

GOMOS Level 2 Daily Report

SUMMARY

[1. General Info](#)

[2. Summary of processed GOM_NL_2P products](#)

[3. Level 2 Quality information per product](#)

[3.1 Plot of level 2 quality information per product \(time dependant\)](#)

[3.2 Plot of level 2 quality information per product \(world map\)](#)

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

[4.1 Plot of level 1 quality information per product \(time dependant\)](#)

[4.1.1 Plot of level 1 quality information per product \(time dependant\): ASCENDING](#)

[4.1.2 Plot of level 1 quality information per product \(time dependant\): DESCENDING](#)

[4.2 Plot of level 1 quality information per product \(world map\)](#)

[4.2.1 Plot of level 1 quality information per product \(world map\): ASCENDING](#)

[4.2.2 Plot of level 1 quality information per product \(world map\): DESCENDING](#)

[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 \(dark without errors\)](#)

[5.3 Plot ozone profiles where STD < 20% \(dark without errors\)](#)

[5.4. Plot ozone profiles where STD < 10% \(dark without errors\)](#)

[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	26APR2013 18:18:48
Data source version	GOMOS/6.01
Start time of products	15-03-2010 (15MAR2010 00:00:00)
Stop time of products	16-03-2010 (16MAR2010 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	318
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

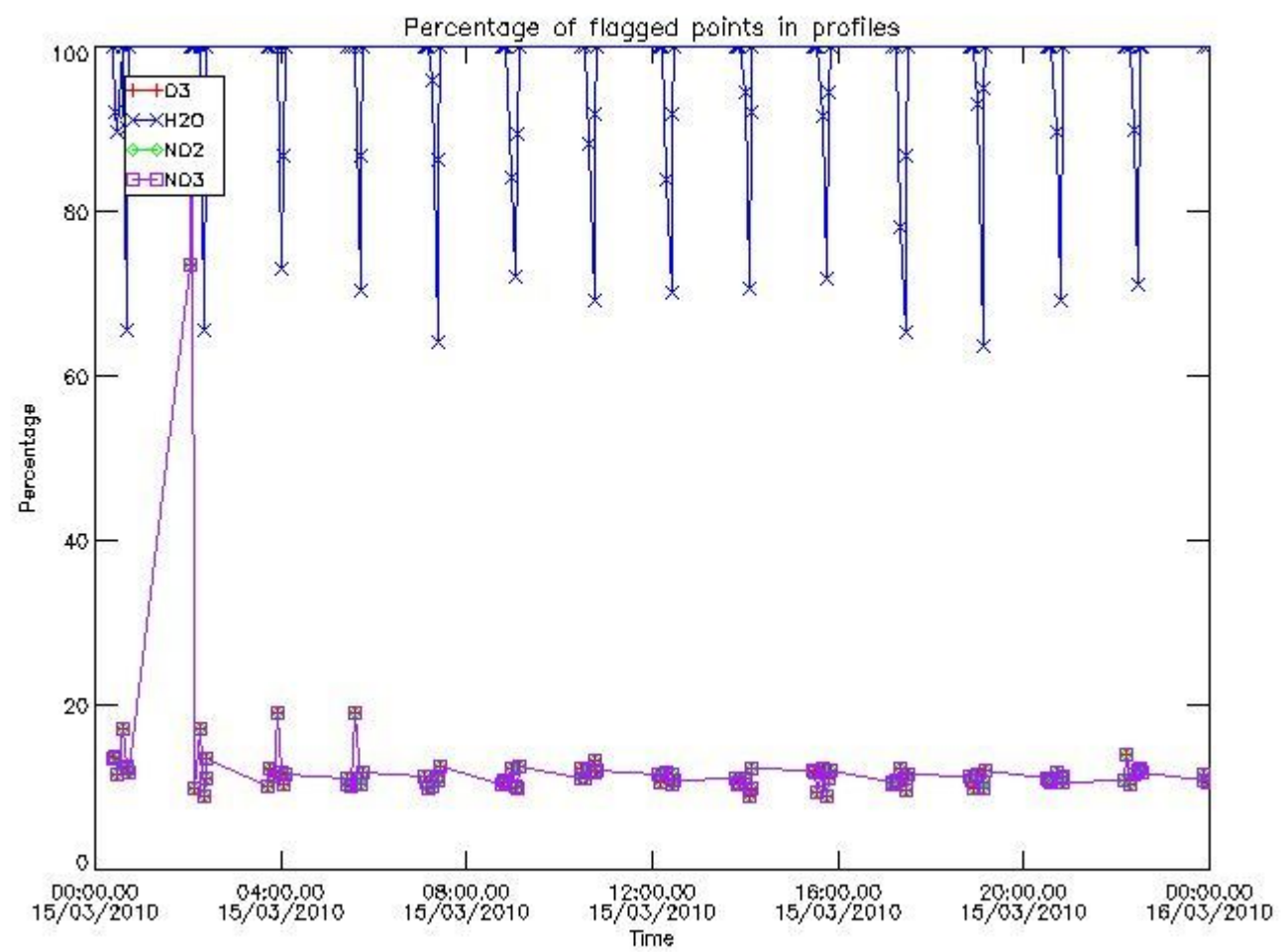
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20100315_000115_000000372087_00388_42025_9364.N1	15-MAR-2010 00:01:15	Bright	36.500	19	50Alp Cyg	1.2460	10500.	73	42025	No
2	GOM_NL__2PRFIN20100315_000249_000000372087_00388_42025_9365.N1	15-MAR-2010 00:02:49	Bright	36.500	66	37Gam Cyg	2.2080	5900.0	73	42025	No
3	GOM_NL__2PRFIN20100315_001246_000000522087_00388_42025_9366.N1	15-MAR-2010 00:12:46	Twilight	51.500	11	53Alp Aql	0.76500	8000.0	103	42025	No
4	GOM_NL__2PRFIN20100315_002249_000000462087_00388_42025_9367.N1	15-MAR-2010 00:22:49	Dark	45.500	155	41Pi Sgr	2.9000	6600.0	91	42025	No
5	GOM_NL__2PRFIN20100315_002451_000000452087_00388_42025_9368.N1	15-MAR-2010 00:24:51	Dark	44.500	57	34Sig Sgr	2.0660	26000.	89	42025	No
6	GOM_NL__2PRFIN20100315_002817_000000492087_00388_42025_9369.N1	15-MAR-2010 00:28:17	Dark	48.500	38	20Eps Sgr	1.8360	11000.	97	42025	No
7	GOM_NL__2PRFIN20100315_003500_000000302087_00389_42026_9581.N1	15-MAR-2010 00:35:00	Dark	30.000	75	26Eps Sco	2.2910	4250.0	60	42026	No
8	GOM_NL__2PRFIN20100315_004050_000000462087_00389_42026_9582.N1	15-MAR-2010 00:40:50	Dark	45.500	4	Alp1Cen	-0.010000	5800.0	91	42026	No
9	GOM_NL__2PRFIN20100315_004204_000000412087_00389_42026_9583.N1	15-MAR-2010 00:42:04	Dark	41.000	10	Bet Cen	0.61000	28000.	82	42026	No
10	GOM_NL__2PRFIN20100315_004407_000000432087_00389_42026_9584.N1	15-MAR-2010 00:44:07	Dark	43.000	77	Eps Cen	2.3030	28000.	86	42026	No
11	GOM_NL__2PRFIN20100315_004716_000000592087_00389_42026_9585.N1	15-MAR-2010 00:47:16	Straylight	59.000	54	5The Cen	2.0550	4500.0	118	42026	No
12	GOM_NL__2PRFIN20100315_004911_000000512087_00389_42026_9586.N1	15-MAR-2010 00:49:11	Straylight	50.500	123	1ot Cen	2.7500	10200.	101	42026	No
13	GOM_NL__2PRFIN20100315_005505_000000532087_00389_42026_9587.N1	15-MAR-2010 00:55:05	Straylight	53.000	106	9Bet Crv	2.6480	5600.0	106	42026	No
14	GOM_NL__2PRFIN20100315_005727_000000522087_00389_42026_9588.N1	15-MAR-2010 00:57:27	Straylight	52.000	100	4Gam Crv	2.5800	13100.	104	42026	No
15	GOM_NL__2PRFIN20100315_010909_000000392087_00389_42026_9589.N1	15-MAR-2010 01:09:09	Bright	38.500	51	41Gam1Leo	2.0100	4500.0	77	42026	No
16	GOM_NL__2PRFIN20100315_011700_000000412087_00389_42026_9590.N1	15-MAR-2010 01:17:00	Bright	40.500	174	52Psi UMa	3.0040	4400.0	81	42026	No
17	GOM_NL__2PRFIN20100315_012009_000000362087_00389_42026_9591.N1	15-MAR-2010 01:20:09	Bright	36.000	82	48Bet UMa	2.3650	10600.	72	42026	No
18	GOM_NL__2PRFIN20100315_012139_000000562087_00389_42026_9592.N1	15-MAR-2010 01:21:39	Bright	56.000	36	50Alp UMa	1.8000	6300.0	112	42026	No
19	GOM_NL__2PRFIN20100315_012323_000000472087_00389_42026_9593.N1	15-MAR-2010 01:23:23	Bright	47.000	32	77Eps UMa	1.7630	11000.	94	42026	No
20	GOM_NL__2PRFIN20100315_012845_000000412087_00389_42026_9594.N1	15-MAR-2010 01:28:45	Bright	40.500	60	7Bet UMi	2.0810	3950.0	81	42026	No
21	GOM_NL__2PRFIN20100315_013254_000000482087_00389_42026_9595.N1	15-MAR-2010 01:32:54	Bright	48.000	119	14Eta Dra	2.7270	4700.0	96	42026	No
22	GOM_NL__2PRFIN20100315_013846_000000712087_00389_42026_9596.N1	15-MAR-2010 01:38:46	Bright	71.000	69	33Gam Dra	2.2310	3800.0	142	42026	No
23	GOM_NL__2PRFIN20100315_014151_000000382087_00389_42026_9597.N1	15-MAR-2010 01:41:51	Bright	38.000	19	50Alp Cyg	1.2460	10500.	76	42026	No
24	GOM_NL__2PRFIN20100315_014325_000000362087_00389_42026_9598.N1	15-MAR-2010 01:43:25	Bright	36.000	66	37Gam Cyg	2.2080	5900.0	72	42026	No
25	GOM_NL__2PRFIN20100315_015322_000000522087_00389_42026_9599.N1	15-MAR-2010 01:53:22	Twilight	51.500	11	53Alp Aql	0.76500	8000.0	103	42026	No
26	GOM_NL__2PRFIN20100315_020326_000000482087_00389_42026_9600.N1	15-MAR-2010 02:03:26	Dark	47.500	155	41Pi Sgr	2.9000	6600.0	95	42026	No
27	GOM_NL__2PRFIN20100315_020527_000000472087_00389_42026_9601.N1	15-MAR-2010 02:05:27	Dark	47.000	57	34Sig Sgr	2.0660	26000.	94	42026	No
28	GOM_NL__2PRFIN20100315_020853_000000522087_00389_42026_9602.N1	15-MAR-2010 02:08:53	Dark	52.000	38	20Eps Sgr	1.8360	11000.	104	42026	No
29	GOM_NL__2PRFIN20100315_021538_000000302087_00390_42027_9589.N1	15-MAR-2010 02:15:38	Dark	30.000	75	26Eps Sco	2.2910	4250.0	60	42027	No
30	GOM_NL__2PRFIN20100315_022127_000000572087_00390_42027_9590.N1	15-MAR-2010 02:21:27	Dark	57.000	4	Alp1Cen	-0.010000	5800.0	114	42027	No
31	GOM_NL__2PRFIN20100315_022241_000000502087_00390_42027_9591.N1	15-MAR-2010 02:22:41	Dark	50.000	10	Bet Cen	0.61000	28000.	100	42027	No
32	GOM_NL__2PRFIN20100315_022444_000000422087_00390_42027_9592.N1	15-MAR-2010 02:24:44	Dark	41.500	77	Eps Cen	2.3030	28000.	83	42027	No
33	GOM_NL__2PRFIN20100315_022753_000000592087_00390_42027_9593.N1	15-MAR-2010 02:27:53	Straylight	59.000	54	5The Cen	2.0550	4500.0	118	42027	No
34	GOM_NL__2PRFIN20100315_022947_000000512087_00390_42027_9594.N1	15-MAR-2010 02:29:47	Straylight	50.500	123	1ot Cen	2.7500	10200.	101	42027	No
35	GOM_NL__2PRFIN20100315_023541_000000562087_00390_42027_9595.N1	15-MAR-2010 02:35:41	Straylight	56.000	106	9Bet Crv	2.6480	5600.0	112	42027	No
36	GOM_NL__2PRFIN20100315_023803_000000532087_00390_42027_9596.N1	15-MAR-2010 02:38:03	Straylight	53.000	100	4Gam Crv	2.5800	13100.	106	42027	No
37	GOM_NL__2PRFIN20100315_024944_000000402087_00390_42027_9597.N1	15-MAR-2010 02:49:44	Bright	39.500	51	41Gam1Leo	2.0100	4500.0	79	42027	No
38	GOM_NL__2PRFIN20100315_025736_000000412087_00390_42027_9598.N1	15-MAR-2010 02:57:36	Bright	41.000	174	52Psi UMa	3.0040	4400.0	82	42027	No
39	GOM_NL__2PRFIN20100315_030045_000000382087_00390_42027_9599.N1	15-MAR-2010 03:00:45	Bright	38.000	82	48Bet UMa	2.3650	10600.	76	42027	No
40	GOM_NL__2PRFIN20100315_030214_000000372087_00390_42027_9600.N1	15-MAR-2010 03:02:14	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	42027	No
41	GOM_NL__2PRFIN20100315_030358_000000472087_00390_42027_9601.N1	15-MAR-2010 03:03:58	Bright	46.500	32	77Eps UMa	1.7630	11000.	93	42027	No
42	GOM_NL__2PRFIN20100315_030921_000000432087_00390_42027_9602.N1	15-MAR-2010 03:09:21	Bright	42.500	60	7Bet UMi	2.0810	3950.0	85	42027	No

279	GOM_NL__2PRFIN20100315_210220_000000532087_00401_42038_9730.N1	15-MAR-2010 21:02:20	Straylight	53.000	106	9Bet Crv	2.6480	5600.0	106	42038	No
280	GOM_NL__2PRFIN20100315_210440_000000512087_00401_42038_9731.N1	15-MAR-2010 21:04:40	Twilight_stray	51.000	100	4Gam Crv	2.5800	13100.	102	42038	No
281	GOM_NL__2PRFIN20100315_211619_000000412087_00401_42038_9732.N1	15-MAR-2010 21:16:19	Bright	40.500	51	41Gam1Leo	2.0100	4500.0	81	42038	No
282	GOM_NL__2PRFIN20100315_212407_000000412087_00401_42038_9733.N1	15-MAR-2010 21:24:07	Bright	41.000	174	52Psi UMa	3.0040	4400.0	82	42038	No
283	GOM_NL__2PRFIN20100315_212718_000000382087_00401_42038_9734.N1	15-MAR-2010 21:27:18	Bright	37.500	82	48Bet UMa	2.3650	10600.	75	42038	No
284	GOM_NL__2PRFIN20100315_212847_000000392087_00401_42038_9735.N1	15-MAR-2010 21:28:47	Bright	39.000	36	50Alp UMa	1.8000	6300.0	78	42038	No
285	GOM_NL__2PRFIN20100315_213025_000000472087_00401_42038_9736.N1	15-MAR-2010 21:30:25	Bright	46.500	32	77Eps UMa	1.7630	11000.	93	42038	No
286	GOM_NL__2PRFIN20100315_213552_000000442087_00401_42038_9737.N1	15-MAR-2010 21:35:52	Bright	44.000	60	7Bet UMi	2.0810	3950.0	88	42038	No
287	GOM_NL__2PRFIN20100315_213958_000000482087_00401_42038_9738.N1	15-MAR-2010 21:39:58	Bright	47.500	119	14Eta Dra	2.7270	4700.0	95	42038	No
288	GOM_NL__2PRFIN20100315_214552_000000472087_00401_42038_9739.N1	15-MAR-2010 21:45:52	Bright	47.000	69	33Gam Dra	2.2310	3800.0	94	42038	No
289	GOM_NL__2PRFIN20100315_214903_000000362087_00401_42038_9740.N1	15-MAR-2010 21:49:03	Bright	35.500	19	50Alp Cyg	1.2460	10500.	71	42038	No
290	GOM_NL__2PRFIN20100315_215037_000000452087_00401_42038_9741.N1	15-MAR-2010 21:50:37	Bright	44.500	66	37Gam Cyg	2.2080	5900.0	89	42038	No
291	GOM_NL__2PRFIN20100315_215220_000000432087_00401_42038_9742.N1	15-MAR-2010 21:52:20	Bright	42.500	92	53Eps Cyg	2.5000	4500.0	85	42038	No
292	GOM_NL__2PRFIN20100315_220038_000000512087_00401_42038_9743.N1	15-MAR-2010 22:00:38	Twilight_stray	50.500	11	53Alp Aql	0.76500	8000.0	101	42038	No
293	GOM_NL__2PRFIN20100315_221046_000000472087_00401_42038_9744.N1	15-MAR-2010 22:10:46	Dark	47.000	155	41Pi Sgr	2.9000	6600.0	94	42038	No
294	GOM_NL__2PRFIN20100315_221248_000000482087_00401_42038_9745.N1	15-MAR-2010 22:12:48	Dark	47.500	57	34Sig Sgr	2.0660	26000.	95	42038	No
295	GOM_NL__2PRFIN20100315_221616_000000492087_00401_42038_9746.N1	15-MAR-2010 22:16:16	Dark	49.000	38	20Eps Sgr	1.8360	11000.	98	42038	No
296	GOM_NL__2PRFIN20100315_222217_000000452087_00402_42039_9732.N1	15-MAR-2010 22:22:17	Dark	44.500	141	Bet Ara	2.8400	4600.0	89	42039	No
297	GOM_NL__2PRFIN20100315_222845_000000422087_00402_42039_9733.N1	15-MAR-2010 22:28:45	Dark	42.000	4	Alp1Cen	-0.010000	5800.0	84	42039	No
298	GOM_NL__2PRFIN20100315_222958_000000422087_00402_42039_9734.N1	15-MAR-2010 22:29:58	Dark	41.500	10	Bet Cen	0.61000	28000.	83	42039	No
299	GOM_NL__2PRFIN20100315_223202_000000442087_00402_42039_9735.N1	15-MAR-2010 22:32:02	Dark	43.500	77	Eps Cen	2.3030	28000.	87	42039	No
300	GOM_NL__2PRFIN20100315_223514_000000612087_00402_42039_9736.N1	15-MAR-2010 22:35:14	Straylight	60.500	54	5The Cen	2.0550	4500.0	121	42039	No
301	GOM_NL__2PRFIN20100315_223706_000000522087_00402_42039_9737.N1	15-MAR-2010 22:37:06	Straylight	51.500	123	1ot Cen	2.7500	10200.	103	42039	No
302	GOM_NL__2PRFIN20100315_224255_000000542087_00402_42039_9738.N1	15-MAR-2010 22:42:55	Straylight	53.500	106	9Bet Crv	2.6480	5600.0	107	42039	No
303	GOM_NL__2PRFIN20100315_224516_000000532087_00402_42039_9739.N1	15-MAR-2010 22:45:16	Twilight_stray	52.500	100	4Gam Crv	2.5800	13100.	105	42039	No
304	GOM_NL__2PRFIN20100315_225655_000000402087_00402_42039_9740.N1	15-MAR-2010 22:56:55	Bright	40.000	51	41Gam1Leo	2.0100	4500.0	80	42039	No
305	GOM_NL__2PRFIN20100315_230443_000000382087_00402_42039_9741.N1	15-MAR-2010 23:04:43	Bright	37.500	174	52Psi UMa	3.0040	4400.0	75	42039	No
306	GOM_NL__2PRFIN20100315_230753_000000392087_00402_42039_9742.N1	15-MAR-2010 23:07:53	Bright	38.500	82	48Bet UMa	2.3650	10600.	77	42039	No
307	GOM_NL__2PRFIN20100315_230923_000000402087_00402_42039_9743.N1	15-MAR-2010 23:09:23	Bright	39.500	36	50Alp UMa	1.8000	6300.0	79	42039	No
308	GOM_NL__2PRFIN20100315_231100_000000462087_00402_42039_9744.N1	15-MAR-2010 23:11:00	Bright	45.500	32	77Eps UMa	1.7630	11000.	91	42039	No
309	GOM_NL__2PRFIN20100315_231627_000000422087_00402_42039_9745.N1	15-MAR-2010 23:16:27	Bright	42.000	60	7Bet UMi	2.0810	3950.0	84	42039	No
310	GOM_NL__2PRFIN20100315_232033_000000502087_00402_42039_9746.N1	15-MAR-2010 23:20:33	Bright	49.500	119	14Eta Dra	2.7270	4700.0	99	42039	No
311	GOM_NL__2PRFIN20100315_232628_000000472087_00402_42039_9747.N1	15-MAR-2010 23:26:28	Bright	47.000	69	33Gam Dra	2.2310	3800.0	94	42039	No
312	GOM_NL__2PRFIN20100315_232939_000000352087_00402_42039_9748.N1	15-MAR-2010 23:29:39	Bright	35.000	19	50Alp Cyg	1.2460	10500.	70	42039	No
313	GOM_NL__2PRFIN20100315_233113_000000362087_00402_42039_9749.N1	15-MAR-2010 23:31:13	Bright	35.500	66	37Gam Cyg	2.2080	5900.0	71	42039	No
314	GOM_NL__2PRFIN20100315_233255_000000432087_00402_42039_9750.N1	15-MAR-2010 23:32:55	Bright	42.500	92	53Eps Cyg	2.5000	4500.0	85	42039	No
315	GOM_NL__2PRFIN20100315_234115_000000502087_00402_42039_9751.N1	15-MAR-2010 23:41:15	Twilight_stray	50.000	11	53Alp Aql	0.76500	8000.0	100	42039	No
316	GOM_NL__2PRFIN20100315_235123_000000472087_00402_42039_9752.N1	15-MAR-2010 23:51:23	Dark	46.500	155	41Pi Sgr	2.9000	6600.0	93	42039	No
317	GOM_NL__2PRFIN20100315_235325_000000492087_00402_42039_9753.N1	15-MAR-2010 23:53:25	Dark	48.500	57	34Sig Sgr	2.0660	26000.	97	42039	No
318	GOM_NL__2PRFIN20100315_235653_000000482087_00402_42039_9754.N1	15-MAR-2010 23:56:53	Dark	48.000	38	20Eps Sgr	1.8360	11000.	96	42039	No

3. Quality information per product

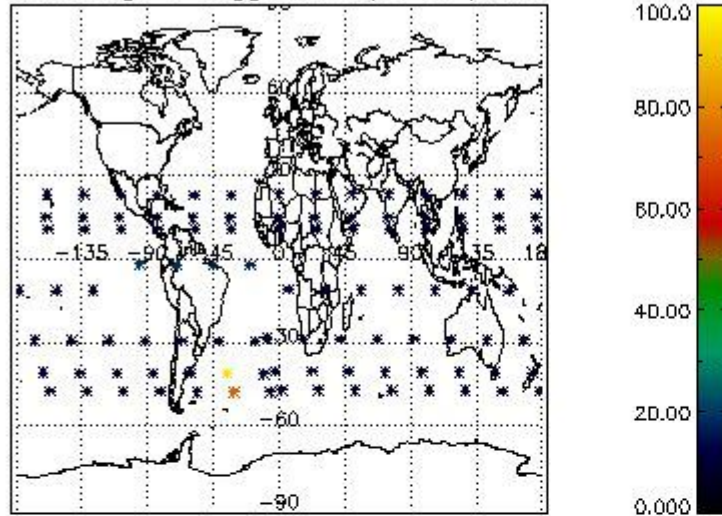
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

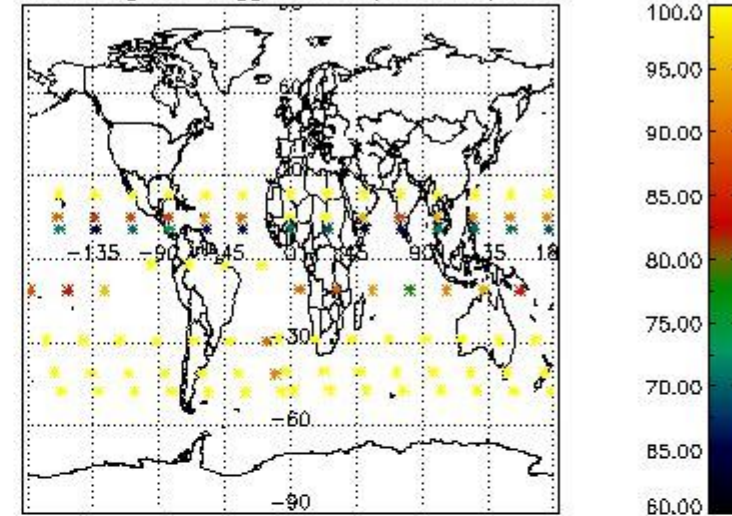


3.2 Plot quality information per product (world map)

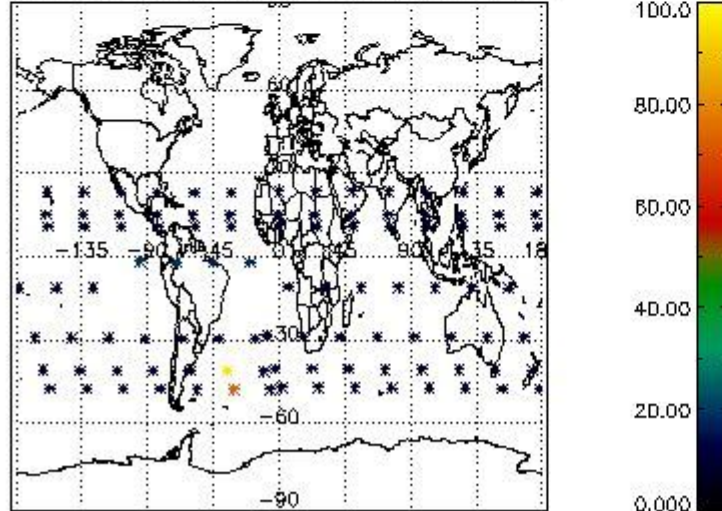
Percentage of flagged data per O3 profile



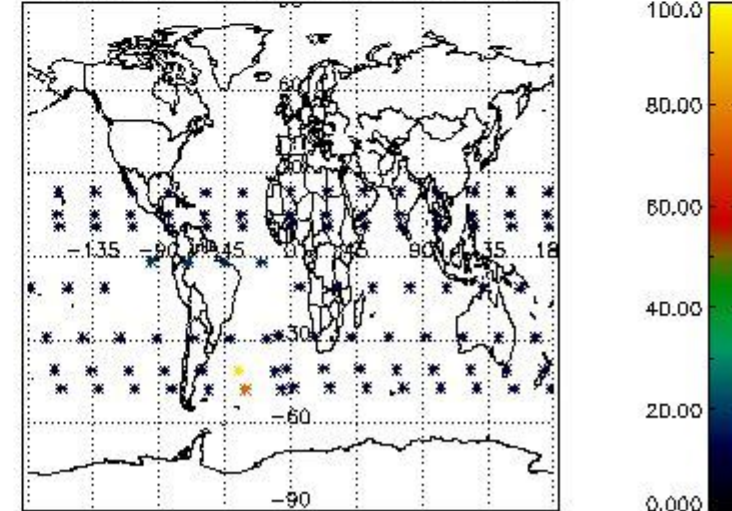
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

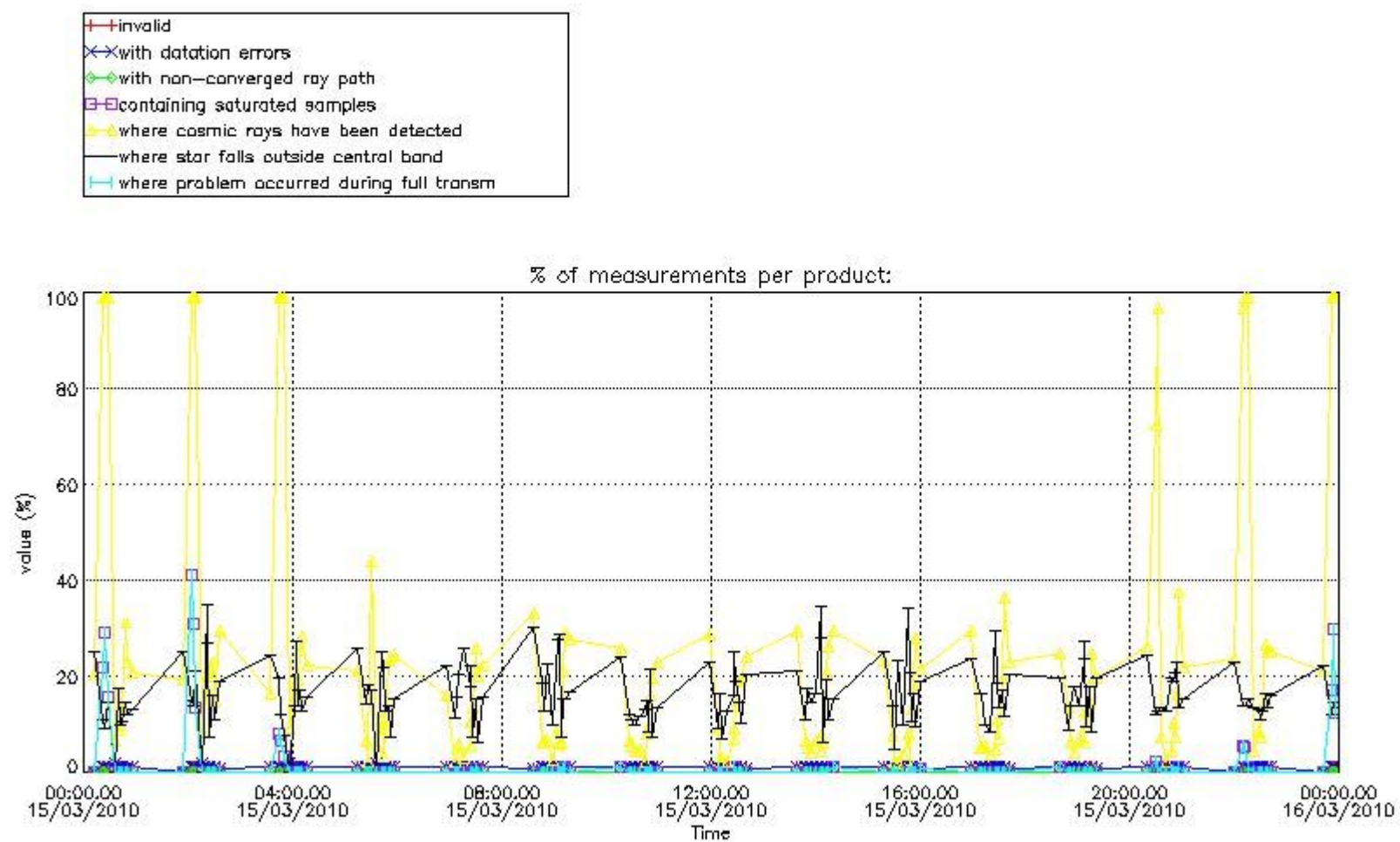


4. Level 1 quality information per product

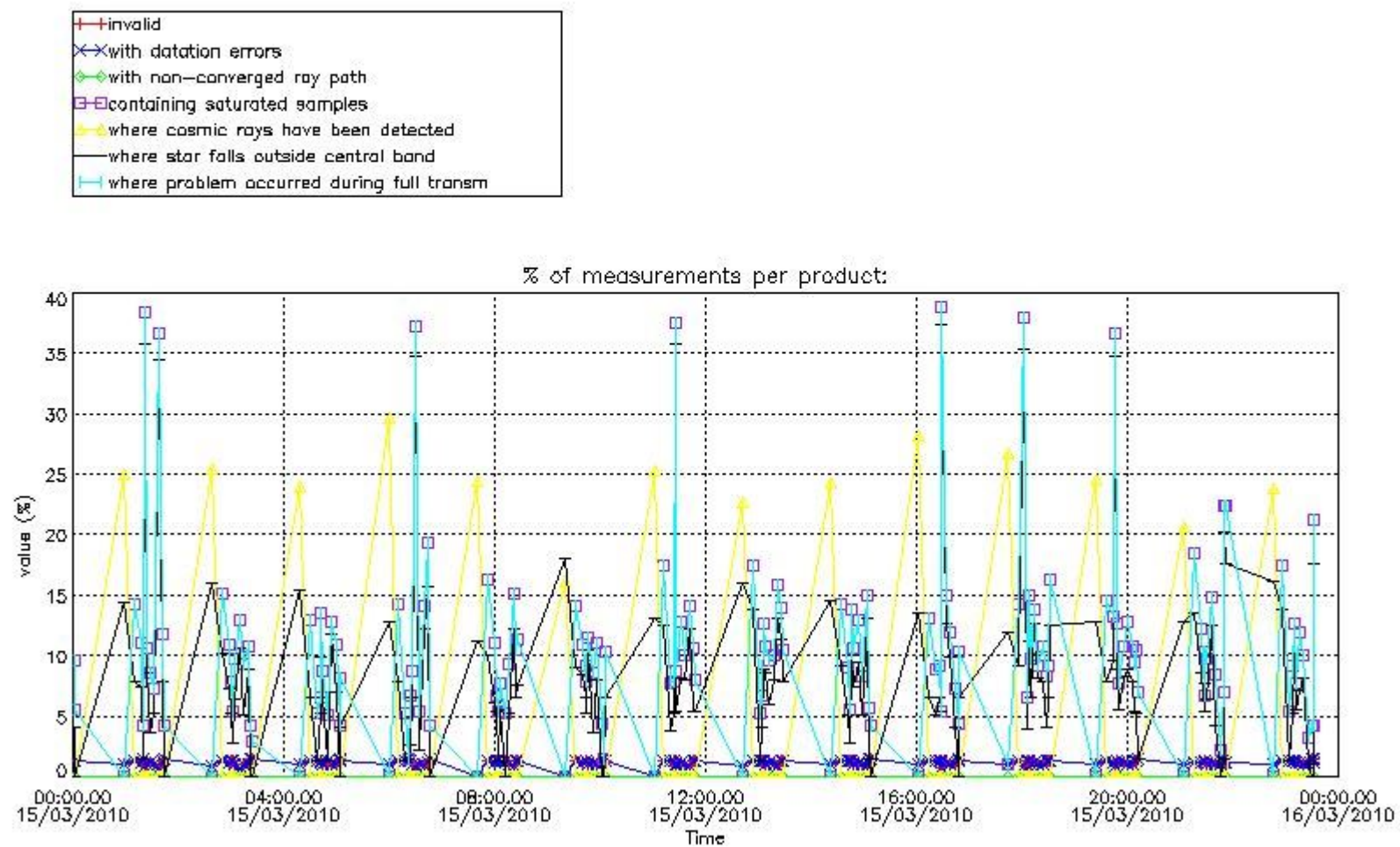
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

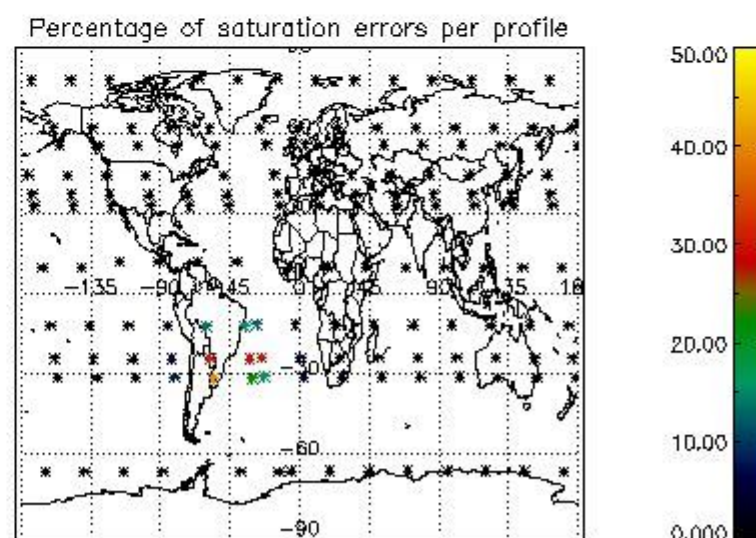
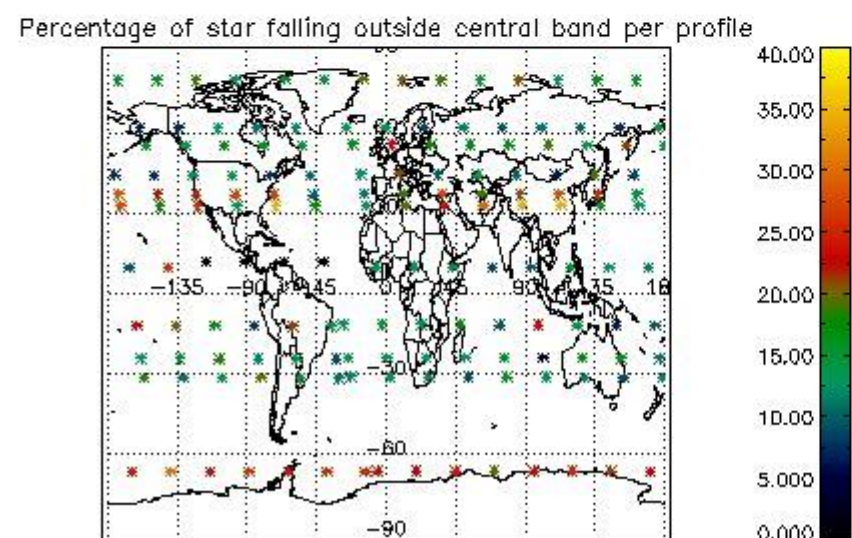
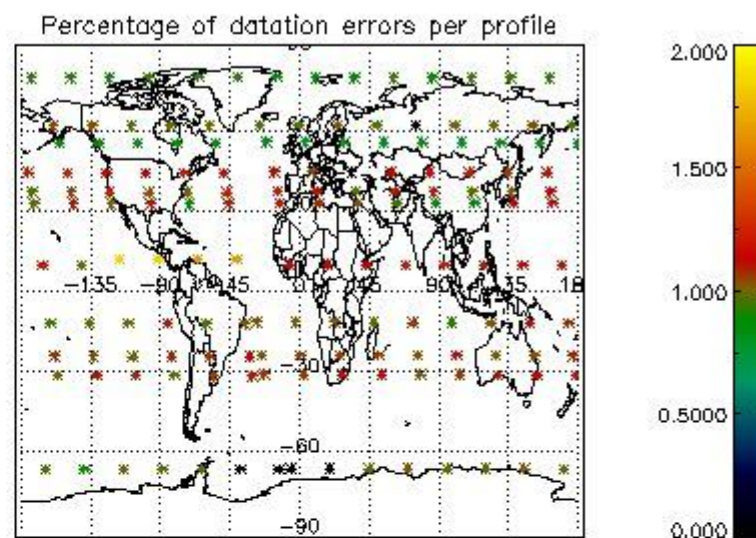
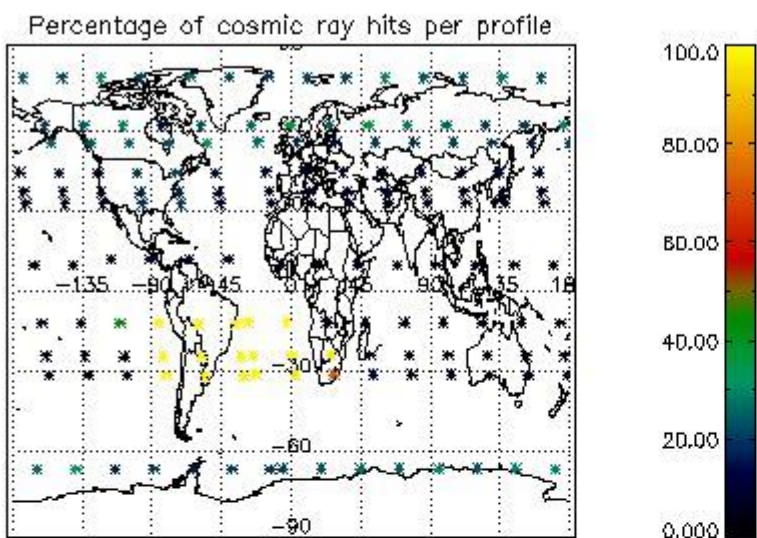


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

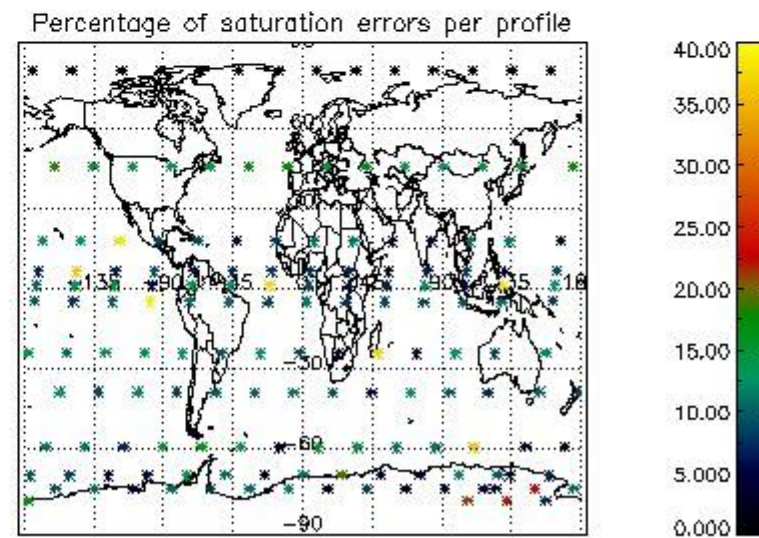
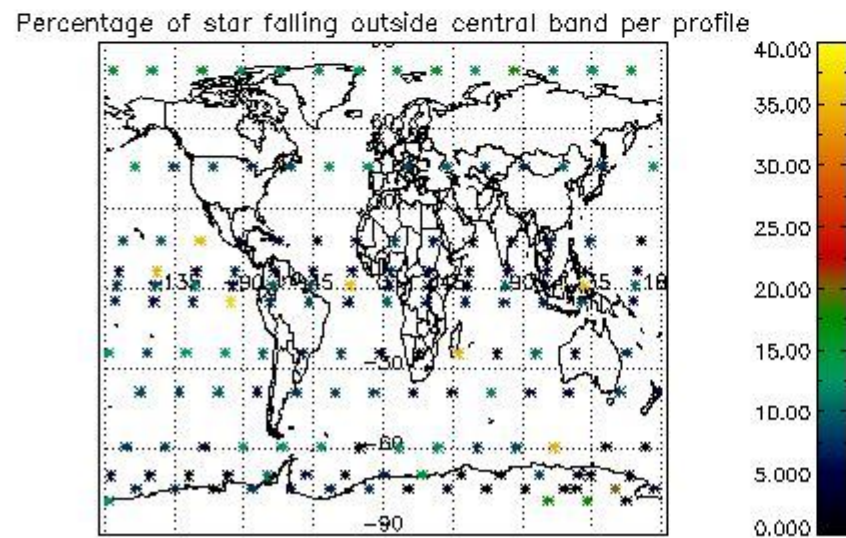
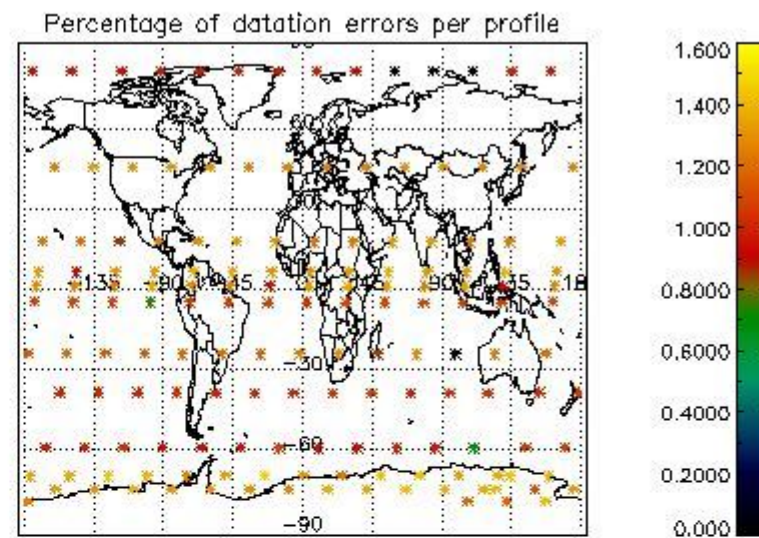
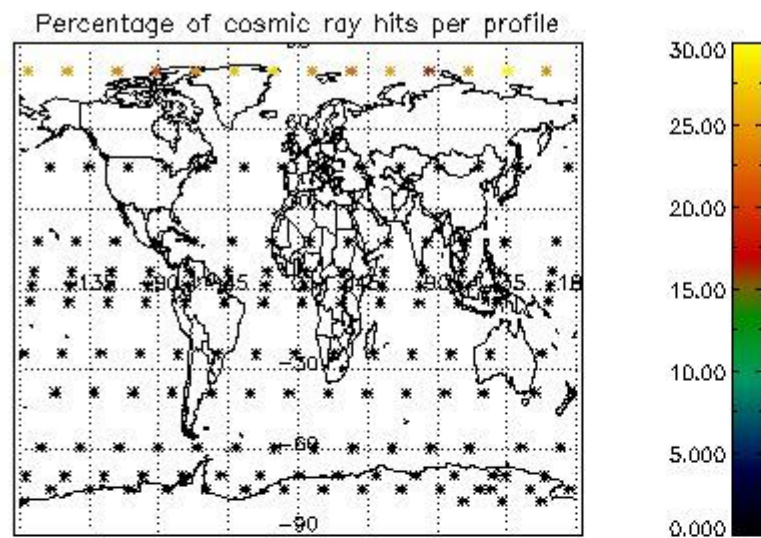


4.2 Plot quality information per product coming from level 1b processing (world map)

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

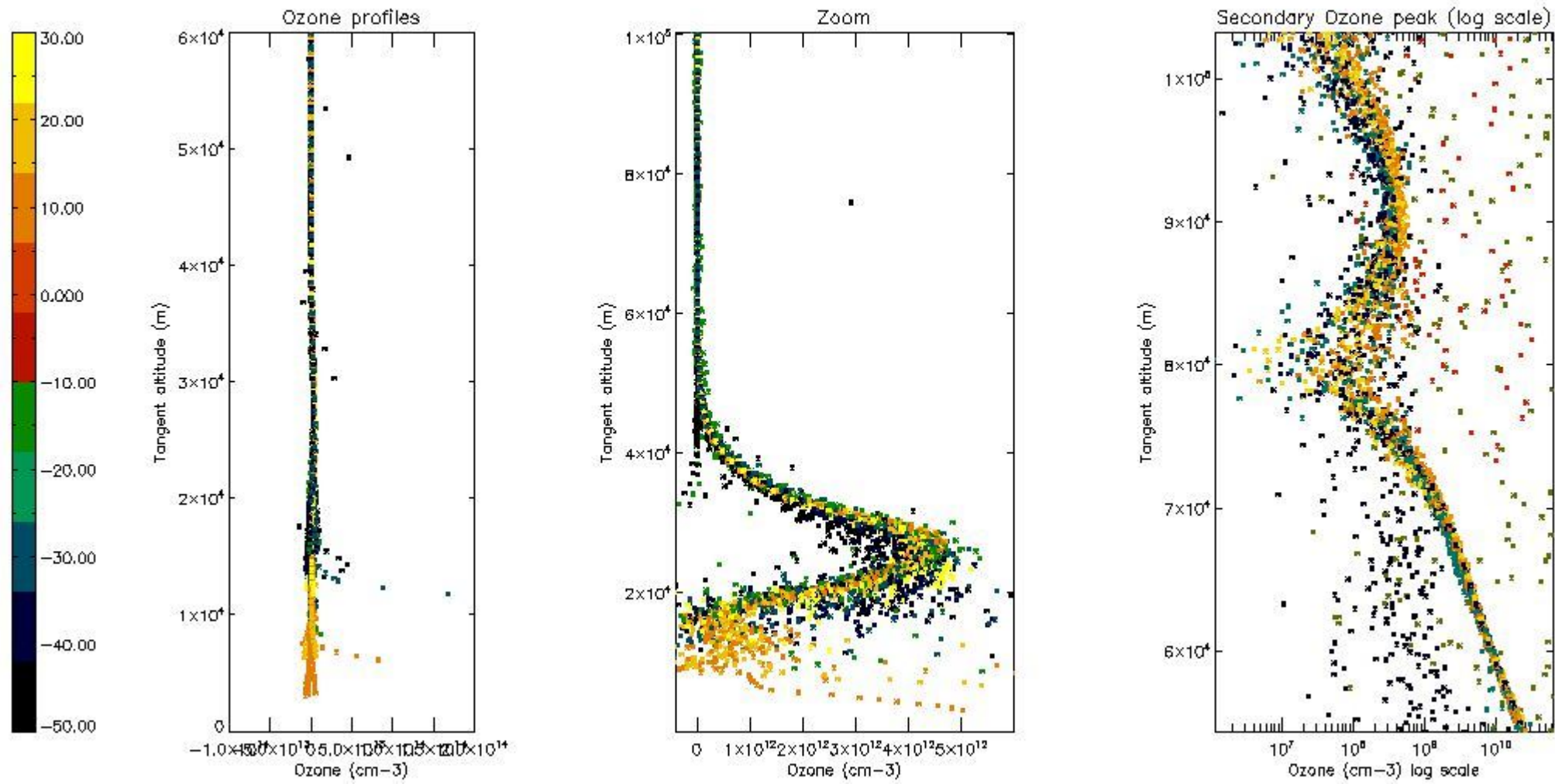
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	32
STD < 20	16

STD < 10	12
STD < 5	10

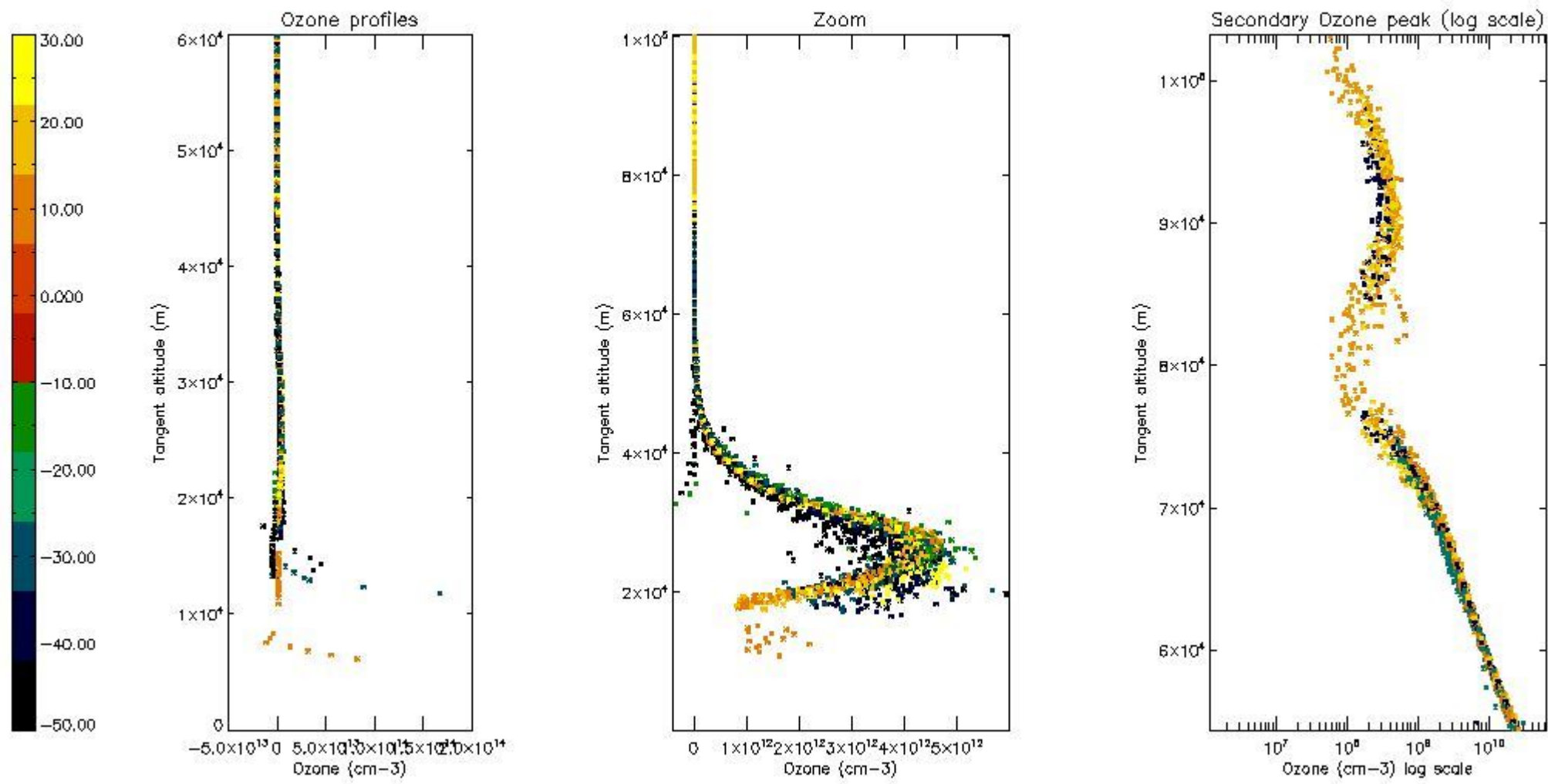
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



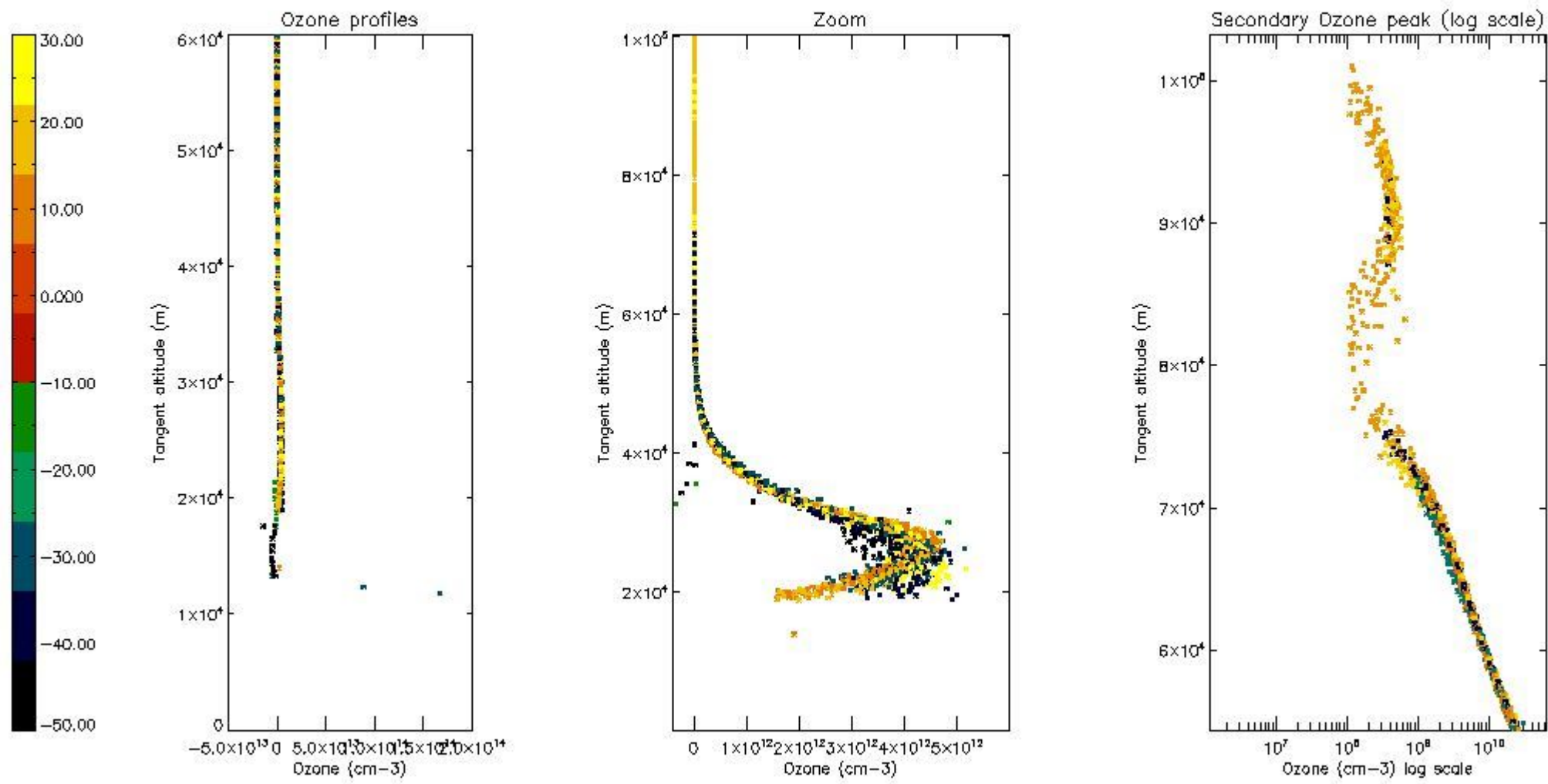
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



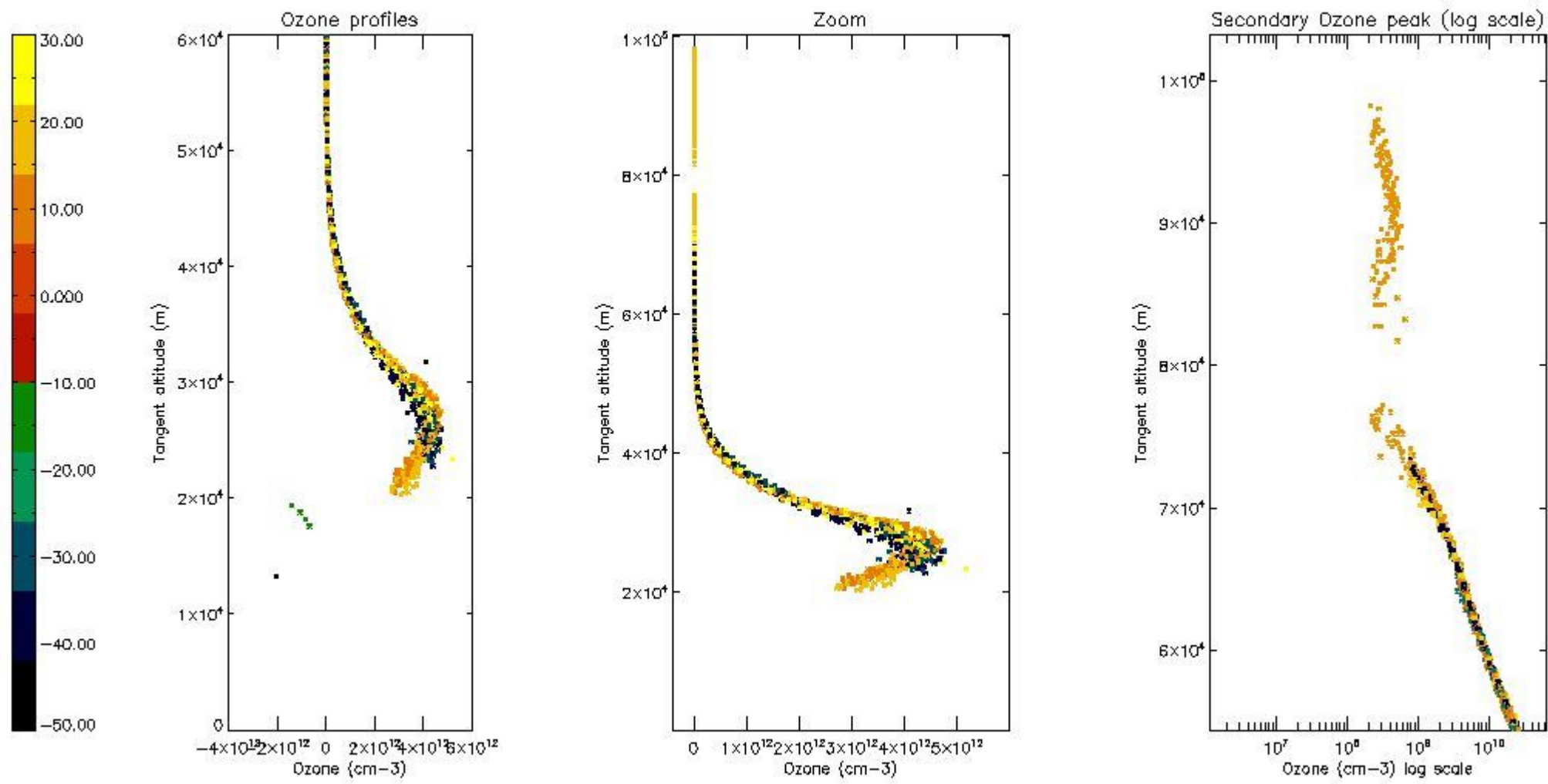
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



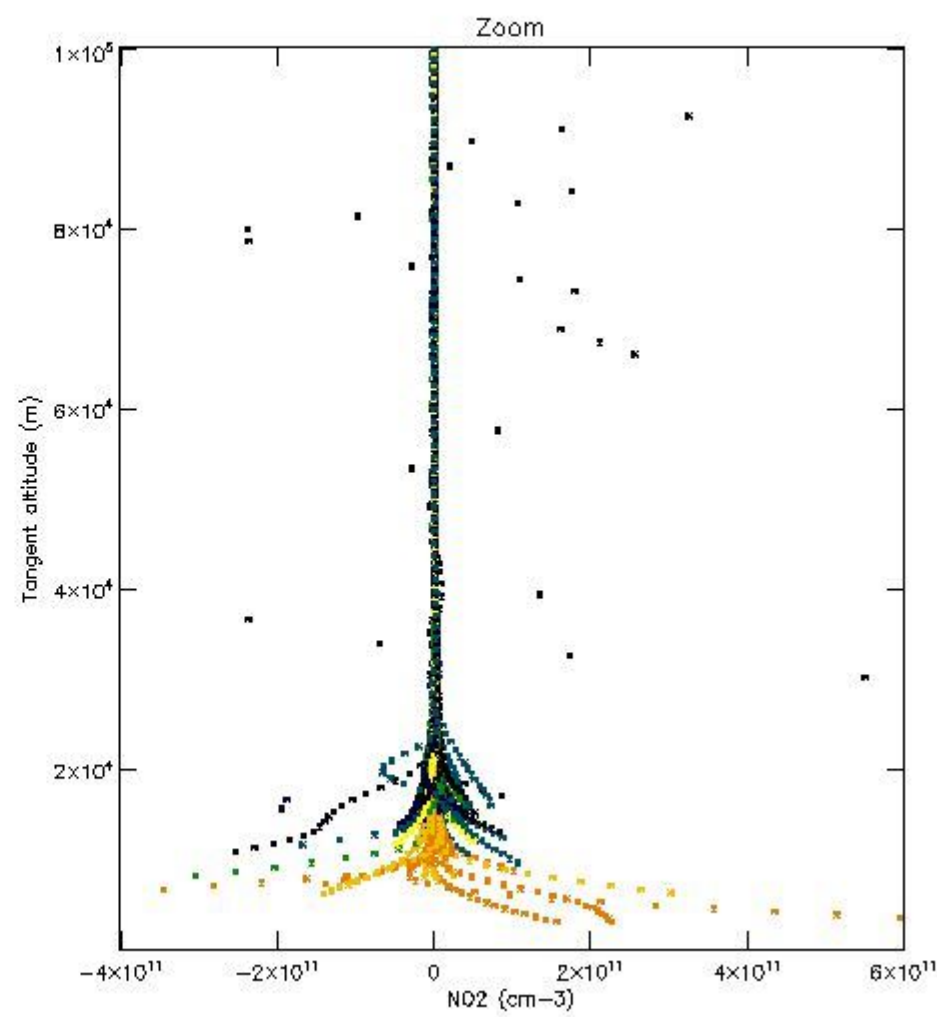
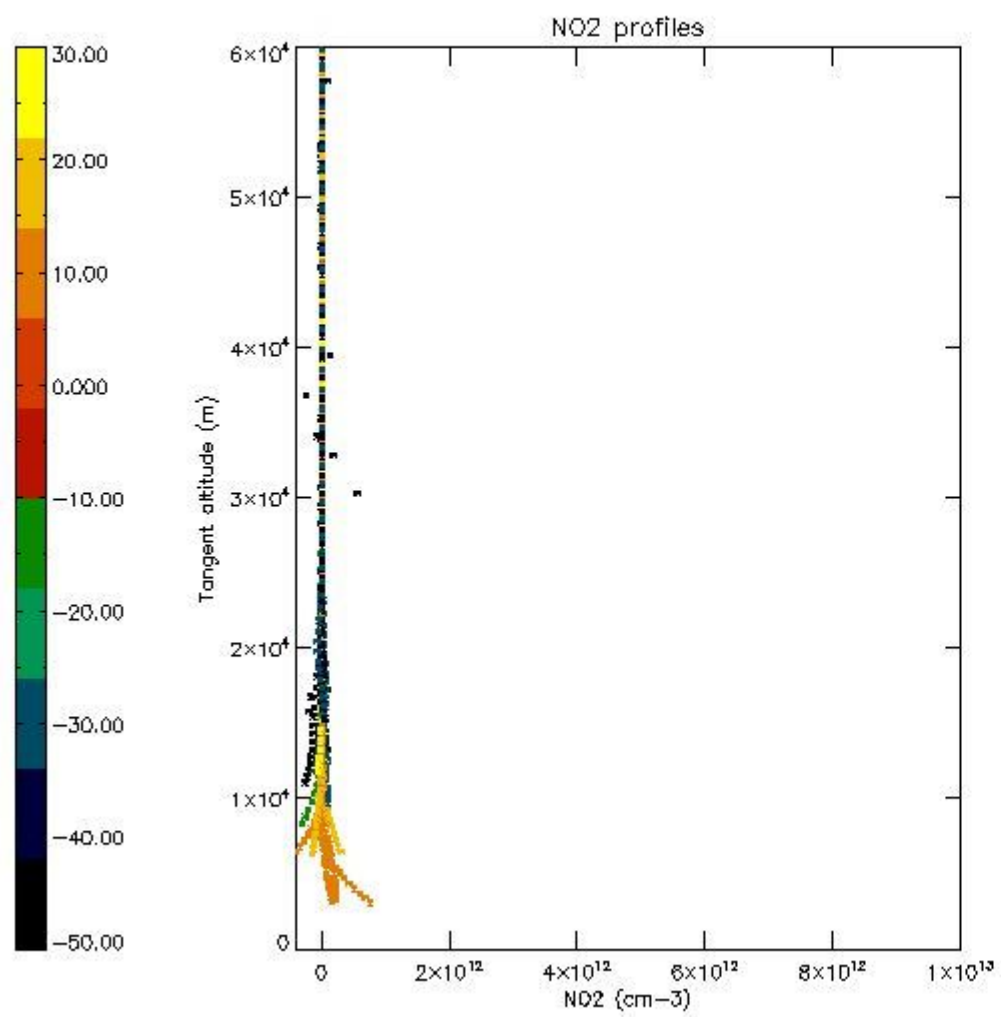
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



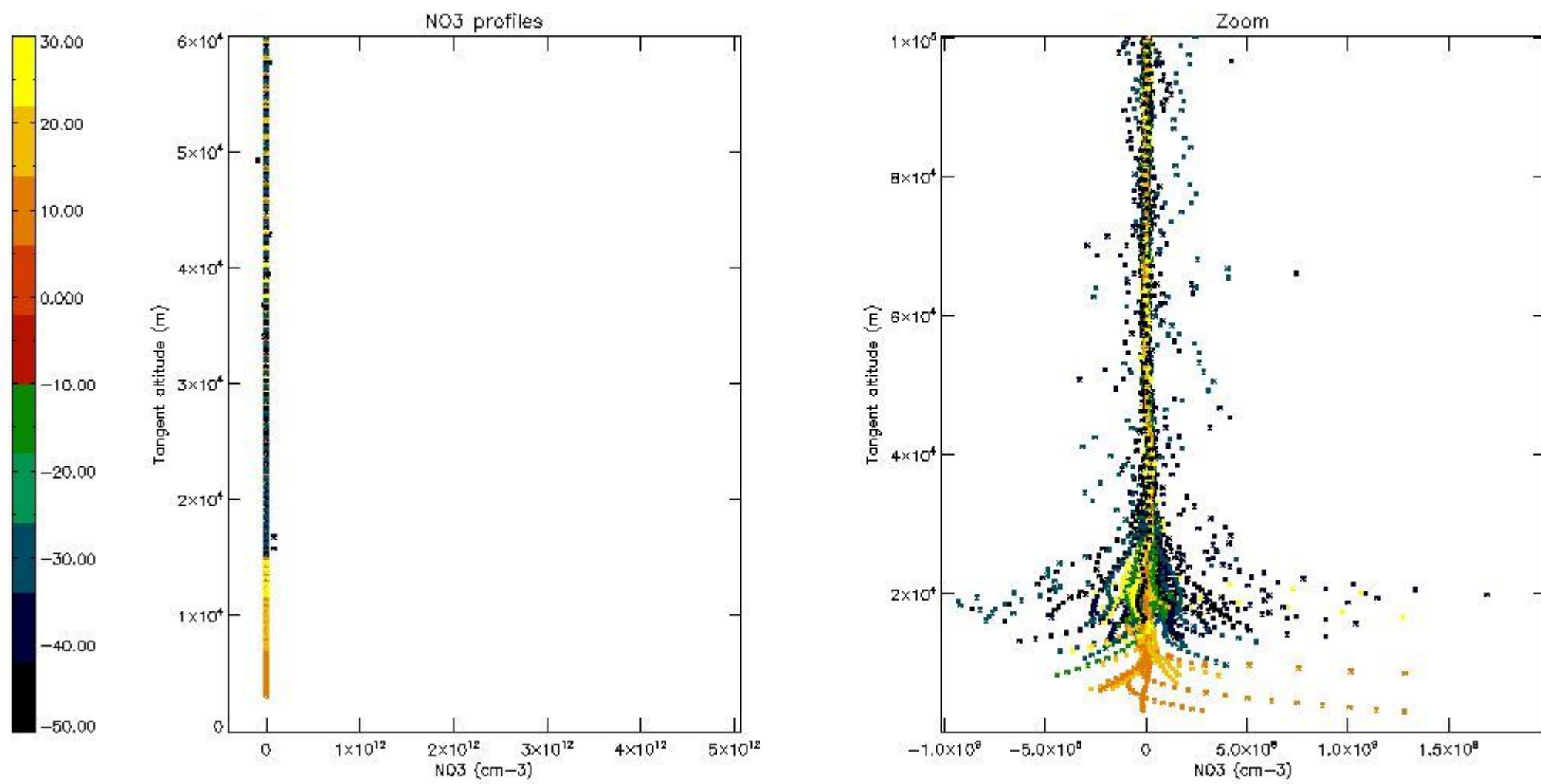
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



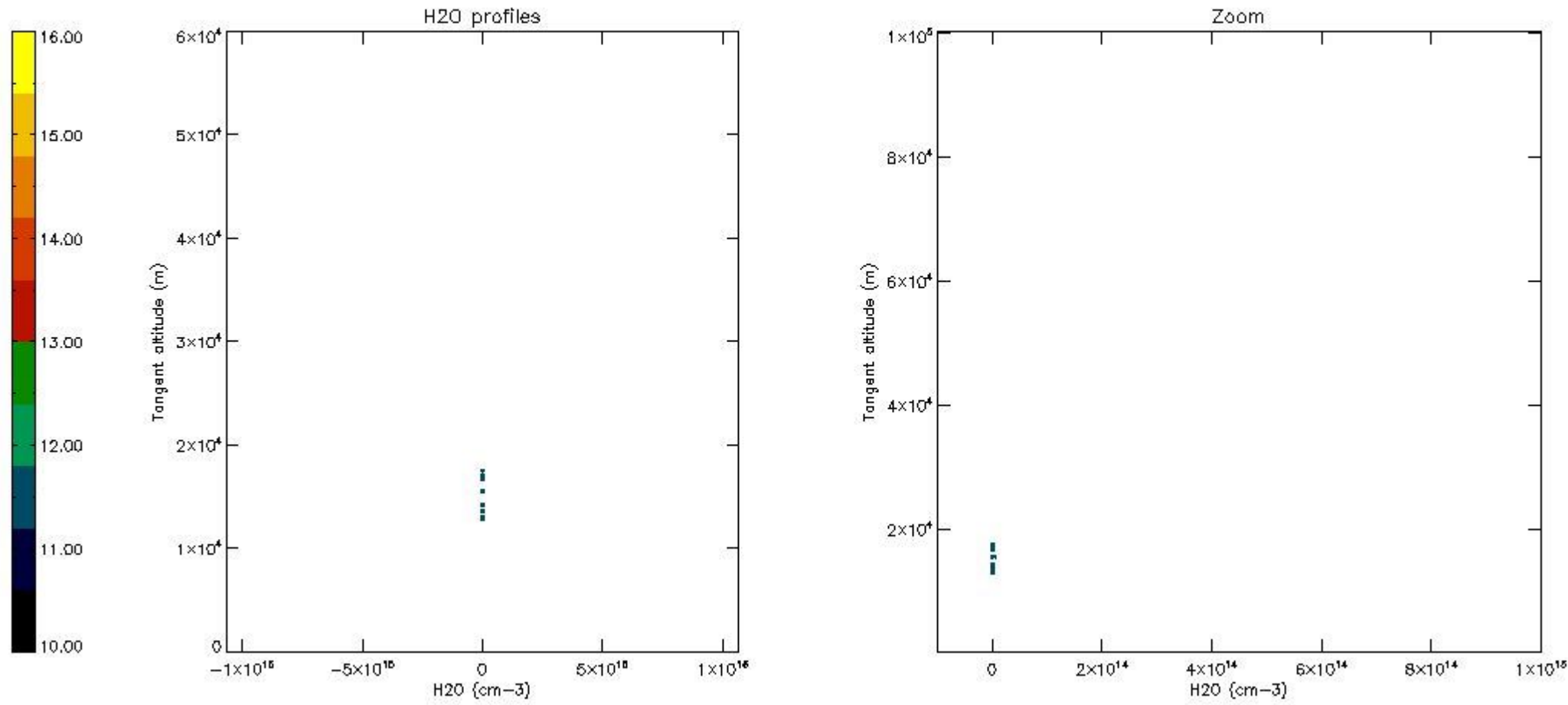
5.7 Plot NO3 profiles for all STD (dark without errors)

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	15-MAR-2010 00:01:15
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	15-MAR-2010 00:01:15
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	15-MAR-2010 00:01:15

GOMOS Level 2 Daily Report

SUMMARY

[1. General Info](#)

[2. Summary of processed GOM_NL_2P products](#)

[3. Level 2 Quality information per product](#)

[3.1 Plot of level 2 quality information per product \(time dependant\)](#)

[3.2 Plot of level 2 quality information per product \(world map\)](#)

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

[4.1 Plot of level 1 quality information per product \(time dependant\)](#)

[4.1.1 Plot of level 1 quality information per product \(time dependant\): ASCENDING](#)

[4.1.2 Plot of level 1 quality information per product \(time dependant\): DESCENDING](#)

[4.2 Plot of level 1 quality information per product \(world map\)](#)

[4.2.1 Plot of level 1 quality information per product \(world map\): ASCENDING](#)

[4.2.2 Plot of level 1 quality information per product \(world map\): DESCENDING](#)

[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 \(dark without errors\)](#)

[5.3 Plot ozone profiles where STD < 20% \(dark without errors\)](#)

[5.4. Plot ozone profiles where STD < 10% \(dark without errors\)](#)

[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](#)

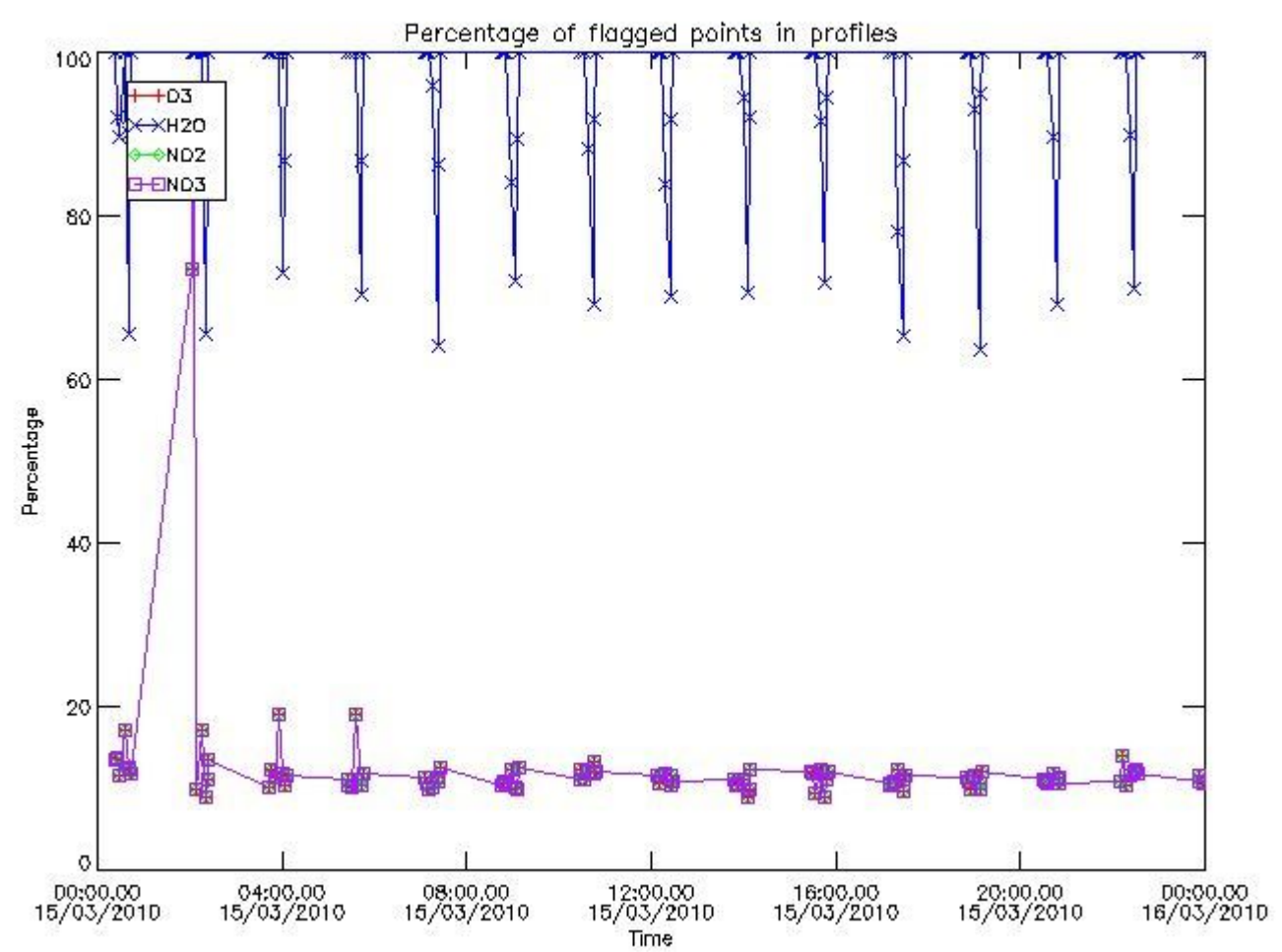
[6. Auxiliary Data Files used for the production reported in section 2](#)

279	GOM_NL__2PRFIN20100315_210220_00000532087_00401_42038_9730.N1	15-MAR-2010 21:02:20	Straylight	53.000	106	9Bet Crv	2.6480	5600.0	106	42038	No
280	GOM_NL__2PRFIN20100315_210440_00000512087_00401_42038_9731.N1	15-MAR-2010 21:04:40	Tw_i_and_stray	51.000	100	4Gam Crv	2.5800	13100.	102	42038	No
281	GOM_NL__2PRFIN20100315_211619_00000412087_00401_42038_9732.N1	15-MAR-2010 21:16:19	Bright	40.500	51	41Gam1Leo	2.0100	4500.0	81	42038	No
282	GOM_NL__2PRFIN20100315_212407_00000412087_00401_42038_9733.N1	15-MAR-2010 21:24:07	Bright	41.000	174	52Psi UMa	3.0040	4400.0	82	42038	No
283	GOM_NL__2PRFIN20100315_212718_00000382087_00401_42038_9734.N1	15-MAR-2010 21:27:18	Bright	37.500	82	48Bet UMa	2.3650	10600.	75	42038	No
284	GOM_NL__2PRFIN20100315_212847_00000392087_00401_42038_9735.N1	15-MAR-2010 21:28:47	Bright	39.000	36	50Alp UMa	1.8000	6300.0	78	42038	No
285	GOM_NL__2PRFIN20100315_213025_00000472087_00401_42038_9736.N1	15-MAR-2010 21:30:25	Bright	46.500	32	77Eps UMa	1.7630	11000.	93	42038	No
286	GOM_NL__2PRFIN20100315_213552_00000442087_00401_42038_9737.N1	15-MAR-2010 21:35:52	Bright	44.000	60	7Bet UMi	2.0810	3950.0	88	42038	No
287	GOM_NL__2PRFIN20100315_213958_00000482087_00401_42038_9738.N1	15-MAR-2010 21:39:58	Bright	47.500	119	14Eta Dra	2.7270	4700.0	95	42038	No
288	GOM_NL__2PRFIN20100315_214552_00000472087_00401_42038_9739.N1	15-MAR-2010 21:45:52	Bright	47.000	69	33Gam Dra	2.2310	3800.0	94	42038	No
289	GOM_NL__2PRFIN20100315_214903_00000362087_00401_42038_9740.N1	15-MAR-2010 21:49:03	Bright	35.500	19	50Alp Cyg	1.2460	10500.	71	42038	No
290	GOM_NL__2PRFIN20100315_215037_00000452087_00401_42038_9741.N1	15-MAR-2010 21:50:37	Bright	44.500	66	37Gam Cyg	2.2080	5900.0	89	42038	No
291	GOM_NL__2PRFIN20100315_215220_00000432087_00401_42038_9742.N1	15-MAR-2010 21:52:20	Bright	42.500	92	53Eps Cyg	2.5000	4500.0	85	42038	No
292	GOM_NL__2PRFIN20100315_220038_00000512087_00401_42038_9743.N1	15-MAR-2010 22:00:38	Tw_i_and_stray	50.500	11	53Alp Aql	0.76500	8000.0	101	42038	No
293	GOM_NL__2PRFIN20100315_221046_00000472087_00401_42038_9744.N1	15-MAR-2010 22:10:46	Dark	47.000	155	41Pi Sgr	2.9000	6600.0	94	42038	No
294	GOM_NL__2PRFIN20100315_221248_00000482087_00401_42038_9745.N1	15-MAR-2010 22:12:48	Dark	47.500	57	34Sig Sgr	2.0660	26000.	95	42038	No
295	GOM_NL__2PRFIN20100315_221616_00000492087_00401_42038_9746.N1	15-MAR-2010 22:16:16	Dark	49.000	38	20Eps Sgr	1.8360	11000.	98	42038	No
296	GOM_NL__2PRFIN20100315_222217_00000452087_00402_42039_9732.N1	15-MAR-2010 22:22:17	Dark	44.500	141	Bet Ara	2.8400	4600.0	89	42039	No
297	GOM_NL__2PRFIN20100315_222845_00000422087_00402_42039_9733.N1	15-MAR-2010 22:28:45	Dark	42.000	4	Alp1Cen	-0.010000	5800.0	84	42039	No
298	GOM_NL__2PRFIN20100315_222958_00000422087_00402_42039_9734.N1	15-MAR-2010 22:29:58	Dark	41.500	10	Bet Cen	0.61000	28000.	83	42039	No
299	GOM_NL__2PRFIN20100315_223202_00000442087_00402_42039_9735.N1	15-MAR-2010 22:32:02	Dark	43.500	77	Eps Cen	2.3030	28000.	87	42039	No
300	GOM_NL__2PRFIN20100315_223514_00000612087_00402_42039_9736.N1	15-MAR-2010 22:35:14	Straylight	60.500	54	5The Cen	2.0550	4500.0	121	42039	No
301	GOM_NL__2PRFIN20100315_223706_00000522087_00402_42039_9737.N1	15-MAR-2010 22:37:06	Straylight	51.500	123	lot Cen	2.7500	10200.	103	42039	No
302	GOM_NL__2PRFIN20100315_224255_00000542087_00402_42039_9738.N1	15-MAR-2010 22:42:55	Straylight	53.500	106	9Bet Crv	2.6480	5600.0	107	42039	No
303	GOM_NL__2PRFIN20100315_224516_00000532087_00402_42039_9739.N1	15-MAR-2010 22:45:16	Tw_i_and_stray	52.500	100	4Gam Crv	2.5800	13100.	105	42039	No
304	GOM_NL__2PRFIN20100315_225655_00000402087_00402_42039_9740.N1	15-MAR-2010 22:56:55	Bright	40.000	51	41Gam1Leo	2.0100	4500.0	80	42039	No
305	GOM_NL__2PRFIN20100315_230443_00000382087_00402_42039_9741.N1	15-MAR-2010 23:04:43	Bright	37.500	174	52Psi UMa	3.0040	4400.0	75	42039	No
306	GOM_NL__2PRFIN20100315_230753_00000392087_00402_42039_9742.N1	15-MAR-2010 23:07:53	Bright	38.500	82	48Bet UMa	2.3650	10600.	77	42039	No
307	GOM_NL__2PRFIN20100315_230923_00000402087_00402_42039_9743.N1	15-MAR-2010 23:09:23	Bright	39.500	36	50Alp UMa	1.8000	6300.0	79	42039	No
308	GOM_NL__2PRFIN20100315_231100_00000462087_00402_42039_9744.N1	15-MAR-2010 23:11:00	Bright	45.500	32	77Eps UMa	1.7630	11000.	91	42039	No
309	GOM_NL__2PRFIN20100315_231627_00000422087_00402_42039_9745.N1	15-MAR-2010 23:16:27	Bright	42.000	60	7Bet UMi	2.0810	3950.0	84	42039	No
310	GOM_NL__2PRFIN20100315_232033_00000502087_00402_42039_9746.N1	15-MAR-2010 23:20:33	Bright	49.500	119	14Eta Dra	2.7270	4700.0	99	42039	No
311	GOM_NL__2PRFIN20100315_232628_00000472087_00402_42039_9747.N1	15-MAR-2010 23:26:28	Bright	47.000	69	33Gam Dra	2.2310	3800.0	94	42039	No
312	GOM_NL__2PRFIN20100315_232939_00000352087_00402_42039_9748.N1	15-MAR-2010 23:29:39	Bright	35.000	19	50Alp Cyg	1.2460	10500.	70	42039	No
313	GOM_NL__2PRFIN20100315_233113_00000362087_00402_42039_9749.N1	15-MAR-2010 23:31:13	Bright	35.500	66	37Gam Cyg	2.2080	5900.0	71	42039	No
314	GOM_NL__2PRFIN20100315_233255_00000432087_00402_42039_9750.N1	15-MAR-2010 23:32:55	Bright	42.500	92	53Eps Cyg	2.5000	4500.0	85	42039	No
315	GOM_NL__2PRFIN20100315_234115_00000502087_00402_42039_9751.N1	15-MAR-2010 23:41:15	Tw_i_and_stray	50.000	11	53Alp Aql	0.76500	8000.0	100	42039	No
316	GOM_NL__2PRFIN20100315_235123_00000472087_00402_42039_9752.N1	15-MAR-2010 23:51:23	Dark	46.500	155	41Pi Sgr	2.9000	6600.0	93	42039	No
317	GOM_NL__2PRFIN20100315_235325_00000492087_00402_42039_9753.N1	15-MAR-2010 23:53:25	Dark	48.500	57	34Sig Sgr	2.0660	26000.	97	42039	No
318	GOM_NL__2PRFIN20100315_235653_00000482087_00402_42039_9754.N1	15-MAR-2010 23:56:53	Dark	48.000	38	20Eps Sgr	1.8360	11000.	96	42039	No

3. Quality information per product

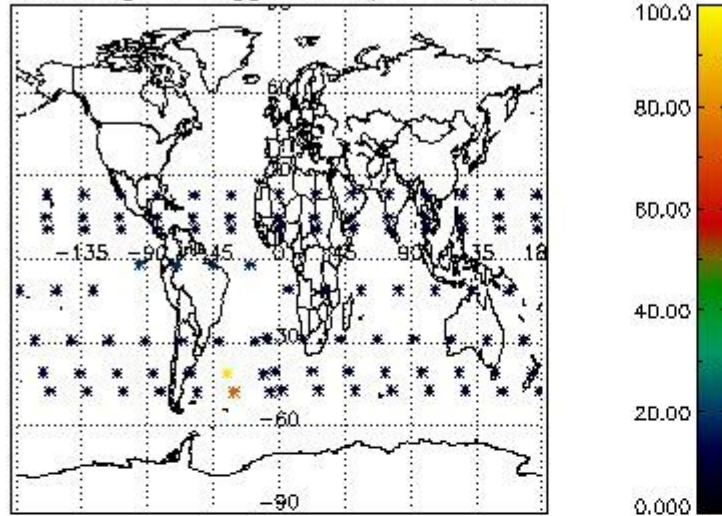
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

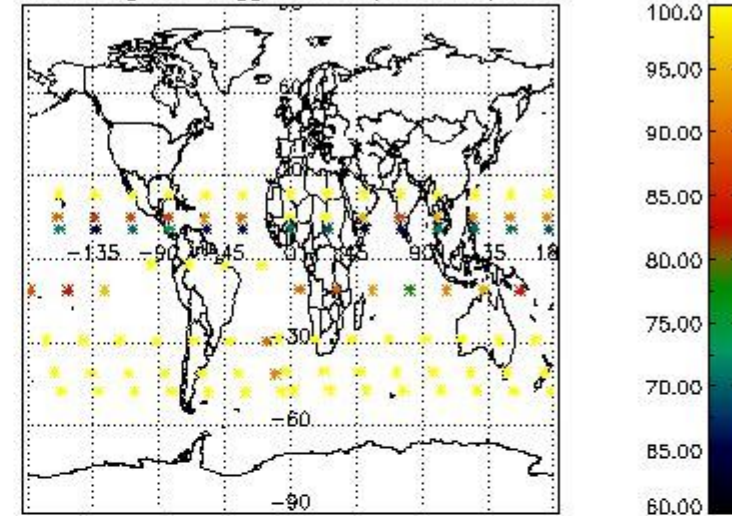


3.2 Plot quality information per product (world map)

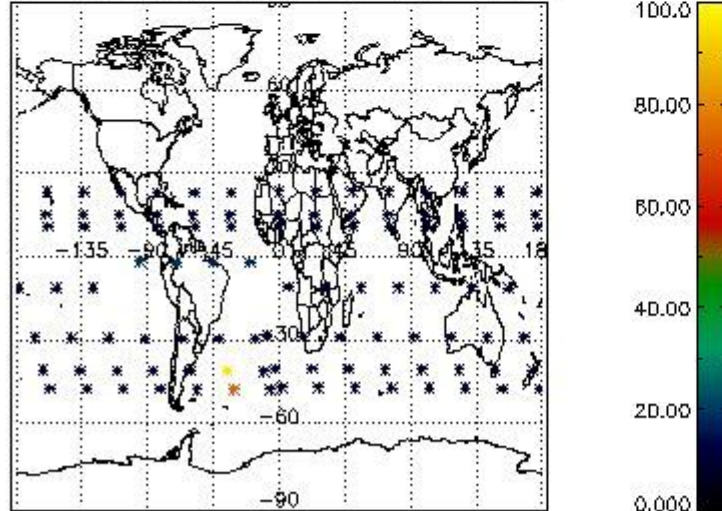
Percentage of flagged data per O3 profile



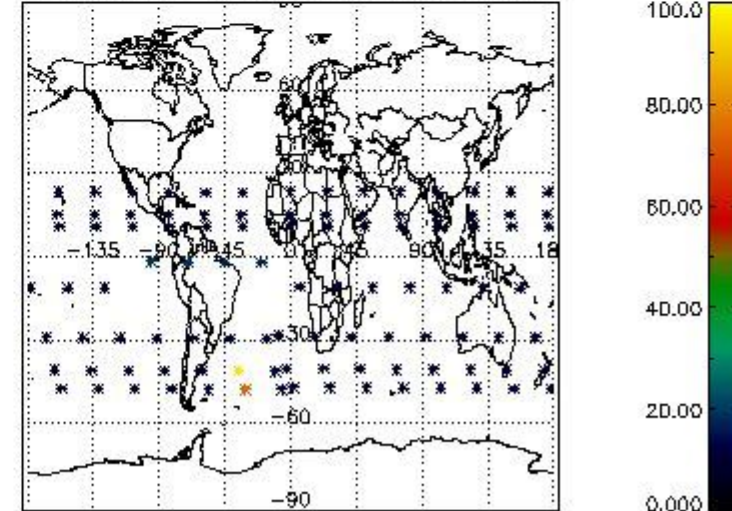
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

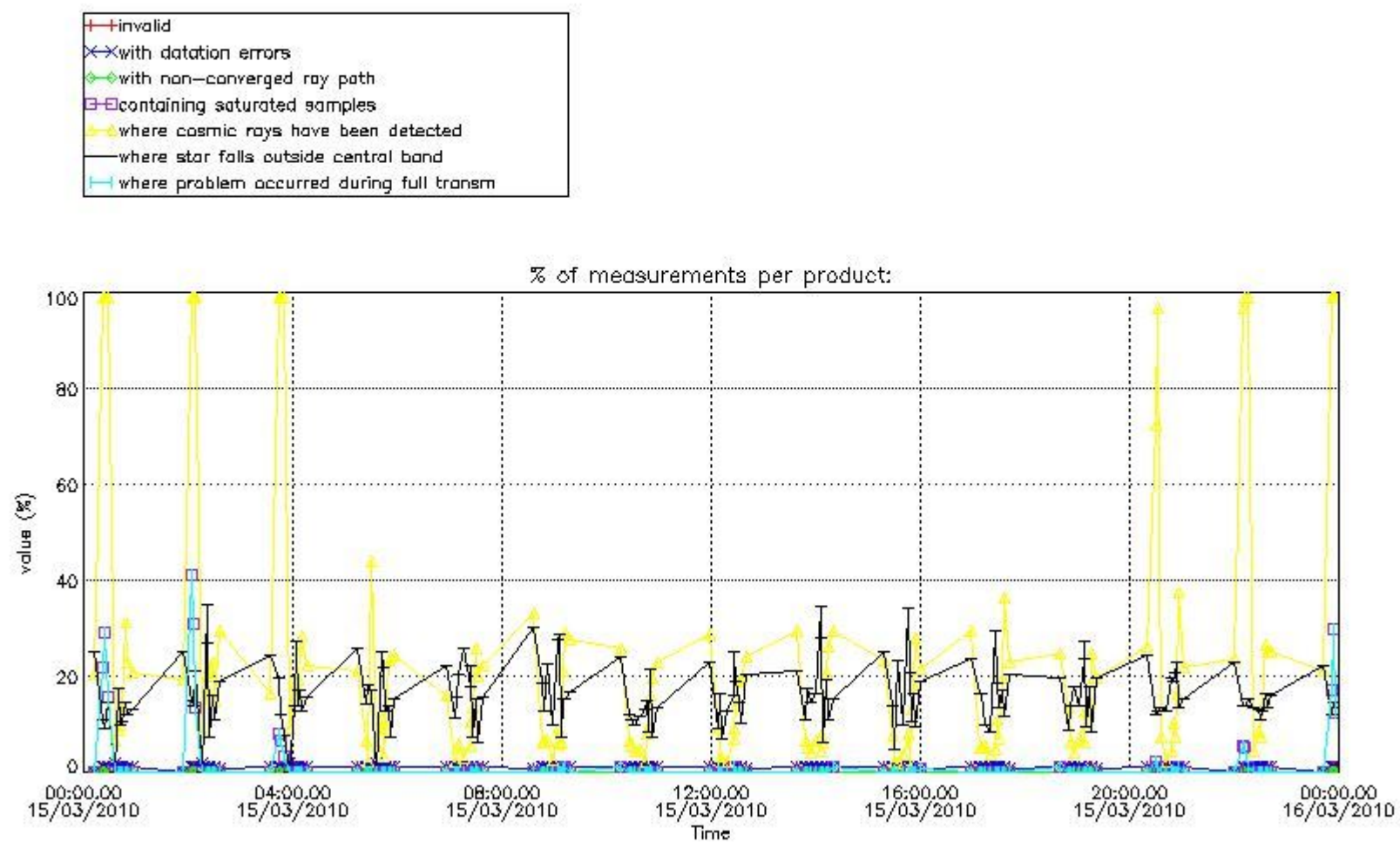


4. Level 1 quality information per product

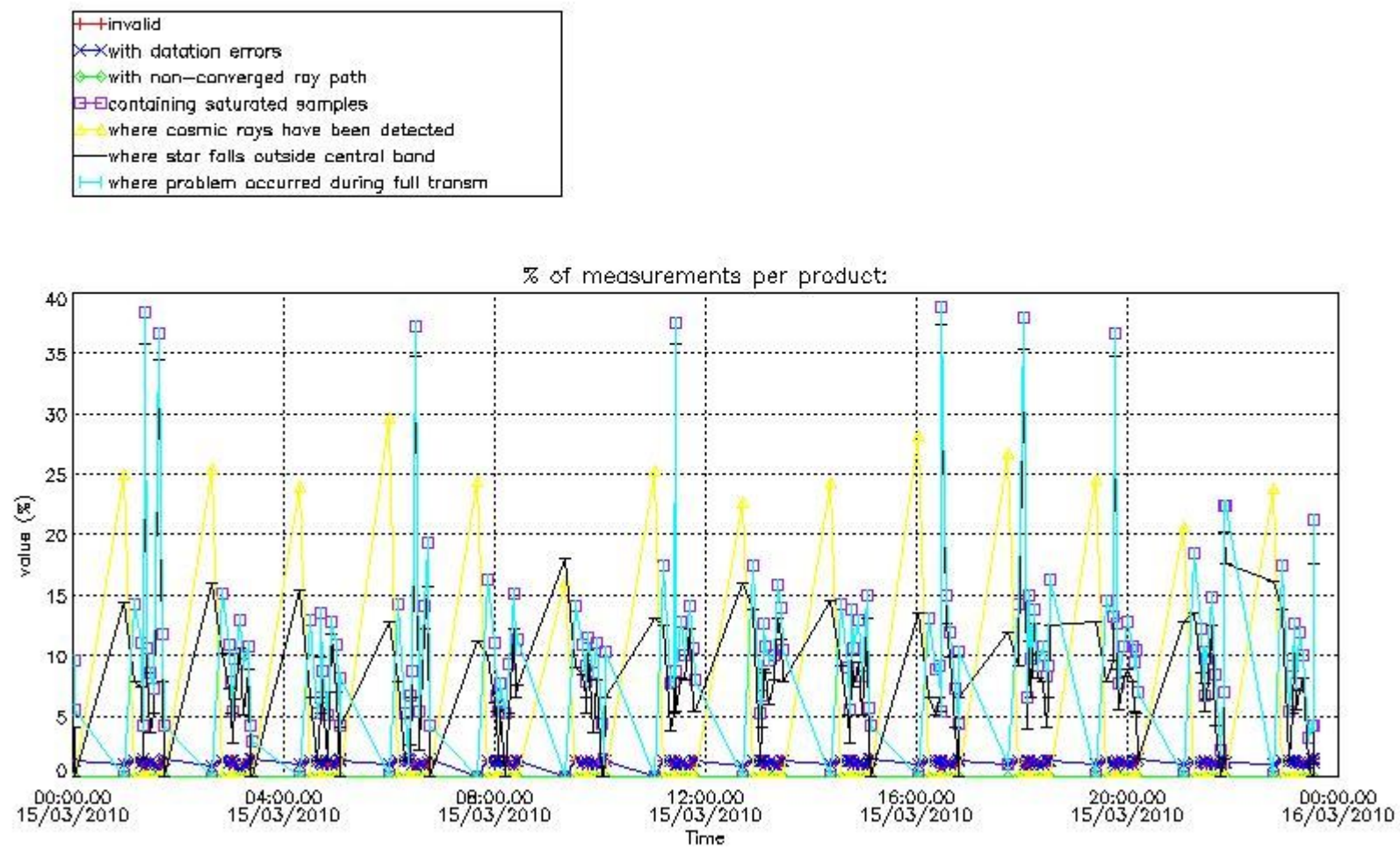
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

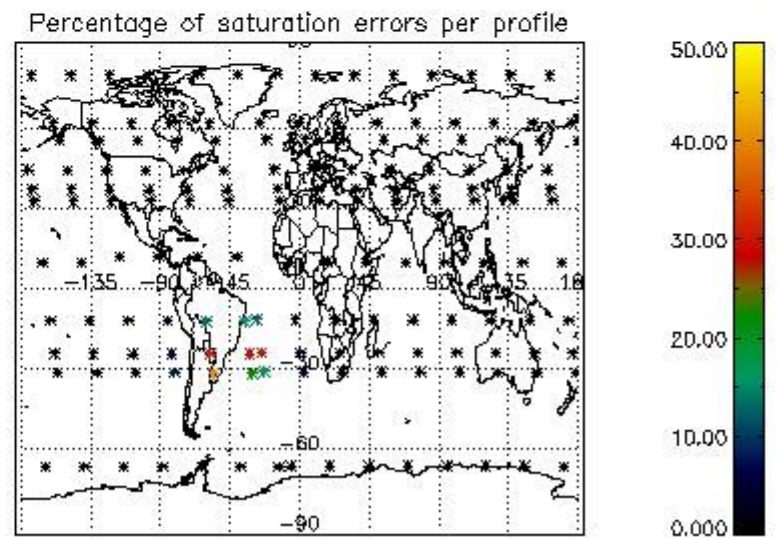
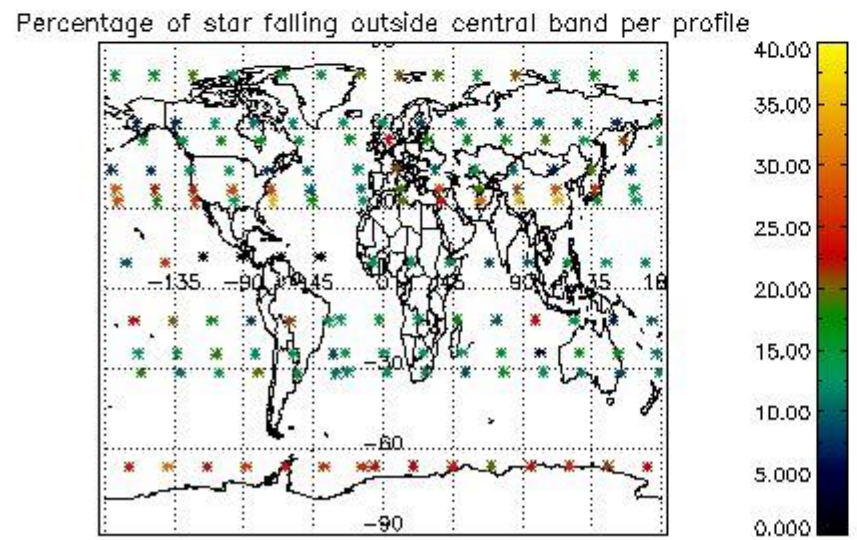
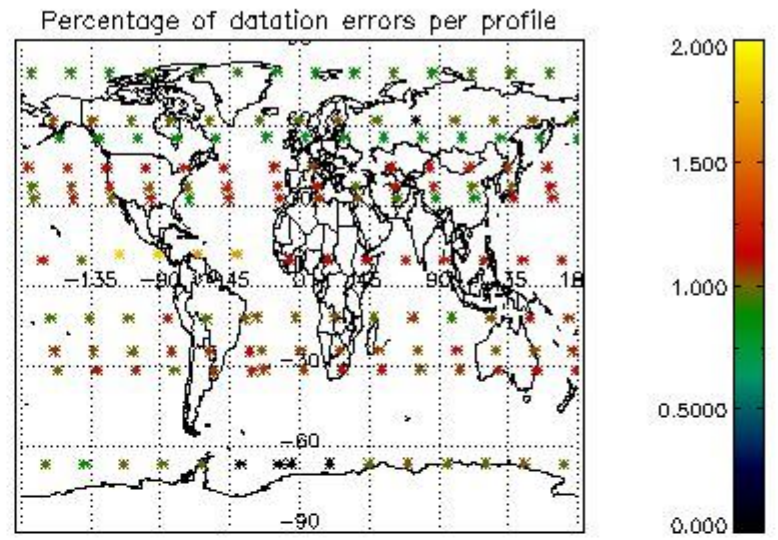
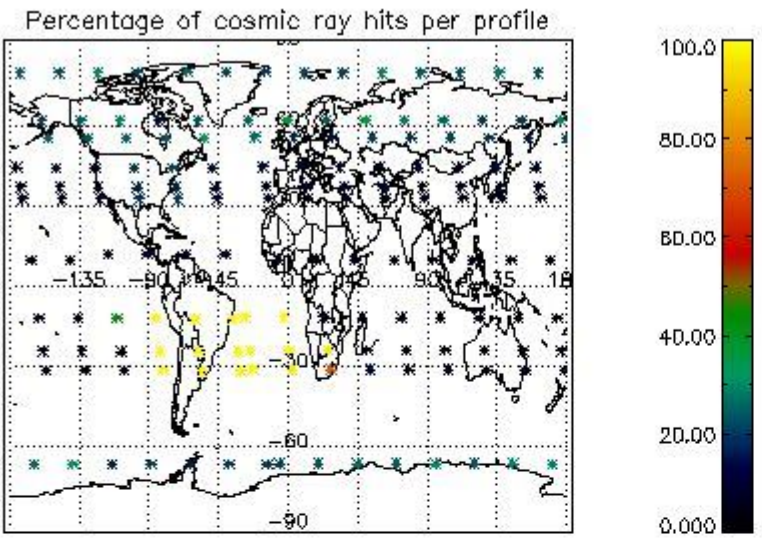


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

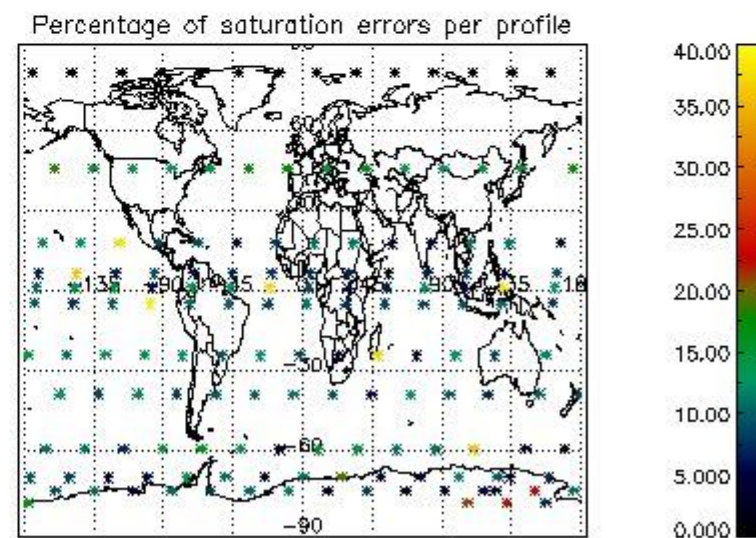
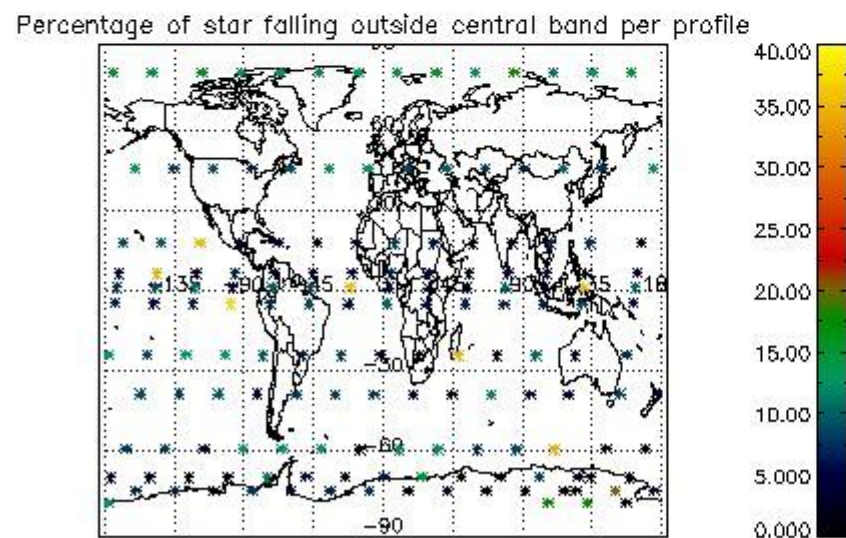
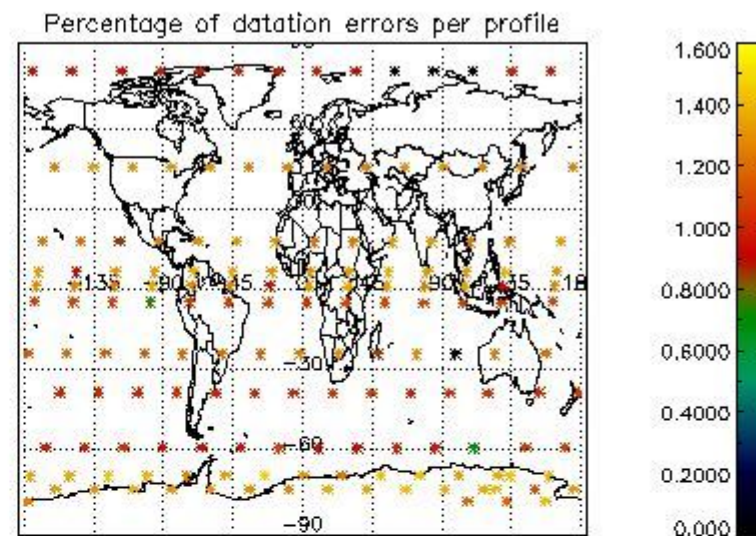
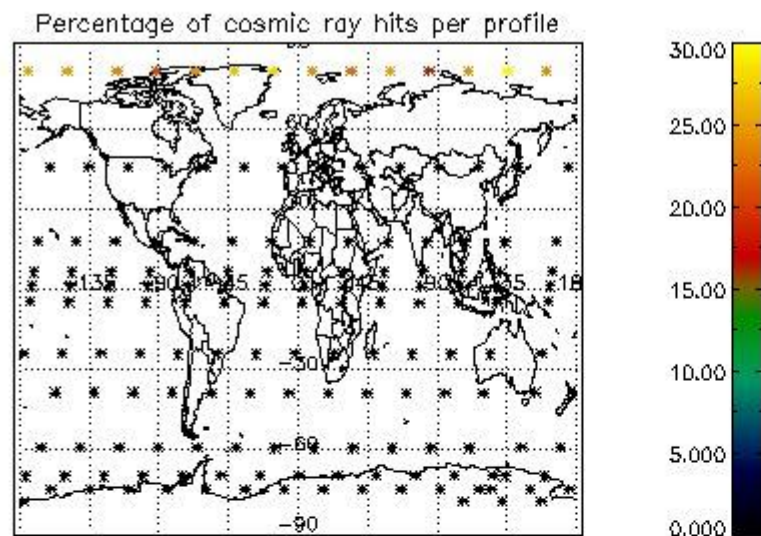


4.2 Plot quality information per product coming from level 1b processing (world map)

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

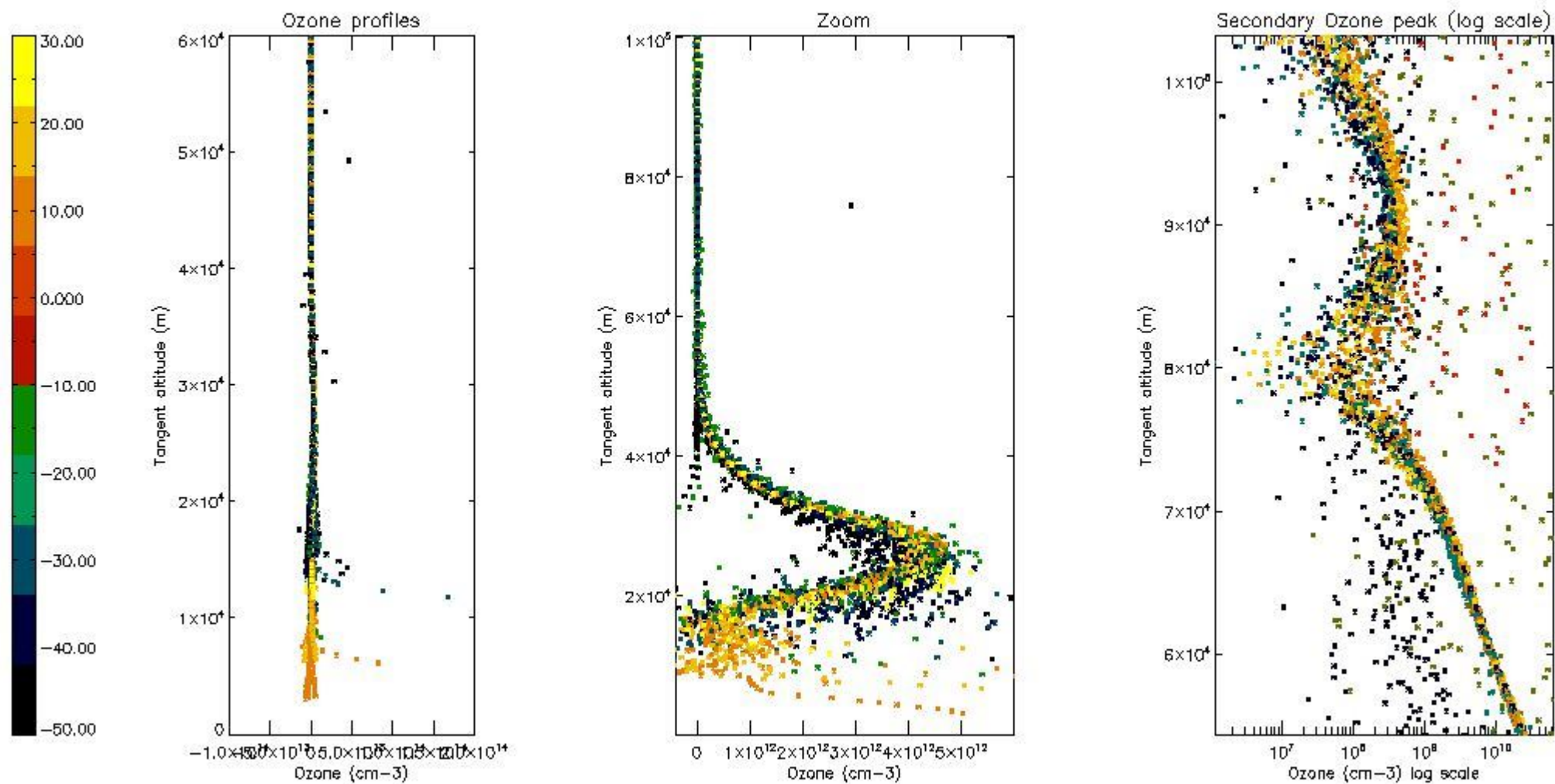
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	32
STD < 20	16

STD < 10	12
STD < 5	10

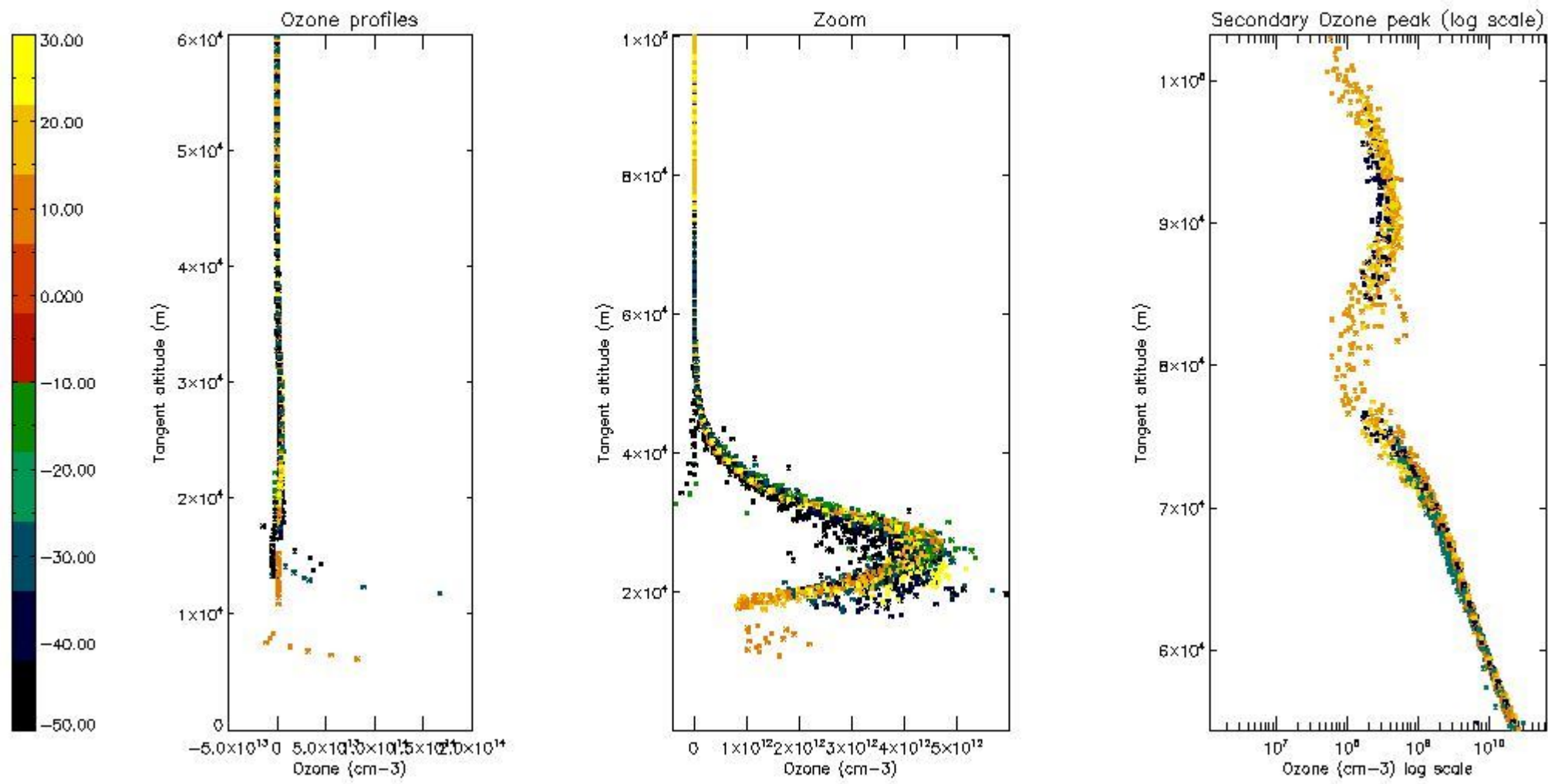
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



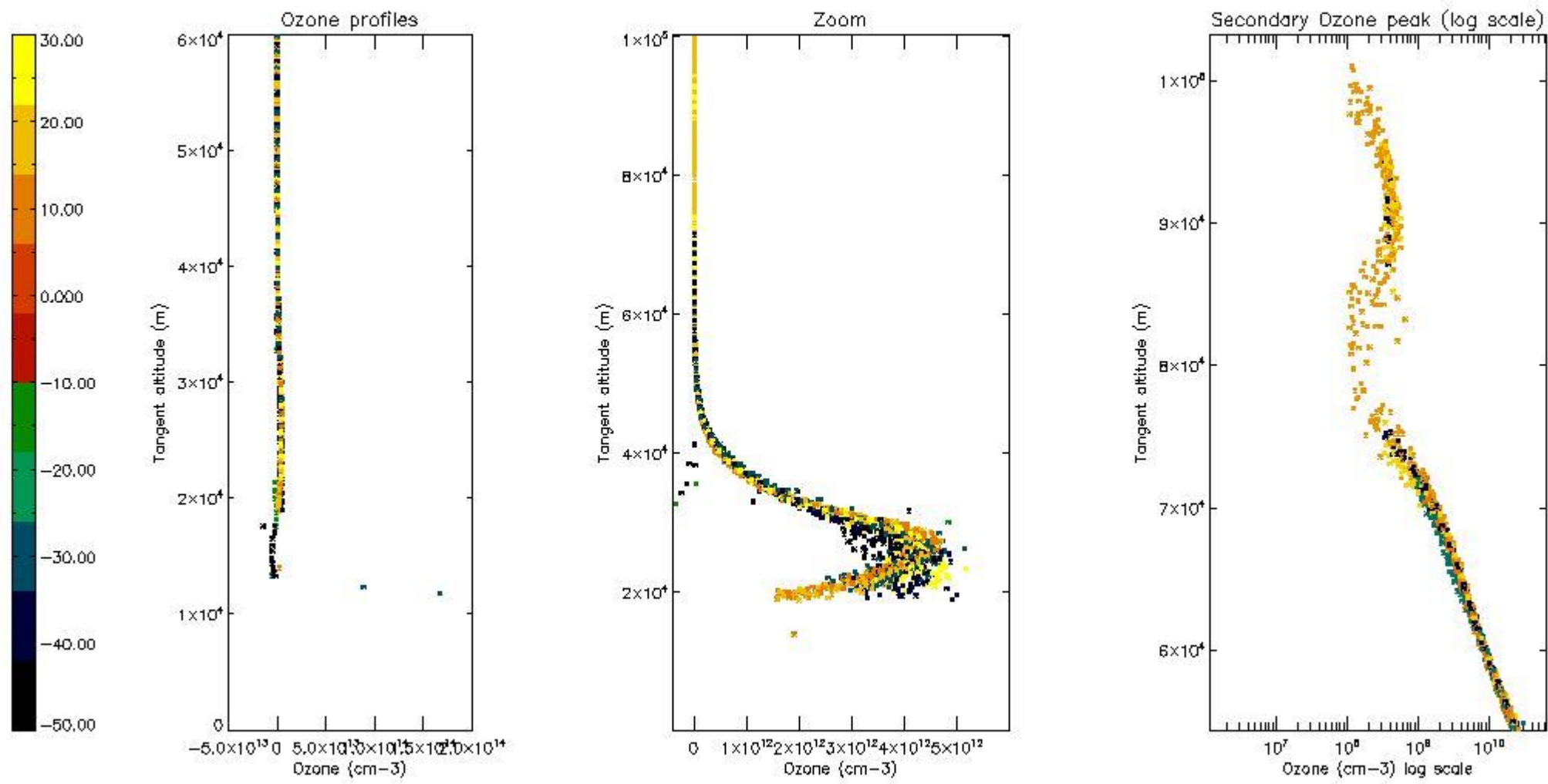
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



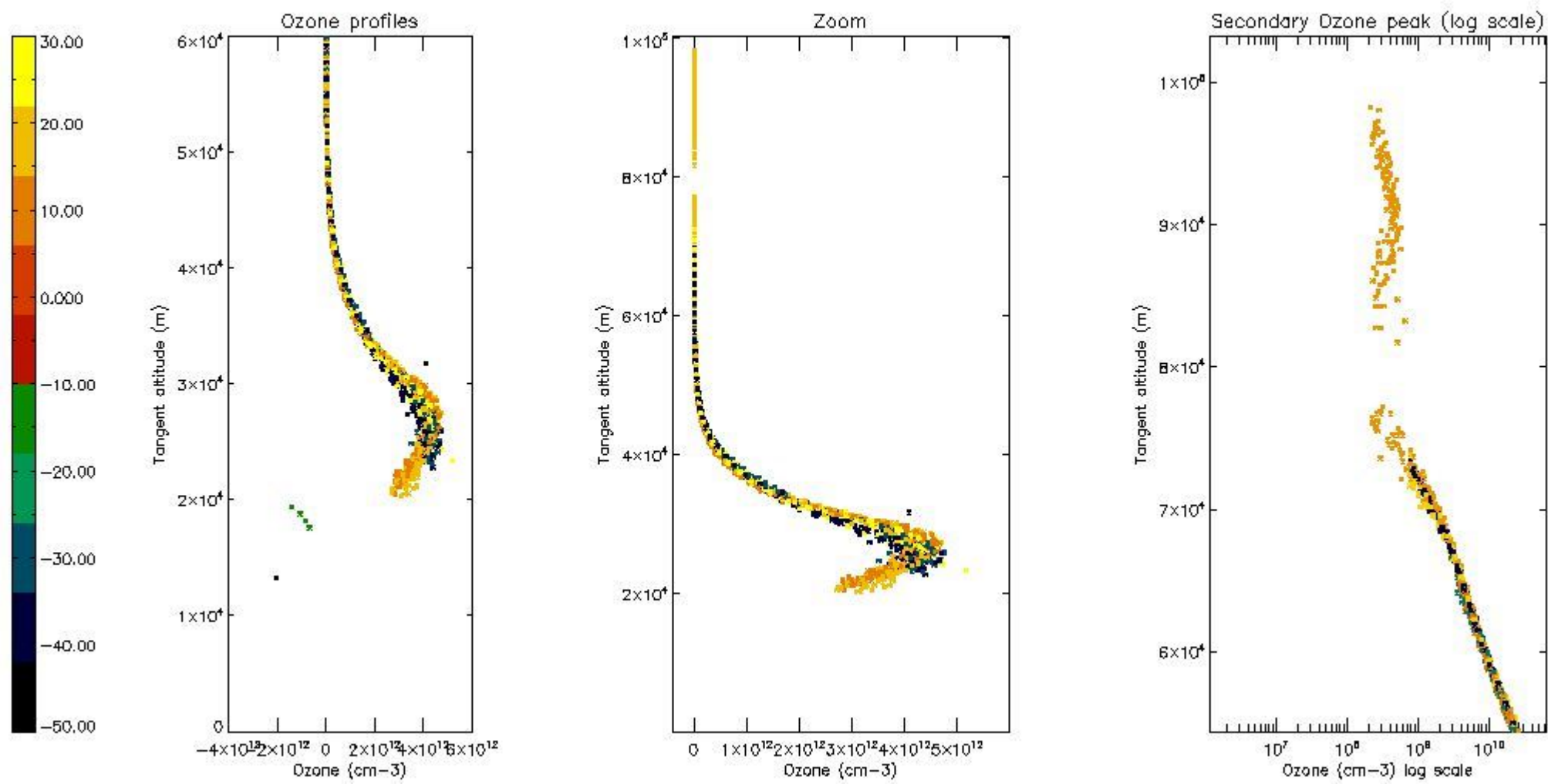
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



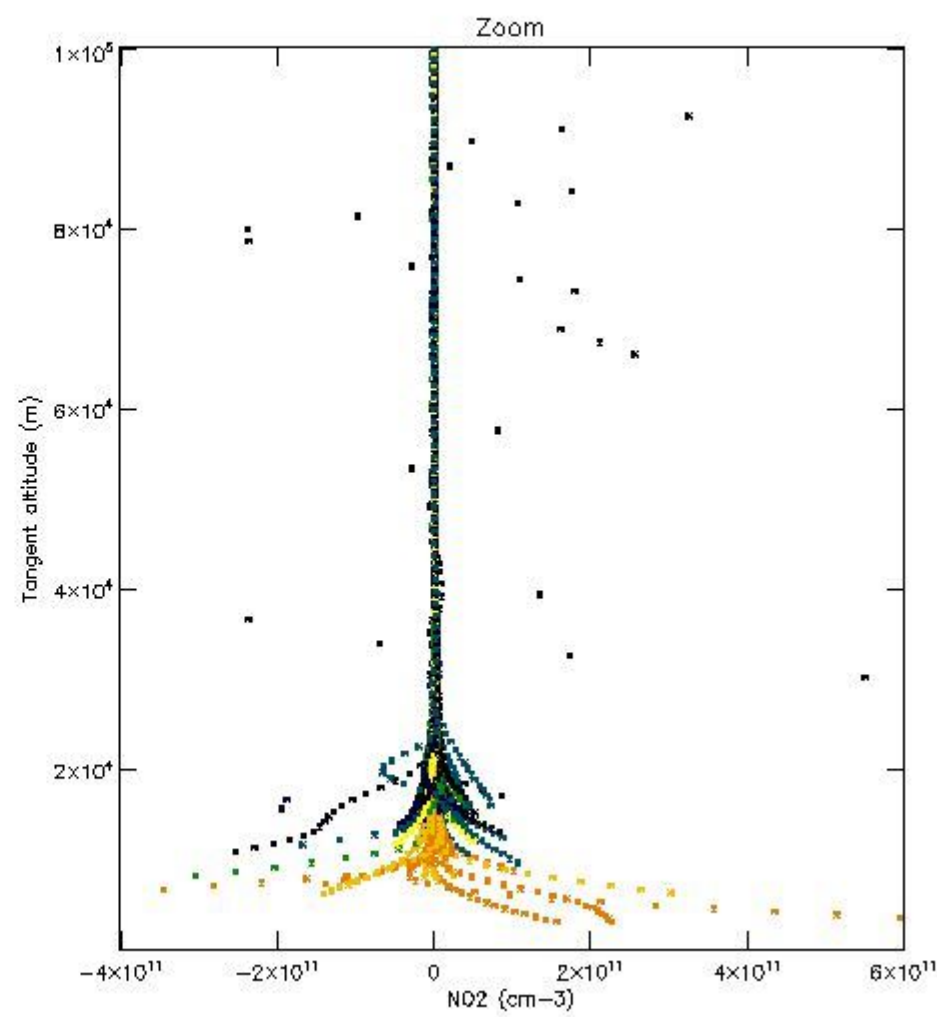
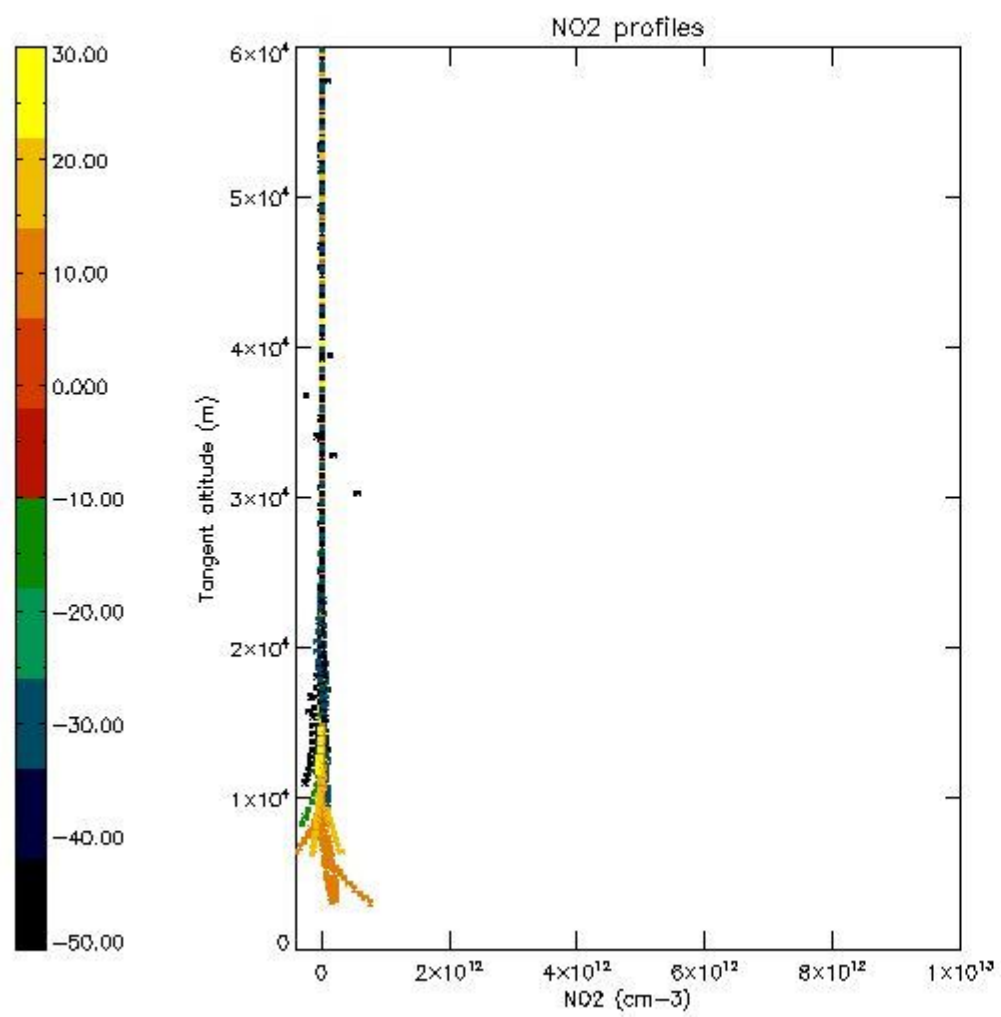
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



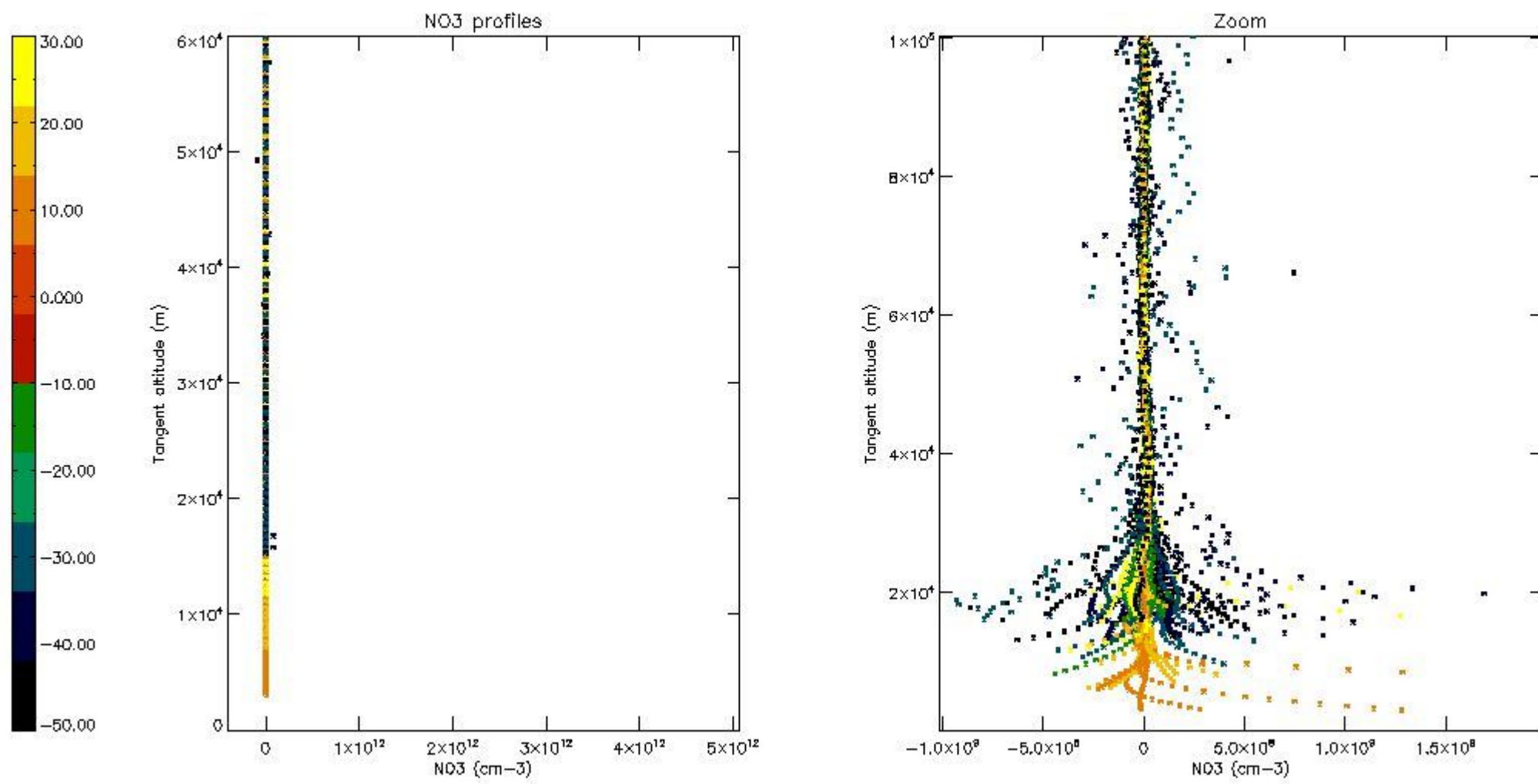
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



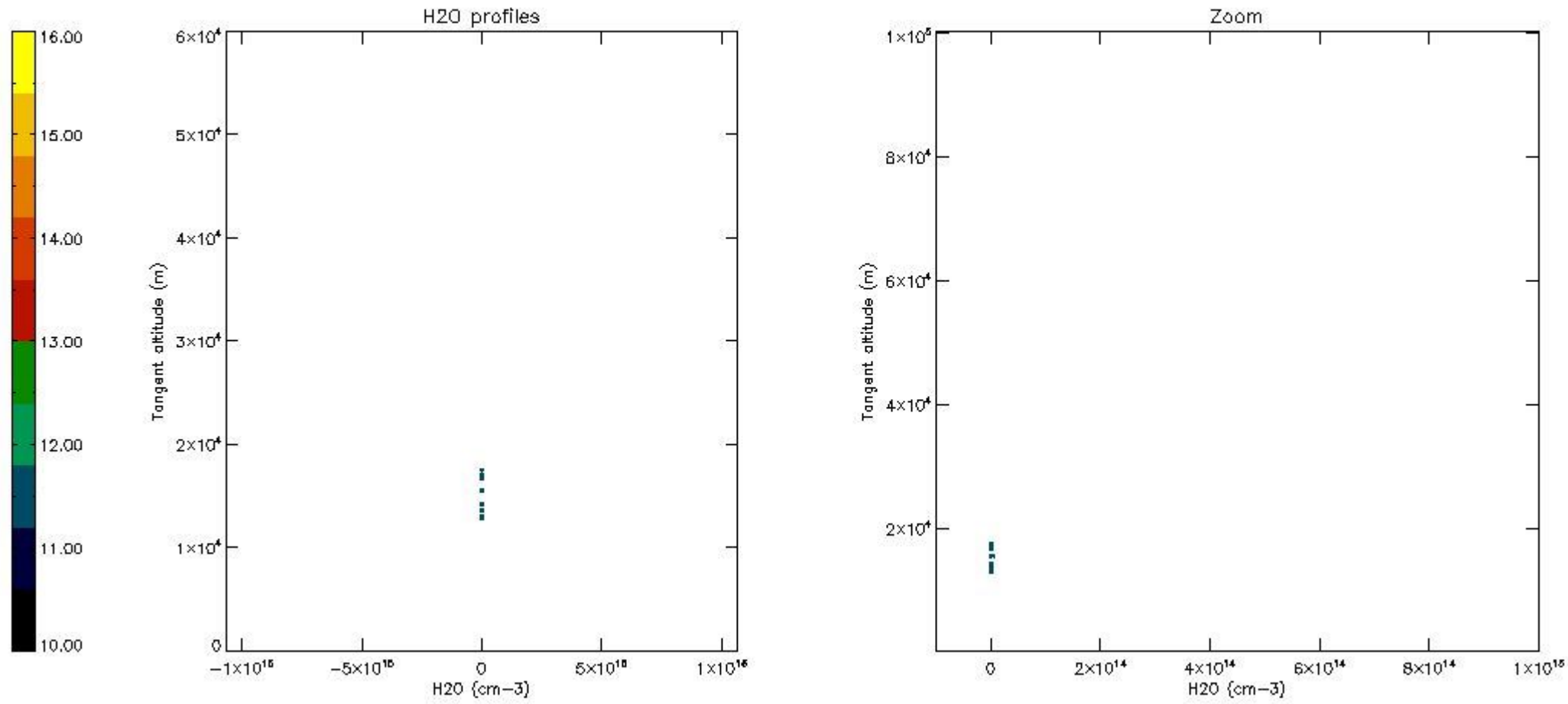
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

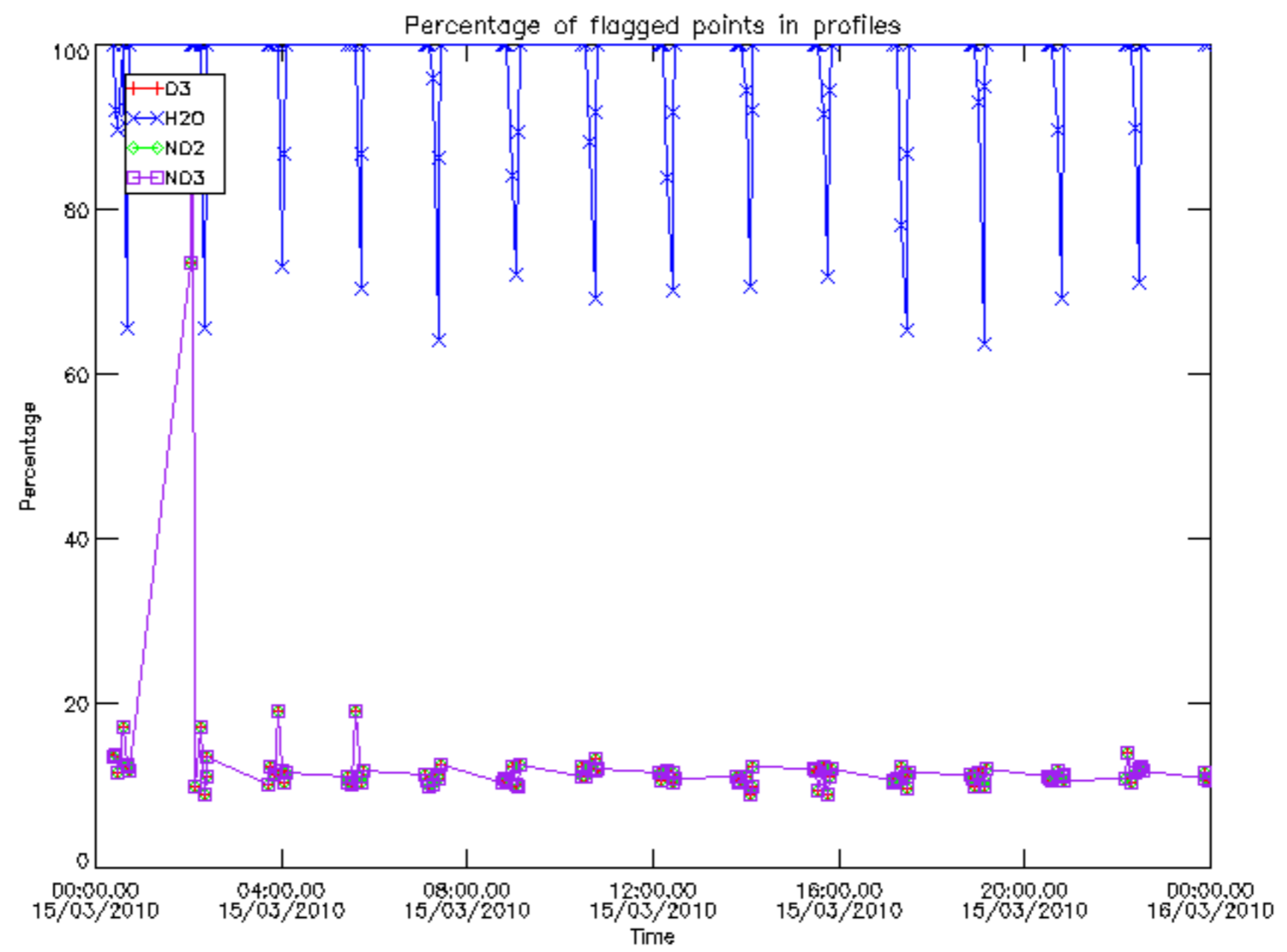
The colorbar represents the latitude.



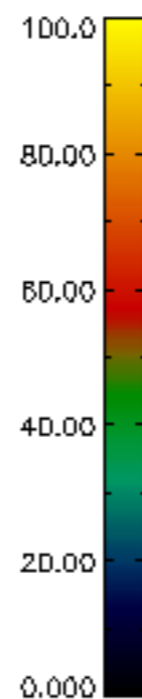
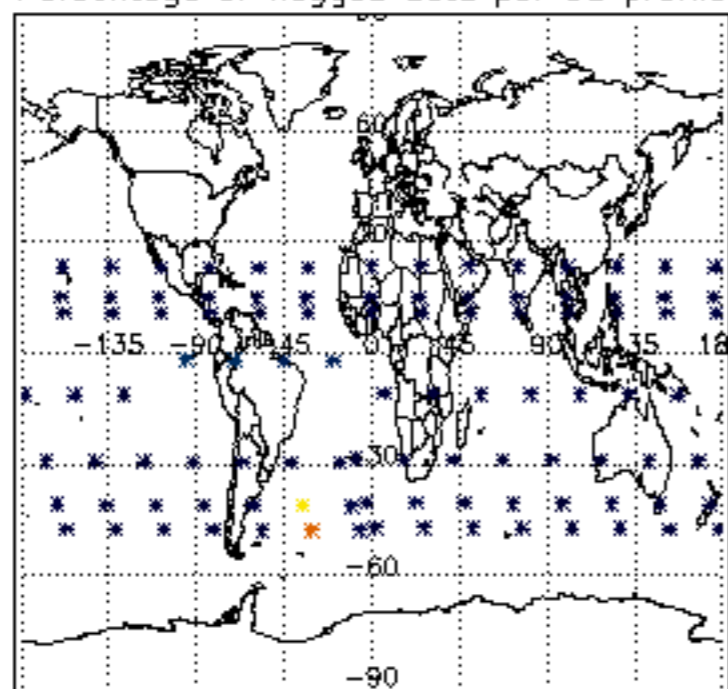
6. Auxiliary Data Files used for the production reported in section 2

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.

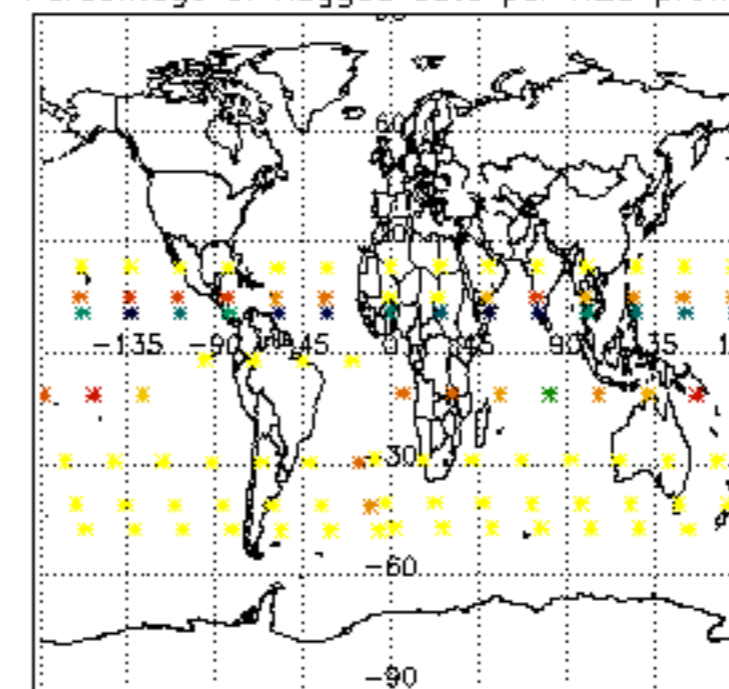
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	15-MAR-2010 00:01:15
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	15-MAR-2010 00:01:15
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	15-MAR-2010 00:01:15



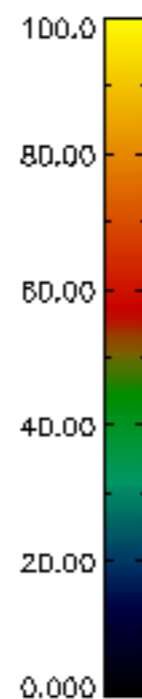
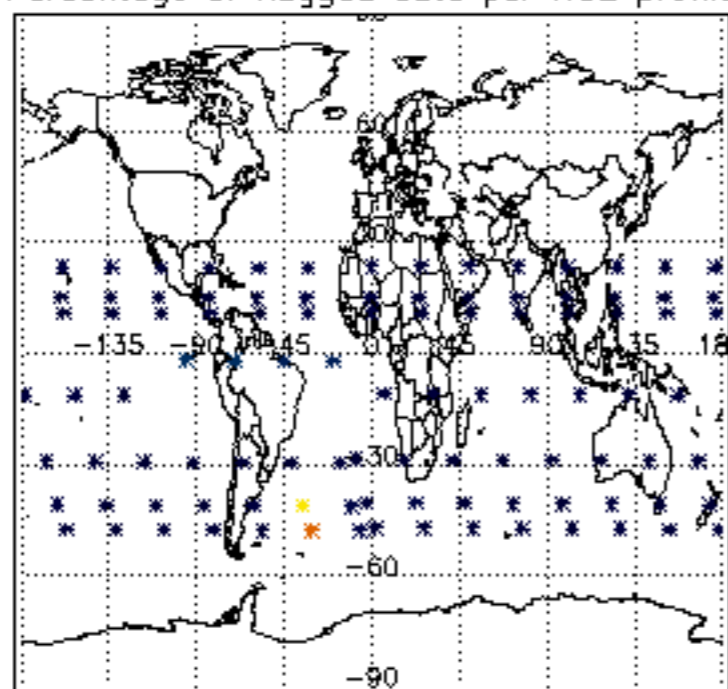
Percentage of flagged data per D3 profile



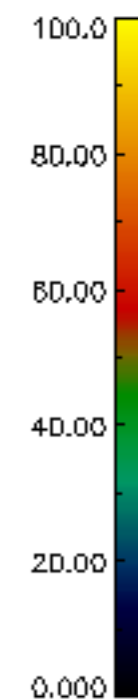
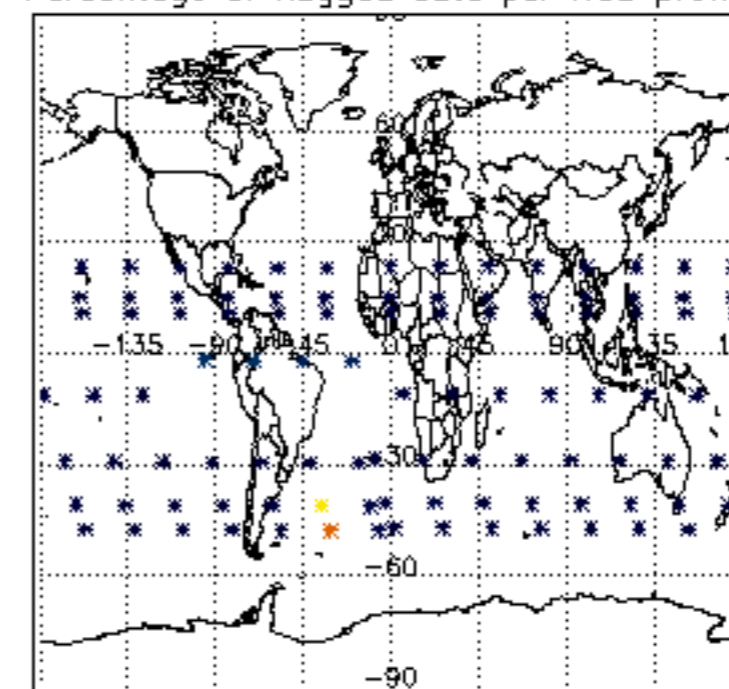
Percentage of flagged data per H2O profile

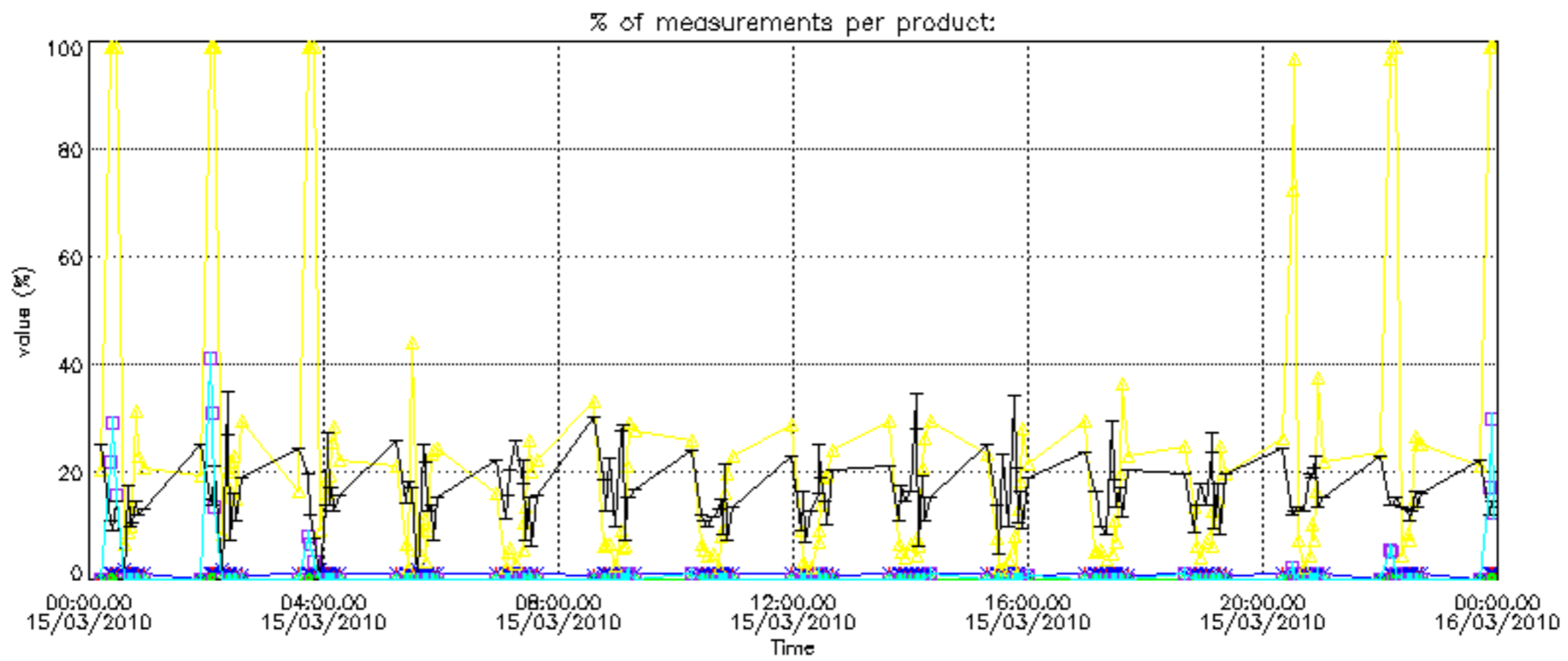
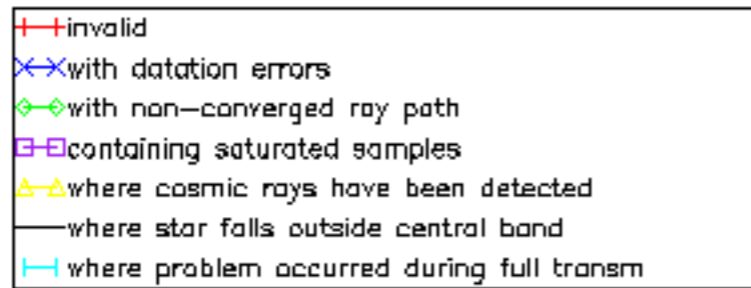


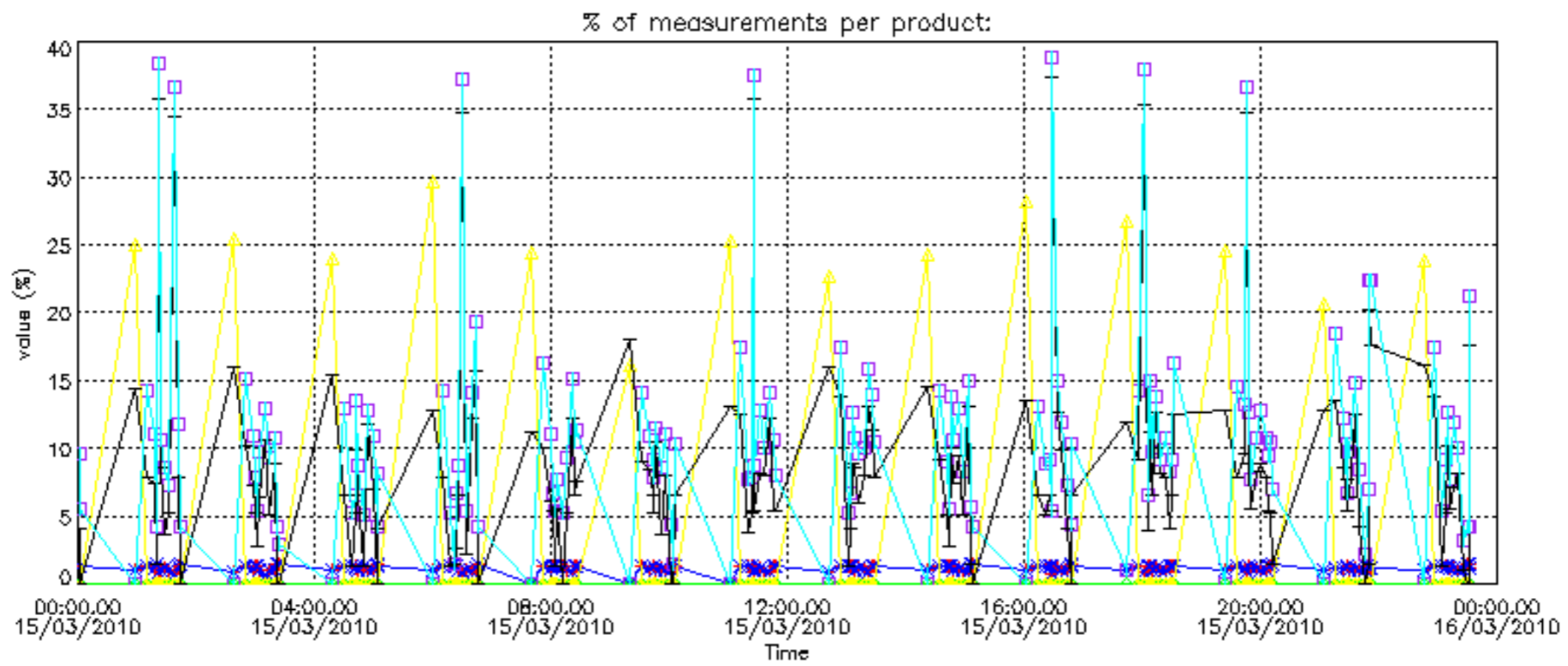
Percentage of flagged data per NO2 profile



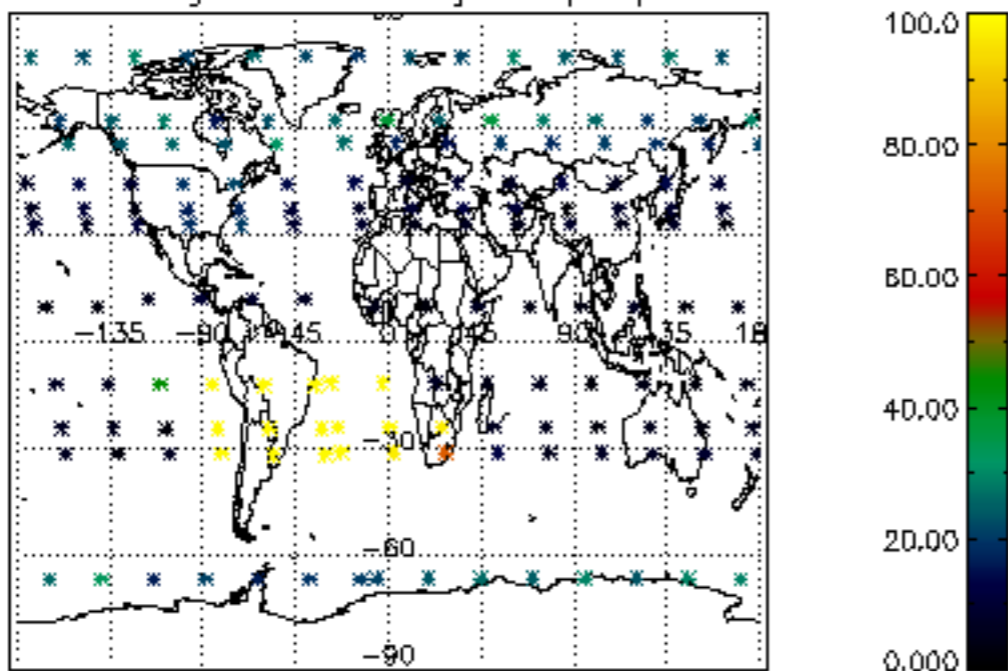
Percentage of flagged data per NO3 profile



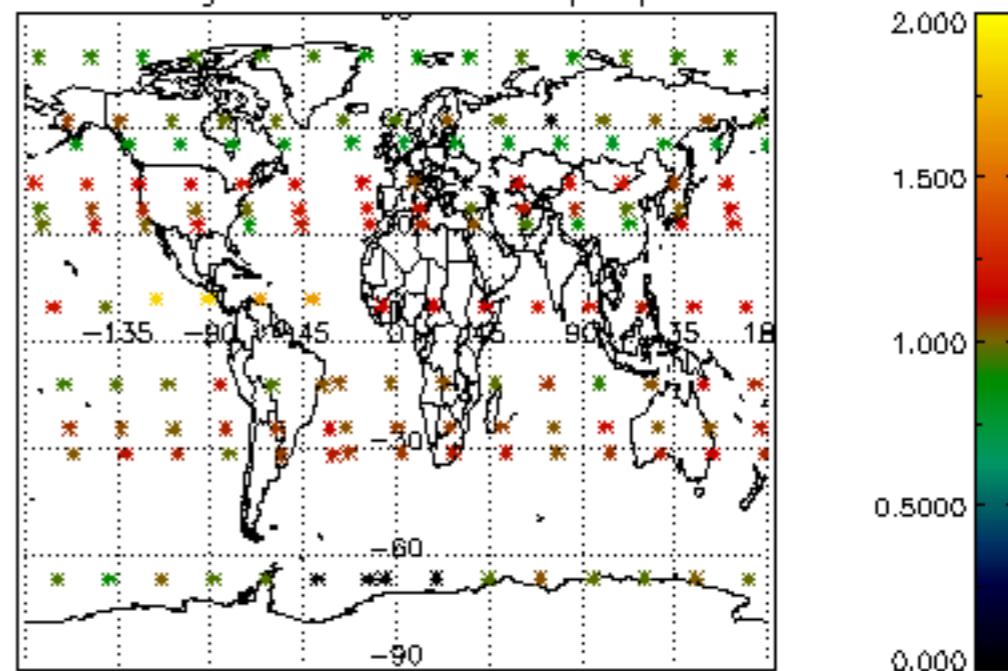




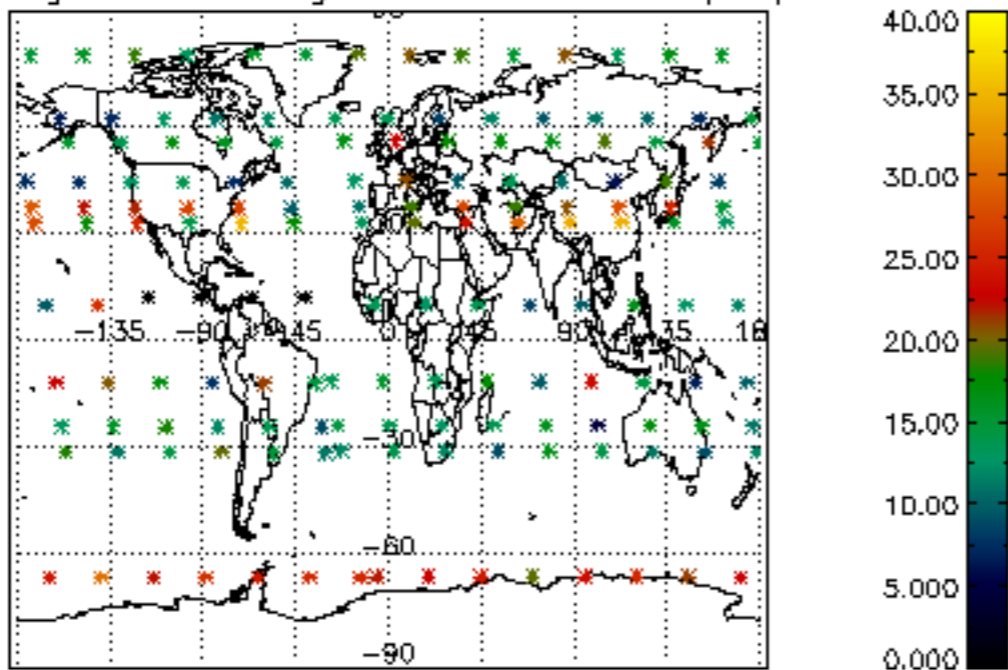
Percentage of cosmic ray hits per profile



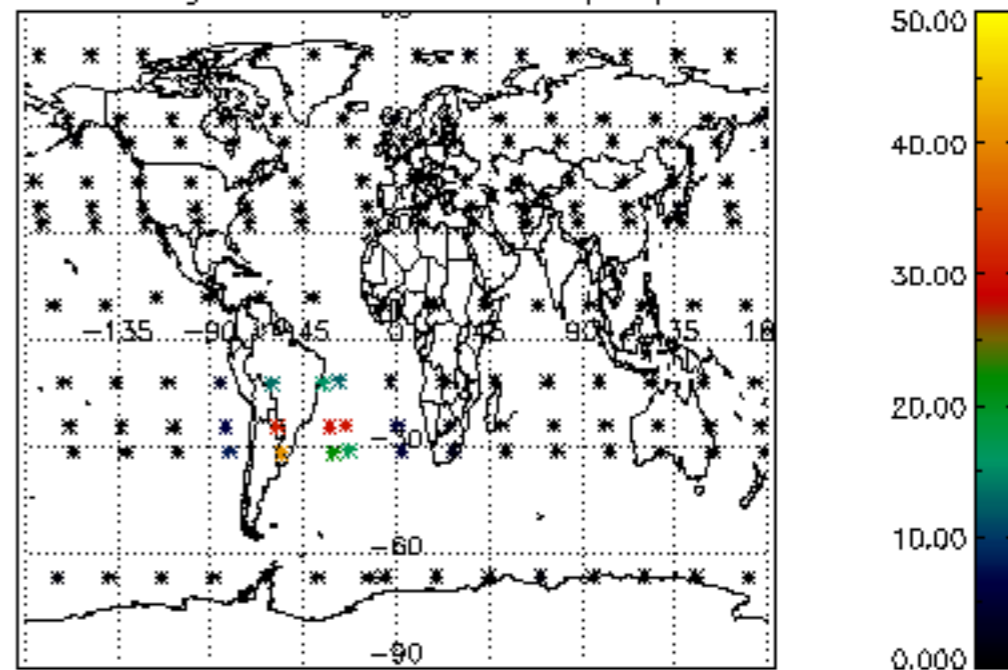
Percentage of datation errors per profile



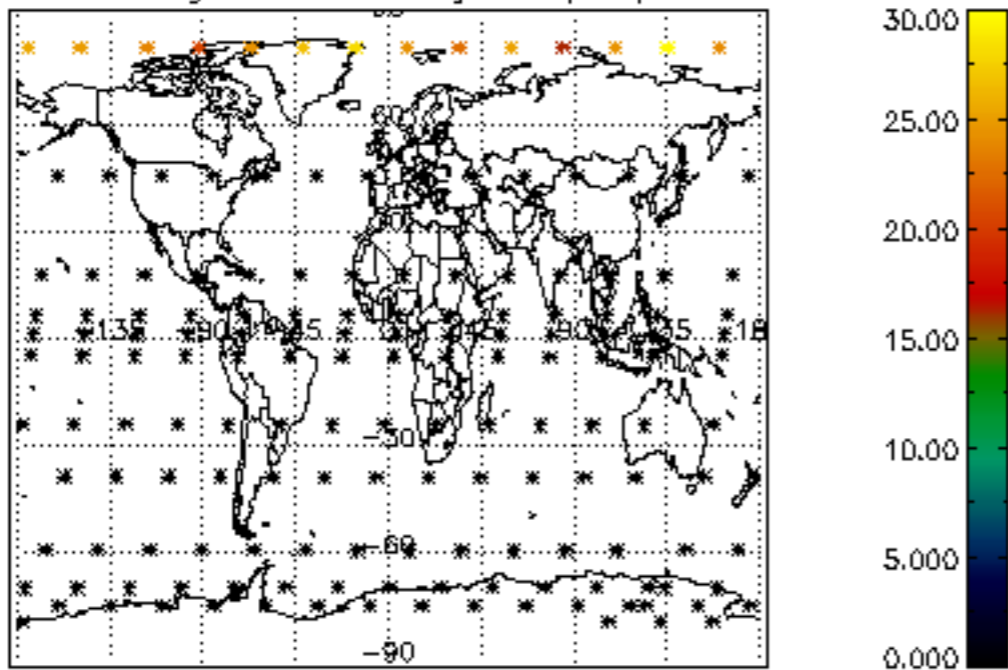
Percentage of star falling outside central band per profile



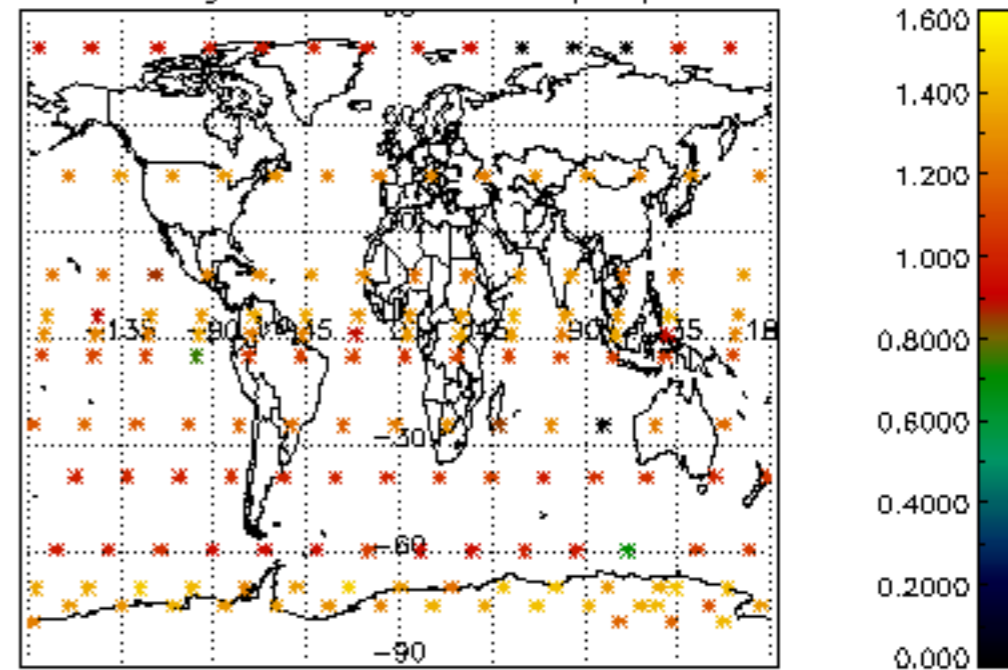
Percentage of saturation errors per profile



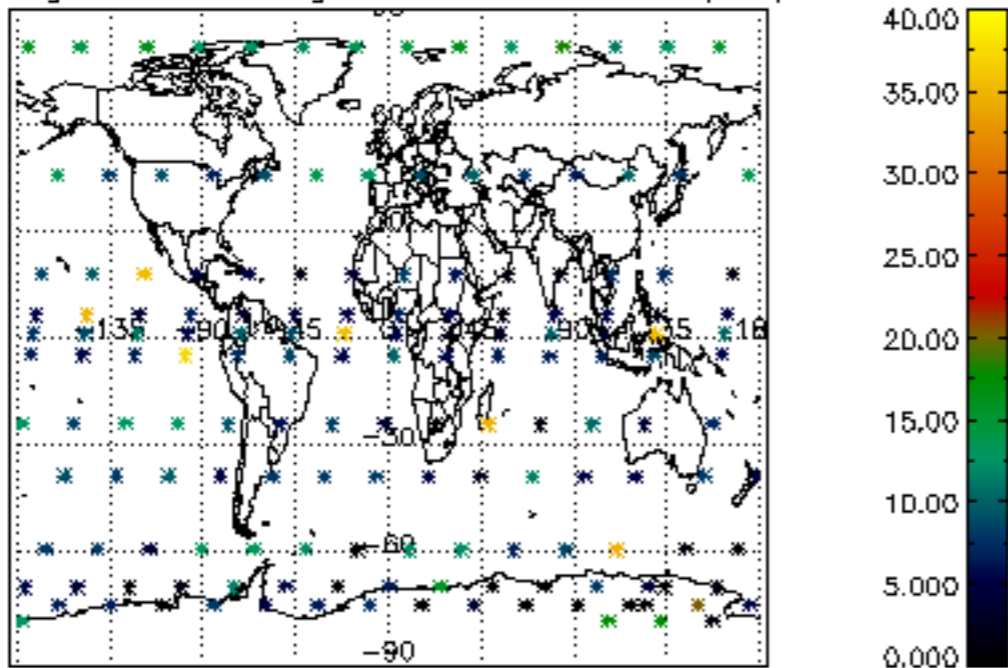
Percentage of cosmic ray hits per profile



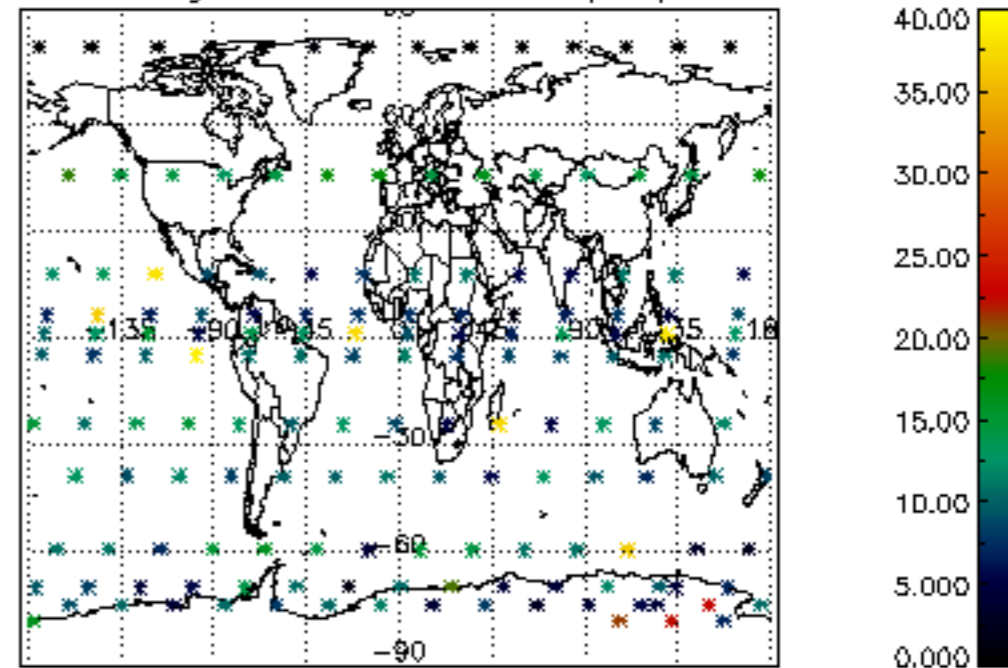
Percentage of datation errors per profile

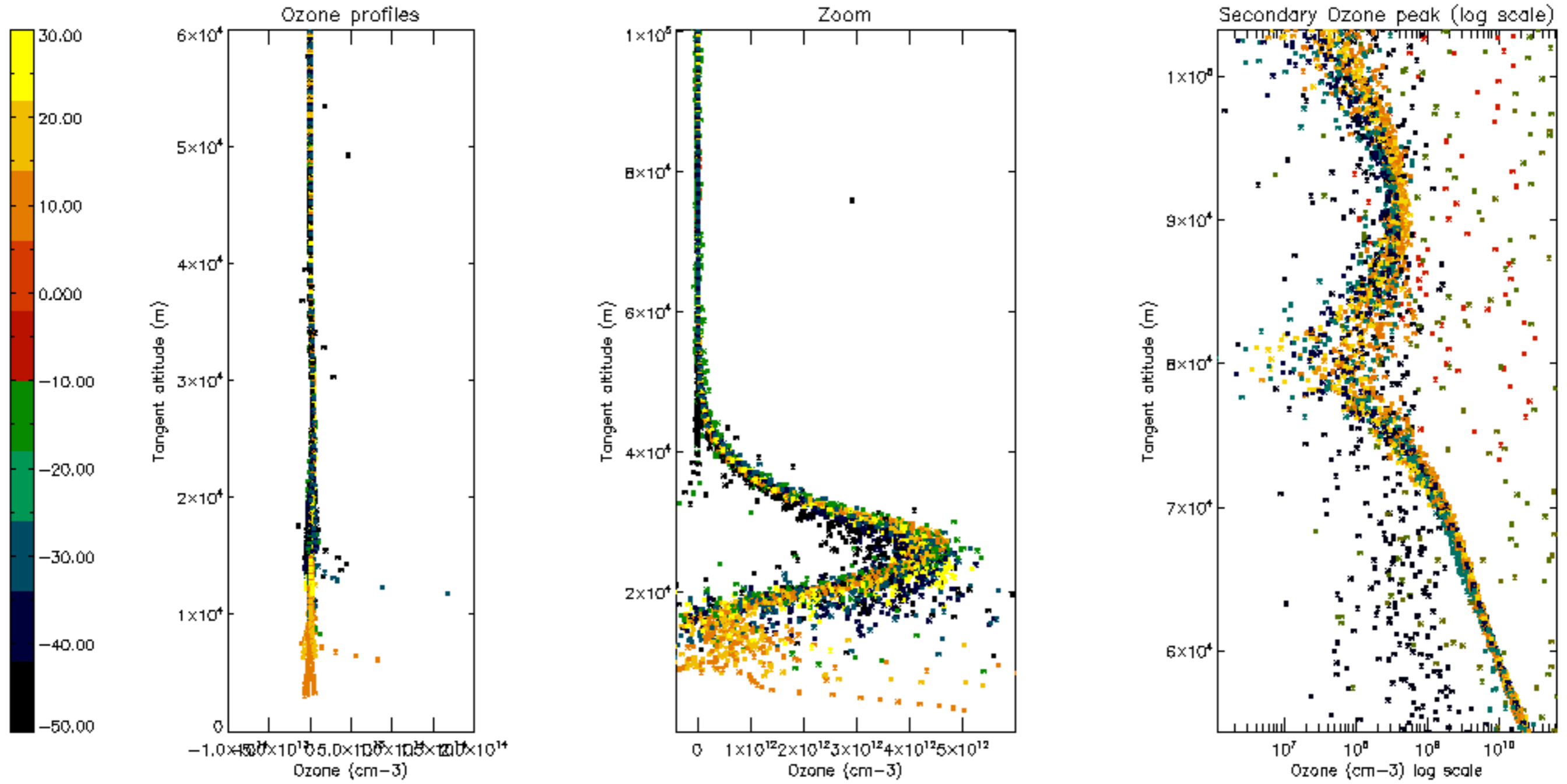


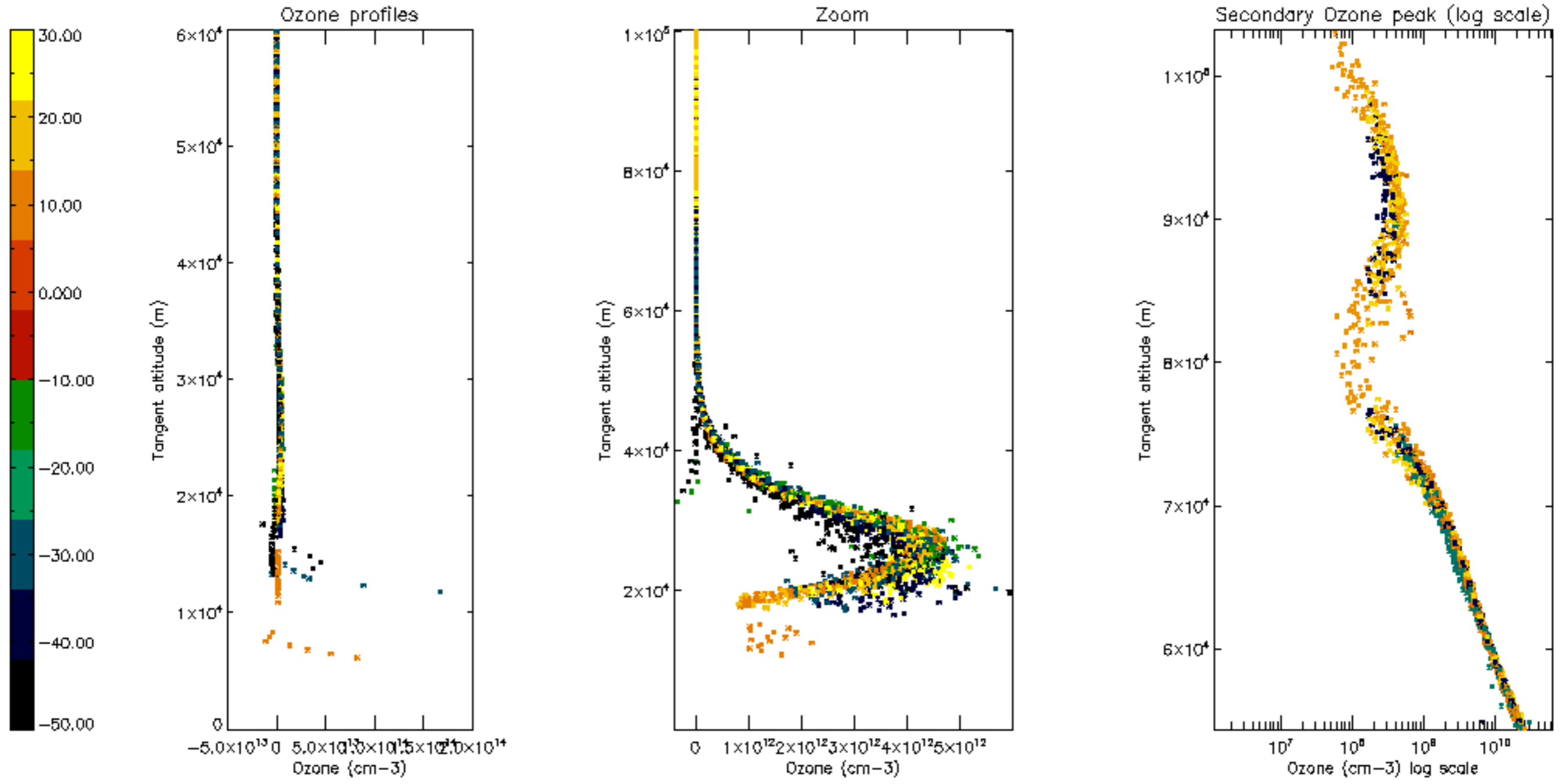
Percentage of star falling outside central band per profile

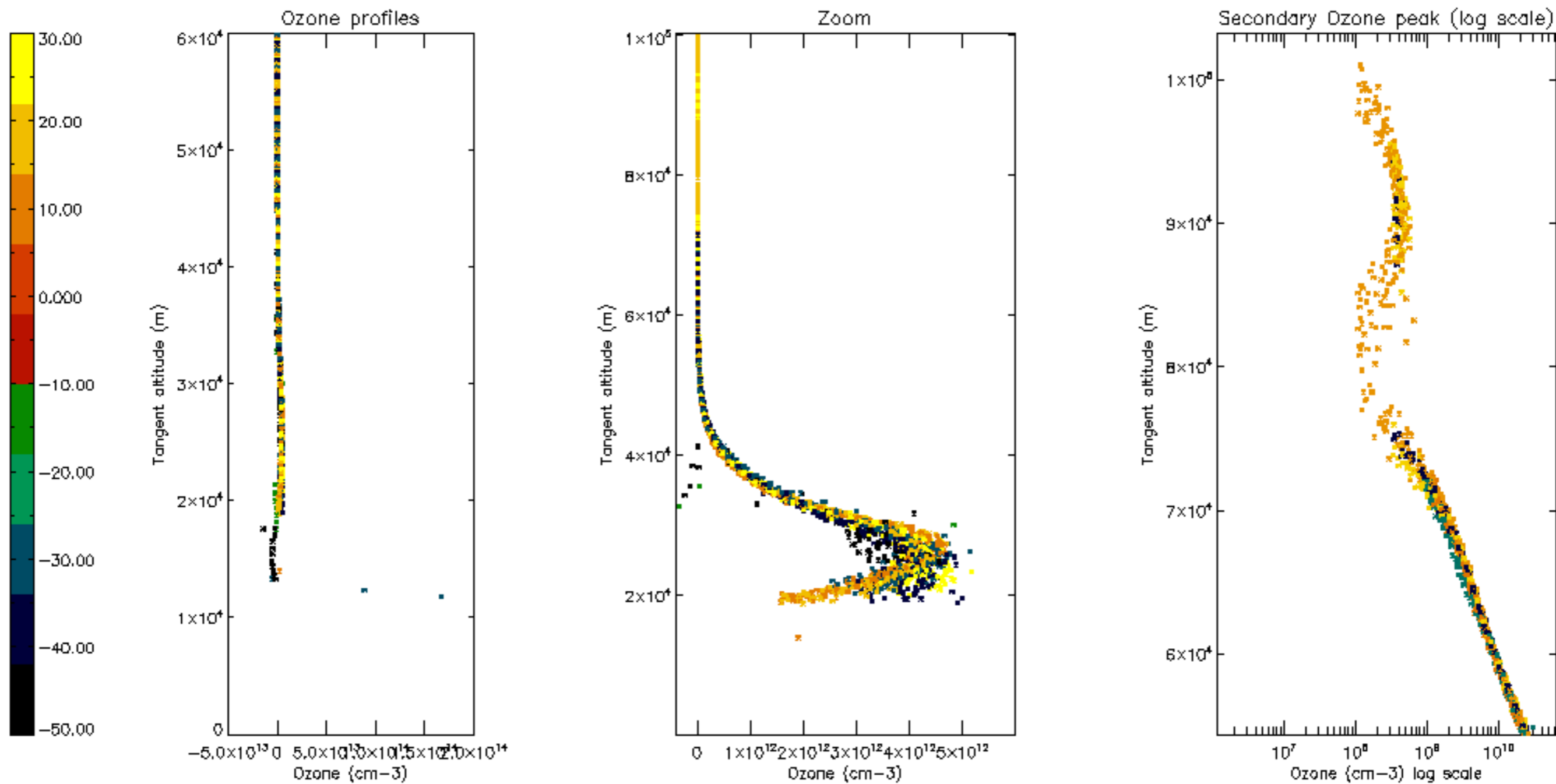


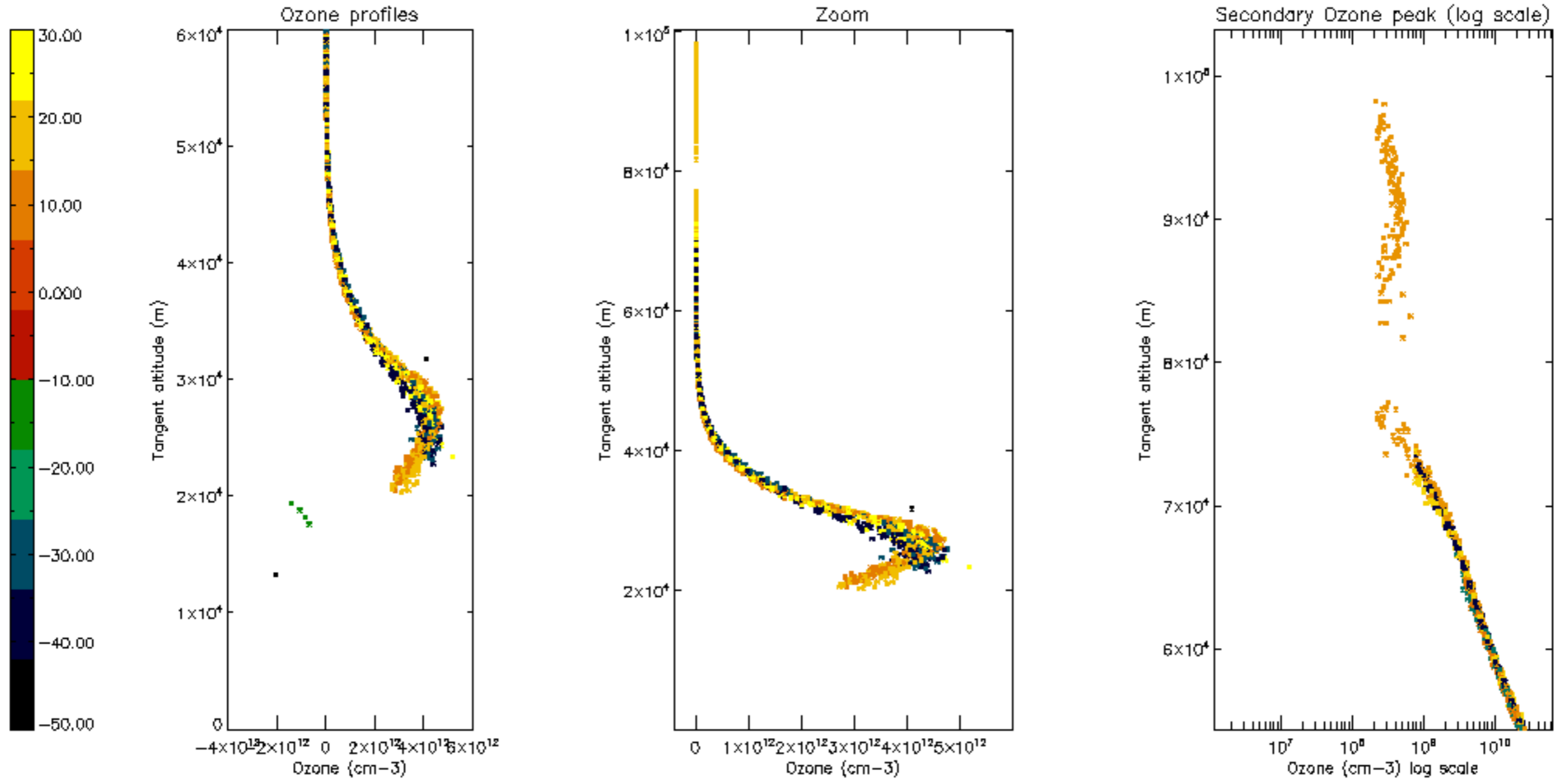
Percentage of saturation errors per profile

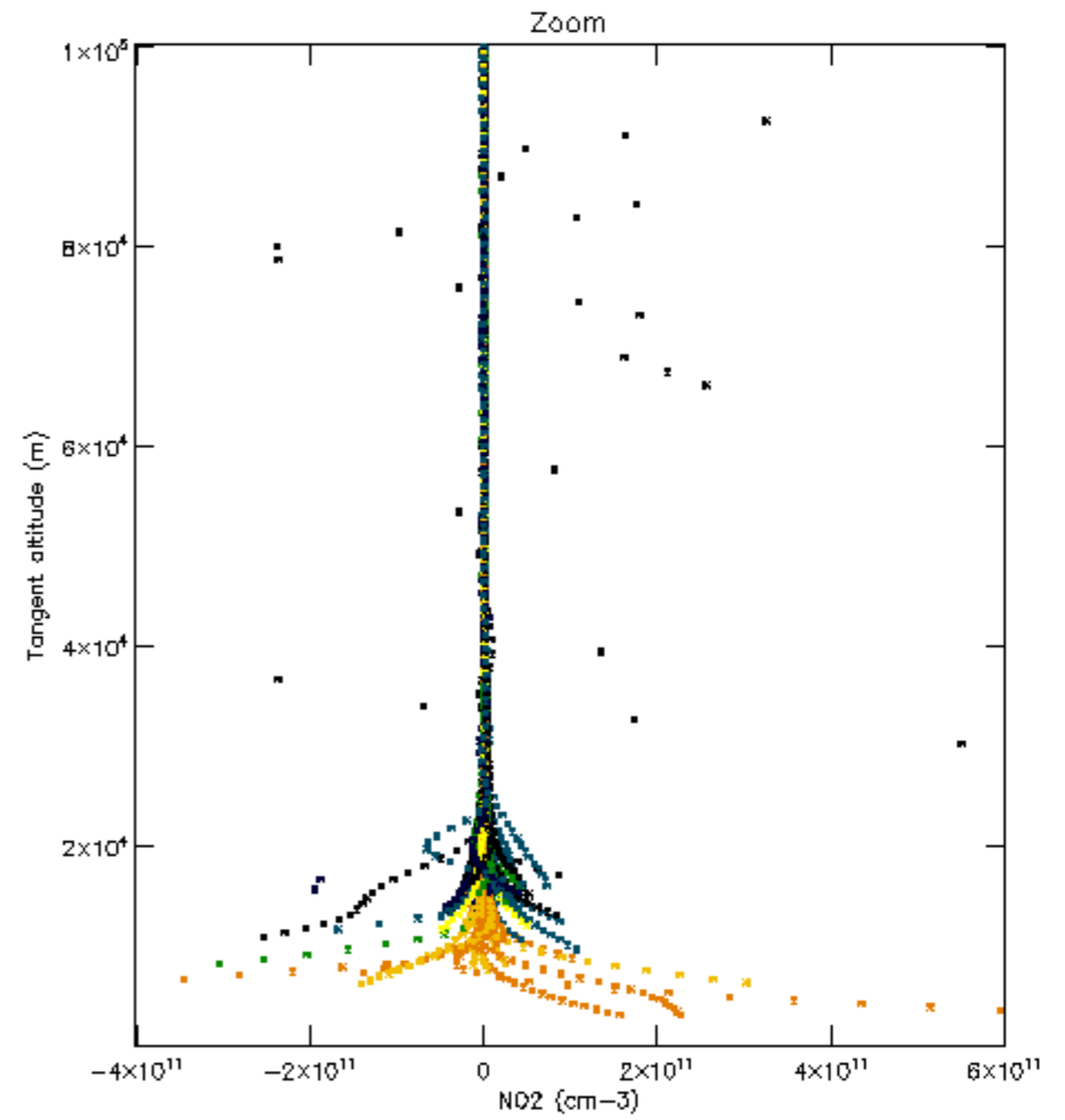
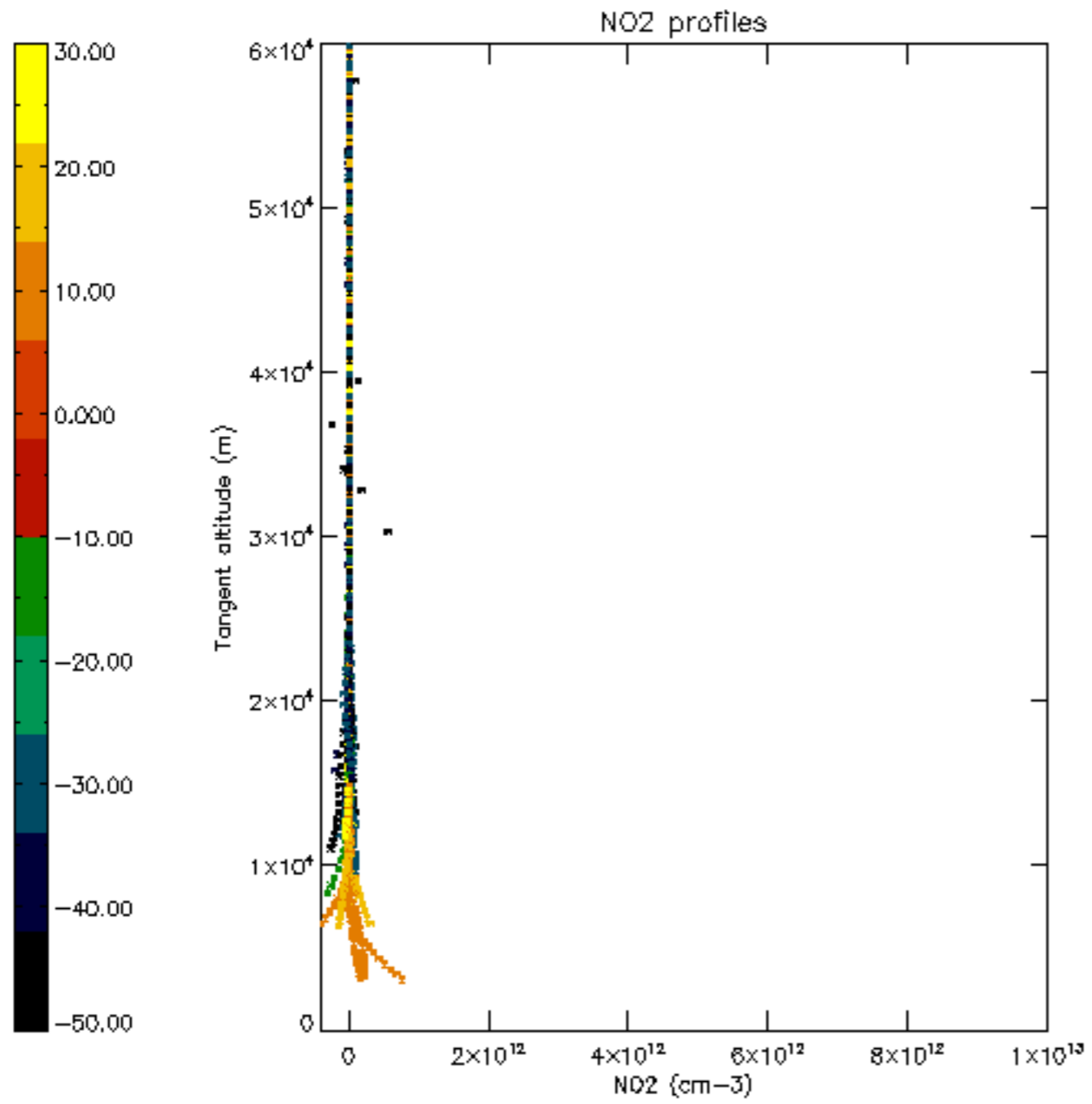


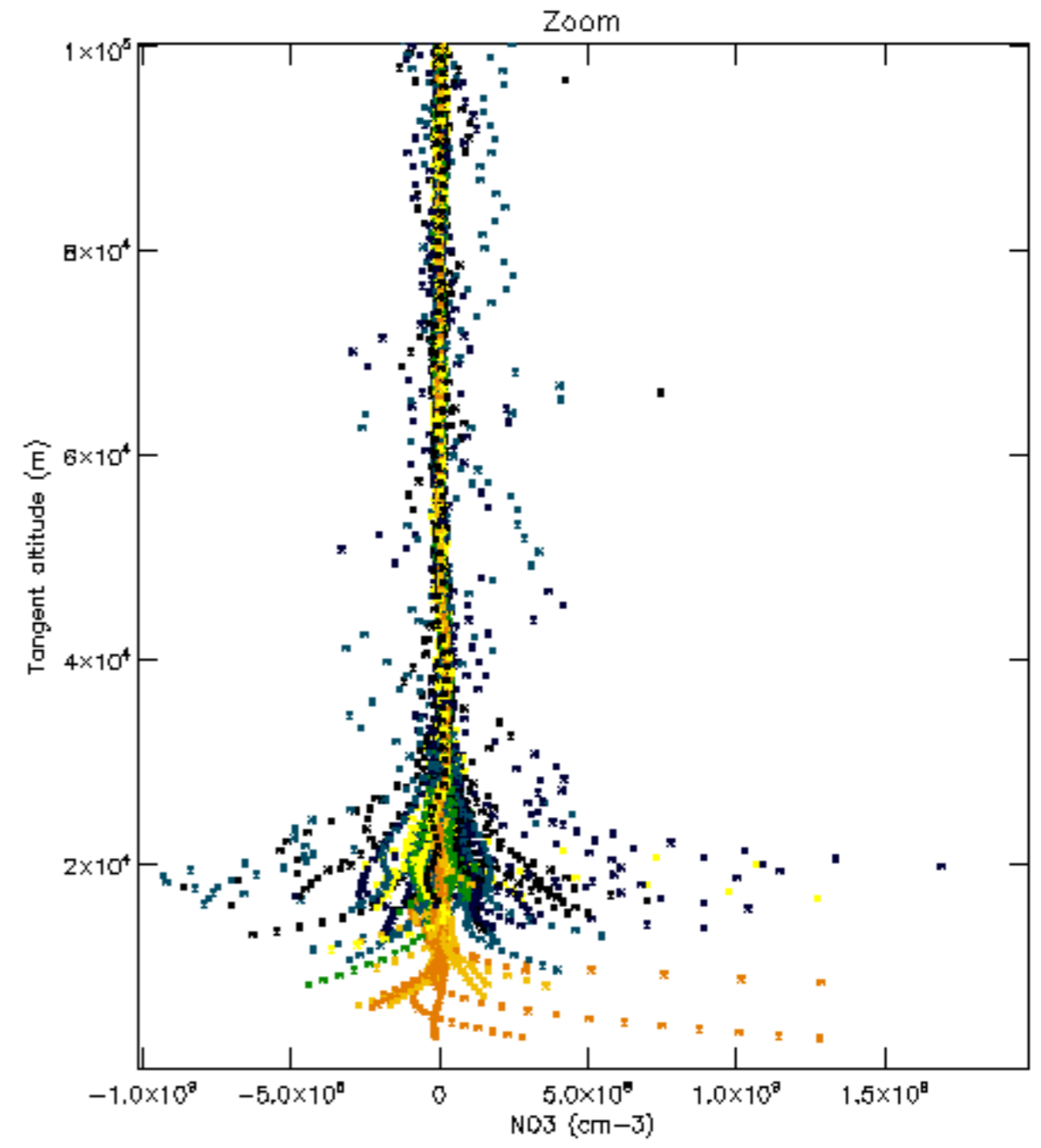
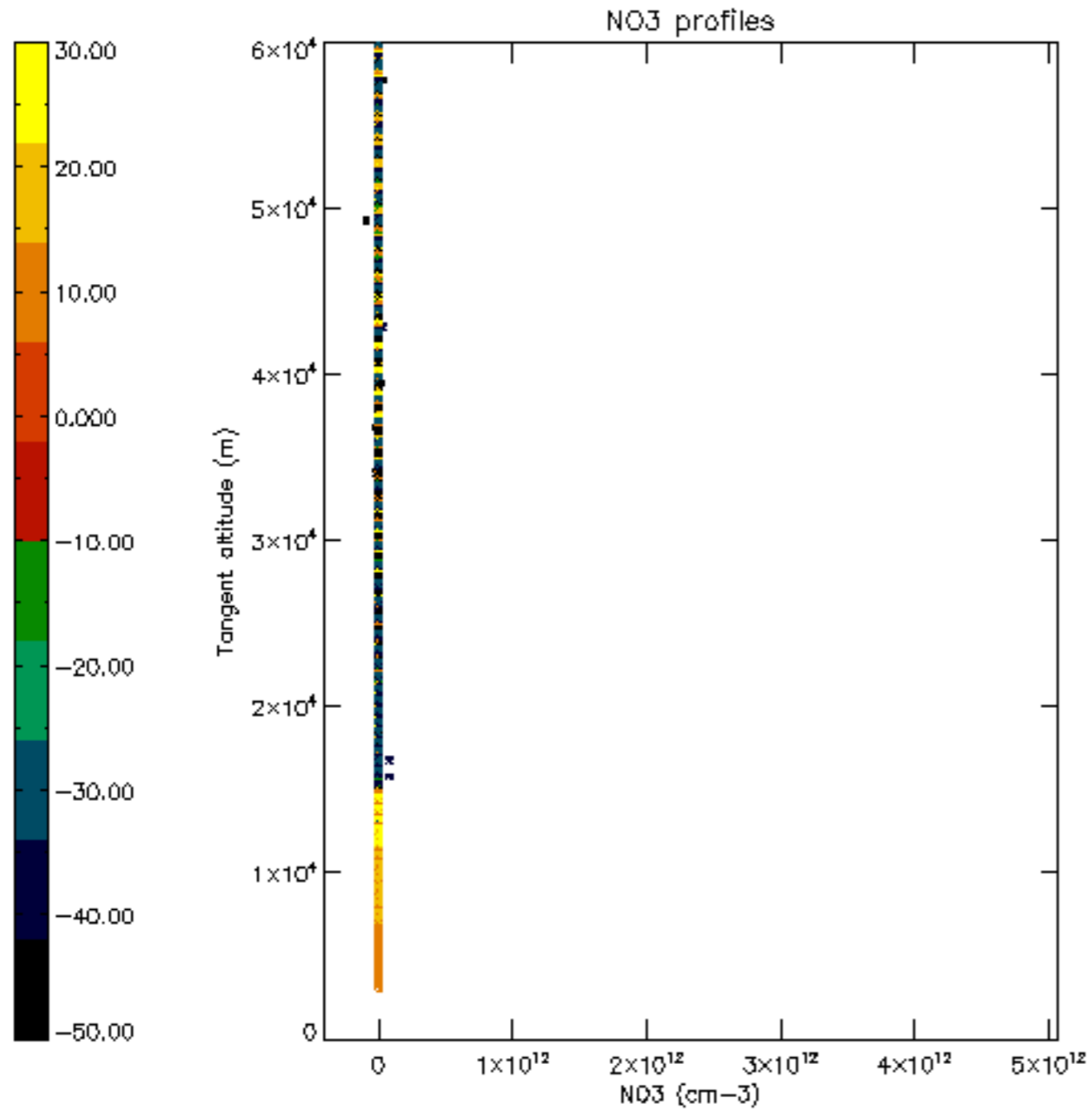


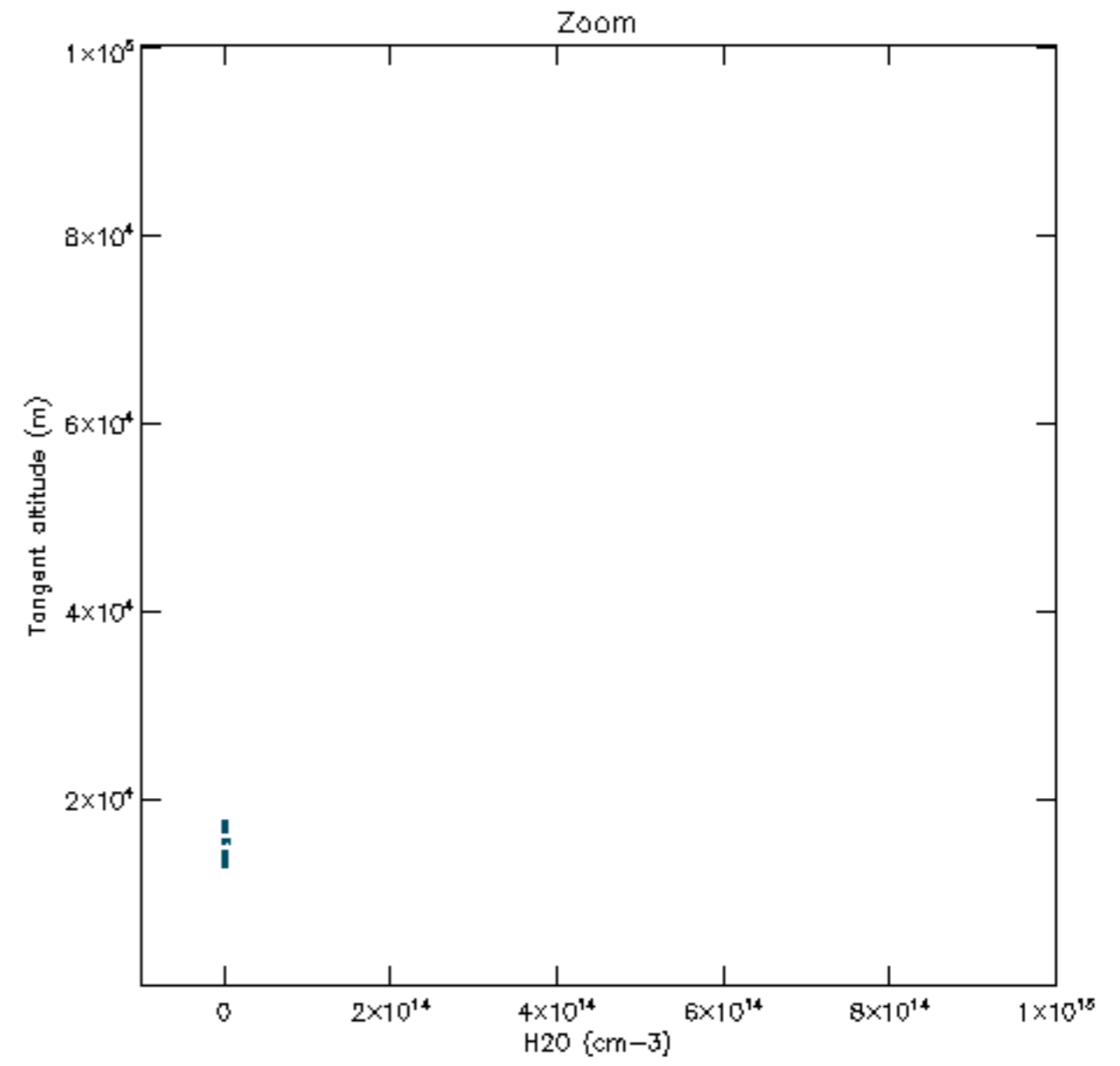
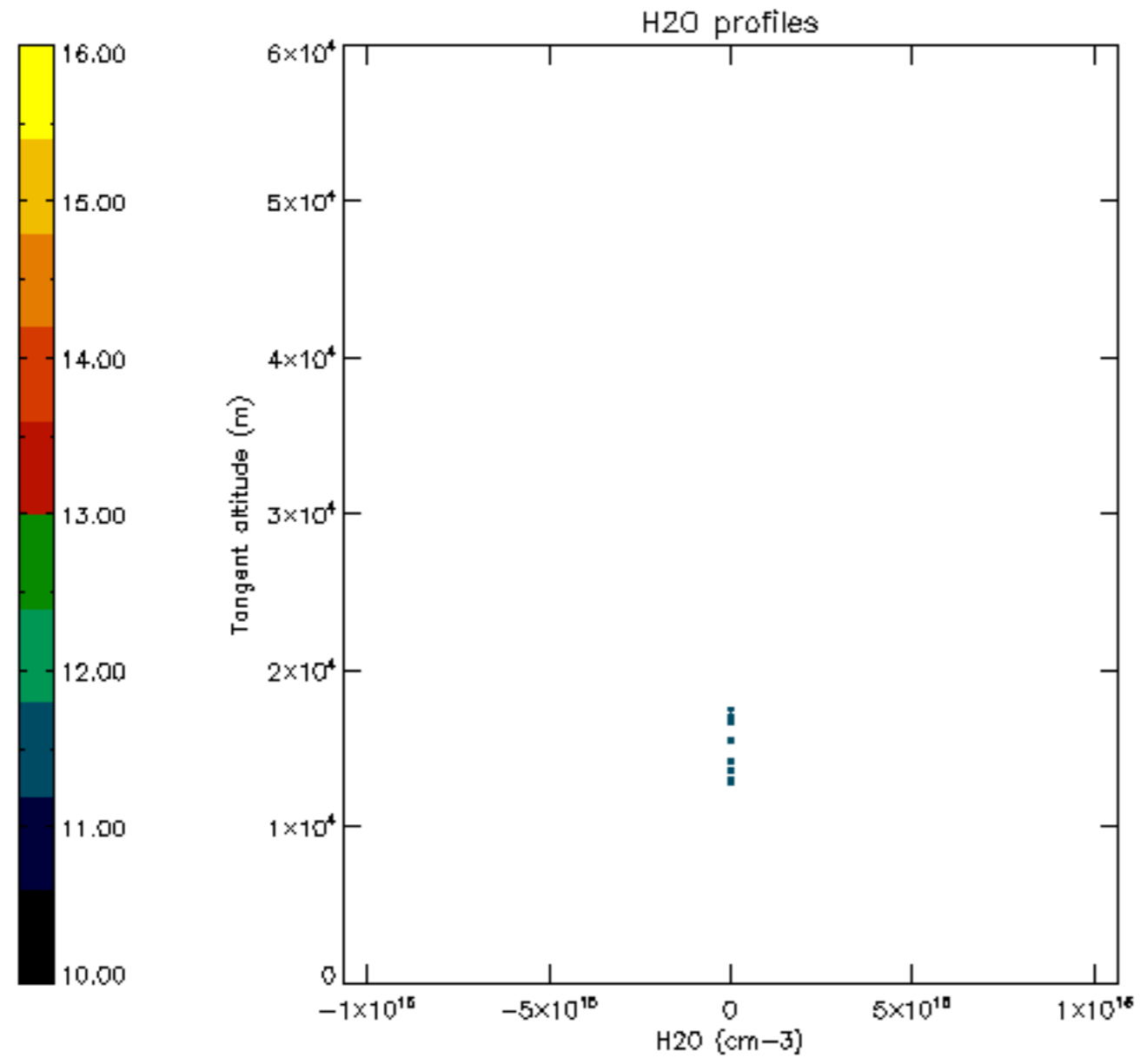


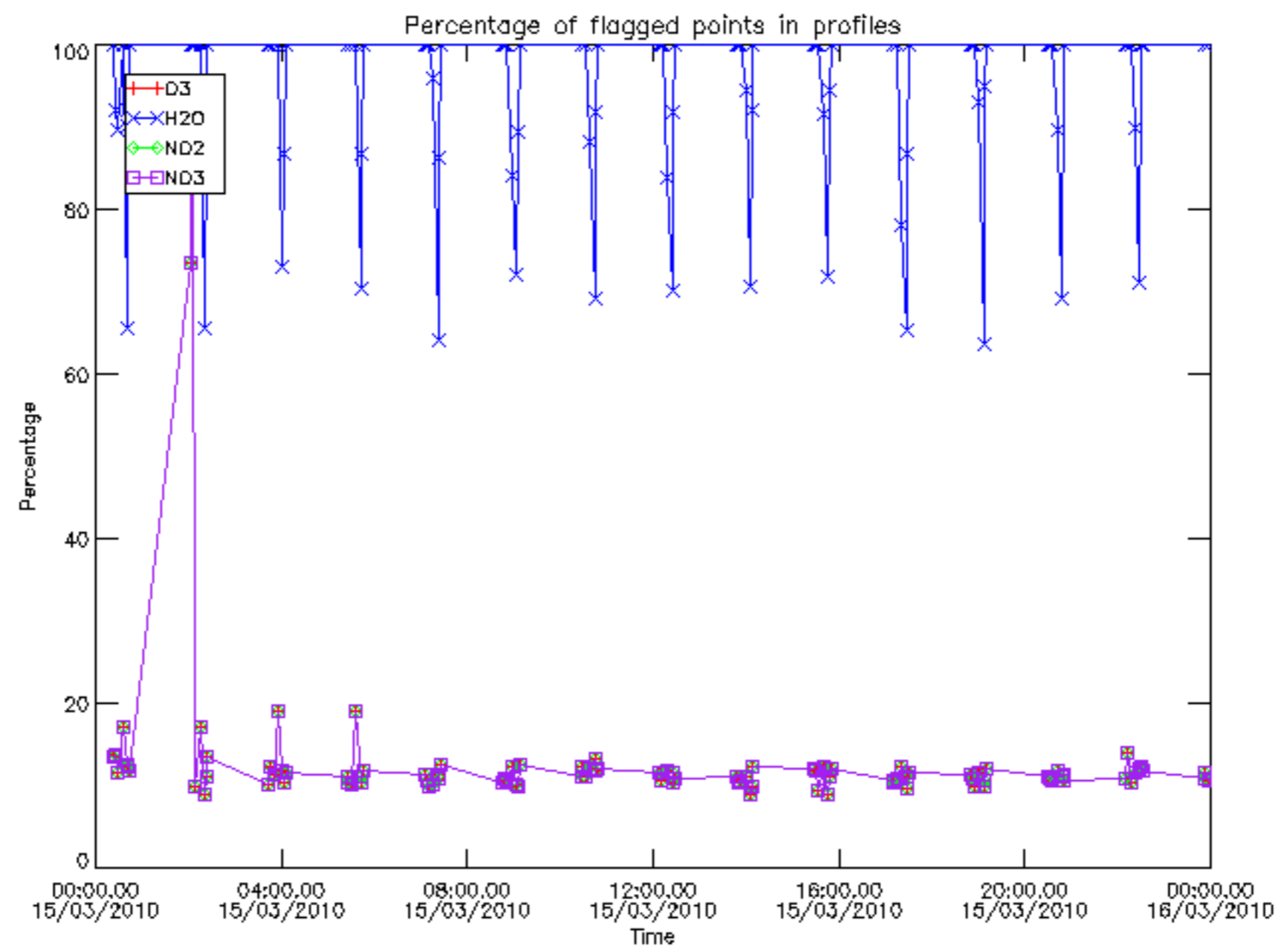




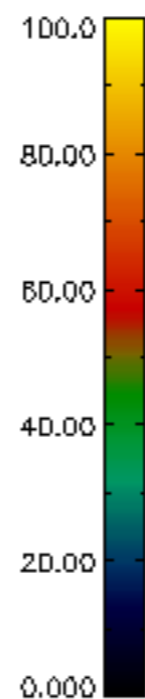
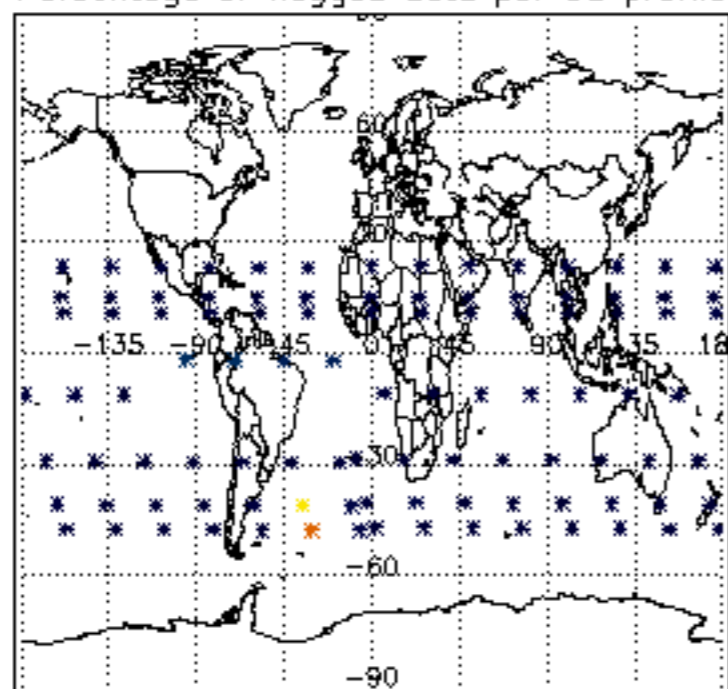




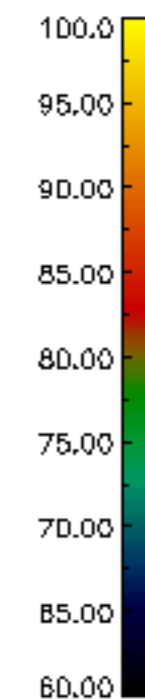
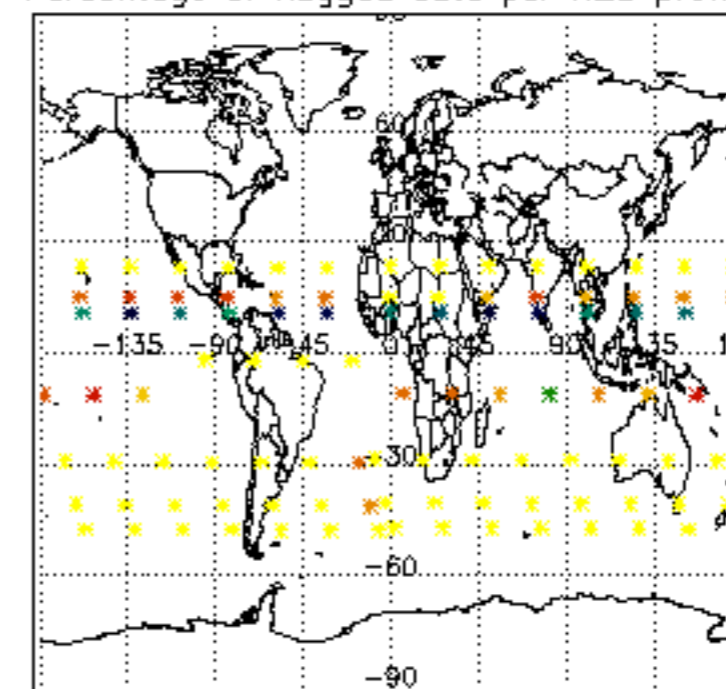




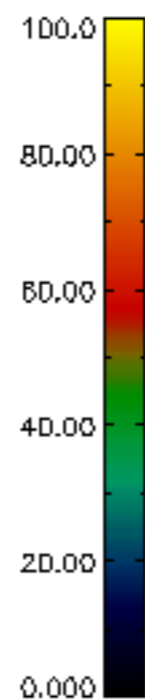
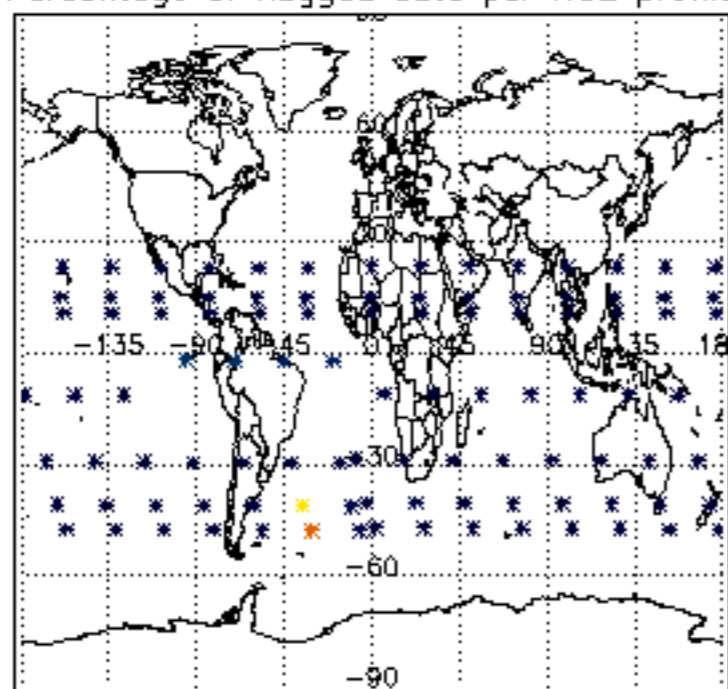
Percentage of flagged data per D3 profile



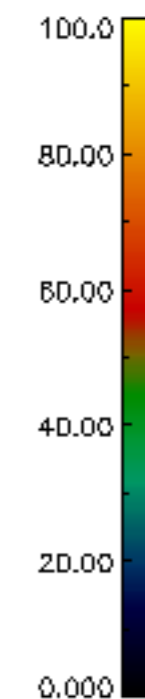
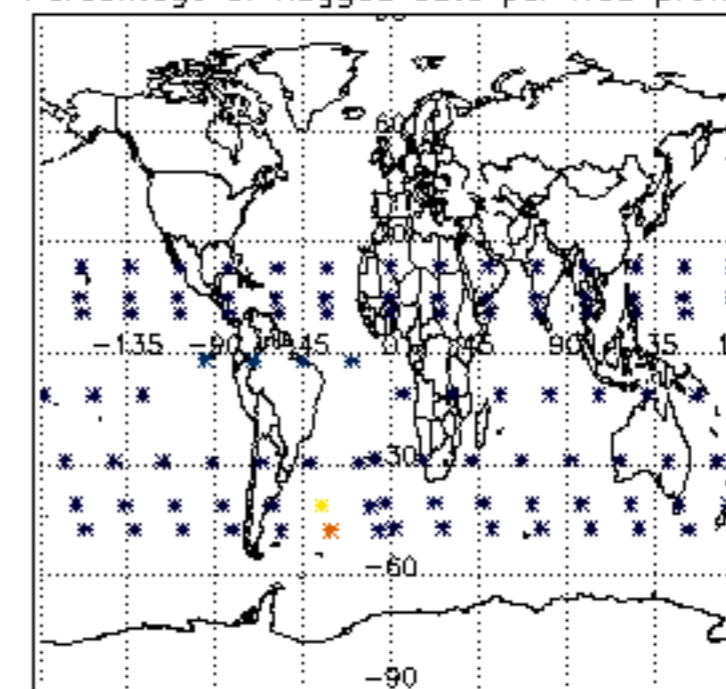
Percentage of flagged data per H2O profile

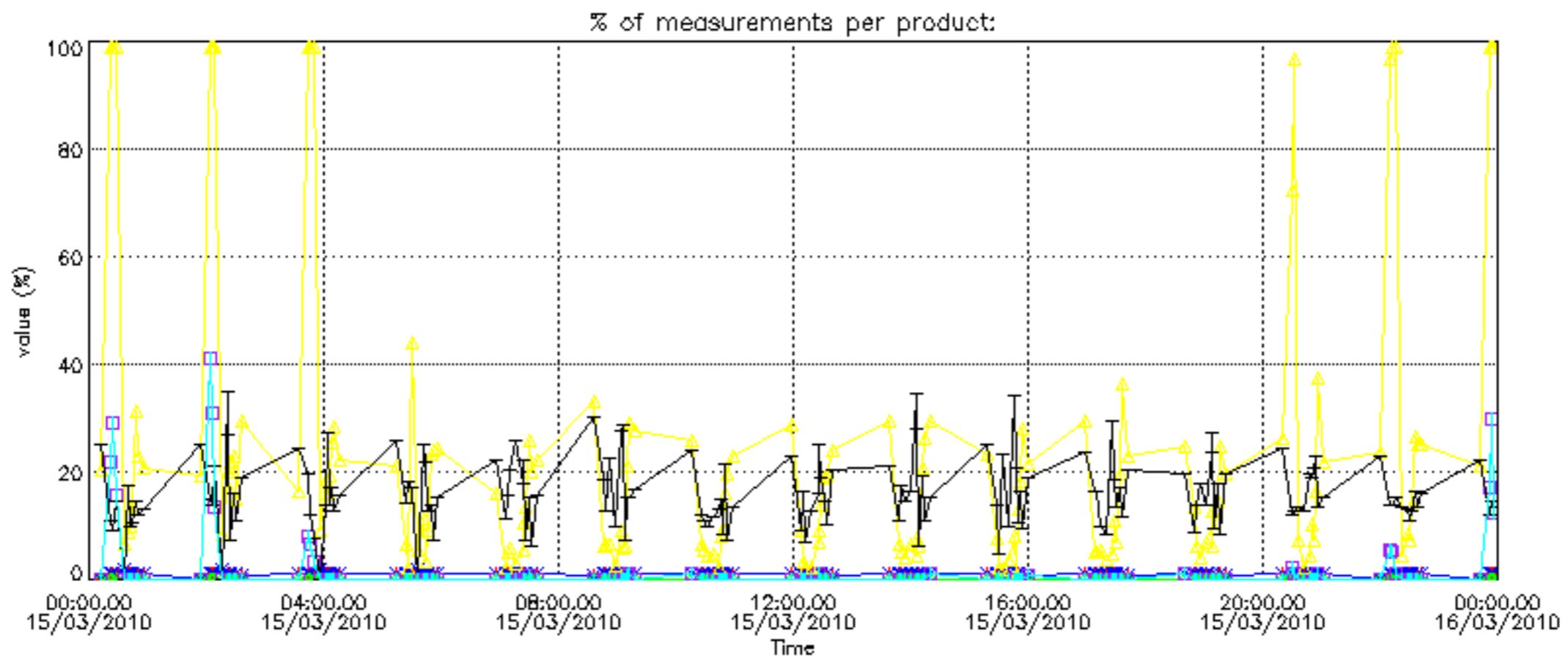
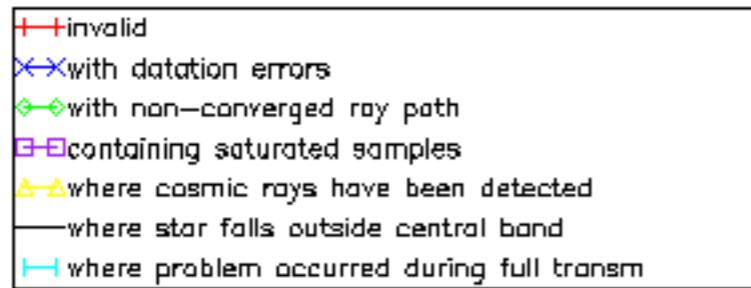


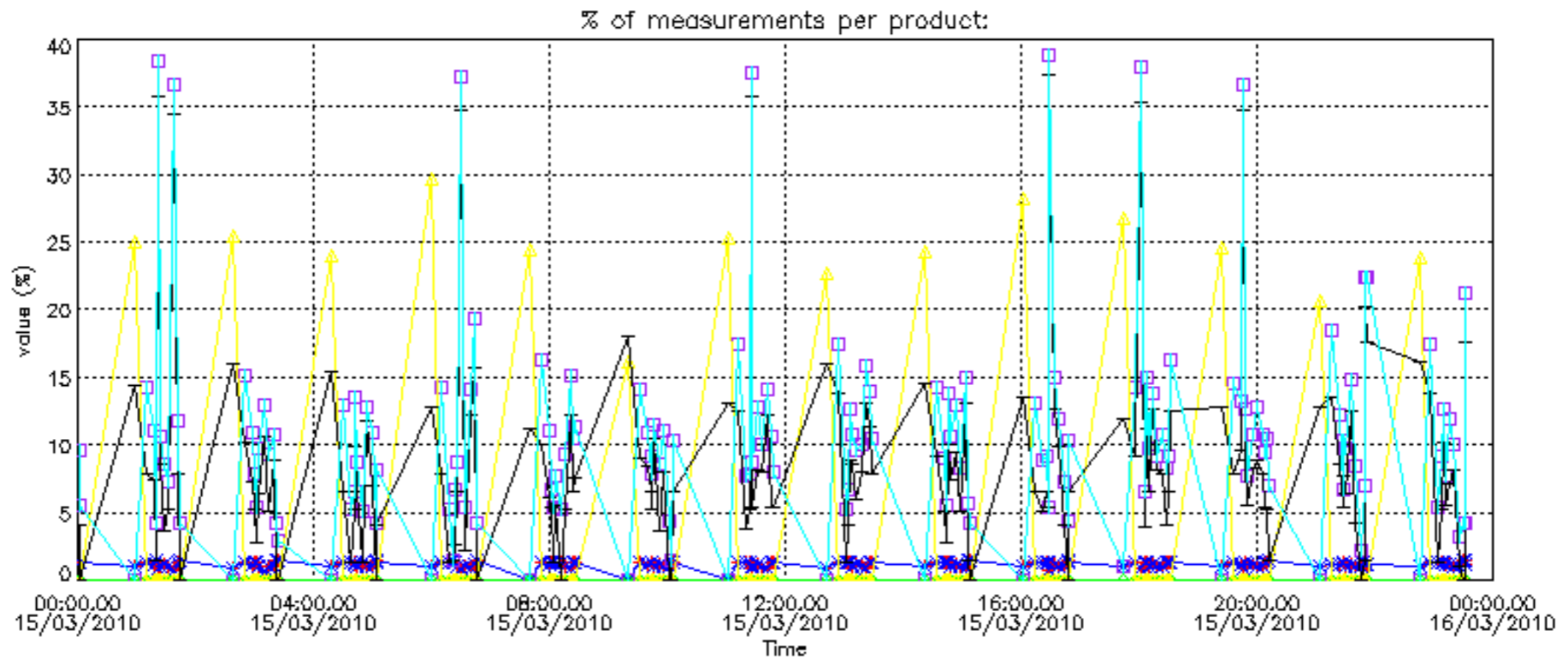
Percentage of flagged data per NO2 profile



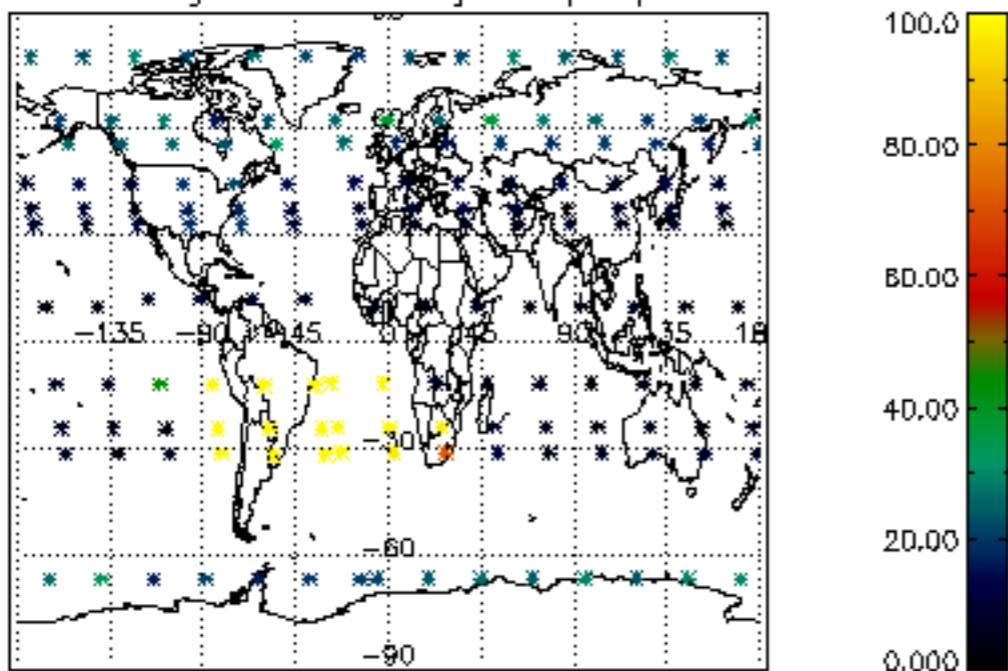
Percentage of flagged data per NO3 profile



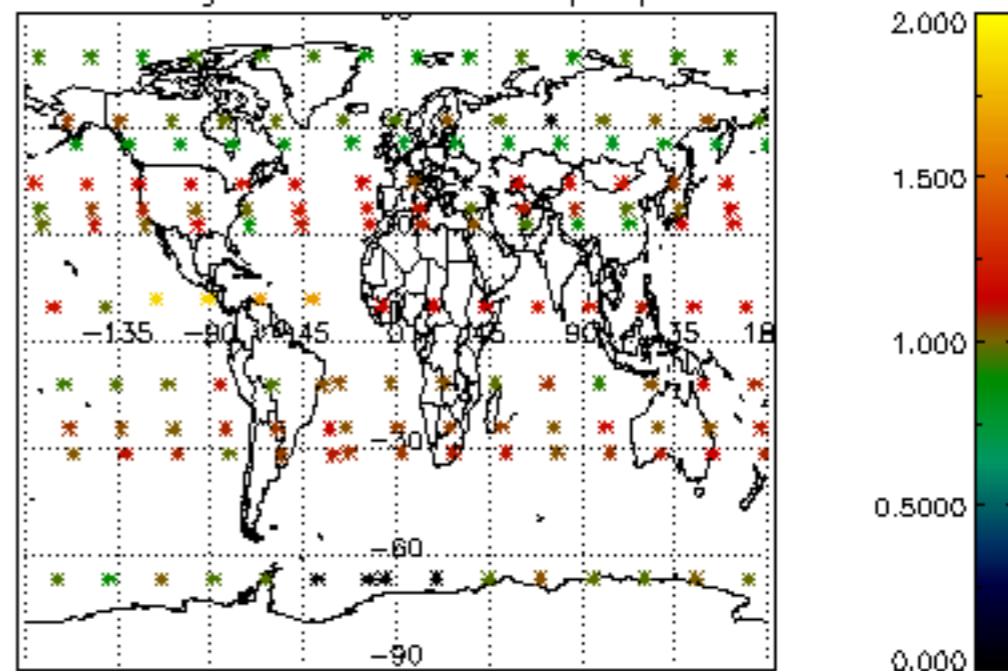




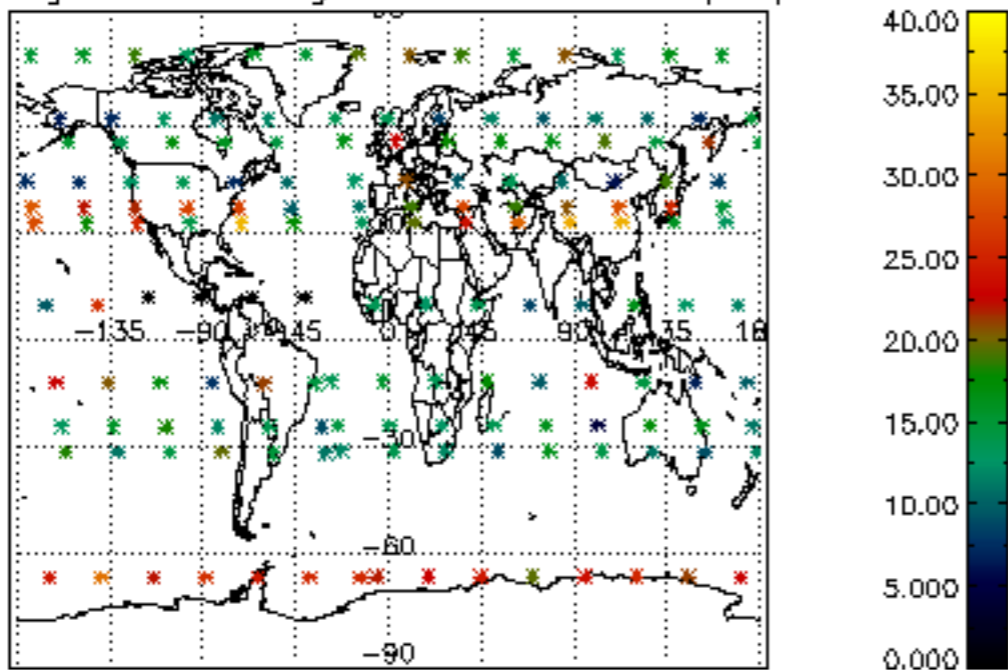
Percentage of cosmic ray hits per profile



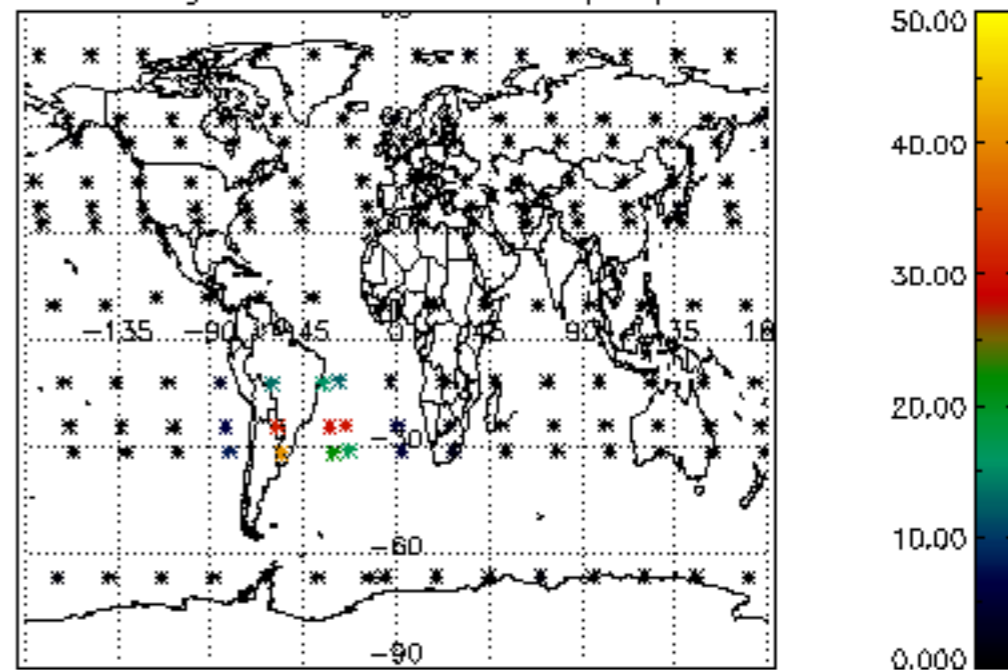
Percentage of datation errors per profile



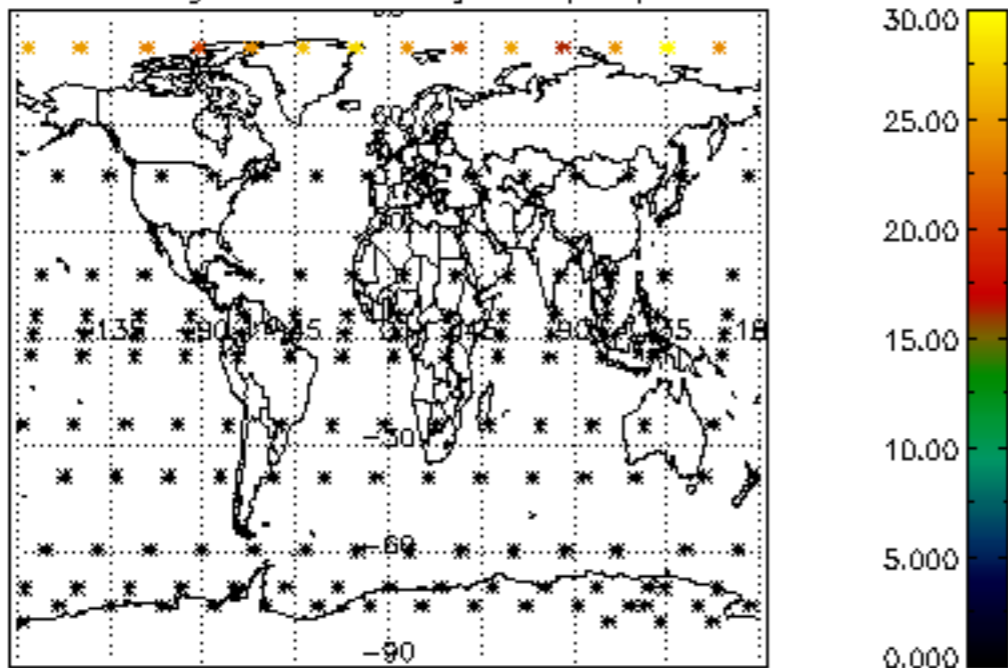
Percentage of star falling outside central band per profile



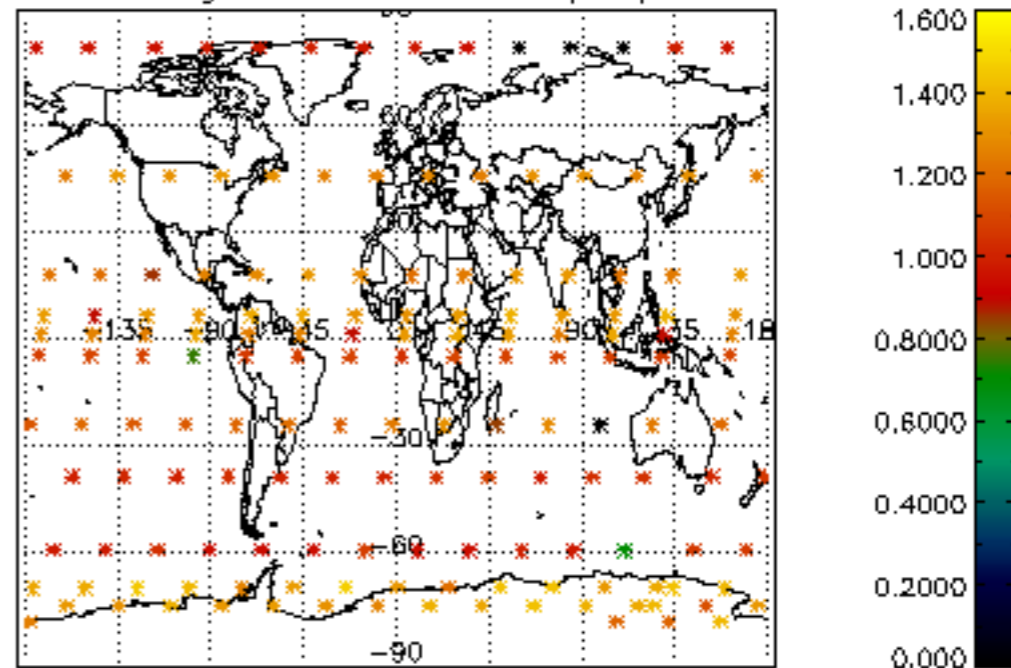
Percentage of saturation errors per profile



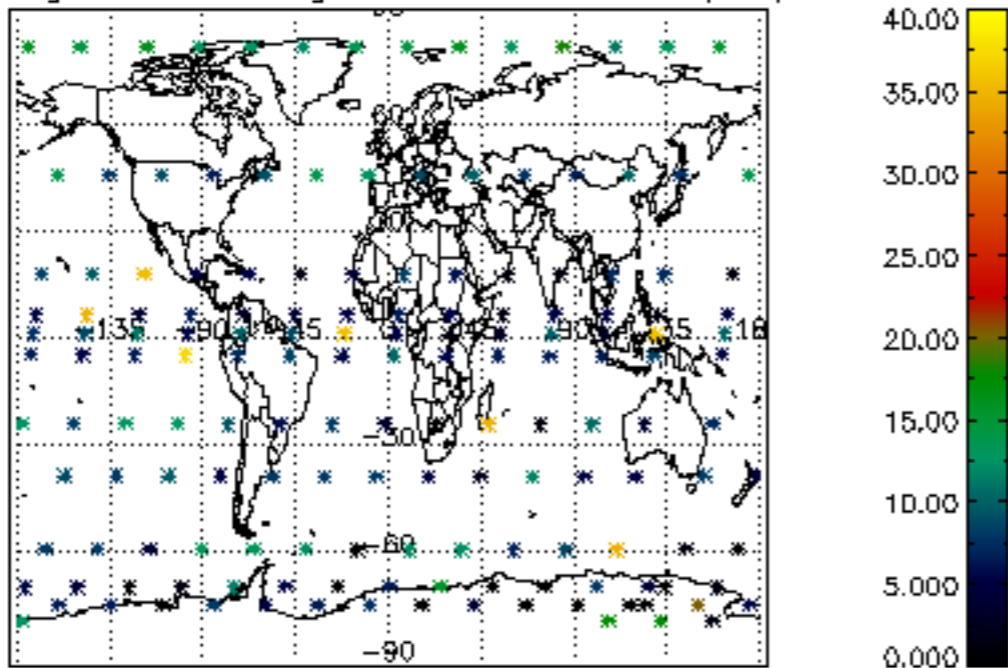
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

