

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	29APR2013 11:02:55
Data source version	GOMOS/6.01
Start time of products	22-05-2010 (22MAY2010 00:00:00)
Stop time of products	23-05-2010 (23MAY2010 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	300
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

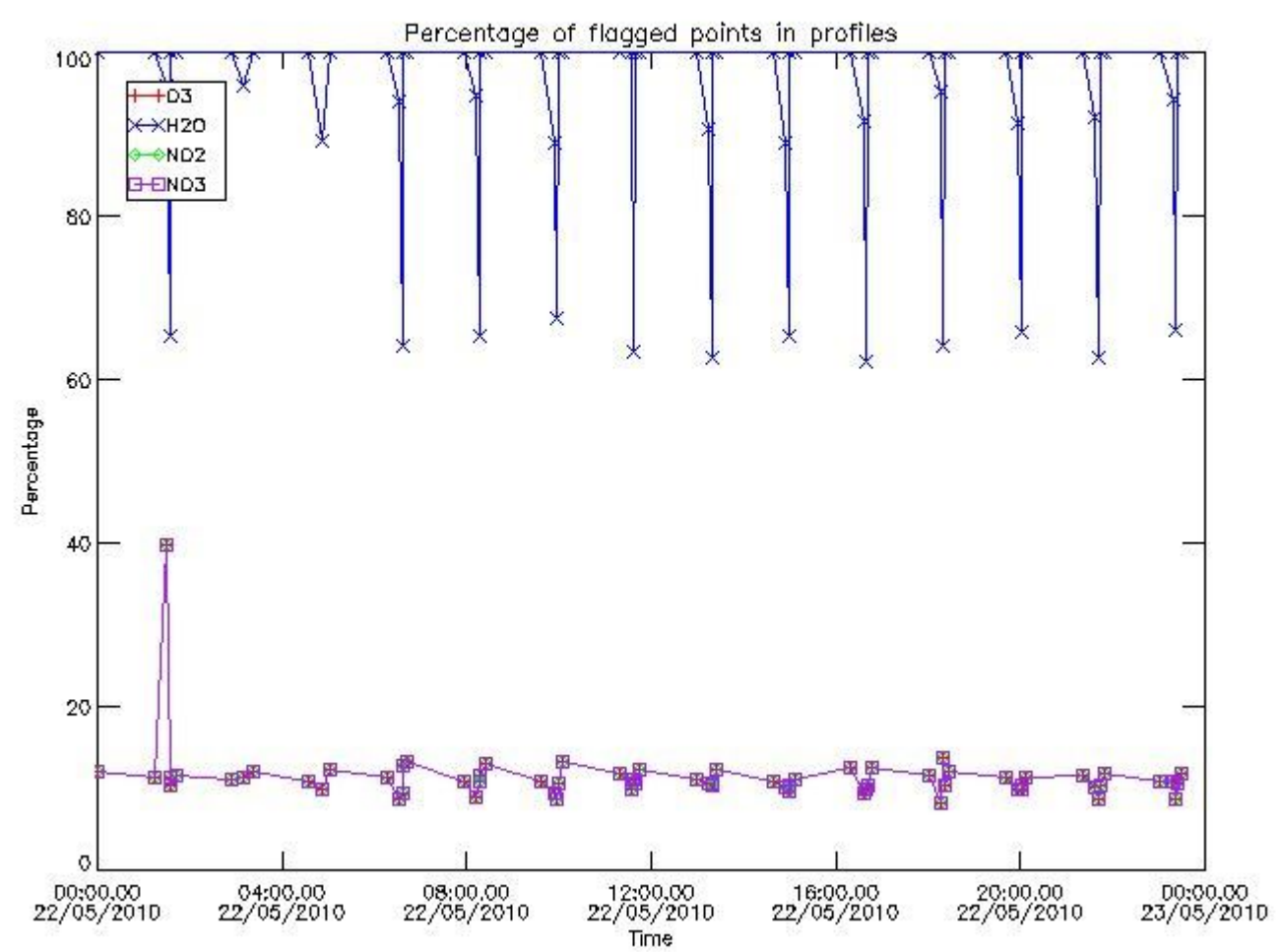
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20100522_000043_000000432089_00360_42999_0922.N1	22-MAY-2010 00:00:43	Dark	42.500	45	Alp Pav	1.9400	26000.	85	42999	No
2	GOM_NL__2PRFIN20100522_000736_000000502089_00360_42999_0923.N1	22-MAY-2010 00:07:36	Straylight	49.500	141	Bet Ara	2.8400	4600.0	99	42999	No
3	GOM_NL__2PRFIN20100522_001020_000000472089_00360_42999_0924.N1	22-MAY-2010 00:10:20	Straylight	47.000	40	The Sco	1.8590	7100.0	94	42999	No
4	GOM_NL__2PRFIN20100522_001211_000000512089_00360_42999_0925.N1	22-MAY-2010 00:12:11	Straylight	51.000	25	35Lam Sco	1.6200	28000.	102	42999	No
5	GOM_NL__2PRFIN20100522_001418_000000492089_00360_42999_0926.N1	22-MAY-2010 00:14:18	Twilight	48.500	75	26Eps Sco	2.2910	4250.0	97	42999	No
6	GOM_NL__2PRFIN20100522_001712_000000572089_00360_42999_0927.N1	22-MAY-2010 00:17:12	Twilight	57.000	16	21Alp Sco	1.0200	3000.0	114	42999	No
7	GOM_NL__2PRFIN20100522_001938_000000422089_00360_42999_0928.N1	22-MAY-2010 00:19:38	Bright	42.000	97	8Bet1Sco	2.5610	30000.	84	42999	No
8	GOM_NL__2PRFIN20100522_002310_000000382089_00360_42999_0929.N1	22-MAY-2010 00:23:10	Bright	38.000	104	27Bet Lib	2.6140	13100.	76	42999	No
9	GOM_NL__2PRFIN20100522_002501_000000452089_00360_42999_0930.N1	22-MAY-2010 00:25:01	Bright	45.000	120	1Del Oph	2.7340	3200.0	90	42999	No
10	GOM_NL__2PRFIN20100522_002806_000000412089_00360_42999_0931.N1	22-MAY-2010 00:28:06	Bright	41.000	102	24Alp Ser	2.6000	4250.0	82	42999	No
11	GOM_NL__2PRFIN20100522_003349_000000362089_00360_42999_0932.N1	22-MAY-2010 00:33:49	Bright	36.000	83		2.3780	11000.	72	42999	No
12	GOM_NL__2PRFIN20100522_003659_000000362089_00360_42999_0933.N1	22-MAY-2010 00:36:59	Bright	35.500	180	27Gam Boo	3.0400	8000.0	71	42999	No
13	GOM_NL__2PRFIN20100522_004513_000000412089_00360_42999_0934.N1	22-MAY-2010 00:45:13	Bright	41.000	119	14Eta Dra	2.7270	4700.0	82	42999	No
14	GOM_NL__2PRFIN20100522_004712_000000392089_00360_42999_0935.N1	22-MAY-2010 00:47:12	Bright	39.000	60	7Bet UMi	2.0810	3950.0	78	42999	No
15	GOM_NL__2PRFIN20100522_005955_000000542089_00360_42999_0936.N1	22-MAY-2010 00:59:55	Bright	54.000	76	27Gam Cas	2.3000	30000.	108	42999	No
16	GOM_NL__2PRFIN20100522_010108_000000372089_00360_42999_0937.N1	22-MAY-2010 01:01:08	Bright	36.500	68	18Alp Cas	2.2250	4500.0	73	42999	No
17	GOM_NL__2PRFIN20100522_010946_000000472089_00360_42999_0938.N1	22-MAY-2010 01:09:46	Twilight	47.000	58	21Alp And	2.0730	11000.	94	42999	No
18	GOM_NL__2PRFIN20100522_011409_000000452089_00360_42999_0939.N1	22-MAY-2010 01:14:09	Dark	44.500	140	88Gam Peg	2.8340	26000.	89	42999	No
19	GOM_NL__2PRFIN20100522_013011_000000502089_00360_42999_0940.N1	22-MAY-2010 01:30:11	Dark	49.500	18	24Alp PsA	1.1660	9700.0	99	42999	No
20	GOM_NL__2PRFIN20100522_013416_000000582089_00360_42999_0941.N1	22-MAY-2010 01:34:16	Dark	58.000	63	Bet Gru	2.1500	2800.0	116	42999	No
21	GOM_NL__2PRFIN20100522_013554_000000502089_00361_43000_0929.N1	22-MAY-2010 01:35:54	Dark	49.500	31	Alp Gru	1.7340	15200.	99	43000	No
22	GOM_NL__2PRFIN20100522_014120_000000442089_00361_43000_0930.N1	22-MAY-2010 01:41:20	Dark	44.000	45	Alp Pav	1.9400	26000.	88	43000	No
23	GOM_NL__2PRFIN20100522_014813_000000422089_00361_43000_0931.N1	22-MAY-2010 01:48:13	Straylight	42.000	141	Bet Ara	2.8400	4600.0	84	43000	No
24	GOM_NL__2PRFIN20100522_015057_000000502089_00361_43000_0932.N1	22-MAY-2010 01:50:57	Straylight	50.000	40	The Sco	1.8590	7100.0	100	43000	No
25	GOM_NL__2PRFIN20100522_015248_000000502089_00361_43000_0933.N1	22-MAY-2010 01:52:48	Straylight	49.500	25	35Lam Sco	1.6200	28000.	99	43000	No
26	GOM_NL__2PRFIN20100522_015454_000000482089_00361_43000_0934.N1	22-MAY-2010 01:54:54	Twilight	48.000	75	26Eps Sco	2.2910	4250.0	96	43000	No
27	GOM_NL__2PRFIN20100522_015748_000000532089_00361_43000_0935.N1	22-MAY-2010 01:57:48	Twilight	53.000	16	21Alp Sco	1.0200	3000.0	106	43000	No
28	GOM_NL__2PRFIN20100522_020014_000000442089_00361_43000_0936.N1	22-MAY-2010 02:00:14	Bright	43.500	97	8Bet1Sco	2.5610	30000.	87	43000	No
29	GOM_NL__2PRFIN20100522_020346_000000392089_00361_43000_0937.N1	22-MAY-2010 02:03:46	Bright	38.500	104	27Bet Lib	2.6140	13100.	77	43000	No
30	GOM_NL__2PRFIN20100522_020537_000000462089_00361_43000_0938.N1	22-MAY-2010 02:05:37	Bright	46.000	120	1Del Oph	2.7340	3200.0	92	43000	No
31	GOM_NL__2PRFIN20100522_020842_000000412089_00361_43000_0939.N1	22-MAY-2010 02:08:42	Bright	41.000	102	24Alp Ser	2.6000	4250.0	82	43000	No
32	GOM_NL__2PRFIN20100522_021425_000000362089_00361_43000_0940.N1	22-MAY-2010 02:14:25	Bright	35.500	83		2.3780	11000.	71	43000	No
33	GOM_NL__2PRFIN20100522_021735_000000372089_00361_43000_0941.N1	22-MAY-2010 02:17:35	Bright	37.000	180	27Gam Boo	3.0400	8000.0	74	43000	No
34	GOM_NL__2PRFIN20100522_022549_000000392089_00361_43000_0942.N1	22-MAY-2010 02:25:49	Bright	39.000	119	14Eta Dra	2.7270	4700.0	78	43000	No
35	GOM_NL__2PRFIN20100522_022748_000000382089_00361_43000_0943.N1	22-MAY-2010 02:27:48	Bright	38.000	60	7Bet UMi	2.0810	3950.0	76	43000	No
36	GOM_NL__2PRFIN20100522_024031_000000362089_00361_43000_0944.N1	22-MAY-2010 02:40:31	Bright	36.000	76	27Gam Cas	2.3000	30000.	72	43000	No
37	GOM_NL__2PRFIN20100522_024143_000000392089_00361_43000_0945.N1	22-MAY-2010 02:41:43	Bright	39.000	68	18Alp Cas	2.2250	4500.0	78	43000	No
38	GOM_NL__2PRFIN20100522_025022_000000482089_00361_43000_0946.N1	22-MAY-2010 02:50:22	Twilight	48.000	58	21Alp And	2.0730	11000.	96	43000	No
39	GOM_NL__2PRFIN20100522_025445_000000462089_00361_43000_0947.N1	22-MAY-2010 02:54:45	Dark	46.000	140	88Gam Peg	2.8340	26000.	92	43000	No
40	GOM_NL__2PRFIN20100522_031048_000000492089_00361_43000_0948.N1	22-MAY-2010 03:10:48	Dark	49.000	18	24Alp PsA	1.1660	9700.0	98	43000	No
41	GOM_NL__2PRFIN20100522_032156_000000422089_00362_43001_0937.N1	22-MAY-2010 03:21:56	Dark	42.000	45	Alp Pav	1.9400	26000.	84	43001	No
42	GOM_NL__2PRFIN20100522_032849_000000482089_00362_43001_0938.N1	22-MAY-2010 03:28:49	Straylight	47.500	141	Bet Ara	2.8400	4600.0	95	43001	No

279	GOM_NL__2PRFIN20100522_221551_000000402089_00373_43012_1055.N1	22-MAY-2010 22:15:51	Bright	40.000	102	24Alp Ser	2.6000	4250.0	80	43012	No
280	GOM_NL__2PRFIN20100522_222136_000000362089_00373_43012_1056.N1	22-MAY-2010 22:21:36	Bright	36.000	83		2.3780	11000.	72	43012	No
281	GOM_NL__2PRFIN20100522_222445_000000372089_00373_43012_1057.N1	22-MAY-2010 22:24:45	Bright	37.000	180	27Gam Boo	3.0400	8000.0	74	43012	No
282	GOM_NL__2PRFIN20100522_223255_000000432089_00373_43012_1058.N1	22-MAY-2010 22:32:55	Bright	42.500	119	14Eta Dra	2.7270	4700.0	85	43012	No
283	GOM_NL__2PRFIN20100522_223458_000000402089_00373_43012_1059.N1	22-MAY-2010 22:34:58	Bright	40.000	60	7Bet UMi	2.0810	3950.0	80	43012	No
284	GOM_NL__2PRFIN20100522_224742_000000482089_00373_43012_1060.N1	22-MAY-2010 22:47:42	Bright	48.000	76	27Gam Cas	2.3000	30000.	96	43012	No
285	GOM_NL__2PRFIN20100522_224854_000000392089_00373_43012_1061.N1	22-MAY-2010 22:48:54	Bright	38.500	68	18Alp Cas	2.2250	4500.0	77	43012	No
286	GOM_NL__2PRFIN20100522_225736_000000492089_00373_43012_1062.N1	22-MAY-2010 22:57:36	Twilight	48.500	58	21Alp And	2.0730	11000.	97	43012	No
287	GOM_NL__2PRFIN20100522_230200_000000462089_00373_43012_1063.N1	22-MAY-2010 23:02:00	Dark	46.000	140	88Gam Peg	2.8340	26000.	92	43012	No
288	GOM_NL__2PRFIN20100522_231811_000000522089_00373_43012_1064.N1	22-MAY-2010 23:18:11	Dark	51.500	18	24Alp PsA	1.1660	9700.0	103	43012	No
289	GOM_NL__2PRFIN20100522_232213_000000582089_00373_43012_1065.N1	22-MAY-2010 23:22:13	Dark	58.000	63	Bet Gru	2.1500	2800.0	116	43012	No
290	GOM_NL__2PRFIN20100522_232340_000000482089_00374_43013_1053.N1	22-MAY-2010 23:23:40	Dark	48.000	172	Gam Gru	3.0030	13100.	96	43013	No
291	GOM_NL__2PRFIN20100522_232916_000000432089_00374_43013_1054.N1	22-MAY-2010 23:29:16	Dark	43.000	45	Alp Pav	1.9400	26000.	86	43013	No
292	GOM_NL__2PRFIN20100522_233606_000000432089_00374_43013_1055.N1	22-MAY-2010 23:36:06	Straylight	42.500	141	Bet Ara	2.8400	4600.0	85	43013	No
293	GOM_NL__2PRFIN20100522_233851_000000492089_00374_43013_1056.N1	22-MAY-2010 23:38:51	Straylight	49.000	40	The Sco	1.8590	7100.0	98	43013	No
294	GOM_NL__2PRFIN20100522_234042_000000512089_00374_43013_1057.N1	22-MAY-2010 23:40:42	Straylight	50.500	25	35Lam Sco	1.6200	28000.	101	43013	No
295	GOM_NL__2PRFIN20100522_234246_000000552089_00374_43013_1058.N1	22-MAY-2010 23:42:46	Twilight	54.500	75	26Eps Sco	2.2910	4250.0	109	43013	No
296	GOM_NL__2PRFIN20100522_234539_000000602089_00374_43013_1059.N1	22-MAY-2010 23:45:39	Bright	60.000	16	21Alp Sco	1.0200	3000.0	120	43013	No
297	GOM_NL__2PRFIN20100522_234804_000000442089_00374_43013_1060.N1	22-MAY-2010 23:48:04	Bright	43.500	97	8Bet1Sco	2.5610	30000.	87	43013	No
298	GOM_NL__2PRFIN20100522_235134_000000362089_00374_43013_1061.N1	22-MAY-2010 23:51:34	Bright	36.000	104	27Bet Lib	2.6140	13100.	72	43013	No
299	GOM_NL__2PRFIN20100522_235322_000000452089_00374_43013_1062.N1	22-MAY-2010 23:53:22	Bright	44.500	120	1Del Oph	2.7340	3200.0	89	43013	No
300	GOM_NL__2PRFIN20100522_235627_000000412089_00374_43013_1063.N1	22-MAY-2010 23:56:27	Bright	40.500	102	24Alp Ser	2.6000	4250.0	81	43013	No

3. Quality information per product

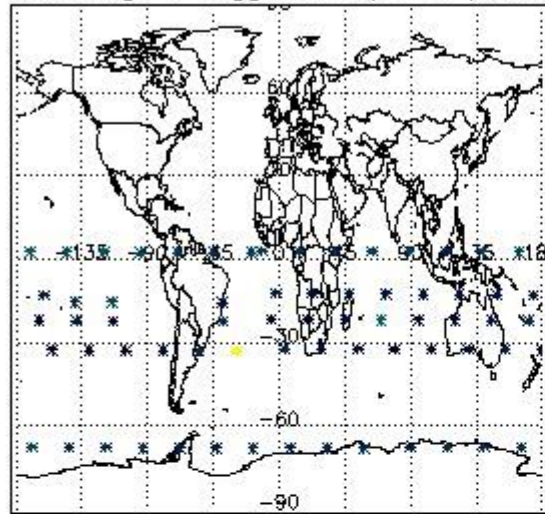
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

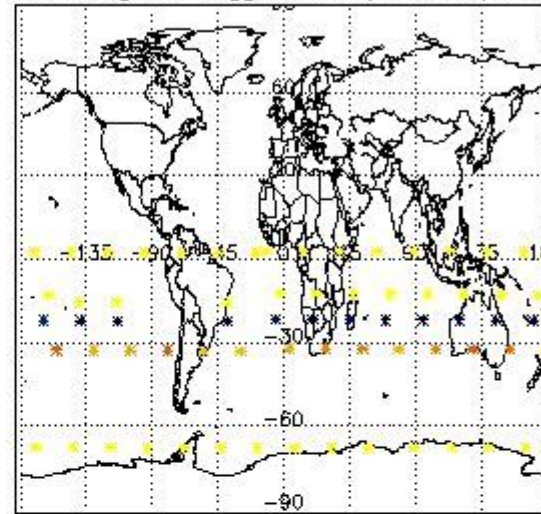


3.2 Plot quality information per product (world map)

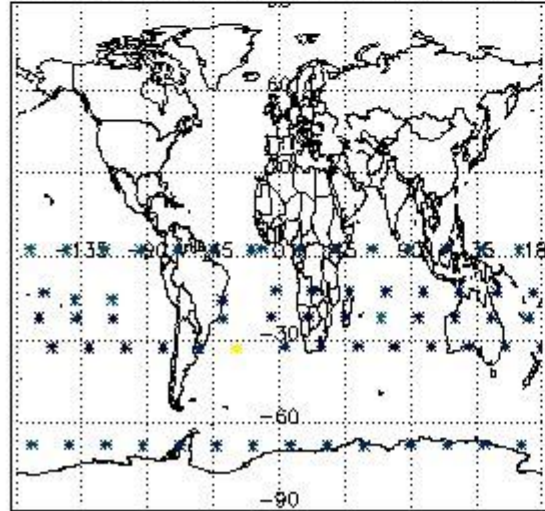
Percentage of flagged data per O3 profile



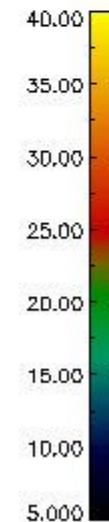
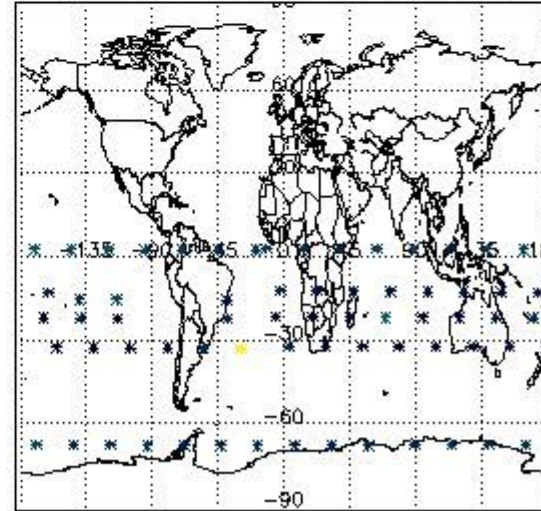
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

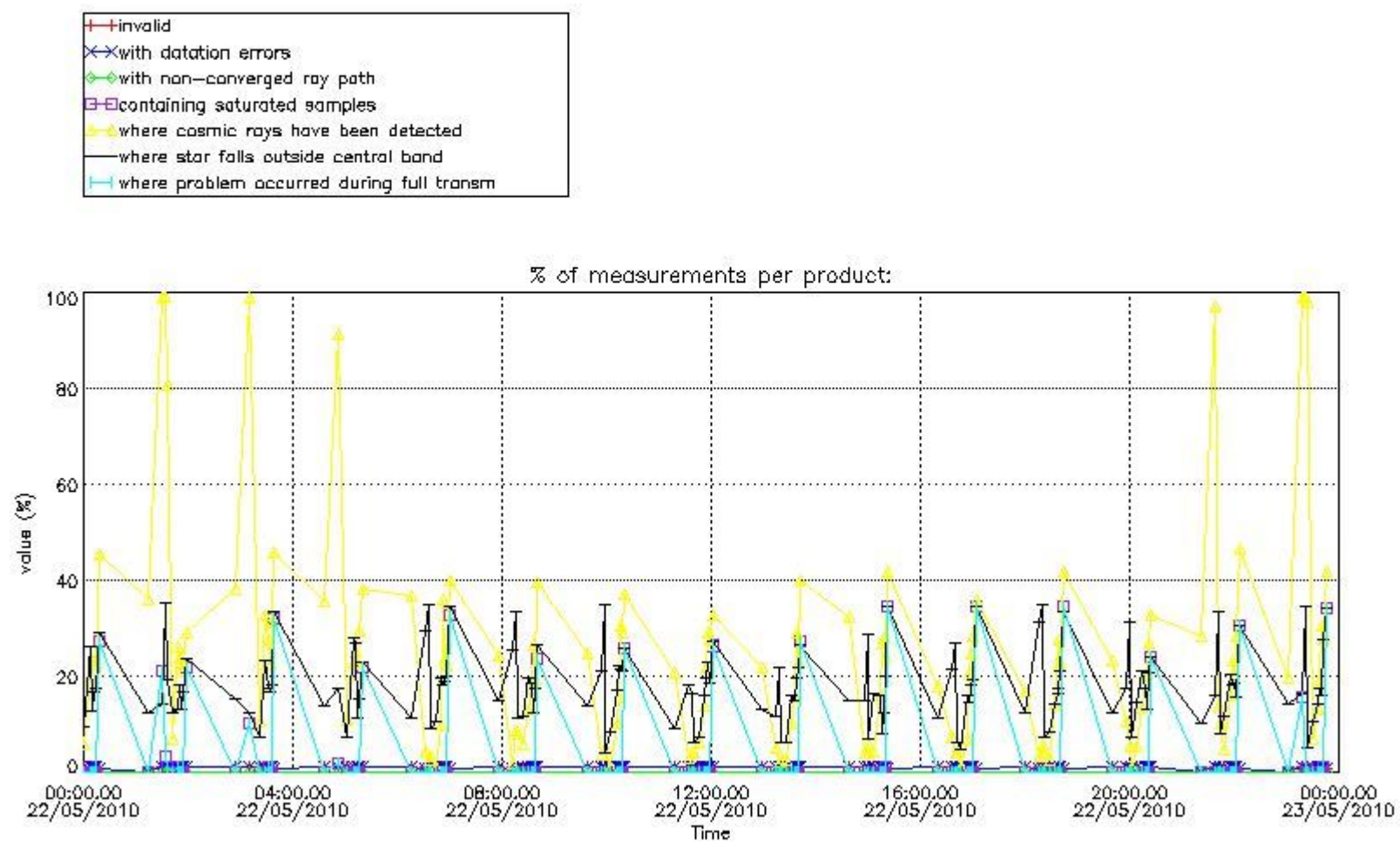


4. Level 1 quality information per product

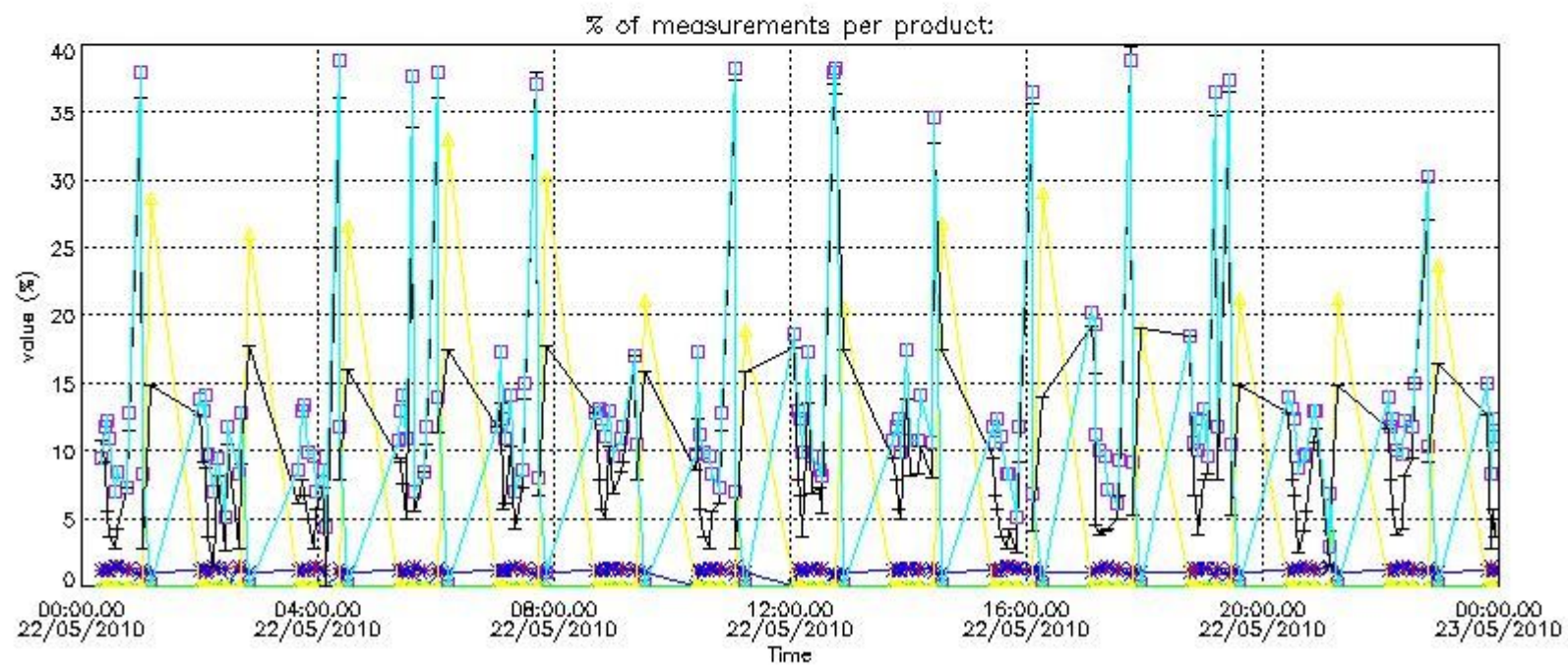
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



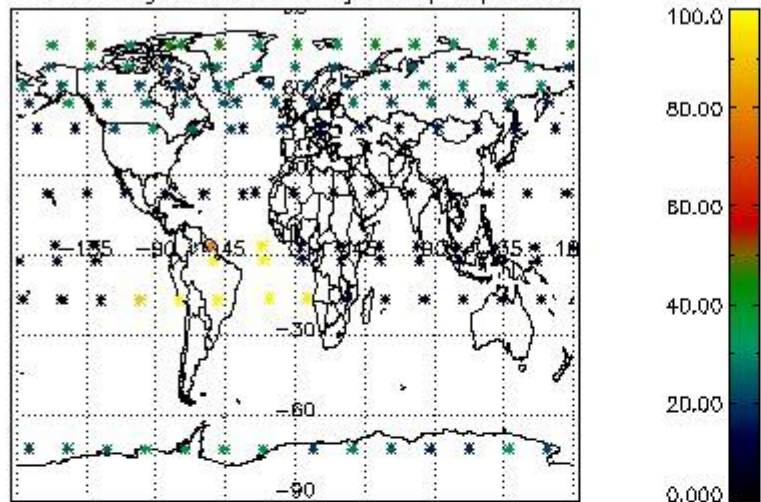
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



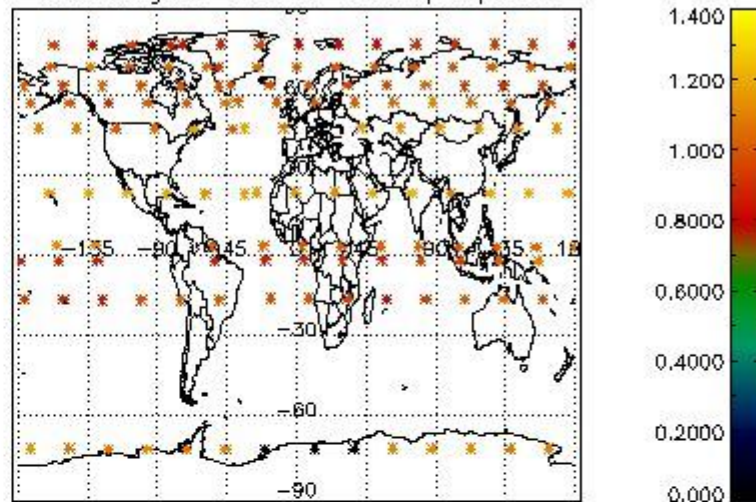
4.2 Plot quality information per product coming from level 1b processing (world map)

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

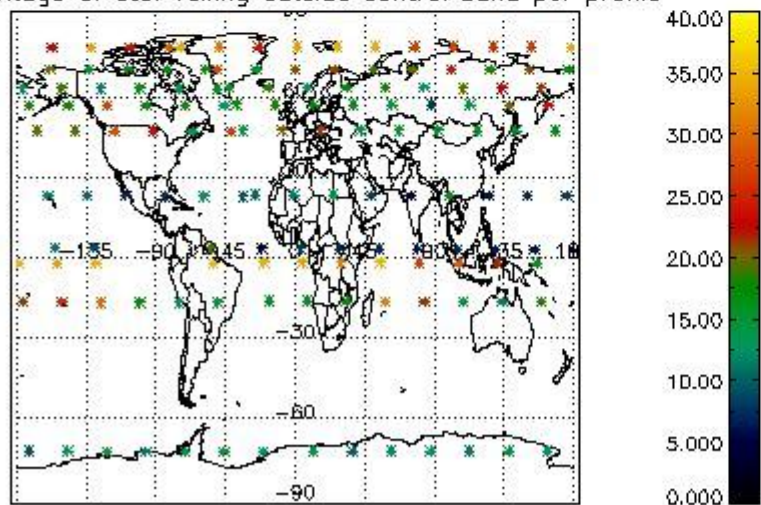
Percentage of cosmic ray hits per profile



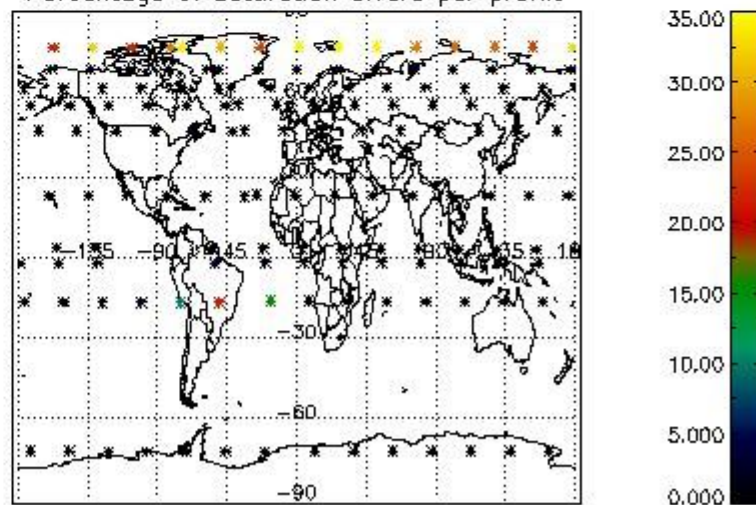
Percentage of datation errors per profile



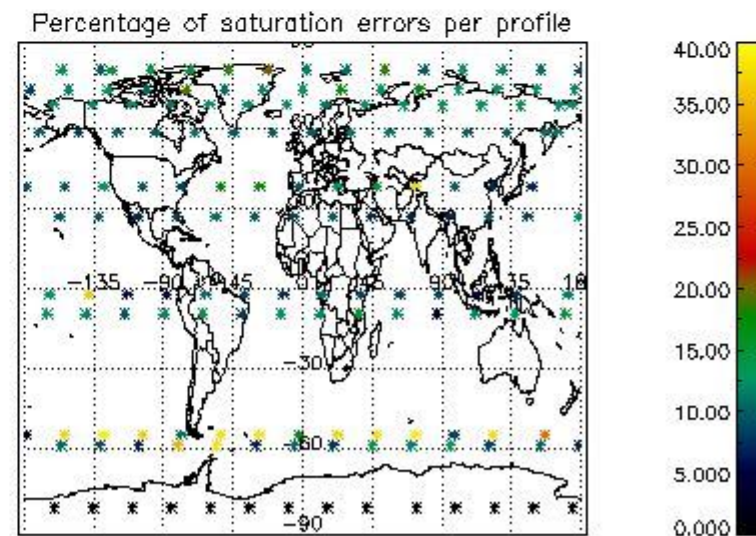
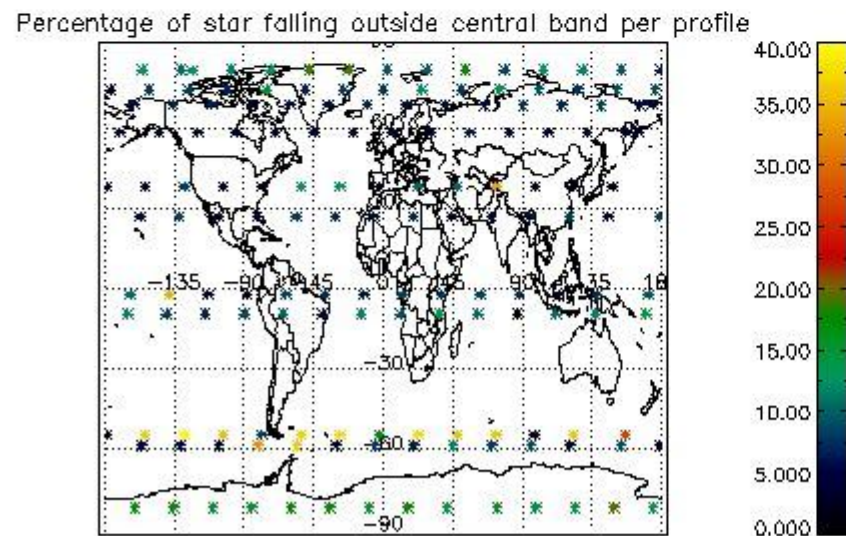
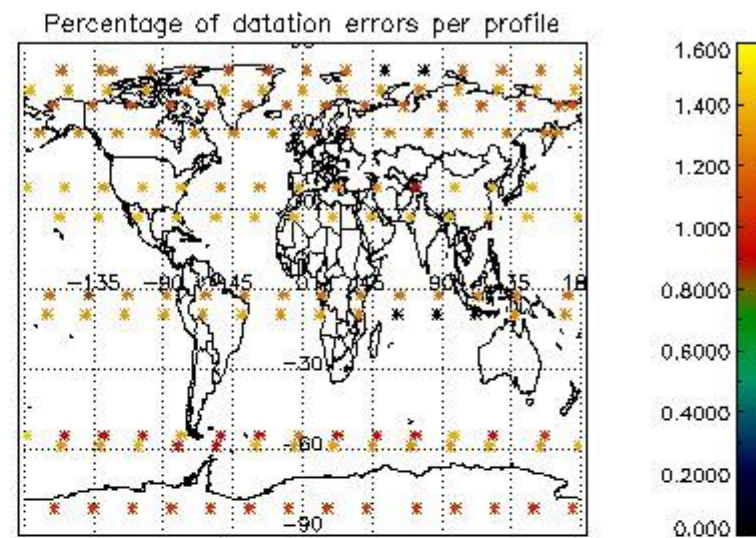
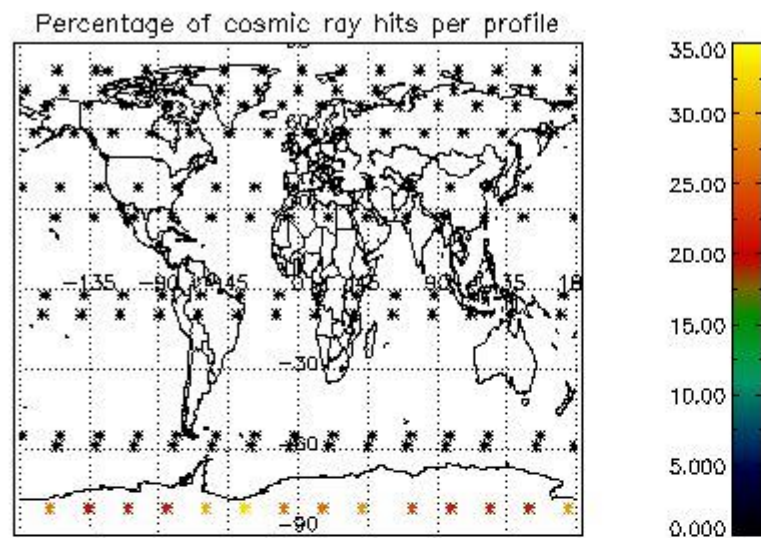
Percentage of star falling outside central band per profile



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

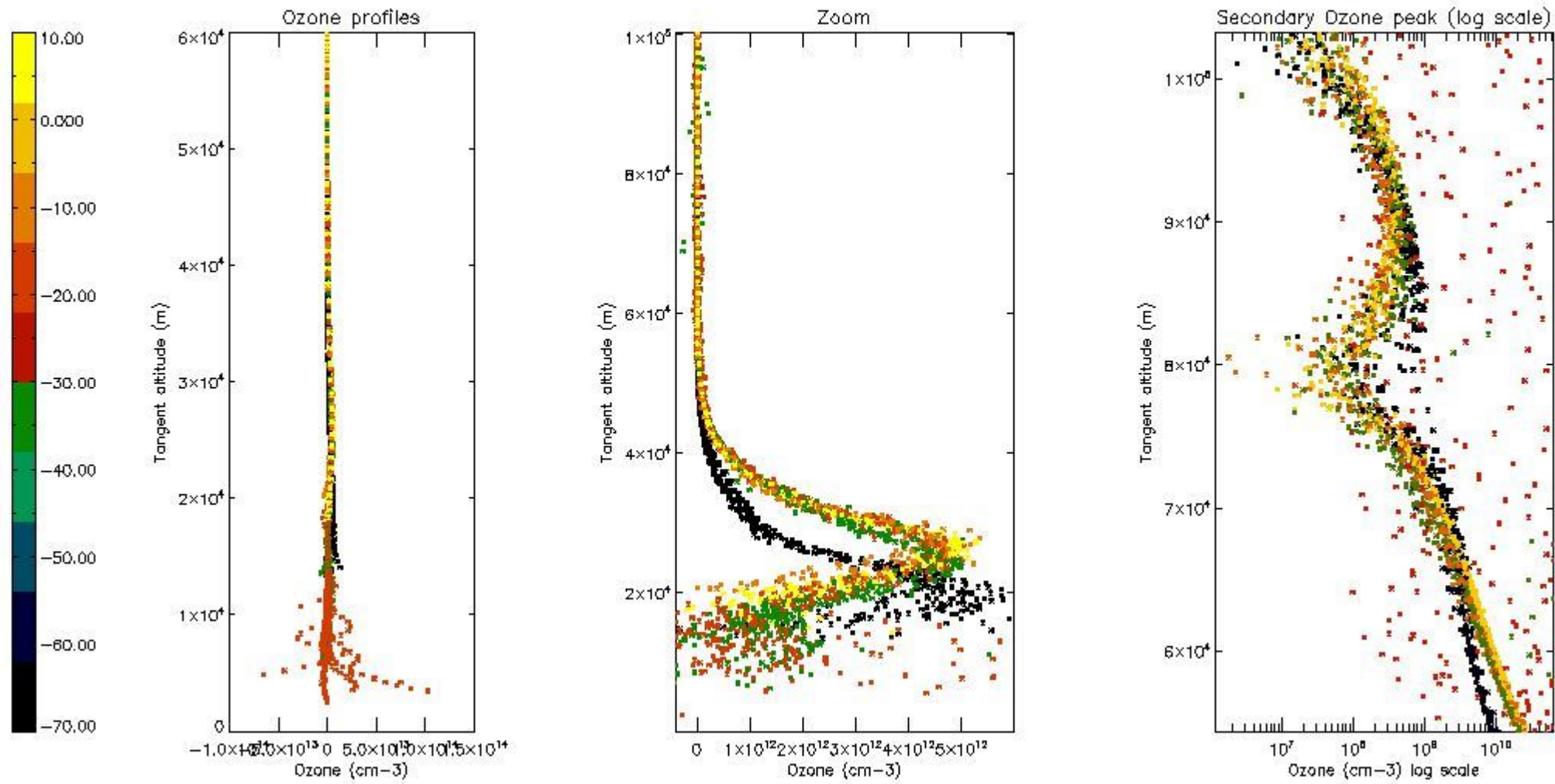
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	25
STD < 20	13

STD < 10	10
STD < 5	7

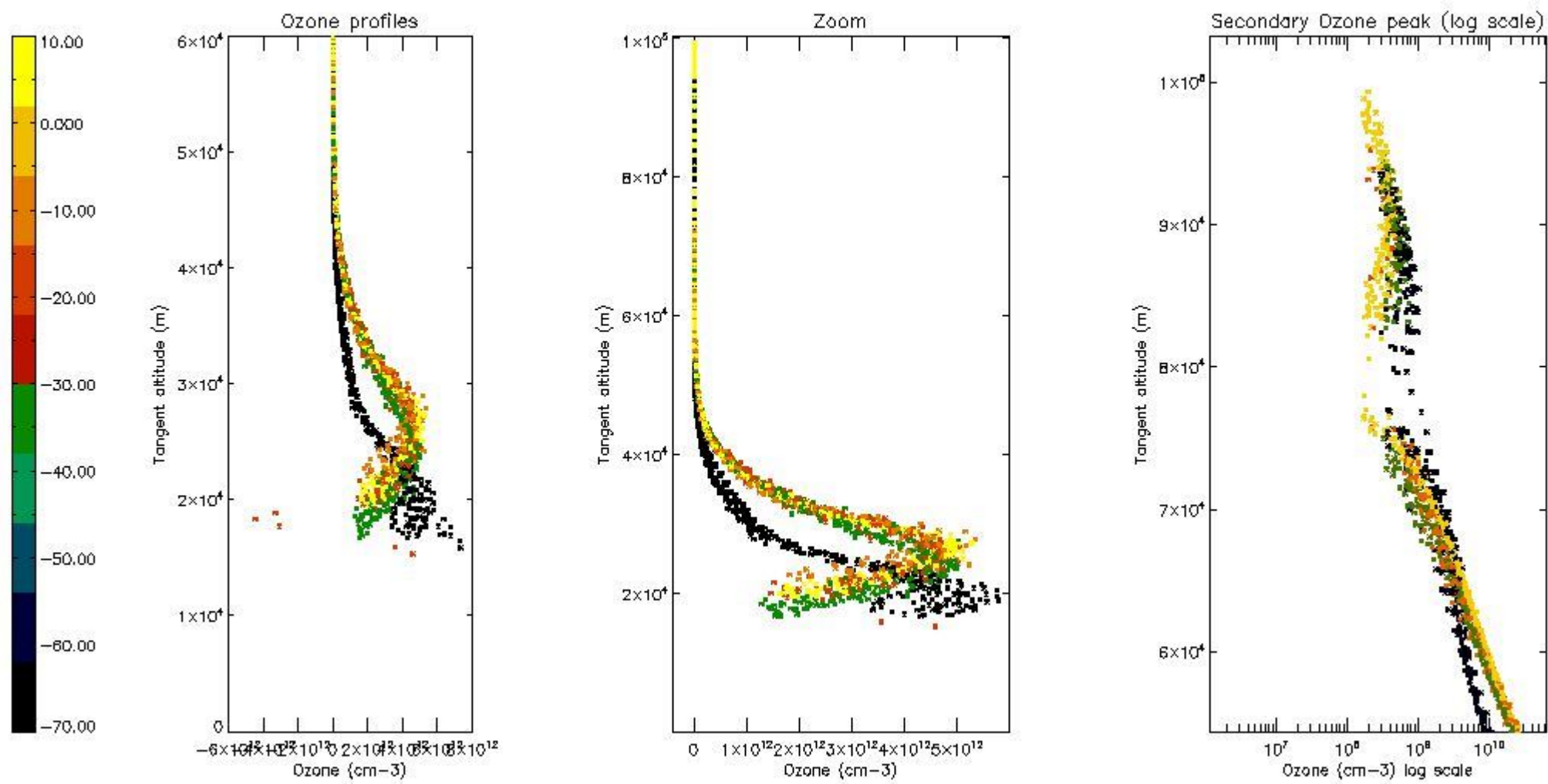
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



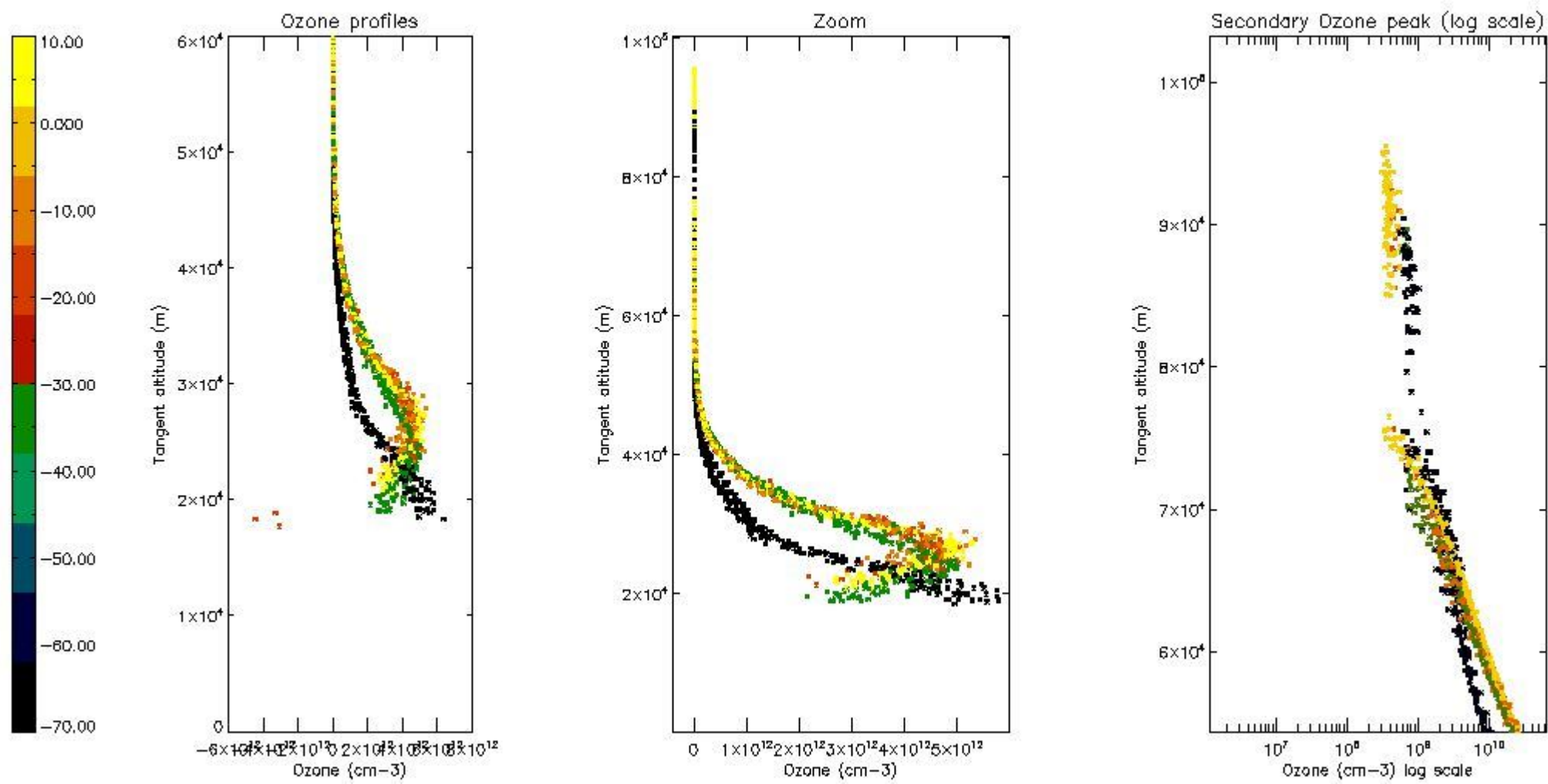
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



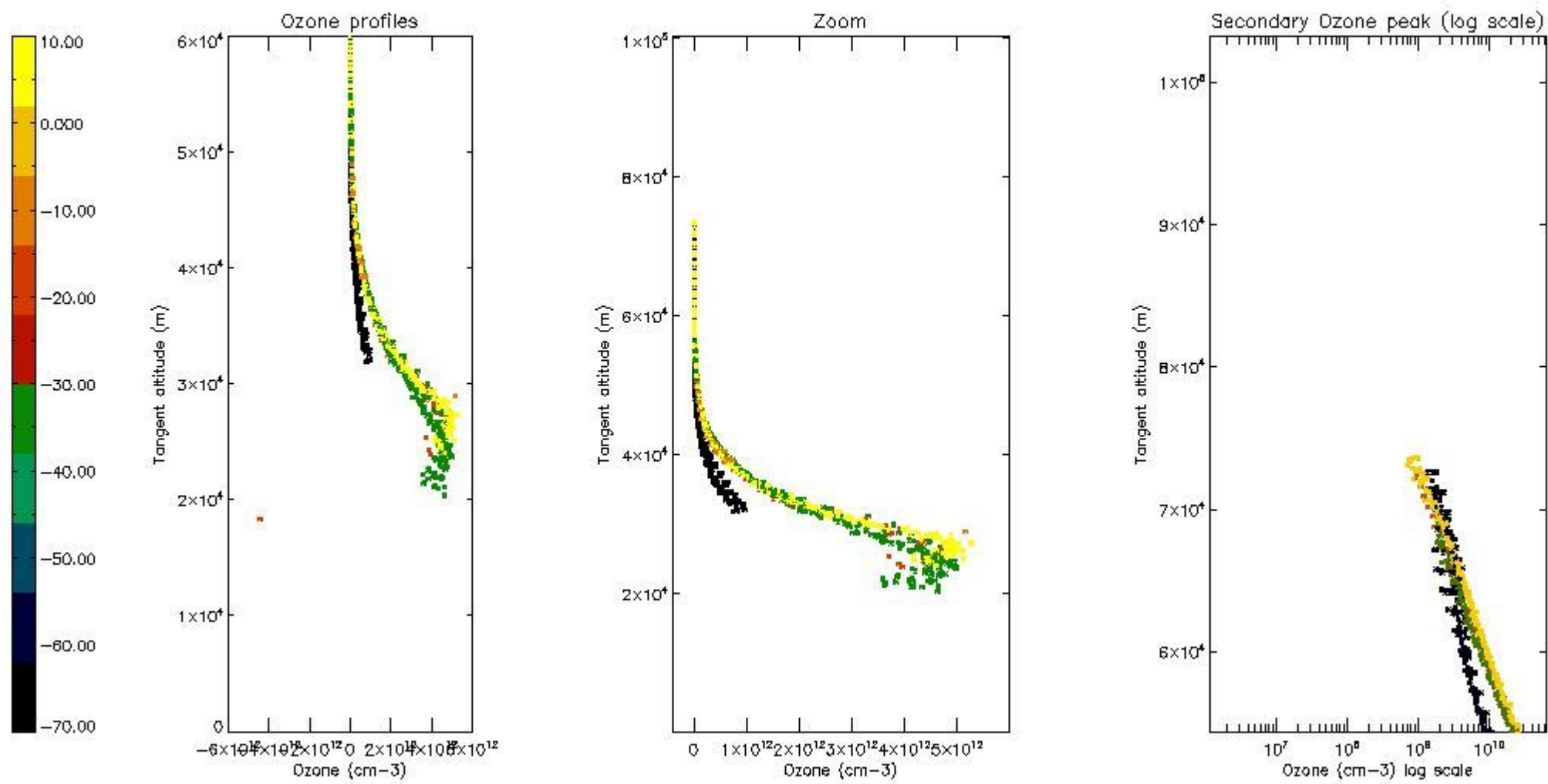
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



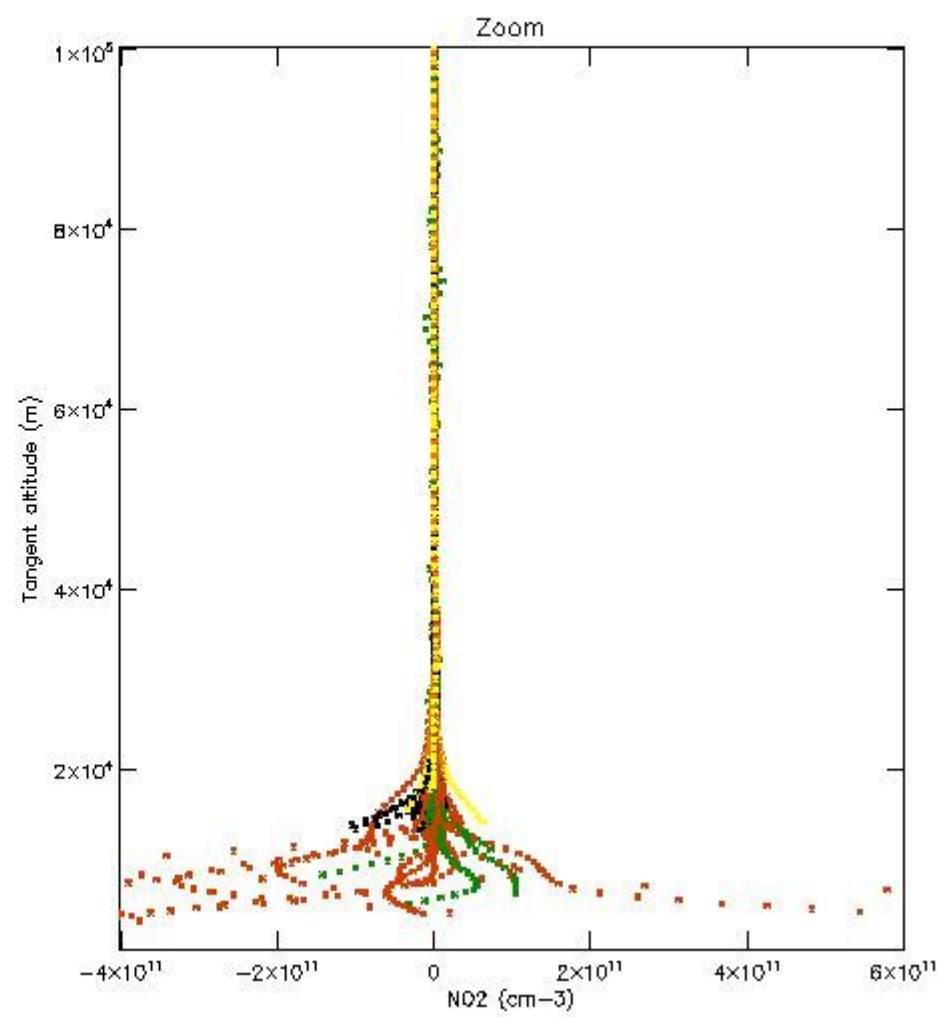
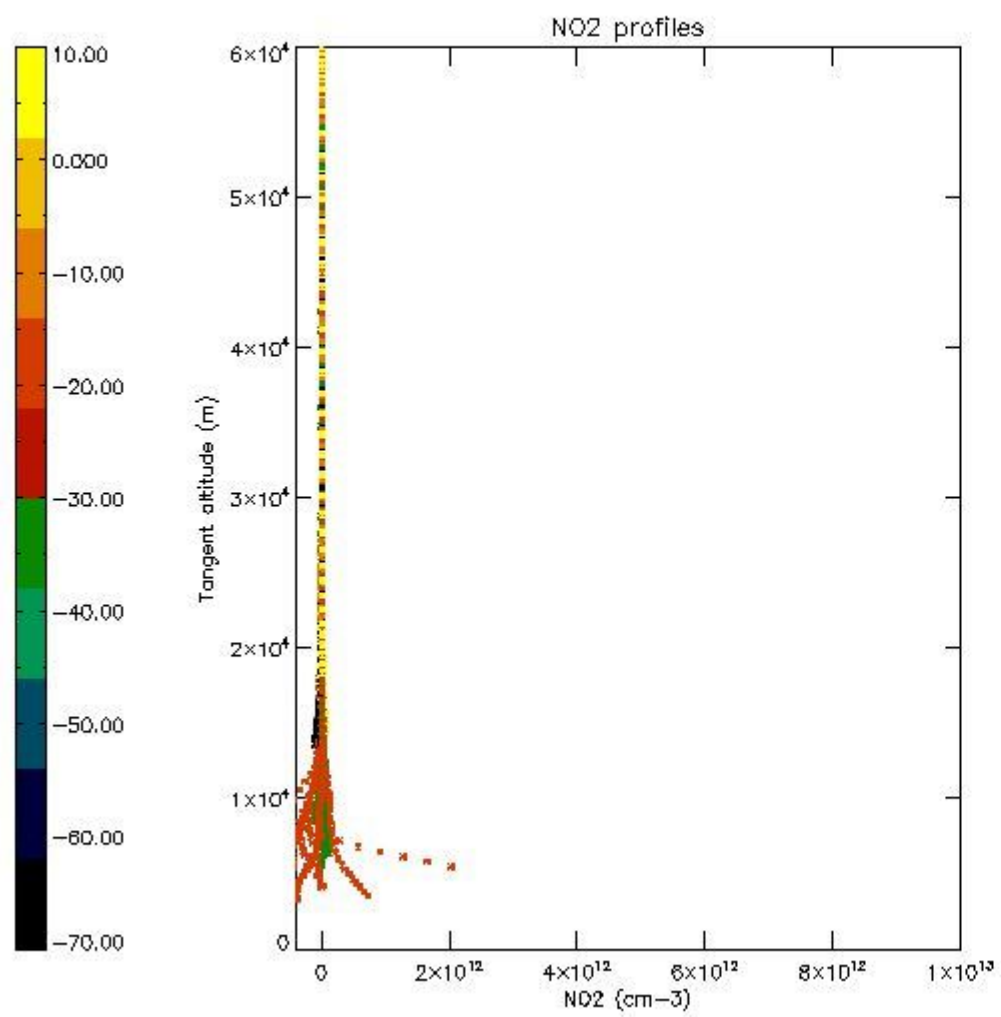
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



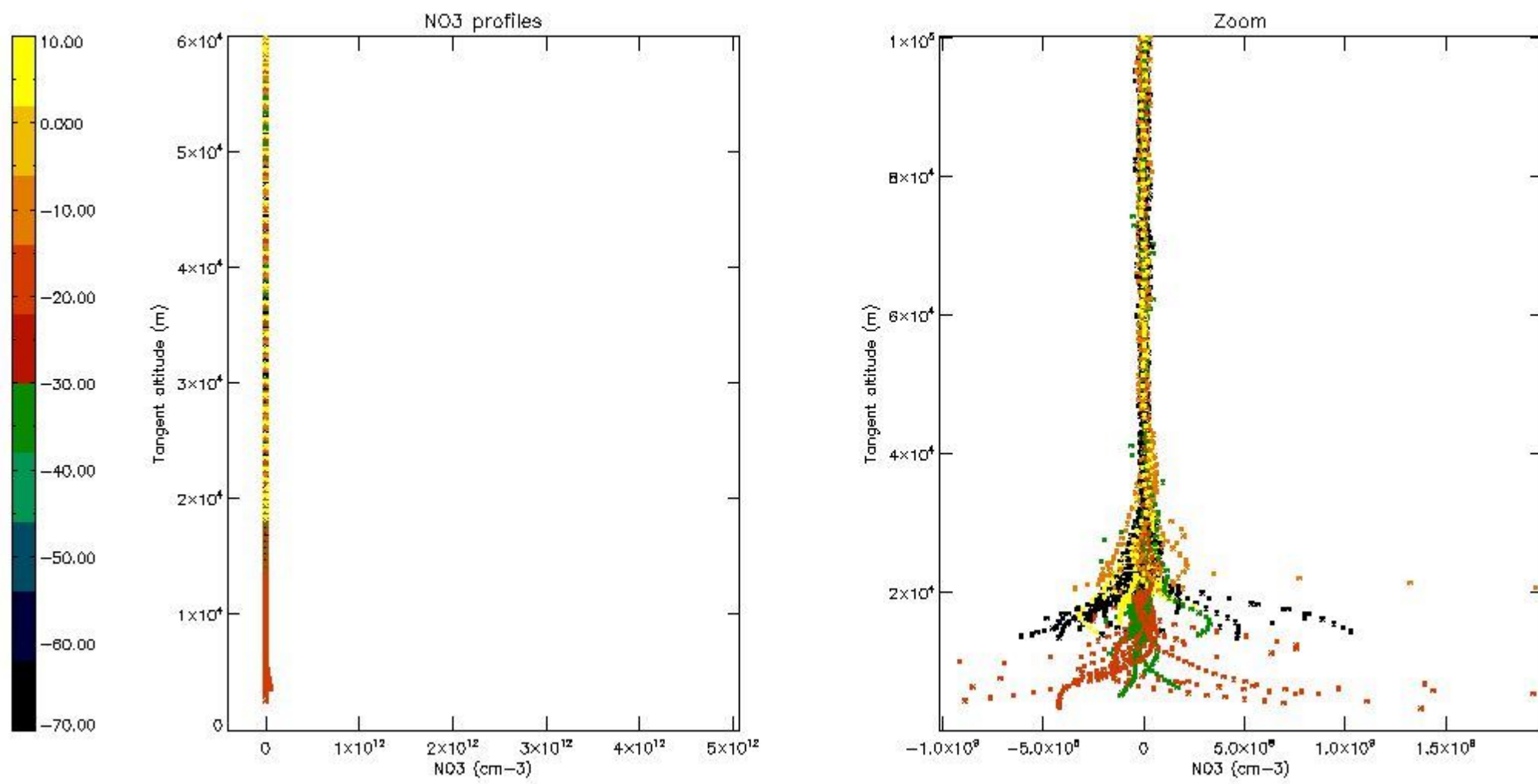
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



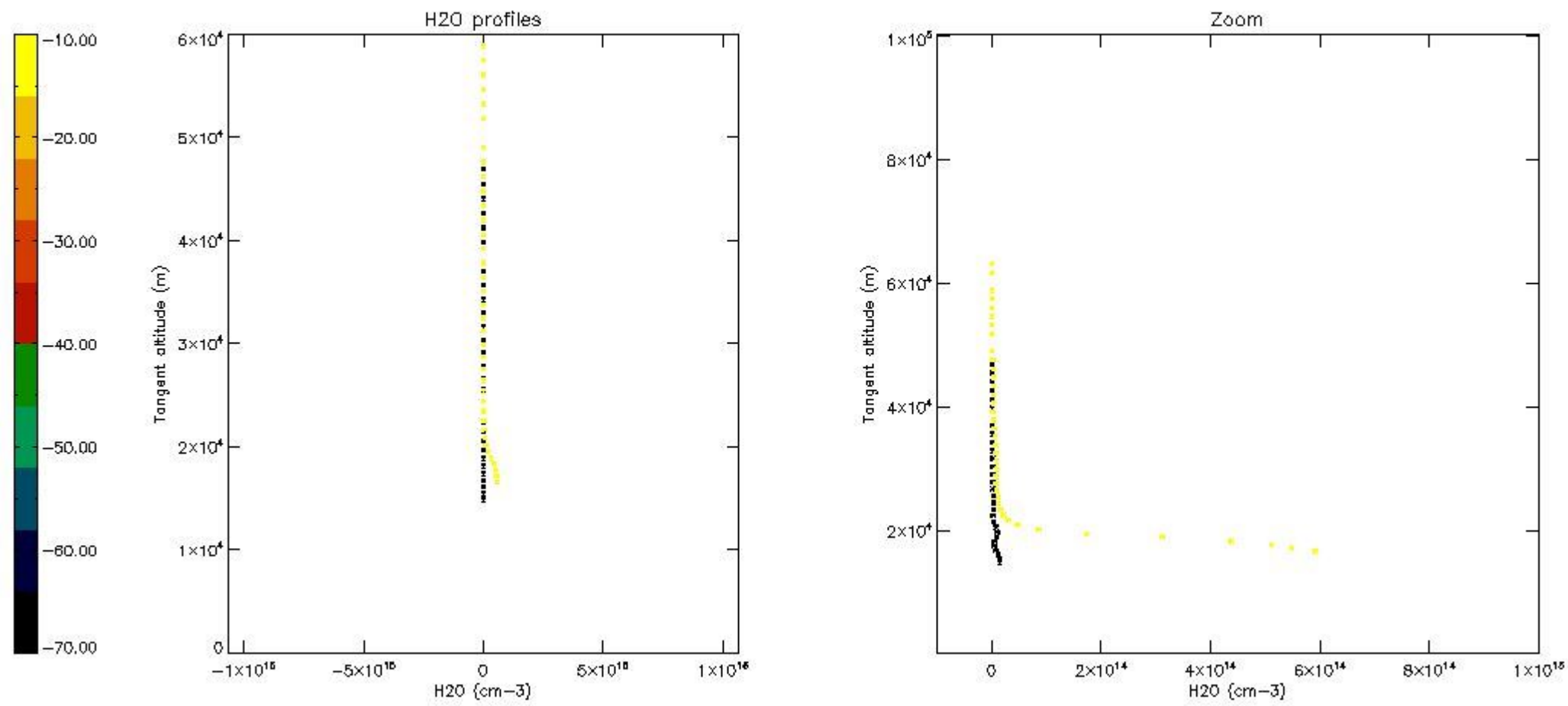
5.7 Plot NO3 profiles for all STD (dark without errors)

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	22-MAY-2010 00:00:43
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	22-MAY-2010 00:00:43
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	22-MAY-2010 00:00:43

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	29APR2013 11:02:55
Data source version	GOMOS/6.01
Start time of products	22-05-2010 (22MAY2010 00:00:00)
Stop time of products	23-05-2010 (23MAY2010 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	300
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

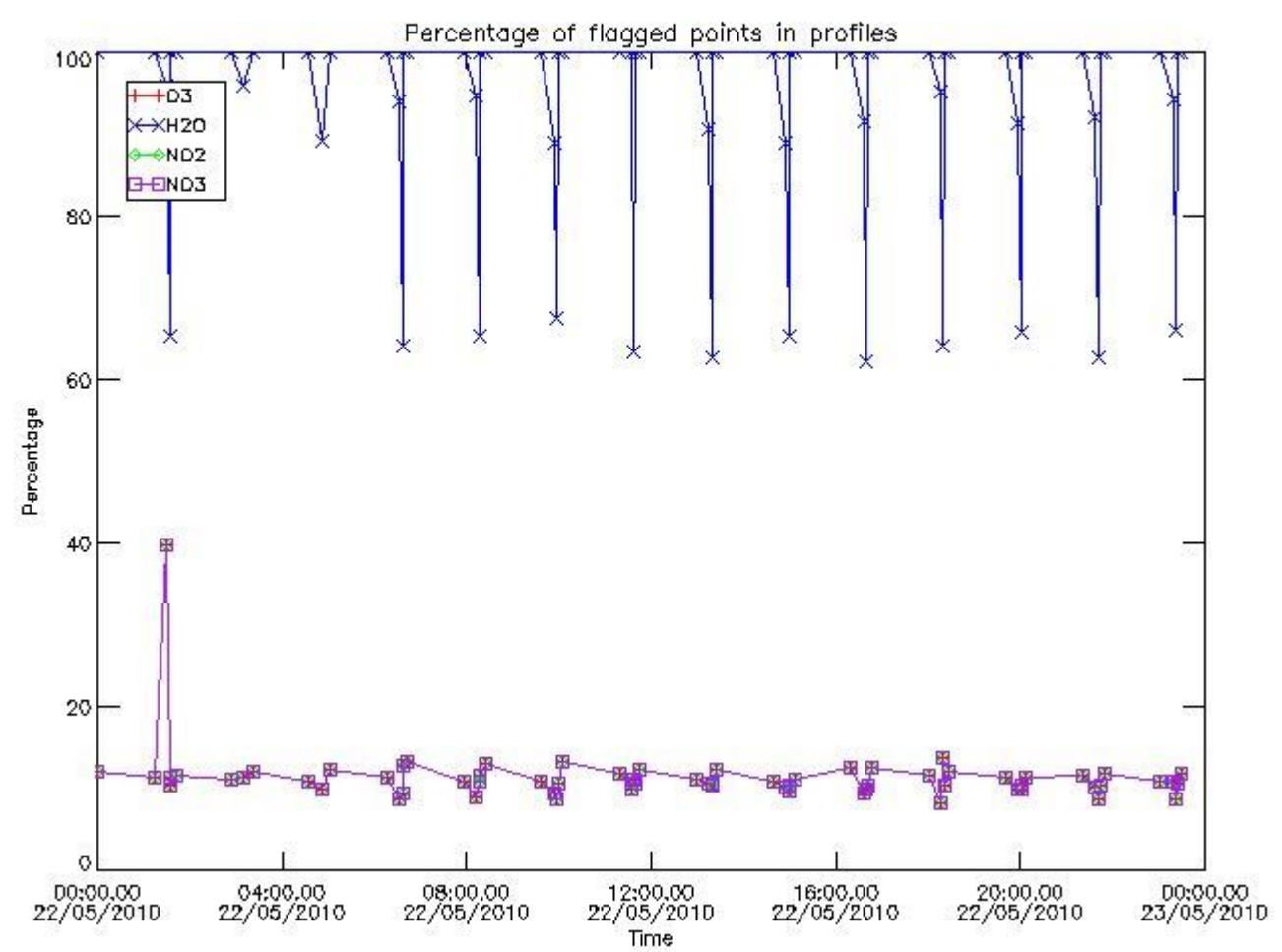
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20100522_000043_000000432089_00360_42999_0922.N1	22-MAY-2010 00:00:43	Dark	42.500	45	Alp Pav	1.9400	26000.	85	42999	No
2	GOM_NL__2PRFIN20100522_000736_000000502089_00360_42999_0923.N1	22-MAY-2010 00:07:36	Straylight	49.500	141	Bet Ara	2.8400	4600.0	99	42999	No
3	GOM_NL__2PRFIN20100522_001020_000000472089_00360_42999_0924.N1	22-MAY-2010 00:10:20	Straylight	47.000	40	The Sco	1.8590	7100.0	94	42999	No
4	GOM_NL__2PRFIN20100522_001211_000000512089_00360_42999_0925.N1	22-MAY-2010 00:12:11	Straylight	51.000	25	35Lam Sco	1.6200	28000.	102	42999	No
5	GOM_NL__2PRFIN20100522_001418_000000492089_00360_42999_0926.N1	22-MAY-2010 00:14:18	Twilight	48.500	75	26Eps Sco	2.2910	4250.0	97	42999	No
6	GOM_NL__2PRFIN20100522_001712_000000572089_00360_42999_0927.N1	22-MAY-2010 00:17:12	Twilight	57.000	16	21Alp Sco	1.0200	3000.0	114	42999	No
7	GOM_NL__2PRFIN20100522_001938_000000422089_00360_42999_0928.N1	22-MAY-2010 00:19:38	Bright	42.000	97	8Bet1Sco	2.5610	30000.	84	42999	No
8	GOM_NL__2PRFIN20100522_002310_000000382089_00360_42999_0929.N1	22-MAY-2010 00:23:10	Bright	38.000	104	27Bet Lib	2.6140	13100.	76	42999	No
9	GOM_NL__2PRFIN20100522_002501_000000452089_00360_42999_0930.N1	22-MAY-2010 00:25:01	Bright	45.000	120	1Del Oph	2.7340	3200.0	90	42999	No
10	GOM_NL__2PRFIN20100522_002806_000000412089_00360_42999_0931.N1	22-MAY-2010 00:28:06	Bright	41.000	102	24Alp Ser	2.6000	4250.0	82	42999	No
11	GOM_NL__2PRFIN20100522_003349_000000362089_00360_42999_0932.N1	22-MAY-2010 00:33:49	Bright	36.000	83		2.3780	11000.	72	42999	No
12	GOM_NL__2PRFIN20100522_003659_000000362089_00360_42999_0933.N1	22-MAY-2010 00:36:59	Bright	35.500	180	27Gam Boo	3.0400	8000.0	71	42999	No
13	GOM_NL__2PRFIN20100522_004513_000000412089_00360_42999_0934.N1	22-MAY-2010 00:45:13	Bright	41.000	119	14Eta Dra	2.7270	4700.0	82	42999	No
14	GOM_NL__2PRFIN20100522_004712_000000392089_00360_42999_0935.N1	22-MAY-2010 00:47:12	Bright	39.000	60	7Bet UMi	2.0810	3950.0	78	42999	No
15	GOM_NL__2PRFIN20100522_005955_000000542089_00360_42999_0936.N1	22-MAY-2010 00:59:55	Bright	54.000	76	27Gam Cas	2.3000	30000.	108	42999	No
16	GOM_NL__2PRFIN20100522_010108_000000372089_00360_42999_0937.N1	22-MAY-2010 01:01:08	Bright	36.500	68	18Alp Cas	2.2250	4500.0	73	42999	No
17	GOM_NL__2PRFIN20100522_010946_000000472089_00360_42999_0938.N1	22-MAY-2010 01:09:46	Twilight	47.000	58	21Alp And	2.0730	11000.	94	42999	No
18	GOM_NL__2PRFIN20100522_011409_000000452089_00360_42999_0939.N1	22-MAY-2010 01:14:09	Dark	44.500	140	88Gam Peg	2.8340	26000.	89	42999	No
19	GOM_NL__2PRFIN20100522_013011_000000502089_00360_42999_0940.N1	22-MAY-2010 01:30:11	Dark	49.500	18	24Alp PsA	1.1660	9700.0	99	42999	No
20	GOM_NL__2PRFIN20100522_013416_000000582089_00360_42999_0941.N1	22-MAY-2010 01:34:16	Dark	58.000	63	Bet Gru	2.1500	2800.0	116	42999	No
21	GOM_NL__2PRFIN20100522_013554_000000502089_00361_43000_0929.N1	22-MAY-2010 01:35:54	Dark	49.500	31	Alp Gru	1.7340	15200.	99	43000	No
22	GOM_NL__2PRFIN20100522_014120_000000442089_00361_43000_0930.N1	22-MAY-2010 01:41:20	Dark	44.000	45	Alp Pav	1.9400	26000.	88	43000	No
23	GOM_NL__2PRFIN20100522_014813_000000422089_00361_43000_0931.N1	22-MAY-2010 01:48:13	Straylight	42.000	141	Bet Ara	2.8400	4600.0	84	43000	No
24	GOM_NL__2PRFIN20100522_015057_000000502089_00361_43000_0932.N1	22-MAY-2010 01:50:57	Straylight	50.000	40	The Sco	1.8590	7100.0	100	43000	No
25	GOM_NL__2PRFIN20100522_015248_000000502089_00361_43000_0933.N1	22-MAY-2010 01:52:48	Straylight	49.500	25	35Lam Sco	1.6200	28000.	99	43000	No
26	GOM_NL__2PRFIN20100522_015454_000000482089_00361_43000_0934.N1	22-MAY-2010 01:54:54	Twilight	48.000	75	26Eps Sco	2.2910	4250.0	96	43000	No
27	GOM_NL__2PRFIN20100522_015748_000000532089_00361_43000_0935.N1	22-MAY-2010 01:57:48	Twilight	53.000	16	21Alp Sco	1.0200	3000.0	106	43000	No
28	GOM_NL__2PRFIN20100522_020014_000000442089_00361_43000_0936.N1	22-MAY-2010 02:00:14	Bright	43.500	97	8Bet1Sco	2.5610	30000.	87	43000	No
29	GOM_NL__2PRFIN20100522_020346_000000392089_00361_43000_0937.N1	22-MAY-2010 02:03:46	Bright	38.500	104	27Bet Lib	2.6140	13100.	77	43000	No
30	GOM_NL__2PRFIN20100522_020537_000000462089_00361_43000_0938.N1	22-MAY-2010 02:05:37	Bright	46.000	120	1Del Oph	2.7340	3200.0	92	43000	No
31	GOM_NL__2PRFIN20100522_020842_000000412089_00361_43000_0939.N1	22-MAY-2010 02:08:42	Bright	41.000	102	24Alp Ser	2.6000	4250.0	82	43000	No
32	GOM_NL__2PRFIN20100522_021425_000000362089_00361_43000_0940.N1	22-MAY-2010 02:14:25	Bright	35.500	83		2.3780	11000.	71	43000	No
33	GOM_NL__2PRFIN20100522_021735_000000372089_00361_43000_0941.N1	22-MAY-2010 02:17:35	Bright	37.000	180	27Gam Boo	3.0400	8000.0	74	43000	No
34	GOM_NL__2PRFIN20100522_022549_000000392089_00361_43000_0942.N1	22-MAY-2010 02:25:49	Bright	39.000	119	14Eta Dra	2.7270	4700.0	78	43000	No
35	GOM_NL__2PRFIN20100522_022748_000000382089_00361_43000_0943.N1	22-MAY-2010 02:27:48	Bright	38.000	60	7Bet UMi	2.0810	3950.0	76	43000	No
36	GOM_NL__2PRFIN20100522_024031_000000362089_00361_43000_0944.N1	22-MAY-2010 02:40:31	Bright	36.000	76	27Gam Cas	2.3000	30000.	72	43000	No
37	GOM_NL__2PRFIN20100522_024143_000000392089_00361_43000_0945.N1	22-MAY-2010 02:41:43	Bright	39.000	68	18Alp Cas	2.2250	4500.0	78	43000	No
38	GOM_NL__2PRFIN20100522_025022_000000482089_00361_43000_0946.N1	22-MAY-2010 02:50:22	Twilight	48.000	58	21Alp And	2.0730	11000.	96	43000	No
39	GOM_NL__2PRFIN20100522_025445_000000462089_00361_43000_0947.N1	22-MAY-2010 02:54:45	Dark	46.000	140	88Gam Peg	2.8340	26000.	92	43000	No
40	GOM_NL__2PRFIN20100522_031048_000000492089_00361_43000_0948.N1	22-MAY-2010 03:10:48	Dark	49.000	18	24Alp PsA	1.1660	9700.0	98	43000	No
41	GOM_NL__2PRFIN20100522_032156_000000422089_00362_43001_0937.N1	22-MAY-2010 03:21:56	Dark	42.000	45	Alp Pav	1.9400	26000.	84	43001	No
42	GOM_NL__2PRFIN20100522_032849_000000482089_00362_43001_0938.N1	22-MAY-2010 03:28:49	Straylight	47.500	141	Bet Ara	2.8400	4600.0	95	43001	No

279	GOM_NL__2PRFIN20100522_221551_000000402089_00373_43012_1055.N1	22-MAY-2010 22:15:51	Bright	40.000	102	24Alp Ser	2.6000	4250.0	80	43012	No
280	GOM_NL__2PRFIN20100522_222136_000000362089_00373_43012_1056.N1	22-MAY-2010 22:21:36	Bright	36.000	83		2.3780	11000.	72	43012	No
281	GOM_NL__2PRFIN20100522_222445_000000372089_00373_43012_1057.N1	22-MAY-2010 22:24:45	Bright	37.000	180	27Gam Boo	3.0400	8000.0	74	43012	No
282	GOM_NL__2PRFIN20100522_223255_000000432089_00373_43012_1058.N1	22-MAY-2010 22:32:55	Bright	42.500	119	14Eta Dra	2.7270	4700.0	85	43012	No
283	GOM_NL__2PRFIN20100522_223458_000000402089_00373_43012_1059.N1	22-MAY-2010 22:34:58	Bright	40.000	60	7Bet UMi	2.0810	3950.0	80	43012	No
284	GOM_NL__2PRFIN20100522_224742_000000482089_00373_43012_1060.N1	22-MAY-2010 22:47:42	Bright	48.000	76	27Gam Cas	2.3000	30000.	96	43012	No
285	GOM_NL__2PRFIN20100522_224854_000000392089_00373_43012_1061.N1	22-MAY-2010 22:48:54	Bright	38.500	68	18Alp Cas	2.2250	4500.0	77	43012	No
286	GOM_NL__2PRFIN20100522_225736_000000492089_00373_43012_1062.N1	22-MAY-2010 22:57:36	Twilight	48.500	58	21Alp And	2.0730	11000.	97	43012	No
287	GOM_NL__2PRFIN20100522_230200_000000462089_00373_43012_1063.N1	22-MAY-2010 23:02:00	Dark	46.000	140	88Gam Peg	2.8340	26000.	92	43012	No
288	GOM_NL__2PRFIN20100522_231811_000000522089_00373_43012_1064.N1	22-MAY-2010 23:18:11	Dark	51.500	18	24Alp PsA	1.1660	9700.0	103	43012	No
289	GOM_NL__2PRFIN20100522_232213_000000582089_00373_43012_1065.N1	22-MAY-2010 23:22:13	Dark	58.000	63	Bet Gru	2.1500	2800.0	116	43012	No
290	GOM_NL__2PRFIN20100522_232340_000000482089_00374_43013_1053.N1	22-MAY-2010 23:23:40	Dark	48.000	172	Gam Gru	3.0030	13100.	96	43013	No
291	GOM_NL__2PRFIN20100522_232916_000000432089_00374_43013_1054.N1	22-MAY-2010 23:29:16	Dark	43.000	45	Alp Pav	1.9400	26000.	86	43013	No
292	GOM_NL__2PRFIN20100522_233606_000000432089_00374_43013_1055.N1	22-MAY-2010 23:36:06	Straylight	42.500	141	Bet Ara	2.8400	4600.0	85	43013	No
293	GOM_NL__2PRFIN20100522_233851_000000492089_00374_43013_1056.N1	22-MAY-2010 23:38:51	Straylight	49.000	40	The Sco	1.8590	7100.0	98	43013	No
294	GOM_NL__2PRFIN20100522_234042_000000512089_00374_43013_1057.N1	22-MAY-2010 23:40:42	Straylight	50.500	25	35Lam Sco	1.6200	28000.	101	43013	No
295	GOM_NL__2PRFIN20100522_234246_000000552089_00374_43013_1058.N1	22-MAY-2010 23:42:46	Twilight	54.500	75	26Eps Sco	2.2910	4250.0	109	43013	No
296	GOM_NL__2PRFIN20100522_234539_000000602089_00374_43013_1059.N1	22-MAY-2010 23:45:39	Bright	60.000	16	21Alp Sco	1.0200	3000.0	120	43013	No
297	GOM_NL__2PRFIN20100522_234804_000000442089_00374_43013_1060.N1	22-MAY-2010 23:48:04	Bright	43.500	97	8Bet1Sco	2.5610	30000.	87	43013	No
298	GOM_NL__2PRFIN20100522_235134_000000362089_00374_43013_1061.N1	22-MAY-2010 23:51:34	Bright	36.000	104	27Bet Lib	2.6140	13100.	72	43013	No
299	GOM_NL__2PRFIN20100522_235322_000000452089_00374_43013_1062.N1	22-MAY-2010 23:53:22	Bright	44.500	120	1Del Oph	2.7340	3200.0	89	43013	No
300	GOM_NL__2PRFIN20100522_235627_000000412089_00374_43013_1063.N1	22-MAY-2010 23:56:27	Bright	40.500	102	24Alp Ser	2.6000	4250.0	81	43013	No

3. Quality information per product

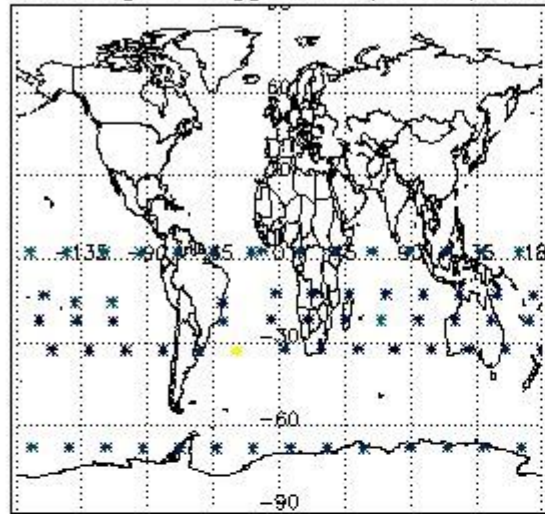
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

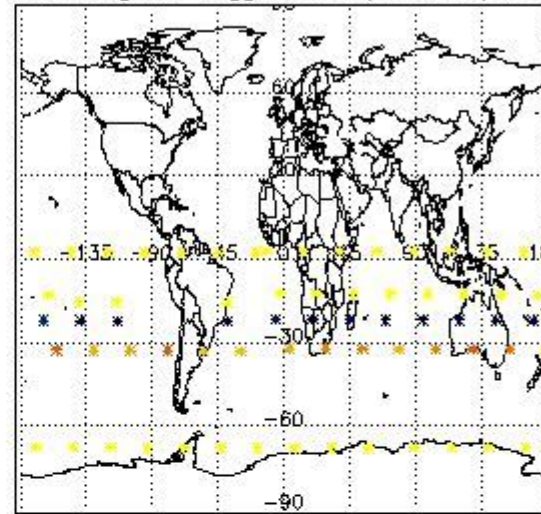


3.2 Plot quality information per product (world map)

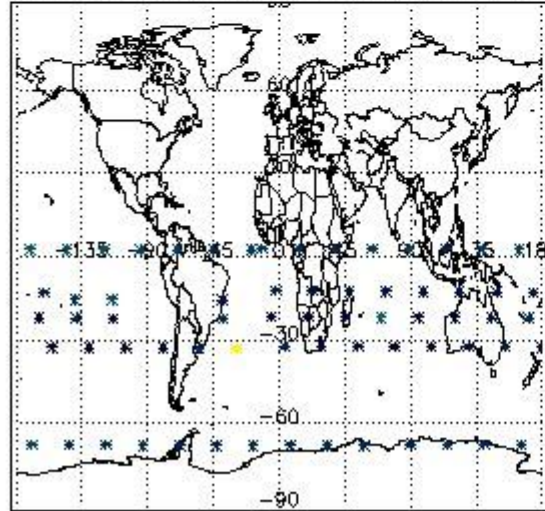
Percentage of flagged data per O3 profile



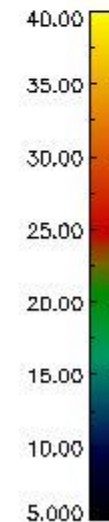
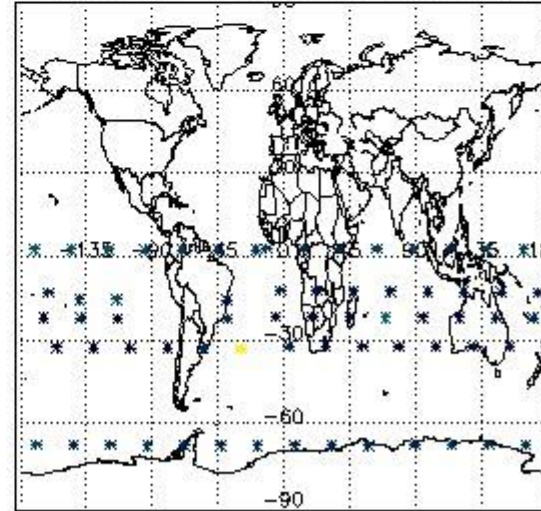
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

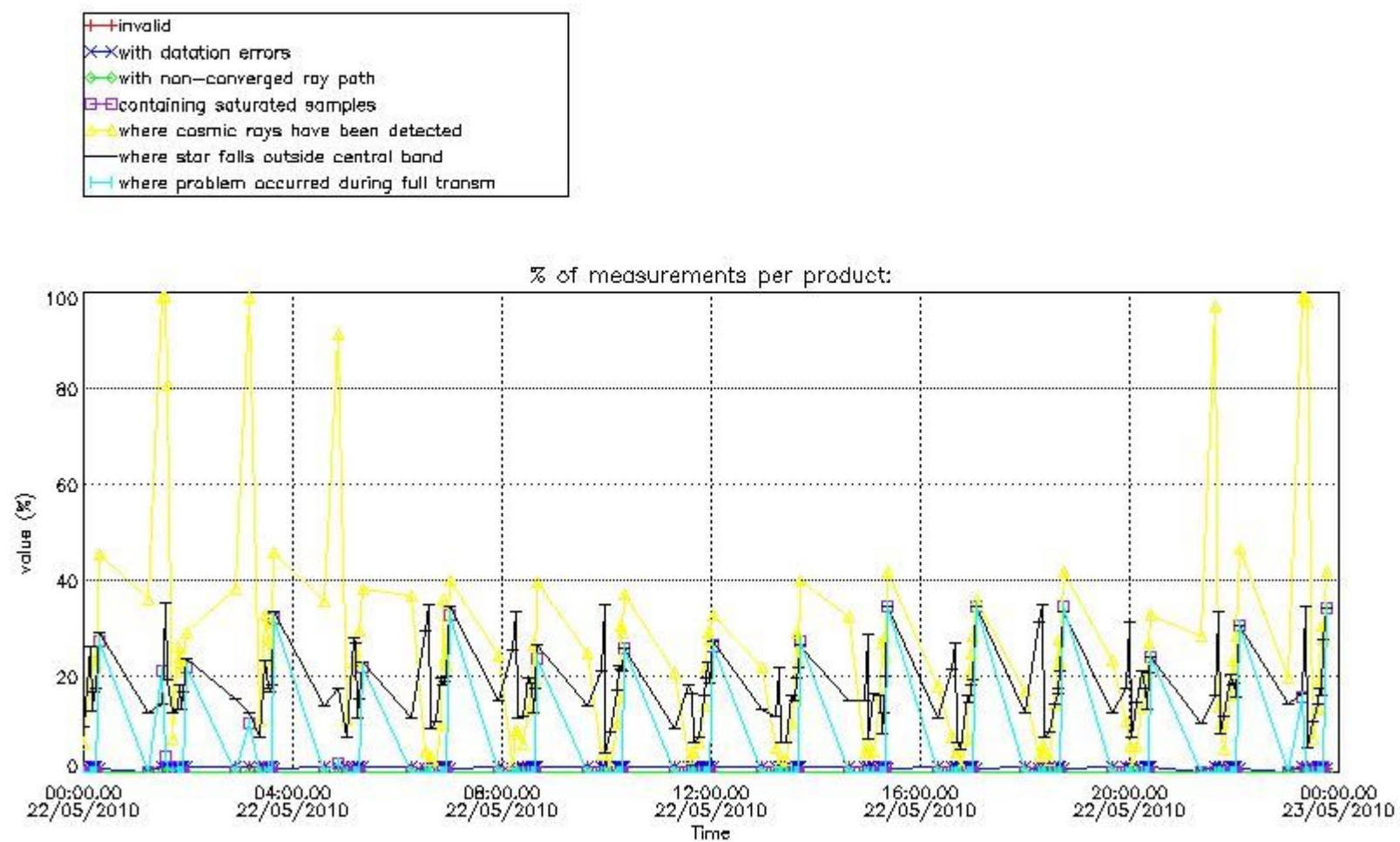


4. Level 1 quality information per product

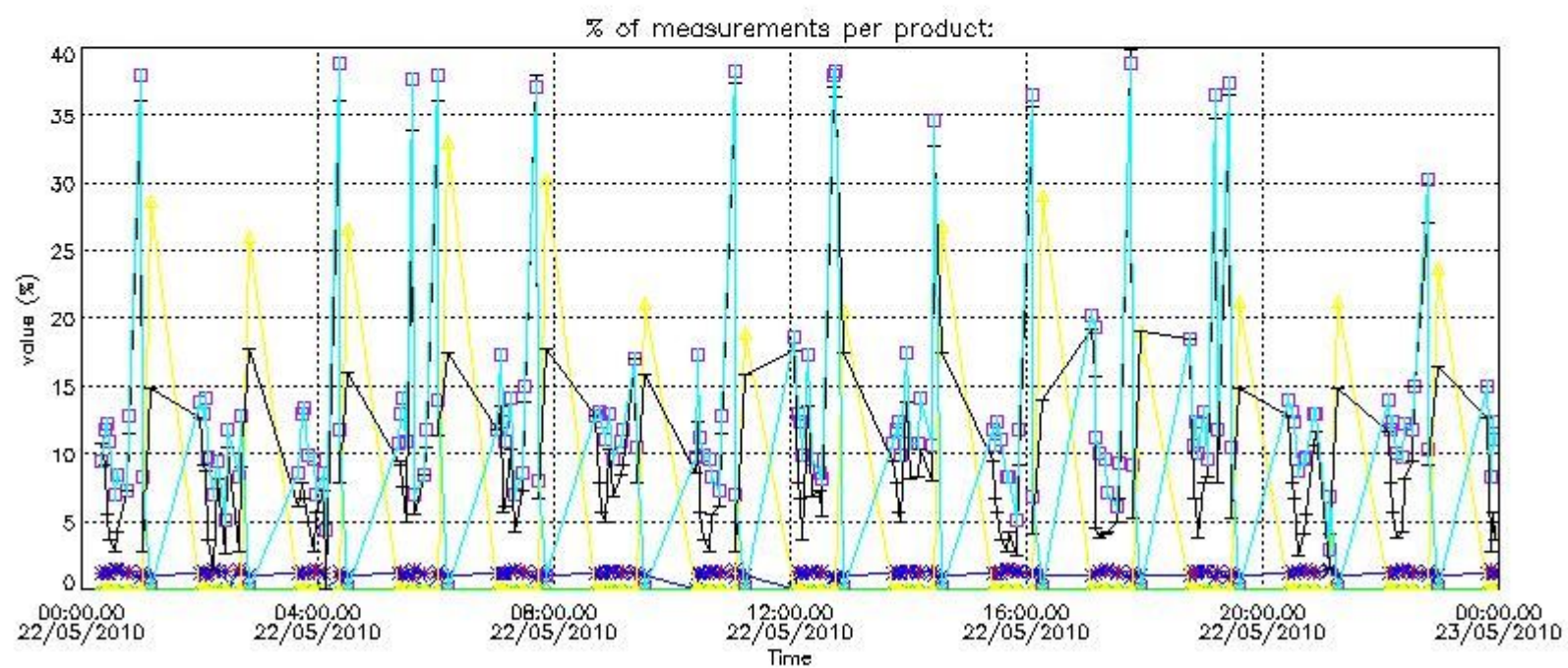
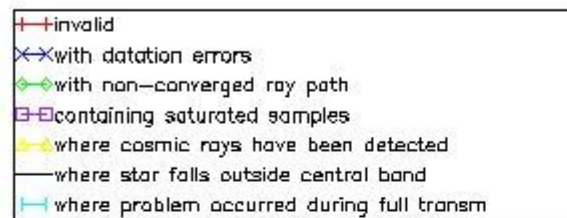
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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

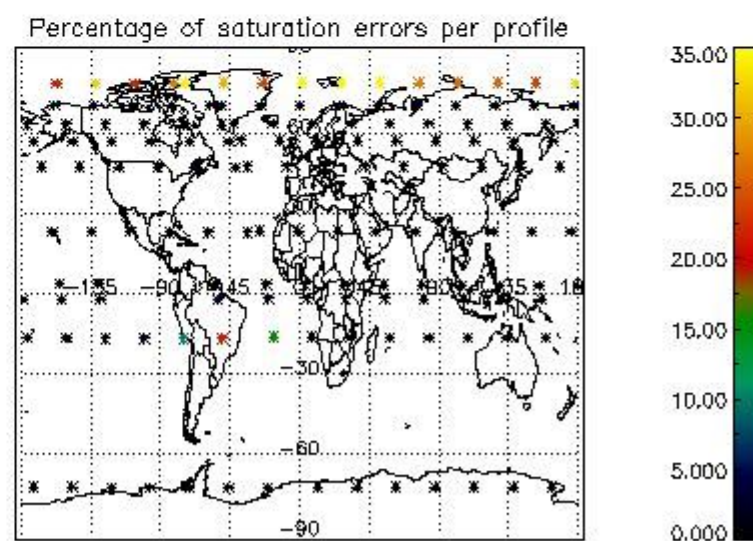
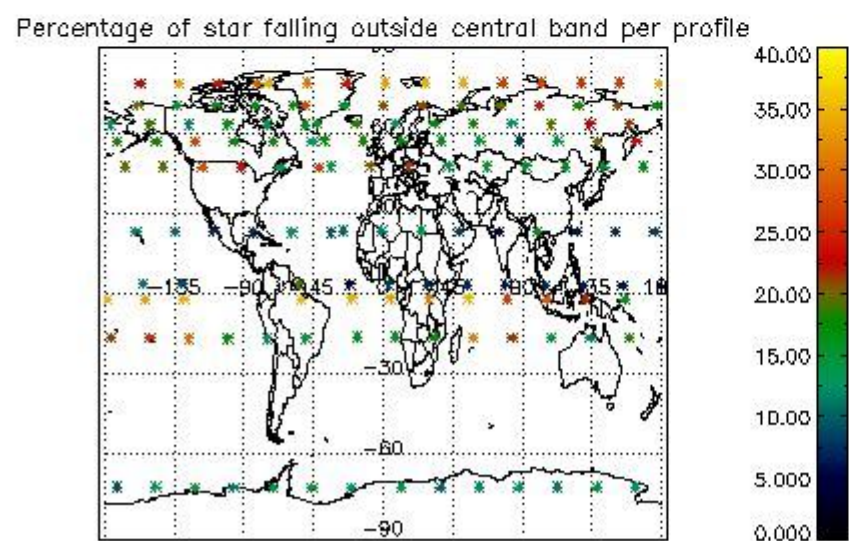
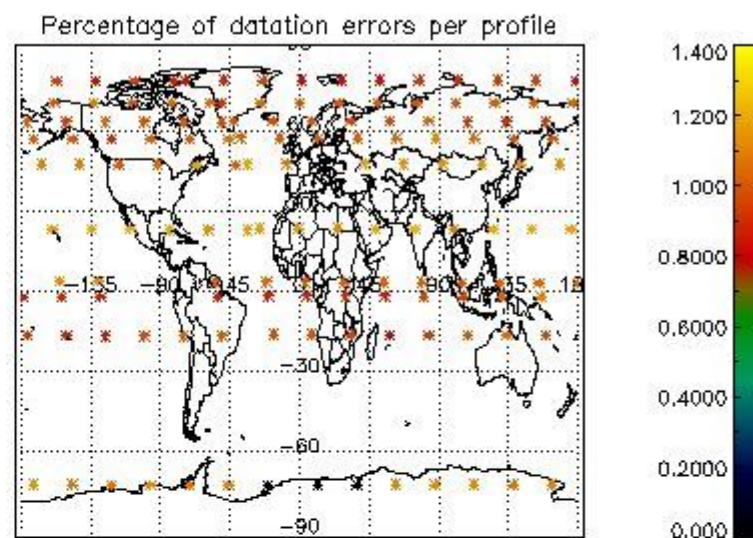
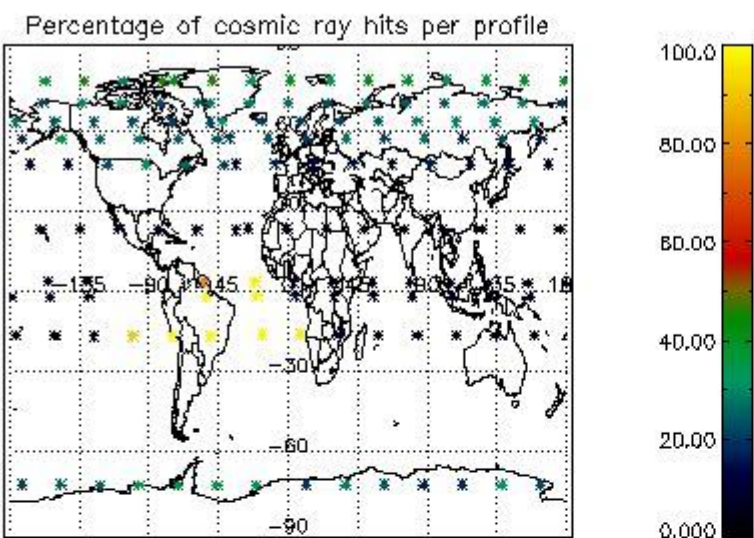


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

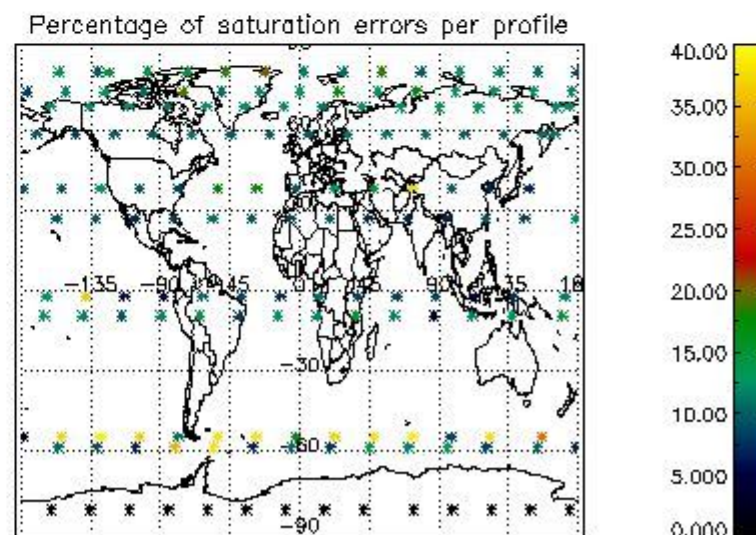
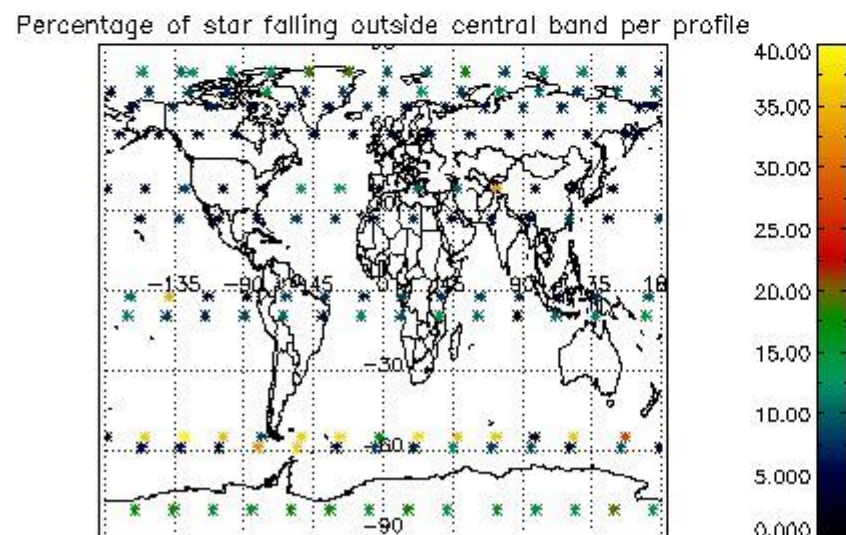
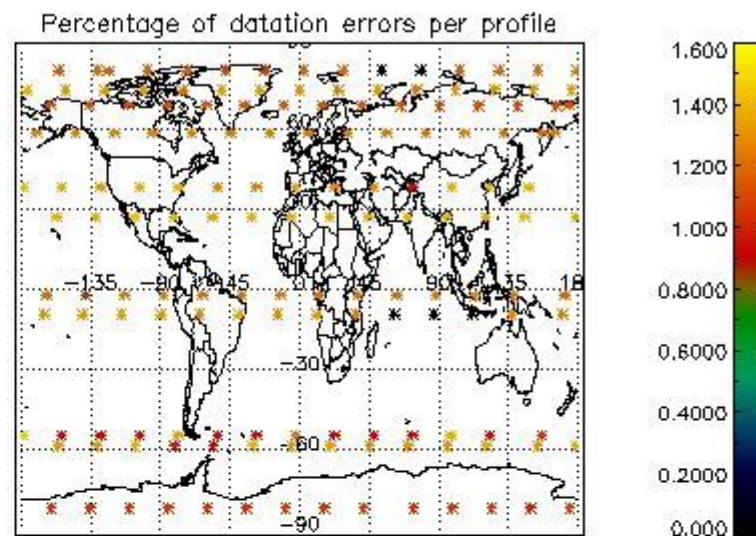
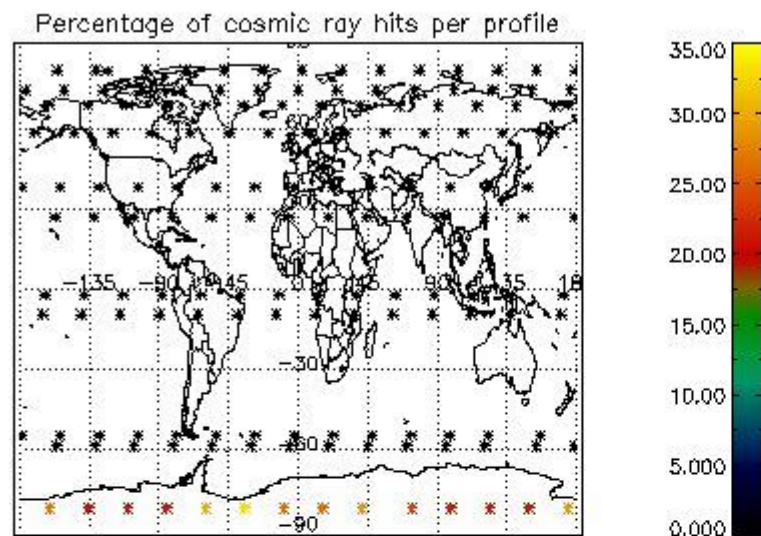


4.2 Plot quality information per product coming from level 1b processing (world map)

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



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

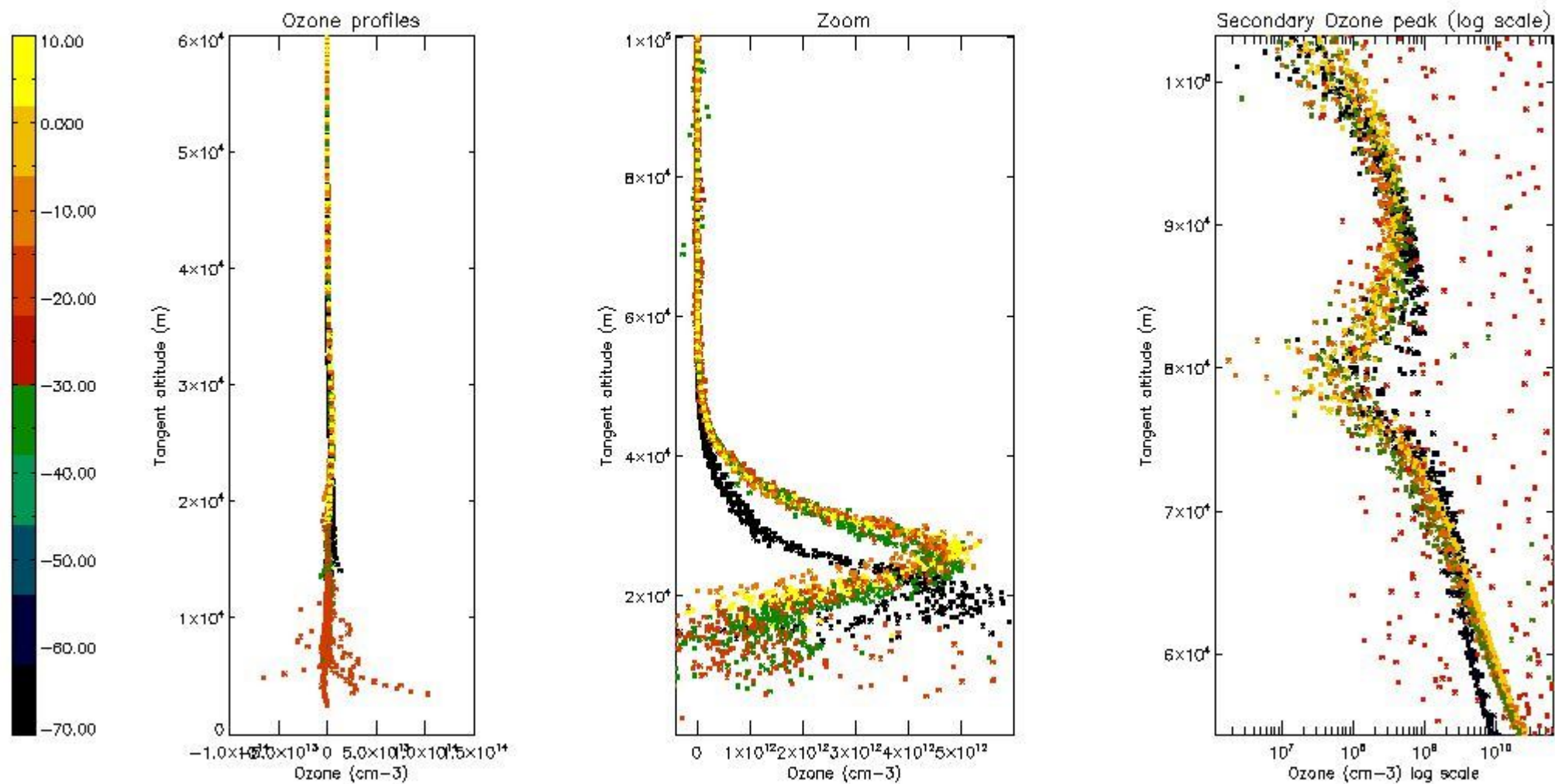
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	25
STD < 20	13

STD < 10	10
STD < 5	7

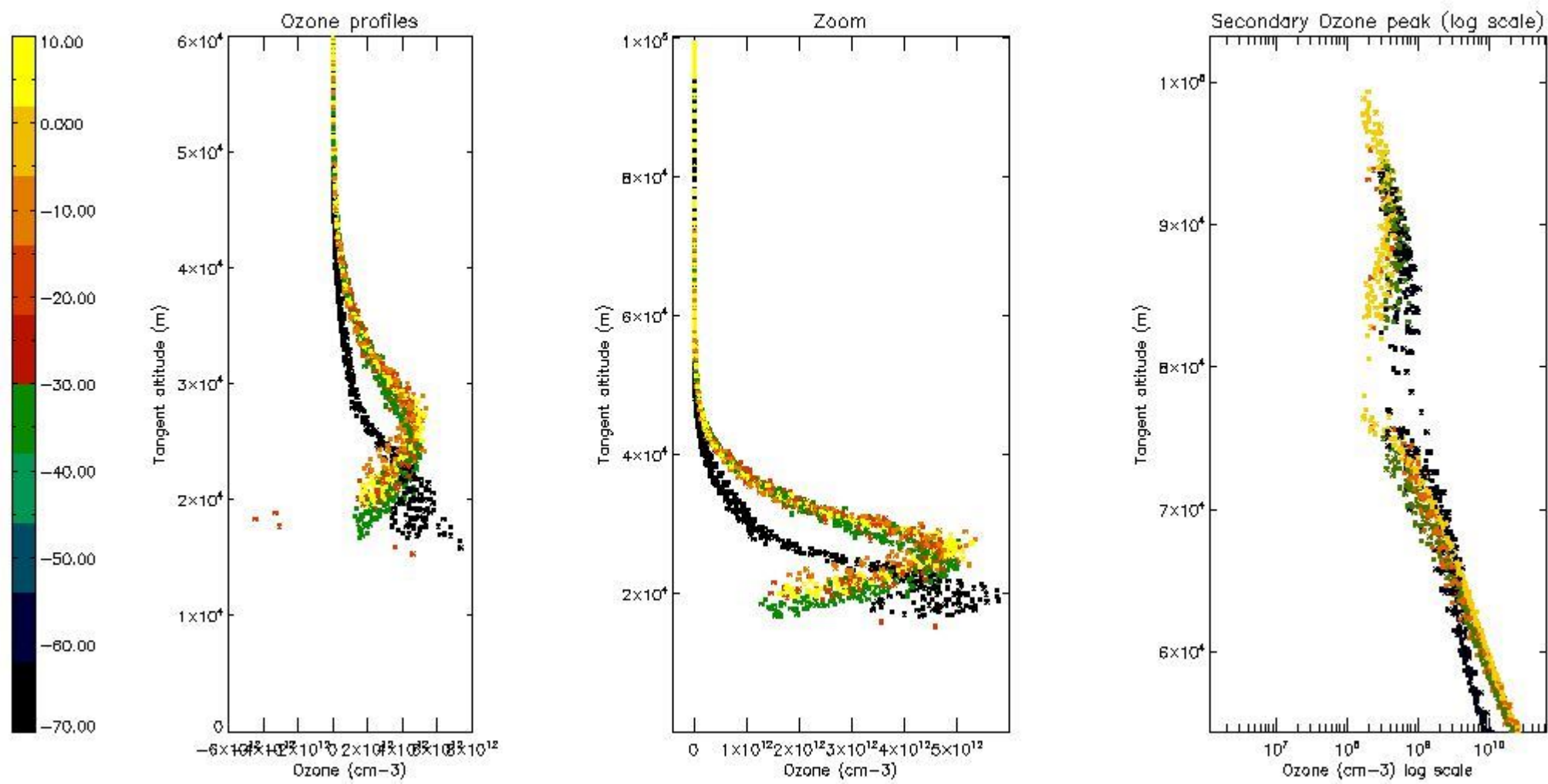
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



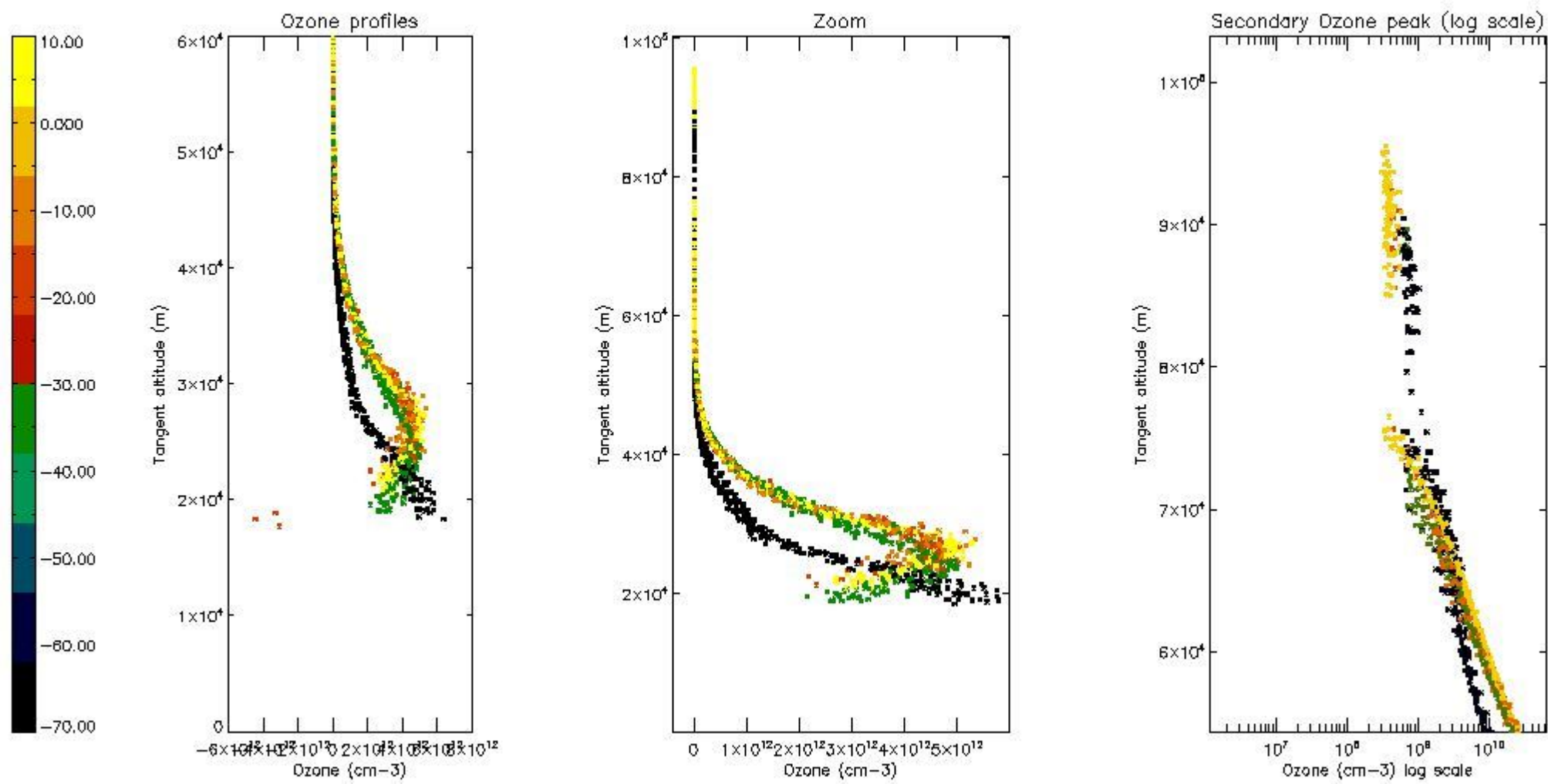
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



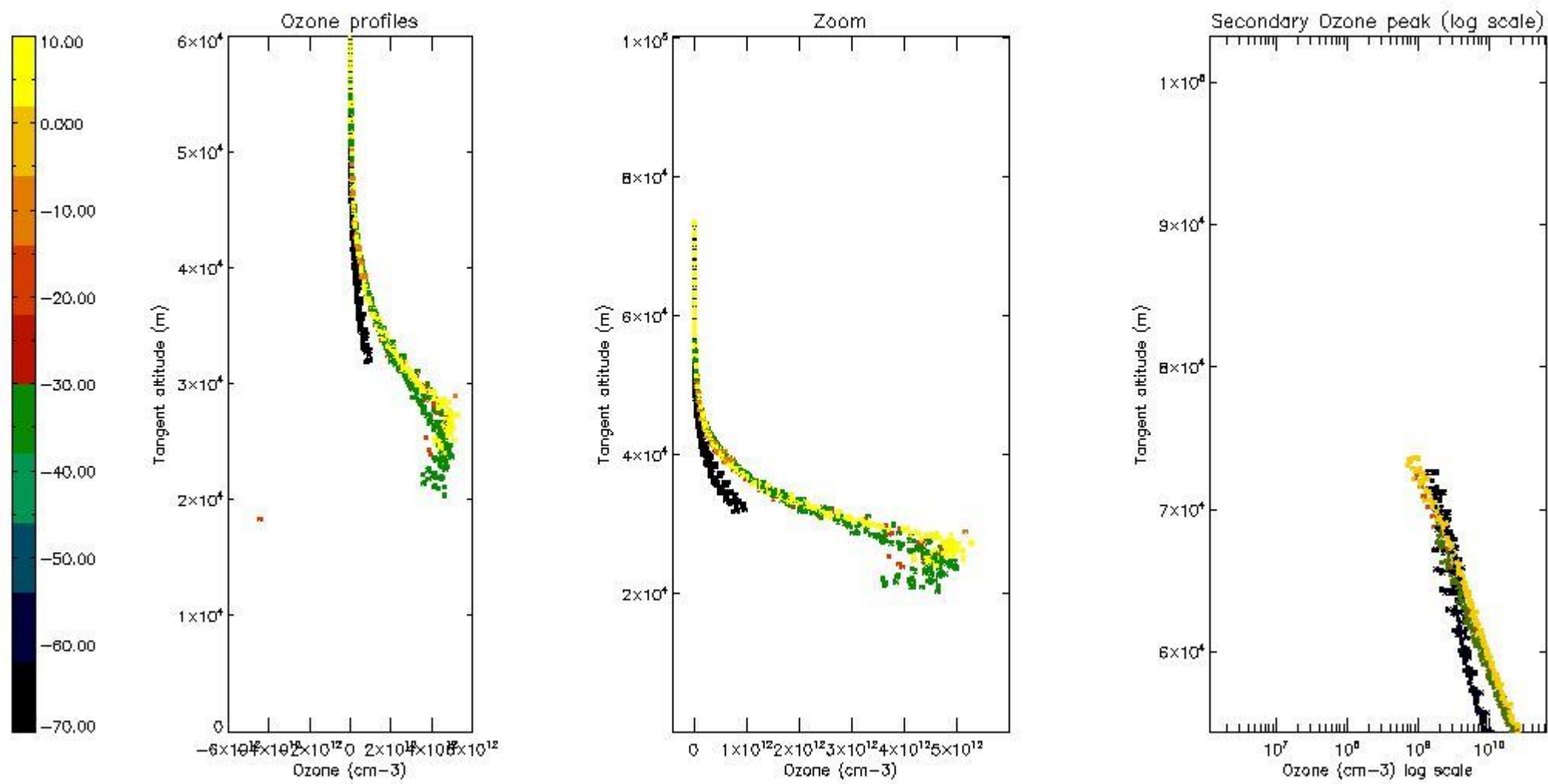
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



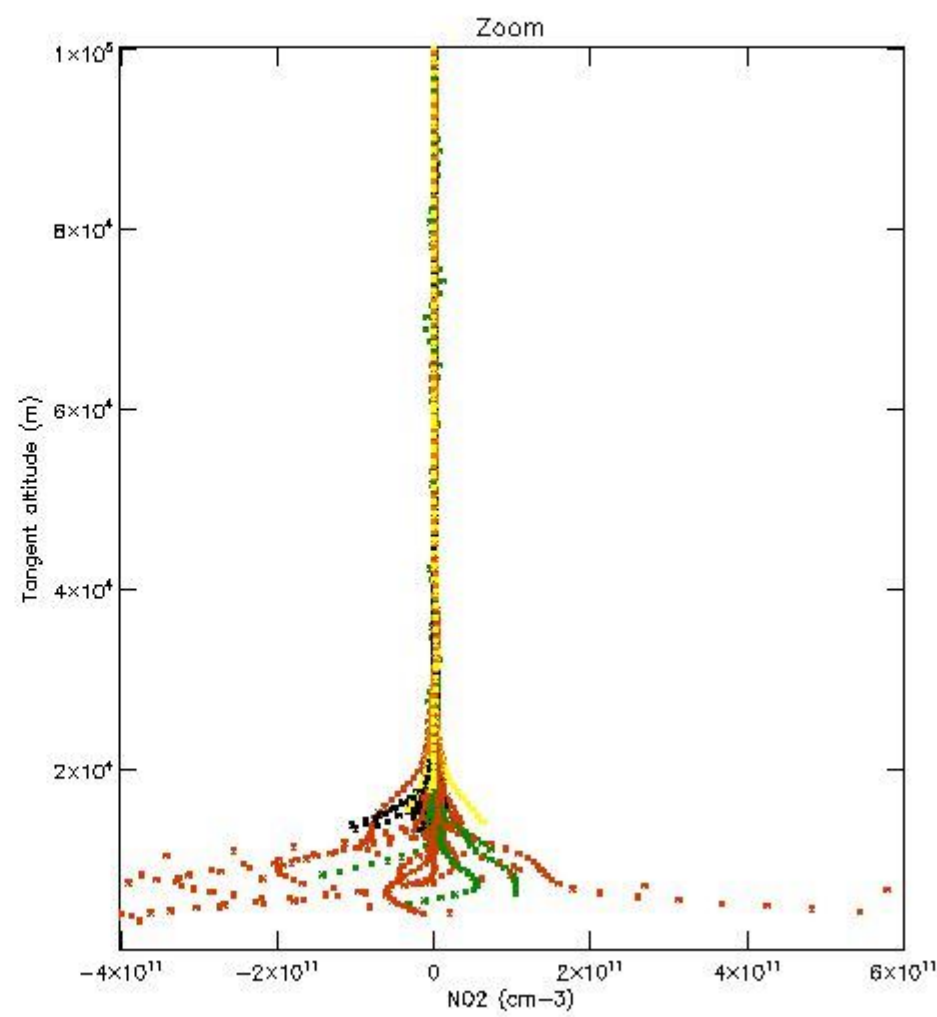
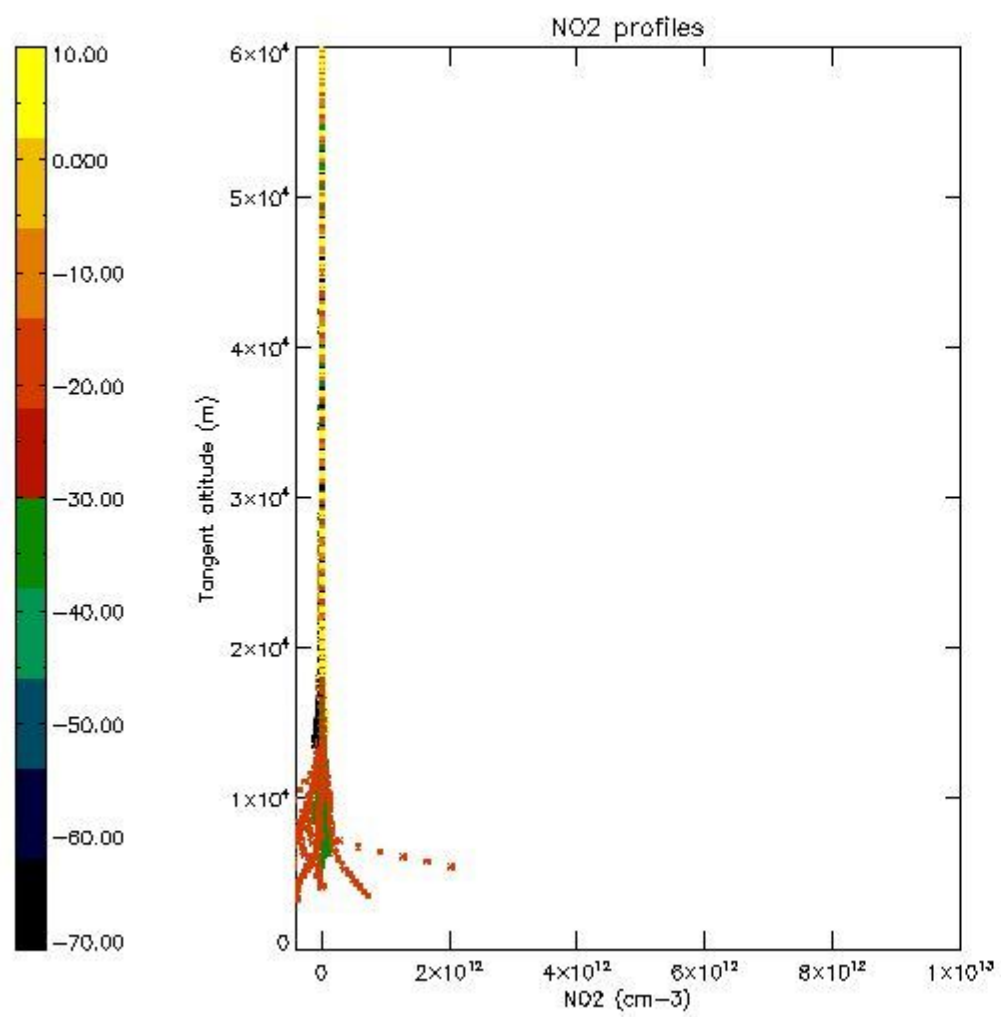
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



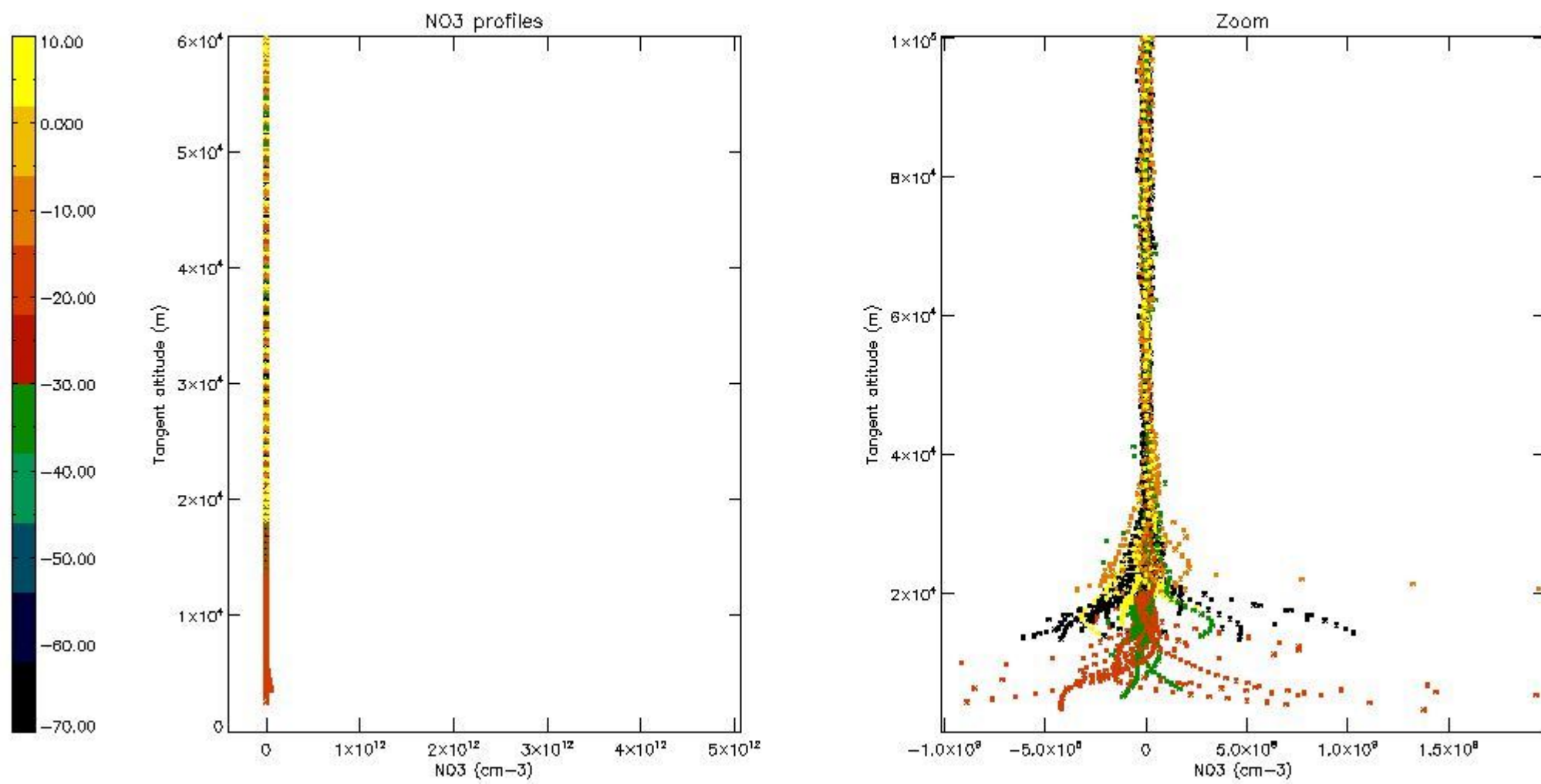
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



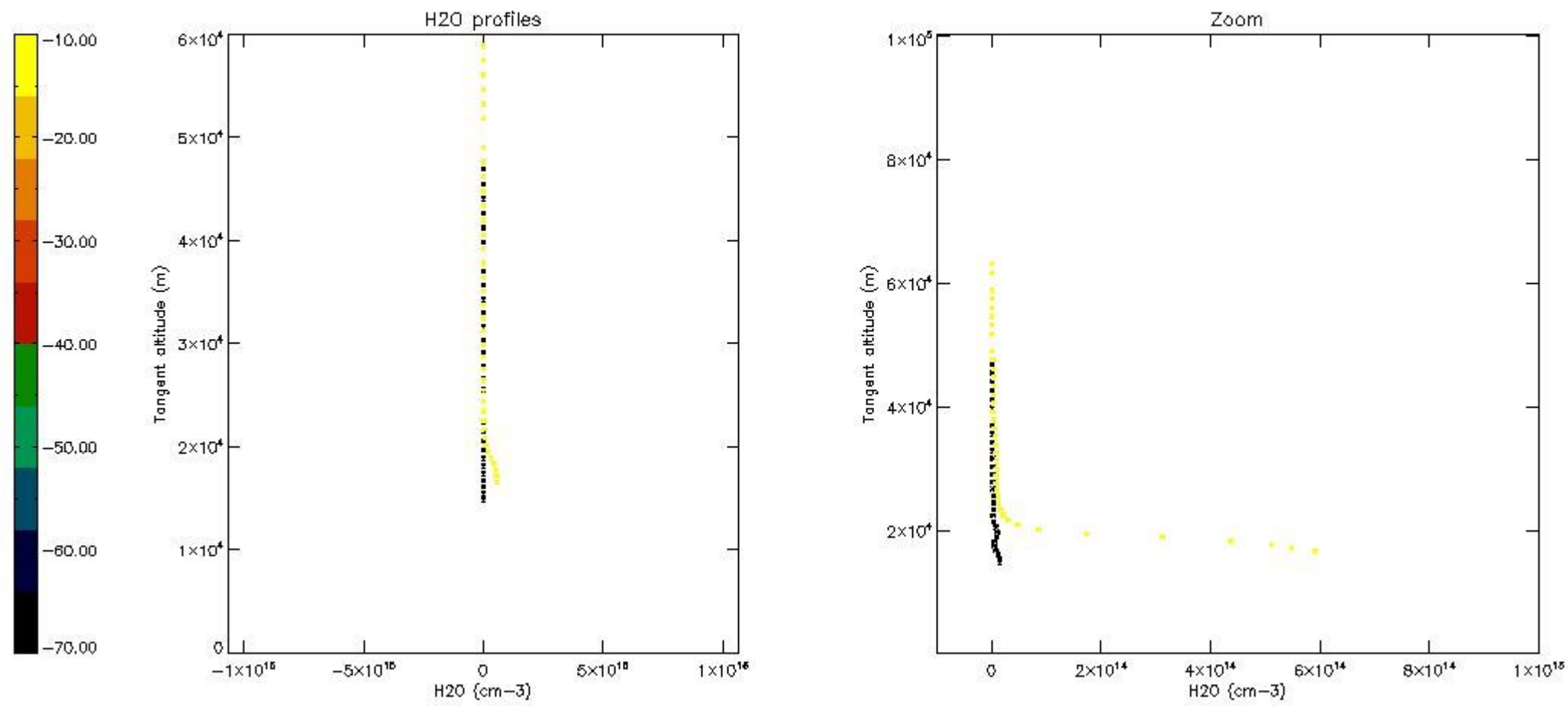
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

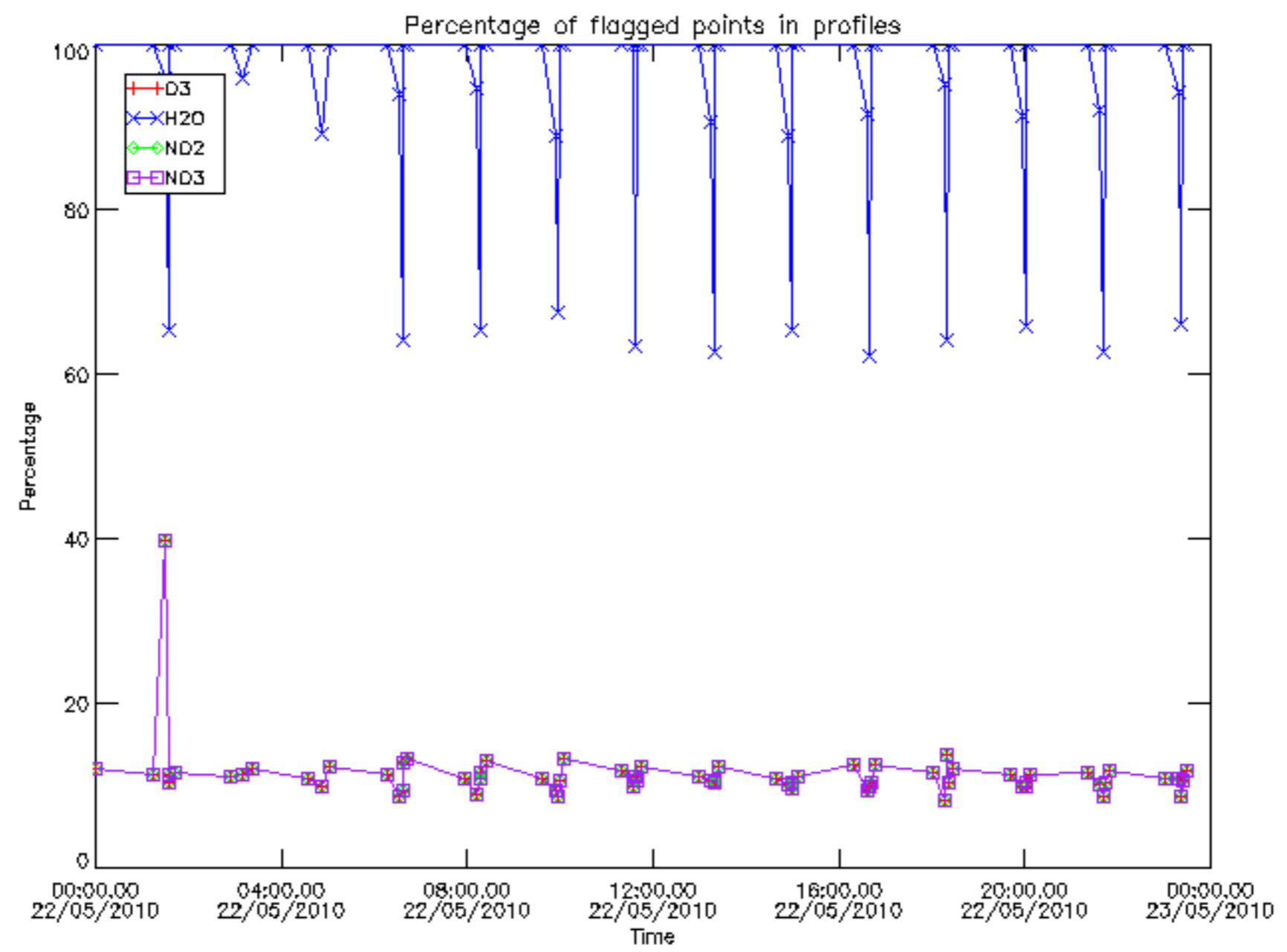
The colorbar represents the latitude.



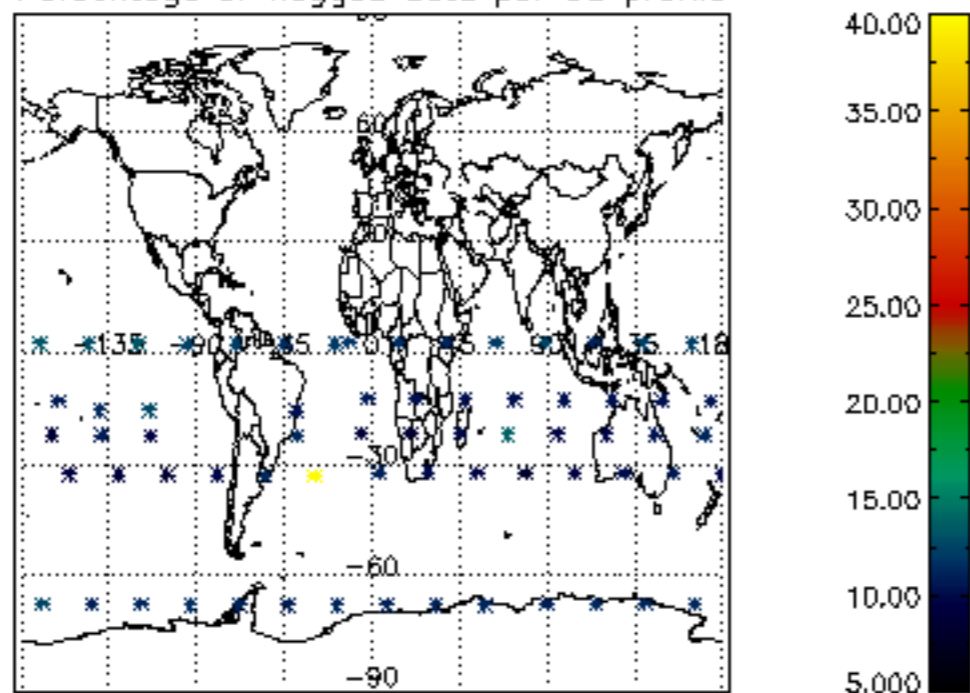
6. Auxiliary Data Files used for the production reported in section 2

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.

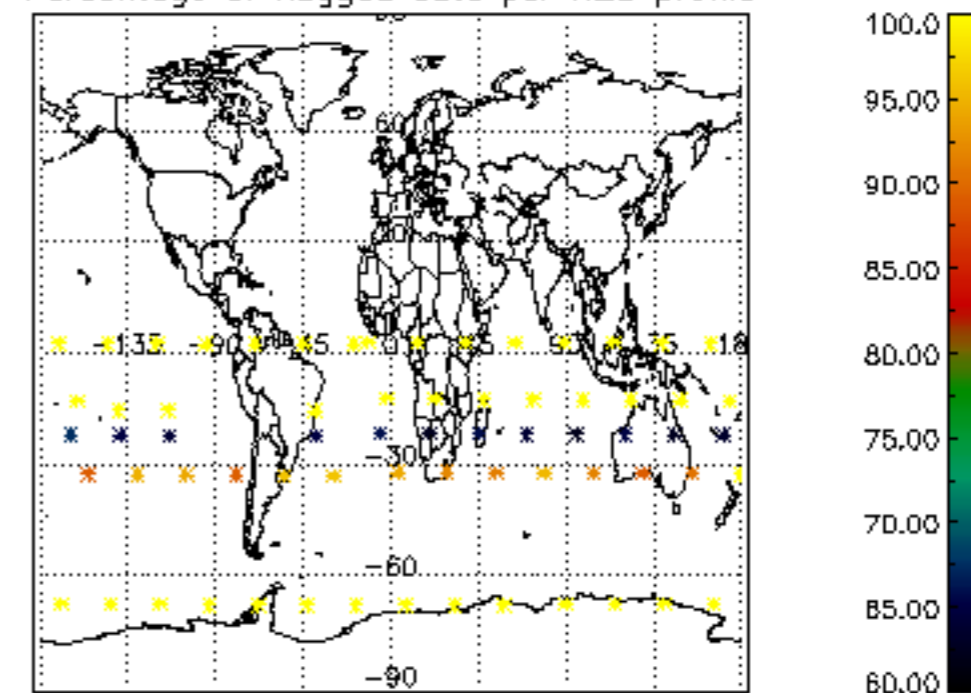
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	22-MAY-2010 00:00:43
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	22-MAY-2010 00:00:43
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	22-MAY-2010 00:00:43



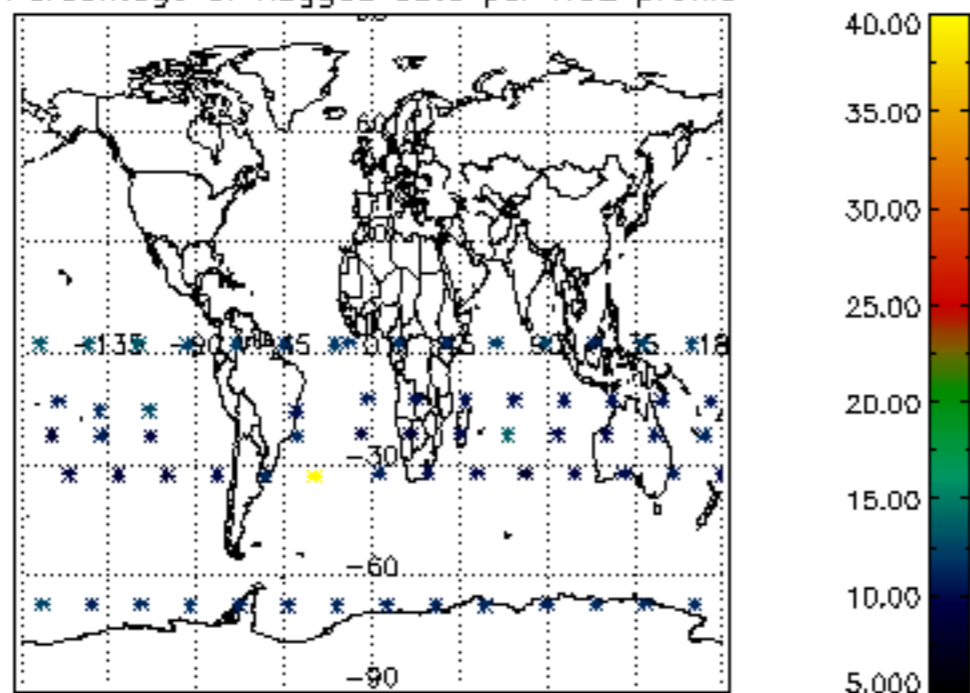
Percentage of flagged data per D3 profile



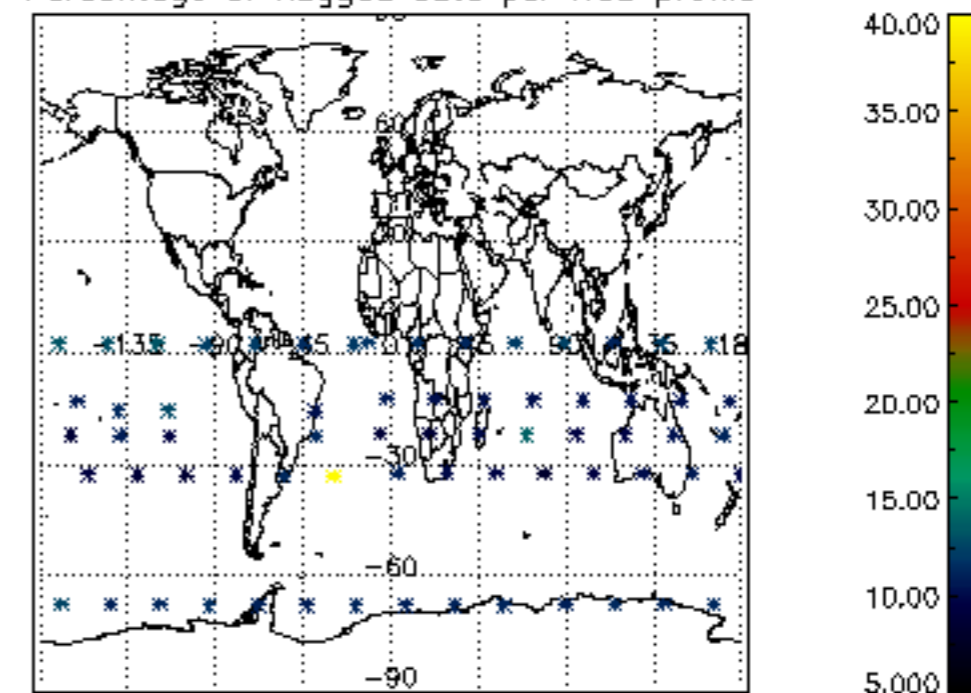
Percentage of flagged data per H2O profile

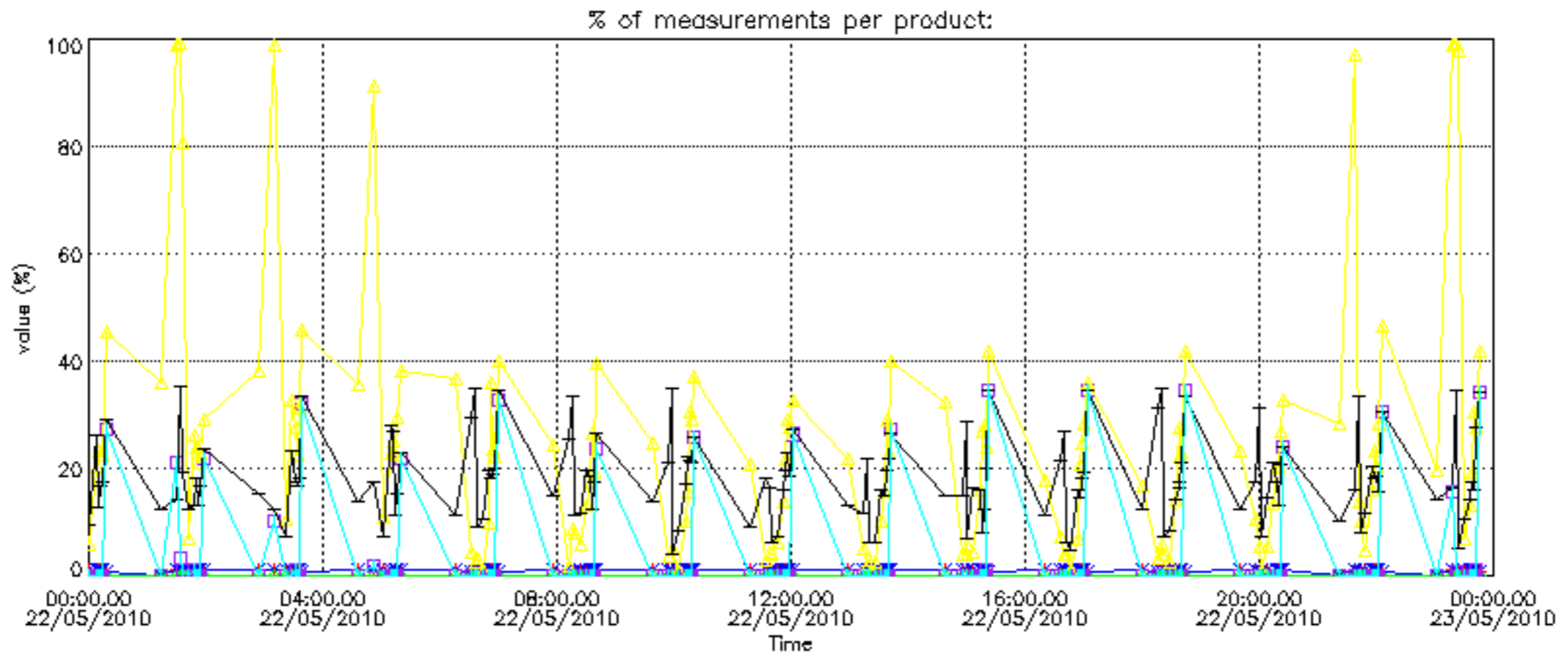


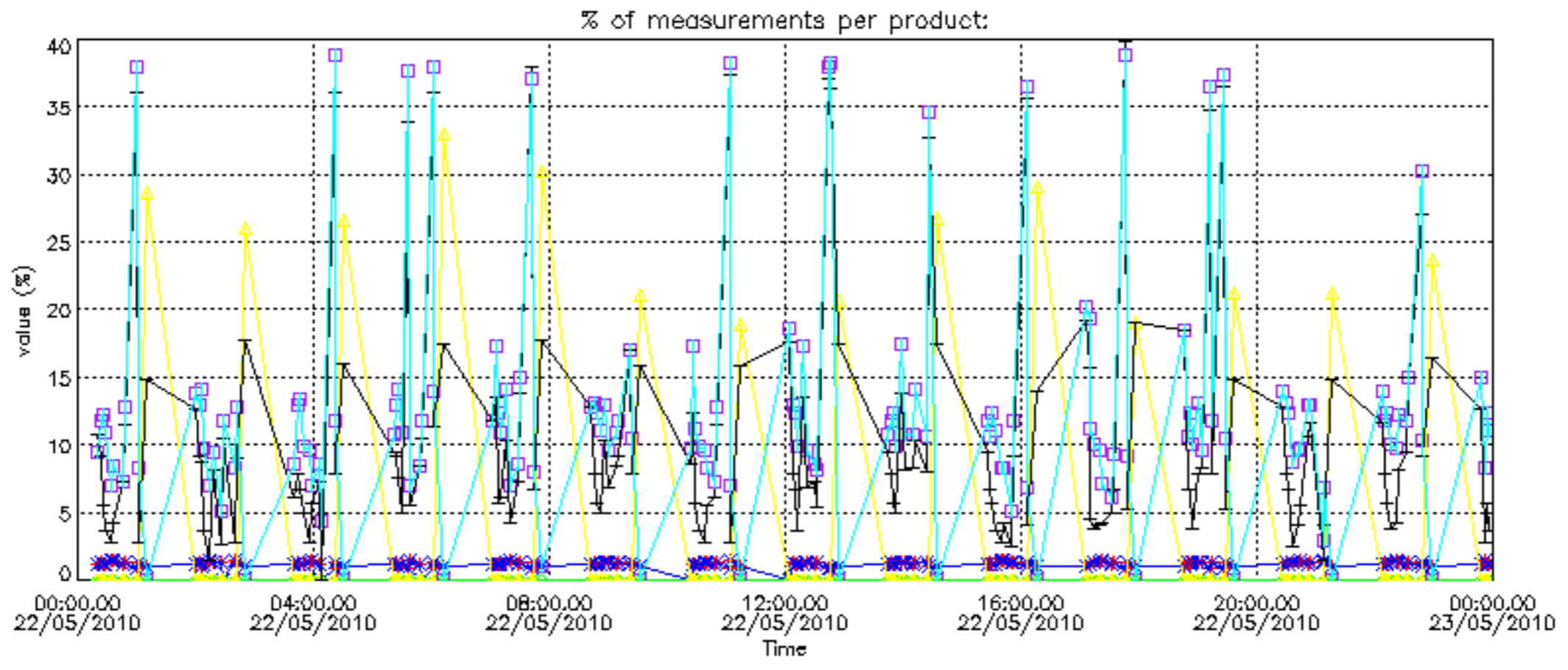
Percentage of flagged data per NO2 profile



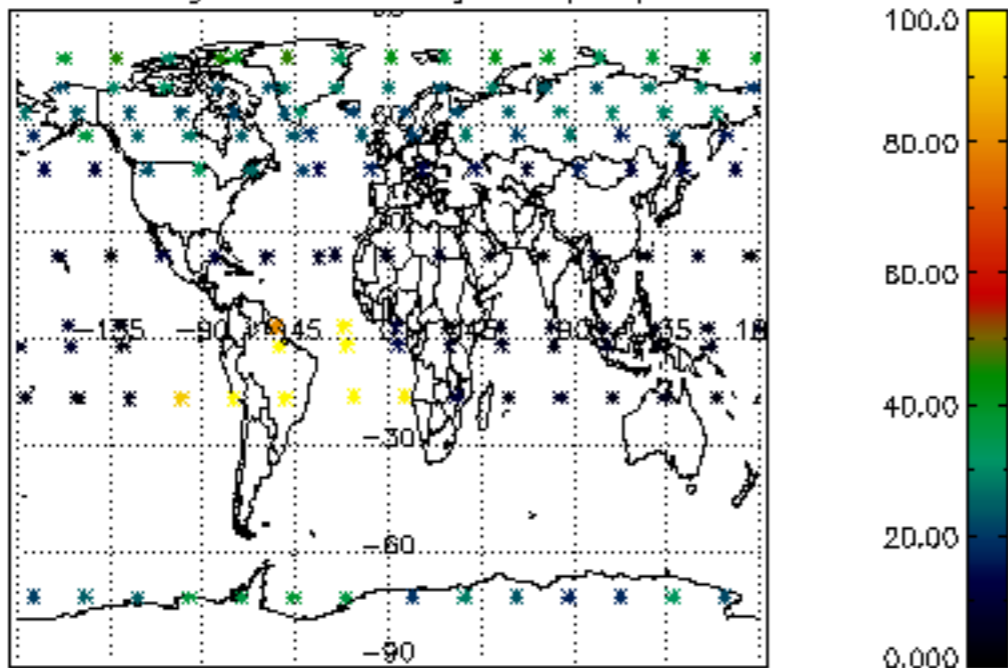
Percentage of flagged data per NO3 profile



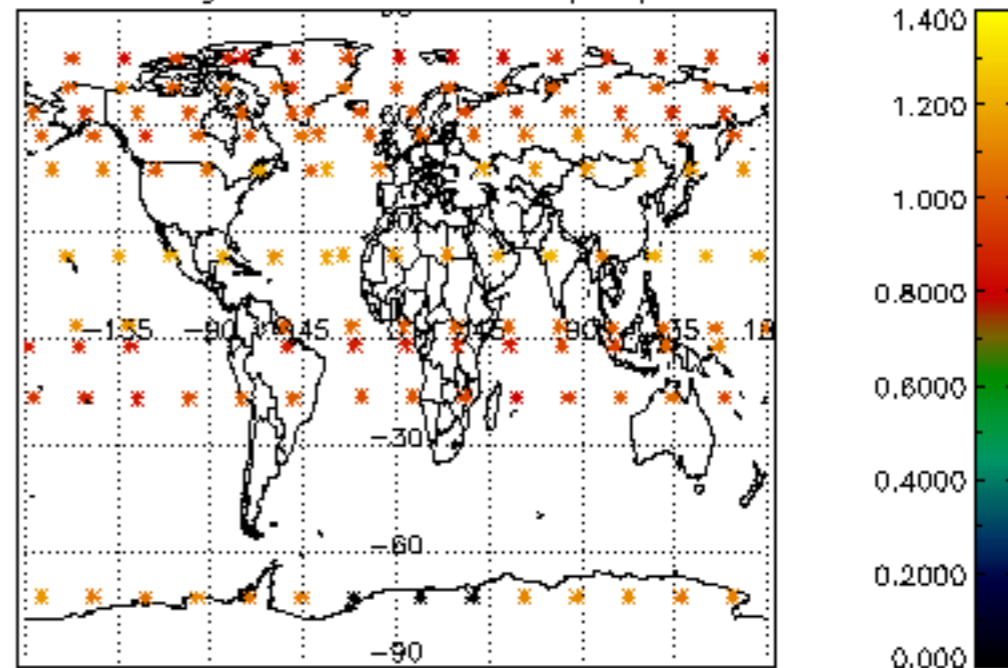




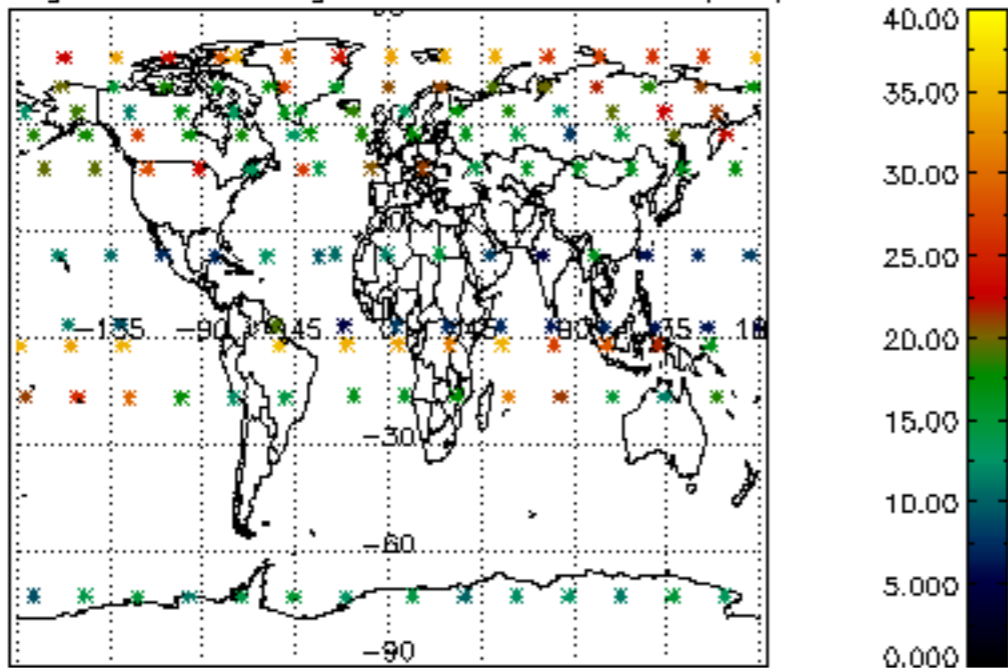
Percentage of cosmic ray hits per profile



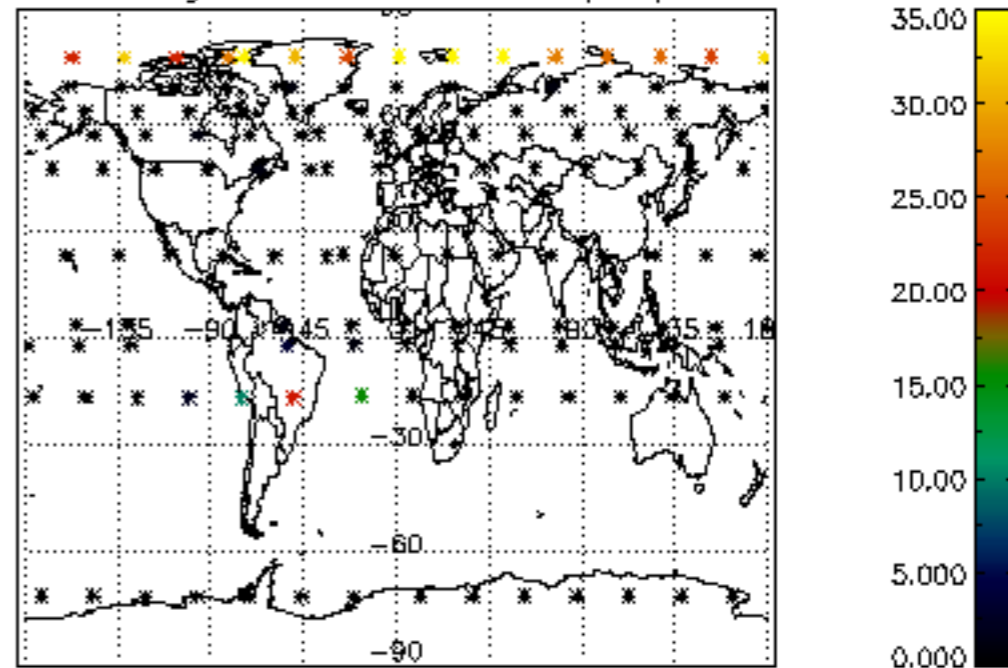
Percentage of datation errors per profile



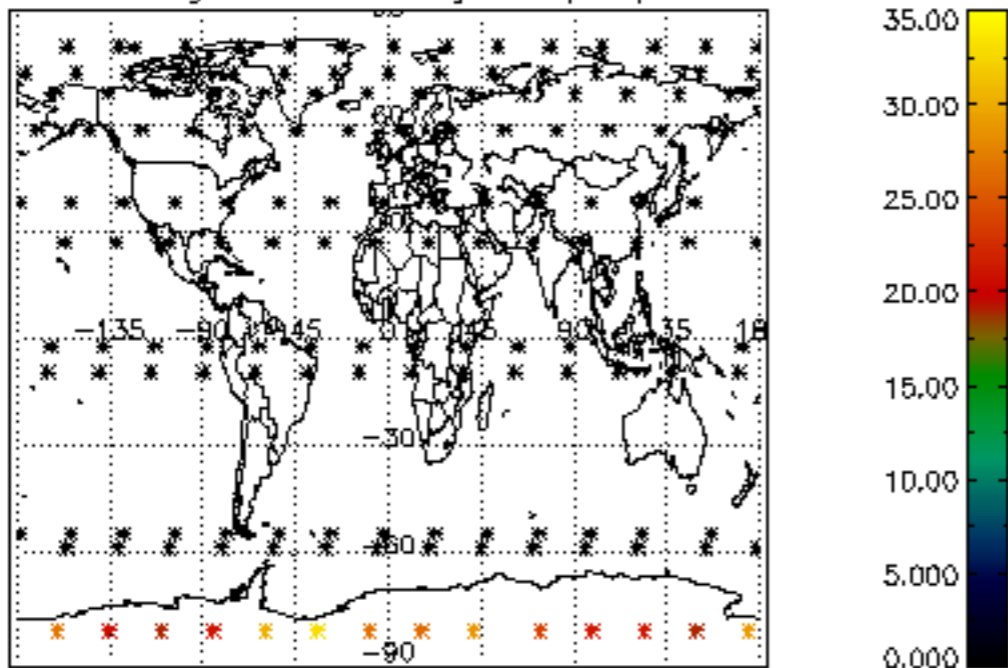
Percentage of star falling outside central band per profile



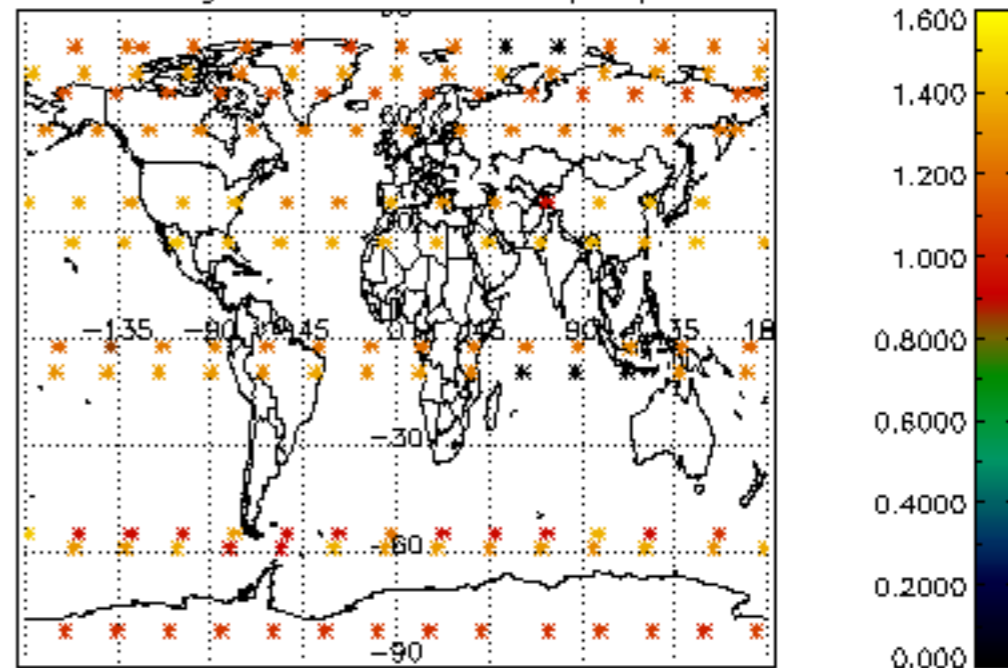
Percentage of saturation errors per profile



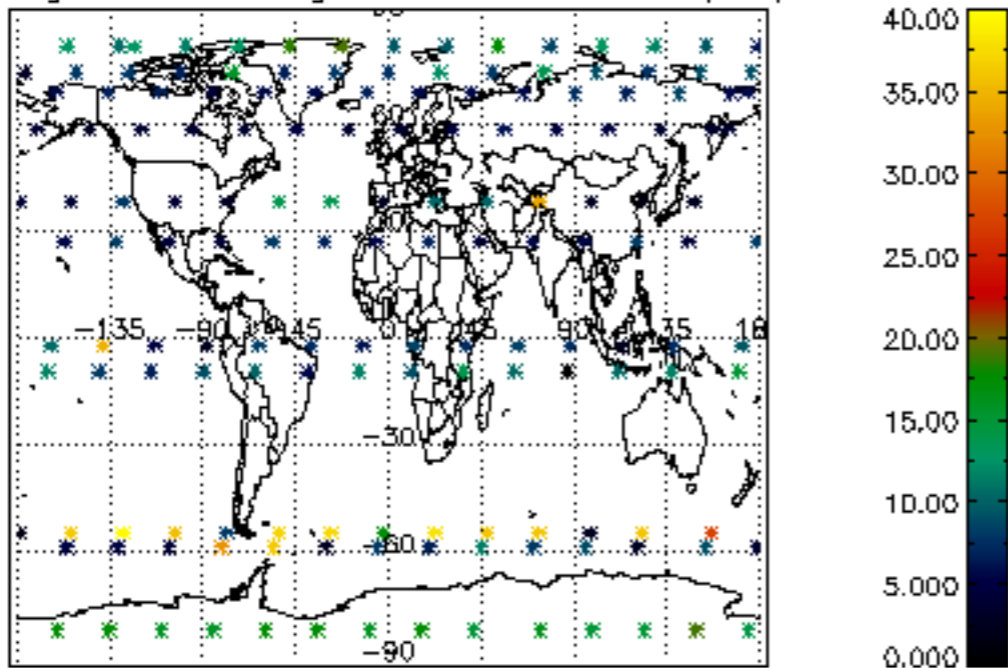
Percentage of cosmic ray hits per profile



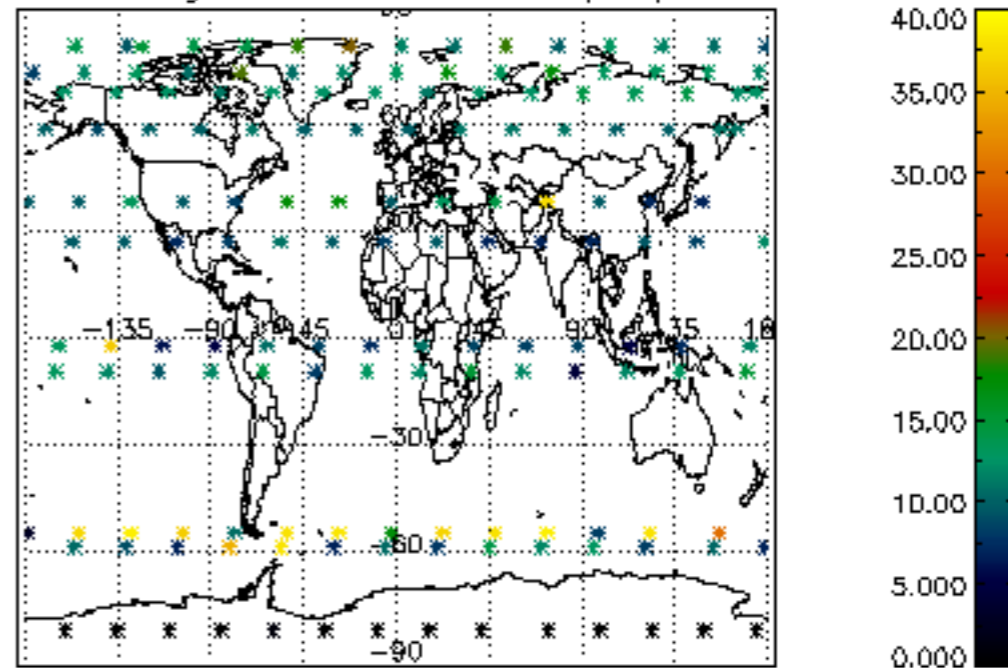
Percentage of datation errors per profile

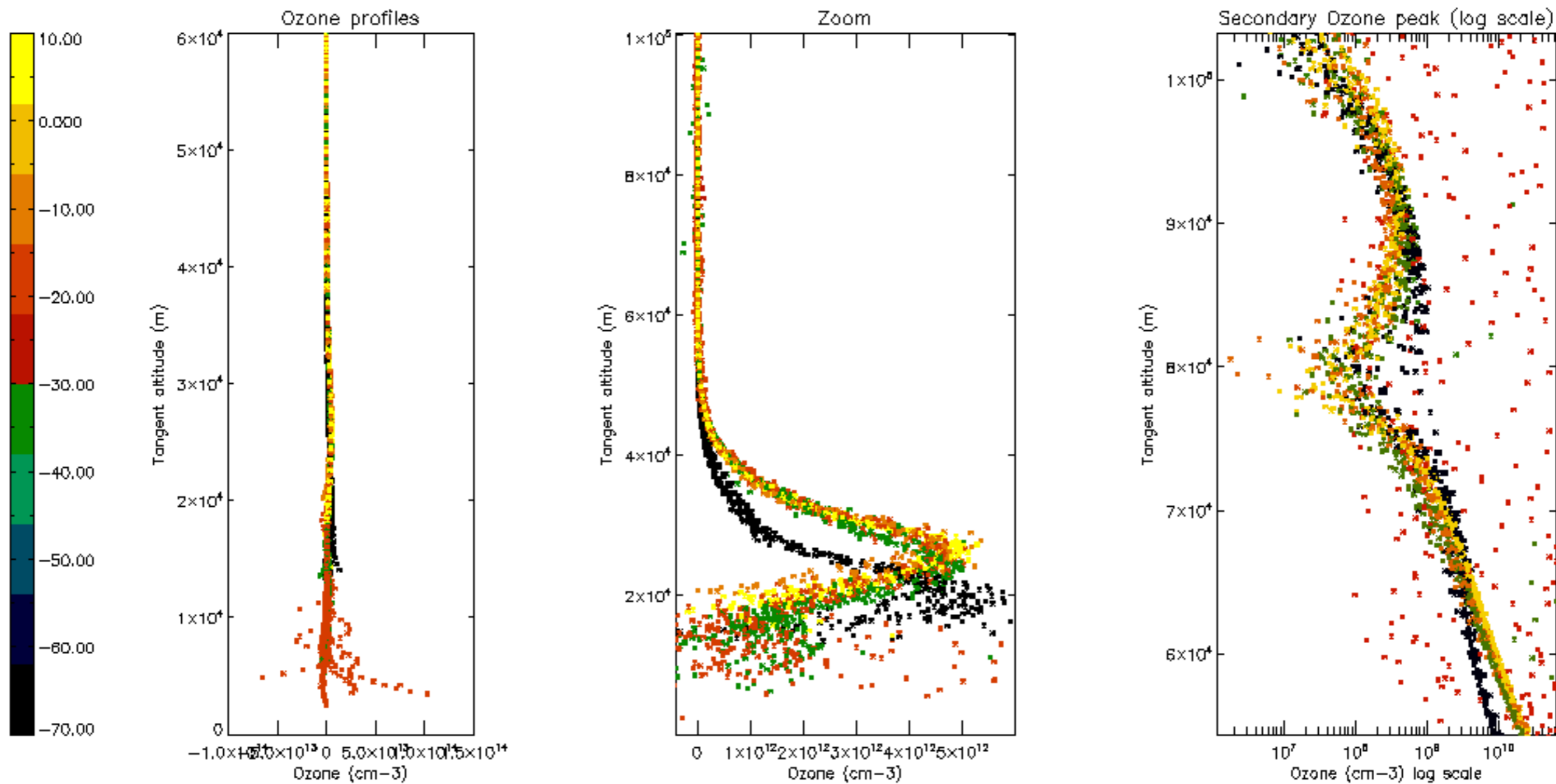


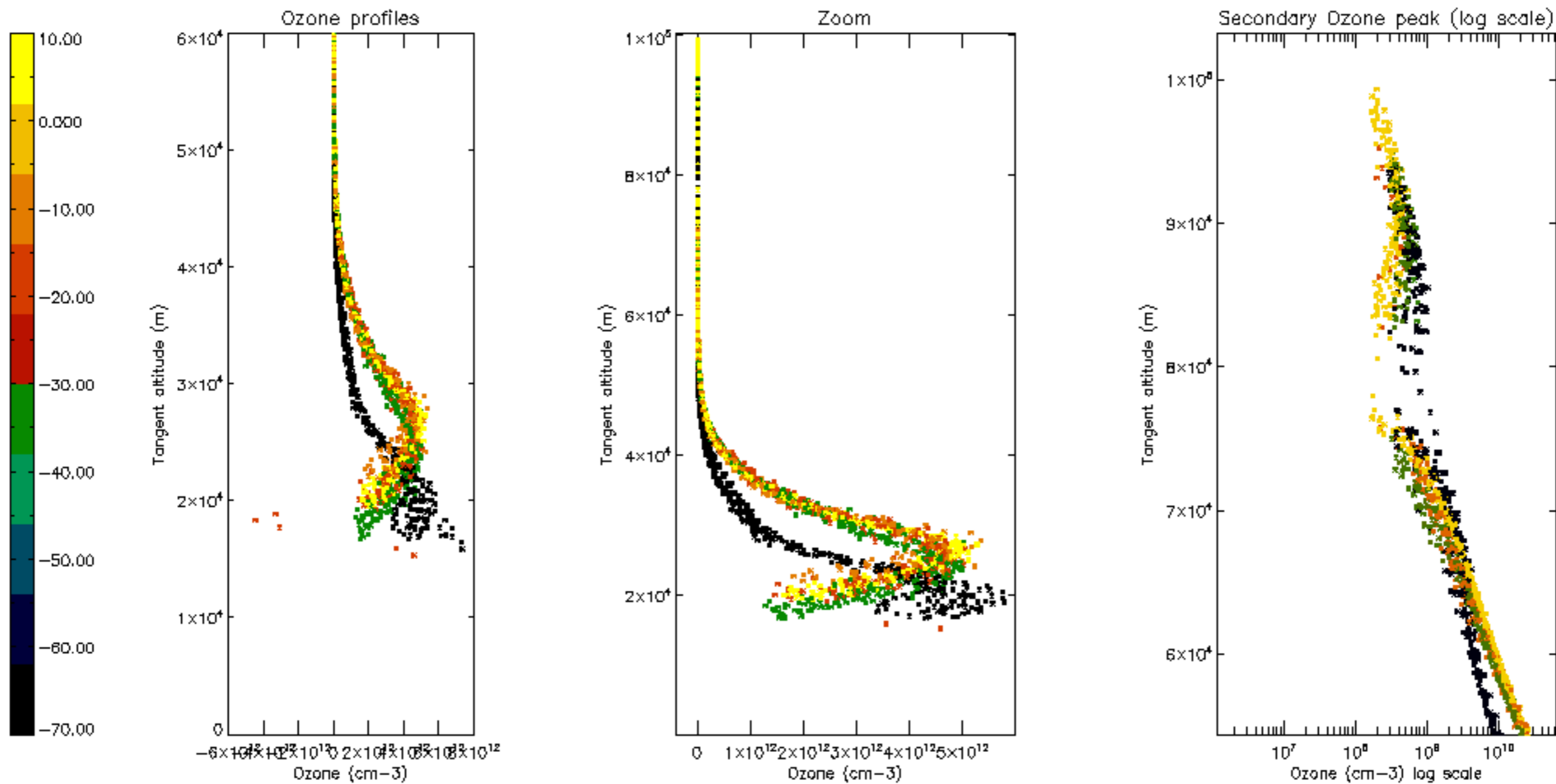
Percentage of star falling outside central band per profile

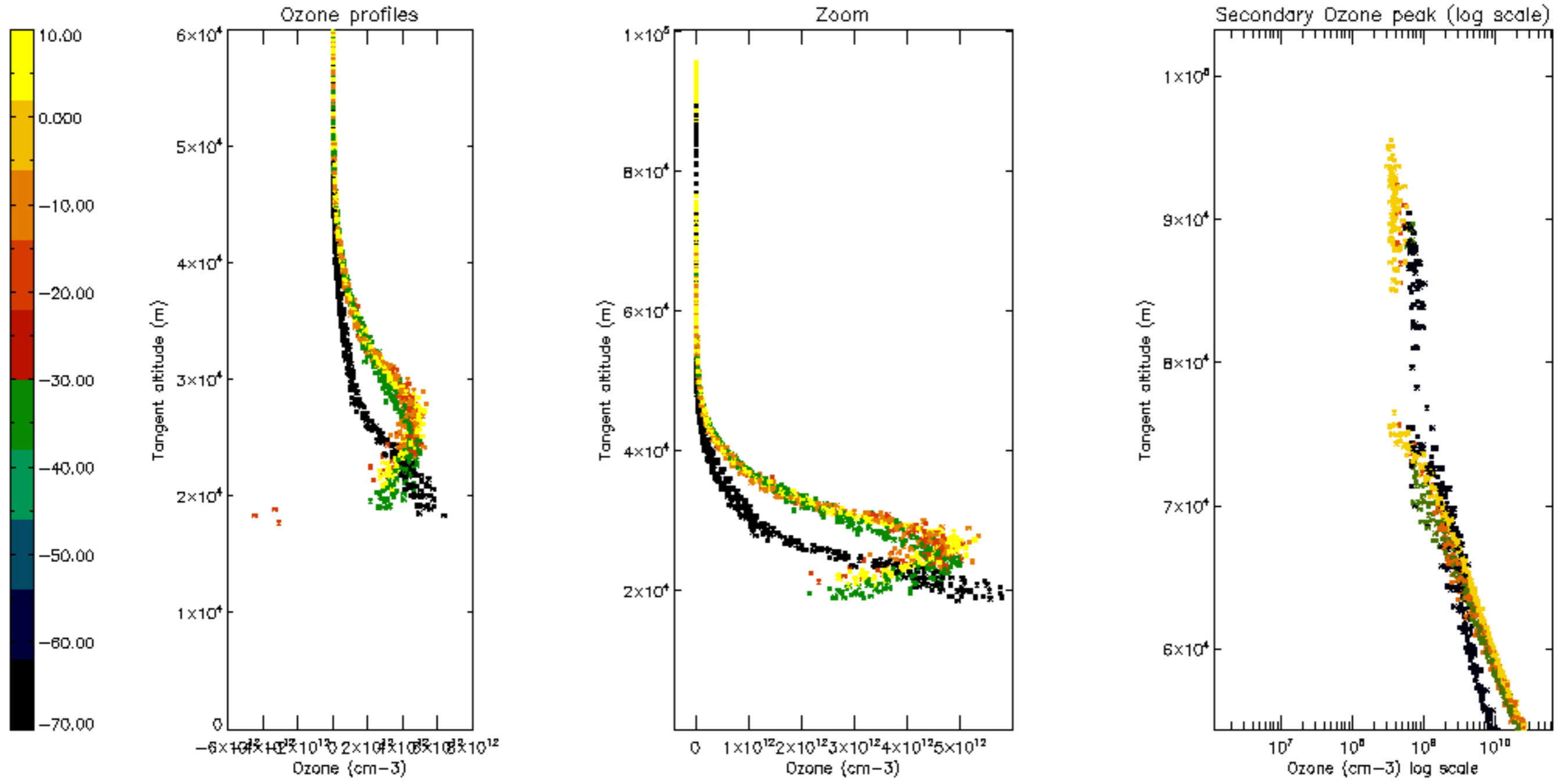


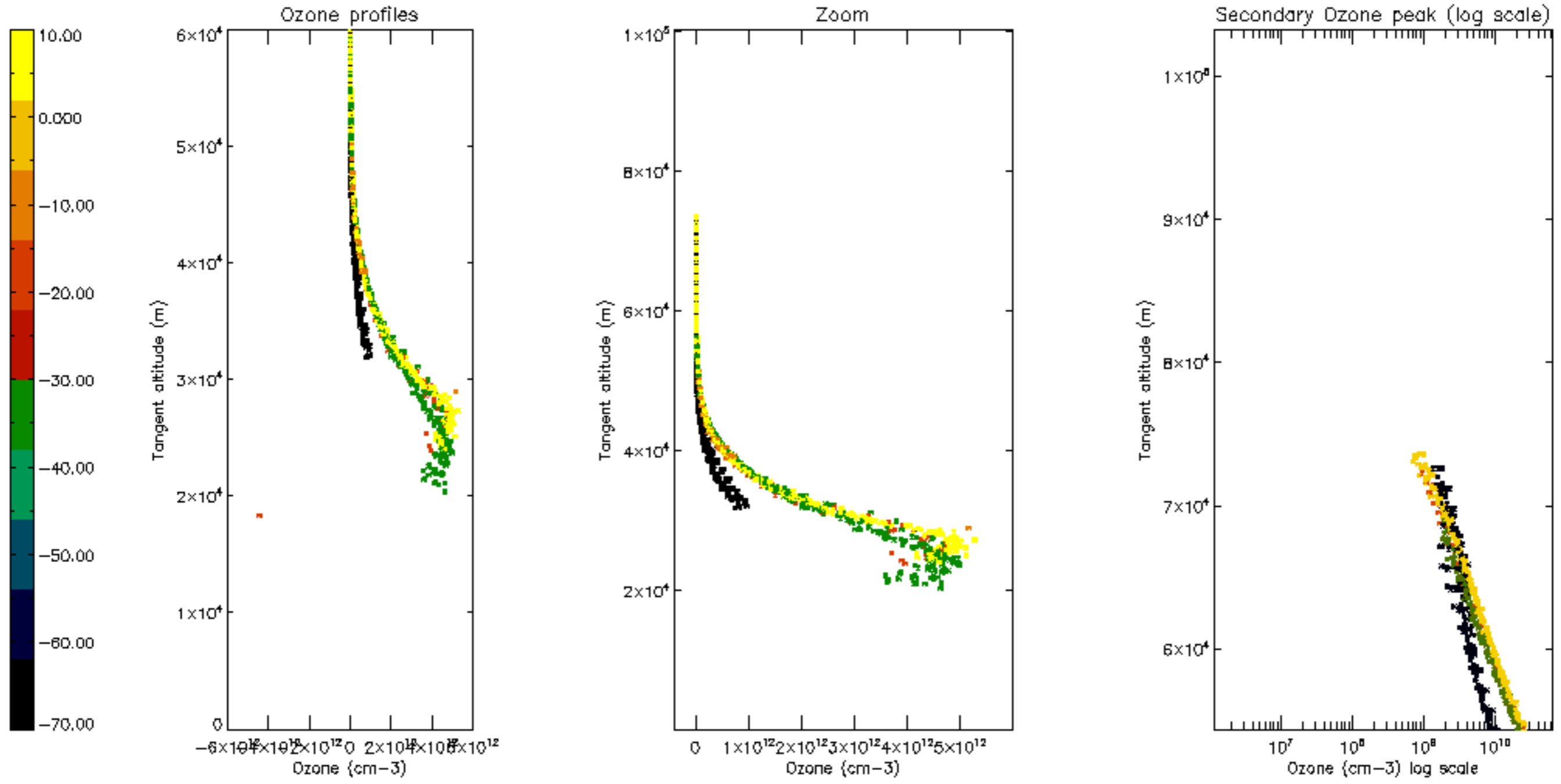
Percentage of saturation errors per profile

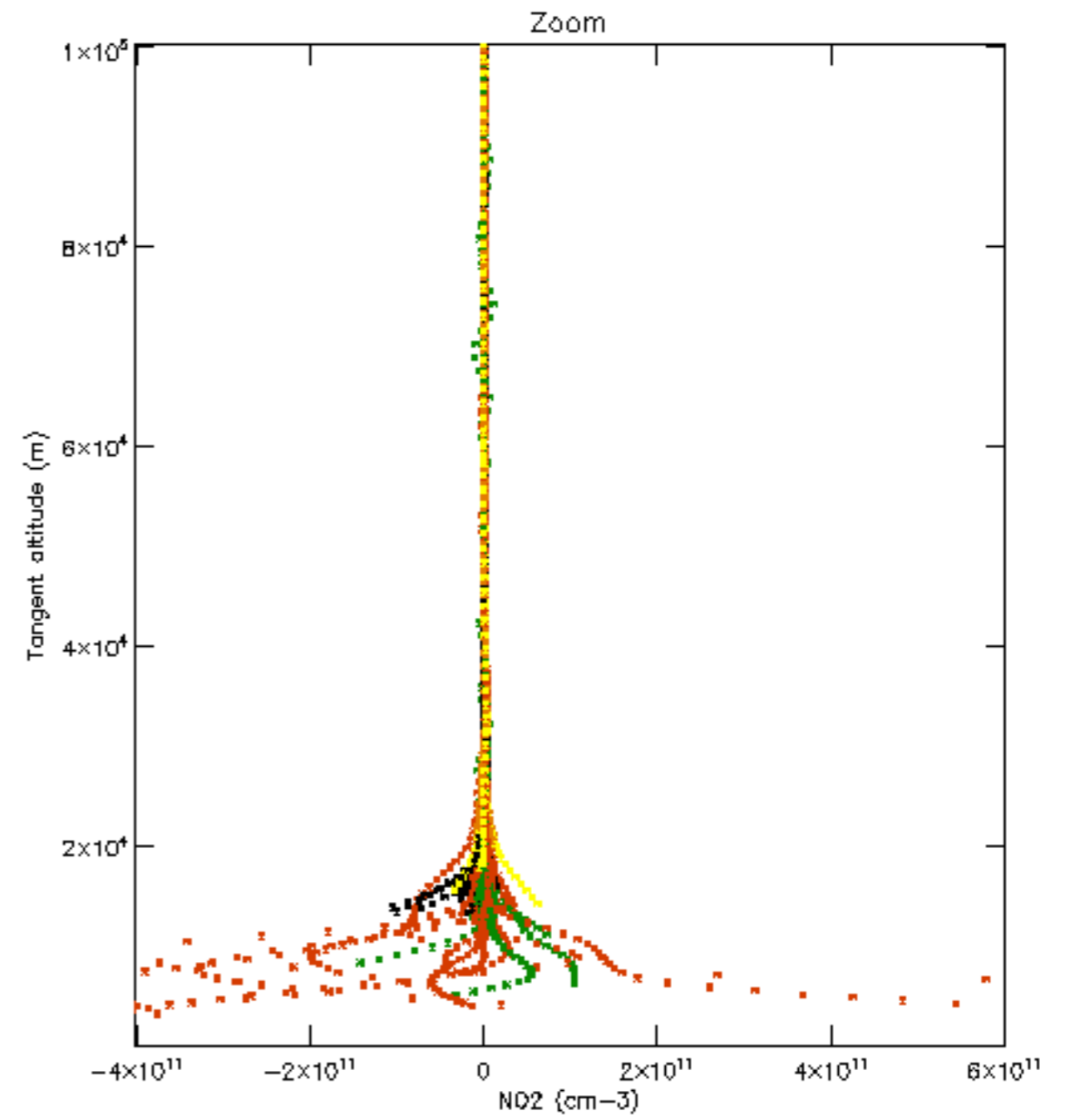
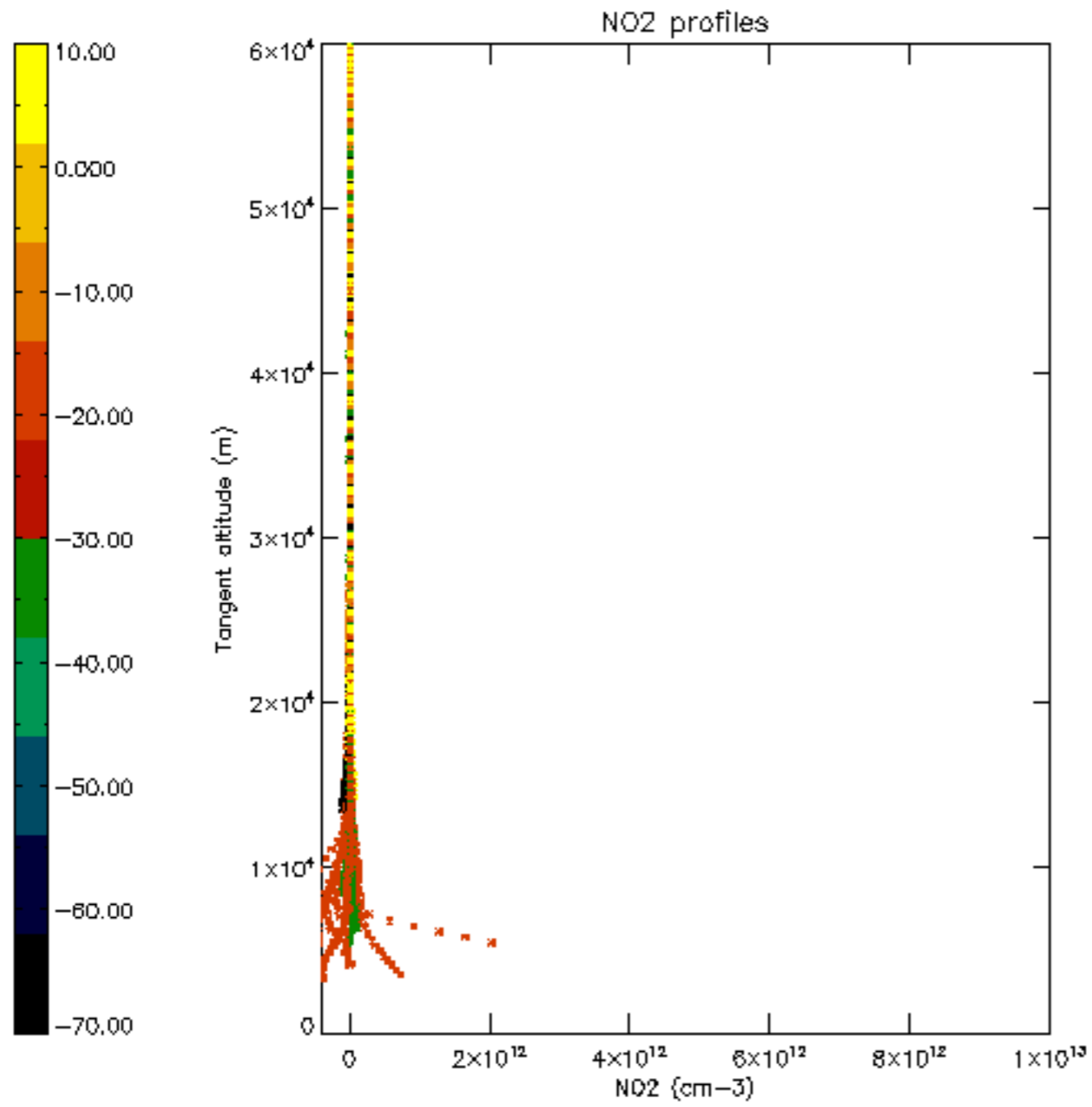


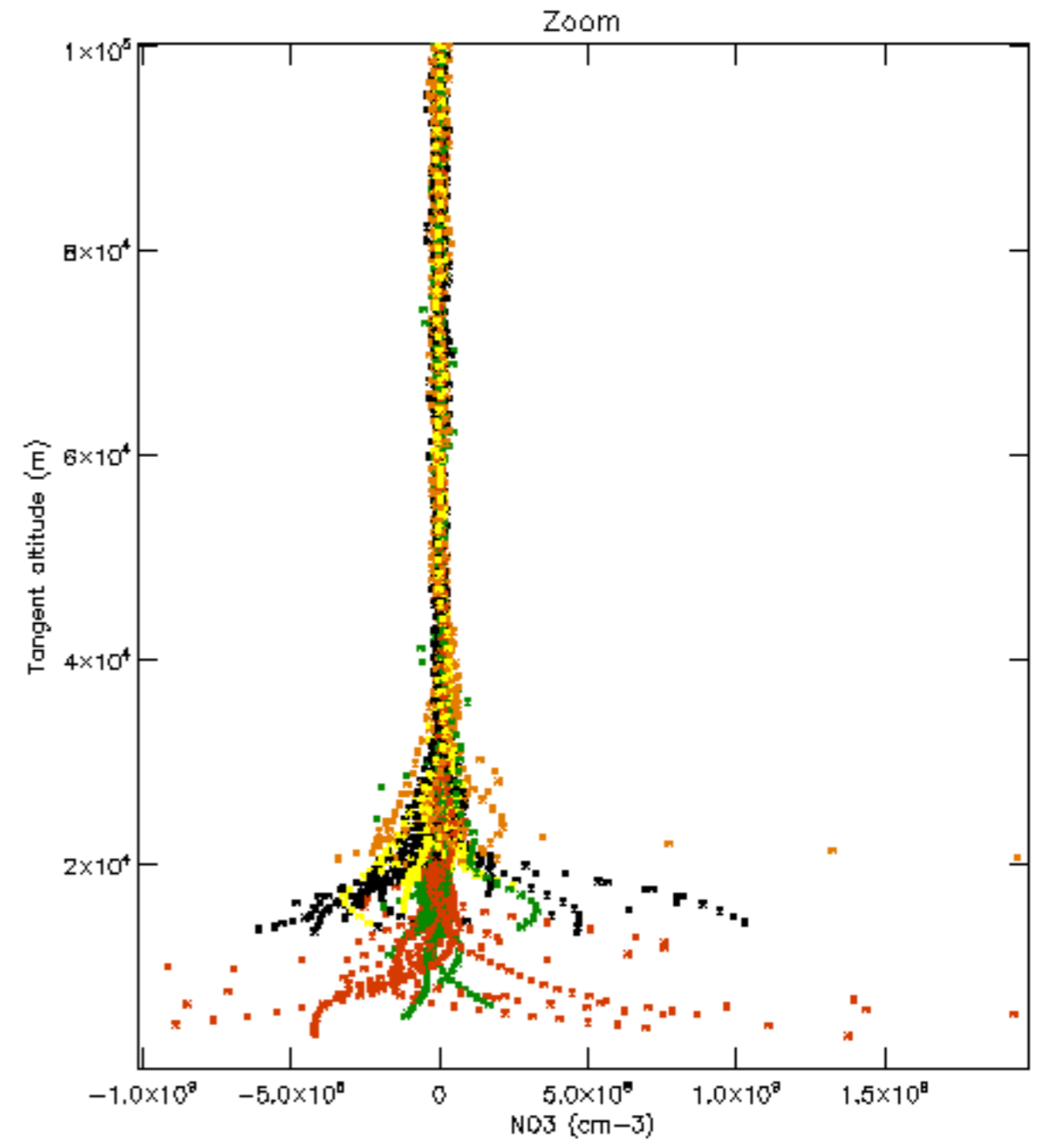
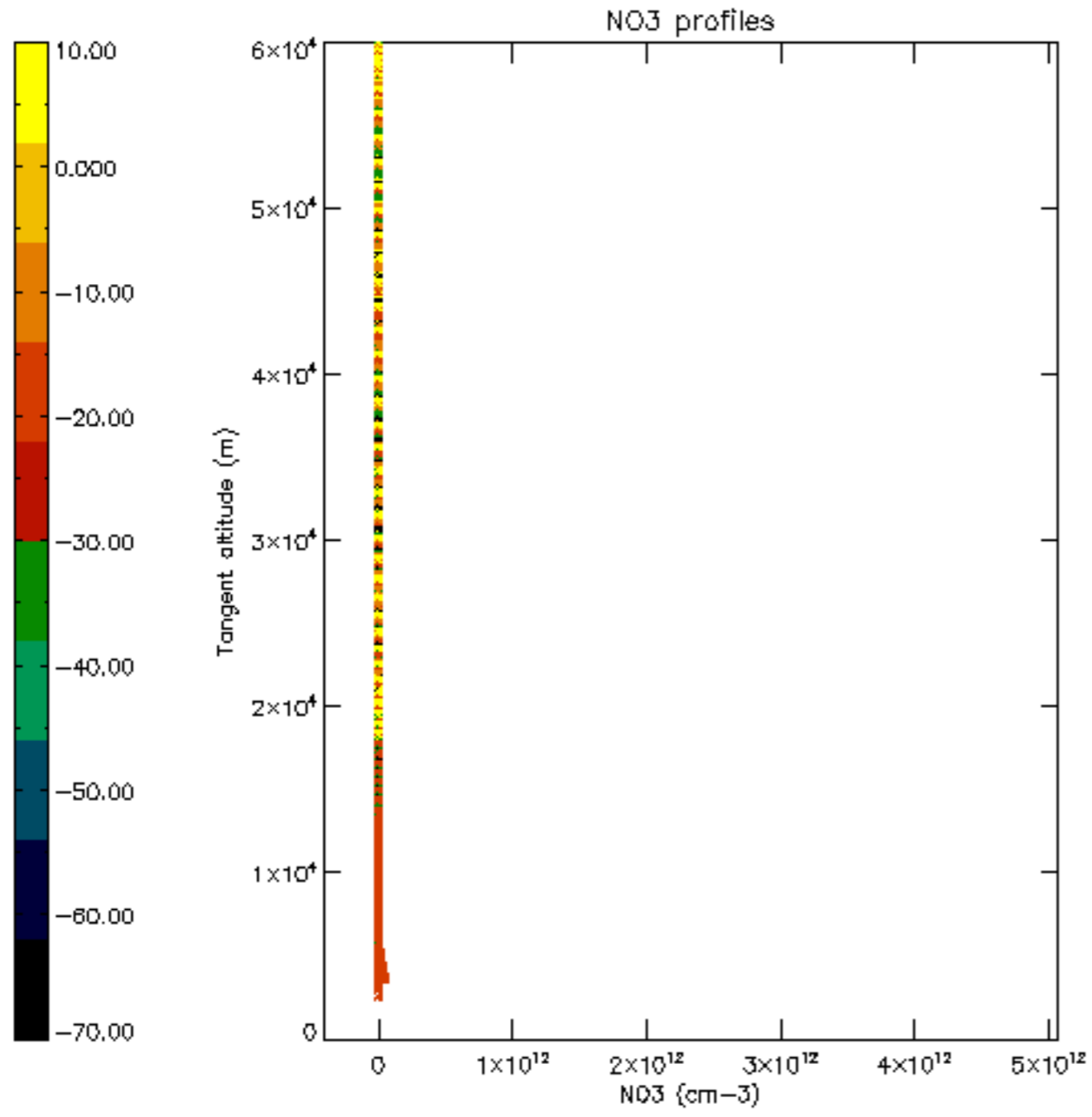


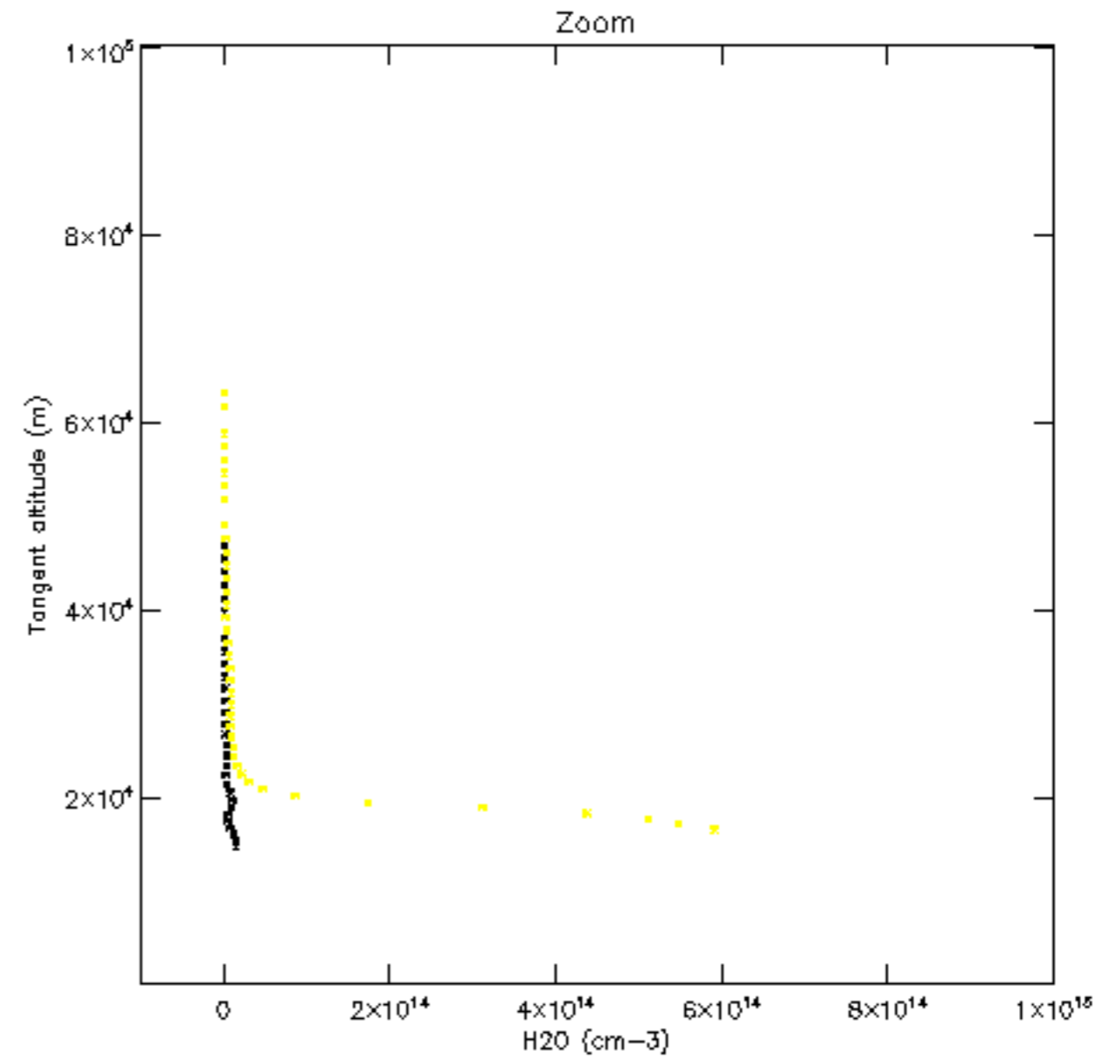
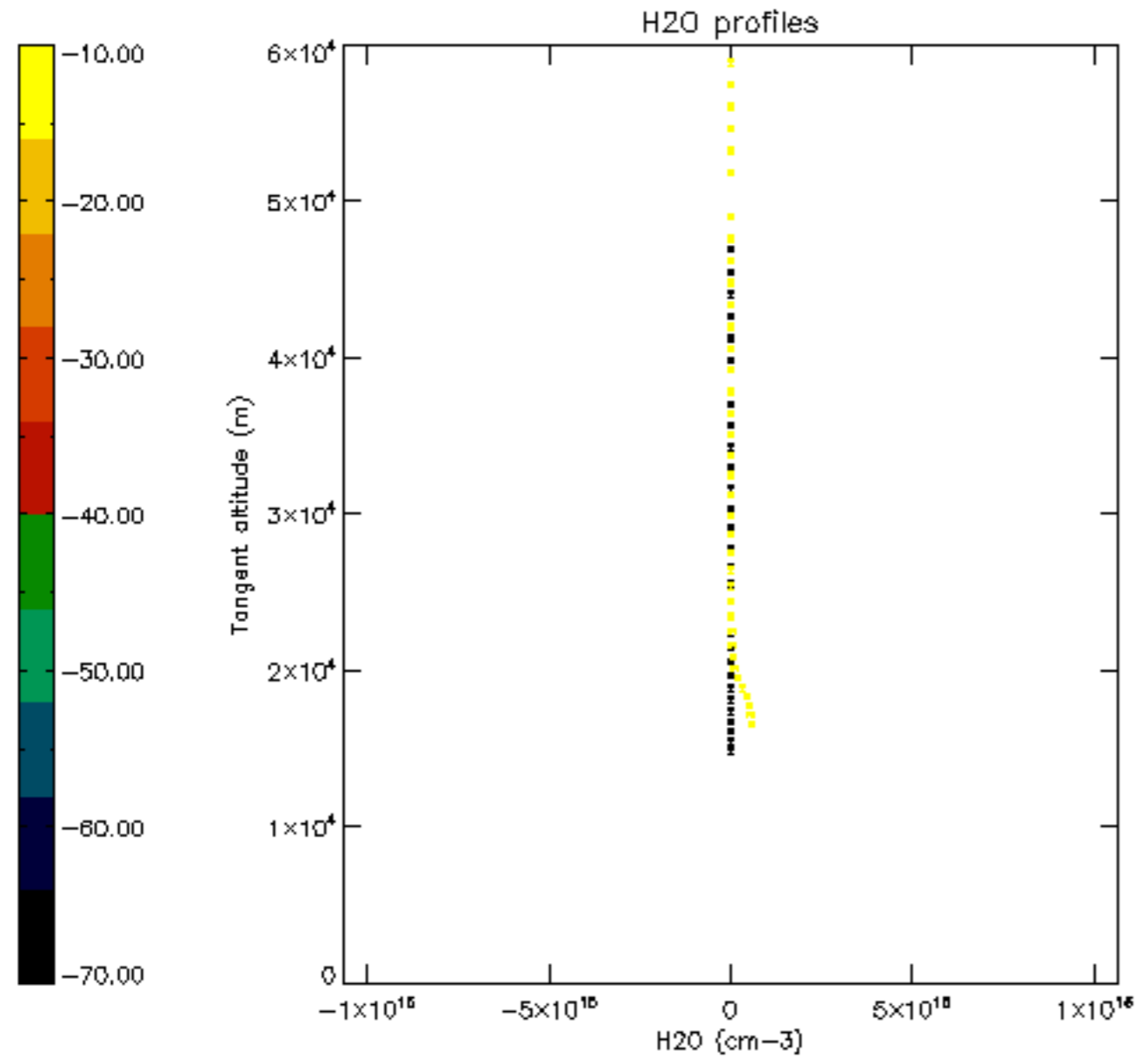


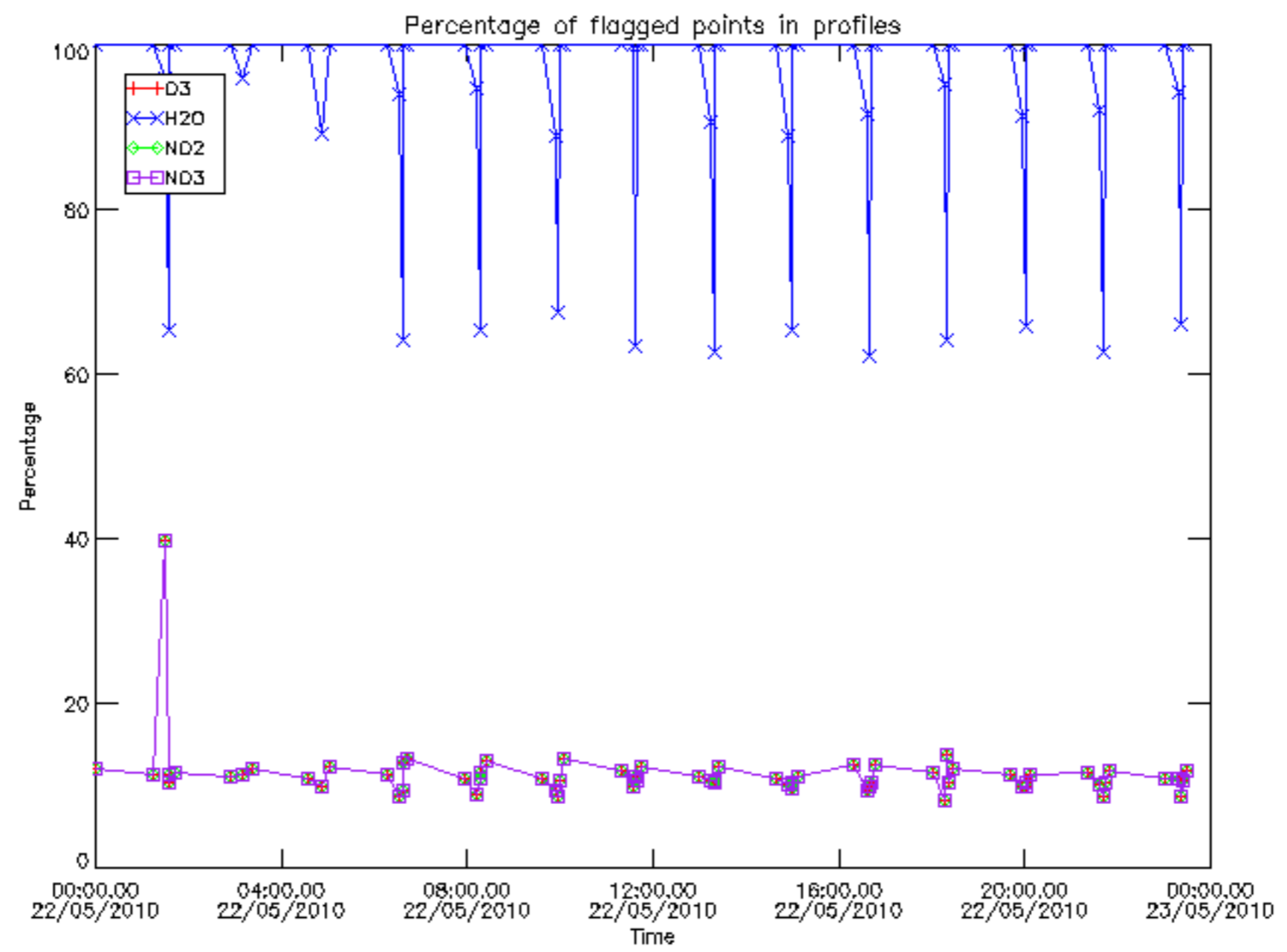




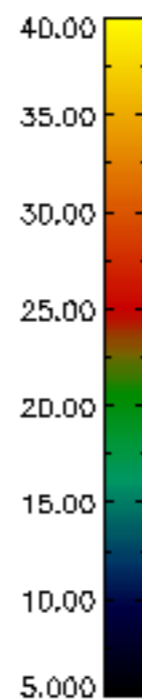
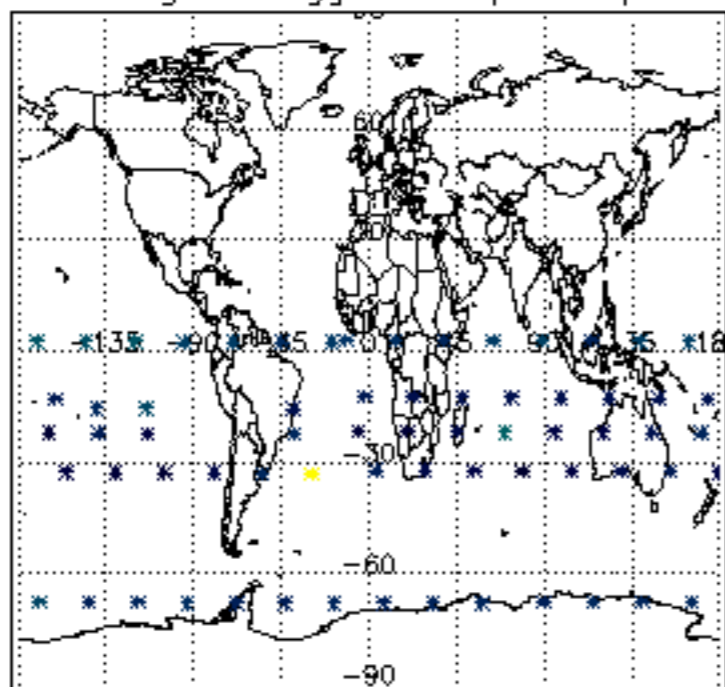




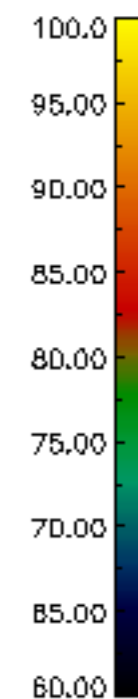
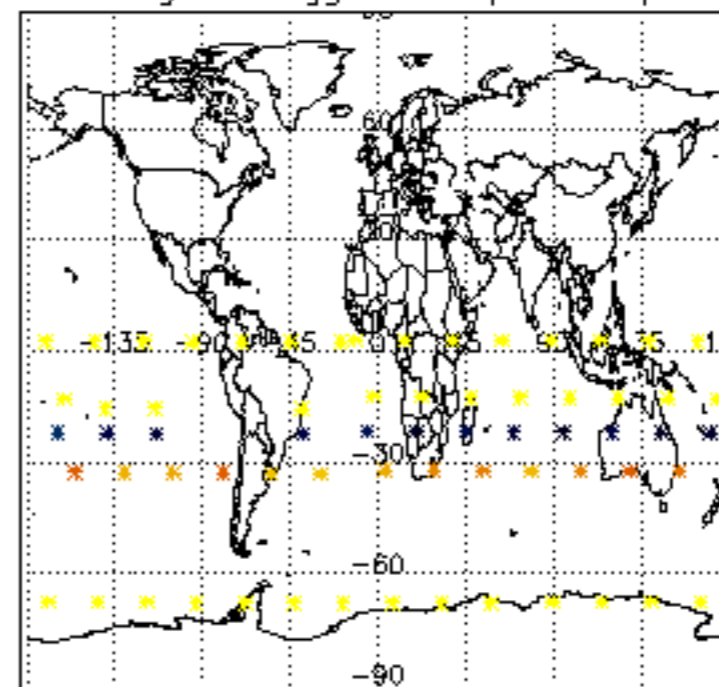




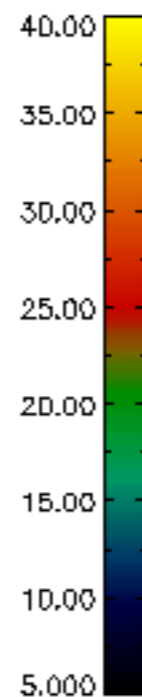
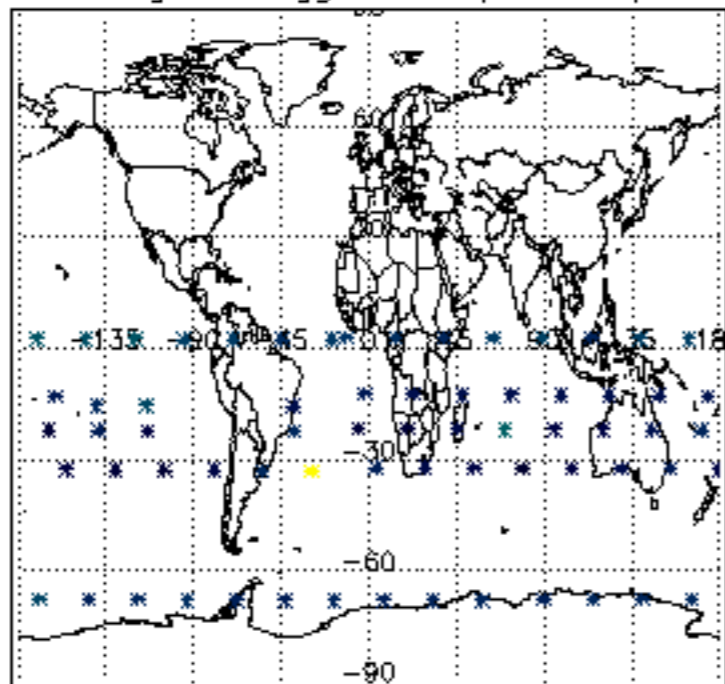
Percentage of flagged data per D3 profile



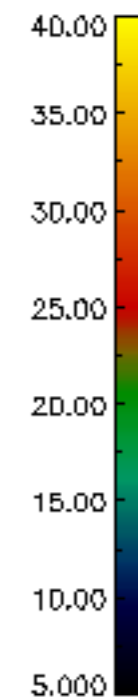
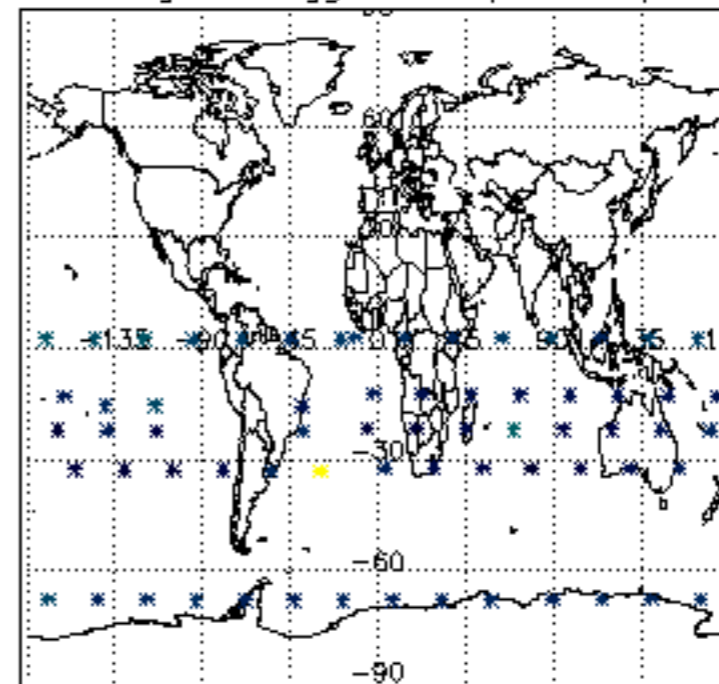
Percentage of flagged data per H2O profile

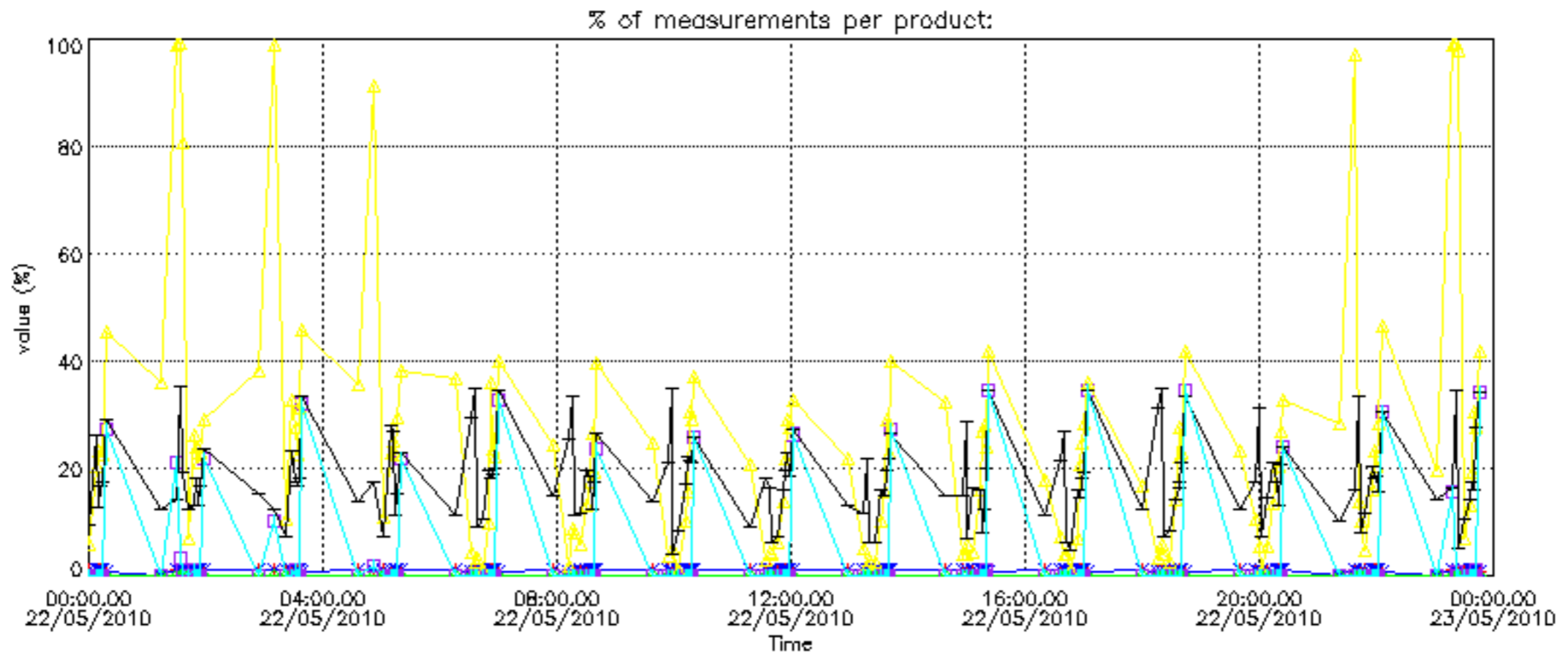


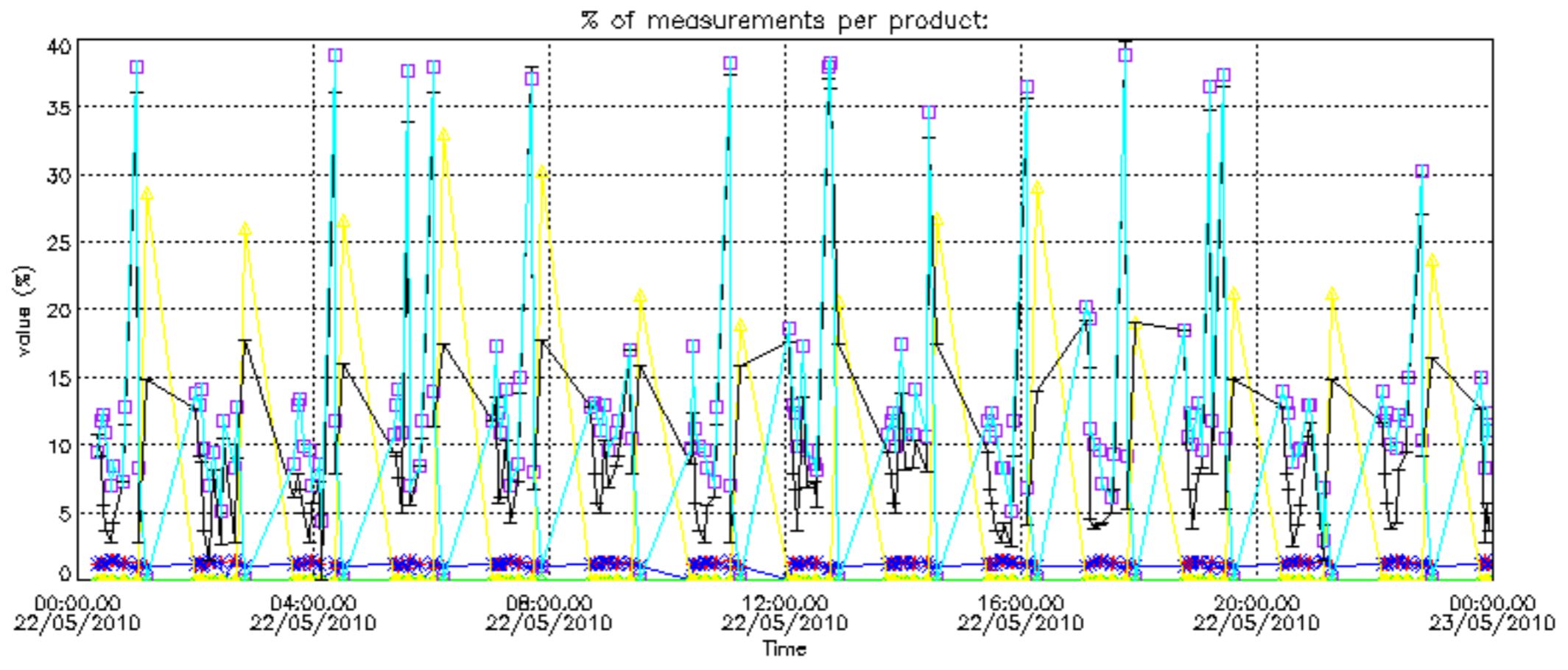
Percentage of flagged data per NO2 profile



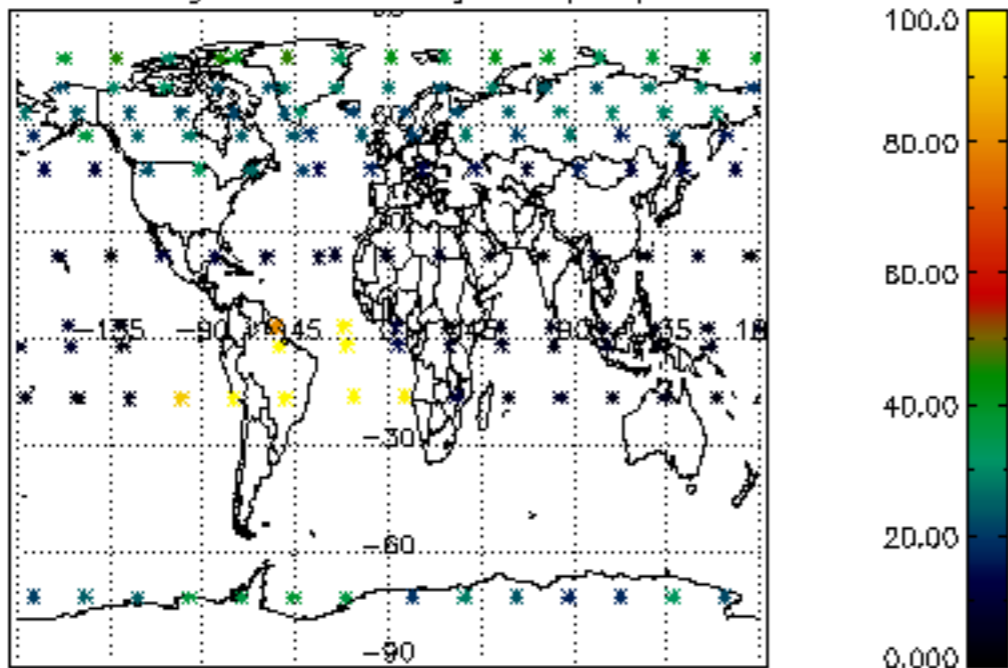
Percentage of flagged data per NO3 profile



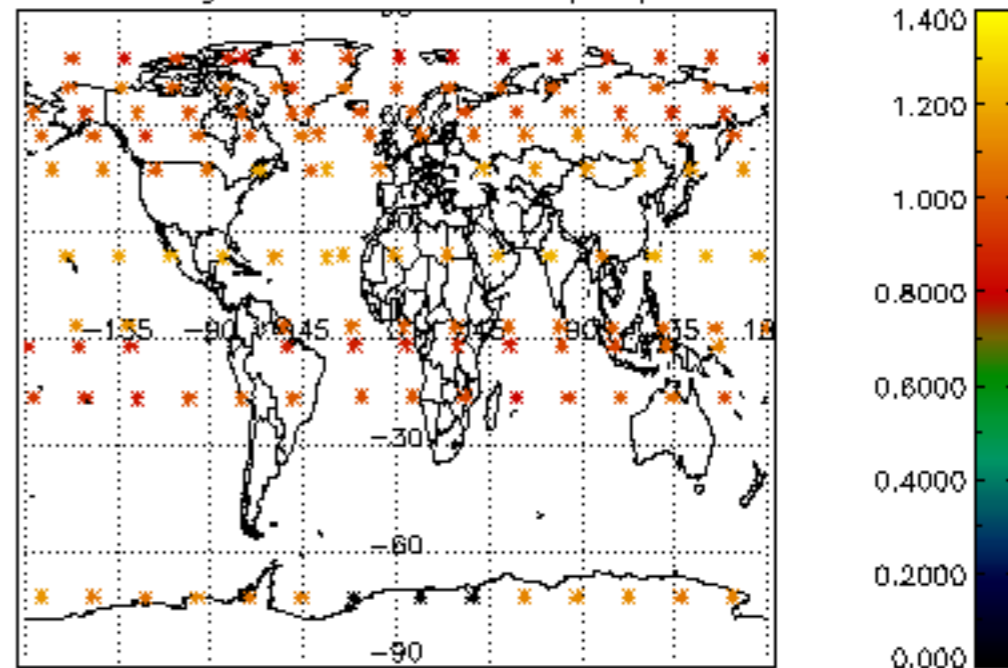




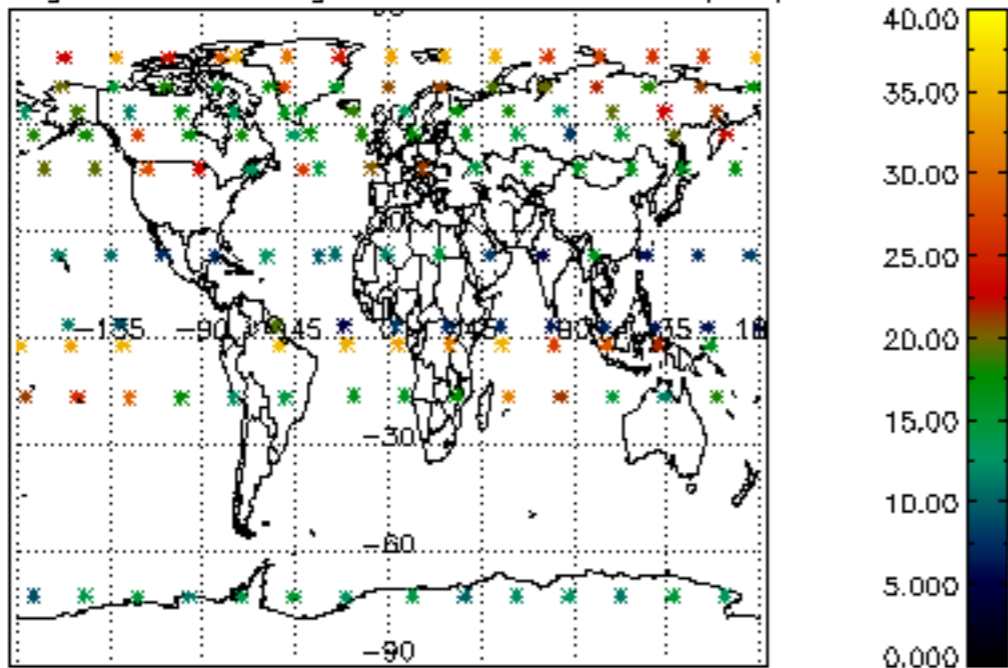
Percentage of cosmic ray hits per profile



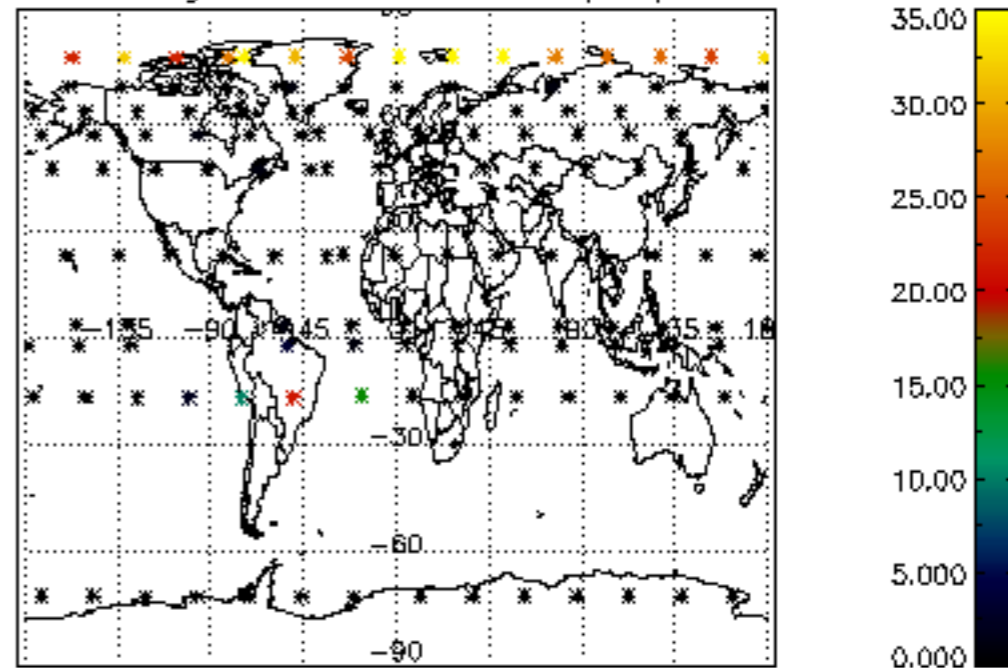
Percentage of datation errors per profile



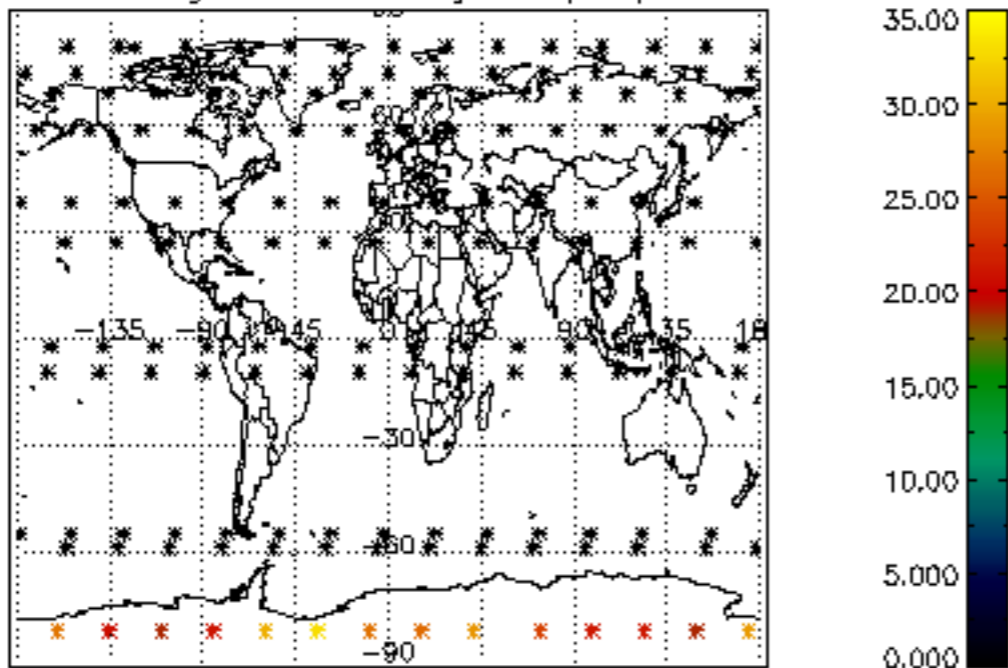
Percentage of star falling outside central band per profile



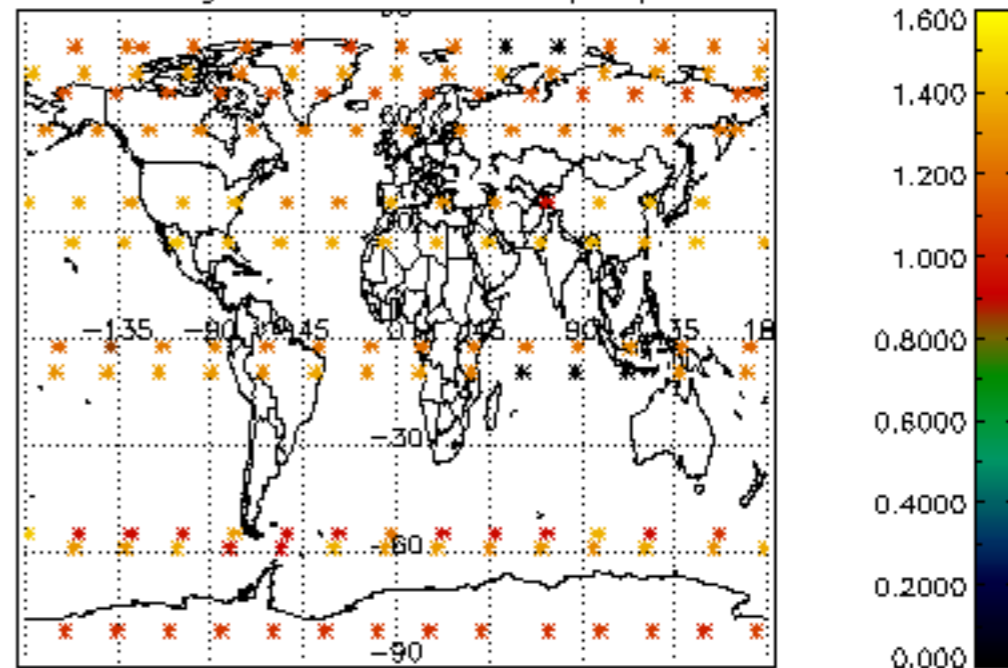
Percentage of saturation errors per profile



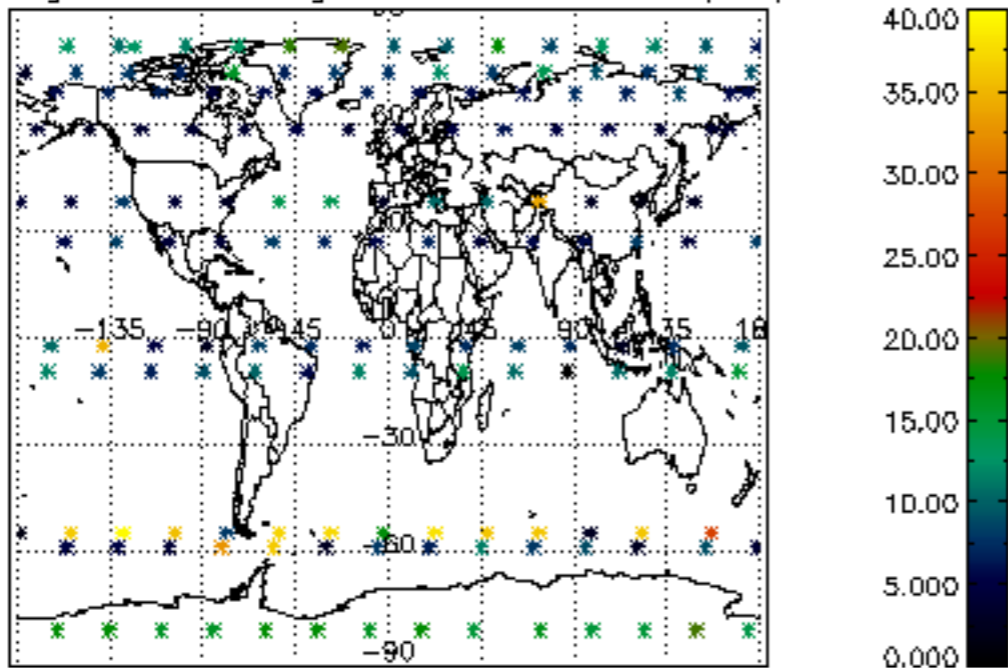
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

