

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	29APR2013 10:34:46
Data source version	GOMOS/6.01
Start time of products	09-05-2010 (09MAY2010 00:00:00)
Stop time of products	10-05-2010 (10MAY2010 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	289
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

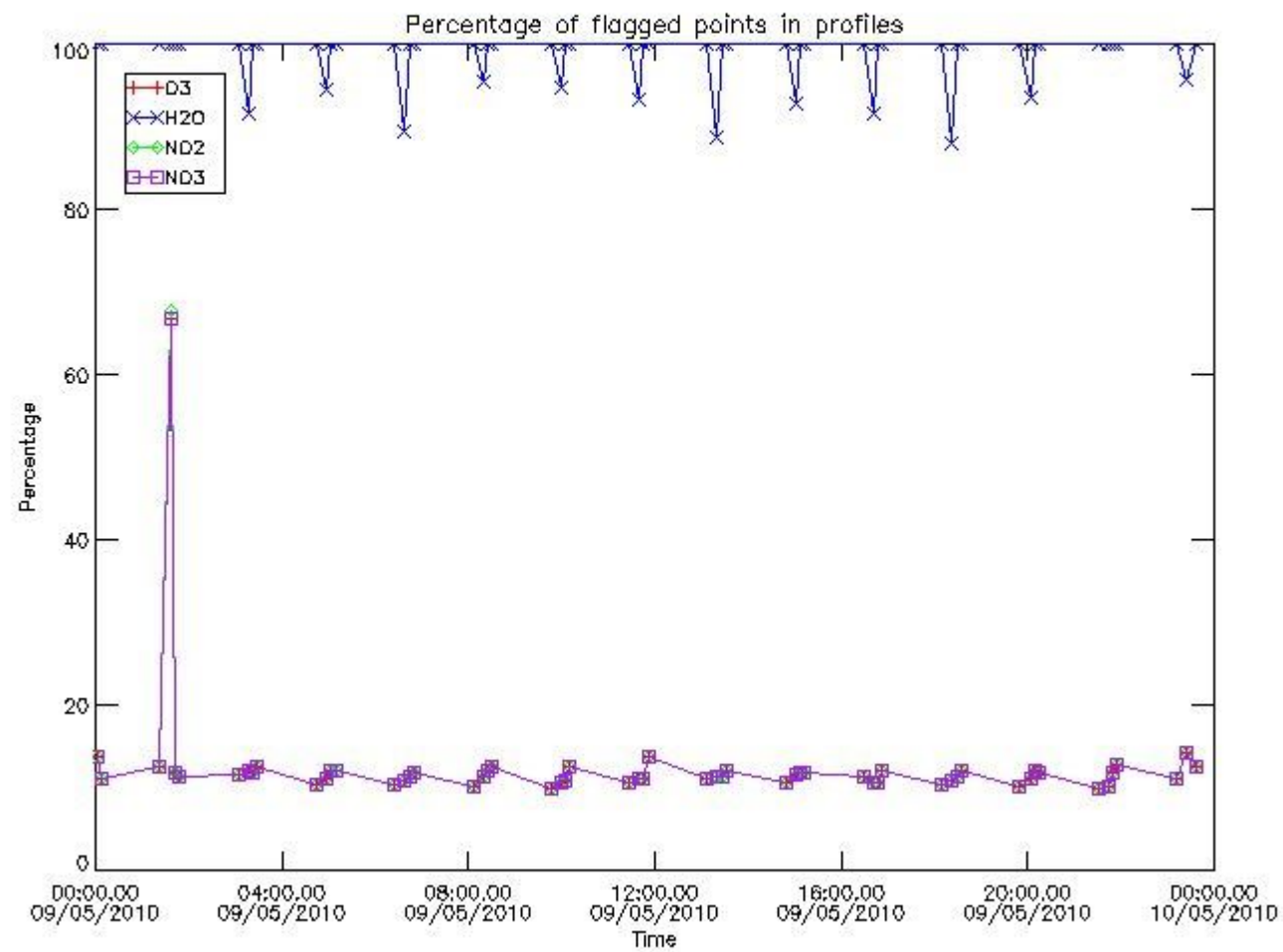
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20100509_000135_000000412089_00173_42812_8520.N1	09-MAY-2010 00:01:35	Dark	41.000	31	Alp Gru	1.7340	15200.	82	42812	No
2	GOM_NL__2PRFIN20100509_000710_000000462089_00174_42813_8509.N1	09-MAY-2010 00:07:10	Dark	46.000	45	Alp Pav	1.9400	26000.	92	42813	No
3	GOM_NL__2PRFIN20100509_001438_000000512089_00174_42813_8510.N1	09-MAY-2010 00:14:38	Straylight	50.500	141	Bet Ara	2.8400	4600.0	101	42813	No
4	GOM_NL__2PRFIN20100509_001655_000000572089_00174_42813_8511.N1	09-MAY-2010 00:16:55	Straylight	57.000	40	The Sco	1.8590	7100.0	114	42813	No
5	GOM_NL__2PRFIN20100509_001845_000000512089_00174_42813_8512.N1	09-MAY-2010 00:18:45	Straylight	51.000	25	35Lam Sco	1.6200	28000.	102	42813	No
6	GOM_NL__2PRFIN20100509_002127_000000582089_00174_42813_8513.N1	09-MAY-2010 00:21:27	Straylight	58.000	75	26Eps Sco	2.2910	4250.0	116	42813	No
7	GOM_NL__2PRFIN20100509_002450_000000482089_00174_42813_8514.N1	09-MAY-2010 00:24:50	Tw_i_and_stray	48.000	16	21Alp Sco	1.0200	3000.0	96	42813	No
8	GOM_NL__2PRFIN20100509_002646_000000512089_00174_42813_8515.N1	09-MAY-2010 00:26:46	Bright	50.500	80	7Del Sco	2.3160	30000.	101	42813	No
9	GOM_NL__2PRFIN20100509_002938_000000412089_00174_42813_8516.N1	09-MAY-2010 00:29:38	Bright	41.000	122	9Alp2Lib	2.7470	9700.0	82	42813	No
10	GOM_NL__2PRFIN20100509_003140_000000432089_00174_42813_8517.N1	09-MAY-2010 00:31:40	Bright	42.500	104	27Bet Lib	2.6140	13100.	85	42813	No
11	GOM_NL__2PRFIN20100509_003957_000000382089_00174_42813_8518.N1	09-MAY-2010 00:39:57	Bright	37.500	111	8Eta Boo	2.6800	6000.0	75	42813	No
12	GOM_NL__2PRFIN20100509_004303_000000402089_00174_42813_8519.N1	09-MAY-2010 00:43:03	Bright	40.000	83		2.3780	11000.	80	42813	No
13	GOM_NL__2PRFIN20100509_004609_000000392089_00174_42813_8520.N1	09-MAY-2010 00:46:09	Bright	38.500	180	27Gam Boo	3.0400	8000.0	77	42813	No
14	GOM_NL__2PRFIN20100509_004847_000000382089_00174_42813_8521.N1	09-MAY-2010 00:48:47	Bright	37.500	39	85Eta UMa	1.8540	24000.	75	42813	No
15	GOM_NL__2PRFIN20100509_005519_000000442089_00174_42813_8522.N1	09-MAY-2010 00:55:19	Bright	44.000	119	14Eta Dra	2.7270	4700.0	88	42813	No
16	GOM_NL__2PRFIN20100509_010606_000000442089_00174_42813_8523.N1	09-MAY-2010 01:06:06	Bright	43.500	89	5Alp Cep	2.4510	8000.0	87	42813	No
17	GOM_NL__2PRFIN20100509_010900_000000532089_00174_42813_8524.N1	09-MAY-2010 01:09:00	Bright	53.000	74	11Bet Cas	2.2680	6600.0	106	42813	No
18	GOM_NL__2PRFIN20100509_011852_000000522089_00174_42813_8525.N1	09-MAY-2010 01:18:52	Tw_i_and_stray	52.000	93	53Bet Peg	2.5200	3100.0	104	42813	No
19	GOM_NL__2PRFIN20100509_012309_000000492089_00174_42813_8526.N1	09-MAY-2010 01:23:09	Dark	48.500	90	54Alp Peg	2.4870	11000.	97	42813	No
20	GOM_NL__2PRFIN20100509_013621_000000472089_00174_42813_8527.N1	09-MAY-2010 01:36:21	Dark	47.000	18	24Alp PsA	1.1660	9700.0	94	42813	No
21	GOM_NL__2PRFIN20100509_014212_000000432089_00174_42813_8528.N1	09-MAY-2010 01:42:12	Dark	43.000	31	Alp Gru	1.7340	15200.	86	42813	No
22	GOM_NL__2PRFIN20100509_014747_000000452089_00175_42814_8537.N1	09-MAY-2010 01:47:47	Dark	45.000	45	Alp Pav	1.9400	26000.	90	42814	No
23	GOM_NL__2PRFIN20100509_015515_000000512089_00175_42814_8538.N1	09-MAY-2010 01:55:15	Straylight	50.500	141	Bet Ara	2.8400	4600.0	101	42814	No
24	GOM_NL__2PRFIN20100509_015731_000000542089_00175_42814_8539.N1	09-MAY-2010 01:57:31	Straylight	53.500	40	The Sco	1.8590	7100.0	107	42814	No
25	GOM_NL__2PRFIN20100509_015922_000000532089_00175_42814_8540.N1	09-MAY-2010 01:59:22	Straylight	53.000	25	35Lam Sco	1.6200	28000.	106	42814	No
26	GOM_NL__2PRFIN20100509_020203_000000552089_00175_42814_8541.N1	09-MAY-2010 02:02:03	Straylight	55.000	75	26Eps Sco	2.2910	4250.0	110	42814	No
27	GOM_NL__2PRFIN20100509_020526_000000532089_00175_42814_8542.N1	09-MAY-2010 02:05:26	Tw_i_and_stray	53.000	16	21Alp Sco	1.0200	3000.0	106	42814	No
28	GOM_NL__2PRFIN20100509_020722_000000562089_00175_42814_8543.N1	09-MAY-2010 02:07:22	Bright	55.500	80	7Del Sco	2.3160	30000.	111	42814	No
29	GOM_NL__2PRFIN20100509_021014_000000422089_00175_42814_8544.N1	09-MAY-2010 02:10:14	Bright	41.500	122	9Alp2Lib	2.7470	9700.0	83	42814	No
30	GOM_NL__2PRFIN20100509_021216_000000452089_00175_42814_8545.N1	09-MAY-2010 02:12:16	Bright	44.500	104	27Bet Lib	2.6140	13100.	89	42814	No
31	GOM_NL__2PRFIN20100509_022032_000000382089_00175_42814_8546.N1	09-MAY-2010 02:20:32	Bright	37.500	111	8Eta Boo	2.6800	6000.0	75	42814	No
32	GOM_NL__2PRFIN20100509_022339_000000442089_00175_42814_8547.N1	09-MAY-2010 02:23:39	Bright	43.500	83		2.3780	11000.	87	42814	No
33	GOM_NL__2PRFIN20100509_022645_000000402089_00175_42814_8548.N1	09-MAY-2010 02:26:45	Bright	39.500	180	27Gam Boo	3.0400	8000.0	79	42814	No
34	GOM_NL__2PRFIN20100509_022922_000000392089_00175_42814_8549.N1	09-MAY-2010 02:29:22	Bright	39.000	39	85Eta UMa	1.8540	24000.	78	42814	No
35	GOM_NL__2PRFIN20100509_023555_000000432089_00175_42814_8550.N1	09-MAY-2010 02:35:55	Bright	43.000	119	14Eta Dra	2.7270	4700.0	86	42814	No
36	GOM_NL__2PRFIN20100509_024641_000000452089_00175_42814_8551.N1	09-MAY-2010 02:46:41	Bright	45.000	89	5Alp Cep	2.4510	8000.0	90	42814	No
37	GOM_NL__2PRFIN20100509_024936_000000472089_00175_42814_8552.N1	09-MAY-2010 02:49:36	Bright	47.000	74	11Bet Cas	2.2680	6600.0	94	42814	No
38	GOM_NL__2PRFIN20100509_025929_000000562089_00175_42814_8553.N1	09-MAY-2010 02:59:29	Tw_i_and_stray	56.000	93	53Bet Peg	2.5200	3100.0	112	42814	No
39	GOM_NL__2PRFIN20100509_030345_000000492089_00175_42814_8554.N1	09-MAY-2010 03:03:45	Dark	48.500	90	54Alp Peg	2.4870	11000.	97	42814	No
40	GOM_NL__2PRFIN20100509_031657_000000432089_00175_42814_8555.N1	09-MAY-2010 03:16:57	Dark	42.500	18	24Alp PsA	1.1660	9700.0	85	42814	No
41	GOM_NL__2PRFIN20100509_032248_000000442089_00175_42814_8556.N1	09-MAY-2010 03:22:48	Dark	43.500	31	Alp Gru	1.7340	15200.	87	42814	No
42	GOM_NL__2PRFIN20100509_032823_000000412089_00176_42815_8545.N1	09-MAY-2010 03:28:23	Dark	40.500	45	Alp Pav	1.9400	26000.	81	42815	No

279	GOM_NL__2PRFIN20100509_230942_000000412089_00187_42826_8670.N1	09-MAY-2010 23:09:42	Twilight	41.000	140	88Gam Peg	2.8340	26000.	82	42826	No
280	GOM_NL__2PRFIN20100509_231102_000000502089_00187_42826_8671.N1	09-MAY-2010 23:11:02	Dark	49.500	90	54Alp Peg	2.4870	11000.	99	42826	No
281	GOM_NL__2PRFIN20100509_232416_000000472089_00187_42826_8672.N1	09-MAY-2010 23:24:16	Dark	46.500	18	24Alp PsA	1.1660	9700.0	93	42826	No
282	GOM_NL__2PRFIN20100509_233543_000000412089_00188_42827_8661.N1	09-MAY-2010 23:35:43	Dark	40.500	45	Alp Pav	1.9400	26000.	81	42827	No
283	GOM_NL__2PRFIN20100509_234309_000000432089_00188_42827_8662.N1	09-MAY-2010 23:43:09	Straylight	42.500	141	Bet Ara	2.8400	4600.0	85	42827	No
284	GOM_NL__2PRFIN20100509_234528_000000482089_00188_42827_8663.N1	09-MAY-2010 23:45:28	Straylight	47.500	40	The Sco	1.8590	7100.0	95	42827	No
285	GOM_NL__2PRFIN20100509_234719_000000602089_00188_42827_8664.N1	09-MAY-2010 23:47:19	Straylight	60.000	25	35Lam Sco	1.6200	28000.	120	42827	No
286	GOM_NL__2PRFIN20100509_234958_000000562089_00188_42827_8665.N1	09-MAY-2010 23:49:58	Straylight	56.000	75	26Eps Sco	2.2910	4250.0	112	42827	No
287	GOM_NL__2PRFIN20100509_235318_000000712089_00188_42827_8666.N1	09-MAY-2010 23:53:18	Twilight	71.000	16	21Alp Sco	1.0200	3000.0	142	42827	No
288	GOM_NL__2PRFIN20100509_235512_000000592089_00188_42827_8667.N1	09-MAY-2010 23:55:12	Bright	58.500	80	7Del Sco	2.3160	30000.	117	42827	No
289	GOM_NL__2PRFIN20100509_235803_000000402089_00188_42827_8668.N1	09-MAY-2010 23:58:03	Bright	40.000	122	9Alp2Lib	2.7470	9700.0	80	42827	No

3. Quality information per product

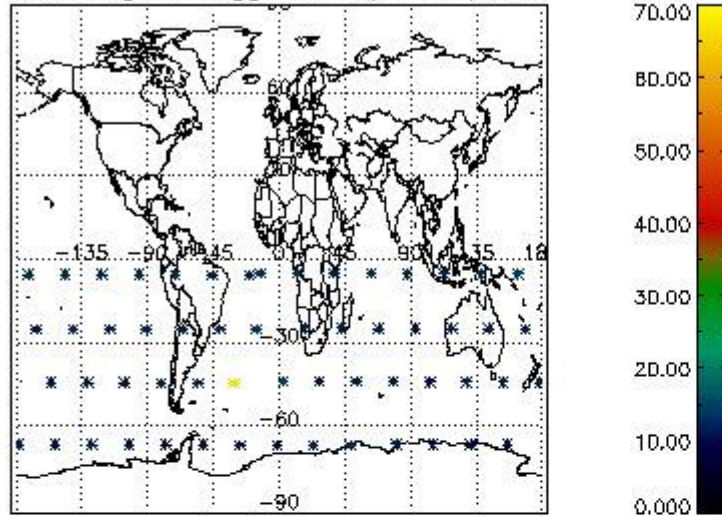
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

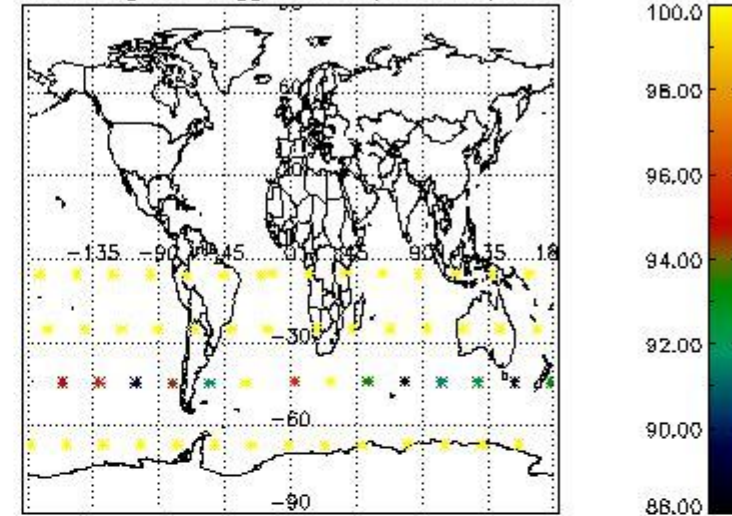


3.2 Plot quality information per product (world map)

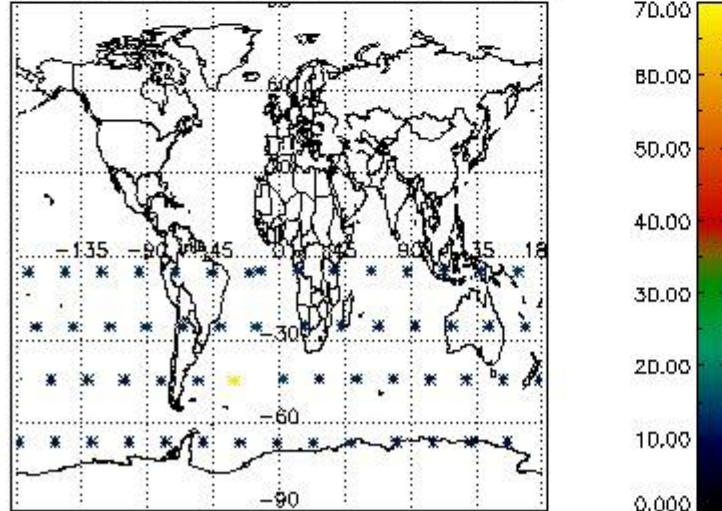
Percentage of flagged data per O3 profile



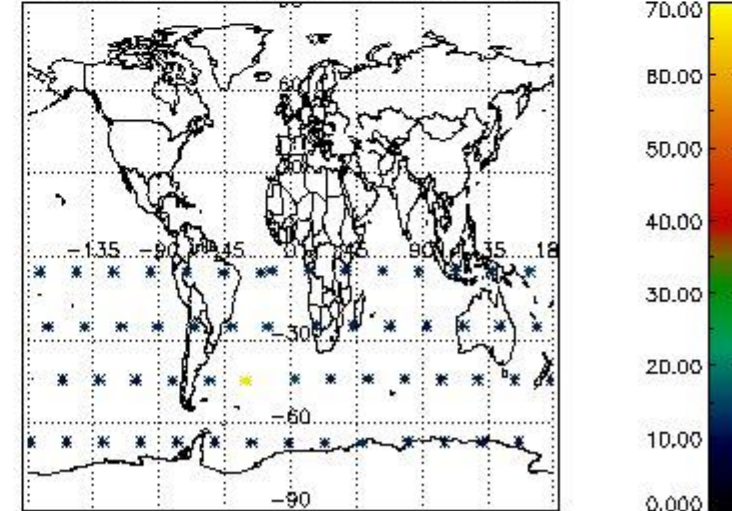
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

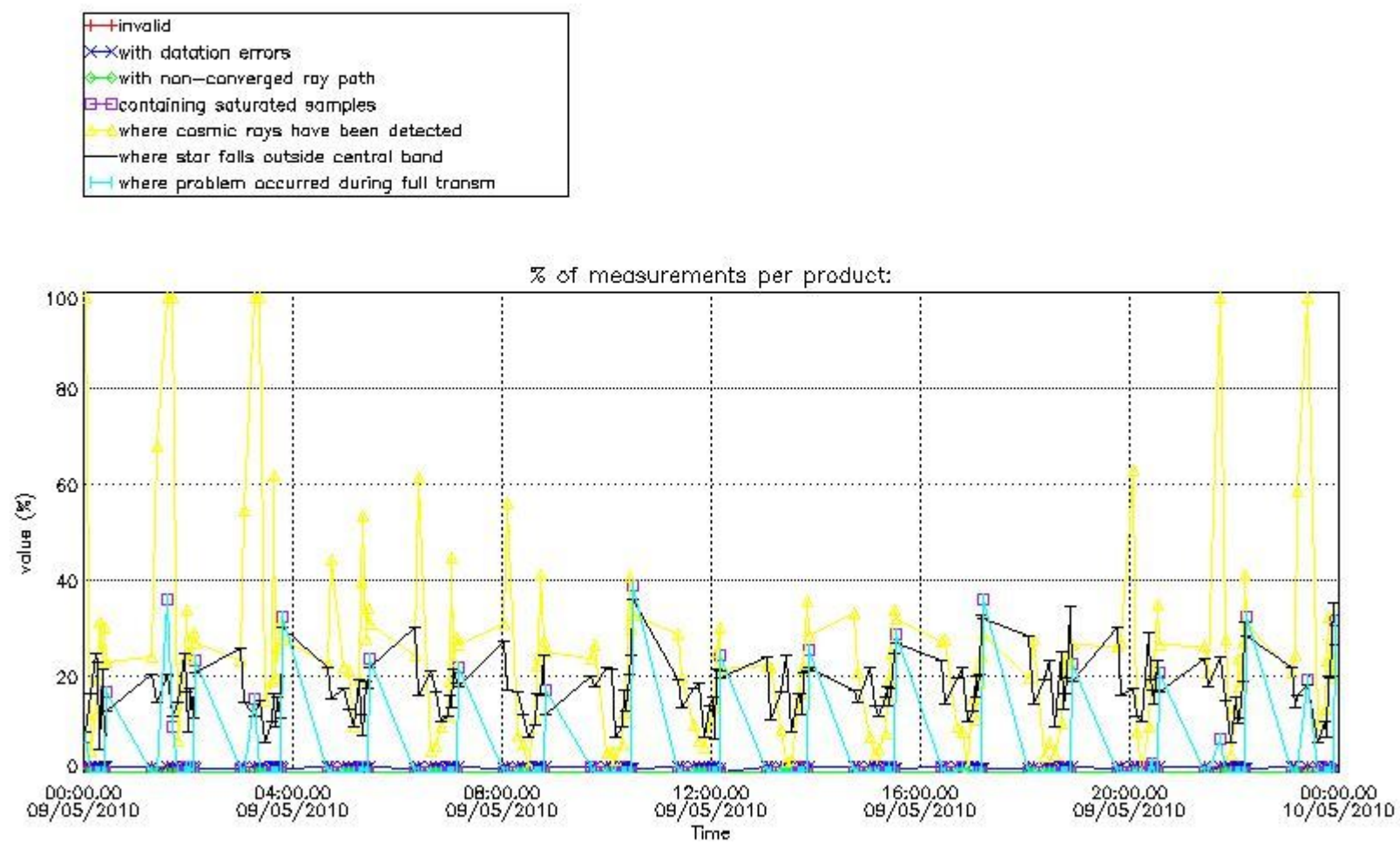


4. Level 1 quality information per product

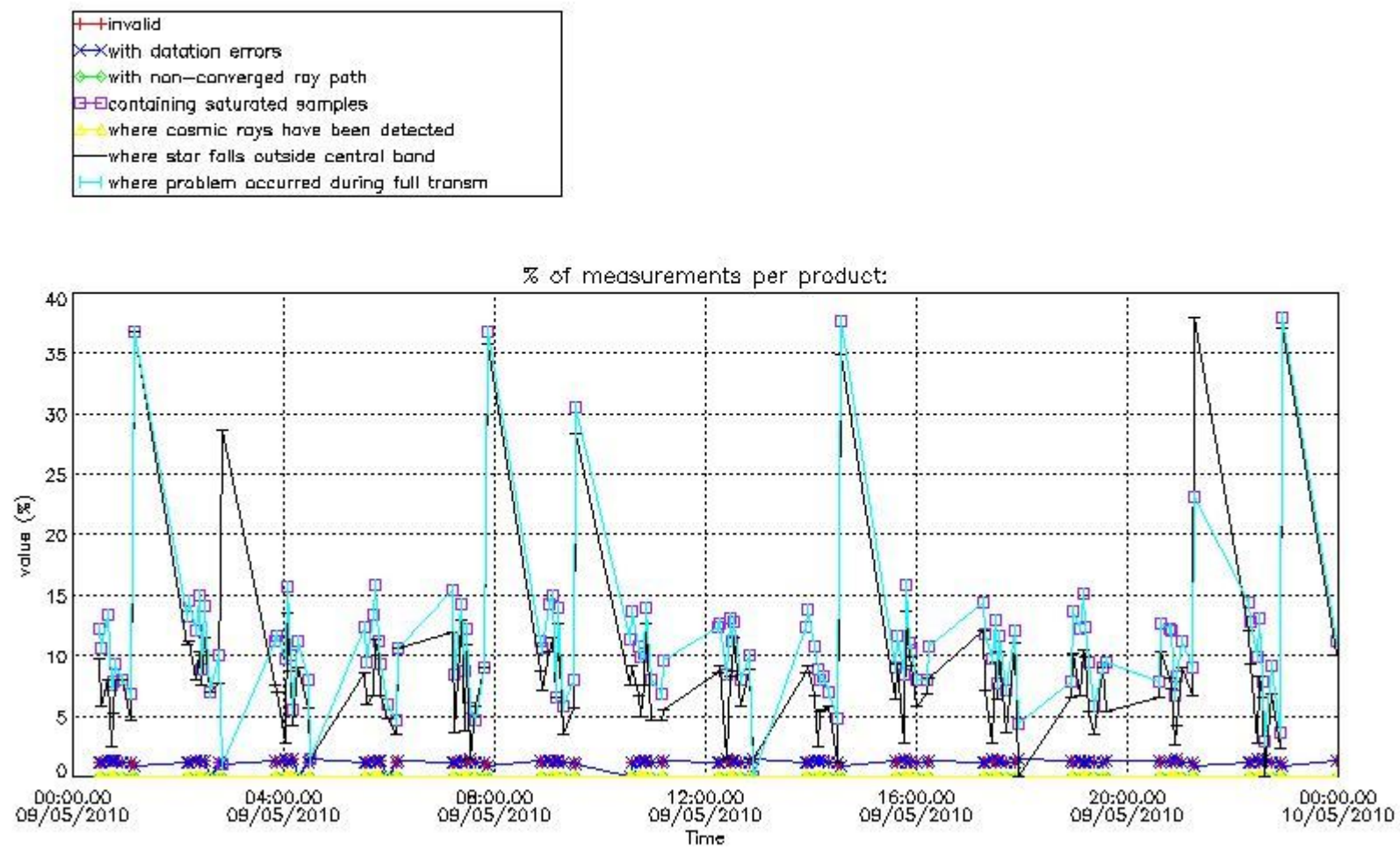
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

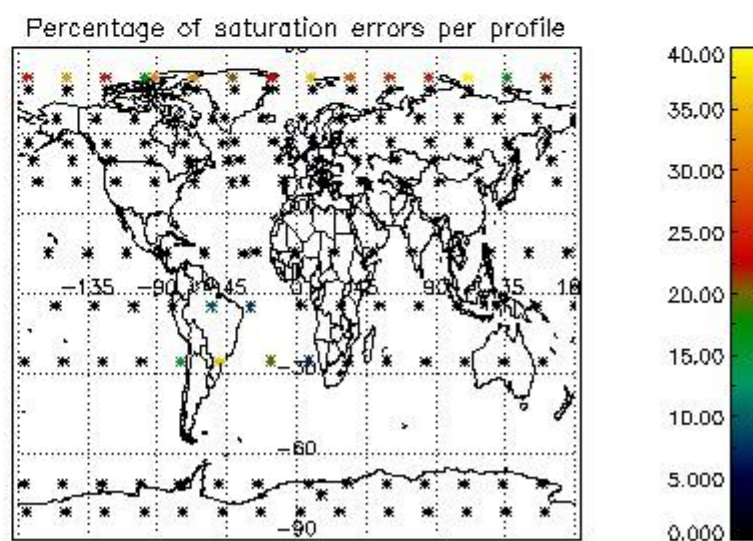
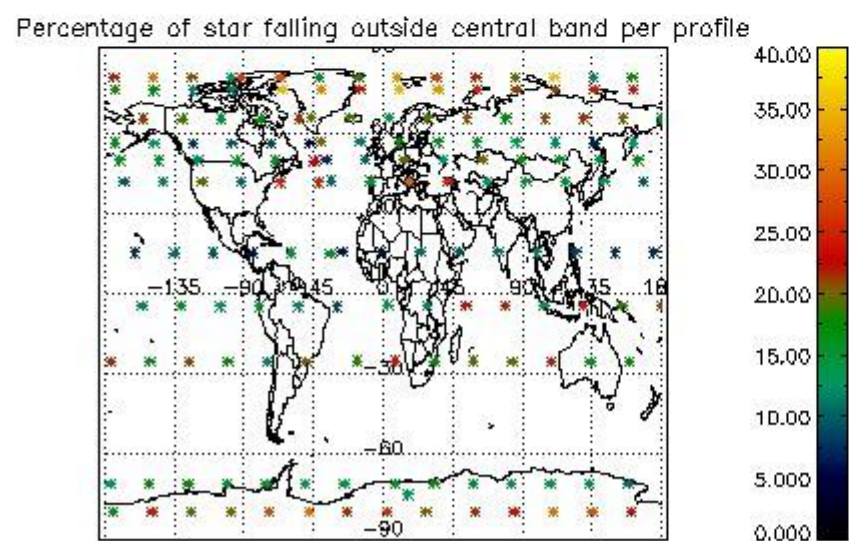
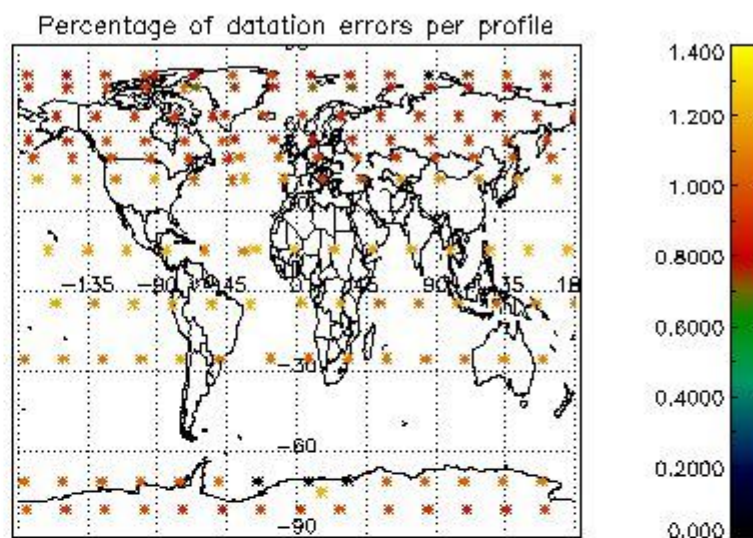
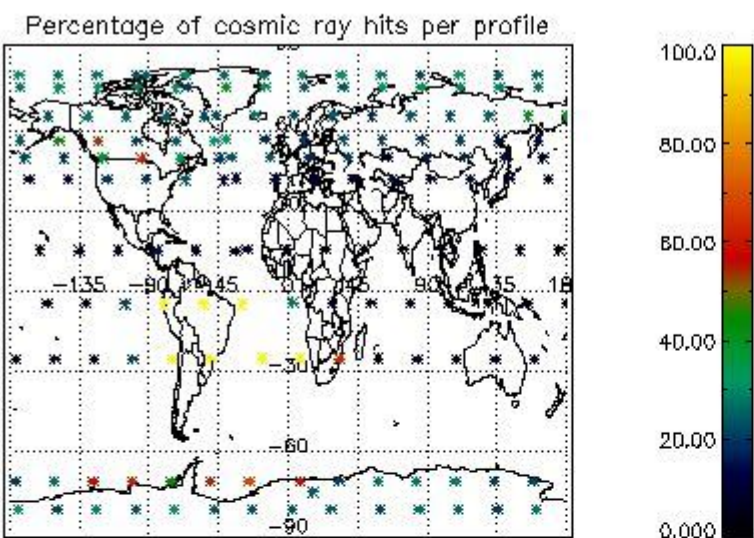


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

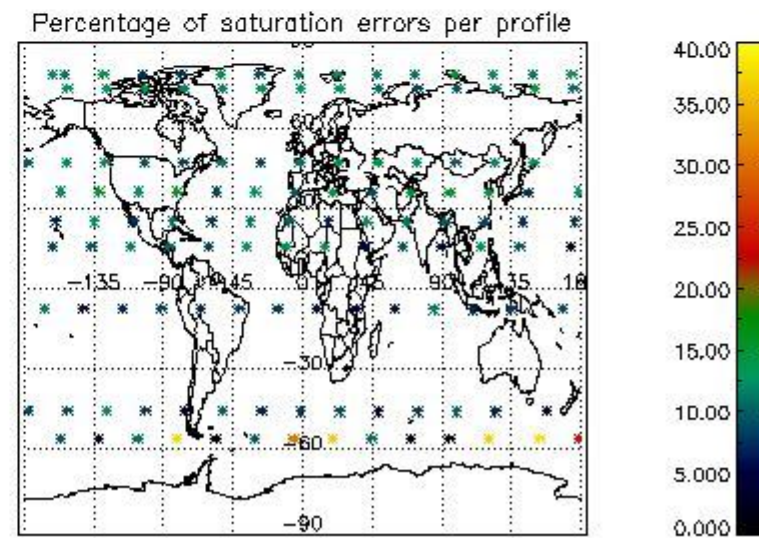
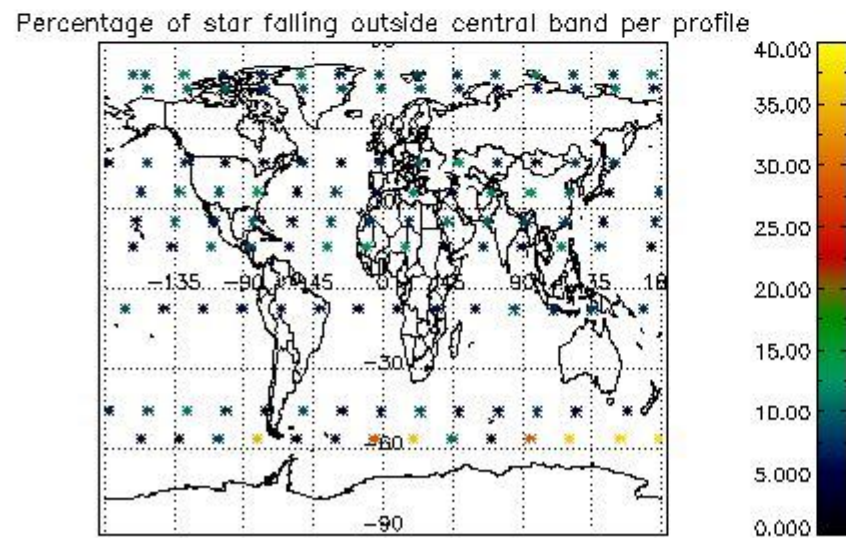
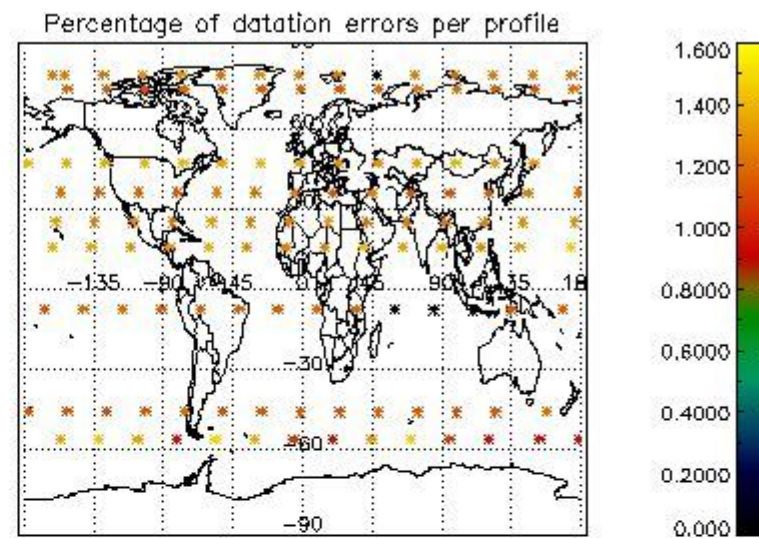
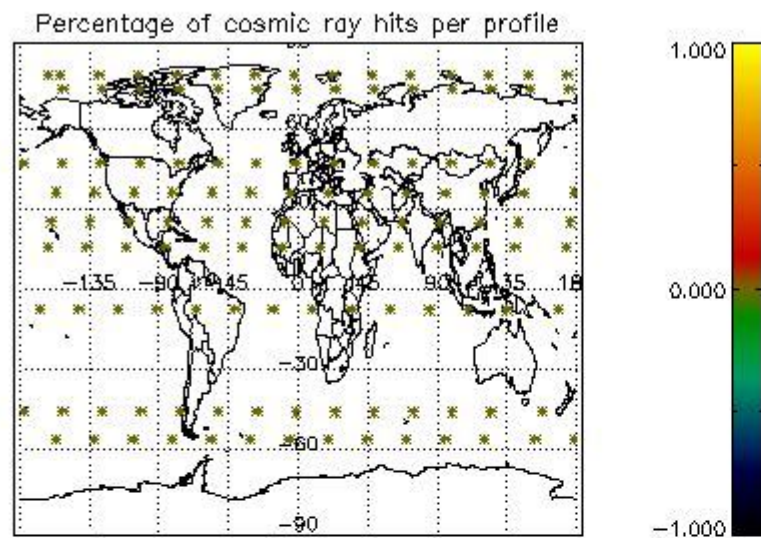


4.2 Plot quality information per product coming from level 1b processing (world map)

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

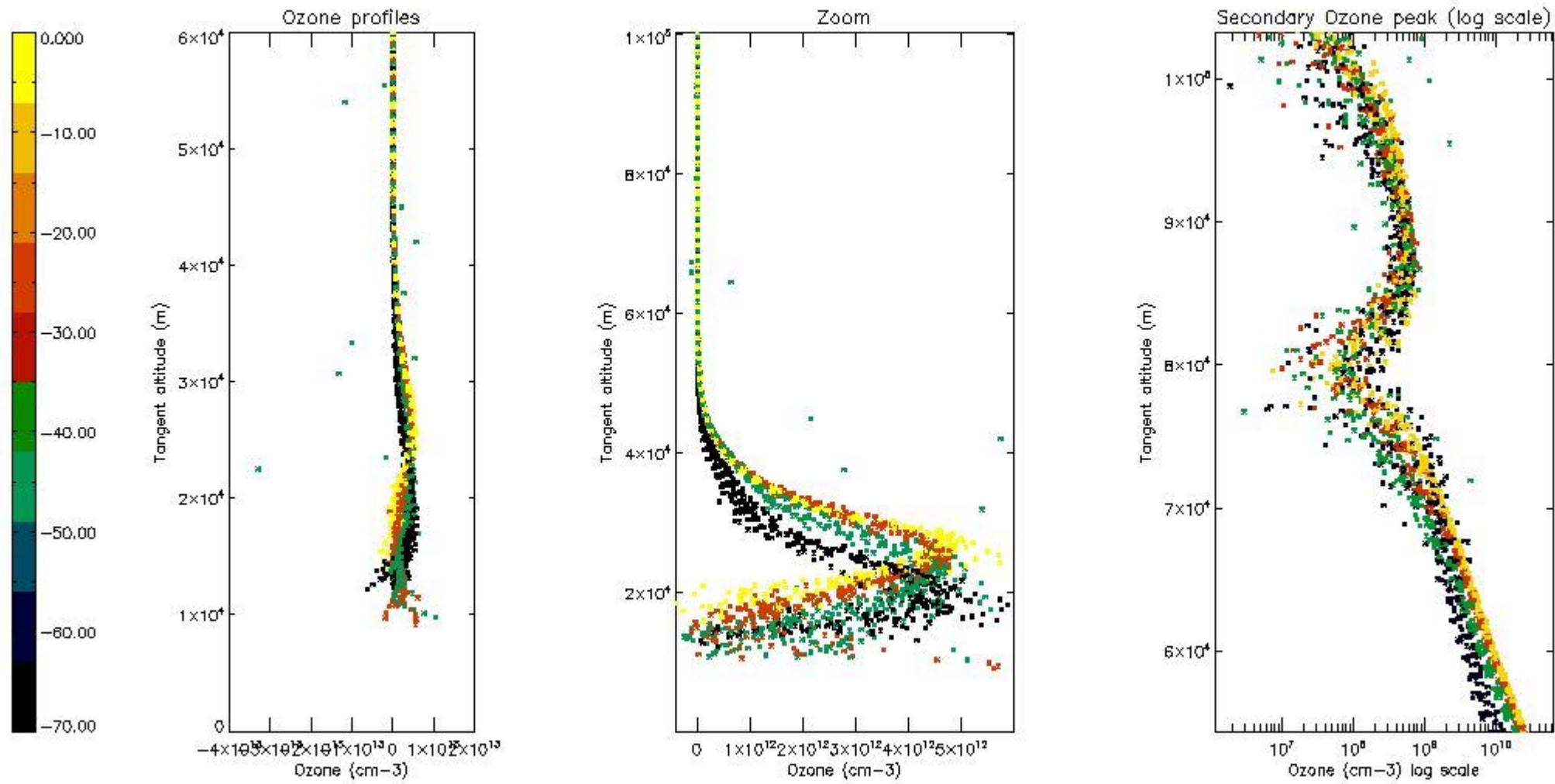
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	19
STD < 20	12

STD < 10	10
STD < 5	6

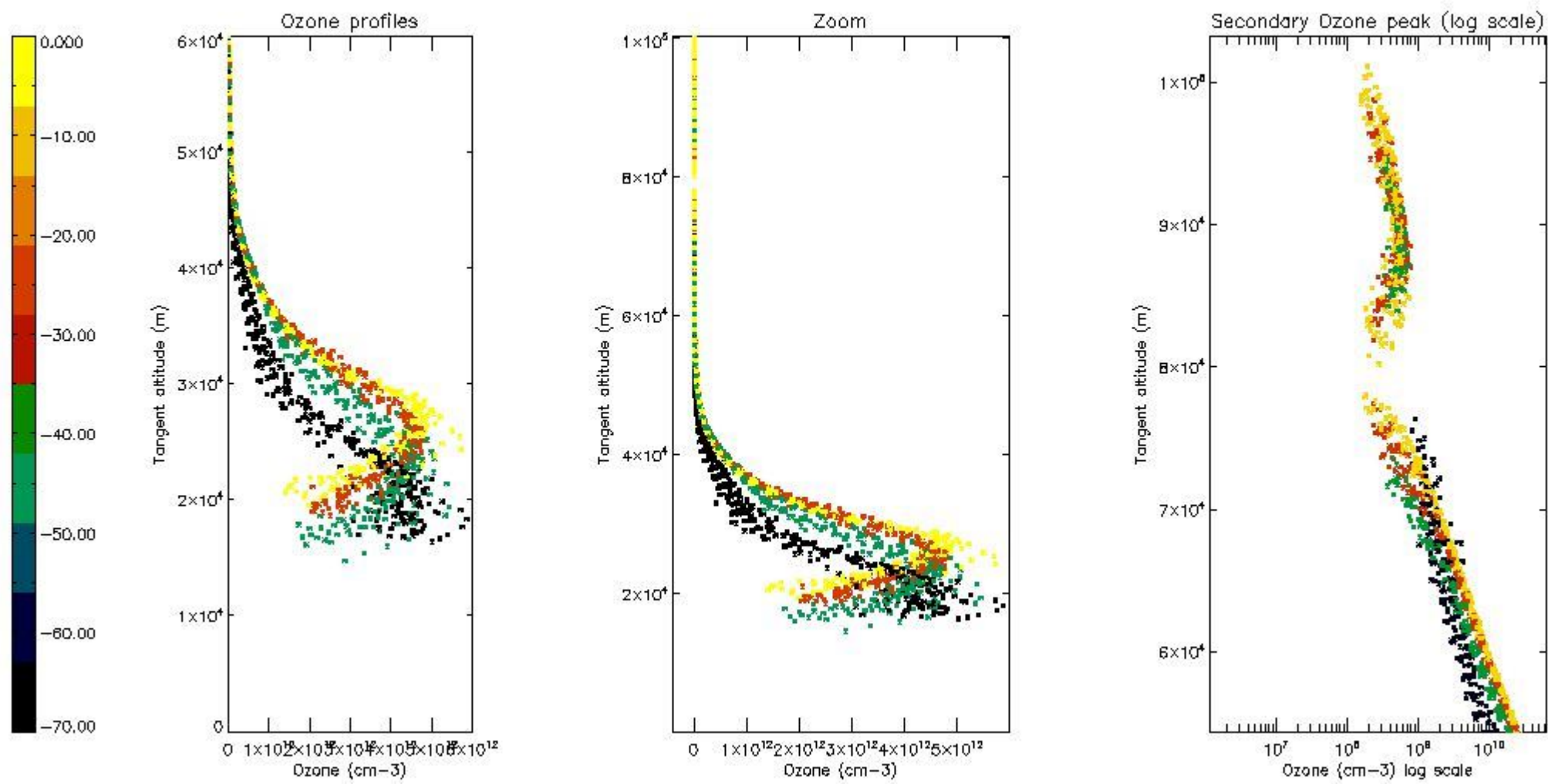
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



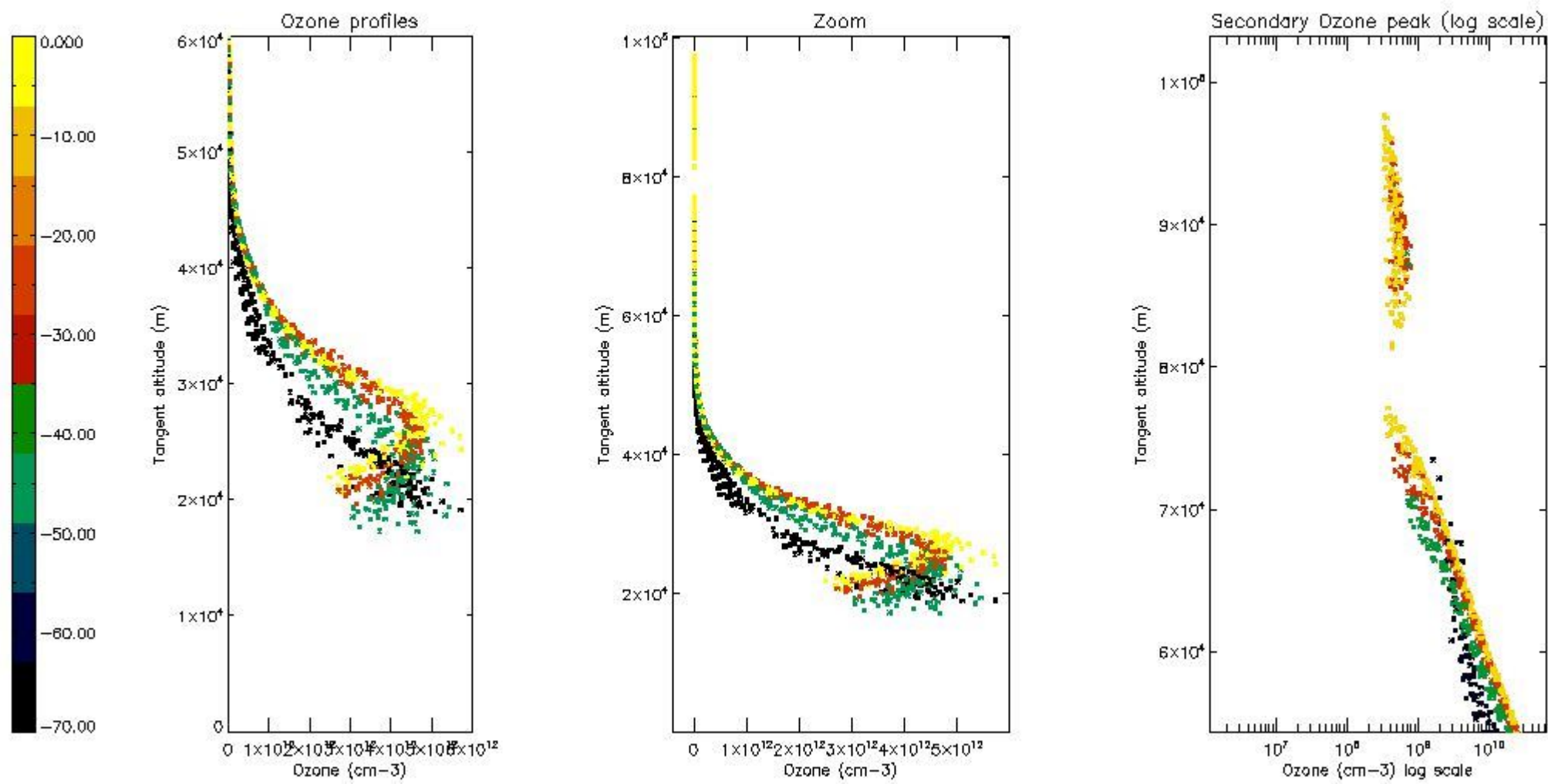
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



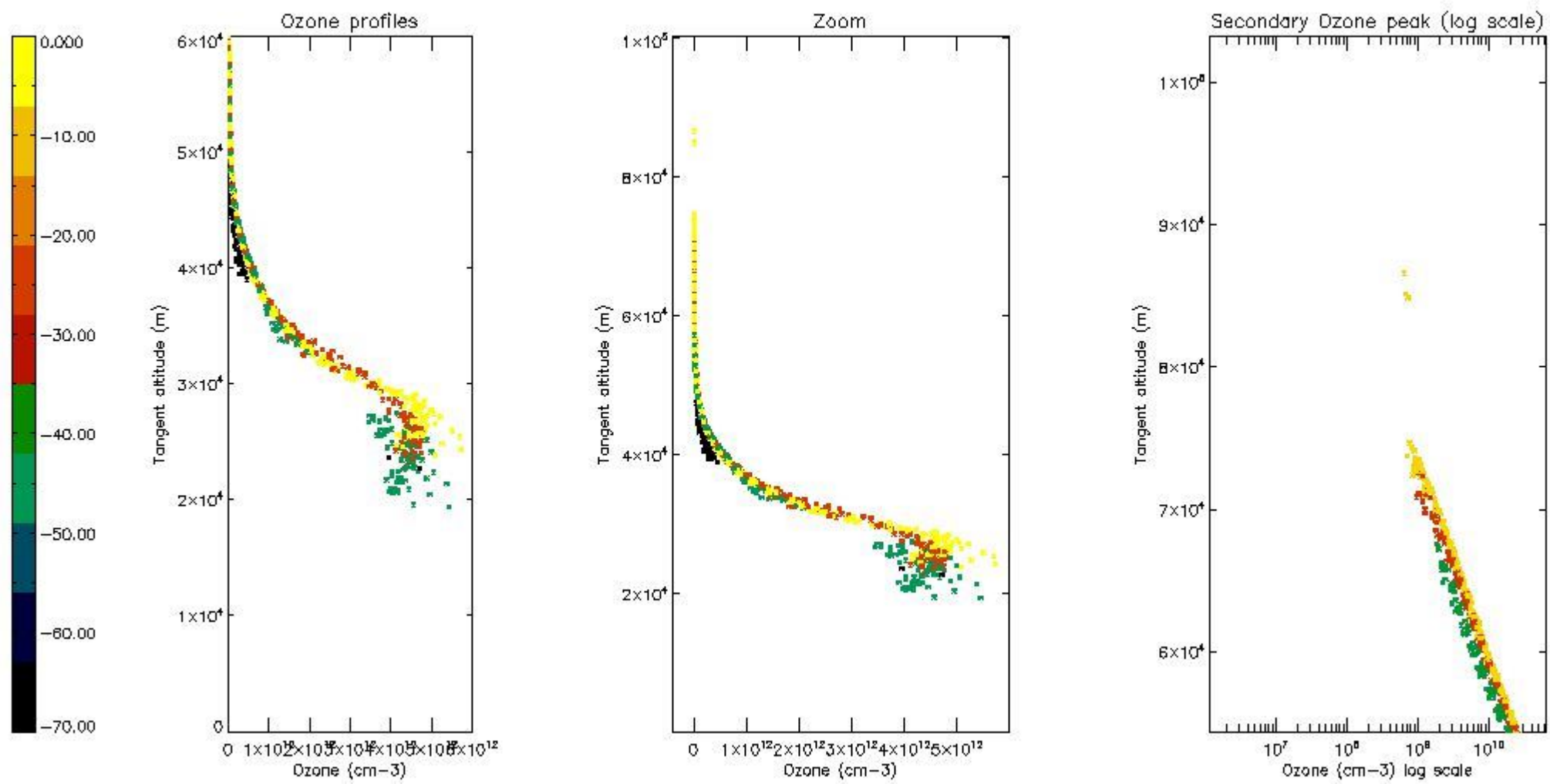
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



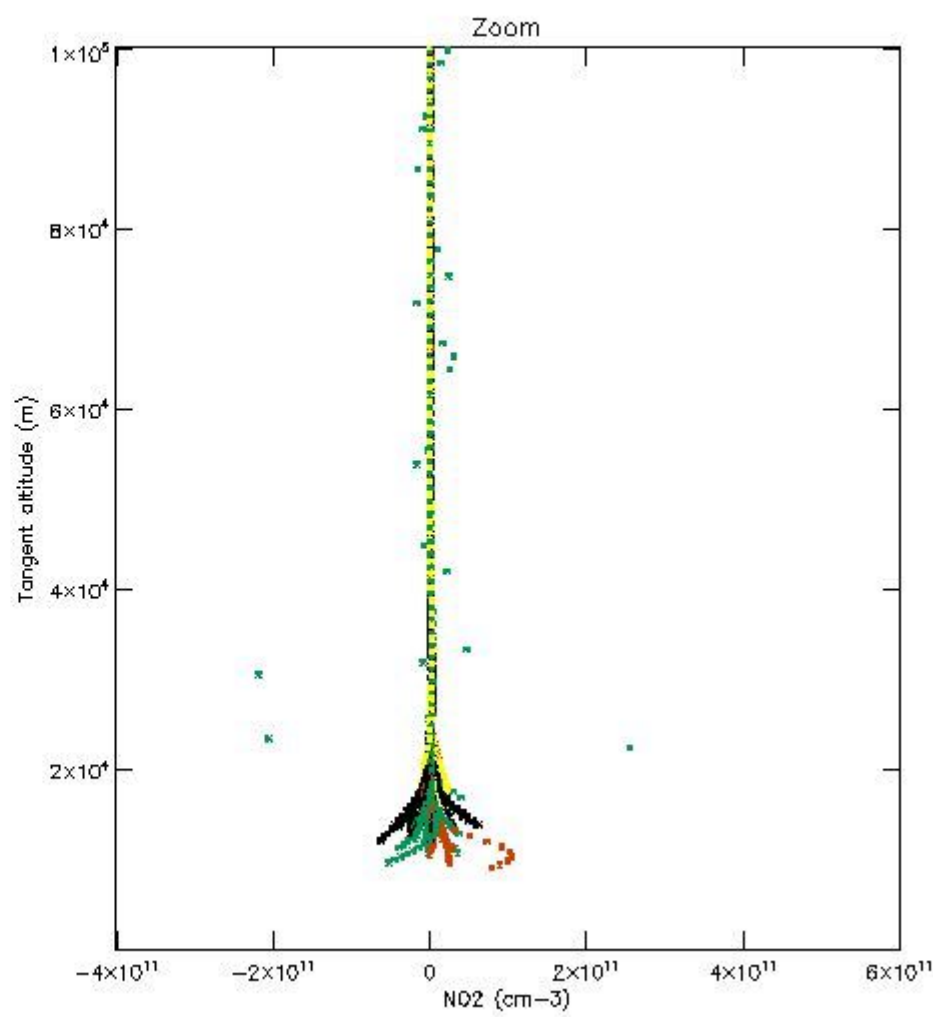
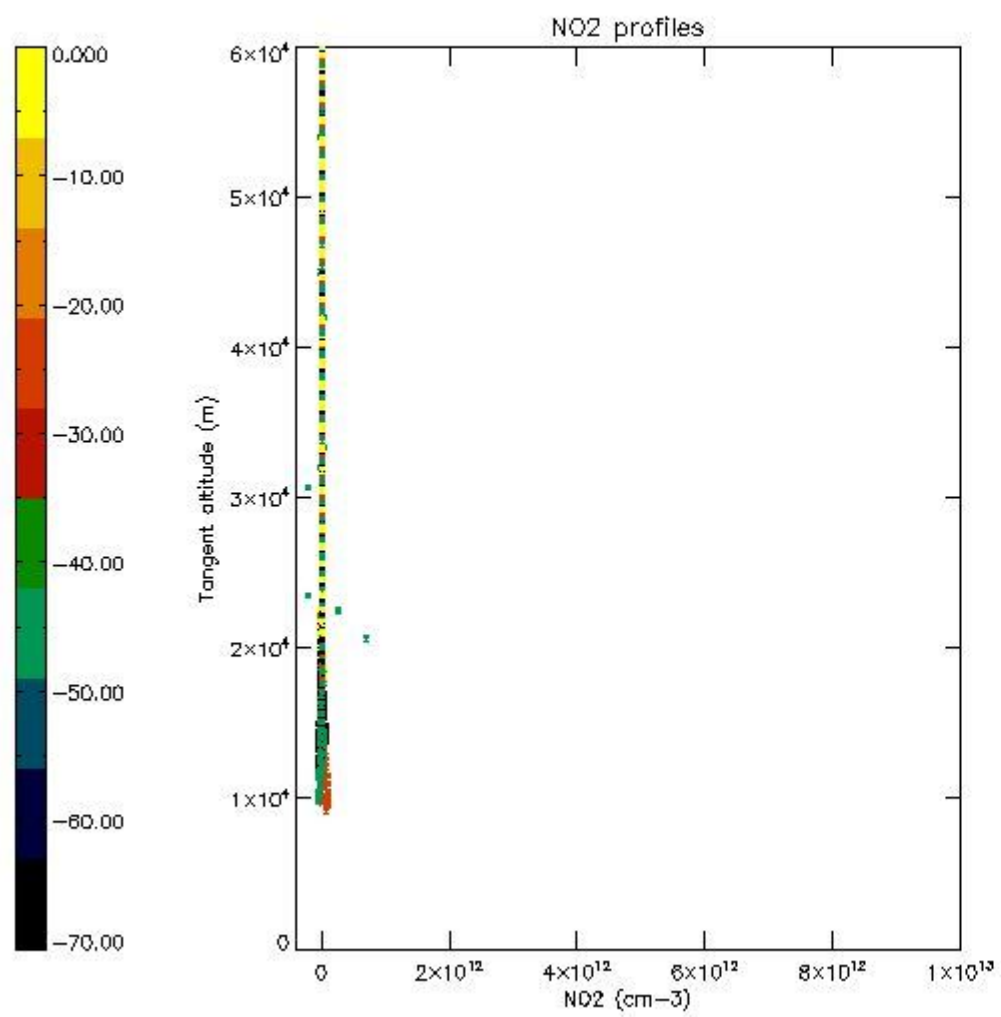
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



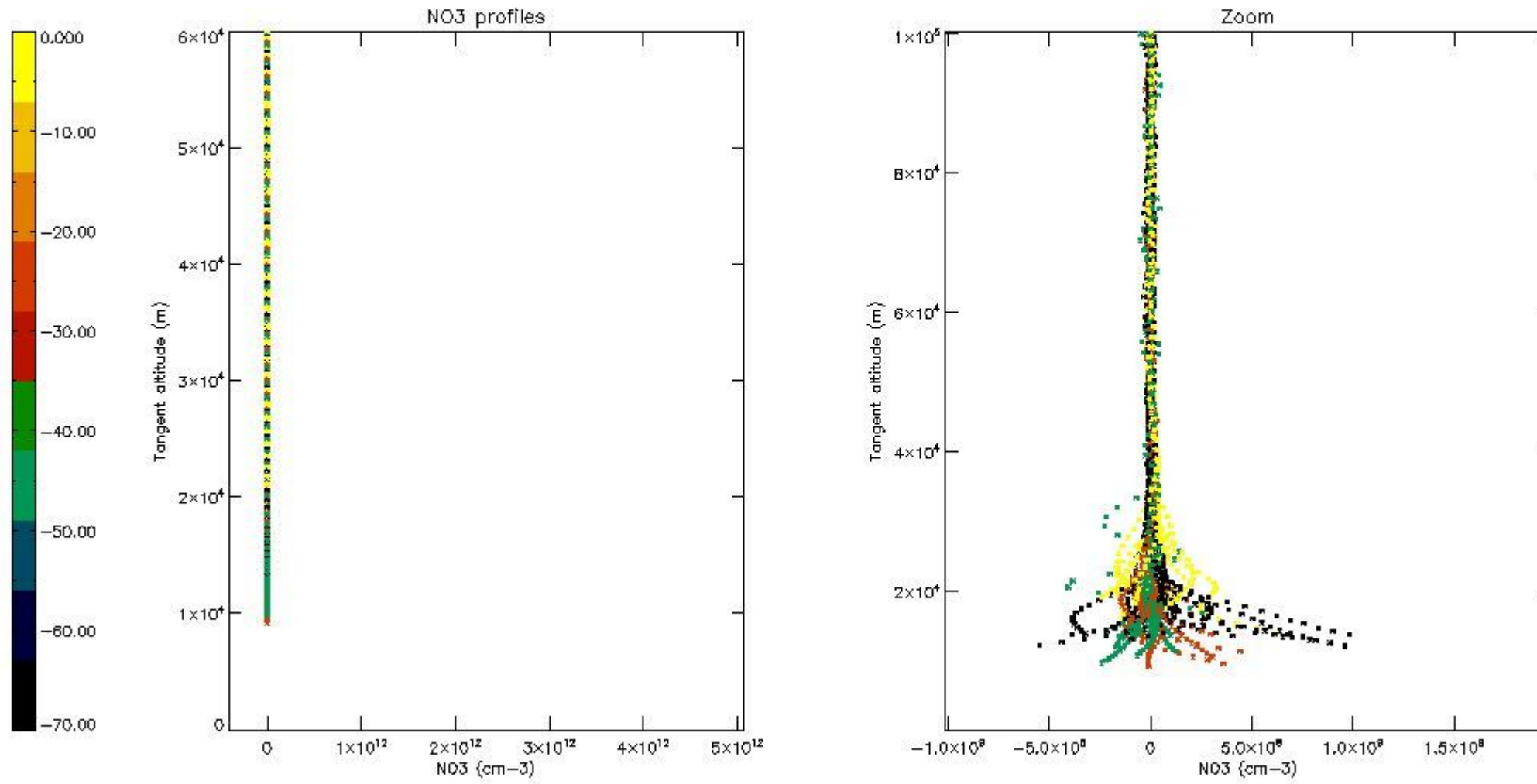
5.6 Plot NO₂ profiles for all STD (dark without errors)

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	09-MAY-2010 00:01:35
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	09-MAY-2010 00:01:35
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	09-MAY-2010 00:01:35

GOMOS Level 2 Daily Report

SUMMARY

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Item	Value
Time of report generation	29APR2013 10:34:46
Data source version	GOMOS/6.01
Start time of products	09-05-2010 (09MAY2010 00:00:00)
Stop time of products	10-05-2010 (10MAY2010 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	289
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

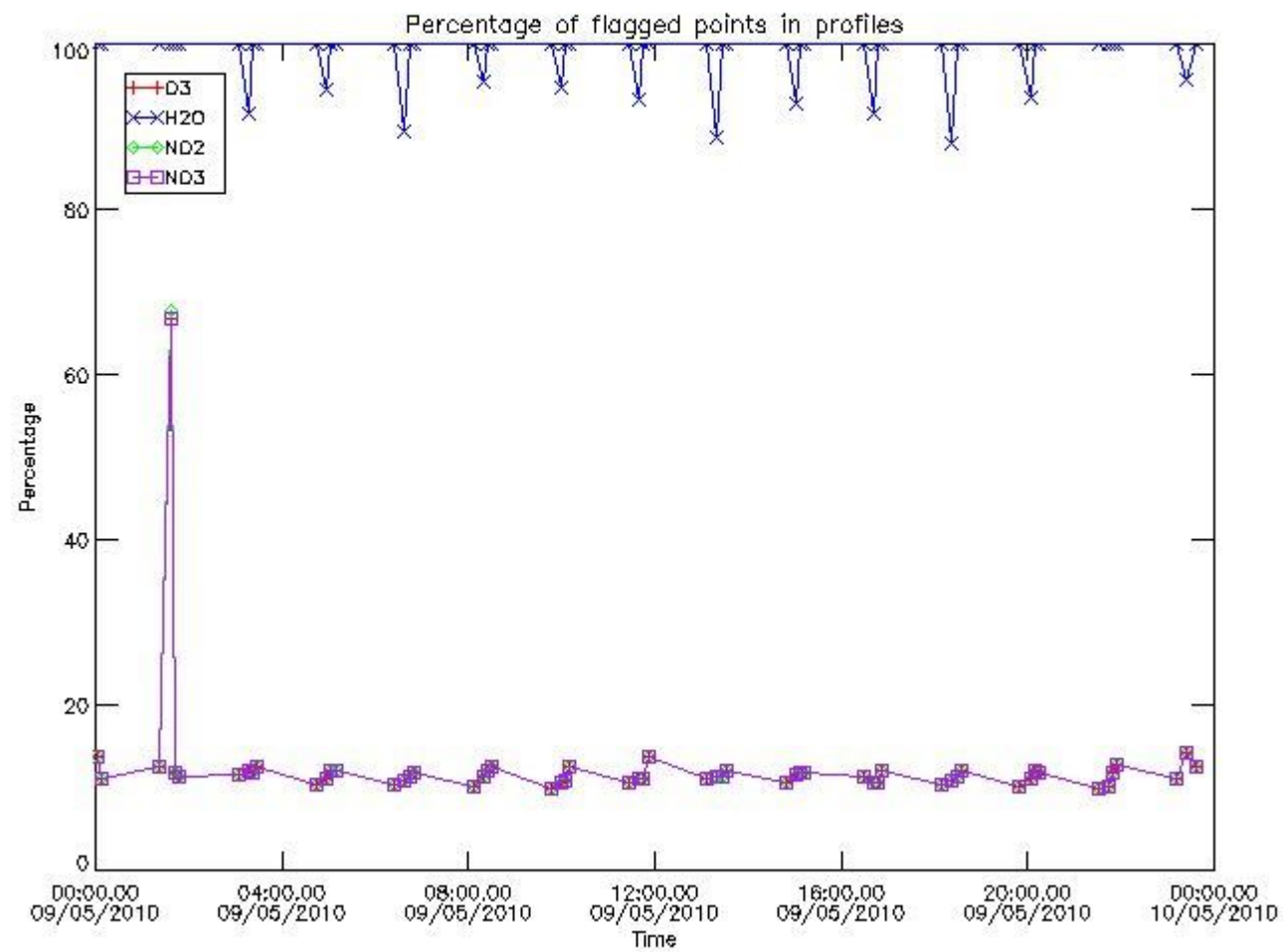
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20100509_000135_000000412089_00173_42812_8520.N1	09-MAY-2010 00:01:35	Dark	41.000	31	Alp Gru	1.7340	15200.	82	42812	No
2	GOM_NL__2PRFIN20100509_000710_000000462089_00174_42813_8509.N1	09-MAY-2010 00:07:10	Dark	46.000	45	Alp Pav	1.9400	26000.	92	42813	No
3	GOM_NL__2PRFIN20100509_001438_000000512089_00174_42813_8510.N1	09-MAY-2010 00:14:38	Straylight	50.500	141	Bet Ara	2.8400	4600.0	101	42813	No
4	GOM_NL__2PRFIN20100509_001655_000000572089_00174_42813_8511.N1	09-MAY-2010 00:16:55	Straylight	57.000	40	The Sco	1.8590	7100.0	114	42813	No
5	GOM_NL__2PRFIN20100509_001845_000000512089_00174_42813_8512.N1	09-MAY-2010 00:18:45	Straylight	51.000	25	35Lam Sco	1.6200	28000.	102	42813	No
6	GOM_NL__2PRFIN20100509_002127_000000582089_00174_42813_8513.N1	09-MAY-2010 00:21:27	Straylight	58.000	75	26Eps Sco	2.2910	4250.0	116	42813	No
7	GOM_NL__2PRFIN20100509_002450_000000482089_00174_42813_8514.N1	09-MAY-2010 00:24:50	Twilight	48.000	16	21Alp Sco	1.0200	3000.0	96	42813	No
8	GOM_NL__2PRFIN20100509_002646_000000512089_00174_42813_8515.N1	09-MAY-2010 00:26:46	Bright	50.500	80	7Del Sco	2.3160	30000.	101	42813	No
9	GOM_NL__2PRFIN20100509_002938_000000412089_00174_42813_8516.N1	09-MAY-2010 00:29:38	Bright	41.000	122	9Alp2Lib	2.7470	9700.0	82	42813	No
10	GOM_NL__2PRFIN20100509_003140_000000432089_00174_42813_8517.N1	09-MAY-2010 00:31:40	Bright	42.500	104	27Bet Lib	2.6140	13100.	85	42813	No
11	GOM_NL__2PRFIN20100509_003957_000000382089_00174_42813_8518.N1	09-MAY-2010 00:39:57	Bright	37.500	111	8Eta Boo	2.6800	6000.0	75	42813	No
12	GOM_NL__2PRFIN20100509_004303_000000402089_00174_42813_8519.N1	09-MAY-2010 00:43:03	Bright	40.000	83		2.3780	11000.	80	42813	No
13	GOM_NL__2PRFIN20100509_004609_000000392089_00174_42813_8520.N1	09-MAY-2010 00:46:09	Bright	38.500	180	27Gam Boo	3.0400	8000.0	77	42813	No
14	GOM_NL__2PRFIN20100509_004847_000000382089_00174_42813_8521.N1	09-MAY-2010 00:48:47	Bright	37.500	39	85Eta UMa	1.8540	24000.	75	42813	No
15	GOM_NL__2PRFIN20100509_005519_000000442089_00174_42813_8522.N1	09-MAY-2010 00:55:19	Bright	44.000	119	14Eta Dra	2.7270	4700.0	88	42813	No
16	GOM_NL__2PRFIN20100509_010606_000000442089_00174_42813_8523.N1	09-MAY-2010 01:06:06	Bright	43.500	89	5Alp Cep	2.4510	8000.0	87	42813	No
17	GOM_NL__2PRFIN20100509_010900_000000532089_00174_42813_8524.N1	09-MAY-2010 01:09:00	Bright	53.000	74	11Bet Cas	2.2680	6600.0	106	42813	No
18	GOM_NL__2PRFIN20100509_011852_000000522089_00174_42813_8525.N1	09-MAY-2010 01:18:52	Twilight	52.000	93	53Bet Peg	2.5200	3100.0	104	42813	No
19	GOM_NL__2PRFIN20100509_012309_000000492089_00174_42813_8526.N1	09-MAY-2010 01:23:09	Dark	48.500	90	54Alp Peg	2.4870	11000.	97	42813	No
20	GOM_NL__2PRFIN20100509_013621_000000472089_00174_42813_8527.N1	09-MAY-2010 01:36:21	Dark	47.000	18	24Alp PsA	1.1660	9700.0	94	42813	No
21	GOM_NL__2PRFIN20100509_014212_000000432089_00174_42813_8528.N1	09-MAY-2010 01:42:12	Dark	43.000	31	Alp Gru	1.7340	15200.	86	42813	No
22	GOM_NL__2PRFIN20100509_014747_000000452089_00175_42814_8537.N1	09-MAY-2010 01:47:47	Dark	45.000	45	Alp Pav	1.9400	26000.	90	42814	No
23	GOM_NL__2PRFIN20100509_015515_000000512089_00175_42814_8538.N1	09-MAY-2010 01:55:15	Straylight	50.500	141	Bet Ara	2.8400	4600.0	101	42814	No
24	GOM_NL__2PRFIN20100509_015731_000000542089_00175_42814_8539.N1	09-MAY-2010 01:57:31	Straylight	53.500	40	The Sco	1.8590	7100.0	107	42814	No
25	GOM_NL__2PRFIN20100509_015922_000000532089_00175_42814_8540.N1	09-MAY-2010 01:59:22	Straylight	53.000	25	35Lam Sco	1.6200	28000.	106	42814	No
26	GOM_NL__2PRFIN20100509_020203_000000552089_00175_42814_8541.N1	09-MAY-2010 02:02:03	Straylight	55.000	75	26Eps Sco	2.2910	4250.0	110	42814	No
27	GOM_NL__2PRFIN20100509_020526_000000532089_00175_42814_8542.N1	09-MAY-2010 02:05:26	Twilight	53.000	16	21Alp Sco	1.0200	3000.0	106	42814	No
28	GOM_NL__2PRFIN20100509_020722_000000562089_00175_42814_8543.N1	09-MAY-2010 02:07:22	Bright	55.500	80	7Del Sco	2.3160	30000.	111	42814	No
29	GOM_NL__2PRFIN20100509_021014_000000422089_00175_42814_8544.N1	09-MAY-2010 02:10:14	Bright	41.500	122	9Alp2Lib	2.7470	9700.0	83	42814	No
30	GOM_NL__2PRFIN20100509_021216_000000452089_00175_42814_8545.N1	09-MAY-2010 02:12:16	Bright	44.500	104	27Bet Lib	2.6140	13100.	89	42814	No
31	GOM_NL__2PRFIN20100509_022032_000000382089_00175_42814_8546.N1	09-MAY-2010 02:20:32	Bright	37.500	111	8Eta Boo	2.6800	6000.0	75	42814	No
32	GOM_NL__2PRFIN20100509_022339_000000442089_00175_42814_8547.N1	09-MAY-2010 02:23:39	Bright	43.500	83		2.3780	11000.	87	42814	No
33	GOM_NL__2PRFIN20100509_022645_000000402089_00175_42814_8548.N1	09-MAY-2010 02:26:45	Bright	39.500	180	27Gam Boo	3.0400	8000.0	79	42814	No
34	GOM_NL__2PRFIN20100509_022922_000000392089_00175_42814_8549.N1	09-MAY-2010 02:29:22	Bright	39.000	39	85Eta UMa	1.8540	24000.	78	42814	No
35	GOM_NL__2PRFIN20100509_023555_000000432089_00175_42814_8550.N1	09-MAY-2010 02:35:55	Bright	43.000	119	14Eta Dra	2.7270	4700.0	86	42814	No
36	GOM_NL__2PRFIN20100509_024641_000000452089_00175_42814_8551.N1	09-MAY-2010 02:46:41	Bright	45.000	89	5Alp Cep	2.4510	8000.0	90	42814	No
37	GOM_NL__2PRFIN20100509_024936_000000472089_00175_42814_8552.N1	09-MAY-2010 02:49:36	Bright	47.000	74	11Bet Cas	2.2680	6600.0	94	42814	No
38	GOM_NL__2PRFIN20100509_025929_000000562089_00175_42814_8553.N1	09-MAY-2010 02:59:29	Twilight	56.000	93	53Bet Peg	2.5200	3100.0	112	42814	No
39	GOM_NL__2PRFIN20100509_030345_000000492089_00175_42814_8554.N1	09-MAY-2010 03:03:45	Dark	48.500	90	54Alp Peg	2.4870	11000.	97	42814	No
40	GOM_NL__2PRFIN20100509_031657_000000432089_00175_42814_8555.N1	09-MAY-2010 03:16:57	Dark	42.500	18	24Alp PsA	1.1660	9700.0	85	42814	No
41	GOM_NL__2PRFIN20100509_032248_000000442089_00175_42814_8556.N1	09-MAY-2010 03:22:48	Dark	43.500	31	Alp Gru	1.7340	15200.	87	42814	No
42	GOM_NL__2PRFIN20100509_032823_000000412089_00176_42815_8545.N1	09-MAY-2010 03:28:23	Dark	40.500	45	Alp Pav	1.9400	26000.	81	42815	No

279	GOM_NL__2PRFIN20100509_230942_000000412089_00187_42826_8670.N1	09-MAY-2010 23:09:42	Twilight	41.000	140	88Gam Peg	2.8340	26000.	82	42826	No
280	GOM_NL__2PRFIN20100509_231102_000000502089_00187_42826_8671.N1	09-MAY-2010 23:11:02	Dark	49.500	90	54Alp Peg	2.4870	11000.	99	42826	No
281	GOM_NL__2PRFIN20100509_232416_000000472089_00187_42826_8672.N1	09-MAY-2010 23:24:16	Dark	46.500	18	24Alp PsA	1.1660	9700.0	93	42826	No
282	GOM_NL__2PRFIN20100509_233543_000000412089_00188_42827_8661.N1	09-MAY-2010 23:35:43	Dark	40.500	45	Alp Pav	1.9400	26000.	81	42827	No
283	GOM_NL__2PRFIN20100509_234309_000000432089_00188_42827_8662.N1	09-MAY-2010 23:43:09	Straylight	42.500	141	Bet Ara	2.8400	4600.0	85	42827	No
284	GOM_NL__2PRFIN20100509_234528_000000482089_00188_42827_8663.N1	09-MAY-2010 23:45:28	Straylight	47.500	40	The Sco	1.8590	7100.0	95	42827	No
285	GOM_NL__2PRFIN20100509_234719_000000602089_00188_42827_8664.N1	09-MAY-2010 23:47:19	Straylight	60.000	25	35Lam Sco	1.6200	28000.	120	42827	No
286	GOM_NL__2PRFIN20100509_234958_000000562089_00188_42827_8665.N1	09-MAY-2010 23:49:58	Straylight	56.000	75	26Eps Sco	2.2910	4250.0	112	42827	No
287	GOM_NL__2PRFIN20100509_235318_000000712089_00188_42827_8666.N1	09-MAY-2010 23:53:18	Twilight_and_stray	71.000	16	21Alp Sco	1.0200	3000.0	142	42827	No
288	GOM_NL__2PRFIN20100509_235512_000000592089_00188_42827_8667.N1	09-MAY-2010 23:55:12	Bright	58.500	80	7Del Sco	2.3160	30000.	117	42827	No
289	GOM_NL__2PRFIN20100509_235803_000000402089_00188_42827_8668.N1	09-MAY-2010 23:58:03	Bright	40.000	122	9Alp2Lib	2.7470	9700.0	80	42827	No

3. Quality information per product

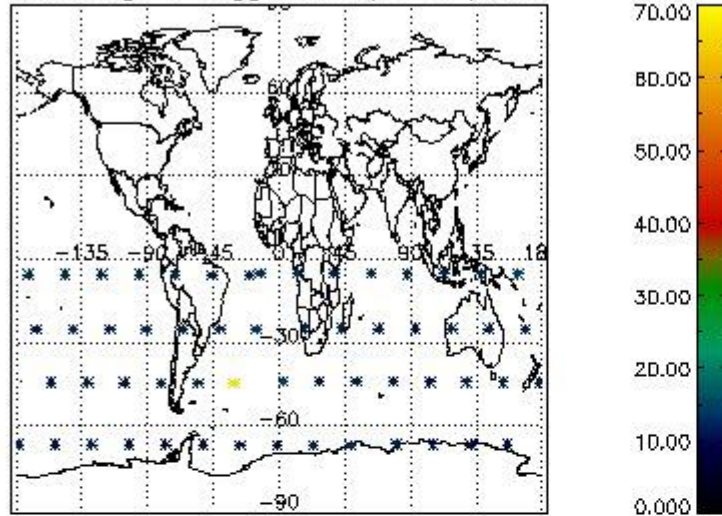
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

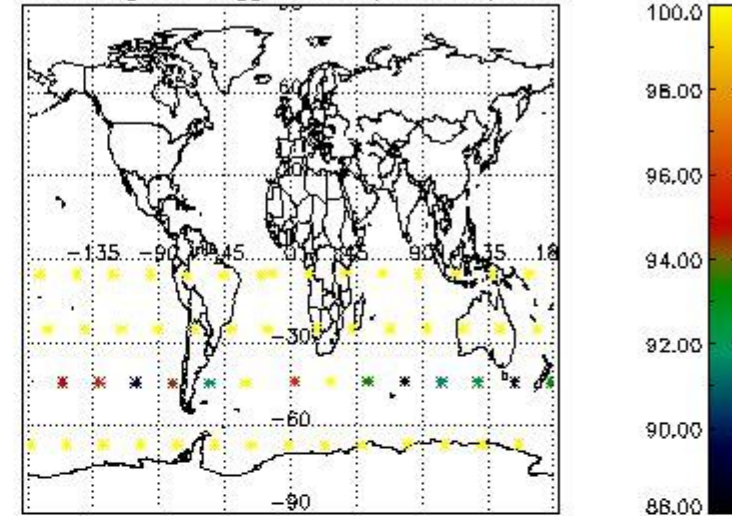


3.2 Plot quality information per product (world map)

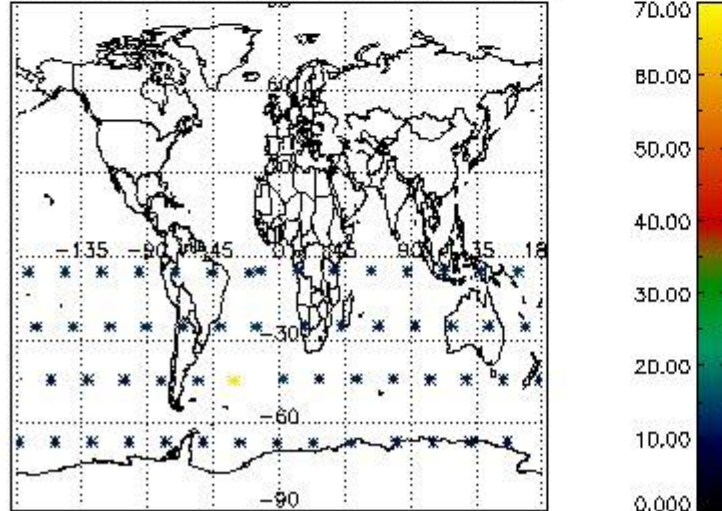
Percentage of flagged data per O3 profile



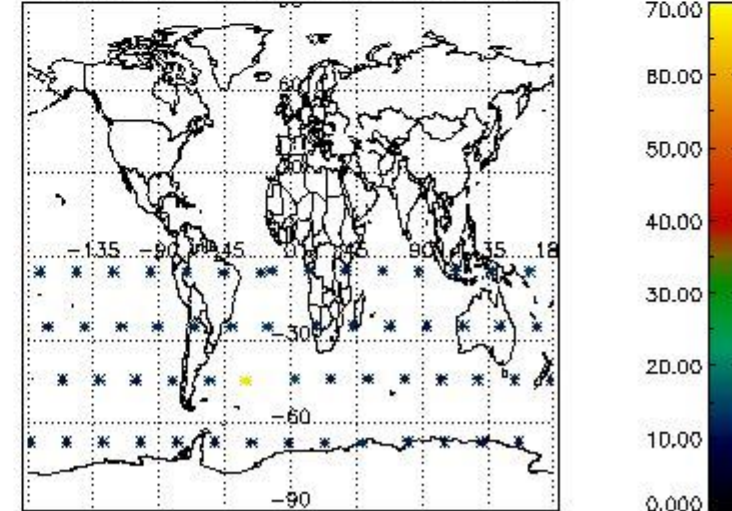
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

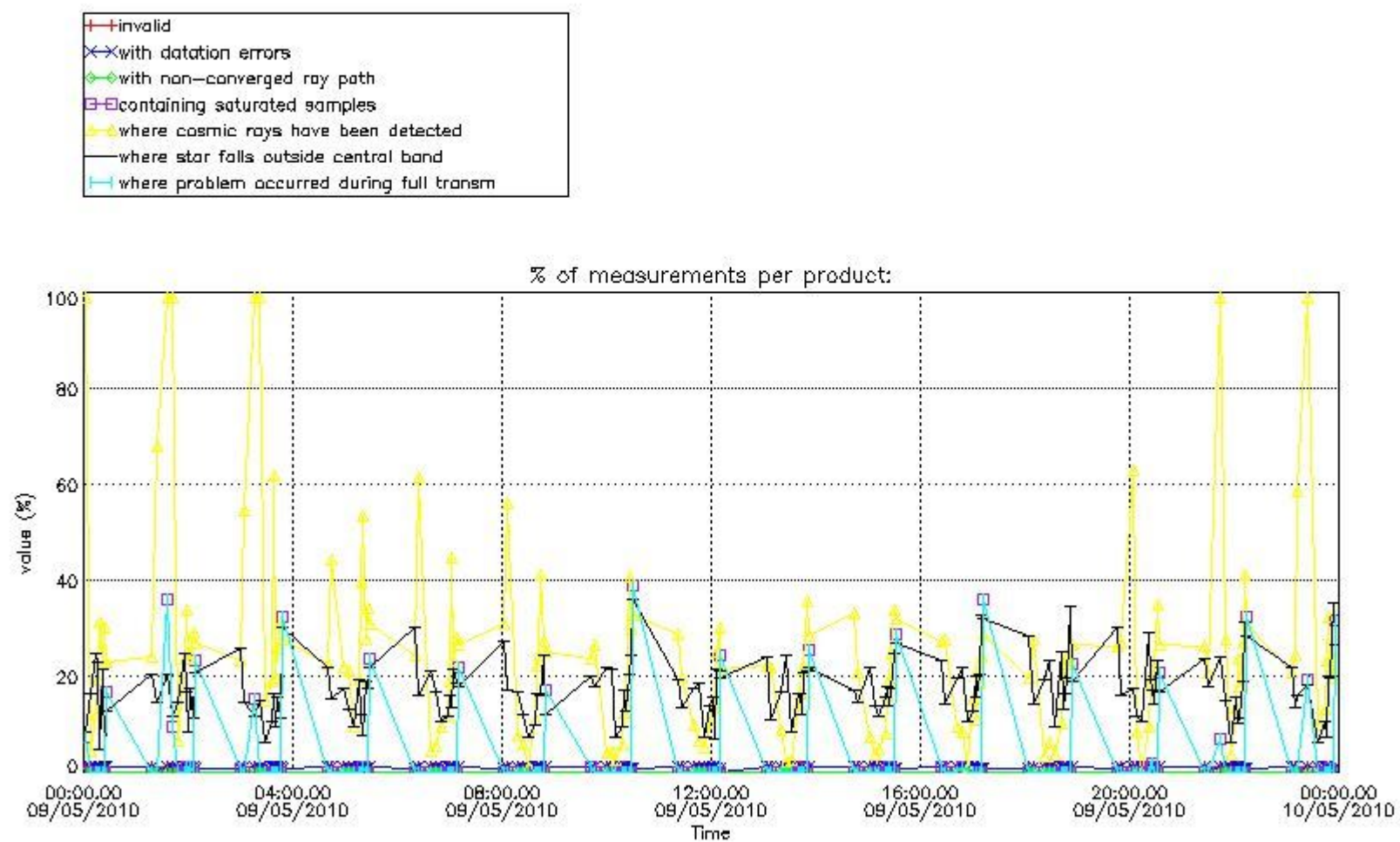


4. Level 1 quality information per product

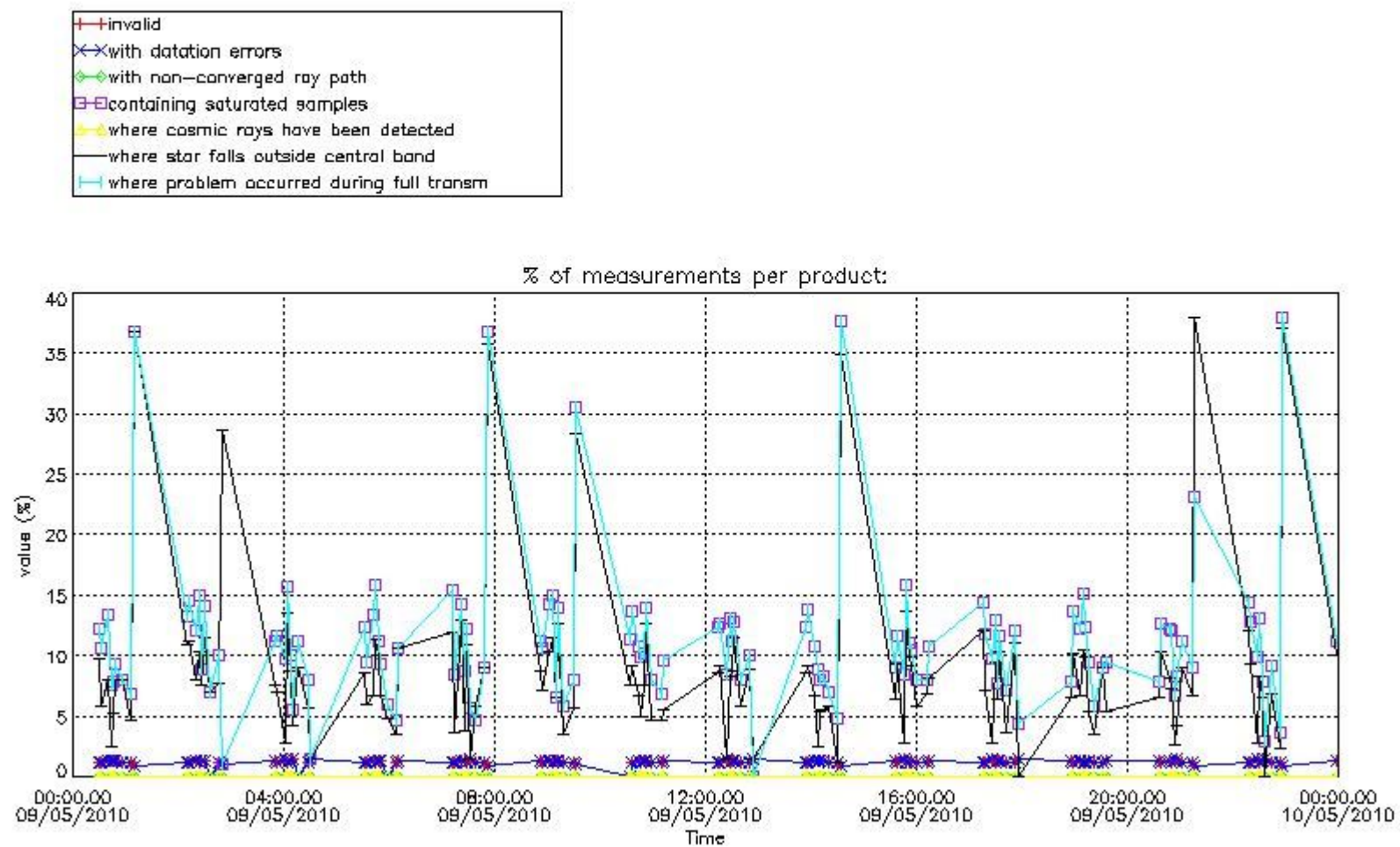
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

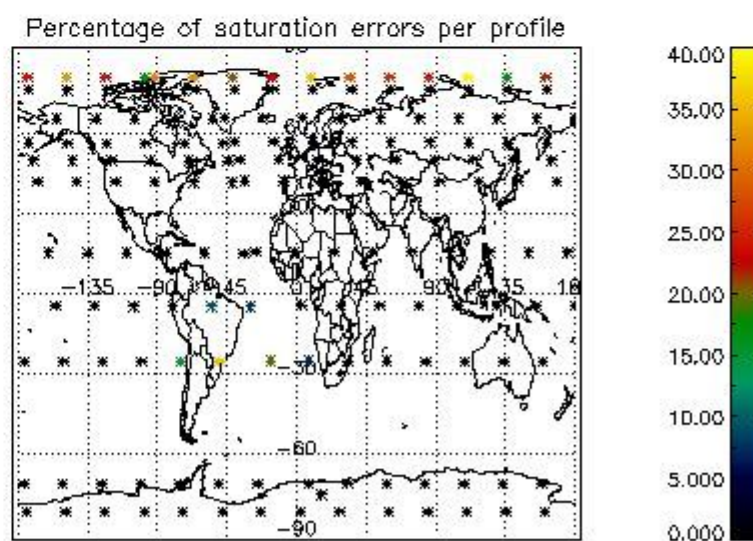
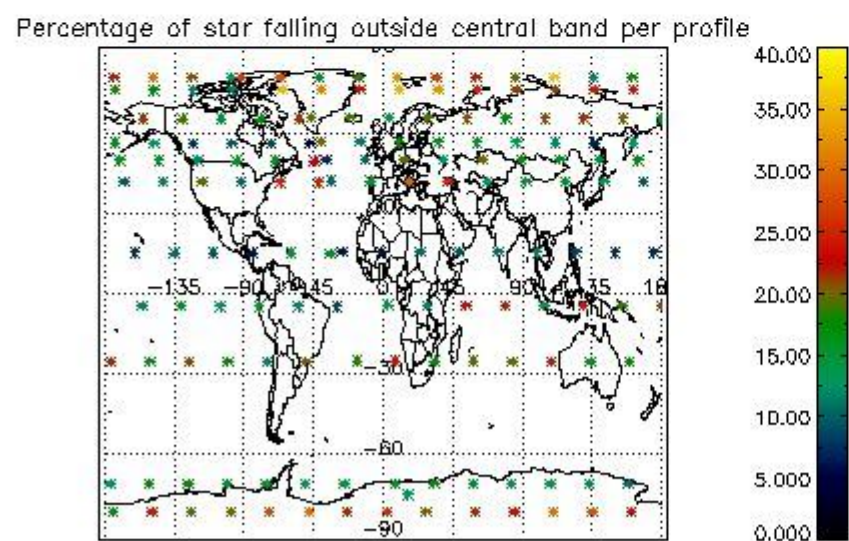
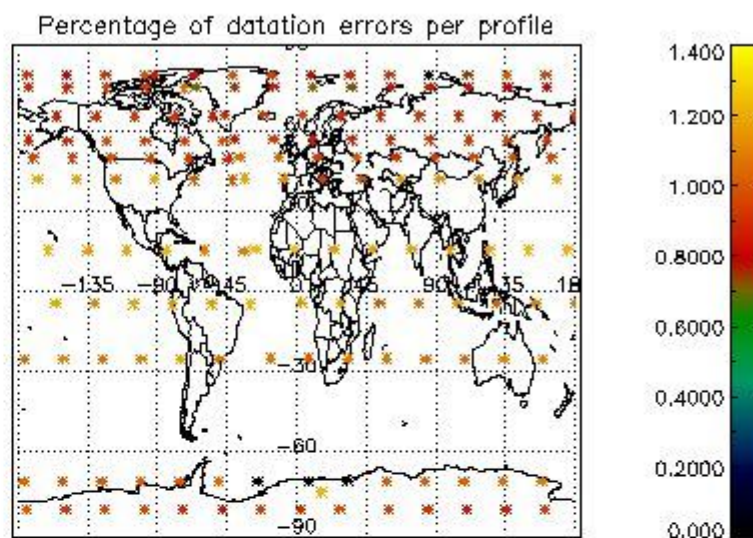
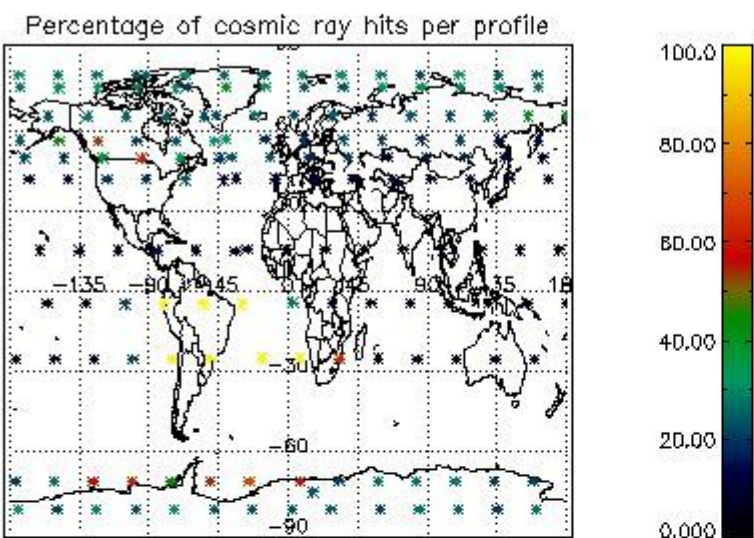


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

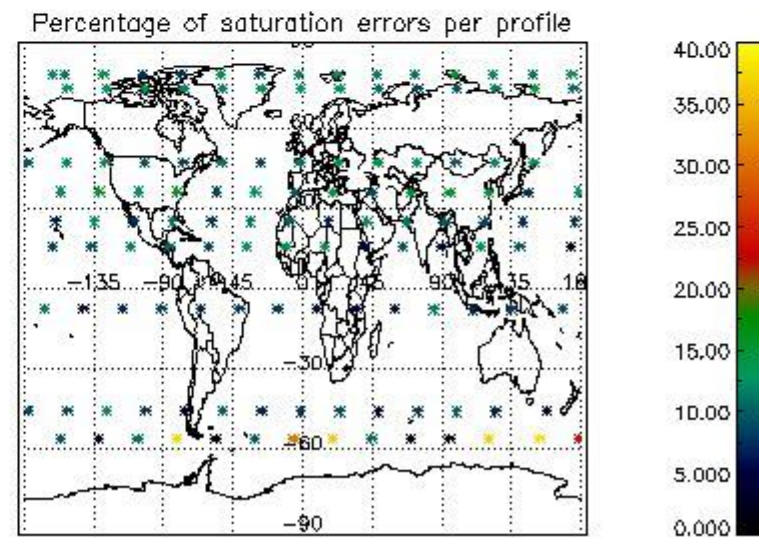
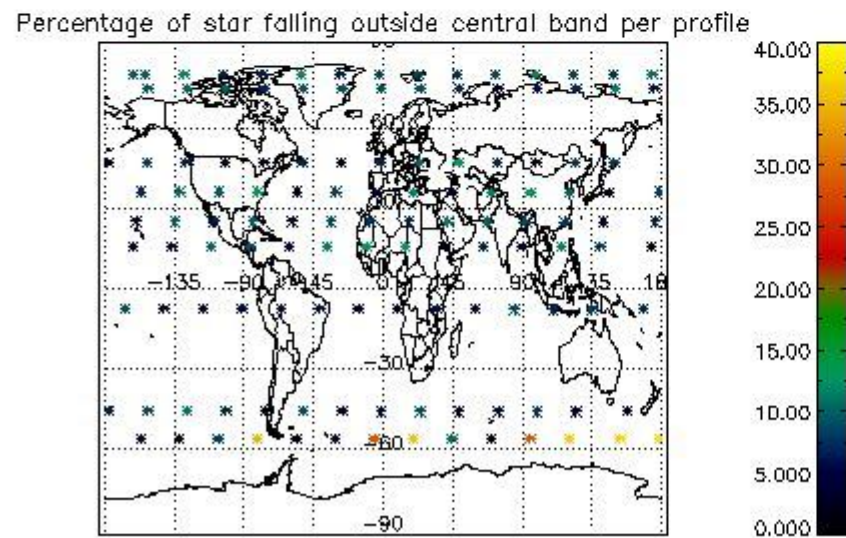
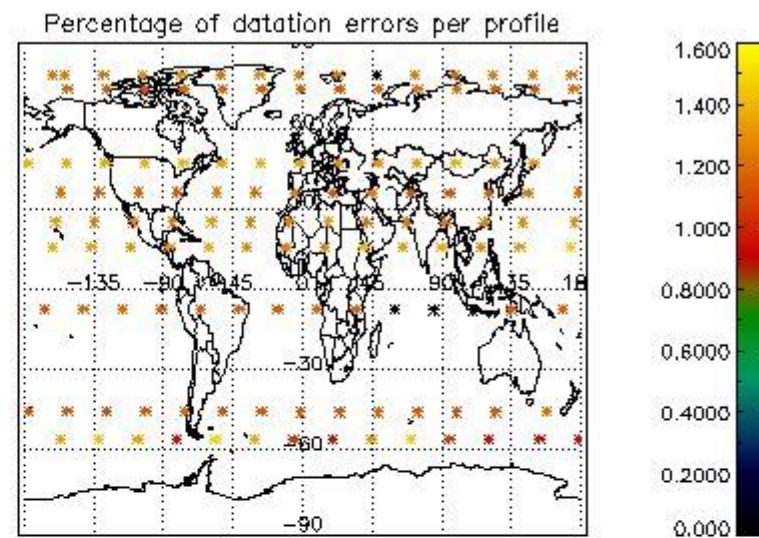
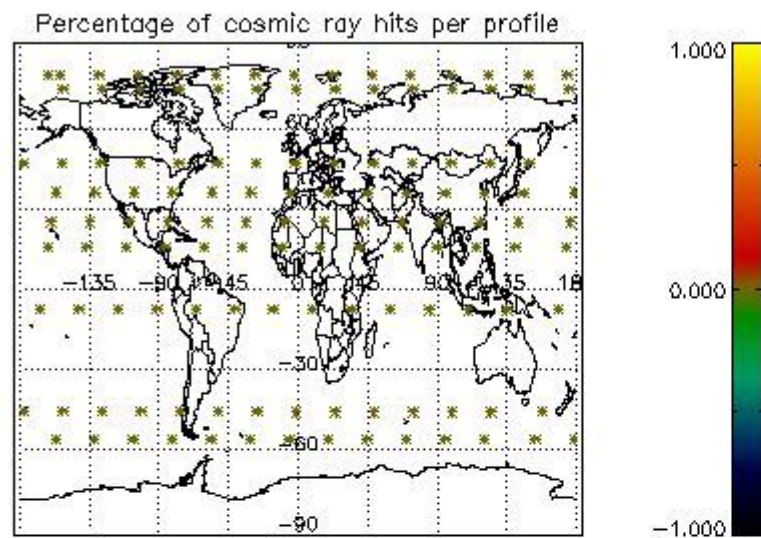


4.2 Plot quality information per product coming from level 1b processing (world map)

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

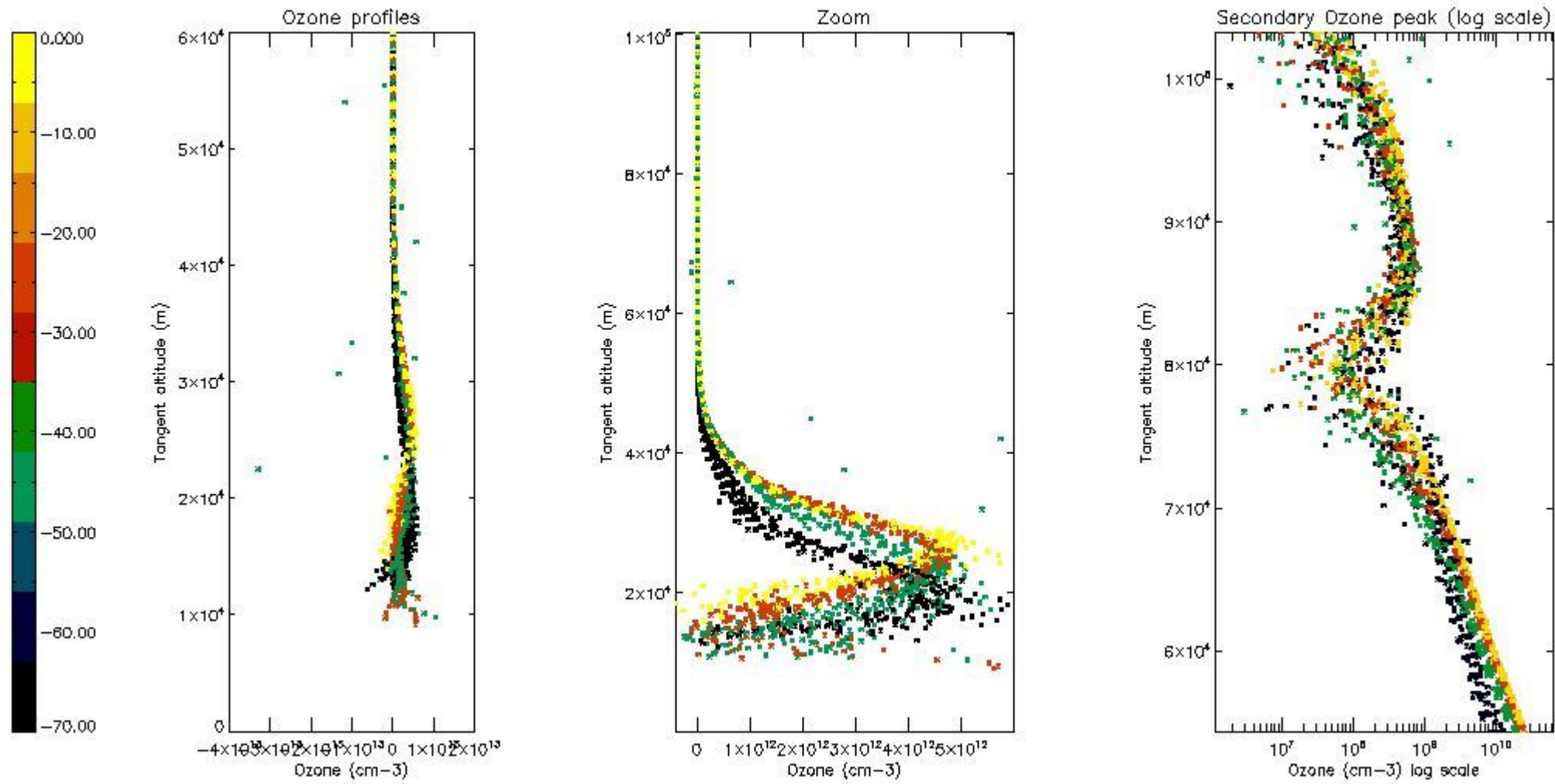
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	19
STD < 20	12

STD < 10	10
STD < 5	6

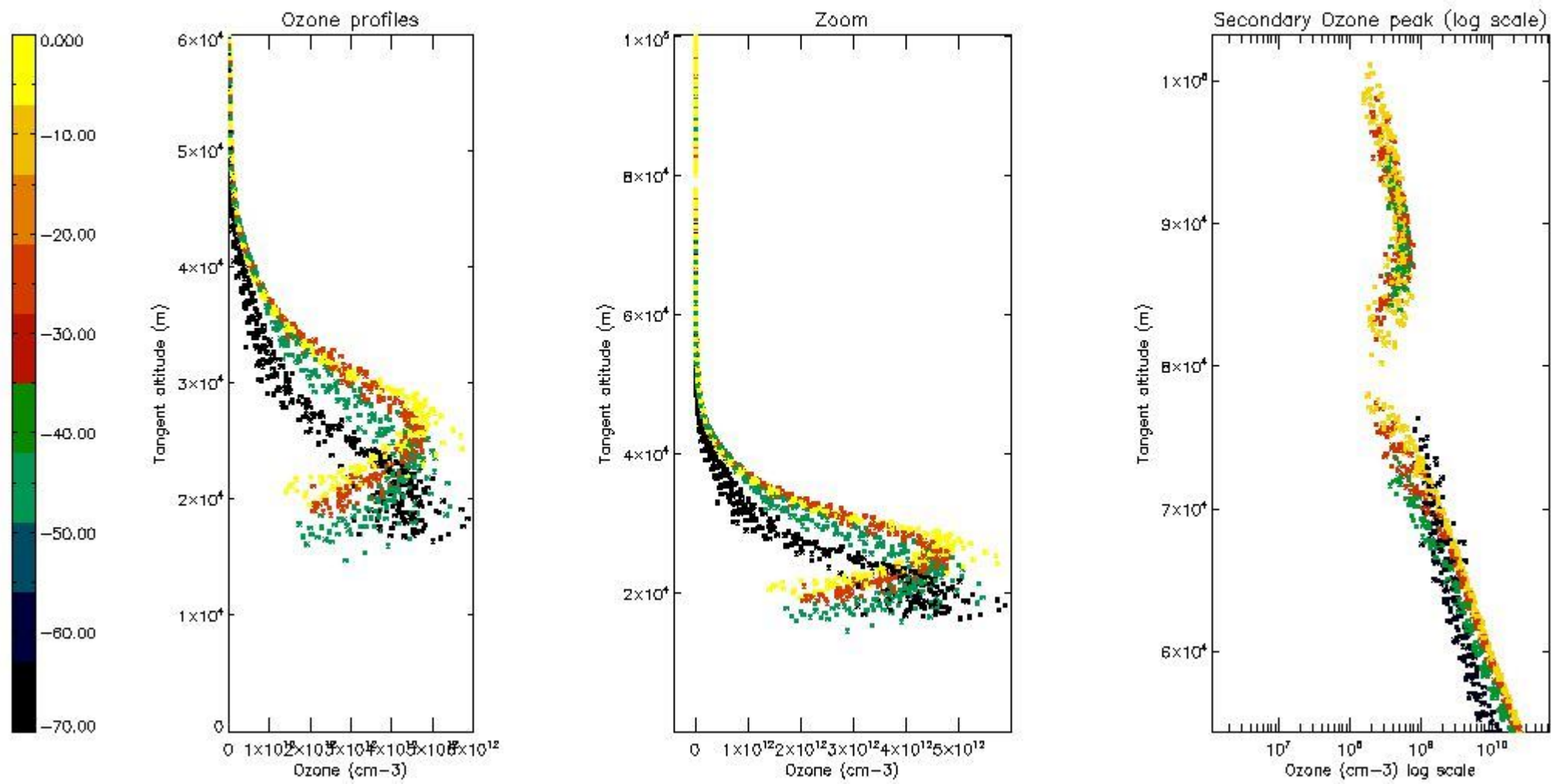
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



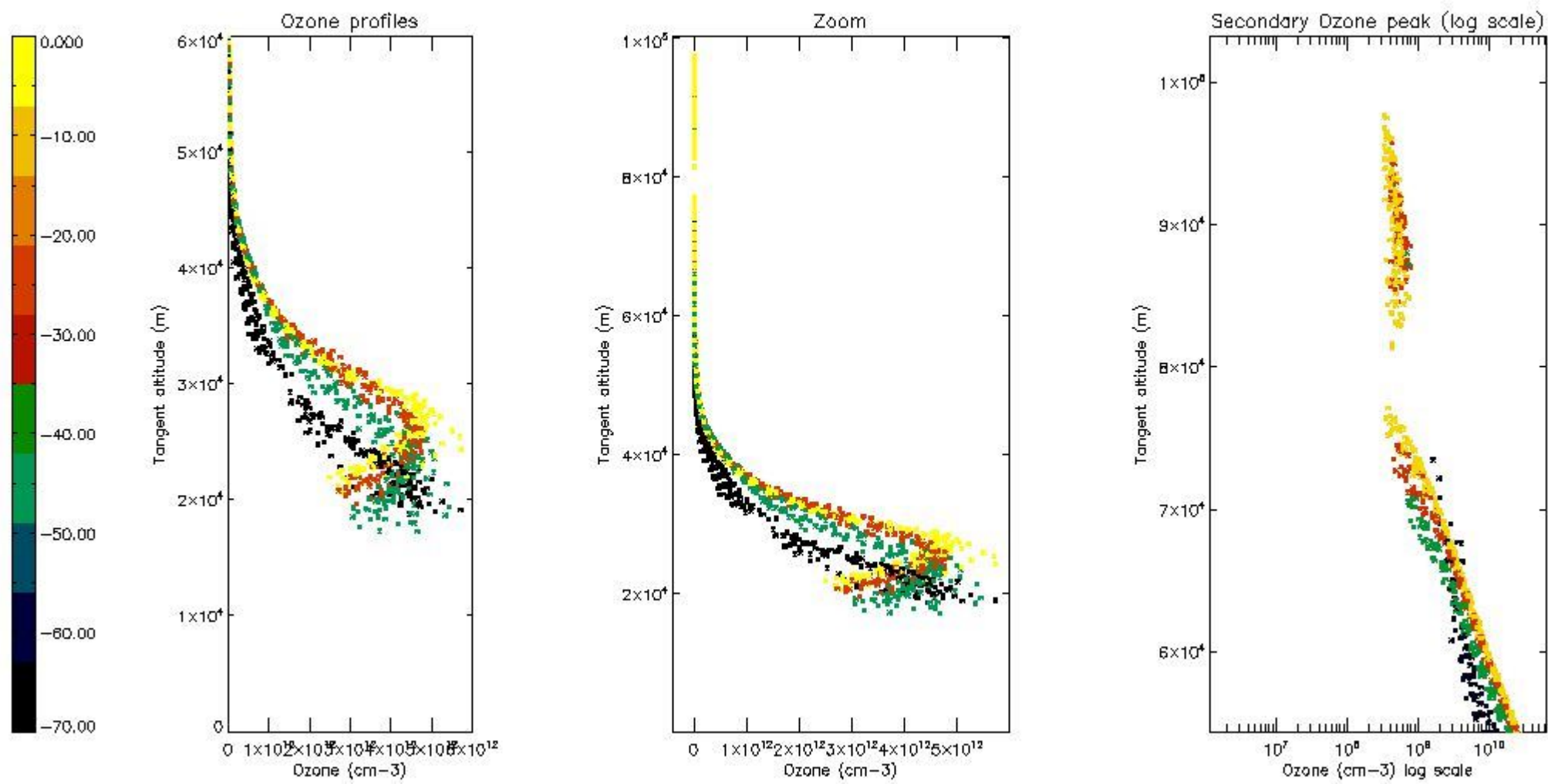
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



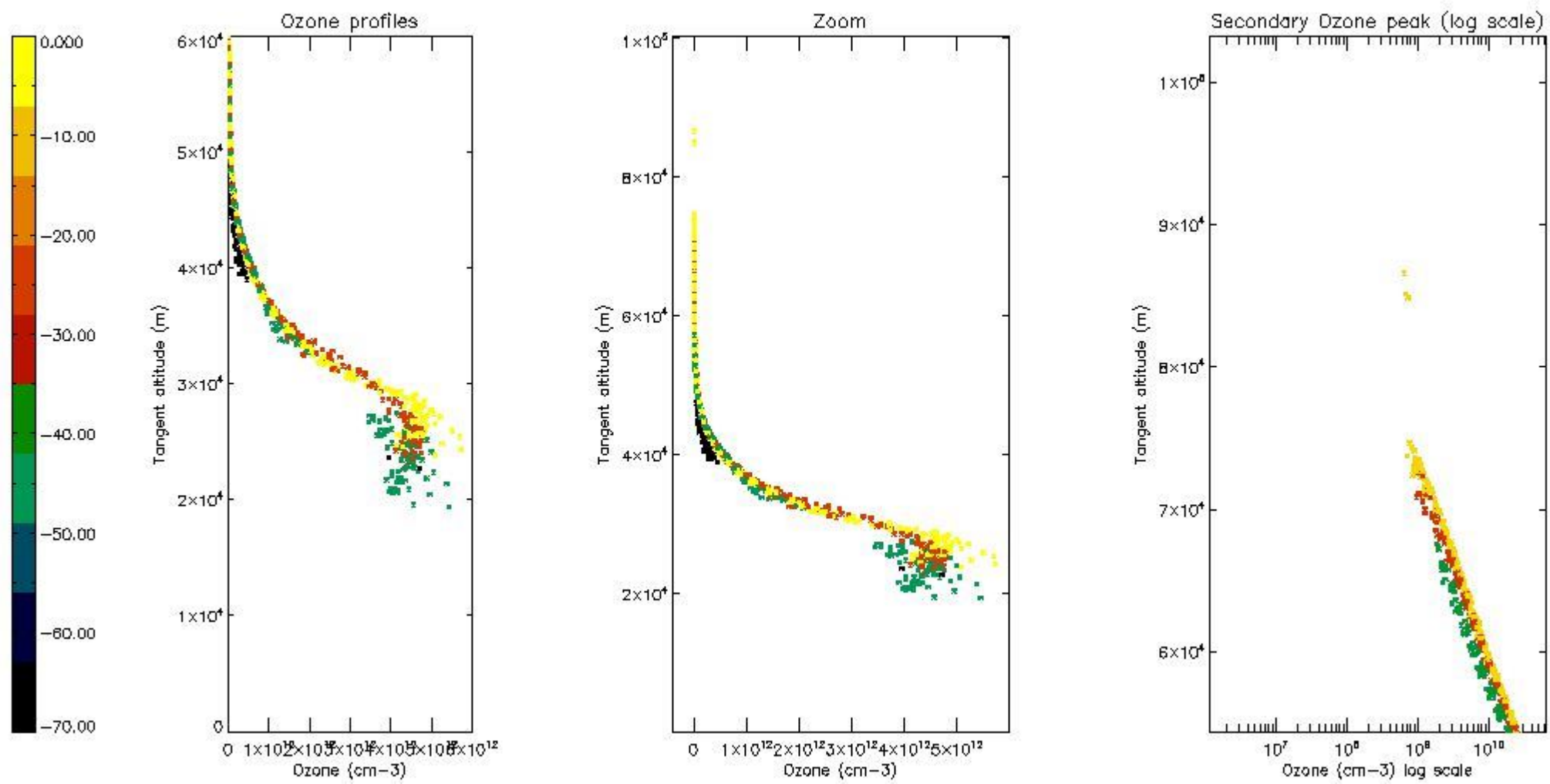
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



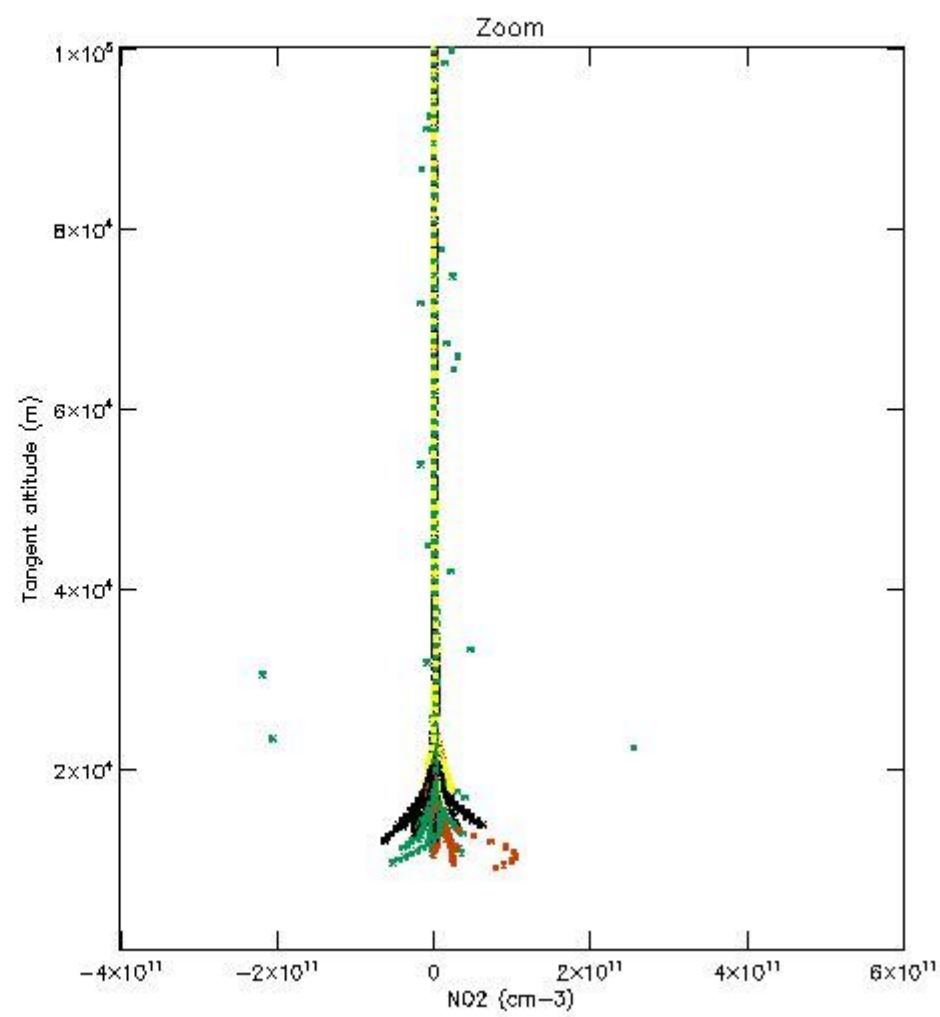
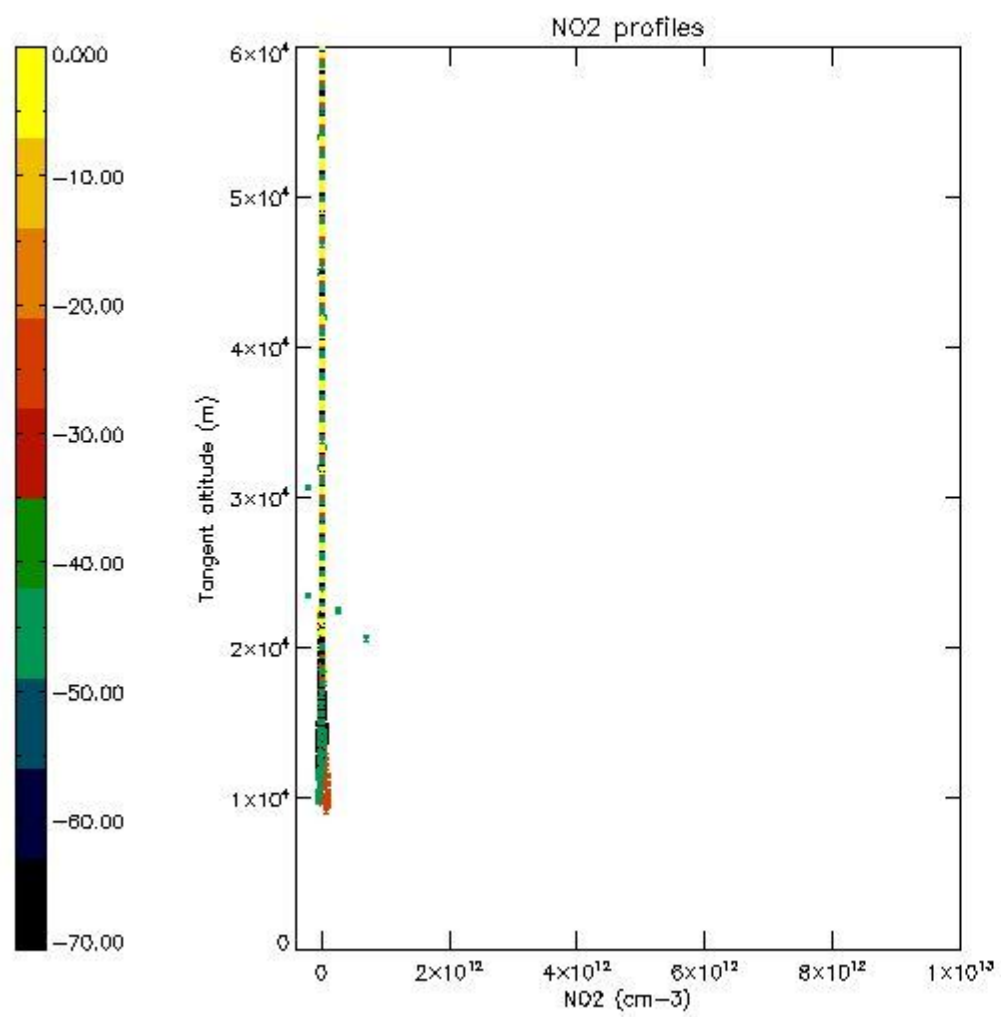
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



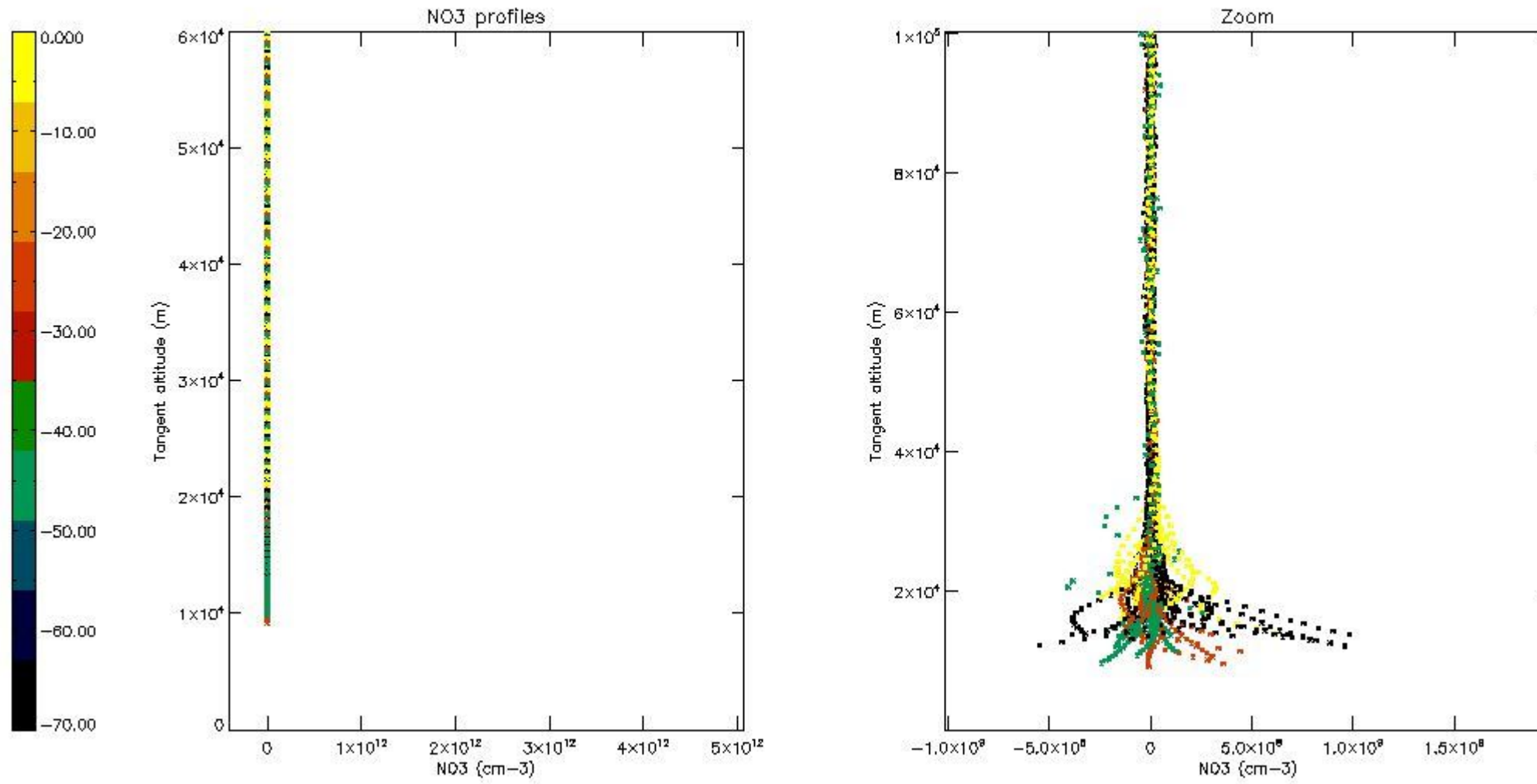
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

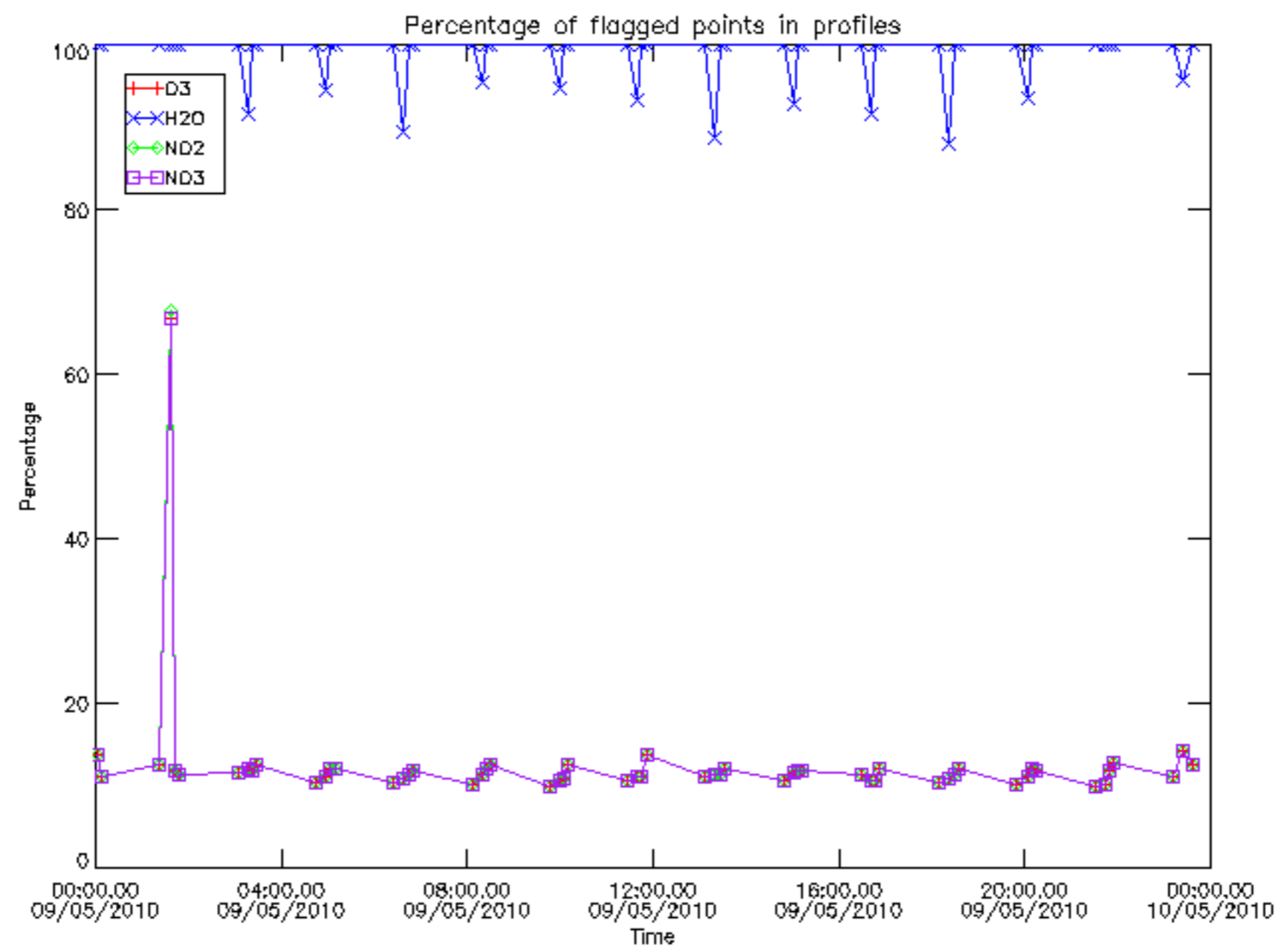
The colorbar represents the latitude.



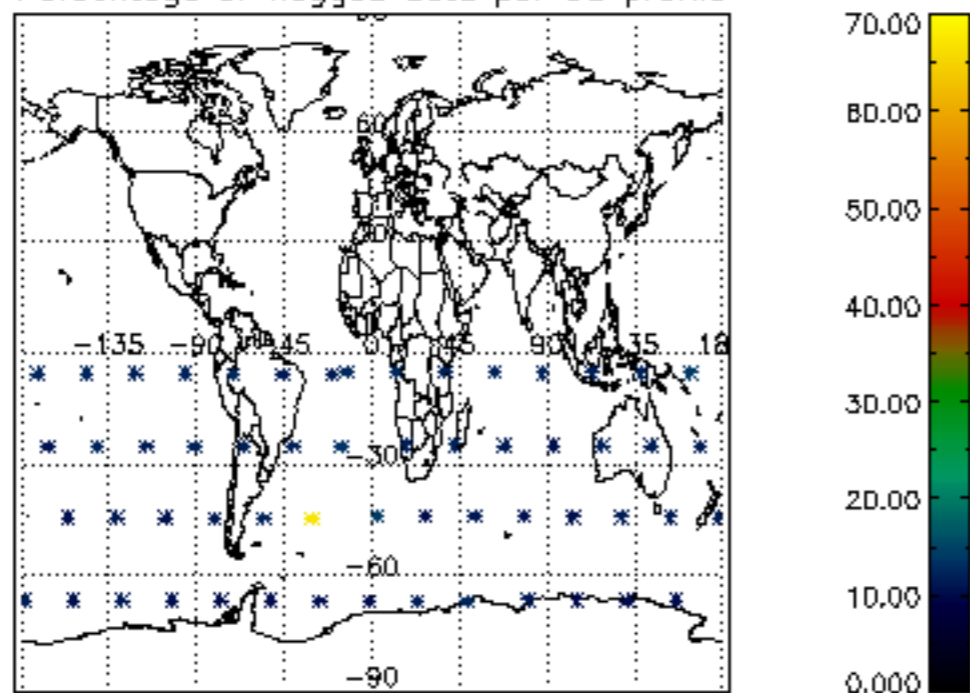
6. Auxiliary Data Files used for the production reported in section 2

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.

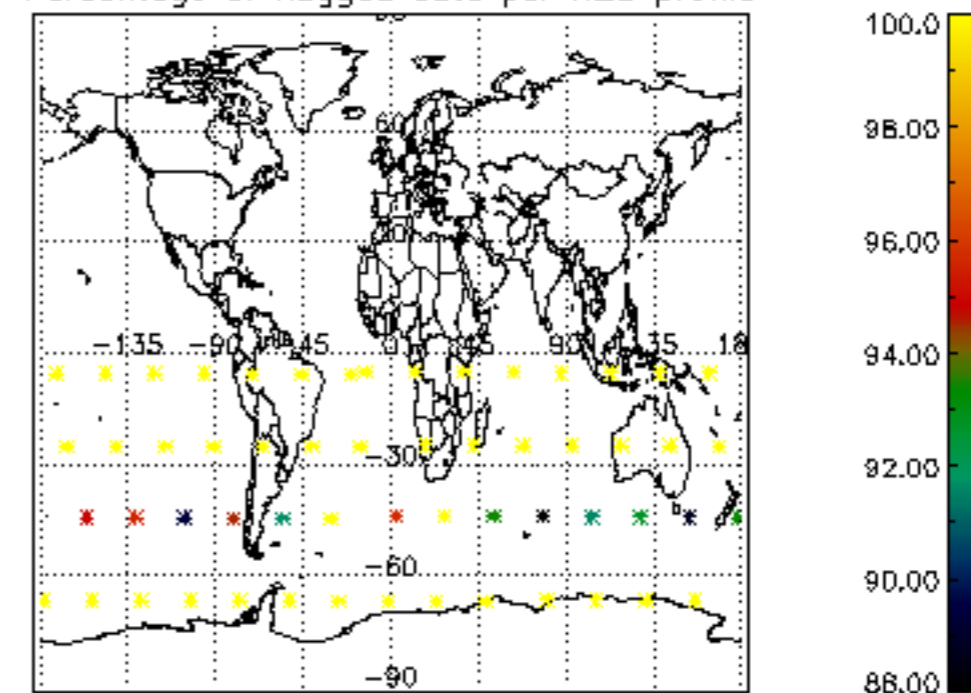
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	09-MAY-2010 00:01:35
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	09-MAY-2010 00:01:35
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	09-MAY-2010 00:01:35



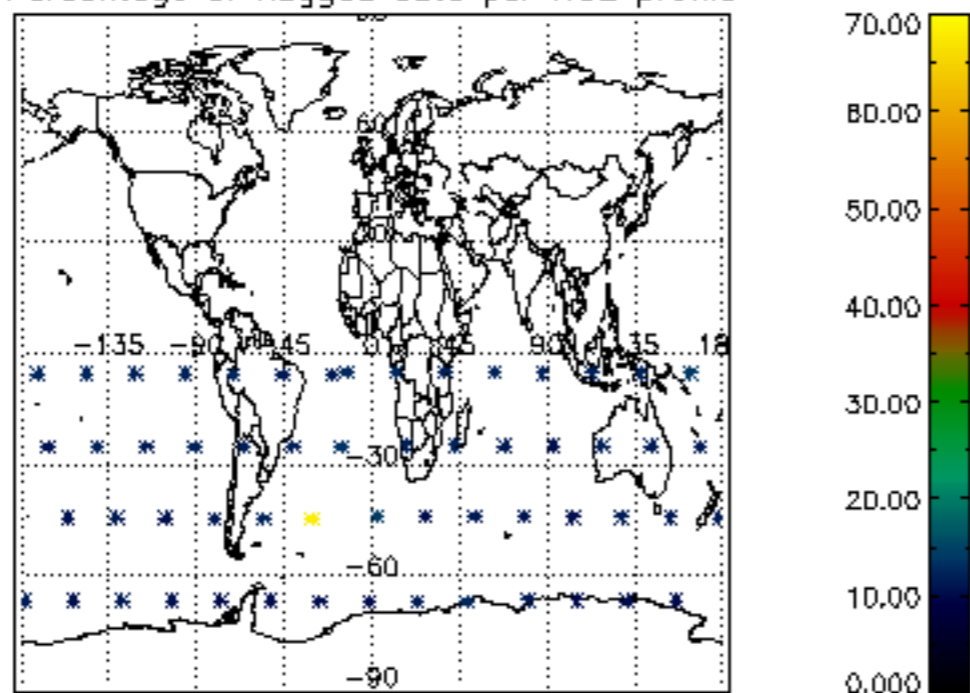
Percentage of flagged data per D3 profile



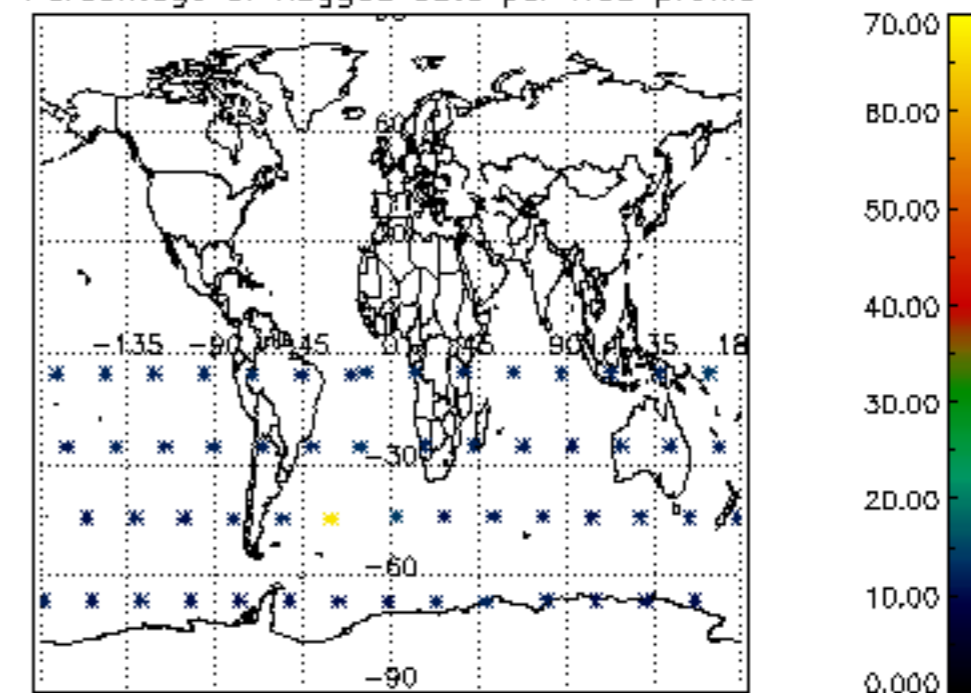
Percentage of flagged data per H2O profile

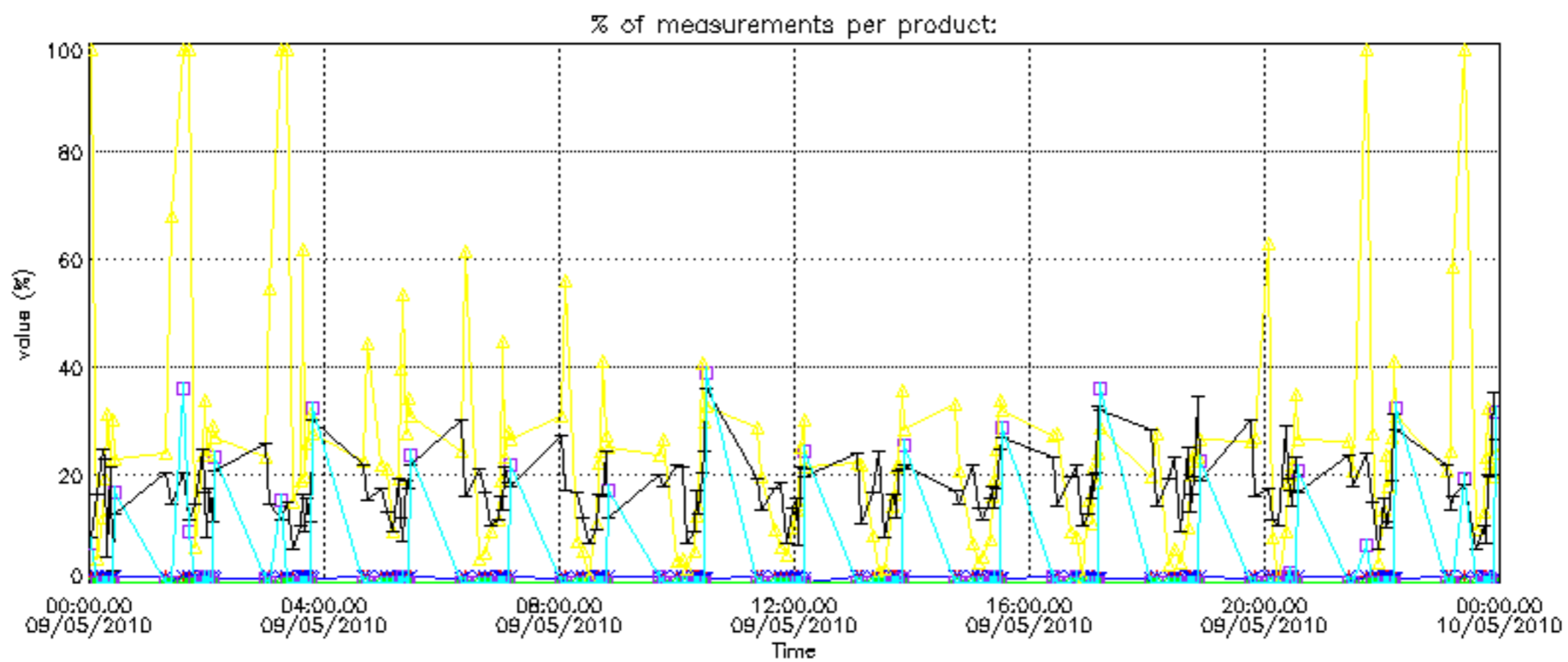


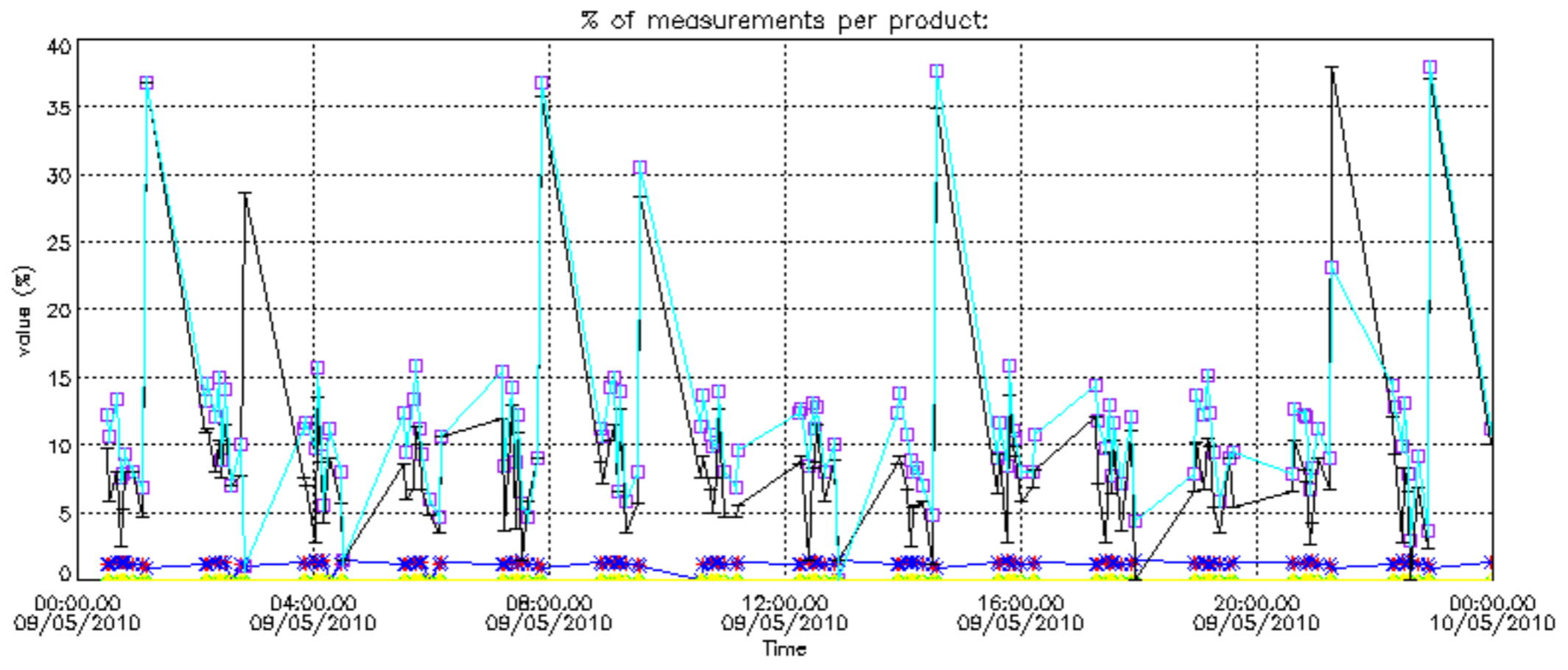
Percentage of flagged data per NO2 profile



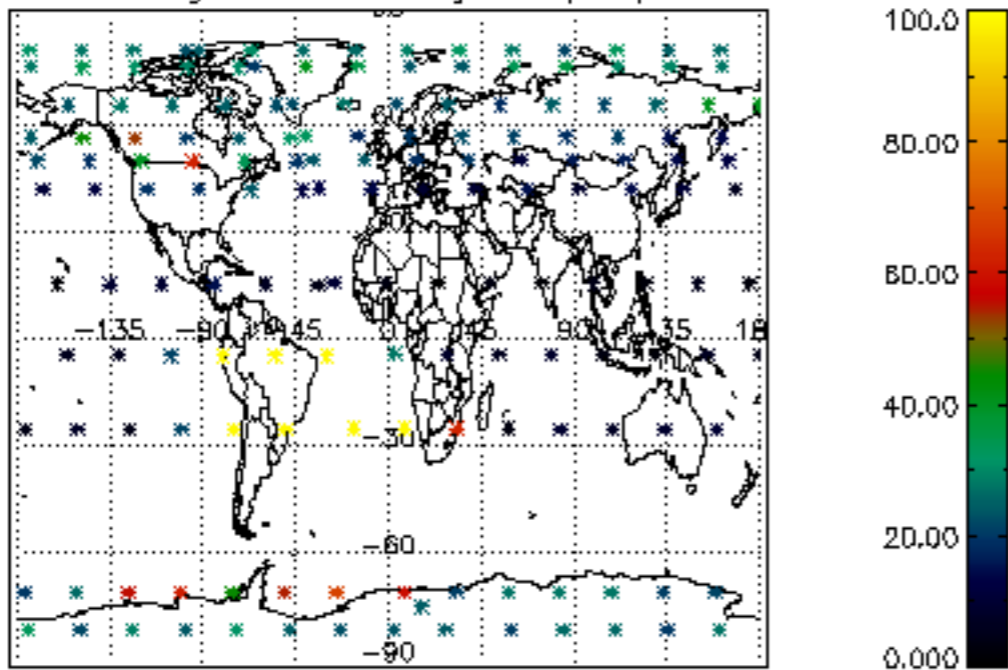
Percentage of flagged data per NO3 profile



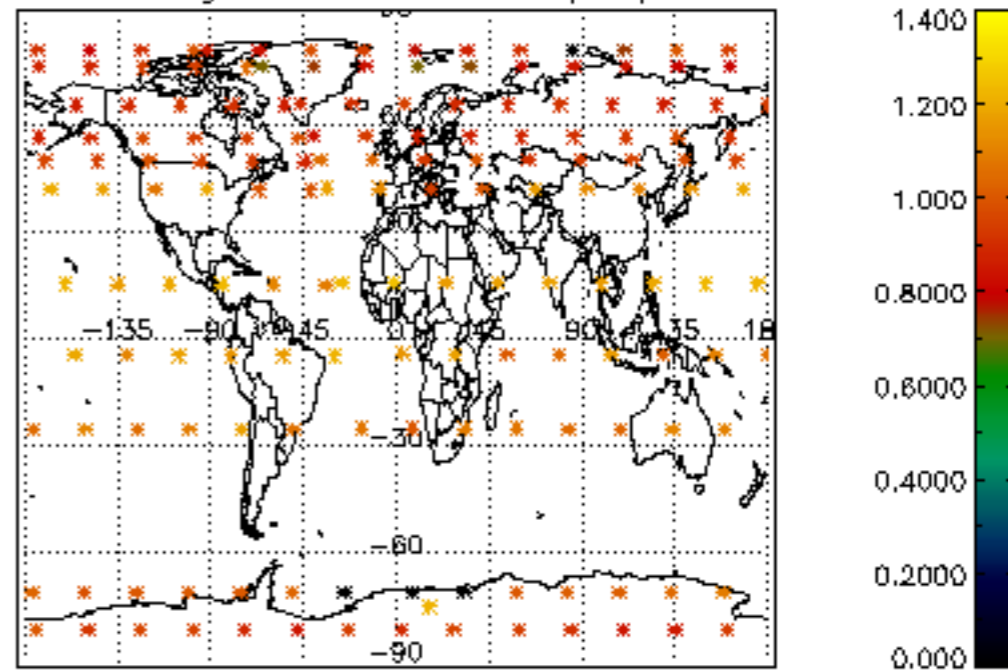




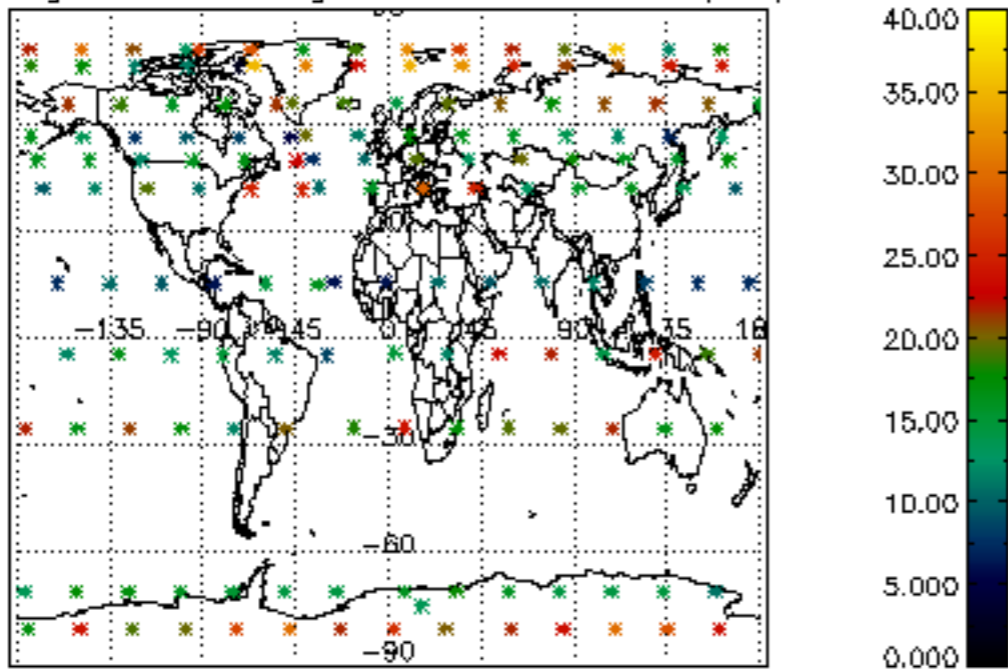
Percentage of cosmic ray hits per profile



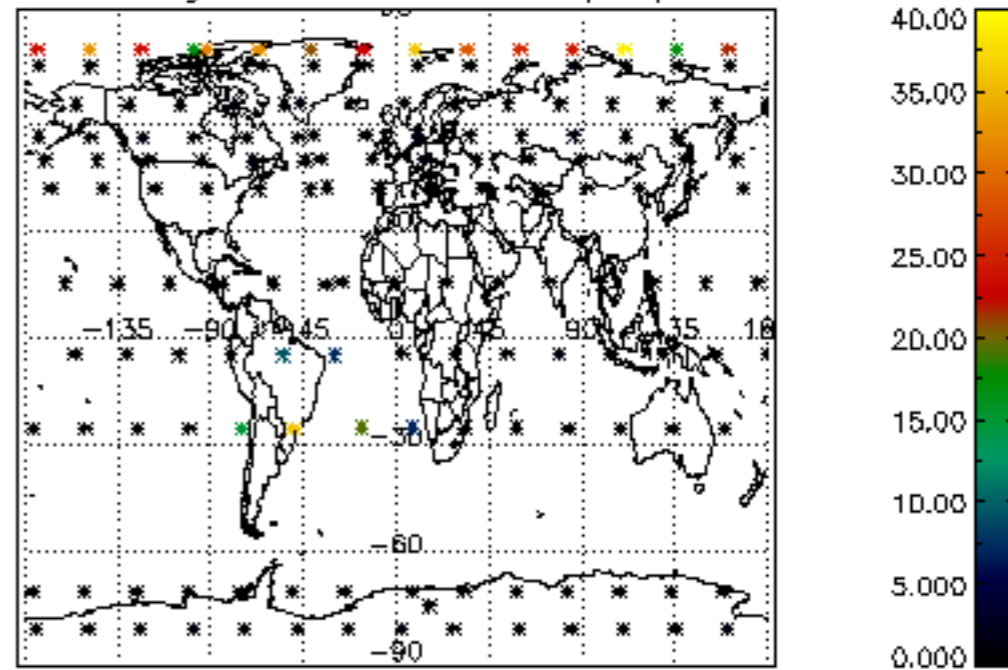
Percentage of datation errors per profile



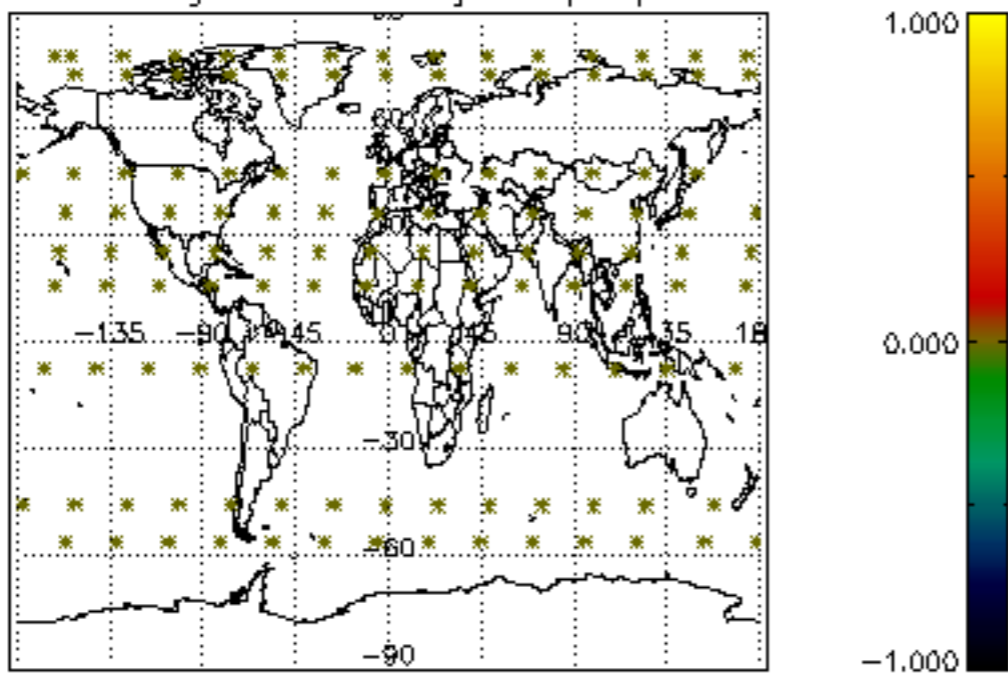
Percentage of star falling outside central band per profile



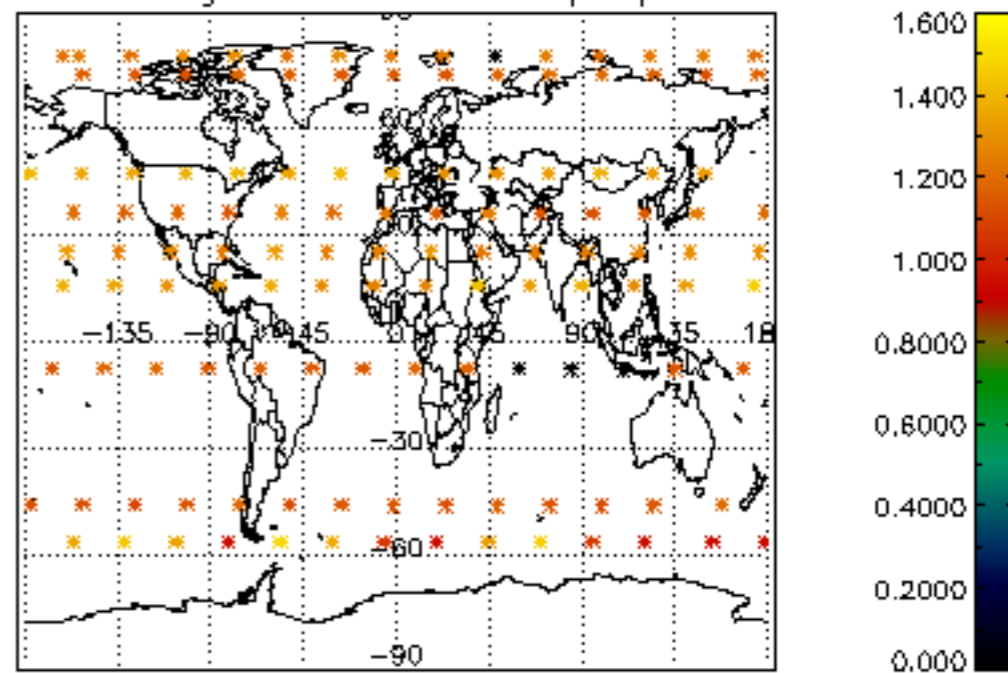
Percentage of saturation errors per profile



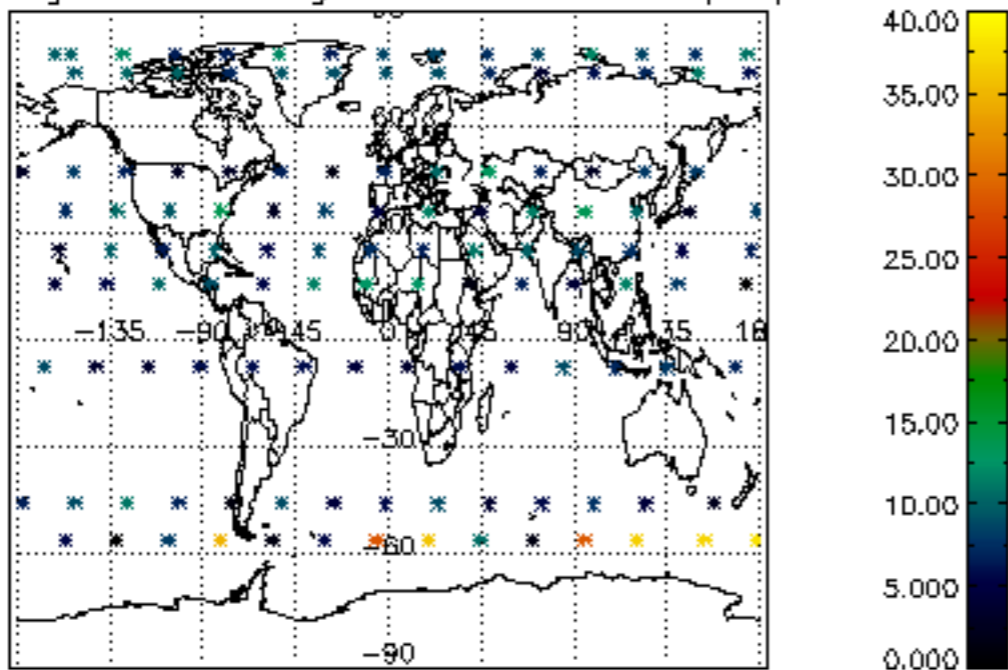
Percentage of cosmic ray hits per profile



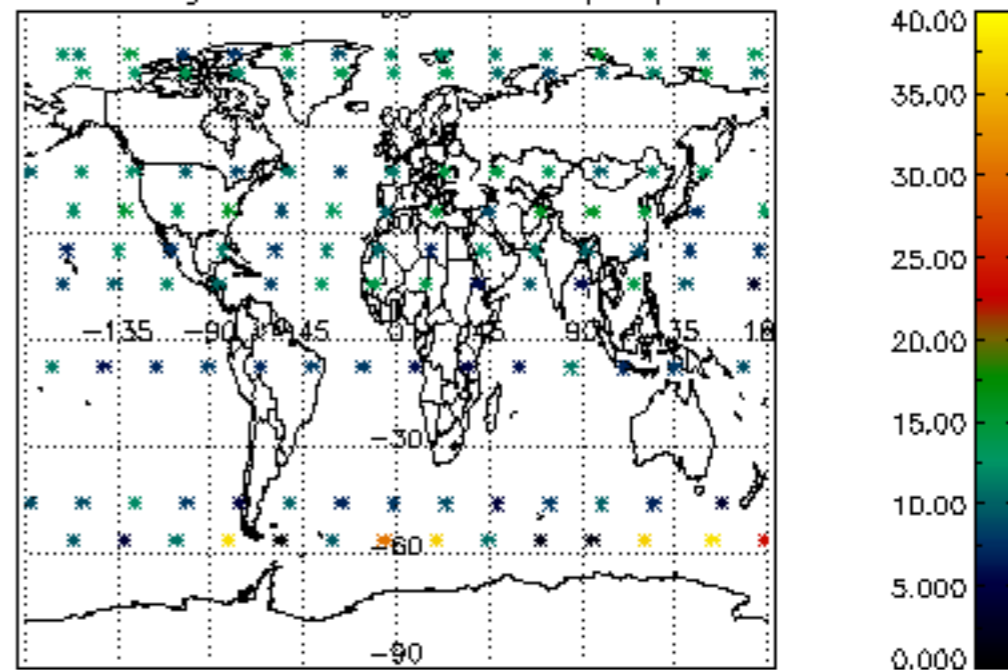
Percentage of datation errors per profile

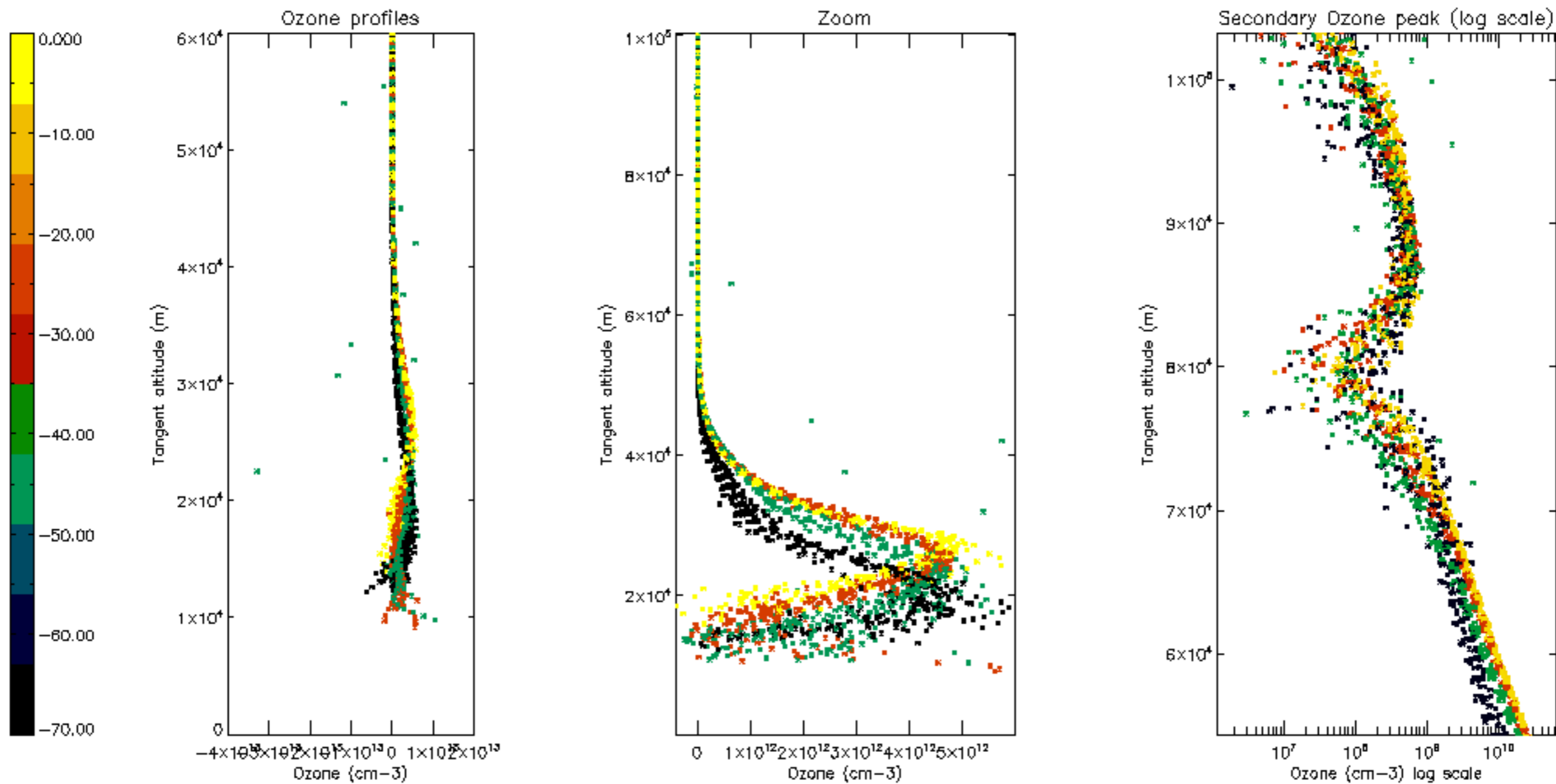


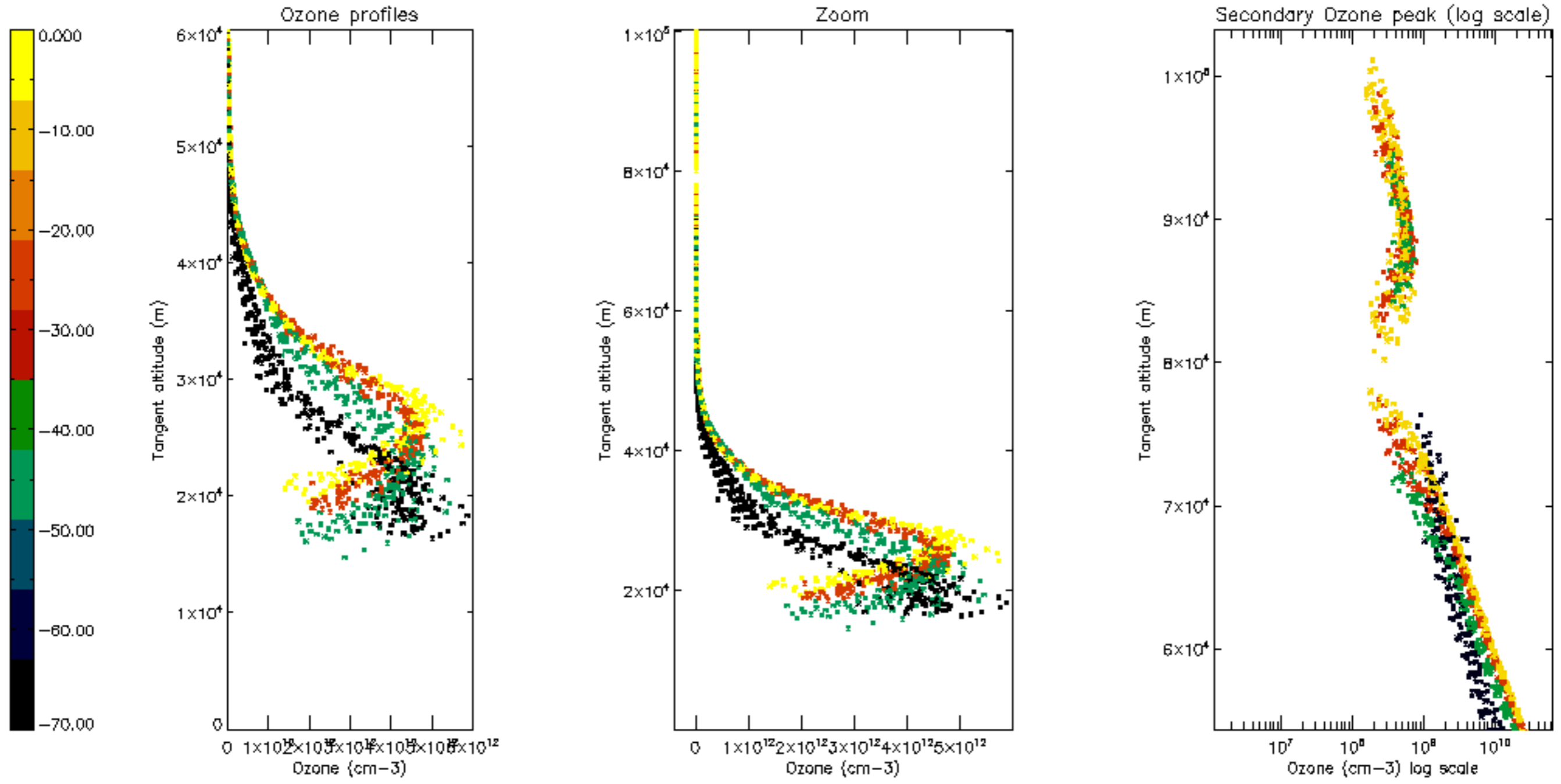
Percentage of star falling outside central band per profile

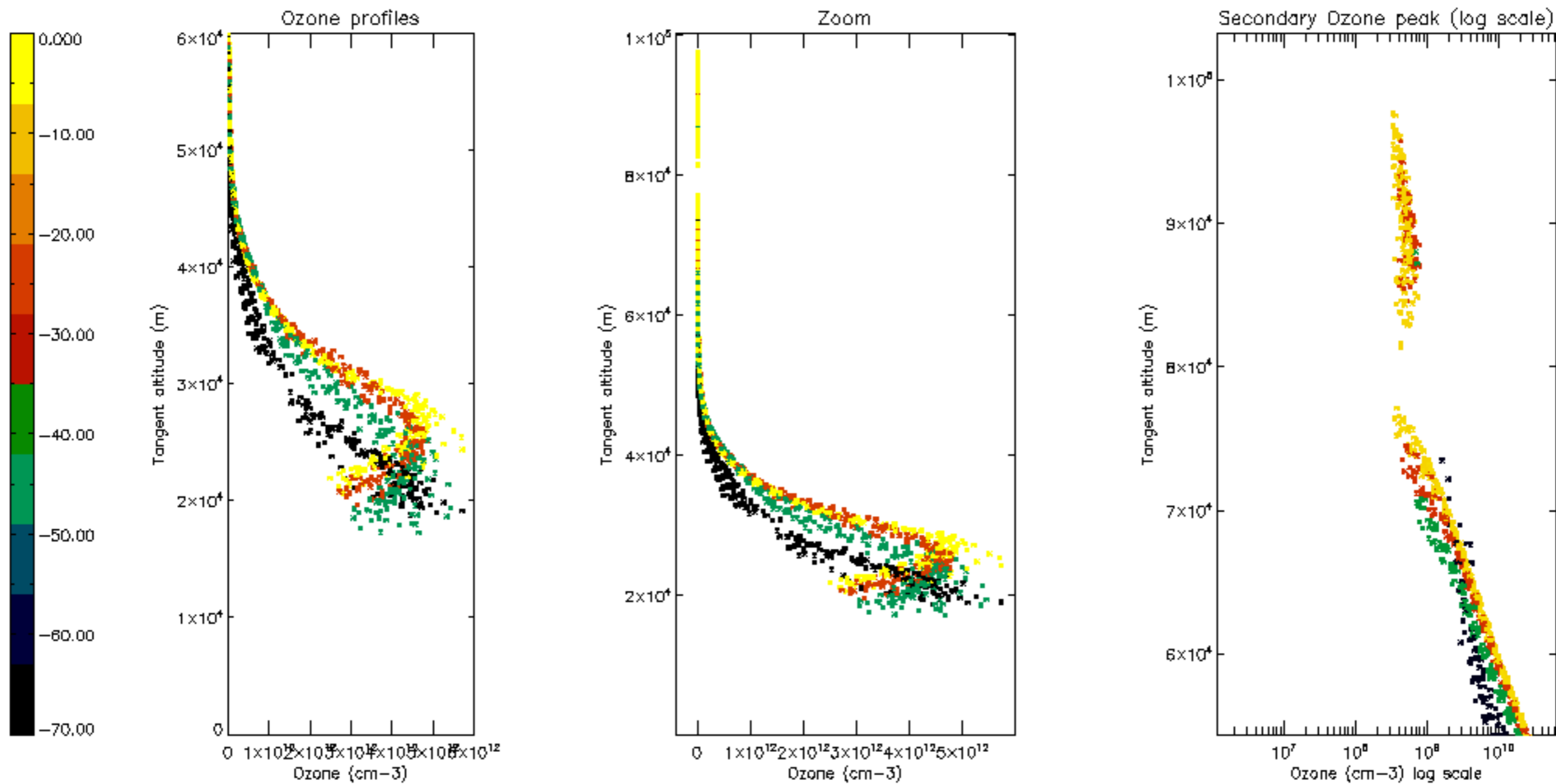


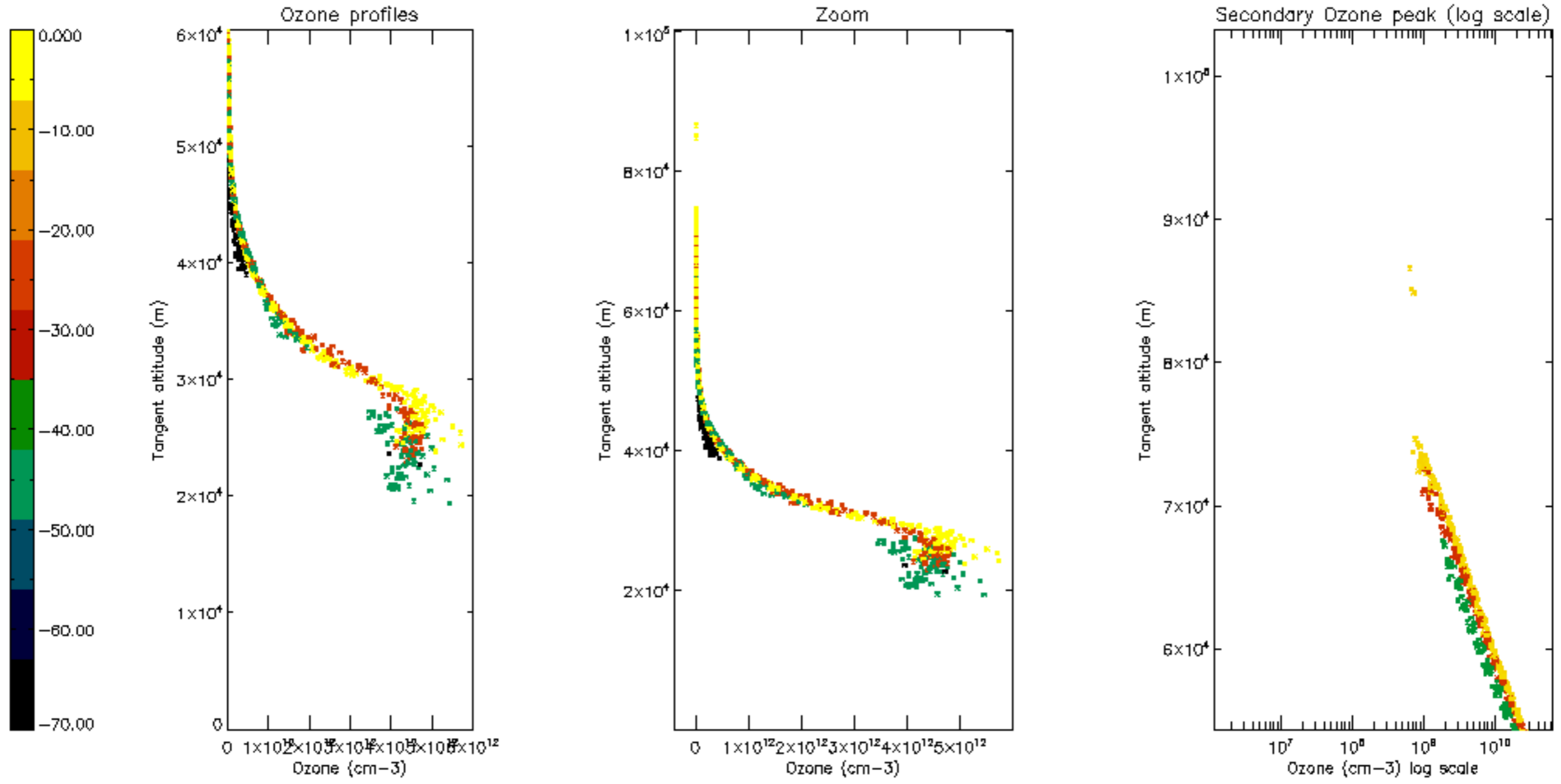
Percentage of saturation errors per profile

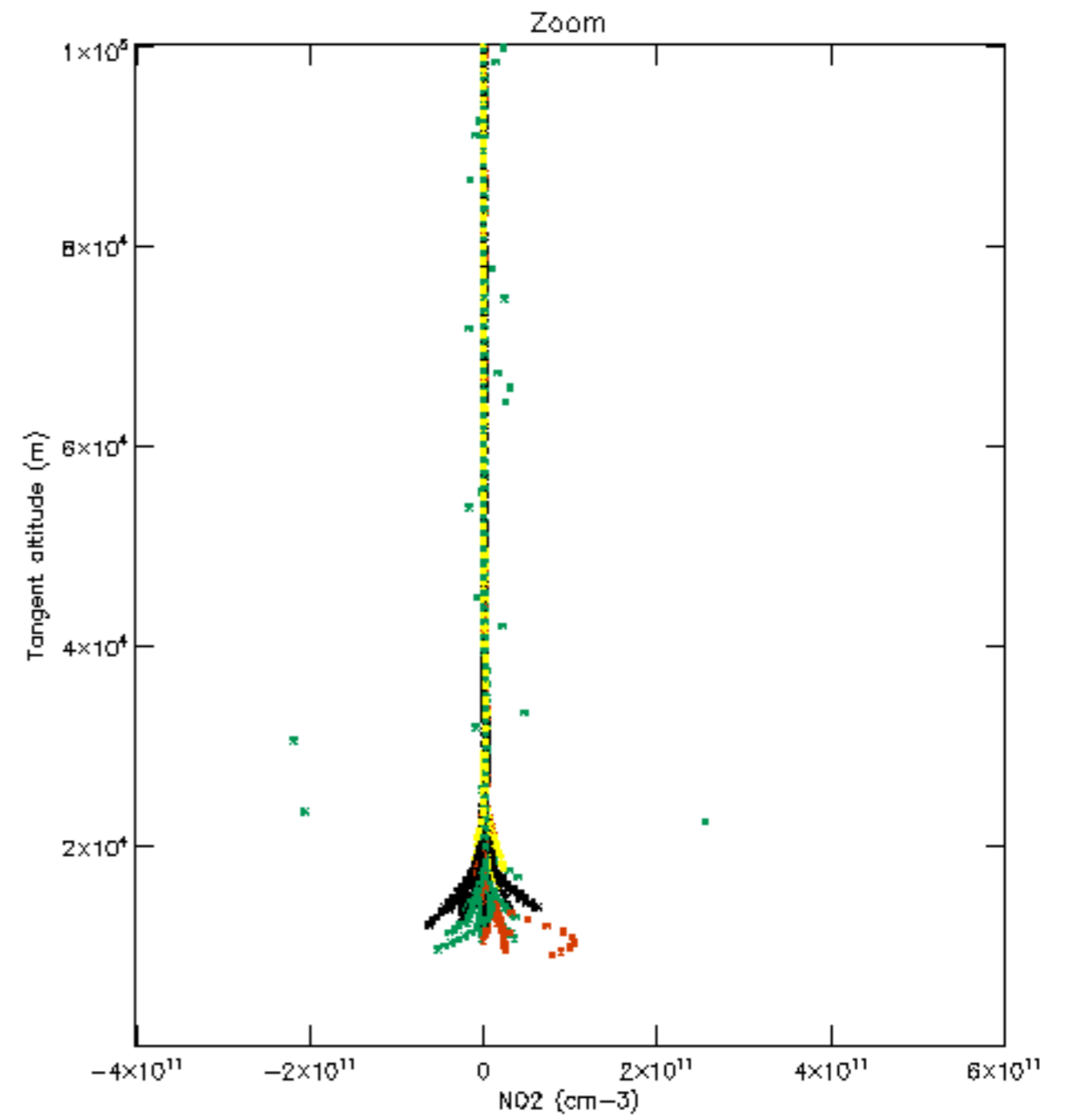
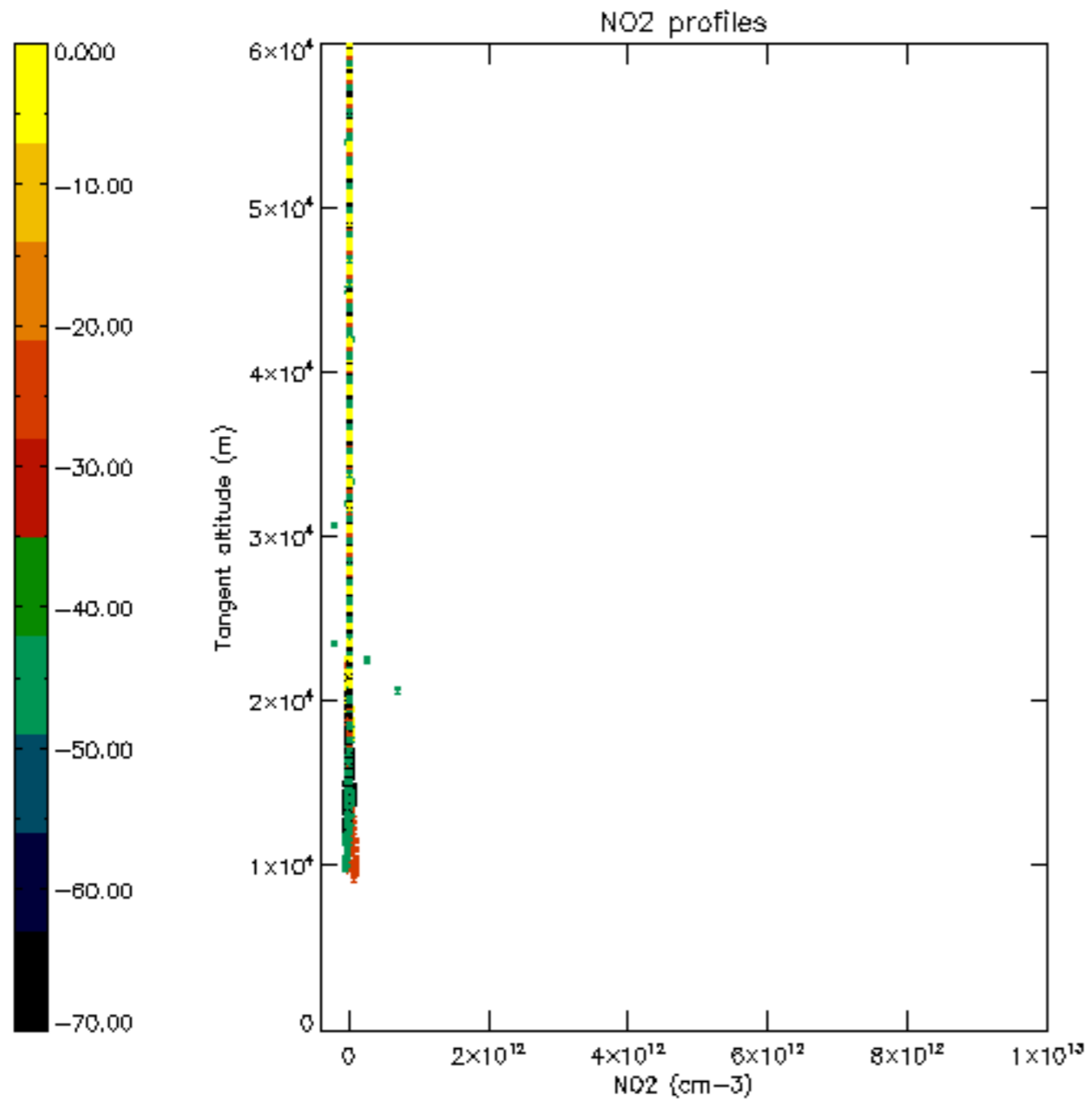


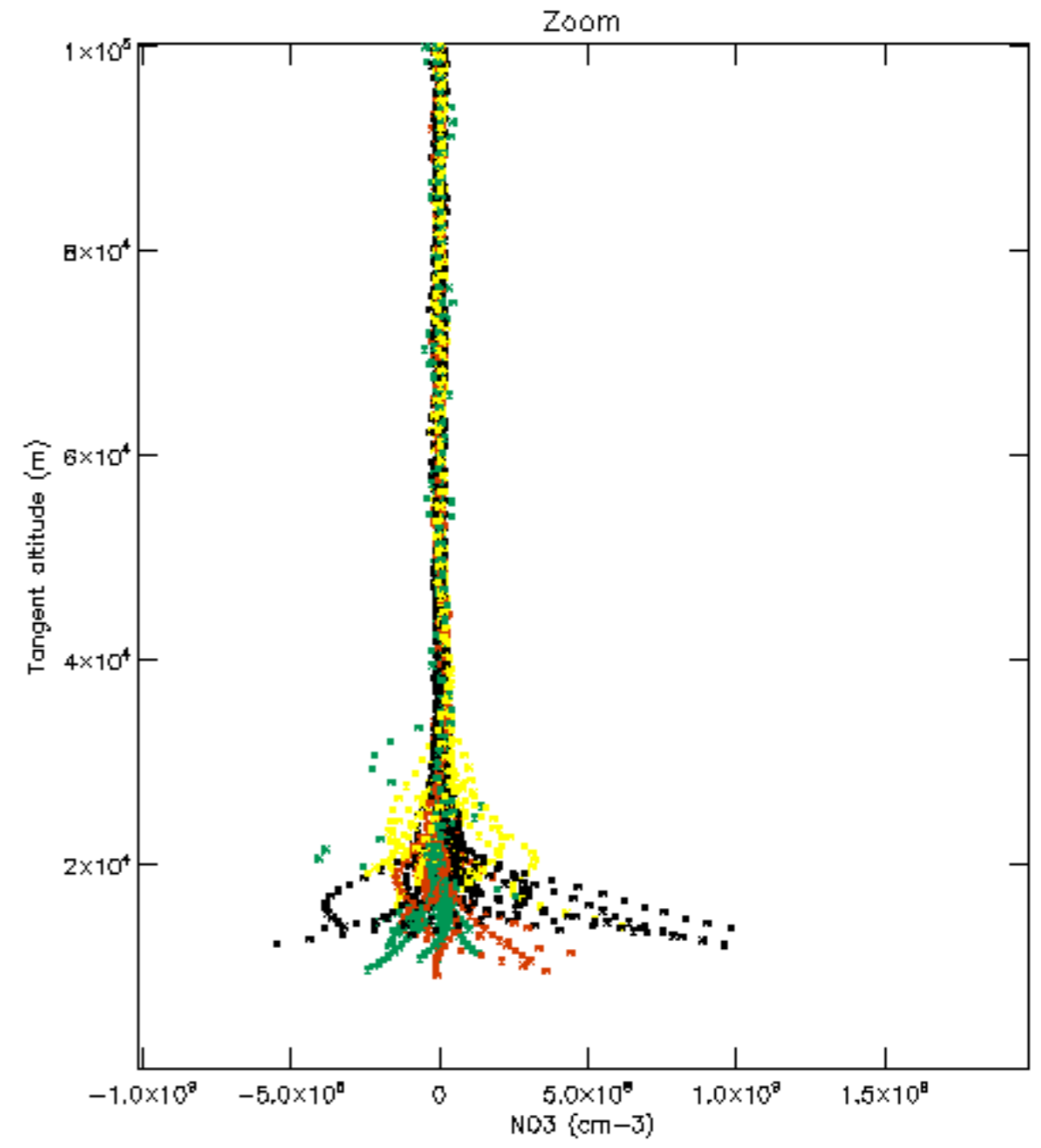
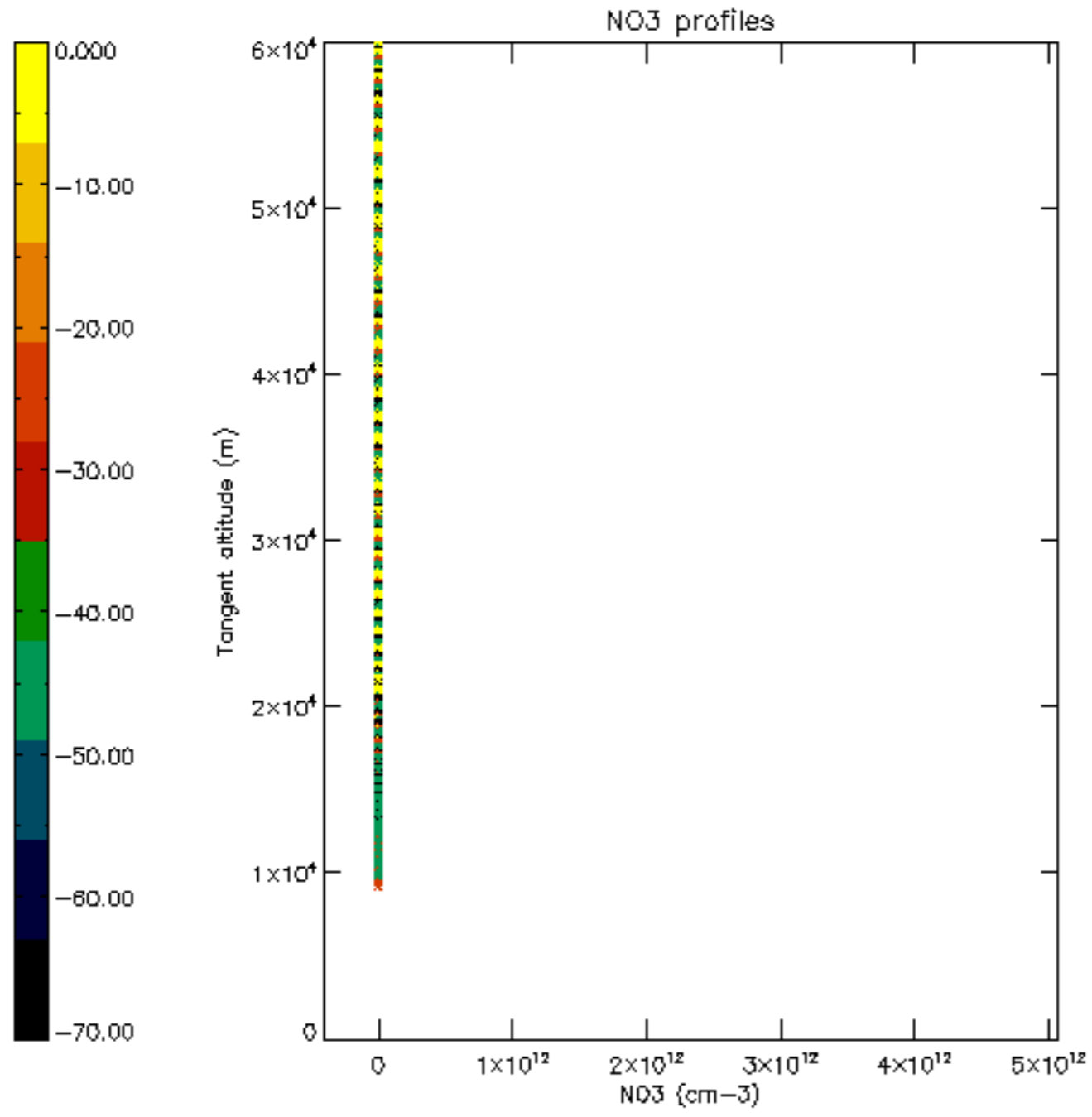


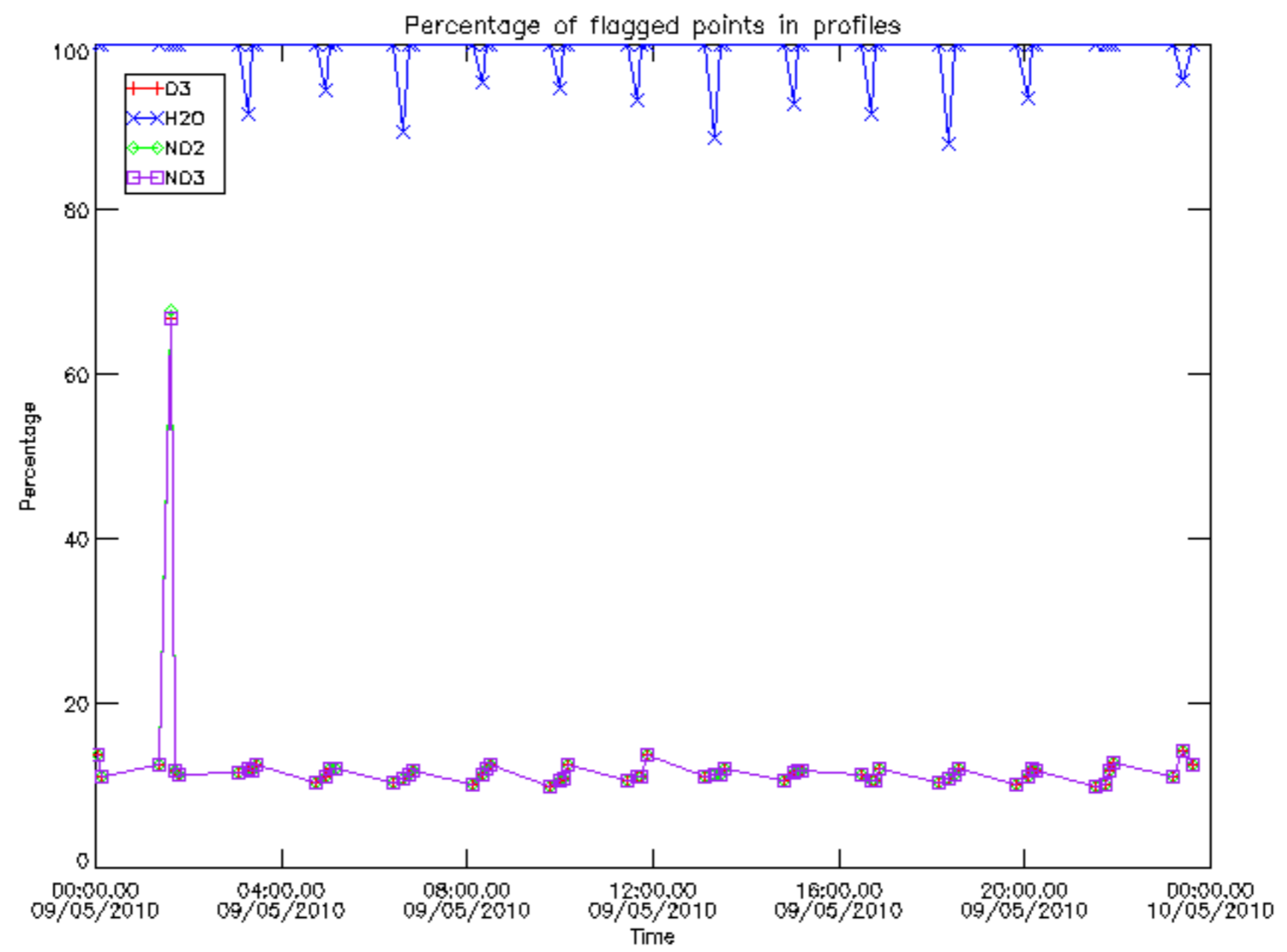




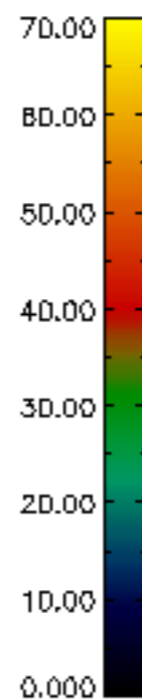
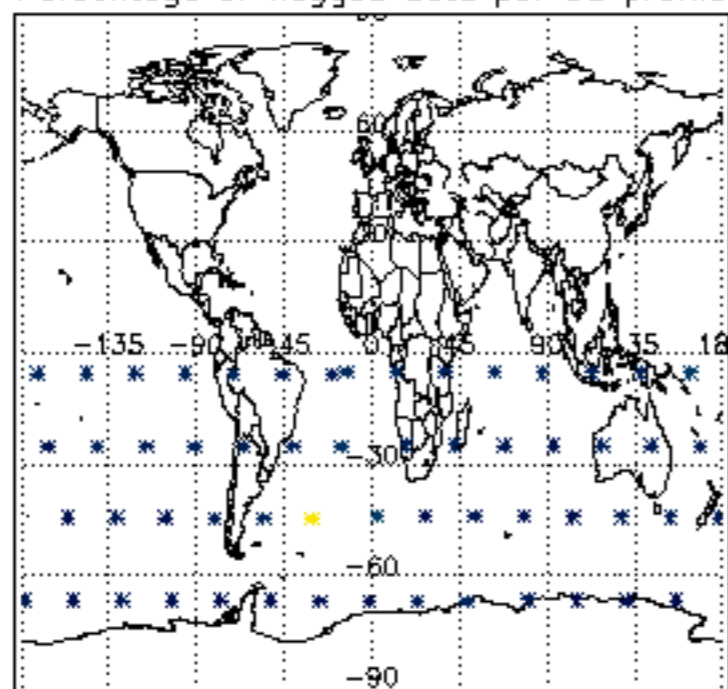




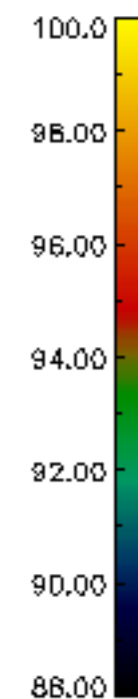
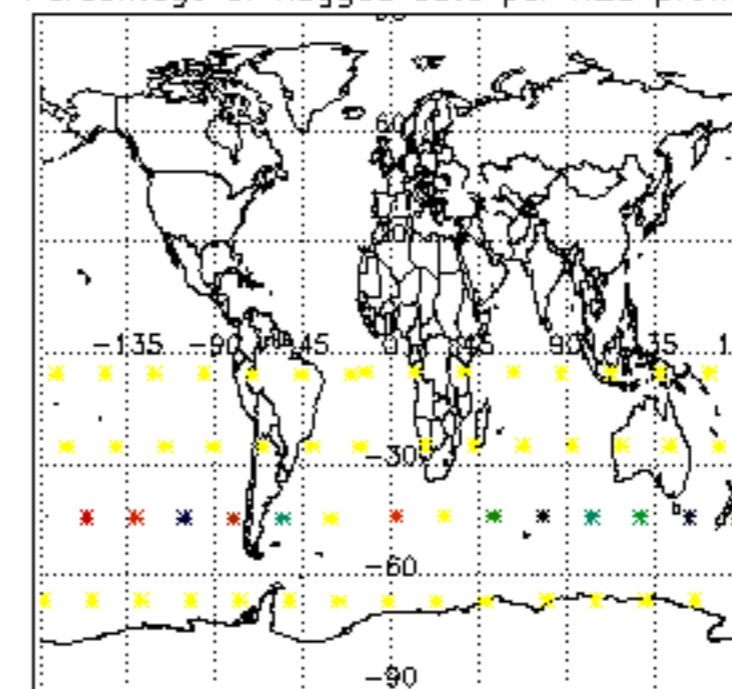




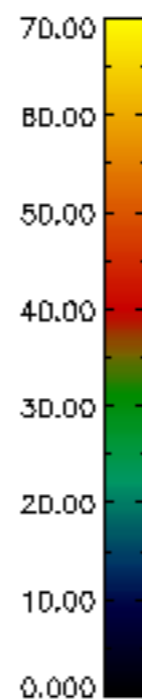
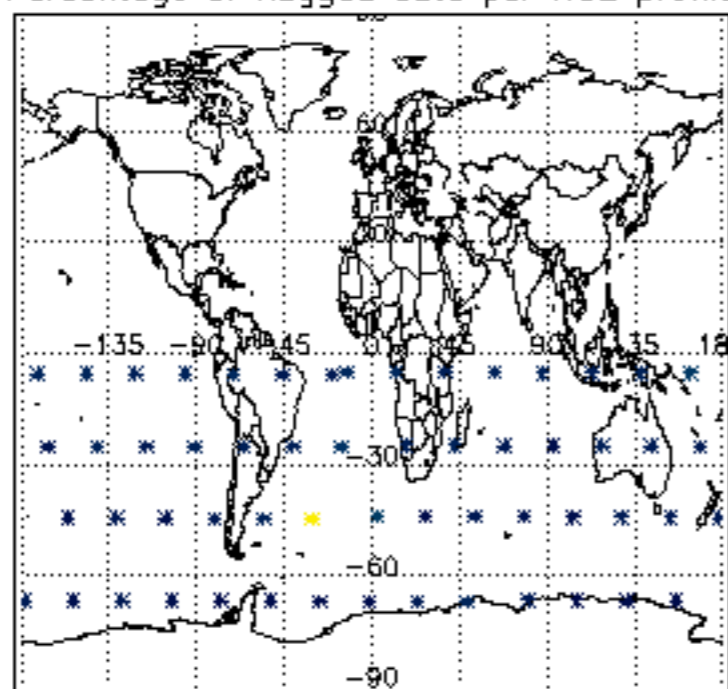
Percentage of flagged data per D3 profile



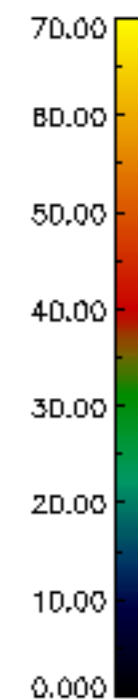
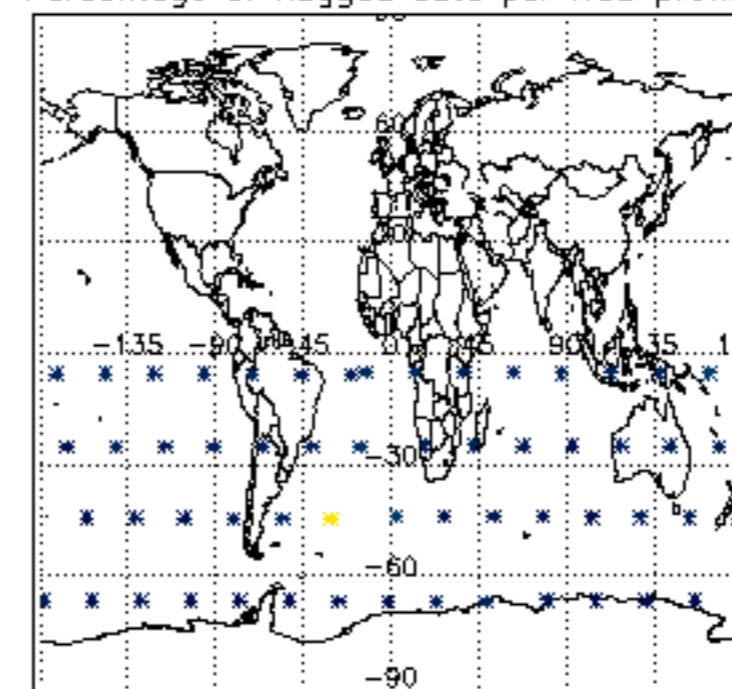
Percentage of flagged data per H2O profile

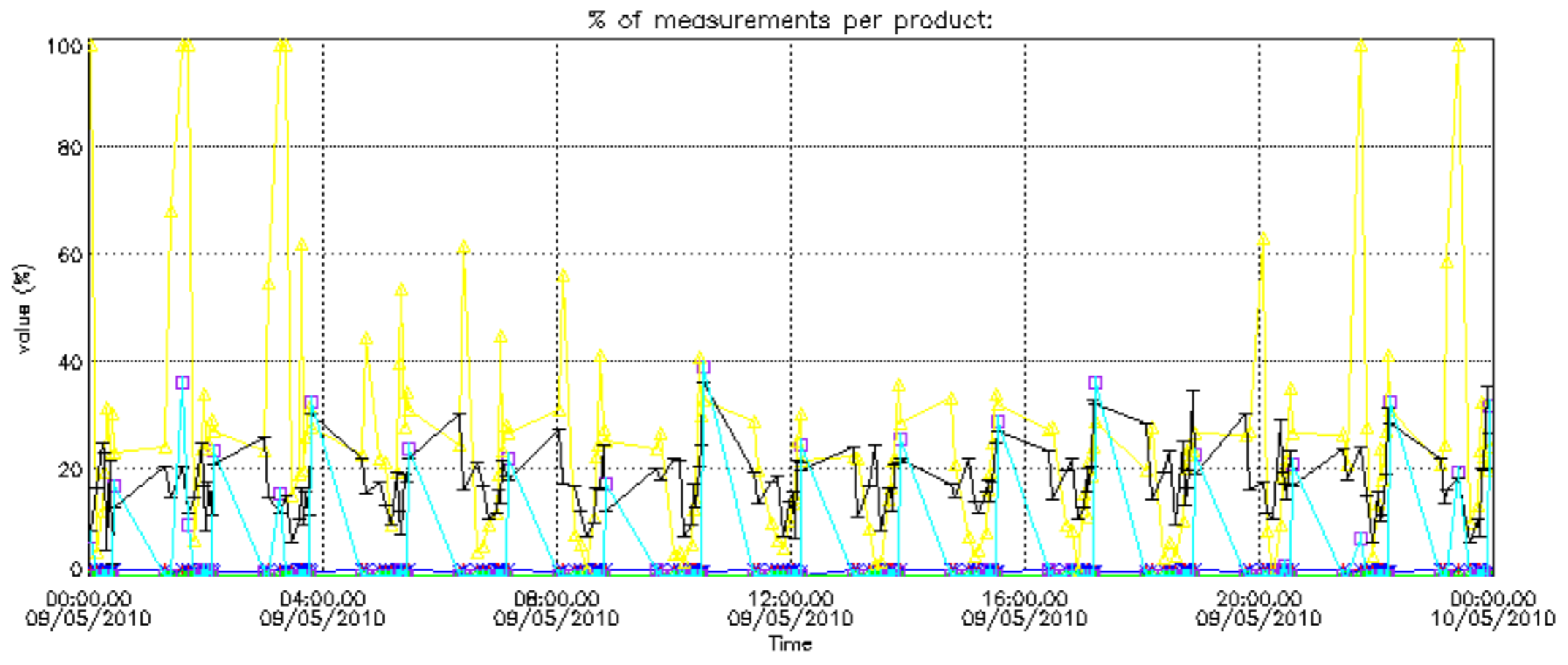


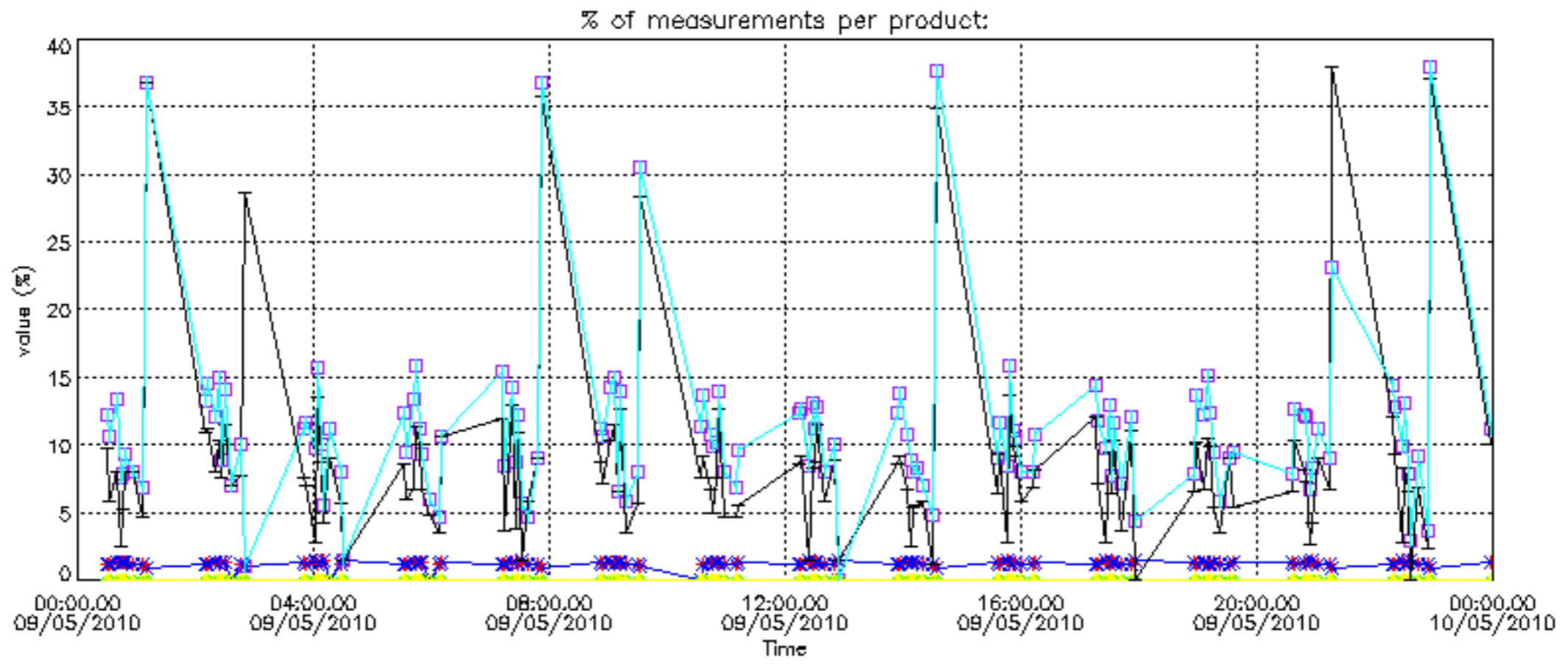
Percentage of flagged data per NO2 profile



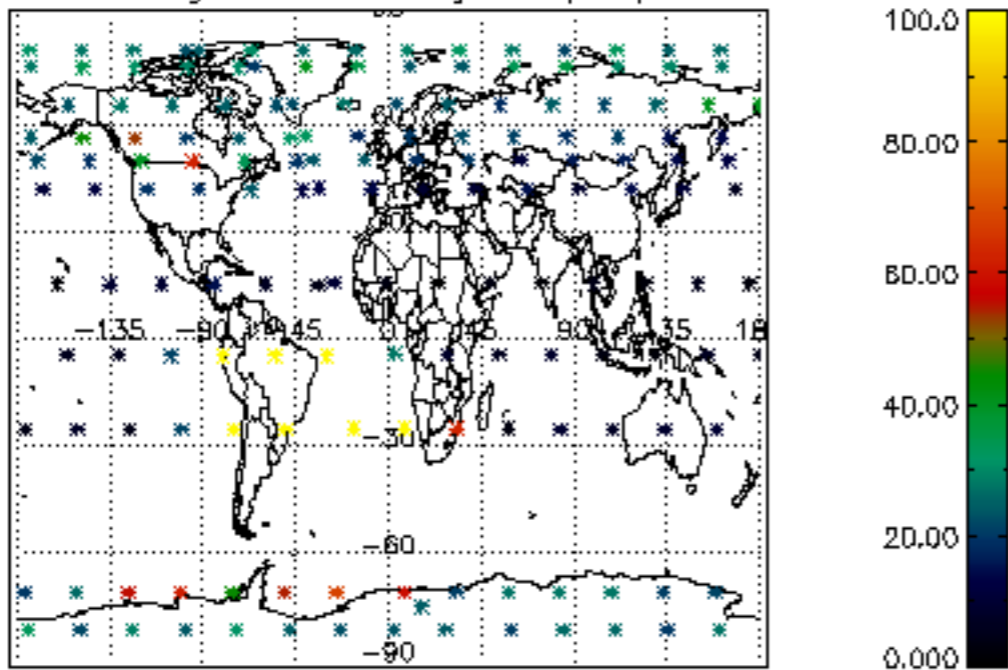
Percentage of flagged data per NO3 profile



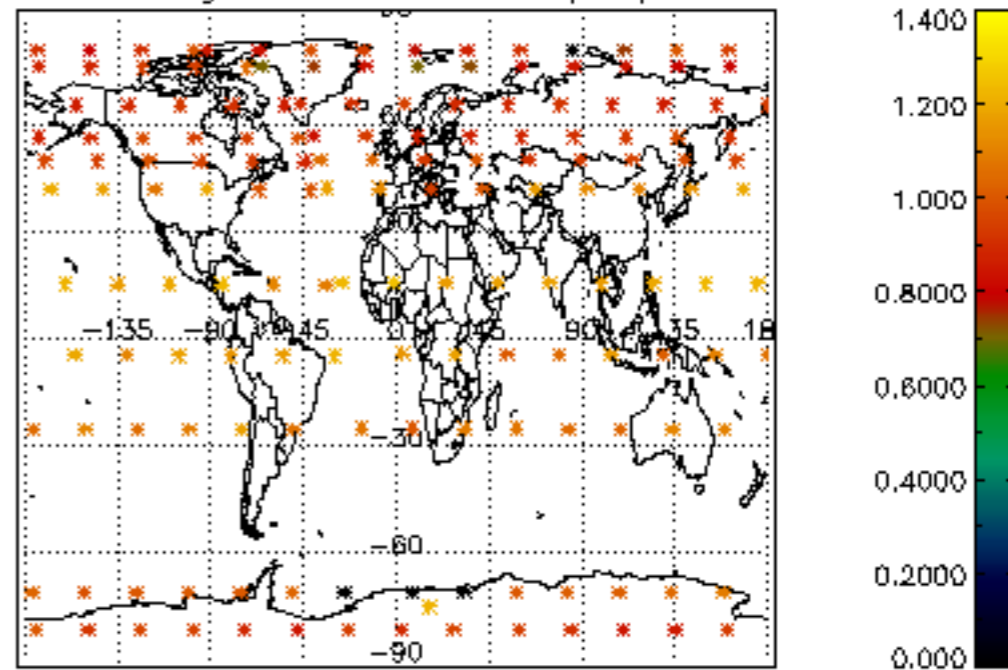




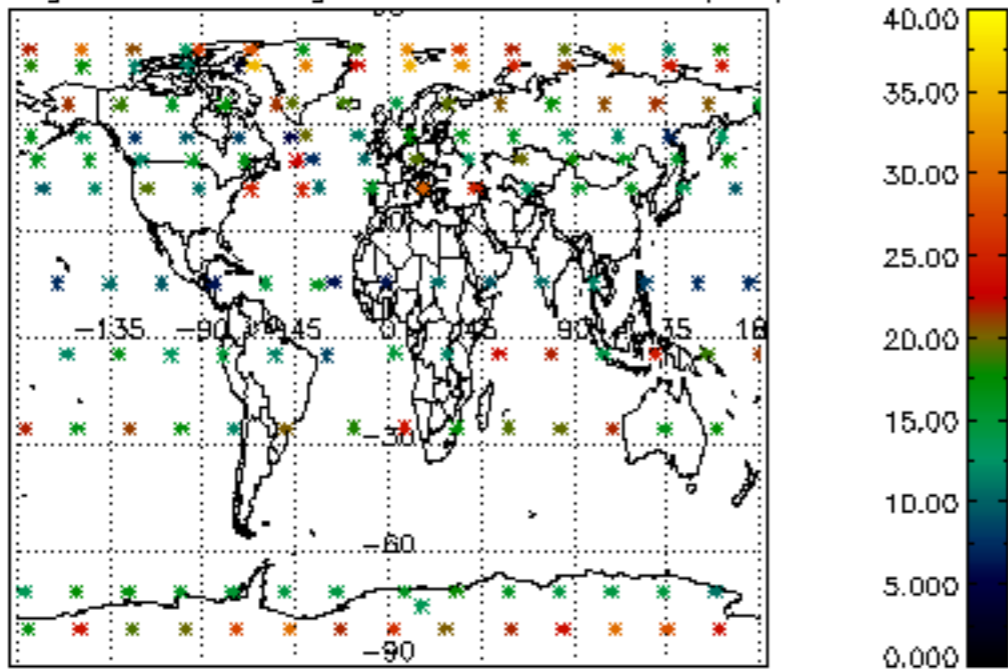
Percentage of cosmic ray hits per profile



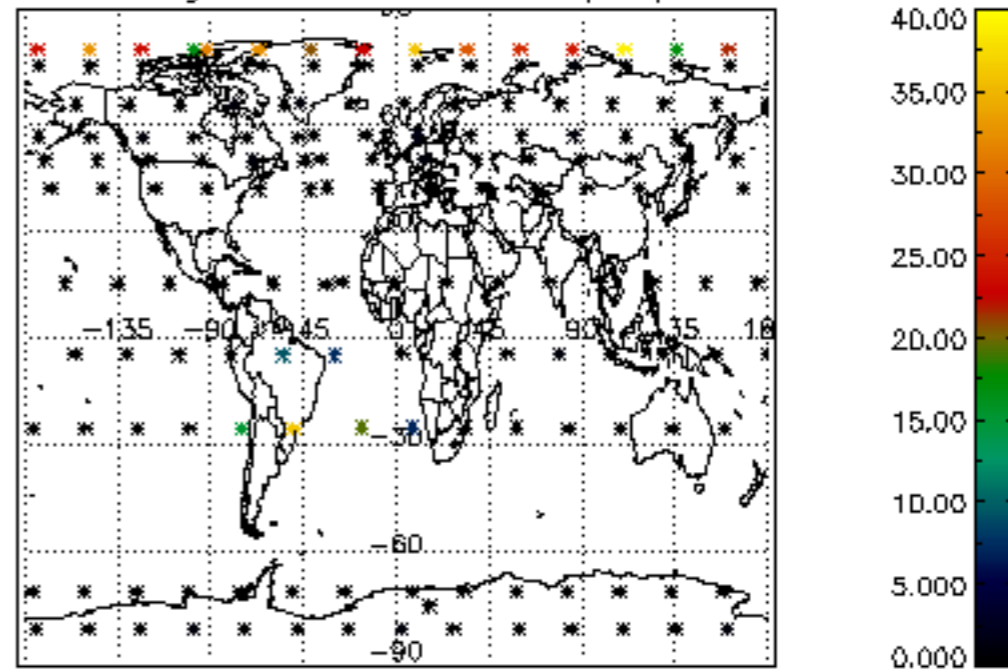
Percentage of datation errors per profile



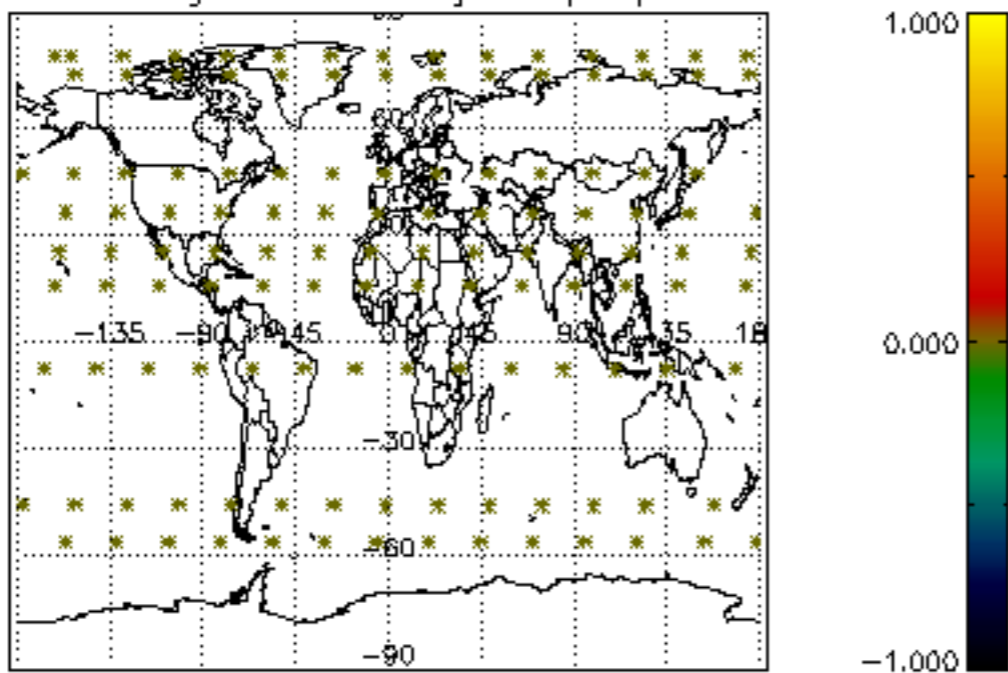
Percentage of star falling outside central band per profile



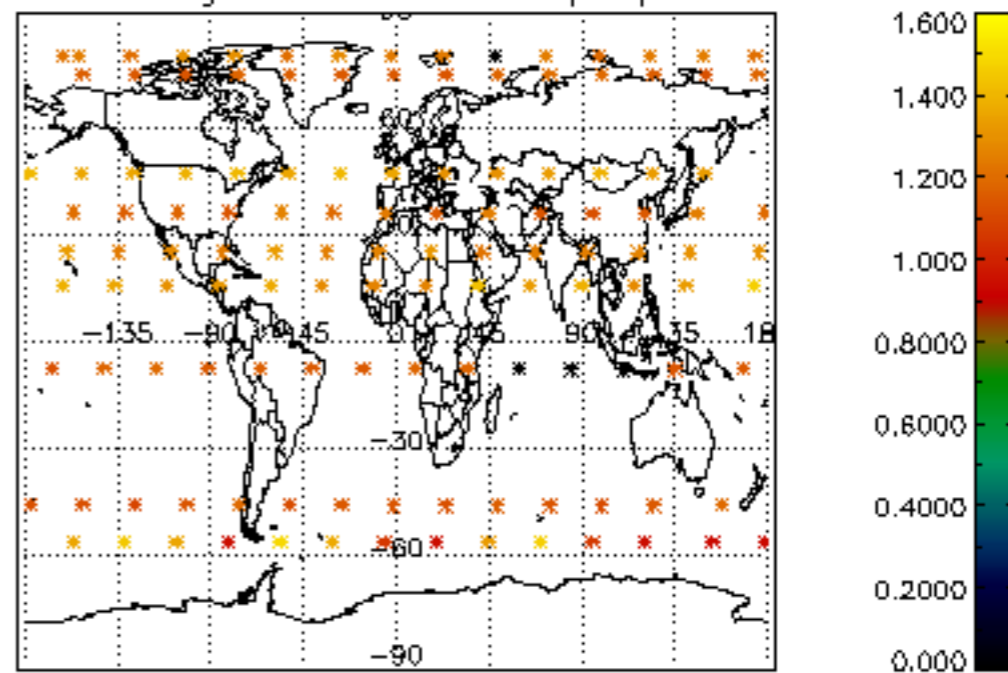
Percentage of saturation errors per profile



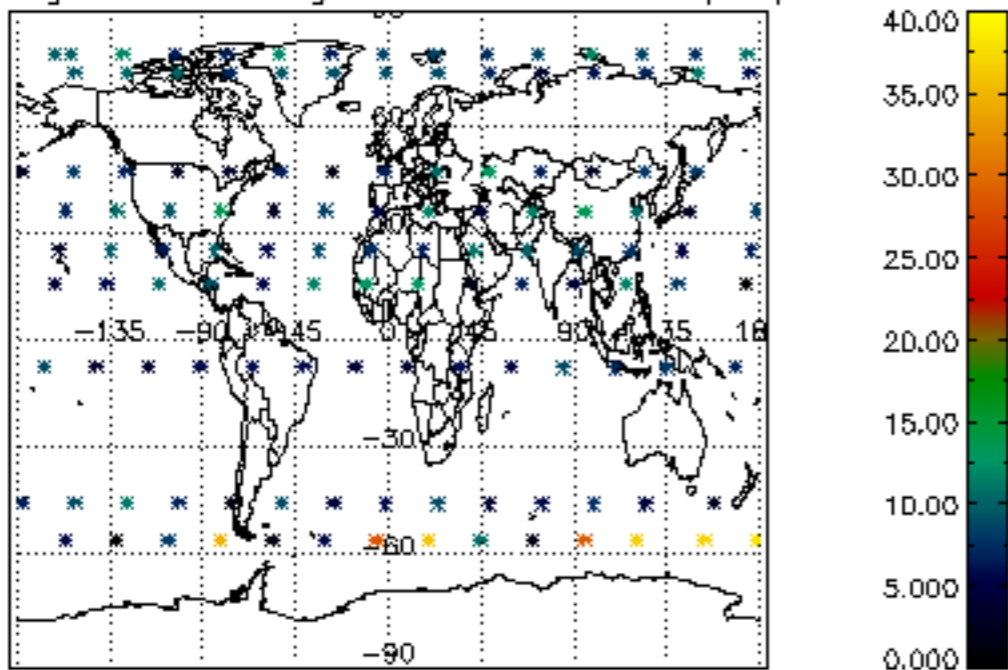
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

