

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 09:06:54
Data source version	GOMOS/6.01
Start time of products	28-04-2009 (28APR2009 00:00:00)
Stop time of products	29-04-2009 (29APR2009 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	107
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

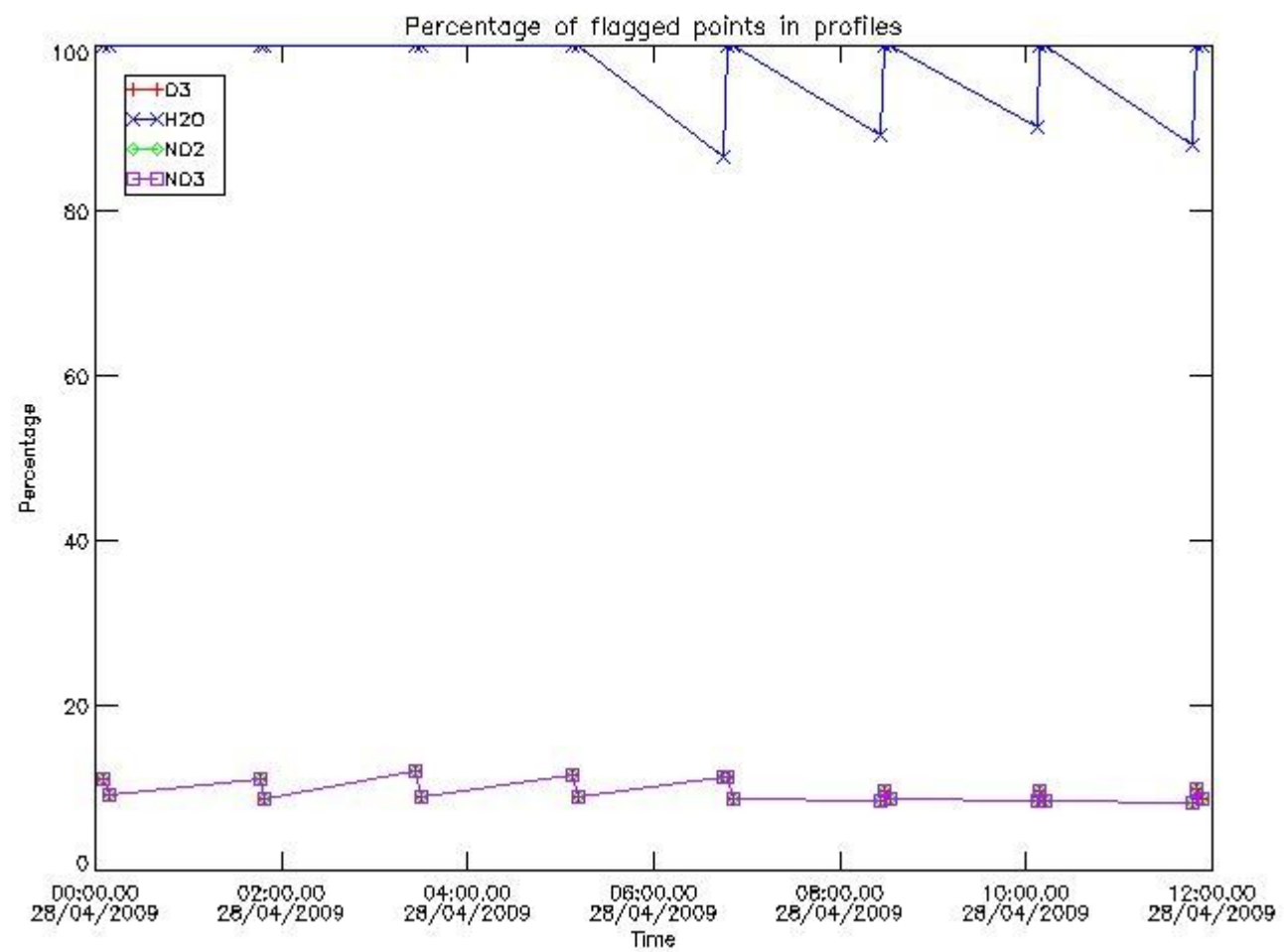
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20090428_000528_000000452078_00302_37430_0784.N1	28-APR-2009 00:05:28	Dark	45.000	162	34Alp Aqr	2.9440	5350.0	90	37430	No
2	GOM_NL__2PRFIN20090428_000854_000000562078_00302_37430_0785.N1	28-APR-2009 00:08:54	Dark	56.000	154	22Bet Aqr	2.8990	5700.0	112	37430	No
3	GOM_NL__2PRFIN20090428_003207_000000572078_00303_37431_0789.N1	28-APR-2009 00:32:07	Straylight	56.500	40	The Sco	1.8590	7100.0	113	37431	No
4	GOM_NL__2PRFIN20090428_003348_000000622078_00303_37431_0790.N1	28-APR-2009 00:33:48	Straylight	62.000	25	35Lam Sco	1.6200	28000.	124	37431	No
5	GOM_NL__2PRFIN20090428_003706_000000622078_00303_37431_0791.N1	28-APR-2009 00:37:06	Straylight	61.500	75	26Eps Sco	2.2910	4250.0	123	37431	No
6	GOM_NL__2PRFIN20090428_004324_000000462078_00303_37431_0792.N1	28-APR-2009 00:43:24	Twi_and_stray	46.000	80	7Del Sco	2.3160	30000.	92	37431	No
7	GOM_NL__2PRFIN20090428_004643_000000472078_00303_37431_0793.N1	28-APR-2009 00:46:43	Bright	46.500	122	9Alp2Lib	2.7470	9700.0	93	37431	No
8	GOM_NL__2PRFIN20090428_004909_000000502078_00303_37431_0794.N1	28-APR-2009 00:49:09	Bright	50.000	104	27Bet Lib	2.6140	13100.	100	37431	No
9	GOM_NL__2PRFIN20090428_005815_000000452078_00303_37431_0795.N1	28-APR-2009 00:58:15	Bright	45.000	3	16Alp Boo	-0.050000	4250.0	90	37431	No
10	GOM_NL__2PRFIN20090428_010137_000000482078_00303_37431_0796.N1	28-APR-2009 01:01:37	Bright	47.500	83		2.3780	11000.	95	37431	No
11	GOM_NL__2PRFIN20090428_010434_000000432078_00303_37431_0797.N1	28-APR-2009 01:04:34	Bright	42.500	180	27Gam Boo	3.0400	8000.0	85	37431	No
12	GOM_NL__2PRFIN20090428_011414_000000442078_00303_37431_0798.N1	28-APR-2009 01:14:14	Bright	43.500	119	14Eta Dra	2.7270	4700.0	87	37431	No
13	GOM_NL__2PRFIN20090428_012417_000000402078_00303_37431_0799.N1	28-APR-2009 01:24:17	Bright	40.000	89	5Alp Cep	2.4510	8000.0	80	37431	No
14	GOM_NL__2PRFIN20090428_014604_000000462078_00303_37431_0800.N1	28-APR-2009 01:46:04	Dark	45.500	162	34Alp Aqr	2.9440	5350.0	91	37431	No
15	GOM_NL__2PRFIN20090428_014931_000000582078_00303_37431_0801.N1	28-APR-2009 01:49:31	Dark	58.000	154	22Bet Aqr	2.8990	5700.0	116	37431	No
16	GOM_NL__2PRFIN20090428_021244_000000522078_00304_37432_0807.N1	28-APR-2009 02:12:44	Straylight	52.000	40	The Sco	1.8590	7100.0	104	37432	No
17	GOM_NL__2PRFIN20090428_021425_000000602078_00304_37432_0808.N1	28-APR-2009 02:14:25	Straylight	60.000	25	35Lam Sco	1.6200	28000.	120	37432	No
18	GOM_NL__2PRFIN20090428_021743_000000612078_00304_37432_0809.N1	28-APR-2009 02:17:43	Straylight	60.500	75	26Eps Sco	2.2910	4250.0	121	37432	No
19	GOM_NL__2PRFIN20090428_022401_000000512078_00304_37432_0810.N1	28-APR-2009 02:24:01	Twi_and_stray	51.000	80	7Del Sco	2.3160	30000.	102	37432	No
20	GOM_NL__2PRFIN20090428_022719_000000472078_00304_37432_0811.N1	28-APR-2009 02:27:19	Bright	47.000	122	9Alp2Lib	2.7470	9700.0	94	37432	No
21	GOM_NL__2PRFIN20090428_022945_000000522078_00304_37432_0812.N1	28-APR-2009 02:29:45	Bright	52.000	104	27Bet Lib	2.6140	13100.	104	37432	No
22	GOM_NL__2PRFIN20090428_023850_000000622078_00304_37432_0813.N1	28-APR-2009 02:38:50	Bright	62.000	3	16Alp Boo	-0.050000	4250.0	124	37432	No
23	GOM_NL__2PRFIN20090428_024212_000000492078_00304_37432_0814.N1	28-APR-2009 02:42:12	Bright	49.000	83		2.3780	11000.	98	37432	No
24	GOM_NL__2PRFIN20090428_024509_000000422078_00304_37432_0815.N1	28-APR-2009 02:45:09	Bright	41.500	180	27Gam Boo	3.0400	8000.0	83	37432	No
25	GOM_NL__2PRFIN20090428_025449_000000462078_00304_37432_0816.N1	28-APR-2009 02:54:49	Bright	46.000	119	14Eta Dra	2.7270	4700.0	92	37432	No
26	GOM_NL__2PRFIN20090428_030453_000000392078_00304_37432_0817.N1	28-APR-2009 03:04:53	Bright	39.000	89	5Alp Cep	2.4510	8000.0	78	37432	No
27	GOM_NL__2PRFIN20090428_032641_000000432078_00304_37432_0818.N1	28-APR-2009 03:26:41	Dark	42.500	162	34Alp Aqr	2.9440	5350.0	85	37432	No
28	GOM_NL__2PRFIN20090428_033008_000000582078_00304_37432_0819.N1	28-APR-2009 03:30:08	Dark	57.500	154	22Bet Aqr	2.8990	5700.0	115	37432	No
29	GOM_NL__2PRFIN20090428_035321_000000612078_00305_37433_0818.N1	28-APR-2009 03:53:21	Straylight	60.500	40	The Sco	1.8590	7100.0	121	37433	No
30	GOM_NL__2PRFIN20090428_035502_000000642078_00305_37433_0819.N1	28-APR-2009 03:55:02	Straylight	63.500	25	35Lam Sco	1.6200	28000.	127	37433	No
31	GOM_NL__2PRFIN20090428_035820_000000612078_00305_37433_0820.N1	28-APR-2009 03:58:20	Straylight	60.500	75	26Eps Sco	2.2910	4250.0	121	37433	No
32	GOM_NL__2PRFIN20090428_040437_000000512078_00305_37433_0821.N1	28-APR-2009 04:04:37	Twi_and_stray	51.000	80	7Del Sco	2.3160	30000.	102	37433	No
33	GOM_NL__2PRFIN20090428_040755_000000442078_00305_37433_0822.N1	28-APR-2009 04:07:55	Bright	43.500	122	9Alp2Lib	2.7470	9700.0	87	37433	No
34	GOM_NL__2PRFIN20090428_041021_000000512078_00305_37433_0823.N1	28-APR-2009 04:10:21	Bright	51.000	104	27Bet Lib	2.6140	13100.	102	37433	No
35	GOM_NL__2PRFIN20090428_041926_000000622078_00305_37433_0824.N1	28-APR-2009 04:19:26	Bright	62.000	3	16Alp Boo	-0.050000	4250.0	124	37433	No
36	GOM_NL__2PRFIN20090428_042247_000000482078_00305_37433_0825.N1	28-APR-2009 04:22:47	Bright	48.000	83		2.3780	11000.	96	37433	No
37	GOM_NL__2PRFIN20090428_042545_000000412078_00305_37433_0826.N1	28-APR-2009 04:25:45	Bright	41.000	180	27Gam Boo	3.0400	8000.0	82	37433	No
38	GOM_NL__2PRFIN20090428_043525_000000452078_00305_37433_0827.N1	28-APR-2009 04:35:25	Bright	44.500	119	14Eta Dra	2.7270	4700.0	89	37433	No
39	GOM_NL__2PRFIN20090428_044529_000000442078_00305_37433_0828.N1	28-APR-2009 04:45:29	Bright	44.000	89	5Alp Cep	2.4510	8000.0	88	37433	No
40	GOM_NL__2PRFIN20090428_050718_000000442078_00305_37433_0829.N1	28-APR-2009 05:07:18	Dark	44.000	162	34Alp Aqr	2.9440	5350.0	88	37433	No
41	GOM_NL__2PRFIN20090428_051045_000000582078_00305_37433_0830.N1	28-APR-2009 05:10:45	Dark	57.500	154	22Bet Aqr	2.8990	5700.0	115	37433	No
42	GOM_NL__2PRFIN20090428_053357_000000552078_00306_37434_0832.N1	28-APR-2009 05:33:57	Straylight	54.500	40	The Sco	1.8590	7100.0	109	37434	No

102	GOM_NL__2PRFIN20090428_123056_000000442078_00310_37438_0931.N1	28-APR-2009 12:30:56	Bright	44.000	122	9Alp2Lib	2.7470	9700.0	88	37438	No
103	GOM_NL__2PRFIN20090428_123320_000000512078_00310_37438_0932.N1	28-APR-2009 12:33:20	Bright	50.500	104	27Bet Lib	2.6140	13100.	101	37438	No
104	GOM_NL__2PRFIN20090428_124224_000000612078_00310_37438_0933.N1	28-APR-2009 12:42:24	Bright	61.000	3	16Alp Boo	-0.050000	4250.0	122	37438	No
105	GOM_NL__2PRFIN20090428_124544_000000442078_00310_37438_0934.N1	28-APR-2009 12:45:44	Bright	44.000	83		2.3780	11000.	88	37438	No
106	GOM_NL__2PRFIN20090428_124842_000000422078_00310_37438_0935.N1	28-APR-2009 12:48:42	Bright	41.500	180	27Gam Boo	3.0400	8000.0	83	37438	No
107	GOM_NL__2PRFIN20090428_125821_000000462078_00310_37438_0936.N1	28-APR-2009 12:58:21	Bright	46.000	119	14Eta Dra	2.7270	4700.0	92	37438	No

3. Quality information per product

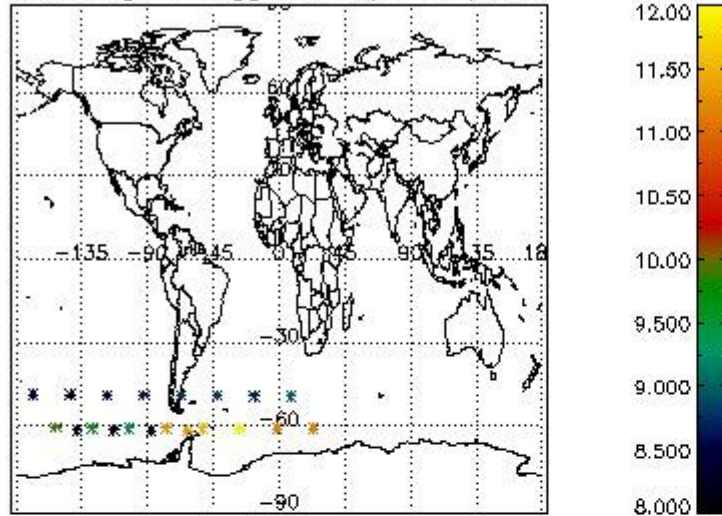
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

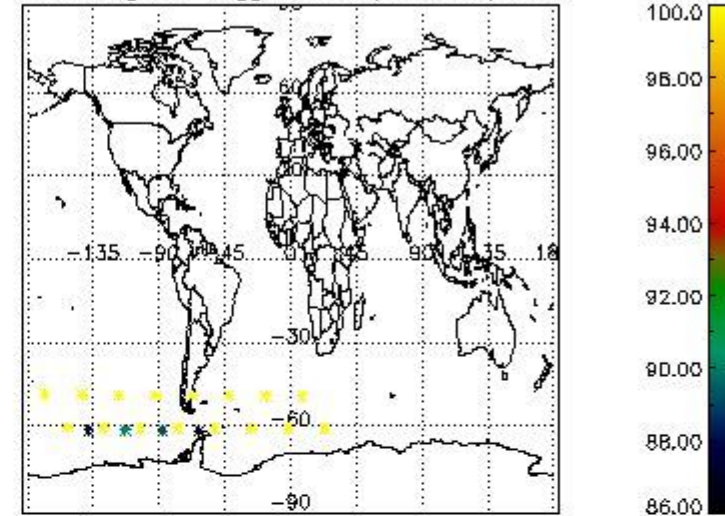


3.2 Plot quality information per product (world map)

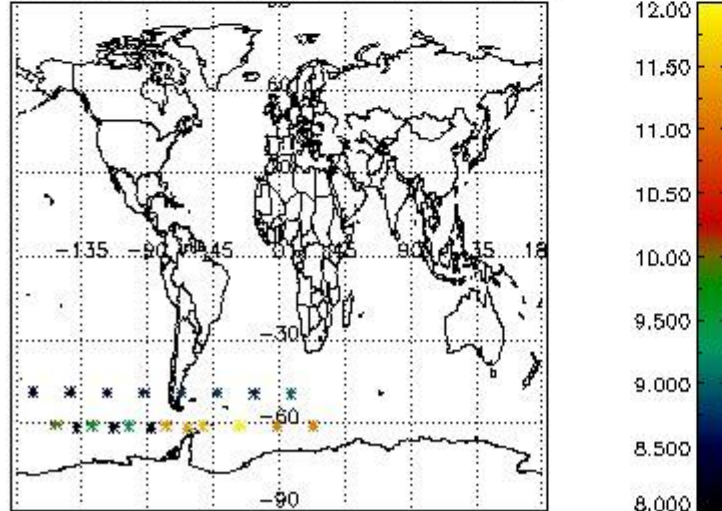
Percentage of flagged data per O3 profile



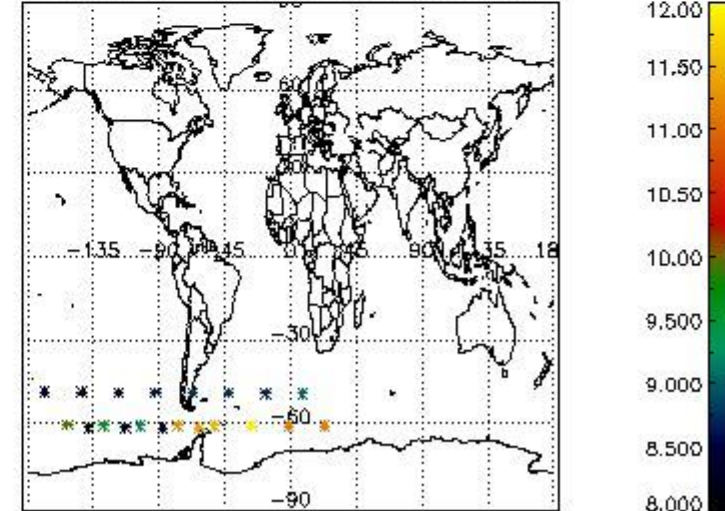
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

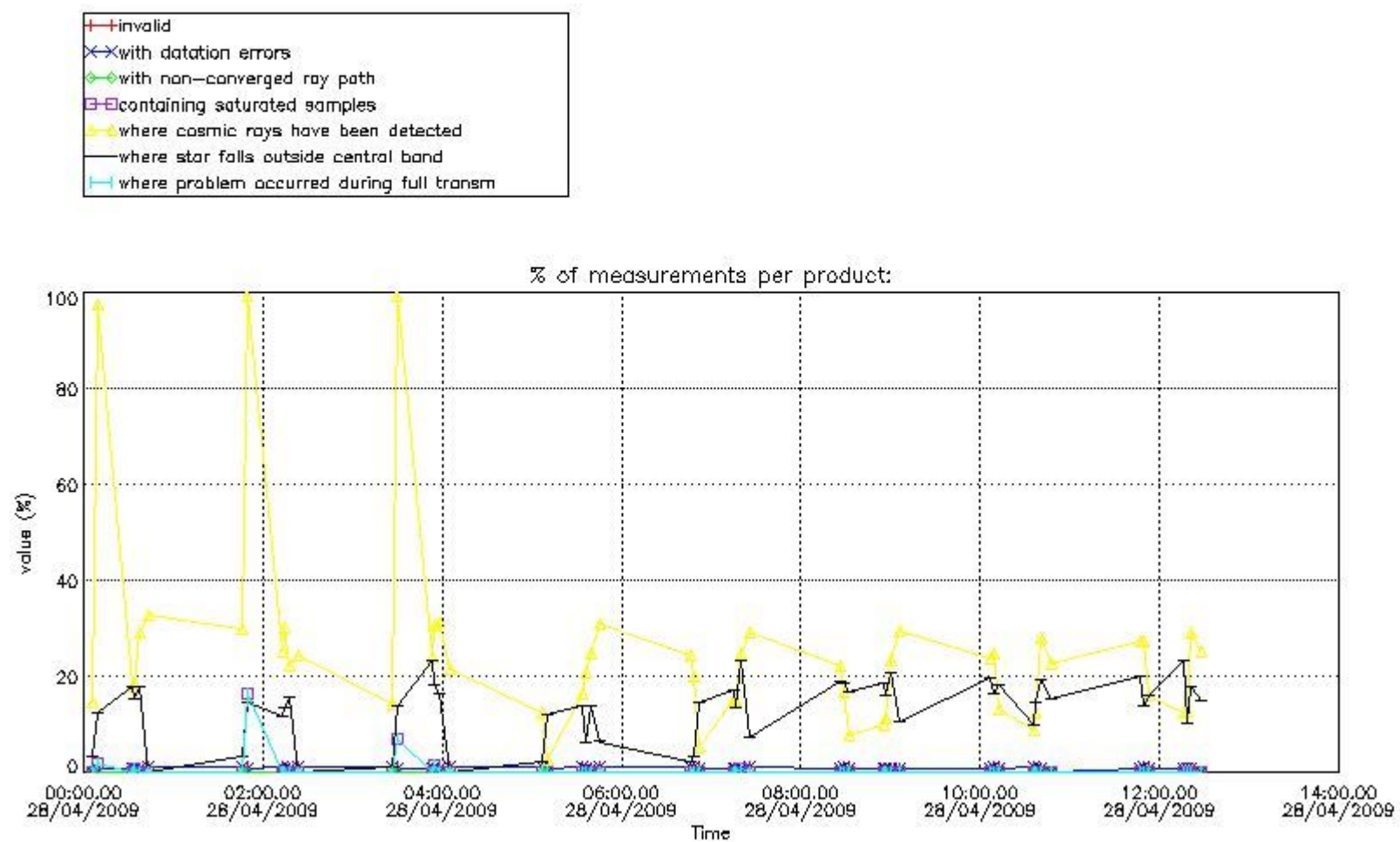


4. Level 1 quality information per product

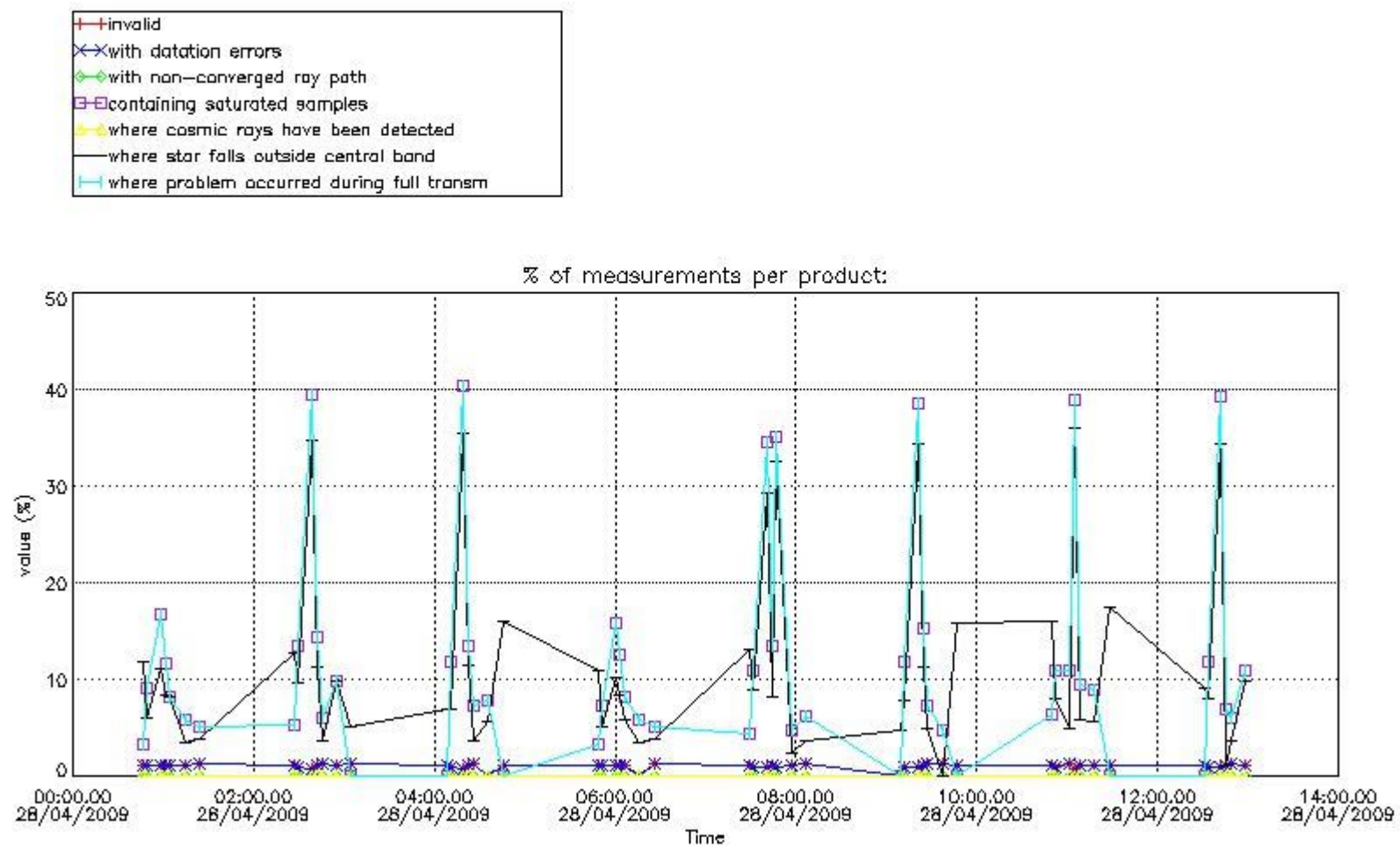
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

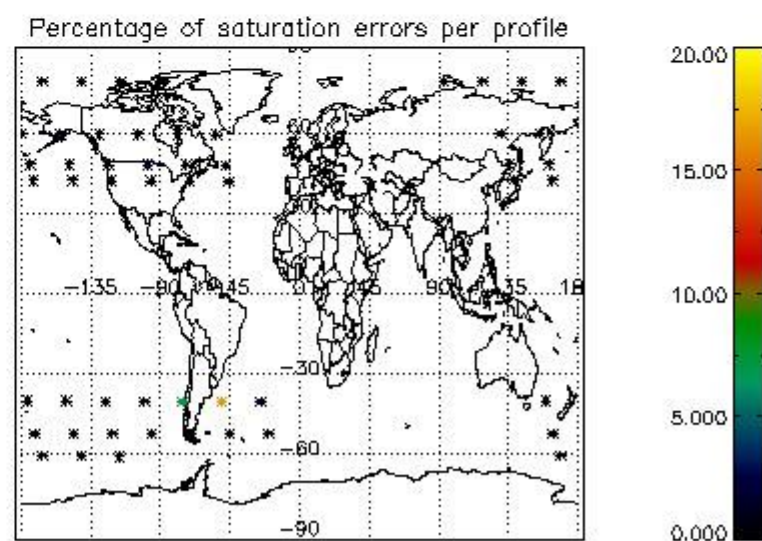
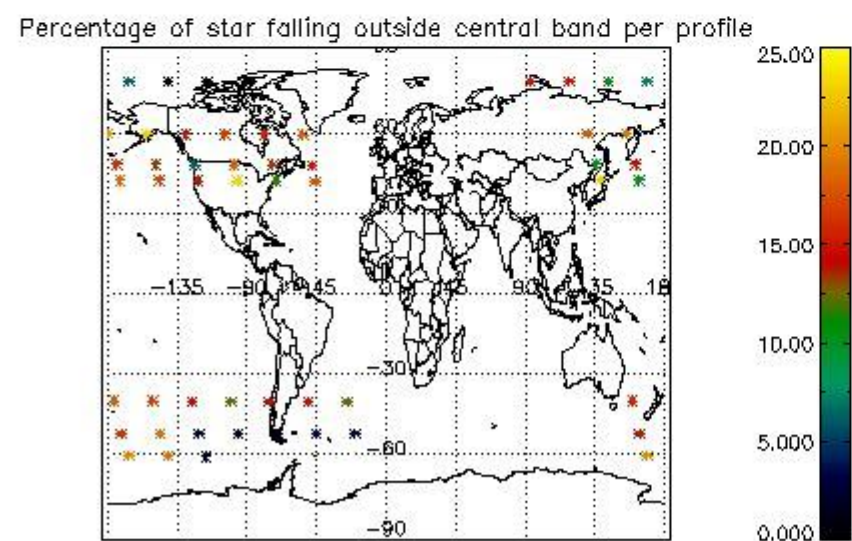
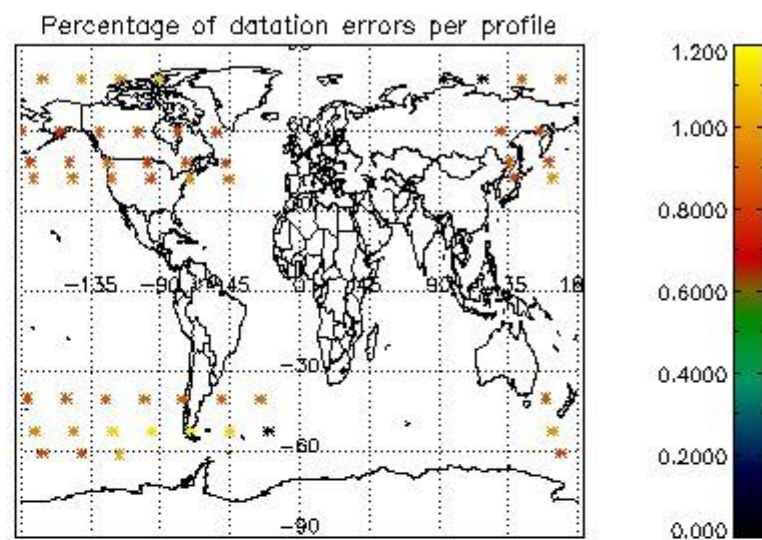
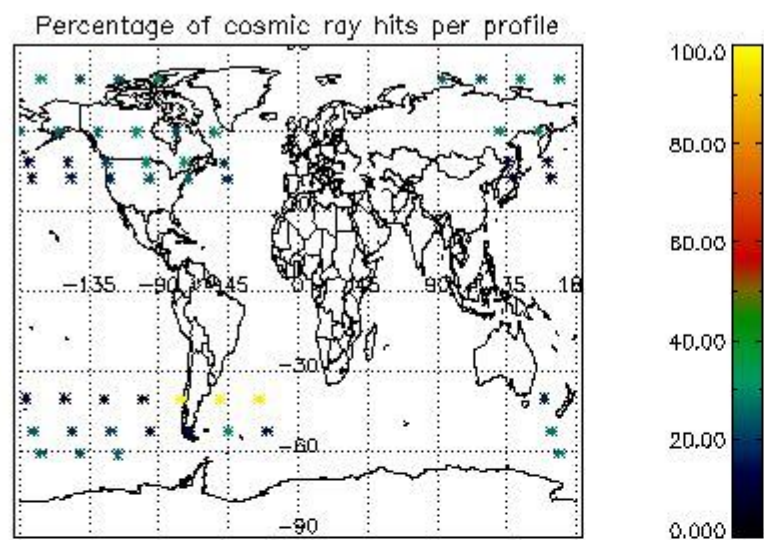


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

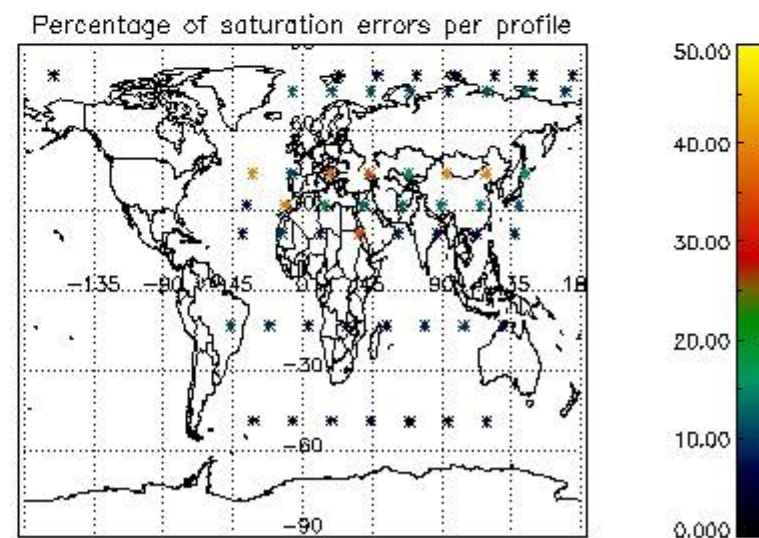
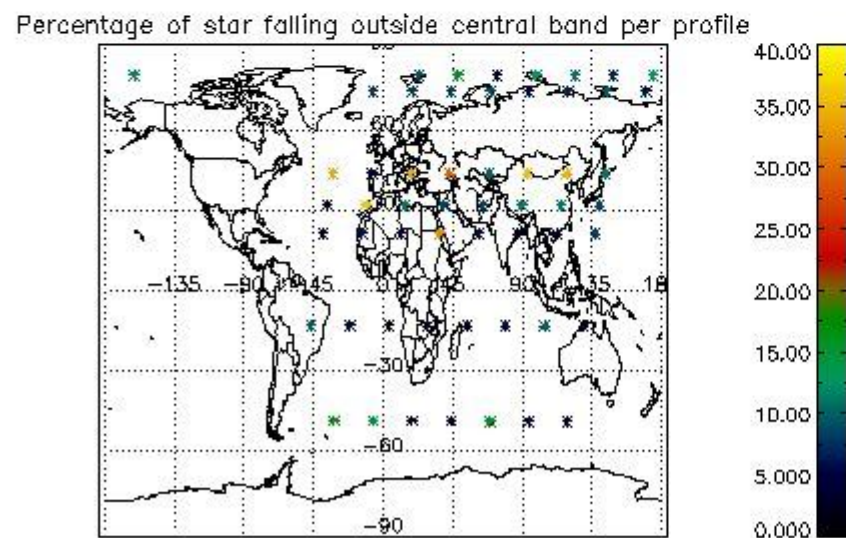
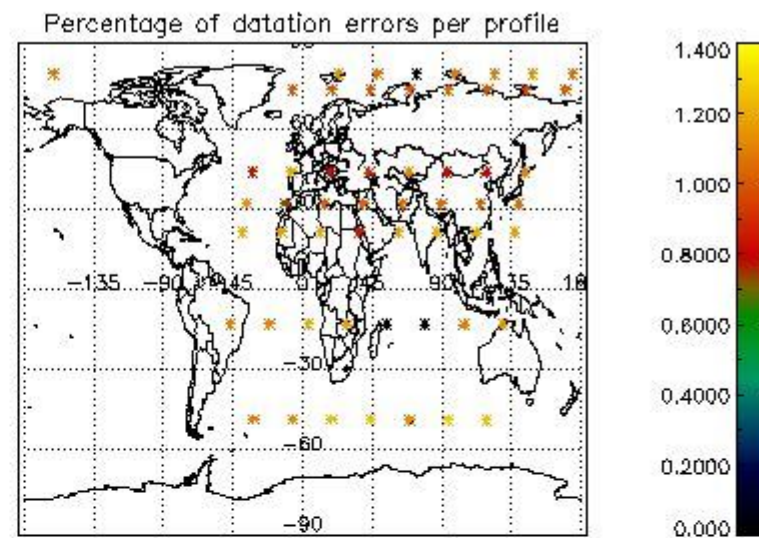
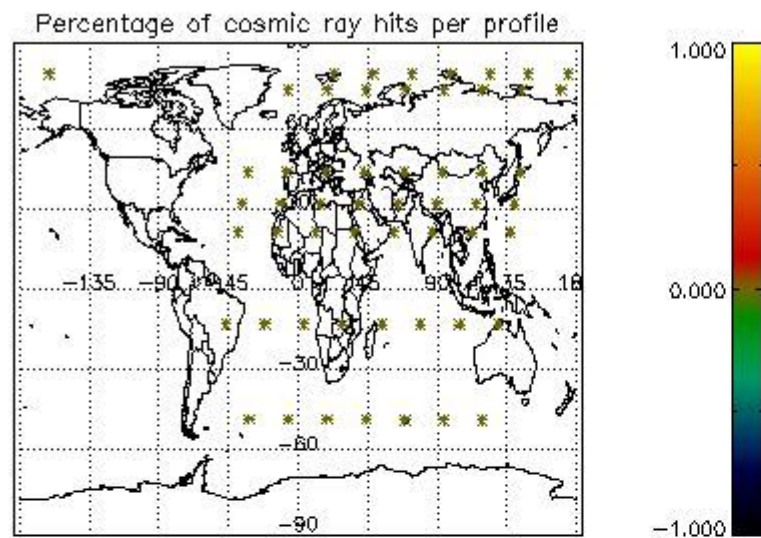


4.2 Plot quality information per product coming from level 1b processing (world map)

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

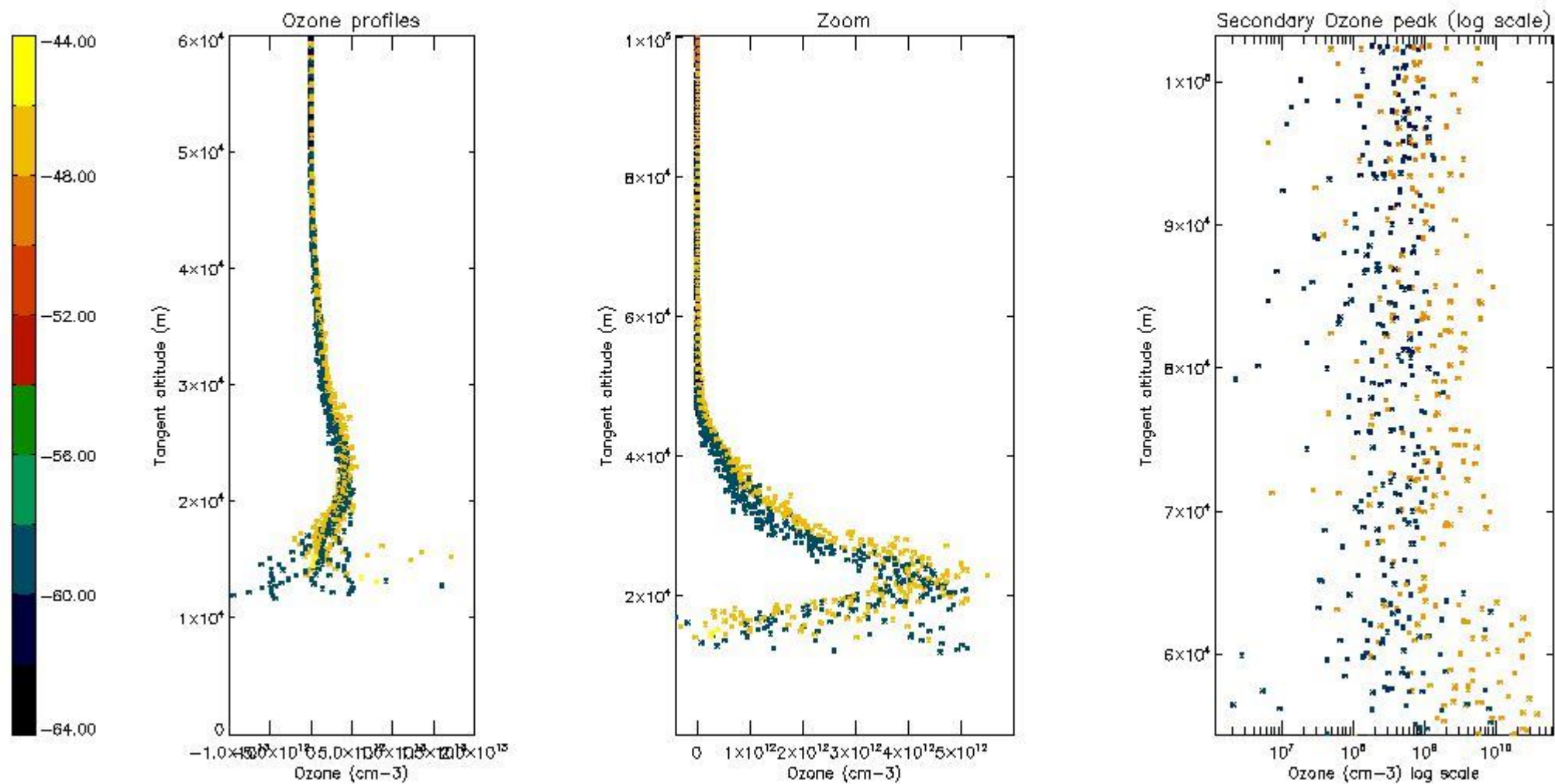
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	20.000
STD < 20	5.0000

STD < 10	1.0000
STD < 5	NaN

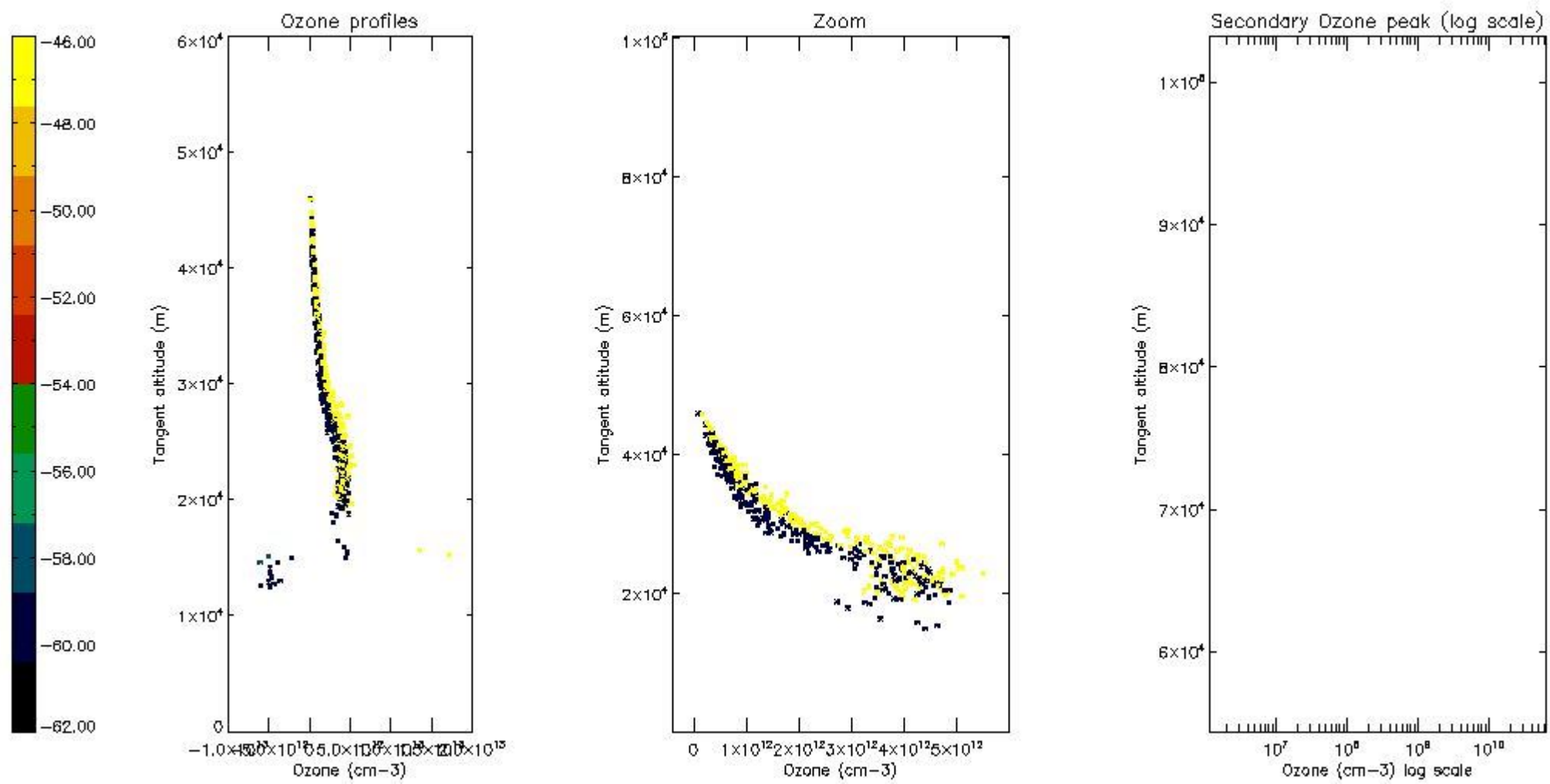
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



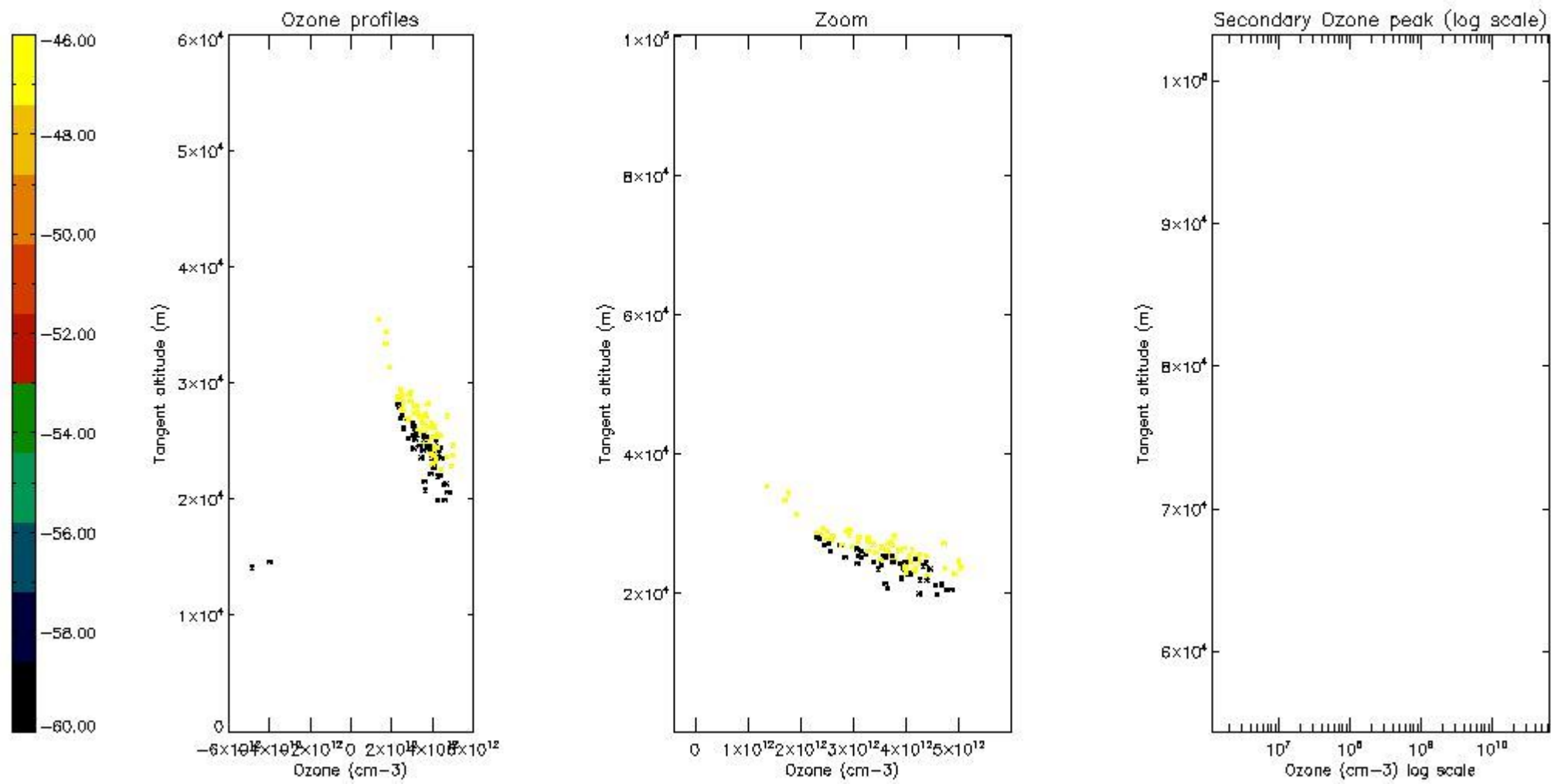
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



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

The colorbar represents the latitude.

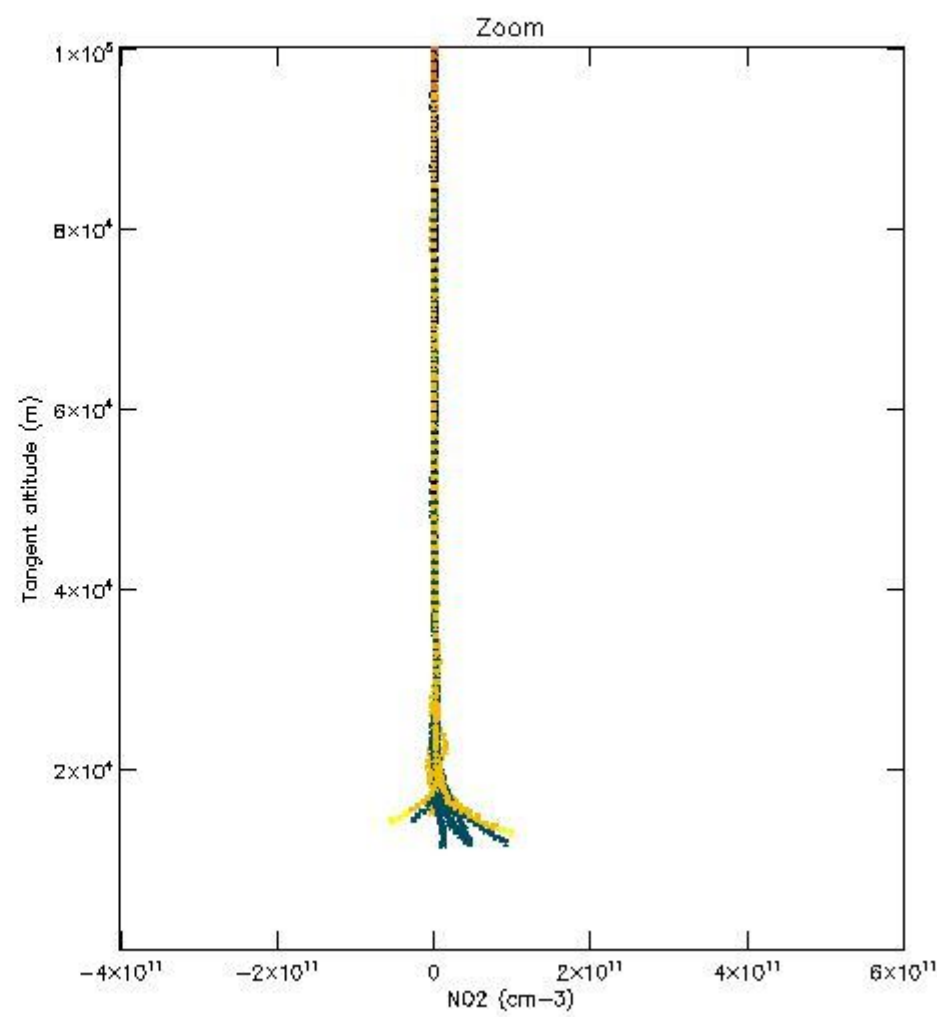
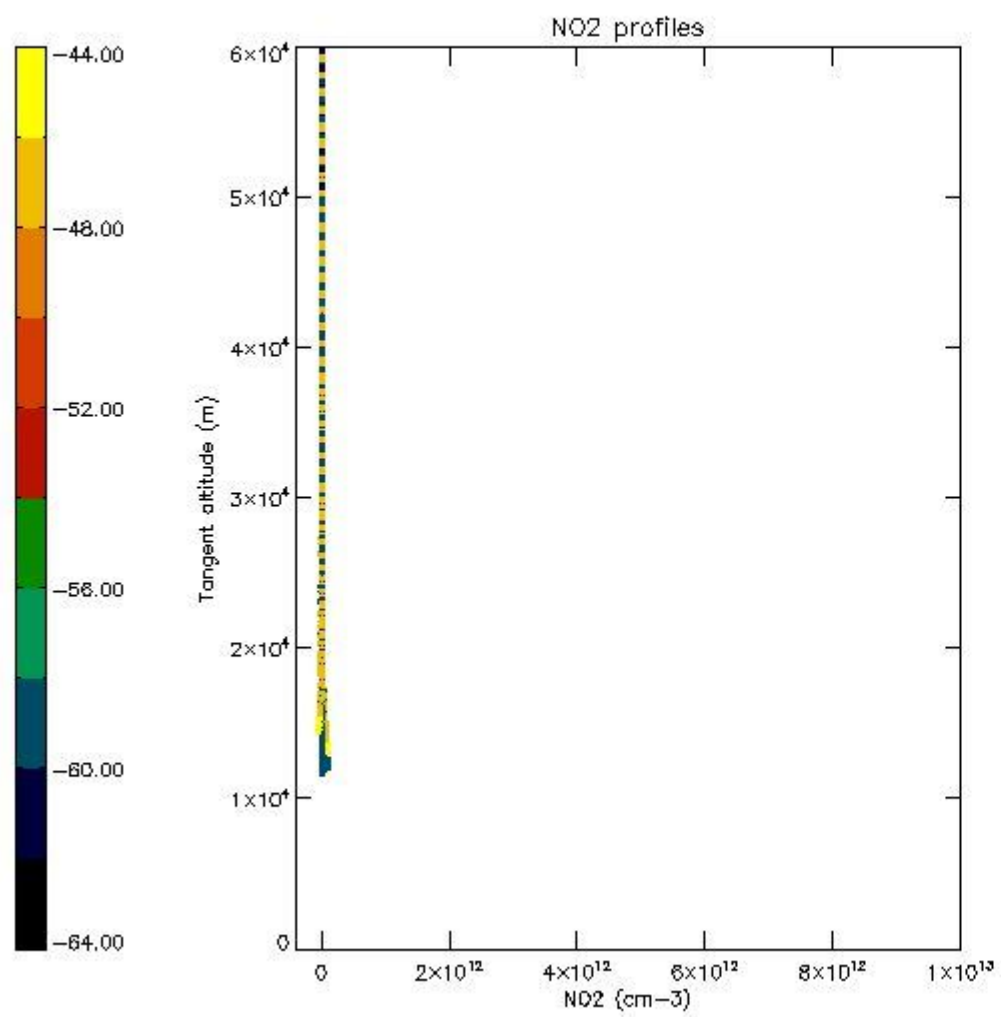


5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.

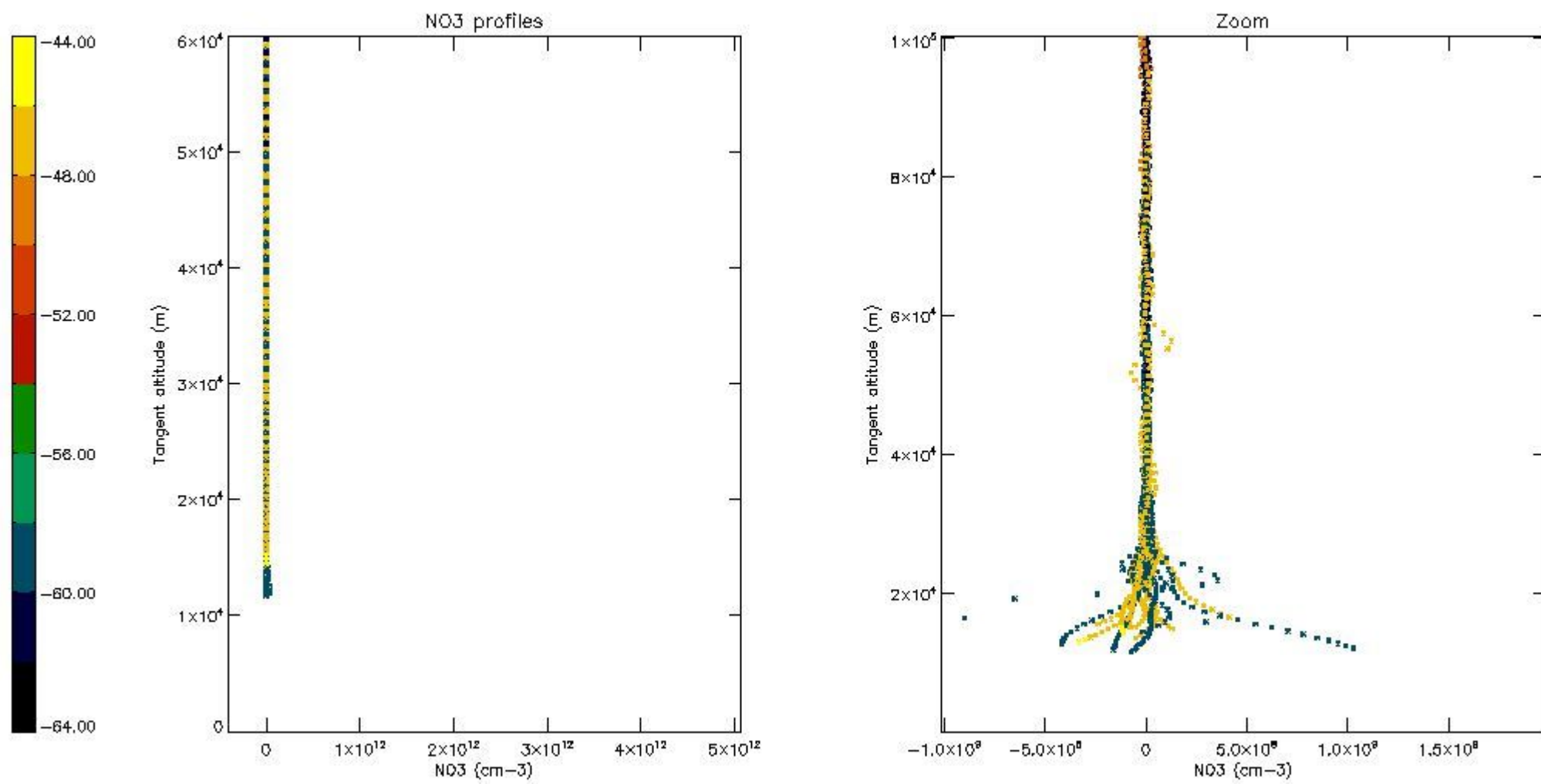
5.6 Plot NO2 profiles for all STD (dark without errors)

The colorbar represents the latitude.



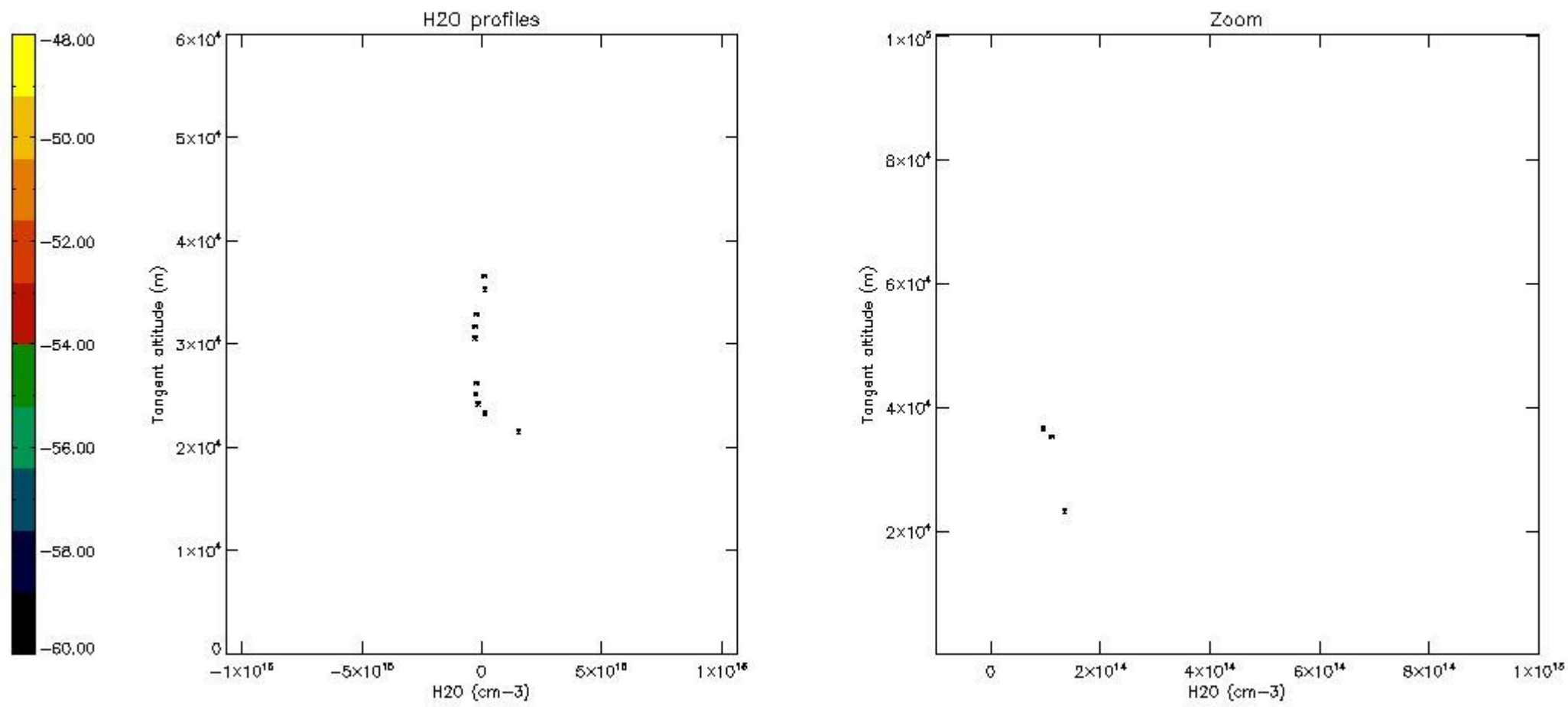
5.7 Plot NO3 profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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

The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	28-APR-2009 00:05:28
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	28-APR-2009 00:05:28
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	28-APR-2009 00:05:28

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

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

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

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

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[5.6 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](#)

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Nb of level 2 prods	107
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

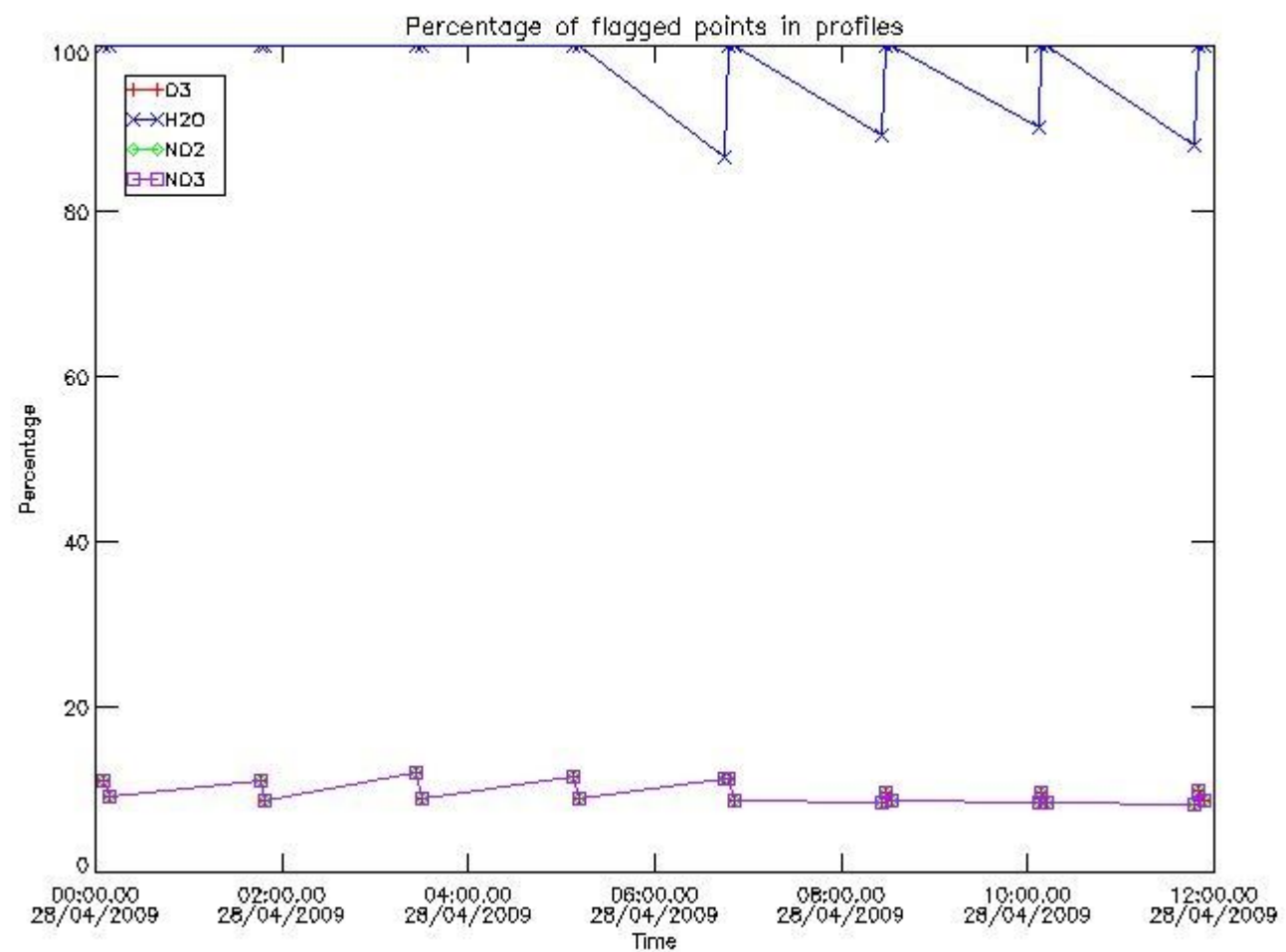
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20090428_000528_000000452078_00302_37430_0784.N1	28-APR-2009 00:05:28	Dark	45.000	162	34Alp Aqr	2.9440	5350.0	90	37430	No
2	GOM_NL__2PRFIN20090428_000854_000000562078_00302_37430_0785.N1	28-APR-2009 00:08:54	Dark	56.000	154	22Bet Aqr	2.8990	5700.0	112	37430	No
3	GOM_NL__2PRFIN20090428_003207_000000572078_00303_37431_0789.N1	28-APR-2009 00:32:07	Straylight	56.500	40	The Sco	1.8590	7100.0	113	37431	No
4	GOM_NL__2PRFIN20090428_003348_000000622078_00303_37431_0790.N1	28-APR-2009 00:33:48	Straylight	62.000	25	35Lam Sco	1.6200	28000.	124	37431	No
5	GOM_NL__2PRFIN20090428_003706_000000622078_00303_37431_0791.N1	28-APR-2009 00:37:06	Straylight	61.500	75	26Eps Sco	2.2910	4250.0	123	37431	No
6	GOM_NL__2PRFIN20090428_004324_000000462078_00303_37431_0792.N1	28-APR-2009 00:43:24	Twi_and_stray	46.000	80	7Del Sco	2.3160	30000.	92	37431	No
7	GOM_NL__2PRFIN20090428_004643_000000472078_00303_37431_0793.N1	28-APR-2009 00:46:43	Bright	46.500	122	9Alp2Lib	2.7470	9700.0	93	37431	No
8	GOM_NL__2PRFIN20090428_004909_000000502078_00303_37431_0794.N1	28-APR-2009 00:49:09	Bright	50.000	104	27Bet Lib	2.6140	13100.	100	37431	No
9	GOM_NL__2PRFIN20090428_005815_000000452078_00303_37431_0795.N1	28-APR-2009 00:58:15	Bright	45.000	3	16Alp Boo	-0.050000	4250.0	90	37431	No
10	GOM_NL__2PRFIN20090428_010137_000000482078_00303_37431_0796.N1	28-APR-2009 01:01:37	Bright	47.500	83		2.3780	11000.	95	37431	No
11	GOM_NL__2PRFIN20090428_010434_000000432078_00303_37431_0797.N1	28-APR-2009 01:04:34	Bright	42.500	180	27Gam Boo	3.0400	8000.0	85	37431	No
12	GOM_NL__2PRFIN20090428_011414_000000442078_00303_37431_0798.N1	28-APR-2009 01:14:14	Bright	43.500	119	14Eta Dra	2.7270	4700.0	87	37431	No
13	GOM_NL__2PRFIN20090428_012417_000000402078_00303_37431_0799.N1	28-APR-2009 01:24:17	Bright	40.000	89	5Alp Cep	2.4510	8000.0	80	37431	No
14	GOM_NL__2PRFIN20090428_014604_000000462078_00303_37431_0800.N1	28-APR-2009 01:46:04	Dark	45.500	162	34Alp Aqr	2.9440	5350.0	91	37431	No
15	GOM_NL__2PRFIN20090428_014931_000000582078_00303_37431_0801.N1	28-APR-2009 01:49:31	Dark	58.000	154	22Bet Aqr	2.8990	5700.0	116	37431	No
16	GOM_NL__2PRFIN20090428_021244_000000522078_00304_37432_0807.N1	28-APR-2009 02:12:44	Straylight	52.000	40	The Sco	1.8590	7100.0	104	37432	No
17	GOM_NL__2PRFIN20090428_021425_000000602078_00304_37432_0808.N1	28-APR-2009 02:14:25	Straylight	60.000	25	35Lam Sco	1.6200	28000.	120	37432	No
18	GOM_NL__2PRFIN20090428_021743_000000612078_00304_37432_0809.N1	28-APR-2009 02:17:43	Straylight	60.500	75	26Eps Sco	2.2910	4250.0	121	37432	No
19	GOM_NL__2PRFIN20090428_022401_000000512078_00304_37432_0810.N1	28-APR-2009 02:24:01	Twi_and_stray	51.000	80	7Del Sco	2.3160	30000.	102	37432	No
20	GOM_NL__2PRFIN20090428_022719_000000472078_00304_37432_0811.N1	28-APR-2009 02:27:19	Bright	47.000	122	9Alp2Lib	2.7470	9700.0	94	37432	No
21	GOM_NL__2PRFIN20090428_022945_000000522078_00304_37432_0812.N1	28-APR-2009 02:29:45	Bright	52.000	104	27Bet Lib	2.6140	13100.	104	37432	No
22	GOM_NL__2PRFIN20090428_023850_000000622078_00304_37432_0813.N1	28-APR-2009 02:38:50	Bright	62.000	3	16Alp Boo	-0.050000	4250.0	124	37432	No
23	GOM_NL__2PRFIN20090428_024212_000000492078_00304_37432_0814.N1	28-APR-2009 02:42:12	Bright	49.000	83		2.3780	11000.	98	37432	No
24	GOM_NL__2PRFIN20090428_024509_000000422078_00304_37432_0815.N1	28-APR-2009 02:45:09	Bright	41.500	180	27Gam Boo	3.0400	8000.0	83	37432	No
25	GOM_NL__2PRFIN20090428_025449_000000462078_00304_37432_0816.N1	28-APR-2009 02:54:49	Bright	46.000	119	14Eta Dra	2.7270	4700.0	92	37432	No
26	GOM_NL__2PRFIN20090428_030453_000000392078_00304_37432_0817.N1	28-APR-2009 03:04:53	Bright	39.000	89	5Alp Cep	2.4510	8000.0	78	37432	No
27	GOM_NL__2PRFIN20090428_032641_000000432078_00304_37432_0818.N1	28-APR-2009 03:26:41	Dark	42.500	162	34Alp Aqr	2.9440	5350.0	85	37432	No
28	GOM_NL__2PRFIN20090428_033008_000000582078_00304_37432_0819.N1	28-APR-2009 03:30:08	Dark	57.500	154	22Bet Aqr	2.8990	5700.0	115	37432	No
29	GOM_NL__2PRFIN20090428_035321_000000612078_00305_37433_0818.N1	28-APR-2009 03:53:21	Straylight	60.500	40	The Sco	1.8590	7100.0	121	37433	No
30	GOM_NL__2PRFIN20090428_035502_000000642078_00305_37433_0819.N1	28-APR-2009 03:55:02	Straylight	63.500	25	35Lam Sco	1.6200	28000.	127	37433	No
31	GOM_NL__2PRFIN20090428_035820_000000612078_00305_37433_0820.N1	28-APR-2009 03:58:20	Straylight	60.500	75	26Eps Sco	2.2910	4250.0	121	37433	No
32	GOM_NL__2PRFIN20090428_040437_000000512078_00305_37433_0821.N1	28-APR-2009 04:04:37	Twi_and_stray	51.000	80	7Del Sco	2.3160	30000.	102	37433	No
33	GOM_NL__2PRFIN20090428_040755_000000442078_00305_37433_0822.N1	28-APR-2009 04:07:55	Bright	43.500	122	9Alp2Lib	2.7470	9700.0	87	37433	No
34	GOM_NL__2PRFIN20090428_041021_000000512078_00305_37433_0823.N1	28-APR-2009 04:10:21	Bright	51.000	104	27Bet Lib	2.6140	13100.	102	37433	No
35	GOM_NL__2PRFIN20090428_041926_000000622078_00305_37433_0824.N1	28-APR-2009 04:19:26	Bright	62.000	3	16Alp Boo	-0.050000	4250.0	124	37433	No
36	GOM_NL__2PRFIN20090428_042247_000000482078_00305_37433_0825.N1	28-APR-2009 04:22:47	Bright	48.000	83		2.3780	11000.	96	37433	No
37	GOM_NL__2PRFIN20090428_042545_000000412078_00305_37433_0826.N1	28-APR-2009 04:25:45	Bright	41.000	180	27Gam Boo	3.0400	8000.0	82	37433	No
38	GOM_NL__2PRFIN20090428_043525_000000452078_00305_37433_0827.N1	28-APR-2009 04:35:25	Bright	44.500	119	14Eta Dra	2.7270	4700.0	89	37433	No
39	GOM_NL__2PRFIN20090428_044529_000000442078_00305_37433_0828.N1	28-APR-2009 04:45:29	Bright	44.000	89	5Alp Cep	2.4510	8000.0	88	37433	No
40	GOM_NL__2PRFIN20090428_050718_000000442078_00305_37433_0829.N1	28-APR-2009 05:07:18	Dark	44.000	162	34Alp Aqr	2.9440	5350.0	88	37433	No
41	GOM_NL__2PRFIN20090428_051045_000000582078_00305_37433_0830.N1	28-APR-2009 05:10:45	Dark	57.500	154	22Bet Aqr	2.8990	5700.0	115	37433	No
42	GOM_NL__2PRFIN20090428_053357_000000552078_00306_37434_0832.N1	28-APR-2009 05:33:57	Straylight	54.500	40	The Sco	1.8590	7100.0	109	37434	No

102	GOM_NL__2PRFIN20090428_123056_000000442078_00310_37438_0931.N1	28-APR-2009 12:30:56	Bright	44.000	122	9Alp2Lib	2.7470	9700.0	88	37438	No
103	GOM_NL__2PRFIN20090428_123320_000000512078_00310_37438_0932.N1	28-APR-2009 12:33:20	Bright	50.500	104	27Bet Lib	2.6140	13100.	101	37438	No
104	GOM_NL__2PRFIN20090428_124224_000000612078_00310_37438_0933.N1	28-APR-2009 12:42:24	Bright	61.000	3	16Alp Boo	-0.050000	4250.0	122	37438	No
105	GOM_NL__2PRFIN20090428_124544_000000442078_00310_37438_0934.N1	28-APR-2009 12:45:44	Bright	44.000	83		2.3780	11000.	88	37438	No
106	GOM_NL__2PRFIN20090428_124842_000000422078_00310_37438_0935.N1	28-APR-2009 12:48:42	Bright	41.500	180	27Gam Boo	3.0400	8000.0	83	37438	No
107	GOM_NL__2PRFIN20090428_125821_000000462078_00310_37438_0936.N1	28-APR-2009 12:58:21	Bright	46.000	119	14Eta Dra	2.7270	4700.0	92	37438	No

3. Quality information per product

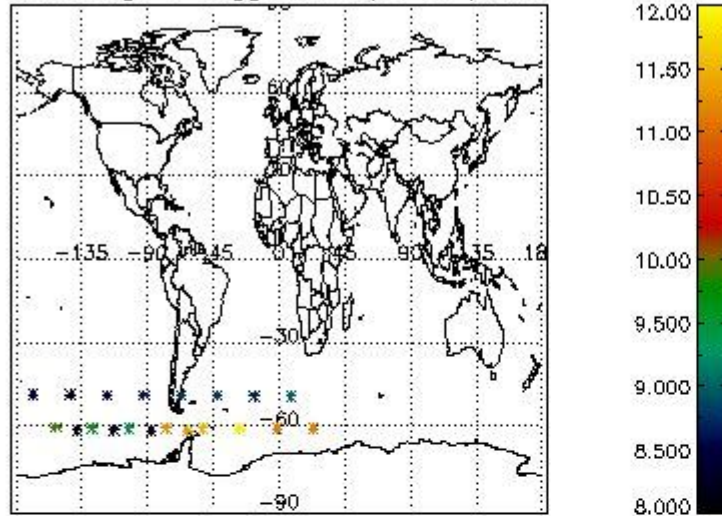
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

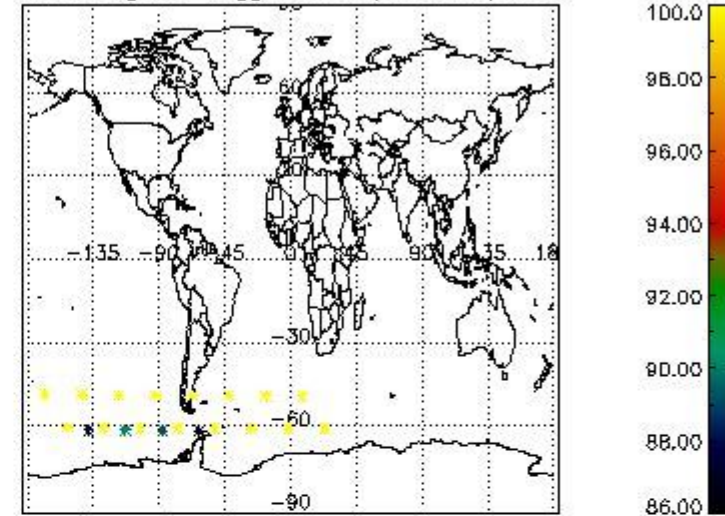


3.2 Plot quality information per product (world map)

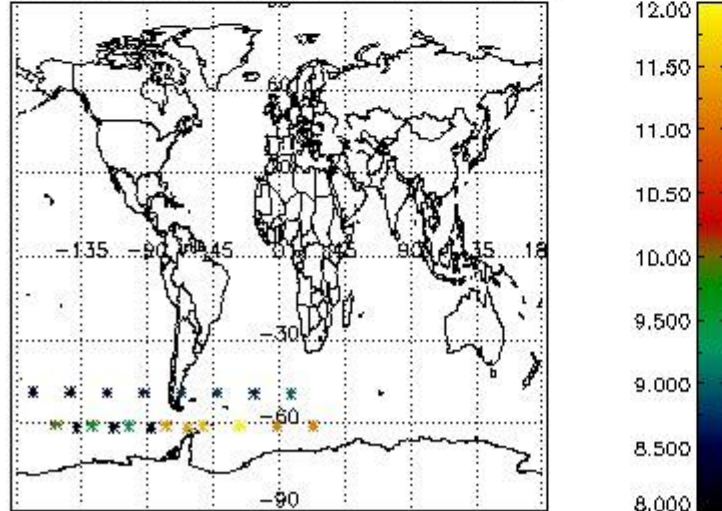
Percentage of flagged data per O3 profile



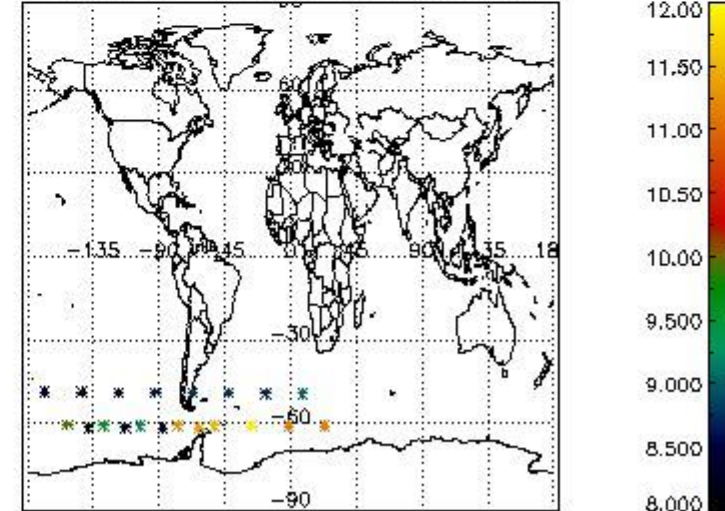
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

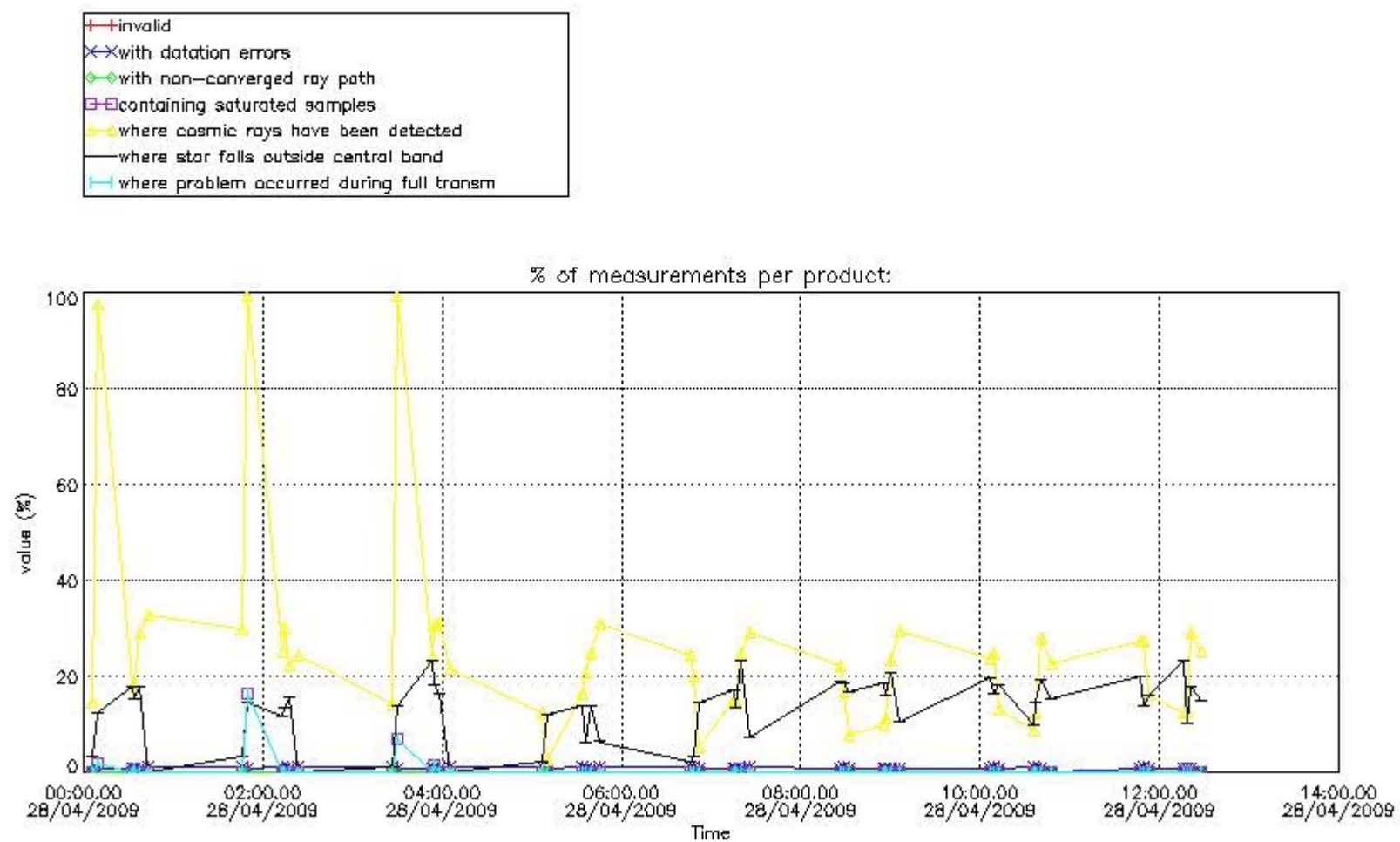


4. Level 1 quality information per product

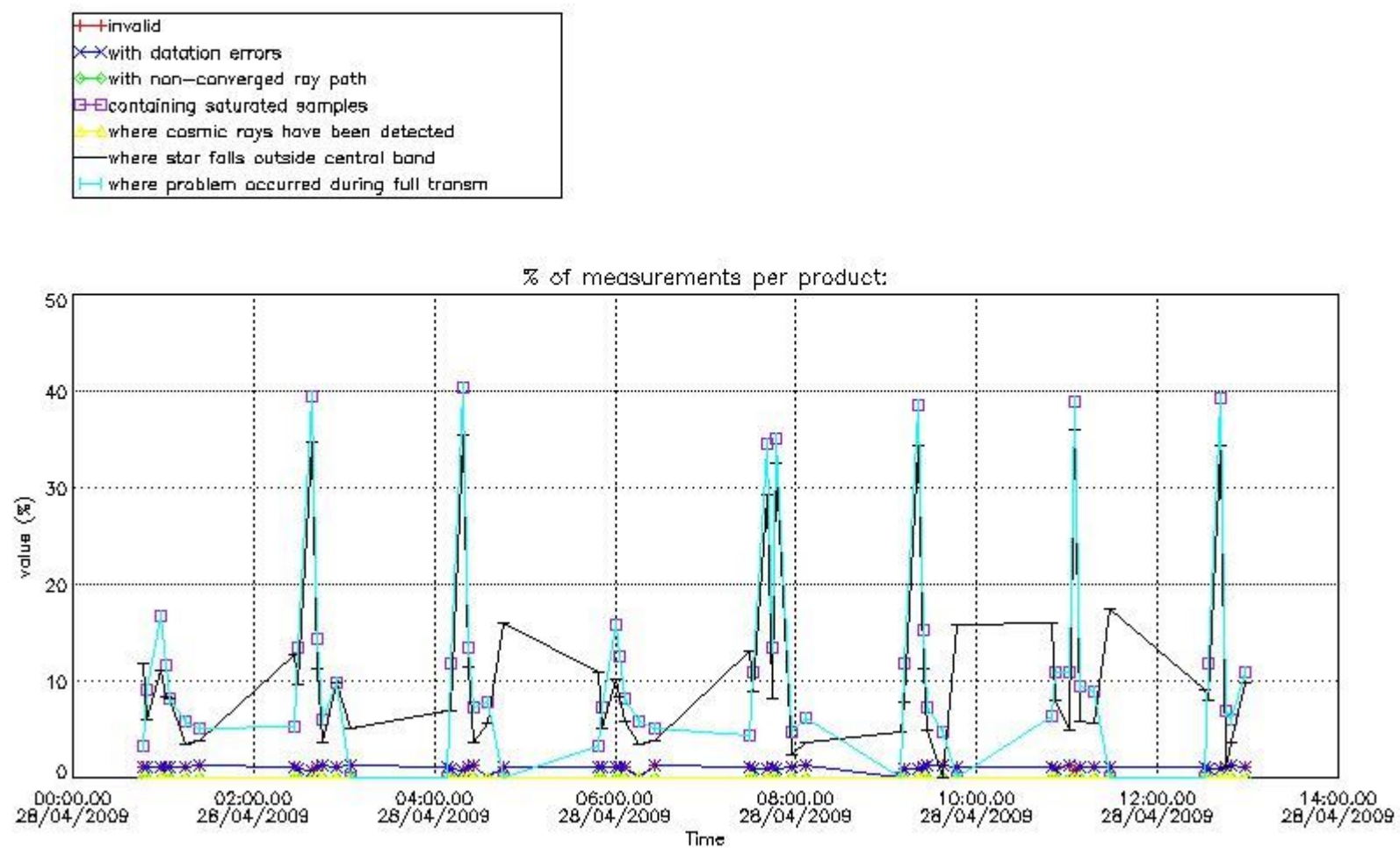
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

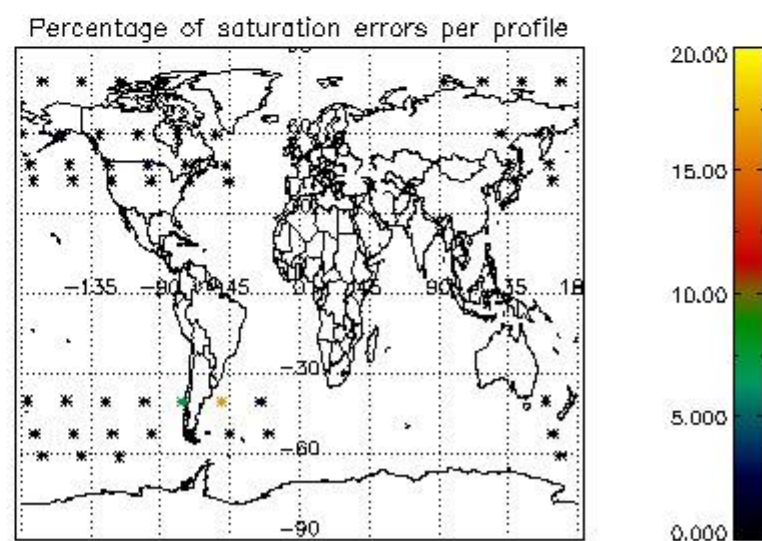
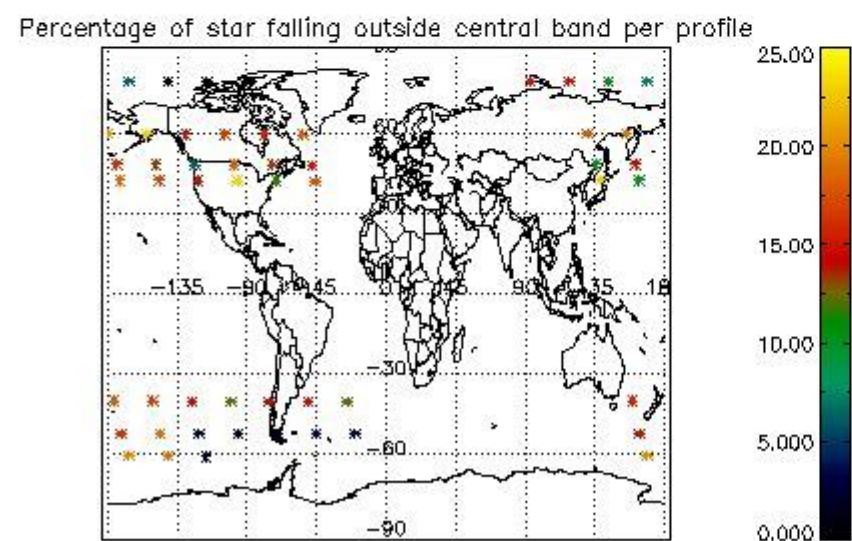
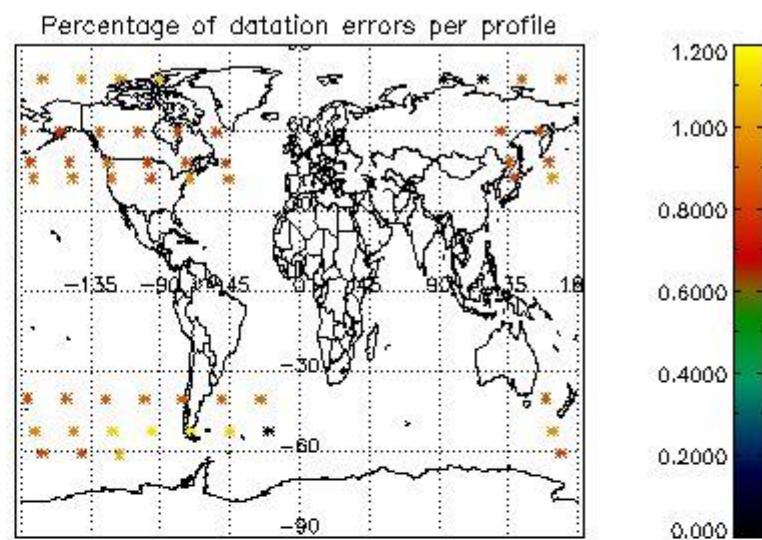
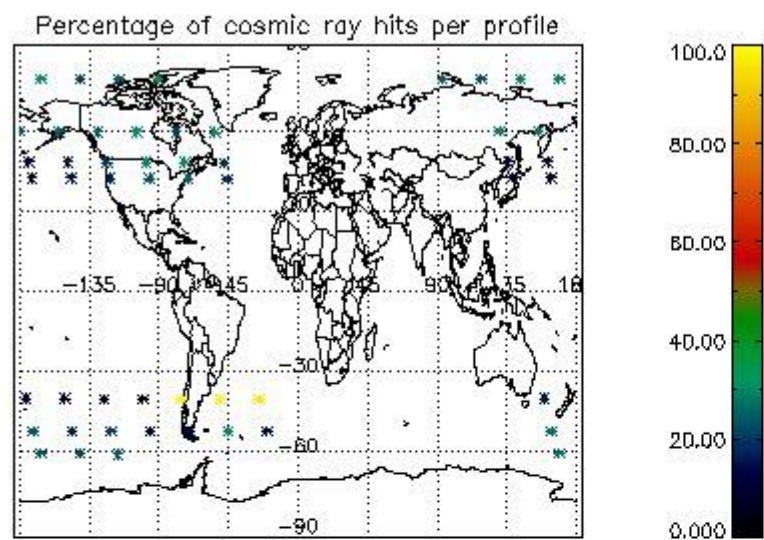


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

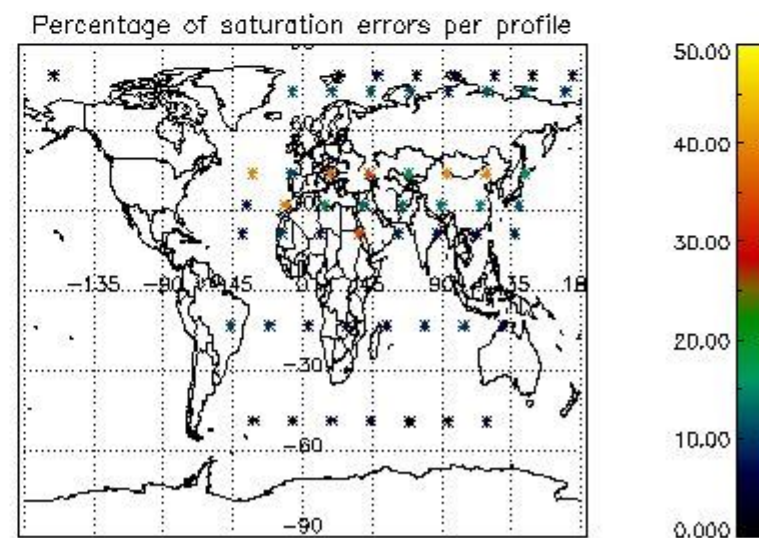
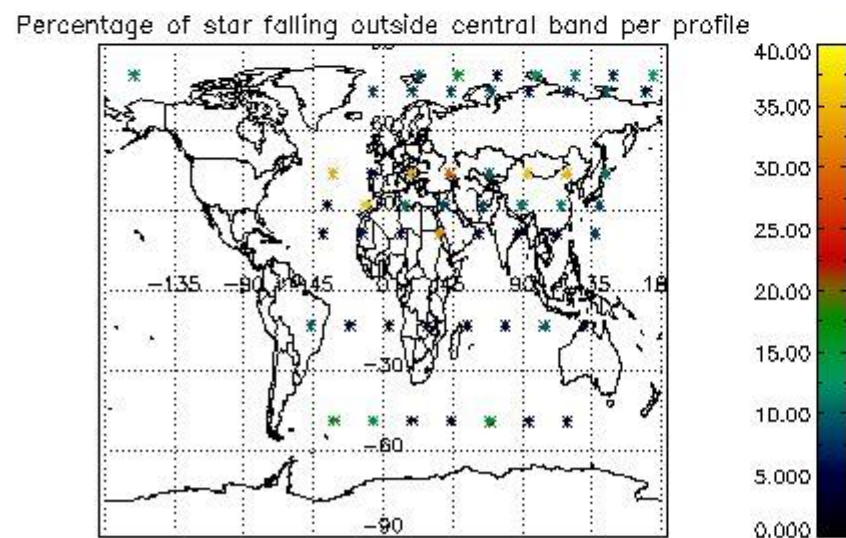
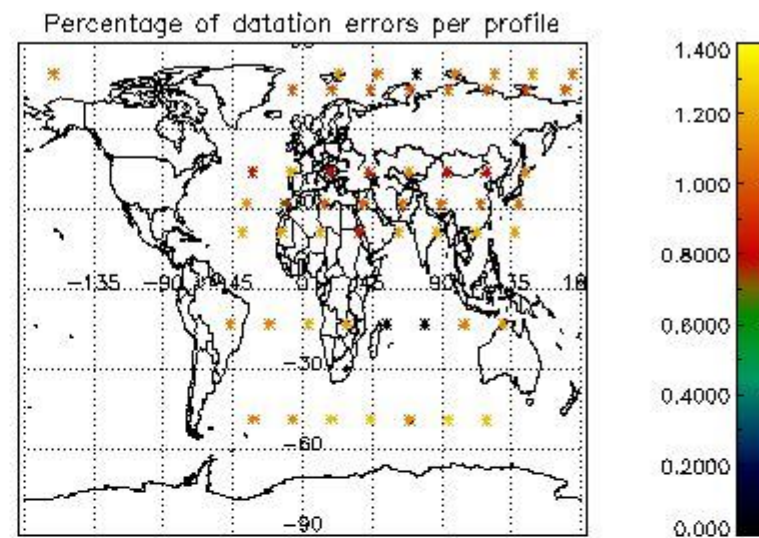
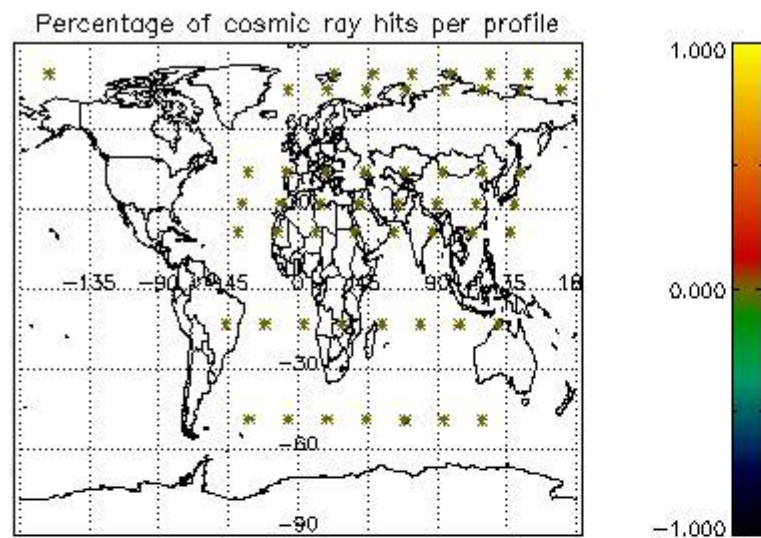


4.2 Plot quality information per product coming from level 1b processing (world map)

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

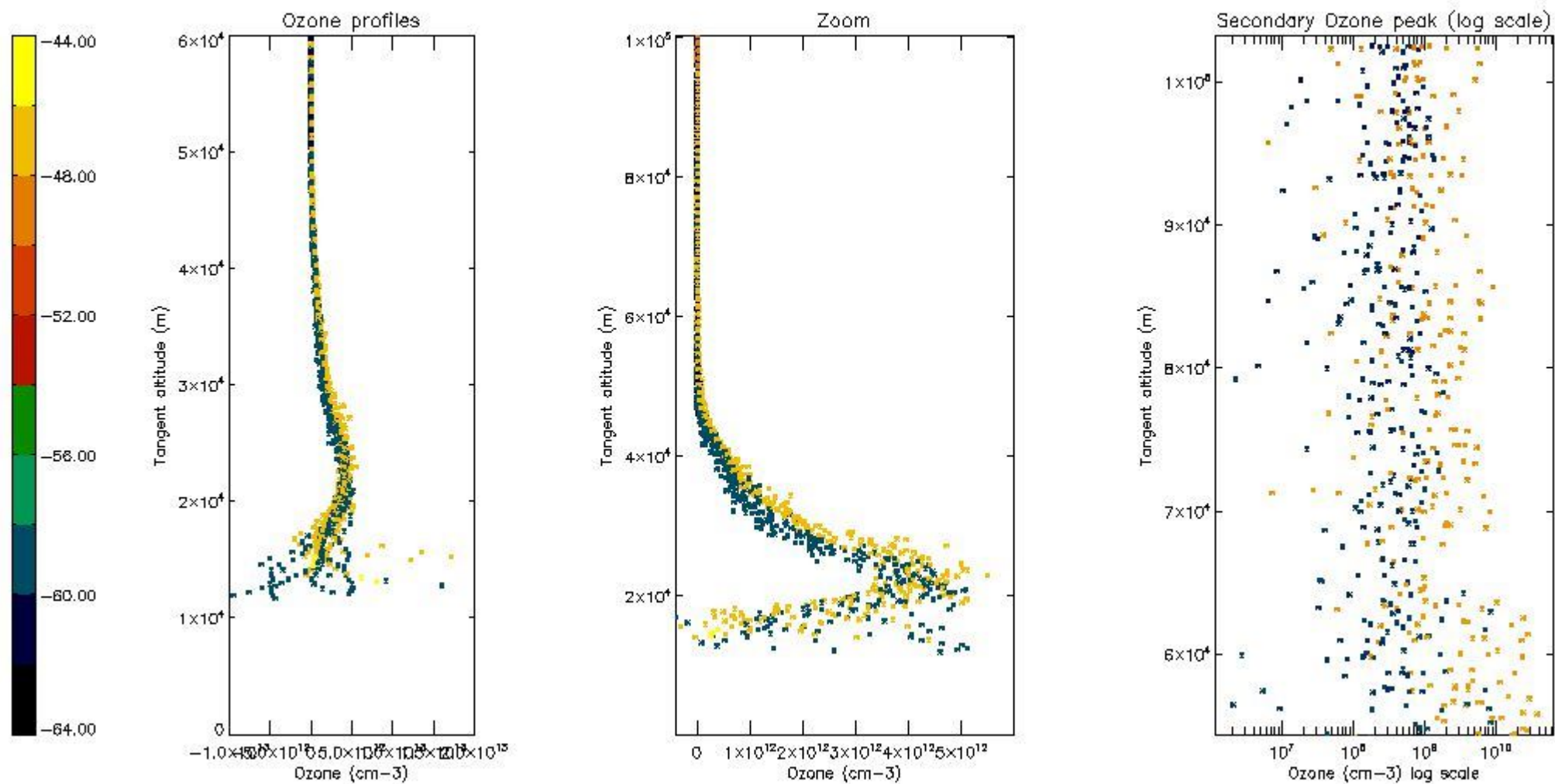
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	20.000
STD < 20	5.0000

STD < 10	1.0000
STD < 5	NaN

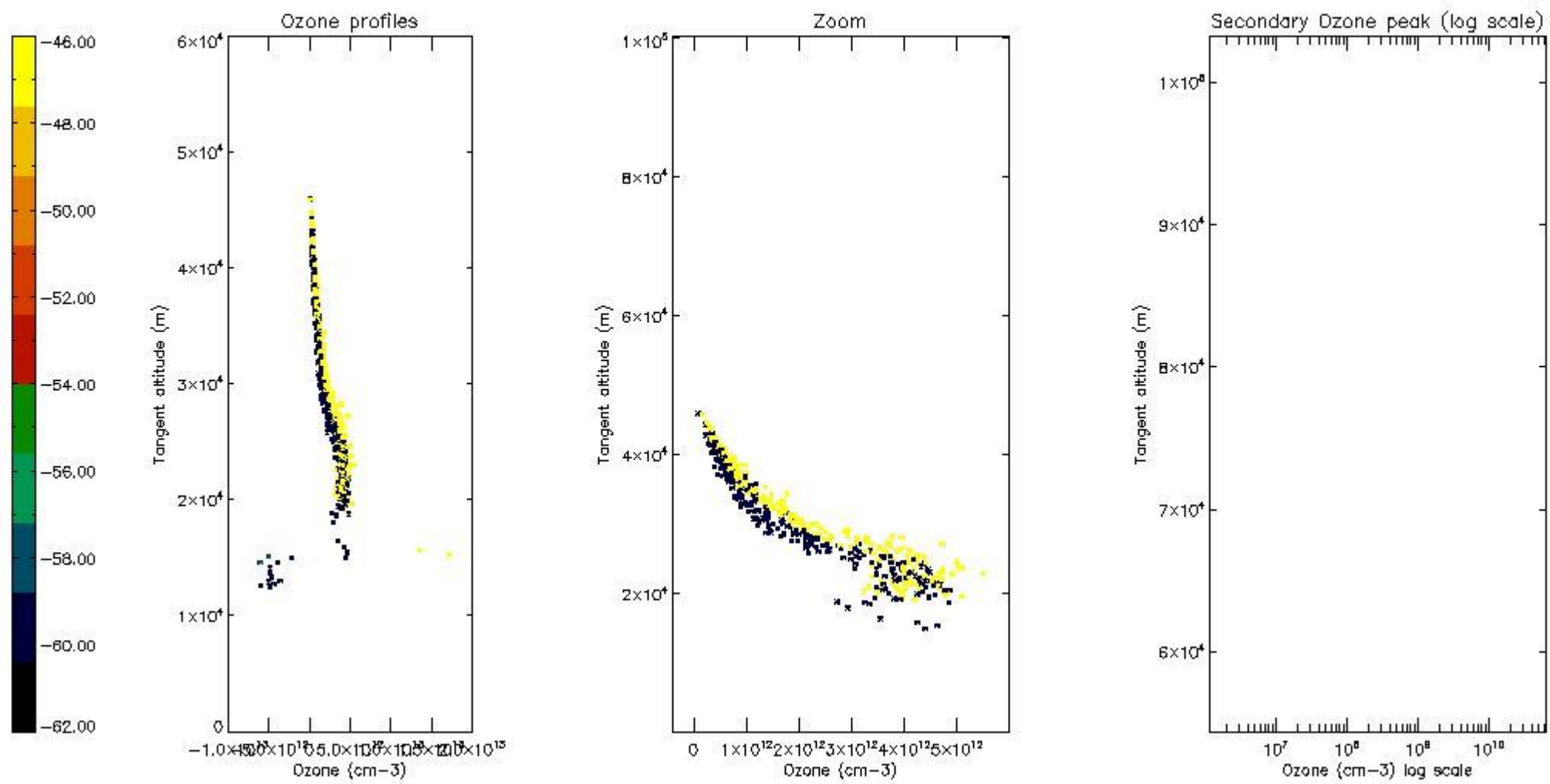
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



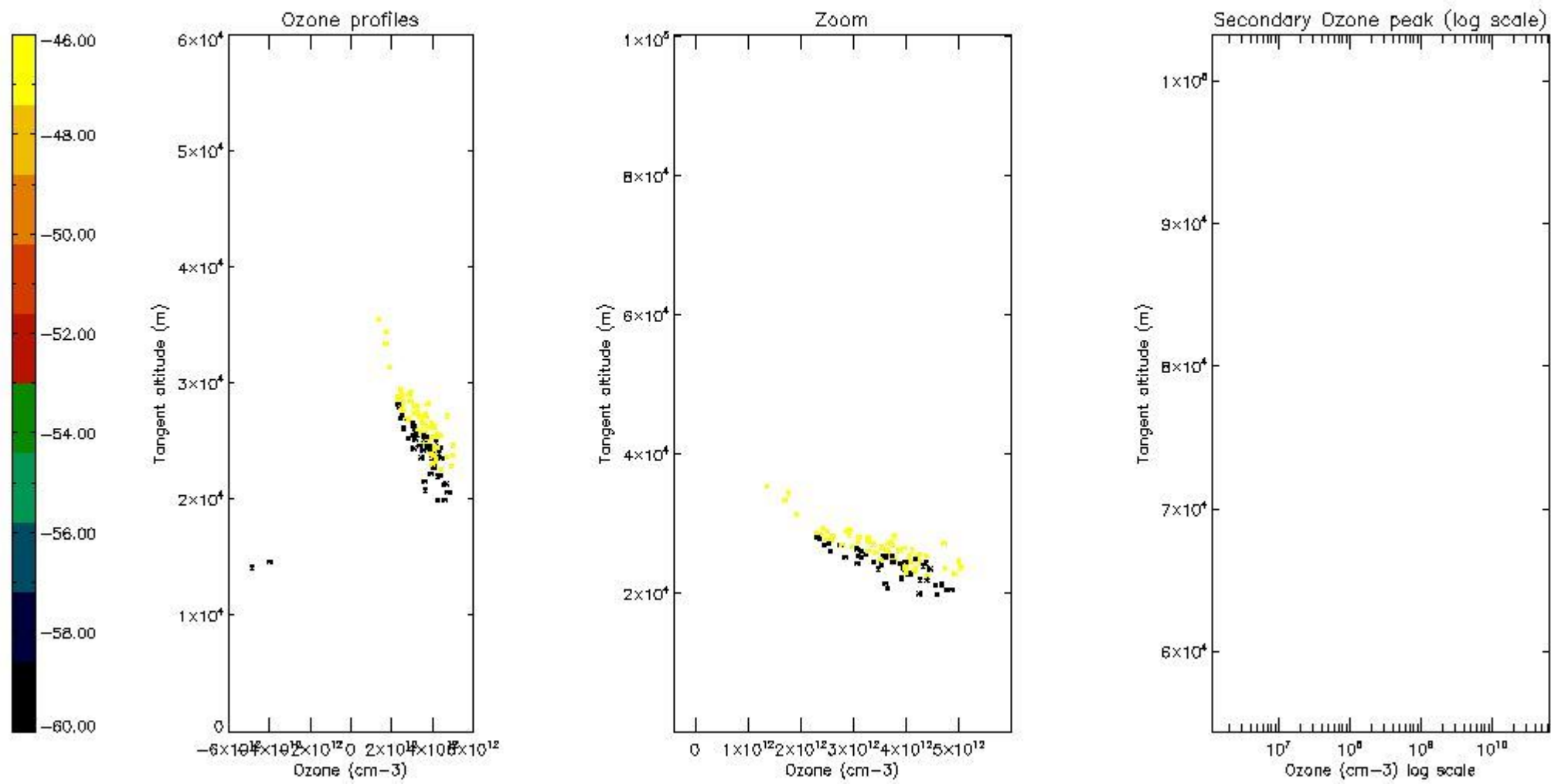
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



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

The colorbar represents the latitude.

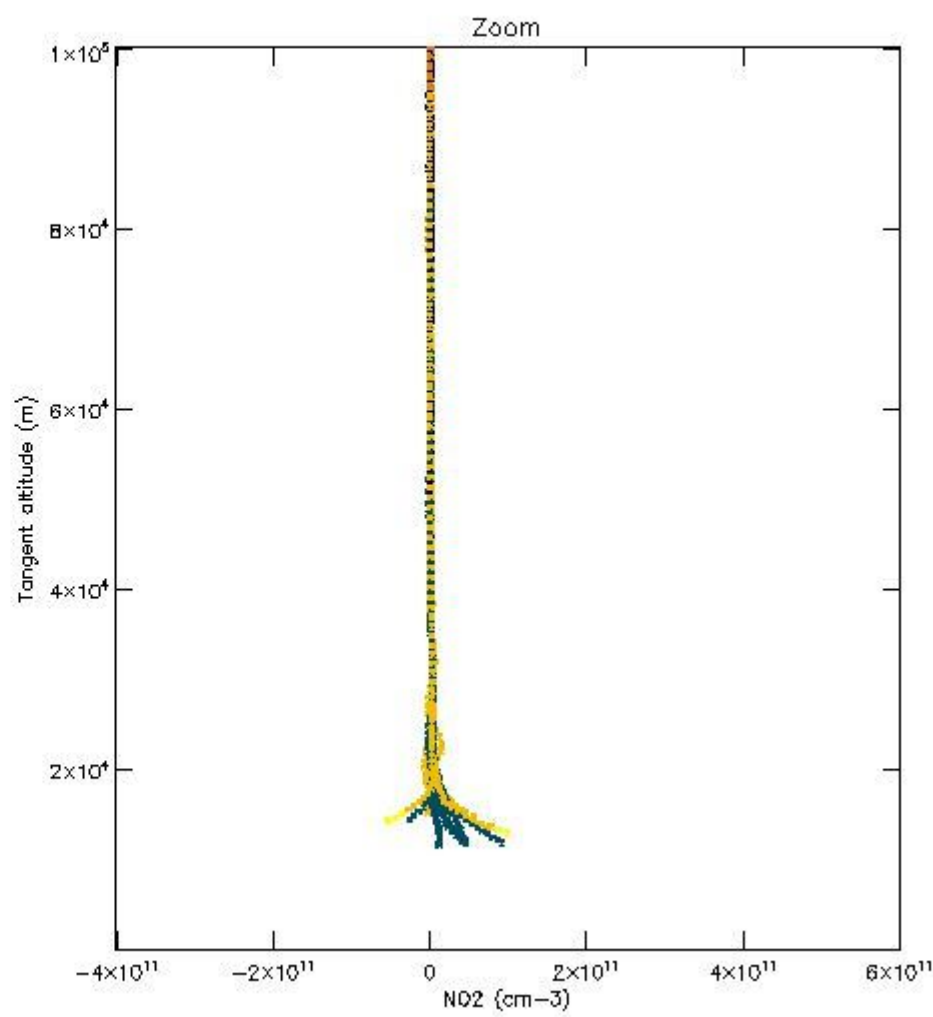
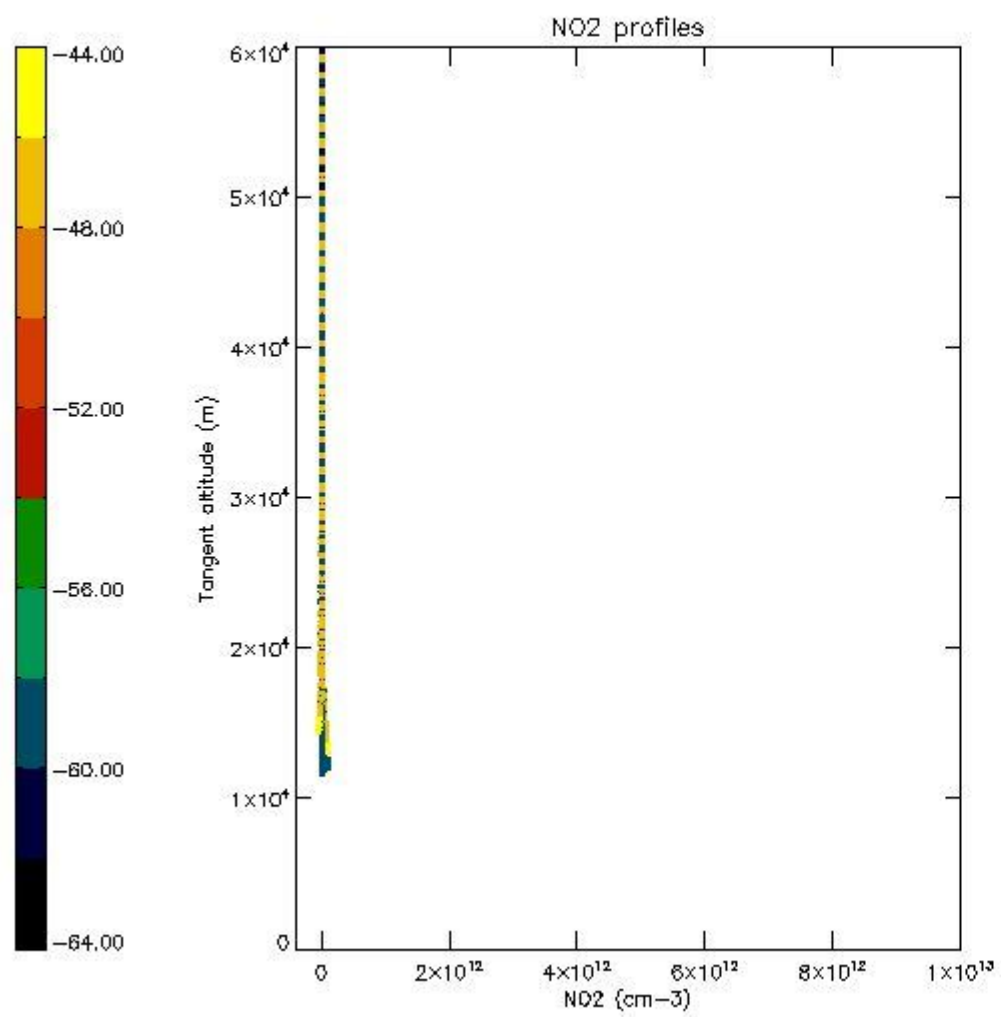


5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.

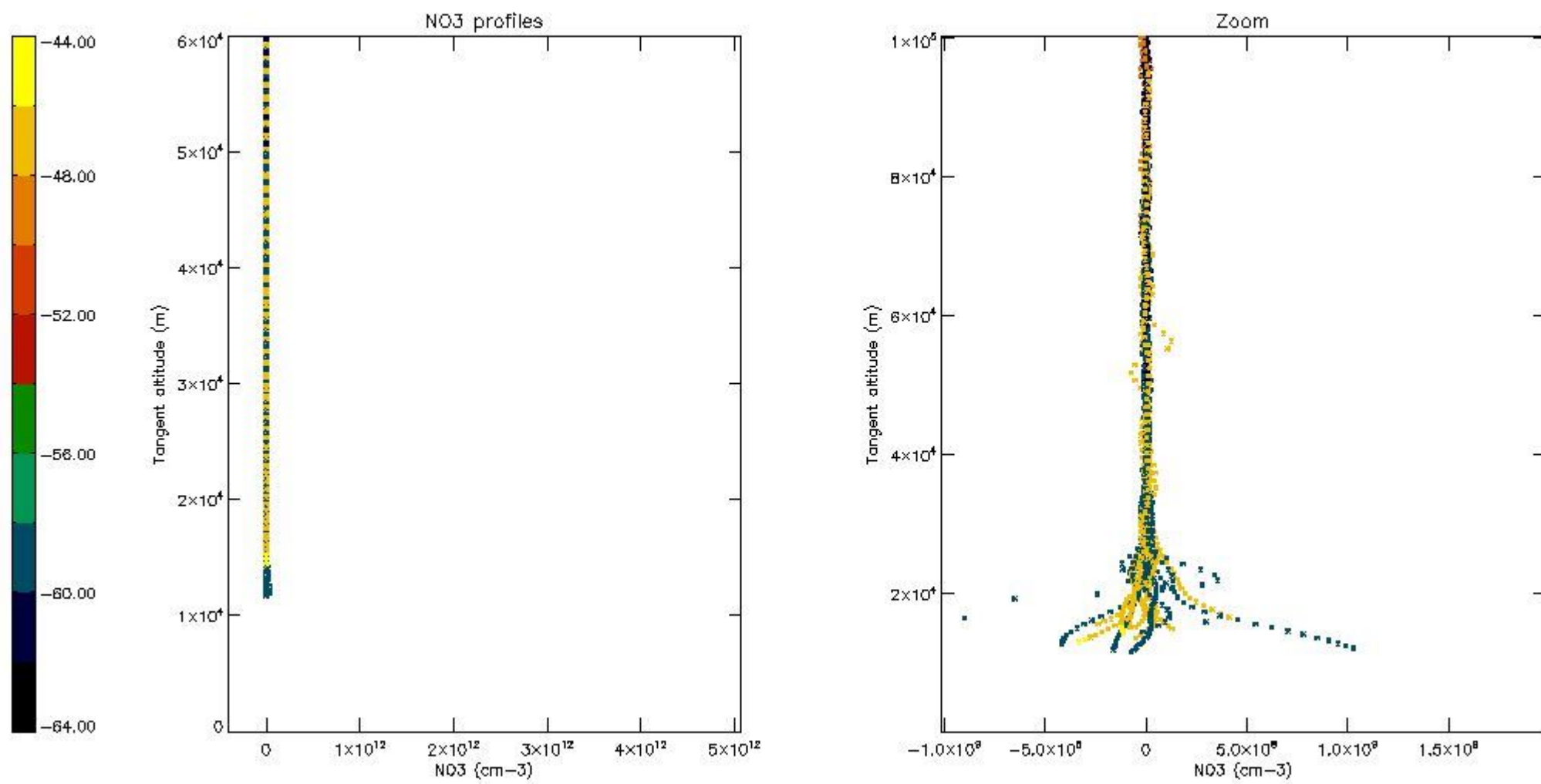
5.6 Plot NO_2 profiles for all STD (dark without errors)

The colorbar represents the latitude.



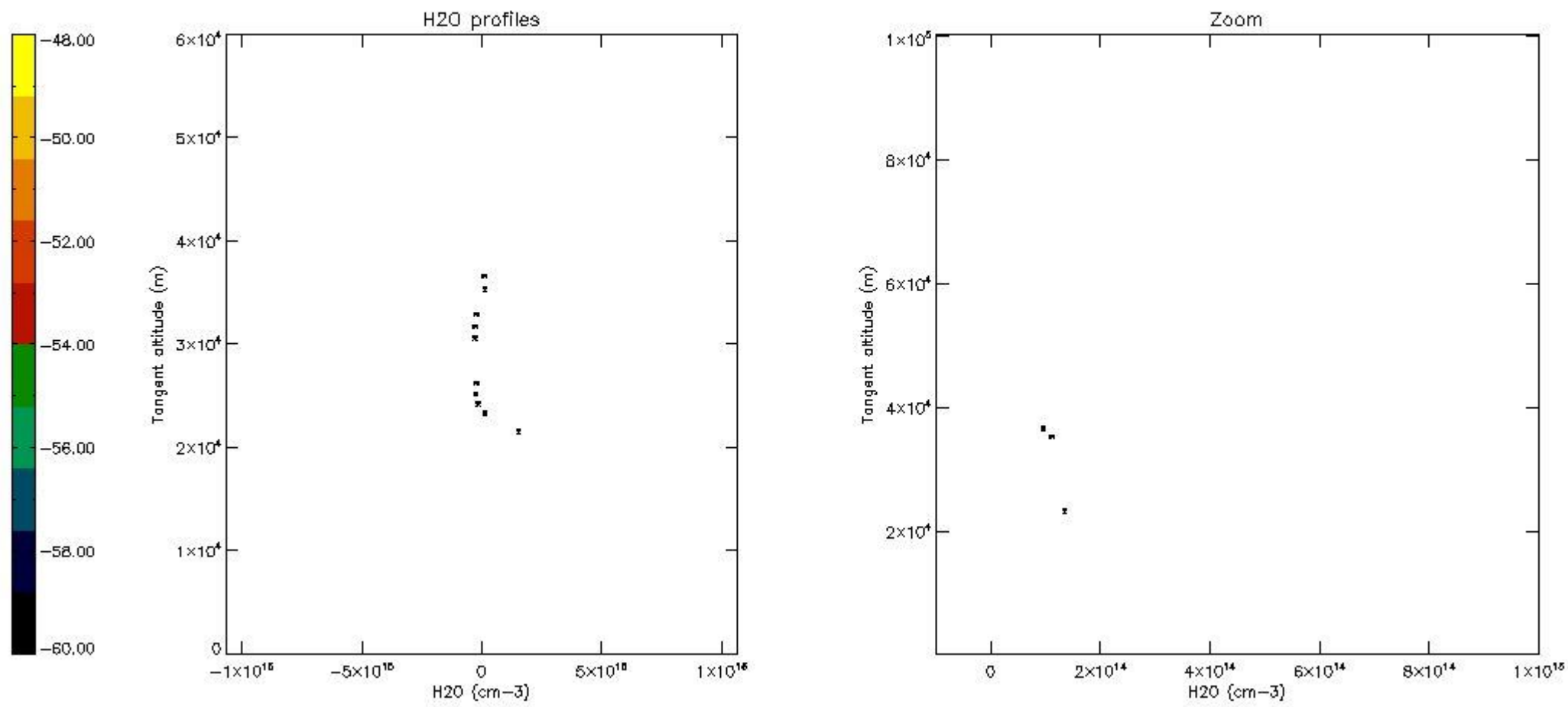
5.7 Plot NO3 profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

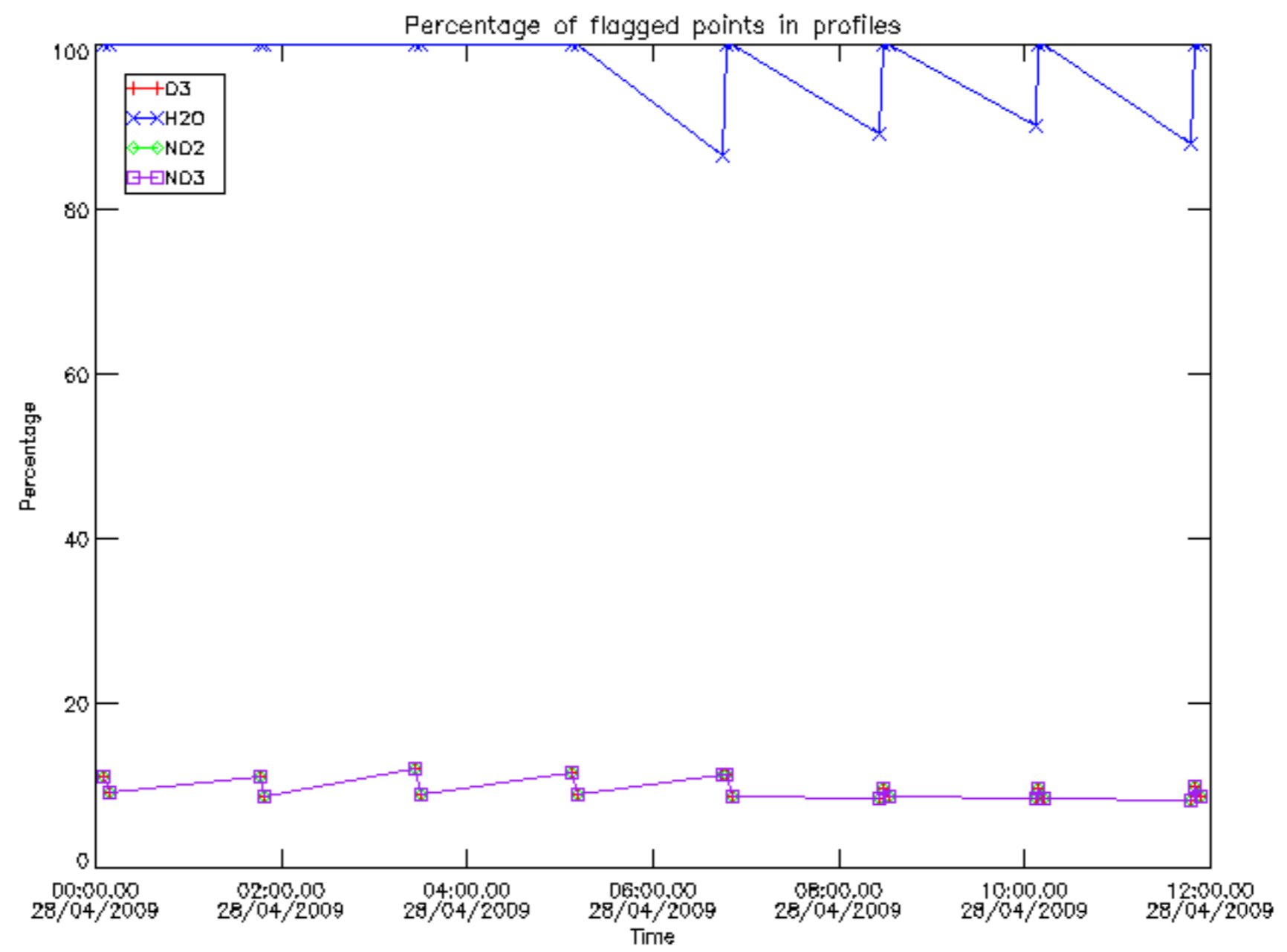
The colorbar represents the latitude.



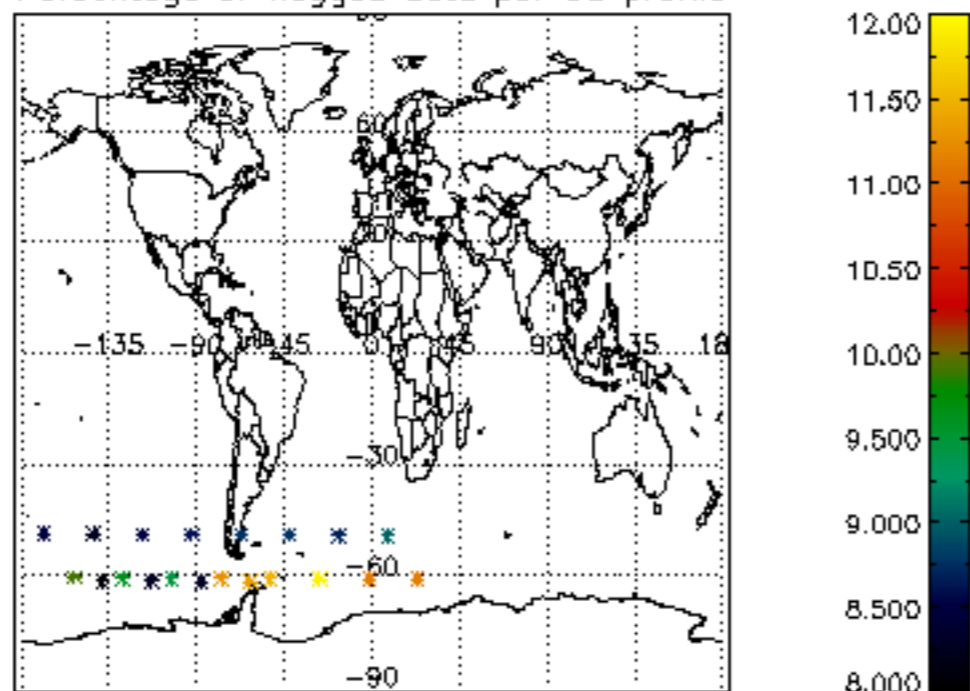
6. Auxiliary Data Files used for the production reported in section 2

The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

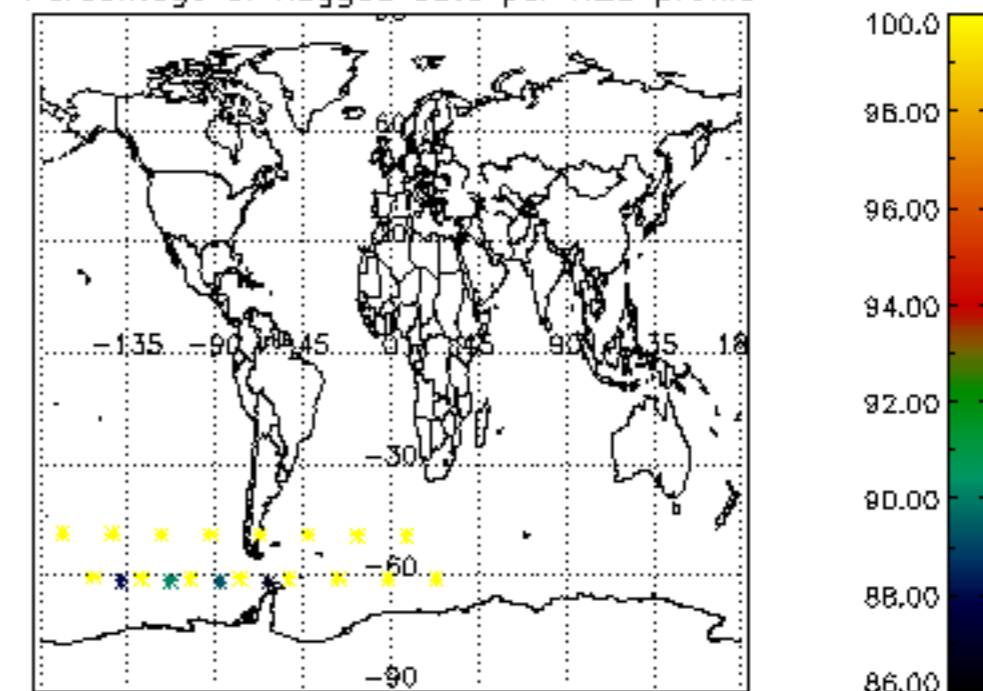
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	28-APR-2009 00:05:28
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	28-APR-2009 00:05:28
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	28-APR-2009 00:05:28



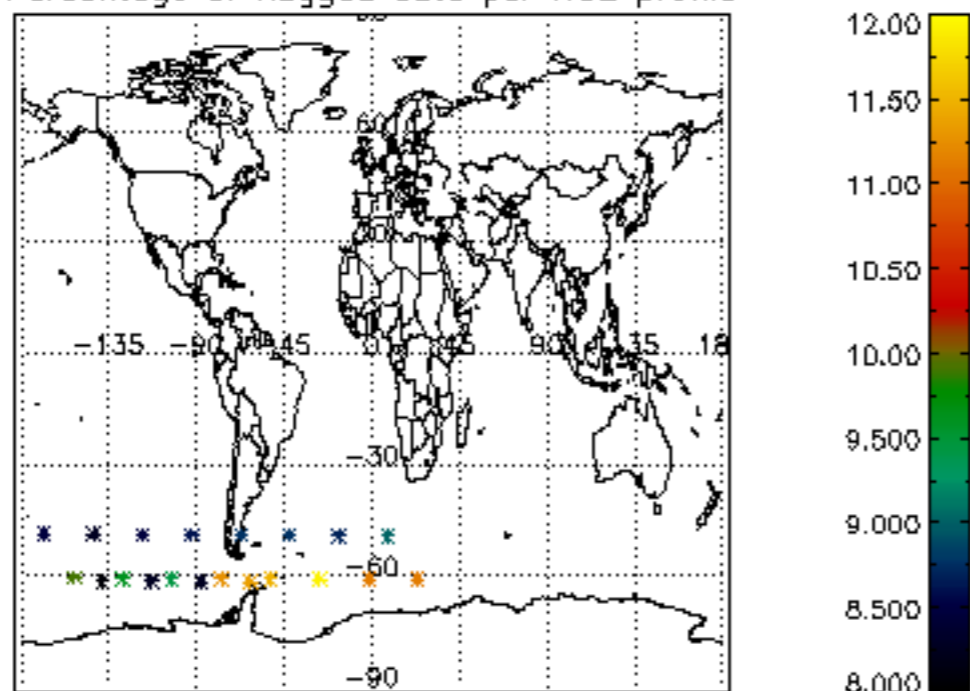
Percentage of flagged data per D3 profile



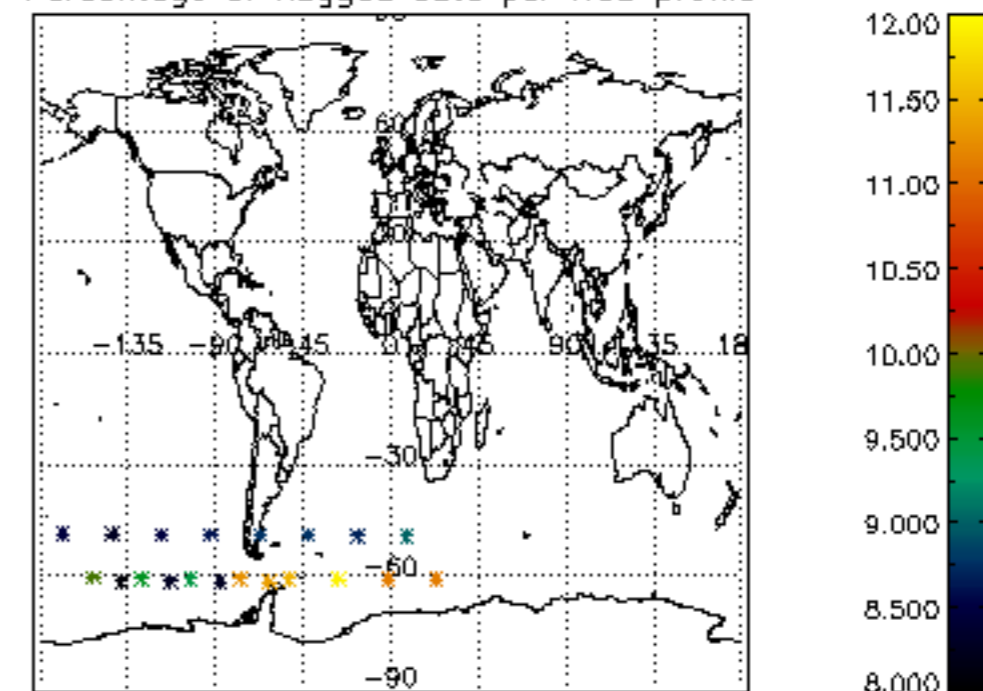
Percentage of flagged data per H2O profile

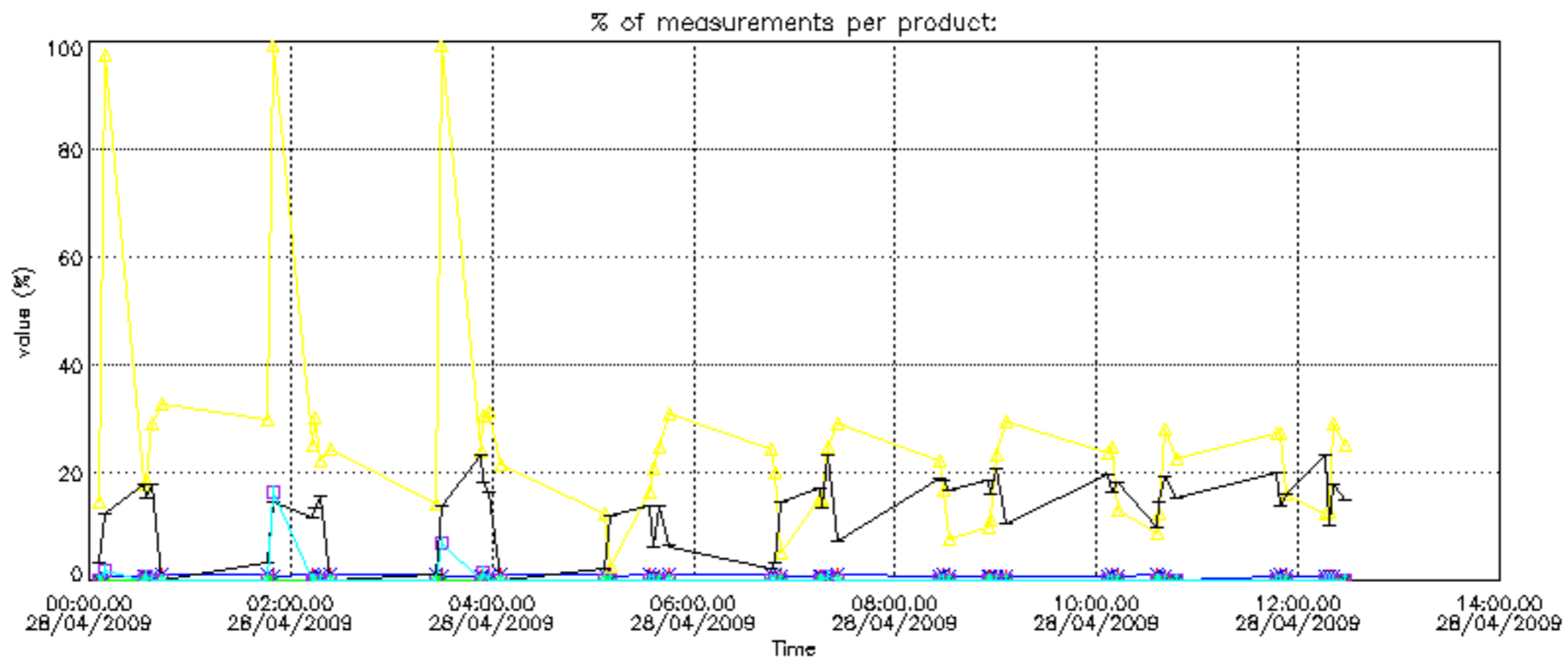


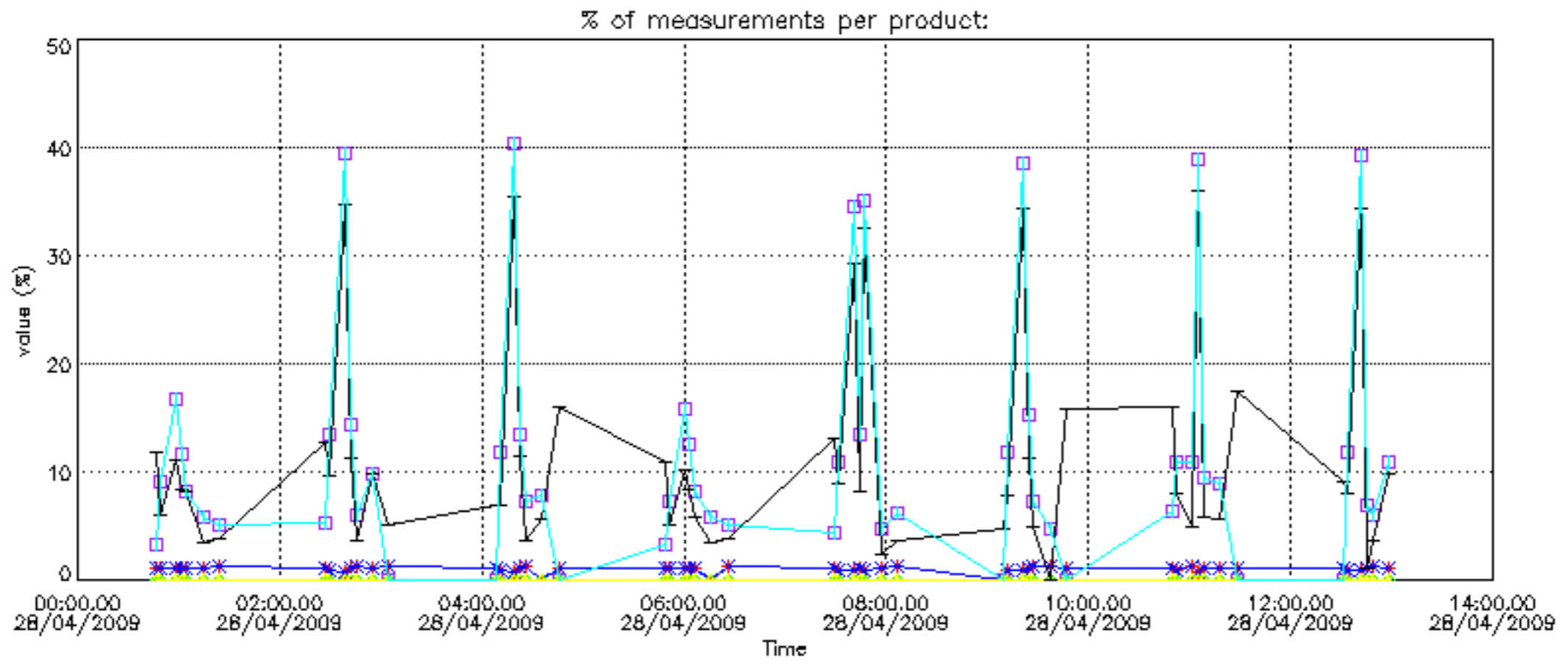
Percentage of flagged data per NO2 profile



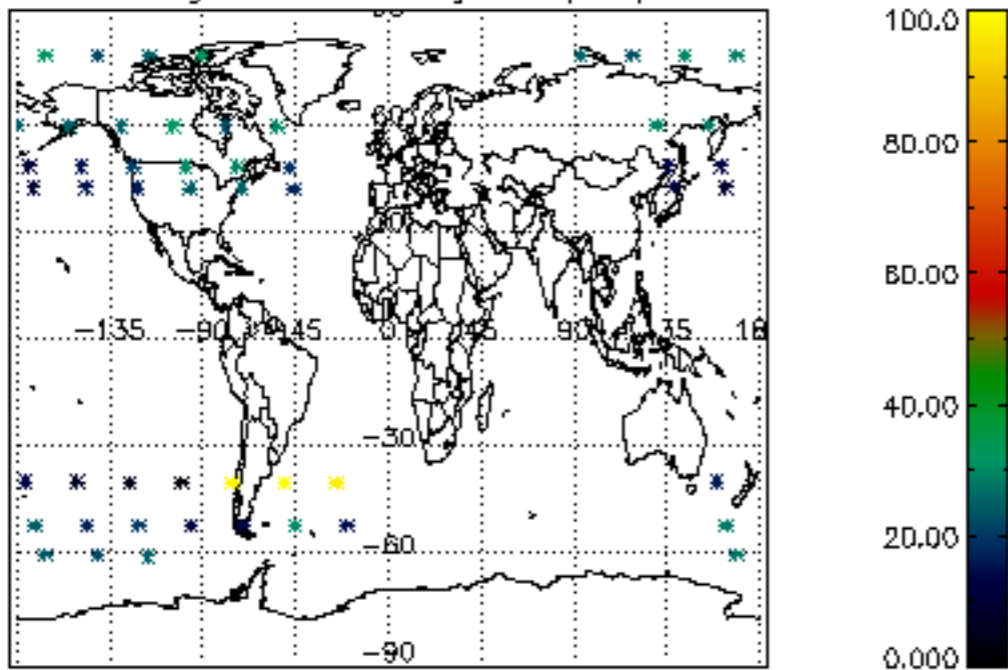
Percentage of flagged data per NO3 profile



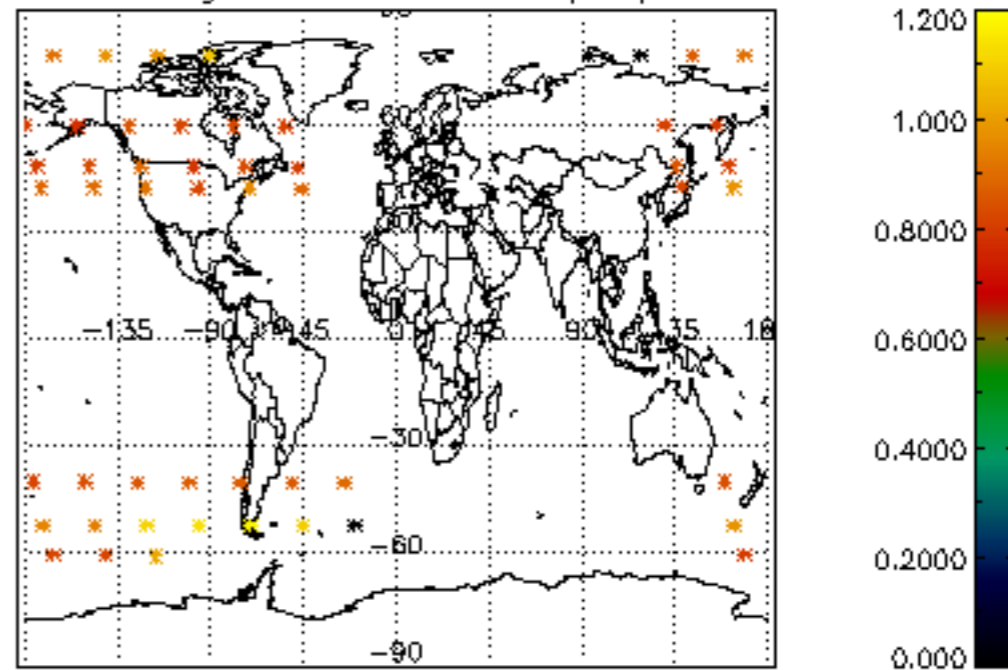




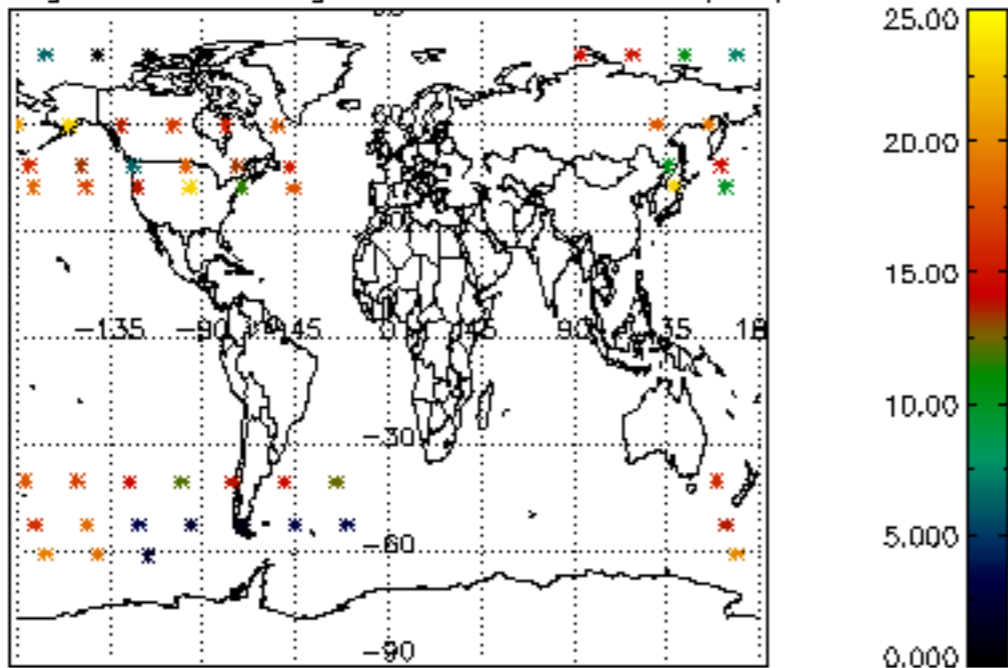
Percentage of cosmic ray hits per profile



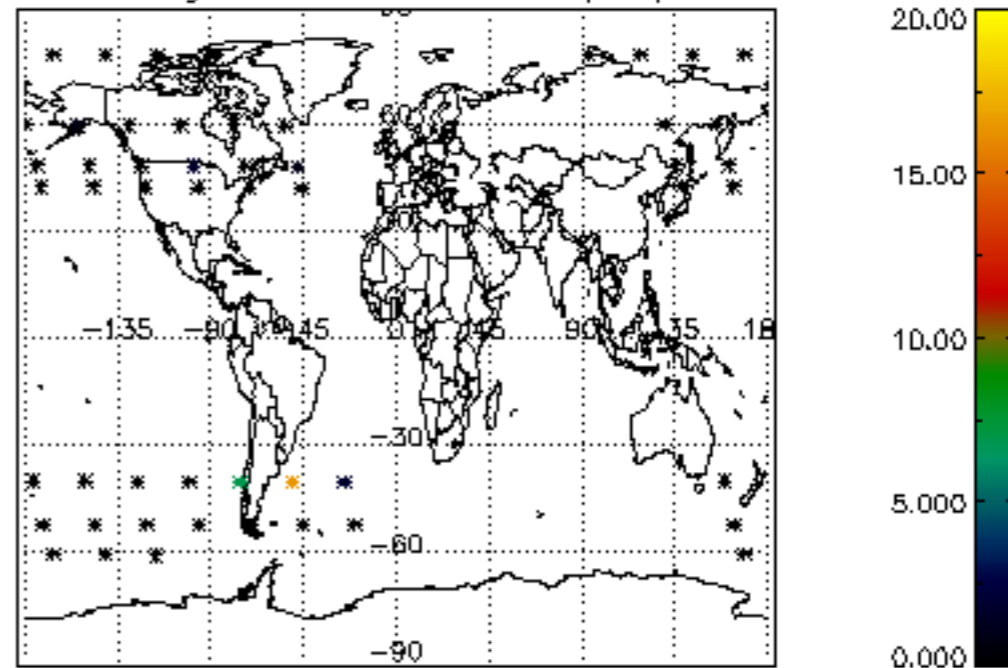
Percentage of datation errors per profile



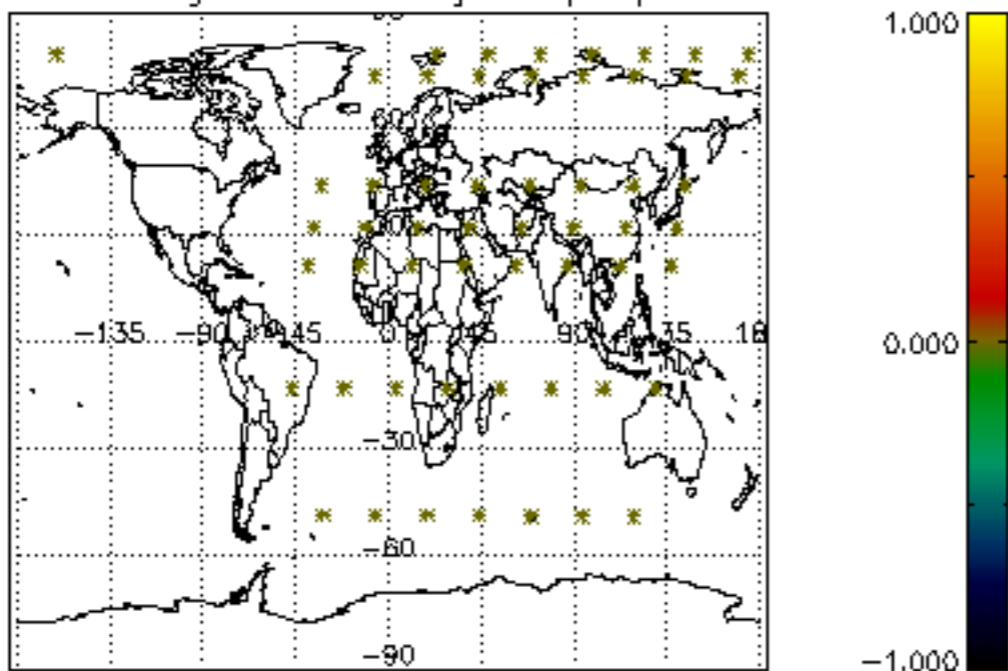
Percentage of star falling outside central band per profile



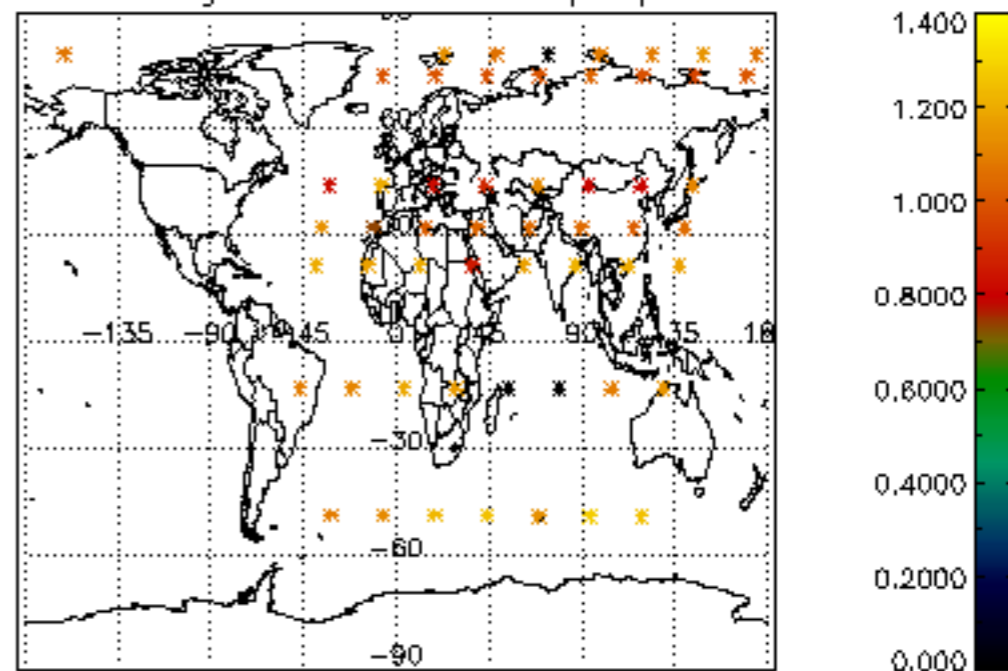
Percentage of saturation errors per profile



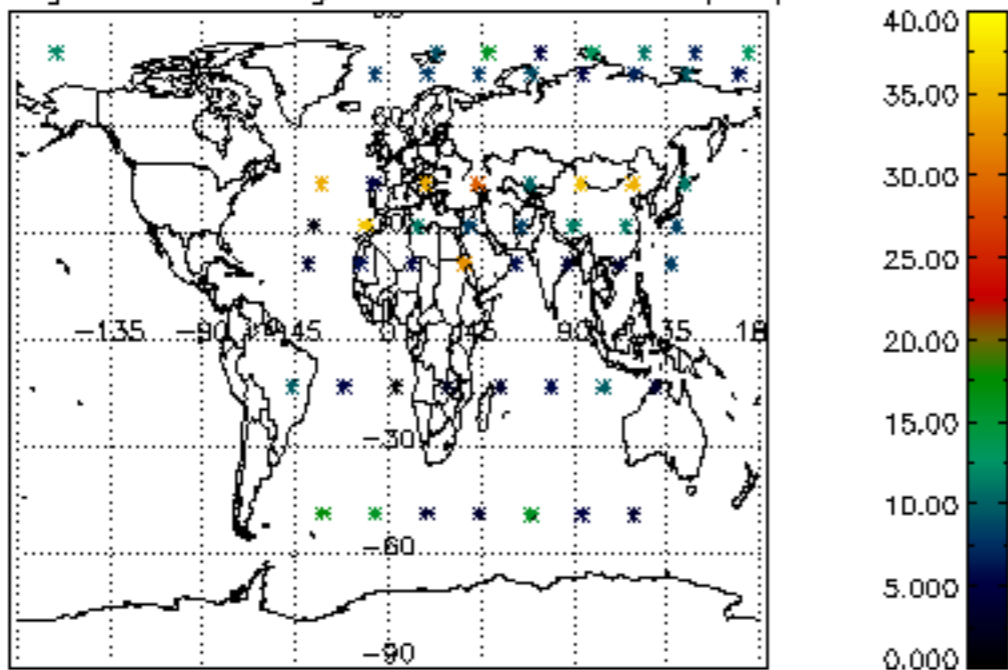
Percentage of cosmic ray hits per profile



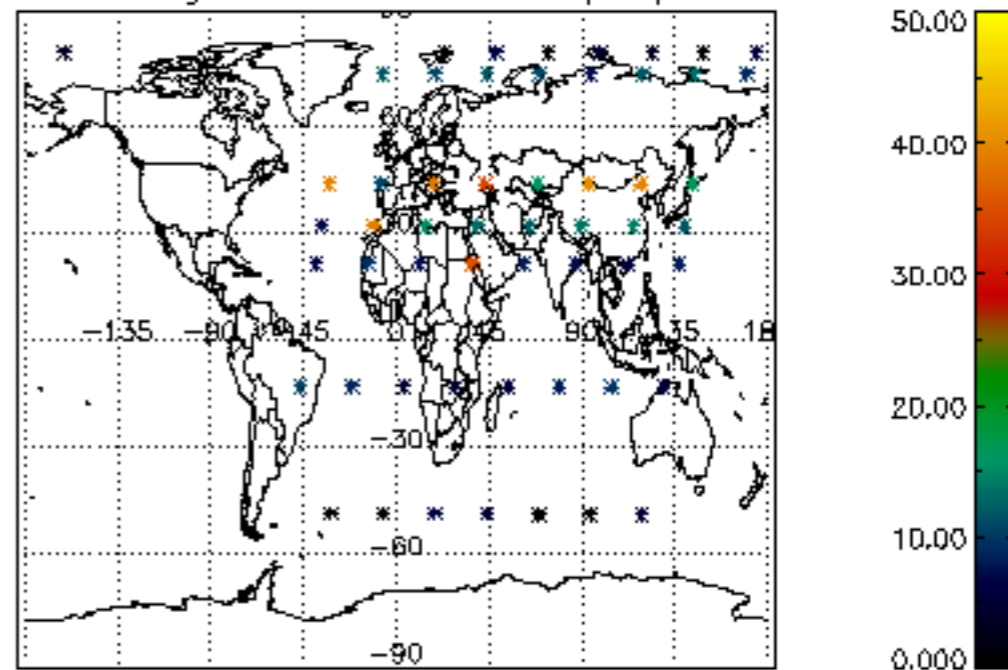
Percentage of datation errors per profile

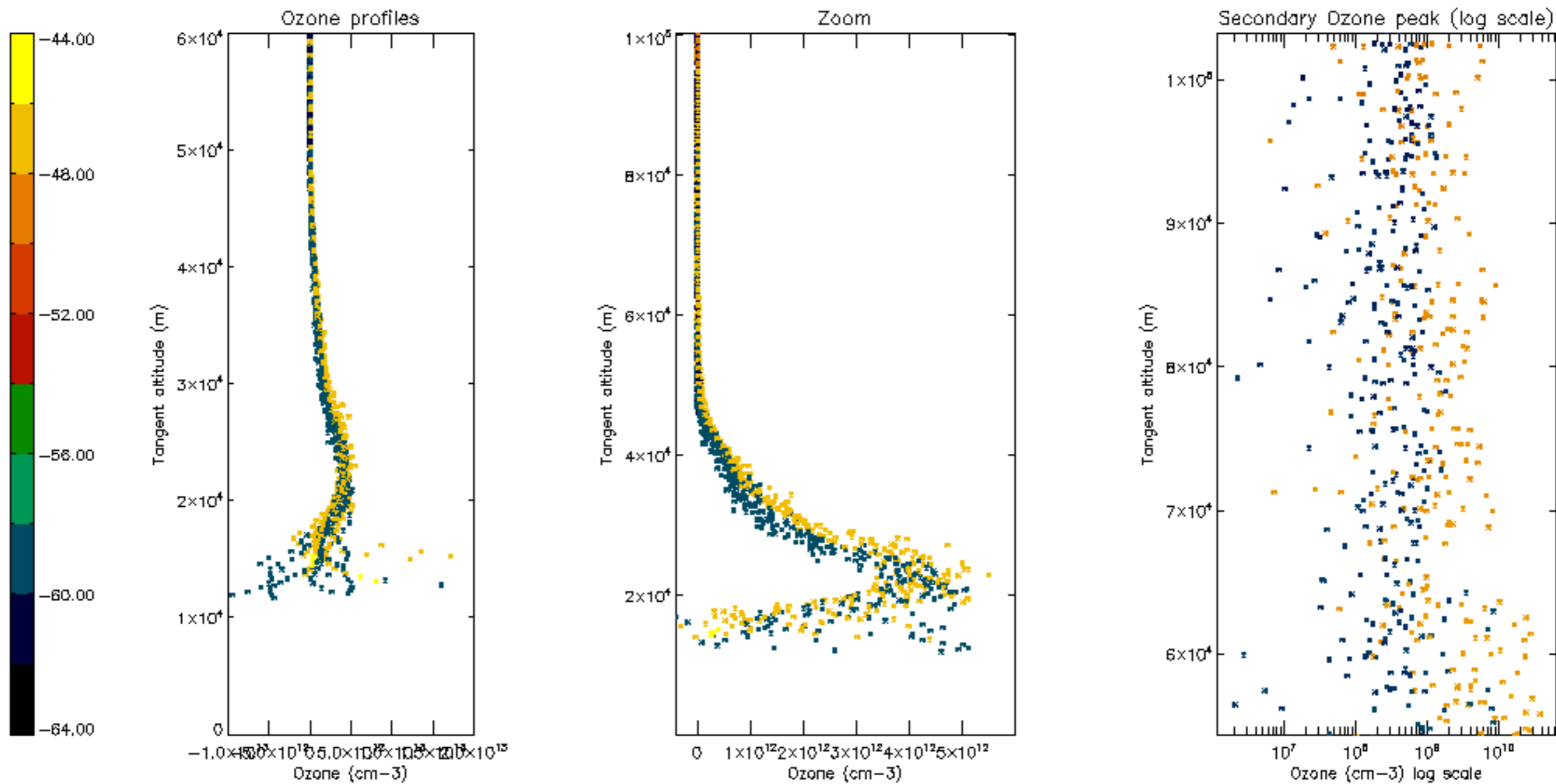


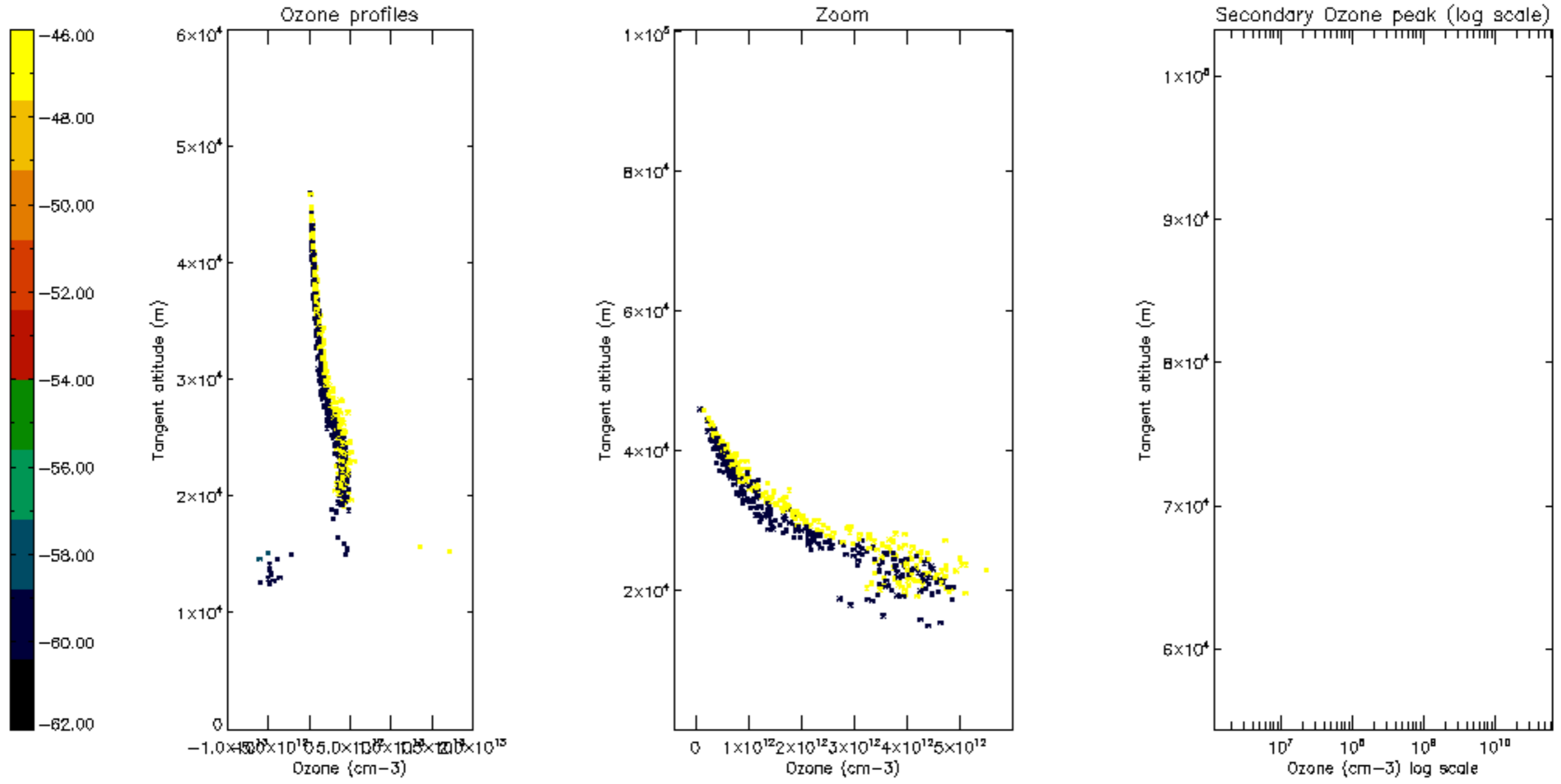
Percentage of star falling outside central band per profile

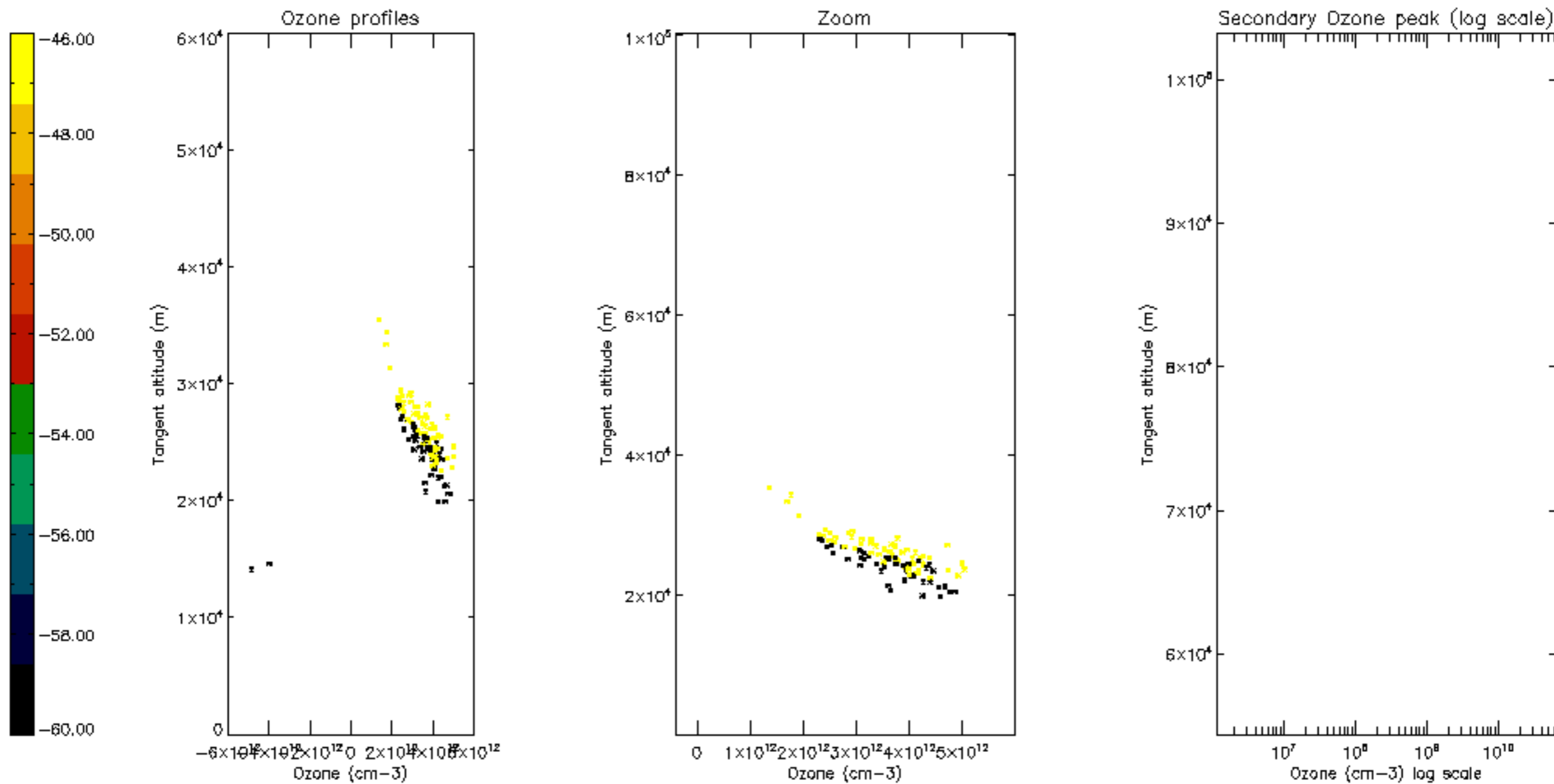


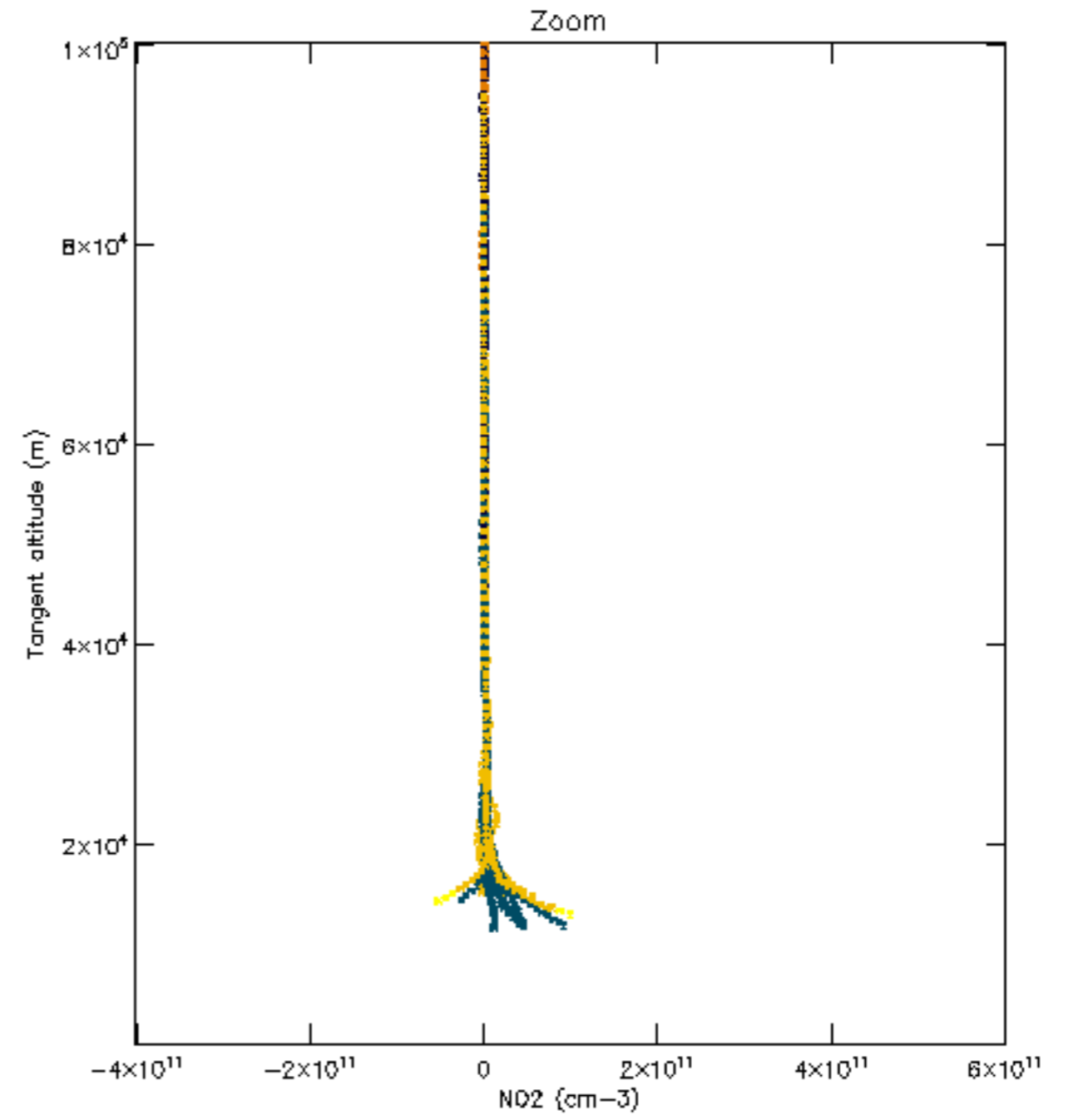
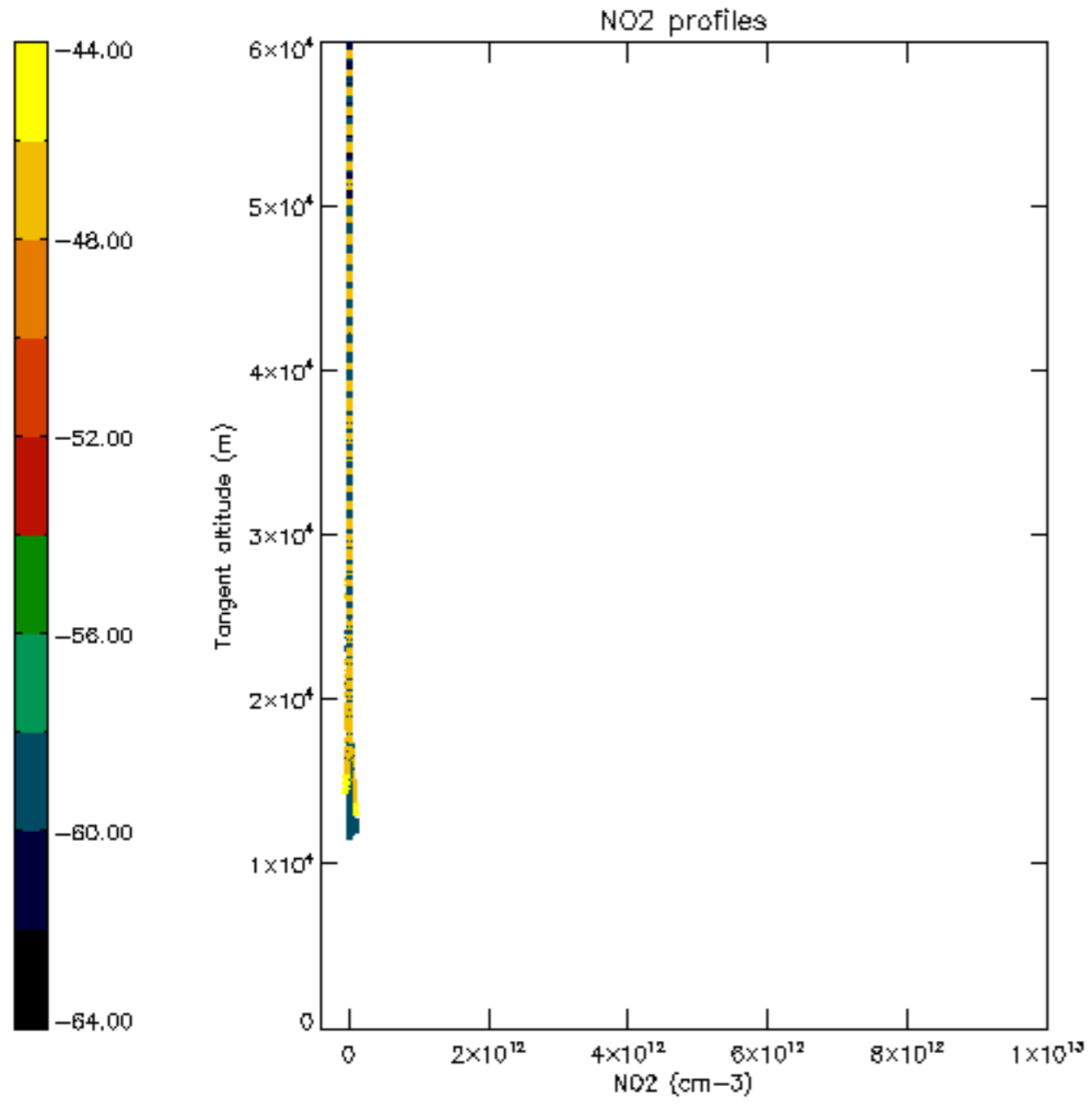
Percentage of saturation errors per profile

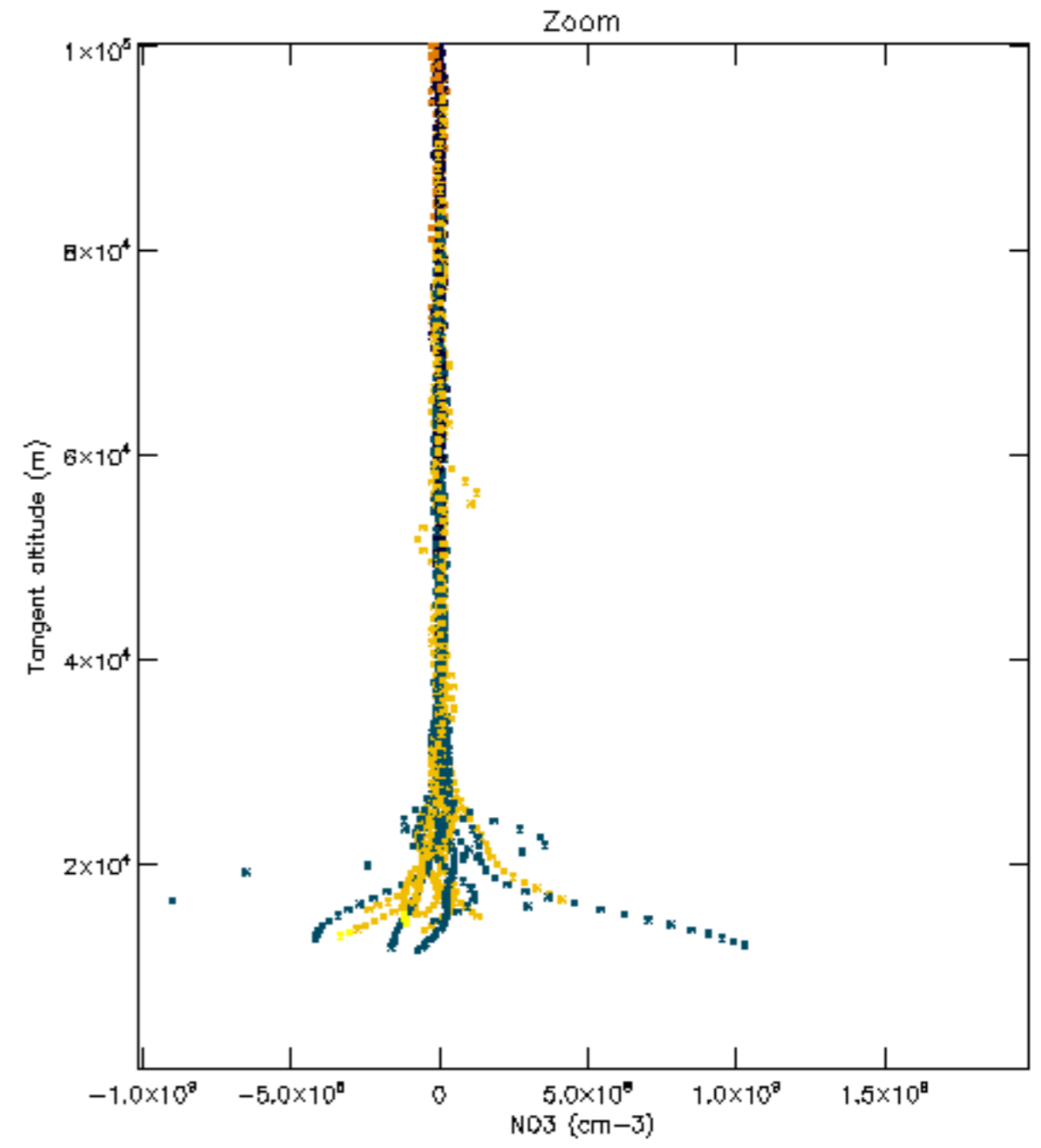
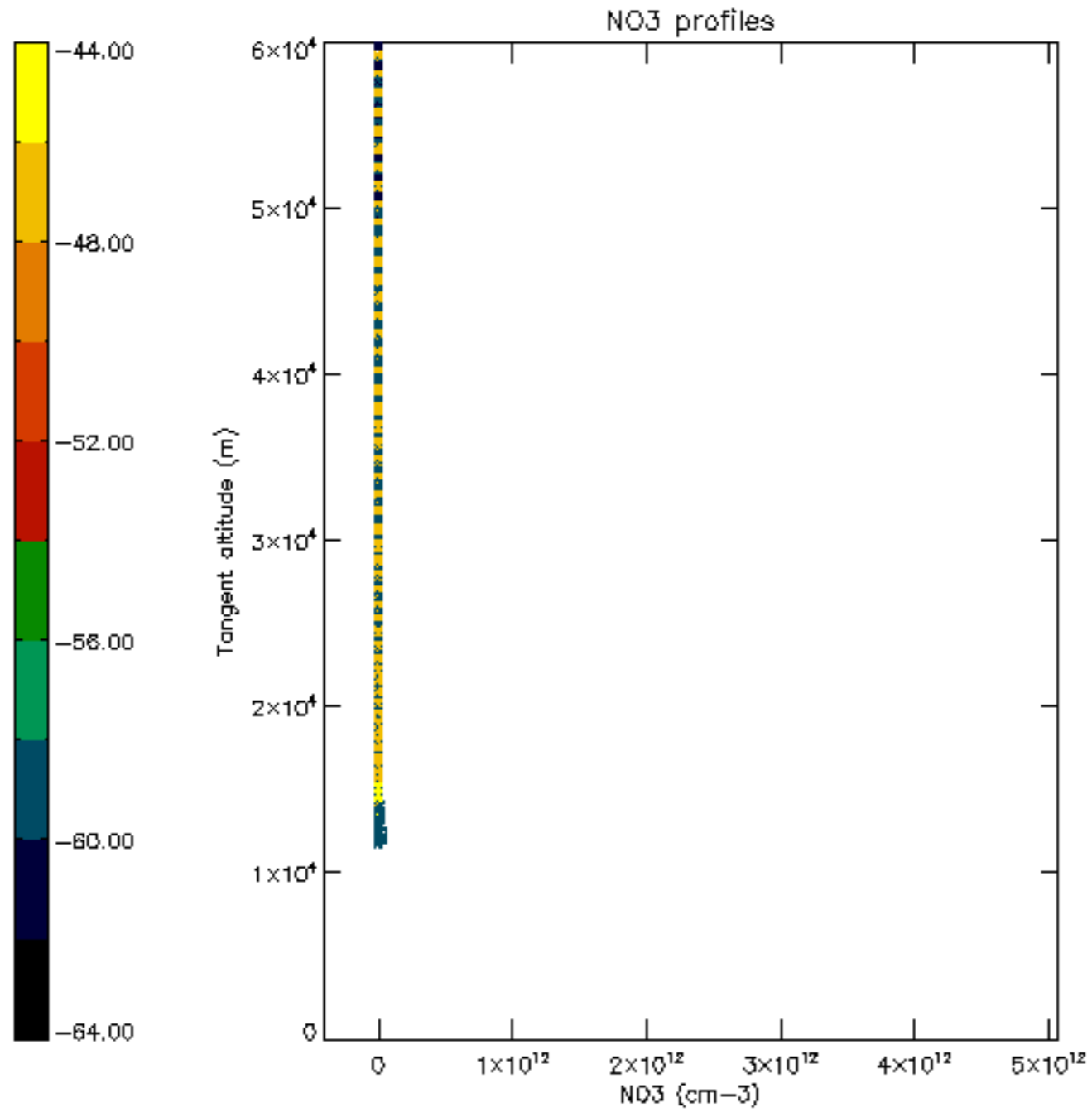


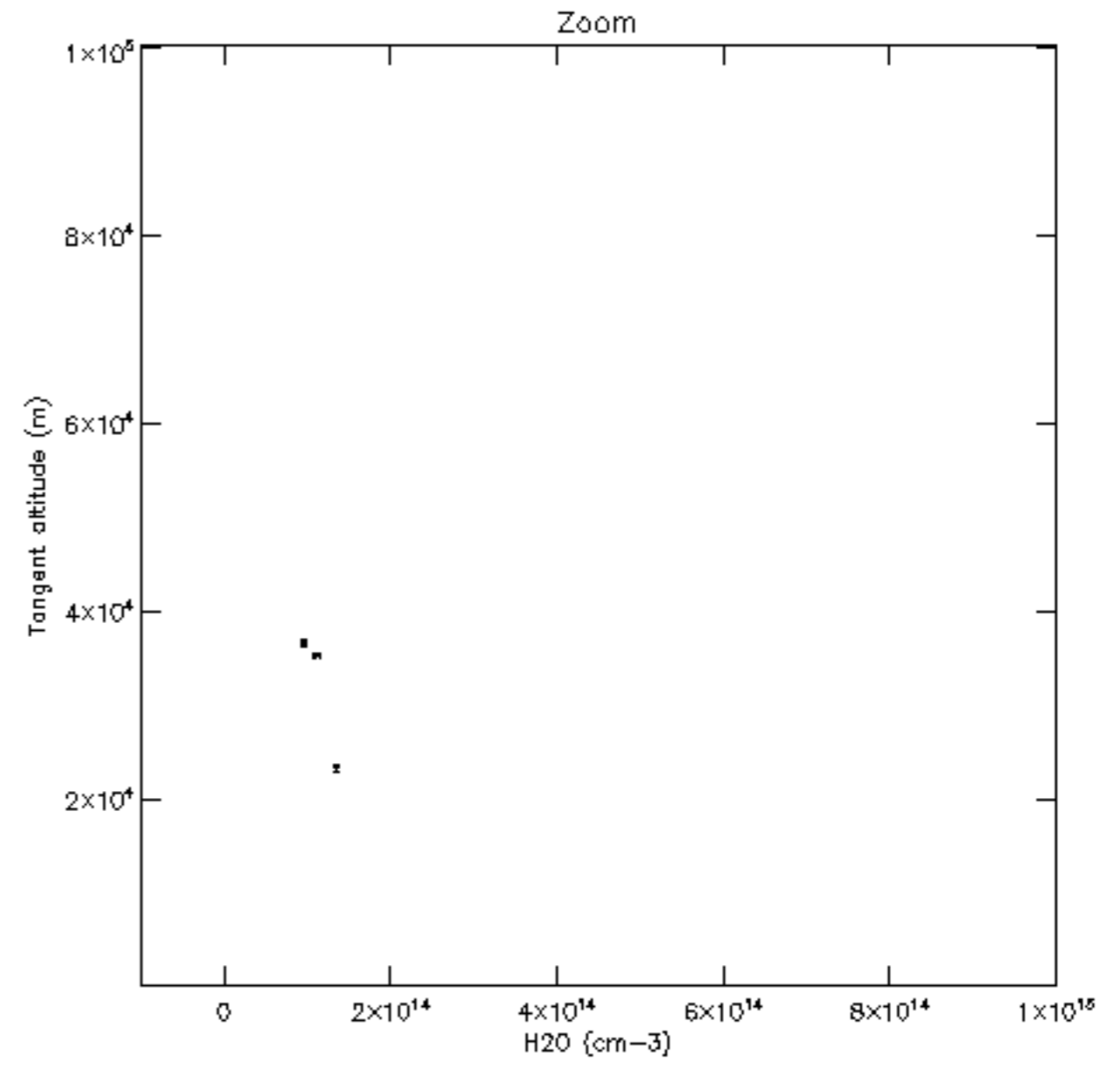
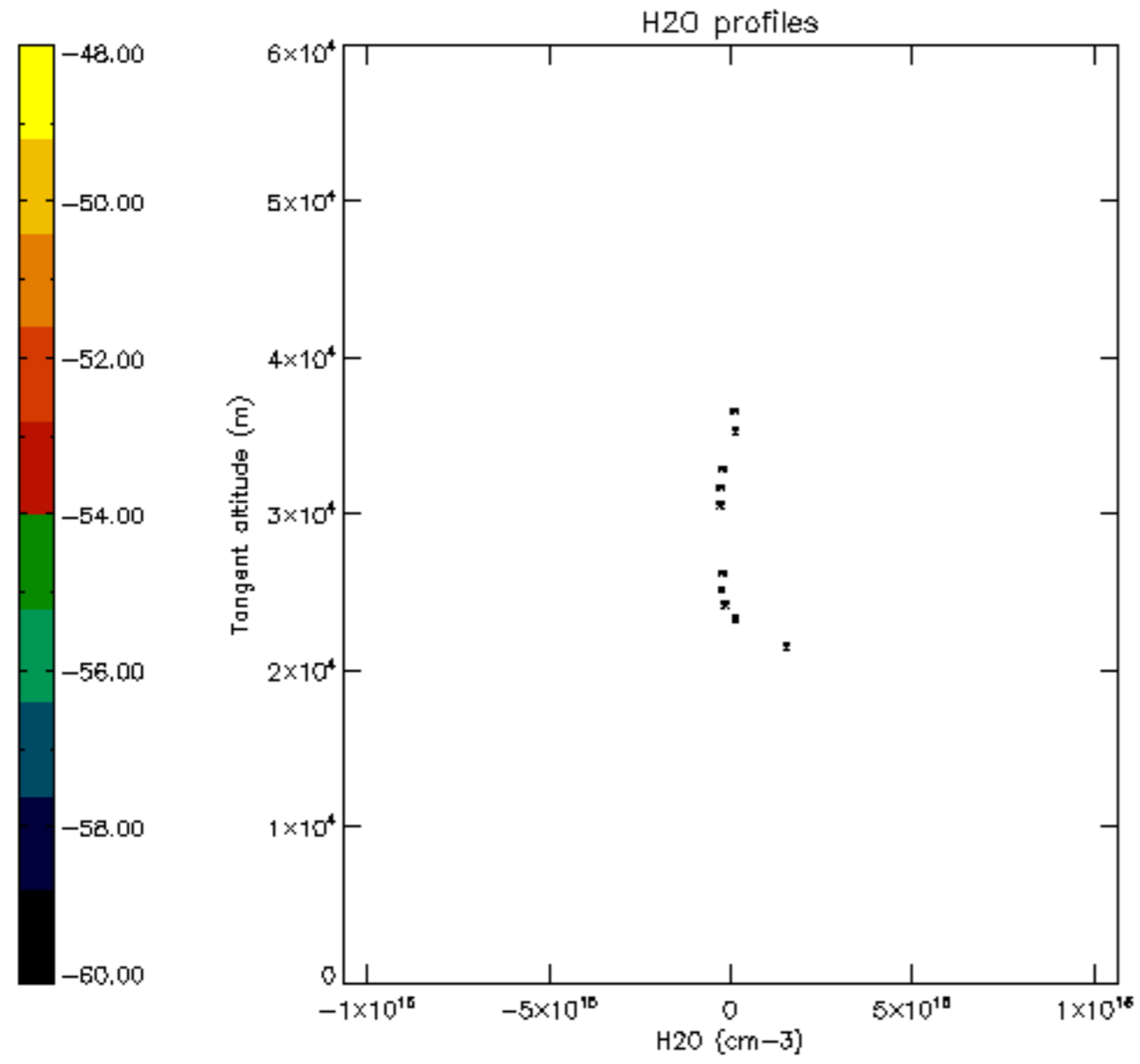


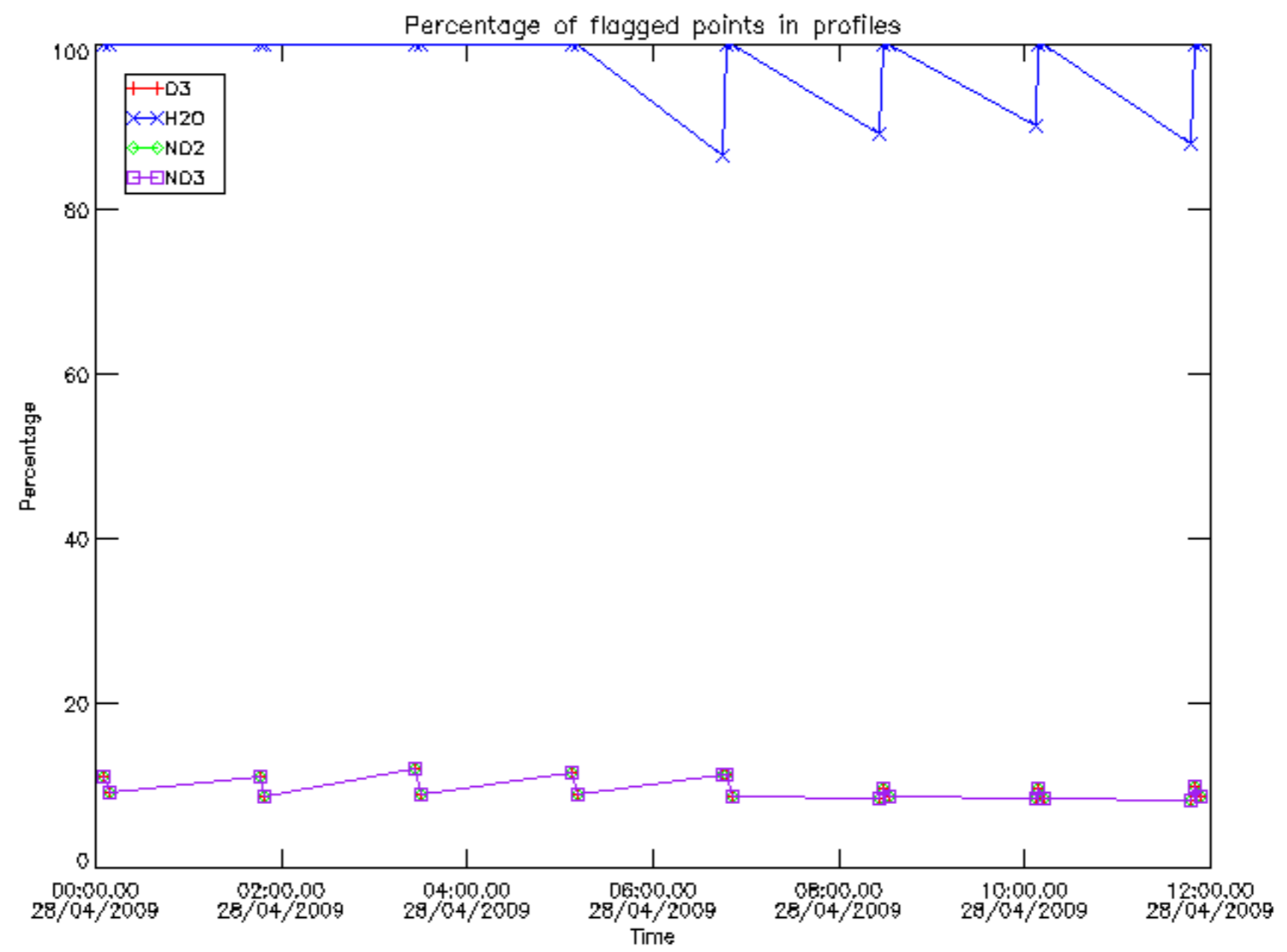




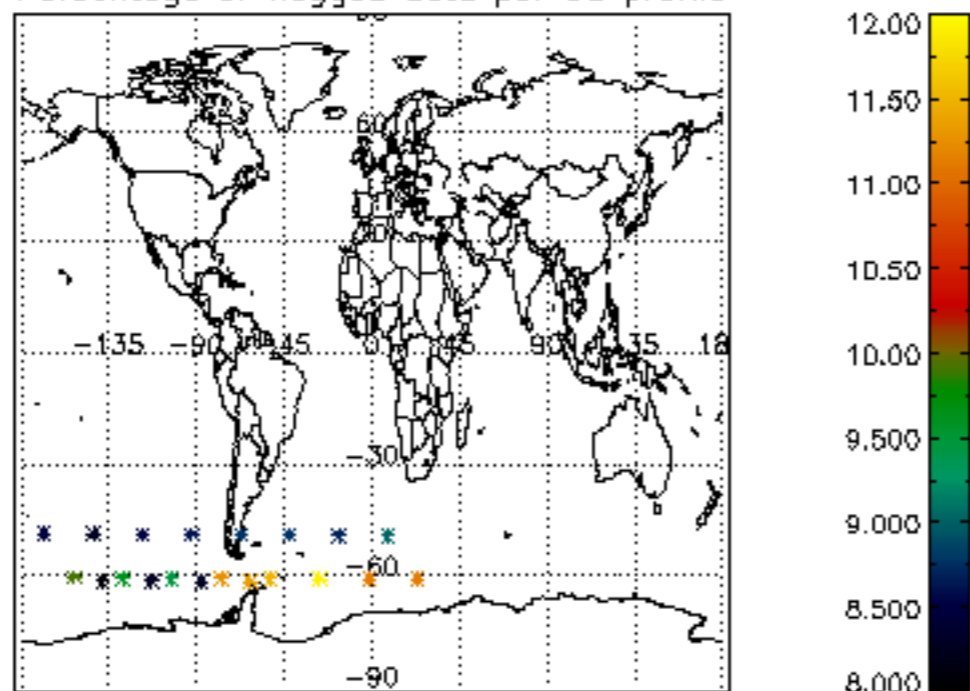




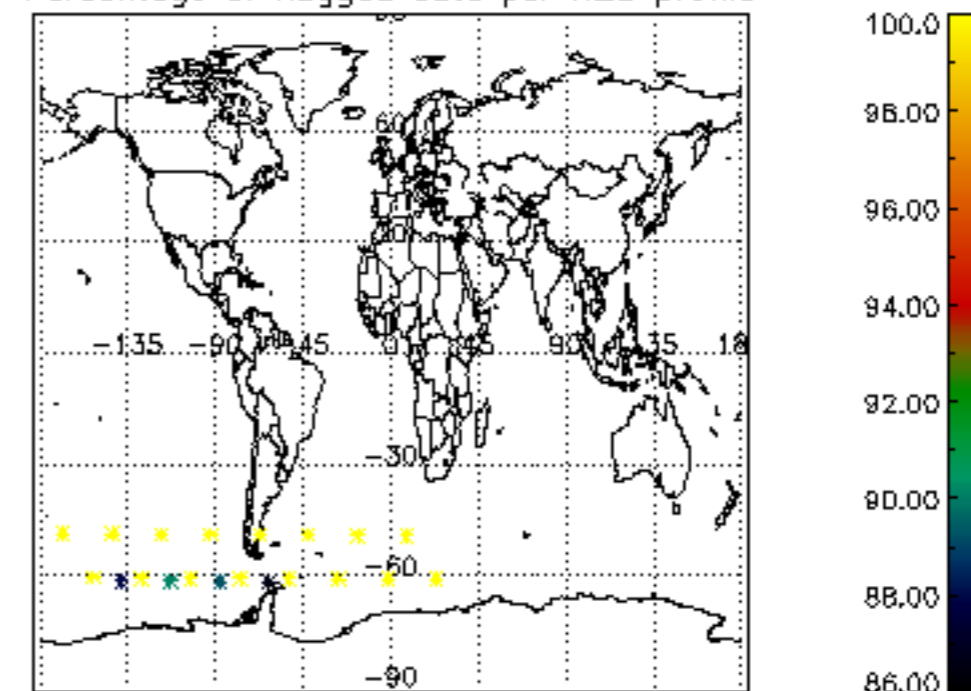




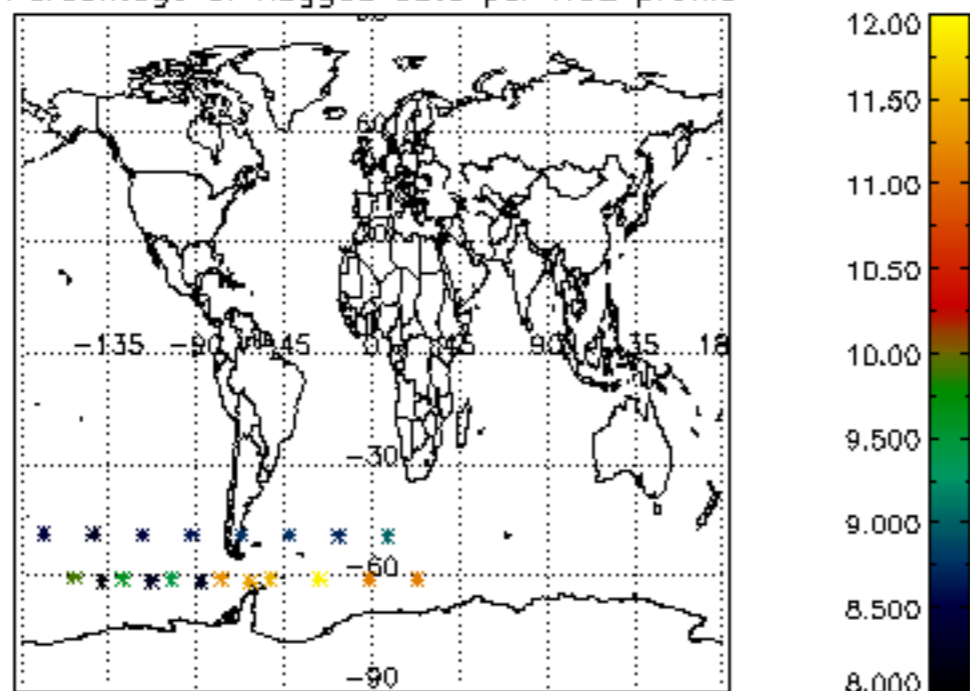
Percentage of flagged data per D3 profile



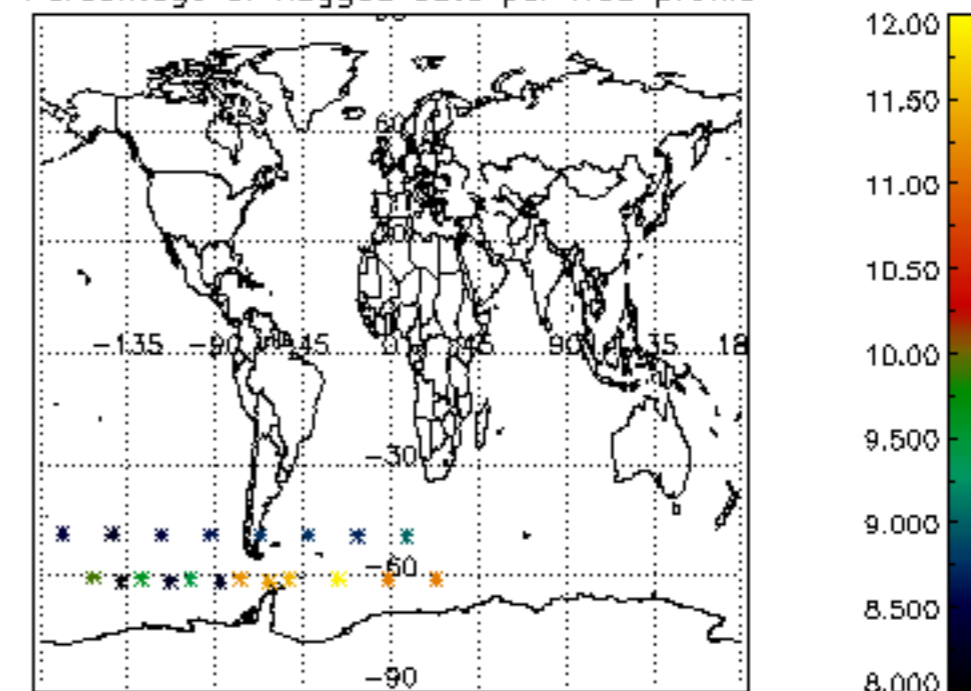
Percentage of flagged data per H2O profile

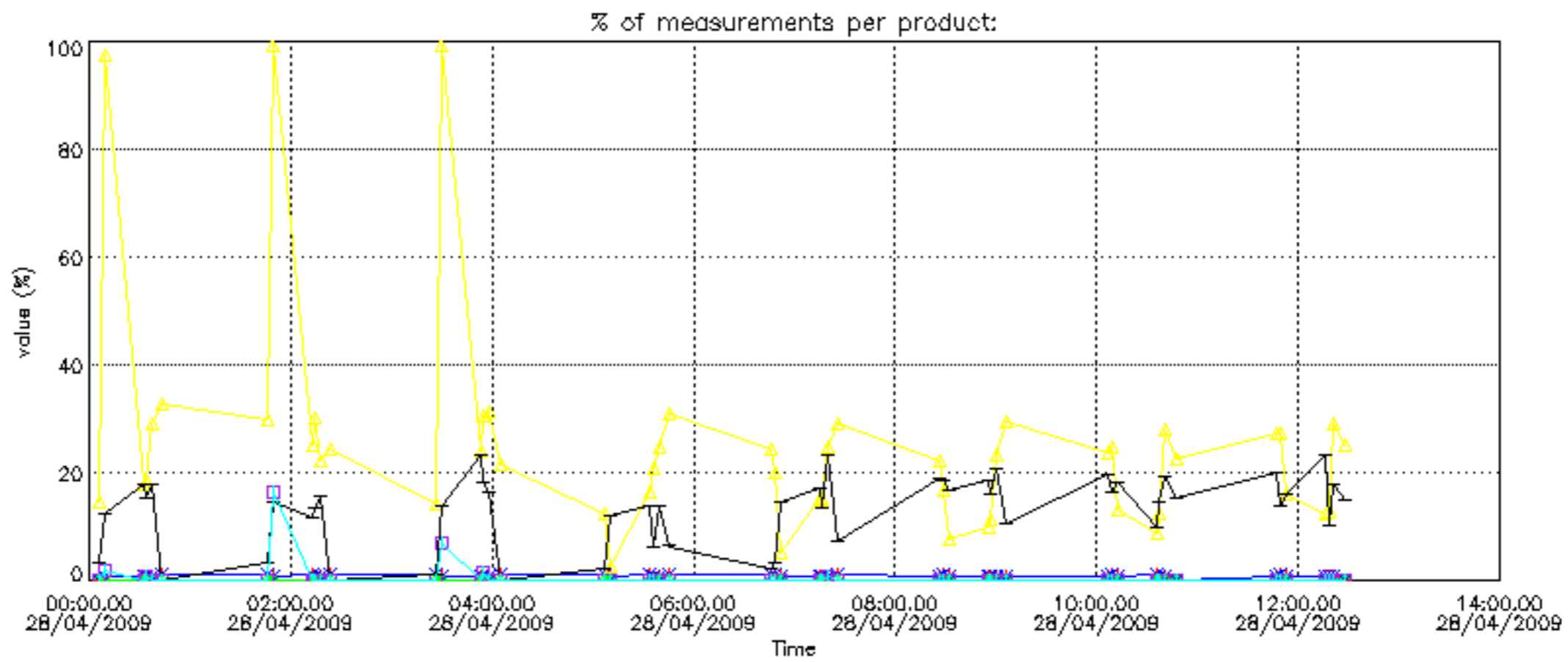


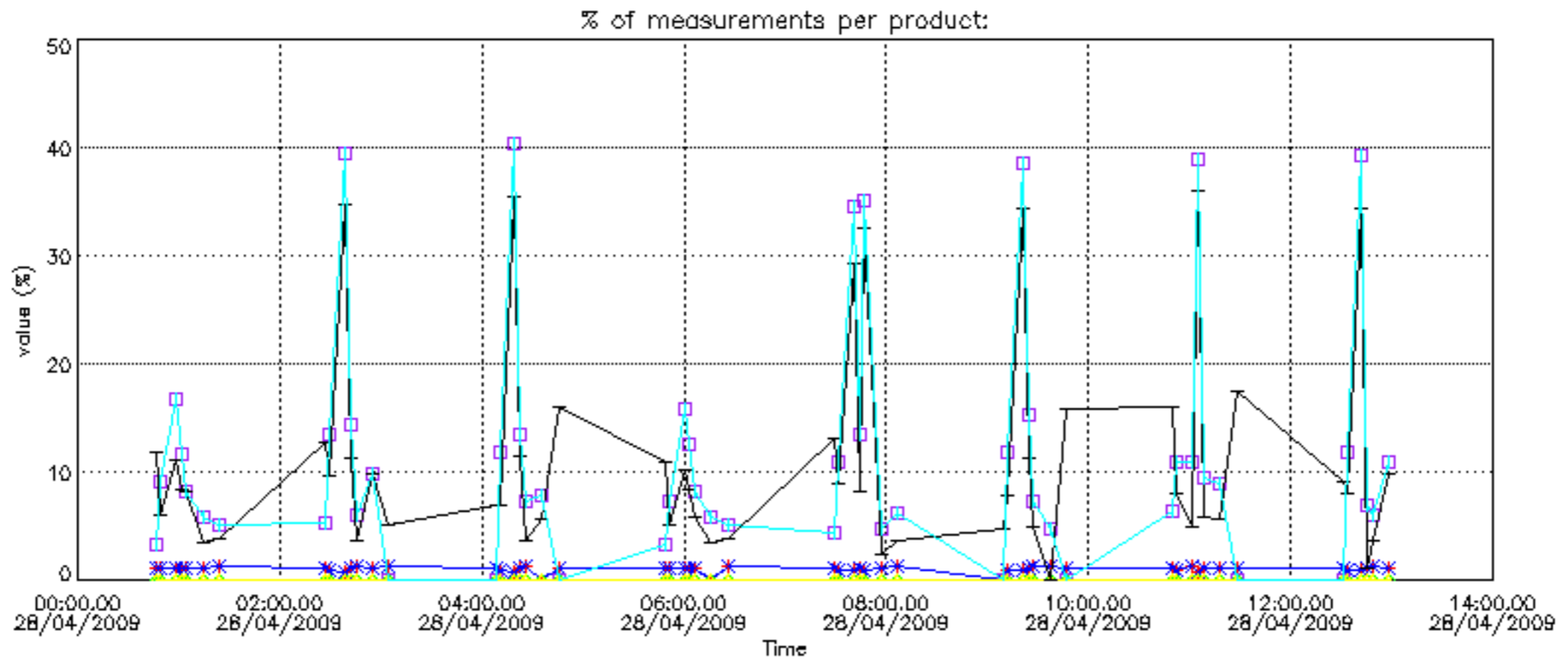
Percentage of flagged data per NO2 profile



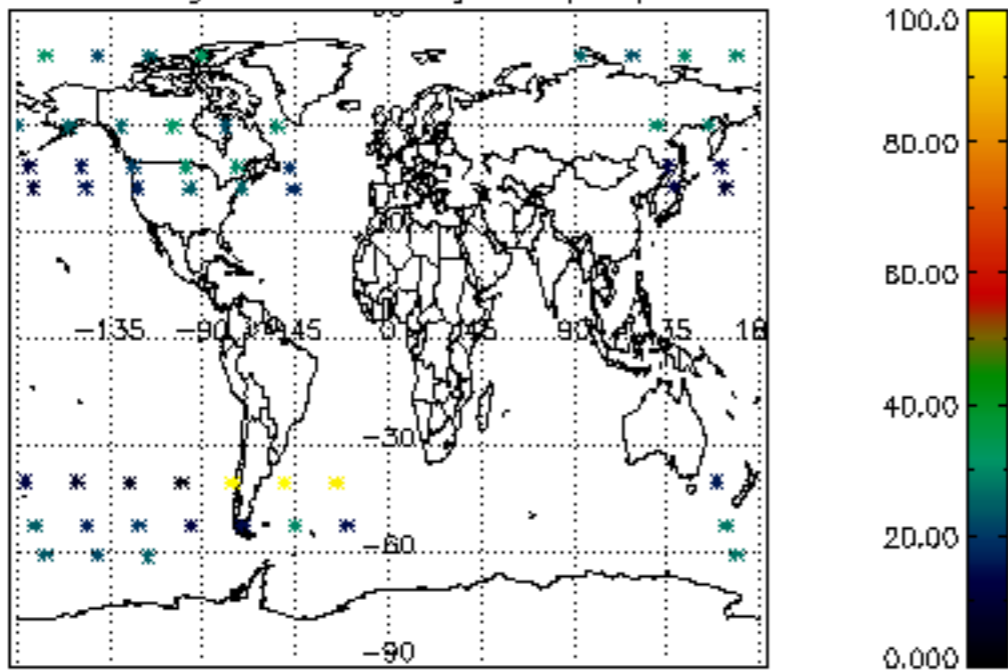
Percentage of flagged data per NO3 profile



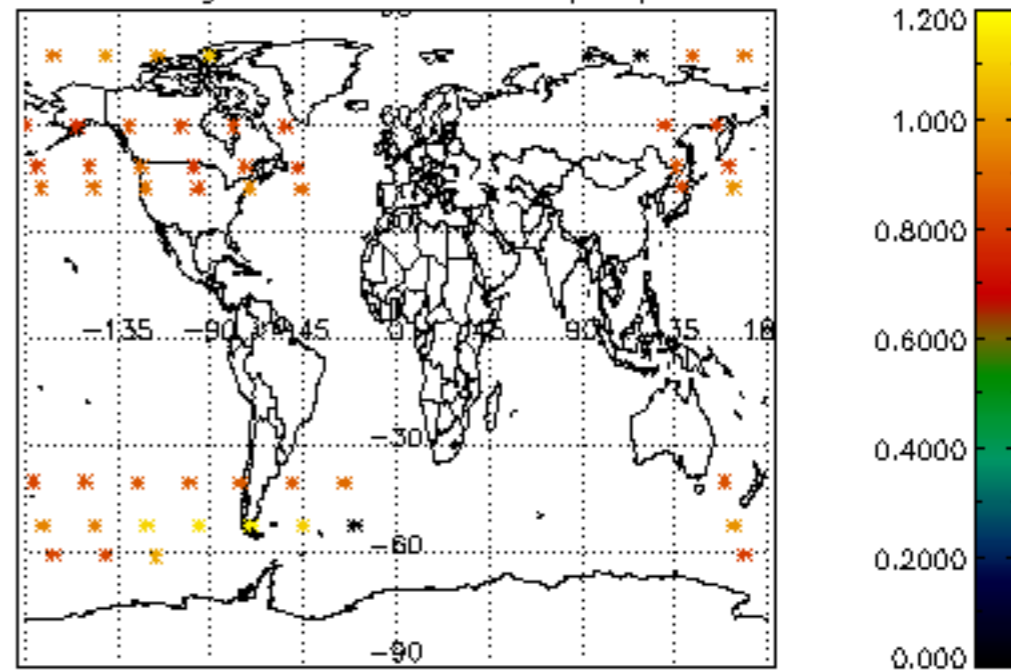




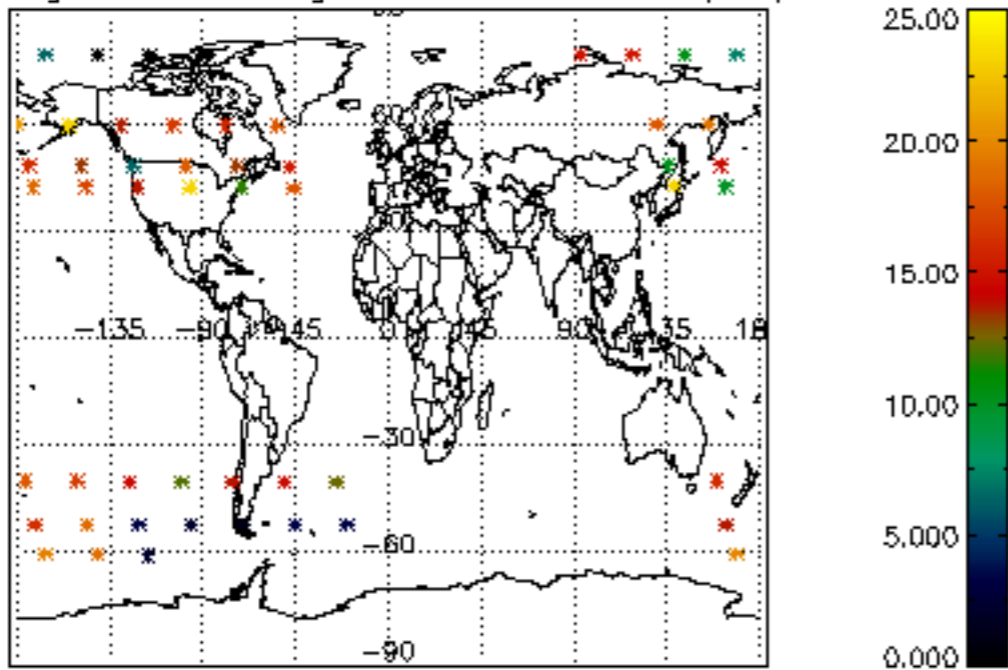
Percentage of cosmic ray hits per profile



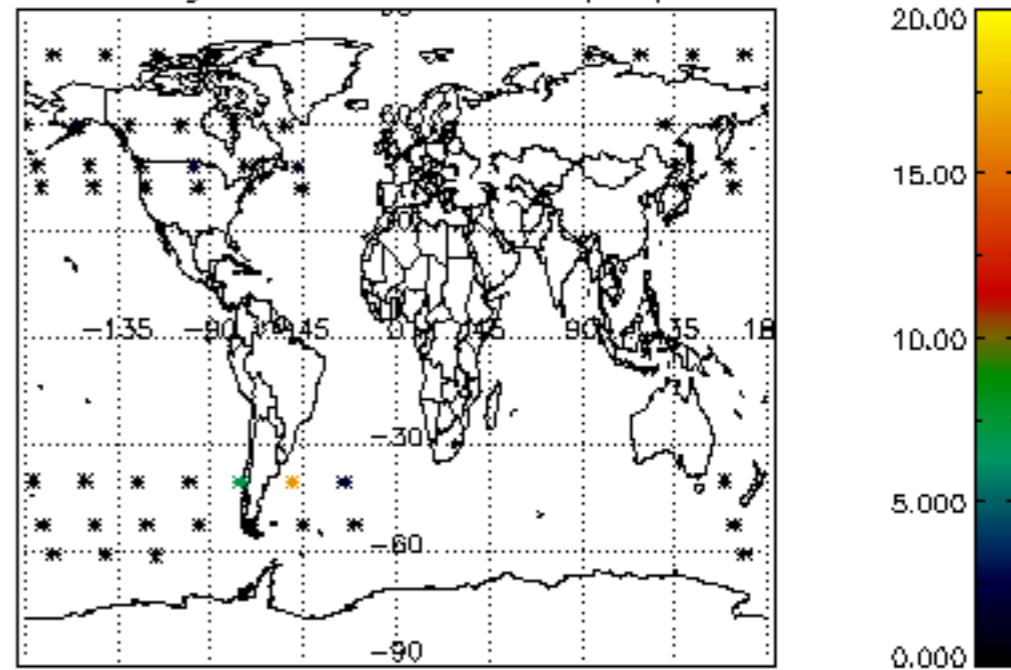
Percentage of datation errors per profile



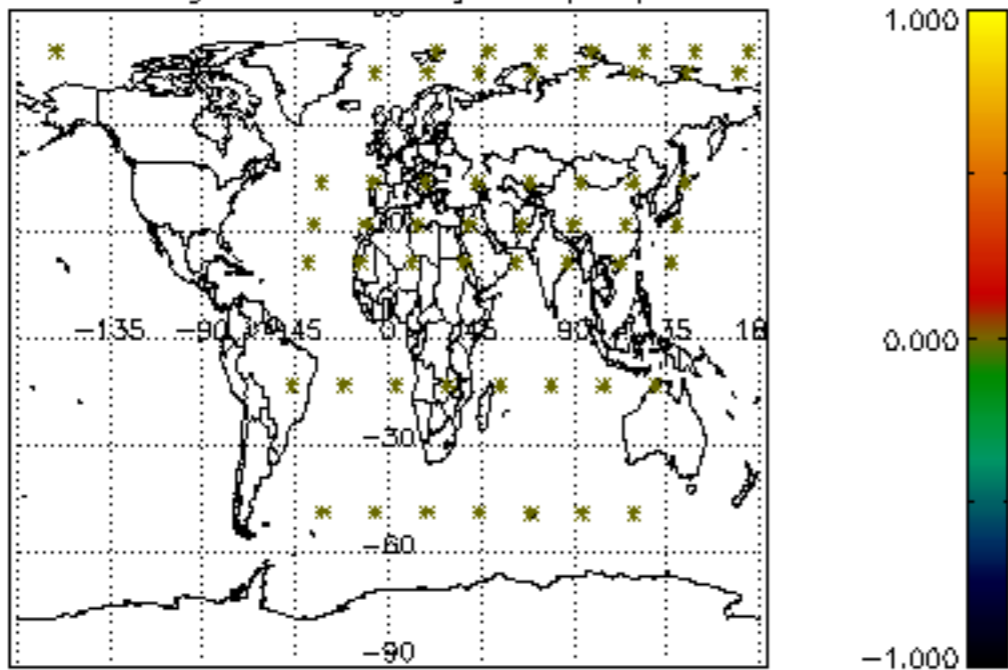
Percentage of star falling outside central band per profile



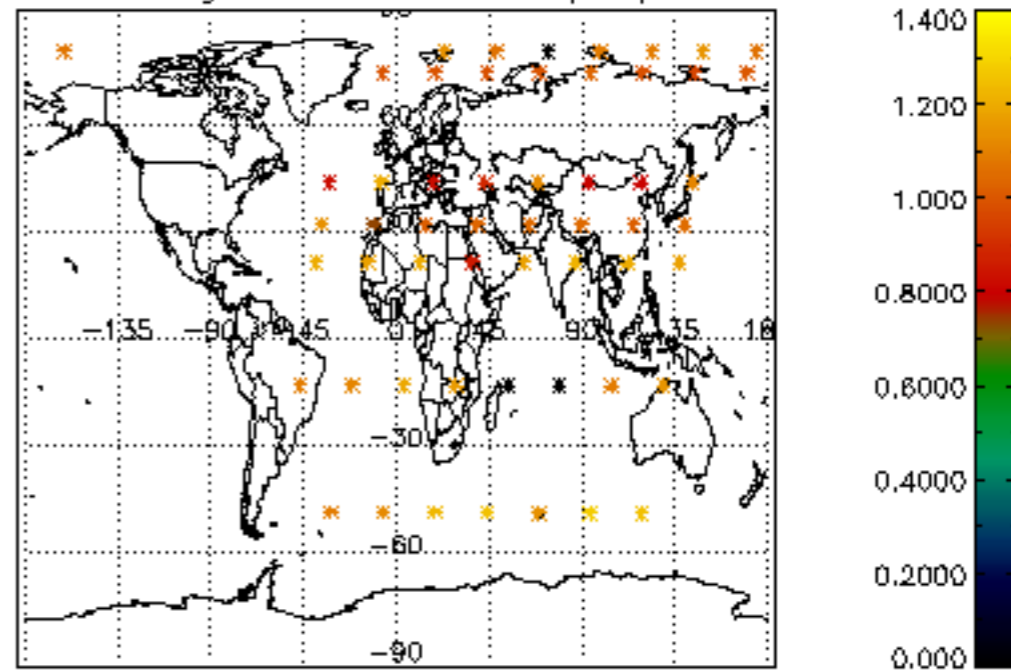
Percentage of saturation errors per profile



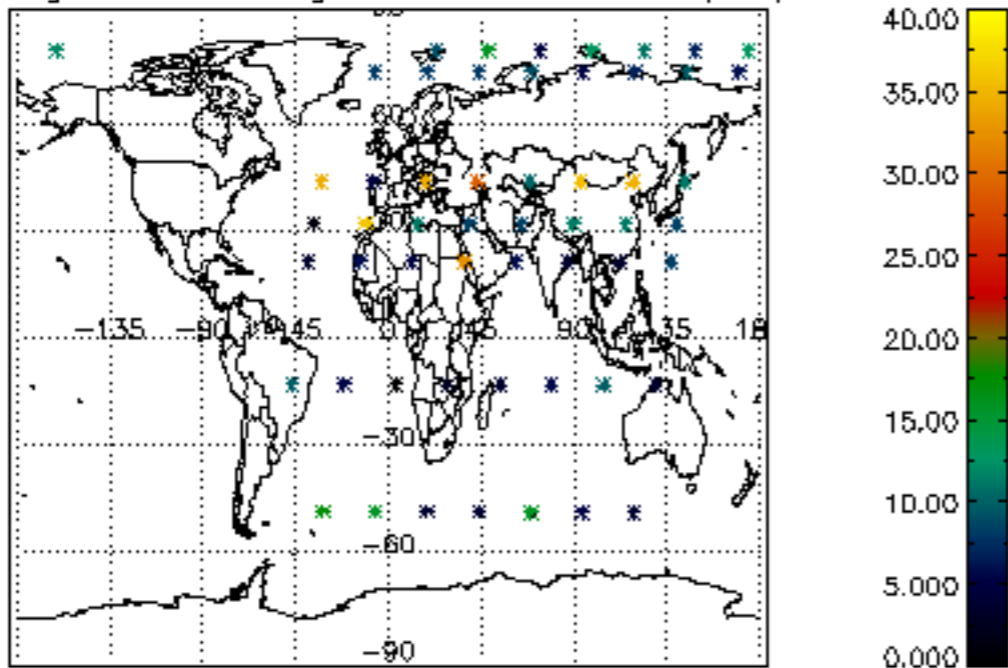
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

