

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	26APR2013 10:22:15
Data source version	GOMOS/6.01
Start time of products	24-06-2009 (24JUN2009 00:00:00)
Stop time of products	25-06-2009 (25JUN2009 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	50
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

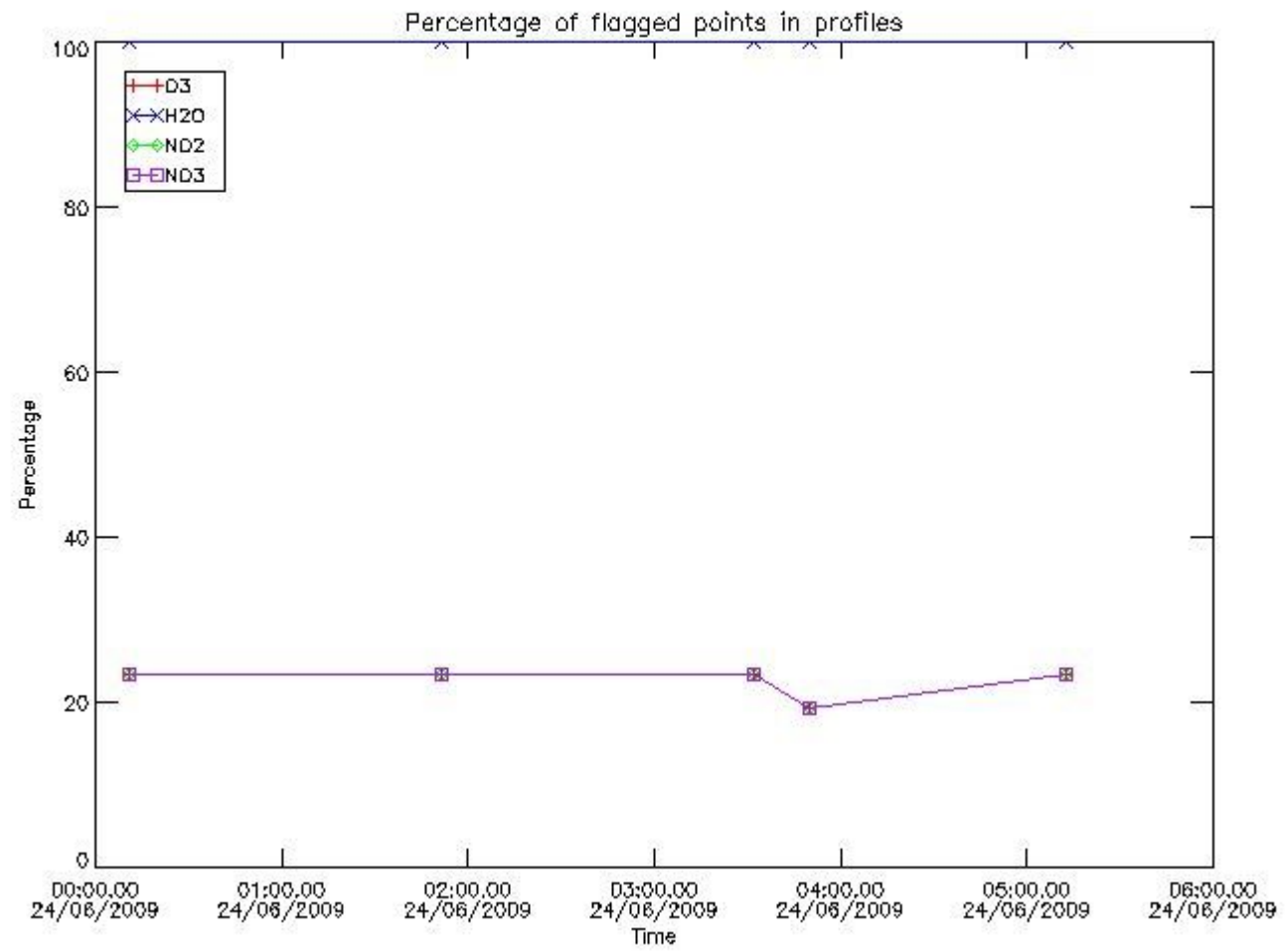
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20090624_001042_000000222080_00116_38246_5459.N1	24-JUN-2009 00:10:42	Dark	22.000	94	92Alp Cet	2.5260	3100.0	44	38246	No
2	GOM_NL__2PRFIN20090624_003600_000000292080_00117_38247_5462.N1	24-JUN-2009 00:36:00	Straylight	29.000	148	Alp Tuc	2.8780	4100.0	58	38247	No
3	GOM_NL__2PRFIN20090624_004031_000000282080_00117_38247_5463.N1	24-JUN-2009 00:40:31	Straylight	28.000	45	Alp Pav	1.9400	26000.	56	38247	No
4	GOM_NL__2PRFIN20090624_004621_000000232080_00117_38247_5464.N1	24-JUN-2009 00:46:21	Straylight	22.500	147	Alp Ara	2.8770	26000.	45	38247	No
5	GOM_NL__2PRFIN20090624_004806_000000252080_00117_38247_5465.N1	24-JUN-2009 00:48:06	Twilight	25.000	40	The Sco	1.8590	7100.0	50	38247	No
6	GOM_NL__2PRFIN20090624_004947_000000252080_00117_38247_5466.N1	24-JUN-2009 00:49:47	Twilight	25.000	25	35Lam Sco	1.6200	28000.	50	38247	No
7	GOM_NL__2PRFIN20090624_005108_000000282080_00117_38247_5467.N1	24-JUN-2009 00:51:08	Twilight	27.500	116	19Del Sgr	2.7000	4100.0	55	38247	No
8	GOM_NL__2PRFIN20090624_005606_000000252080_00117_38247_5468.N1	24-JUN-2009 00:56:06	Twilight	25.000	86	35Eta Oph	2.4300	10200.	50	38247	No
9	GOM_NL__2PRFIN20090624_010205_000000282080_00117_38247_5469.N1	24-JUN-2009 01:02:05	Twilight	28.000	126	60Bet Oph	2.7700	4250.0	56	38247	No
10	GOM_NL__2PRFIN20090624_010429_000000282080_00117_38247_5470.N1	24-JUN-2009 01:04:29	Bright	28.000	59	55Alp Oph	2.0800	8900.0	56	38247	No
11	GOM_NL__2PRFIN20090624_010944_000000272080_00117_38247_5471.N1	24-JUN-2009 01:09:44	Bright	26.500	133	40Zet Her	2.8070	6000.0	53	38247	No
12	GOM_NL__2PRFIN20090624_011607_000000282080_00117_38247_5472.N1	24-JUN-2009 01:16:07	Bright	27.500	130	23Bet Dra	2.7990	5800.0	55	38247	No
13	GOM_NL__2PRFIN20090624_011810_000000262080_00117_38247_5473.N1	24-JUN-2009 01:18:10	Bright	25.500	119	14Eta Dra	2.7270	4700.0	51	38247	No
14	GOM_NL__2PRFIN20090624_012623_000000242080_00117_38247_5474.N1	24-JUN-2009 01:26:23	Twilight	23.500	49	1Alp UMi	1.9900	6300.0	47	38247	No
15	GOM_NL__2PRFIN20090624_013643_000000212080_00117_38247_5475.N1	24-JUN-2009 01:36:43	Twilight	21.000	160	23Gam Per	2.9300	4700.0	42	38247	No
16	GOM_NL__2PRFIN20090624_014026_000000212080_00117_38247_5476.N1	24-JUN-2009 01:40:26	Twilight	21.000	79	26Bet Per	2.3100	13100.	42	38247	No
17	GOM_NL__2PRFIN20090624_015118_000000222080_00117_38247_5477.N1	24-JUN-2009 01:51:18	Dark	21.500	94	92Alp Cet	2.5260	3100.0	43	38247	No
18	GOM_NL__2PRFIN20090624_021637_000000292080_00118_38248_5476.N1	24-JUN-2009 02:16:37	Straylight	28.500	148	Alp Tuc	2.8780	4100.0	57	38248	No
19	GOM_NL__2PRFIN20090624_022108_000000292080_00118_38248_5477.N1	24-JUN-2009 02:21:08	Straylight	28.500	45	Alp Pav	1.9400	26000.	57	38248	No
20	GOM_NL__2PRFIN20090624_023023_000000252080_00118_38248_5478.N1	24-JUN-2009 02:30:23	Twilight	25.000	25	35Lam Sco	1.6200	28000.	50	38248	No
21	GOM_NL__2PRFIN20090624_023144_000000282080_00118_38248_5479.N1	24-JUN-2009 02:31:44	Twilight	27.500	116	19Del Sgr	2.7000	4100.0	55	38248	No
22	GOM_NL__2PRFIN20090624_023642_000000252080_00118_38248_5480.N1	24-JUN-2009 02:36:42	Twilight	25.000	86	35Eta Oph	2.4300	10200.	50	38248	No
23	GOM_NL__2PRFIN20090624_024505_000000282080_00118_38248_5481.N1	24-JUN-2009 02:45:05	Bright	28.000	59	55Alp Oph	2.0800	8900.0	56	38248	No
24	GOM_NL__2PRFIN20090624_025020_000000262080_00118_38248_5482.N1	24-JUN-2009 02:50:20	Bright	26.000	133	40Zet Her	2.8070	6000.0	52	38248	No
25	GOM_NL__2PRFIN20090624_025643_000000282080_00118_38248_5483.N1	24-JUN-2009 02:56:43	Bright	27.500	130	23Bet Dra	2.7990	5800.0	55	38248	No
26	GOM_NL__2PRFIN20090624_025845_000000262080_00118_38248_5484.N1	24-JUN-2009 02:58:45	Twilight	25.500	119	14Eta Dra	2.7270	4700.0	51	38248	No
27	GOM_NL__2PRFIN20090624_030659_000000232080_00118_38248_5485.N1	24-JUN-2009 03:06:59	Twilight	23.000	49	1Alp UMi	1.9900	6300.0	46	38248	No
28	GOM_NL__2PRFIN20090624_031719_000000212080_00118_38248_5486.N1	24-JUN-2009 03:17:19	Twilight	21.000	160	23Gam Per	2.9300	4700.0	42	38248	No
29	GOM_NL__2PRFIN20090624_032102_000000212080_00118_38248_5487.N1	24-JUN-2009 03:21:02	Twilight	21.000	79	26Bet Per	2.3100	13100.	42	38248	No
30	GOM_NL__2PRFIN20090624_033154_000000222080_00118_38248_5488.N1	24-JUN-2009 03:31:54	Dark	22.000	94	92Alp Cet	2.5260	3100.0	44	38248	No
31	GOM_NL__2PRFIN20090624_035000_000000272080_00118_38248_5489.N1	24-JUN-2009 03:50:00	Dark	26.500	9	Alp Eri	0.45300	24000.	53	38248	No
32	GOM_NL__2PRFIN20090624_035714_000000292080_00119_38249_5490.N1	24-JUN-2009 03:57:14	Straylight	28.500	148	Alp Tuc	2.8780	4100.0	57	38249	No
33	GOM_NL__2PRFIN20090624_040144_000000292080_00119_38249_5491.N1	24-JUN-2009 04:01:44	Straylight	28.500	45	Alp Pav	1.9400	26000.	57	38249	No
34	GOM_NL__2PRFIN20090624_041059_000000252080_00119_38249_5492.N1	24-JUN-2009 04:10:59	Twilight	25.000	25	35Lam Sco	1.6200	28000.	50	38249	No
35	GOM_NL__2PRFIN20090624_041220_000000282080_00119_38249_5493.N1	24-JUN-2009 04:12:20	Twilight	27.500	116	19Del Sgr	2.7000	4100.0	55	38249	No
36	GOM_NL__2PRFIN20090624_041718_000000252080_00119_38249_5494.N1	24-JUN-2009 04:17:18	Twilight	25.000	86	35Eta Oph	2.4300	10200.	50	38249	No
37	GOM_NL__2PRFIN20090624_042317_000000282080_00119_38249_5495.N1	24-JUN-2009 04:23:17	Twilight	28.000	126	60Bet Oph	2.7700	4250.0	56	38249	No
38	GOM_NL__2PRFIN20090624_042541_000000282080_00119_38249_5496.N1	24-JUN-2009 04:25:41	Bright	28.000	59	55Alp Oph	2.0800	8900.0	56	38249	No
39	GOM_NL__2PRFIN20090624_043056_000000262080_00119_38249_5497.N1	24-JUN-2009 04:30:56	Bright	26.000	133	40Zet Her	2.8070	6000.0	52	38249	No
40	GOM_NL__2PRFIN20090624_043719_000000282080_00119_38249_5498.N1	24-JUN-2009 04:37:19	Bright	27.500	130	23Bet Dra	2.7990	5800.0	55	38249	No
41	GOM_NL__2PRFIN20090624_043921_000000262080_00119_38249_5499.N1	24-JUN-2009 04:39:21	Twilight	25.500	119	14Eta Dra	2.7270	4700.0	51	38249	No
42	GOM_NL__2PRFIN20090624_044736_000000232080_00119_38249_5500.N1	24-JUN-2009 04:47:36	Twilight	22.500	49	1Alp UMi	1.9900	6300.0	45	38249	No

43	GOM_NL__2PRFIN20090624_045754_000000212080_00119_38249_5501.N1	24-JUN-2009 04:57:54	Twilight_stray	21.000	160	23Gam Per	2.9300	4700.0	42	38249	No
44	GOM_NL__2PRFIN20090624_050138_000000212080_00119_38249_5502.N1	24-JUN-2009 05:01:38	Twilight_stray	21.000	79	26Bet Per	2.3100	13100.	42	38249	No
45	GOM_NL__2PRFIN20090624_051231_000000222080_00119_38249_5503.N1	24-JUN-2009 05:12:31	Dark	22.000	94	92Alp Cet	2.5260	3100.0	44	38249	No
46	GOM_NL__2PRFIN20090624_053750_000000292080_00120_38250_5504.N1	24-JUN-2009 05:37:50	Straylight	29.000	148	Alp Tuc	2.8780	4100.0	58	38250	No
47	GOM_NL__2PRFIN20090624_054221_000000292080_00120_38250_5505.N1	24-JUN-2009 05:42:21	Straylight	28.500	45	Alp Pav	1.9400	26000.	57	38250	No
48	GOM_NL__2PRFIN20090624_055136_000000252080_00120_38250_5506.N1	24-JUN-2009 05:51:36	Twilight_stray	24.500	25	35Lam Sco	1.6200	28000.	49	38250	No
49	GOM_NL__2PRFIN20090624_055257_000000282080_00120_38250_5507.N1	24-JUN-2009 05:52:57	Twilight_stray	27.500	116	19Del Sgr	2.7000	4100.0	55	38250	No
50	GOM_NL__2PRFIN20090624_055755_000000242080_00120_38250_5508.N1	24-JUN-2009 05:57:55	Twilight_stray	24.000	86	35Eta Oph	2.4300	10200.	48	38250	No

3. Quality information per product

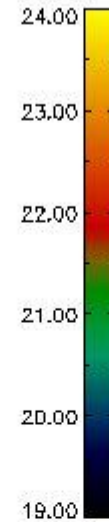
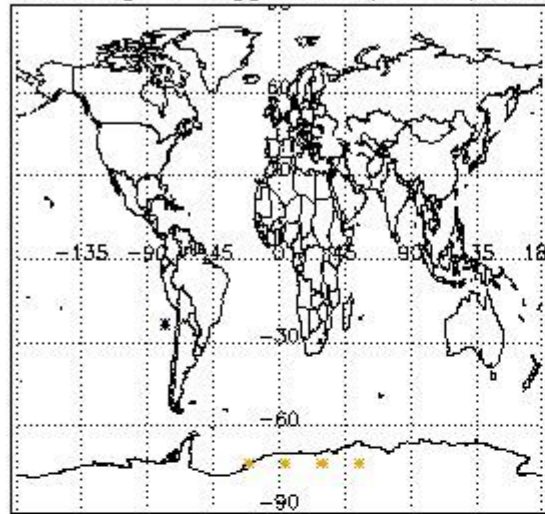
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

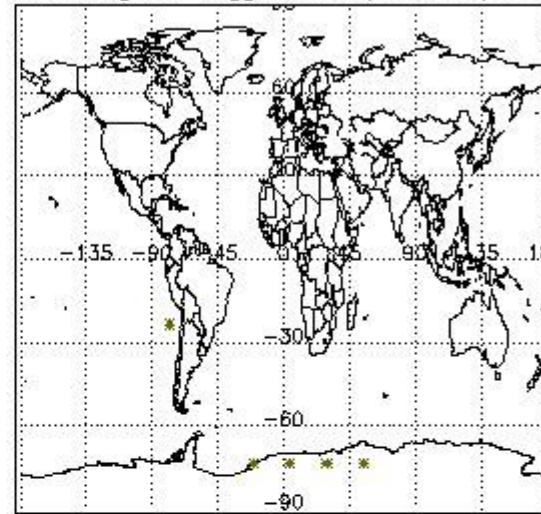


3.2 Plot quality information per product (world map)

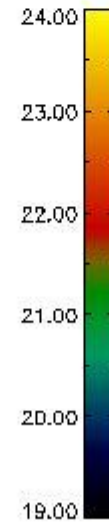
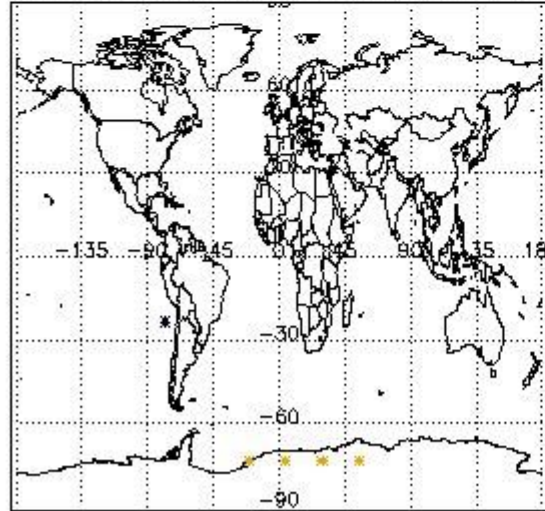
Percentage of flagged data per O3 profile



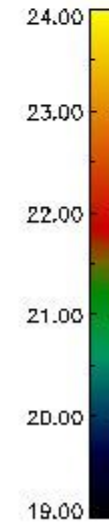
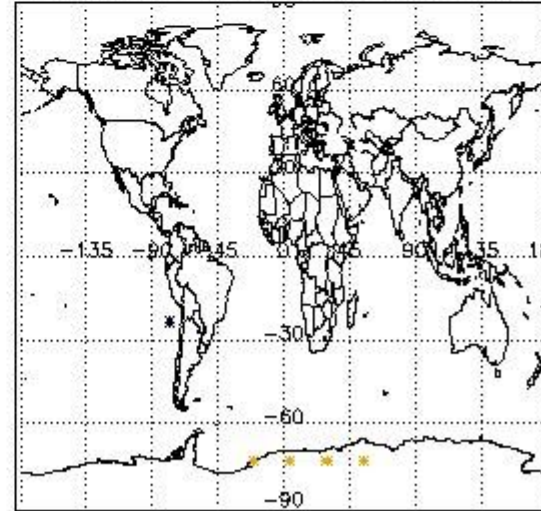
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

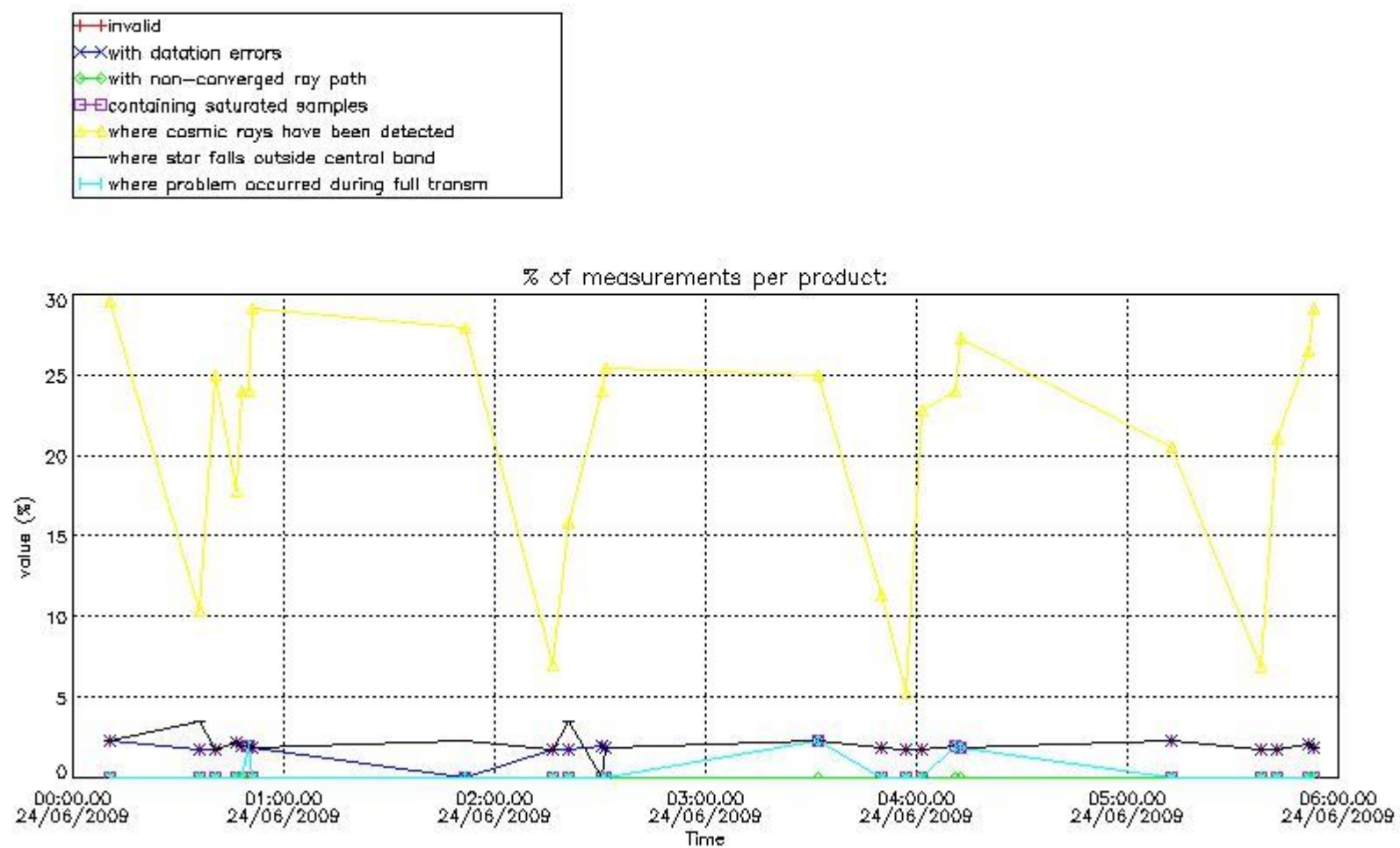


4. Level 1 quality information per product

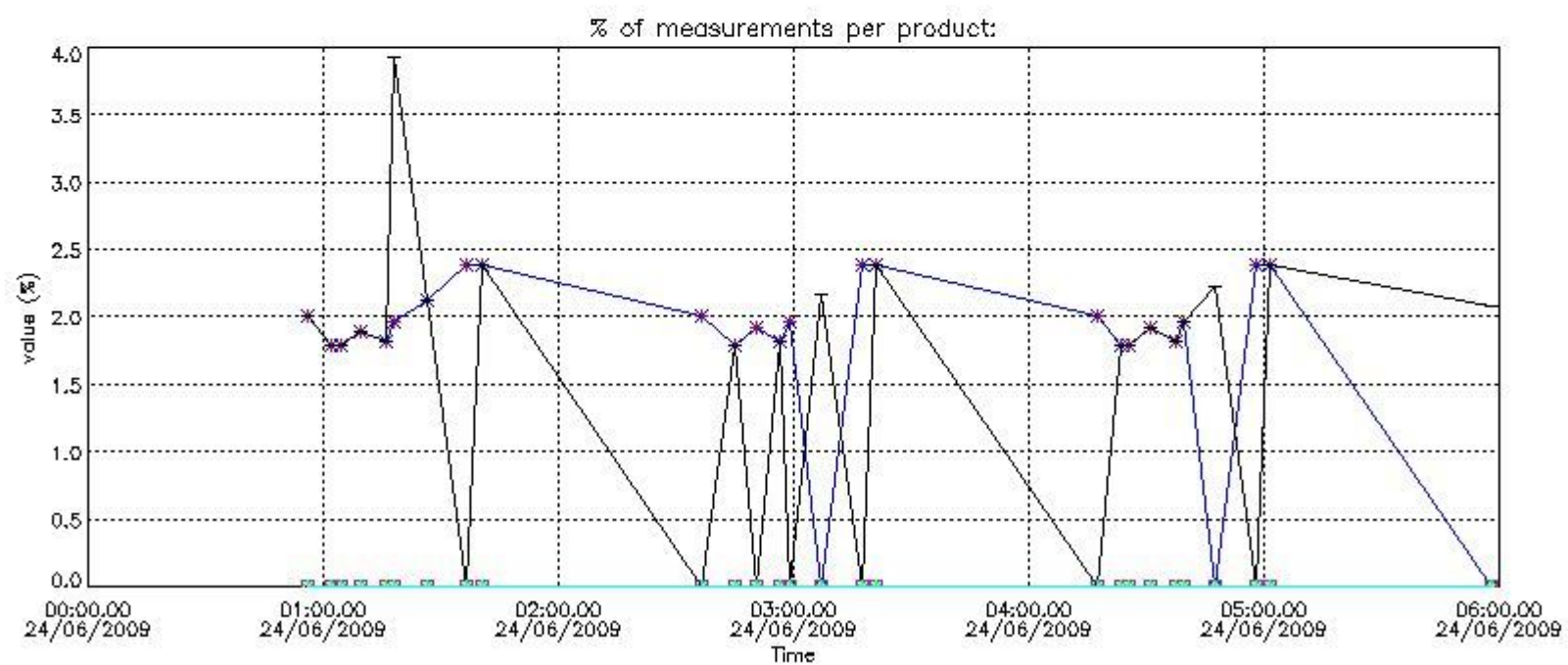
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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

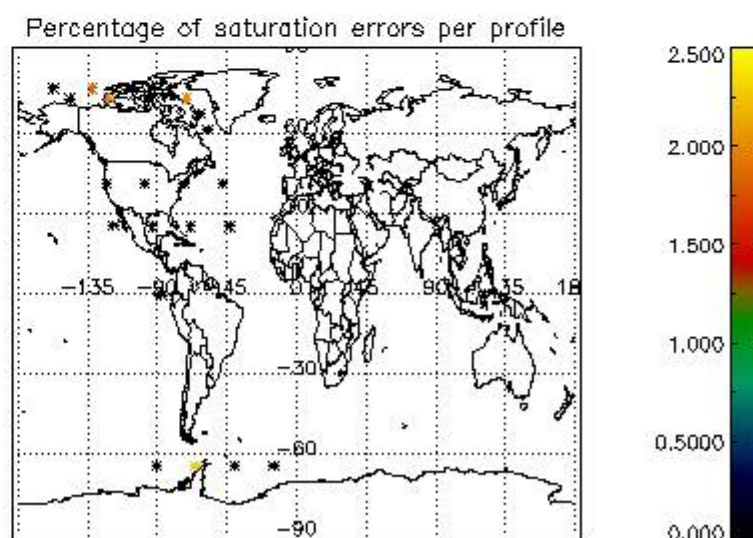
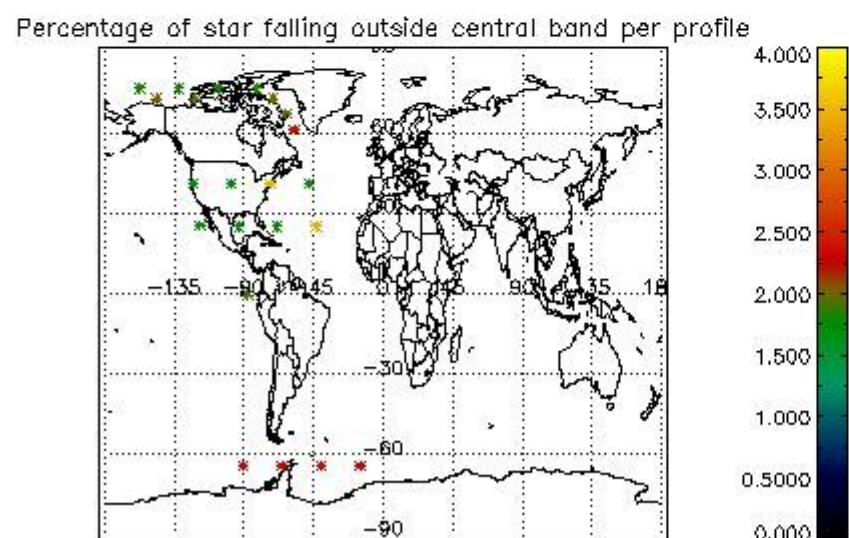
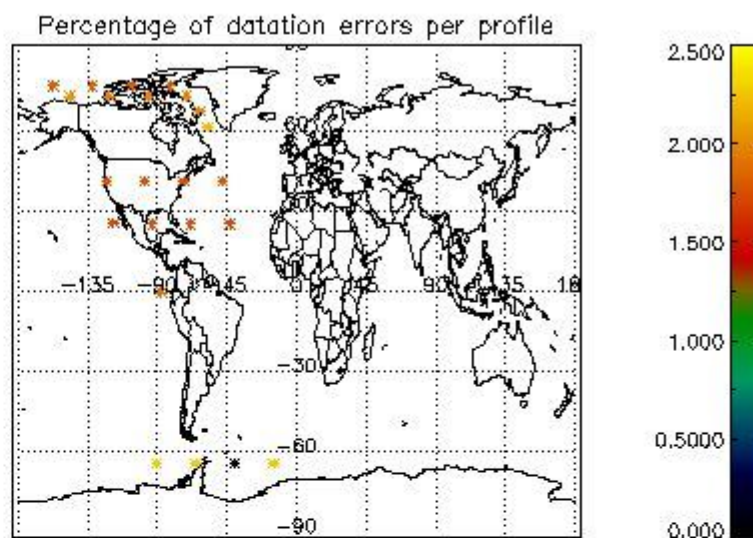
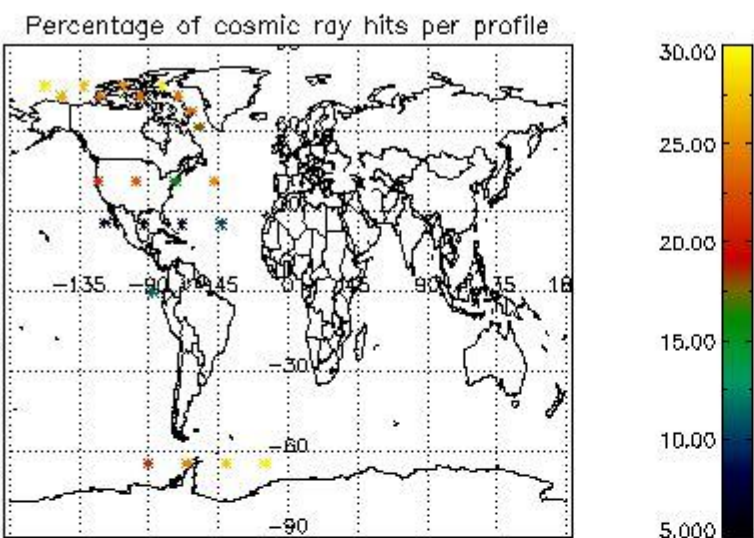


4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes

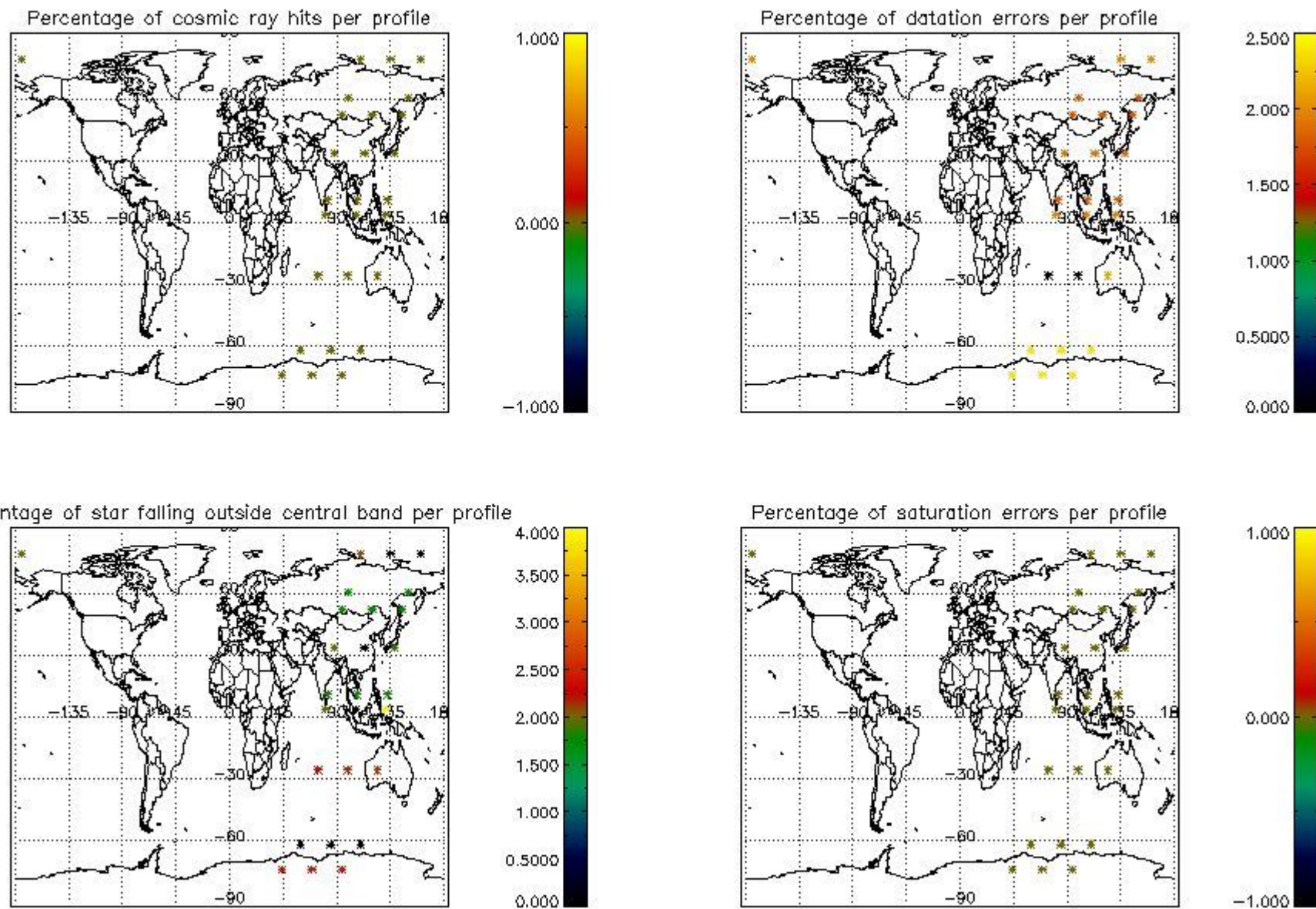


4.2 Plot quality information per product coming from level 1b processing (world map)

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



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

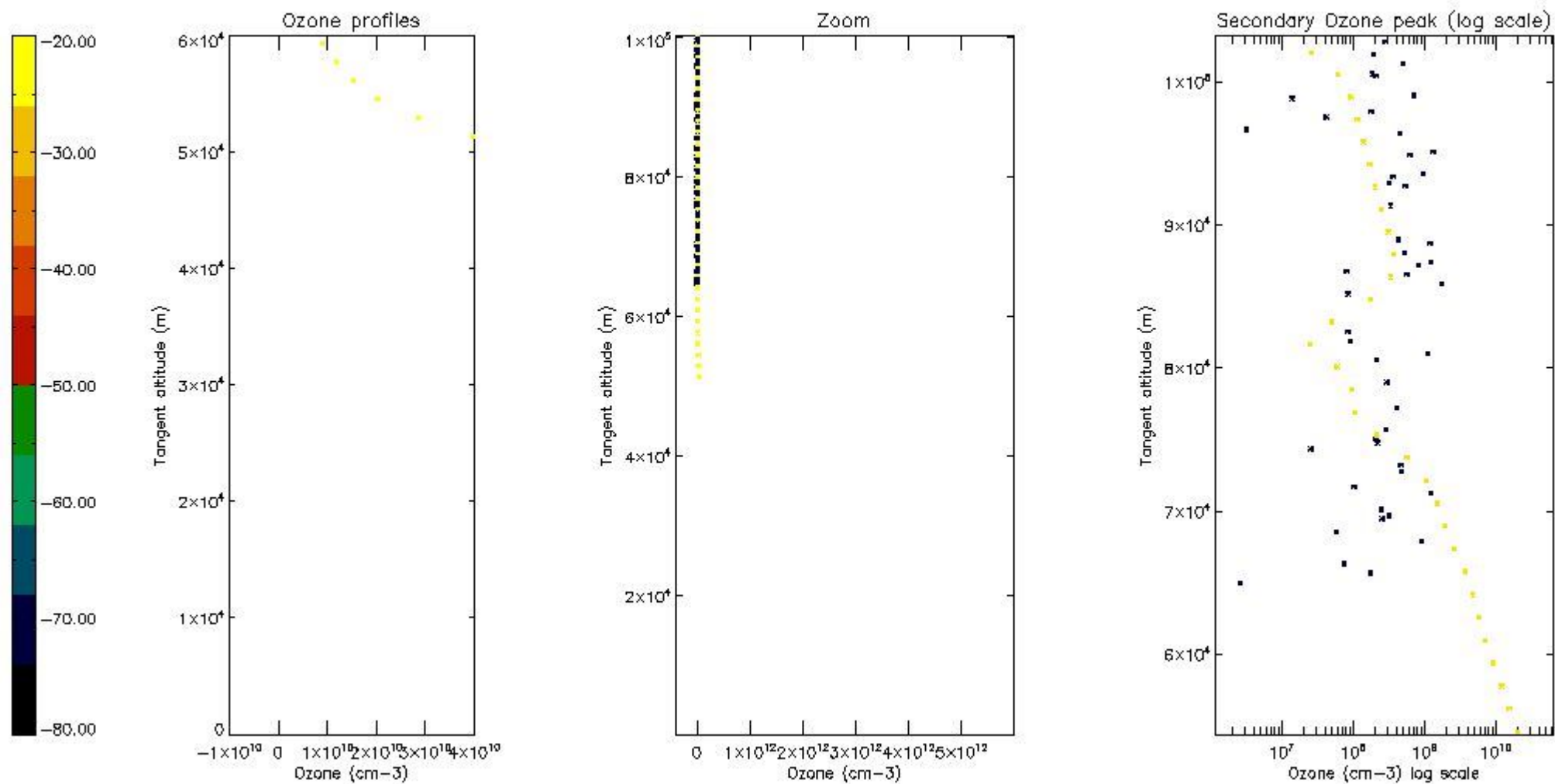
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	9
STD < 20	1

STD < 10	1
STD < 5	1

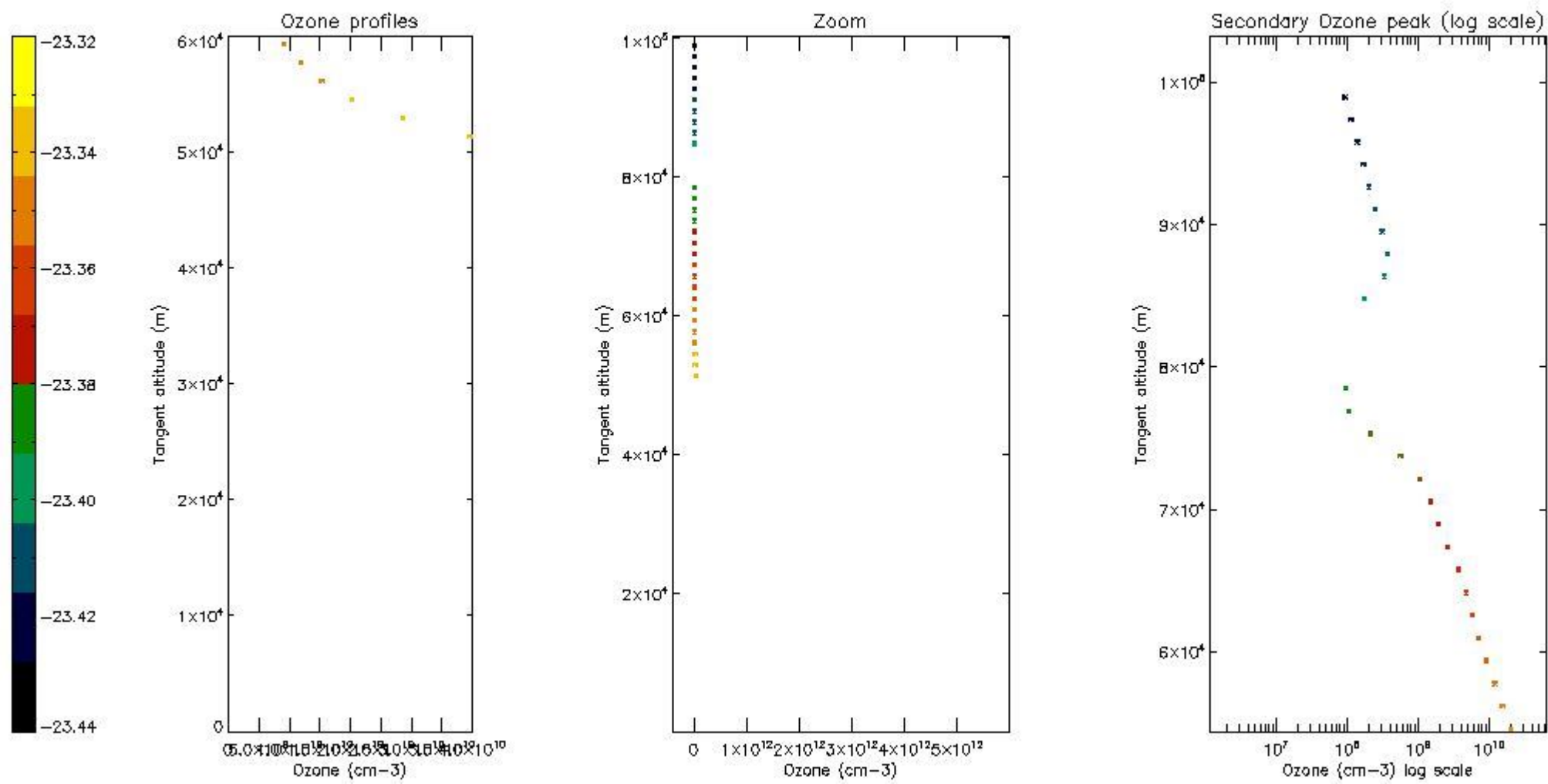
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



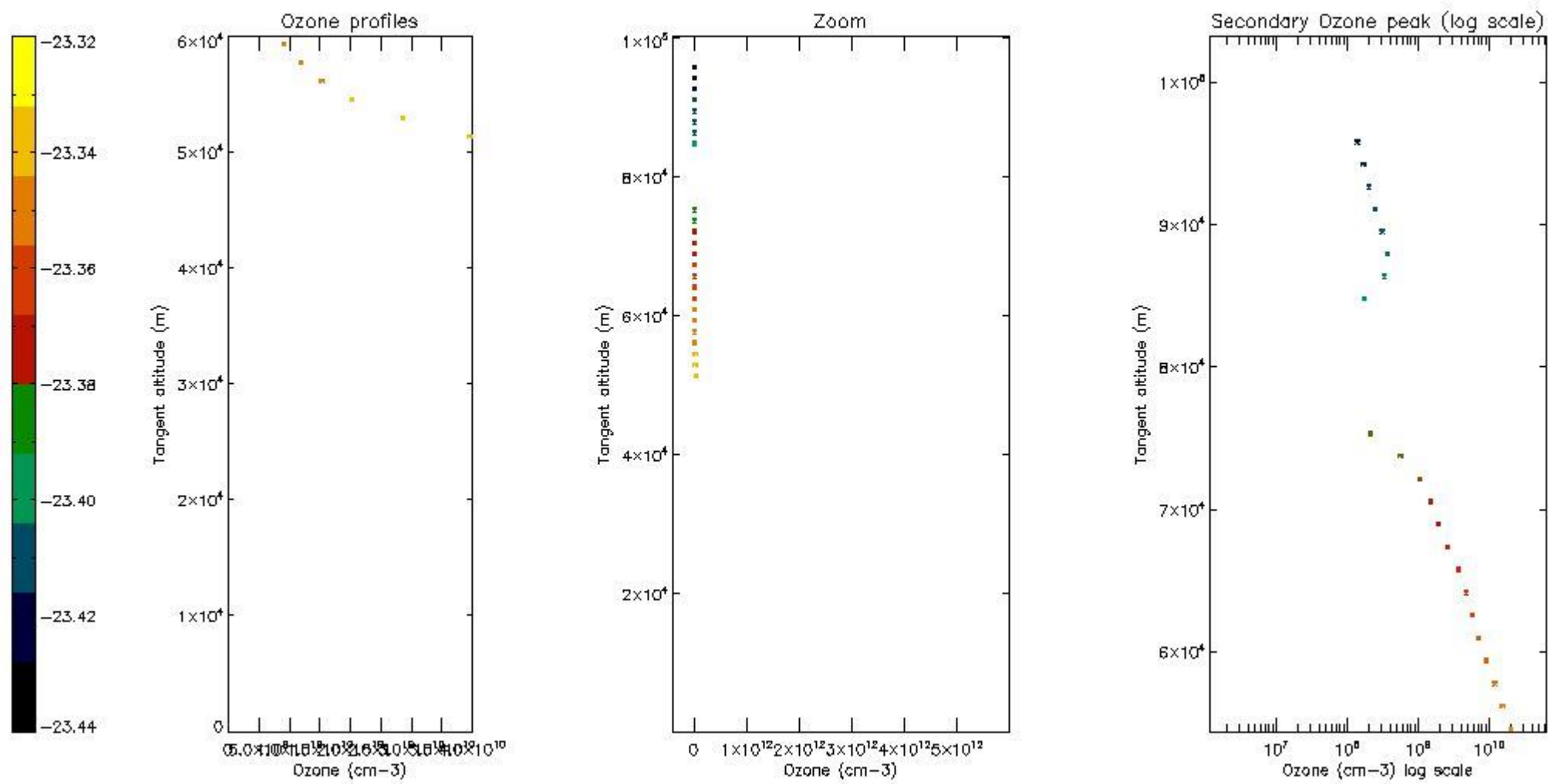
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



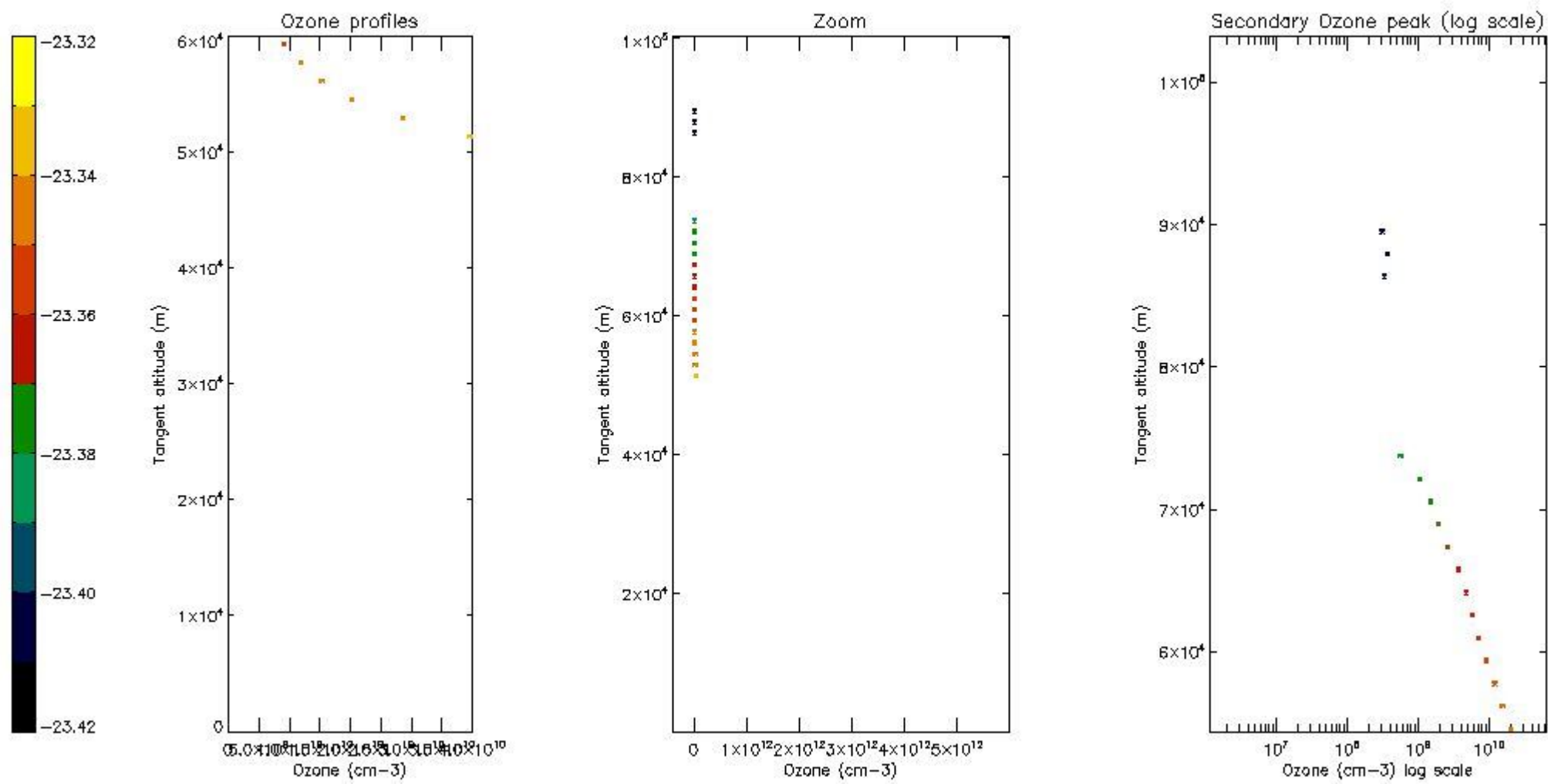
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



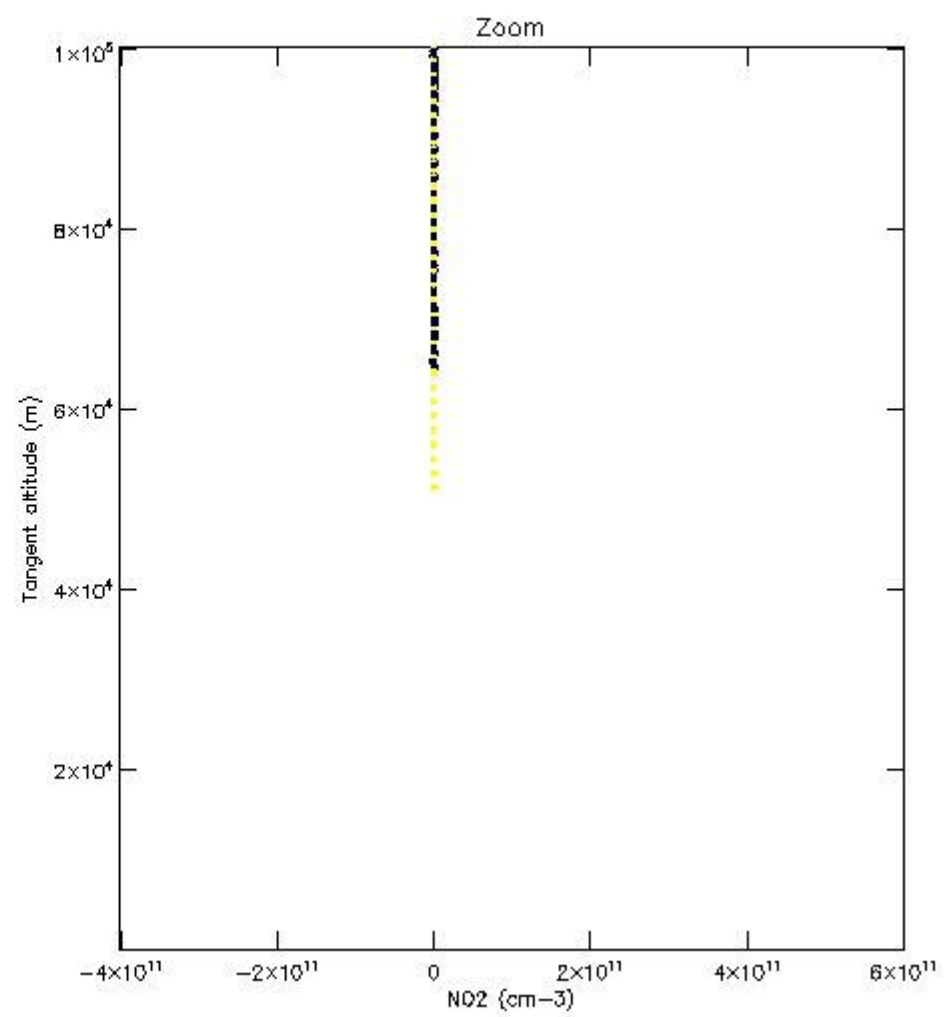
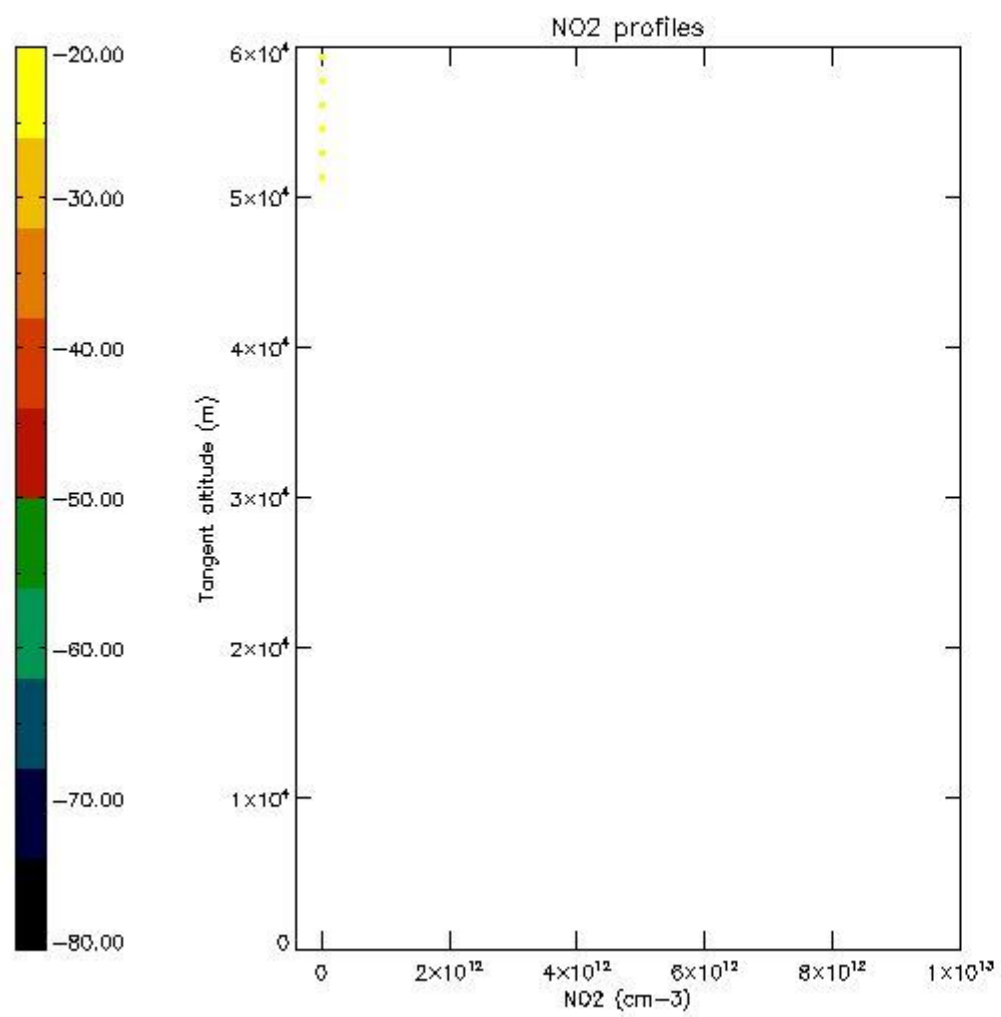
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



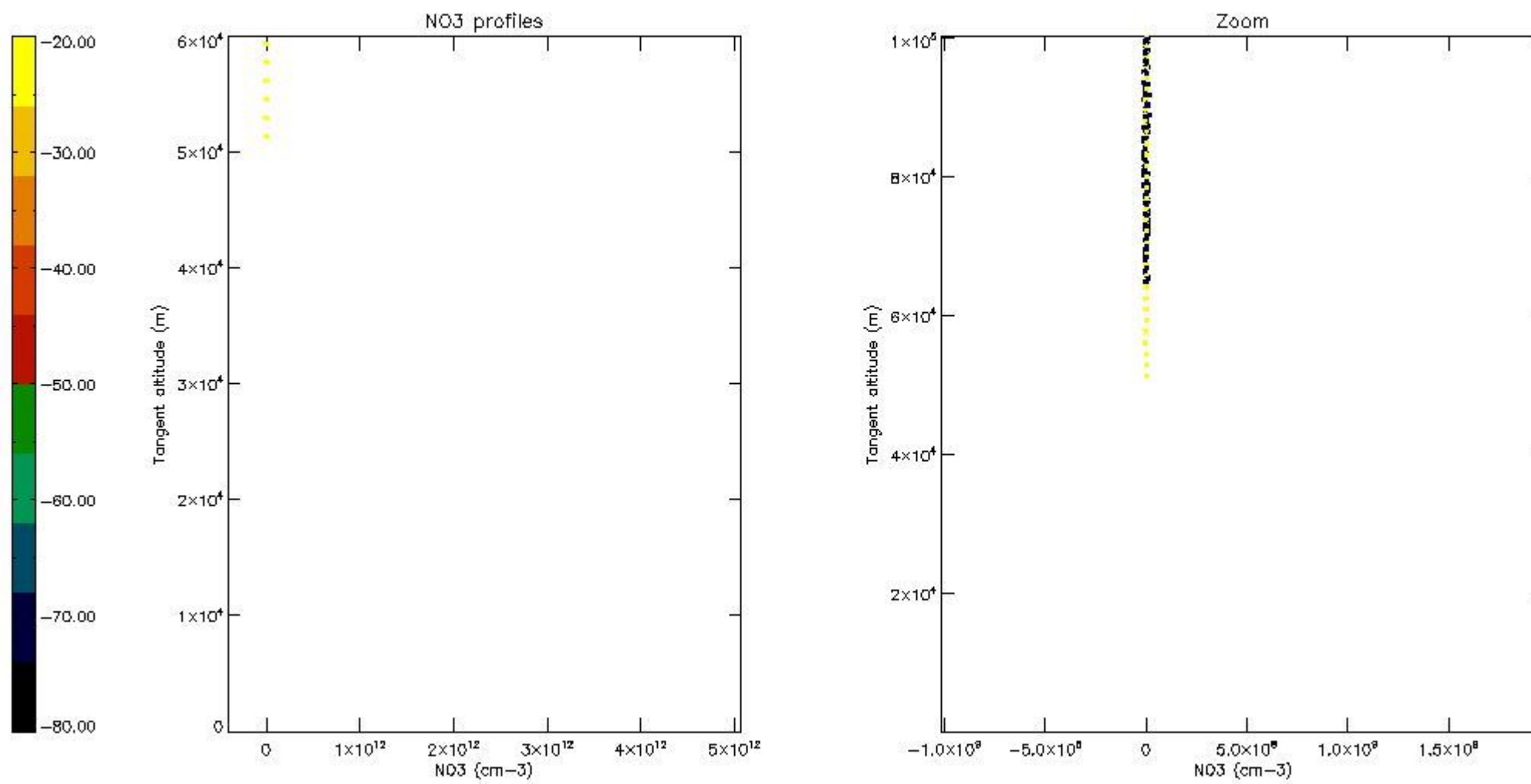
5.6 Plot NO₂ profiles for all STD (dark without errors)

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	24-JUN-2009 00:10:42
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	24-JUN-2009 00:10:42
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	24-JUN-2009 00:10:42

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

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[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](#)

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 It is intended to monitor some important parameters that will impact the quality of these products.
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Stop time of products	25-06-2009 (25JUN2009 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	50
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

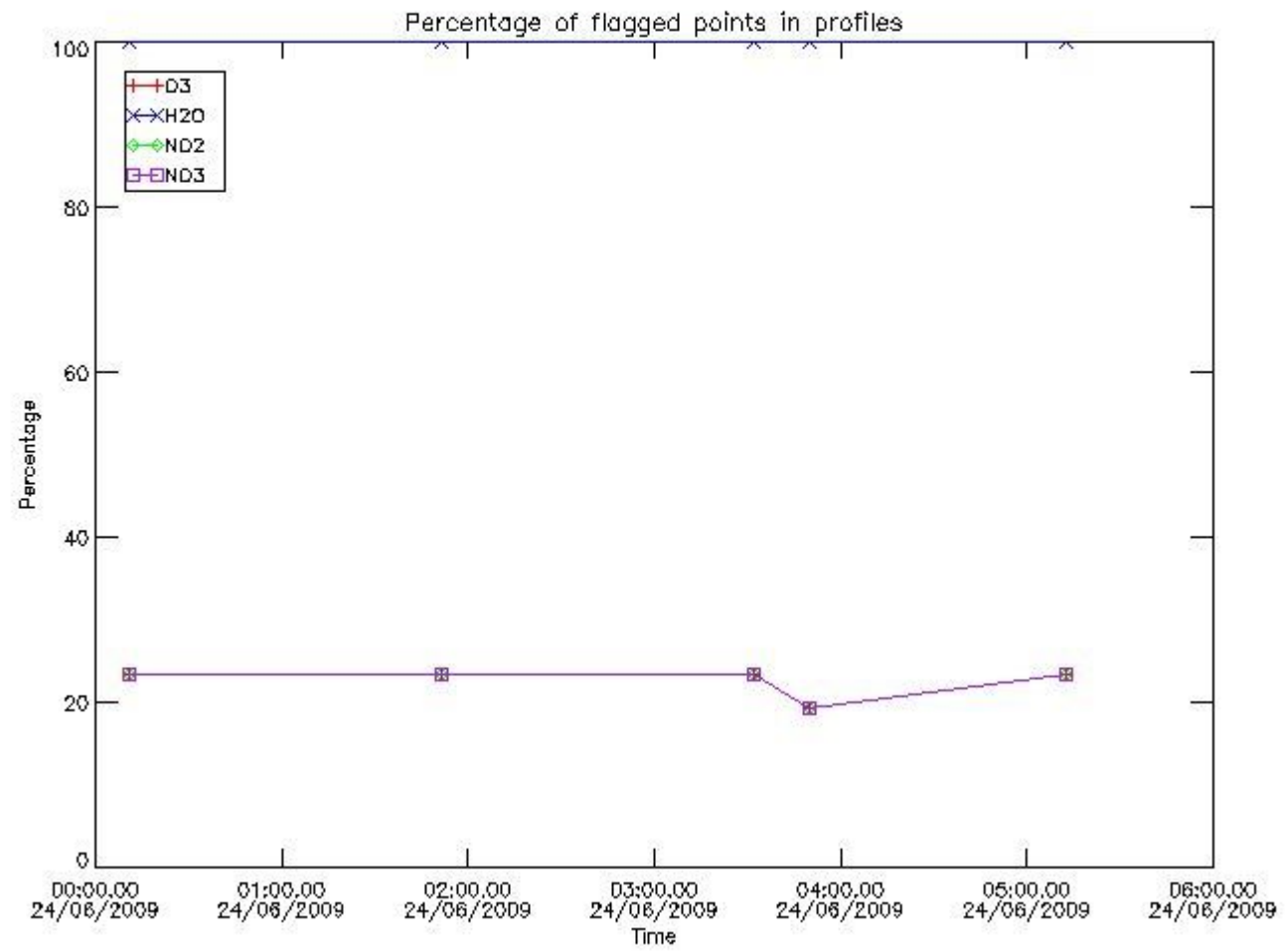
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20090624_001042_000000222080_00116_38246_5459.N1	24-JUN-2009 00:10:42	Dark	22.000	94	92Alp Cet	2.5260	3100.0	44	38246	No
2	GOM_NL__2PRFIN20090624_003600_000000292080_00117_38247_5462.N1	24-JUN-2009 00:36:00	Straylight	29.000	148	Alp Tuc	2.8780	4100.0	58	38247	No
3	GOM_NL__2PRFIN20090624_004031_000000282080_00117_38247_5463.N1	24-JUN-2009 00:40:31	Straylight	28.000	45	Alp Pav	1.9400	26000.	56	38247	No
4	GOM_NL__2PRFIN20090624_004621_000000232080_00117_38247_5464.N1	24-JUN-2009 00:46:21	Straylight	22.500	147	Alp Ara	2.8770	26000.	45	38247	No
5	GOM_NL__2PRFIN20090624_004806_000000252080_00117_38247_5465.N1	24-JUN-2009 00:48:06	Twilight	25.000	40	The Sco	1.8590	7100.0	50	38247	No
6	GOM_NL__2PRFIN20090624_004947_000000252080_00117_38247_5466.N1	24-JUN-2009 00:49:47	Twilight	25.000	25	35Lam Sco	1.6200	28000.	50	38247	No
7	GOM_NL__2PRFIN20090624_005108_000000282080_00117_38247_5467.N1	24-JUN-2009 00:51:08	Twilight	27.500	116	19Del Sgr	2.7000	4100.0	55	38247	No
8	GOM_NL__2PRFIN20090624_005606_000000252080_00117_38247_5468.N1	24-JUN-2009 00:56:06	Twilight	25.000	86	35Eta Oph	2.4300	10200.	50	38247	No
9	GOM_NL__2PRFIN20090624_010205_000000282080_00117_38247_5469.N1	24-JUN-2009 01:02:05	Twilight	28.000	126	60Bet Oph	2.7700	4250.0	56	38247	No
10	GOM_NL__2PRFIN20090624_010429_000000282080_00117_38247_5470.N1	24-JUN-2009 01:04:29	Bright	28.000	59	55Alp Oph	2.0800	8900.0	56	38247	No
11	GOM_NL__2PRFIN20090624_010944_000000272080_00117_38247_5471.N1	24-JUN-2009 01:09:44	Bright	26.500	133	40Zet Her	2.8070	6000.0	53	38247	No
12	GOM_NL__2PRFIN20090624_011607_000000282080_00117_38247_5472.N1	24-JUN-2009 01:16:07	Bright	27.500	130	23Bet Dra	2.7990	5800.0	55	38247	No
13	GOM_NL__2PRFIN20090624_011810_000000262080_00117_38247_5473.N1	24-JUN-2009 01:18:10	Bright	25.500	119	14Eta Dra	2.7270	4700.0	51	38247	No
14	GOM_NL__2PRFIN20090624_012623_000000242080_00117_38247_5474.N1	24-JUN-2009 01:26:23	Twilight	23.500	49	1Alp UMi	1.9900	6300.0	47	38247	No
15	GOM_NL__2PRFIN20090624_013643_000000212080_00117_38247_5475.N1	24-JUN-2009 01:36:43	Twilight	21.000	160	23Gam Per	2.9300	4700.0	42	38247	No
16	GOM_NL__2PRFIN20090624_014026_000000212080_00117_38247_5476.N1	24-JUN-2009 01:40:26	Twilight	21.000	79	26Bet Per	2.3100	13100.	42	38247	No
17	GOM_NL__2PRFIN20090624_015118_000000222080_00117_38247_5477.N1	24-JUN-2009 01:51:18	Dark	21.500	94	92Alp Cet	2.5260	3100.0	43	38247	No
18	GOM_NL__2PRFIN20090624_021637_000000292080_00118_38248_5476.N1	24-JUN-2009 02:16:37	Straylight	28.500	148	Alp Tuc	2.8780	4100.0	57	38248	No
19	GOM_NL__2PRFIN20090624_022108_000000292080_00118_38248_5477.N1	24-JUN-2009 02:21:08	Straylight	28.500	45	Alp Pav	1.9400	26000.	57	38248	No
20	GOM_NL__2PRFIN20090624_023023_000000252080_00118_38248_5478.N1	24-JUN-2009 02:30:23	Twilight	25.000	25	35Lam Sco	1.6200	28000.	50	38248	No
21	GOM_NL__2PRFIN20090624_023144_000000282080_00118_38248_5479.N1	24-JUN-2009 02:31:44	Twilight	27.500	116	19Del Sgr	2.7000	4100.0	55	38248	No
22	GOM_NL__2PRFIN20090624_023642_000000252080_00118_38248_5480.N1	24-JUN-2009 02:36:42	Twilight	25.000	86	35Eta Oph	2.4300	10200.	50	38248	No
23	GOM_NL__2PRFIN20090624_024505_000000282080_00118_38248_5481.N1	24-JUN-2009 02:45:05	Bright	28.000	59	55Alp Oph	2.0800	8900.0	56	38248	No
24	GOM_NL__2PRFIN20090624_025020_000000262080_00118_38248_5482.N1	24-JUN-2009 02:50:20	Bright	26.000	133	40Zet Her	2.8070	6000.0	52	38248	No
25	GOM_NL__2PRFIN20090624_025643_000000282080_00118_38248_5483.N1	24-JUN-2009 02:56:43	Bright	27.500	130	23Bet Dra	2.7990	5800.0	55	38248	No
26	GOM_NL__2PRFIN20090624_025845_000000262080_00118_38248_5484.N1	24-JUN-2009 02:58:45	Twilight	25.500	119	14Eta Dra	2.7270	4700.0	51	38248	No
27	GOM_NL__2PRFIN20090624_030659_000000232080_00118_38248_5485.N1	24-JUN-2009 03:06:59	Twilight	23.000	49	1Alp UMi	1.9900	6300.0	46	38248	No
28	GOM_NL__2PRFIN20090624_031719_000000212080_00118_38248_5486.N1	24-JUN-2009 03:17:19	Twilight	21.000	160	23Gam Per	2.9300	4700.0	42	38248	No
29	GOM_NL__2PRFIN20090624_032102_000000212080_00118_38248_5487.N1	24-JUN-2009 03:21:02	Twilight	21.000	79	26Bet Per	2.3100	13100.	42	38248	No
30	GOM_NL__2PRFIN20090624_033154_000000222080_00118_38248_5488.N1	24-JUN-2009 03:31:54	Dark	22.000	94	92Alp Cet	2.5260	3100.0	44	38248	No
31	GOM_NL__2PRFIN20090624_035000_000000272080_00118_38248_5489.N1	24-JUN-2009 03:50:00	Dark	26.500	9	Alp Eri	0.45300	24000.	53	38248	No
32	GOM_NL__2PRFIN20090624_035714_000000292080_00119_38249_5490.N1	24-JUN-2009 03:57:14	Straylight	28.500	148	Alp Tuc	2.8780	4100.0	57	38249	No
33	GOM_NL__2PRFIN20090624_040144_000000292080_00119_38249_5491.N1	24-JUN-2009 04:01:44	Straylight	28.500	45	Alp Pav	1.9400	26000.	57	38249	No
34	GOM_NL__2PRFIN20090624_041059_000000252080_00119_38249_5492.N1	24-JUN-2009 04:10:59	Twilight	25.000	25	35Lam Sco	1.6200	28000.	50	38249	No
35	GOM_NL__2PRFIN20090624_041220_000000282080_00119_38249_5493.N1	24-JUN-2009 04:12:20	Twilight	27.500	116	19Del Sgr	2.7000	4100.0	55	38249	No
36	GOM_NL__2PRFIN20090624_041718_000000252080_00119_38249_5494.N1	24-JUN-2009 04:17:18	Twilight	25.000	86	35Eta Oph	2.4300	10200.	50	38249	No
37	GOM_NL__2PRFIN20090624_042317_000000282080_00119_38249_5495.N1	24-JUN-2009 04:23:17	Twilight	28.000	126	60Bet Oph	2.7700	4250.0	56	38249	No
38	GOM_NL__2PRFIN20090624_042541_000000282080_00119_38249_5496.N1	24-JUN-2009 04:25:41	Bright	28.000	59	55Alp Oph	2.0800	8900.0	56	38249	No
39	GOM_NL__2PRFIN20090624_043056_000000262080_00119_38249_5497.N1	24-JUN-2009 04:30:56	Bright	26.000	133	40Zet Her	2.8070	6000.0	52	38249	No
40	GOM_NL__2PRFIN20090624_043719_000000282080_00119_38249_5498.N1	24-JUN-2009 04:37:19	Bright	27.500	130	23Bet Dra	2.7990	5800.0	55	38249	No
41	GOM_NL__2PRFIN20090624_043921_000000262080_00119_38249_5499.N1	24-JUN-2009 04:39:21	Twilight	25.500	119	14Eta Dra	2.7270	4700.0	51	38249	No
42	GOM_NL__2PRFIN20090624_044736_000000232080_00119_38249_5500.N1	24-JUN-2009 04:47:36	Twilight	22.500	49	1Alp UMi	1.9900	6300.0	45	38249	No

43	GOM_NL__2PRFIN20090624_045754_000000212080_00119_38249_5501.N1	24-JUN-2009 04:57:54	Twilight_stray	21.000	160	23Gam Per	2.9300	4700.0	42	38249	No
44	GOM_NL__2PRFIN20090624_050138_000000212080_00119_38249_5502.N1	24-JUN-2009 05:01:38	Twilight_stray	21.000	79	26Bet Per	2.3100	13100.	42	38249	No
45	GOM_NL__2PRFIN20090624_051231_000000222080_00119_38249_5503.N1	24-JUN-2009 05:12:31	Dark	22.000	94	92Alp Cet	2.5260	3100.0	44	38249	No
46	GOM_NL__2PRFIN20090624_053750_000000292080_00120_38250_5504.N1	24-JUN-2009 05:37:50	Straylight	29.000	148	Alp Tuc	2.8780	4100.0	58	38250	No
47	GOM_NL__2PRFIN20090624_054221_000000292080_00120_38250_5505.N1	24-JUN-2009 05:42:21	Straylight	28.500	45	Alp Pav	1.9400	26000.	57	38250	No
48	GOM_NL__2PRFIN20090624_055136_000000252080_00120_38250_5506.N1	24-JUN-2009 05:51:36	Twilight_stray	24.500	25	35Lam Sco	1.6200	28000.	49	38250	No
49	GOM_NL__2PRFIN20090624_055257_000000282080_00120_38250_5507.N1	24-JUN-2009 05:52:57	Twilight_stray	27.500	116	19Del Sgr	2.7000	4100.0	55	38250	No
50	GOM_NL__2PRFIN20090624_055755_000000242080_00120_38250_5508.N1	24-JUN-2009 05:57:55	Twilight_stray	24.000	86	35Eta Oph	2.4300	10200.	48	38250	No

3. Quality information per product

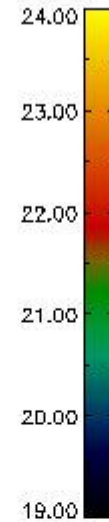
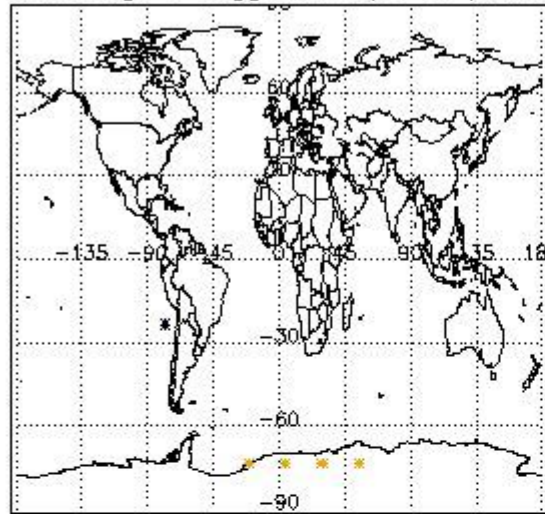
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

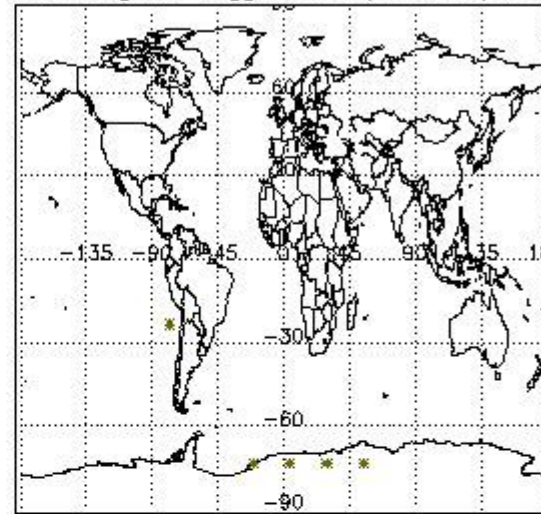


3.2 Plot quality information per product (world map)

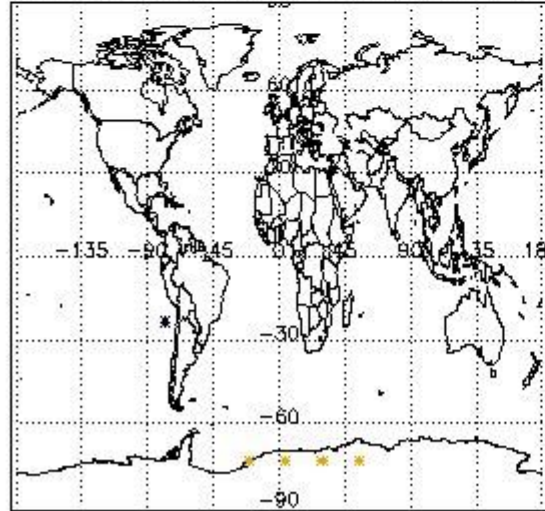
Percentage of flagged data per O3 profile



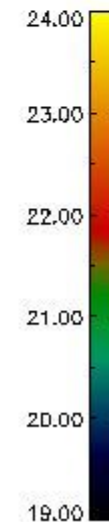
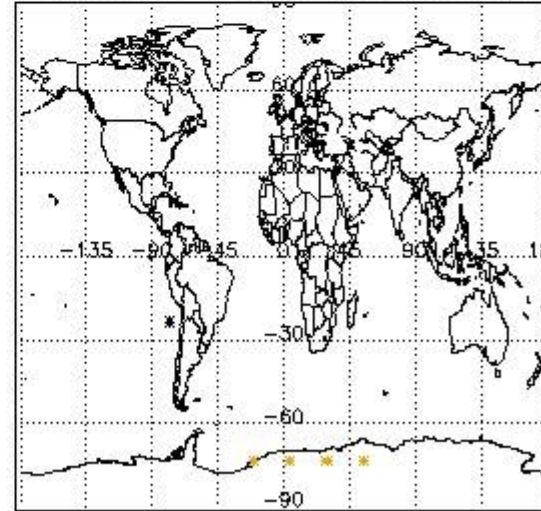
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

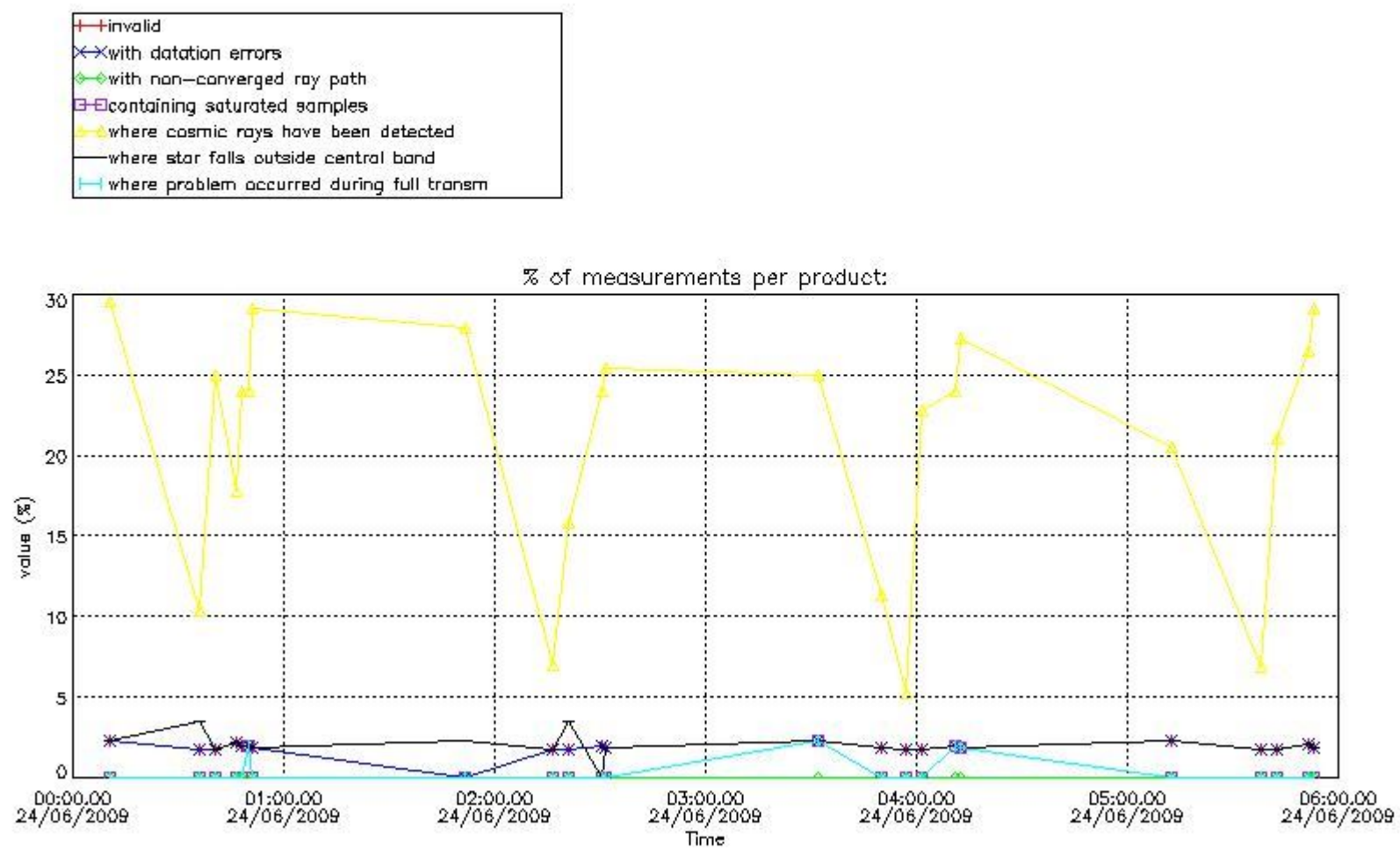


4. Level 1 quality information per product

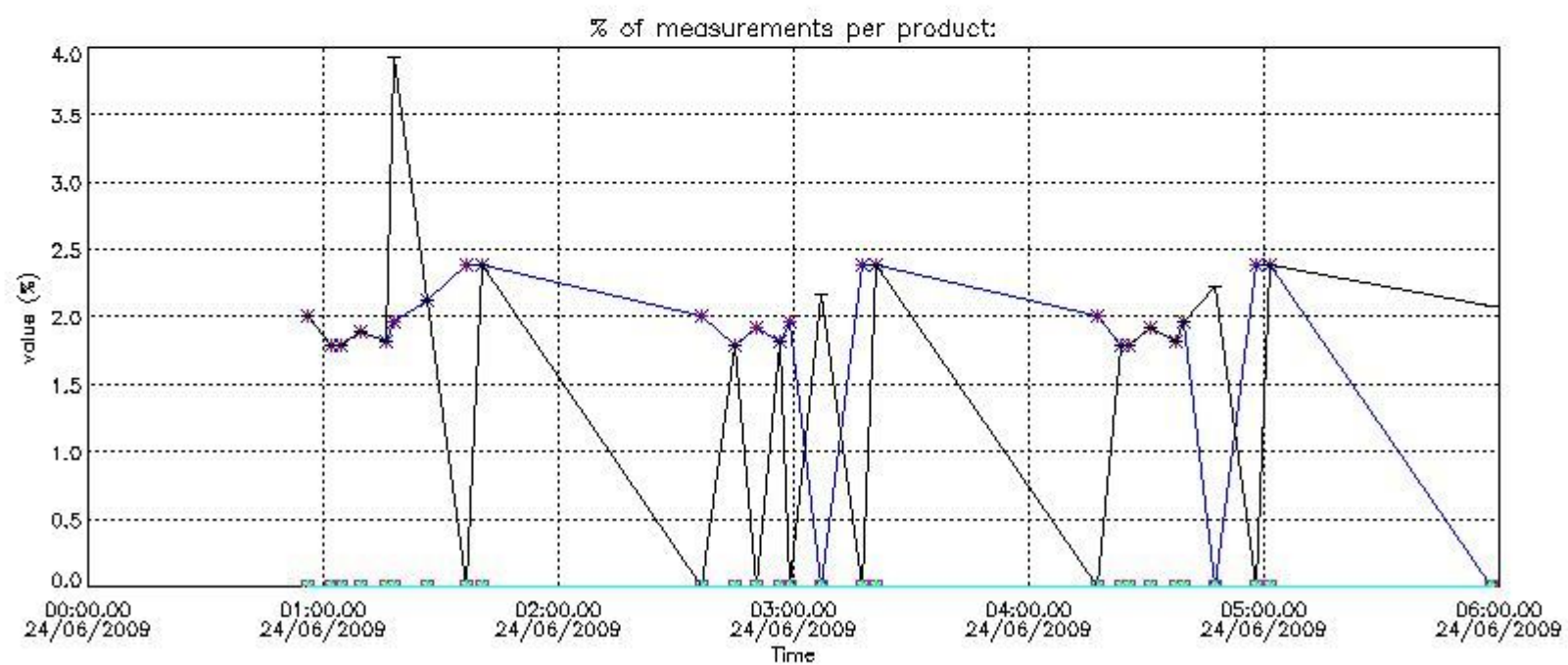
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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



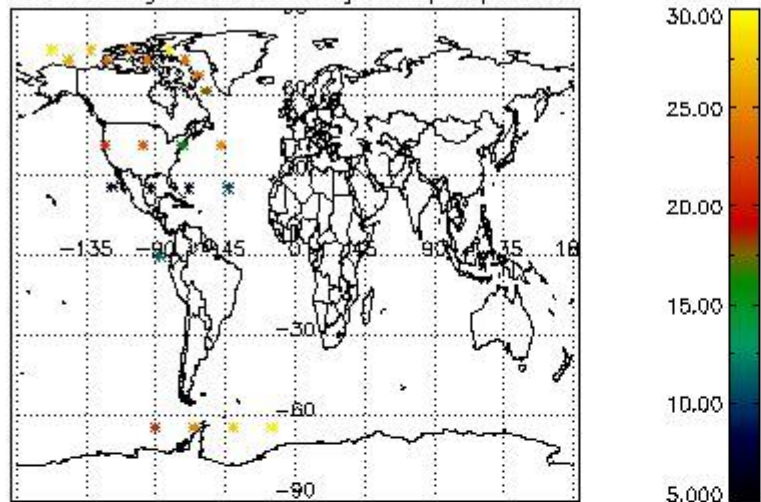
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



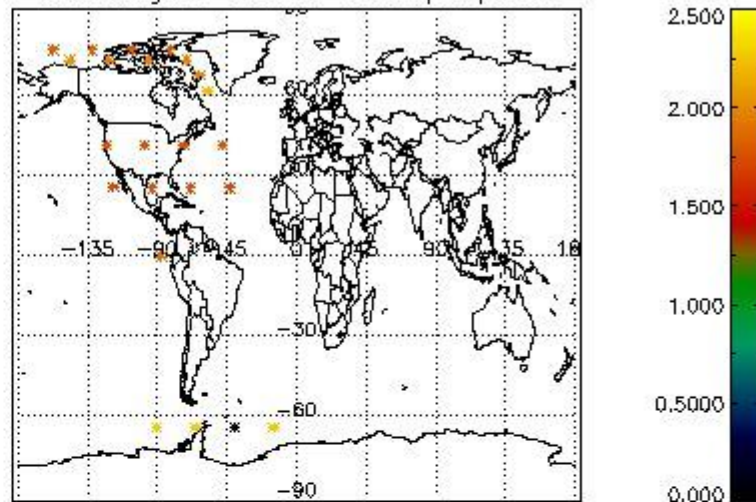
4.2 Plot quality information per product coming from level 1b processing (world map)

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

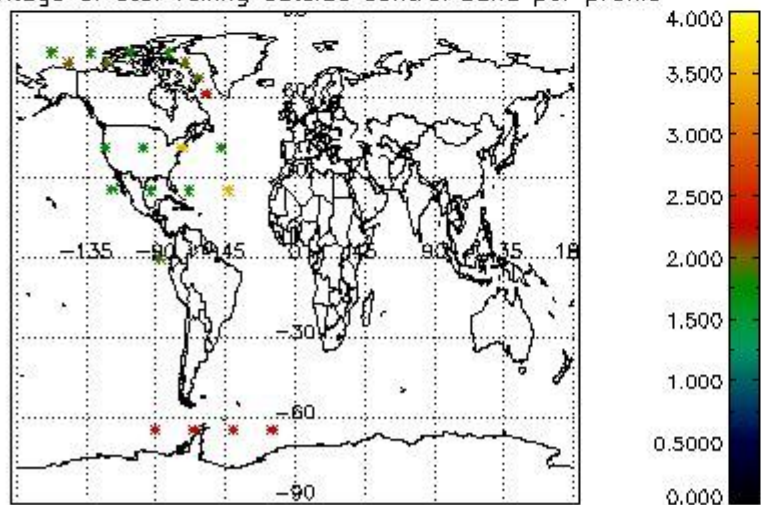
Percentage of cosmic ray hits per profile



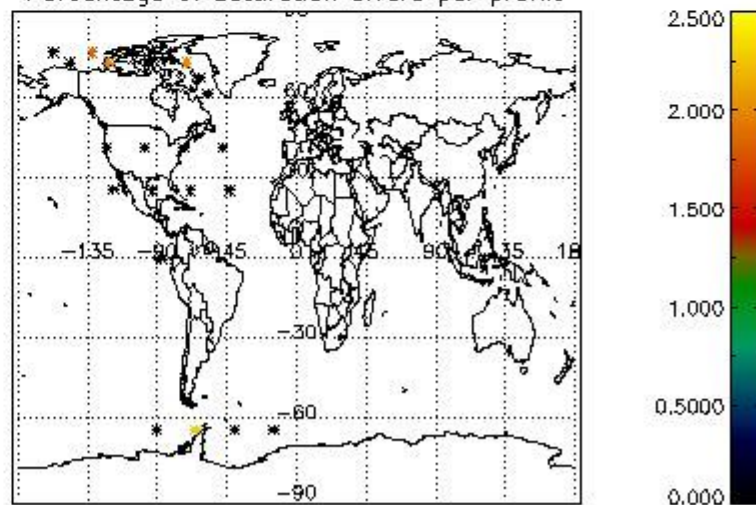
Percentage of datation errors per profile



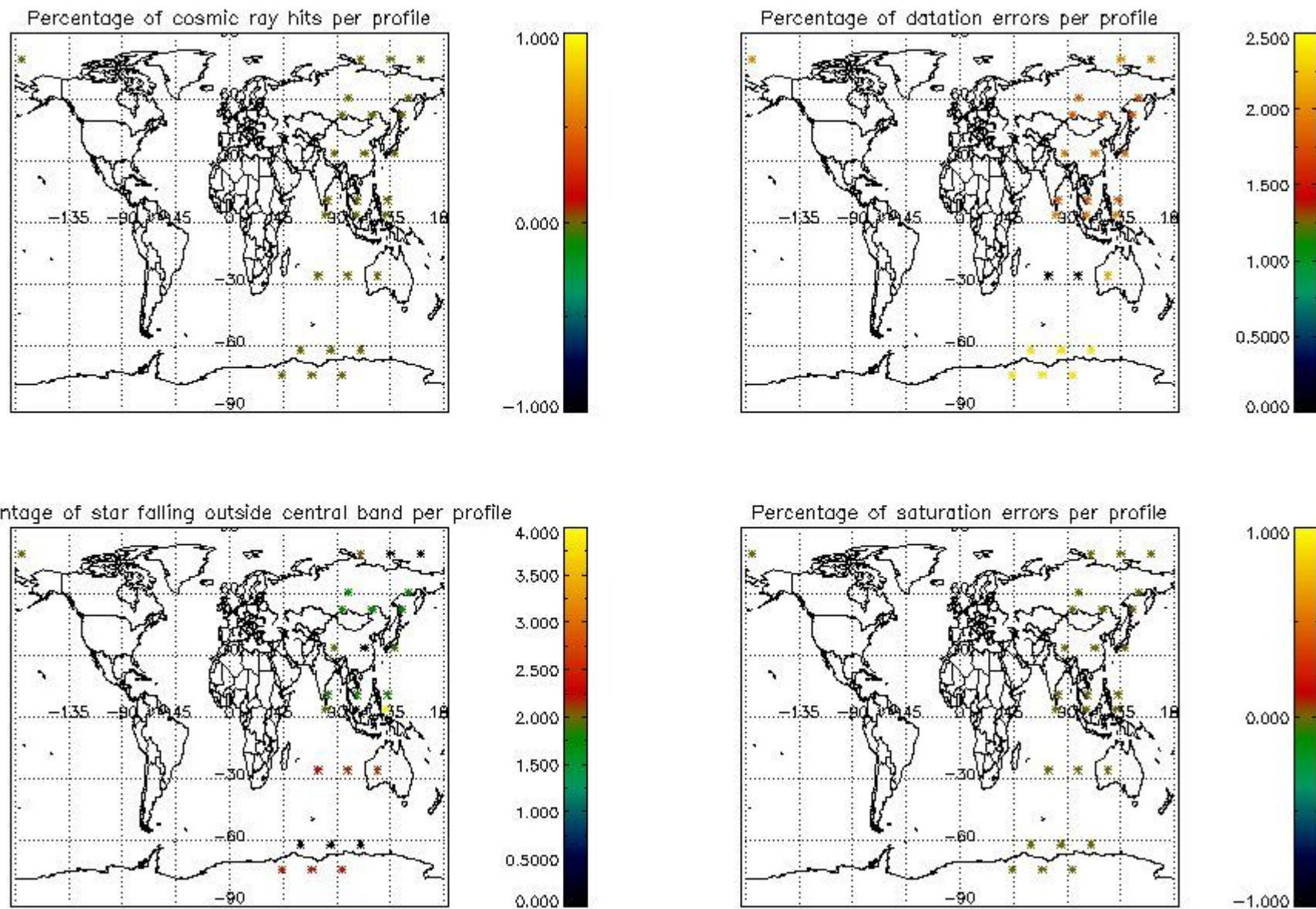
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

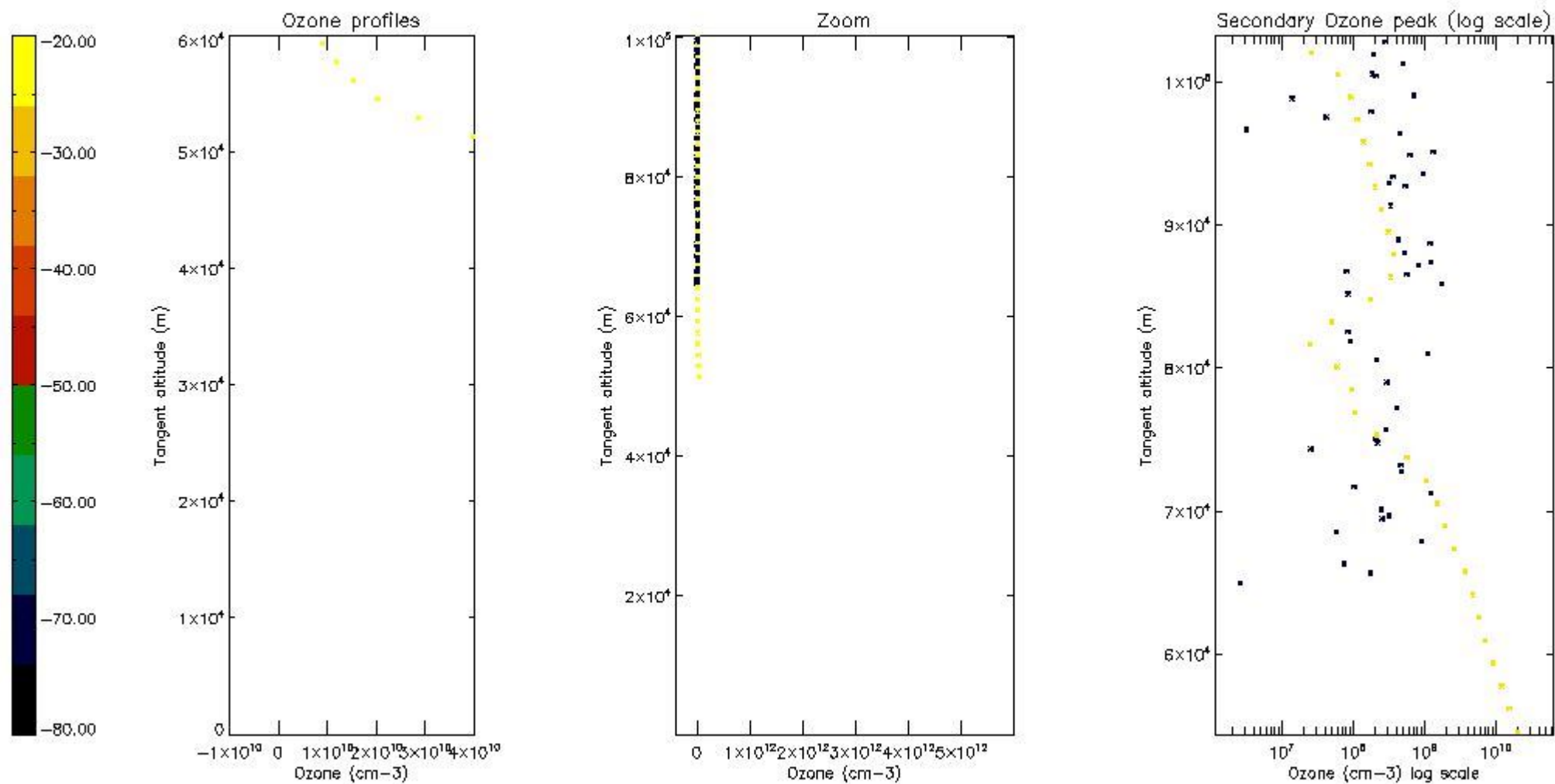
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	9
STD < 20	1

STD < 10	1
STD < 5	1

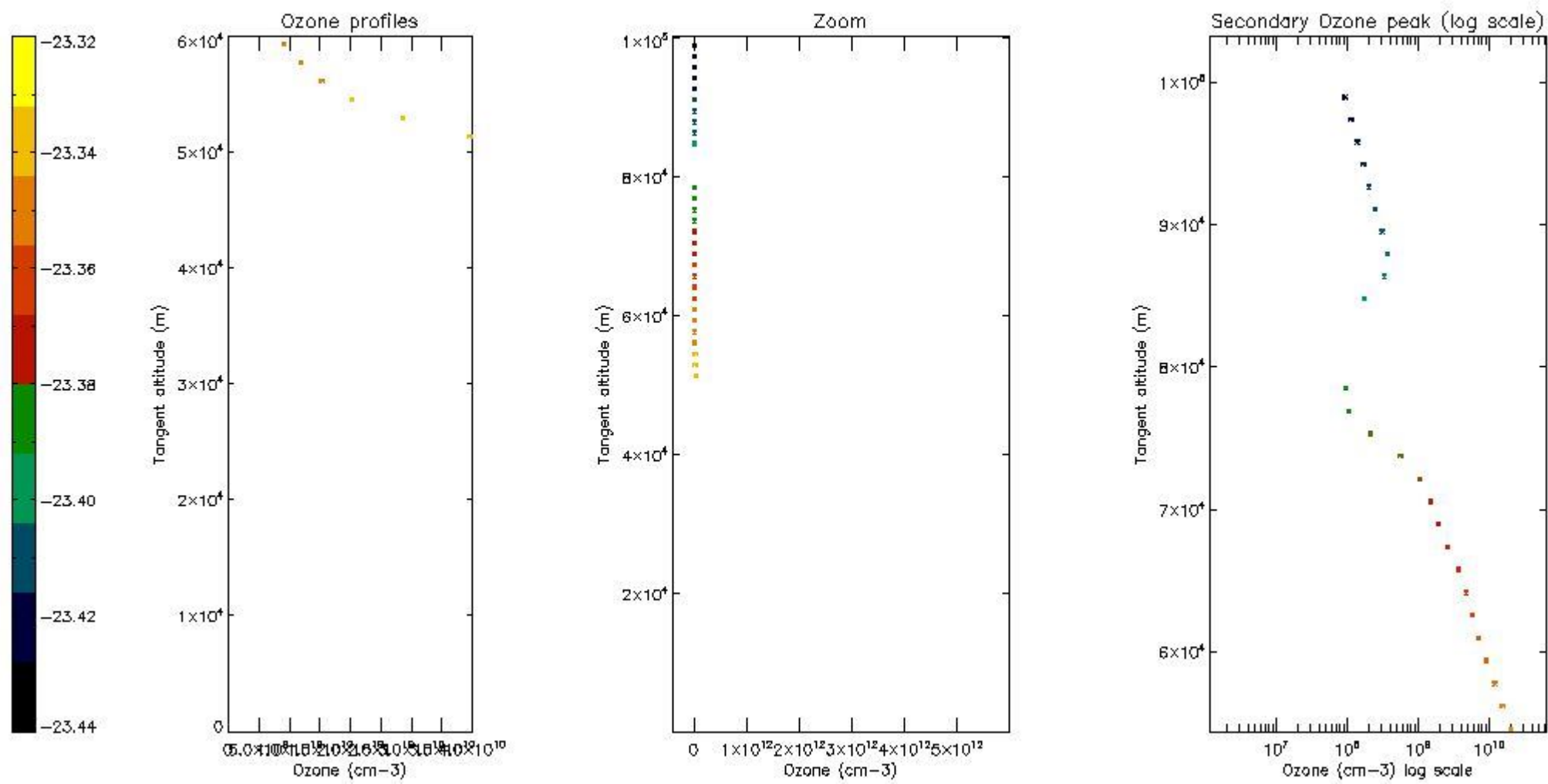
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



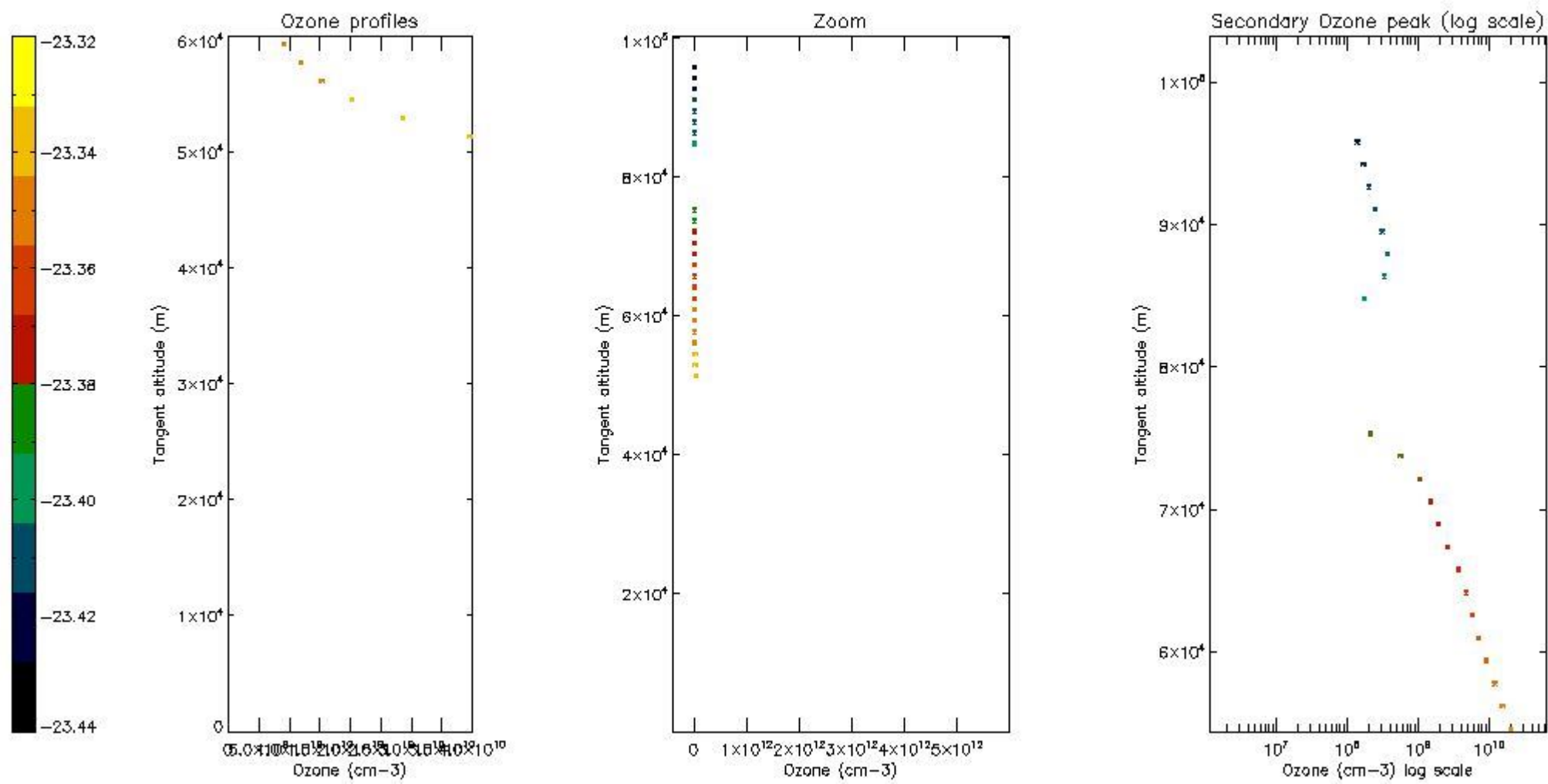
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



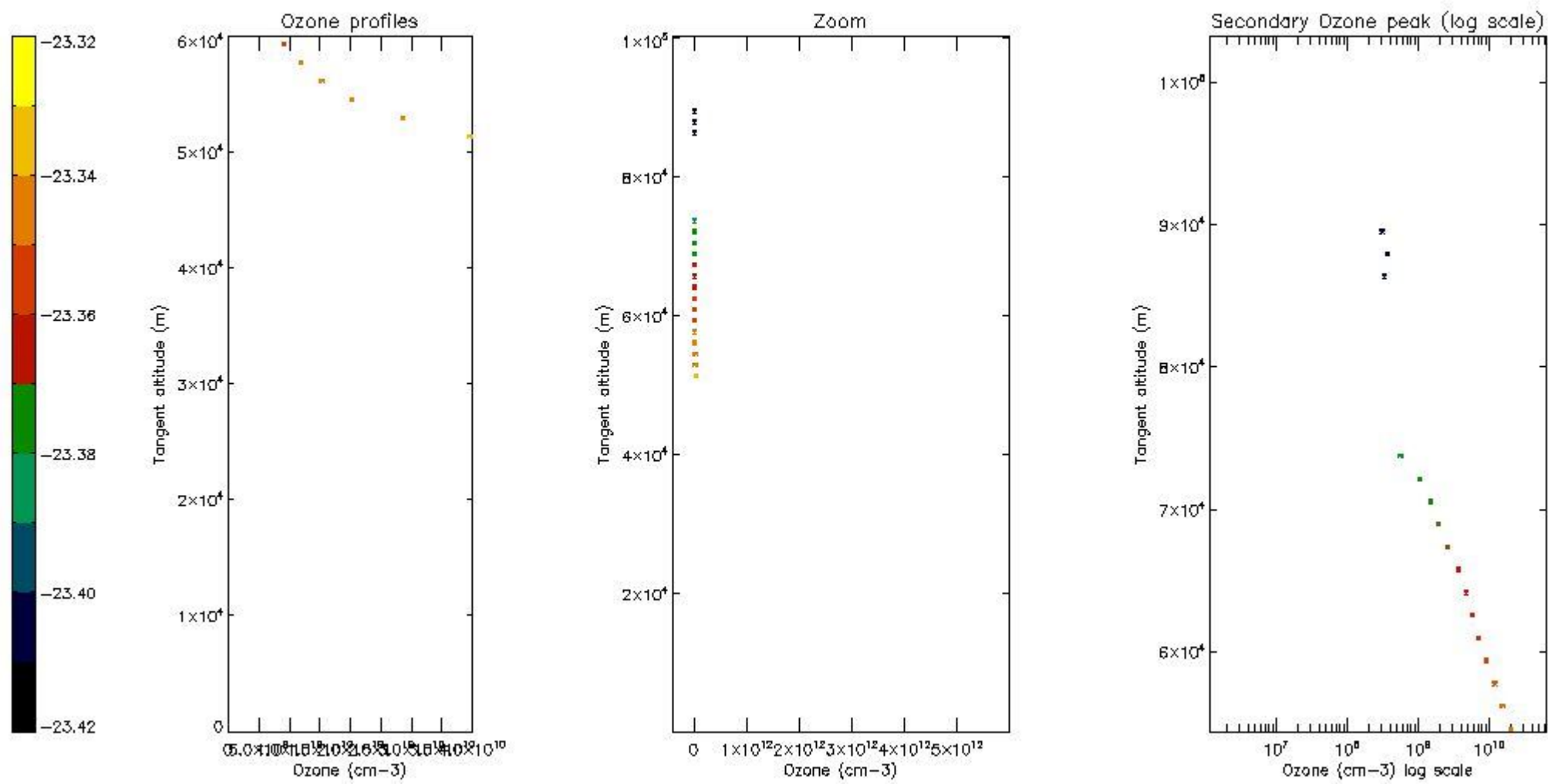
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



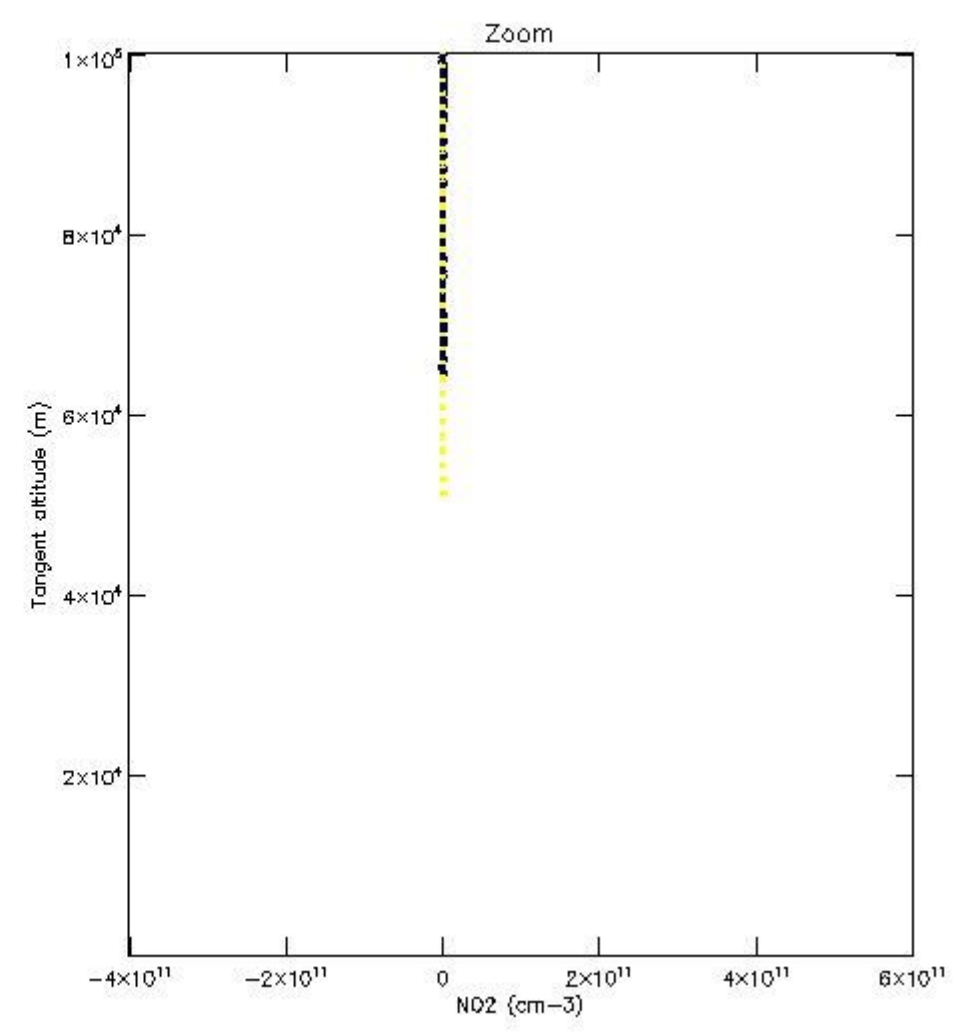
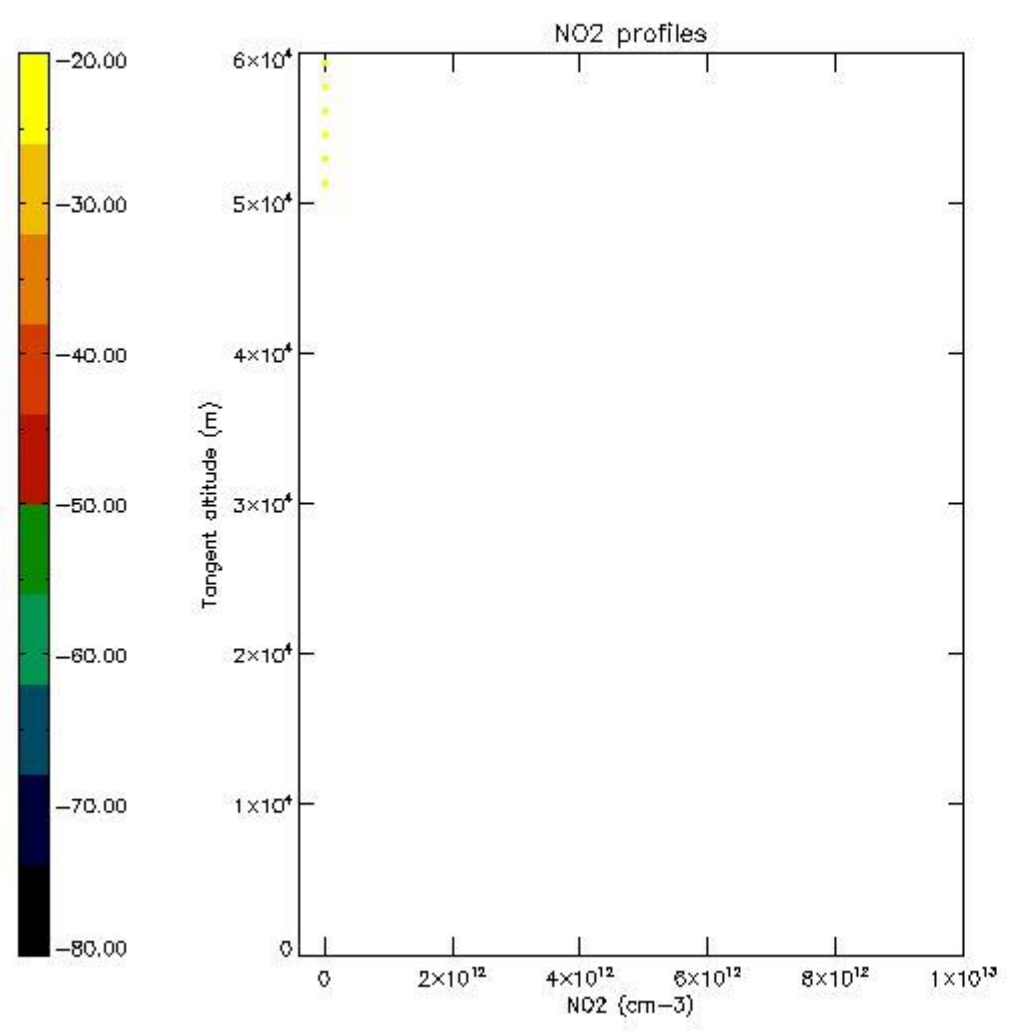
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



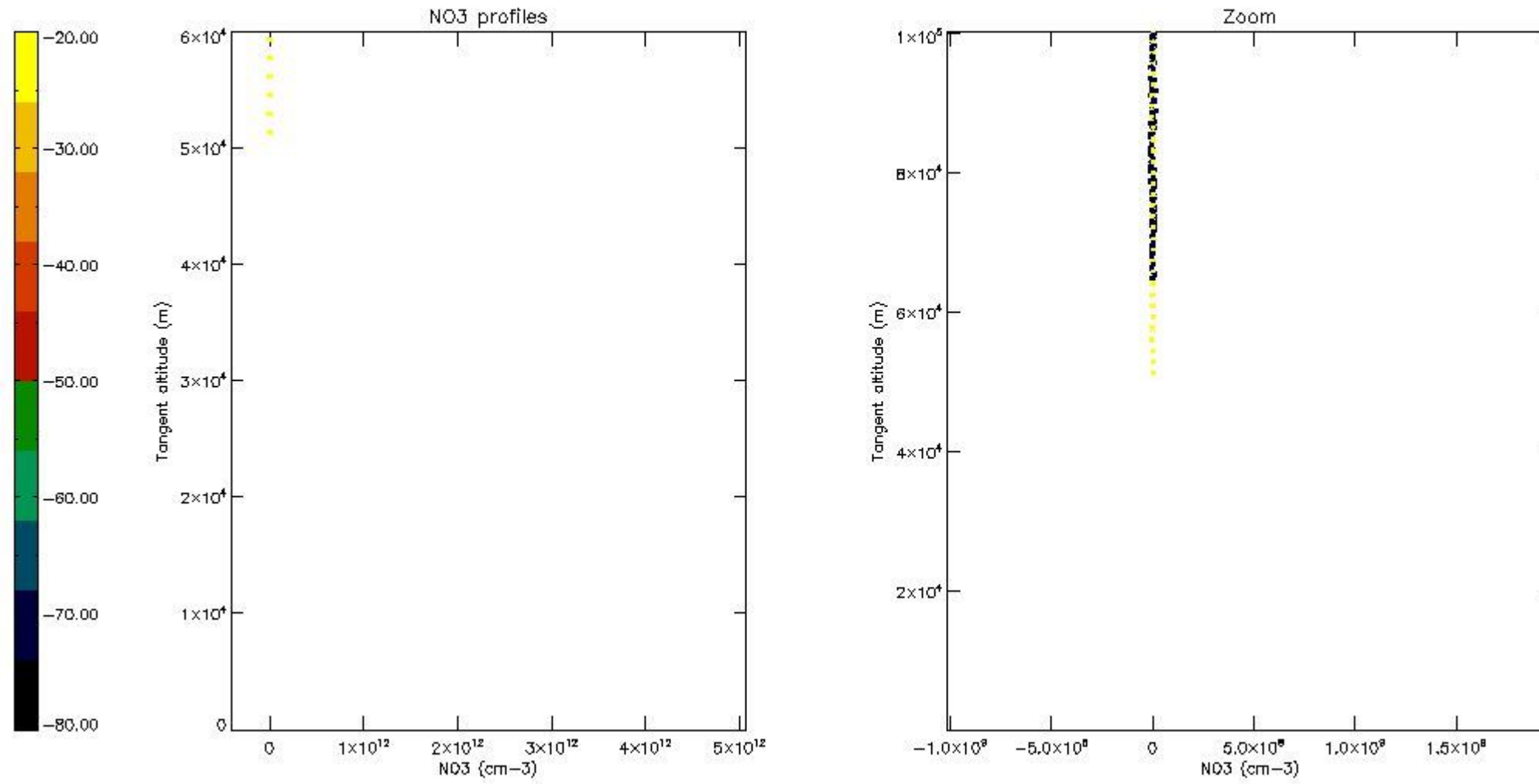
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

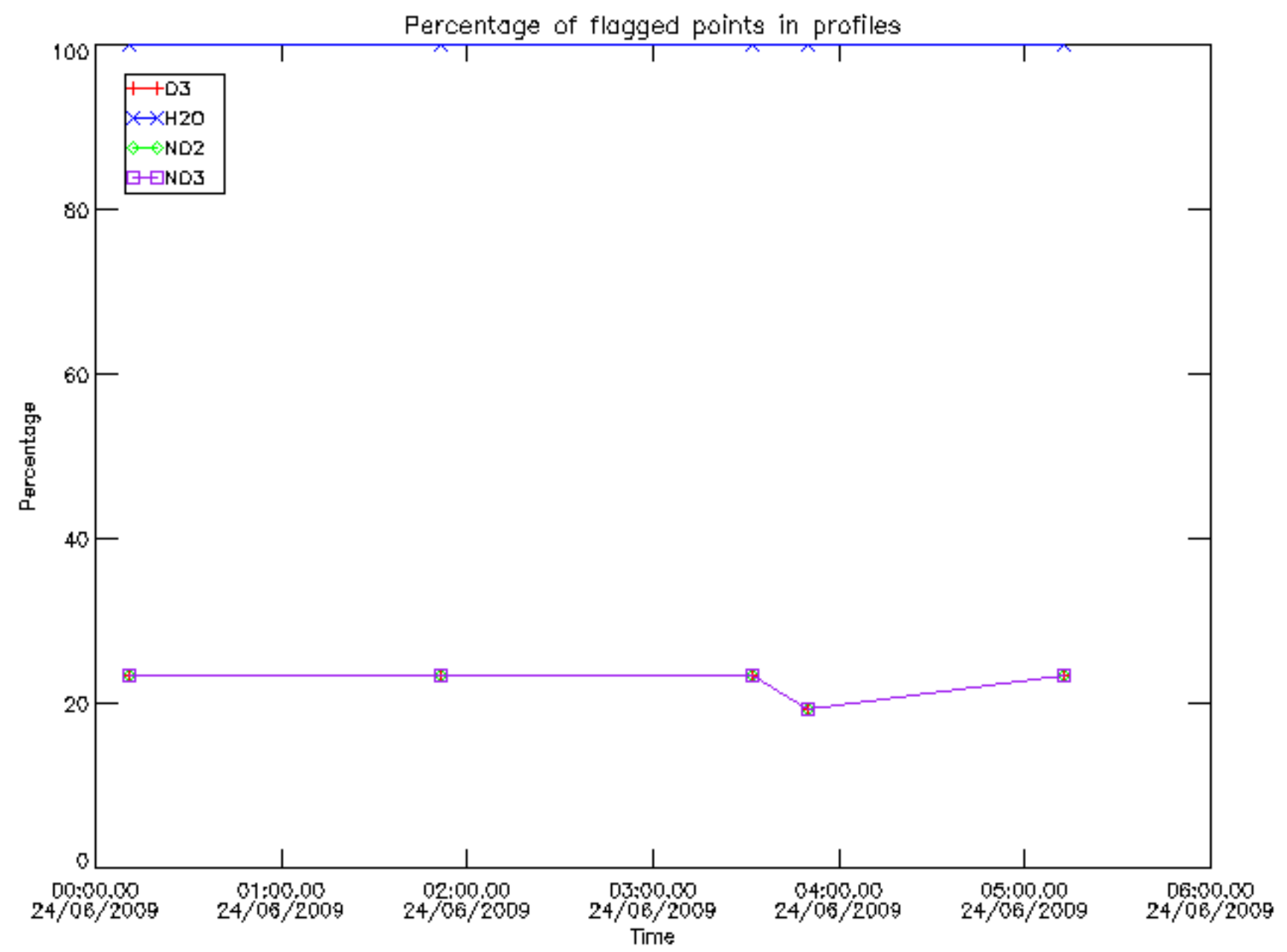
The colorbar represents the latitude.



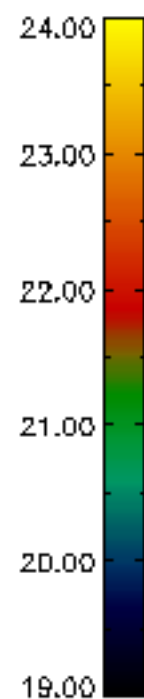
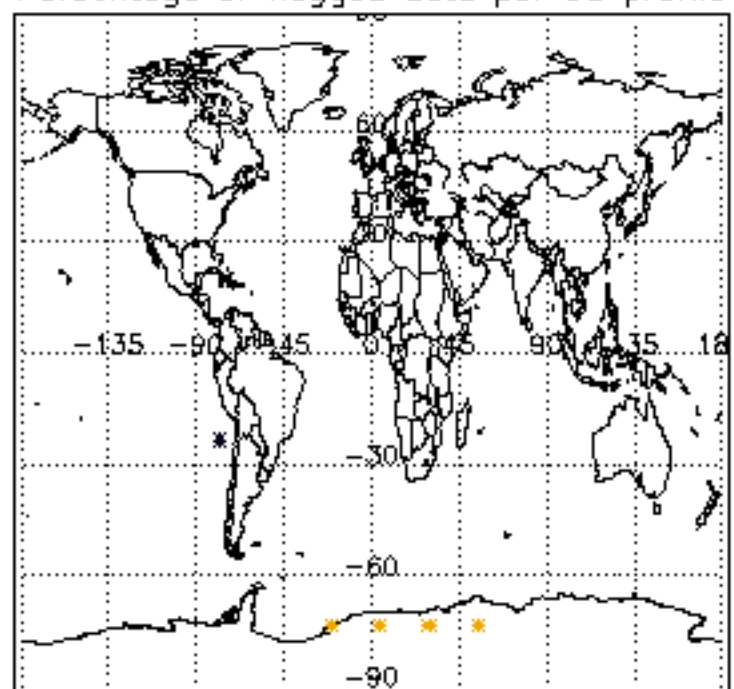
6. Auxiliary Data Files used for the production reported in section 2

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.

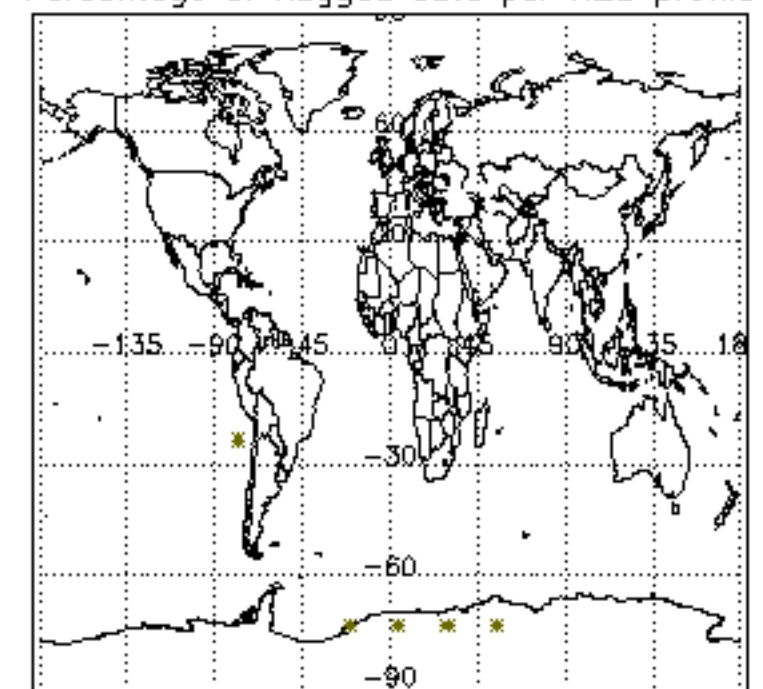
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	24-JUN-2009 00:10:42
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	24-JUN-2009 00:10:42
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	24-JUN-2009 00:10:42



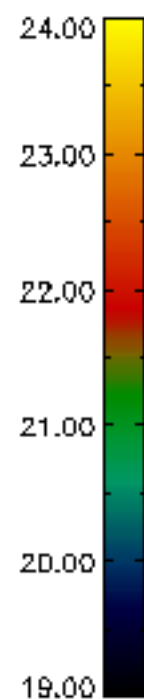
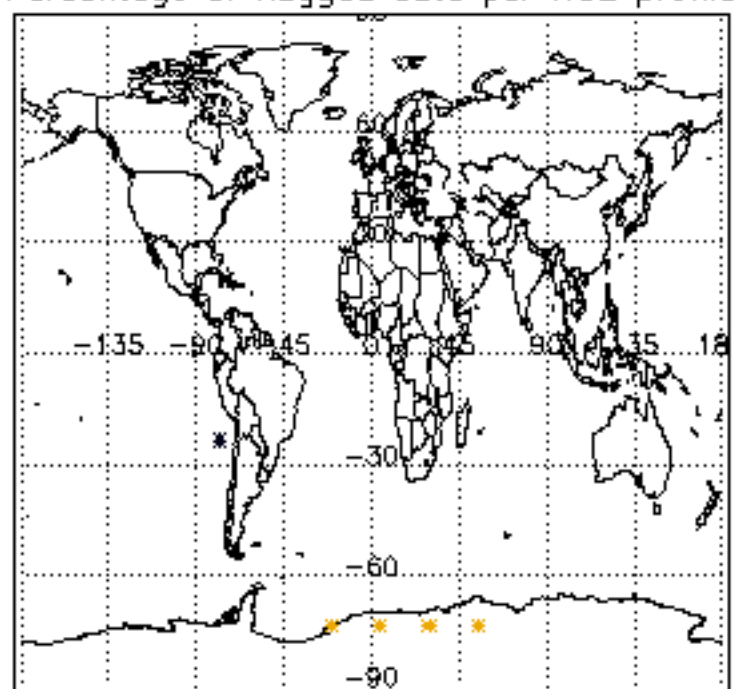
Percentage of flagged data per D3 profile



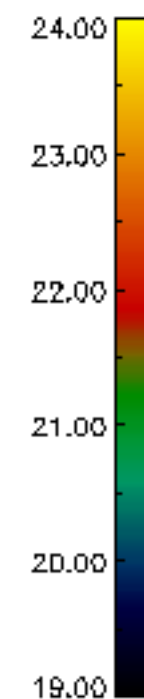
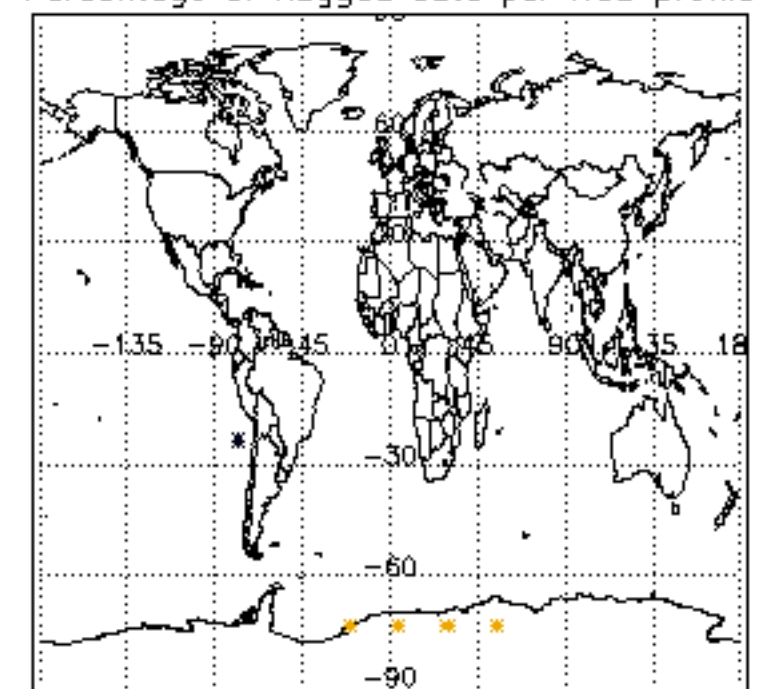
Percentage of flagged data per H2O profile

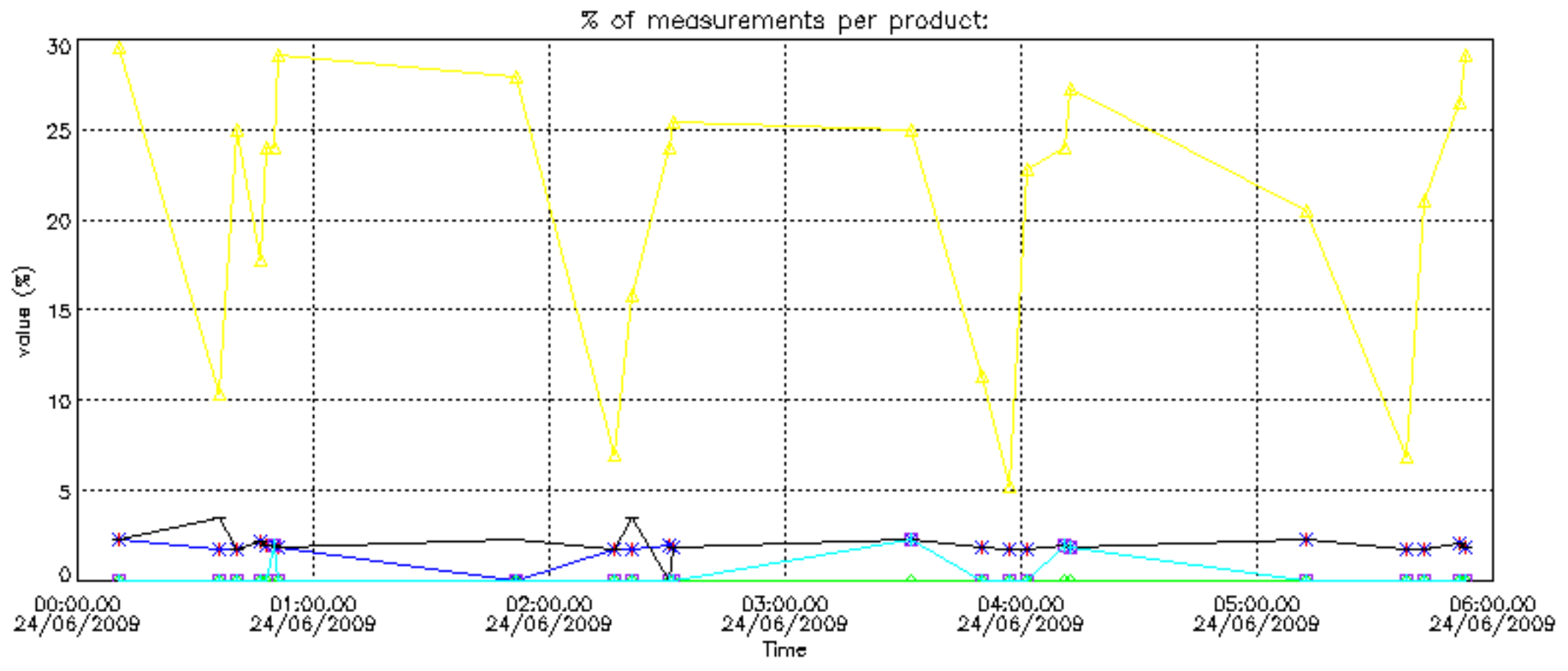


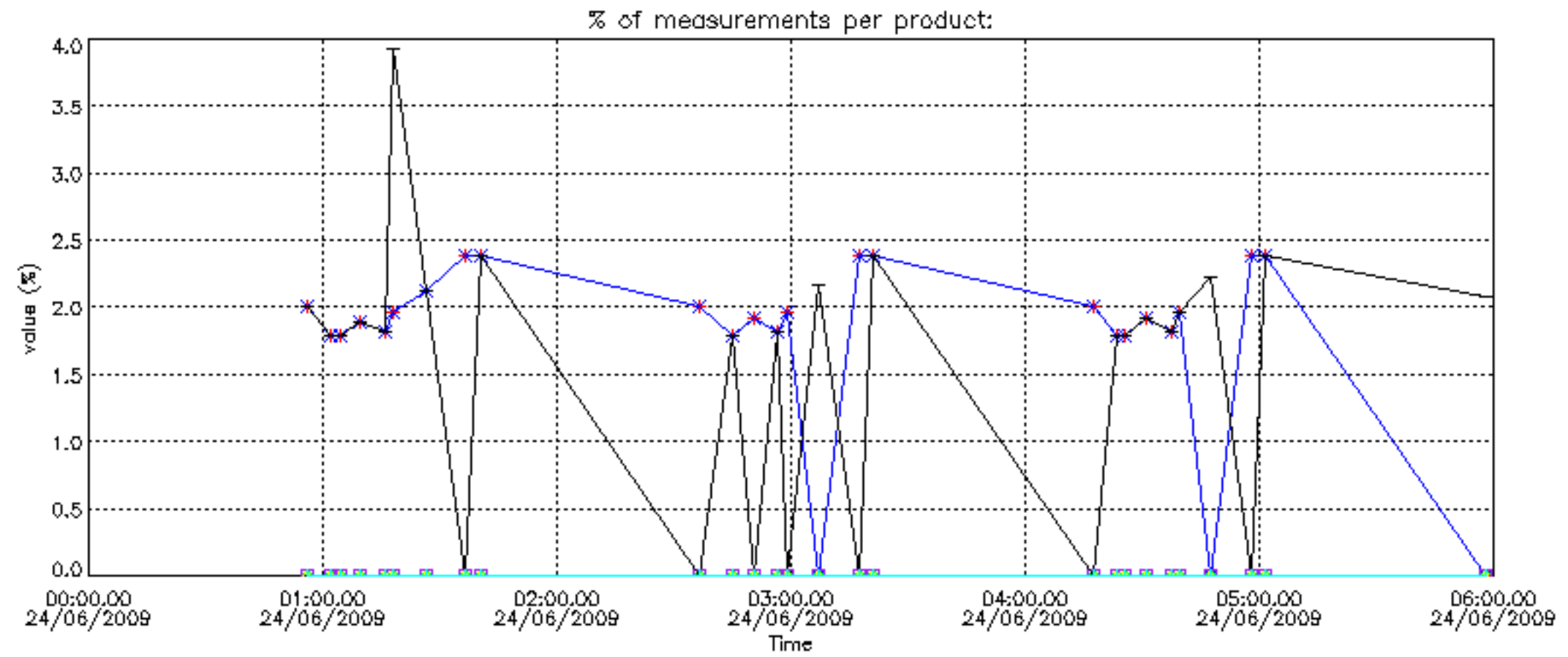
Percentage of flagged data per NO2 profile



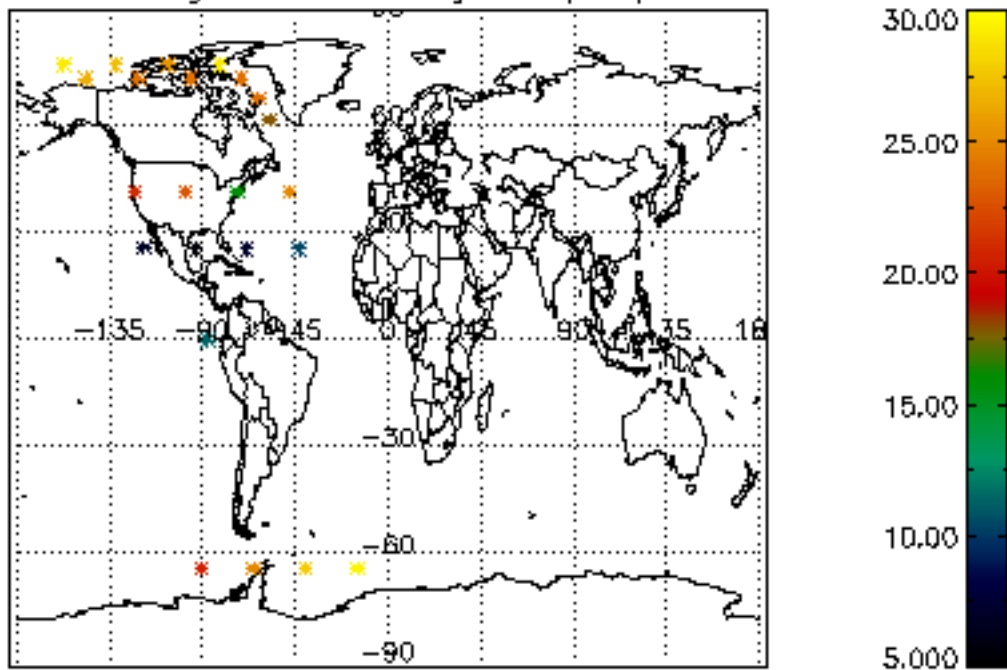
Percentage of flagged data per NO3 profile



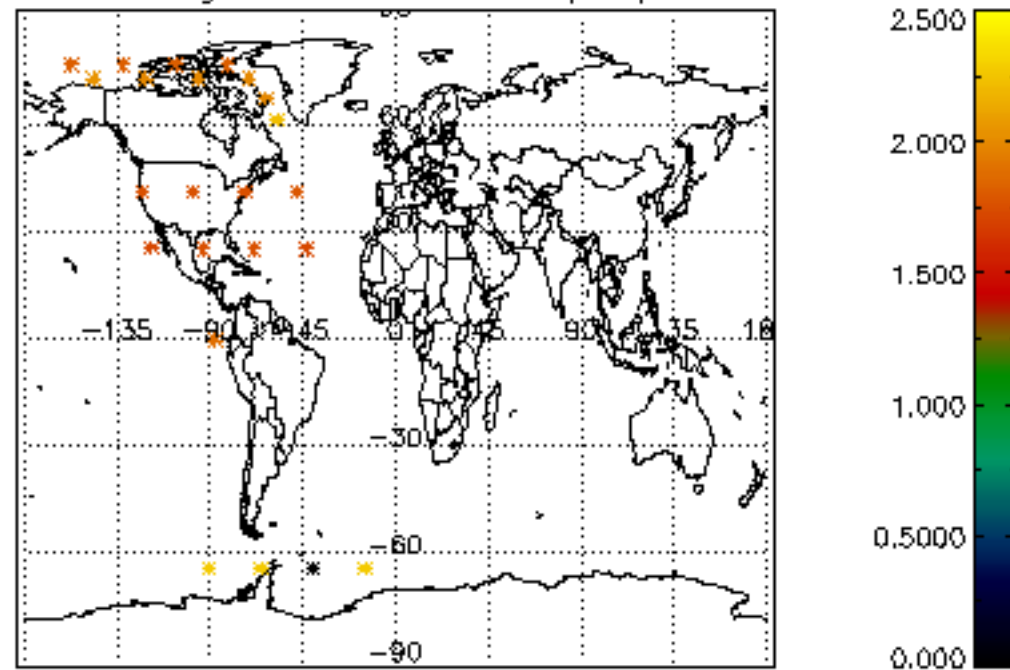




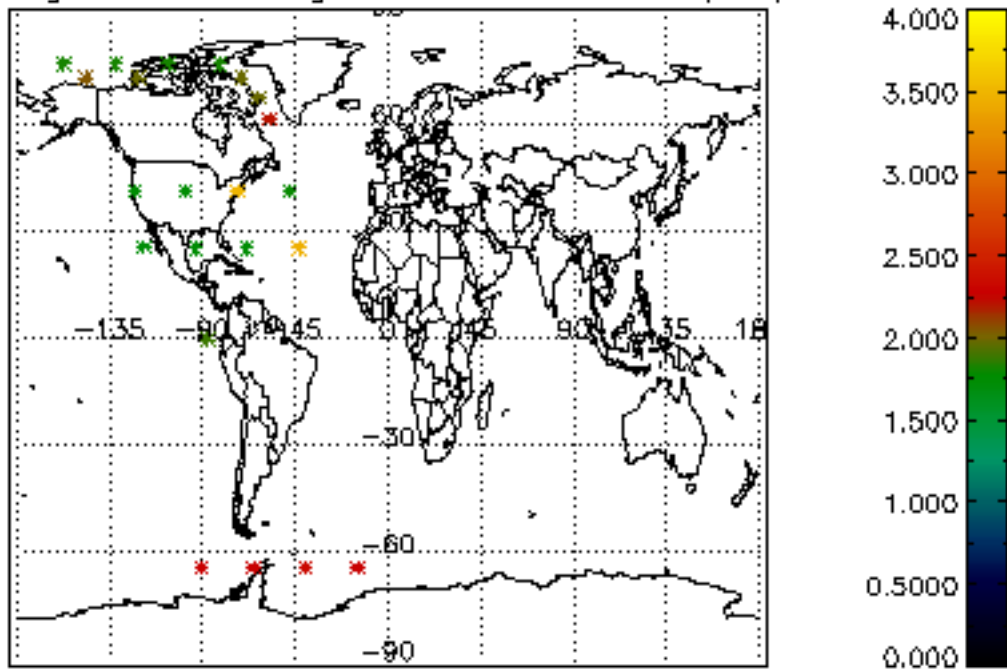
Percentage of cosmic ray hits per profile



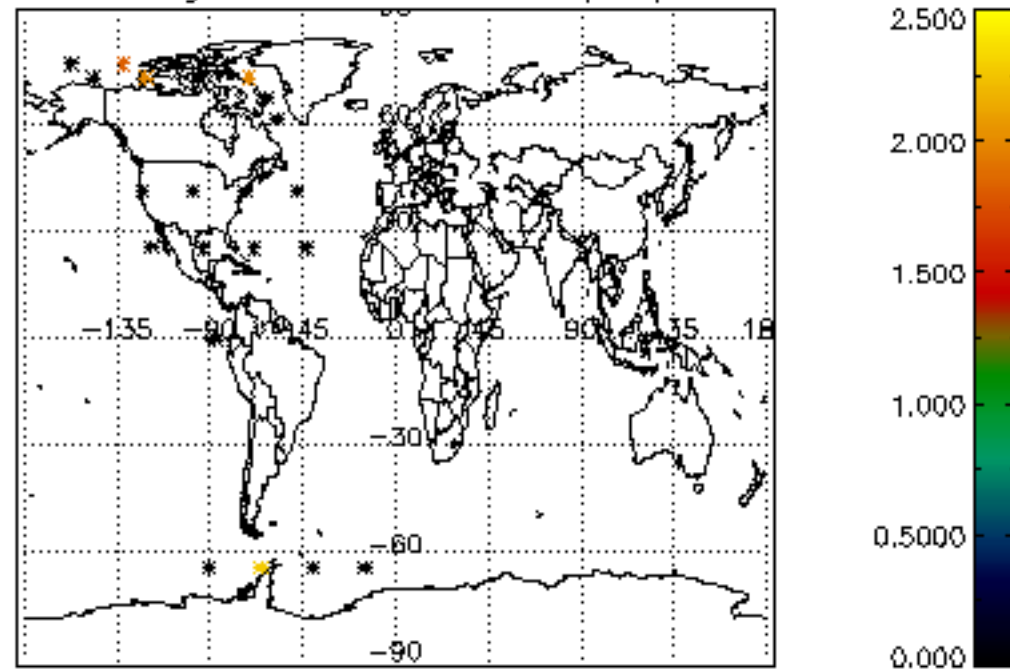
Percentage of datation errors per profile



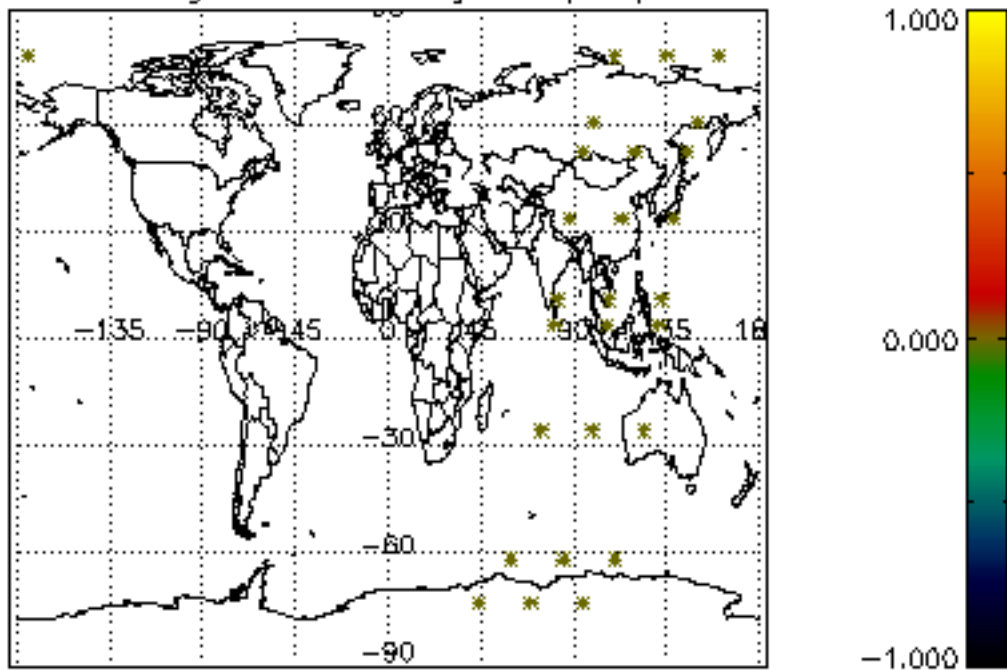
Percentage of star falling outside central band per profile



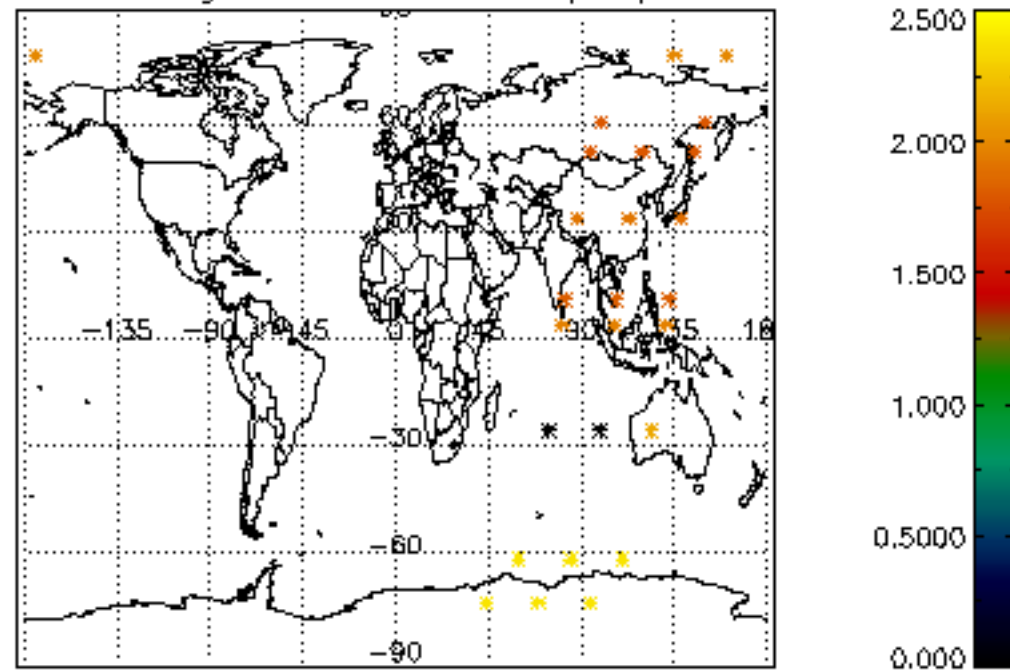
Percentage of saturation errors per profile



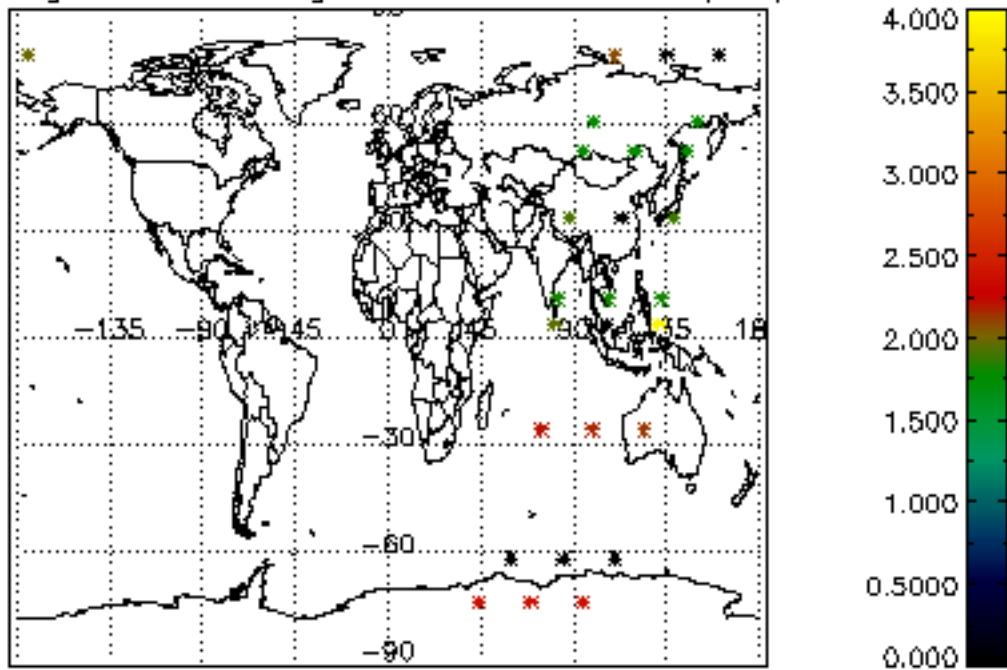
Percentage of cosmic ray hits per profile



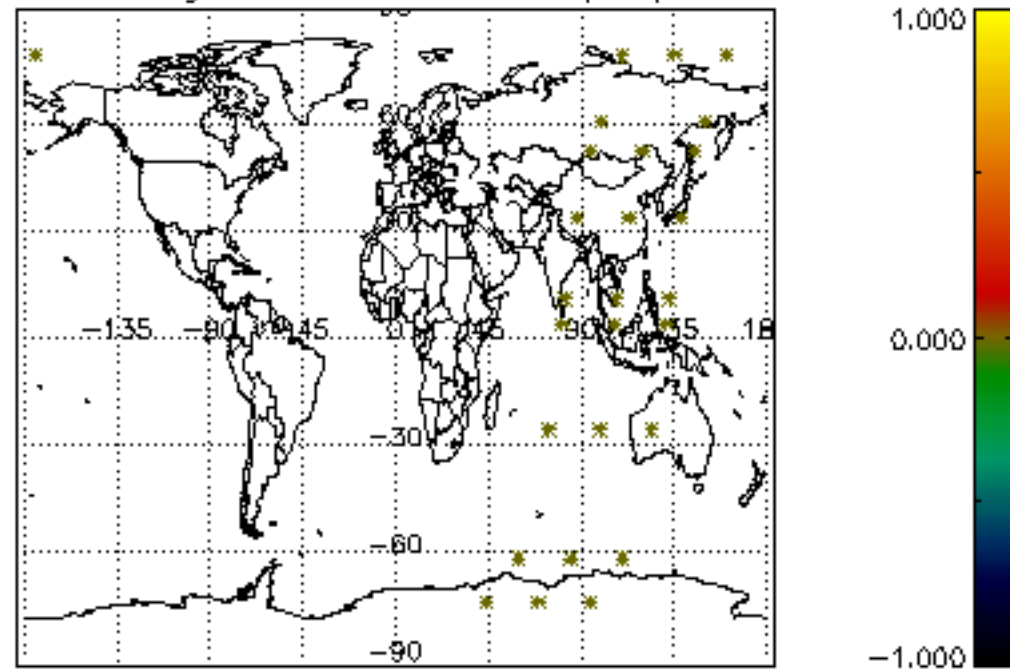
Percentage of datation errors per profile

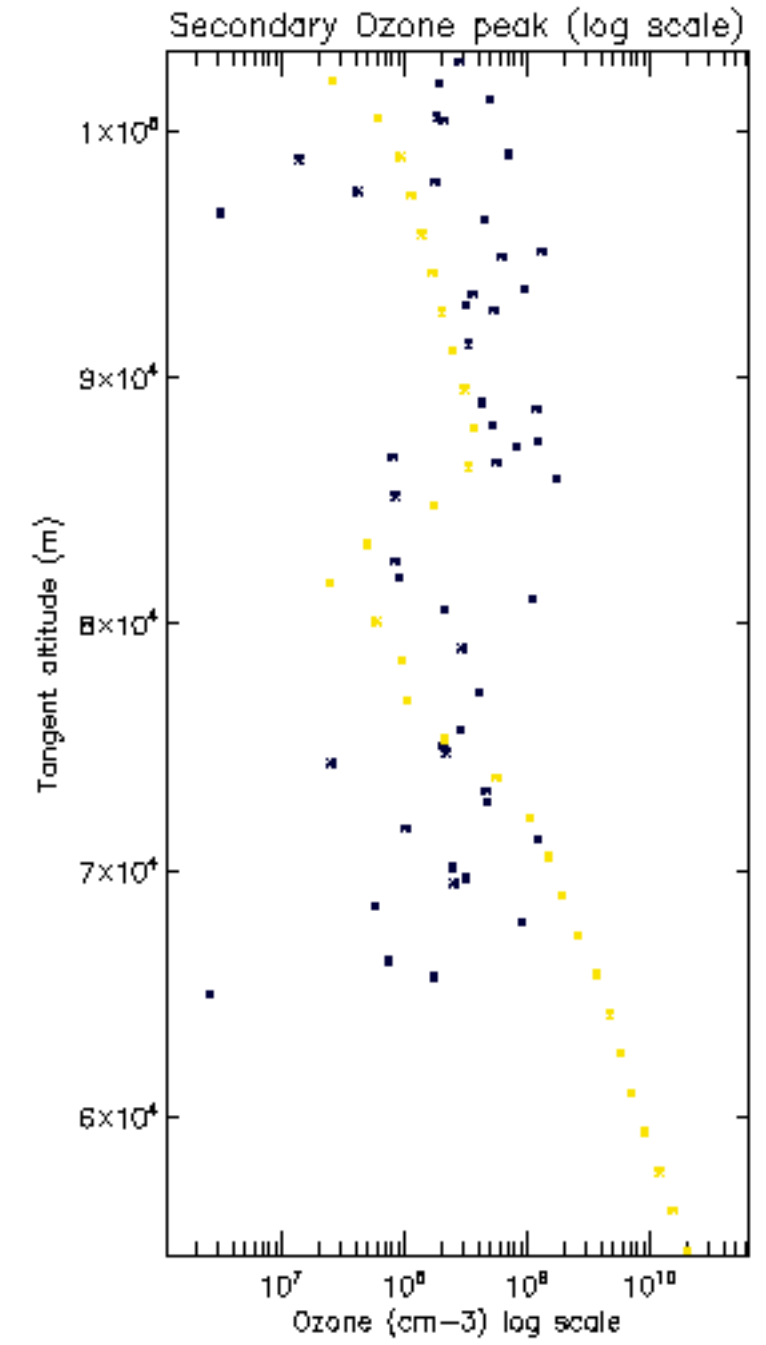
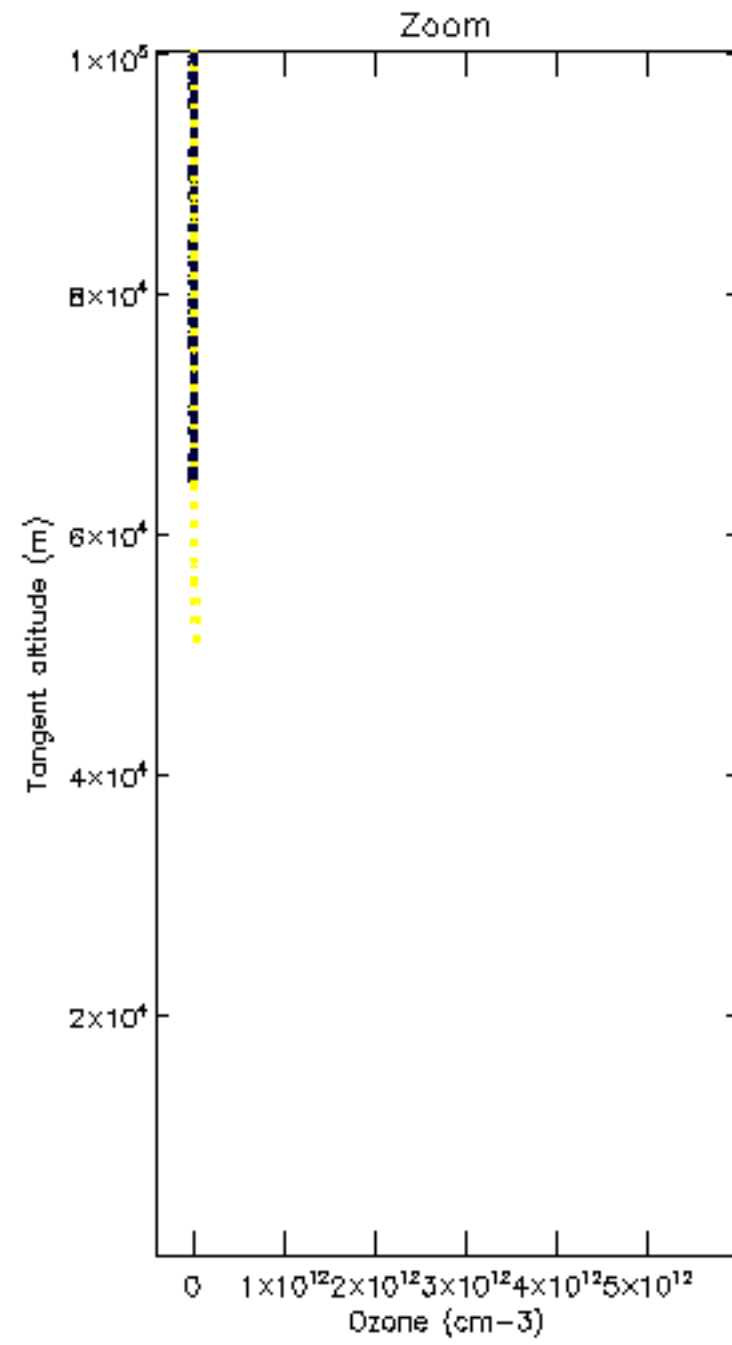
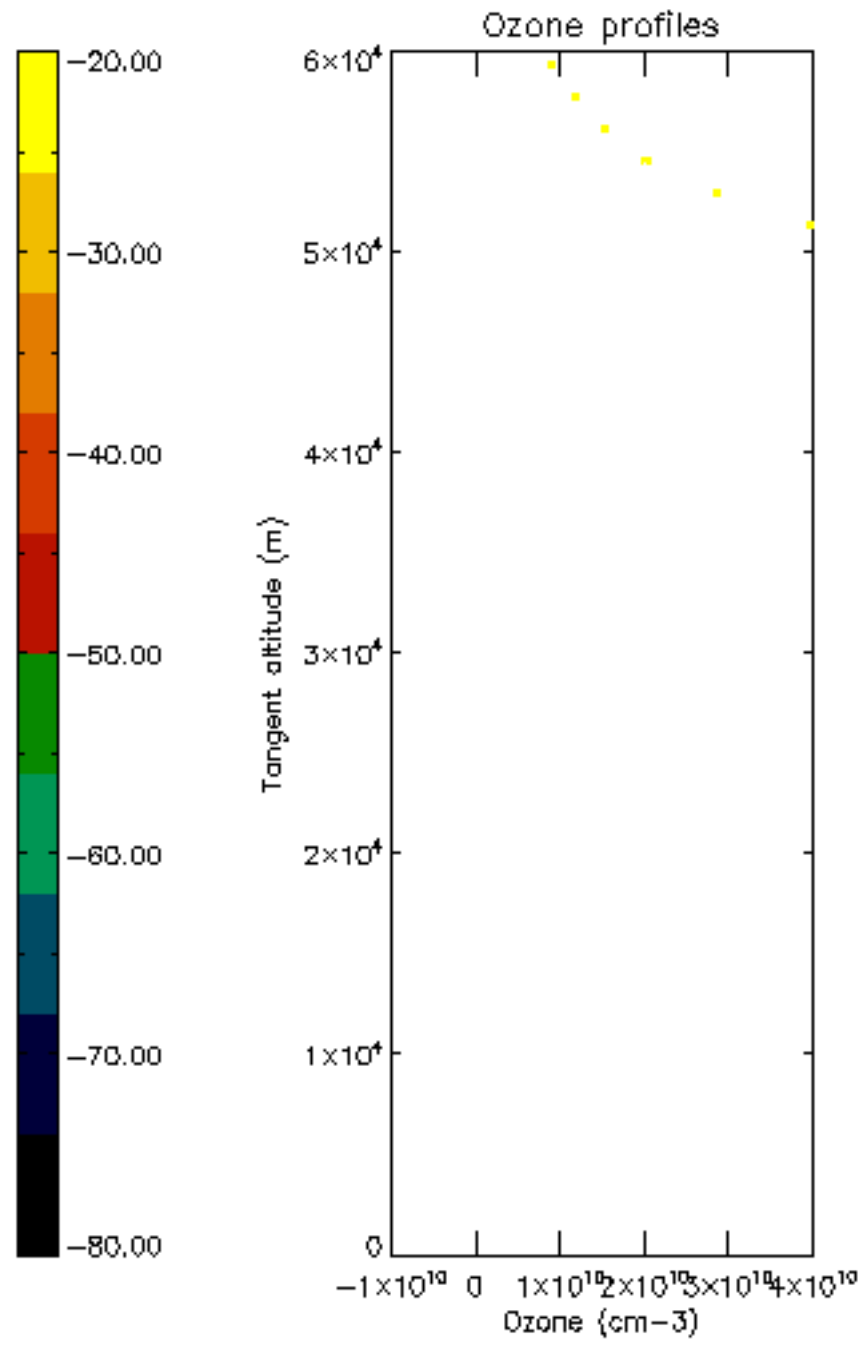


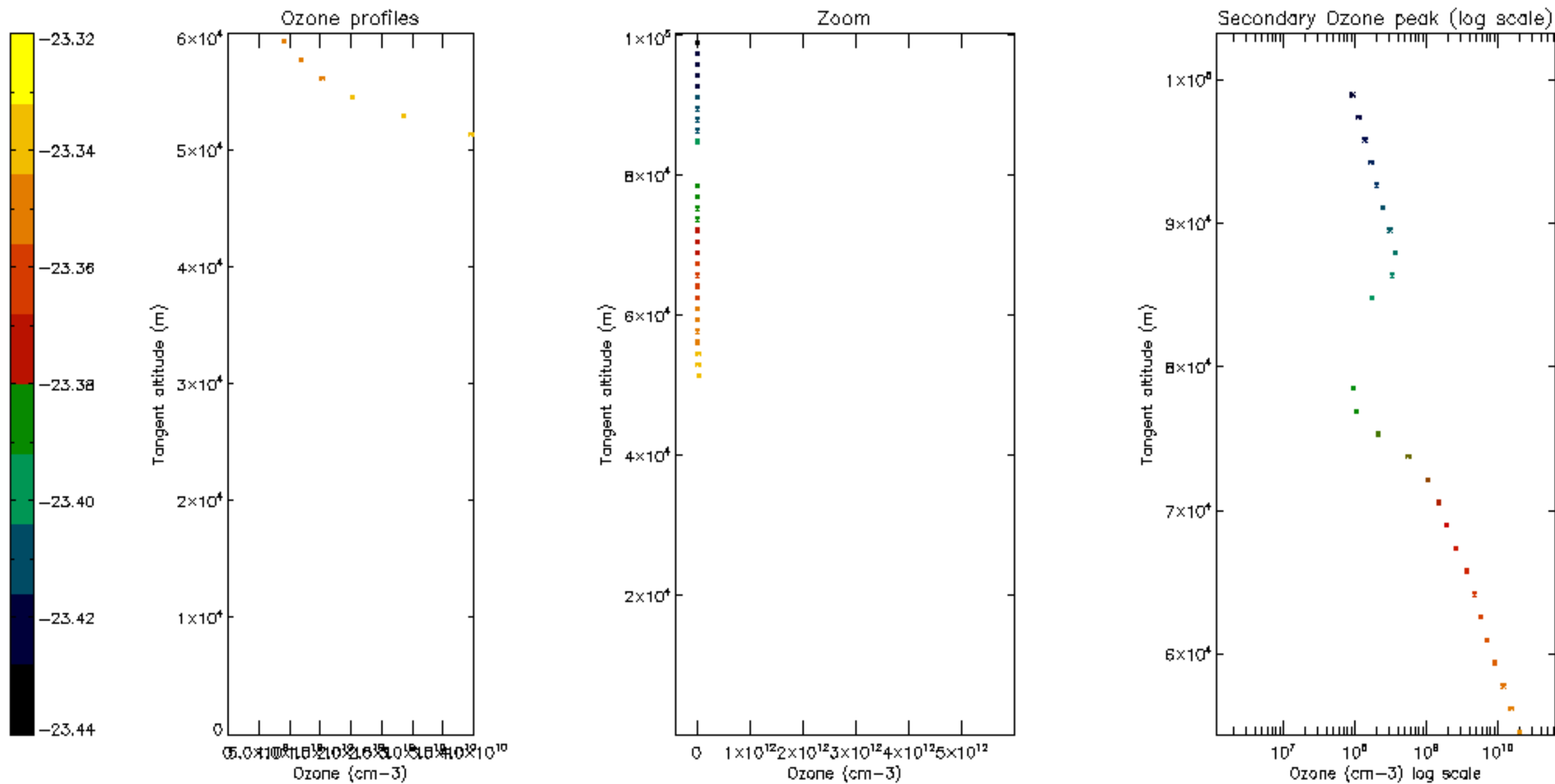
Percentage of star falling outside central band per profile

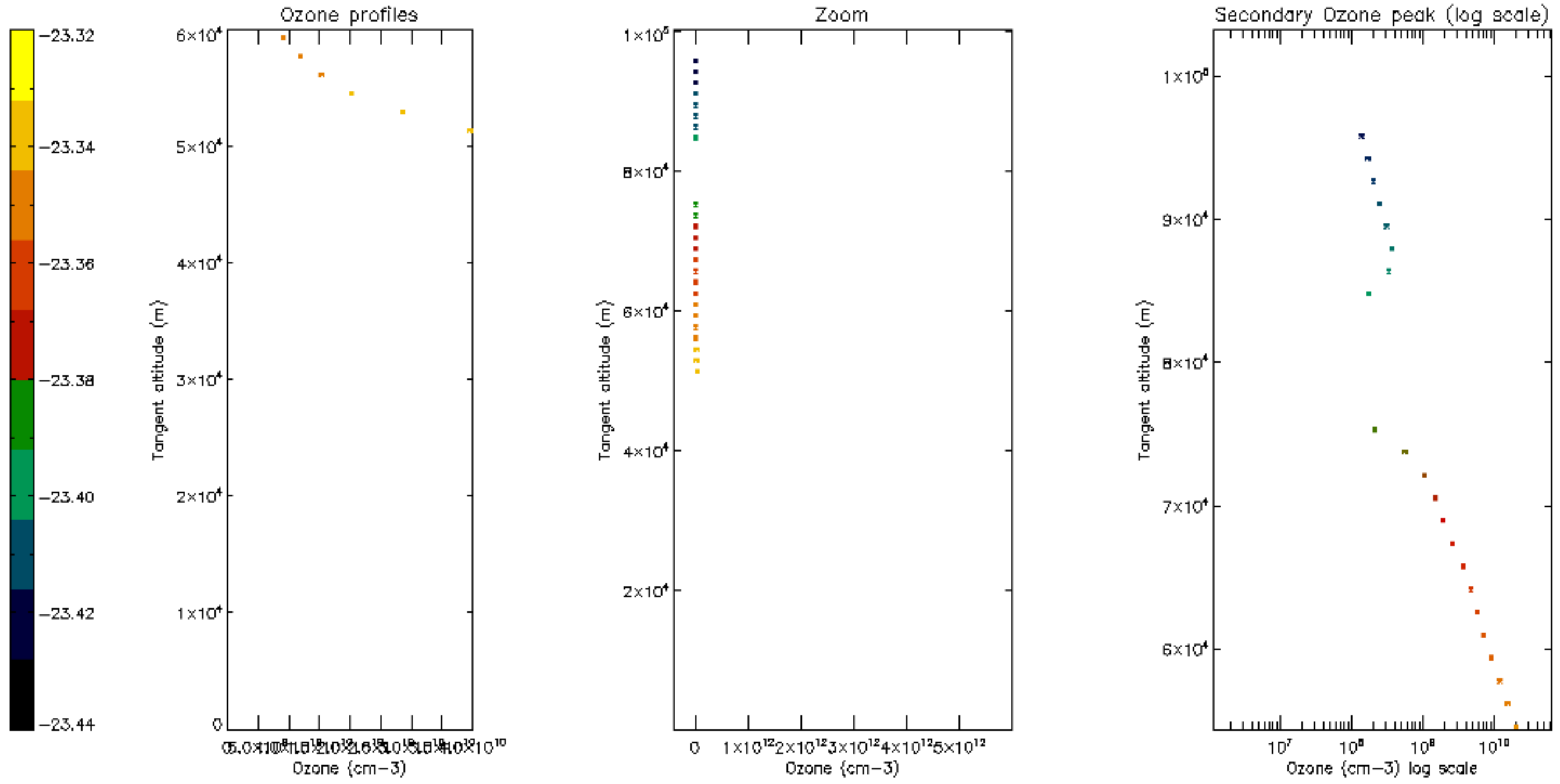


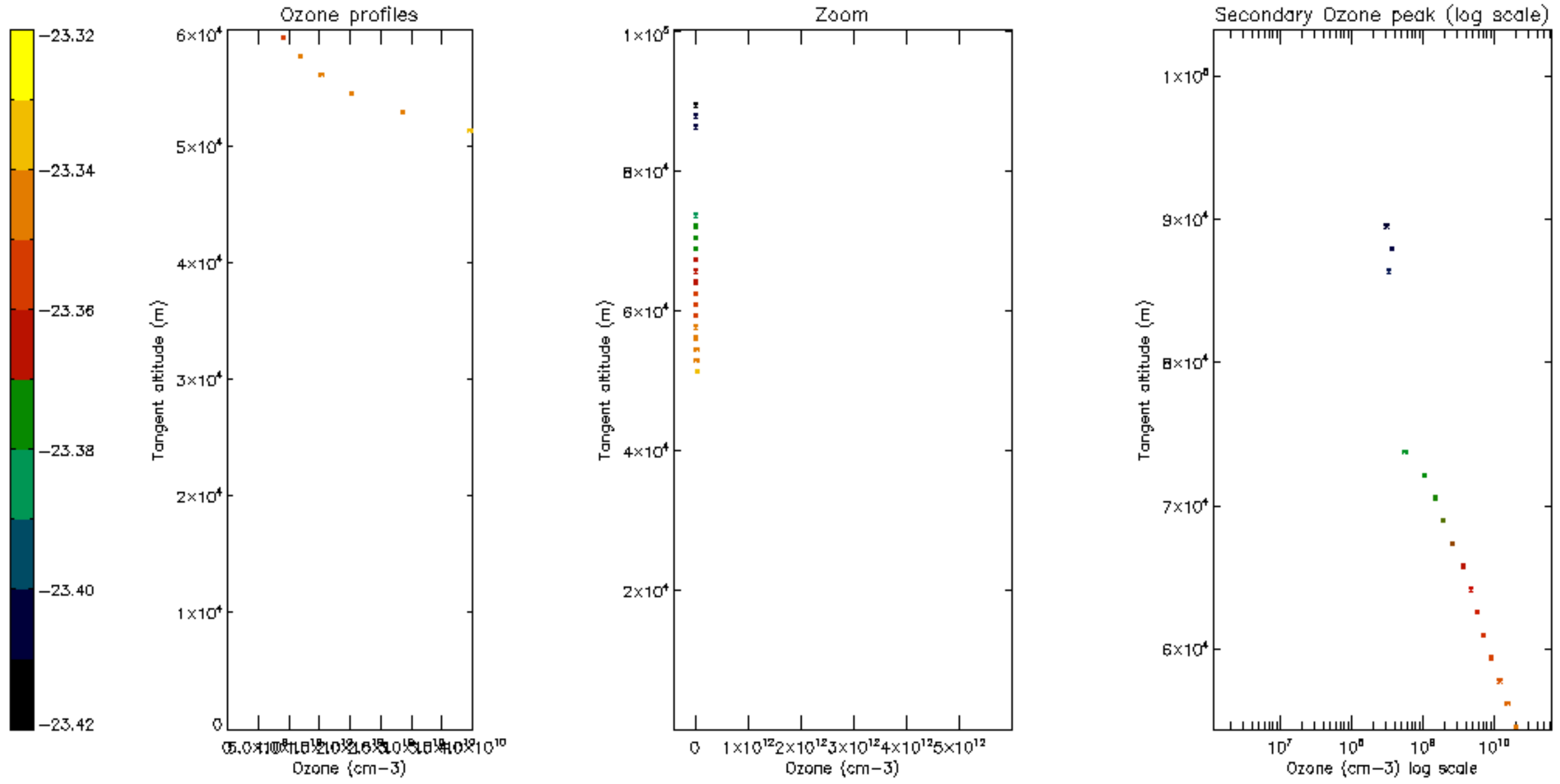
Percentage of saturation errors per profile

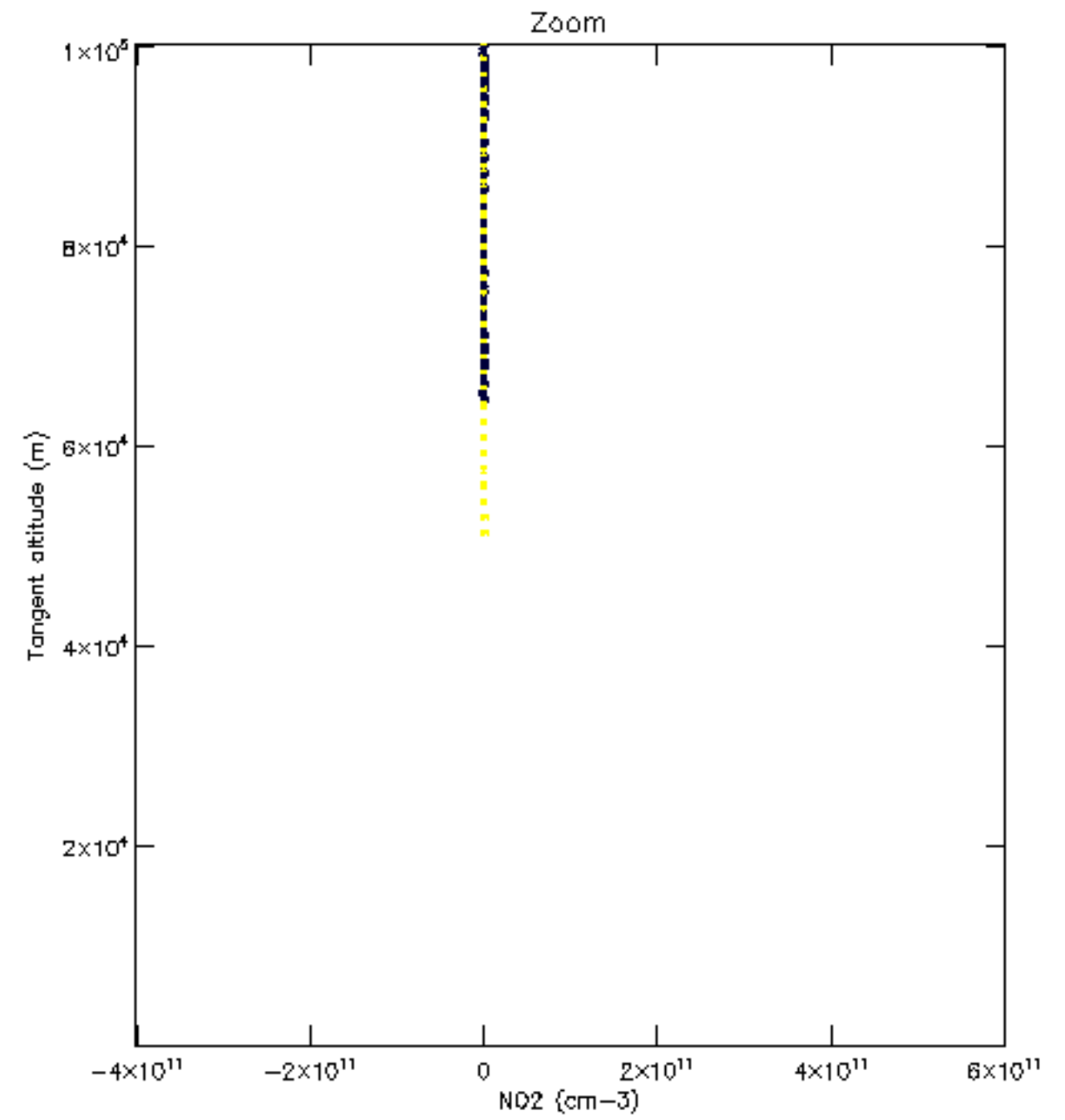
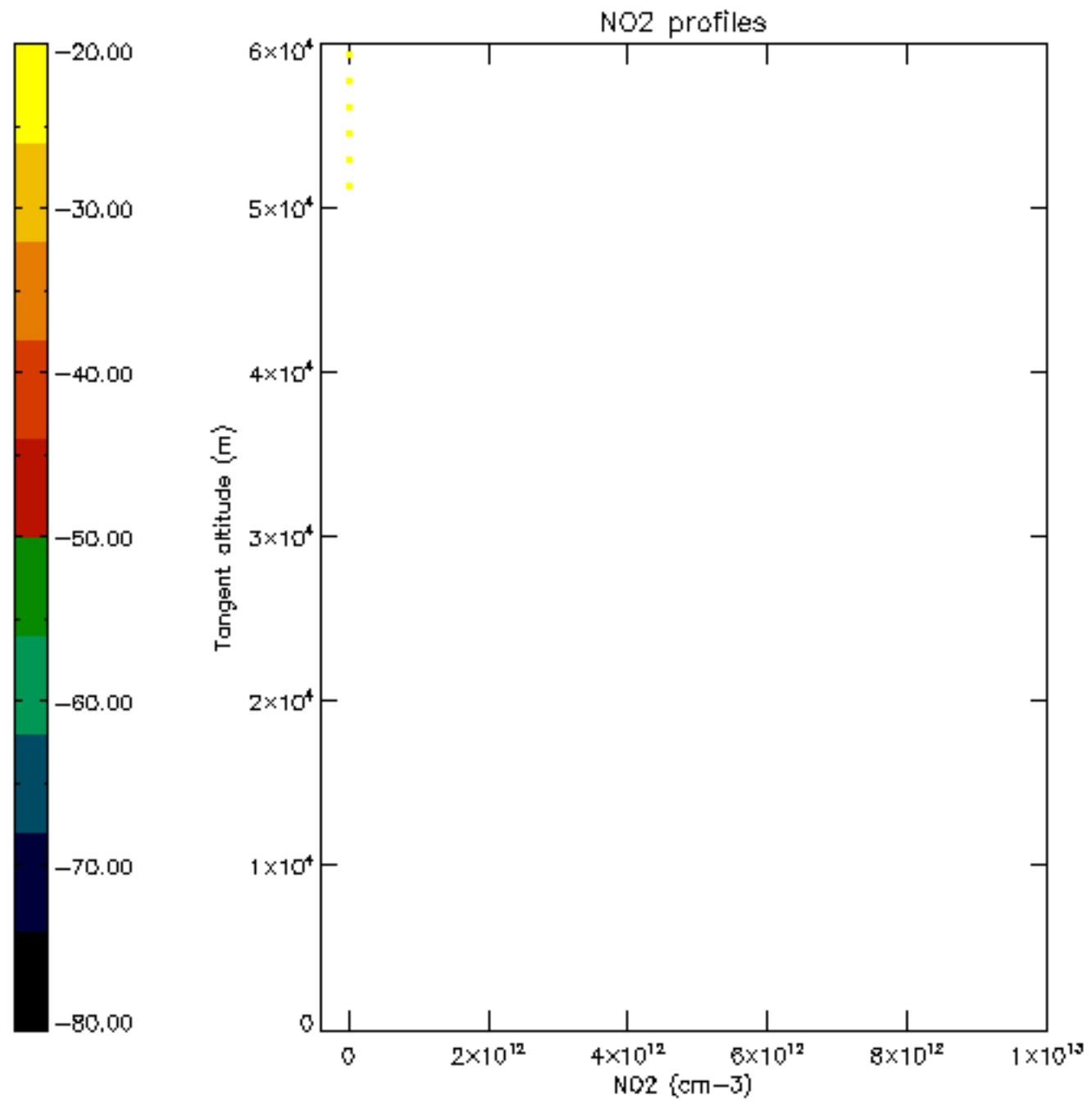


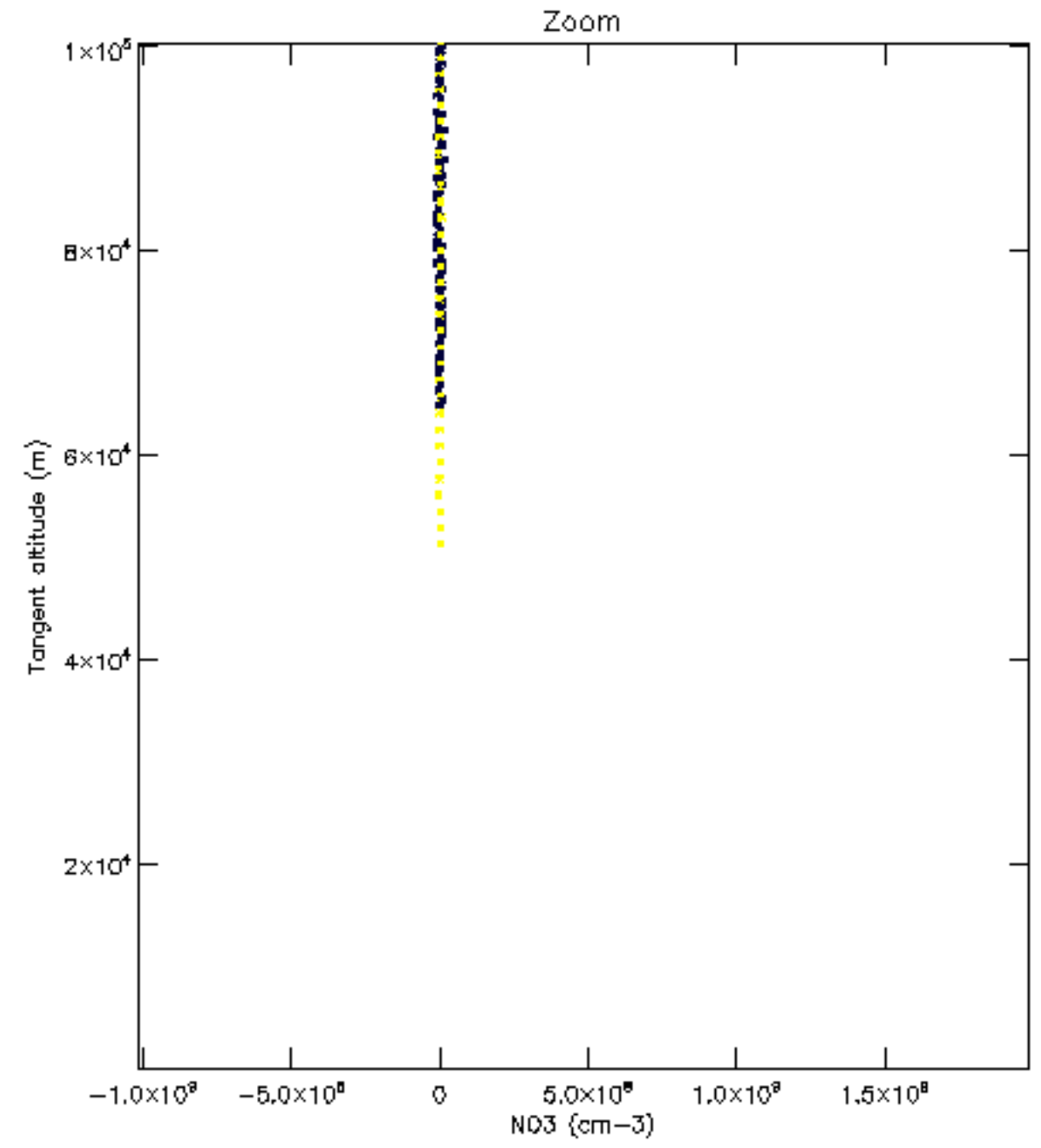
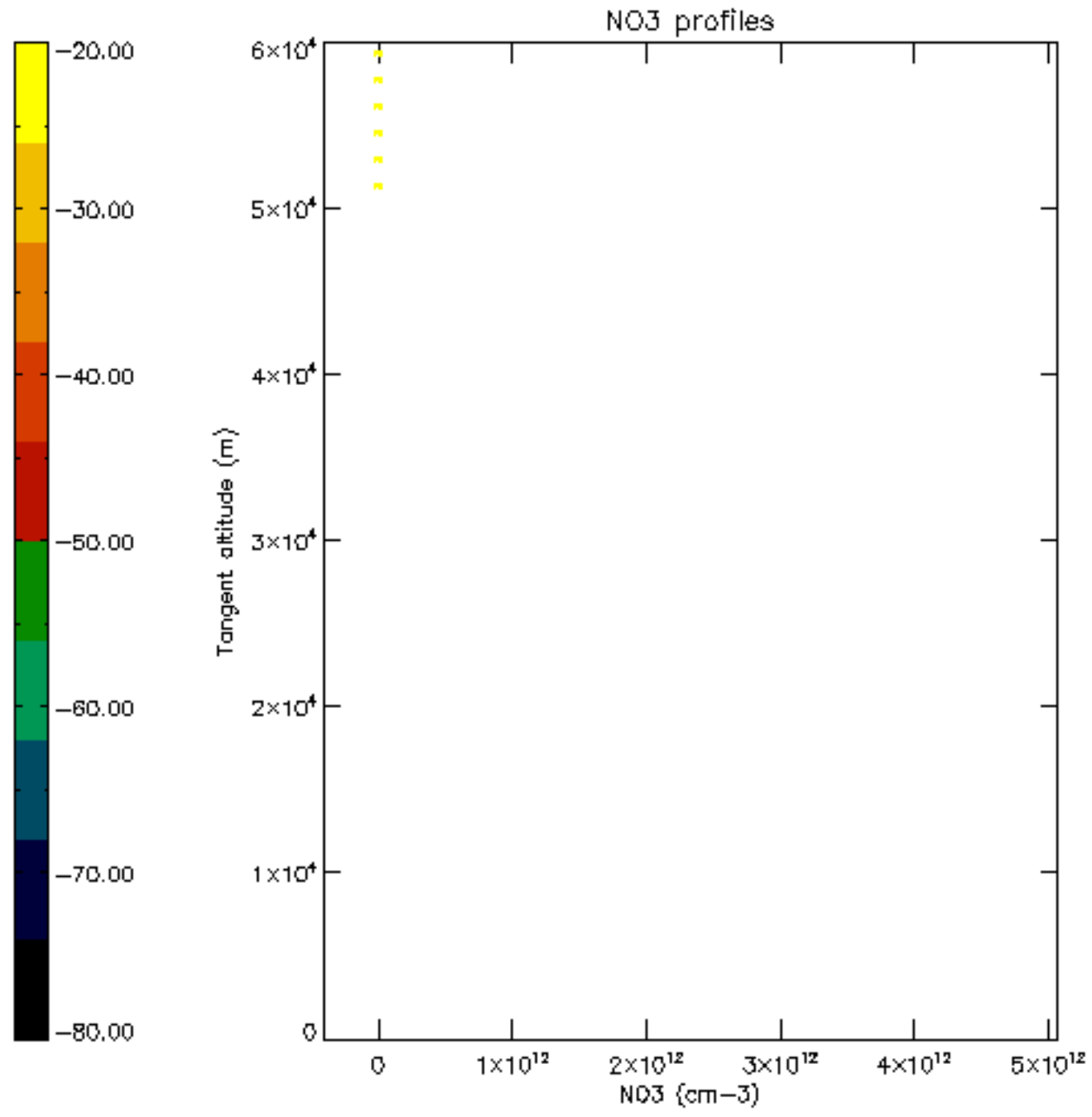


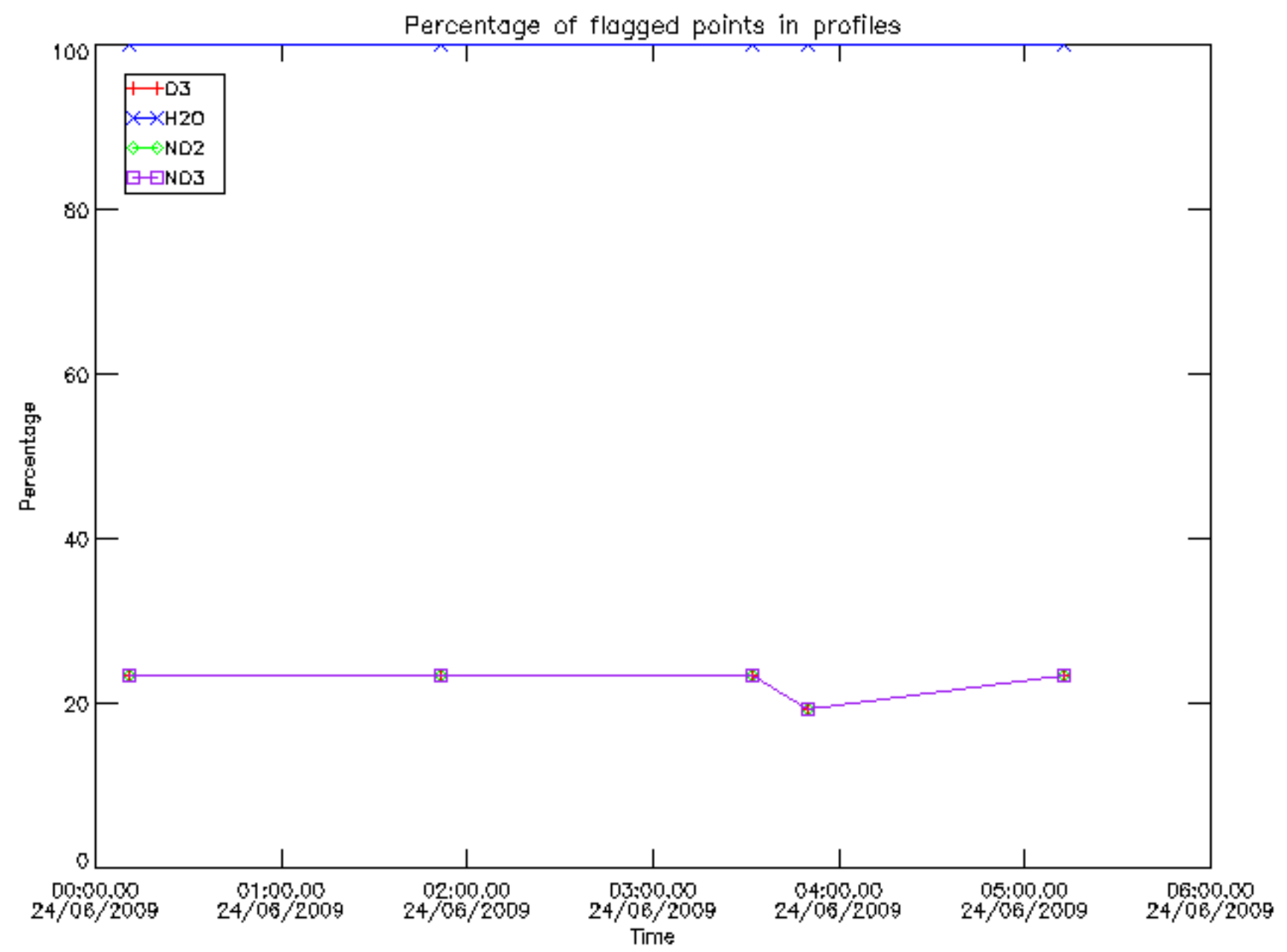




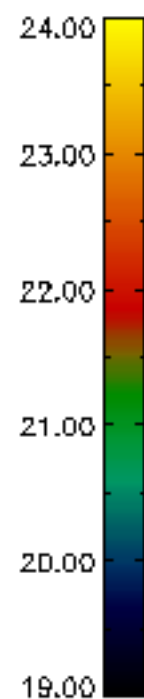
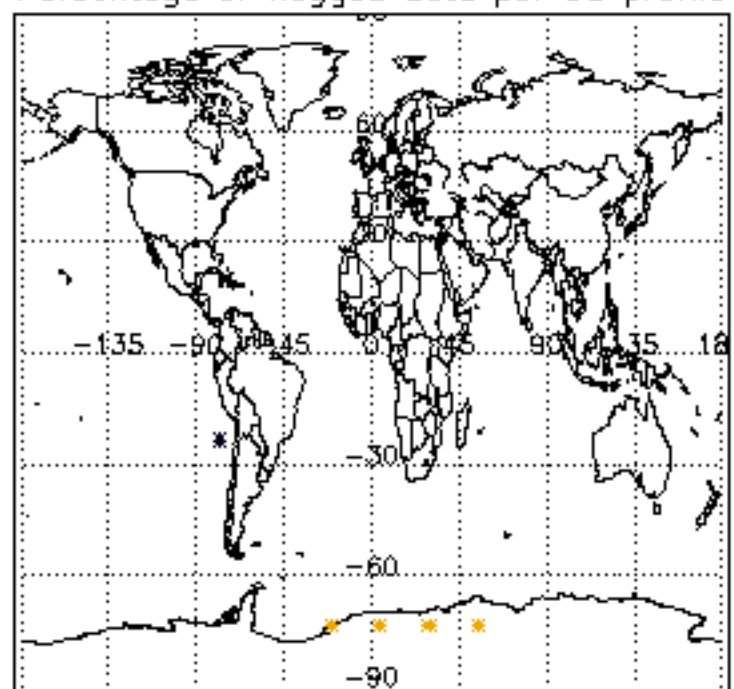




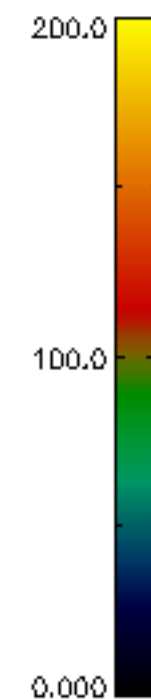
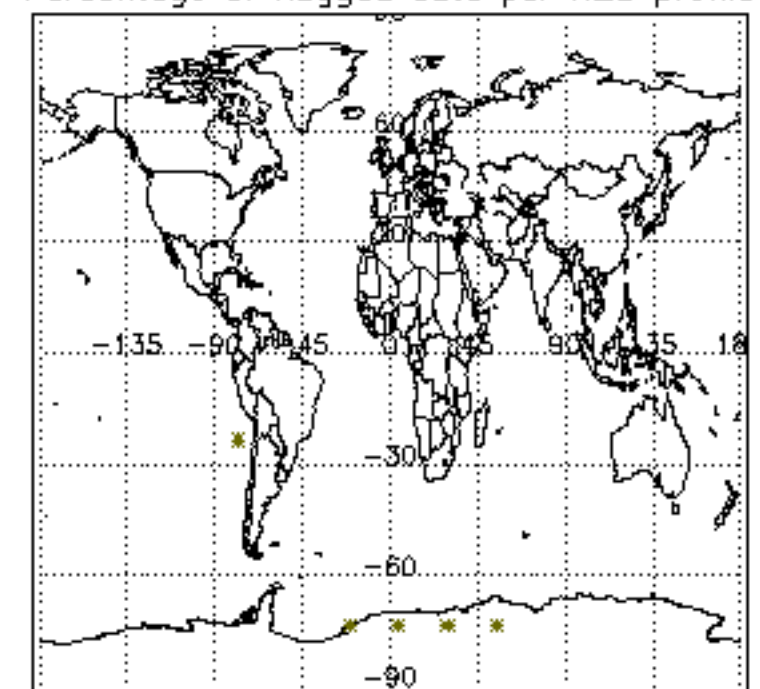




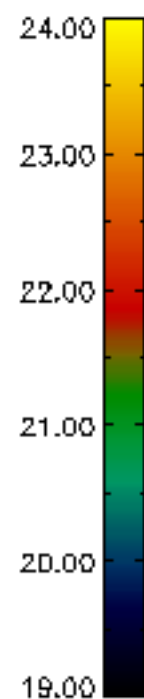
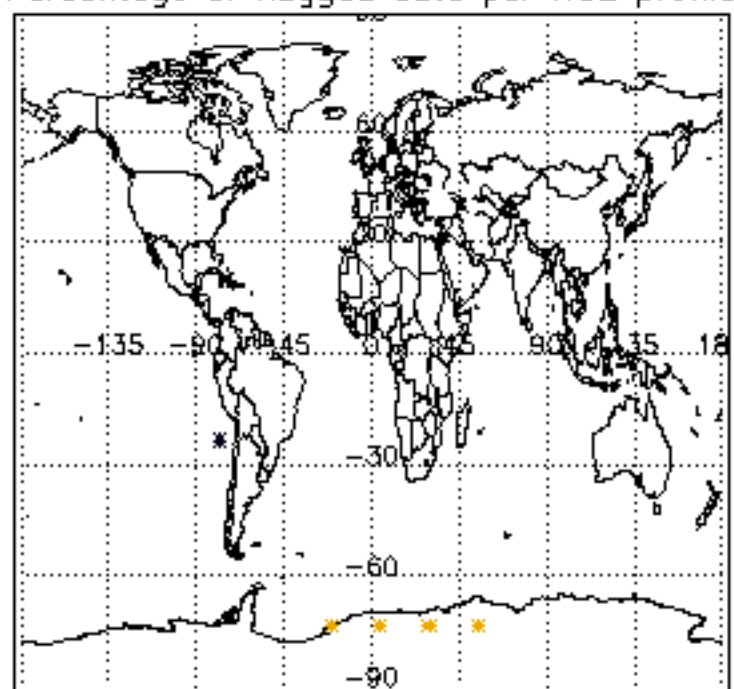
Percentage of flagged data per D3 profile



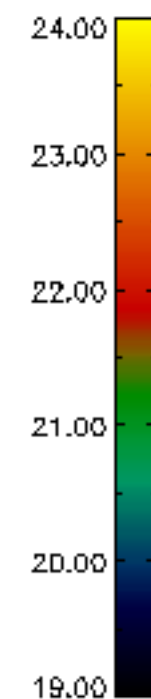
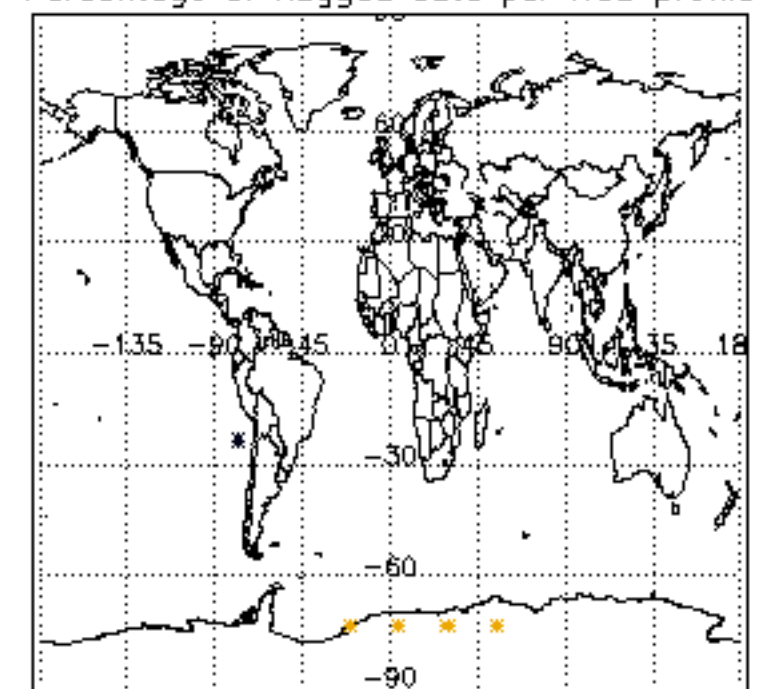
Percentage of flagged data per H2O profile

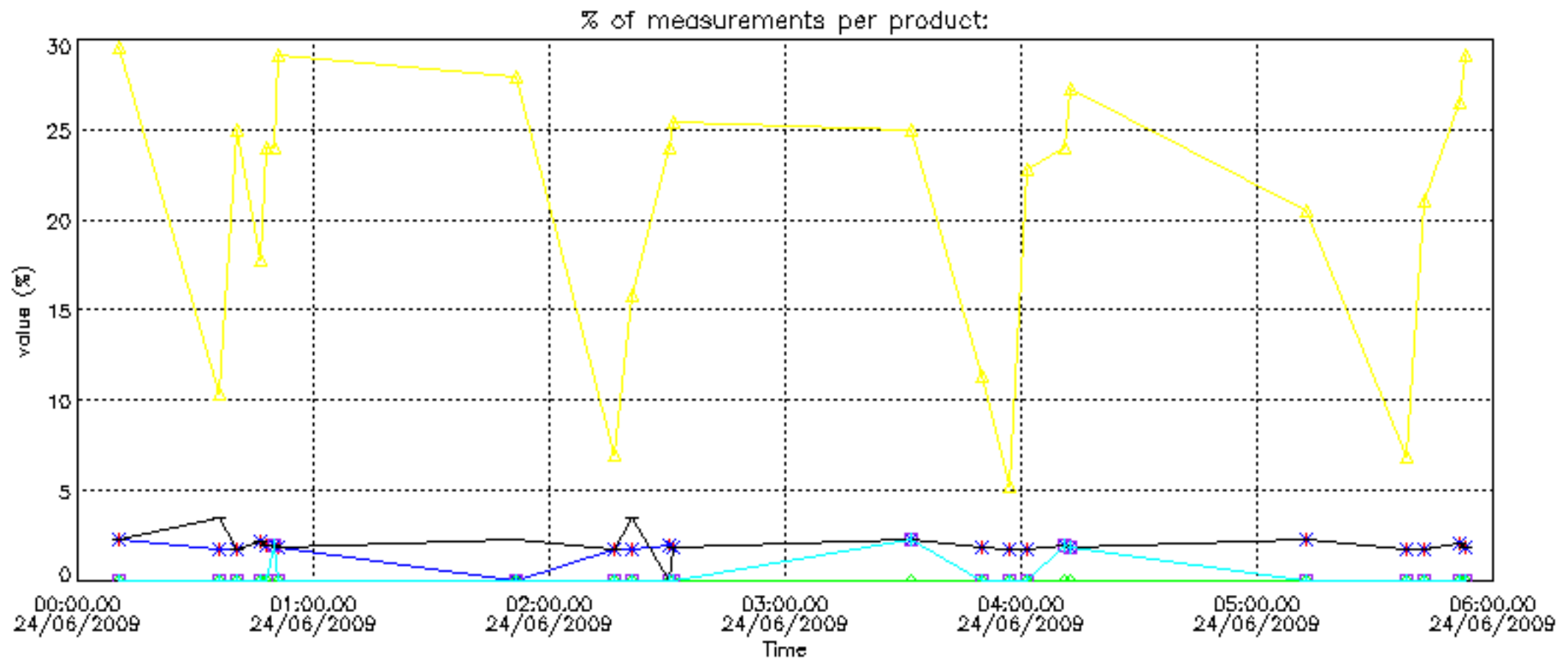


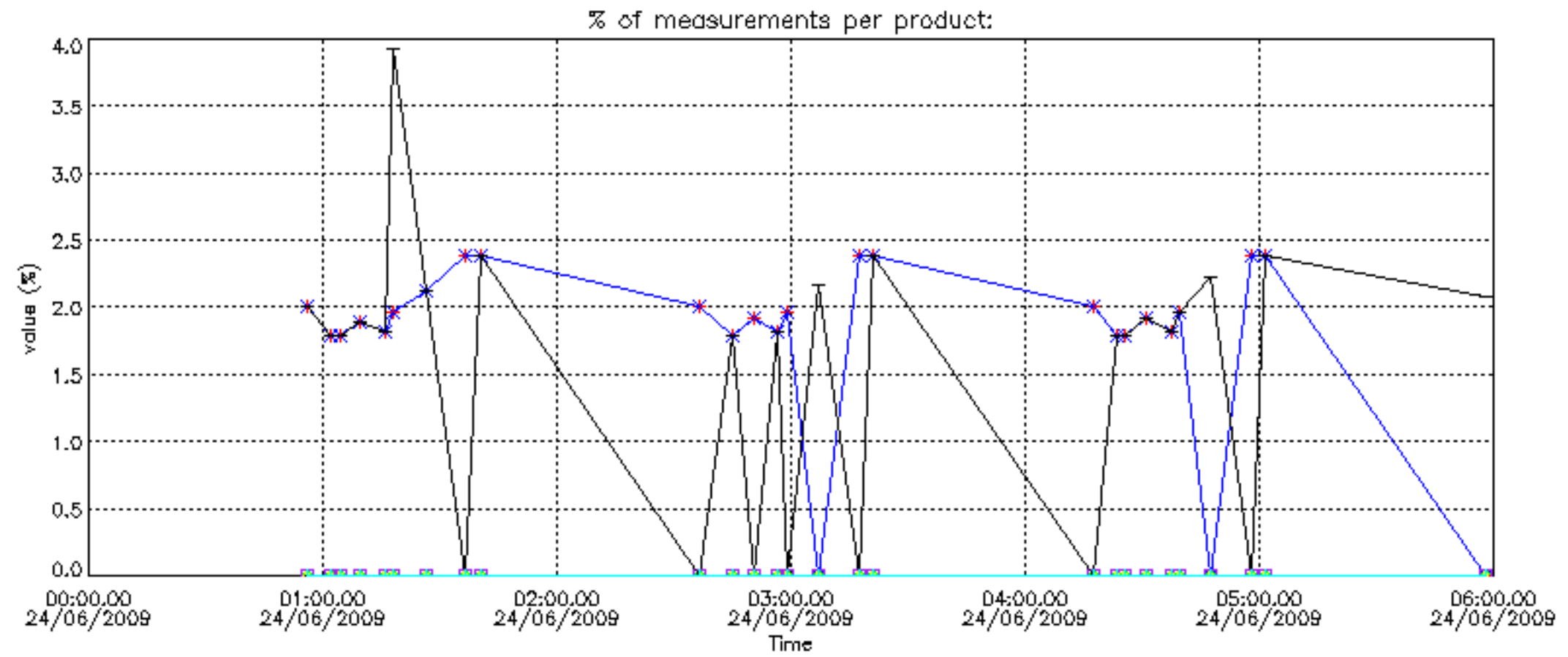
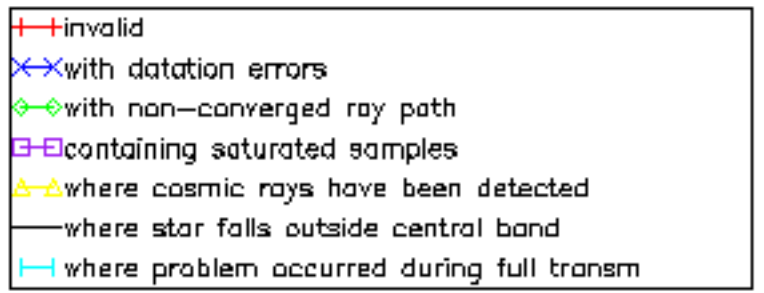
Percentage of flagged data per NO2 profile



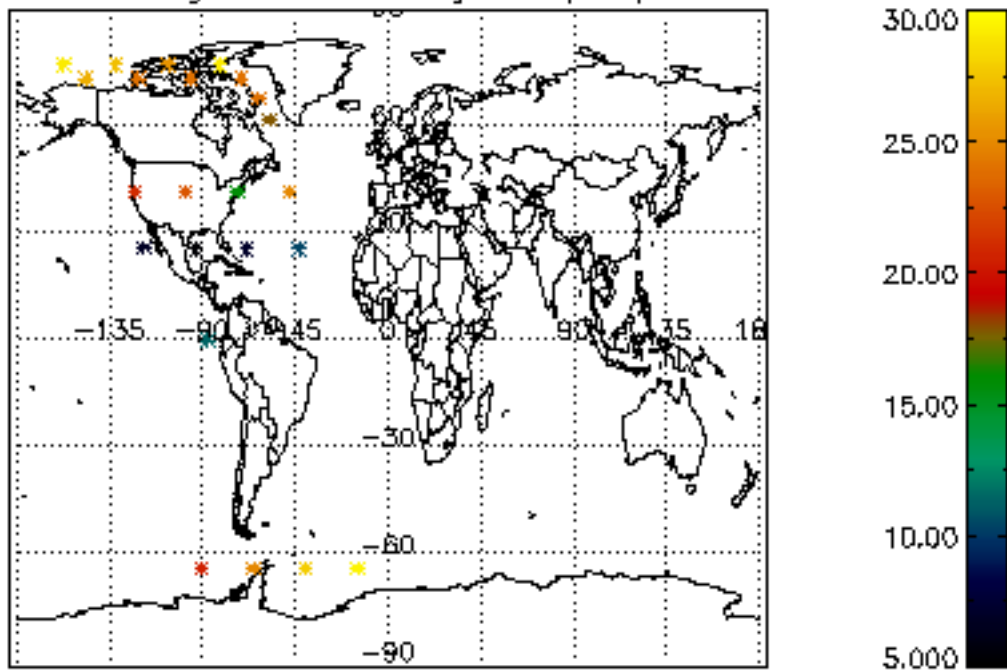
Percentage of flagged data per NO3 profile



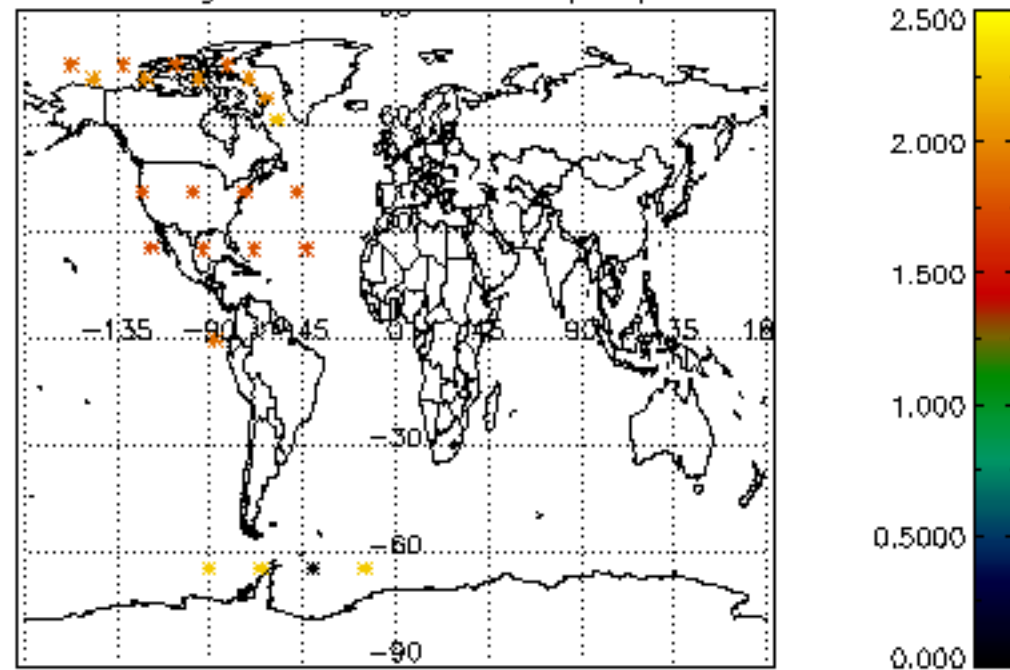




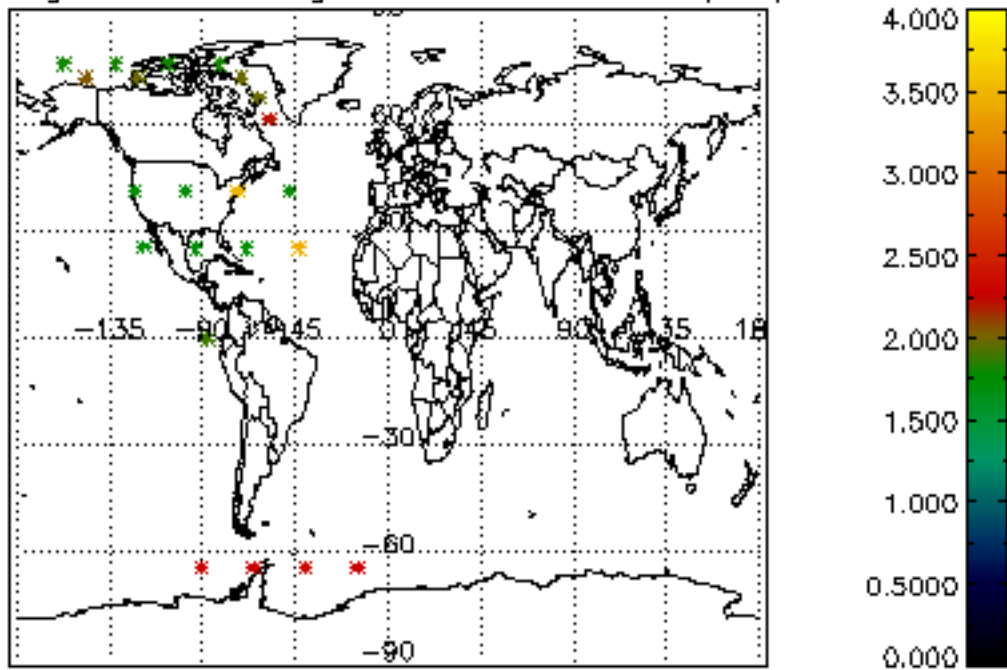
Percentage of cosmic ray hits per profile



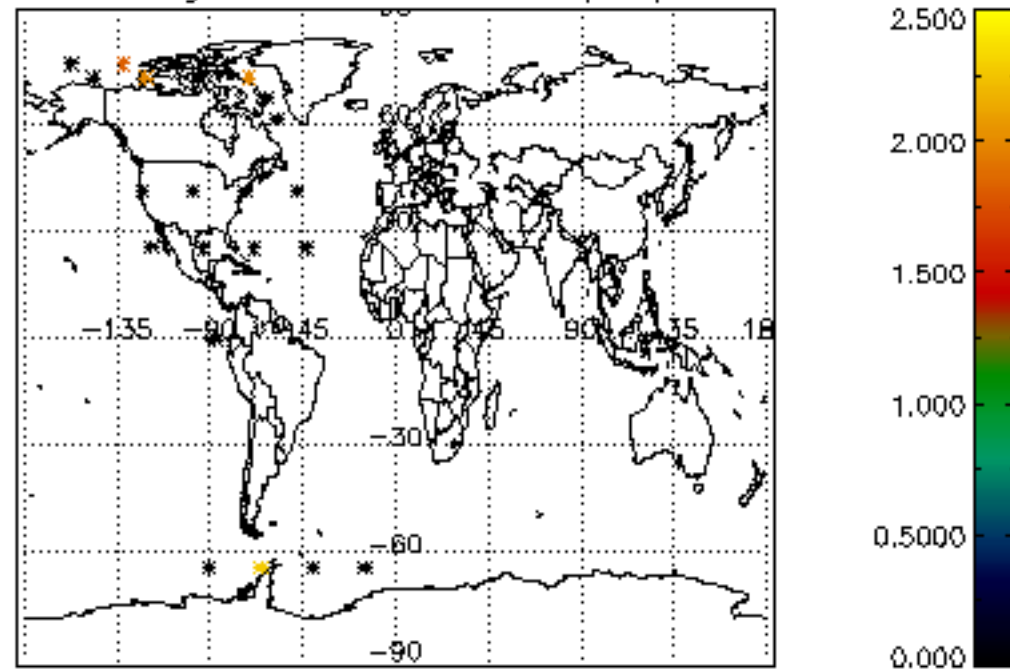
Percentage of datation errors per profile



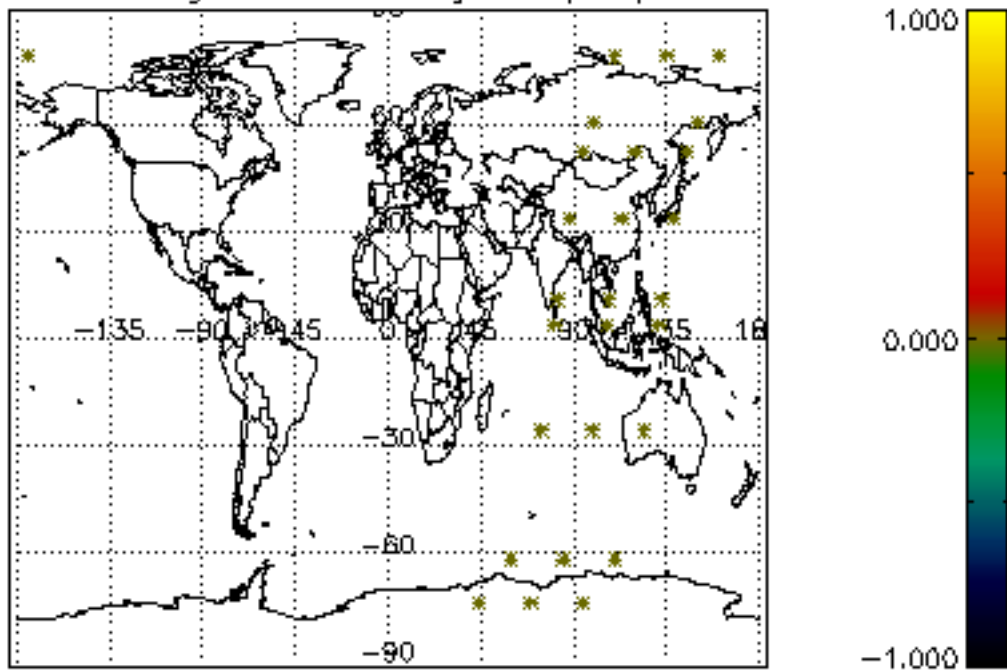
Percentage of star falling outside central band per profile



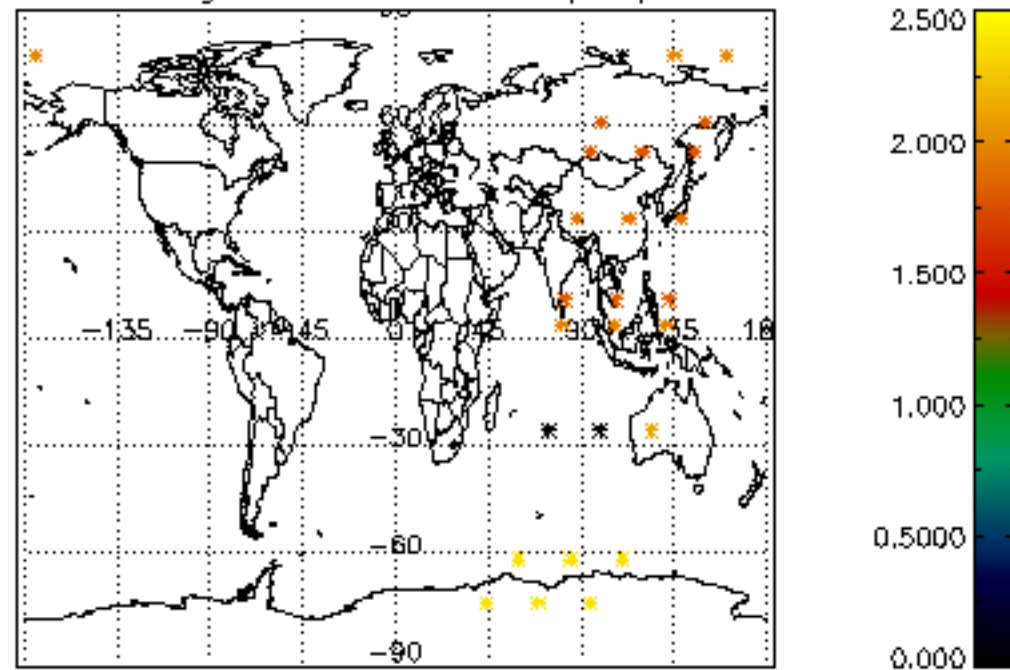
Percentage of saturation errors per profile



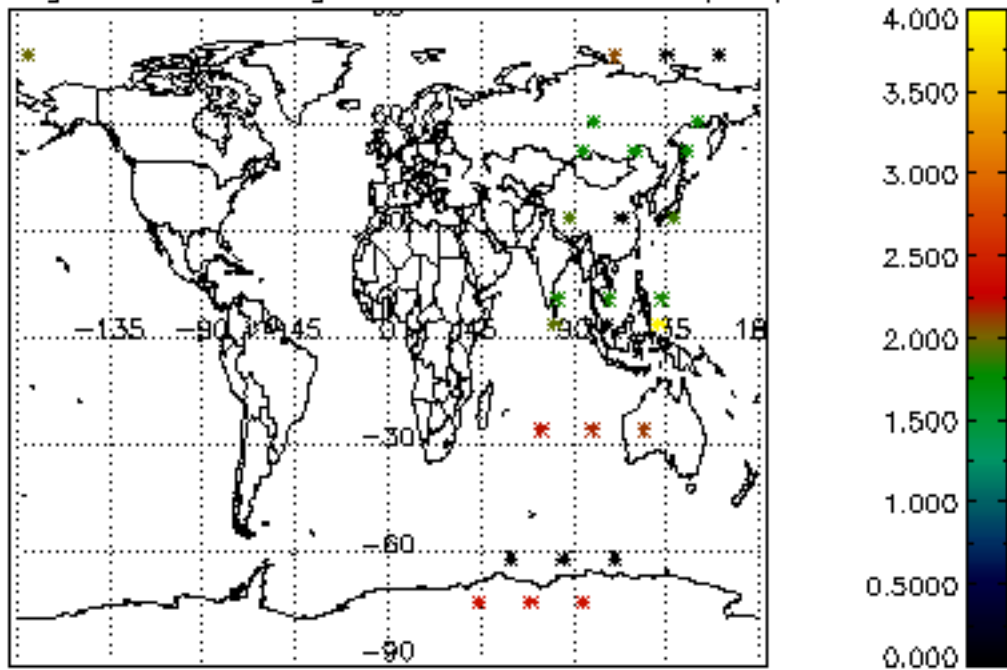
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

