

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	23APR2013 00:52:30
Data source version	GOMOS/6.01
Start time of products	18-08-2007 (18AUG2007 00:00:00)
Stop time of products	19-08-2007 (19AUG2007 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	197
Nb of prods with errors	1

2. Summary of processed GOM_NL__2P products.

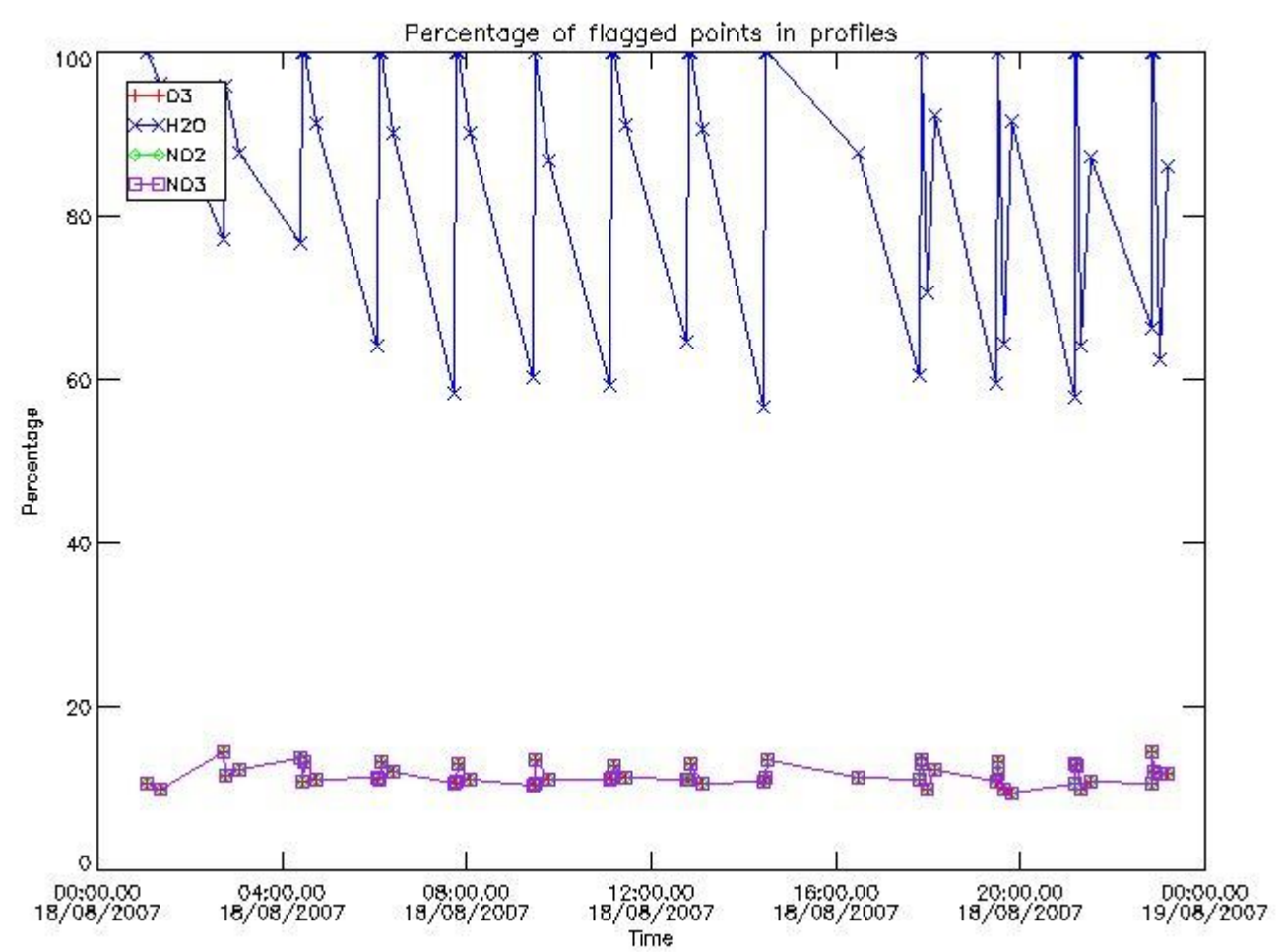
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20070818_010457_000000492060_00460_28570_8601.N1	18-AUG-2007 01:04:57	Dark	48.500	101	11Alp Lep	2.5820	7000.0	97	28570	No
2	GOM_NL__2PRFIN20070818_012254_000000512060_00461_28571_8609.N1	18-AUG-2007 01:22:54	Dark	51.000	9	Alp Eri	0.45300	24000.	102	28571	No
3	GOM_NL__2PRFIN20070818_012832_000000412060_00461_28571_8610.N1	18-AUG-2007 01:28:32	Straylight	40.500	148	Alp Tuc	2.8780	4100.0	81	28571	No
4	GOM_NL__2PRFIN20070818_013206_000000482060_00461_28571_8611.N1	18-AUG-2007 01:32:06	Straylight	47.500	31	Alp Gru	1.7340	15200.	95	28571	No
5	GOM_NL__2PRFIN20070818_013504_000000412060_00461_28571_8612.N1	18-AUG-2007 01:35:04	Straylight	40.500	172	Gam Gru	3.0030	13100.	81	28571	No
6	GOM_NL__2PRFIN20070818_014932_000000372060_00461_28571_8613.N1	18-AUG-2007 01:49:32	Bright	36.500	11	53Alp Aql	0.76500	8000.0	73	28571	No
7	GOM_NL__2PRFIN20070818_015643_000000362060_00461_28571_8614.N1	18-AUG-2007 01:56:43	Bright	35.500	92	53Eps Cyg	2.5000	4500.0	71	28571	No
8	GOM_NL__2PRFIN20070818_015820_000000382060_00461_28571_8615.N1	18-AUG-2007 01:58:20	Bright	37.500	66	37Gam Cyg	2.2080	5900.0	75	28571	No
9	GOM_NL__2PRFIN20070818_015939_000000352060_00461_28571_8616.N1	18-AUG-2007 01:59:39	Bright	34.500	144	18Del Cyg	2.8600	11000.	69	28571	No
10	GOM_NL__2PRFIN20070818_020515_000000372060_00461_28571_8617.N1	18-AUG-2007 02:05:15	Bright	37.000	89	5Alp Cep	2.4510	8000.0	74	28571	No
11	GOM_NL__2PRFIN20070818_021222_000000332060_00461_28571_8618.N1	18-AUG-2007 02:12:22	Bright	32.500	49	1Alp UMi	1.9900	6300.0	65	28571	No
12	GOM_NL__2PRFIN20070818_022524_000000402060_00461_28571_8619.N1	18-AUG-2007 02:25:24	Bright	40.000	42	34Bet Aur	1.9000	10200.	80	28571	No
13	GOM_NL__2PRFIN20070818_023215_000000452060_00461_28571_8620.N1	18-AUG-2007 02:32:15	Twilight	45.000	151	13Mu Gem	2.8900	3000.0	90	28571	No
14	GOM_NL__2PRFIN20070818_023351_000000412060_00461_28571_8621.N1	18-AUG-2007 02:33:51	Twilight	40.500	44	24Gam Gem	1.9280	11000.	81	28571	No
15	GOM_NL__2PRFIN20070818_024300_000000362060_00461_28571_8622.N1	18-AUG-2007 02:43:00	Dark	35.500	1	9Alp CMa	-1.4400	11000.	71	28571	No
16	GOM_NL__2PRFIN20070818_024534_000000482060_00461_28571_8623.N1	18-AUG-2007 02:45:34	Dark	48.000	101	11Alp Lep	2.5820	7000.0	96	28571	No
17	GOM_NL__2PRFIN20070818_030331_000000462060_00462_28572_8617.N1	18-AUG-2007 03:03:31	Dark	45.500	9	Alp Eri	0.45300	24000.	91	28572	No
18	GOM_NL__2PRFIN20070818_030908_000000392060_00462_28572_8618.N1	18-AUG-2007 03:09:08	Straylight	38.500	148	Alp Tuc	2.8780	4100.0	77	28572	No
19	GOM_NL__2PRFIN20070818_031243_000000402060_00462_28572_8619.N1	18-AUG-2007 03:12:43	Straylight	39.500	31	Alp Gru	1.7340	15200.	79	28572	No
20	GOM_NL__2PRFIN20070818_031540_000000402060_00462_28572_8620.N1	18-AUG-2007 03:15:40	Straylight	40.000	172	Gam Gru	3.0030	13100.	80	28572	No
21	GOM_NL__2PRFIN20070818_033008_000000442060_00462_28572_8621.N1	18-AUG-2007 03:30:08	Bright	44.000	11	53Alp Aql	0.76500	8000.0	88	28572	No
22	GOM_NL__2PRFIN20070818_033718_000000382060_00462_28572_8622.N1	18-AUG-2007 03:37:18	Bright	38.000	92	53Eps Cyg	2.5000	4500.0	76	28572	No
23	GOM_NL__2PRFIN20070818_033856_000000372060_00462_28572_8623.N1	18-AUG-2007 03:38:56	Bright	37.000	66	37Gam Cyg	2.2080	5900.0	74	28572	No
24	GOM_NL__2PRFIN20070818_034016_000000342060_00462_28572_8624.N1	18-AUG-2007 03:40:16	Bright	34.000	144	18Del Cyg	2.8600	11000.	68	28572	No
25	GOM_NL__2PRFIN20070818_034551_000000352060_00462_28572_8625.N1	18-AUG-2007 03:45:51	Bright	35.000	89	5Alp Cep	2.4510	8000.0	70	28572	No
26	GOM_NL__2PRFIN20070818_035257_000000352060_00462_28572_8626.N1	18-AUG-2007 03:52:57	Bright	35.000	49	1Alp UMi	1.9900	6300.0	70	28572	No
27	GOM_NL__2PRFIN20070818_040601_000000472060_00462_28572_8627.N1	18-AUG-2007 04:06:01	Bright	47.000	42	34Bet Aur	1.9000	10200.	94	28572	No
28	GOM_NL__2PRFIN20070818_041251_000000402060_00462_28572_8628.N1	18-AUG-2007 04:12:51	Twilight	39.500	151	13Mu Gem	2.8900	3000.0	79	28572	No
29	GOM_NL__2PRFIN20070818_041427_000000402060_00462_28572_8629.N1	18-AUG-2007 04:14:27	Twilight	40.000	44	24Gam Gem	1.9280	11000.	80	28572	No
30	GOM_NL__2PRFIN20070818_042337_000000372060_00462_28572_8630.N1	18-AUG-2007 04:23:37	Dark	37.000	1	9Alp CMa	-1.4400	11000.	74	28572	No
31	GOM_NL__2PRFIN20070818_042610_000000472060_00462_28572_8631.N1	18-AUG-2007 04:26:10	Dark	47.000	101	11Alp Lep	2.5820	7000.0	94	28572	No
32	GOM_NL__2PRFIN20070818_042746_000000392060_00462_28572_8632.N1	18-AUG-2007 04:27:46	Dark	38.500	177	1Zet CMa	3.0220	26000.	77	28572	No
33	GOM_NL__2PRFIN20070818_044408_000000462060_00463_28573_8625.N1	18-AUG-2007 04:44:08	Dark	46.000	9	Alp Eri	0.45300	24000.	92	28573	No
34	GOM_NL__2PRFIN20070818_044944_000000412060_00463_28573_8626.N1	18-AUG-2007 04:49:44	Straylight	40.500	148	Alp Tuc	2.8780	4100.0	81	28573	No
35	GOM_NL__2PRFIN20070818_045319_000000472060_00463_28573_8627.N1	18-AUG-2007 04:53:19	Straylight	46.500	31	Alp Gru	1.7340	15200.	93	28573	No
36	GOM_NL__2PRFIN20070818_045616_000000412060_00463_28573_8628.N1	18-AUG-2007 04:56:16	Straylight	40.500	172	Gam Gru	3.0030	13100.	81	28573	No
37	GOM_NL__2PRFIN20070818_051051_000000292060_00463_28573_8629.N1	18-AUG-2007 05:10:51	Dark	29.000	11	53Alp Aql	0.76500	8000.0	58	28573	Yes
38	GOM_NL__2PRFIN20070818_051754_000000392060_00463_28573_8630.N1	18-AUG-2007 05:17:54	Bright	38.500	92	53Eps Cyg	2.5000	4500.0	77	28573	No
39	GOM_NL__2PRFIN20070818_051931_000000382060_00463_28573_8631.N1	18-AUG-2007 05:19:31	Bright	38.000	66	37Gam Cyg	2.2080	5900.0	76	28573	No
40	GOM_NL__2PRFIN20070818_052052_000000372060_00463_28573_8632.N1	18-AUG-2007 05:20:52	Bright	36.500	144	18Del Cyg	2.8600	11000.	73	28573	No
41	GOM_NL__2PRFIN20070818_052626_000000372060_00463_28573_8633.N1	18-AUG-2007 05:26:26	Bright	37.000	89	5Alp Cep	2.4510	8000.0	74	28573	No
42	GOM_NL__2PRFIN20070818_053333_000000352060_00463_28573_8634.N1	18-AUG-2007 05:33:33	Bright	35.000	49	1Alp UMi	1.9900	6300.0	70	28573	No

161	GOM_NL__2PRFIN20070818_201608_000000362060_00472_28582_8810.N1	18-AUG-2007 20:16:08	Bright	36.000	11	53Alp Aql	0.76500	8000.0	72	28582	No
162	GOM_NL__2PRFIN20070818_202316_000000372060_00472_28582_8811.N1	18-AUG-2007 20:23:16	Bright	37.000	92	53Eps Cyg	2.5000	4500.0	74	28582	No
163	GOM_NL__2PRFIN20070818_202454_000000392060_00472_28582_8812.N1	18-AUG-2007 20:24:54	Bright	38.500	66	37Gam Cyg	2.2080	5900.0	77	28582	No
164	GOM_NL__2PRFIN20070818_202615_000000342060_00472_28582_8813.N1	18-AUG-2007 20:26:15	Bright	34.000	144	18Del Cyg	2.8600	11000.	68	28582	No
165	GOM_NL__2PRFIN20070818_203147_000000392060_00472_28582_8814.N1	18-AUG-2007 20:31:47	Bright	39.000	89	5Alp Cep	2.4510	8000.0	78	28582	No
166	GOM_NL__2PRFIN20070818_203857_000000362060_00472_28582_8815.N1	18-AUG-2007 20:38:57	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	28582	No
167	GOM_NL__2PRFIN20070818_205750_000000462060_00472_28582_8816.N1	18-AUG-2007 20:57:50	Bright	46.000	170	27Eps Gem	3.0000	9700.0	92	28582	No
168	GOM_NL__2PRFIN20070818_210029_000000432060_00472_28582_8817.N1	18-AUG-2007 21:00:29	Twilight	43.000	44	24Gam Gem	1.9280	11000.	86	28582	No
169	GOM_NL__2PRFIN20070818_210939_000000482060_00472_28582_8818.N1	18-AUG-2007 21:09:39	Dark	48.000	1	9Alp CMa	-1.4400	11000.	96	28582	No
170	GOM_NL__2PRFIN20070818_211114_000000392060_00472_28582_8819.N1	18-AUG-2007 21:11:14	Dark	39.000	179	24Omi2CMa	3.0320	24000.	78	28582	No
171	GOM_NL__2PRFIN20070818_211242_000000402060_00472_28582_8820.N1	18-AUG-2007 21:12:42	Dark	40.000	23	21Eps CMa	1.5020	26000.	80	28582	No
172	GOM_NL__2PRFIN20070818_211932_000000522060_00472_28582_8821.N1	18-AUG-2007 21:19:32	Dark	52.000	2	Alp Car	-0.73600	7000.0	104	28582	No
173	GOM_NL__2PRFIN20070818_213014_000000482060_00473_28583_8816.N1	18-AUG-2007 21:30:14	Dark	47.500	9	Alp Eri	0.45300	24000.	95	28583	No
174	GOM_NL__2PRFIN20070818_213547_000000462060_00473_28583_8817.N1	18-AUG-2007 21:35:47	Straylight	45.500	148	Alp Tuc	2.8780	4100.0	91	28583	No
175	GOM_NL__2PRFIN20070818_213922_000000412060_00473_28583_8818.N1	18-AUG-2007 21:39:22	Straylight	41.000	31	Alp Gru	1.7340	15200.	82	28583	No
176	GOM_NL__2PRFIN20070818_214219_000000402060_00473_28583_8819.N1	18-AUG-2007 21:42:19	Straylight	40.000	172	Gam Gru	3.0030	13100.	80	28583	No
177	GOM_NL__2PRFIN20070818_215644_000000382060_00473_28583_8820.N1	18-AUG-2007 21:56:44	Bright	37.500	11	53Alp Aql	0.76500	8000.0	75	28583	No
178	GOM_NL__2PRFIN20070818_220352_000000372060_00473_28583_8821.N1	18-AUG-2007 22:03:52	Bright	36.500	92	53Eps Cyg	2.5000	4500.0	73	28583	No
179	GOM_NL__2PRFIN20070818_220530_000000372060_00473_28583_8822.N1	18-AUG-2007 22:05:30	Bright	37.000	66	37Gam Cyg	2.2080	5900.0	74	28583	No
180	GOM_NL__2PRFIN20070818_220651_000000342060_00473_28583_8823.N1	18-AUG-2007 22:06:51	Bright	33.500	144	18Del Cyg	2.8600	11000.	67	28583	No
181	GOM_NL__2PRFIN20070818_221223_000000392060_00473_28583_8824.N1	18-AUG-2007 22:12:23	Bright	39.000	89	5Alp Cep	2.4510	8000.0	78	28583	No
182	GOM_NL__2PRFIN20070818_221932_000000342060_00473_28583_8825.N1	18-AUG-2007 22:19:32	Bright	33.500	49	1Alp UMi	1.9900	6300.0	67	28583	No
183	GOM_NL__2PRFIN20070818_223826_000000432060_00473_28583_8826.N1	18-AUG-2007 22:38:26	Bright	42.500	170	27Eps Gem	3.0000	9700.0	85	28583	No
184	GOM_NL__2PRFIN20070818_224105_000000452060_00473_28583_8827.N1	18-AUG-2007 22:41:05	Twilight	45.000	44	24Gam Gem	1.9280	11000.	90	28583	No
185	GOM_NL__2PRFIN20070818_225016_000000482060_00473_28583_8828.N1	18-AUG-2007 22:50:16	Dark	48.000	1	9Alp CMa	-1.4400	11000.	96	28583	No
186	GOM_NL__2PRFIN20070818_225150_000000362060_00473_28583_8829.N1	18-AUG-2007 22:51:50	Dark	35.500	179	24Omi2CMa	3.0320	24000.	71	28583	No
187	GOM_NL__2PRFIN20070818_225318_000000422060_00473_28583_8830.N1	18-AUG-2007 22:53:18	Dark	42.000	23	21Eps CMa	1.5020	26000.	84	28583	No
188	GOM_NL__2PRFIN20070818_230008_000000432060_00473_28583_8831.N1	18-AUG-2007 23:00:08	Dark	43.000	2	Alp Car	-0.73600	7000.0	86	28583	No
189	GOM_NL__2PRFIN20070818_231050_000000442060_00474_28584_8836.N1	18-AUG-2007 23:10:50	Dark	43.500	9	Alp Eri	0.45300	24000.	87	28584	No
190	GOM_NL__2PRFIN20070818_231623_000000472060_00474_28584_8837.N1	18-AUG-2007 23:16:23	Straylight	47.000	148	Alp Tuc	2.8780	4100.0	94	28584	No
191	GOM_NL__2PRFIN20070818_231958_000000412060_00474_28584_8838.N1	18-AUG-2007 23:19:58	Straylight	41.000	31	Alp Gru	1.7340	15200.	82	28584	No
192	GOM_NL__2PRFIN20070818_232255_000000412060_00474_28584_8839.N1	18-AUG-2007 23:22:55	Straylight	41.000	172	Gam Gru	3.0030	13100.	82	28584	No
193	GOM_NL__2PRFIN20070818_233720_000000362060_00474_28584_8840.N1	18-AUG-2007 23:37:20	Bright	35.500	11	53Alp Aql	0.76500	8000.0	71	28584	No
194	GOM_NL__2PRFIN20070818_234427_000000392060_00474_28584_8841.N1	18-AUG-2007 23:44:27	Bright	38.500	92	53Eps Cyg	2.5000	4500.0	77	28584	No
195	GOM_NL__2PRFIN20070818_234606_000000352060_00474_28584_8842.N1	18-AUG-2007 23:46:06	Bright	35.000	66	37Gam Cyg	2.2080	5900.0	70	28584	No
196	GOM_NL__2PRFIN20070818_234727_000000342060_00474_28584_8843.N1	18-AUG-2007 23:47:27	Bright	33.500	144	18Del Cyg	2.8600	11000.	67	28584	No
197	GOM_NL__2PRFIN20070818_235258_000000372060_00474_28584_8844.N1	18-AUG-2007 23:52:58	Bright	37.000	89	5Alp Cep	2.4510	8000.0	74	28584	No

3. Quality information per product

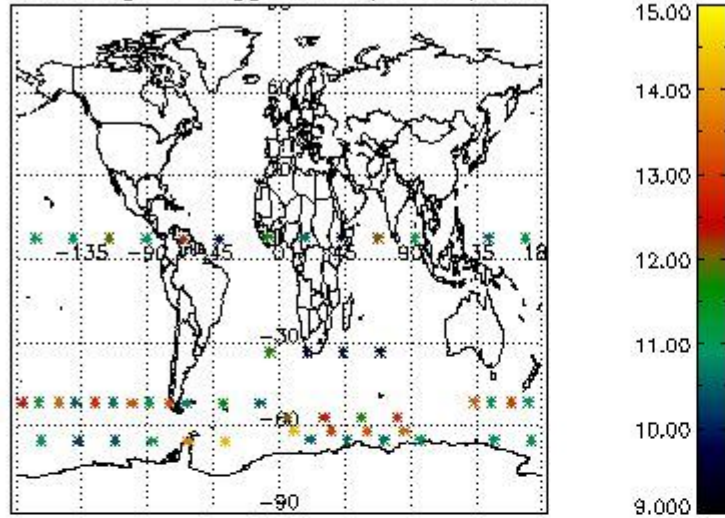
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

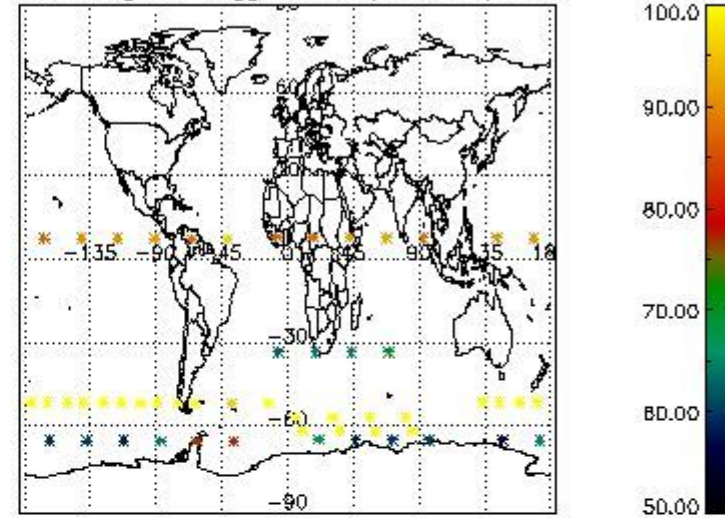


3.2 Plot quality information per product (world map)

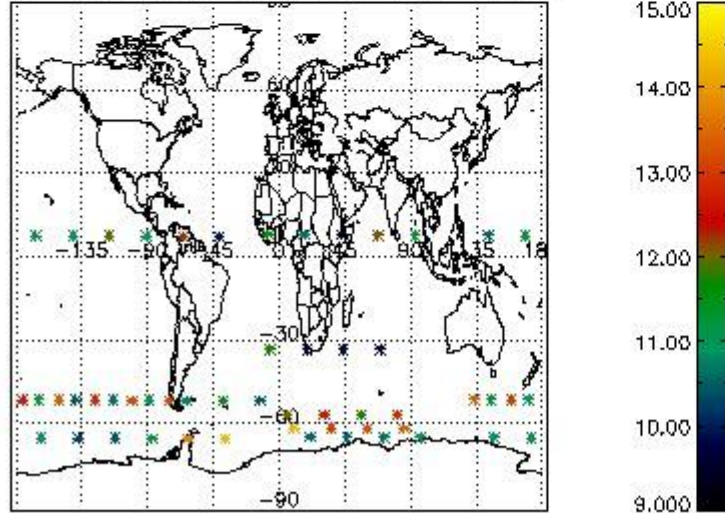
Percentage of flagged data per O3 profile



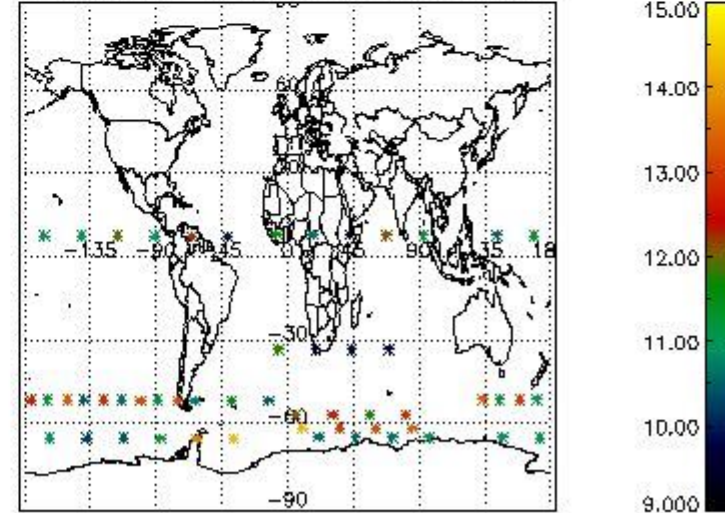
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

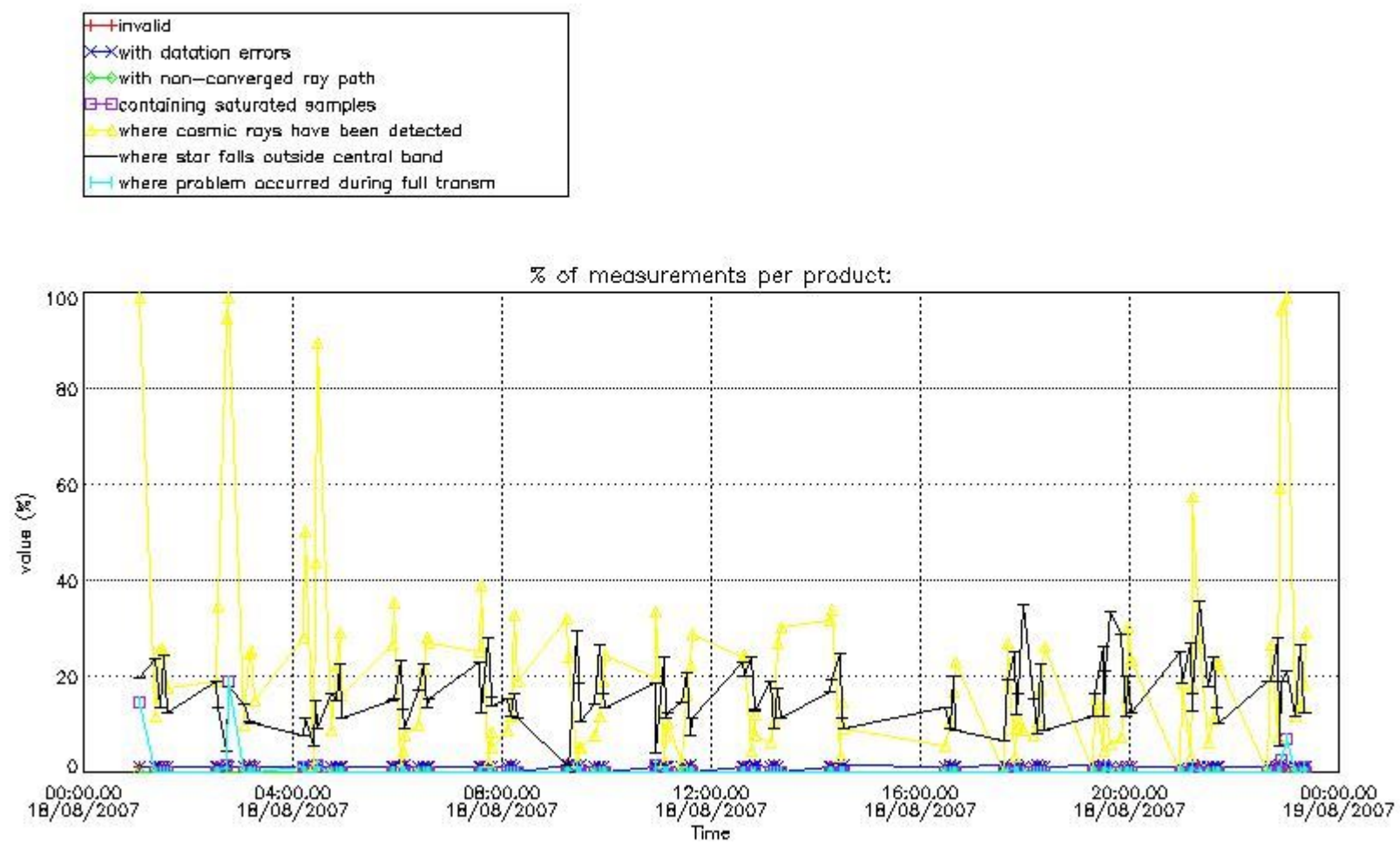


4. Level 1 quality information per product

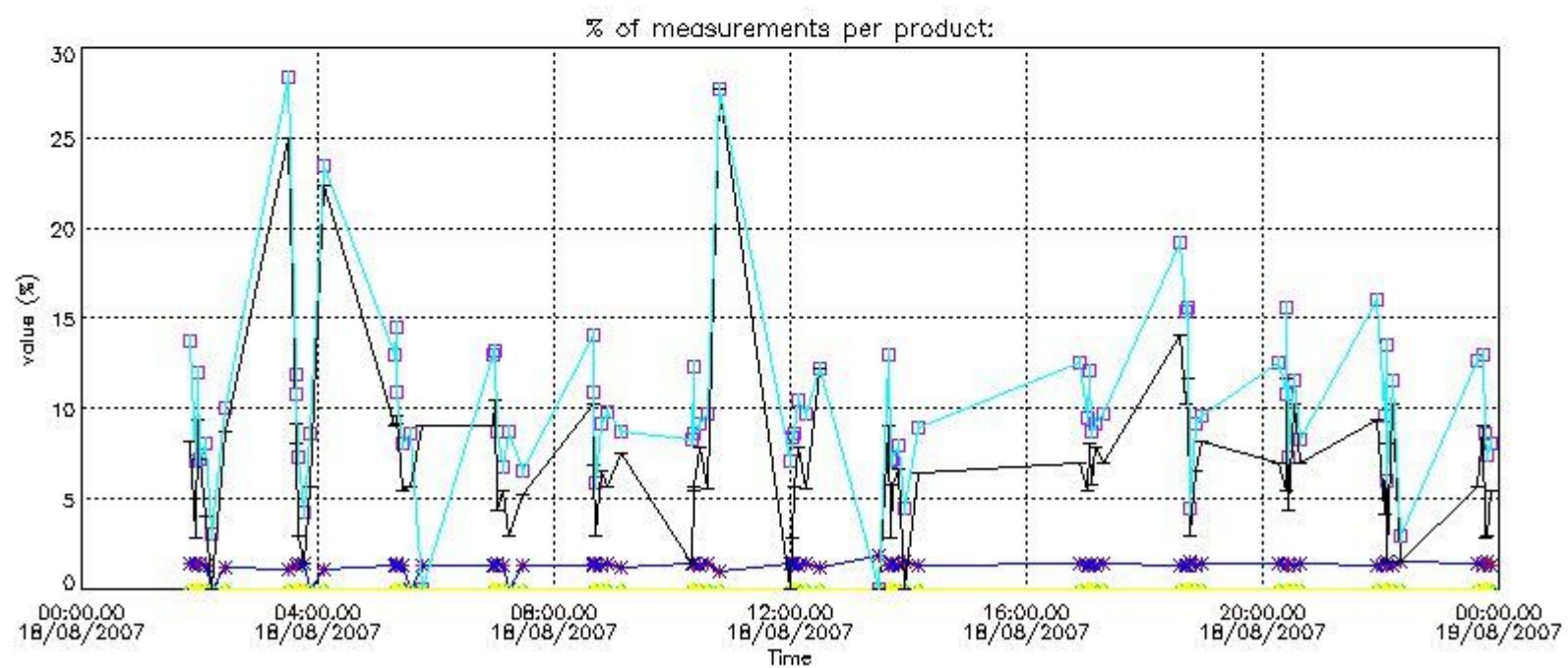
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



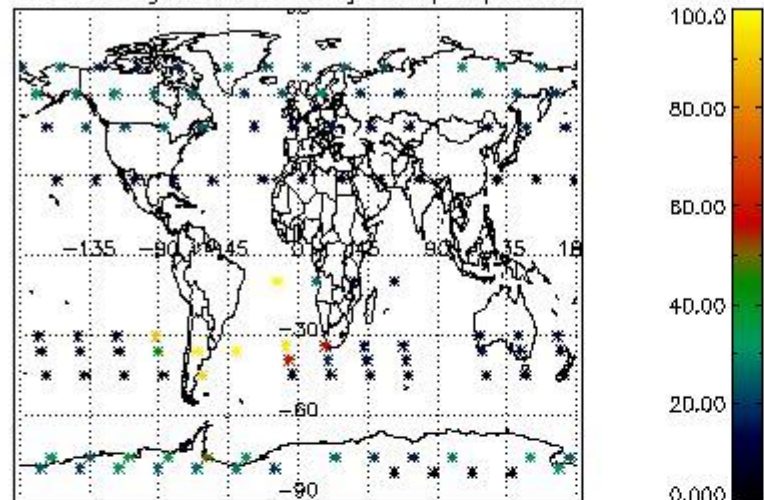
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



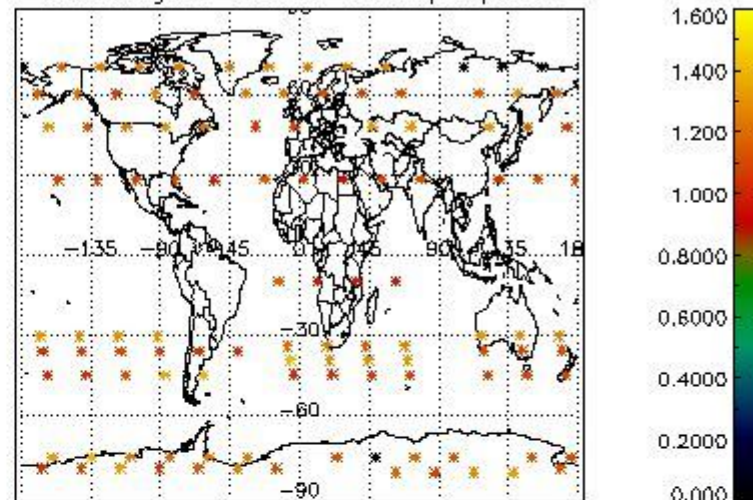
4.2 Plot quality information per product coming from level 1b processing (world map)

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

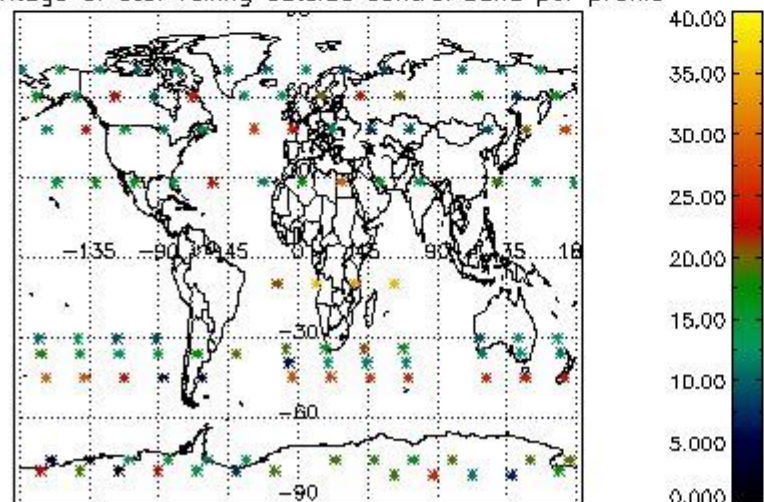
Percentage of cosmic ray hits per profile



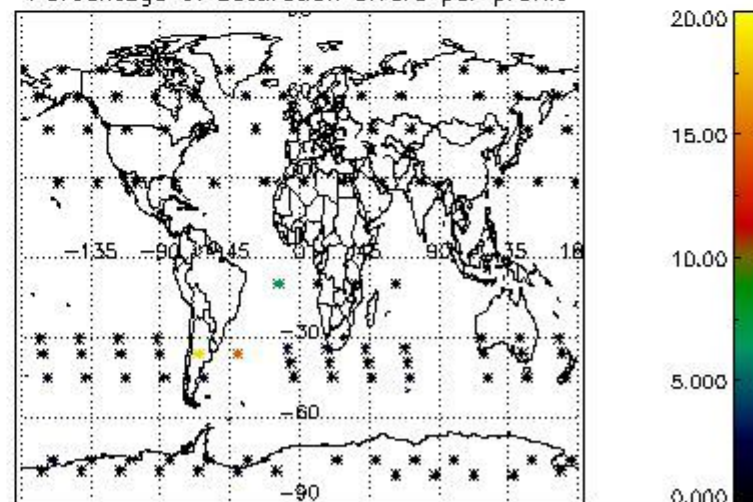
Percentage of datation errors per profile



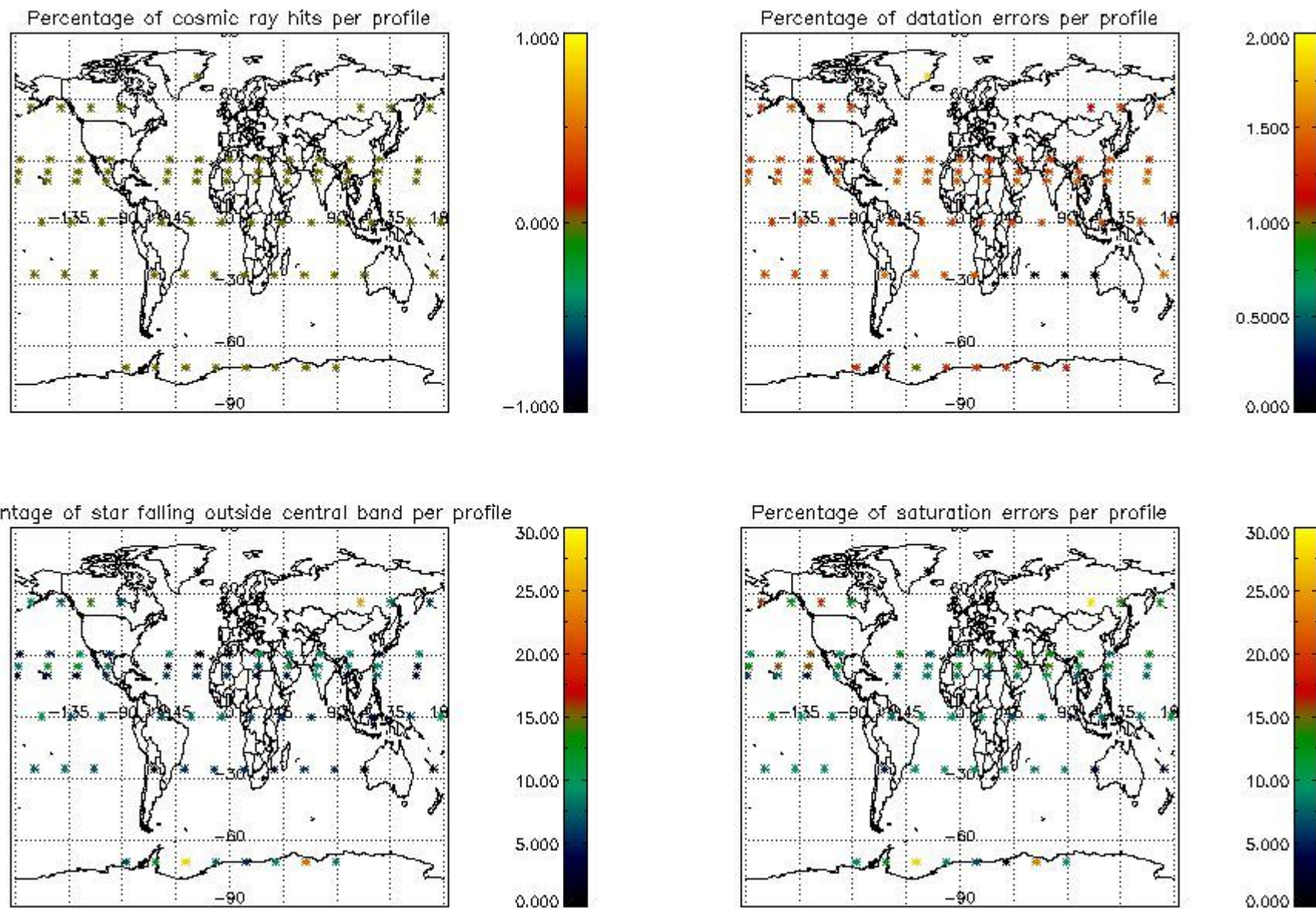
Percentage of star falling outside central band per profile



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

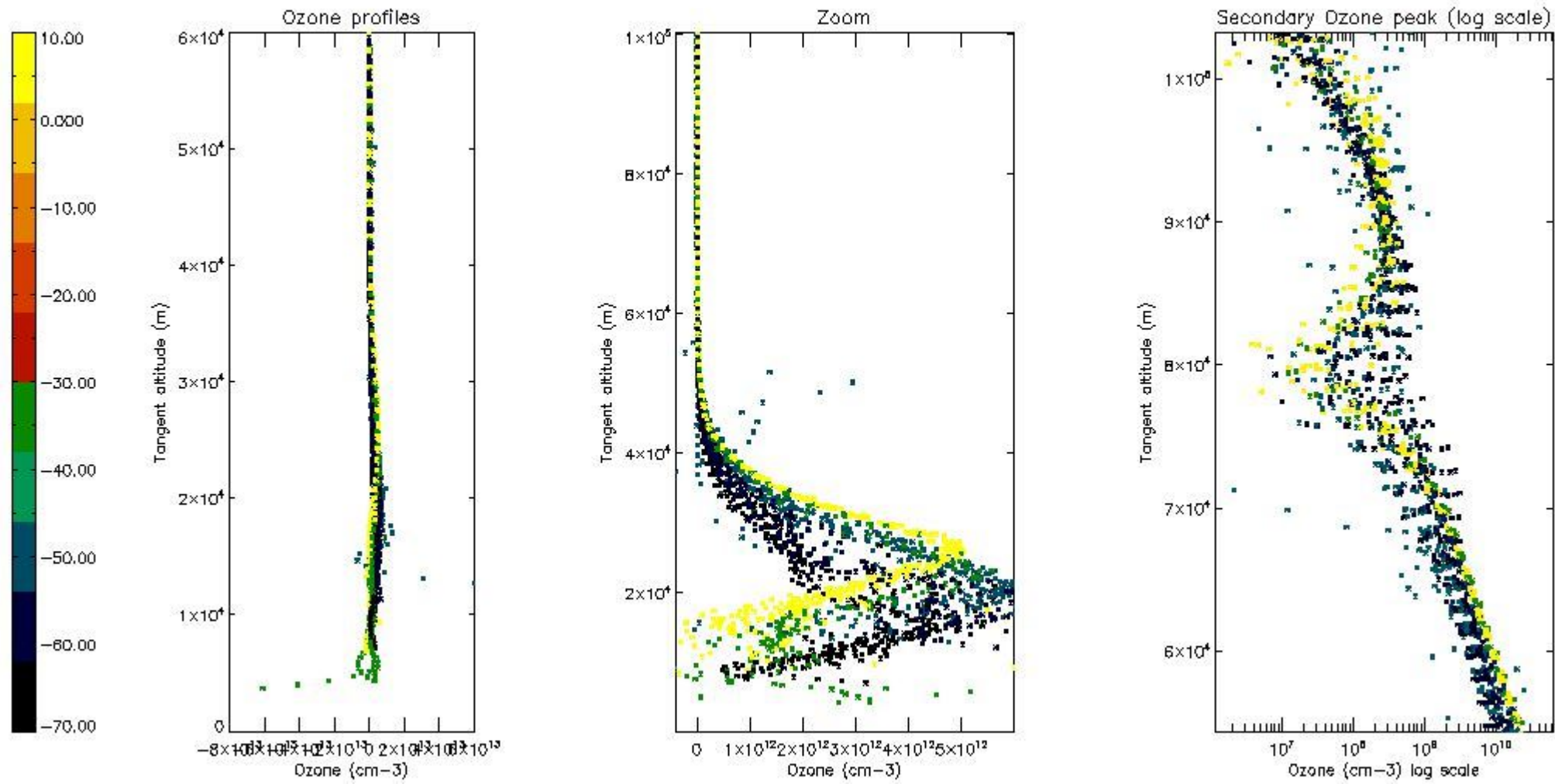
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	31
STD < 20	20

STD < 10	17
STD < 5	13

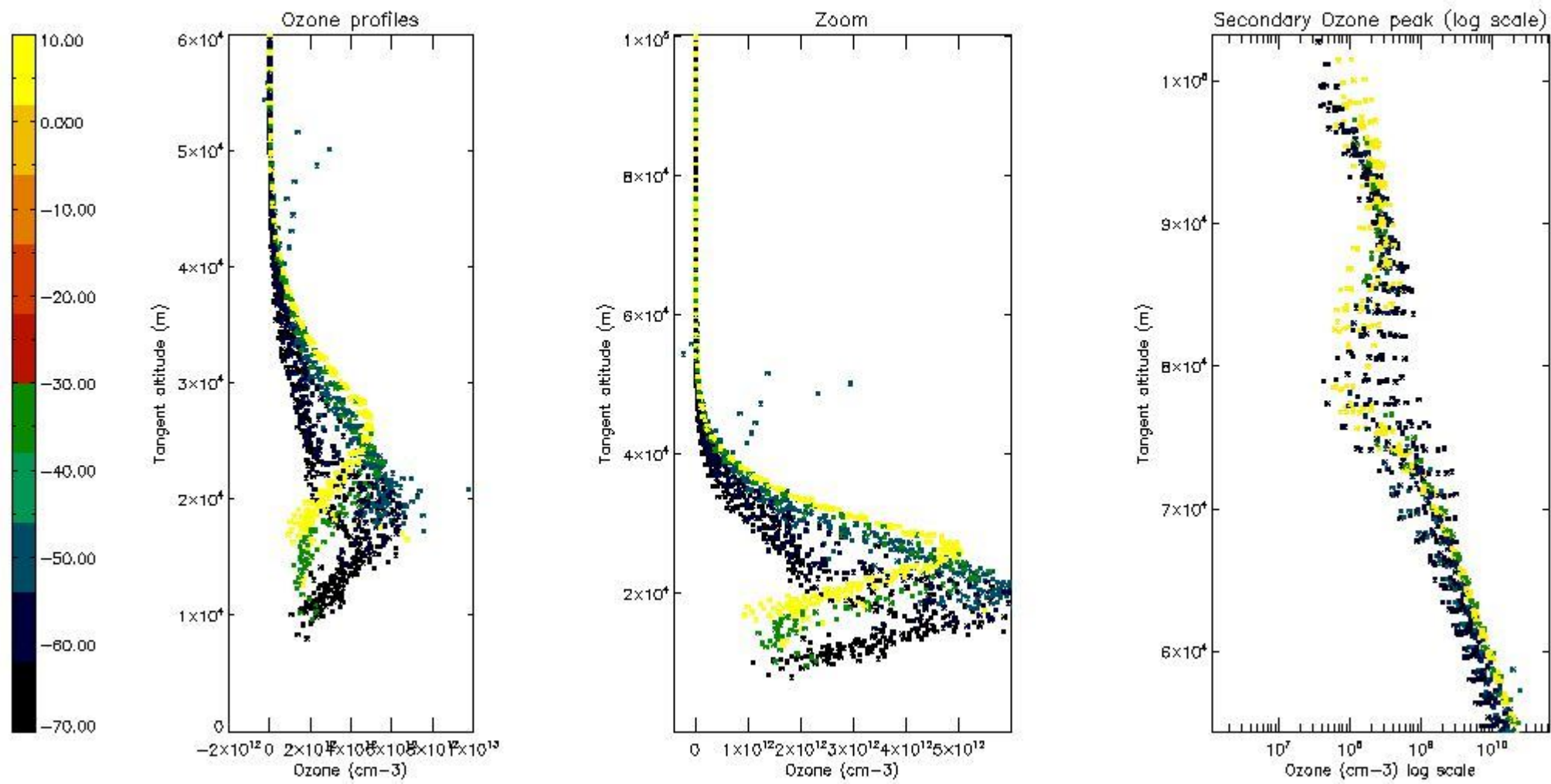
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



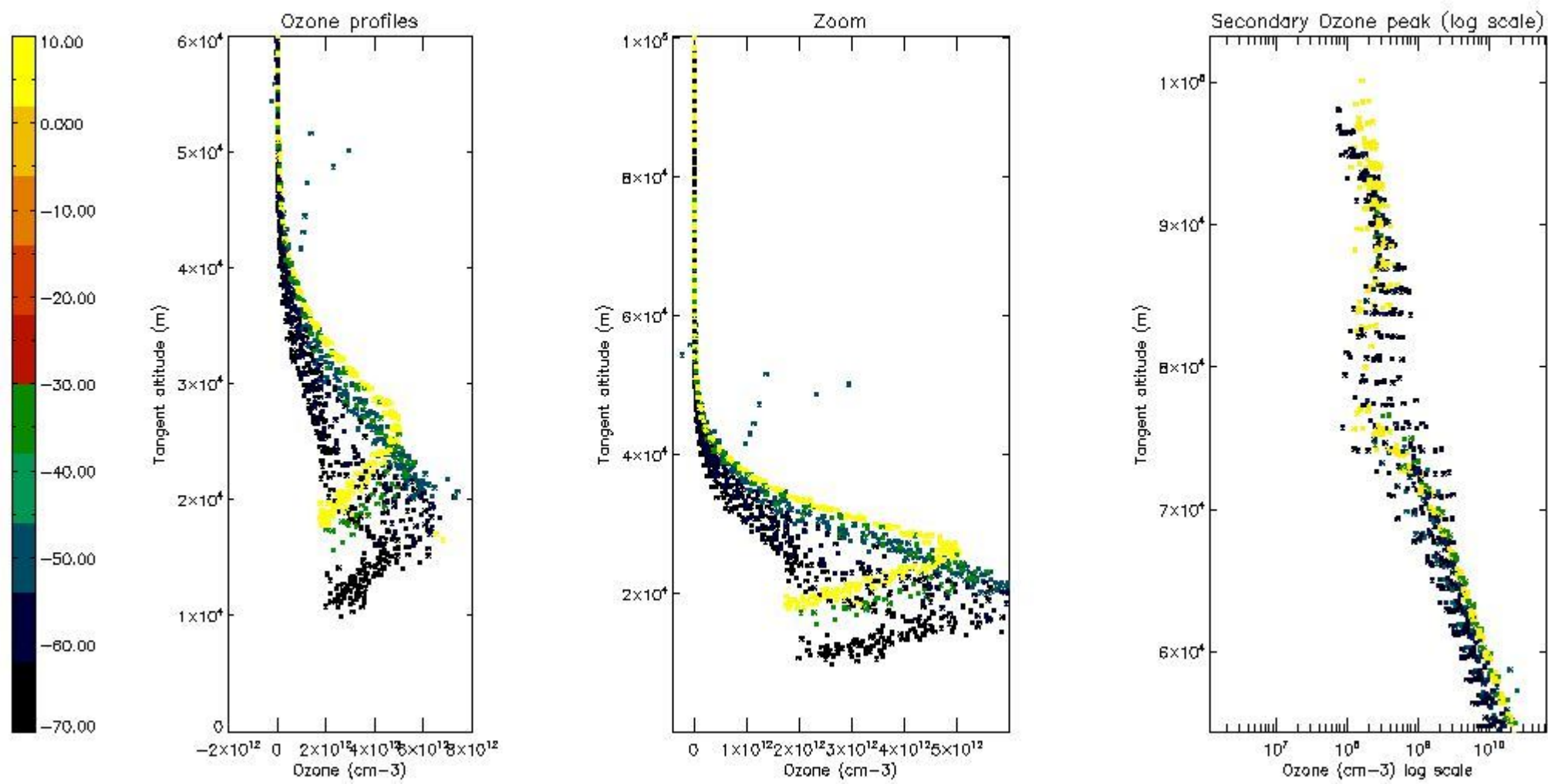
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



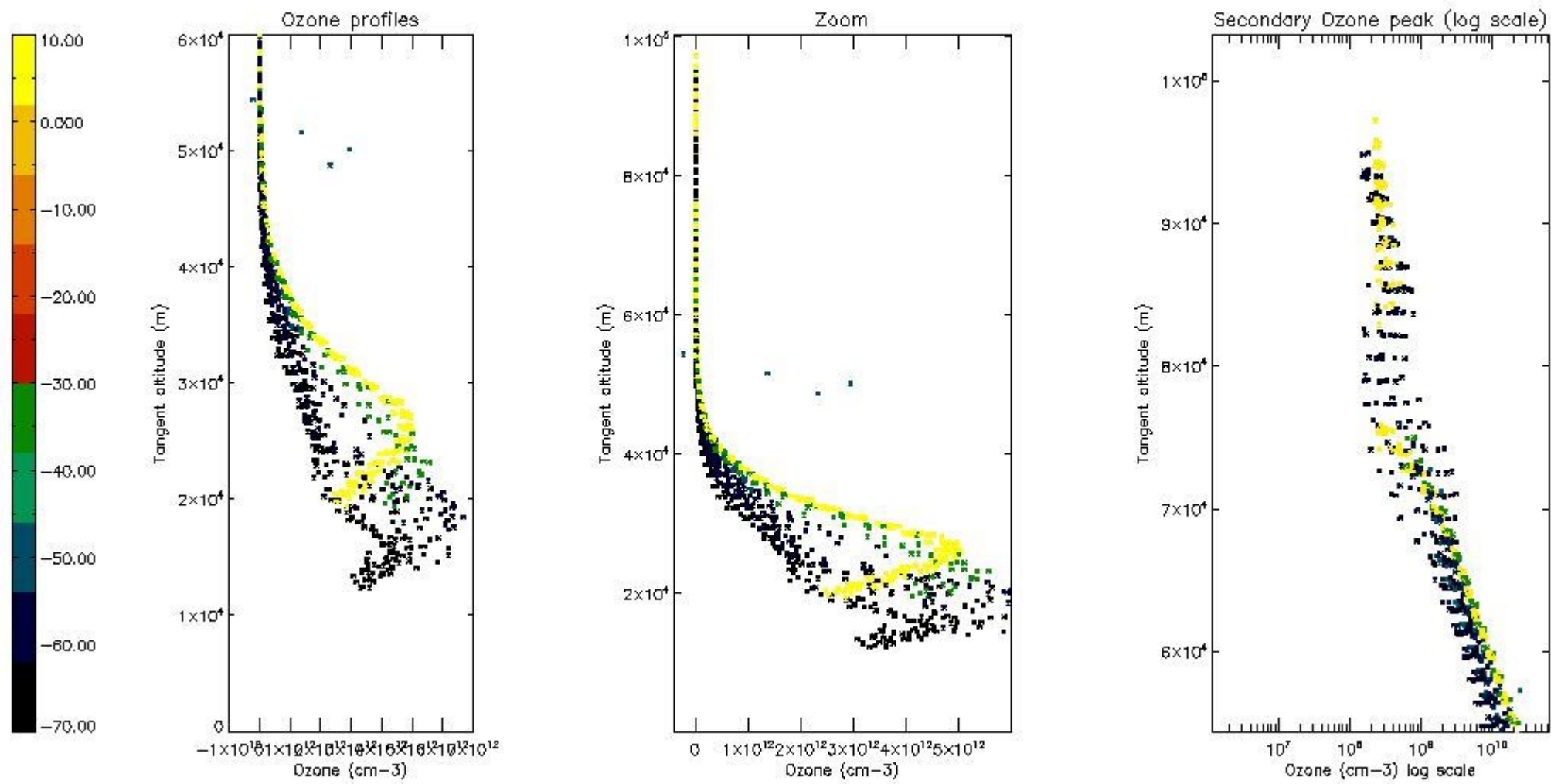
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



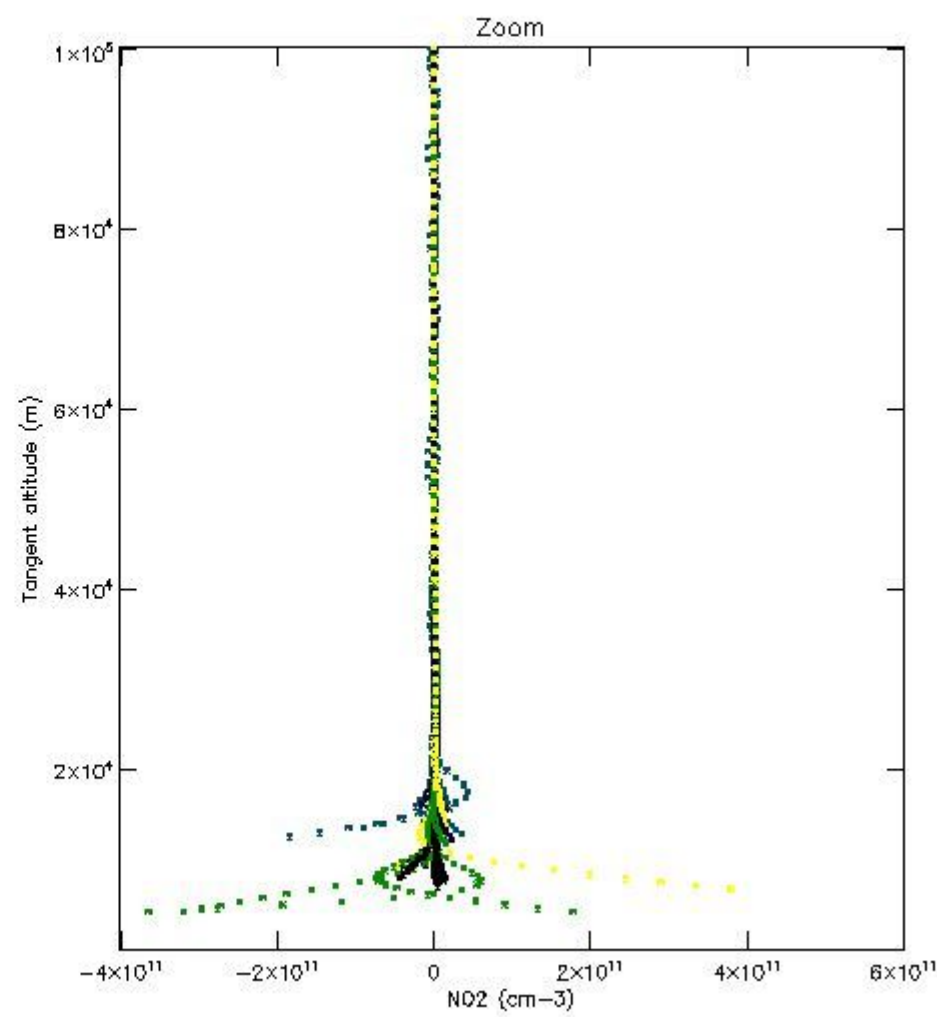
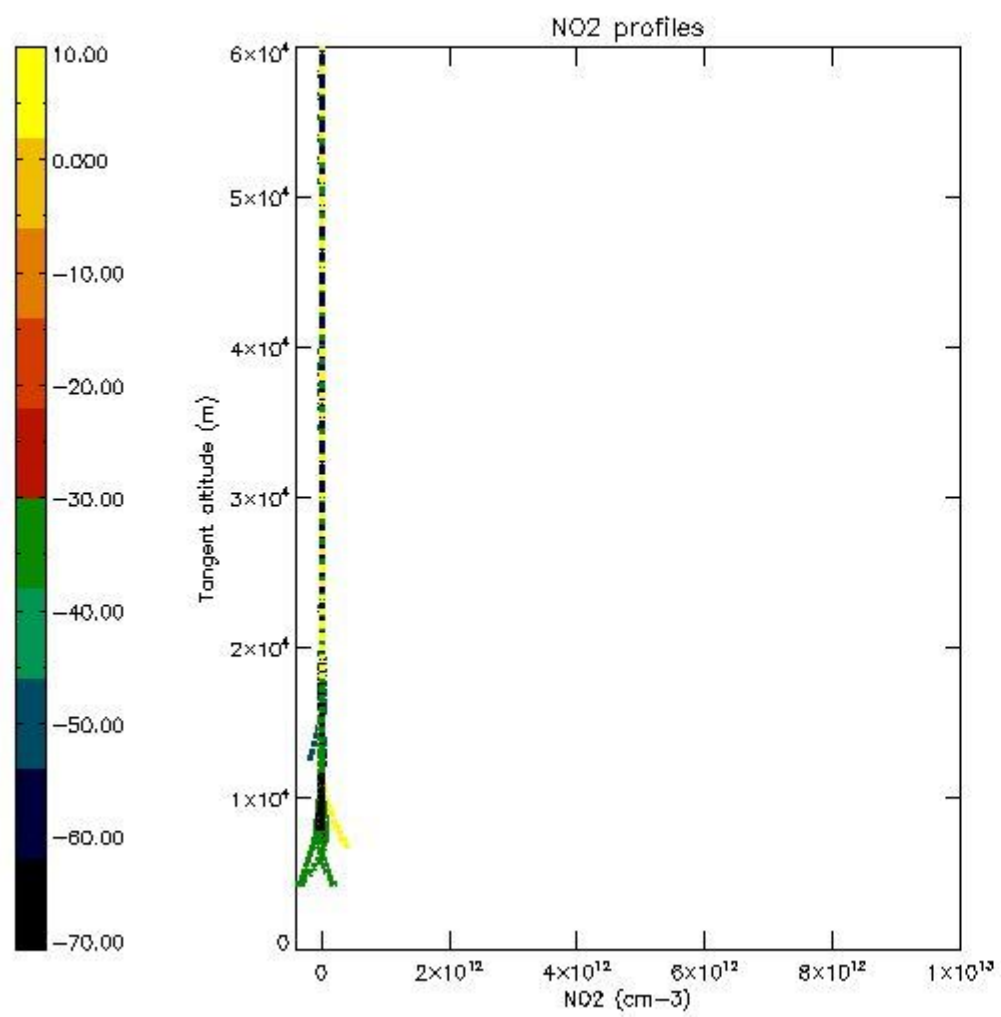
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



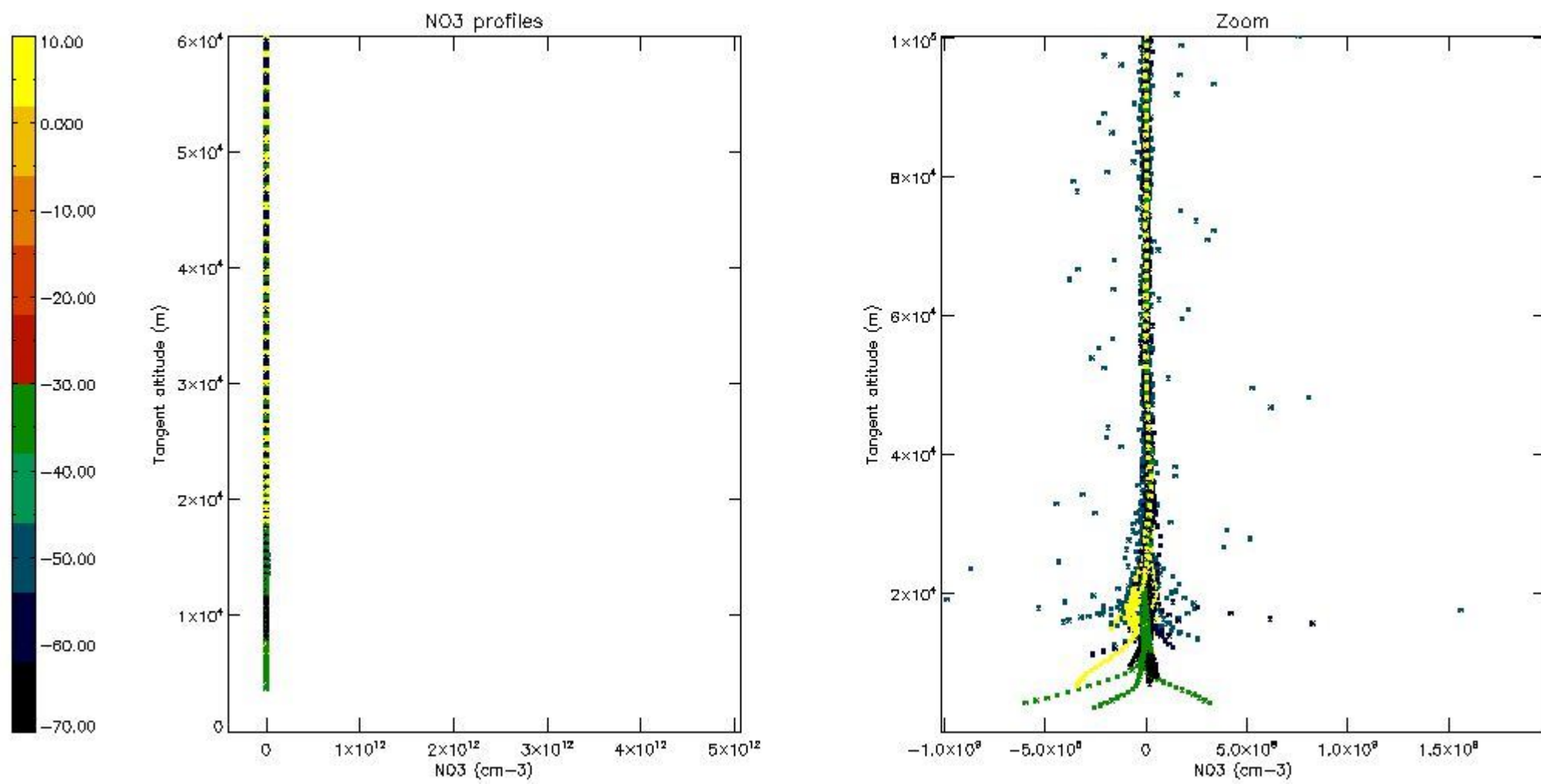
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



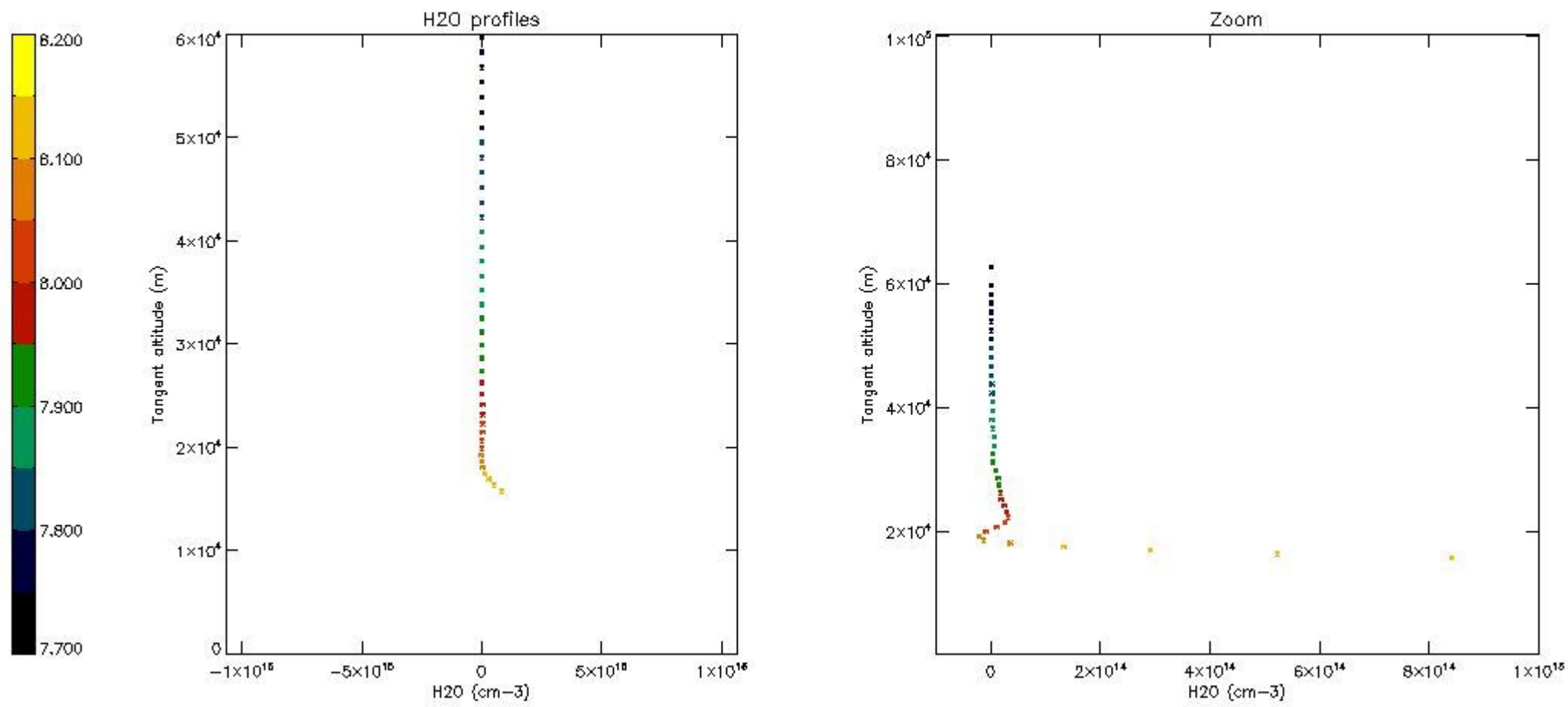
5.7 Plot NO3 profiles for all STD (dark without errors)

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	18-AUG-2007 01:04:57
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	18-AUG-2007 01:04:57
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	18-AUG-2007 01:04:57

GOMOS Level 2 Daily Report

SUMMARY

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

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[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](#)

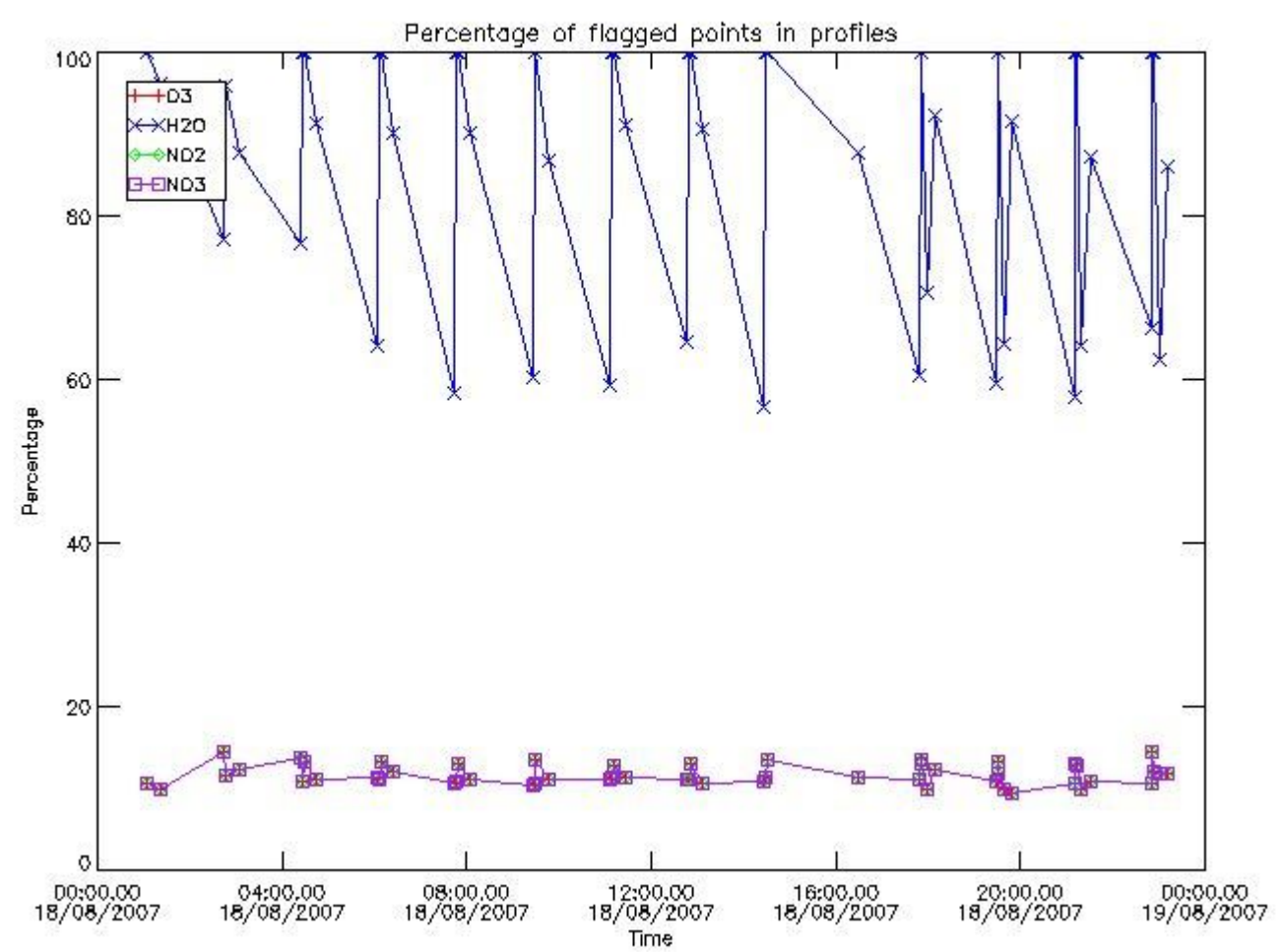
[6. Auxiliary Data Files used for the production reported in section 2](#)

161	GOM_NL__2PRFIN20070818_201608_000000362060_00472_28582_8810.N1	18-AUG-2007 20:16:08	Bright	36.000	11	53Alp Aql	0.76500	8000.0	72	28582	No
162	GOM_NL__2PRFIN20070818_202316_000000372060_00472_28582_8811.N1	18-AUG-2007 20:23:16	Bright	37.000	92	53Eps Cyg	2.5000	4500.0	74	28582	No
163	GOM_NL__2PRFIN20070818_202454_000000392060_00472_28582_8812.N1	18-AUG-2007 20:24:54	Bright	38.500	66	37Gam Cyg	2.2080	5900.0	77	28582	No
164	GOM_NL__2PRFIN20070818_202615_000000342060_00472_28582_8813.N1	18-AUG-2007 20:26:15	Bright	34.000	144	18Del Cyg	2.8600	11000.	68	28582	No
165	GOM_NL__2PRFIN20070818_203147_000000392060_00472_28582_8814.N1	18-AUG-2007 20:31:47	Bright	39.000	89	5Alp Cep	2.4510	8000.0	78	28582	No
166	GOM_NL__2PRFIN20070818_203857_000000362060_00472_28582_8815.N1	18-AUG-2007 20:38:57	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	28582	No
167	GOM_NL__2PRFIN20070818_205750_000000462060_00472_28582_8816.N1	18-AUG-2007 20:57:50	Bright	46.000	170	27Eps Gem	3.0000	9700.0	92	28582	No
168	GOM_NL__2PRFIN20070818_210029_000000432060_00472_28582_8817.N1	18-AUG-2007 21:00:29	Twilight	43.000	44	24Gam Gem	1.9280	11000.	86	28582	No
169	GOM_NL__2PRFIN20070818_210939_000000482060_00472_28582_8818.N1	18-AUG-2007 21:09:39	Dark	48.000	1	9Alp CMa	-1.4400	11000.	96	28582	No
170	GOM_NL__2PRFIN20070818_211114_000000392060_00472_28582_8819.N1	18-AUG-2007 21:11:14	Dark	39.000	179	24Omi2CMa	3.0320	24000.	78	28582	No
171	GOM_NL__2PRFIN20070818_211242_000000402060_00472_28582_8820.N1	18-AUG-2007 21:12:42	Dark	40.000	23	21Eps CMa	1.5020	26000.	80	28582	No
172	GOM_NL__2PRFIN20070818_211932_000000522060_00472_28582_8821.N1	18-AUG-2007 21:19:32	Dark	52.000	2	Alp Car	-0.73600	7000.0	104	28582	No
173	GOM_NL__2PRFIN20070818_213014_000000482060_00473_28583_8816.N1	18-AUG-2007 21:30:14	Dark	47.500	9	Alp Eri	0.45300	24000.	95	28583	No
174	GOM_NL__2PRFIN20070818_213547_000000462060_00473_28583_8817.N1	18-AUG-2007 21:35:47	Straylight	45.500	148	Alp Tuc	2.8780	4100.0	91	28583	No
175	GOM_NL__2PRFIN20070818_213922_000000412060_00473_28583_8818.N1	18-AUG-2007 21:39:22	Straylight	41.000	31	Alp Gru	1.7340	15200.	82	28583	No
176	GOM_NL__2PRFIN20070818_214219_000000402060_00473_28583_8819.N1	18-AUG-2007 21:42:19	Straylight	40.000	172	Gam Gru	3.0030	13100.	80	28583	No
177	GOM_NL__2PRFIN20070818_215644_000000382060_00473_28583_8820.N1	18-AUG-2007 21:56:44	Bright	37.500	11	53Alp Aql	0.76500	8000.0	75	28583	No
178	GOM_NL__2PRFIN20070818_220352_000000372060_00473_28583_8821.N1	18-AUG-2007 22:03:52	Bright	36.500	92	53Eps Cyg	2.5000	4500.0	73	28583	No
179	GOM_NL__2PRFIN20070818_220530_000000372060_00473_28583_8822.N1	18-AUG-2007 22:05:30	Bright	37.000	66	37Gam Cyg	2.2080	5900.0	74	28583	No
180	GOM_NL__2PRFIN20070818_220651_000000342060_00473_28583_8823.N1	18-AUG-2007 22:06:51	Bright	33.500	144	18Del Cyg	2.8600	11000.	67	28583	No
181	GOM_NL__2PRFIN20070818_221223_000000392060_00473_28583_8824.N1	18-AUG-2007 22:12:23	Bright	39.000	89	5Alp Cep	2.4510	8000.0	78	28583	No
182	GOM_NL__2PRFIN20070818_221932_000000342060_00473_28583_8825.N1	18-AUG-2007 22:19:32	Bright	33.500	49	1Alp UMi	1.9900	6300.0	67	28583	No
183	GOM_NL__2PRFIN20070818_223826_000000432060_00473_28583_8826.N1	18-AUG-2007 22:38:26	Bright	42.500	170	27Eps Gem	3.0000	9700.0	85	28583	No
184	GOM_NL__2PRFIN20070818_224105_000000452060_00473_28583_8827.N1	18-AUG-2007 22:41:05	Twilight	45.000	44	24Gam Gem	1.9280	11000.	90	28583	No
185	GOM_NL__2PRFIN20070818_225016_000000482060_00473_28583_8828.N1	18-AUG-2007 22:50:16	Dark	48.000	1	9Alp CMa	-1.4400	11000.	96	28583	No
186	GOM_NL__2PRFIN20070818_225150_000000362060_00473_28583_8829.N1	18-AUG-2007 22:51:50	Dark	35.500	179	24Omi2CMa	3.0320	24000.	71	28583	No
187	GOM_NL__2PRFIN20070818_225318_000000422060_00473_28583_8830.N1	18-AUG-2007 22:53:18	Dark	42.000	23	21Eps CMa	1.5020	26000.	84	28583	No
188	GOM_NL__2PRFIN20070818_230008_000000432060_00473_28583_8831.N1	18-AUG-2007 23:00:08	Dark	43.000	2	Alp Car	-0.73600	7000.0	86	28583	No
189	GOM_NL__2PRFIN20070818_231050_000000442060_00474_28584_8836.N1	18-AUG-2007 23:10:50	Dark	43.500	9	Alp Eri	0.45300	24000.	87	28584	No
190	GOM_NL__2PRFIN20070818_231623_000000472060_00474_28584_8837.N1	18-AUG-2007 23:16:23	Straylight	47.000	148	Alp Tuc	2.8780	4100.0	94	28584	No
191	GOM_NL__2PRFIN20070818_231958_000000412060_00474_28584_8838.N1	18-AUG-2007 23:19:58	Straylight	41.000	31	Alp Gru	1.7340	15200.	82	28584	No
192	GOM_NL__2PRFIN20070818_232255_000000412060_00474_28584_8839.N1	18-AUG-2007 23:22:55	Straylight	41.000	172	Gam Gru	3.0030	13100.	82	28584	No
193	GOM_NL__2PRFIN20070818_233720_000000362060_00474_28584_8840.N1	18-AUG-2007 23:37:20	Bright	35.500	11	53Alp Aql	0.76500	8000.0	71	28584	No
194	GOM_NL__2PRFIN20070818_234427_000000392060_00474_28584_8841.N1	18-AUG-2007 23:44:27	Bright	38.500	92	53Eps Cyg	2.5000	4500.0	77	28584	No
195	GOM_NL__2PRFIN20070818_234606_000000352060_00474_28584_8842.N1	18-AUG-2007 23:46:06	Bright	35.000	66	37Gam Cyg	2.2080	5900.0	70	28584	No
196	GOM_NL__2PRFIN20070818_234727_000000342060_00474_28584_8843.N1	18-AUG-2007 23:47:27	Bright	33.500	144	18Del Cyg	2.8600	11000.	67	28584	No
197	GOM_NL__2PRFIN20070818_235258_000000372060_00474_28584_8844.N1	18-AUG-2007 23:52:58	Bright	37.000	89	5Alp Cep	2.4510	8000.0	74	28584	No

3. Quality information per product

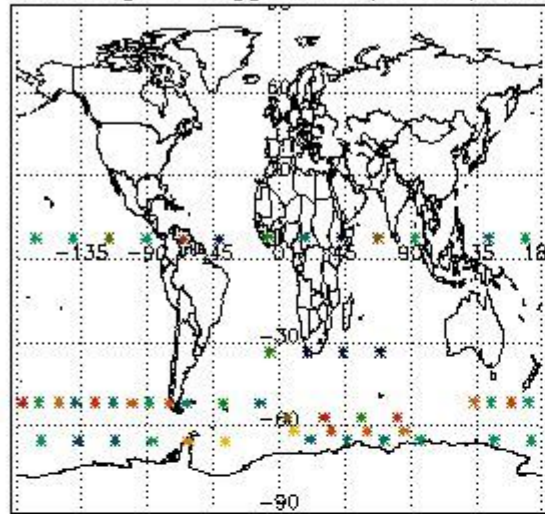
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

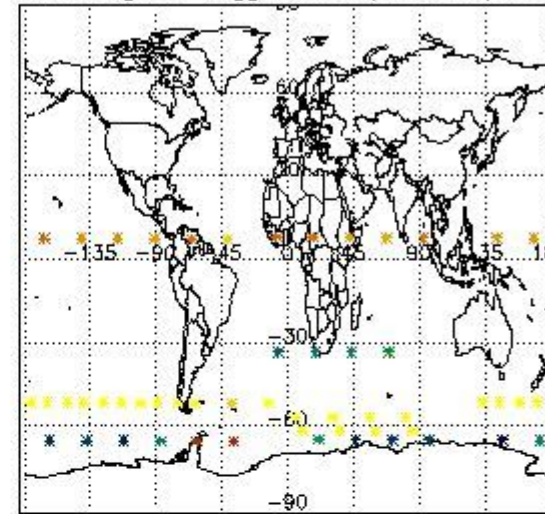


3.2 Plot quality information per product (world map)

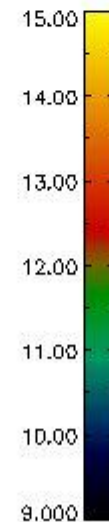
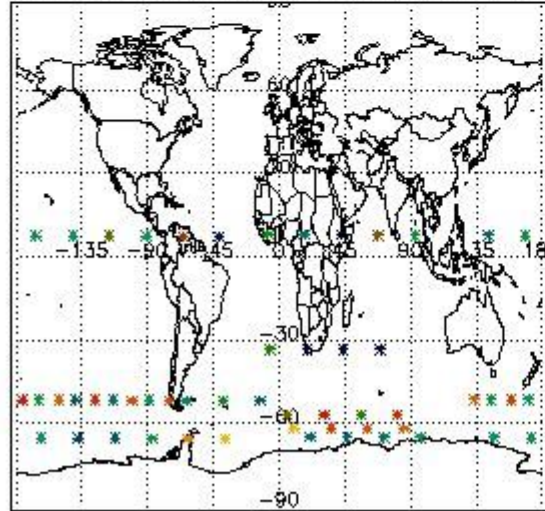
Percentage of flagged data per O3 profile



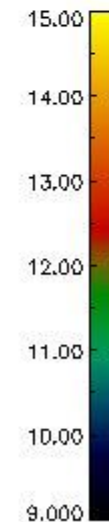
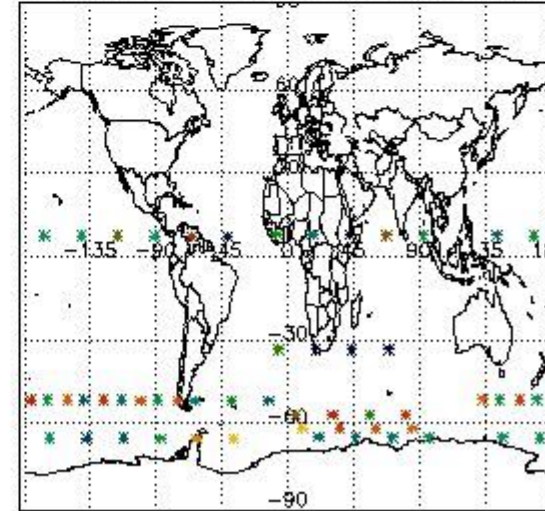
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

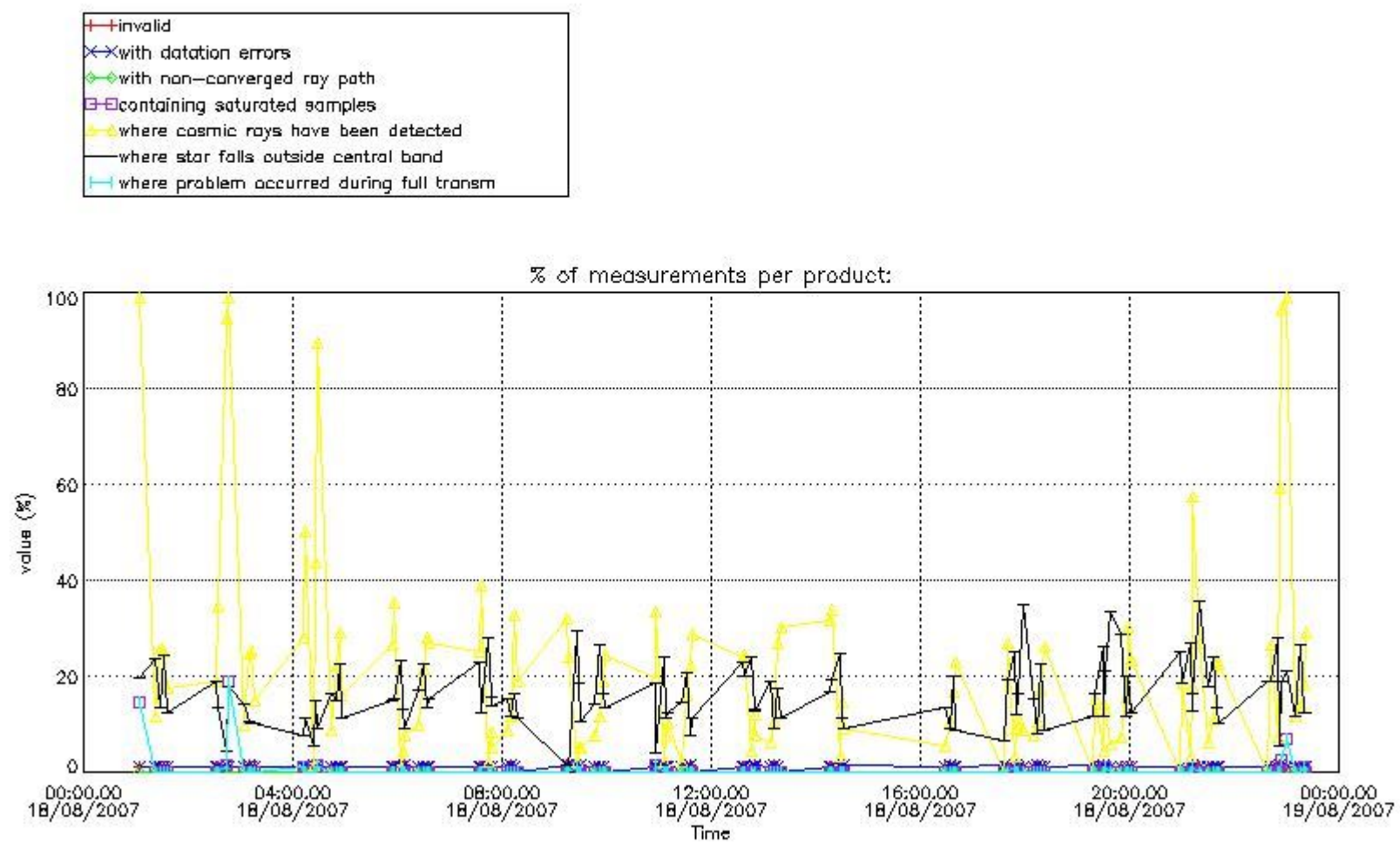


4. Level 1 quality information per product

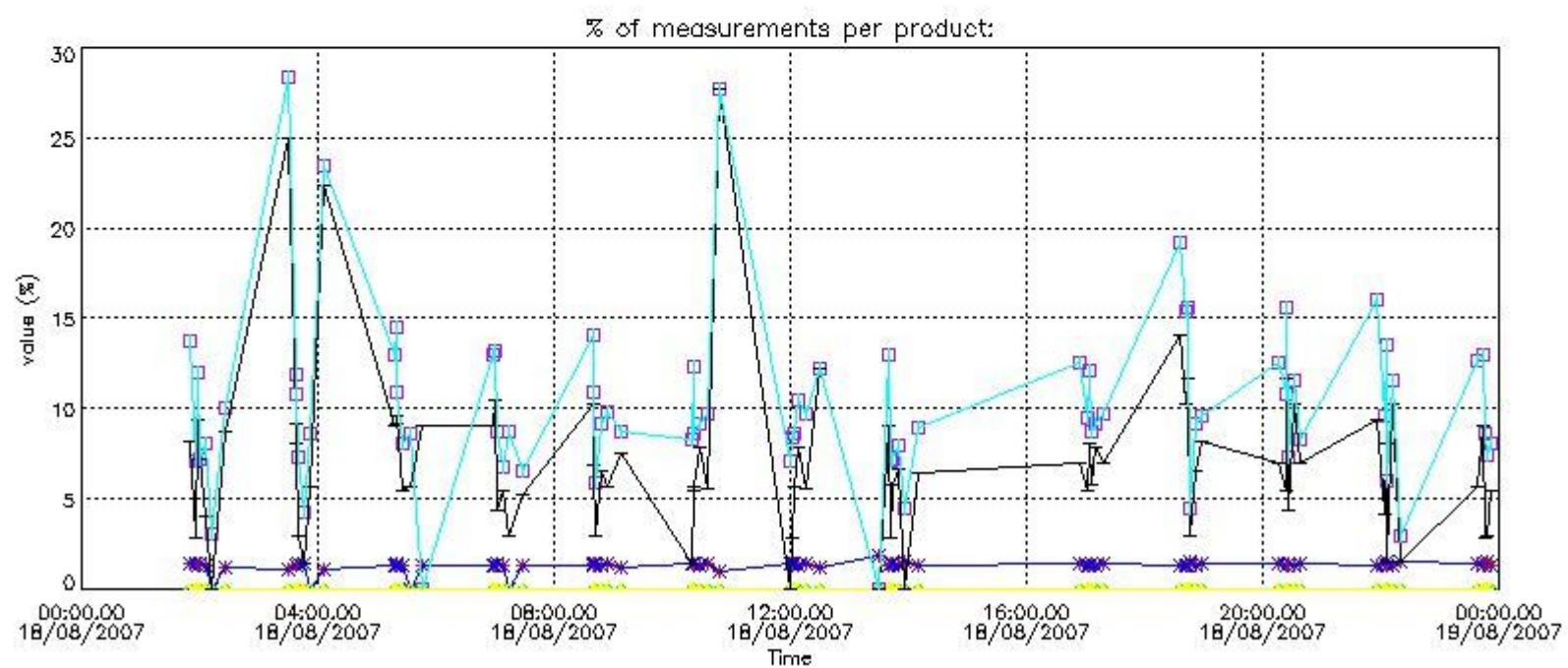
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



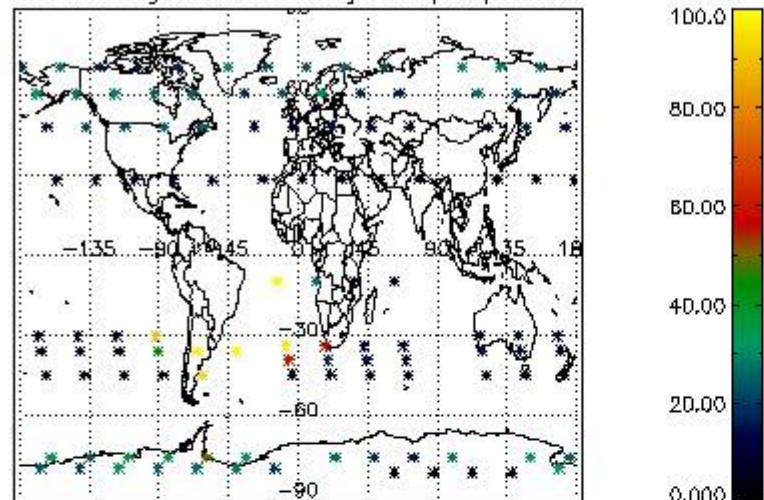
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



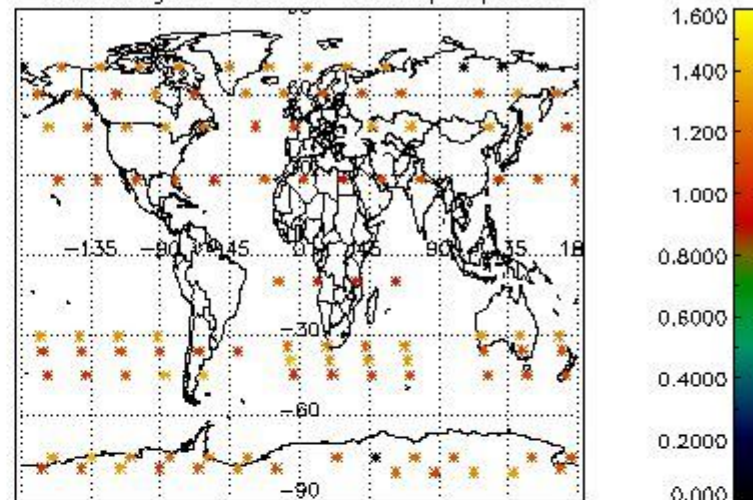
4.2 Plot quality information per product coming from level 1b processing (world map)

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

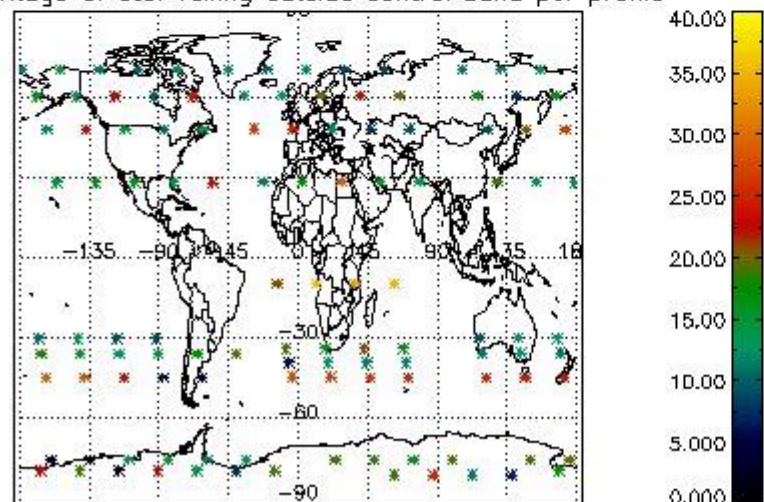
Percentage of cosmic ray hits per profile



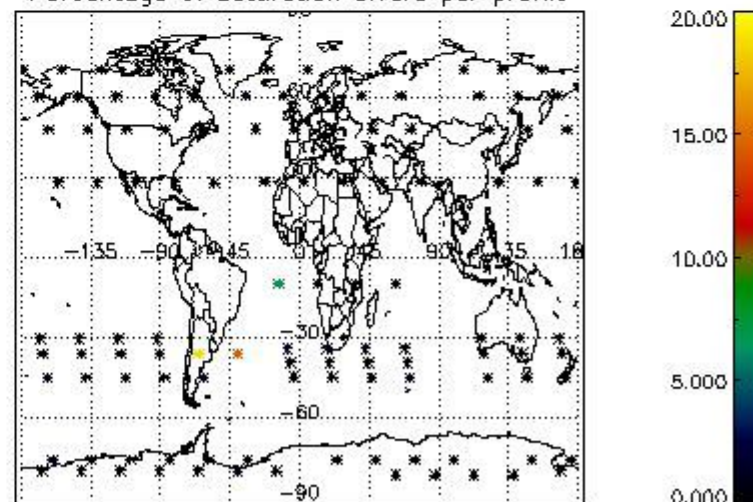
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

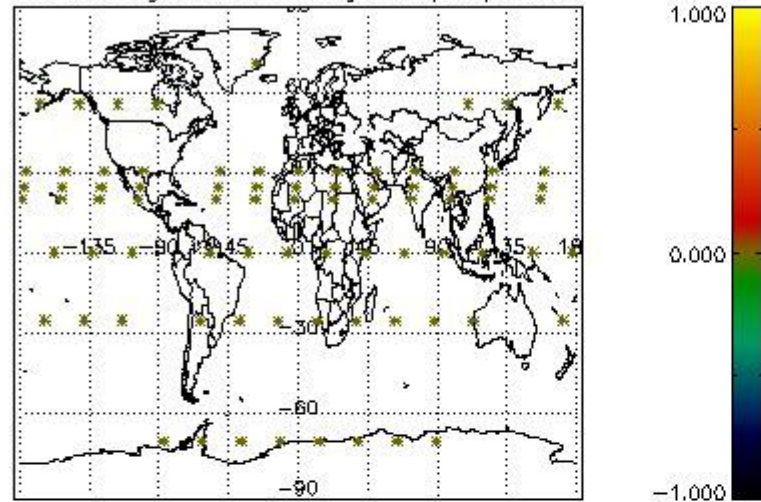


Percentage of saturation errors per profile

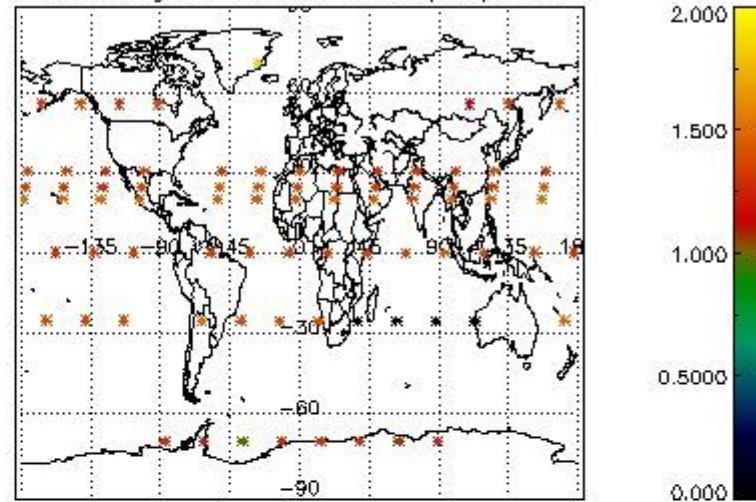


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

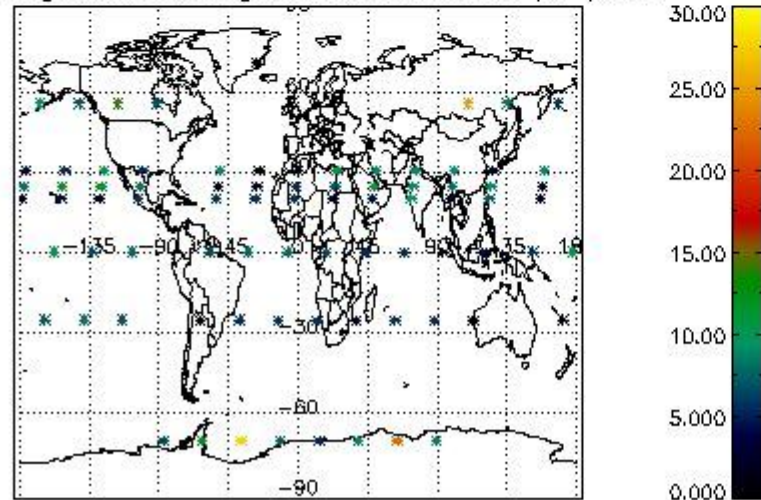
Percentage of cosmic ray hits per profile



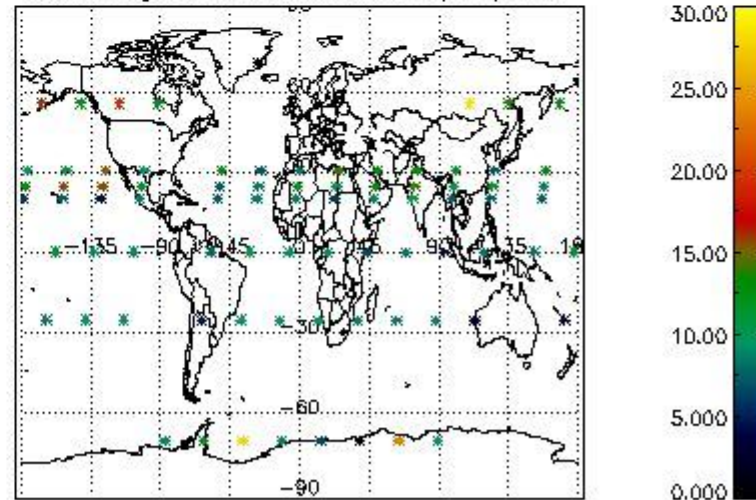
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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

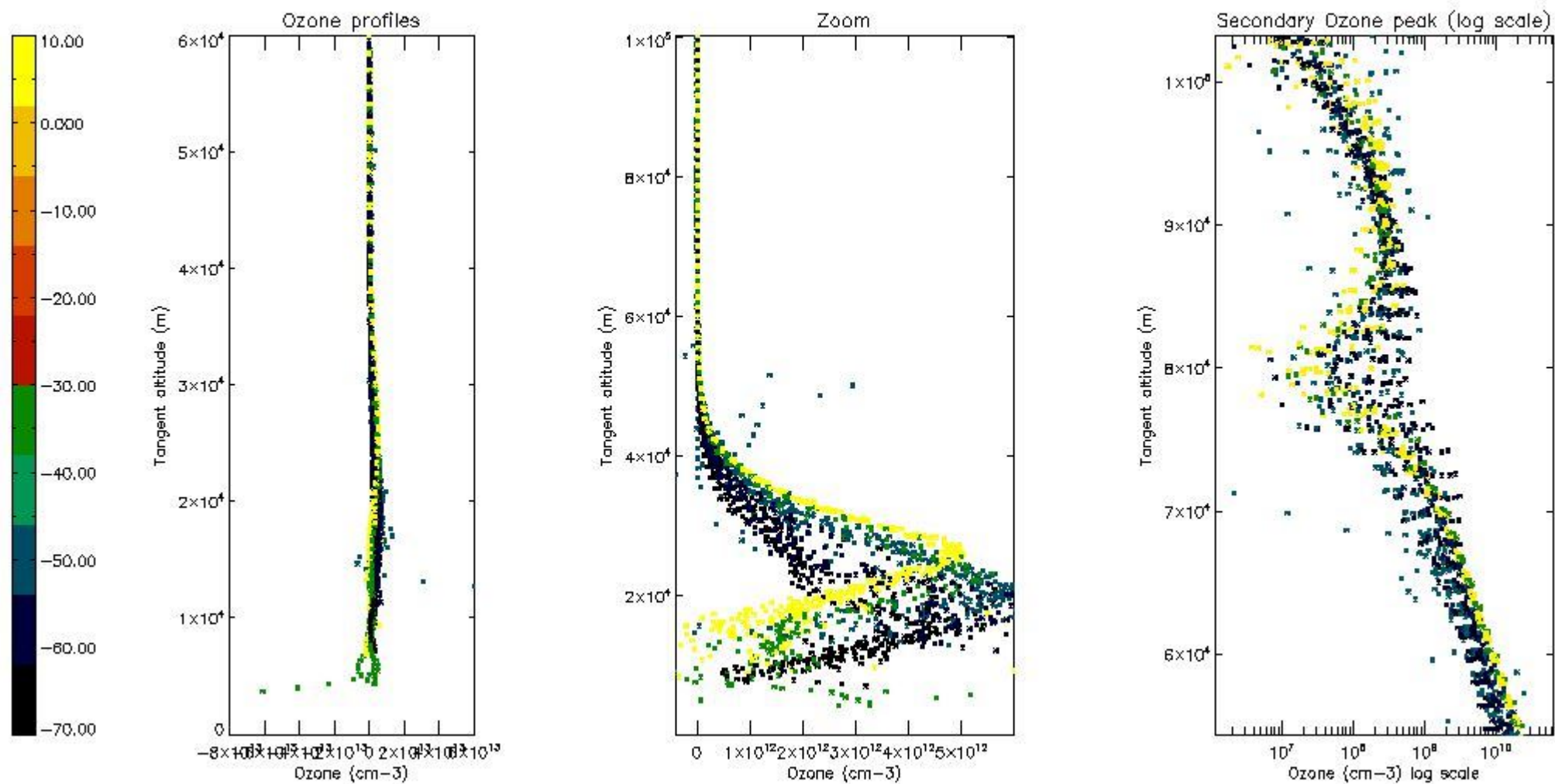
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	31
STD < 20	20

STD < 10	17
STD < 5	13

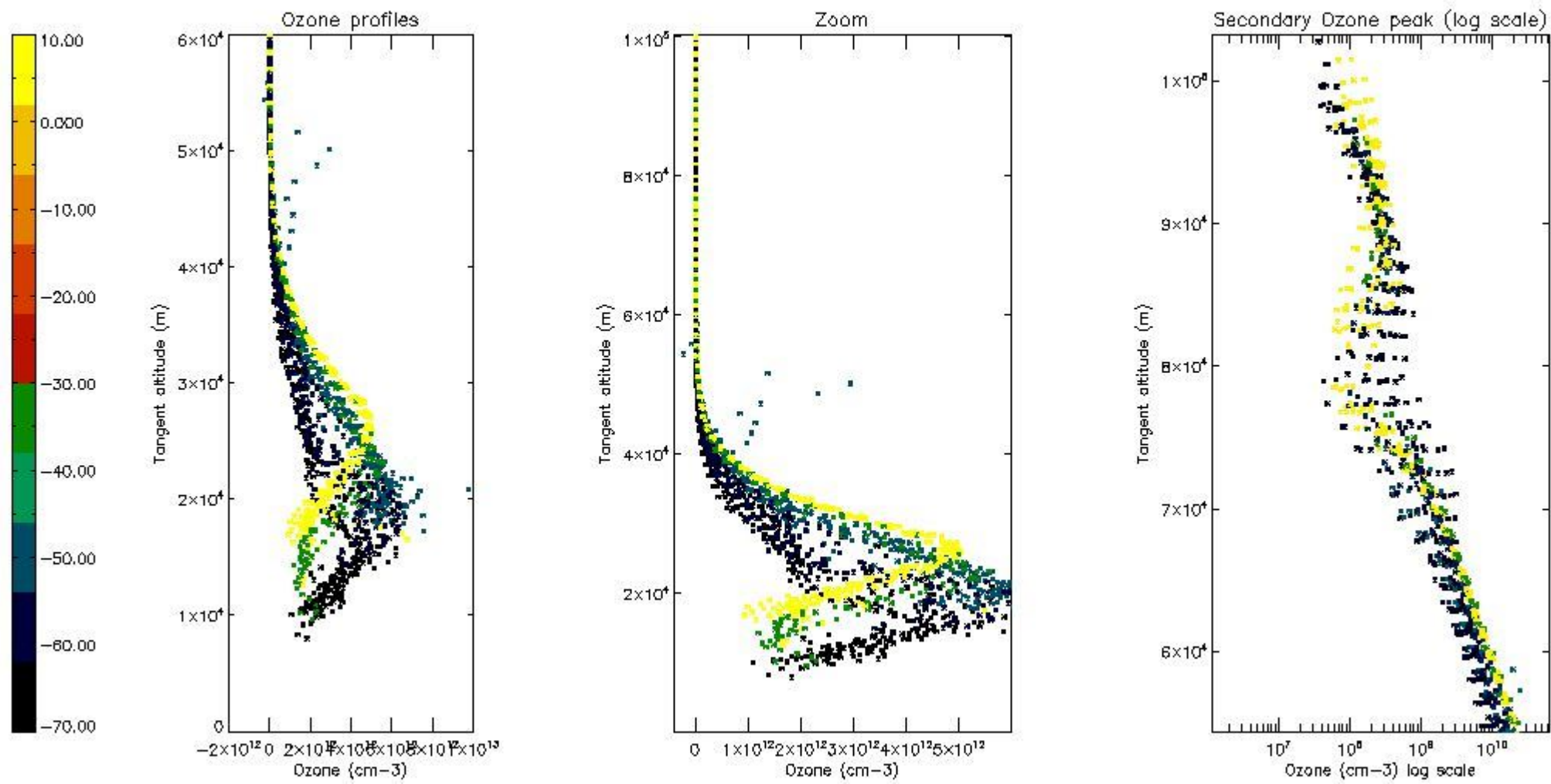
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



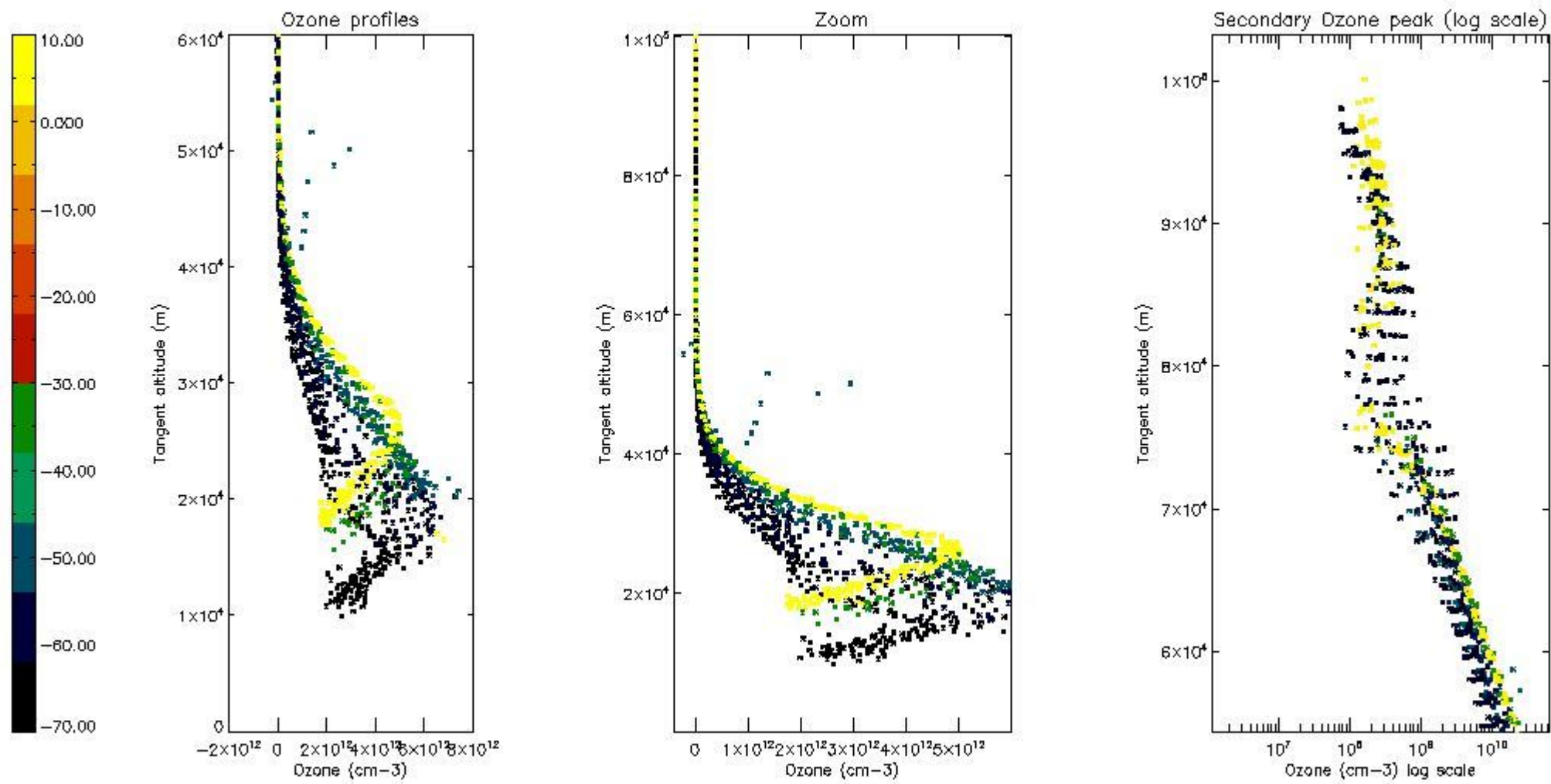
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



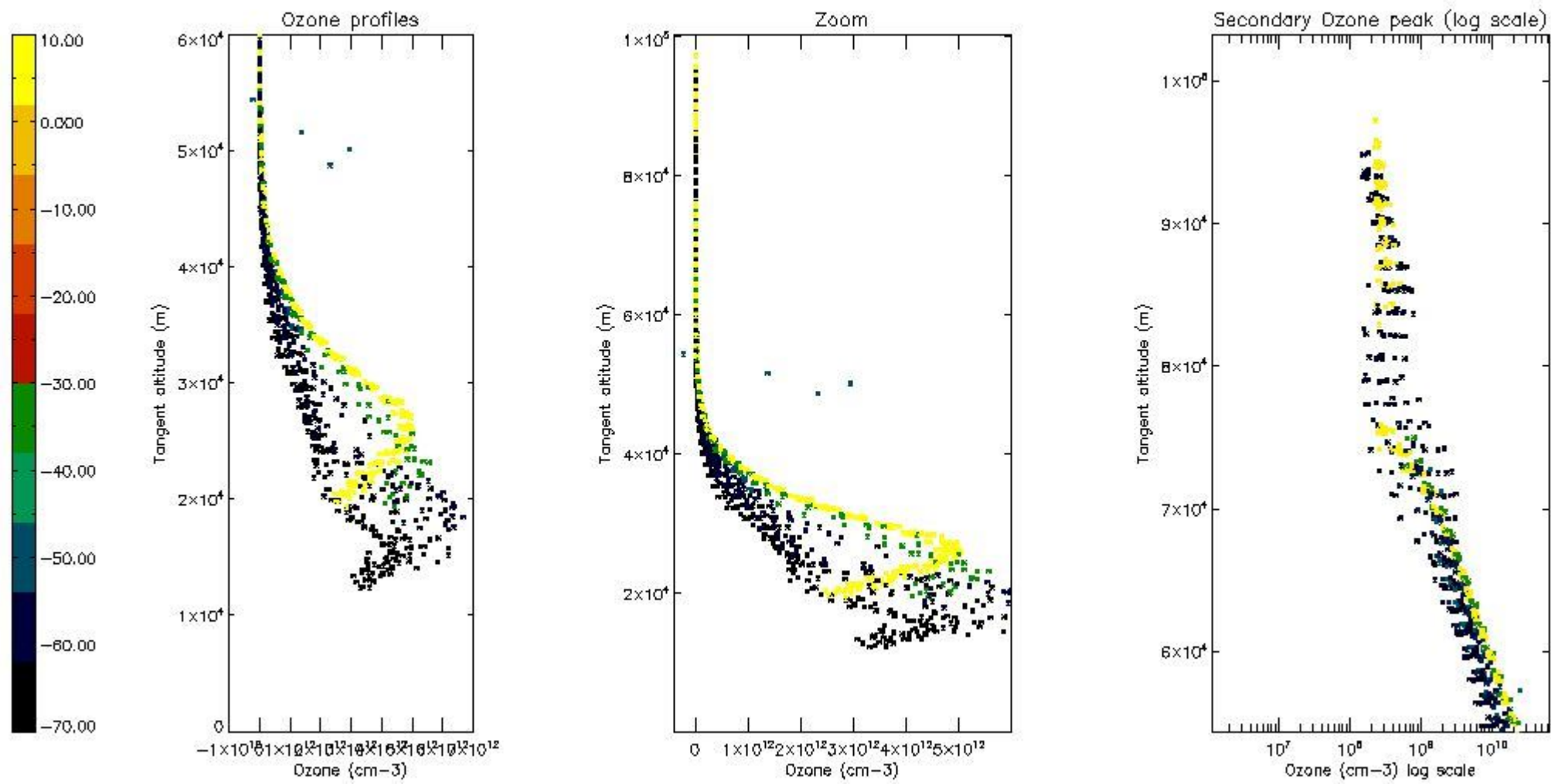
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



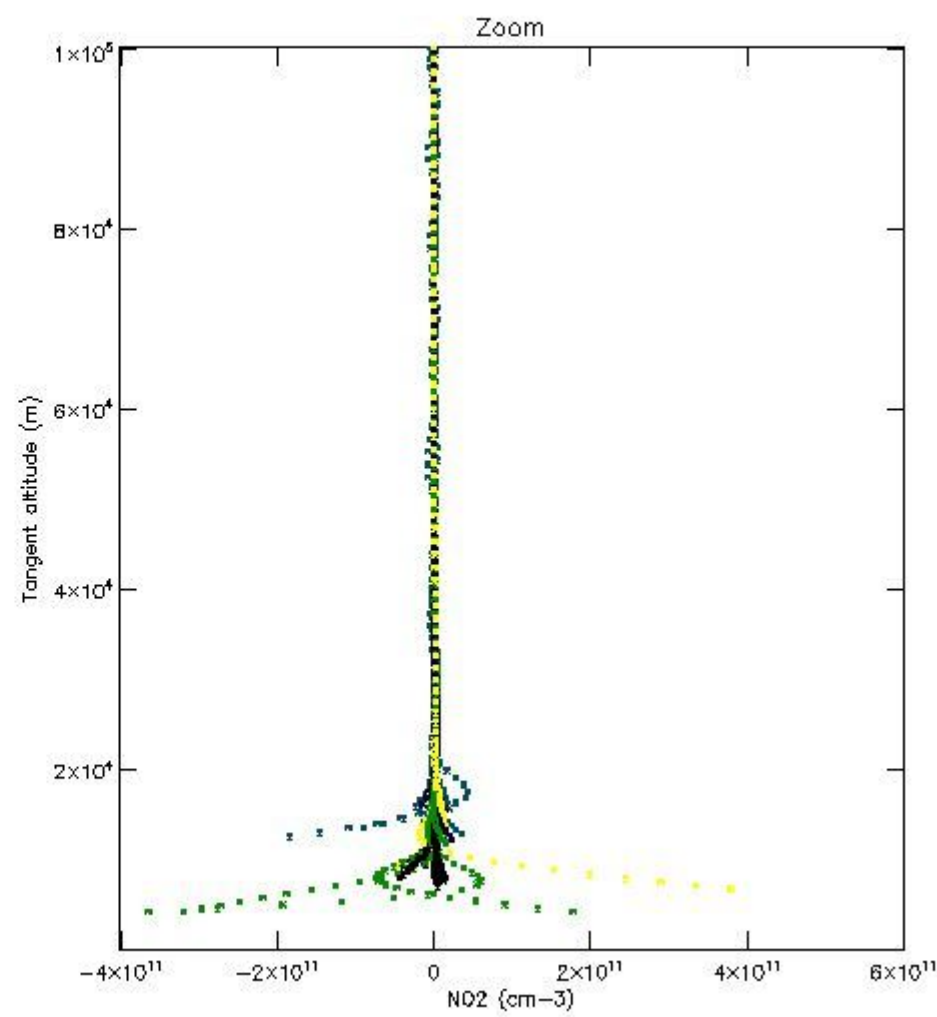
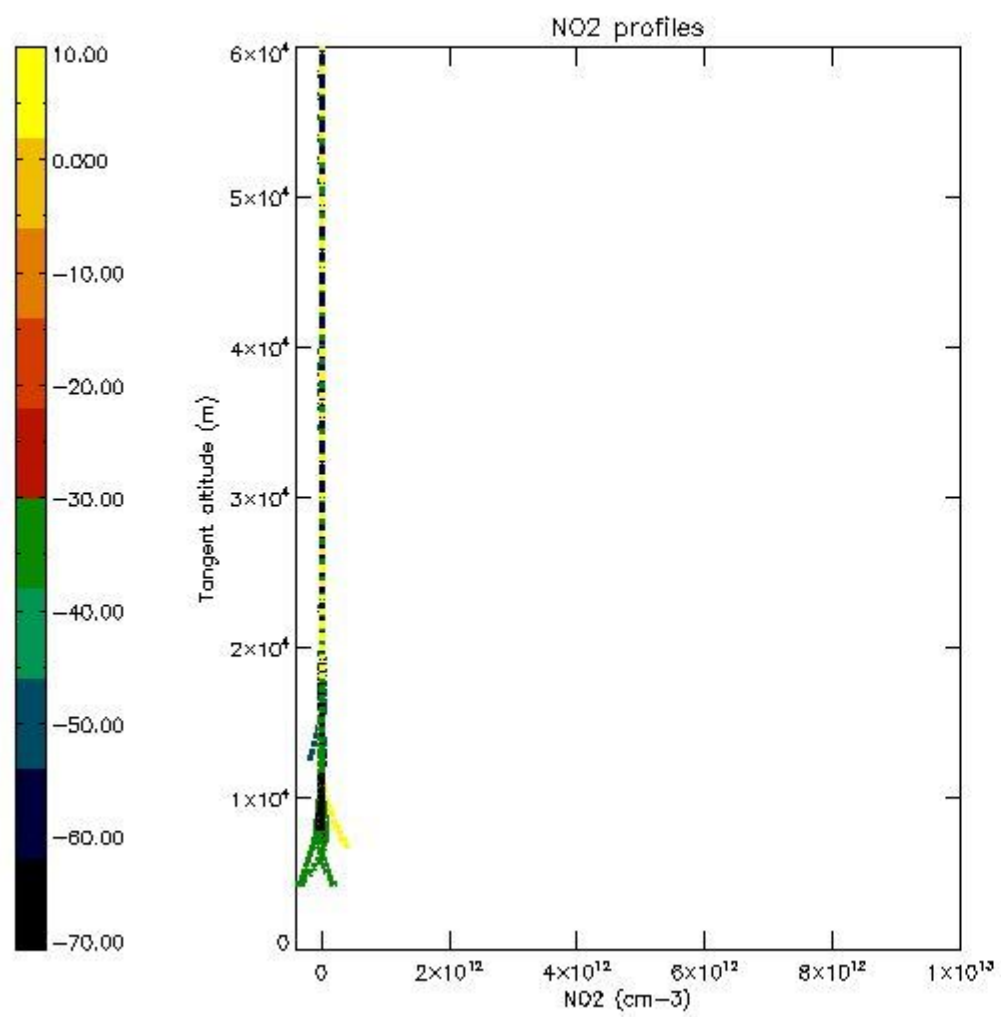
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



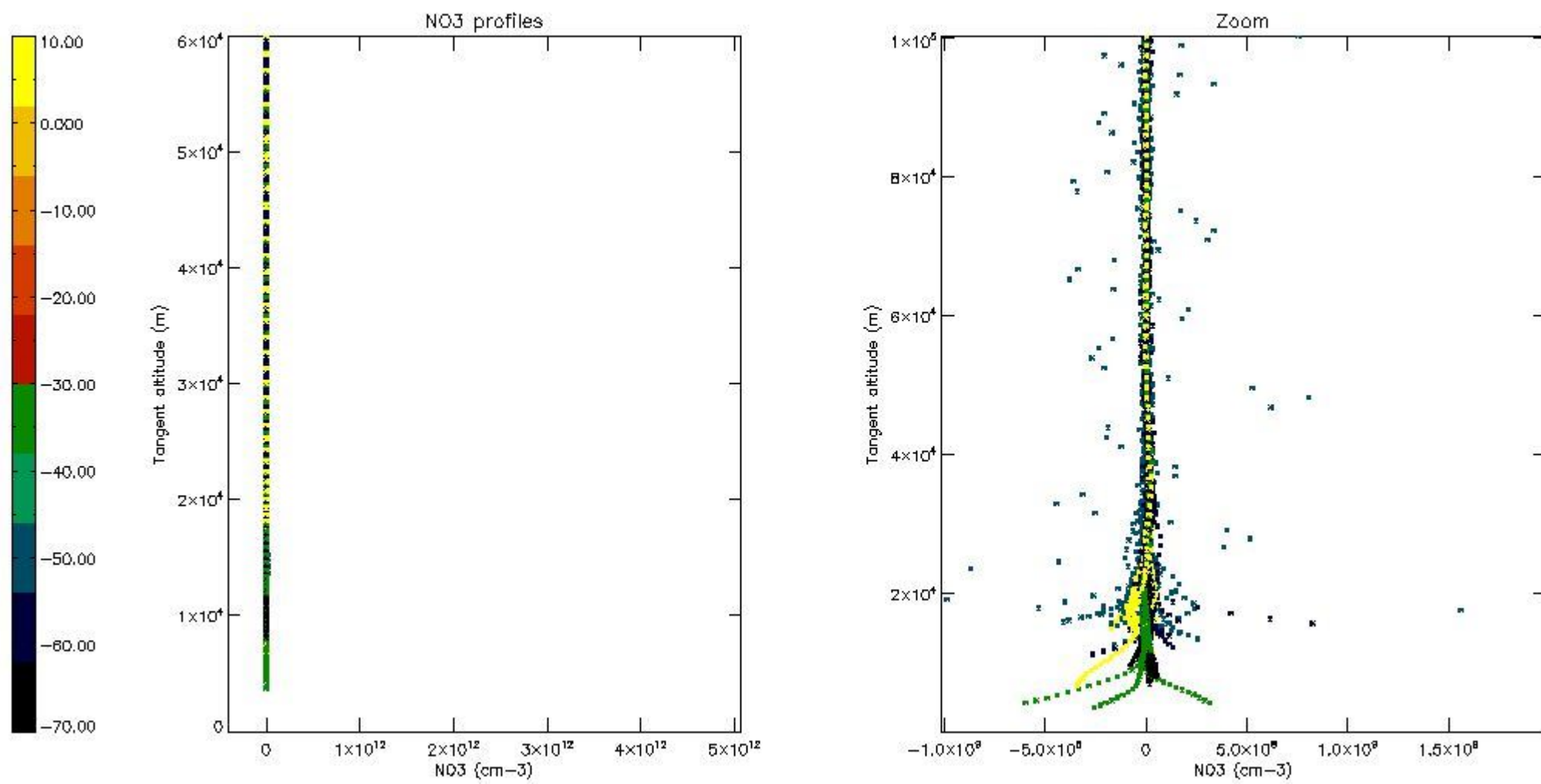
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



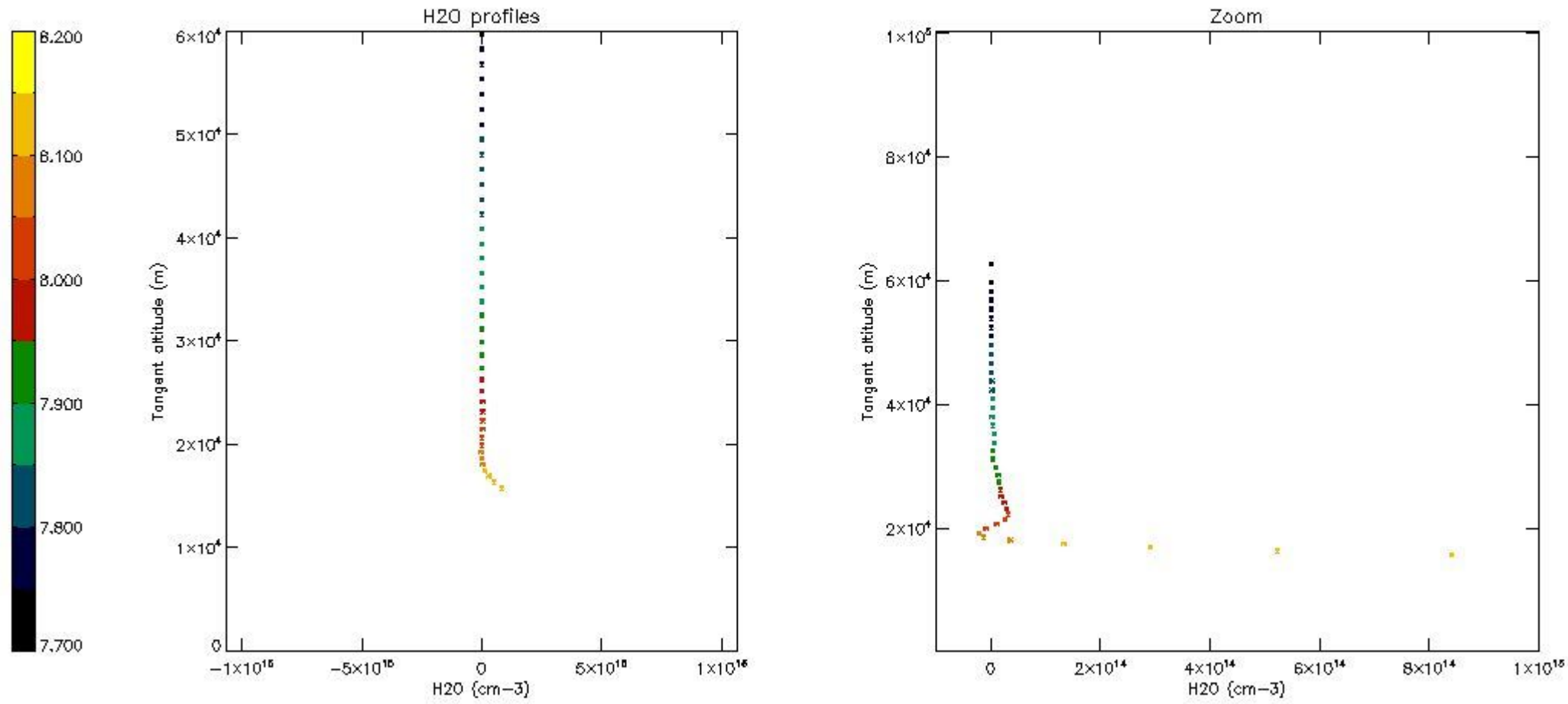
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

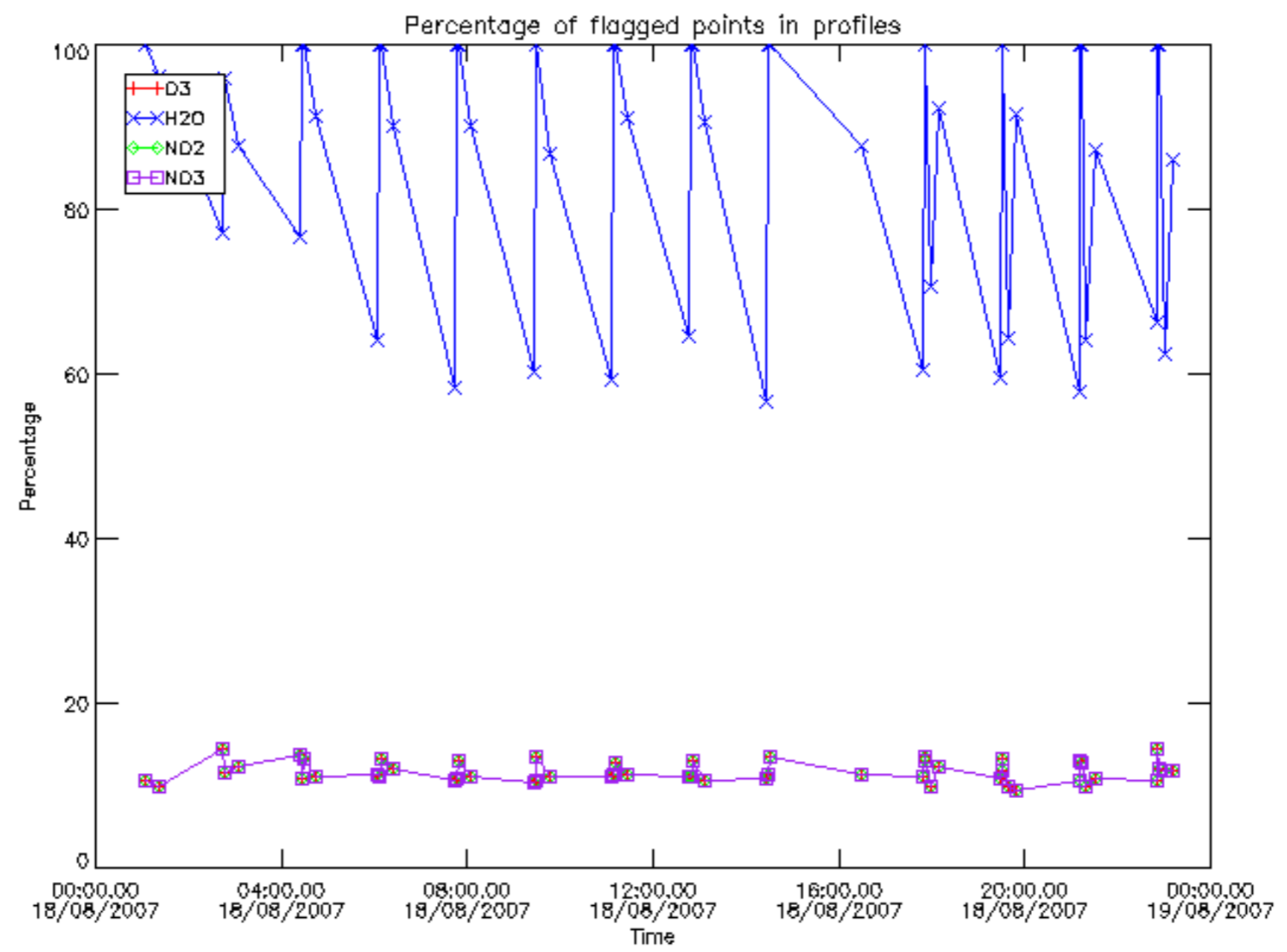
The colorbar represents the latitude.



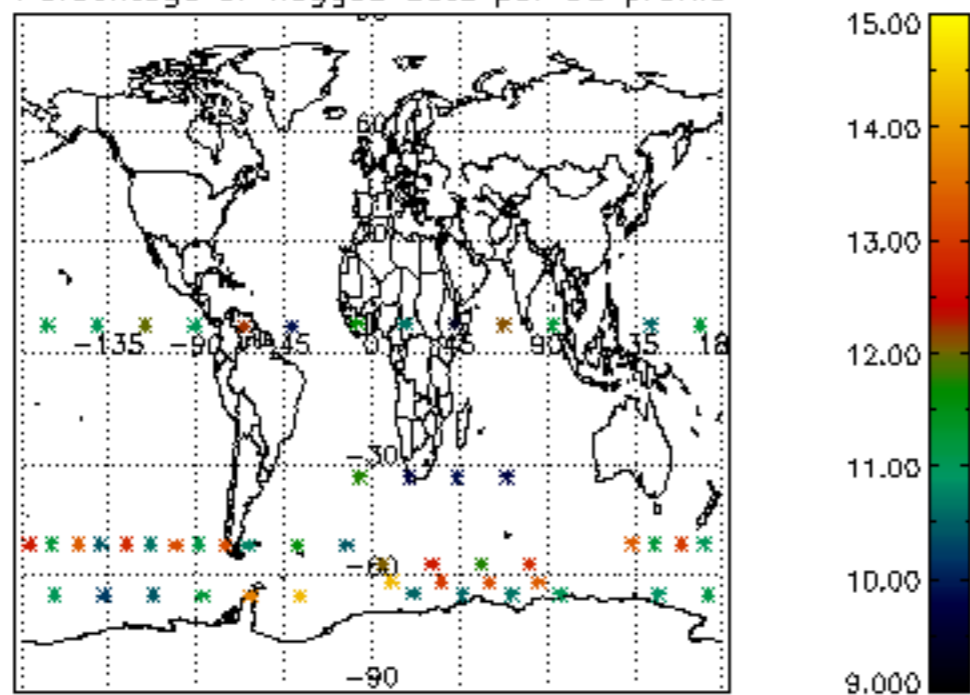
6. Auxiliary Data Files used for the production reported in section 2

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.

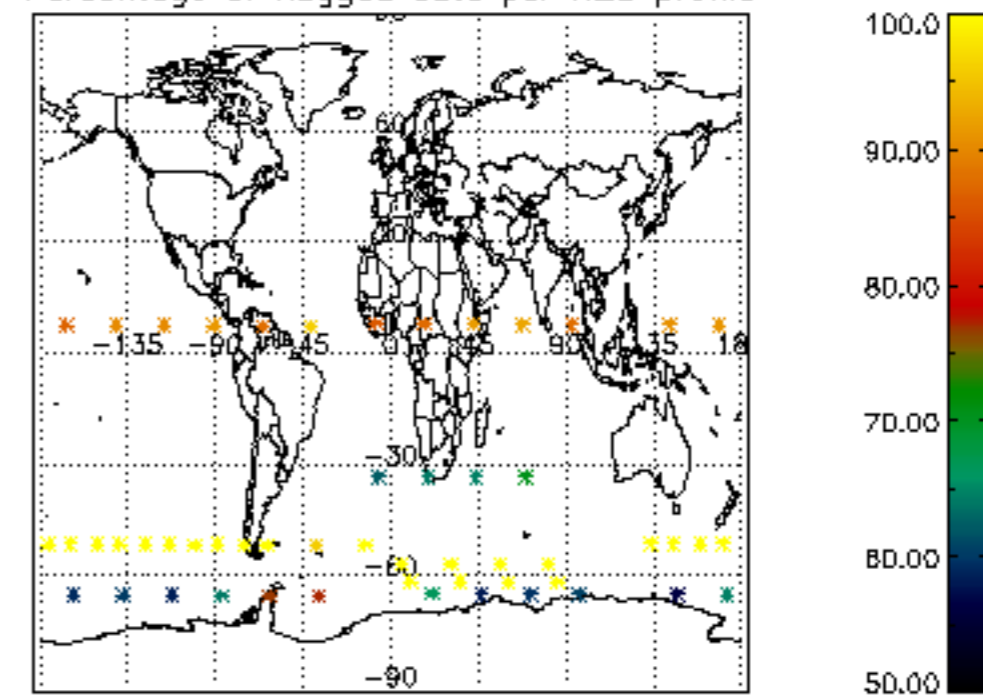
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	18-AUG-2007 01:04:57
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	18-AUG-2007 01:04:57
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	18-AUG-2007 01:04:57



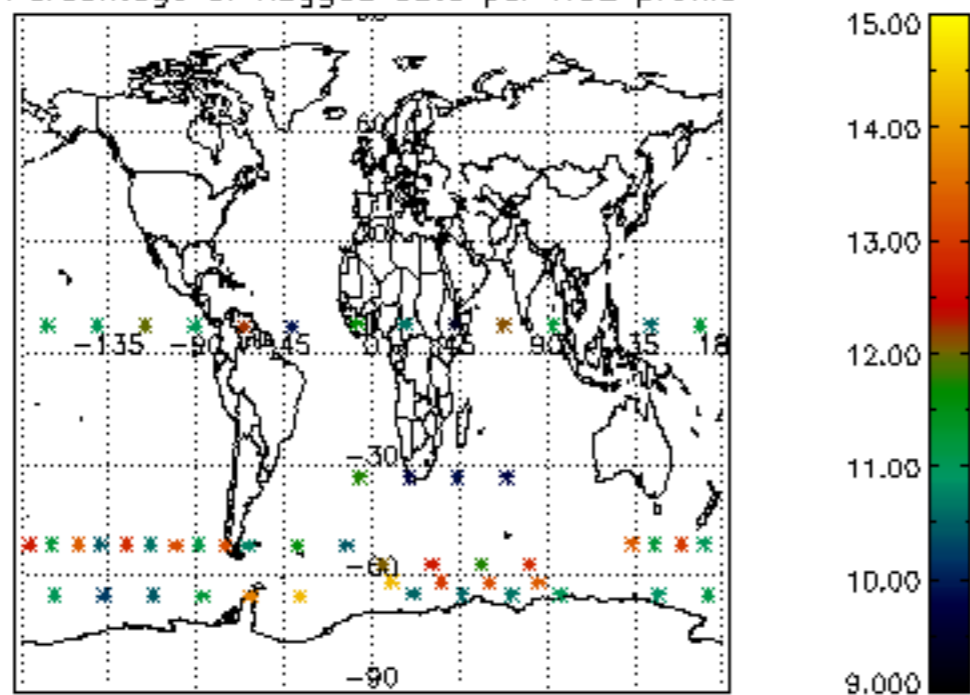
Percentage of flagged data per D3 profile



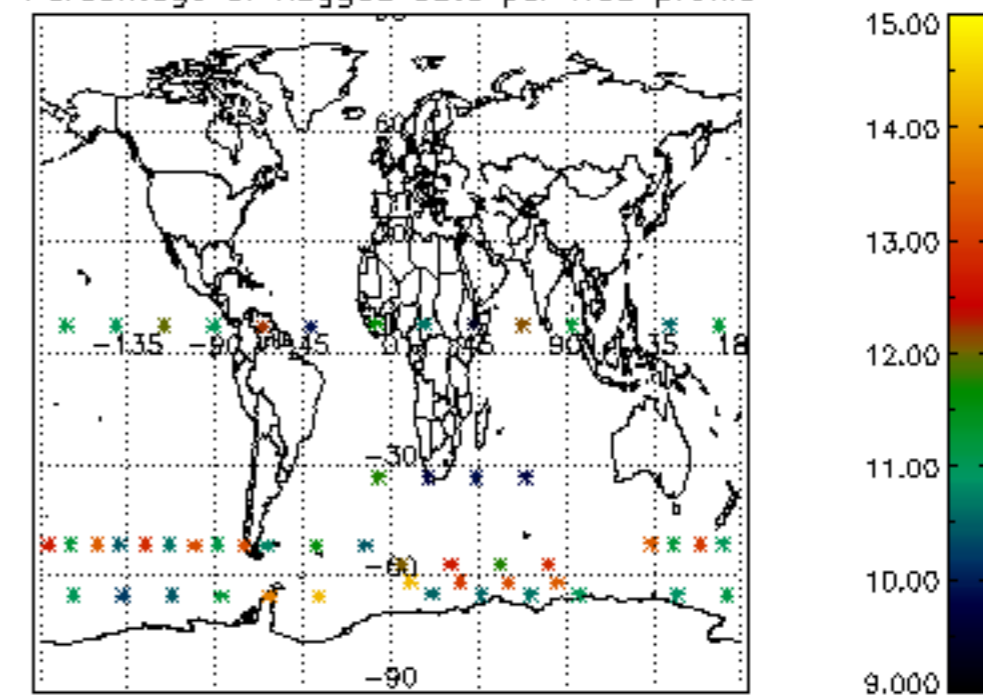
Percentage of flagged data per H2O profile

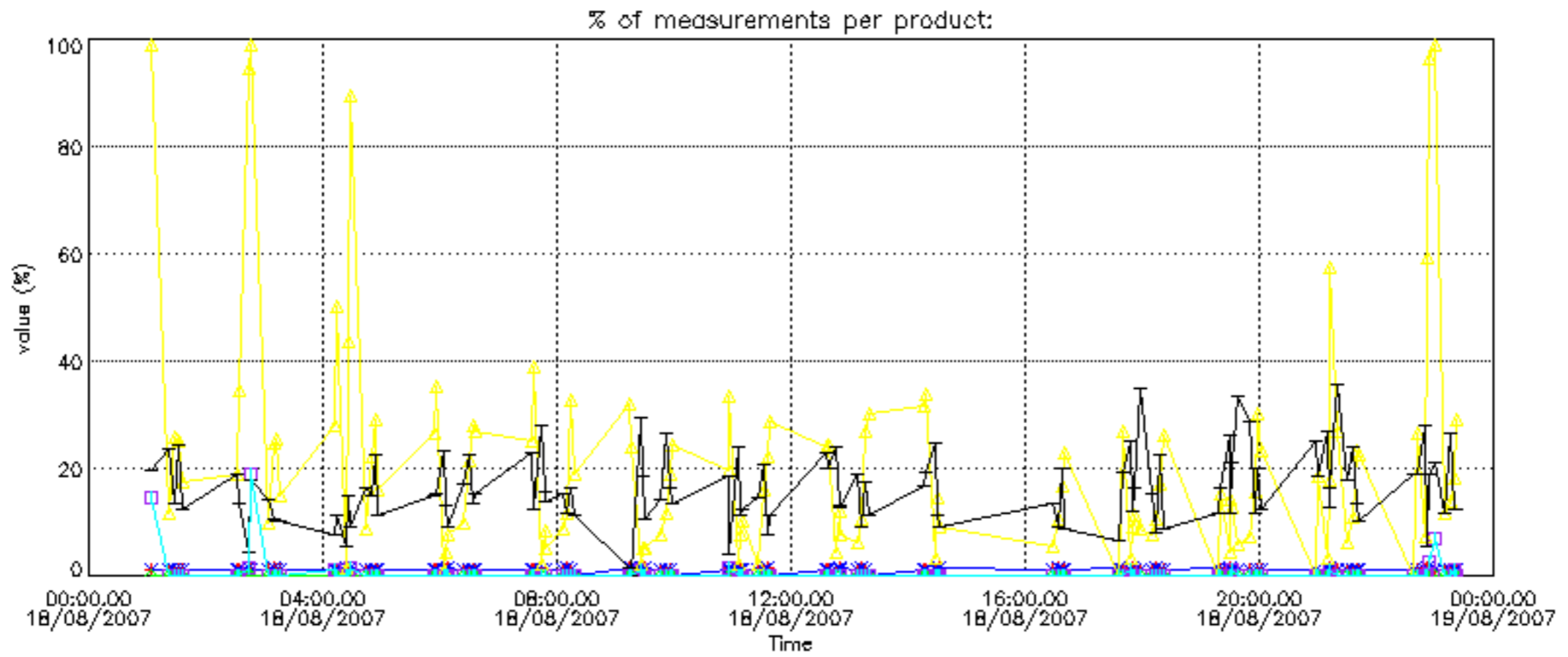


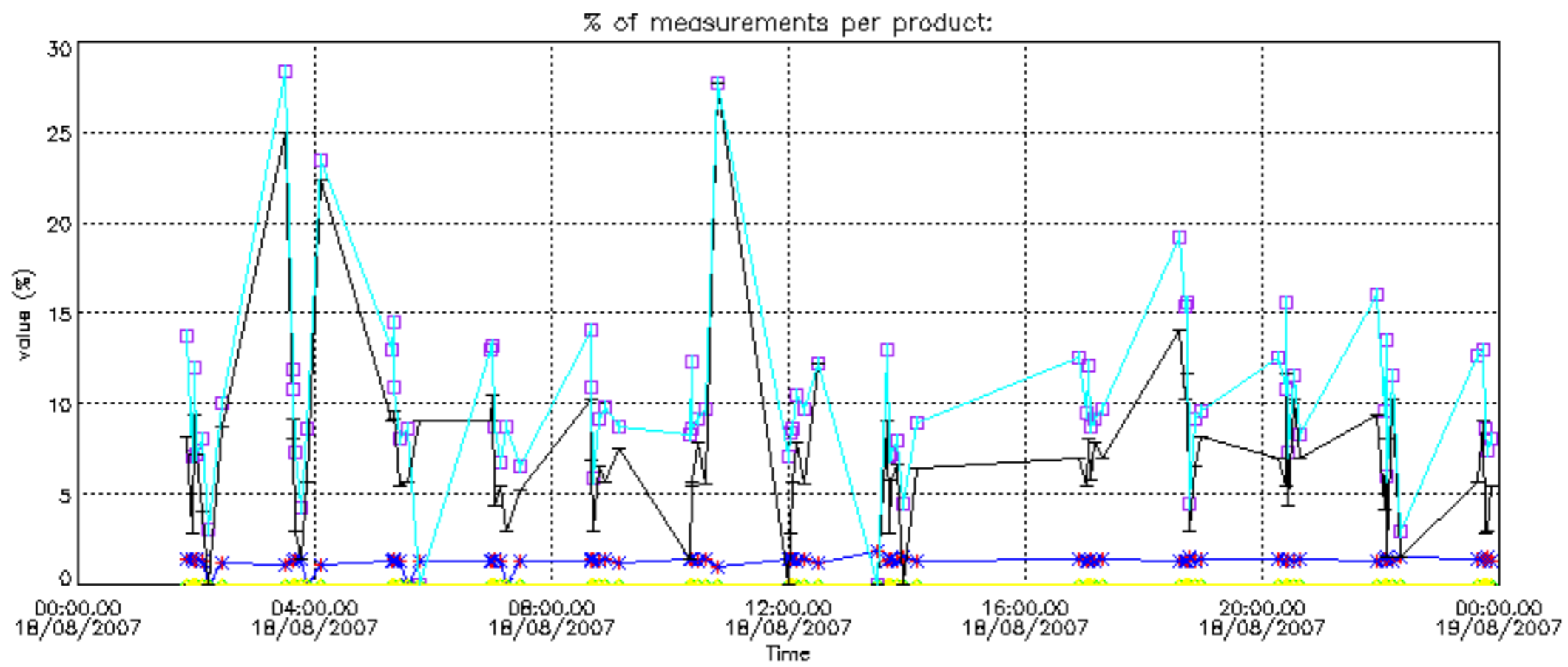
Percentage of flagged data per NO2 profile



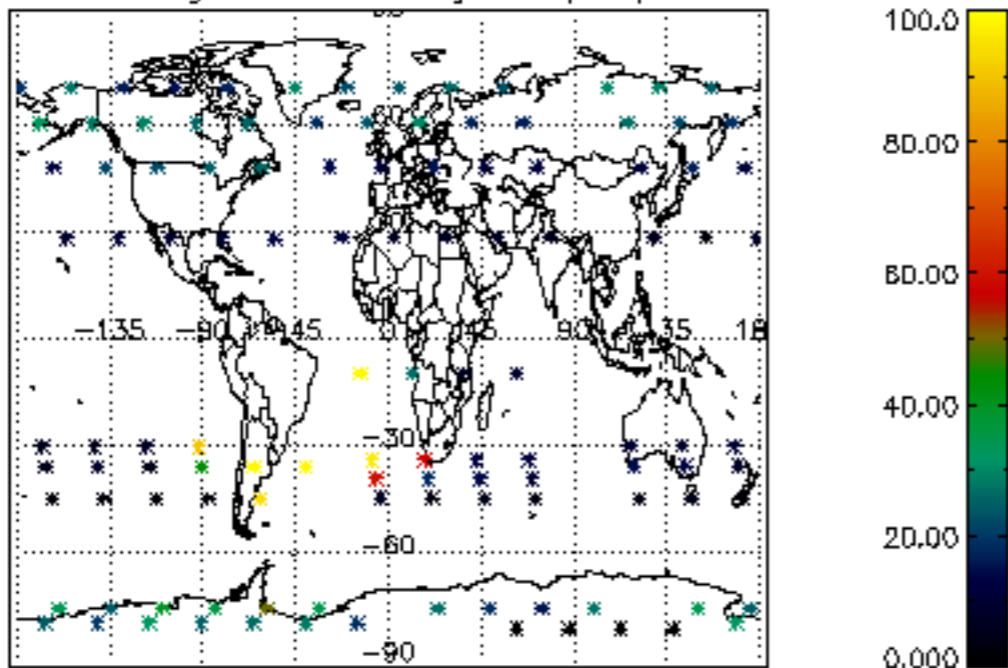
Percentage of flagged data per NO3 profile



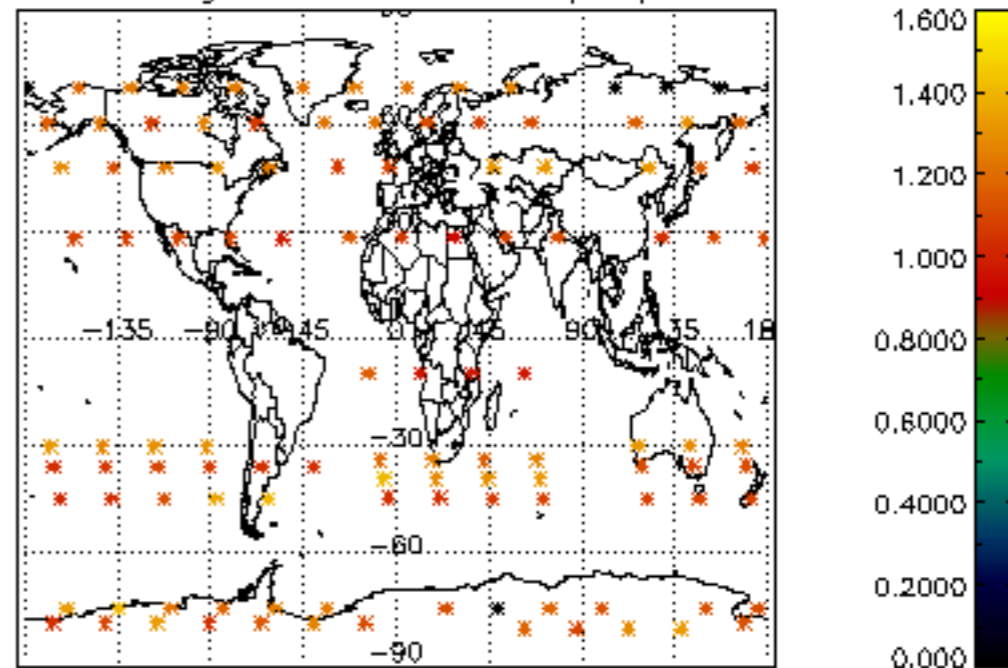




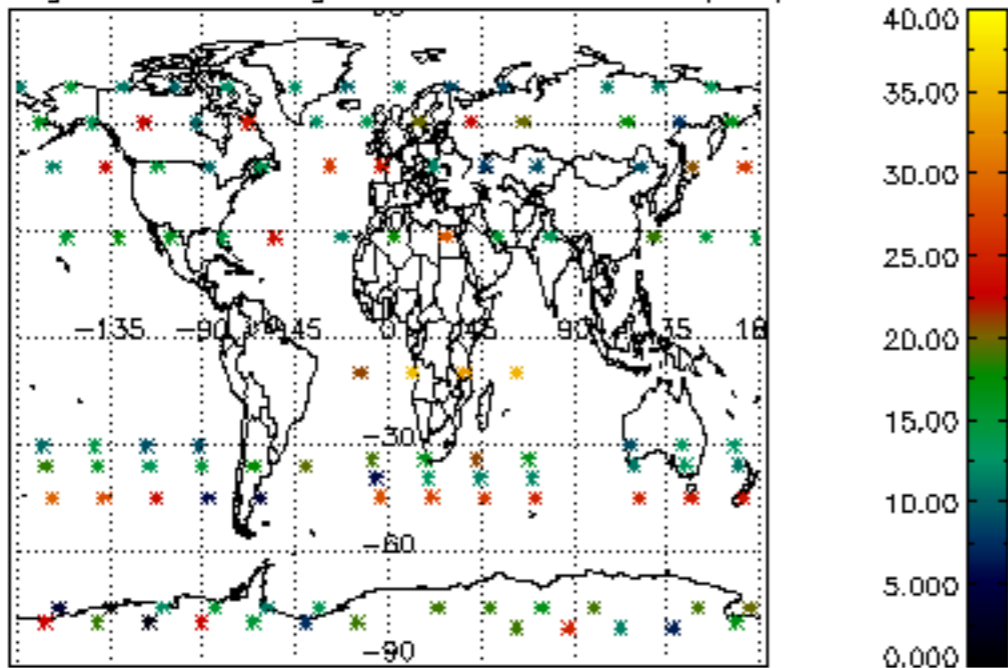
Percentage of cosmic ray hits per profile



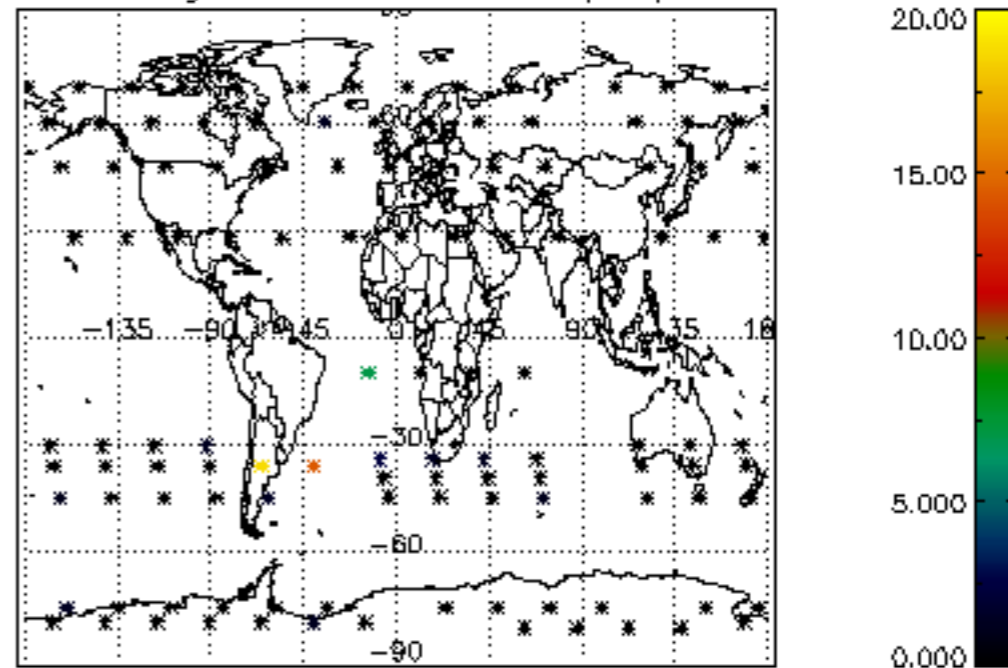
Percentage of datation errors per profile



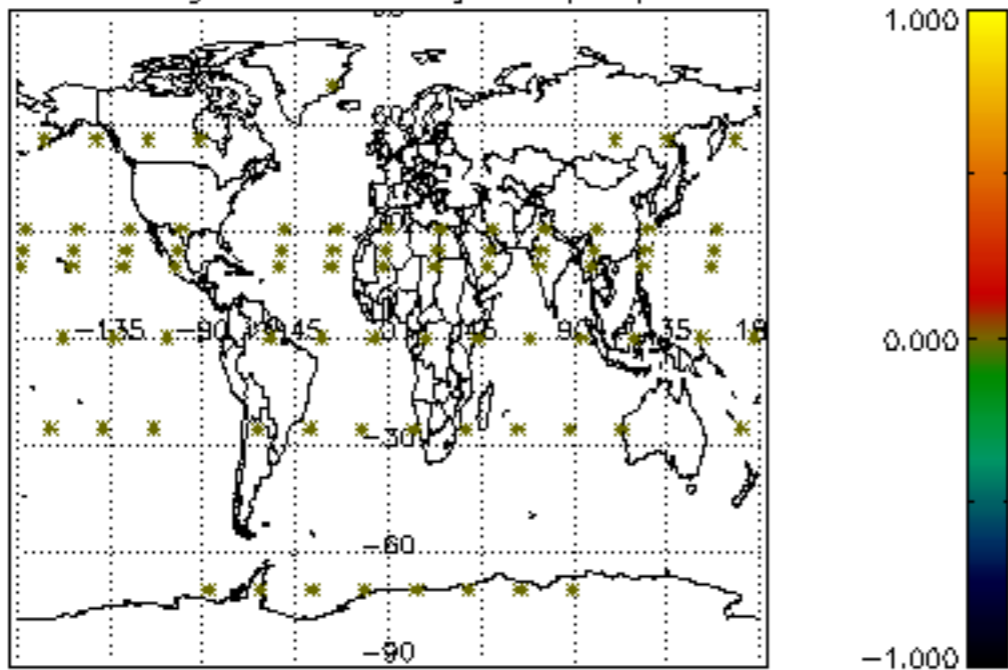
Percentage of star falling outside central band per profile



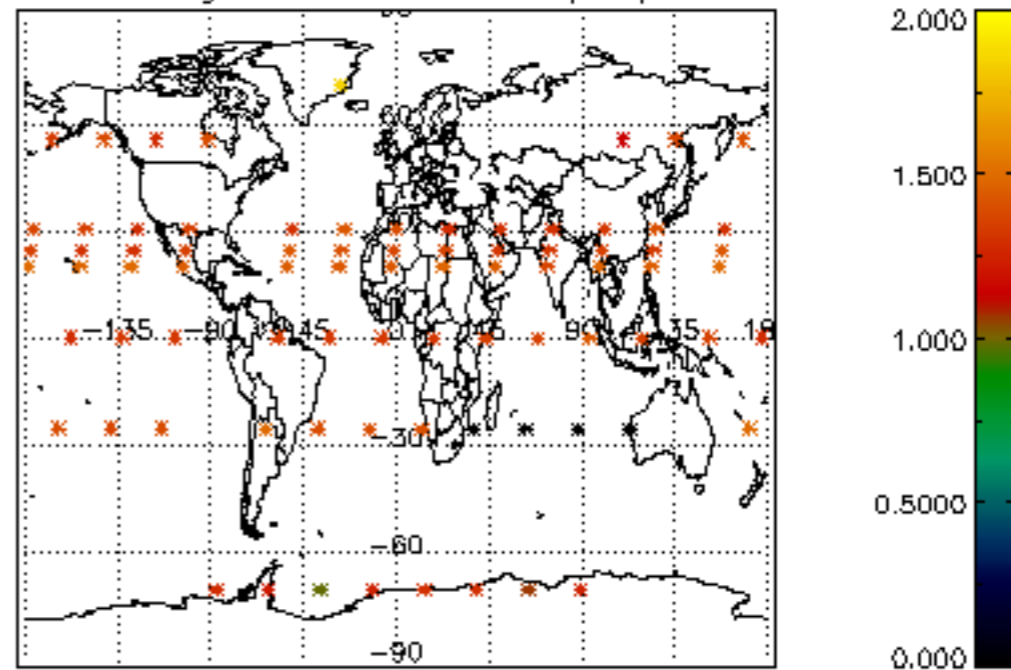
Percentage of saturation errors per profile



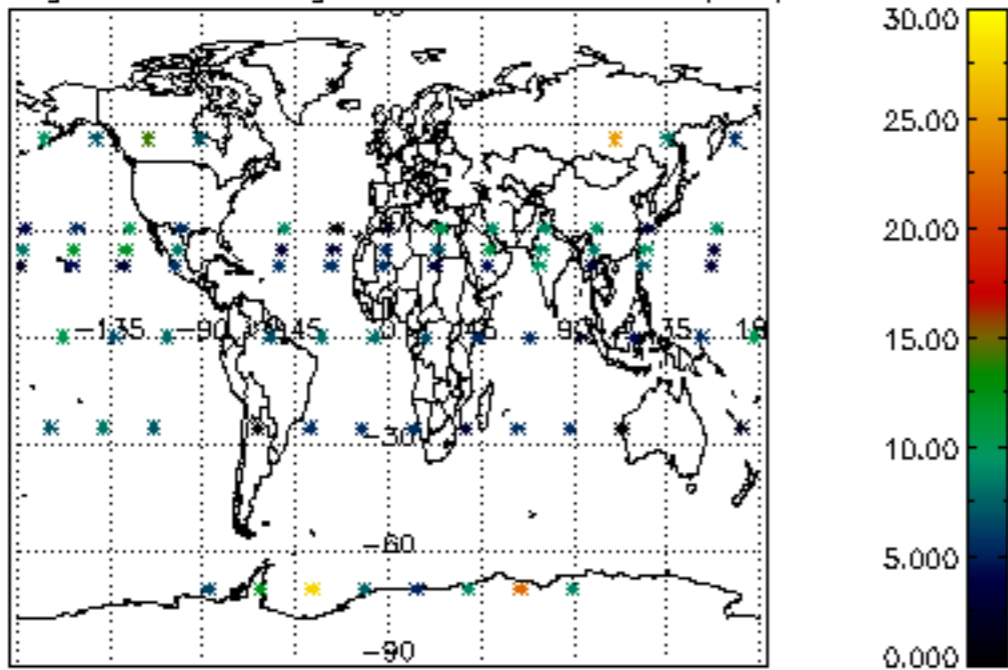
Percentage of cosmic ray hits per profile



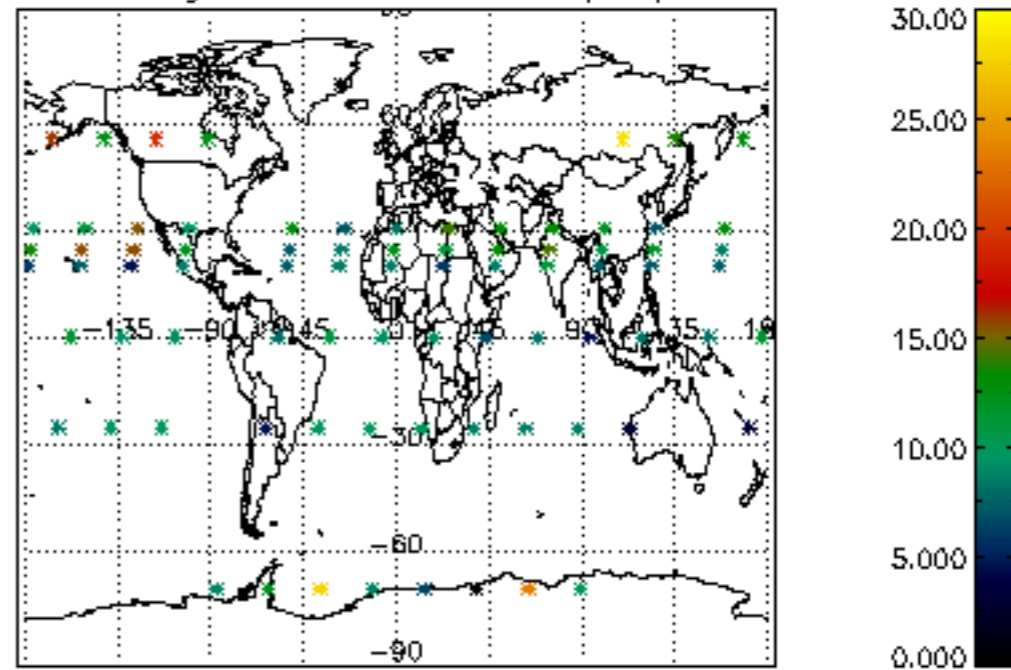
Percentage of datation errors per profile

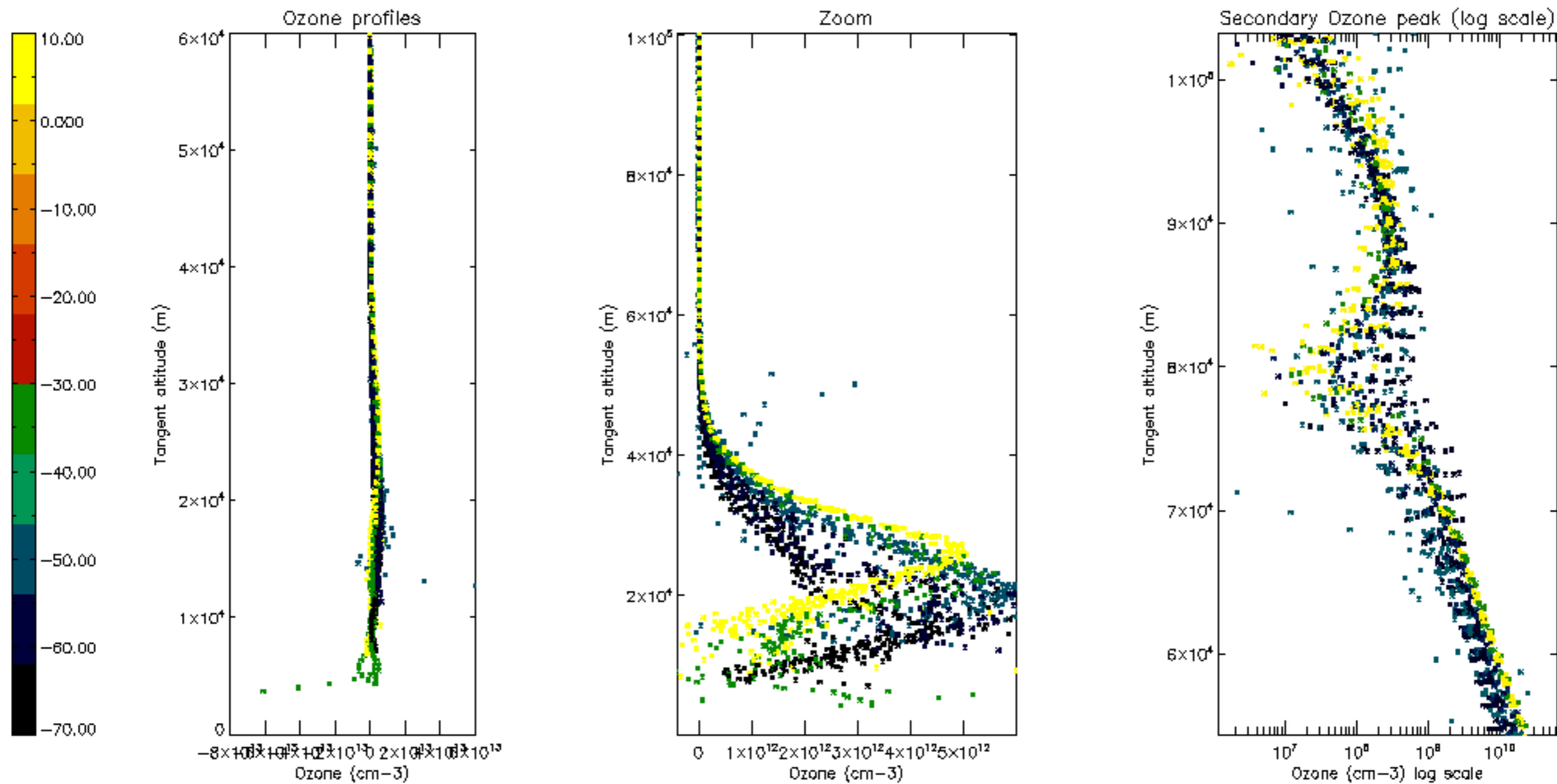


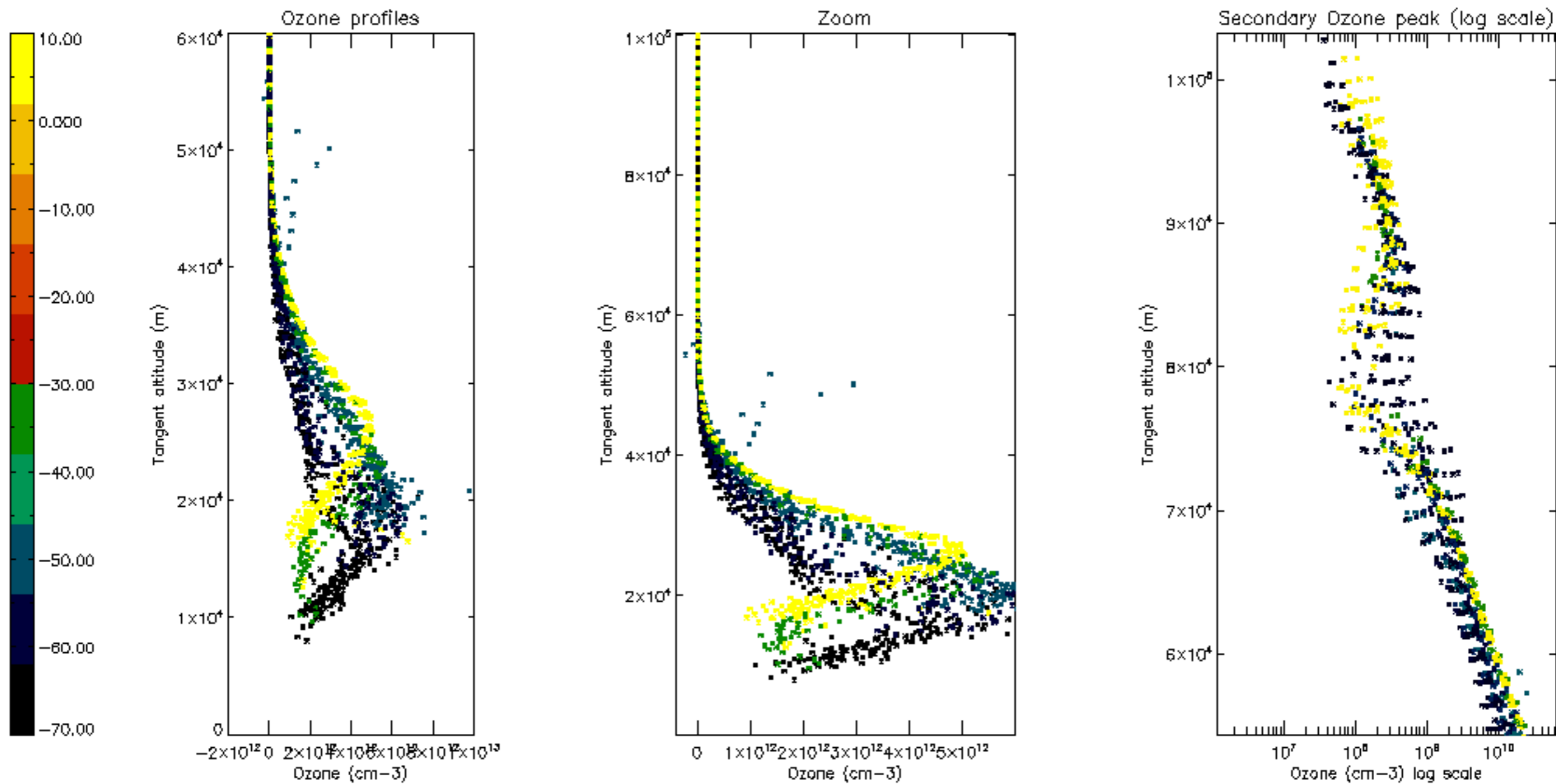
Percentage of star falling outside central band per profile

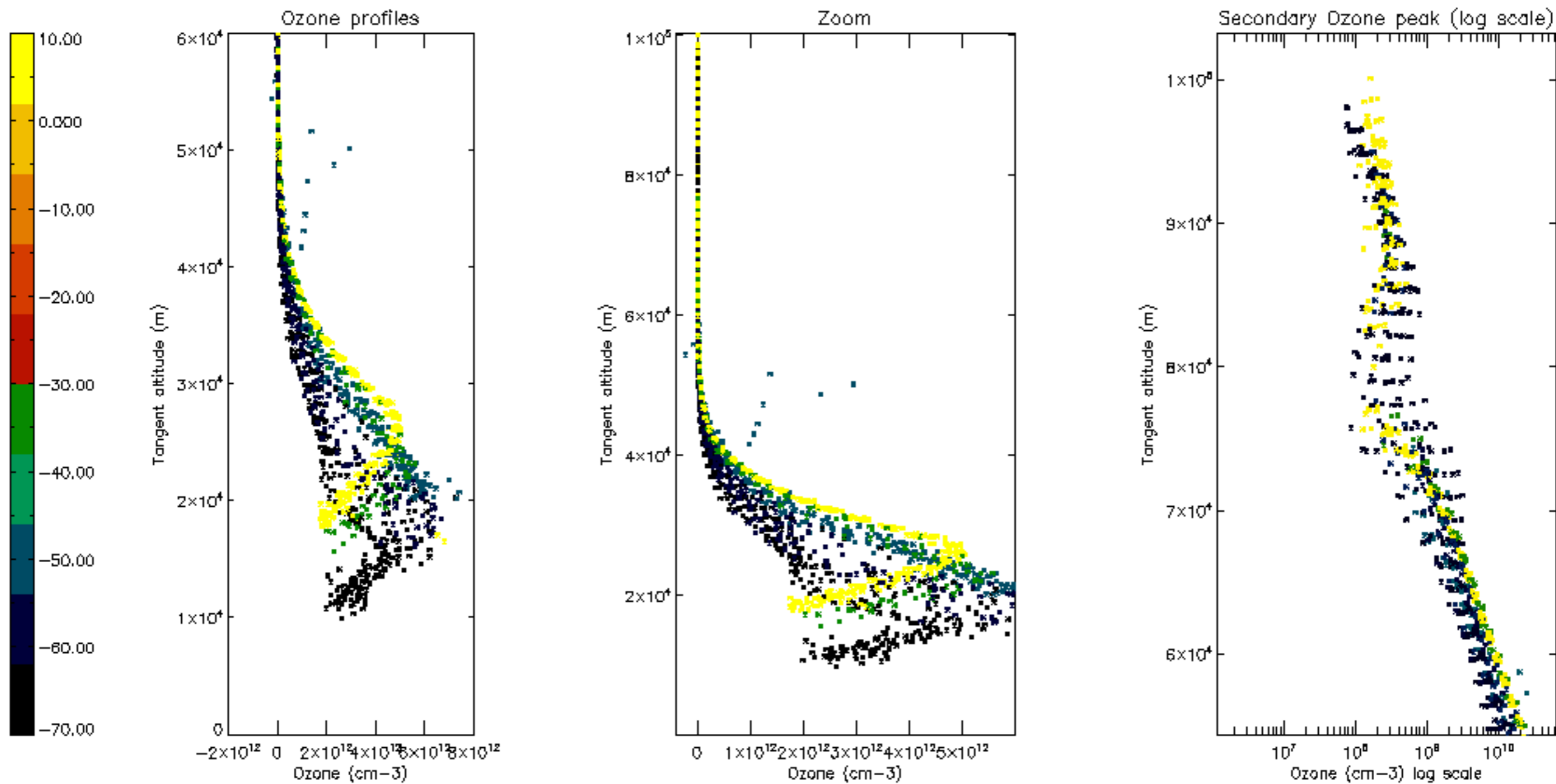


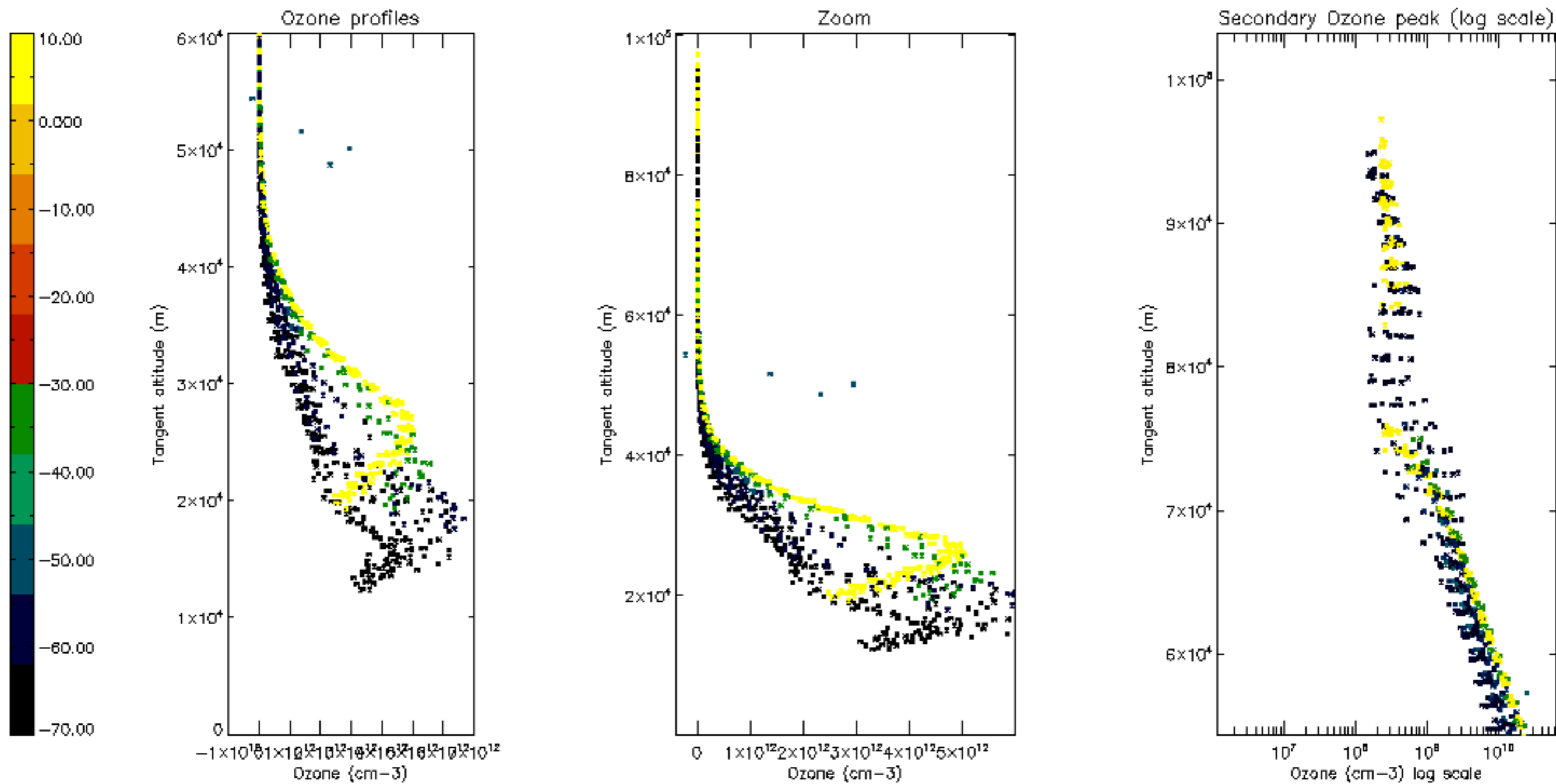
Percentage of saturation errors per profile

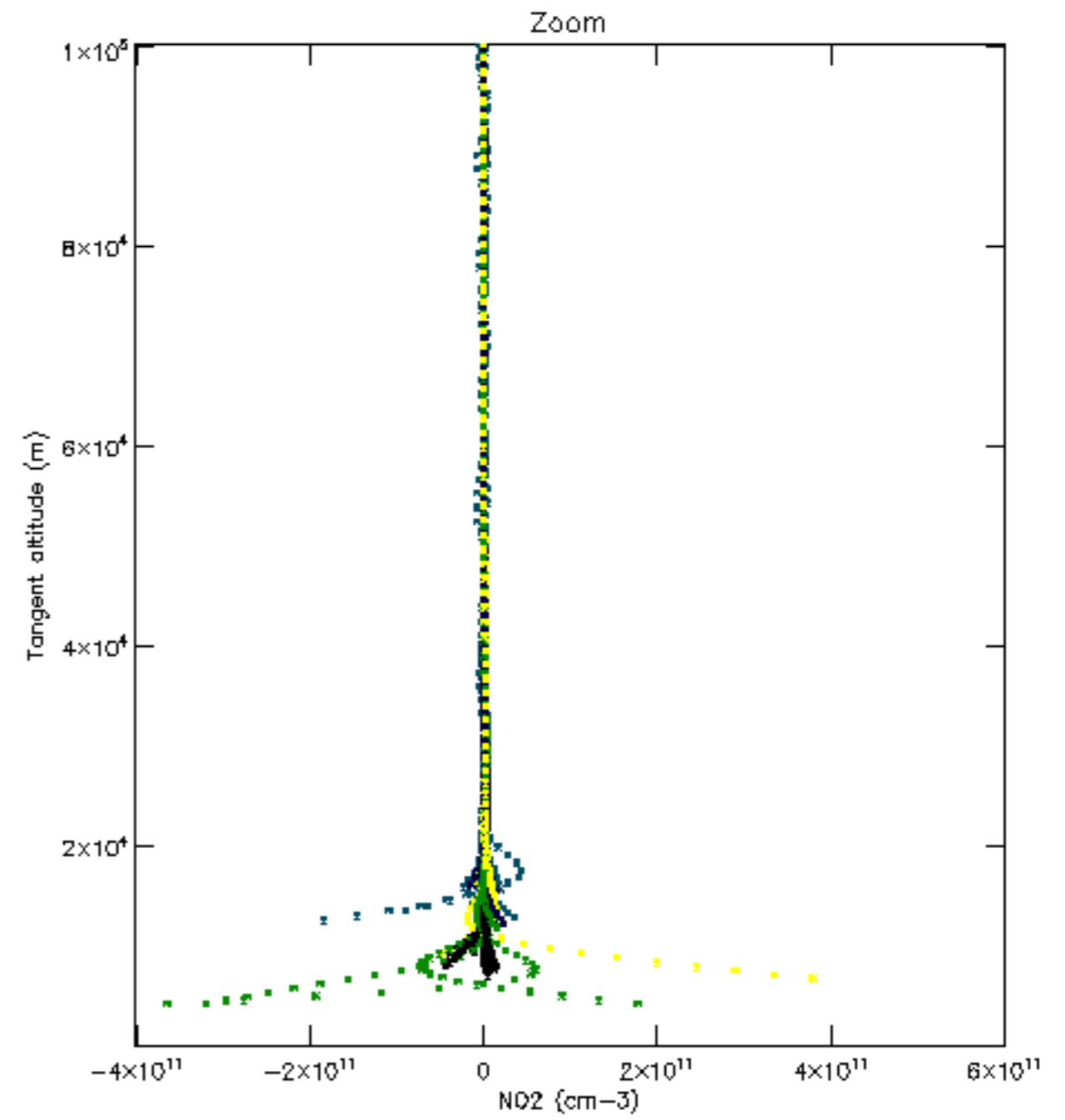
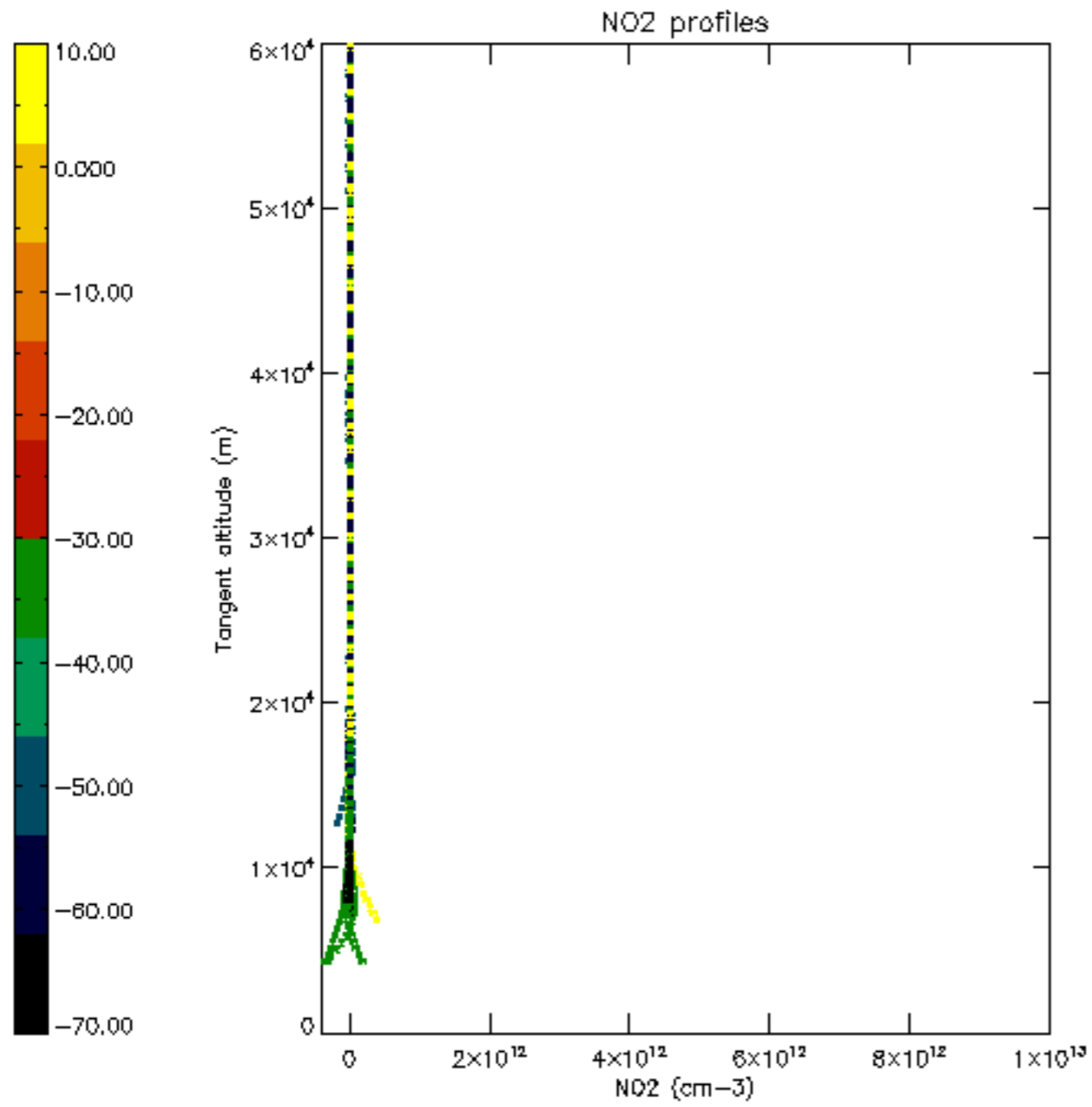


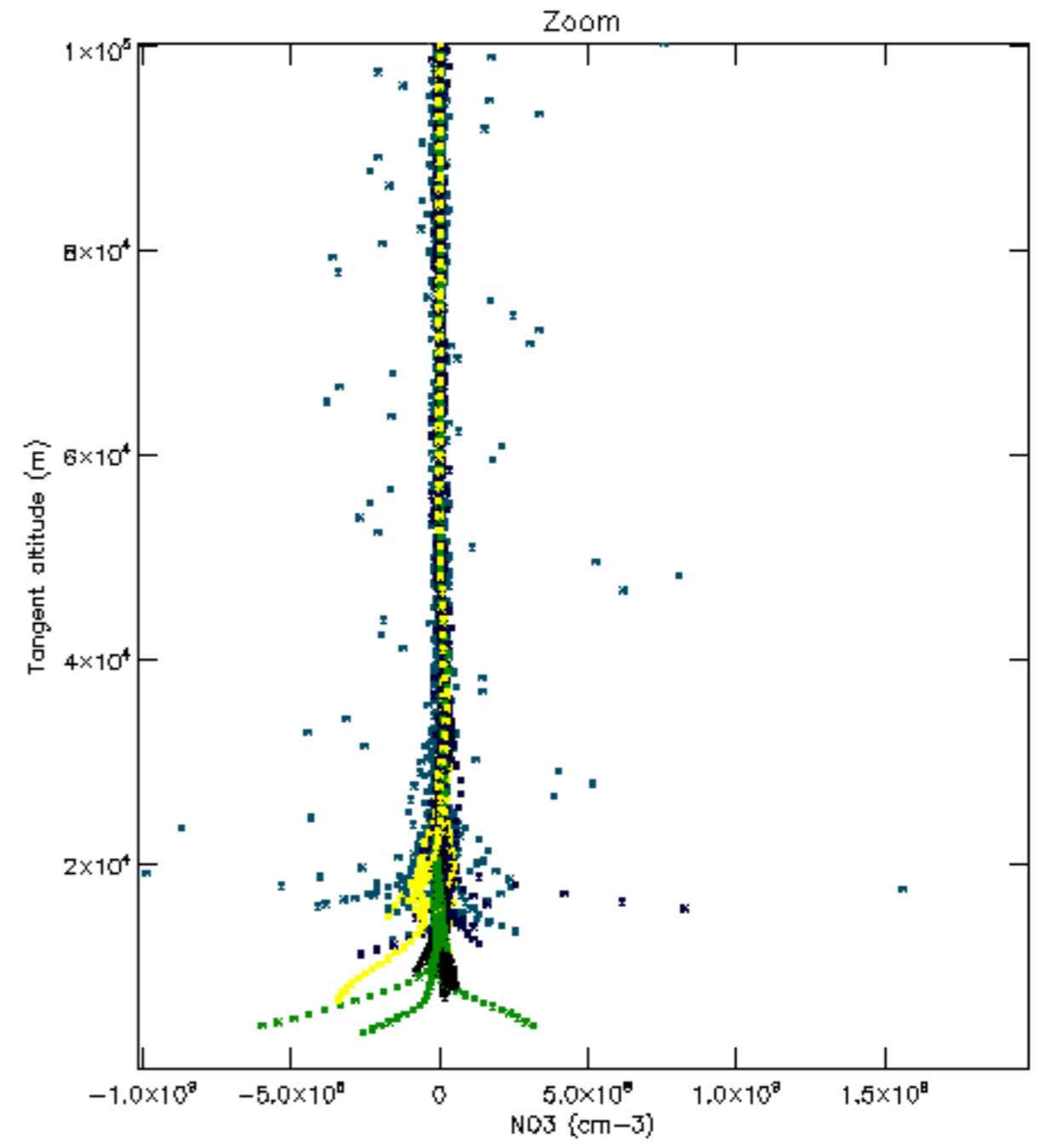
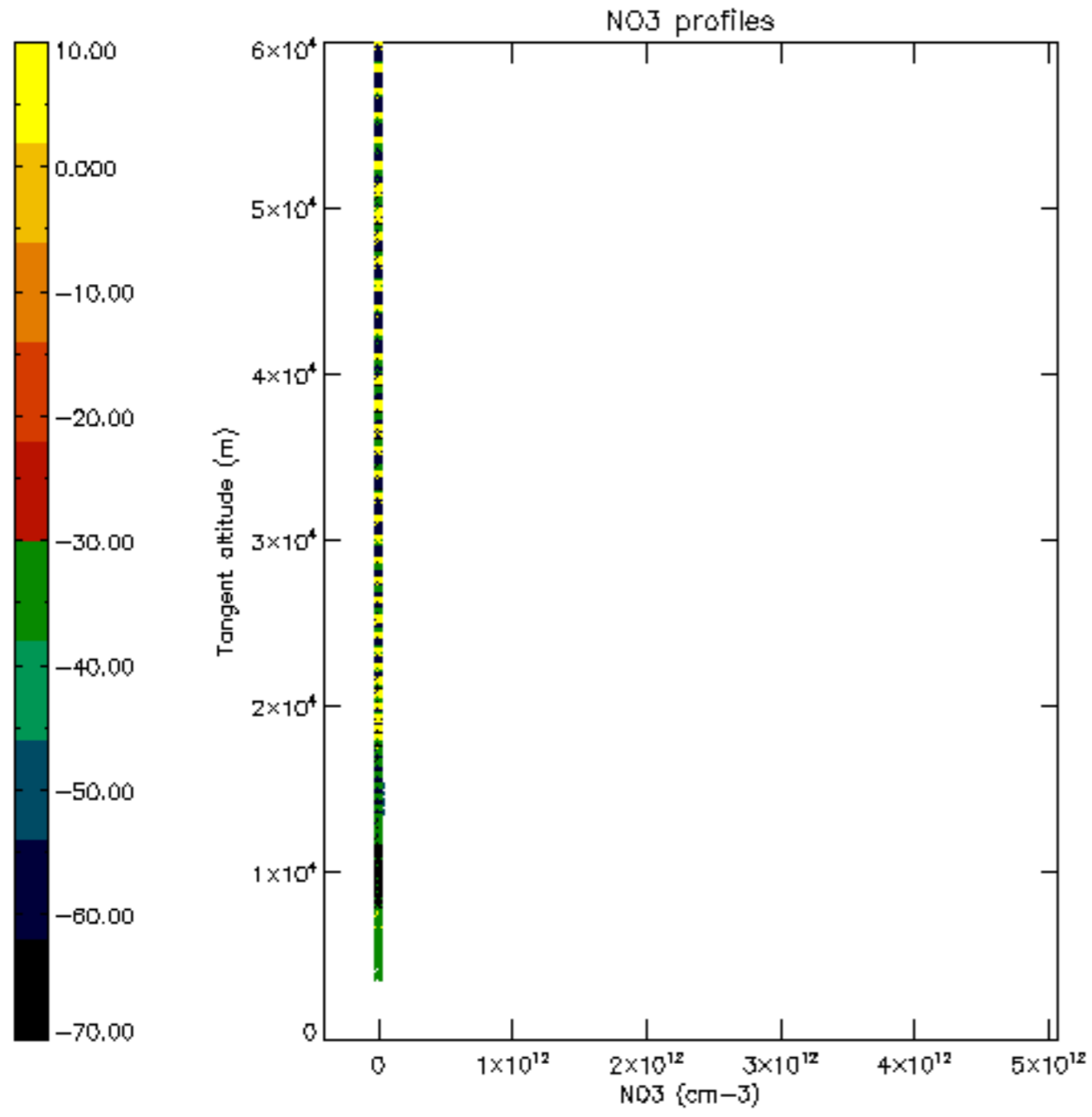


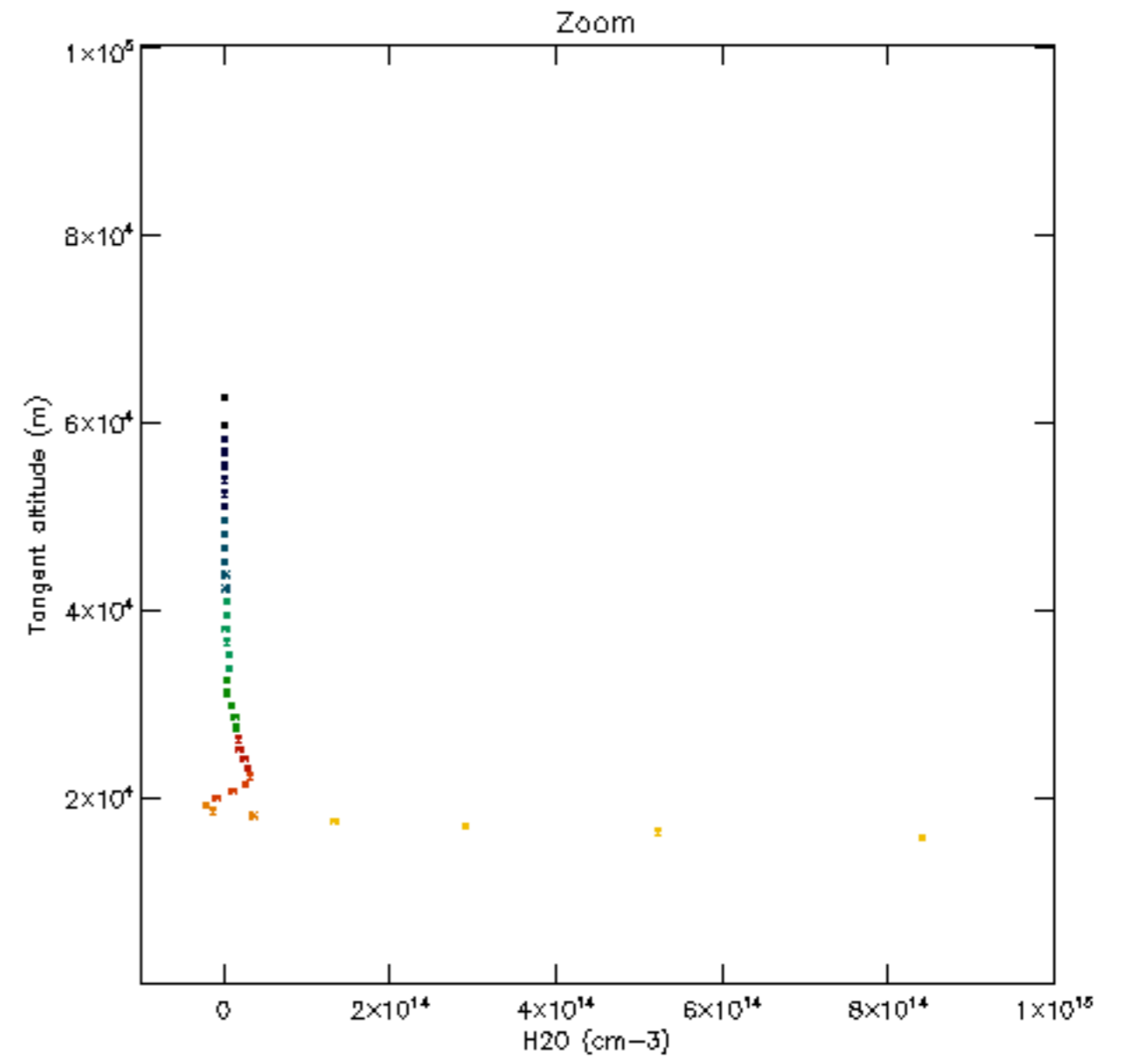
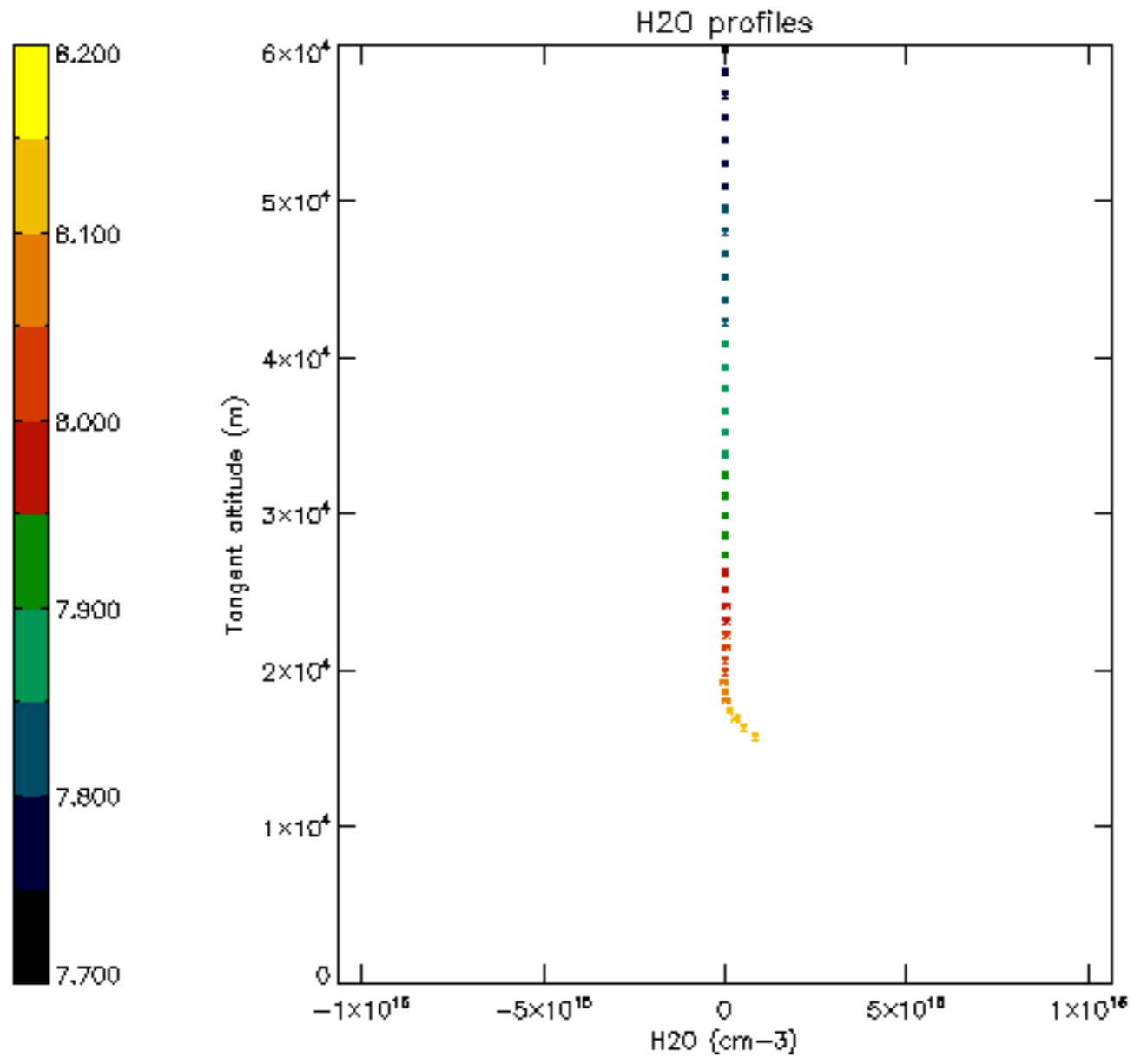


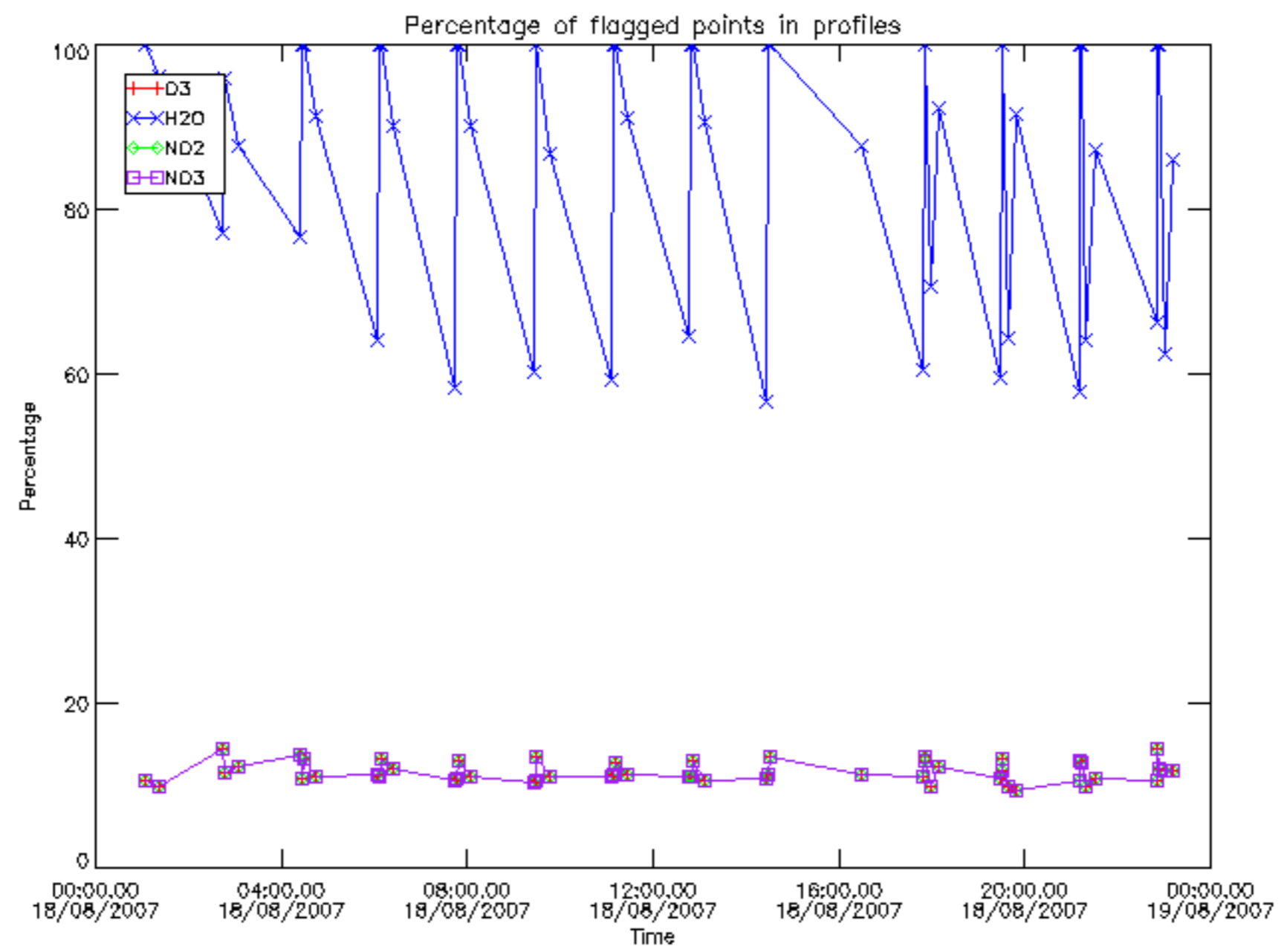




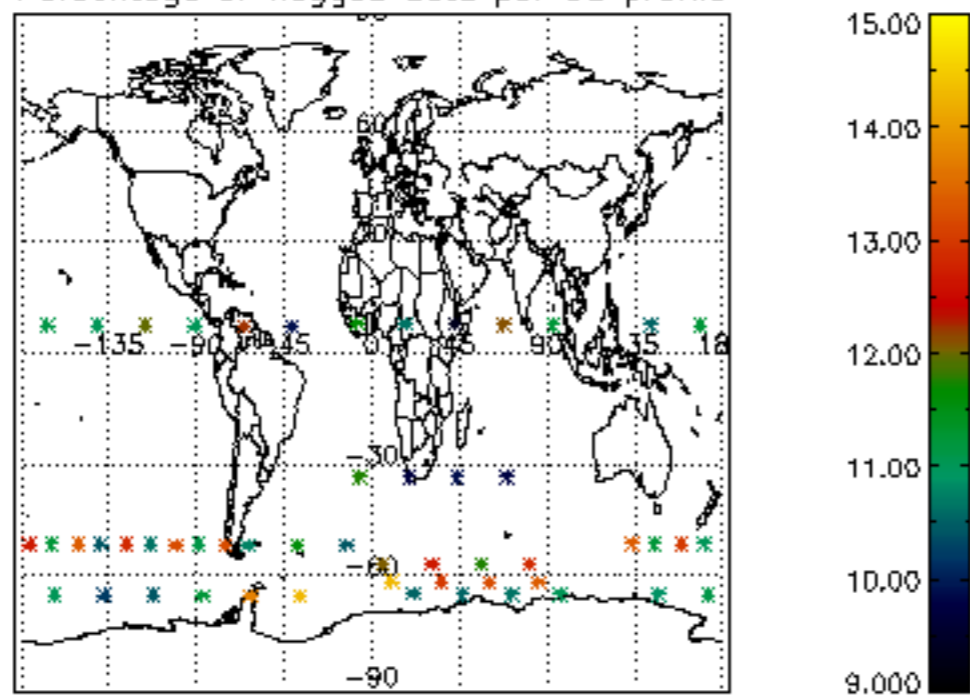




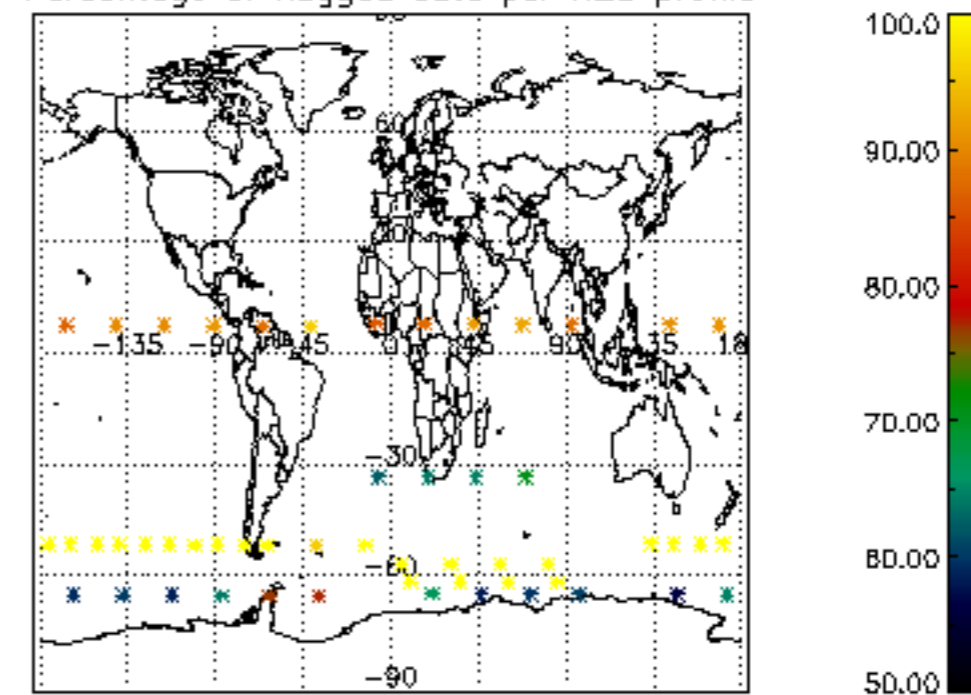




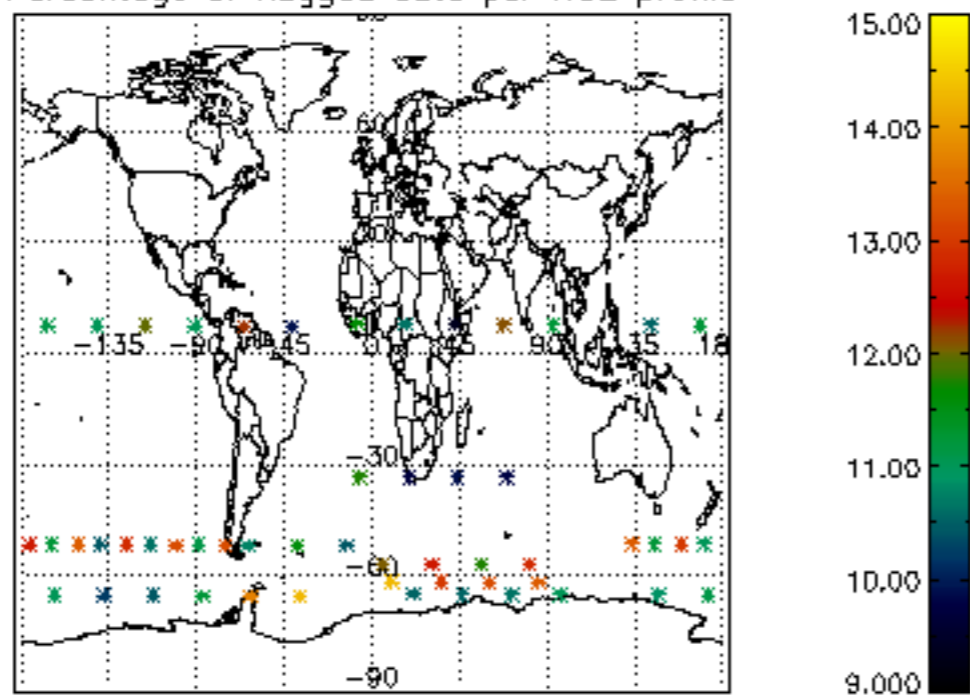
Percentage of flagged data per D3 profile



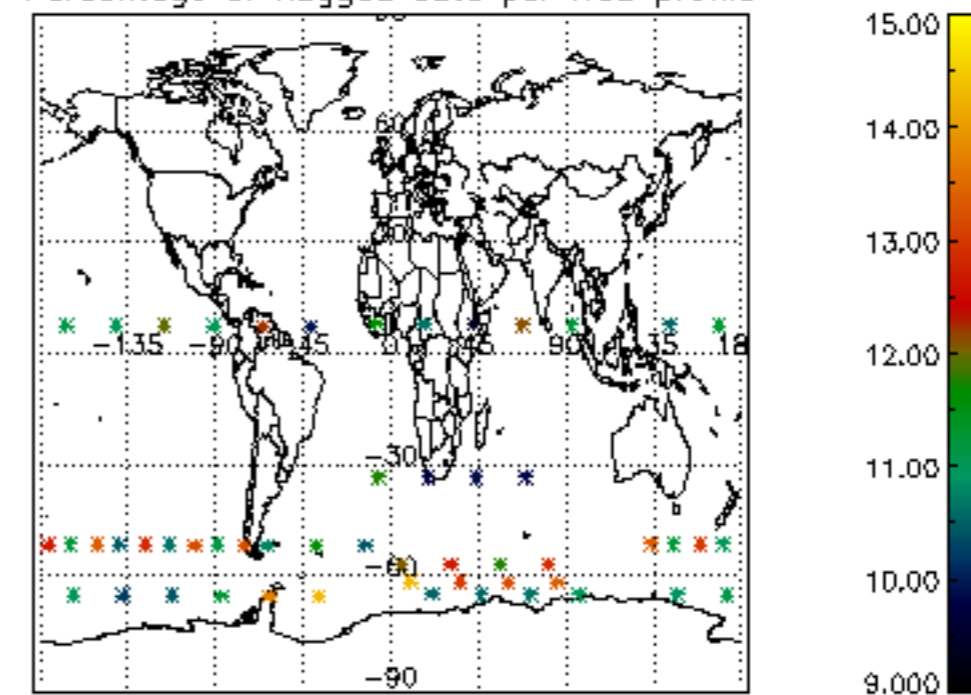
Percentage of flagged data per H2O profile

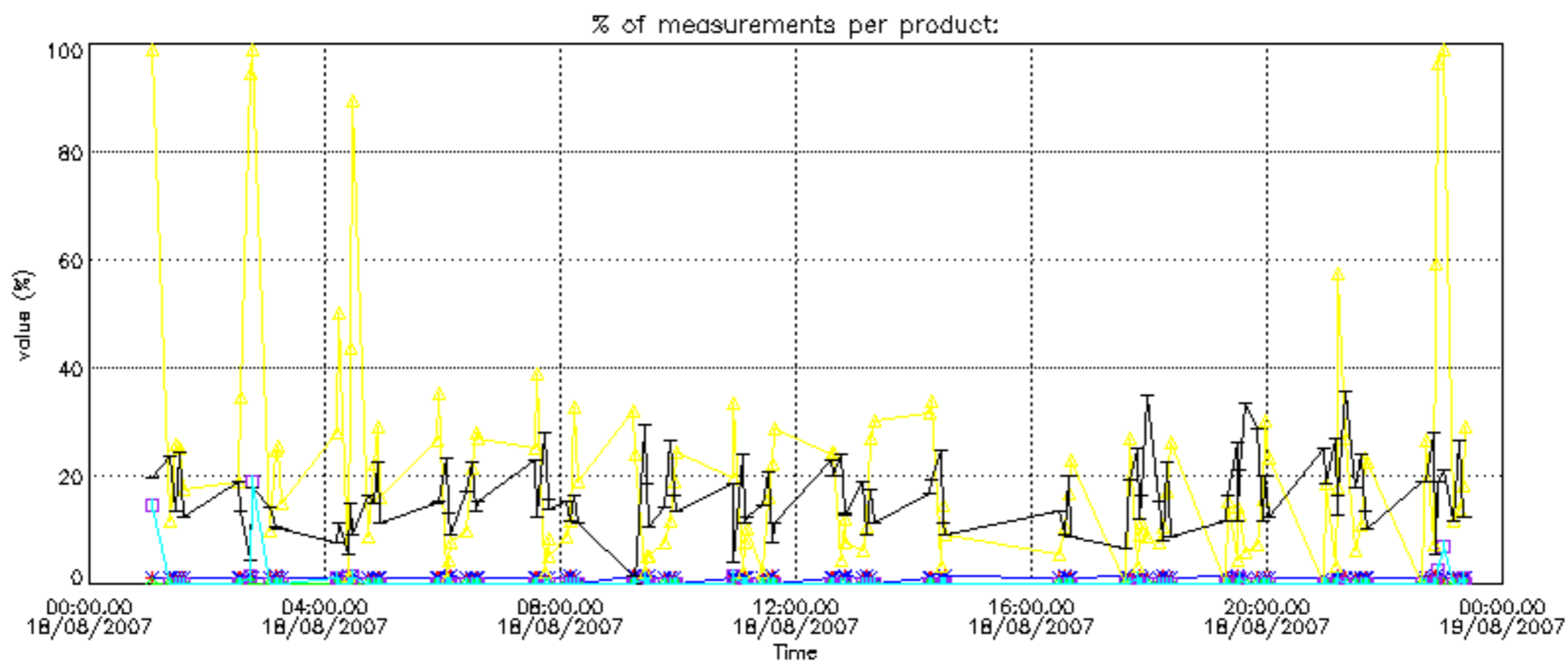


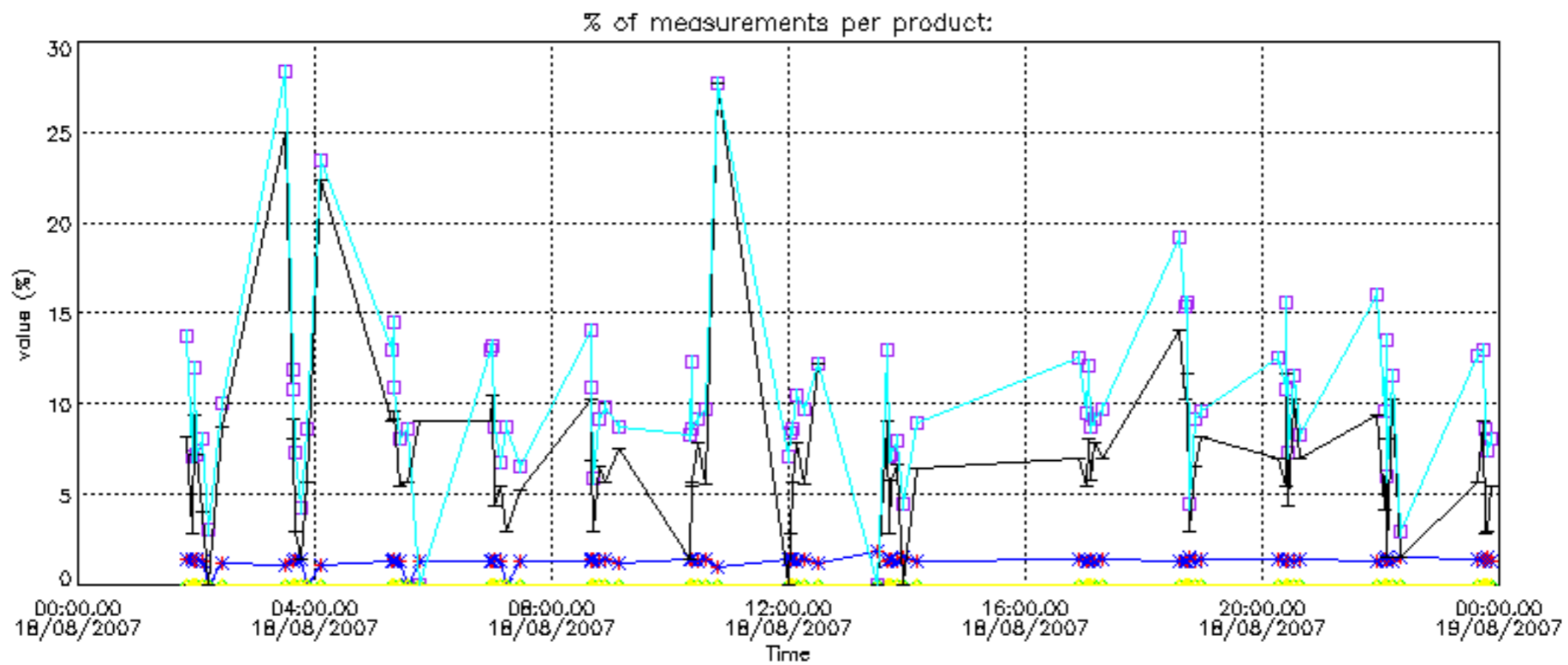
Percentage of flagged data per NO2 profile



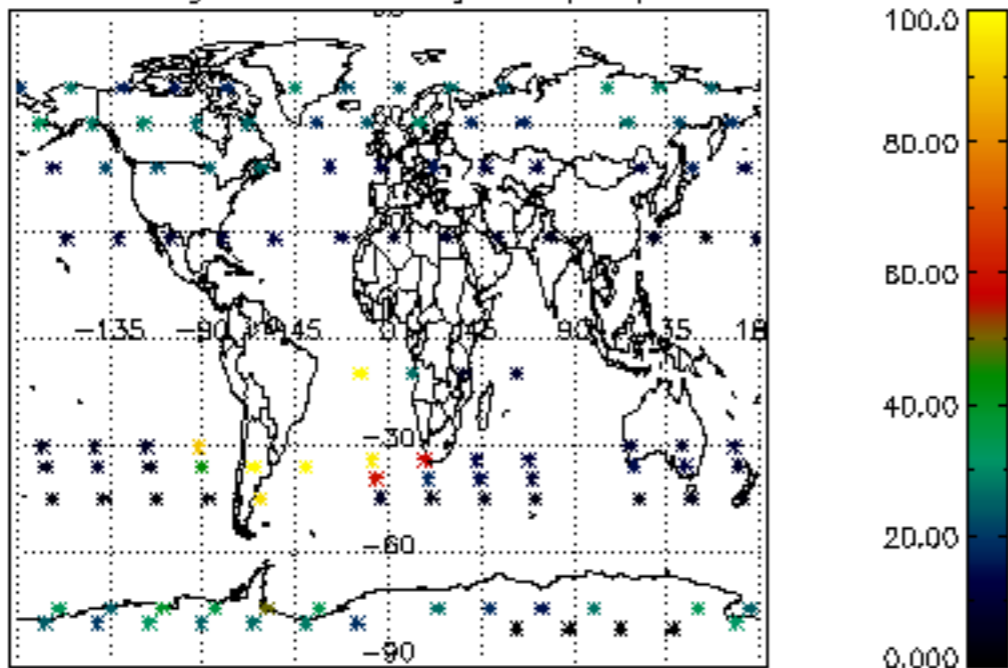
Percentage of flagged data per NO3 profile



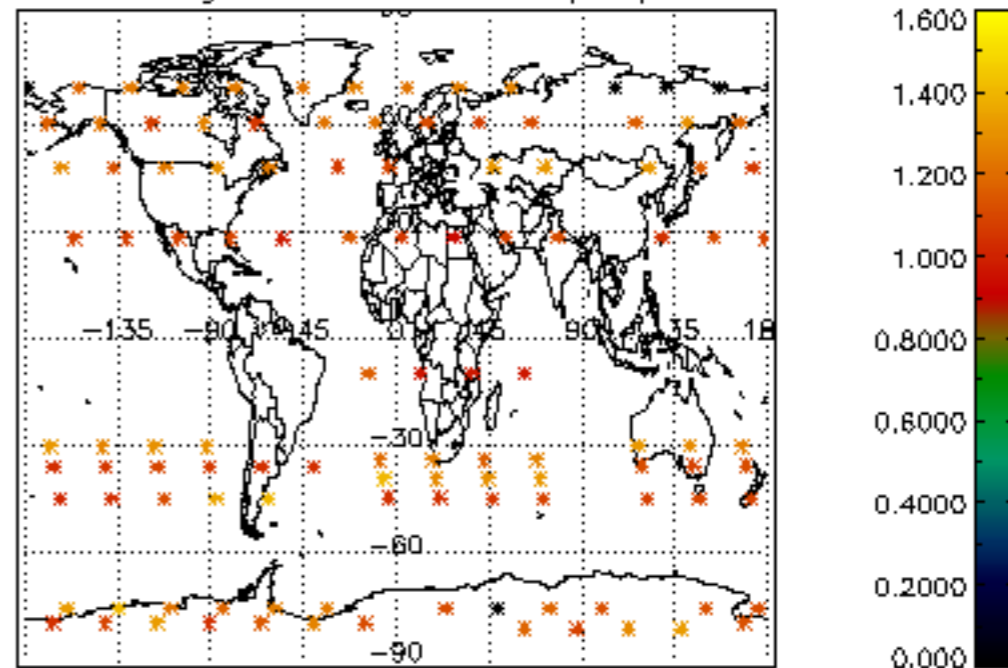




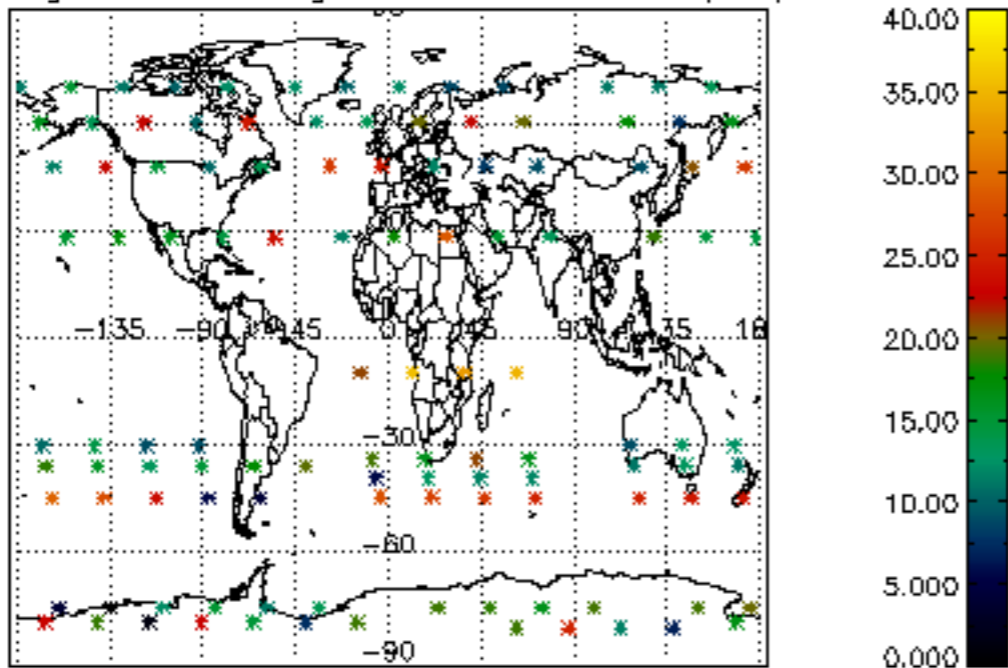
Percentage of cosmic ray hits per profile



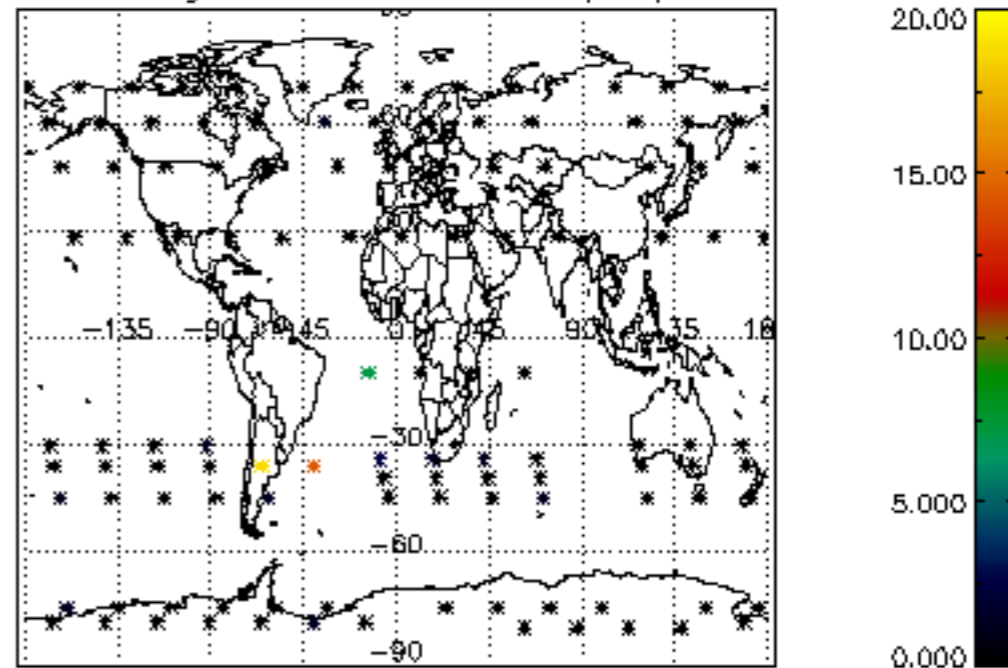
Percentage of datation errors per profile



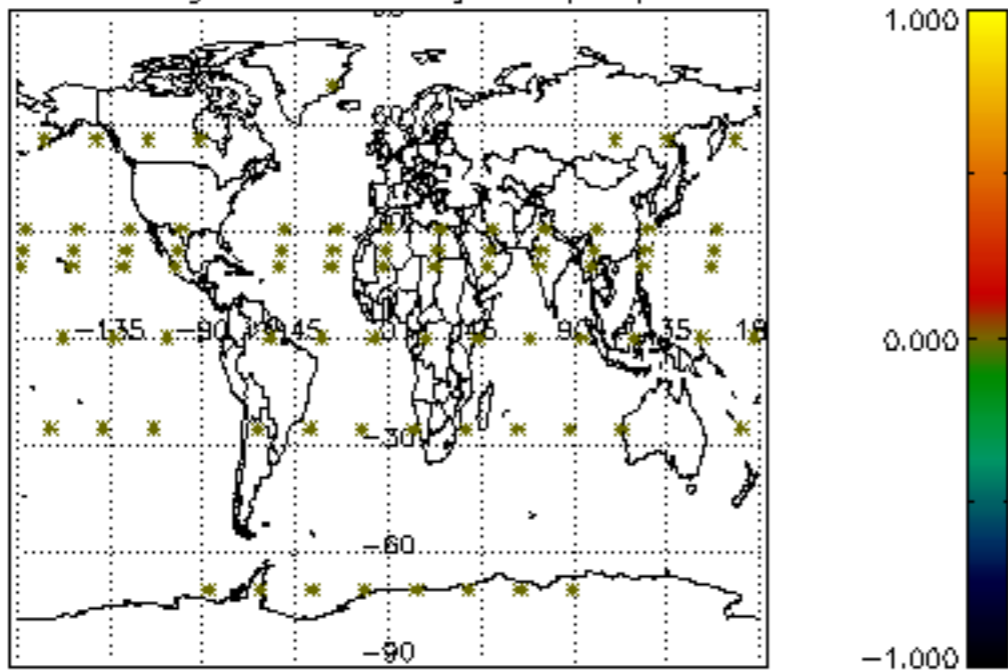
Percentage of star falling outside central band per profile



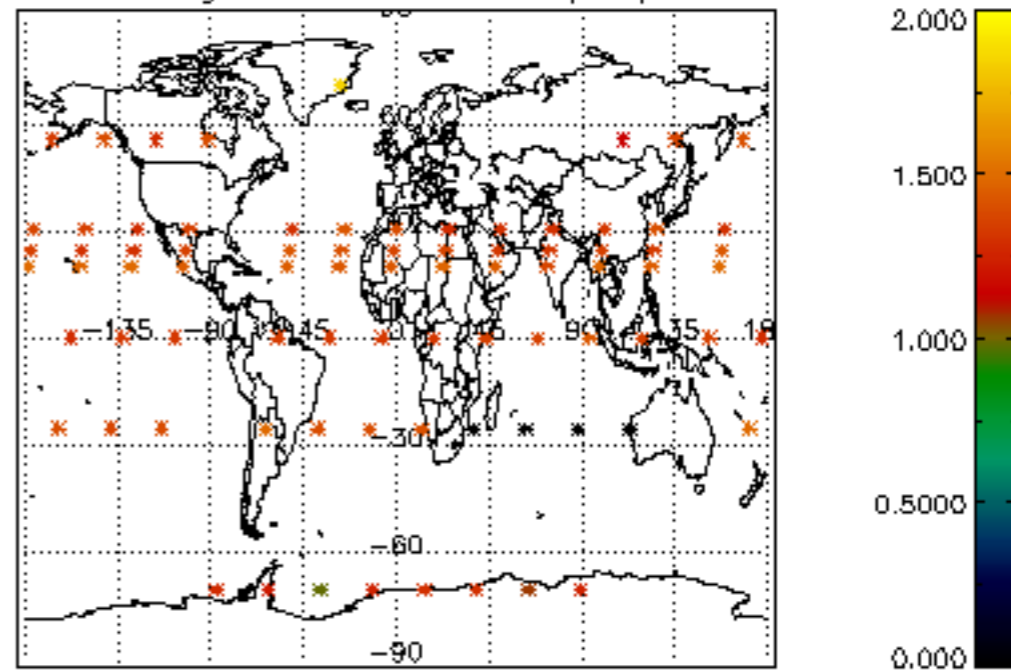
Percentage of saturation errors per profile



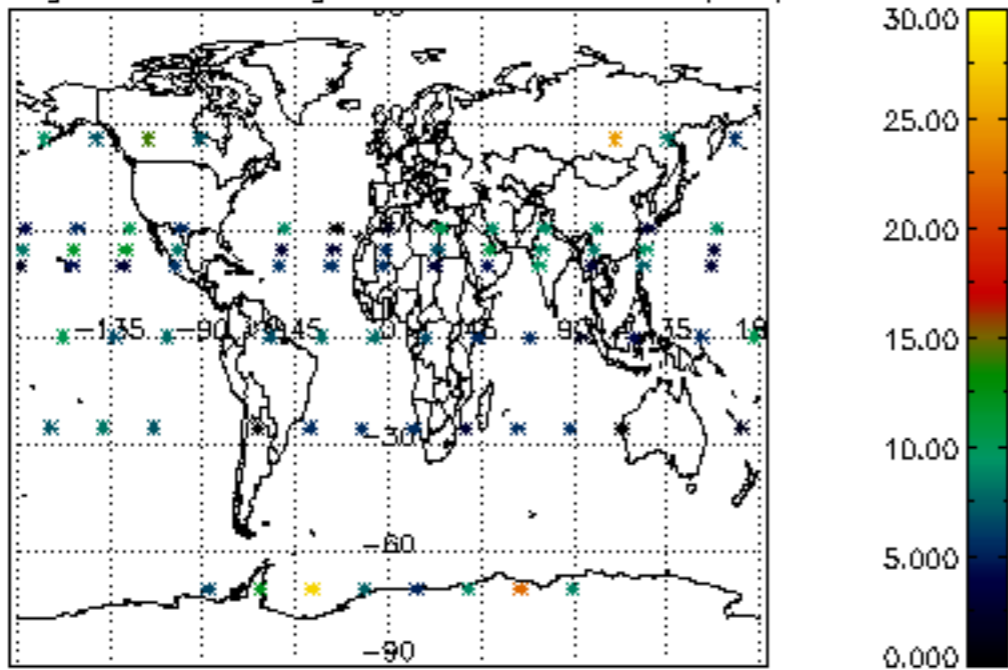
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

