

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	18APR2013 14:08:23
Data source version	GOMOS/6.01
Start time of products	24-02-2012 (24FEB2012 00:00:00)
Stop time of products	25-02-2012 (25FEB2012 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	43
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

!Warning: No products without errors in BRIGHT limb contitions found

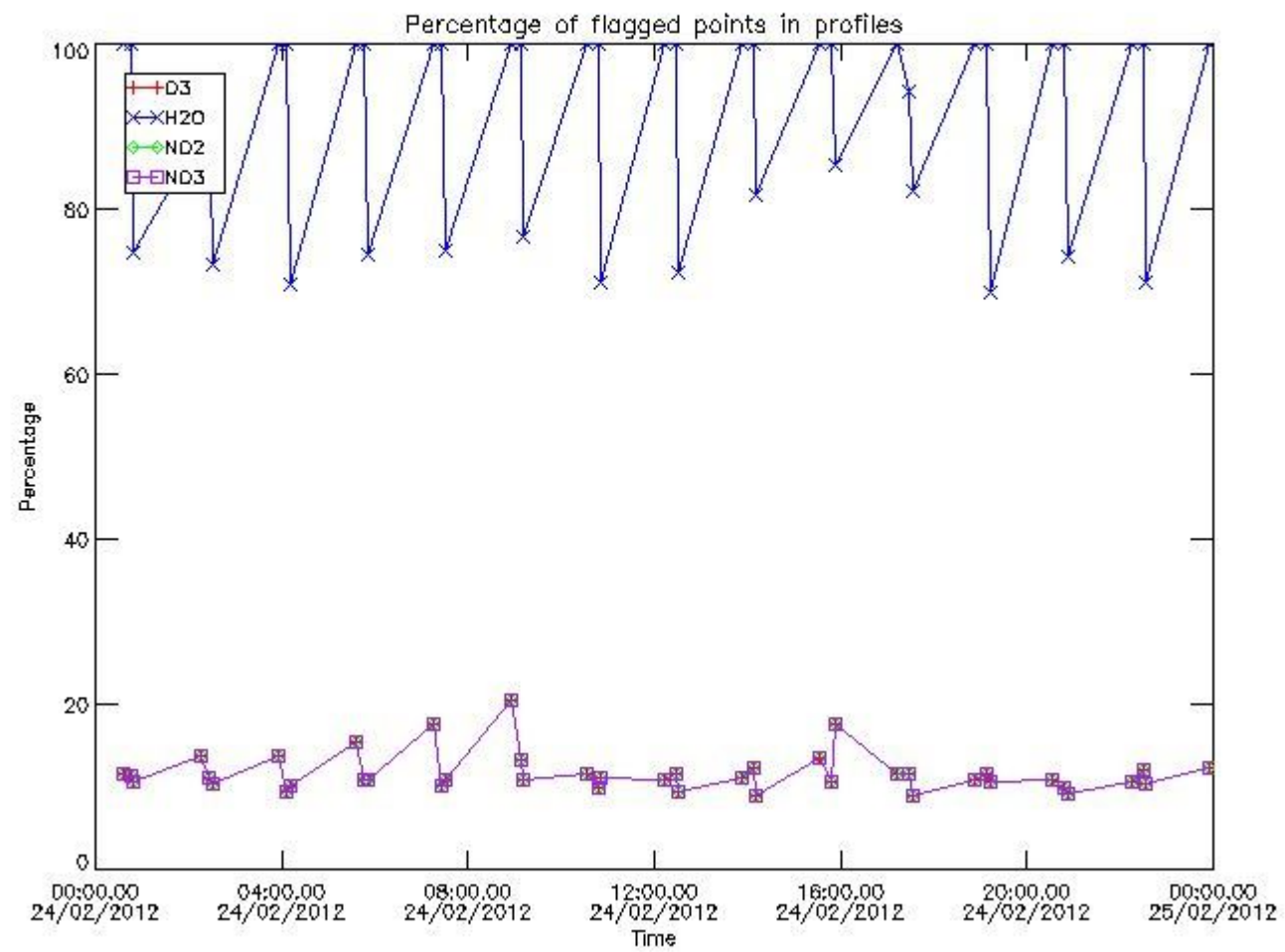
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20120224_003521_000000443112_00059_52228_6086.N1	24-FEB-2012 00:35:21	Dark	44.000	40	The Sco	1.8590	7100.0	88	52228	No
2	GOM_NL__2PRFIN20120224_004603_000000453112_00060_52229_6095.N1	24-FEB-2012 00:46:03	Dark	45.000	10	Bet Cen	0.61000	28000.	90	52229	No
3	GOM_NL__2PRFIN20120224_004943_000000483112_00060_52229_6096.N1	24-FEB-2012 00:49:43	Dark	47.500	26	Gam Cru	1.6240	2900.0	95	52229	No
4	GOM_NL__2PRFIN20120224_021536_000000413112_00060_52229_6097.N1	24-FEB-2012 02:15:36	Dark	41.000	40	The Sco	1.8590	7100.0	82	52229	No
5	GOM_NL__2PRFIN20120224_022618_000000463112_00061_52230_6099.N1	24-FEB-2012 02:26:18	Dark	46.000	10	Bet Cen	0.61000	28000.	92	52230	No
6	GOM_NL__2PRFIN20120224_022958_000000493112_00061_52230_6100.N1	24-FEB-2012 02:29:58	Dark	48.500	26	Gam Cru	1.6240	2900.0	97	52230	No
7	GOM_NL__2PRFIN20120224_035551_000000373112_00061_52230_6101.N1	24-FEB-2012 03:55:51	Dark	37.000	40	The Sco	1.8590	7100.0	74	52230	No
8	GOM_NL__2PRFIN20120224_040633_000000543112_00062_52231_6110.N1	24-FEB-2012 04:06:33	Dark	54.000	10	Bet Cen	0.61000	28000.	108	52231	No
9	GOM_NL__2PRFIN20120224_041012_000000503112_00062_52231_6111.N1	24-FEB-2012 04:10:12	Dark	49.500	26	Gam Cru	1.6240	2900.0	99	52231	No
10	GOM_NL__2PRFIN20120224_053605_000000333112_00062_52231_6112.N1	24-FEB-2012 05:36:05	Dark	33.000	40	The Sco	1.8590	7100.0	66	52231	No
11	GOM_NL__2PRFIN20120224_054647_000000483112_00063_52232_6130.N1	24-FEB-2012 05:46:47	Dark	47.500	10	Bet Cen	0.61000	28000.	95	52232	No
12	GOM_NL__2PRFIN20120224_055027_000000473112_00063_52232_6131.N1	24-FEB-2012 05:50:27	Dark	47.000	26	Gam Cru	1.6240	2900.0	94	52232	No
13	GOM_NL__2PRFIN20120224_071620_000000293112_00063_52232_6132.N1	24-FEB-2012 07:16:20	Dark	29.000	40	The Sco	1.8590	7100.0	58	52232	No
14	GOM_NL__2PRFIN20120224_072702_000000503112_00064_52233_6178.N1	24-FEB-2012 07:27:02	Dark	50.000	10	Bet Cen	0.61000	28000.	100	52233	No
15	GOM_NL__2PRFIN20120224_073042_000000463112_00064_52233_6179.N1	24-FEB-2012 07:30:42	Dark	46.000	26	Gam Cru	1.6240	2900.0	92	52233	No
16	GOM_NL__2PRFIN20120224_085635_000000253112_00064_52233_6180.N1	24-FEB-2012 08:56:35	Dark	25.000	40	The Sco	1.8590	7100.0	50	52233	No
17	GOM_NL__2PRFIN20120224_090716_000000423112_00065_52234_6204.N1	24-FEB-2012 09:07:16	Dark	42.000	10	Bet Cen	0.61000	28000.	84	52234	No
18	GOM_NL__2PRFIN20120224_091056_000000473112_00065_52234_6205.N1	24-FEB-2012 09:10:56	Dark	47.000	26	Gam Cru	1.6240	2900.0	94	52234	No
19	GOM_NL__2PRFIN20120224_103205_000000453112_00065_52234_6206.N1	24-FEB-2012 10:32:05	Dark	44.500	116	19Del Sgr	2.7000	4100.0	89	52234	No
20	GOM_NL__2PRFIN20120224_104731_000000523112_00066_52235_6235.N1	24-FEB-2012 10:47:31	Dark	51.500	10	Bet Cen	0.61000	28000.	103	52235	No
21	GOM_NL__2PRFIN20120224_105110_000000453112_00066_52235_6236.N1	24-FEB-2012 10:51:10	Dark	45.000	26	Gam Cru	1.6240	2900.0	90	52235	No
22	GOM_NL__2PRFIN20120224_121220_000000483112_00066_52235_6237.N1	24-FEB-2012 12:12:20	Dark	47.500	116	19Del Sgr	2.7000	4100.0	95	52235	No
23	GOM_NL__2PRFIN20120224_122745_000000443112_00067_52236_6268.N1	24-FEB-2012 12:27:45	Dark	44.000	10	Bet Cen	0.61000	28000.	88	52236	No
24	GOM_NL__2PRFIN20120224_123125_000000543112_00067_52236_6269.N1	24-FEB-2012 12:31:25	Dark	54.000	26	Gam Cru	1.6240	2900.0	108	52236	No
25	GOM_NL__2PRFIN20120224_135234_000000463112_00067_52236_6270.N1	24-FEB-2012 13:52:34	Dark	46.000	116	19Del Sgr	2.7000	4100.0	92	52236	No
26	GOM_NL__2PRFIN20120224_140800_000000423112_00068_52237_6299.N1	24-FEB-2012 14:08:00	Dark	41.500	10	Bet Cen	0.61000	28000.	83	52237	No
27	GOM_NL__2PRFIN20120224_141139_000000573112_00068_52237_6300.N1	24-FEB-2012 14:11:39	Dark	57.000	26	Gam Cru	1.6240	2900.0	114	52237	No
28	GOM_NL__2PRFIN20120224_153249_000000423112_00068_52237_6301.N1	24-FEB-2012 15:32:49	Dark	41.500	116	19Del Sgr	2.7000	4100.0	83	52237	No
29	GOM_NL__2PRFIN20120224_154814_000000483112_00069_52238_6359.N1	24-FEB-2012 15:48:14	Dark	48.000	10	Bet Cen	0.61000	28000.	96	52238	No
30	GOM_NL__2PRFIN20120224_155154_000000583112_00069_52238_6360.N1	24-FEB-2012 15:51:54	Dark	57.500	26	Gam Cru	1.6240	2900.0	115	52238	No
31	GOM_NL__2PRFIN20120224_171303_000000453112_00069_52238_6361.N1	24-FEB-2012 17:13:03	Dark	44.500	116	19Del Sgr	2.7000	4100.0	89	52238	No
32	GOM_NL__2PRFIN20120224_172829_000000443112_00070_52239_6372.N1	24-FEB-2012 17:28:29	Dark	44.000	10	Bet Cen	0.61000	28000.	88	52239	No
33	GOM_NL__2PRFIN20120224_173208_000000563112_00070_52239_6373.N1	24-FEB-2012 17:32:08	Dark	56.000	26	Gam Cru	1.6240	2900.0	112	52239	No
34	GOM_NL__2PRFIN20120224_185318_000000473112_00070_52239_6374.N1	24-FEB-2012 18:53:18	Dark	47.000	116	19Del Sgr	2.7000	4100.0	94	52239	No
35	GOM_NL__2PRFIN20120224_190844_000000453112_00071_52240_6391.N1	24-FEB-2012 19:08:44	Dark	44.500	10	Bet Cen	0.61000	28000.	89	52240	No
36	GOM_NL__2PRFIN20120224_191223_000000483112_00071_52240_6392.N1	24-FEB-2012 19:12:23	Dark	48.000	26	Gam Cru	1.6240	2900.0	96	52240	No
37	GOM_NL__2PRFIN20120224_203333_000000483112_00071_52240_6393.N1	24-FEB-2012 20:33:33	Dark	47.500	116	19Del Sgr	2.7000	4100.0	95	52240	No
38	GOM_NL__2PRFIN20120224_204858_000000523112_00072_52241_6421.N1	24-FEB-2012 20:48:58	Dark	51.500	10	Bet Cen	0.61000	28000.	103	52241	No
39	GOM_NL__2PRFIN20120224_205237_000000553112_00072_52241_6422.N1	24-FEB-2012 20:52:37	Dark	54.500	26	Gam Cru	1.6240	2900.0	109	52241	No
40	GOM_NL__2PRFIN20120224_221347_000000483112_00072_52241_6423.N1	24-FEB-2012 22:13:47	Dark	48.000	116	19Del Sgr	2.7000	4100.0	96	52241	No
41	GOM_NL__2PRFIN20120224_222913_000000423112_00073_52242_6430.N1	24-FEB-2012 22:29:13	Dark	42.000	10	Bet Cen	0.61000	28000.	84	52242	No

42	GOM_NL__2PRFIN20120224_223252_000000493112_00073_52242_6431.N1	24-FEB-2012 22:32:52	Dark	48.500	26	Gam Cru	1.6240	2900.0	97	52242	No
43	GOM_NL__2PRFIN20120224_235402_000000423112_00073_52242_6432.N1	24-FEB-2012 23:54:02	Dark	41.500	116	19Del Sgr	2.7000	4100.0	83	52242	No

3. Quality information per product

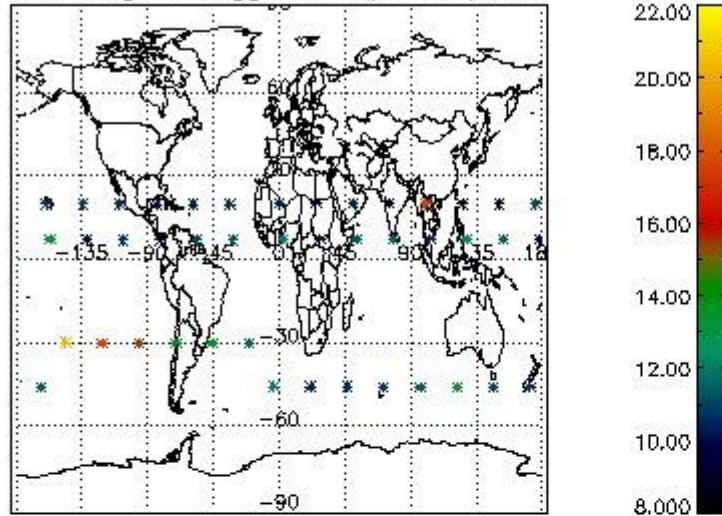
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

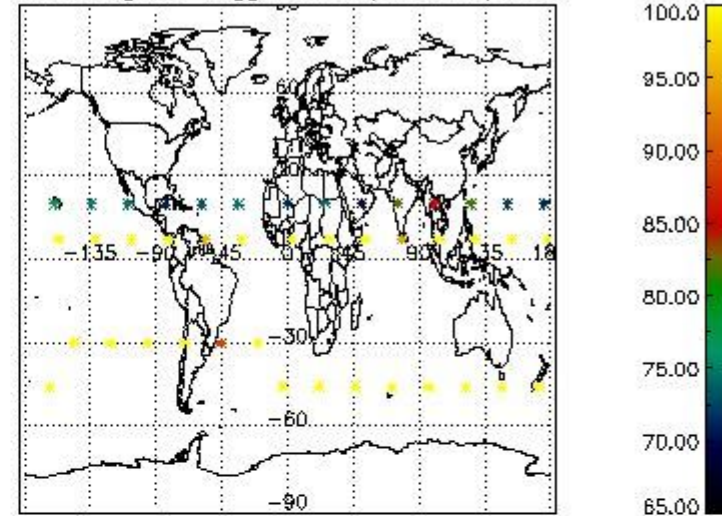


3.2 Plot quality information per product (world map)

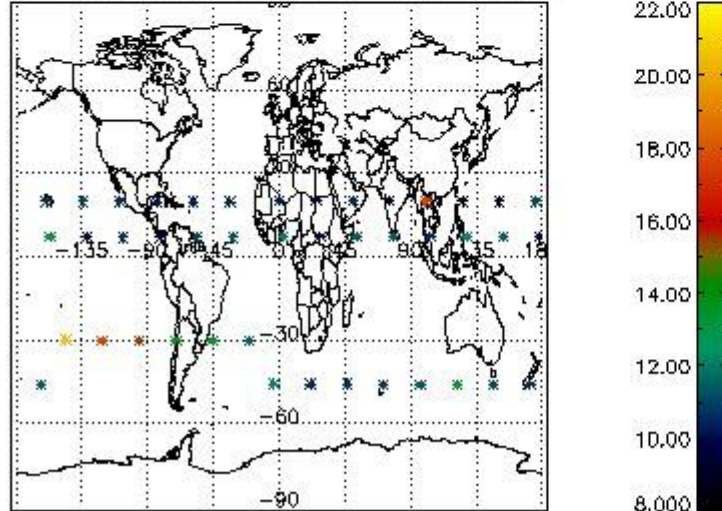
Percentage of flagged data per O3 profile



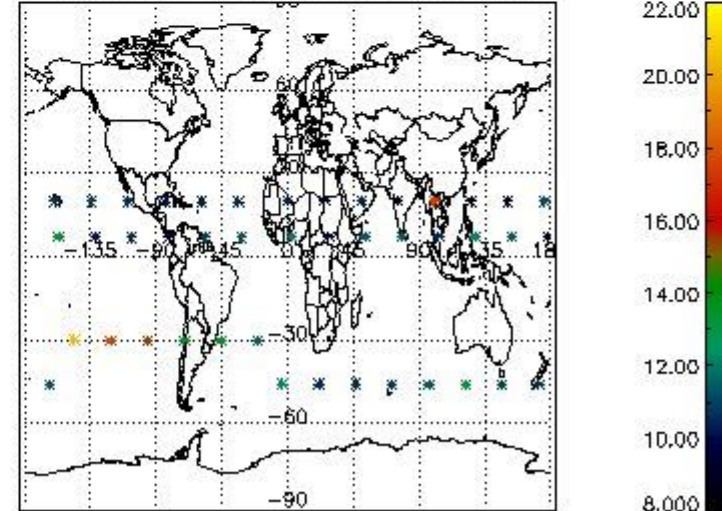
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

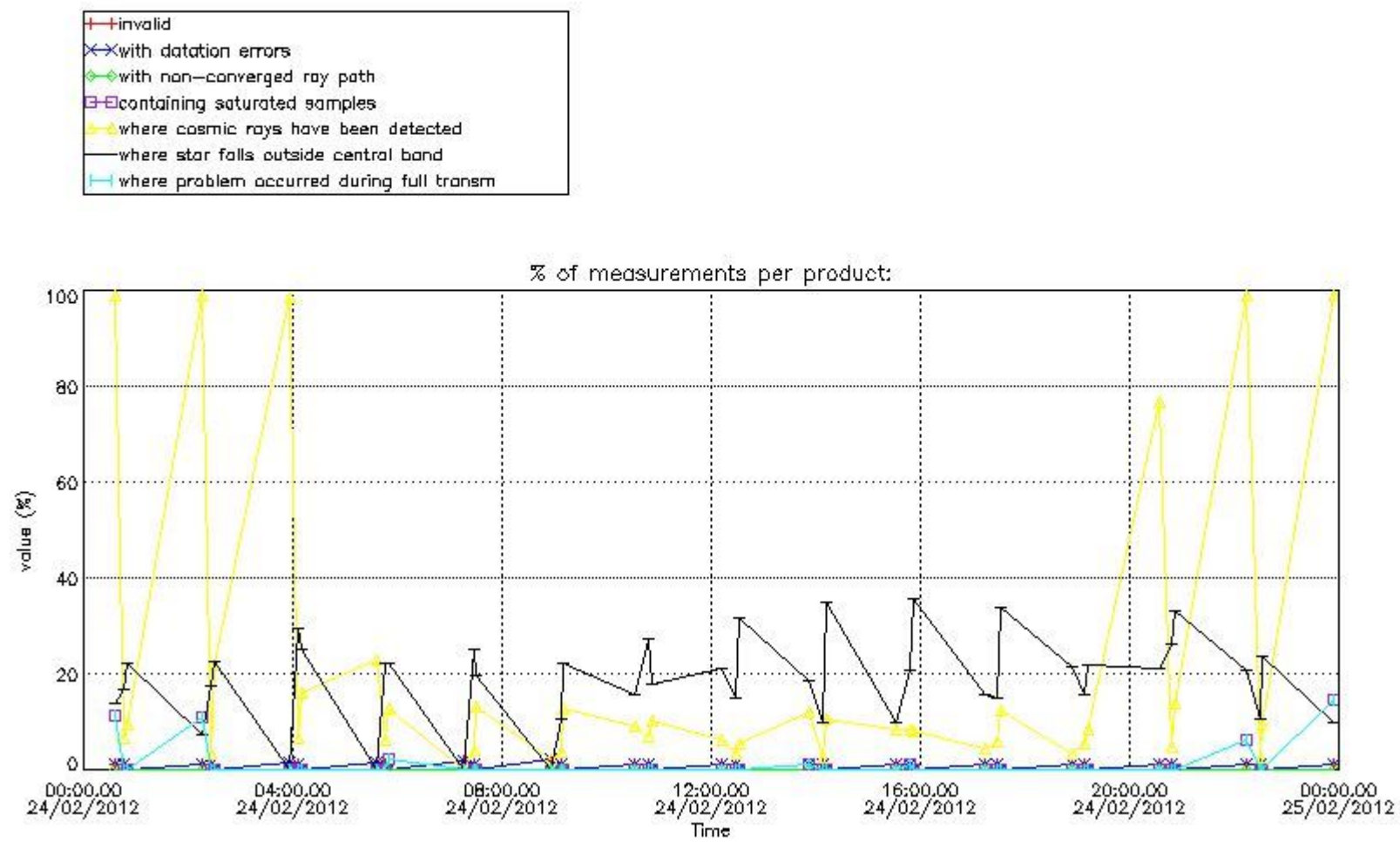


4. Level 1 quality information per product

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

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

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

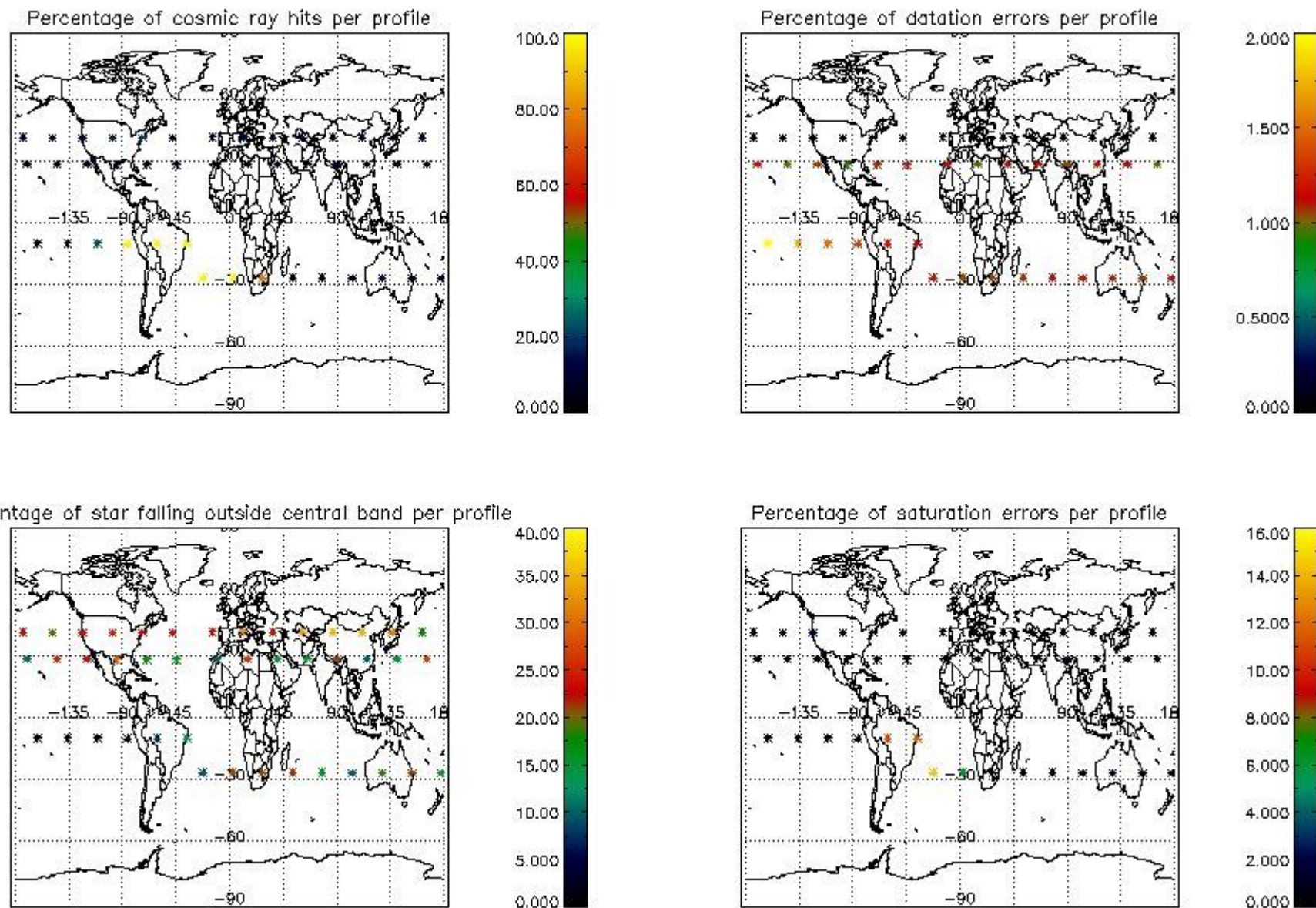


4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes

!Warning: No products without errors in descending found

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

!Warning: No products without errors in descending found

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:

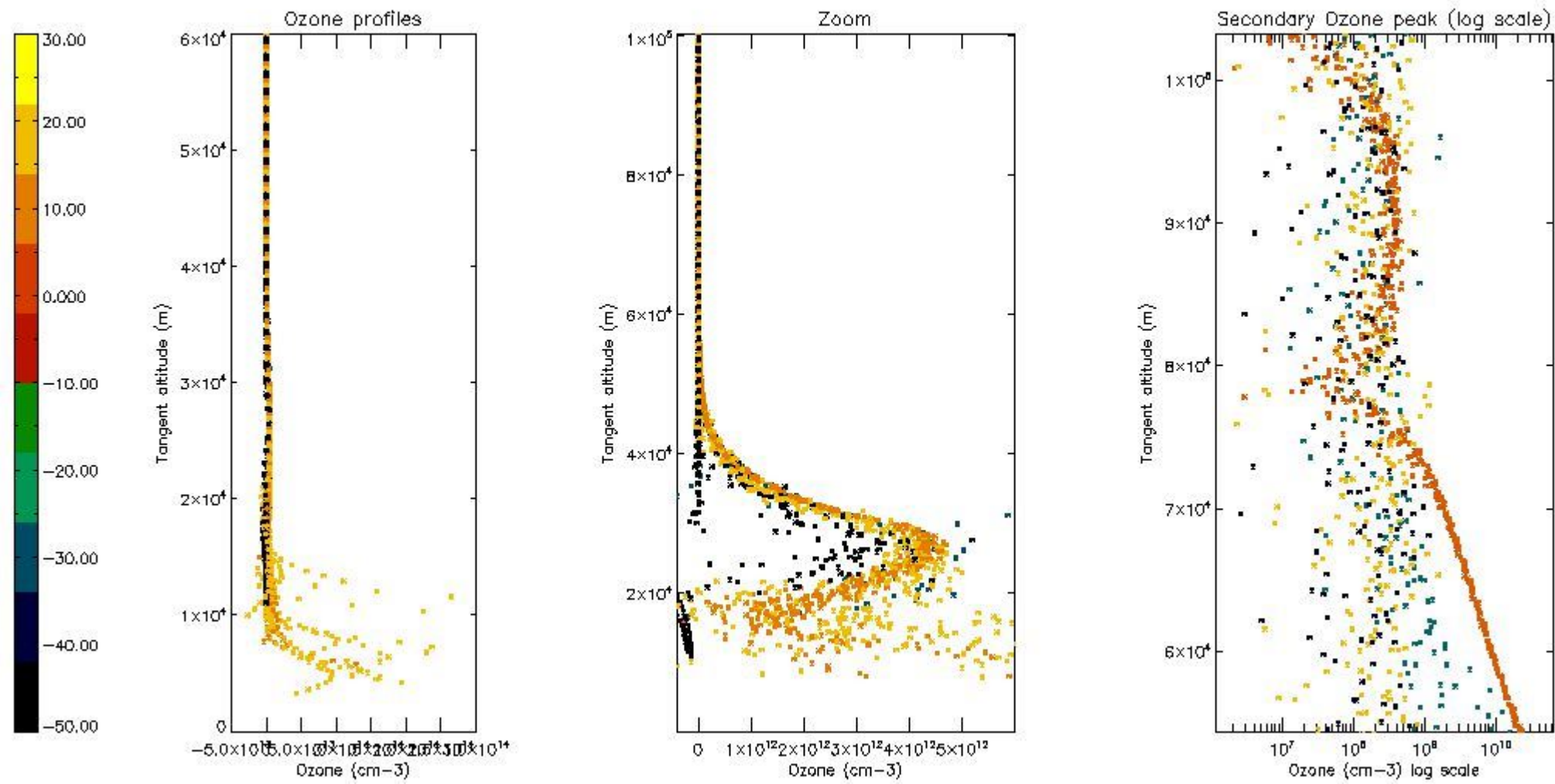
- Products in dark limb illumination condition: GOM_NL__2P/NL_SUMMARY_QUALITY/obs_ill_cond=0
- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

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	100
STD < 20	46
STD < 10	31
STD < 5	21

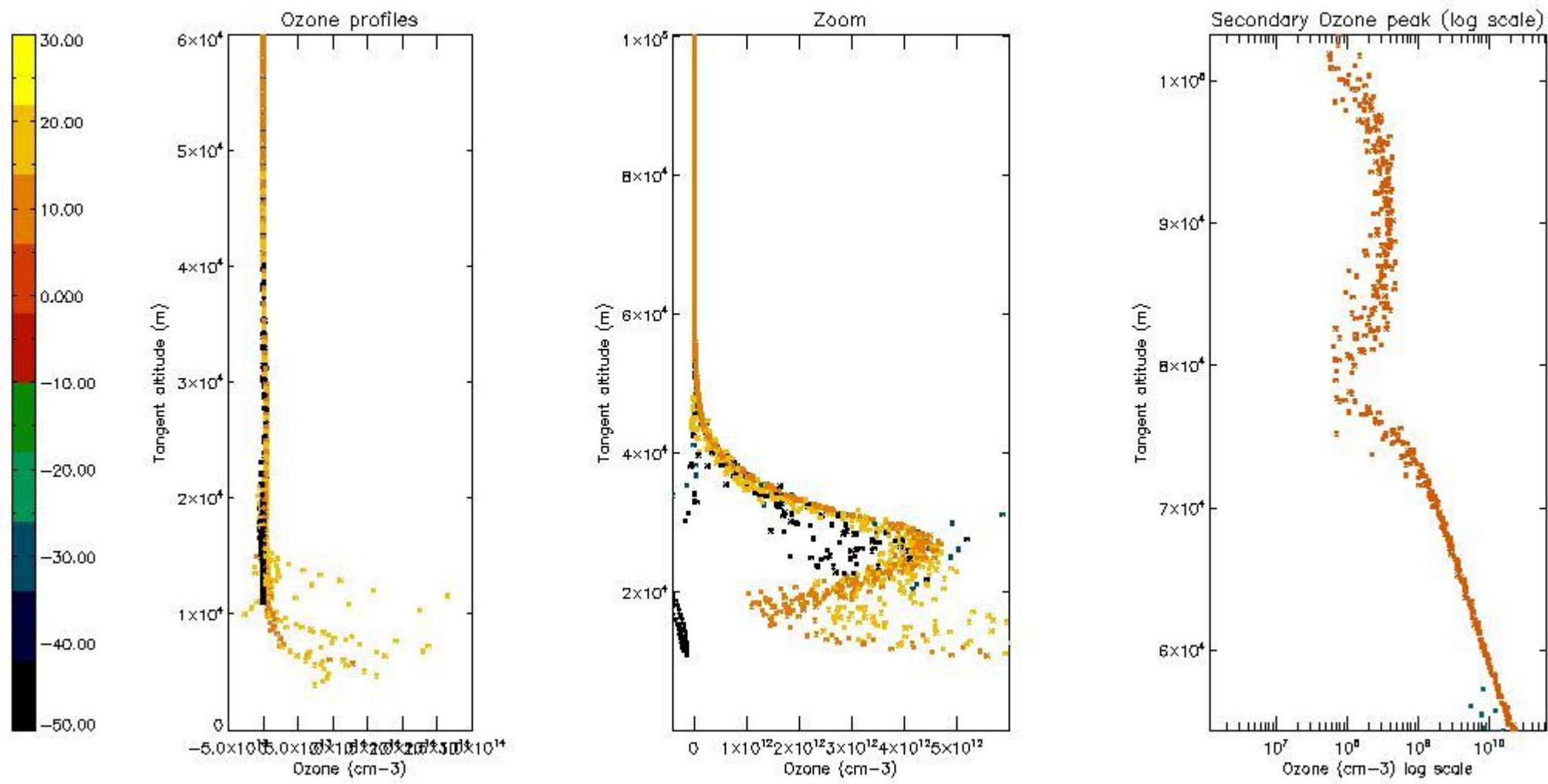
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



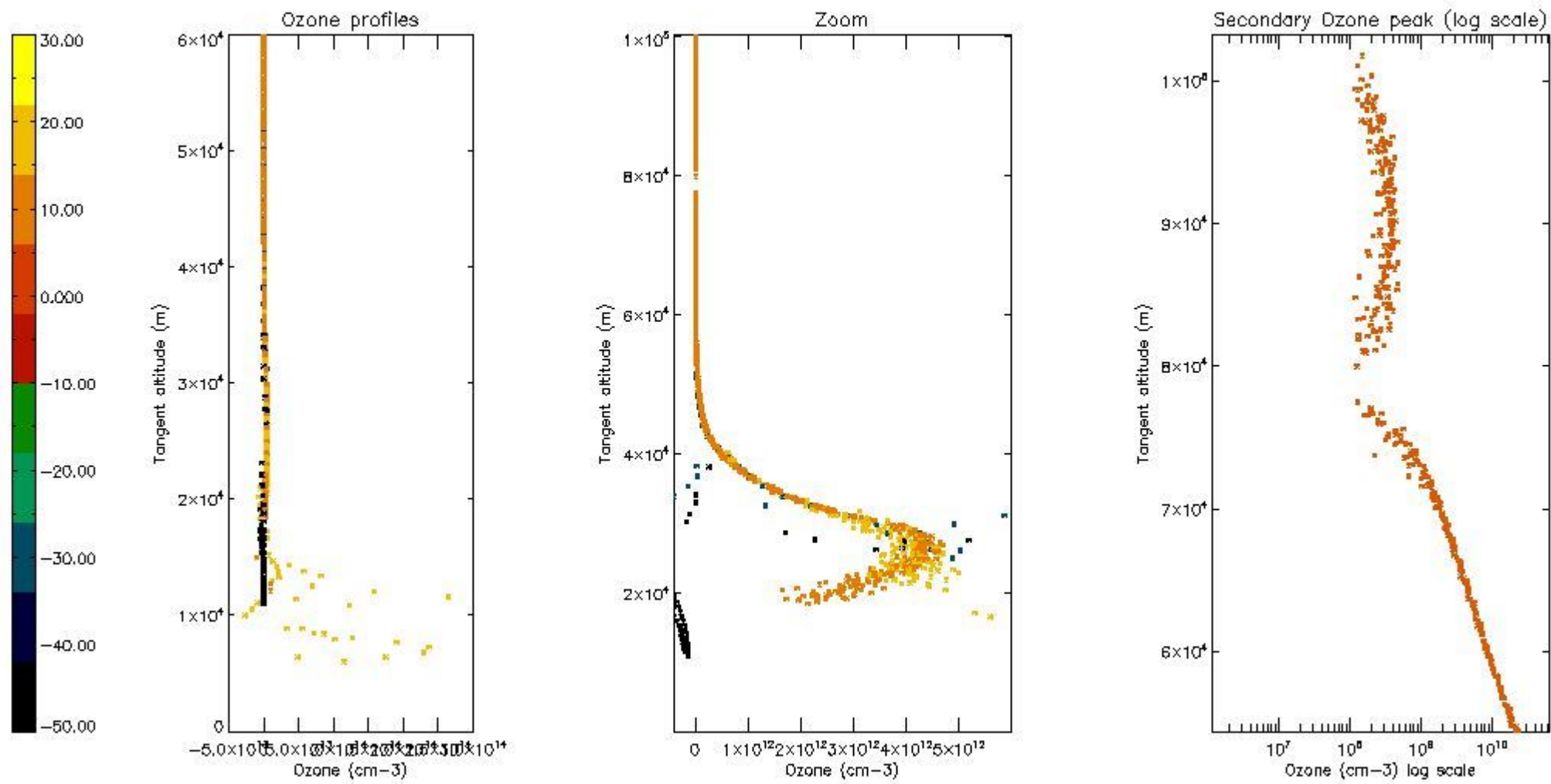
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



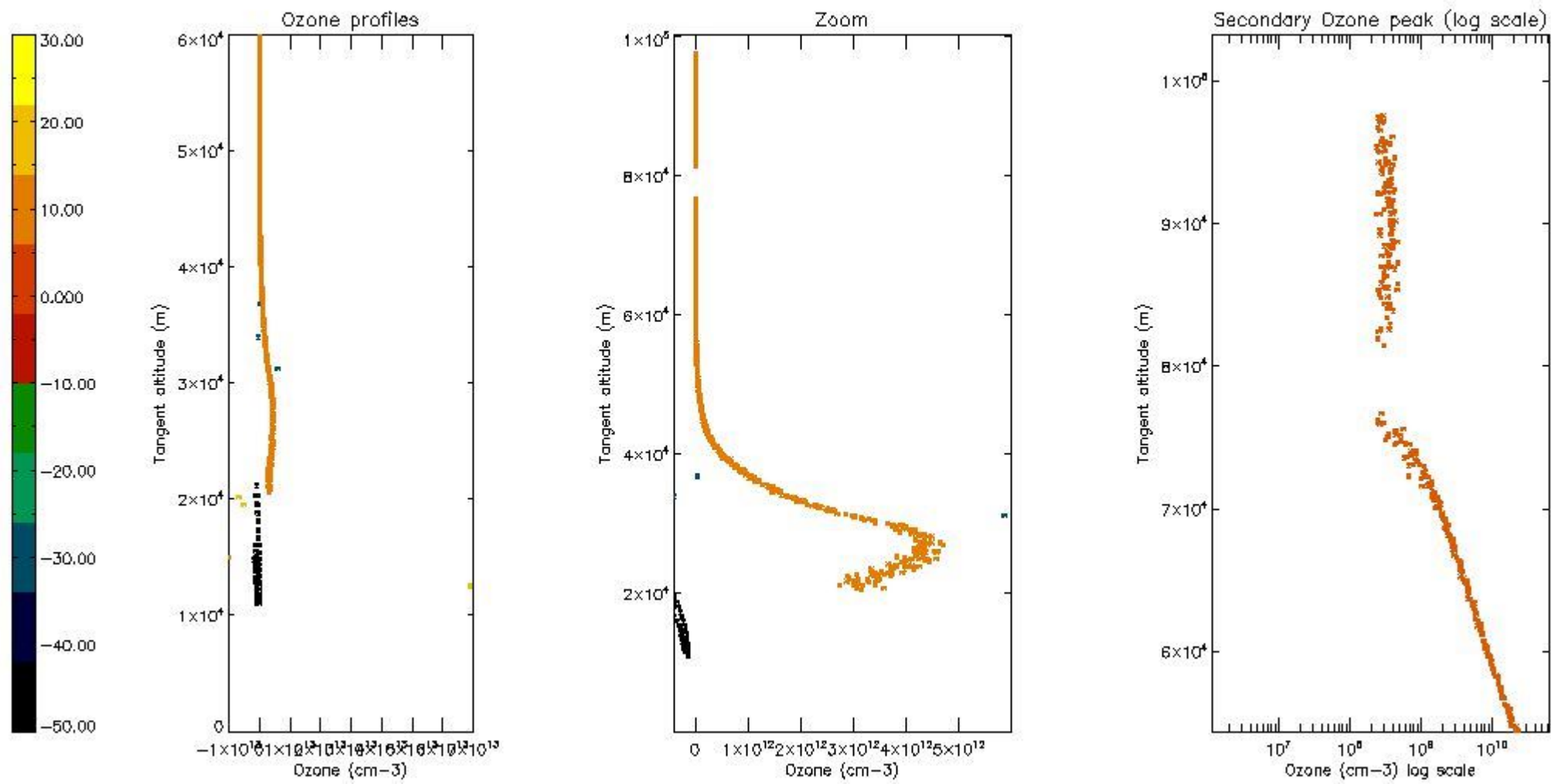
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



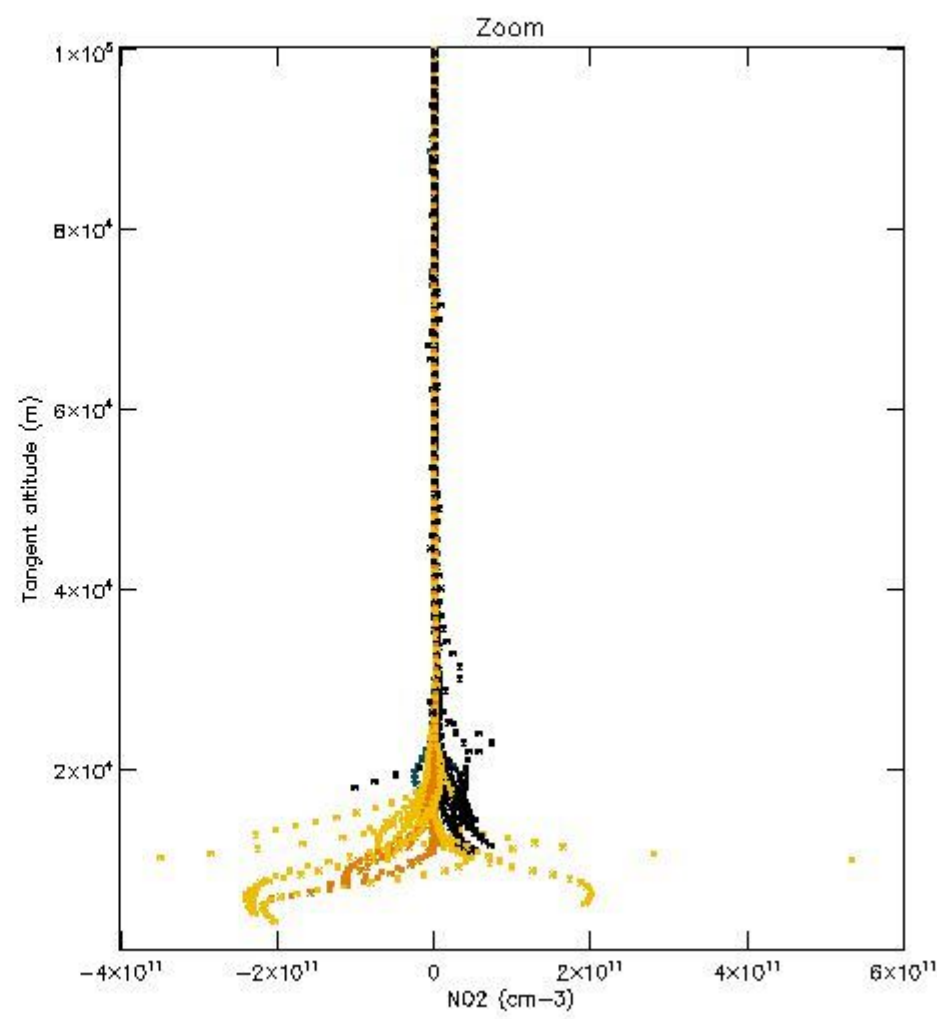
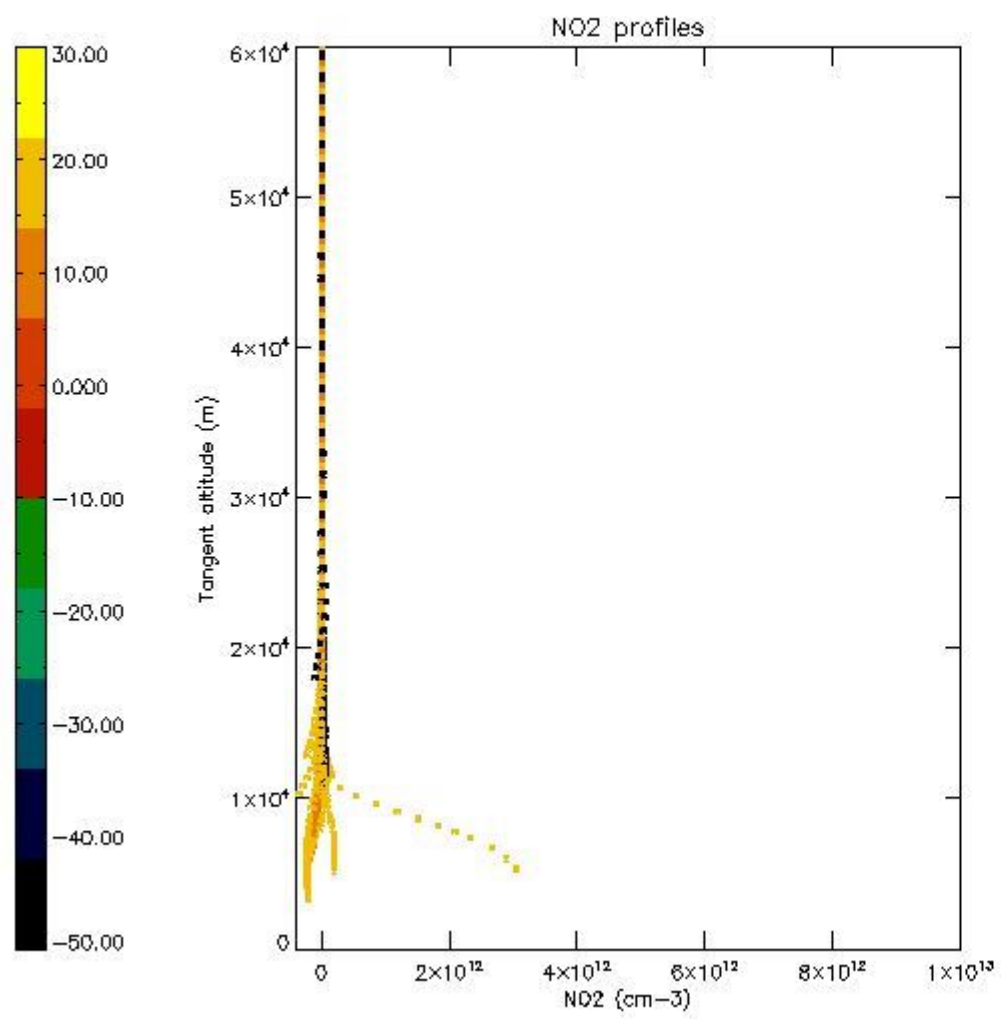
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



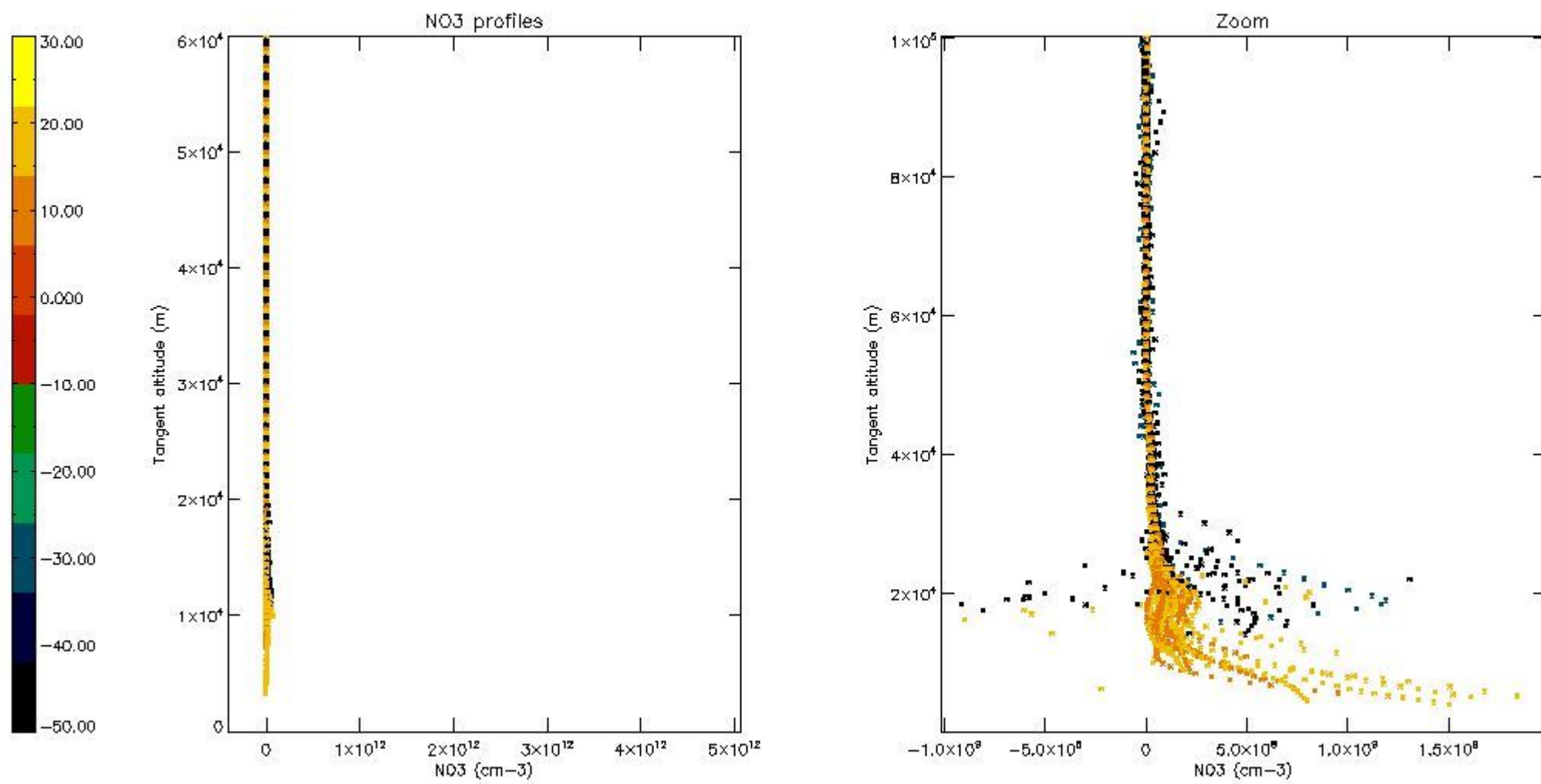
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



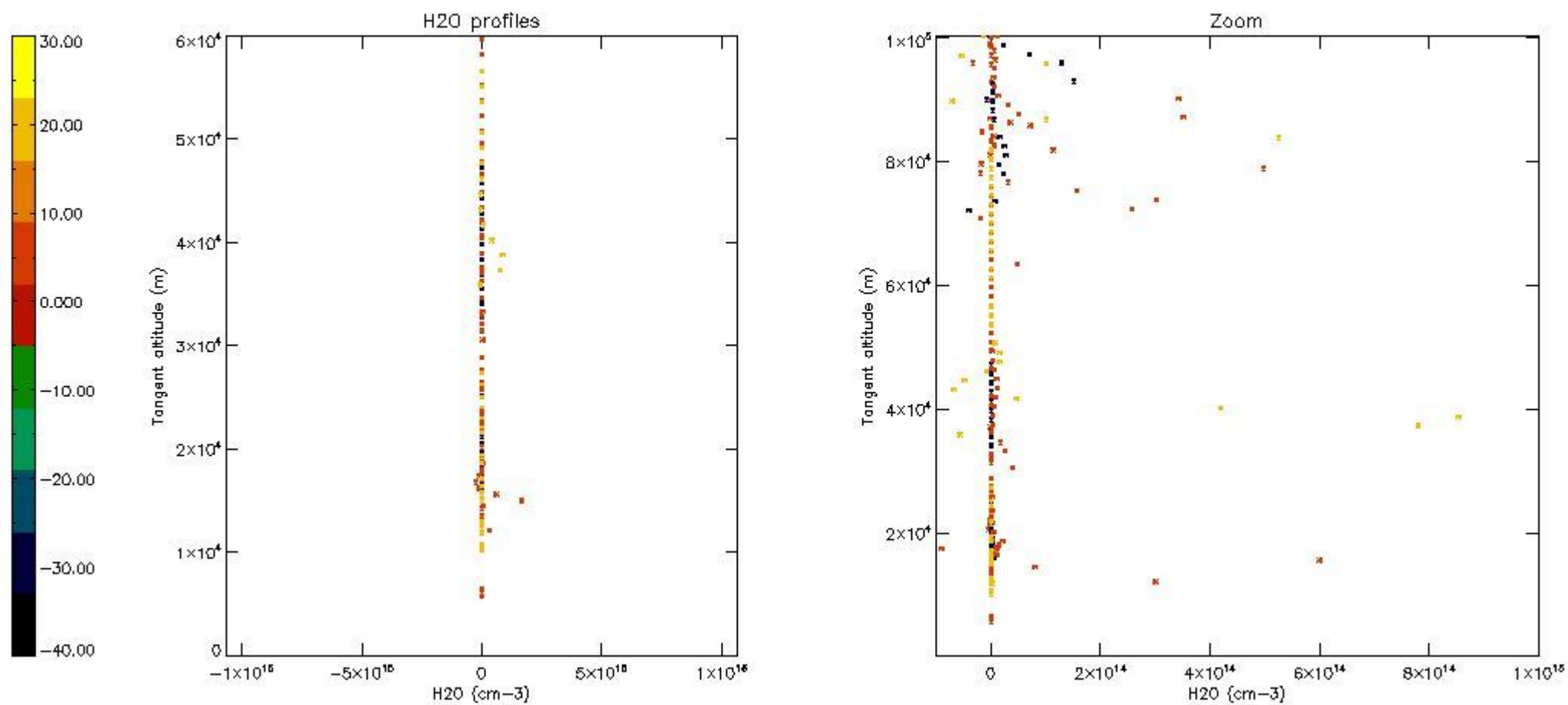
5.7 Plot NO3 profiles for all STD (dark without errors)

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_AXVIEC20111213_163131_20111215_000000_20500101_000000	1	24-FEB-2012 00:35:21
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	24-FEB-2012 00:35:21
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	24-FEB-2012 00:35:21

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

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[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](#)

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

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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.

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Time of report generation	18APR2013 14:08:23
Data source version	GOMOS/6.01
Start time of products	24-02-2012 (24FEB2012 00:00:00)
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Store outputs in DB	Yes
Nb of level 2 prods	43
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

!Warning: No products without errors in BRIGHT limb contitions found

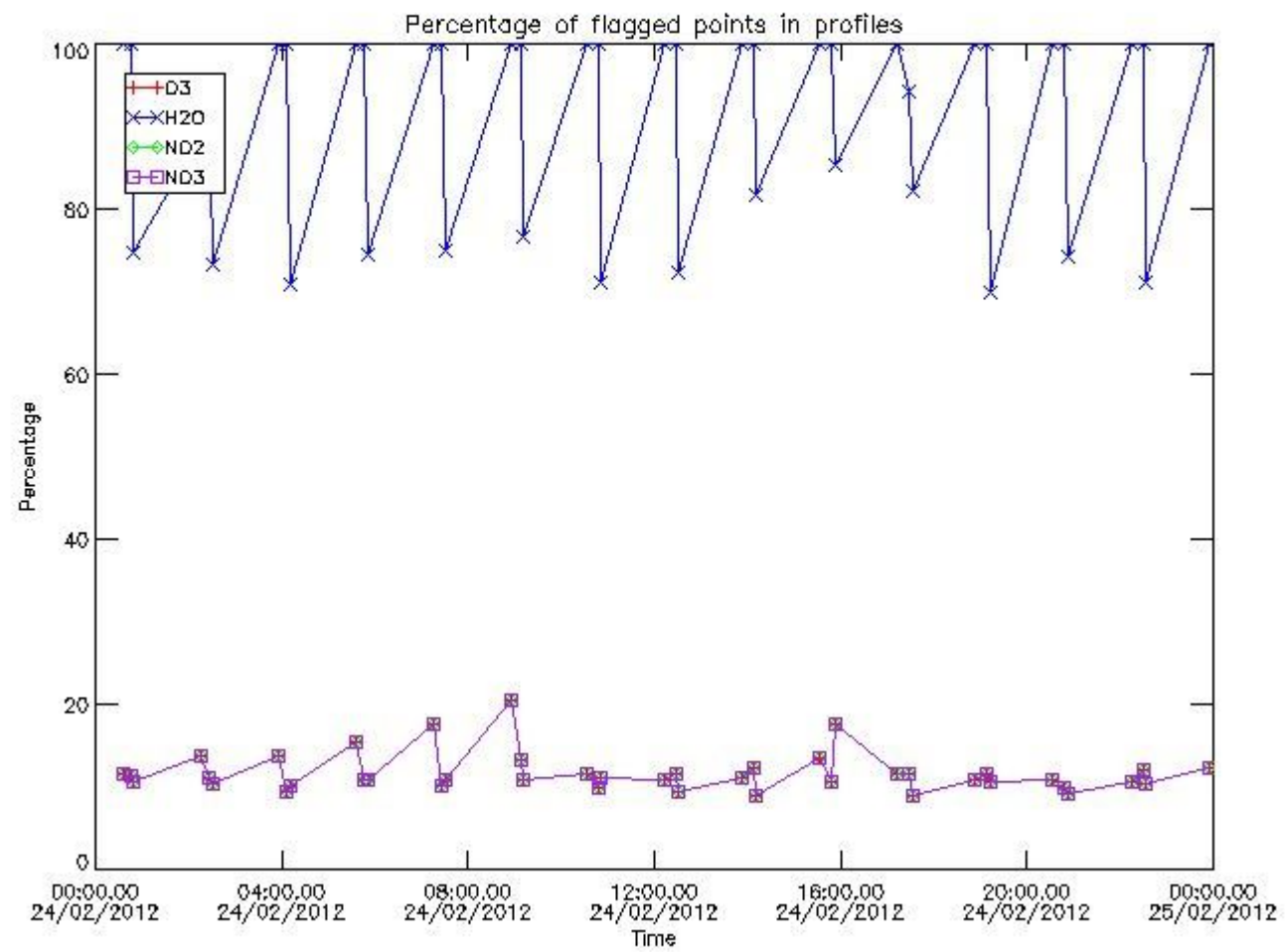
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20120224_003521_000000443112_00059_52228_6086.N1	24-FEB-2012 00:35:21	Dark	44.000	40	The Sco	1.8590	7100.0	88	52228	No
2	GOM_NL__2PRFIN20120224_004603_000000453112_00060_52229_6095.N1	24-FEB-2012 00:46:03	Dark	45.000	10	Bet Cen	0.61000	28000.	90	52229	No
3	GOM_NL__2PRFIN20120224_004943_000000483112_00060_52229_6096.N1	24-FEB-2012 00:49:43	Dark	47.500	26	Gam Cru	1.6240	2900.0	95	52229	No
4	GOM_NL__2PRFIN20120224_021536_000000413112_00060_52229_6097.N1	24-FEB-2012 02:15:36	Dark	41.000	40	The Sco	1.8590	7100.0	82	52229	No
5	GOM_NL__2PRFIN20120224_022618_000000463112_00061_52230_6099.N1	24-FEB-2012 02:26:18	Dark	46.000	10	Bet Cen	0.61000	28000.	92	52230	No
6	GOM_NL__2PRFIN20120224_022958_000000493112_00061_52230_6100.N1	24-FEB-2012 02:29:58	Dark	48.500	26	Gam Cru	1.6240	2900.0	97	52230	No
7	GOM_NL__2PRFIN20120224_035551_000000373112_00061_52230_6101.N1	24-FEB-2012 03:55:51	Dark	37.000	40	The Sco	1.8590	7100.0	74	52230	No
8	GOM_NL__2PRFIN20120224_040633_000000543112_00062_52231_6110.N1	24-FEB-2012 04:06:33	Dark	54.000	10	Bet Cen	0.61000	28000.	108	52231	No
9	GOM_NL__2PRFIN20120224_041012_000000503112_00062_52231_6111.N1	24-FEB-2012 04:10:12	Dark	49.500	26	Gam Cru	1.6240	2900.0	99	52231	No
10	GOM_NL__2PRFIN20120224_053605_000000333112_00062_52231_6112.N1	24-FEB-2012 05:36:05	Dark	33.000	40	The Sco	1.8590	7100.0	66	52231	No
11	GOM_NL__2PRFIN20120224_054647_000000483112_00063_52232_6130.N1	24-FEB-2012 05:46:47	Dark	47.500	10	Bet Cen	0.61000	28000.	95	52232	No
12	GOM_NL__2PRFIN20120224_055027_000000473112_00063_52232_6131.N1	24-FEB-2012 05:50:27	Dark	47.000	26	Gam Cru	1.6240	2900.0	94	52232	No
13	GOM_NL__2PRFIN20120224_071620_000000293112_00063_52232_6132.N1	24-FEB-2012 07:16:20	Dark	29.000	40	The Sco	1.8590	7100.0	58	52232	No
14	GOM_NL__2PRFIN20120224_072702_000000503112_00064_52233_6178.N1	24-FEB-2012 07:27:02	Dark	50.000	10	Bet Cen	0.61000	28000.	100	52233	No
15	GOM_NL__2PRFIN20120224_073042_000000463112_00064_52233_6179.N1	24-FEB-2012 07:30:42	Dark	46.000	26	Gam Cru	1.6240	2900.0	92	52233	No
16	GOM_NL__2PRFIN20120224_085635_000000253112_00064_52233_6180.N1	24-FEB-2012 08:56:35	Dark	25.000	40	The Sco	1.8590	7100.0	50	52233	No
17	GOM_NL__2PRFIN20120224_090716_000000423112_00065_52234_6204.N1	24-FEB-2012 09:07:16	Dark	42.000	10	Bet Cen	0.61000	28000.	84	52234	No
18	GOM_NL__2PRFIN20120224_091056_000000473112_00065_52234_6205.N1	24-FEB-2012 09:10:56	Dark	47.000	26	Gam Cru	1.6240	2900.0	94	52234	No
19	GOM_NL__2PRFIN20120224_103205_000000453112_00065_52234_6206.N1	24-FEB-2012 10:32:05	Dark	44.500	116	19Del Sgr	2.7000	4100.0	89	52234	No
20	GOM_NL__2PRFIN20120224_104731_000000523112_00066_52235_6235.N1	24-FEB-2012 10:47:31	Dark	51.500	10	Bet Cen	0.61000	28000.	103	52235	No
21	GOM_NL__2PRFIN20120224_105110_000000453112_00066_52235_6236.N1	24-FEB-2012 10:51:10	Dark	45.000	26	Gam Cru	1.6240	2900.0	90	52235	No
22	GOM_NL__2PRFIN20120224_121220_000000483112_00066_52235_6237.N1	24-FEB-2012 12:12:20	Dark	47.500	116	19Del Sgr	2.7000	4100.0	95	52235	No
23	GOM_NL__2PRFIN20120224_122745_000000443112_00067_52236_6268.N1	24-FEB-2012 12:27:45	Dark	44.000	10	Bet Cen	0.61000	28000.	88	52236	No
24	GOM_NL__2PRFIN20120224_123125_000000543112_00067_52236_6269.N1	24-FEB-2012 12:31:25	Dark	54.000	26	Gam Cru	1.6240	2900.0	108	52236	No
25	GOM_NL__2PRFIN20120224_135234_000000463112_00067_52236_6270.N1	24-FEB-2012 13:52:34	Dark	46.000	116	19Del Sgr	2.7000	4100.0	92	52236	No
26	GOM_NL__2PRFIN20120224_140800_000000423112_00068_52237_6299.N1	24-FEB-2012 14:08:00	Dark	41.500	10	Bet Cen	0.61000	28000.	83	52237	No
27	GOM_NL__2PRFIN20120224_141139_000000573112_00068_52237_6300.N1	24-FEB-2012 14:11:39	Dark	57.000	26	Gam Cru	1.6240	2900.0	114	52237	No
28	GOM_NL__2PRFIN20120224_153249_000000423112_00068_52237_6301.N1	24-FEB-2012 15:32:49	Dark	41.500	116	19Del Sgr	2.7000	4100.0	83	52237	No
29	GOM_NL__2PRFIN20120224_154814_000000483112_00069_52238_6359.N1	24-FEB-2012 15:48:14	Dark	48.000	10	Bet Cen	0.61000	28000.	96	52238	No
30	GOM_NL__2PRFIN20120224_155154_000000583112_00069_52238_6360.N1	24-FEB-2012 15:51:54	Dark	57.500	26	Gam Cru	1.6240	2900.0	115	52238	No
31	GOM_NL__2PRFIN20120224_171303_000000453112_00069_52238_6361.N1	24-FEB-2012 17:13:03	Dark	44.500	116	19Del Sgr	2.7000	4100.0	89	52238	No
32	GOM_NL__2PRFIN20120224_172829_000000443112_00070_52239_6372.N1	24-FEB-2012 17:28:29	Dark	44.000	10	Bet Cen	0.61000	28000.	88	52239	No
33	GOM_NL__2PRFIN20120224_173208_000000563112_00070_52239_6373.N1	24-FEB-2012 17:32:08	Dark	56.000	26	Gam Cru	1.6240	2900.0	112	52239	No
34	GOM_NL__2PRFIN20120224_185318_000000473112_00070_52239_6374.N1	24-FEB-2012 18:53:18	Dark	47.000	116	19Del Sgr	2.7000	4100.0	94	52239	No
35	GOM_NL__2PRFIN20120224_190844_000000453112_00071_52240_6391.N1	24-FEB-2012 19:08:44	Dark	44.500	10	Bet Cen	0.61000	28000.	89	52240	No
36	GOM_NL__2PRFIN20120224_191223_000000483112_00071_52240_6392.N1	24-FEB-2012 19:12:23	Dark	48.000	26	Gam Cru	1.6240	2900.0	96	52240	No
37	GOM_NL__2PRFIN20120224_203333_000000483112_00071_52240_6393.N1	24-FEB-2012 20:33:33	Dark	47.500	116	19Del Sgr	2.7000	4100.0	95	52240	No
38	GOM_NL__2PRFIN20120224_204858_000000523112_00072_52241_6421.N1	24-FEB-2012 20:48:58	Dark	51.500	10	Bet Cen	0.61000	28000.	103	52241	No
39	GOM_NL__2PRFIN20120224_205237_000000553112_00072_52241_6422.N1	24-FEB-2012 20:52:37	Dark	54.500	26	Gam Cru	1.6240	2900.0	109	52241	No
40	GOM_NL__2PRFIN20120224_221347_000000483112_00072_52241_6423.N1	24-FEB-2012 22:13:47	Dark	48.000	116	19Del Sgr	2.7000	4100.0	96	52241	No
41	GOM_NL__2PRFIN20120224_222913_000000423112_00073_52242_6430.N1	24-FEB-2012 22:29:13	Dark	42.000	10	Bet Cen	0.61000	28000.	84	52242	No

42	GOM_NL__2PRFIN20120224_223252_000000493112_00073_52242_6431.N1	24-FEB-2012 22:32:52	Dark	48.500	26	Gam Cru	1.6240	2900.0	97	52242	No
43	GOM_NL__2PRFIN20120224_235402_000000423112_00073_52242_6432.N1	24-FEB-2012 23:54:02	Dark	41.500	116	19Del Sgr	2.7000	4100.0	83	52242	No

3. Quality information per product

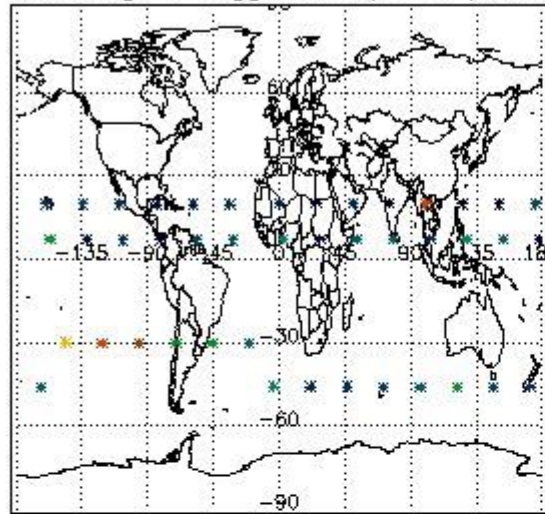
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

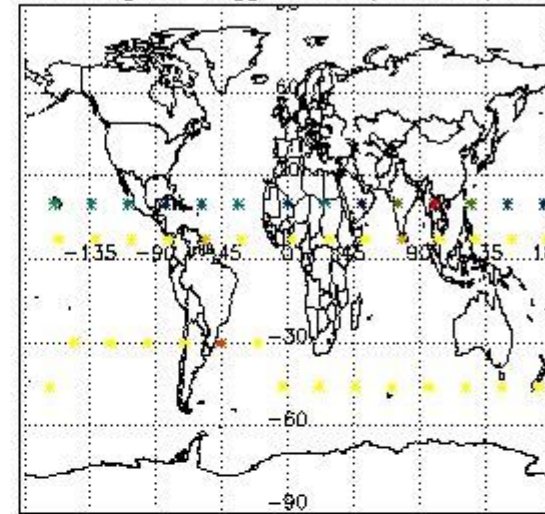


3.2 Plot quality information per product (world map)

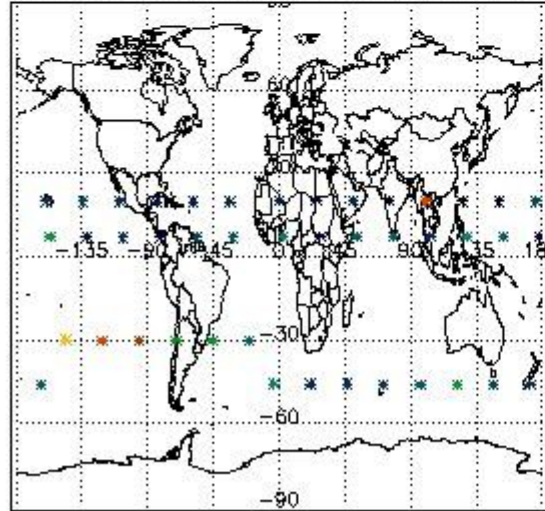
Percentage of flagged data per O3 profile



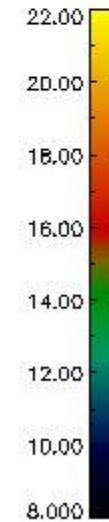
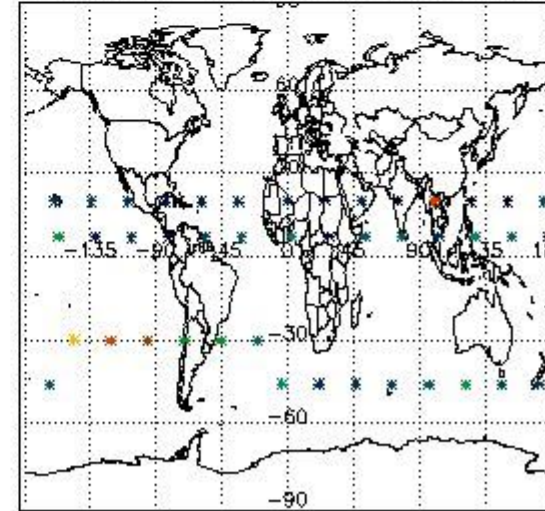
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

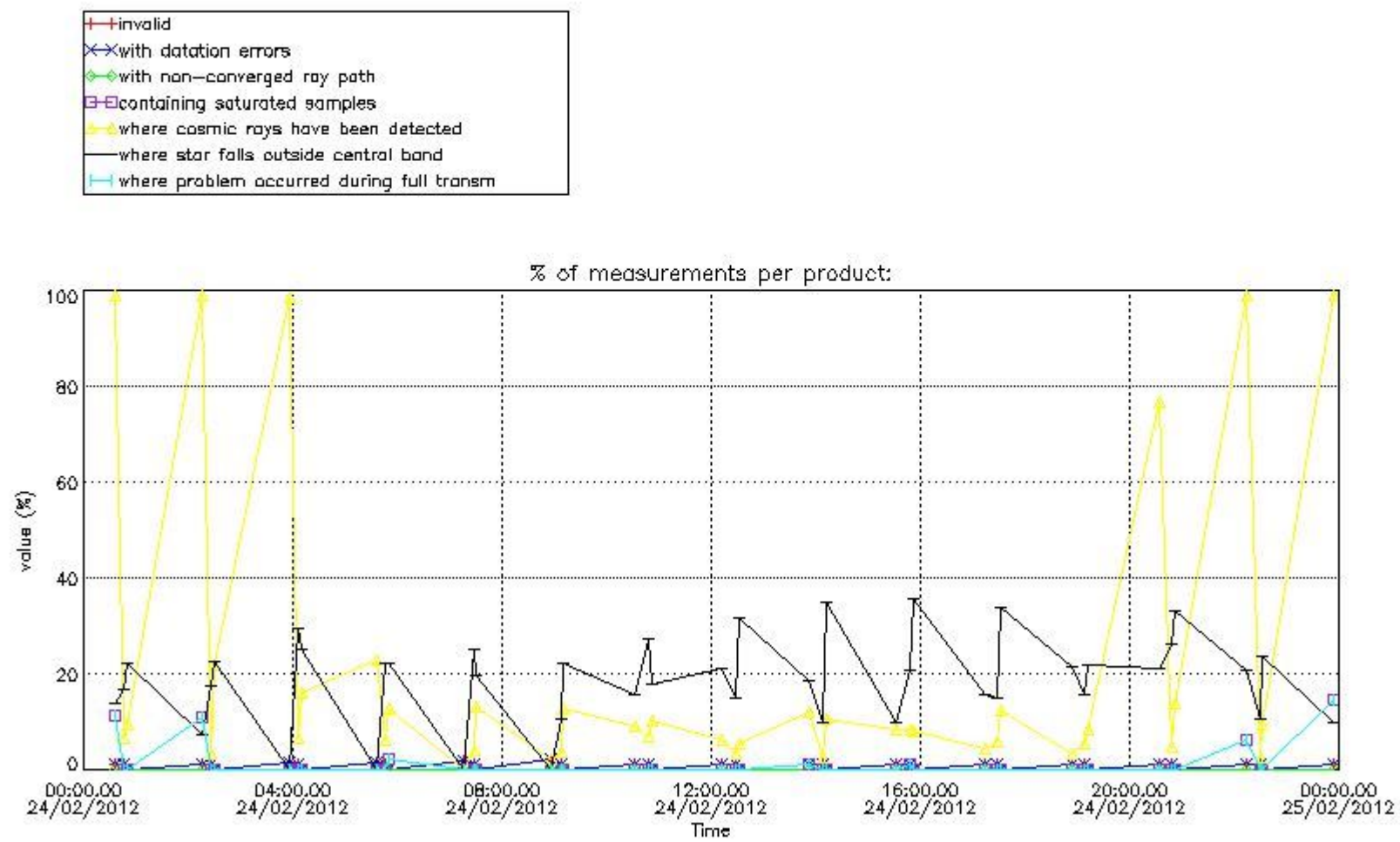


4. Level 1 quality information per product

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

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

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

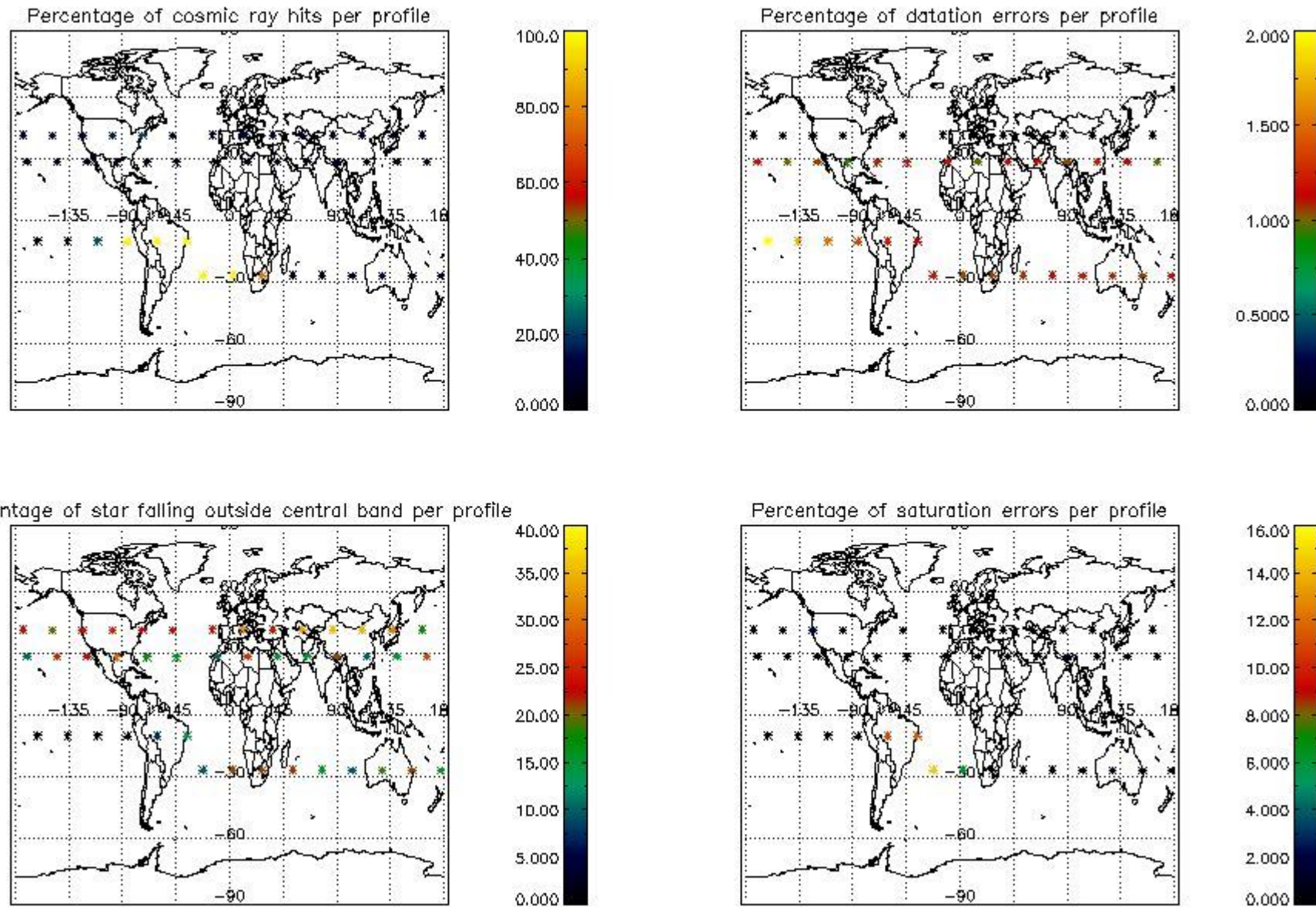


4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes

!Warning: No products without errors in descending found

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

!Warning: No products without errors in descending found

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:

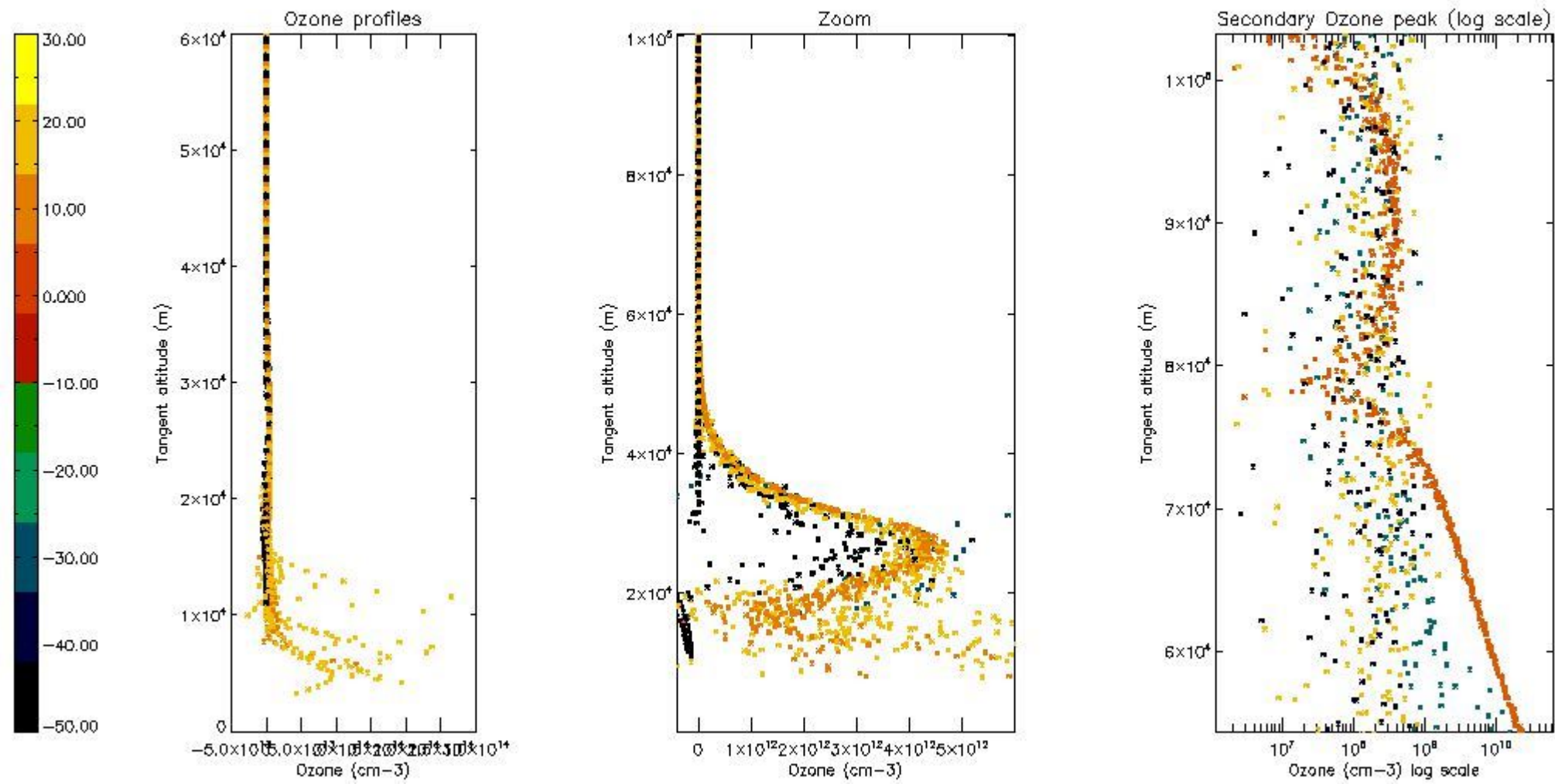
- Products in dark limb illumination condition: GOM_NL__2P/NL_SUMMARY_QUALITY/obs_ill_cond=0
- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

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	100
STD < 20	46
STD < 10	31
STD < 5	21

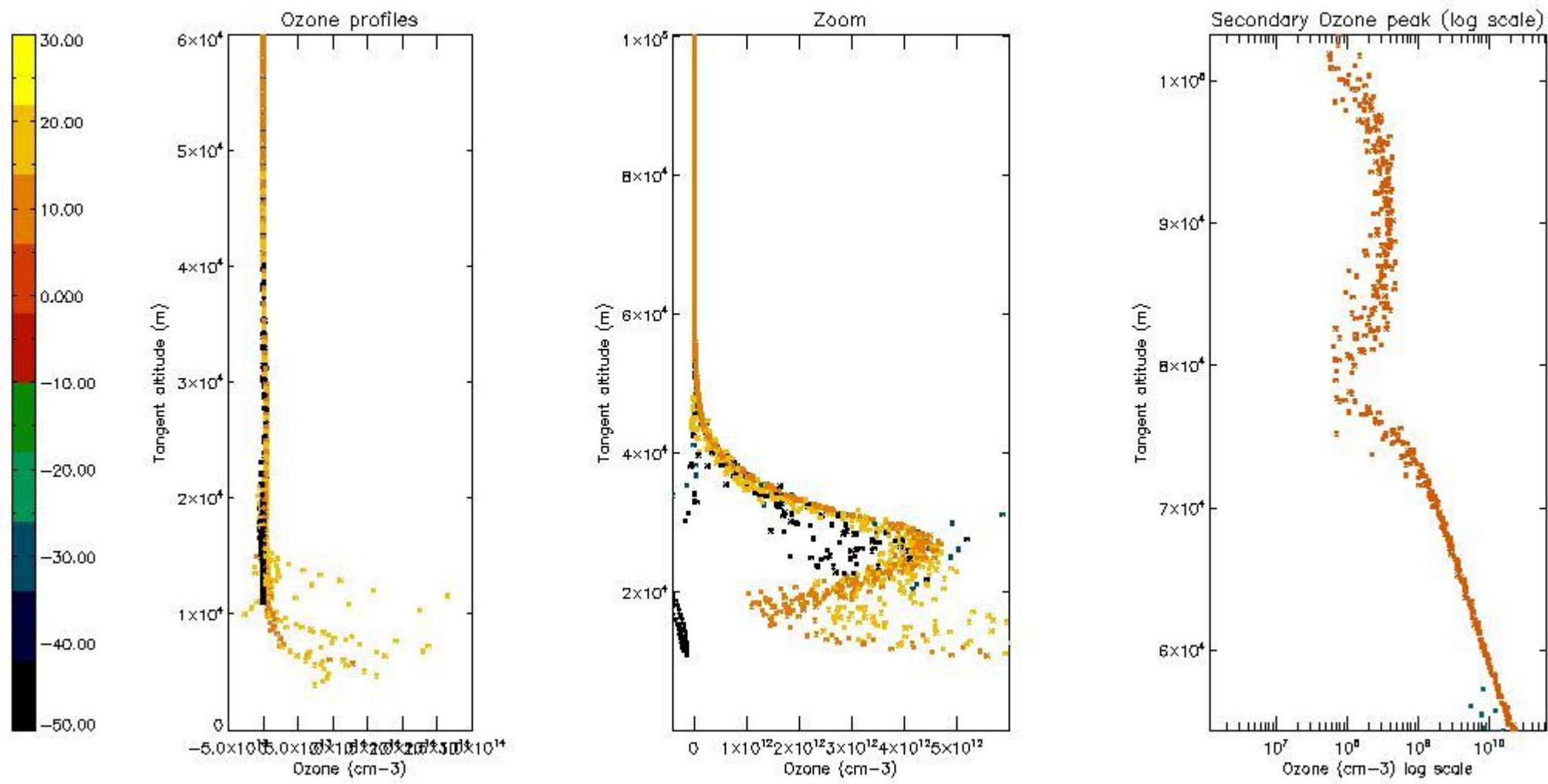
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



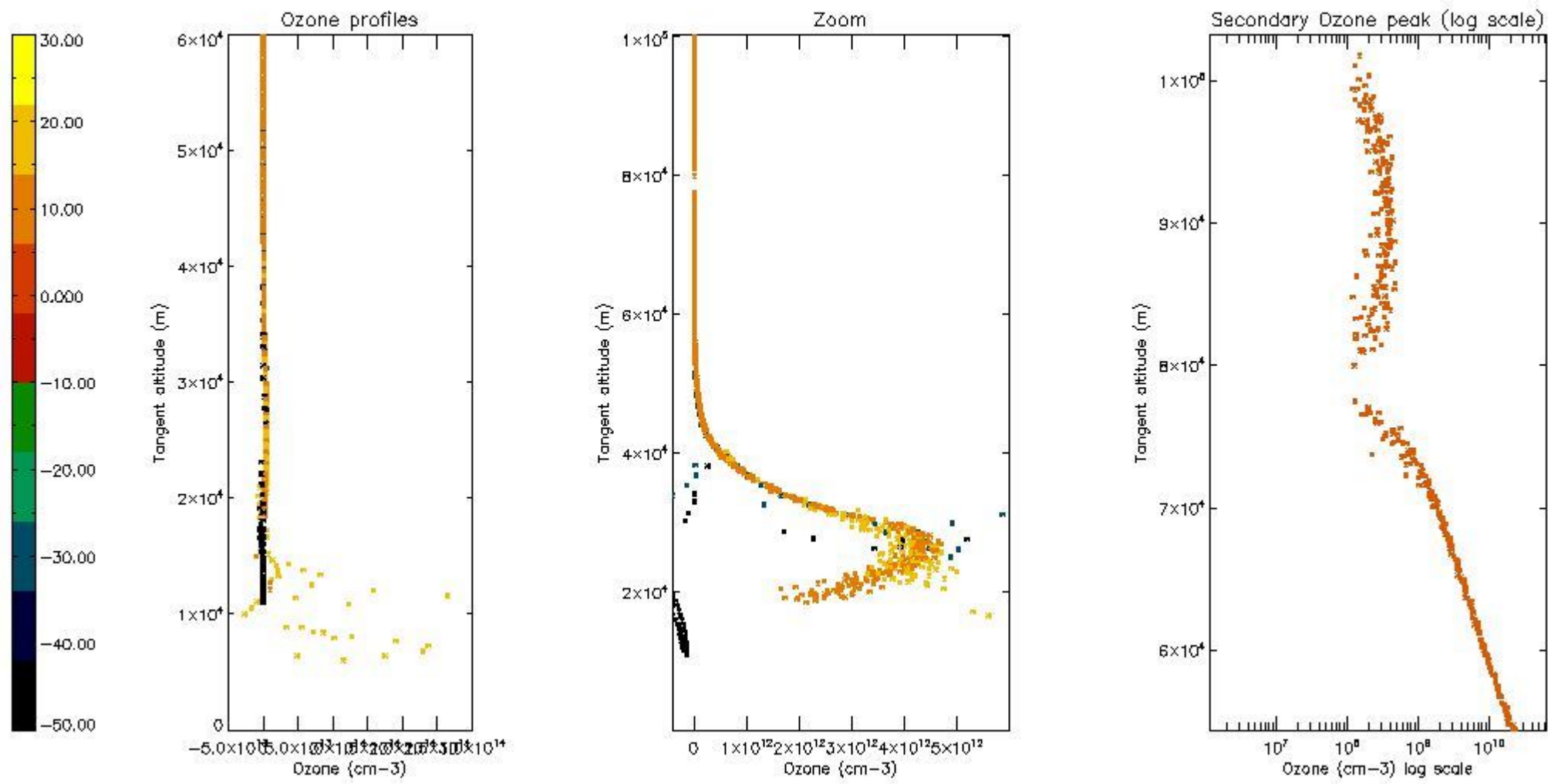
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



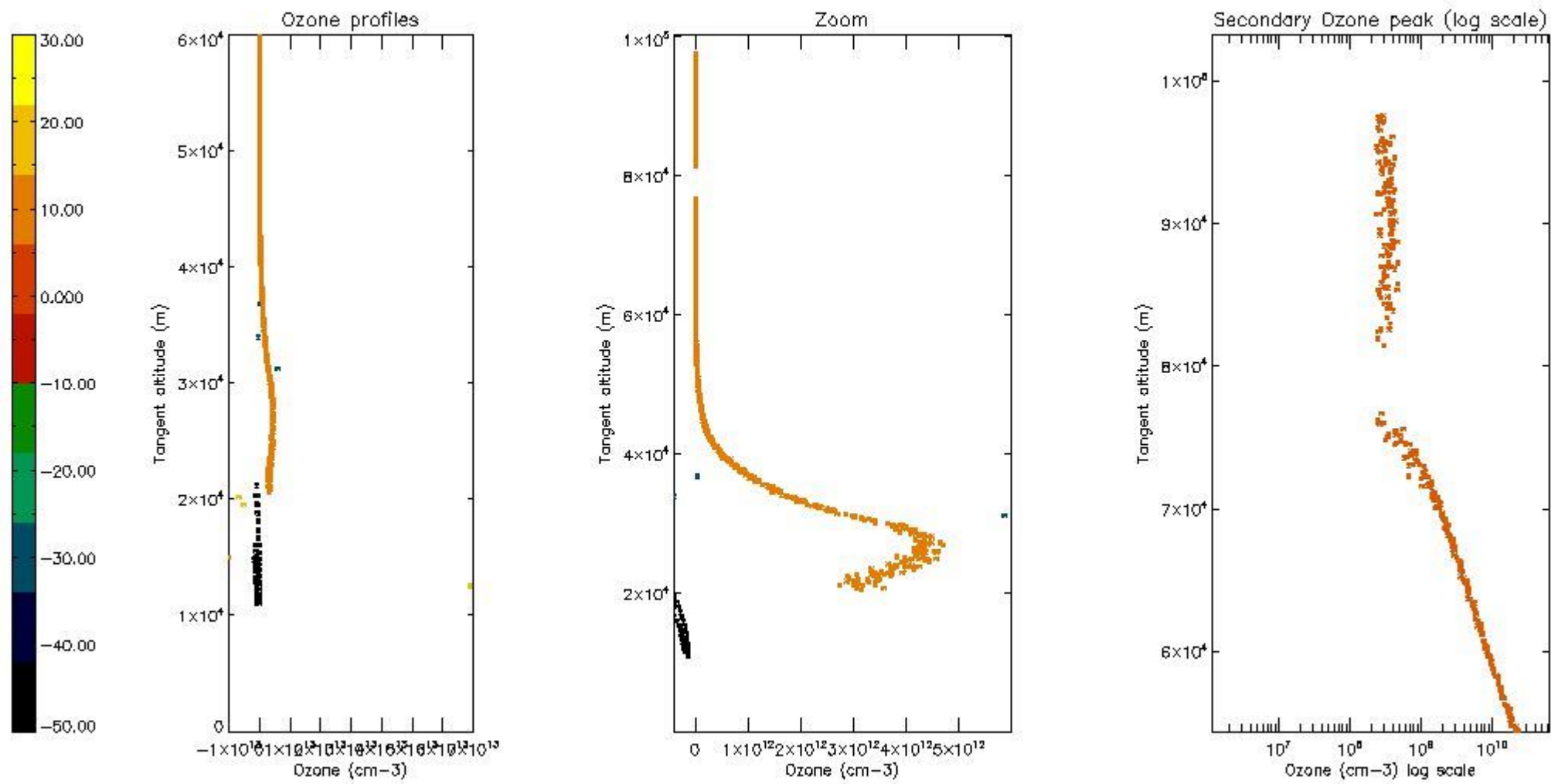
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



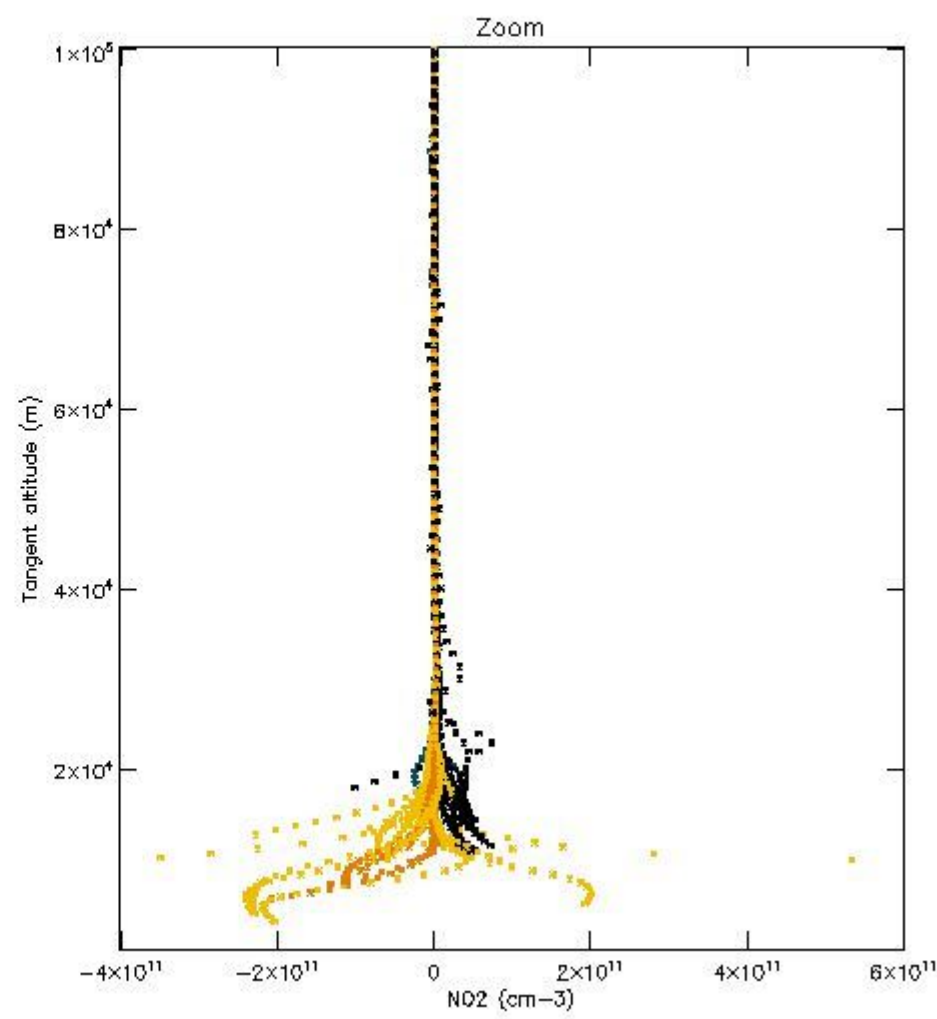
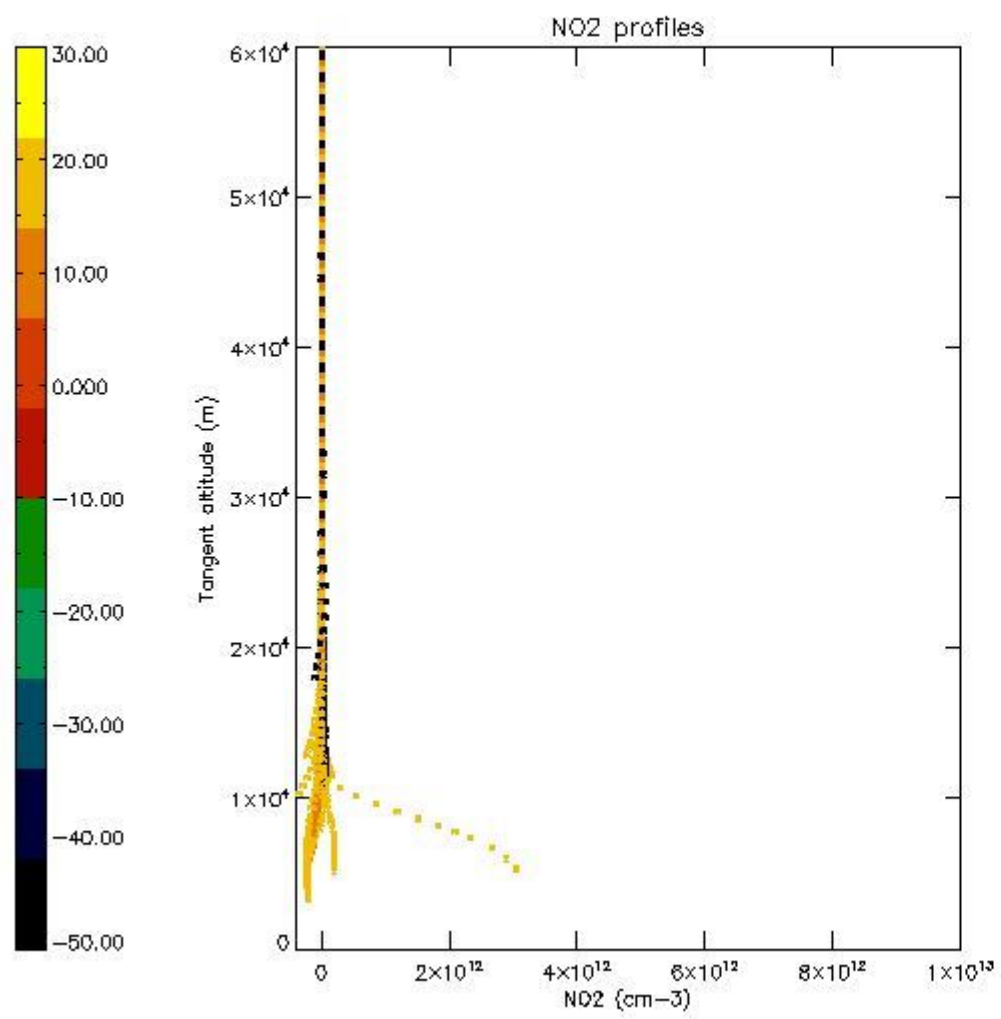
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



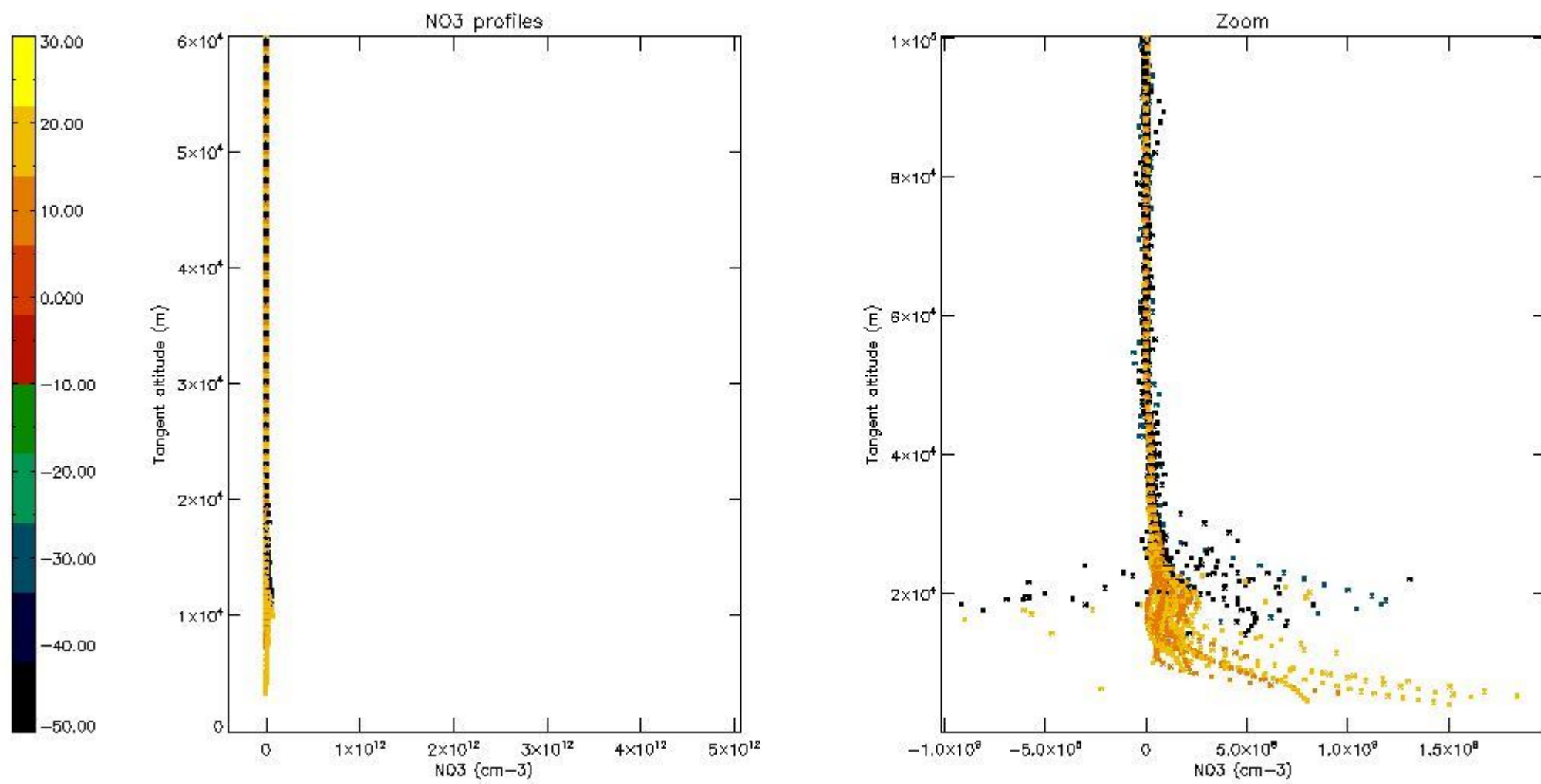
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



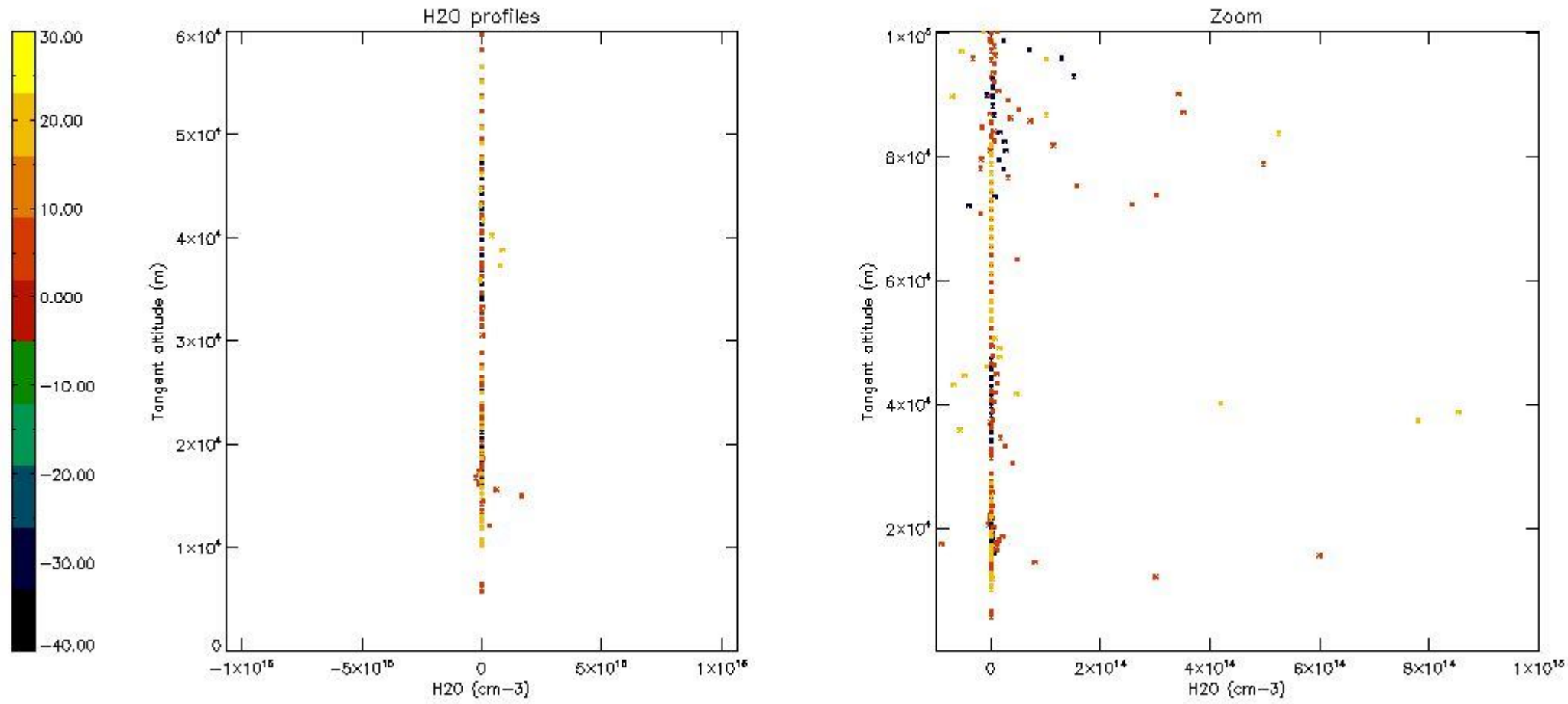
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

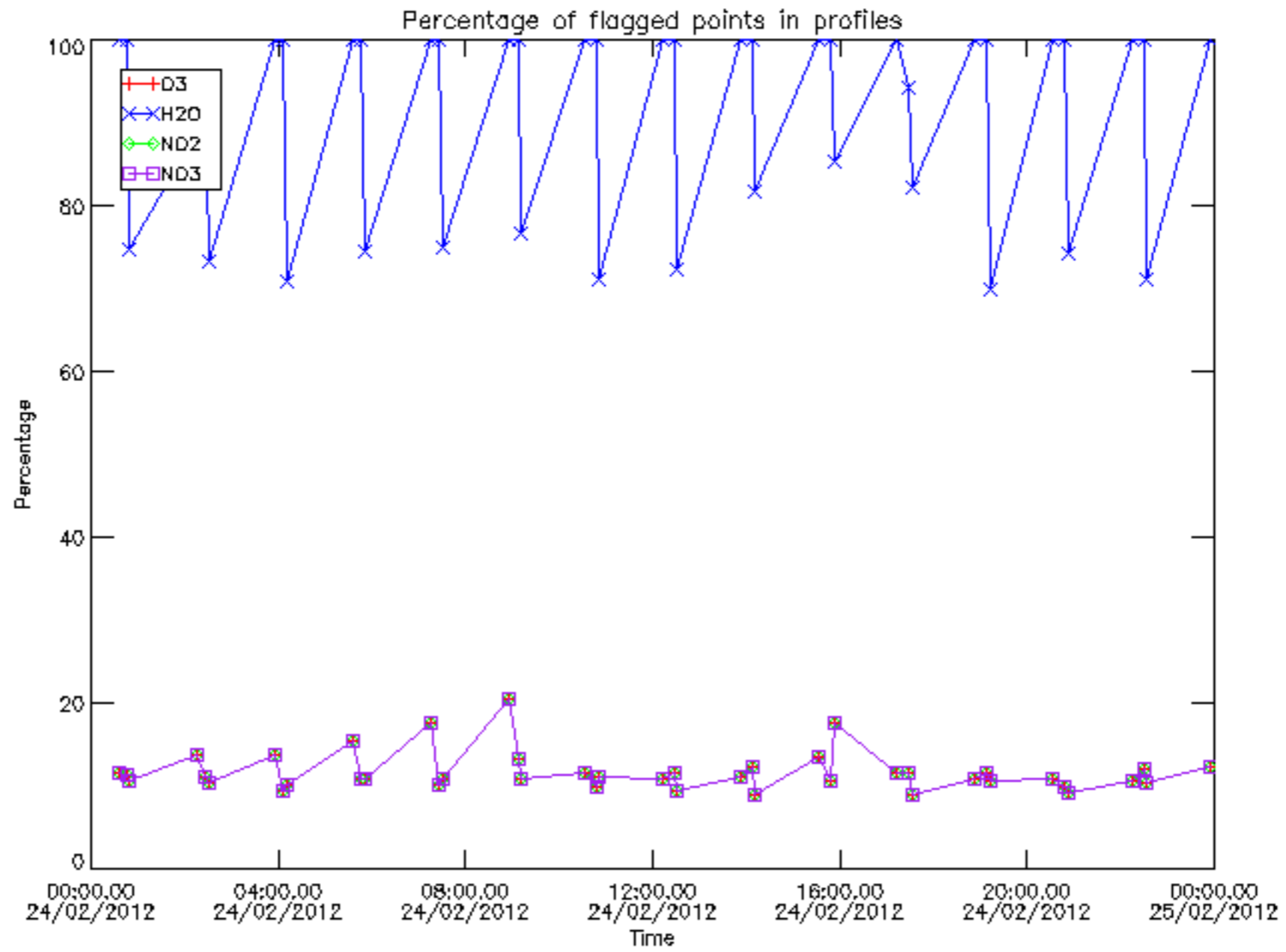
The colorbar represents the latitude.



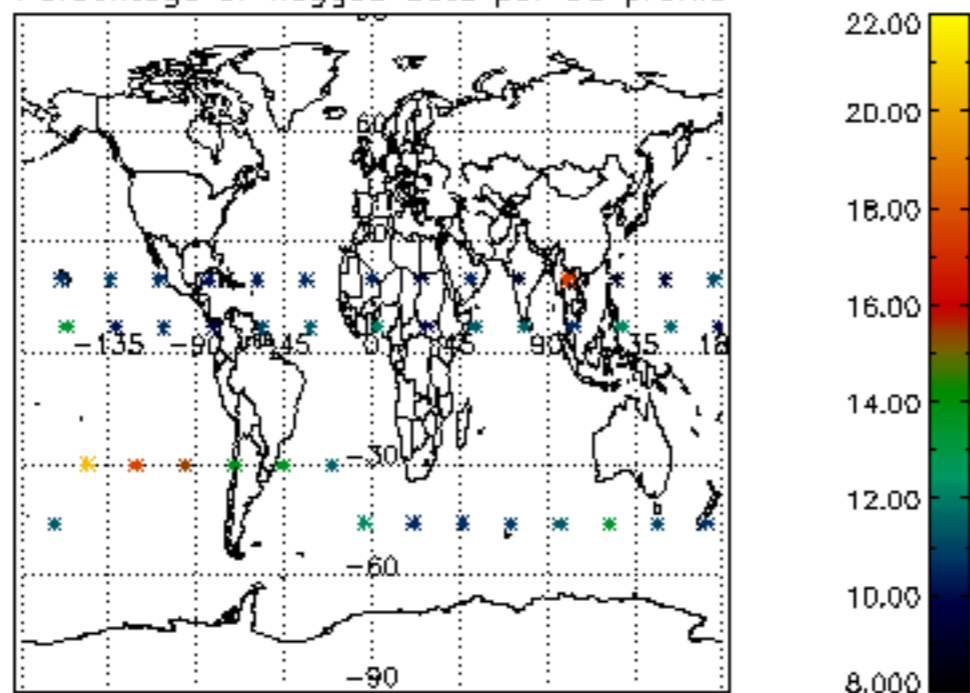
6. Auxiliary Data Files used for the production reported in section 2

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.

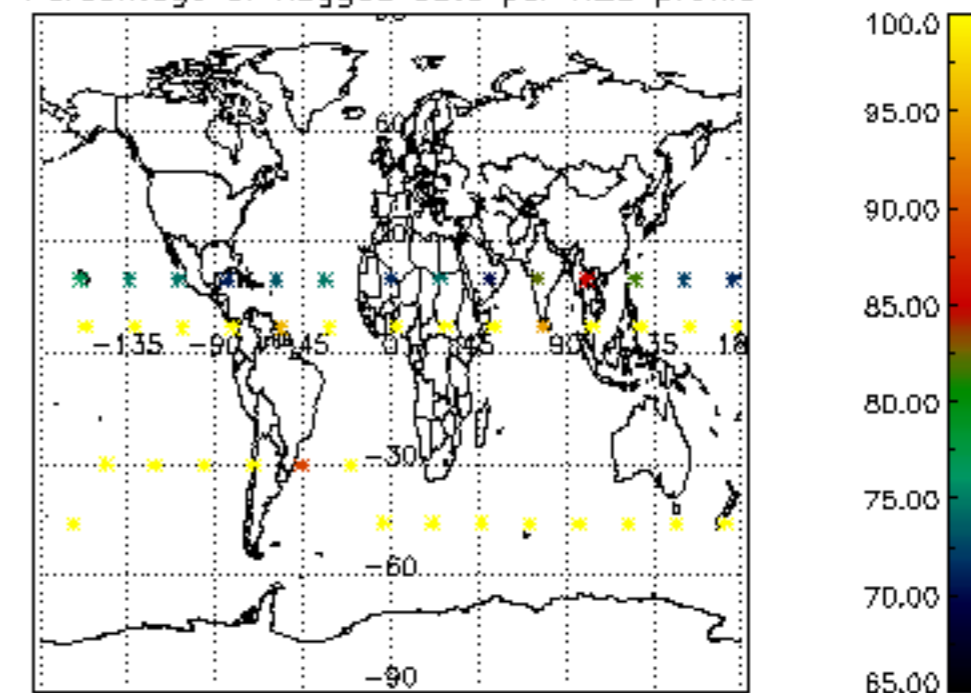
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20111213_163131_20111215_000000_20500101_000000	1	24-FEB-2012 00:35:21
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	24-FEB-2012 00:35:21
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	24-FEB-2012 00:35:21



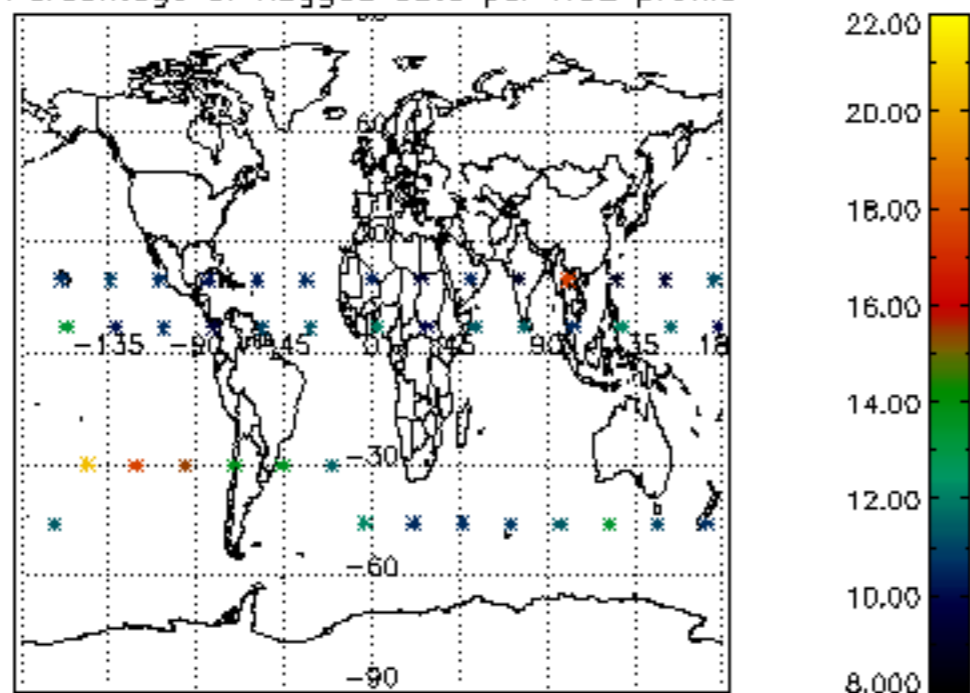
Percentage of flagged data per D3 profile



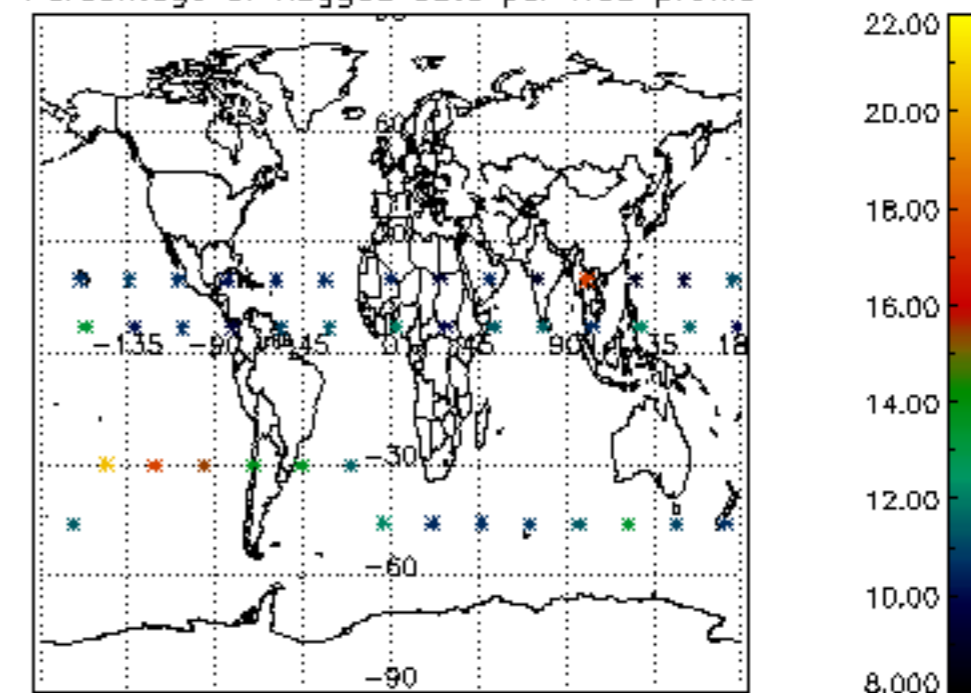
Percentage of flagged data per H2O profile

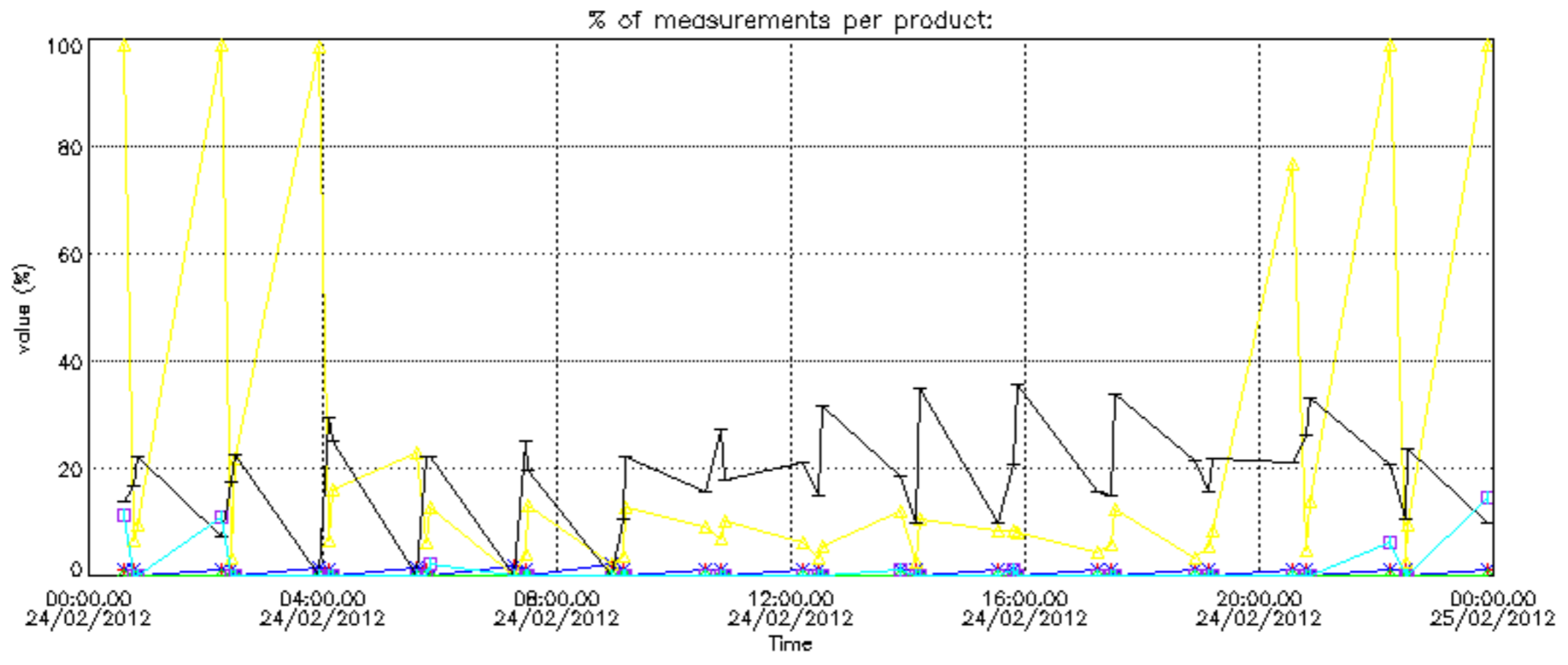


Percentage of flagged data per NO2 profile

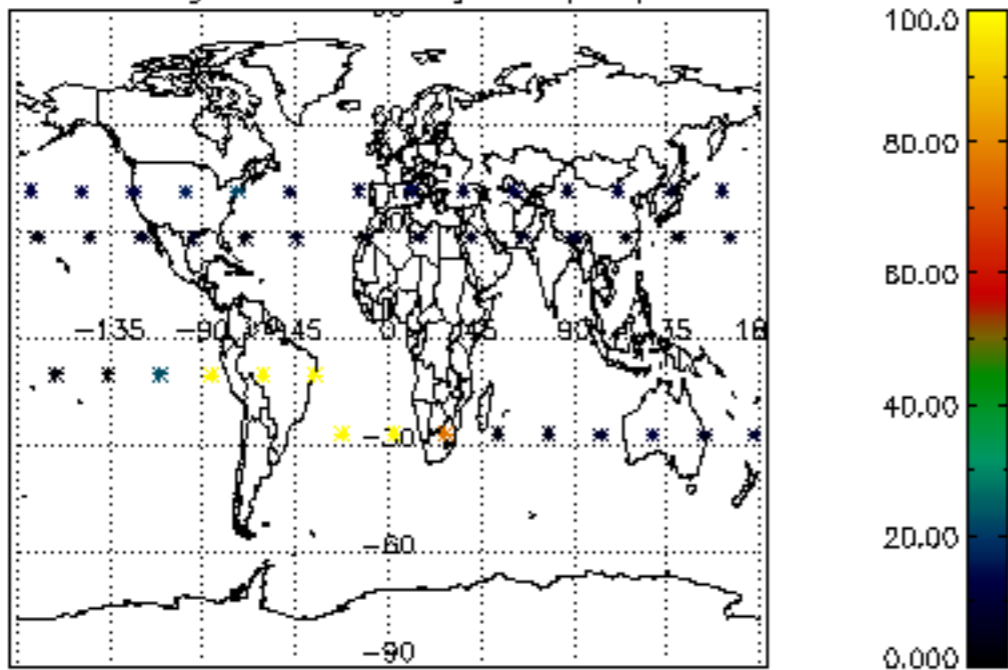


Percentage of flagged data per NO3 profile

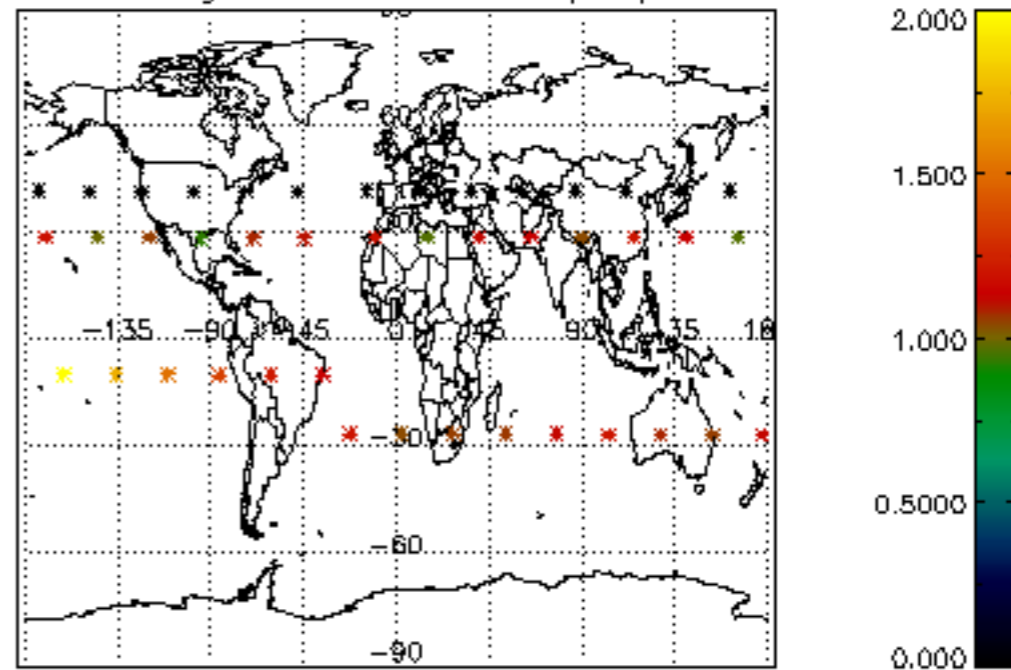




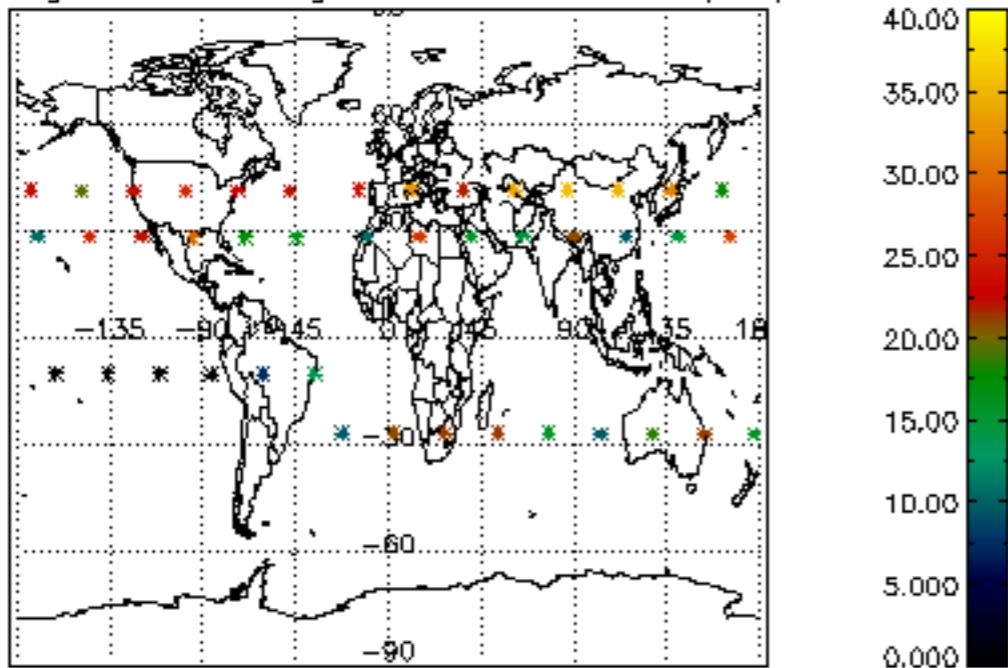
Percentage of cosmic ray hits per profile



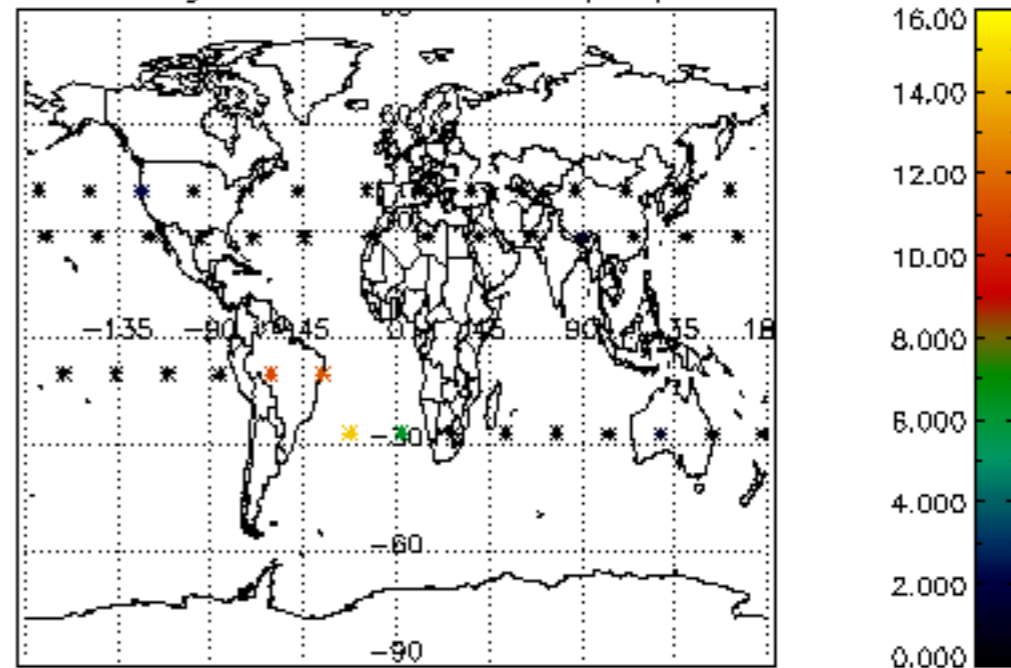
Percentage of datation errors per profile

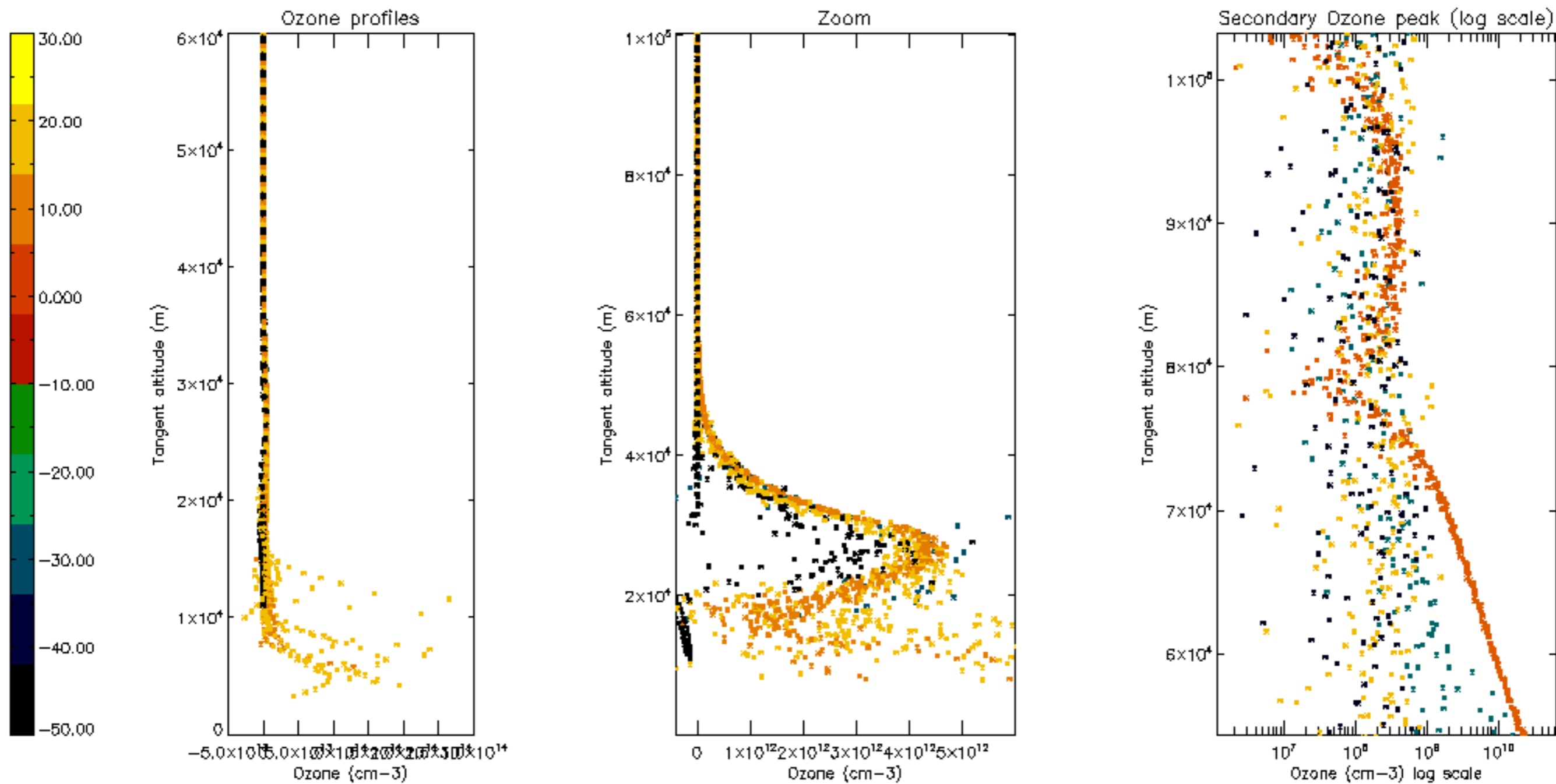


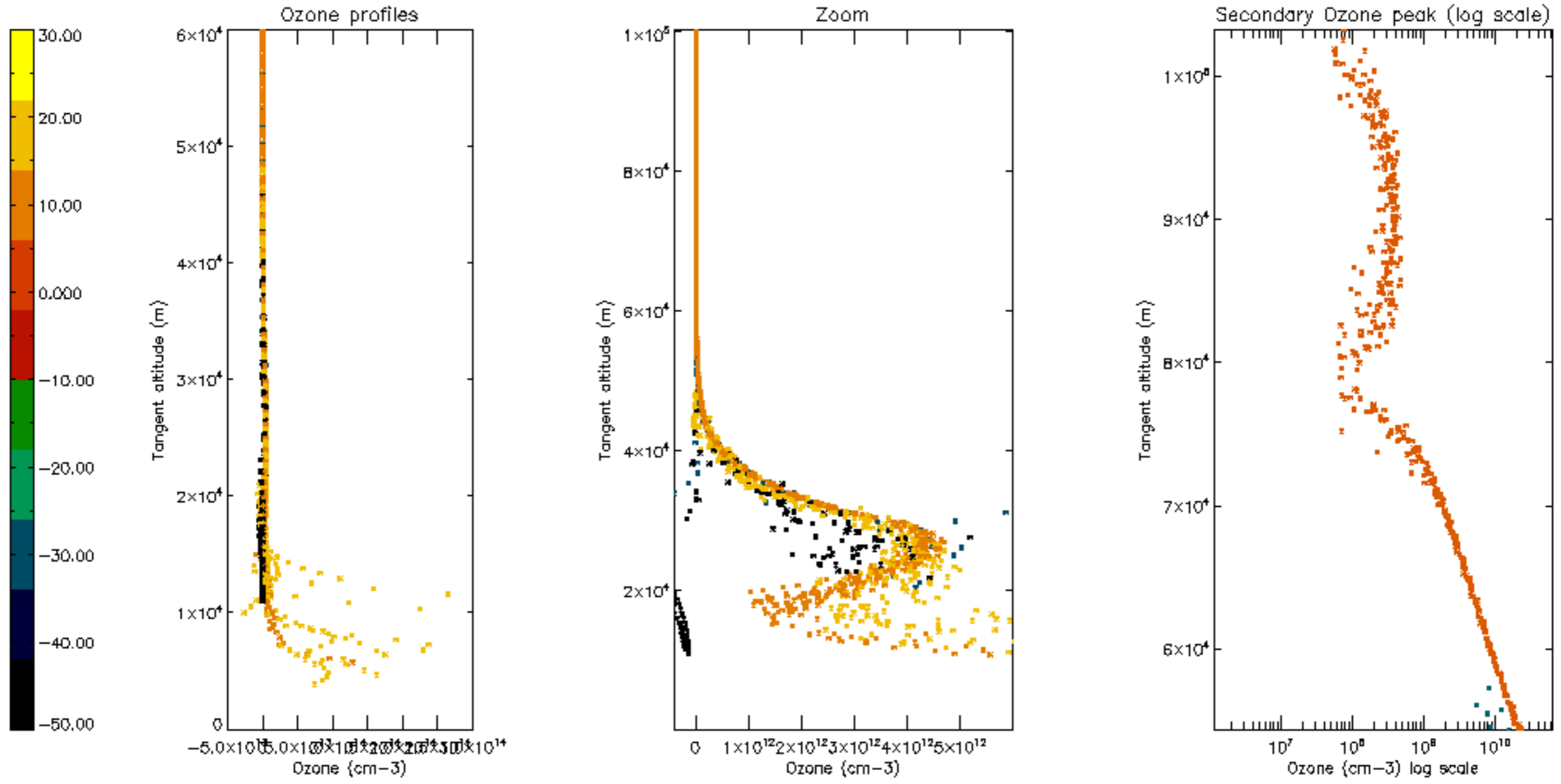
Percentage of star falling outside central band per profile

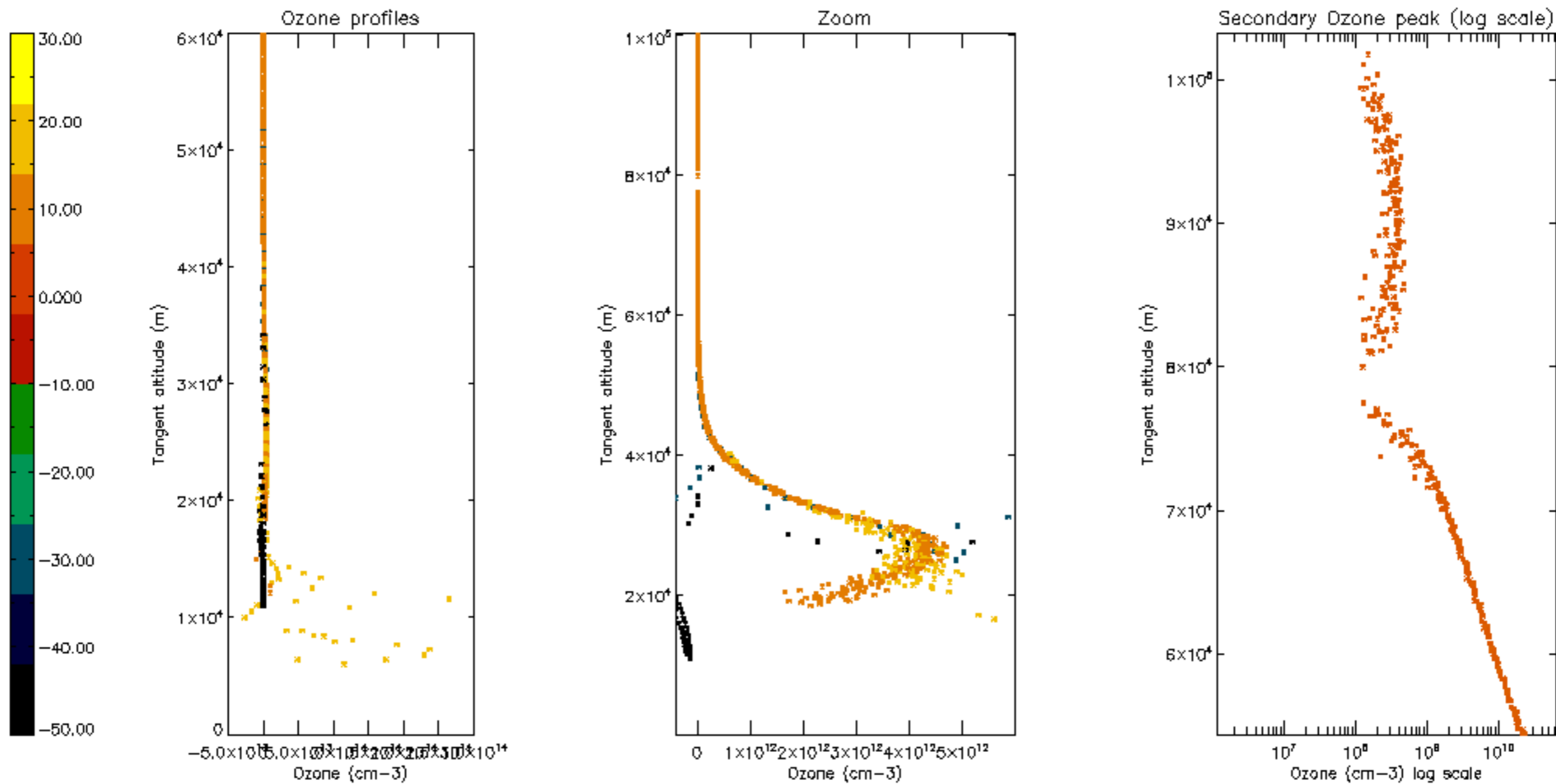


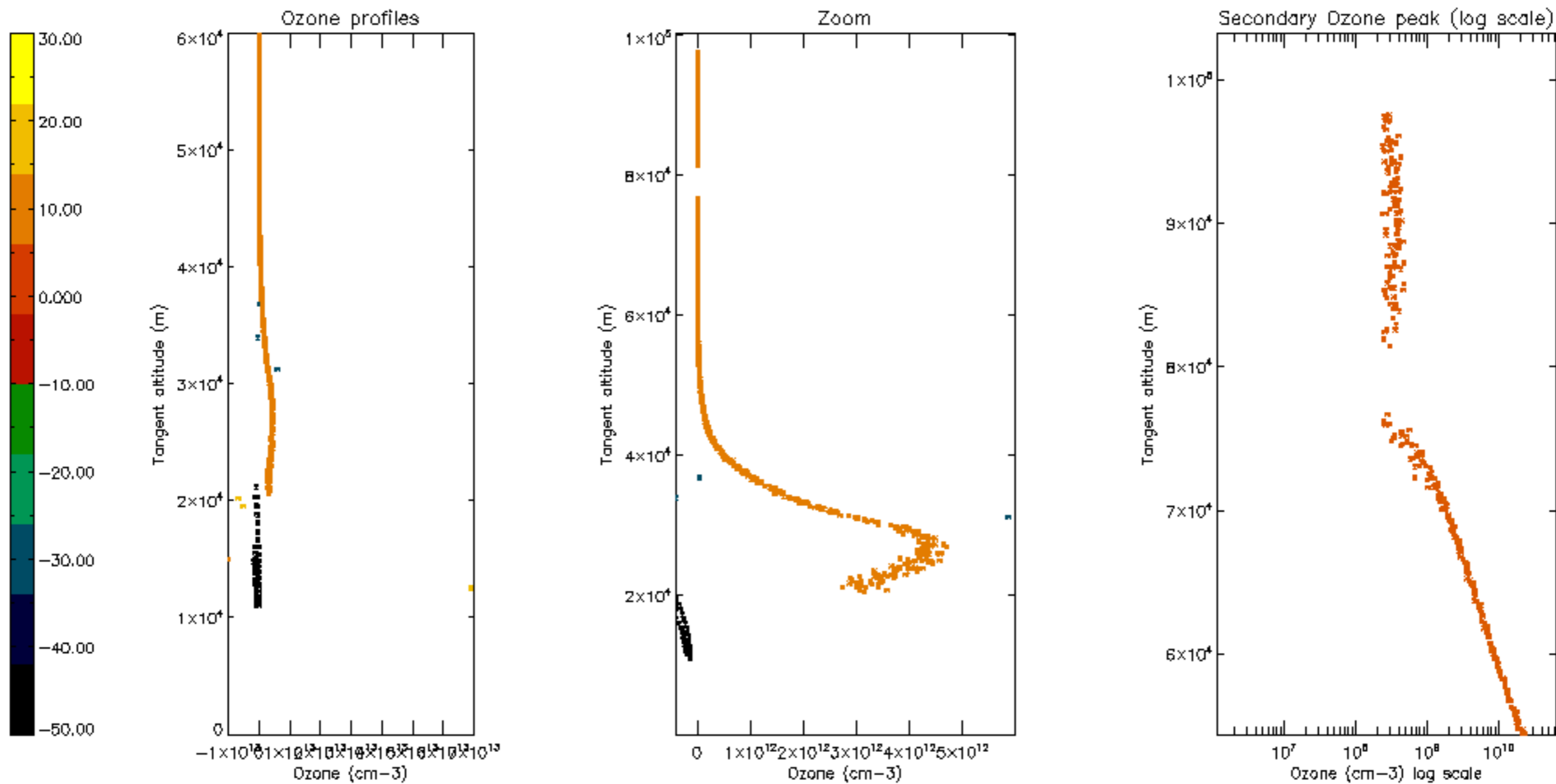
Percentage of saturation errors per profile

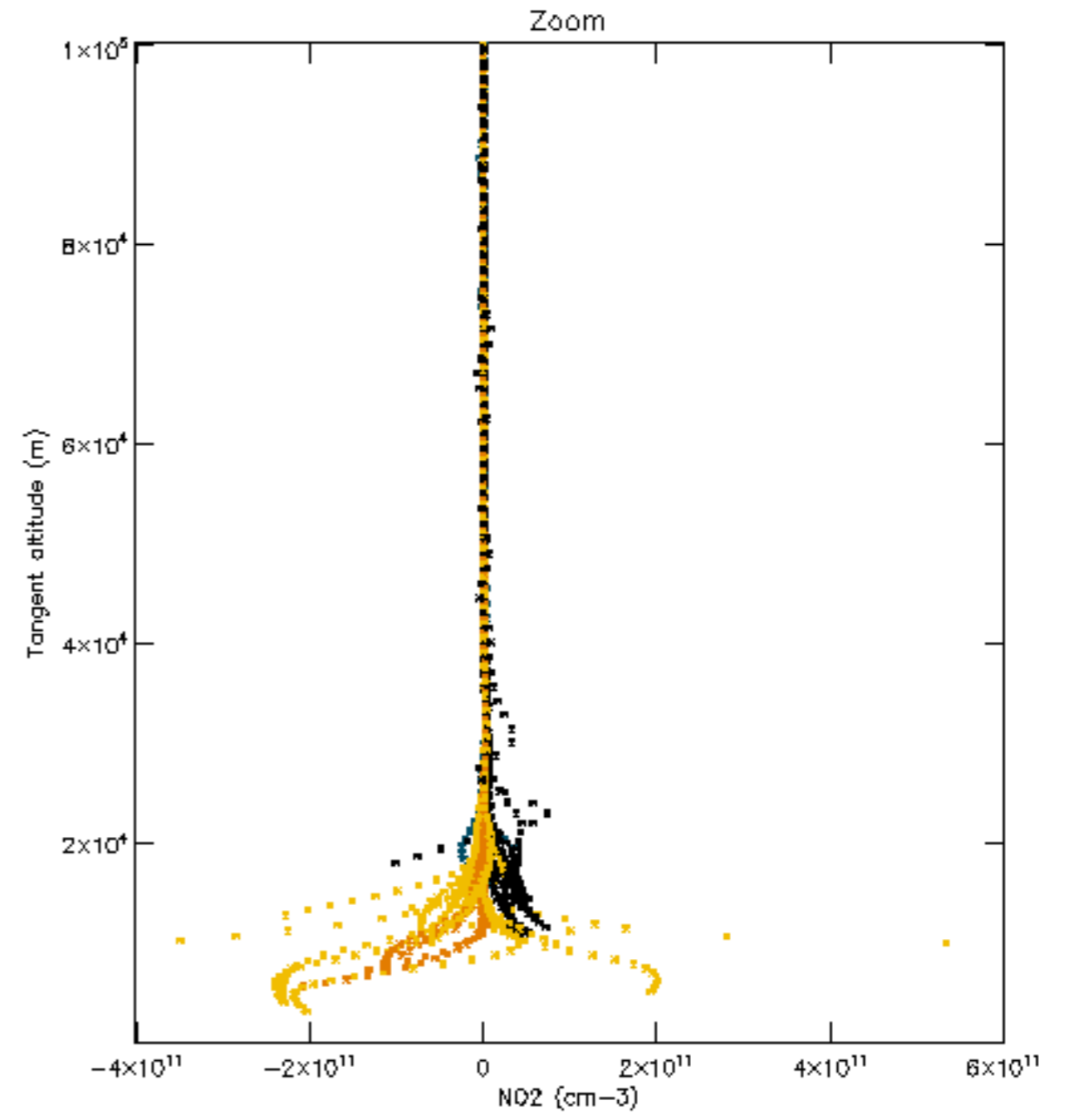
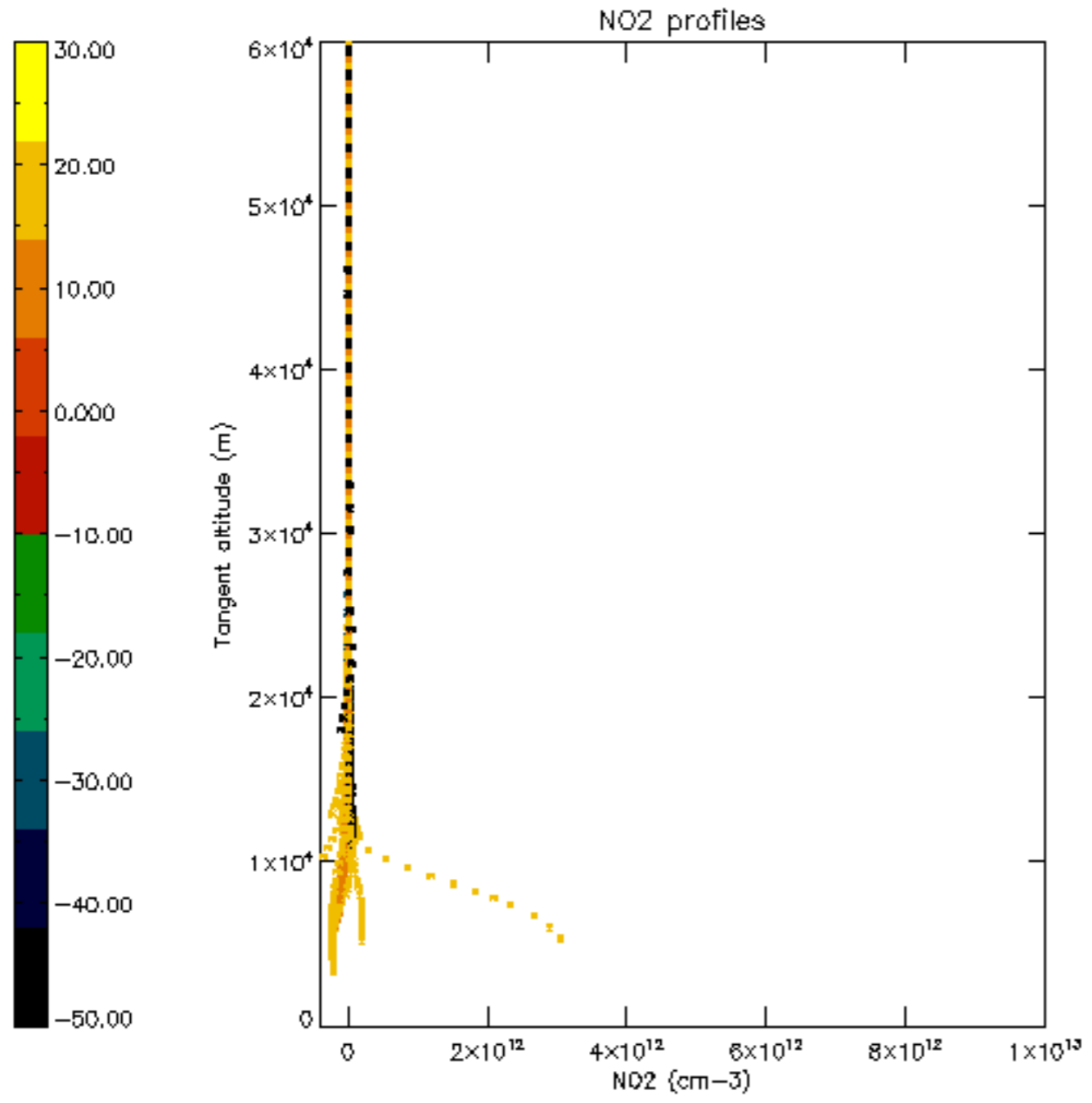


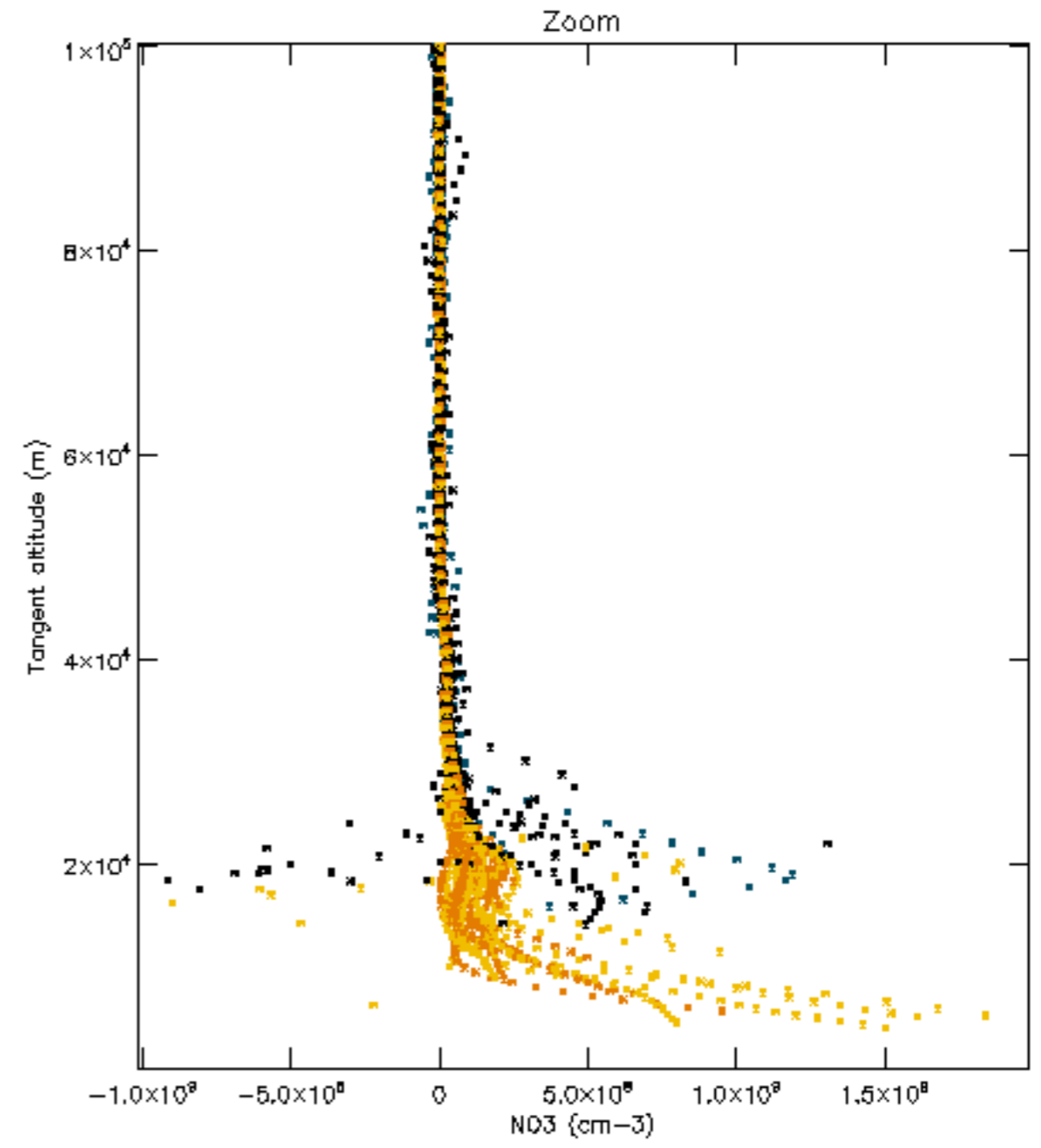
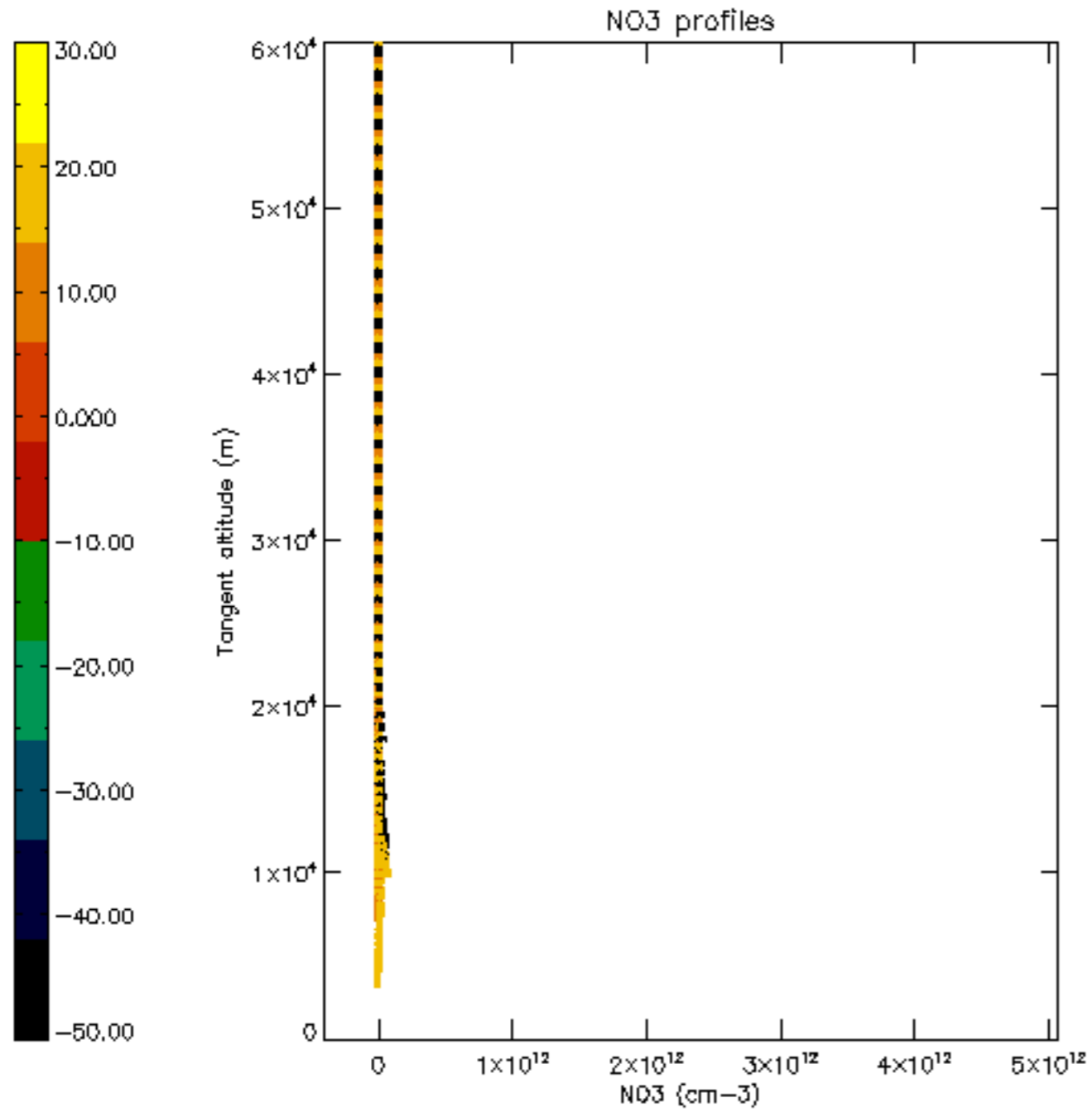


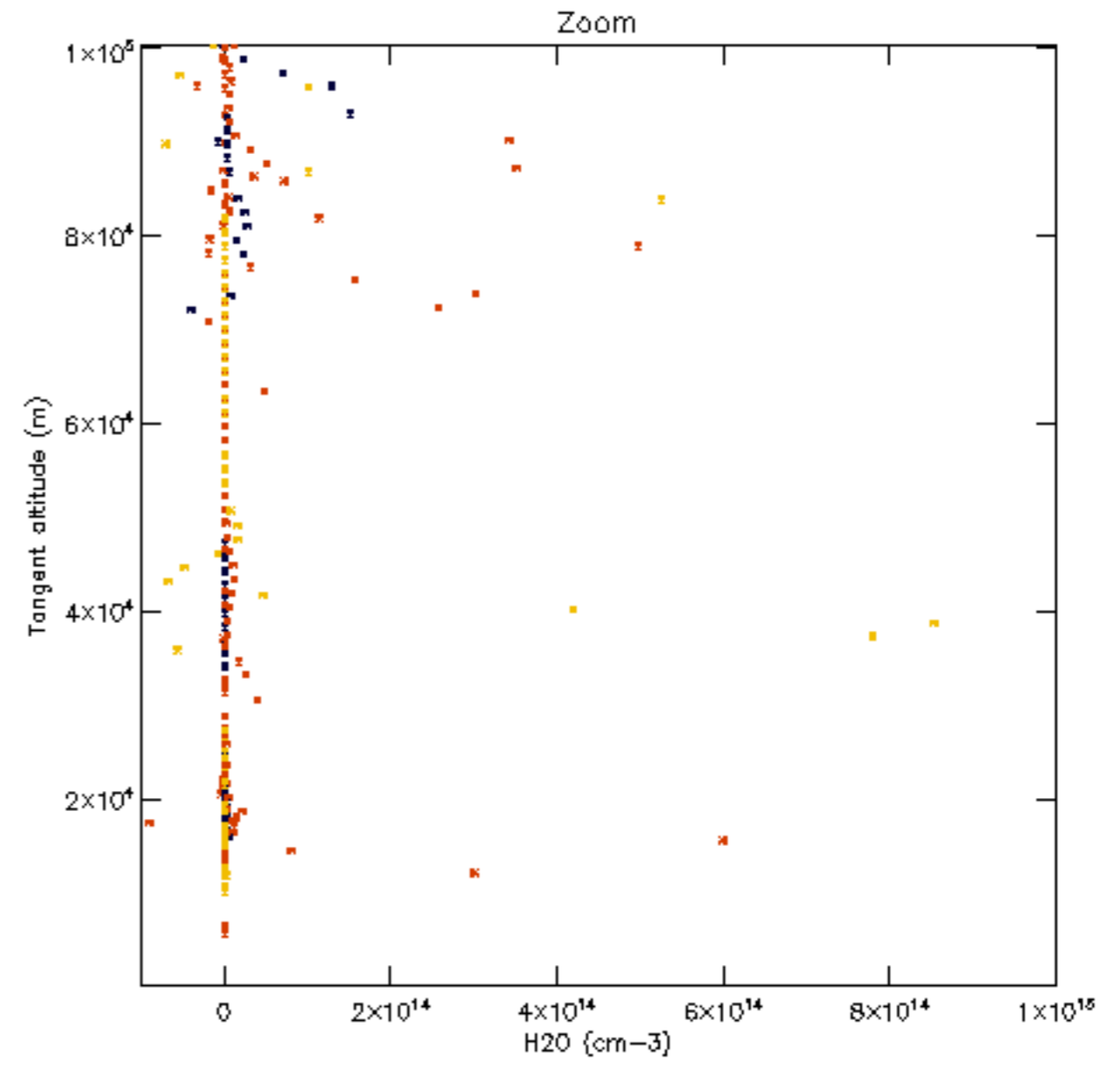
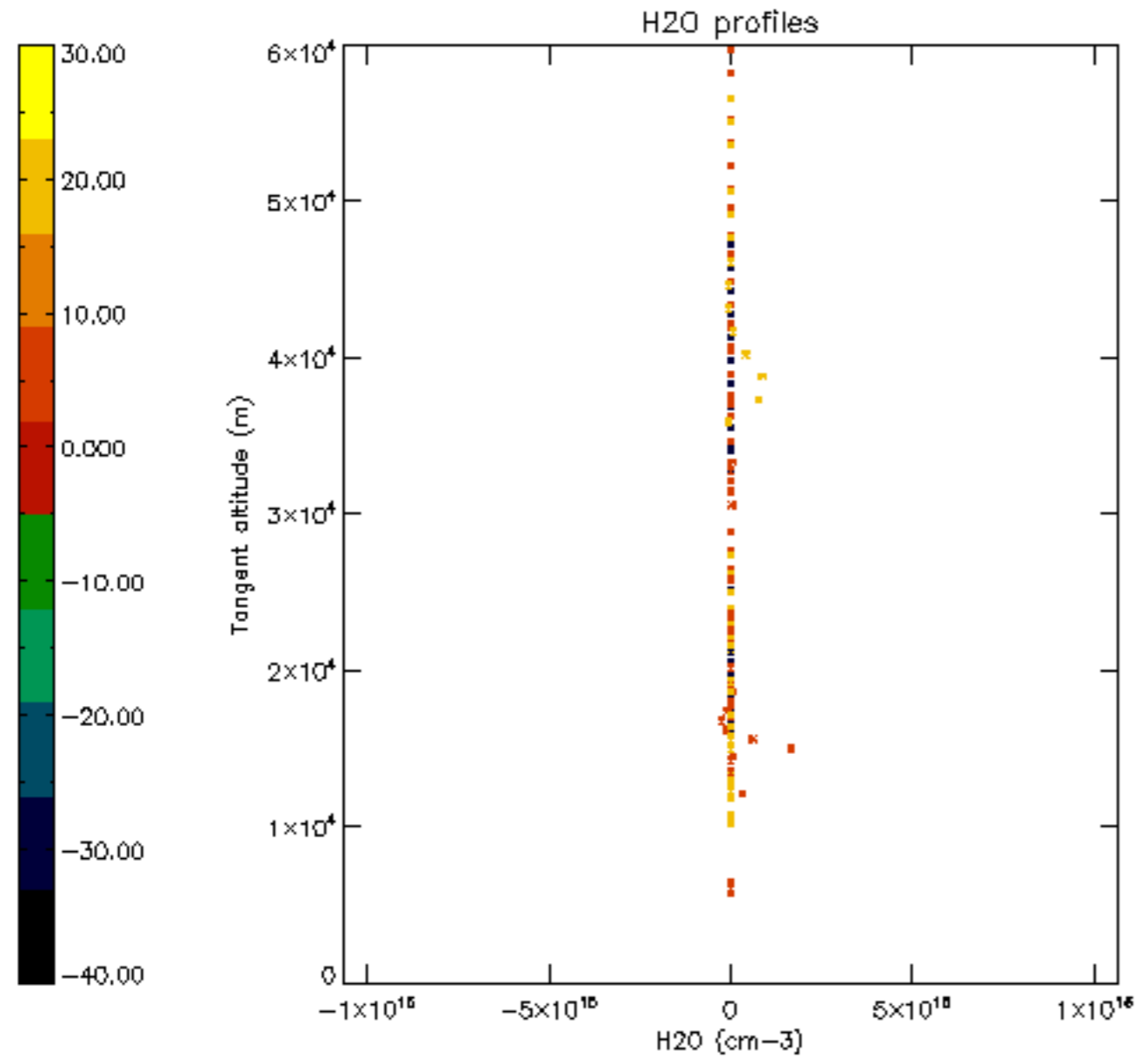


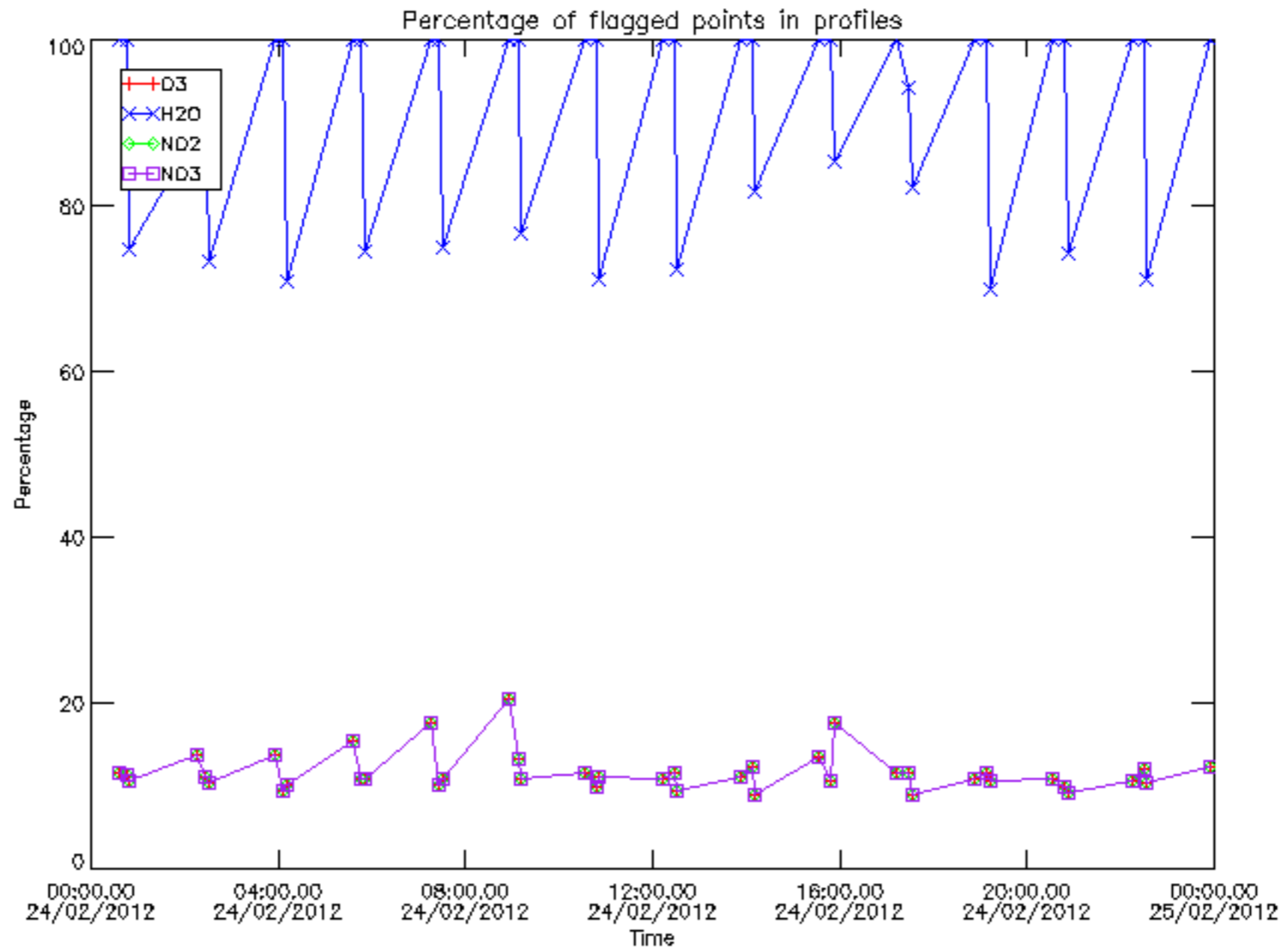




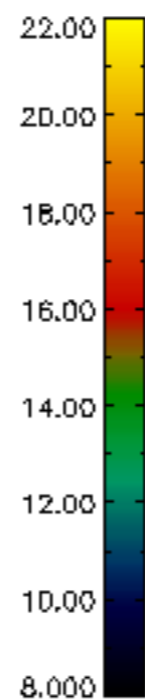
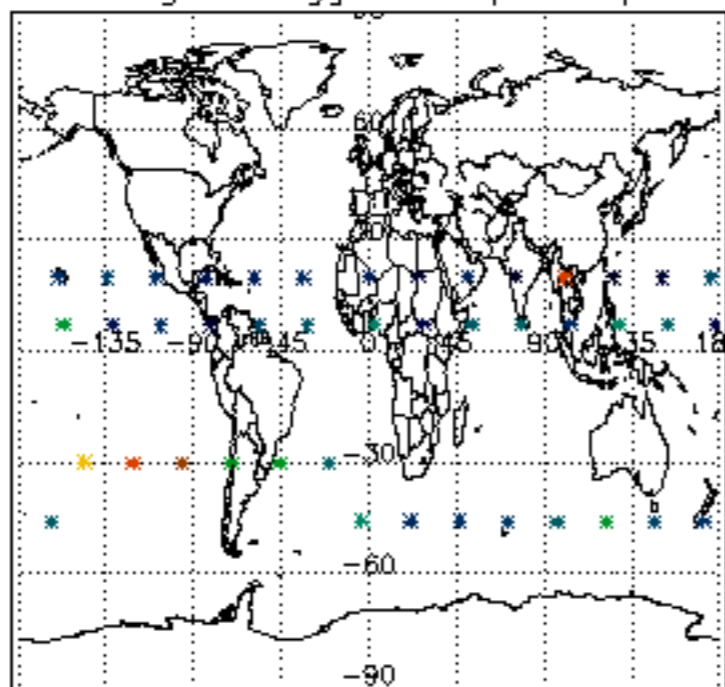




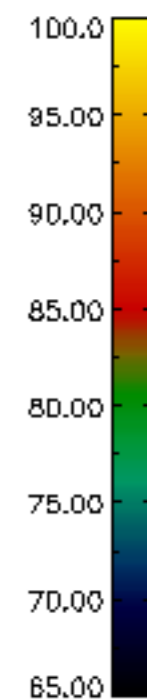
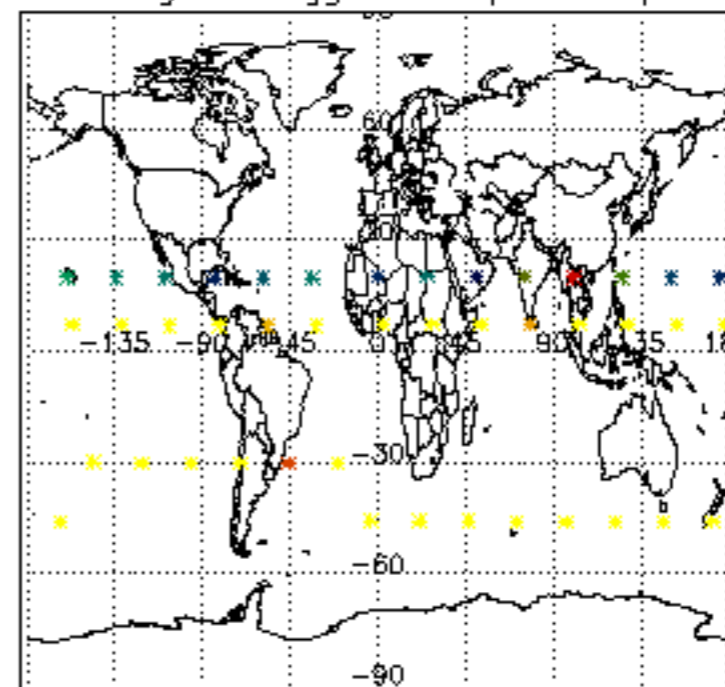




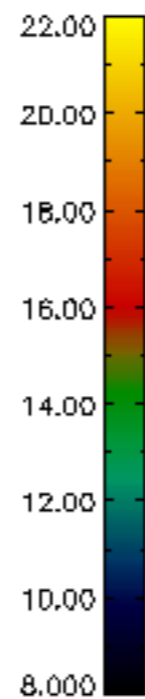
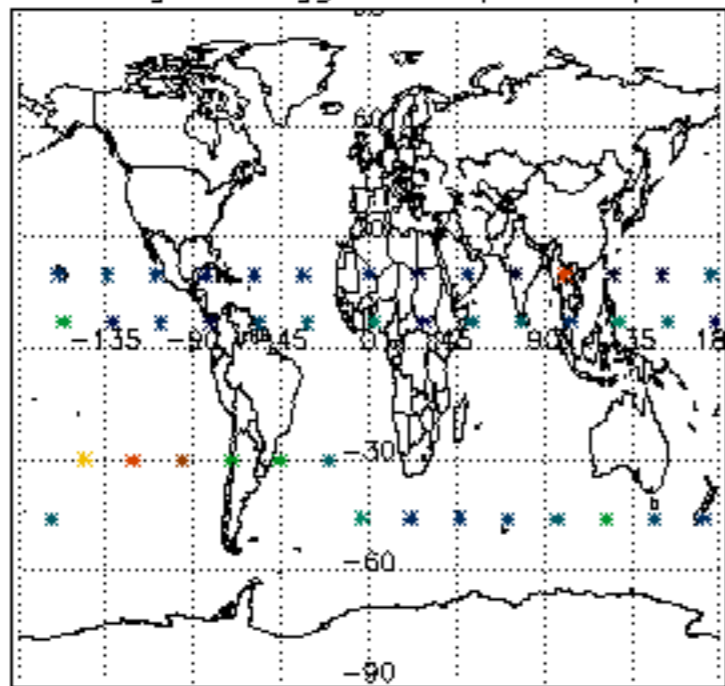
Percentage of flagged data per D3 profile



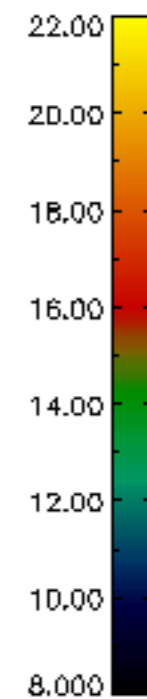
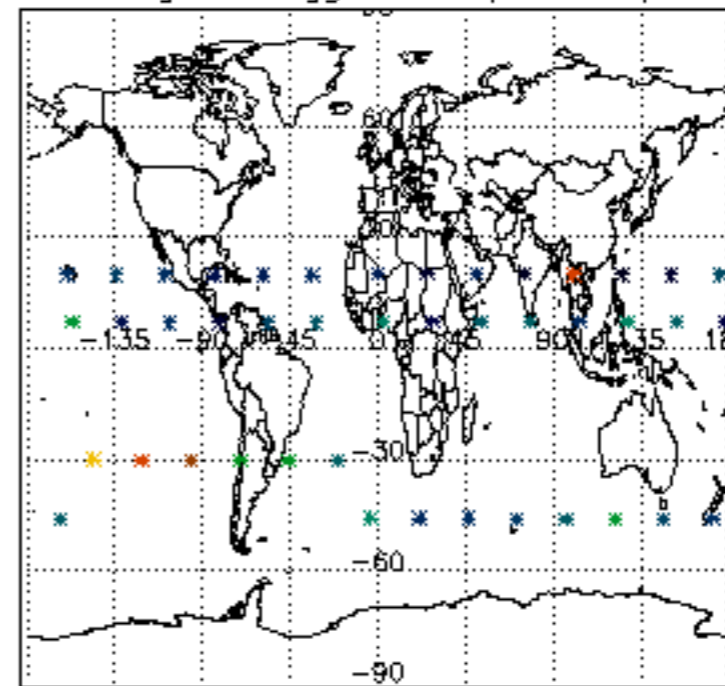
Percentage of flagged data per H2O profile

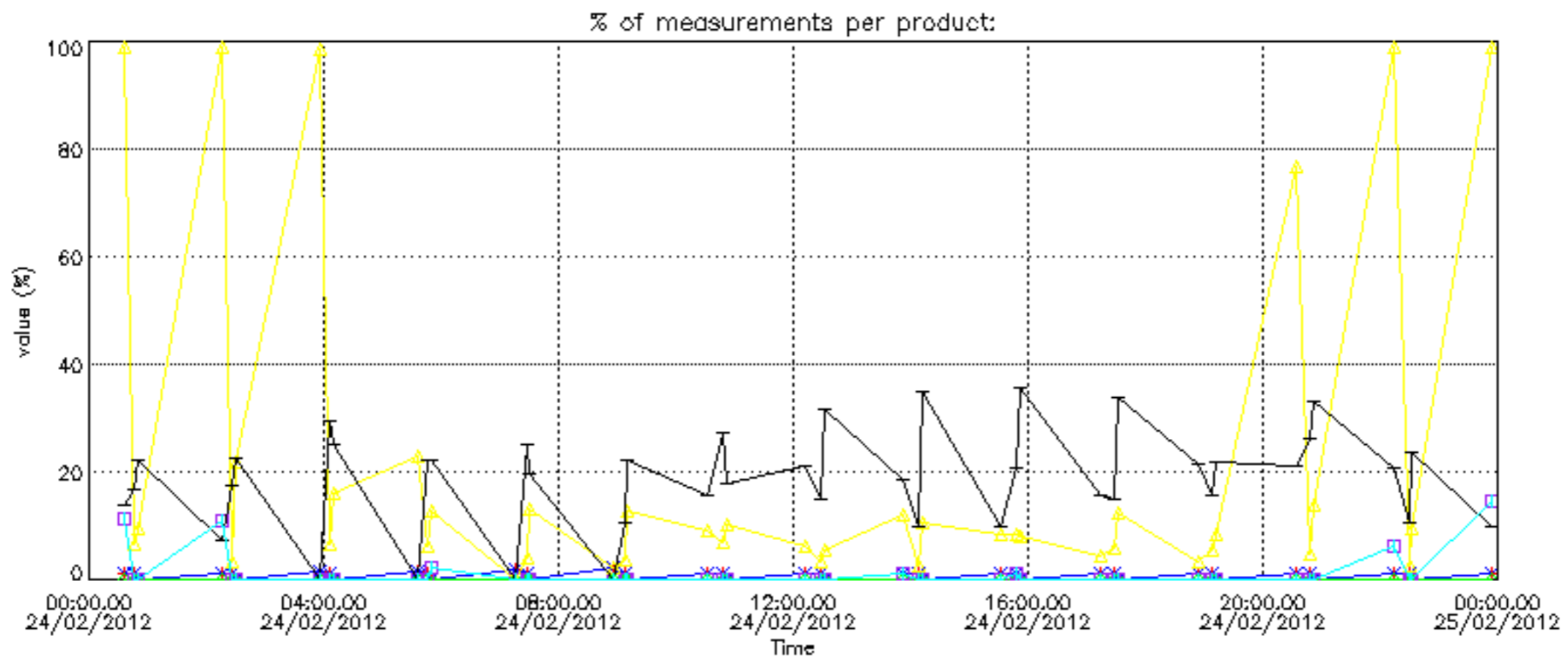


Percentage of flagged data per NO2 profile

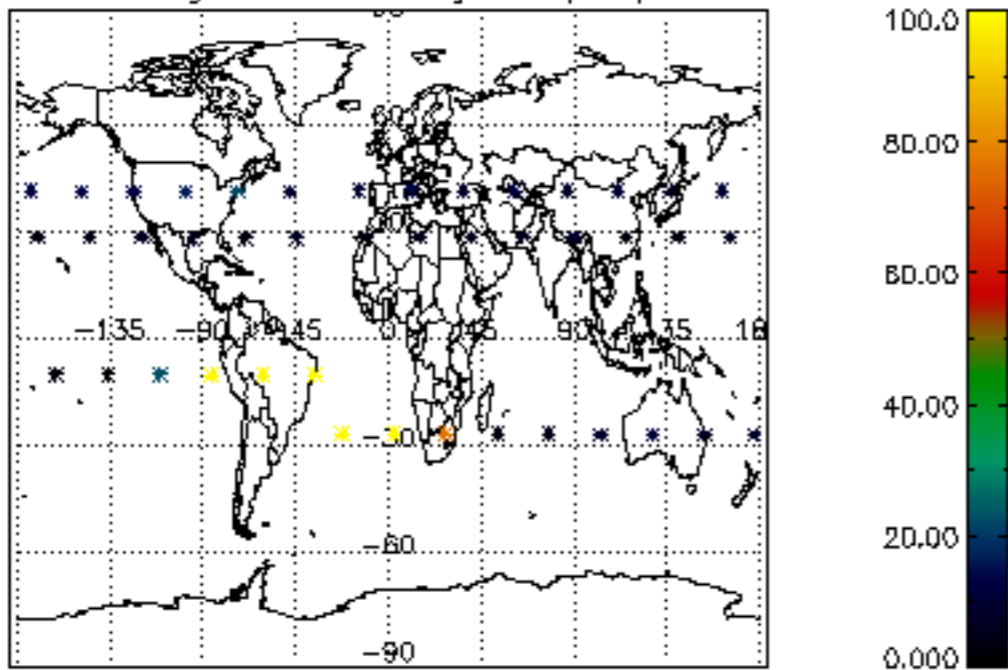


Percentage of flagged data per NO3 profile

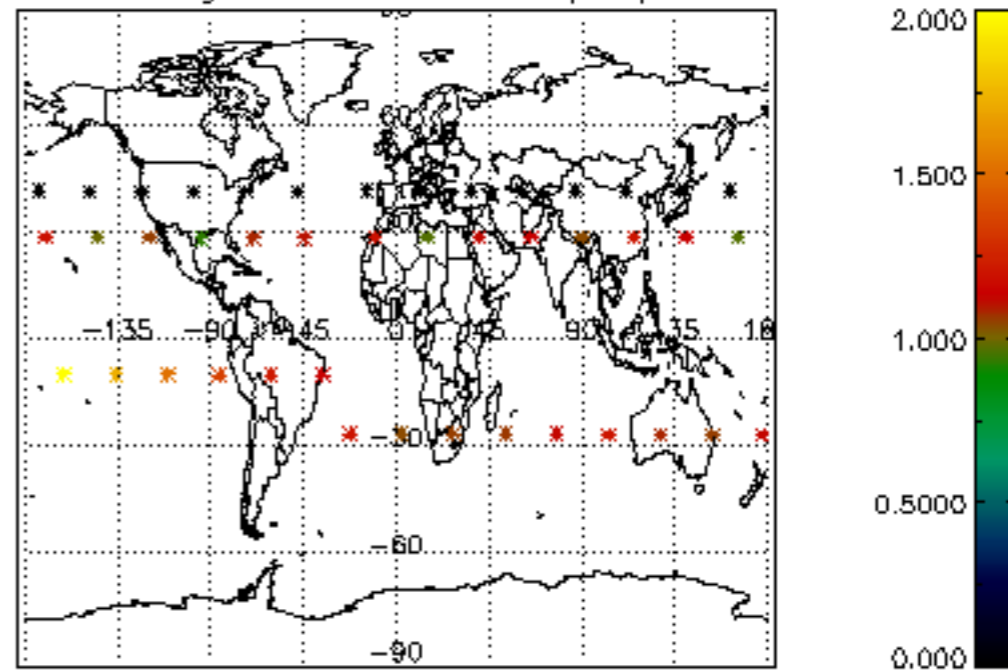




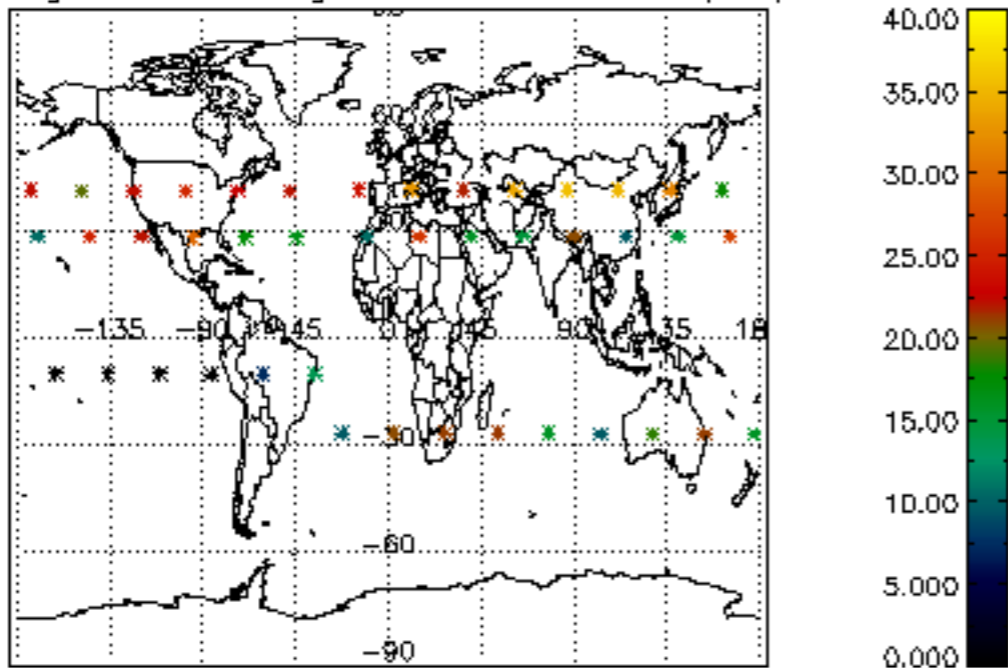
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

