

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	24APR2013 14:44:50
Data source version	GOMOS/6.01
Start time of products	14-06-2011 (14JUN2011 00:00:00)
Stop time of products	15-06-2011 (15JUN2011 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	297
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

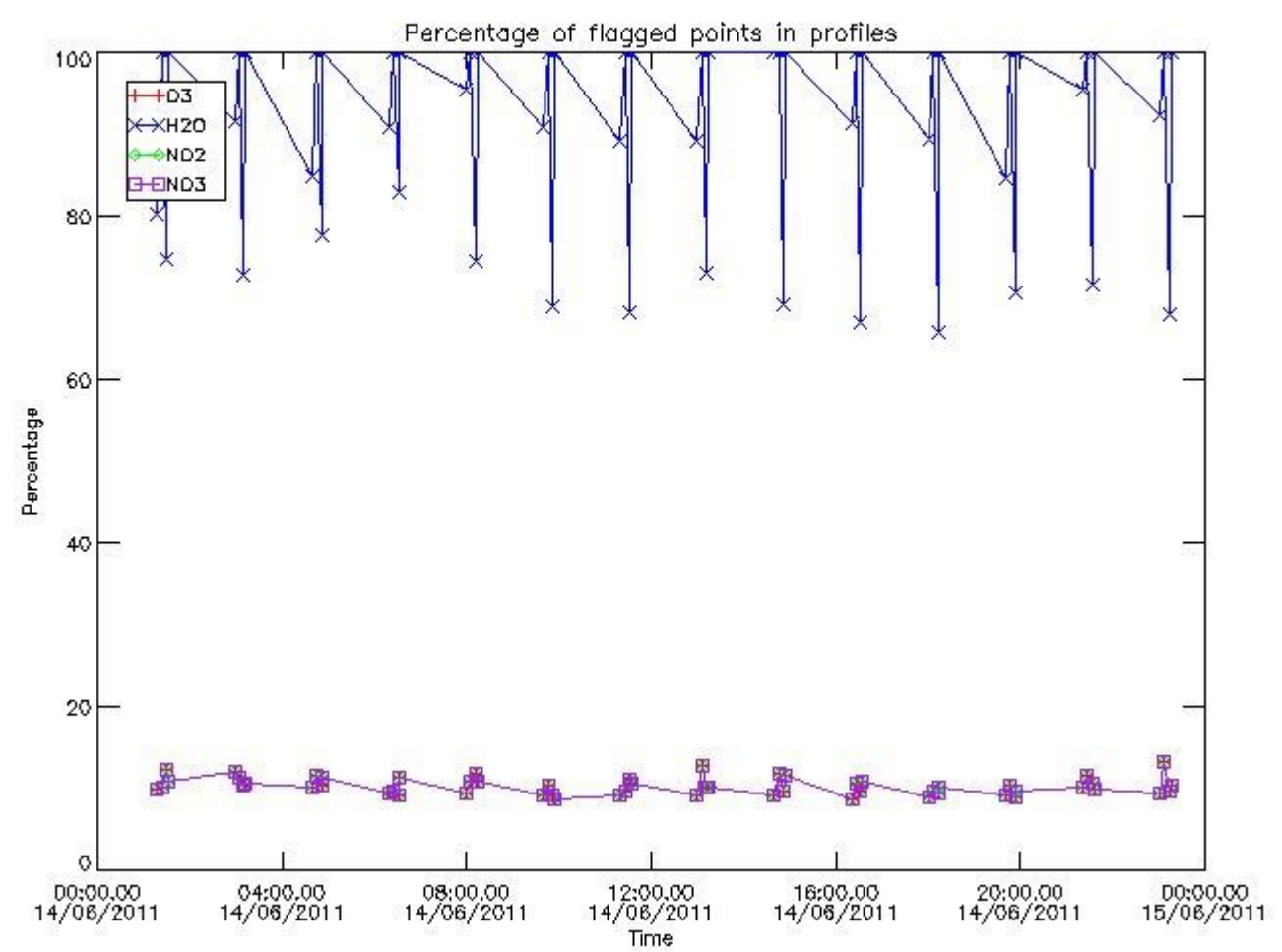
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20110614_000603_000000453103_00275_48565_3978.N1	14-JUN-2011 00:06:03	Twilight	44.500	25	35Lam Sco	1.6200	28000.	89	48565	No
2	GOM_NL__2PRFIN20110614_000746_000000653103_00275_48565_3979.N1	14-JUN-2011 00:07:46	Bright	65.000	57	34Sig Sgr	2.0660	26000.	130	48565	No
3	GOM_NL__2PRFIN20110614_001239_000000403103_00275_48565_3980.N1	14-JUN-2011 00:12:39	Bright	40.000	86	35Eta Oph	2.4300	10200.	80	48565	No
4	GOM_NL__2PRFIN20110614_001917_000000453103_00275_48565_3981.N1	14-JUN-2011 00:19:17	Bright	45.000	126	60Bet Oph	2.7700	4250.0	90	48565	No
5	GOM_NL__2PRFIN20110614_002148_000000443103_00275_48565_3982.N1	14-JUN-2011 00:21:48	Bright	44.000	59	55Alp Oph	2.0800	8900.0	88	48565	No
6	GOM_NL__2PRFIN20110614_002343_000000383103_00275_48565_3983.N1	14-JUN-2011 00:23:43	Bright	38.000	127	27Bet Her	2.7810	4700.0	76	48565	No
7	GOM_NL__2PRFIN20110614_002646_000000393103_00275_48565_3984.N1	14-JUN-2011 00:26:46	Bright	39.000	133	40Zet Her	2.8070	6000.0	78	48565	No
8	GOM_NL__2PRFIN20110614_003337_000000393103_00275_48565_3985.N1	14-JUN-2011 00:33:37	Bright	39.000	130	23Bet Dra	2.7990	5800.0	78	48565	No
9	GOM_NL__2PRFIN20110614_003506_000000393103_00275_48565_3986.N1	14-JUN-2011 00:35:06	Bright	38.500	119	14Eta Dra	2.7270	4700.0	77	48565	No
10	GOM_NL__2PRFIN20110614_004402_000000493103_00275_48565_3987.N1	14-JUN-2011 00:44:02	Bright	48.500	89	5Alp Cep	2.4510	8000.0	97	48565	No
11	GOM_NL__2PRFIN20110614_005021_000000503103_00275_48565_3988.N1	14-JUN-2011 00:50:21	Bright	49.500	74	11Bet Cas	2.2680	6600.0	99	48565	No
12	GOM_NL__2PRFIN20110614_005646_000000413103_00275_48565_3989.N1	14-JUN-2011 00:56:46	Bright	40.500	73	57Gam1And	2.2600	13100.	81	48565	No
13	GOM_NL__2PRFIN20110614_005906_000000633103_00275_48565_3990.N1	14-JUN-2011 00:59:06	Twilight	63.000	53	43Bet And	2.0480	3300.0	126	48565	No
14	GOM_NL__2PRFIN20110614_010233_000000503103_00275_48565_3991.N1	14-JUN-2011 01:02:33	Twilight	49.500	50	13Alp Ari	2.0070	4250.0	99	48565	No
15	GOM_NL__2PRFIN20110614_011759_000000563103_00275_48565_3992.N1	14-JUN-2011 01:17:59	Dark	56.000	52	16Bet Cet	2.0370	4500.0	112	48565	No
16	GOM_NL__2PRFIN20110614_012415_000000503103_00275_48565_3993.N1	14-JUN-2011 01:24:15	Dark	50.000	84	Alp Phe	2.3970	4500.0	100	48565	No
17	GOM_NL__2PRFIN20110614_013024_000000663103_00276_48566_3985.N1	14-JUN-2011 01:30:24	Dark	65.500	63	Bet Gru	2.1500	2800.0	131	48566	No
18	GOM_NL__2PRFIN20110614_013226_000000483103_00276_48566_3986.N1	14-JUN-2011 01:32:26	Dark	47.500	31	Alp Gru	1.7340	15200.	95	48566	No
19	GOM_NL__2PRFIN20110614_013414_000000573103_00276_48566_3987.N1	14-JUN-2011 01:34:14	Straylight	56.500	172	Gam Gru	3.0030	13100.	113	48566	No
20	GOM_NL__2PRFIN20110614_013622_000000433103_00276_48566_3988.N1	14-JUN-2011 01:36:22	Straylight	42.500	45	Alp Pav	1.9400	26000.	85	48566	No
21	GOM_NL__2PRFIN20110614_014617_000000453103_00276_48566_3989.N1	14-JUN-2011 01:46:17	Twilight	44.500	25	35Lam Sco	1.6200	28000.	89	48566	No
22	GOM_NL__2PRFIN20110614_014800_000000603103_00276_48566_3990.N1	14-JUN-2011 01:48:00	Bright	59.500	57	34Sig Sgr	2.0660	26000.	119	48566	No
23	GOM_NL__2PRFIN20110614_015253_000000403103_00276_48566_3991.N1	14-JUN-2011 01:52:53	Bright	40.000	86	35Eta Oph	2.4300	10200.	80	48566	No
24	GOM_NL__2PRFIN20110614_015931_000000453103_00276_48566_3992.N1	14-JUN-2011 01:59:31	Bright	45.000	126	60Bet Oph	2.7700	4250.0	90	48566	No
25	GOM_NL__2PRFIN20110614_020202_000000463103_00276_48566_3993.N1	14-JUN-2011 02:02:02	Bright	45.500	59	55Alp Oph	2.0800	8900.0	91	48566	No
26	GOM_NL__2PRFIN20110614_020357_000000393103_00276_48566_3994.N1	14-JUN-2011 02:03:57	Bright	39.000	127	27Bet Her	2.7810	4700.0	78	48566	No
27	GOM_NL__2PRFIN20110614_020700_000000403103_00276_48566_3995.N1	14-JUN-2011 02:07:00	Bright	40.000	133	40Zet Her	2.8070	6000.0	80	48566	No
28	GOM_NL__2PRFIN20110614_021350_000000393103_00276_48566_3996.N1	14-JUN-2011 02:13:50	Bright	39.000	130	23Bet Dra	2.7990	5800.0	78	48566	No
29	GOM_NL__2PRFIN20110614_021520_000000343103_00276_48566_3997.N1	14-JUN-2011 02:15:20	Bright	34.000	119	14Eta Dra	2.7270	4700.0	68	48566	No
30	GOM_NL__2PRFIN20110614_022415_000000493103_00276_48566_3998.N1	14-JUN-2011 02:24:15	Bright	48.500	89	5Alp Cep	2.4510	8000.0	97	48566	No
31	GOM_NL__2PRFIN20110614_023034_000000533103_00276_48566_3999.N1	14-JUN-2011 02:30:34	Bright	52.500	74	11Bet Cas	2.2680	6600.0	105	48566	No
32	GOM_NL__2PRFIN20110614_023700_000000403103_00276_48566_4000.N1	14-JUN-2011 02:37:00	Bright	40.000	73	57Gam1And	2.2600	13100.	80	48566	No
33	GOM_NL__2PRFIN20110614_023920_000000523103_00276_48566_4001.N1	14-JUN-2011 02:39:20	Twilight	51.500	53	43Bet And	2.0480	3300.0	103	48566	No
34	GOM_NL__2PRFIN20110614_024247_000000473103_00276_48566_4002.N1	14-JUN-2011 02:42:47	Twilight	46.500	50	13Alp Ari	2.0070	4250.0	93	48566	No
35	GOM_NL__2PRFIN20110614_025814_000000553103_00276_48566_4003.N1	14-JUN-2011 02:58:14	Dark	54.500	52	16Bet Cet	2.0370	4500.0	109	48566	No
36	GOM_NL__2PRFIN20110614_030430_000000493103_00276_48566_4004.N1	14-JUN-2011 03:04:30	Dark	49.000	84	Alp Phe	2.3970	4500.0	98	48566	No
37	GOM_NL__2PRFIN20110614_031039_000000543103_00277_48567_4005.N1	14-JUN-2011 03:10:39	Dark	53.500	63	Bet Gru	2.1500	2800.0	107	48567	No
38	GOM_NL__2PRFIN20110614_031241_000000483103_00277_48567_4006.N1	14-JUN-2011 03:12:41	Dark	48.000	31	Alp Gru	1.7340	15200.	96	48567	No
39	GOM_NL__2PRFIN20110614_031430_000000583103_00277_48567_4007.N1	14-JUN-2011 03:14:30	Straylight	58.000	172	Gam Gru	3.0030	13100.	116	48567	No
40	GOM_NL__2PRFIN20110614_031636_000000463103_00277_48567_4008.N1	14-JUN-2011 03:16:36	Straylight	46.000	45	Alp Pav	1.9400	26000.	92	48567	No
41	GOM_NL__2PRFIN20110614_032631_000000453103_00277_48567_4009.N1	14-JUN-2011 03:26:31	Twilight	44.500	25	35Lam Sco	1.6200	28000.	89	48567	No
42	GOM_NL__2PRFIN20110614_032814_000000573103_00277_48567_4010.N1	14-JUN-2011 03:28:14	Bright	56.500	57	34Sig Sgr	2.0660	26000.	113	48567	No

279	GOM_NL__2PRFIN20110614_223441_000000423103_00288_48578_4302.N1	14-JUN-2011 22:34:41	Bright	41.500	68	18Alp Cas	2.2250	4500.0	83	48578	No
280	GOM_NL__2PRFIN20110614_223949_000000413103_00288_48578_4303.N1	14-JUN-2011 22:39:49	Bright	40.500	73	57Gam1And	2.2600	13100.	81	48578	No
281	GOM_NL__2PRFIN20110614_224208_000000583103_00288_48578_4304.N1	14-JUN-2011 22:42:08	Twilight	58.000	53	43Bet And	2.0480	3300.0	116	48578	No
282	GOM_NL__2PRFIN20110614_224537_000000463103_00288_48578_4305.N1	14-JUN-2011 22:45:37	Twilight	46.000	50	13Alp Ari	2.0070	4250.0	92	48578	No
283	GOM_NL__2PRFIN20110614_230114_000000603103_00288_48578_4306.N1	14-JUN-2011 23:01:14	Dark	59.500	52	16Bet Cet	2.0370	4500.0	119	48578	No
284	GOM_NL__2PRFIN20110614_230727_000000433103_00288_48578_4307.N1	14-JUN-2011 23:07:27	Dark	42.500	84	Alp Phe	2.3970	4500.0	85	48578	No
285	GOM_NL__2PRFIN20110614_231338_000000633103_00289_48579_4297.N1	14-JUN-2011 23:13:38	Dark	63.000	63	Bet Gru	2.1500	2800.0	126	48579	No
286	GOM_NL__2PRFIN20110614_231541_000000493103_00289_48579_4298.N1	14-JUN-2011 23:15:41	Dark	49.000	31	Alp Gru	1.7340	15200.	98	48579	No
287	GOM_NL__2PRFIN20110614_231734_000000533103_00289_48579_4299.N1	14-JUN-2011 23:17:34	Straylight	53.000	172	Gam Gru	3.0030	13100.	106	48579	No
288	GOM_NL__2PRFIN20110614_231931_000000403103_00289_48579_4300.N1	14-JUN-2011 23:19:31	Straylight	40.000	45	Alp Pav	1.9400	26000.	80	48579	No
289	GOM_NL__2PRFIN20110614_232909_000000493103_00289_48579_4301.N1	14-JUN-2011 23:29:09	Twilight	48.500	38	20Eps Sgr	1.8360	11000.	97	48579	No
290	GOM_NL__2PRFIN20110614_233039_000000513103_00289_48579_4302.N1	14-JUN-2011 23:30:39	Twilight	50.500	116	19Del Sgr	2.7000	4100.0	101	48579	No
291	GOM_NL__2PRFIN20110614_233557_000000403103_00289_48579_4303.N1	14-JUN-2011 23:35:57	Bright	39.500	86	35Eta Oph	2.4300	10200.	79	48579	No
292	GOM_NL__2PRFIN20110614_234229_000000463103_00289_48579_4304.N1	14-JUN-2011 23:42:29	Bright	46.000	126	60Bet Oph	2.7700	4250.0	92	48579	No
293	GOM_NL__2PRFIN20110614_234500_000000433103_00289_48579_4305.N1	14-JUN-2011 23:45:00	Bright	42.500	59	55Alp Oph	2.0800	8900.0	85	48579	No
294	GOM_NL__2PRFIN20110614_234658_000000393103_00289_48579_4306.N1	14-JUN-2011 23:46:58	Bright	39.000	127	27Bet Her	2.7810	4700.0	78	48579	No
295	GOM_NL__2PRFIN20110614_234959_000000393103_00289_48579_4307.N1	14-JUN-2011 23:49:59	Bright	38.500	133	40Zet Her	2.8070	6000.0	77	48579	No
296	GOM_NL__2PRFIN20110614_235647_000000383103_00289_48579_4308.N1	14-JUN-2011 23:56:47	Bright	37.500	130	23Bet Dra	2.7990	5800.0	75	48579	No
297	GOM_NL__2PRFIN20110614_235819_000000393103_00289_48579_4309.N1	14-JUN-2011 23:58:19	Bright	38.500	119	14Eta Dra	2.7270	4700.0	77	48579	No

3. Quality information per product

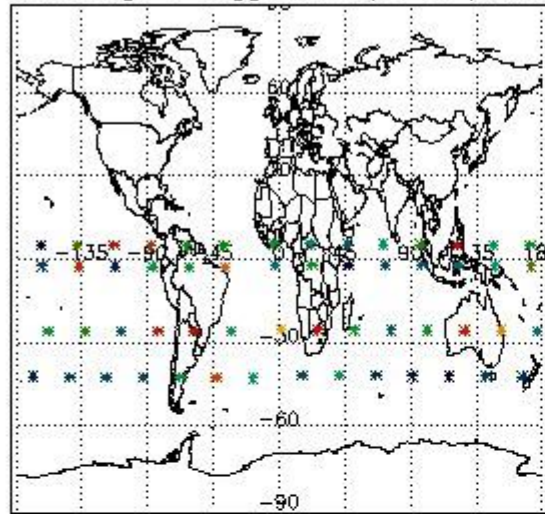
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

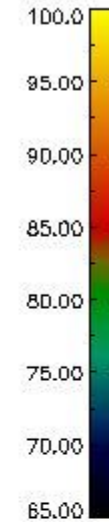
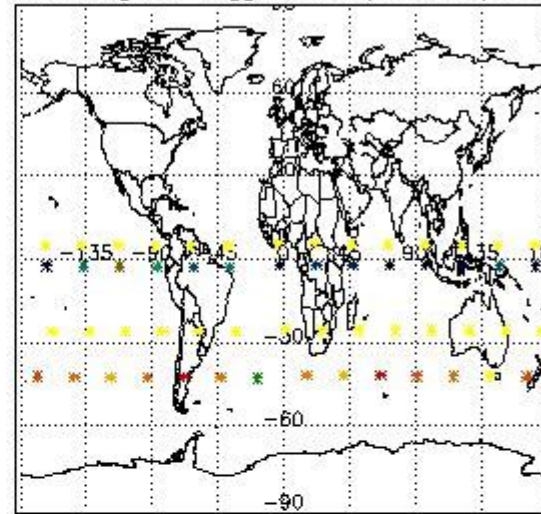


3.2 Plot quality information per product (world map)

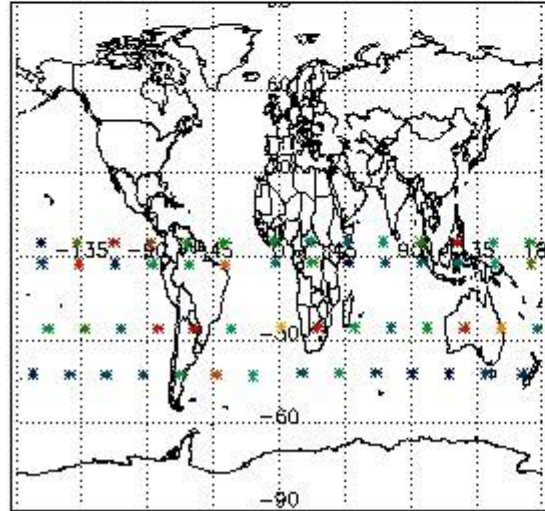
Percentage of flagged data per O3 profile



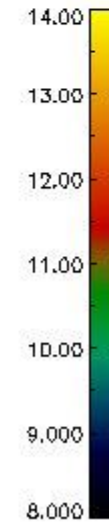
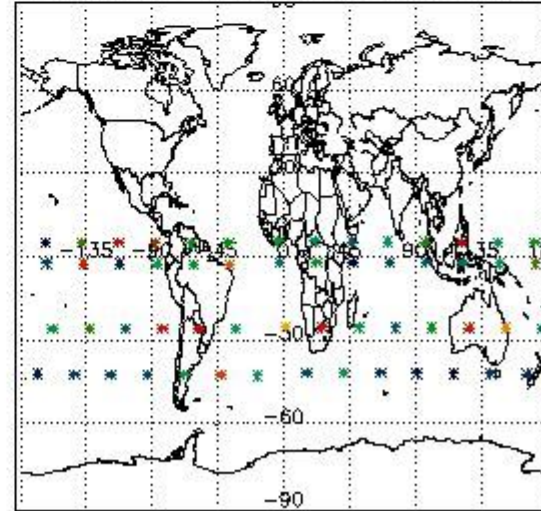
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

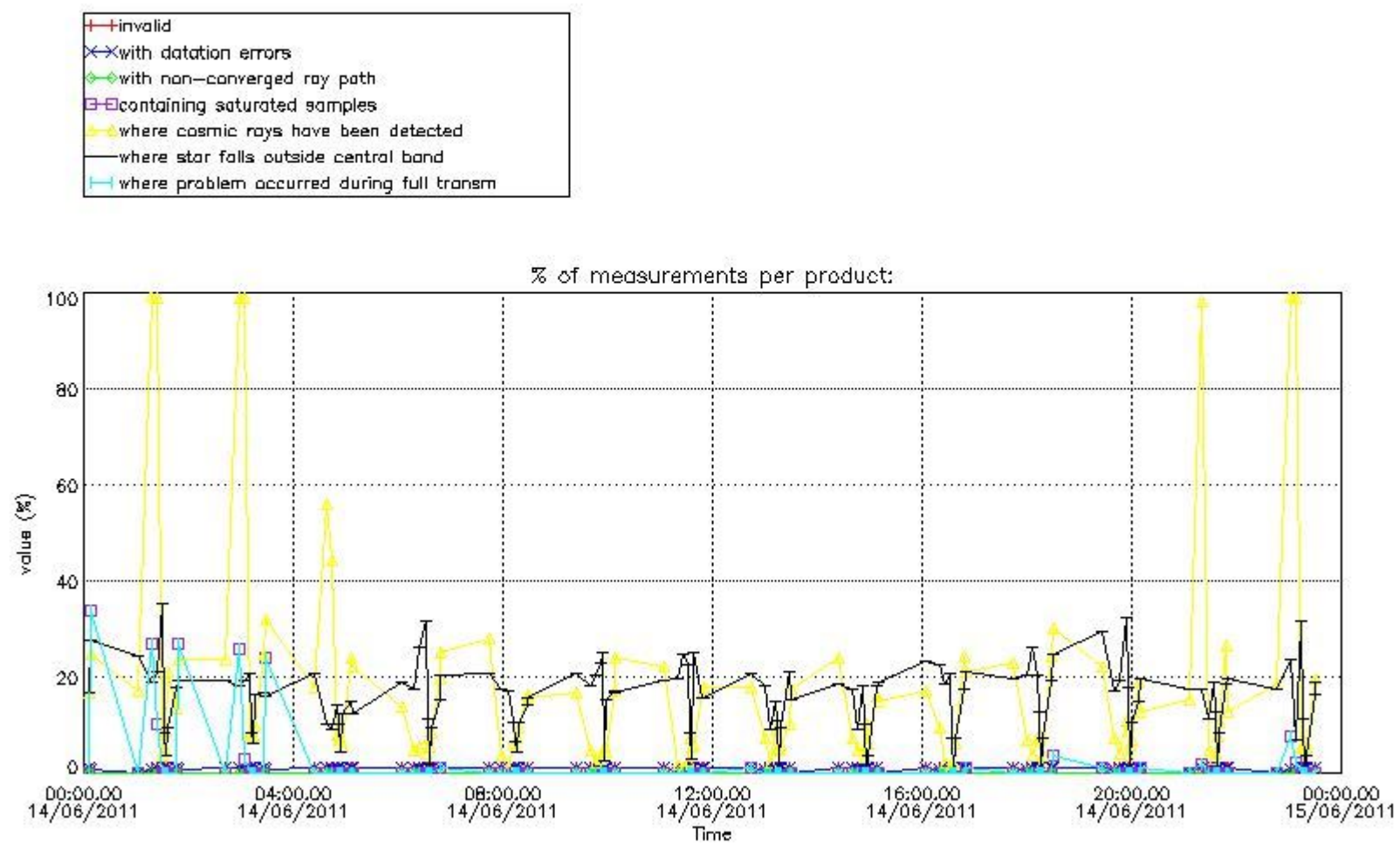


4. Level 1 quality information per product

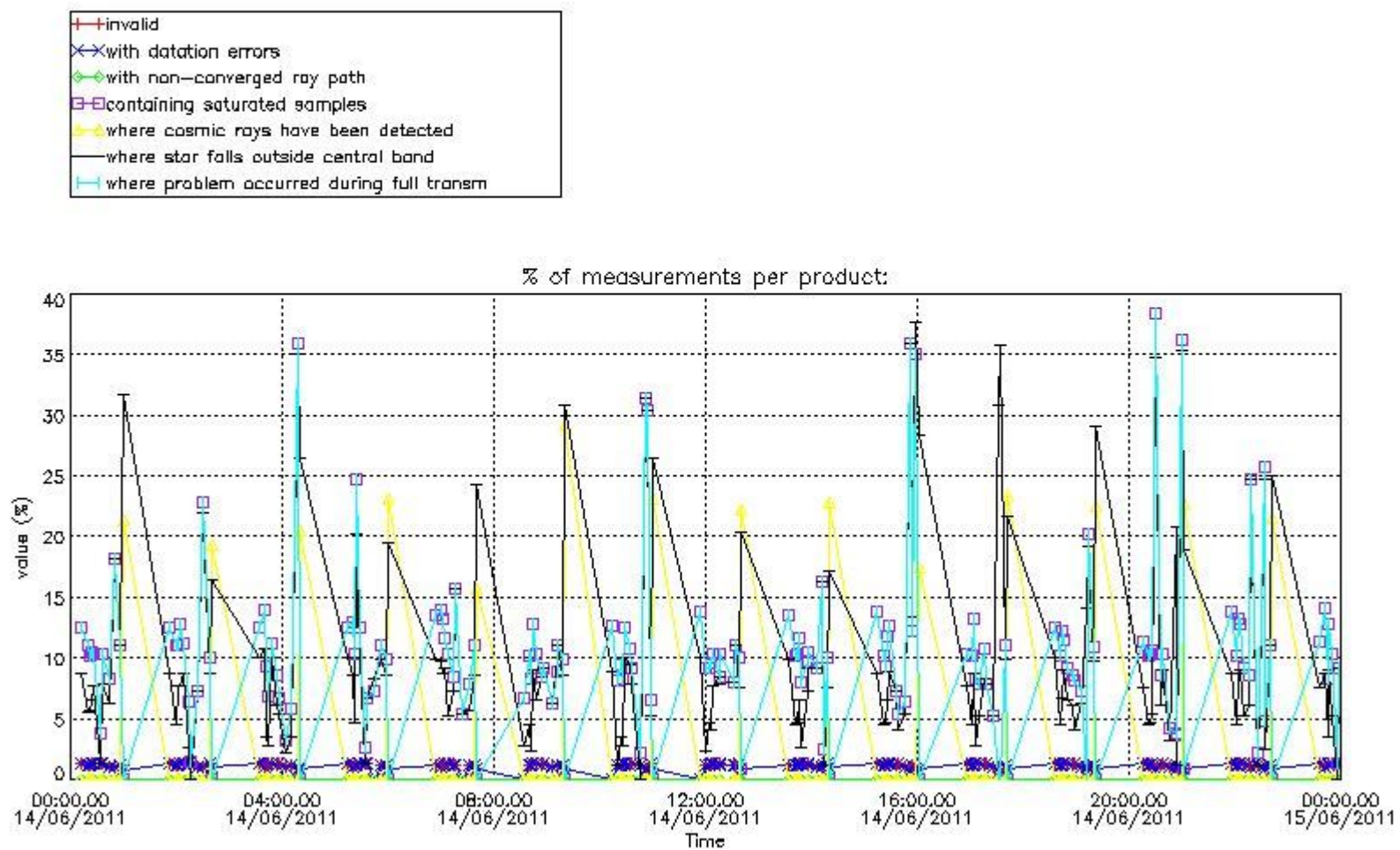
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



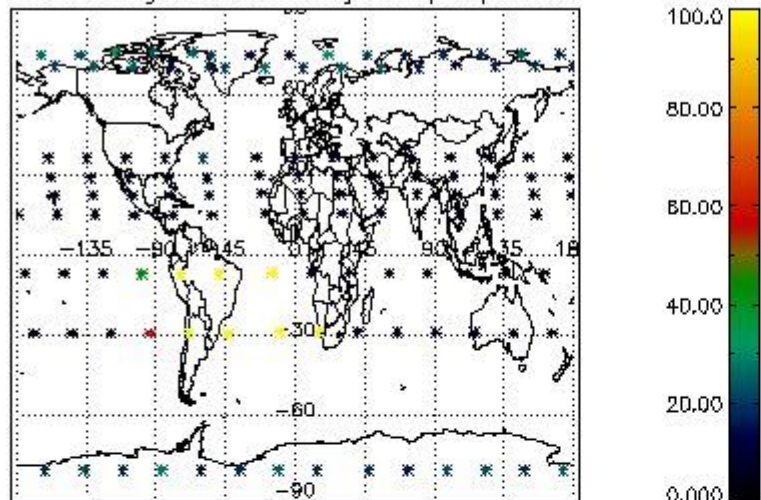
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



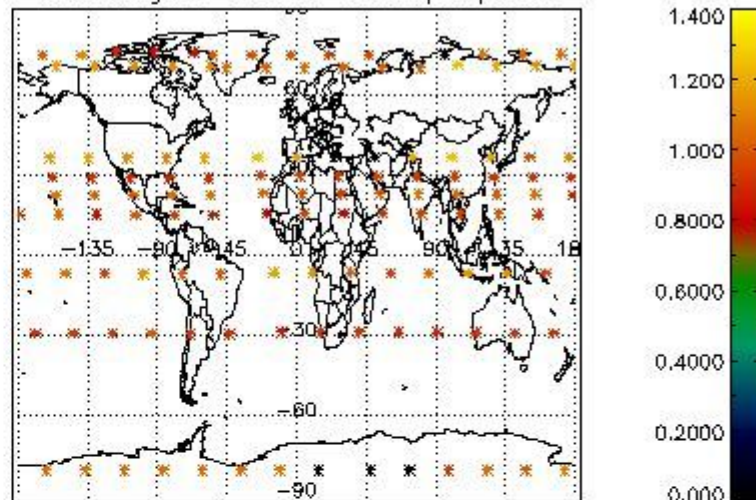
4.2 Plot quality information per product coming from level 1b processing (world map)

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

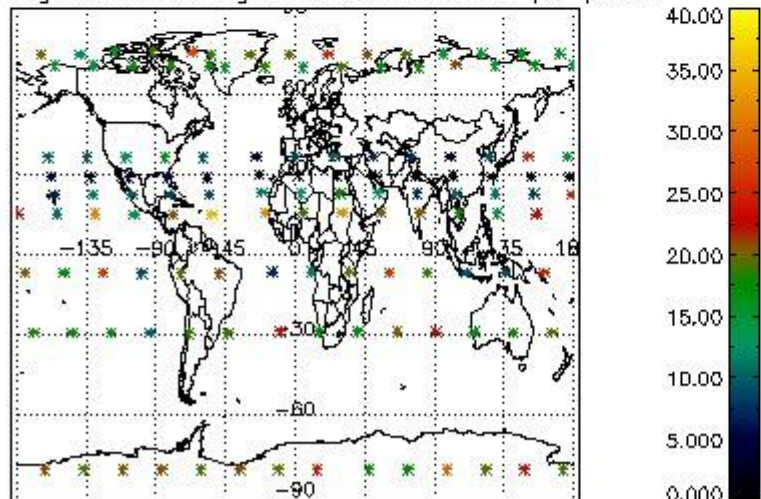
Percentage of cosmic ray hits per profile



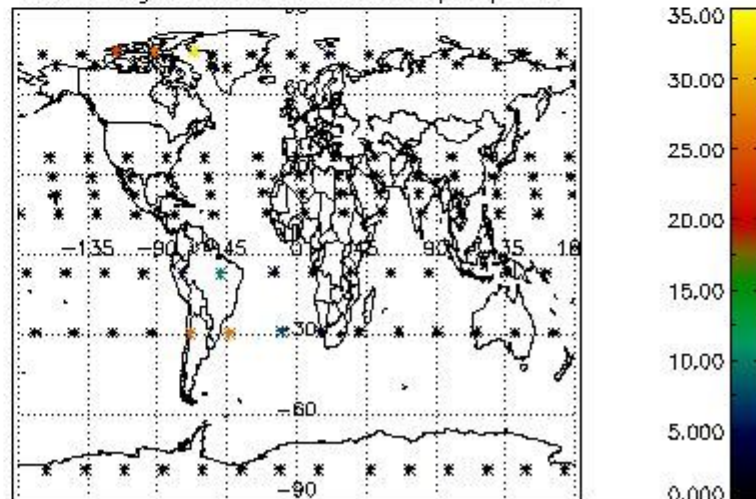
Percentage of datation errors per profile



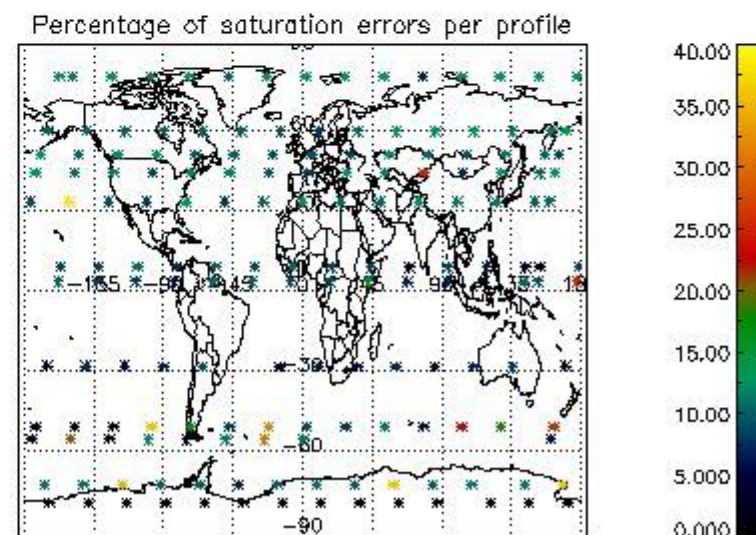
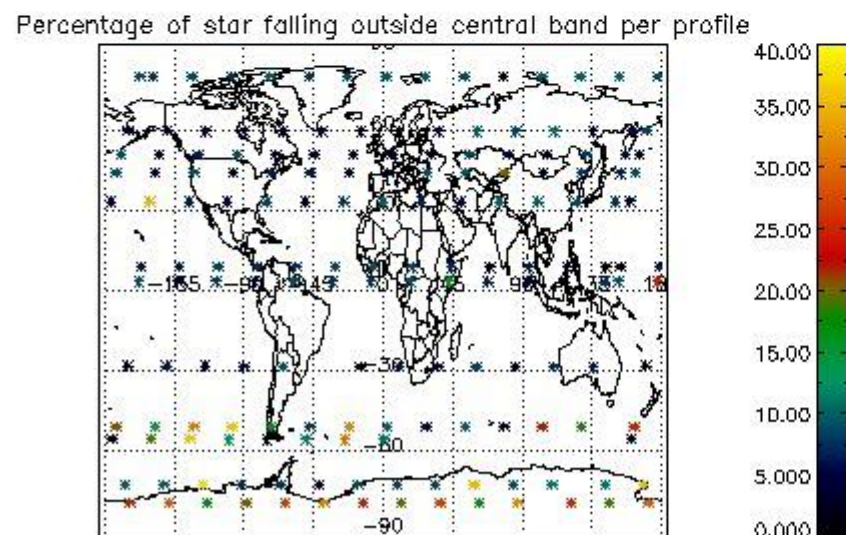
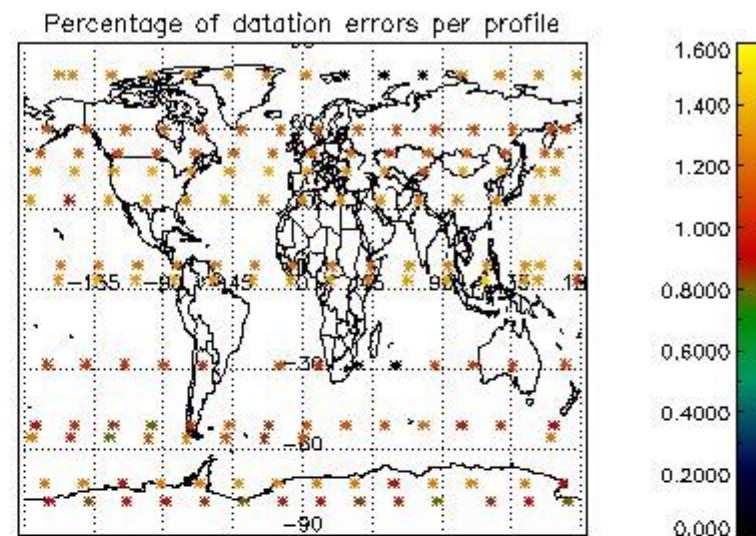
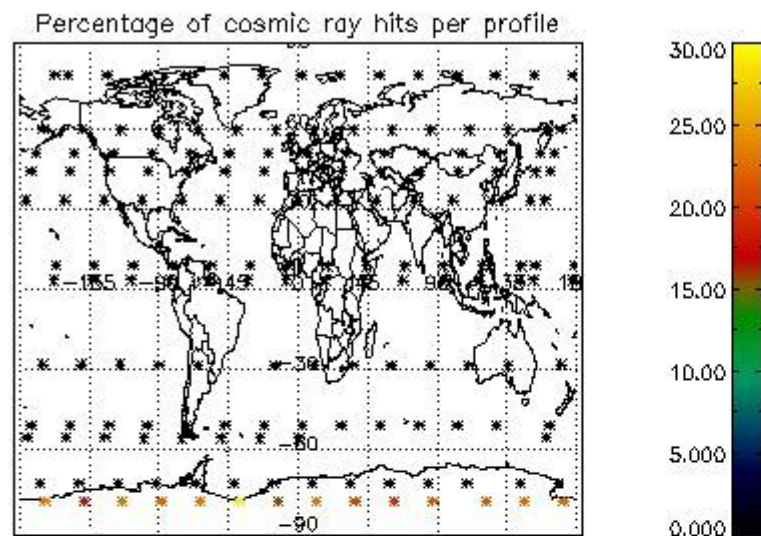
Percentage of star falling outside central band per profile



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

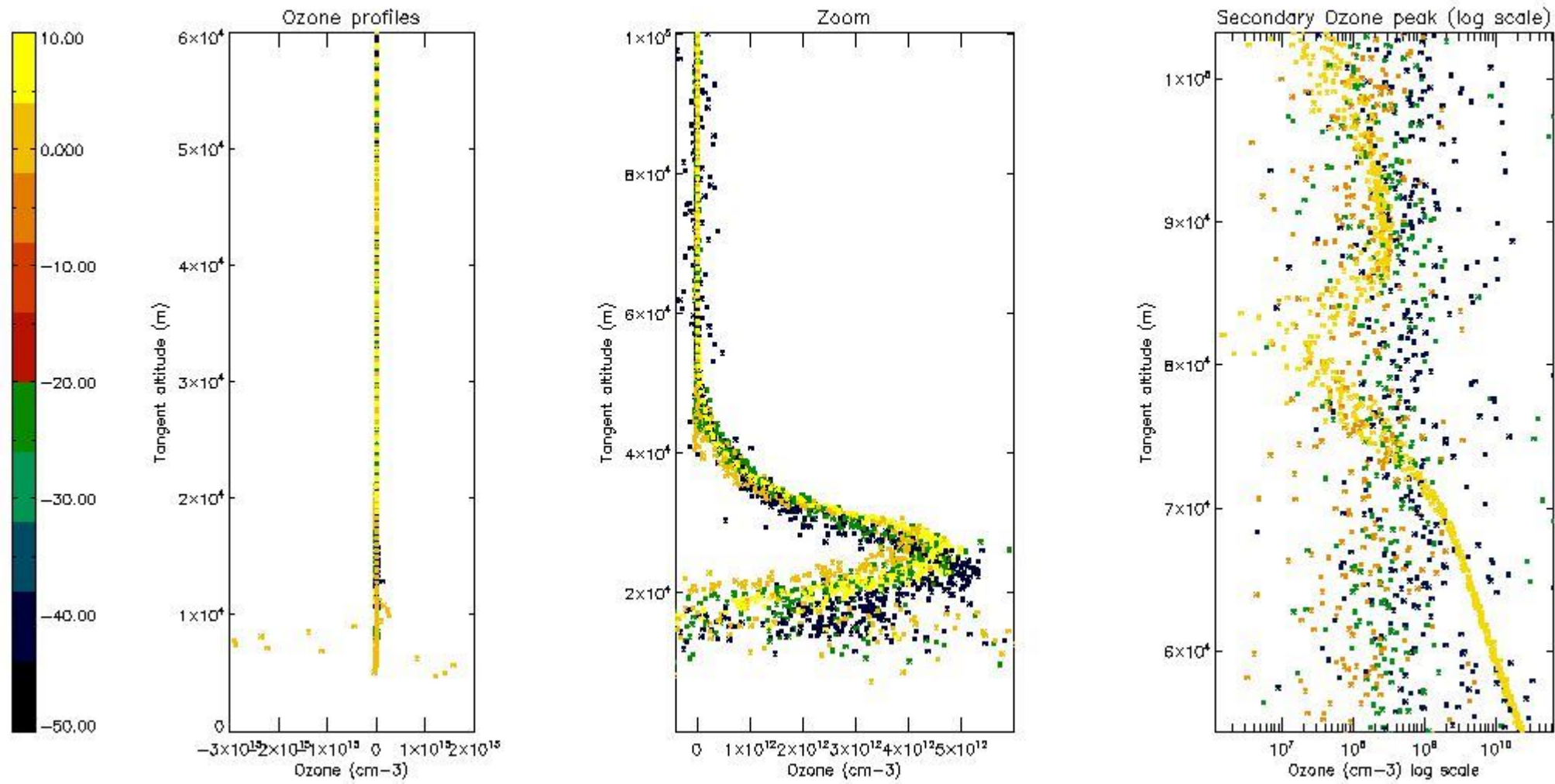
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	22
STD < 20	7

STD < 10	5
STD < 5	3

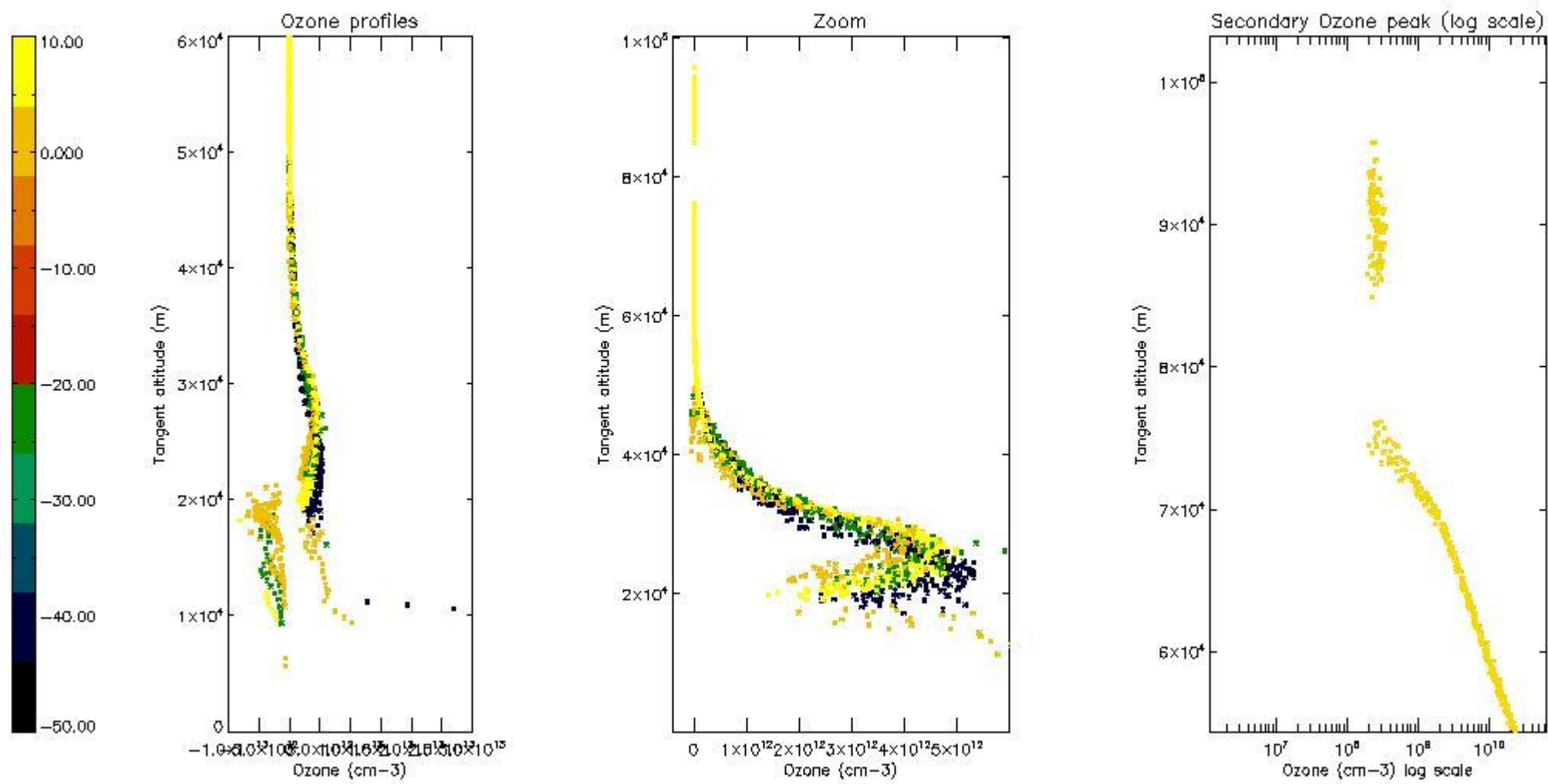
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



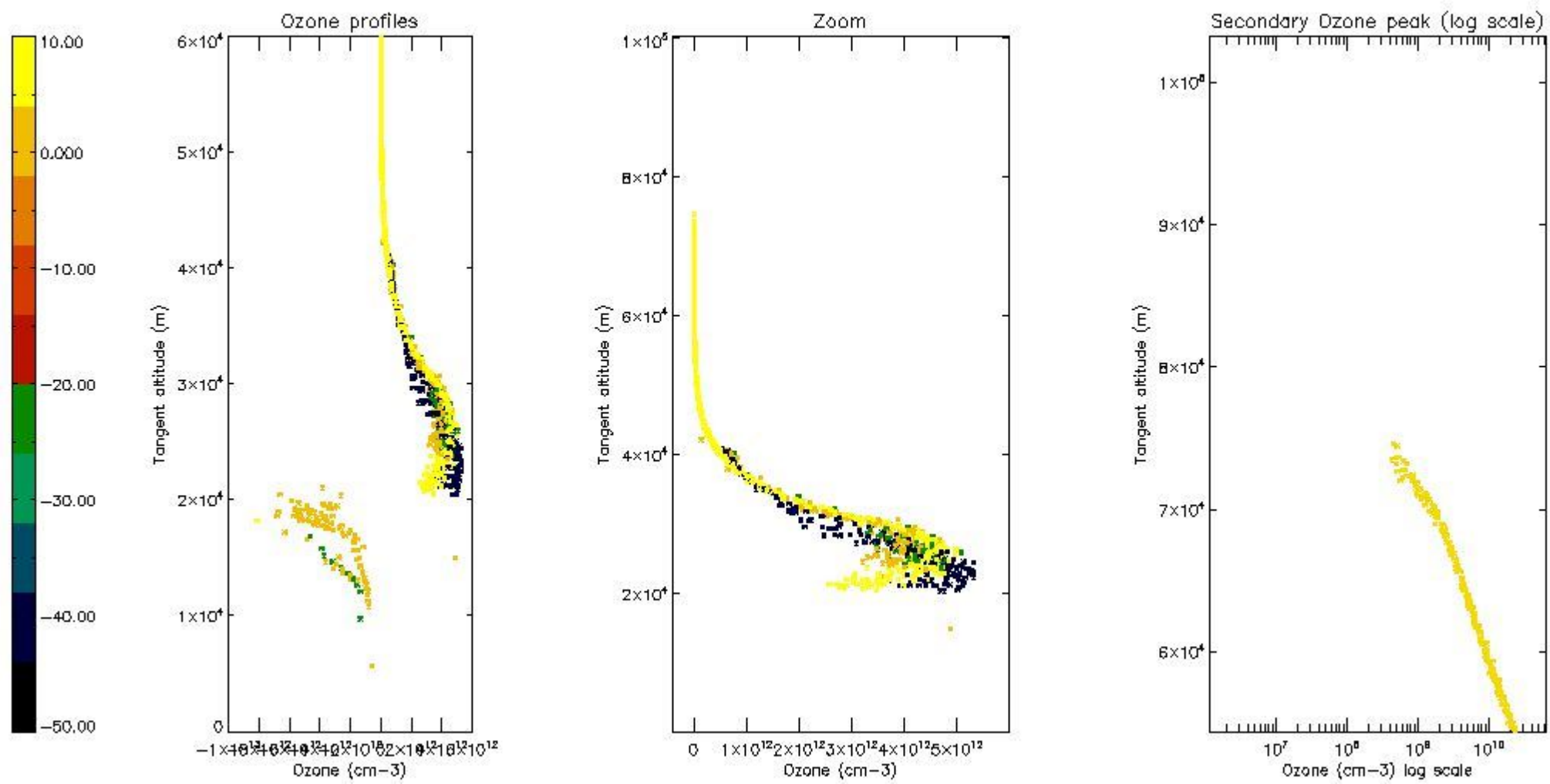
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



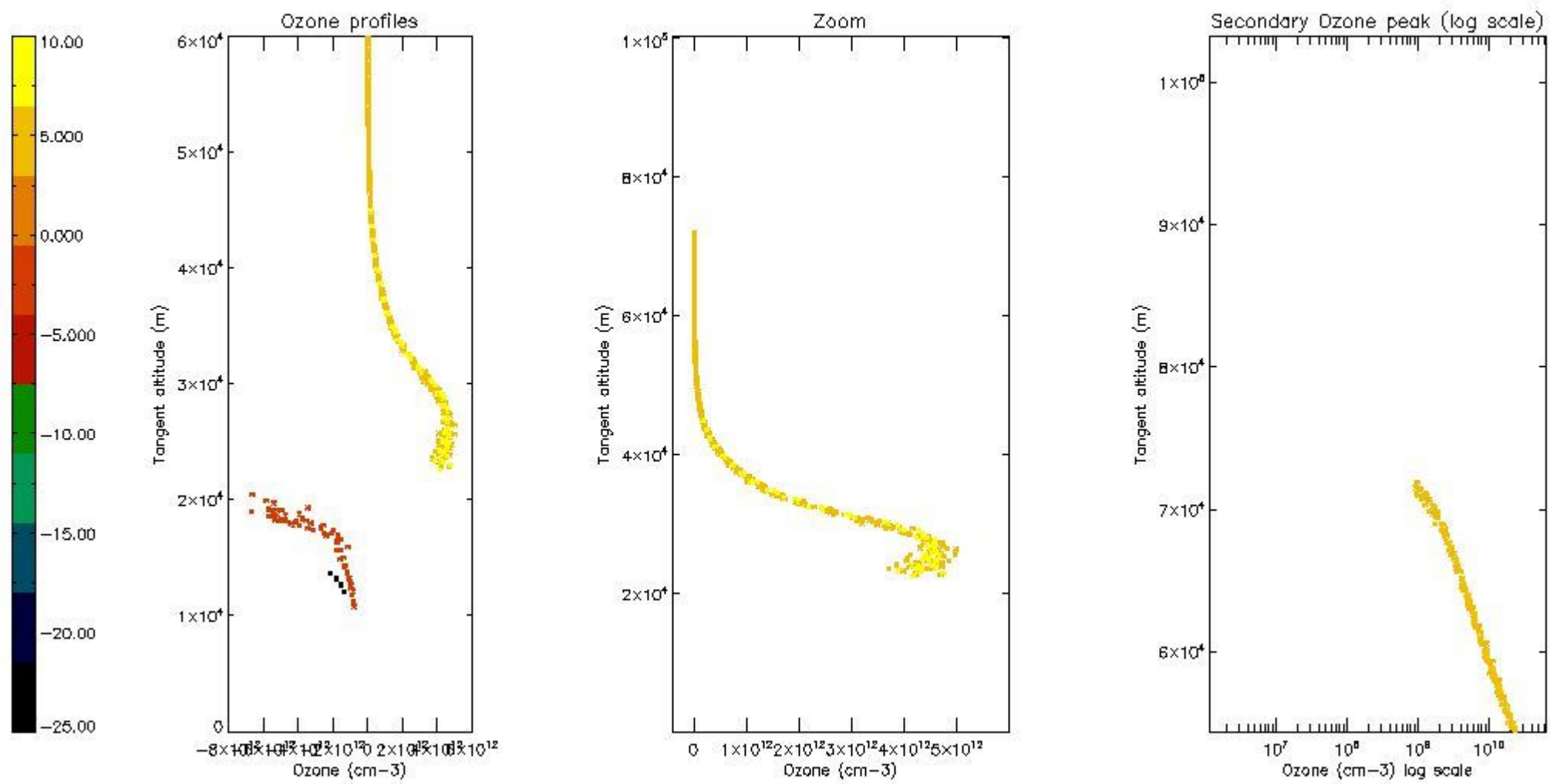
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



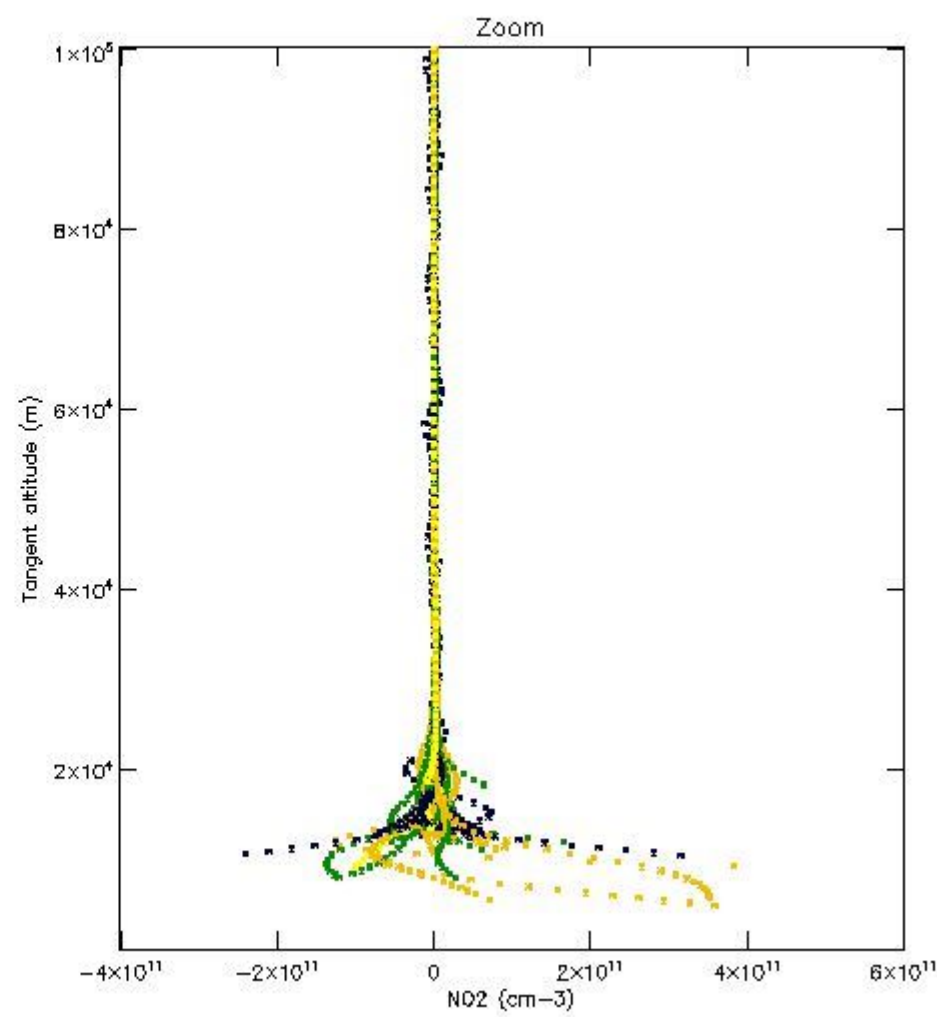
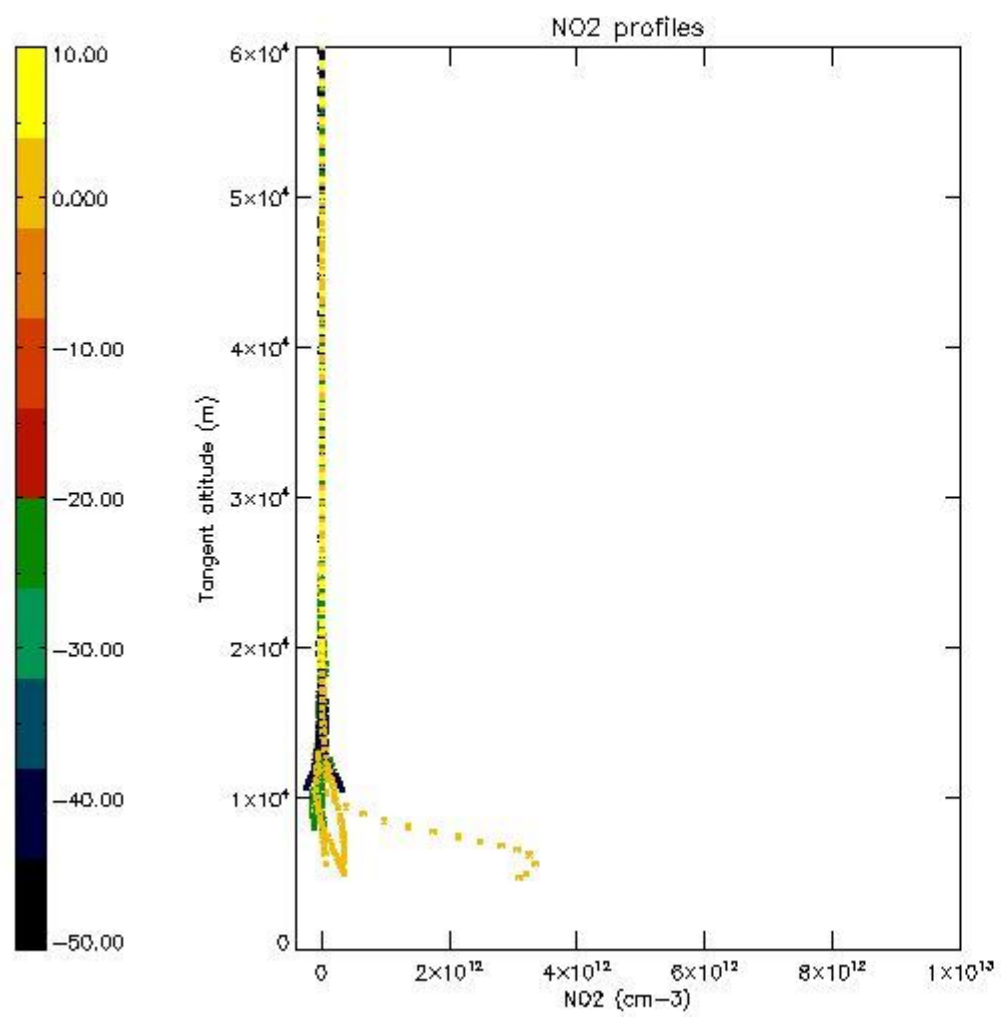
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



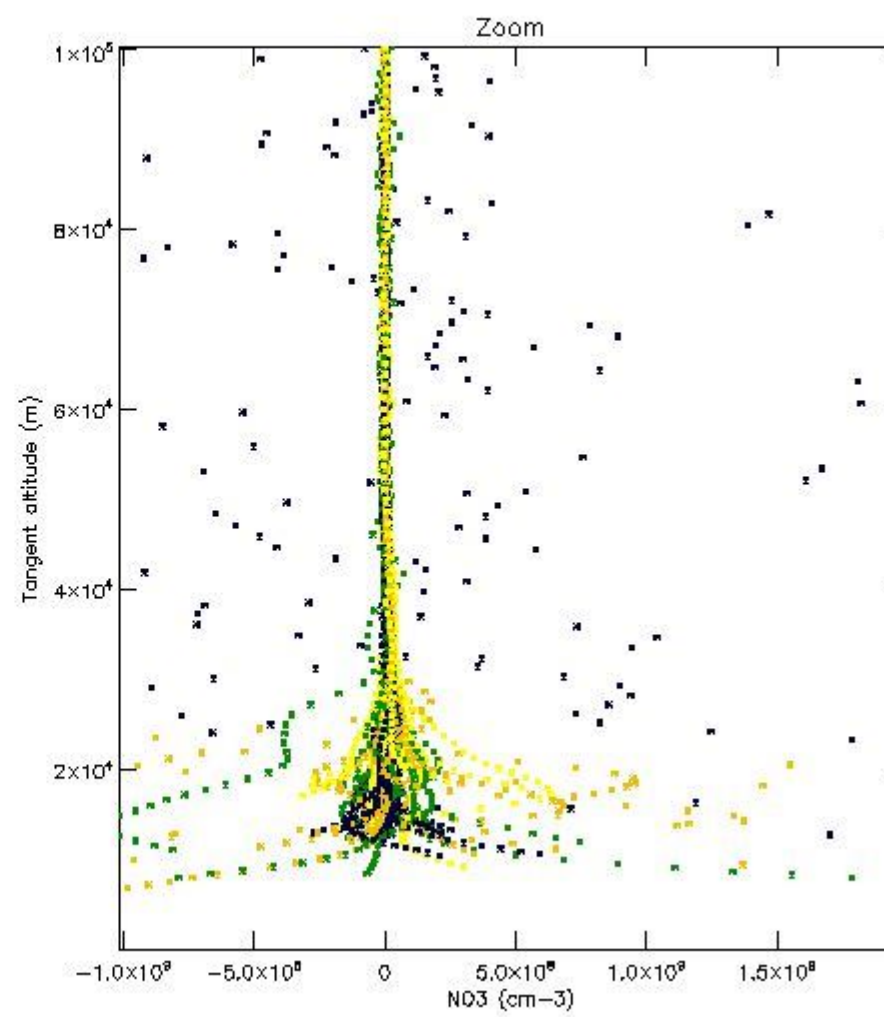
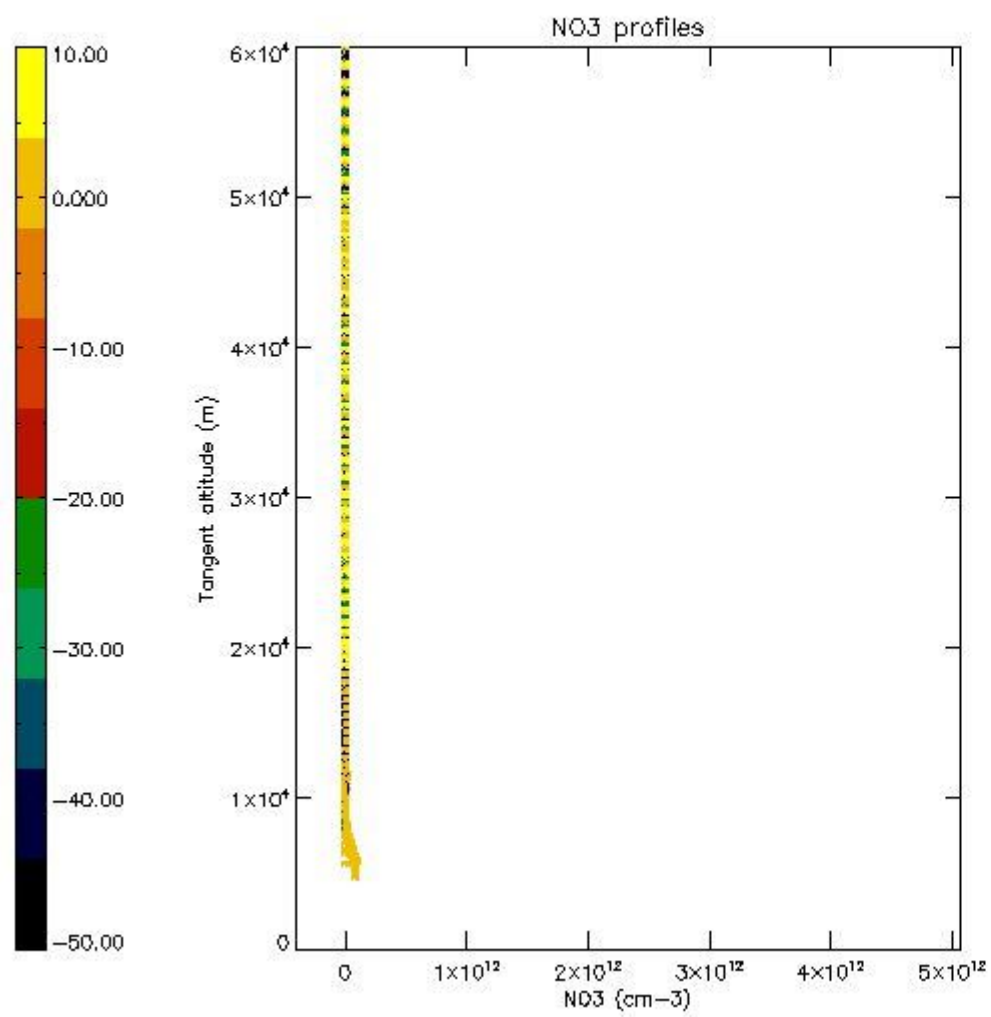
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



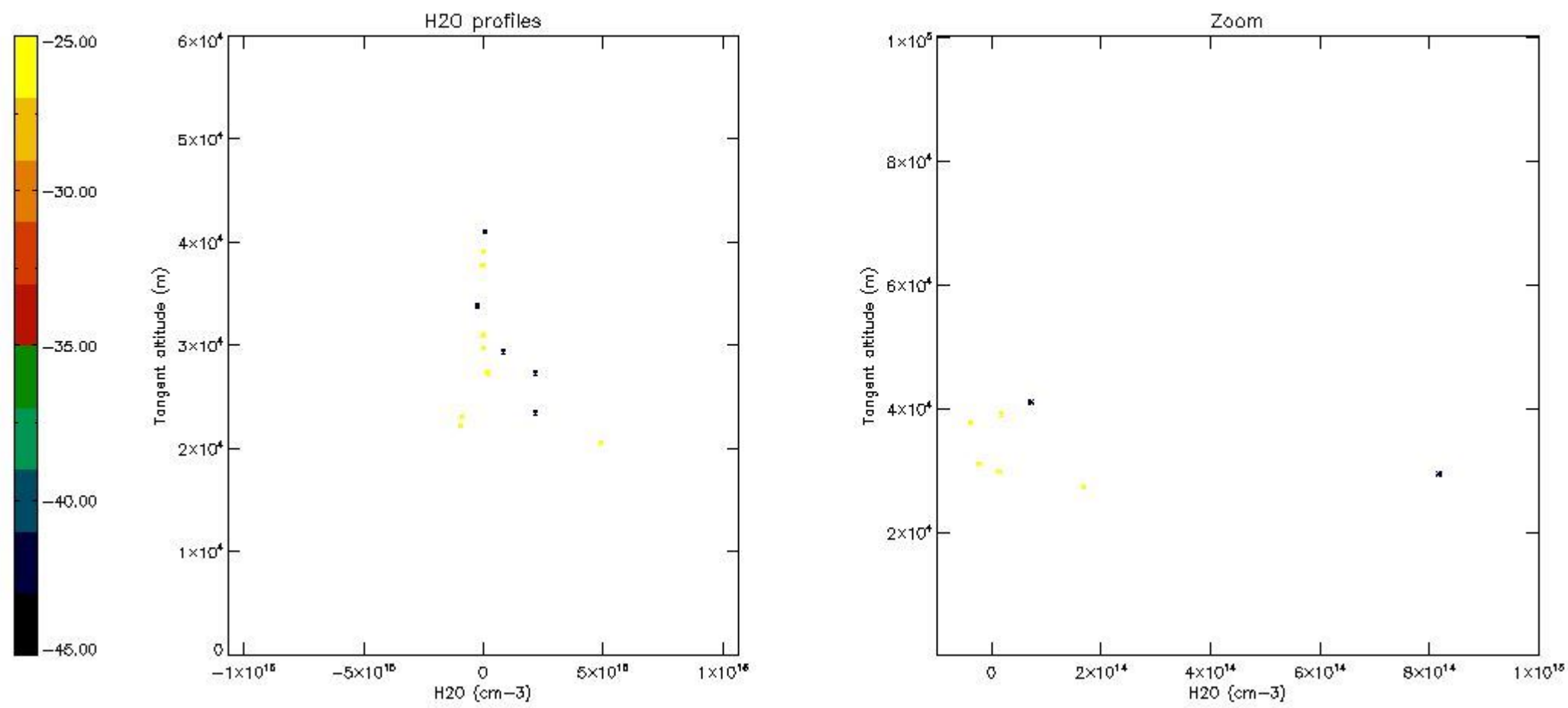
5.7 Plot NO3 profiles for all STD (dark without errors)

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	14-JUN-2011 00:06:03
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	14-JUN-2011 00:06:03
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	14-JUN-2011 00:06:03

GOMOS Level 2 Daily Report

SUMMARY

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

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

Item	Value
Time of report generation	24APR2013 14:44:50
Data source version	GOMOS/6.01
Start time of products	14-06-2011 (14JUN2011 00:00:00)
Stop time of products	15-06-2011 (15JUN2011 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	297
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

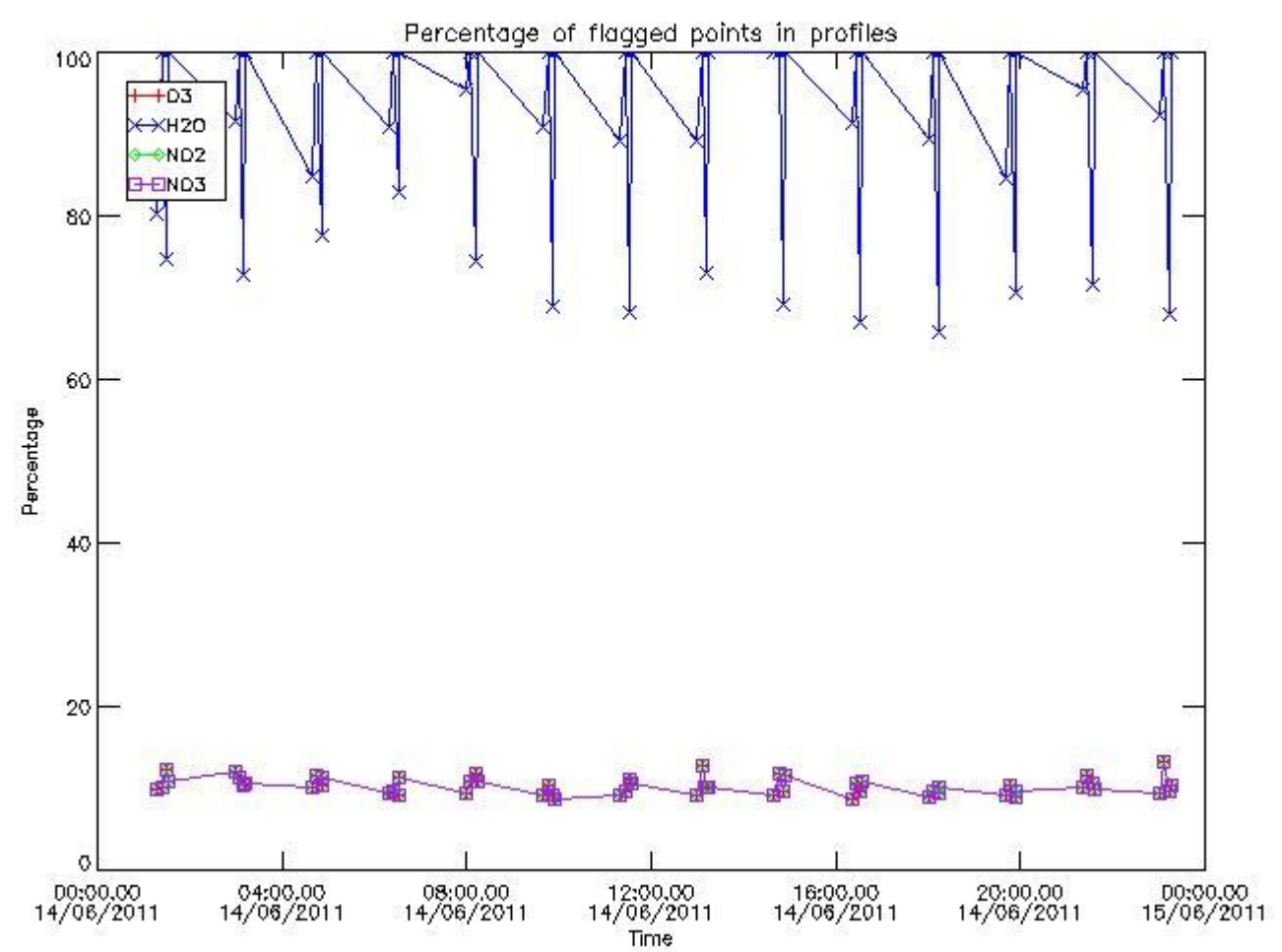
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20110614_000603_000000453103_00275_48565_3978.N1	14-JUN-2011 00:06:03	Twilight	44.500	25	35Lam Sco	1.6200	28000.	89	48565	No
2	GOM_NL__2PRFIN20110614_000746_000000653103_00275_48565_3979.N1	14-JUN-2011 00:07:46	Bright	65.000	57	34Sig Sgr	2.0660	26000.	130	48565	No
3	GOM_NL__2PRFIN20110614_001239_000000403103_00275_48565_3980.N1	14-JUN-2011 00:12:39	Bright	40.000	86	35Eta Oph	2.4300	10200.	80	48565	No
4	GOM_NL__2PRFIN20110614_001917_000000453103_00275_48565_3981.N1	14-JUN-2011 00:19:17	Bright	45.000	126	60Bet Oph	2.7700	4250.0	90	48565	No
5	GOM_NL__2PRFIN20110614_002148_000000443103_00275_48565_3982.N1	14-JUN-2011 00:21:48	Bright	44.000	59	55Alp Oph	2.0800	8900.0	88	48565	No
6	GOM_NL__2PRFIN20110614_002343_000000383103_00275_48565_3983.N1	14-JUN-2011 00:23:43	Bright	38.000	127	27Bet Her	2.7810	4700.0	76	48565	No
7	GOM_NL__2PRFIN20110614_002646_000000393103_00275_48565_3984.N1	14-JUN-2011 00:26:46	Bright	39.000	133	40Zet Her	2.8070	6000.0	78	48565	No
8	GOM_NL__2PRFIN20110614_003337_000000393103_00275_48565_3985.N1	14-JUN-2011 00:33:37	Bright	39.000	130	23Bet Dra	2.7990	5800.0	78	48565	No
9	GOM_NL__2PRFIN20110614_003506_000000393103_00275_48565_3986.N1	14-JUN-2011 00:35:06	Bright	38.500	119	14Eta Dra	2.7270	4700.0	77	48565	No
10	GOM_NL__2PRFIN20110614_004402_000000493103_00275_48565_3987.N1	14-JUN-2011 00:44:02	Bright	48.500	89	5Alp Cep	2.4510	8000.0	97	48565	No
11	GOM_NL__2PRFIN20110614_005021_000000503103_00275_48565_3988.N1	14-JUN-2011 00:50:21	Bright	49.500	74	11Bet Cas	2.2680	6600.0	99	48565	No
12	GOM_NL__2PRFIN20110614_005646_000000413103_00275_48565_3989.N1	14-JUN-2011 00:56:46	Bright	40.500	73	57Gam1And	2.2600	13100.	81	48565	No
13	GOM_NL__2PRFIN20110614_005906_000000633103_00275_48565_3990.N1	14-JUN-2011 00:59:06	Twilight	63.000	53	43Bet And	2.0480	3300.0	126	48565	No
14	GOM_NL__2PRFIN20110614_010233_000000503103_00275_48565_3991.N1	14-JUN-2011 01:02:33	Twilight	49.500	50	13Alp Ari	2.0070	4250.0	99	48565	No
15	GOM_NL__2PRFIN20110614_011759_000000563103_00275_48565_3992.N1	14-JUN-2011 01:17:59	Dark	56.000	52	16Bet Cet	2.0370	4500.0	112	48565	No
16	GOM_NL__2PRFIN20110614_012415_000000503103_00275_48565_3993.N1	14-JUN-2011 01:24:15	Dark	50.000	84	Alp Phe	2.3970	4500.0	100	48565	No
17	GOM_NL__2PRFIN20110614_013024_000000663103_00276_48566_3985.N1	14-JUN-2011 01:30:24	Dark	65.500	63	Bet Gru	2.1500	2800.0	131	48566	No
18	GOM_NL__2PRFIN20110614_013226_000000483103_00276_48566_3986.N1	14-JUN-2011 01:32:26	Dark	47.500	31	Alp Gru	1.7340	15200.	95	48566	No
19	GOM_NL__2PRFIN20110614_013414_000000573103_00276_48566_3987.N1	14-JUN-2011 01:34:14	Straylight	56.500	172	Gam Gru	3.0030	13100.	113	48566	No
20	GOM_NL__2PRFIN20110614_013622_000000433103_00276_48566_3988.N1	14-JUN-2011 01:36:22	Straylight	42.500	45	Alp Pav	1.9400	26000.	85	48566	No
21	GOM_NL__2PRFIN20110614_014617_000000453103_00276_48566_3989.N1	14-JUN-2011 01:46:17	Twilight	44.500	25	35Lam Sco	1.6200	28000.	89	48566	No
22	GOM_NL__2PRFIN20110614_014800_000000603103_00276_48566_3990.N1	14-JUN-2011 01:48:00	Bright	59.500	57	34Sig Sgr	2.0660	26000.	119	48566	No
23	GOM_NL__2PRFIN20110614_015253_000000403103_00276_48566_3991.N1	14-JUN-2011 01:52:53	Bright	40.000	86	35Eta Oph	2.4300	10200.	80	48566	No
24	GOM_NL__2PRFIN20110614_015931_000000453103_00276_48566_3992.N1	14-JUN-2011 01:59:31	Bright	45.000	126	60Bet Oph	2.7700	4250.0	90	48566	No
25	GOM_NL__2PRFIN20110614_020202_000000463103_00276_48566_3993.N1	14-JUN-2011 02:02:02	Bright	45.500	59	55Alp Oph	2.0800	8900.0	91	48566	No
26	GOM_NL__2PRFIN20110614_020357_000000393103_00276_48566_3994.N1	14-JUN-2011 02:03:57	Bright	39.000	127	27Bet Her	2.7810	4700.0	78	48566	No
27	GOM_NL__2PRFIN20110614_020700_000000403103_00276_48566_3995.N1	14-JUN-2011 02:07:00	Bright	40.000	133	40Zet Her	2.8070	6000.0	80	48566	No
28	GOM_NL__2PRFIN20110614_021350_000000393103_00276_48566_3996.N1	14-JUN-2011 02:13:50	Bright	39.000	130	23Bet Dra	2.7990	5800.0	78	48566	No
29	GOM_NL__2PRFIN20110614_021520_000000343103_00276_48566_3997.N1	14-JUN-2011 02:15:20	Bright	34.000	119	14Eta Dra	2.7270	4700.0	68	48566	No
30	GOM_NL__2PRFIN20110614_022415_000000493103_00276_48566_3998.N1	14-JUN-2011 02:24:15	Bright	48.500	89	5Alp Cep	2.4510	8000.0	97	48566	No
31	GOM_NL__2PRFIN20110614_023034_000000533103_00276_48566_3999.N1	14-JUN-2011 02:30:34	Bright	52.500	74	11Bet Cas	2.2680	6600.0	105	48566	No
32	GOM_NL__2PRFIN20110614_023700_000000403103_00276_48566_4000.N1	14-JUN-2011 02:37:00	Bright	40.000	73	57Gam1And	2.2600	13100.	80	48566	No
33	GOM_NL__2PRFIN20110614_023920_000000523103_00276_48566_4001.N1	14-JUN-2011 02:39:20	Twilight	51.500	53	43Bet And	2.0480	3300.0	103	48566	No
34	GOM_NL__2PRFIN20110614_024247_000000473103_00276_48566_4002.N1	14-JUN-2011 02:42:47	Twilight	46.500	50	13Alp Ari	2.0070	4250.0	93	48566	No
35	GOM_NL__2PRFIN20110614_025814_000000553103_00276_48566_4003.N1	14-JUN-2011 02:58:14	Dark	54.500	52	16Bet Cet	2.0370	4500.0	109	48566	No
36	GOM_NL__2PRFIN20110614_030430_000000493103_00276_48566_4004.N1	14-JUN-2011 03:04:30	Dark	49.000	84	Alp Phe	2.3970	4500.0	98	48566	No
37	GOM_NL__2PRFIN20110614_031039_000000543103_00277_48567_4005.N1	14-JUN-2011 03:10:39	Dark	53.500	63	Bet Gru	2.1500	2800.0	107	48567	No
38	GOM_NL__2PRFIN20110614_031241_000000483103_00277_48567_4006.N1	14-JUN-2011 03:12:41	Dark	48.000	31	Alp Gru	1.7340	15200.	96	48567	No
39	GOM_NL__2PRFIN20110614_031430_000000583103_00277_48567_4007.N1	14-JUN-2011 03:14:30	Straylight	58.000	172	Gam Gru	3.0030	13100.	116	48567	No
40	GOM_NL__2PRFIN20110614_031636_000000463103_00277_48567_4008.N1	14-JUN-2011 03:16:36	Straylight	46.000	45	Alp Pav	1.9400	26000.	92	48567	No
41	GOM_NL__2PRFIN20110614_032631_000000453103_00277_48567_4009.N1	14-JUN-2011 03:26:31	Twilight	44.500	25	35Lam Sco	1.6200	28000.	89	48567	No
42	GOM_NL__2PRFIN20110614_032814_000000573103_00277_48567_4010.N1	14-JUN-2011 03:28:14	Bright	56.500	57	34Sig Sgr	2.0660	26000.	113	48567	No

279	GOM_NL__2PRFIN20110614_223441_000000423103_00288_48578_4302.N1	14-JUN-2011 22:34:41	Bright	41.500	68	18Alp Cas	2.2250	4500.0	83	48578	No
280	GOM_NL__2PRFIN20110614_223949_000000413103_00288_48578_4303.N1	14-JUN-2011 22:39:49	Bright	40.500	73	57Gam1And	2.2600	13100.	81	48578	No
281	GOM_NL__2PRFIN20110614_224208_000000583103_00288_48578_4304.N1	14-JUN-2011 22:42:08	Twilight	58.000	53	43Bet And	2.0480	3300.0	116	48578	No
282	GOM_NL__2PRFIN20110614_224537_000000463103_00288_48578_4305.N1	14-JUN-2011 22:45:37	Twilight	46.000	50	13Alp Ari	2.0070	4250.0	92	48578	No
283	GOM_NL__2PRFIN20110614_230114_000000603103_00288_48578_4306.N1	14-JUN-2011 23:01:14	Dark	59.500	52	16Bet Cet	2.0370	4500.0	119	48578	No
284	GOM_NL__2PRFIN20110614_230727_000000433103_00288_48578_4307.N1	14-JUN-2011 23:07:27	Dark	42.500	84	Alp Phe	2.3970	4500.0	85	48578	No
285	GOM_NL__2PRFIN20110614_231338_000000633103_00289_48579_4297.N1	14-JUN-2011 23:13:38	Dark	63.000	63	Bet Gru	2.1500	2800.0	126	48579	No
286	GOM_NL__2PRFIN20110614_231541_000000493103_00289_48579_4298.N1	14-JUN-2011 23:15:41	Dark	49.000	31	Alp Gru	1.7340	15200.	98	48579	No
287	GOM_NL__2PRFIN20110614_231734_000000533103_00289_48579_4299.N1	14-JUN-2011 23:17:34	Straylight	53.000	172	Gam Gru	3.0030	13100.	106	48579	No
288	GOM_NL__2PRFIN20110614_231931_000000403103_00289_48579_4300.N1	14-JUN-2011 23:19:31	Straylight	40.000	45	Alp Pav	1.9400	26000.	80	48579	No
289	GOM_NL__2PRFIN20110614_232909_000000493103_00289_48579_4301.N1	14-JUN-2011 23:29:09	Twilight	48.500	38	20Eps Sgr	1.8360	11000.	97	48579	No
290	GOM_NL__2PRFIN20110614_233039_000000513103_00289_48579_4302.N1	14-JUN-2011 23:30:39	Twilight	50.500	116	19Del Sgr	2.7000	4100.0	101	48579	No
291	GOM_NL__2PRFIN20110614_233557_000000403103_00289_48579_4303.N1	14-JUN-2011 23:35:57	Bright	39.500	86	35Eta Oph	2.4300	10200.	79	48579	No
292	GOM_NL__2PRFIN20110614_234229_000000463103_00289_48579_4304.N1	14-JUN-2011 23:42:29	Bright	46.000	126	60Bet Oph	2.7700	4250.0	92	48579	No
293	GOM_NL__2PRFIN20110614_234500_000000433103_00289_48579_4305.N1	14-JUN-2011 23:45:00	Bright	42.500	59	55Alp Oph	2.0800	8900.0	85	48579	No
294	GOM_NL__2PRFIN20110614_234658_000000393103_00289_48579_4306.N1	14-JUN-2011 23:46:58	Bright	39.000	127	27Bet Her	2.7810	4700.0	78	48579	No
295	GOM_NL__2PRFIN20110614_234959_000000393103_00289_48579_4307.N1	14-JUN-2011 23:49:59	Bright	38.500	133	40Zet Her	2.8070	6000.0	77	48579	No
296	GOM_NL__2PRFIN20110614_235647_000000383103_00289_48579_4308.N1	14-JUN-2011 23:56:47	Bright	37.500	130	23Bet Dra	2.7990	5800.0	75	48579	No
297	GOM_NL__2PRFIN20110614_235819_000000393103_00289_48579_4309.N1	14-JUN-2011 23:58:19	Bright	38.500	119	14Eta Dra	2.7270	4700.0	77	48579	No

3. Quality information per product

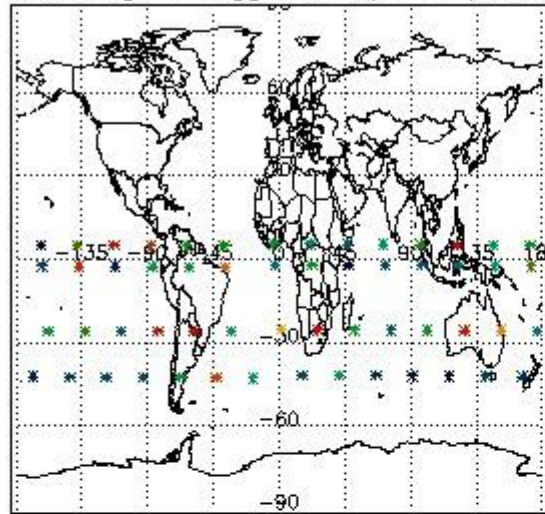
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

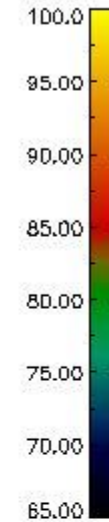
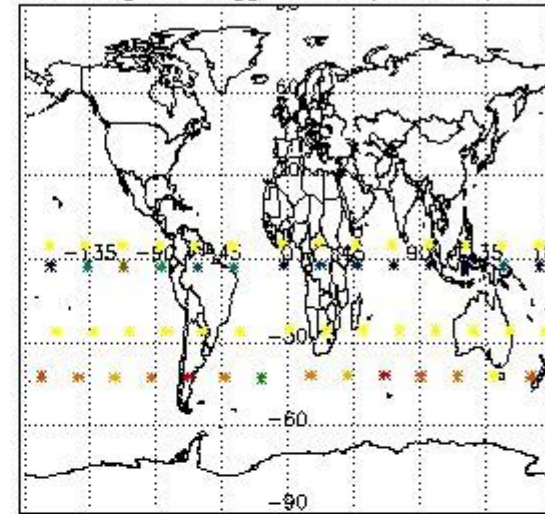


3.2 Plot quality information per product (world map)

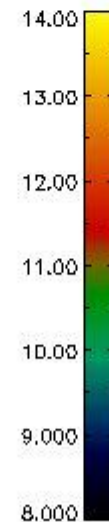
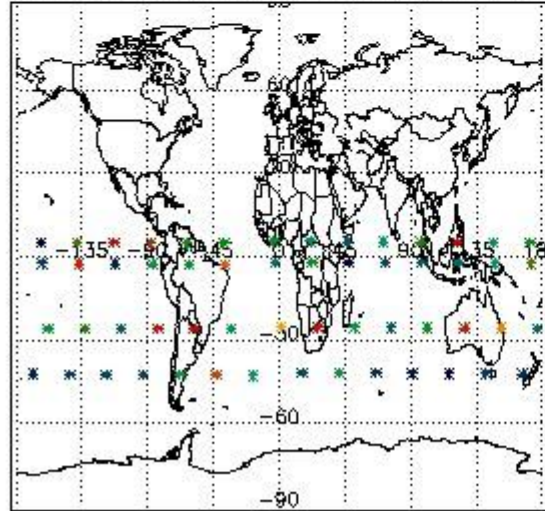
Percentage of flagged data per O3 profile



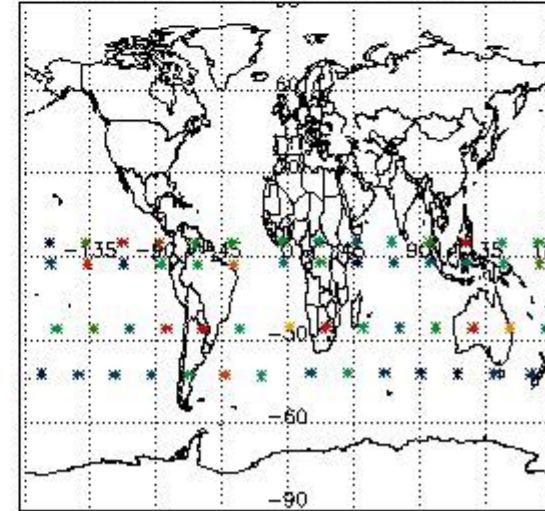
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

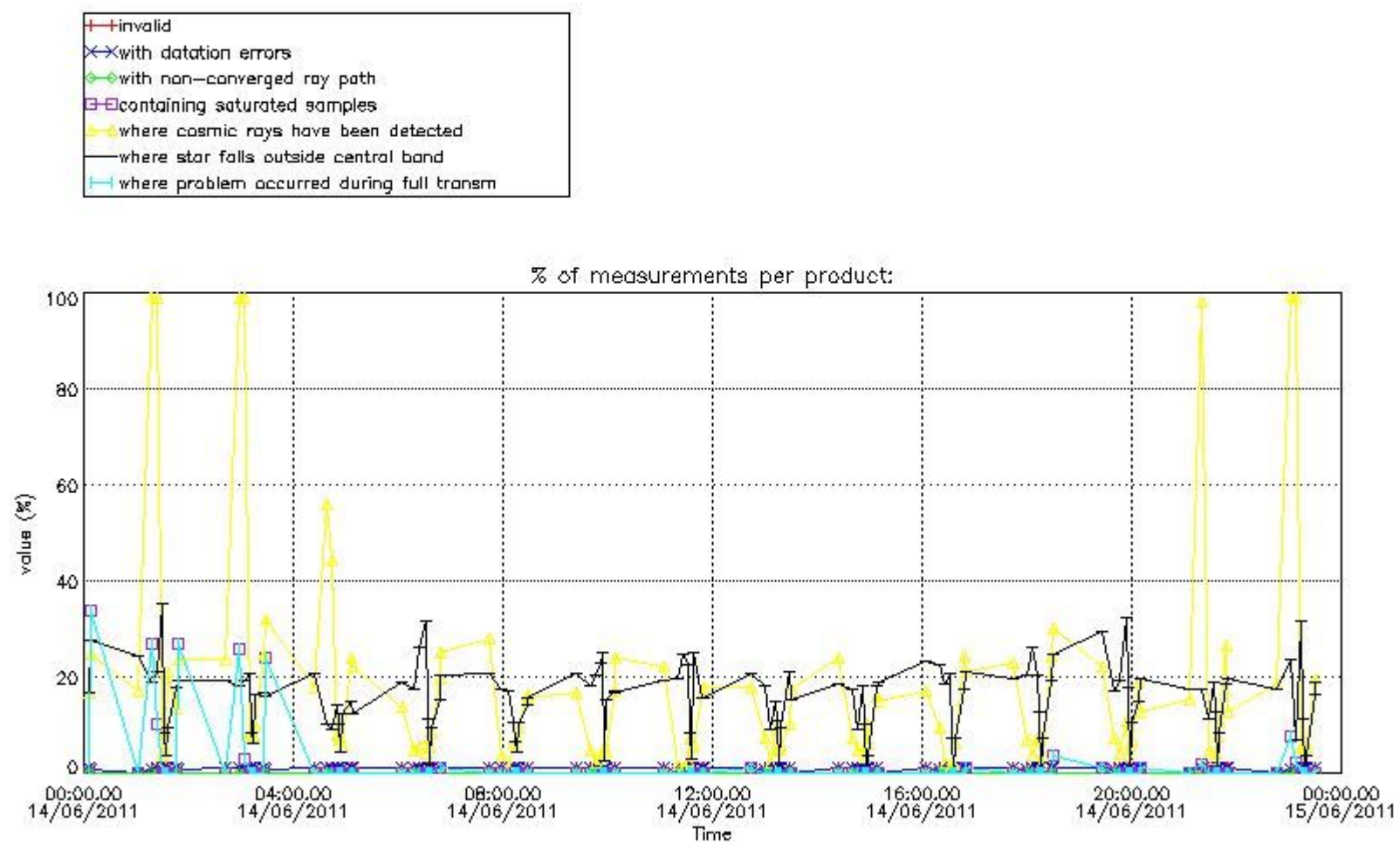


4. Level 1 quality information per product

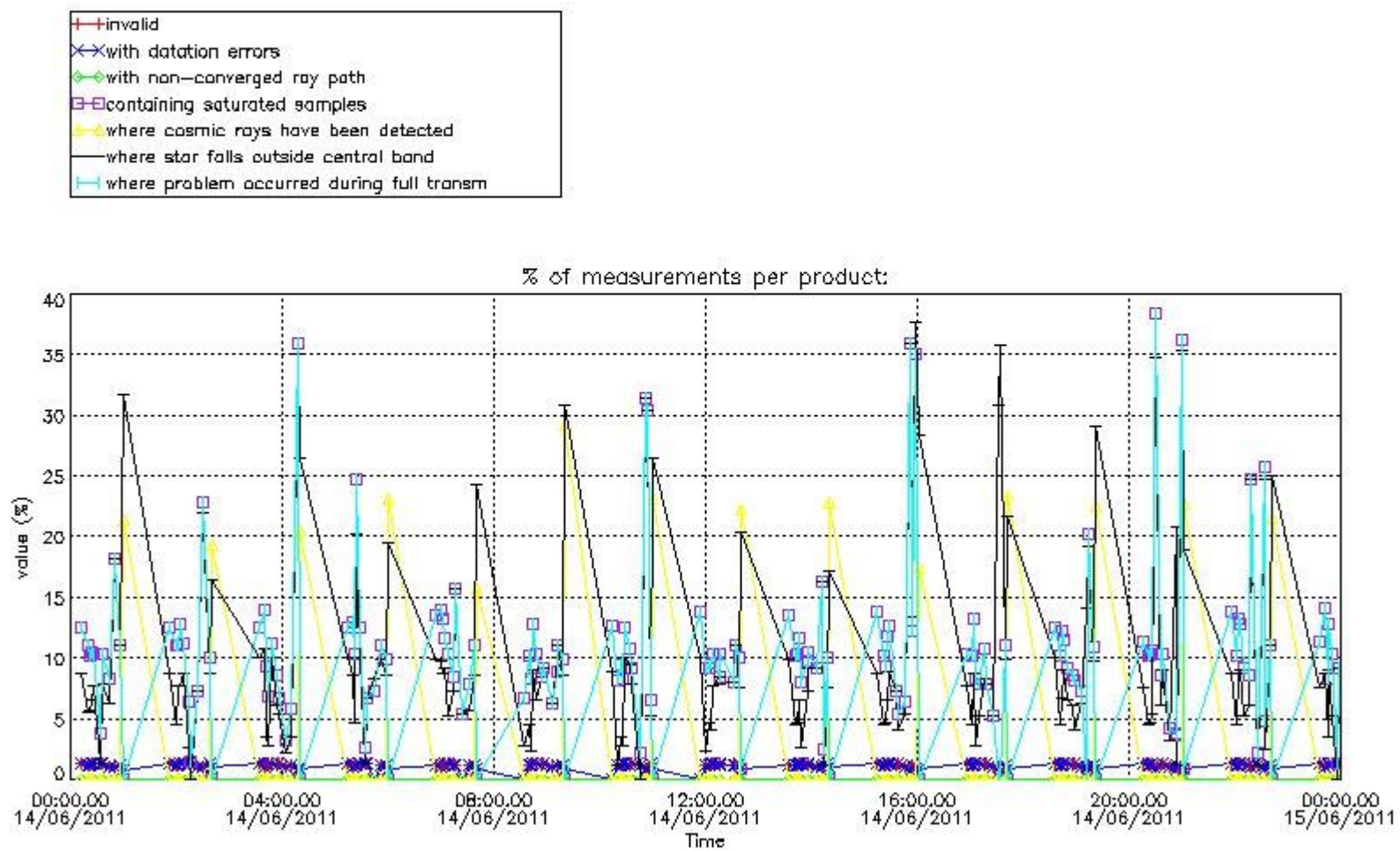
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



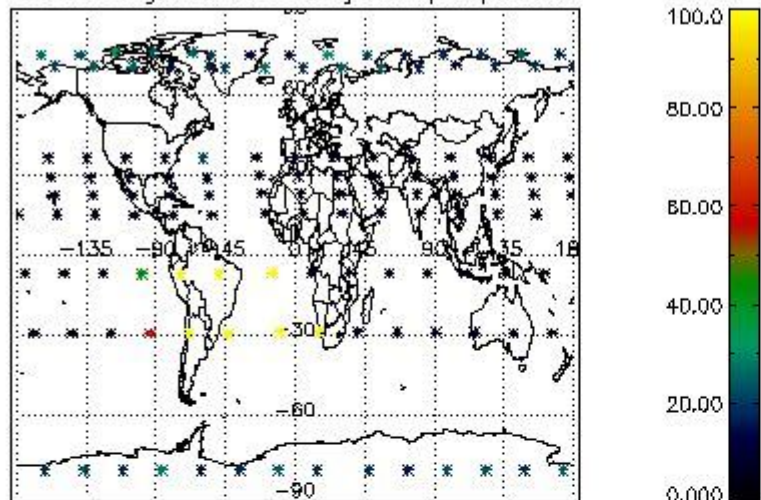
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



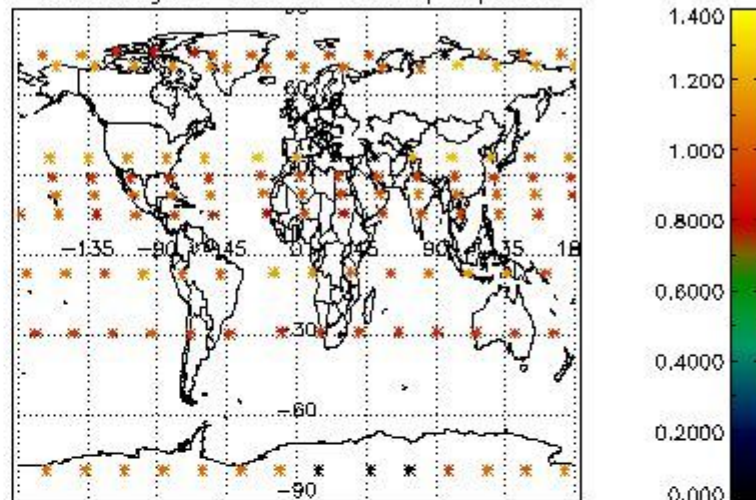
4.2 Plot quality information per product coming from level 1b processing (world map)

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

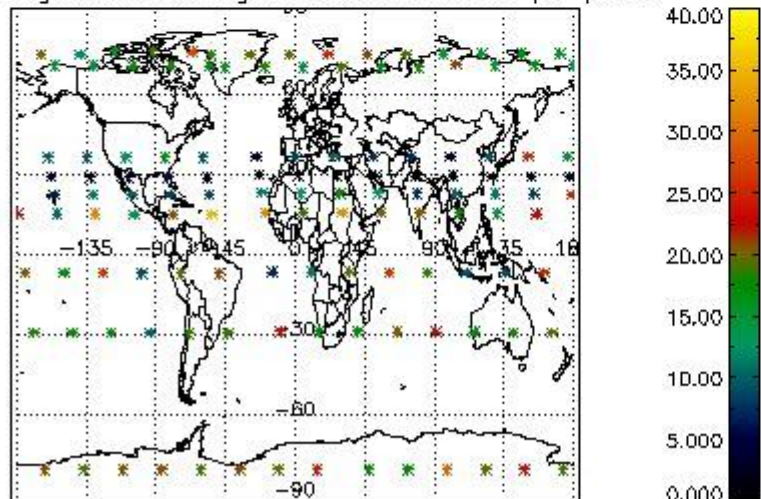
Percentage of cosmic ray hits per profile



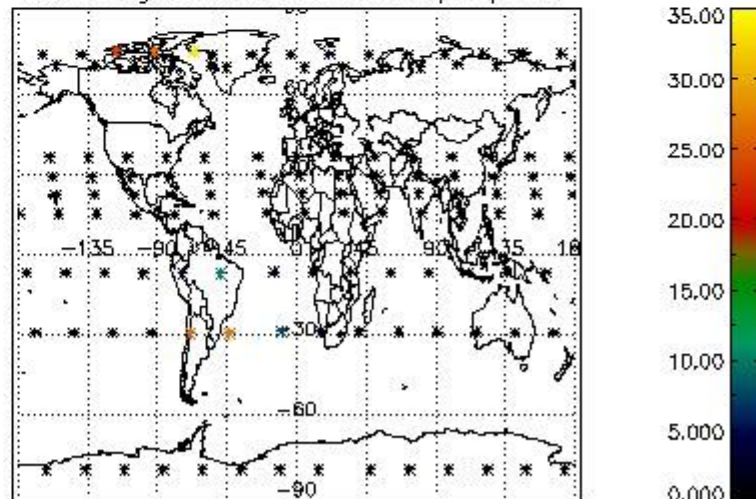
Percentage of datation errors per profile



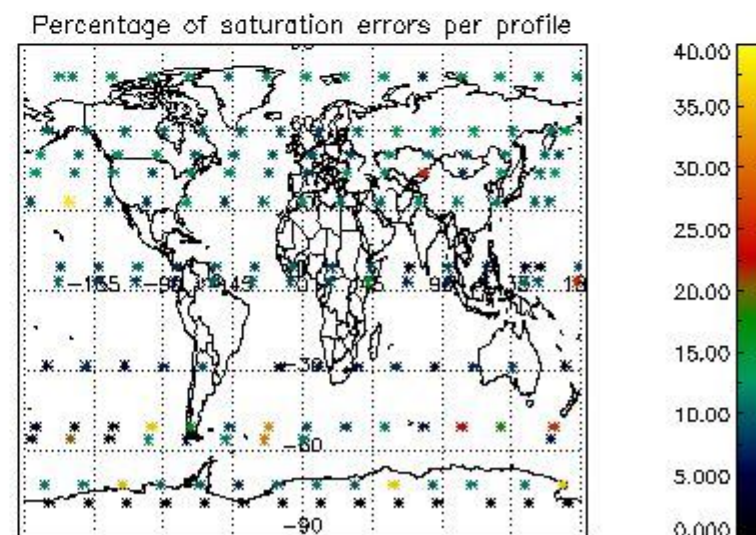
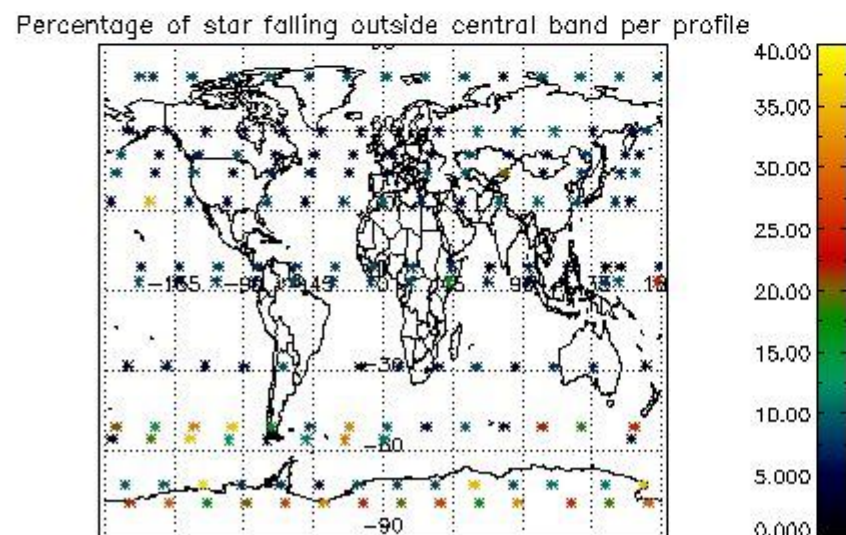
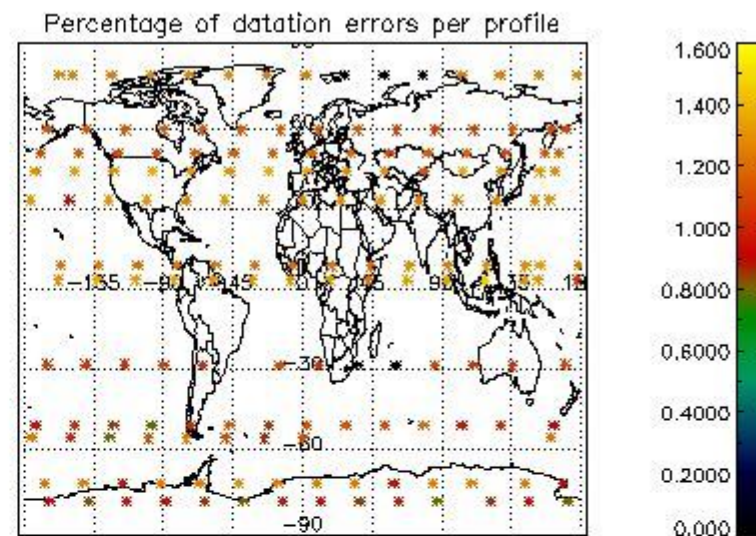
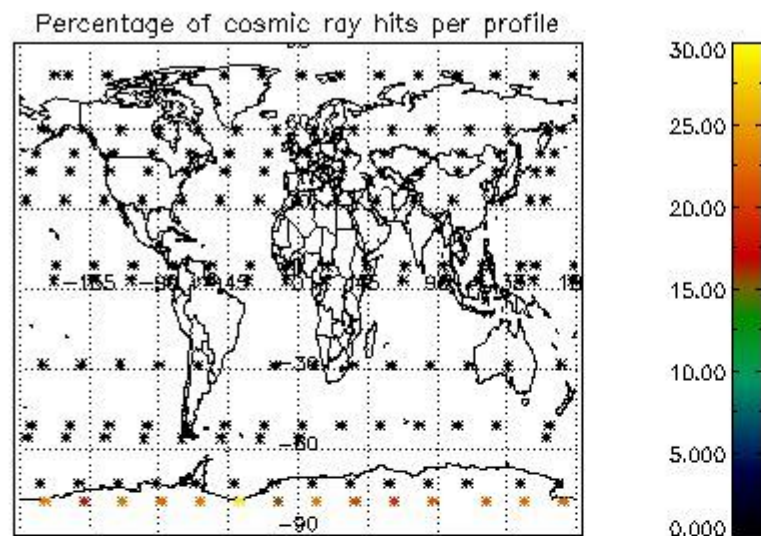
Percentage of star falling outside central band per profile



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

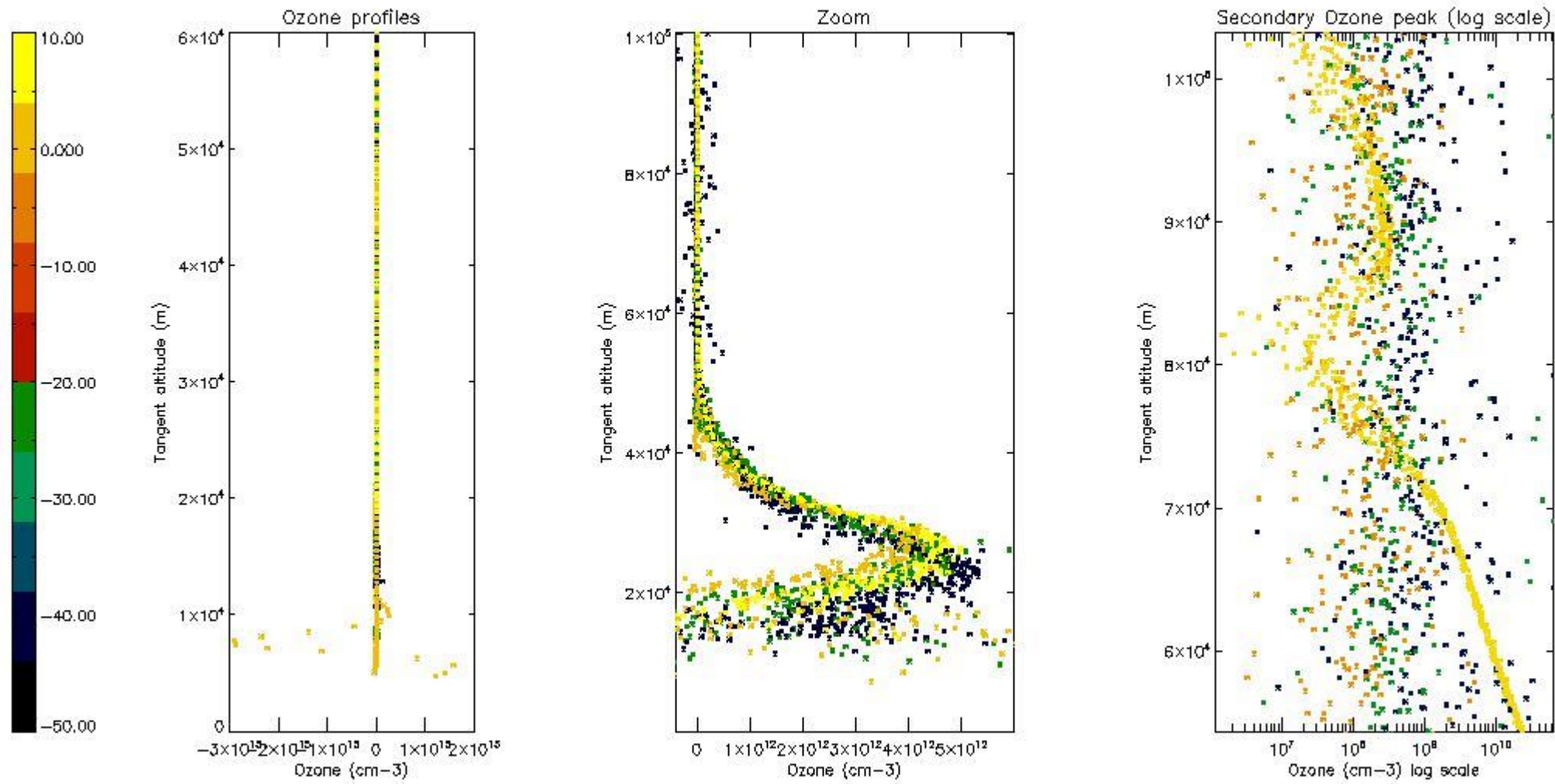
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	22
STD < 20	7

STD < 10	5
STD < 5	3

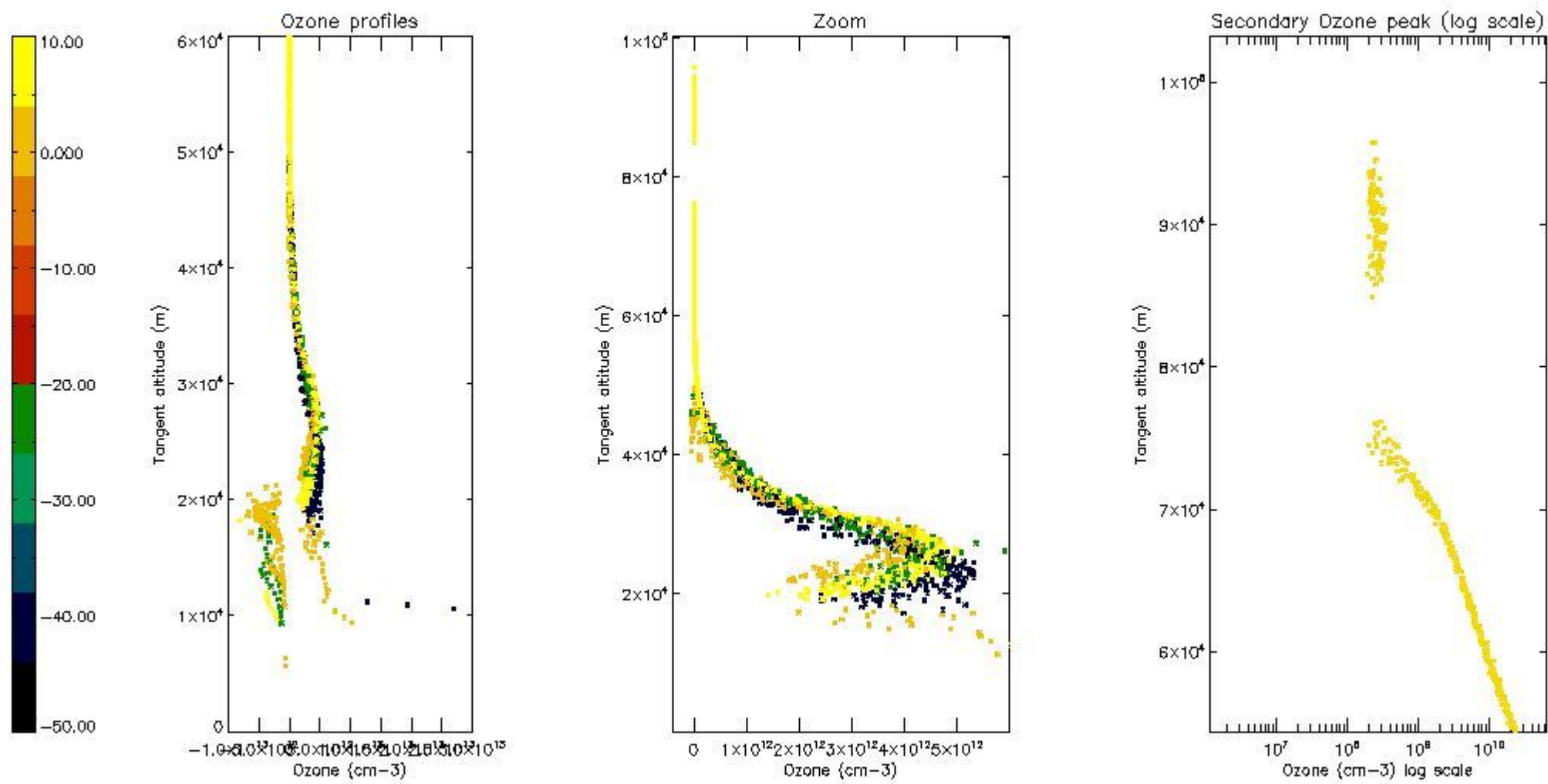
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



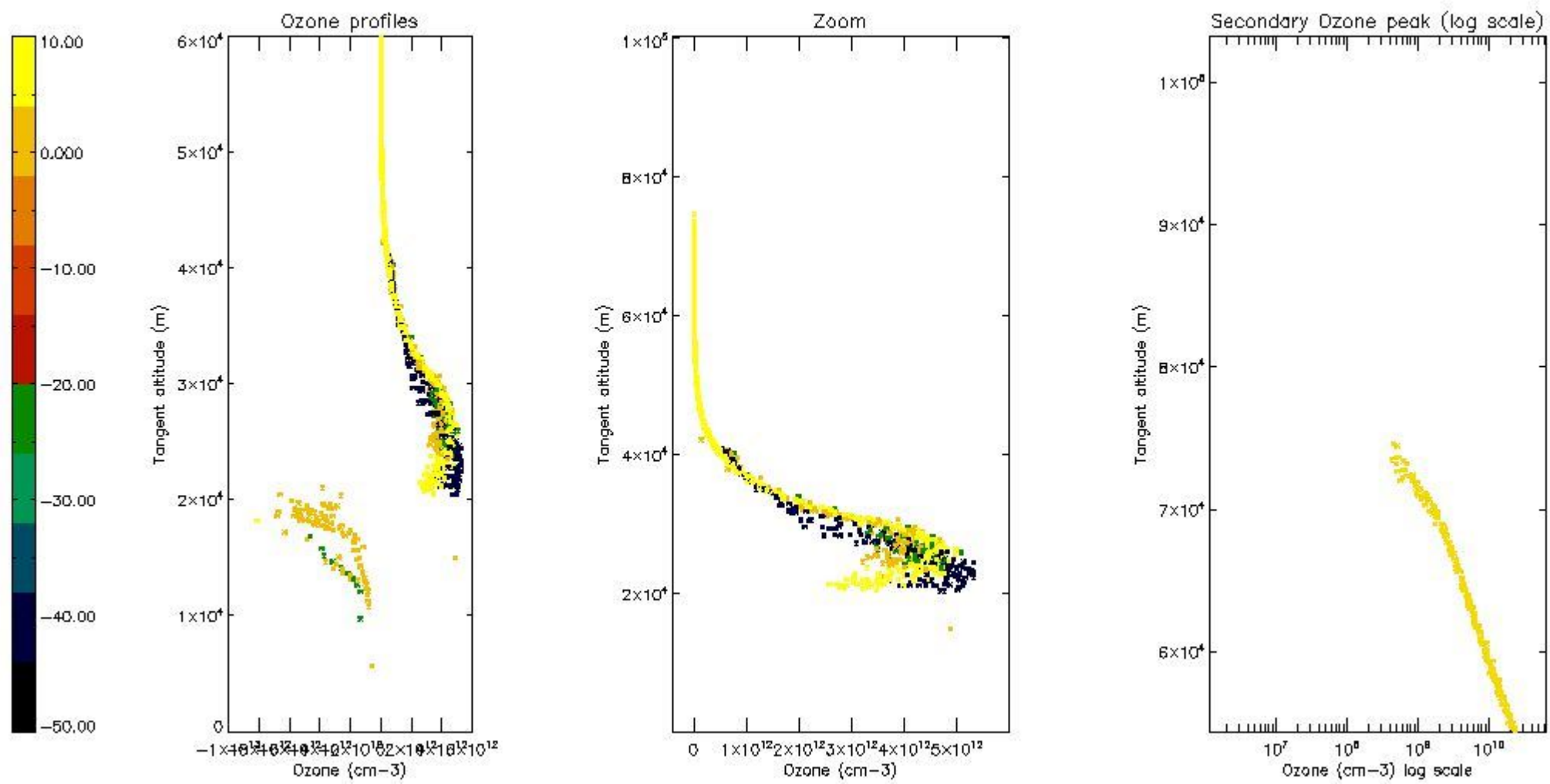
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



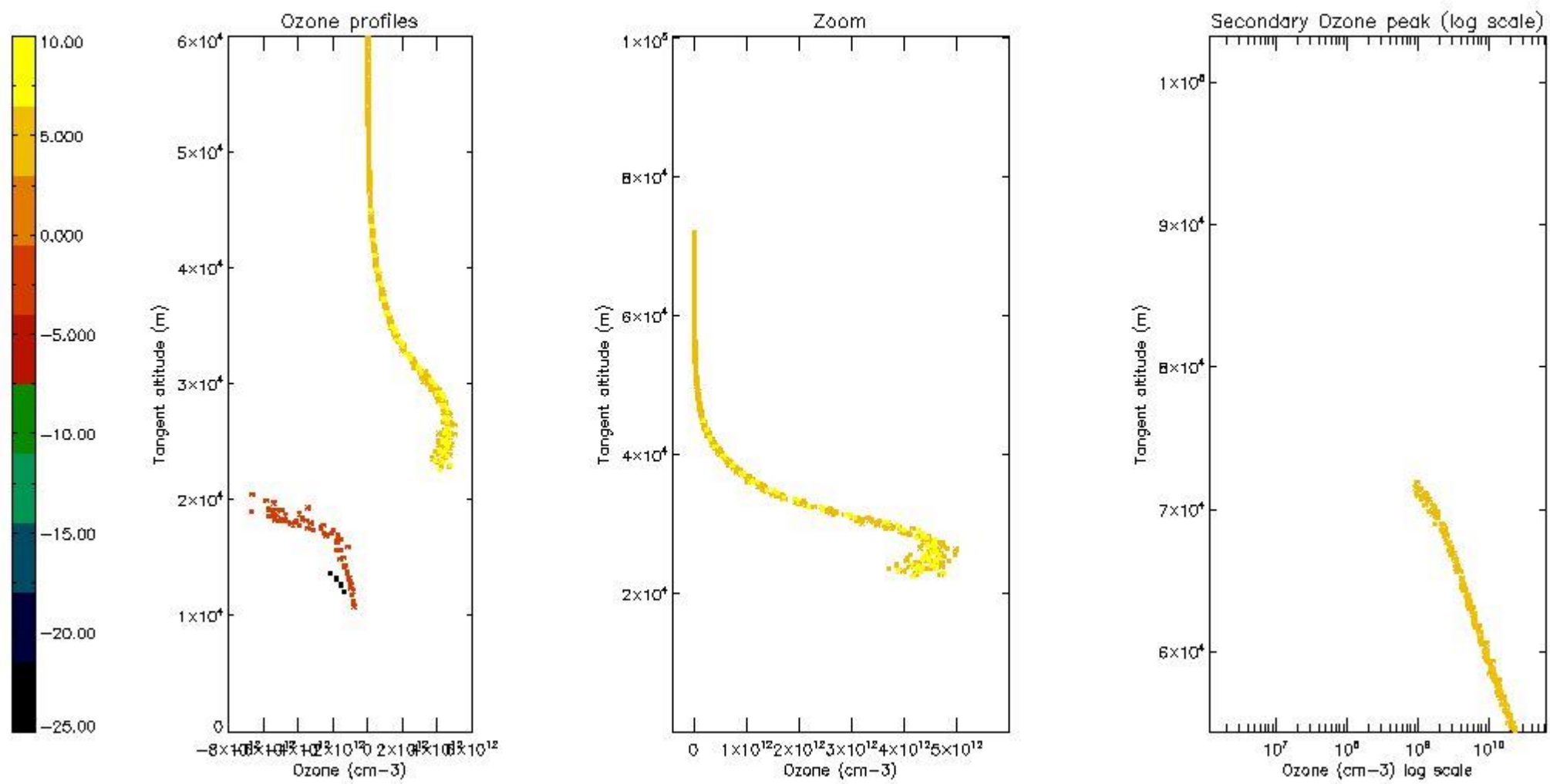
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



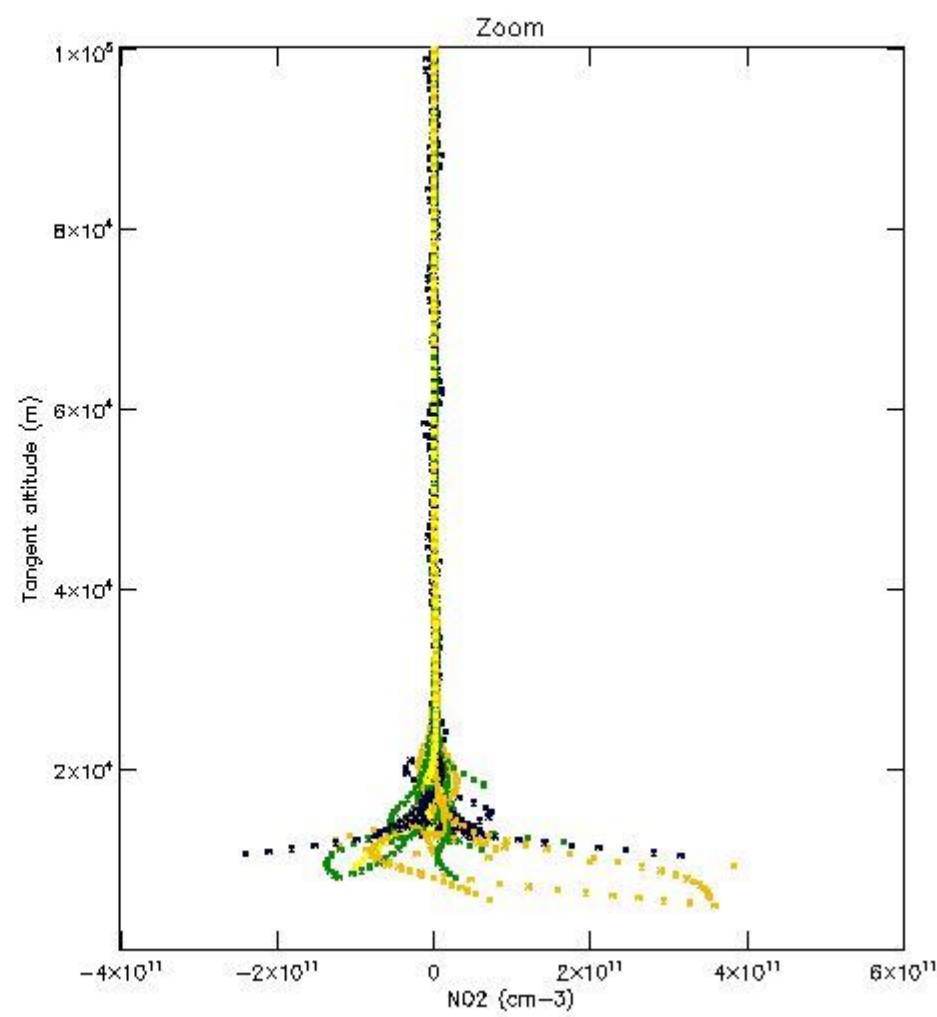
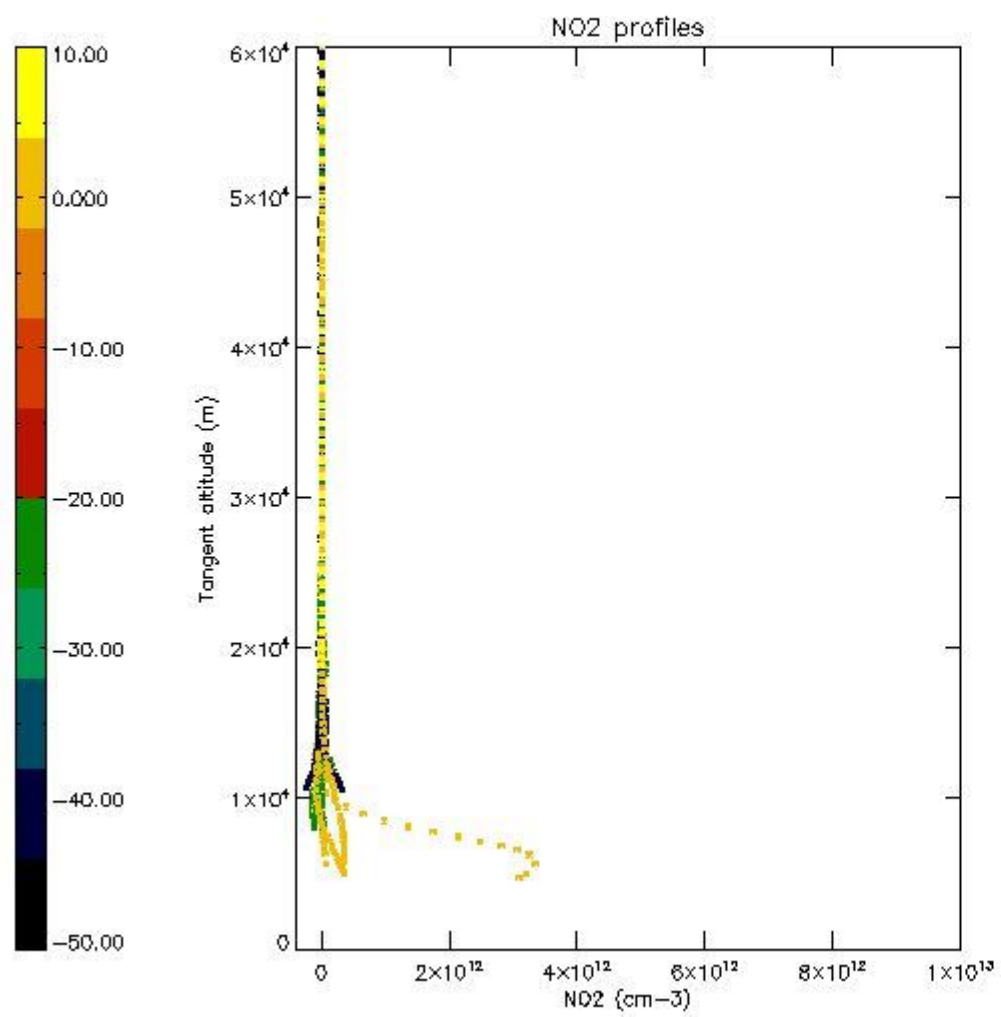
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



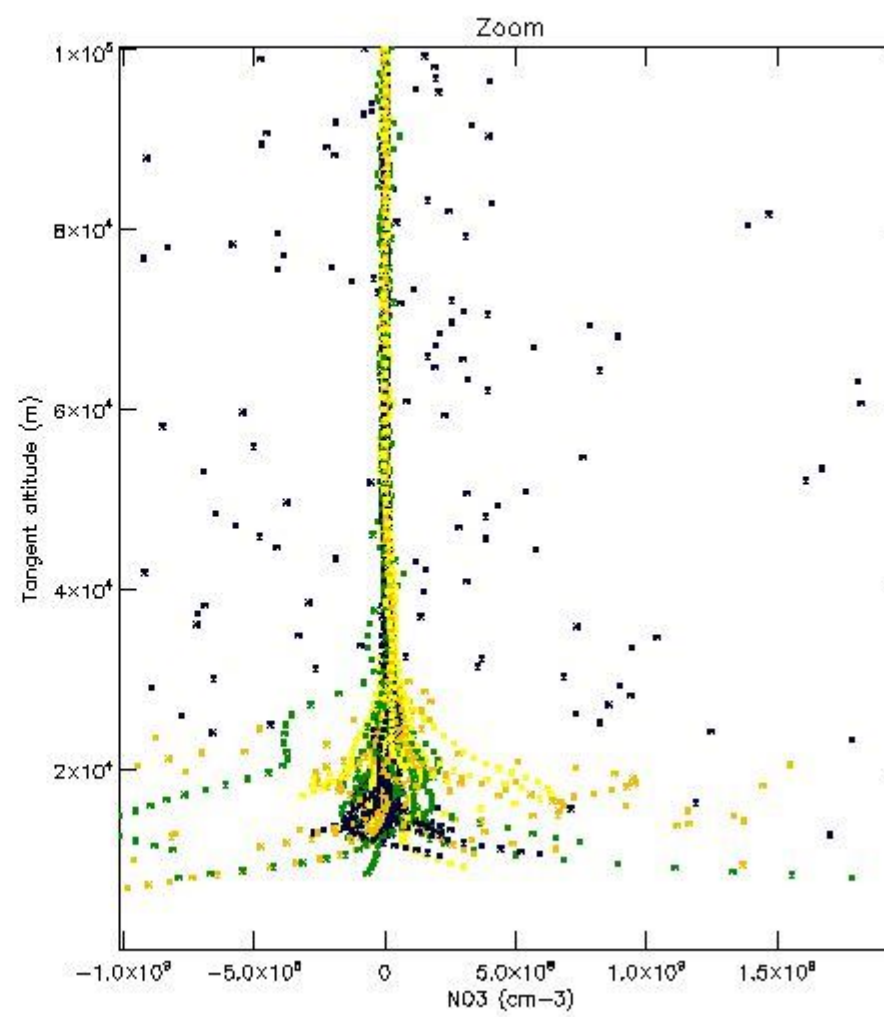
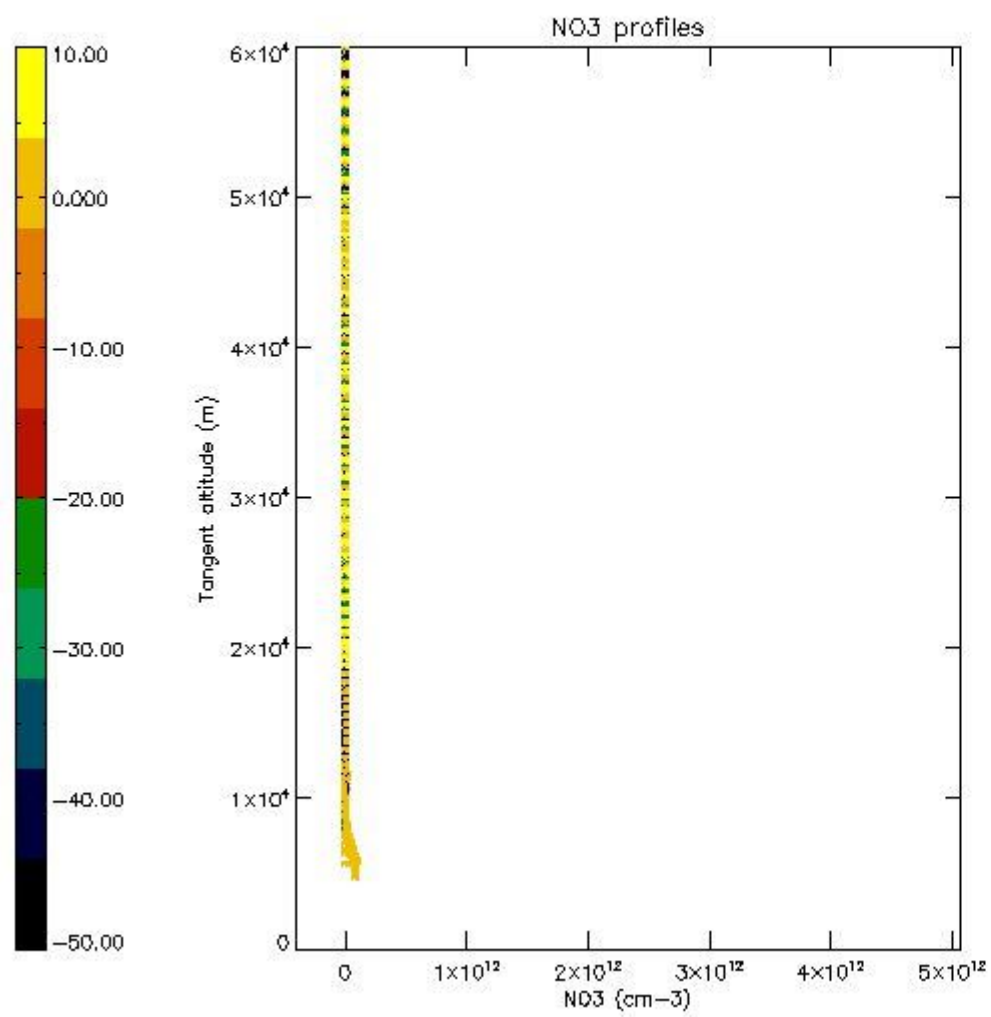
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



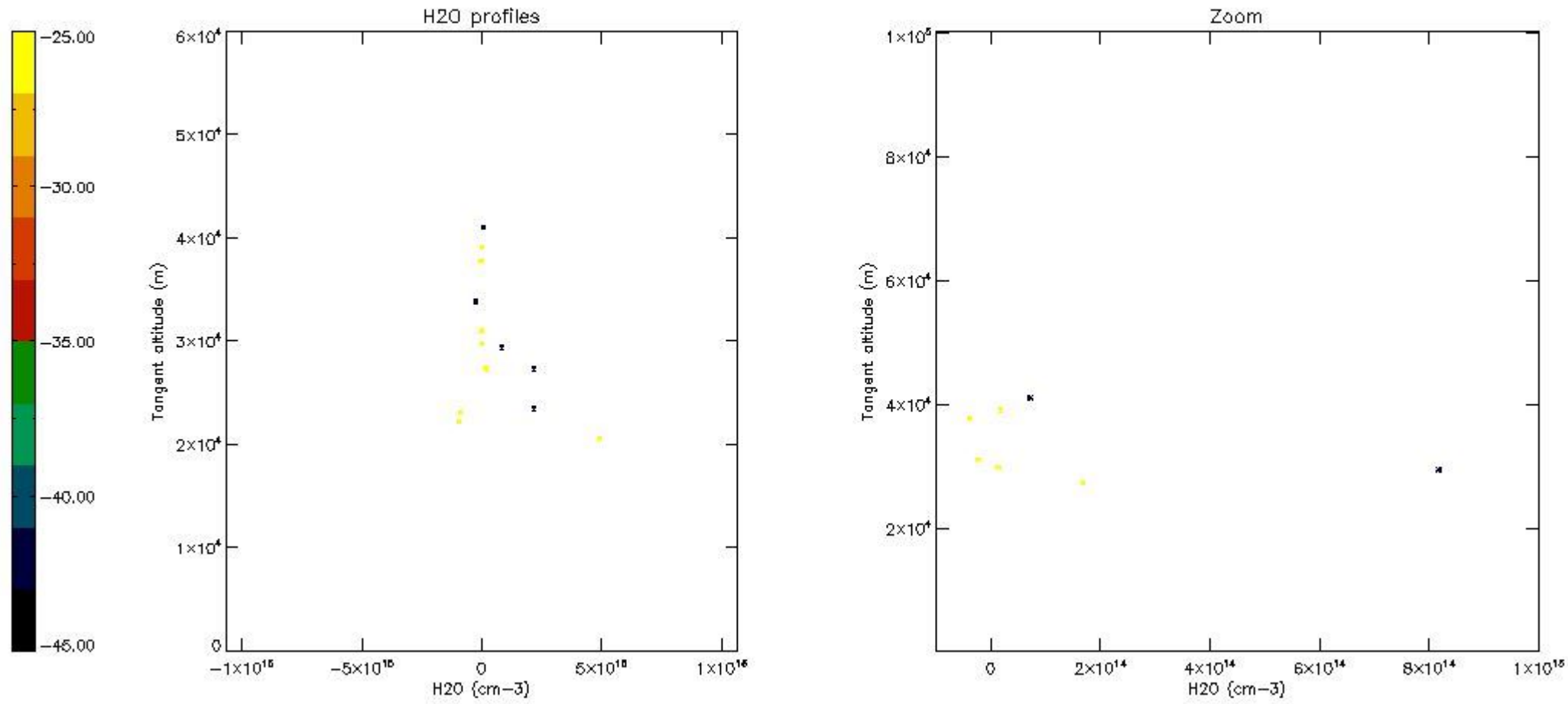
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

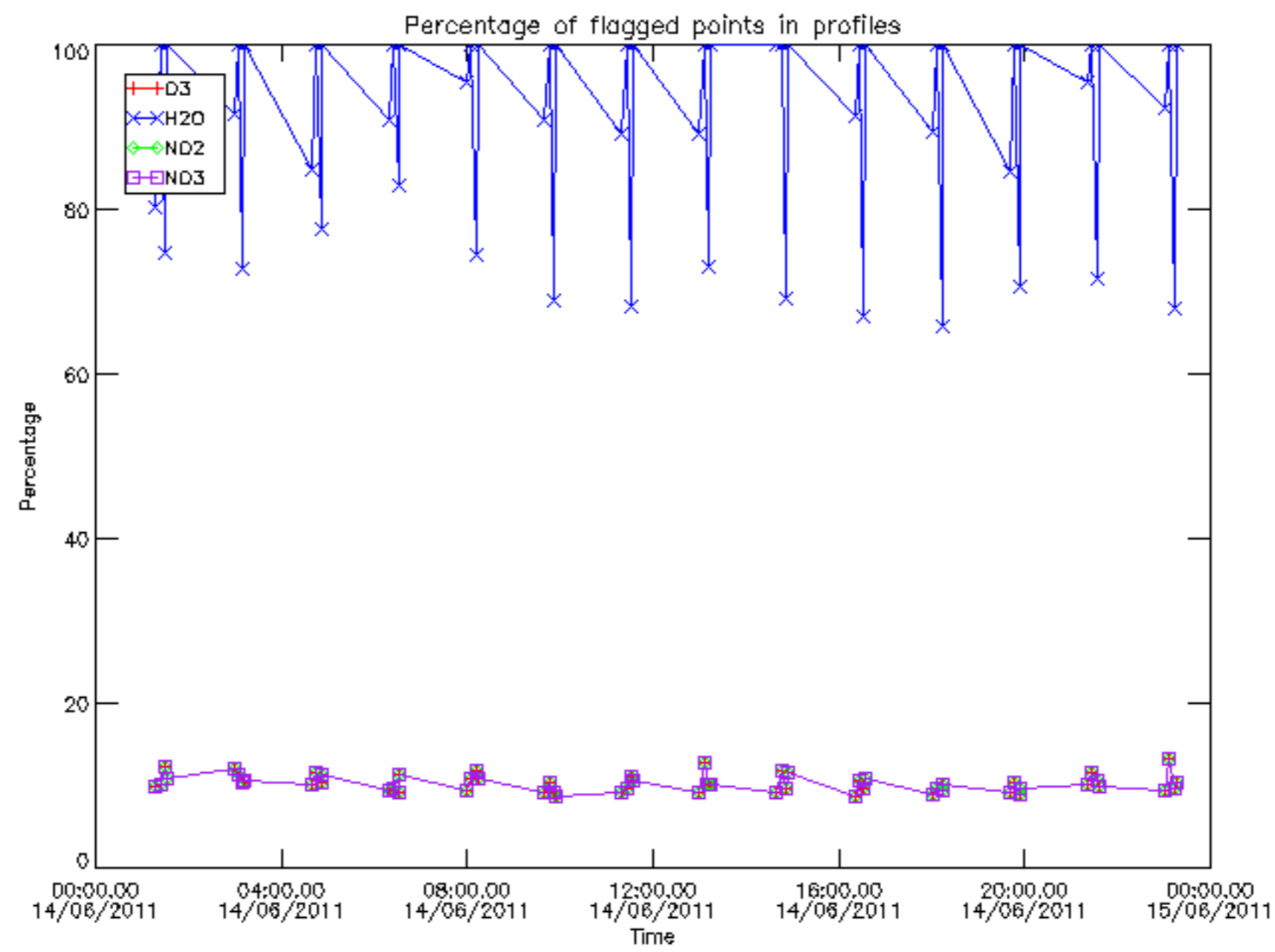
The colorbar represents the latitude.



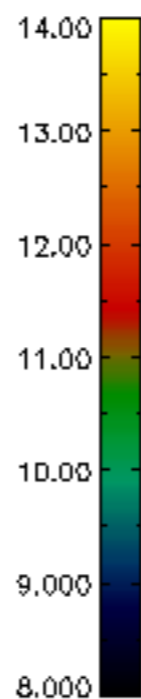
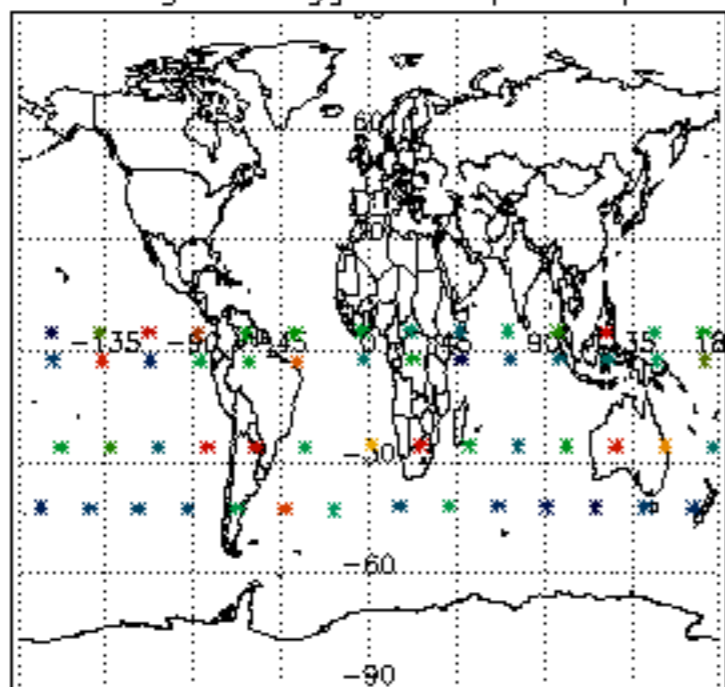
6. Auxiliary Data Files used for the production reported in section 2

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.

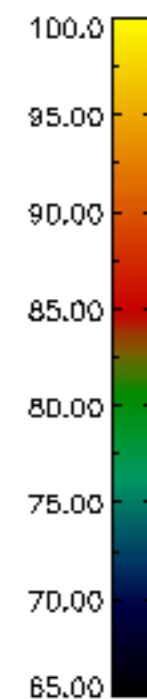
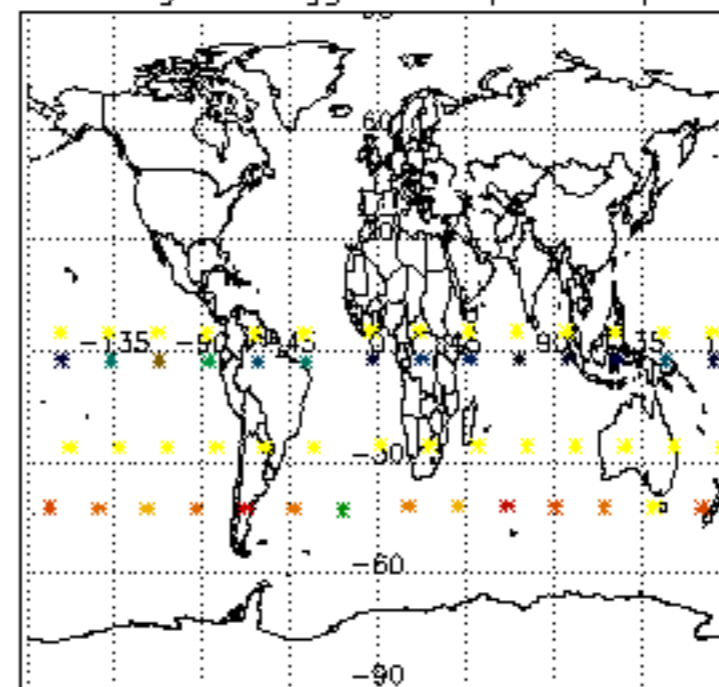
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	14-JUN-2011 00:06:03
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	14-JUN-2011 00:06:03
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	14-JUN-2011 00:06:03



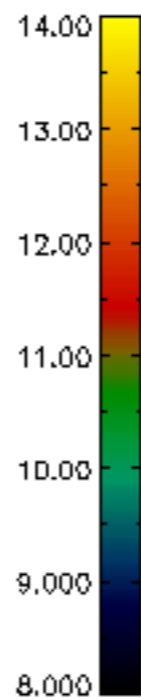
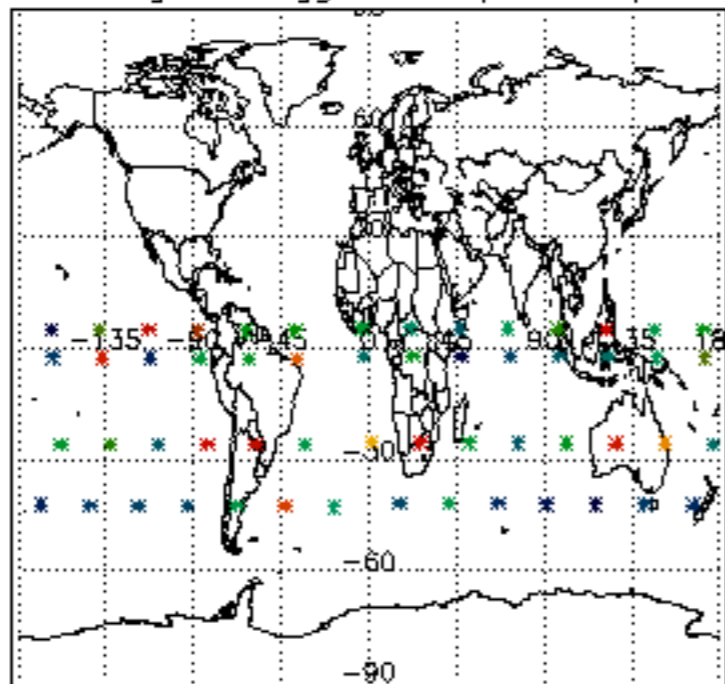
Percentage of flagged data per D3 profile



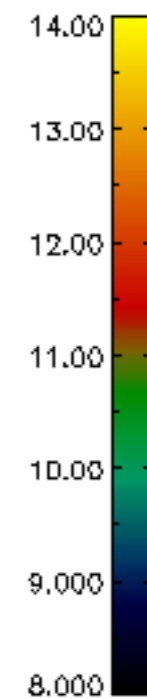
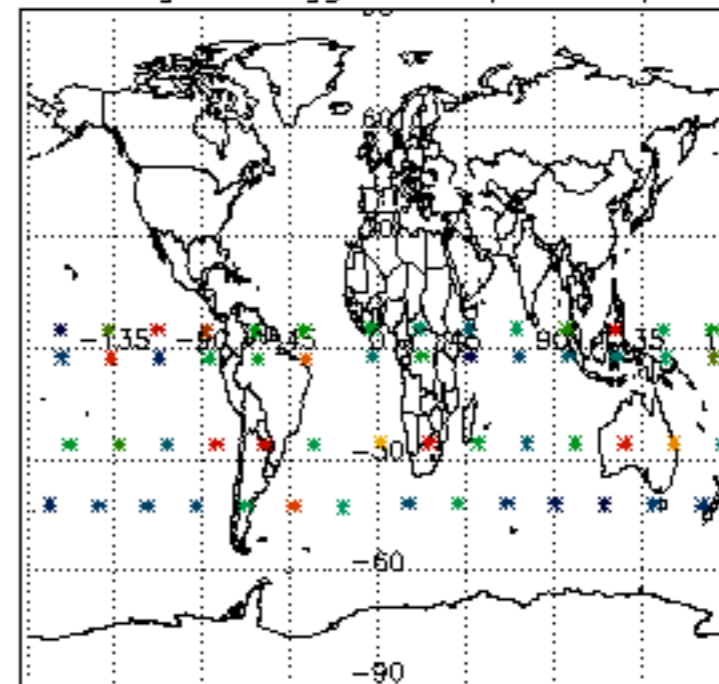
Percentage of flagged data per H2O profile

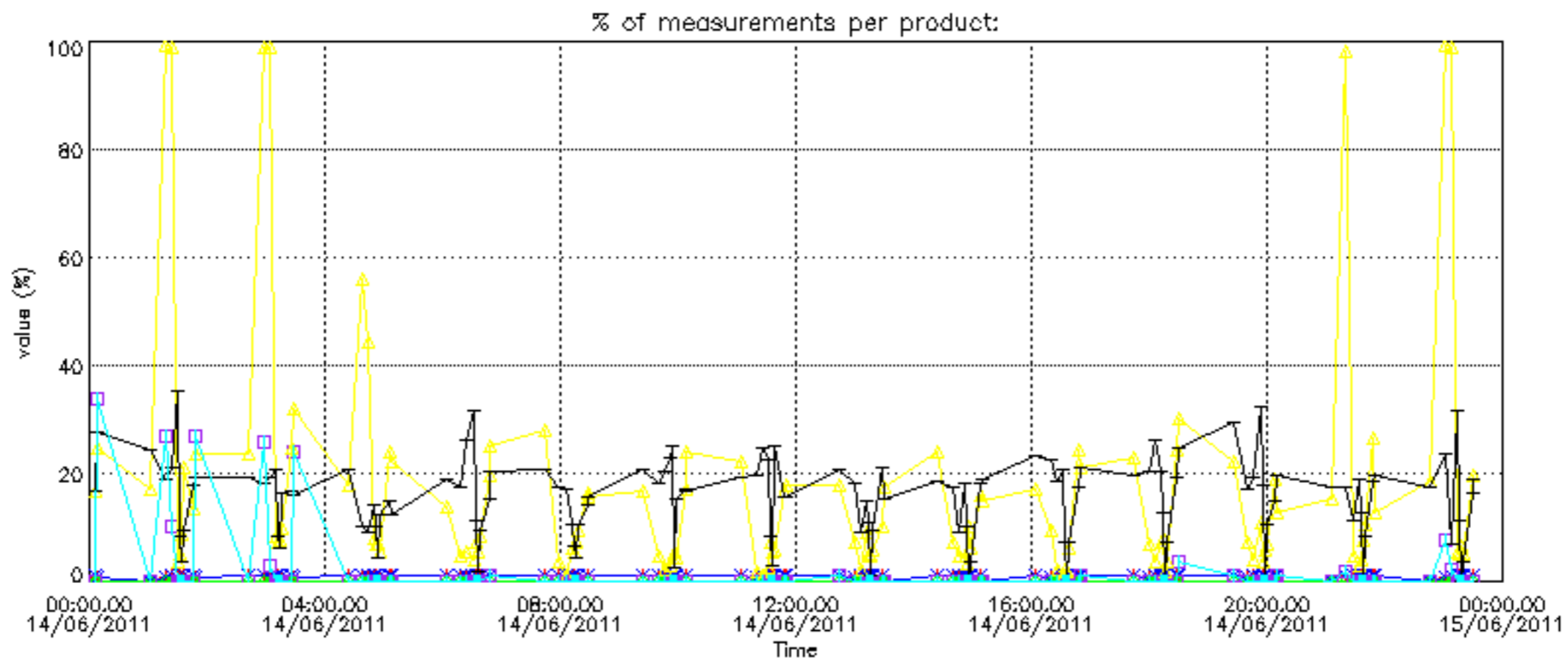


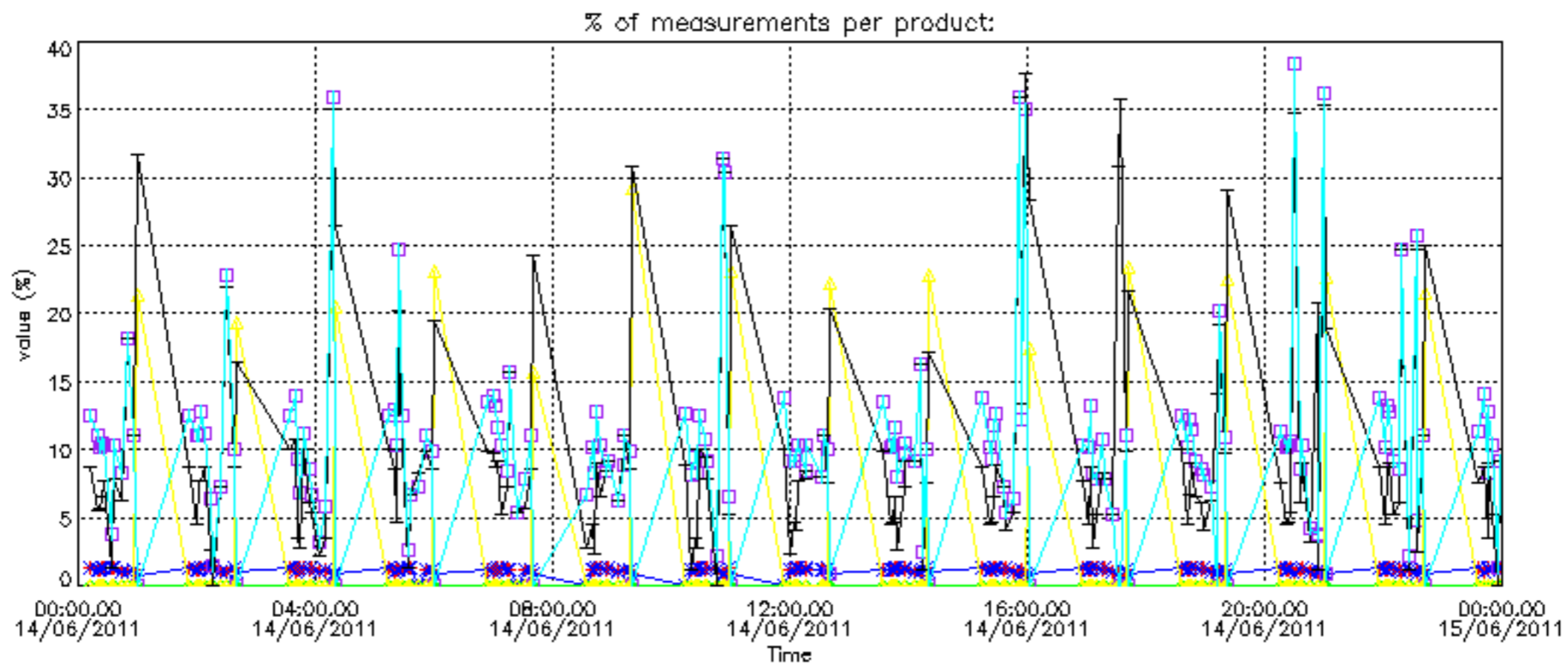
Percentage of flagged data per NO2 profile



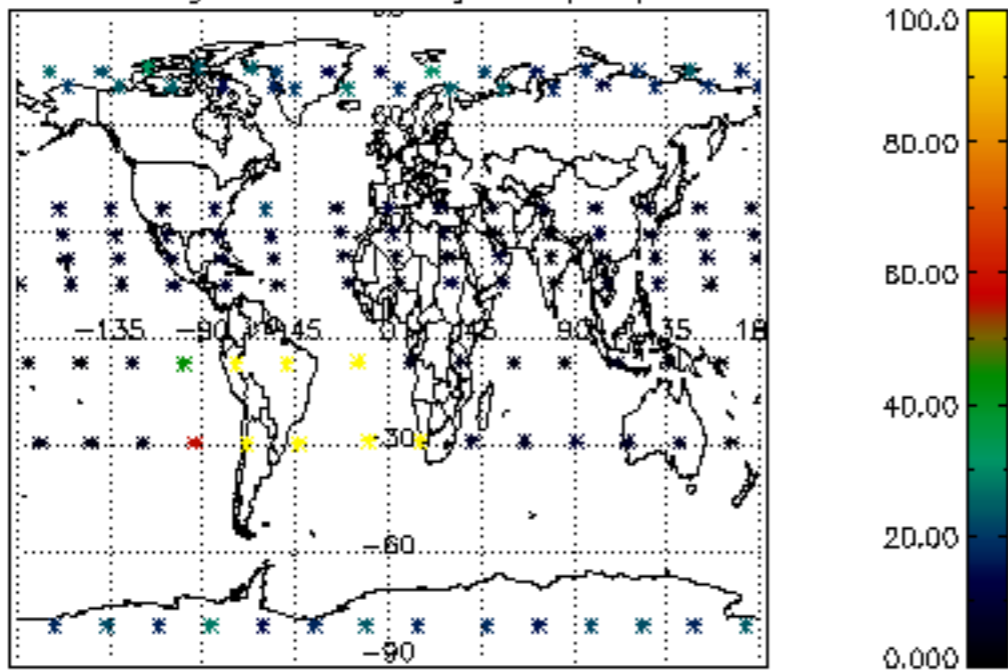
Percentage of flagged data per NO3 profile



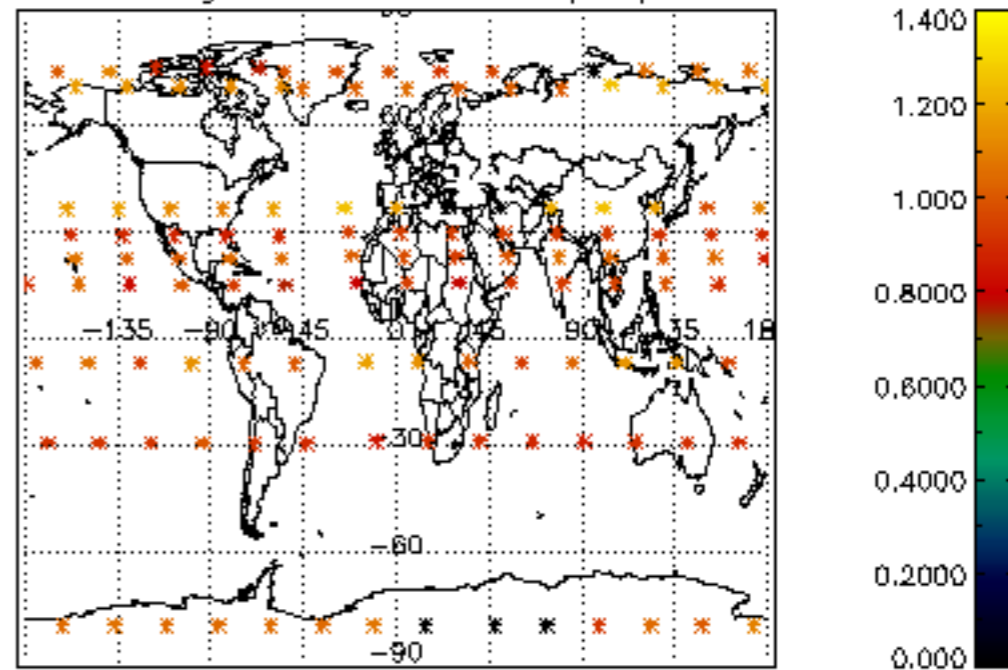




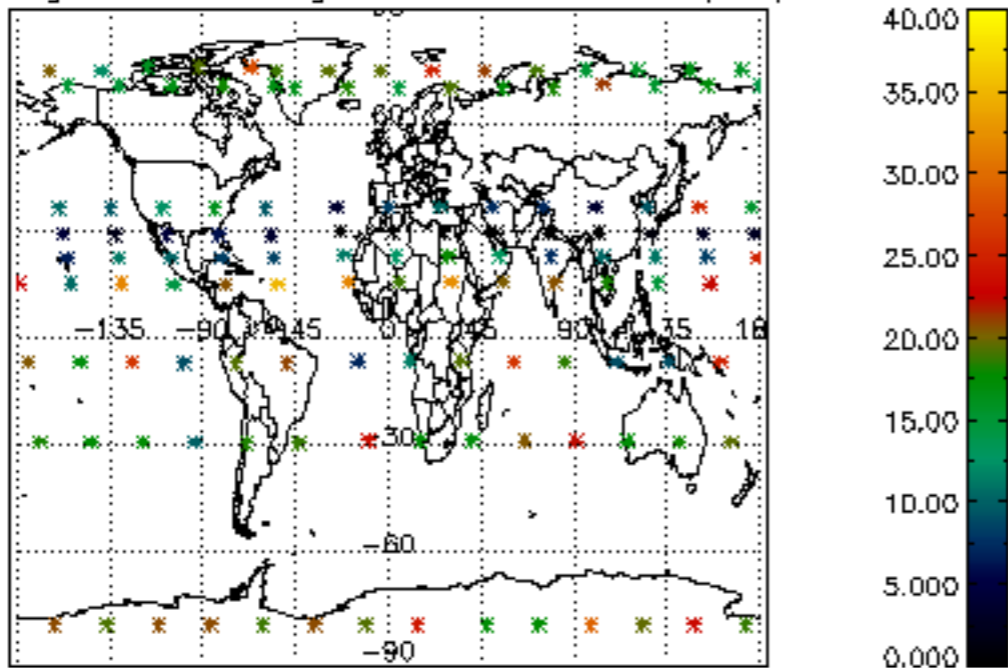
Percentage of cosmic ray hits per profile



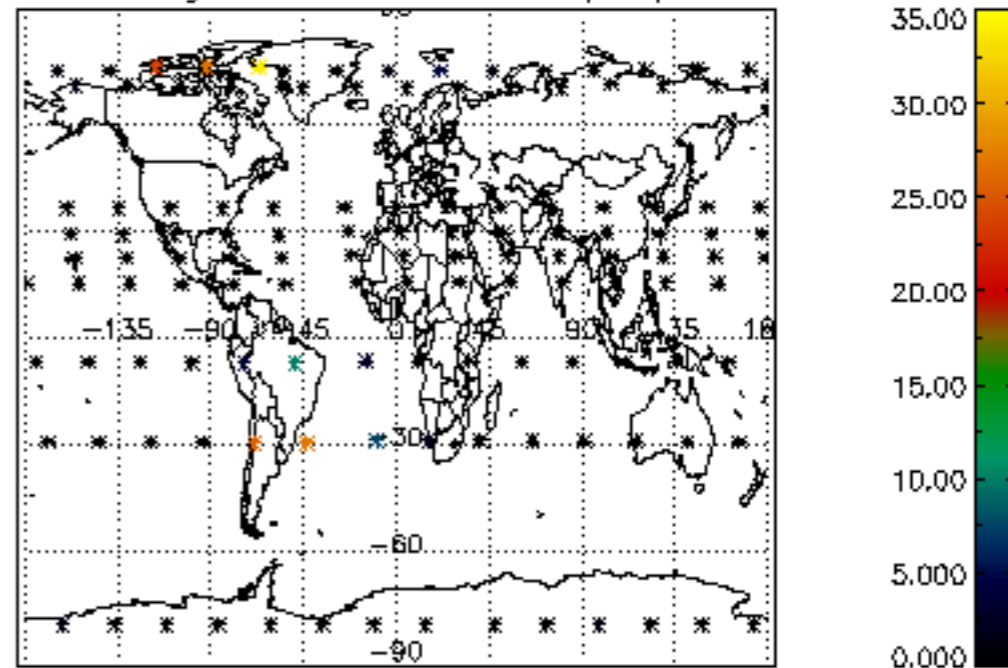
Percentage of datation errors per profile



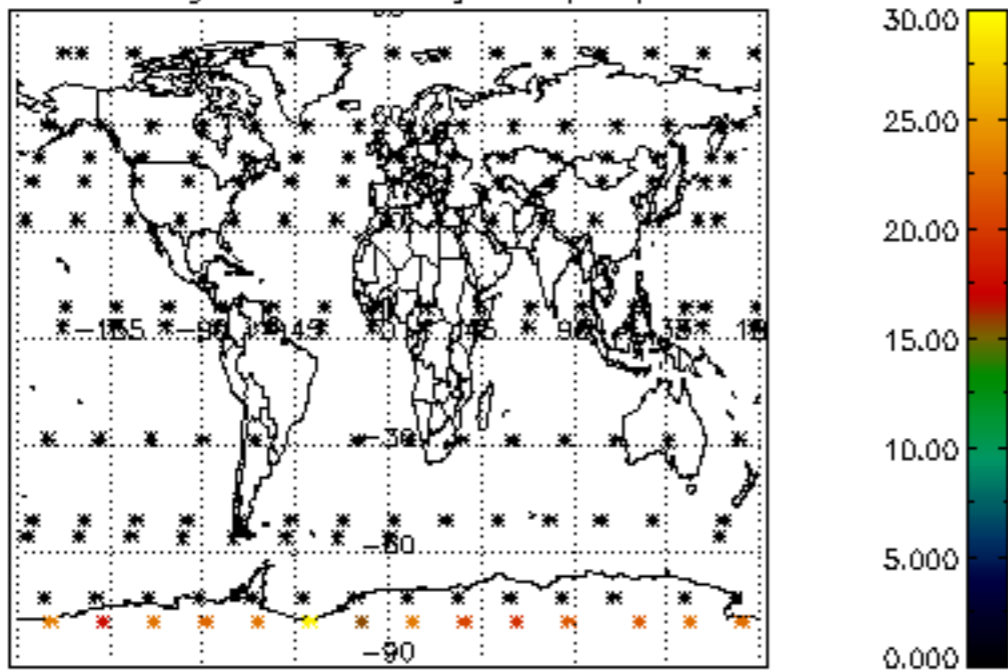
Percentage of star falling outside central band per profile



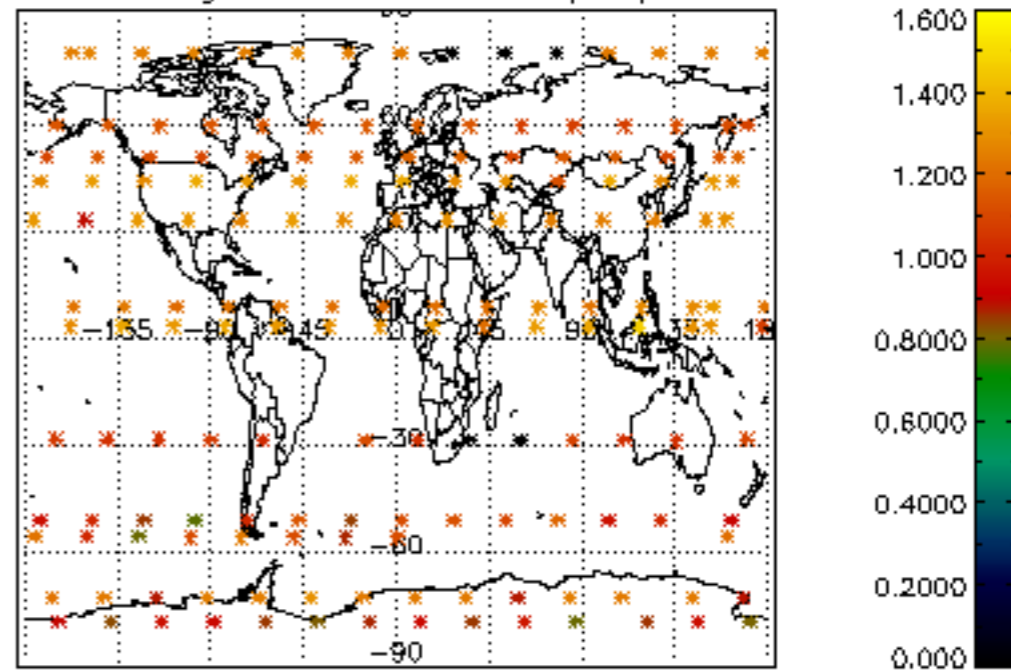
Percentage of saturation errors per profile



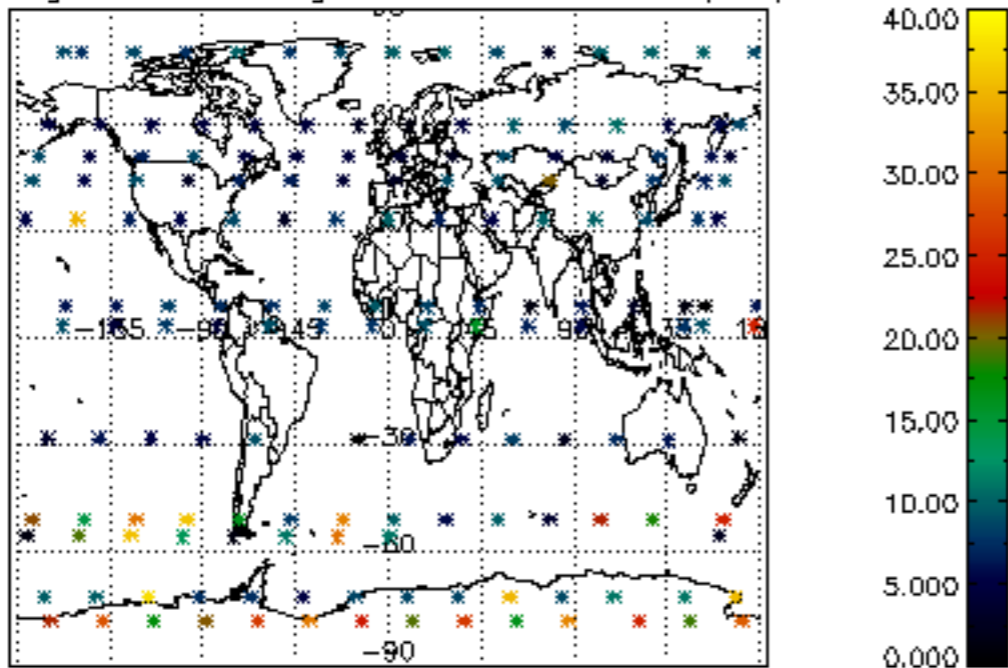
Percentage of cosmic ray hits per profile



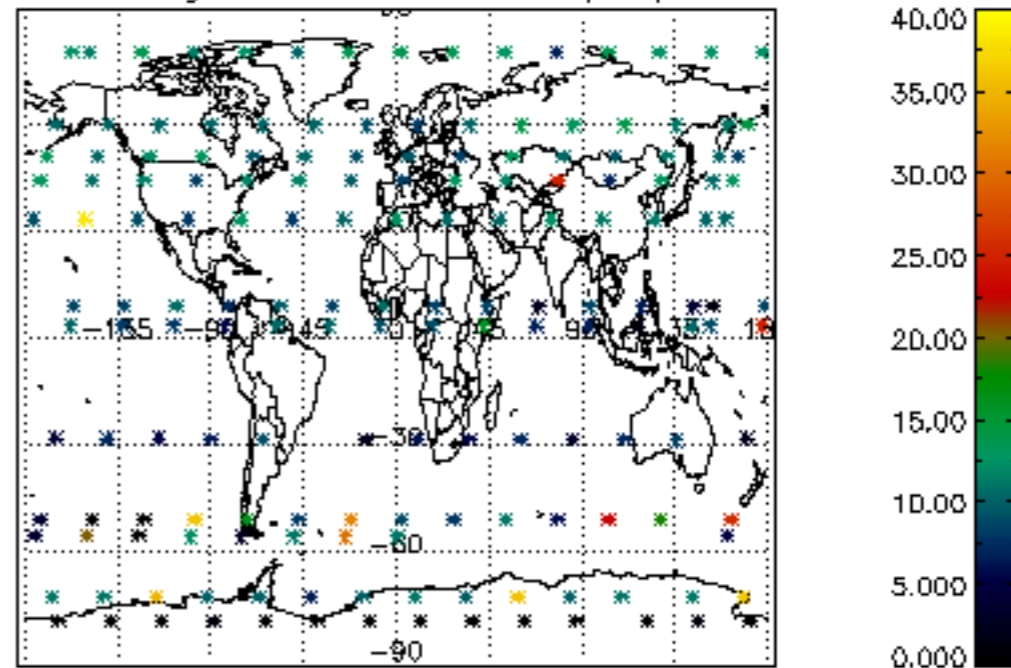
Percentage of datation errors per profile

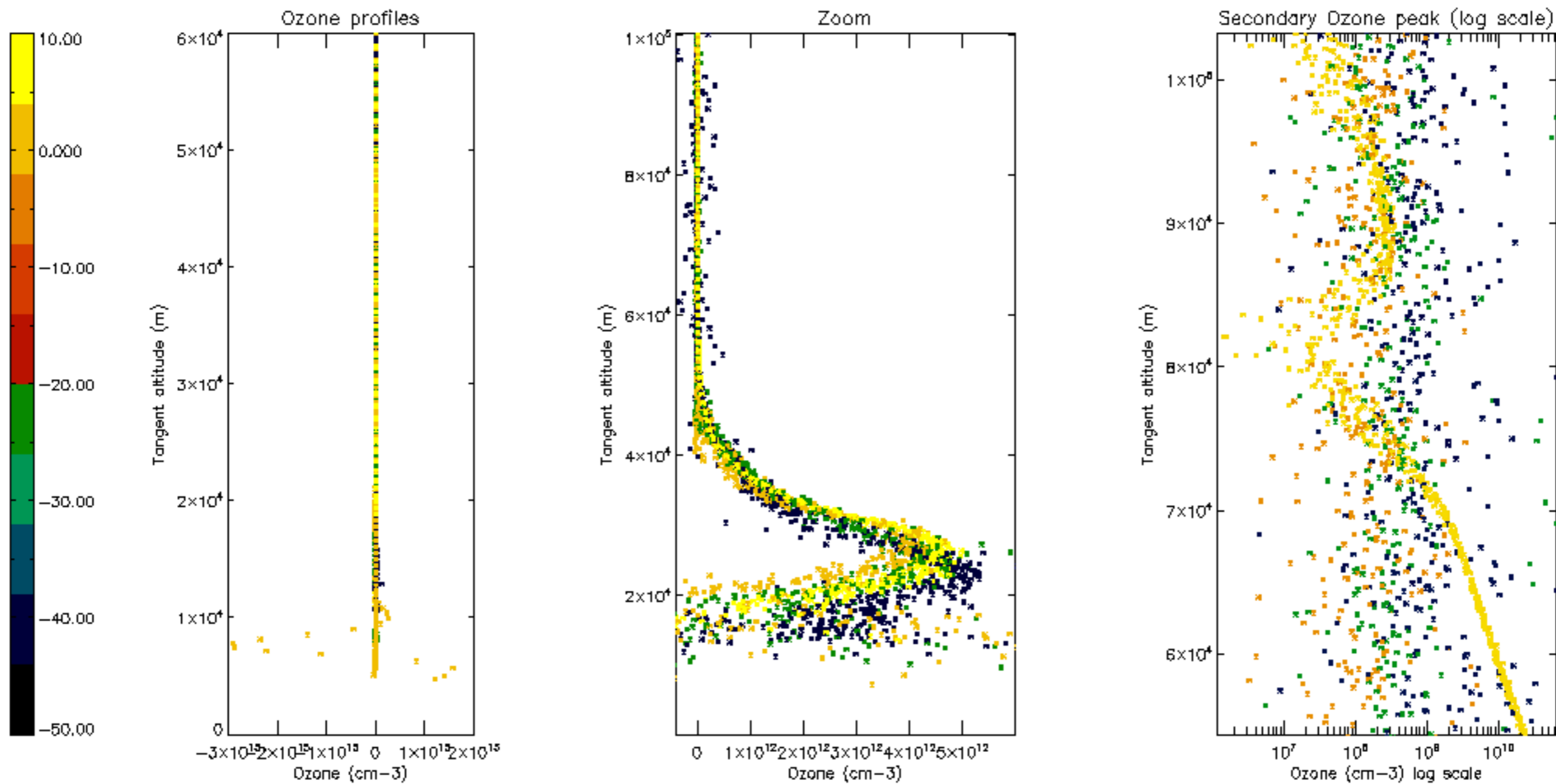


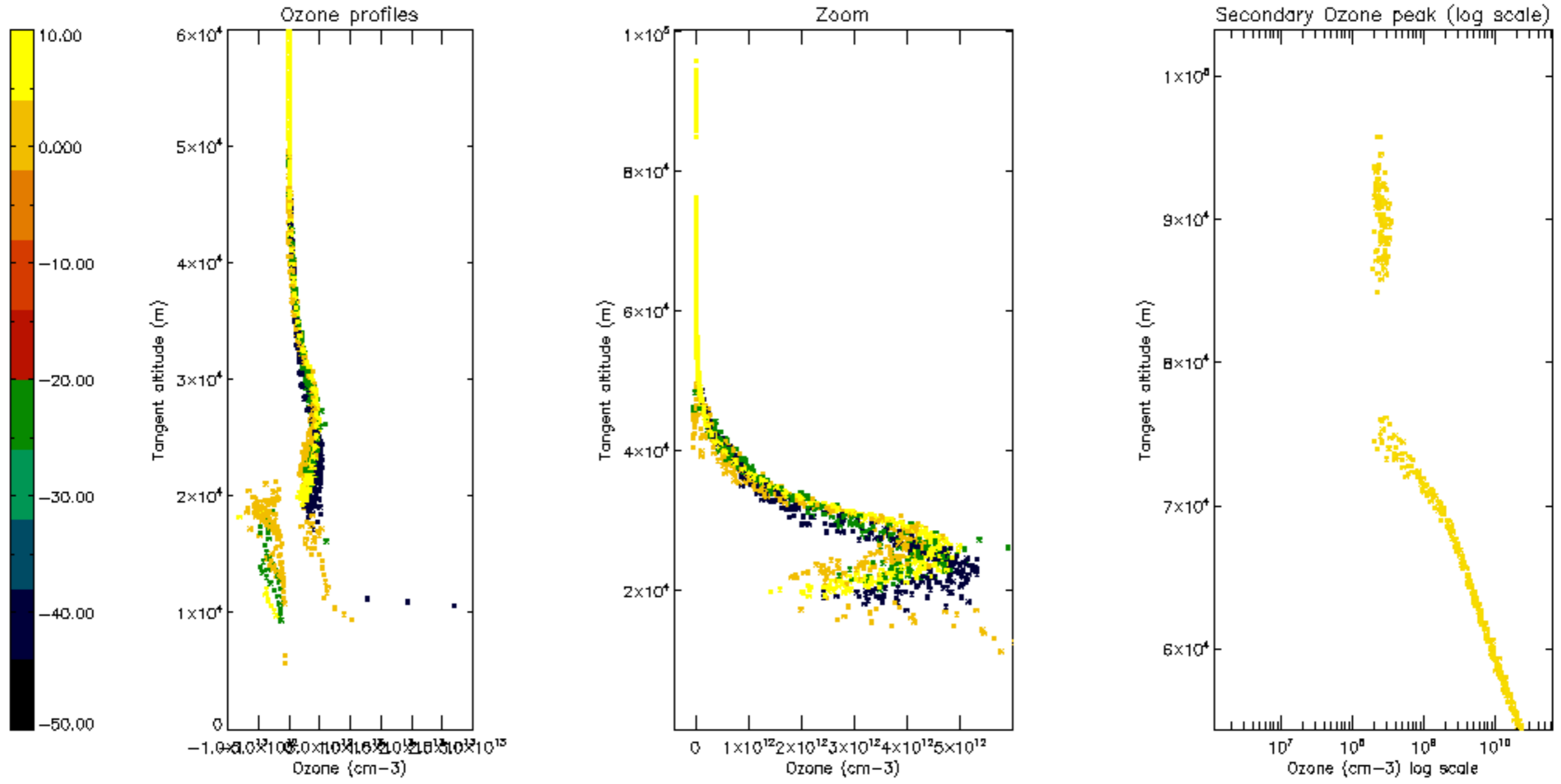
Percentage of star falling outside central band per profile

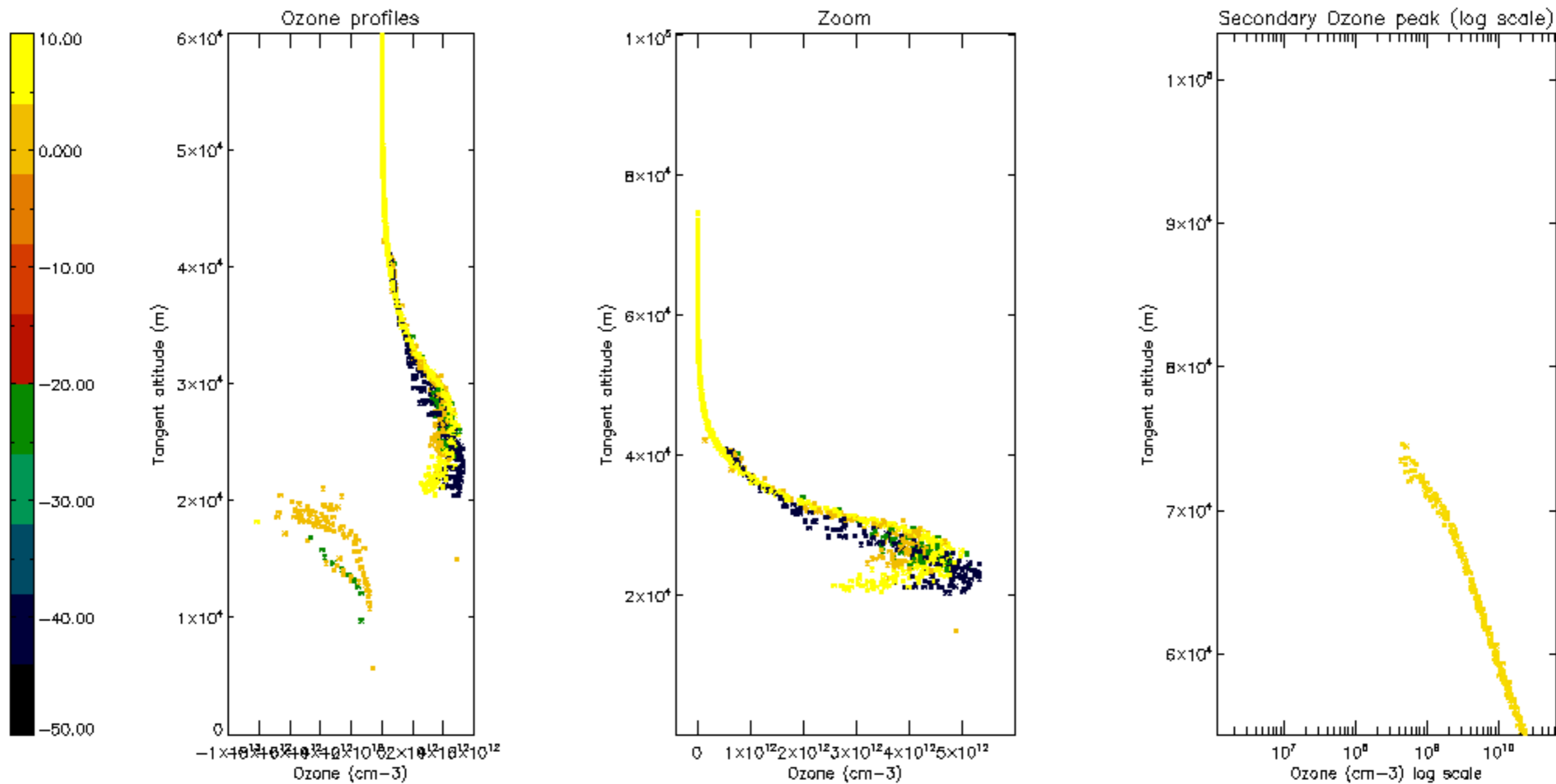


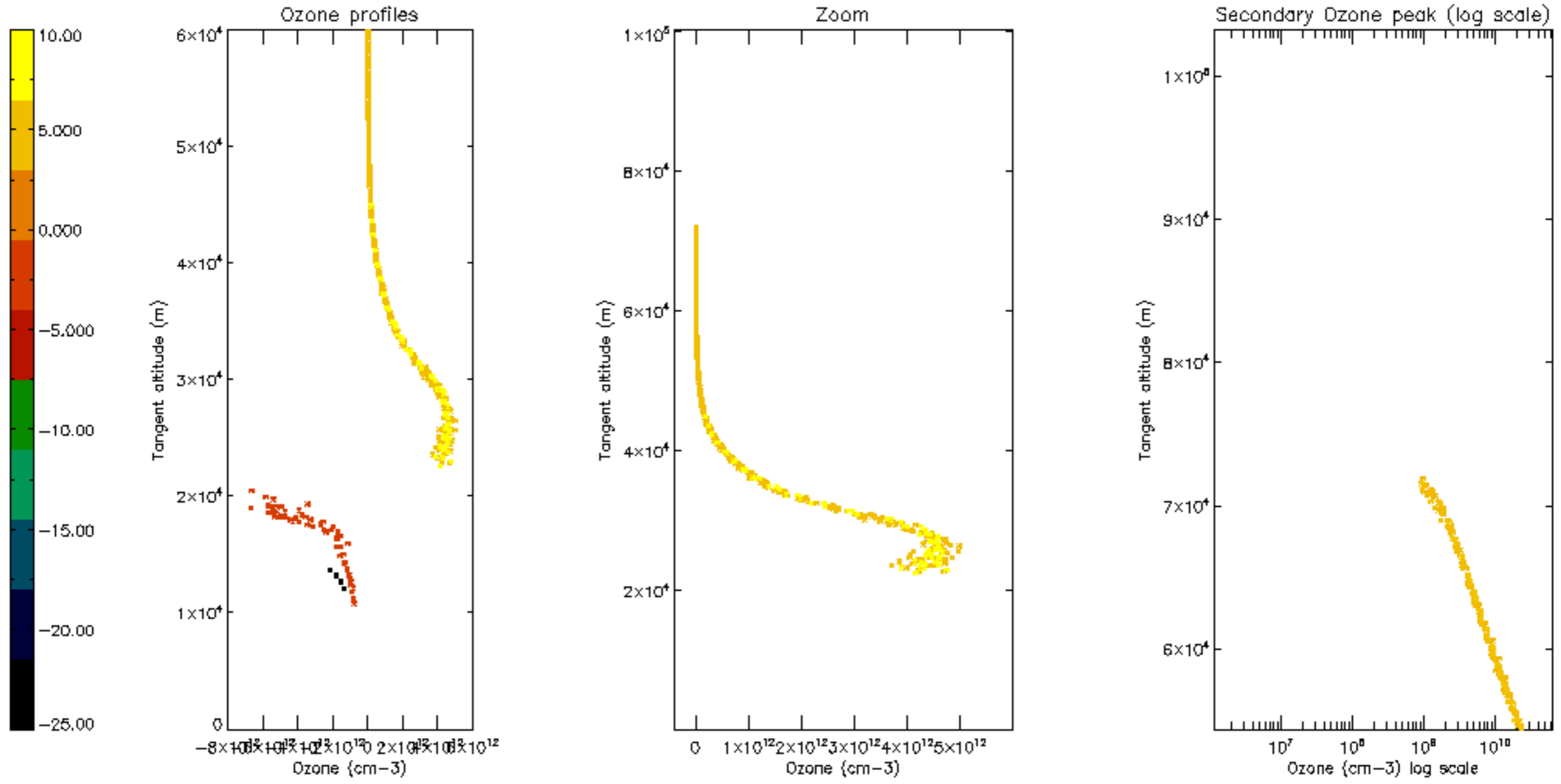
Percentage of saturation errors per profile

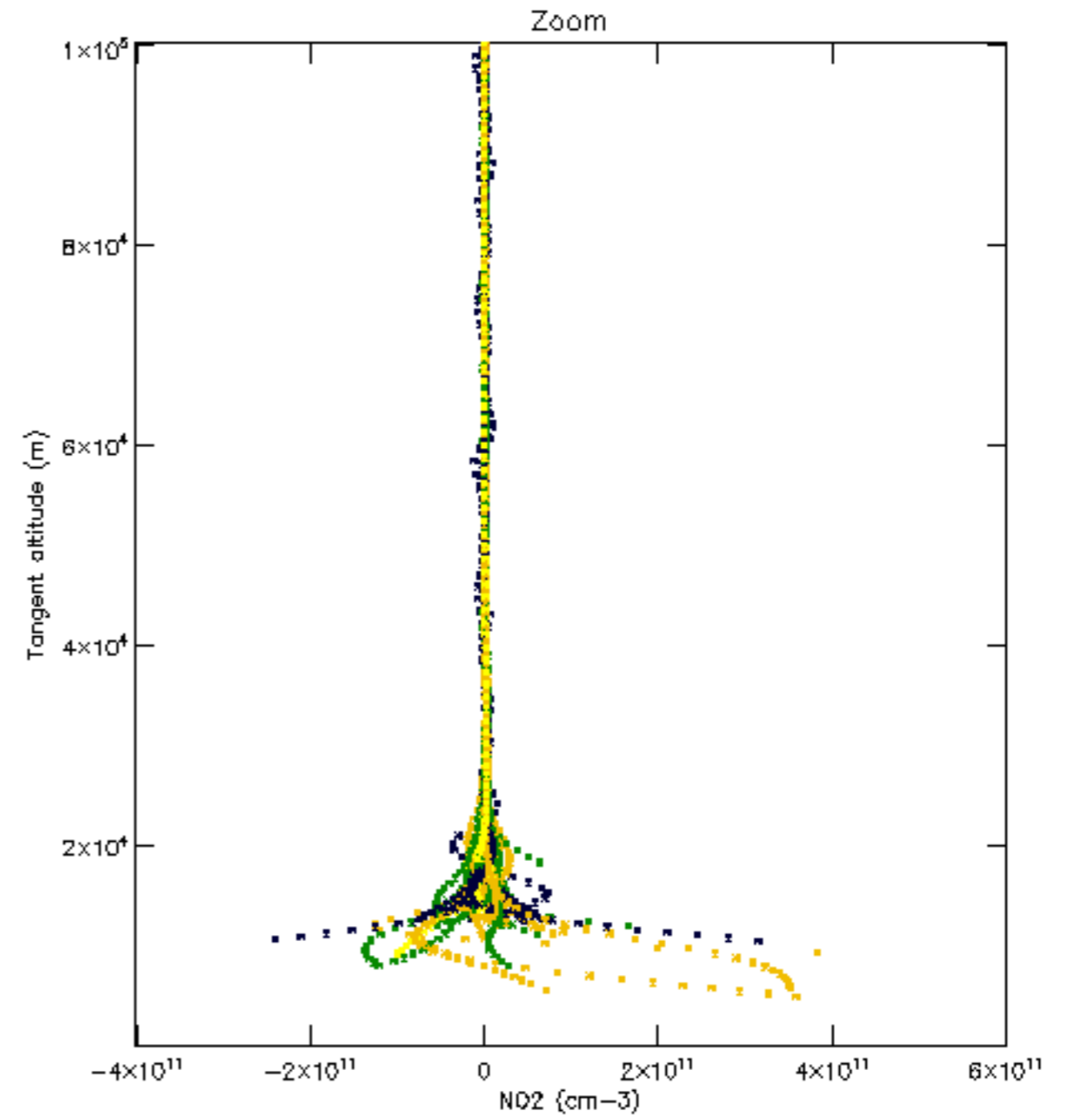
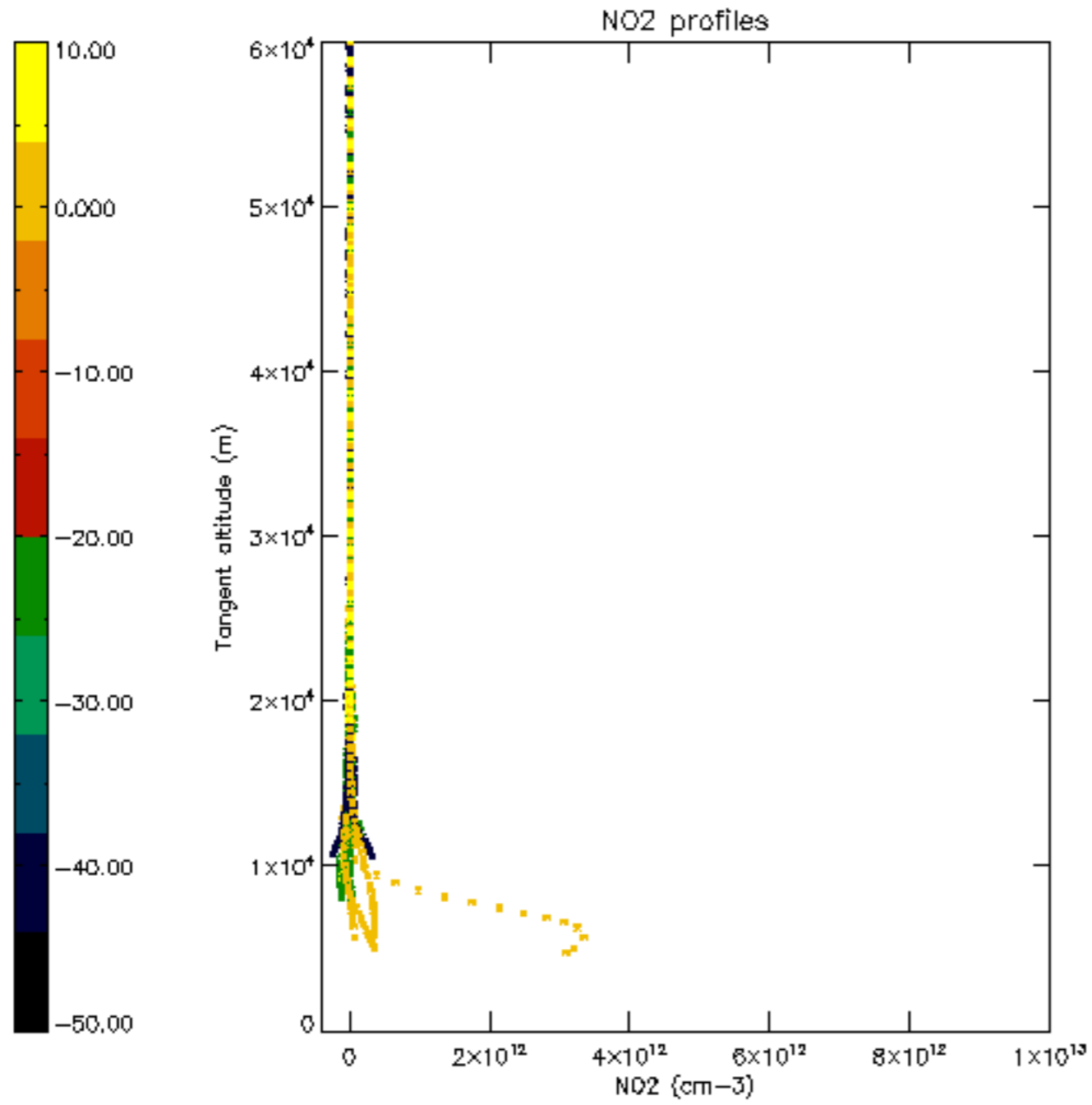


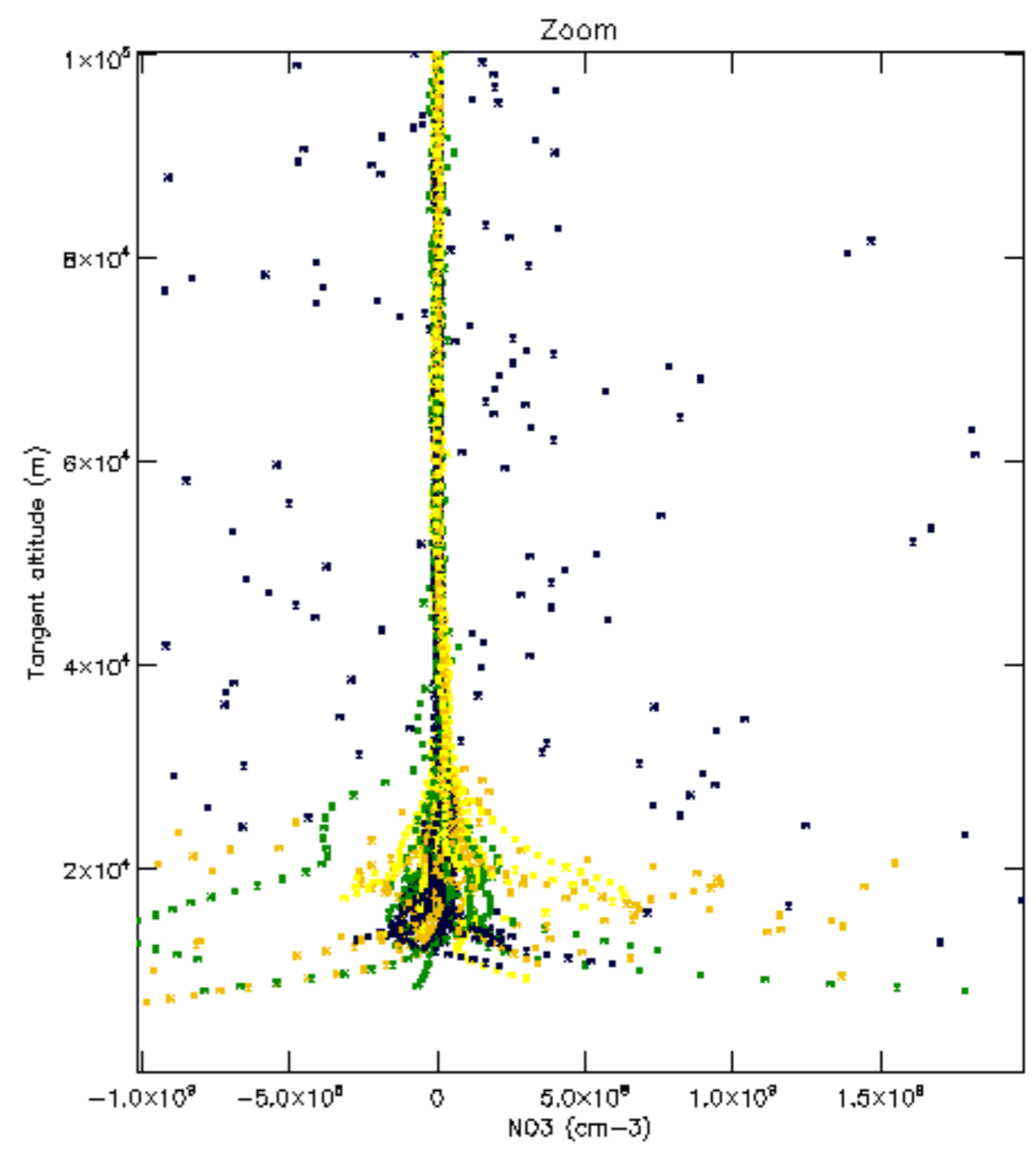
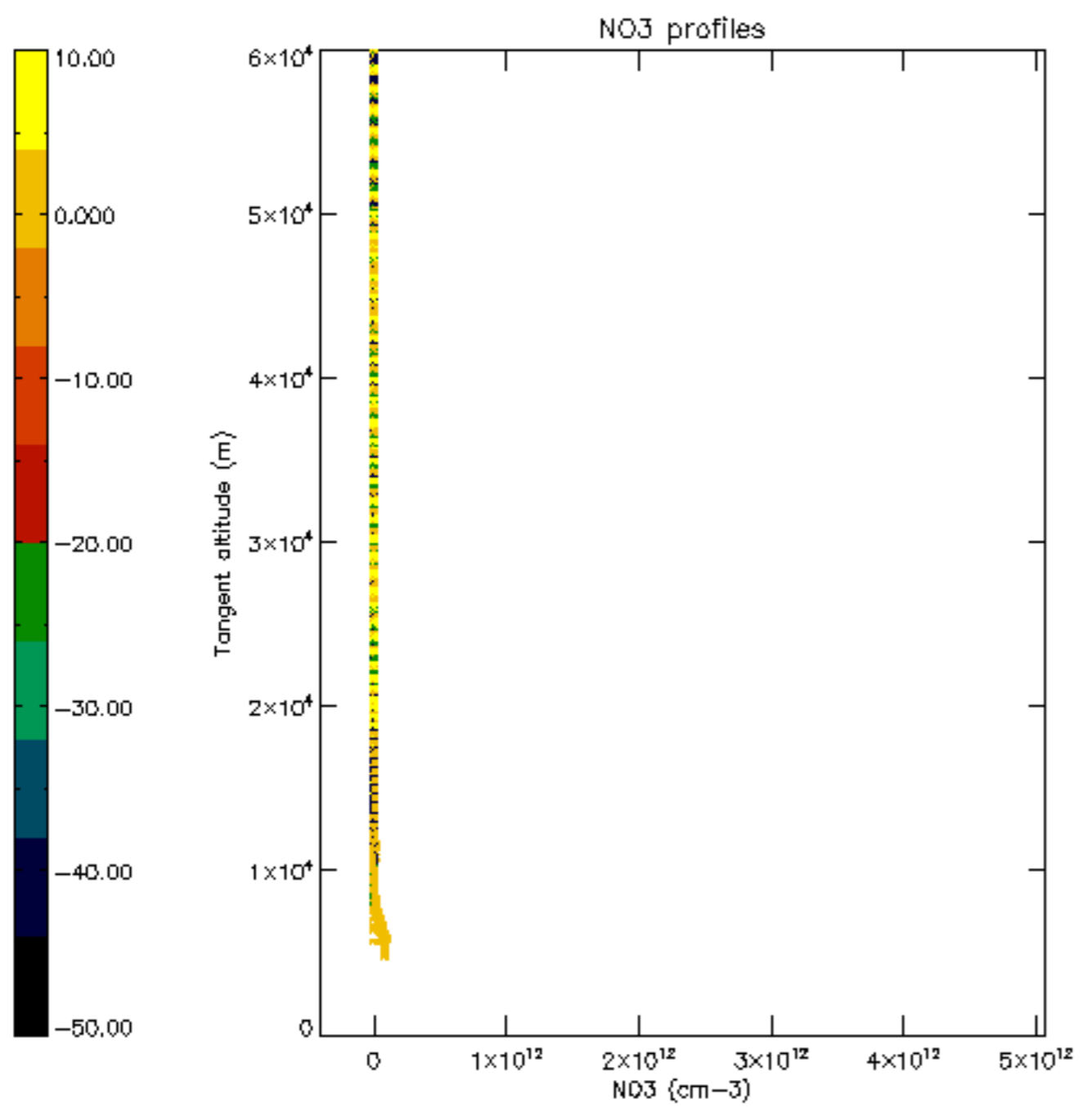


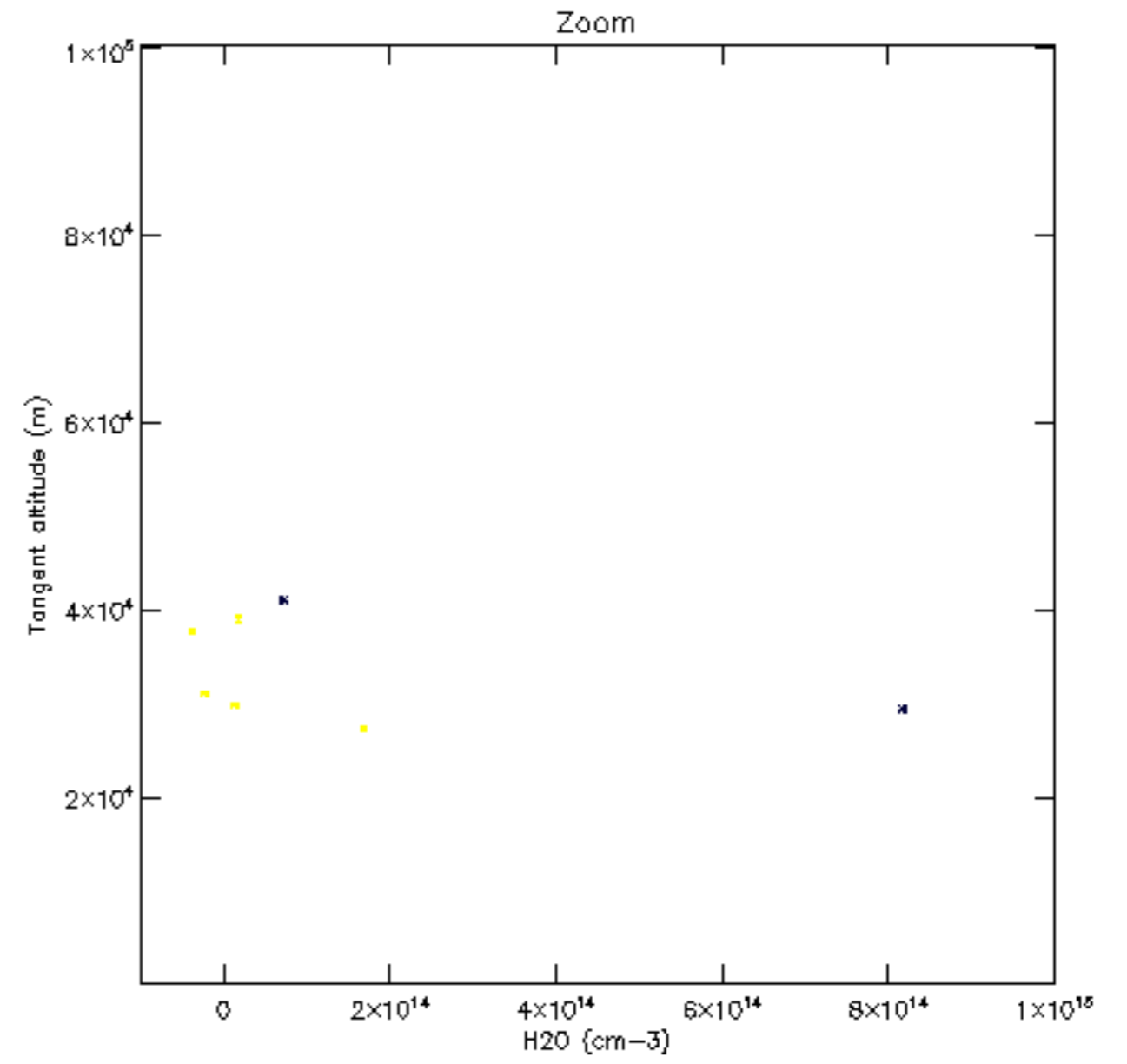
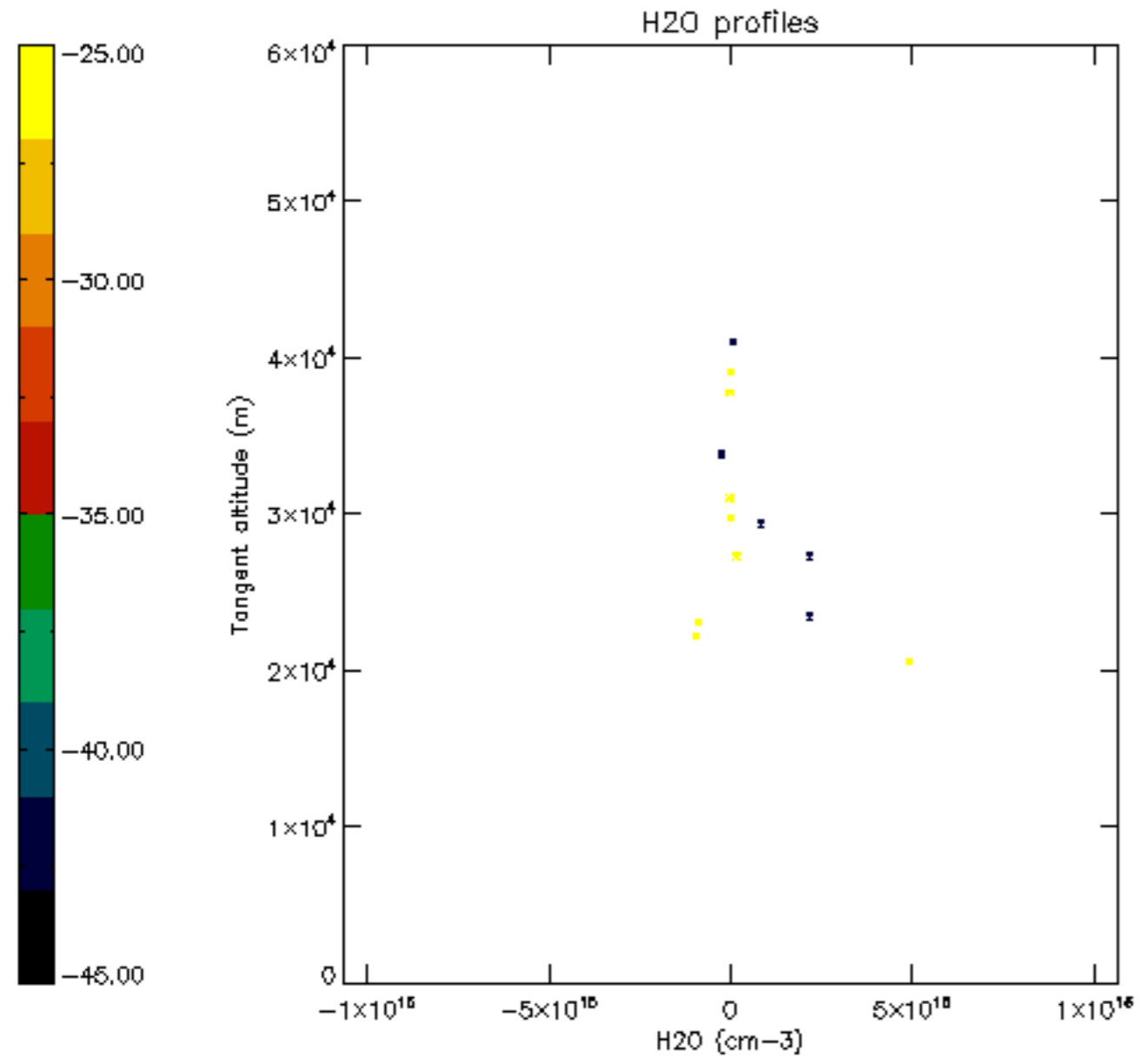


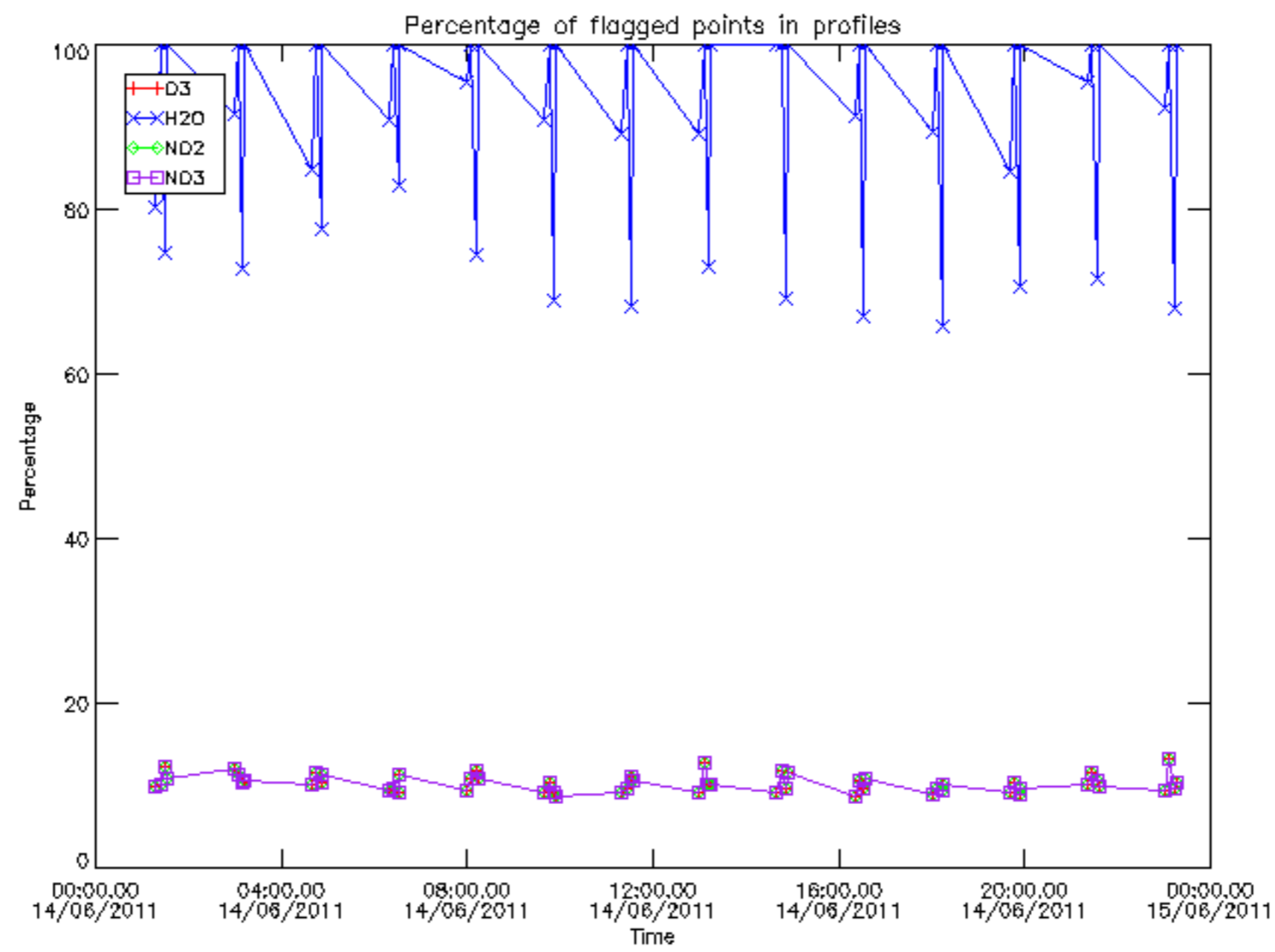




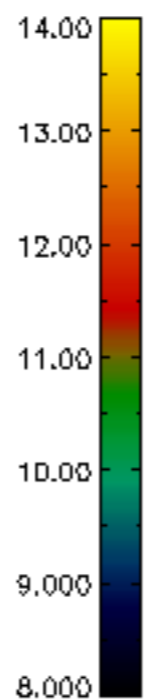
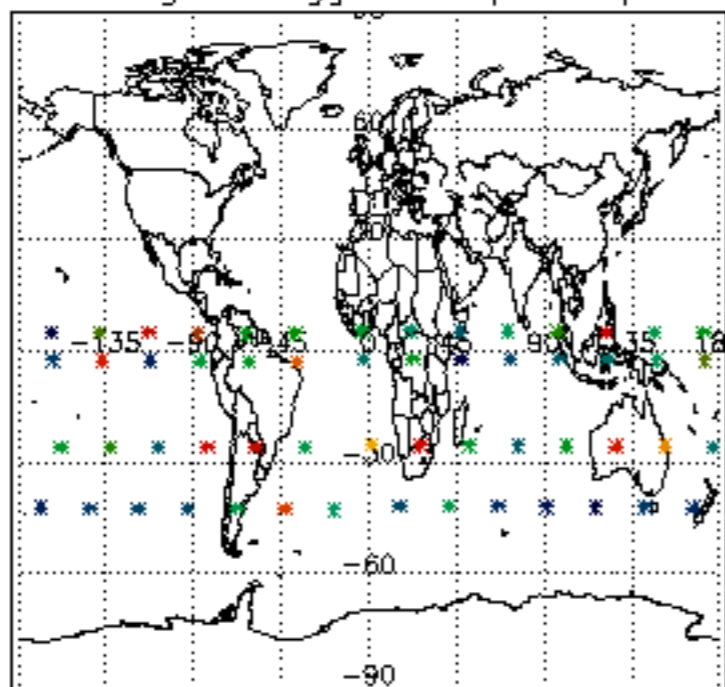




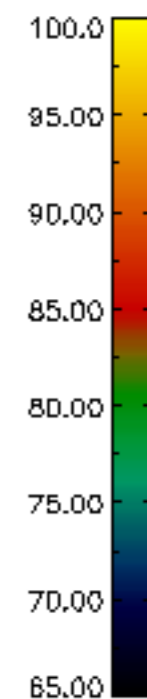
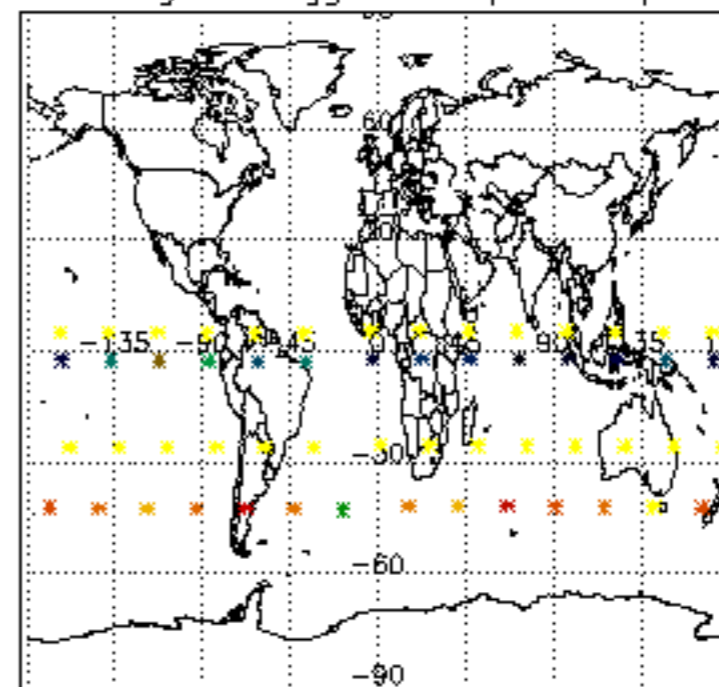




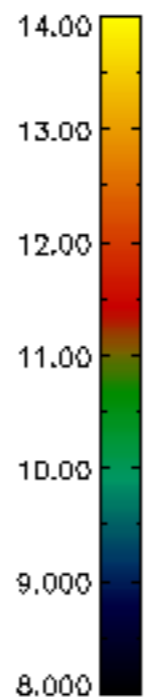
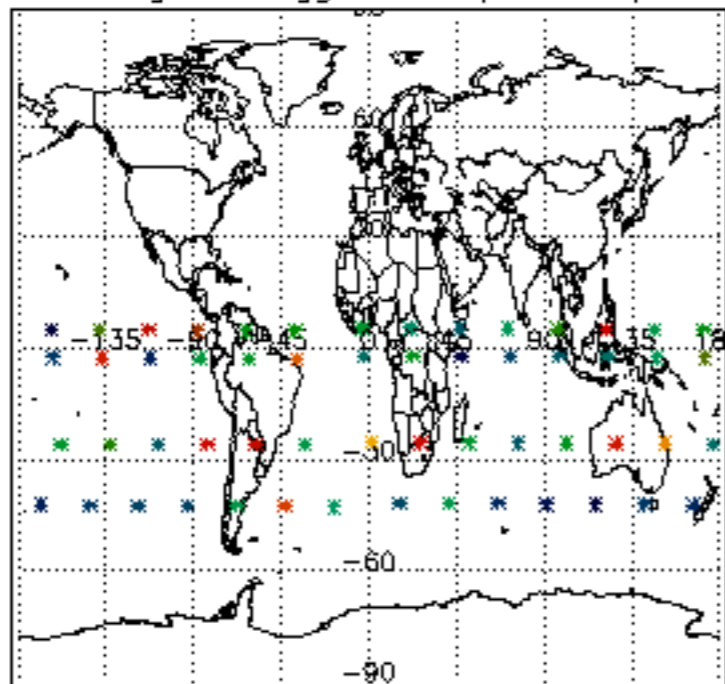
Percentage of flagged data per D3 profile



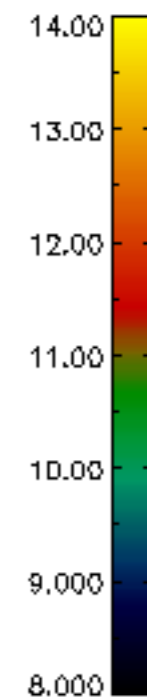
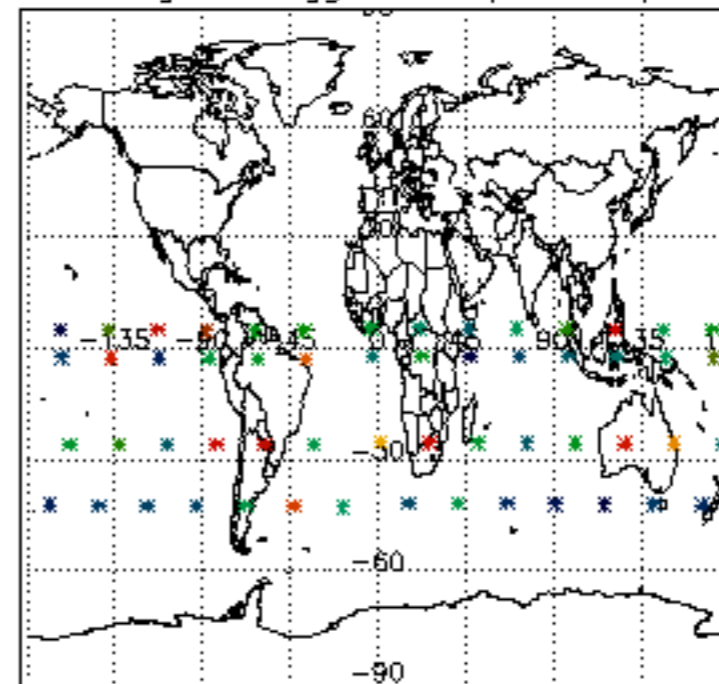
Percentage of flagged data per H2O profile

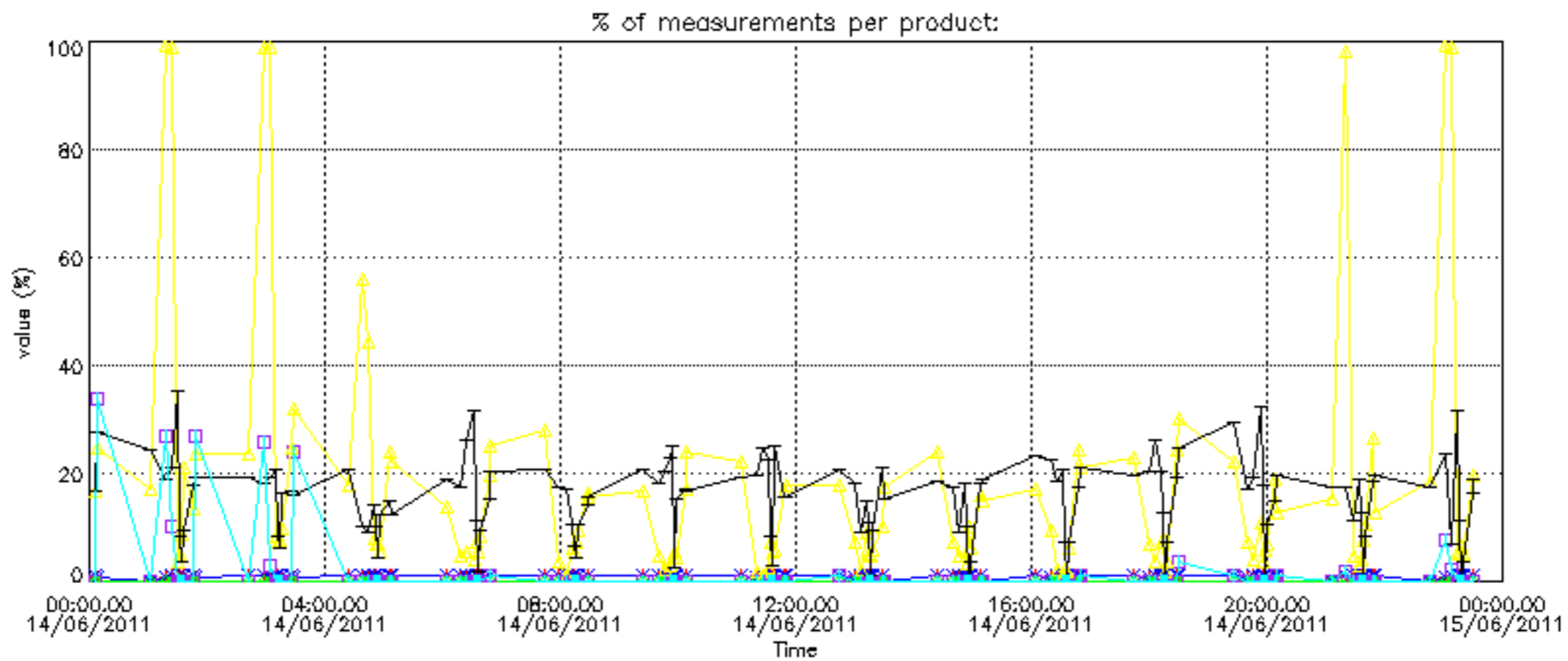


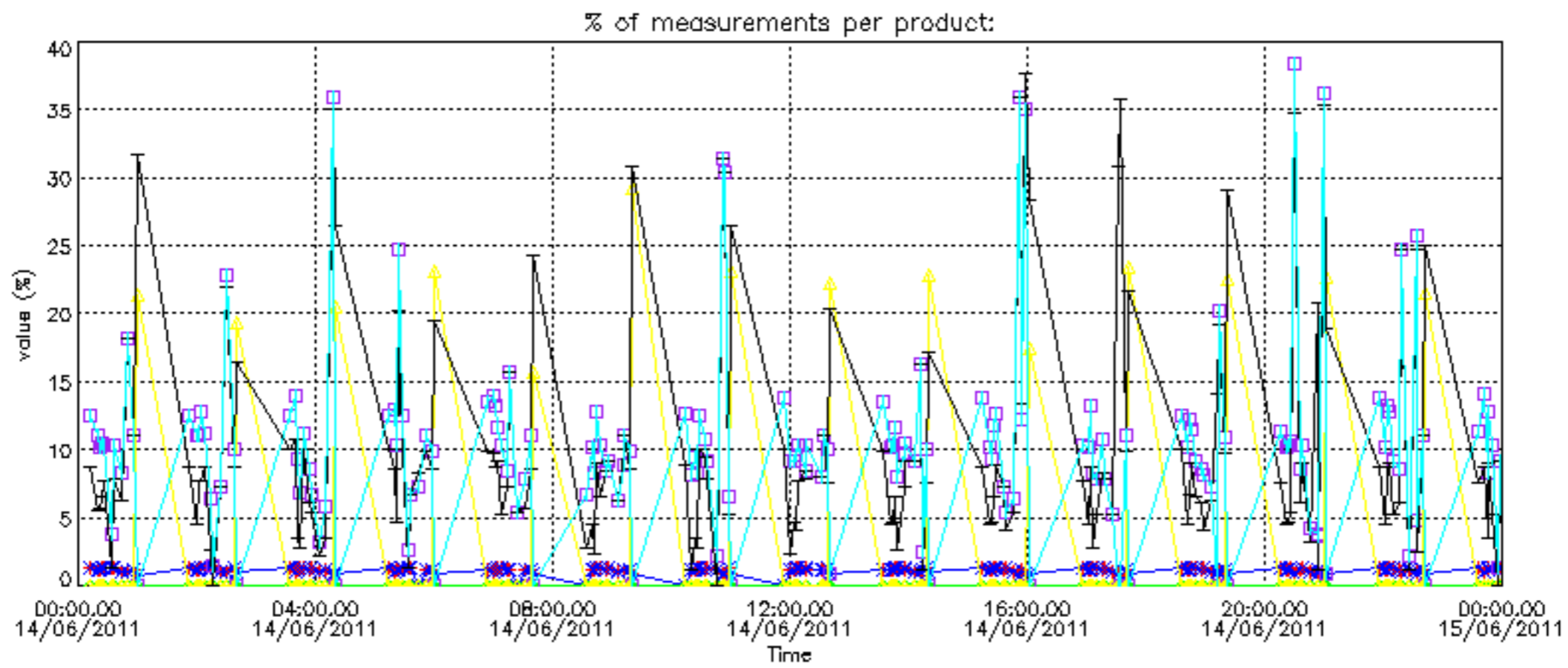
Percentage of flagged data per NO2 profile



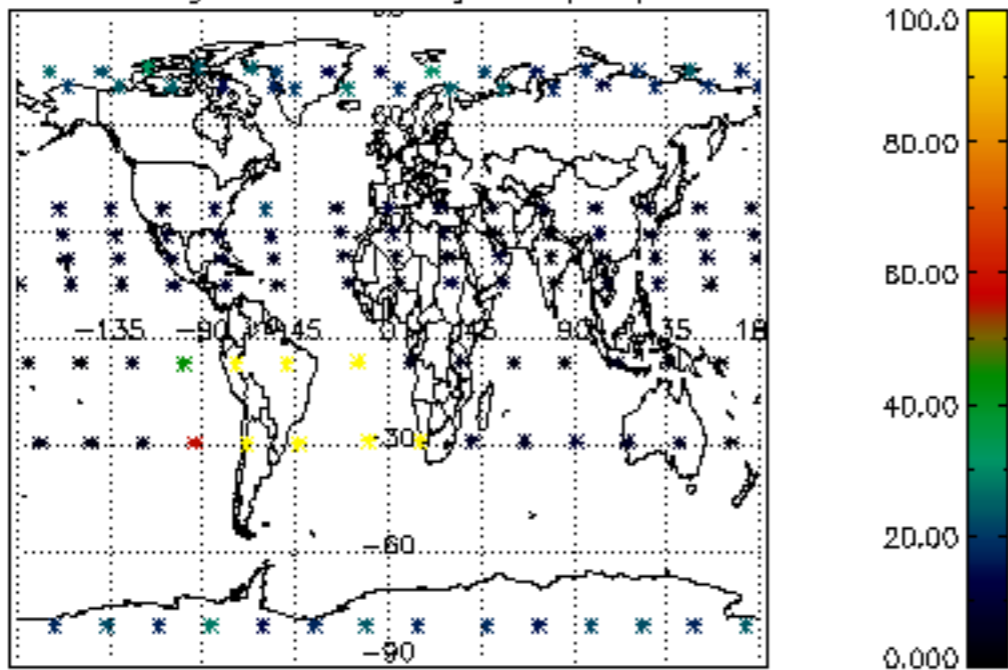
Percentage of flagged data per NO3 profile



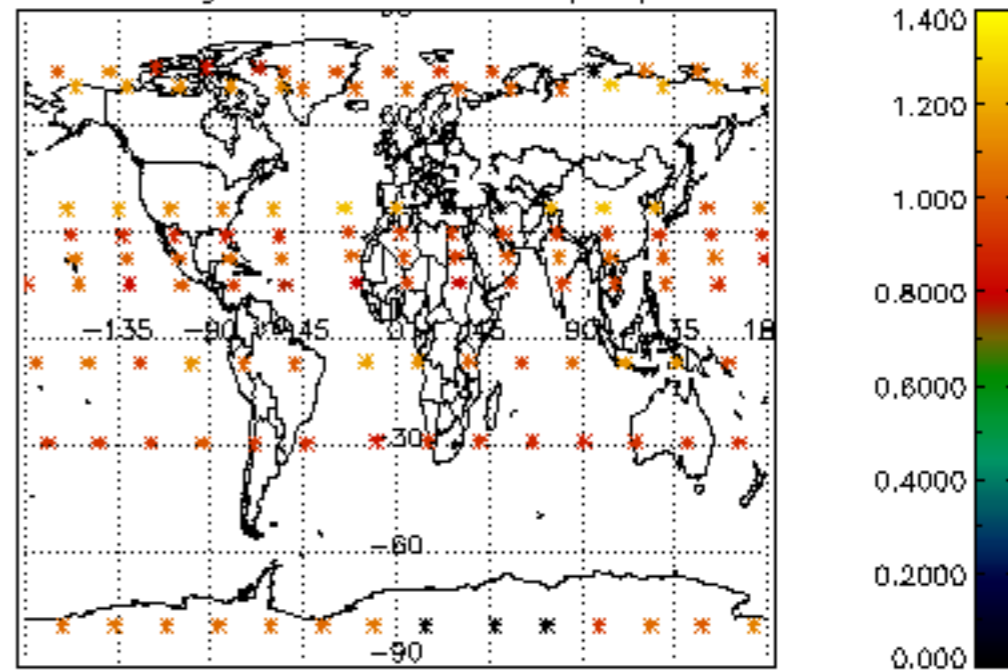




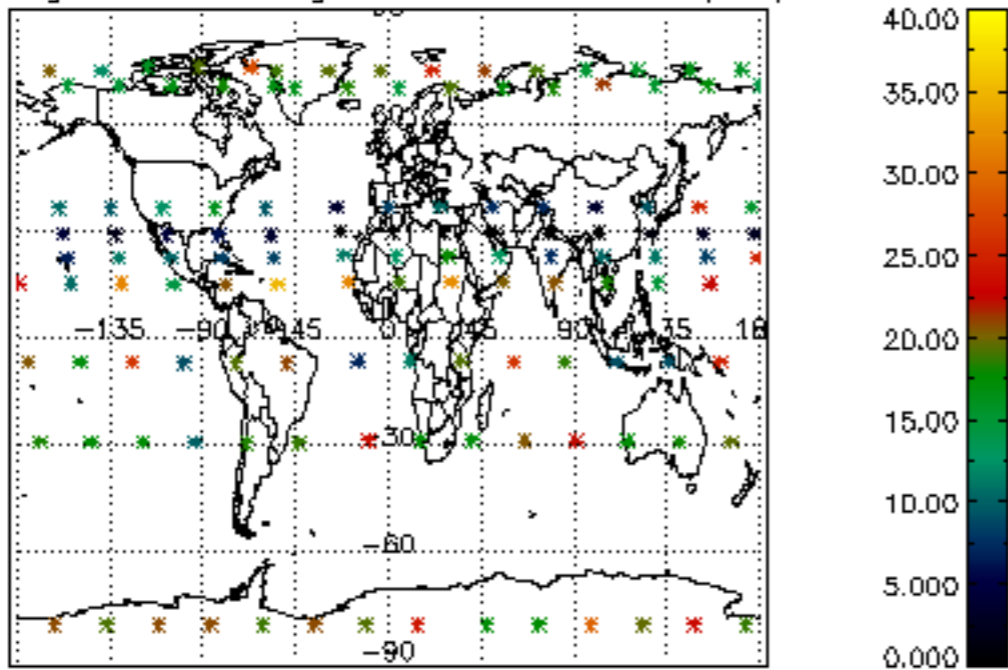
Percentage of cosmic ray hits per profile



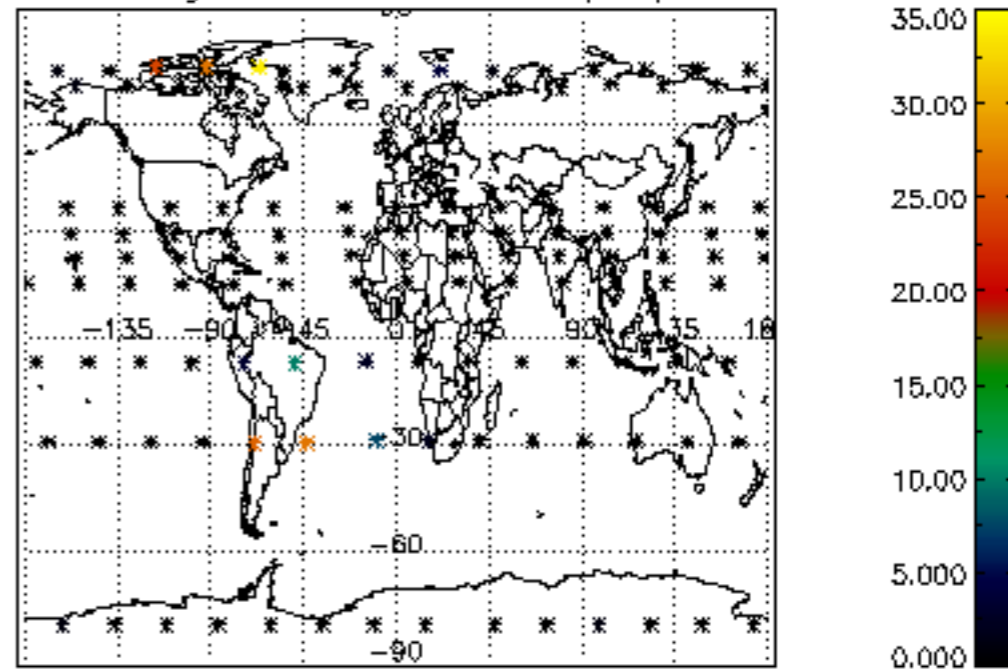
Percentage of datation errors per profile



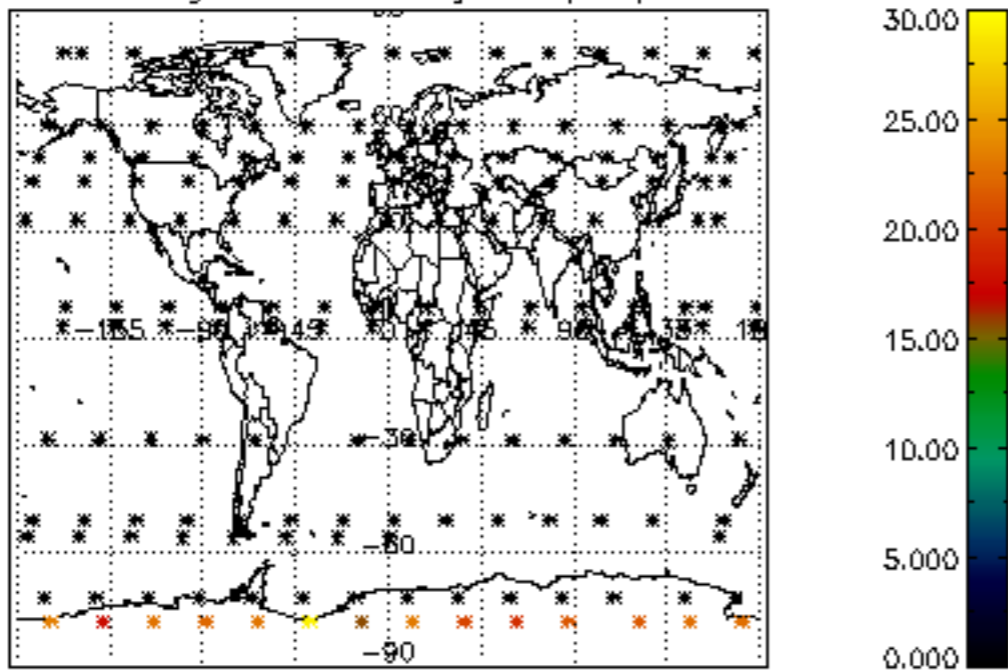
Percentage of star falling outside central band per profile



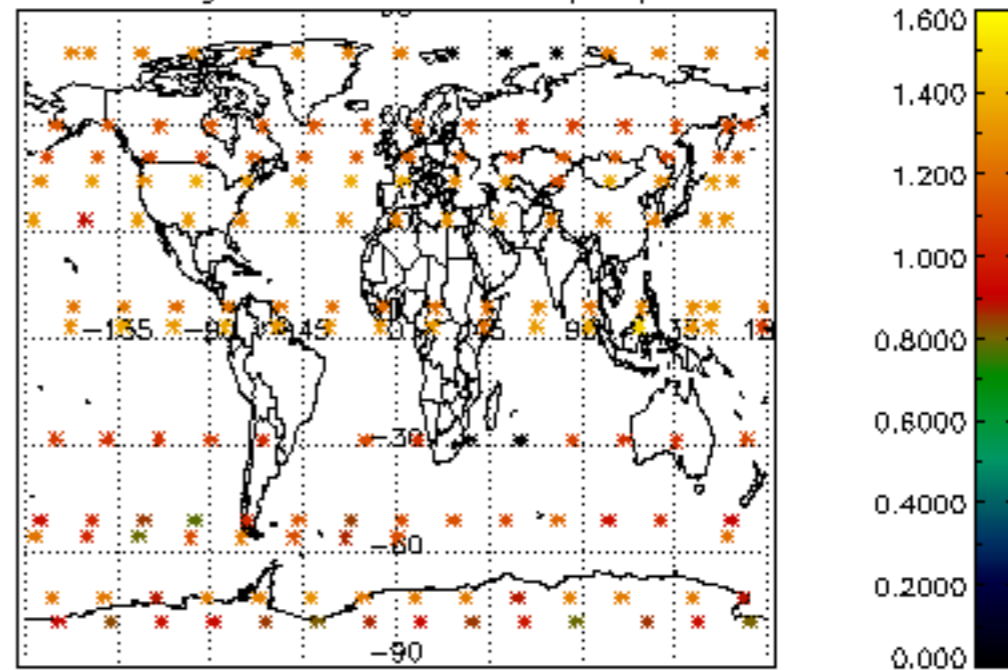
Percentage of saturation errors per profile



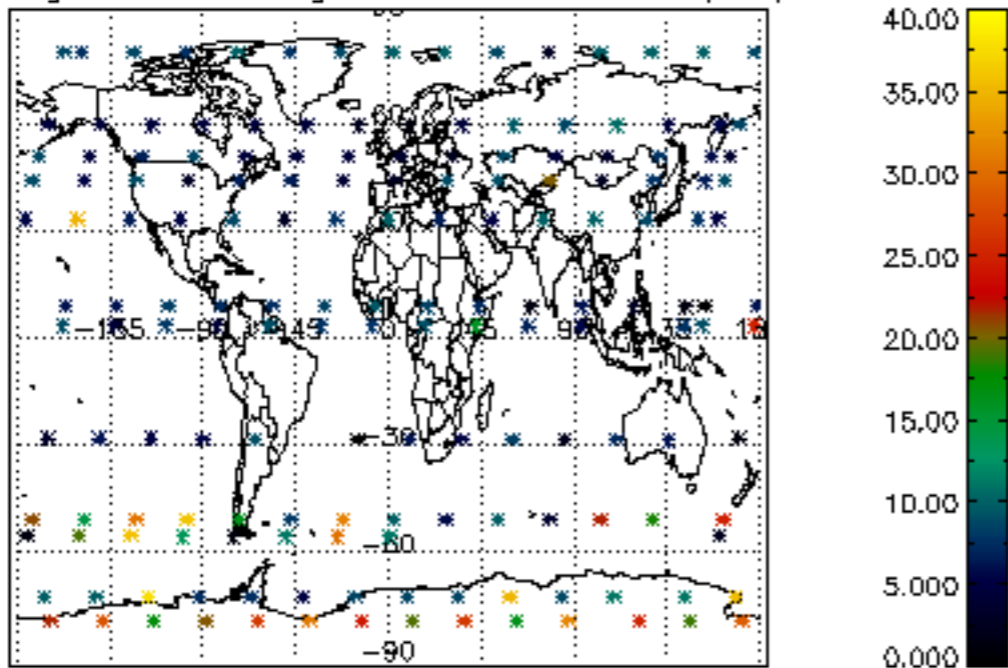
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

