

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 17:30:31
Data source version	GOMOS/6.01
Start time of products	29-07-2003 (29JUL2003 00:00:00)
Stop time of products	30-07-2003 (30JUL2003 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	365
Nb of prods with errors	1

2. Summary of processed GOM_NL__2P products.

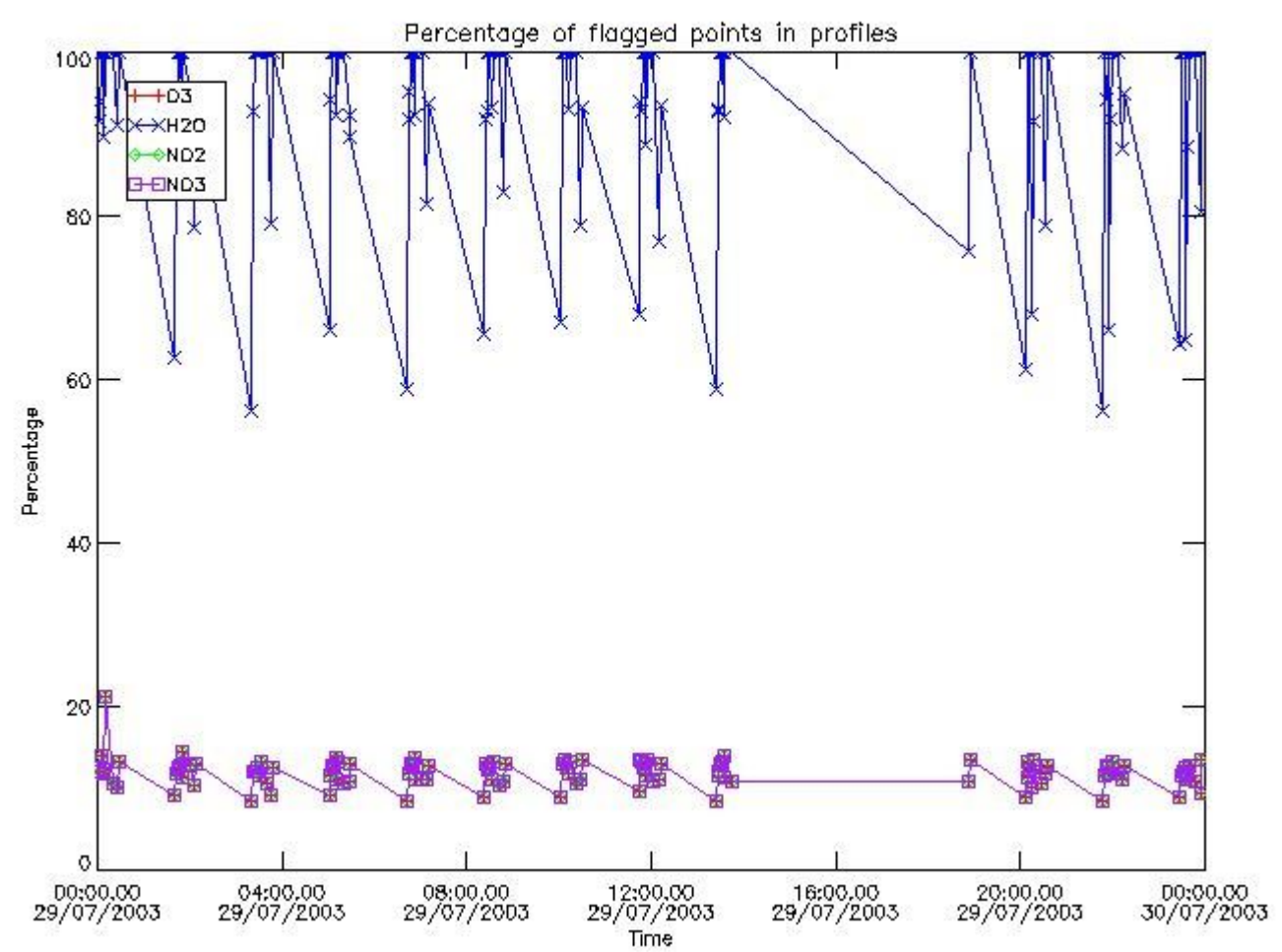
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20030729_000128_000000432018_00302_07370_7109.N1	29-JUL-2003 00:01:28	Dark	42.500	27	24Gam Ori	1.6360	26000.	85	7370	No
2	GOM_NL__2PRFIN20030729_000323_000000432018_00302_07370_7110.N1	29-JUL-2003 00:03:23	Dark	42.500	30	46Eps Ori	1.6940	30000.	85	7370	No
3	GOM_NL__2PRFIN20030729_000532_000000402018_00302_07370_7111.N1	29-JUL-2003 00:05:32	Dark	40.000	56	53Kap Ori	2.0650	30000.	80	7370	No
4	GOM_NL__2PRFIN20030729_000722_000000422018_00302_07370_7112.N1	29-JUL-2003 00:07:22	Dark	41.500	47	2Bet CMa	1.9760	28000.	83	7370	No
5	GOM_NL__2PRFIN20030729_000854_000000442018_00302_07370_7113.N1	29-JUL-2003 00:08:54	Dark	43.500	139	9Bet Lep	2.8330	5600.0	87	7370	No
6	GOM_NL__2PRFIN20030729_001044_000000392018_00302_07370_7114.N1	29-JUL-2003 00:10:44	Dark	38.500	177	1Zet CMa	3.0220	26000.	77	7370	No
7	GOM_NL__2PRFIN20030729_001919_000000482018_00302_07370_7115.N1	29-JUL-2003 00:19:19	Dark	48.000	157	The1Eri	2.9060	9300.0	96	7370	No
8	GOM_NL__2PRFIN20030729_002502_000000512018_00303_07371_7104.N1	29-JUL-2003 00:25:02	Dark	50.500	9	Alp Eri	0.45300	24000.	101	7371	No
9	GOM_NL__2PRFIN20030729_002722_000000392018_00303_07371_7105.N1	29-JUL-2003 00:27:22	Dark	38.500	135	Bet Hyi	2.8200	5800.0	77	7371	No
10	GOM_NL__2PRFIN20030729_002927_000000612018_00303_07371_7106.N1	29-JUL-2003 00:29:27	Straylight	61.000	84	Alp Phe	2.3970	4500.0	122	7371	No
11	GOM_NL__2PRFIN20030729_003205_000000432018_00303_07371_7107.N1	29-JUL-2003 00:32:05	Straylight	43.000	148	Alp Tuc	2.8780	4100.0	86	7371	No
12	GOM_NL__2PRFIN20030729_003522_000000482018_00303_07371_7108.N1	29-JUL-2003 00:35:22	Straylight	48.000	31	Alp Gru	1.7340	15200.	96	7371	No
13	GOM_NL__2PRFIN20030729_003844_000000792018_00303_07371_7109.N1	29-JUL-2003 00:38:44	Twilight	78.500	18	24Alp PsA	1.1660	9700.0	157	7371	No
14	GOM_NL__2PRFIN20030729_004303_000000442018_00303_07371_7110.N1	29-JUL-2003 00:43:03	Bright	43.500	38	20Eps Sgr	1.8360	11000.	87	7371	No
15	GOM_NL__2PRFIN20030729_004458_000000402018_00303_07371_7111.N1	29-JUL-2003 00:44:58	Bright	39.500	57	34Sig Sgr	2.0660	26000.	79	7371	No
16	GOM_NL__2PRFIN20030729_004634_000000592018_00303_07371_7112.N1	29-JUL-2003 00:46:34	Bright	58.500	142	49Del Cap	2.8500	8900.0	117	7371	No
17	GOM_NL__2PRFIN20030729_005105_000000602018_00303_07371_7113.N1	29-JUL-2003 00:51:05	Bright	59.500	154	22Bet Aqr	2.8990	5700.0	119	7371	No
18	GOM_NL__2PRFIN20030729_005453_000000422018_00303_07371_7114.N1	29-JUL-2003 00:54:53	Bright	42.000	11	53Alp Aql	0.76500	8000.0	84	7371	No
19	GOM_NL__2PRFIN20030729_010318_000000522018_00303_07371_7115.N1	29-JUL-2003 01:03:18	Bright	52.000	5	3Alp Lyr	0.033000	11000.	104	7371	No
20	GOM_NL__2PRFIN20030729_010501_000000442018_00303_07371_7116.N1	29-JUL-2003 01:05:01	Bright	43.500	66	37Gam Cyg	2.2080	5900.0	87	7371	No
21	GOM_NL__2PRFIN20030729_010700_000000362018_00303_07371_7117.N1	29-JUL-2003 01:07:00	Bright	35.500	69	33Gam Dra	2.2310	3800.0	71	7371	No
22	GOM_NL__2PRFIN20030729_011051_000000342018_00303_07371_7118.N1	29-JUL-2003 01:10:51	Bright	34.000	119	14Eta Dra	2.7270	4700.0	68	7371	No
23	GOM_NL__2PRFIN20030729_011223_000000432018_00303_07371_7119.N1	29-JUL-2003 01:12:23	Bright	42.500	89	5Alp Cep	2.4510	8000.0	85	7371	No
24	GOM_NL__2PRFIN20030729_011503_000000362018_00303_07371_7120.N1	29-JUL-2003 01:15:03	Bright	35.500	60	7Bet UMi	2.0810	3950.0	71	7371	No
25	GOM_NL__2PRFIN20030729_011752_000000352018_00303_07371_7121.N1	29-JUL-2003 01:17:52	Bright	34.500	49	1Alp UMi	1.9900	6300.0	69	7371	No
26	GOM_NL__2PRFIN20030729_012100_000000512018_00303_07371_7122.N1	29-JUL-2003 01:21:00	Bright	51.000	76	27Gam Cas	2.3000	30000.	102	7371	No
27	GOM_NL__2PRFIN20030729_012705_000000482018_00303_07371_7123.N1	29-JUL-2003 01:27:05	Bright	48.000	160	23Gam Per	2.9300	4700.0	96	7371	No
28	GOM_NL__2PRFIN20030729_013011_000000812018_00303_07371_7124.N1	29-JUL-2003 01:30:11	Bright	81.000	73	57Gam1And	2.2600	13100.	162	7371	No
29	GOM_NL__2PRFIN20030729_013228_000000452018_00303_07371_7125.N1	29-JUL-2003 01:32:28	Bright	45.000	149	45Eps Per	2.8880	30000.	90	7371	No
30	GOM_NL__2PRFIN20030729_013524_000000532018_00303_07371_7126.N1	29-JUL-2003 01:35:24	Twilight	52.500	150	44Zet Per	2.8900	28000.	105	7371	No
31	GOM_NL__2PRFIN20030729_013738_000000422018_00303_07371_7127.N1	29-JUL-2003 01:37:38	Twilight	42.000	176	23Zet Tau	3.0200	22000.	84	7371	No
32	GOM_NL__2PRFIN20030729_014001_000000612018_00303_07371_7128.N1	29-JUL-2003 01:40:01	Dark	60.500	13	87Alp Tau	0.86700	3800.0	121	7371	No
33	GOM_NL__2PRFIN20030729_014204_000000442018_00303_07371_7129.N1	29-JUL-2003 01:42:04	Dark	43.500	27	24Gam Ori	1.6360	26000.	87	7371	No
34	GOM_NL__2PRFIN20030729_014358_000000422018_00303_07371_7130.N1	29-JUL-2003 01:43:58	Dark	41.500	30	46Eps Ori	1.6940	30000.	83	7371	No
35	GOM_NL__2PRFIN20030729_014607_000000412018_00303_07371_7131.N1	29-JUL-2003 01:46:07	Dark	41.000	56	53Kap Ori	2.0650	30000.	82	7371	No
36	GOM_NL__2PRFIN20030729_014758_000000402018_00303_07371_7132.N1	29-JUL-2003 01:47:58	Dark	40.000	47	2Bet CMa	1.9760	28000.	80	7371	No
37	GOM_NL__2PRFIN20030729_014929_000000452018_00303_07371_7133.N1	29-JUL-2003 01:49:29	Dark	45.000	139	9Bet Lep	2.8330	5600.0	90	7371	No
38	GOM_NL__2PRFIN20030729_015120_000000392018_00303_07371_7134.N1	29-JUL-2003 01:51:20	Dark	39.000	177	1Zet CMa	3.0220	26000.	78	7371	No
39	GOM_NL__2PRFIN20030729_015955_000000482018_00303_07371_7135.N1	29-JUL-2003 01:59:55	Dark	47.500	157	The1Eri	2.9060	9300.0	95	7371	No
40	GOM_NL__2PRFIN20030729_020536_000000502018_00304_07372_7114.N1	29-JUL-2003 02:05:36	Dark	49.500	9	Alp Eri	0.45300	24000.	99	7372	No
41	GOM_NL__2PRFIN20030729_020759_000000392018_00304_07372_7115.N1	29-JUL-2003 02:07:59	Dark	39.000	135	Bet Hyi	2.8200	5800.0	78	7372	No
42	GOM_NL__2PRFIN20030729_021003_000000732018_00304_07372_7116.N1	29-JUL-2003 02:10:03	Straylight	73.000	84	Alp Phe	2.3970	4500.0	146	7372	No

338	GOM_NL__2PRFIN20030729_223423_000000572018_00316_07384_7120.N1	29-JUL-2003 22:34:23	Bright	57.000	142	49Del Cap	2.8500	8900.0	114	7384	No
339	GOM_NL__2PRFIN20030729_223848_000000592018_00316_07384_7121.N1	29-JUL-2003 22:38:48	Bright	59.000	154	22Bet Aqr	2.8990	5700.0	118	7384	No
340	GOM_NL__2PRFIN20030729_224240_000000402018_00316_07384_7122.N1	29-JUL-2003 22:42:40	Bright	40.000	11	53Alp Aql	0.76500	8000.0	80	7384	No
341	GOM_NL__2PRFIN20030729_224401_000000362018_00316_07384_7123.N1	29-JUL-2003 22:44:01	Bright	36.000	168	17Zet Aql	2.9860	11000.	72	7384	No
342	GOM_NL__2PRFIN20030729_224605_000000682018_00316_07384_7124.N1	29-JUL-2003 22:46:05	Bright	67.500	61	8Eps Peg	2.1000	3900.0	135	7384	No
343	GOM_NL__2PRFIN20030729_225106_000000352018_00316_07384_7125.N1	29-JUL-2003 22:51:06	Bright	34.500	5	3Alp Lyr	0.033000	11000.	69	7384	No
344	GOM_NL__2PRFIN20030729_225243_000000432018_00316_07384_7126.N1	29-JUL-2003 22:52:43	Bright	43.000	66	37Gam Cyg	2.2080	5900.0	86	7384	No
345	GOM_NL__2PRFIN20030729_225449_000000392018_00316_07384_7127.N1	29-JUL-2003 22:54:49	Bright	39.000	69	33Gam Dra	2.2310	3800.0	78	7384	No
346	GOM_NL__2PRFIN20030729_225843_000000352018_00316_07384_7128.N1	29-JUL-2003 22:58:43	Bright	34.500	119	14Eta Dra	2.7270	4700.0	69	7384	No
347	GOM_NL__2PRFIN20030729_230254_000000352018_00316_07384_7129.N1	29-JUL-2003 23:02:54	Bright	35.000	60	7Bet UMi	2.0810	3950.0	70	7384	No
348	GOM_NL__2PRFIN20030729_230539_000000362018_00316_07384_7130.N1	29-JUL-2003 23:05:39	Bright	35.500	49	1Alp UMi	1.9900	6300.0	71	7384	No
349	GOM_NL__2PRFIN20030729_230839_000000492018_00316_07384_7131.N1	29-JUL-2003 23:08:39	Bright	48.500	76	27Gam Cas	2.3000	30000.	97	7384	No
350	GOM_NL__2PRFIN20030729_231449_000000492018_00316_07384_7132.N1	29-JUL-2003 23:14:49	Bright	49.000	160	23Gam Per	2.9300	4700.0	98	7384	No
351	GOM_NL__2PRFIN20030729_231752_000000812018_00316_07384_7133.N1	29-JUL-2003 23:17:52	Bright	80.500	73	57Gam1And	2.2600	13100.	161	7384	No
352	GOM_NL__2PRFIN20030729_232014_000000452018_00316_07384_7134.N1	29-JUL-2003 23:20:14	Bright	44.500	149	45Eps Per	2.8880	30000.	89	7384	No
353	GOM_NL__2PRFIN20030729_232314_000000552018_00316_07384_7135.N1	29-JUL-2003 23:23:14	Tw_i_and_stray	54.500	150	44Zet Per	2.8900	28000.	109	7384	No
354	GOM_NL__2PRFIN20030729_232529_000000422018_00316_07384_7136.N1	29-JUL-2003 23:25:29	Tw_i_and_stray	41.500	176	23Zet Tau	3.0200	22000.	83	7384	No
355	GOM_NL__2PRFIN20030729_232754_000000572018_00316_07384_7137.N1	29-JUL-2003 23:27:54	Dark	56.500	13	87Alp Tau	0.86700	3800.0	113	7384	No
356	GOM_NL__2PRFIN20030729_232955_000000442018_00316_07384_7138.N1	29-JUL-2003 23:29:55	Dark	44.000	27	24Gam Ori	1.6360	26000.	88	7384	No
357	GOM_NL__2PRFIN20030729_233150_000000432018_00316_07384_7139.N1	29-JUL-2003 23:31:50	Dark	42.500	30	46Eps Ori	1.6940	30000.	85	7384	No
358	GOM_NL__2PRFIN20030729_233359_000000412018_00316_07384_7140.N1	29-JUL-2003 23:33:59	Dark	41.000	56	53Kap Ori	2.0650	30000.	82	7384	No
359	GOM_NL__2PRFIN20030729_233517_000000462018_00316_07384_7141.N1	29-JUL-2003 23:35:17	Dark	46.000	1	9Alp CMa	-1.4400	11000.	92	7384	No
360	GOM_NL__2PRFIN20030729_233722_000000442018_00316_07384_7142.N1	29-JUL-2003 23:37:22	Dark	43.500	139	9Bet Lep	2.8330	5600.0	87	7384	No
361	GOM_NL__2PRFIN20030729_233909_000000402018_00316_07384_7143.N1	29-JUL-2003 23:39:09	Dark	40.000	177	1Zet CMa	3.0220	26000.	80	7384	No
362	GOM_NL__2PRFIN20030729_234756_000000472018_00316_07384_7144.N1	29-JUL-2003 23:47:56	Dark	47.000	157	The1Eri	2.9060	9300.0	94	7384	No
363	GOM_NL__2PRFIN20030729_235336_000000542018_00317_07385_7112.N1	29-JUL-2003 23:53:36	Dark	54.000	9	Alp Eri	0.45300	24000.	108	7385	No
364	GOM_NL__2PRFIN20030729_235550_000000382018_00317_07385_7113.N1	29-JUL-2003 23:55:50	Dark	37.500	135	Bet Hyi	2.8200	5800.0	75	7385	No
365	GOM_NL__2PRFIN20030729_235807_000000562018_00317_07385_7114.N1	29-JUL-2003 23:58:07	Straylight	55.500	84	Alp Phe	2.3970	4500.0	111	7385	No

3. Quality information per product

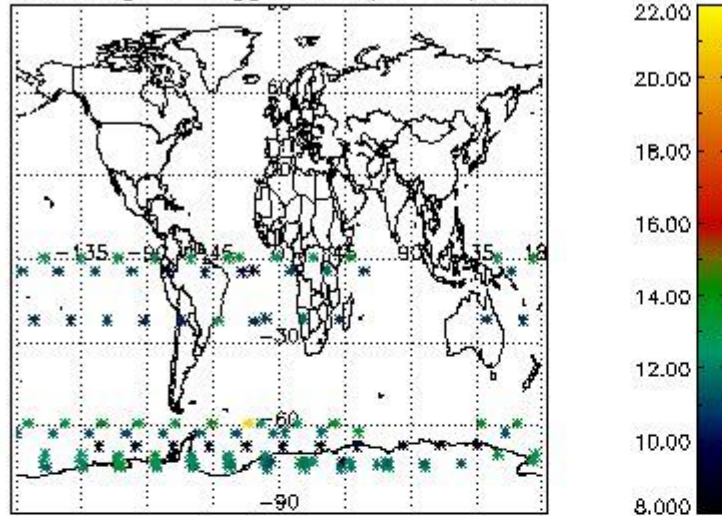
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

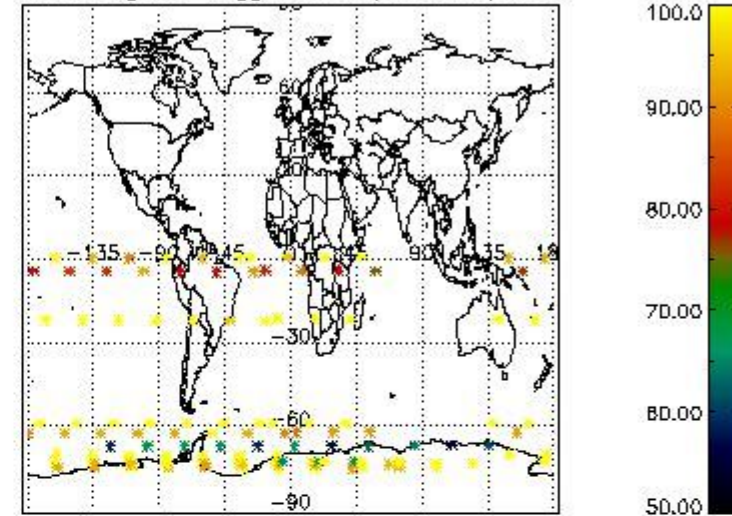


3.2 Plot quality information per product (world map)

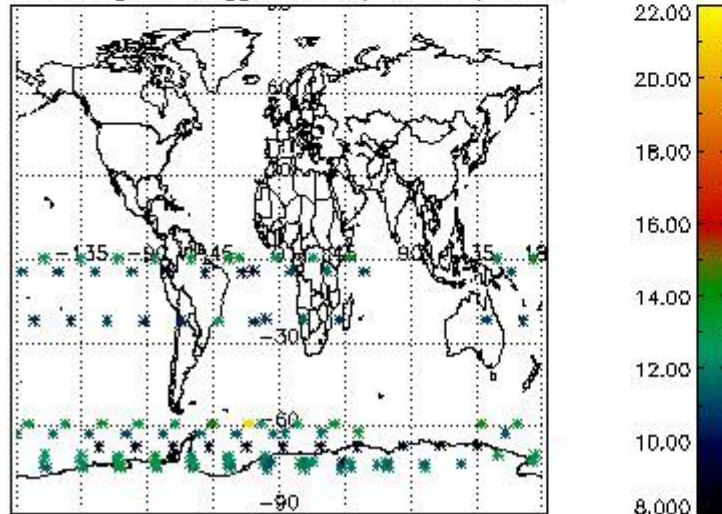
Percentage of flagged data per O3 profile



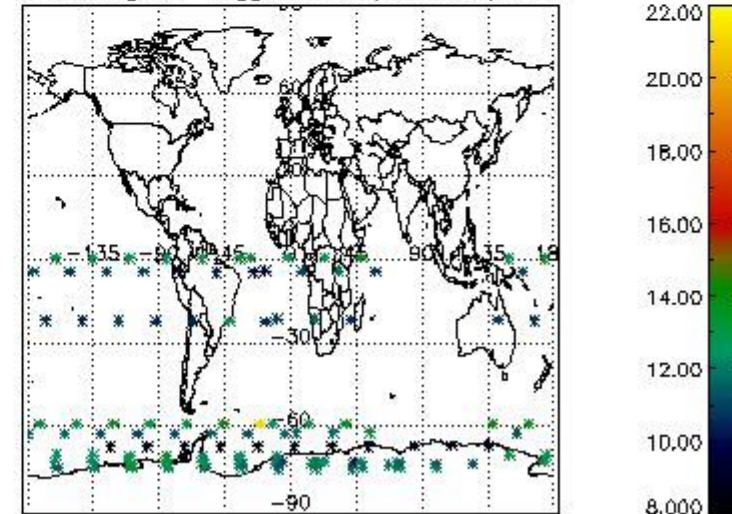
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

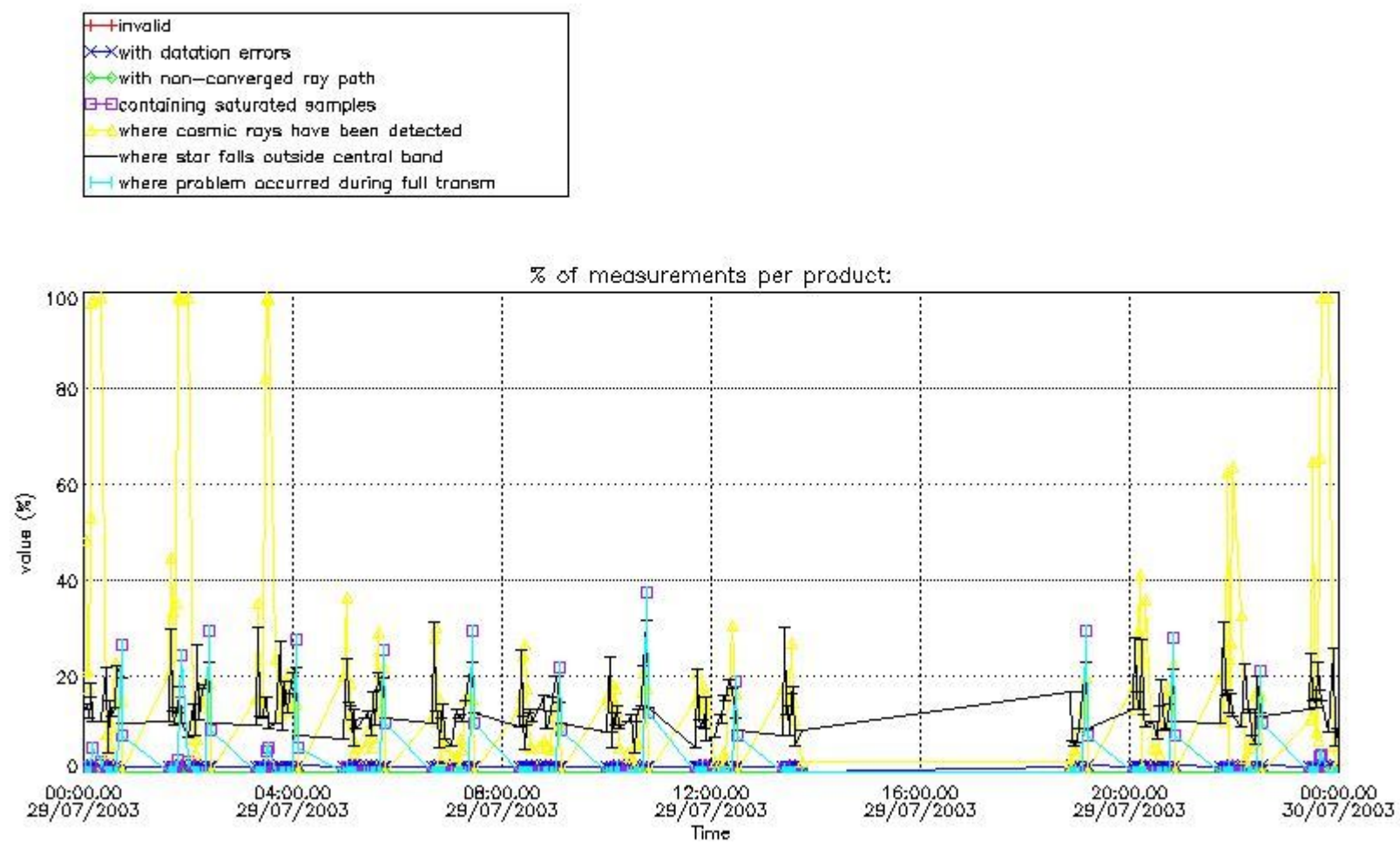


4. Level 1 quality information per product

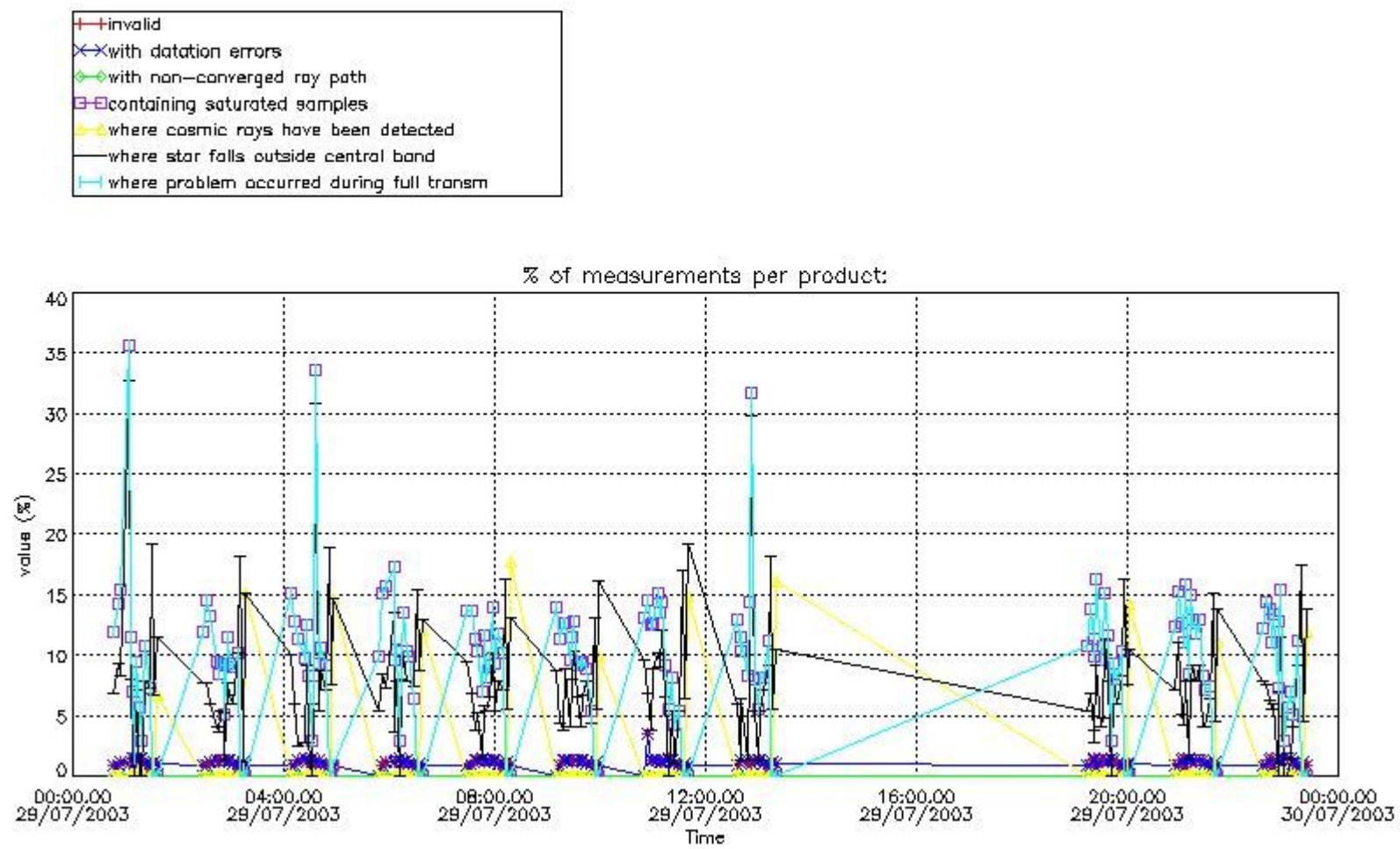
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



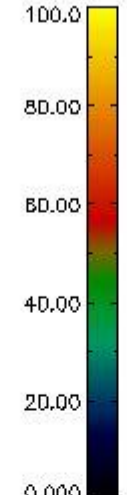
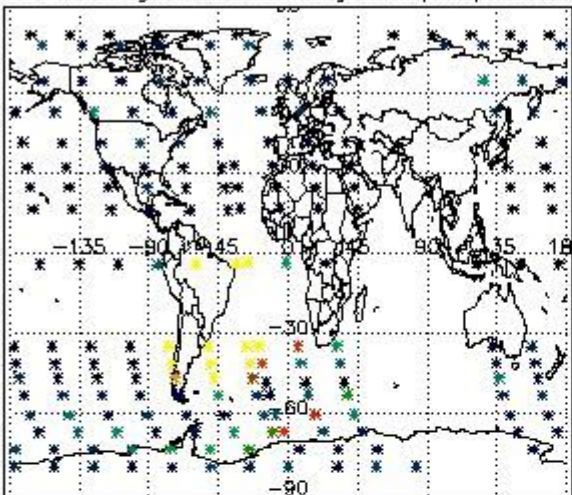
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



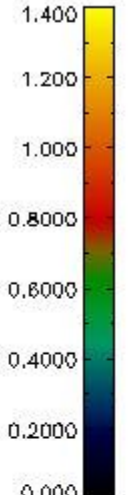
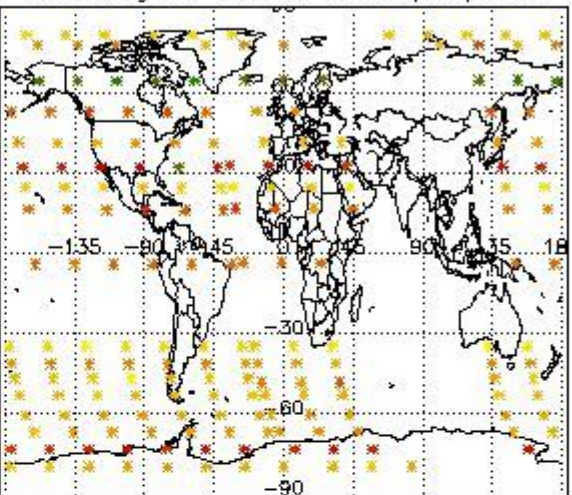
4.2 Plot quality information per product coming from level 1b processing (world map)

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

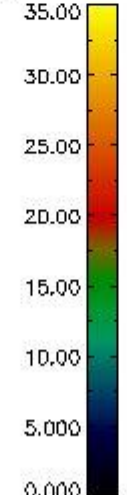
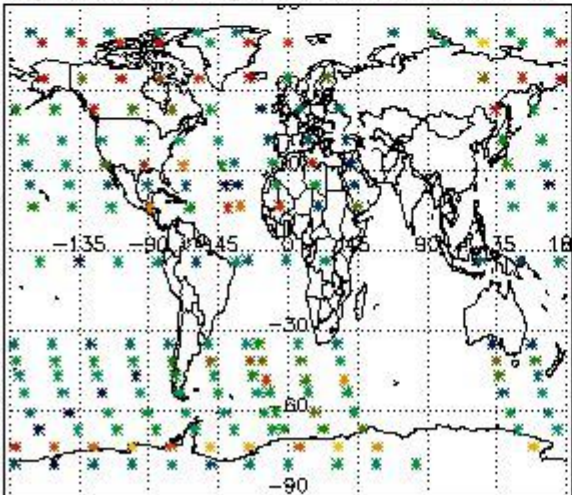
Percentage of cosmic ray hits per profile



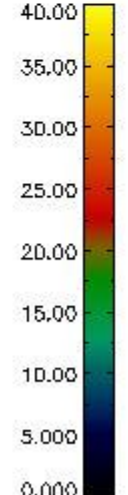
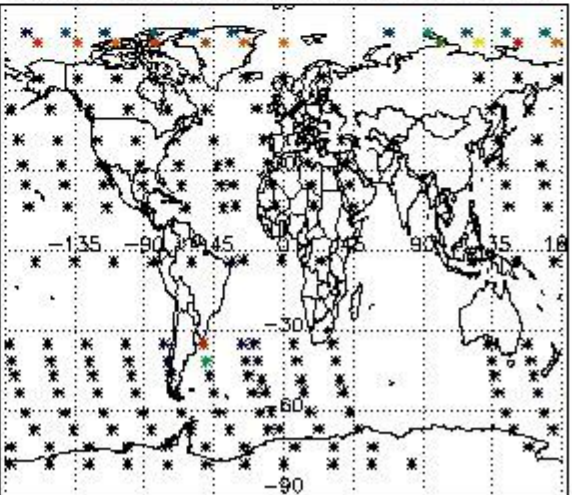
Percentage of datation errors per profile



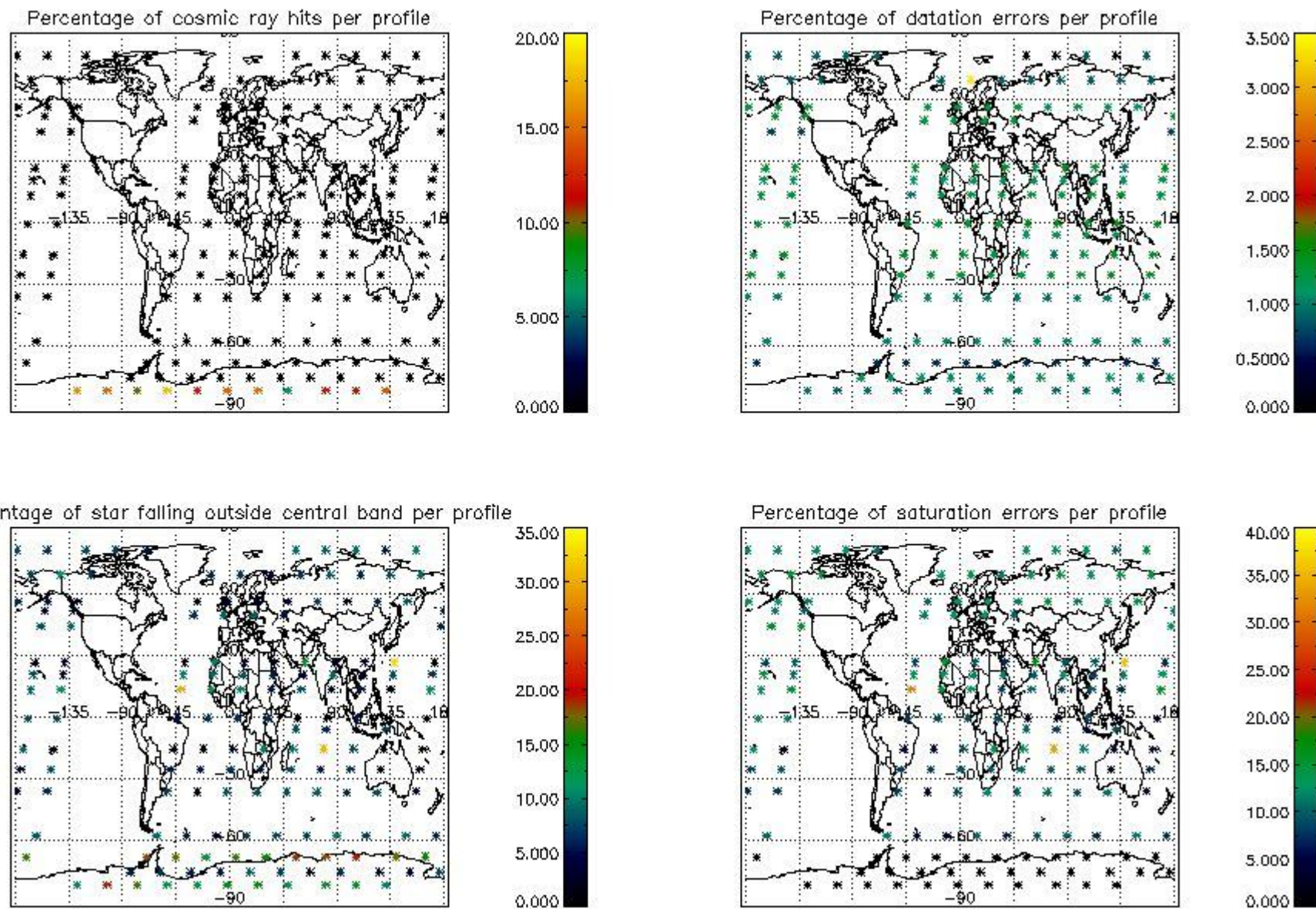
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

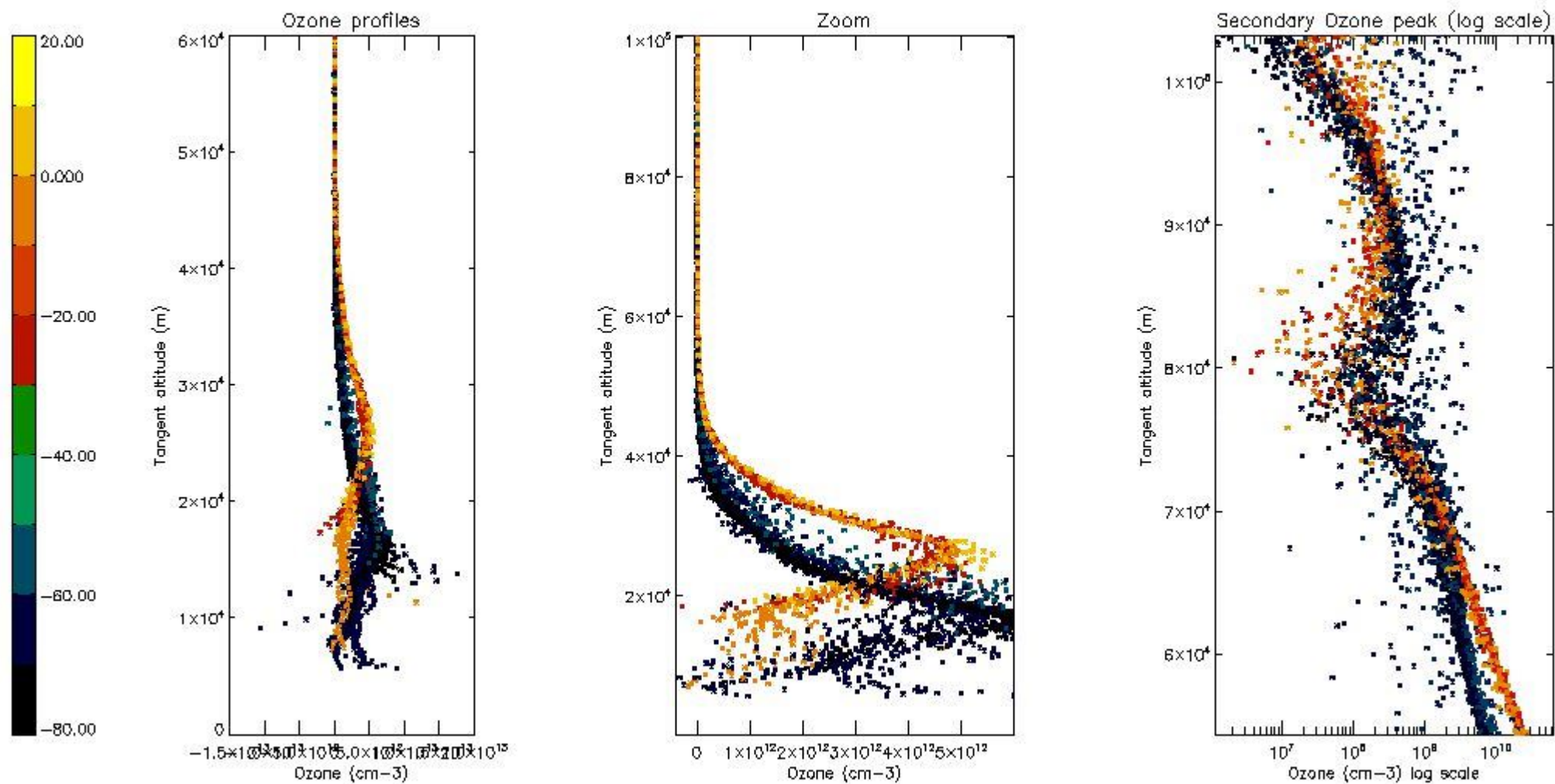
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	31
STD < 20	19

STD < 10	16
STD < 5	11

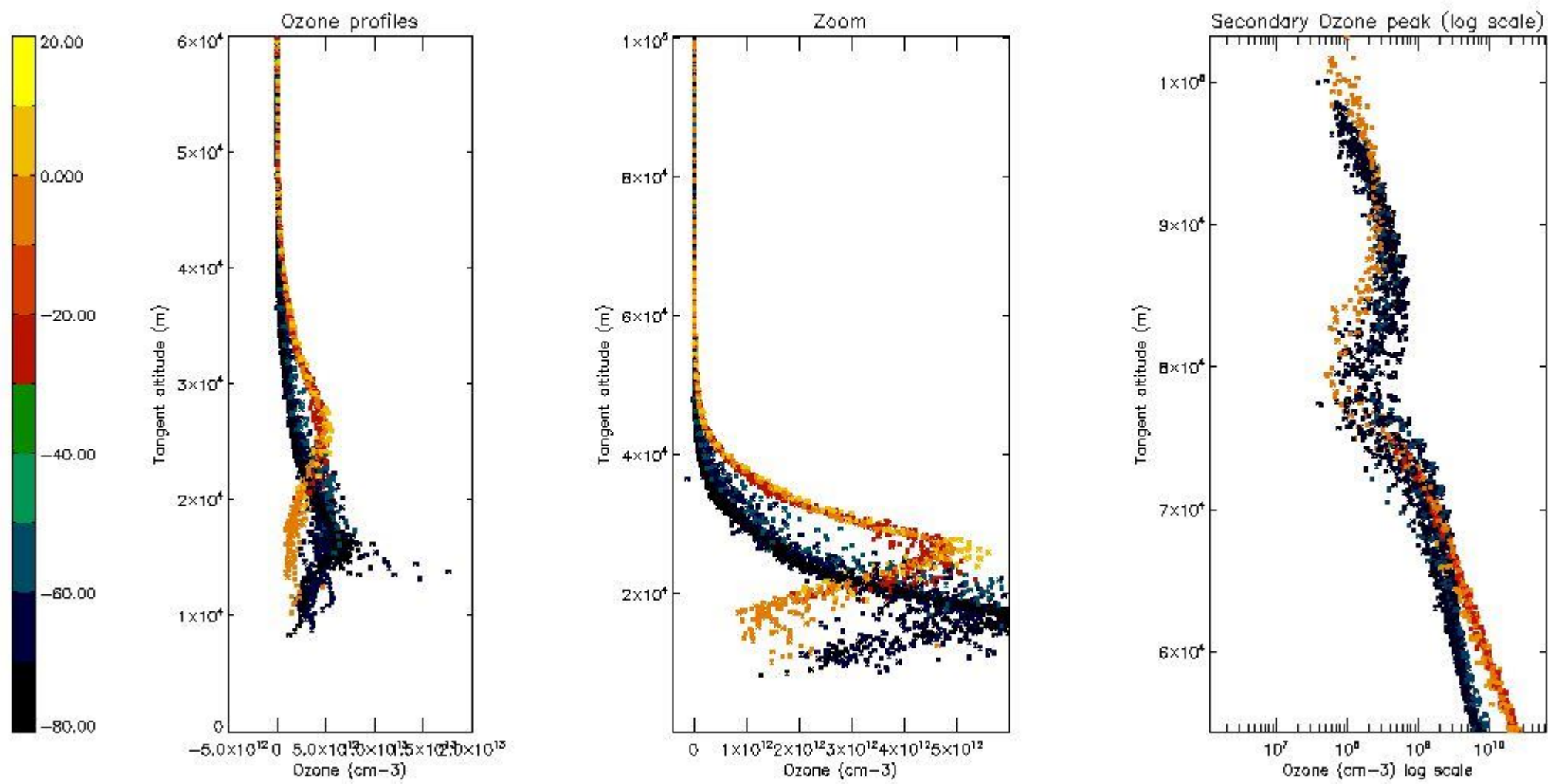
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



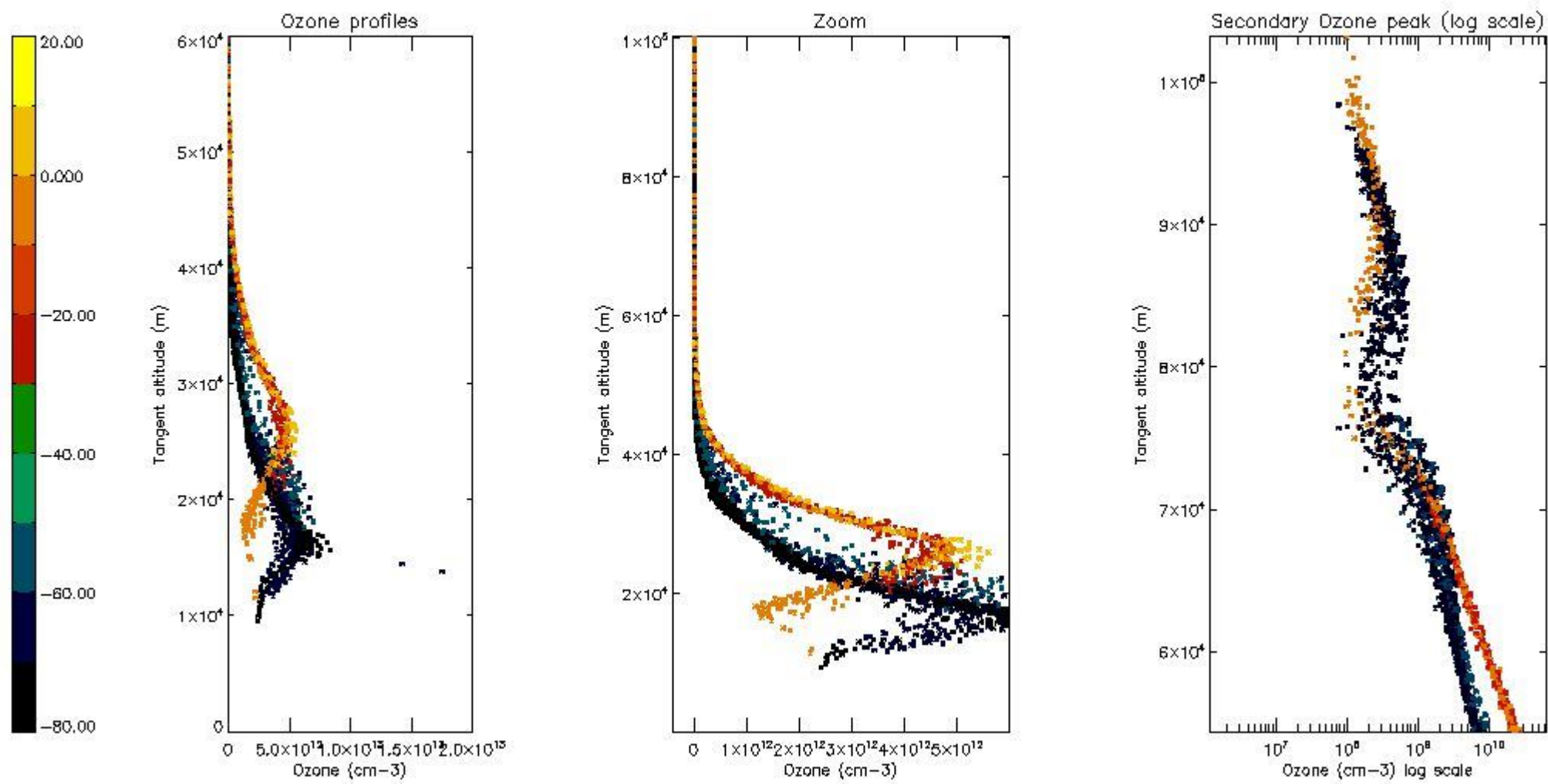
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



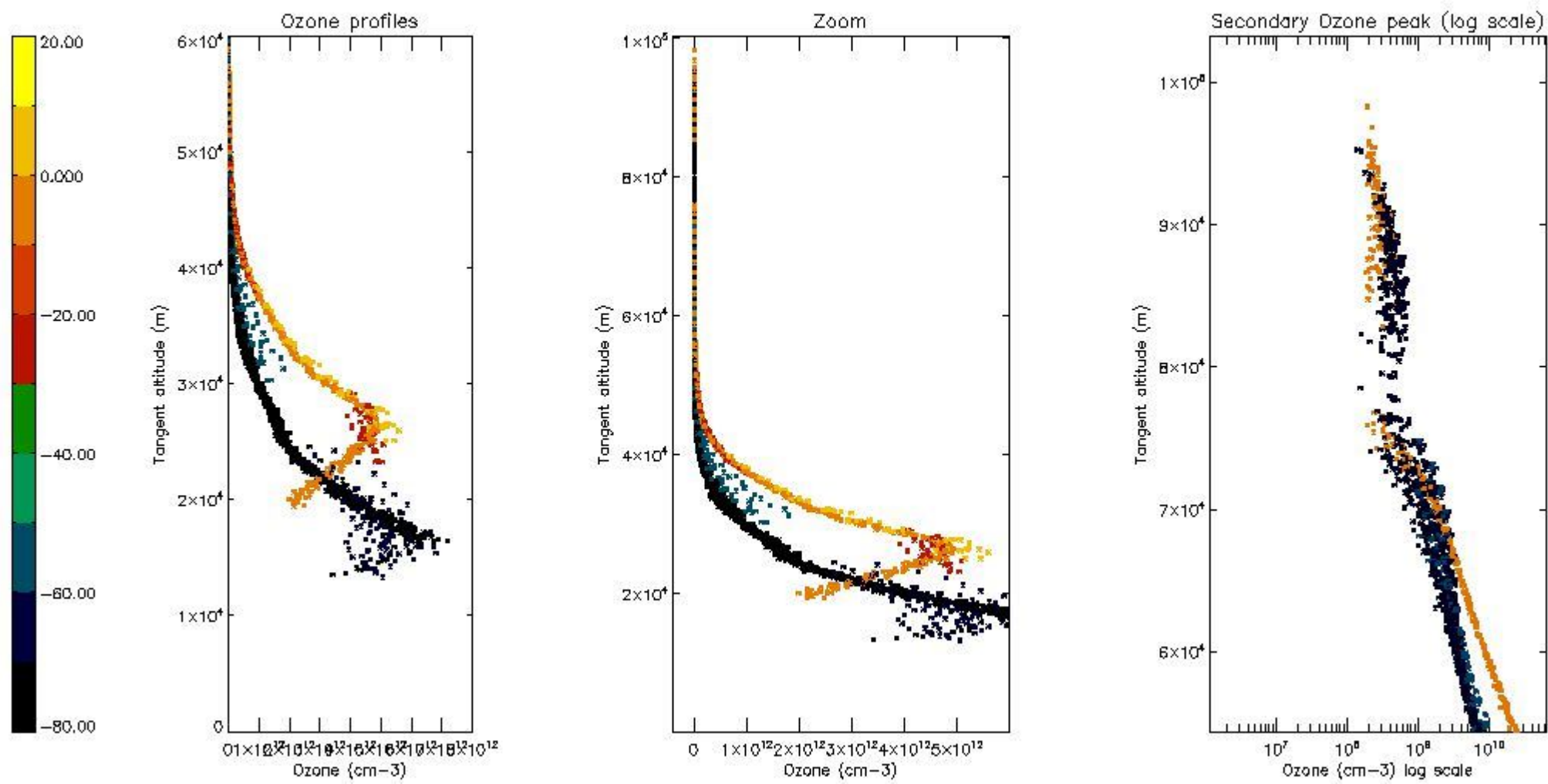
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



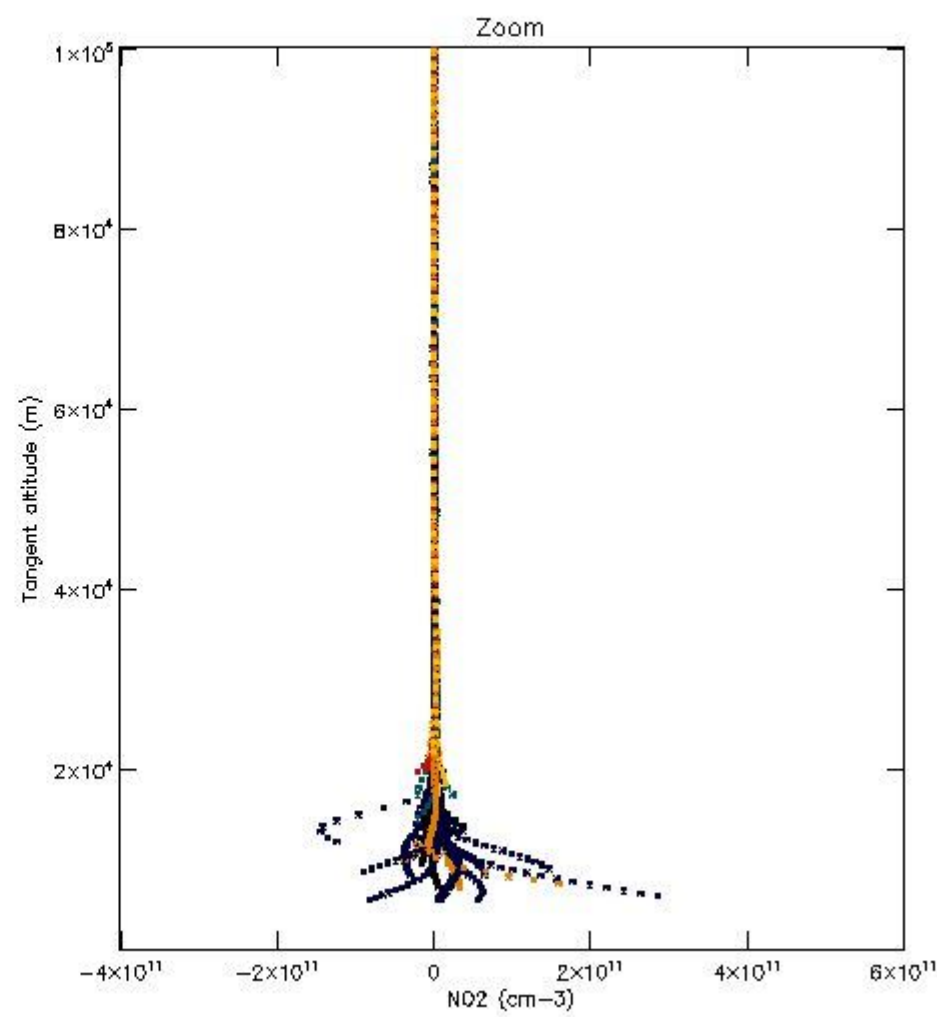
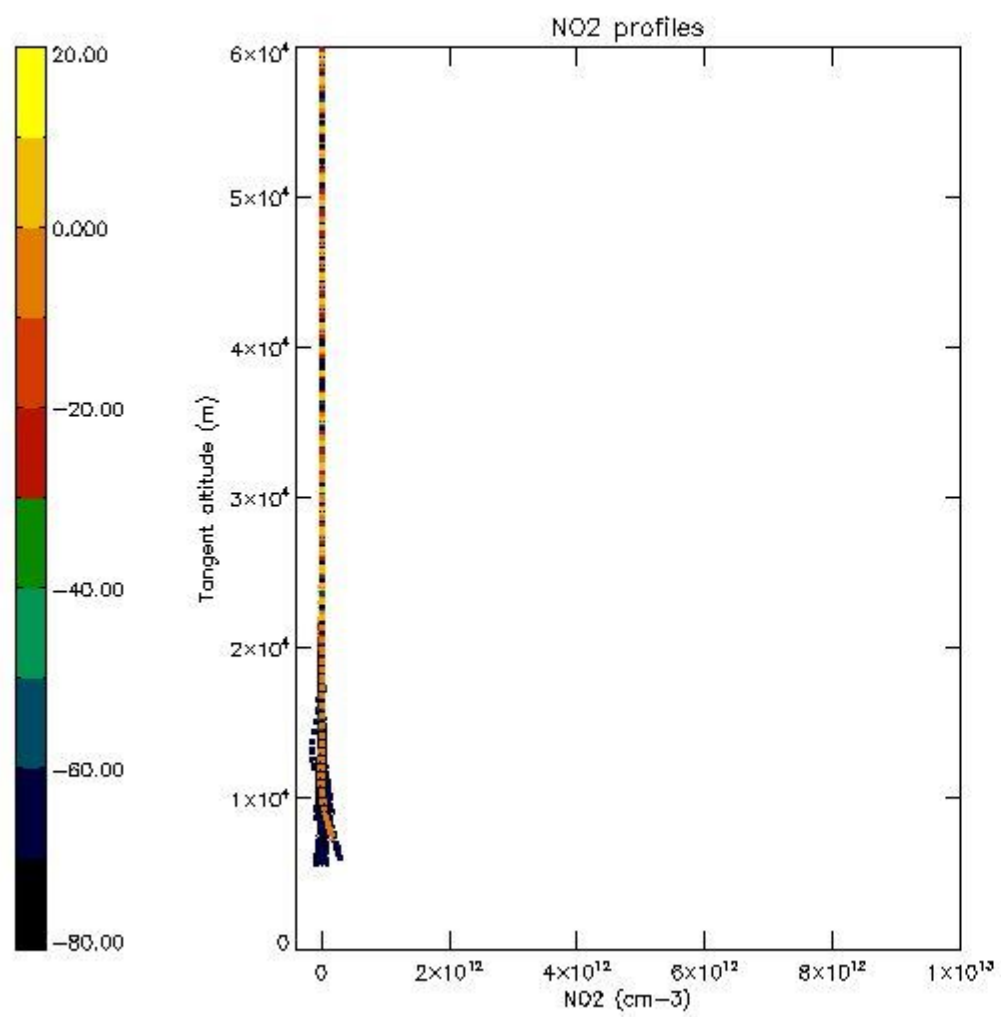
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



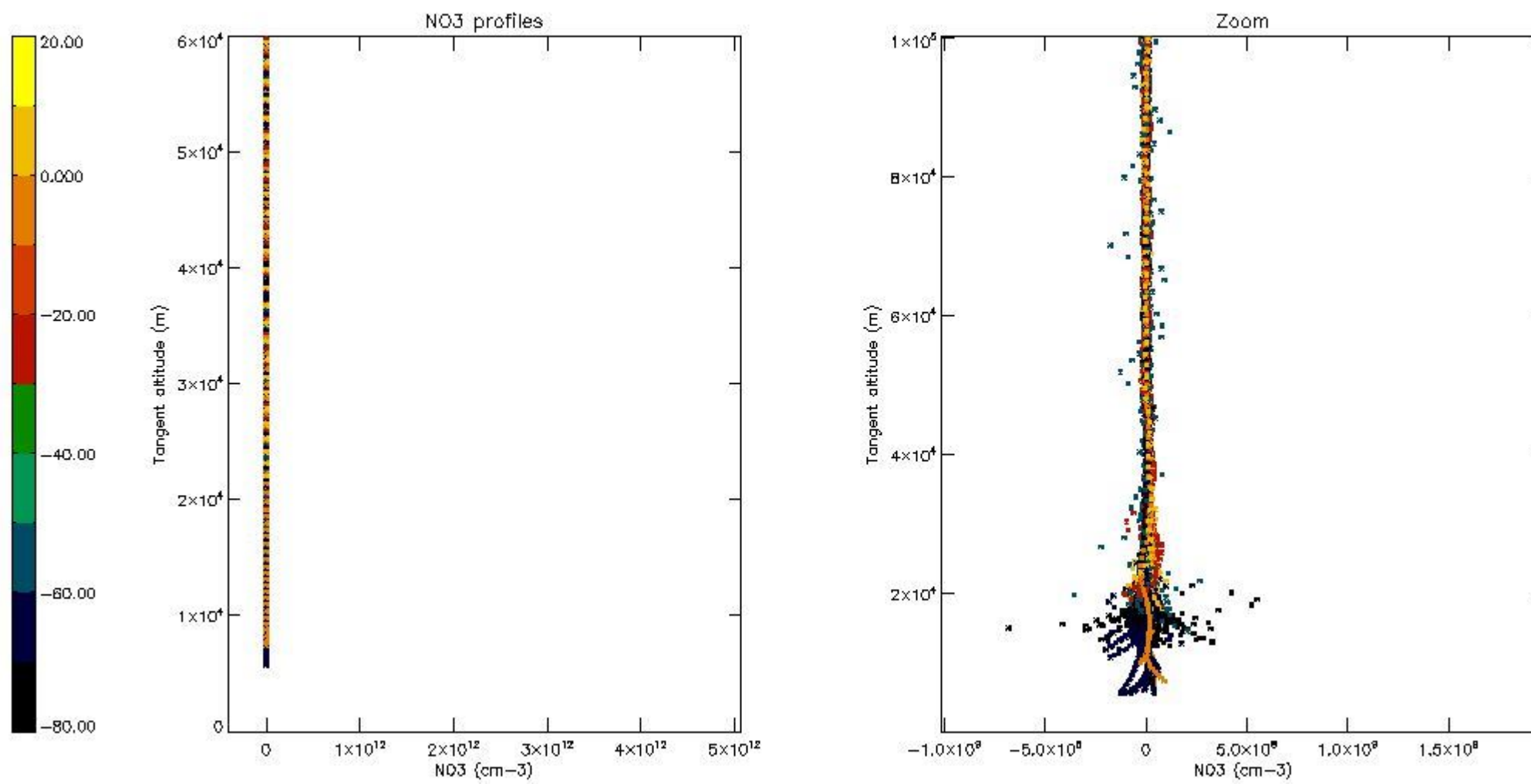
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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	29-JUL-2003 00:01:28
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	29-JUL-2003 00:01:28
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	29-JUL-2003 00:01:28

GOMOS Level 2 Daily Report

SUMMARY

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[5. Ozone profiles based on quality statistics and other trace gas profiles](#)

[5.1 Ozone statistics based on quality of products](#)

[5.2 Plot ozone profiles for all STD \(dark without errors\)](#)

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[5.5. Plot ozone profiles where STD < 5% \(dark without errors\)](#)

[5.6 Plot NO2 profiles for all STD \(dark without errors\)](#)

[5.7 Plot NO3 profiles for all STD \(dark without errors\)](#)

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

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

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 17:30:31
Data source version	GOMOS/6.01
Start time of products	29-07-2003 (29JUL2003 00:00:00)
Stop time of products	30-07-2003 (30JUL2003 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	365
Nb of prods with errors	1

2. Summary of processed GOM_NL__2P products.

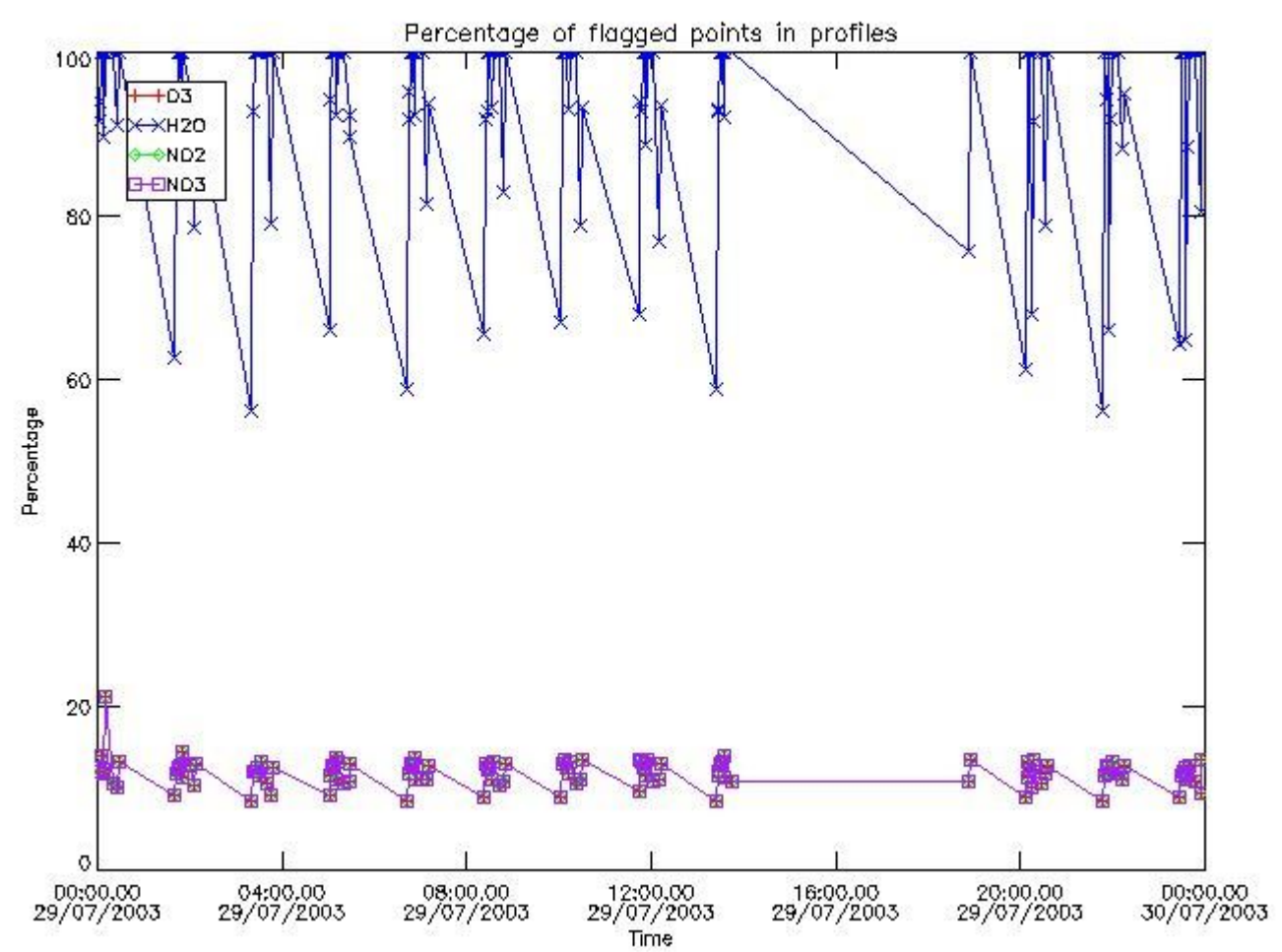
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20030729_000128_000000432018_00302_07370_7109.N1	29-JUL-2003 00:01:28	Dark	42.500	27	24Gam Ori	1.6360	26000.	85	7370	No
2	GOM_NL__2PRFIN20030729_000323_000000432018_00302_07370_7110.N1	29-JUL-2003 00:03:23	Dark	42.500	30	46Eps Ori	1.6940	30000.	85	7370	No
3	GOM_NL__2PRFIN20030729_000532_000000402018_00302_07370_7111.N1	29-JUL-2003 00:05:32	Dark	40.000	56	53Kap Ori	2.0650	30000.	80	7370	No
4	GOM_NL__2PRFIN20030729_000722_000000422018_00302_07370_7112.N1	29-JUL-2003 00:07:22	Dark	41.500	47	2Bet CMa	1.9760	28000.	83	7370	No
5	GOM_NL__2PRFIN20030729_000854_000000442018_00302_07370_7113.N1	29-JUL-2003 00:08:54	Dark	43.500	139	9Bet Lep	2.8330	5600.0	87	7370	No
6	GOM_NL__2PRFIN20030729_001044_000000392018_00302_07370_7114.N1	29-JUL-2003 00:10:44	Dark	38.500	177	1Zet CMa	3.0220	26000.	77	7370	No
7	GOM_NL__2PRFIN20030729_001919_000000482018_00302_07370_7115.N1	29-JUL-2003 00:19:19	Dark	48.000	157	The1Eri	2.9060	9300.0	96	7370	No
8	GOM_NL__2PRFIN20030729_002502_000000512018_00303_07371_7104.N1	29-JUL-2003 00:25:02	Dark	50.500	9	Alp Eri	0.45300	24000.	101	7371	No
9	GOM_NL__2PRFIN20030729_002722_000000392018_00303_07371_7105.N1	29-JUL-2003 00:27:22	Dark	38.500	135	Bet Hyi	2.8200	5800.0	77	7371	No
10	GOM_NL__2PRFIN20030729_002927_000000612018_00303_07371_7106.N1	29-JUL-2003 00:29:27	Straylight	61.000	84	Alp Phe	2.3970	4500.0	122	7371	No
11	GOM_NL__2PRFIN20030729_003205_000000432018_00303_07371_7107.N1	29-JUL-2003 00:32:05	Straylight	43.000	148	Alp Tuc	2.8780	4100.0	86	7371	No
12	GOM_NL__2PRFIN20030729_003522_000000482018_00303_07371_7108.N1	29-JUL-2003 00:35:22	Straylight	48.000	31	Alp Gru	1.7340	15200.	96	7371	No
13	GOM_NL__2PRFIN20030729_003844_000000792018_00303_07371_7109.N1	29-JUL-2003 00:38:44	Twilight_and_stray	78.500	18	24Alp PsA	1.1660	9700.0	157	7371	No
14	GOM_NL__2PRFIN20030729_004303_000000442018_00303_07371_7110.N1	29-JUL-2003 00:43:03	Bright	43.500	38	20Eps Sgr	1.8360	11000.	87	7371	No
15	GOM_NL__2PRFIN20030729_004458_000000402018_00303_07371_7111.N1	29-JUL-2003 00:44:58	Bright	39.500	57	34Sig Sgr	2.0660	26000.	79	7371	No
16	GOM_NL__2PRFIN20030729_004634_000000592018_00303_07371_7112.N1	29-JUL-2003 00:46:34	Bright	58.500	142	49Del Cap	2.8500	8900.0	117	7371	No
17	GOM_NL__2PRFIN20030729_005105_000000602018_00303_07371_7113.N1	29-JUL-2003 00:51:05	Bright	59.500	154	22Bet Aqr	2.8990	5700.0	119	7371	No
18	GOM_NL__2PRFIN20030729_005453_000000422018_00303_07371_7114.N1	29-JUL-2003 00:54:53	Bright	42.000	11	53Alp Aql	0.76500	8000.0	84	7371	No
19	GOM_NL__2PRFIN20030729_010318_000000522018_00303_07371_7115.N1	29-JUL-2003 01:03:18	Bright	52.000	5	3Alp Lyr	0.033000	11000.	104	7371	No
20	GOM_NL__2PRFIN20030729_010501_000000442018_00303_07371_7116.N1	29-JUL-2003 01:05:01	Bright	43.500	66	37Gam Cyg	2.2080	5900.0	87	7371	No
21	GOM_NL__2PRFIN20030729_010700_000000362018_00303_07371_7117.N1	29-JUL-2003 01:07:00	Bright	35.500	69	33Gam Dra	2.2310	3800.0	71	7371	No
22	GOM_NL__2PRFIN20030729_011051_000000342018_00303_07371_7118.N1	29-JUL-2003 01:10:51	Bright	34.000	119	14Eta Dra	2.7270	4700.0	68	7371	No
23	GOM_NL__2PRFIN20030729_011223_000000432018_00303_07371_7119.N1	29-JUL-2003 01:12:23	Bright	42.500	89	5Alp Cep	2.4510	8000.0	85	7371	No
24	GOM_NL__2PRFIN20030729_011503_000000362018_00303_07371_7120.N1	29-JUL-2003 01:15:03	Bright	35.500	60	7Bet UMi	2.0810	3950.0	71	7371	No
25	GOM_NL__2PRFIN20030729_011752_000000352018_00303_07371_7121.N1	29-JUL-2003 01:17:52	Bright	34.500	49	1Alp UMi	1.9900	6300.0	69	7371	No
26	GOM_NL__2PRFIN20030729_012100_000000512018_00303_07371_7122.N1	29-JUL-2003 01:21:00	Bright	51.000	76	27Gam Cas	2.3000	30000.	102	7371	No
27	GOM_NL__2PRFIN20030729_012705_000000482018_00303_07371_7123.N1	29-JUL-2003 01:27:05	Bright	48.000	160	23Gam Per	2.9300	4700.0	96	7371	No
28	GOM_NL__2PRFIN20030729_013011_000000812018_00303_07371_7124.N1	29-JUL-2003 01:30:11	Bright	81.000	73	57Gam1And	2.2600	13100.	162	7371	No
29	GOM_NL__2PRFIN20030729_013228_000000452018_00303_07371_7125.N1	29-JUL-2003 01:32:28	Bright	45.000	149	45Eps Per	2.8880	30000.	90	7371	No
30	GOM_NL__2PRFIN20030729_013524_000000532018_00303_07371_7126.N1	29-JUL-2003 01:35:24	Twilight_and_stray	52.500	150	44Zet Per	2.8900	28000.	105	7371	No
31	GOM_NL__2PRFIN20030729_013738_000000422018_00303_07371_7127.N1	29-JUL-2003 01:37:38	Twilight_and_stray	42.000	176	23Zet Tau	3.0200	22000.	84	7371	No
32	GOM_NL__2PRFIN20030729_014001_000000612018_00303_07371_7128.N1	29-JUL-2003 01:40:01	Dark	60.500	13	87Alp Tau	0.86700	3800.0	121	7371	No
33	GOM_NL__2PRFIN20030729_014204_000000442018_00303_07371_7129.N1	29-JUL-2003 01:42:04	Dark	43.500	27	24Gam Ori	1.6360	26000.	87	7371	No
34	GOM_NL__2PRFIN20030729_014358_000000422018_00303_07371_7130.N1	29-JUL-2003 01:43:58	Dark	41.500	30	46Eps Ori	1.6940	30000.	83	7371	No
35	GOM_NL__2PRFIN20030729_014607_000000412018_00303_07371_7131.N1	29-JUL-2003 01:46:07	Dark	41.000	56	53Kap Ori	2.0650	30000.	82	7371	No
36	GOM_NL__2PRFIN20030729_014758_000000402018_00303_07371_7132.N1	29-JUL-2003 01:47:58	Dark	40.000	47	2Bet CMa	1.9760	28000.	80	7371	No
37	GOM_NL__2PRFIN20030729_014929_000000452018_00303_07371_7133.N1	29-JUL-2003 01:49:29	Dark	45.000	139	9Bet Lep	2.8330	5600.0	90	7371	No
38	GOM_NL__2PRFIN20030729_015120_000000392018_00303_07371_7134.N1	29-JUL-2003 01:51:20	Dark	39.000	177	1Zet CMa	3.0220	26000.	78	7371	No
39	GOM_NL__2PRFIN20030729_015955_000000482018_00303_07371_7135.N1	29-JUL-2003 01:59:55	Dark	47.500	157	The1Eri	2.9060	9300.0	95	7371	No
40	GOM_NL__2PRFIN20030729_020536_000000502018_00304_07372_7114.N1	29-JUL-2003 02:05:36	Dark	49.500	9	Alp Eri	0.45300	24000.	99	7372	No
41	GOM_NL__2PRFIN20030729_020759_000000392018_00304_07372_7115.N1	29-JUL-2003 02:07:59	Dark	39.000	135	Bet Hyi	2.8200	5800.0	78	7372	No
42	GOM_NL__2PRFIN20030729_021003_000000732018_00304_07372_7116.N1	29-JUL-2003 02:10:03	Straylight	73.000	84	Alp Phe	2.3970	4500.0	146	7372	No

338	GOM_NL__2PRFIN20030729_223423_000000572018_00316_07384_7120.N1	29-JUL-2003 22:34:23	Bright	57.000	142	49Del Cap	2.8500	8900.0	114	7384	No
339	GOM_NL__2PRFIN20030729_223848_000000592018_00316_07384_7121.N1	29-JUL-2003 22:38:48	Bright	59.000	154	22Bet Aqr	2.8990	5700.0	118	7384	No
340	GOM_NL__2PRFIN20030729_224240_000000402018_00316_07384_7122.N1	29-JUL-2003 22:42:40	Bright	40.000	11	53Alp Aql	0.76500	8000.0	80	7384	No
341	GOM_NL__2PRFIN20030729_224401_000000362018_00316_07384_7123.N1	29-JUL-2003 22:44:01	Bright	36.000	168	17Zet Aql	2.9860	11000.	72	7384	No
342	GOM_NL__2PRFIN20030729_224605_000000682018_00316_07384_7124.N1	29-JUL-2003 22:46:05	Bright	67.500	61	8Eps Peg	2.1000	3900.0	135	7384	No
343	GOM_NL__2PRFIN20030729_225106_000000352018_00316_07384_7125.N1	29-JUL-2003 22:51:06	Bright	34.500	5	3Alp Lyr	0.033000	11000.	69	7384	No
344	GOM_NL__2PRFIN20030729_225243_000000432018_00316_07384_7126.N1	29-JUL-2003 22:52:43	Bright	43.000	66	37Gam Cyg	2.2080	5900.0	86	7384	No
345	GOM_NL__2PRFIN20030729_225449_000000392018_00316_07384_7127.N1	29-JUL-2003 22:54:49	Bright	39.000	69	33Gam Dra	2.2310	3800.0	78	7384	No
346	GOM_NL__2PRFIN20030729_225843_000000352018_00316_07384_7128.N1	29-JUL-2003 22:58:43	Bright	34.500	119	14Eta Dra	2.7270	4700.0	69	7384	No
347	GOM_NL__2PRFIN20030729_230254_000000352018_00316_07384_7129.N1	29-JUL-2003 23:02:54	Bright	35.000	60	7Bet UMi	2.0810	3950.0	70	7384	No
348	GOM_NL__2PRFIN20030729_230539_000000362018_00316_07384_7130.N1	29-JUL-2003 23:05:39	Bright	35.500	49	1Alp UMi	1.9900	6300.0	71	7384	No
349	GOM_NL__2PRFIN20030729_230839_000000492018_00316_07384_7131.N1	29-JUL-2003 23:08:39	Bright	48.500	76	27Gam Cas	2.3000	30000.	97	7384	No
350	GOM_NL__2PRFIN20030729_231449_000000492018_00316_07384_7132.N1	29-JUL-2003 23:14:49	Bright	49.000	160	23Gam Per	2.9300	4700.0	98	7384	No
351	GOM_NL__2PRFIN20030729_231752_000000812018_00316_07384_7133.N1	29-JUL-2003 23:17:52	Bright	80.500	73	57Gam1And	2.2600	13100.	161	7384	No
352	GOM_NL__2PRFIN20030729_232014_000000452018_00316_07384_7134.N1	29-JUL-2003 23:20:14	Bright	44.500	149	45Eps Per	2.8880	30000.	89	7384	No
353	GOM_NL__2PRFIN20030729_232314_000000552018_00316_07384_7135.N1	29-JUL-2003 23:23:14	Tw_i_and_stray	54.500	150	44Zet Per	2.8900	28000.	109	7384	No
354	GOM_NL__2PRFIN20030729_232529_000000422018_00316_07384_7136.N1	29-JUL-2003 23:25:29	Tw_i_and_stray	41.500	176	23Zet Tau	3.0200	22000.	83	7384	No
355	GOM_NL__2PRFIN20030729_232754_000000572018_00316_07384_7137.N1	29-JUL-2003 23:27:54	Dark	56.500	13	87Alp Tau	0.86700	3800.0	113	7384	No
356	GOM_NL__2PRFIN20030729_232955_000000442018_00316_07384_7138.N1	29-JUL-2003 23:29:55	Dark	44.000	27	24Gam Ori	1.6360	26000.	88	7384	No
357	GOM_NL__2PRFIN20030729_233150_000000432018_00316_07384_7139.N1	29-JUL-2003 23:31:50	Dark	42.500	30	46Eps Ori	1.6940	30000.	85	7384	No
358	GOM_NL__2PRFIN20030729_233359_000000412018_00316_07384_7140.N1	29-JUL-2003 23:33:59	Dark	41.000	56	53Kap Ori	2.0650	30000.	82	7384	No
359	GOM_NL__2PRFIN20030729_233517_000000462018_00316_07384_7141.N1	29-JUL-2003 23:35:17	Dark	46.000	1	9Alp CMa	-1.4400	11000.	92	7384	No
360	GOM_NL__2PRFIN20030729_233722_000000442018_00316_07384_7142.N1	29-JUL-2003 23:37:22	Dark	43.500	139	9Bet Lep	2.8330	5600.0	87	7384	No
361	GOM_NL__2PRFIN20030729_233909_000000402018_00316_07384_7143.N1	29-JUL-2003 23:39:09	Dark	40.000	177	1Zet CMa	3.0220	26000.	80	7384	No
362	GOM_NL__2PRFIN20030729_234756_000000472018_00316_07384_7144.N1	29-JUL-2003 23:47:56	Dark	47.000	157	The1Eri	2.9060	9300.0	94	7384	No
363	GOM_NL__2PRFIN20030729_235336_000000542018_00317_07385_7112.N1	29-JUL-2003 23:53:36	Dark	54.000	9	Alp Eri	0.45300	24000.	108	7385	No
364	GOM_NL__2PRFIN20030729_235550_000000382018_00317_07385_7113.N1	29-JUL-2003 23:55:50	Dark	37.500	135	Bet Hyi	2.8200	5800.0	75	7385	No
365	GOM_NL__2PRFIN20030729_235807_000000562018_00317_07385_7114.N1	29-JUL-2003 23:58:07	Straylight	55.500	84	Alp Phe	2.3970	4500.0	111	7385	No

3. Quality information per product

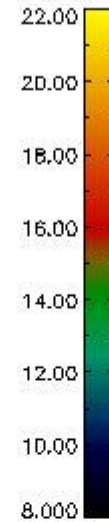
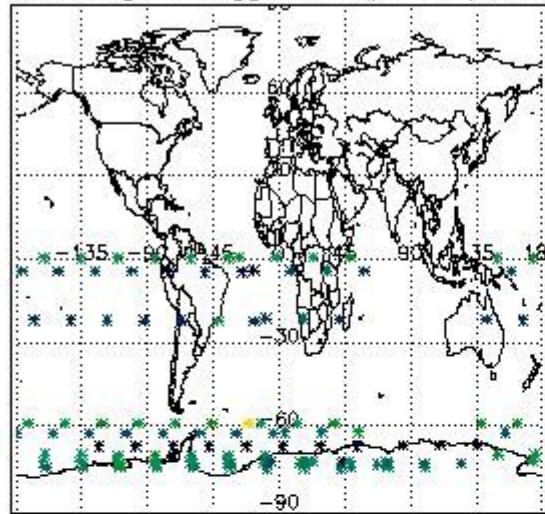
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

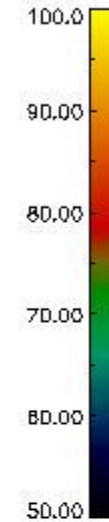
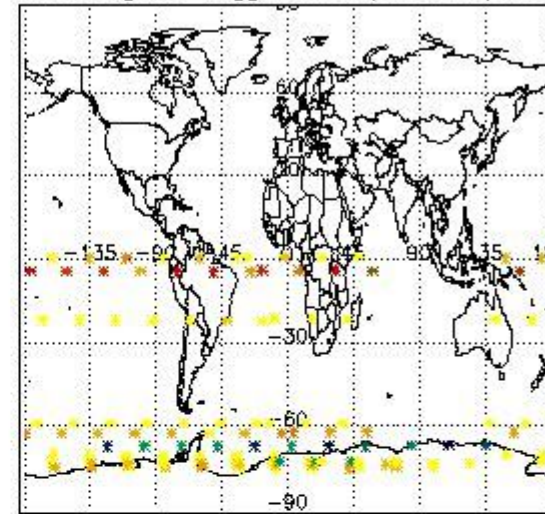


3.2 Plot quality information per product (world map)

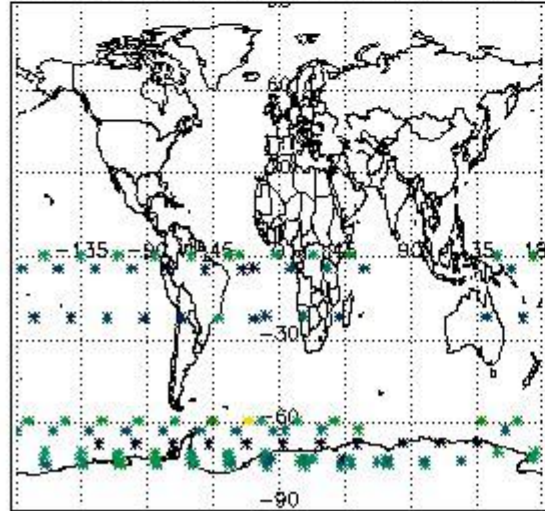
Percentage of flagged data per O3 profile



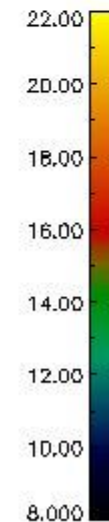
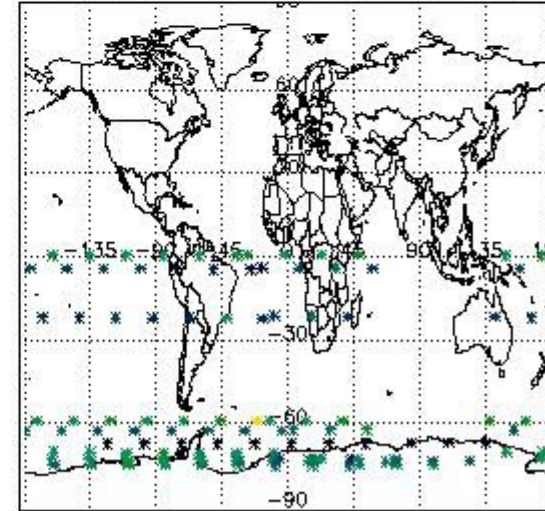
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

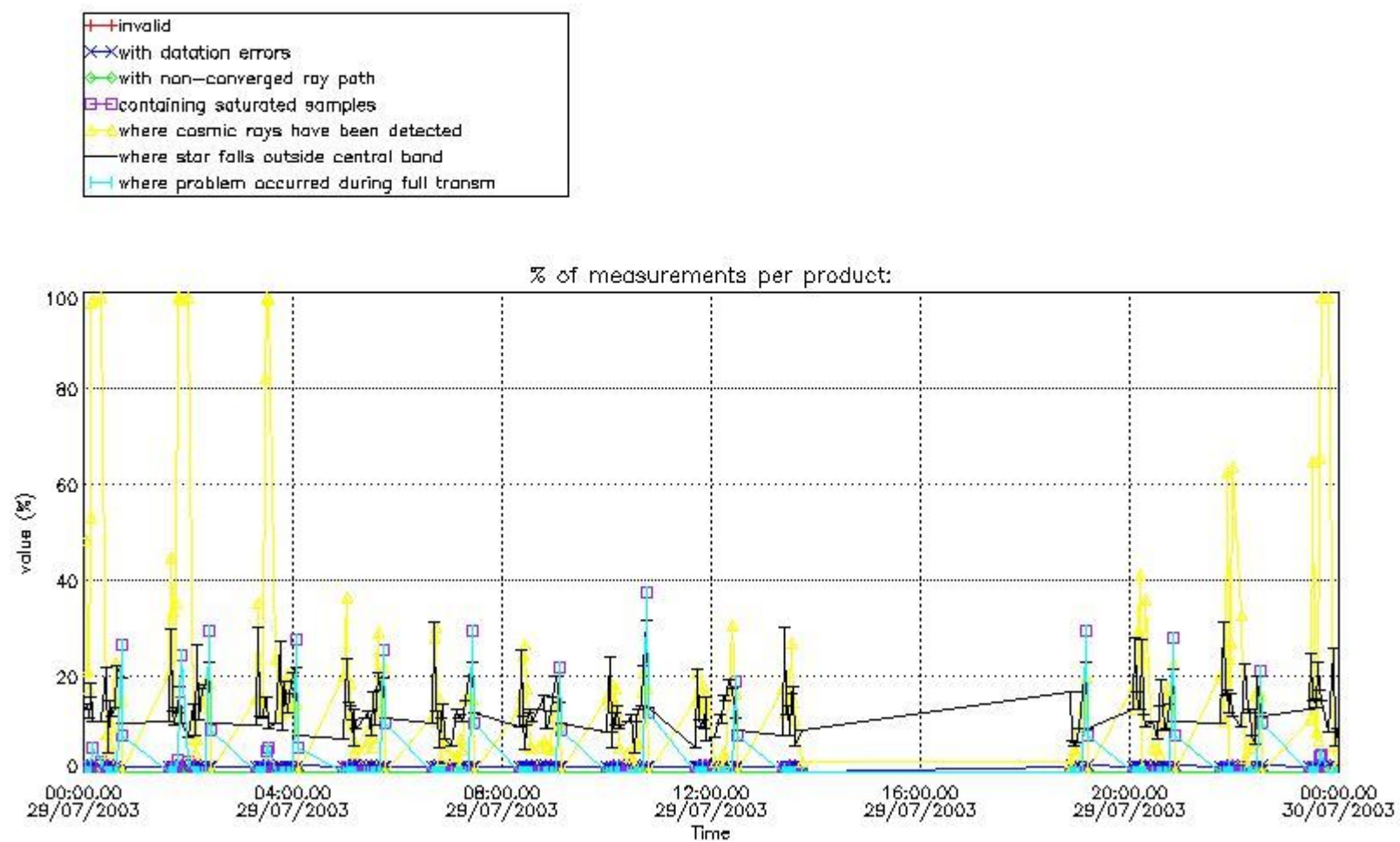


4. Level 1 quality information per product

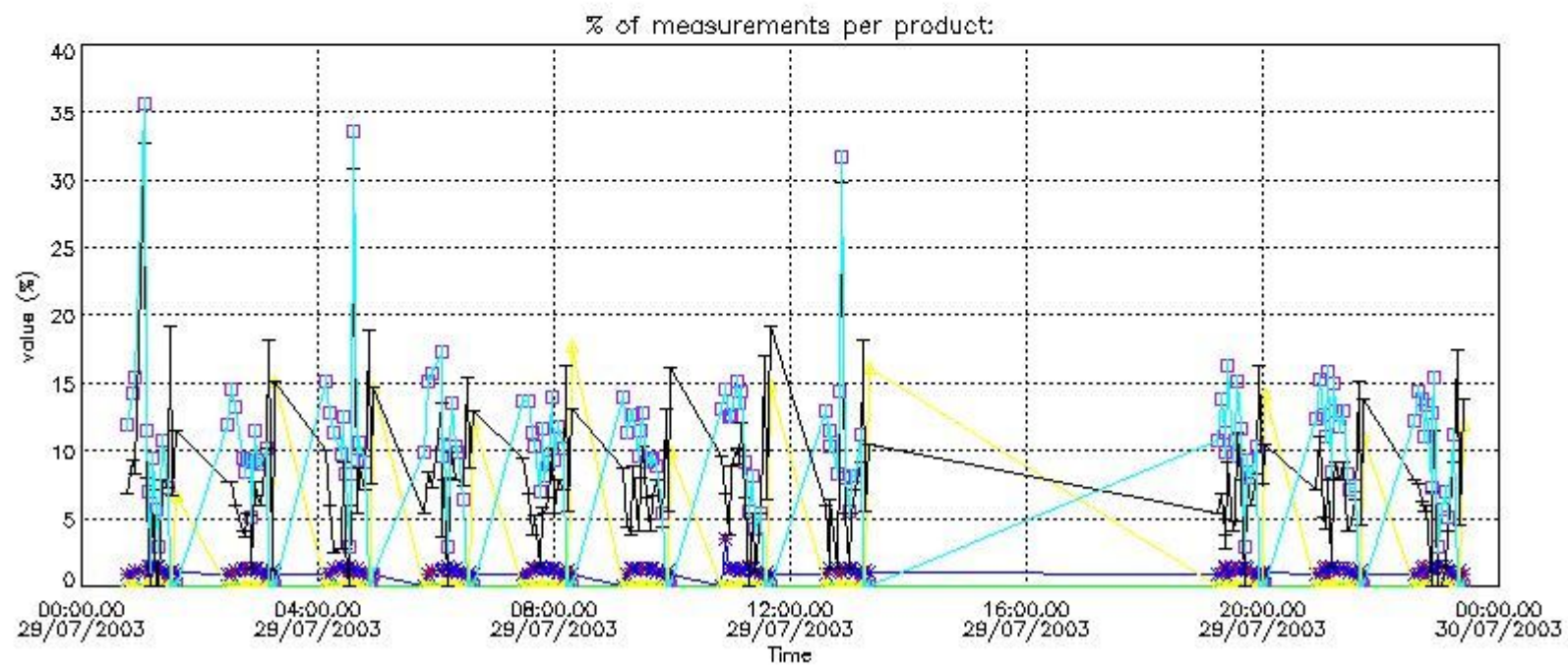
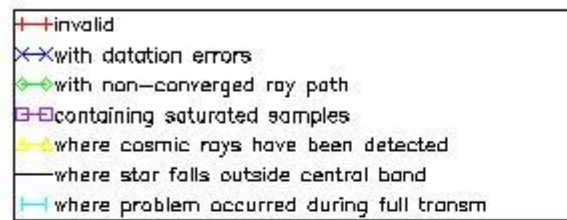
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

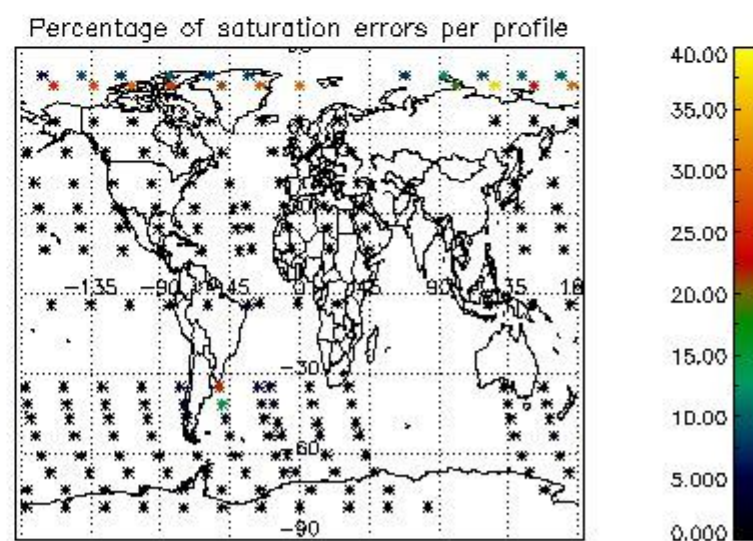
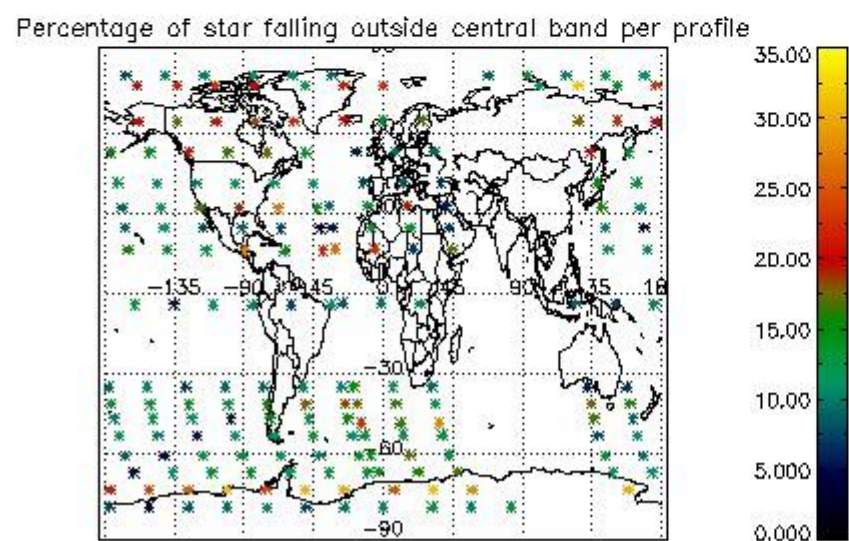
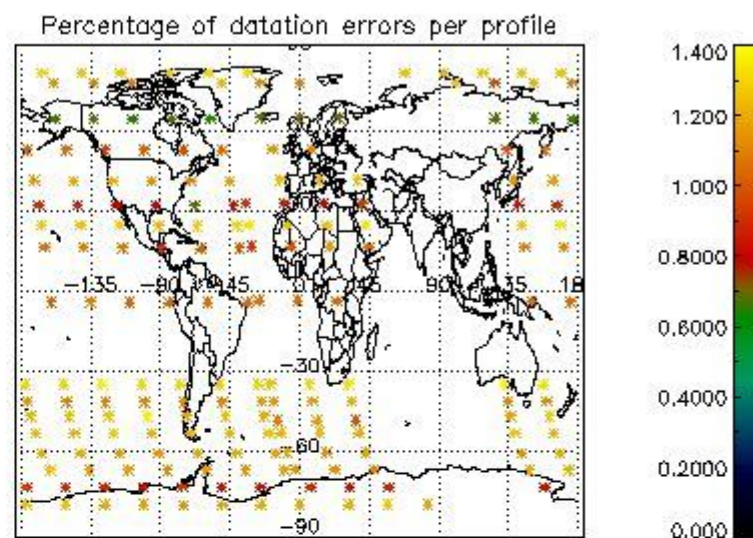
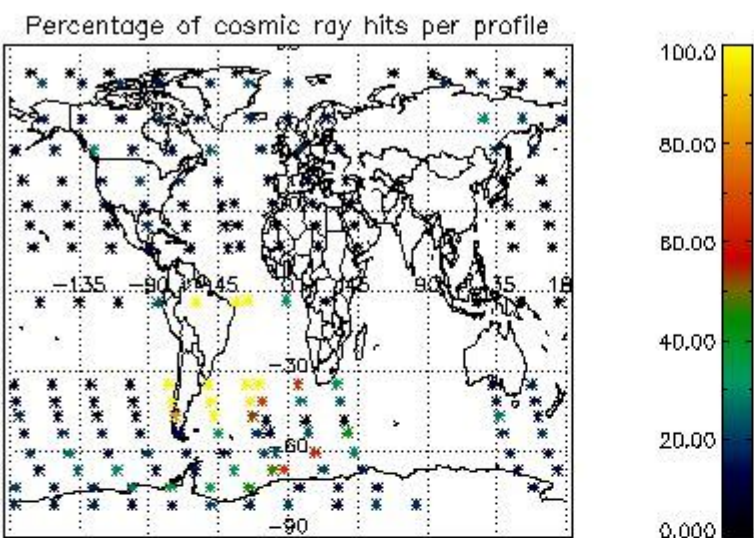


4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes

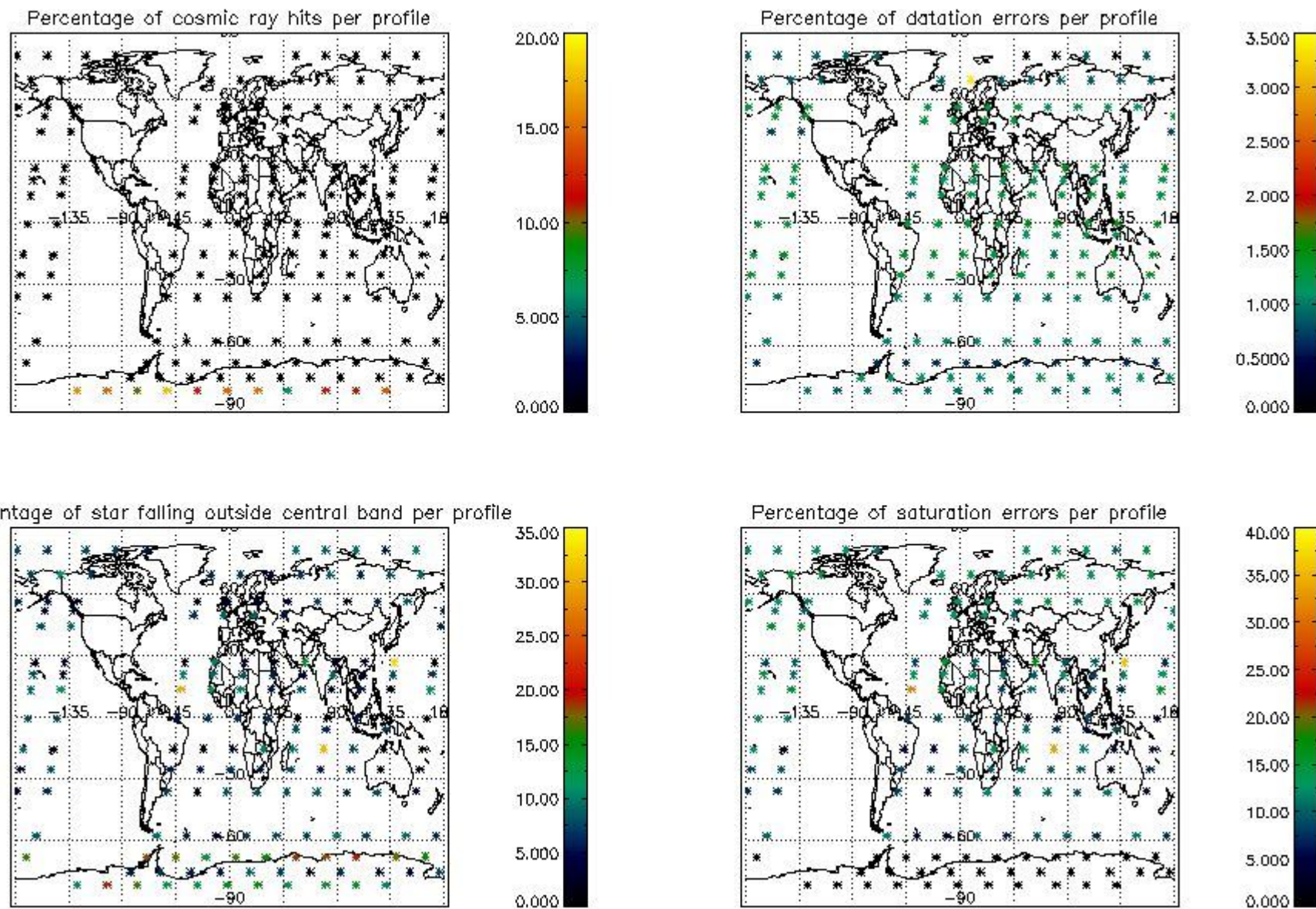


4.2 Plot quality information per product coming from level 1b processing (world map)

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

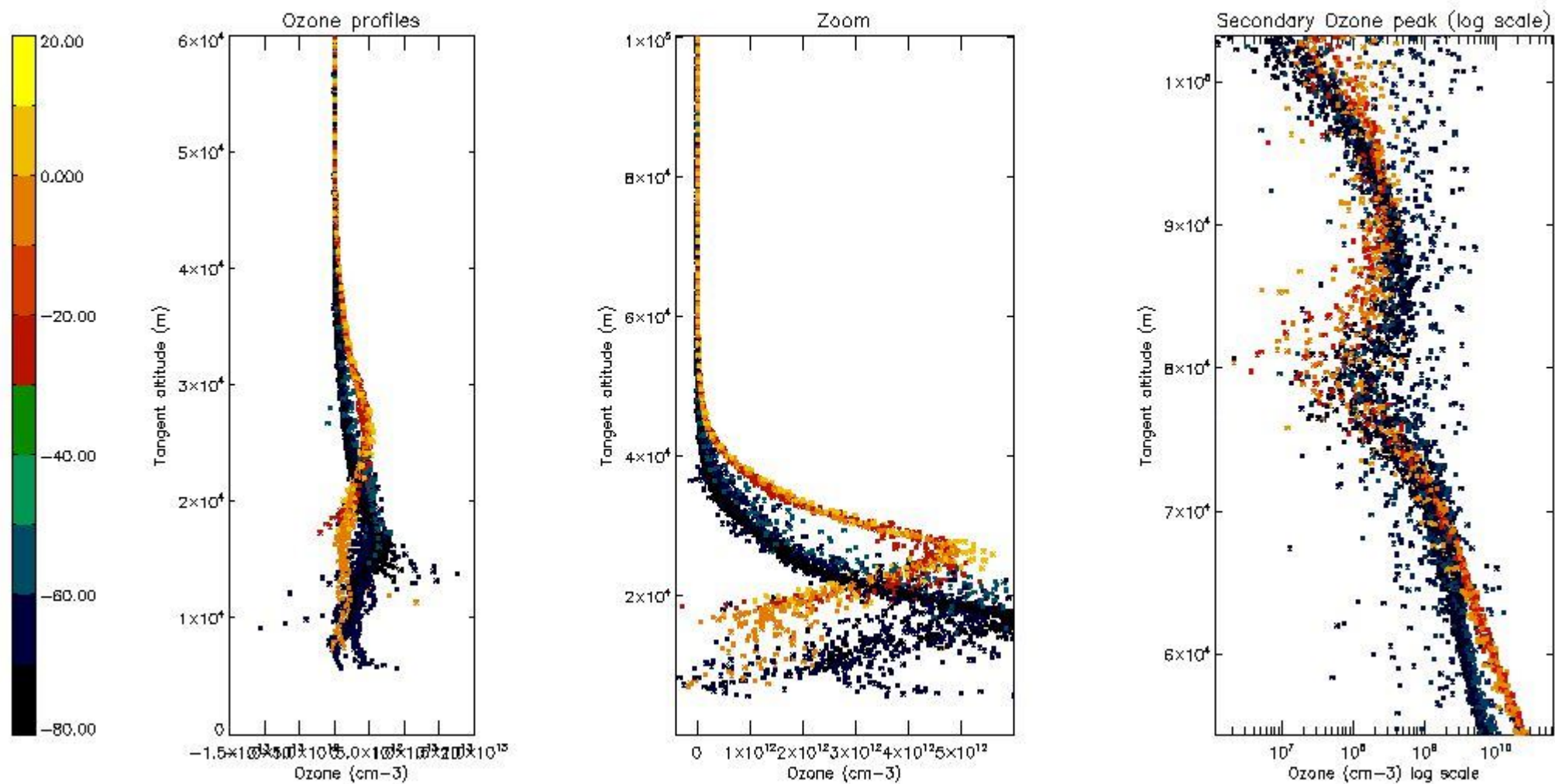
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	31
STD < 20	19

STD < 10	16
STD < 5	11

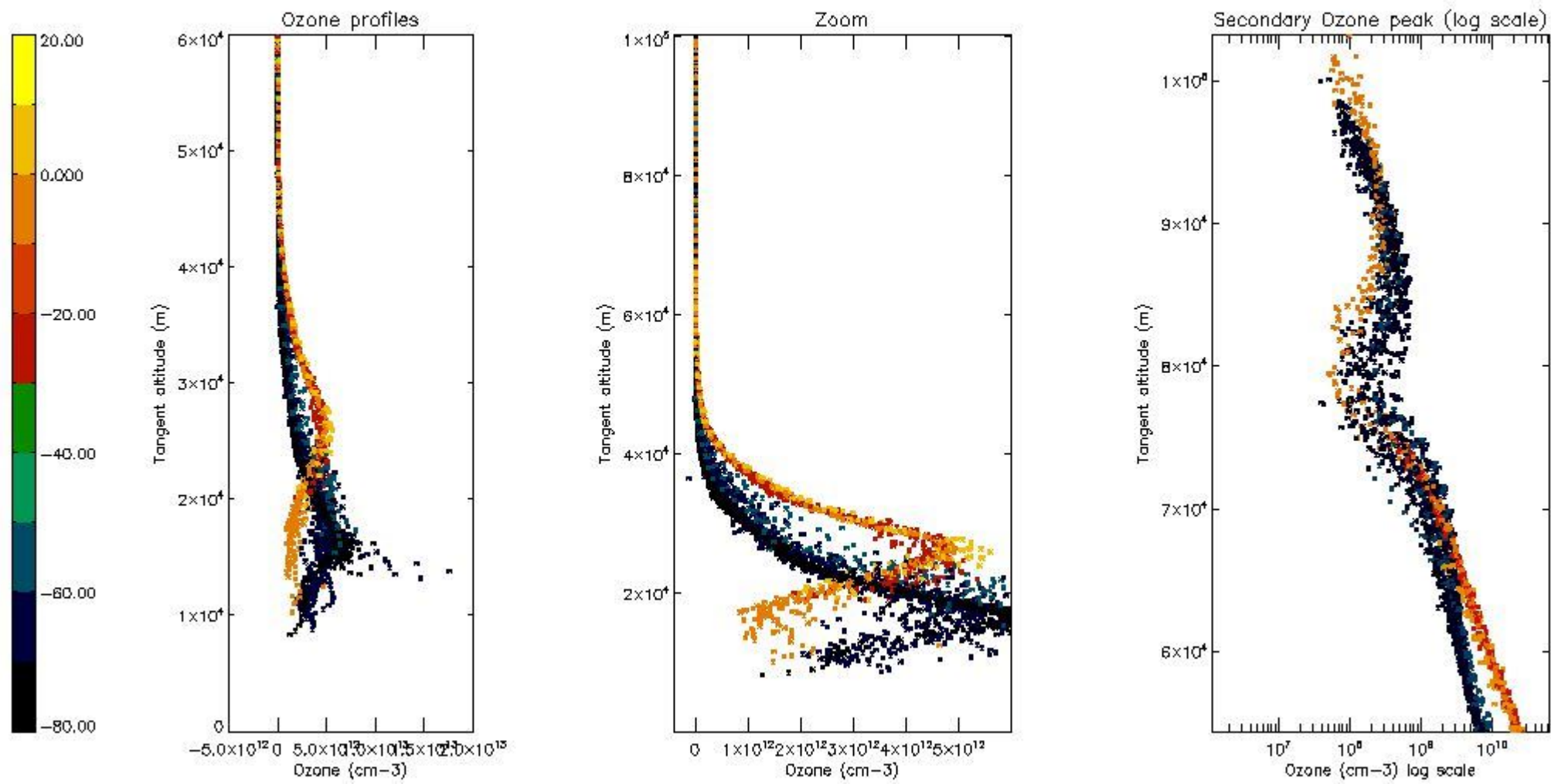
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



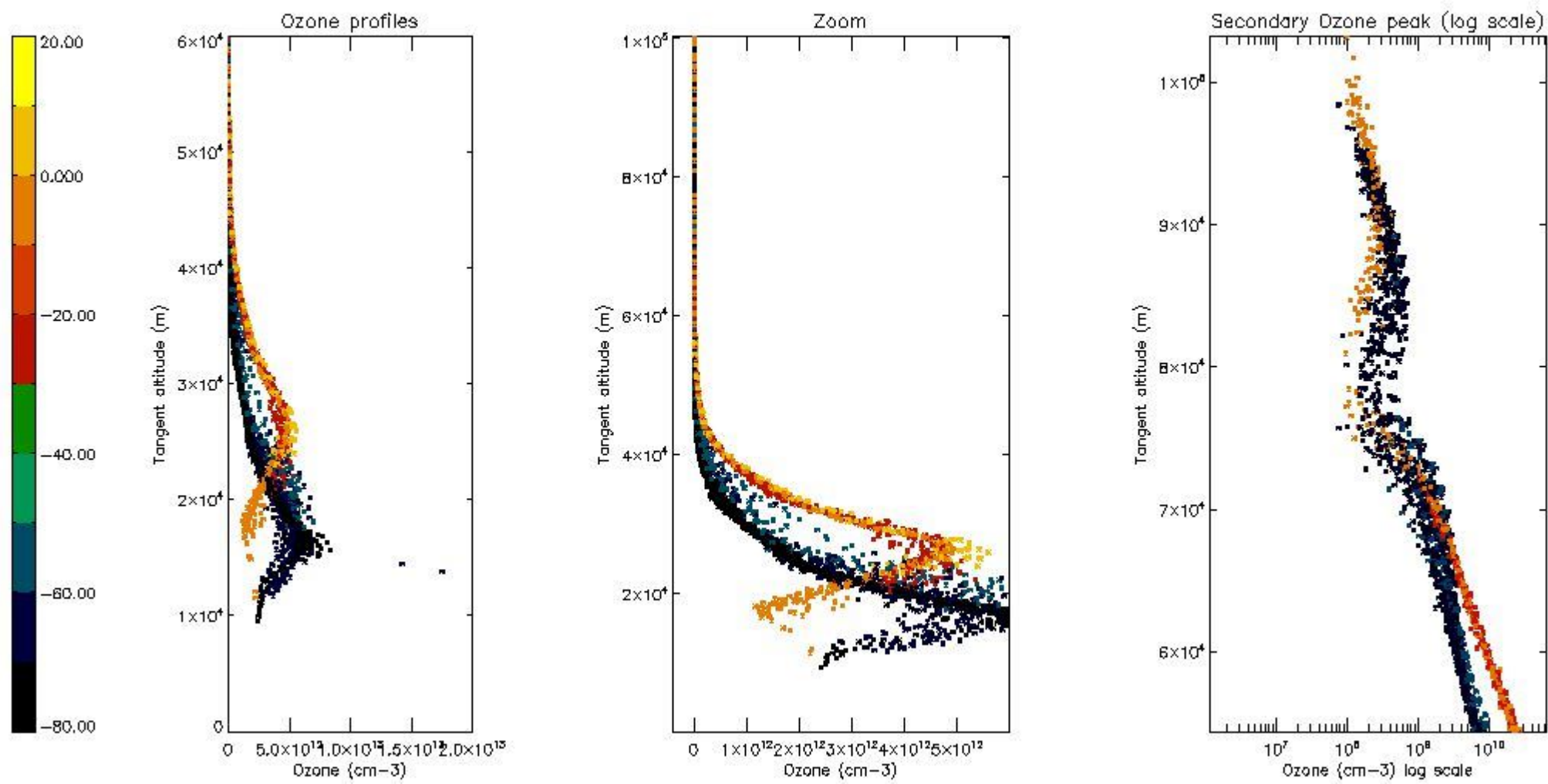
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



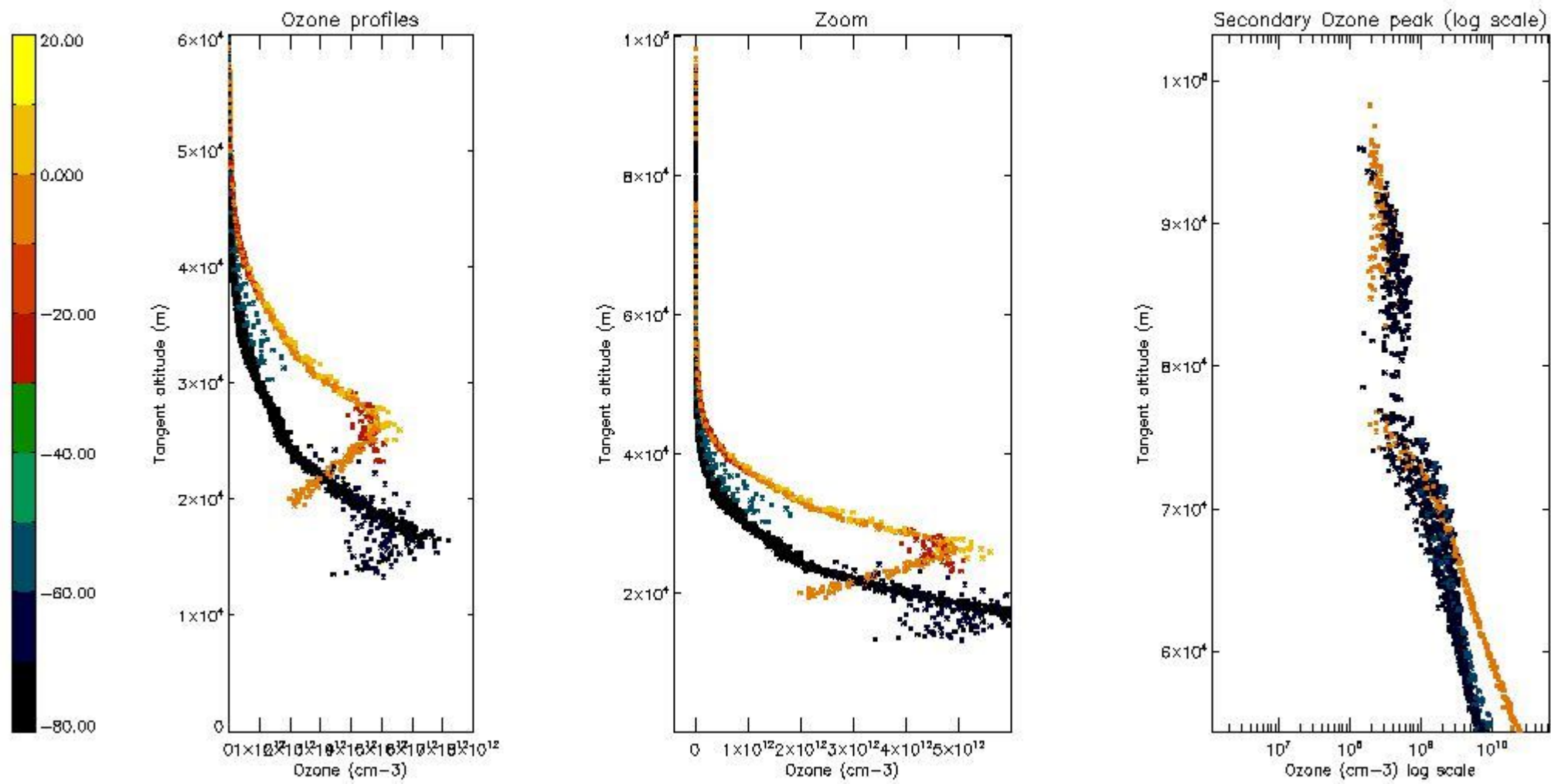
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



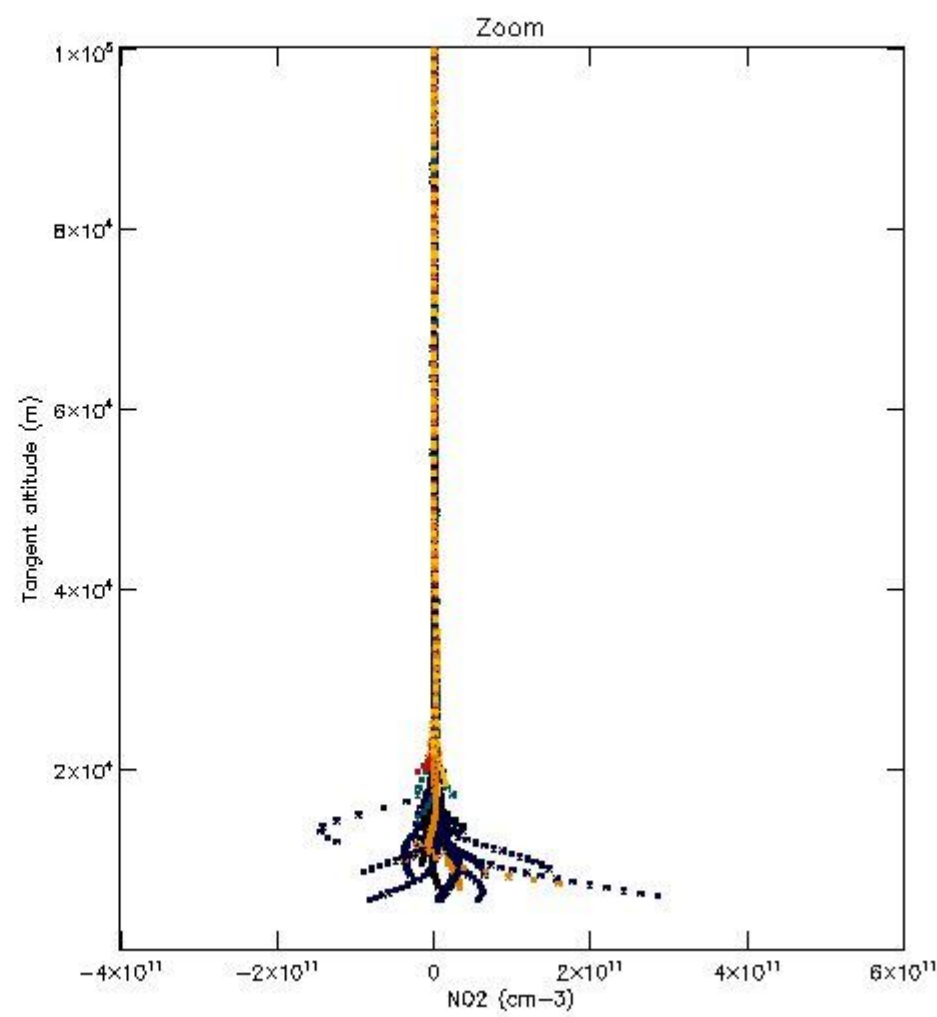
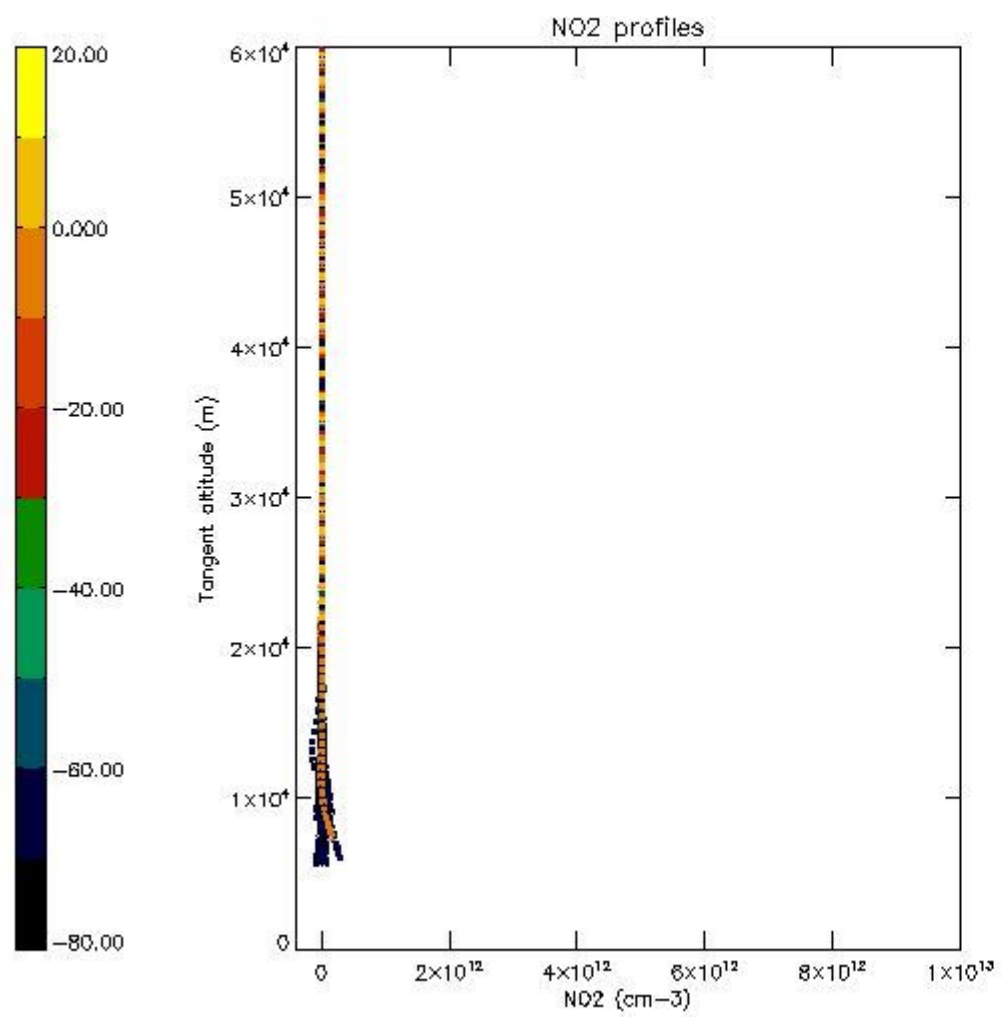
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



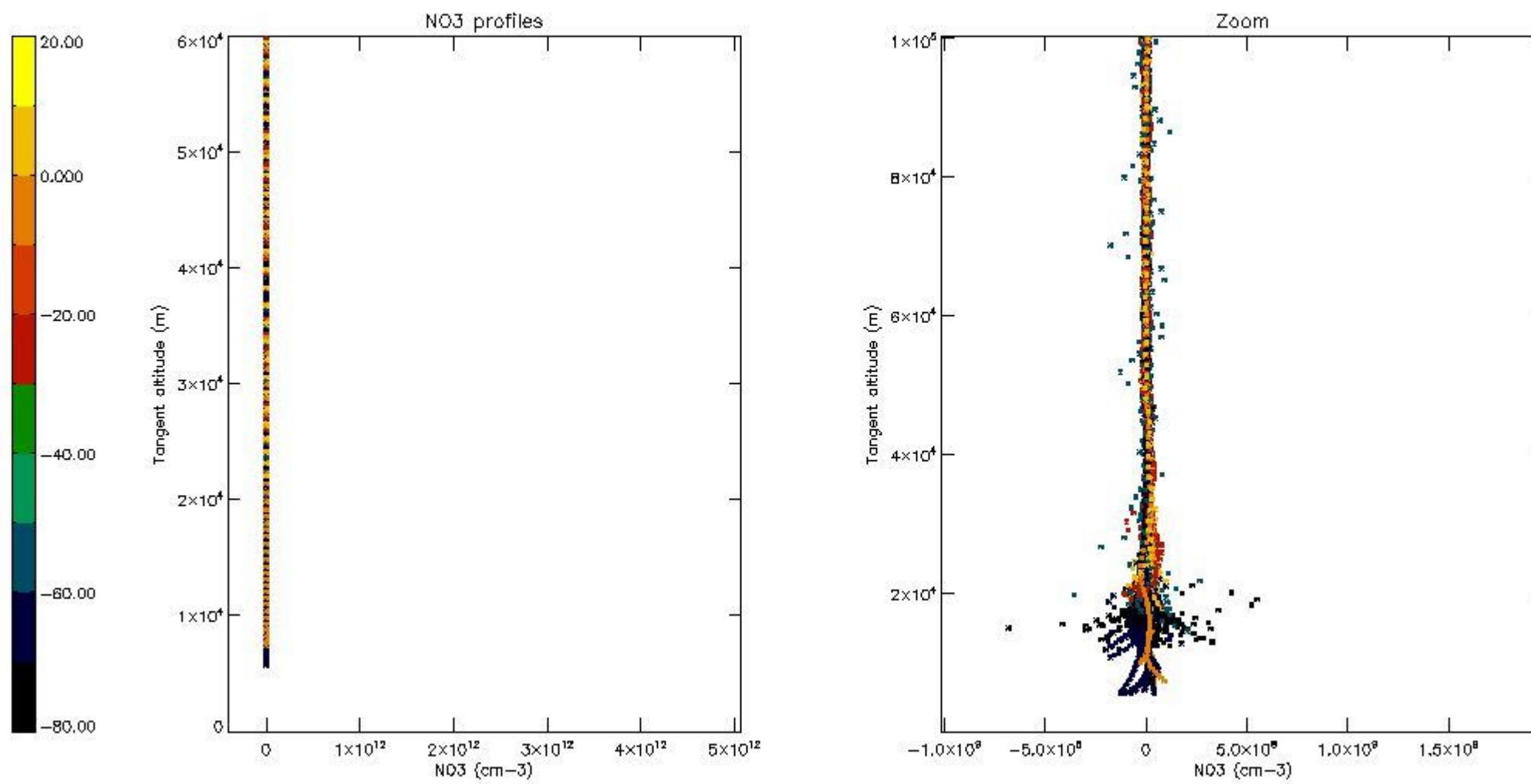
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

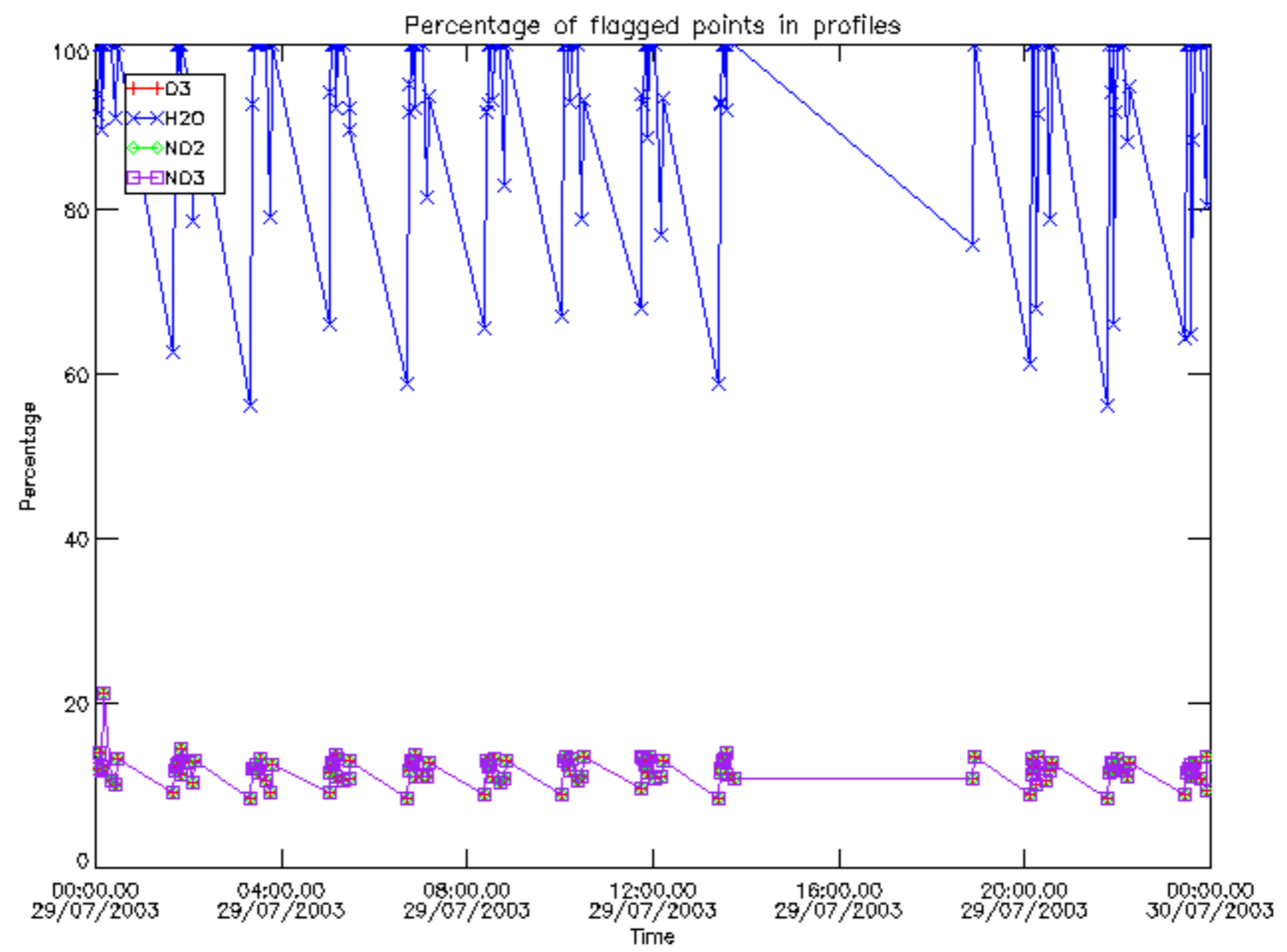
The colorbar represents the latitude.



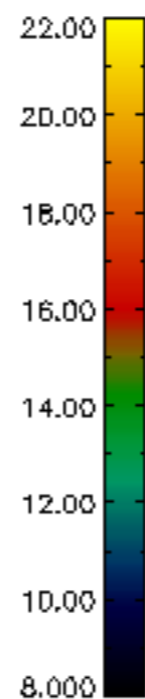
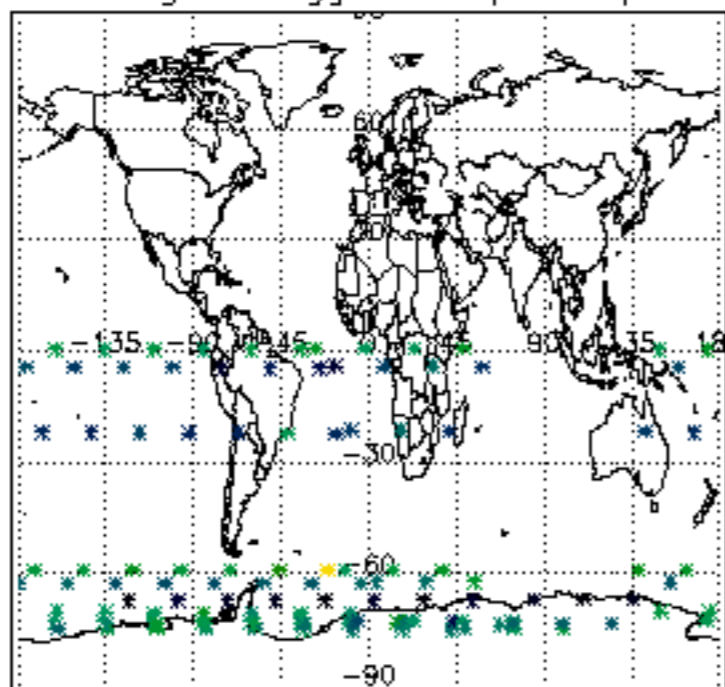
6. Auxiliary Data Files used for the production reported in section 2

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.

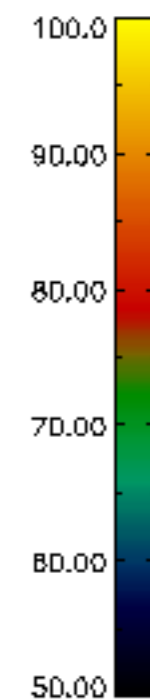
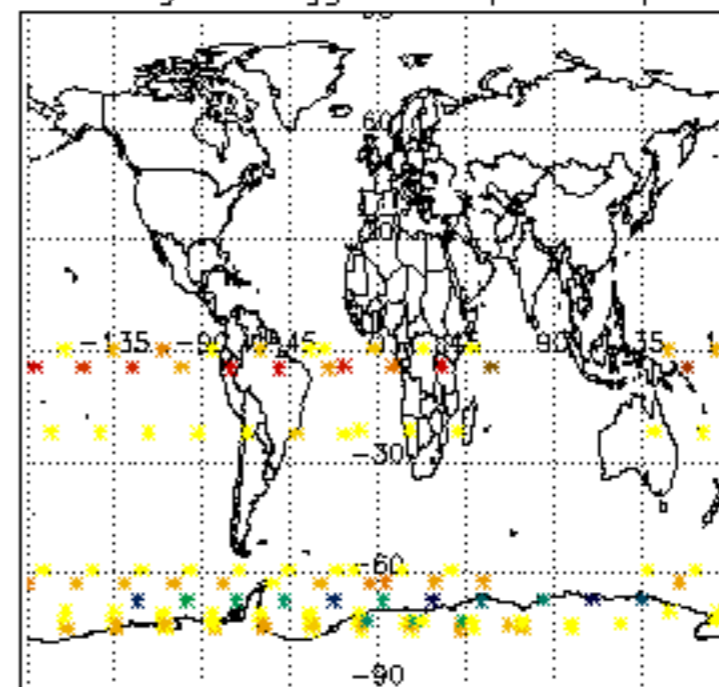
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	29-JUL-2003 00:01:28
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	29-JUL-2003 00:01:28
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	29-JUL-2003 00:01:28



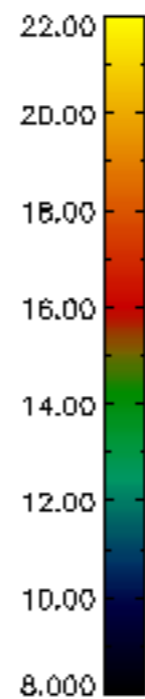
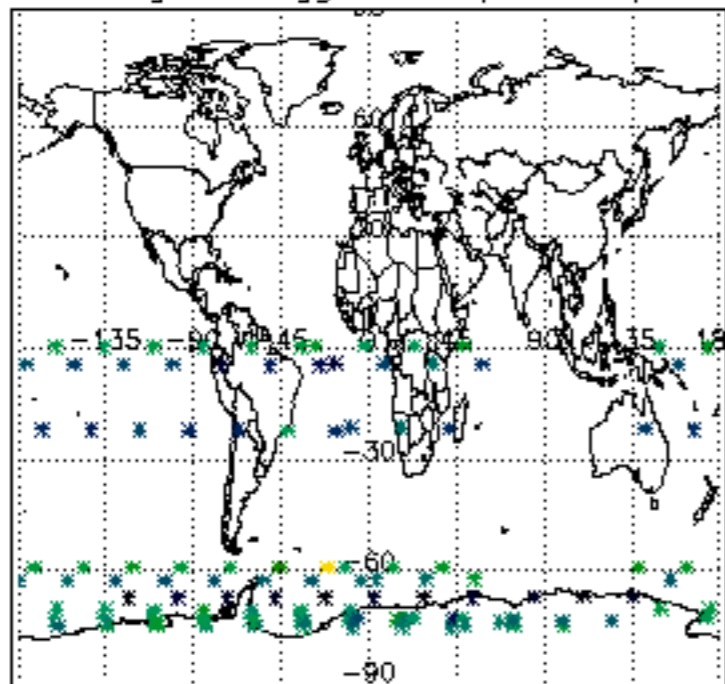
Percentage of flagged data per D3 profile



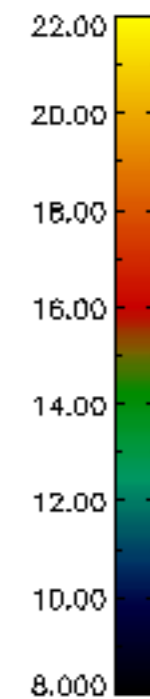
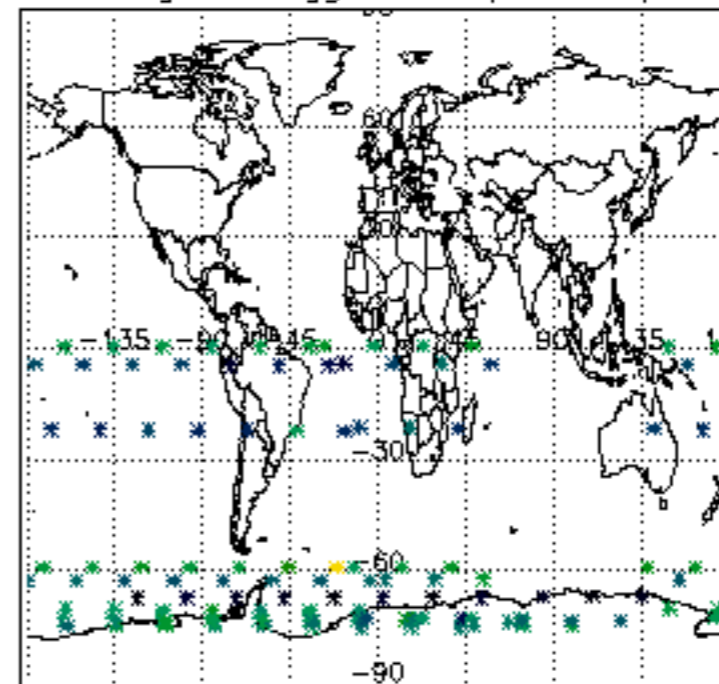
Percentage of flagged data per H2O profile

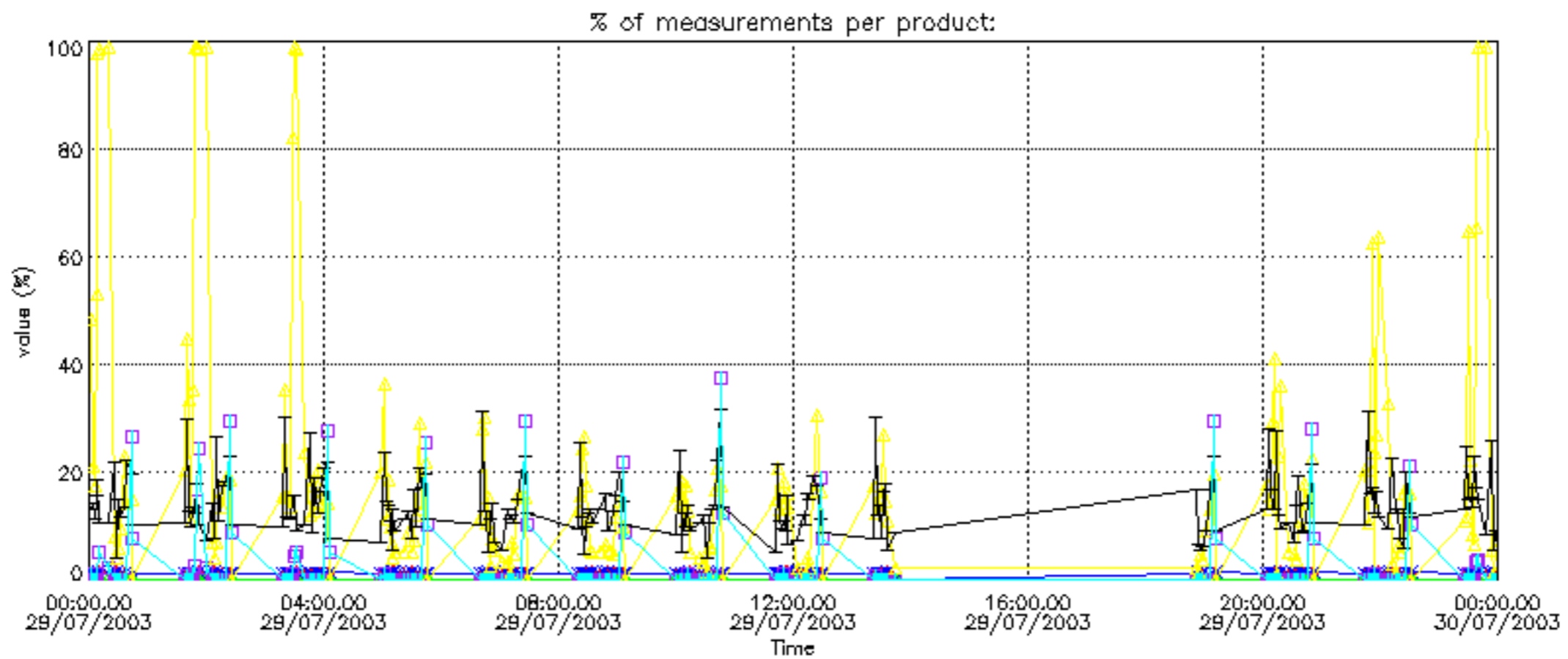


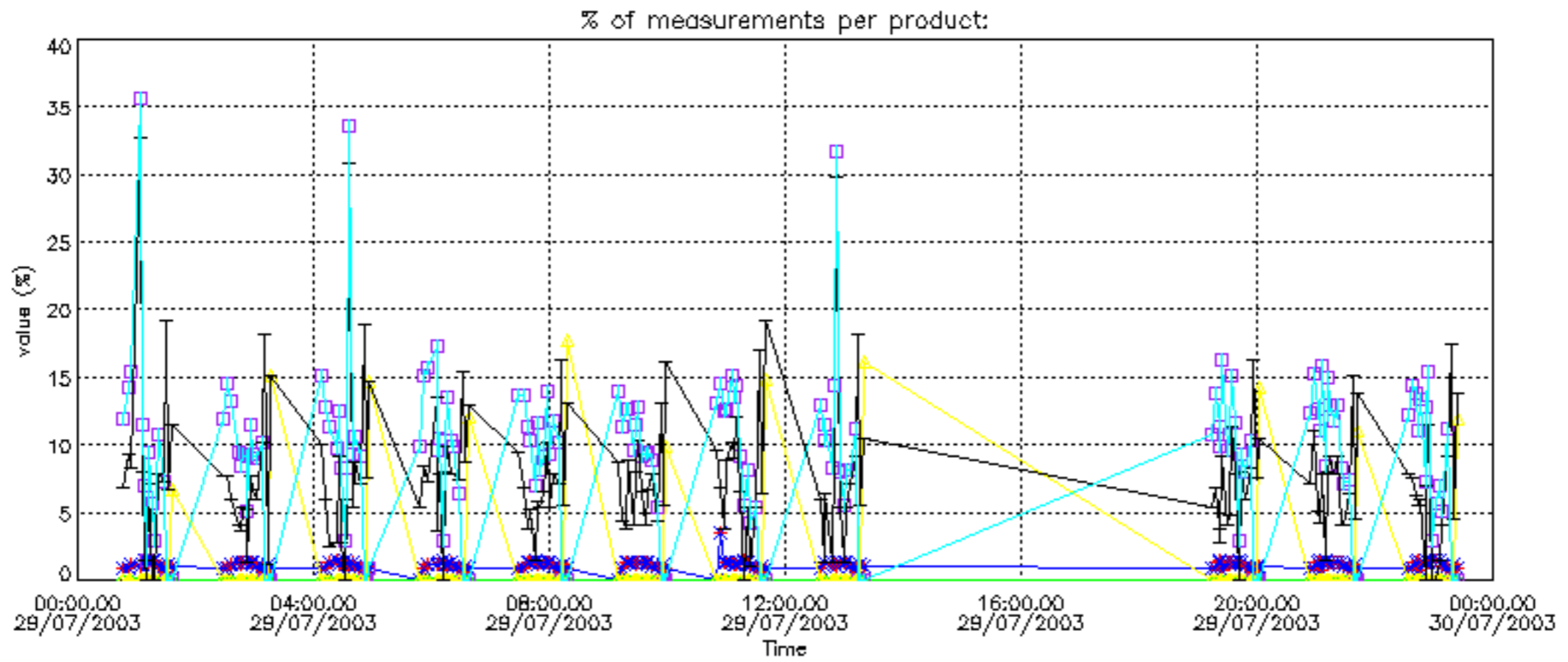
Percentage of flagged data per NO2 profile



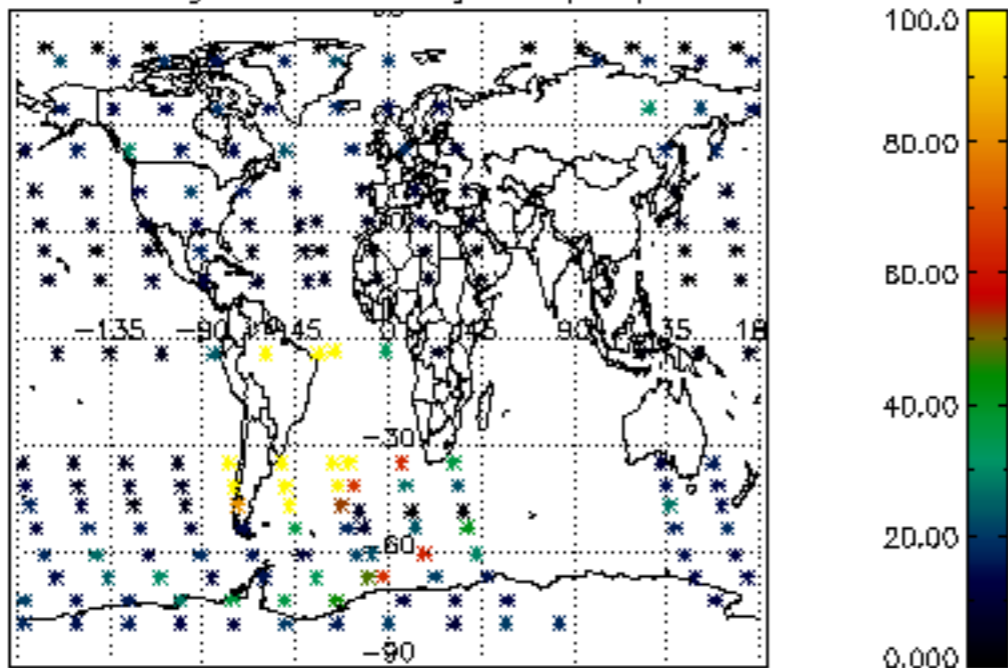
Percentage of flagged data per NO3 profile



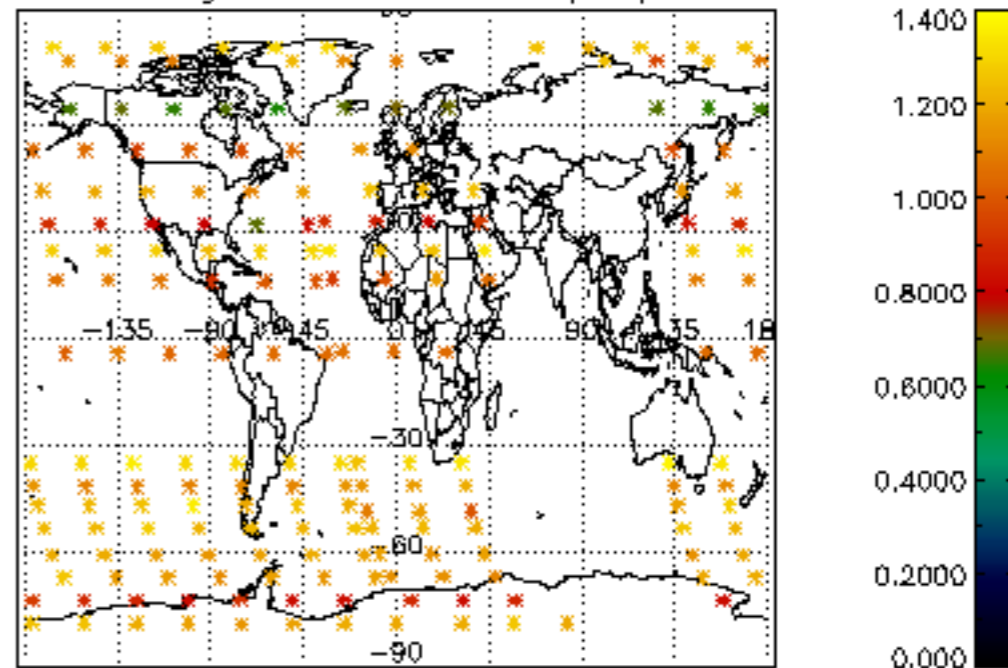




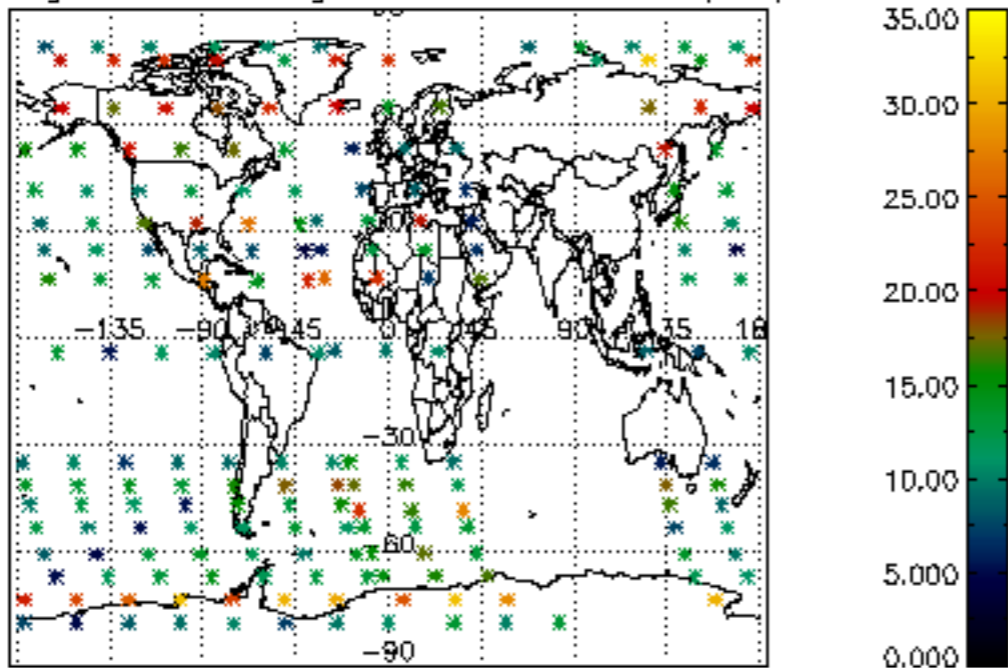
Percentage of cosmic ray hits per profile



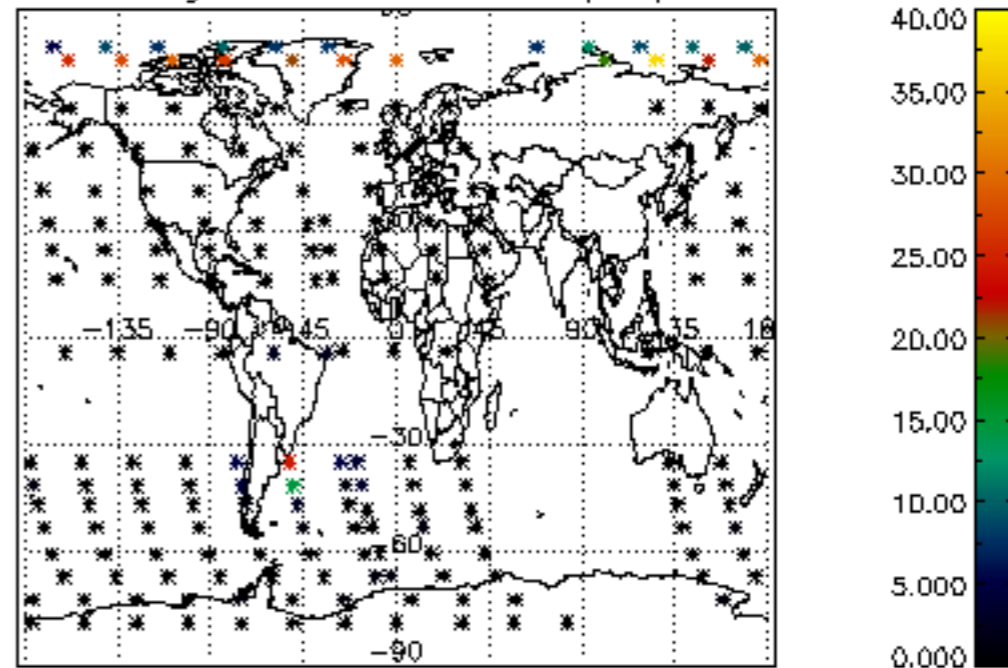
Percentage of datation errors per profile



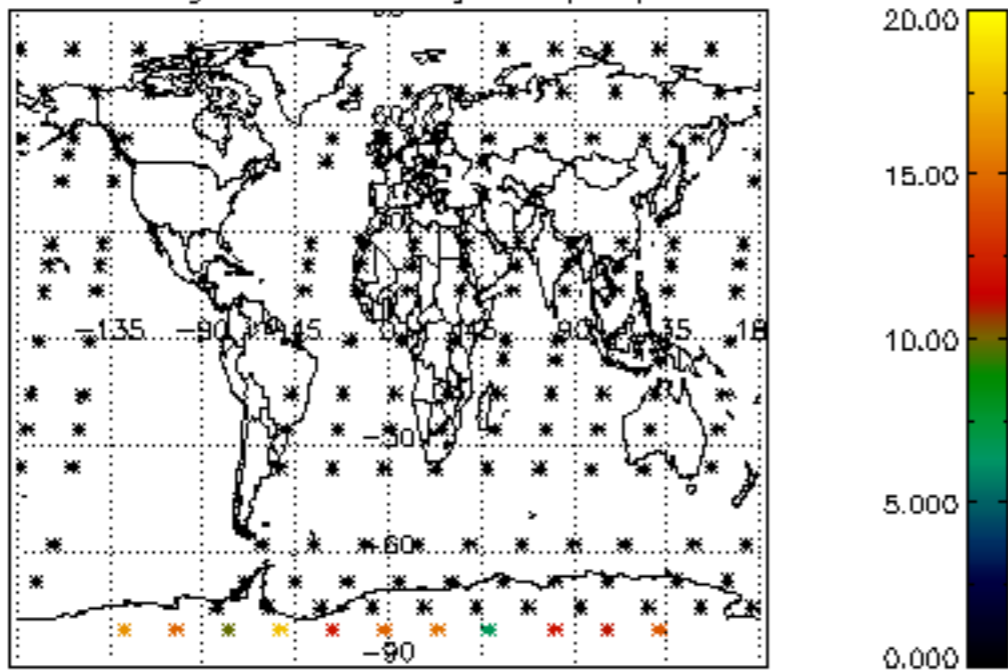
Percentage of star falling outside central band per profile



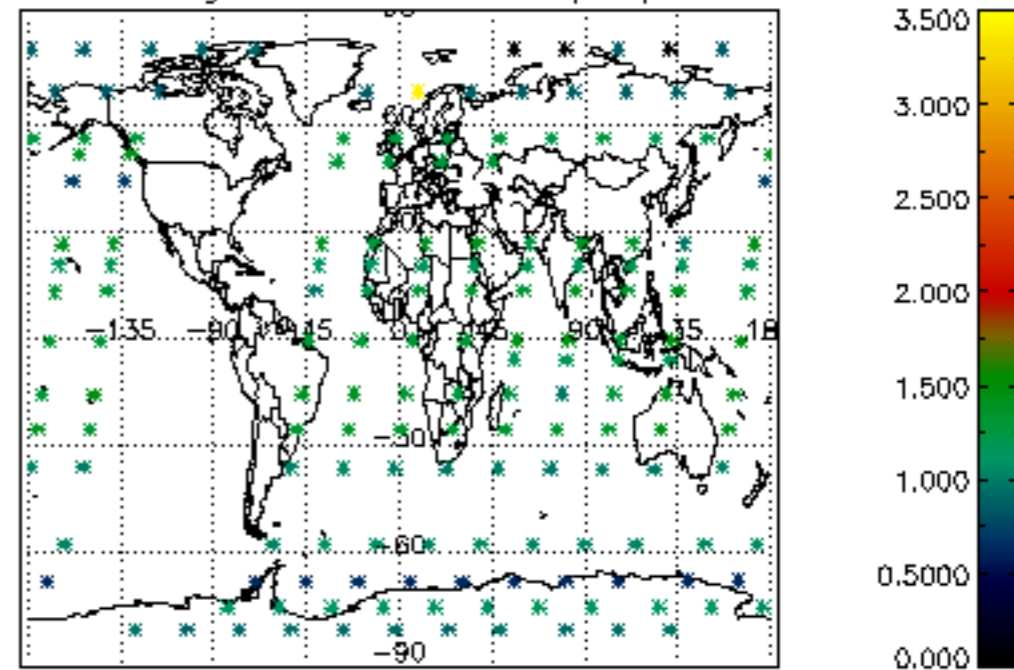
Percentage of saturation errors per profile



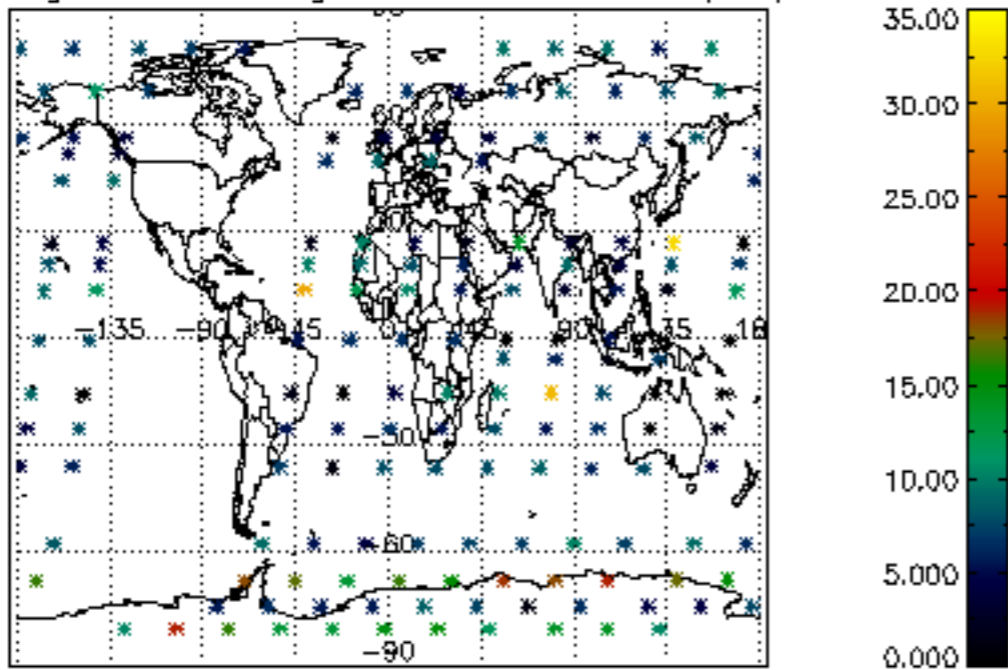
Percentage of cosmic ray hits per profile



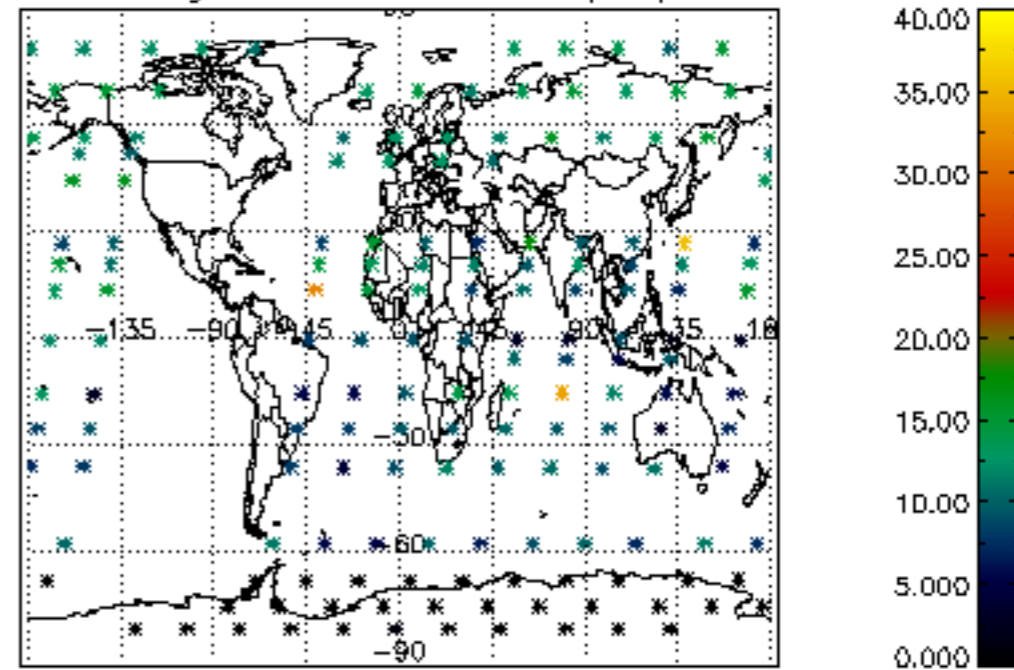
Percentage of datation errors per profile

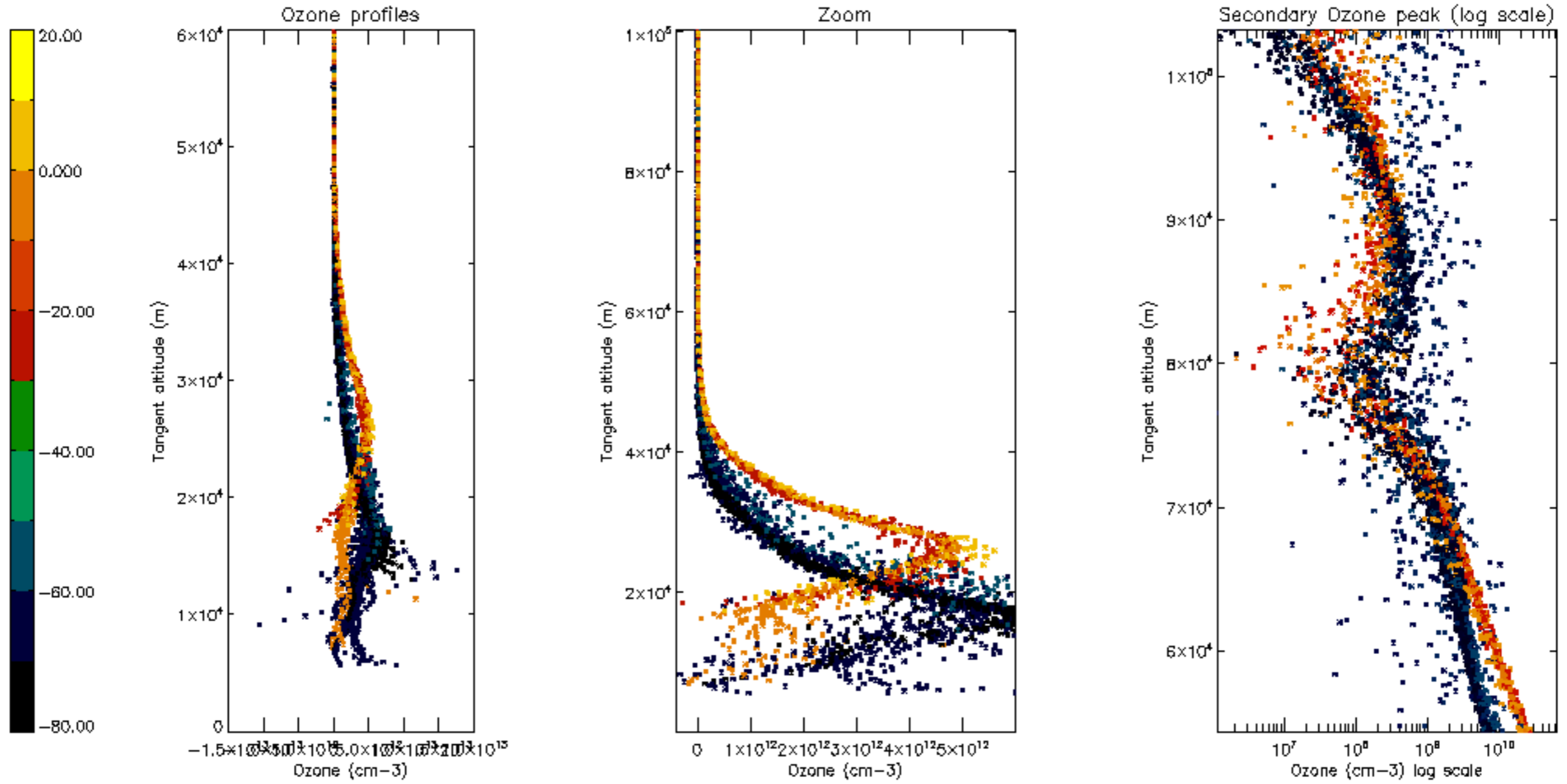


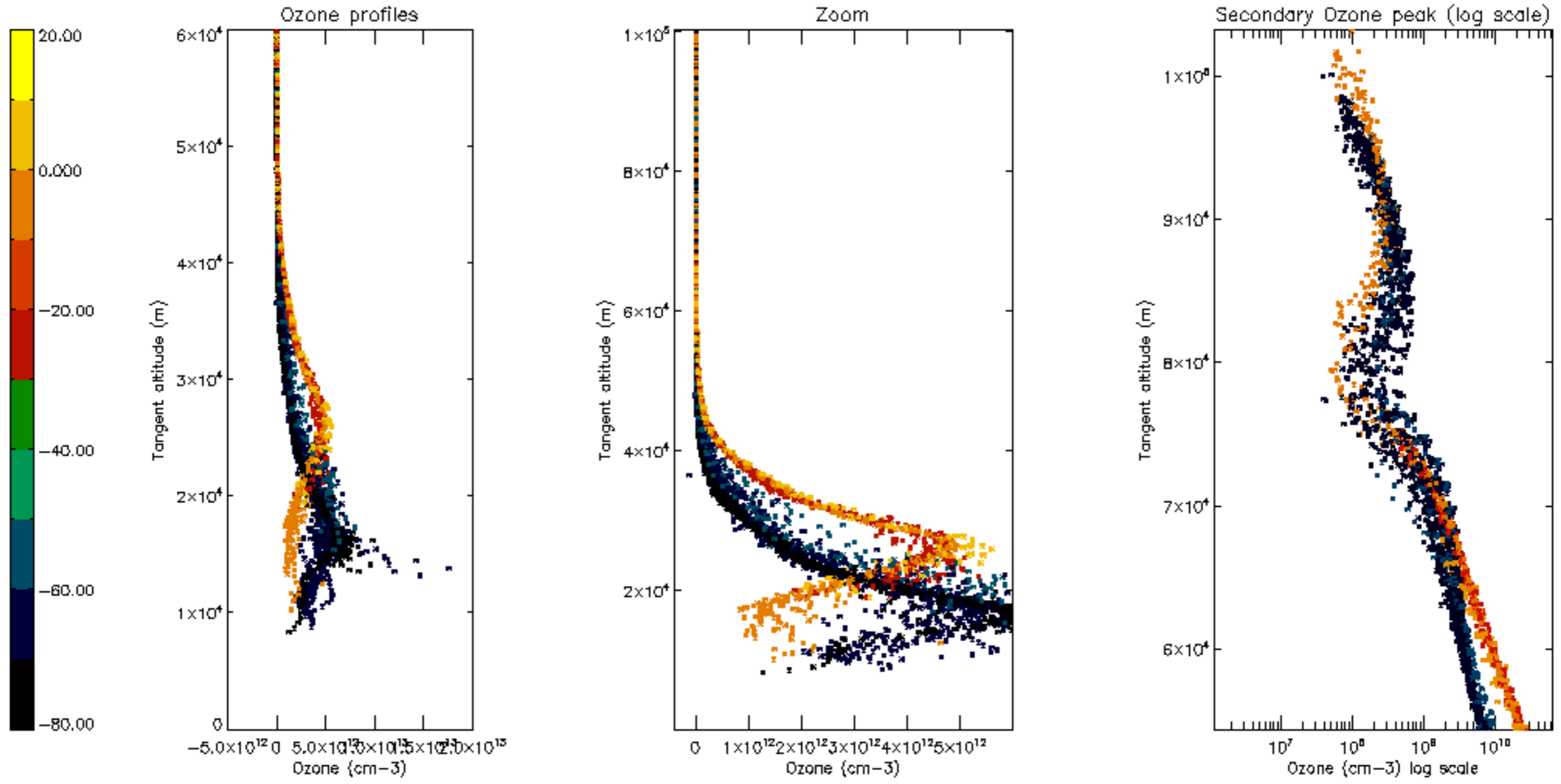
Percentage of star falling outside central band per profile

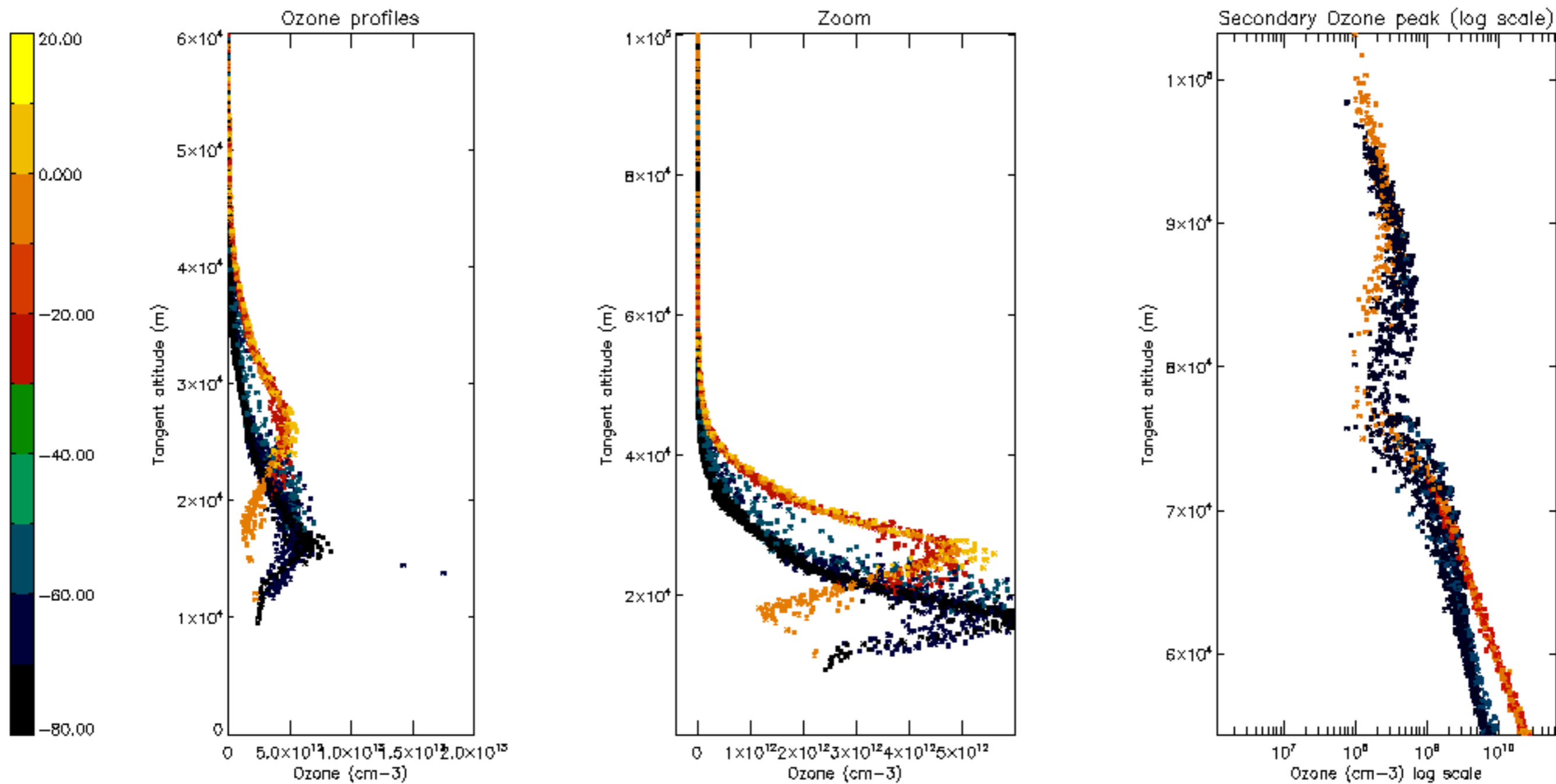


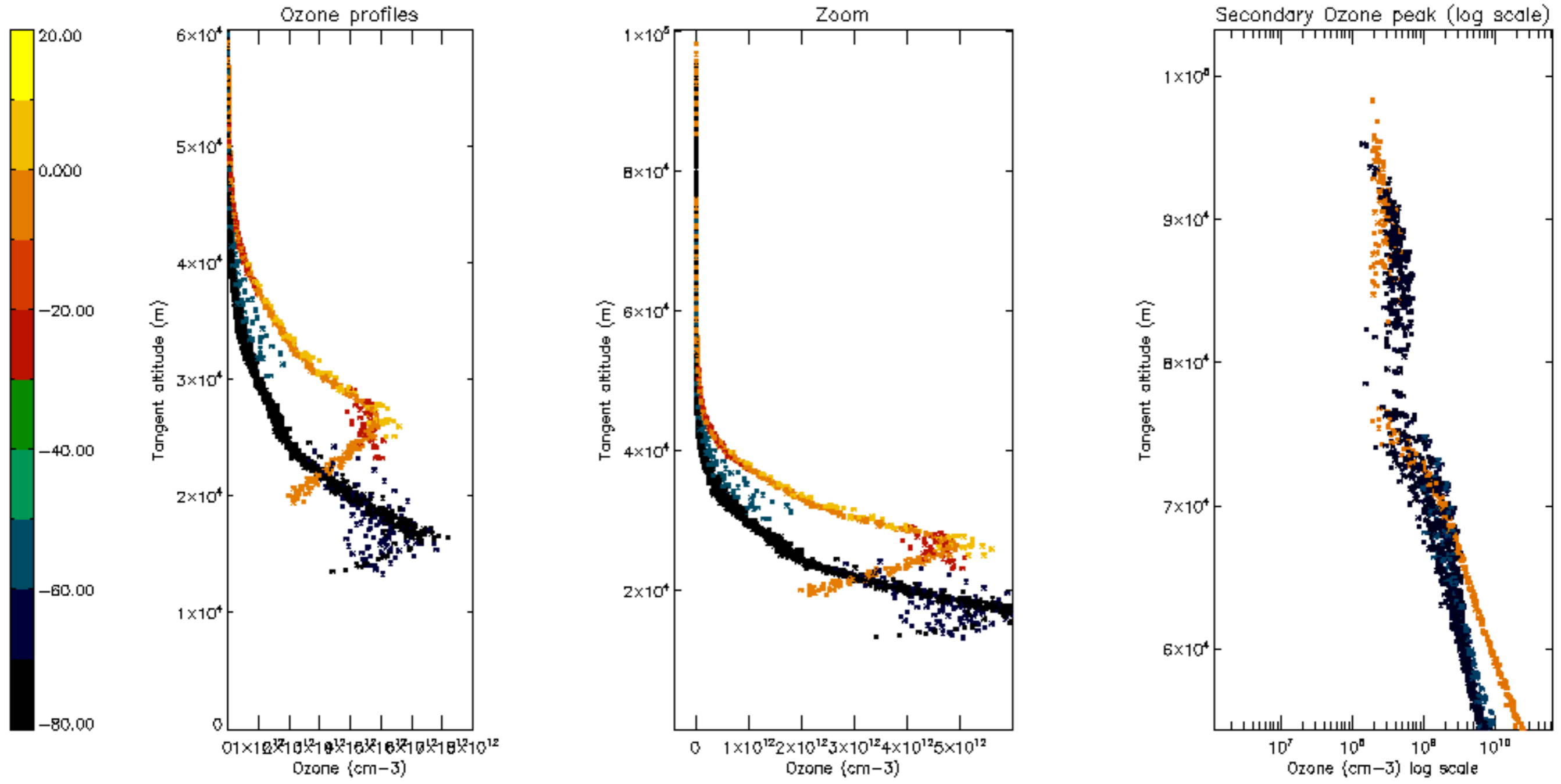
Percentage of saturation errors per profile

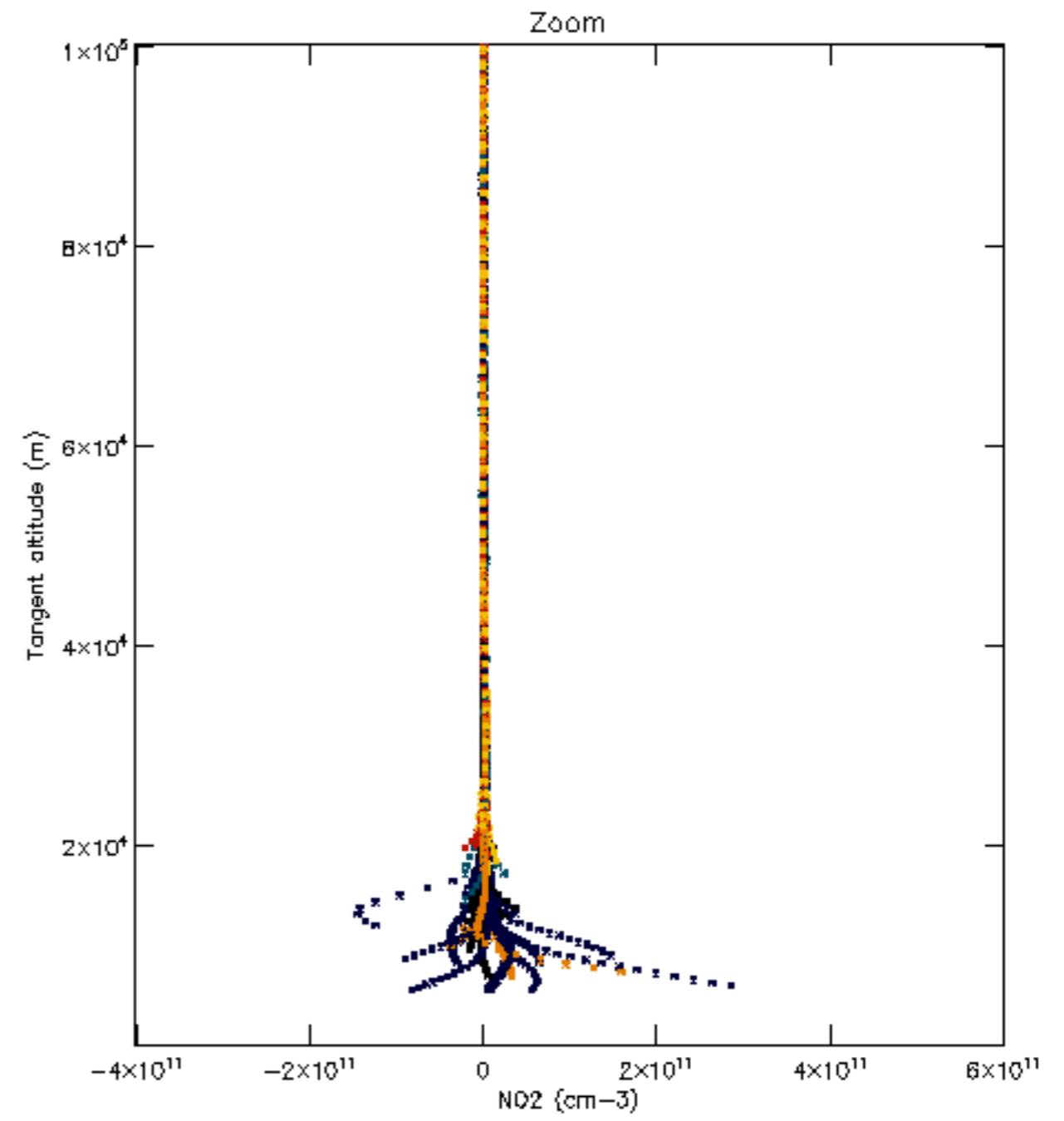
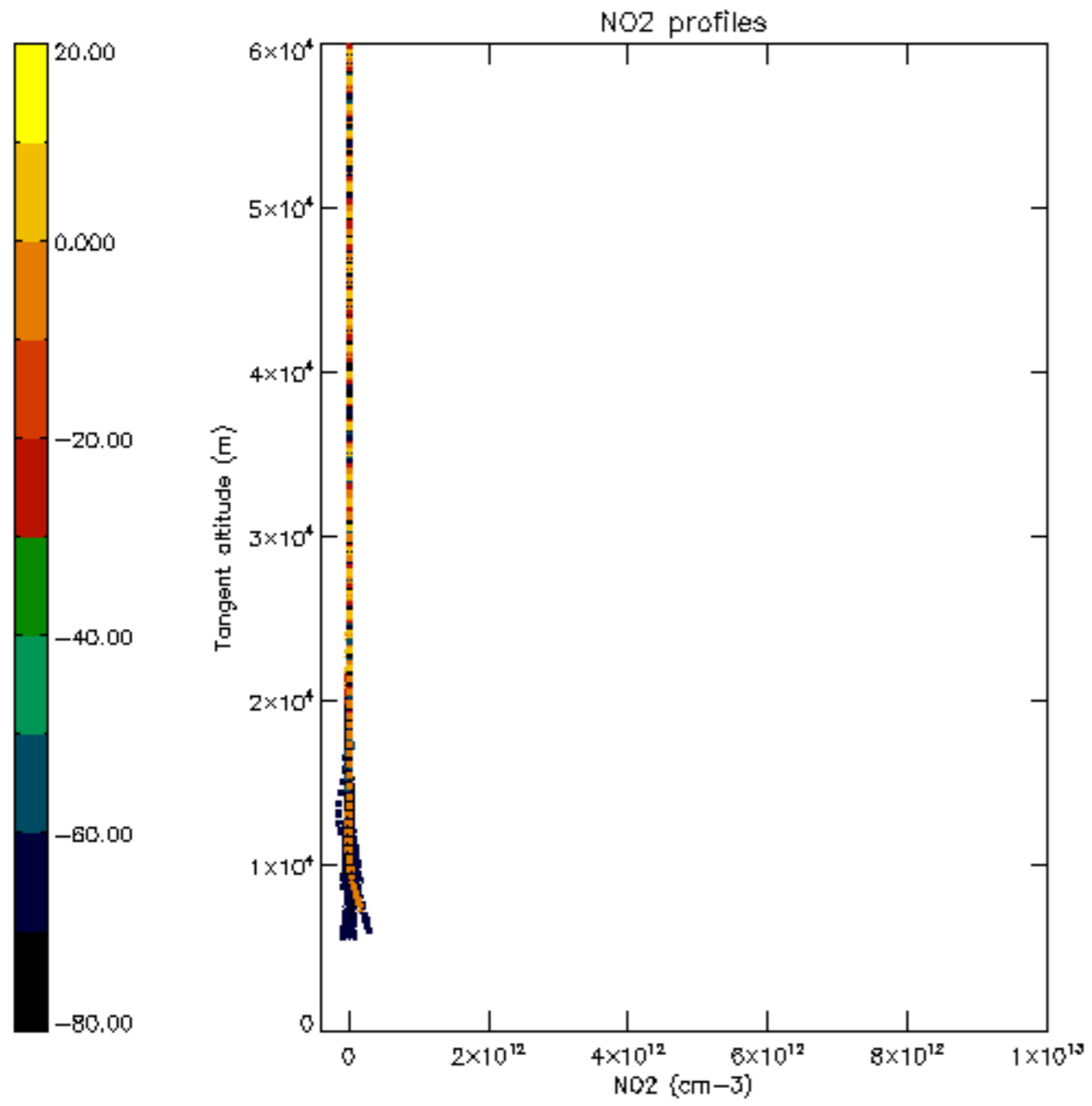


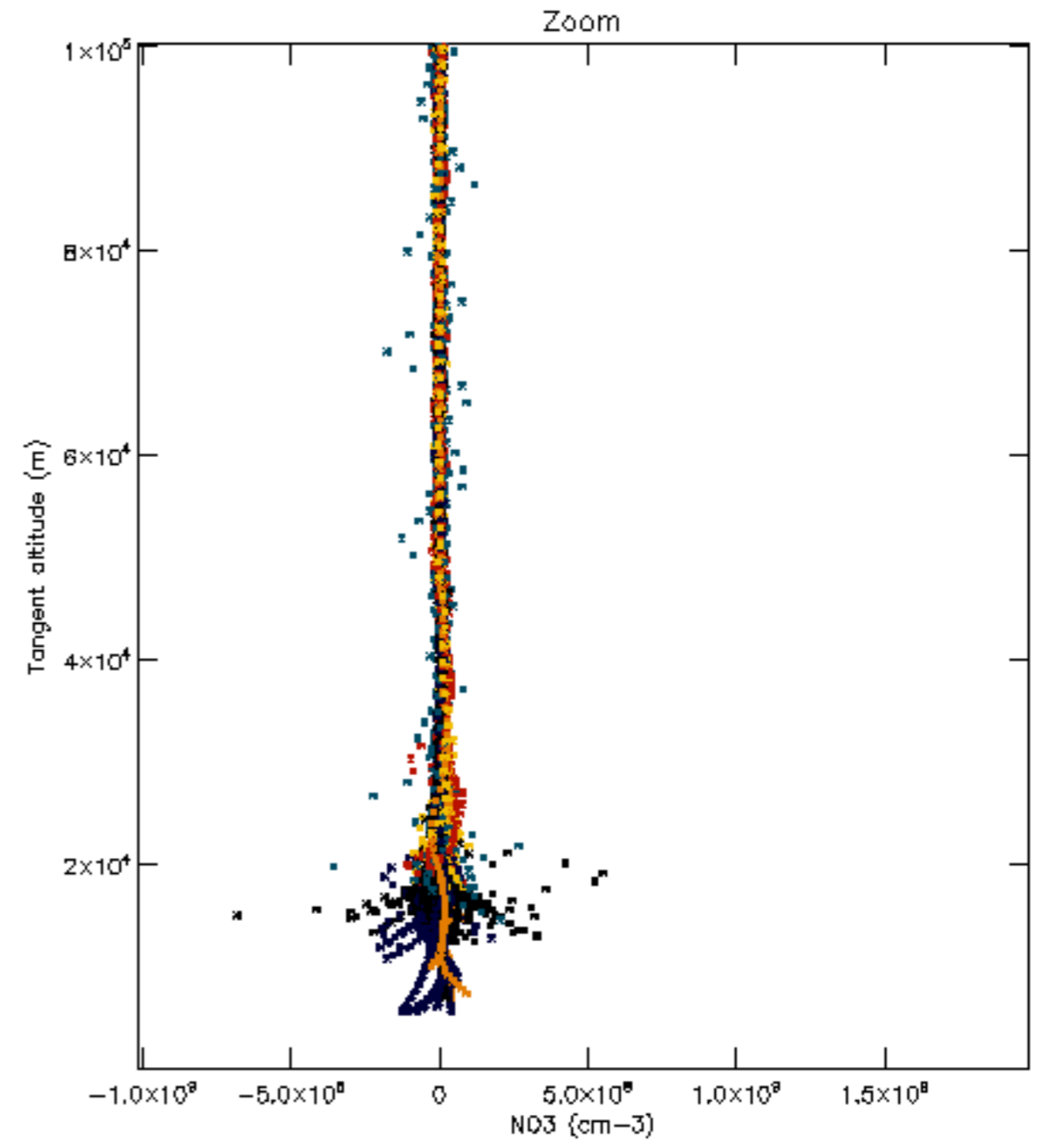
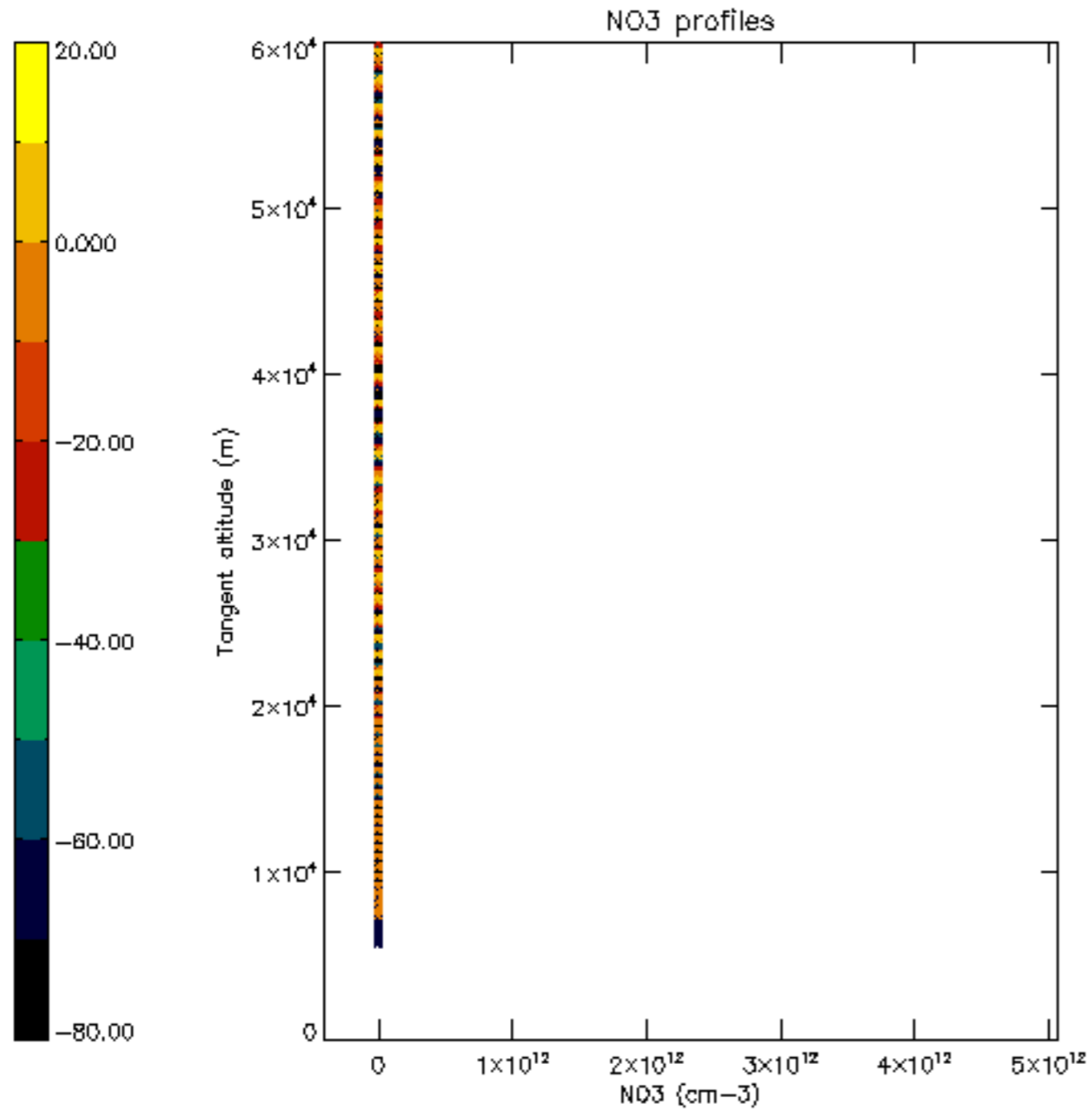


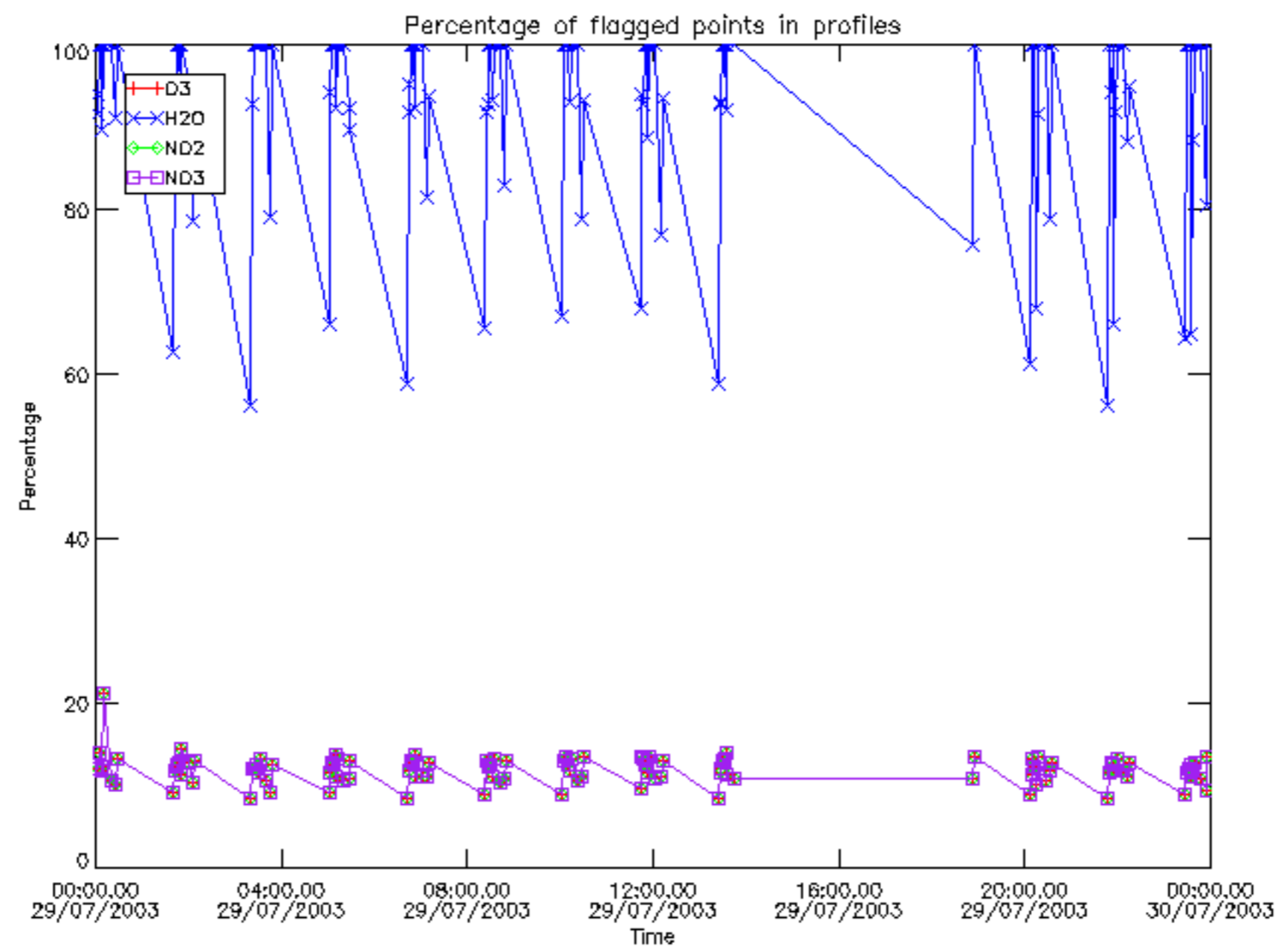




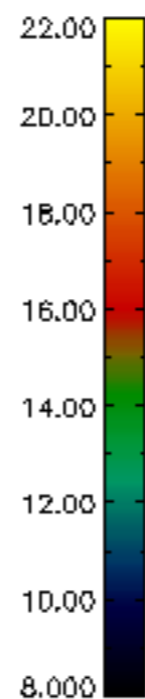
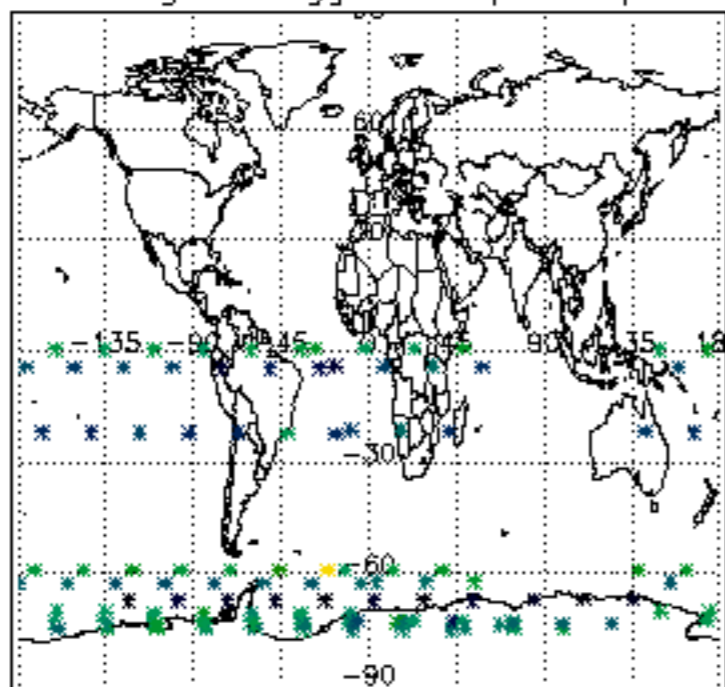




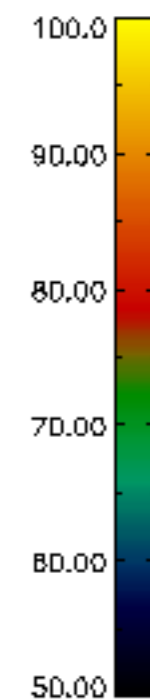
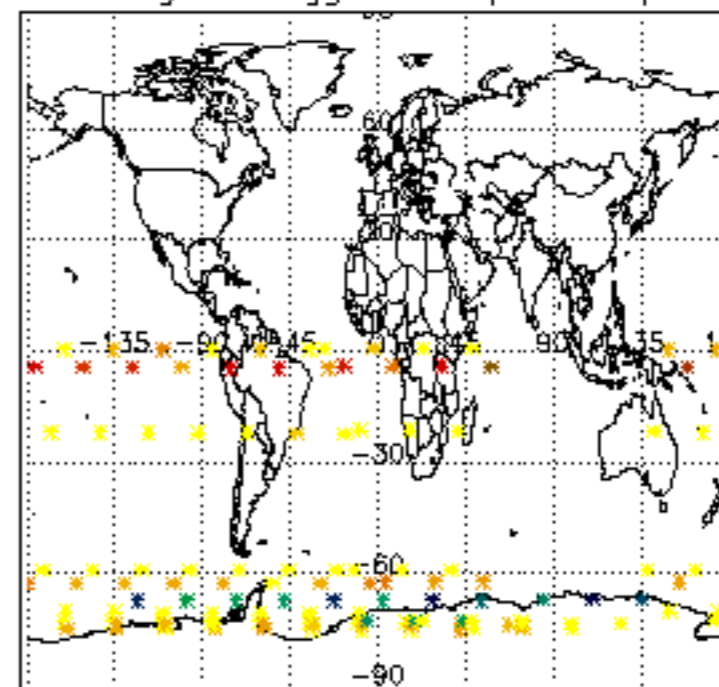




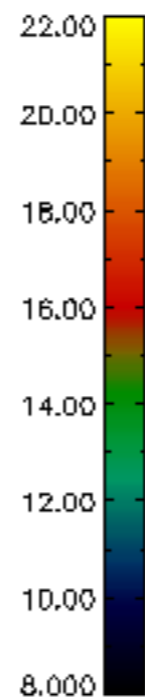
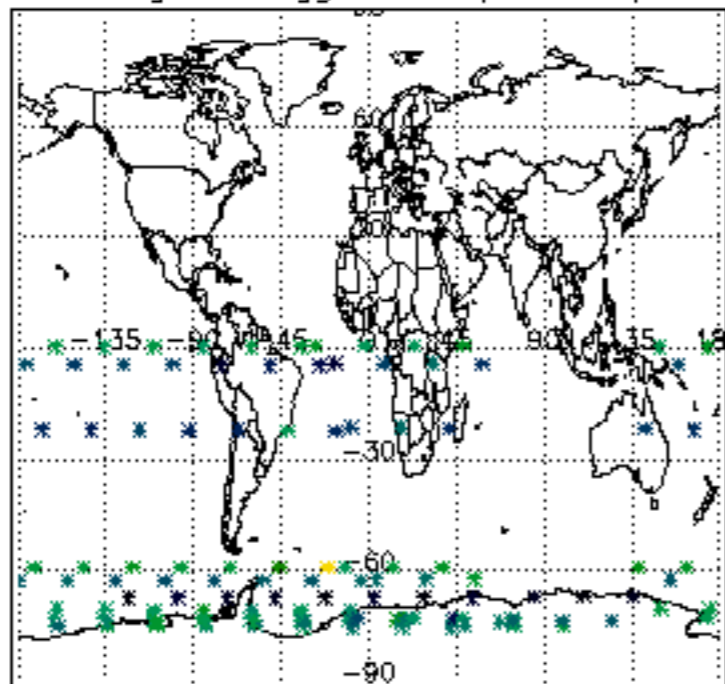
Percentage of flagged data per D3 profile



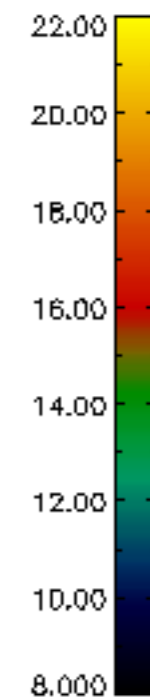
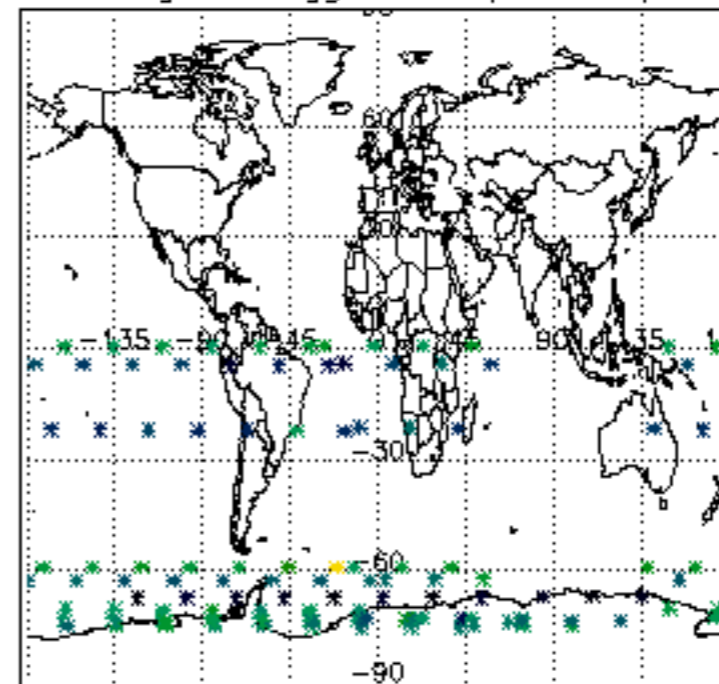
Percentage of flagged data per H2O profile

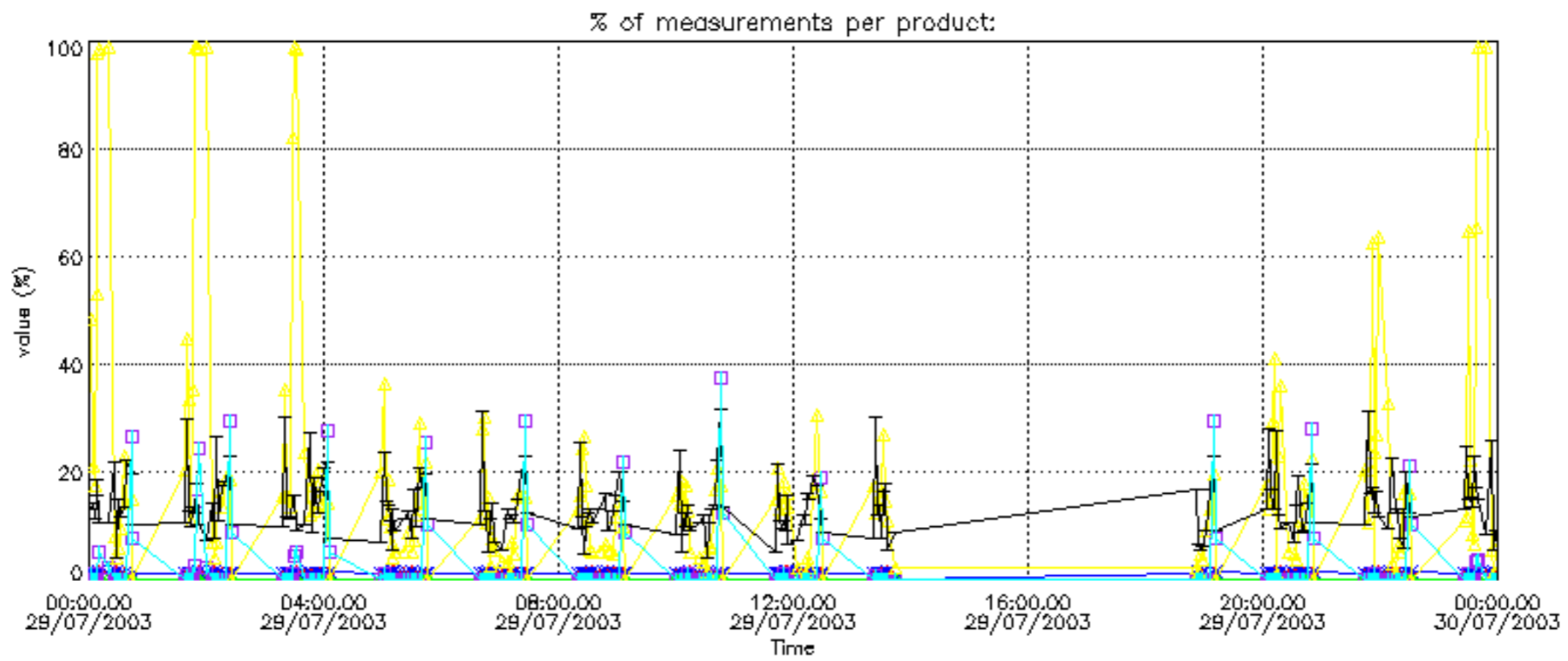


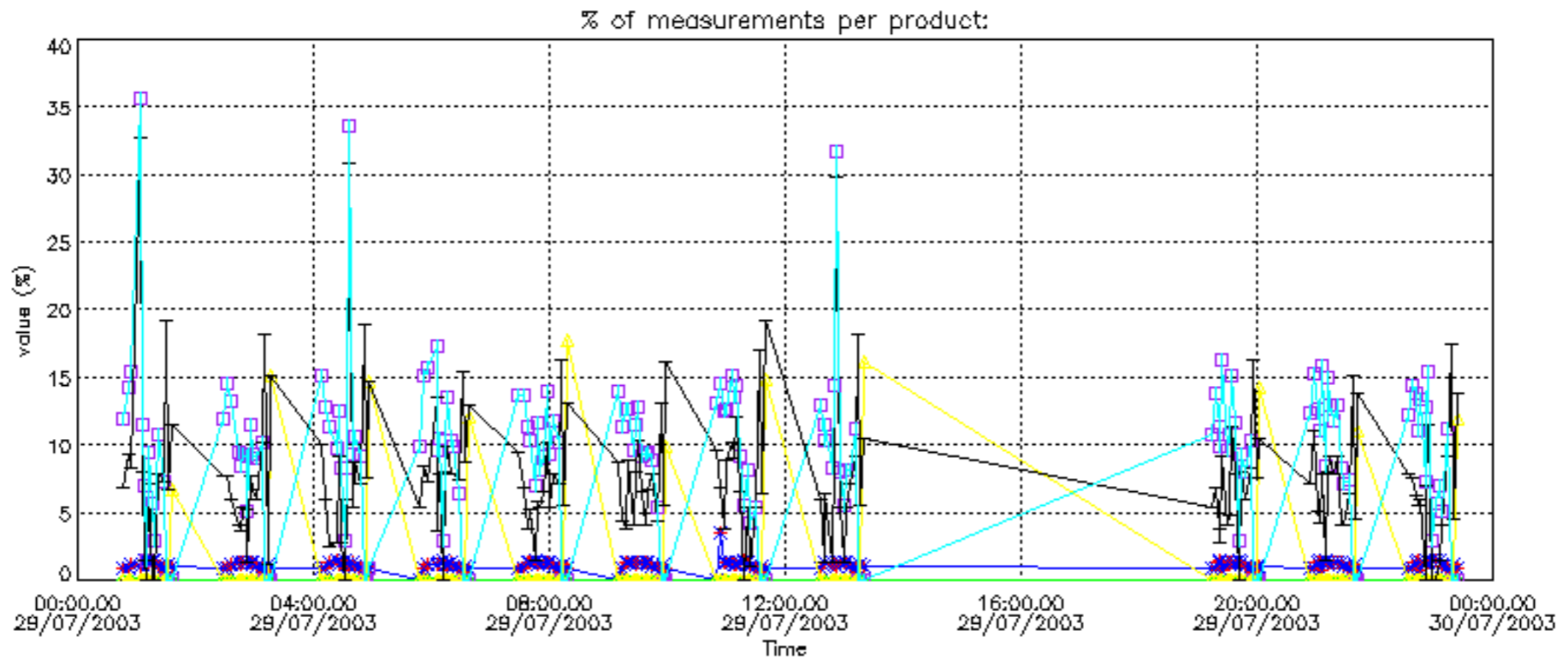
Percentage of flagged data per NO2 profile



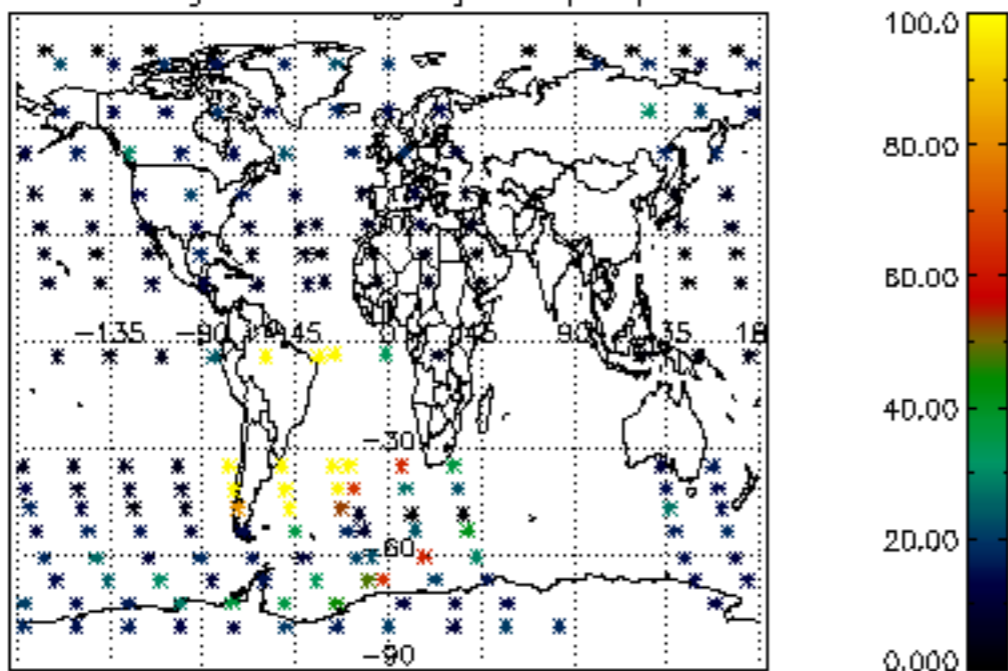
Percentage of flagged data per NO3 profile



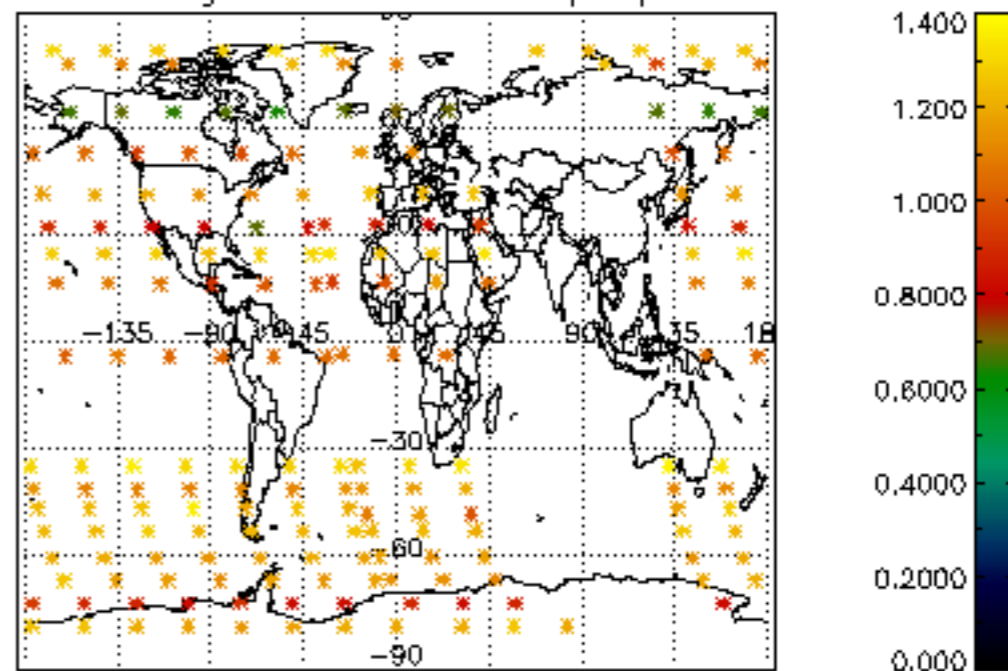




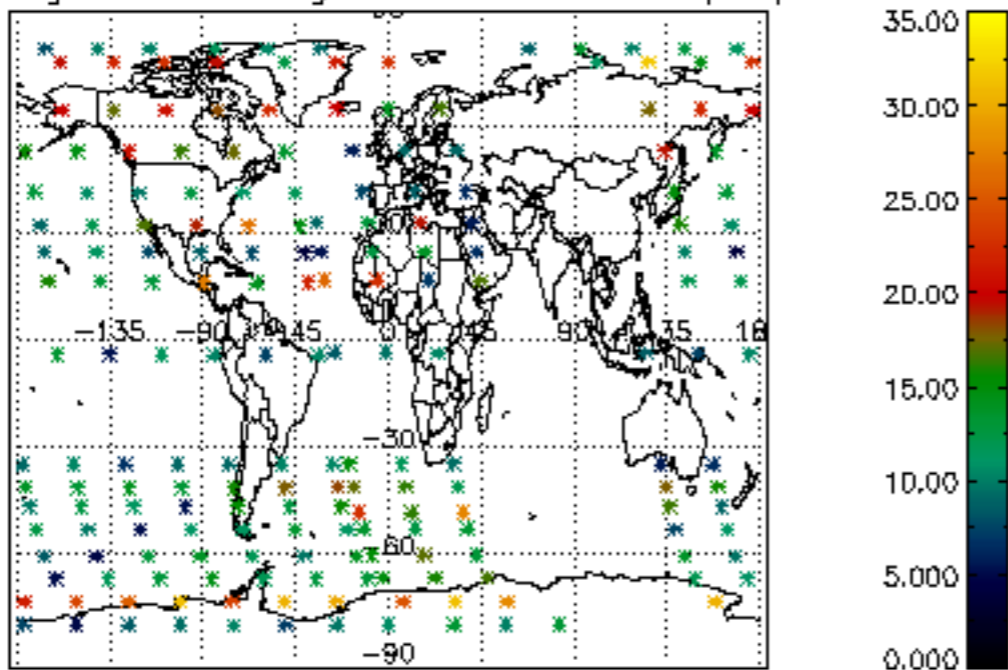
Percentage of cosmic ray hits per profile



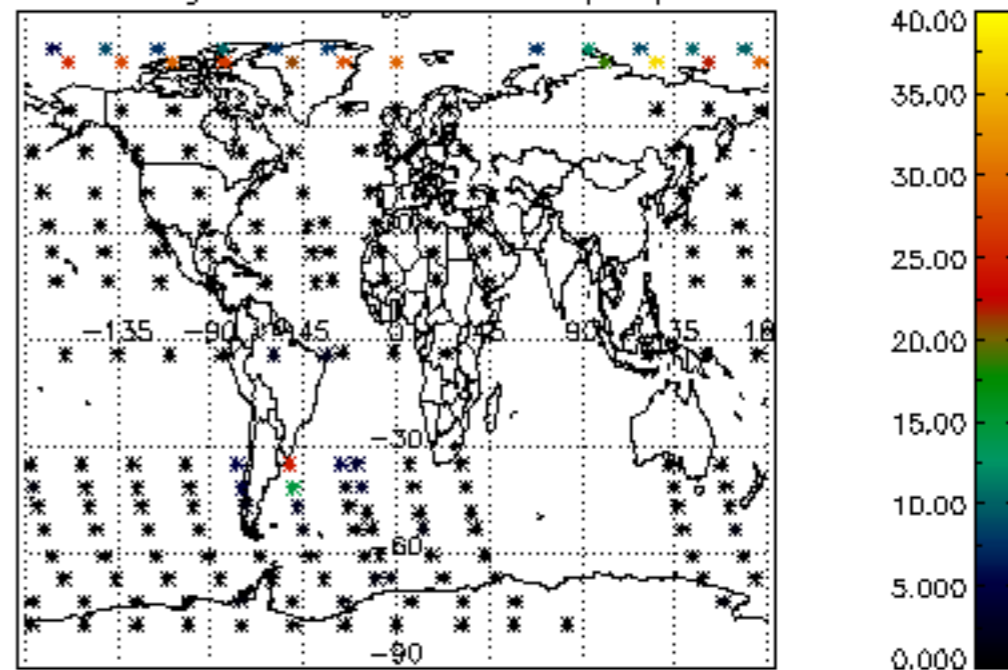
Percentage of datation errors per profile



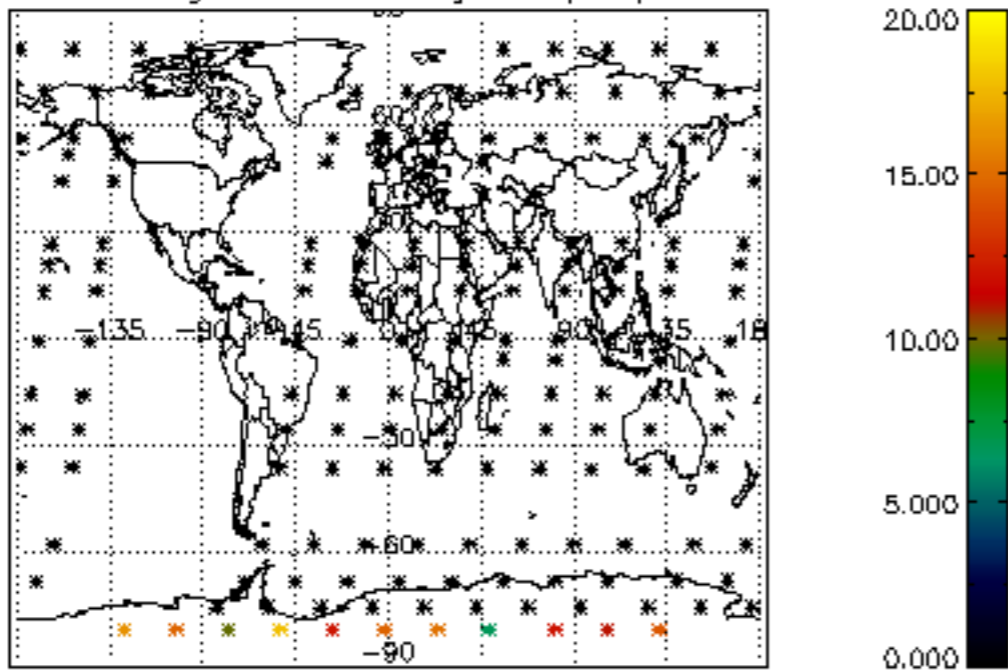
Percentage of star falling outside central band per profile



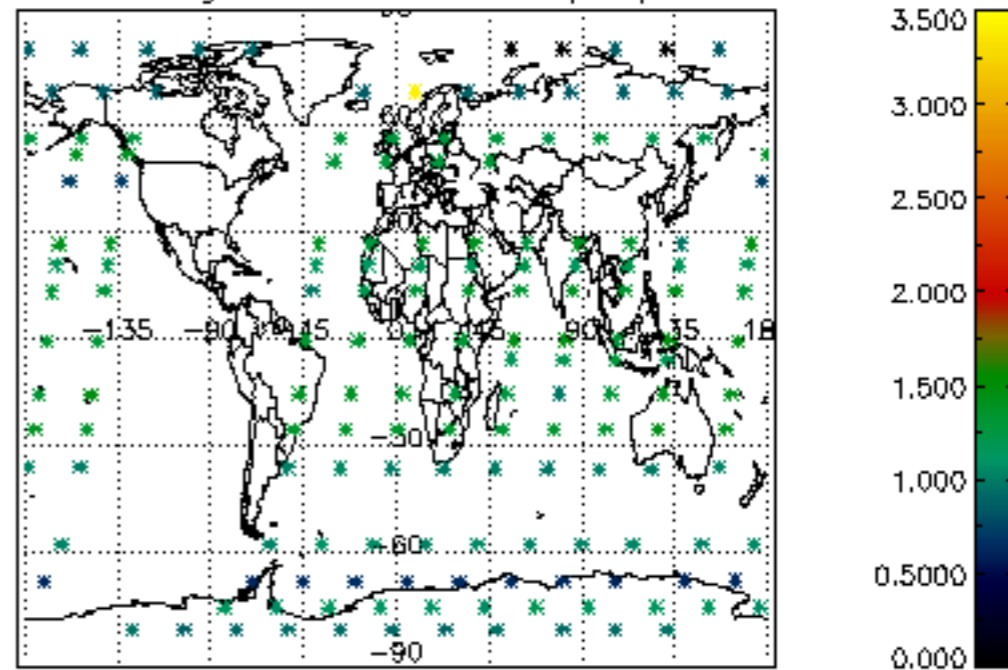
Percentage of saturation errors per profile



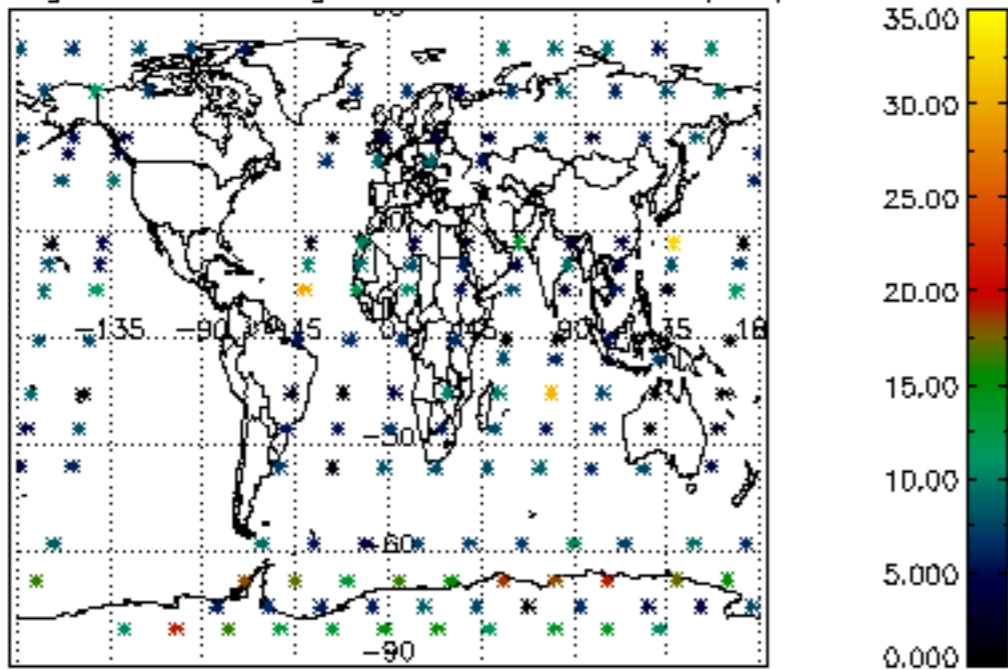
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

