

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	25APR2013 18:43:14
Data source version	GOMOS/6.01
Start time of products	12-08-2008 (12AUG2008 00:00:00)
Stop time of products	13-08-2008 (13AUG2008 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	265
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

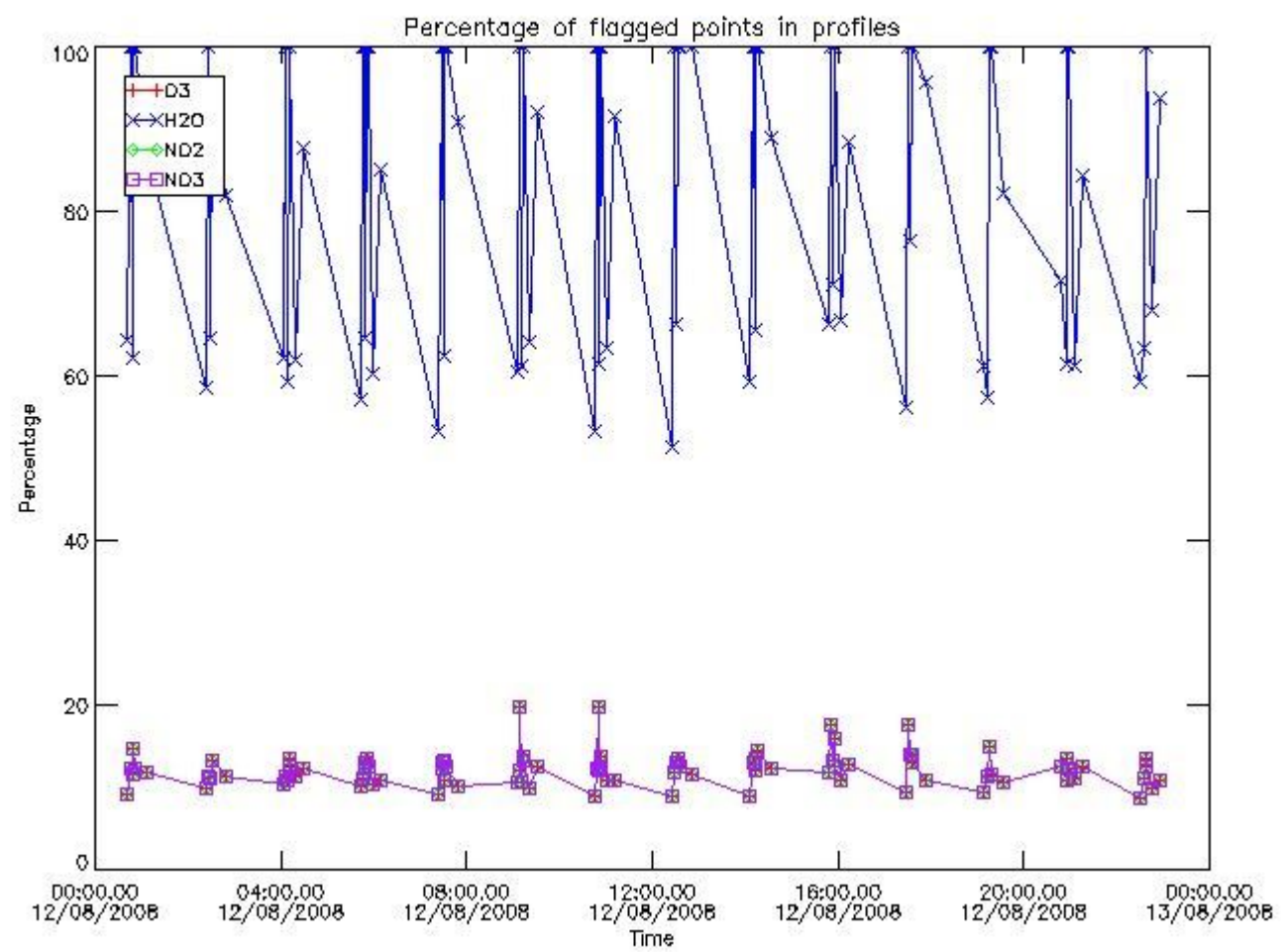
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20080812_000314_000000372071_00102_33723_5373.N1	12-AUG-2008 00:03:14	Bright	36.500	5	3Alp Lyr	0.033000	11000.	73	33723	No
2	GOM_NL__2PRFIN20080812_000435_000000352071_00102_33723_5374.N1	12-AUG-2008 00:04:35	Bright	34.500	144	18Del Cyg	2.8600	11000.	69	33723	No
3	GOM_NL__2PRFIN20080812_001718_000000352071_00102_33723_5375.N1	12-AUG-2008 00:17:18	Bright	35.000	49	1Alp UMi	1.9900	6300.0	70	33723	No
4	GOM_NL__2PRFIN20080812_003020_000000362071_00102_33723_5376.N1	12-AUG-2008 00:30:20	Bright	35.500	42	34Bet Aur	1.9000	10200.	71	33723	No
5	GOM_NL__2PRFIN20080812_003242_000000372071_00102_33723_5377.N1	12-AUG-2008 00:32:42	Bright	36.500	107	37The Aur	2.6490	11000.	73	33723	No
6	GOM_NL__2PRFIN20080812_003654_000000382071_00102_33723_5378.N1	12-AUG-2008 00:36:54	Bright	38.000	151	13Mu Gem	2.8900	3000.0	76	33723	No
7	GOM_NL__2PRFIN20080812_003828_000000392071_00102_33723_5379.N1	12-AUG-2008 00:38:28	Twilight	38.500	44	24Gam Gem	1.9280	11000.	77	33723	No
8	GOM_NL__2PRFIN20080812_004150_000000552071_00102_33723_5380.N1	12-AUG-2008 00:41:50	Dark	55.000	14	58Alp Ori	0.87000	3000.0	110	33723	No
9	GOM_NL__2PRFIN20080812_004457_000000462071_00102_33723_5381.N1	12-AUG-2008 00:44:57	Dark	46.000	33	50Zet Ori	1.7660	30000.	92	33723	No
10	GOM_NL__2PRFIN20080812_004733_000000442071_00102_33723_5382.N1	12-AUG-2008 00:47:33	Dark	44.000	1	9Alp CMa	-1.4400	11000.	88	33723	No
11	GOM_NL__2PRFIN20080812_004915_000000382071_00102_33723_5383.N1	12-AUG-2008 00:49:15	Dark	38.000	179	24Omi2CMa	3.0320	24000.	76	33723	No
12	GOM_NL__2PRFIN20080812_005042_000000422071_00102_33723_5384.N1	12-AUG-2008 00:50:42	Dark	41.500	23	21Eps CMa	1.5020	26000.	83	33723	No
13	GOM_NL__2PRFIN20080812_010734_000000442071_00103_33724_5378.N1	12-AUG-2008 01:07:34	Dark	43.500	9	Alp Eri	0.45300	24000.	87	33724	No
14	GOM_NL__2PRFIN20080812_011338_000000462071_00103_33724_5379.N1	12-AUG-2008 01:13:38	Straylight	45.500	148	Alp Tuc	2.8780	4100.0	91	33724	No
15	GOM_NL__2PRFIN20080812_011709_000000442071_00103_33724_5380.N1	12-AUG-2008 01:17:09	Straylight	43.500	31	Alp Gru	1.7340	15200.	87	33724	No
16	GOM_NL__2PRFIN20080812_012010_000000412071_00103_33724_5381.N1	12-AUG-2008 01:20:10	Straylight	40.500	172	Gam Gru	3.0030	13100.	81	33724	No
17	GOM_NL__2PRFIN20080812_013456_000000382071_00103_33724_5382.N1	12-AUG-2008 01:34:56	Bright	37.500	11	53Alp Aql	0.76500	8000.0	75	33724	No
18	GOM_NL__2PRFIN20080812_013641_000000352071_00103_33724_5383.N1	12-AUG-2008 01:36:41	Bright	34.500	168	17Zet Aql	2.9860	11000.	69	33724	No
19	GOM_NL__2PRFIN20080812_014350_000000362071_00103_33724_5384.N1	12-AUG-2008 01:43:50	Bright	36.000	5	3Alp Lyr	0.033000	11000.	72	33724	No
20	GOM_NL__2PRFIN20080812_014511_000000362071_00103_33724_5385.N1	12-AUG-2008 01:45:11	Bright	35.500	144	18Del Cyg	2.8600	11000.	71	33724	No
21	GOM_NL__2PRFIN20080812_015754_000000352071_00103_33724_5386.N1	12-AUG-2008 01:57:54	Bright	34.500	49	1Alp UMi	1.9900	6300.0	69	33724	No
22	GOM_NL__2PRFIN20080812_021056_000000562071_00103_33724_5387.N1	12-AUG-2008 02:10:56	Bright	56.000	42	34Bet Aur	1.9000	10200.	112	33724	No
23	GOM_NL__2PRFIN20080812_021319_000000372071_00103_33724_5388.N1	12-AUG-2008 02:13:19	Bright	36.500	107	37The Aur	2.6490	11000.	73	33724	No
24	GOM_NL__2PRFIN20080812_021730_000000452071_00103_33724_5389.N1	12-AUG-2008 02:17:30	Bright	44.500	151	13Mu Gem	2.8900	3000.0	89	33724	No
25	GOM_NL__2PRFIN20080812_021904_000000422071_00103_33724_5390.N1	12-AUG-2008 02:19:04	Twilight	42.000	44	24Gam Gem	1.9280	11000.	84	33724	No
26	GOM_NL__2PRFIN20080812_022226_000000572071_00103_33724_5391.N1	12-AUG-2008 02:22:26	Dark	56.500	14	58Alp Ori	0.87000	3000.0	113	33724	No
27	GOM_NL__2PRFIN20080812_022533_000000452071_00103_33724_5392.N1	12-AUG-2008 02:25:33	Dark	45.000	33	50Zet Ori	1.7660	30000.	90	33724	No
28	GOM_NL__2PRFIN20080812_022809_000000462071_00103_33724_5393.N1	12-AUG-2008 02:28:09	Dark	45.500	1	9Alp CMa	-1.4400	11000.	91	33724	No
29	GOM_NL__2PRFIN20080812_023118_000000432071_00103_33724_5394.N1	12-AUG-2008 02:31:18	Dark	42.500	23	21Eps CMa	1.5020	26000.	85	33724	No
30	GOM_NL__2PRFIN20080812_024811_000000452071_00104_33725_5400.N1	12-AUG-2008 02:48:11	Dark	45.000	9	Alp Eri	0.45300	24000.	90	33725	No
31	GOM_NL__2PRFIN20080812_025414_000000462071_00104_33725_5401.N1	12-AUG-2008 02:54:14	Straylight	45.500	148	Alp Tuc	2.8780	4100.0	91	33725	No
32	GOM_NL__2PRFIN20080812_025746_000000442071_00104_33725_5402.N1	12-AUG-2008 02:57:46	Straylight	44.000	31	Alp Gru	1.7340	15200.	88	33725	No
33	GOM_NL__2PRFIN20080812_030047_000000432071_00104_33725_5403.N1	12-AUG-2008 03:00:47	Straylight	43.000	172	Gam Gru	3.0030	13100.	86	33725	No
34	GOM_NL__2PRFIN20080812_031532_000000362071_00104_33725_5404.N1	12-AUG-2008 03:15:32	Bright	35.500	11	53Alp Aql	0.76500	8000.0	71	33725	No
35	GOM_NL__2PRFIN20080812_031717_000000352071_00104_33725_5405.N1	12-AUG-2008 03:17:17	Bright	34.500	168	17Zet Aql	2.9860	11000.	69	33725	No
36	GOM_NL__2PRFIN20080812_032426_000000392071_00104_33725_5406.N1	12-AUG-2008 03:24:26	Bright	39.000	5	3Alp Lyr	0.033000	11000.	78	33725	No
37	GOM_NL__2PRFIN20080812_032547_000000352071_00104_33725_5407.N1	12-AUG-2008 03:25:47	Bright	34.500	144	18Del Cyg	2.8600	11000.	69	33725	No
38	GOM_NL__2PRFIN20080812_033830_000000362071_00104_33725_5408.N1	12-AUG-2008 03:38:30	Bright	35.500	49	1Alp UMi	1.9900	6300.0	71	33725	No
39	GOM_NL__2PRFIN20080812_035132_000000552071_00104_33725_5409.N1	12-AUG-2008 03:51:32	Bright	54.500	42	34Bet Aur	1.9000	10200.	109	33725	No
40	GOM_NL__2PRFIN20080812_035354_000000392071_00104_33725_5410.N1	12-AUG-2008 03:53:54	Bright	38.500	107	37The Aur	2.6490	11000.	77	33725	No
41	GOM_NL__2PRFIN20080812_035806_000000542071_00104_33725_5411.N1	12-AUG-2008 03:58:06	Bright	54.000	151	13Mu Gem	2.8900	3000.0	108	33725	No
42	GOM_NL__2PRFIN20080812_035940_000000422071_00104_33725_5412.N1	12-AUG-2008 03:59:40	Twilight	41.500	44	24Gam Gem	1.9280	11000.	83	33725	No

220	GOM_NL__2PRFIN20080812_194649_000000402071_00114_33735_5553.N1	12-AUG-2008 19:46:49	Straylight	40.000	172	Gam Gru	3.0030	13100.	80	33735	No
221	GOM_NL__2PRFIN20080812_200132_000000362071_00114_33735_5554.N1	12-AUG-2008 20:01:32	Bright	36.000	11	53Alp Aql	0.76500	8000.0	72	33735	No
222	GOM_NL__2PRFIN20080812_200318_000000352071_00114_33735_5555.N1	12-AUG-2008 20:03:18	Bright	35.000	168	17Zet Aql	2.9860	11000.	70	33735	No
223	GOM_NL__2PRFIN20080812_201035_000000372071_00114_33735_5556.N1	12-AUG-2008 20:10:35	Bright	36.500	66	37Gam Cyg	2.2080	5900.0	73	33735	No
224	GOM_NL__2PRFIN20080812_201216_000000372071_00114_33735_5557.N1	12-AUG-2008 20:12:16	Bright	36.500	19	50Alp Cyg	1.2460	10500.	73	33735	No
225	GOM_NL__2PRFIN20080812_201739_000000252071_00114_33735_5558.N1	12-AUG-2008 20:17:39	Tw_i_and_stray	25.000	89	5Alp Cep	2.4510	8000.0	50	33735	No
226	GOM_NL__2PRFIN20080812_202429_000000362071_00114_33735_5559.N1	12-AUG-2008 20:24:29	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	33735	No
227	GOM_NL__2PRFIN20080812_203731_000000382071_00114_33735_5560.N1	12-AUG-2008 20:37:31	Bright	38.000	42	34Bet Aur	1.9000	10200.	76	33735	No
228	GOM_NL__2PRFIN20080812_203955_000000382071_00114_33735_5561.N1	12-AUG-2008 20:39:55	Bright	38.000	107	37The Aur	2.6490	11000.	76	33735	No
229	GOM_NL__2PRFIN20080812_204408_000000452071_00114_33735_5562.N1	12-AUG-2008 20:44:08	Bright	45.000	151	13Mu Gem	2.8900	3000.0	90	33735	No
230	GOM_NL__2PRFIN20080812_204542_000000412071_00114_33735_5563.N1	12-AUG-2008 20:45:42	Tw_i_and_stray	40.500	44	24Gam Gem	1.9280	11000.	81	33735	No
231	GOM_NL__2PRFIN20080812_204905_000000412071_00114_33735_5564.N1	12-AUG-2008 20:49:05	Dark	41.000	14	58Alp Ori	0.87000	3000.0	82	33735	No
232	GOM_NL__2PRFIN20080812_205447_000000472071_00114_33735_5565.N1	12-AUG-2008 20:54:47	Dark	47.000	1	9Alp CMa	-1.4400	11000.	94	33735	No
233	GOM_NL__2PRFIN20080812_205628_000000382071_00114_33735_5566.N1	12-AUG-2008 20:56:28	Dark	38.000	179	24Omi2CMa	3.0320	24000.	76	33735	No
234	GOM_NL__2PRFIN20080812_205755_000000422071_00114_33735_5567.N1	12-AUG-2008 20:57:55	Dark	41.500	23	21Eps CMa	1.5020	26000.	83	33735	No
235	GOM_NL__2PRFIN20080812_210445_000000462071_00114_33735_5568.N1	12-AUG-2008 21:04:45	Dark	45.500	2	Alp Car	-0.73600	7000.0	91	33735	No
236	GOM_NL__2PRFIN20080812_211454_000000452071_00115_33736_5564.N1	12-AUG-2008 21:14:54	Dark	45.000	9	Alp Eri	0.45300	24000.	90	33736	No
237	GOM_NL__2PRFIN20080812_212053_000000392071_00115_33736_5565.N1	12-AUG-2008 21:20:53	Straylight	38.500	148	Alp Tuc	2.8780	4100.0	77	33736	No
238	GOM_NL__2PRFIN20080812_212425_000000422071_00115_33736_5566.N1	12-AUG-2008 21:24:25	Straylight	41.500	31	Alp Gru	1.7340	15200.	83	33736	No
239	GOM_NL__2PRFIN20080812_212726_000000392071_00115_33736_5567.N1	12-AUG-2008 21:27:26	Straylight	39.000	172	Gam Gru	3.0030	13100.	78	33736	No
240	GOM_NL__2PRFIN20080812_214208_000000372071_00115_33736_5568.N1	12-AUG-2008 21:42:08	Bright	36.500	11	53Alp Aql	0.76500	8000.0	73	33736	No
241	GOM_NL__2PRFIN20080812_214354_000000352071_00115_33736_5569.N1	12-AUG-2008 21:43:54	Bright	35.000	168	17Zet Aql	2.9860	11000.	70	33736	No
242	GOM_NL__2PRFIN20080812_215110_000000362071_00115_33736_5570.N1	12-AUG-2008 21:51:10	Bright	36.000	66	37Gam Cyg	2.2080	5900.0	72	33736	No
243	GOM_NL__2PRFIN20080812_215251_000000392071_00115_33736_5571.N1	12-AUG-2008 21:52:51	Bright	39.000	19	50Alp Cyg	1.2460	10500.	78	33736	No
244	GOM_NL__2PRFIN20080812_215815_000000312071_00115_33736_5572.N1	12-AUG-2008 21:58:15	Bright	31.000	89	5Alp Cep	2.4510	8000.0	62	33736	No
245	GOM_NL__2PRFIN20080812_220505_000000362071_00115_33736_5573.N1	12-AUG-2008 22:05:05	Bright	35.500	49	1Alp UMi	1.9900	6300.0	71	33736	No
246	GOM_NL__2PRFIN20080812_221807_000000382071_00115_33736_5574.N1	12-AUG-2008 22:18:07	Bright	38.000	42	34Bet Aur	1.9000	10200.	76	33736	No
247	GOM_NL__2PRFIN20080812_222031_000000512071_00115_33736_5575.N1	12-AUG-2008 22:20:31	Bright	51.000	107	37The Aur	2.6490	11000.	102	33736	No
248	GOM_NL__2PRFIN20080812_222444_000000392071_00115_33736_5576.N1	12-AUG-2008 22:24:44	Bright	39.000	151	13Mu Gem	2.8900	3000.0	78	33736	No
249	GOM_NL__2PRFIN20080812_222618_000000382071_00115_33736_5577.N1	12-AUG-2008 22:26:18	Tw_i_and_stray	38.000	44	24Gam Gem	1.9280	11000.	76	33736	No
250	GOM_NL__2PRFIN20080812_222942_000000582071_00115_33736_5578.N1	12-AUG-2008 22:29:42	Dark	58.000	14	58Alp Ori	0.87000	3000.0	116	33736	No
251	GOM_NL__2PRFIN20080812_223523_000000462071_00115_33736_5579.N1	12-AUG-2008 22:35:23	Dark	45.500	1	9Alp CMa	-1.4400	11000.	91	33736	No
252	GOM_NL__2PRFIN20080812_223704_000000382071_00115_33736_5580.N1	12-AUG-2008 22:37:04	Dark	38.000	179	24Omi2CMa	3.0320	24000.	76	33736	No
253	GOM_NL__2PRFIN20080812_223832_000000412071_00115_33736_5581.N1	12-AUG-2008 22:38:32	Dark	41.000	23	21Eps CMa	1.5020	26000.	82	33736	No
254	GOM_NL__2PRFIN20080812_224521_000000522071_00115_33736_5582.N1	12-AUG-2008 22:45:21	Dark	52.000	2	Alp Car	-0.73600	7000.0	104	33736	No
255	GOM_NL__2PRFIN20080812_225530_000000482071_00116_33737_5578.N1	12-AUG-2008 22:55:30	Dark	47.500	9	Alp Eri	0.45300	24000.	95	33737	No
256	GOM_NL__2PRFIN20080812_230129_000000392071_00116_33737_5579.N1	12-AUG-2008 23:01:29	Straylight	39.000	148	Alp Tuc	2.8780	4100.0	78	33737	No
257	GOM_NL__2PRFIN20080812_230502_000000492071_00116_33737_5580.N1	12-AUG-2008 23:05:02	Straylight	49.000	31	Alp Gru	1.7340	15200.	98	33737	No
258	GOM_NL__2PRFIN20080812_230802_000000422071_00116_33737_5581.N1	12-AUG-2008 23:08:02	Straylight	42.000	172	Gam Gru	3.0030	13100.	84	33737	No
259	GOM_NL__2PRFIN20080812_232244_000000382071_00116_33737_5582.N1	12-AUG-2008 23:22:44	Bright	37.500	11	53Alp Aql	0.76500	8000.0	75	33737	No
260	GOM_NL__2PRFIN20080812_232430_000000342071_00116_33737_5583.N1	12-AUG-2008 23:24:30	Bright	34.000	168	17Zet Aql	2.9860	11000.	68	33737	No
261	GOM_NL__2PRFIN20080812_233146_000000352071_00116_33737_5584.N1	12-AUG-2008 23:31:46	Bright	35.000	66	37Gam Cyg	2.2080	5900.0	70	33737	No
262	GOM_NL__2PRFIN20080812_233327_000000382071_00116_33737_5585.N1	12-AUG-2008 23:33:27	Bright	37.500	19	50Alp Cyg	1.2460	10500.	75	33737	No
263	GOM_NL__2PRFIN20080812_233850_000000312071_00116_33737_5586.N1	12-AUG-2008 23:38:50	Bright	31.000	89	5Alp Cep	2.4510	8000.0	62	33737	No
264	GOM_NL__2PRFIN20080812_234541_000000352071_00116_33737_5587.N1	12-AUG-2008 23:45:41	Bright	35.000	49	1Alp UMi	1.9900	6300.0	70	33737	No
265	GOM_NL__2PRFIN20080812_235843_000000392071_00116_33737_5588.N1	12-AUG-2008 23:58:43	Bright	39.000	42	34Bet Aur	1.9000	10200.	78	33737	No

3. Quality information per product

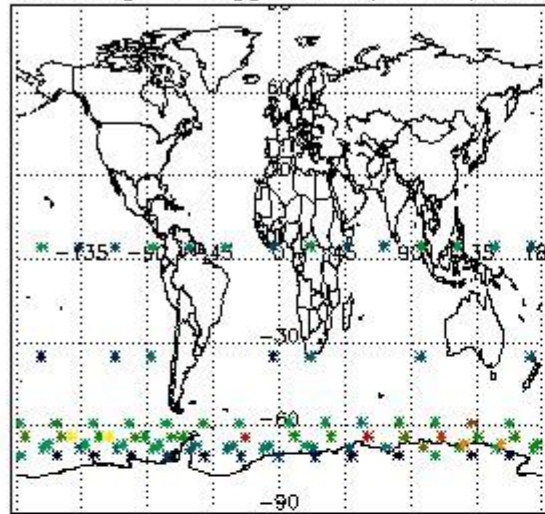
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

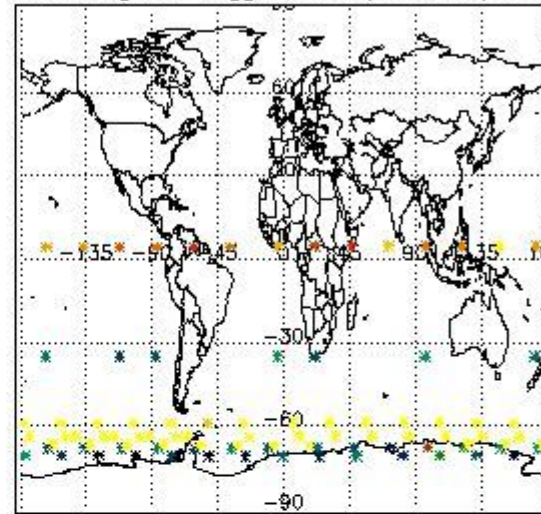


3.2 Plot quality information per product (world map)

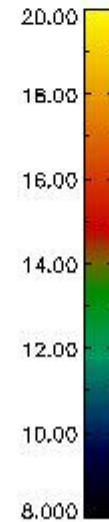
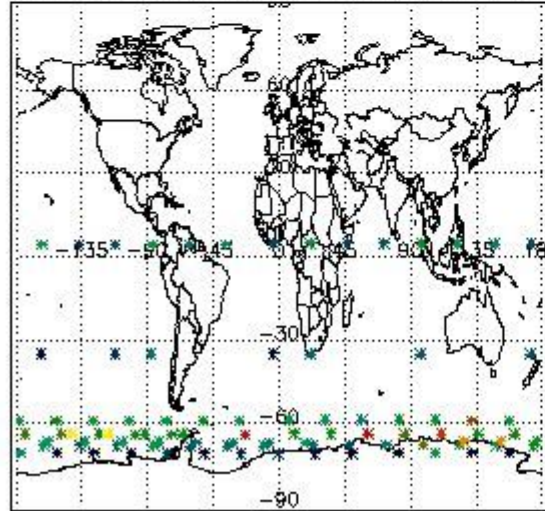
Percentage of flagged data per O3 profile



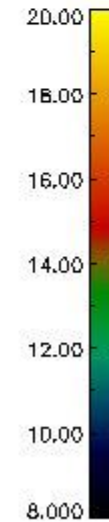
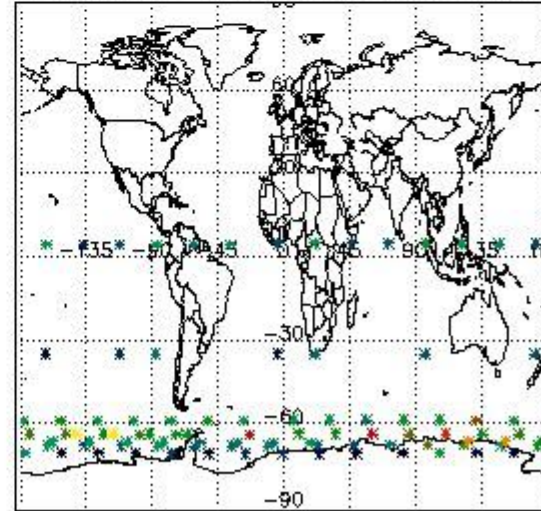
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

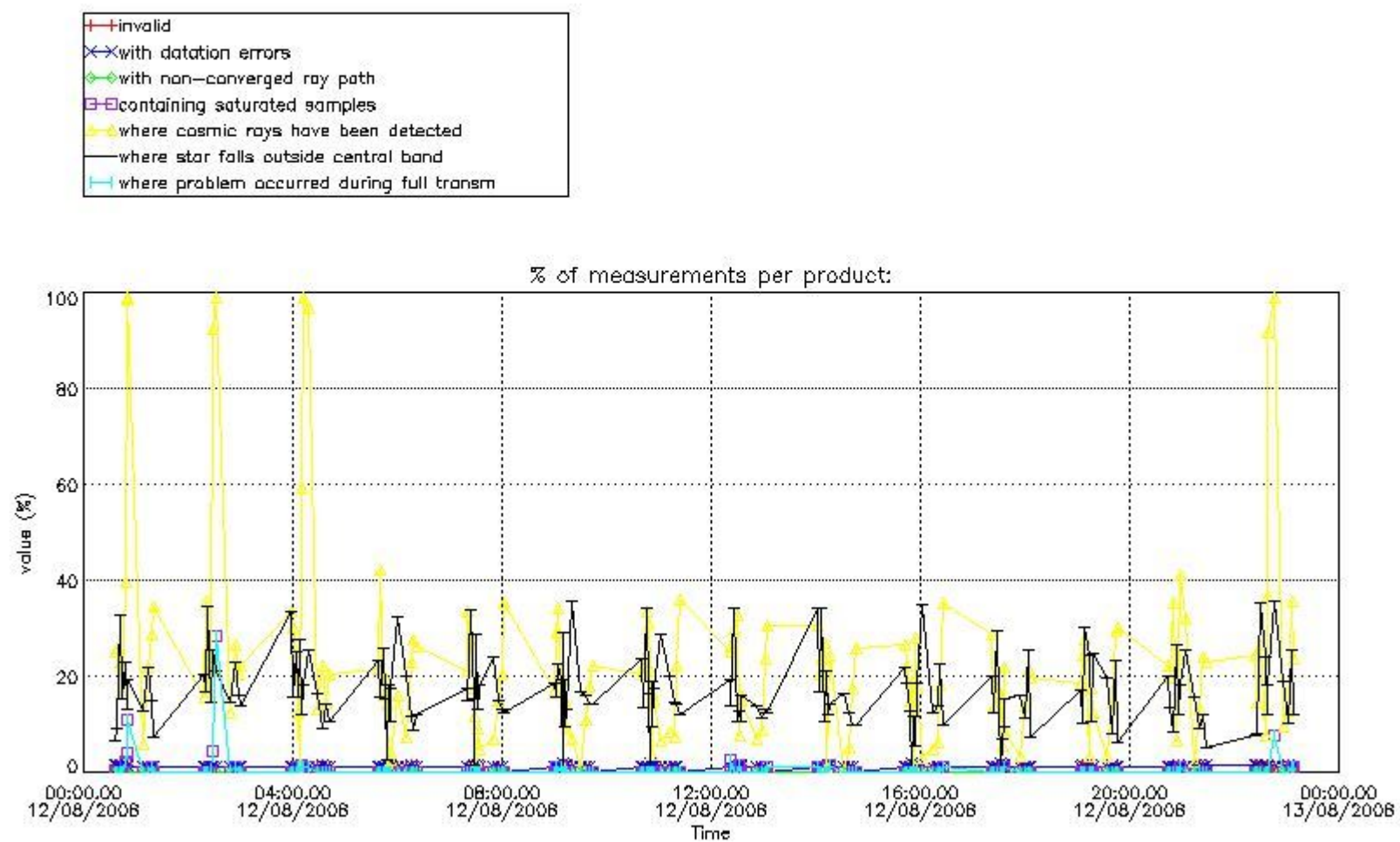


4. Level 1 quality information per product

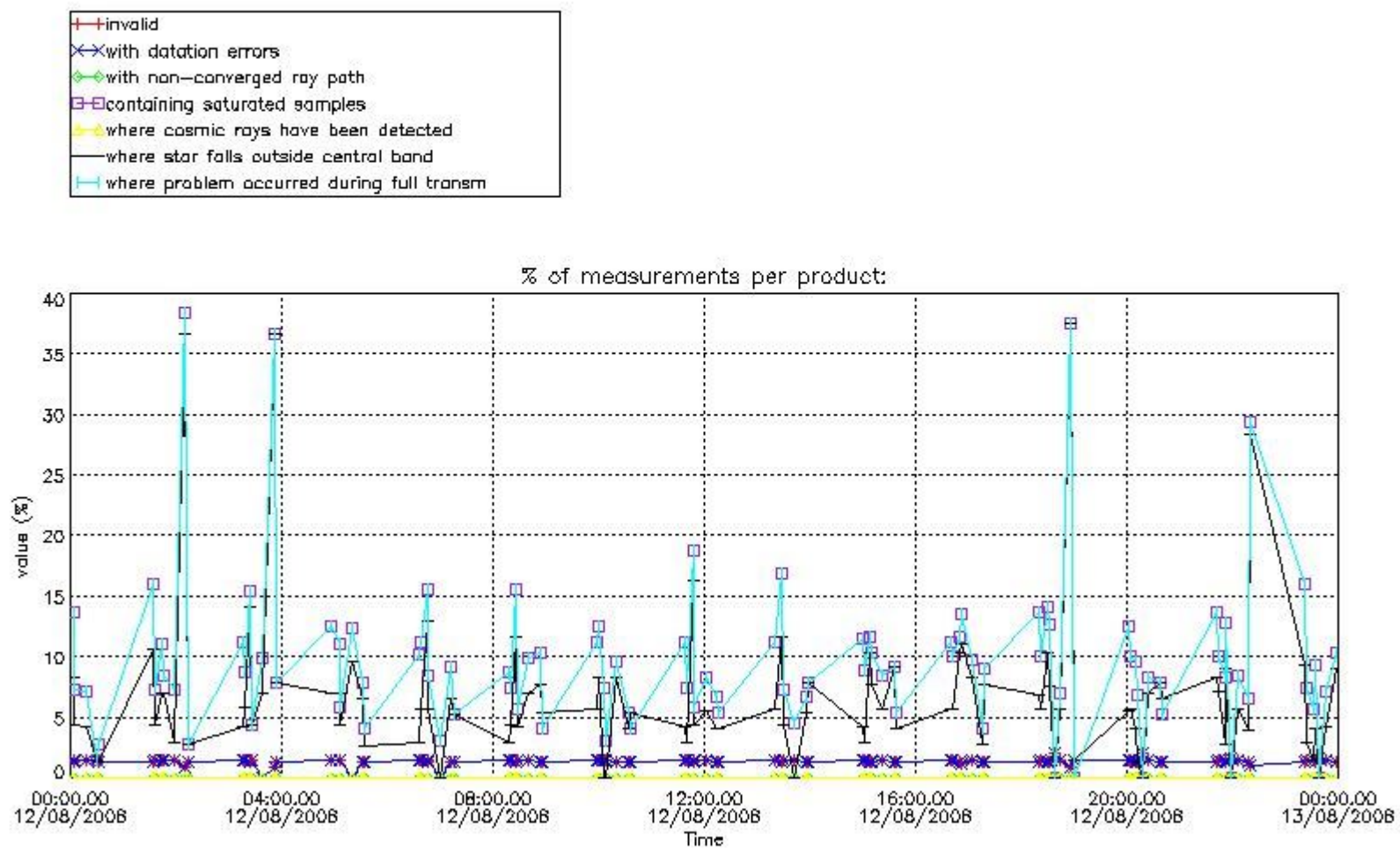
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



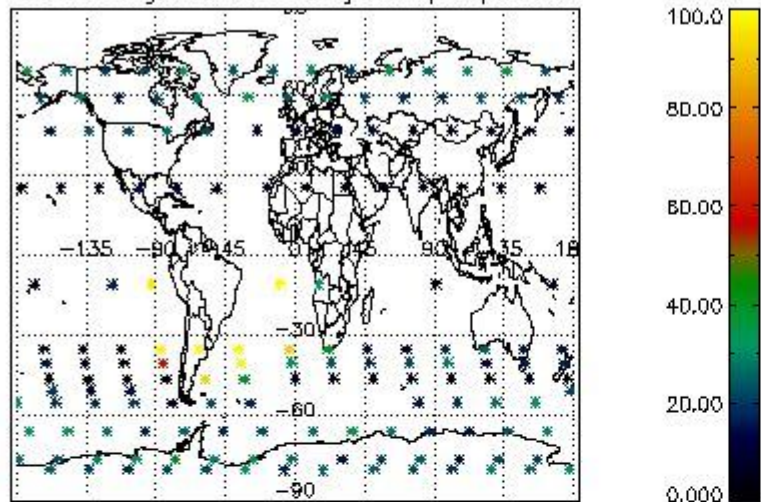
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



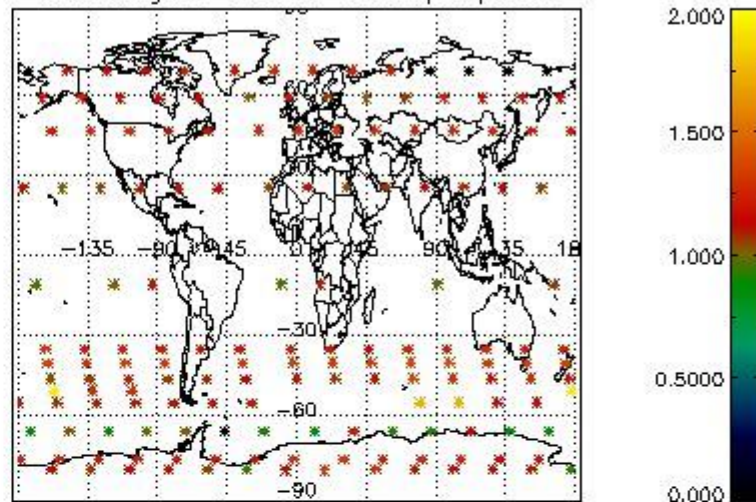
4.2 Plot quality information per product coming from level 1b processing (world map)

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

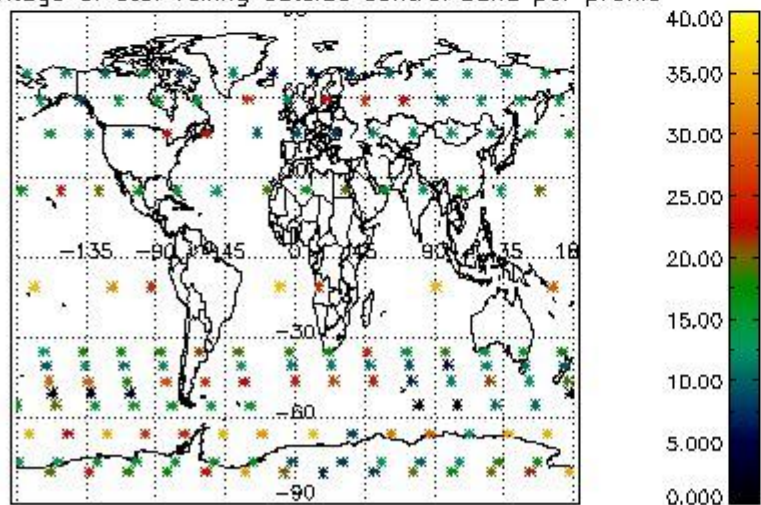
Percentage of cosmic ray hits per profile



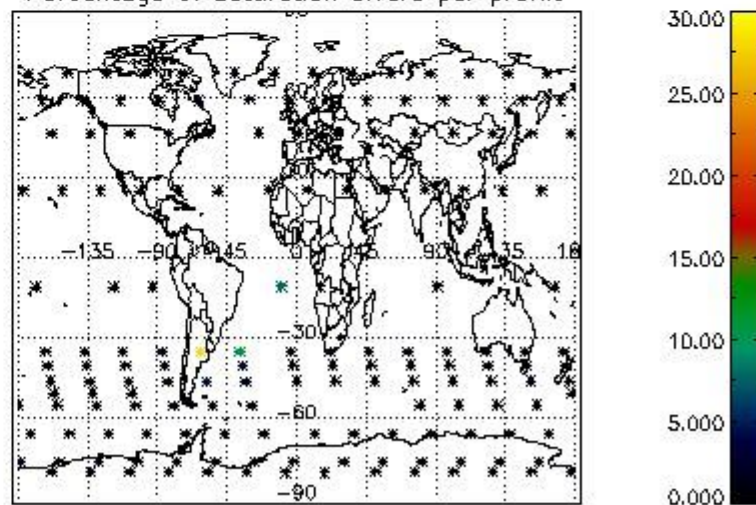
Percentage of datation errors per profile



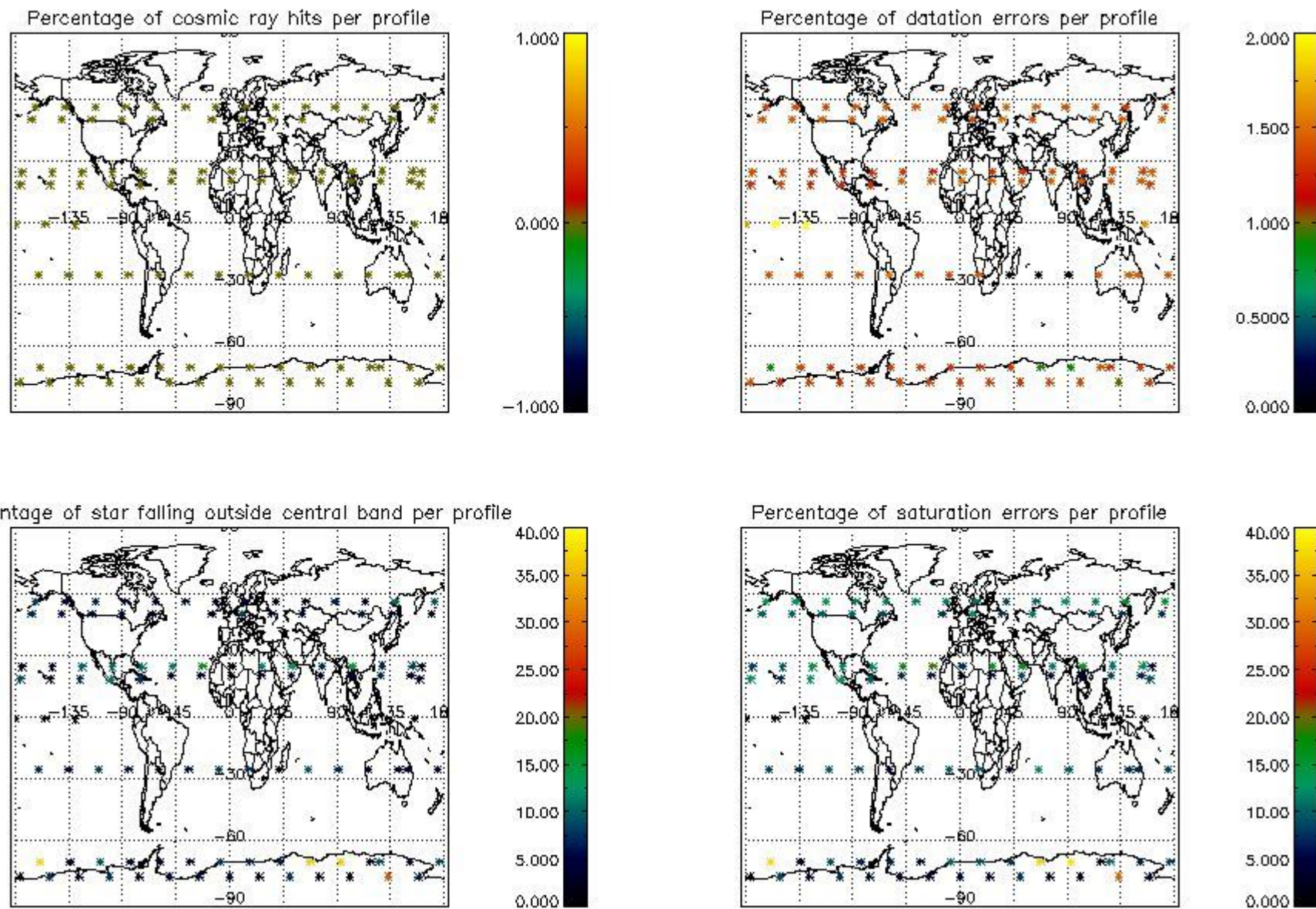
Percentage of star falling outside central band per profile



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

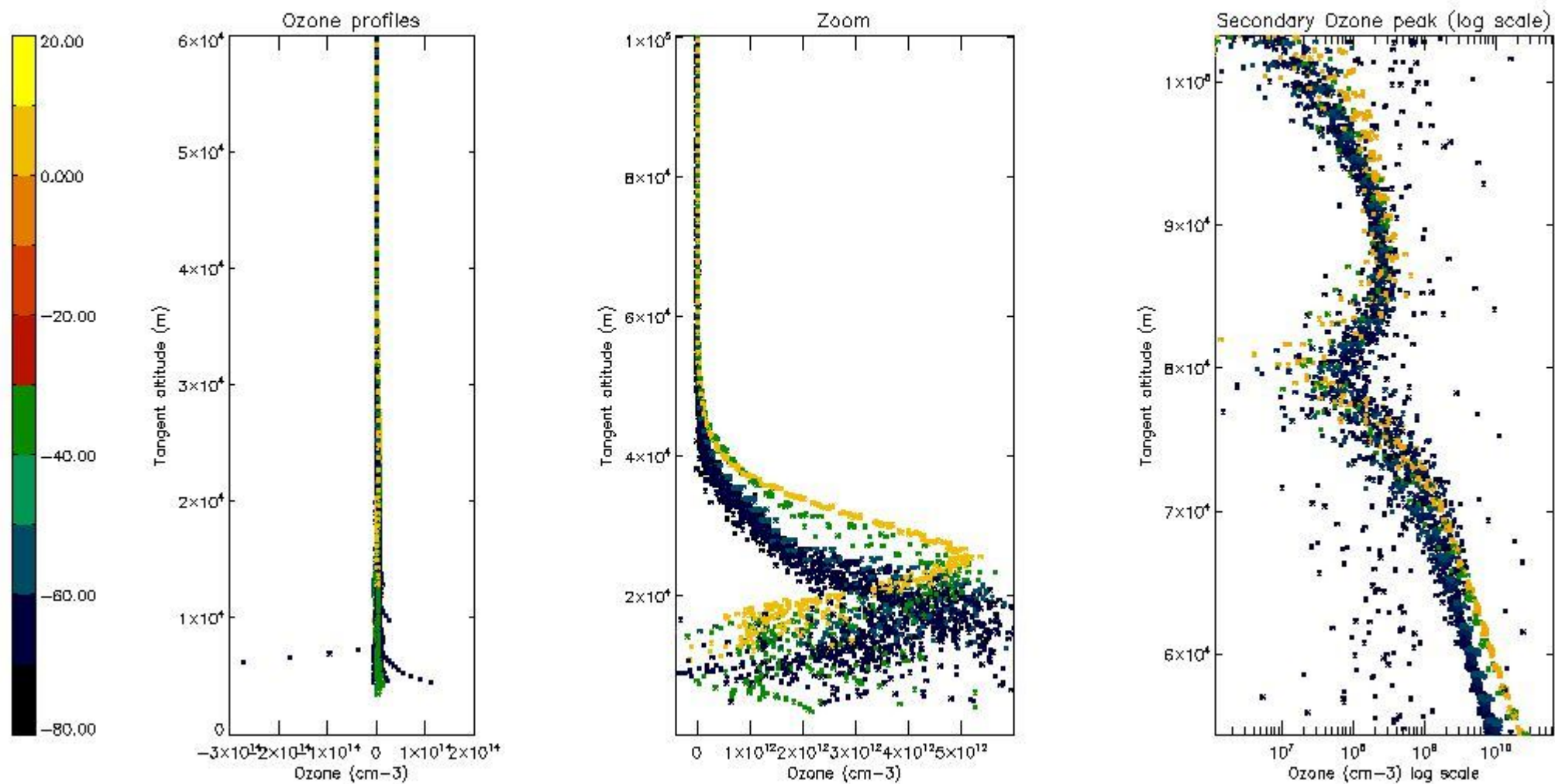
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	38
STD < 20	24

STD < 10	20
STD < 5	16

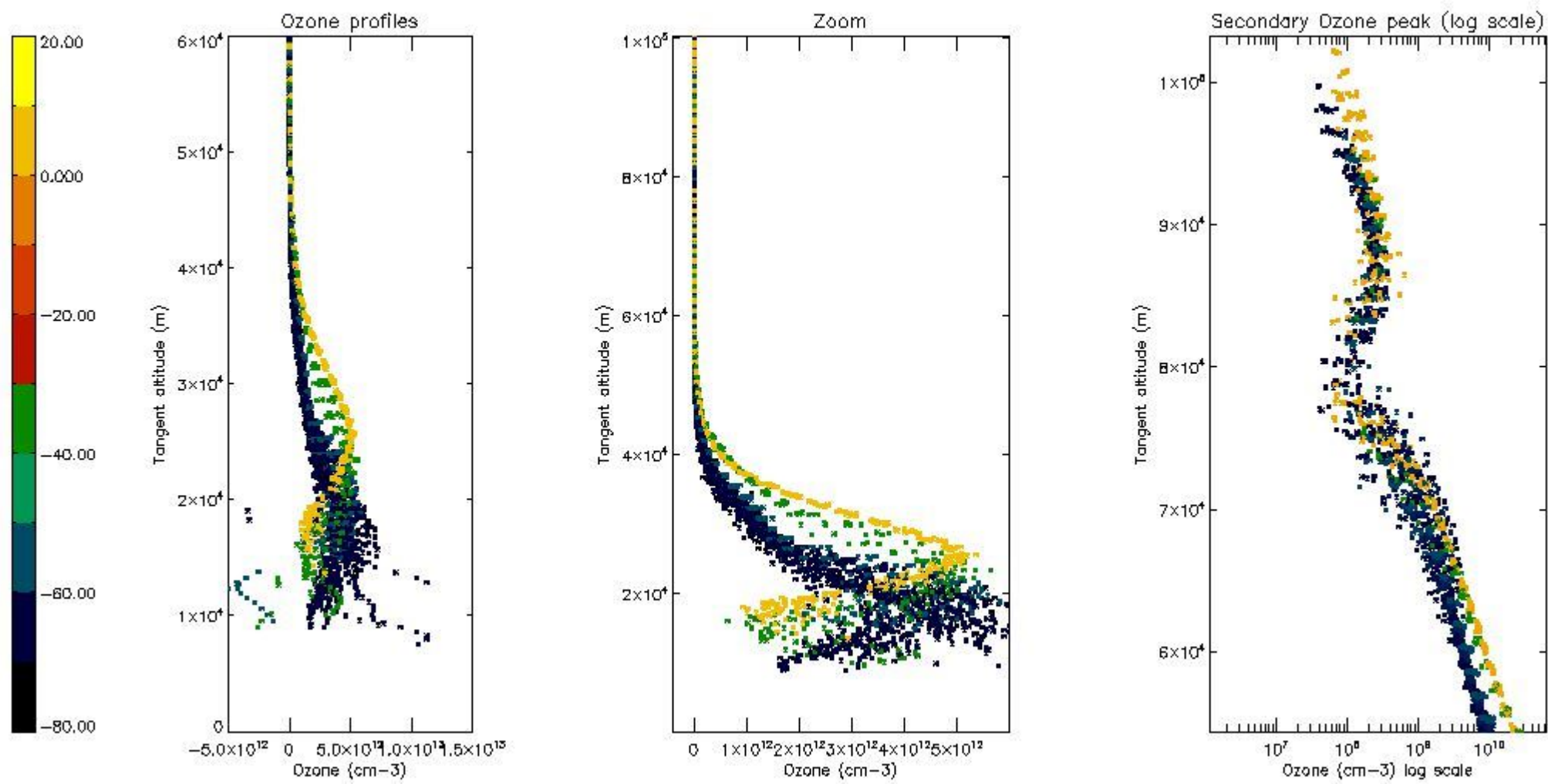
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



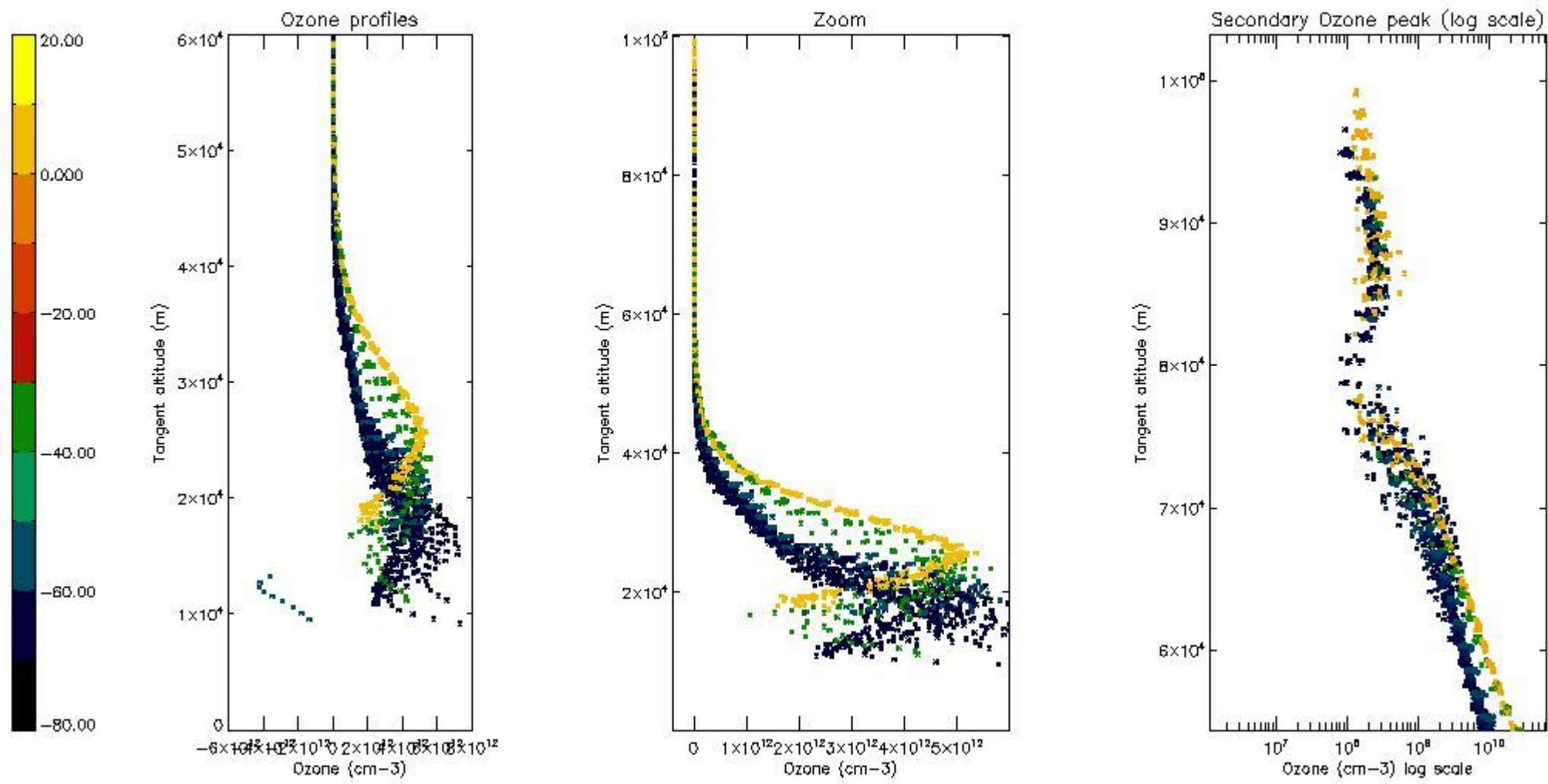
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



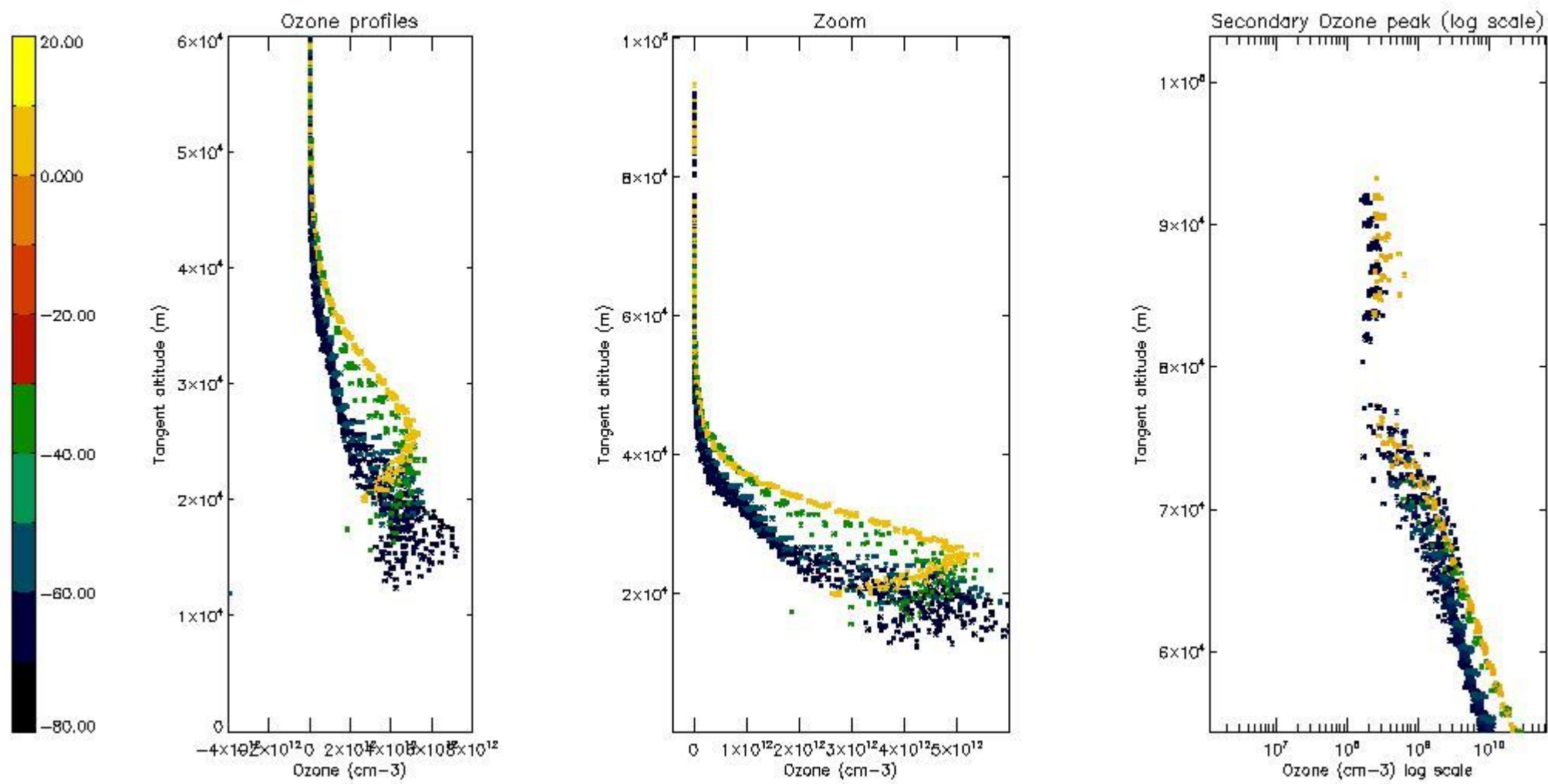
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



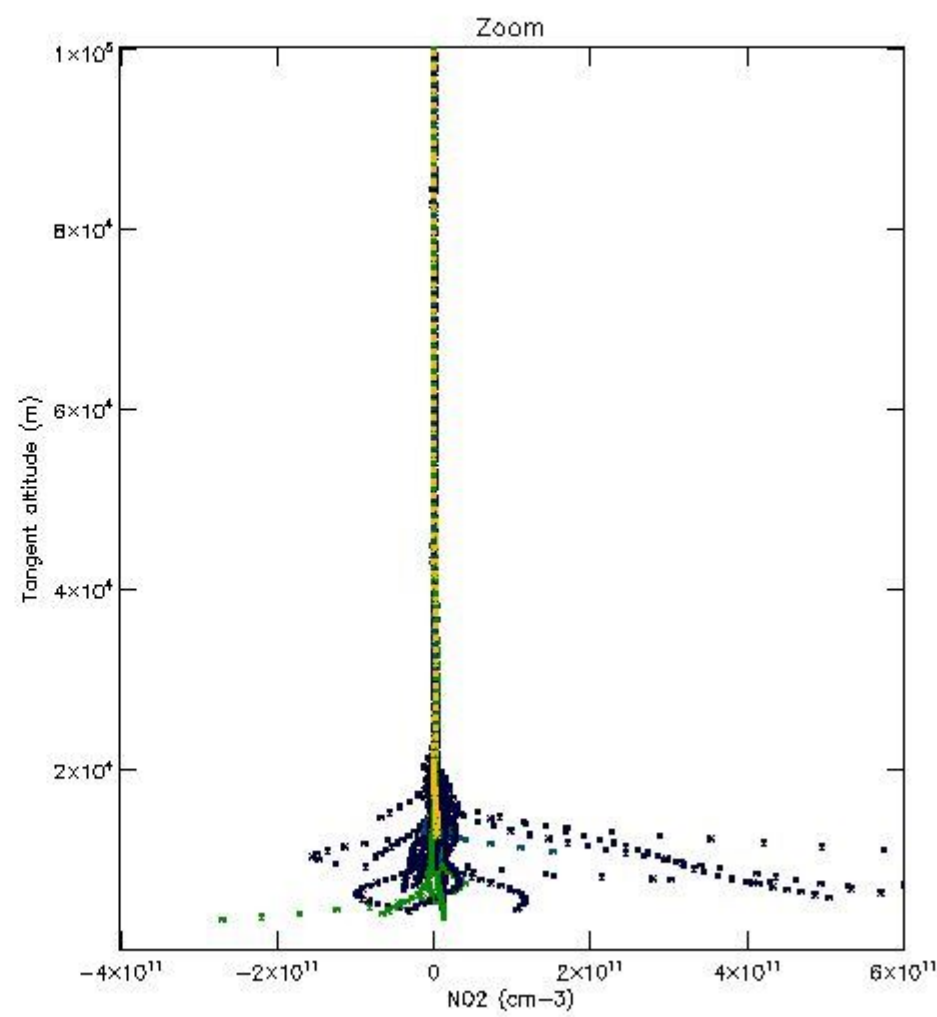
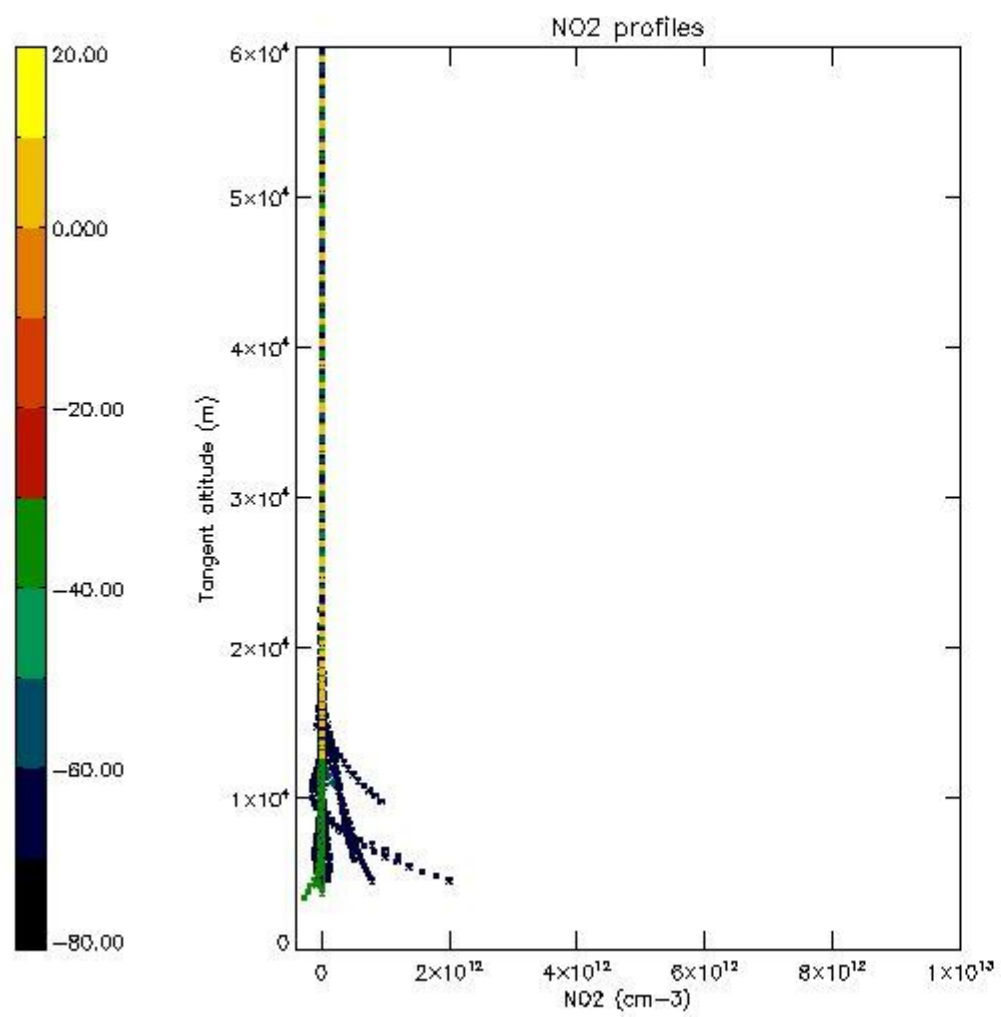
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



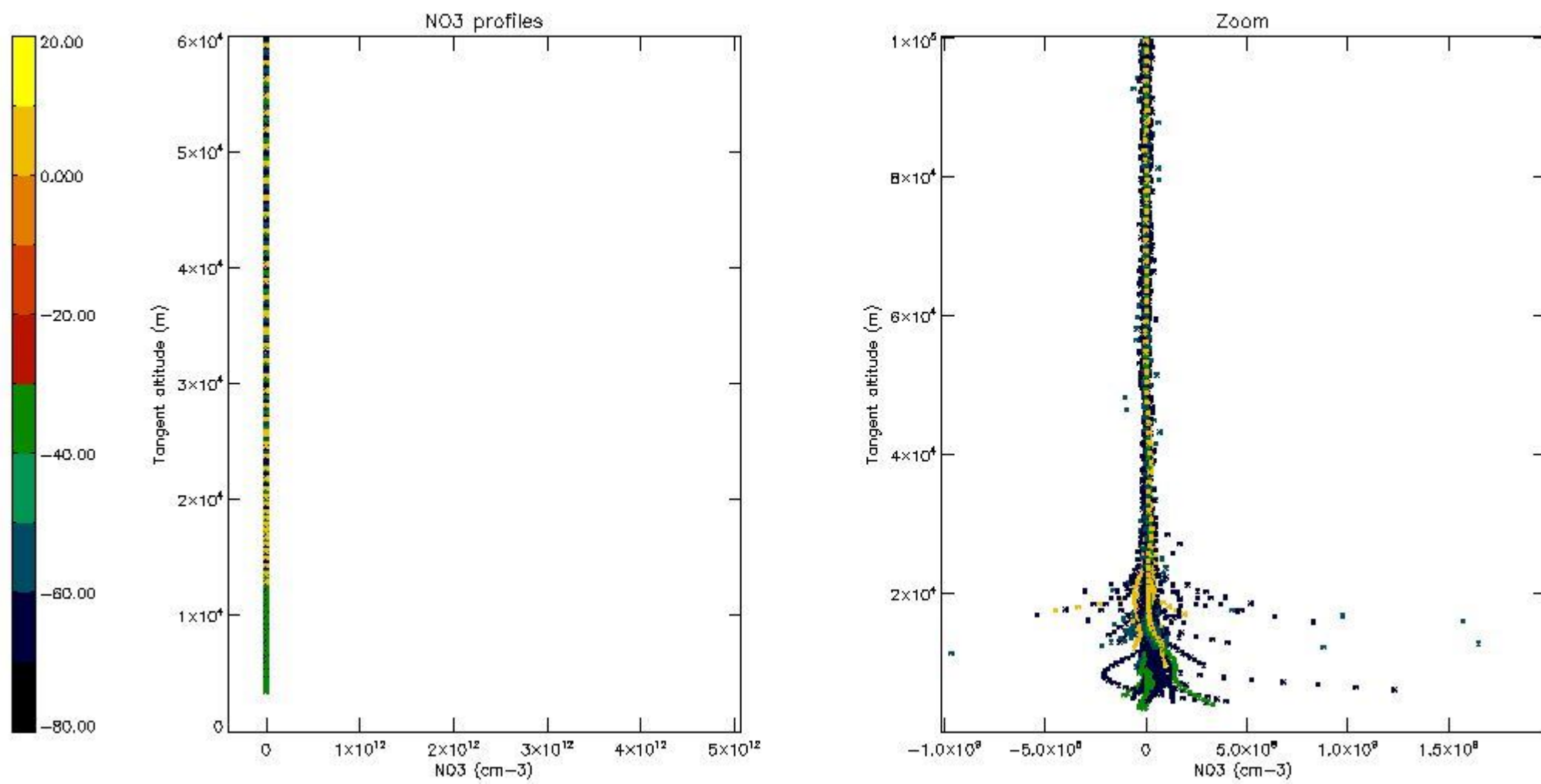
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



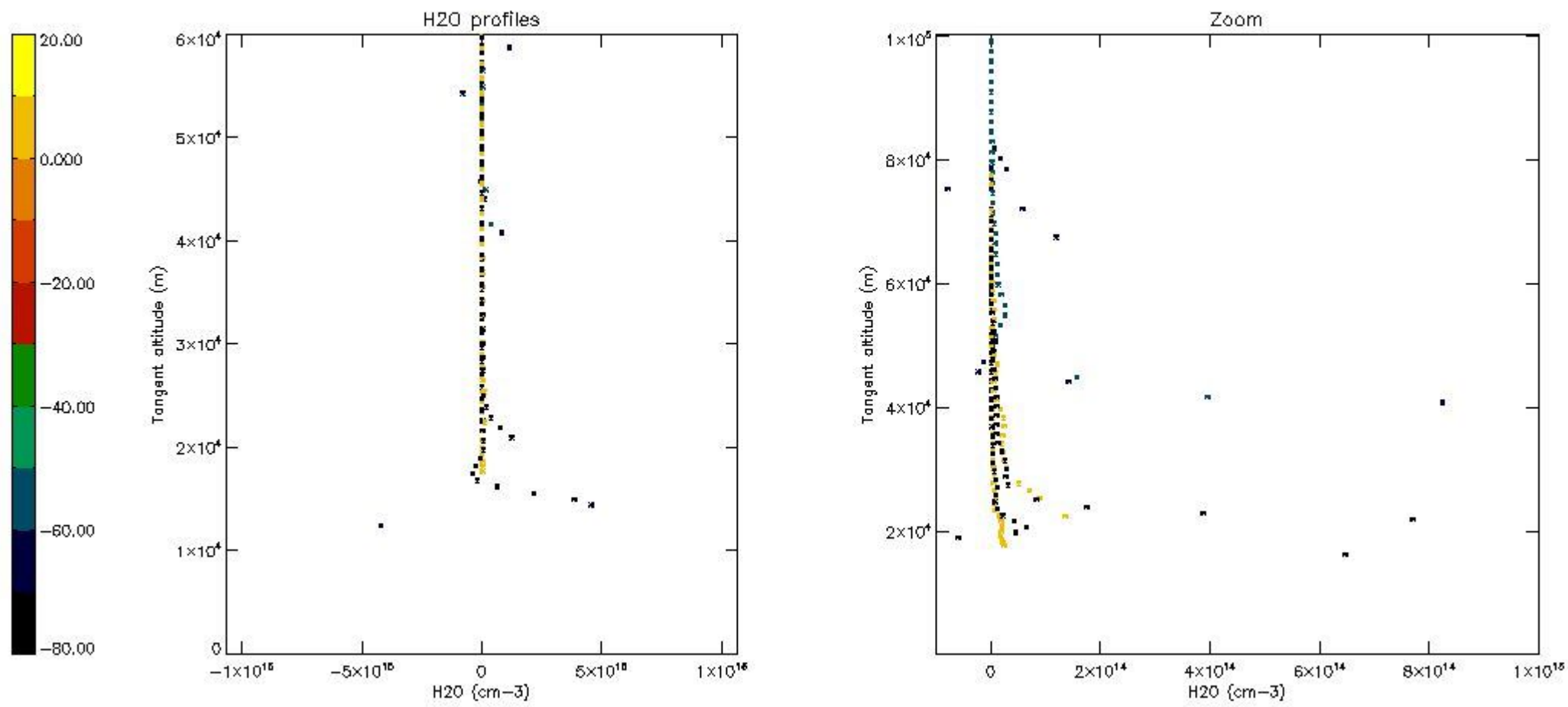
5.7 Plot NO3 profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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

The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	12-AUG-2008 00:03:14
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	12-AUG-2008 00:03:14
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	12-AUG-2008 00:03:14

GOMOS Level 2 Daily Report

SUMMARY

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[2. Summary of processed GOM_NL_2P products](#)

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

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[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](#)

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[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](#)

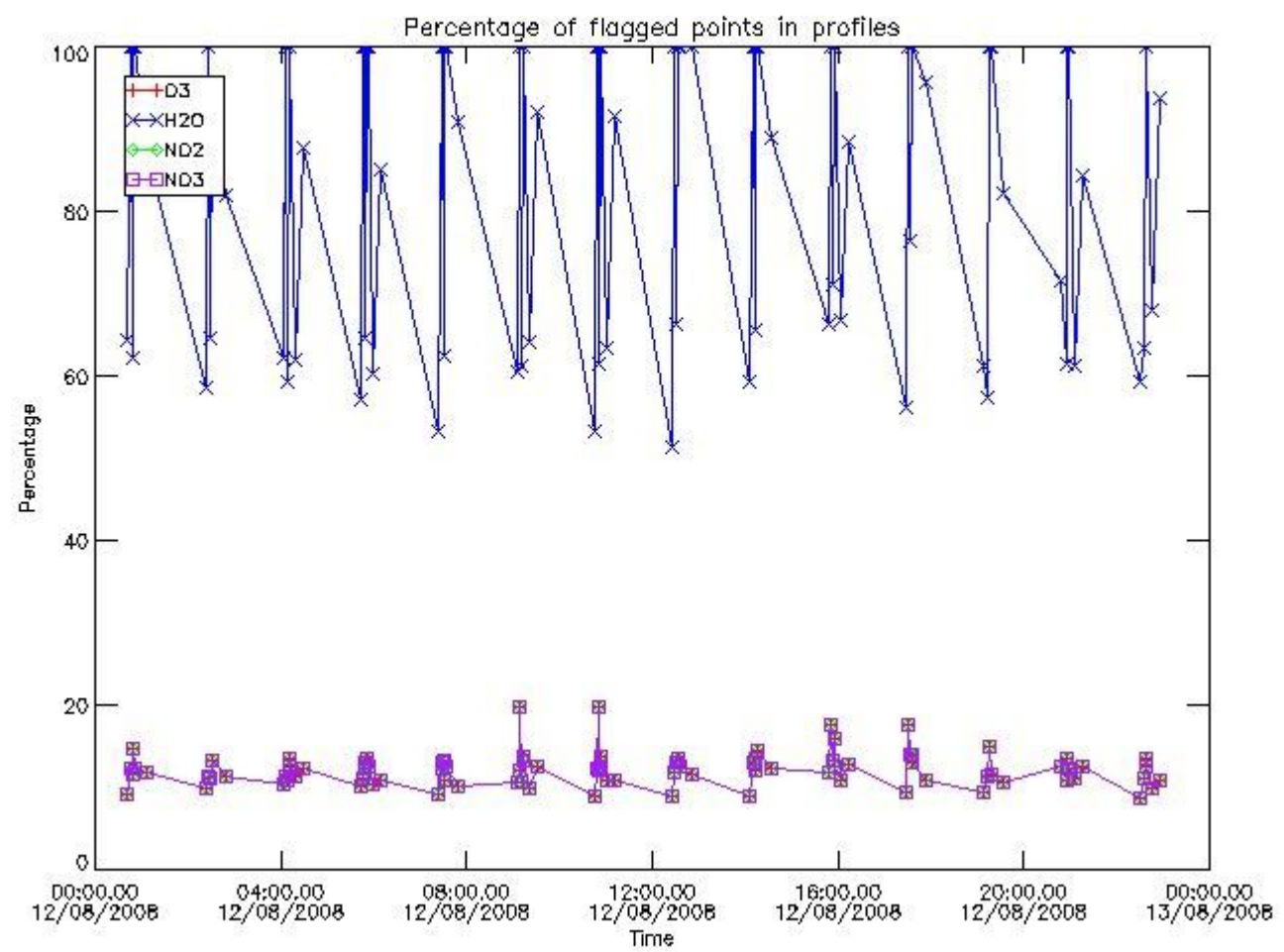
[6. Auxiliary Data Files used for the production reported in section 2](#)

220	GOM_NL_2PRFIN20080812_194649_000000402071_00114_33735_5553.N1	12-AUG-2008 19:46:49	Straylight	40.000	172	Gam Gru	3.0030	13100.	80	33735	No
221	GOM_NL_2PRFIN20080812_200132_000000362071_00114_33735_5554.N1	12-AUG-2008 20:01:32	Bright	36.000	11	53Alp Aql	0.76500	8000.0	72	33735	No
222	GOM_NL_2PRFIN20080812_200318_000000352071_00114_33735_5555.N1	12-AUG-2008 20:03:18	Bright	35.000	168	17Zet Aql	2.9860	11000.	70	33735	No
223	GOM_NL_2PRFIN20080812_201035_000000372071_00114_33735_5556.N1	12-AUG-2008 20:10:35	Bright	36.500	66	37Gam Cyg	2.2080	5900.0	73	33735	No
224	GOM_NL_2PRFIN20080812_201216_000000372071_00114_33735_5557.N1	12-AUG-2008 20:12:16	Bright	36.500	19	50Alp Cyg	1.2460	10500.	73	33735	No
225	GOM_NL_2PRFIN20080812_201739_000000252071_00114_33735_5558.N1	12-AUG-2008 20:17:39	Twi_and_stray	25.000	89	5Alp Cep	2.4510	8000.0	50	33735	No
226	GOM_NL_2PRFIN20080812_202429_000000362071_00114_33735_5559.N1	12-AUG-2008 20:24:29	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	33735	No
227	GOM_NL_2PRFIN20080812_203731_000000382071_00114_33735_5560.N1	12-AUG-2008 20:37:31	Bright	38.000	42	34Bet Aur	1.9000	10200.	76	33735	No
228	GOM_NL_2PRFIN20080812_203955_000000382071_00114_33735_5561.N1	12-AUG-2008 20:39:55	Bright	38.000	107	37The Aur	2.6490	11000.	76	33735	No
229	GOM_NL_2PRFIN20080812_204408_000000452071_00114_33735_5562.N1	12-AUG-2008 20:44:08	Bright	45.000	151	13Mu Gem	2.8900	3000.0	90	33735	No
230	GOM_NL_2PRFIN20080812_204542_000000412071_00114_33735_5563.N1	12-AUG-2008 20:45:42	Twi_and_stray	40.500	44	24Gam Gem	1.9280	11000.	81	33735	No
231	GOM_NL_2PRFIN20080812_204905_000000412071_00114_33735_5564.N1	12-AUG-2008 20:49:05	Dark	41.000	14	58Alp Ori	0.87000	3000.0	82	33735	No
232	GOM_NL_2PRFIN20080812_205447_000000472071_00114_33735_5565.N1	12-AUG-2008 20:54:47	Dark	47.000	1	9Alp CMa	-1.4400	11000.	94	33735	No
233	GOM_NL_2PRFIN20080812_205628_000000382071_00114_33735_5566.N1	12-AUG-2008 20:56:28	Dark	38.000	179	24Omi2CMa	3.0320	24000.	76	33735	No
234	GOM_NL_2PRFIN20080812_205755_000000422071_00114_33735_5567.N1	12-AUG-2008 20:57:55	Dark	41.500	23	21Eps CMa	1.5020	26000.	83	33735	No
235	GOM_NL_2PRFIN20080812_210445_000000462071_00114_33735_5568.N1	12-AUG-2008 21:04:45	Dark	45.500	2	Alp Car	-0.73600	7000.0	91	33735	No
236	GOM_NL_2PRFIN20080812_211454_000000452071_00115_33736_5564.N1	12-AUG-2008 21:14:54	Dark	45.000	9	Alp Eri	0.45300	24000.	90	33736	No
237	GOM_NL_2PRFIN20080812_212053_000000392071_00115_33736_5565.N1	12-AUG-2008 21:20:53	Straylight	38.500	148	Alp Tuc	2.8780	4100.0	77	33736	No
238	GOM_NL_2PRFIN20080812_212425_000000422071_00115_33736_5566.N1	12-AUG-2008 21:24:25	Straylight	41.500	31	Alp Gru	1.7340	15200.	83	33736	No
239	GOM_NL_2PRFIN20080812_212726_000000392071_00115_33736_5567.N1	12-AUG-2008 21:27:26	Straylight	39.000	172	Gam Gru	3.0030	13100.	78	33736	No
240	GOM_NL_2PRFIN20080812_214208_000000372071_00115_33736_5568.N1	12-AUG-2008 21:42:08	Bright	36.500	11	53Alp Aql	0.76500	8000.0	73	33736	No
241	GOM_NL_2PRFIN20080812_214354_000000352071_00115_33736_5569.N1	12-AUG-2008 21:43:54	Bright	35.000	168	17Zet Aql	2.9860	11000.	70	33736	No
242	GOM_NL_2PRFIN20080812_215110_000000362071_00115_33736_5570.N1	12-AUG-2008 21:51:10	Bright	36.000	66	37Gam Cyg	2.2080	5900.0	72	33736	No
243	GOM_NL_2PRFIN20080812_215251_000000392071_00115_33736_5571.N1	12-AUG-2008 21:52:51	Bright	39.000	19	50Alp Cyg	1.2460	10500.	78	33736	No
244	GOM_NL_2PRFIN20080812_215815_000000312071_00115_33736_5572.N1	12-AUG-2008 21:58:15	Bright	31.000	89	5Alp Cep	2.4510	8000.0	62	33736	No
245	GOM_NL_2PRFIN20080812_220505_000000362071_00115_33736_5573.N1	12-AUG-2008 22:05:05	Bright	35.500	49	1Alp UMi	1.9900	6300.0	71	33736	No
246	GOM_NL_2PRFIN20080812_221807_000000382071_00115_33736_5574.N1	12-AUG-2008 22:18:07	Bright	38.000	42	34Bet Aur	1.9000	10200.	76	33736	No
247	GOM_NL_2PRFIN20080812_222031_000000512071_00115_33736_5575.N1	12-AUG-2008 22:20:31	Bright	51.000	107	37The Aur	2.6490	11000.	102	33736	No
248	GOM_NL_2PRFIN20080812_222444_000000392071_00115_33736_5576.N1	12-AUG-2008 22:24:44	Bright	39.000	151	13Mu Gem	2.8900	3000.0	78	33736	No
249	GOM_NL_2PRFIN20080812_222618_000000382071_00115_33736_5577.N1	12-AUG-2008 22:26:18	Twi_and_stray	38.000	44	24Gam Gem	1.9280	11000.	76	33736	No
250	GOM_NL_2PRFIN20080812_222942_000000582071_00115_33736_5578.N1	12-AUG-2008 22:29:42	Dark	58.000	14	58Alp Ori	0.87000	3000.0	116	33736	No
251	GOM_NL_2PRFIN20080812_223523_000000462071_00115_33736_5579.N1	12-AUG-2008 22:35:23	Dark	45.500	1	9Alp CMa	-1.4400	11000.	91	33736	No
252	GOM_NL_2PRFIN20080812_223704_000000382071_00115_33736_5580.N1	12-AUG-2008 22:37:04	Dark	38.000	179	24Omi2CMa	3.0320	24000.	76	33736	No
253	GOM_NL_2PRFIN20080812_223832_000000412071_00115_33736_5581.N1	12-AUG-2008 22:38:32	Dark	41.000	23	21Eps CMa	1.5020	26000.	82	33736	No
254	GOM_NL_2PRFIN20080812_224521_000000522071_00115_33736_5582.N1	12-AUG-2008 22:45:21	Dark	52.000	2	Alp Car	-0.73600	7000.0	104	33736	No
255	GOM_NL_2PRFIN20080812_225530_000000482071_00116_33737_5578.N1	12-AUG-2008 22:55:30	Dark	47.500	9	Alp Eri	0.45300	24000.	95	33737	No
256	GOM_NL_2PRFIN20080812_230129_000000392071_00116_33737_5579.N1	12-AUG-2008 23:01:29	Straylight	39.000	148	Alp Tuc	2.8780	4100.0	78	33737	No
257	GOM_NL_2PRFIN20080812_230502_000000492071_00116_33737_5580.N1	12-AUG-2008 23:05:02	Straylight	49.000	31	Alp Gru	1.7340	15200.	98	33737	No
258	GOM_NL_2PRFIN20080812_230802_000000422071_00116_33737_5581.N1	12-AUG-2008 23:08:02	Straylight	42.000	172	Gam Gru	3.0030	13100.	84	33737	No
259	GOM_NL_2PRFIN20080812_232244_000000382071_00116_33737_5582.N1	12-AUG-2008 23:22:44	Bright	37.500	11	53Alp Aql	0.76500	8000.0	75	33737	No
260	GOM_NL_2PRFIN20080812_232430_000000342071_00116_33737_5583.N1	12-AUG-2008 23:24:30	Bright	34.000	168	17Zet Aql	2.9860	11000.	68	33737	No
261	GOM_NL_2PRFIN20080812_233146_000000352071_00116_33737_5584.N1	12-AUG-2008 23:31:46	Bright	35.000	66	37Gam Cyg	2.2080	5900.0	70	33737	No
262	GOM_NL_2PRFIN20080812_233327_000000382071_00116_33737_5585.N1	12-AUG-2008 23:33:27	Bright	37.500	19	50Alp Cyg	1.2460	10500.	75	33737	No
263	GOM_NL_2PRFIN20080812_233850_000000312071_00116_33737_5586.N1	12-AUG-2008 23:38:50	Bright	31.000	89	5Alp Cep	2.4510	8000.0	62	33737	No
264	GOM_NL_2PRFIN20080812_234541_000000352071_00116_33737_5587.N1	12-AUG-2008 23:45:41	Bright	35.000	49	1Alp UMi	1.9900	6300.0	70	33737	No
265	GOM_NL_2PRFIN20080812_235843_000000392071_00116_33737_5588.N1	12-AUG-2008 23:58:43	Bright	39.000	42	34Bet Aur	1.9000	10200.	78	33737	No

3. Quality information per product

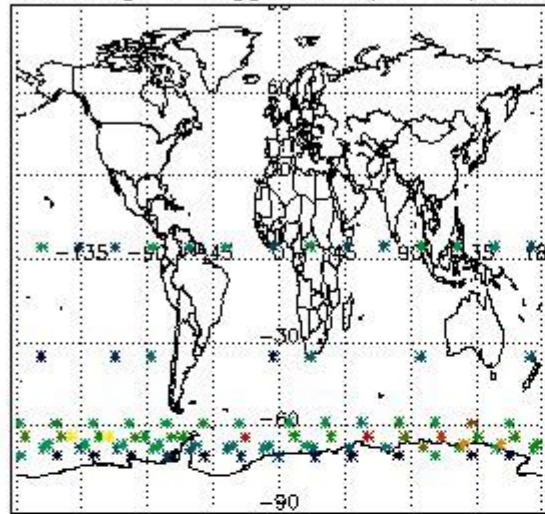
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

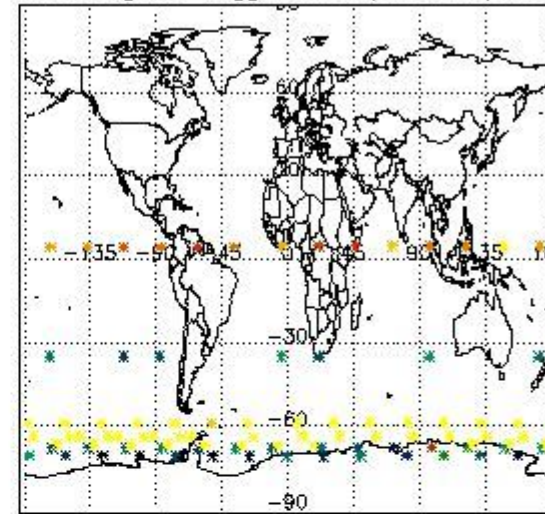


3.2 Plot quality information per product (world map)

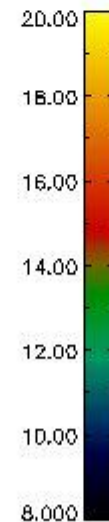
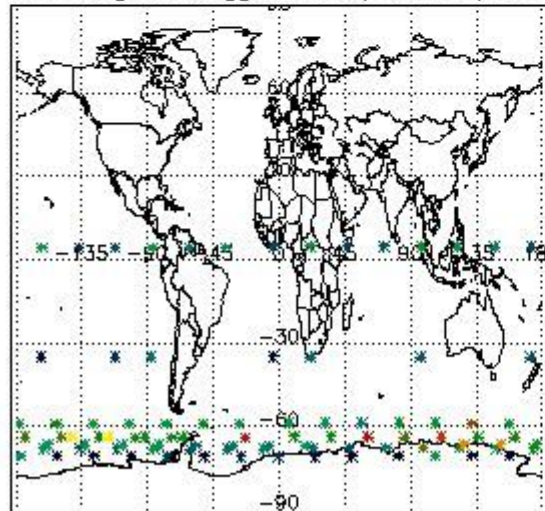
Percentage of flagged data per O3 profile



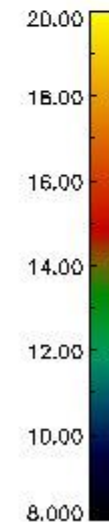
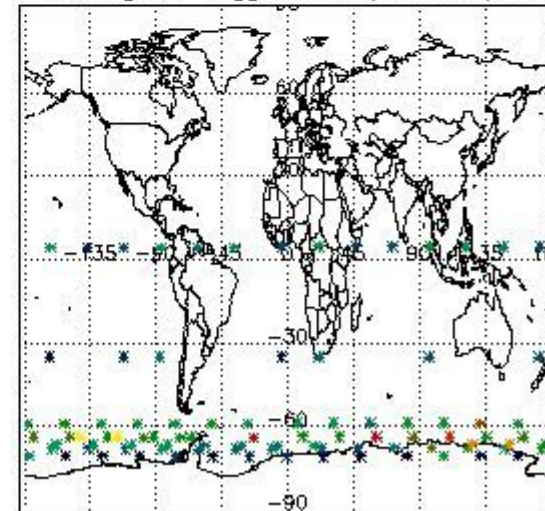
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

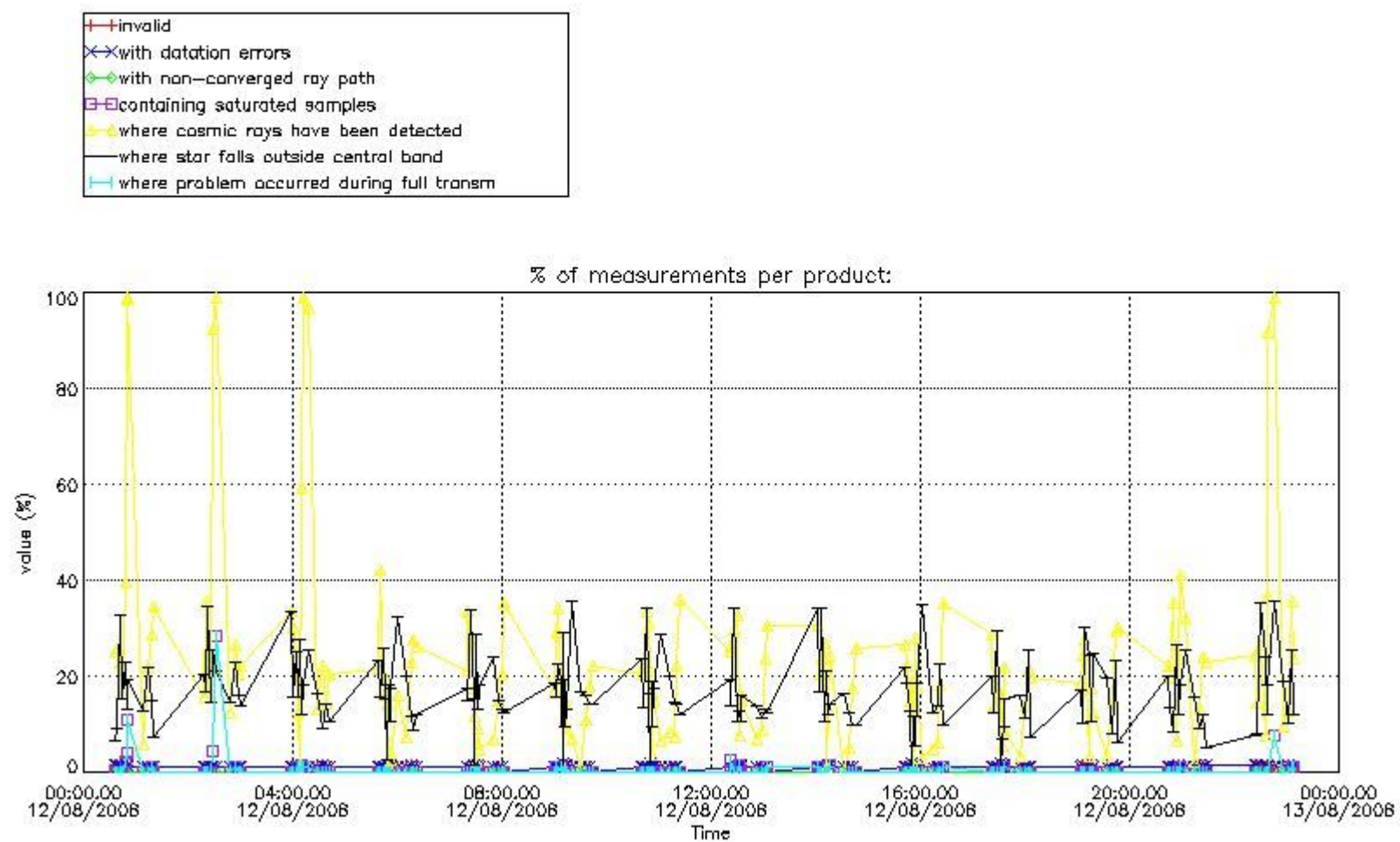


4. Level 1 quality information per product

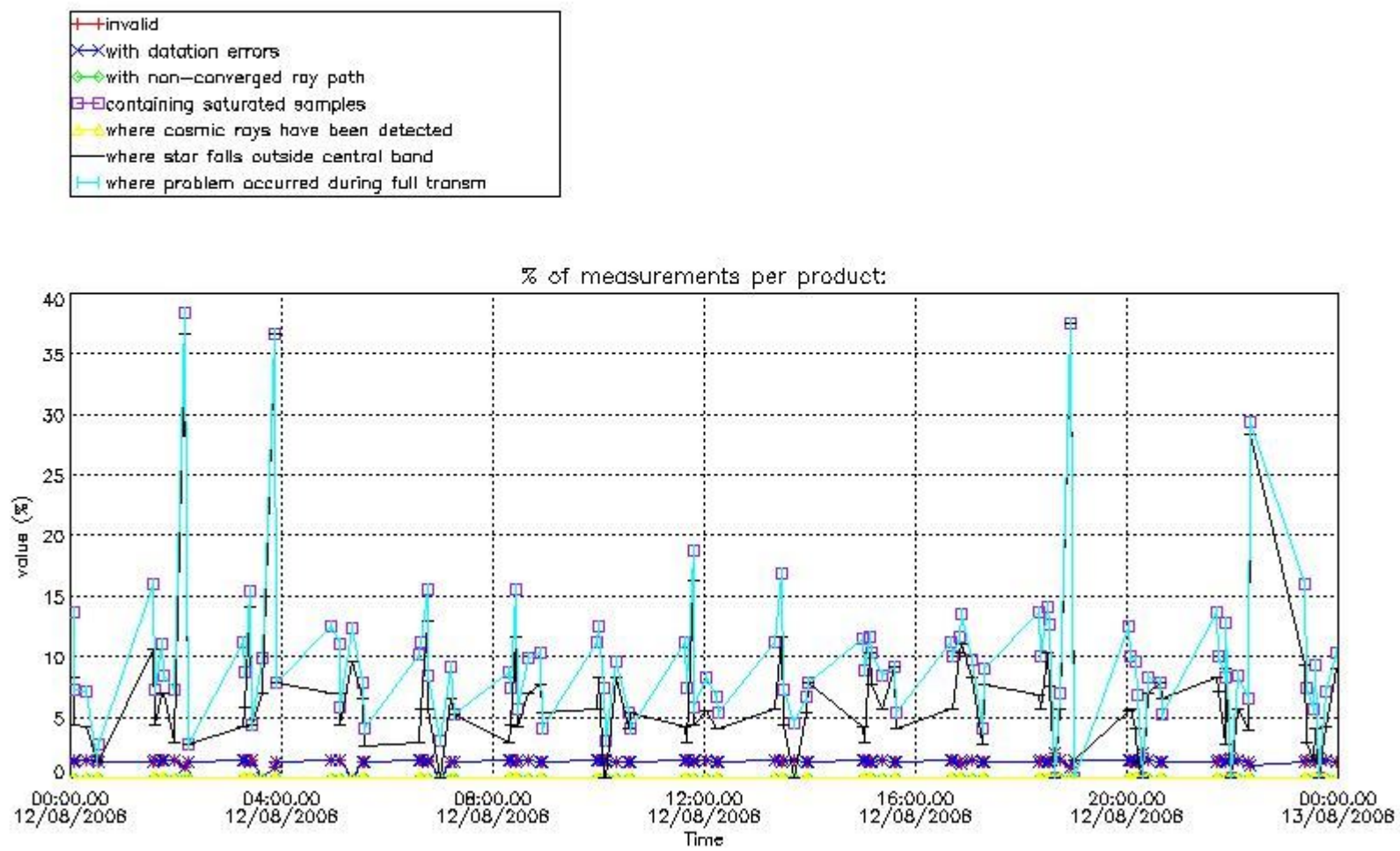
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



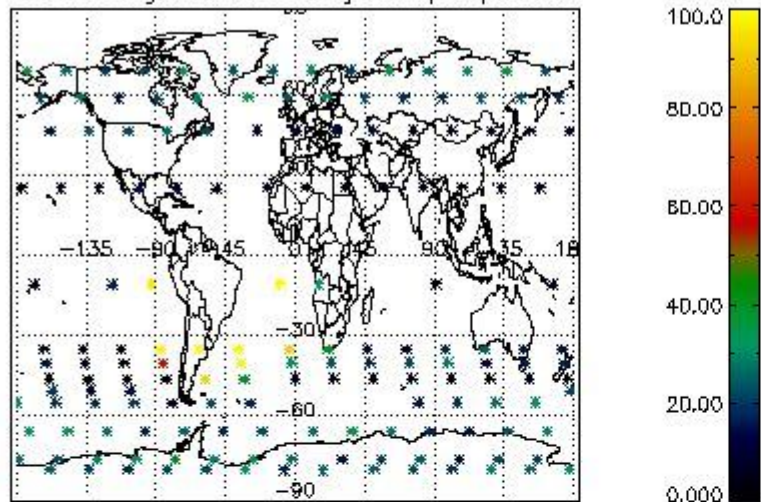
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



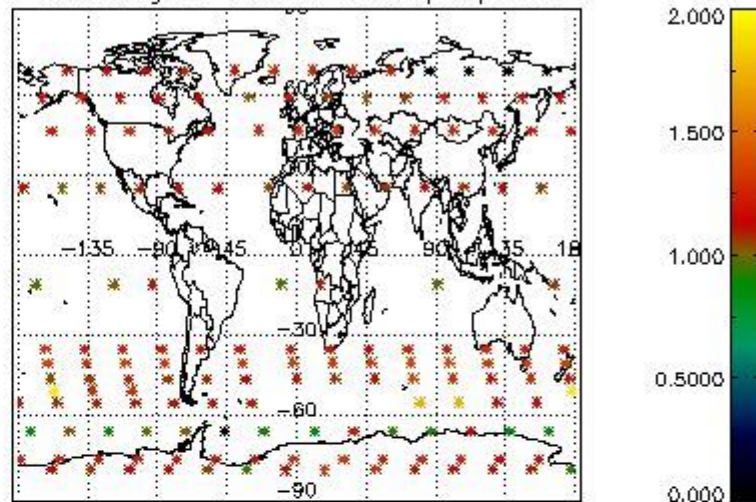
4.2 Plot quality information per product coming from level 1b processing (world map)

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

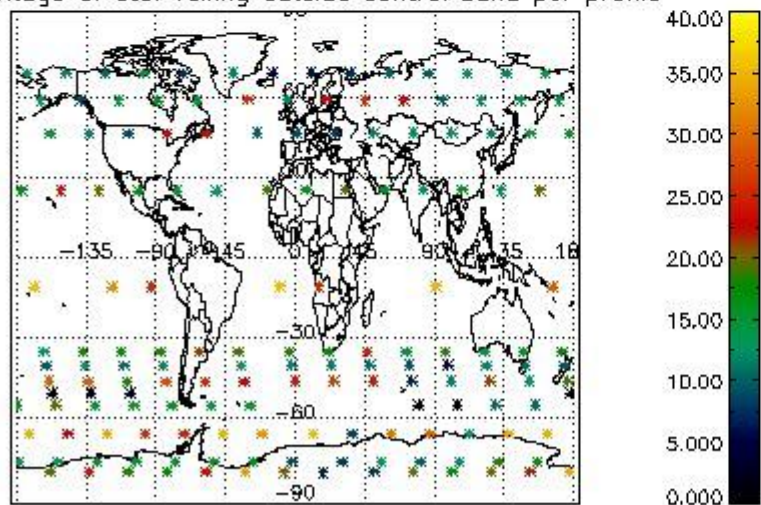
Percentage of cosmic ray hits per profile



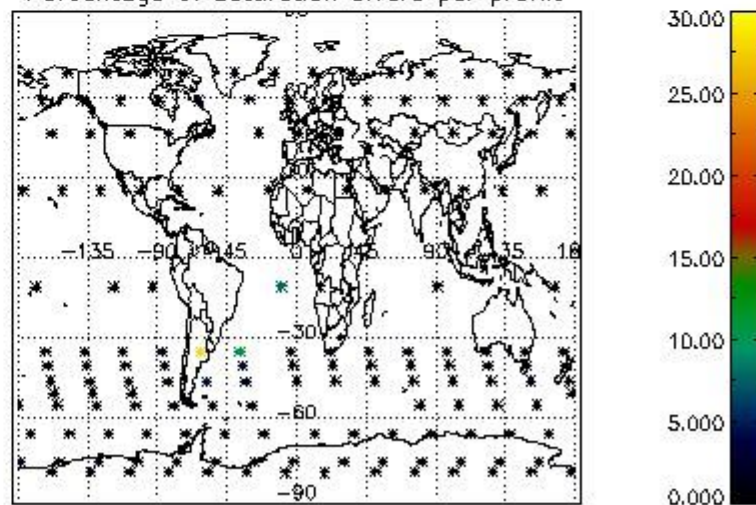
Percentage of datation errors per profile



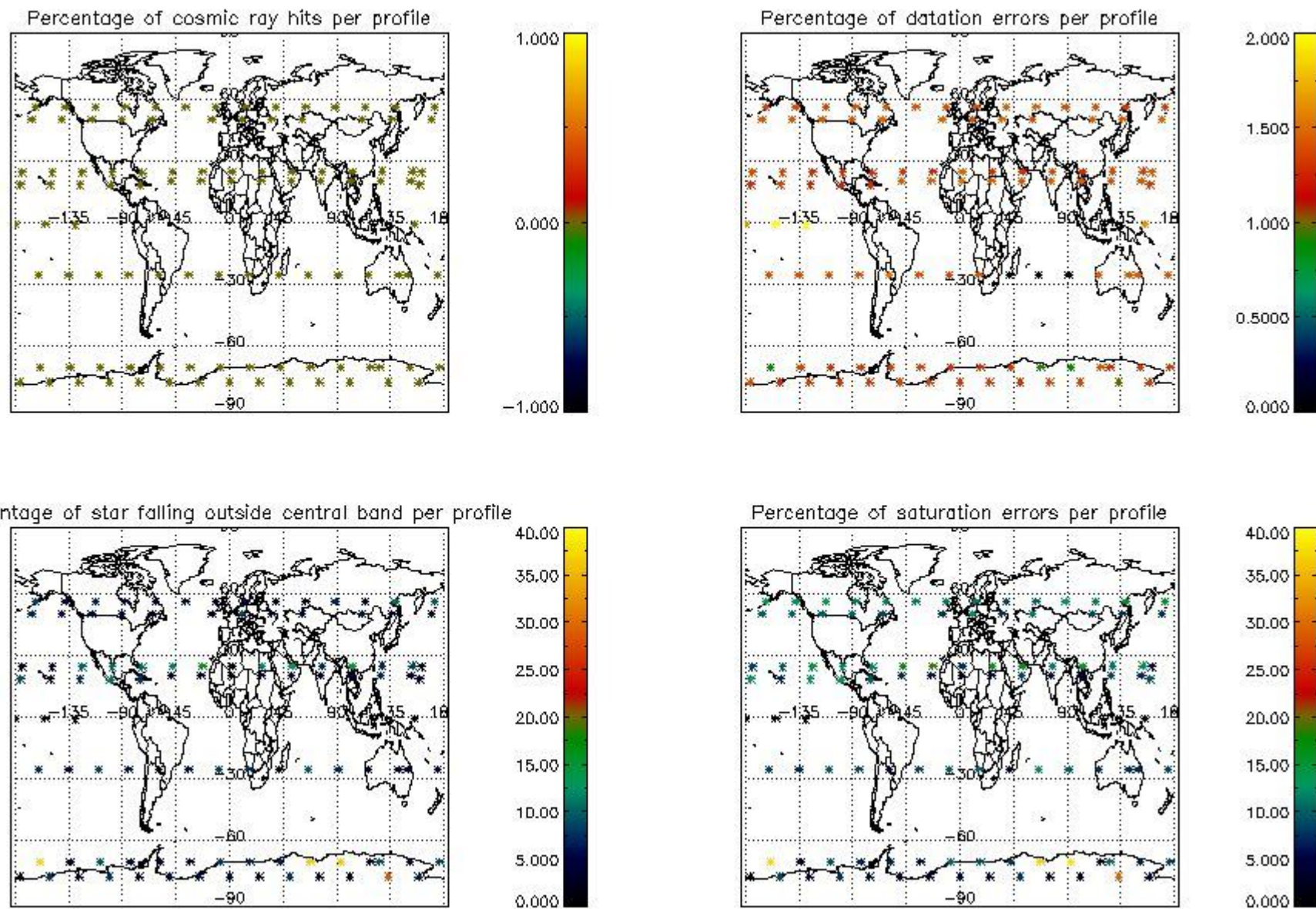
Percentage of star falling outside central band per profile



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

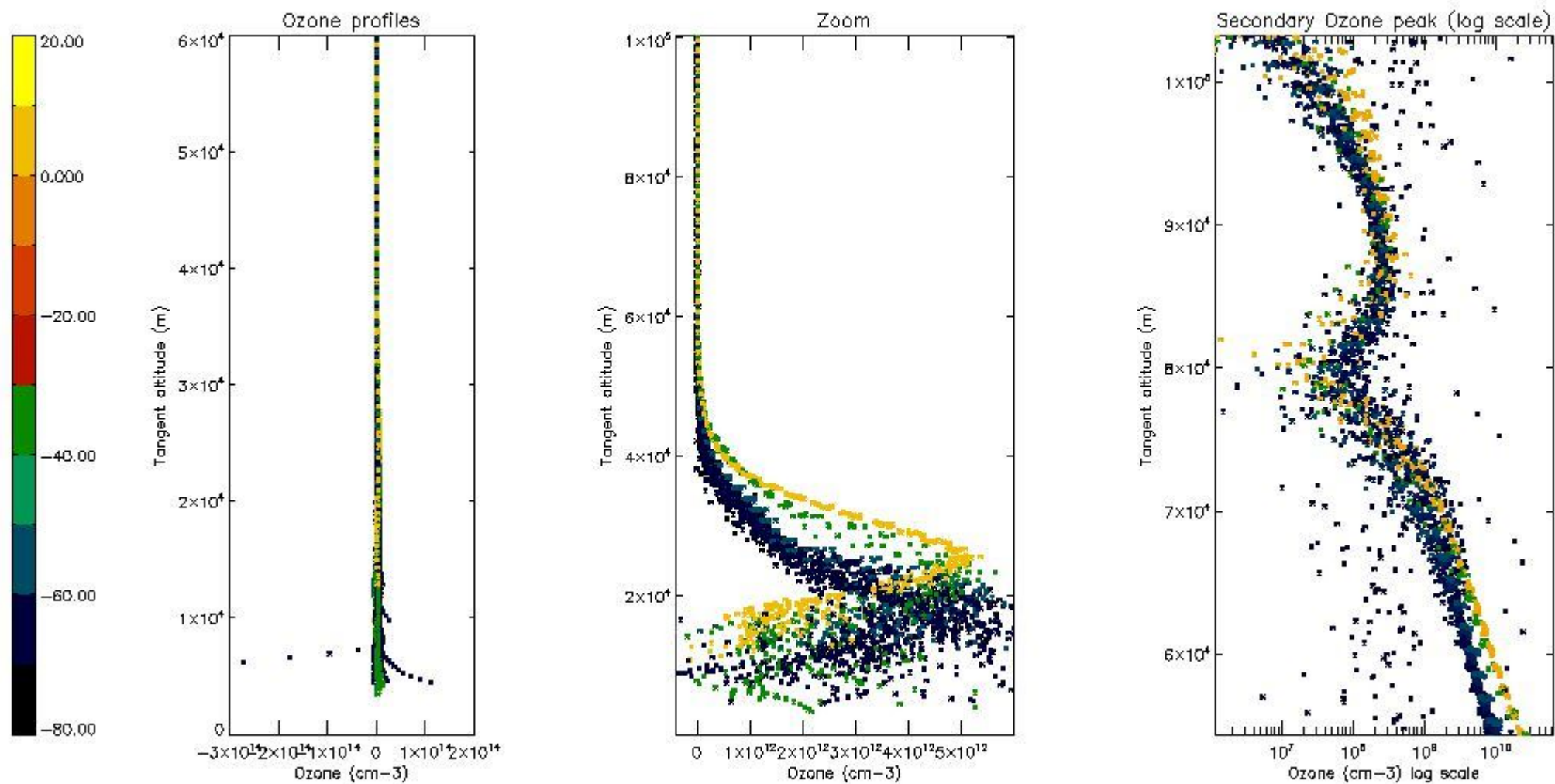
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	38
STD < 20	24

STD < 10	20
STD < 5	16

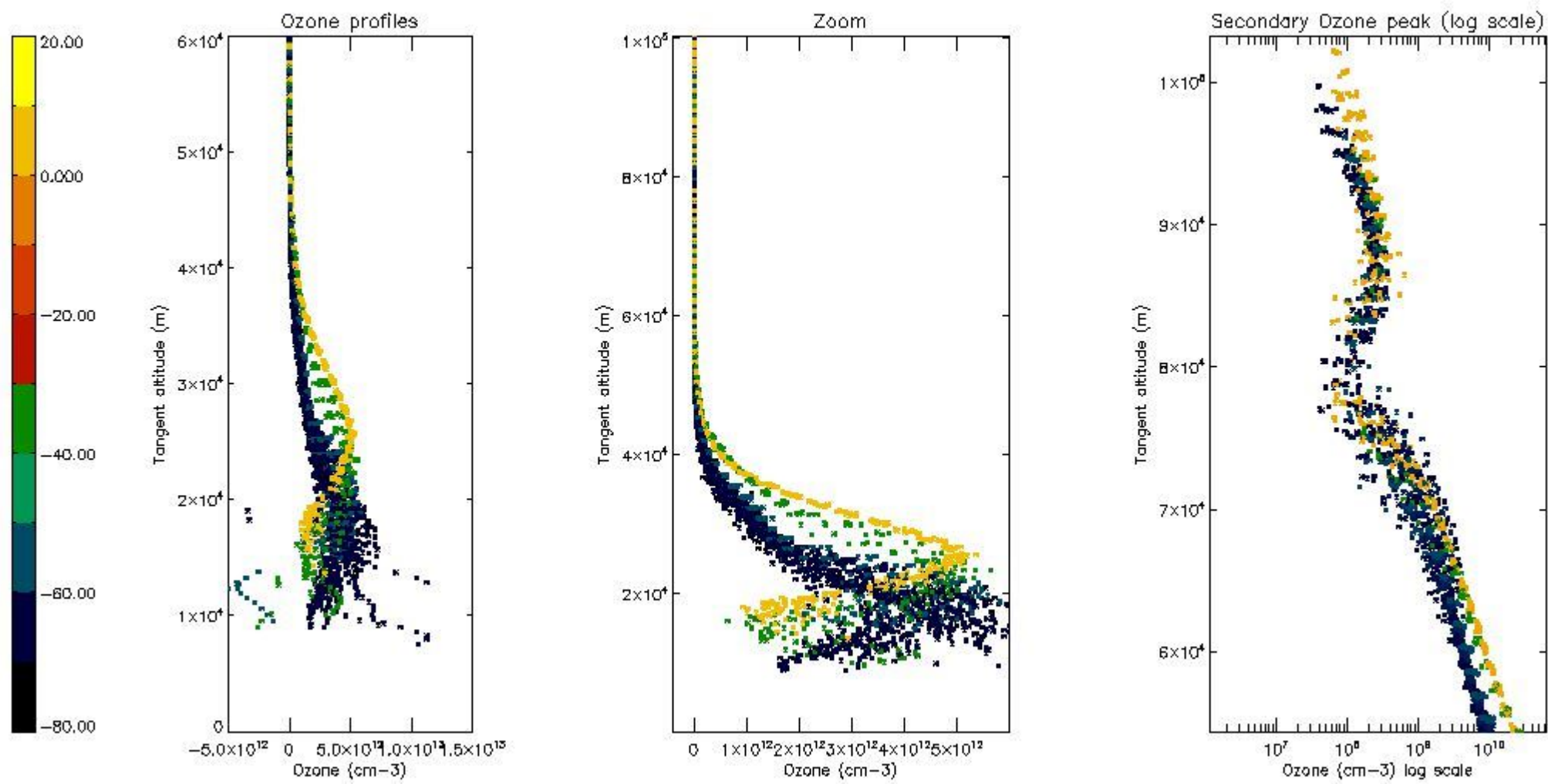
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



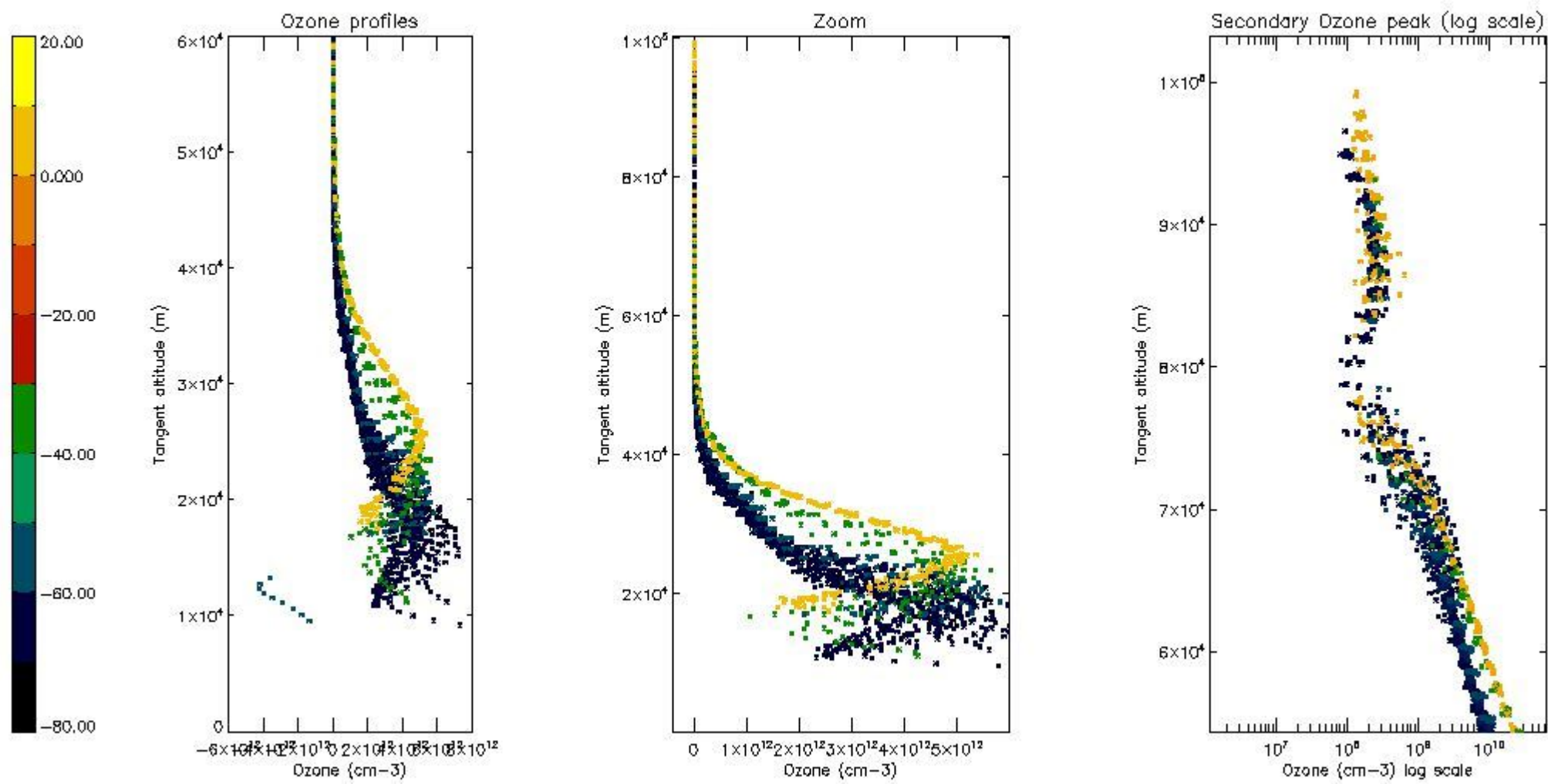
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



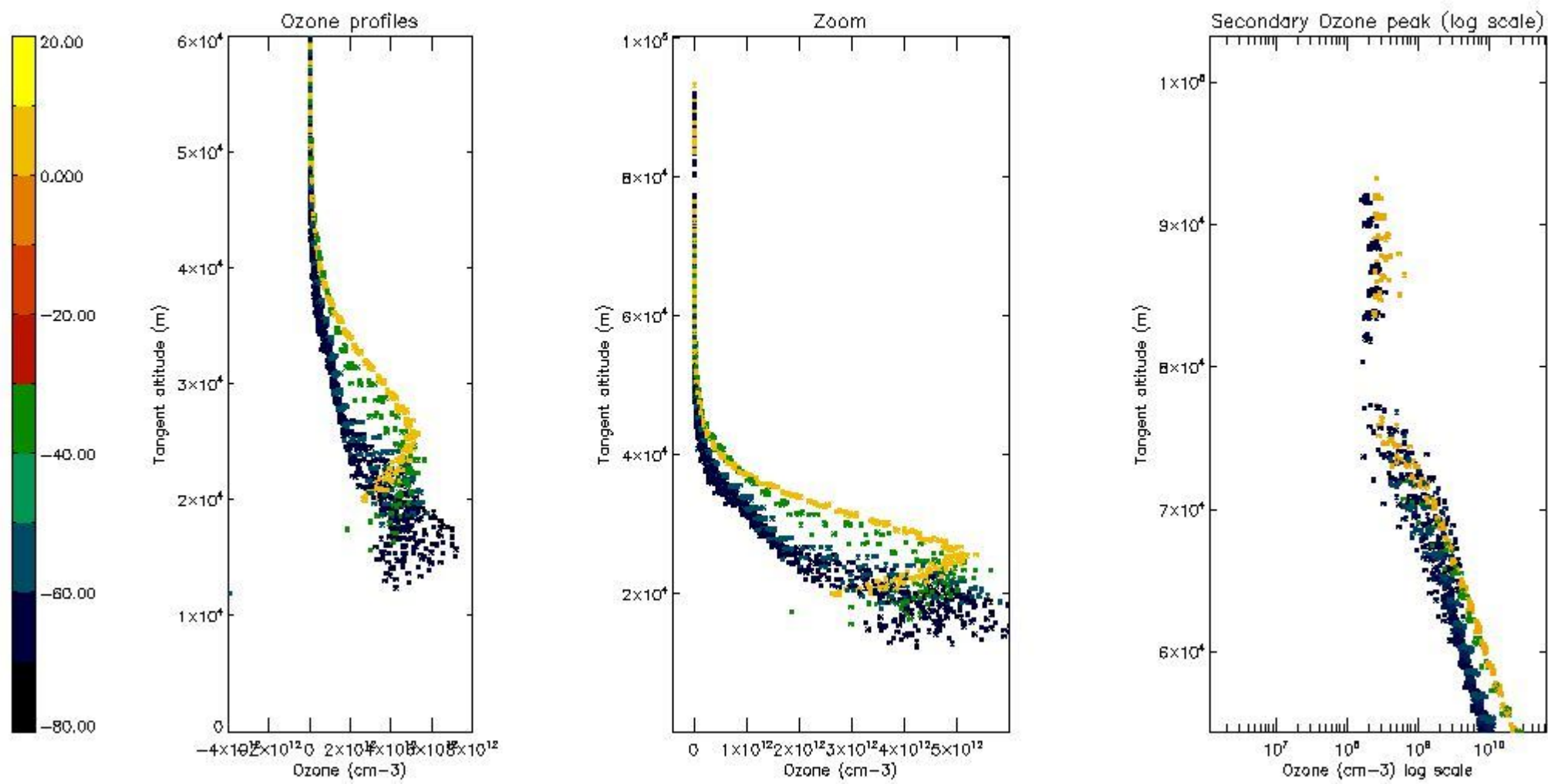
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



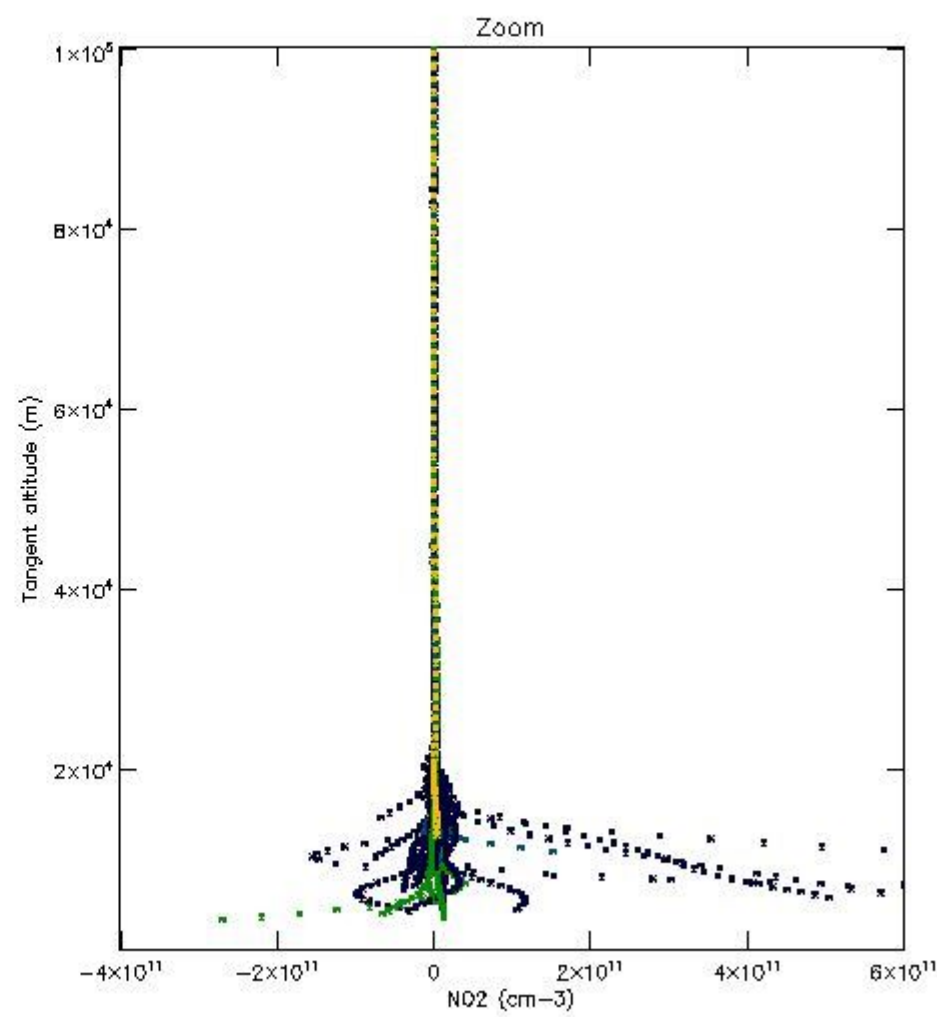
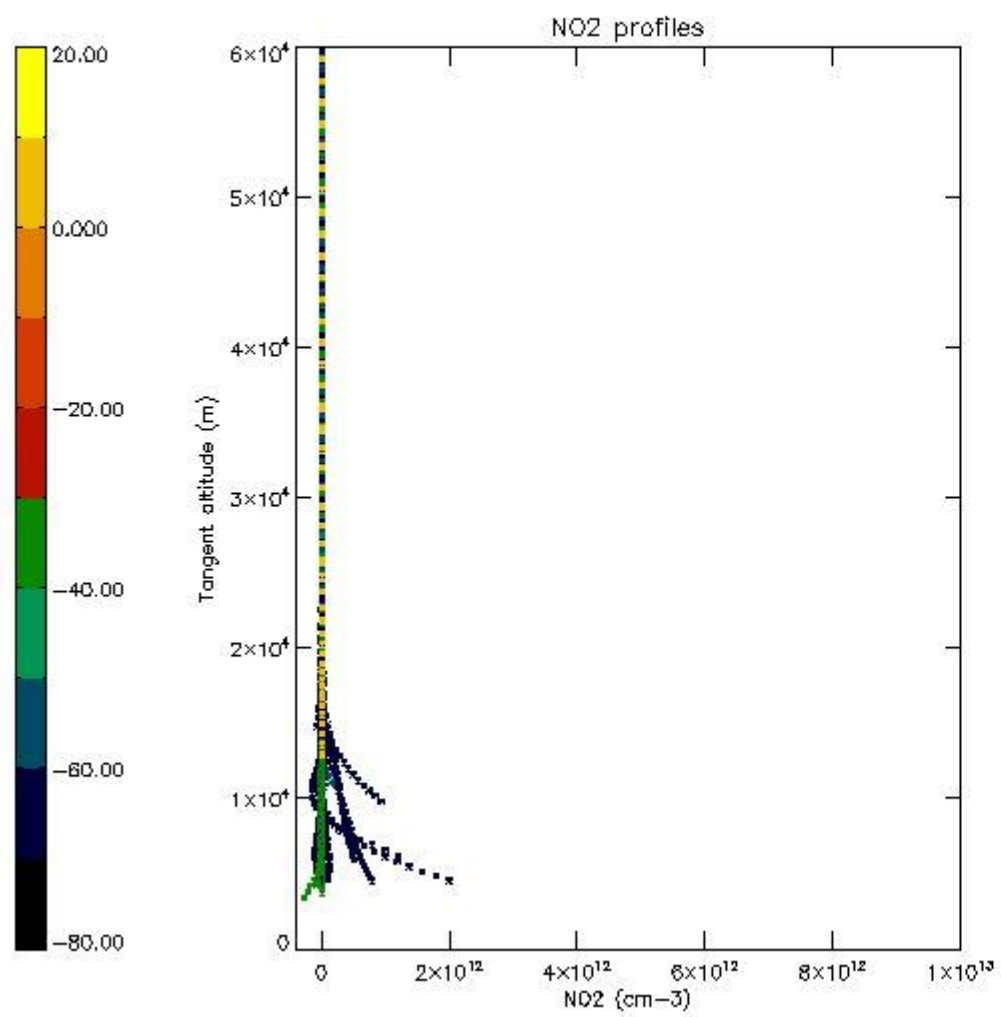
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



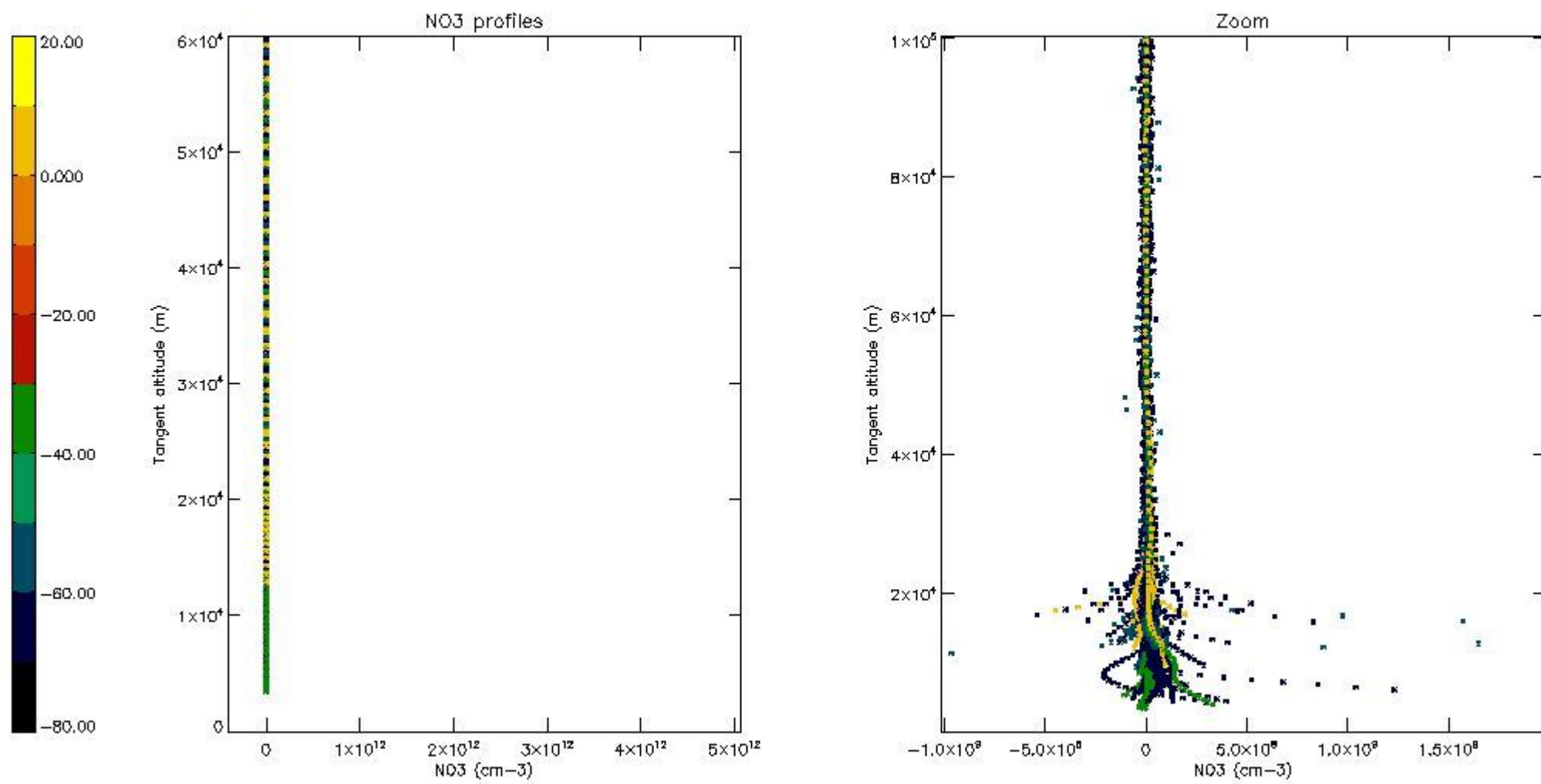
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



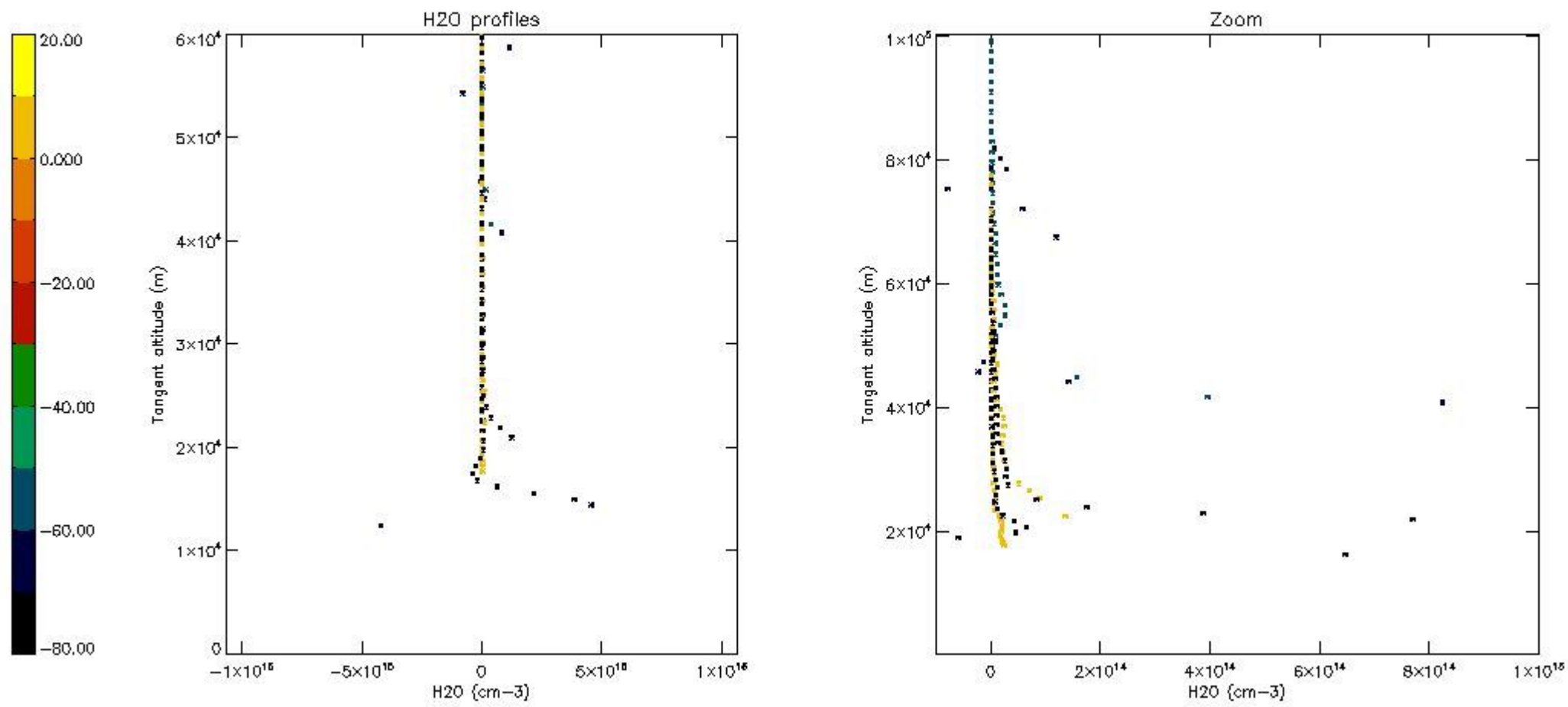
5.7 Plot NO3 profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

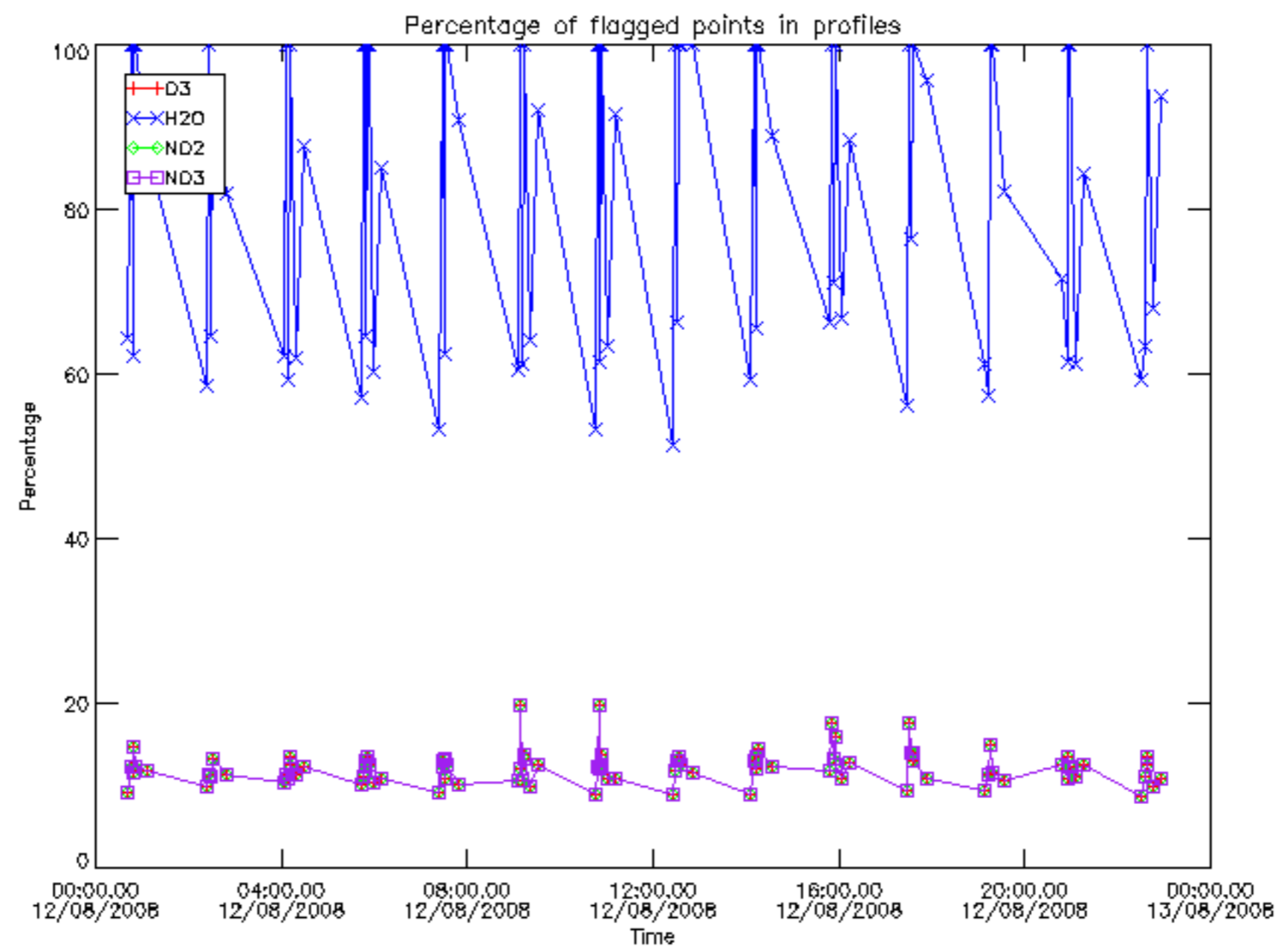
The colorbar represents the latitude.



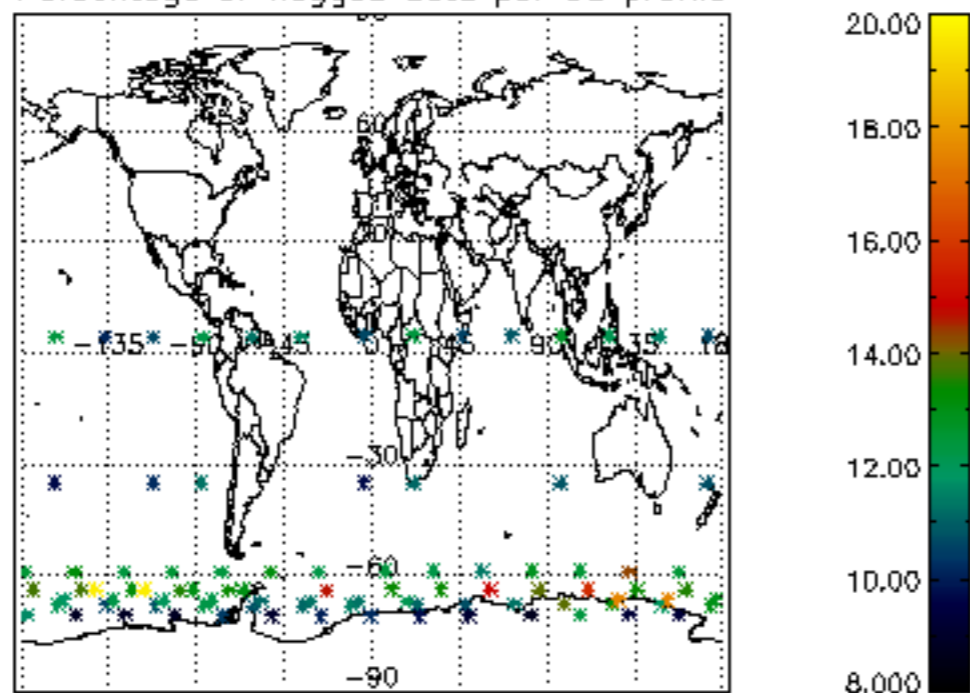
6. Auxiliary Data Files used for the production reported in section 2

The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

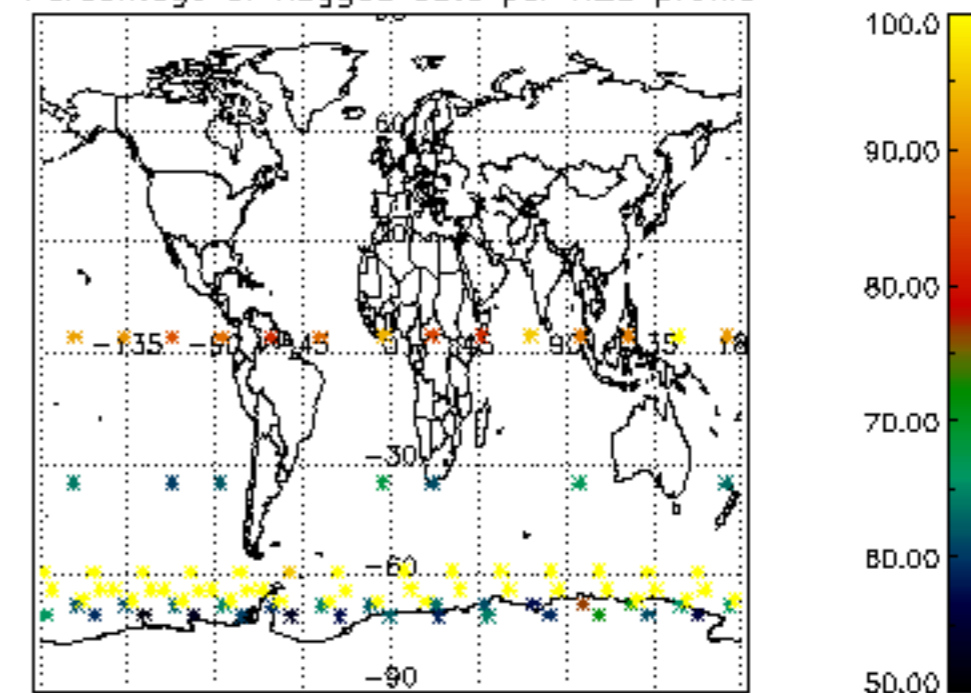
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	12-AUG-2008 00:03:14
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	12-AUG-2008 00:03:14
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	12-AUG-2008 00:03:14



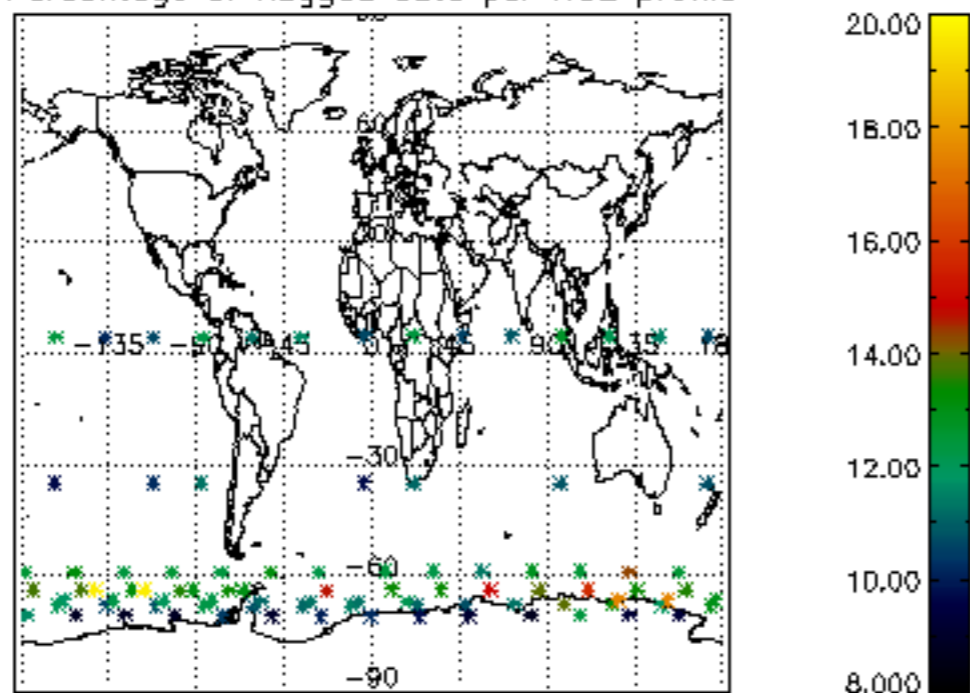
Percentage of flagged data per D3 profile



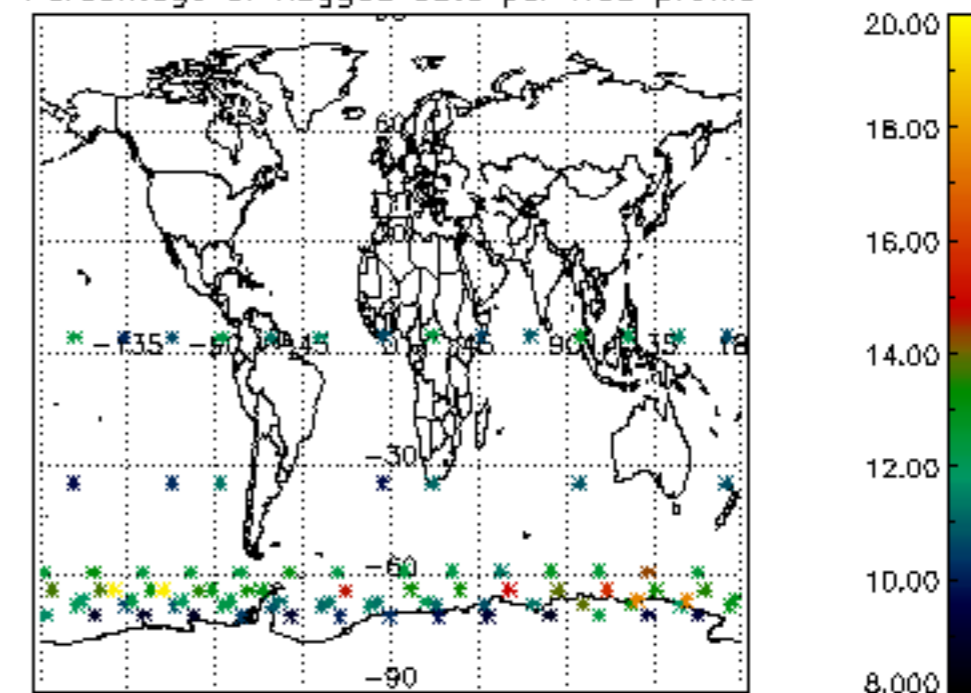
Percentage of flagged data per H2O profile

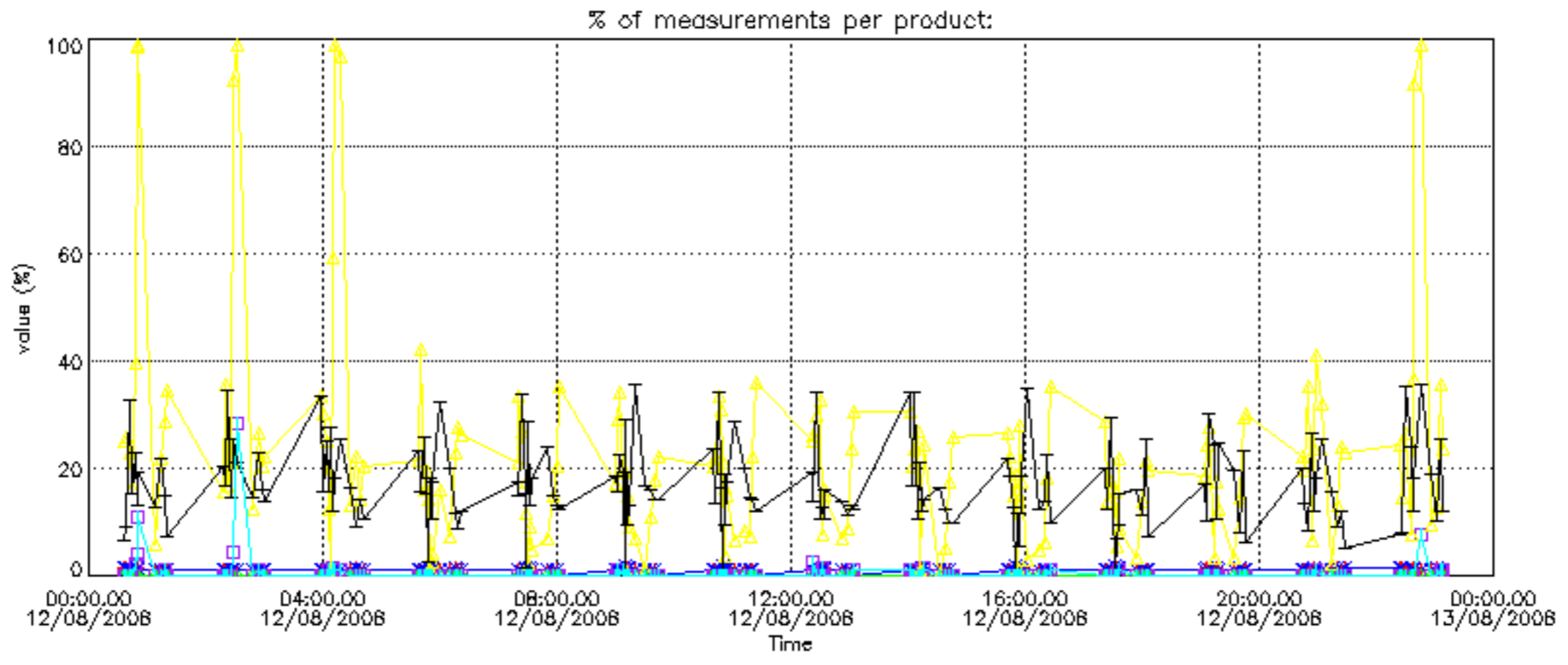


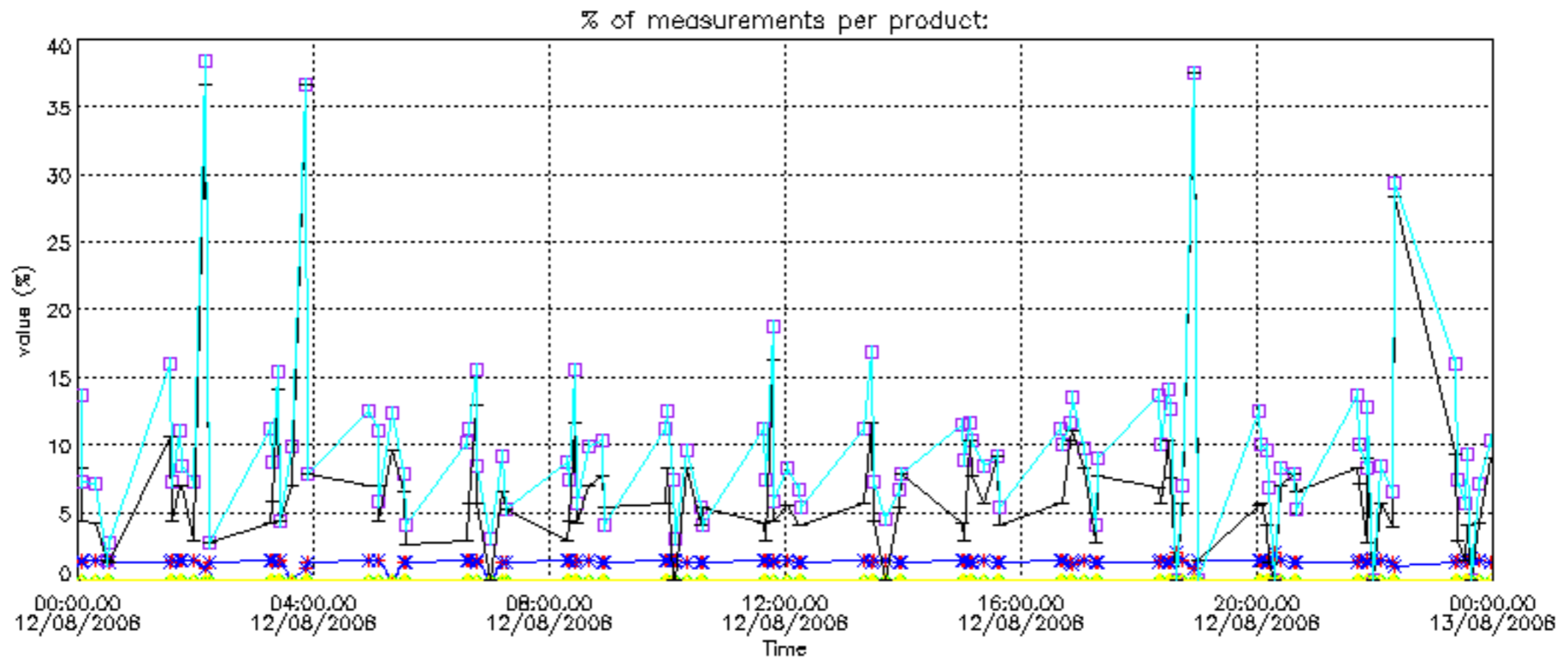
Percentage of flagged data per NO2 profile



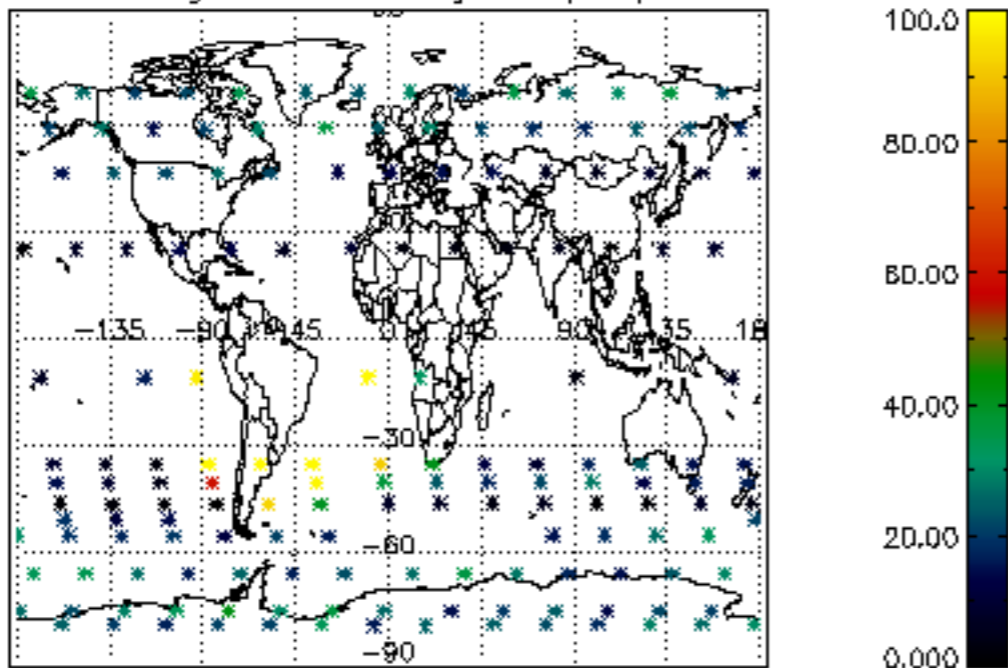
Percentage of flagged data per NO3 profile



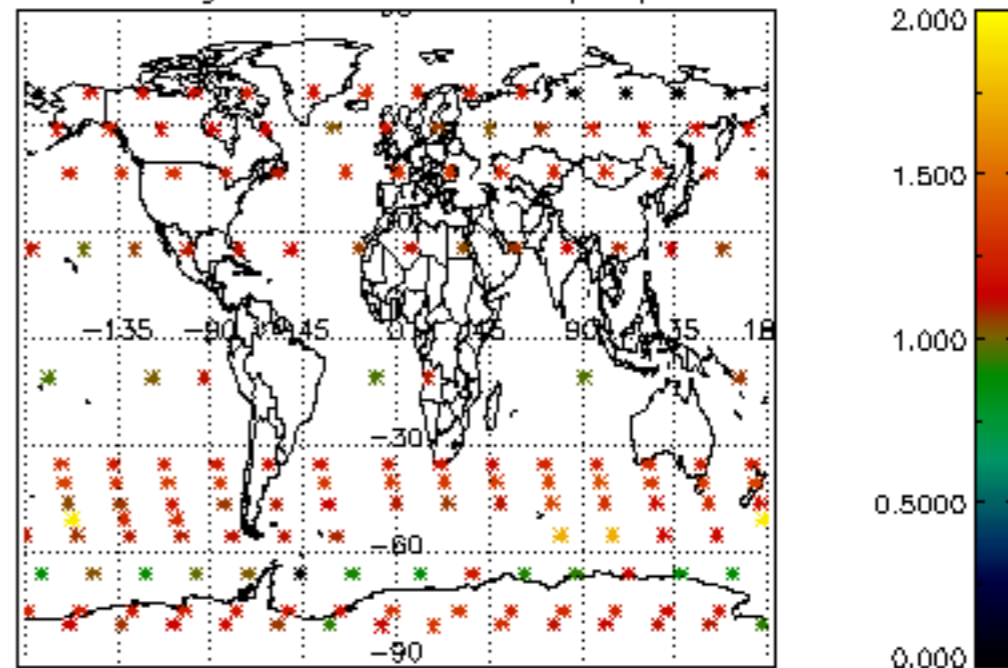




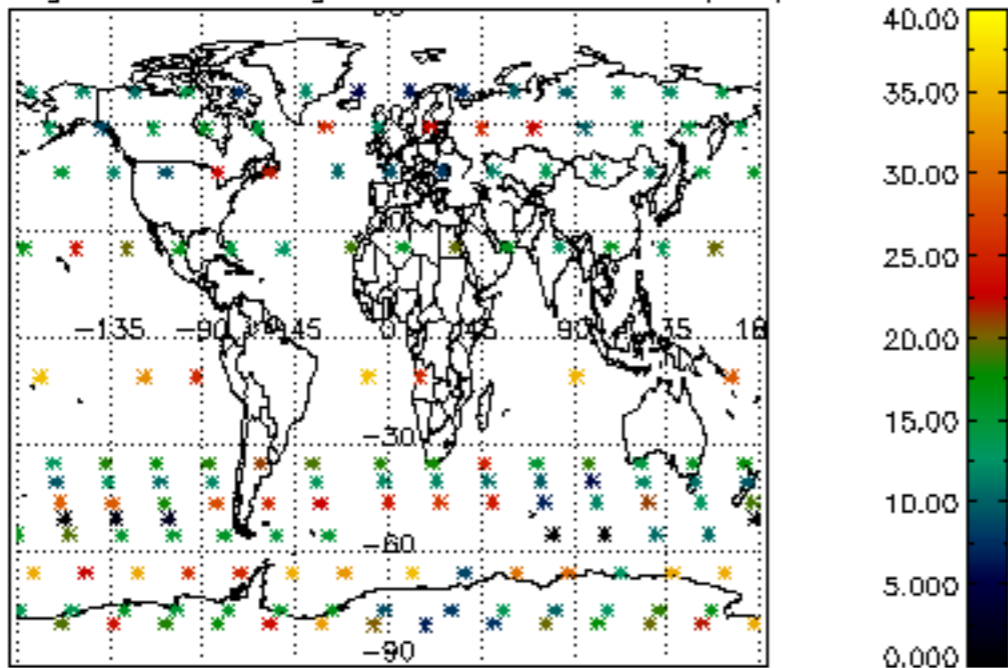
Percentage of cosmic ray hits per profile



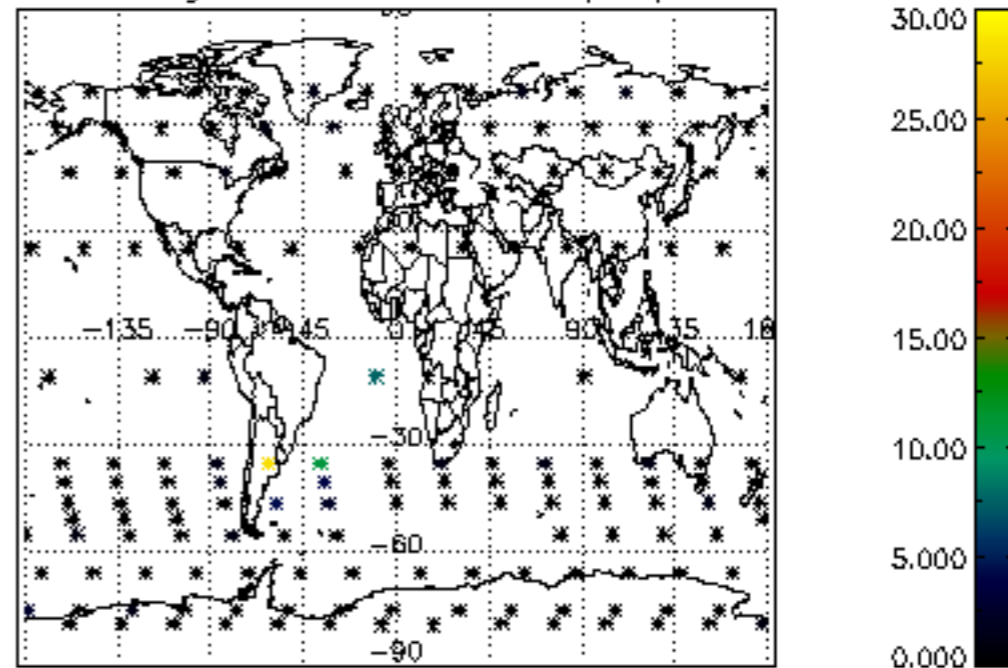
Percentage of datation errors per profile



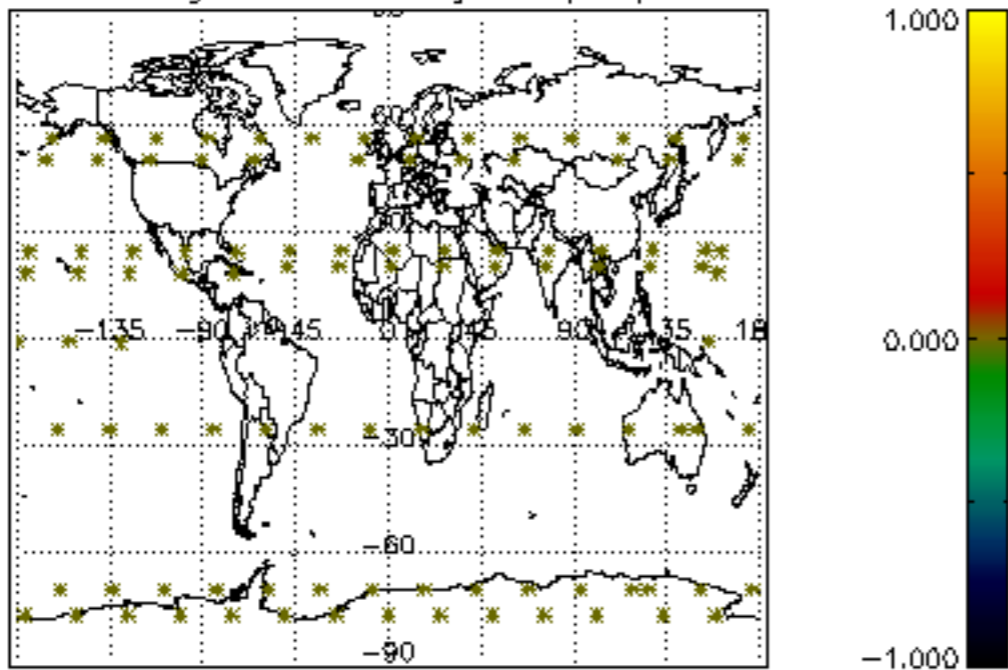
Percentage of star falling outside central band per profile



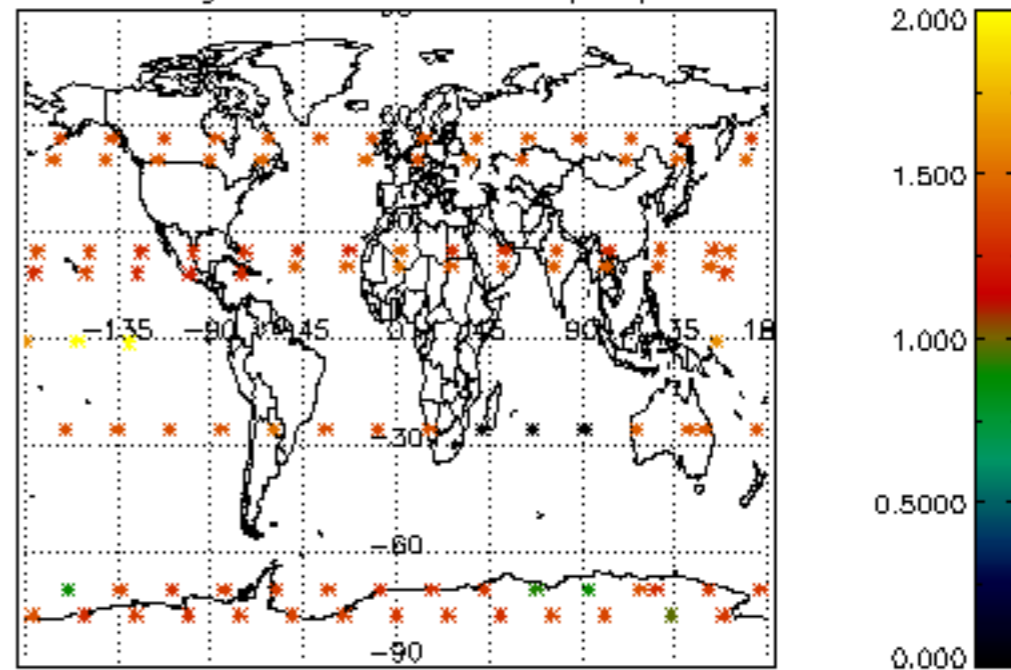
Percentage of saturation errors per profile



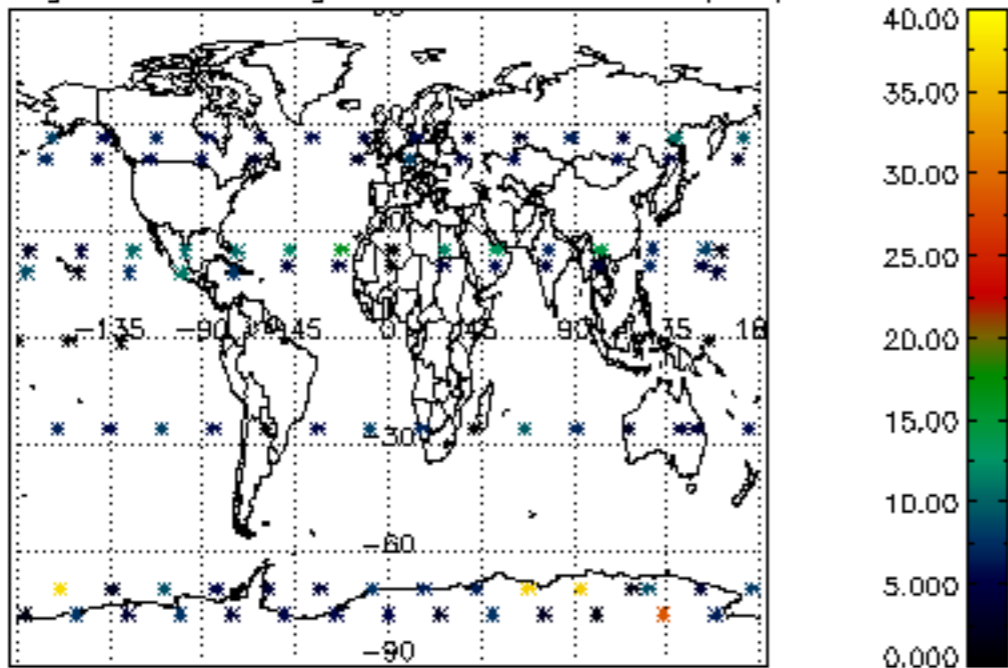
Percentage of cosmic ray hits per profile



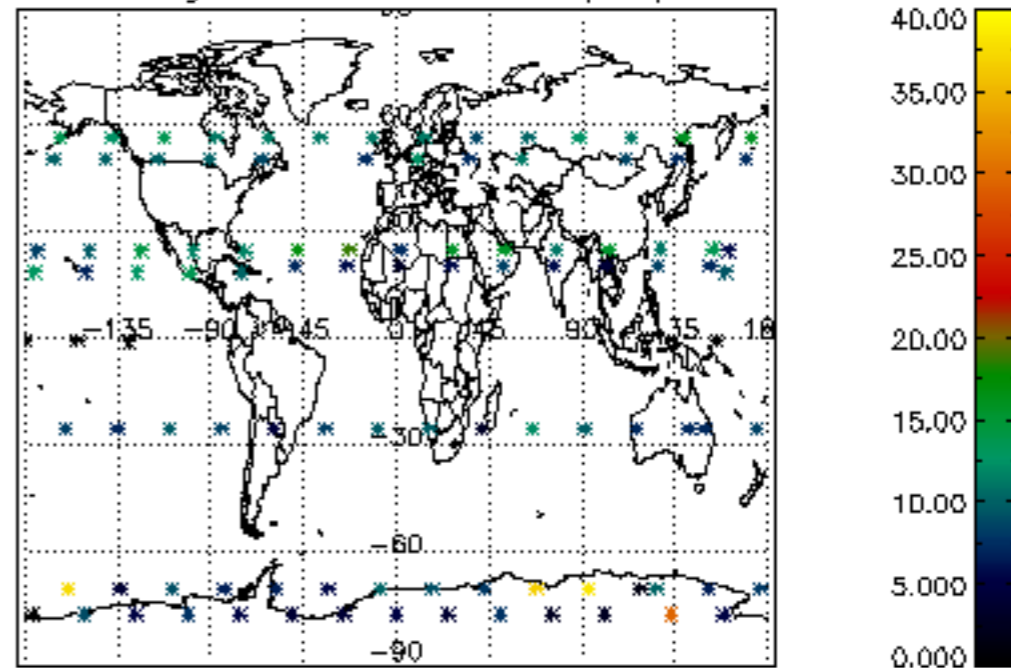
Percentage of datation errors per profile

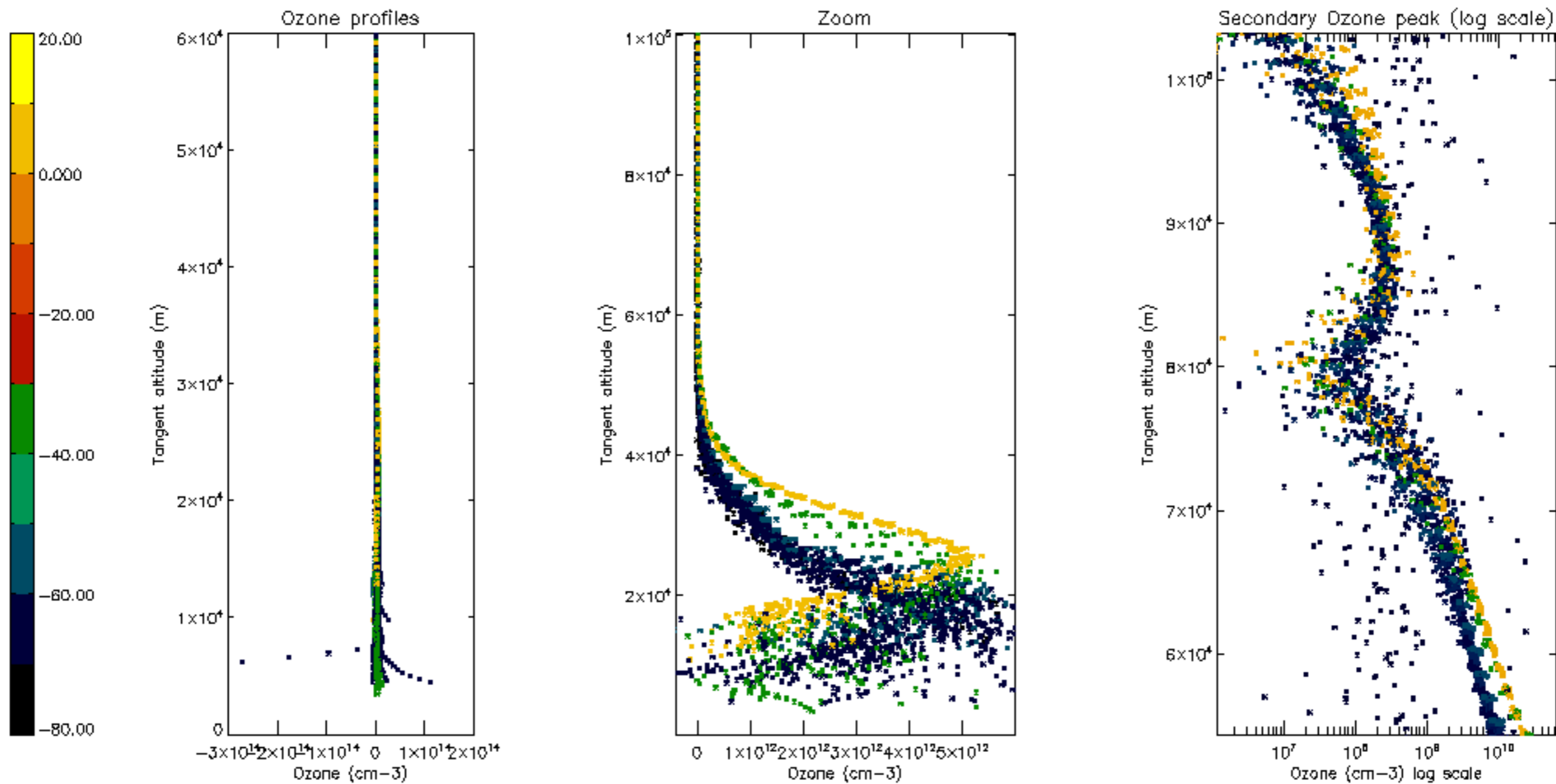


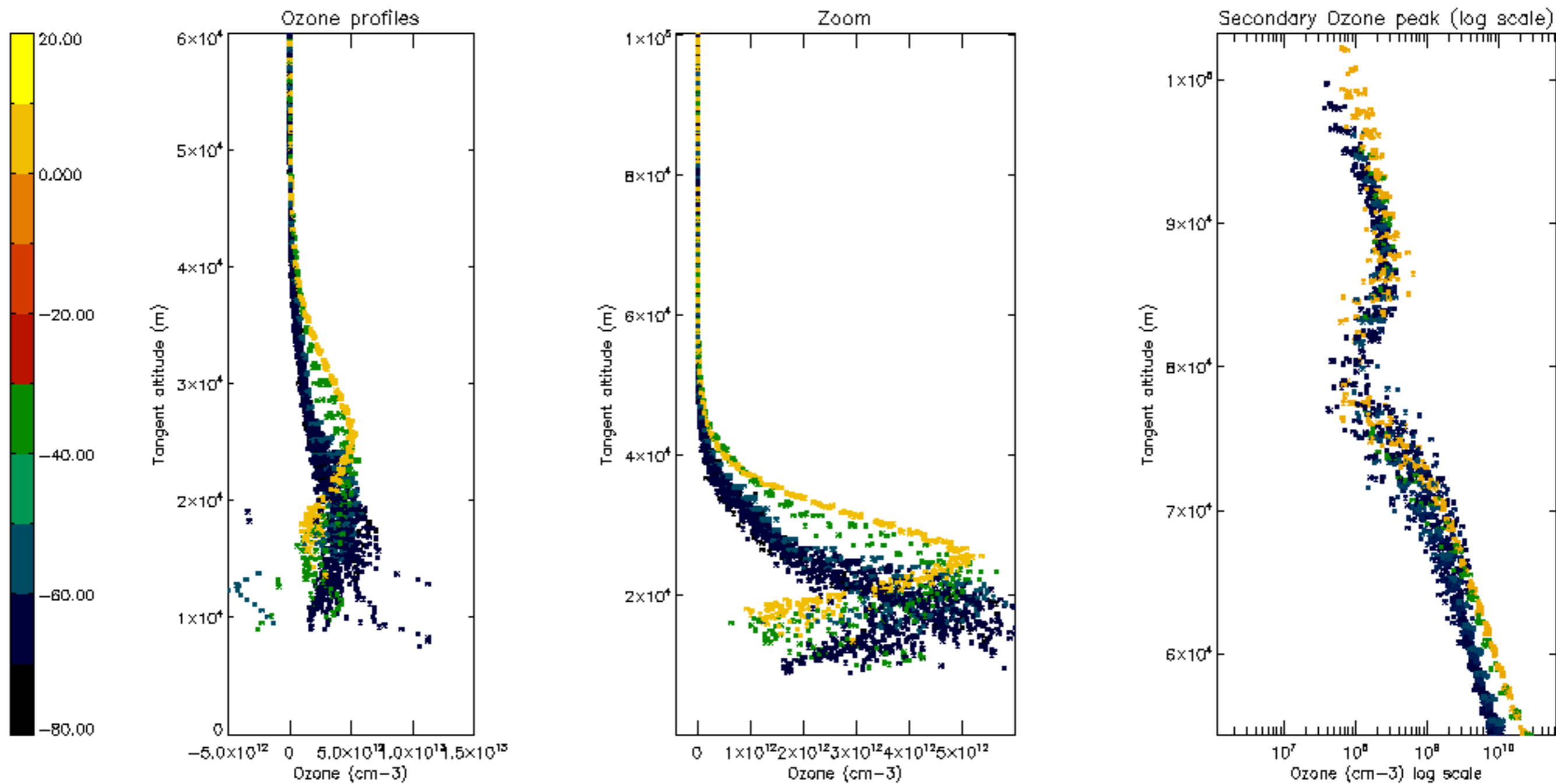
Percentage of star falling outside central band per profile

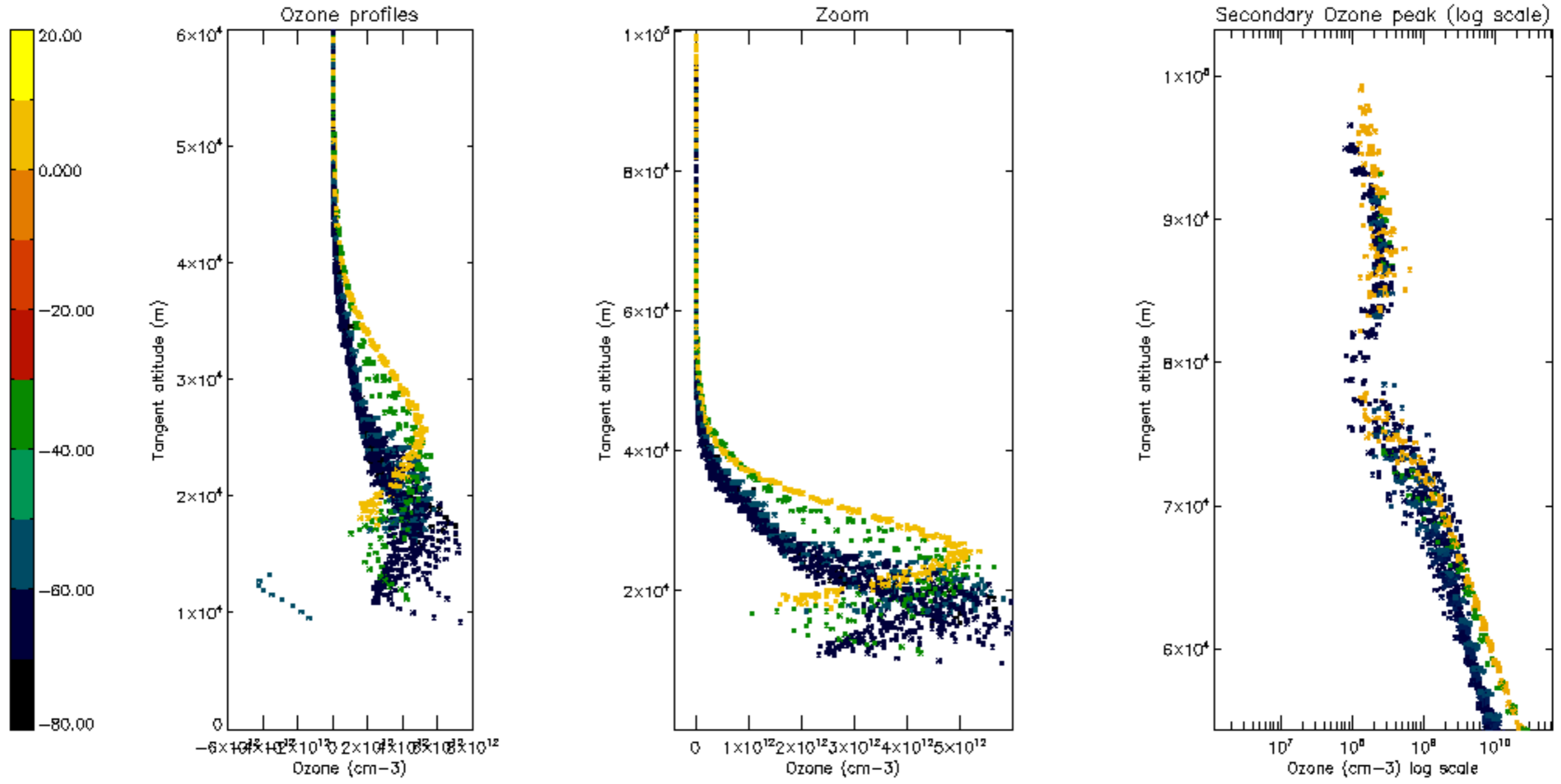


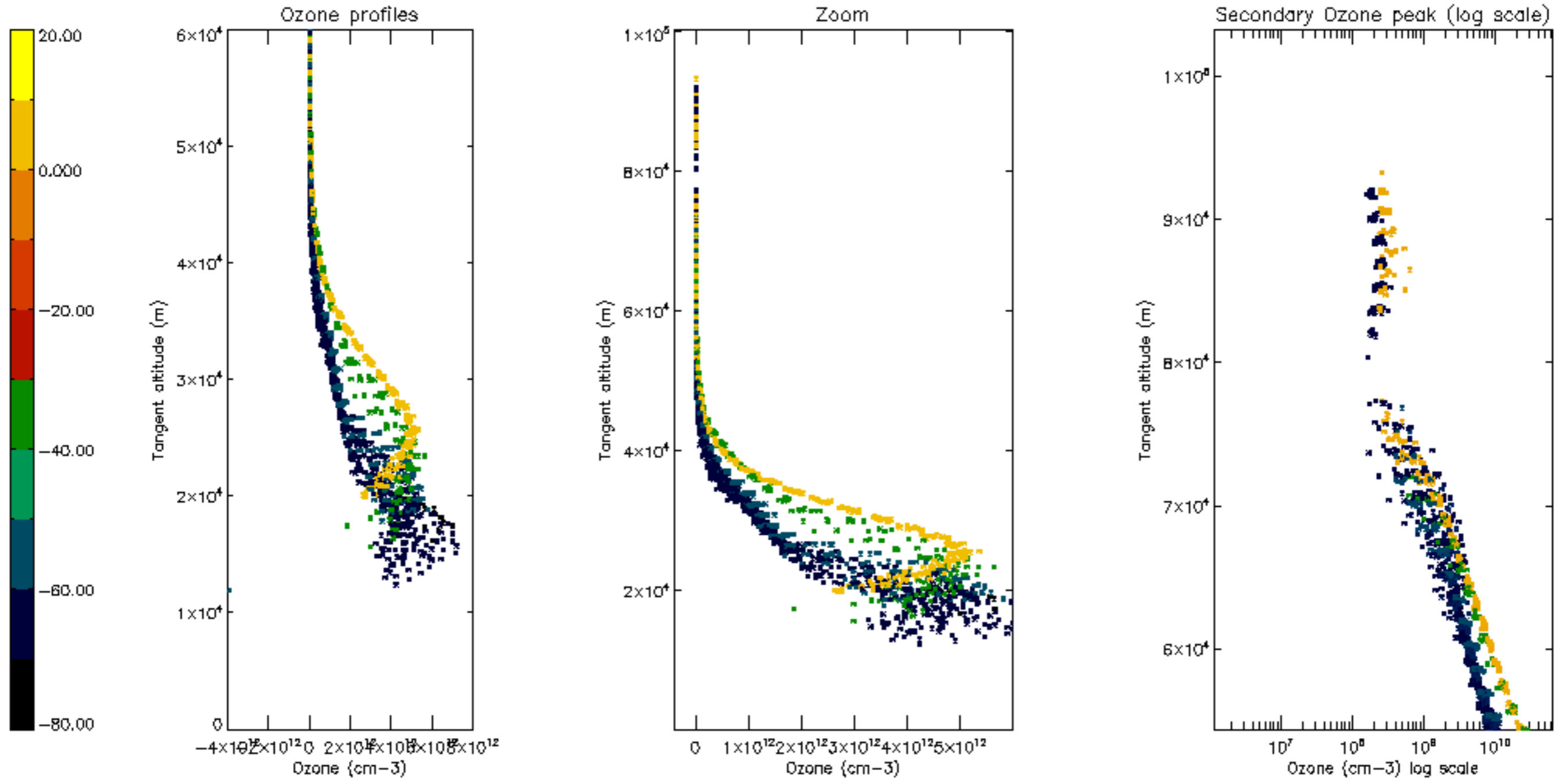
Percentage of saturation errors per profile

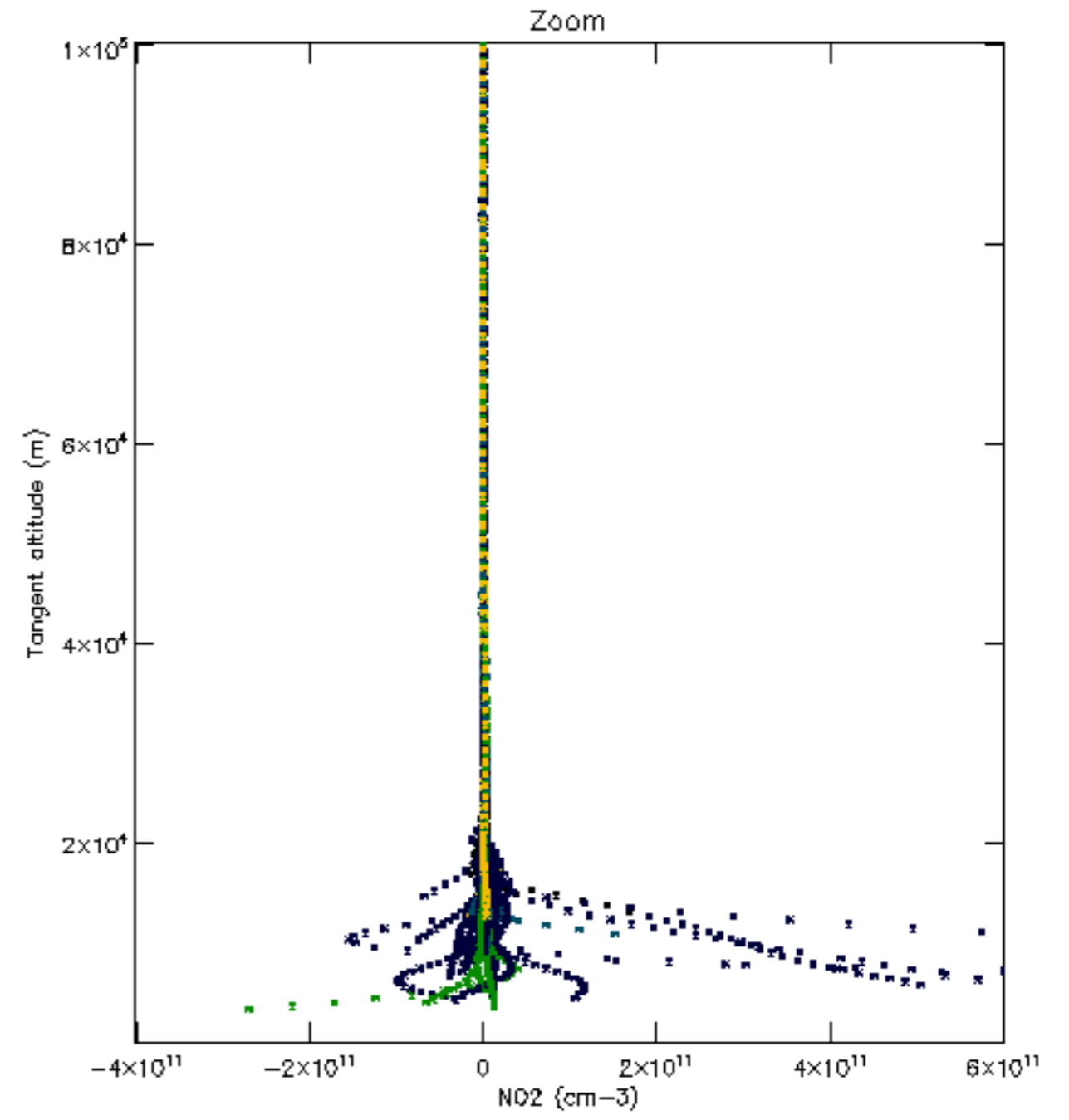
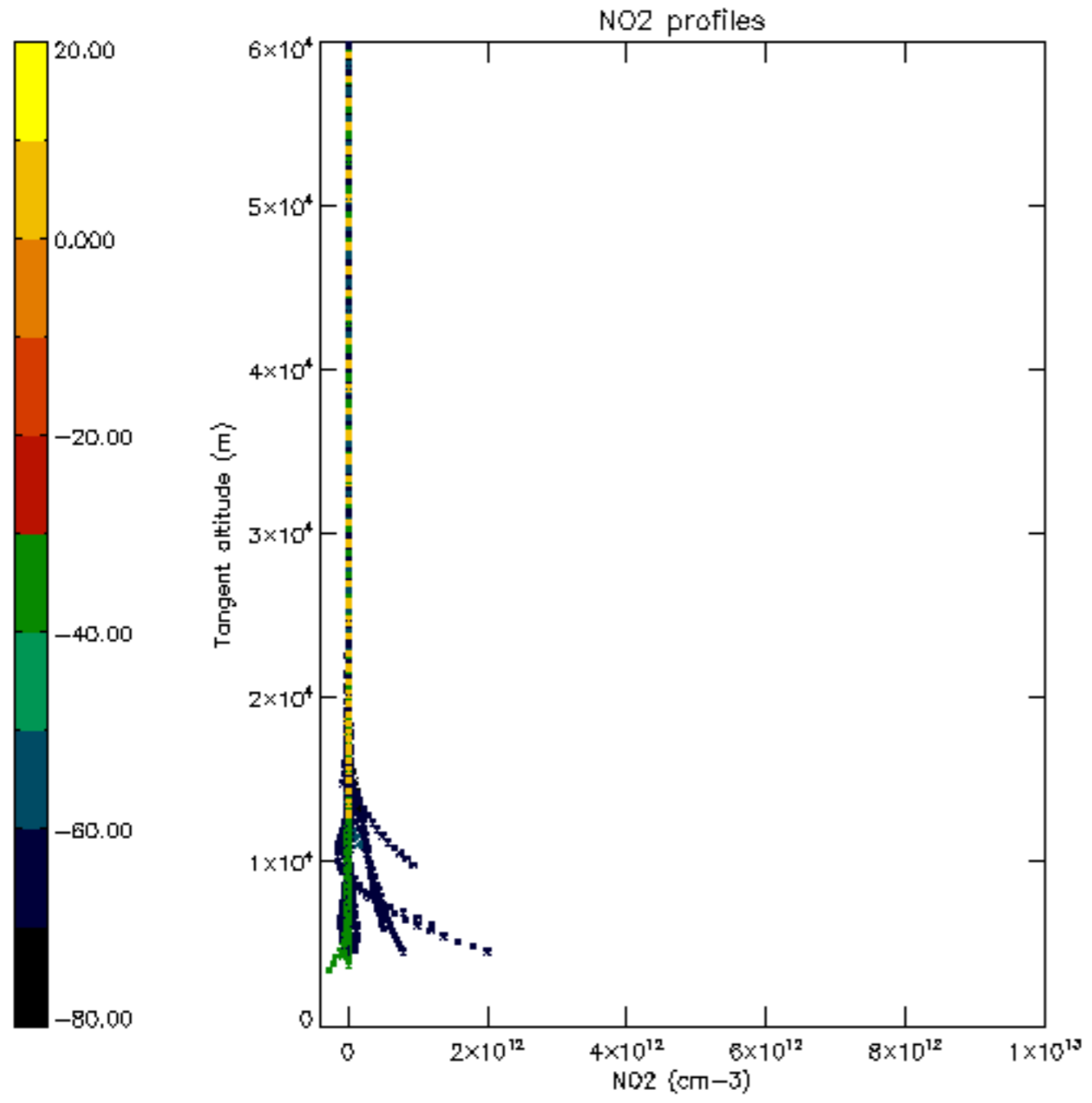


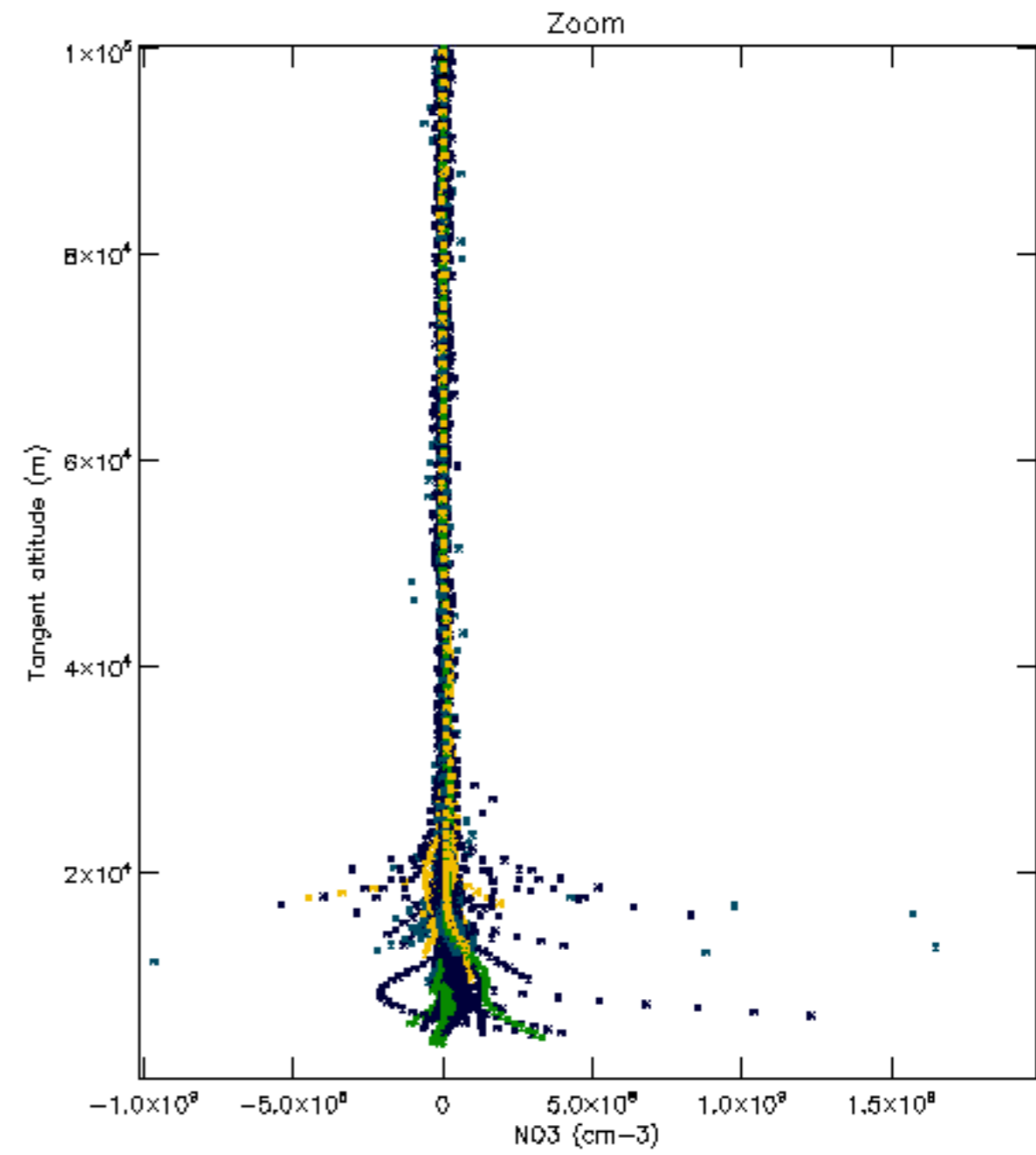
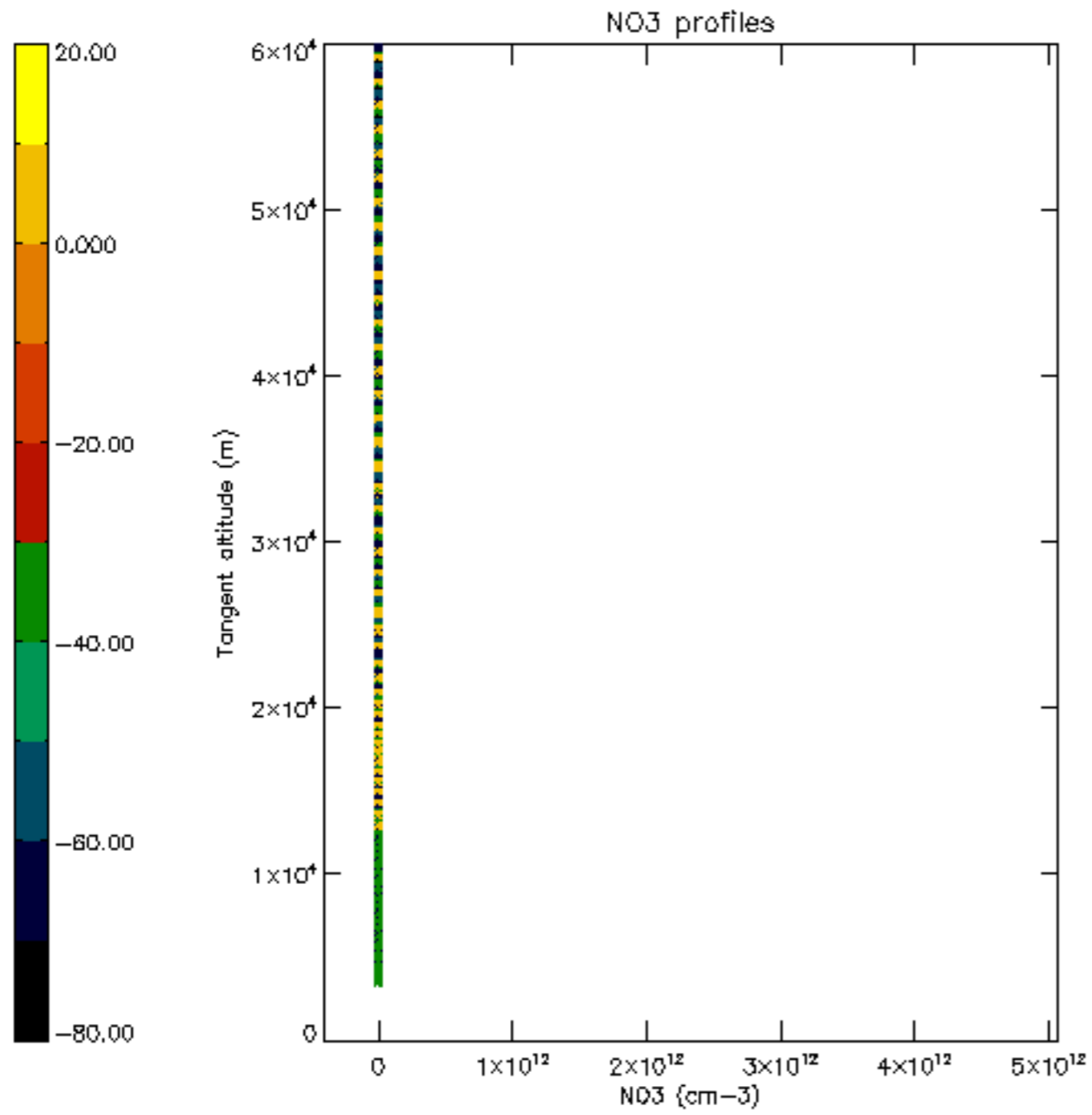


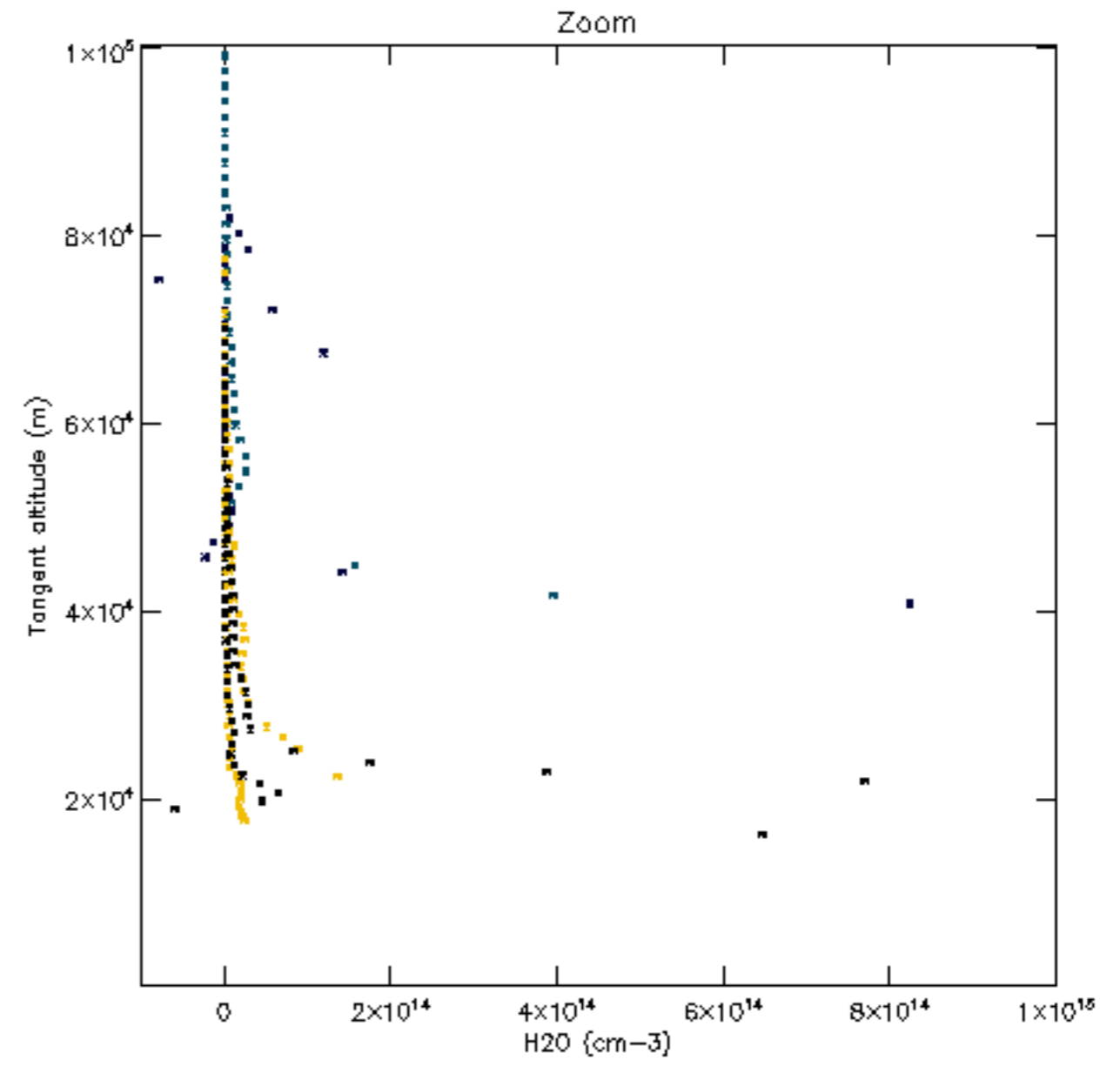
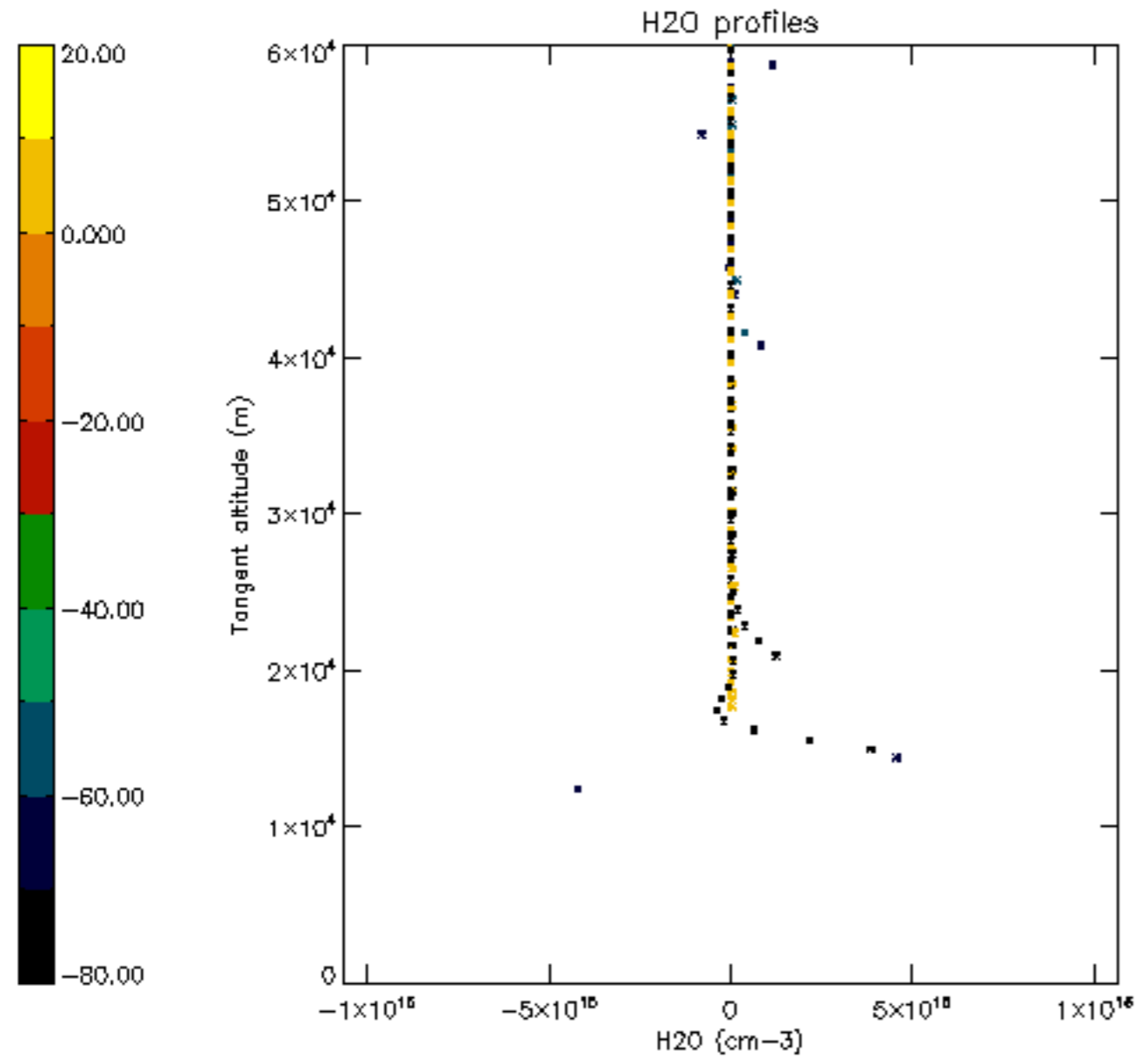


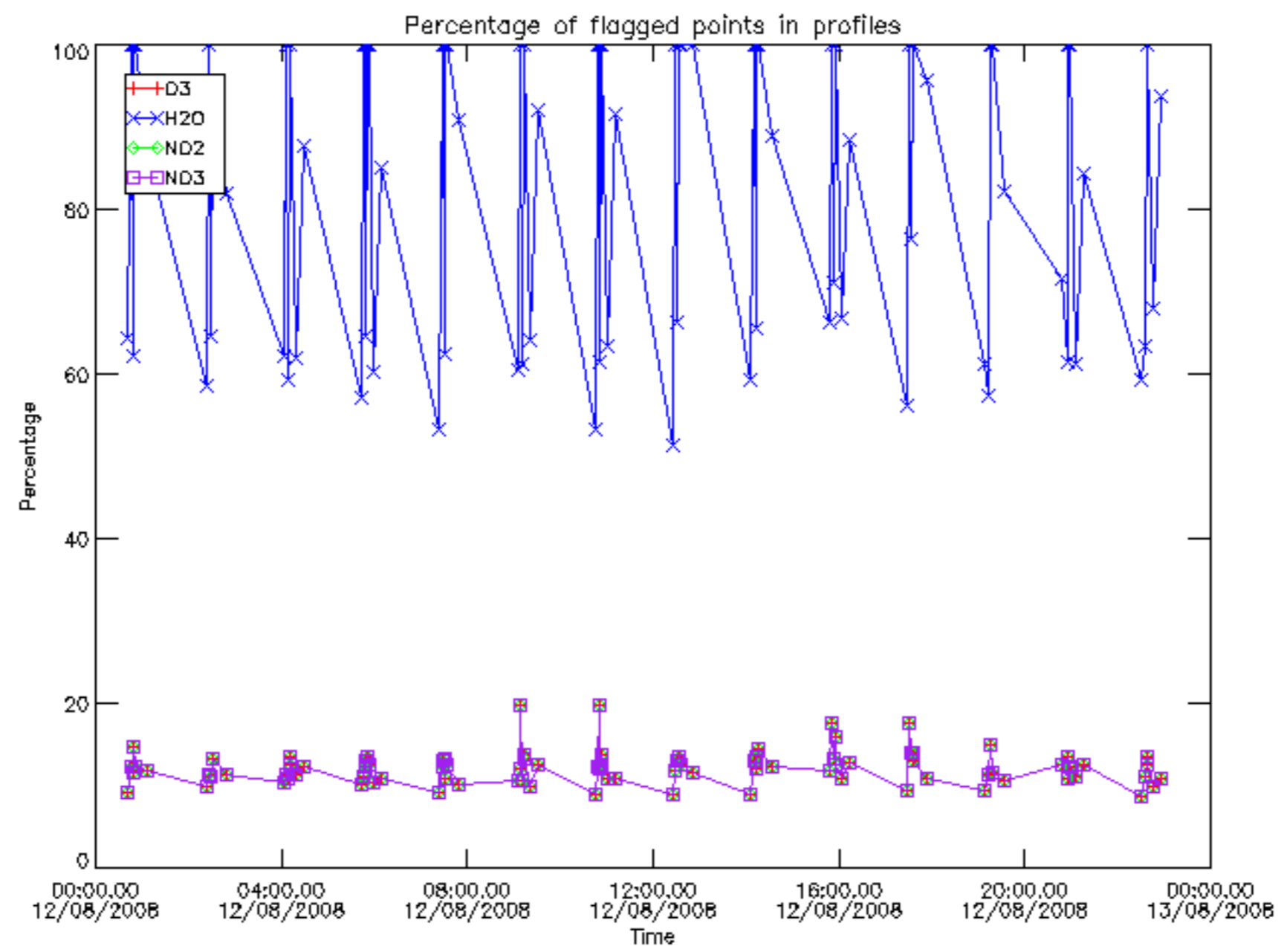




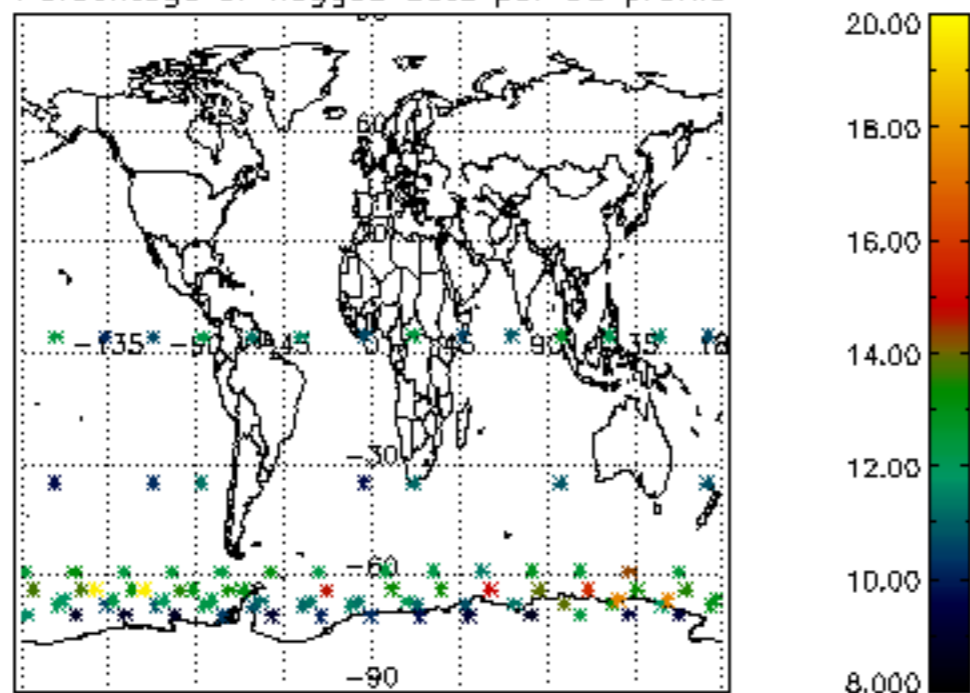




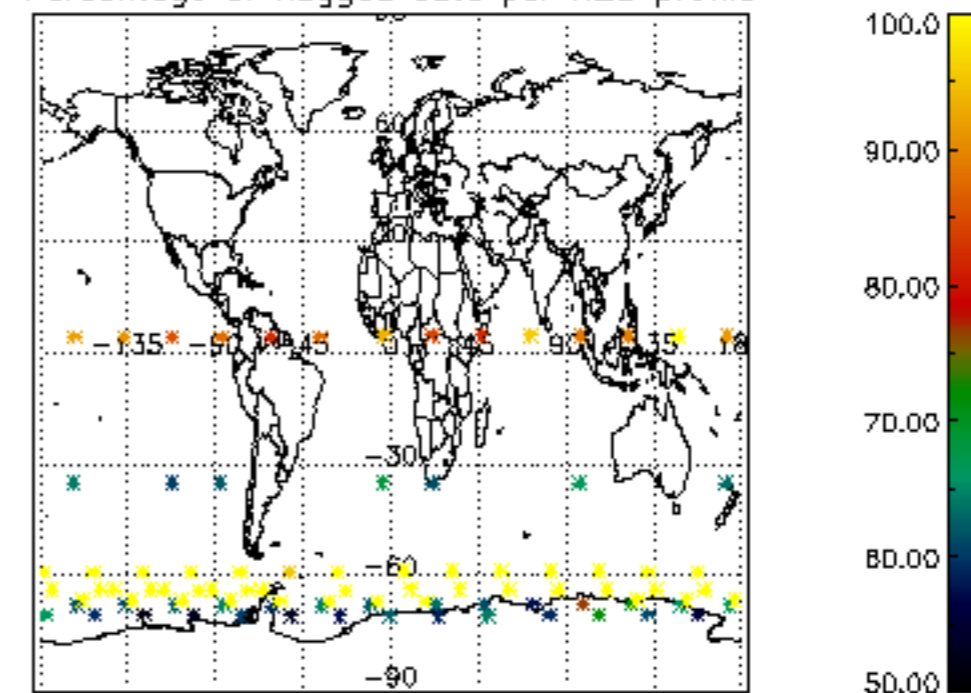




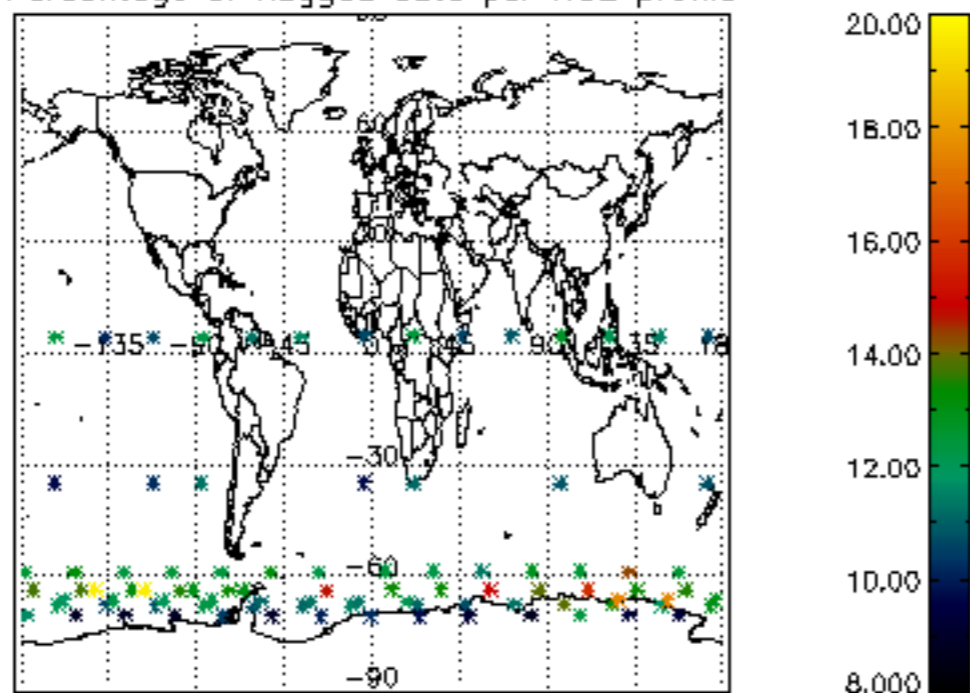
Percentage of flagged data per D3 profile



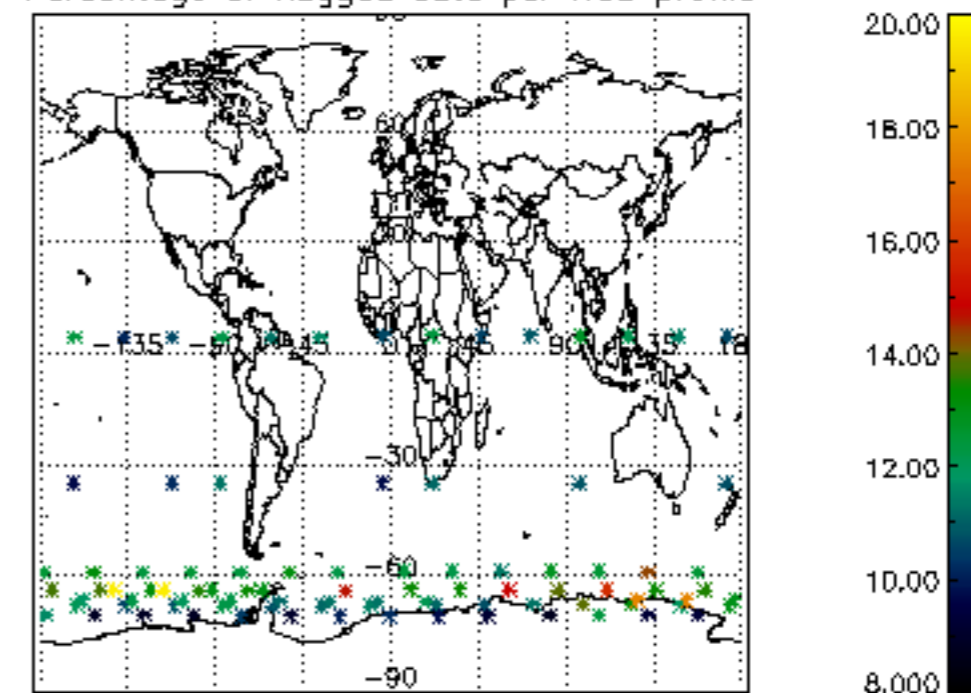
Percentage of flagged data per H2O profile

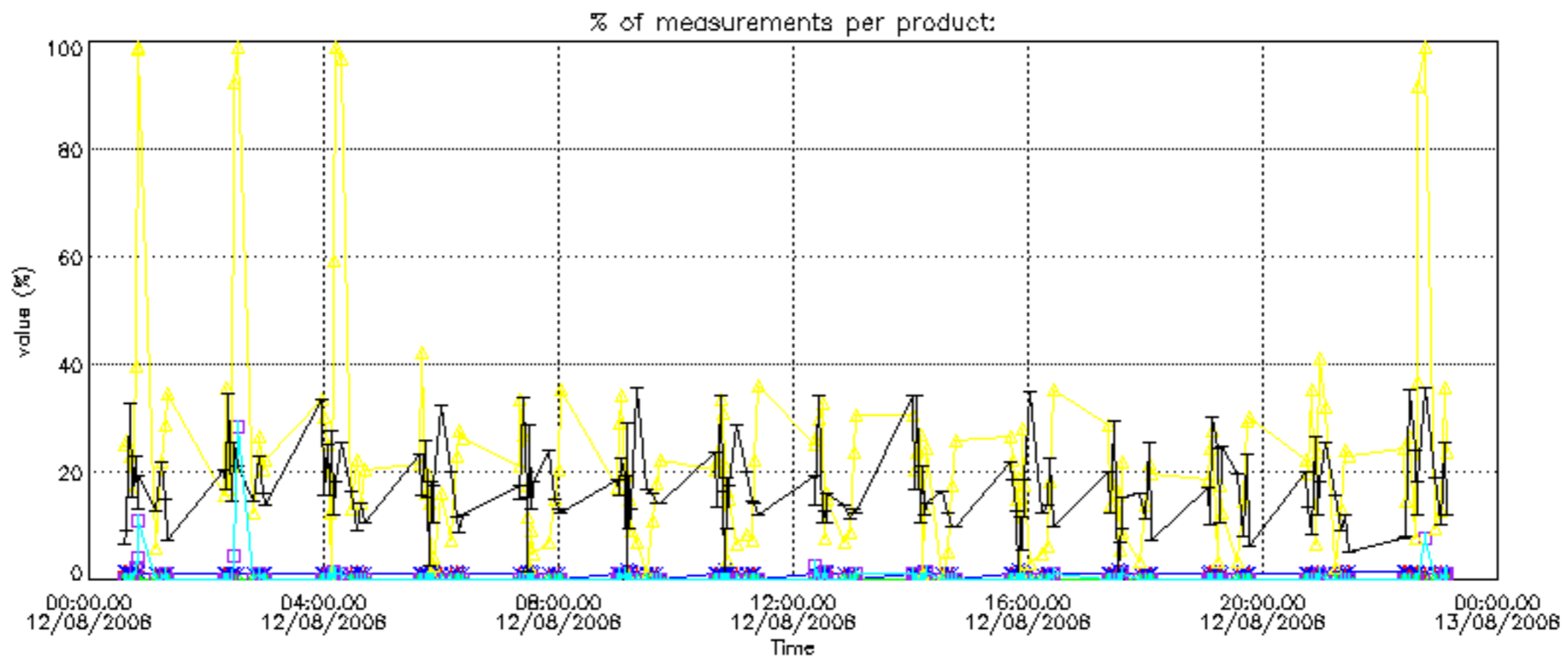


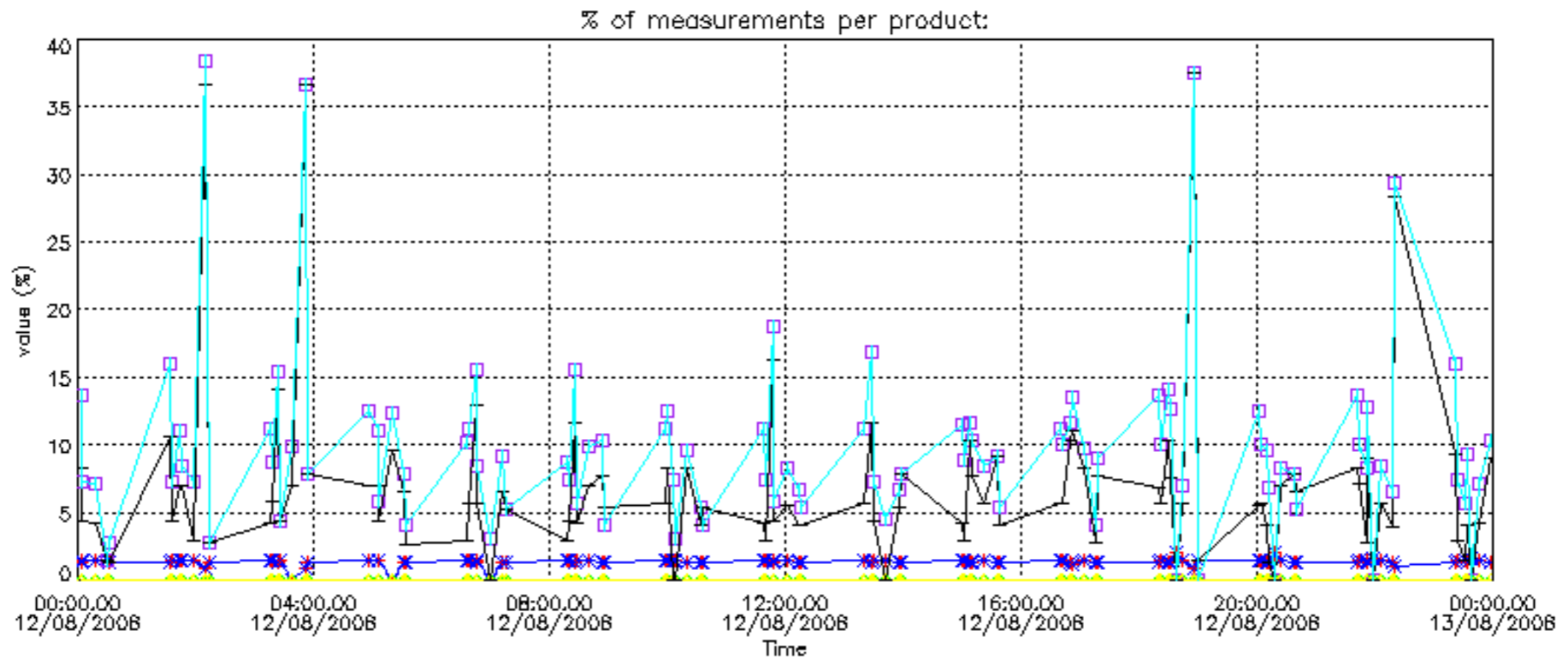
Percentage of flagged data per NO2 profile



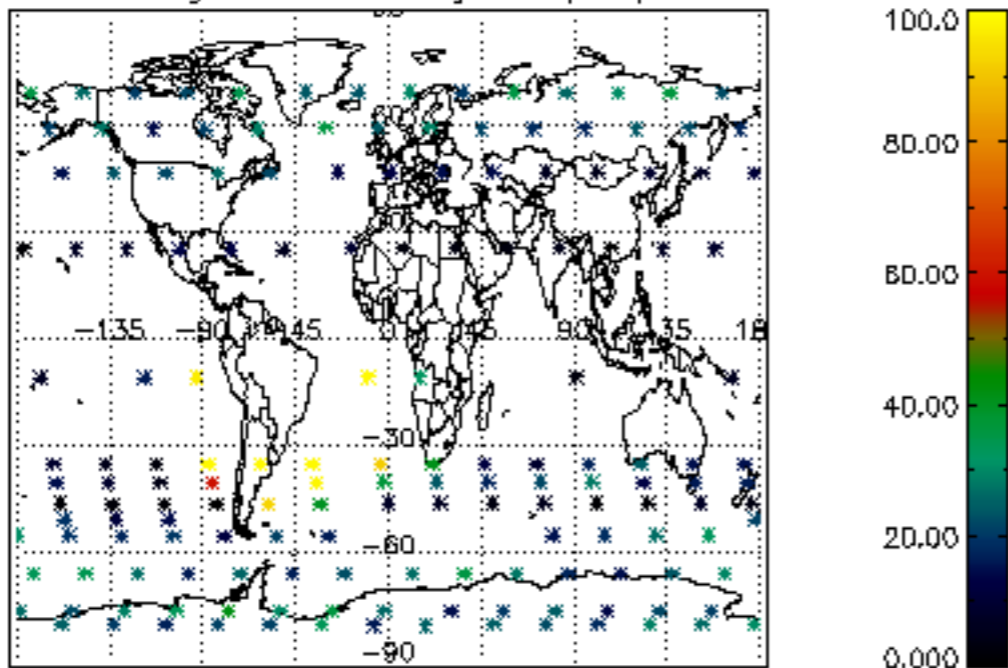
Percentage of flagged data per NO3 profile



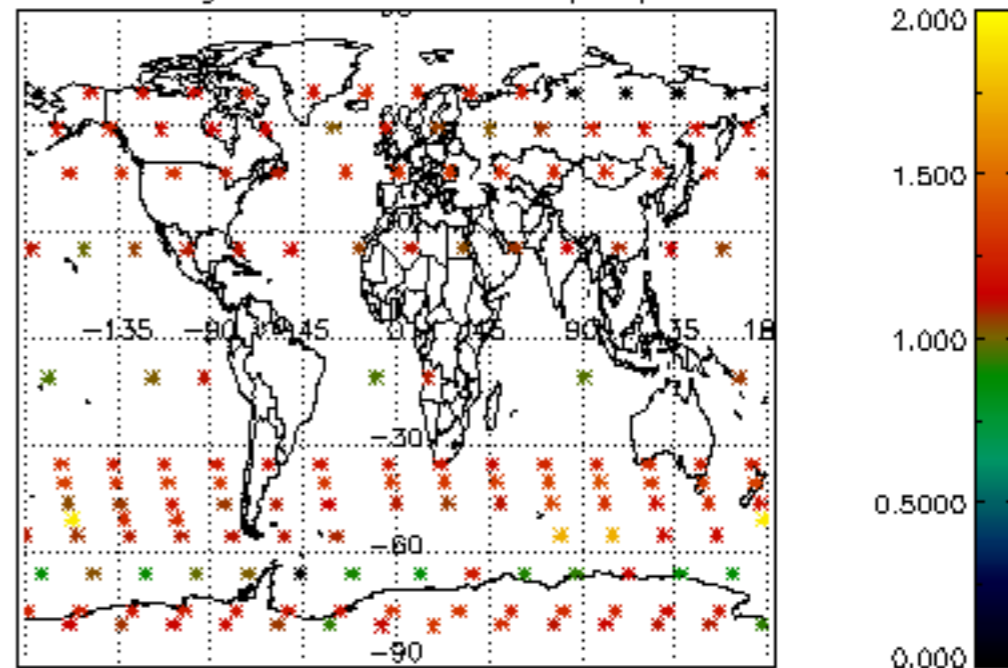




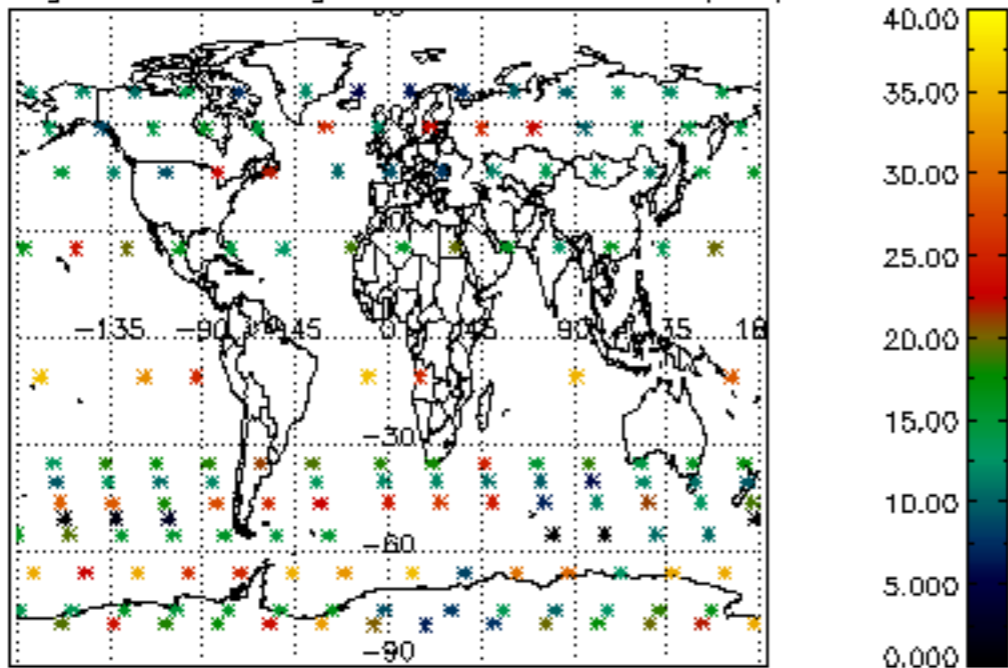
Percentage of cosmic ray hits per profile



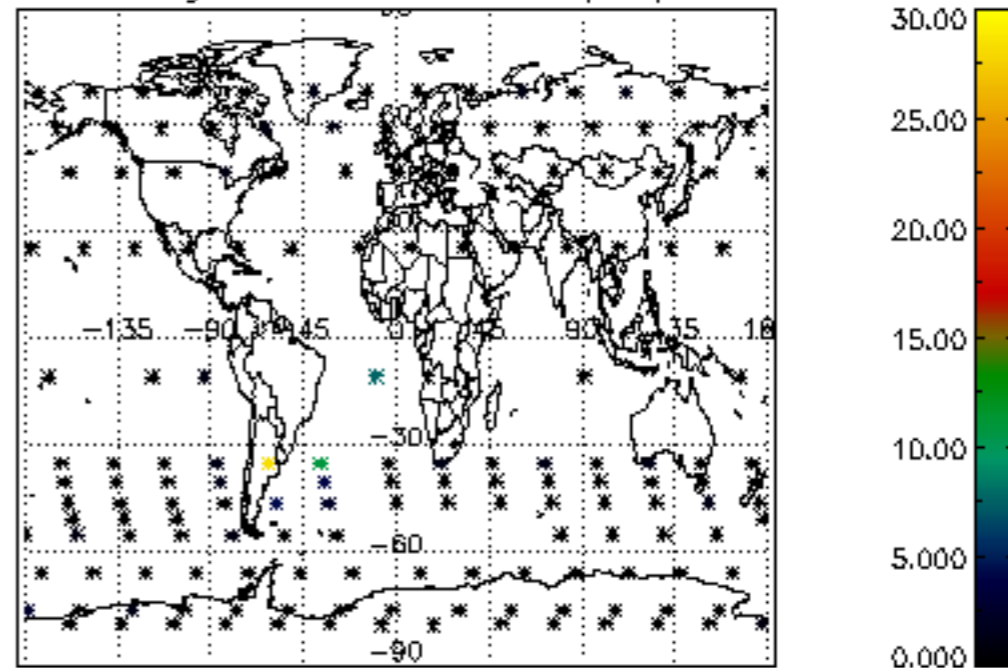
Percentage of datation errors per profile



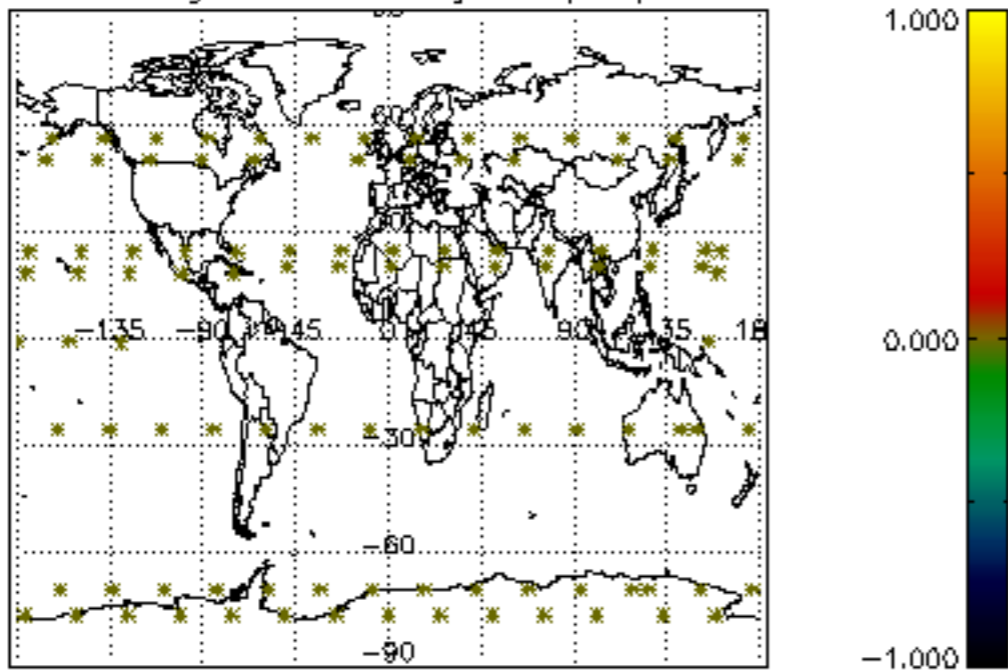
Percentage of star falling outside central band per profile



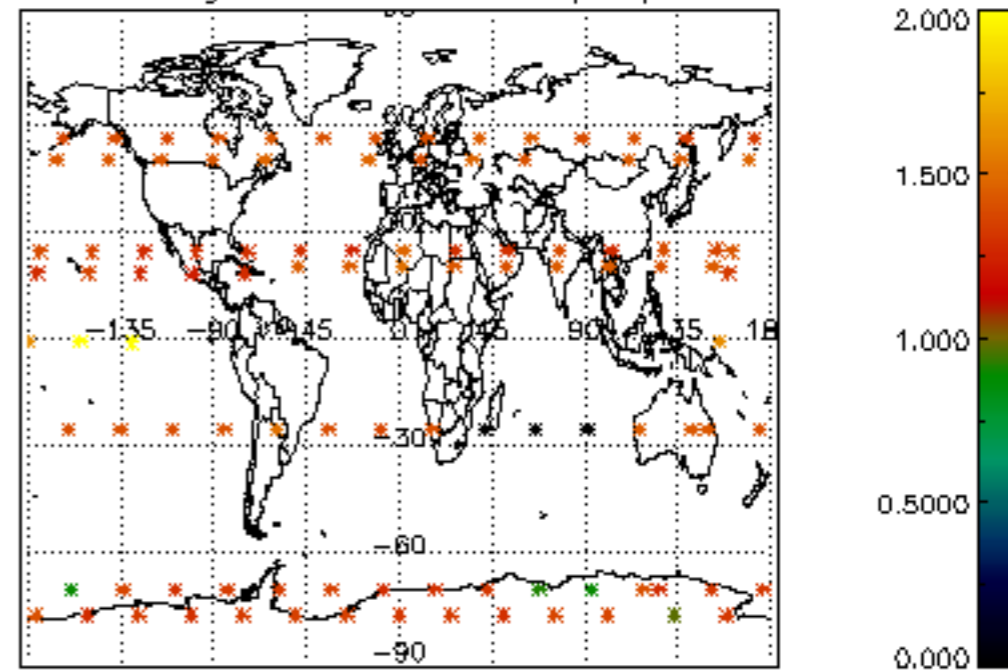
Percentage of saturation errors per profile



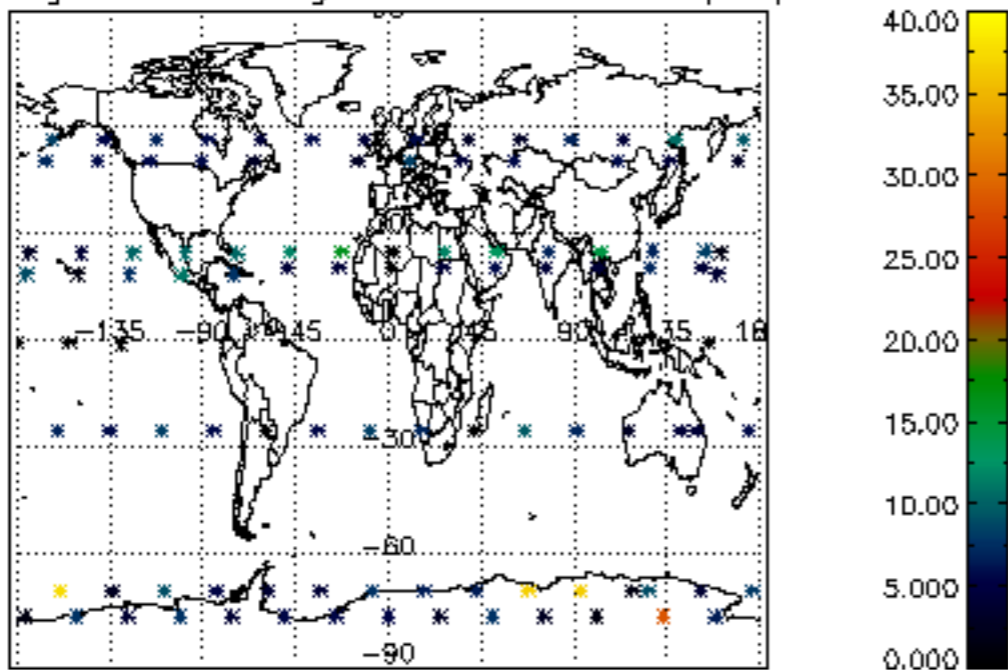
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

