

GOMOS Level 2 Daily Report

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

Item	Value
Time of report generation	24APR2013 05:09:52
Data source version	GOMOS/6.01
Start time of products	21-10-2006 (21OCT2006 00:00:00)
Stop time of products	22-10-2006 (22OCT2006 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	228
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

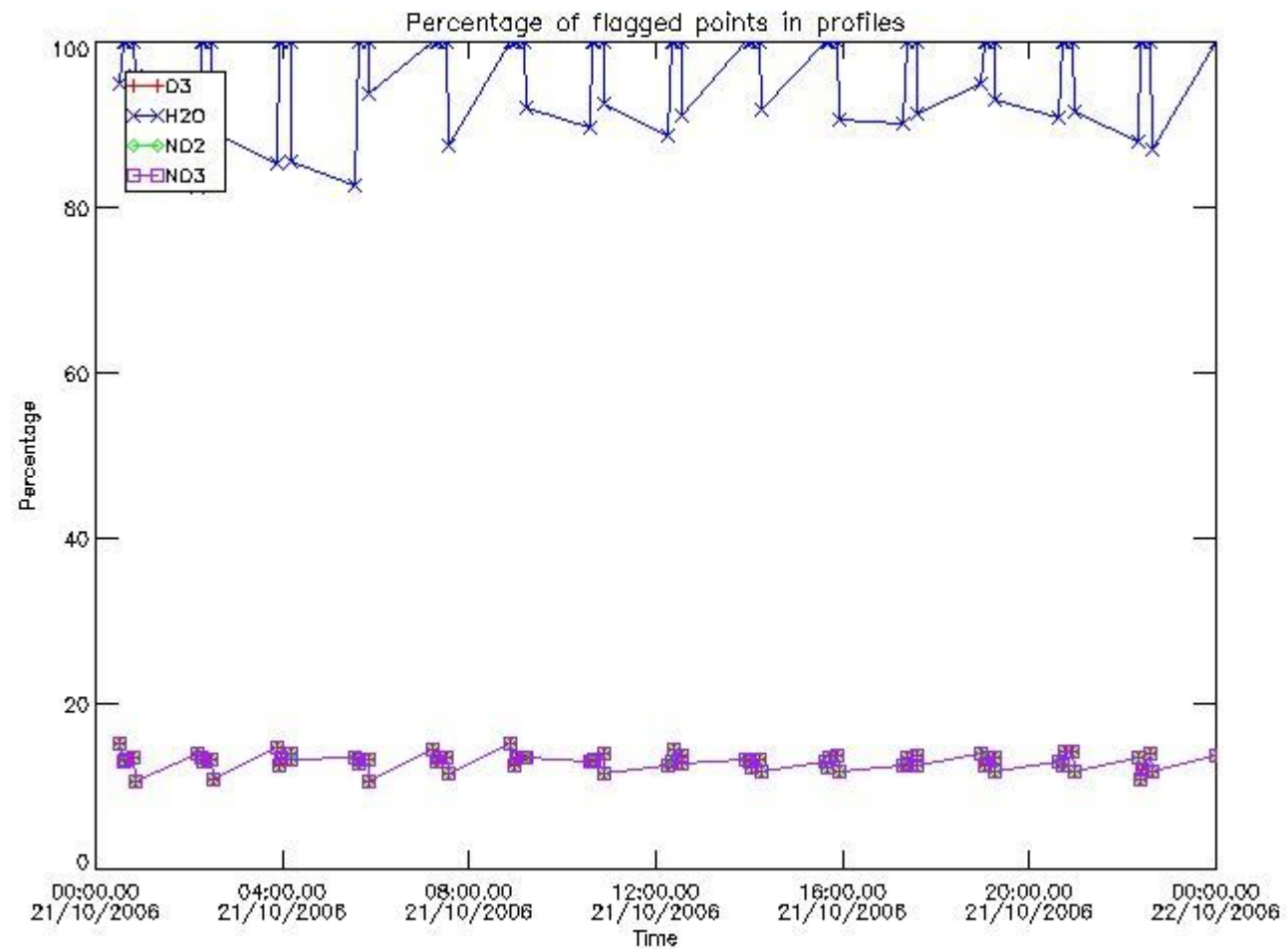
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20061021_000111_000000372052_00159_24261_2841.N1	21-OCT-2006 00:01:11	Bright	37.000	82	48Bet UMa	2.3650	10600.	74	24261	No
2	GOM_NL__2PRFIN20061021_000439_000000372052_00159_24261_2842.N1	21-OCT-2006 00:04:39	Bright	36.500	174	52Psi UMa	3.0040	4400.0	73	24261	No
3	GOM_NL__2PRFIN20061021_001133_000000352052_00159_24261_2843.N1	21-OCT-2006 00:11:33	Bright	34.500	96	68Del Leo	2.5600	9300.0	69	24261	No
4	GOM_NL__2PRFIN20061021_003106_000000412052_00159_24261_2844.N1	21-OCT-2006 00:31:06	Dark	40.500	113	Mu Vel	2.6920	5000.0	81	24261	No
5	GOM_NL__2PRFIN20061021_003529_000000402052_00160_24262_3085.N1	21-OCT-2006 00:35:29	Dark	39.500	46	Del Vel	1.9540	10600.	79	24262	No
6	GOM_NL__2PRFIN20061021_003733_000000392052_00160_24262_3086.N1	21-OCT-2006 00:37:33	Dark	38.500	29	Bet Car	1.6720	10200.	77	24262	No
7	GOM_NL__2PRFIN20061021_004836_000000382052_00160_24262_3087.N1	21-OCT-2006 00:48:36	Dark	38.000	143	Alp Hyi	2.8570	7200.0	76	24262	No
8	GOM_NL__2PRFIN20061021_005002_000000482052_00160_24262_3088.N1	21-OCT-2006 00:50:02	Dark	48.000	9	Alp Eri	0.45300	24000.	96	24262	No
9	GOM_NL__2PRFIN20061021_005457_000000442052_00160_24262_3089.N1	21-OCT-2006 00:54:57	Straylight	43.500	84	Alp Phe	2.3970	4500.0	87	24262	No
10	GOM_NL__2PRFIN20061021_010130_000000482052_00160_24262_3090.N1	21-OCT-2006 01:01:30	Straylight	47.500	52	16Bet Cet	2.0370	4500.0	95	24262	No
11	GOM_NL__2PRFIN20061021_011102_000000362052_00160_24262_3091.N1	21-OCT-2006 01:11:02	Bright	35.500	140	88Gam Peg	2.8340	26000.	71	24262	No
12	GOM_NL__2PRFIN20061021_011457_000000362052_00160_24262_3092.N1	21-OCT-2006 01:14:57	Bright	35.500	58	21Alp And	2.0730	11000.	71	24262	No
13	GOM_NL__2PRFIN20061021_012248_000000382052_00160_24262_3093.N1	21-OCT-2006 01:22:48	Bright	37.500	68	18Alp Cas	2.2250	4500.0	75	24262	No
14	GOM_NL__2PRFIN20061021_013158_000000362052_00160_24262_3094.N1	21-OCT-2006 01:31:58	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	24262	No
15	GOM_NL__2PRFIN20061021_013515_000000362052_00160_24262_3095.N1	21-OCT-2006 01:35:15	Bright	36.000	60	7Bet UMi	2.0810	3950.0	72	24262	No
16	GOM_NL__2PRFIN20061021_014012_000000382052_00160_24262_3096.N1	21-OCT-2006 01:40:12	Bright	38.000	36	50Alp UMa	1.8000	6300.0	76	24262	No
17	GOM_NL__2PRFIN20061021_014147_000000372052_00160_24262_3097.N1	21-OCT-2006 01:41:47	Bright	36.500	82	48Bet UMa	2.3650	10600.	73	24262	No
18	GOM_NL__2PRFIN20061021_014515_000000382052_00160_24262_3098.N1	21-OCT-2006 01:45:15	Bright	37.500	174	52Psi UMa	3.0040	4400.0	75	24262	No
19	GOM_NL__2PRFIN20061021_015209_000000342052_00160_24262_3099.N1	21-OCT-2006 01:52:09	Bright	34.000	96	68Del Leo	2.5600	9300.0	68	24262	No
20	GOM_NL__2PRFIN20061021_021142_000000402052_00160_24262_3100.N1	21-OCT-2006 02:11:42	Dark	40.000	113	Mu Vel	2.6920	5000.0	80	24262	No
21	GOM_NL__2PRFIN20061021_021605_000000422052_00161_24263_2831.N1	21-OCT-2006 02:16:05	Dark	41.500	46	Del Vel	1.9540	10600.	83	24263	No
22	GOM_NL__2PRFIN20061021_021809_000000392052_00161_24263_2832.N1	21-OCT-2006 02:18:09	Dark	39.000	29	Bet Car	1.6720	10200.	78	24263	No
23	GOM_NL__2PRFIN20061021_022913_000000392052_00161_24263_2833.N1	21-OCT-2006 02:29:13	Dark	38.500	143	Alp Hyi	2.8570	7200.0	77	24263	No
24	GOM_NL__2PRFIN20061021_023038_000000472052_00161_24263_2834.N1	21-OCT-2006 02:30:38	Dark	47.000	9	Alp Eri	0.45300	24000.	94	24263	No
25	GOM_NL__2PRFIN20061021_023533_000000432052_00161_24263_2835.N1	21-OCT-2006 02:35:33	Straylight	43.000	84	Alp Phe	2.3970	4500.0	86	24263	No
26	GOM_NL__2PRFIN20061021_024207_000000432052_00161_24263_2836.N1	21-OCT-2006 02:42:07	Straylight	42.500	52	16Bet Cet	2.0370	4500.0	85	24263	No
27	GOM_NL__2PRFIN20061021_025138_000000362052_00161_24263_2837.N1	21-OCT-2006 02:51:38	Bright	35.500	140	88Gam Peg	2.8340	26000.	71	24263	No
28	GOM_NL__2PRFIN20061021_025533_000000362052_00161_24263_2838.N1	21-OCT-2006 02:55:33	Bright	36.000	58	21Alp And	2.0730	11000.	72	24263	No
29	GOM_NL__2PRFIN20061021_030324_000000382052_00161_24263_2839.N1	21-OCT-2006 03:03:24	Bright	37.500	68	18Alp Cas	2.2250	4500.0	75	24263	No
30	GOM_NL__2PRFIN20061021_031234_000000332052_00161_24263_2840.N1	21-OCT-2006 03:12:34	Bright	32.500	49	1Alp UMi	1.9900	6300.0	65	24263	No
31	GOM_NL__2PRFIN20061021_031551_000000362052_00161_24263_2841.N1	21-OCT-2006 03:15:51	Bright	35.500	60	7Bet UMi	2.0810	3950.0	71	24263	No
32	GOM_NL__2PRFIN20061021_032049_000000382052_00161_24263_2842.N1	21-OCT-2006 03:20:49	Bright	38.000	36	50Alp UMa	1.8000	6300.0	76	24263	No
33	GOM_NL__2PRFIN20061021_032223_000000372052_00161_24263_2843.N1	21-OCT-2006 03:22:23	Bright	36.500	82	48Bet UMa	2.3650	10600.	73	24263	No
34	GOM_NL__2PRFIN20061021_032551_000000342052_00161_24263_2844.N1	21-OCT-2006 03:25:51	Bright	34.000	174	52Psi UMa	3.0040	4400.0	68	24263	No
35	GOM_NL__2PRFIN20061021_033245_000000342052_00161_24263_2845.N1	21-OCT-2006 03:32:45	Bright	34.000	96	68Del Leo	2.5600	9300.0	68	24263	No
36	GOM_NL__2PRFIN20061021_035219_000000382052_00161_24263_2846.N1	21-OCT-2006 03:52:19	Dark	38.000	113	Mu Vel	2.6920	5000.0	76	24263	No
37	GOM_NL__2PRFIN20061021_035642_000000412052_00162_24264_2833.N1	21-OCT-2006 03:56:42	Dark	41.000	46	Del Vel	1.9540	10600.	82	24264	No
38	GOM_NL__2PRFIN20061021_035845_000000382052_00162_24264_2834.N1	21-OCT-2006 03:58:45	Dark	37.500	29	Bet Car	1.6720	10200.	75	24264	No
39	GOM_NL__2PRFIN20061021_040949_000000372052_00162_24264_2835.N1	21-OCT-2006 04:09:49	Dark	36.500	143	Alp Hyi	2.8570	7200.0	73	24264	No
40	GOM_NL__2PRFIN20061021_041114_000000392052_00162_24264_2836.N1	21-OCT-2006 04:11:14	Dark	38.500	9	Alp Eri	0.45300	24000.	77	24264	No
41	GOM_NL__2PRFIN20061021_041609_000000432052_00162_24264_2837.N1	21-OCT-2006 04:16:09	Straylight	42.500	84	Alp Phe	2.3970	4500.0	85	24264	No
42	GOM_NL__2PRFIN20061021_042243_000000442052_00162_24264_2838.N1	21-OCT-2006 04:22:43	Straylight	43.500	52	16Bet Cet	2.0370	4500.0	87	24264	No

220	GOM_NL__2PRFIN20061021_230245_000000362052_00173_24275_2868.N1	21-OCT-2006 23:02:45	Bright	36.000	58	21Alp And	2.0730	11000.	72	24275	No
221	GOM_NL__2PRFIN20061021_231034_000000362052_00173_24275_2869.N1	21-OCT-2006 23:10:34	Bright	35.500	68	18Alp Cas	2.2250	4500.0	71	24275	No
222	GOM_NL__2PRFIN20061021_231945_000000342052_00173_24275_2870.N1	21-OCT-2006 23:19:45	Bright	34.000	49	1Alp UMi	1.9900	6300.0	68	24275	No
223	GOM_NL__2PRFIN20061021_232305_000000362052_00173_24275_2871.N1	21-OCT-2006 23:23:05	Bright	36.000	60	7Bet UMi	2.0810	3950.0	72	24275	No
224	GOM_NL__2PRFIN20061021_232759_000000392052_00173_24275_2872.N1	21-OCT-2006 23:27:59	Bright	38.500	36	50Alp UMa	1.8000	6300.0	77	24275	No
225	GOM_NL__2PRFIN20061021_232934_000000372052_00173_24275_2873.N1	21-OCT-2006 23:29:34	Bright	36.500	82	48Bet UMa	2.3650	10600.	73	24275	No
226	GOM_NL__2PRFIN20061021_233303_000000352052_00173_24275_2874.N1	21-OCT-2006 23:33:03	Bright	35.000	174	52Psi UMa	3.0040	4400.0	70	24275	No
227	GOM_NL__2PRFIN20061021_233959_000000342052_00173_24275_2875.N1	21-OCT-2006 23:39:59	Bright	34.000	96	68Del Leo	2.5600	9300.0	68	24275	No
228	GOM_NL__2PRFIN20061021_235933_000000412052_00173_24275_2876.N1	21-OCT-2006 23:59:33	Dark	40.500	113	Mu Vel	2.6920	5000.0	81	24275	No

3. Quality information per product

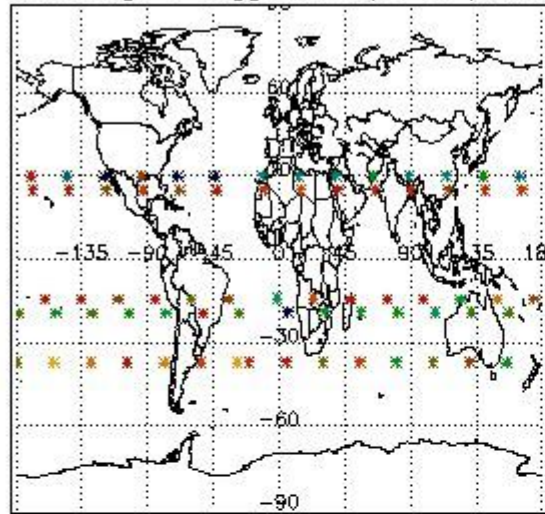
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

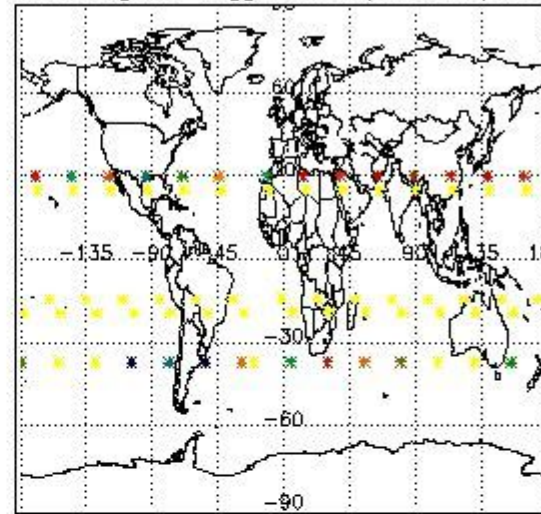


3.2 Plot quality information per product (world map)

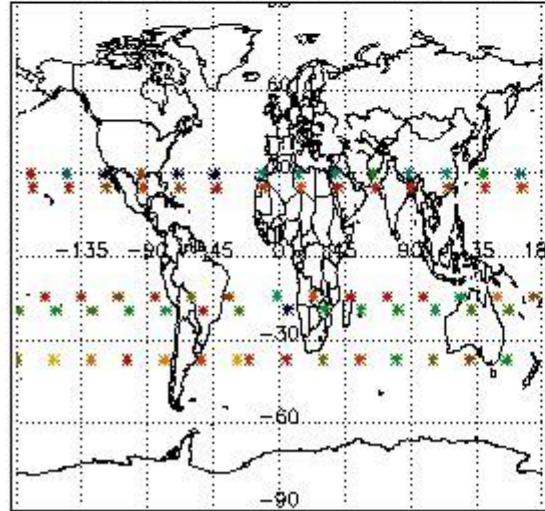
Percentage of flagged data per O3 profile



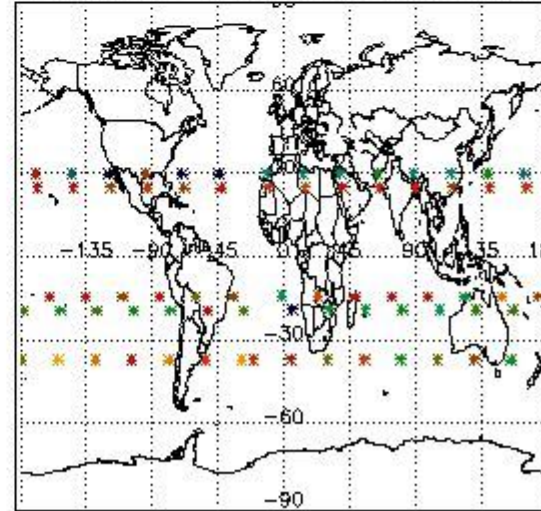
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

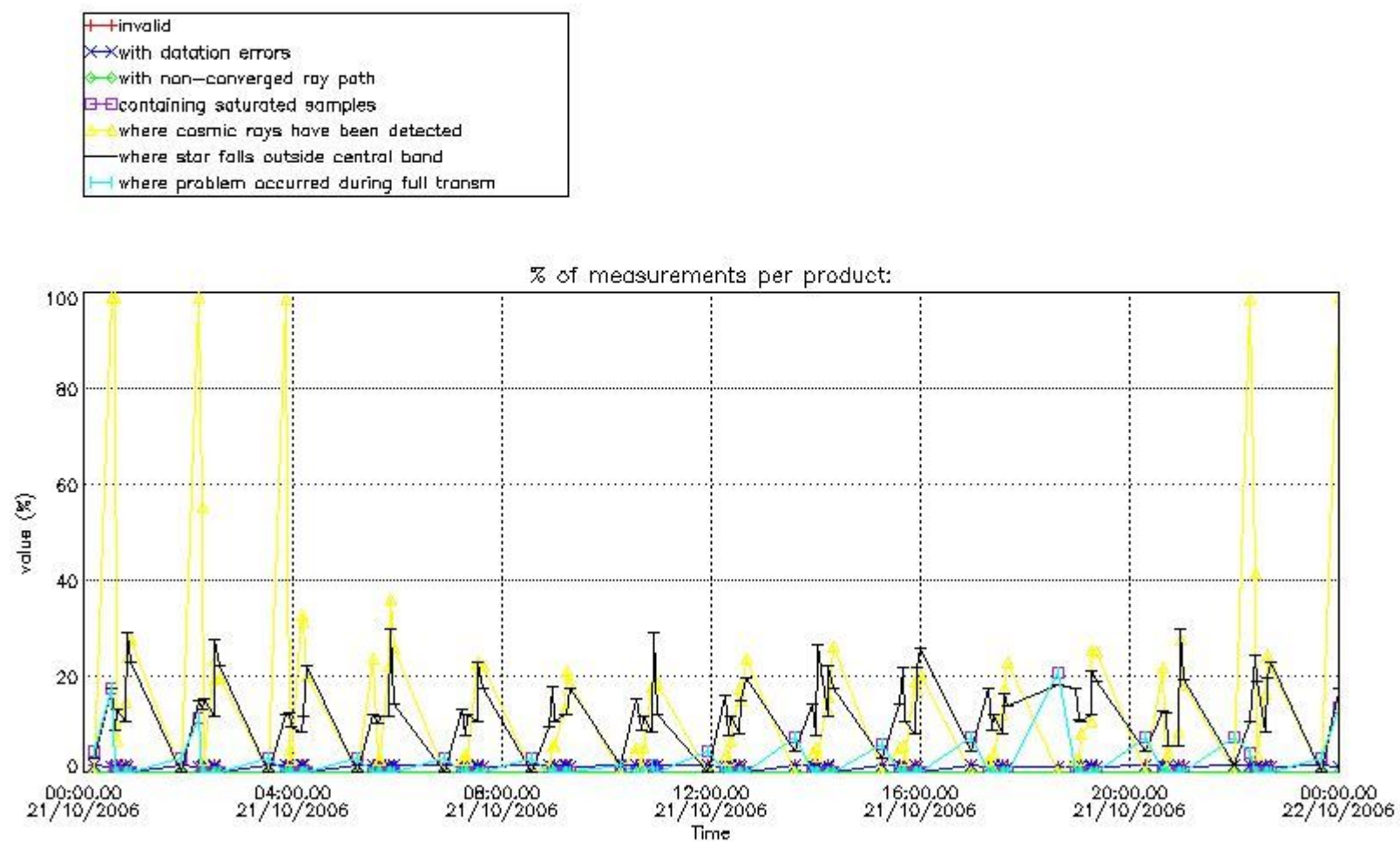


4. Level 1 quality information per product

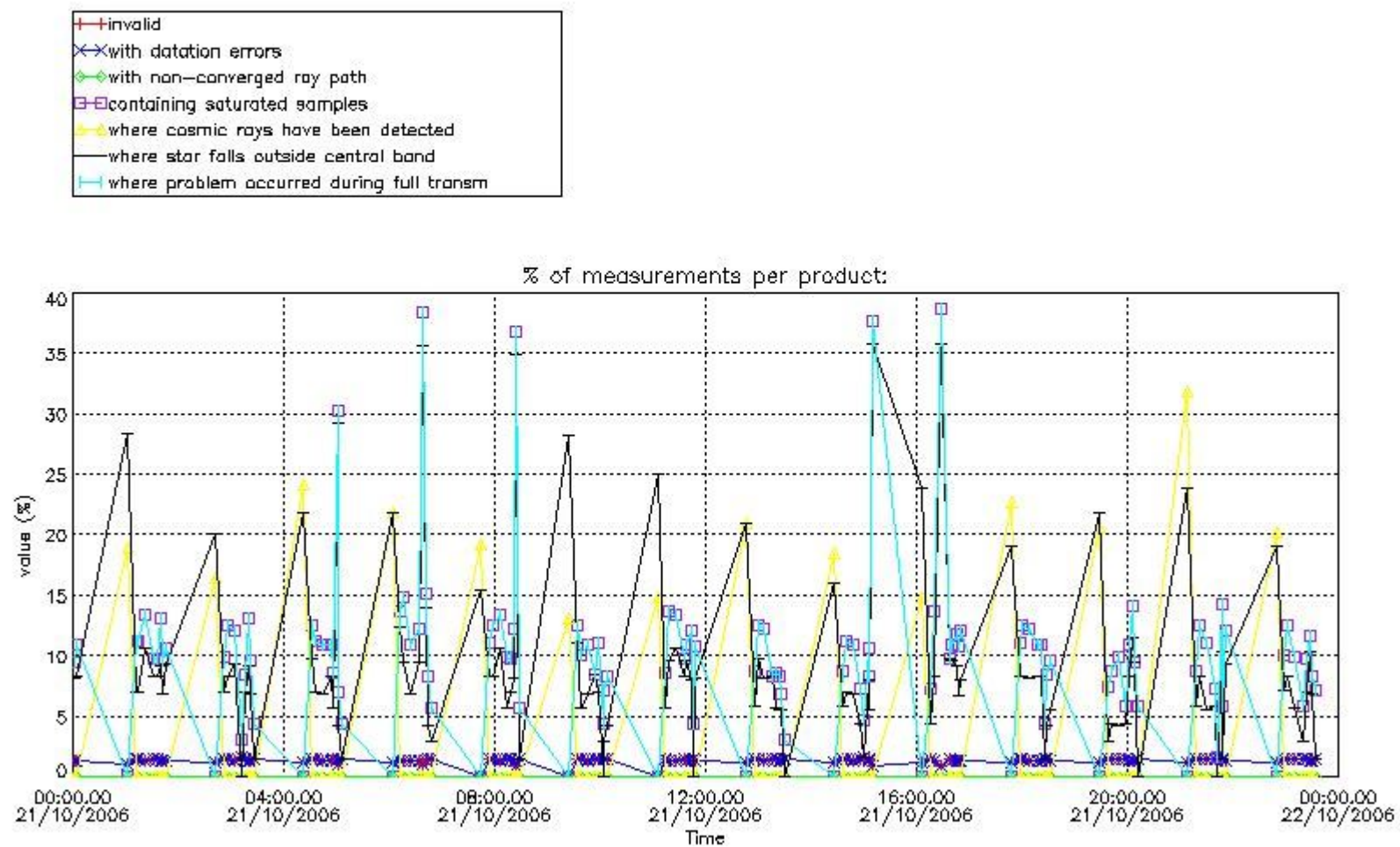
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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



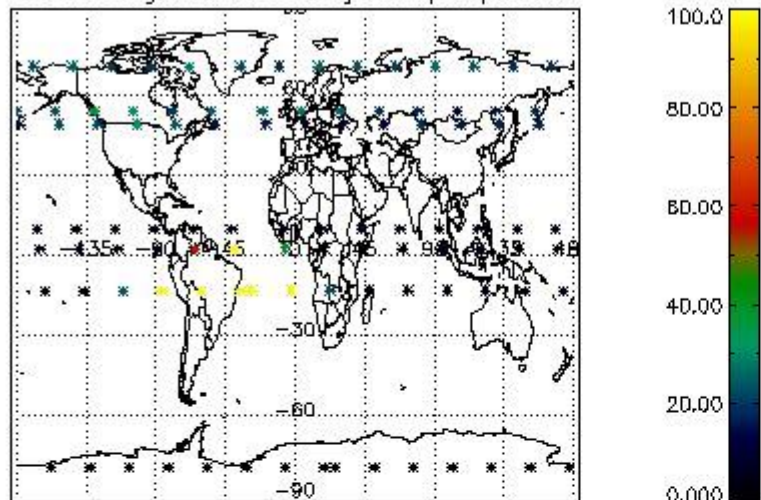
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



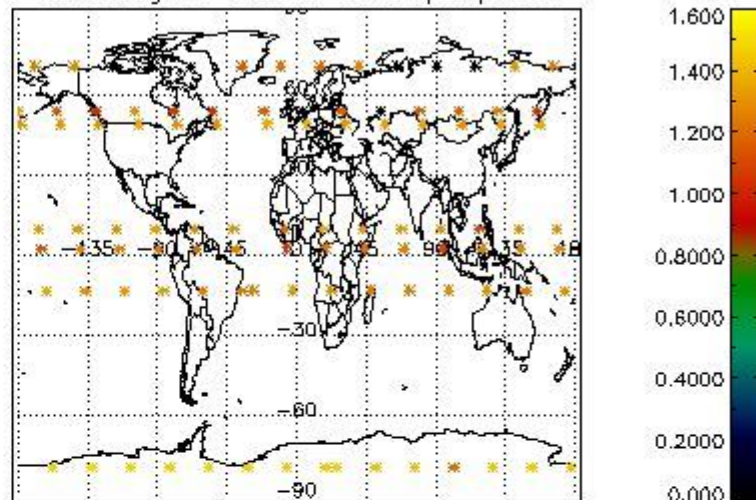
4.2 Plot quality information per product coming from level 1b processing (world map)

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

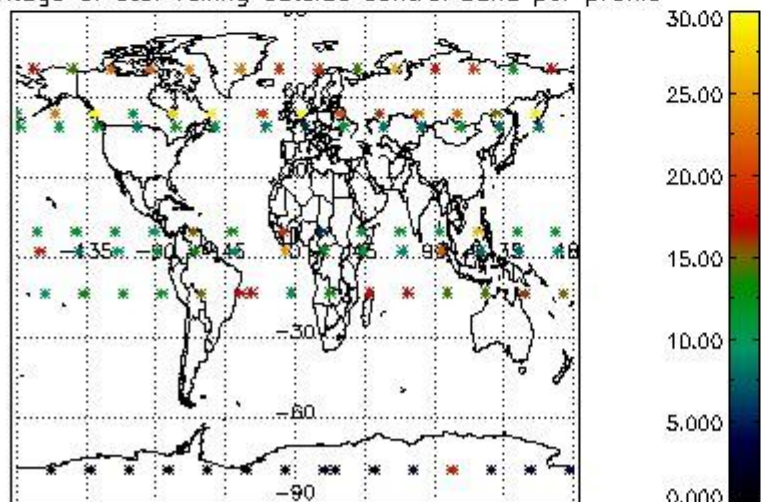
Percentage of cosmic ray hits per profile



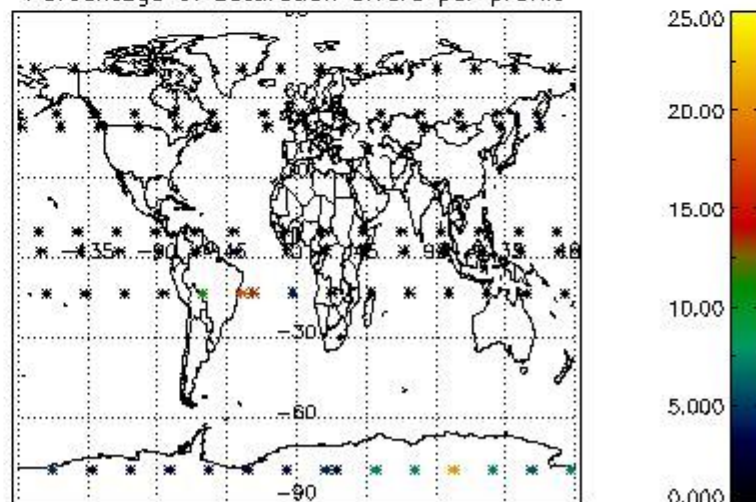
Percentage of datation errors per profile



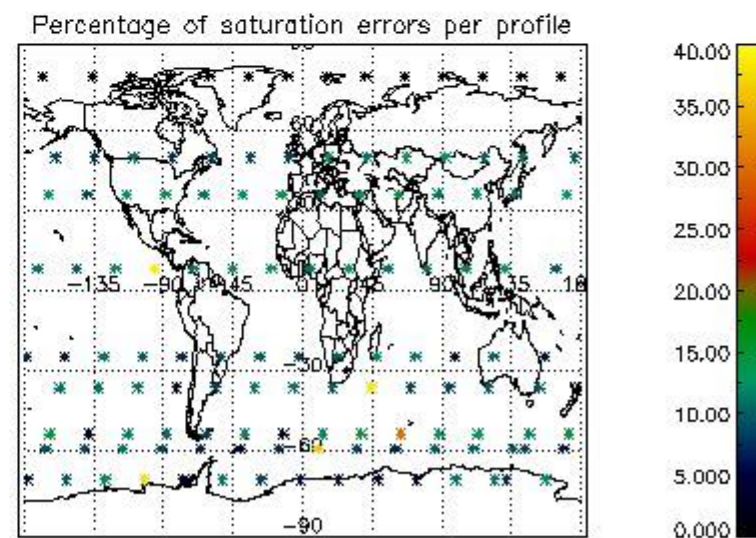
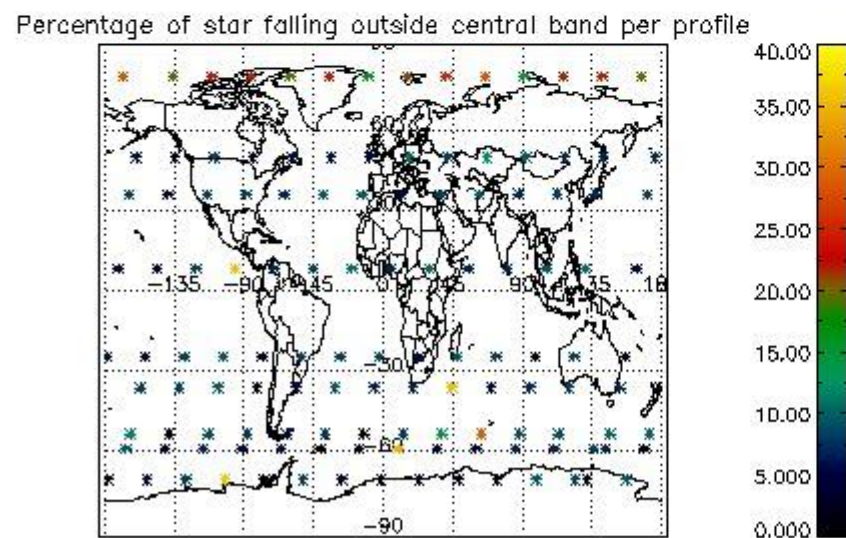
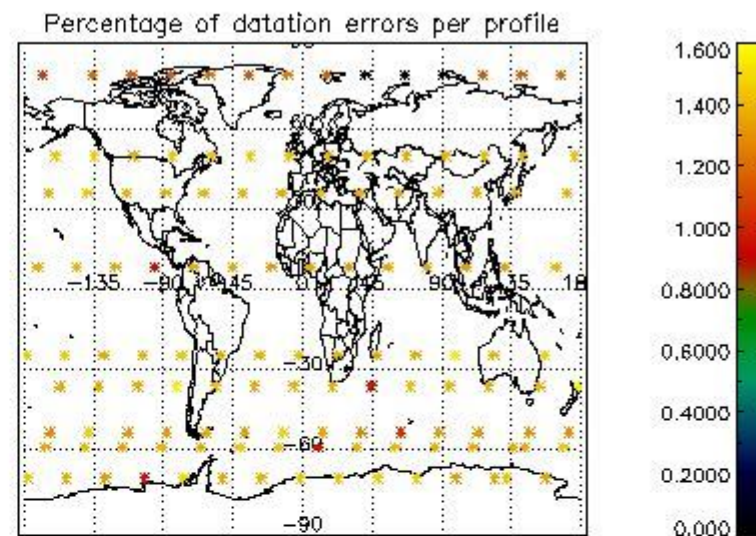
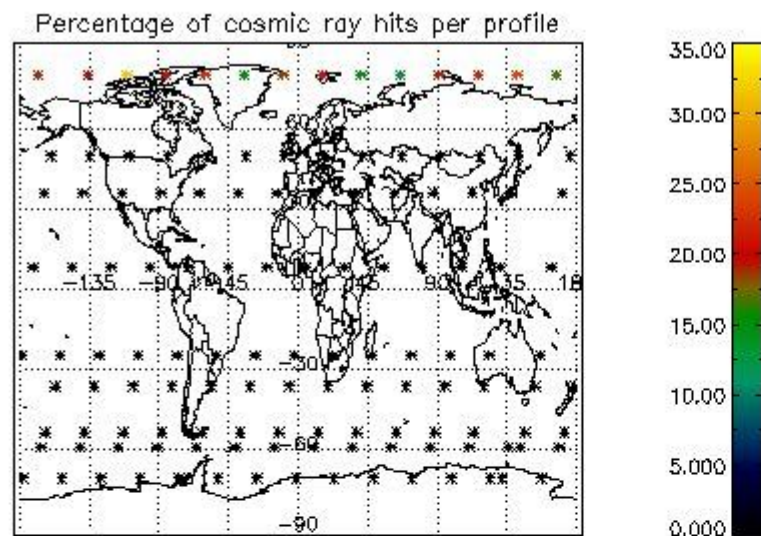
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

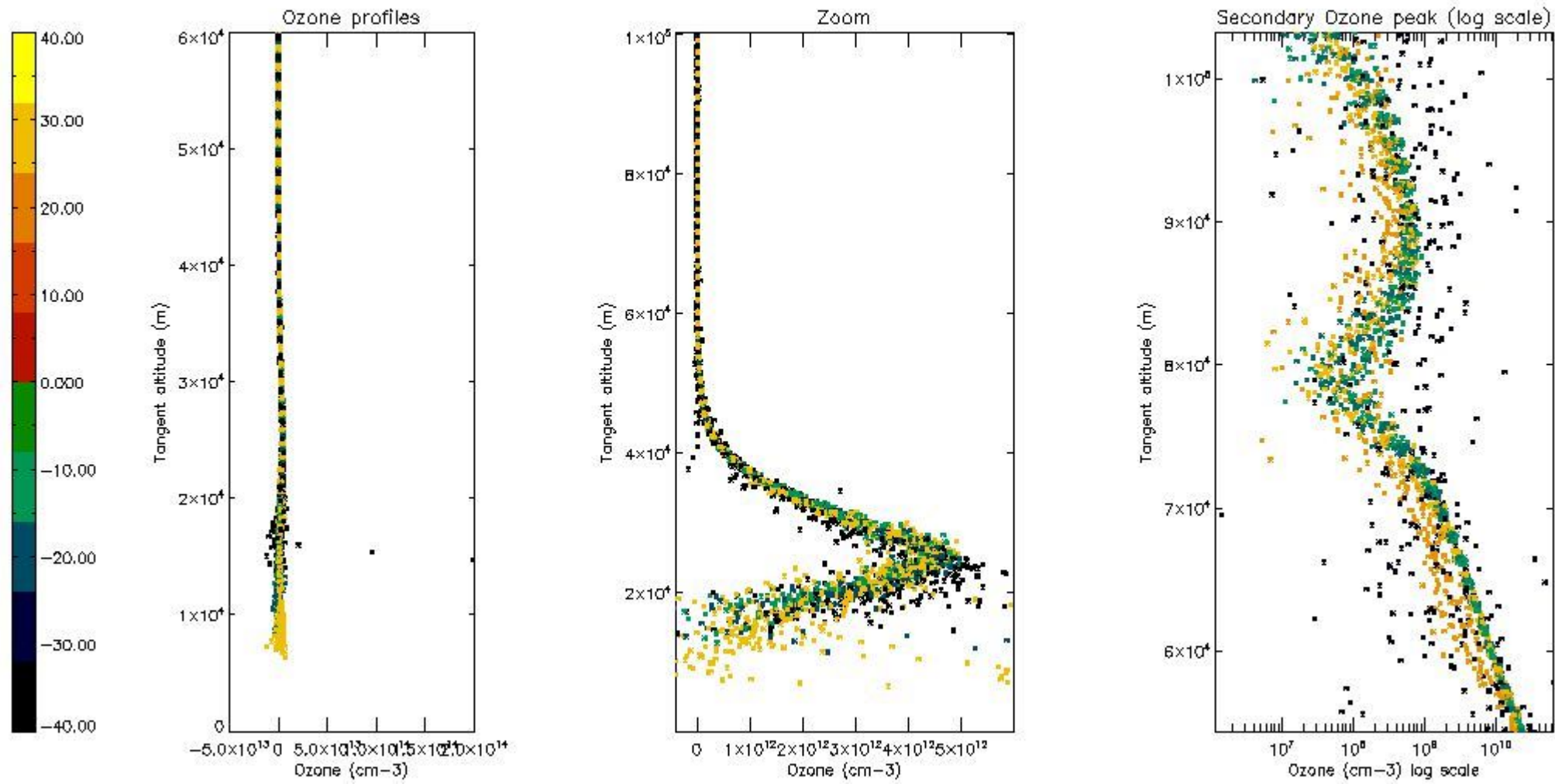
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	34
STD < 20	19

STD < 10	14
STD < 5	9

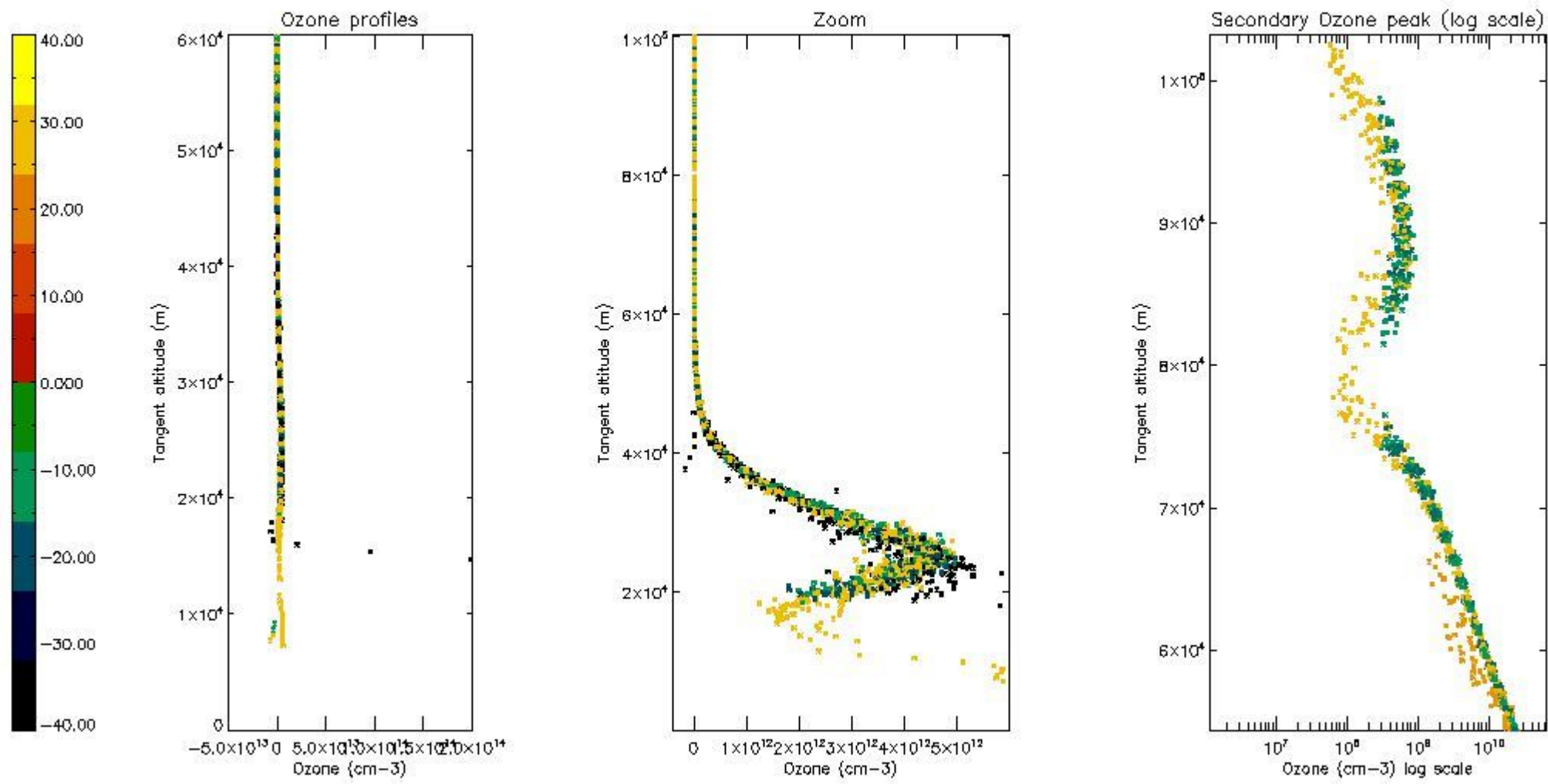
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



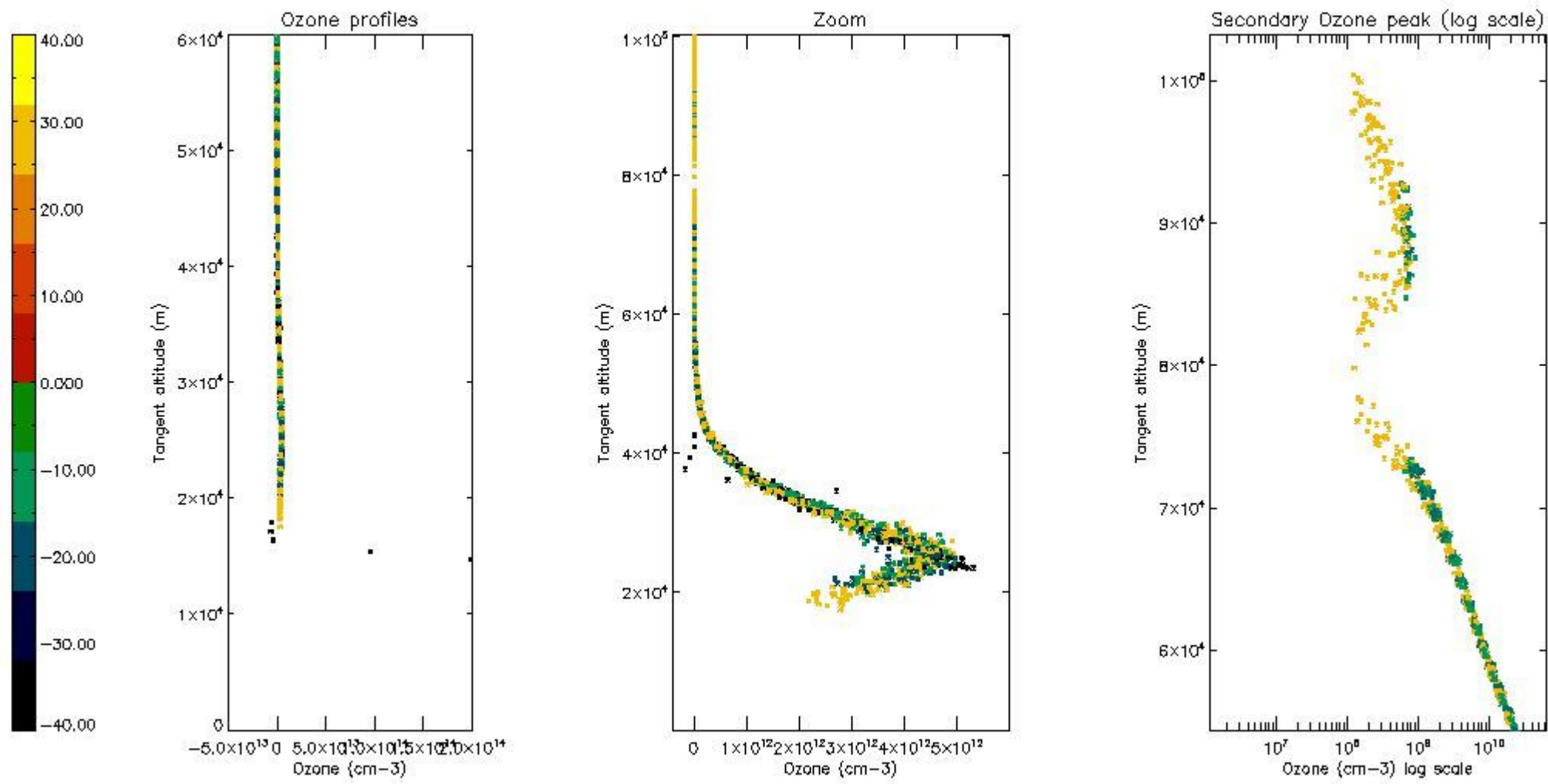
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



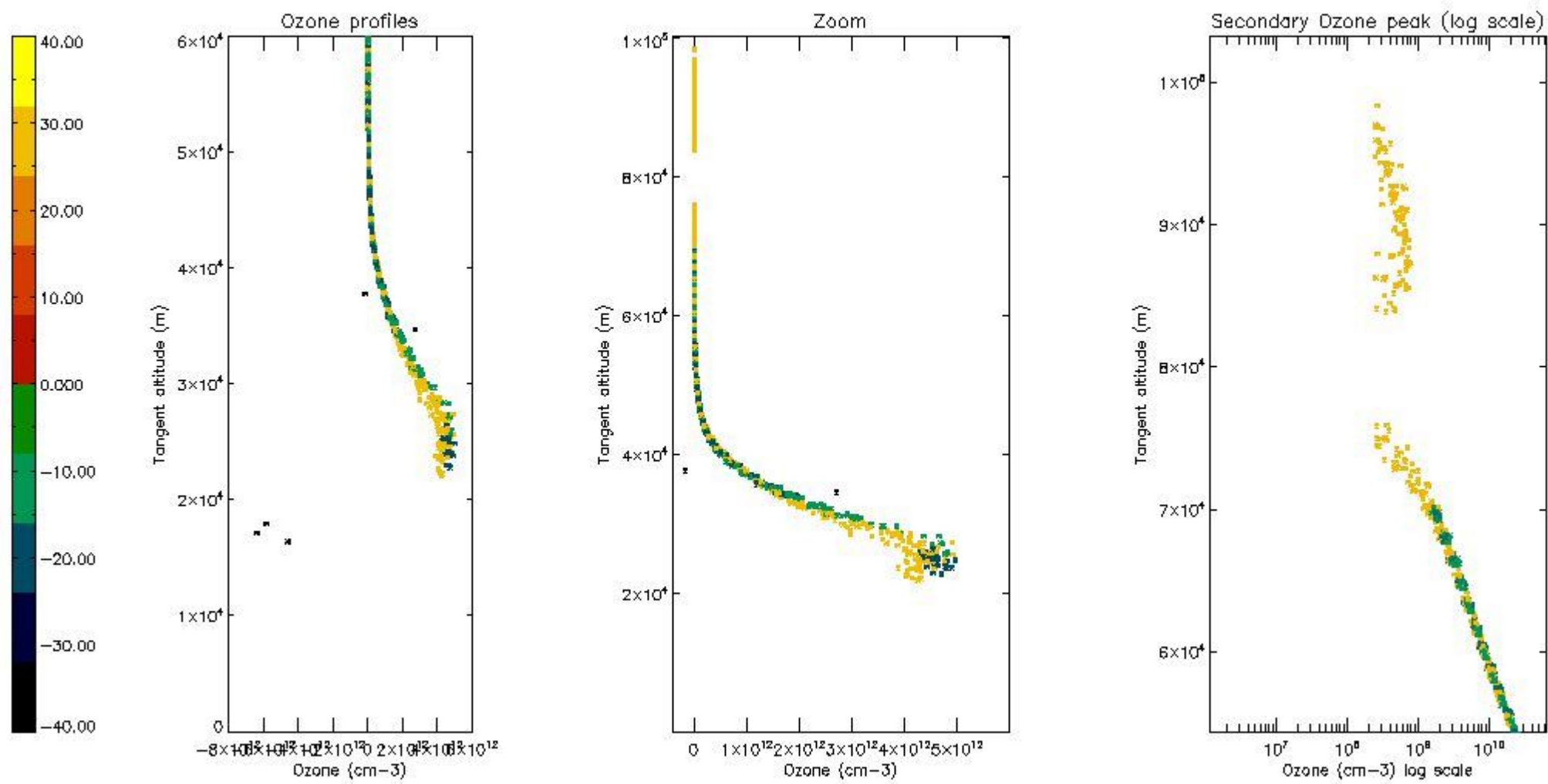
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



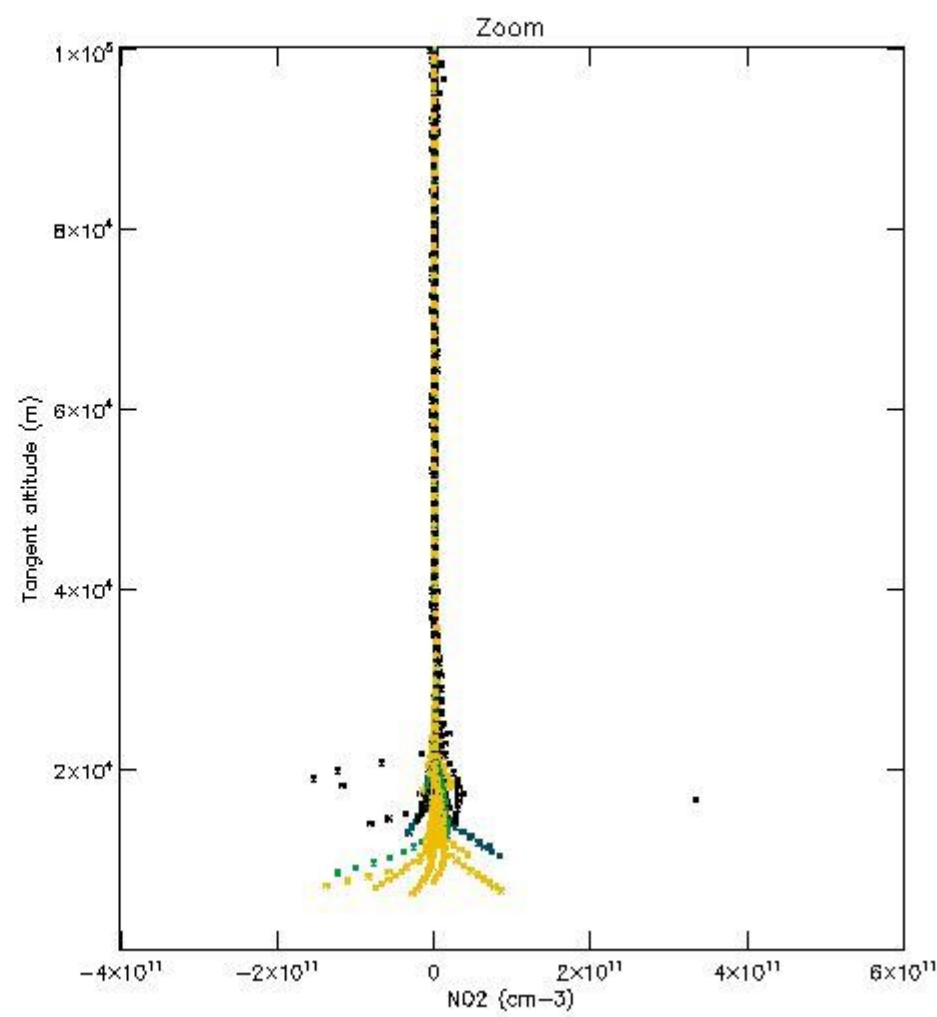
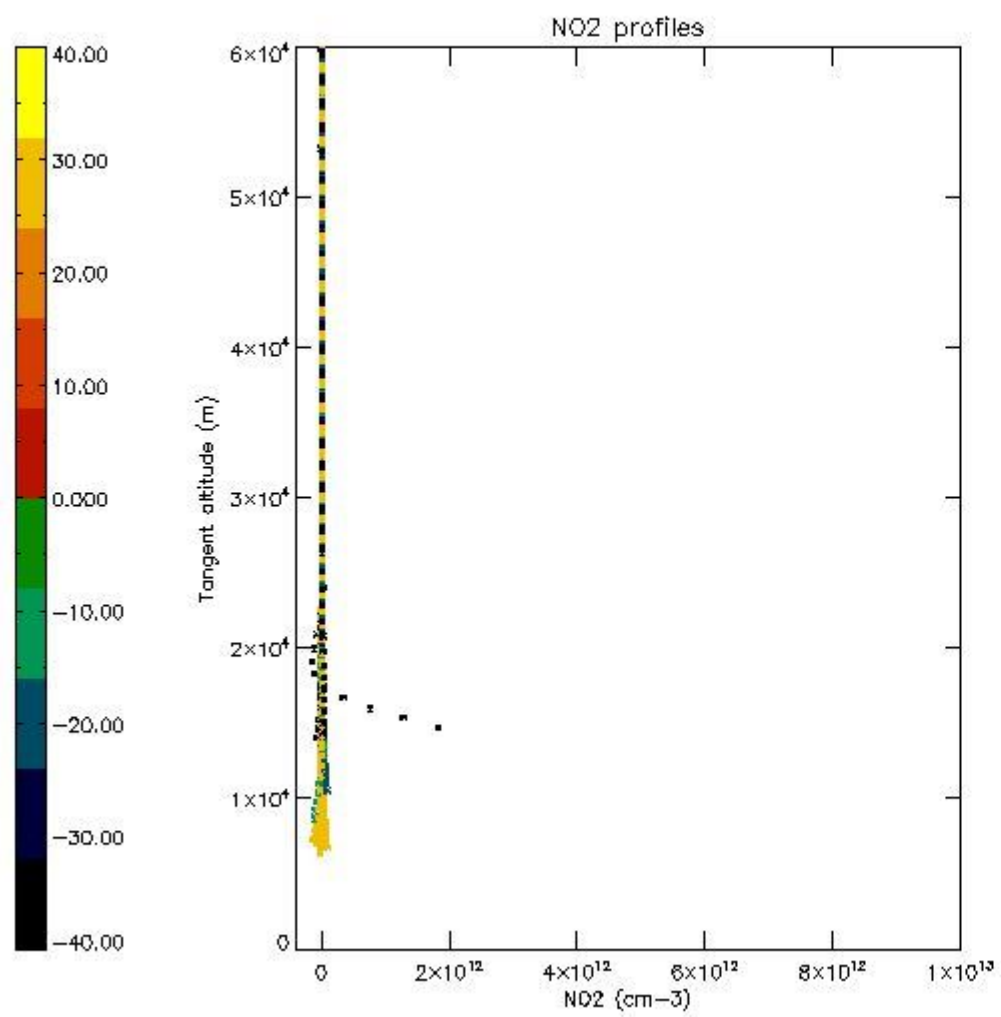
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



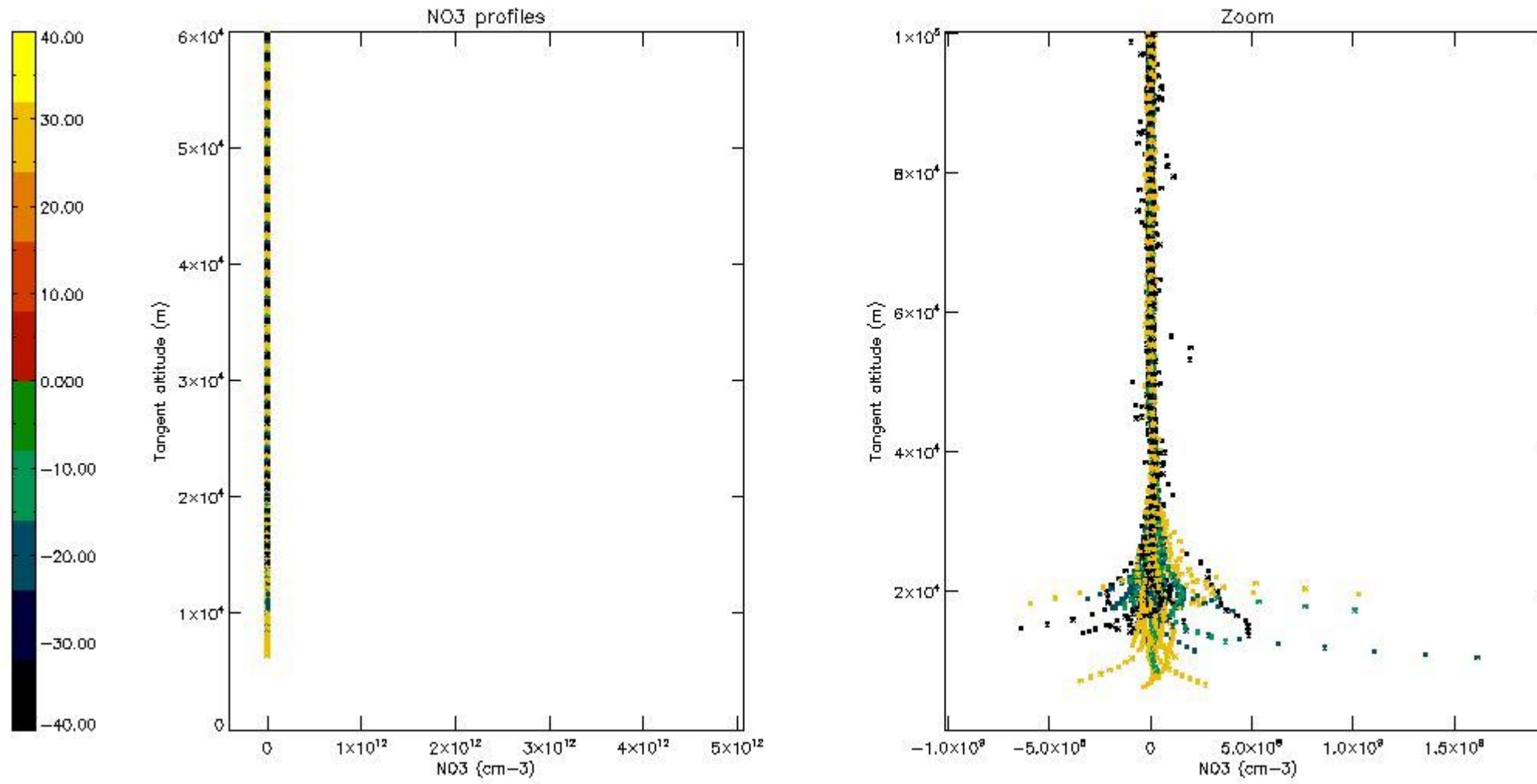
5.6 Plot NO₂ profiles for all STD (dark without errors)

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	21-OCT-2006 00:01:11
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	21-OCT-2006 00:01:11
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	21-OCT-2006 00:01:11

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Start time of products	21-10-2006 (21OCT2006 00:00:00)
Stop time of products	22-10-2006 (22OCT2006 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	228
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

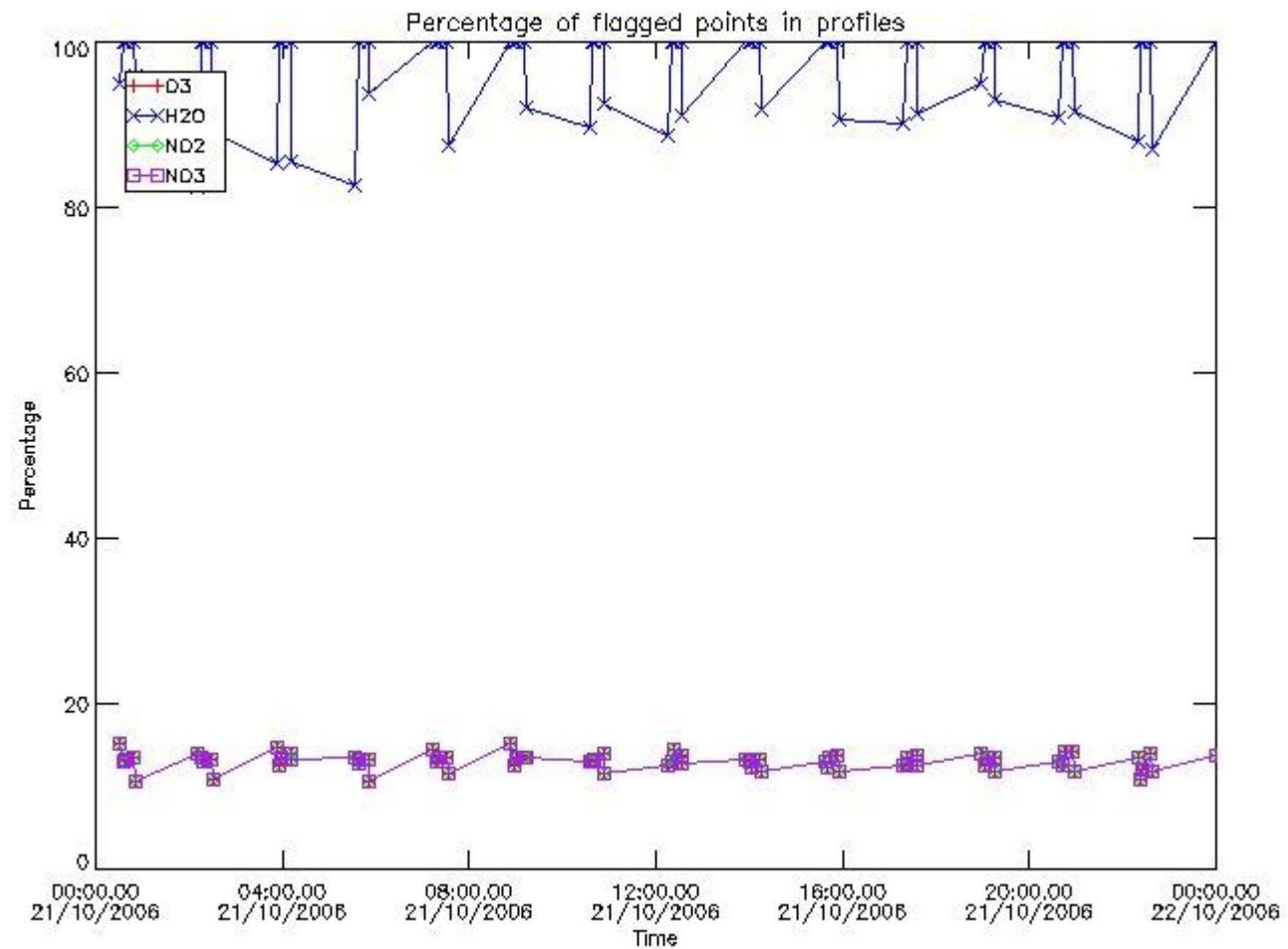
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20061021_000111_000000372052_00159_24261_2841.N1	21-OCT-2006 00:01:11	Bright	37.000	82	48Bet UMa	2.3650	10600.	74	24261	No
2	GOM_NL__2PRFIN20061021_000439_000000372052_00159_24261_2842.N1	21-OCT-2006 00:04:39	Bright	36.500	174	52Psi UMa	3.0040	4400.0	73	24261	No
3	GOM_NL__2PRFIN20061021_001133_000000352052_00159_24261_2843.N1	21-OCT-2006 00:11:33	Bright	34.500	96	68Del Leo	2.5600	9300.0	69	24261	No
4	GOM_NL__2PRFIN20061021_003106_000000412052_00159_24261_2844.N1	21-OCT-2006 00:31:06	Dark	40.500	113	Mu Vel	2.6920	5000.0	81	24261	No
5	GOM_NL__2PRFIN20061021_003529_000000402052_00160_24262_3085.N1	21-OCT-2006 00:35:29	Dark	39.500	46	Del Vel	1.9540	10600.	79	24262	No
6	GOM_NL__2PRFIN20061021_003733_000000392052_00160_24262_3086.N1	21-OCT-2006 00:37:33	Dark	38.500	29	Bet Car	1.6720	10200.	77	24262	No
7	GOM_NL__2PRFIN20061021_004836_000000382052_00160_24262_3087.N1	21-OCT-2006 00:48:36	Dark	38.000	143	Alp Hyi	2.8570	7200.0	76	24262	No
8	GOM_NL__2PRFIN20061021_005002_000000482052_00160_24262_3088.N1	21-OCT-2006 00:50:02	Dark	48.000	9	Alp Eri	0.45300	24000.	96	24262	No
9	GOM_NL__2PRFIN20061021_005457_000000442052_00160_24262_3089.N1	21-OCT-2006 00:54:57	Straylight	43.500	84	Alp Phe	2.3970	4500.0	87	24262	No
10	GOM_NL__2PRFIN20061021_010130_000000482052_00160_24262_3090.N1	21-OCT-2006 01:01:30	Straylight	47.500	52	16Bet Cet	2.0370	4500.0	95	24262	No
11	GOM_NL__2PRFIN20061021_011102_000000362052_00160_24262_3091.N1	21-OCT-2006 01:11:02	Bright	35.500	140	88Gam Peg	2.8340	26000.	71	24262	No
12	GOM_NL__2PRFIN20061021_011457_000000362052_00160_24262_3092.N1	21-OCT-2006 01:14:57	Bright	35.500	58	21Alp And	2.0730	11000.	71	24262	No
13	GOM_NL__2PRFIN20061021_012248_000000382052_00160_24262_3093.N1	21-OCT-2006 01:22:48	Bright	37.500	68	18Alp Cas	2.2250	4500.0	75	24262	No
14	GOM_NL__2PRFIN20061021_013158_000000362052_00160_24262_3094.N1	21-OCT-2006 01:31:58	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	24262	No
15	GOM_NL__2PRFIN20061021_013515_000000362052_00160_24262_3095.N1	21-OCT-2006 01:35:15	Bright	36.000	60	7Bet UMi	2.0810	3950.0	72	24262	No
16	GOM_NL__2PRFIN20061021_014012_000000382052_00160_24262_3096.N1	21-OCT-2006 01:40:12	Bright	38.000	36	50Alp UMa	1.8000	6300.0	76	24262	No
17	GOM_NL__2PRFIN20061021_014147_000000372052_00160_24262_3097.N1	21-OCT-2006 01:41:47	Bright	36.500	82	48Bet UMa	2.3650	10600.	73	24262	No
18	GOM_NL__2PRFIN20061021_014515_000000382052_00160_24262_3098.N1	21-OCT-2006 01:45:15	Bright	37.500	174	52Psi UMa	3.0040	4400.0	75	24262	No
19	GOM_NL__2PRFIN20061021_015209_000000342052_00160_24262_3099.N1	21-OCT-2006 01:52:09	Bright	34.000	96	68Del Leo	2.5600	9300.0	68	24262	No
20	GOM_NL__2PRFIN20061021_021142_000000402052_00160_24262_3100.N1	21-OCT-2006 02:11:42	Dark	40.000	113	Mu Vel	2.6920	5000.0	80	24262	No
21	GOM_NL__2PRFIN20061021_021605_000000422052_00161_24263_2831.N1	21-OCT-2006 02:16:05	Dark	41.500	46	Del Vel	1.9540	10600.	83	24263	No
22	GOM_NL__2PRFIN20061021_021809_000000392052_00161_24263_2832.N1	21-OCT-2006 02:18:09	Dark	39.000	29	Bet Car	1.6720	10200.	78	24263	No
23	GOM_NL__2PRFIN20061021_022913_000000392052_00161_24263_2833.N1	21-OCT-2006 02:29:13	Dark	38.500	143	Alp Hyi	2.8570	7200.0	77	24263	No
24	GOM_NL__2PRFIN20061021_023038_000000472052_00161_24263_2834.N1	21-OCT-2006 02:30:38	Dark	47.000	9	Alp Eri	0.45300	24000.	94	24263	No
25	GOM_NL__2PRFIN20061021_023533_000000432052_00161_24263_2835.N1	21-OCT-2006 02:35:33	Straylight	43.000	84	Alp Phe	2.3970	4500.0	86	24263	No
26	GOM_NL__2PRFIN20061021_024207_000000432052_00161_24263_2836.N1	21-OCT-2006 02:42:07	Straylight	42.500	52	16Bet Cet	2.0370	4500.0	85	24263	No
27	GOM_NL__2PRFIN20061021_025138_000000362052_00161_24263_2837.N1	21-OCT-2006 02:51:38	Bright	35.500	140	88Gam Peg	2.8340	26000.	71	24263	No
28	GOM_NL__2PRFIN20061021_025533_000000362052_00161_24263_2838.N1	21-OCT-2006 02:55:33	Bright	36.000	58	21Alp And	2.0730	11000.	72	24263	No
29	GOM_NL__2PRFIN20061021_030324_000000382052_00161_24263_2839.N1	21-OCT-2006 03:03:24	Bright	37.500	68	18Alp Cas	2.2250	4500.0	75	24263	No
30	GOM_NL__2PRFIN20061021_031234_000000332052_00161_24263_2840.N1	21-OCT-2006 03:12:34	Bright	32.500	49	1Alp UMi	1.9900	6300.0	65	24263	No
31	GOM_NL__2PRFIN20061021_031551_000000362052_00161_24263_2841.N1	21-OCT-2006 03:15:51	Bright	35.500	60	7Bet UMi	2.0810	3950.0	71	24263	No
32	GOM_NL__2PRFIN20061021_032049_000000382052_00161_24263_2842.N1	21-OCT-2006 03:20:49	Bright	38.000	36	50Alp UMa	1.8000	6300.0	76	24263	No
33	GOM_NL__2PRFIN20061021_032223_000000372052_00161_24263_2843.N1	21-OCT-2006 03:22:23	Bright	36.500	82	48Bet UMa	2.3650	10600.	73	24263	No
34	GOM_NL__2PRFIN20061021_032551_000000342052_00161_24263_2844.N1	21-OCT-2006 03:25:51	Bright	34.000	174	52Psi UMa	3.0040	4400.0	68	24263	No
35	GOM_NL__2PRFIN20061021_033245_000000342052_00161_24263_2845.N1	21-OCT-2006 03:32:45	Bright	34.000	96	68Del Leo	2.5600	9300.0	68	24263	No
36	GOM_NL__2PRFIN20061021_035219_000000382052_00161_24263_2846.N1	21-OCT-2006 03:52:19	Dark	38.000	113	Mu Vel	2.6920	5000.0	76	24263	No
37	GOM_NL__2PRFIN20061021_035642_000000412052_00162_24264_2833.N1	21-OCT-2006 03:56:42	Dark	41.000	46	Del Vel	1.9540	10600.	82	24264	No
38	GOM_NL__2PRFIN20061021_035845_000000382052_00162_24264_2834.N1	21-OCT-2006 03:58:45	Dark	37.500	29	Bet Car	1.6720	10200.	75	24264	No
39	GOM_NL__2PRFIN20061021_040949_000000372052_00162_24264_2835.N1	21-OCT-2006 04:09:49	Dark	36.500	143	Alp Hyi	2.8570	7200.0	73	24264	No
40	GOM_NL__2PRFIN20061021_041114_000000392052_00162_24264_2836.N1	21-OCT-2006 04:11:14	Dark	38.500	9	Alp Eri	0.45300	24000.	77	24264	No
41	GOM_NL__2PRFIN20061021_041609_000000432052_00162_24264_2837.N1	21-OCT-2006 04:16:09	Straylight	42.500	84	Alp Phe	2.3970	4500.0	85	24264	No
42	GOM_NL__2PRFIN20061021_042243_000000442052_00162_24264_2838.N1	21-OCT-2006 04:22:43	Straylight	43.500	52	16Bet Cet	2.0370	4500.0	87	24264	No

220	GOM_NL__2PRFIN20061021_230245_000000362052_00173_24275_2868.N1	21-OCT-2006 23:02:45	Bright	36.000	58	21Alp And	2.0730	11000.	72	24275	No
221	GOM_NL__2PRFIN20061021_231034_000000362052_00173_24275_2869.N1	21-OCT-2006 23:10:34	Bright	35.500	68	18Alp Cas	2.2250	4500.0	71	24275	No
222	GOM_NL__2PRFIN20061021_231945_000000342052_00173_24275_2870.N1	21-OCT-2006 23:19:45	Bright	34.000	49	1Alp UMi	1.9900	6300.0	68	24275	No
223	GOM_NL__2PRFIN20061021_232305_000000362052_00173_24275_2871.N1	21-OCT-2006 23:23:05	Bright	36.000	60	7Bet UMi	2.0810	3950.0	72	24275	No
224	GOM_NL__2PRFIN20061021_232759_000000392052_00173_24275_2872.N1	21-OCT-2006 23:27:59	Bright	38.500	36	50Alp UMa	1.8000	6300.0	77	24275	No
225	GOM_NL__2PRFIN20061021_232934_000000372052_00173_24275_2873.N1	21-OCT-2006 23:29:34	Bright	36.500	82	48Bet UMa	2.3650	10600.	73	24275	No
226	GOM_NL__2PRFIN20061021_233303_000000352052_00173_24275_2874.N1	21-OCT-2006 23:33:03	Bright	35.000	174	52Psi UMa	3.0040	4400.0	70	24275	No
227	GOM_NL__2PRFIN20061021_233959_000000342052_00173_24275_2875.N1	21-OCT-2006 23:39:59	Bright	34.000	96	68Del Leo	2.5600	9300.0	68	24275	No
228	GOM_NL__2PRFIN20061021_235933_000000412052_00173_24275_2876.N1	21-OCT-2006 23:59:33	Dark	40.500	113	Mu Vel	2.6920	5000.0	81	24275	No

3. Quality information per product

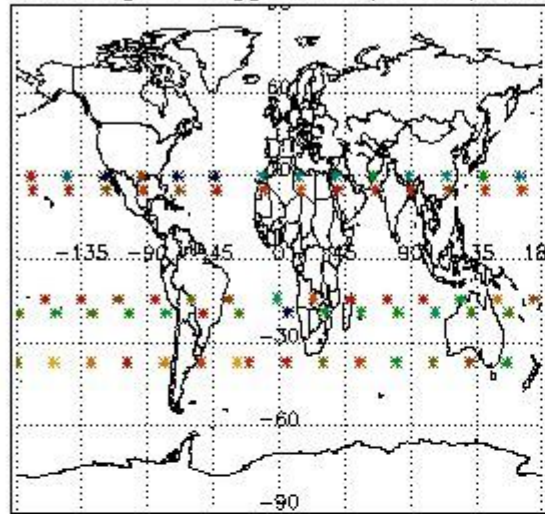
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

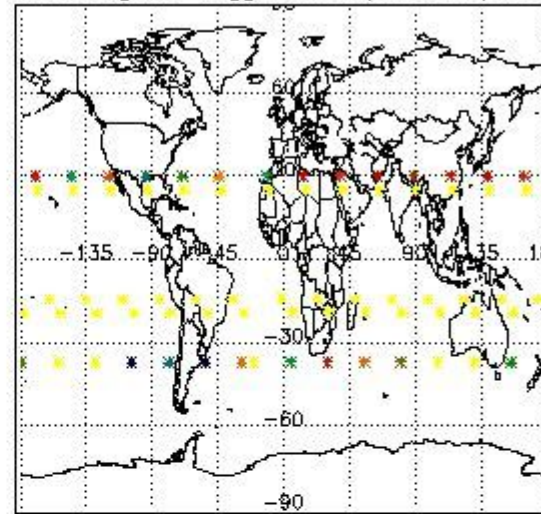


3.2 Plot quality information per product (world map)

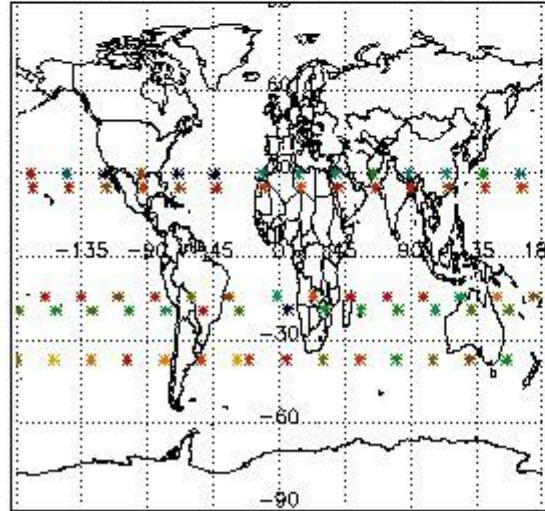
Percentage of flagged data per O3 profile



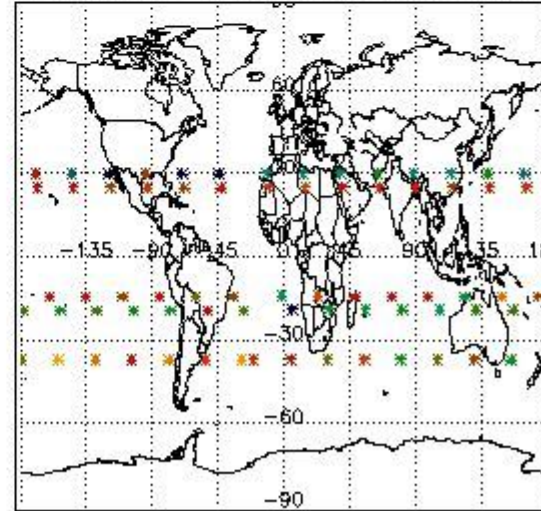
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

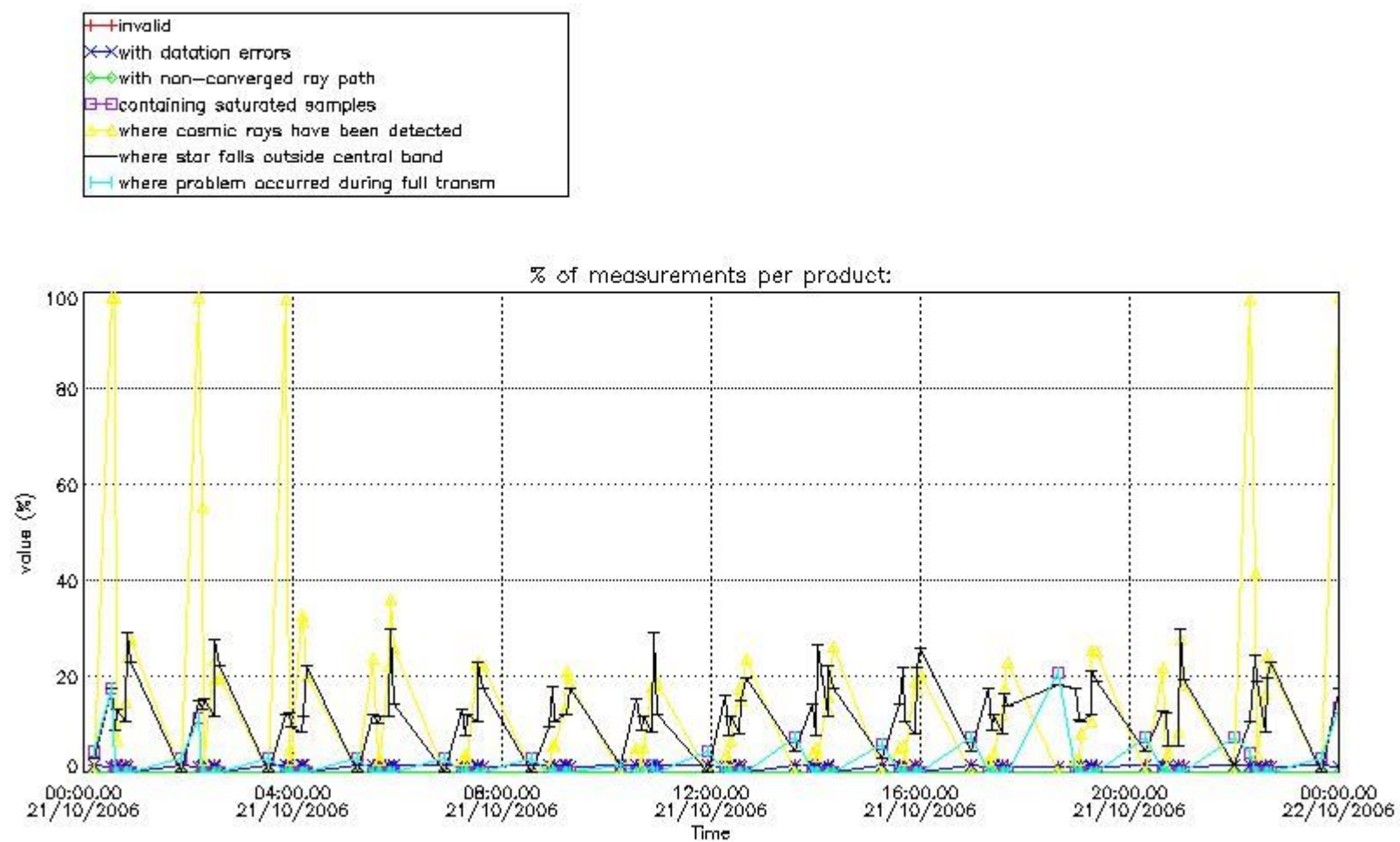


4. Level 1 quality information per product

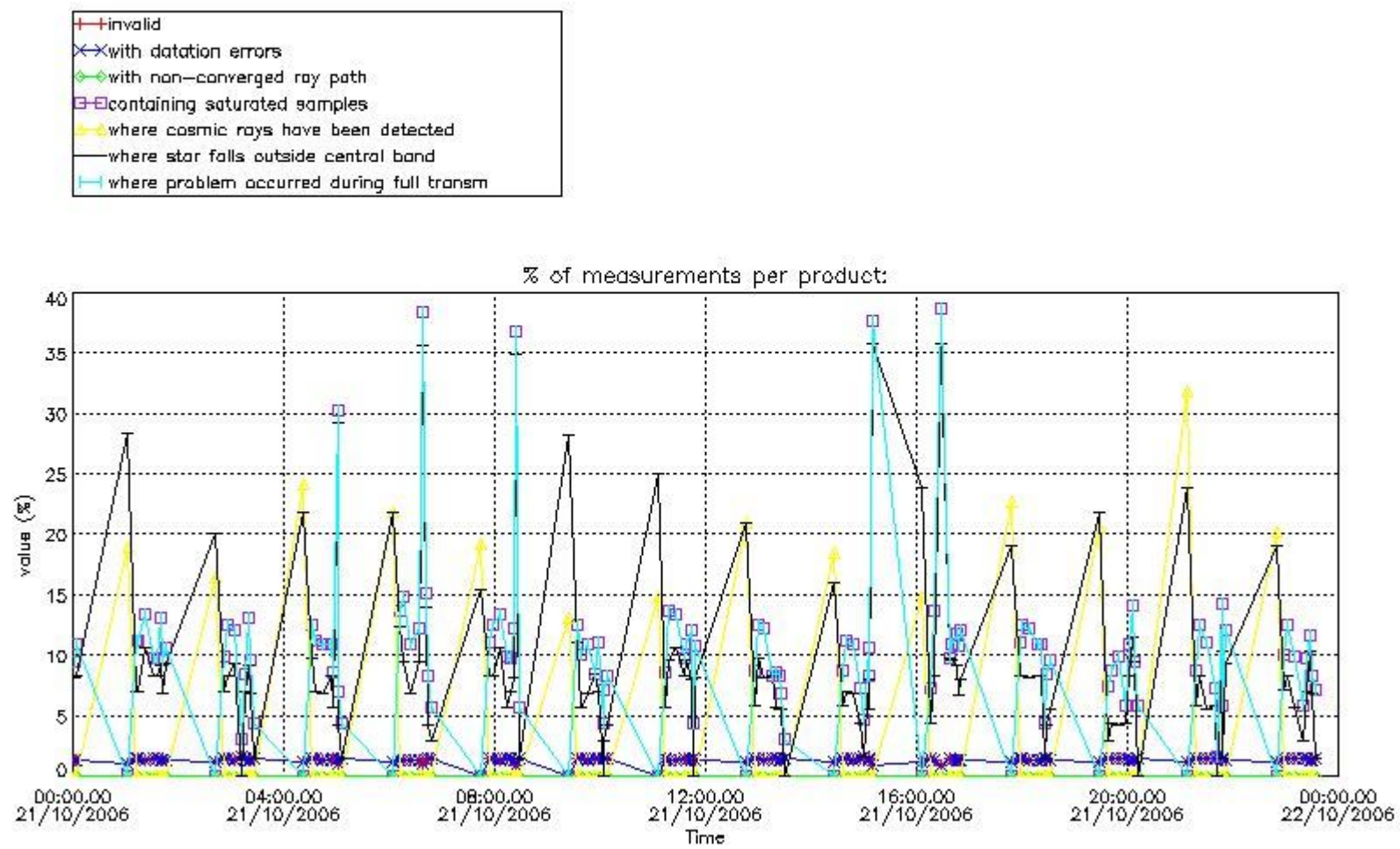
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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



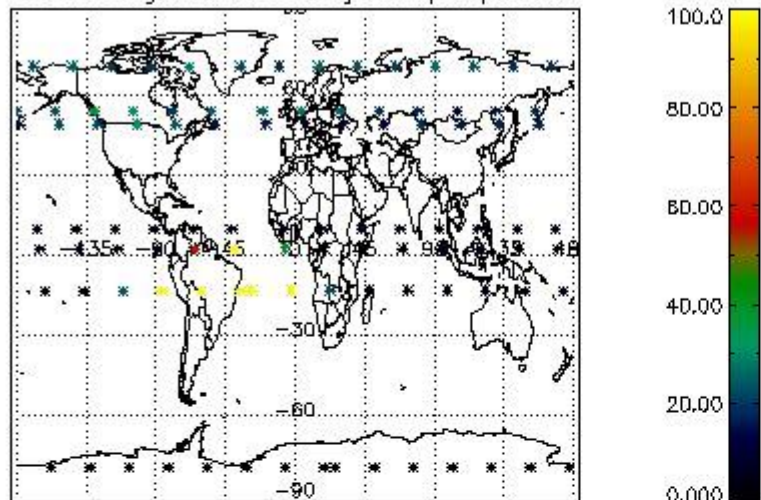
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



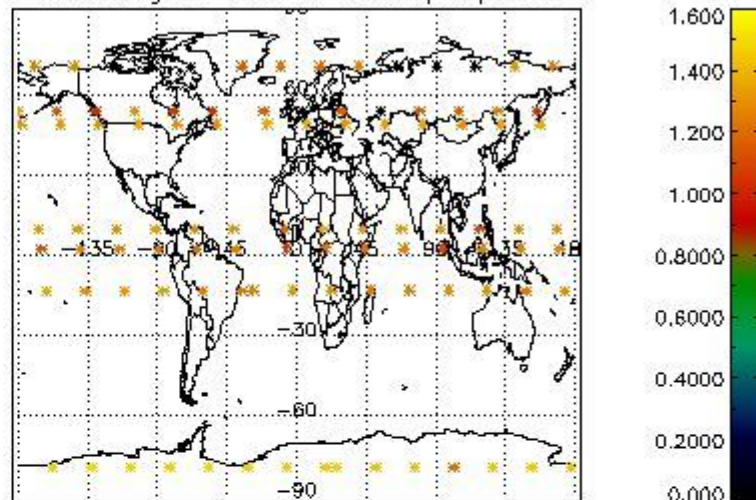
4.2 Plot quality information per product coming from level 1b processing (world map)

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

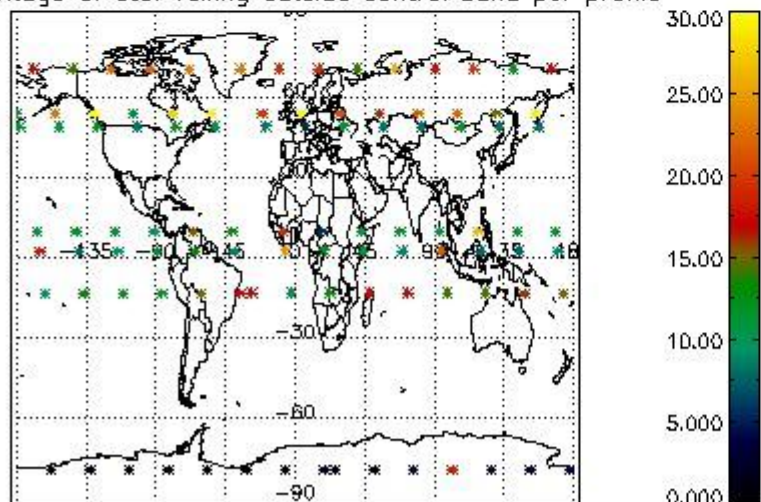
Percentage of cosmic ray hits per profile



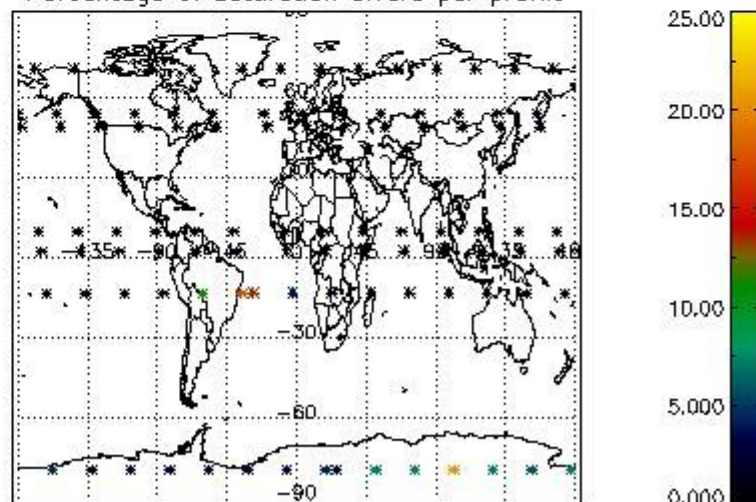
Percentage of datation errors per profile



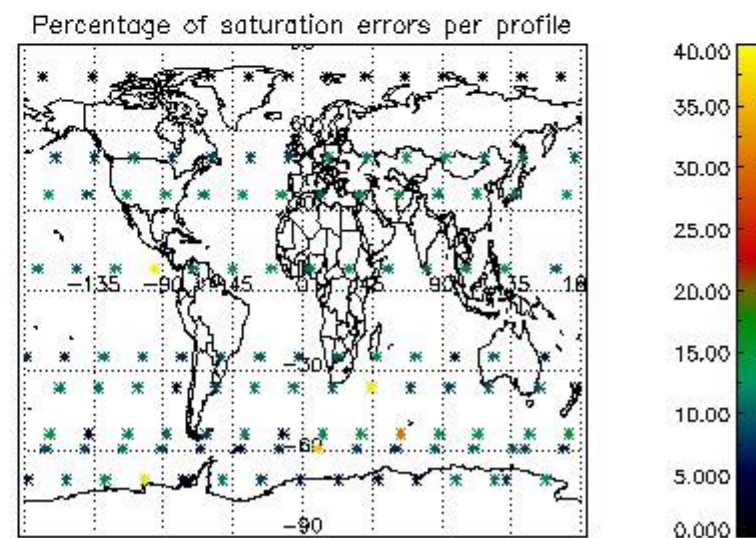
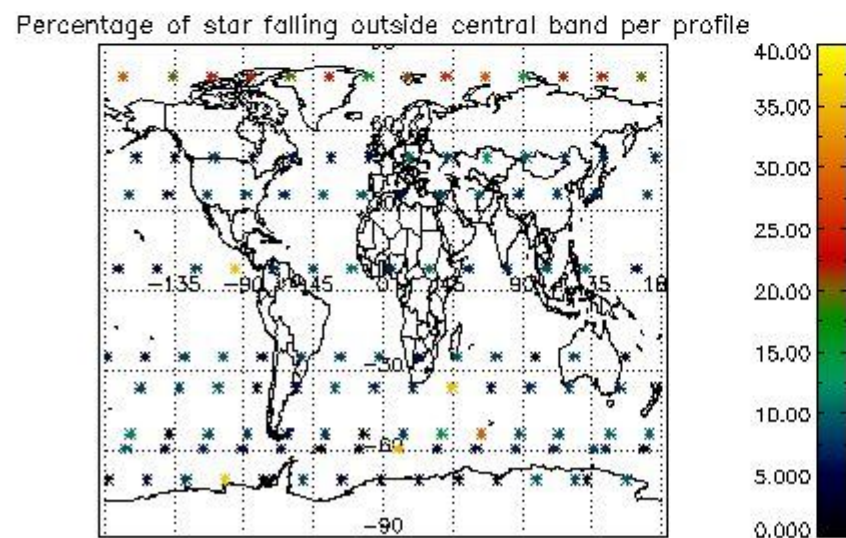
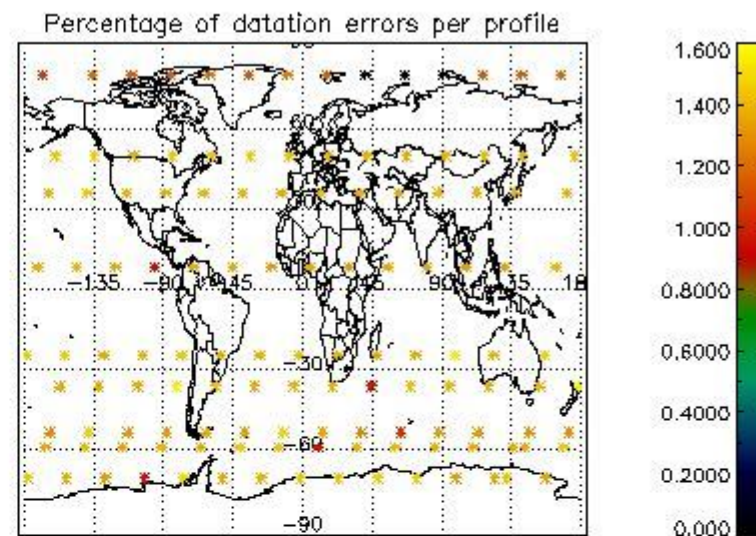
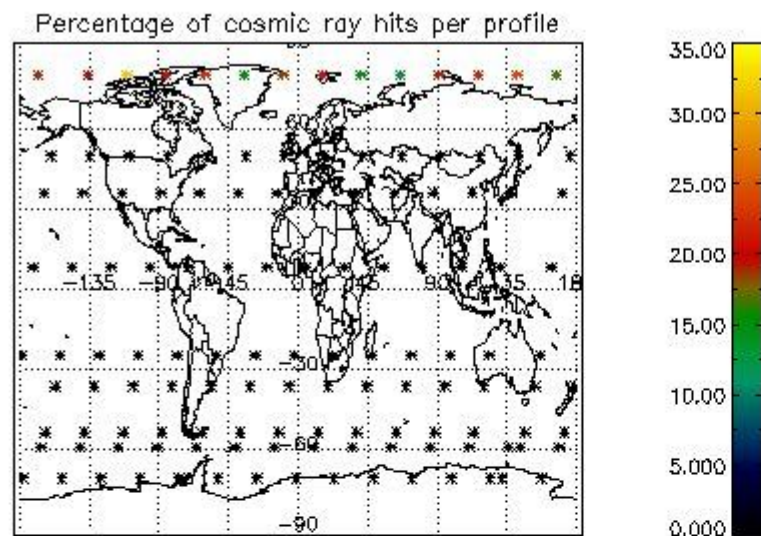
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

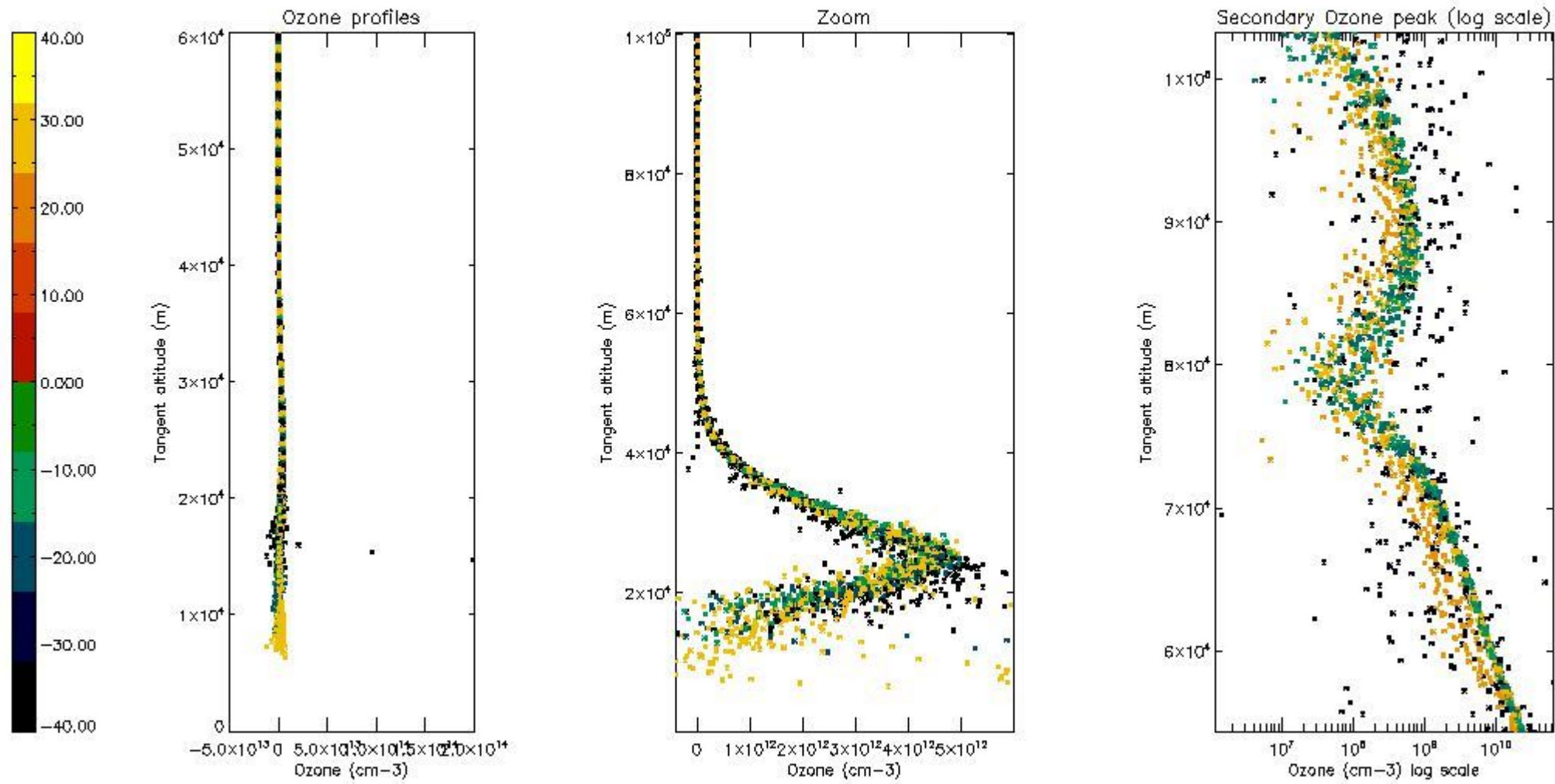
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	34
STD < 20	19

STD < 10	14
STD < 5	9

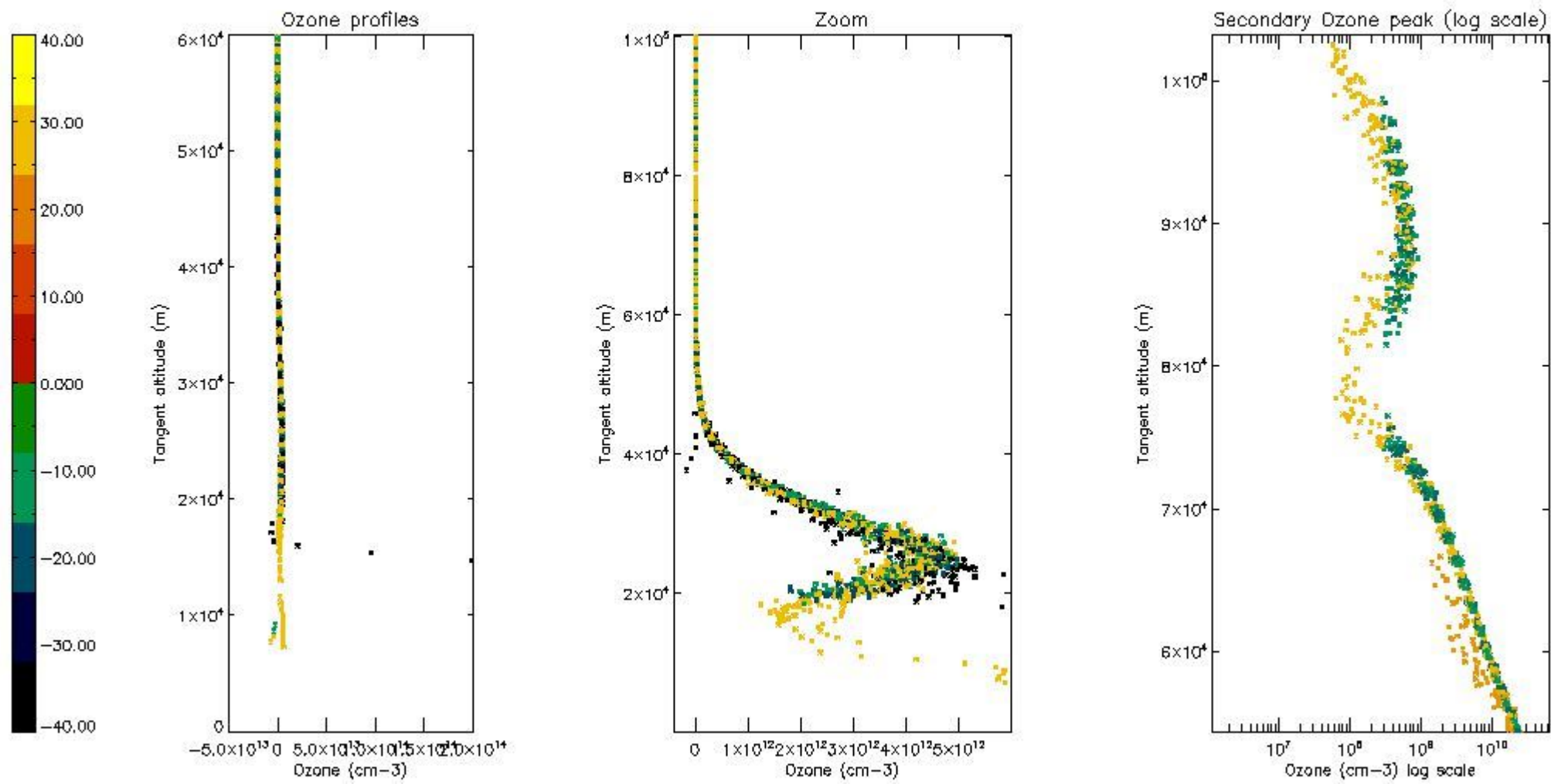
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



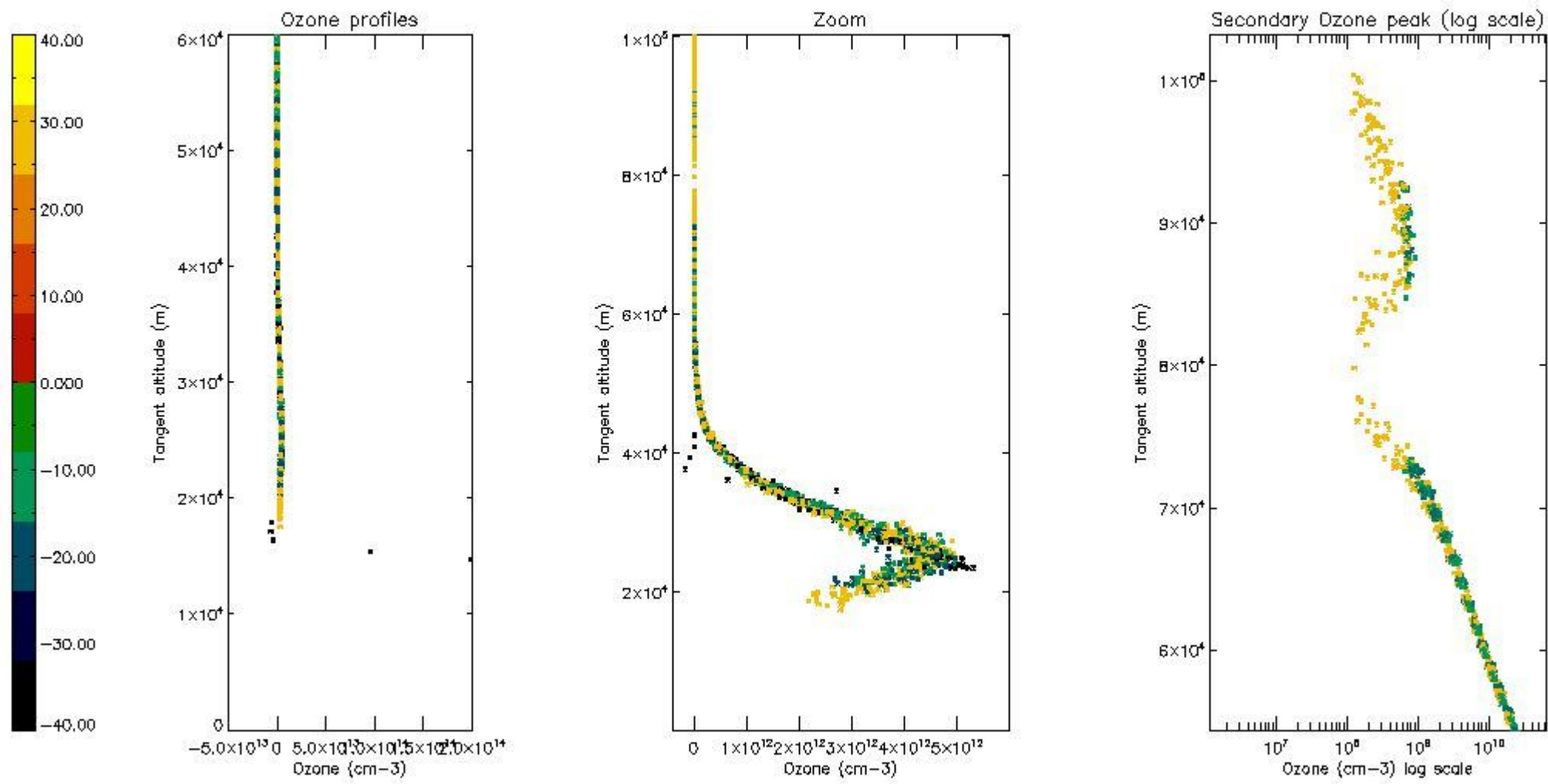
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



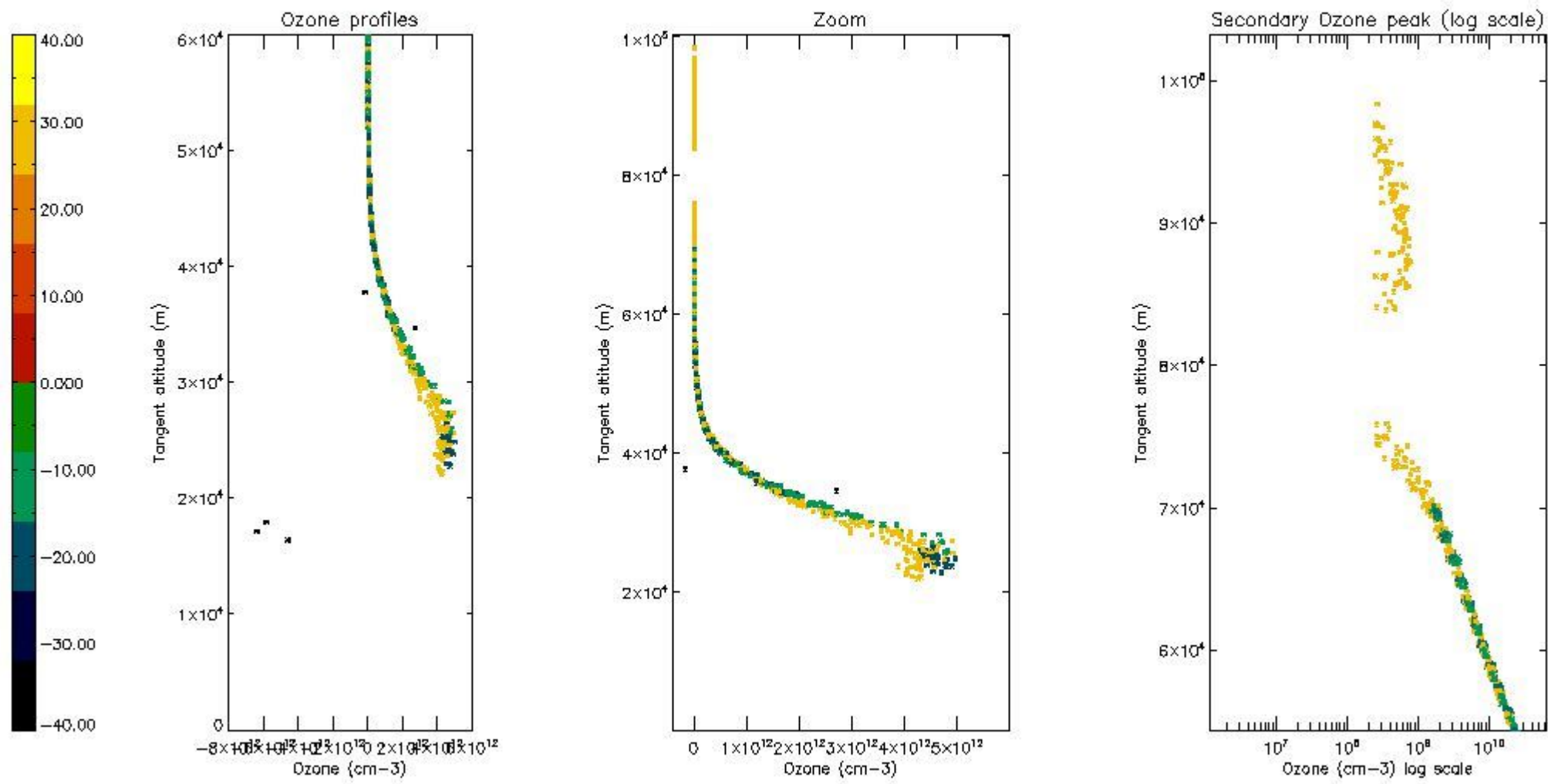
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



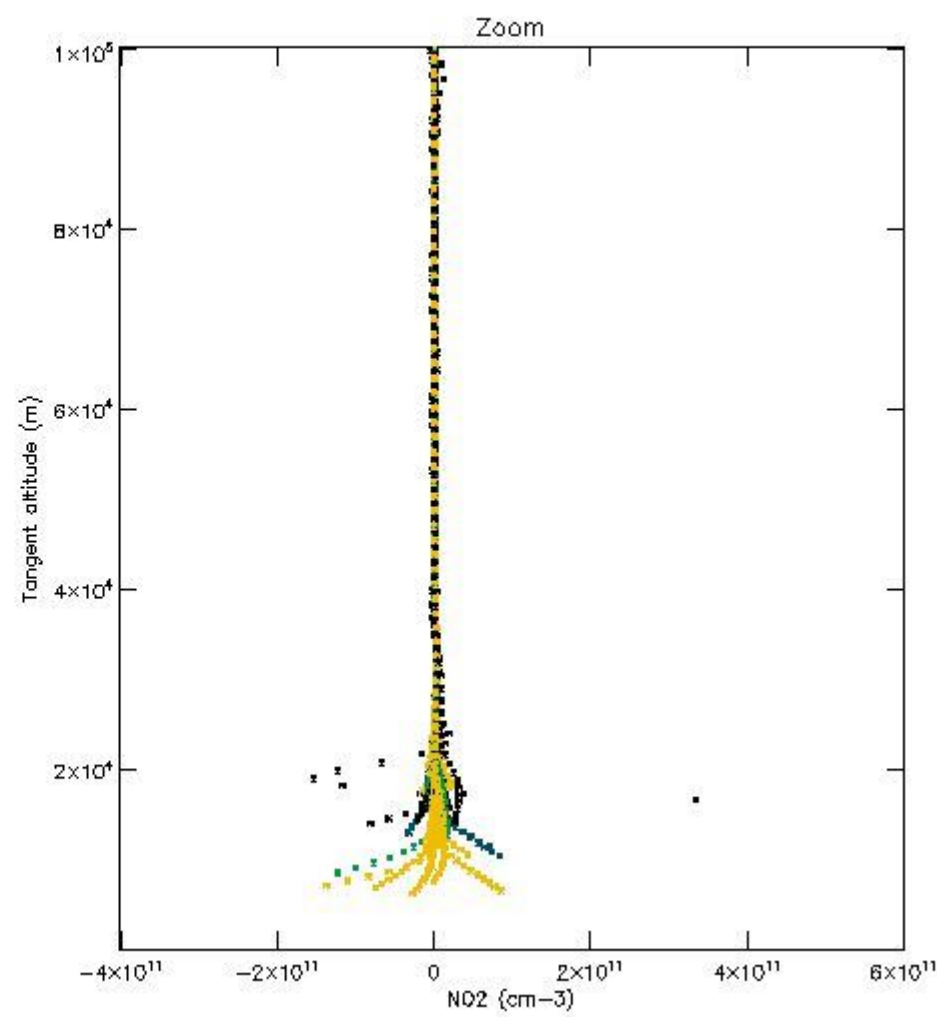
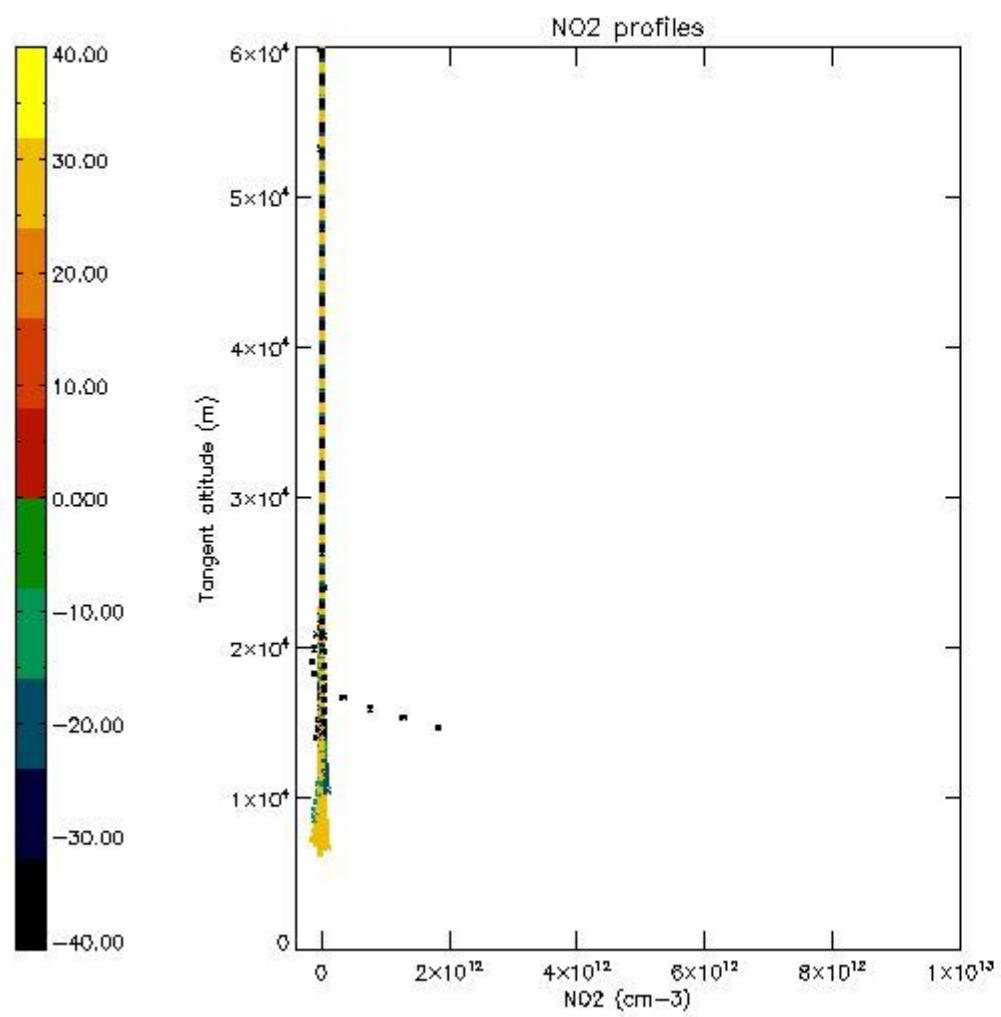
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



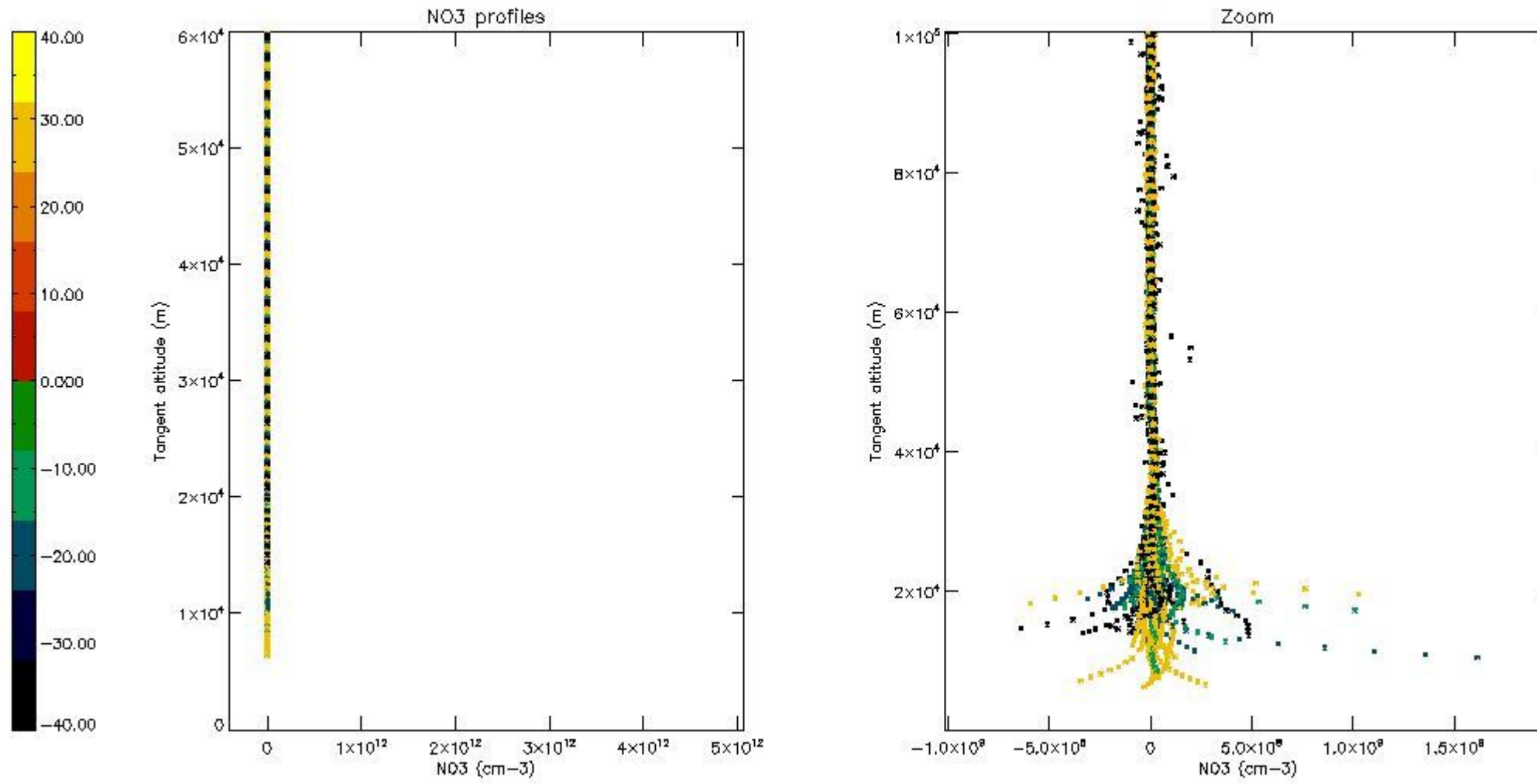
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

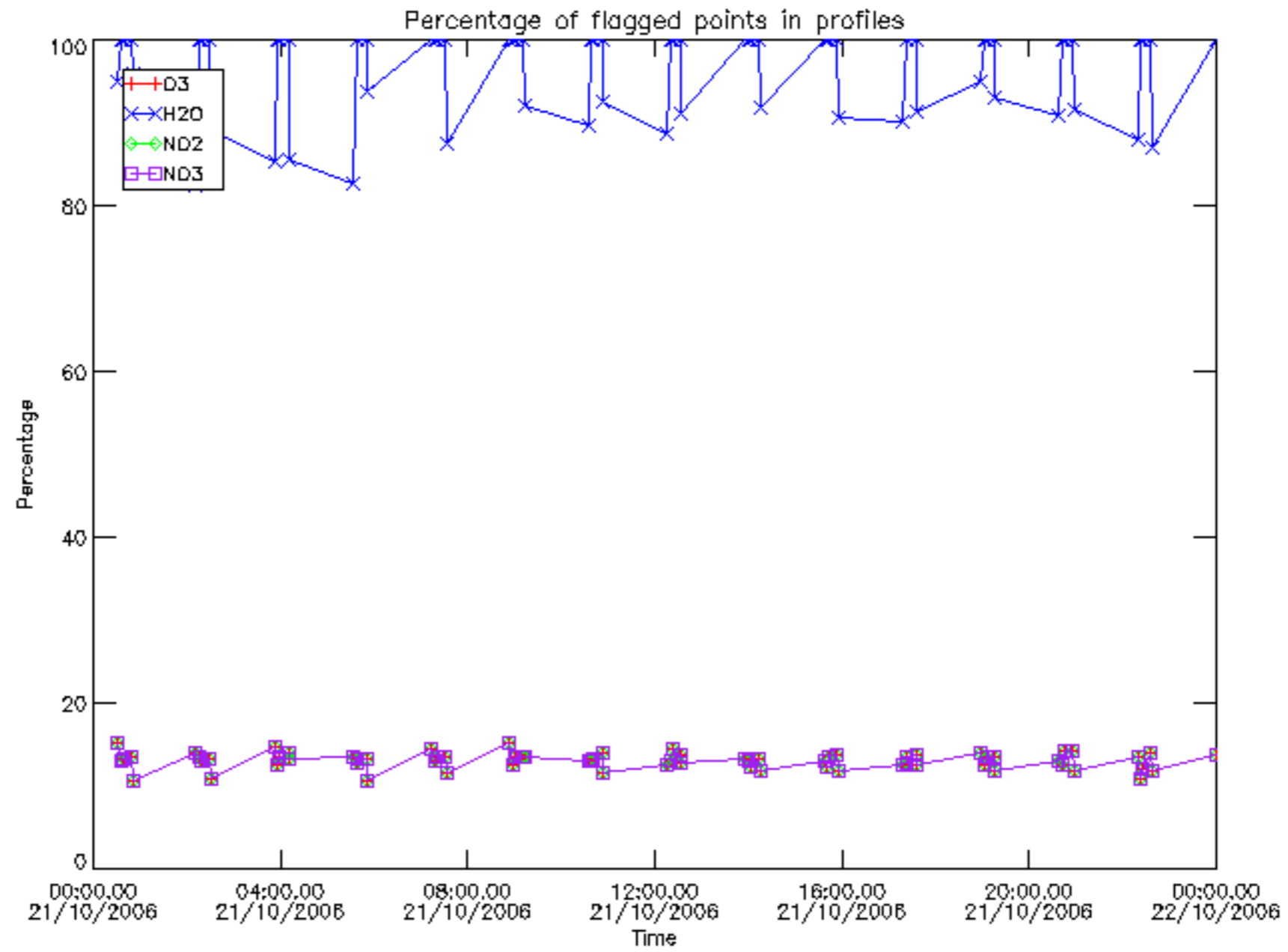
The colorbar represents the latitude.



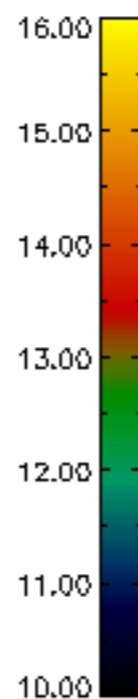
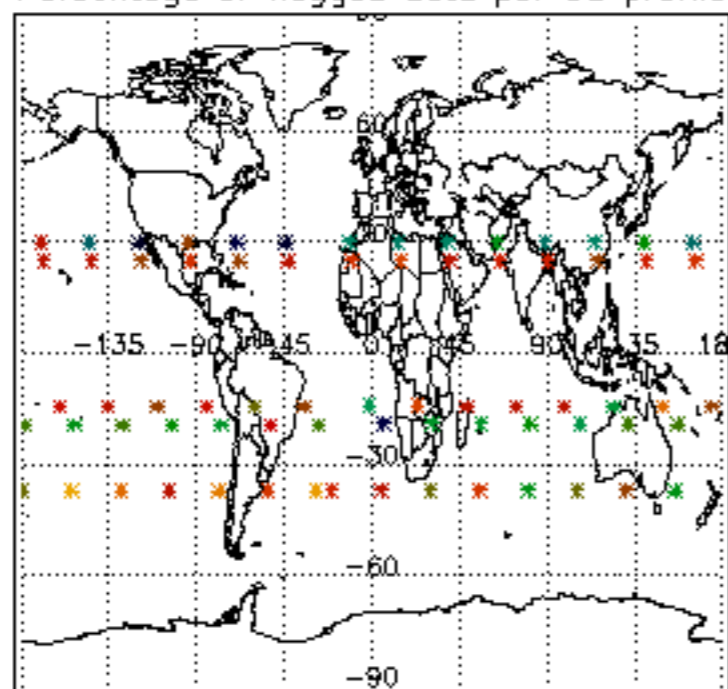
6. Auxiliary Data Files used for the production reported in section 2

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.

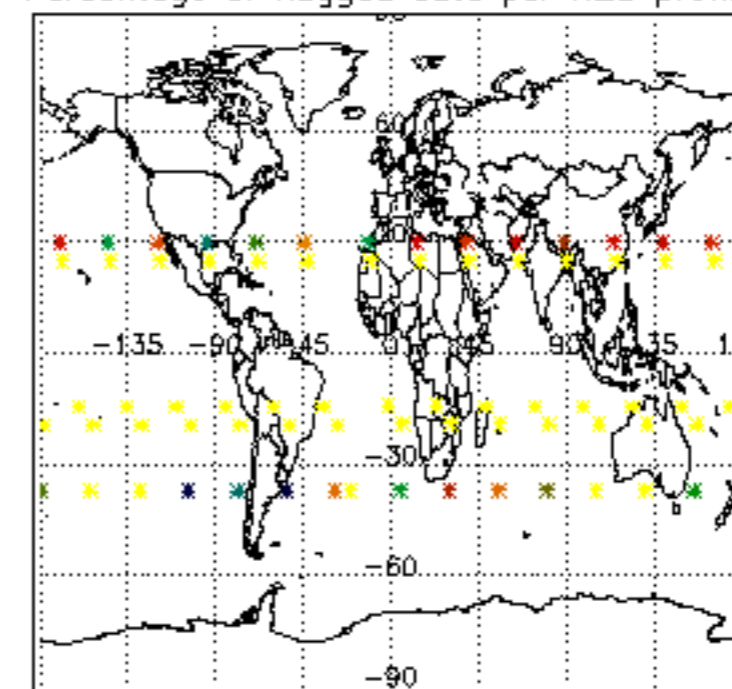
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	21-OCT-2006 00:01:11
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	21-OCT-2006 00:01:11
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	21-OCT-2006 00:01:11



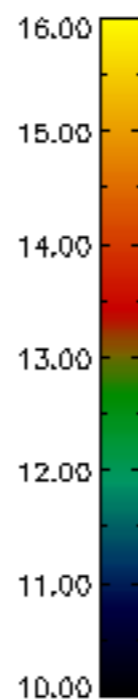
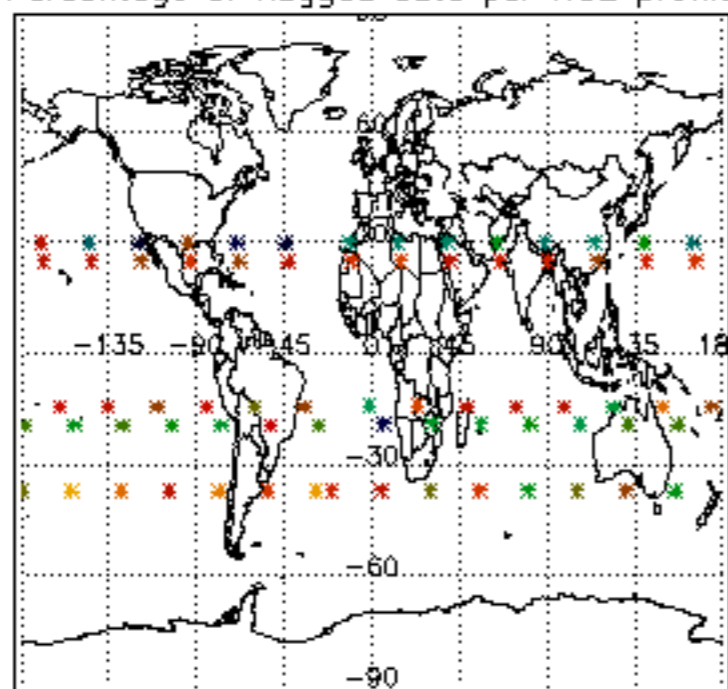
Percentage of flagged data per D3 profile



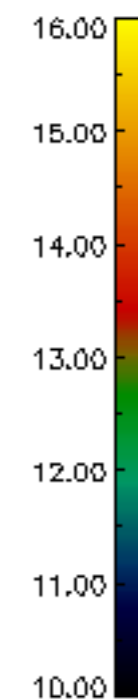
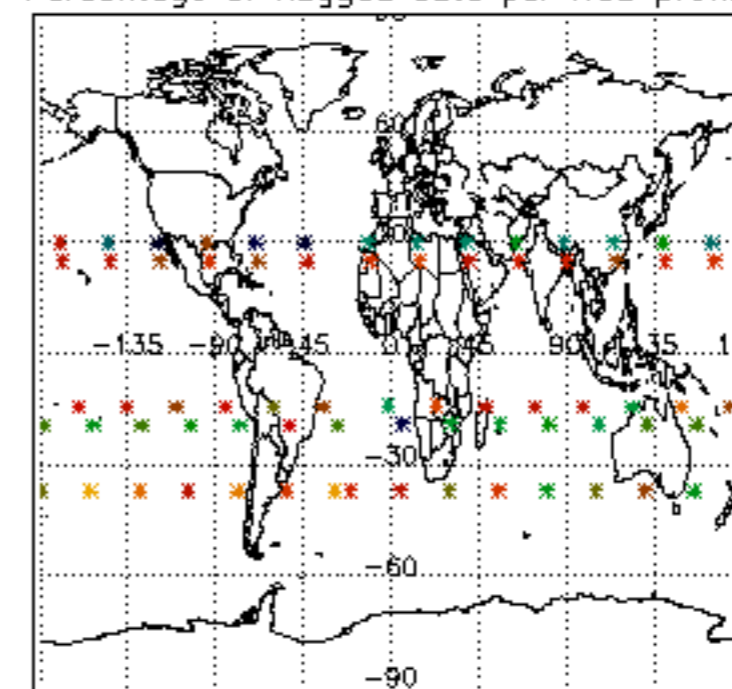
Percentage of flagged data per H2O profile

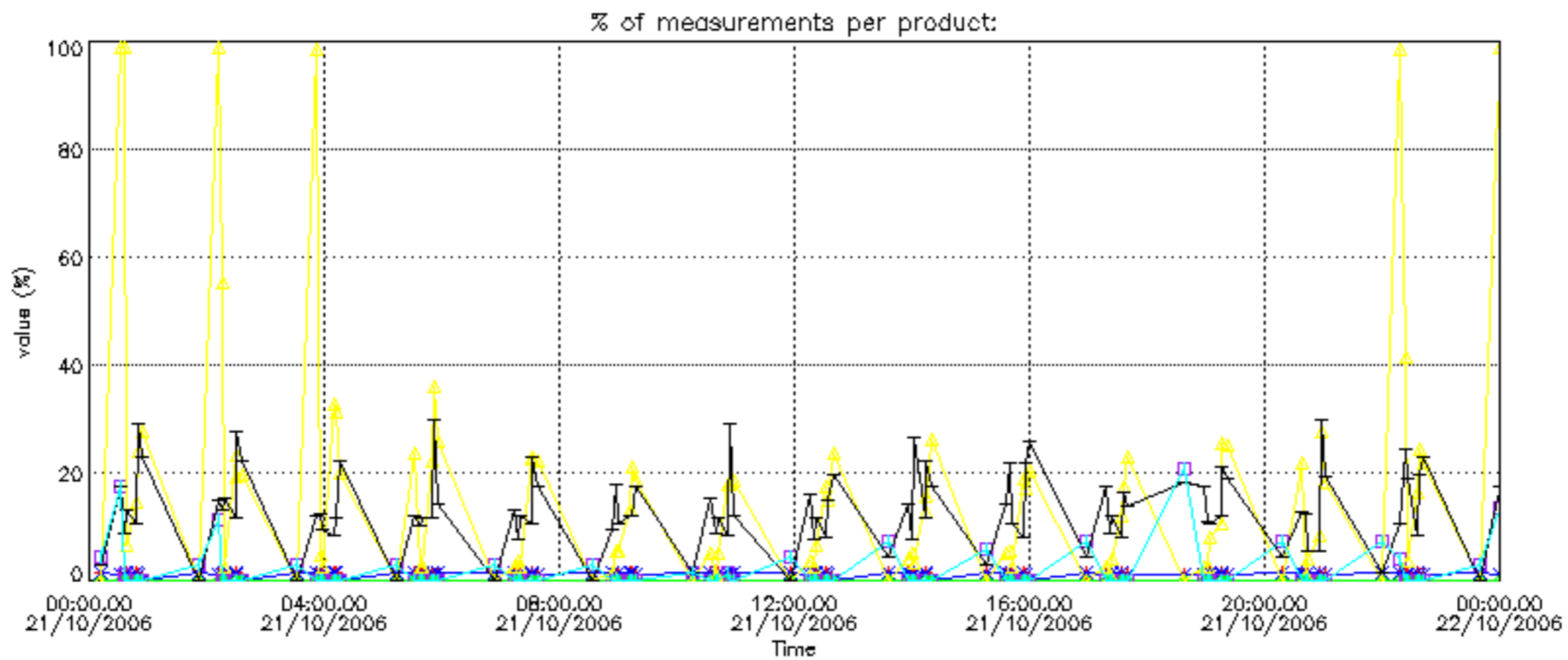


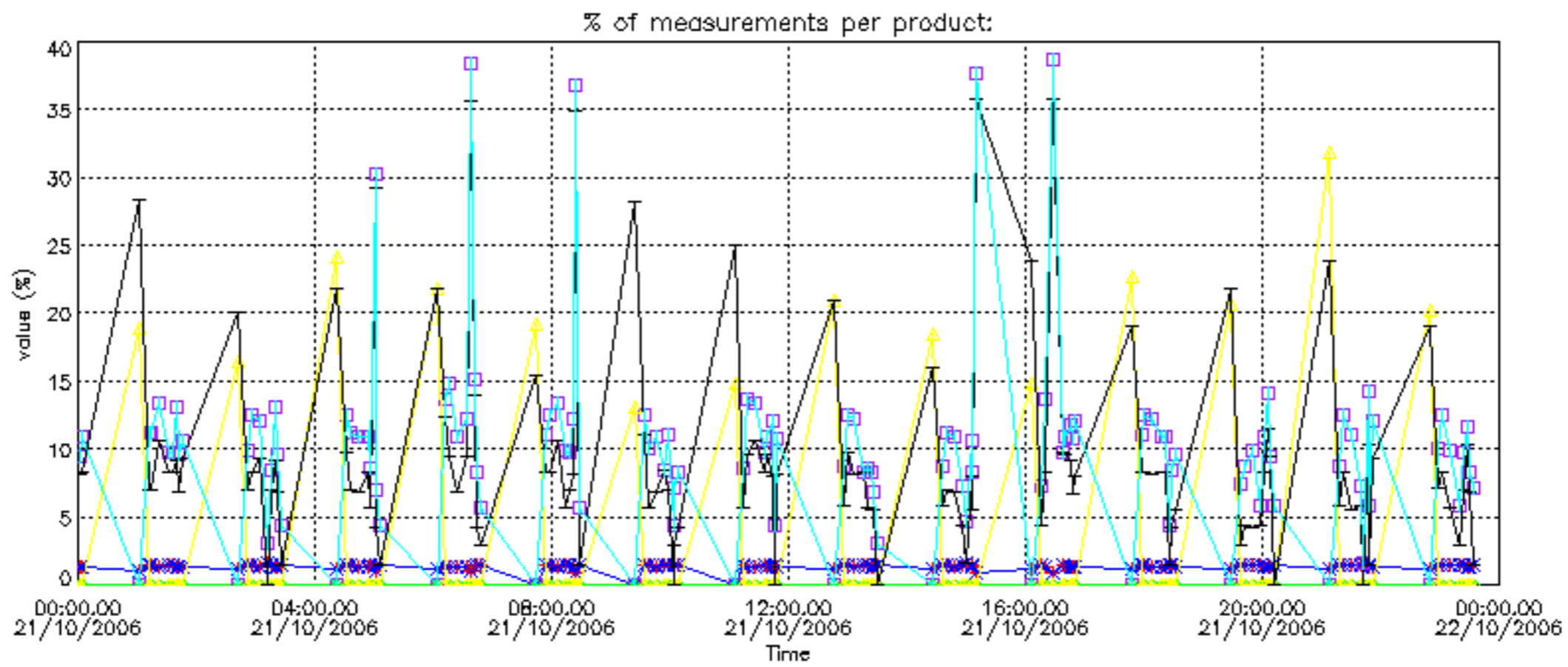
Percentage of flagged data per NO2 profile



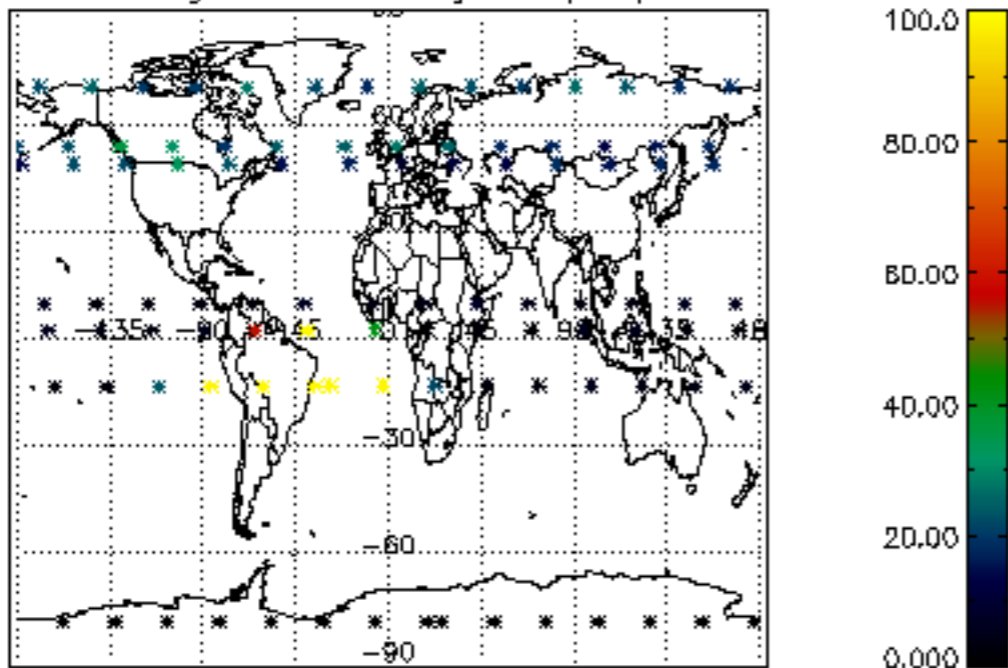
Percentage of flagged data per NO3 profile



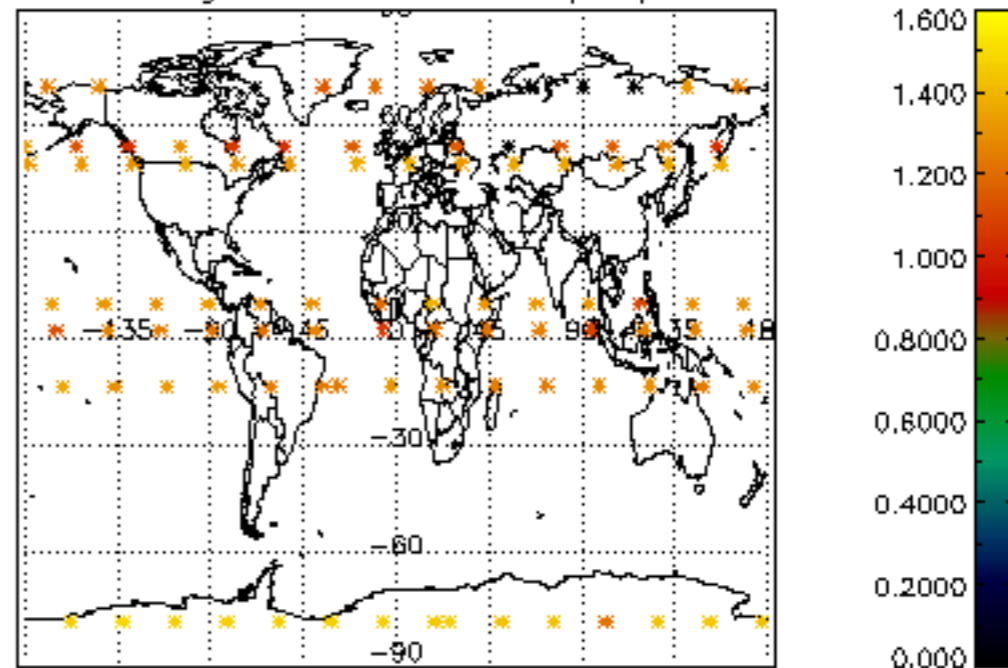




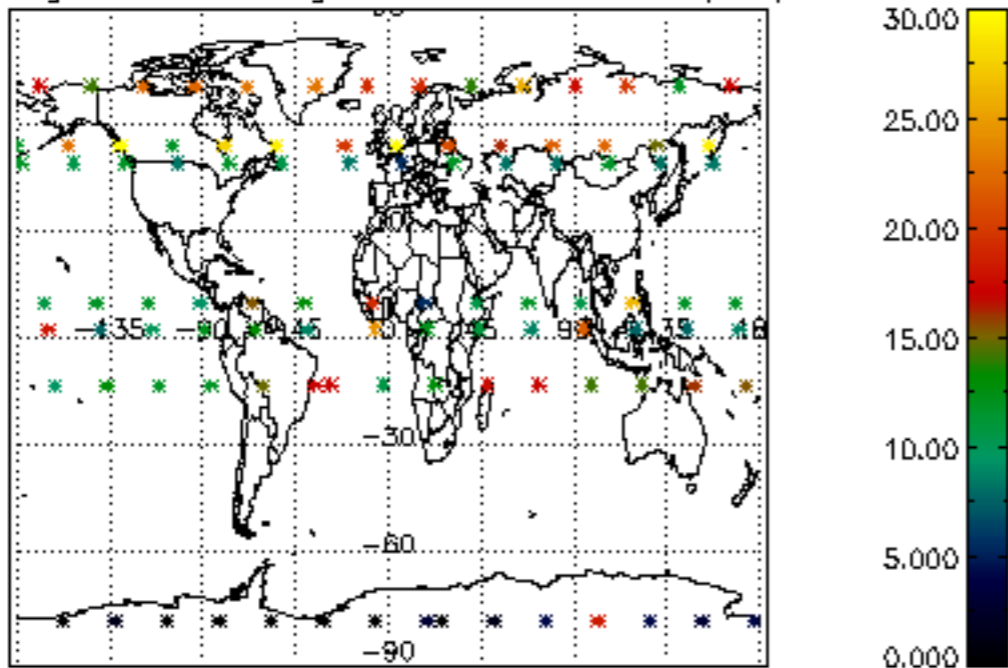
Percentage of cosmic ray hits per profile



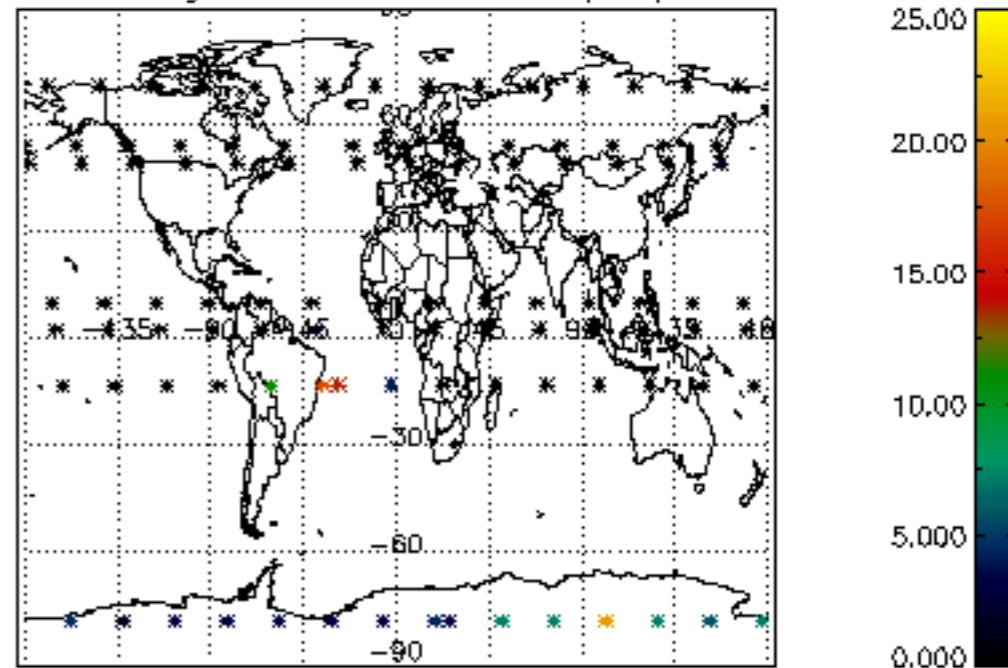
Percentage of datation errors per profile



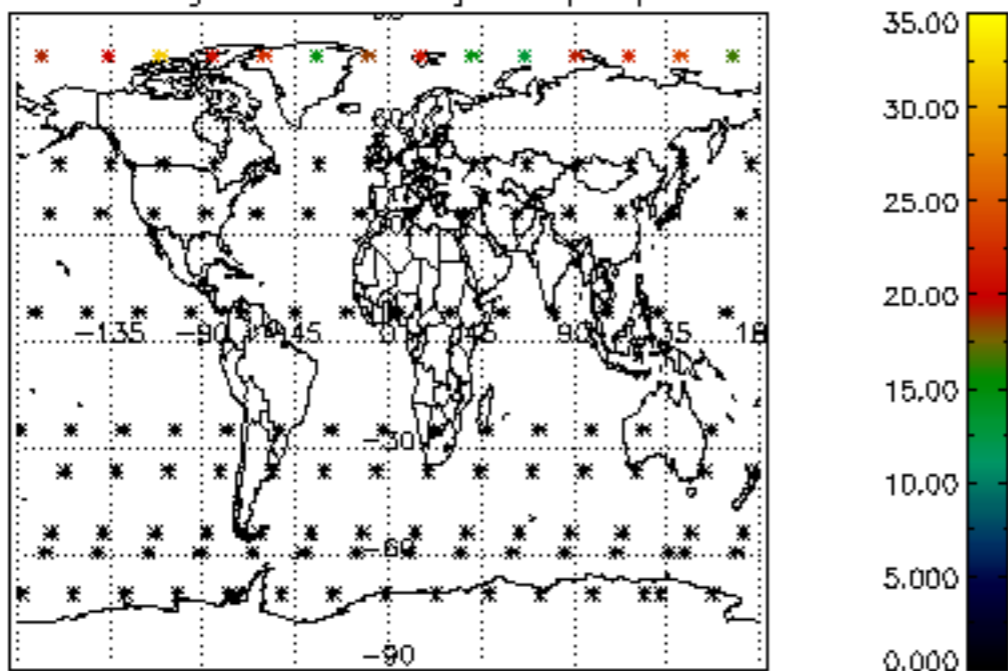
Percentage of star falling outside central band per profile



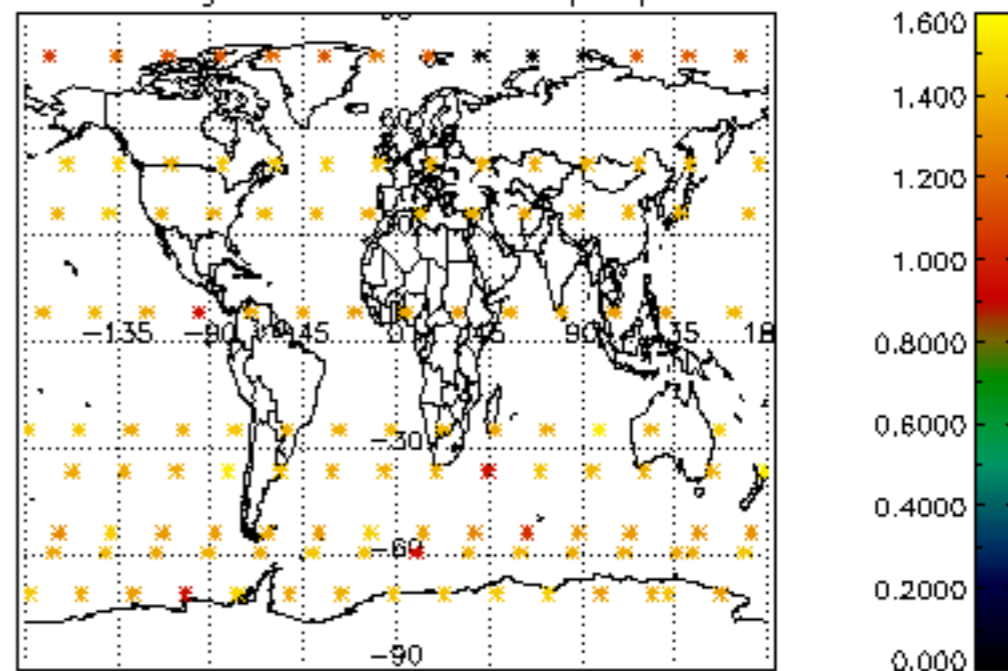
Percentage of saturation errors per profile



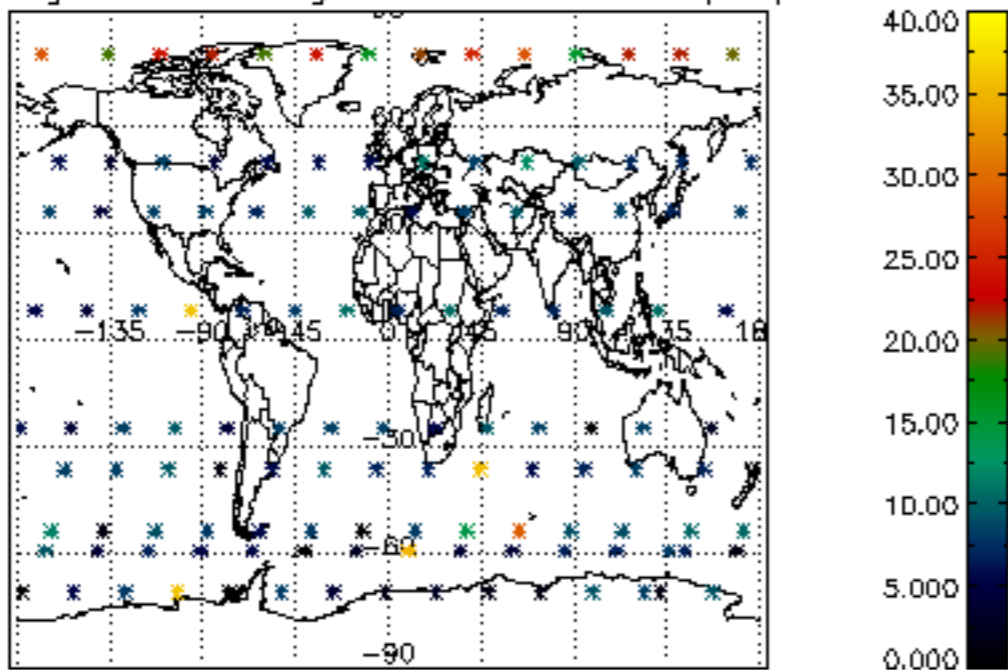
Percentage of cosmic ray hits per profile



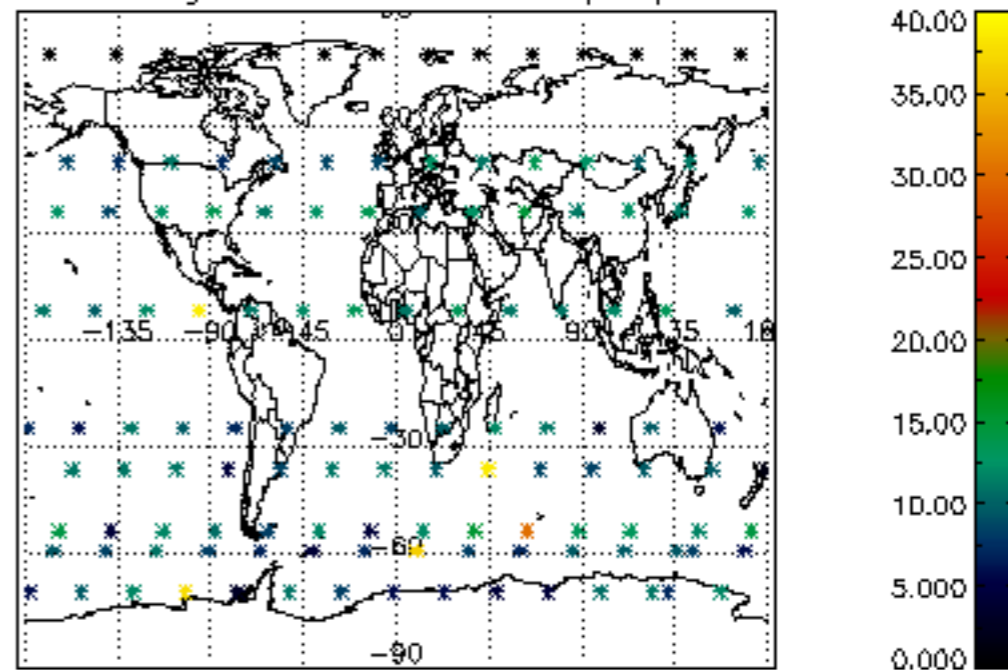
Percentage of datation errors per profile

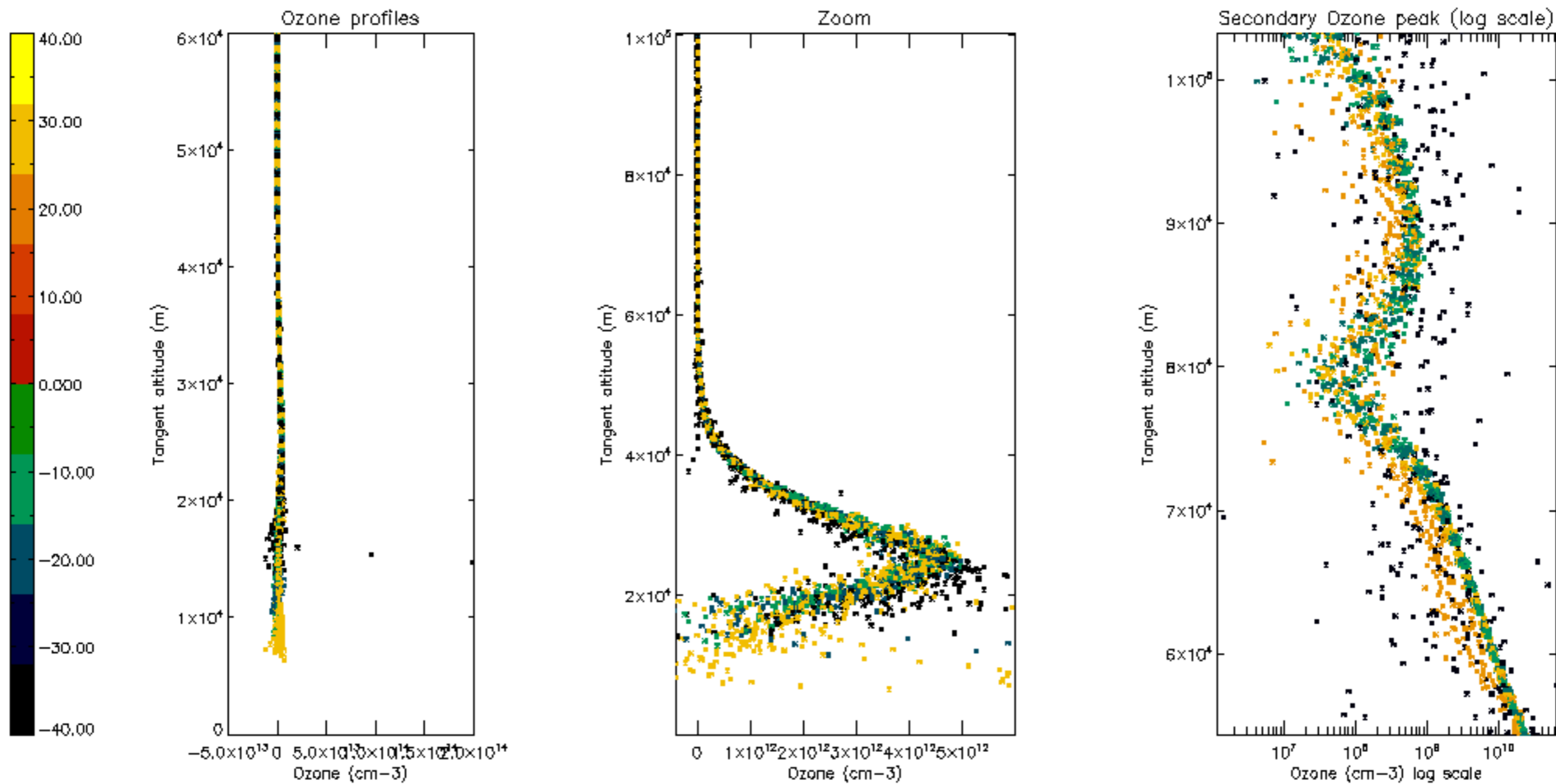


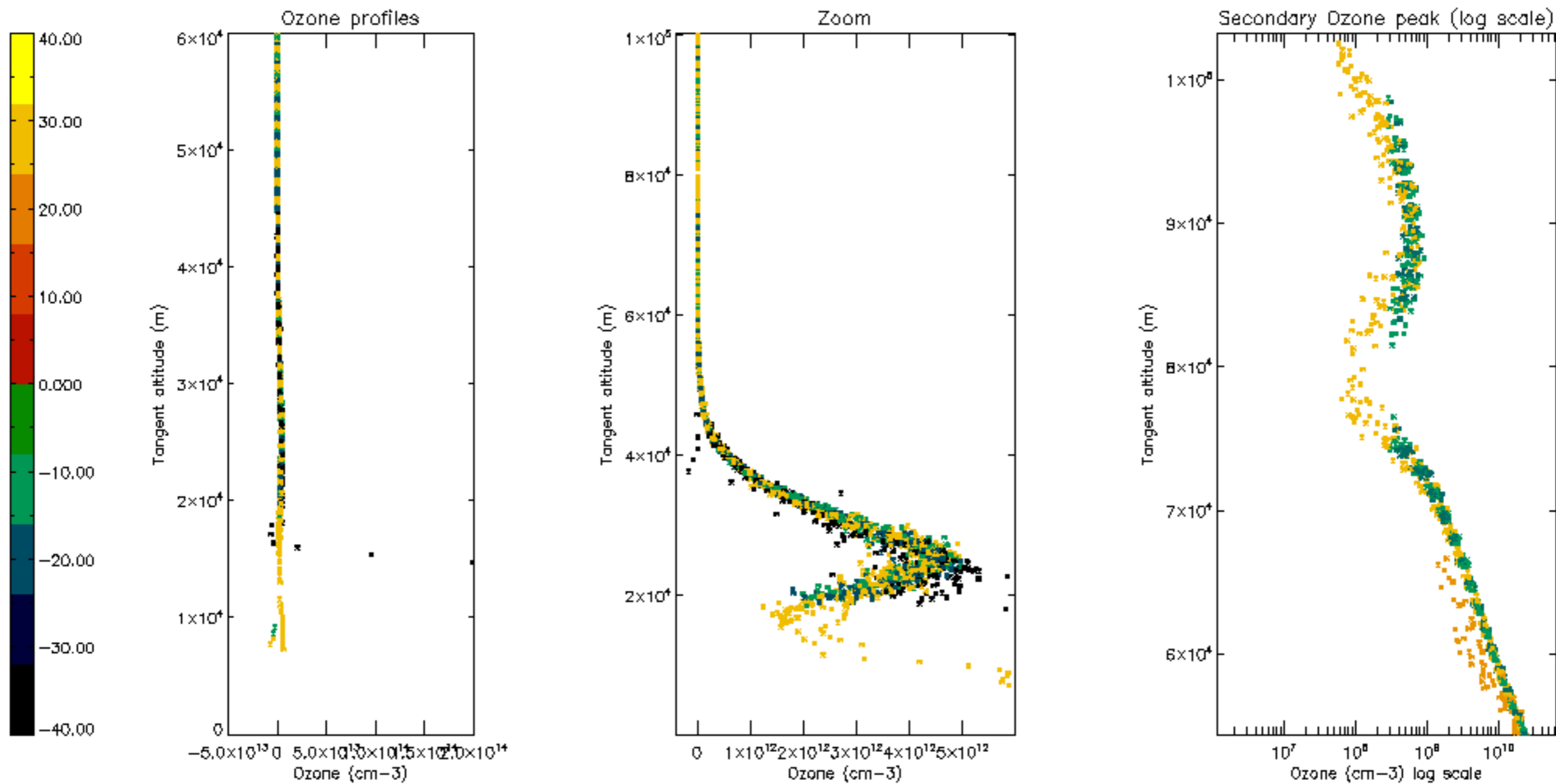
Percentage of star falling outside central band per profile

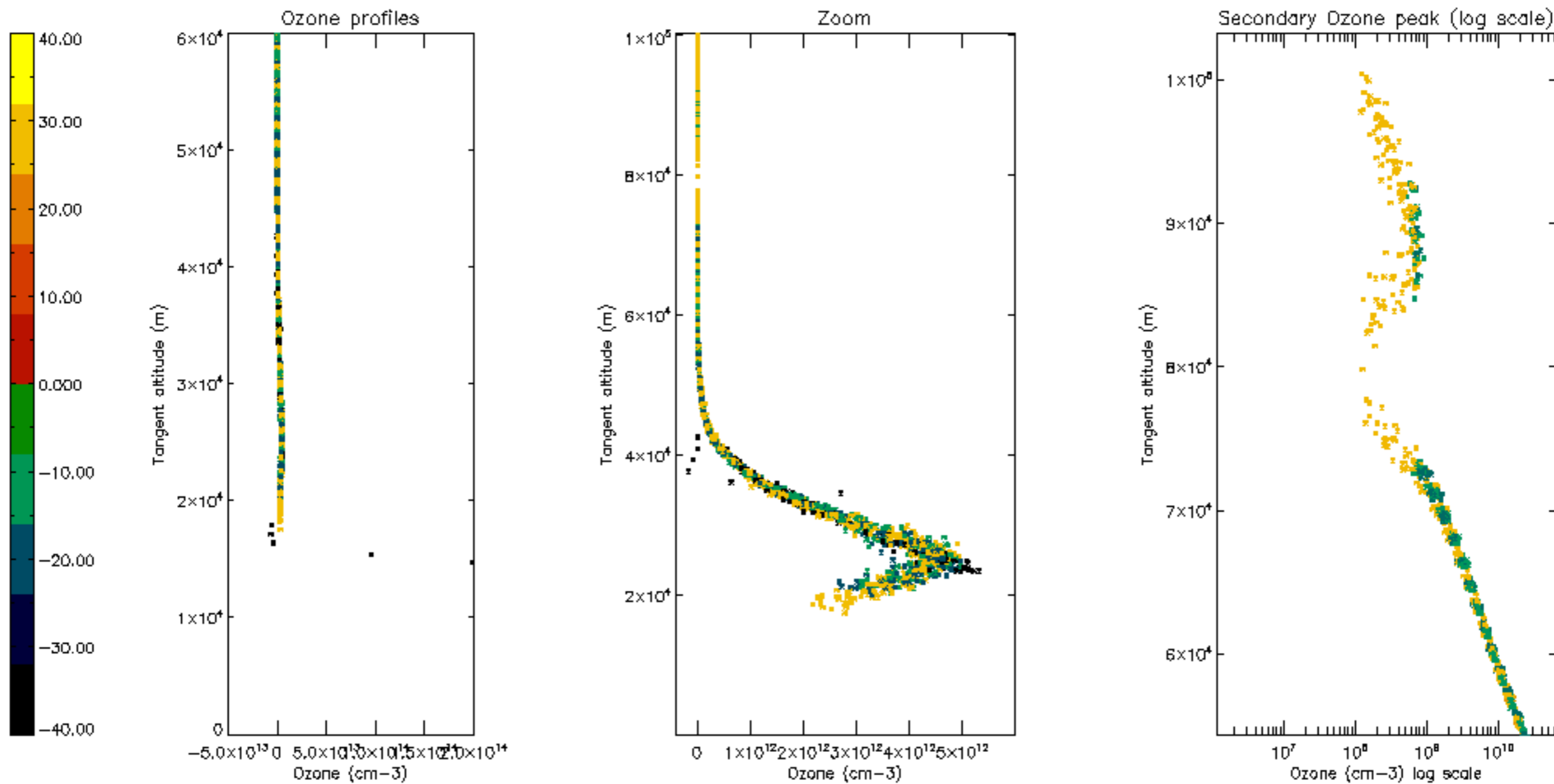


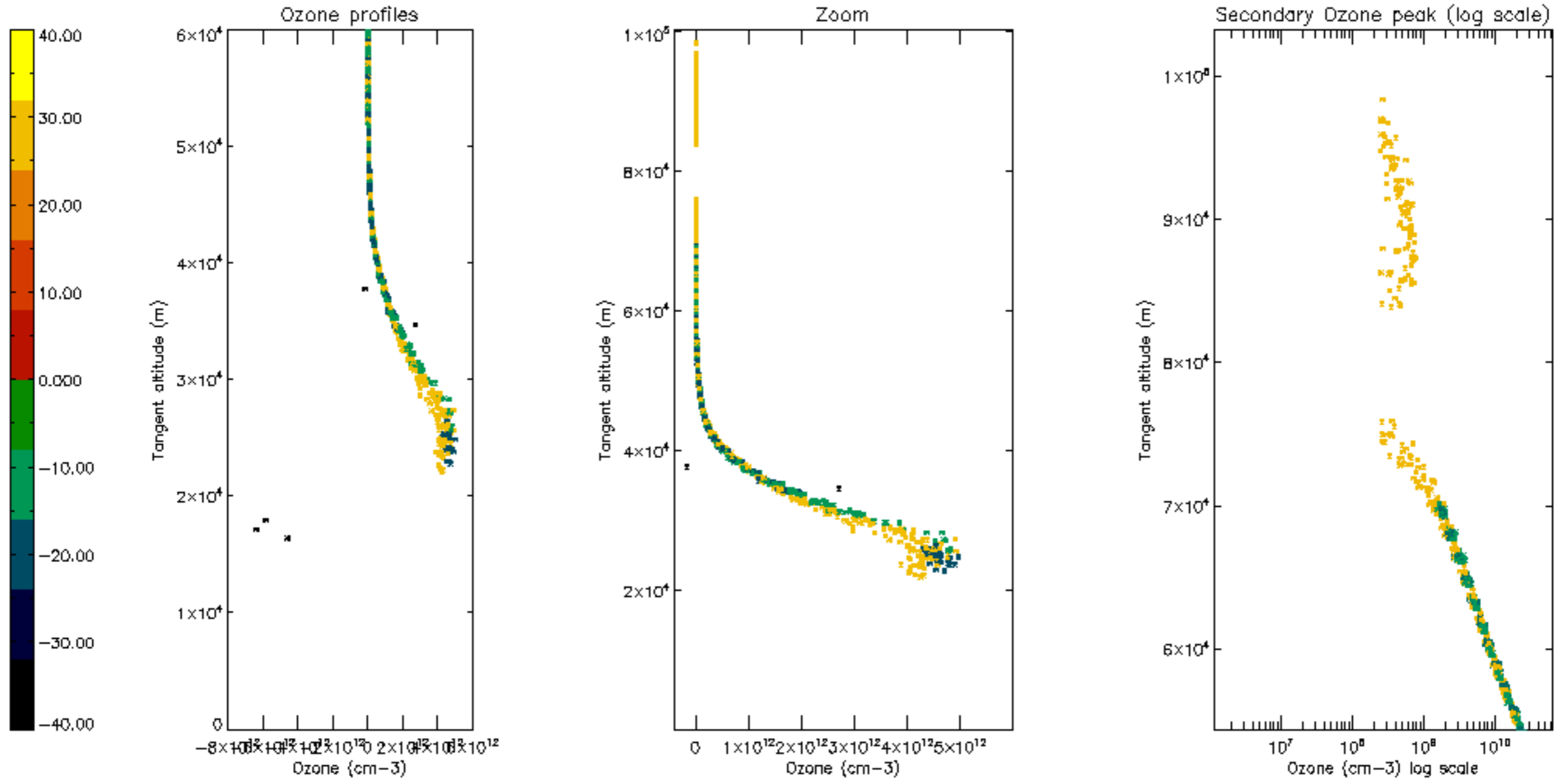
Percentage of saturation errors per profile

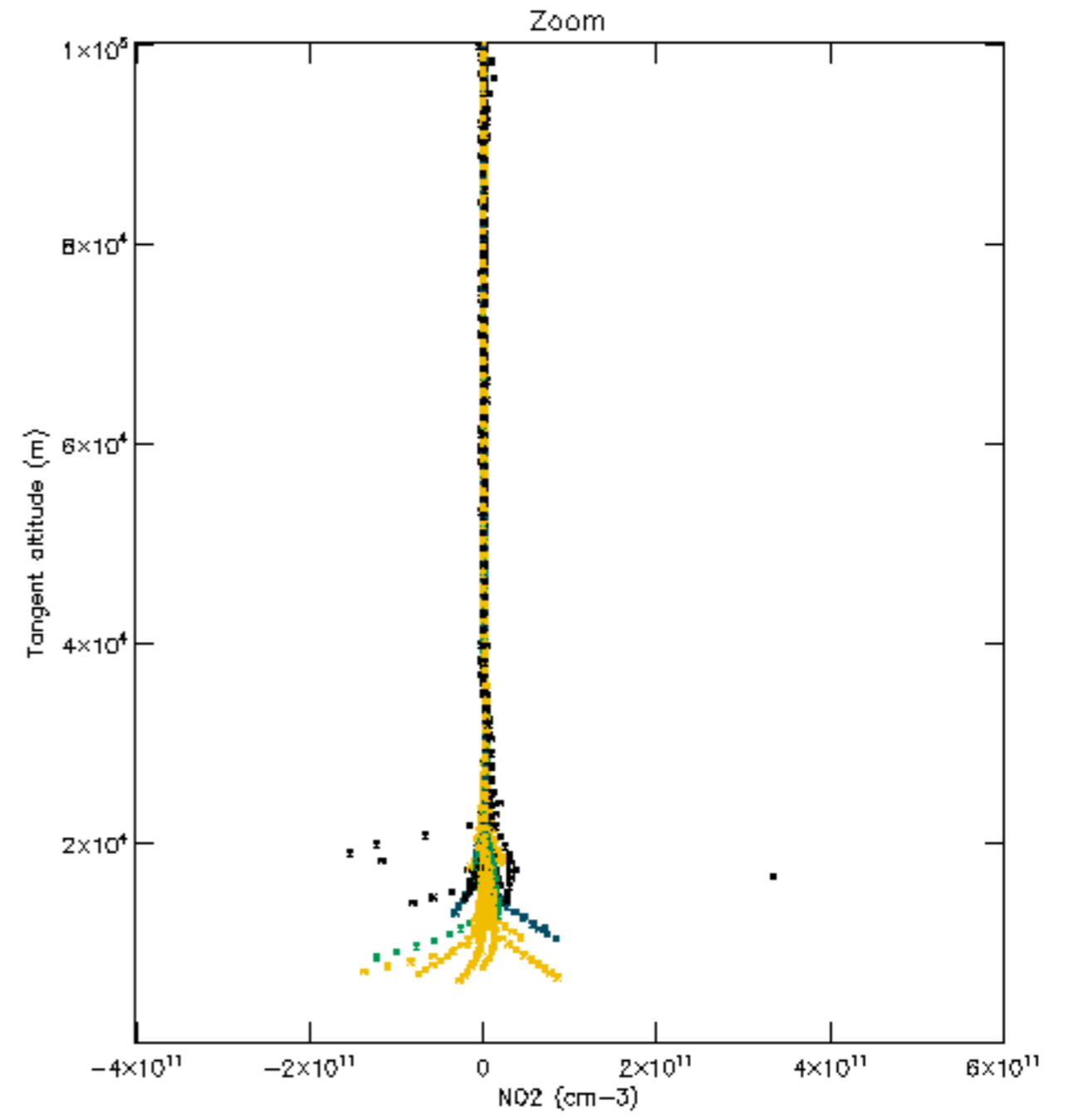
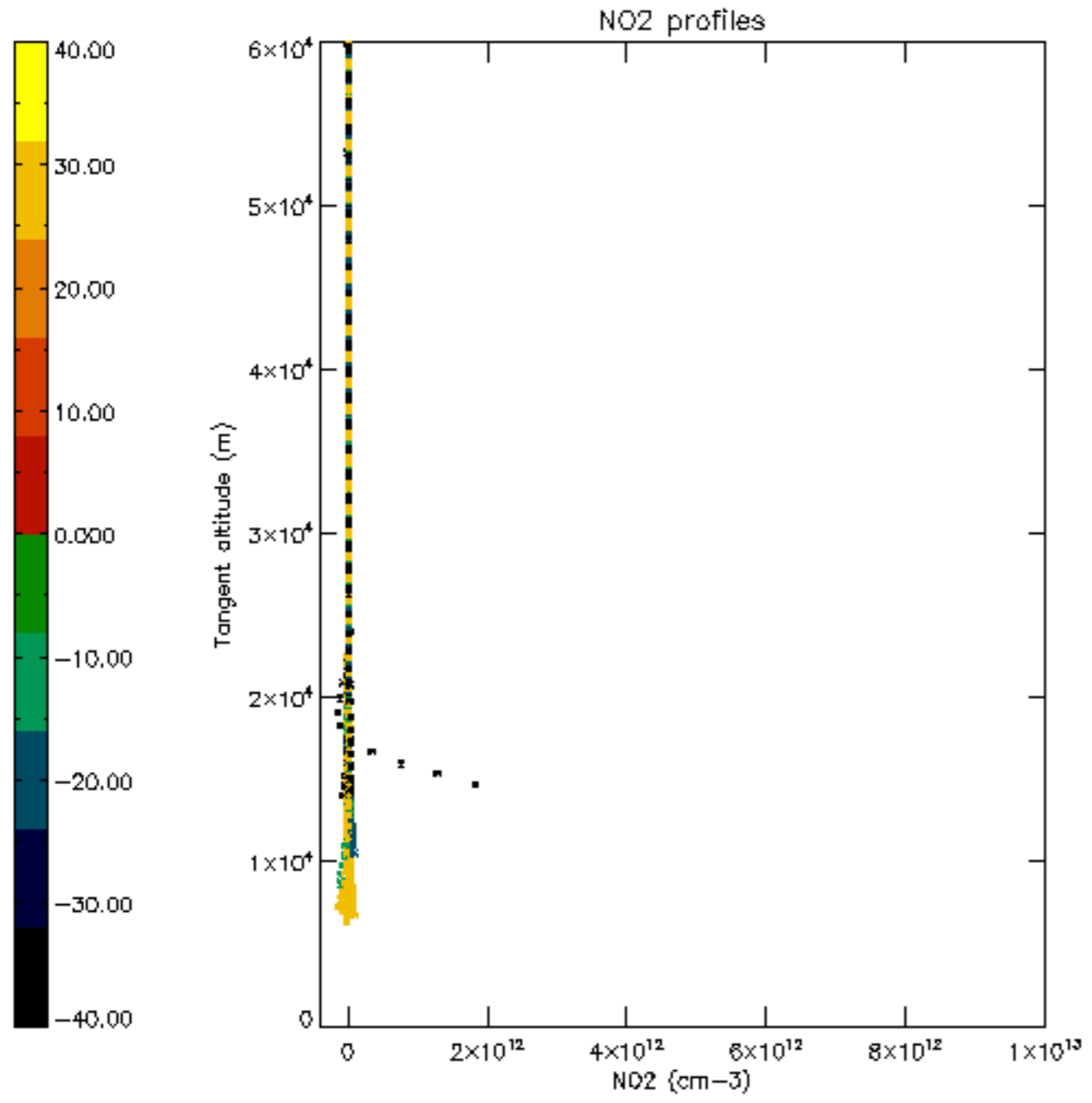


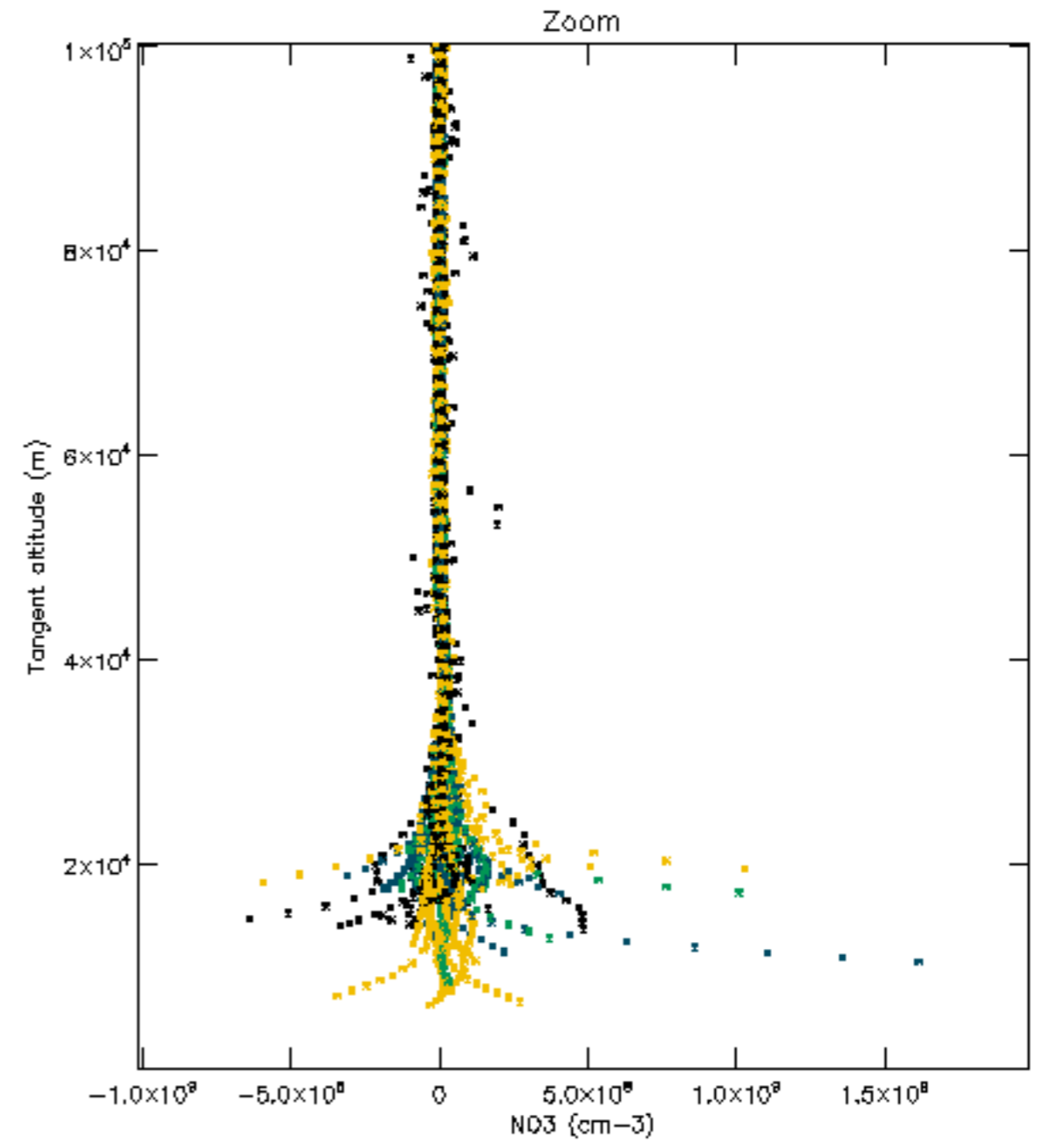
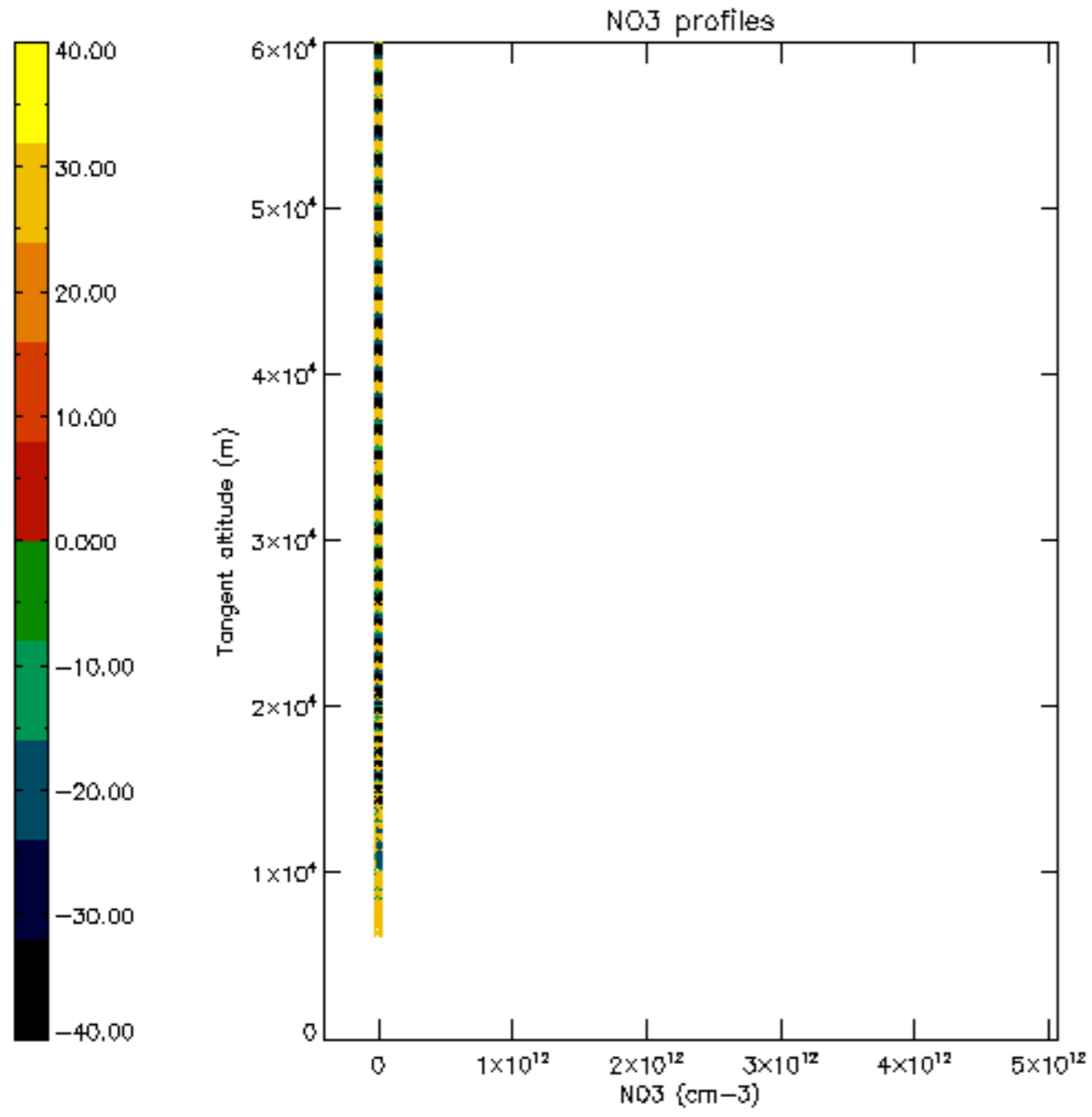


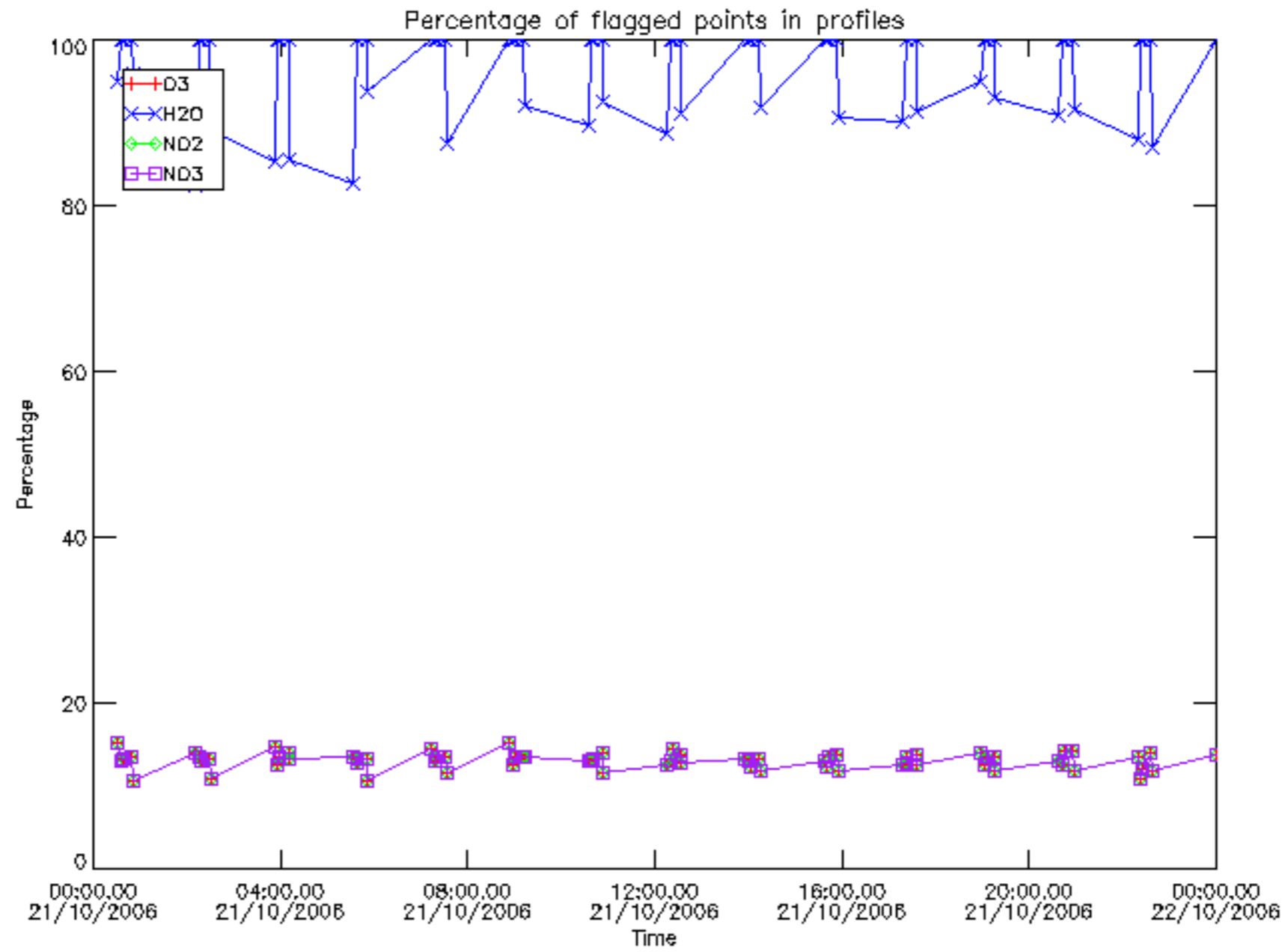




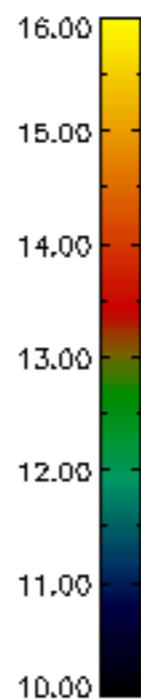
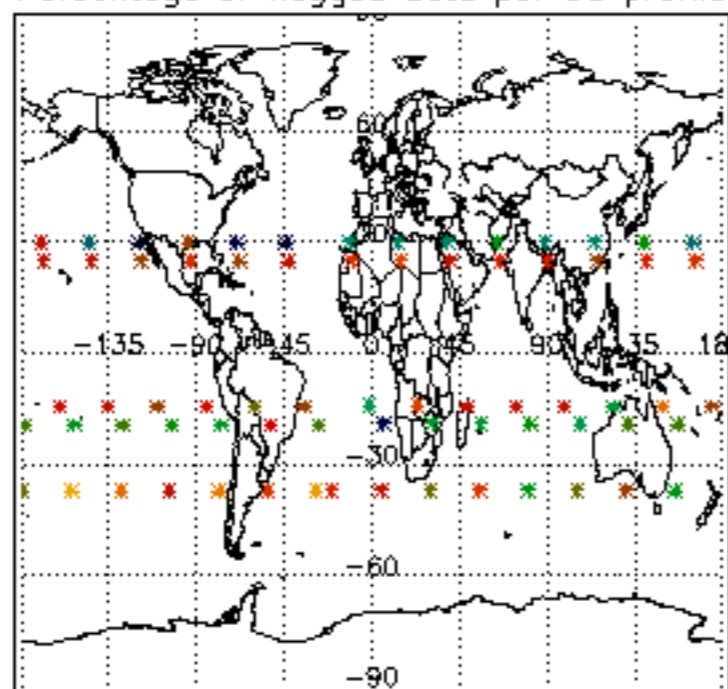




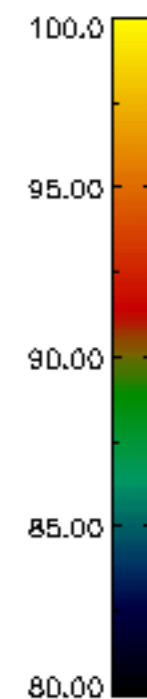
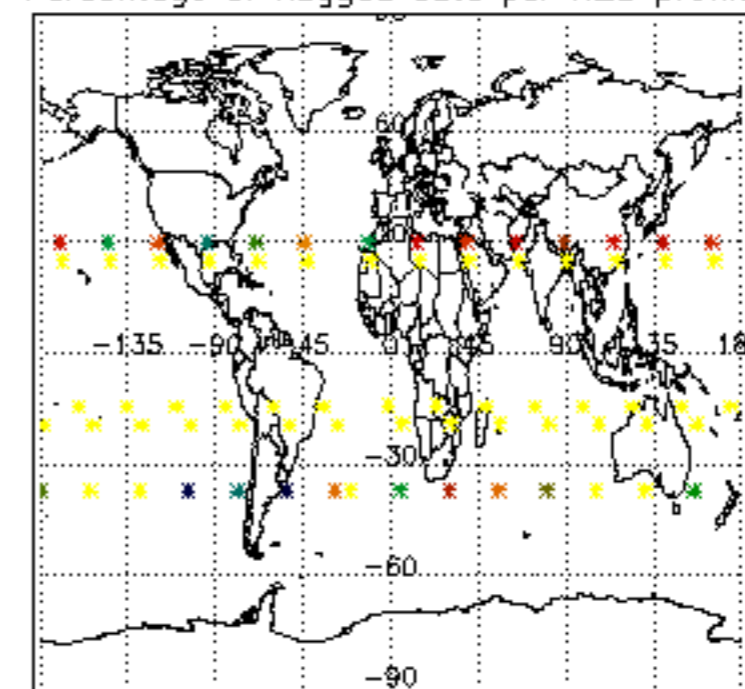




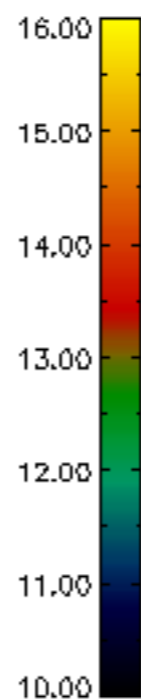
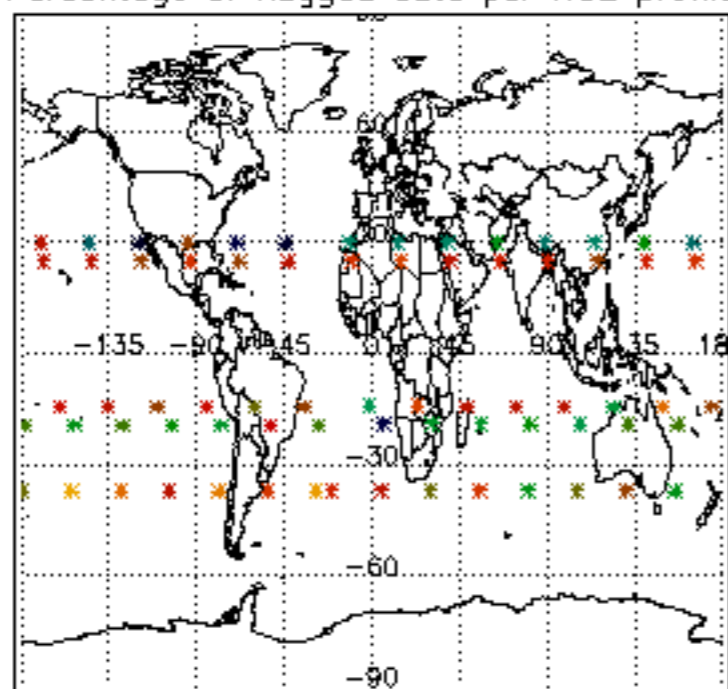
Percentage of flagged data per D3 profile



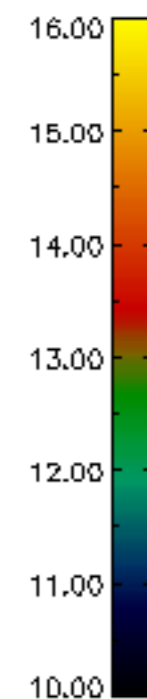
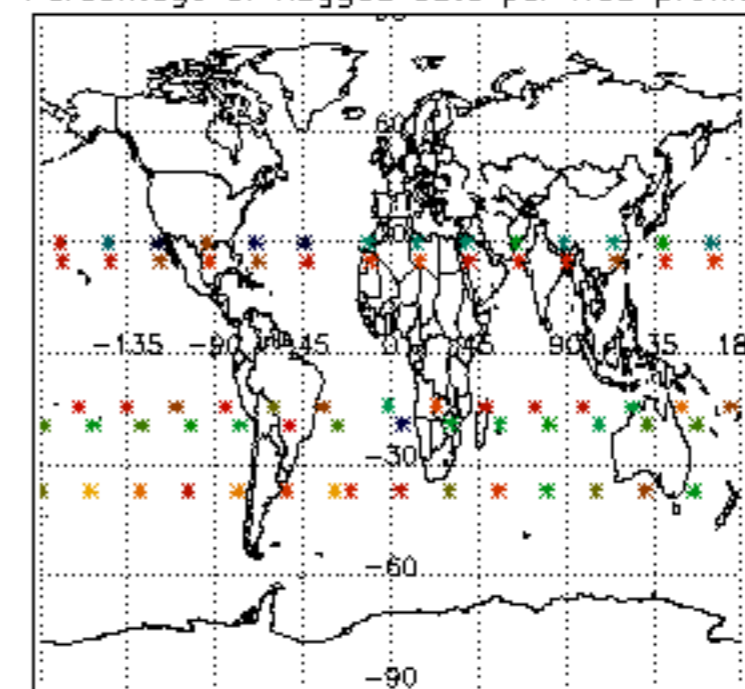
Percentage of flagged data per H2O profile

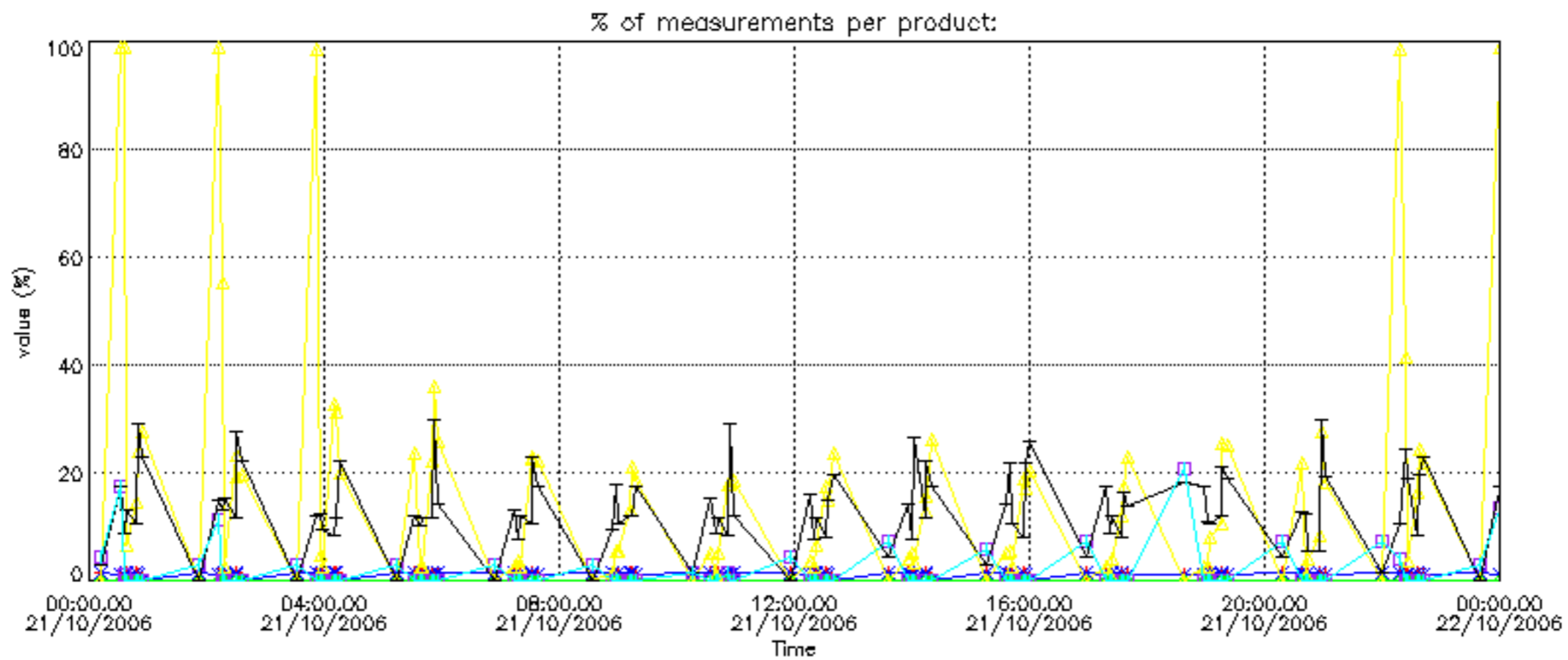


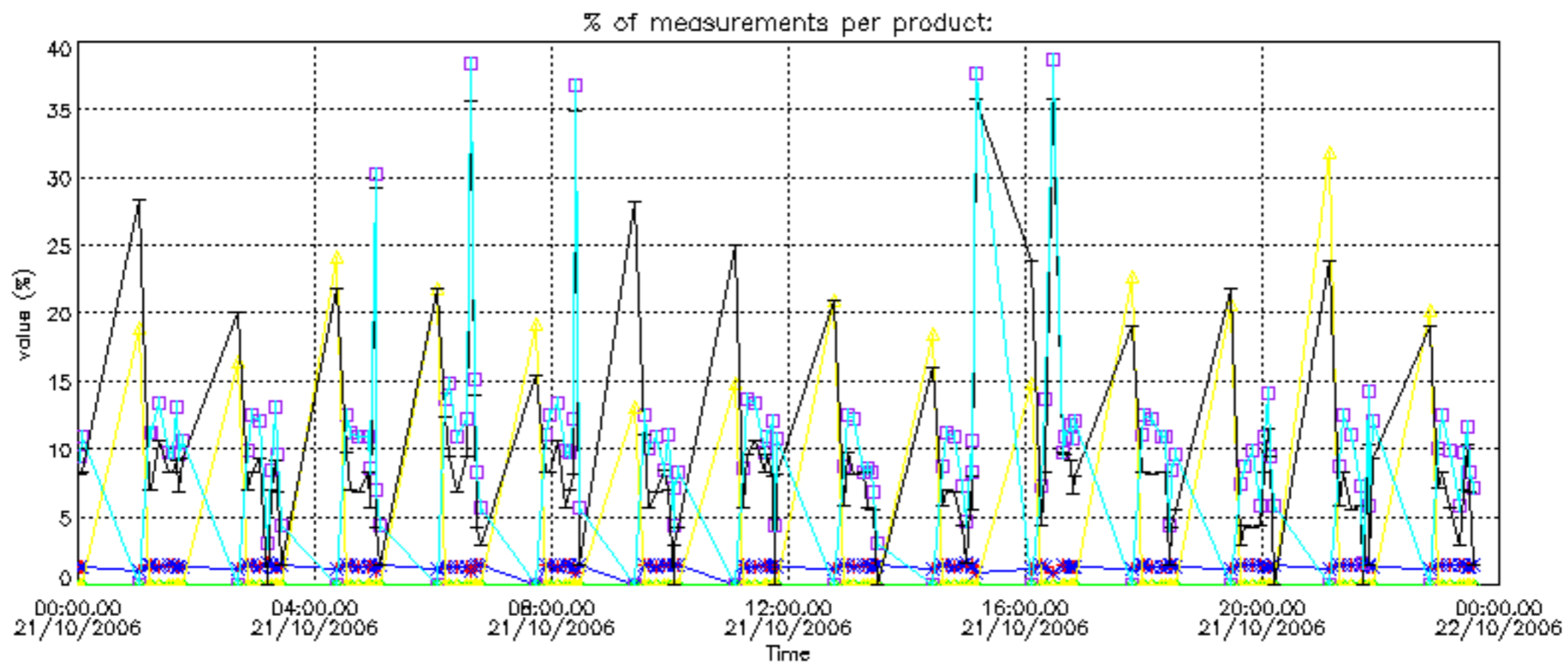
Percentage of flagged data per NO2 profile



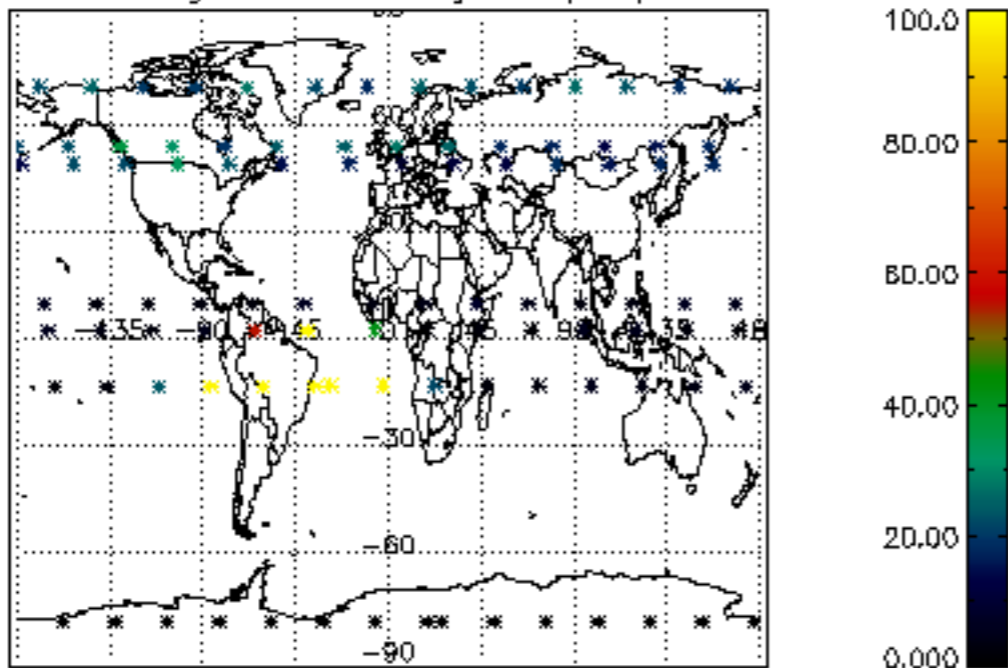
Percentage of flagged data per NO3 profile



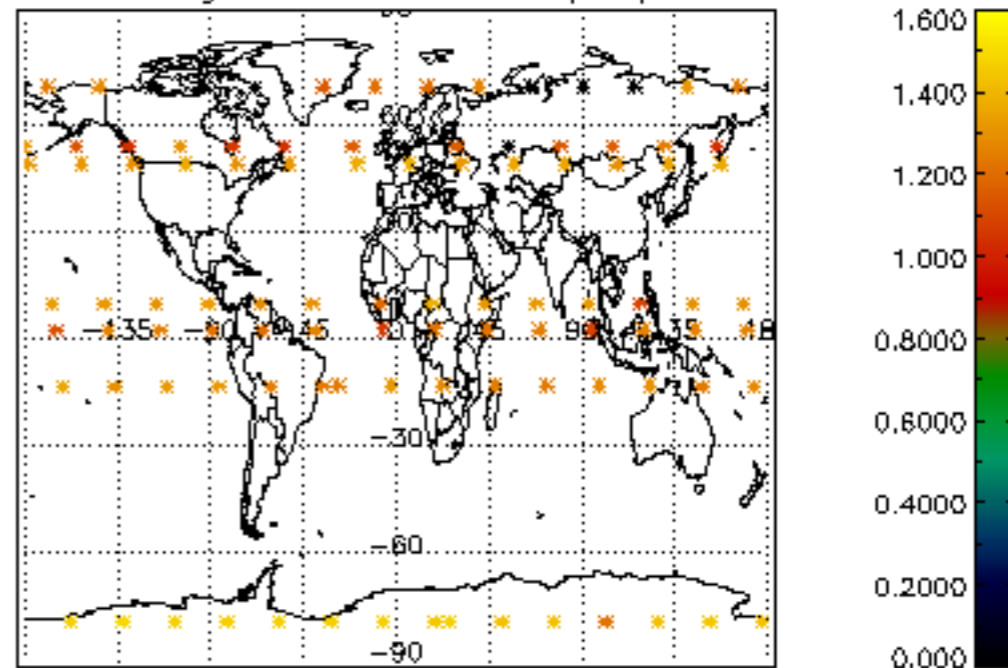




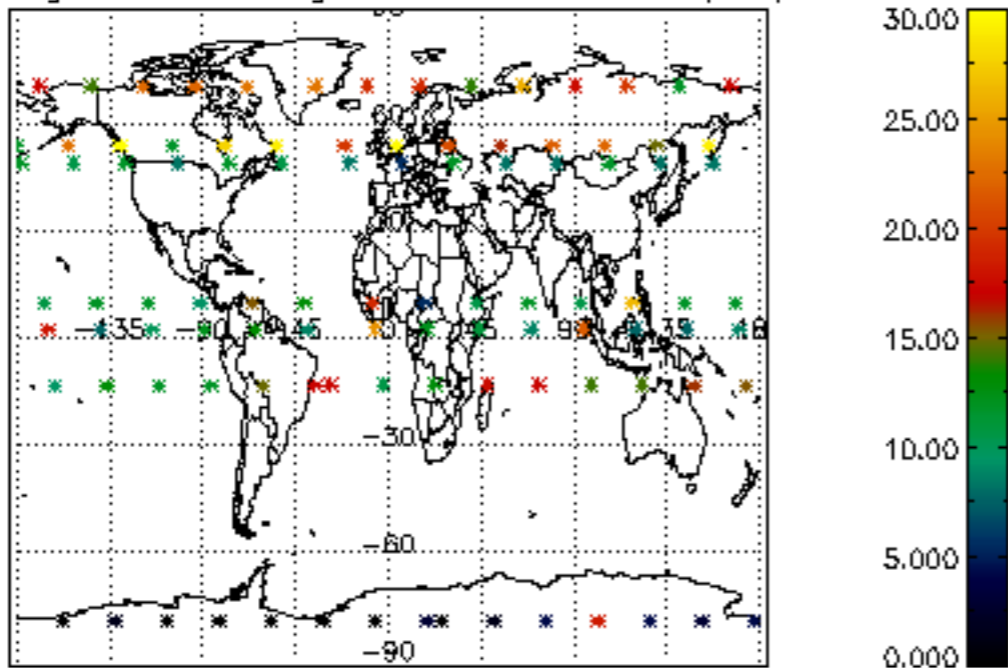
Percentage of cosmic ray hits per profile



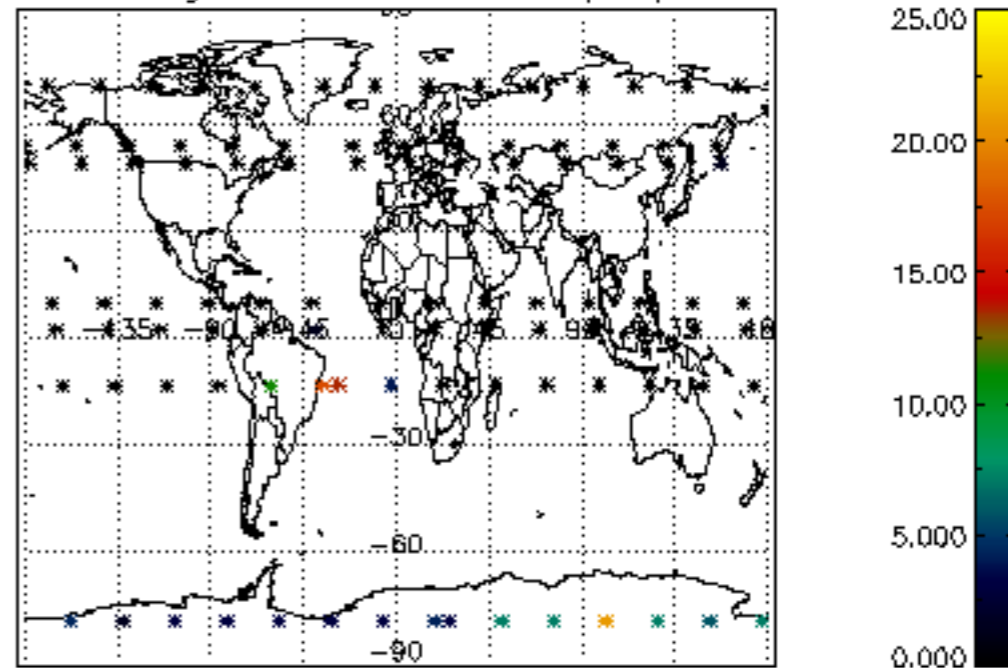
Percentage of datation errors per profile



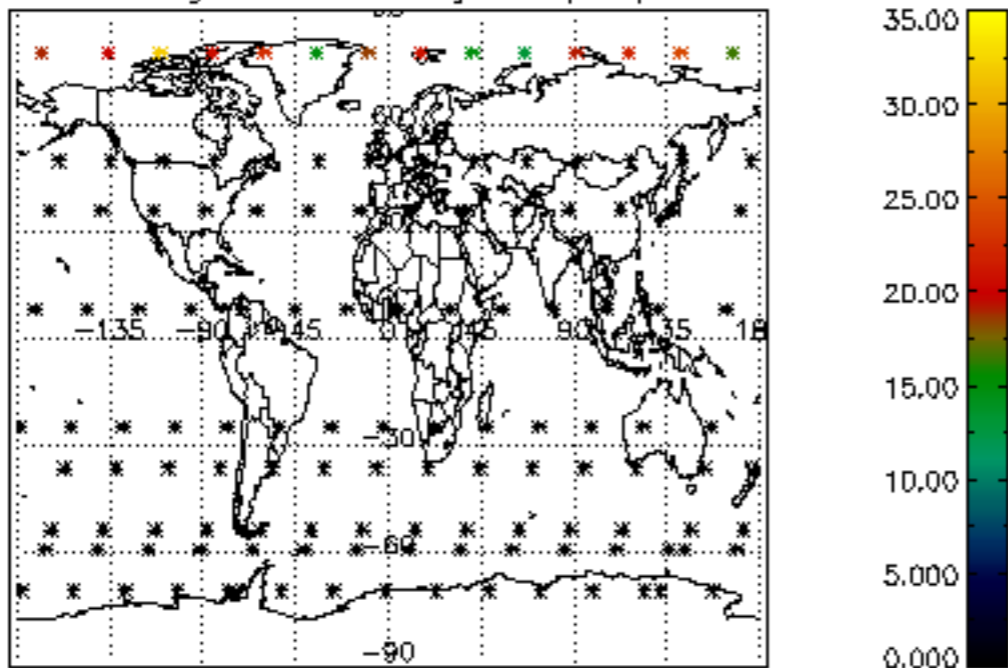
Percentage of star falling outside central band per profile



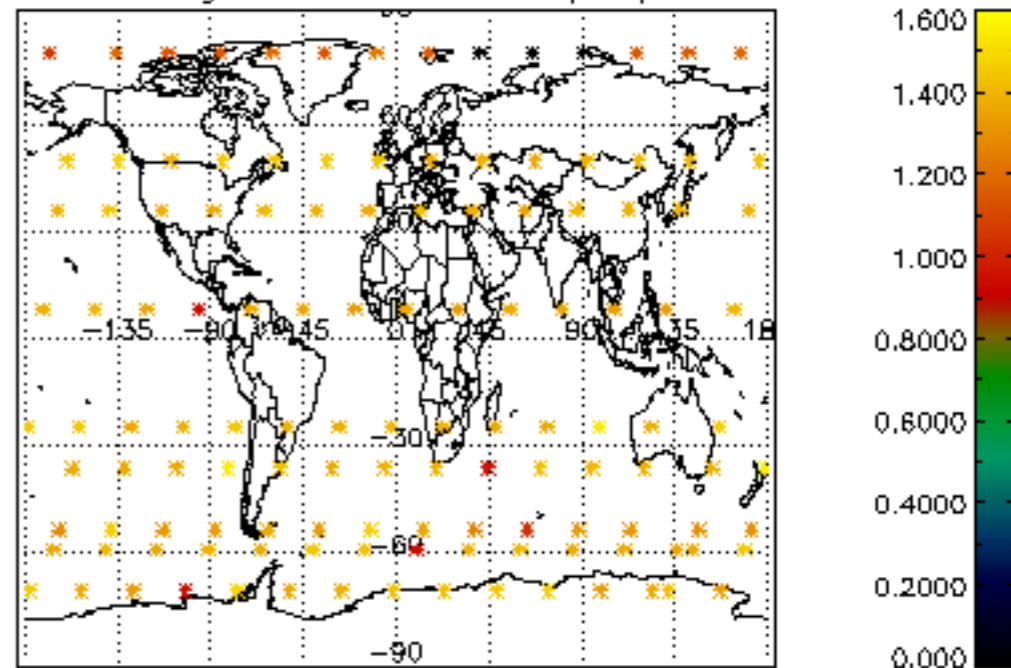
Percentage of saturation errors per profile



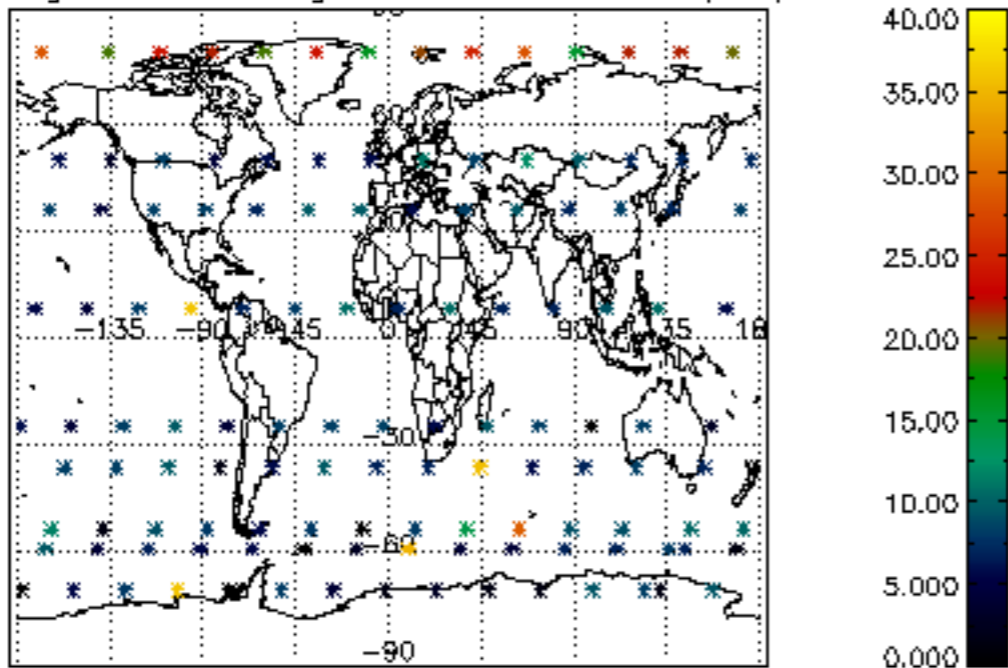
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

