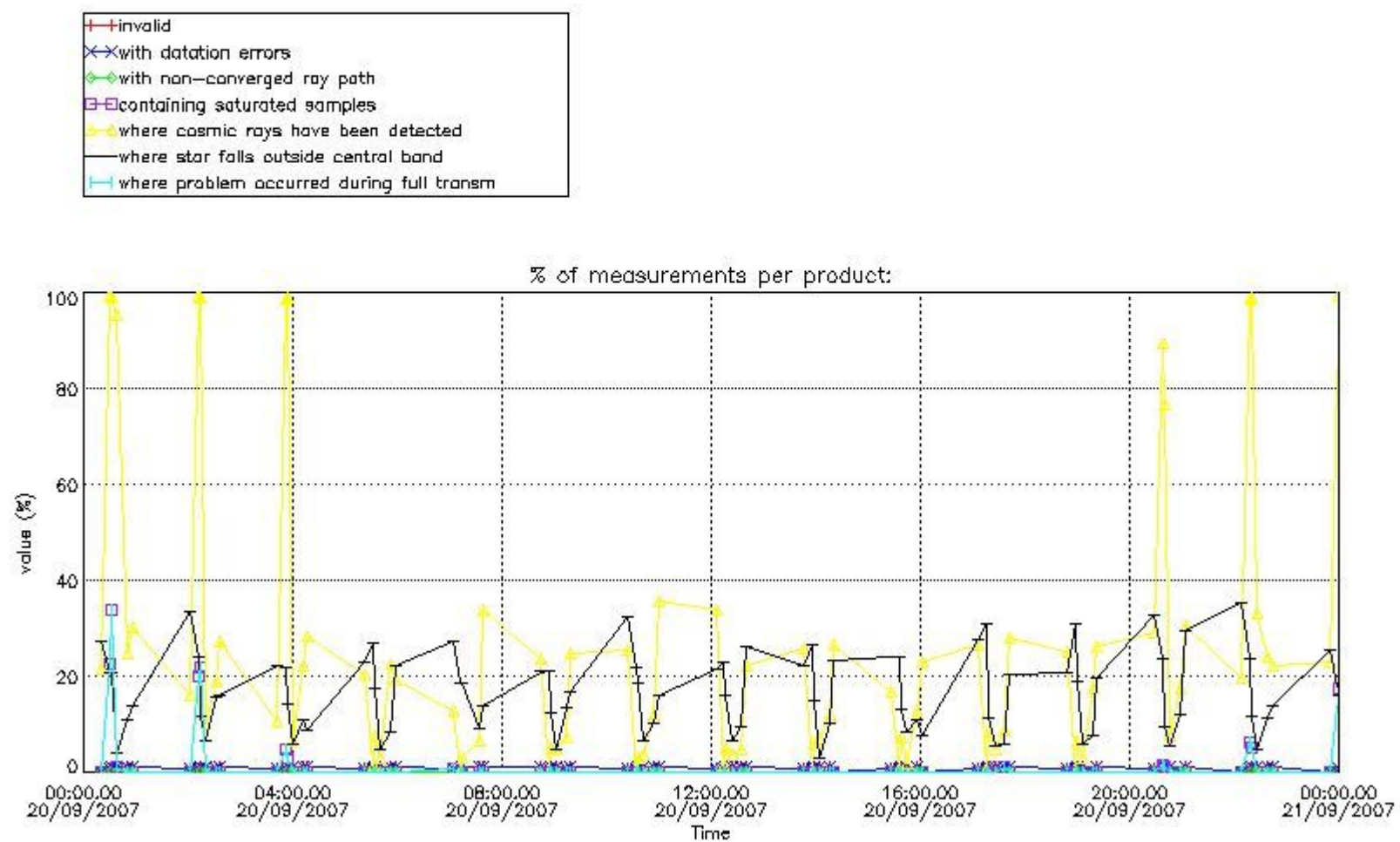


4. Level 1 quality information per product

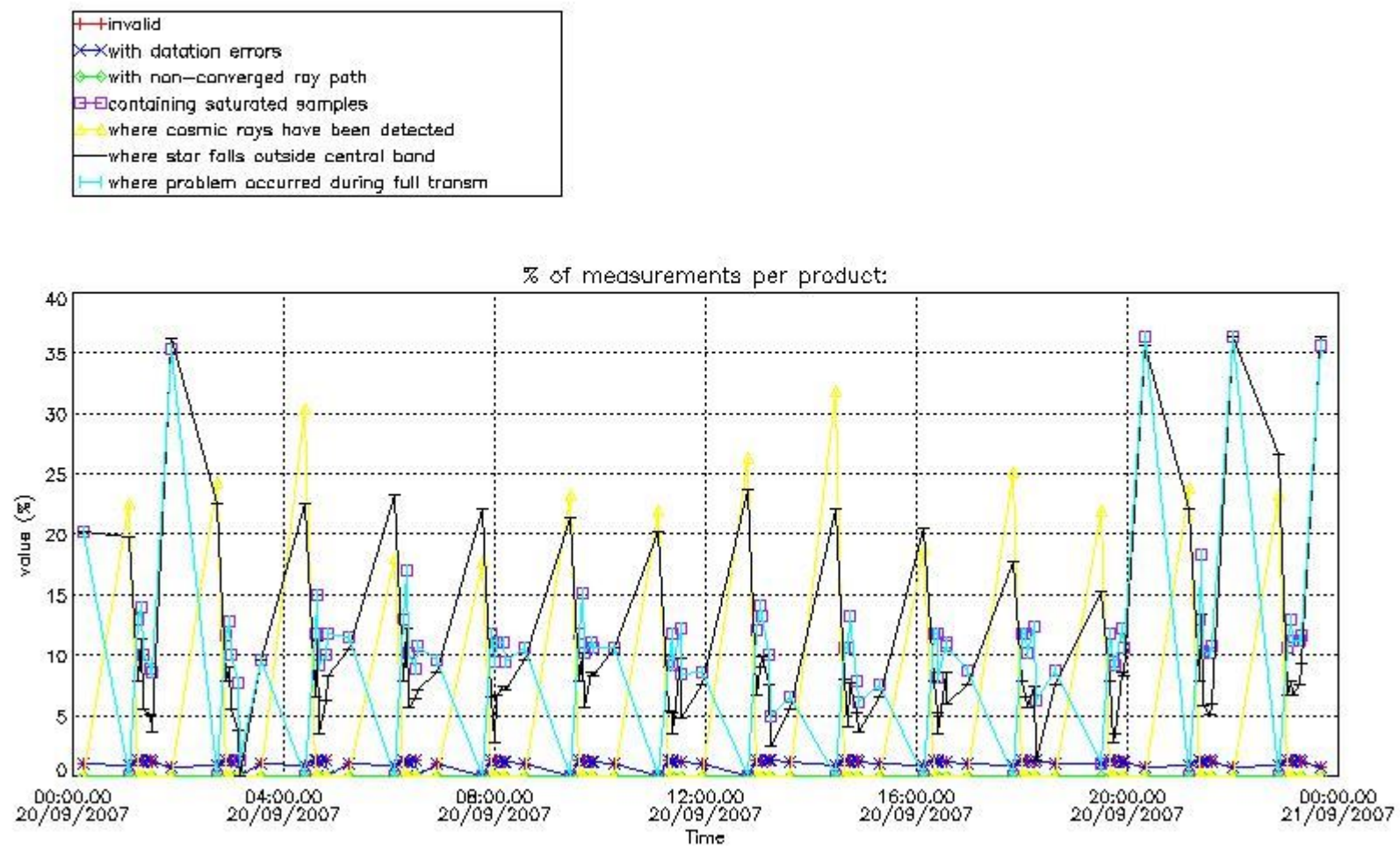
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



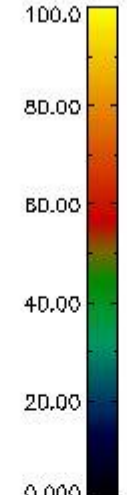
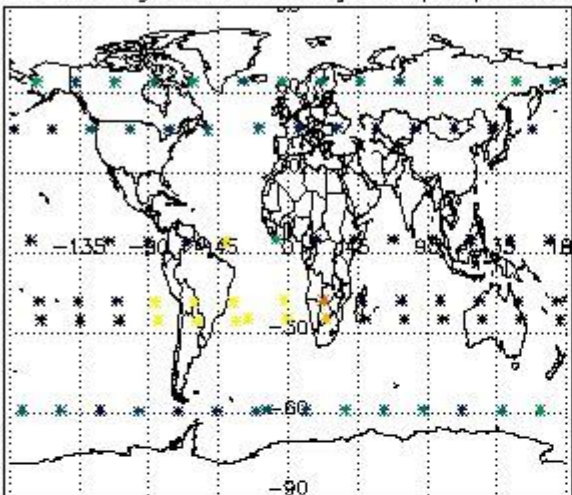
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



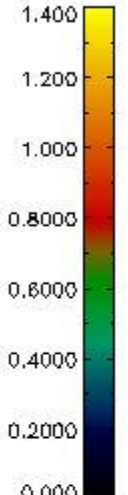
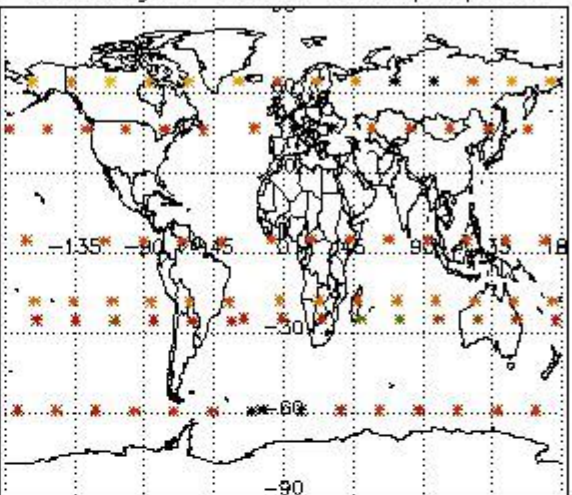
4.2 Plot quality information per product coming from level 1b processing (world map)

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

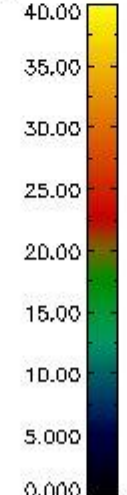
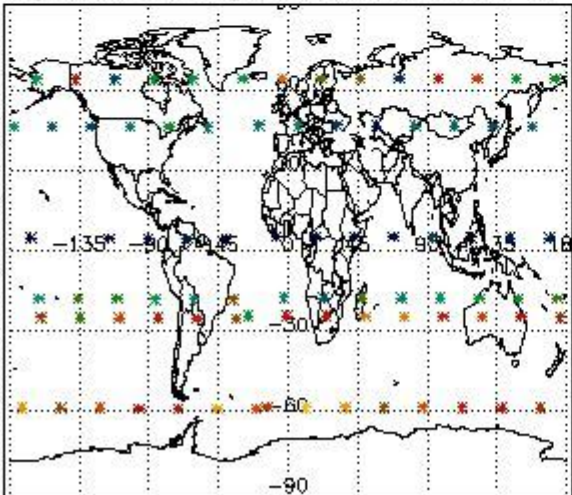
Percentage of cosmic ray hits per profile



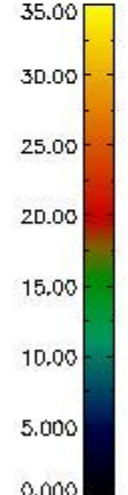
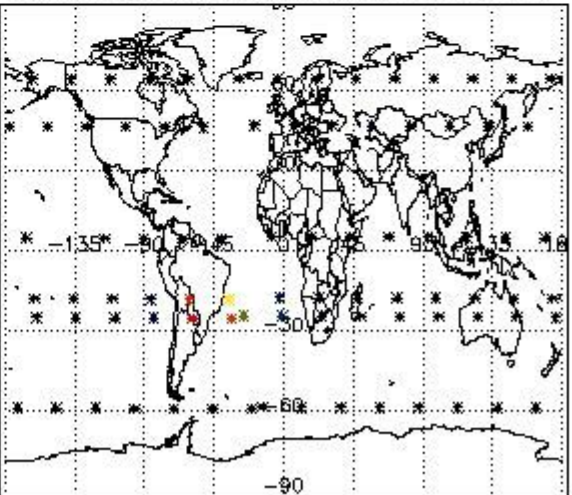
Percentage of datation errors per profile



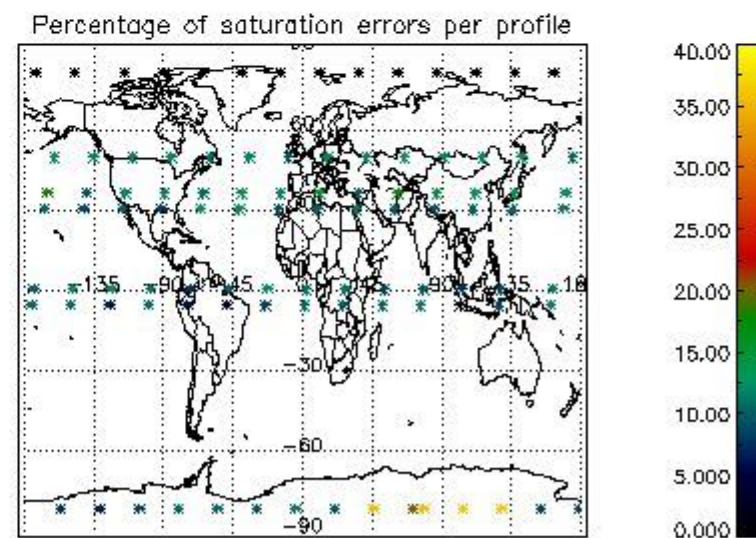
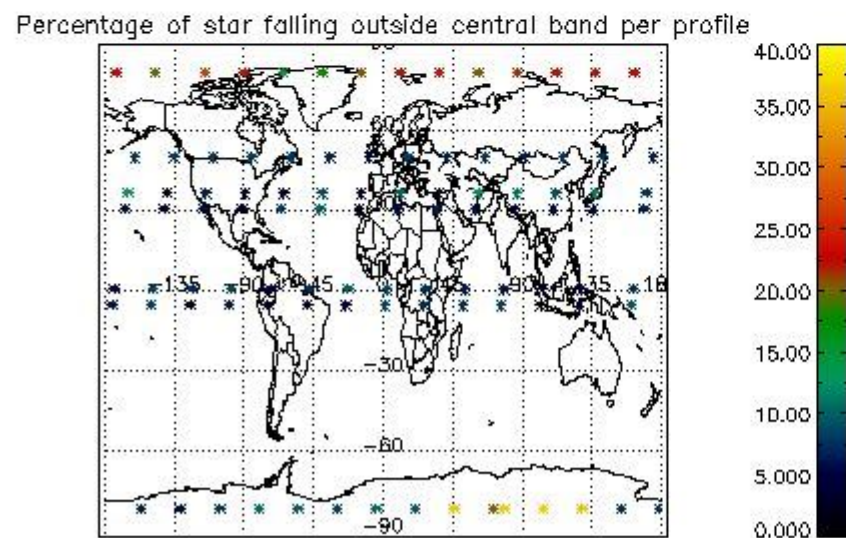
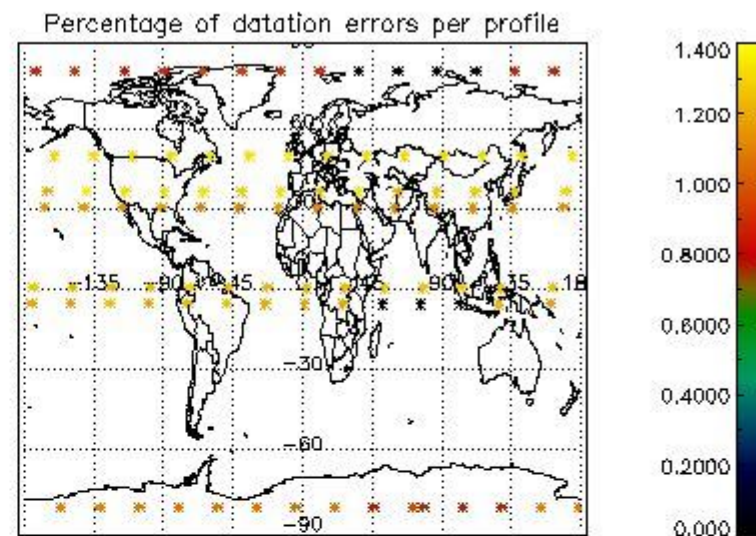
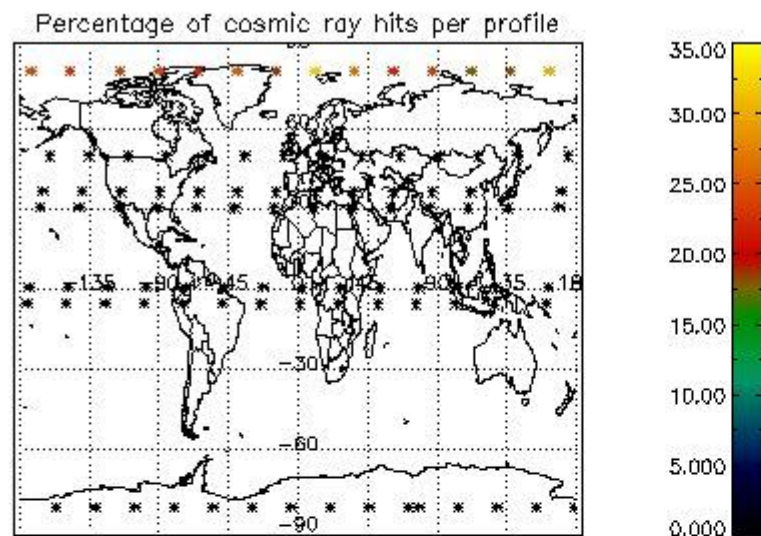
Percentage of star falling outside central band per profile



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

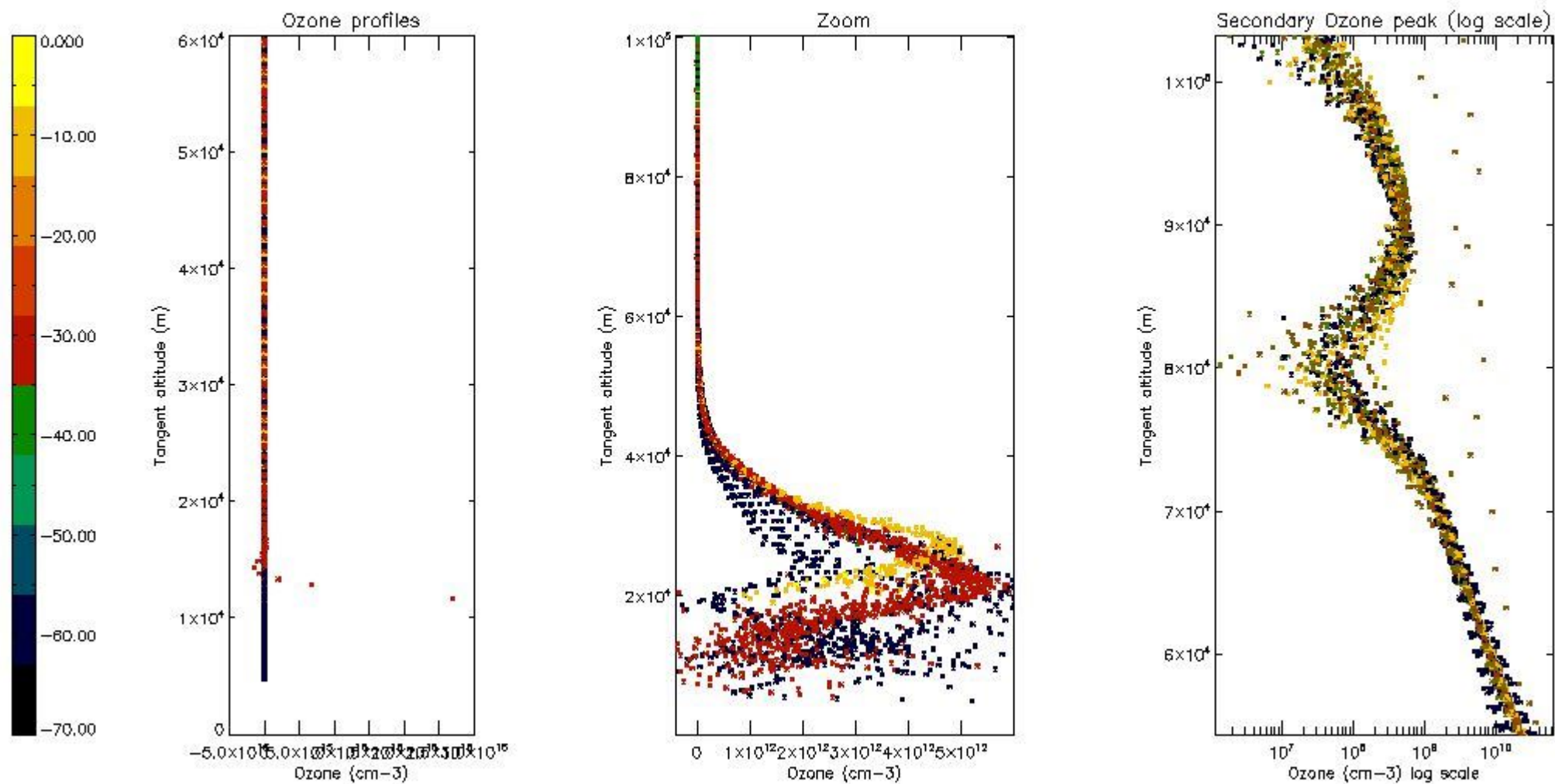
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	37
STD < 20	26

STD < 10	23
STD < 5	19

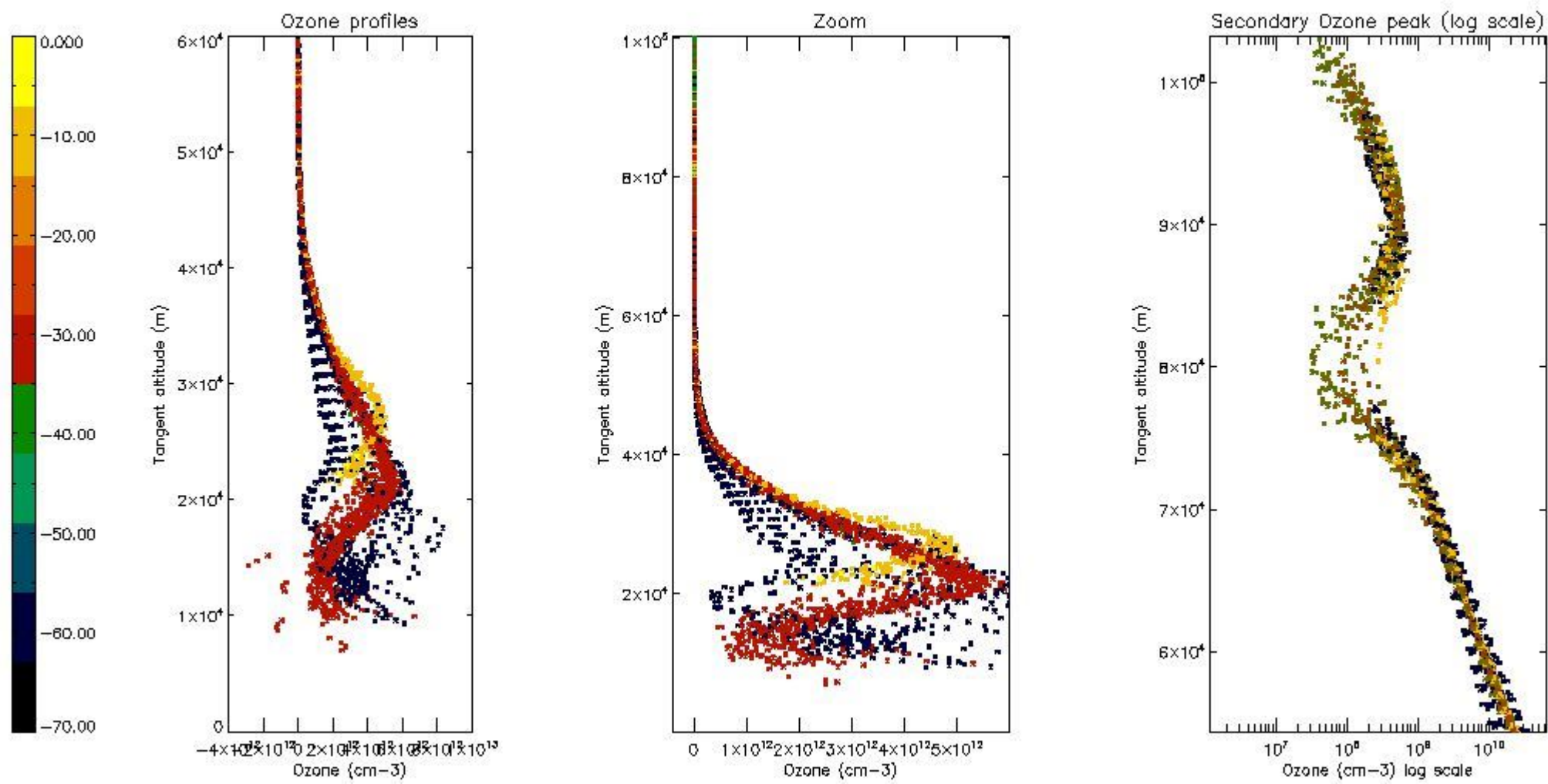
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



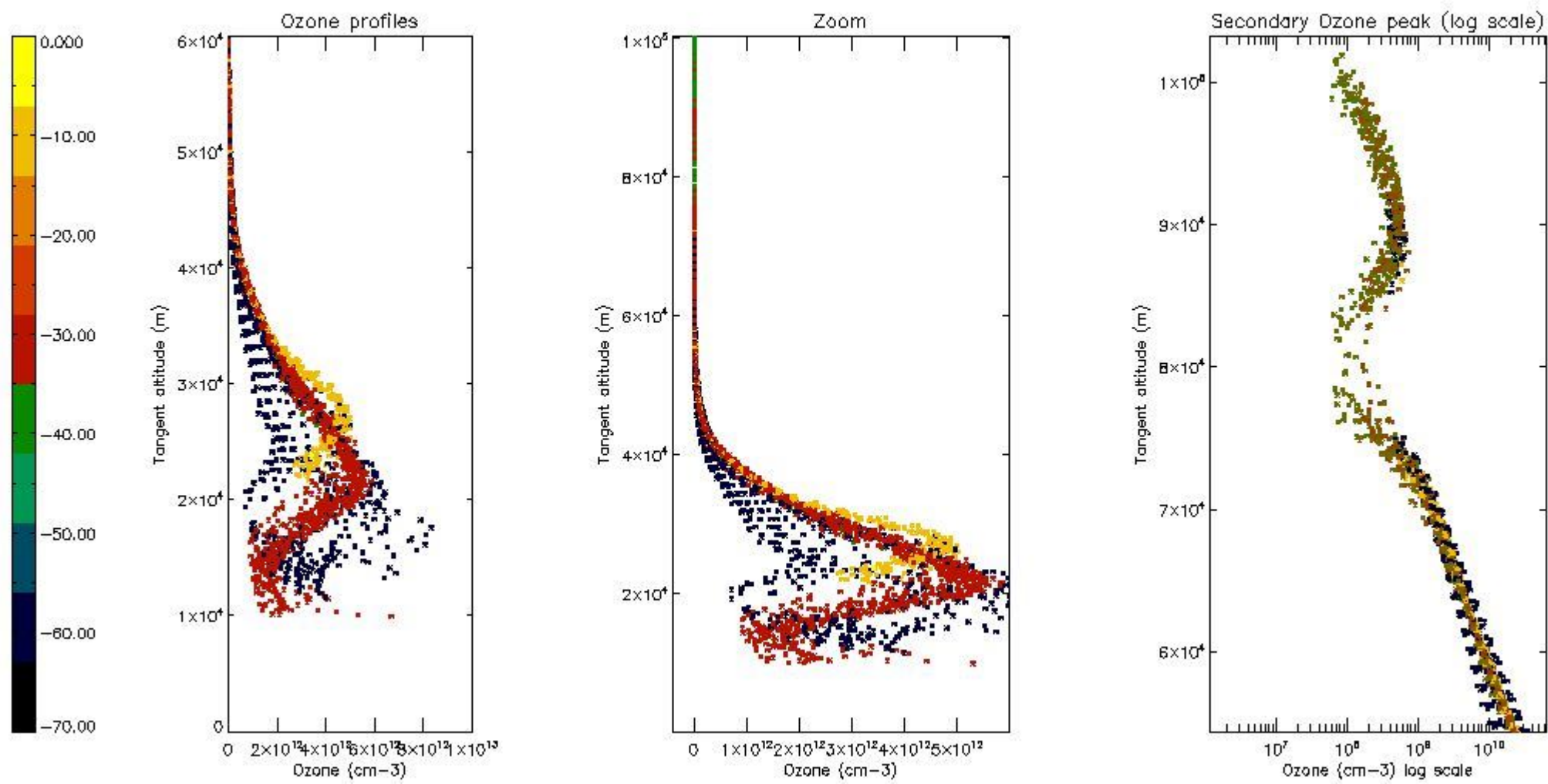
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



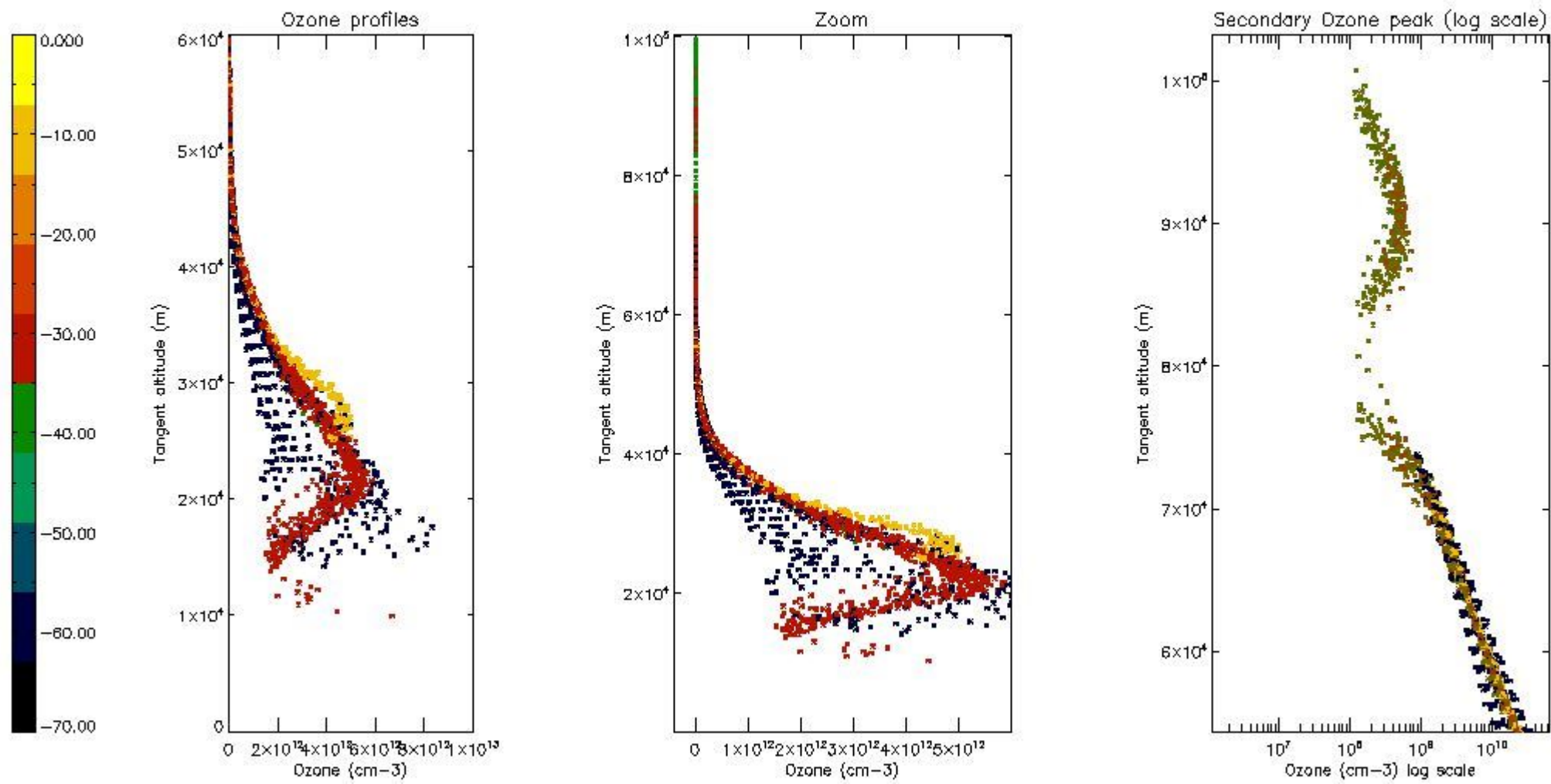
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



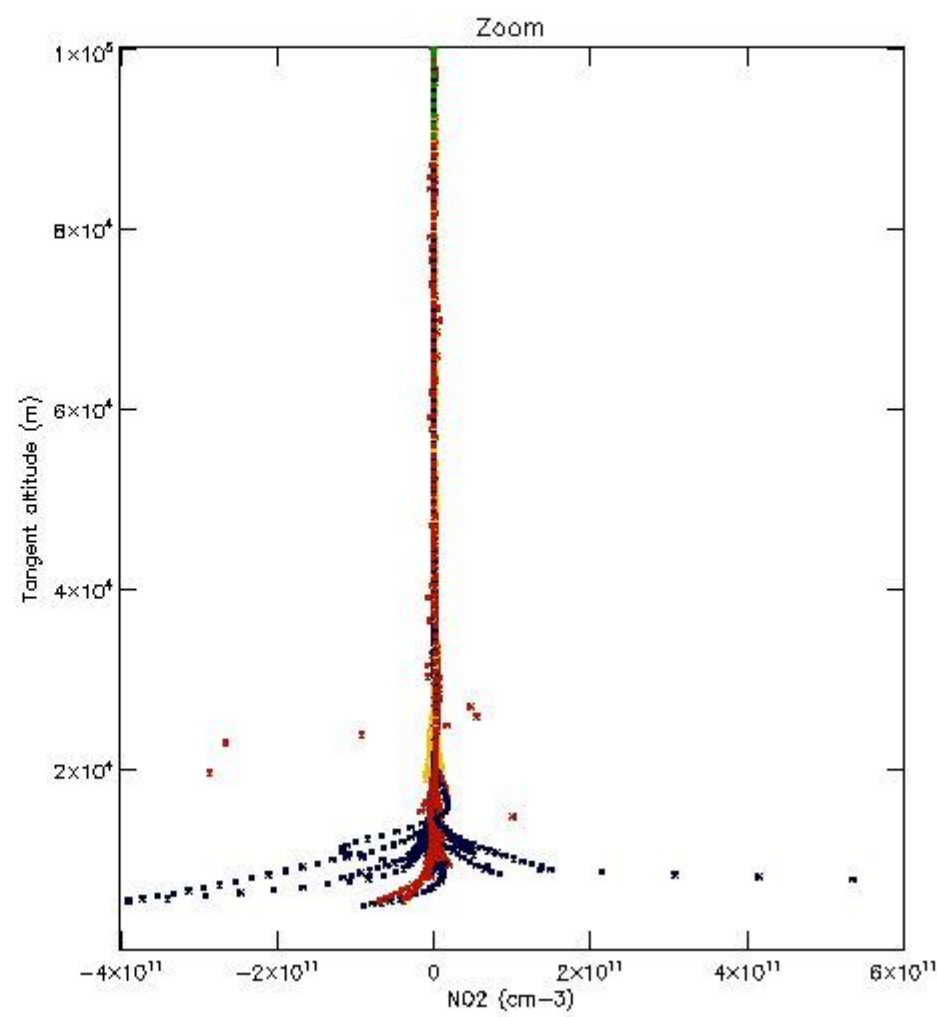
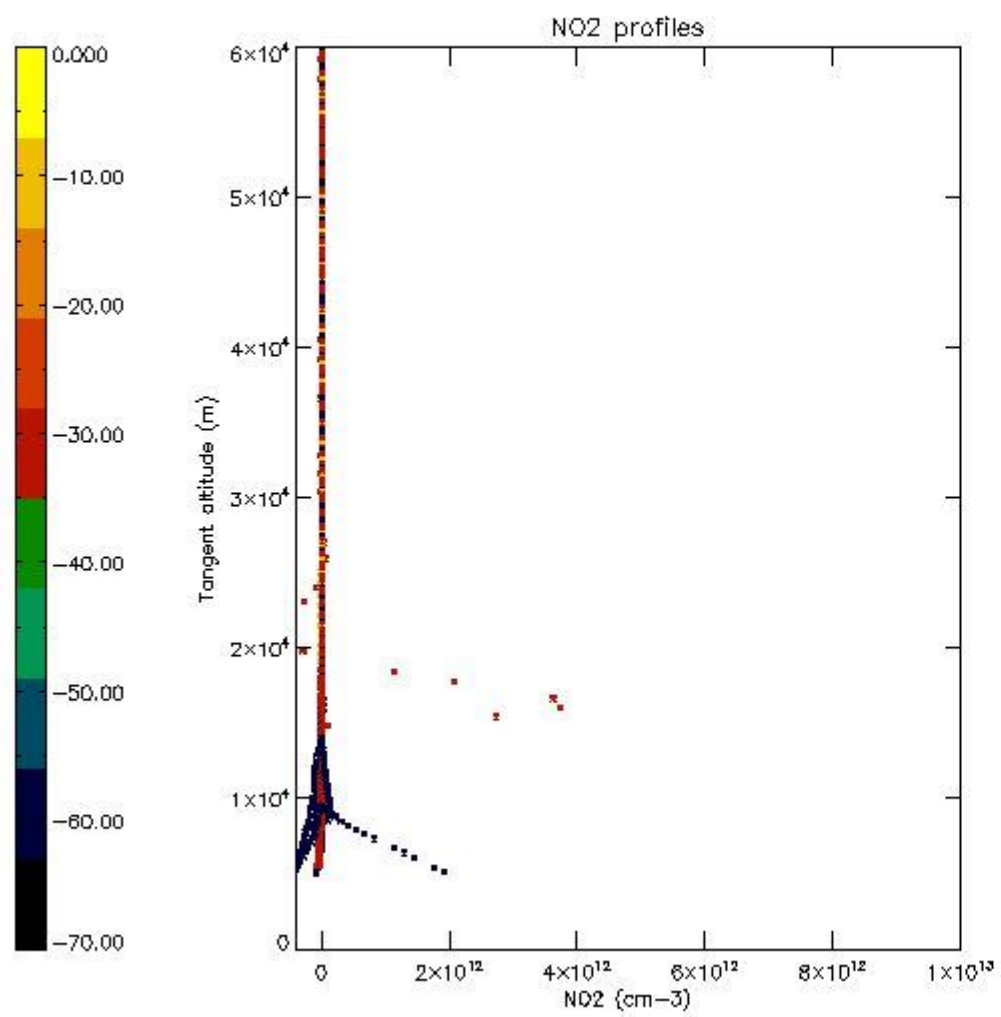
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



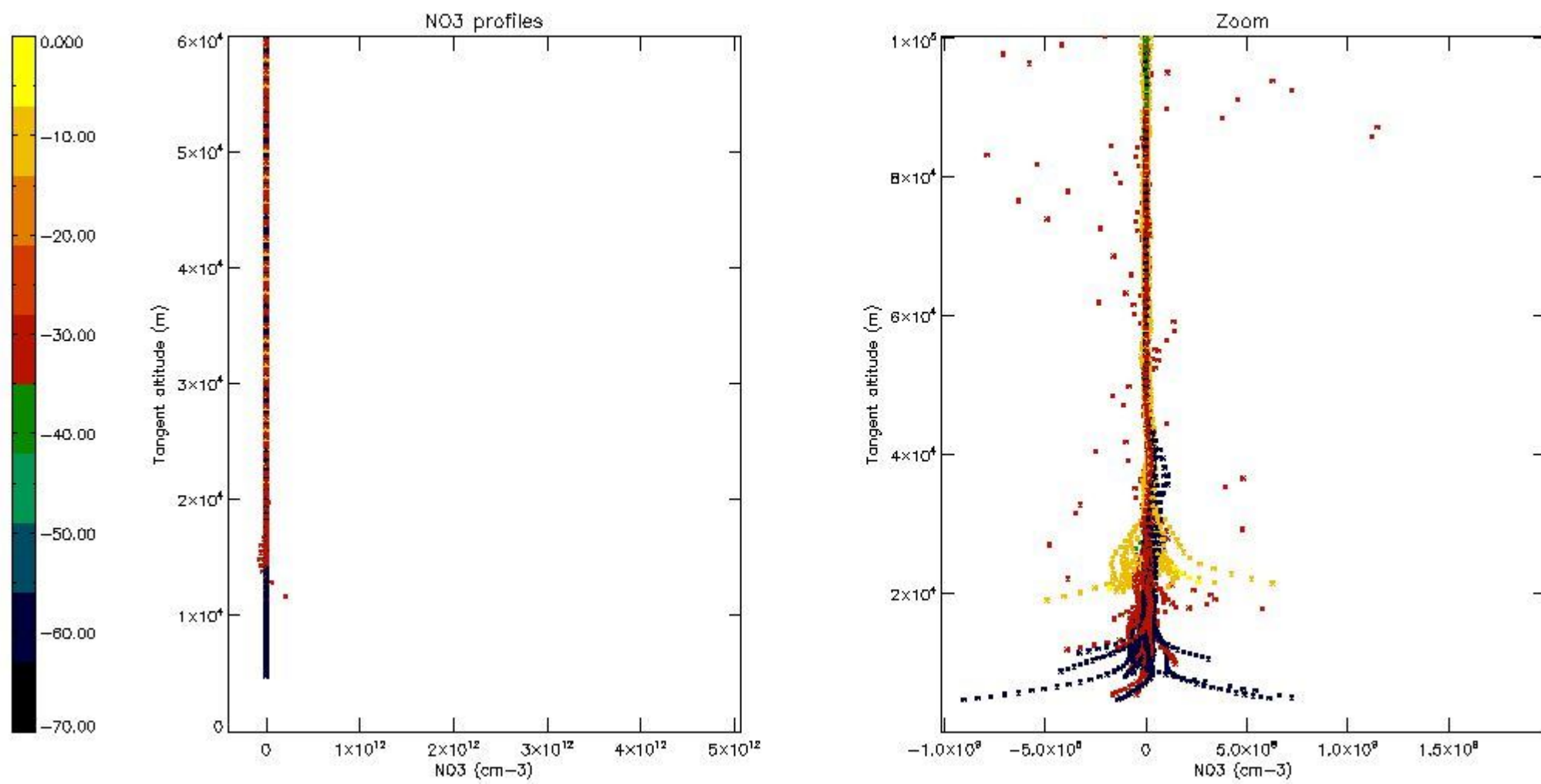
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



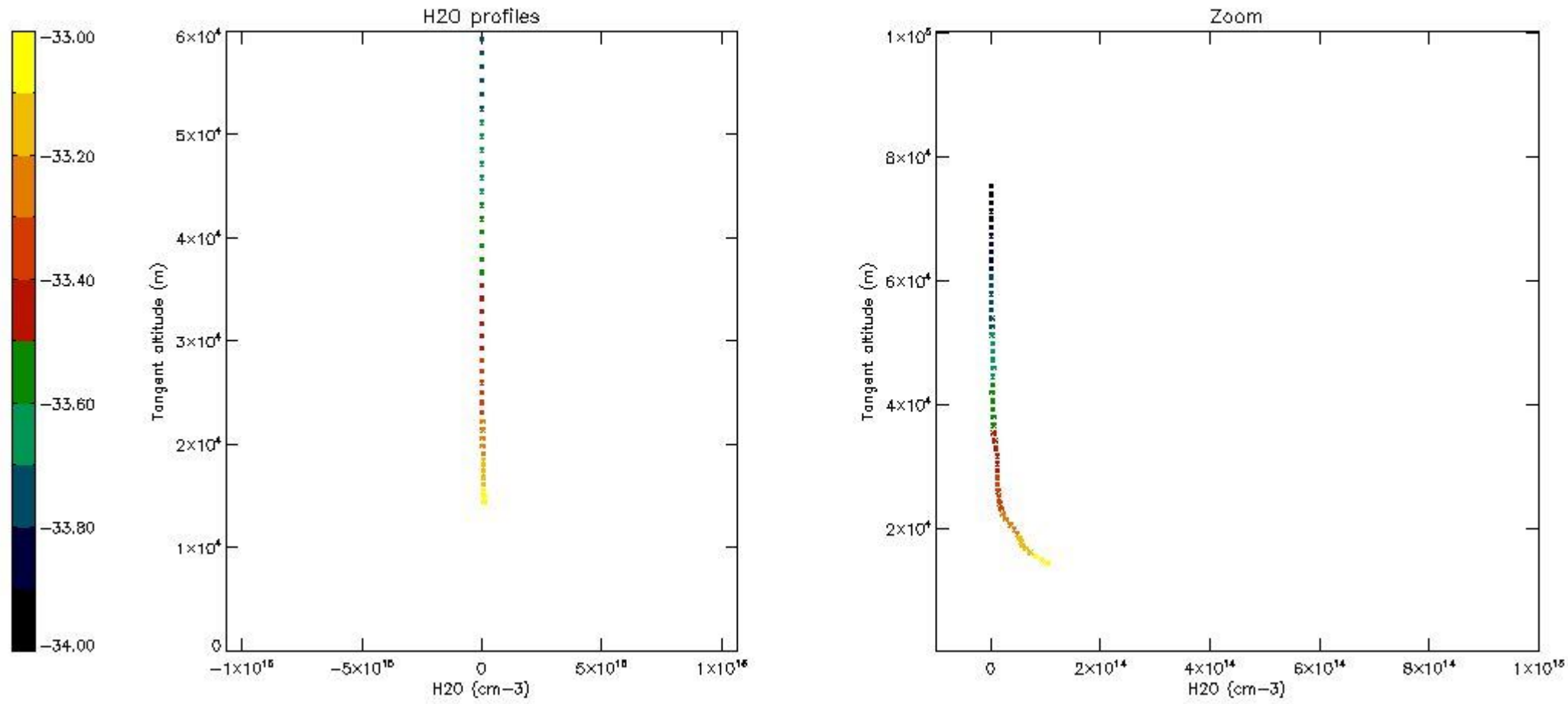
5.7 Plot NO3 profiles for all STD (dark without errors)

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-2007 00:11:51
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	20-SEP-2007 00:11:51
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	20-SEP-2007 00:11:51

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

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

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

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

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

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

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

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

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

Item	Value
Time of report generation	23APR2013 05:35:02
Data source version	GOMOS/6.01
Start time of products	20-09-2007 (20SEP2007 00:00:00)
Stop time of products	21-09-2007 (21SEP2007 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	184
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

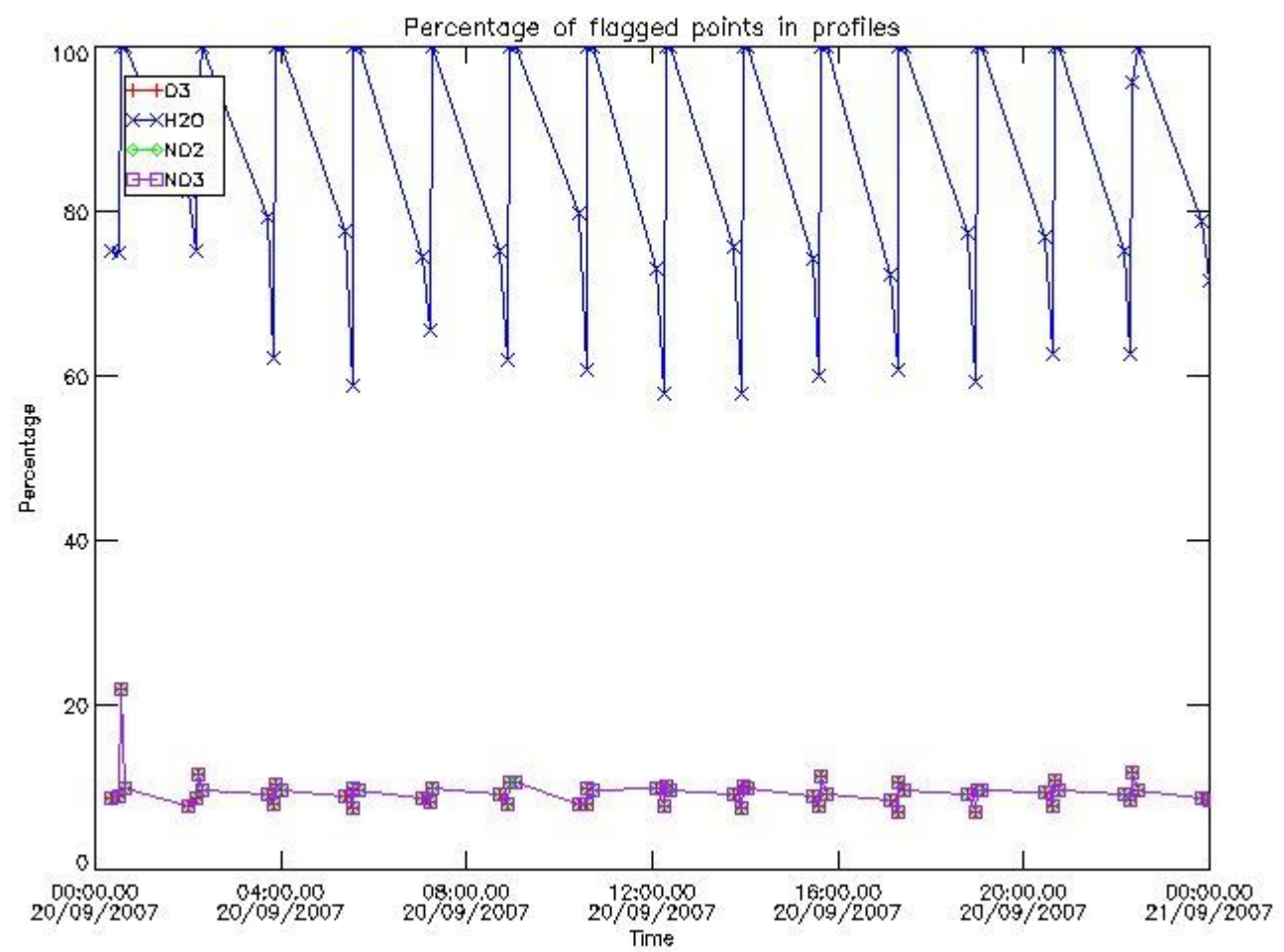
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20070920_001151_000000522061_00431_29042_6899.N1	20-SEP-2007 00:11:51	Bright	52.000	24	66Alp Gem	1.5800	10200.	104	29042	No
2	GOM_NL__2PRFIN20070920_002054_000000592061_00431_29042_6900.N1	20-SEP-2007 00:20:54	Dark	58.500	8	10Alp CMi	0.40000	6500.0	117	29042	No
3	GOM_NL__2PRFIN20070920_003030_000000632061_00431_29042_6901.N1	20-SEP-2007 00:30:30	Dark	62.500	1	9Alp CMa	-1.4400	11000.	125	29042	No
4	GOM_NL__2PRFIN20070920_003230_000000532061_00431_29042_6902.N1	20-SEP-2007 00:32:30	Dark	53.000	23	21Eps CMa	1.5020	26000.	106	29042	No
5	GOM_NL__2PRFIN20070920_003849_000000522061_00432_29043_6929.N1	20-SEP-2007 00:38:49	Dark	52.000	108	Alp Col	2.6520	15200.	104	29043	No
6	GOM_NL__2PRFIN20070920_005036_000000552061_00432_29043_6930.N1	20-SEP-2007 00:50:36	Straylight	55.000	157	The1Eri	2.9060	9300.0	110	29043	No
7	GOM_NL__2PRFIN20070920_005545_000000432061_00432_29043_6931.N1	20-SEP-2007 00:55:45	Straylight	43.000	84	Alp Phe	2.3970	4500.0	86	29043	No
8	GOM_NL__2PRFIN20070920_010313_000000562061_00432_29043_6932.N1	20-SEP-2007 01:03:13	Twilight_stray	55.500	52	16Bet Cet	2.0370	4500.0	111	29043	No
9	GOM_NL__2PRFIN20070920_011350_000000392061_00432_29043_6933.N1	20-SEP-2007 01:13:50	Bright	38.500	90	54Alp Peg	2.4870	11000.	77	29043	No
10	GOM_NL__2PRFIN20070920_011738_000000402061_00432_29043_6934.N1	20-SEP-2007 01:17:38	Bright	39.500	93	53Bet Peg	2.5200	3100.0	79	29043	No
11	GOM_NL__2PRFIN20070920_011922_000000452061_00432_29043_6935.N1	20-SEP-2007 01:19:22	Bright	45.000	58	21Alp And	2.0730	11000.	90	29043	No
12	GOM_NL__2PRFIN20070920_012743_000000402061_00432_29043_6936.N1	20-SEP-2007 01:27:43	Bright	39.500	74	11Bet Cas	2.2680	6600.0	79	29043	No
13	GOM_NL__2PRFIN20070920_012925_000000412061_00432_29043_6937.N1	20-SEP-2007 01:29:25	Bright	41.000	76	27Gam Cas	2.3000	30000.	82	29043	No
14	GOM_NL__2PRFIN20070920_015227_000000652061_00432_29043_6938.N1	20-SEP-2007 01:52:27	Bright	65.000	24	66Alp Gem	1.5800	10200.	130	29043	No
15	GOM_NL__2PRFIN20070920_020130_000000662061_00432_29043_6939.N1	20-SEP-2007 02:01:30	Dark	65.500	8	10Alp CMi	0.40000	6500.0	131	29043	No
16	GOM_NL__2PRFIN20070920_021107_000000652061_00432_29043_6940.N1	20-SEP-2007 02:11:07	Dark	65.000	1	9Alp CMa	-1.4400	11000.	130	29043	No
17	GOM_NL__2PRFIN20070920_021307_000000482061_00432_29043_6941.N1	20-SEP-2007 02:13:07	Dark	48.000	23	21Eps CMa	1.5020	26000.	96	29043	No
18	GOM_NL__2PRFIN20070920_021926_000000542061_00433_29044_6936.N1	20-SEP-2007 02:19:26	Dark	53.500	108	Alp Col	2.6520	15200.	107	29044	No
19	GOM_NL__2PRFIN20070920_023112_000000582061_00433_29044_6937.N1	20-SEP-2007 02:31:12	Straylight	58.000	157	The1Eri	2.9060	9300.0	116	29044	No
20	GOM_NL__2PRFIN20070920_023622_000000442061_00433_29044_6938.N1	20-SEP-2007 02:36:22	Straylight	44.000	84	Alp Phe	2.3970	4500.0	88	29044	No
21	GOM_NL__2PRFIN20070920_024349_000000582061_00433_29044_6939.N1	20-SEP-2007 02:43:49	Twilight_stray	57.500	52	16Bet Cet	2.0370	4500.0	115	29044	No
22	GOM_NL__2PRFIN20070920_025426_000000392061_00433_29044_6940.N1	20-SEP-2007 02:54:26	Bright	38.500	90	54Alp Peg	2.4870	11000.	77	29044	No
23	GOM_NL__2PRFIN20070920_025814_000000392061_00433_29044_6941.N1	20-SEP-2007 02:58:14	Bright	39.000	93	53Bet Peg	2.5200	3100.0	78	29044	No
24	GOM_NL__2PRFIN20070920_025957_000000452061_00433_29044_6942.N1	20-SEP-2007 02:59:57	Bright	45.000	58	21Alp And	2.0730	11000.	90	29044	No
25	GOM_NL__2PRFIN20070920_030819_000000392061_00433_29044_6943.N1	20-SEP-2007 03:08:19	Bright	39.000	74	11Bet Cas	2.2680	6600.0	78	29044	No
26	GOM_NL__2PRFIN20070920_031000_000000382061_00433_29044_6944.N1	20-SEP-2007 03:10:00	Bright	37.500	76	27Gam Cas	2.3000	30000.	75	29044	No
27	GOM_NL__2PRFIN20070920_033303_000000472061_00433_29044_6945.N1	20-SEP-2007 03:33:03	Bright	47.000	24	66Alp Gem	1.5800	10200.	94	29044	No
28	GOM_NL__2PRFIN20070920_034207_000000562061_00433_29044_6946.N1	20-SEP-2007 03:42:07	Dark	56.000	8	10Alp CMi	0.40000	6500.0	112	29044	No
29	GOM_NL__2PRFIN20070920_035144_000000642061_00433_29044_6947.N1	20-SEP-2007 03:51:44	Dark	64.000	1	9Alp CMa	-1.4400	11000.	128	29044	No
30	GOM_NL__2PRFIN20070920_035343_000000492061_00433_29044_6948.N1	20-SEP-2007 03:53:43	Dark	49.000	23	21Eps CMa	1.5020	26000.	98	29044	No
31	GOM_NL__2PRFIN20070920_040003_000000532061_00434_29045_6944.N1	20-SEP-2007 04:00:03	Dark	52.500	108	Alp Col	2.6520	15200.	105	29045	No
32	GOM_NL__2PRFIN20070920_041149_000000552061_00434_29045_6945.N1	20-SEP-2007 04:11:49	Straylight	54.500	157	The1Eri	2.9060	9300.0	109	29045	No
33	GOM_NL__2PRFIN20070920_041658_000000412061_00434_29045_6946.N1	20-SEP-2007 04:16:58	Straylight	40.500	84	Alp Phe	2.3970	4500.0	81	29045	No
34	GOM_NL__2PRFIN20070920_042425_000000582061_00434_29045_6947.N1	20-SEP-2007 04:24:25	Twilight_stray	57.500	52	16Bet Cet	2.0370	4500.0	115	29045	No
35	GOM_NL__2PRFIN20070920_043502_000000382061_00434_29045_6948.N1	20-SEP-2007 04:35:02	Bright	38.000	90	54Alp Peg	2.4870	11000.	76	29045	No
36	GOM_NL__2PRFIN20070920_043850_000000402061_00434_29045_6949.N1	20-SEP-2007 04:38:50	Bright	40.000	93	53Bet Peg	2.5200	3100.0	80	29045	No
37	GOM_NL__2PRFIN20070920_044033_000000442061_00434_29045_6950.N1	20-SEP-2007 04:40:33	Bright	43.500	58	21Alp And	2.0730	11000.	87	29045	No
38	GOM_NL__2PRFIN20070920_044854_000000402061_00434_29045_6951.N1	20-SEP-2007 04:48:54	Bright	40.000	74	11Bet Cas	2.2680	6600.0	80	29045	No
39	GOM_NL__2PRFIN20070920_045036_000000432061_00434_29045_6952.N1	20-SEP-2007 04:50:36	Bright	42.500	76	27Gam Cas	2.3000	30000.	85	29045	No
40	GOM_NL__2PRFIN20070920_051339_000000482061_00434_29045_6953.N1	20-SEP-2007 05:13:39	Bright	48.000	24	66Alp Gem	1.5800	10200.	96	29045	No
41	GOM_NL__2PRFIN20070920_052244_000000572061_00434_29045_6954.N1	20-SEP-2007 05:22:44	Dark	56.500	8	10Alp CMi	0.40000	6500.0	113	29045	No
42	GOM_NL__2PRFIN20070920_053221_000000692061_00434_29045_6955.N1	20-SEP-2007 05:32:21	Dark	68.500	1	9Alp CMa	-1.4400	11000.	137	29045	No

161	GOM_NL__2PRFIN20070920_205758_000000542061_00444_29055_7118.N1	20-SEP-2007 20:57:58	Straylight	54.000	157	The1Eri	2.9060	9300.0	108	29055	No
162	GOM_NL__2PRFIN20070920_210301_000000532061_00444_29055_7119.N1	20-SEP-2007 21:03:01	Straylight	52.500	84	Alp Phe	2.3970	4500.0	105	29055	No
163	GOM_NL__2PRFIN20070920_211025_000000572061_00444_29055_7120.N1	20-SEP-2007 21:10:25	Twl_and_stray	56.500	52	16Bet Cet	2.0370	4500.0	113	29055	No
164	GOM_NL__2PRFIN20070920_212100_000000392061_00444_29055_7121.N1	20-SEP-2007 21:21:00	Bright	38.500	90	54Alp Peg	2.4870	11000.	77	29055	No
165	GOM_NL__2PRFIN20070920_212447_000000412061_00444_29055_7122.N1	20-SEP-2007 21:24:47	Bright	41.000	93	53Bet Peg	2.5200	3100.0	82	29055	No
166	GOM_NL__2PRFIN20070920_212626_000000442061_00444_29055_7123.N1	20-SEP-2007 21:26:26	Bright	43.500	58	21Alp And	2.0730	11000.	87	29055	No
167	GOM_NL__2PRFIN20070920_213450_000000402061_00444_29055_7124.N1	20-SEP-2007 21:34:50	Bright	39.500	74	11Bet Cas	2.2680	6600.0	79	29055	No
168	GOM_NL__2PRFIN20070920_213630_000000422061_00444_29055_7125.N1	20-SEP-2007 21:36:30	Bright	42.000	76	27Gam Cas	2.3000	30000.	84	29055	No
169	GOM_NL__2PRFIN20070920_215939_000000662061_00444_29055_7126.N1	20-SEP-2007 21:59:39	Bright	66.000	24	66Alp Gem	1.5800	10200.	132	29055	No
170	GOM_NL__2PRFIN20070920_220849_000000672061_00444_29055_7127.N1	20-SEP-2007 22:08:49	Dark	66.500	8	10Alp CMi	0.40000	6500.0	133	29055	No
171	GOM_NL__2PRFIN20070920_221833_000000662061_00444_29055_7128.N1	20-SEP-2007 22:18:33	Dark	66.000	1	9Alp CMa	-1.4400	11000.	132	29055	No
172	GOM_NL__2PRFIN20070920_222029_000000482061_00444_29055_7129.N1	20-SEP-2007 22:20:29	Dark	47.500	23	21Eps CMa	1.5020	26000.	95	29055	No
173	GOM_NL__2PRFIN20070920_222653_000000532061_00445_29056_7124.N1	20-SEP-2007 22:26:53	Dark	53.000	108	Alp Col	2.6520	15200.	106	29056	No
174	GOM_NL__2PRFIN20070920_223835_000000542061_00445_29056_7125.N1	20-SEP-2007 22:38:35	Straylight	54.000	157	The1Eri	2.9060	9300.0	108	29056	No
175	GOM_NL__2PRFIN20070920_224337_000000432061_00445_29056_7126.N1	20-SEP-2007 22:43:37	Straylight	43.000	84	Alp Phe	2.3970	4500.0	86	29056	No
176	GOM_NL__2PRFIN20070920_225101_000000602061_00445_29056_7127.N1	20-SEP-2007 22:51:01	Twl_and_stray	60.000	52	16Bet Cet	2.0370	4500.0	120	29056	No
177	GOM_NL__2PRFIN20070920_230136_000000382061_00445_29056_7128.N1	20-SEP-2007 23:01:36	Bright	37.500	90	54Alp Peg	2.4870	11000.	75	29056	No
178	GOM_NL__2PRFIN20070920_230523_000000392061_00445_29056_7129.N1	20-SEP-2007 23:05:23	Bright	38.500	93	53Bet Peg	2.5200	3100.0	77	29056	No
179	GOM_NL__2PRFIN20070920_230702_000000452061_00445_29056_7130.N1	20-SEP-2007 23:07:02	Bright	44.500	58	21Alp And	2.0730	11000.	89	29056	No
180	GOM_NL__2PRFIN20070920_231525_000000402061_00445_29056_7131.N1	20-SEP-2007 23:15:25	Bright	40.000	74	11Bet Cas	2.2680	6600.0	80	29056	No
181	GOM_NL__2PRFIN20070920_231705_000000432061_00445_29056_7132.N1	20-SEP-2007 23:17:05	Bright	43.000	76	27Gam Cas	2.3000	30000.	86	29056	No
182	GOM_NL__2PRFIN20070920_234015_000000662061_00445_29056_7133.N1	20-SEP-2007 23:40:15	Bright	66.000	24	66Alp Gem	1.5800	10200.	132	29056	No
183	GOM_NL__2PRFIN20070920_234926_000000592061_00445_29056_7134.N1	20-SEP-2007 23:49:26	Dark	59.000	8	10Alp CMi	0.40000	6500.0	118	29056	No
184	GOM_NL__2PRFIN20070920_235910_000000602061_00445_29056_7135.N1	20-SEP-2007 23:59:10	Dark	60.000	1	9Alp CMa	-1.4400	11000.	120	29056	No

3. Quality information per product

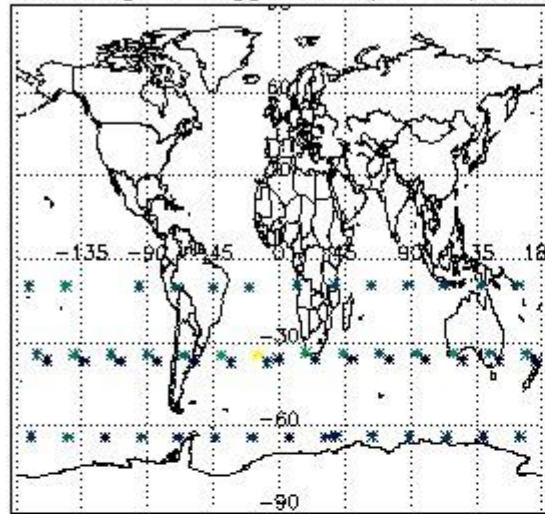
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

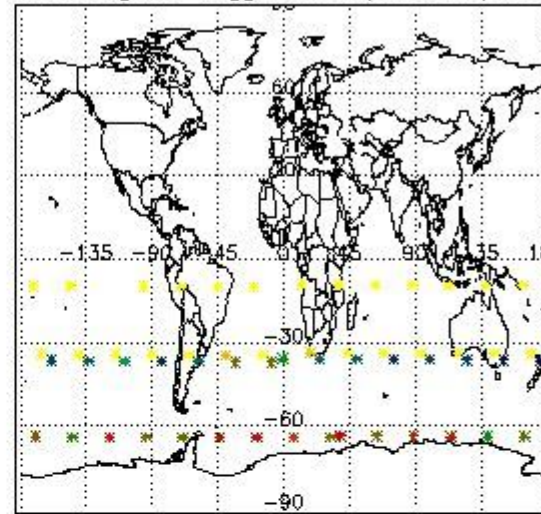


3.2 Plot quality information per product (world map)

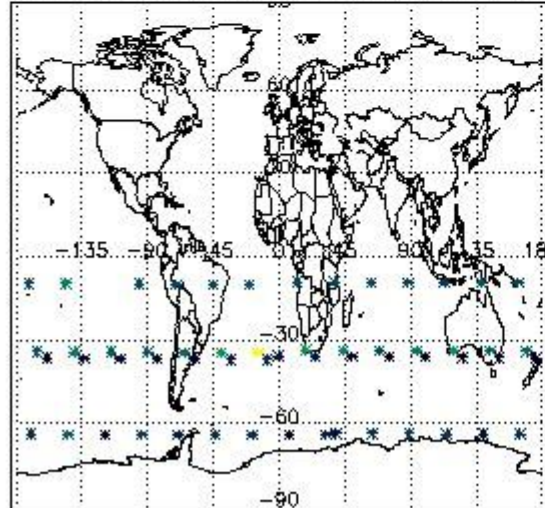
Percentage of flagged data per O3 profile



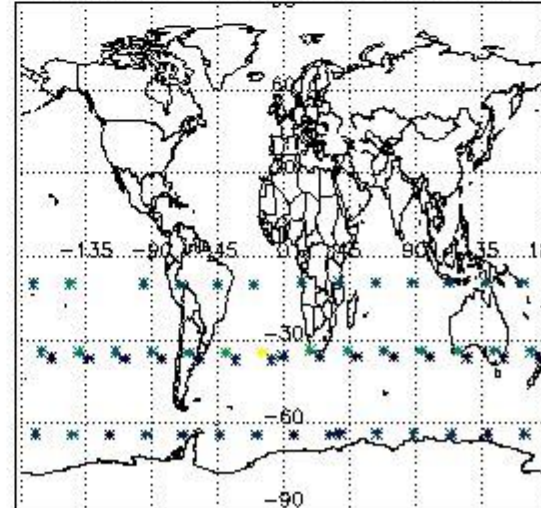
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

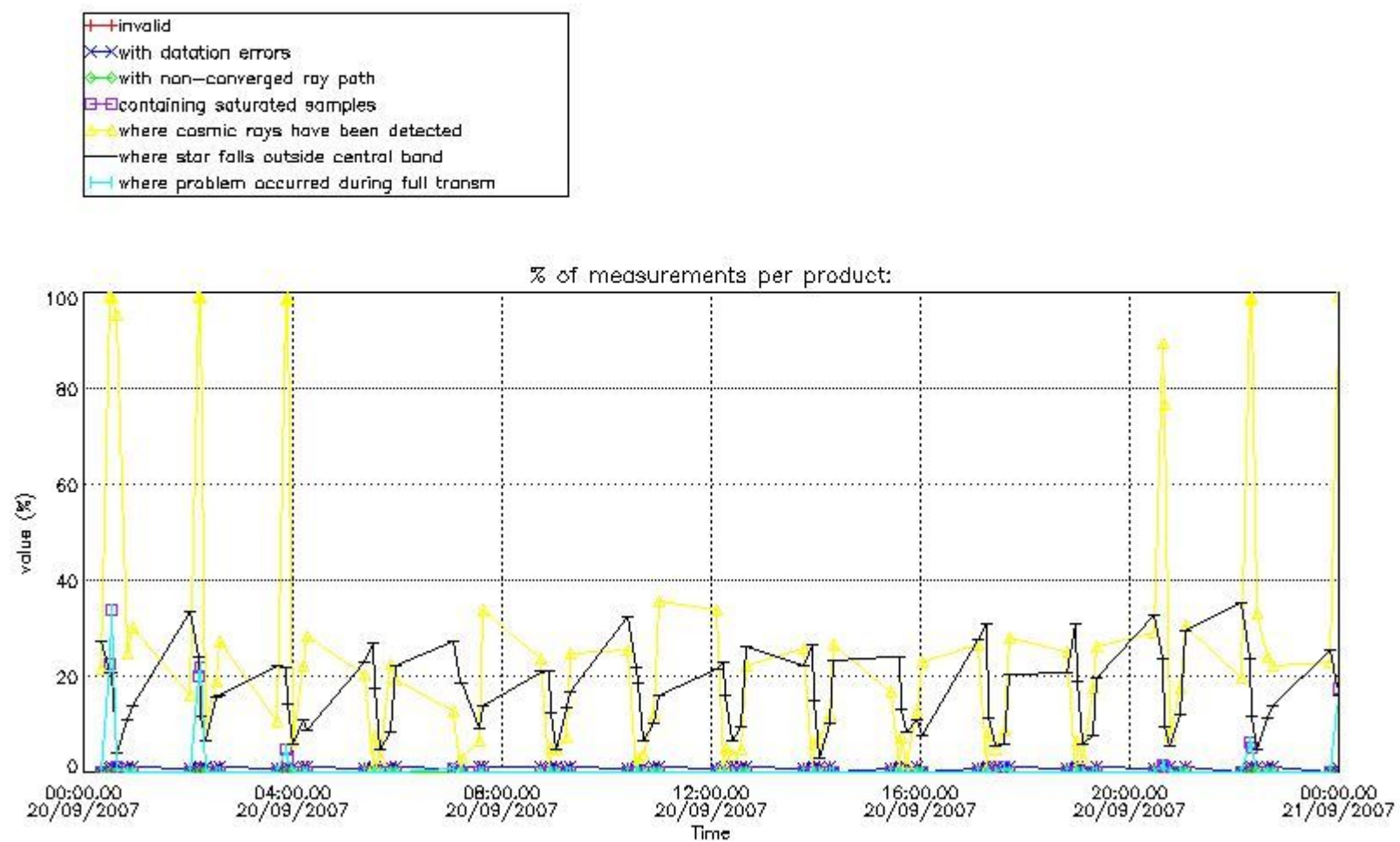


4. Level 1 quality information per product

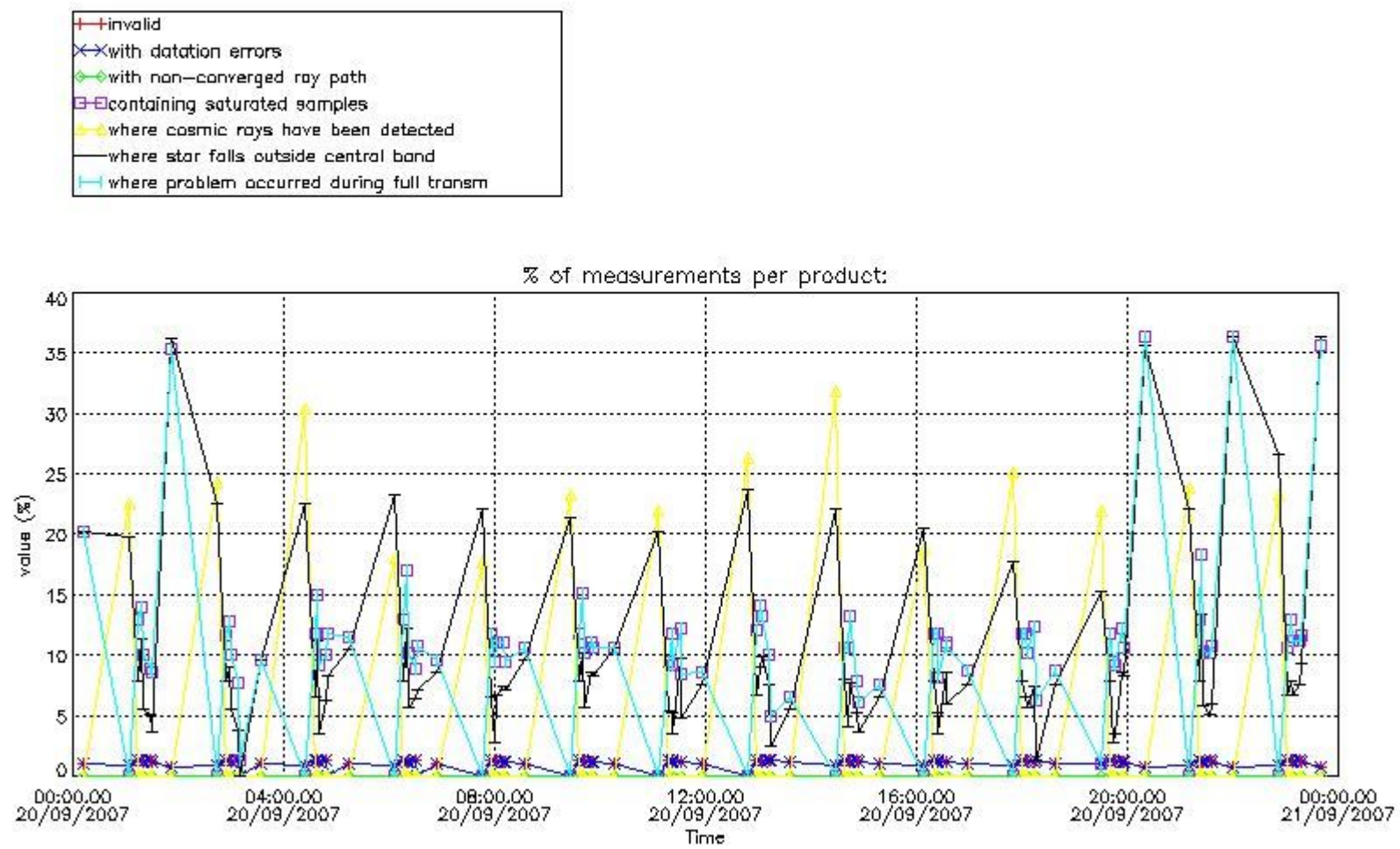
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



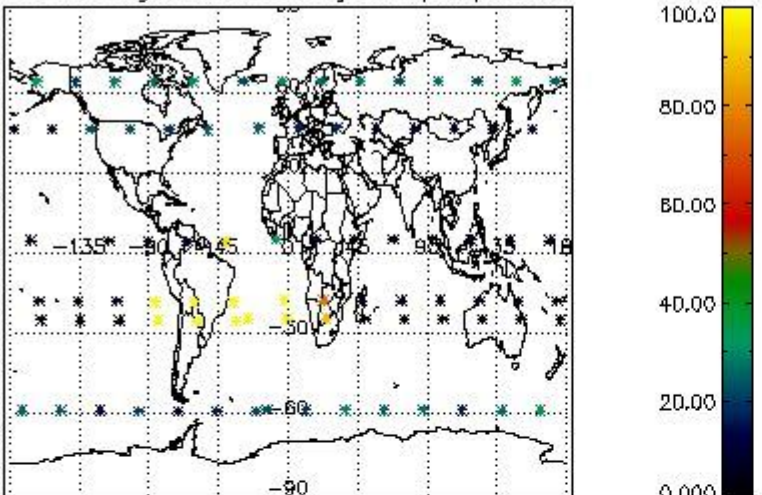
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



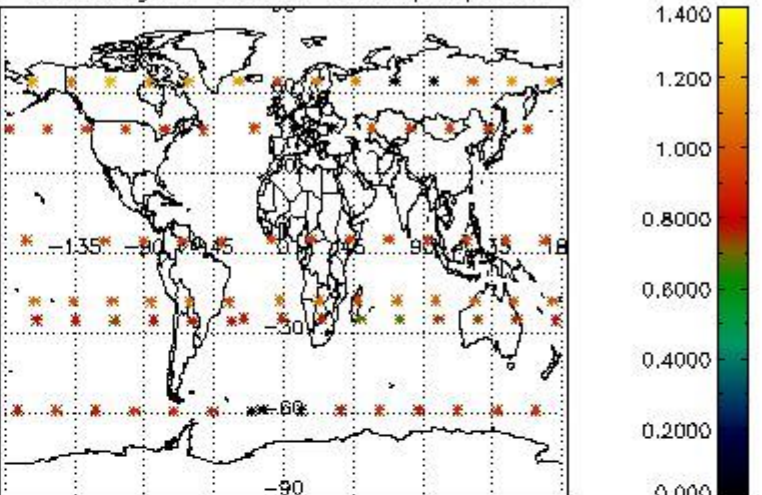
4.2 Plot quality information per product coming from level 1b processing (world map)

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

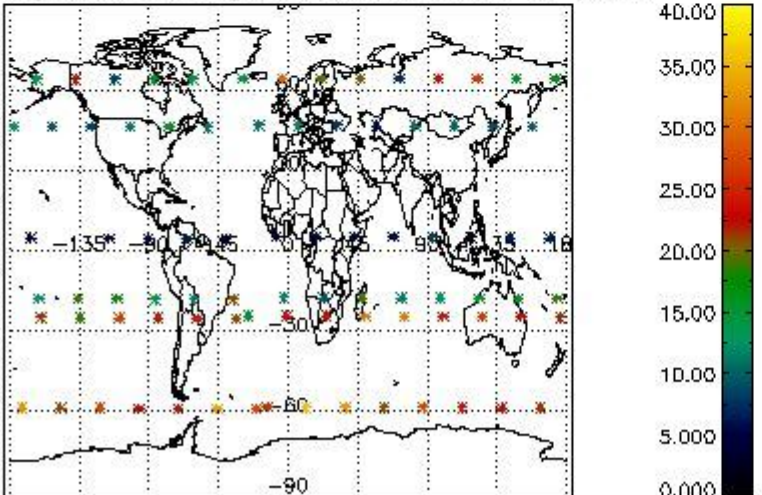
Percentage of cosmic ray hits per profile



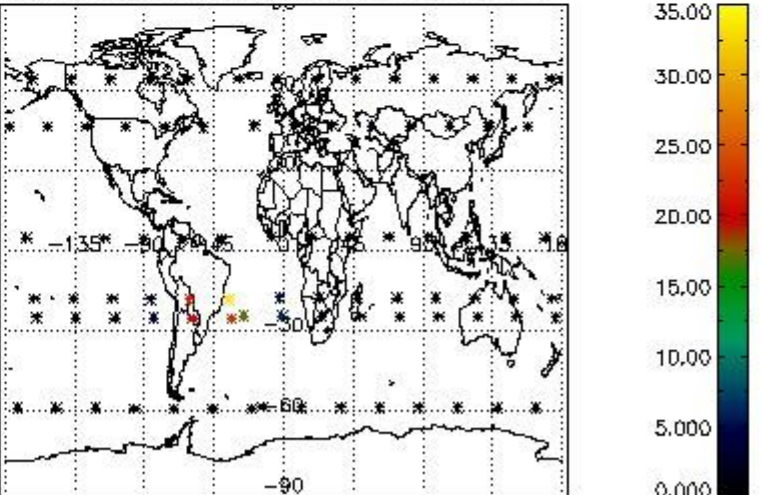
Percentage of datation errors per profile



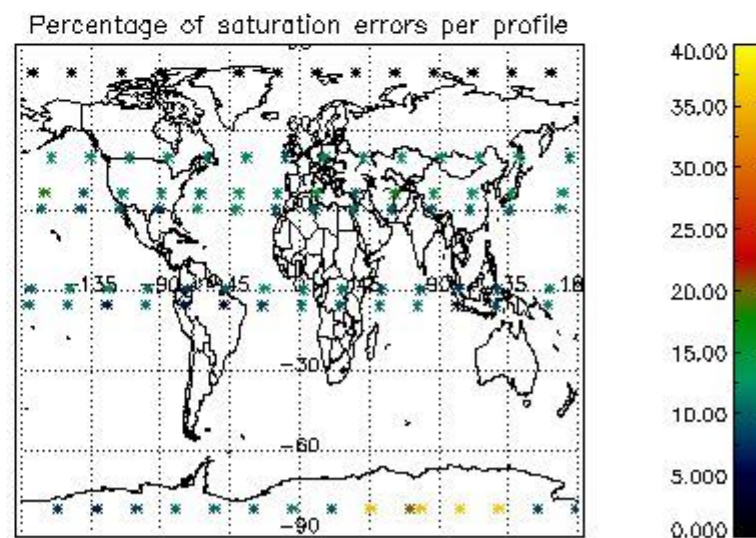
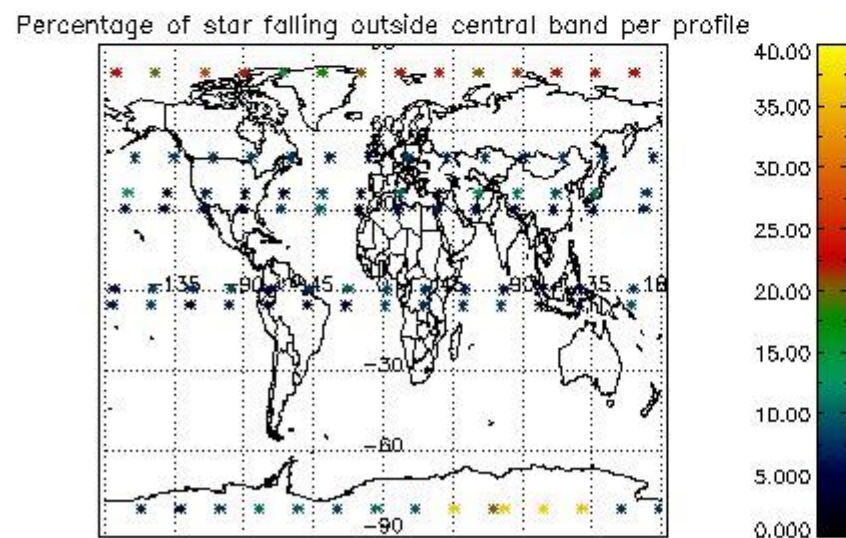
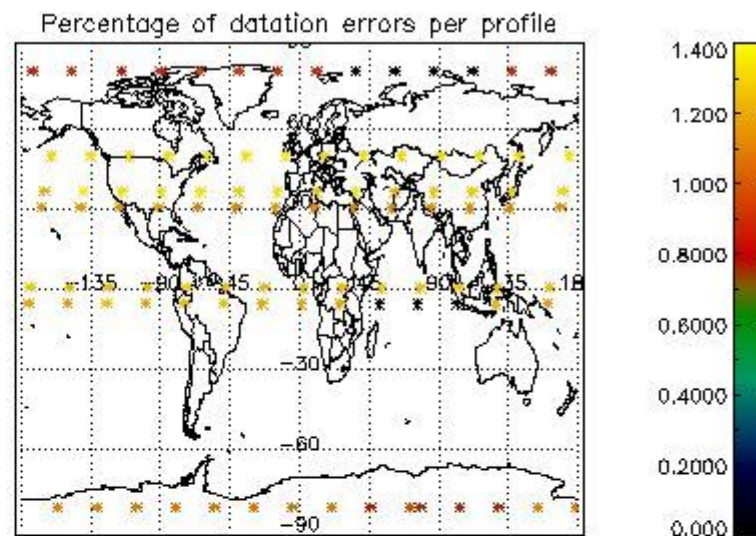
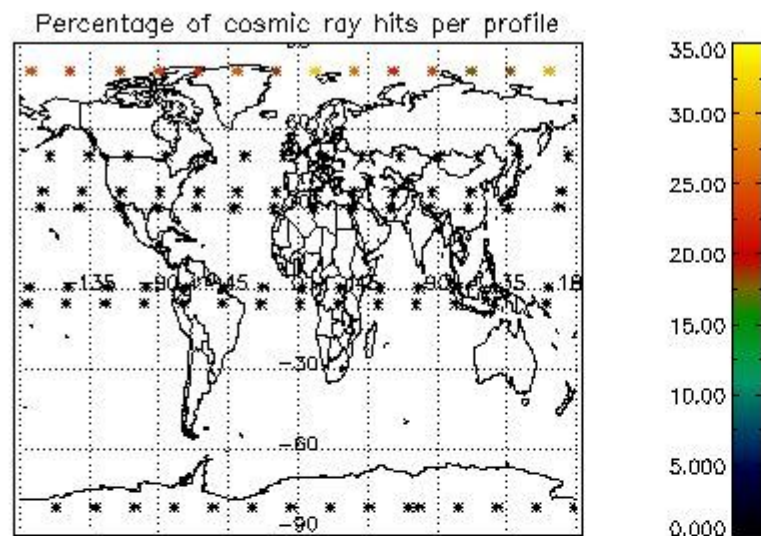
Percentage of star falling outside central band per profile



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

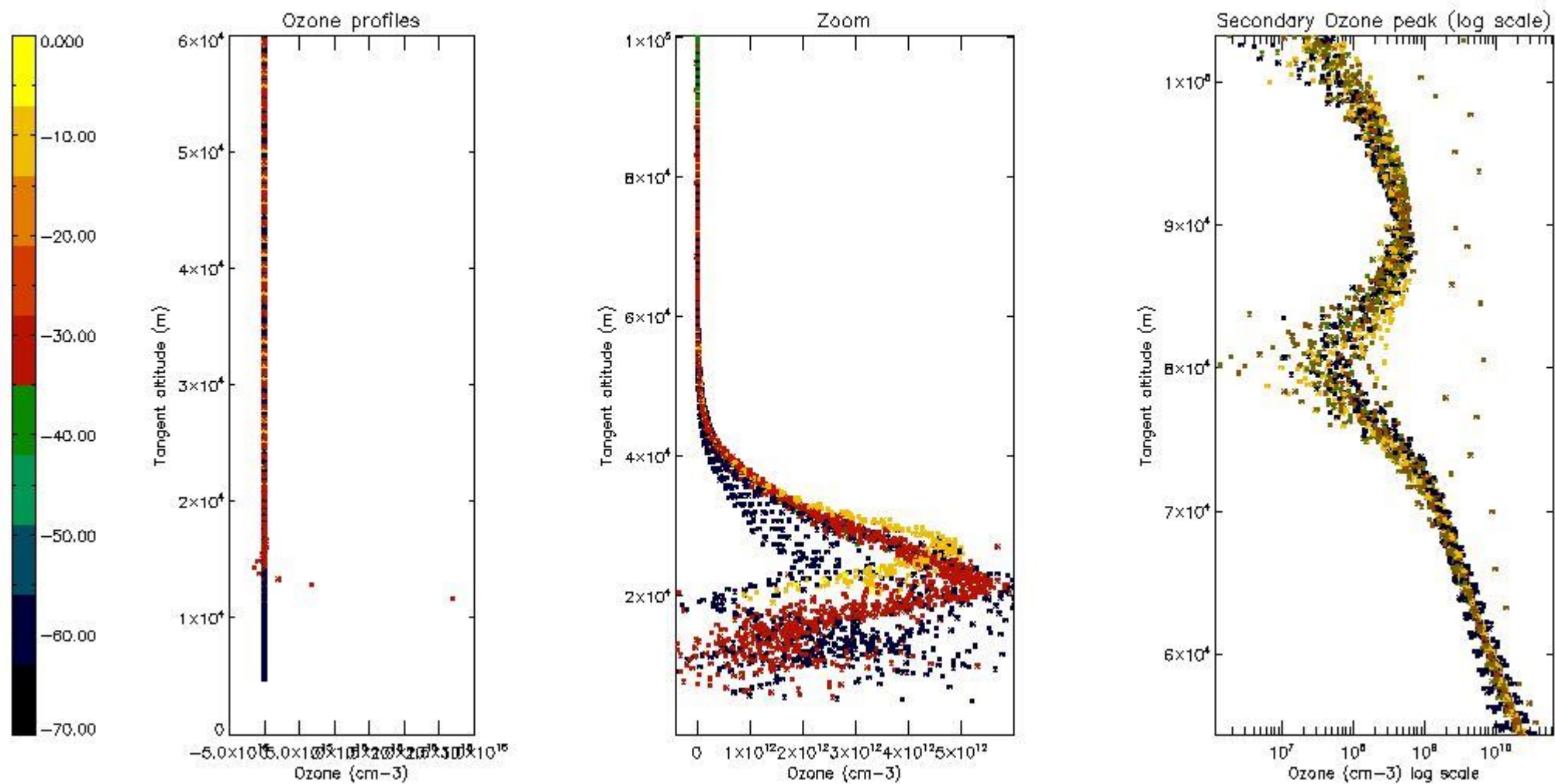
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	37
STD < 20	26

STD < 10	23
STD < 5	19

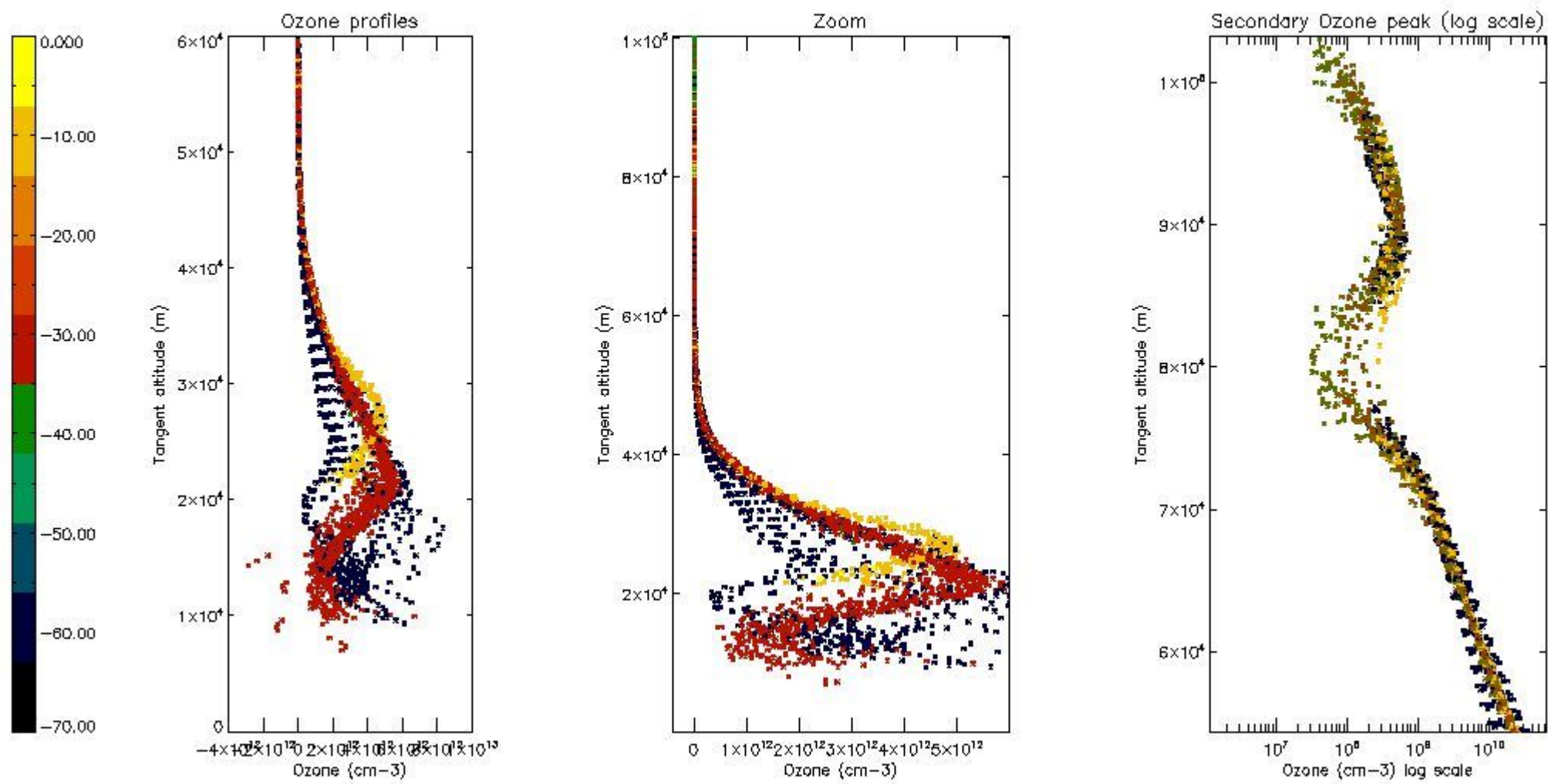
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



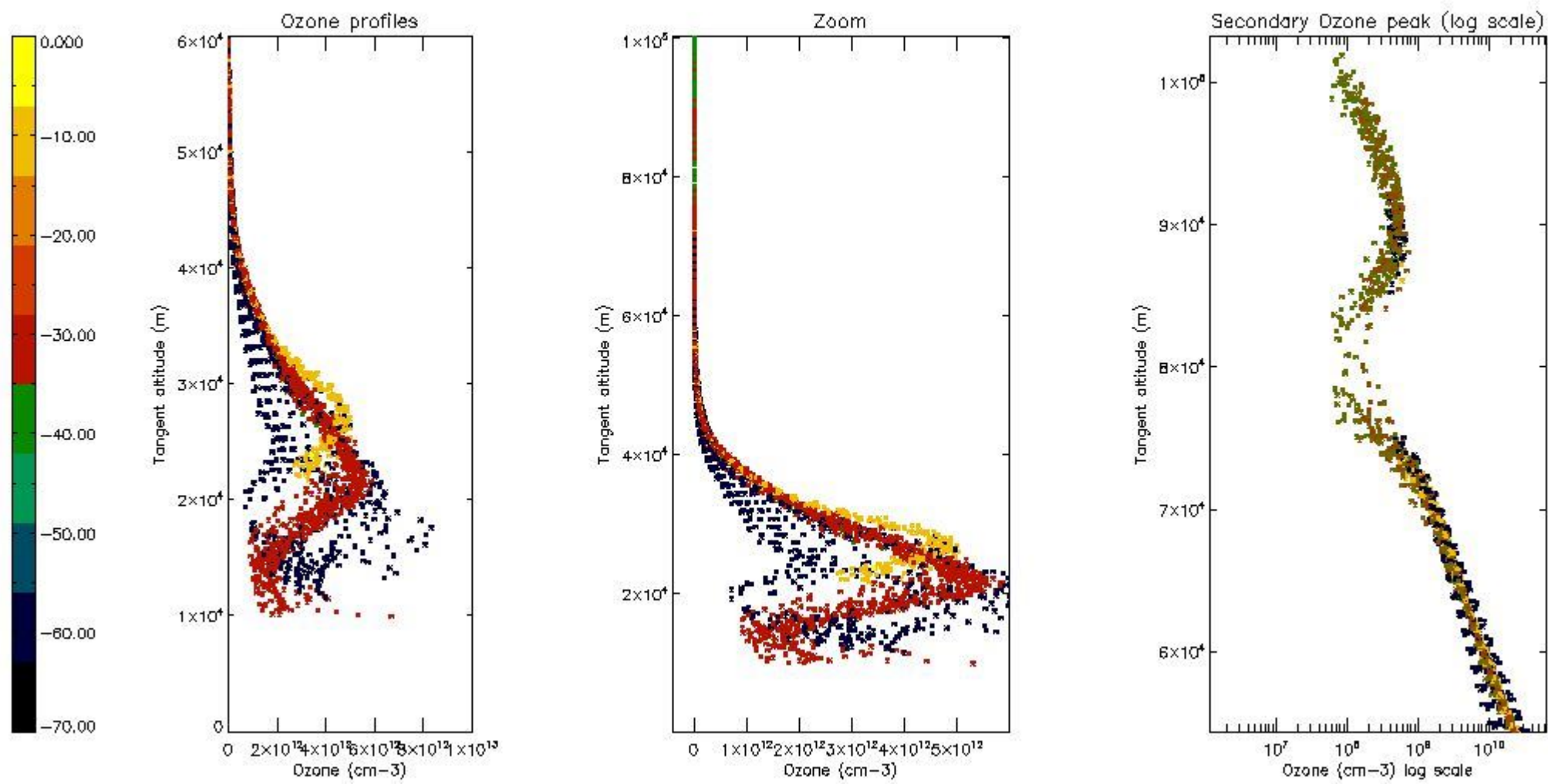
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



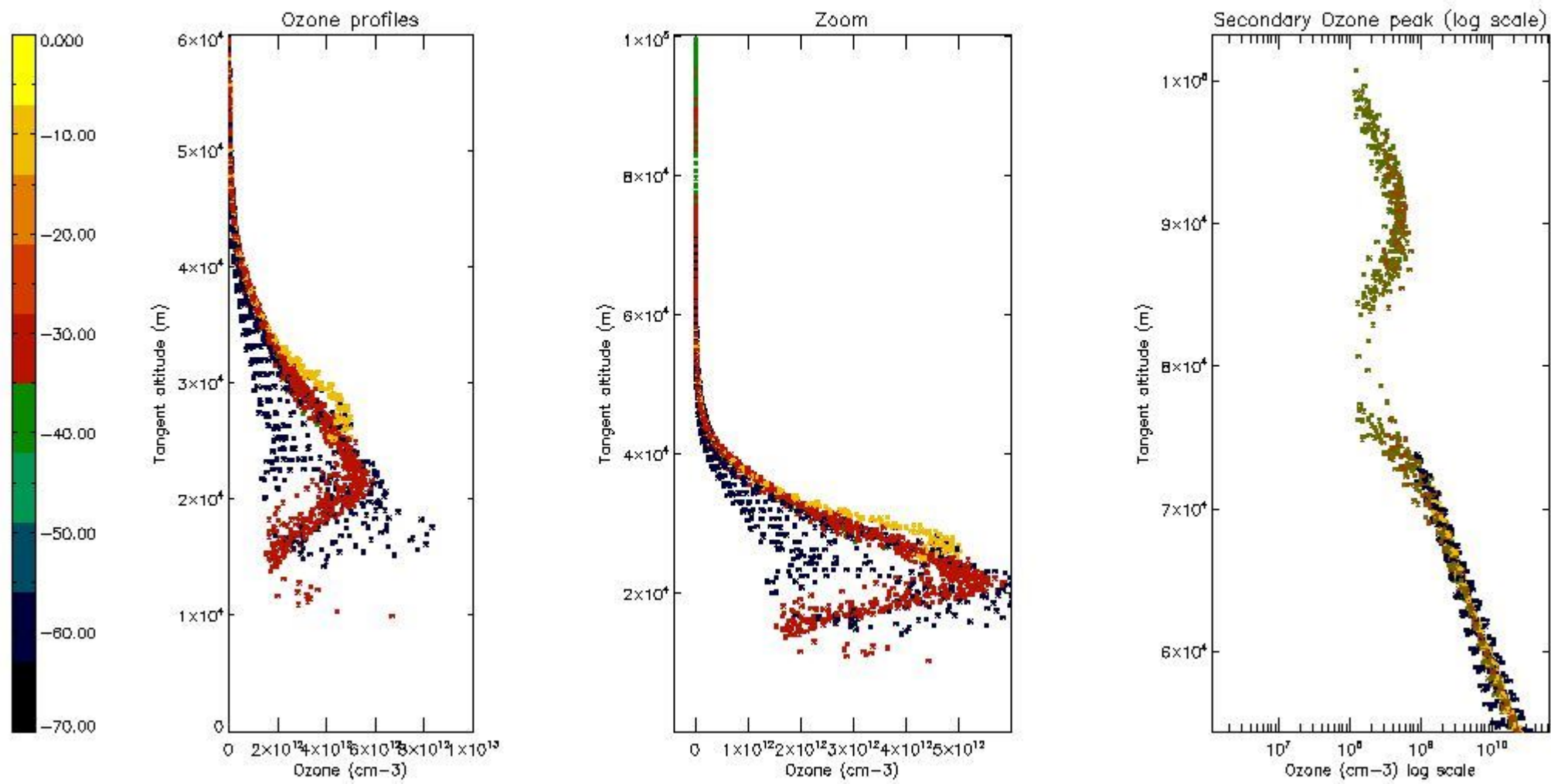
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



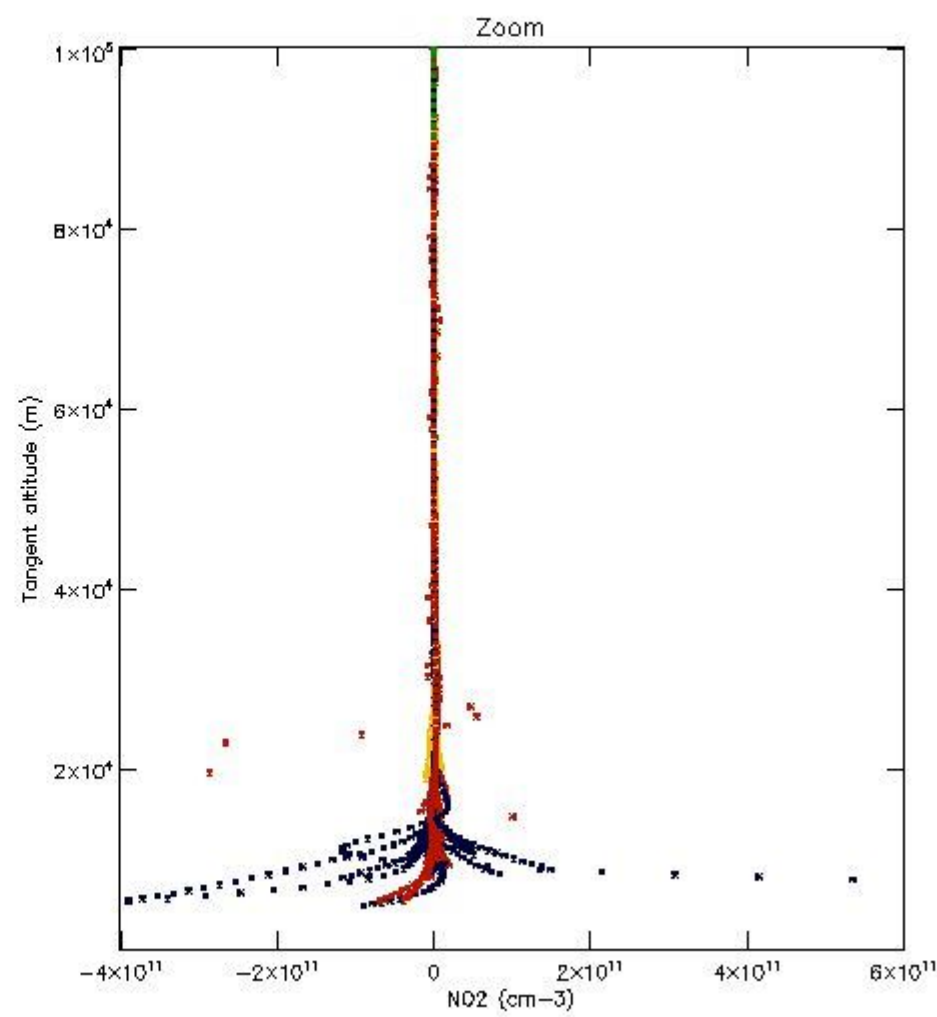
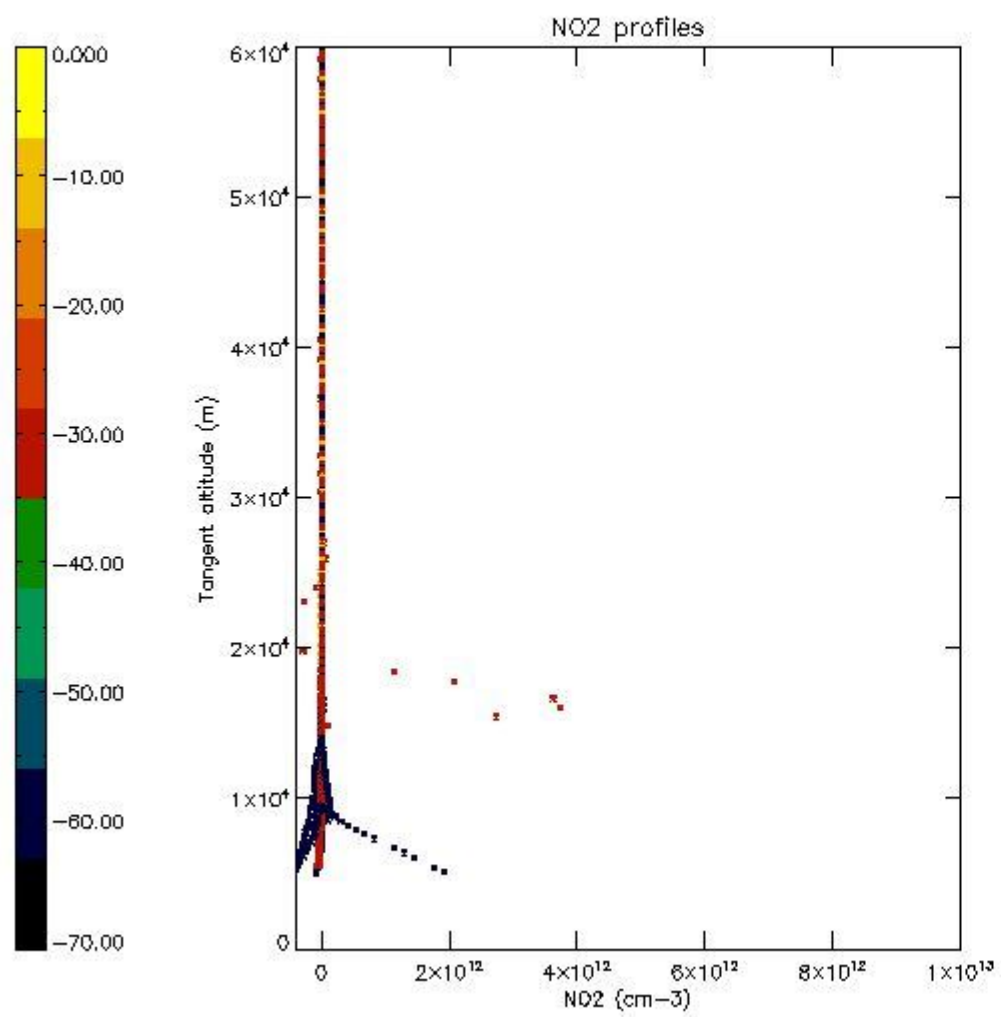
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



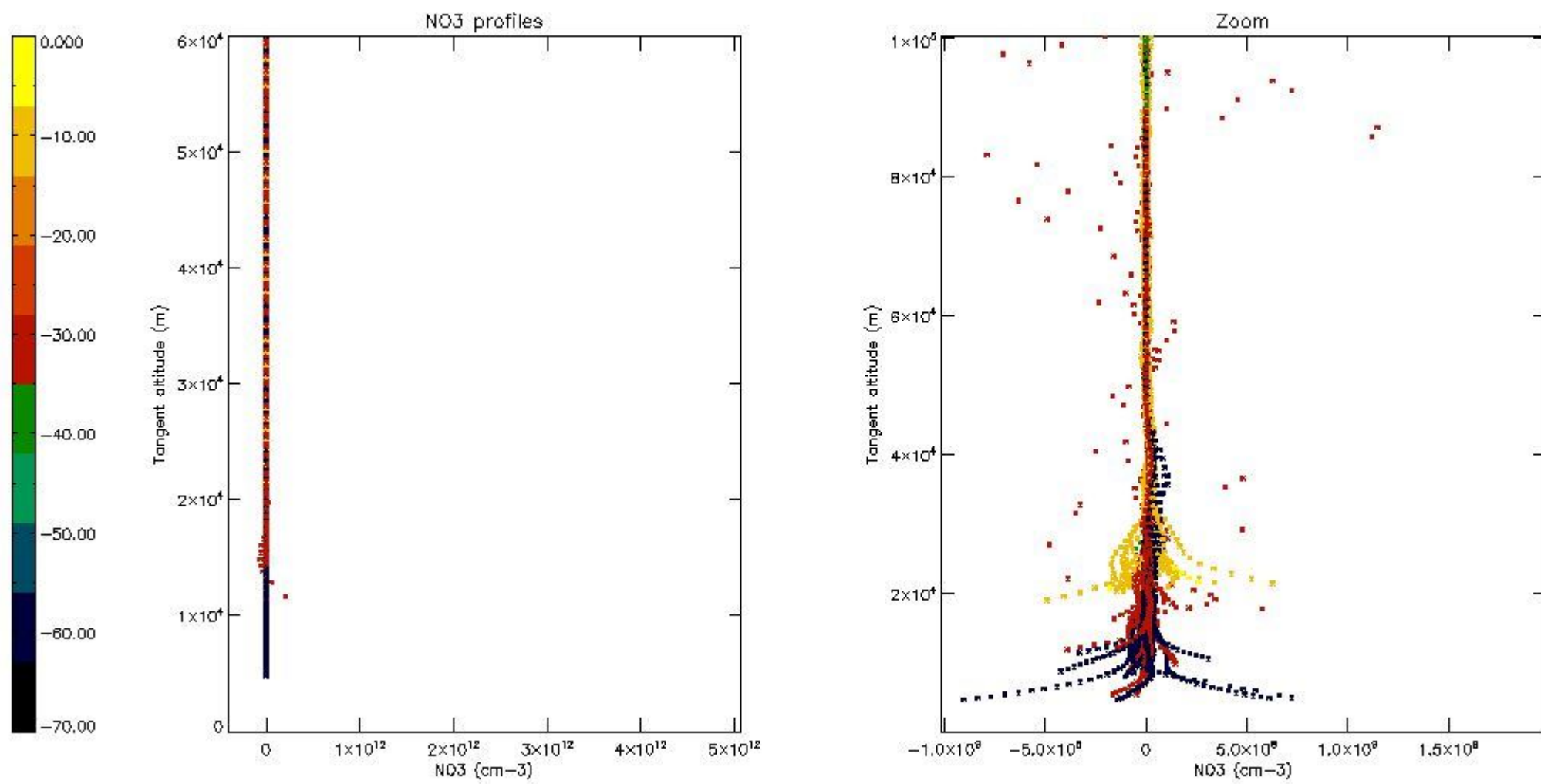
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



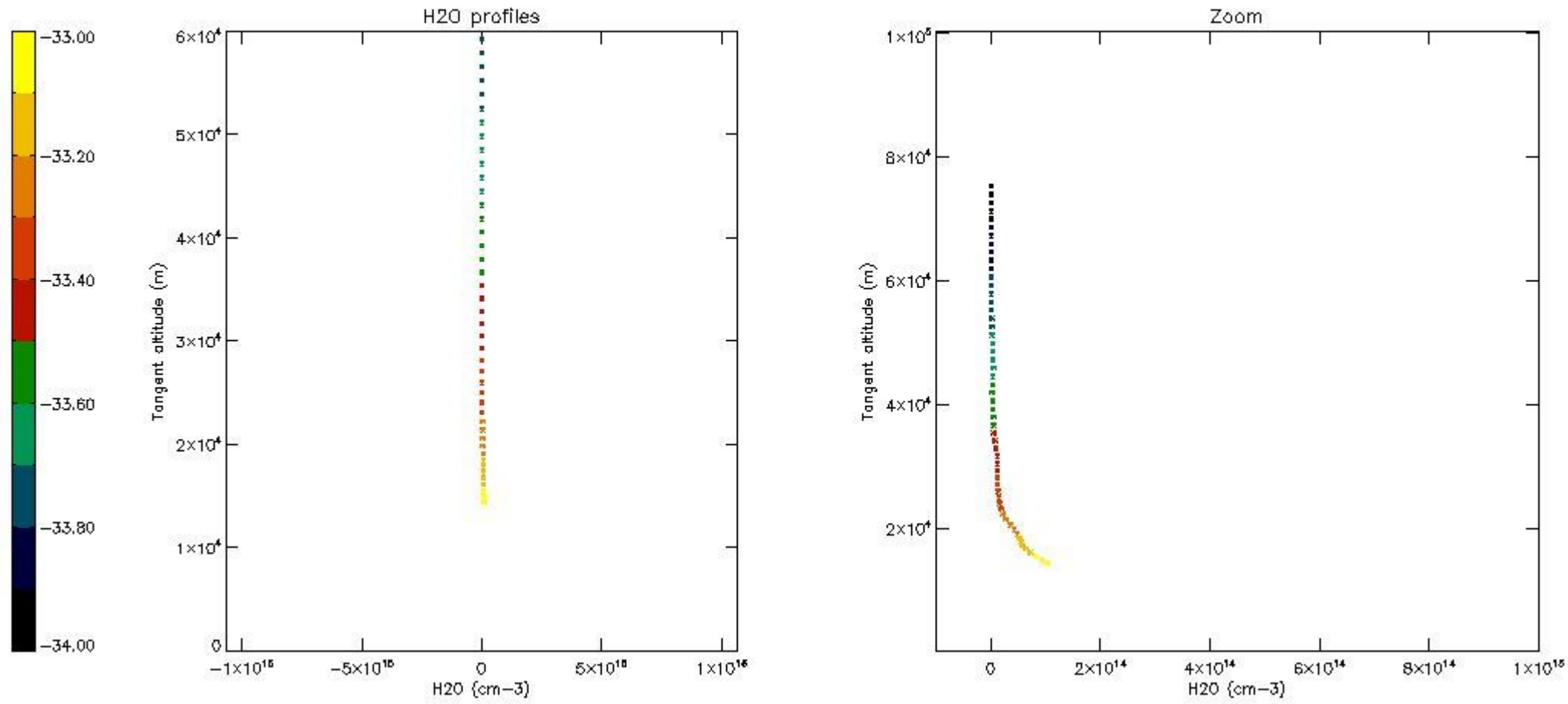
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

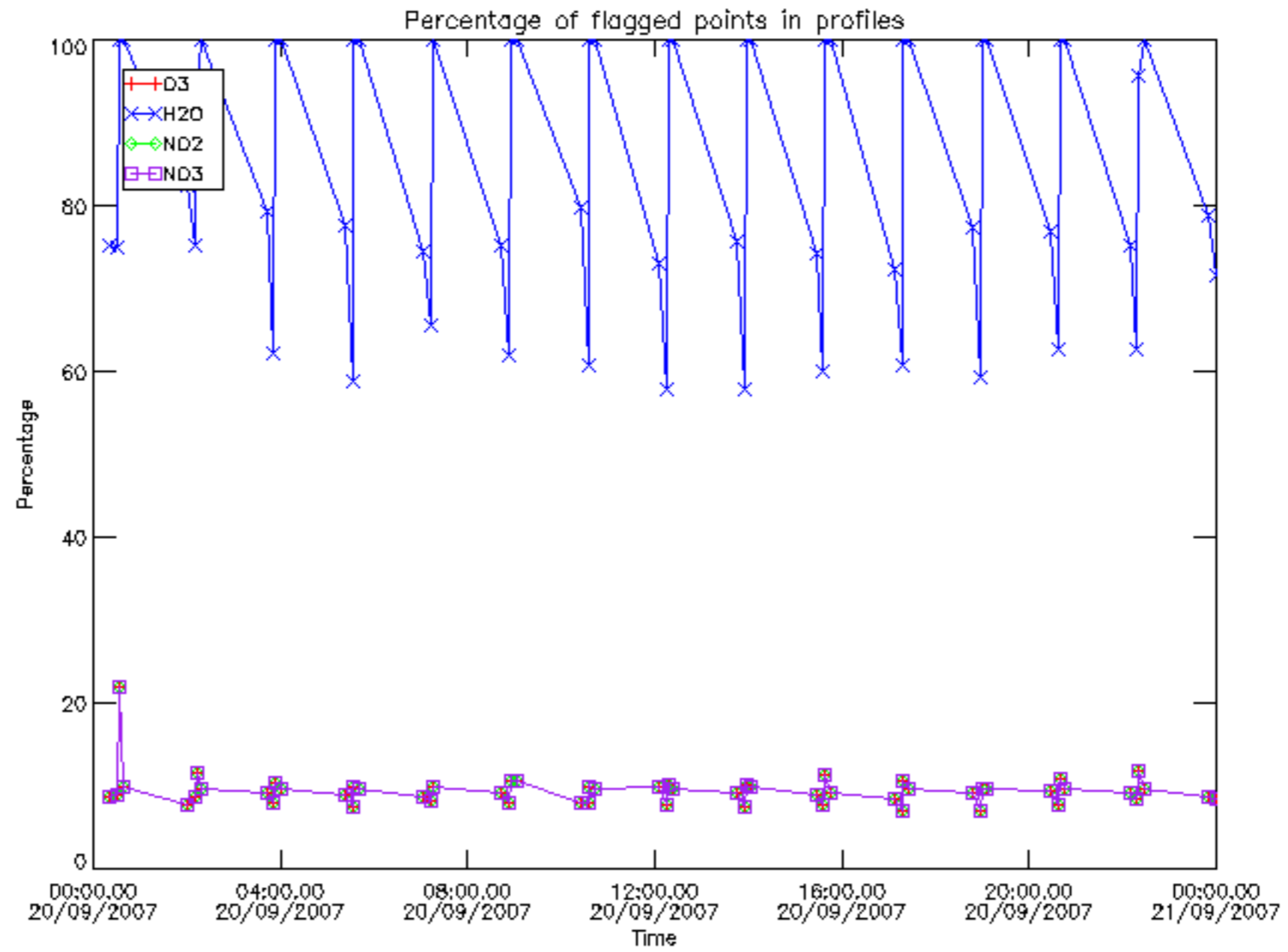
The colorbar represents the latitude.



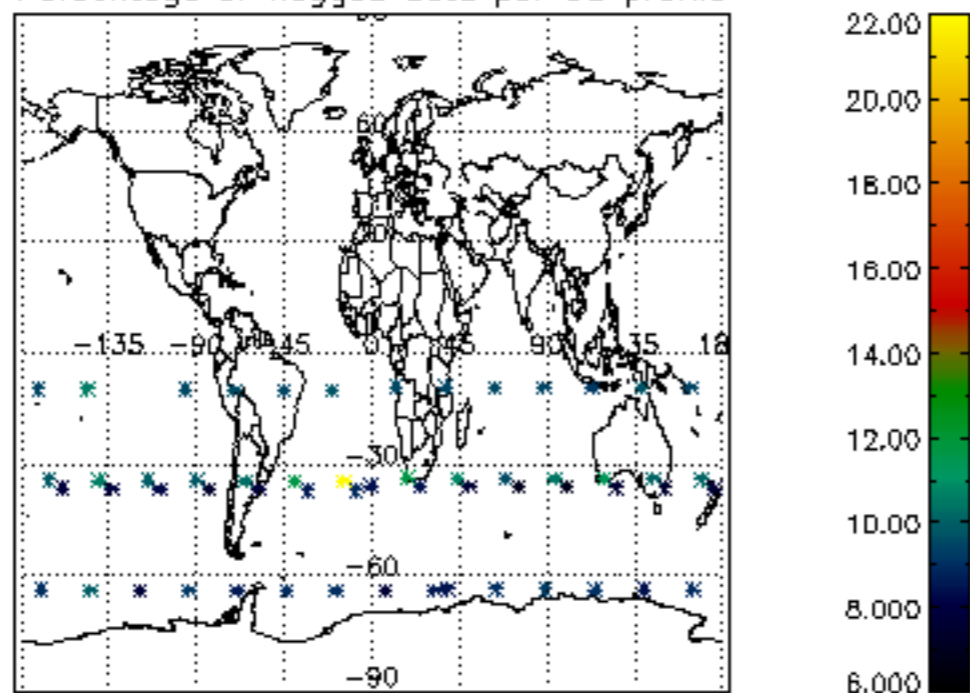
6. Auxiliary Data Files used for the production reported in section 2

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.

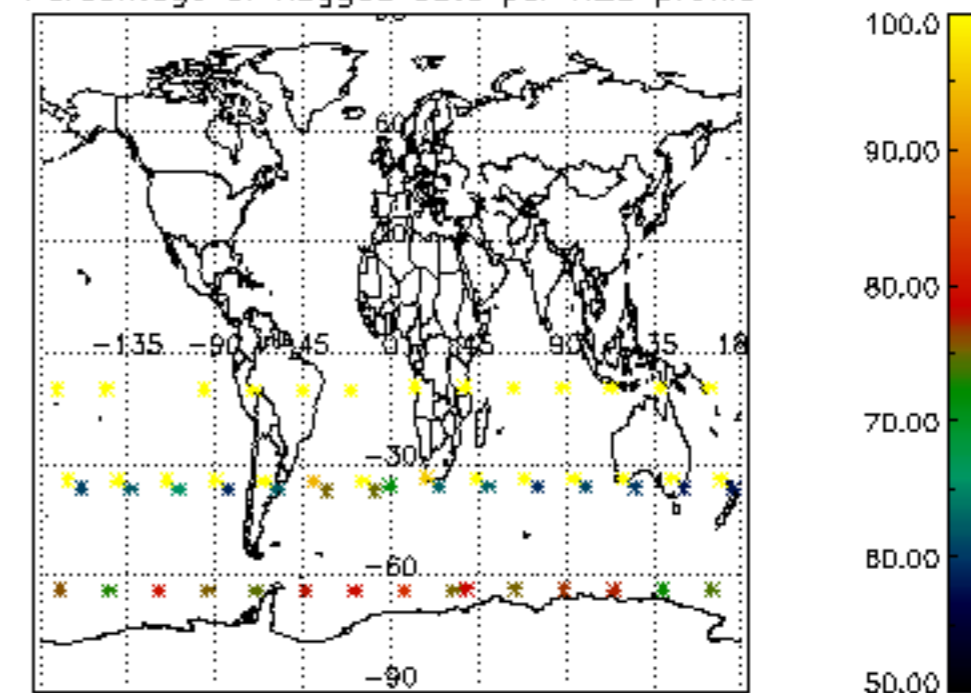
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	20-SEP-2007 00:11:51
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	20-SEP-2007 00:11:51
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	20-SEP-2007 00:11:51



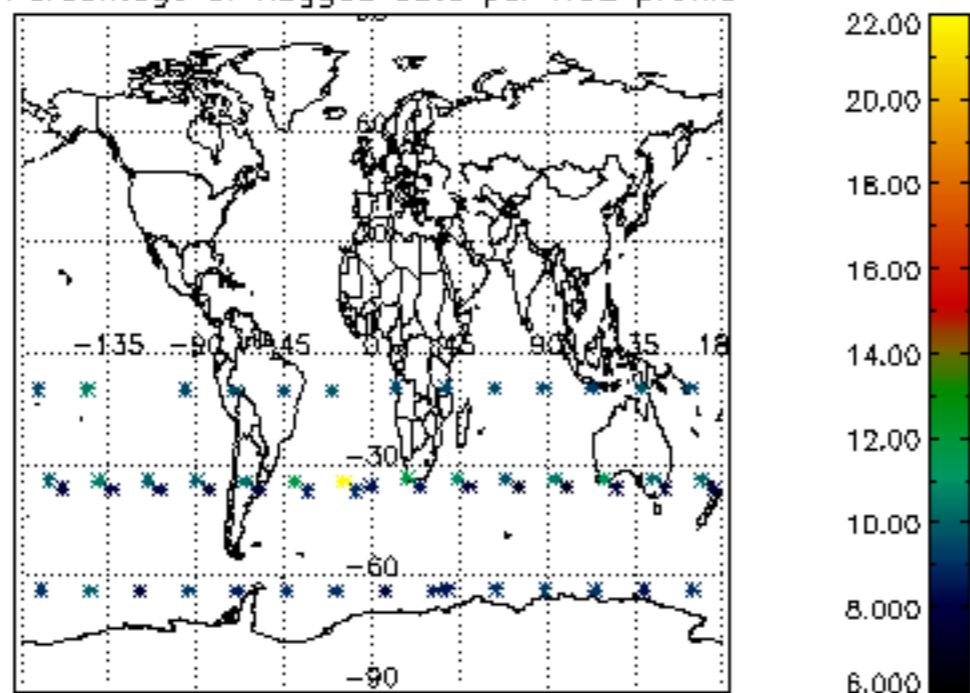
Percentage of flagged data per D3 profile



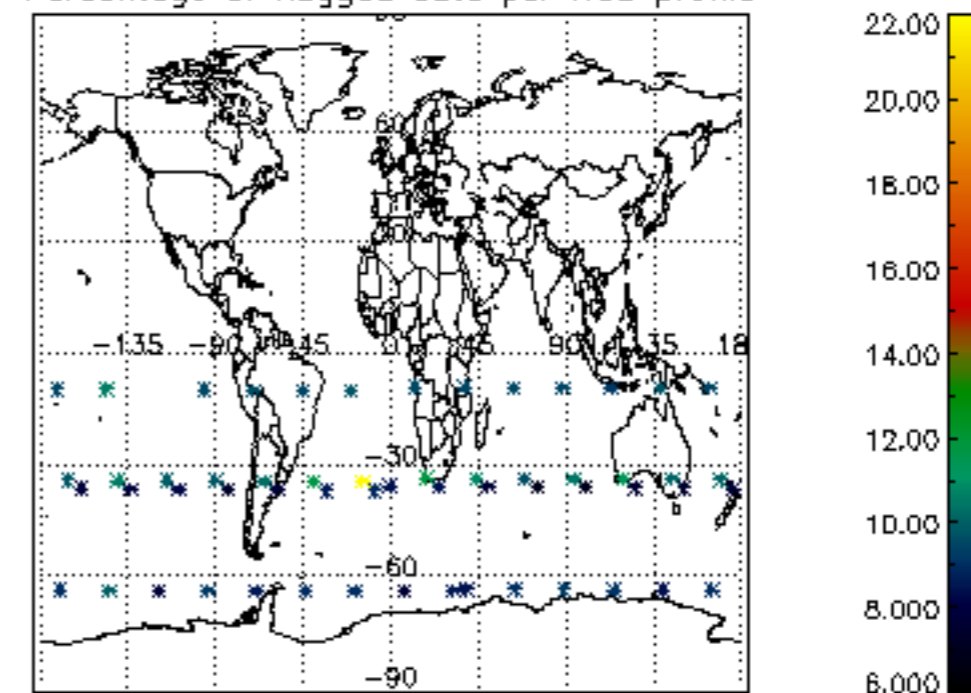
Percentage of flagged data per H2O profile

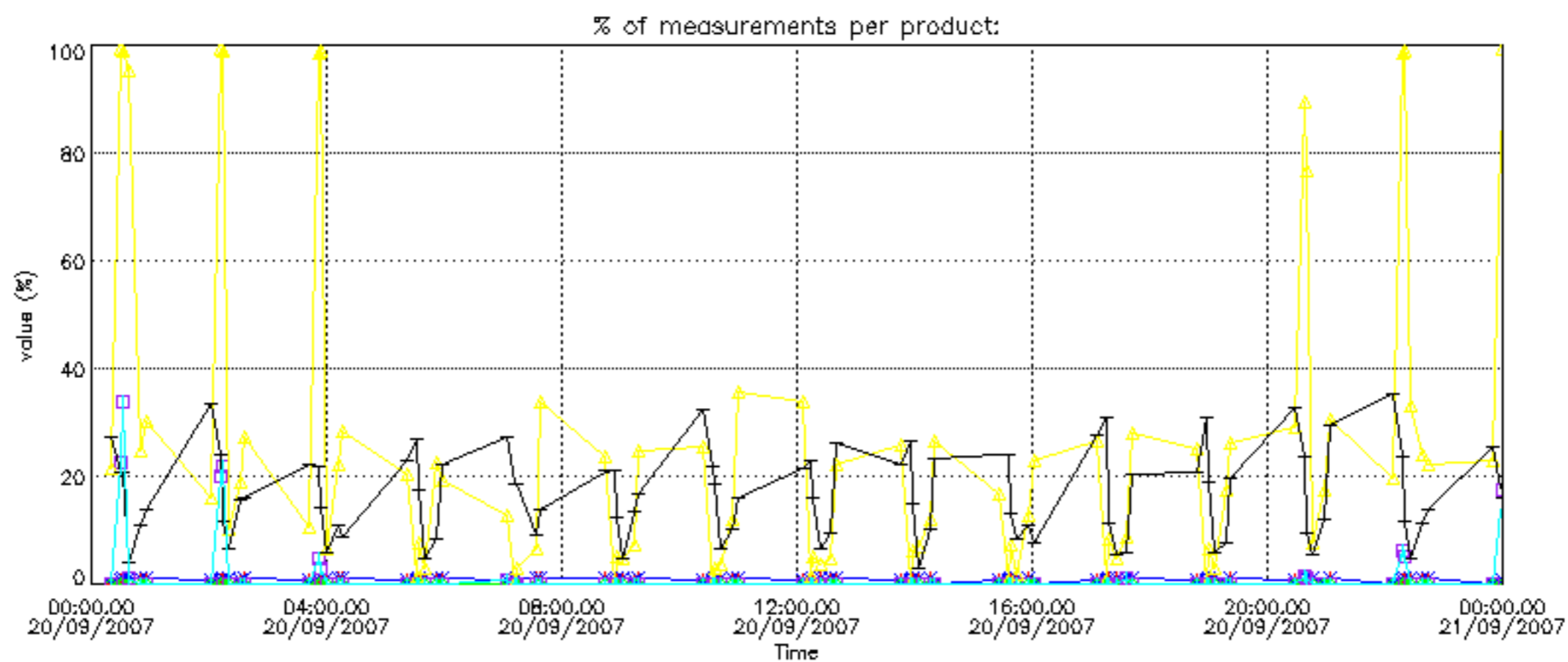
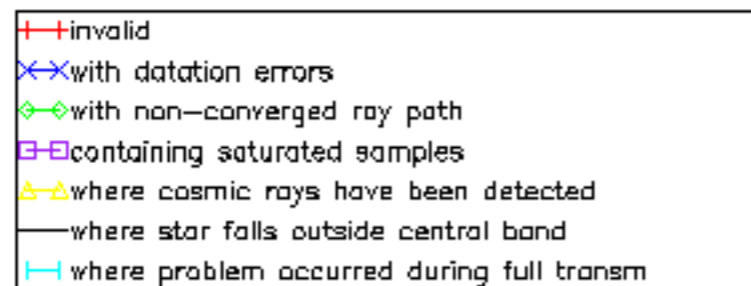


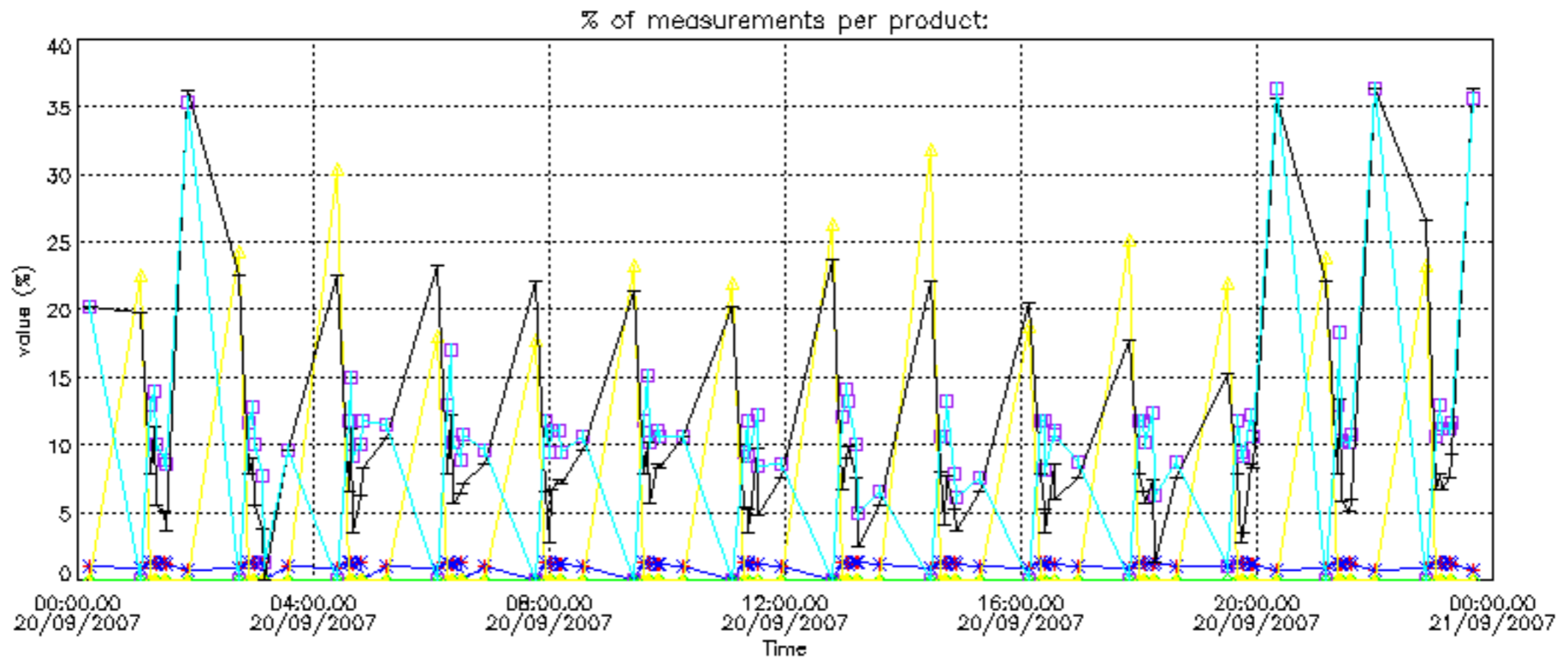
Percentage of flagged data per NO2 profile



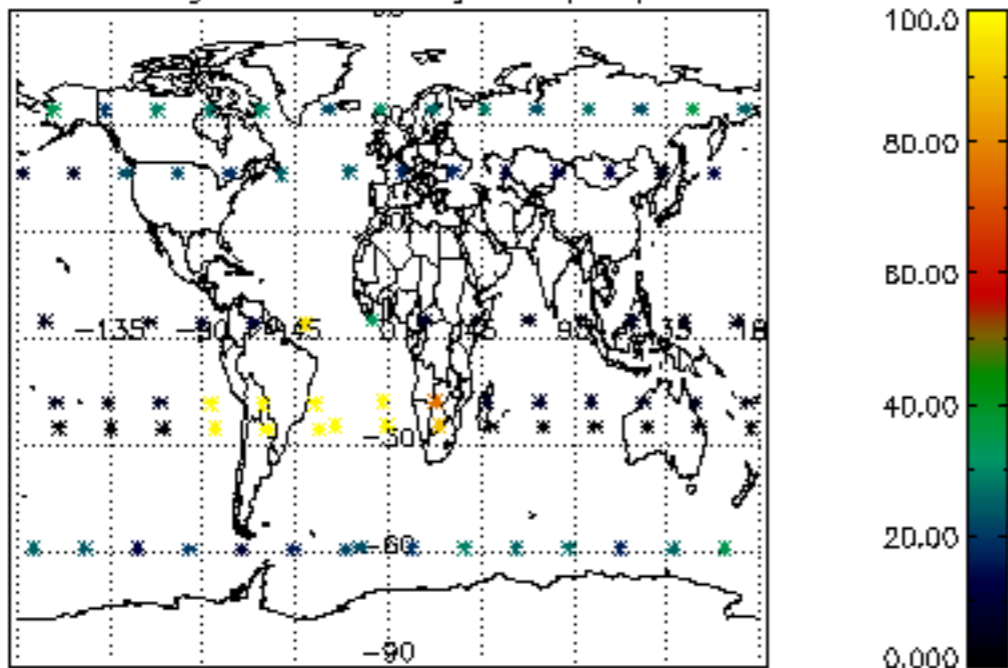
Percentage of flagged data per NO3 profile



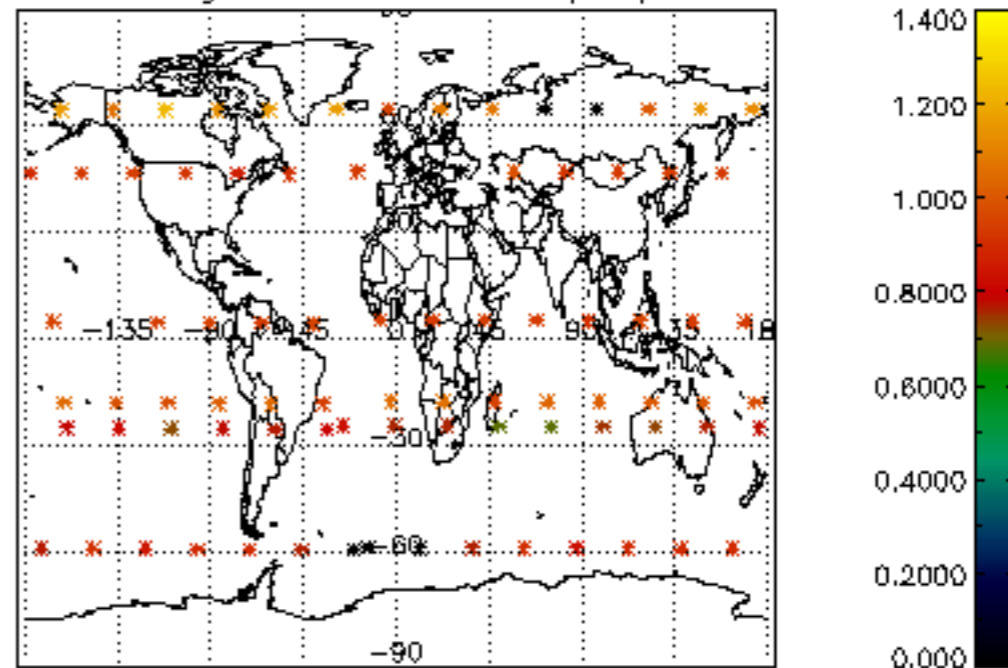




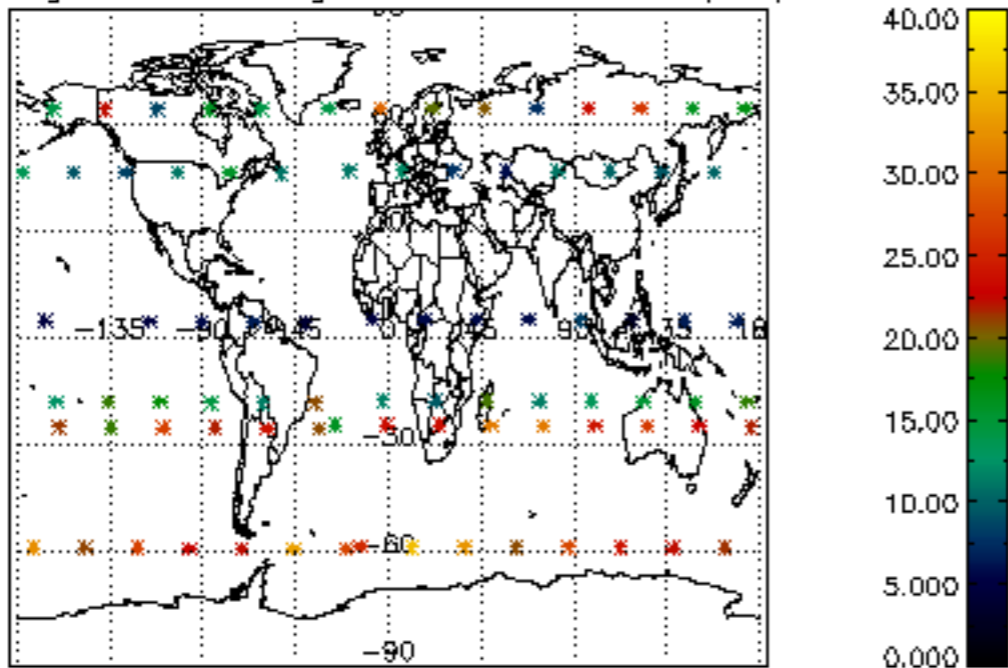
Percentage of cosmic ray hits per profile



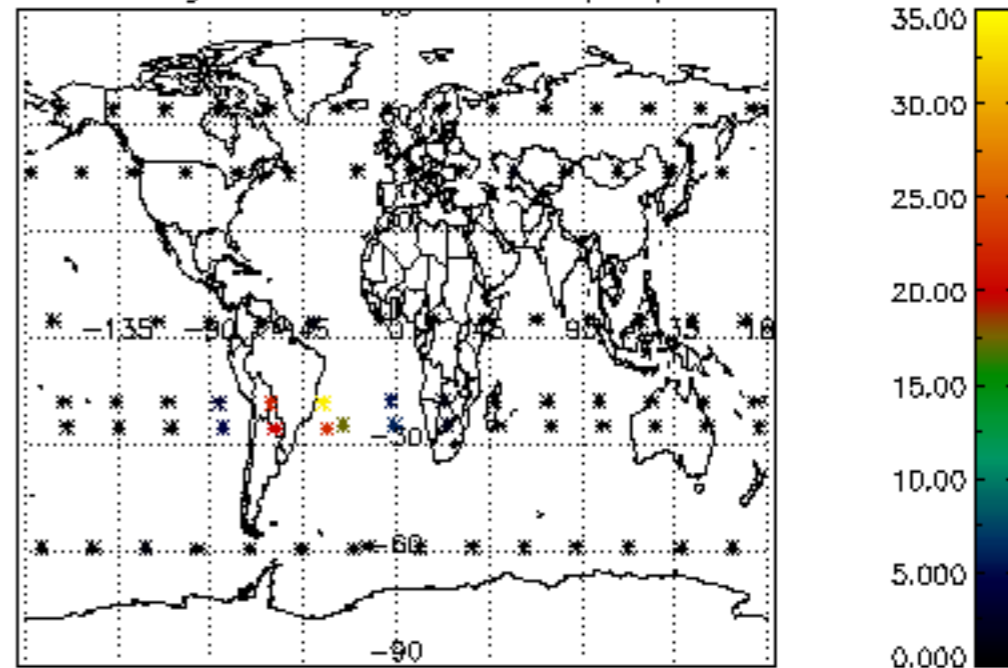
Percentage of datation errors per profile



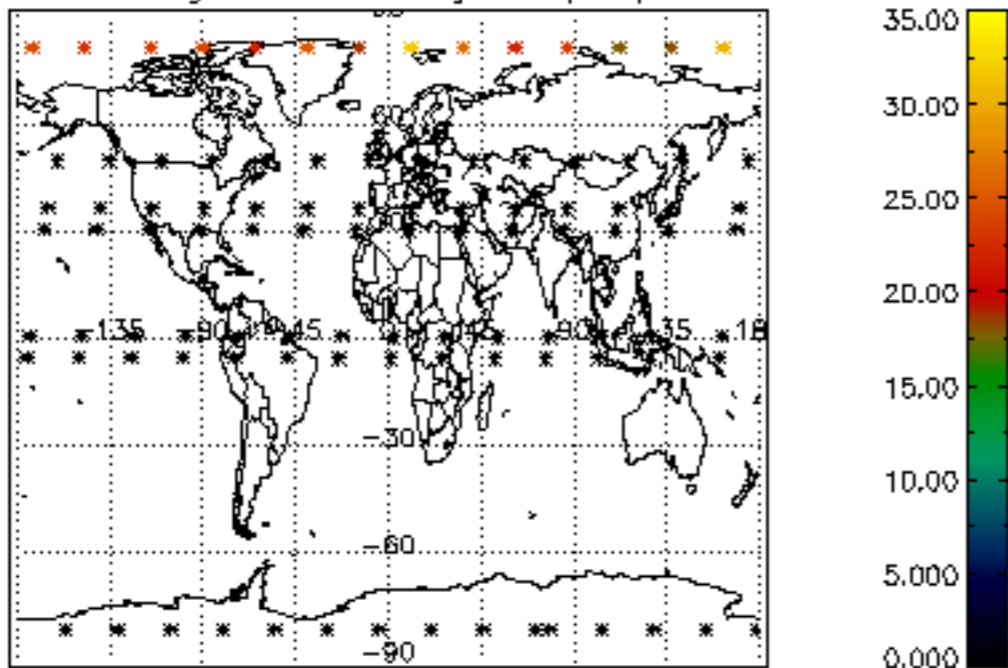
Percentage of star falling outside central band per profile



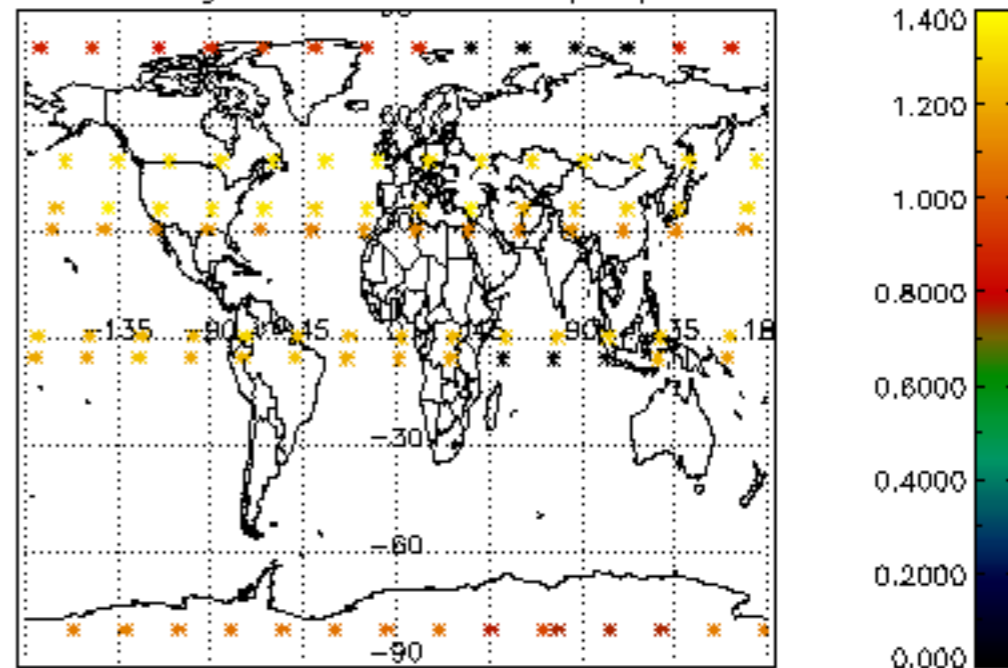
Percentage of saturation errors per profile



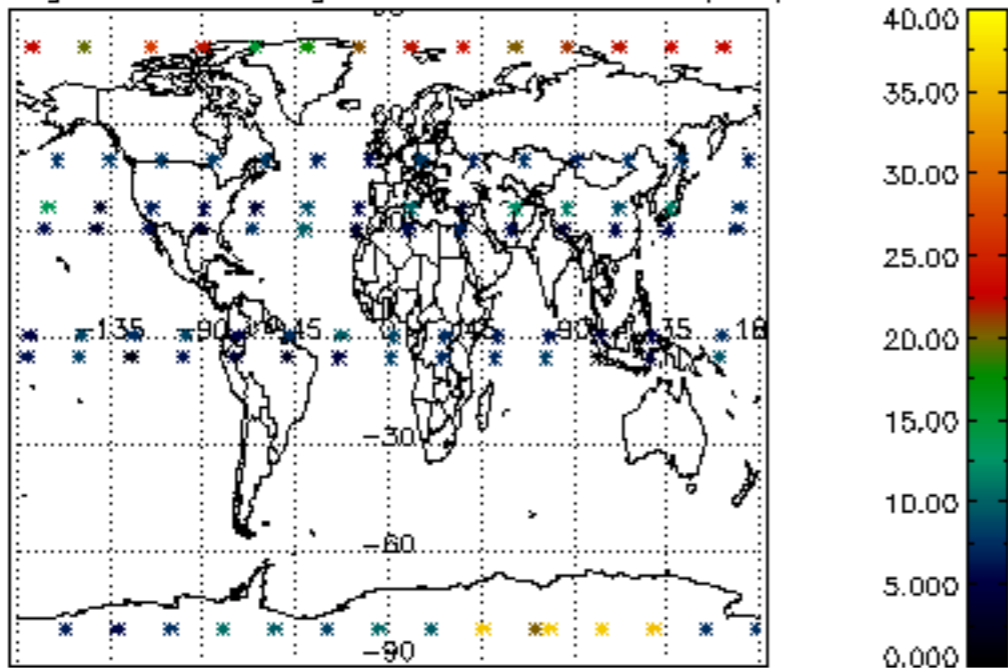
Percentage of cosmic ray hits per profile



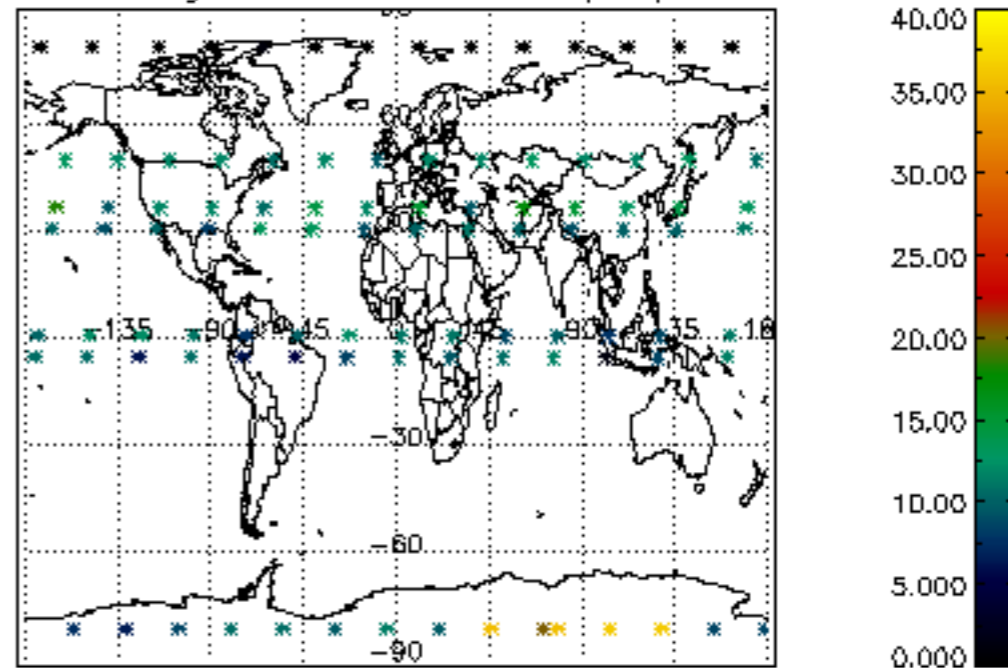
Percentage of datation errors per profile

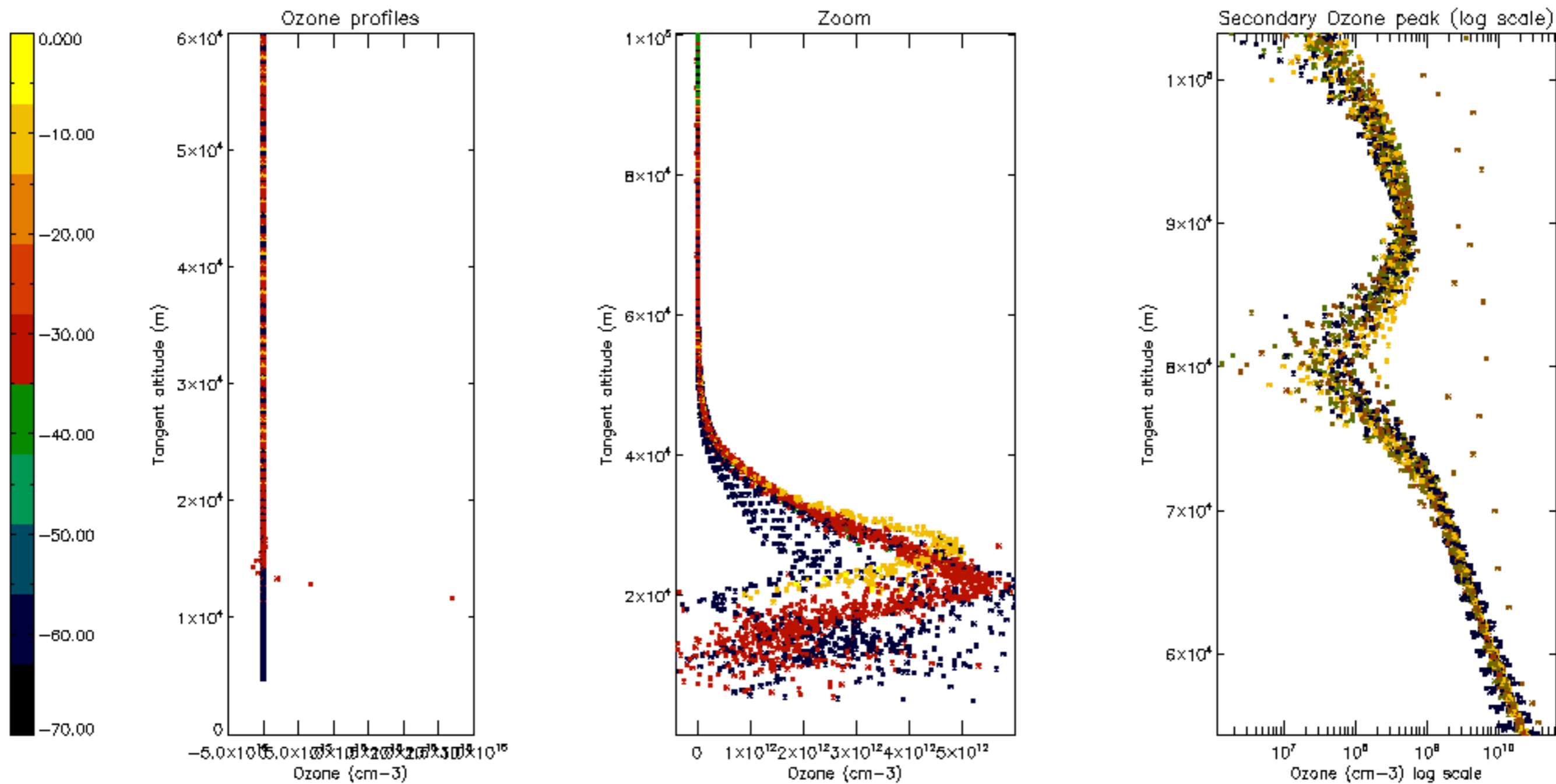


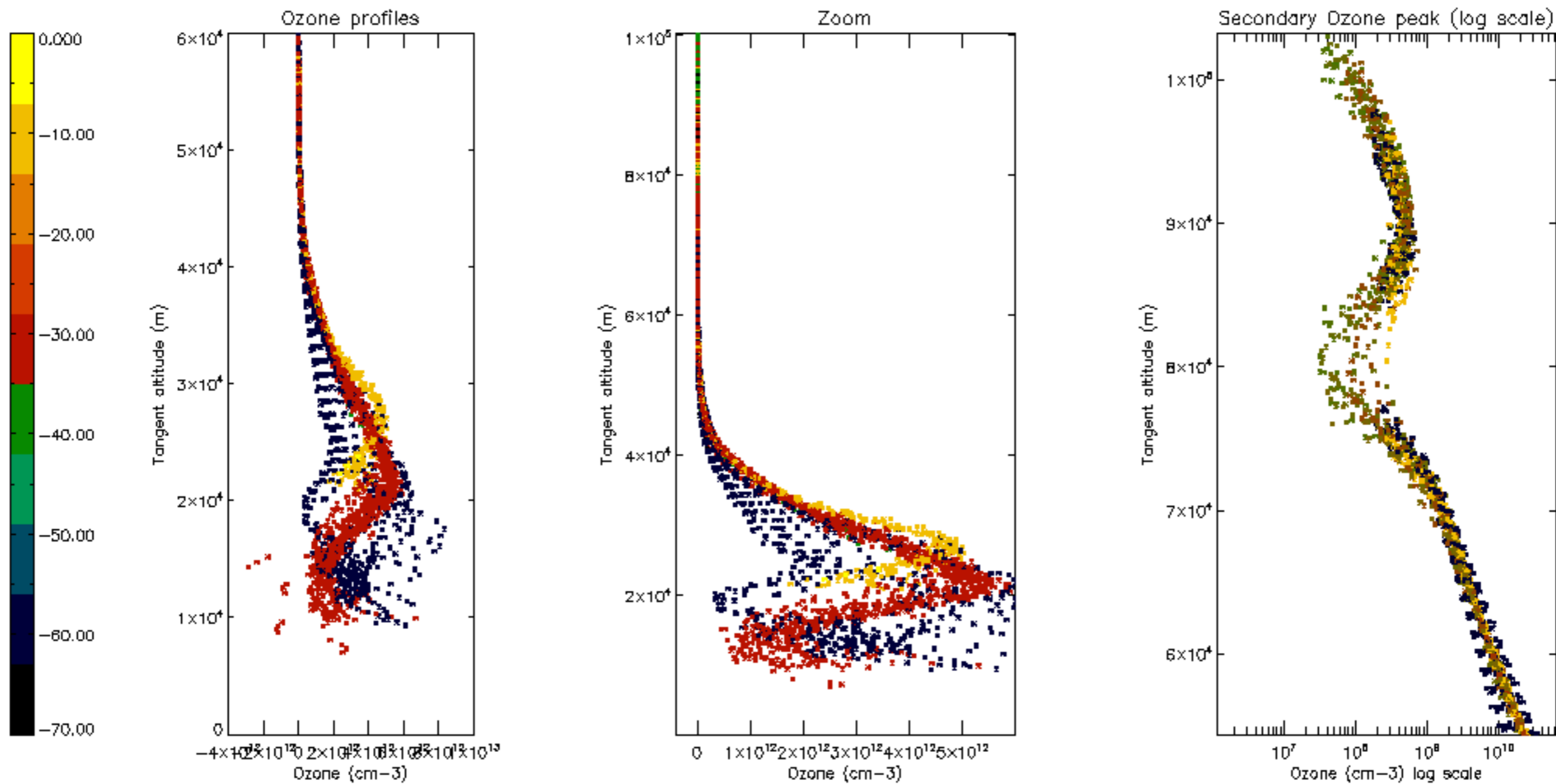
Percentage of star falling outside central band per profile

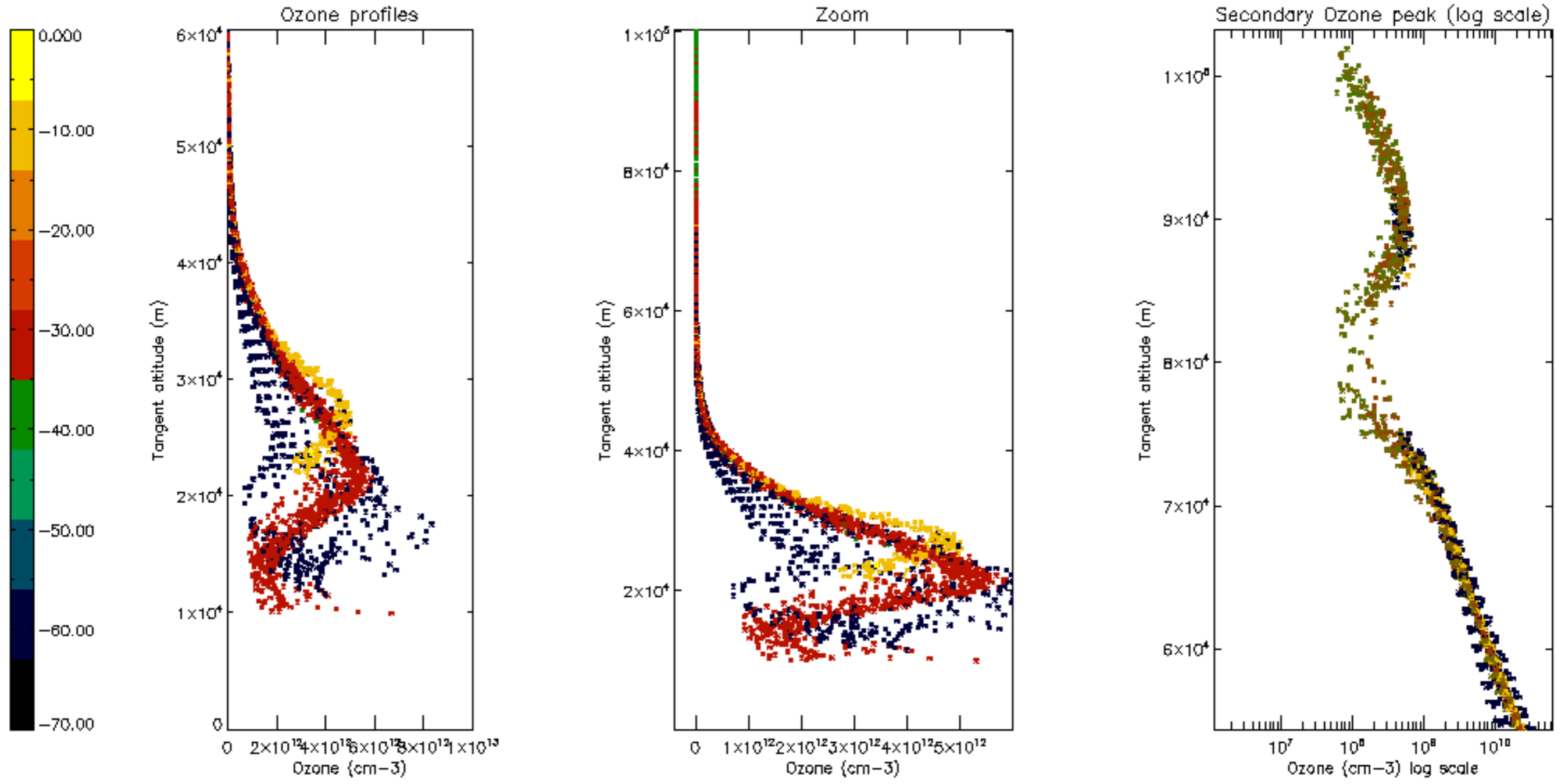


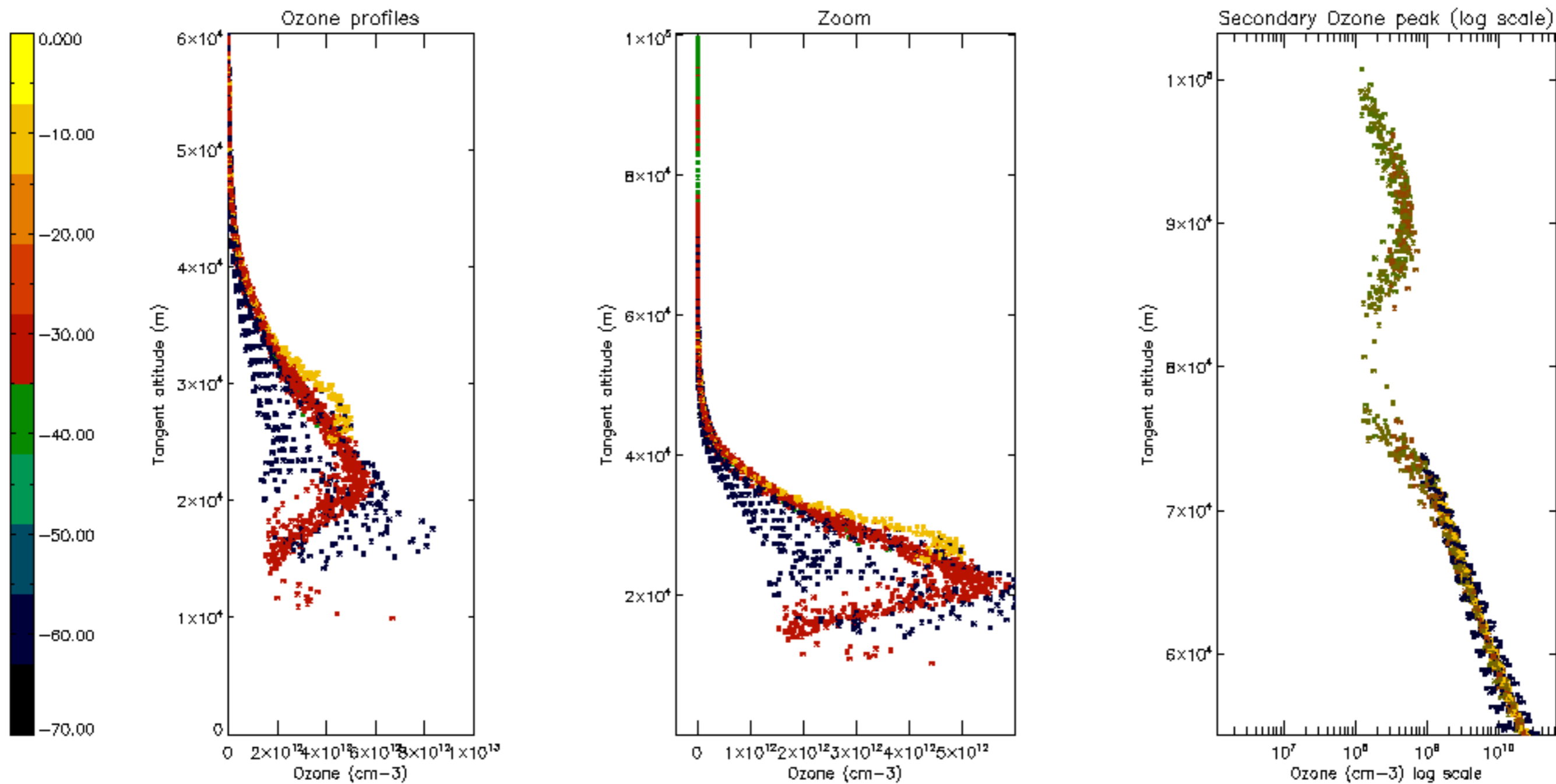
Percentage of saturation errors per profile

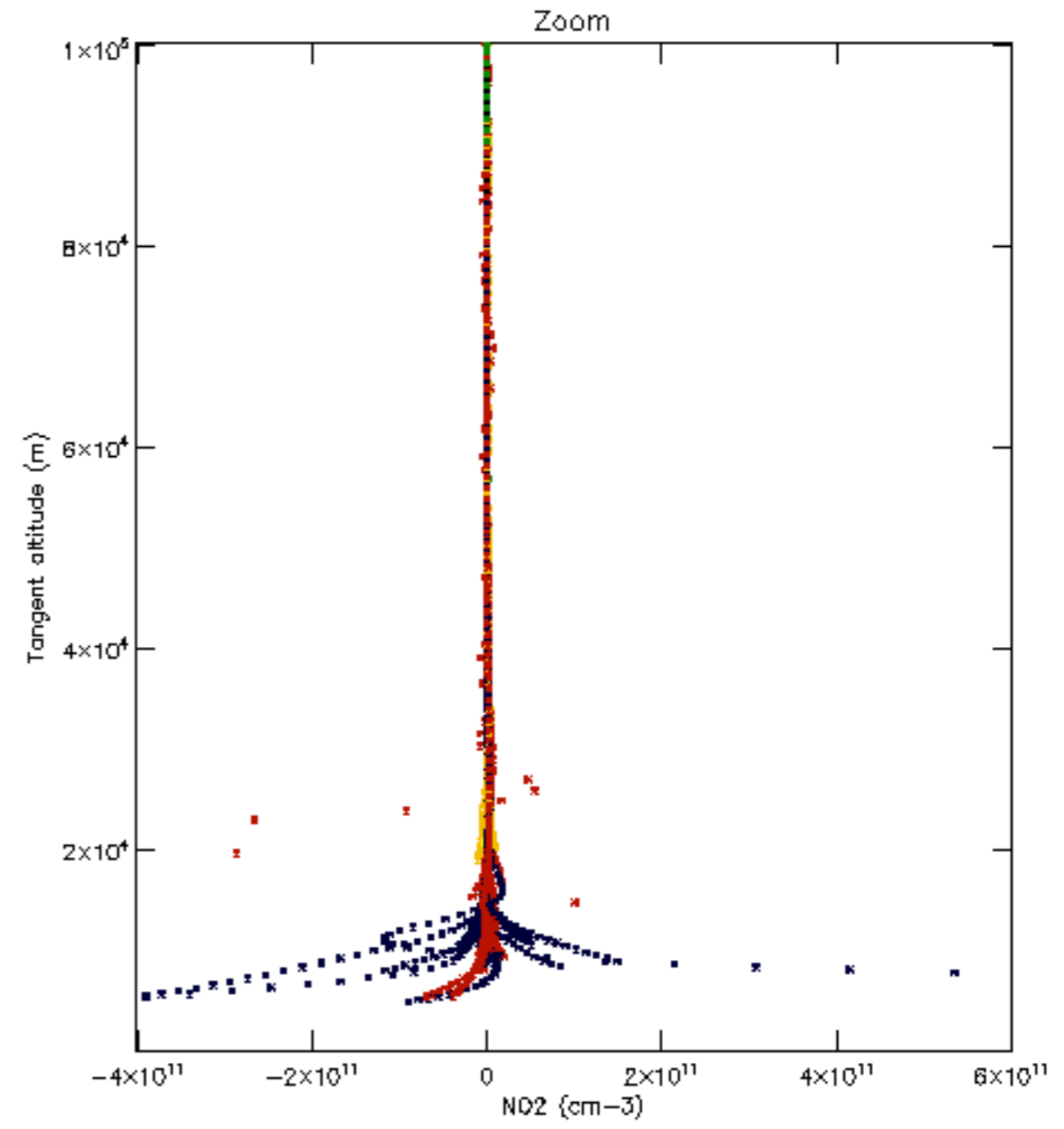
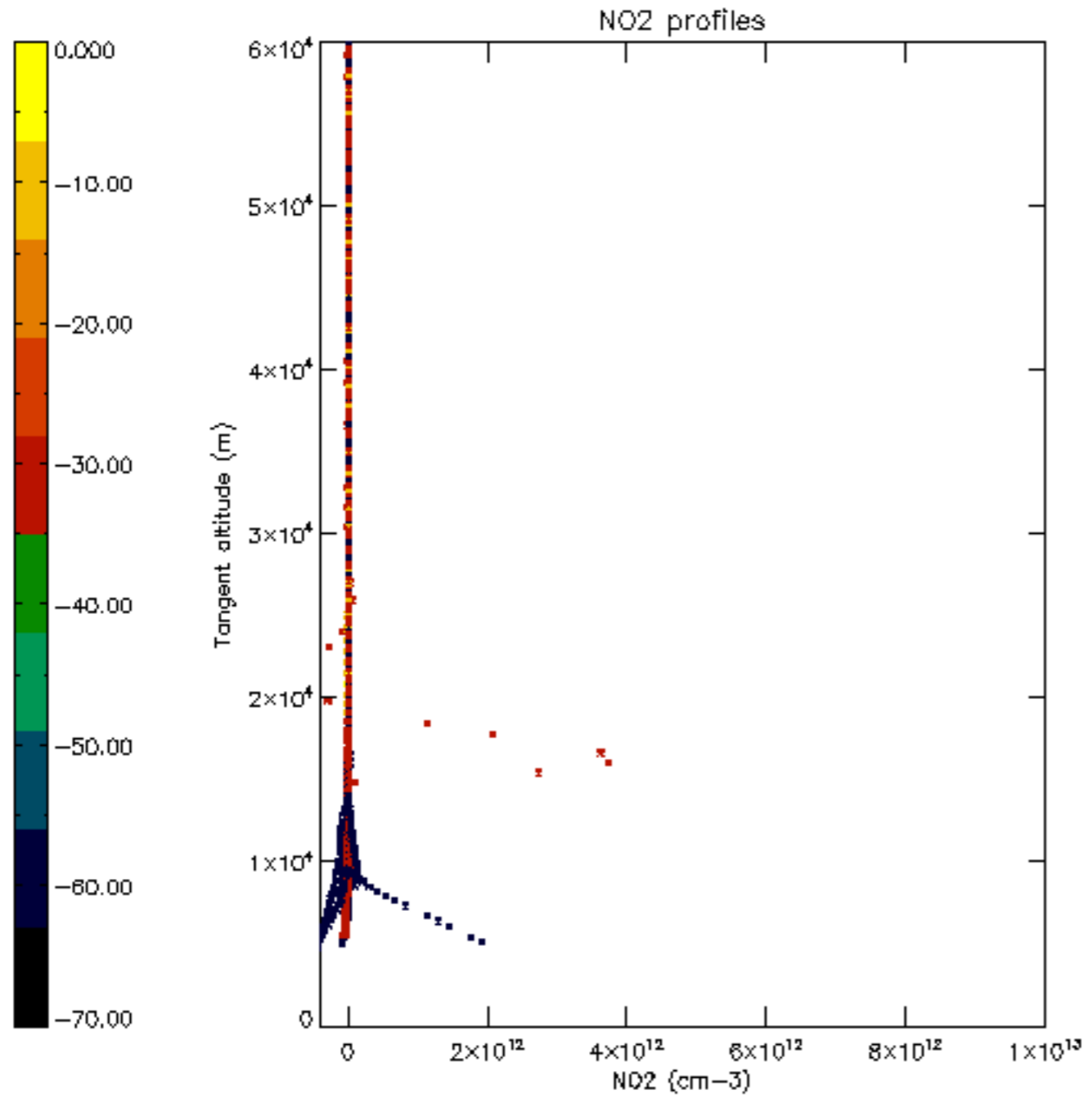


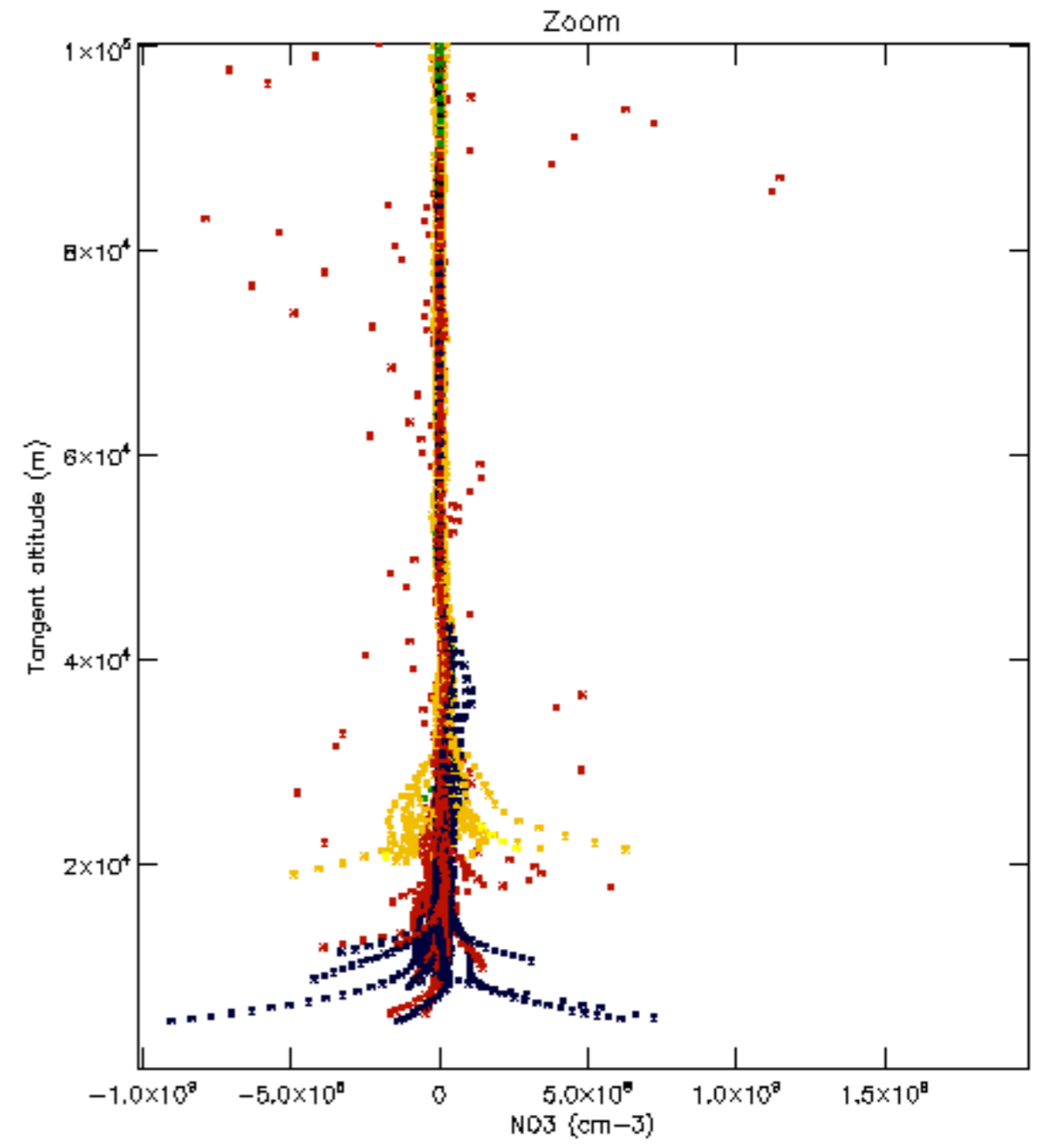
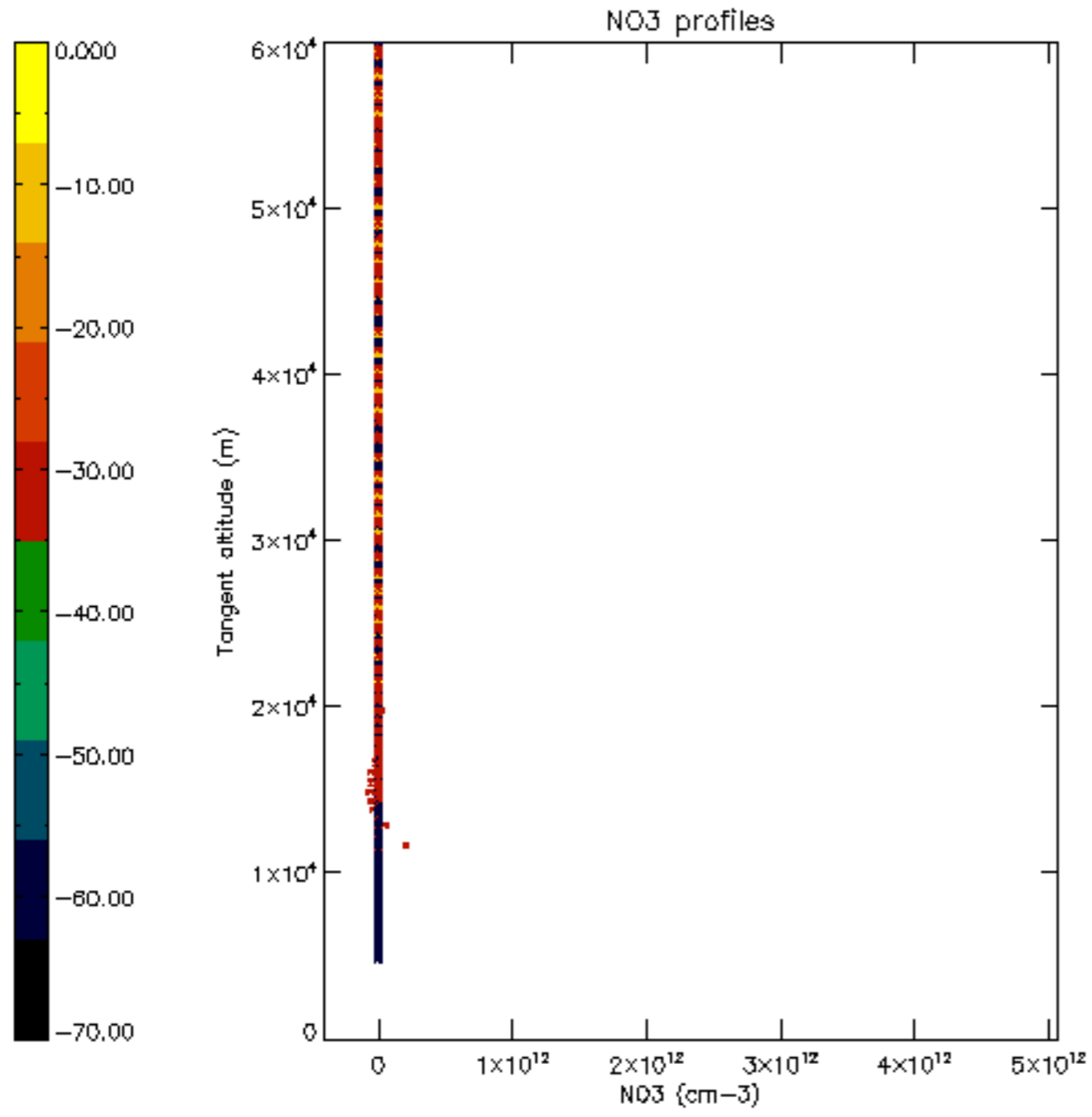


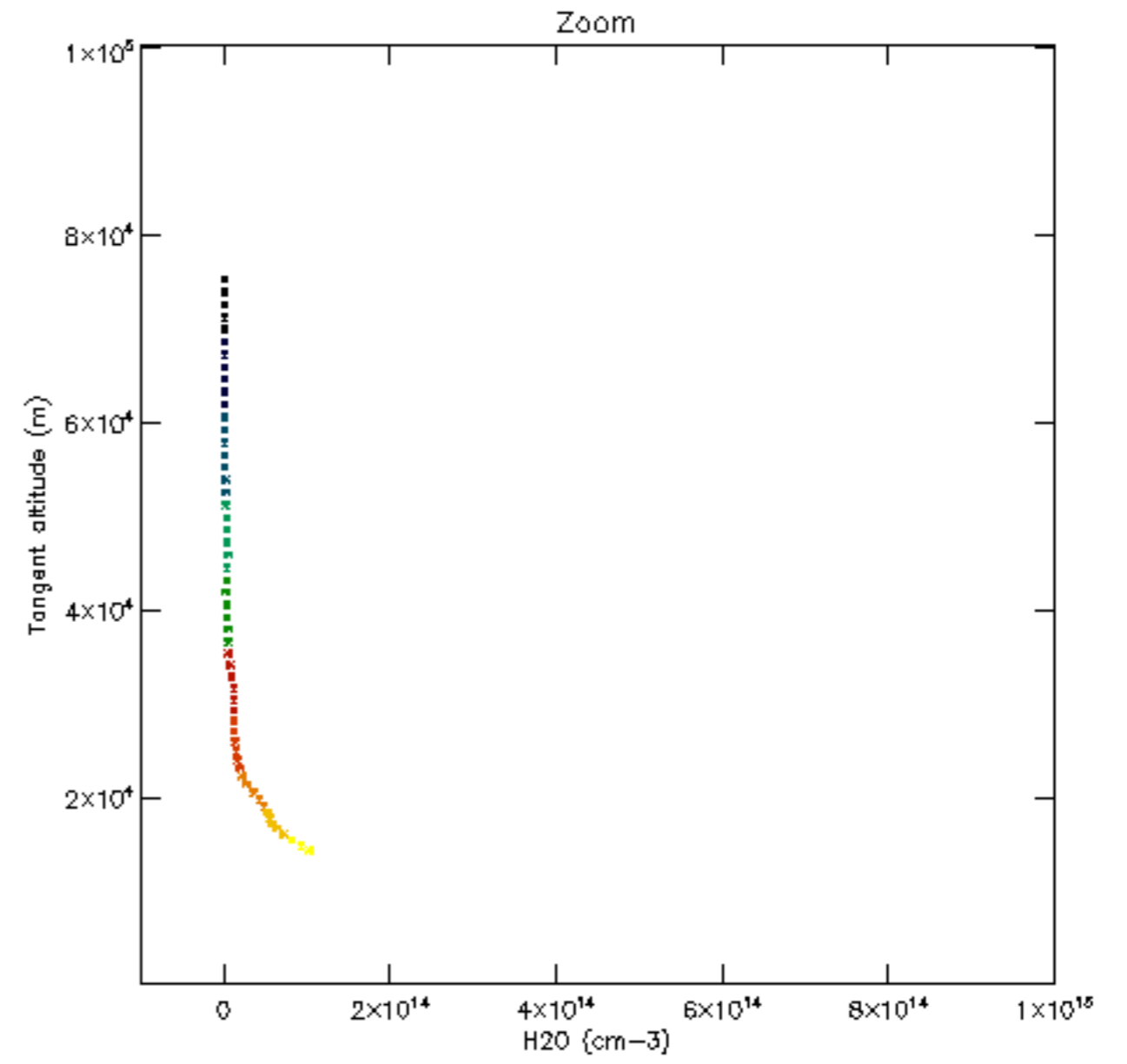
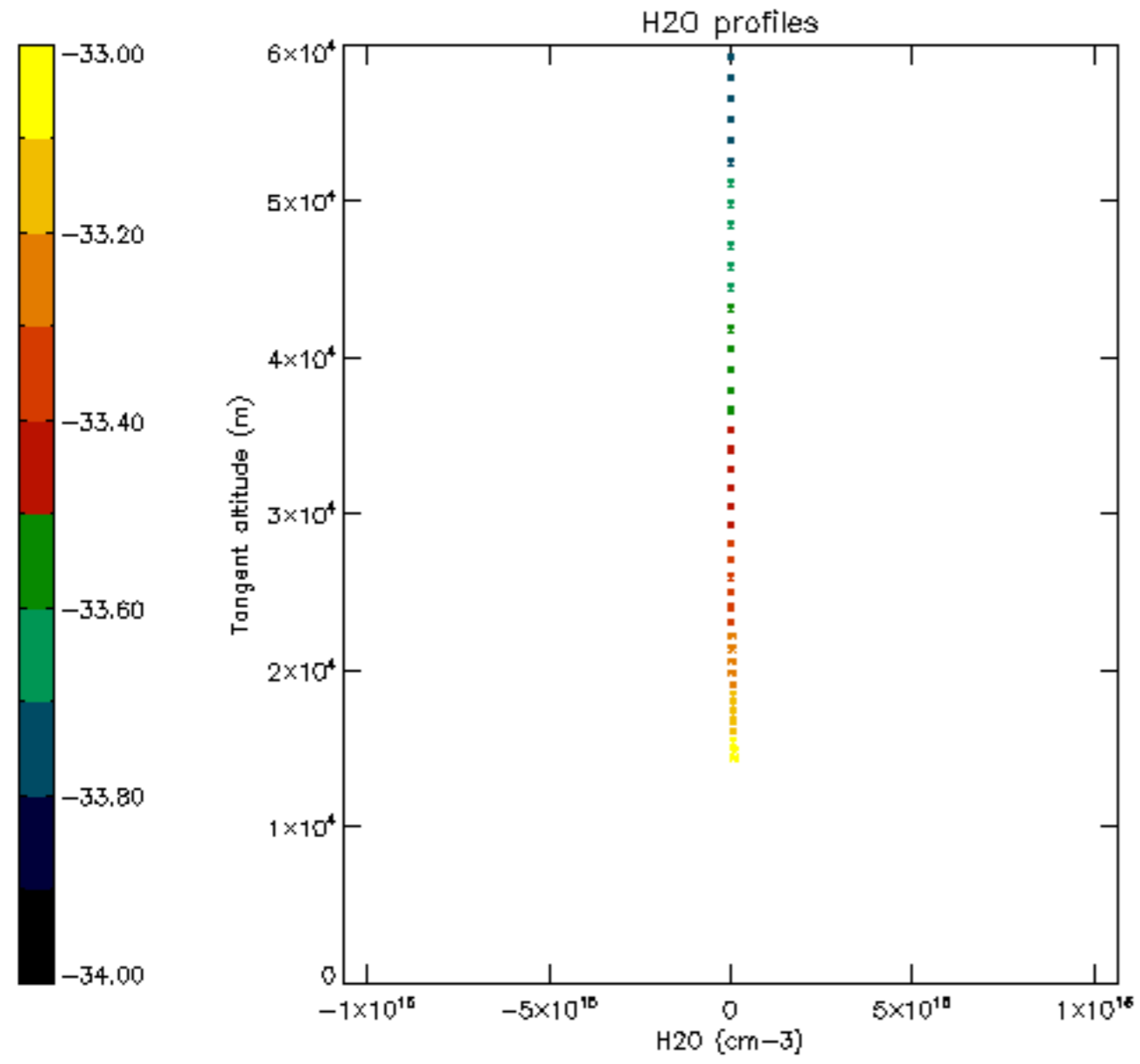


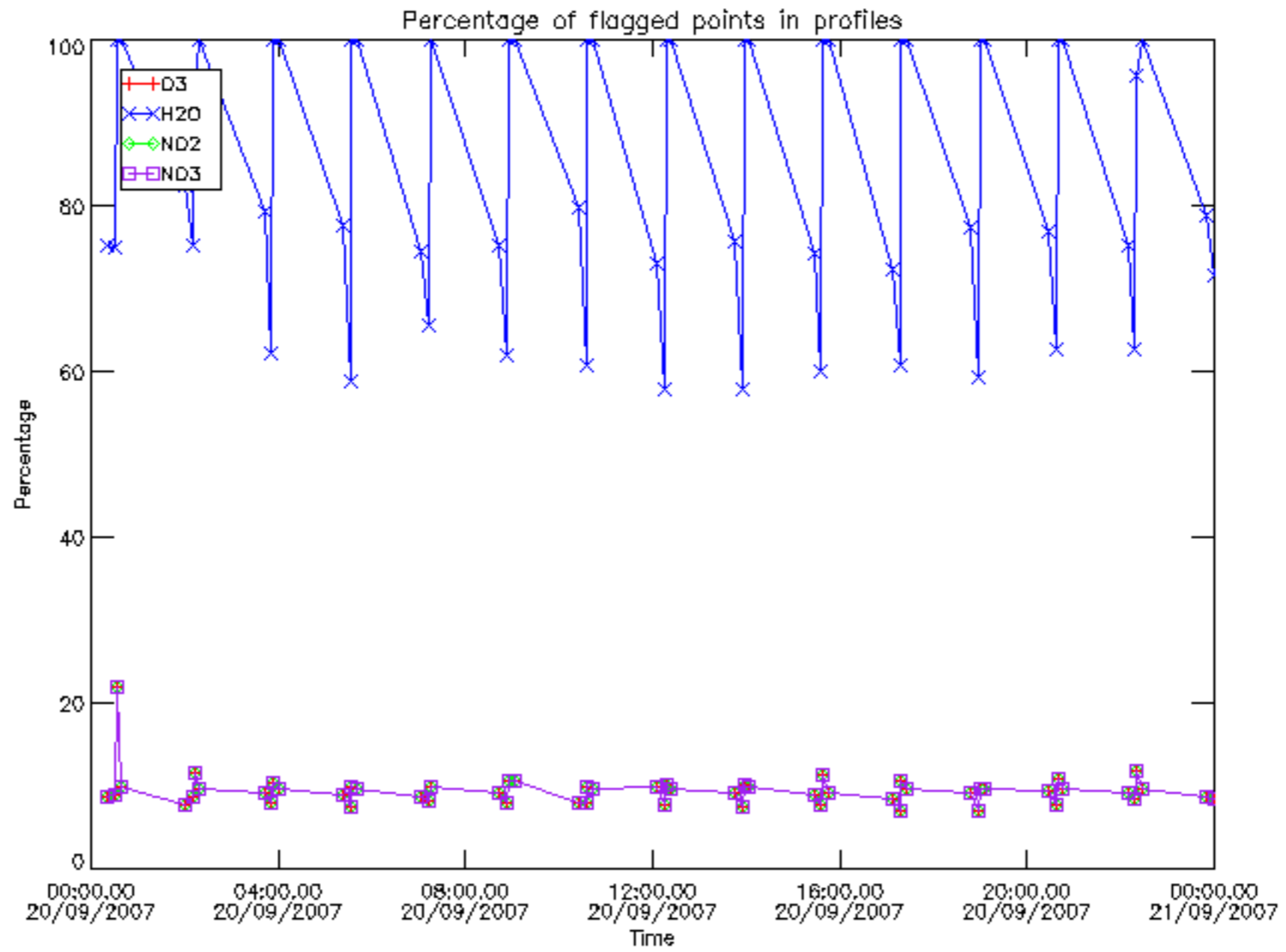




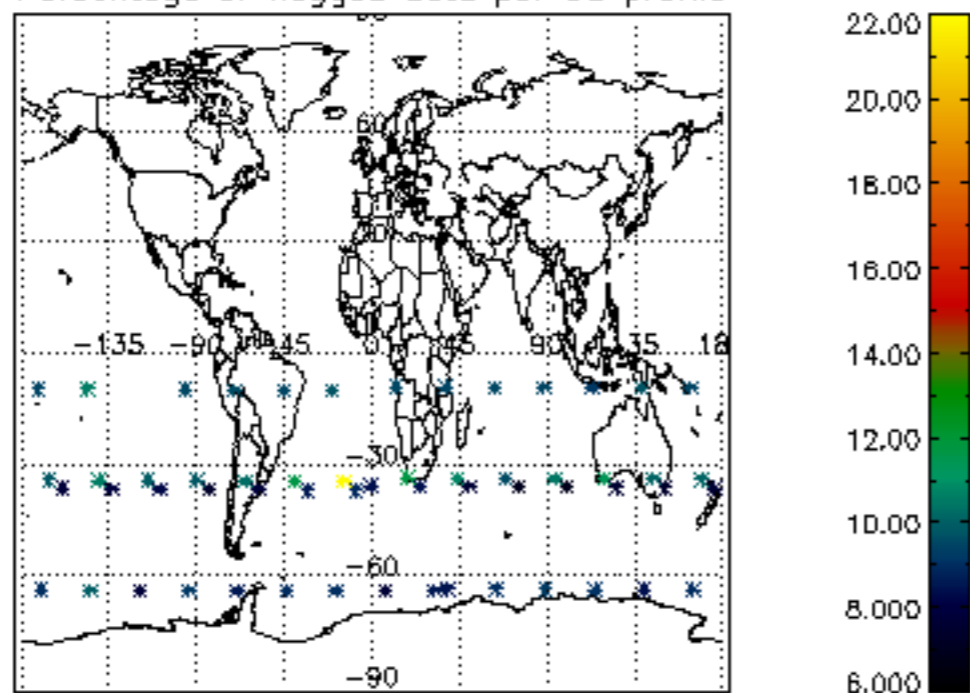




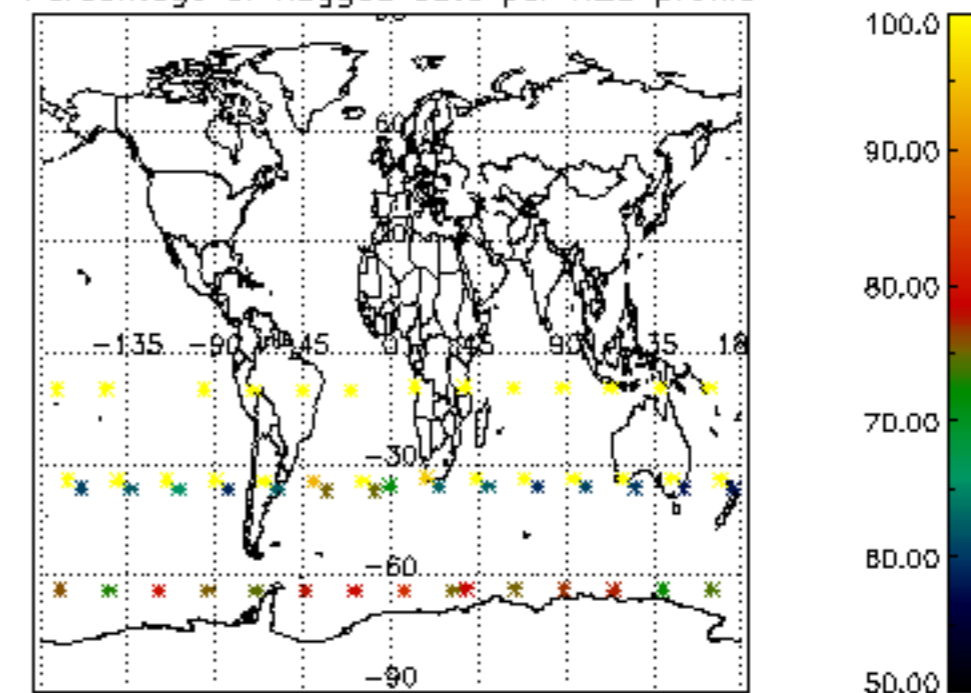




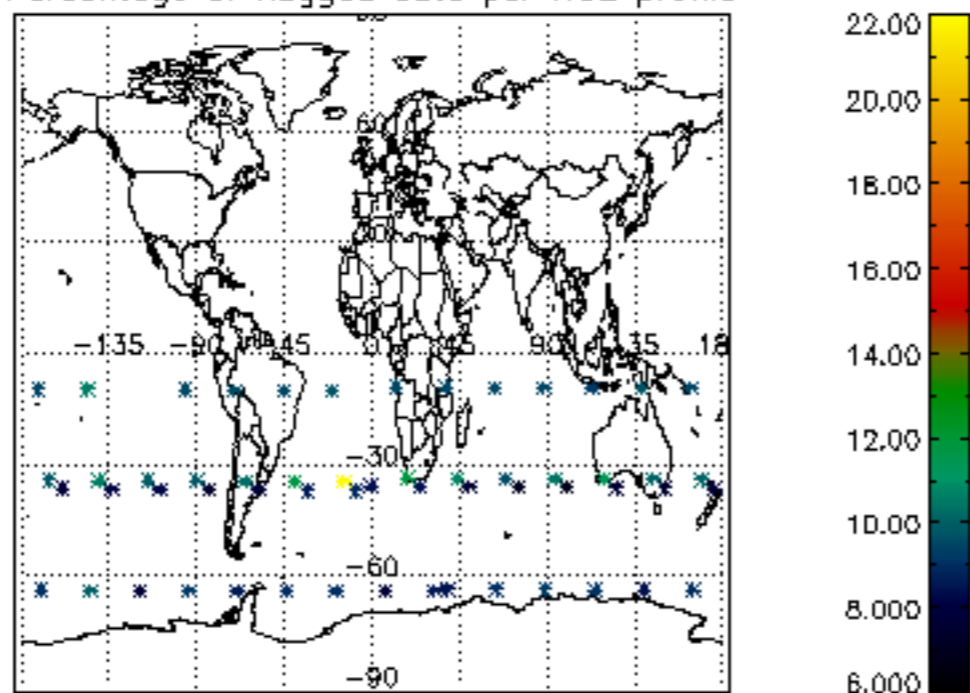
Percentage of flagged data per D3 profile



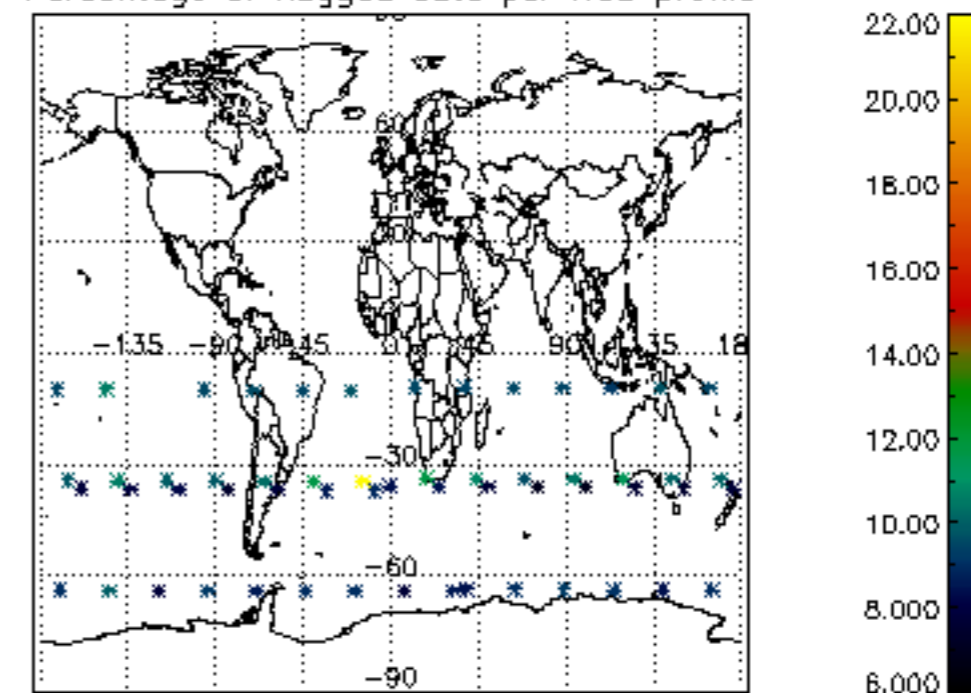
Percentage of flagged data per H2O profile

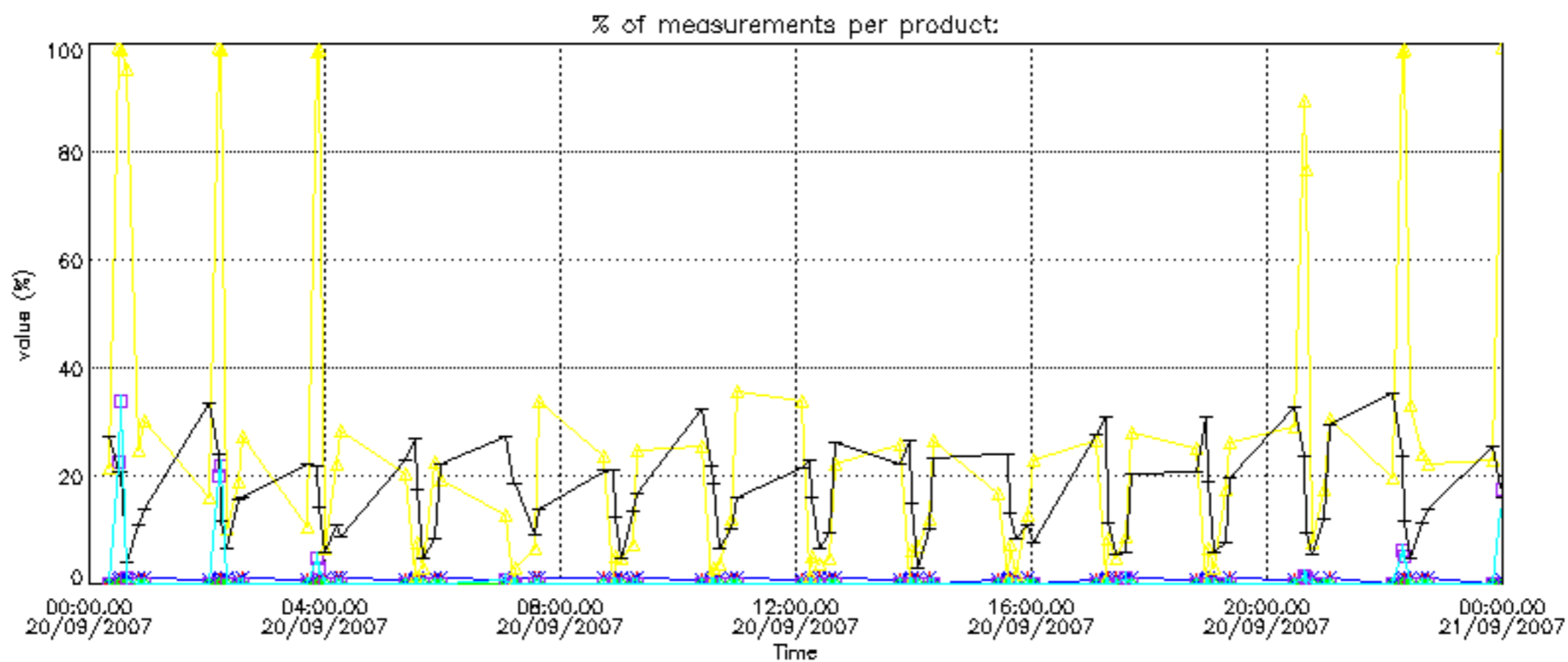


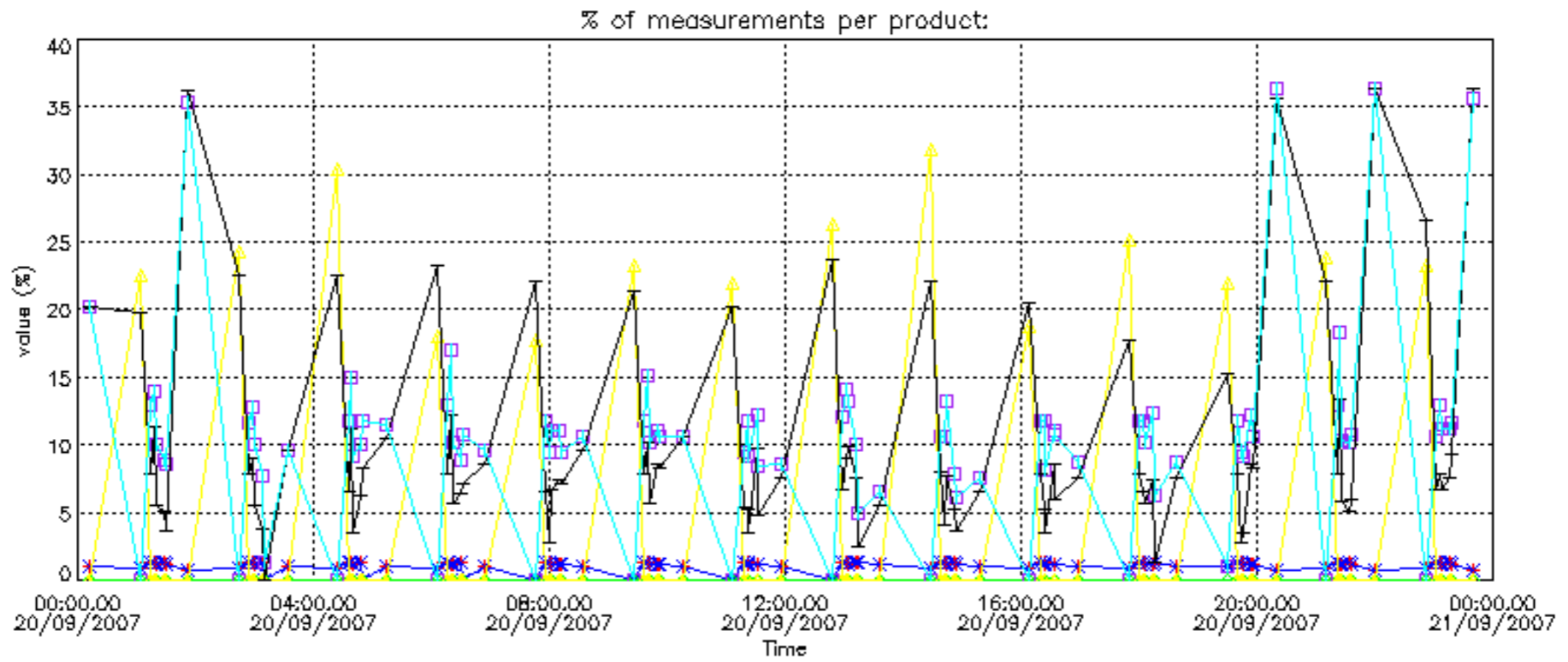
Percentage of flagged data per NO2 profile



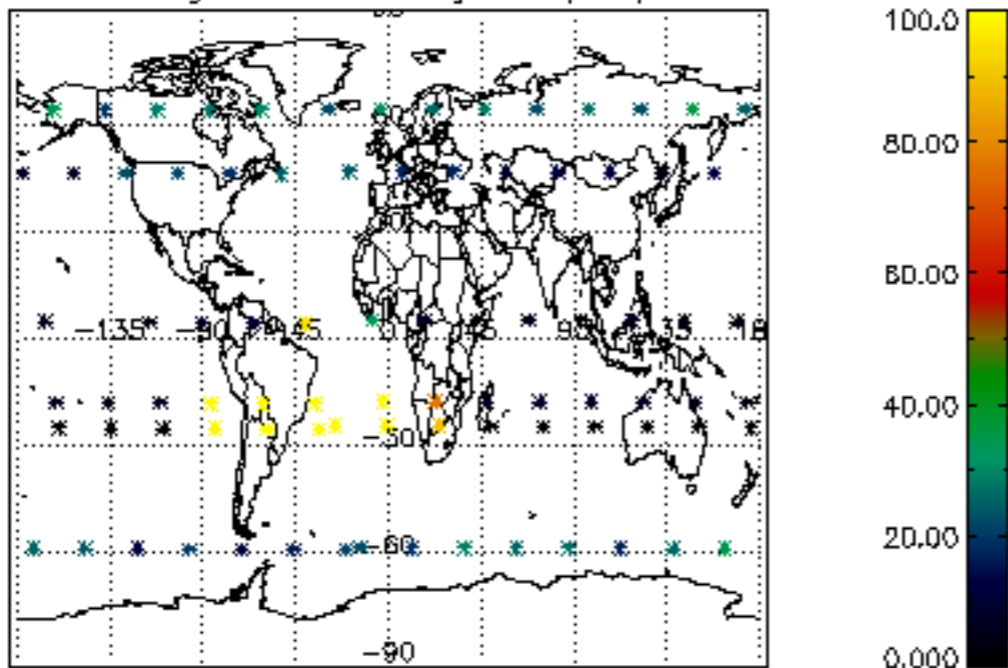
Percentage of flagged data per NO3 profile



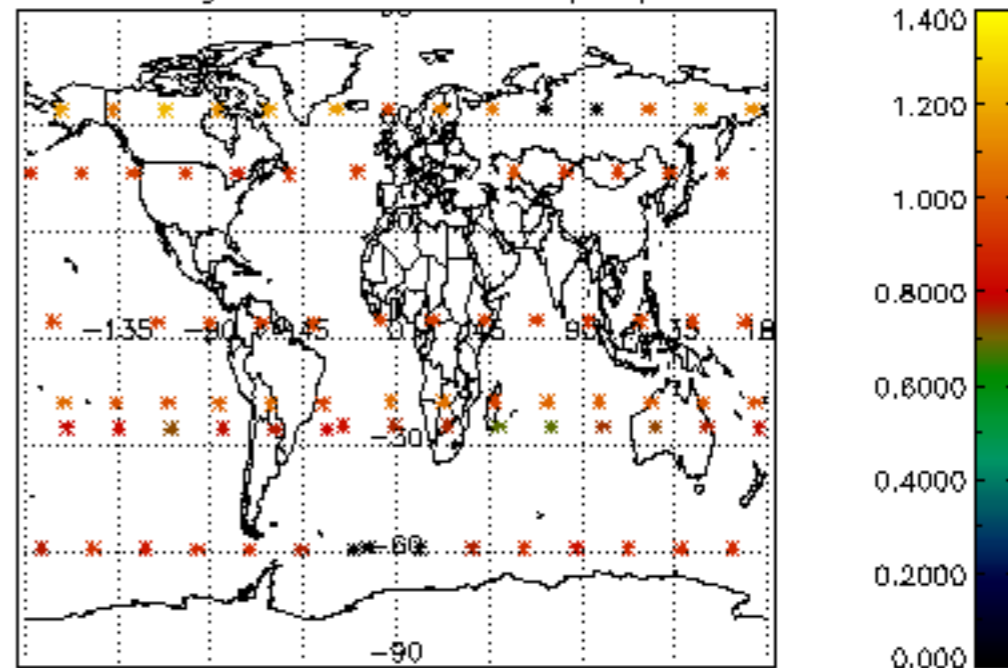




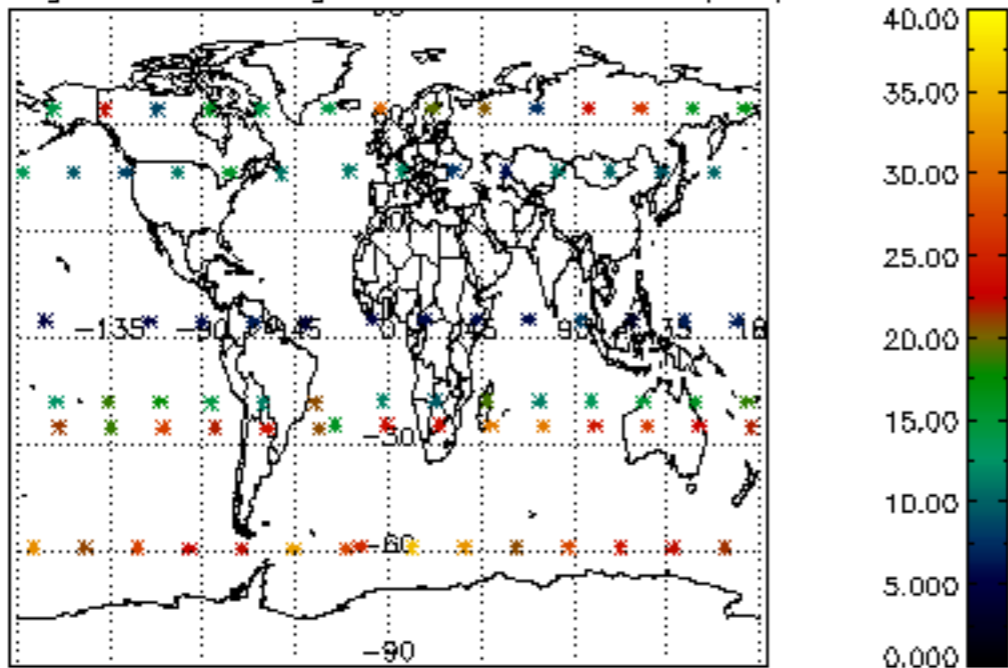
Percentage of cosmic ray hits per profile



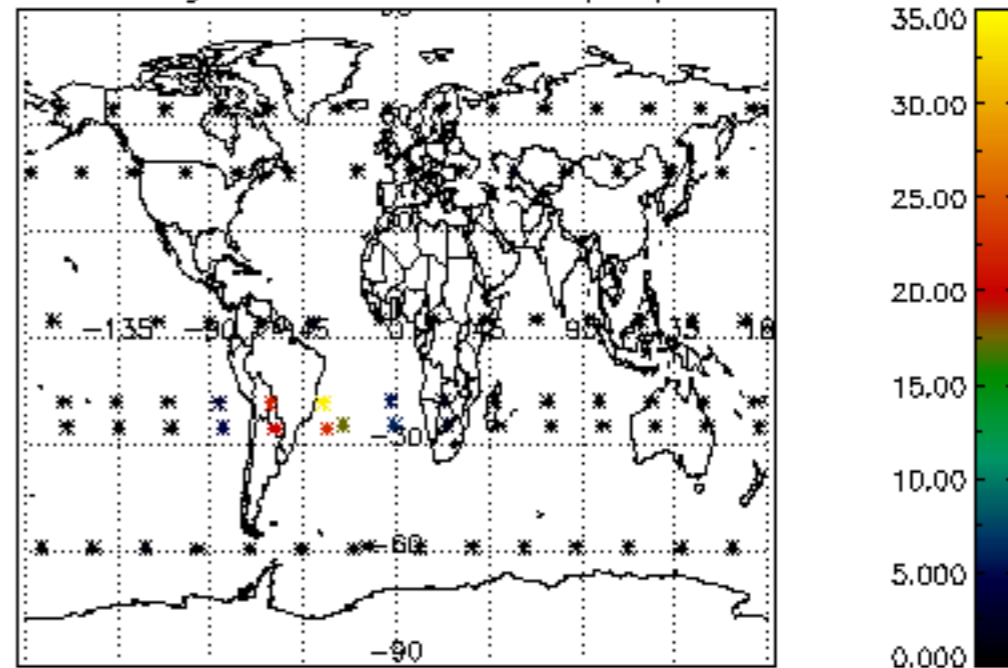
Percentage of datation errors per profile



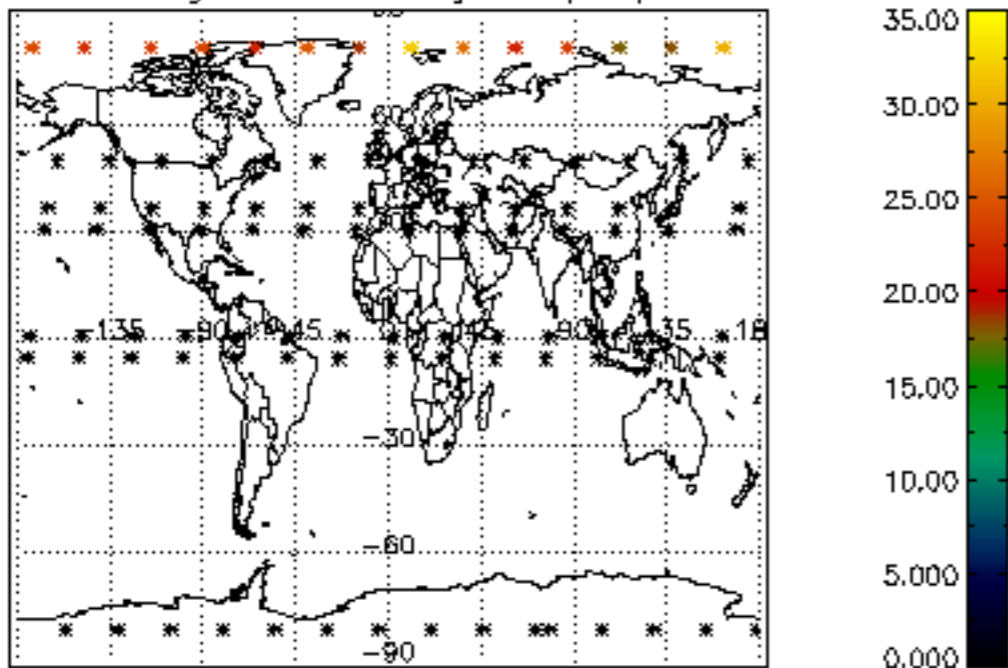
Percentage of star falling outside central band per profile



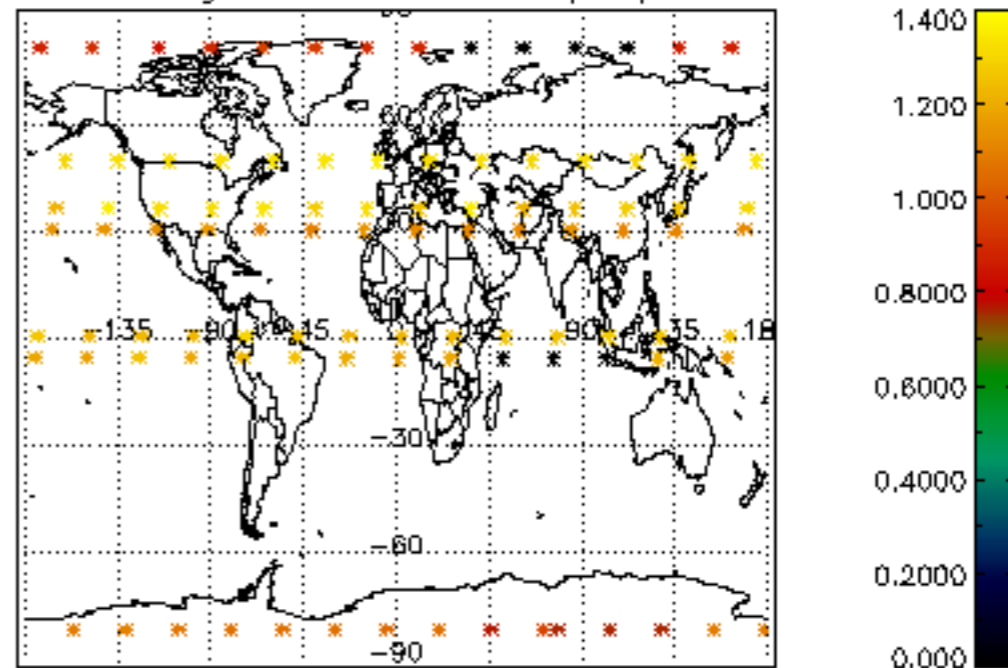
Percentage of saturation errors per profile



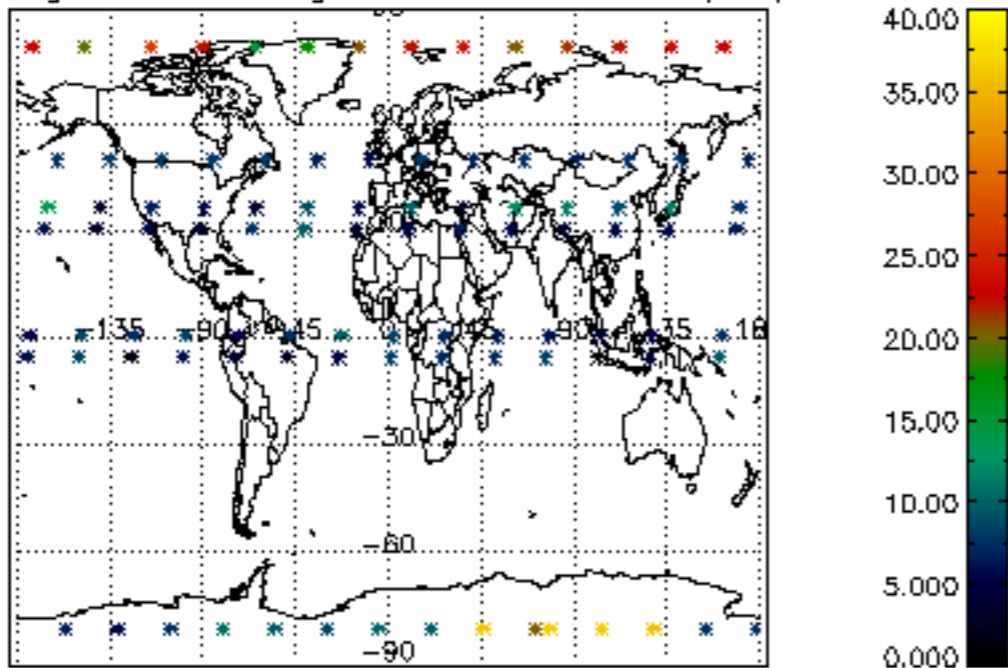
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

