

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	19APR2013 09:42:30
Data source version	GOMOS/6.01
Start time of products	28-08-2004 (28AUG2004 00:00:00)
Stop time of products	29-08-2004 (29AUG2004 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	418
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

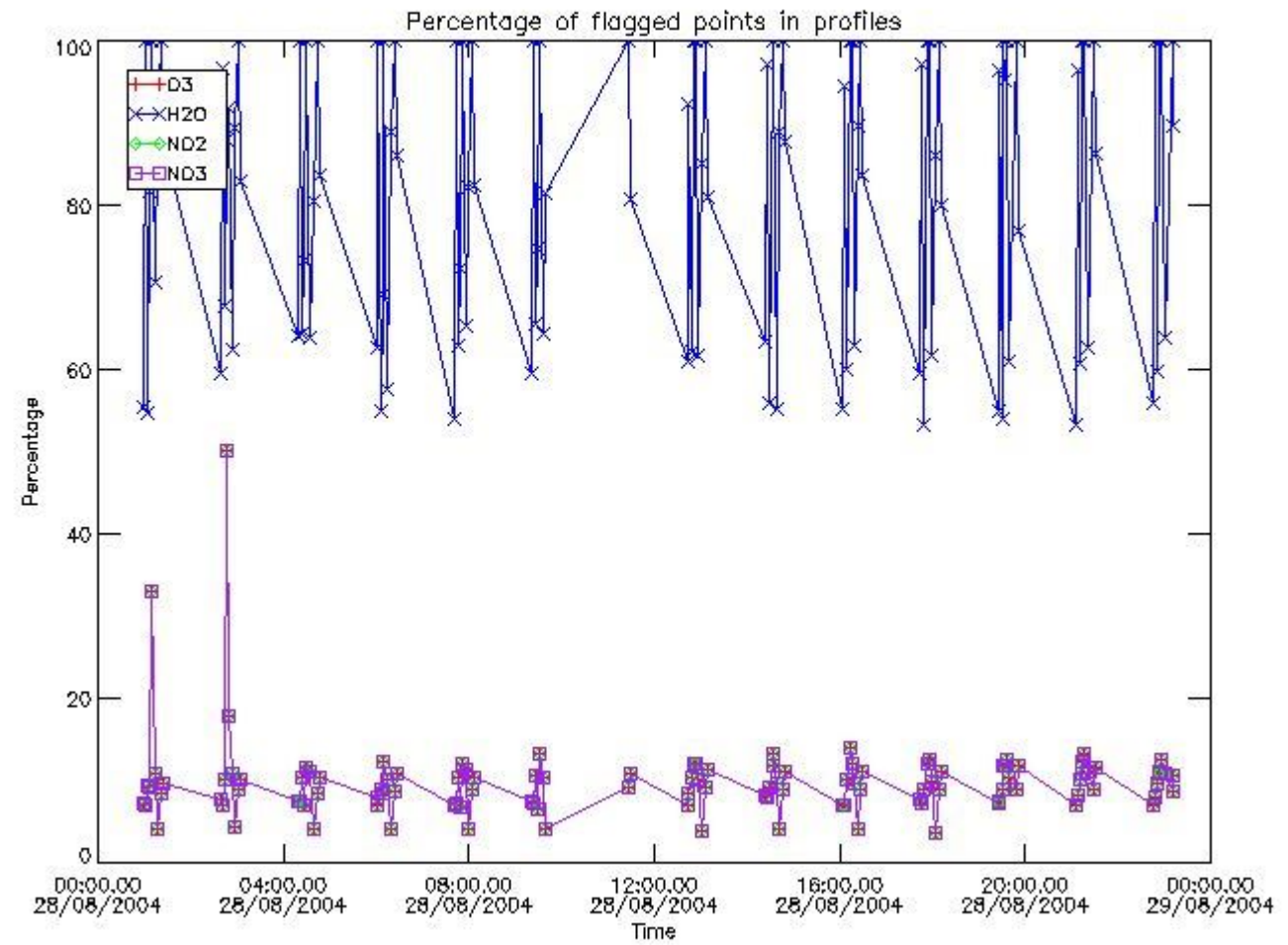
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20040828_000433_000000412029_00460_13039_2914.N1	28-AUG-2004 00:04:33	Bright	41.000	154	22Bet Aqr	2.8990	5700.0	82	13039	No
2	GOM_NL__2PRFIN20040828_000608_000000432029_00460_13039_2915.N1	28-AUG-2004 00:06:08	Bright	42.500	162	34Alp Aqr	2.9440	5350.0	85	13039	No
3	GOM_NL__2PRFIN20040828_000910_000000412029_00460_13039_2916.N1	28-AUG-2004 00:09:10	Bright	40.500	61	8Eps Peg	2.1000	3900.0	81	13039	No
4	GOM_NL__2PRFIN20040828_001232_000000512029_00460_13039_2917.N1	28-AUG-2004 00:12:32	Bright	51.000	90	54Alp Peg	2.4870	11000.	102	13039	No
5	GOM_NL__2PRFIN20040828_001556_000000382029_00460_13039_2918.N1	28-AUG-2004 00:15:56	Bright	38.000	92	53Eps Cyg	2.5000	4500.0	76	13039	No
6	GOM_NL__2PRFIN20040828_001746_000000402029_00460_13039_2919.N1	28-AUG-2004 00:17:46	Bright	39.500	66	37Gam Cyg	2.2080	5900.0	79	13039	No
7	GOM_NL__2PRFIN20040828_001908_000000402029_00460_13039_2920.N1	28-AUG-2004 00:19:08	Bright	40.000	19	50Alp Cyg	1.2460	10500.	80	13039	No
8	GOM_NL__2PRFIN20040828_002413_000000382029_00460_13039_2921.N1	28-AUG-2004 00:24:13	Bright	38.000	89	5Alp Cep	2.4510	8000.0	76	13039	No
9	GOM_NL__2PRFIN20040828_002729_000000482029_00460_13039_2922.N1	28-AUG-2004 00:27:29	Bright	48.000	74	11Bet Cas	2.2680	6600.0	96	13039	No
10	GOM_NL__2PRFIN20040828_002939_000000502029_00460_13039_2923.N1	28-AUG-2004 00:29:39	Bright	50.000	76	27Gam Cas	2.3000	30000.	100	13039	No
11	GOM_NL__2PRFIN20040828_003146_000000362029_00460_13039_2924.N1	28-AUG-2004 00:31:46	Bright	35.500	49	1Alp UMi	1.9900	6300.0	71	13039	No
12	GOM_NL__2PRFIN20040828_003752_000000392029_00460_13039_2925.N1	28-AUG-2004 00:37:52	Bright	39.000	36	50Alp UMa	1.8000	6300.0	78	13039	No
13	GOM_NL__2PRFIN20040828_004212_000002552029_00460_13039_2926.N1	28-AUG-2004 00:42:12	Twilight	255.00	173	4Bet Tri	3.0040	8900.0	510	13039	No
14	GOM_NL__2PRFIN20040828_004728_000000462029_00460_13039_2927.N1	28-AUG-2004 00:47:28	Bright	46.000	107	37The Aur	2.6490	11000.	92	13039	No
15	GOM_NL__2PRFIN20040828_005104_000000642029_00460_13039_2928.N1	28-AUG-2004 00:51:04	Twilight	63.500	28	12Bet Tau	1.6500	15200.	127	13039	No
16	GOM_NL__2PRFIN20040828_005404_000000482029_00460_13039_2929.N1	28-AUG-2004 00:54:04	Twilight	47.500	44	24Gam Gem	1.9280	11000.	95	13039	No
17	GOM_NL__2PRFIN20040828_005610_000000532029_00460_13039_2930.N1	28-AUG-2004 00:56:10	Twilight	53.000	8	10Alp CMi	0.40000	6500.0	106	13039	No
18	GOM_NL__2PRFIN20040828_005818_000000712029_00460_13039_2931.N1	28-AUG-2004 00:58:18	Dark	71.000	14	58Alp Ori	0.87000	3000.0	142	13039	No
19	GOM_NL__2PRFIN20040828_010014_000000732029_00460_13039_2932.N1	28-AUG-2004 01:00:14	Dark	72.500	27	24Gam Ori	1.6360	26000.	145	13039	No
20	GOM_NL__2PRFIN20040828_010334_000000552029_00460_13039_2933.N1	28-AUG-2004 01:03:34	Dark	54.500	1	9Alp CMa	-1.4400	11000.	109	13039	No
21	GOM_NL__2PRFIN20040828_010552_000000772029_00460_13039_2934.N1	28-AUG-2004 01:05:52	Dark	77.000	7	19Bet Ori	0.10000	14000.	154	13039	No
22	GOM_NL__2PRFIN20040828_010812_000000432029_00460_13039_2935.N1	28-AUG-2004 01:08:12	Dark	43.000	70	Zet Pup	2.2460	39000.	86	13039	No
23	GOM_NL__2PRFIN20040828_011312_000000472029_00460_13039_2936.N1	28-AUG-2004 01:13:12	Dark	46.500	2	Alp Car	-0.73600	7000.0	93	13039	No
24	GOM_NL__2PRFIN20040828_011652_000001242029_00461_13040_2906.N1	28-AUG-2004 01:16:52	Dark	124.00	165	34Gam Eri	2.9500	3200.0	248	13040	No
25	GOM_NL__2PRFIN20040828_012206_000000602029_00461_13040_2907.N1	28-AUG-2004 01:22:06	Dark	60.000	157	The1Eri	2.9060	9300.0	120	13040	No
26	GOM_NL__2PRFIN20040828_012435_000000542029_00461_13040_2908.N1	28-AUG-2004 01:24:35	Dark	53.500	9	Alp Eri	0.45300	24000.	107	13040	No
27	GOM_NL__2PRFIN20040828_013033_000000592029_00461_13040_2909.N1	28-AUG-2004 01:30:33	Straylight	58.500	84	Alp Phe	2.3970	4500.0	117	13040	No
28	GOM_NL__2PRFIN20040828_013256_000000442029_00461_13040_2910.N1	28-AUG-2004 01:32:56	Straylight	43.500	31	Alp Gru	1.7340	15200.	87	13040	No
29	GOM_NL__2PRFIN20040828_013700_000000502029_00461_13040_2911.N1	28-AUG-2004 01:37:00	Straylight	49.500	18	24Alp PsA	1.1660	9700.0	99	13040	No
30	GOM_NL__2PRFIN20040828_013947_000001012029_00461_13040_2912.N1	28-AUG-2004 01:39:47	Bright	100.50	52	16Bet Cet	2.0370	4500.0	201	13040	No
31	GOM_NL__2PRFIN20040828_014509_000000422029_00461_13040_2913.N1	28-AUG-2004 01:45:09	Bright	41.500	154	22Bet Aqr	2.8990	5700.0	83	13040	No
32	GOM_NL__2PRFIN20040828_014643_000000442029_00461_13040_2914.N1	28-AUG-2004 01:46:43	Bright	44.000	162	34Alp Aqr	2.9440	5350.0	88	13040	No
33	GOM_NL__2PRFIN20040828_014945_000000412029_00461_13040_2915.N1	28-AUG-2004 01:49:45	Bright	41.000	61	8Eps Peg	2.1000	3900.0	82	13040	No
34	GOM_NL__2PRFIN20040828_015308_000000542029_00461_13040_2916.N1	28-AUG-2004 01:53:08	Bright	53.500	90	54Alp Peg	2.4870	11000.	107	13040	No
35	GOM_NL__2PRFIN20040828_015632_000000382029_00461_13040_2917.N1	28-AUG-2004 01:56:32	Bright	38.000	92	53Eps Cyg	2.5000	4500.0	76	13040	No
36	GOM_NL__2PRFIN20040828_015821_000000362029_00461_13040_2918.N1	28-AUG-2004 01:58:21	Bright	35.500	66	37Gam Cyg	2.2080	5900.0	71	13040	No
37	GOM_NL__2PRFIN20040828_015944_000000362029_00461_13040_2919.N1	28-AUG-2004 01:59:44	Bright	35.500	19	50Alp Cyg	1.2460	10500.	71	13040	No
38	GOM_NL__2PRFIN20040828_020448_000000392029_00461_13040_2920.N1	28-AUG-2004 02:04:48	Bright	38.500	89	5Alp Cep	2.4510	8000.0	77	13040	No
39	GOM_NL__2PRFIN20040828_020803_000000462029_00461_13040_2921.N1	28-AUG-2004 02:08:03	Bright	46.000	74	11Bet Cas	2.2680	6600.0	92	13040	No
40	GOM_NL__2PRFIN20040828_021016_000000442029_00461_13040_2922.N1	28-AUG-2004 02:10:16	Bright	43.500	76	27Gam Cas	2.3000	30000.	87	13040	No
41	GOM_NL__2PRFIN20040828_021222_000000352029_00461_13040_2923.N1	28-AUG-2004 02:12:22	Bright	34.500	49	1Alp UMi	1.9900	6300.0	69	13040	No
42	GOM_NL__2PRFIN20040828_021828_000000402029_00461_13040_2924.N1	28-AUG-2004 02:18:28	Bright	39.500	36	50Alp UMa	1.8000	6300.0	79	13040	No

397	GOM_NL__2PRFIN20040828_225128_000000532029_00473_13052_2961.N1	28-AUG-2004 22:51:28	Dark	52.500	1	9Alp CMa	-1.4400	11000.	105	13052	No
398	GOM_NL__2PRFIN20040828_225247_000000462029_00473_13052_2962.N1	28-AUG-2004 22:52:47	Dark	45.500	179	24Omi2CMa	3.0320	24000.	91	13052	No
399	GOM_NL__2PRFIN20040828_225417_000000472029_00473_13052_2963.N1	28-AUG-2004 22:54:17	Dark	46.500	23	21Eps CMa	1.5020	26000.	93	13052	No
400	GOM_NL__2PRFIN20040828_225602_000000412029_00473_13052_2964.N1	28-AUG-2004 22:56:02	Dark	40.500	70	Zet Pup	2.2460	39000.	81	13052	No
401	GOM_NL__2PRFIN20040828_230104_000000482029_00473_13052_2965.N1	28-AUG-2004 23:01:04	Dark	47.500	2	Alp Car	-0.73600	7000.0	95	13052	No
402	GOM_NL__2PRFIN20040828_231011_000000592029_00474_13053_2933.N1	28-AUG-2004 23:10:11	Dark	59.000	157	The1Eri	2.9060	9300.0	118	13053	No
403	GOM_NL__2PRFIN20040828_231233_000000492029_00474_13053_2934.N1	28-AUG-2004 23:12:33	Dark	48.500	9	Alp Eri	0.45300	24000.	97	13053	No
404	GOM_NL__2PRFIN20040828_231831_000000622029_00474_13053_2935.N1	28-AUG-2004 23:18:31	Straylight	61.500	84	Alp Phe	2.3970	4500.0	123	13053	No
405	GOM_NL__2PRFIN20040828_232045_000000462029_00474_13053_2936.N1	28-AUG-2004 23:20:45	Straylight	46.000	31	Alp Gru	1.7340	15200.	92	13053	No
406	GOM_NL__2PRFIN20040828_232449_000000562029_00474_13053_2937.N1	28-AUG-2004 23:24:49	Straylight	56.000	18	24Alp PsA	1.1660	9700.0	112	13053	No
407	GOM_NL__2PRFIN20040828_232737_000000932029_00474_13053_2938.N1	28-AUG-2004 23:27:37	Bright	93.000	52	16Bet Cet	2.0370	4500.0	186	13053	No
408	GOM_NL__2PRFIN20040828_233257_000000422029_00474_13053_2939.N1	28-AUG-2004 23:32:57	Bright	41.500	154	22Bet Aqr	2.8990	5700.0	83	13053	No
409	GOM_NL__2PRFIN20040828_233428_000000462029_00474_13053_2940.N1	28-AUG-2004 23:34:28	Bright	46.000	162	34Alp Aqr	2.9440	5350.0	92	13053	No
410	GOM_NL__2PRFIN20040828_233730_000000412029_00474_13053_2941.N1	28-AUG-2004 23:37:30	Bright	41.000	61	8Eps Peg	2.1000	3900.0	82	13053	No
411	GOM_NL__2PRFIN20040828_234045_000000532029_00474_13053_2942.N1	28-AUG-2004 23:40:45	Bright	53.000	90	54Alp Peg	2.4870	11000.	106	13053	No
412	GOM_NL__2PRFIN20040828_234419_000000392029_00474_13053_2943.N1	28-AUG-2004 23:44:19	Bright	39.000	92	53Eps Cyg	2.5000	4500.0	78	13053	No
413	GOM_NL__2PRFIN20040828_234607_000000412029_00474_13053_2944.N1	28-AUG-2004 23:46:07	Bright	41.000	66	37Gam Cyg	2.2080	5900.0	82	13053	No
414	GOM_NL__2PRFIN20040828_234728_000000432029_00474_13053_2945.N1	28-AUG-2004 23:47:28	Bright	43.000	19	50Alp Cyg	1.2460	10500.	86	13053	No
415	GOM_NL__2PRFIN20040828_234949_000000712029_00474_13053_2946.N1	28-AUG-2004 23:49:49	Bright	71.000	58	21Alp And	2.0730	11000.	142	13053	No
416	GOM_NL__2PRFIN20040828_235233_000000392029_00474_13053_2947.N1	28-AUG-2004 23:52:33	Bright	38.500	89	5Alp Cep	2.4510	8000.0	77	13053	No
417	GOM_NL__2PRFIN20040828_235542_000000462029_00474_13053_2948.N1	28-AUG-2004 23:55:42	Bright	45.500	74	11Bet Cas	2.2680	6600.0	91	13053	No
418	GOM_NL__2PRFIN20040828_235753_000000482029_00474_13053_2949.N1	28-AUG-2004 23:57:53	Bright	48.000	76	27Gam Cas	2.3000	30000.	96	13053	No

3. Quality information per product

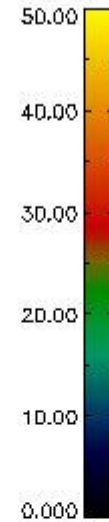
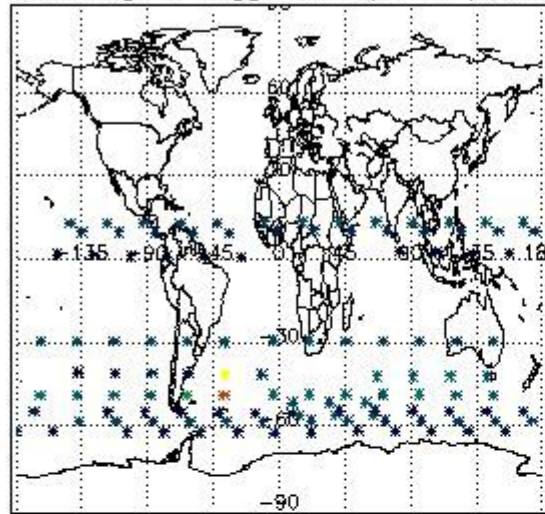
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

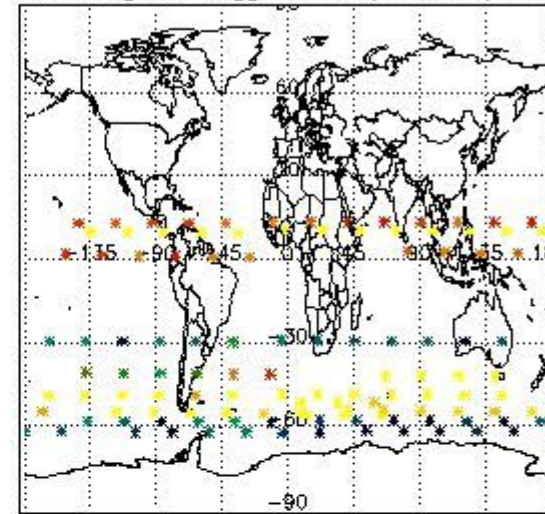


3.2 Plot quality information per product (world map)

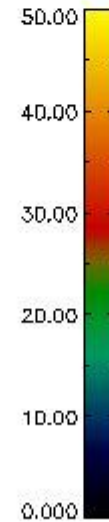
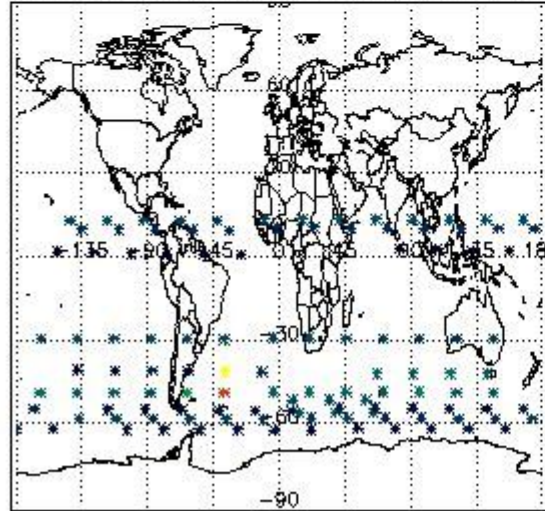
Percentage of flagged data per O3 profile



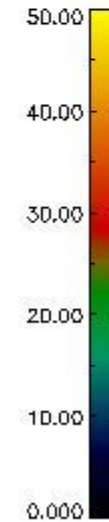
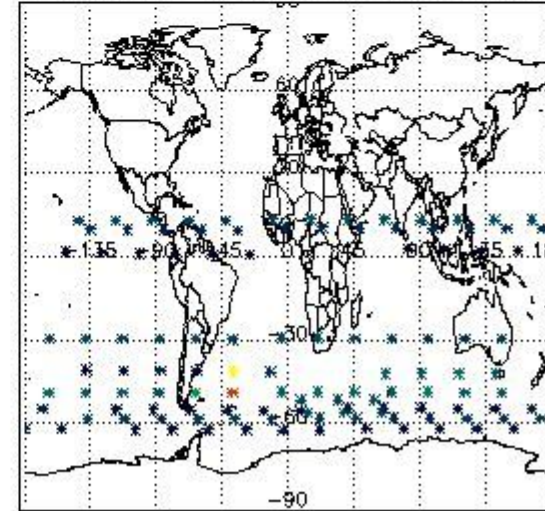
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

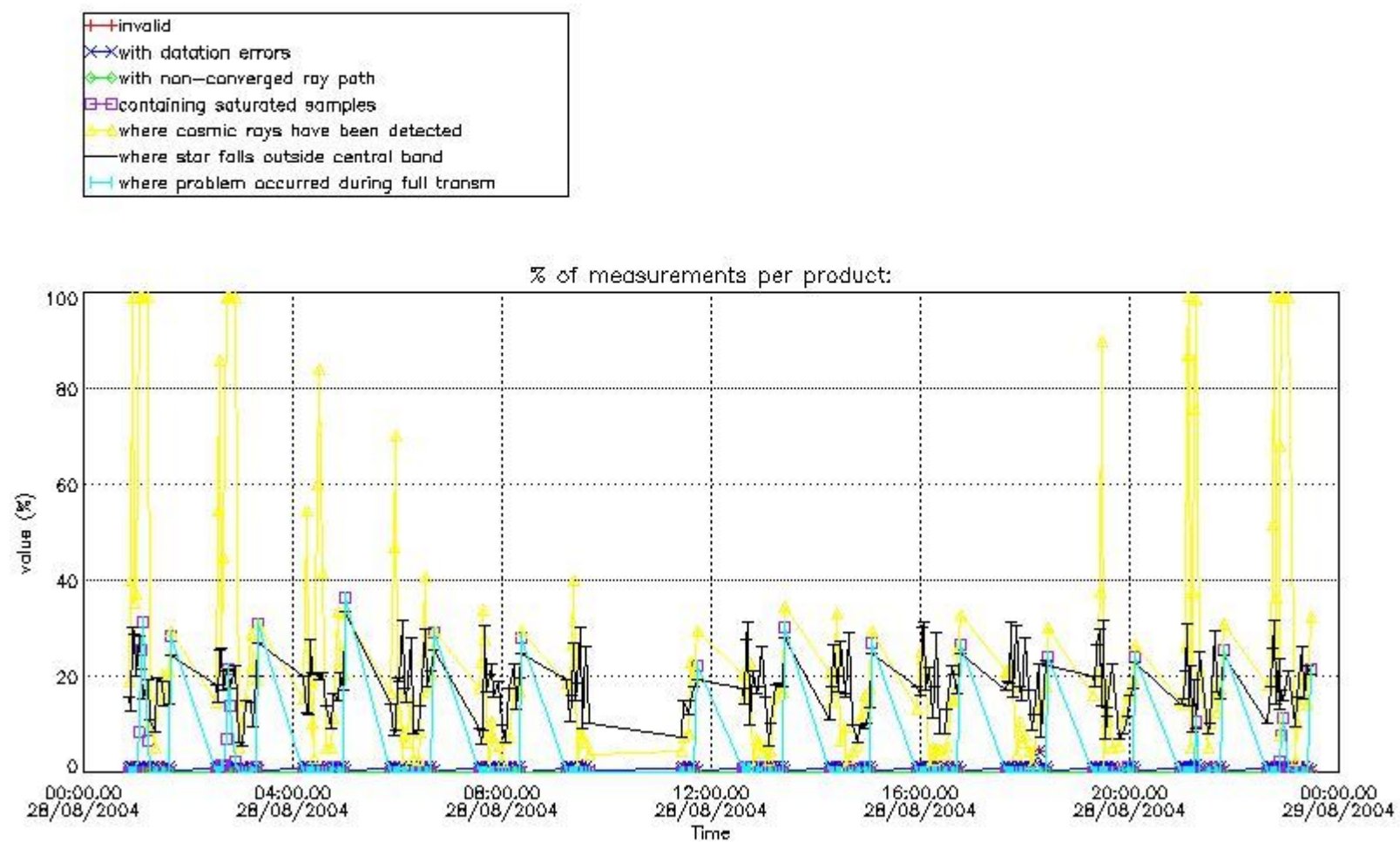


4. Level 1 quality information per product

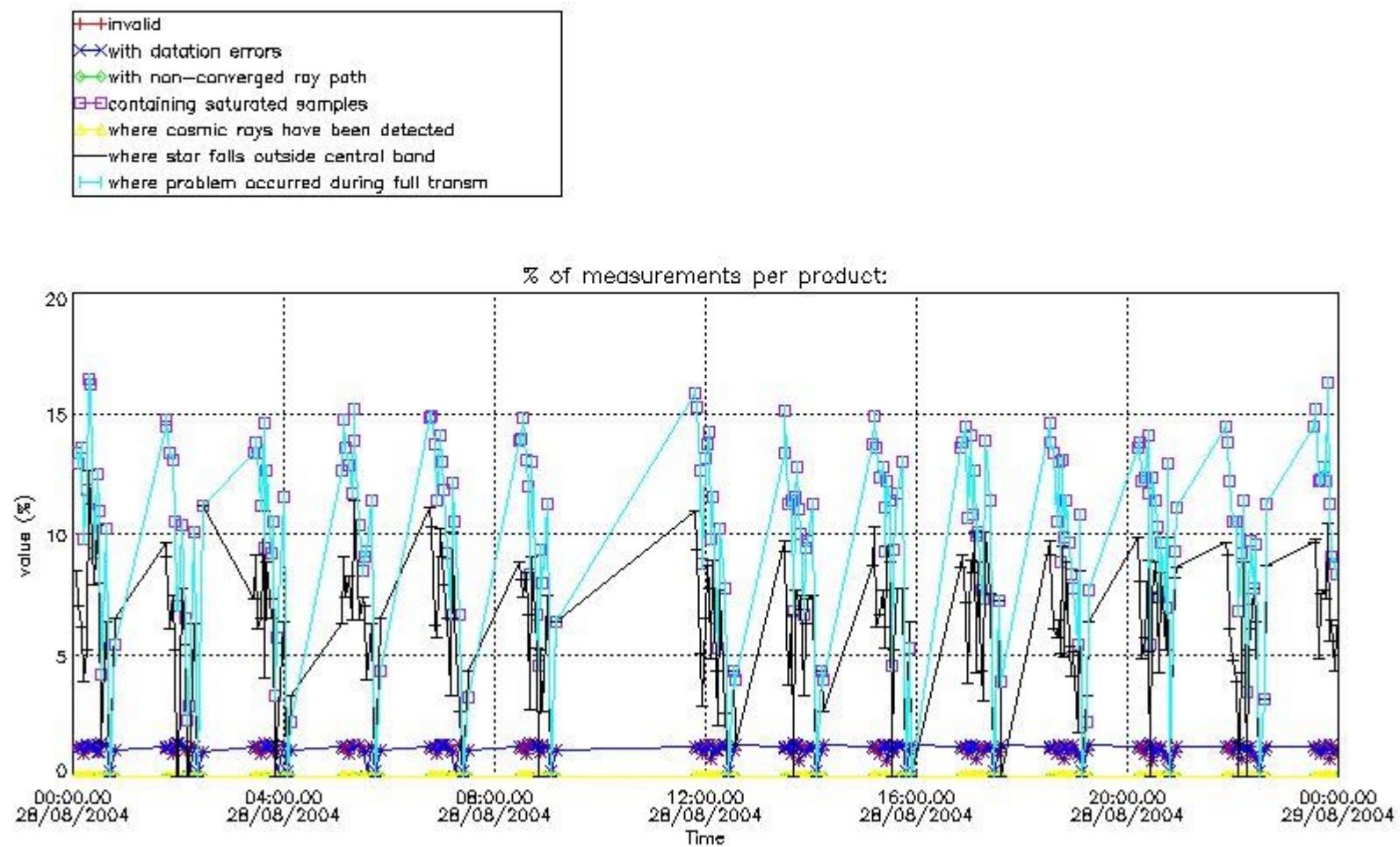
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



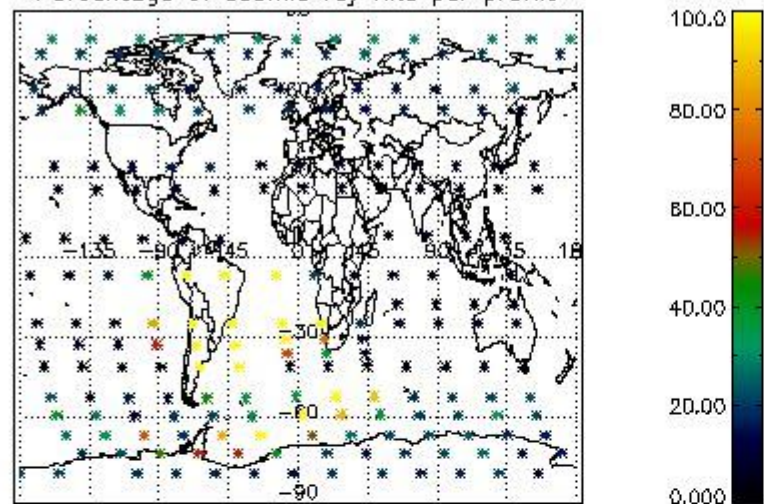
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



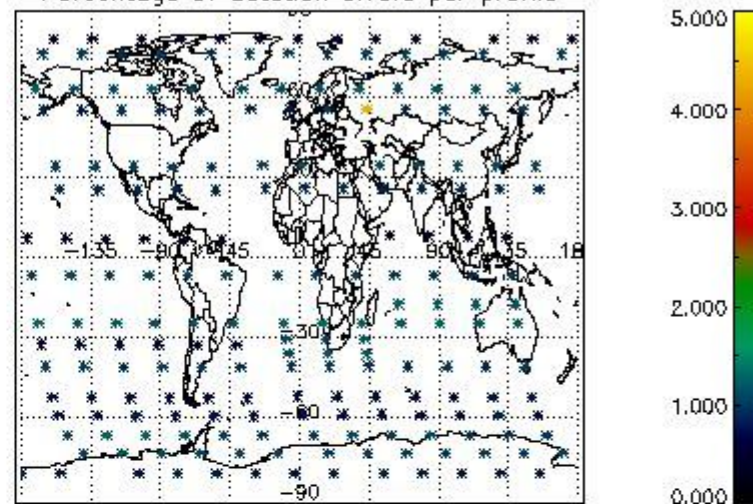
4.2 Plot quality information per product coming from level 1b processing (world map)

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

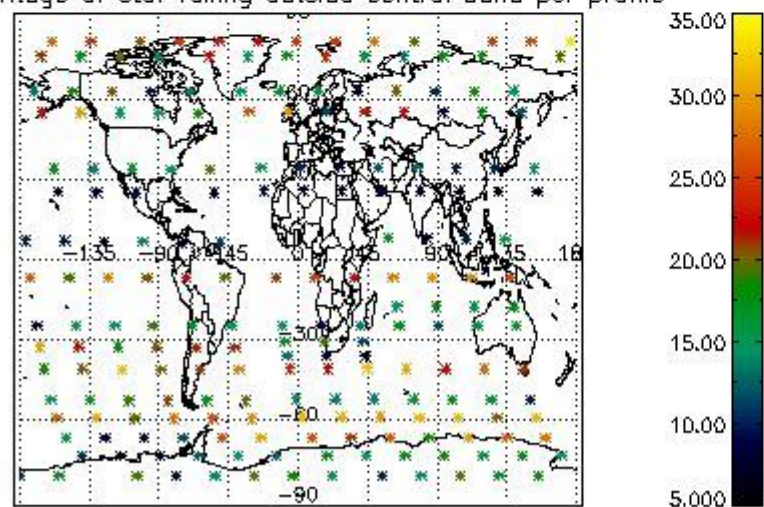
Percentage of cosmic ray hits per profile



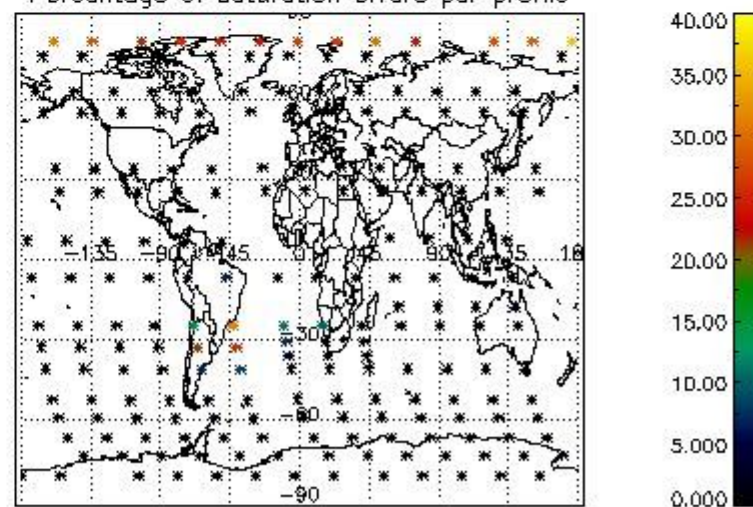
Percentage of datation errors per profile



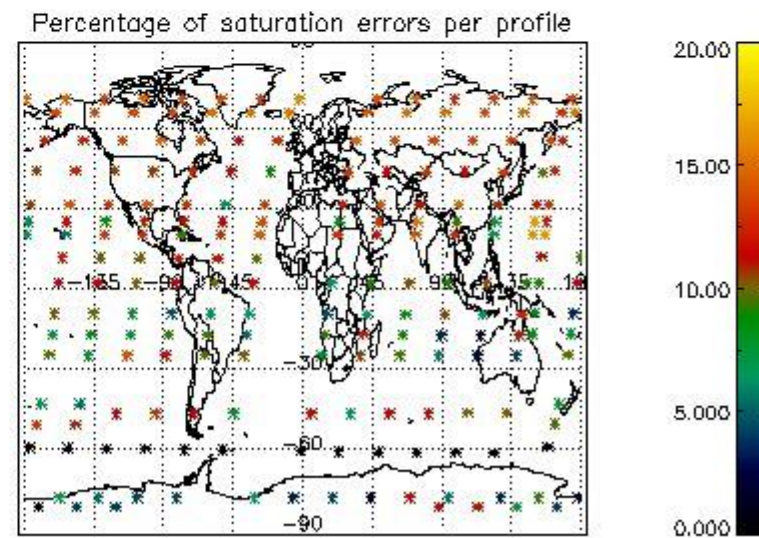
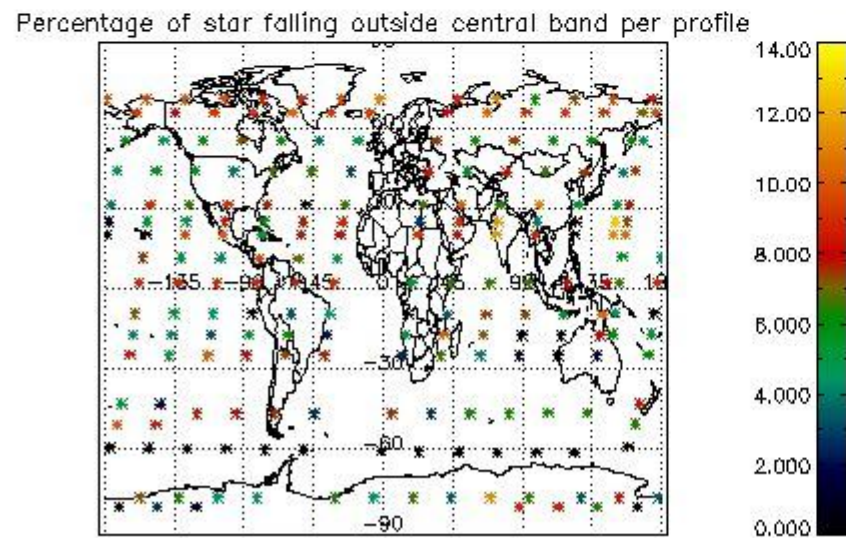
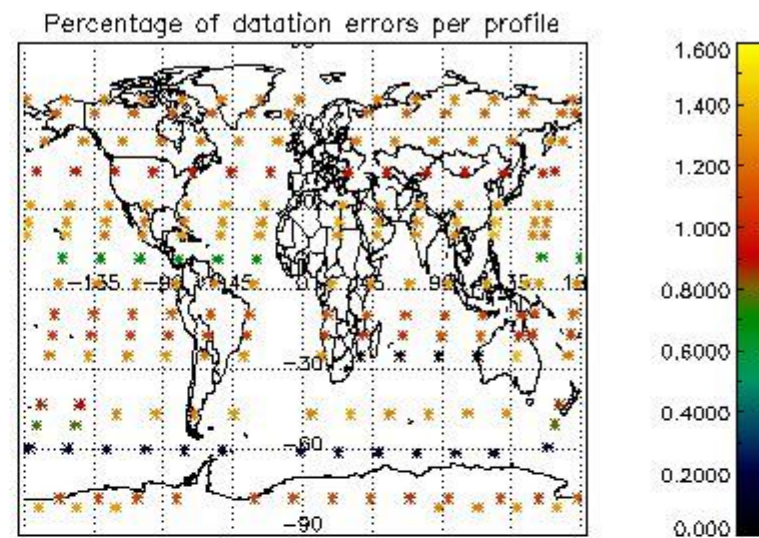
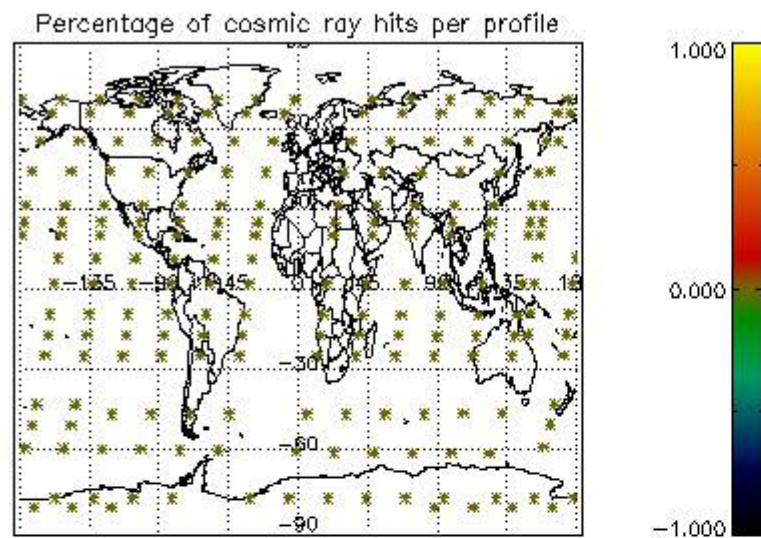
Percentage of star falling outside central band per profile



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

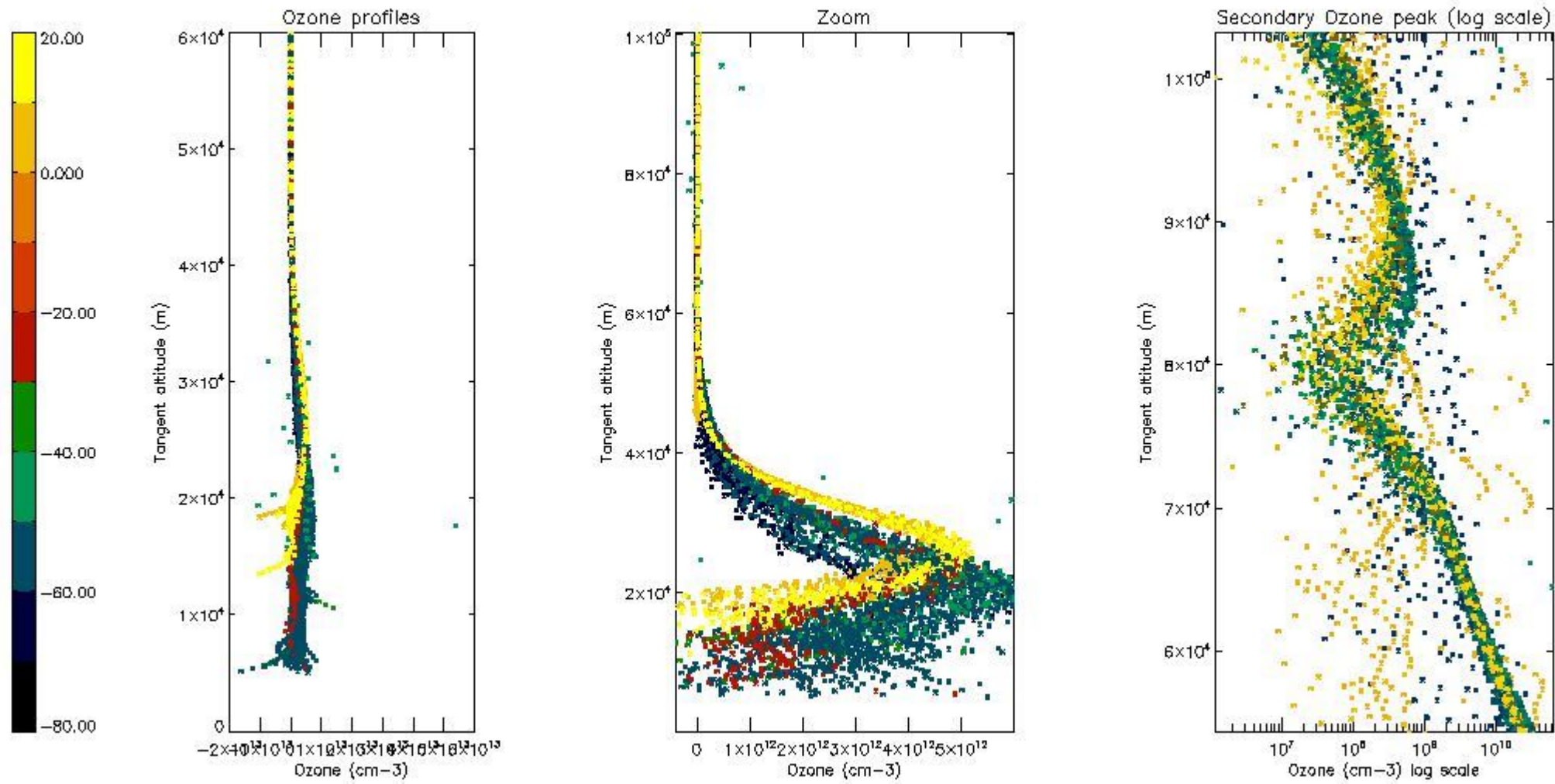
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	30
STD < 20	17

STD < 10	15
STD < 5	12

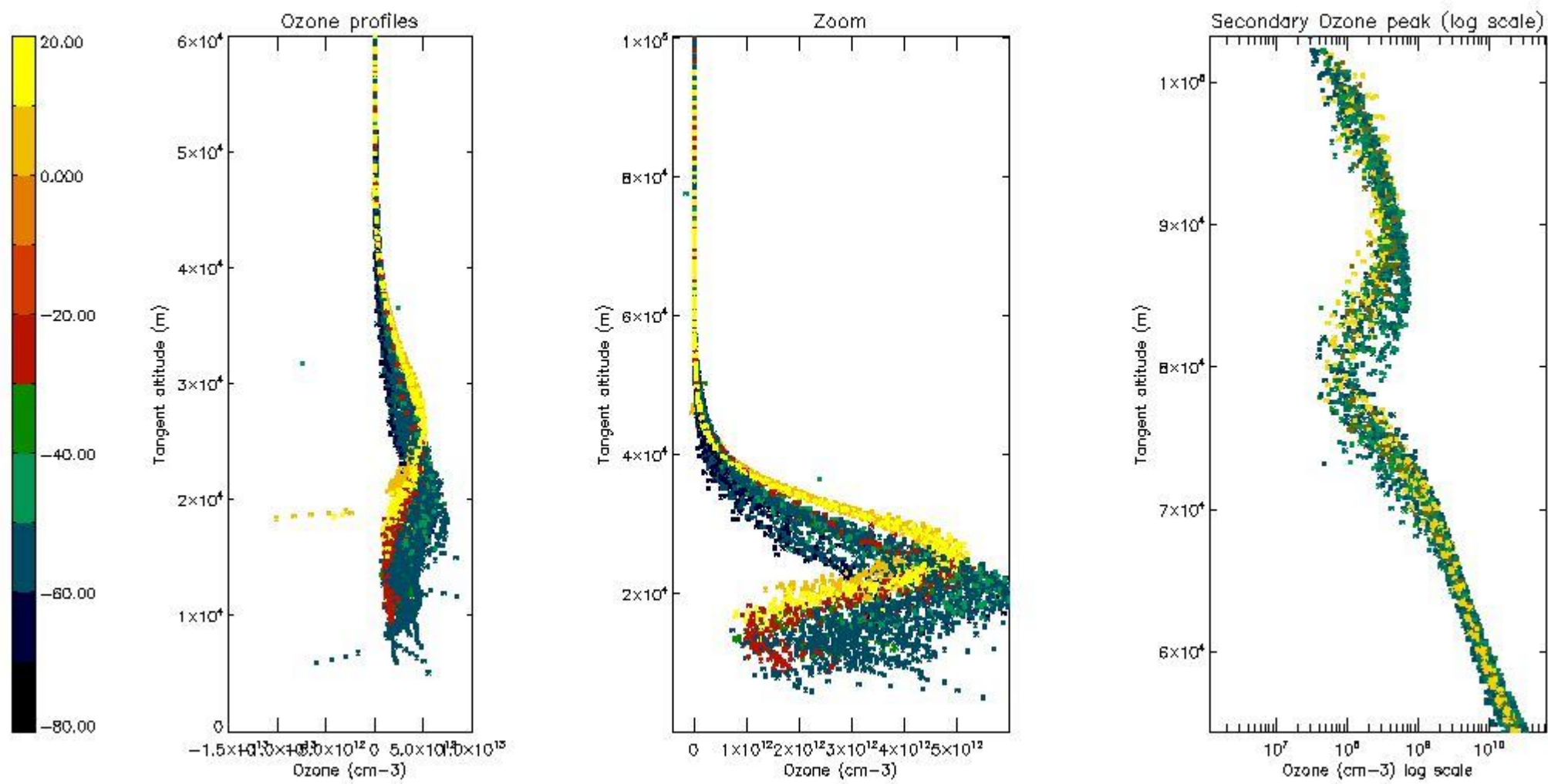
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



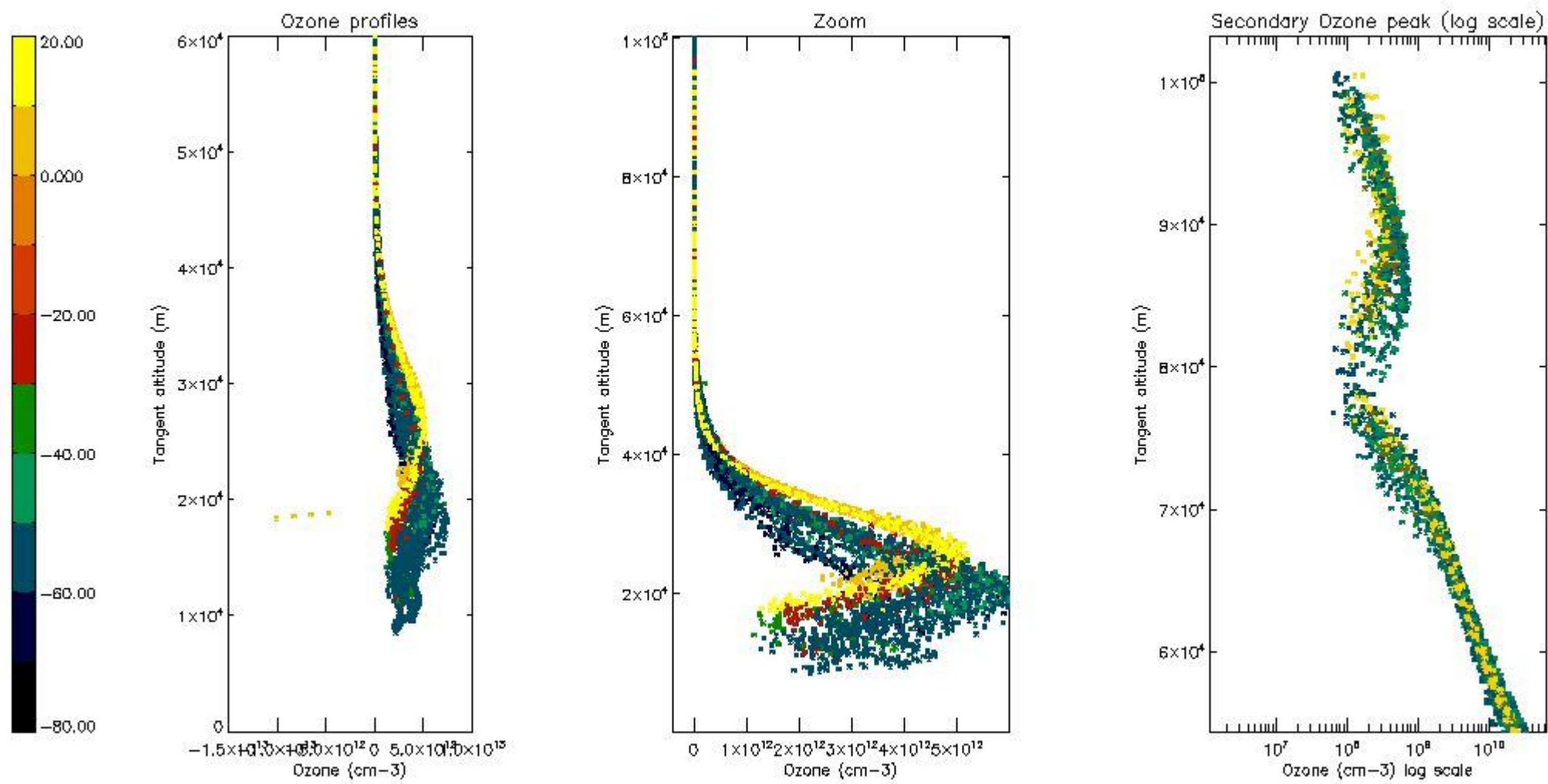
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



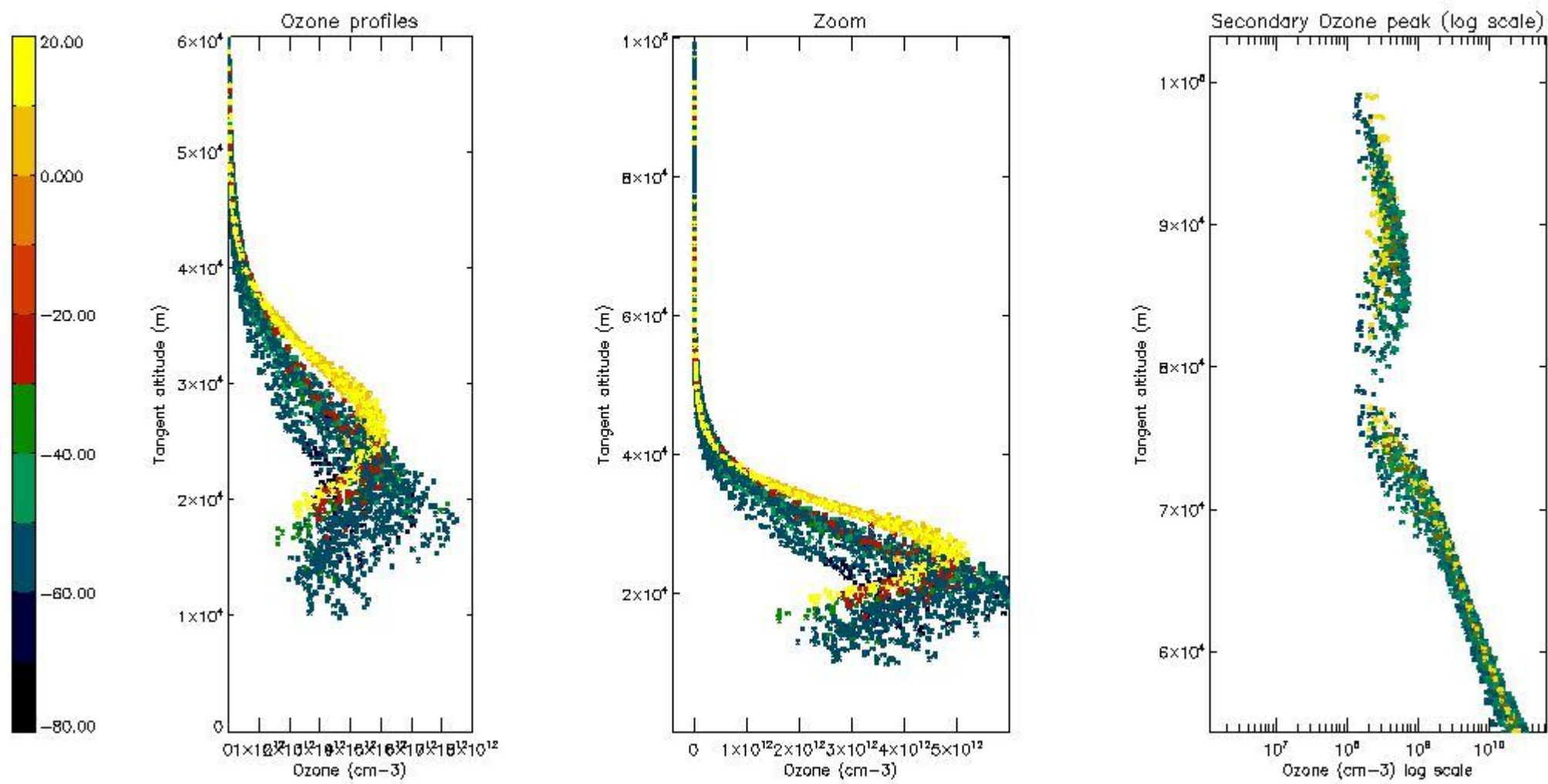
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



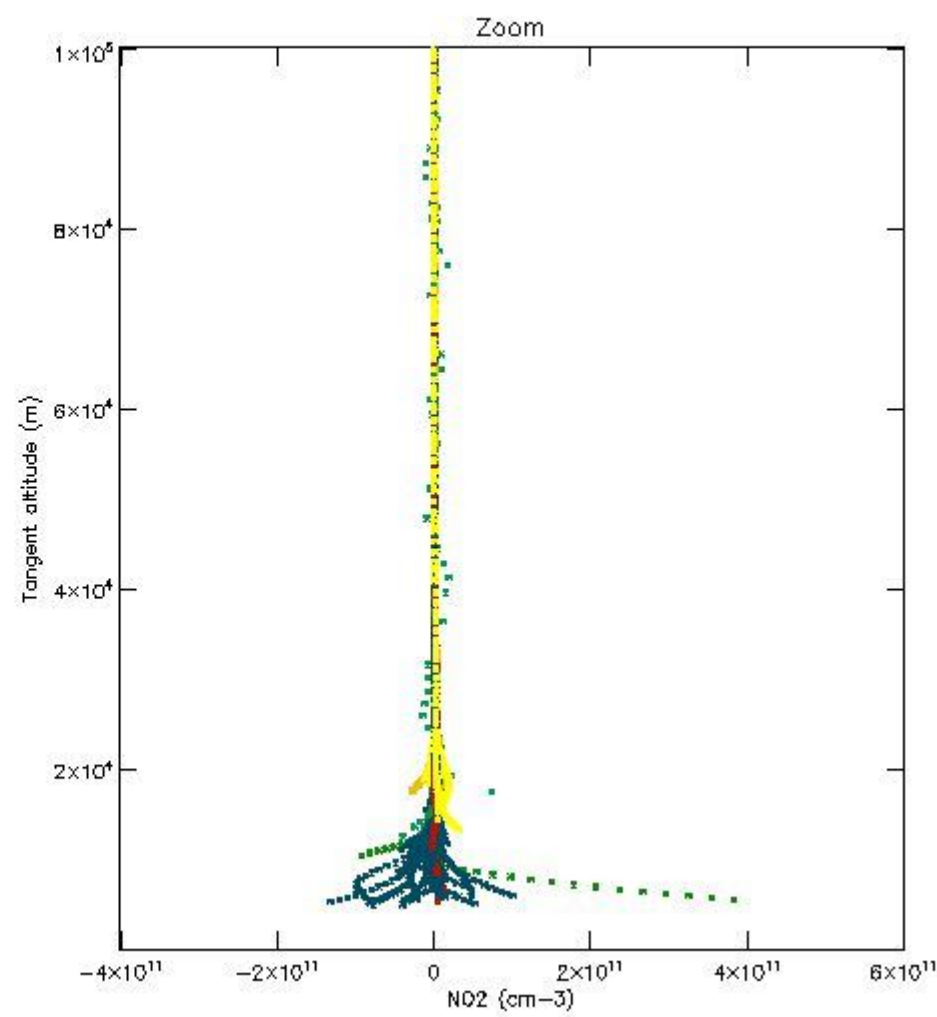
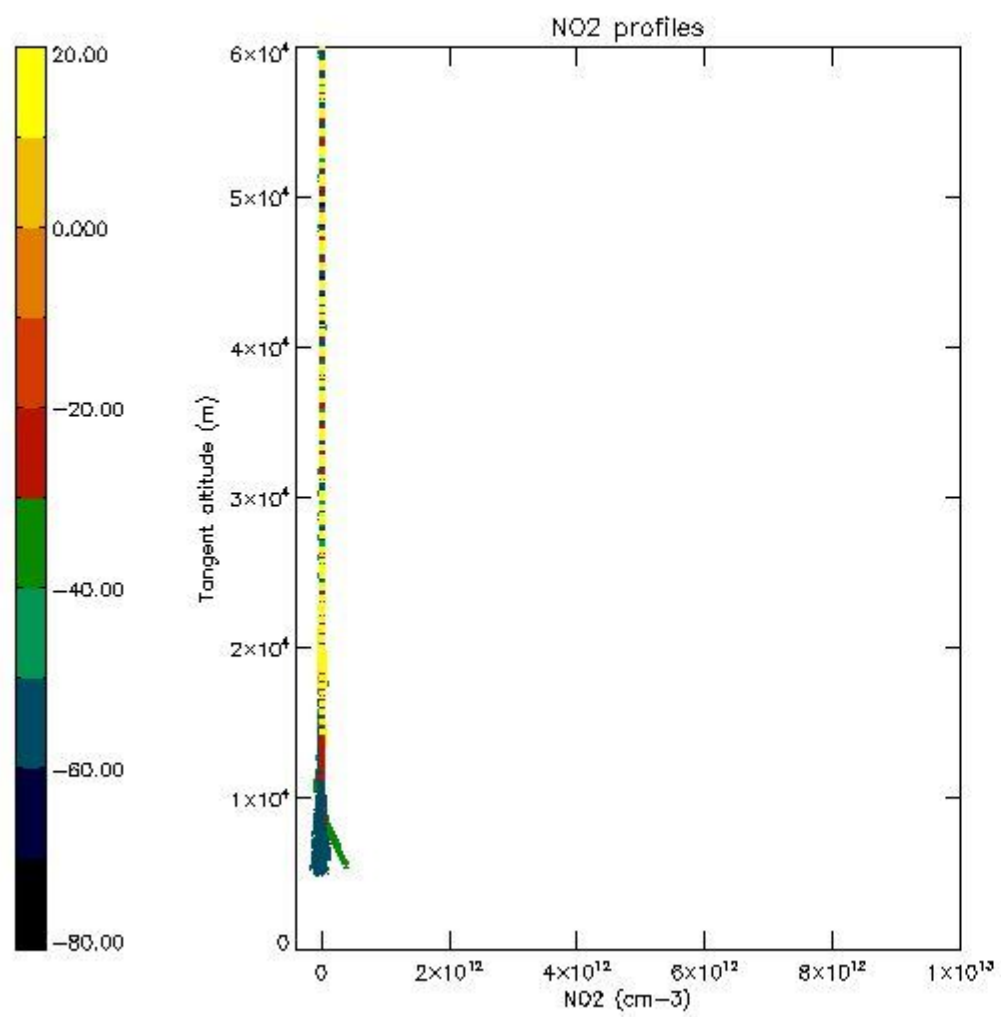
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



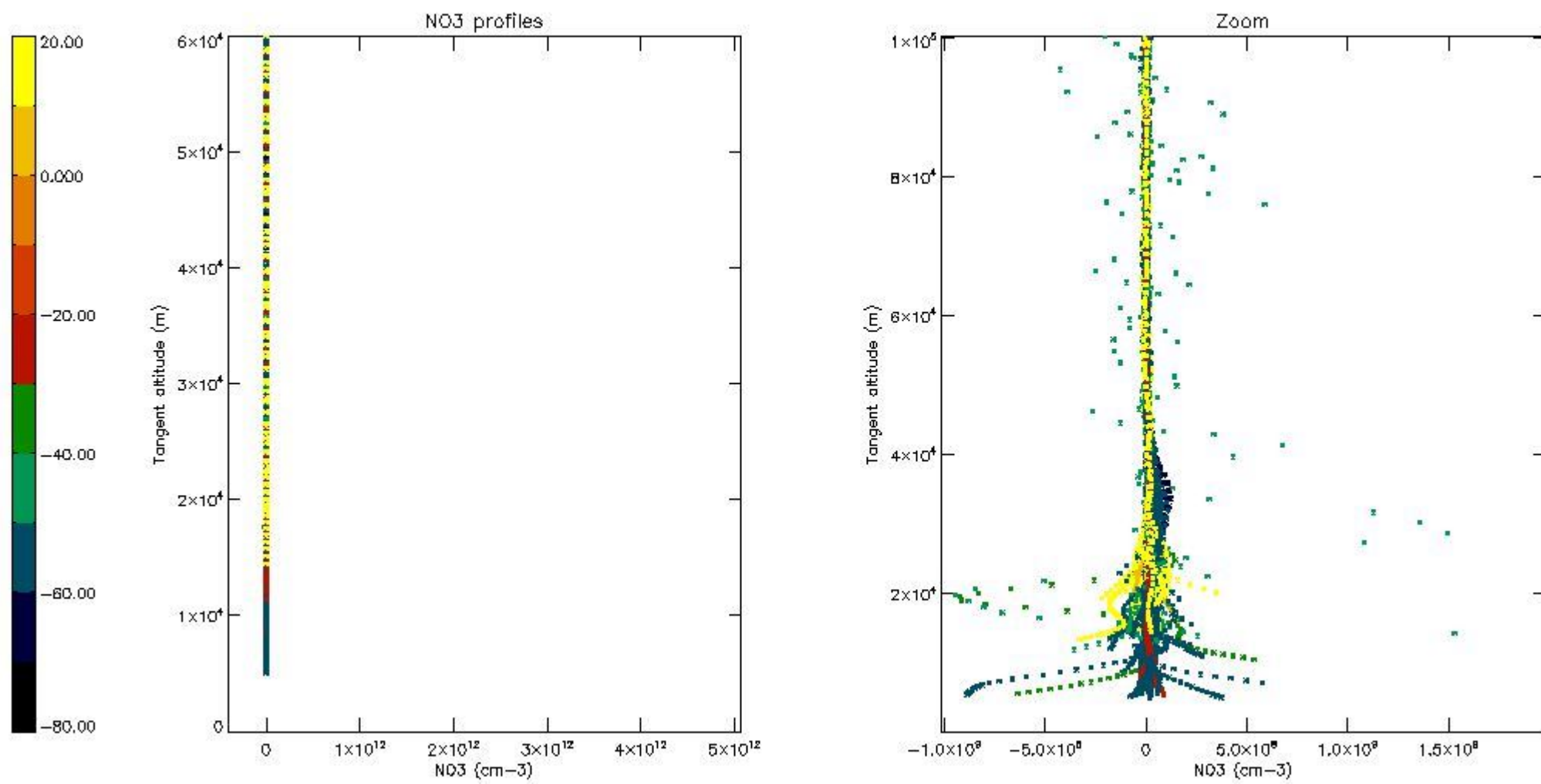
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



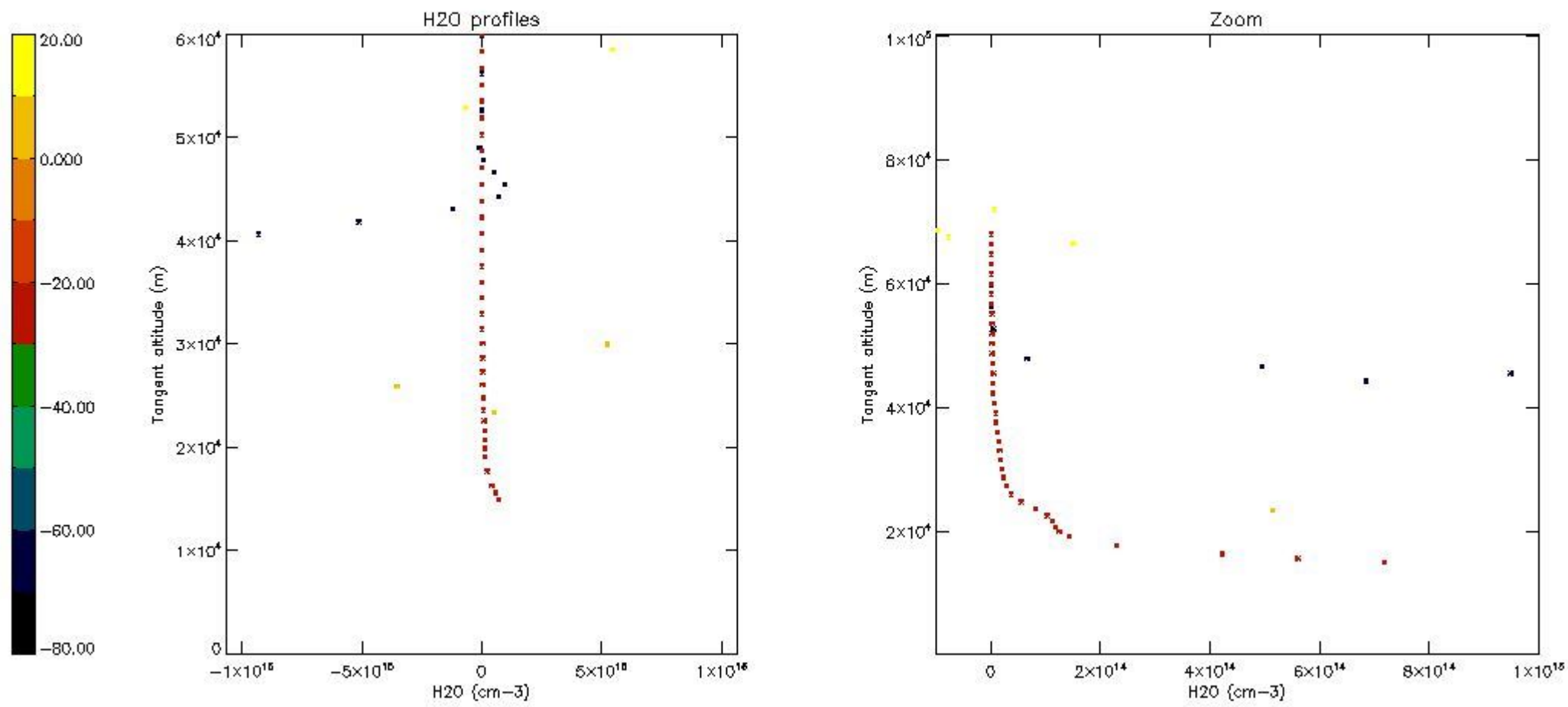
5.7 Plot NO3 profiles for all STD (dark without errors)

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	28-AUG-2004 00:04:33
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	28-AUG-2004 00:04:33
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	28-AUG-2004 00:04:33

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	19APR2013 09:42:30
Data source version	GOMOS/6.01
Start time of products	28-08-2004 (28AUG2004 00:00:00)
Stop time of products	29-08-2004 (29AUG2004 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	418
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

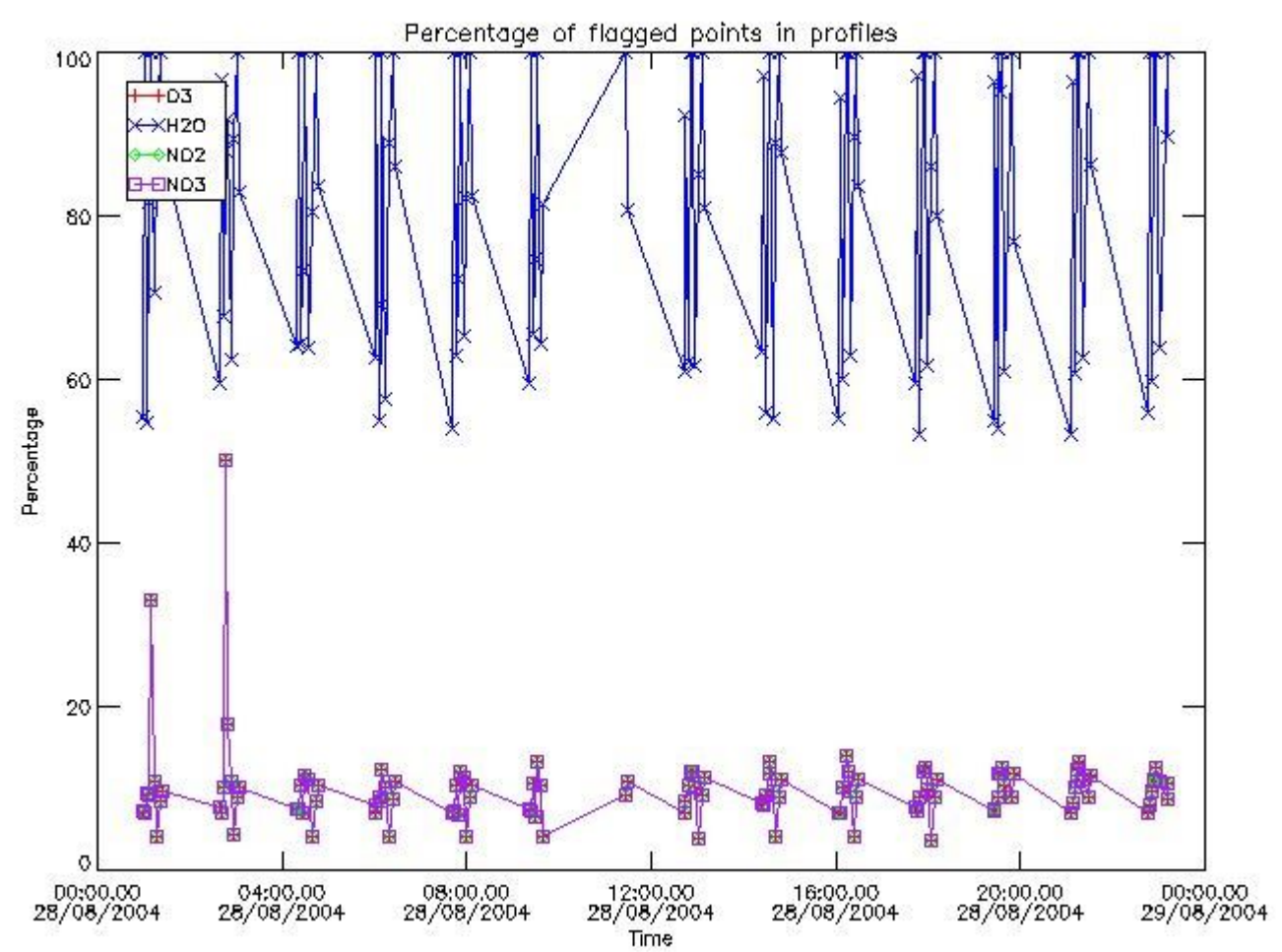
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20040828_000433_000000412029_00460_13039_2914.N1	28-AUG-2004 00:04:33	Bright	41.000	154	22Bet Aqr	2.8990	5700.0	82	13039	No
2	GOM_NL__2PRFIN20040828_000608_000000432029_00460_13039_2915.N1	28-AUG-2004 00:06:08	Bright	42.500	162	34Alp Aqr	2.9440	5350.0	85	13039	No
3	GOM_NL__2PRFIN20040828_000910_000000412029_00460_13039_2916.N1	28-AUG-2004 00:09:10	Bright	40.500	61	8Eps Peg	2.1000	3900.0	81	13039	No
4	GOM_NL__2PRFIN20040828_001232_000000512029_00460_13039_2917.N1	28-AUG-2004 00:12:32	Bright	51.000	90	54Alp Peg	2.4870	11000.	102	13039	No
5	GOM_NL__2PRFIN20040828_001556_000000382029_00460_13039_2918.N1	28-AUG-2004 00:15:56	Bright	38.000	92	53Eps Cyg	2.5000	4500.0	76	13039	No
6	GOM_NL__2PRFIN20040828_001746_000000402029_00460_13039_2919.N1	28-AUG-2004 00:17:46	Bright	39.500	66	37Gam Cyg	2.2080	5900.0	79	13039	No
7	GOM_NL__2PRFIN20040828_001908_000000402029_00460_13039_2920.N1	28-AUG-2004 00:19:08	Bright	40.000	19	50Alp Cyg	1.2460	10500.	80	13039	No
8	GOM_NL__2PRFIN20040828_002413_000000382029_00460_13039_2921.N1	28-AUG-2004 00:24:13	Bright	38.000	89	5Alp Cep	2.4510	8000.0	76	13039	No
9	GOM_NL__2PRFIN20040828_002729_000000482029_00460_13039_2922.N1	28-AUG-2004 00:27:29	Bright	48.000	74	11Bet Cas	2.2680	6600.0	96	13039	No
10	GOM_NL__2PRFIN20040828_002939_000000502029_00460_13039_2923.N1	28-AUG-2004 00:29:39	Bright	50.000	76	27Gam Cas	2.3000	30000.	100	13039	No
11	GOM_NL__2PRFIN20040828_003146_000000362029_00460_13039_2924.N1	28-AUG-2004 00:31:46	Bright	35.500	49	1Alp UMi	1.9900	6300.0	71	13039	No
12	GOM_NL__2PRFIN20040828_003752_000000392029_00460_13039_2925.N1	28-AUG-2004 00:37:52	Bright	39.000	36	50Alp UMa	1.8000	6300.0	78	13039	No
13	GOM_NL__2PRFIN20040828_004212_000002552029_00460_13039_2926.N1	28-AUG-2004 00:42:12	Twilight	255.00	173	4Bet Tri	3.0040	8900.0	510	13039	No
14	GOM_NL__2PRFIN20040828_004728_000000462029_00460_13039_2927.N1	28-AUG-2004 00:47:28	Bright	46.000	107	37The Aur	2.6490	11000.	92	13039	No
15	GOM_NL__2PRFIN20040828_005104_000000642029_00460_13039_2928.N1	28-AUG-2004 00:51:04	Twilight	63.500	28	12Bet Tau	1.6500	15200.	127	13039	No
16	GOM_NL__2PRFIN20040828_005404_000000482029_00460_13039_2929.N1	28-AUG-2004 00:54:04	Twilight	47.500	44	24Gam Gem	1.9280	11000.	95	13039	No
17	GOM_NL__2PRFIN20040828_005610_000000532029_00460_13039_2930.N1	28-AUG-2004 00:56:10	Twilight	53.000	8	10Alp CMi	0.40000	6500.0	106	13039	No
18	GOM_NL__2PRFIN20040828_005818_000000712029_00460_13039_2931.N1	28-AUG-2004 00:58:18	Dark	71.000	14	58Alp Ori	0.87000	3000.0	142	13039	No
19	GOM_NL__2PRFIN20040828_010014_000000732029_00460_13039_2932.N1	28-AUG-2004 01:00:14	Dark	72.500	27	24Gam Ori	1.6360	26000.	145	13039	No
20	GOM_NL__2PRFIN20040828_010334_000000552029_00460_13039_2933.N1	28-AUG-2004 01:03:34	Dark	54.500	1	9Alp CMa	-1.4400	11000.	109	13039	No
21	GOM_NL__2PRFIN20040828_010552_000000772029_00460_13039_2934.N1	28-AUG-2004 01:05:52	Dark	77.000	7	19Bet Ori	0.10000	14000.	154	13039	No
22	GOM_NL__2PRFIN20040828_010812_000000432029_00460_13039_2935.N1	28-AUG-2004 01:08:12	Dark	43.000	70	Zet Pup	2.2460	39000.	86	13039	No
23	GOM_NL__2PRFIN20040828_011312_000000472029_00460_13039_2936.N1	28-AUG-2004 01:13:12	Dark	46.500	2	Alp Car	-0.73600	7000.0	93	13039	No
24	GOM_NL__2PRFIN20040828_011652_000001242029_00461_13040_2906.N1	28-AUG-2004 01:16:52	Dark	124.00	165	34Gam Eri	2.9500	3200.0	248	13040	No
25	GOM_NL__2PRFIN20040828_012206_000000602029_00461_13040_2907.N1	28-AUG-2004 01:22:06	Dark	60.000	157	The1Eri	2.9060	9300.0	120	13040	No
26	GOM_NL__2PRFIN20040828_012435_000000542029_00461_13040_2908.N1	28-AUG-2004 01:24:35	Dark	53.500	9	Alp Eri	0.45300	24000.	107	13040	No
27	GOM_NL__2PRFIN20040828_013033_000000592029_00461_13040_2909.N1	28-AUG-2004 01:30:33	Straylight	58.500	84	Alp Phe	2.3970	4500.0	117	13040	No
28	GOM_NL__2PRFIN20040828_013256_000000442029_00461_13040_2910.N1	28-AUG-2004 01:32:56	Straylight	43.500	31	Alp Gru	1.7340	15200.	87	13040	No
29	GOM_NL__2PRFIN20040828_013700_000000502029_00461_13040_2911.N1	28-AUG-2004 01:37:00	Straylight	49.500	18	24Alp PsA	1.1660	9700.0	99	13040	No
30	GOM_NL__2PRFIN20040828_013947_000001012029_00461_13040_2912.N1	28-AUG-2004 01:39:47	Bright	100.50	52	16Bet Cet	2.0370	4500.0	201	13040	No
31	GOM_NL__2PRFIN20040828_014509_000000422029_00461_13040_2913.N1	28-AUG-2004 01:45:09	Bright	41.500	154	22Bet Aqr	2.8990	5700.0	83	13040	No
32	GOM_NL__2PRFIN20040828_014643_000000442029_00461_13040_2914.N1	28-AUG-2004 01:46:43	Bright	44.000	162	34Alp Aqr	2.9440	5350.0	88	13040	No
33	GOM_NL__2PRFIN20040828_014945_000000412029_00461_13040_2915.N1	28-AUG-2004 01:49:45	Bright	41.000	61	8Eps Peg	2.1000	3900.0	82	13040	No
34	GOM_NL__2PRFIN20040828_015308_000000542029_00461_13040_2916.N1	28-AUG-2004 01:53:08	Bright	53.500	90	54Alp Peg	2.4870	11000.	107	13040	No
35	GOM_NL__2PRFIN20040828_015632_000000382029_00461_13040_2917.N1	28-AUG-2004 01:56:32	Bright	38.000	92	53Eps Cyg	2.5000	4500.0	76	13040	No
36	GOM_NL__2PRFIN20040828_015821_000000362029_00461_13040_2918.N1	28-AUG-2004 01:58:21	Bright	35.500	66	37Gam Cyg	2.2080	5900.0	71	13040	No
37	GOM_NL__2PRFIN20040828_015944_000000362029_00461_13040_2919.N1	28-AUG-2004 01:59:44	Bright	35.500	19	50Alp Cyg	1.2460	10500.	71	13040	No
38	GOM_NL__2PRFIN20040828_020448_000000392029_00461_13040_2920.N1	28-AUG-2004 02:04:48	Bright	38.500	89	5Alp Cep	2.4510	8000.0	77	13040	No
39	GOM_NL__2PRFIN20040828_020803_000000462029_00461_13040_2921.N1	28-AUG-2004 02:08:03	Bright	46.000	74	11Bet Cas	2.2680	6600.0	92	13040	No
40	GOM_NL__2PRFIN20040828_021016_000000442029_00461_13040_2922.N1	28-AUG-2004 02:10:16	Bright	43.500	76	27Gam Cas	2.3000	30000.	87	13040	No
41	GOM_NL__2PRFIN20040828_021222_000000352029_00461_13040_2923.N1	28-AUG-2004 02:12:22	Bright	34.500	49	1Alp UMi	1.9900	6300.0	69	13040	No
42	GOM_NL__2PRFIN20040828_021828_000000402029_00461_13040_2924.N1	28-AUG-2004 02:18:28	Bright	39.500	36	50Alp UMa	1.8000	6300.0	79	13040	No

397	GOM_NL__2PRFIN20040828_225128_000000532029_00473_13052_2961.N1	28-AUG-2004 22:51:28	Dark	52.500	1	9Alp CMa	-1.4400	11000.	105	13052	No
398	GOM_NL__2PRFIN20040828_225247_000000462029_00473_13052_2962.N1	28-AUG-2004 22:52:47	Dark	45.500	179	24Omi2CMa	3.0320	24000.	91	13052	No
399	GOM_NL__2PRFIN20040828_225417_000000472029_00473_13052_2963.N1	28-AUG-2004 22:54:17	Dark	46.500	23	21Eps CMa	1.5020	26000.	93	13052	No
400	GOM_NL__2PRFIN20040828_225602_000000412029_00473_13052_2964.N1	28-AUG-2004 22:56:02	Dark	40.500	70	Zet Pup	2.2460	39000.	81	13052	No
401	GOM_NL__2PRFIN20040828_230104_000000482029_00473_13052_2965.N1	28-AUG-2004 23:01:04	Dark	47.500	2	Alp Car	-0.73600	7000.0	95	13052	No
402	GOM_NL__2PRFIN20040828_231011_000000592029_00474_13053_2933.N1	28-AUG-2004 23:10:11	Dark	59.000	157	The1Eri	2.9060	9300.0	118	13053	No
403	GOM_NL__2PRFIN20040828_231233_000000492029_00474_13053_2934.N1	28-AUG-2004 23:12:33	Dark	48.500	9	Alp Eri	0.45300	24000.	97	13053	No
404	GOM_NL__2PRFIN20040828_231831_000000622029_00474_13053_2935.N1	28-AUG-2004 23:18:31	Straylight	61.500	84	Alp Phe	2.3970	4500.0	123	13053	No
405	GOM_NL__2PRFIN20040828_232045_000000462029_00474_13053_2936.N1	28-AUG-2004 23:20:45	Straylight	46.000	31	Alp Gru	1.7340	15200.	92	13053	No
406	GOM_NL__2PRFIN20040828_232449_000000562029_00474_13053_2937.N1	28-AUG-2004 23:24:49	Straylight	56.000	18	24Alp PsA	1.1660	9700.0	112	13053	No
407	GOM_NL__2PRFIN20040828_232737_000000932029_00474_13053_2938.N1	28-AUG-2004 23:27:37	Bright	93.000	52	16Bet Cet	2.0370	4500.0	186	13053	No
408	GOM_NL__2PRFIN20040828_233257_000000422029_00474_13053_2939.N1	28-AUG-2004 23:32:57	Bright	41.500	154	22Bet Aqr	2.8990	5700.0	83	13053	No
409	GOM_NL__2PRFIN20040828_233428_000000462029_00474_13053_2940.N1	28-AUG-2004 23:34:28	Bright	46.000	162	34Alp Aqr	2.9440	5350.0	92	13053	No
410	GOM_NL__2PRFIN20040828_233730_000000412029_00474_13053_2941.N1	28-AUG-2004 23:37:30	Bright	41.000	61	8Eps Peg	2.1000	3900.0	82	13053	No
411	GOM_NL__2PRFIN20040828_234045_000000532029_00474_13053_2942.N1	28-AUG-2004 23:40:45	Bright	53.000	90	54Alp Peg	2.4870	11000.	106	13053	No
412	GOM_NL__2PRFIN20040828_234419_000000392029_00474_13053_2943.N1	28-AUG-2004 23:44:19	Bright	39.000	92	53Eps Cyg	2.5000	4500.0	78	13053	No
413	GOM_NL__2PRFIN20040828_234607_000000412029_00474_13053_2944.N1	28-AUG-2004 23:46:07	Bright	41.000	66	37Gam Cyg	2.2080	5900.0	82	13053	No
414	GOM_NL__2PRFIN20040828_234728_000000432029_00474_13053_2945.N1	28-AUG-2004 23:47:28	Bright	43.000	19	50Alp Cyg	1.2460	10500.	86	13053	No
415	GOM_NL__2PRFIN20040828_234949_000000712029_00474_13053_2946.N1	28-AUG-2004 23:49:49	Bright	71.000	58	21Alp And	2.0730	11000.	142	13053	No
416	GOM_NL__2PRFIN20040828_235233_000000392029_00474_13053_2947.N1	28-AUG-2004 23:52:33	Bright	38.500	89	5Alp Cep	2.4510	8000.0	77	13053	No
417	GOM_NL__2PRFIN20040828_235542_000000462029_00474_13053_2948.N1	28-AUG-2004 23:55:42	Bright	45.500	74	11Bet Cas	2.2680	6600.0	91	13053	No
418	GOM_NL__2PRFIN20040828_235753_000000482029_00474_13053_2949.N1	28-AUG-2004 23:57:53	Bright	48.000	76	27Gam Cas	2.3000	30000.	96	13053	No

3. Quality information per product

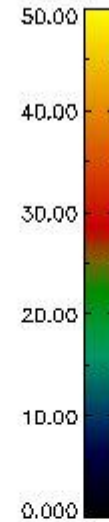
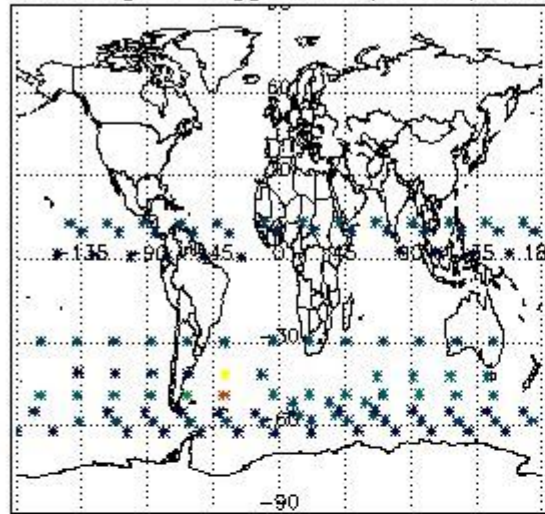
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

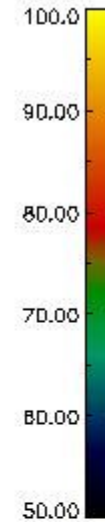
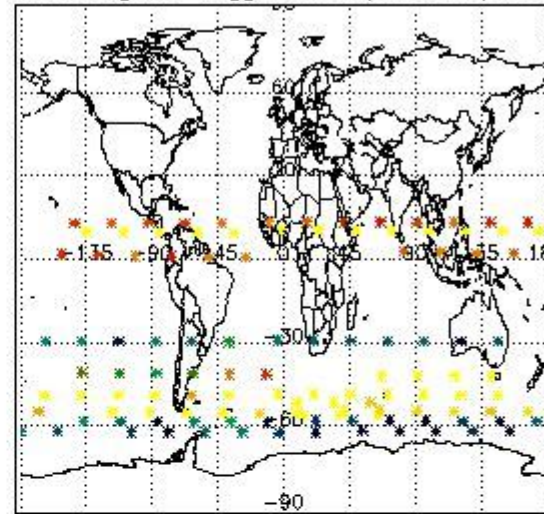


3.2 Plot quality information per product (world map)

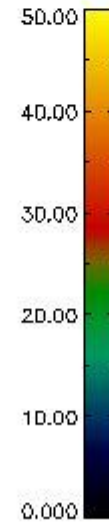
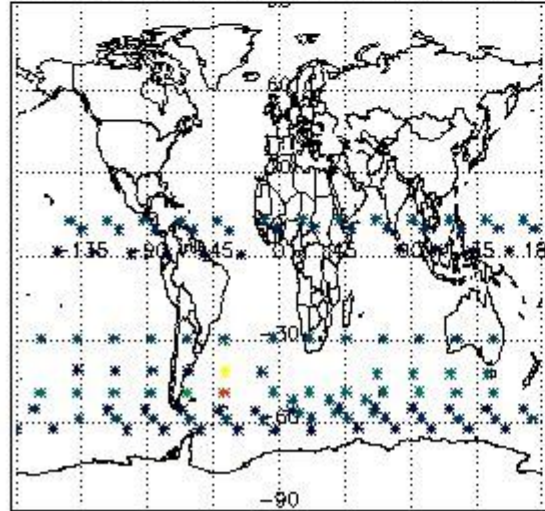
Percentage of flagged data per O3 profile



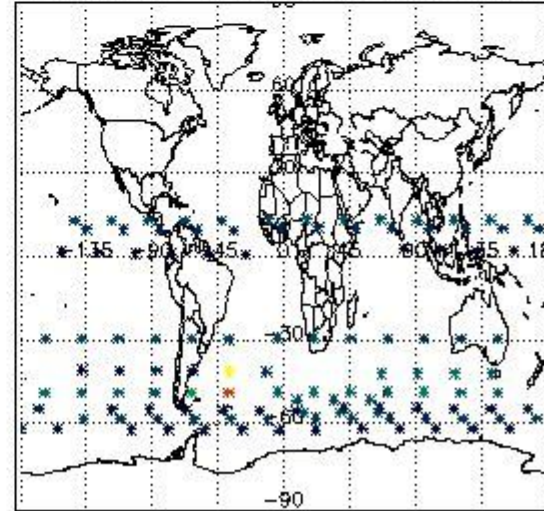
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

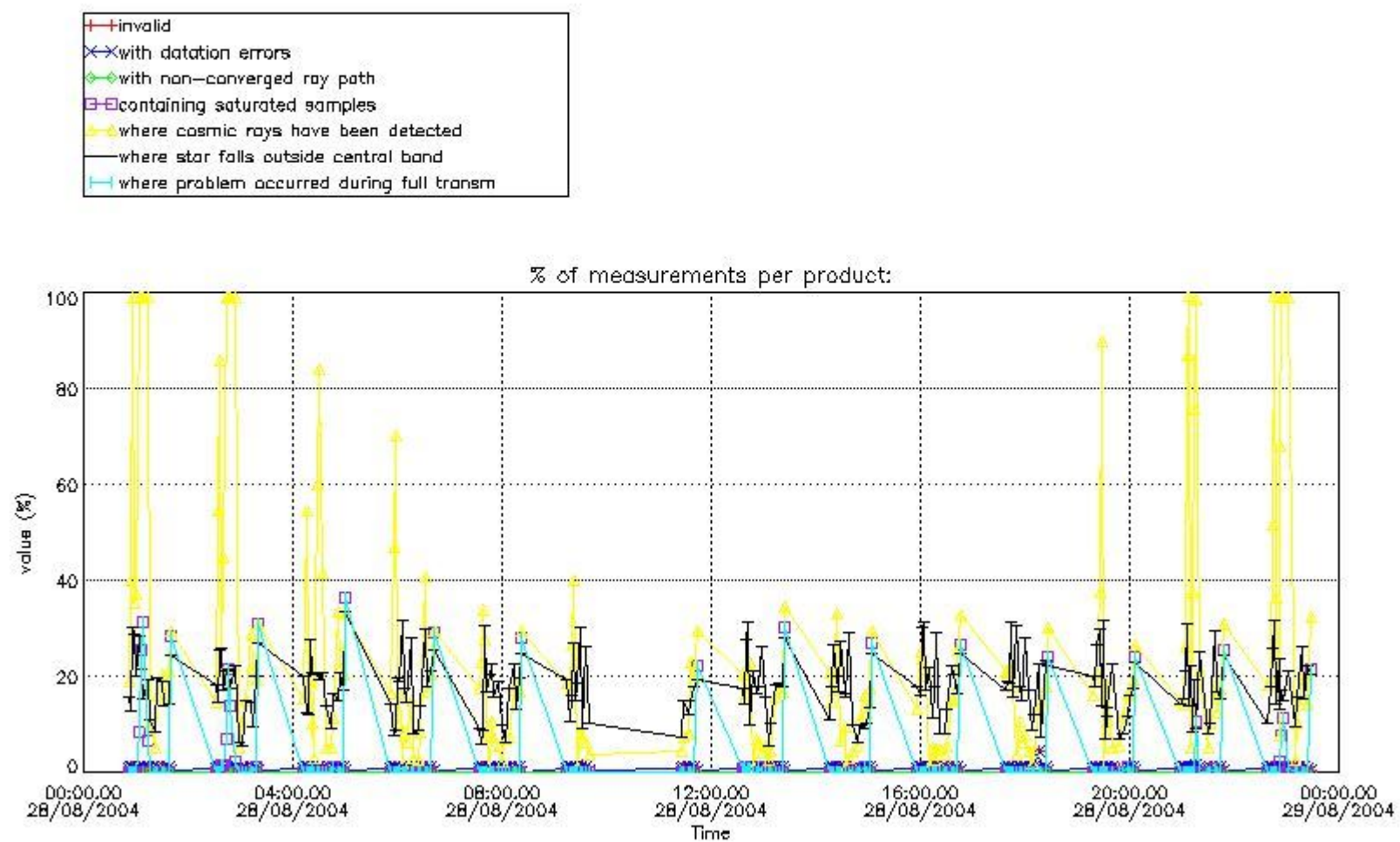


4. Level 1 quality information per product

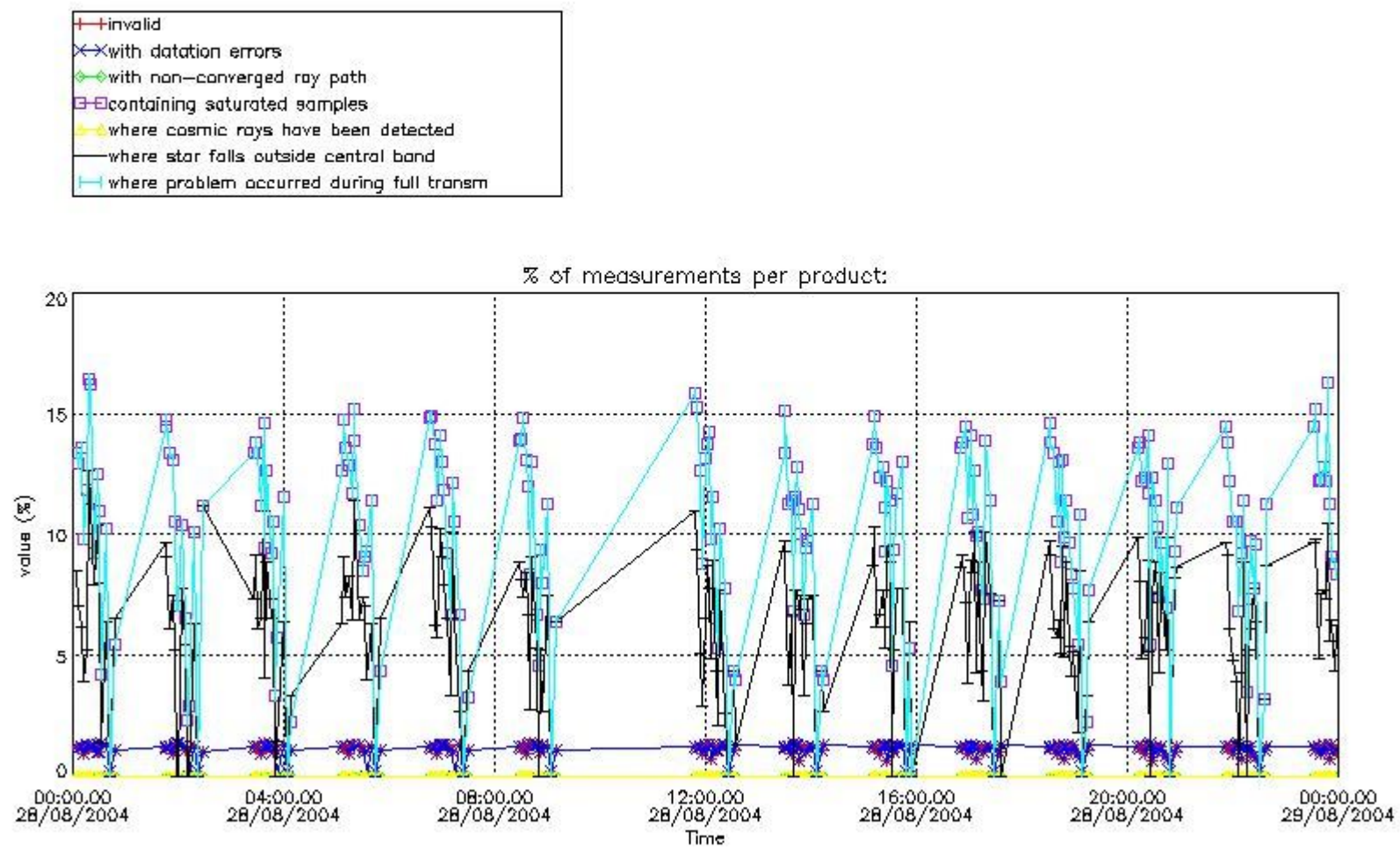
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

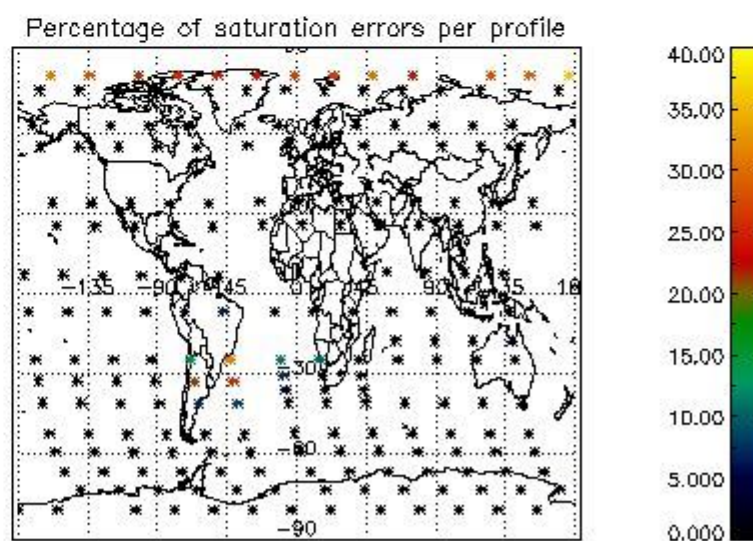
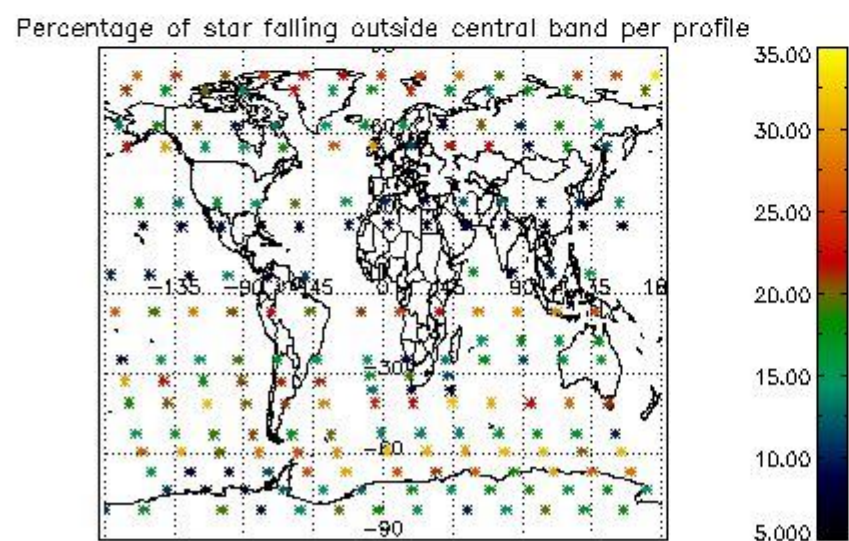
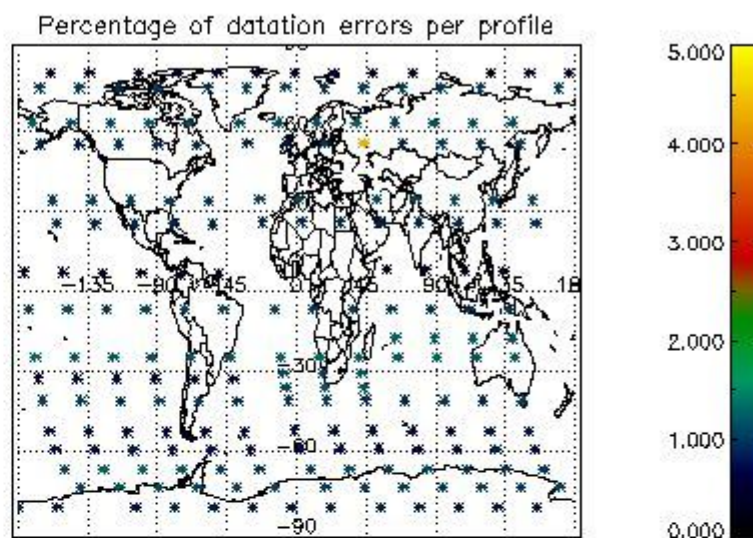
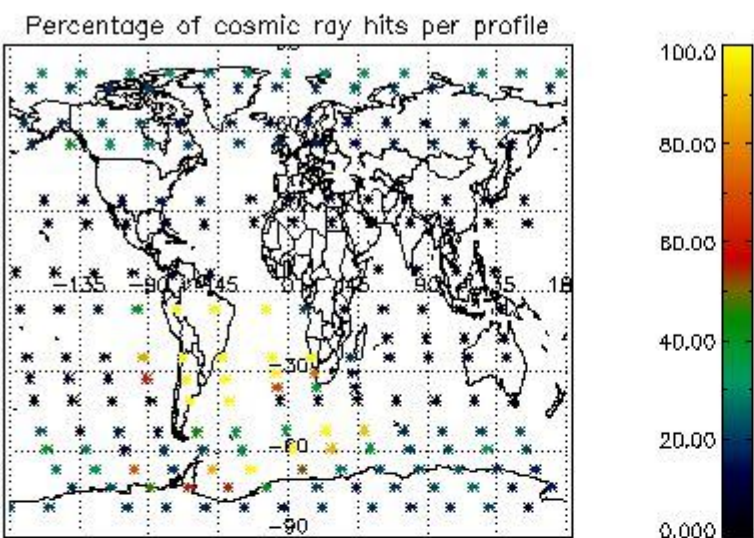


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

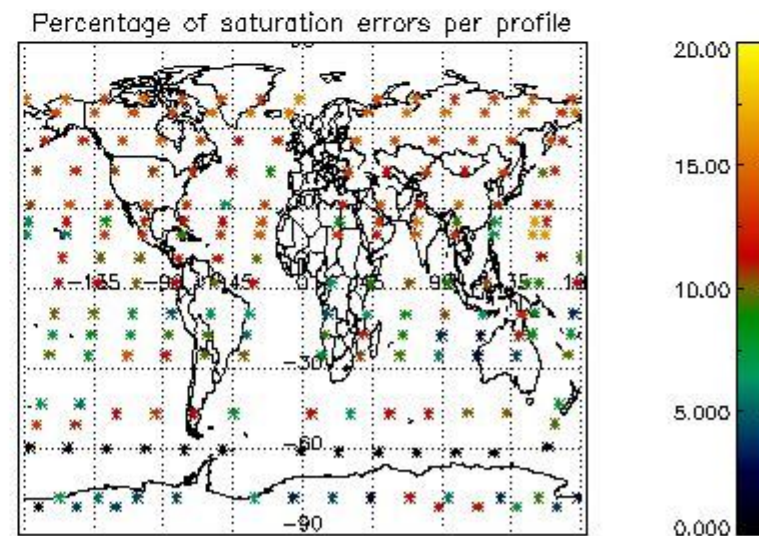
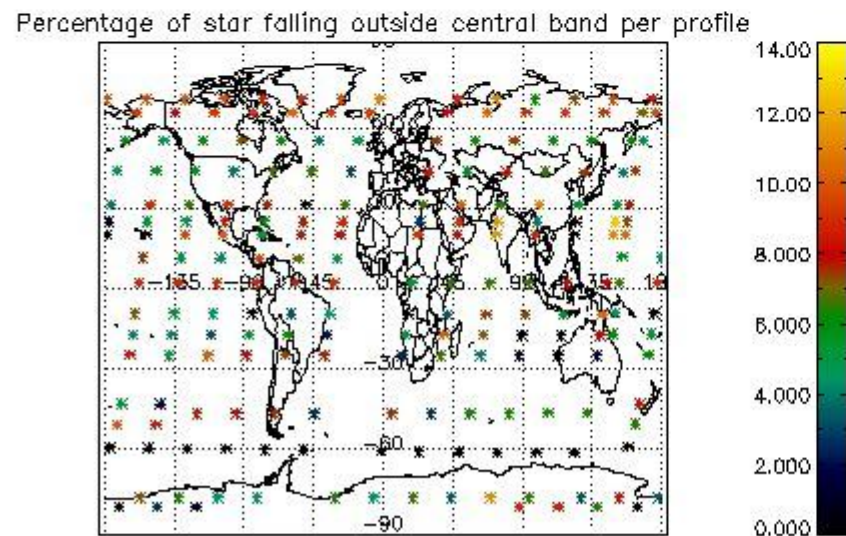
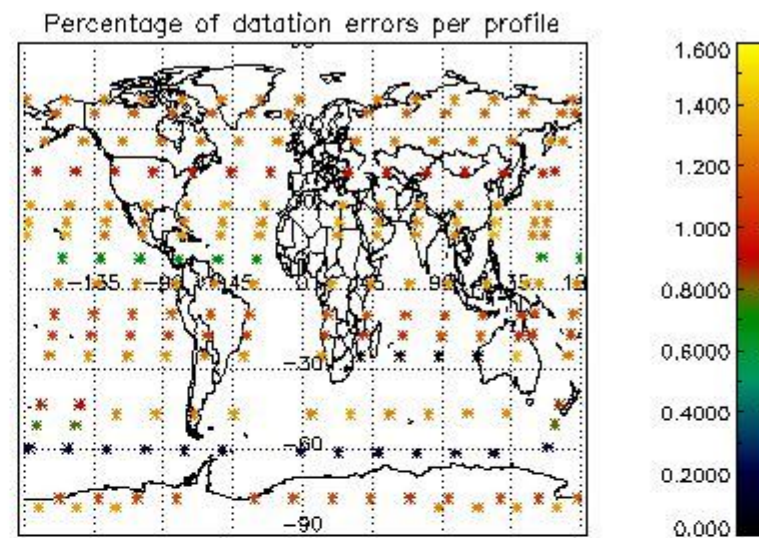
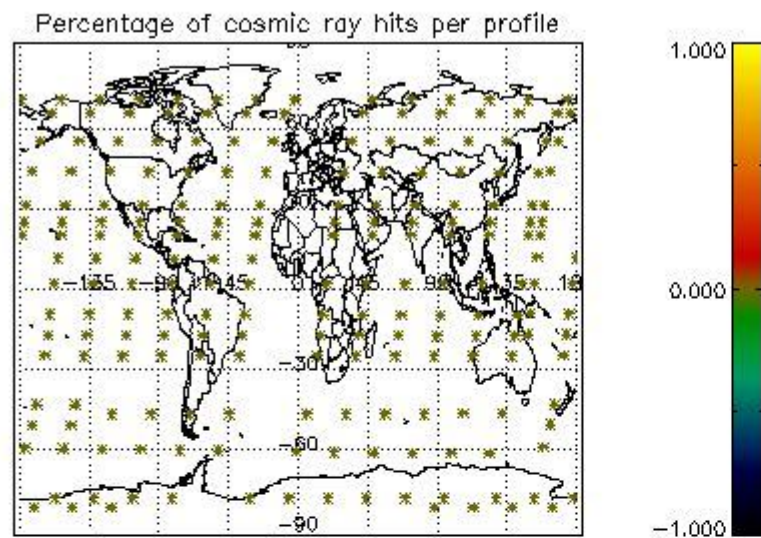


4.2 Plot quality information per product coming from level 1b processing (world map)

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

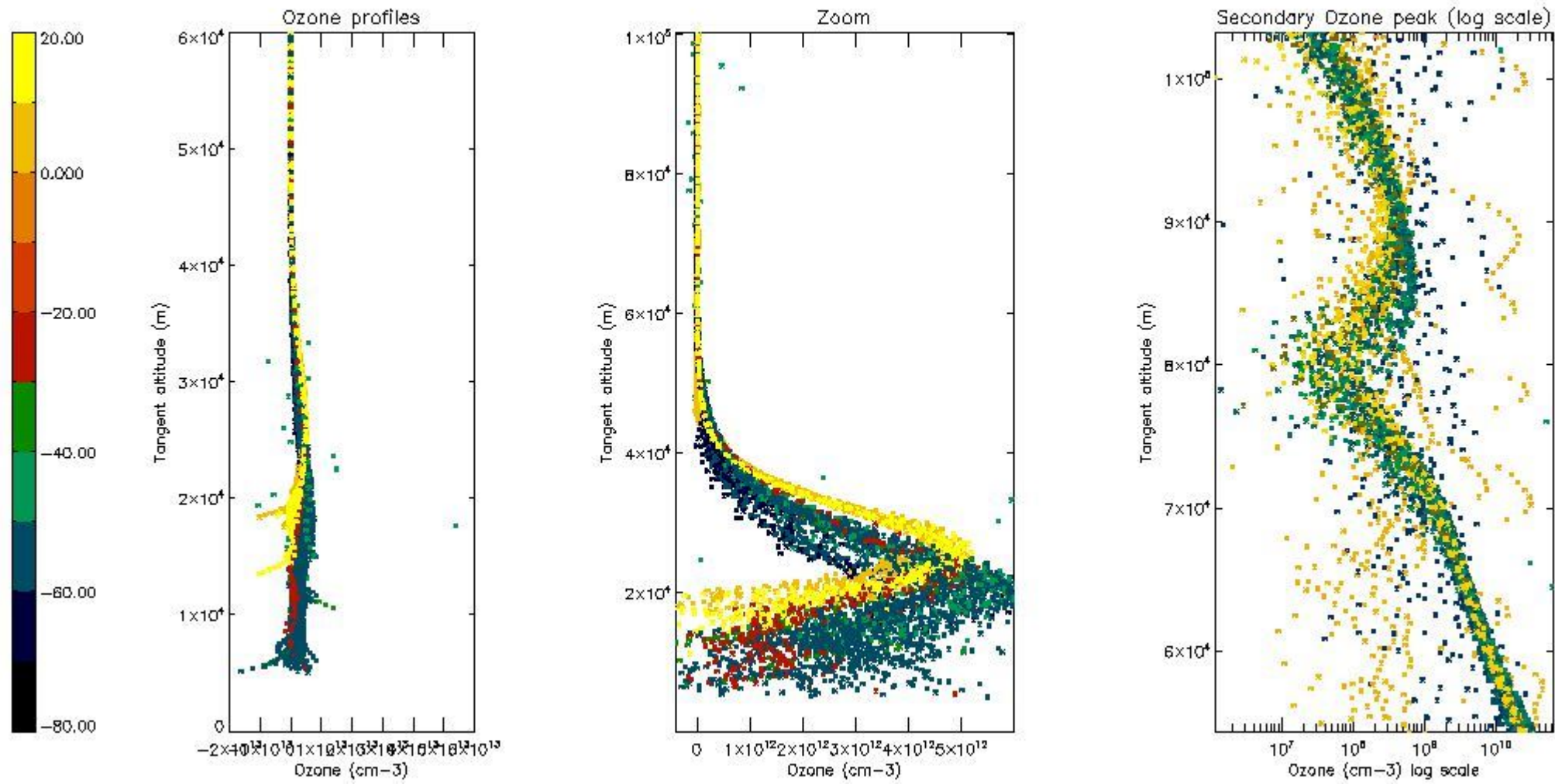
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	30
STD < 20	17

STD < 10	15
STD < 5	12

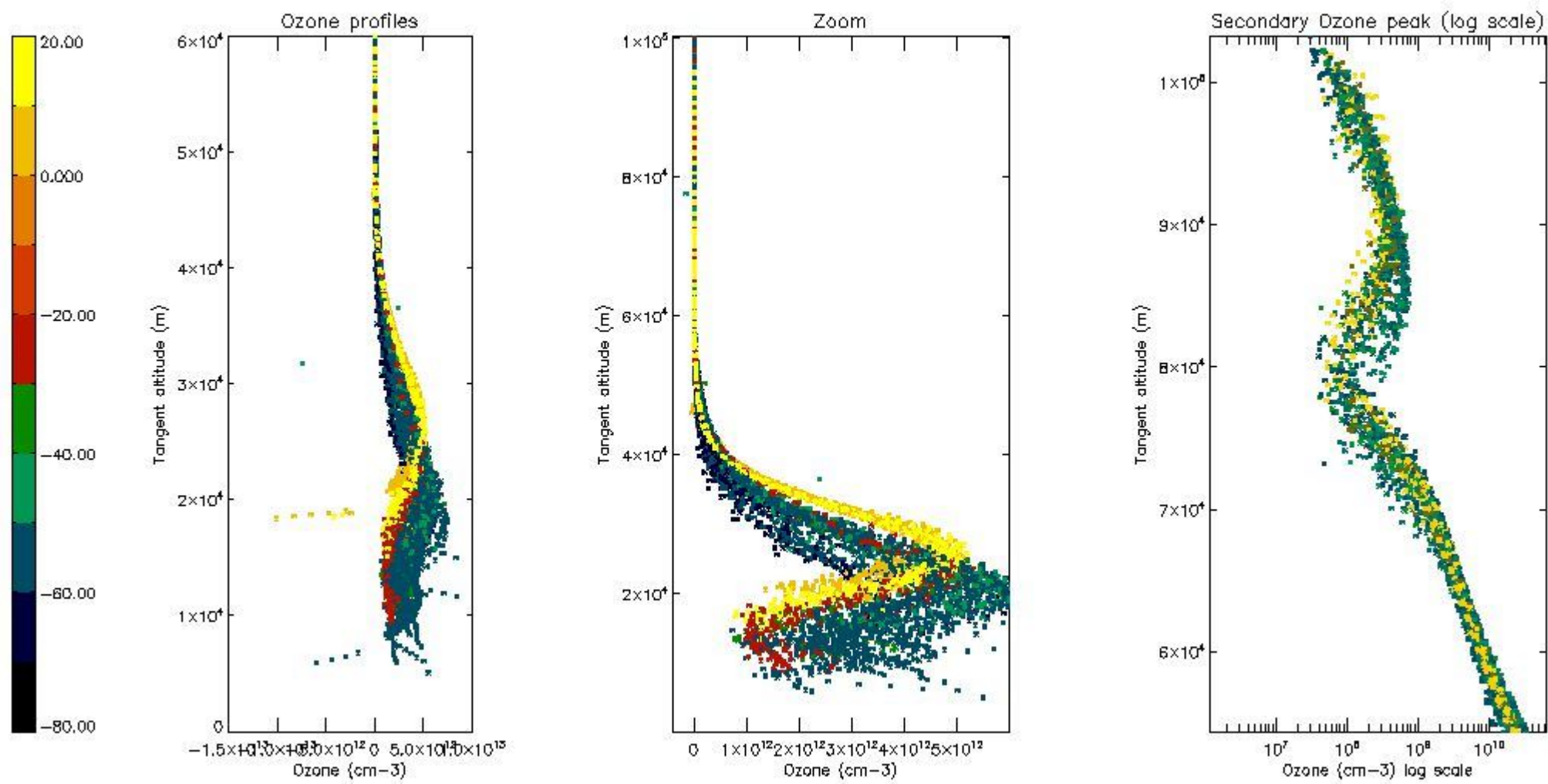
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



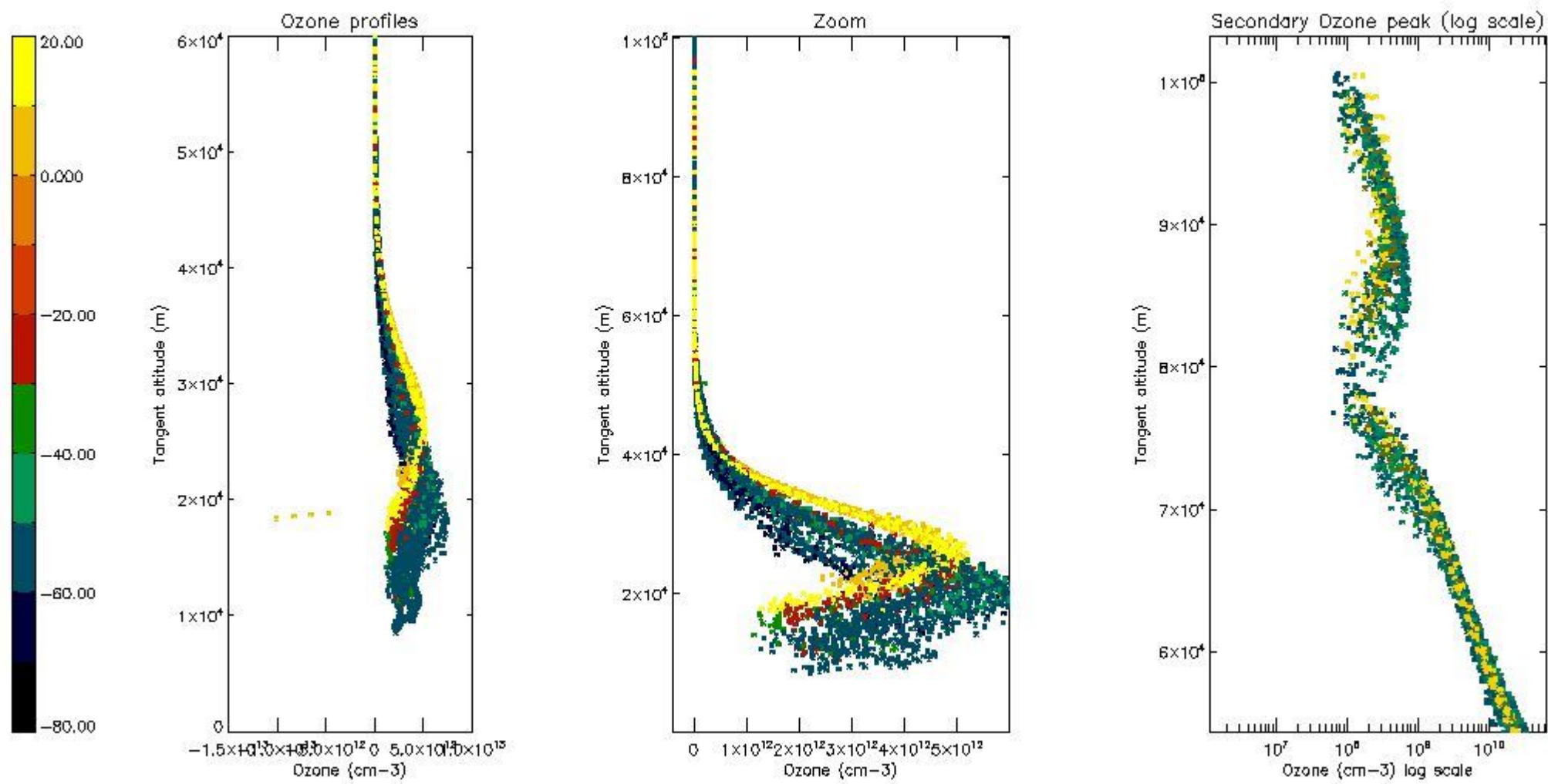
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



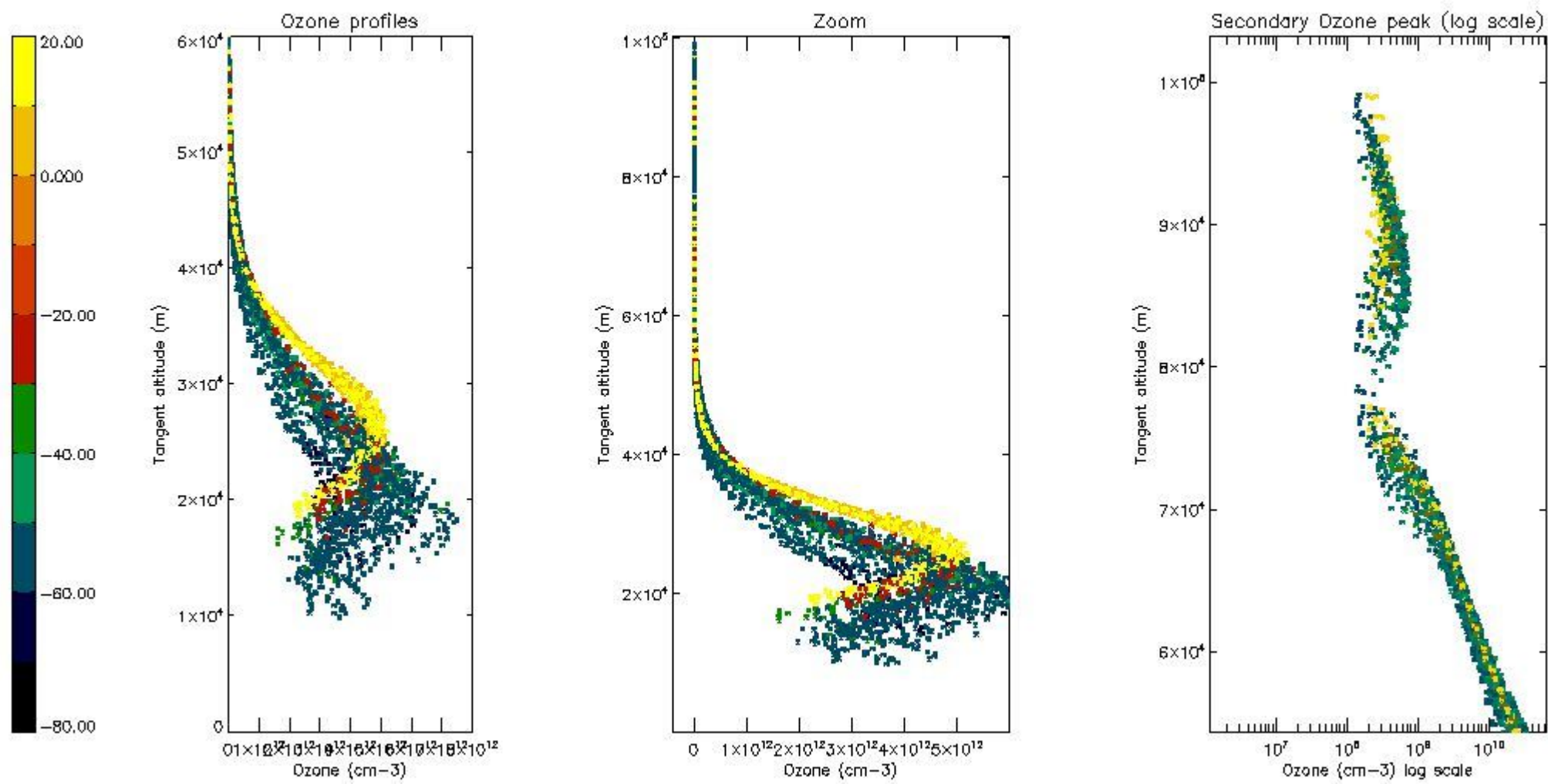
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



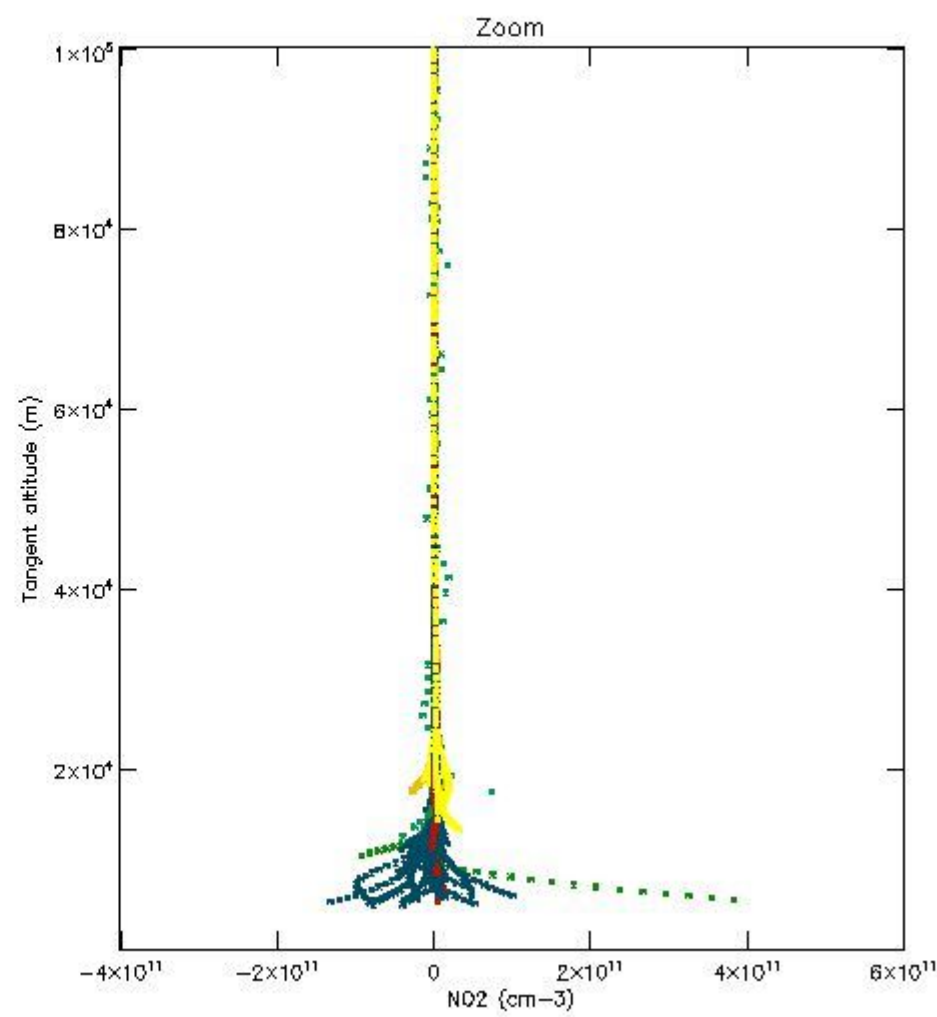
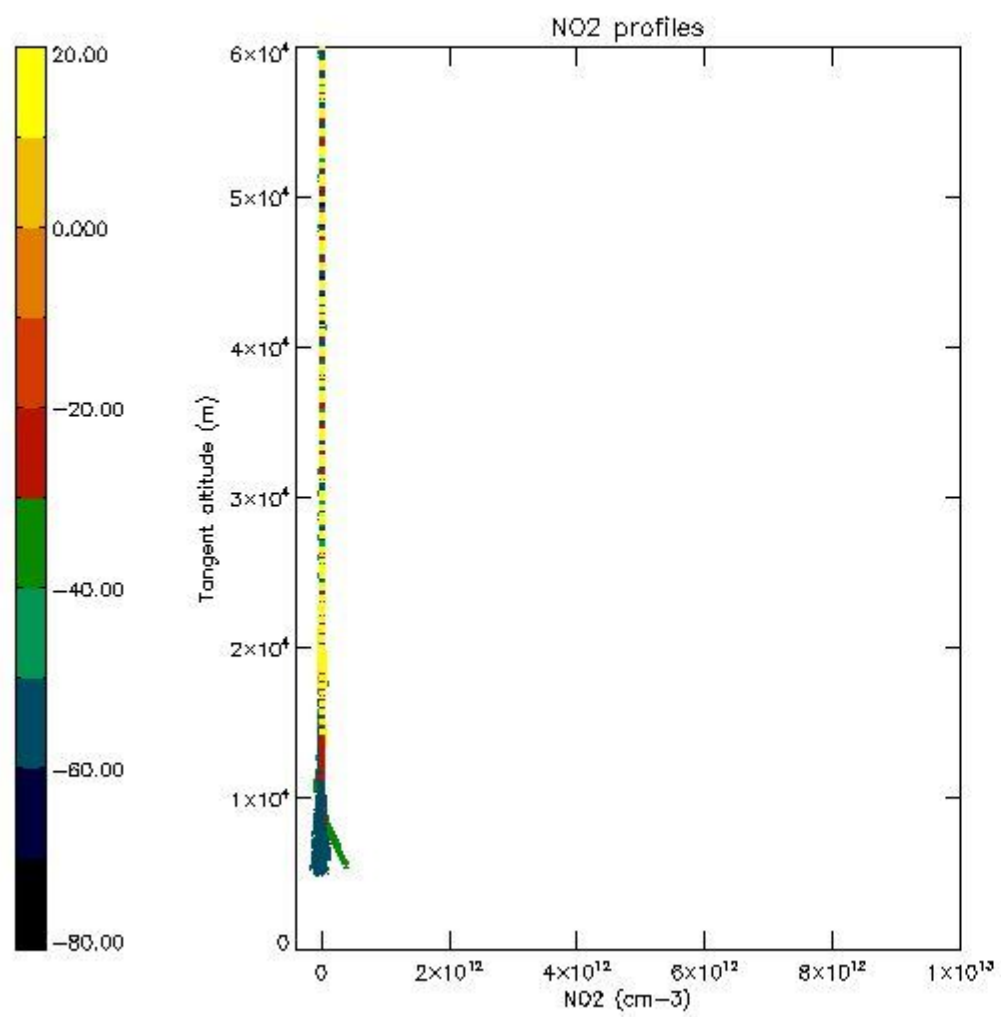
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



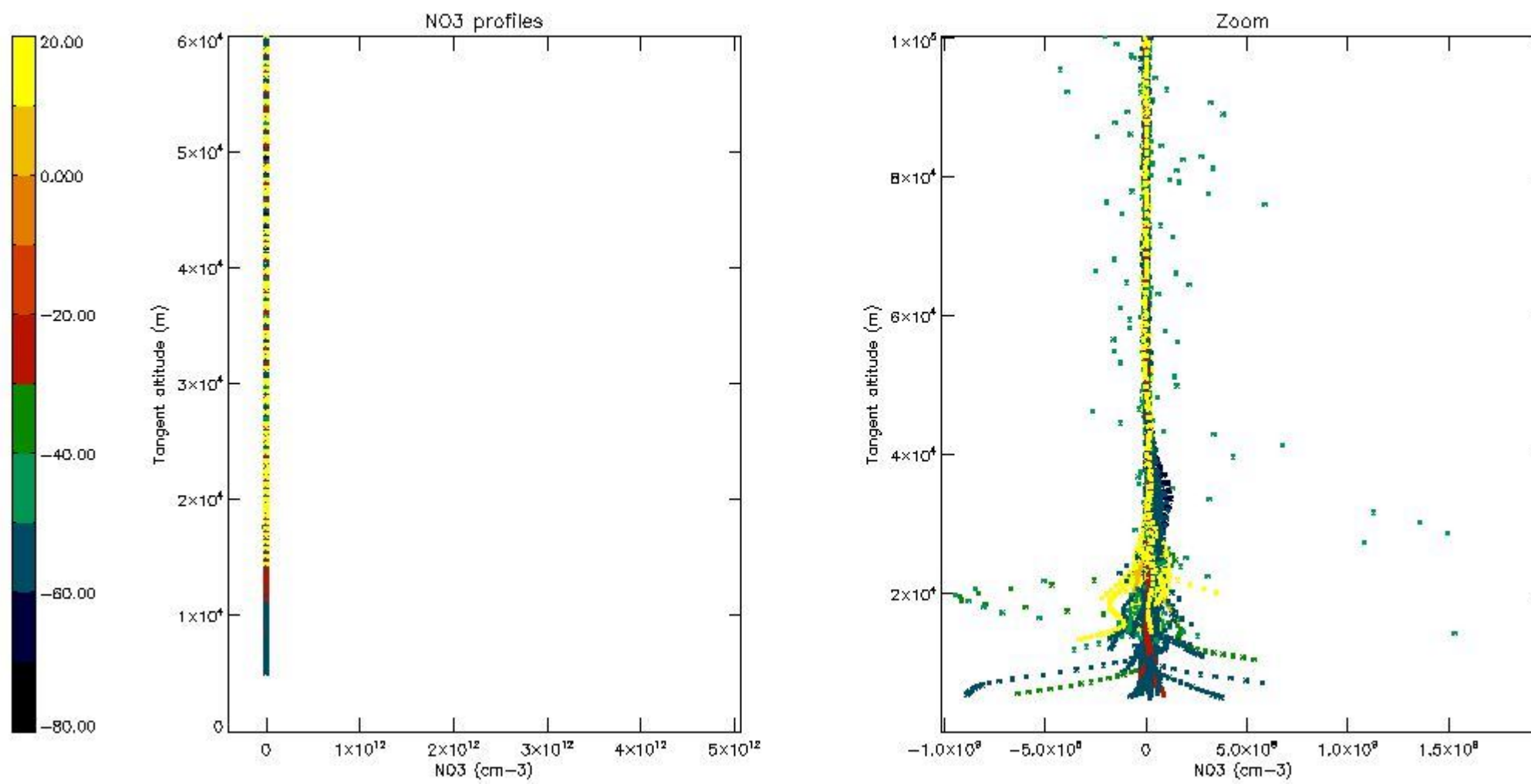
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



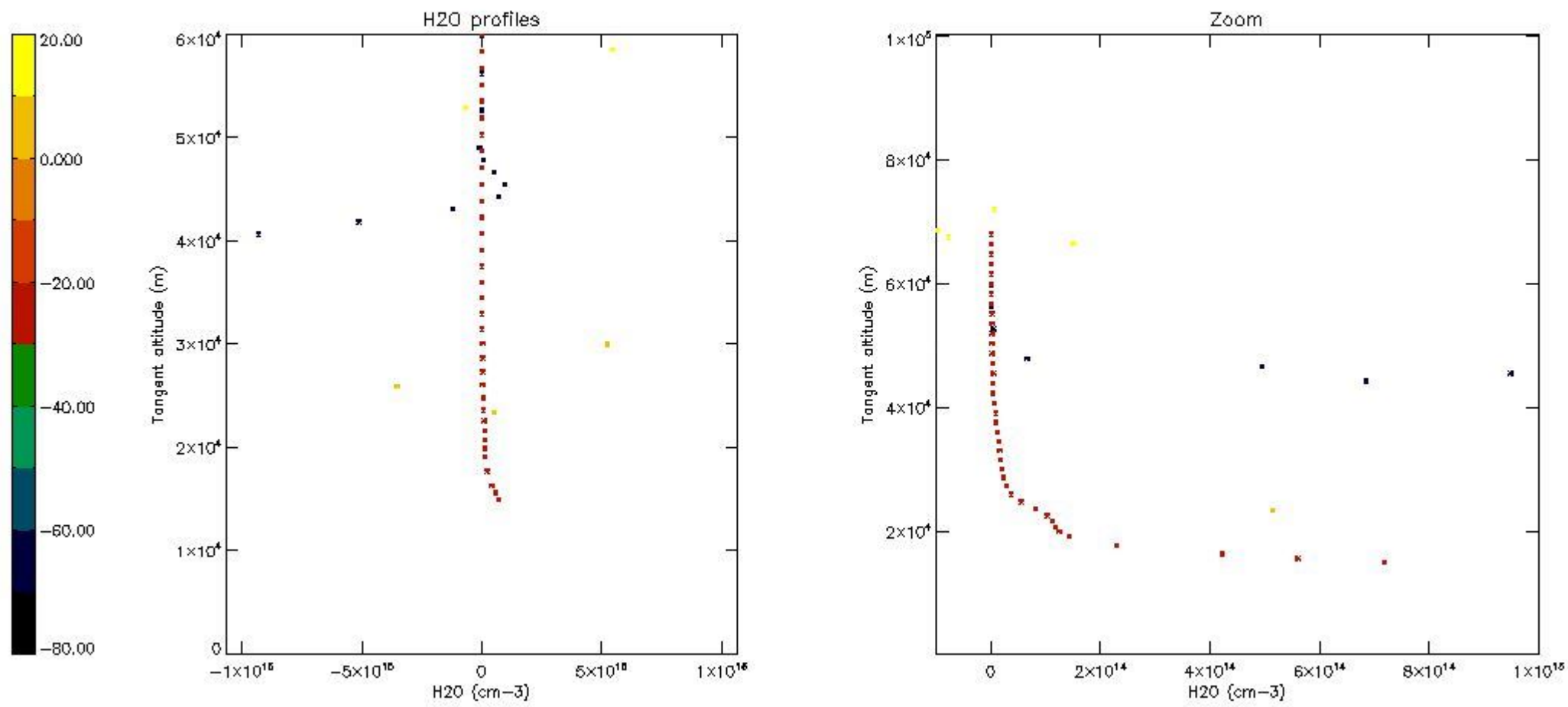
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

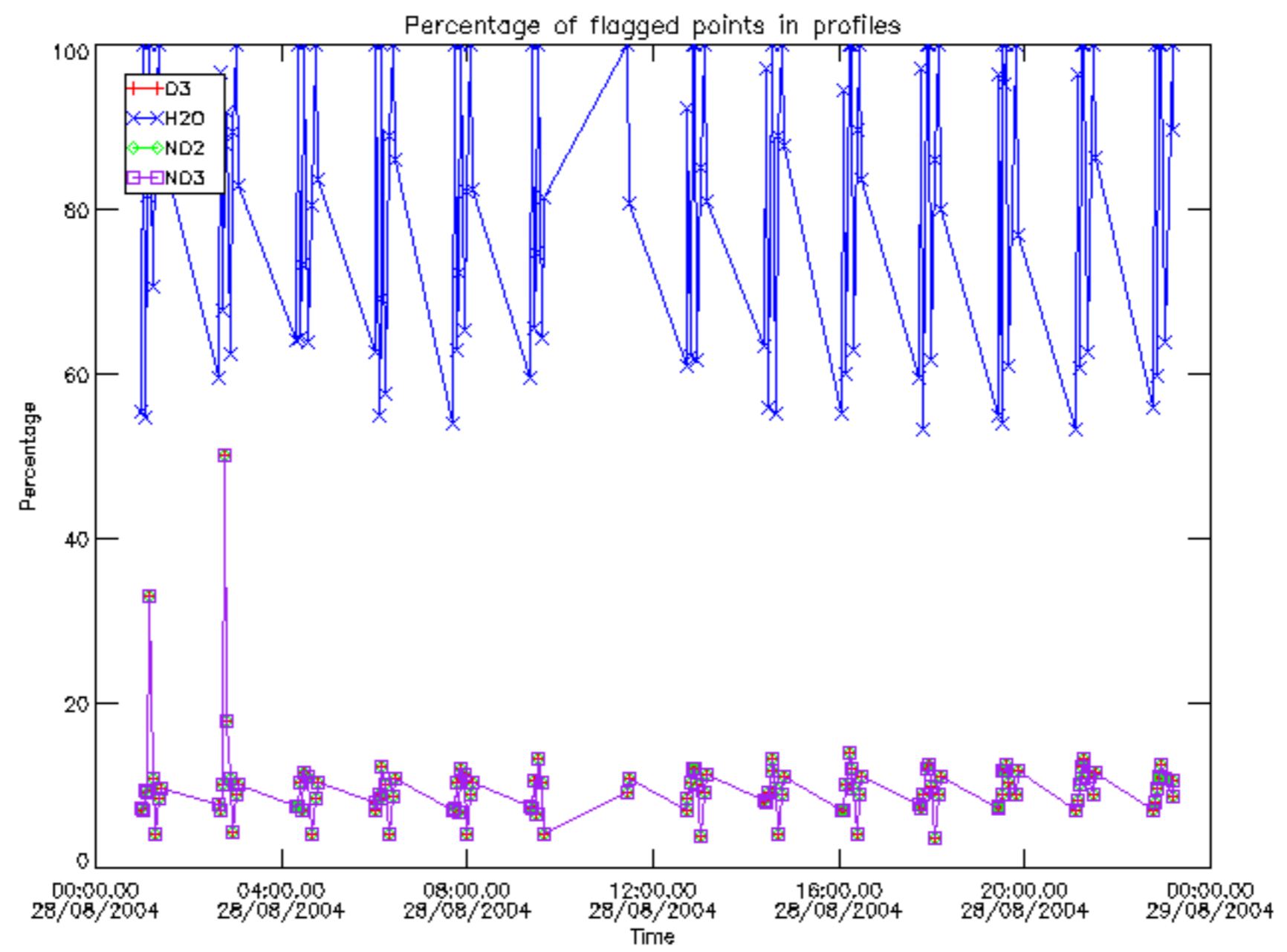
The colorbar represents the latitude.



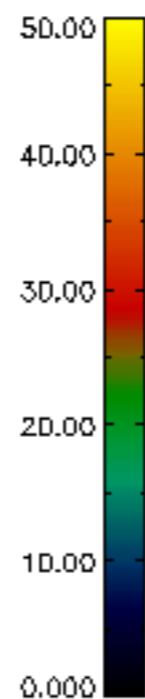
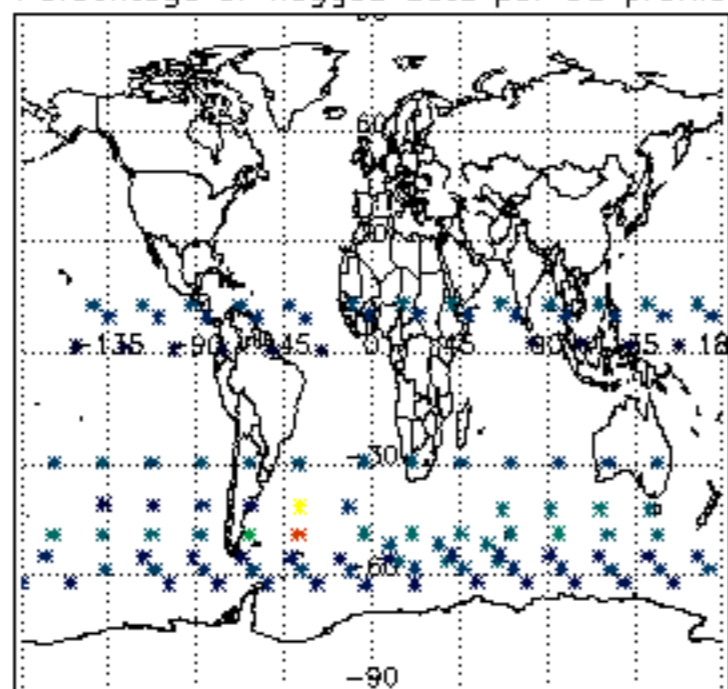
6. Auxiliary Data Files used for the production reported in section 2

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.

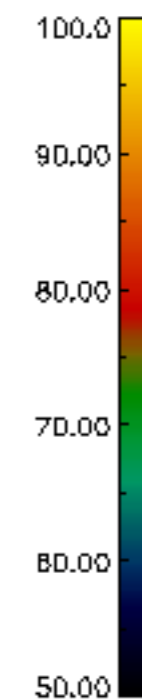
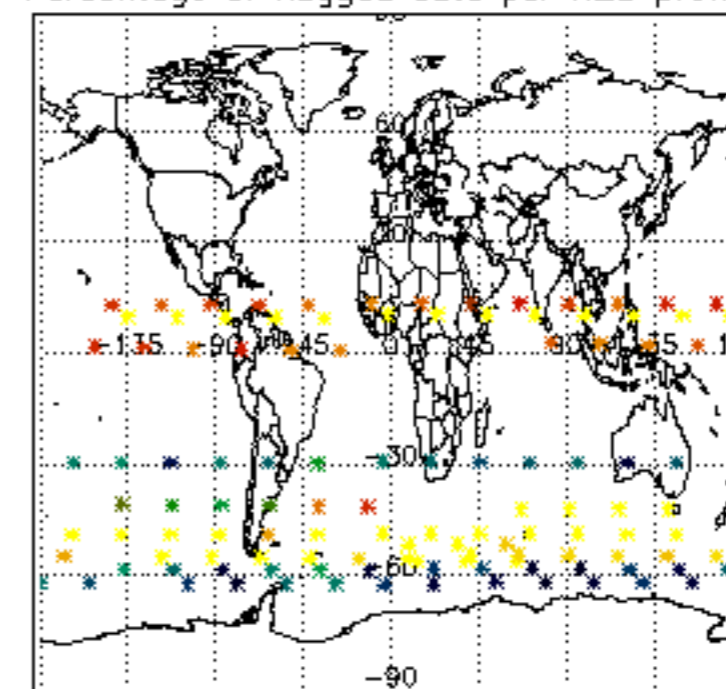
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	28-AUG-2004 00:04:33
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	28-AUG-2004 00:04:33
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	28-AUG-2004 00:04:33



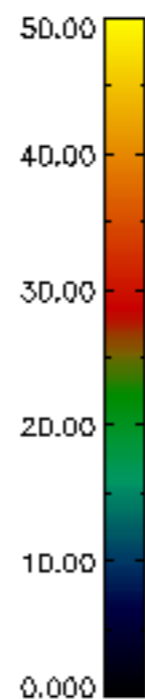
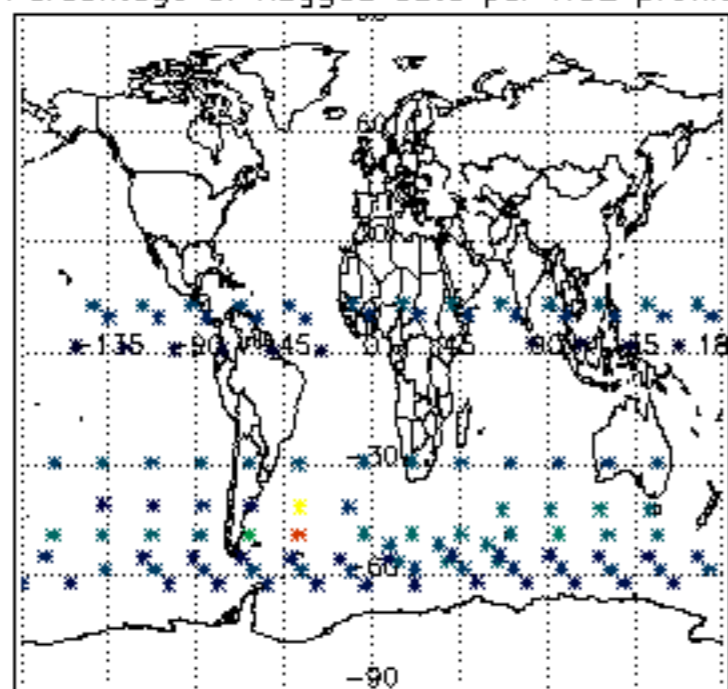
Percentage of flagged data per D3 profile



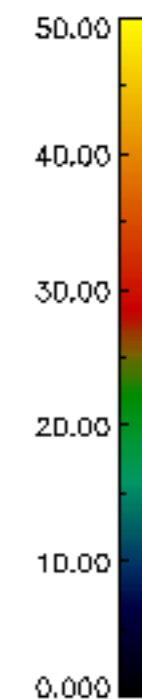
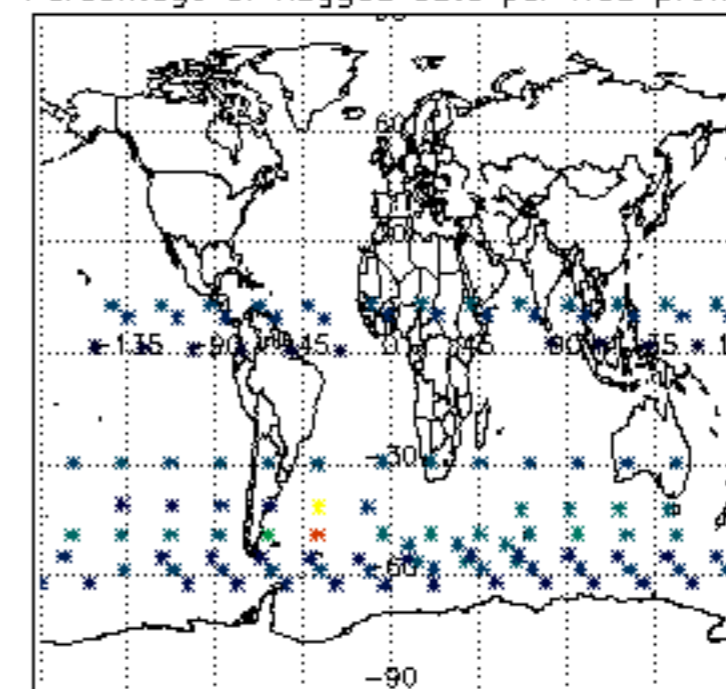
Percentage of flagged data per H2O profile

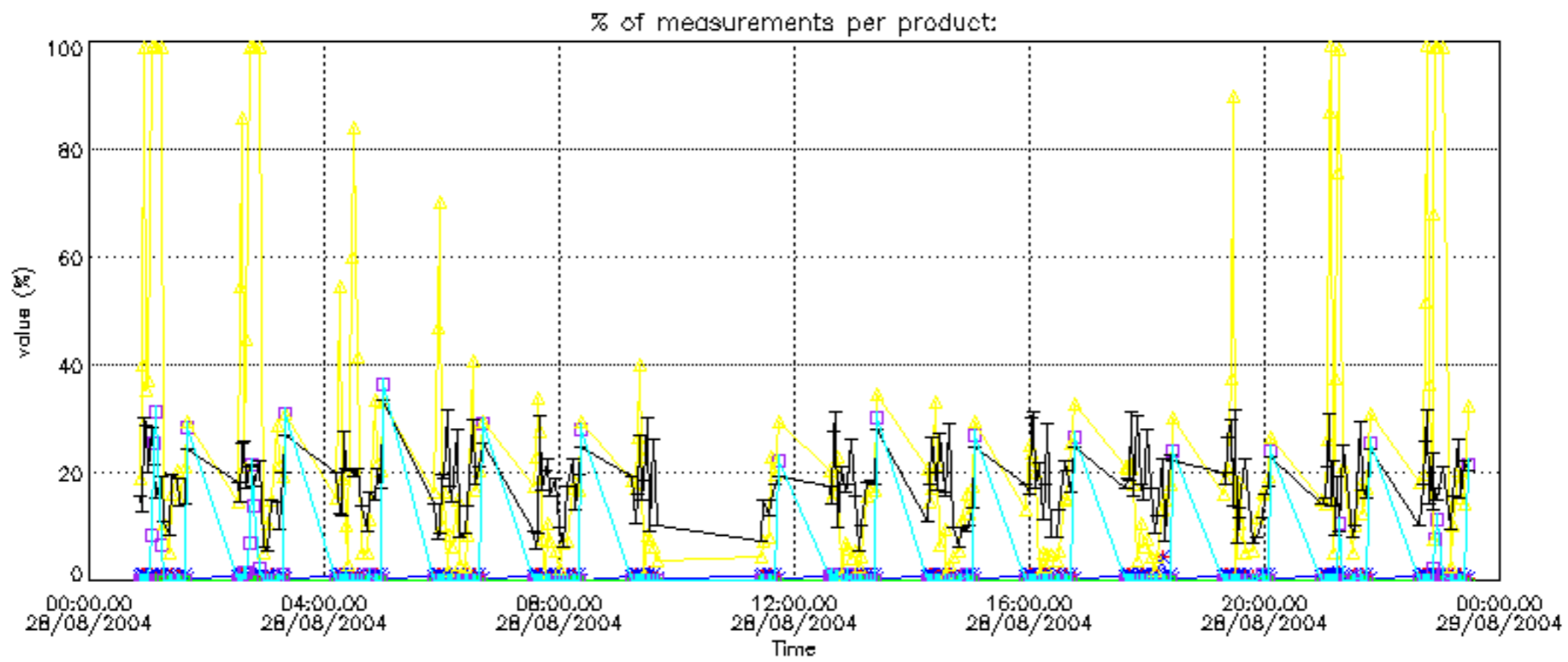


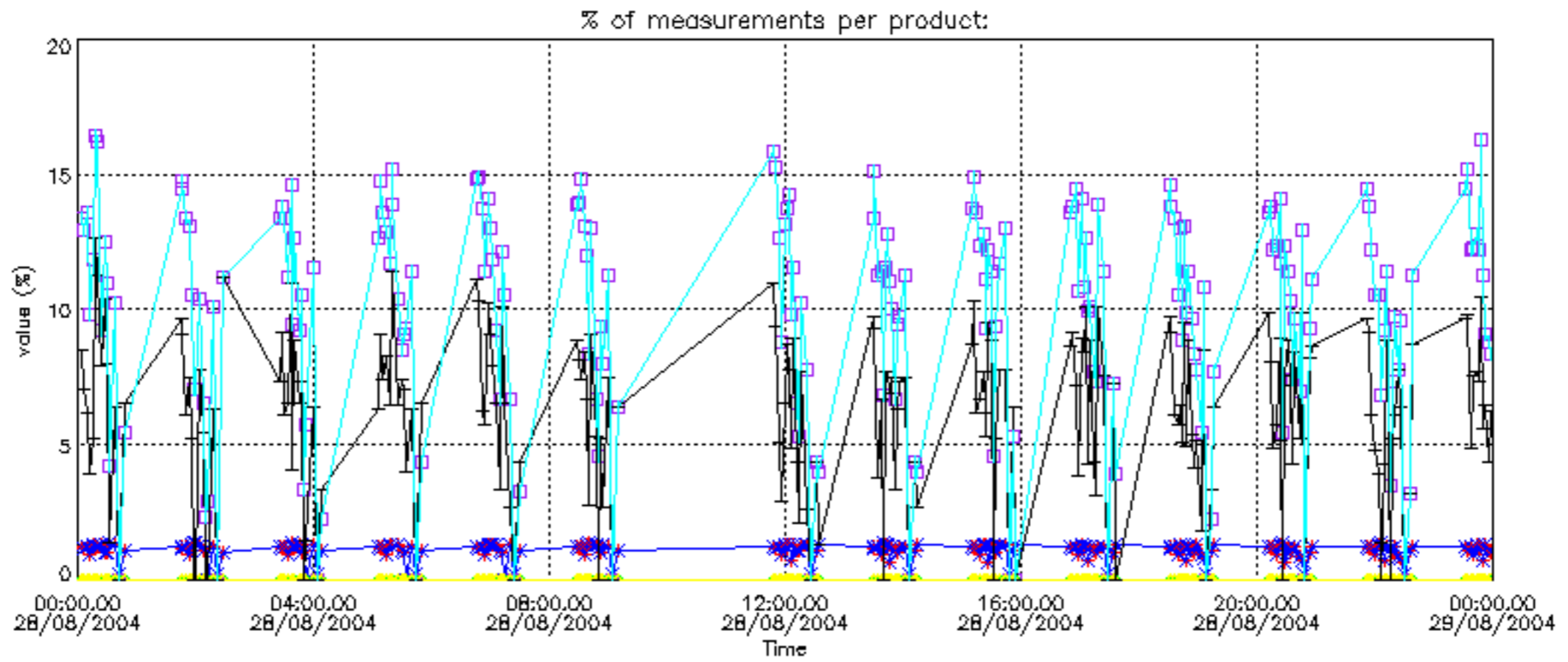
Percentage of flagged data per NO2 profile



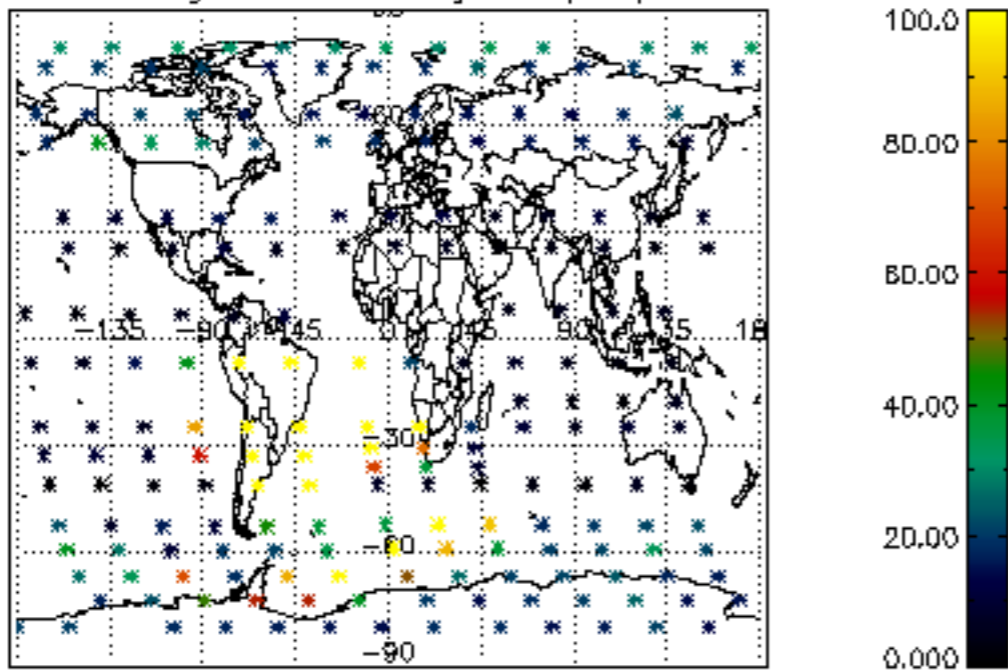
Percentage of flagged data per NO3 profile



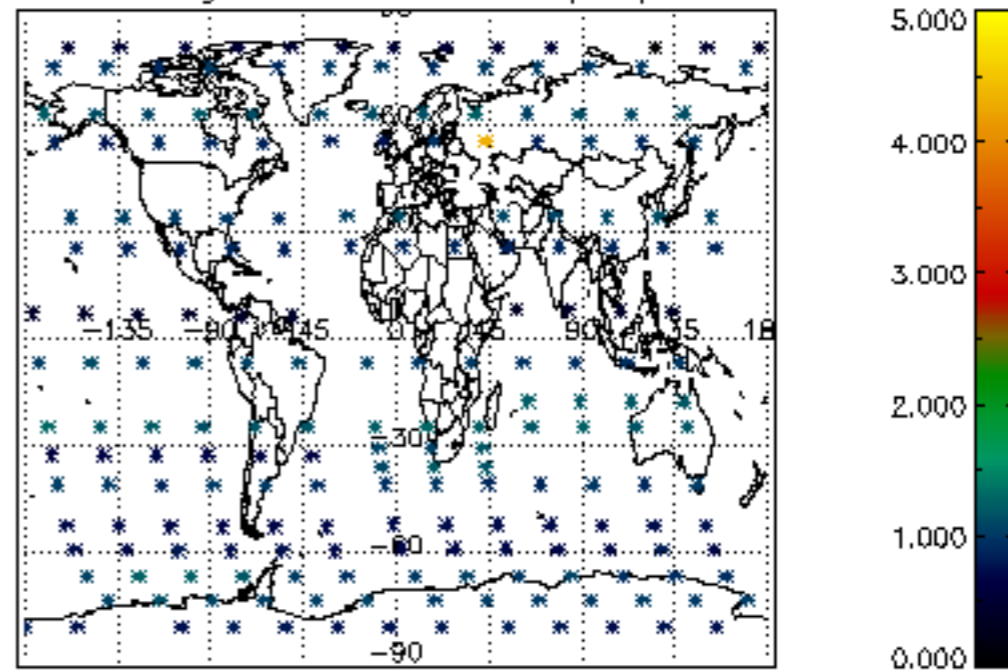




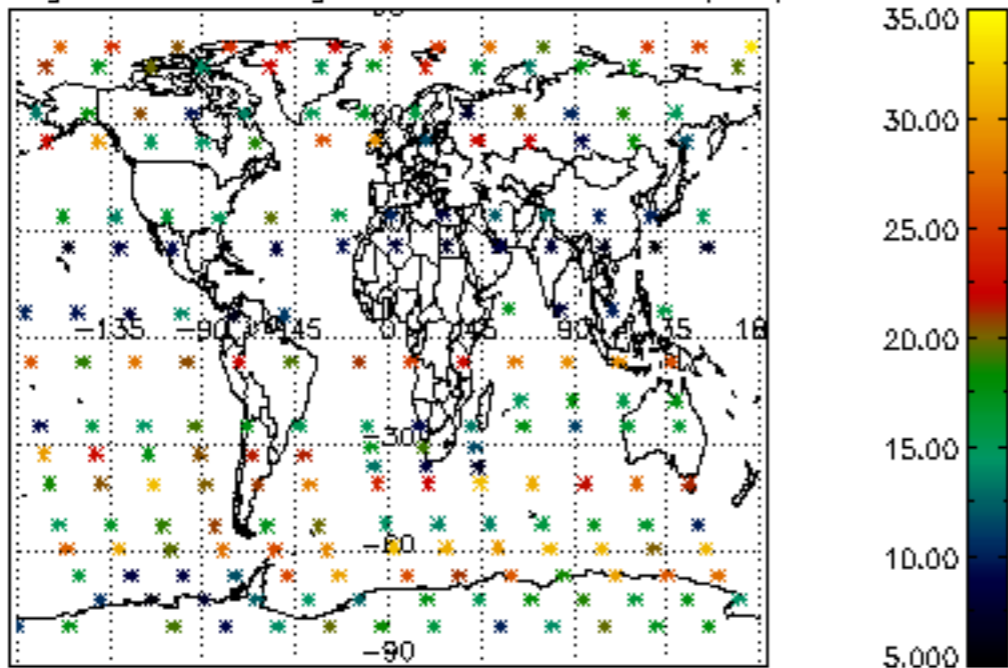
Percentage of cosmic ray hits per profile



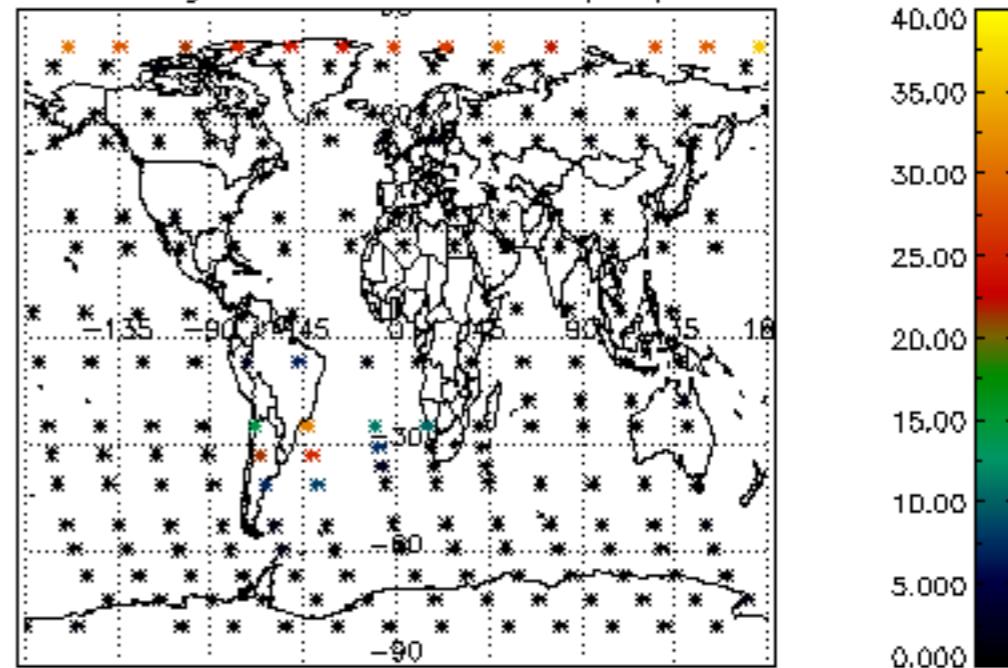
Percentage of datation errors per profile



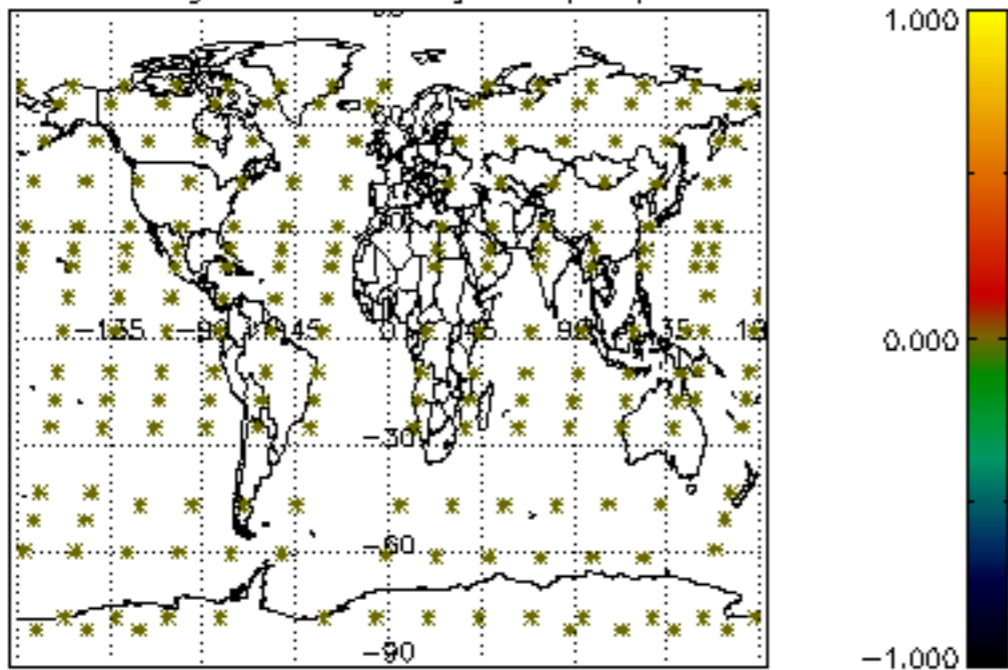
Percentage of star falling outside central band per profile



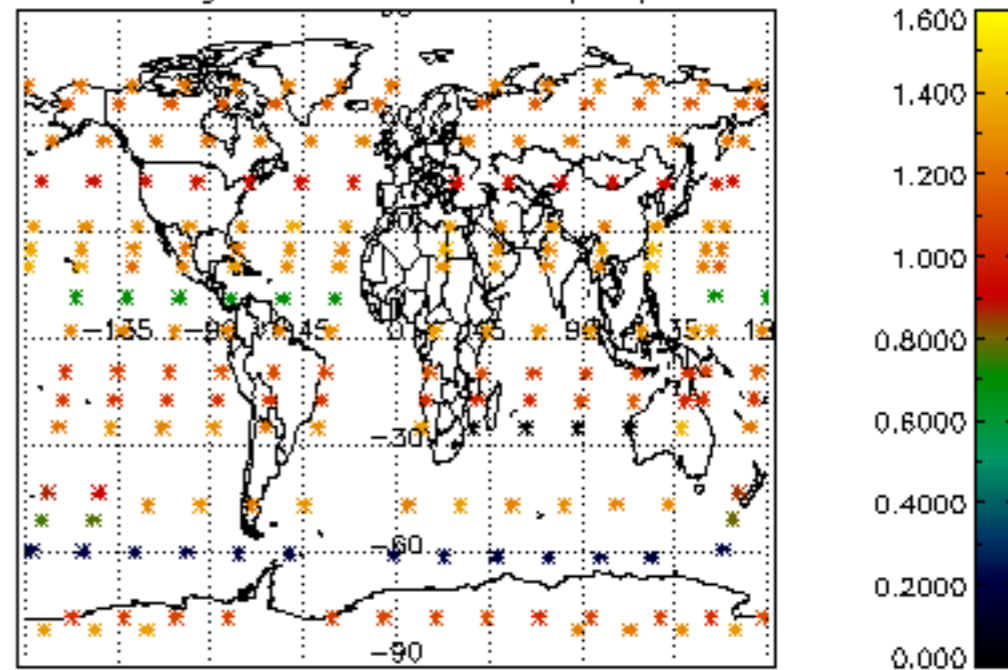
Percentage of saturation errors per profile



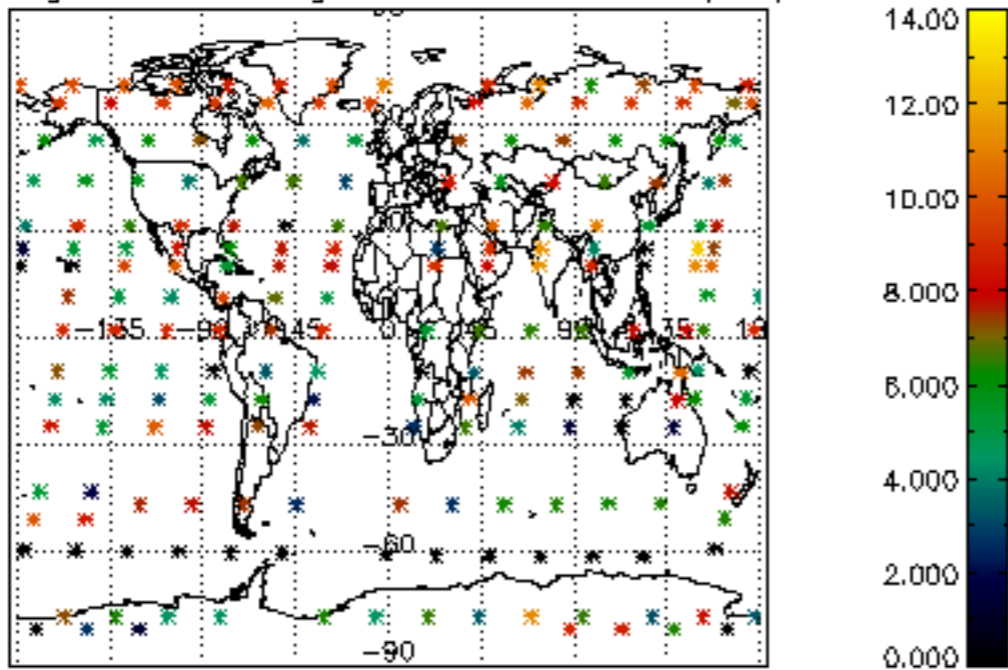
Percentage of cosmic ray hits per profile



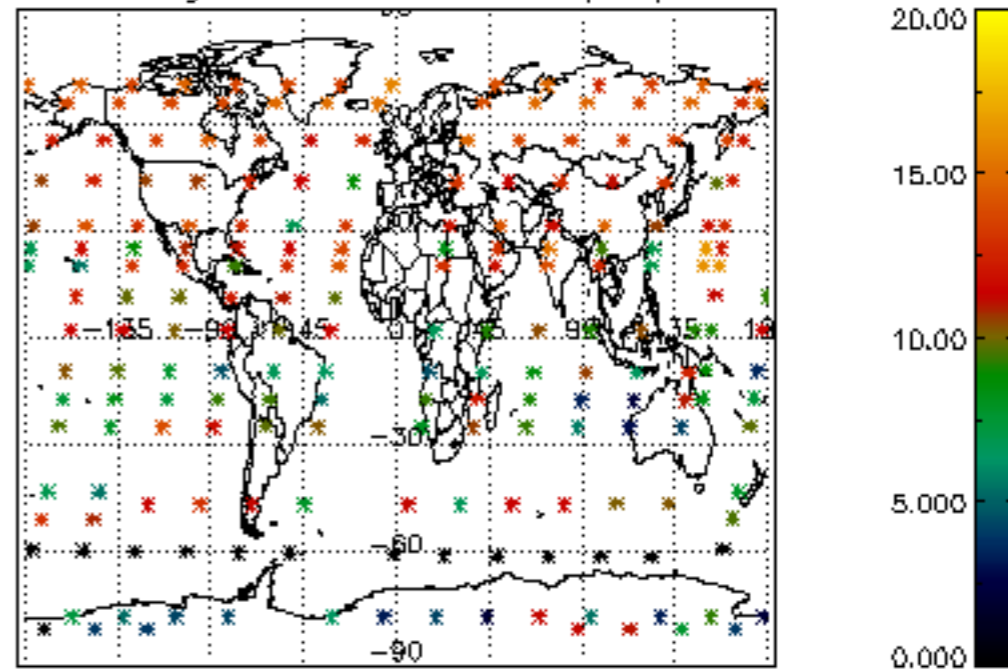
Percentage of datation errors per profile

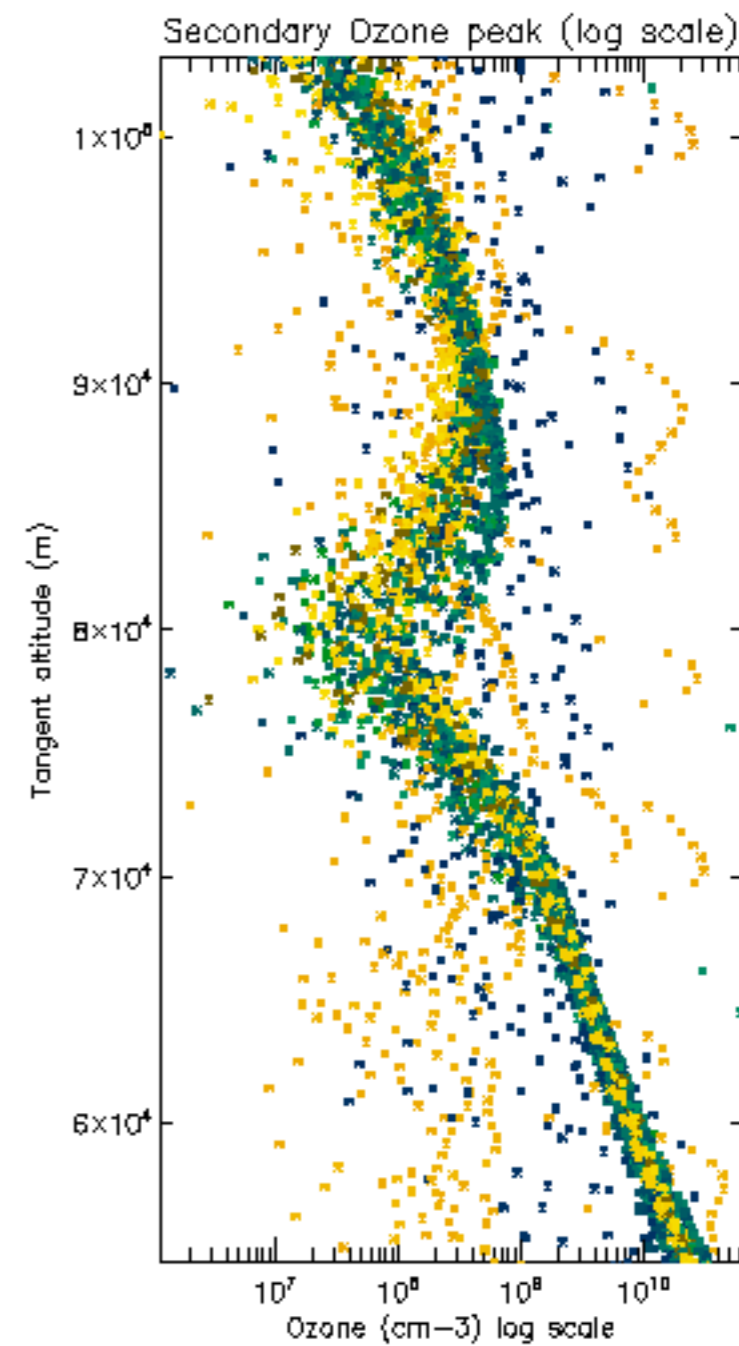
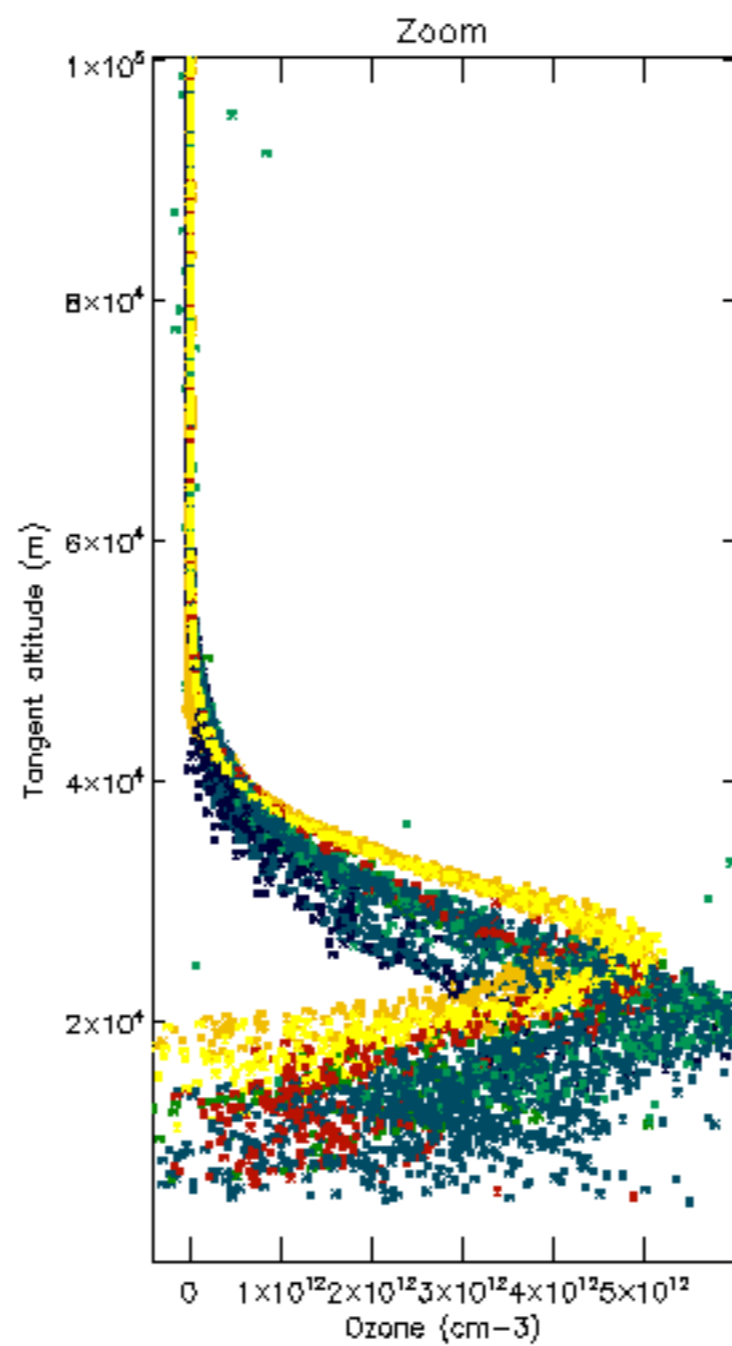
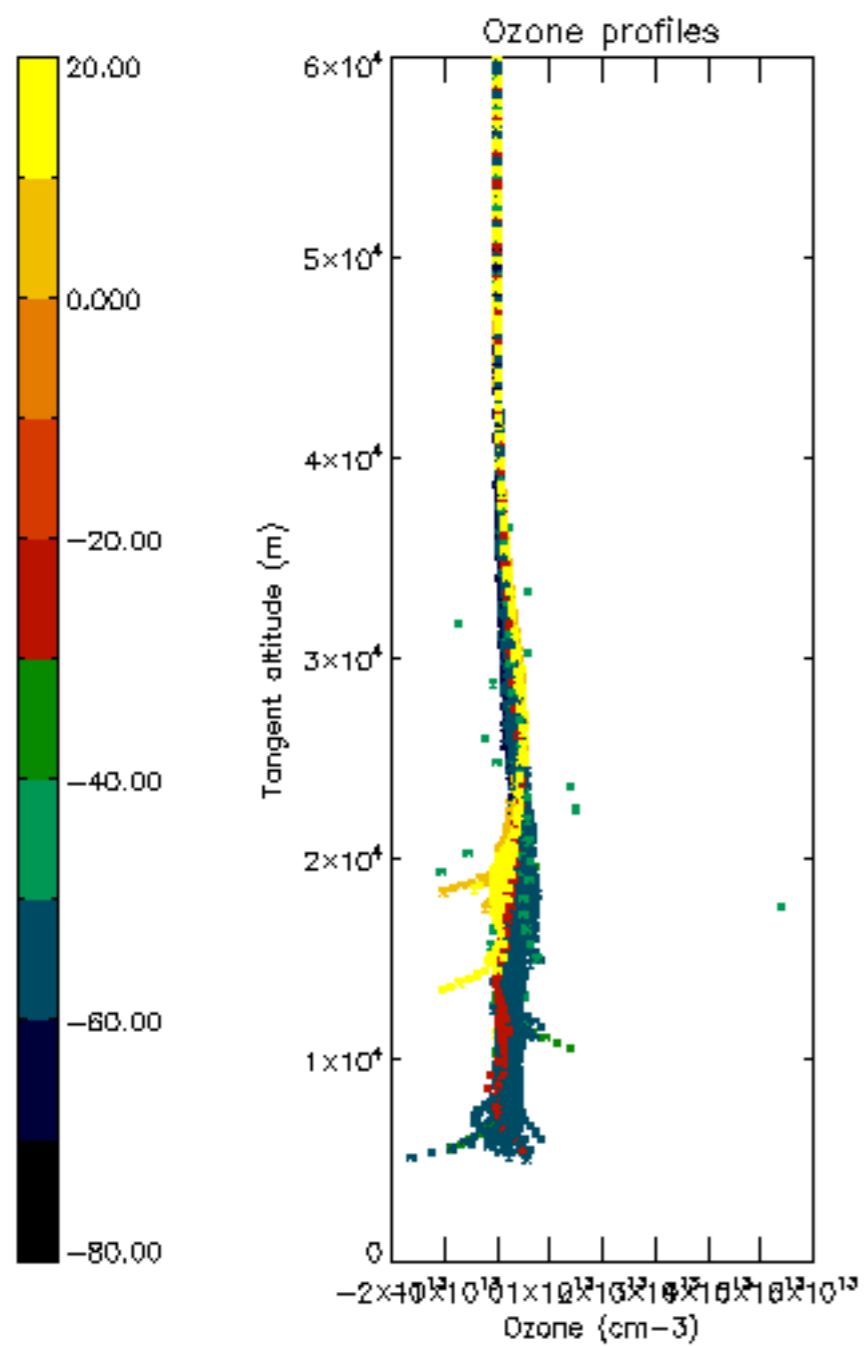


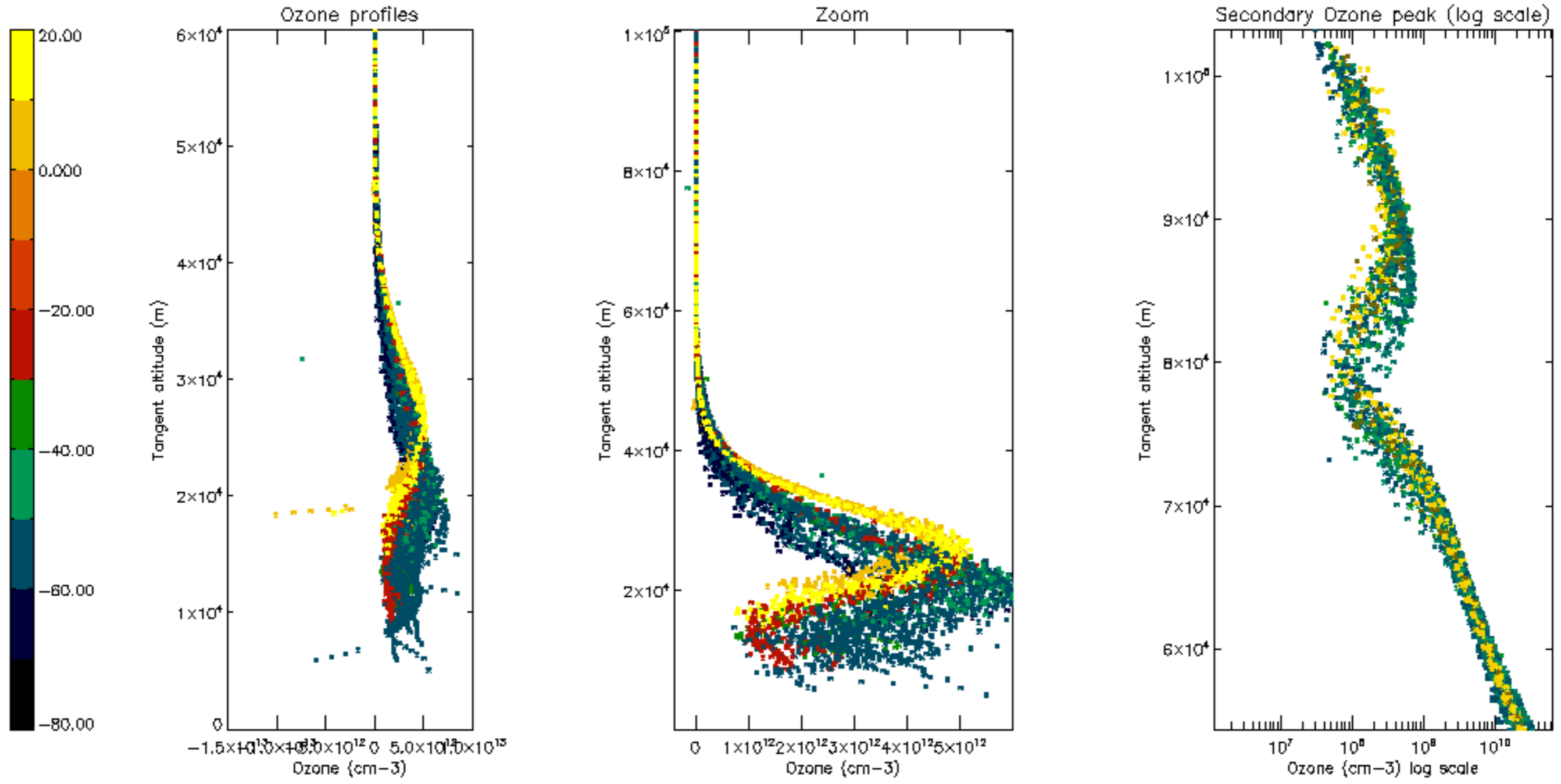
Percentage of star falling outside central band per profile

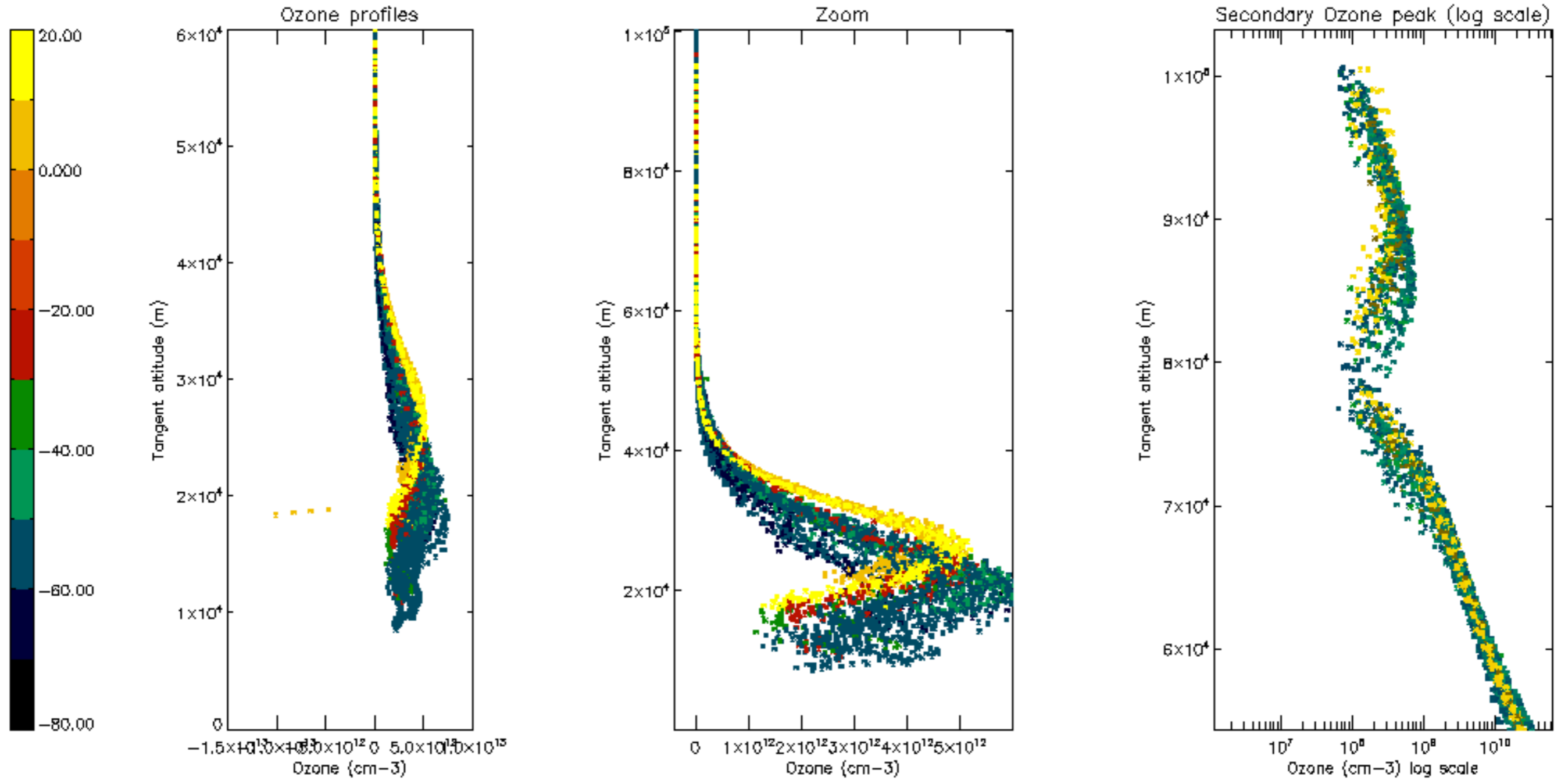


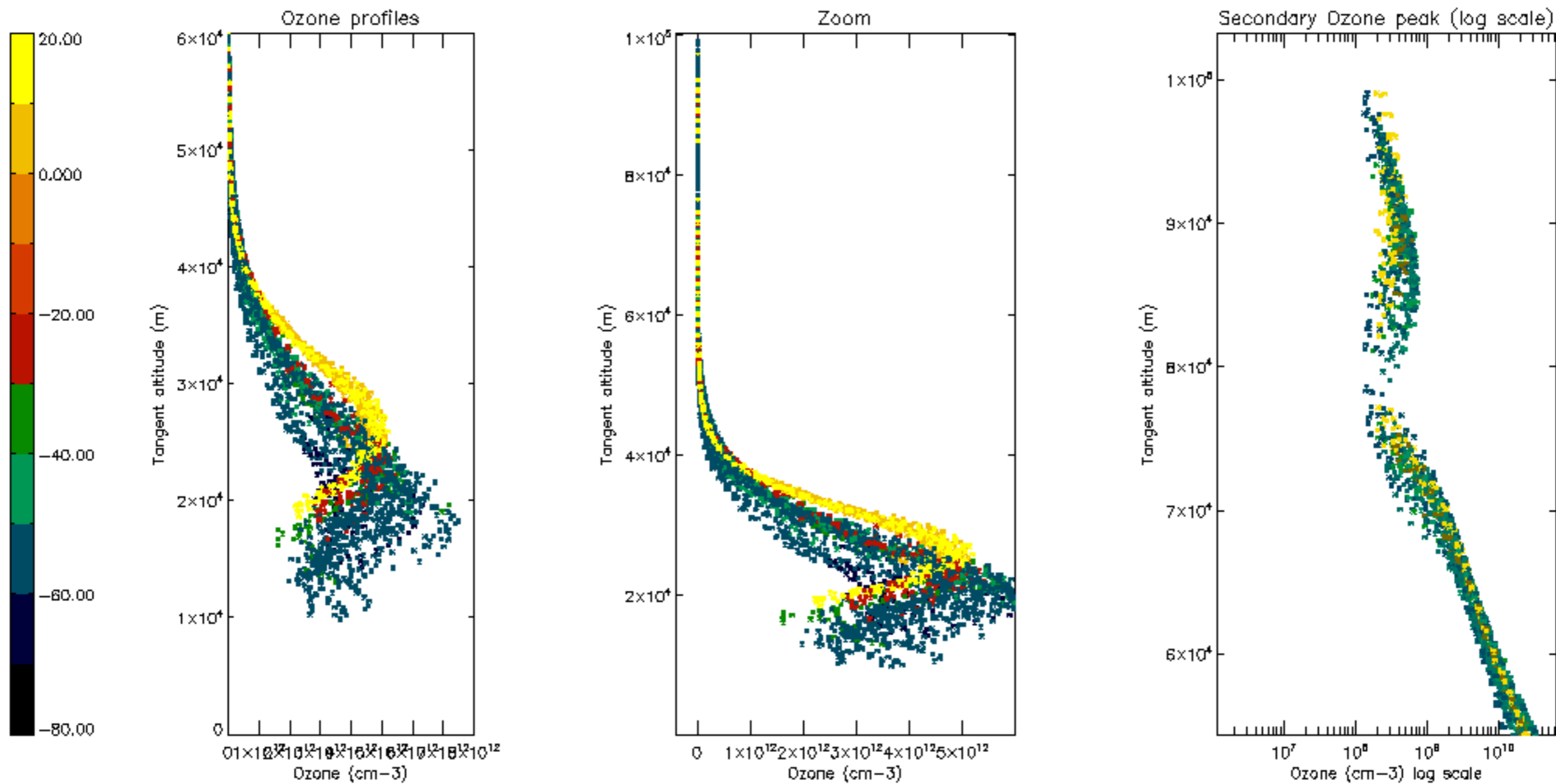
Percentage of saturation errors per profile

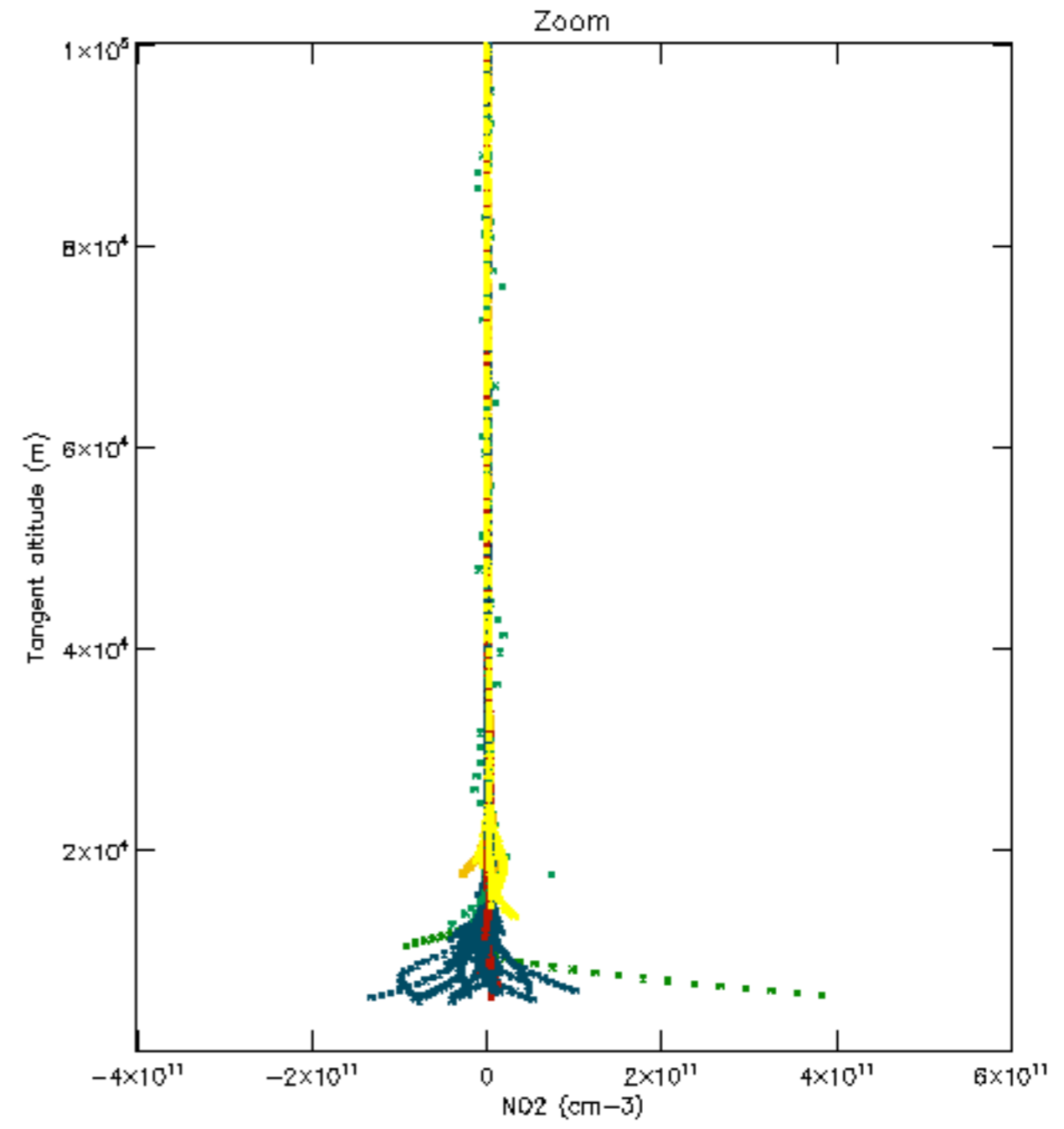
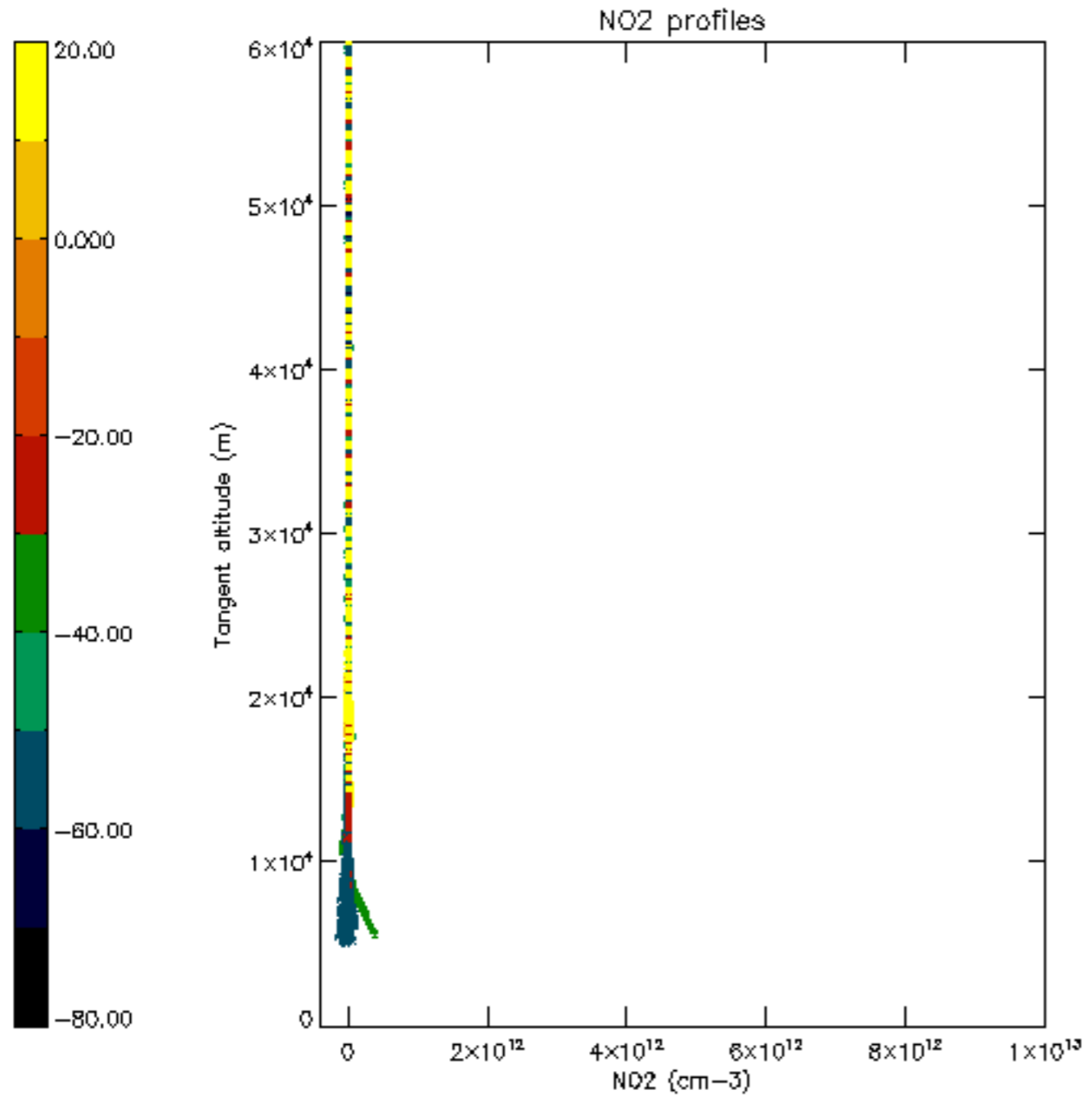


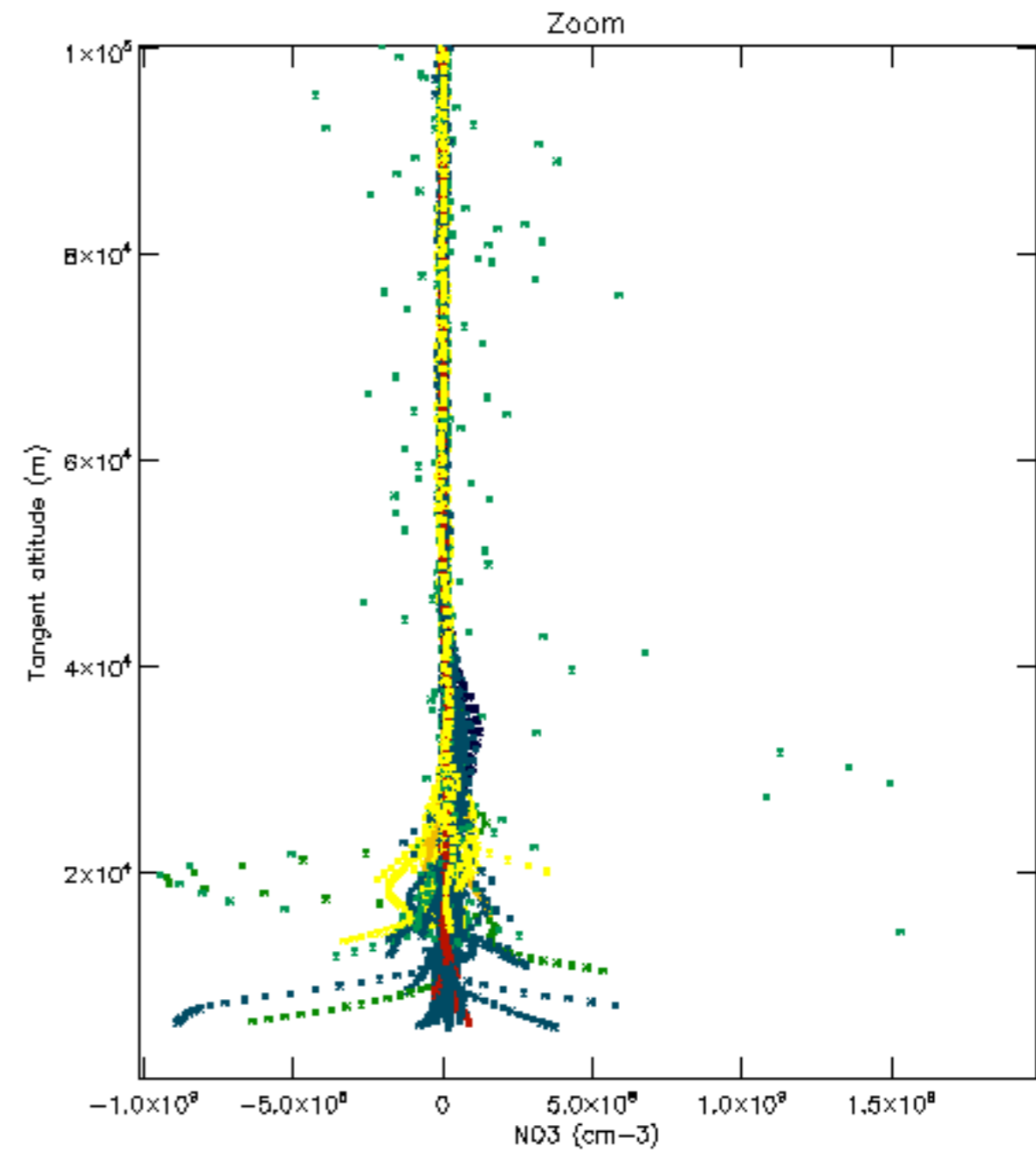
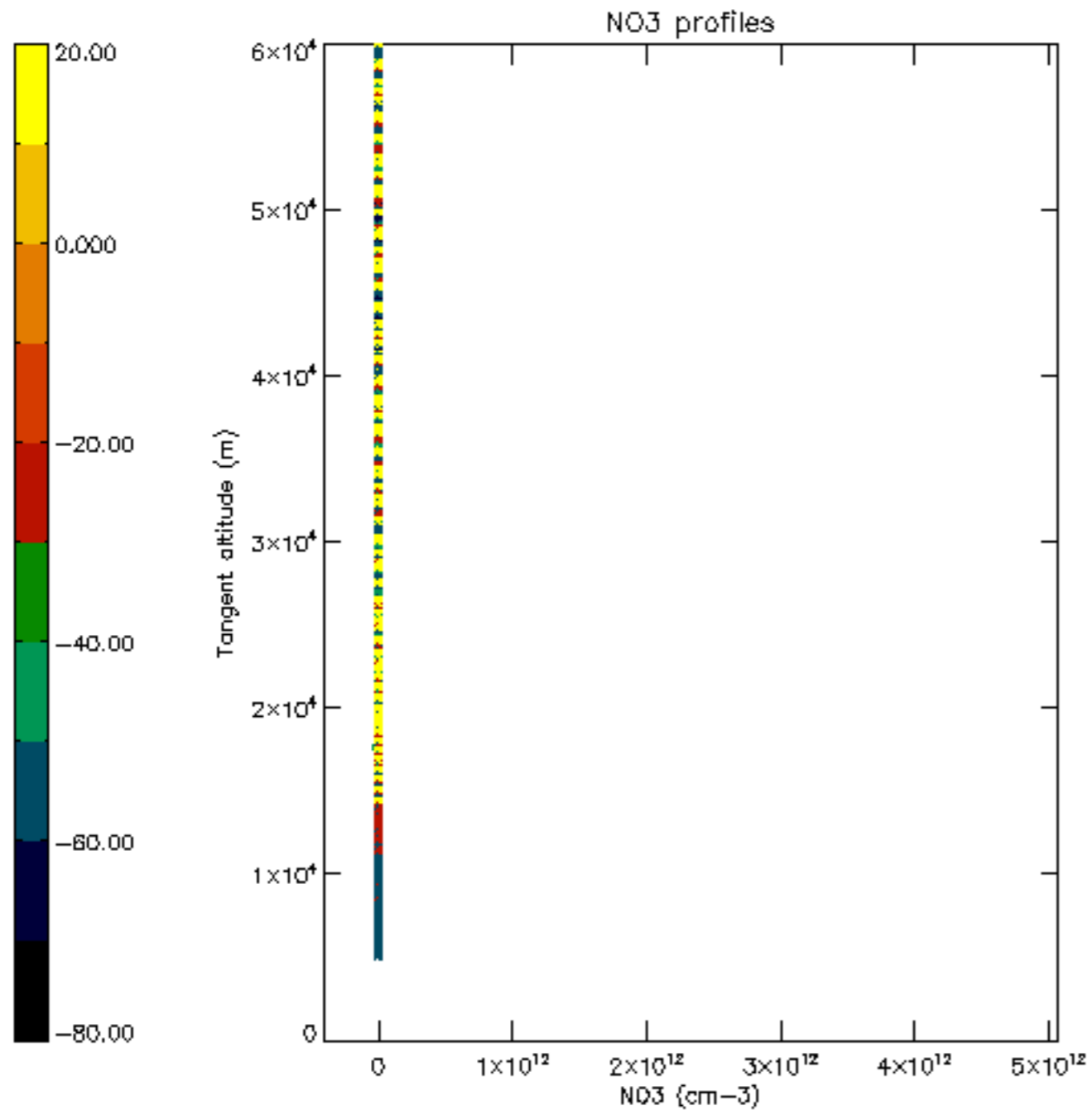


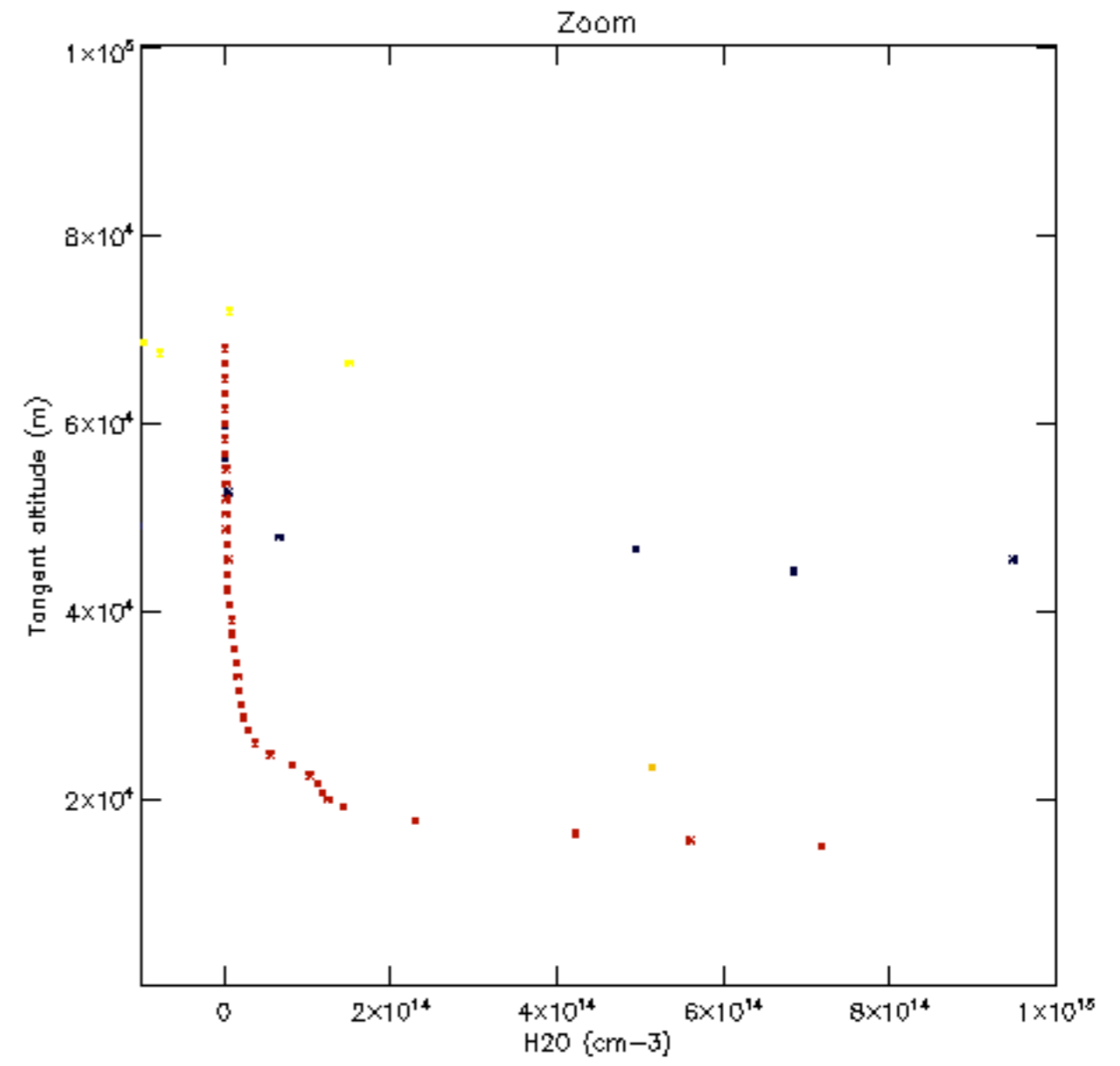
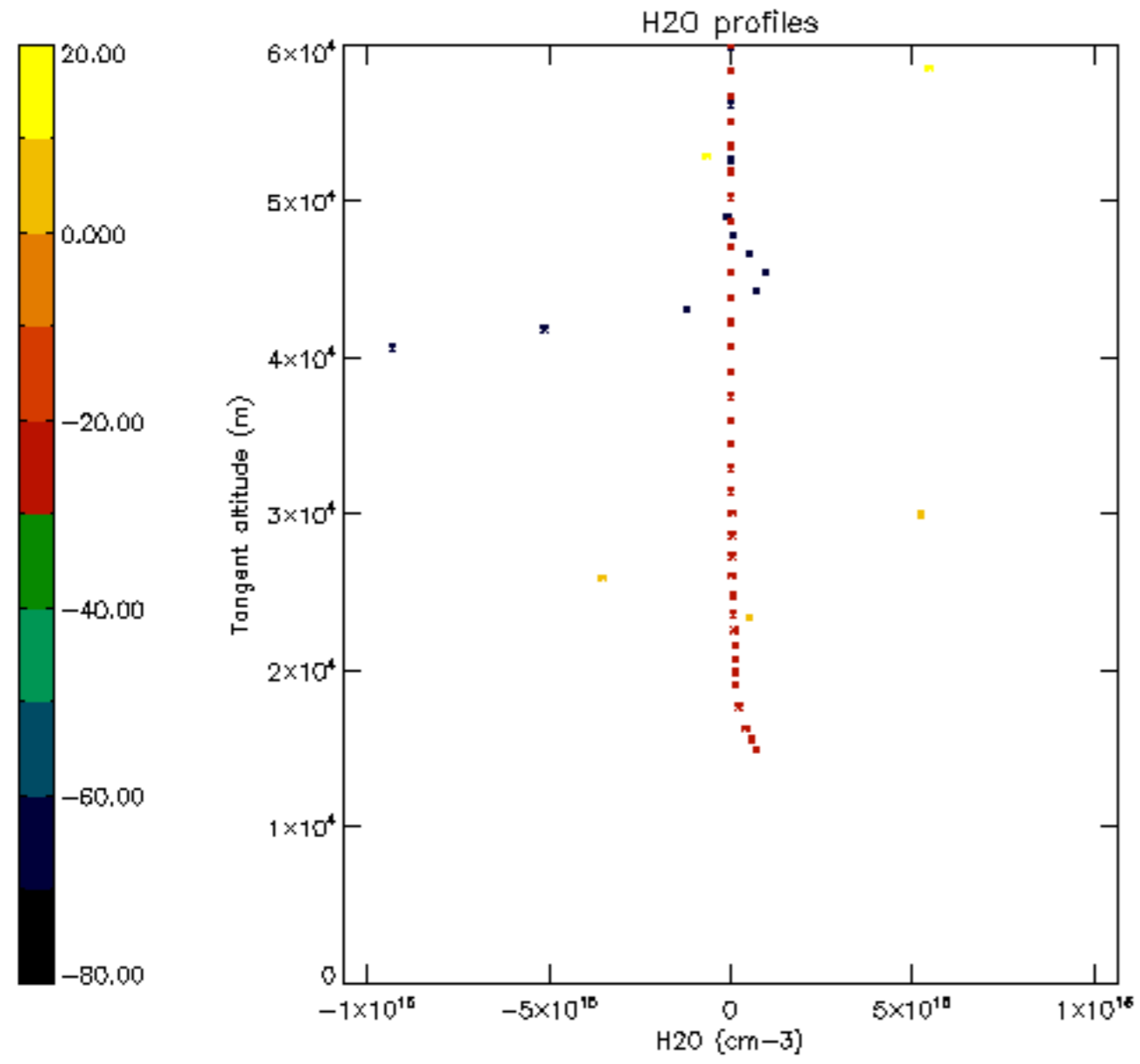


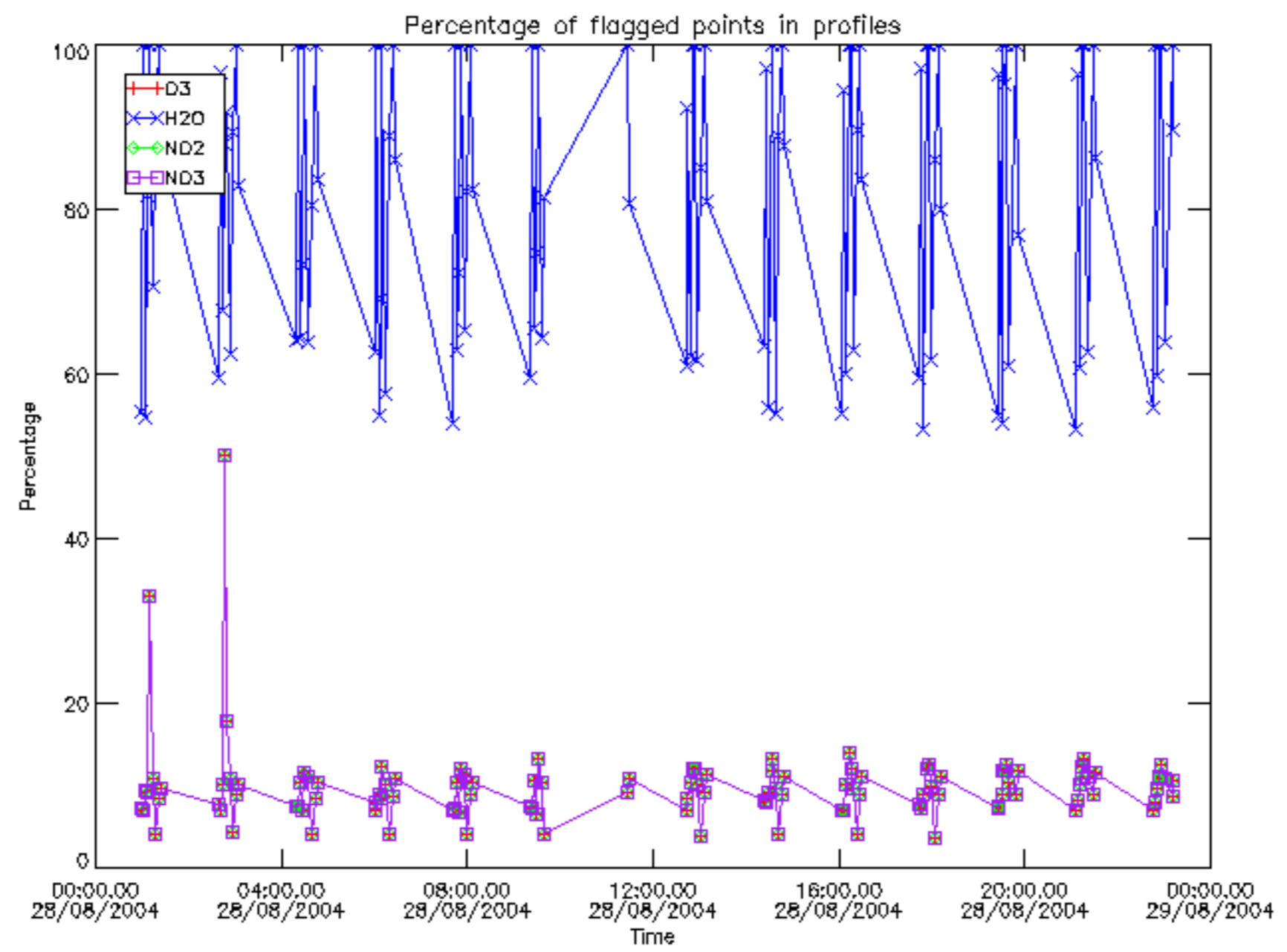




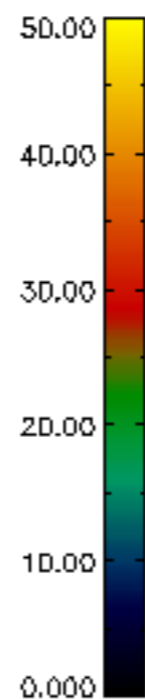
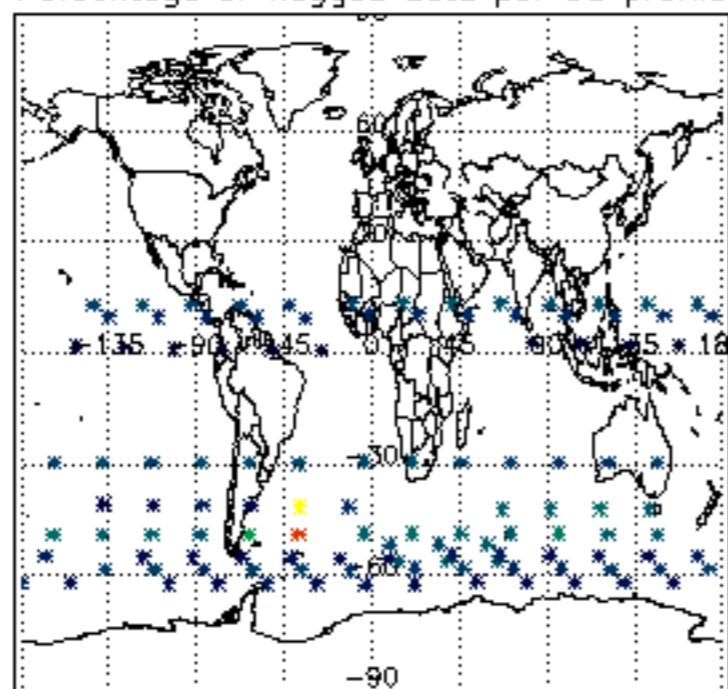




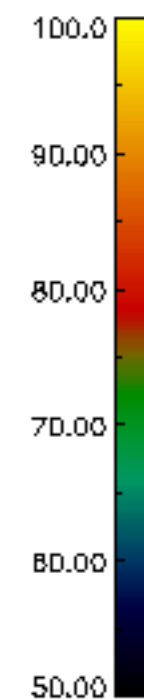
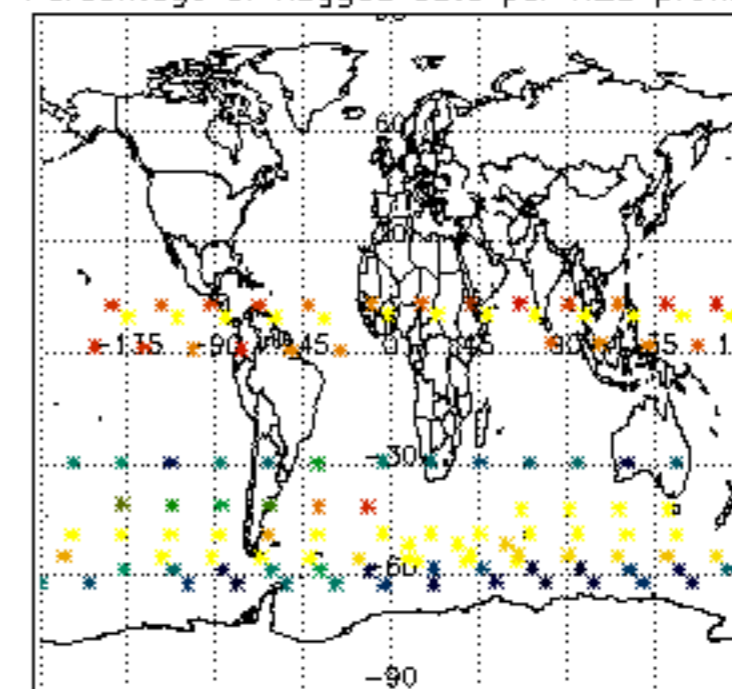




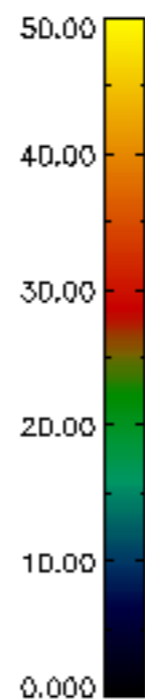
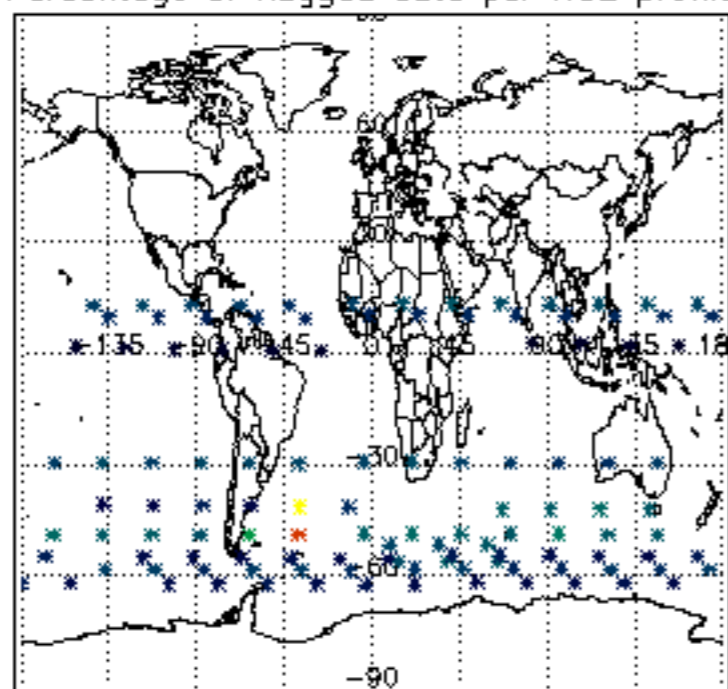
Percentage of flagged data per D3 profile



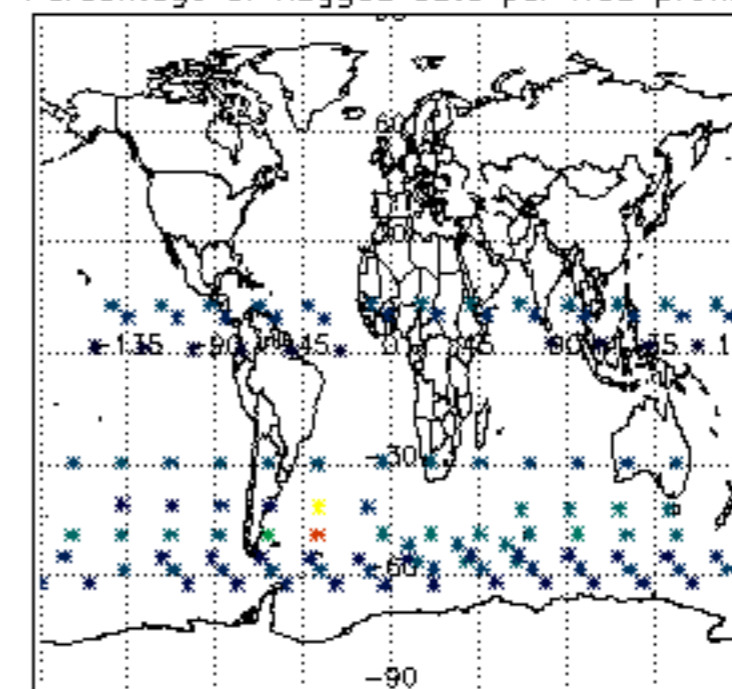
Percentage of flagged data per H2O profile

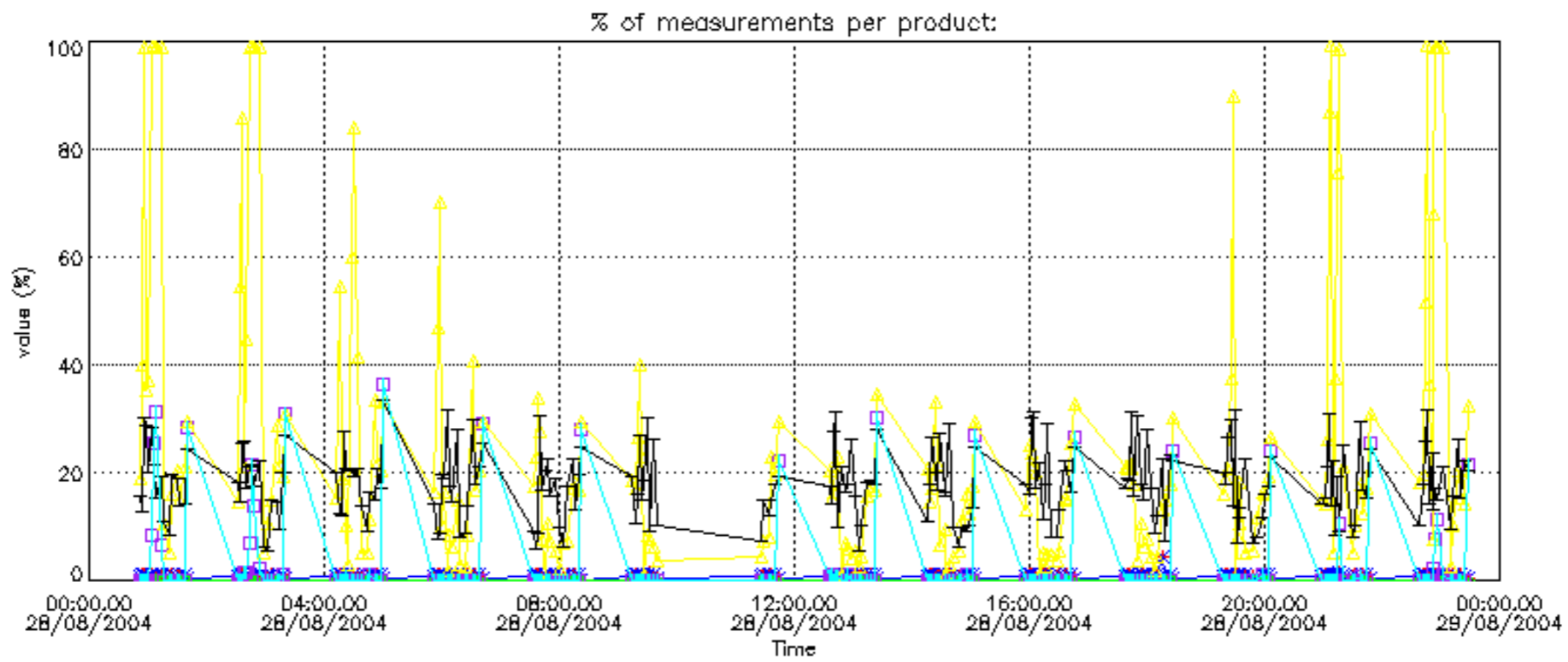


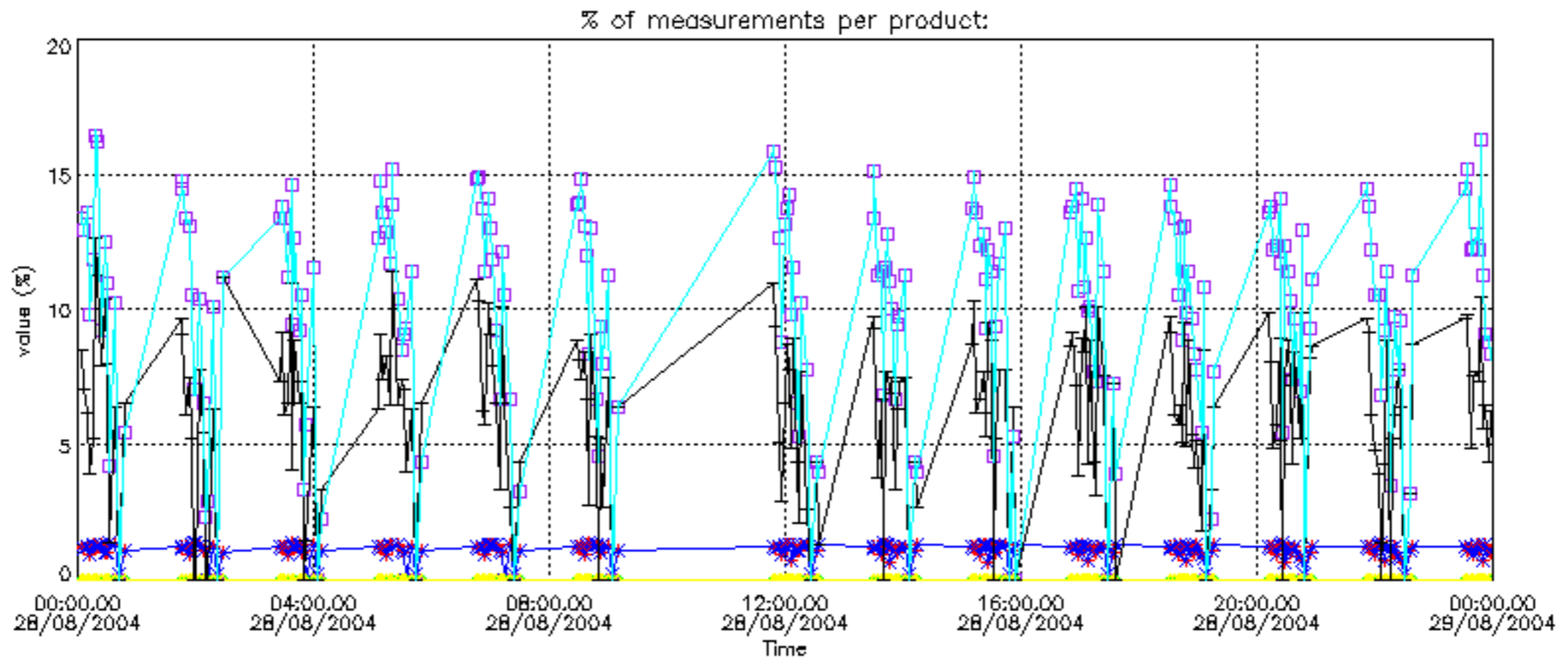
Percentage of flagged data per NO2 profile



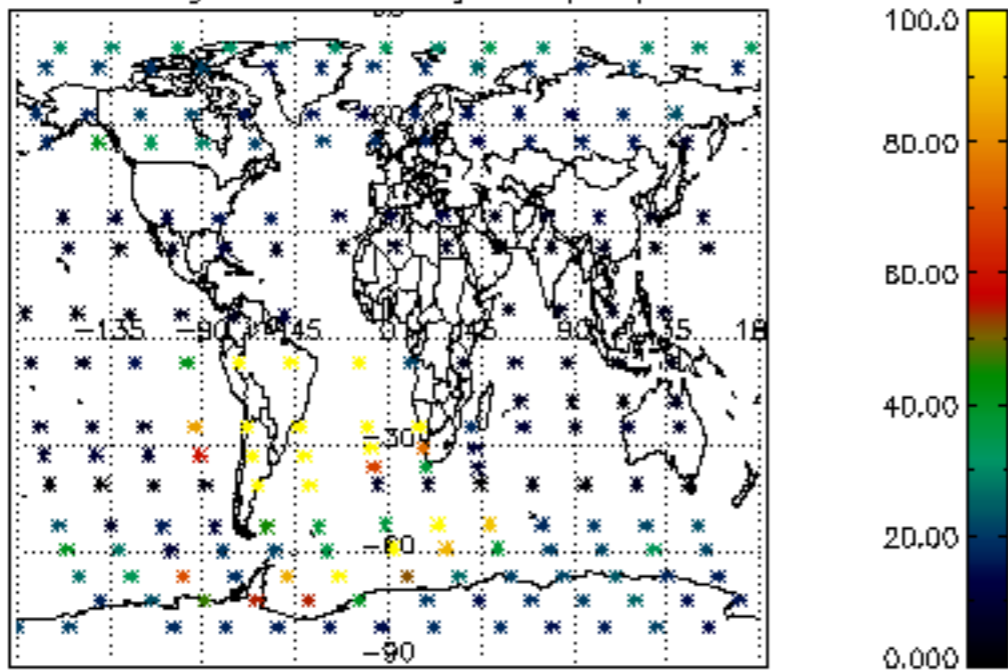
Percentage of flagged data per NO3 profile



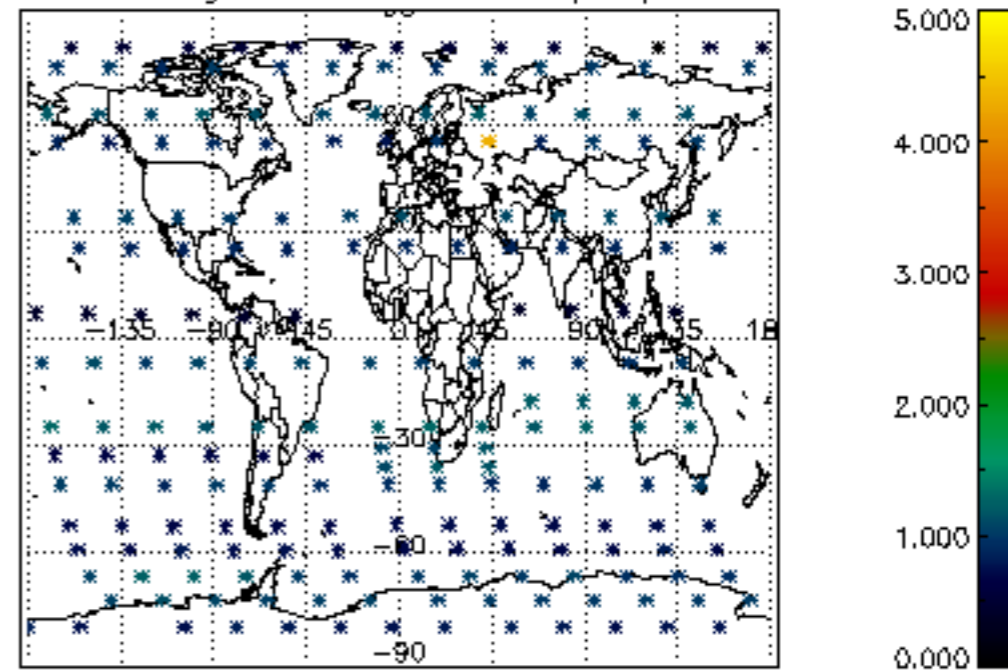




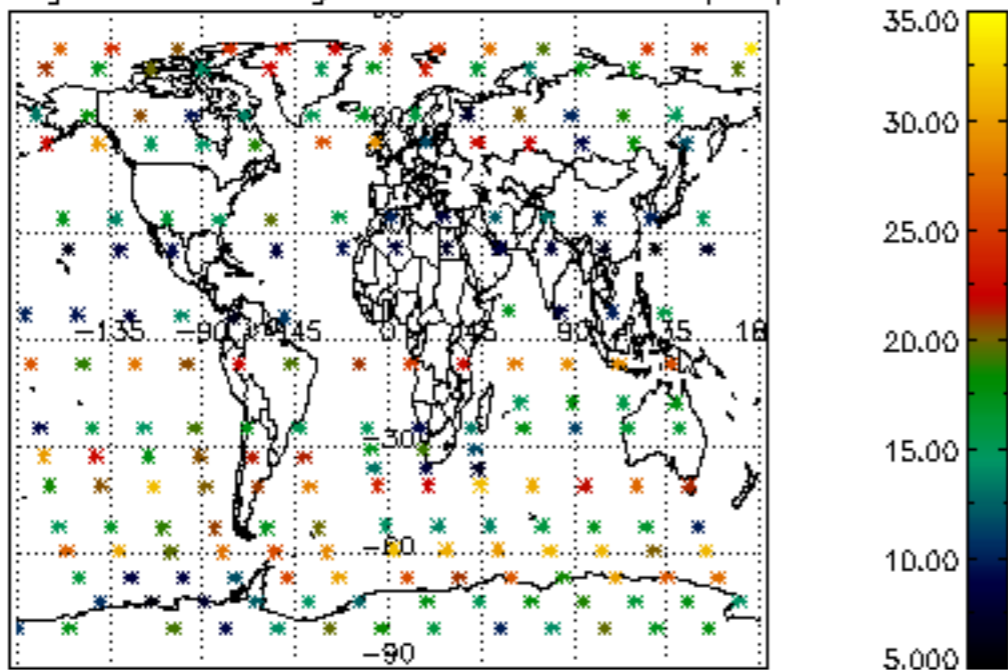
Percentage of cosmic ray hits per profile



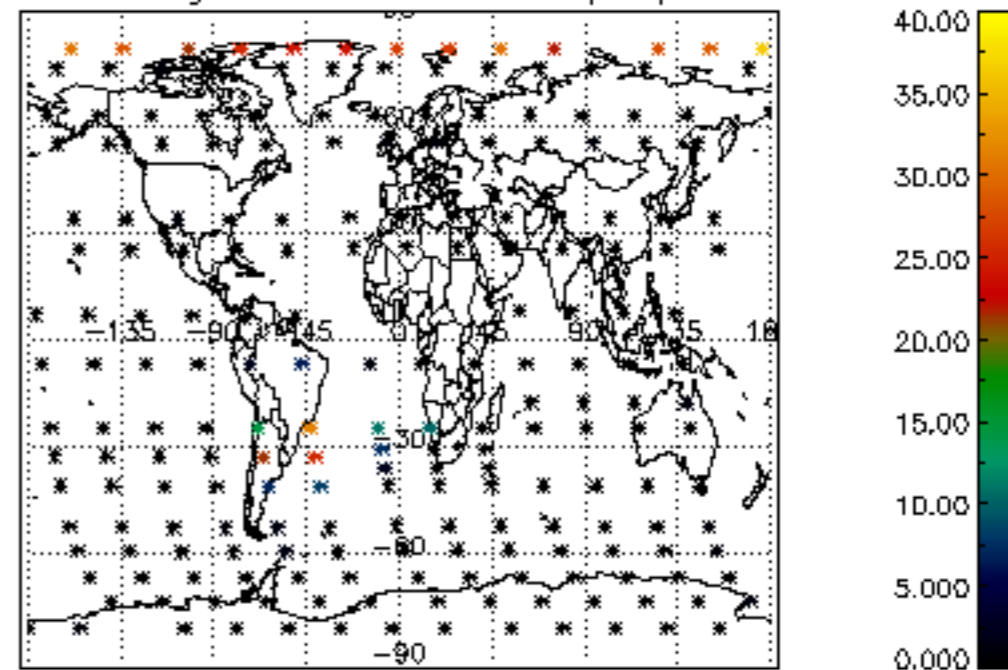
Percentage of datation errors per profile



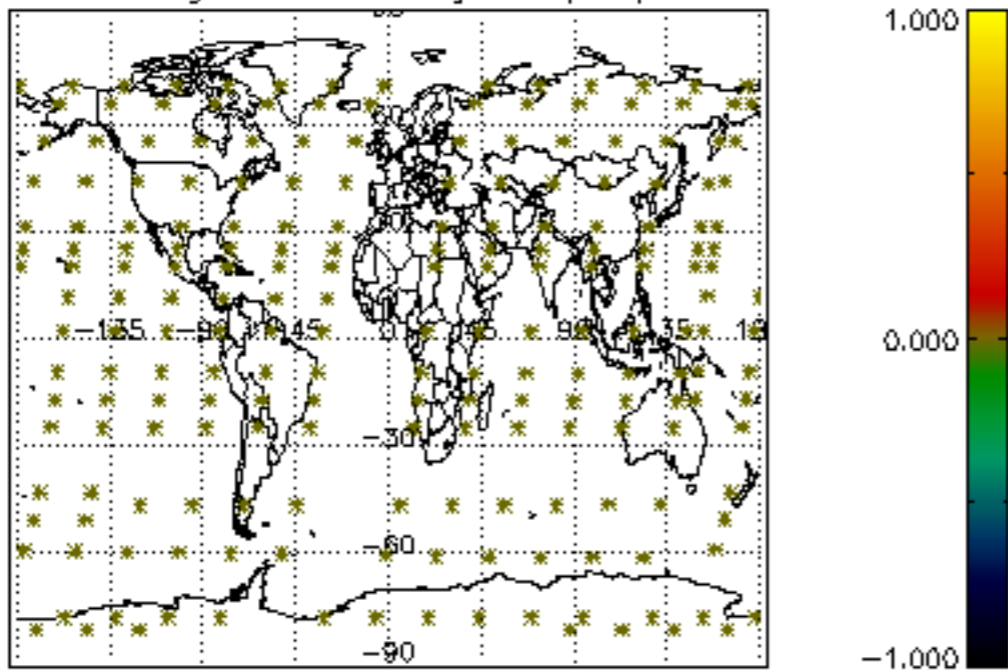
Percentage of star falling outside central band per profile



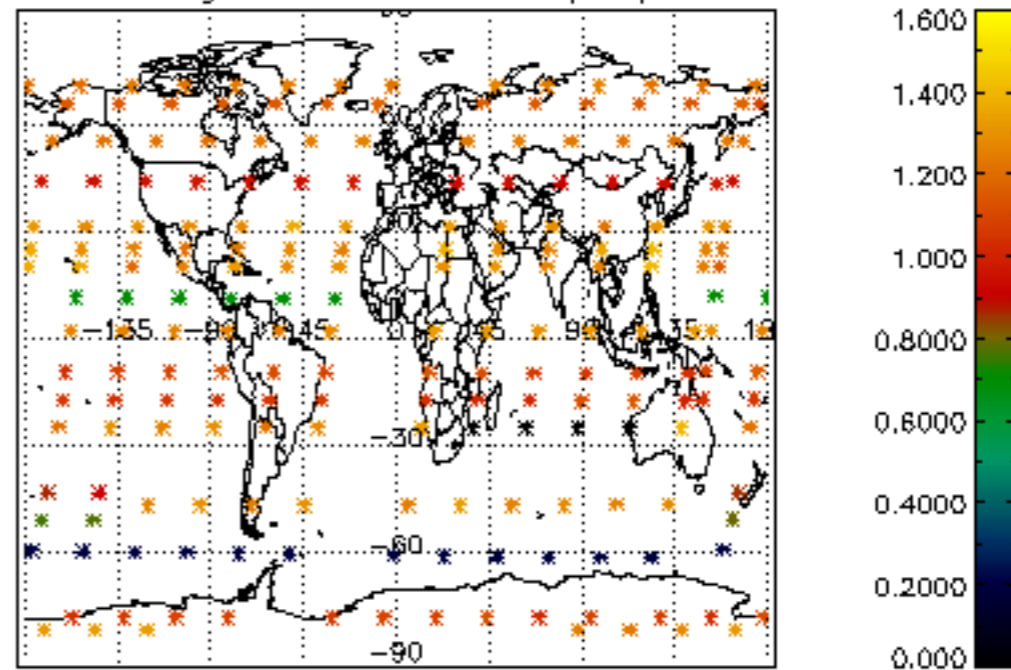
Percentage of saturation errors per profile



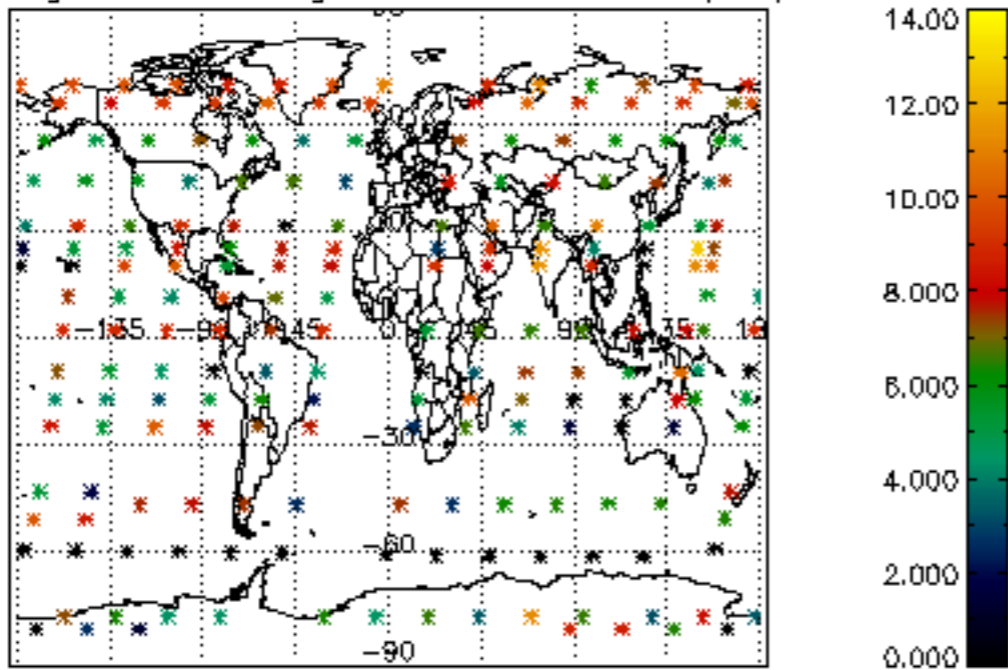
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

