

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 10:53:27
Data source version	GOMOS/6.01
Start time of products	17-05-2010 (17MAY2010 00:00:00)
Stop time of products	18-05-2010 (18MAY2010 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	297
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

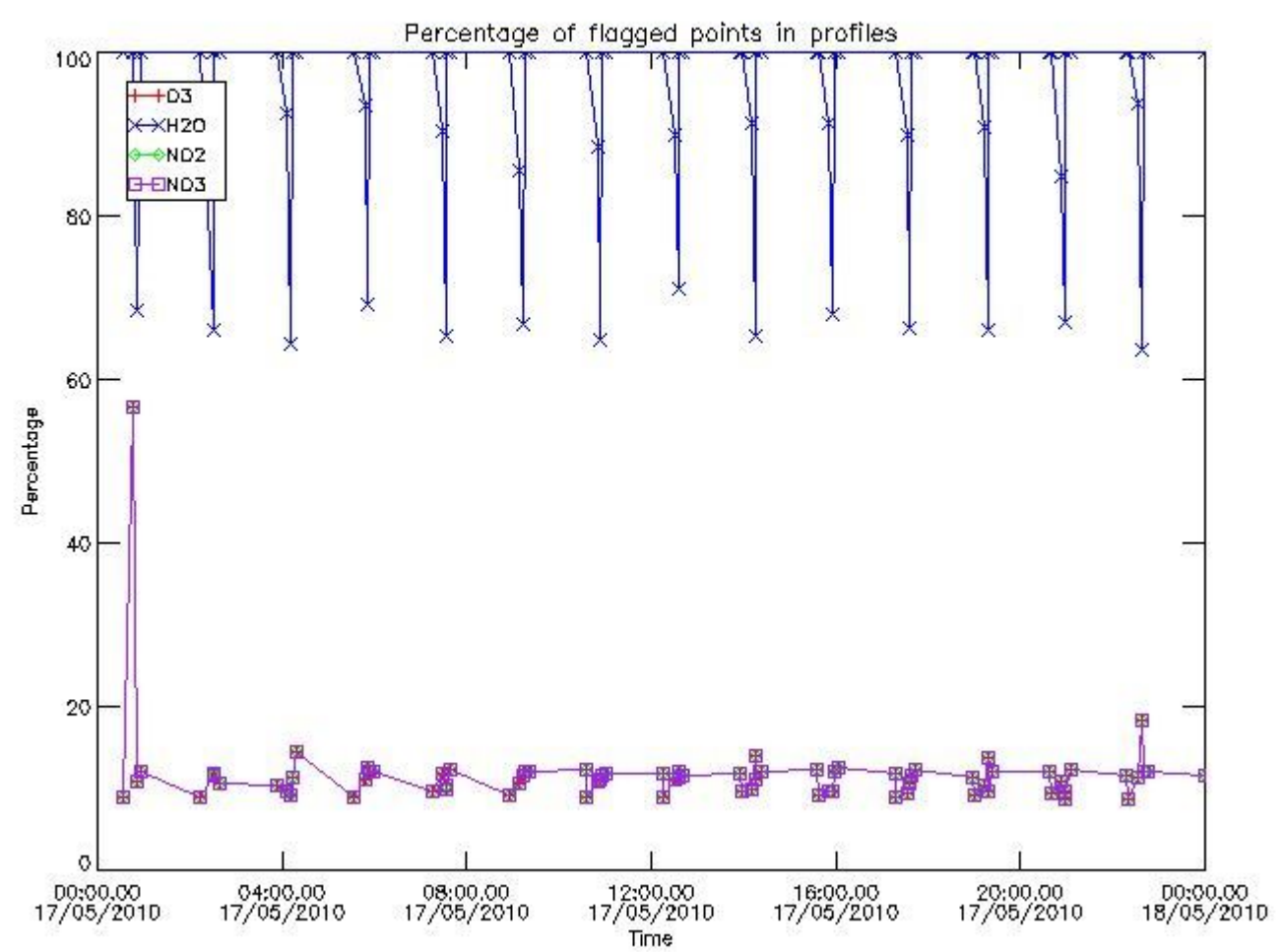
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20100517_000238_000000422089_00288_42927_0078.N1	17-MAY-2010 00:02:38	Bright	41.500	119	14Eta Dra	2.7270	4700.0	83	42927	No
2	GOM_NL__2PRFIN20100517_001335_000000662089_00288_42927_0079.N1	17-MAY-2010 00:13:35	Bright	66.000	89	5Alp Cep	2.4510	8000.0	132	42927	No
3	GOM_NL__2PRFIN20100517_001712_000000392089_00288_42927_0080.N1	17-MAY-2010 00:17:12	Bright	39.000	74	11Bet Cas	2.2680	6600.0	78	42927	No
4	GOM_NL__2PRFIN20100517_002627_000000472089_00288_42927_0081.N1	17-MAY-2010 00:26:27	Bright	47.000	58	21Alp And	2.0730	11000.	94	42927	No
5	GOM_NL__2PRFIN20100517_003038_000000452089_00288_42927_0082.N1	17-MAY-2010 00:30:38	Twilight	44.500	140	88Gam Peg	2.8340	26000.	89	42927	No
6	GOM_NL__2PRFIN20100517_003220_000000572089_00288_42927_0083.N1	17-MAY-2010 00:32:20	Dark	57.000	90	54Alp Peg	2.4870	11000.	114	42927	No
7	GOM_NL__2PRFIN20100517_004601_000000492089_00288_42927_0084.N1	17-MAY-2010 00:46:01	Dark	49.000	18	24Alp PsA	1.1660	9700.0	98	42927	No
8	GOM_NL__2PRFIN20100517_005019_000000472089_00288_42927_0085.N1	17-MAY-2010 00:50:19	Dark	46.500	63	Bet Gru	2.1500	2800.0	93	42927	No
9	GOM_NL__2PRFIN20100517_005723_000000422089_00289_42928_0082.N1	17-MAY-2010 00:57:23	Dark	42.000	45	Alp Pav	1.9400	26000.	84	42928	No
10	GOM_NL__2PRFIN20100517_010431_000000452089_00289_42928_0083.N1	17-MAY-2010 01:04:31	Straylight	44.500	141	Bet Ara	2.8400	4600.0	89	42928	No
11	GOM_NL__2PRFIN20100517_010732_000000472089_00289_42928_0084.N1	17-MAY-2010 01:07:32	Straylight	47.000	38	20Eps Sgr	1.8360	11000.	94	42928	No
12	GOM_NL__2PRFIN20100517_010859_000000532089_00289_42928_0085.N1	17-MAY-2010 01:08:59	Straylight	52.500	25	35Lam Sco	1.6200	28000.	105	42928	No
13	GOM_NL__2PRFIN20100517_011117_000000512089_00289_42928_0086.N1	17-MAY-2010 01:11:17	Twilight_and_stray	50.500	75	26Eps Sco	2.2910	4250.0	101	42928	No
14	GOM_NL__2PRFIN20100517_011421_000000572089_00289_42928_0087.N1	17-MAY-2010 01:14:21	Twilight_and_stray	56.500	16	21Alp Sco	1.0200	3000.0	113	42928	No
15	GOM_NL__2PRFIN20100517_011656_000000472089_00289_42928_0088.N1	17-MAY-2010 01:16:56	Bright	46.500	97	8Bet1Sco	2.5610	30000.	93	42928	No
16	GOM_NL__2PRFIN20100517_012035_000000412089_00289_42928_0089.N1	17-MAY-2010 01:20:35	Bright	40.500	104	27Bet Lib	2.6140	13100.	81	42928	No
17	GOM_NL__2PRFIN20100517_012241_000000502089_00289_42928_0090.N1	17-MAY-2010 01:22:41	Bright	49.500	120	1Del Oph	2.7340	3200.0	99	42928	No
18	GOM_NL__2PRFIN20100517_012551_000000442089_00289_42928_0091.N1	17-MAY-2010 01:25:51	Bright	43.500	102	24Alp Ser	2.6000	4250.0	87	42928	No
19	GOM_NL__2PRFIN20100517_013127_000000402089_00289_42928_0092.N1	17-MAY-2010 01:31:27	Bright	39.500	83		2.3780	11000.	79	42928	No
20	GOM_NL__2PRFIN20100517_013436_000000382089_00289_42928_0093.N1	17-MAY-2010 01:34:36	Bright	37.500	180	27Gam Boo	3.0400	8000.0	75	42928	No
21	GOM_NL__2PRFIN20100517_014313_000000432089_00289_42928_0094.N1	17-MAY-2010 01:43:13	Bright	42.500	119	14Eta Dra	2.7270	4700.0	85	42928	No
22	GOM_NL__2PRFIN20100517_015410_000000462089_00289_42928_0095.N1	17-MAY-2010 01:54:10	Bright	45.500	89	5Alp Cep	2.4510	8000.0	91	42928	No
23	GOM_NL__2PRFIN20100517_015748_000000552089_00289_42928_0096.N1	17-MAY-2010 01:57:48	Bright	55.000	74	11Bet Cas	2.2680	6600.0	110	42928	No
24	GOM_NL__2PRFIN20100517_020704_000000462089_00289_42928_0097.N1	17-MAY-2010 02:07:04	Bright	46.000	58	21Alp And	2.0730	11000.	92	42928	No
25	GOM_NL__2PRFIN20100517_021115_000000442089_00289_42928_0098.N1	17-MAY-2010 02:11:15	Twilight	43.500	140	88Gam Peg	2.8340	26000.	87	42928	No
26	GOM_NL__2PRFIN20100517_021256_000000562089_00289_42928_0099.N1	17-MAY-2010 02:12:56	Dark	56.000	90	54Alp Peg	2.4870	11000.	112	42928	No
27	GOM_NL__2PRFIN20100517_023056_000000452089_00289_42928_0100.N1	17-MAY-2010 02:30:56	Dark	44.500	63	Bet Gru	2.1500	2800.0	89	42928	No
28	GOM_NL__2PRFIN20100517_023226_000000442089_00289_42928_0090.N1	17-MAY-2010 02:32:26	Dark	43.500	31	Alp Gru	1.7340	15200.	87	42928	No
29	GOM_NL__2PRFIN20100517_023759_000000482089_00290_42929_0091.N1	17-MAY-2010 02:37:59	Dark	48.000	45	Alp Pav	1.9400	26000.	96	42929	No
30	GOM_NL__2PRFIN20100517_024508_000000452089_00290_42929_0092.N1	17-MAY-2010 02:45:08	Straylight	45.000	141	Bet Ara	2.8400	4600.0	90	42929	No
31	GOM_NL__2PRFIN20100517_024809_000000472089_00290_42929_0093.N1	17-MAY-2010 02:48:09	Straylight	47.000	38	20Eps Sgr	1.8360	11000.	94	42929	No
32	GOM_NL__2PRFIN20100517_024935_000000552089_00290_42929_0094.N1	17-MAY-2010 02:49:35	Straylight	54.500	25	35Lam Sco	1.6200	28000.	109	42929	No
33	GOM_NL__2PRFIN20100517_025153_000000552089_00290_42929_0095.N1	17-MAY-2010 02:51:53	Twilight_and_stray	54.500	75	26Eps Sco	2.2910	4250.0	109	42929	No
34	GOM_NL__2PRFIN20100517_025457_000000632089_00290_42929_0096.N1	17-MAY-2010 02:54:57	Twilight_and_stray	62.500	16	21Alp Sco	1.0200	3000.0	125	42929	No
35	GOM_NL__2PRFIN20100517_025732_000000472089_00290_42929_0097.N1	17-MAY-2010 02:57:32	Bright	46.500	97	8Bet1Sco	2.5610	30000.	93	42929	No
36	GOM_NL__2PRFIN20100517_030110_000000402089_00290_42929_0098.N1	17-MAY-2010 03:01:10	Bright	39.500	104	27Bet Lib	2.6140	13100.	79	42929	No
37	GOM_NL__2PRFIN20100517_030317_000000492089_00290_42929_0099.N1	17-MAY-2010 03:03:17	Bright	49.000	120	1Del Oph	2.7340	3200.0	98	42929	No
38	GOM_NL__2PRFIN20100517_030626_000000442089_00290_42929_0100.N1	17-MAY-2010 03:06:26	Bright	43.500	102	24Alp Ser	2.6000	4250.0	87	42929	No
39	GOM_NL__2PRFIN20100517_031203_000000392089_00290_42929_0101.N1	17-MAY-2010 03:12:03	Bright	39.000	83		2.3780	11000.	78	42929	No
40	GOM_NL__2PRFIN20100517_031511_000000372089_00290_42929_0102.N1	17-MAY-2010 03:15:11	Bright	37.000	180	27Gam Boo	3.0400	8000.0	74	42929	No
41	GOM_NL__2PRFIN20100517_032349_000000402089_00290_42929_0103.N1	17-MAY-2010 03:23:49	Bright	40.000	119	14Eta Dra	2.7270	4700.0	80	42929	No
42	GOM_NL__2PRFIN20100517_033445_000000472089_00290_42929_0104.N1	17-MAY-2010 03:34:45	Bright	47.000	89	5Alp Cep	2.4510	8000.0	94	42929	No

279	GOM_NL__2PRFIN20100517_223815_000000562089_00301_42940_0292.N1	17-MAY-2010 22:38:15	Dark	55.500	63	Bet Gru	2.1500	2800.0	111	42940	No
280	GOM_NL__2PRFIN20100517_223946_000000422089_00302_42941_0283.N1	17-MAY-2010 22:39:46	Dark	42.000	31	Alp Gru	1.7340	15200.	84	42941	No
281	GOM_NL__2PRFIN20100517_224518_000000432089_00302_42941_0284.N1	17-MAY-2010 22:45:18	Dark	42.500	45	Alp Pav	1.9400	26000.	85	42941	No
282	GOM_NL__2PRFIN20100517_225225_000000432089_00302_42941_0285.N1	17-MAY-2010 22:52:25	Straylight	42.500	141	Bet Ara	2.8400	4600.0	85	42941	No
283	GOM_NL__2PRFIN20100517_225531_000000592089_00302_42941_0286.N1	17-MAY-2010 22:55:31	Straylight	59.000	38	20Eps Sgr	1.8360	11000.	118	42941	No
284	GOM_NL__2PRFIN20100517_225654_000000532089_00302_42941_0287.N1	17-MAY-2010 22:56:54	Straylight	53.000	25	35Lam Sco	1.6200	28000.	106	42941	No
285	GOM_NL__2PRFIN20100517_225910_000000522089_00302_42941_0288.N1	17-MAY-2010 22:59:10	Twilight_stray	51.500	75	26Eps Sco	2.2910	4250.0	103	42941	No
286	GOM_NL__2PRFIN20100517_230212_000000622089_00302_42941_0289.N1	17-MAY-2010 23:02:12	Twilight_stray	62.000	16	21Alp Sco	1.0200	3000.0	124	42941	No
287	GOM_NL__2PRFIN20100517_230445_000000442089_00302_42941_0290.N1	17-MAY-2010 23:04:45	Bright	44.000	97	8Bet1Sco	2.5610	30000.	88	42941	No
288	GOM_NL__2PRFIN20100517_230822_000000402089_00302_42941_0291.N1	17-MAY-2010 23:08:22	Bright	39.500	104	27Bet Lib	2.6140	13100.	79	42941	No
289	GOM_NL__2PRFIN20100517_231026_000000492089_00302_42941_0292.N1	17-MAY-2010 23:10:26	Bright	48.500	120	1Del Oph	2.7340	3200.0	97	42941	No
290	GOM_NL__2PRFIN20100517_231335_000000432089_00302_42941_0293.N1	17-MAY-2010 23:13:35	Bright	42.500	102	24Alp Ser	2.6000	4250.0	85	42941	No
291	GOM_NL__2PRFIN20100517_231912_000000392089_00302_42941_0294.N1	17-MAY-2010 23:19:12	Bright	39.000	83		2.3780	11000.	78	42941	No
292	GOM_NL__2PRFIN20100517_232221_000000372089_00302_42941_0295.N1	17-MAY-2010 23:22:21	Bright	37.000	180	27Gam Boo	3.0400	8000.0	74	42941	No
293	GOM_NL__2PRFIN20100517_233054_000000422089_00302_42941_0296.N1	17-MAY-2010 23:30:54	Bright	42.000	119	14Eta Dra	2.7270	4700.0	84	42941	No
294	GOM_NL__2PRFIN20100517_234151_000000462089_00302_42941_0297.N1	17-MAY-2010 23:41:51	Bright	45.500	89	5Alp Cep	2.4510	8000.0	91	42941	No
295	GOM_NL__2PRFIN20100517_234534_000000552089_00302_42941_0298.N1	17-MAY-2010 23:45:34	Bright	55.000	74	11Bet Cas	2.2680	6600.0	110	42941	No
296	GOM_NL__2PRFIN20100517_235453_000000462089_00302_42941_0299.N1	17-MAY-2010 23:54:53	Twilight_stray	46.000	58	21Alp And	2.0730	11000.	92	42941	No
297	GOM_NL__2PRFIN20100517_235905_000000442089_00302_42941_0300.N1	17-MAY-2010 23:59:05	Dark	44.000	140	88Gam Peg	2.8340	26000.	88	42941	No

3. Quality information per product

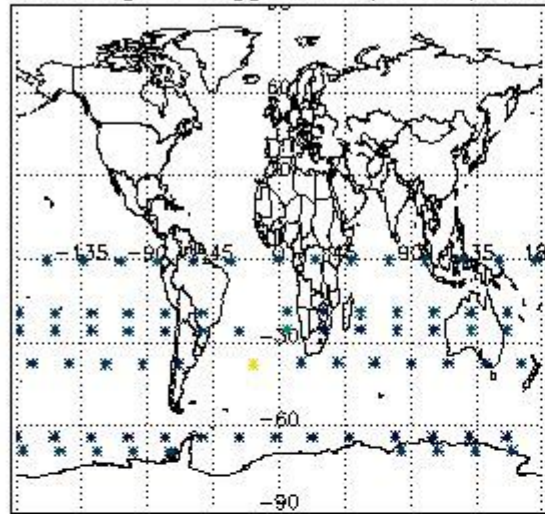
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

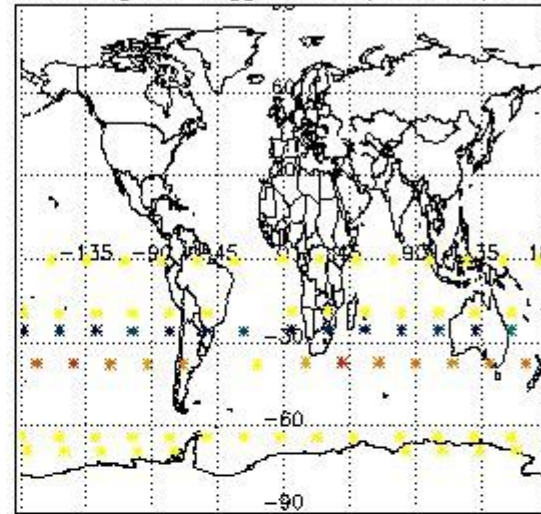


3.2 Plot quality information per product (world map)

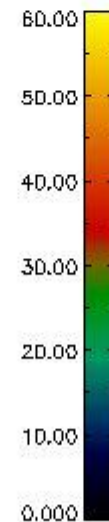
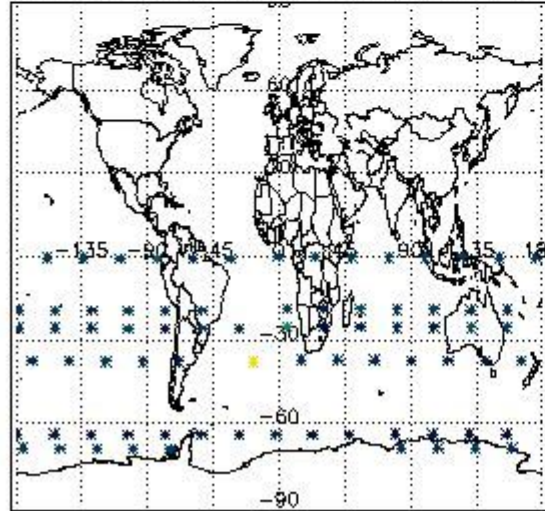
Percentage of flagged data per O3 profile



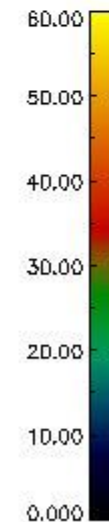
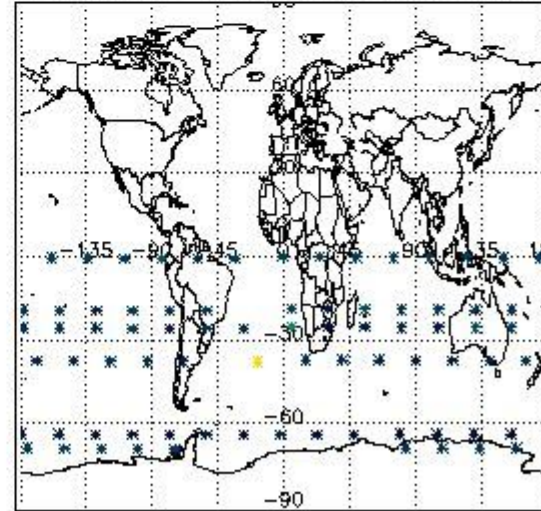
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

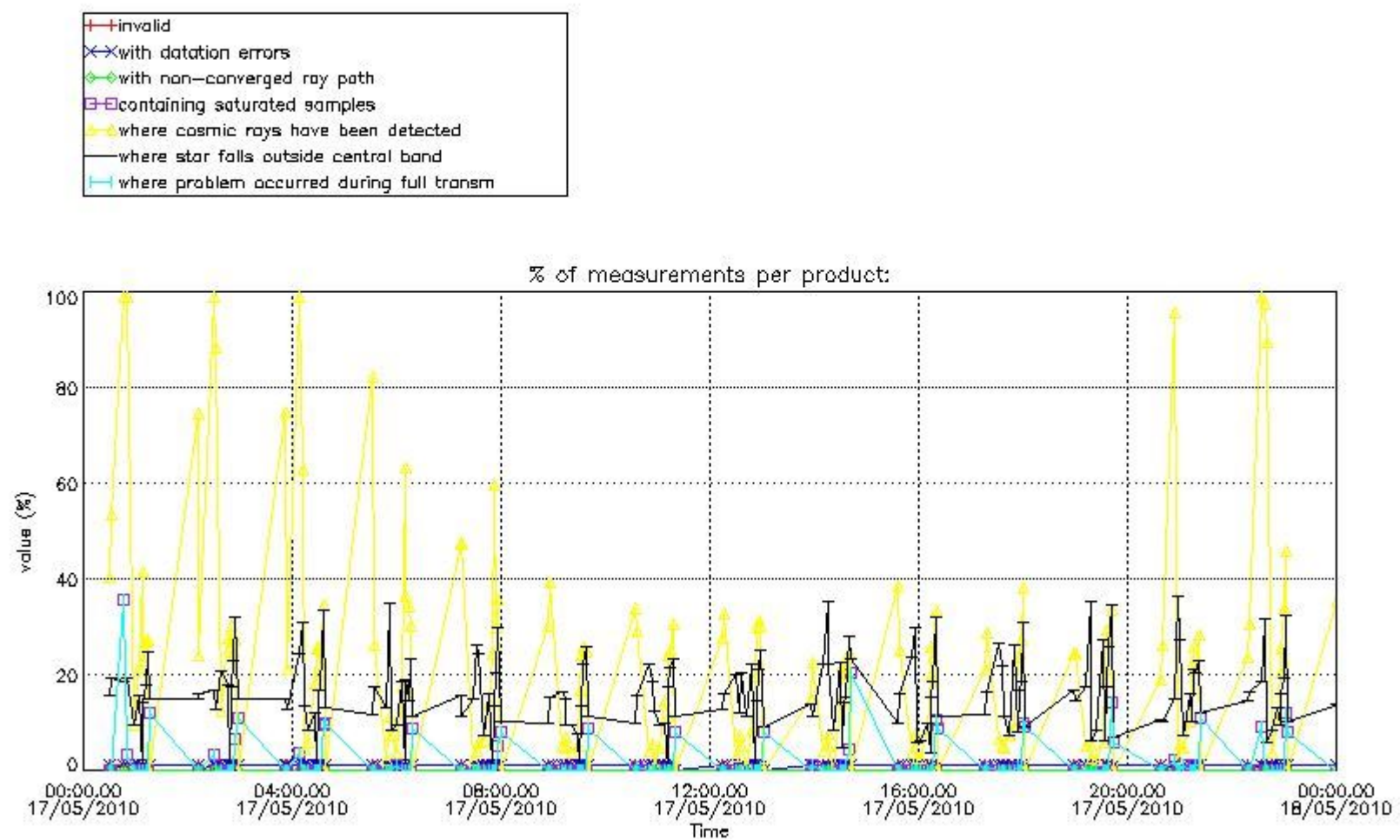


4. Level 1 quality information per product

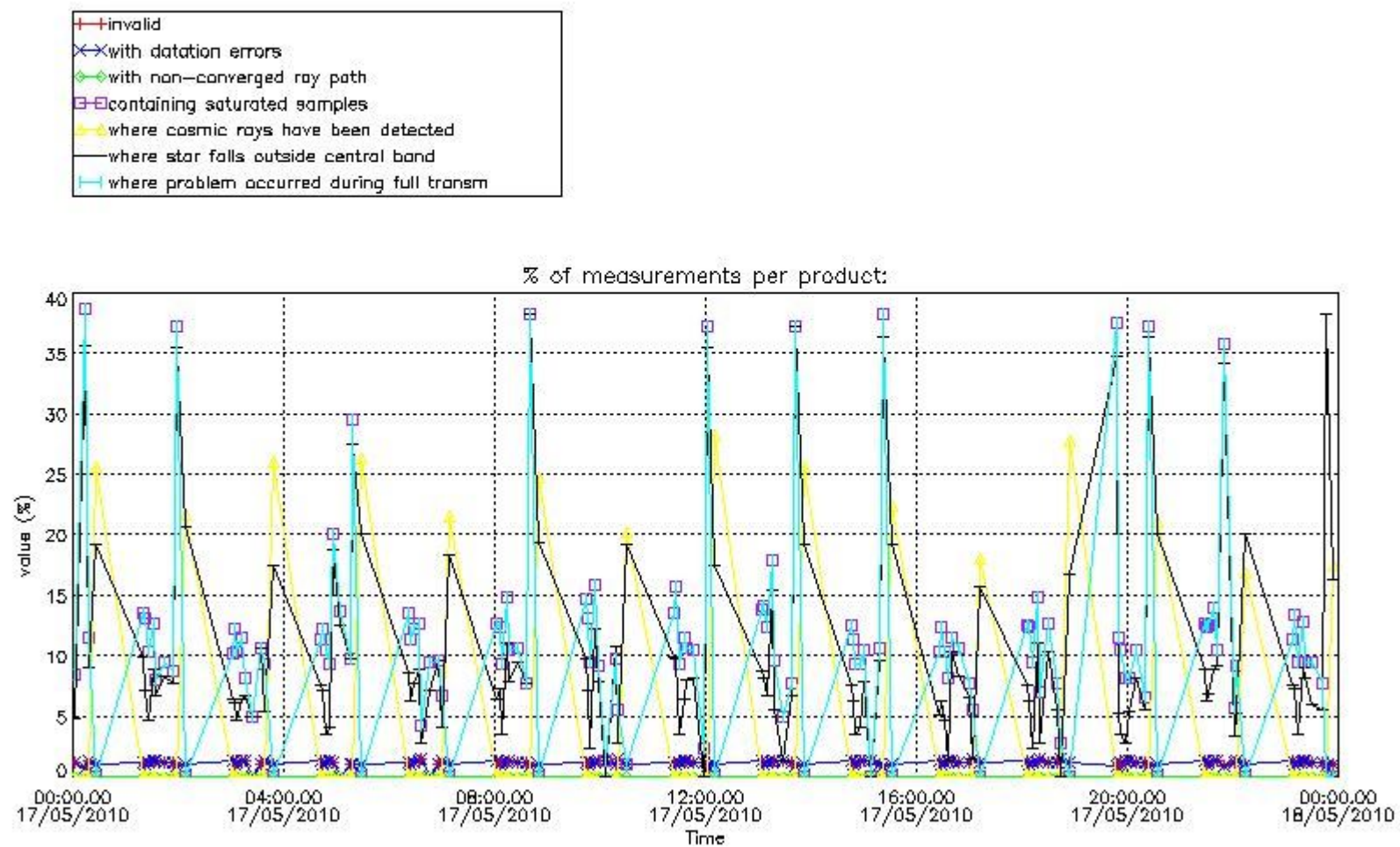
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

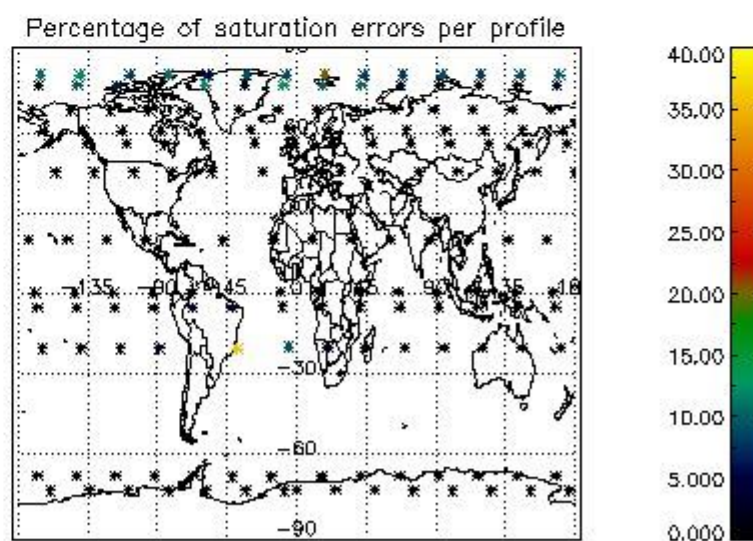
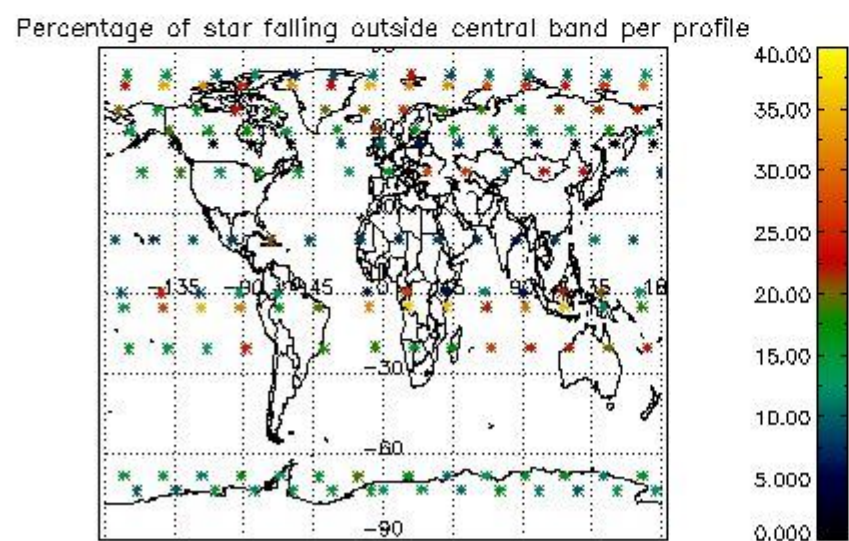
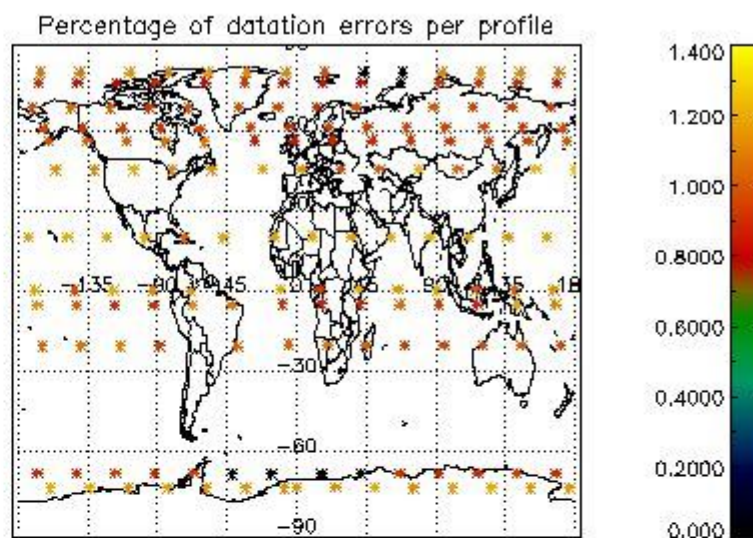
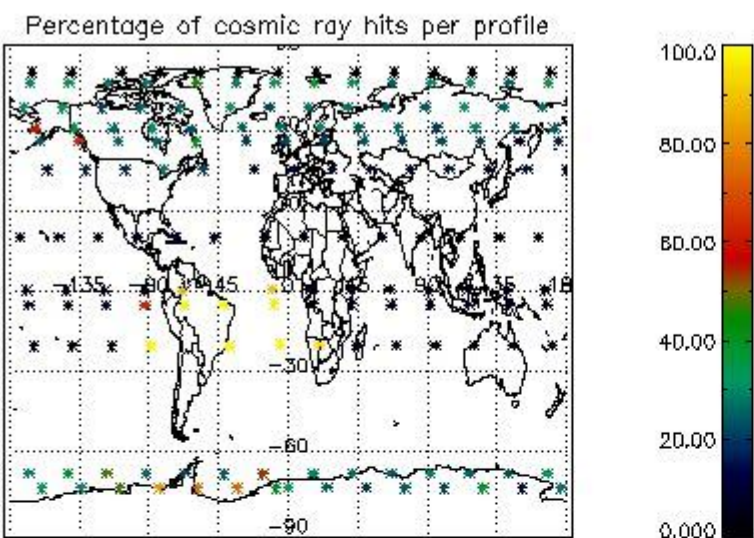


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

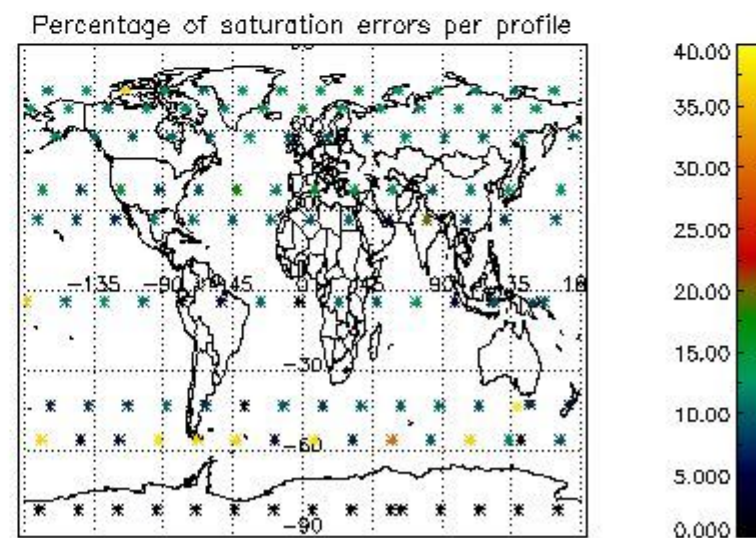
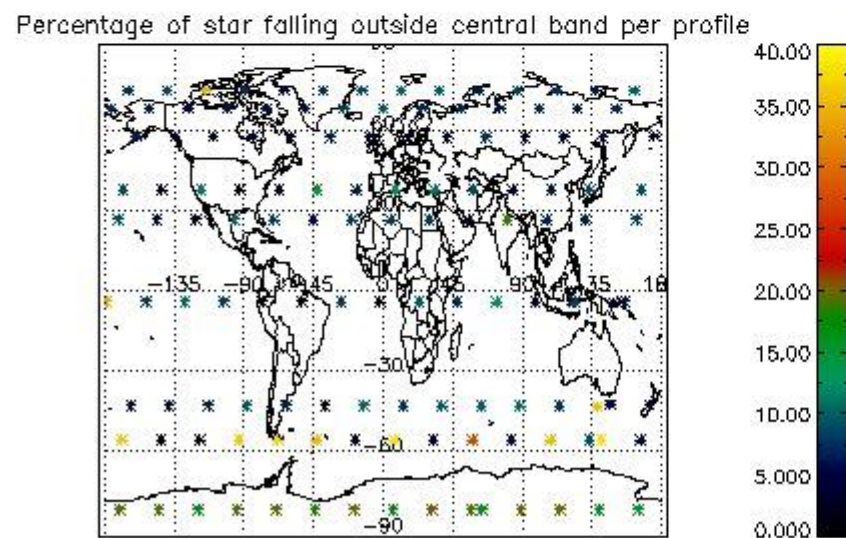
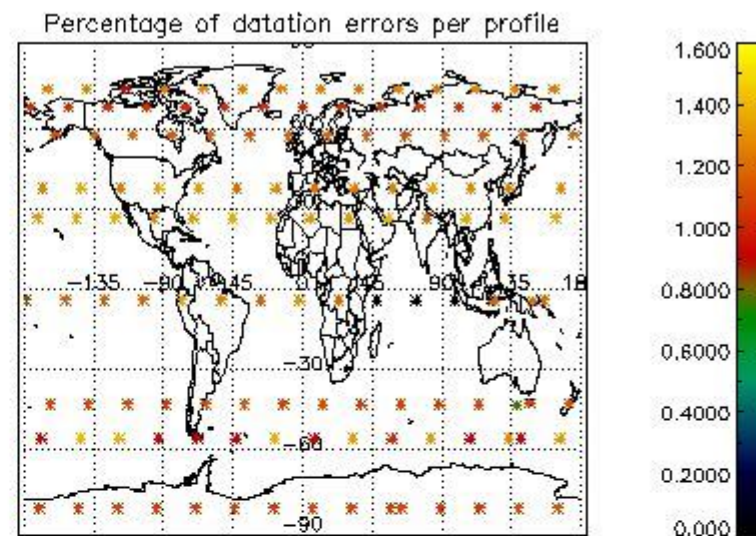
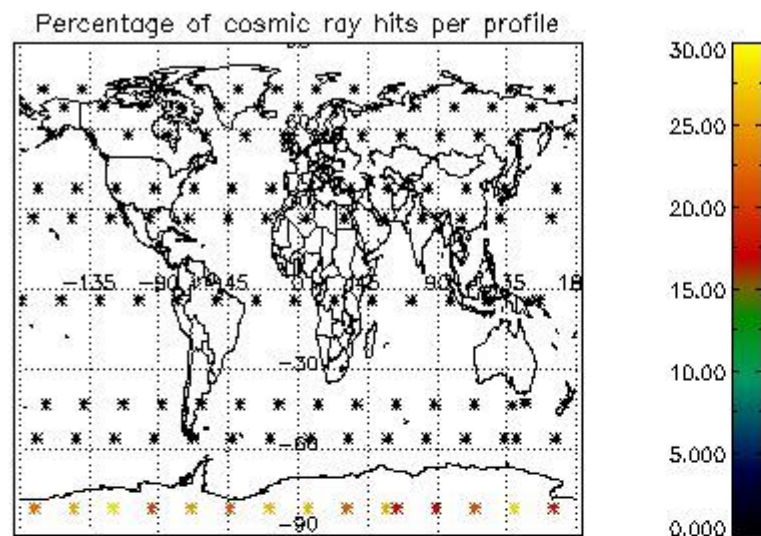


4.2 Plot quality information per product coming from level 1b processing (world map)

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

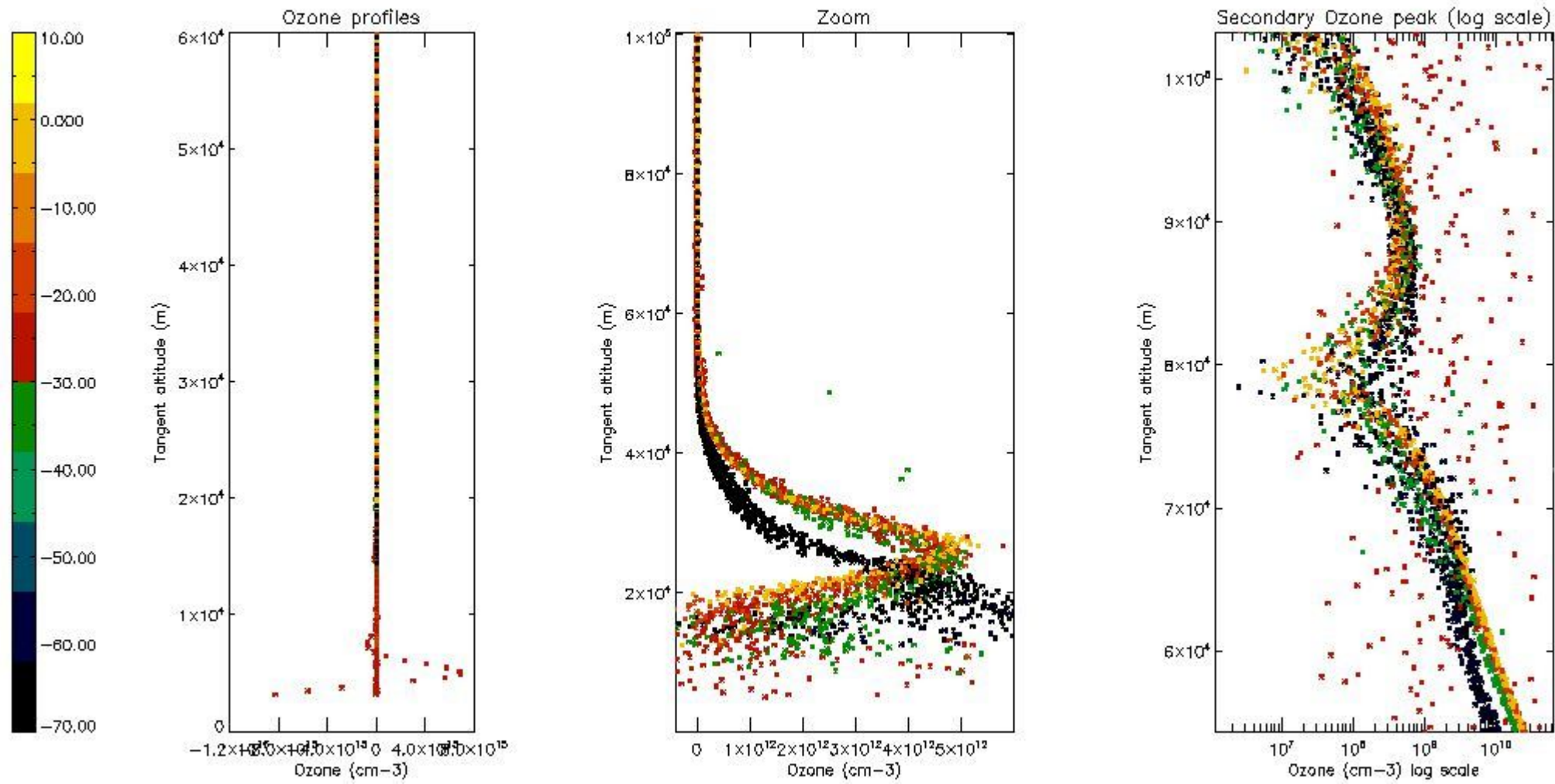
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	27
STD < 20	15

STD < 10	11
STD < 5	7

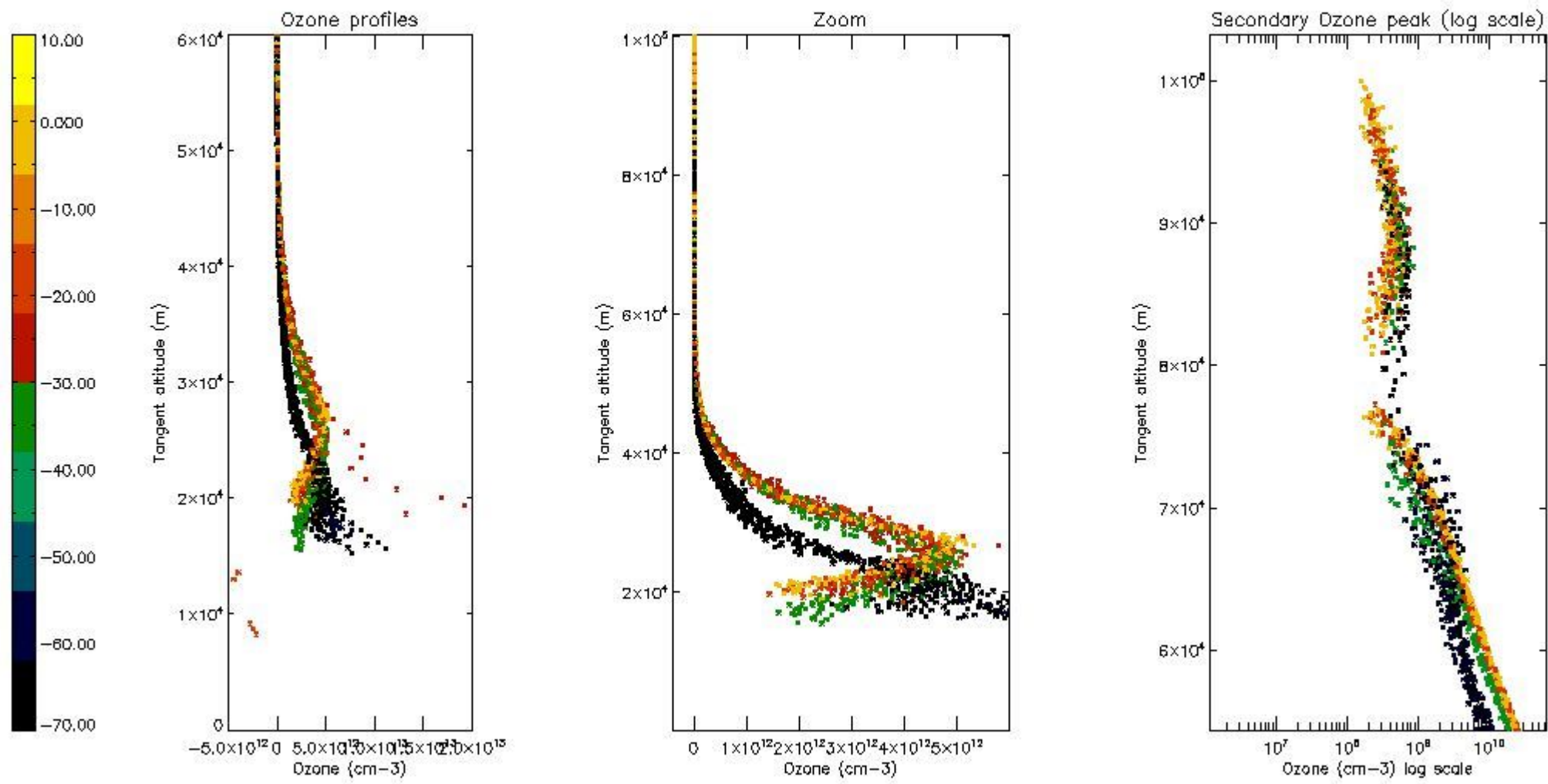
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



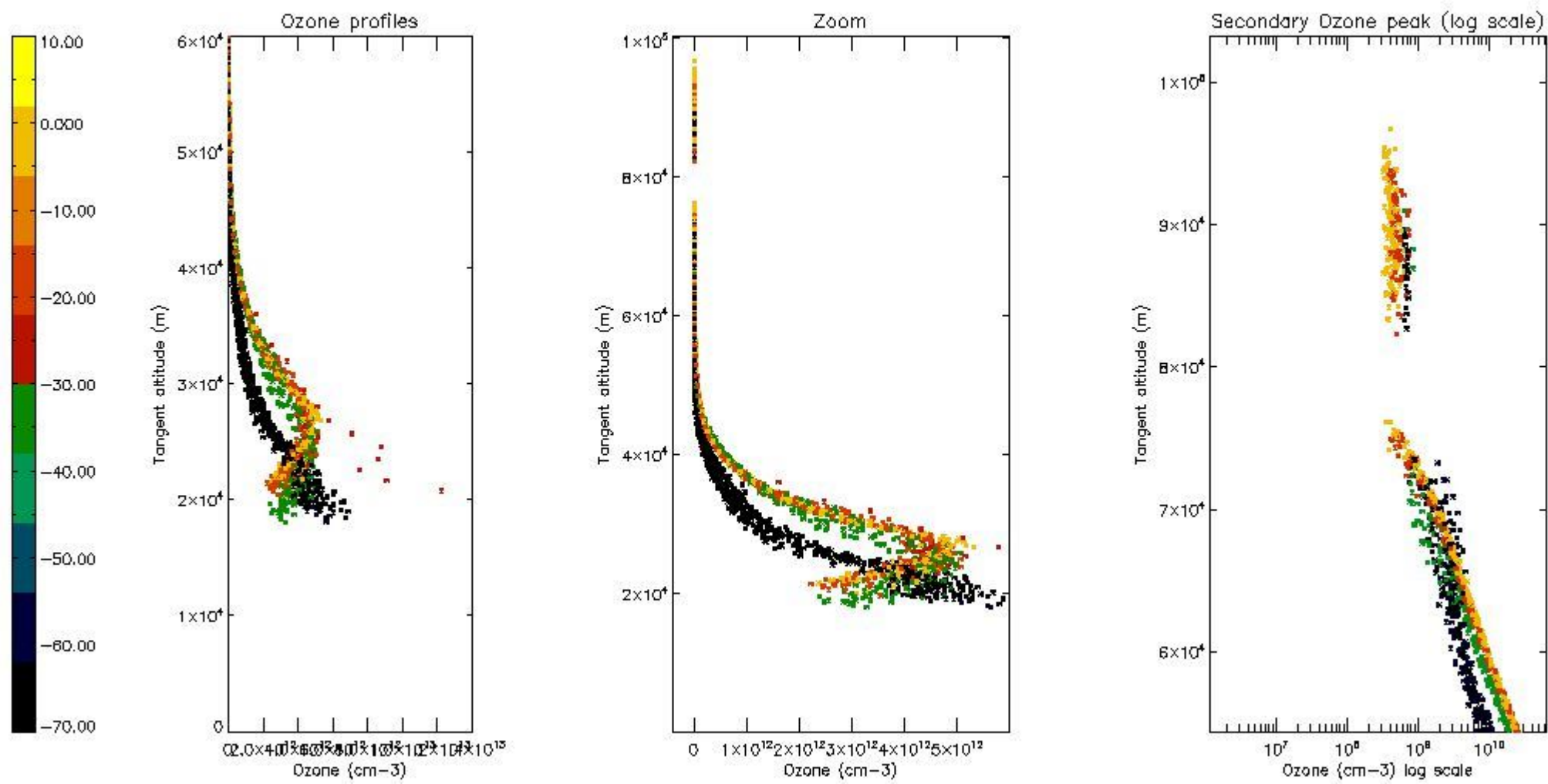
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



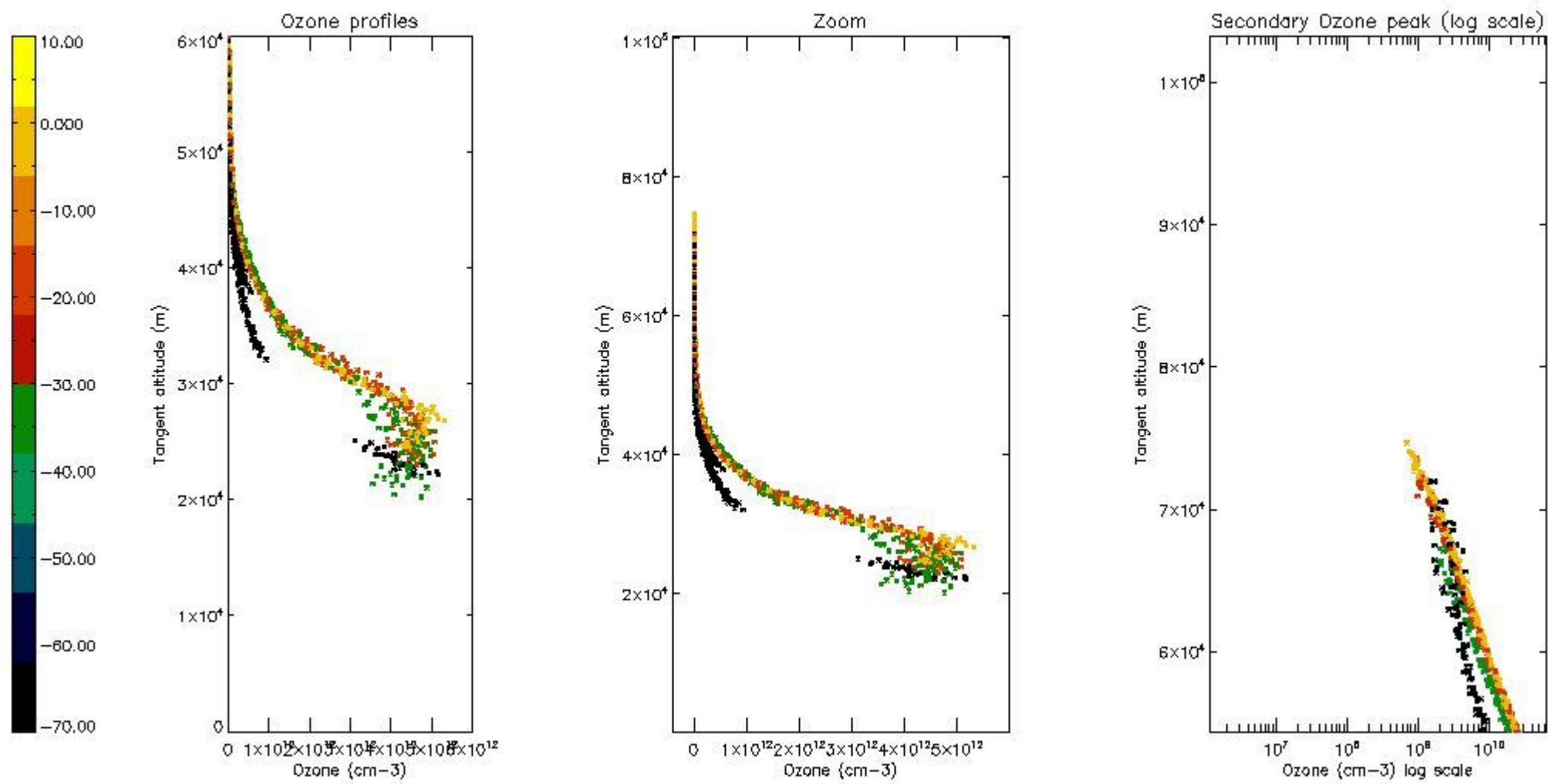
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



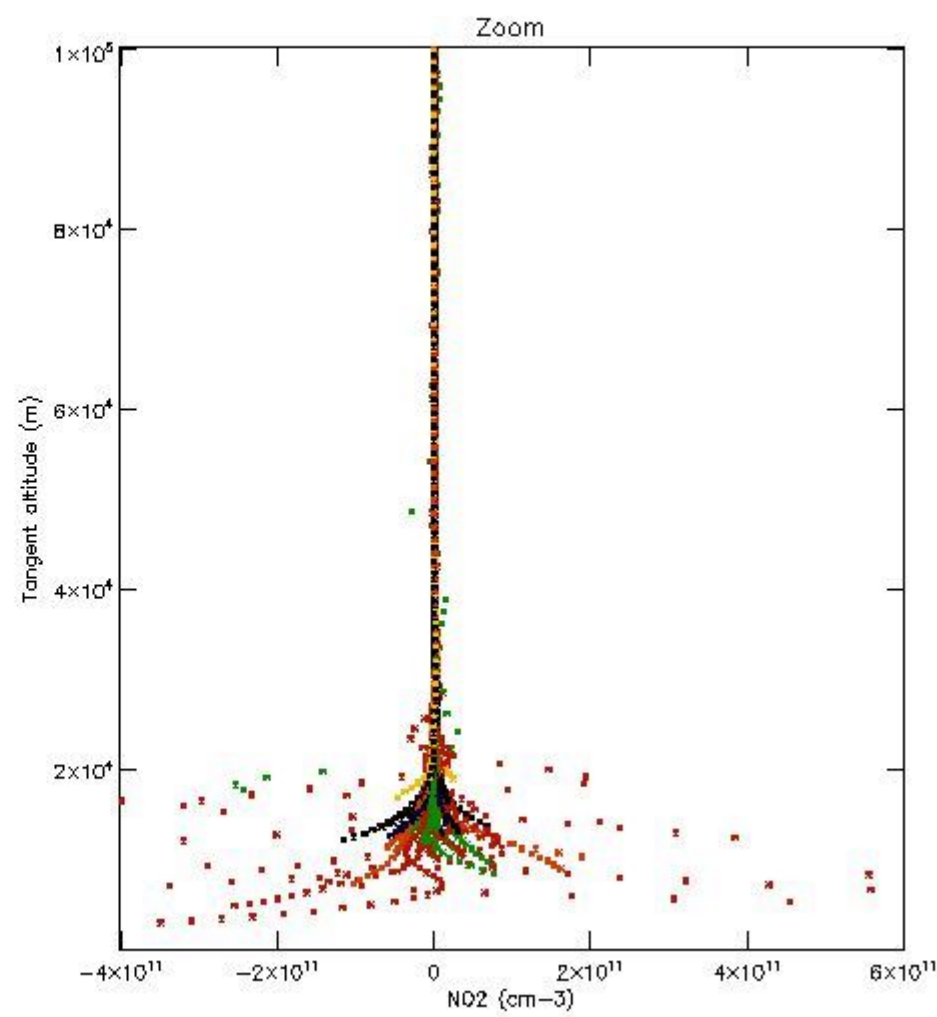
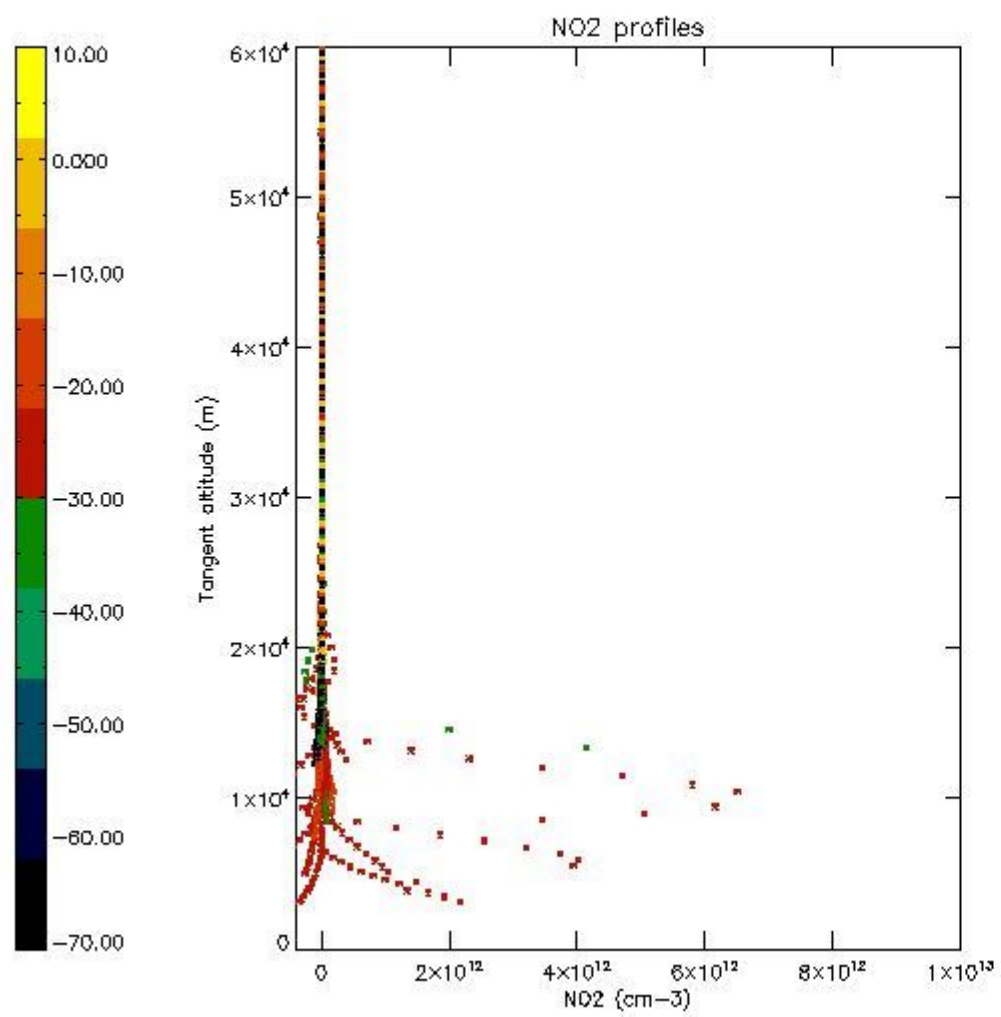
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



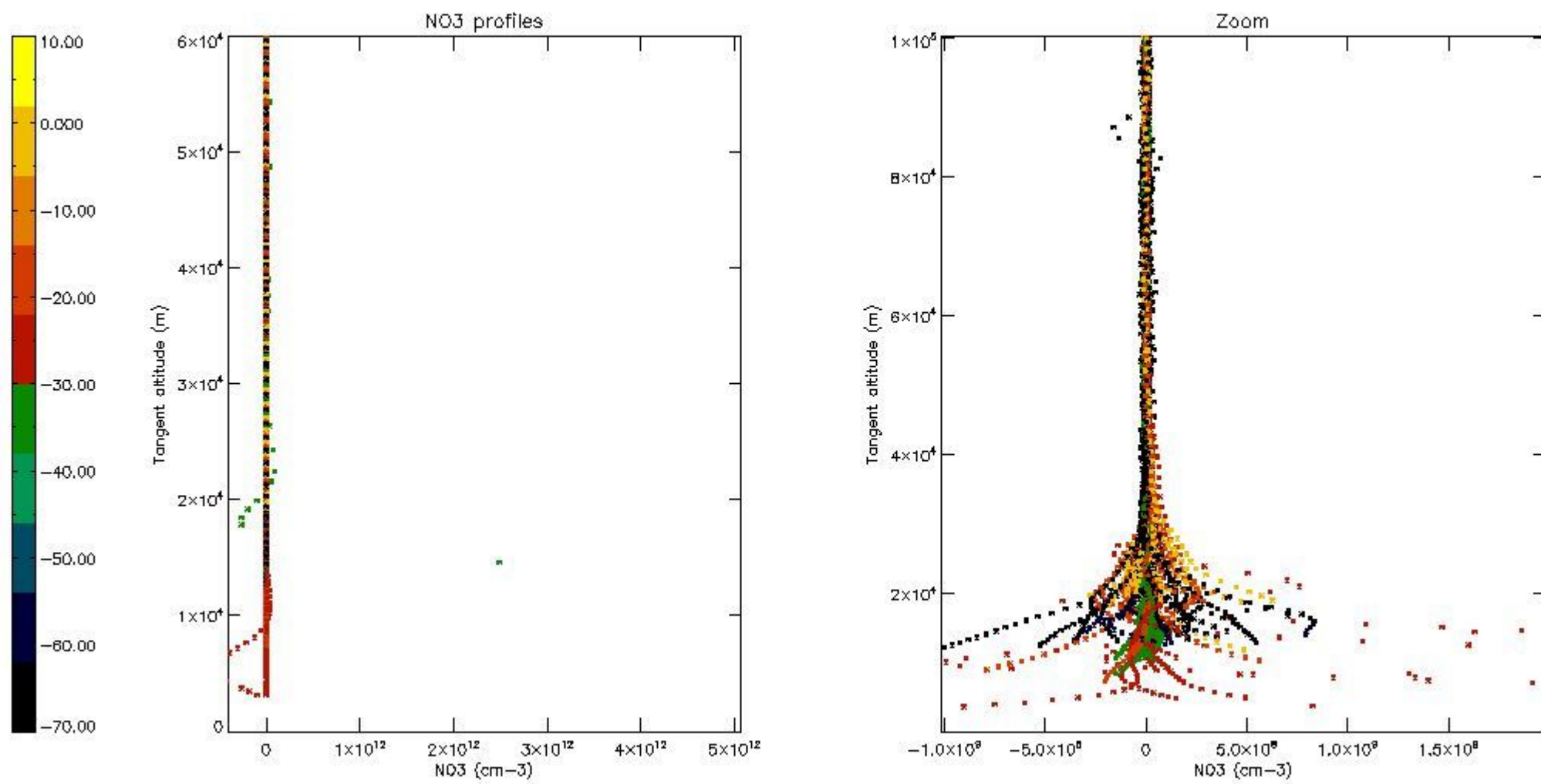
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



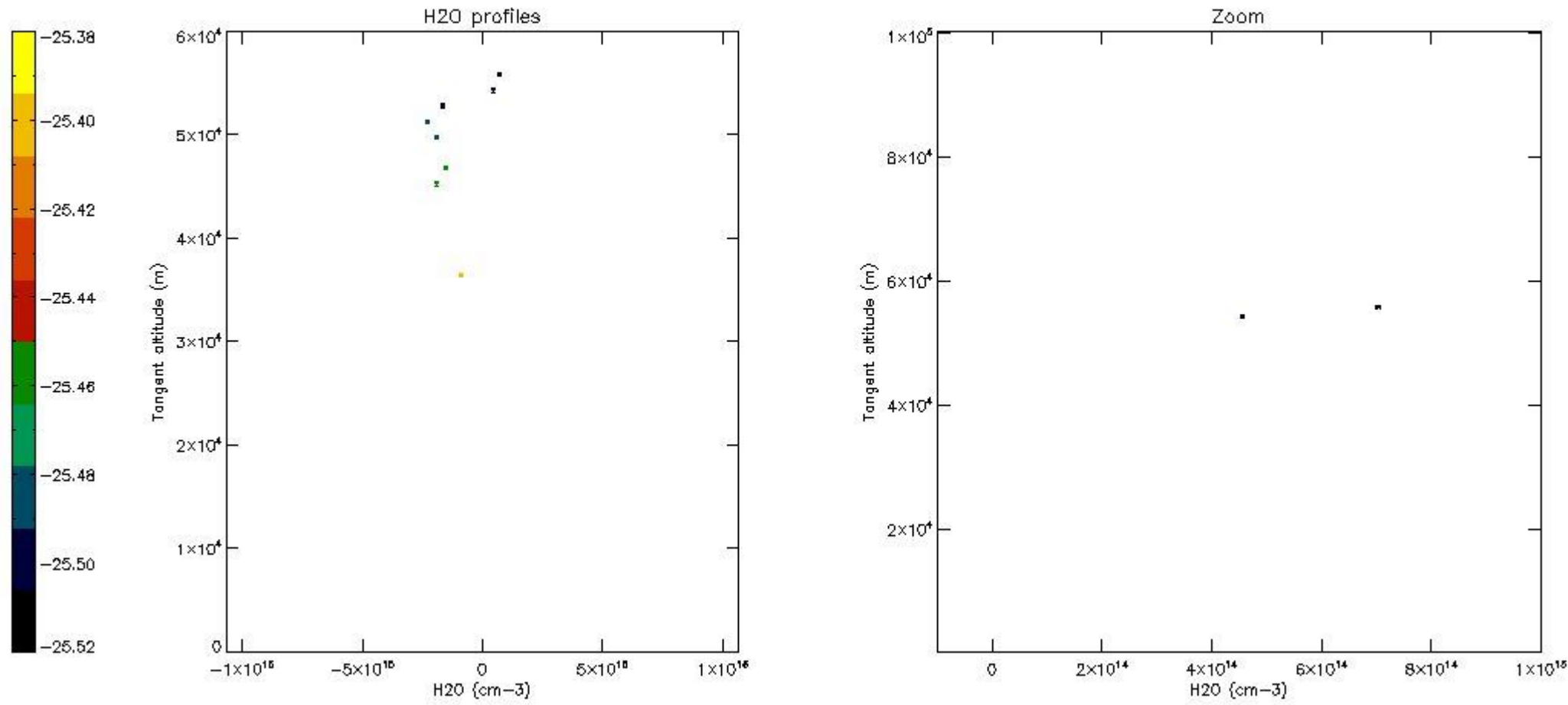
5.7 Plot NO3 profiles for all STD (dark without errors)

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	17-MAY-2010 00:02:38
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	17-MAY-2010 00:02:38
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	17-MAY-2010 00:02:38

GOMOS Level 2 Daily Report

SUMMARY

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[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 10:53:27
Data source version	GOMOS/6.01
Start time of products	17-05-2010 (17MAY2010 00:00:00)
Stop time of products	18-05-2010 (18MAY2010 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	297
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

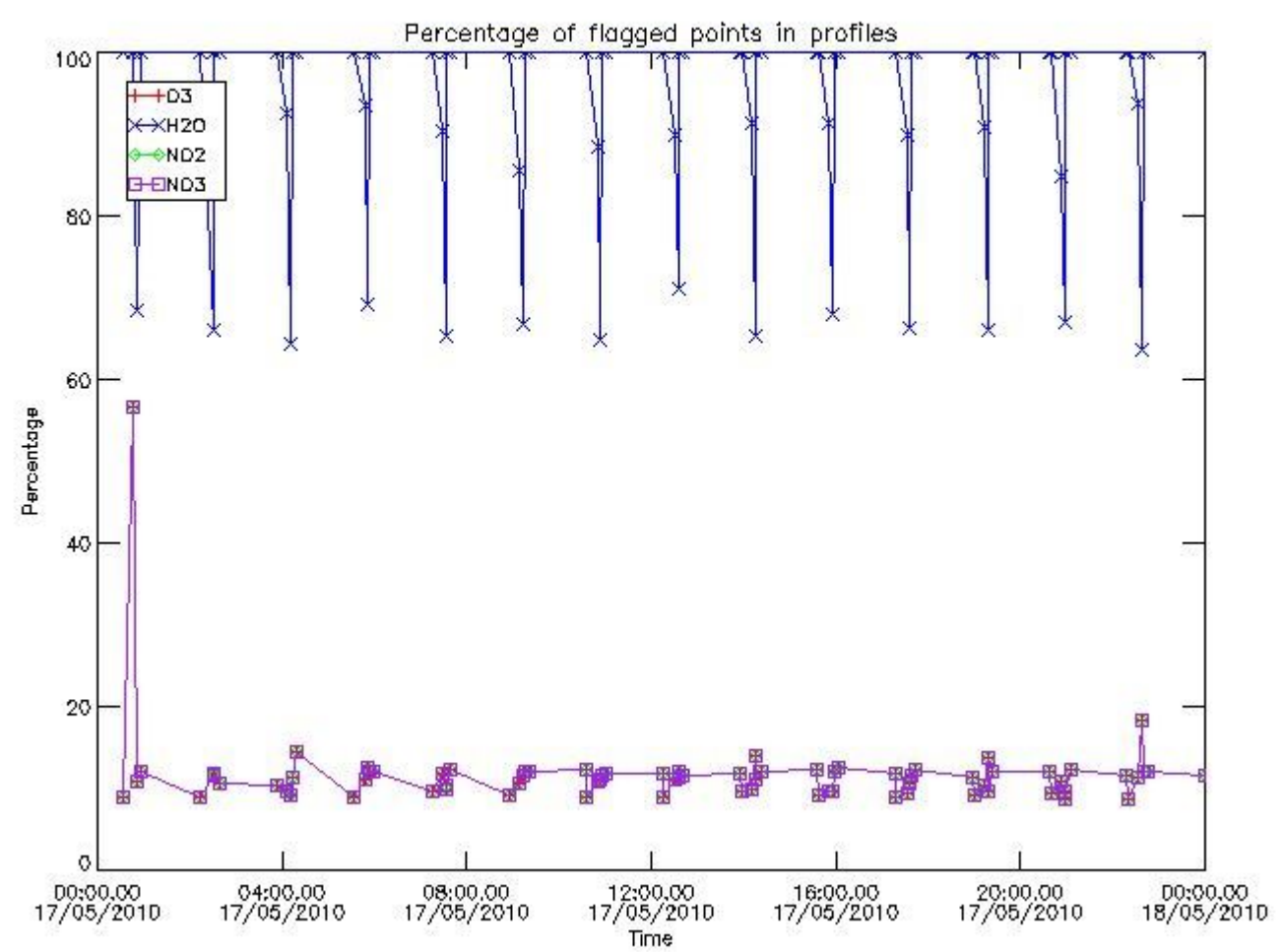
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20100517_000238_000000422089_00288_42927_0078.N1	17-MAY-2010 00:02:38	Bright	41.500	119	14Eta Dra	2.7270	4700.0	83	42927	No
2	GOM_NL__2PRFIN20100517_001335_000000662089_00288_42927_0079.N1	17-MAY-2010 00:13:35	Bright	66.000	89	5Alp Cep	2.4510	8000.0	132	42927	No
3	GOM_NL__2PRFIN20100517_001712_000000392089_00288_42927_0080.N1	17-MAY-2010 00:17:12	Bright	39.000	74	11Bet Cas	2.2680	6600.0	78	42927	No
4	GOM_NL__2PRFIN20100517_002627_000000472089_00288_42927_0081.N1	17-MAY-2010 00:26:27	Bright	47.000	58	21Alp And	2.0730	11000.	94	42927	No
5	GOM_NL__2PRFIN20100517_003038_000000452089_00288_42927_0082.N1	17-MAY-2010 00:30:38	Twilight	44.500	140	88Gam Peg	2.8340	26000.	89	42927	No
6	GOM_NL__2PRFIN20100517_003220_000000572089_00288_42927_0083.N1	17-MAY-2010 00:32:20	Dark	57.000	90	54Alp Peg	2.4870	11000.	114	42927	No
7	GOM_NL__2PRFIN20100517_004601_000000492089_00288_42927_0084.N1	17-MAY-2010 00:46:01	Dark	49.000	18	24Alp PsA	1.1660	9700.0	98	42927	No
8	GOM_NL__2PRFIN20100517_005019_000000472089_00288_42927_0085.N1	17-MAY-2010 00:50:19	Dark	46.500	63	Bet Gru	2.1500	2800.0	93	42927	No
9	GOM_NL__2PRFIN20100517_005723_000000422089_00289_42928_0082.N1	17-MAY-2010 00:57:23	Dark	42.000	45	Alp Pav	1.9400	26000.	84	42928	No
10	GOM_NL__2PRFIN20100517_010431_000000452089_00289_42928_0083.N1	17-MAY-2010 01:04:31	Straylight	44.500	141	Bet Ara	2.8400	4600.0	89	42928	No
11	GOM_NL__2PRFIN20100517_010732_000000472089_00289_42928_0084.N1	17-MAY-2010 01:07:32	Straylight	47.000	38	20Eps Sgr	1.8360	11000.	94	42928	No
12	GOM_NL__2PRFIN20100517_010859_000000532089_00289_42928_0085.N1	17-MAY-2010 01:08:59	Straylight	52.500	25	35Lam Sco	1.6200	28000.	105	42928	No
13	GOM_NL__2PRFIN20100517_011117_000000512089_00289_42928_0086.N1	17-MAY-2010 01:11:17	Twilight	50.500	75	26Eps Sco	2.2910	4250.0	101	42928	No
14	GOM_NL__2PRFIN20100517_011421_000000572089_00289_42928_0087.N1	17-MAY-2010 01:14:21	Twilight	56.500	16	21Alp Sco	1.0200	3000.0	113	42928	No
15	GOM_NL__2PRFIN20100517_011656_000000472089_00289_42928_0088.N1	17-MAY-2010 01:16:56	Bright	46.500	97	8Bet1Sco	2.5610	30000.	93	42928	No
16	GOM_NL__2PRFIN20100517_012035_000000412089_00289_42928_0089.N1	17-MAY-2010 01:20:35	Bright	40.500	104	27Bet Lib	2.6140	13100.	81	42928	No
17	GOM_NL__2PRFIN20100517_012241_000000502089_00289_42928_0090.N1	17-MAY-2010 01:22:41	Bright	49.500	120	1Del Oph	2.7340	3200.0	99	42928	No
18	GOM_NL__2PRFIN20100517_012551_000000442089_00289_42928_0091.N1	17-MAY-2010 01:25:51	Bright	43.500	102	24Alp Ser	2.6000	4250.0	87	42928	No
19	GOM_NL__2PRFIN20100517_013127_000000402089_00289_42928_0092.N1	17-MAY-2010 01:31:27	Bright	39.500	83		2.3780	11000.	79	42928	No
20	GOM_NL__2PRFIN20100517_013436_000000382089_00289_42928_0093.N1	17-MAY-2010 01:34:36	Bright	37.500	180	27Gam Boo	3.0400	8000.0	75	42928	No
21	GOM_NL__2PRFIN20100517_014313_000000432089_00289_42928_0094.N1	17-MAY-2010 01:43:13	Bright	42.500	119	14Eta Dra	2.7270	4700.0	85	42928	No
22	GOM_NL__2PRFIN20100517_015410_000000462089_00289_42928_0095.N1	17-MAY-2010 01:54:10	Bright	45.500	89	5Alp Cep	2.4510	8000.0	91	42928	No
23	GOM_NL__2PRFIN20100517_015748_000000552089_00289_42928_0096.N1	17-MAY-2010 01:57:48	Bright	55.000	74	11Bet Cas	2.2680	6600.0	110	42928	No
24	GOM_NL__2PRFIN20100517_020704_000000462089_00289_42928_0097.N1	17-MAY-2010 02:07:04	Bright	46.000	58	21Alp And	2.0730	11000.	92	42928	No
25	GOM_NL__2PRFIN20100517_021115_000000442089_00289_42928_0098.N1	17-MAY-2010 02:11:15	Twilight	43.500	140	88Gam Peg	2.8340	26000.	87	42928	No
26	GOM_NL__2PRFIN20100517_021256_000000562089_00289_42928_0099.N1	17-MAY-2010 02:12:56	Dark	56.000	90	54Alp Peg	2.4870	11000.	112	42928	No
27	GOM_NL__2PRFIN20100517_023056_000000452089_00289_42928_0100.N1	17-MAY-2010 02:30:56	Dark	44.500	63	Bet Gru	2.1500	2800.0	89	42928	No
28	GOM_NL__2PRFIN20100517_023226_000000442089_00289_42928_0090.N1	17-MAY-2010 02:32:26	Dark	43.500	31	Alp Gru	1.7340	15200.	87	42928	No
29	GOM_NL__2PRFIN20100517_023759_000000482089_00290_42929_0091.N1	17-MAY-2010 02:37:59	Dark	48.000	45	Alp Pav	1.9400	26000.	96	42929	No
30	GOM_NL__2PRFIN20100517_024508_000000452089_00290_42929_0092.N1	17-MAY-2010 02:45:08	Straylight	45.000	141	Bet Ara	2.8400	4600.0	90	42929	No
31	GOM_NL__2PRFIN20100517_024809_000000472089_00290_42929_0093.N1	17-MAY-2010 02:48:09	Straylight	47.000	38	20Eps Sgr	1.8360	11000.	94	42929	No
32	GOM_NL__2PRFIN20100517_024935_000000552089_00290_42929_0094.N1	17-MAY-2010 02:49:35	Straylight	54.500	25	35Lam Sco	1.6200	28000.	109	42929	No
33	GOM_NL__2PRFIN20100517_025153_000000552089_00290_42929_0095.N1	17-MAY-2010 02:51:53	Twilight	54.500	75	26Eps Sco	2.2910	4250.0	109	42929	No
34	GOM_NL__2PRFIN20100517_025457_000000632089_00290_42929_0096.N1	17-MAY-2010 02:54:57	Twilight	62.500	16	21Alp Sco	1.0200	3000.0	125	42929	No
35	GOM_NL__2PRFIN20100517_025732_000000472089_00290_42929_0097.N1	17-MAY-2010 02:57:32	Bright	46.500	97	8Bet1Sco	2.5610	30000.	93	42929	No
36	GOM_NL__2PRFIN20100517_030110_000000402089_00290_42929_0098.N1	17-MAY-2010 03:01:10	Bright	39.500	104	27Bet Lib	2.6140	13100.	79	42929	No
37	GOM_NL__2PRFIN20100517_030317_000000492089_00290_42929_0099.N1	17-MAY-2010 03:03:17	Bright	49.000	120	1Del Oph	2.7340	3200.0	98	42929	No
38	GOM_NL__2PRFIN20100517_030626_000000442089_00290_42929_0100.N1	17-MAY-2010 03:06:26	Bright	43.500	102	24Alp Ser	2.6000	4250.0	87	42929	No
39	GOM_NL__2PRFIN20100517_031203_000000392089_00290_42929_0101.N1	17-MAY-2010 03:12:03	Bright	39.000	83		2.3780	11000.	78	42929	No
40	GOM_NL__2PRFIN20100517_031511_000000372089_00290_42929_0102.N1	17-MAY-2010 03:15:11	Bright	37.000	180	27Gam Boo	3.0400	8000.0	74	42929	No
41	GOM_NL__2PRFIN20100517_032349_000000402089_00290_42929_0103.N1	17-MAY-2010 03:23:49	Bright	40.000	119	14Eta Dra	2.7270	4700.0	80	42929	No
42	GOM_NL__2PRFIN20100517_033445_000000472089_00290_42929_0104.N1	17-MAY-2010 03:34:45	Bright	47.000	89	5Alp Cep	2.4510	8000.0	94	42929	No

279	GOM_NL__2PRFIN20100517_223815_000000562089_00301_42940_0292.N1	17-MAY-2010 22:38:15	Dark	55.500	63	Bet Gru	2.1500	2800.0	111	42940	No
280	GOM_NL__2PRFIN20100517_223946_000000422089_00302_42941_0283.N1	17-MAY-2010 22:39:46	Dark	42.000	31	Alp Gru	1.7340	15200.	84	42941	No
281	GOM_NL__2PRFIN20100517_224518_000000432089_00302_42941_0284.N1	17-MAY-2010 22:45:18	Dark	42.500	45	Alp Pav	1.9400	26000.	85	42941	No
282	GOM_NL__2PRFIN20100517_225225_000000432089_00302_42941_0285.N1	17-MAY-2010 22:52:25	Straylight	42.500	141	Bet Ara	2.8400	4600.0	85	42941	No
283	GOM_NL__2PRFIN20100517_225531_000000592089_00302_42941_0286.N1	17-MAY-2010 22:55:31	Straylight	59.000	38	20Eps Sgr	1.8360	11000.	118	42941	No
284	GOM_NL__2PRFIN20100517_225654_000000532089_00302_42941_0287.N1	17-MAY-2010 22:56:54	Straylight	53.000	25	35Lam Sco	1.6200	28000.	106	42941	No
285	GOM_NL__2PRFIN20100517_225910_000000522089_00302_42941_0288.N1	17-MAY-2010 22:59:10	Twilight_stray	51.500	75	26Eps Sco	2.2910	4250.0	103	42941	No
286	GOM_NL__2PRFIN20100517_230212_000000622089_00302_42941_0289.N1	17-MAY-2010 23:02:12	Twilight_stray	62.000	16	21Alp Sco	1.0200	3000.0	124	42941	No
287	GOM_NL__2PRFIN20100517_230445_000000442089_00302_42941_0290.N1	17-MAY-2010 23:04:45	Bright	44.000	97	8Bet1Sco	2.5610	30000.	88	42941	No
288	GOM_NL__2PRFIN20100517_230822_000000402089_00302_42941_0291.N1	17-MAY-2010 23:08:22	Bright	39.500	104	27Bet Lib	2.6140	13100.	79	42941	No
289	GOM_NL__2PRFIN20100517_231026_000000492089_00302_42941_0292.N1	17-MAY-2010 23:10:26	Bright	48.500	120	1Del Oph	2.7340	3200.0	97	42941	No
290	GOM_NL__2PRFIN20100517_231335_000000432089_00302_42941_0293.N1	17-MAY-2010 23:13:35	Bright	42.500	102	24Alp Ser	2.6000	4250.0	85	42941	No
291	GOM_NL__2PRFIN20100517_231912_000000392089_00302_42941_0294.N1	17-MAY-2010 23:19:12	Bright	39.000	83		2.3780	11000.	78	42941	No
292	GOM_NL__2PRFIN20100517_232221_000000372089_00302_42941_0295.N1	17-MAY-2010 23:22:21	Bright	37.000	180	27Gam Boo	3.0400	8000.0	74	42941	No
293	GOM_NL__2PRFIN20100517_233054_000000422089_00302_42941_0296.N1	17-MAY-2010 23:30:54	Bright	42.000	119	14Eta Dra	2.7270	4700.0	84	42941	No
294	GOM_NL__2PRFIN20100517_234151_000000462089_00302_42941_0297.N1	17-MAY-2010 23:41:51	Bright	45.500	89	5Alp Cep	2.4510	8000.0	91	42941	No
295	GOM_NL__2PRFIN20100517_234534_000000552089_00302_42941_0298.N1	17-MAY-2010 23:45:34	Bright	55.000	74	11Bet Cas	2.2680	6600.0	110	42941	No
296	GOM_NL__2PRFIN20100517_235453_000000462089_00302_42941_0299.N1	17-MAY-2010 23:54:53	Twilight_stray	46.000	58	21Alp And	2.0730	11000.	92	42941	No
297	GOM_NL__2PRFIN20100517_235905_000000442089_00302_42941_0300.N1	17-MAY-2010 23:59:05	Dark	44.000	140	88Gam Peg	2.8340	26000.	88	42941	No

3. Quality information per product

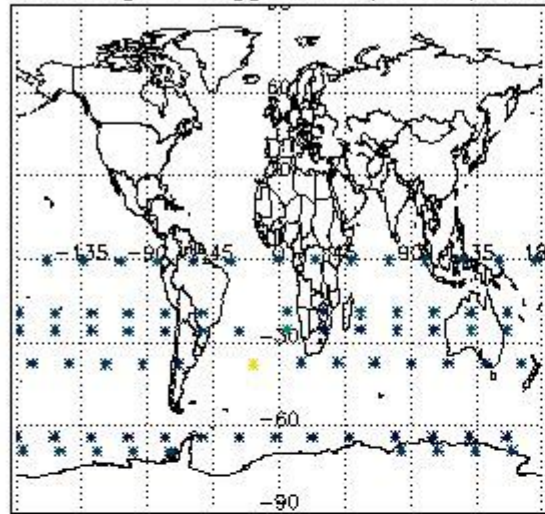
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

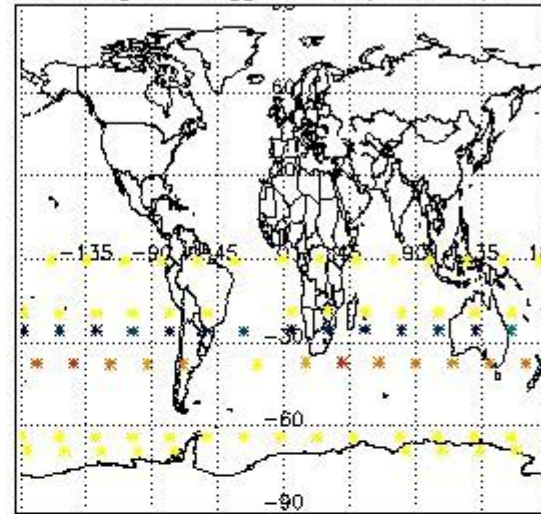


3.2 Plot quality information per product (world map)

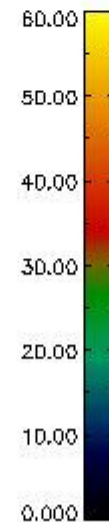
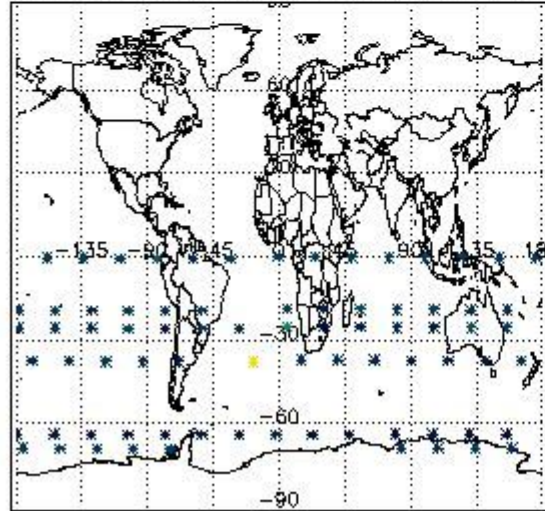
Percentage of flagged data per O3 profile



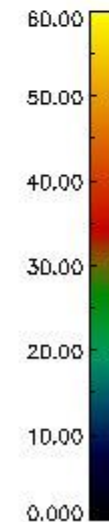
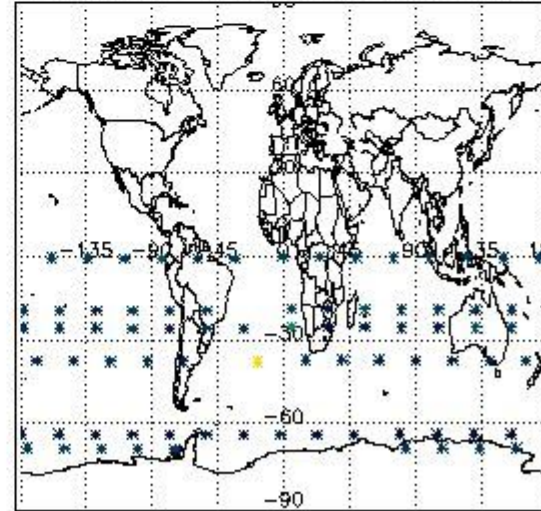
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

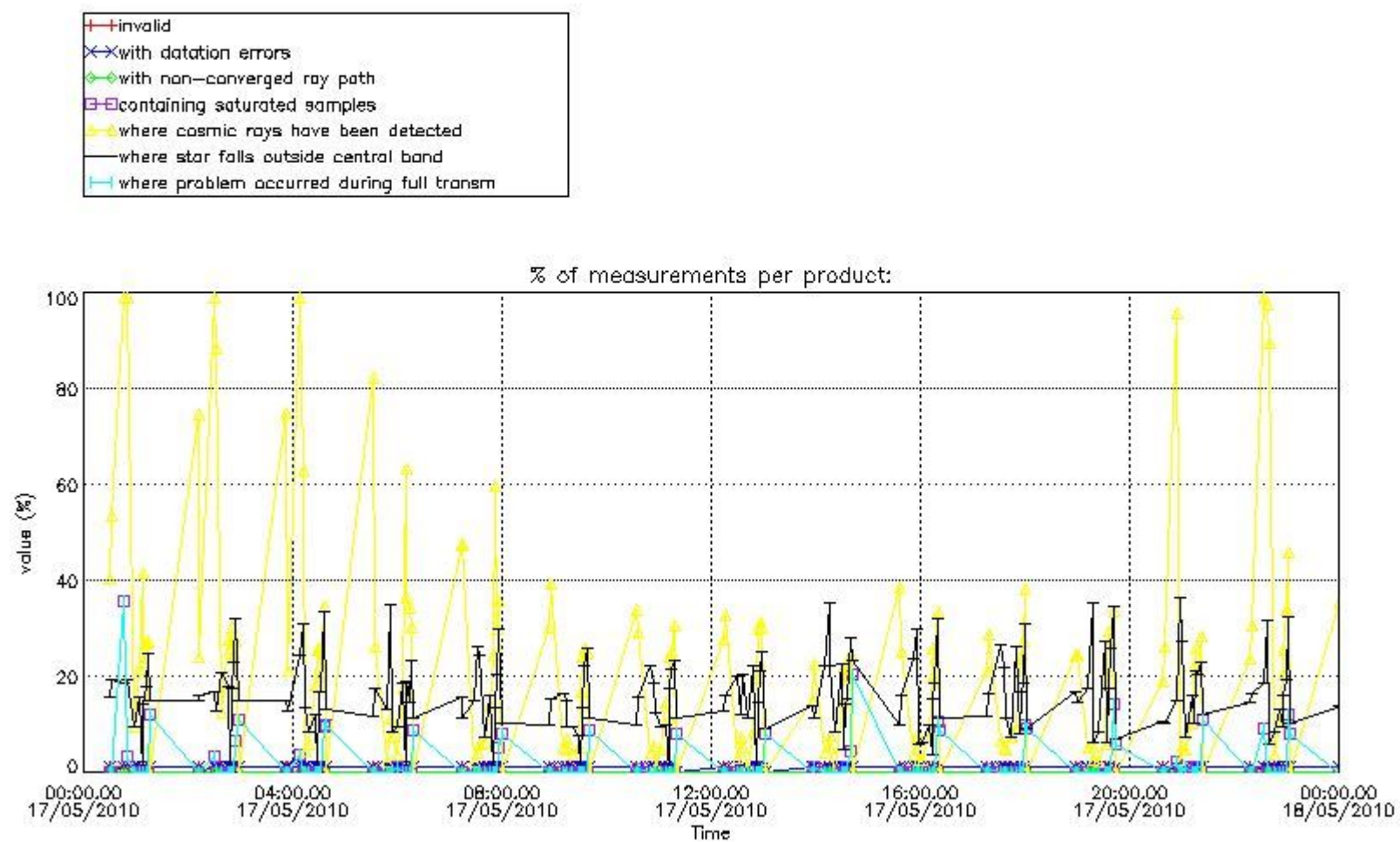


4. Level 1 quality information per product

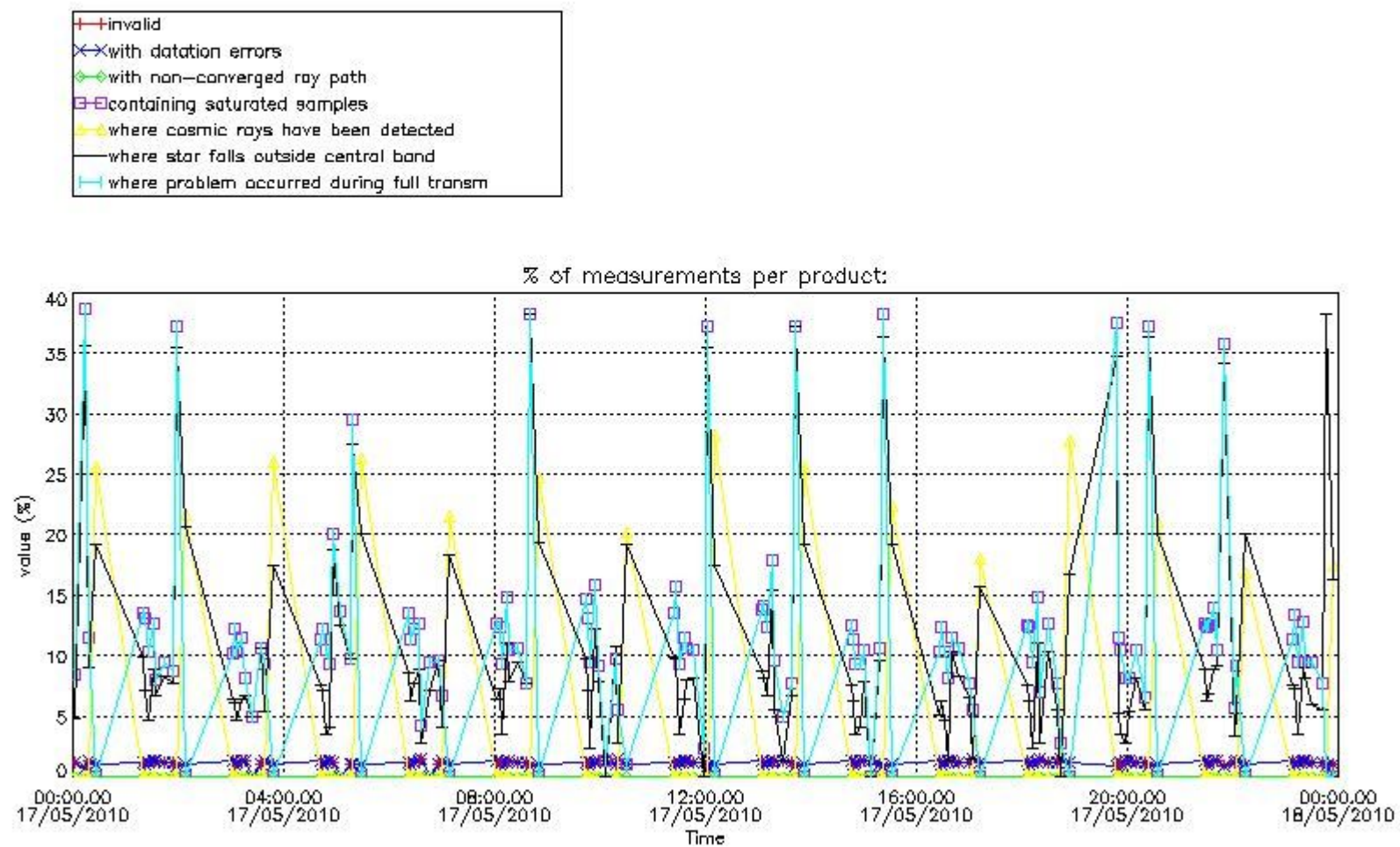
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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



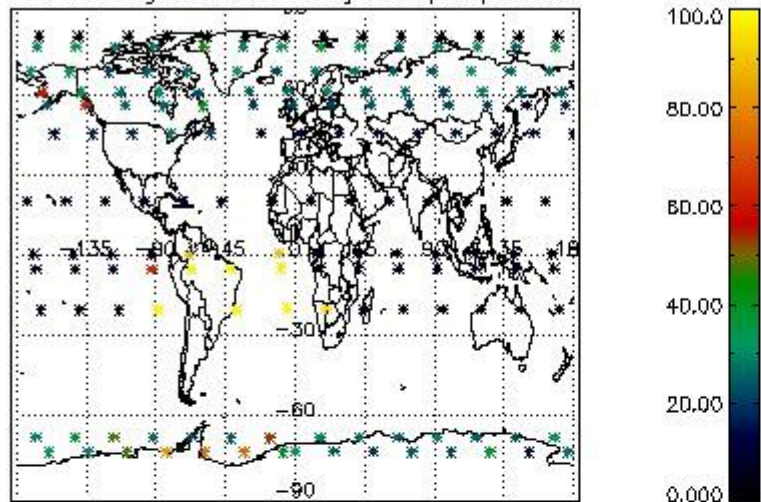
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



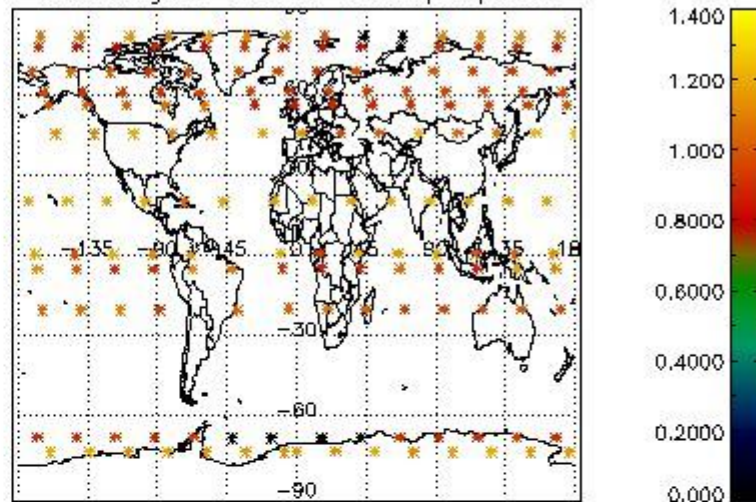
4.2 Plot quality information per product coming from level 1b processing (world map)

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

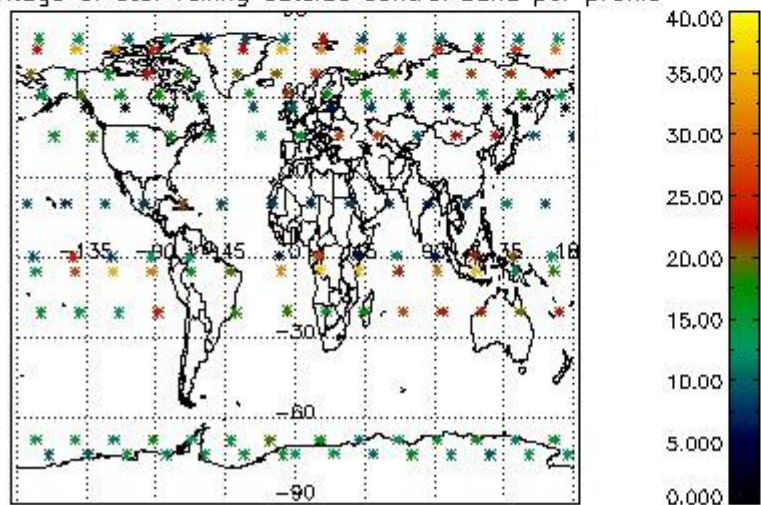
Percentage of cosmic ray hits per profile



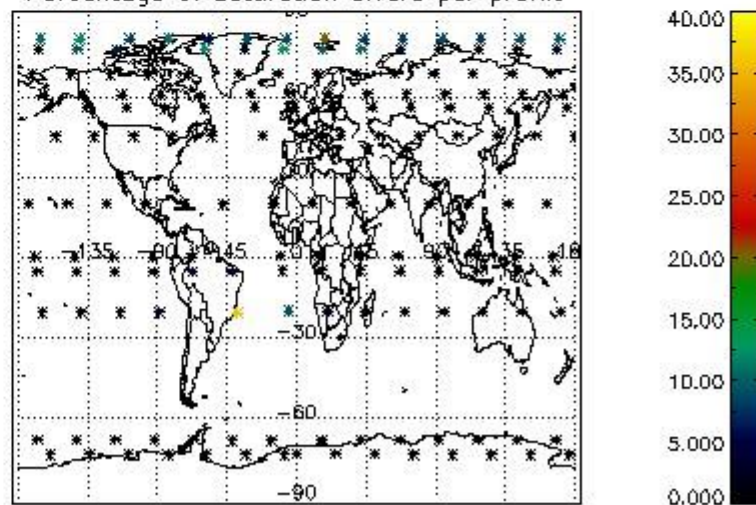
Percentage of datation errors per profile



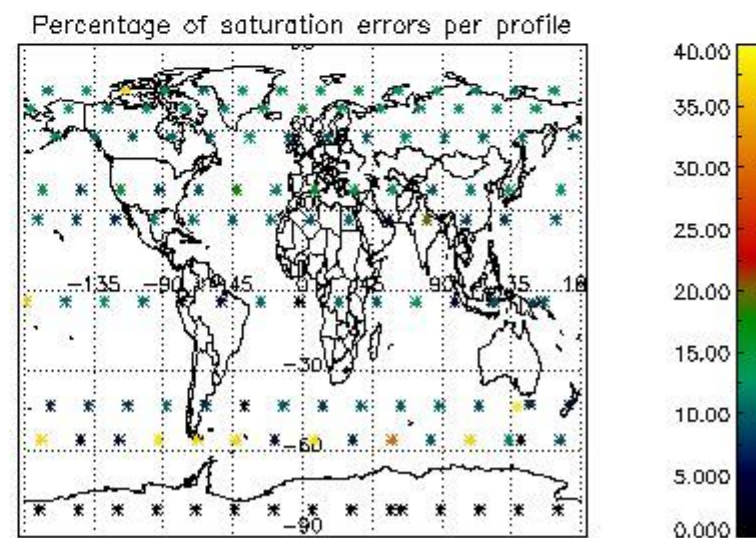
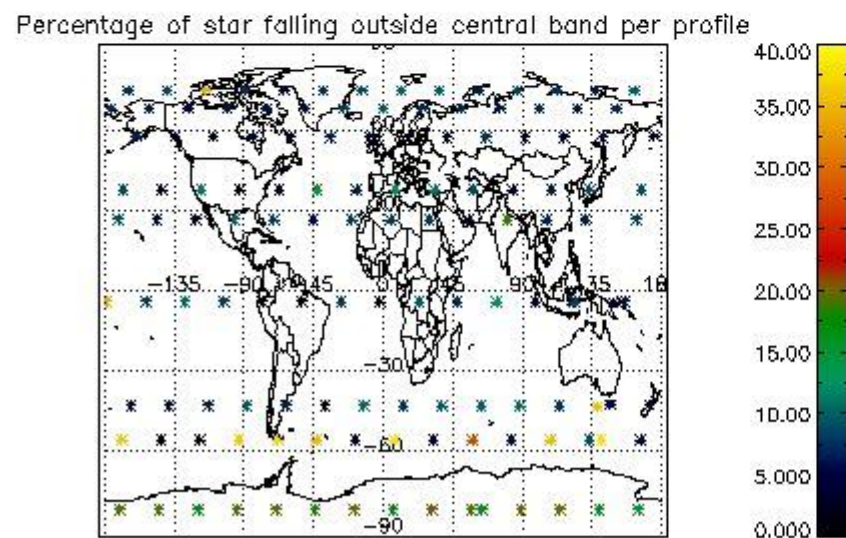
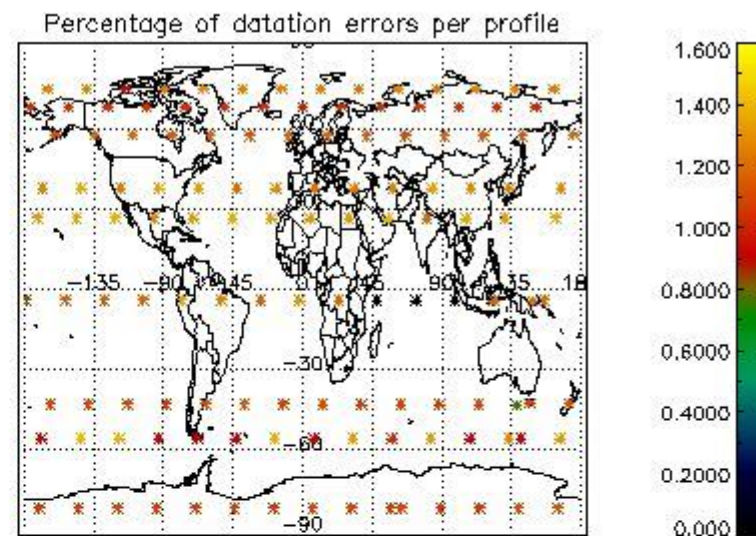
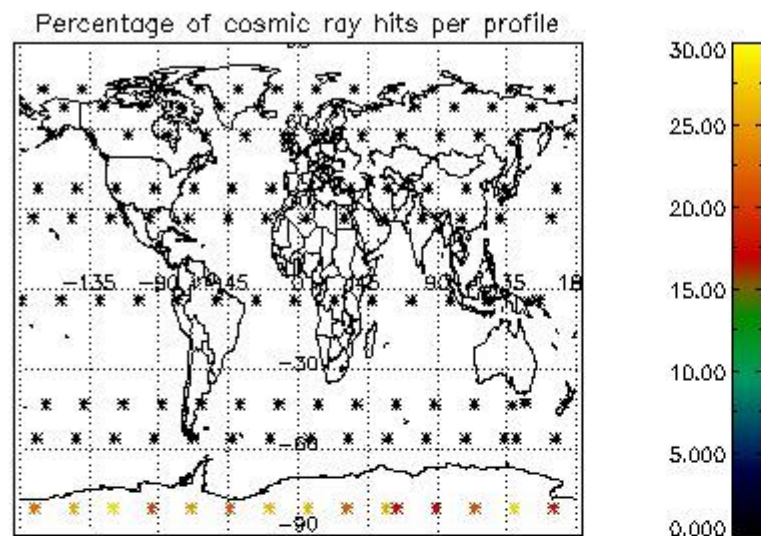
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

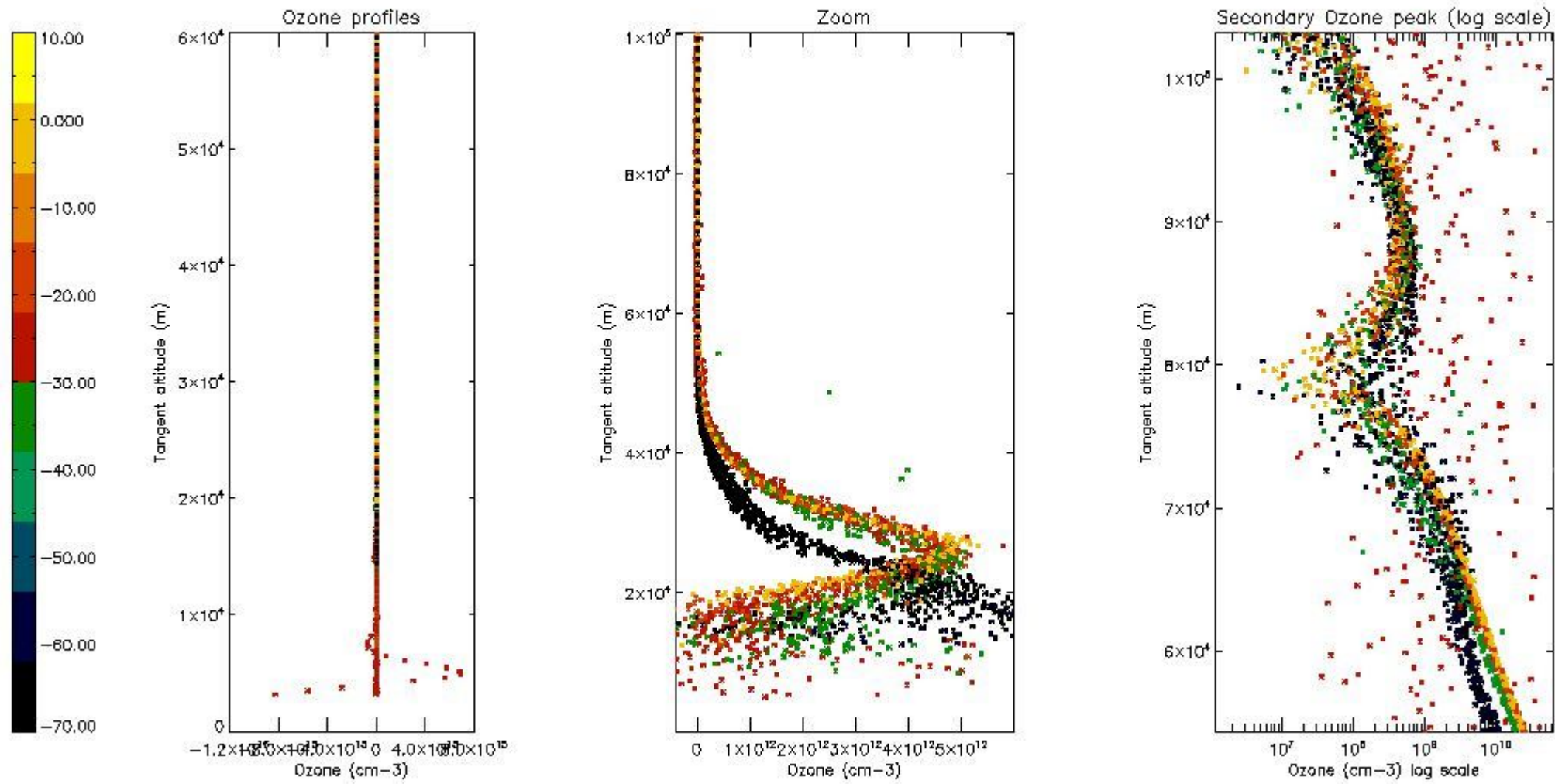
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	27
STD < 20	15

STD < 10	11
STD < 5	7

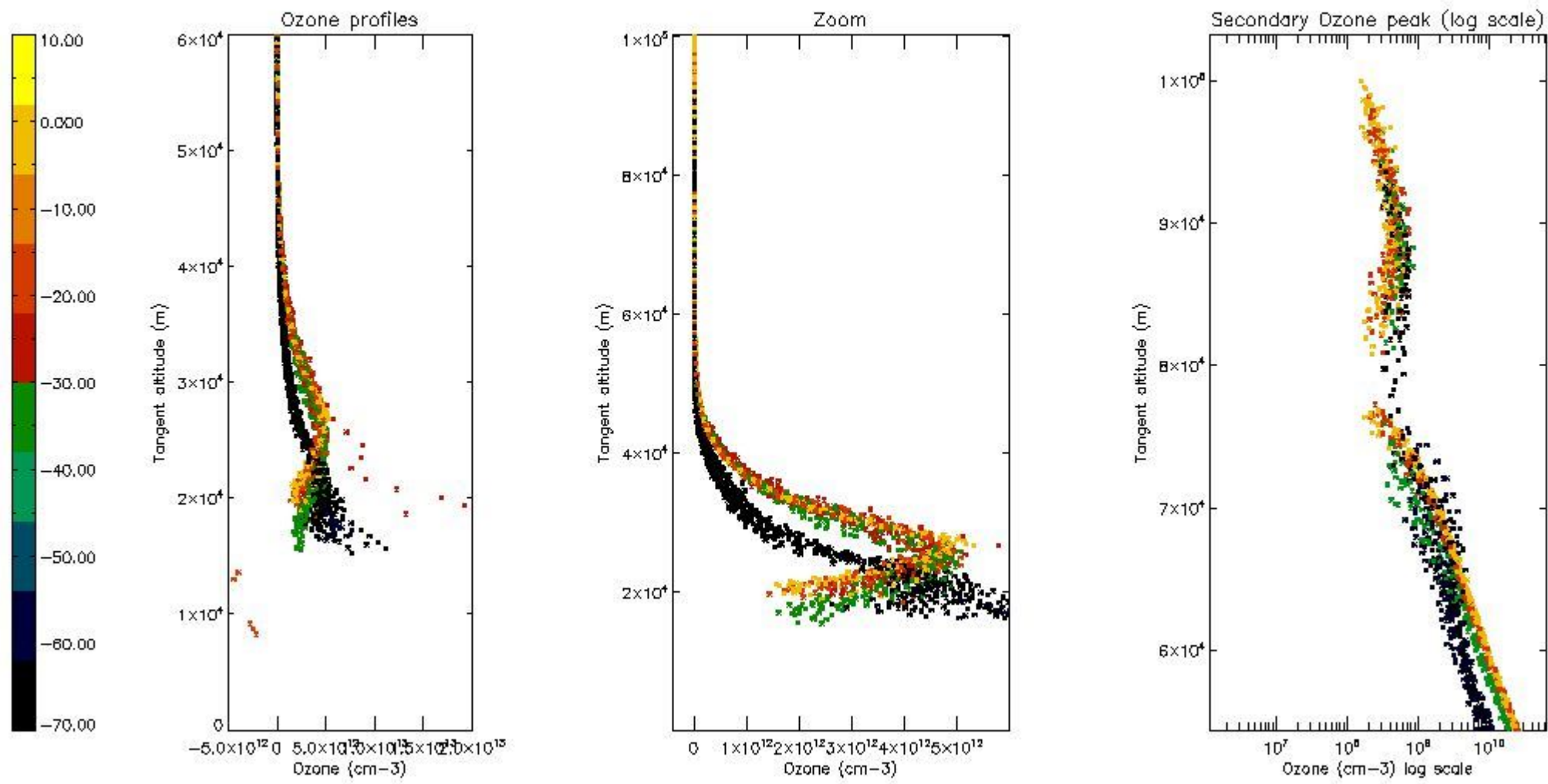
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



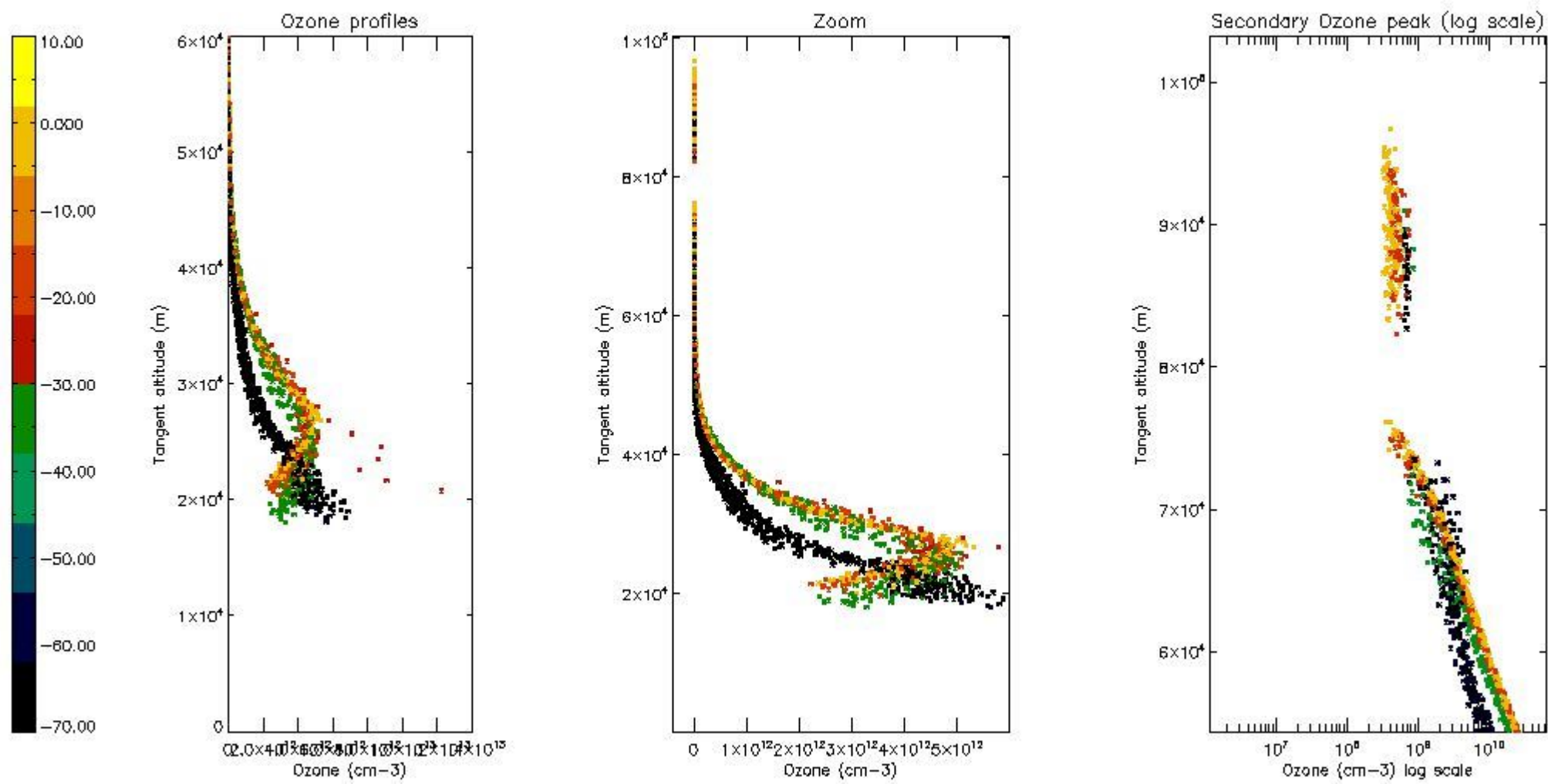
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



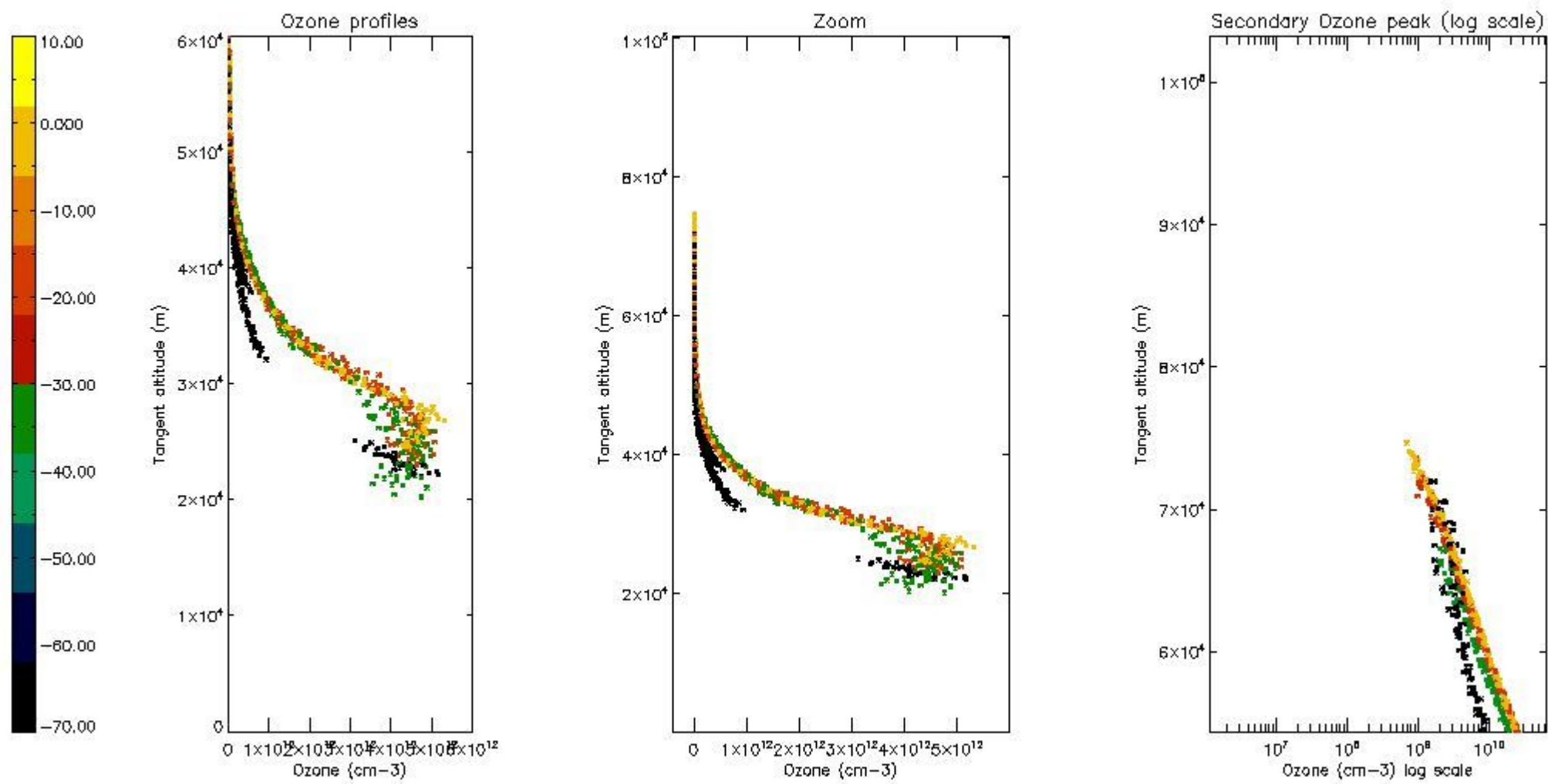
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



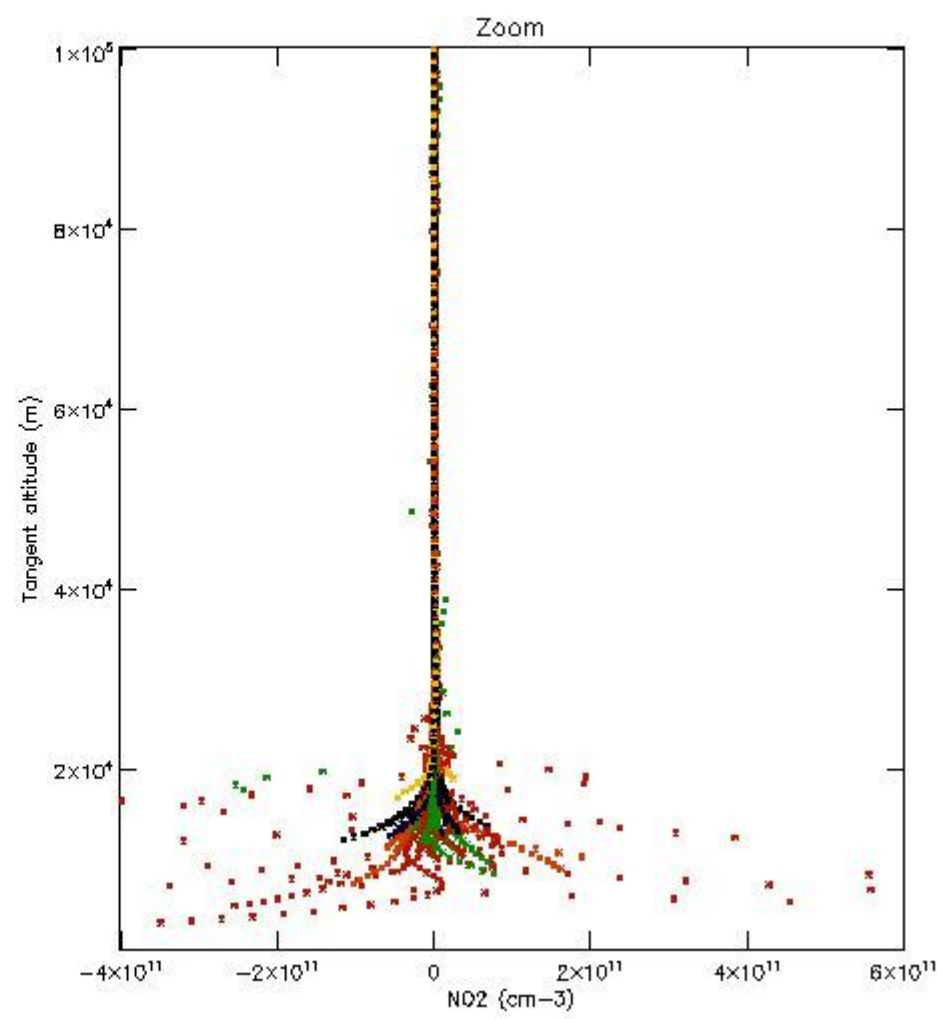
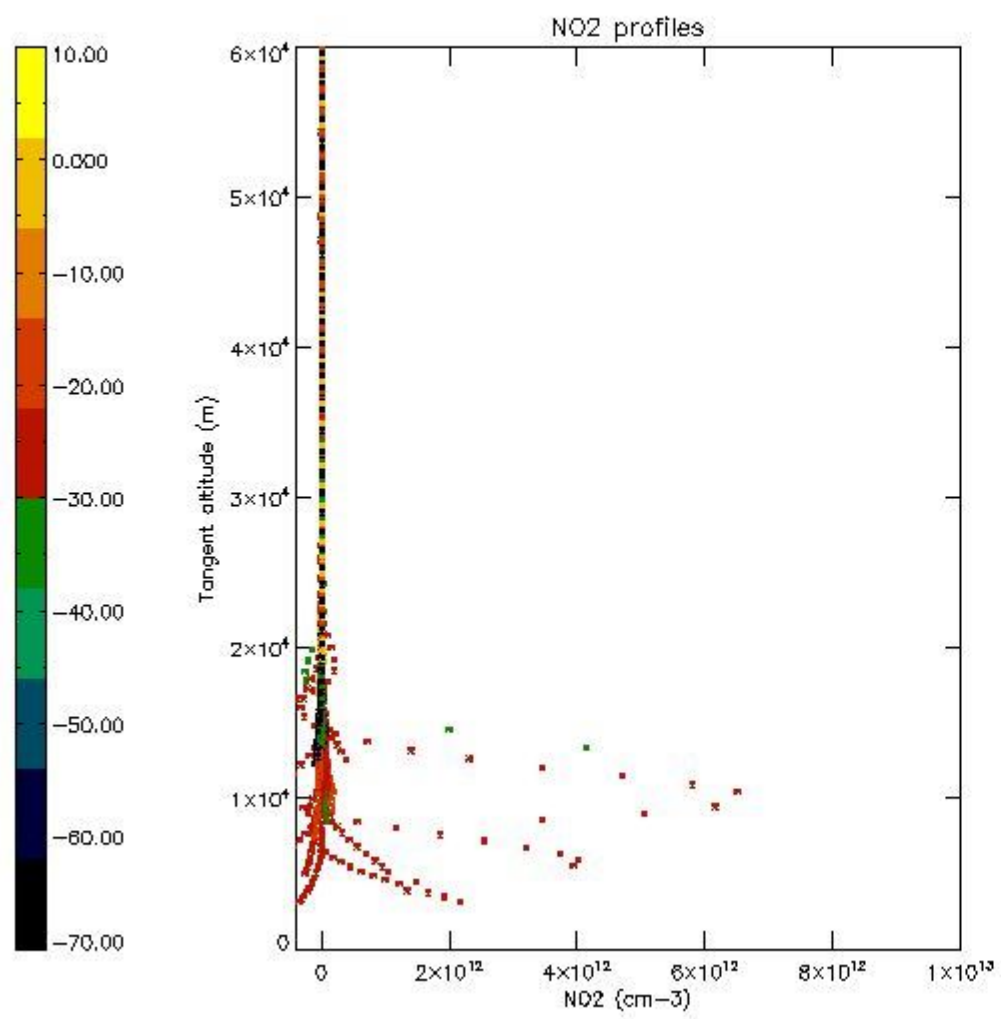
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



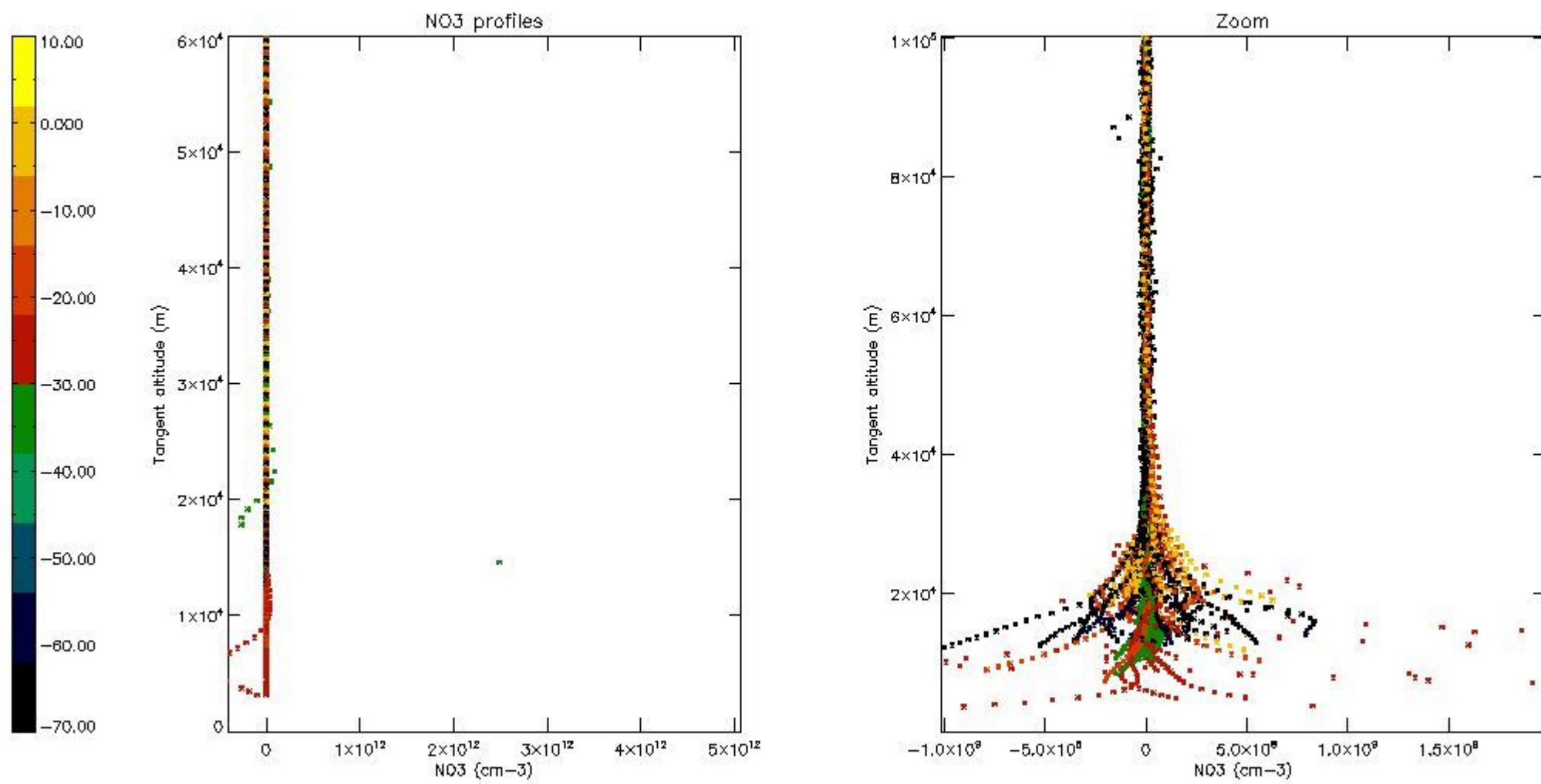
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



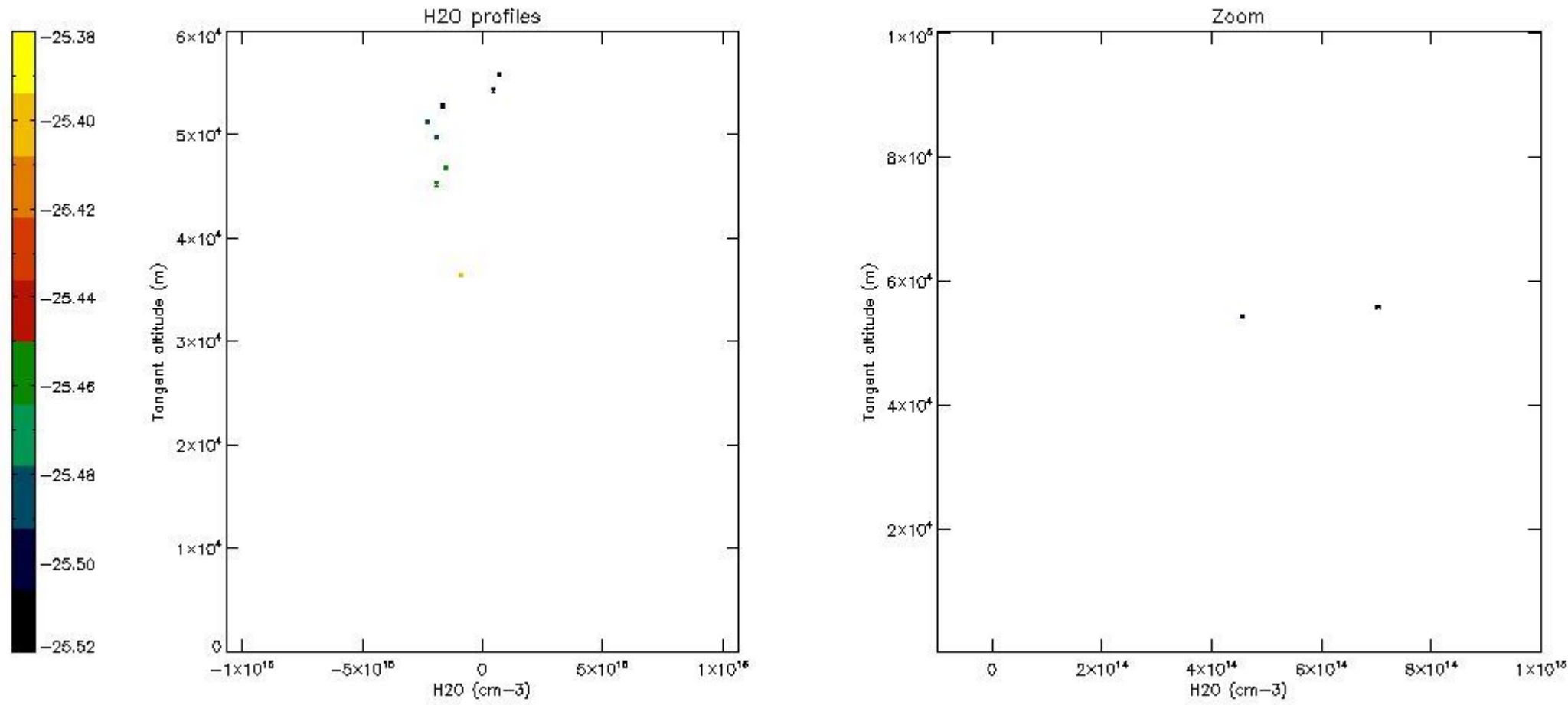
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

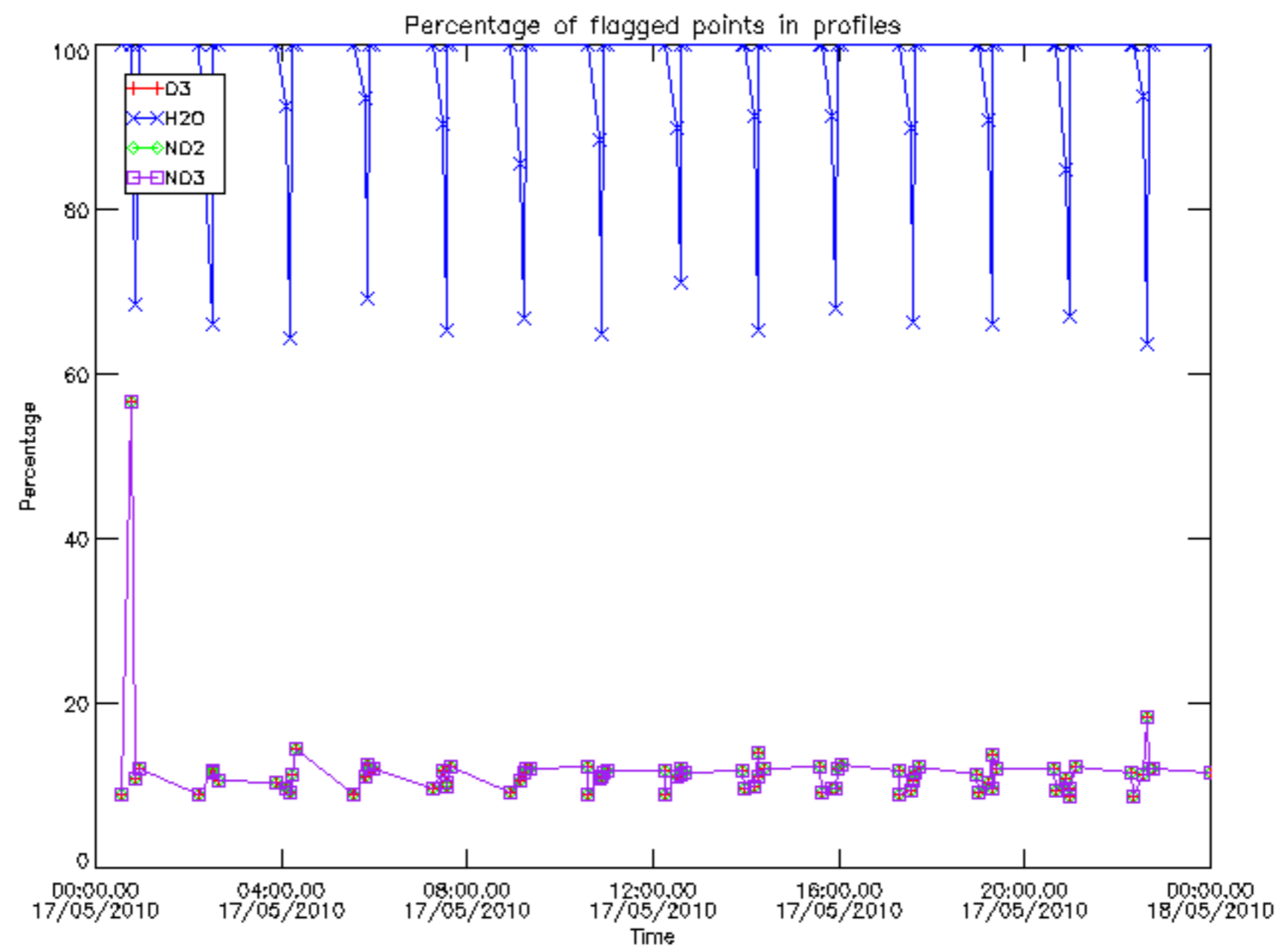
The colorbar represents the latitude.



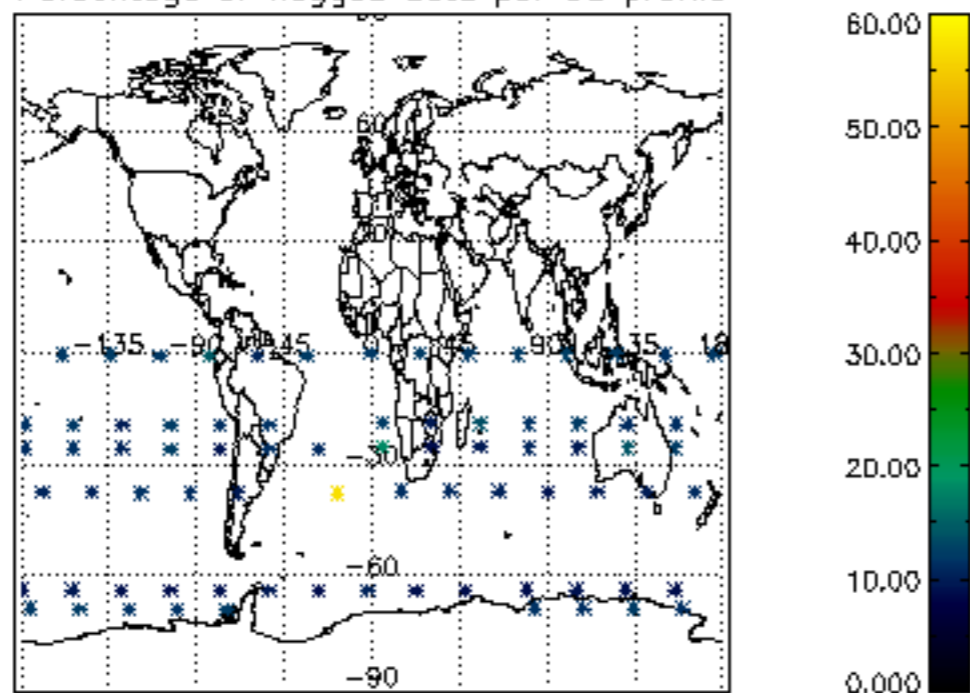
6. Auxiliary Data Files used for the production reported in section 2

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.

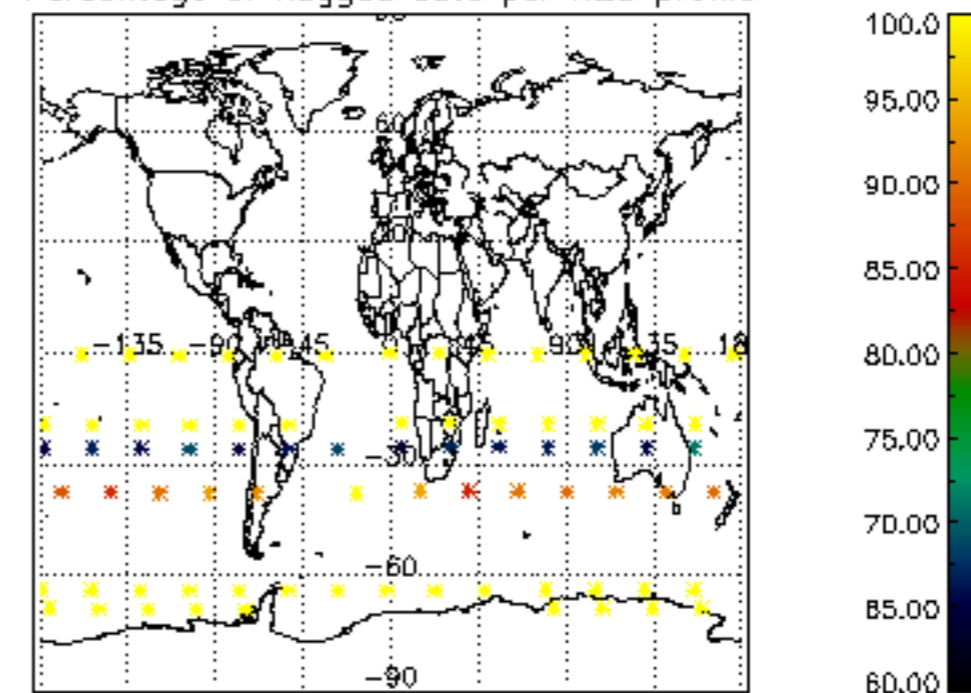
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	17-MAY-2010 00:02:38
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	17-MAY-2010 00:02:38
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	17-MAY-2010 00:02:38



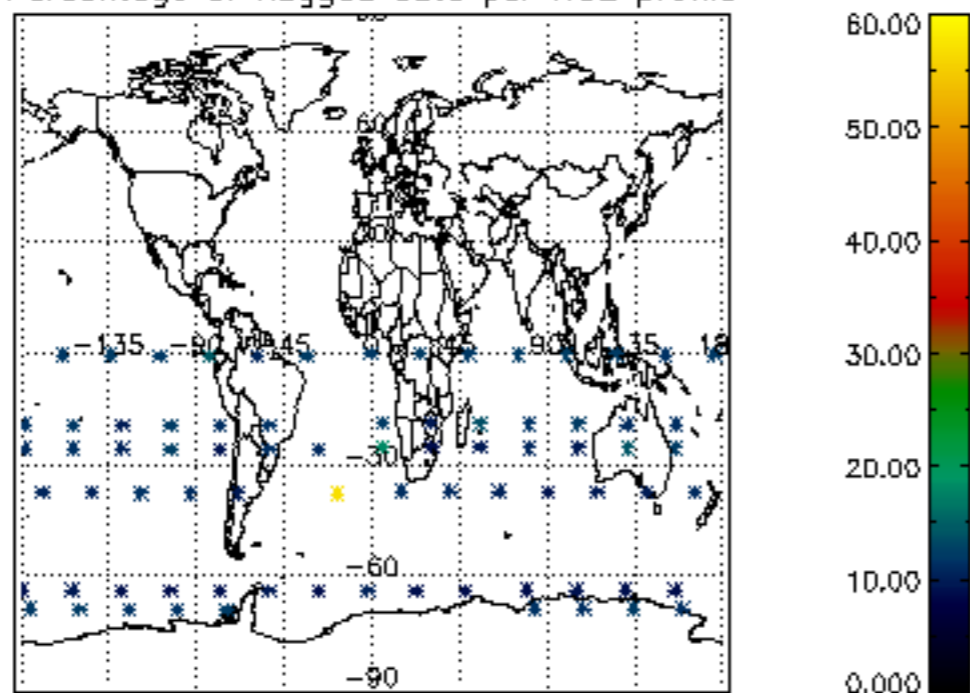
Percentage of flagged data per D3 profile



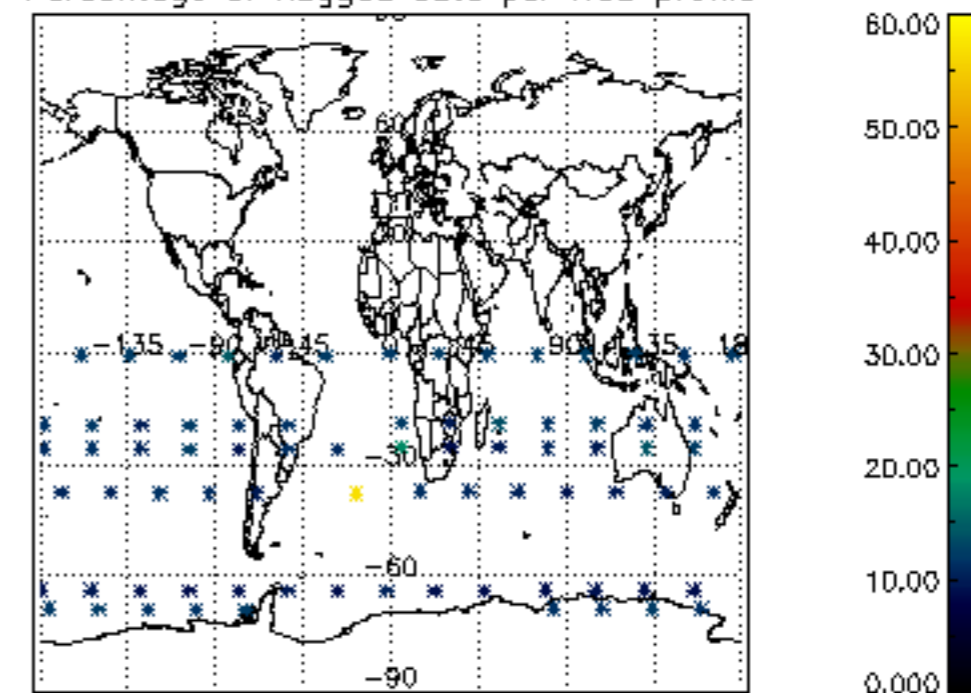
Percentage of flagged data per H2O profile

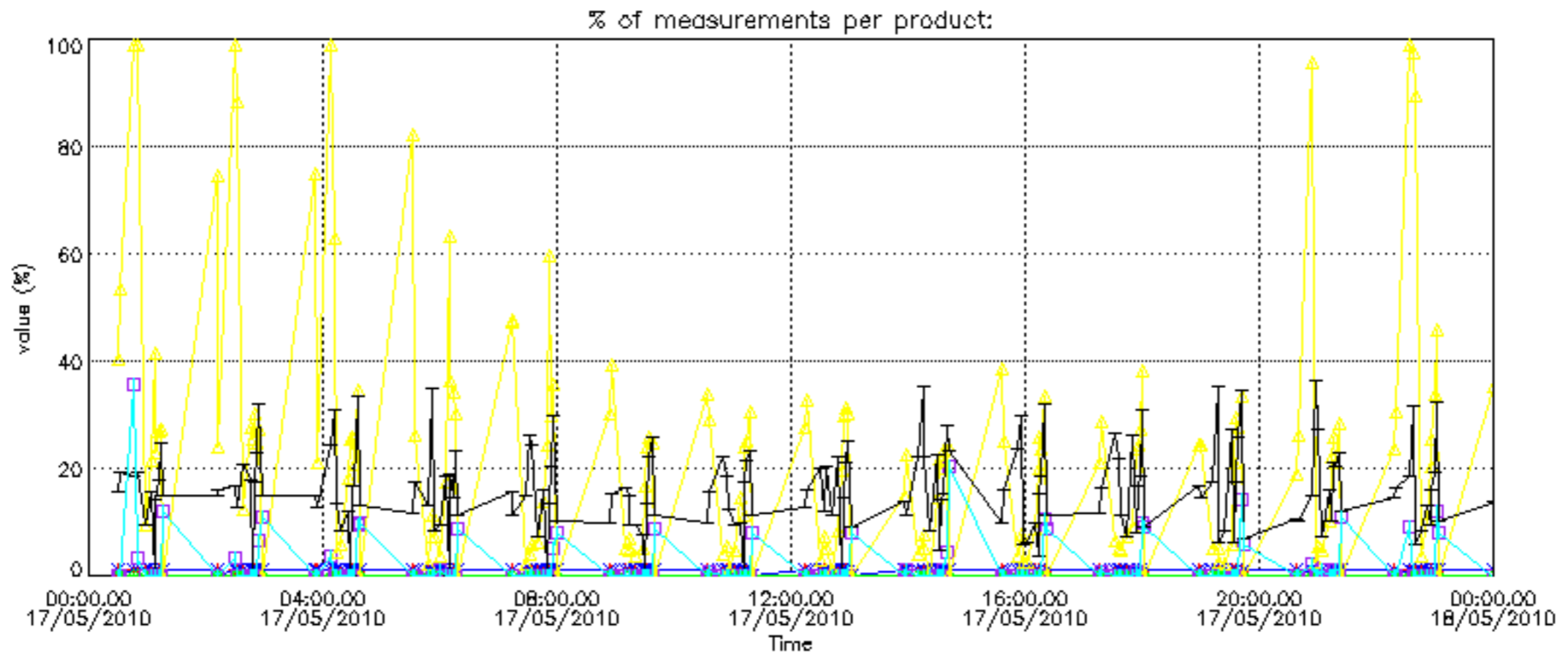


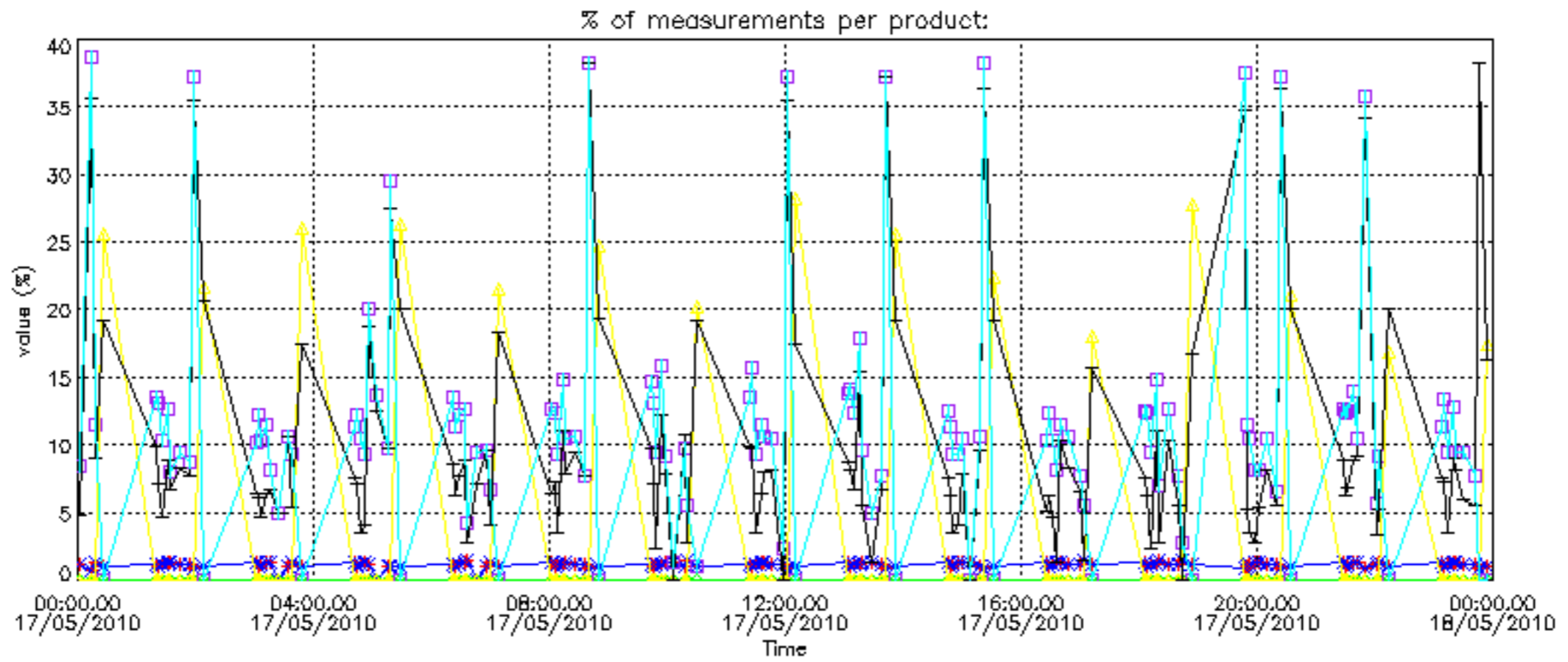
Percentage of flagged data per NO2 profile



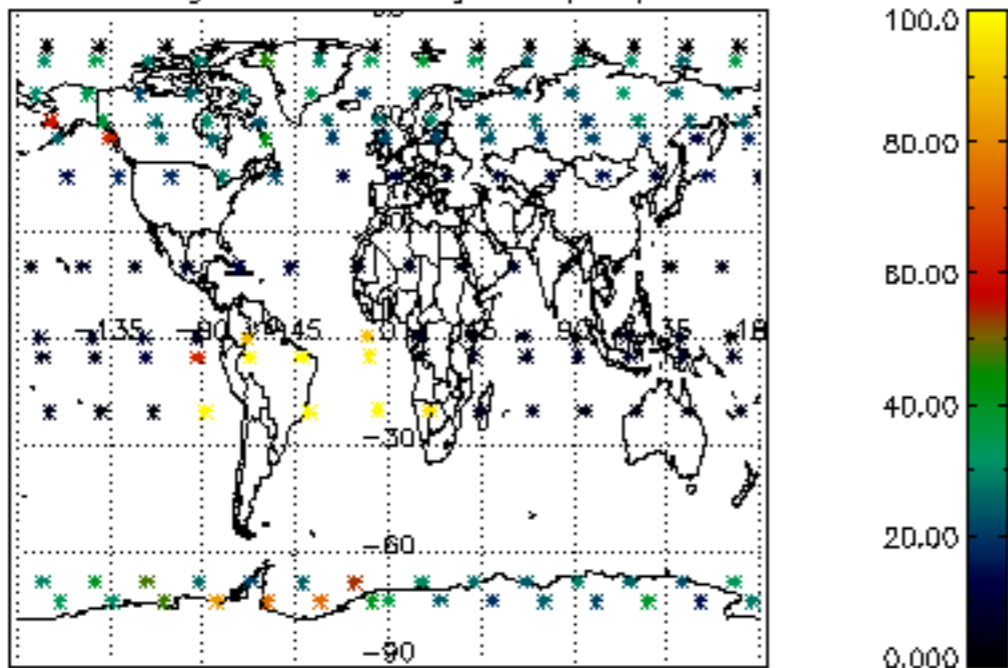
Percentage of flagged data per NO3 profile



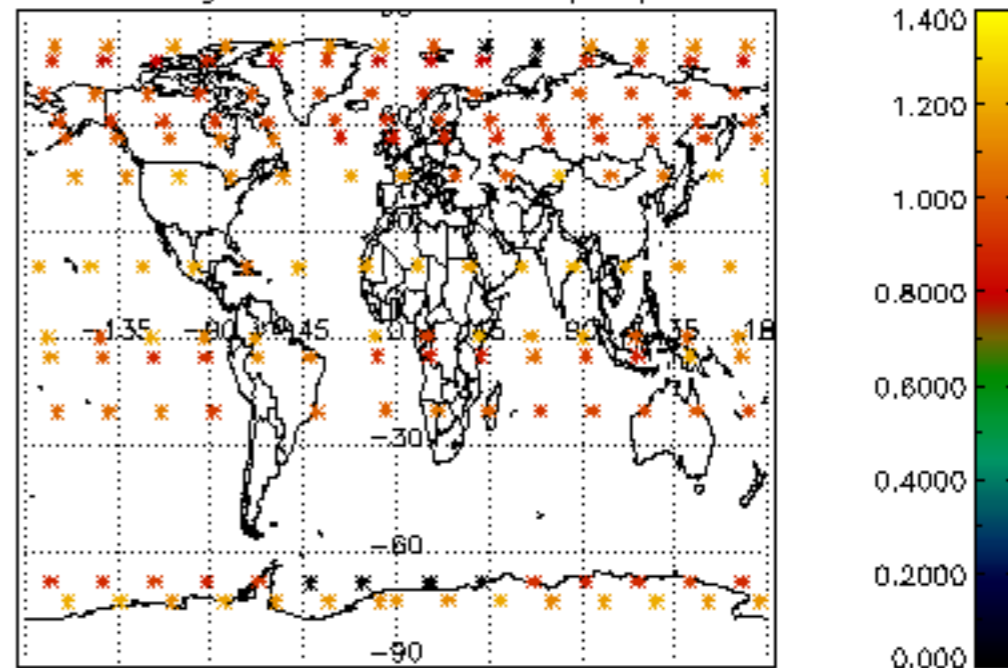




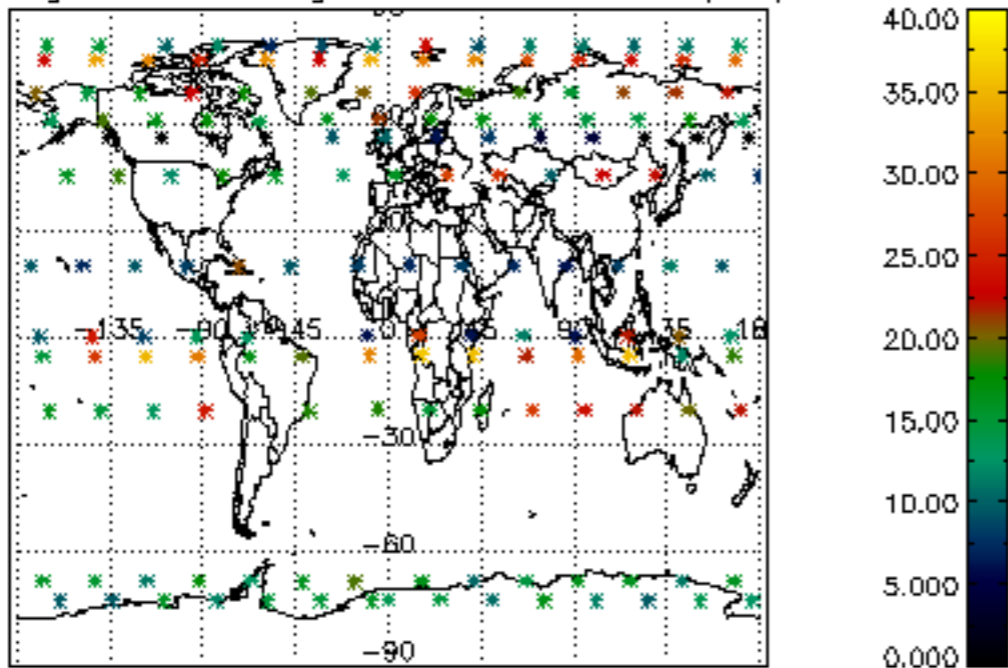
Percentage of cosmic ray hits per profile



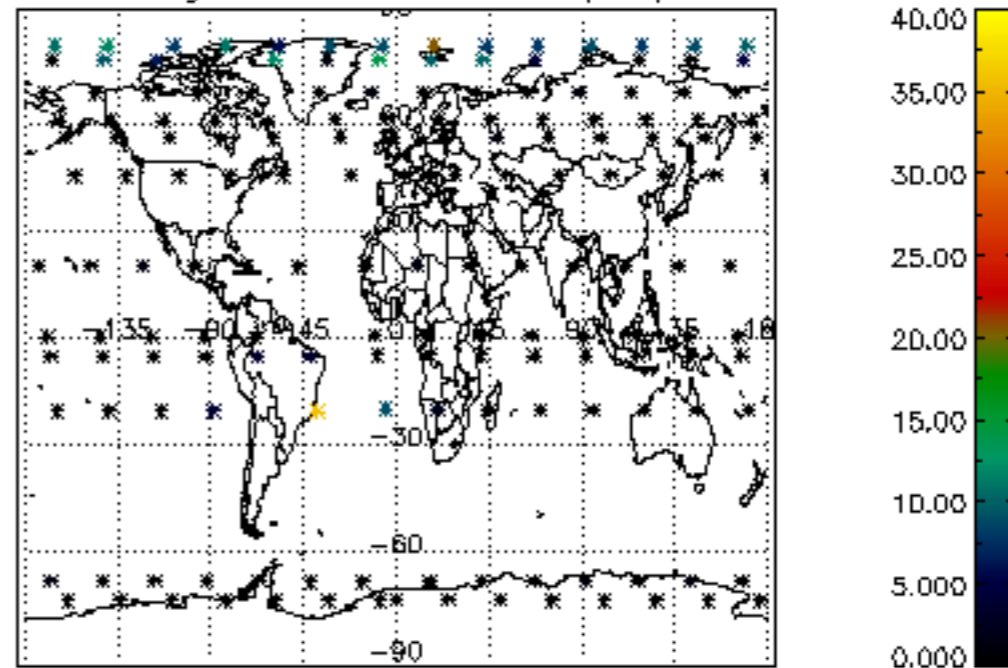
Percentage of datation errors per profile



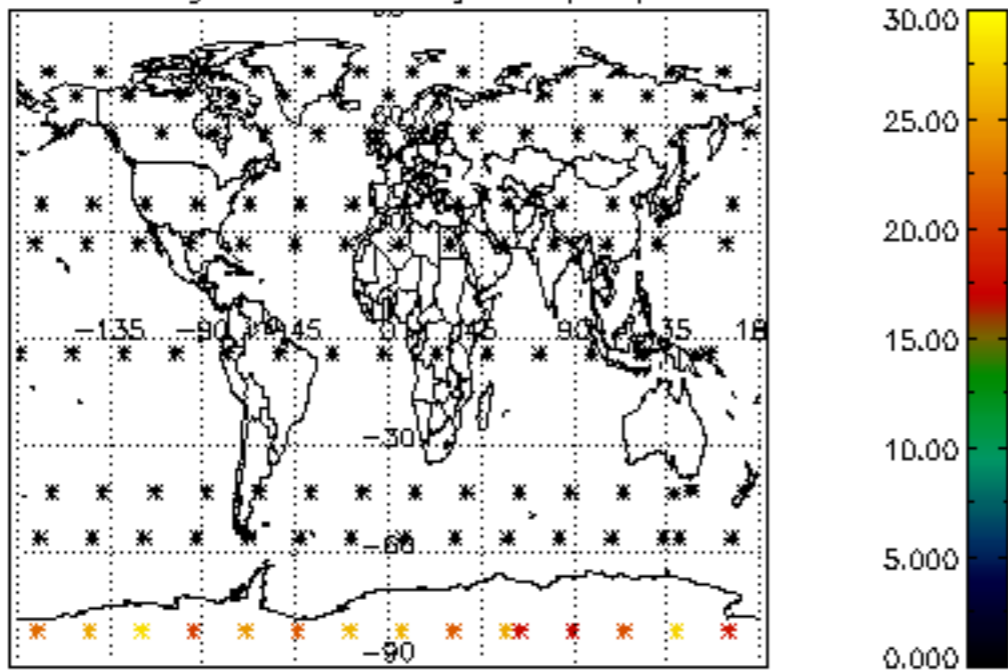
Percentage of star falling outside central band per profile



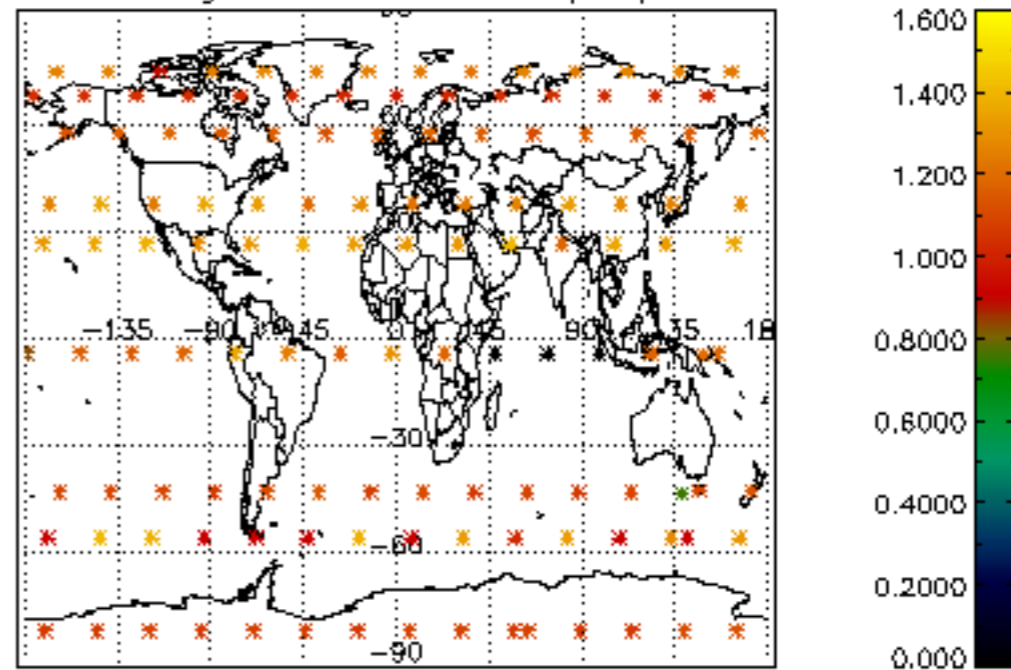
Percentage of saturation errors per profile



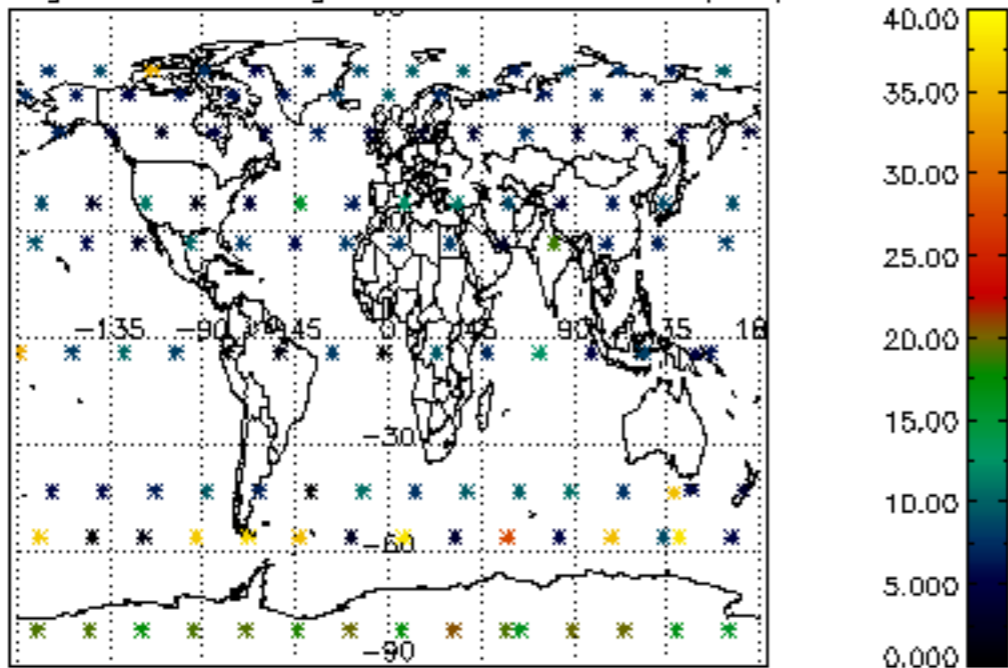
Percentage of cosmic ray hits per profile



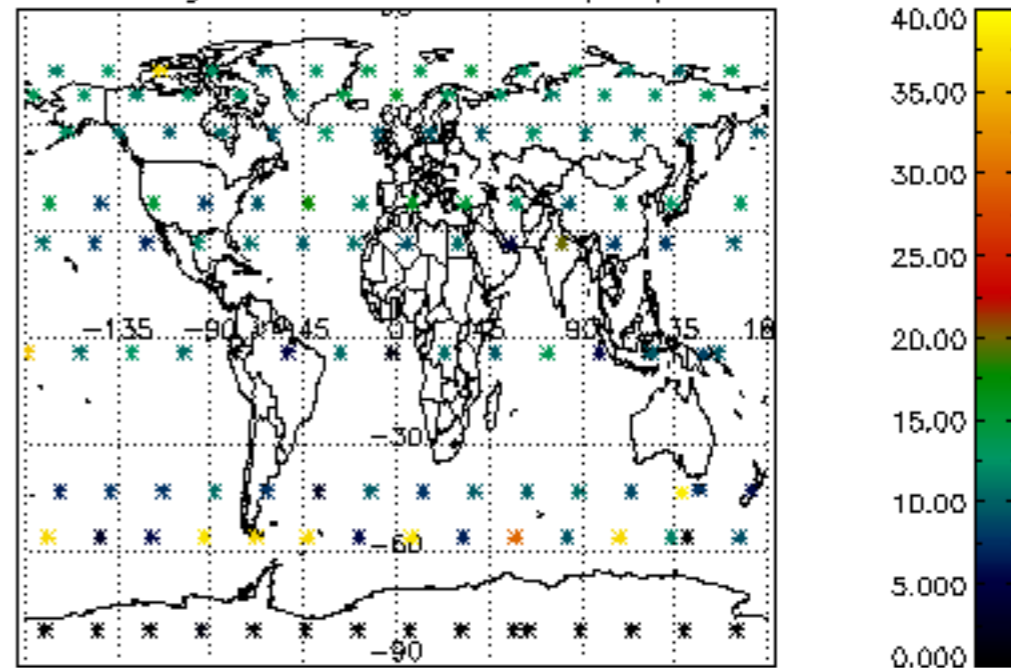
Percentage of datation errors per profile

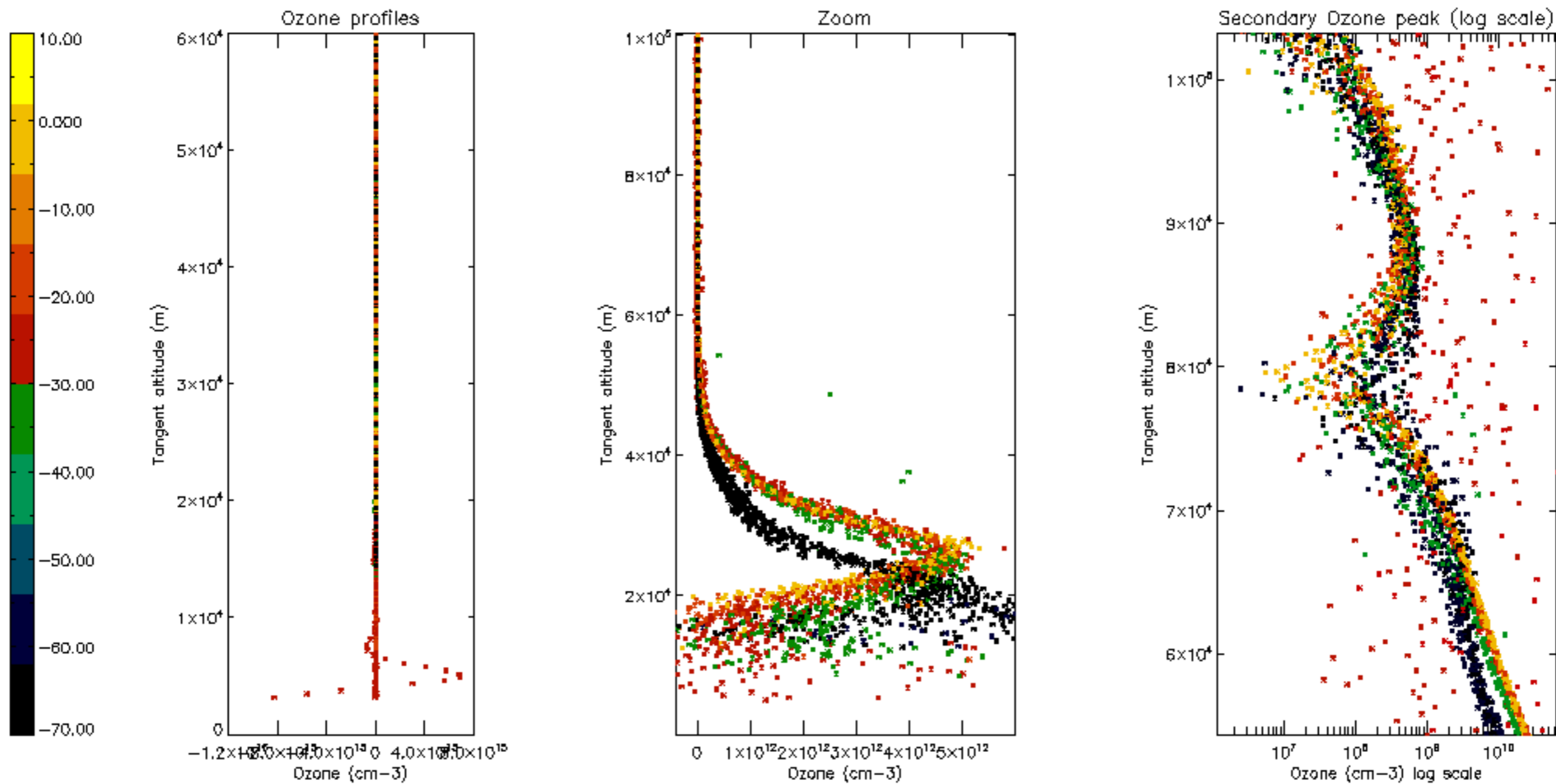


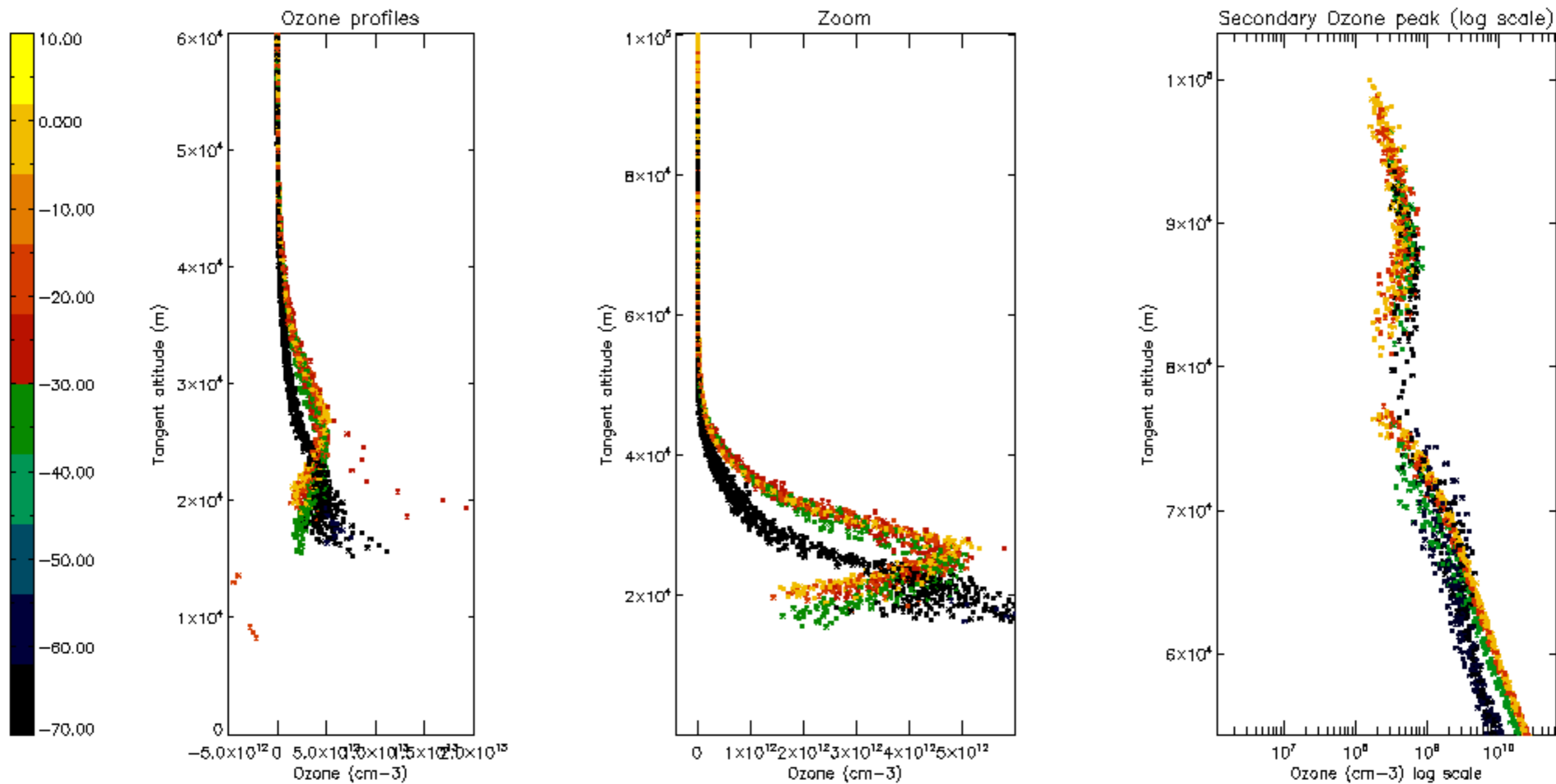
Percentage of star falling outside central band per profile

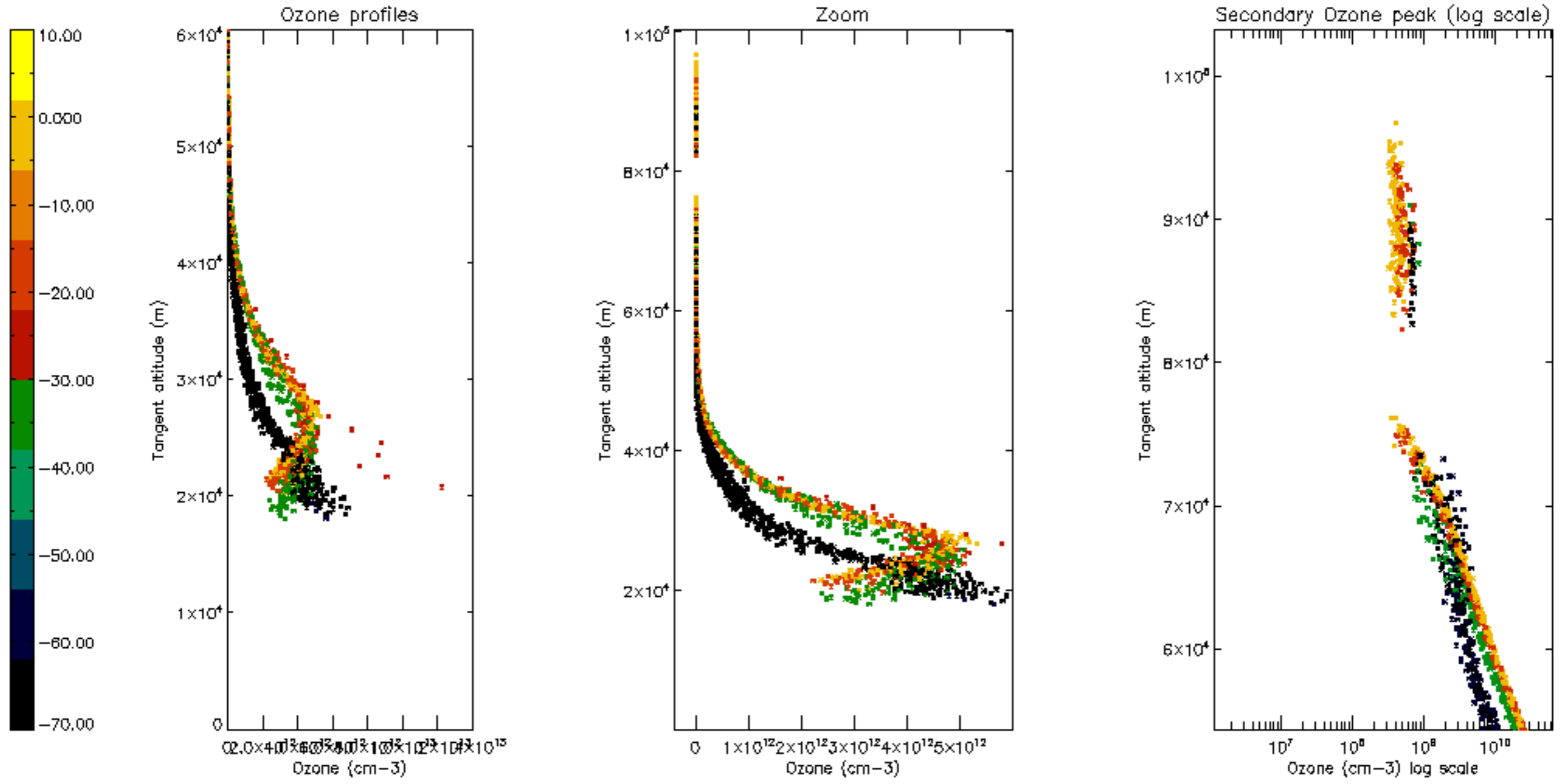


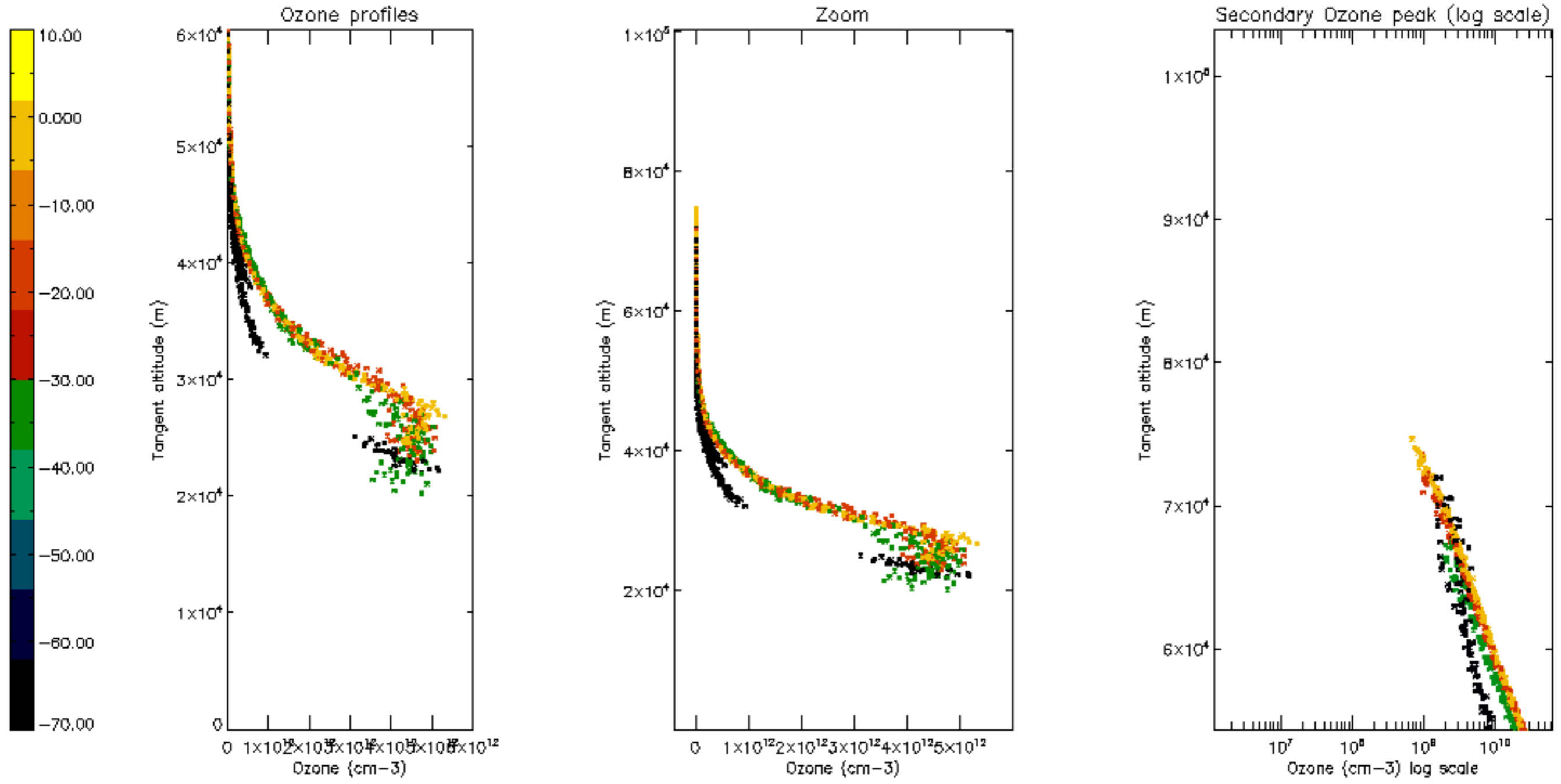
Percentage of saturation errors per profile

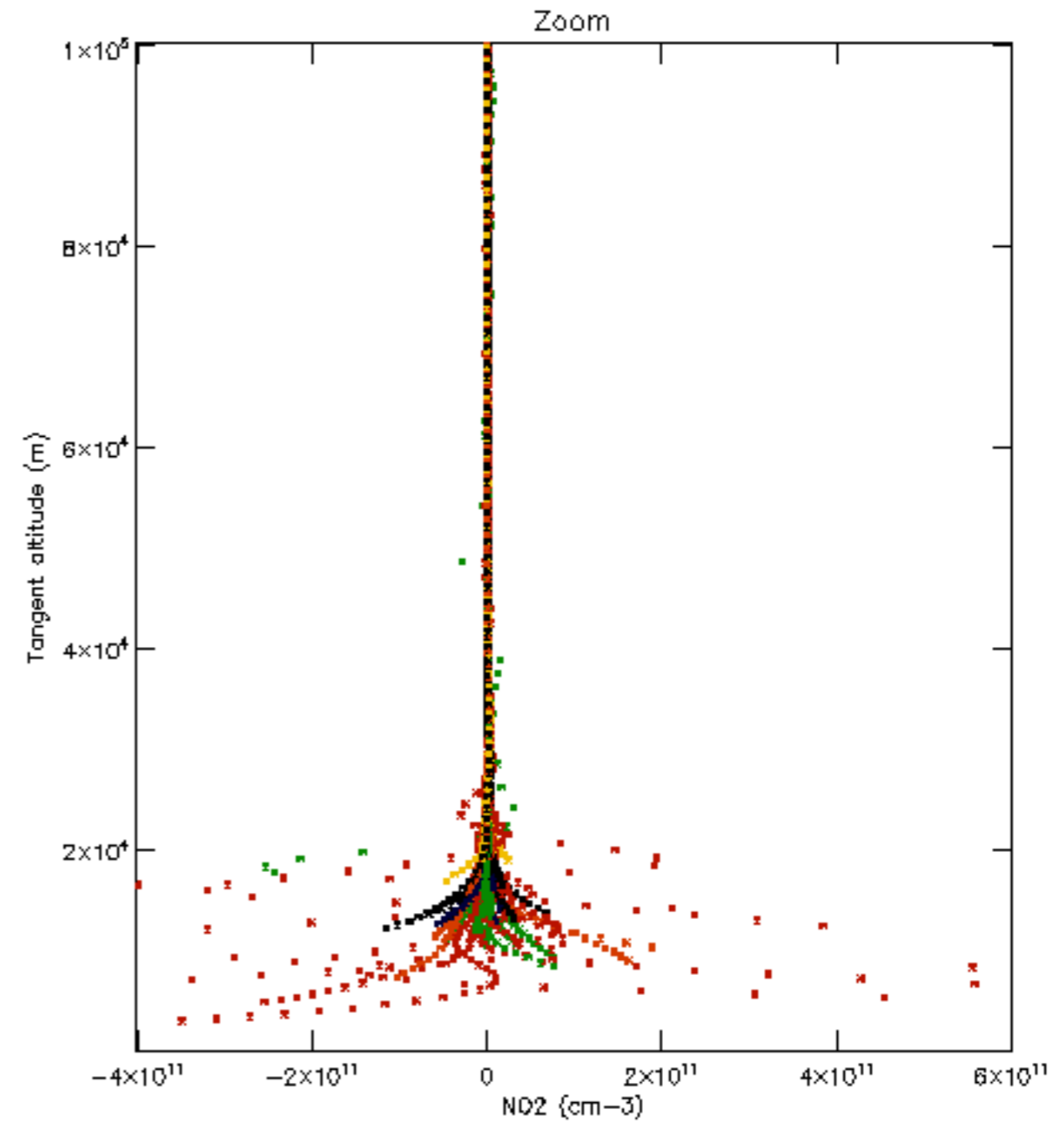
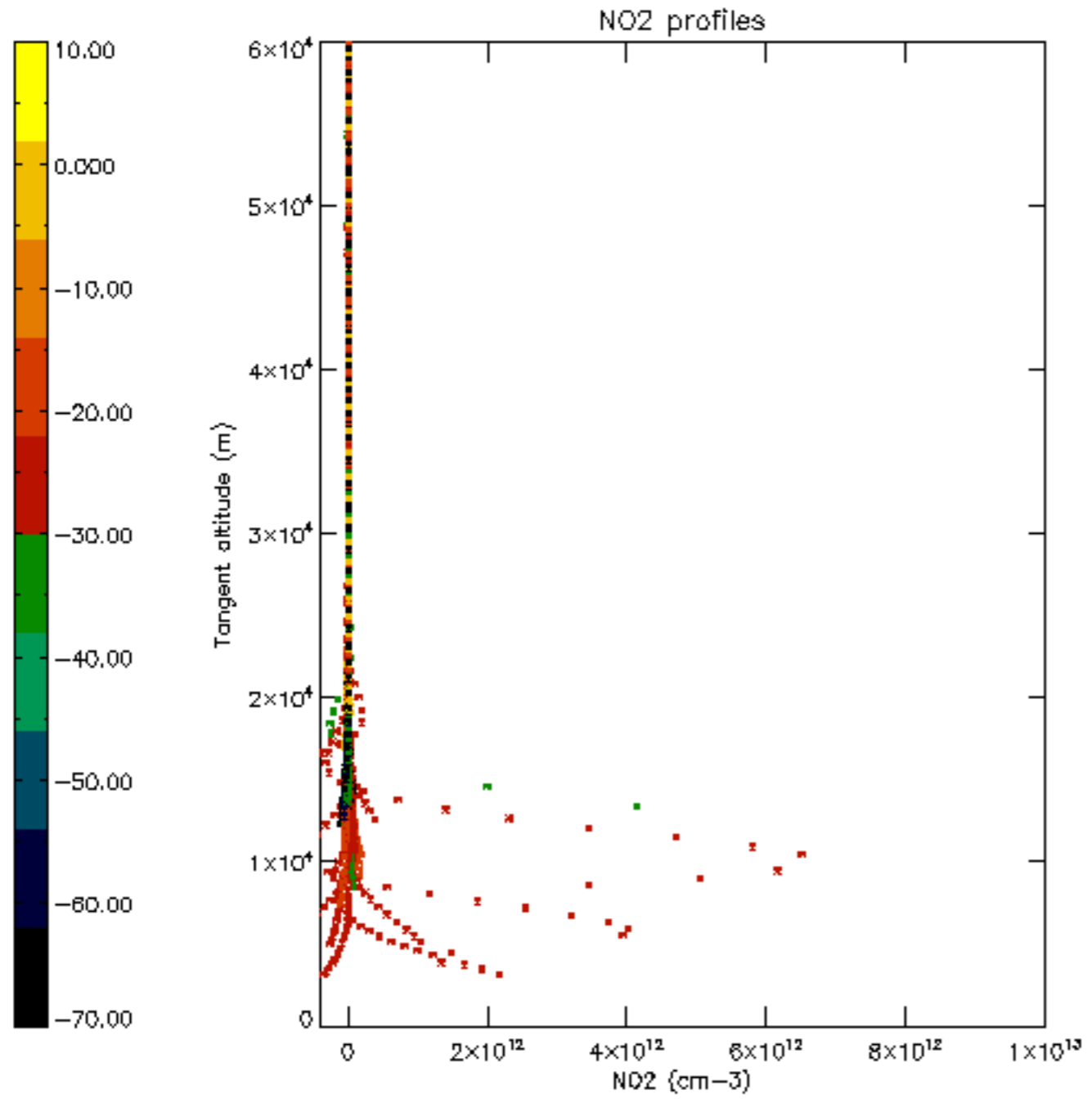


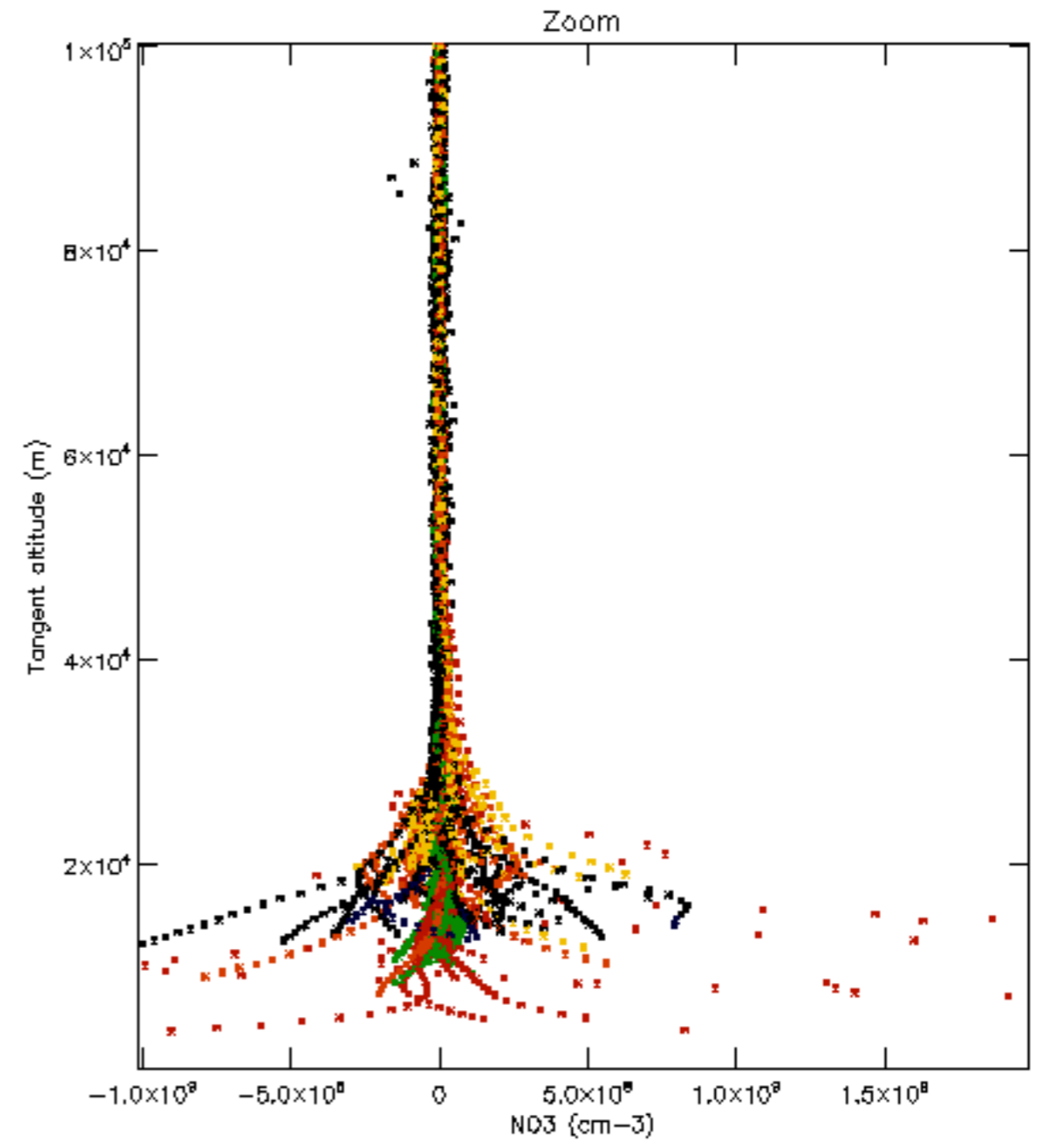
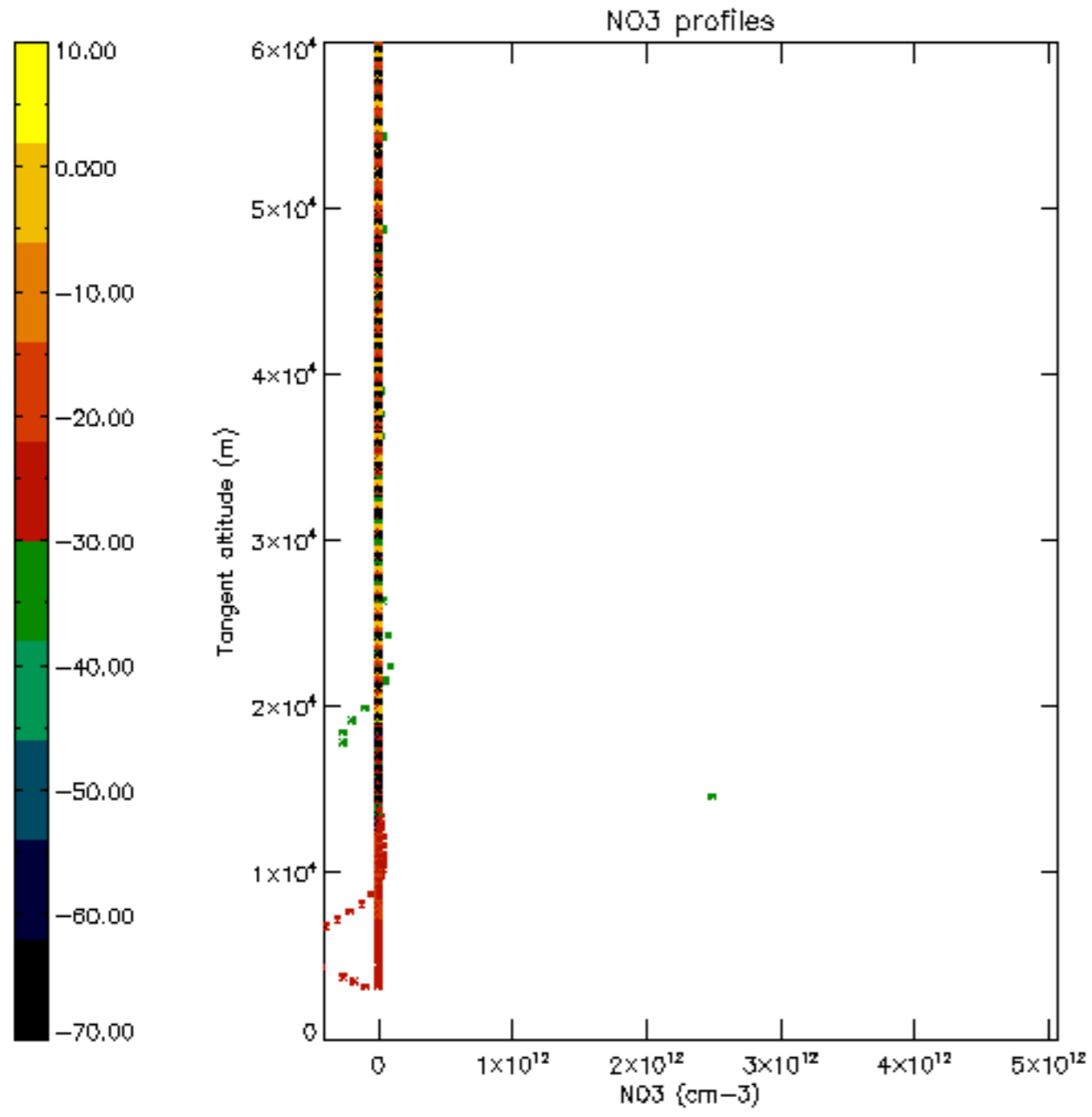


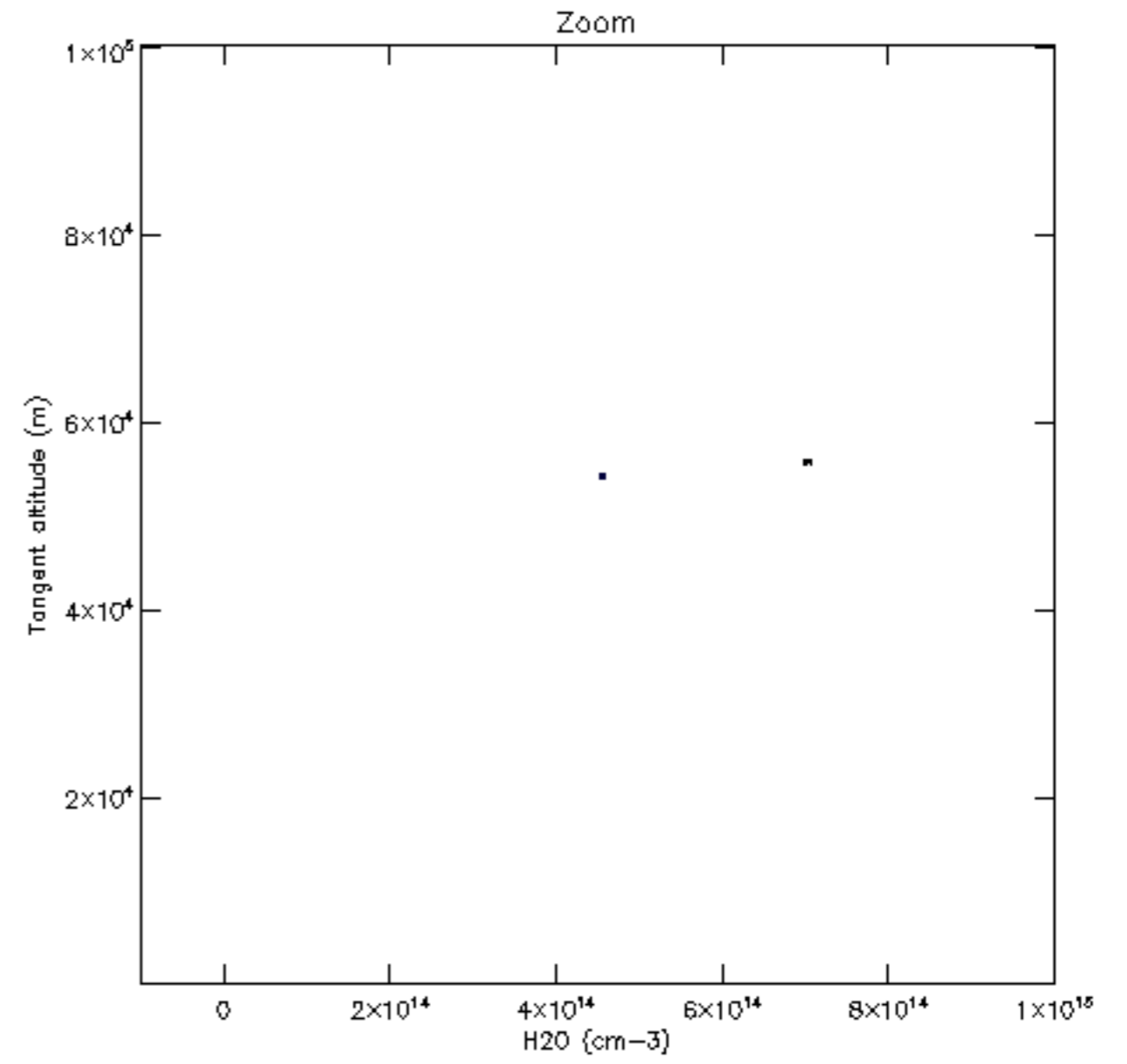
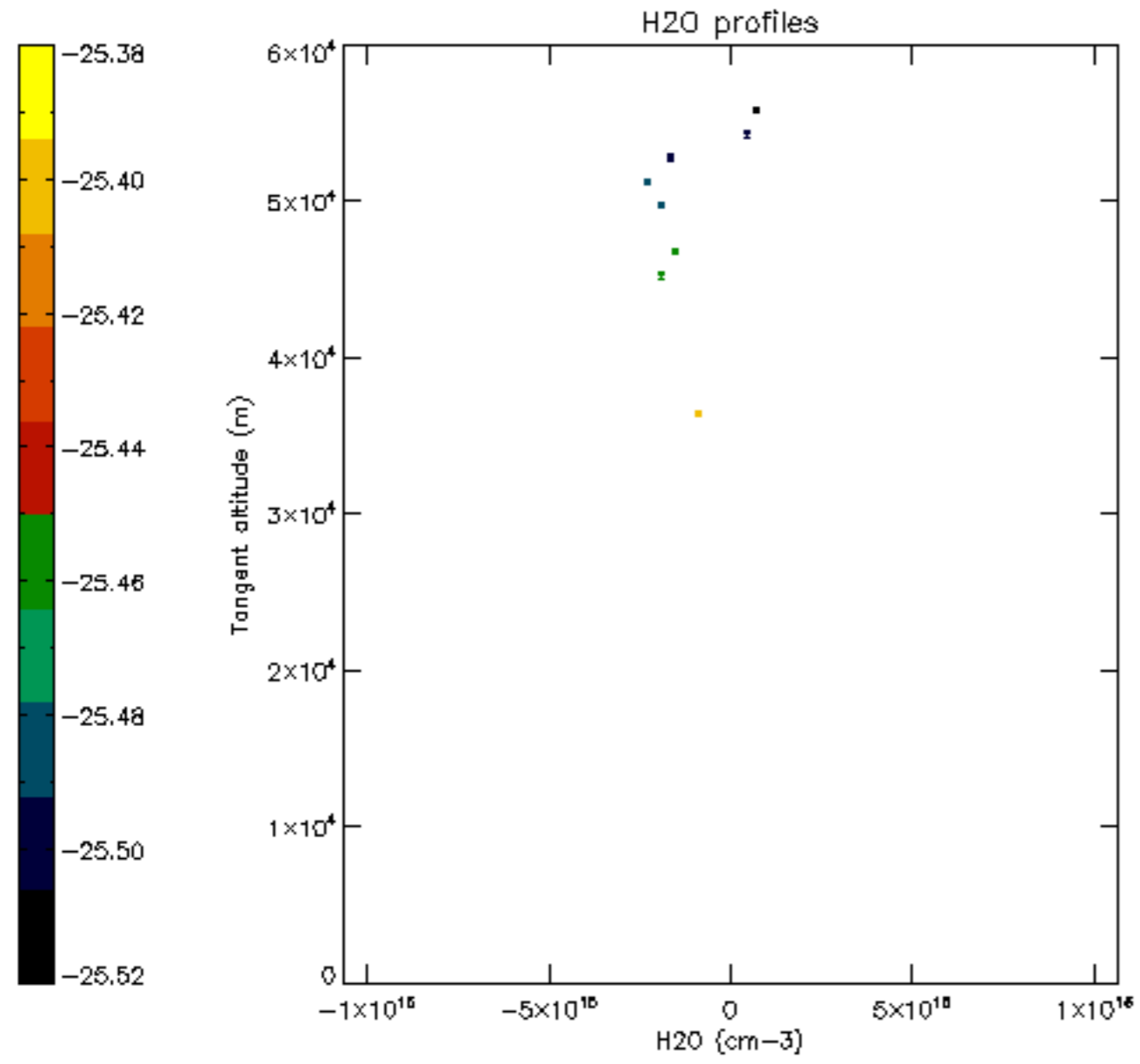


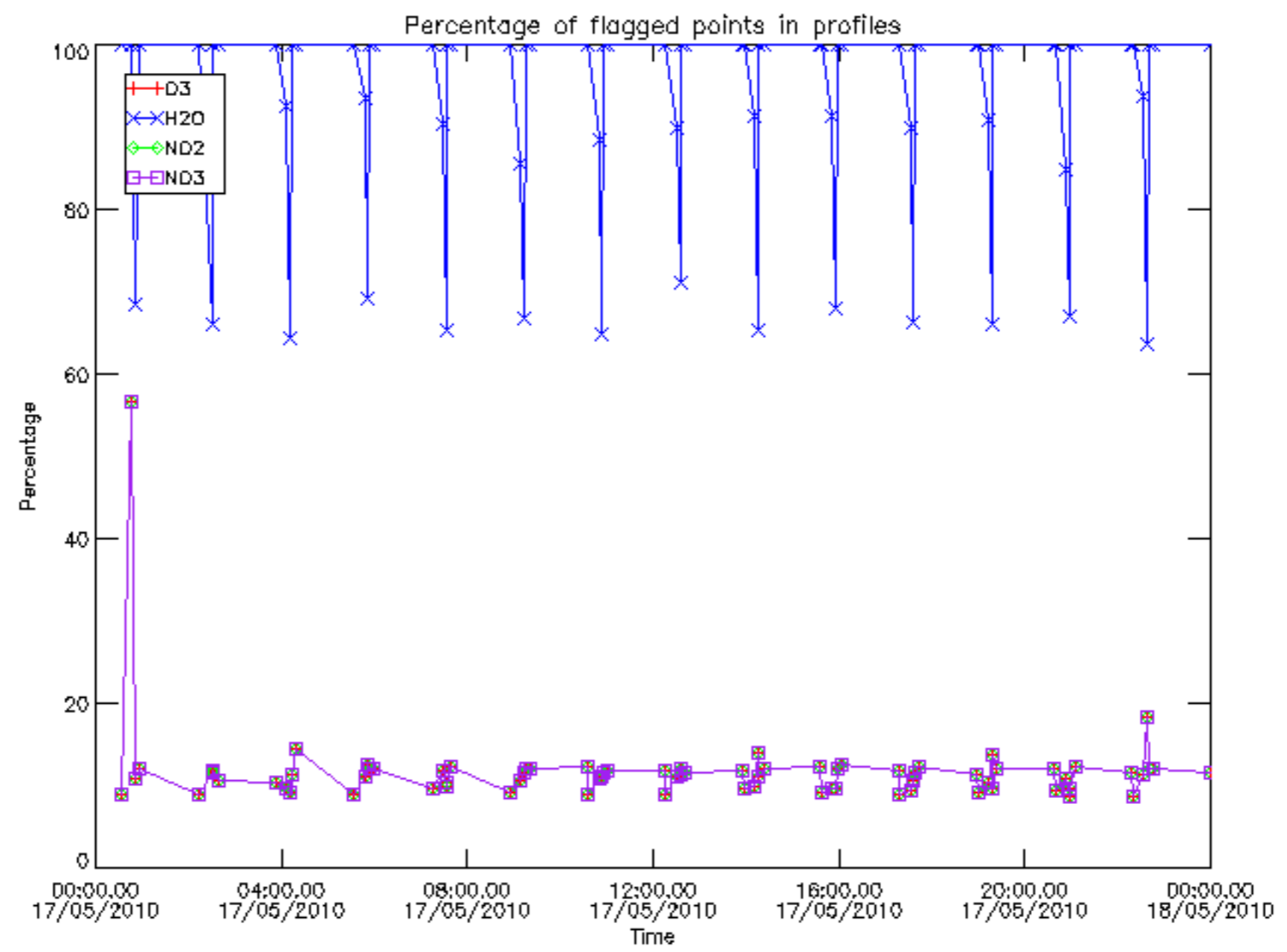




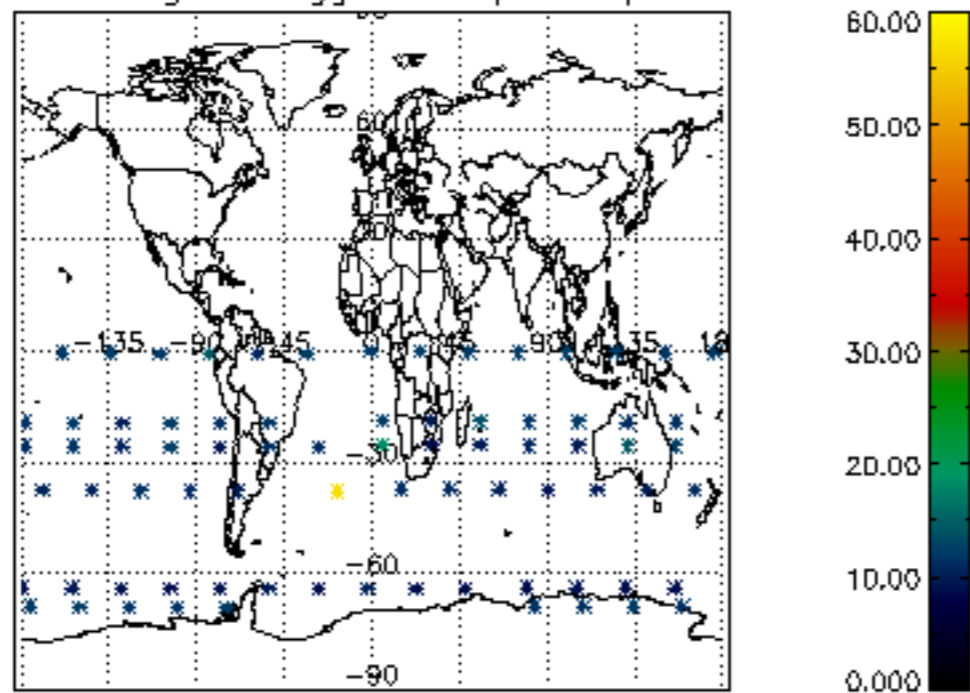




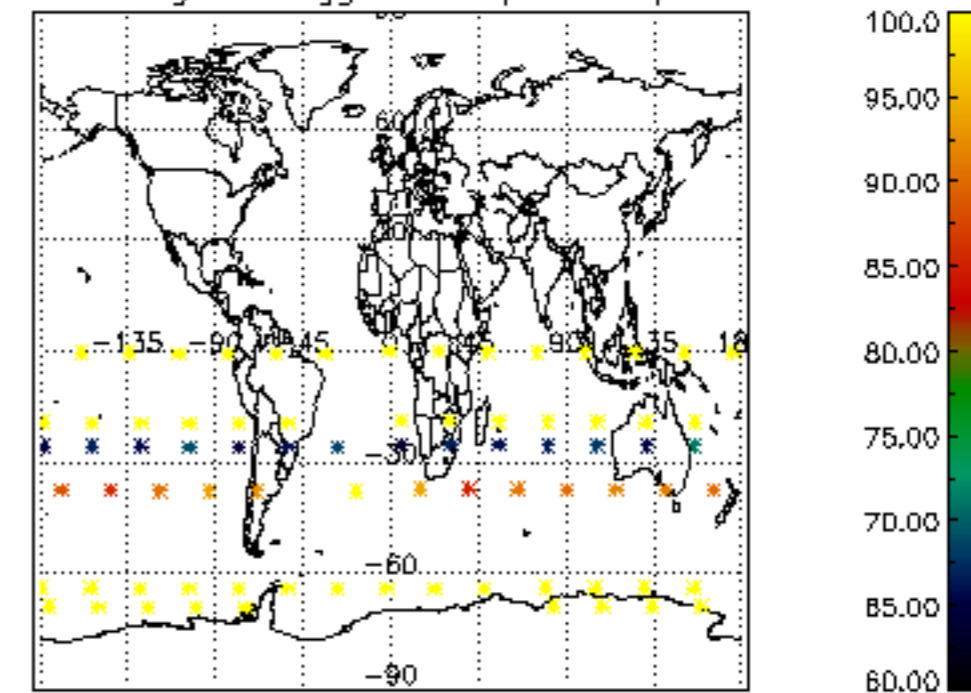




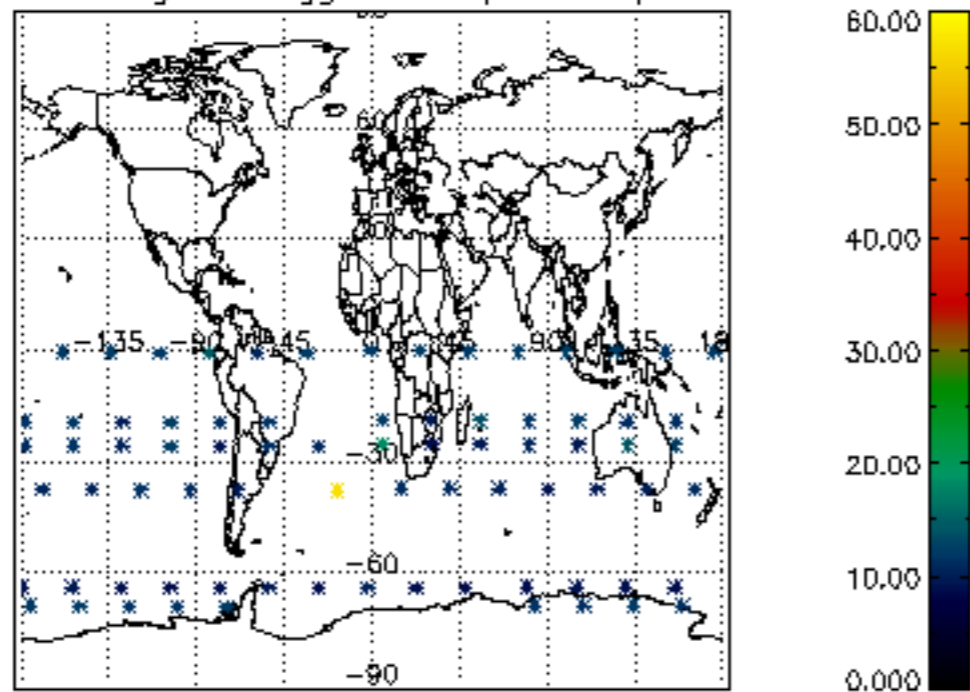
Percentage of flagged data per D3 profile



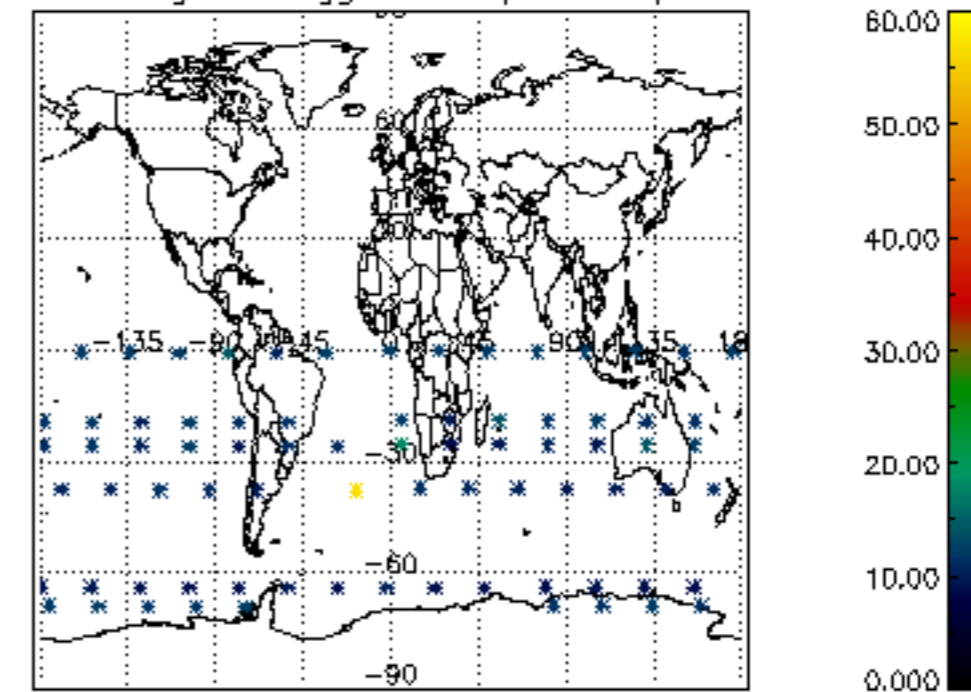
Percentage of flagged data per H2O profile

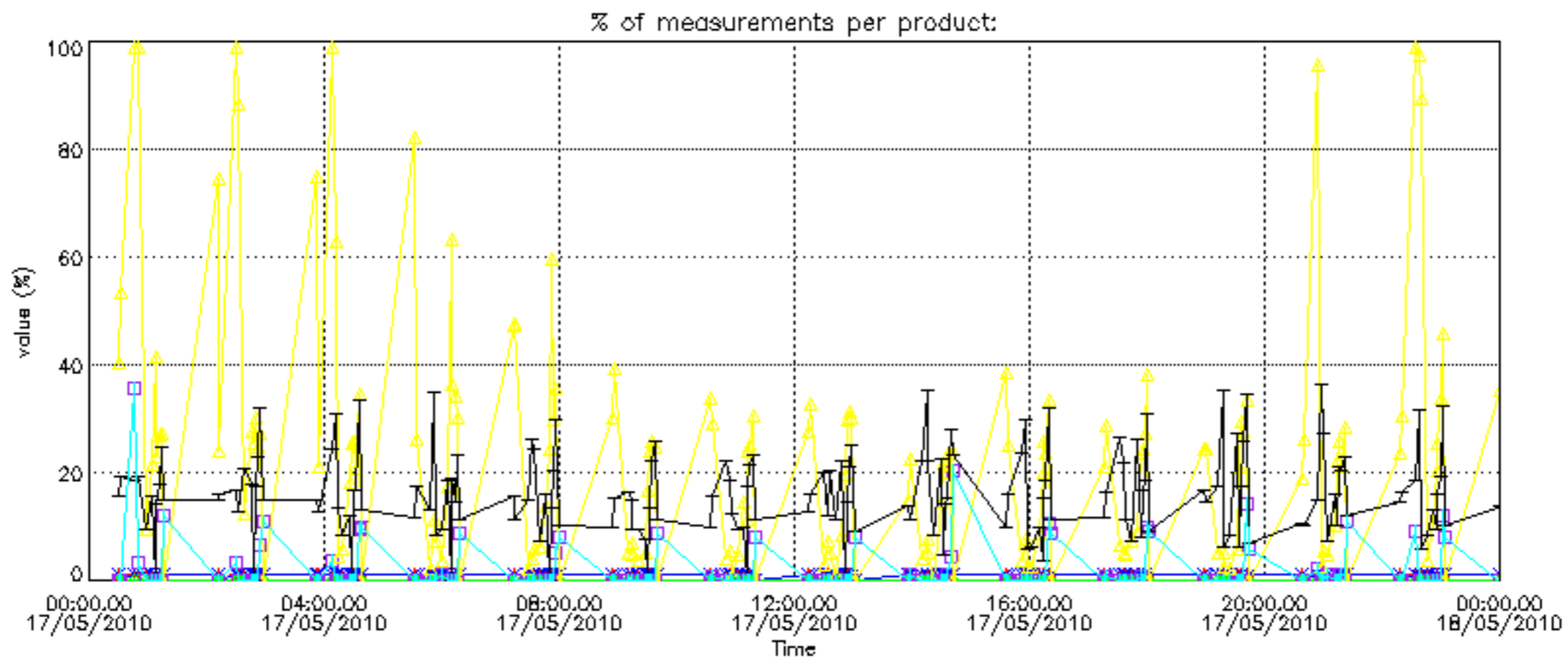


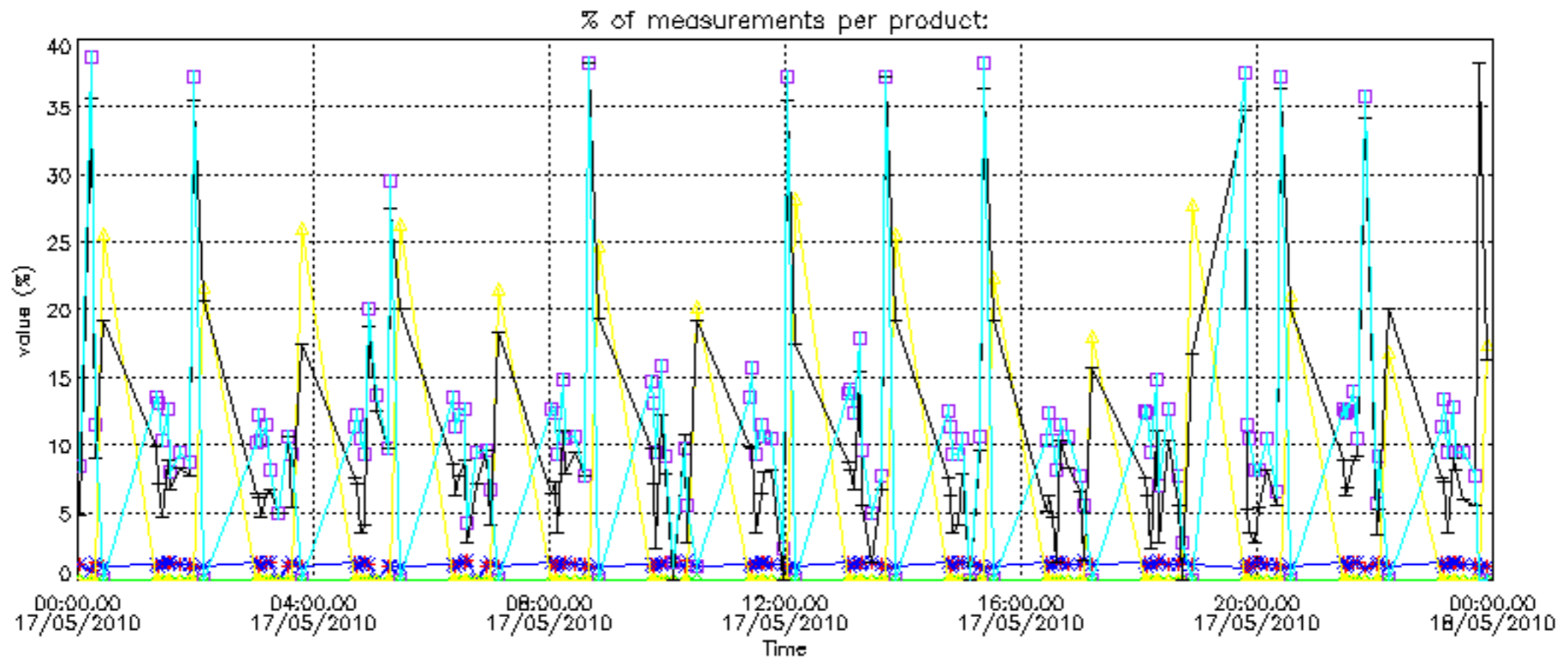
Percentage of flagged data per NO2 profile



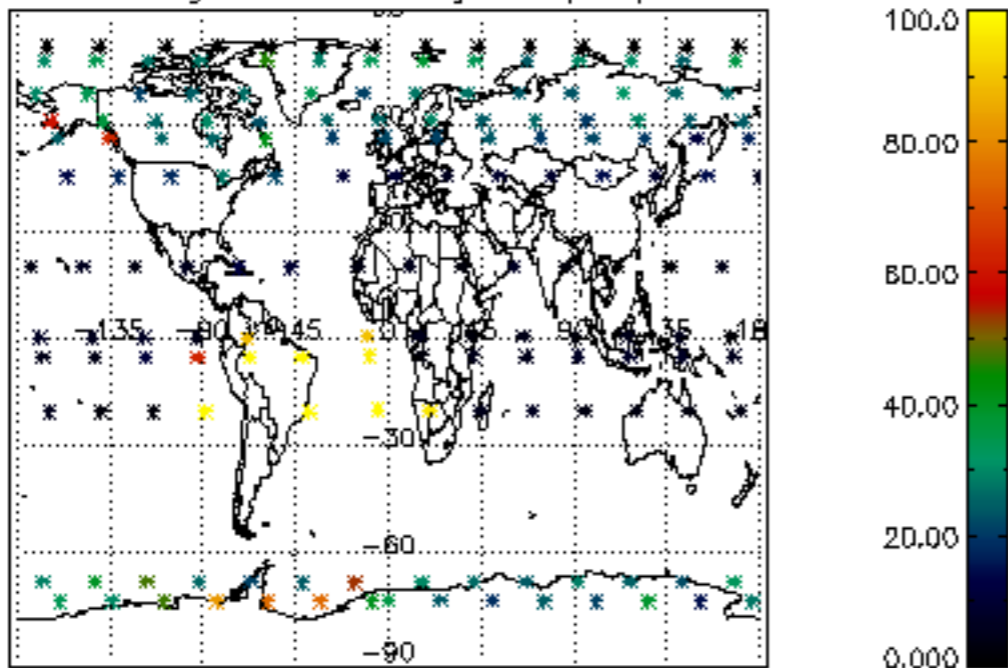
Percentage of flagged data per NO3 profile



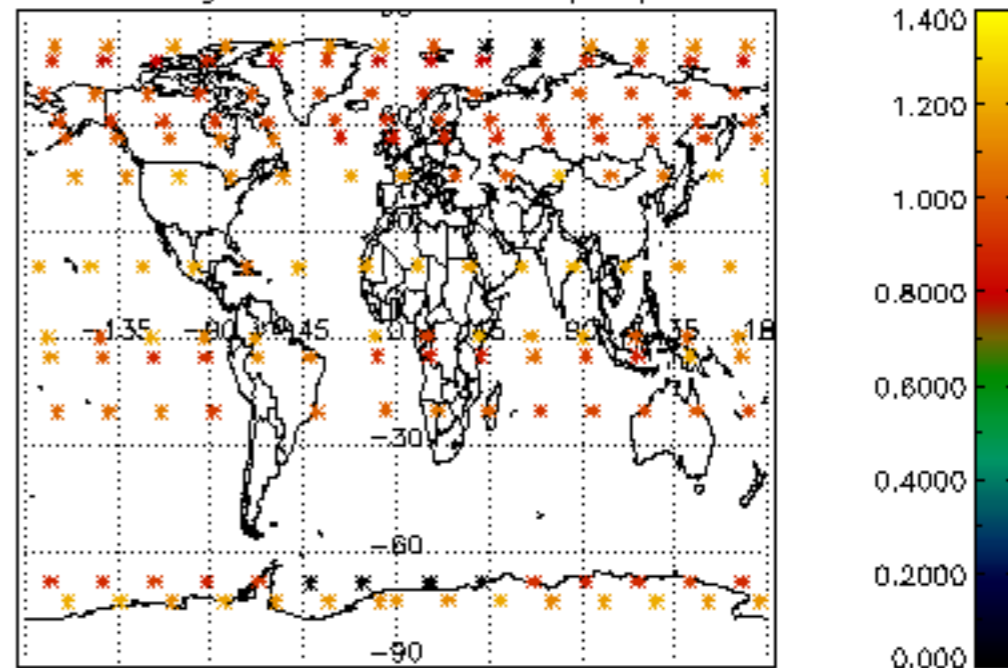




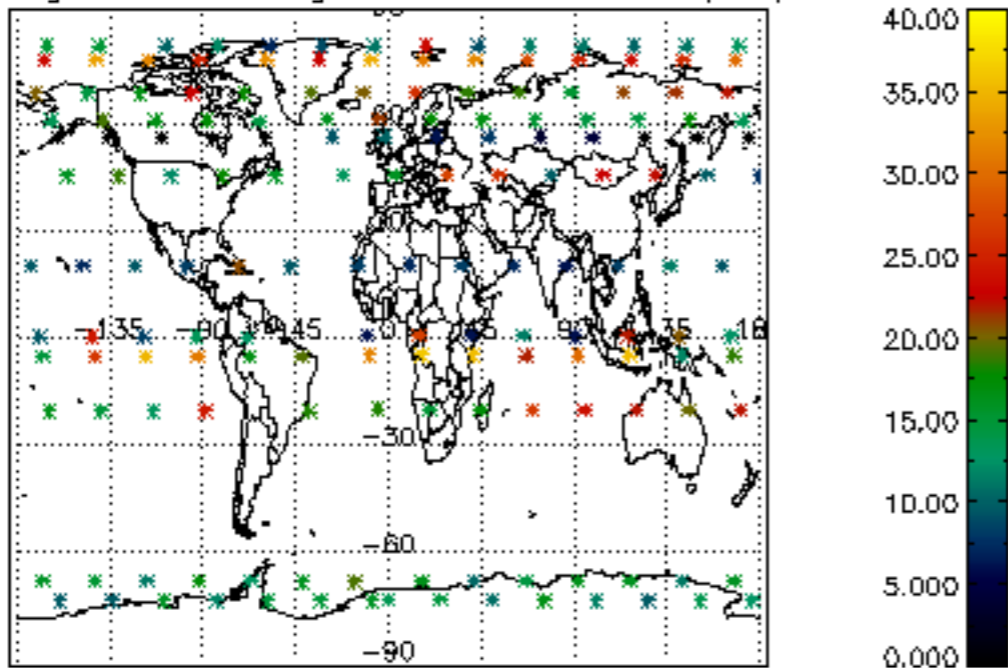
Percentage of cosmic ray hits per profile



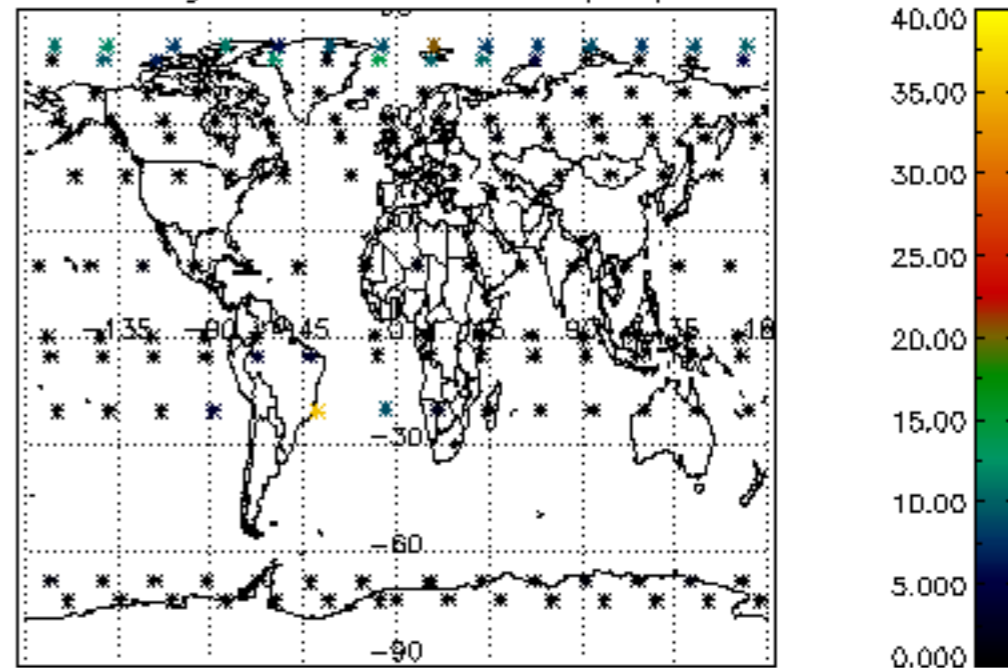
Percentage of datation errors per profile



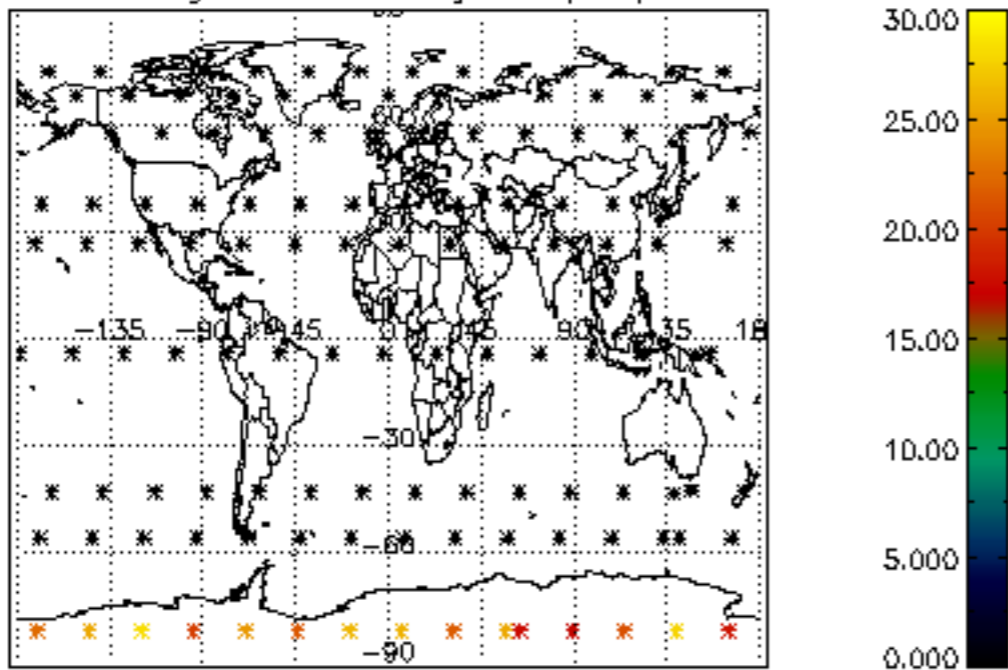
Percentage of star falling outside central band per profile



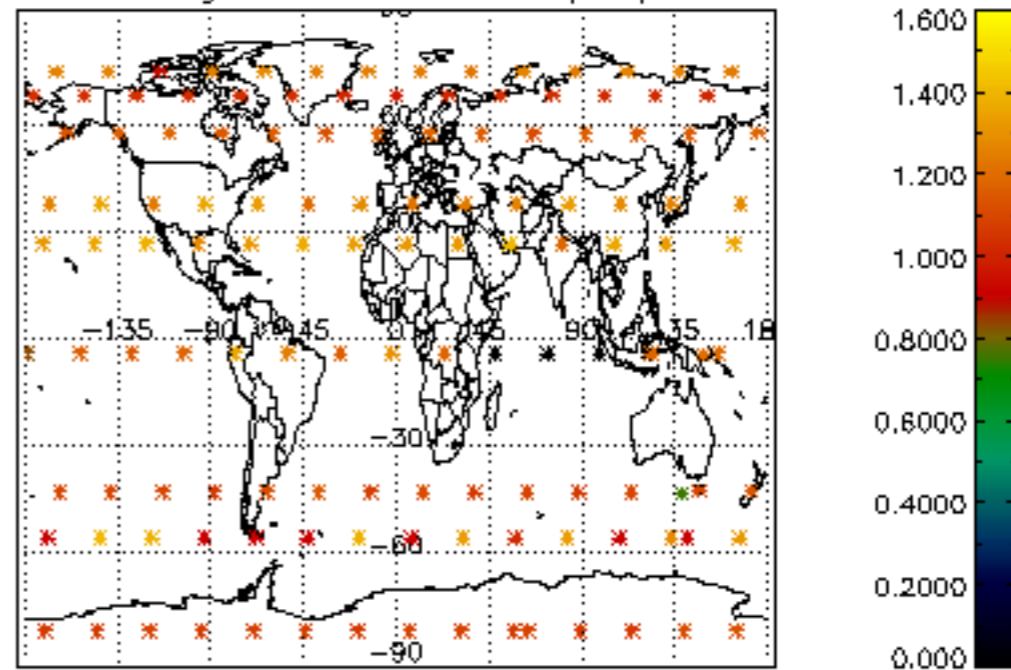
Percentage of saturation errors per profile



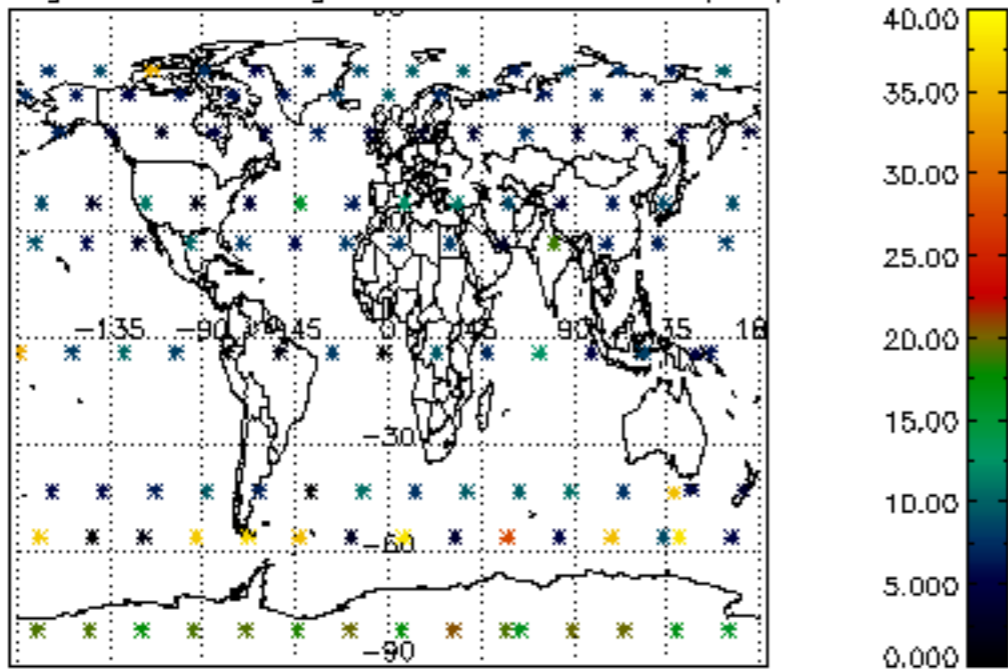
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

