

# 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	23APR2013 16:29:22
Data source version	GOMOS/6.01
Start time of products	26-03-2006 (26MAR2006 00:00:00)
Stop time of products	27-03-2006 (27MAR2006 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	256
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__2PRFIN20060326_000732_000000412046_00174_21270_8586.N1	26-MAR-2006 00:07:32	Dark	41.000	141	Bet Ara	2.8400	4600.0	82	21270	No
2	GOM_NL__2PRFIN20060326_001053_000000402046_00174_21270_8587.N1	26-MAR-2006 00:10:53	Dark	40.000	134	Bet TrA	2.8100	6600.0	80	21270	No
3	GOM_NL__2PRFIN20060326_001335_000000542046_00174_21270_8588.N1	26-MAR-2006 00:13:35	Dark	53.500	4	Alp1Cen	-0.010000	5800.0	107	21270	No
4	GOM_NL__2PRFIN20060326_001604_000000452046_00174_21270_8589.N1	26-MAR-2006 00:16:04	Straylight	45.000	78	Alp Lup	2.3040	28000.	90	21270	No
5	GOM_NL__2PRFIN20060326_001751_000000422046_00174_21270_8590.N1	26-MAR-2006 00:17:51	Straylight	42.000	95	Zet Cen	2.5450	26000.	84	21270	No
6	GOM_NL__2PRFIN20060326_001928_000000392046_00174_21270_8591.N1	26-MAR-2006 00:19:28	Straylight	39.000	64	Gam Cen	2.2000	10600.	78	21270	No
7	GOM_NL__2PRFIN20060326_002155_000000472046_00174_21270_8592.N1	26-MAR-2006 00:21:55	Straylight	46.500	123	lot Cen	2.7500	10200.	93	21270	No
8	GOM_NL__2PRFIN20060326_002705_000000502046_00174_21270_8593.N1	26-MAR-2006 00:27:05	Straylight	50.000	106	9Bet Crv	2.6480	5600.0	100	21270	No
9	GOM_NL__2PRFIN20060326_002909_000000442046_00174_21270_8594.N1	26-MAR-2006 00:29:09	Tw_i_and_stray	44.000	100	4Gam Crv	2.5800	13100.	88	21270	No
10	GOM_NL__2PRFIN20060326_003918_000000412046_00174_21270_8595.N1	26-MAR-2006 00:39:18	Bright	41.000	62	94Bet Leo	2.1360	9700.0	82	21270	No
11	GOM_NL__2PRFIN20060326_004045_000000362046_00174_21270_8596.N1	26-MAR-2006 00:40:45	Bright	36.000	96	68Del Leo	2.5600	9300.0	72	21270	No
12	GOM_NL__2PRFIN20060326_004740_000000362046_00174_21270_8597.N1	26-MAR-2006 00:47:40	Bright	36.000	174	52Psi UMa	3.0040	4400.0	72	21270	No
13	GOM_NL__2PRFIN20060326_005058_000000352046_00174_21270_8598.N1	26-MAR-2006 00:50:58	Bright	34.500	82	48Bet UMa	2.3650	10600.	69	21270	No
14	GOM_NL__2PRFIN20060326_005229_000000362046_00174_21270_8599.N1	26-MAR-2006 00:52:29	Bright	36.000	36	50Alp UMa	1.8000	6300.0	72	21270	No
15	GOM_NL__2PRFIN20060326_005910_000000362046_00174_21270_8600.N1	26-MAR-2006 00:59:10	Bright	35.500	60	7Bet UMi	2.0810	3950.0	71	21270	No
16	GOM_NL__2PRFIN20060326_010808_000000362046_00174_21270_8601.N1	26-MAR-2006 01:08:08	Bright	36.000	89	5Alp Cep	2.4510	8000.0	72	21270	No
17	GOM_NL__2PRFIN20060326_011318_000000362046_00174_21270_8602.N1	26-MAR-2006 01:13:18	Bright	36.000	19	50Alp Cyg	1.2460	10500.	72	21270	No
18	GOM_NL__2PRFIN20060326_011454_000000412046_00174_21270_8603.N1	26-MAR-2006 01:14:54	Bright	41.000	66	37Gam Cyg	2.2080	5900.0	82	21270	No
19	GOM_NL__2PRFIN20060326_011647_000000402046_00174_21270_8604.N1	26-MAR-2006 01:16:47	Bright	40.000	92	53Eps Cyg	2.5000	4500.0	80	21270	No
20	GOM_NL__2PRFIN20060326_014809_000000402046_00175_21271_8586.N1	26-MAR-2006 01:48:09	Dark	40.000	141	Bet Ara	2.8400	4600.0	80	21271	No
21	GOM_NL__2PRFIN20060326_015129_000000392046_00175_21271_8587.N1	26-MAR-2006 01:51:29	Dark	38.500	134	Bet TrA	2.8100	6600.0	77	21271	No
22	GOM_NL__2PRFIN20060326_015411_000000562046_00175_21271_8588.N1	26-MAR-2006 01:54:11	Dark	56.000	4	Alp1Cen	-0.010000	5800.0	112	21271	No
23	GOM_NL__2PRFIN20060326_015640_000000452046_00175_21271_8589.N1	26-MAR-2006 01:56:40	Straylight	44.500	78	Alp Lup	2.3040	28000.	89	21271	No
24	GOM_NL__2PRFIN20060326_015828_000000452046_00175_21271_8590.N1	26-MAR-2006 01:58:28	Straylight	44.500	95	Zet Cen	2.5450	26000.	89	21271	No
25	GOM_NL__2PRFIN20060326_020004_000000402046_00175_21271_8591.N1	26-MAR-2006 02:00:04	Straylight	39.500	64	Gam Cen	2.2000	10600.	79	21271	No
26	GOM_NL__2PRFIN20060326_020231_000000452046_00175_21271_8592.N1	26-MAR-2006 02:02:31	Straylight	45.000	123	lot Cen	2.7500	10200.	90	21271	No
27	GOM_NL__2PRFIN20060326_020741_000000482046_00175_21271_8593.N1	26-MAR-2006 02:07:41	Straylight	48.000	106	9Bet Crv	2.6480	5600.0	96	21271	No
28	GOM_NL__2PRFIN20060326_020945_000000452046_00175_21271_8594.N1	26-MAR-2006 02:09:45	Tw_i_and_stray	44.500	100	4Gam Crv	2.5800	13100.	89	21271	No
29	GOM_NL__2PRFIN20060326_021953_000000422046_00175_21271_8595.N1	26-MAR-2006 02:19:53	Bright	41.500	62	94Bet Leo	2.1360	9700.0	83	21271	No
30	GOM_NL__2PRFIN20060326_022121_000000382046_00175_21271_8596.N1	26-MAR-2006 02:21:21	Bright	38.000	96	68Del Leo	2.5600	9300.0	76	21271	No
31	GOM_NL__2PRFIN20060326_022815_000000372046_00175_21271_8597.N1	26-MAR-2006 02:28:15	Bright	37.000	174	52Psi UMa	3.0040	4400.0	74	21271	No
32	GOM_NL__2PRFIN20060326_023134_000000352046_00175_21271_8598.N1	26-MAR-2006 02:31:34	Bright	35.000	82	48Bet UMa	2.3650	10600.	70	21271	No
33	GOM_NL__2PRFIN20060326_023305_000000362046_00175_21271_8599.N1	26-MAR-2006 02:33:05	Bright	36.000	36	50Alp UMa	1.8000	6300.0	72	21271	No
34	GOM_NL__2PRFIN20060326_023946_000000372046_00175_21271_8600.N1	26-MAR-2006 02:39:46	Bright	36.500	60	7Bet UMi	2.0810	3950.0	73	21271	No
35	GOM_NL__2PRFIN20060326_024844_000000432046_00175_21271_8601.N1	26-MAR-2006 02:48:44	Bright	42.500	89	5Alp Cep	2.4510	8000.0	85	21271	No
36	GOM_NL__2PRFIN20060326_025353_000000402046_00175_21271_8602.N1	26-MAR-2006 02:53:53	Bright	40.000	19	50Alp Cyg	1.2460	10500.	80	21271	No
37	GOM_NL__2PRFIN20060326_025530_000000412046_00175_21271_8603.N1	26-MAR-2006 02:55:30	Bright	40.500	66	37Gam Cyg	2.2080	5900.0	81	21271	No
38	GOM_NL__2PRFIN20060326_025723_000000412046_00175_21271_8604.N1	26-MAR-2006 02:57:23	Bright	40.500	92	53Eps Cyg	2.5000	4500.0	81	21271	No
39	GOM_NL__2PRFIN20060326_032845_000000442046_00176_21272_8586.N1	26-MAR-2006 03:28:45	Dark	44.000	141	Bet Ara	2.8400	4600.0	88	21272	No
40	GOM_NL__2PRFIN20060326_033206_000000392046_00176_21272_8587.N1	26-MAR-2006 03:32:06	Dark	38.500	134	Bet TrA	2.8100	6600.0	77	21272	No
41	GOM_NL__2PRFIN20060326_033448_000000512046_00176_21272_8588.N1	26-MAR-2006 03:34:48	Dark	50.500	4	Alp1Cen	-0.010000	5800.0	101	21272	No
42	GOM_NL__2PRFIN20060326_033717_000000462046_00176_21272_8589.N1	26-MAR-2006 03:37:17	Straylight	46.000	78	Alp Lup	2.3040	28000.	92	21272	No





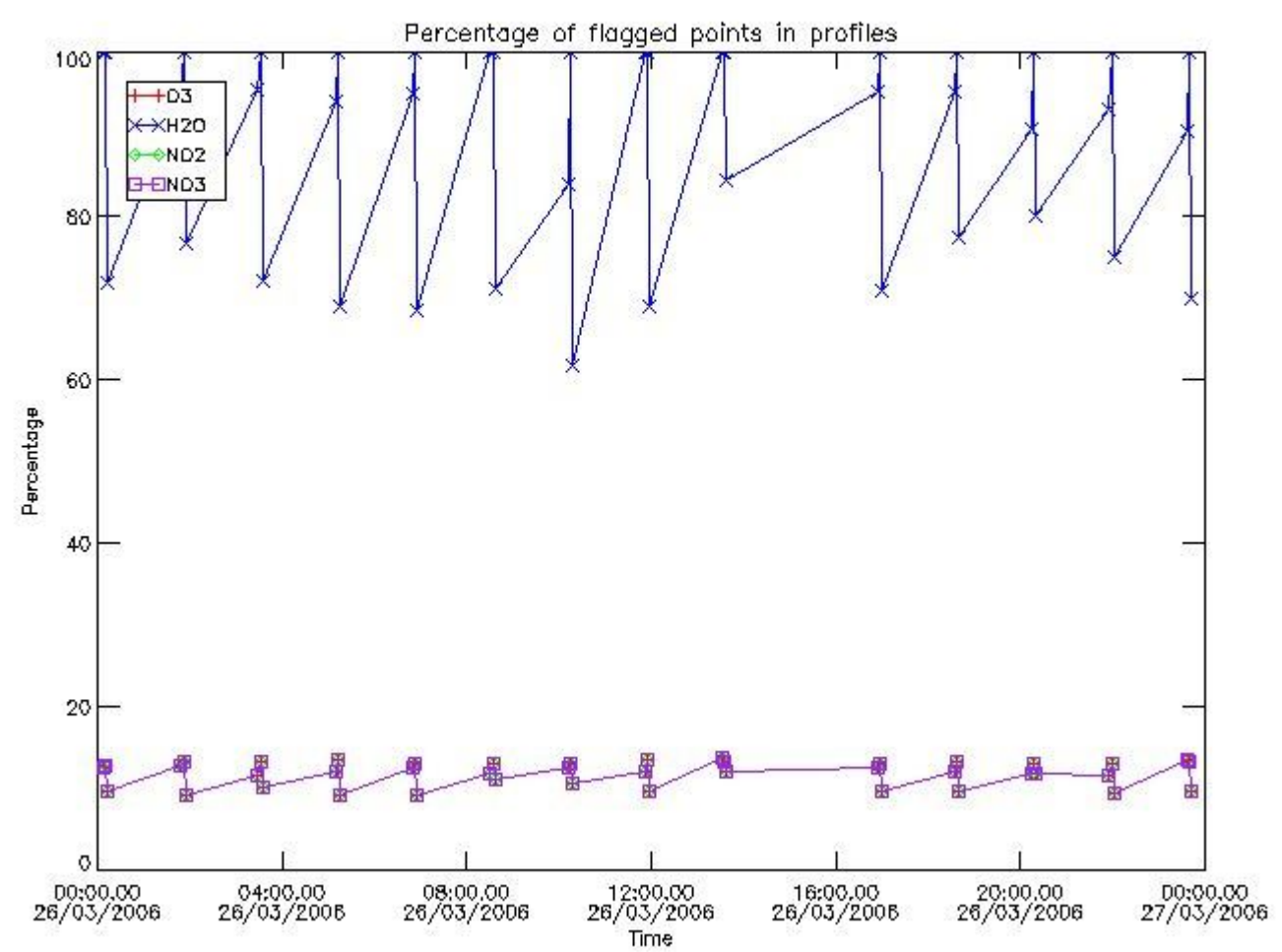


220	GOM_NL__2PRFIN20060326_204755_000000362046_00186_21282_8616.N1	26-MAR-2006 20:47:55	Bright	35.500	96	68Del Leo	2.5600	9300.0	71	21282	No
221	GOM_NL__2PRFIN20060326_205449_000000372046_00186_21282_8617.N1	26-MAR-2006 20:54:49	Bright	37.000	174	52Psi UMa	3.0040	4400.0	74	21282	No
222	GOM_NL__2PRFIN20060326_205807_000000362046_00186_21282_8618.N1	26-MAR-2006 20:58:07	Bright	36.000	82	48Bet UMa	2.3650	10600.	72	21282	No
223	GOM_NL__2PRFIN20060326_205939_000000382046_00186_21282_8619.N1	26-MAR-2006 20:59:39	Bright	37.500	36	50Alp UMa	1.8000	6300.0	75	21282	No
224	GOM_NL__2PRFIN20060326_210618_000000402046_00186_21282_8620.N1	26-MAR-2006 21:06:18	Bright	40.000	60	7Bet UMi	2.0810	3950.0	80	21282	No
225	GOM_NL__2PRFIN20060326_211519_000000352046_00186_21282_8621.N1	26-MAR-2006 21:15:19	Bright	35.000	89	5Alp Cep	2.4510	8000.0	70	21282	No
226	GOM_NL__2PRFIN20060326_212029_000000402046_00186_21282_8622.N1	26-MAR-2006 21:20:29	Bright	40.000	19	50Alp Cyg	1.2460	10500.	80	21282	No
227	GOM_NL__2PRFIN20060326_212206_000000422046_00186_21282_8623.N1	26-MAR-2006 21:22:06	Bright	41.500	66	37Gam Cyg	2.2080	5900.0	83	21282	No
228	GOM_NL__2PRFIN20060326_212400_000000522046_00186_21282_8624.N1	26-MAR-2006 21:24:00	Bright	51.500	92	53Eps Cyg	2.5000	4500.0	103	21282	No
229	GOM_NL__2PRFIN20060326_215528_000000442046_00187_21283_8606.N1	26-MAR-2006 21:55:28	Dark	44.000	141	Bet Ara	2.8400	4600.0	88	21283	No
230	GOM_NL__2PRFIN20060326_215847_000000392046_00187_21283_8607.N1	26-MAR-2006 21:58:47	Dark	39.000	134	Bet TrA	2.8100	6600.0	78	21283	No
231	GOM_NL__2PRFIN20060326_220128_000000552046_00187_21283_8608.N1	26-MAR-2006 22:01:28	Dark	54.500	4	Alp1Cen	-0.010000	5800.0	109	21283	No
232	GOM_NL__2PRFIN20060326_220400_000000442046_00187_21283_8609.N1	26-MAR-2006 22:04:00	Straylight	43.500	78	Alp Lup	2.3040	28000.	87	21283	No
233	GOM_NL__2PRFIN20060326_220545_000000442046_00187_21283_8610.N1	26-MAR-2006 22:05:45	Straylight	44.000	95	Zet Cen	2.5450	26000.	88	21283	No
234	GOM_NL__2PRFIN20060326_220719_000000402046_00187_21283_8611.N1	26-MAR-2006 22:07:19	Straylight	39.500	64	Gam Cen	2.2000	10600.	79	21283	No
235	GOM_NL__2PRFIN20060326_220947_000000452046_00187_21283_8612.N1	26-MAR-2006 22:09:47	Straylight	44.500	123	lot Cen	2.7500	10200.	89	21283	No
236	GOM_NL__2PRFIN20060326_221527_000000462046_00187_21283_8613.N1	26-MAR-2006 22:15:27	Twilight_stray	46.000	171	2Eps Crv	3.0010	4250.0	92	21283	No
237	GOM_NL__2PRFIN20060326_221658_000000442046_00187_21283_8614.N1	26-MAR-2006 22:16:58	Twilight_stray	44.000	100	4Gam Crv	2.5800	13100.	88	21283	No
238	GOM_NL__2PRFIN20060326_222702_000000582046_00187_21283_8615.N1	26-MAR-2006 22:27:02	Bright	58.000	62	94Bet Leo	2.1360	9700.0	116	21283	No
239	GOM_NL__2PRFIN20060326_222830_000000362046_00187_21283_8616.N1	26-MAR-2006 22:28:30	Bright	35.500	96	68Del Leo	2.5600	9300.0	71	21283	No
240	GOM_NL__2PRFIN20060326_223525_000000382046_00187_21283_8617.N1	26-MAR-2006 22:35:25	Bright	37.500	174	52Psi UMa	3.0040	4400.0	75	21283	No
241	GOM_NL__2PRFIN20060326_223843_000000352046_00187_21283_8618.N1	26-MAR-2006 22:38:43	Bright	34.500	82	48Bet UMa	2.3650	10600.	69	21283	No
242	GOM_NL__2PRFIN20060326_224015_000000362046_00187_21283_8619.N1	26-MAR-2006 22:40:15	Bright	36.000	36	50Alp UMa	1.8000	6300.0	72	21283	No
243	GOM_NL__2PRFIN20060326_224653_000000392046_00187_21283_8620.N1	26-MAR-2006 22:46:53	Bright	38.500	60	7Bet UMi	2.0810	3950.0	77	21283	No
244	GOM_NL__2PRFIN20060326_225555_000000372046_00187_21283_8621.N1	26-MAR-2006 22:55:55	Bright	36.500	89	5Alp Cep	2.4510	8000.0	73	21283	No
245	GOM_NL__2PRFIN20060326_230105_000000402046_00187_21283_8622.N1	26-MAR-2006 23:01:05	Bright	40.000	19	50Alp Cyg	1.2460	10500.	80	21283	No
246	GOM_NL__2PRFIN20060326_230242_000000392046_00187_21283_8623.N1	26-MAR-2006 23:02:42	Bright	39.000	66	37Gam Cyg	2.2080	5900.0	78	21283	No
247	GOM_NL__2PRFIN20060326_230436_000000402046_00187_21283_8624.N1	26-MAR-2006 23:04:36	Bright	39.500	92	53Eps Cyg	2.5000	4500.0	79	21283	No
248	GOM_NL__2PRFIN20060326_233605_000000422046_00188_21284_8606.N1	26-MAR-2006 23:36:05	Dark	41.500	141	Bet Ara	2.8400	4600.0	83	21284	No
249	GOM_NL__2PRFIN20060326_233923_000000392046_00188_21284_8607.N1	26-MAR-2006 23:39:23	Dark	38.500	134	Bet TrA	2.8100	6600.0	77	21284	No
250	GOM_NL__2PRFIN20060326_234205_000000542046_00188_21284_8608.N1	26-MAR-2006 23:42:05	Dark	53.500	4	Alp1Cen	-0.010000	5800.0	107	21284	No
251	GOM_NL__2PRFIN20060326_234436_000000482046_00188_21284_8609.N1	26-MAR-2006 23:44:36	Straylight	48.000	78	Alp Lup	2.3040	28000.	96	21284	No
252	GOM_NL__2PRFIN20060326_234622_000000422046_00188_21284_8610.N1	26-MAR-2006 23:46:22	Straylight	41.500	95	Zet Cen	2.5450	26000.	83	21284	No
253	GOM_NL__2PRFIN20060326_234755_000000402046_00188_21284_8611.N1	26-MAR-2006 23:47:55	Straylight	40.000	64	Gam Cen	2.2000	10600.	80	21284	No
254	GOM_NL__2PRFIN20060326_235024_000000482046_00188_21284_8612.N1	26-MAR-2006 23:50:24	Straylight	48.000	123	lot Cen	2.7500	10200.	96	21284	No
255	GOM_NL__2PRFIN20060326_235530_000000482046_00188_21284_8613.N1	26-MAR-2006 23:55:30	Straylight	48.000	106	9Bet Crv	2.6480	5600.0	96	21284	No
256	GOM_NL__2PRFIN20060326_235734_000000462046_00188_21284_8614.N1	26-MAR-2006 23:57:34	Twilight_stray	45.500	100	4Gam Crv	2.5800	13100.	91	21284	No

### 3. Quality information per product

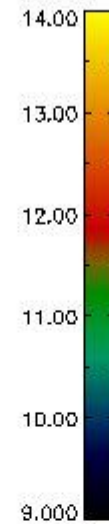
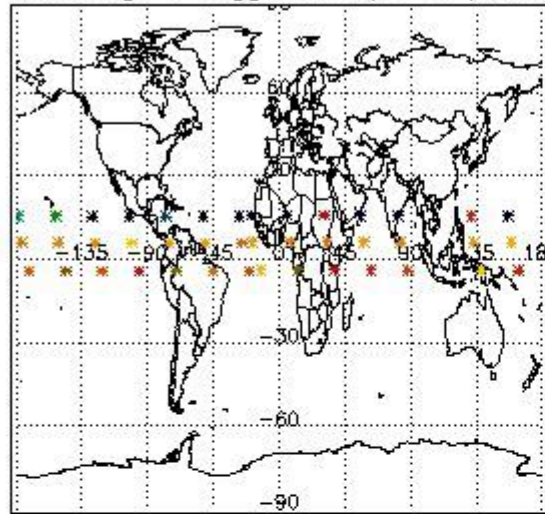
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

#### 3.1 Plot quality information per product (time dependant)

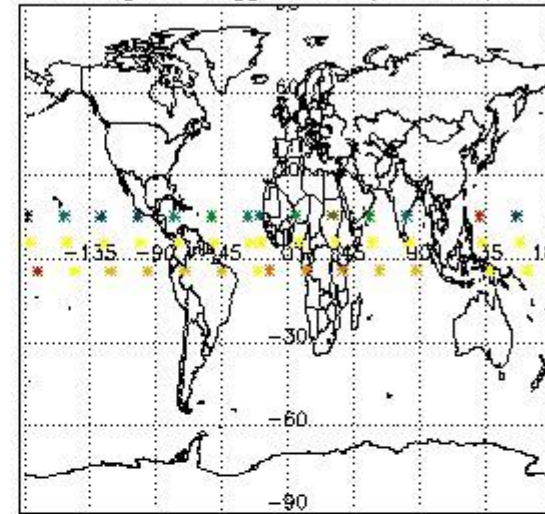


3.2 Plot quality information per product (world map)

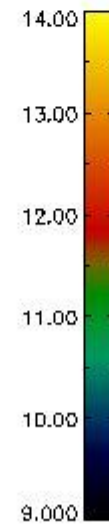
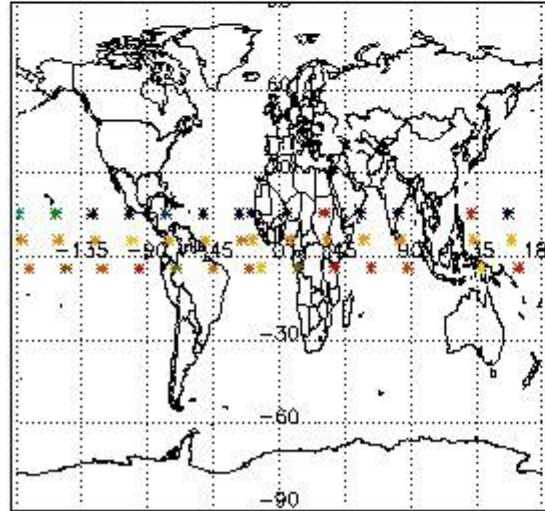
Percentage of flagged data per O3 profile



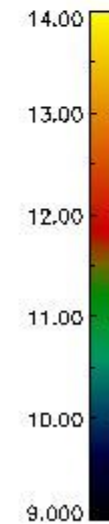
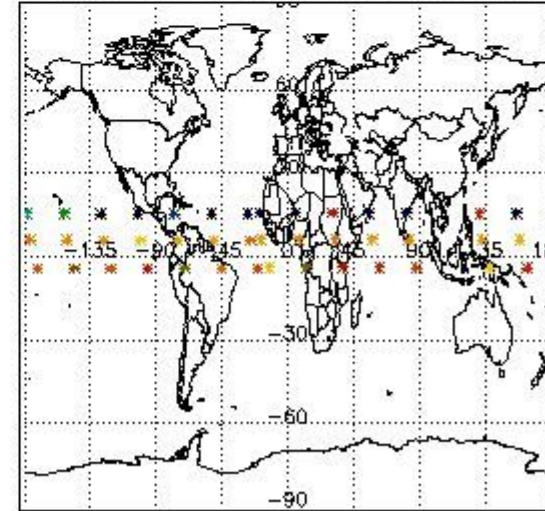
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile



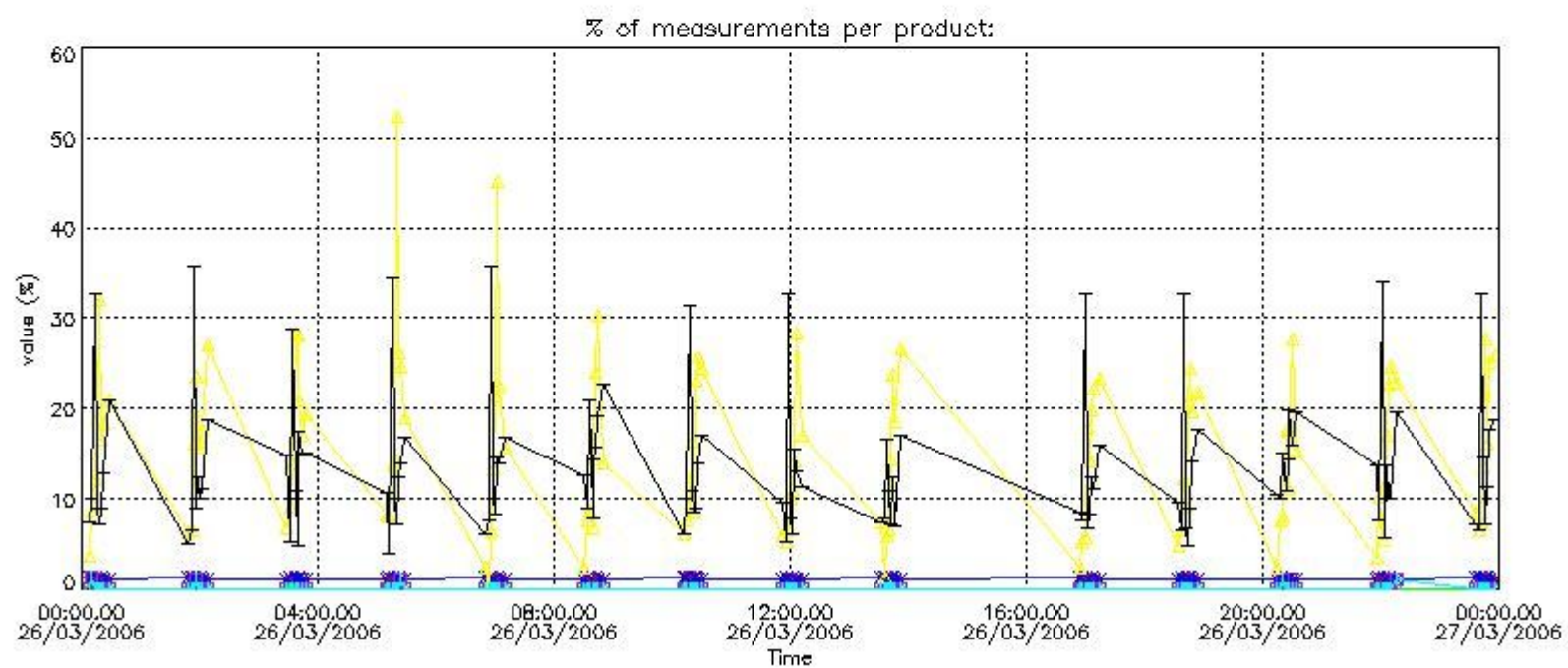
#### 4. Level 1 quality information per product

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

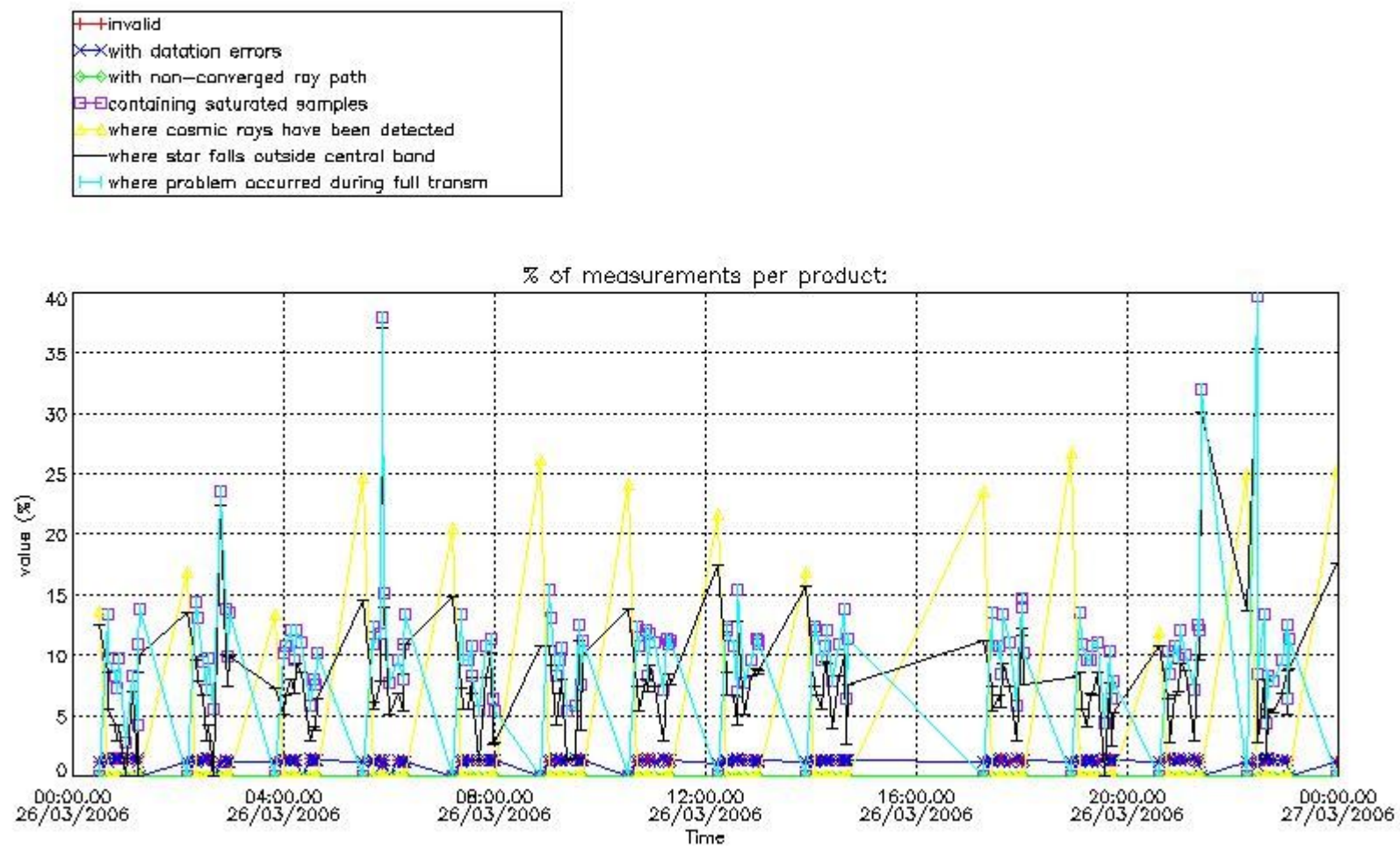
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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



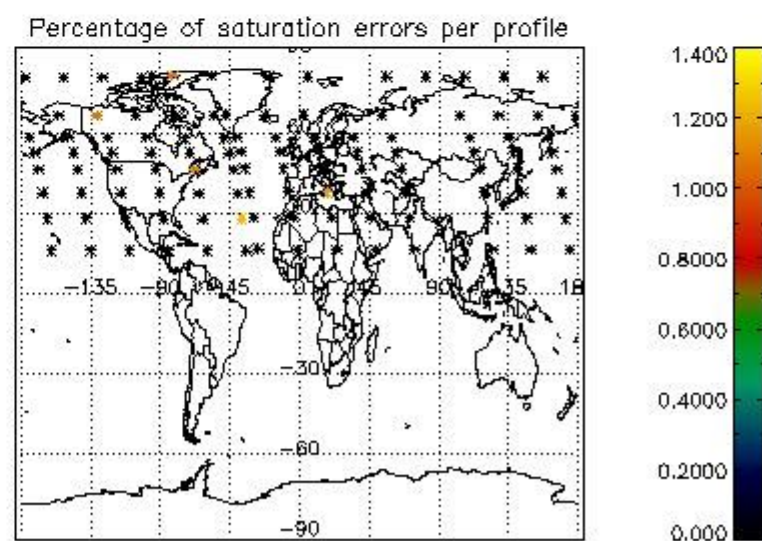
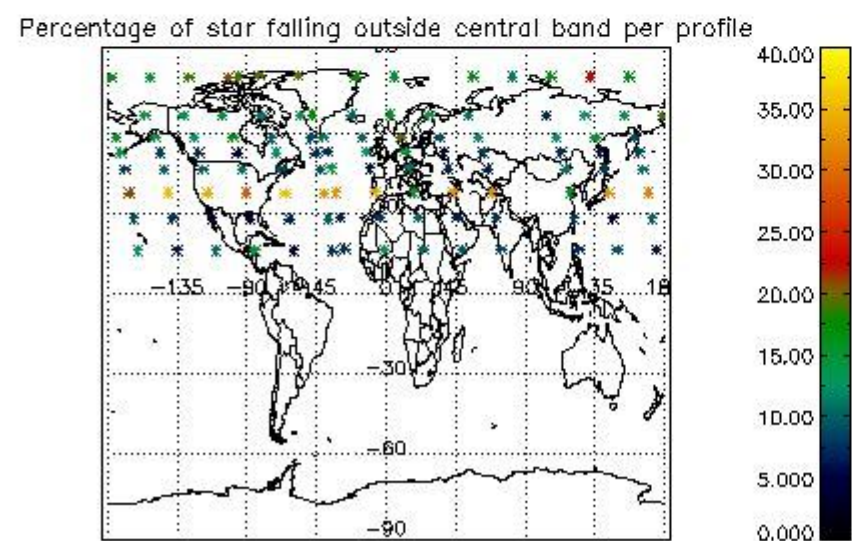
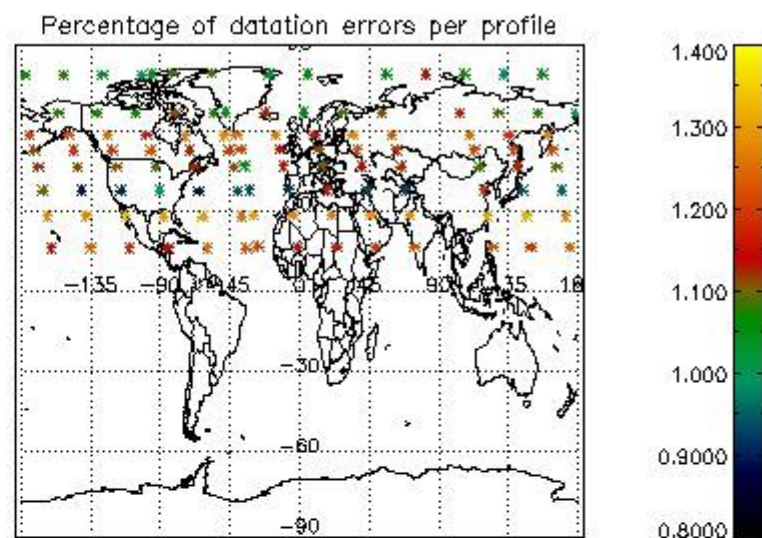
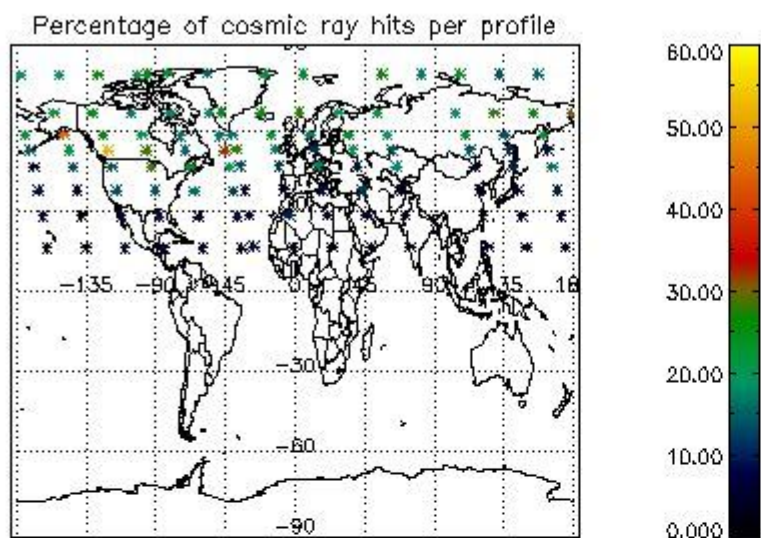


4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes

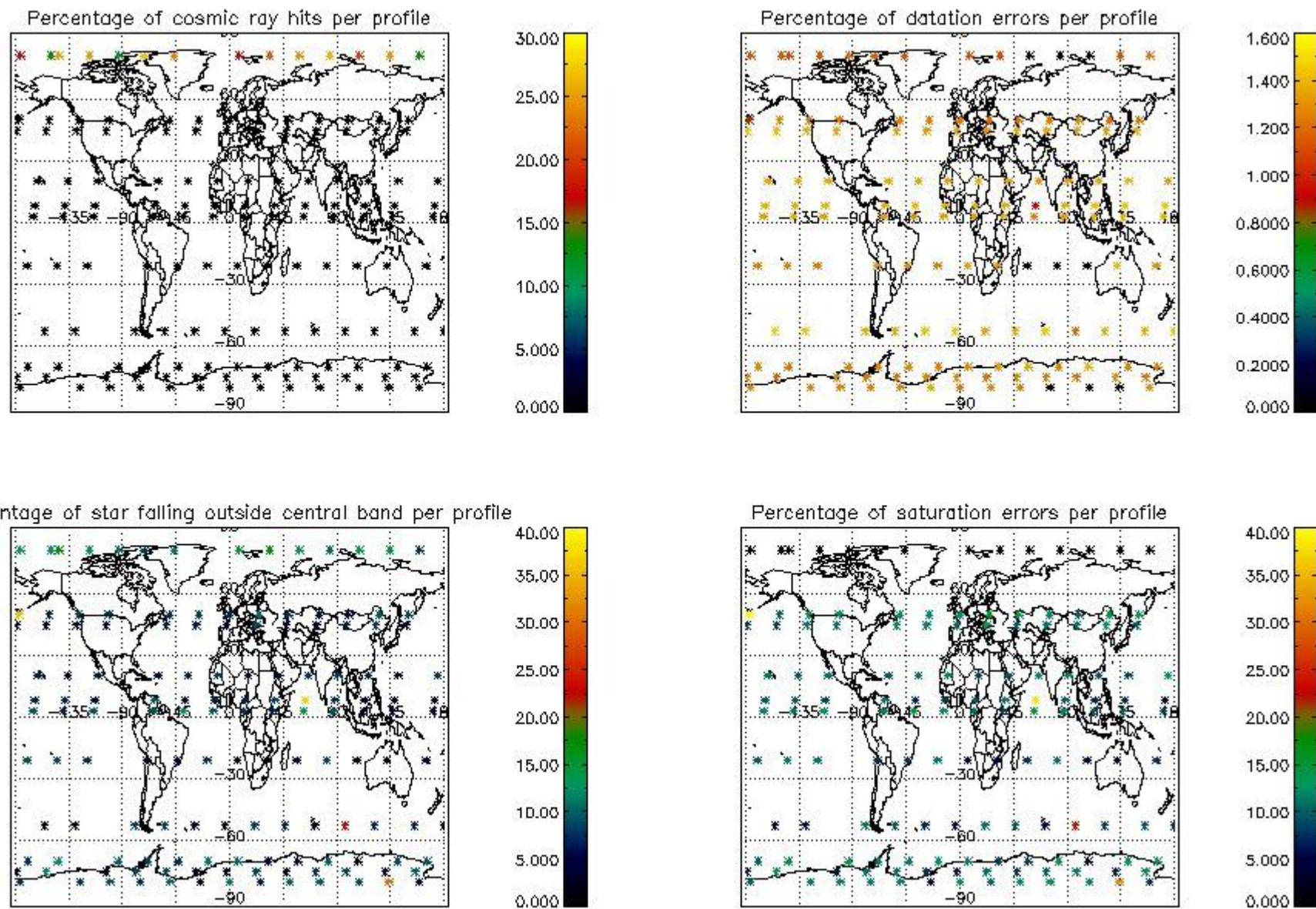


4.2 Plot quality information per product coming from level 1b processing (world map)

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



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



## 5. Trace gas profiles

### 5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile. This information is written to the parameter GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/o3\_std of the level 2 products. The table below shows the statistics for given STD ranges.

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

- Products without fatal errors: GOM\_NL\_\_2P/MPH/PRODUCT\_ERR=0
- Valid point profile: GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/pcd(0)=0

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

- Products in dark limb illumination condition: GOM\_NL\_\_2P/NL\_SUMMARY\_QUALITY/obs\_ill\_cond=0
- Products without fatal errors: GOM\_NL\_\_2P/MPH/PRODUCT\_ERR=0
- Valid point profile: GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/pcd(0)=0

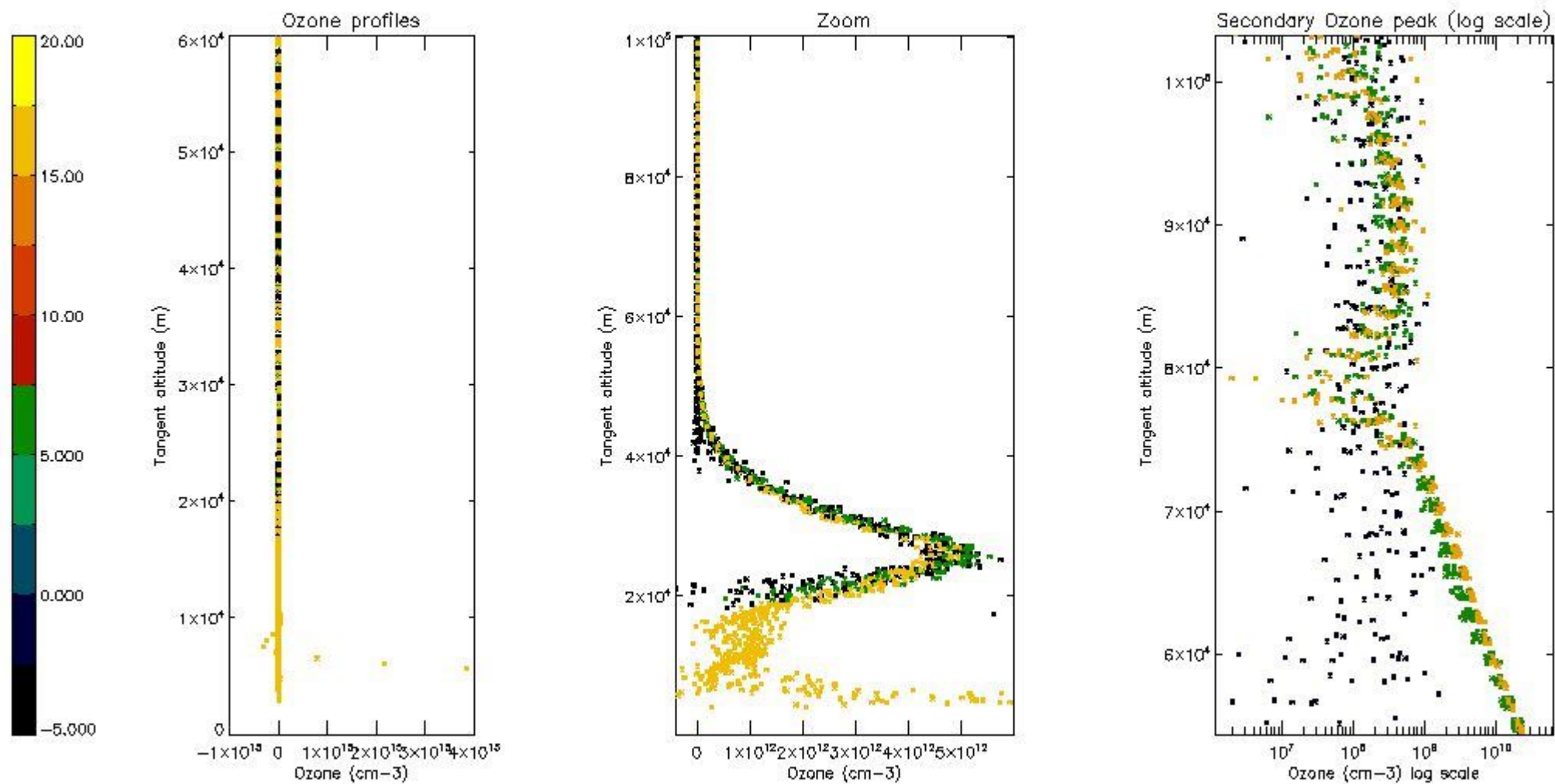
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	18
STD < 20	8

STD < 10	6
STD < 5	3

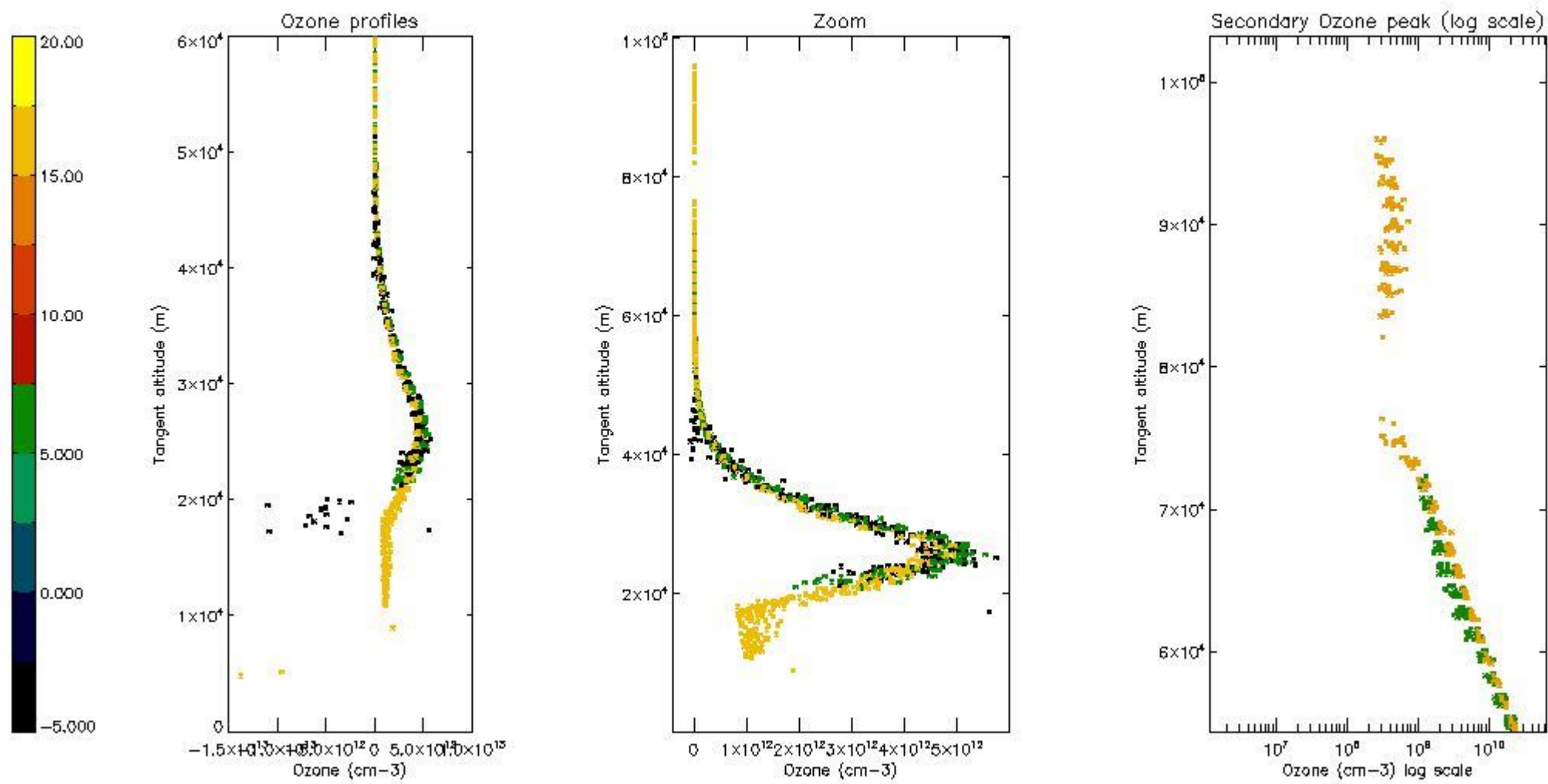
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



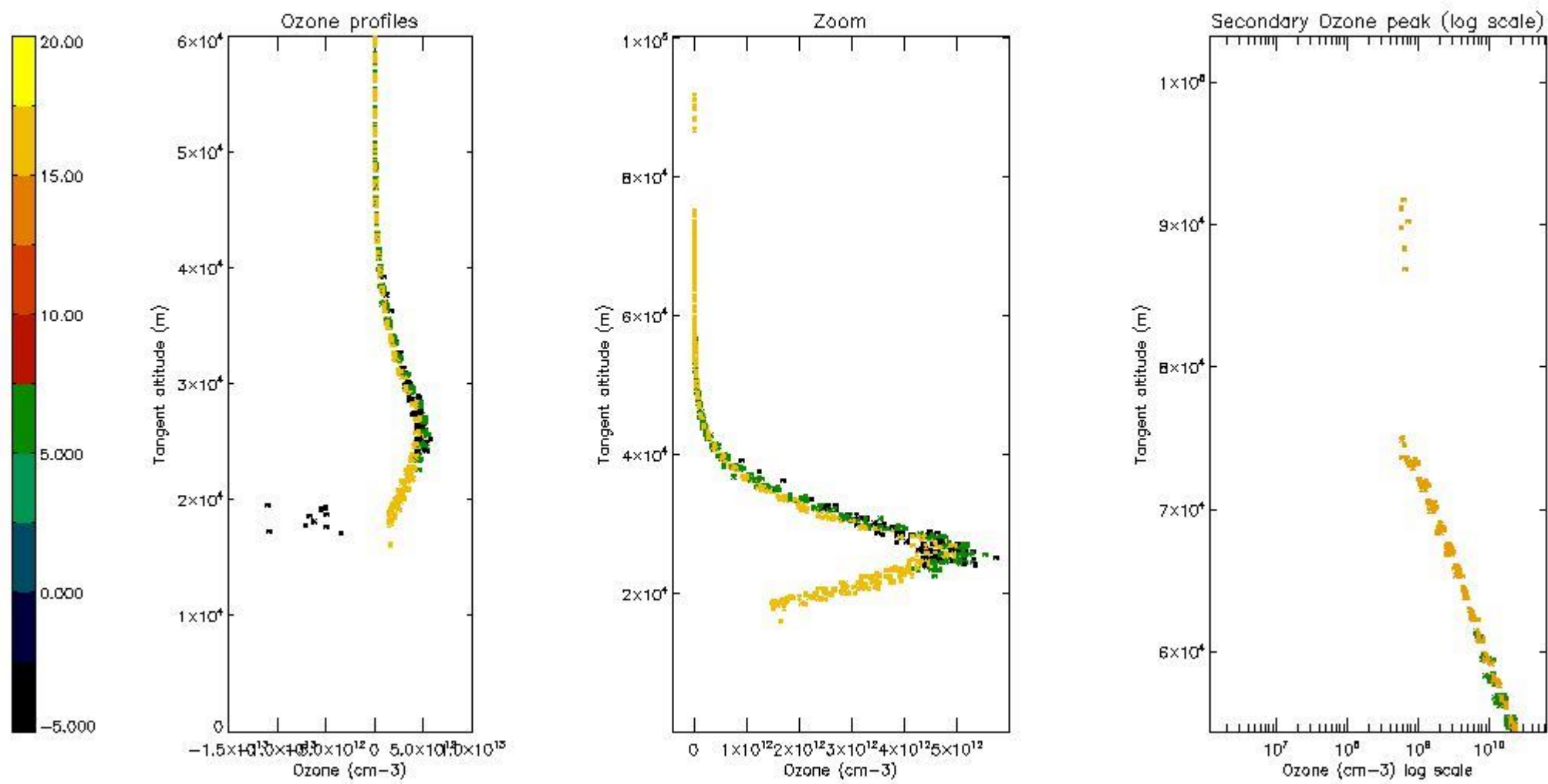
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



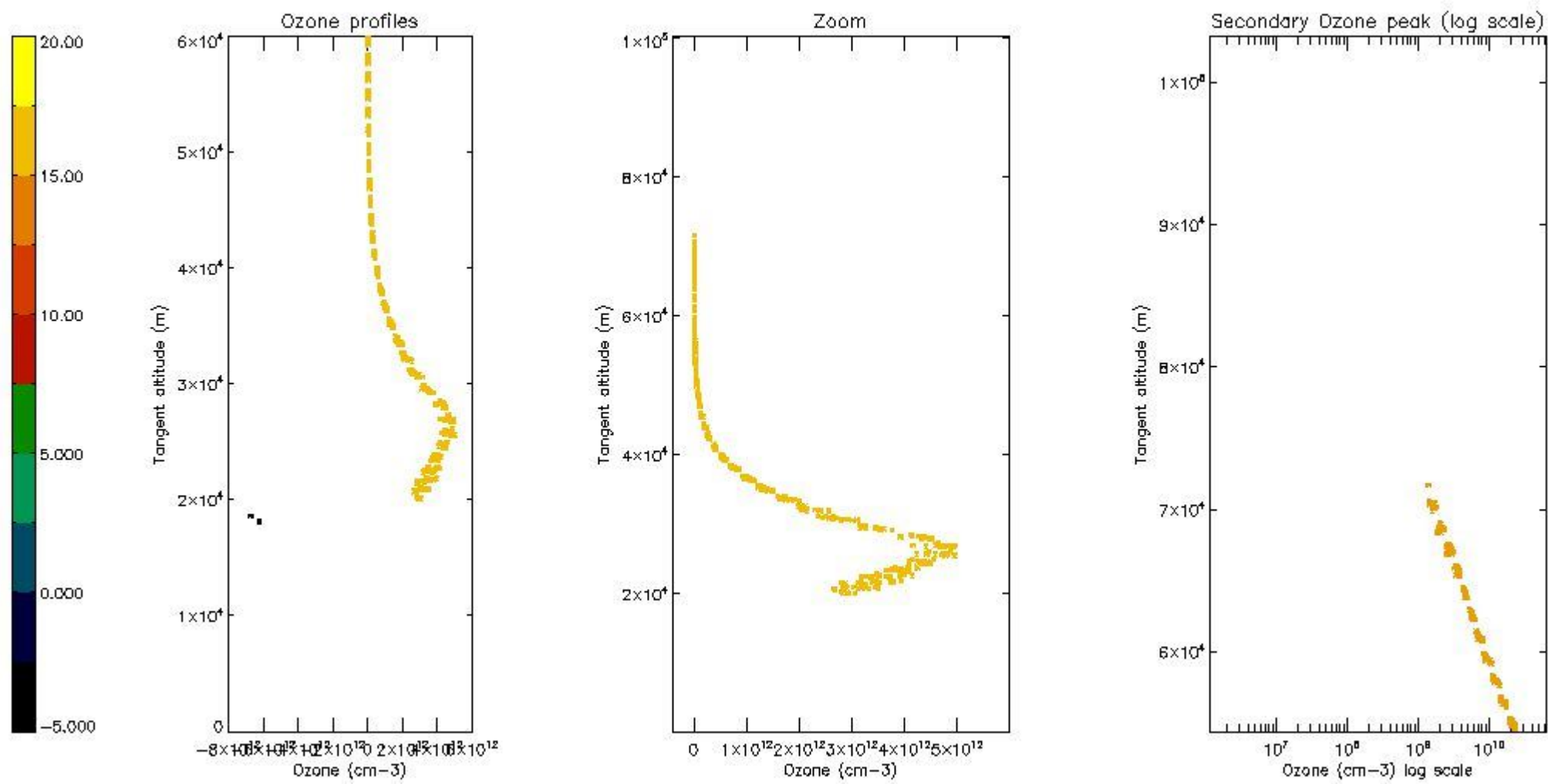
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



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

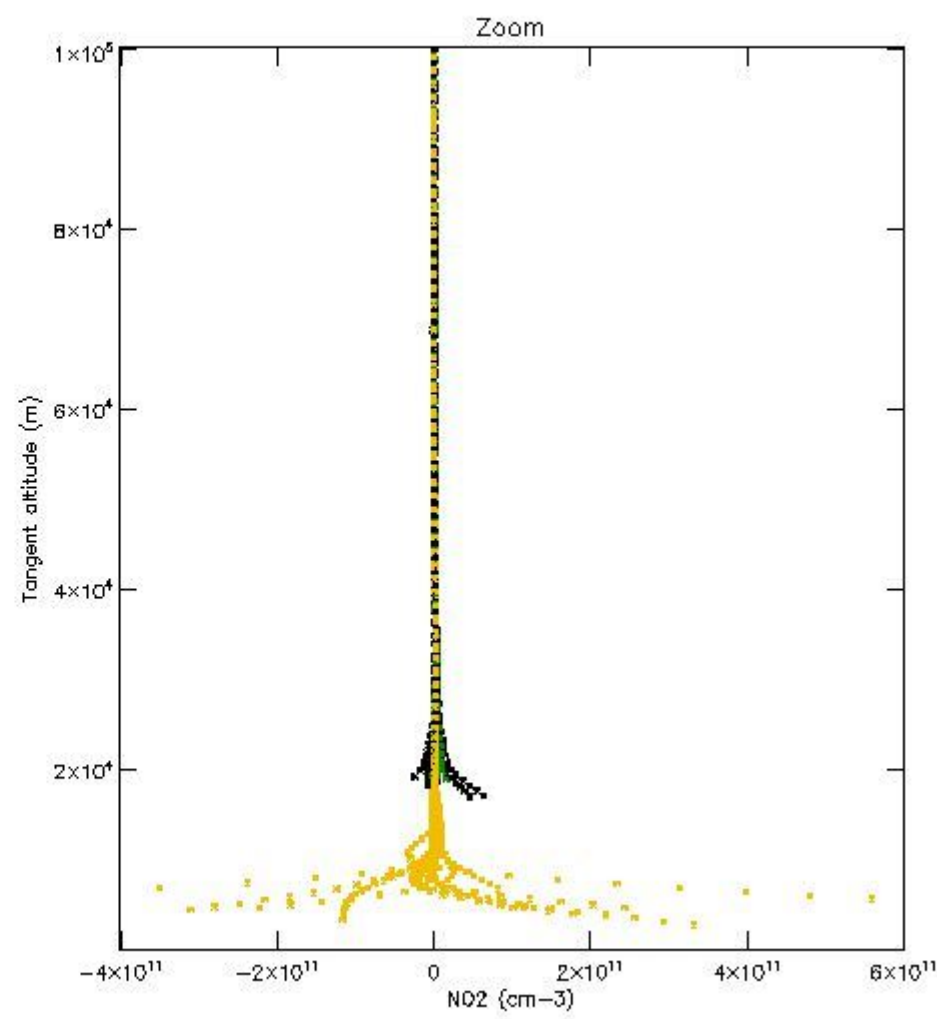
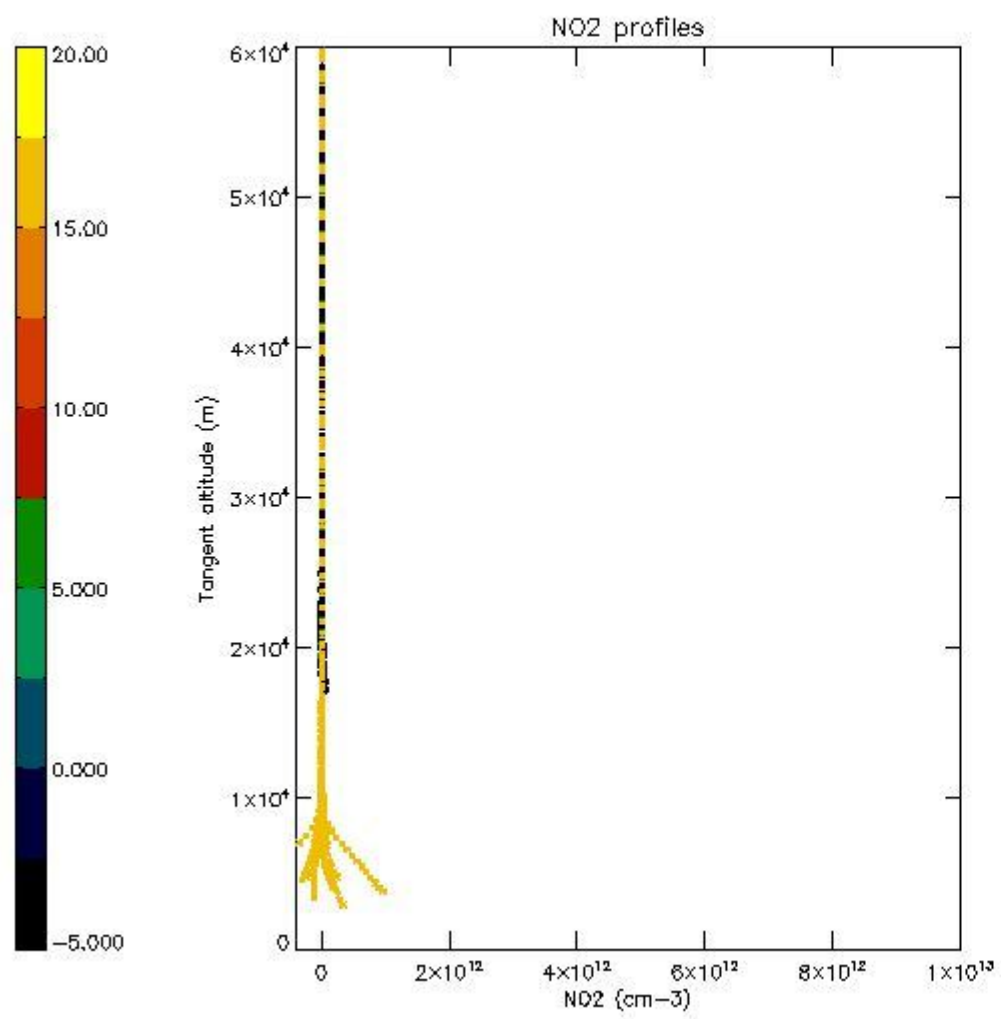
The colorbar represents the latitude.



*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

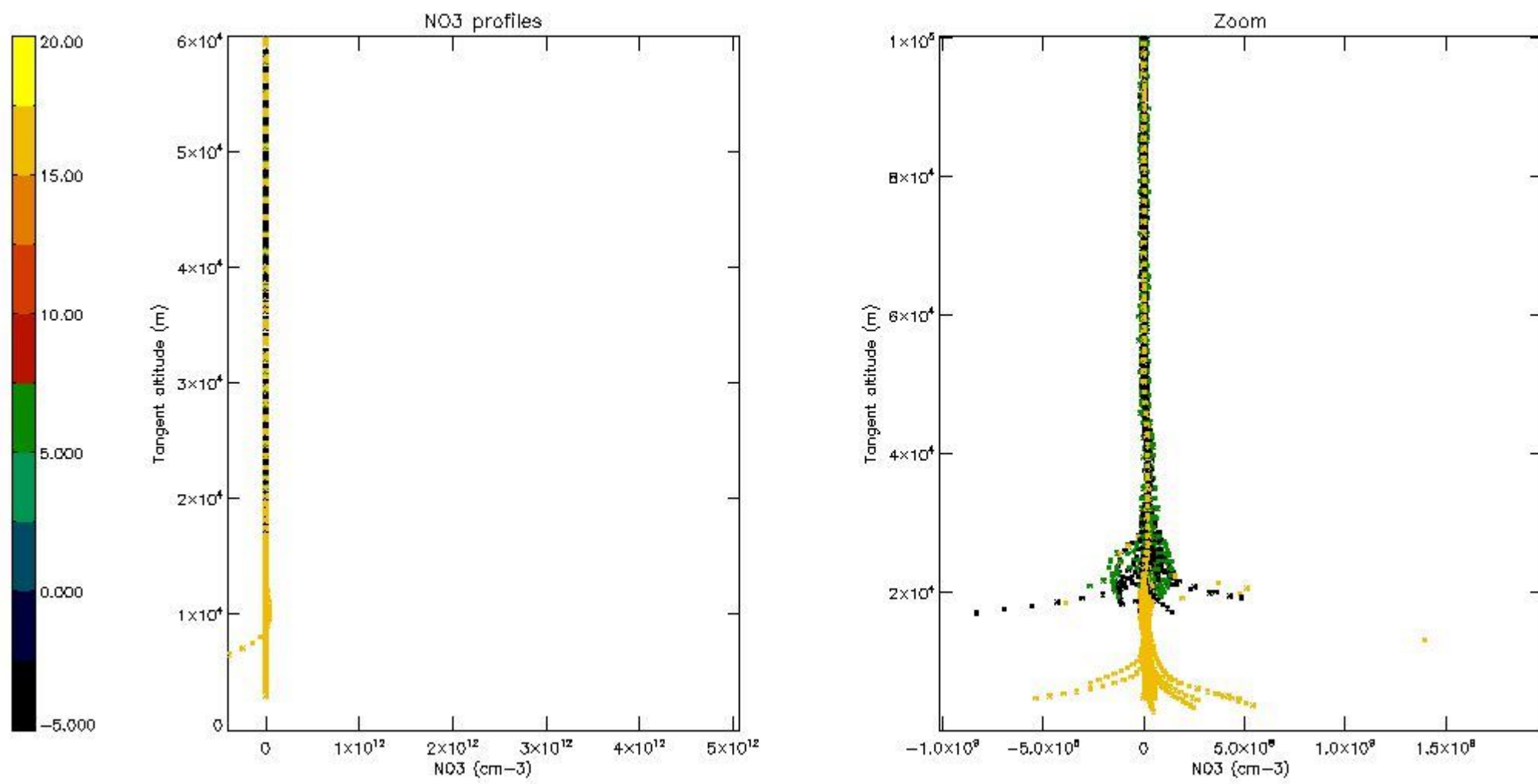
The colorbar represents the latitude.





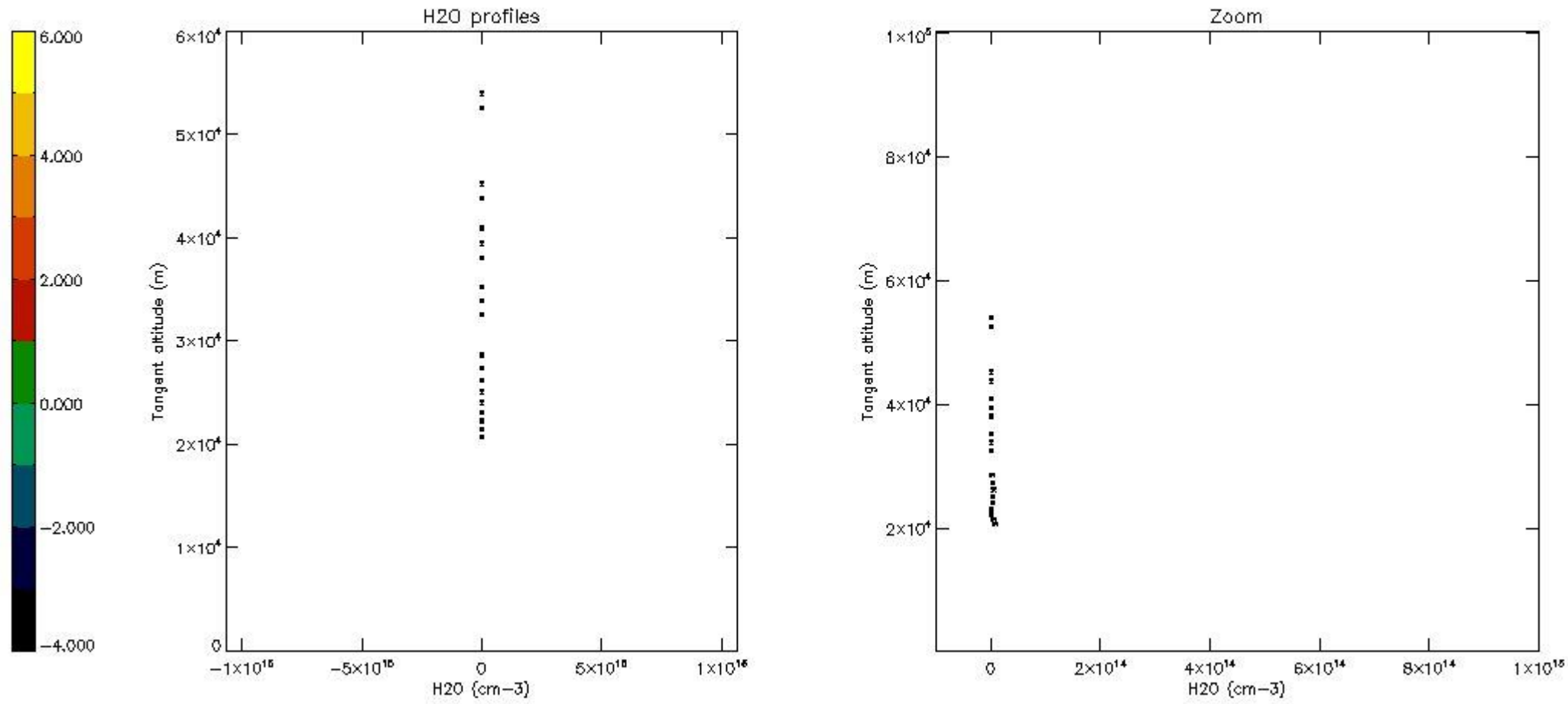
*5.7 Plot NO3 profiles for all STD (dark without errors)*

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	26-MAR-2006 00:07:32
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	26-MAR-2006 00:07:32
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	26-MAR-2006 00:07:32

# GOMOS Level 2 Daily Report

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

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

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

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









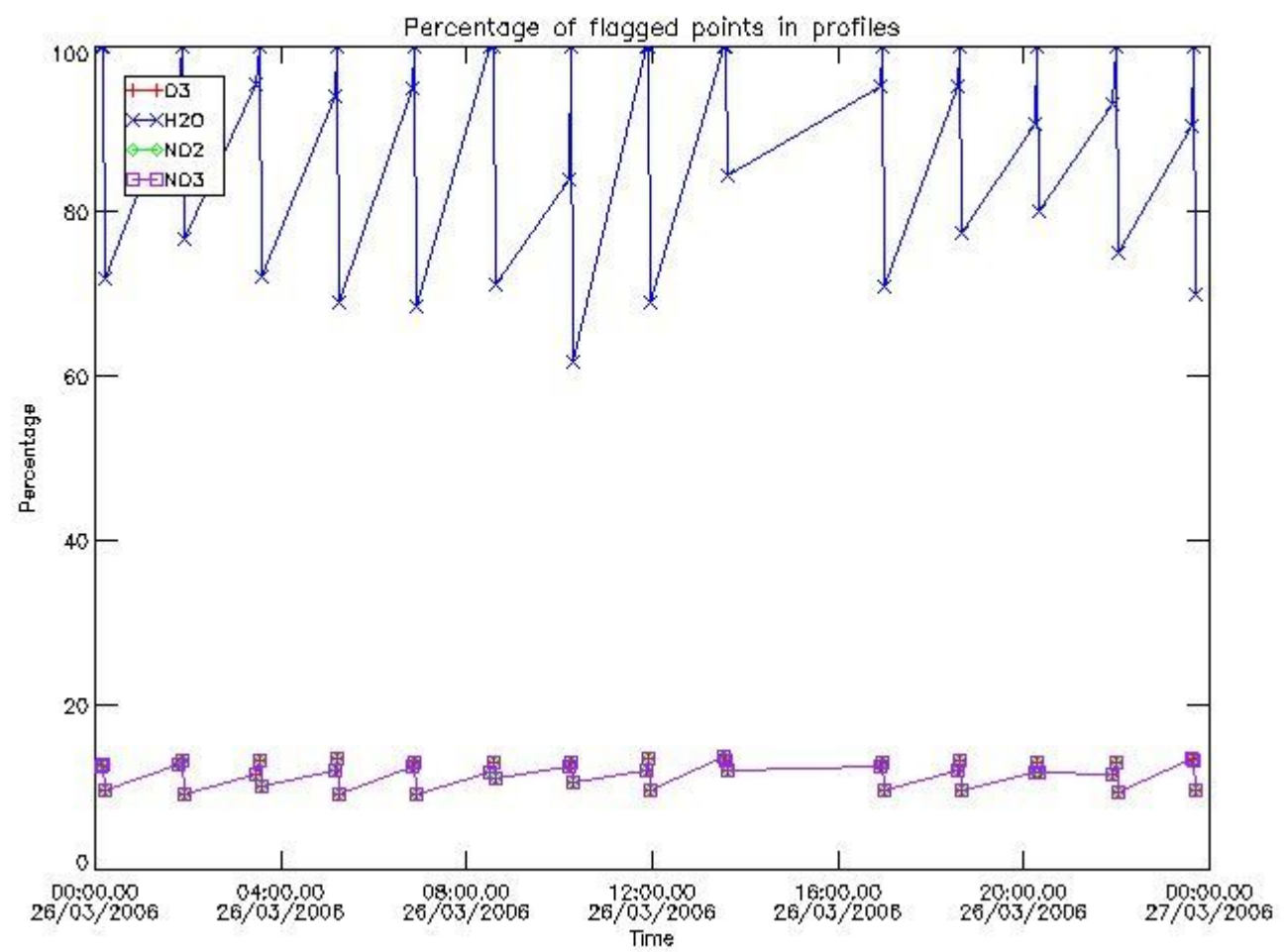


220	GOM_NL__2PRFIN20060326_204755_000000362046_00186_21282_8616.N1	26-MAR-2006 20:47:55	Bright	35.500	96	68Del Leo	2.5600	9300.0	71	21282	No
221	GOM_NL__2PRFIN20060326_205449_000000372046_00186_21282_8617.N1	26-MAR-2006 20:54:49	Bright	37.000	174	52Psi UMa	3.0040	4400.0	74	21282	No
222	GOM_NL__2PRFIN20060326_205807_000000362046_00186_21282_8618.N1	26-MAR-2006 20:58:07	Bright	36.000	82	48Bet UMa	2.3650	10600.	72	21282	No
223	GOM_NL__2PRFIN20060326_205939_000000382046_00186_21282_8619.N1	26-MAR-2006 20:59:39	Bright	37.500	36	50Alp UMa	1.8000	6300.0	75	21282	No
224	GOM_NL__2PRFIN20060326_210618_000000402046_00186_21282_8620.N1	26-MAR-2006 21:06:18	Bright	40.000	60	7Bet UMi	2.0810	3950.0	80	21282	No
225	GOM_NL__2PRFIN20060326_211519_000000352046_00186_21282_8621.N1	26-MAR-2006 21:15:19	Bright	35.000	89	5Alp Cep	2.4510	8000.0	70	21282	No
226	GOM_NL__2PRFIN20060326_212029_000000402046_00186_21282_8622.N1	26-MAR-2006 21:20:29	Bright	40.000	19	50Alp Cyg	1.2460	10500.	80	21282	No
227	GOM_NL__2PRFIN20060326_212206_000000422046_00186_21282_8623.N1	26-MAR-2006 21:22:06	Bright	41.500	66	37Gam Cyg	2.2080	5900.0	83	21282	No
228	GOM_NL__2PRFIN20060326_212400_000000522046_00186_21282_8624.N1	26-MAR-2006 21:24:00	Bright	51.500	92	53Eps Cyg	2.5000	4500.0	103	21282	No
229	GOM_NL__2PRFIN20060326_215528_000000442046_00187_21283_8606.N1	26-MAR-2006 21:55:28	Dark	44.000	141	Bet Ara	2.8400	4600.0	88	21283	No
230	GOM_NL__2PRFIN20060326_215847_000000392046_00187_21283_8607.N1	26-MAR-2006 21:58:47	Dark	39.000	134	Bet TrA	2.8100	6600.0	78	21283	No
231	GOM_NL__2PRFIN20060326_220128_000000552046_00187_21283_8608.N1	26-MAR-2006 22:01:28	Dark	54.500	4	Alp1Cen	-0.010000	5800.0	109	21283	No
232	GOM_NL__2PRFIN20060326_220400_000000442046_00187_21283_8609.N1	26-MAR-2006 22:04:00	Straylight	43.500	78	Alp Lup	2.3040	28000.	87	21283	No
233	GOM_NL__2PRFIN20060326_220545_000000442046_00187_21283_8610.N1	26-MAR-2006 22:05:45	Straylight	44.000	95	Zet Cen	2.5450	26000.	88	21283	No
234	GOM_NL__2PRFIN20060326_220719_000000402046_00187_21283_8611.N1	26-MAR-2006 22:07:19	Straylight	39.500	64	Gam Cen	2.2000	10600.	79	21283	No
235	GOM_NL__2PRFIN20060326_220947_000000452046_00187_21283_8612.N1	26-MAR-2006 22:09:47	Straylight	44.500	123	lot Cen	2.7500	10200.	89	21283	No
236	GOM_NL__2PRFIN20060326_221527_000000462046_00187_21283_8613.N1	26-MAR-2006 22:15:27	Twilight_stray	46.000	171	2Eps Crv	3.0010	4250.0	92	21283	No
237	GOM_NL__2PRFIN20060326_221658_000000442046_00187_21283_8614.N1	26-MAR-2006 22:16:58	Twilight_stray	44.000	100	4Gam Crv	2.5800	13100.	88	21283	No
238	GOM_NL__2PRFIN20060326_222702_000000582046_00187_21283_8615.N1	26-MAR-2006 22:27:02	Bright	58.000	62	94Bet Leo	2.1360	9700.0	116	21283	No
239	GOM_NL__2PRFIN20060326_222830_000000362046_00187_21283_8616.N1	26-MAR-2006 22:28:30	Bright	35.500	96	68Del Leo	2.5600	9300.0	71	21283	No
240	GOM_NL__2PRFIN20060326_223525_000000382046_00187_21283_8617.N1	26-MAR-2006 22:35:25	Bright	37.500	174	52Psi UMa	3.0040	4400.0	75	21283	No
241	GOM_NL__2PRFIN20060326_223843_000000352046_00187_21283_8618.N1	26-MAR-2006 22:38:43	Bright	34.500	82	48Bet UMa	2.3650	10600.	69	21283	No
242	GOM_NL__2PRFIN20060326_224015_000000362046_00187_21283_8619.N1	26-MAR-2006 22:40:15	Bright	36.000	36	50Alp UMa	1.8000	6300.0	72	21283	No
243	GOM_NL__2PRFIN20060326_224653_000000392046_00187_21283_8620.N1	26-MAR-2006 22:46:53	Bright	38.500	60	7Bet UMi	2.0810	3950.0	77	21283	No
244	GOM_NL__2PRFIN20060326_225555_000000372046_00187_21283_8621.N1	26-MAR-2006 22:55:55	Bright	36.500	89	5Alp Cep	2.4510	8000.0	73	21283	No
245	GOM_NL__2PRFIN20060326_230105_000000402046_00187_21283_8622.N1	26-MAR-2006 23:01:05	Bright	40.000	19	50Alp Cyg	1.2460	10500.	80	21283	No
246	GOM_NL__2PRFIN20060326_230242_000000392046_00187_21283_8623.N1	26-MAR-2006 23:02:42	Bright	39.000	66	37Gam Cyg	2.2080	5900.0	78	21283	No
247	GOM_NL__2PRFIN20060326_230436_000000402046_00187_21283_8624.N1	26-MAR-2006 23:04:36	Bright	39.500	92	53Eps Cyg	2.5000	4500.0	79	21283	No
248	GOM_NL__2PRFIN20060326_233605_000000422046_00188_21284_8606.N1	26-MAR-2006 23:36:05	Dark	41.500	141	Bet Ara	2.8400	4600.0	83	21284	No
249	GOM_NL__2PRFIN20060326_233923_000000392046_00188_21284_8607.N1	26-MAR-2006 23:39:23	Dark	38.500	134	Bet TrA	2.8100	6600.0	77	21284	No
250	GOM_NL__2PRFIN20060326_234205_000000542046_00188_21284_8608.N1	26-MAR-2006 23:42:05	Dark	53.500	4	Alp1Cen	-0.010000	5800.0	107	21284	No
251	GOM_NL__2PRFIN20060326_234436_000000482046_00188_21284_8609.N1	26-MAR-2006 23:44:36	Straylight	48.000	78	Alp Lup	2.3040	28000.	96	21284	No
252	GOM_NL__2PRFIN20060326_234622_000000422046_00188_21284_8610.N1	26-MAR-2006 23:46:22	Straylight	41.500	95	Zet Cen	2.5450	26000.	83	21284	No
253	GOM_NL__2PRFIN20060326_234755_000000402046_00188_21284_8611.N1	26-MAR-2006 23:47:55	Straylight	40.000	64	Gam Cen	2.2000	10600.	80	21284	No
254	GOM_NL__2PRFIN20060326_235024_000000482046_00188_21284_8612.N1	26-MAR-2006 23:50:24	Straylight	48.000	123	lot Cen	2.7500	10200.	96	21284	No
255	GOM_NL__2PRFIN20060326_235530_000000482046_00188_21284_8613.N1	26-MAR-2006 23:55:30	Straylight	48.000	106	9Bet Crv	2.6480	5600.0	96	21284	No
256	GOM_NL__2PRFIN20060326_235734_000000462046_00188_21284_8614.N1	26-MAR-2006 23:57:34	Twilight_stray	45.500	100	4Gam Crv	2.5800	13100.	91	21284	No

### 3. Quality information per product

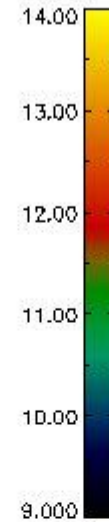
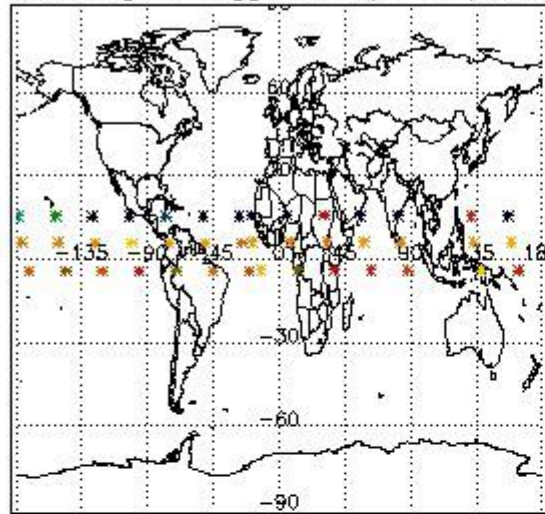
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

#### 3.1 Plot quality information per product (time dependant)

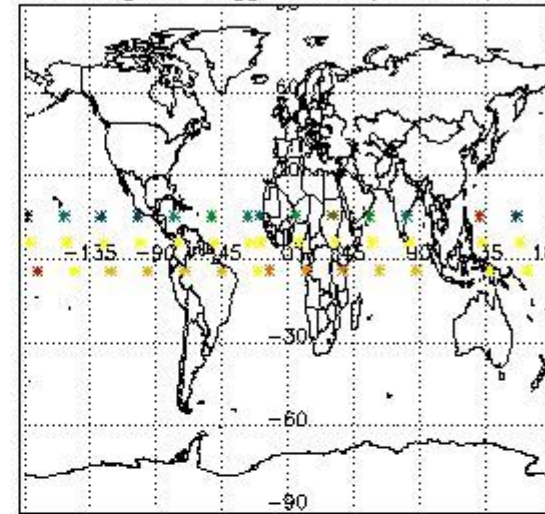


3.2 Plot quality information per product (world map)

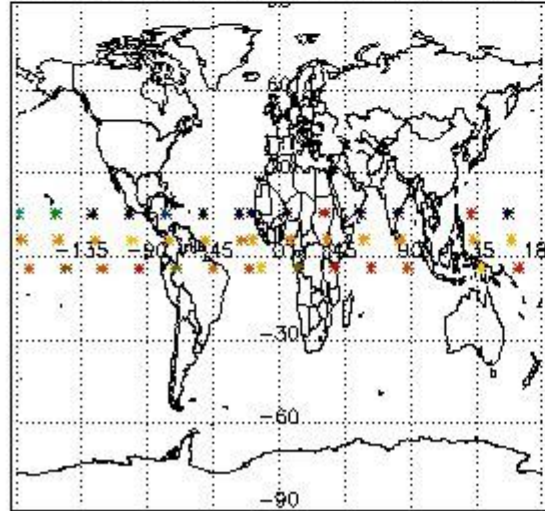
Percentage of flagged data per O3 profile



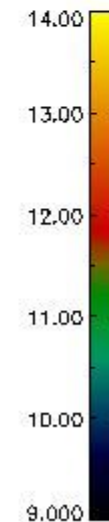
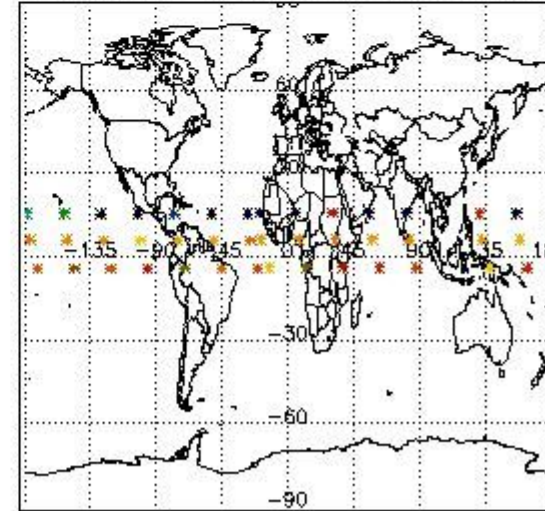
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

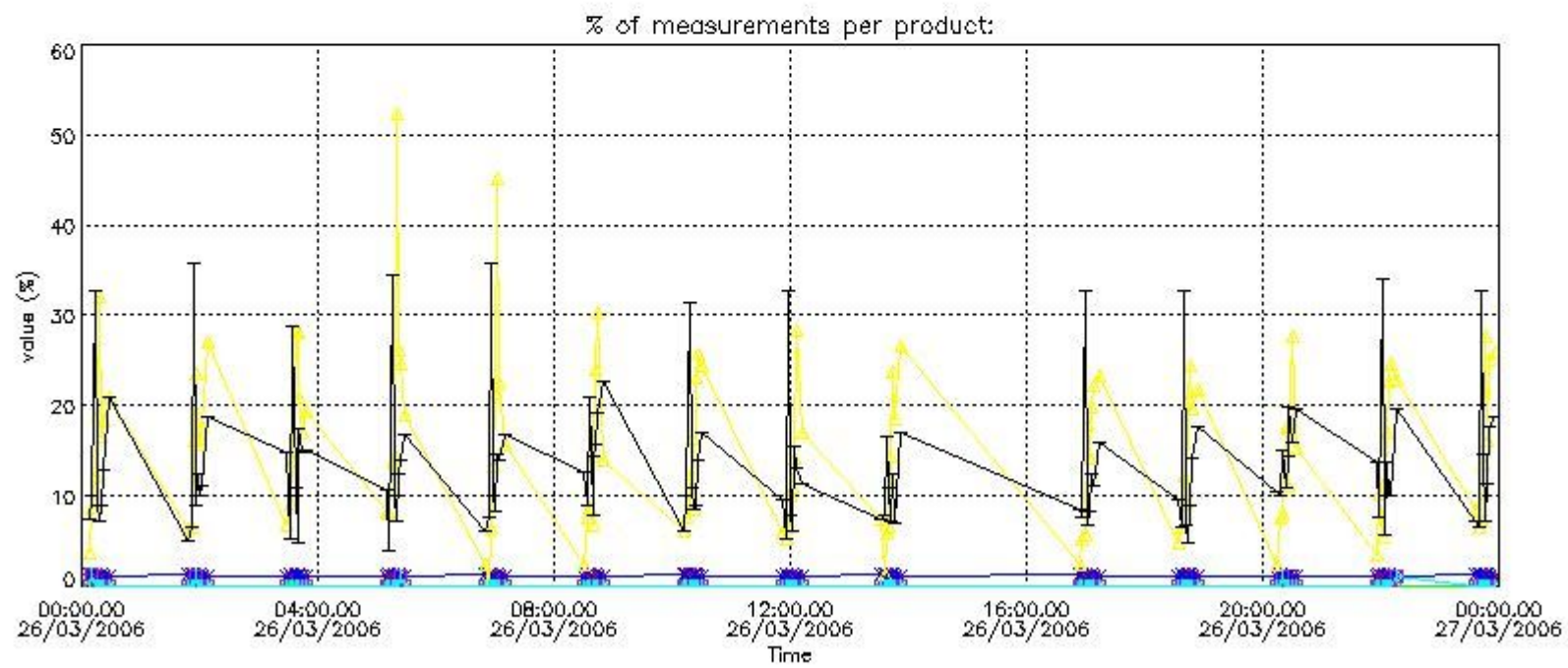
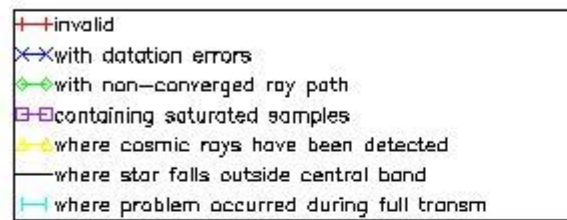


#### 4. Level 1 quality information per product

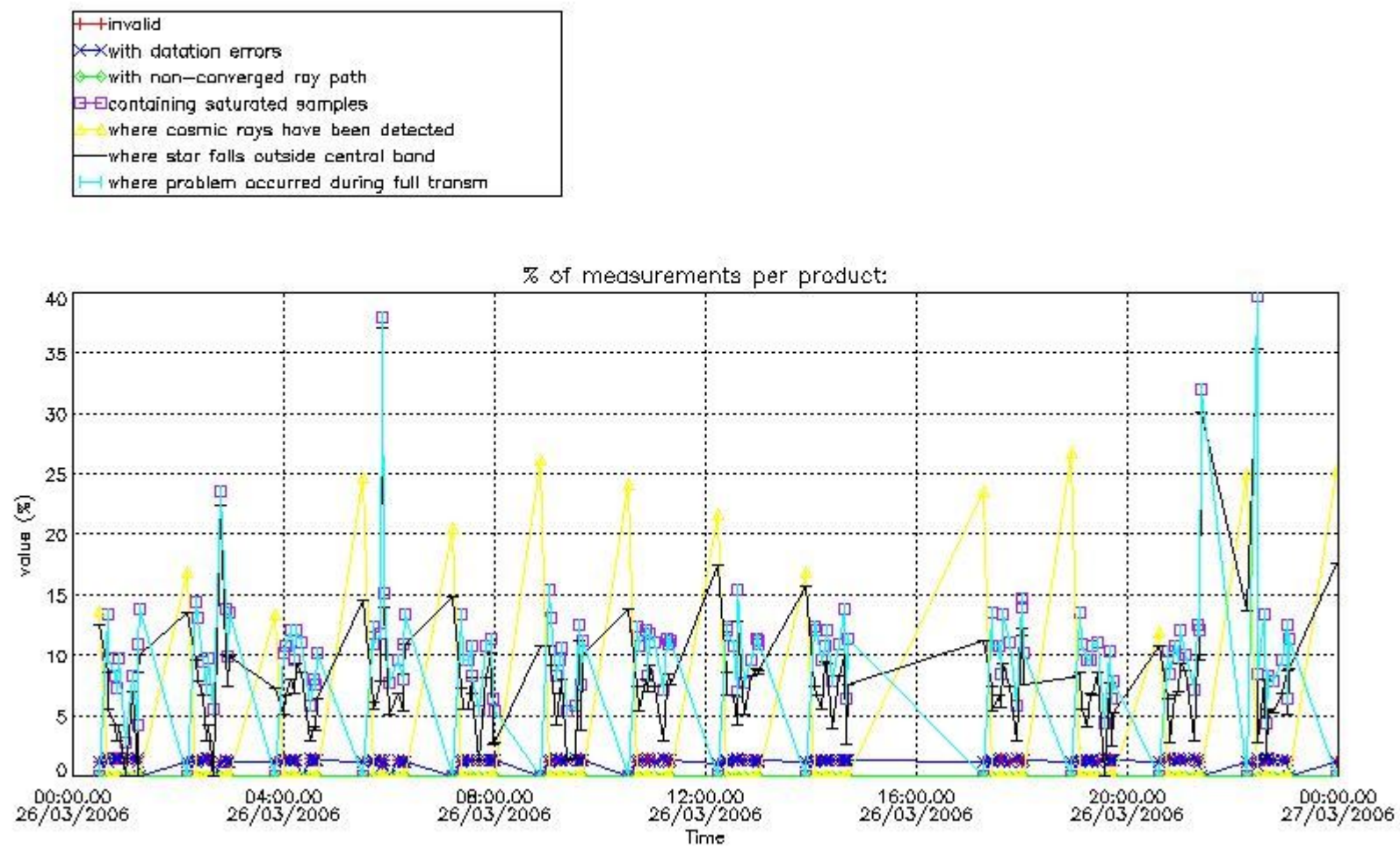
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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

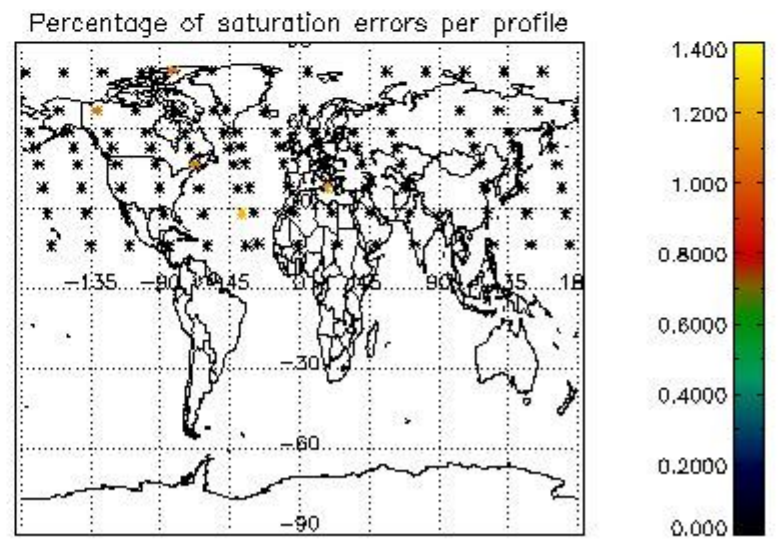
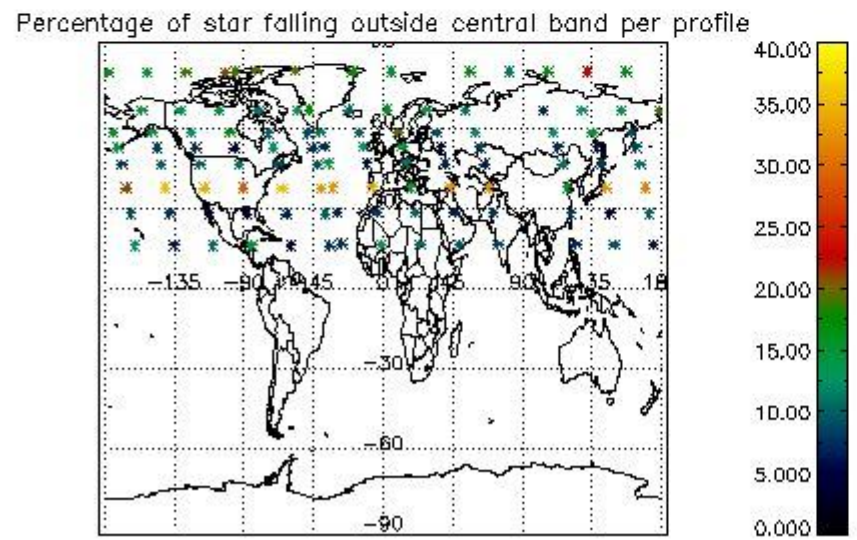
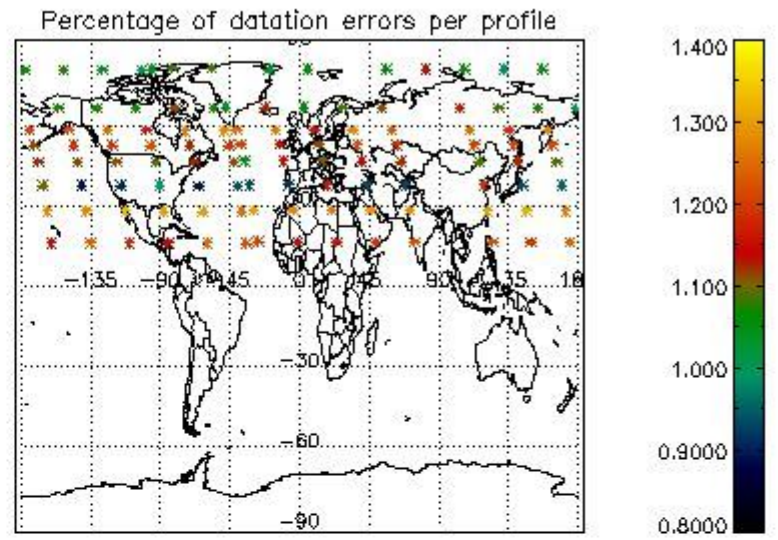
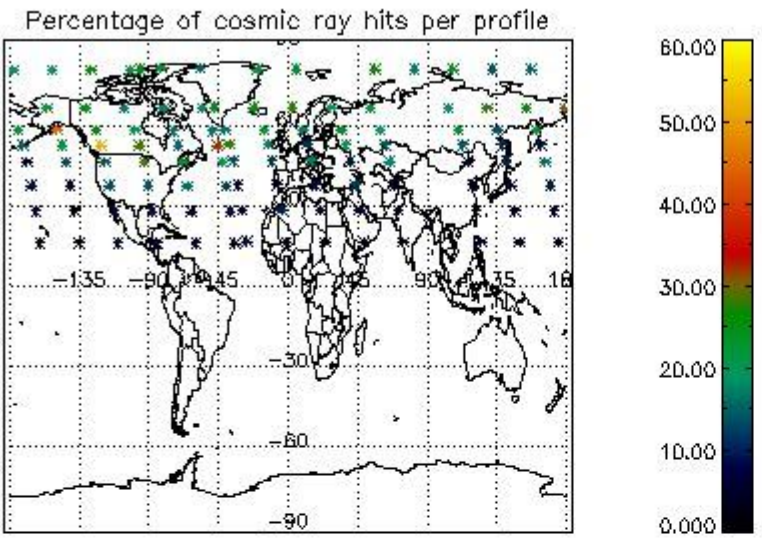


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

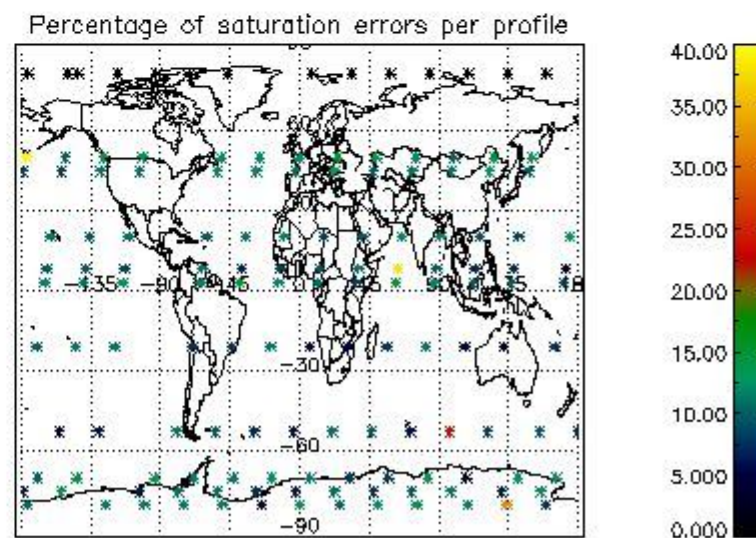
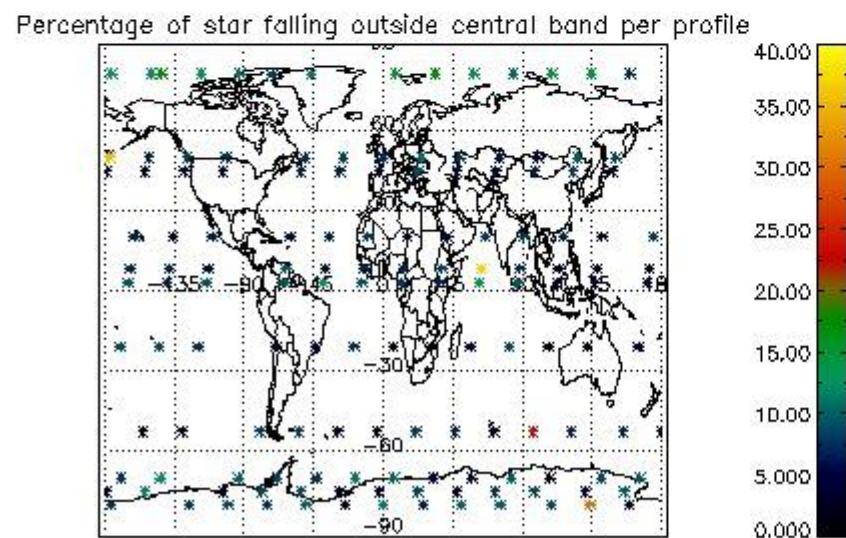
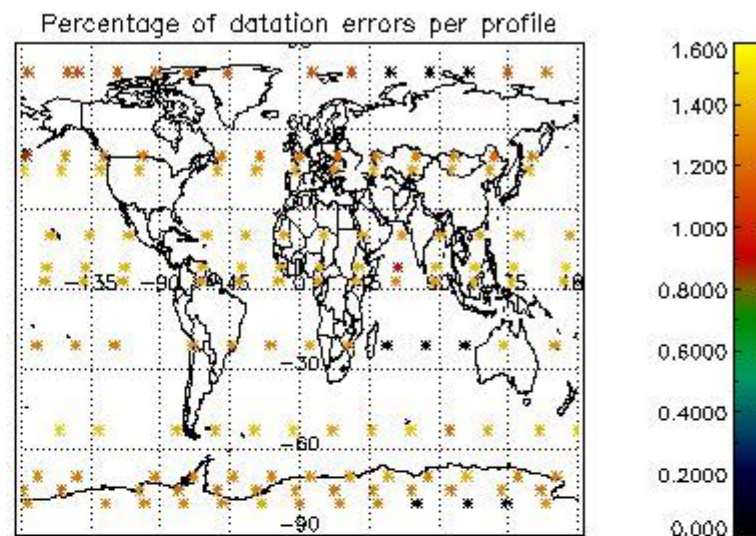
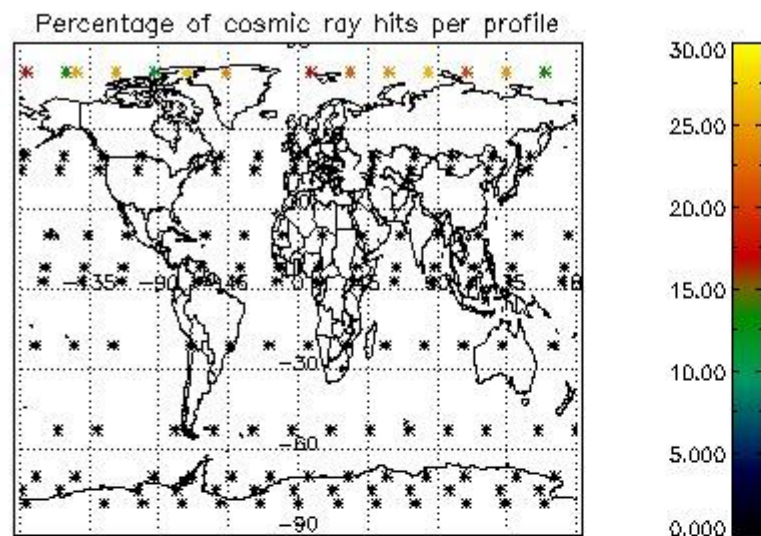


*4.2 Plot quality information per product coming from level 1b processing (world map)*

*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

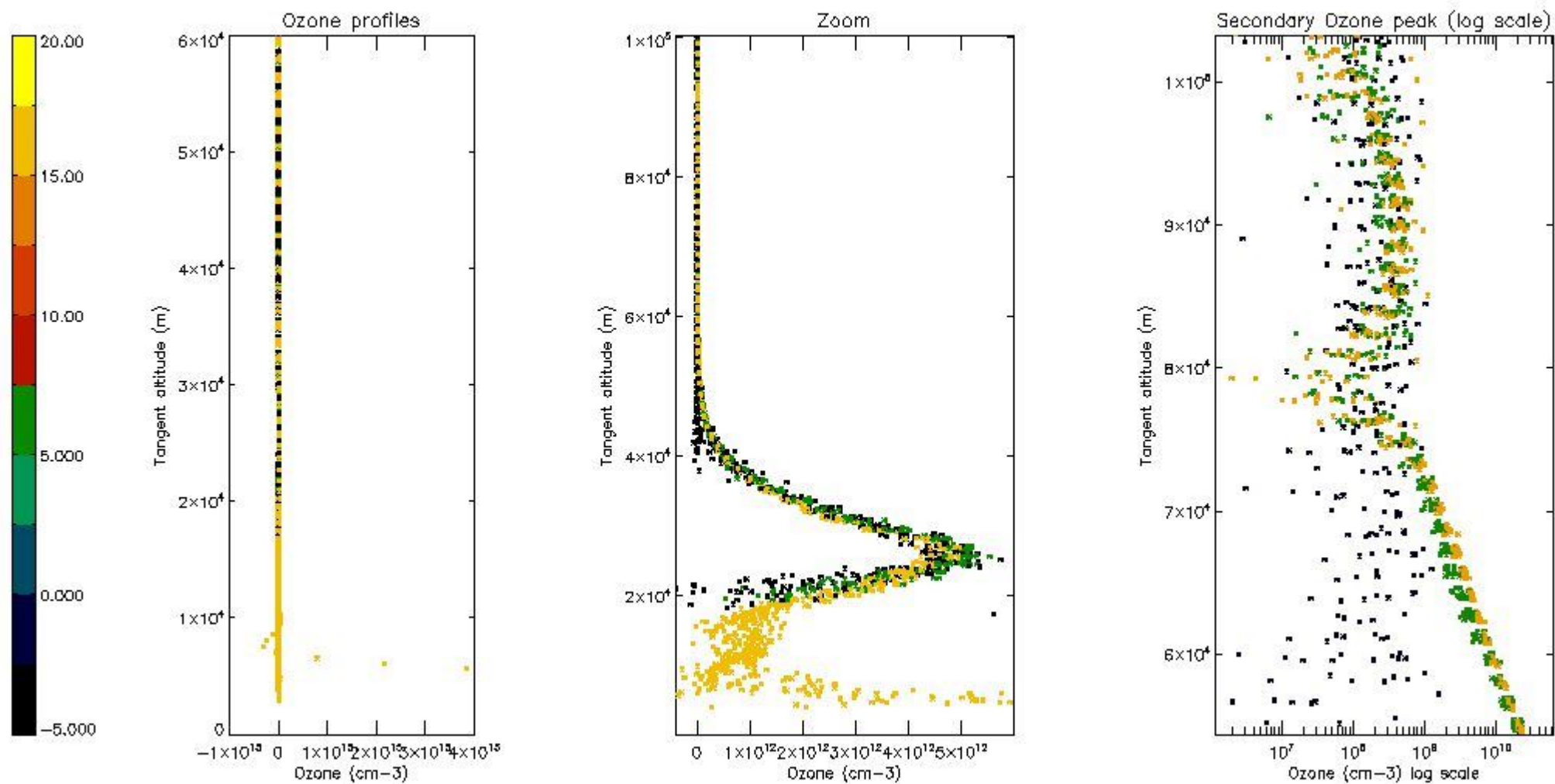
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	18
STD < 20	8

STD < 10	6
STD < 5	3

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

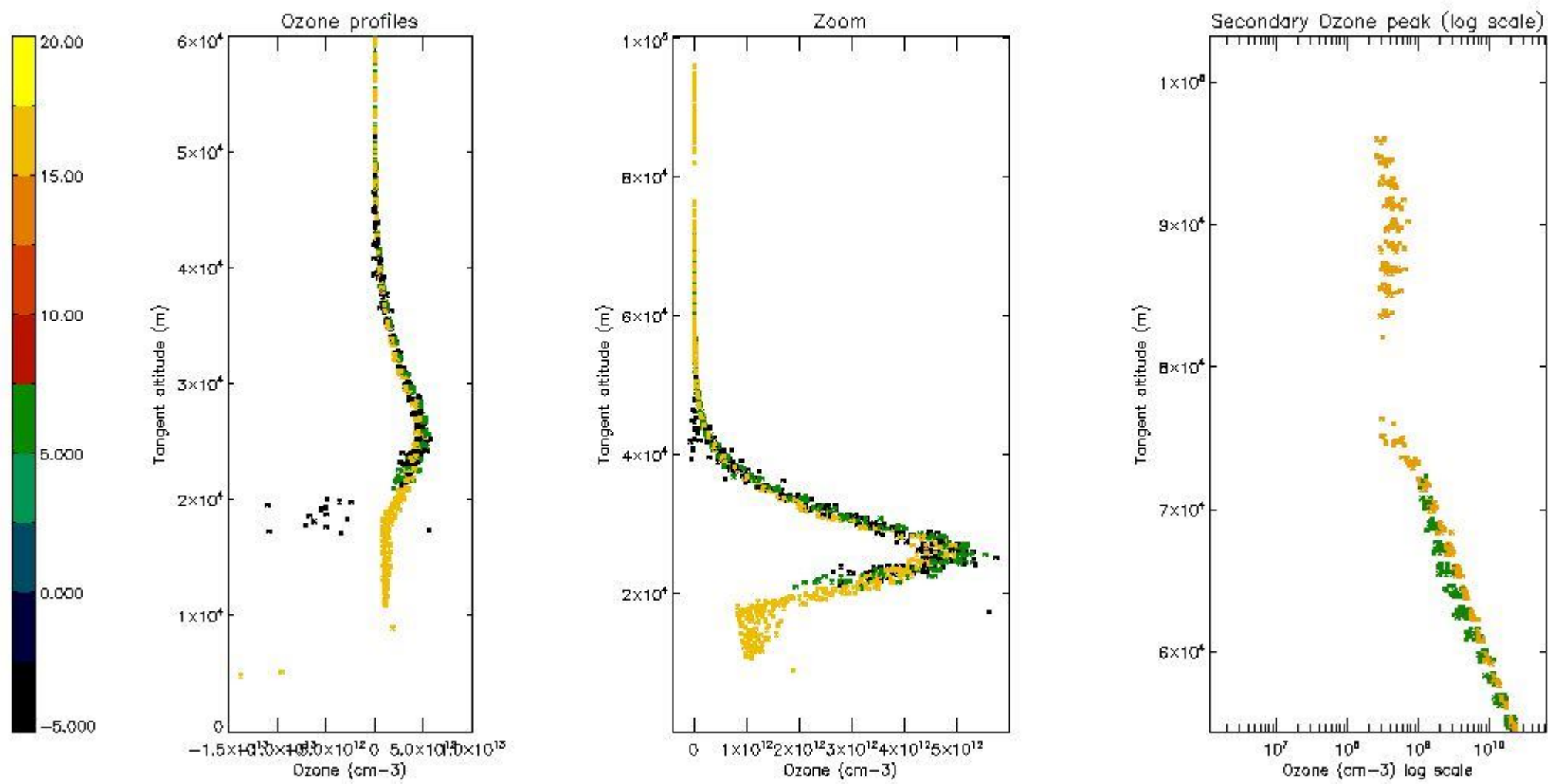
The colorbar represents the latitude.



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

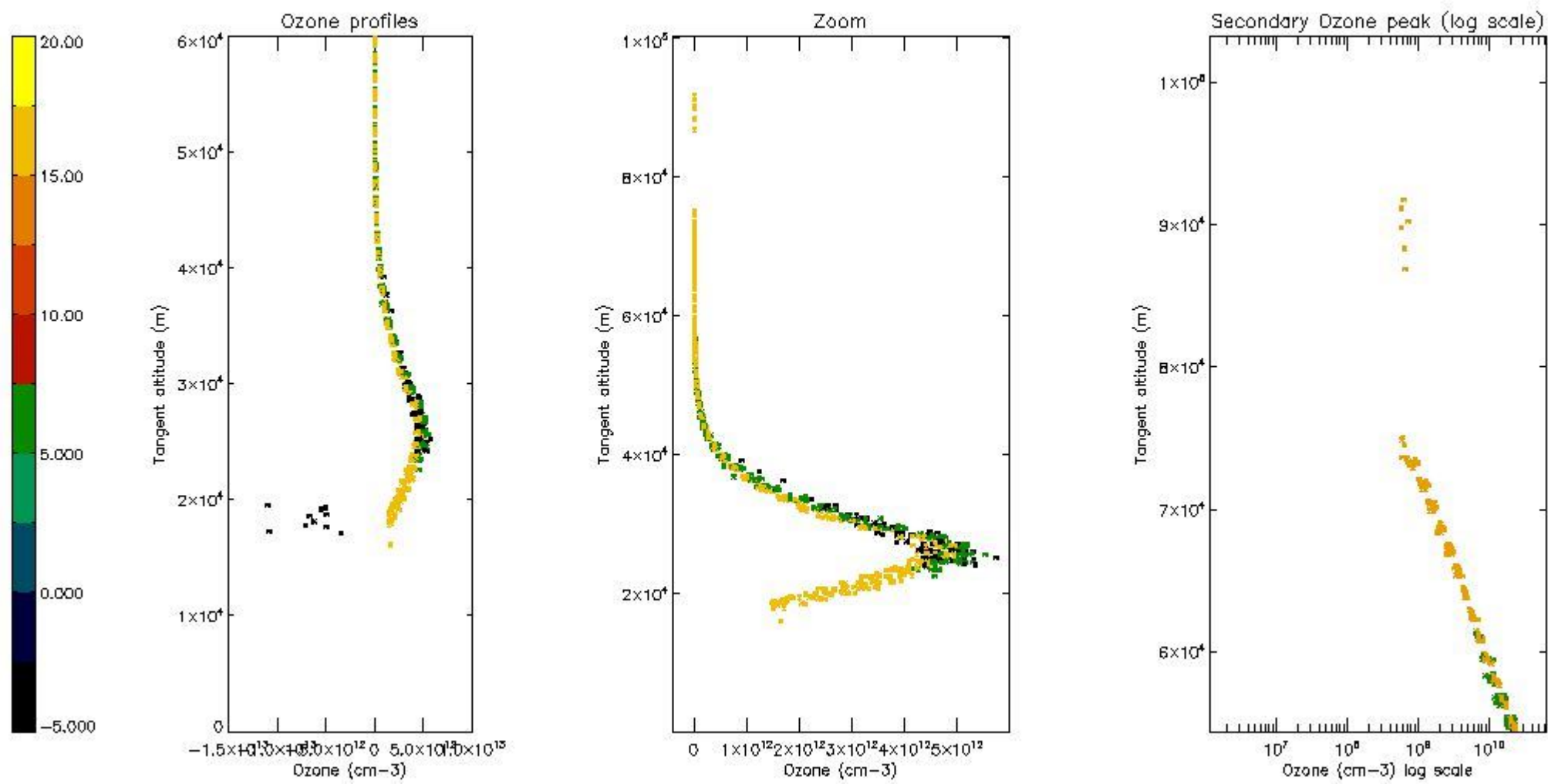
The colorbar represents the latitude.





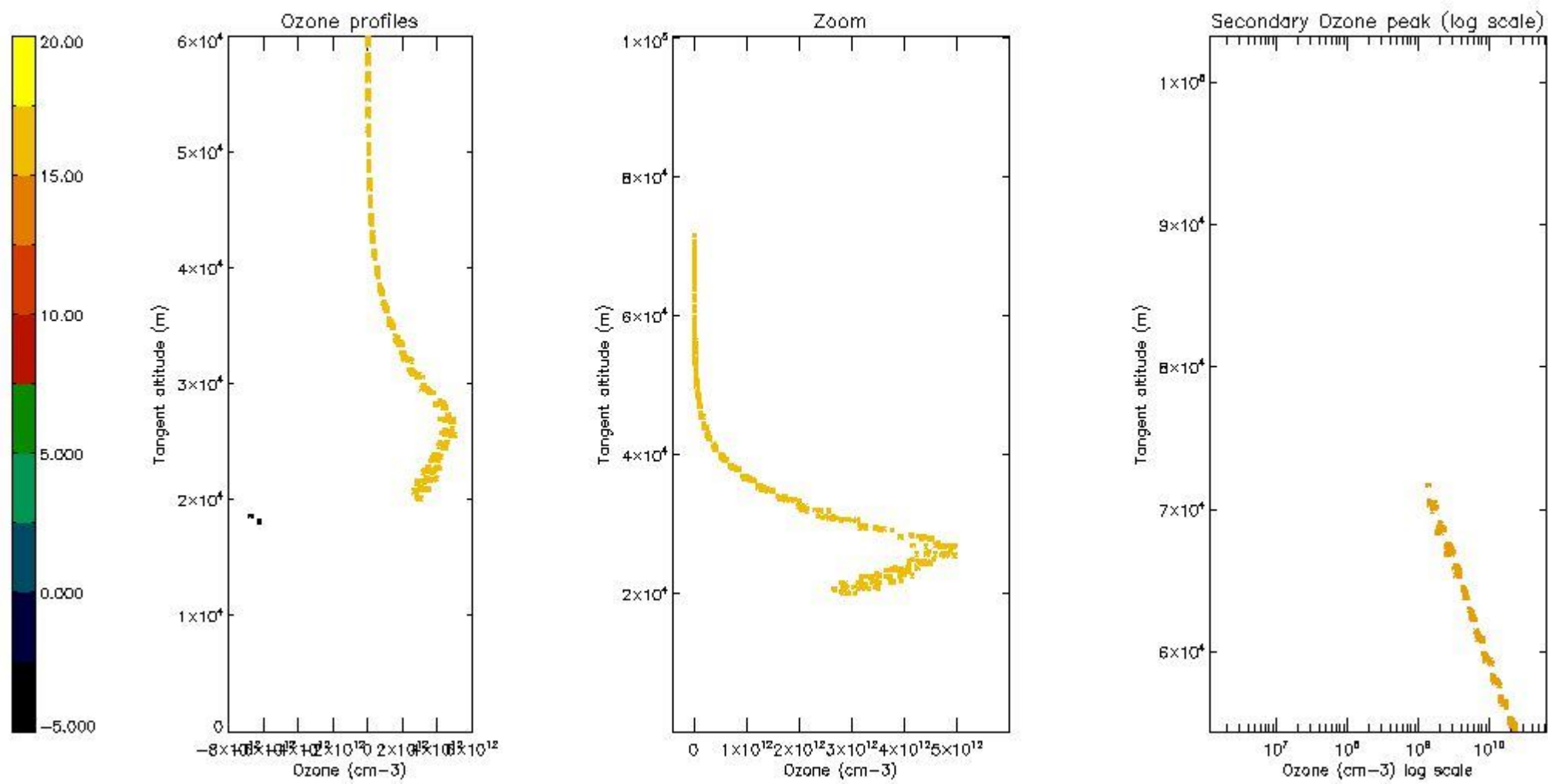
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



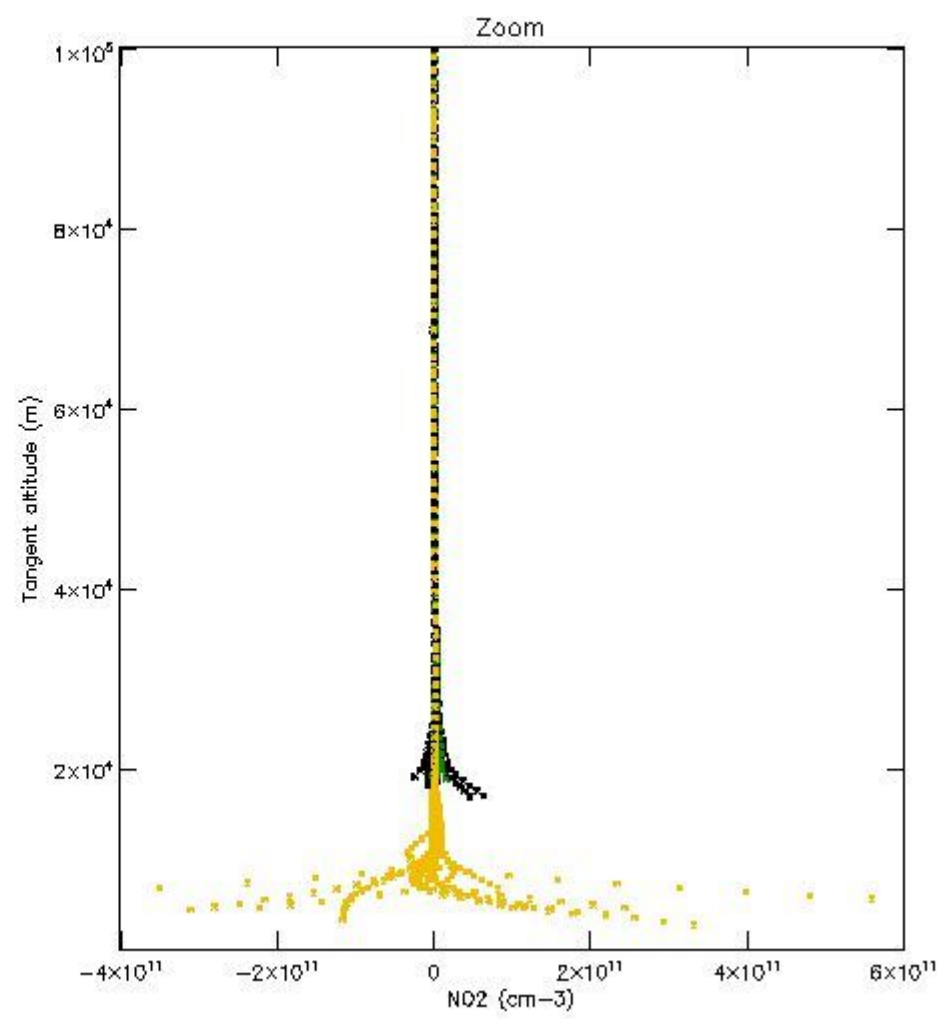
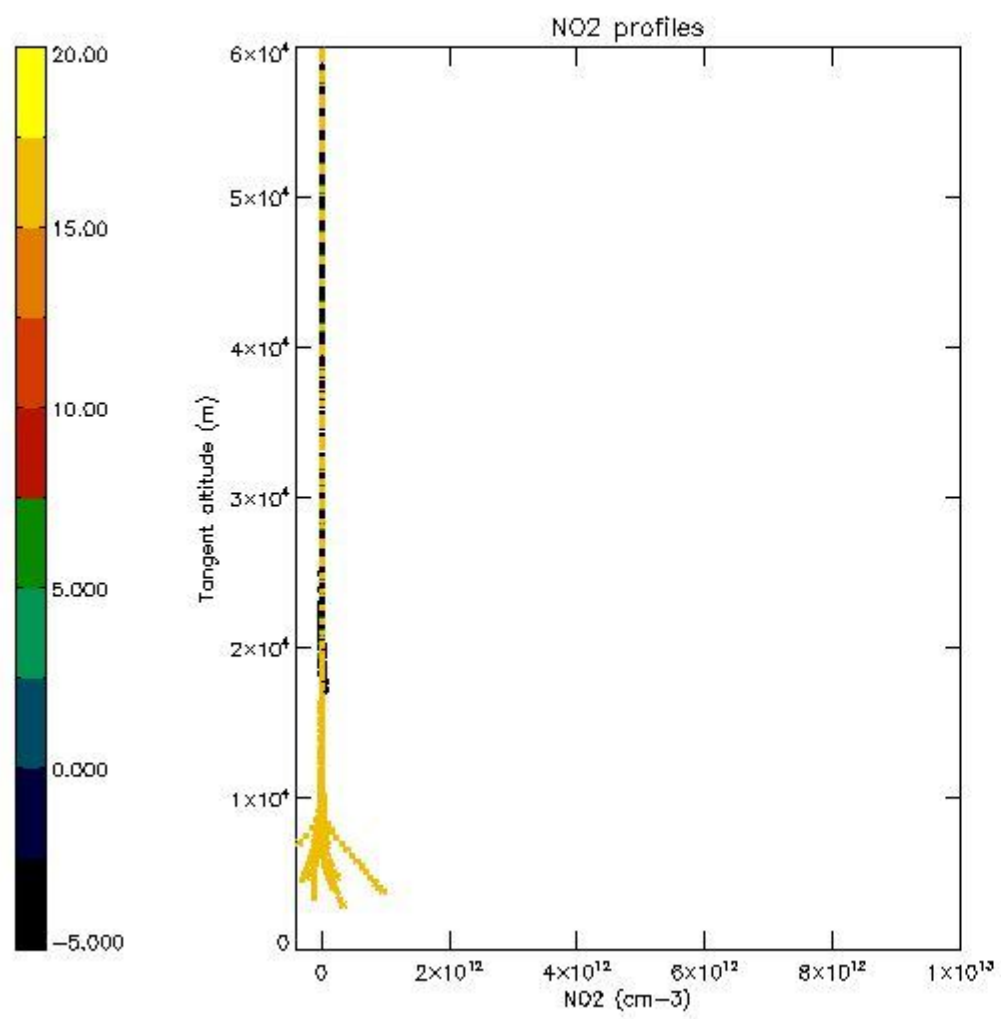
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



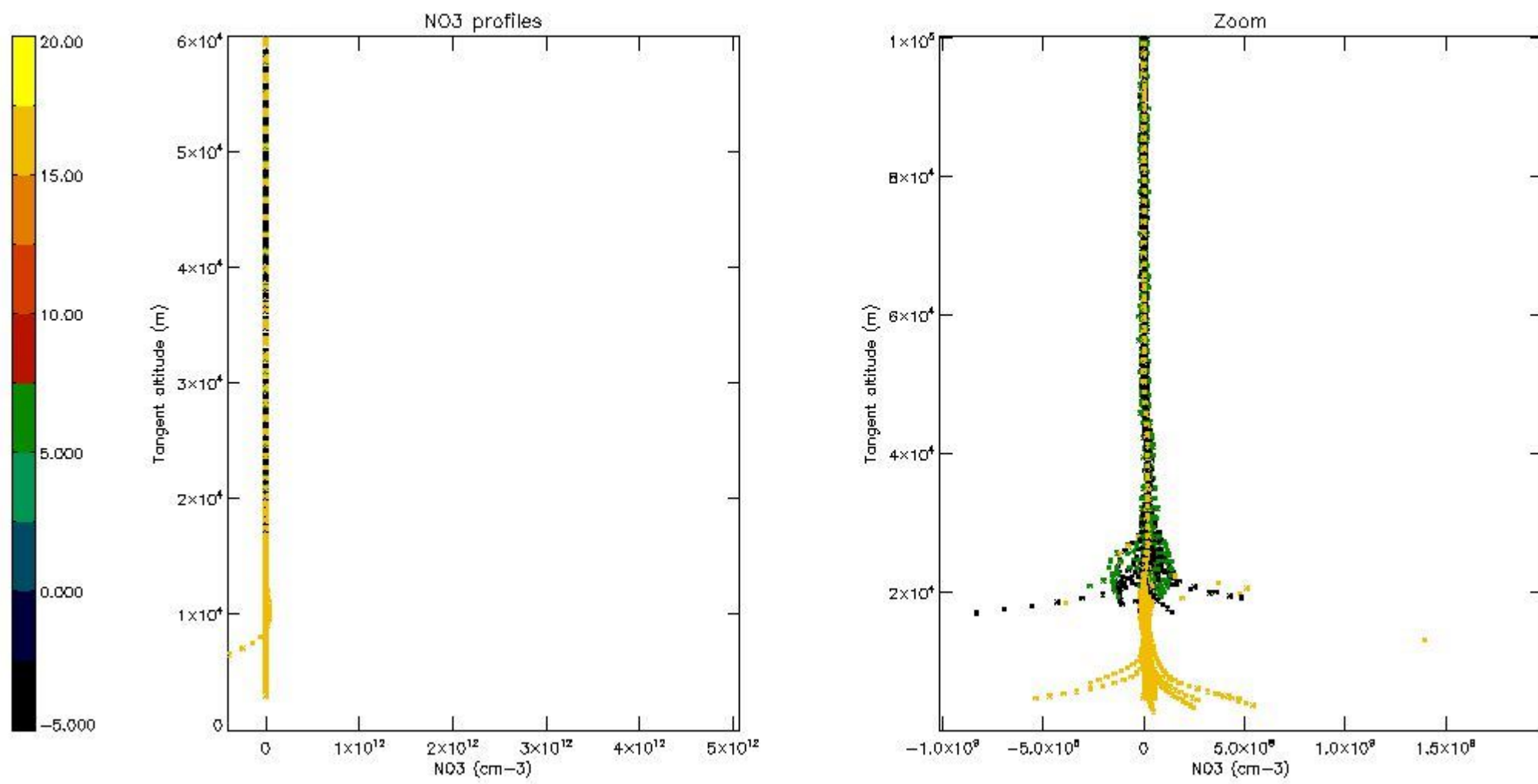
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



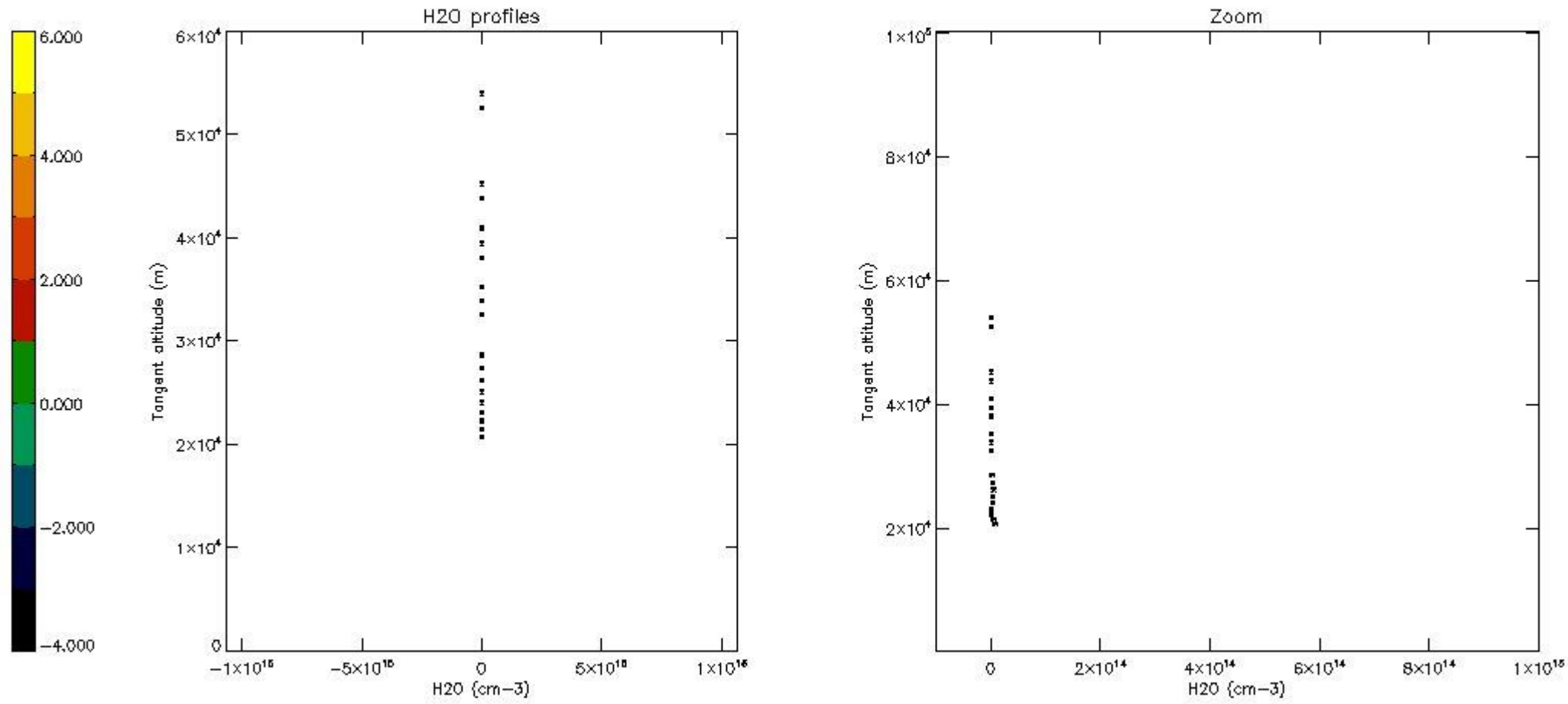
*5.7 Plot NO3 profiles for all STD (dark without errors)*

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)*

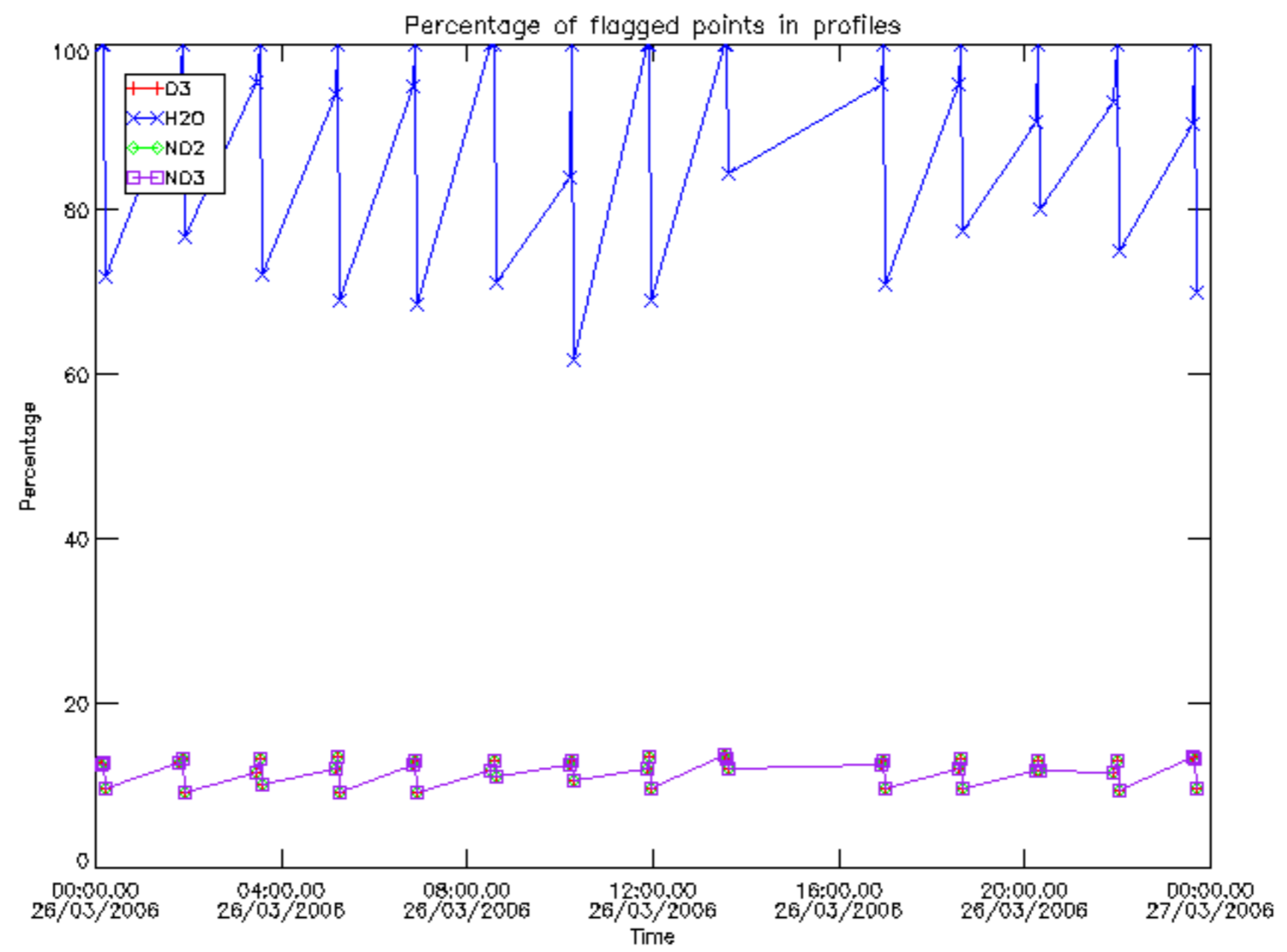
The colorbar represents the latitude.



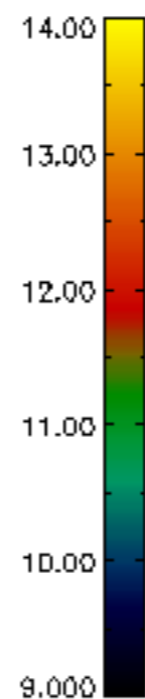
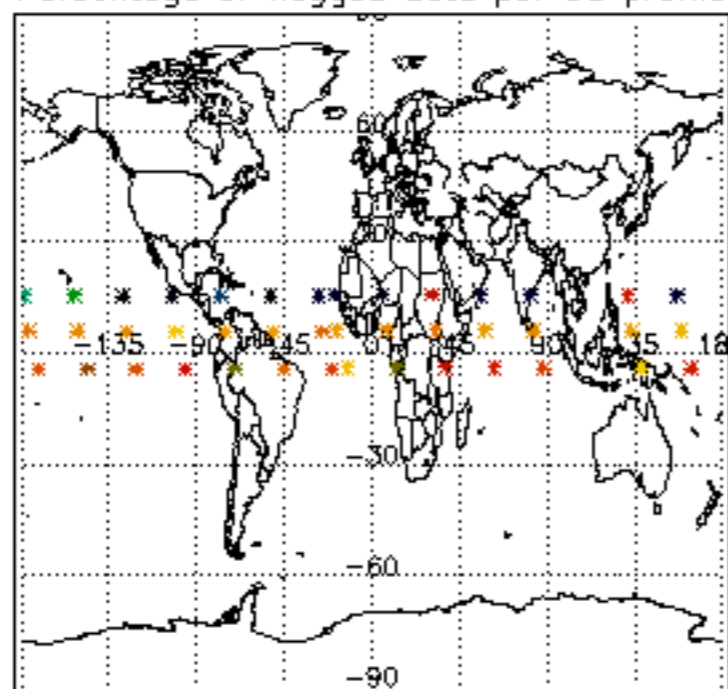
## 6. Auxiliary Data Files used for the production reported in section 2

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.

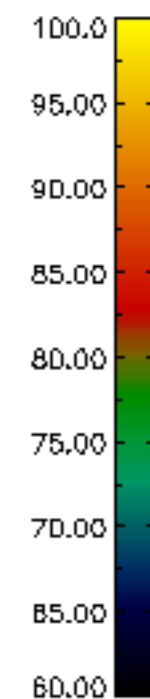
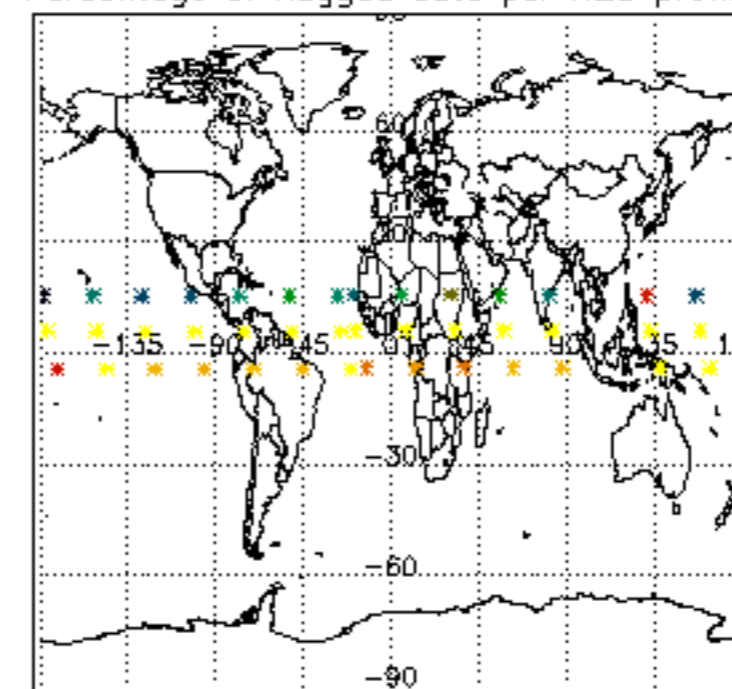
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	26-MAR-2006 00:07:32
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	26-MAR-2006 00:07:32
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	26-MAR-2006 00:07:32



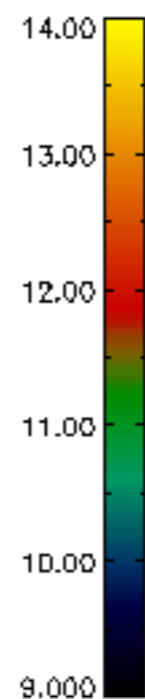
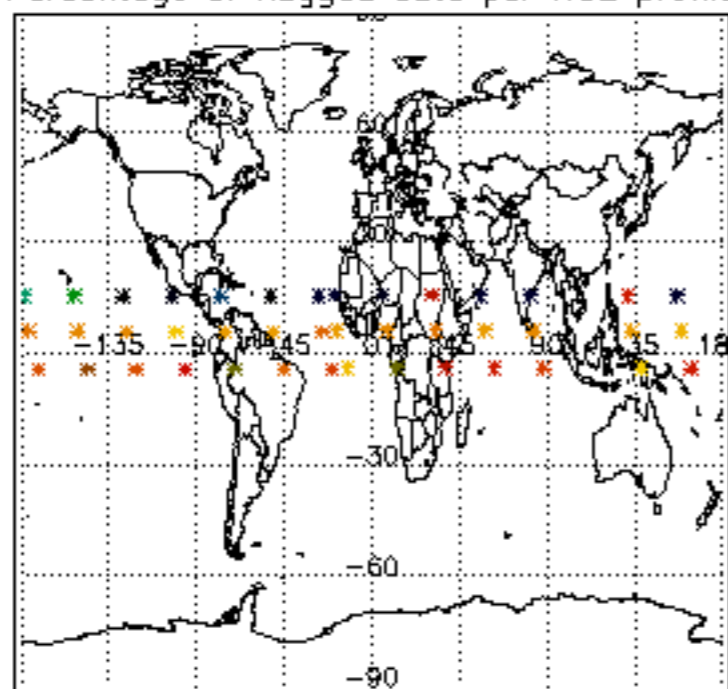
Percentage of flagged data per D3 profile



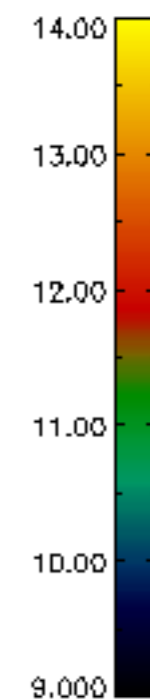
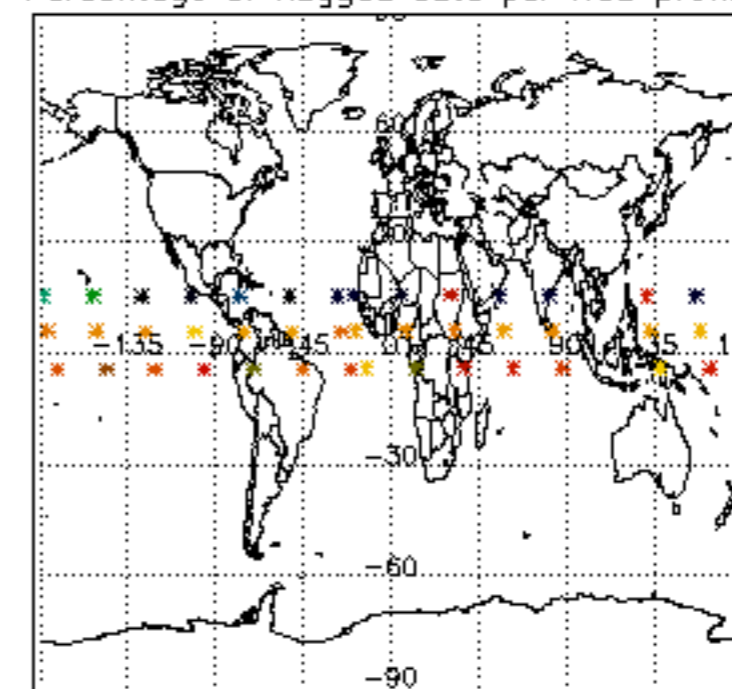
Percentage of flagged data per H2O profile



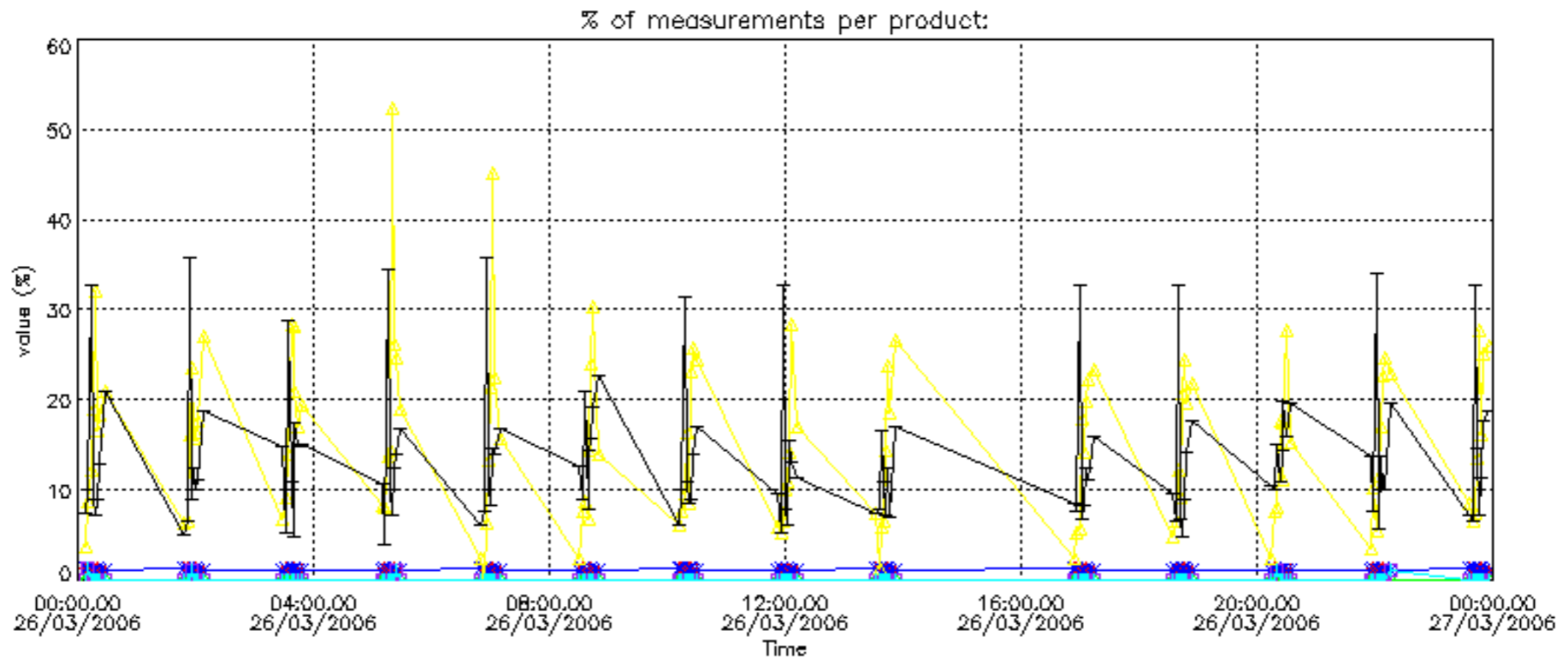
Percentage of flagged data per NO2 profile

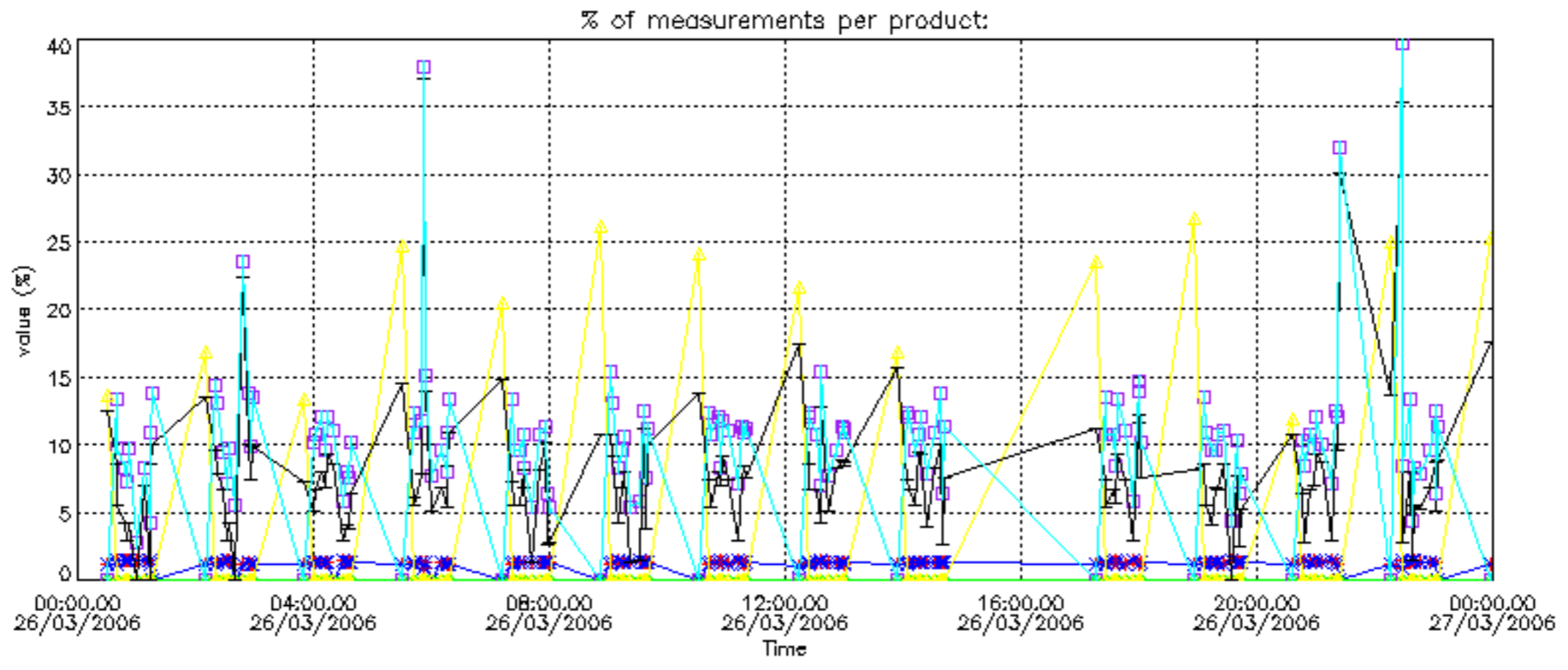


Percentage of flagged data per NO3 profile

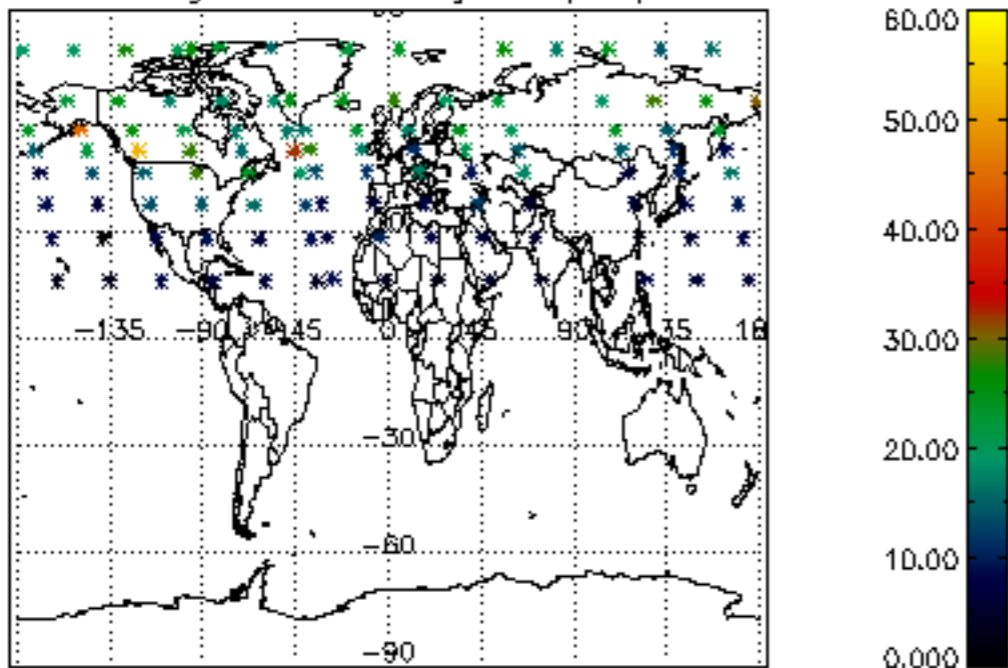




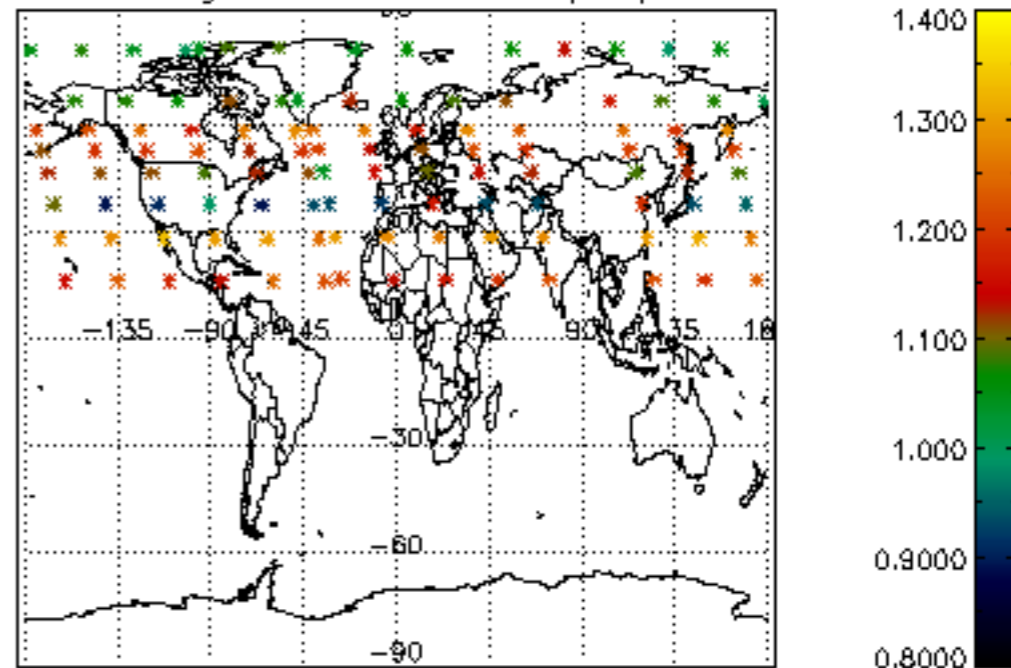




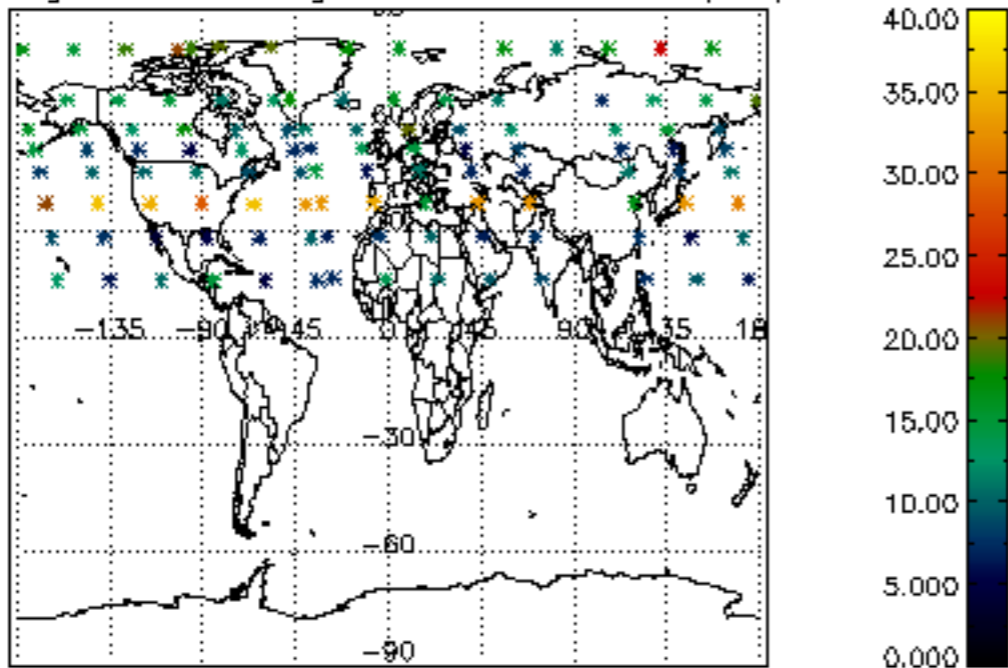
Percentage of cosmic ray hits per profile



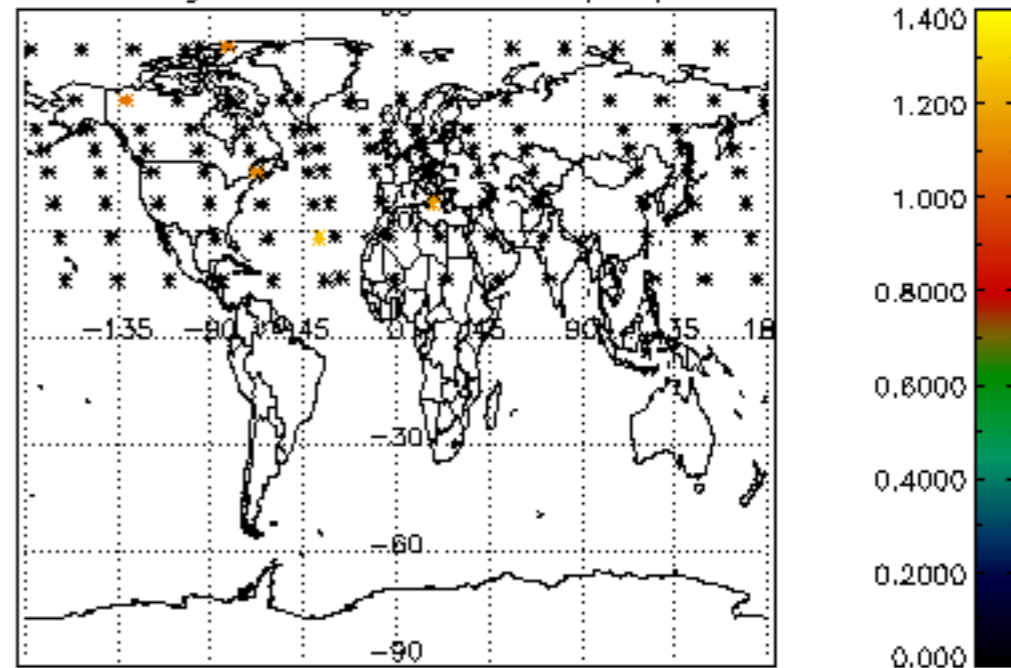
Percentage of datation errors per profile



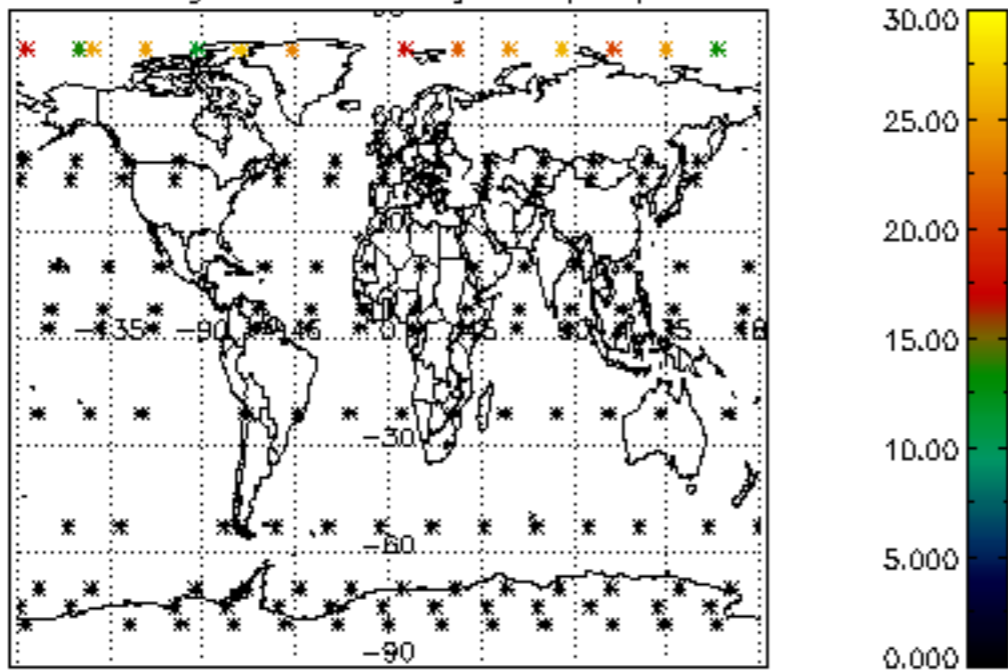
Percentage of star falling outside central band per profile



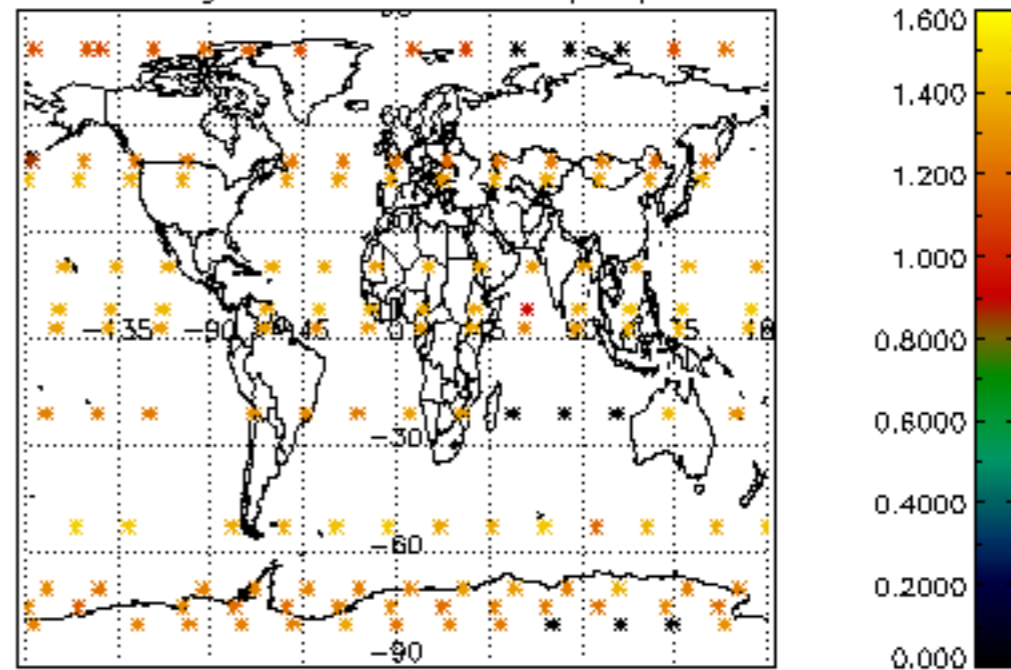
Percentage of saturation errors per profile



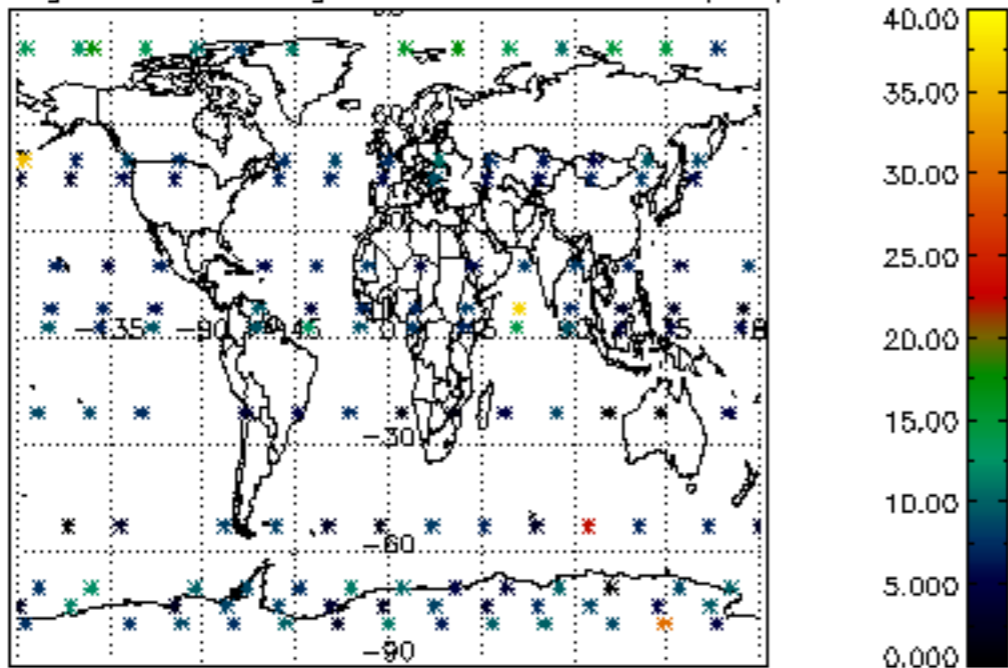
Percentage of cosmic ray hits per profile



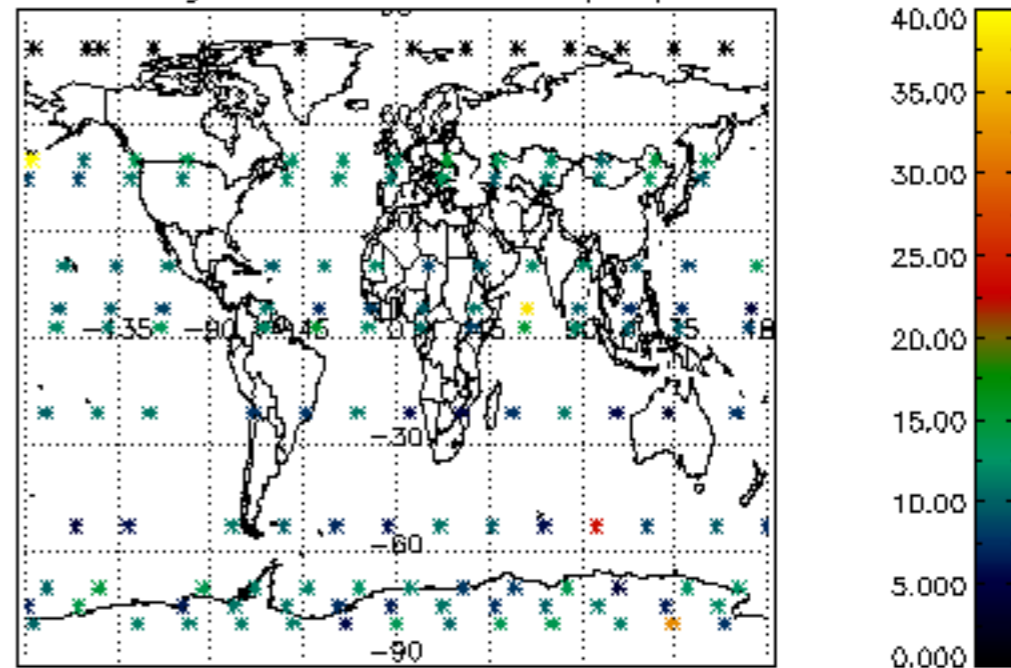
Percentage of datation errors per profile

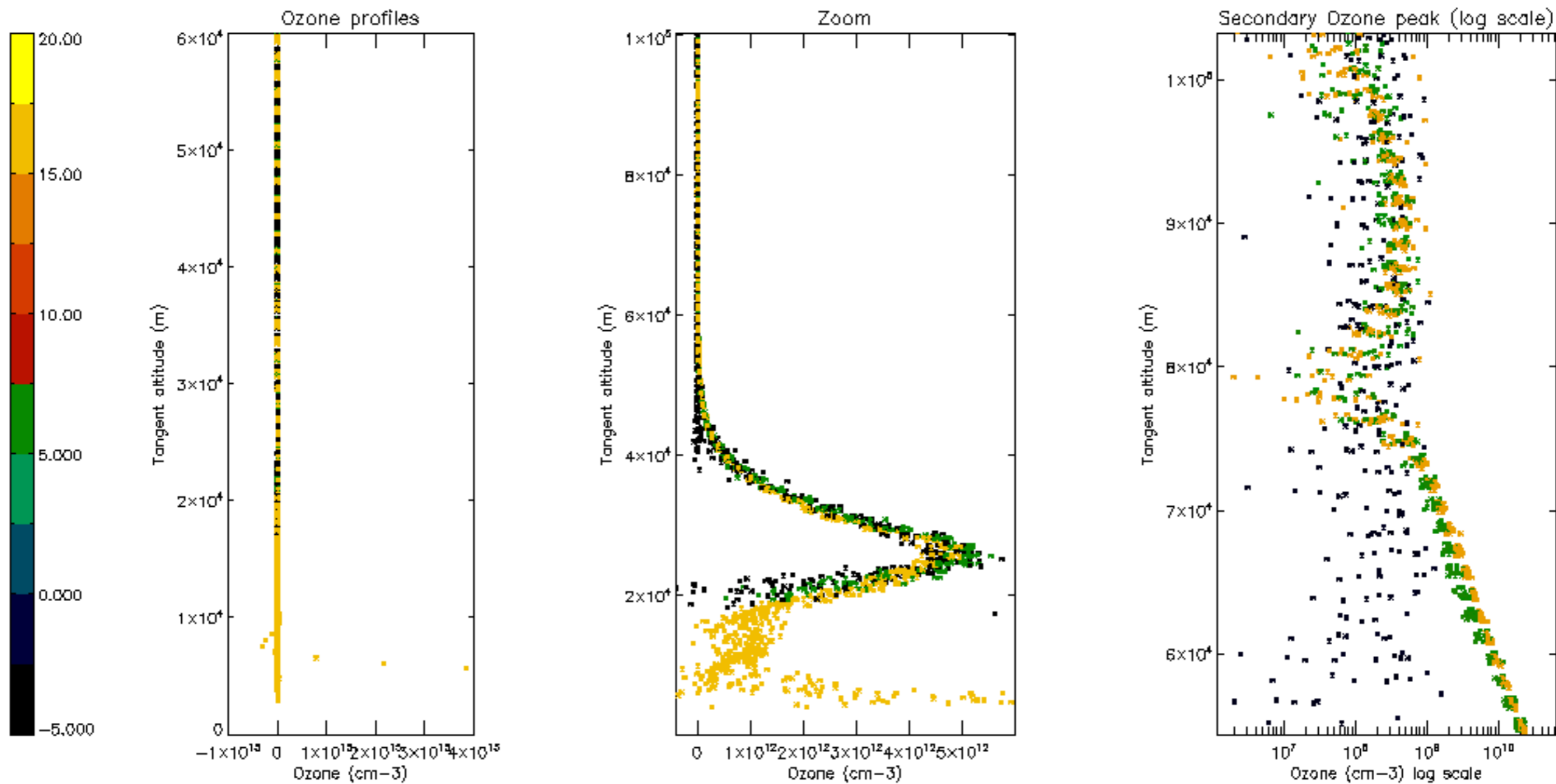


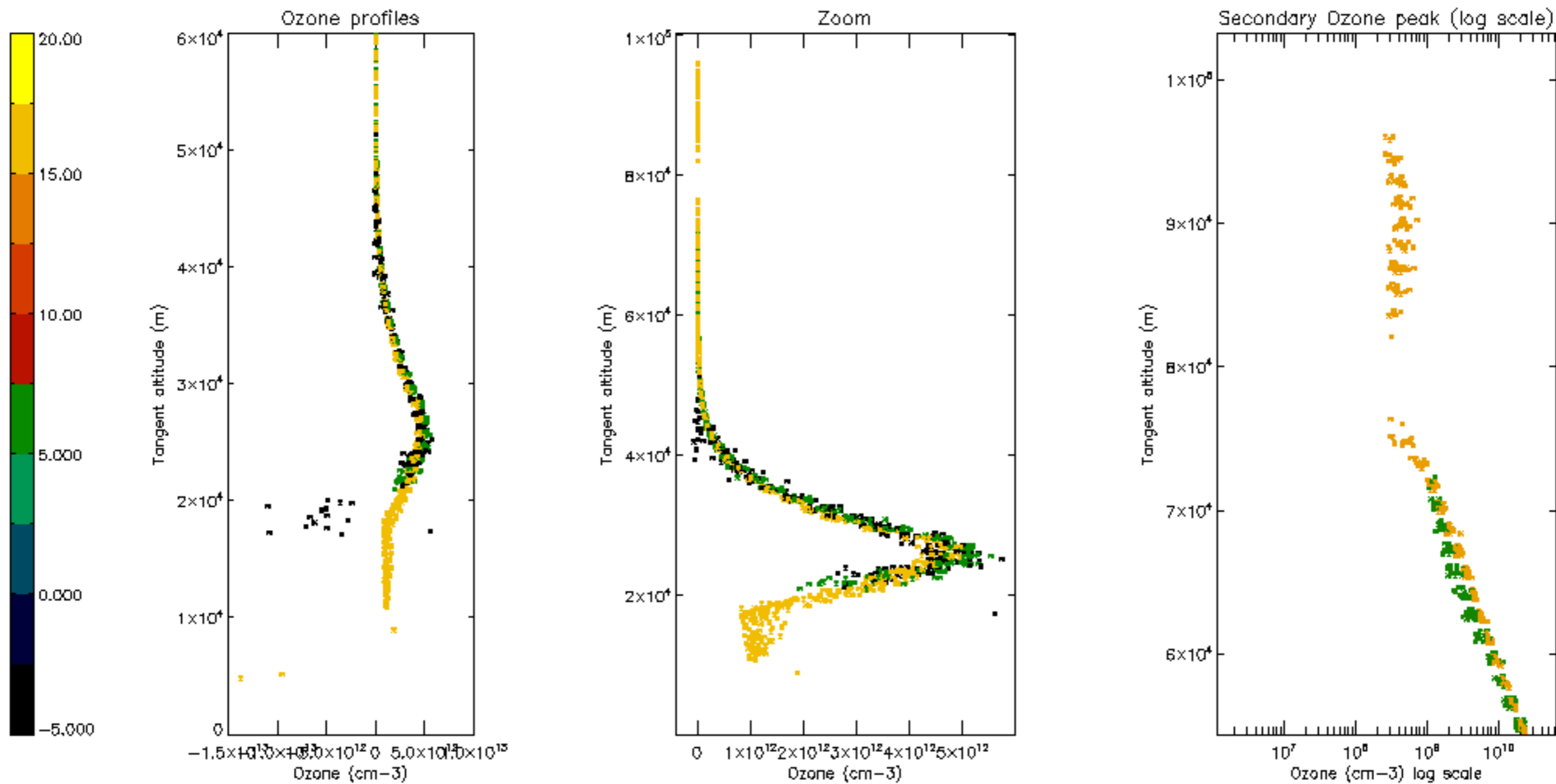
Percentage of star falling outside central band per profile

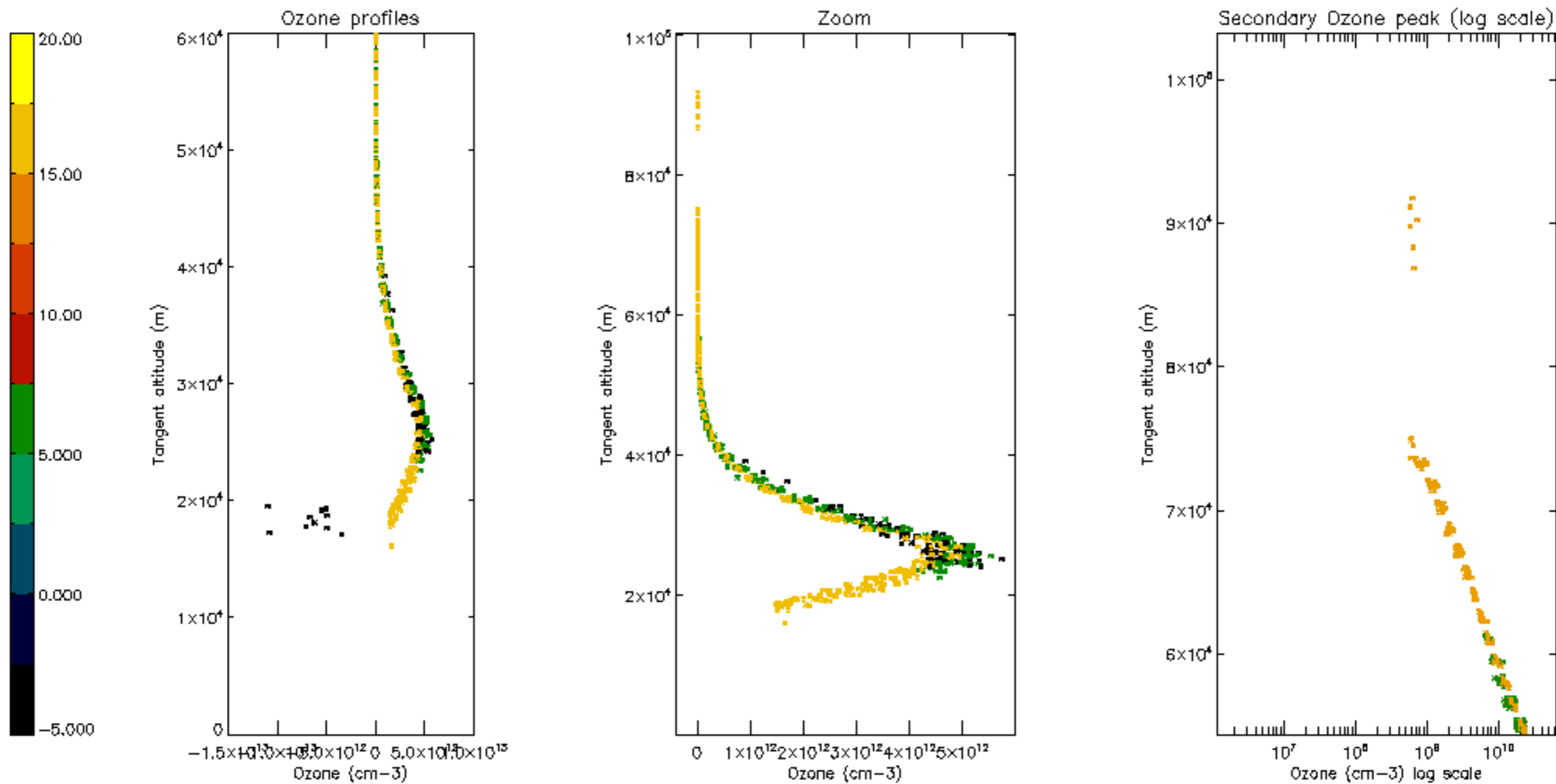


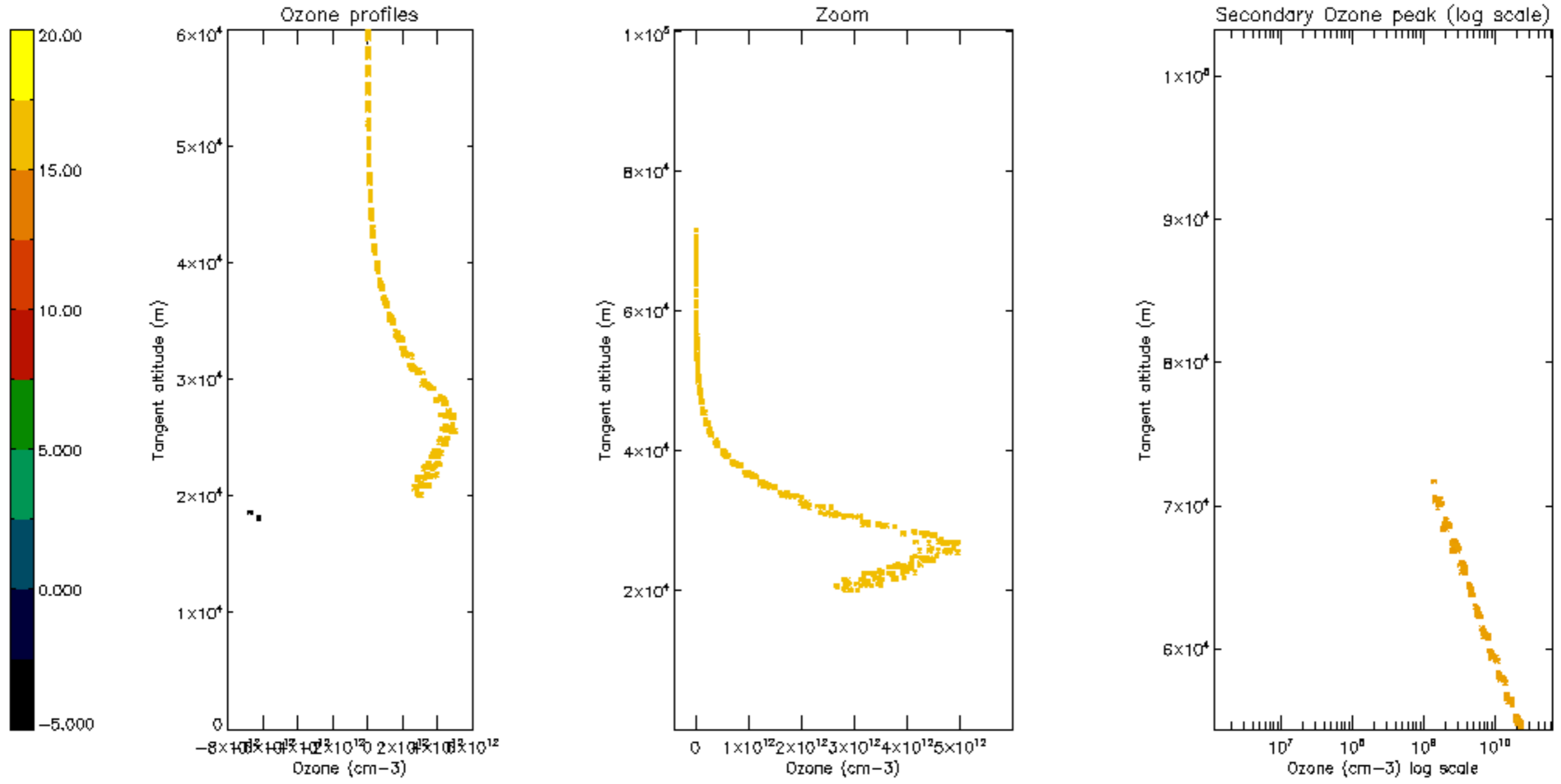
Percentage of saturation errors per profile



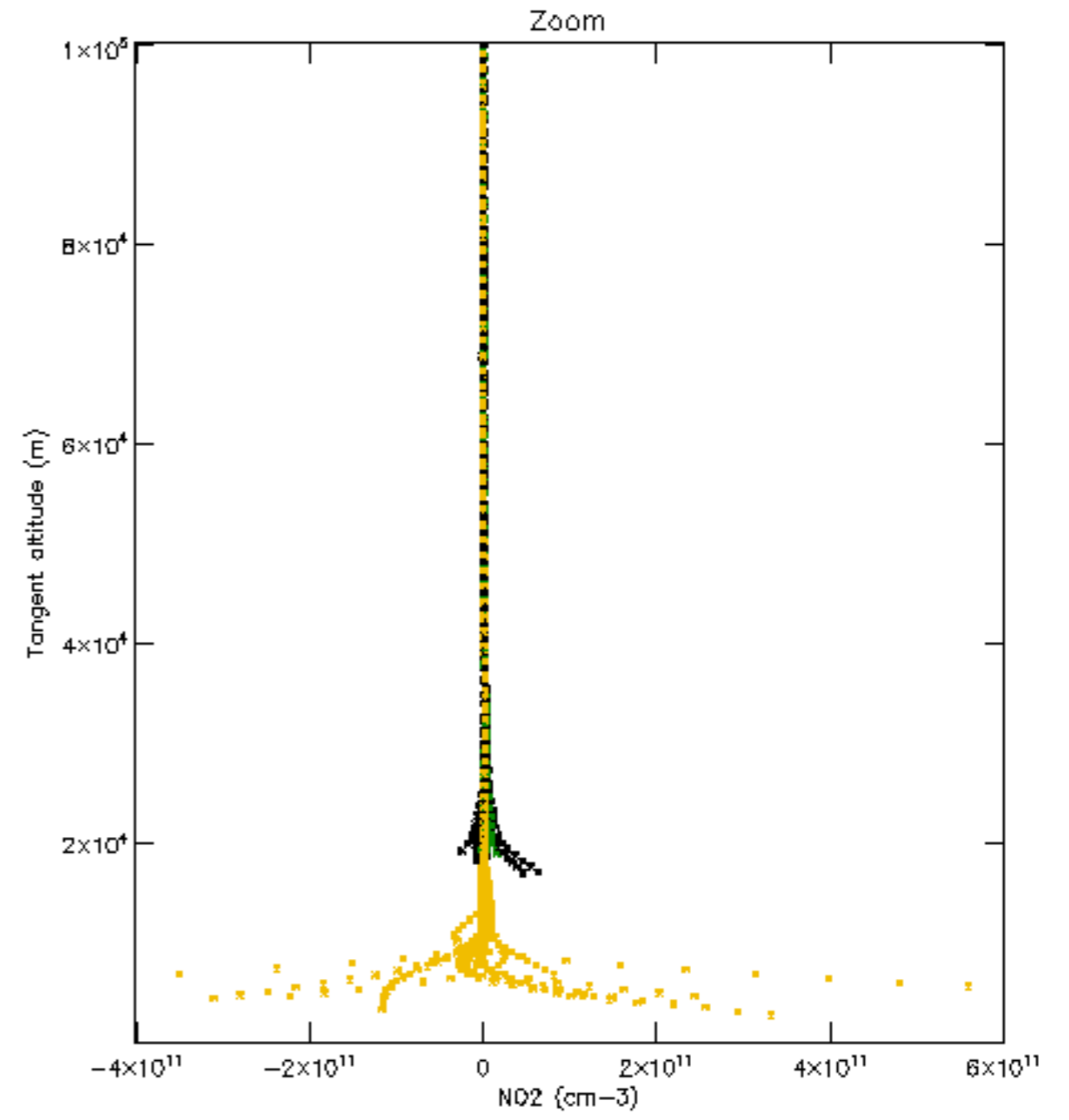
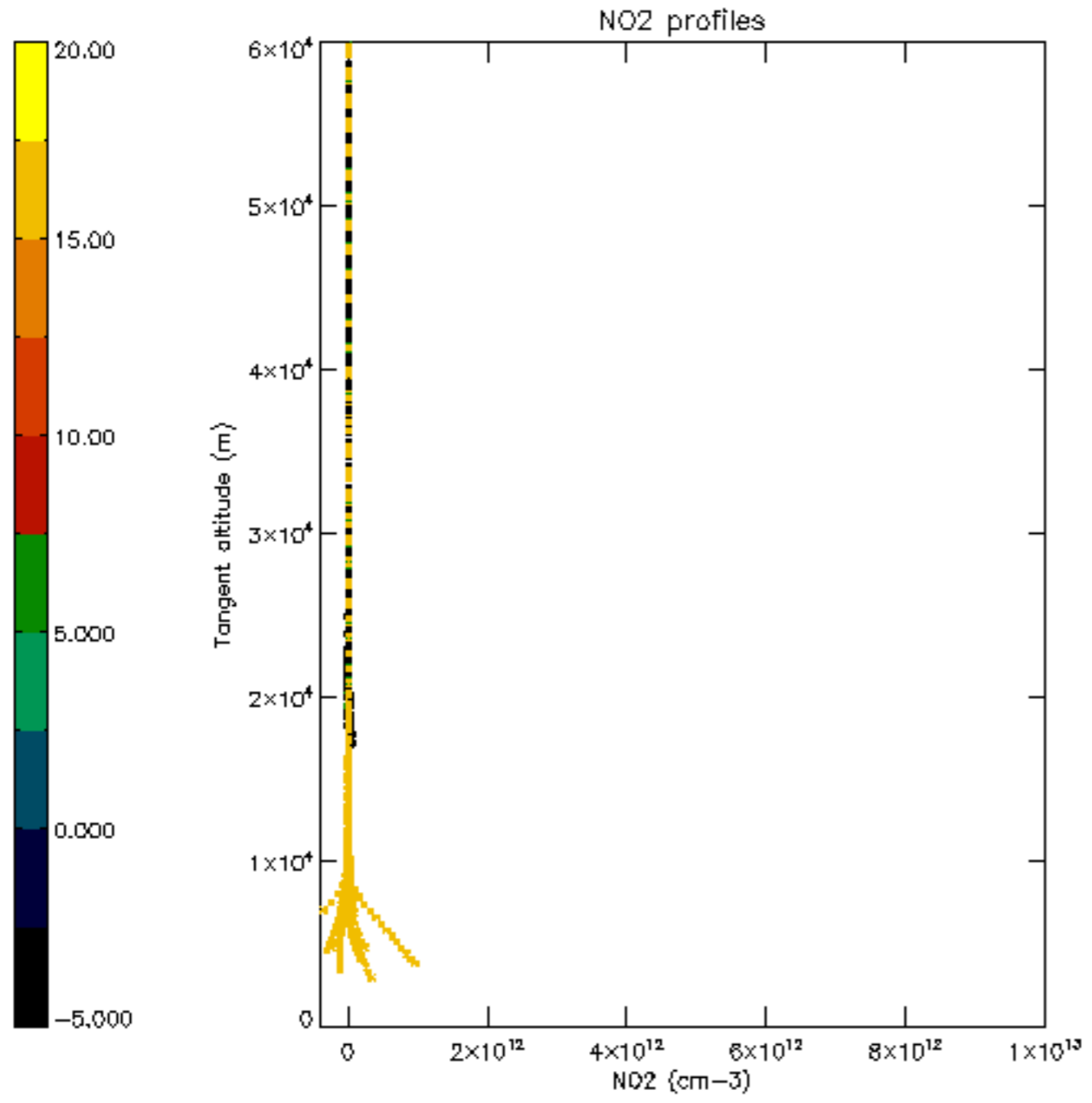


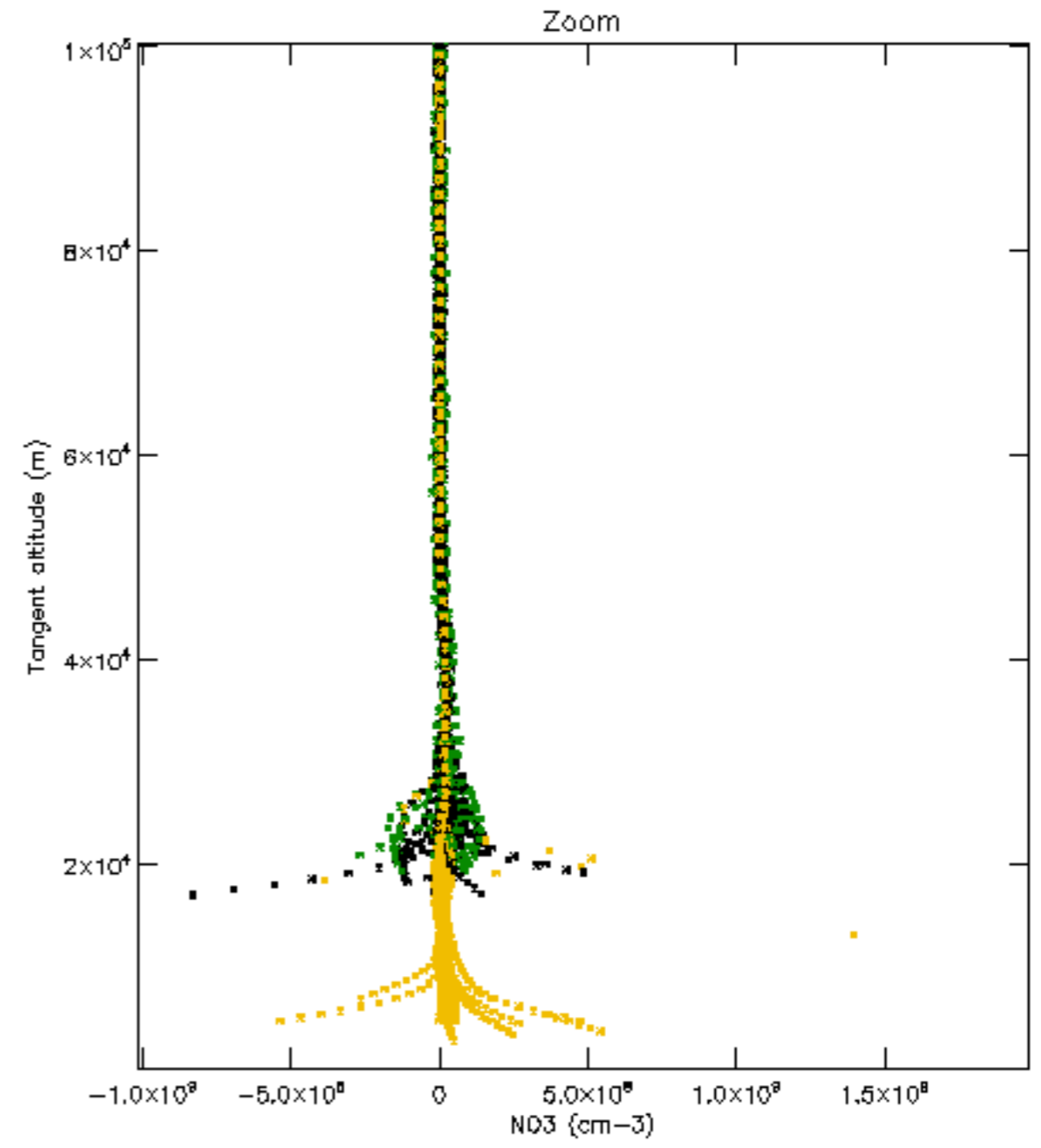
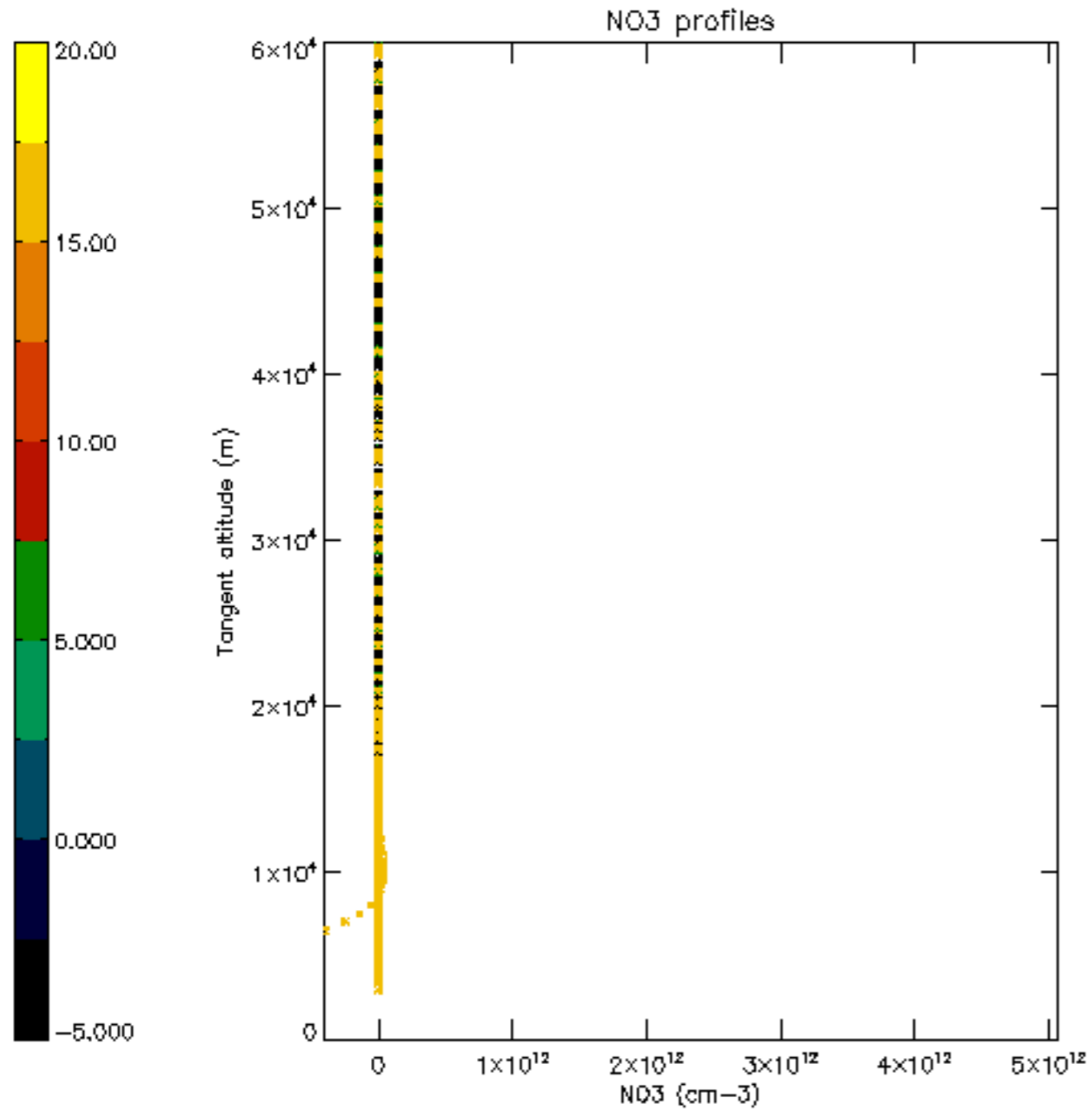


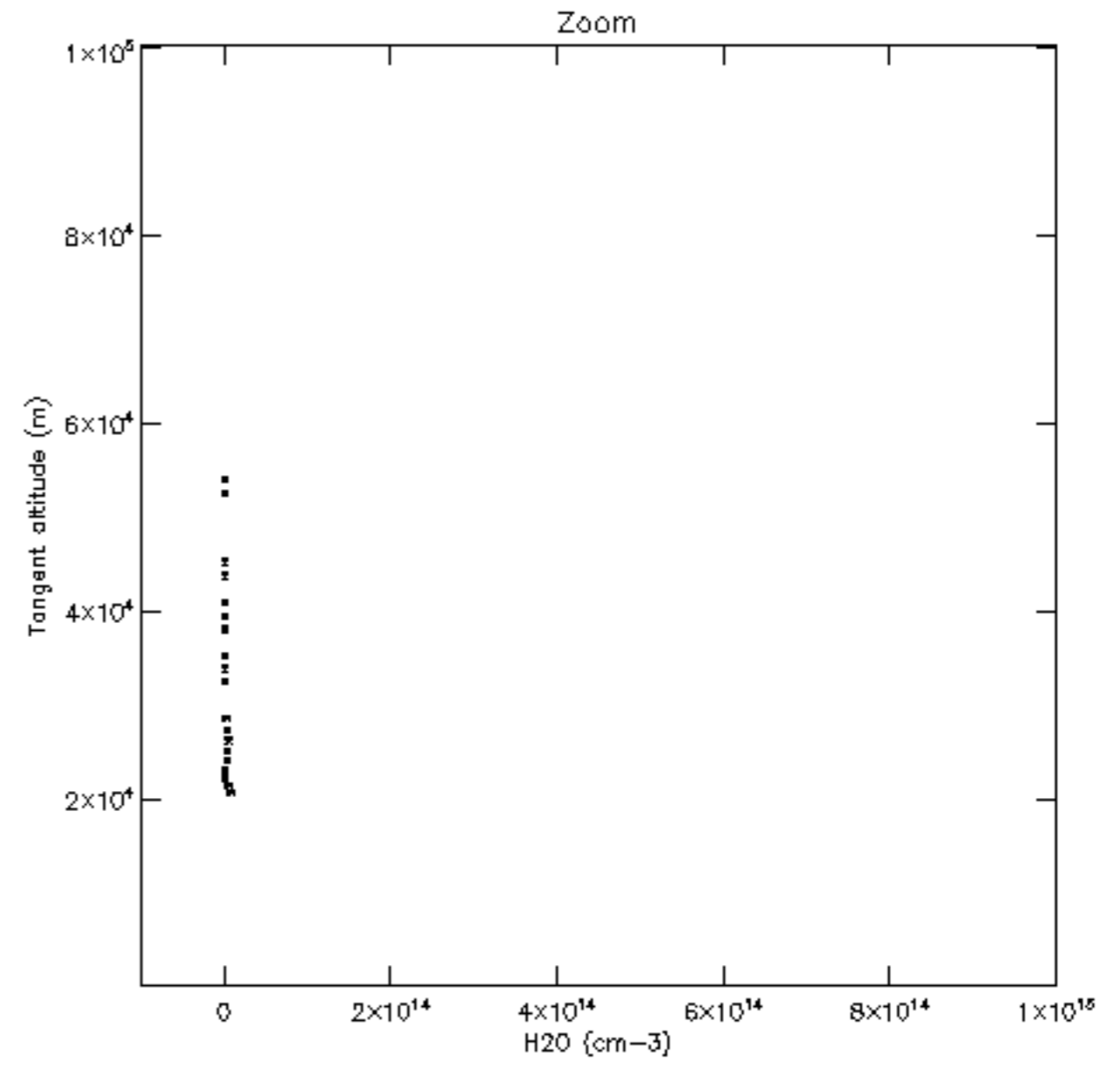
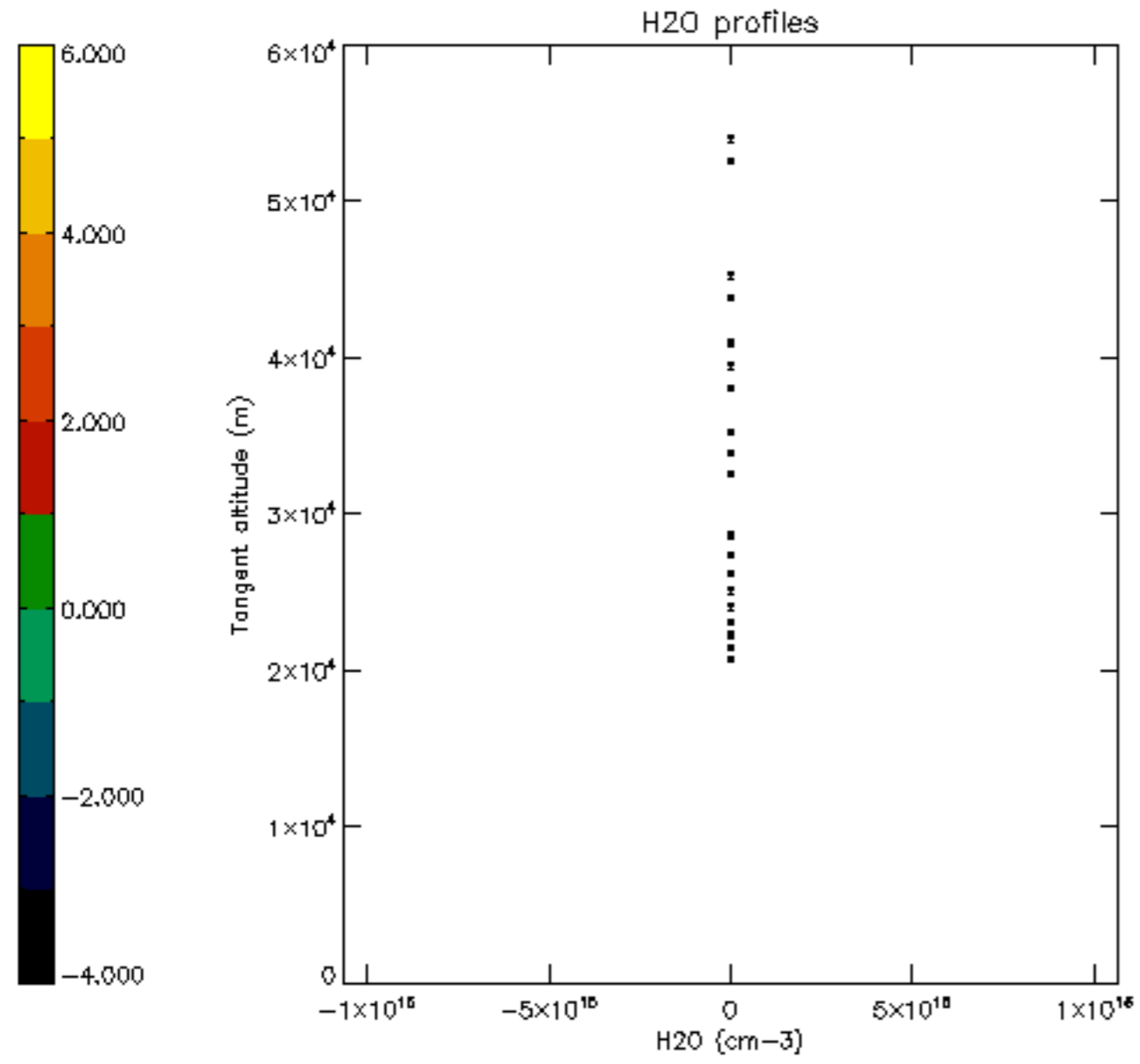


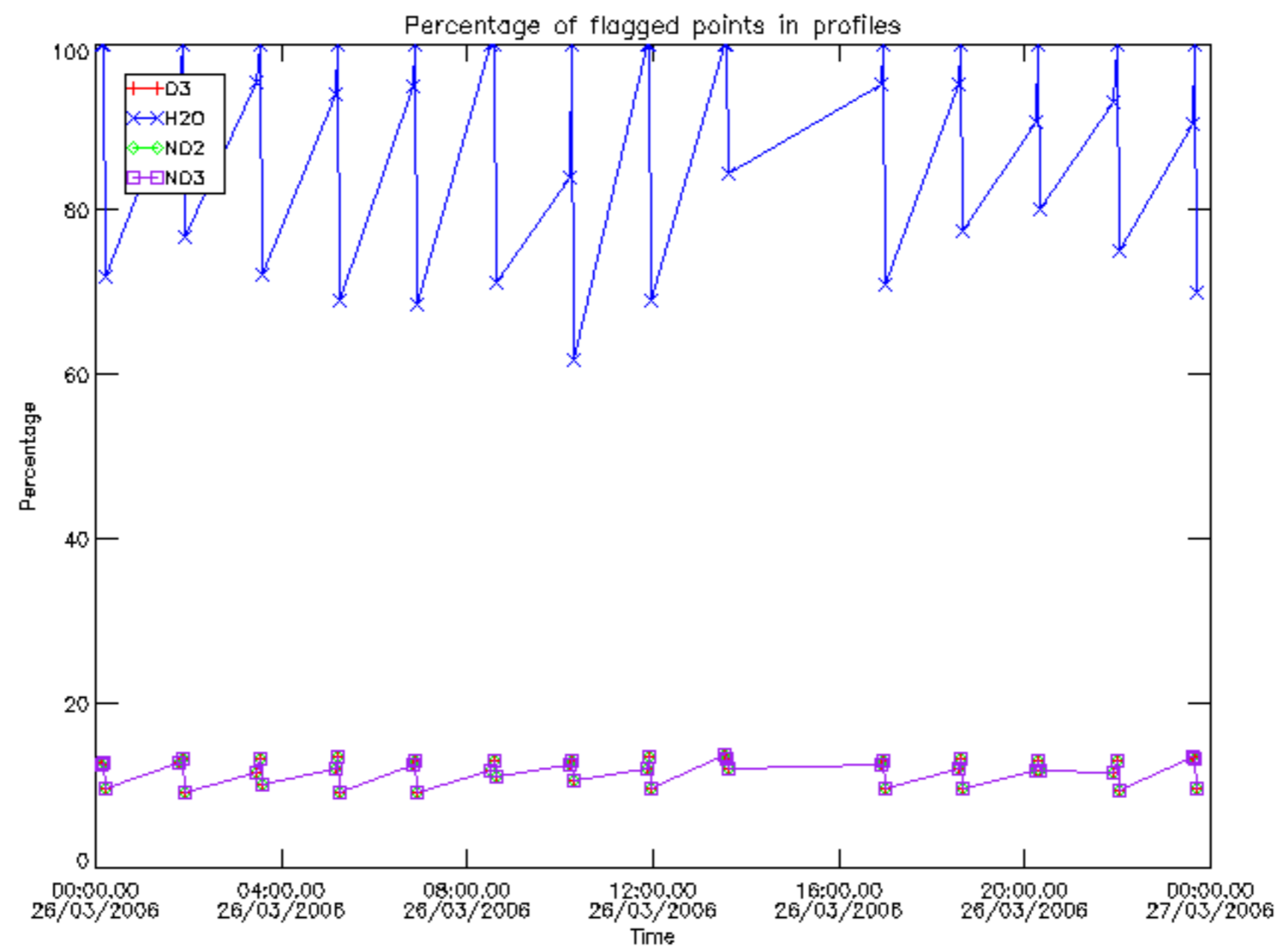




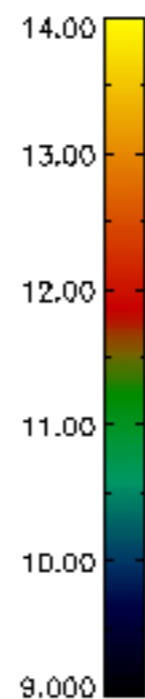
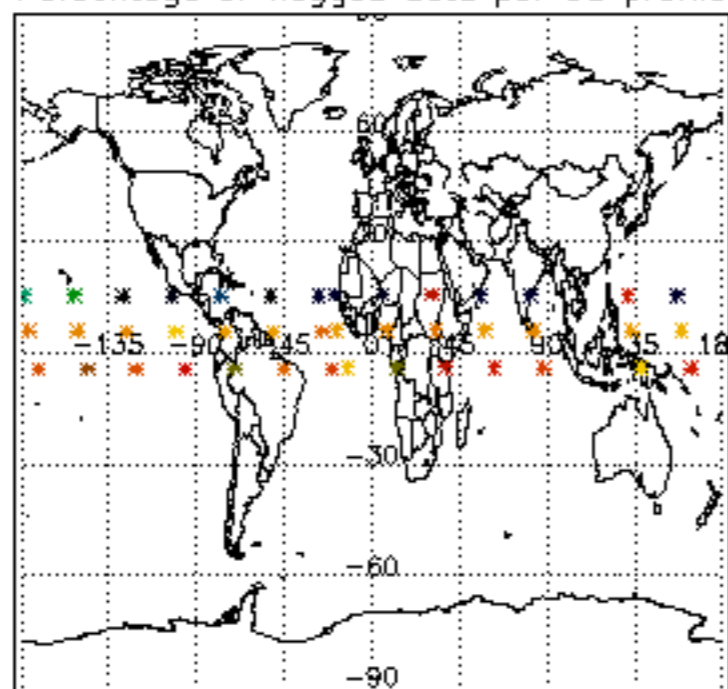




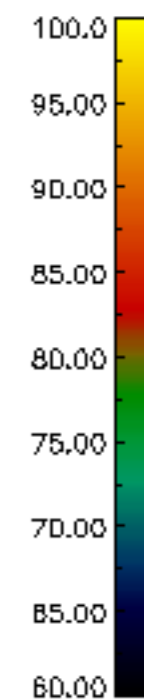
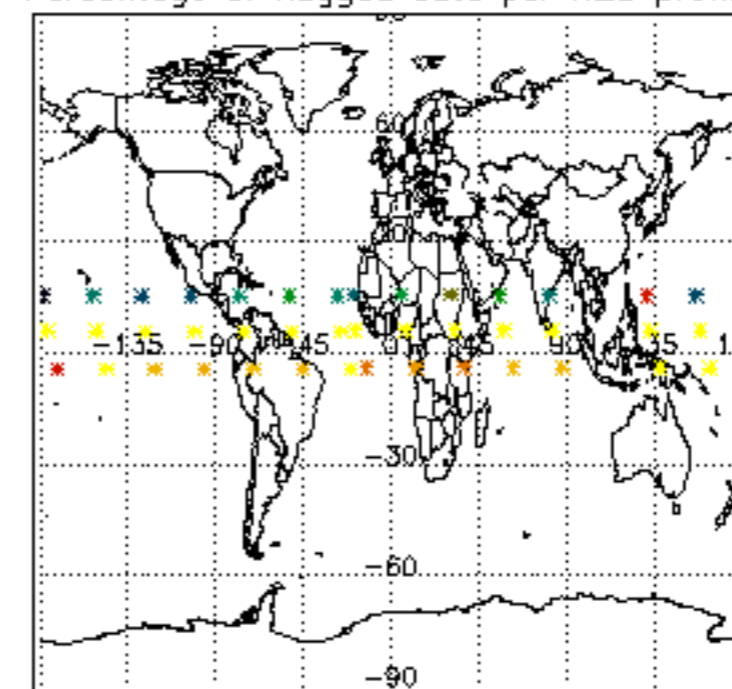




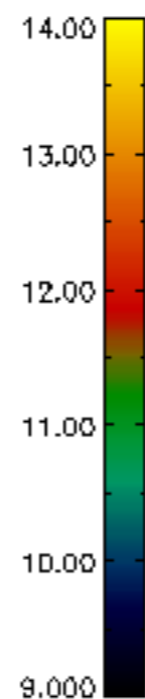
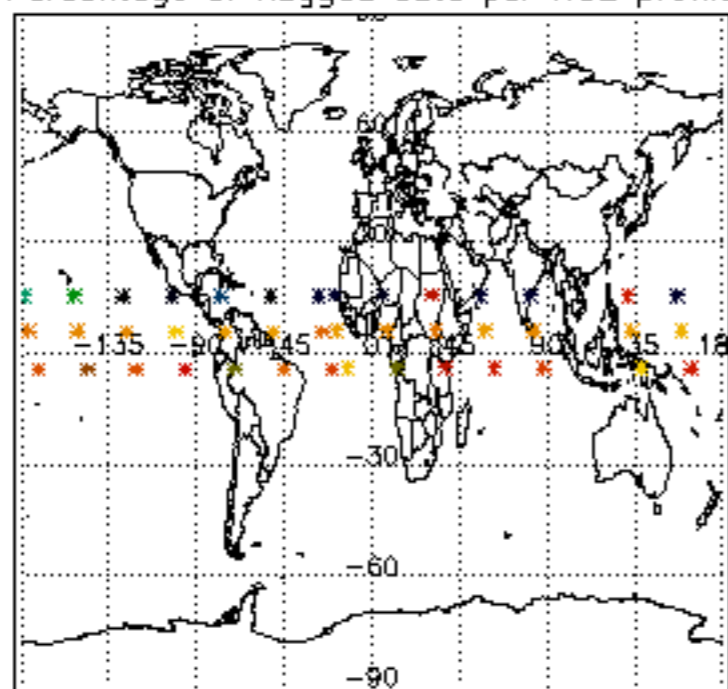
Percentage of flagged data per D3 profile



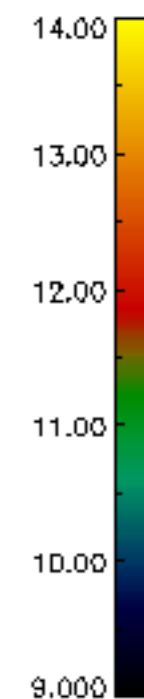
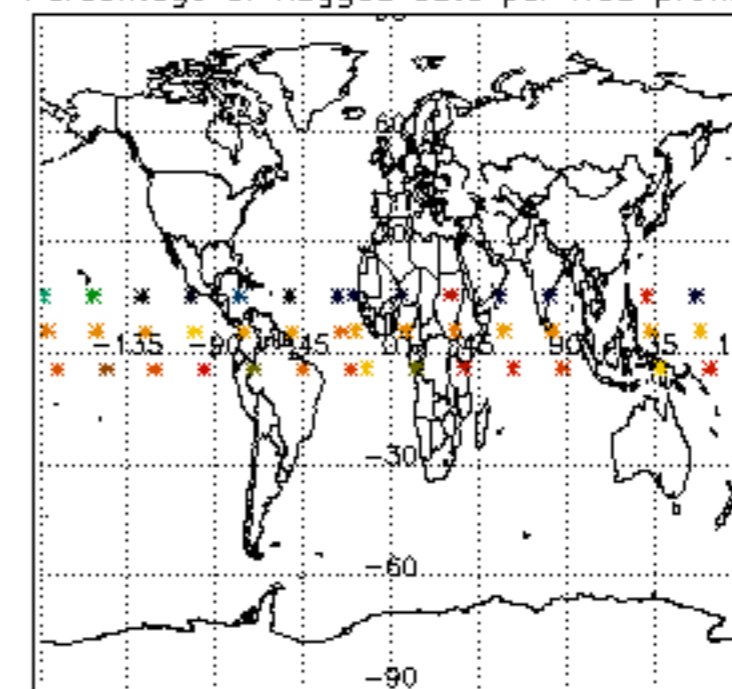
Percentage of flagged data per H2O profile

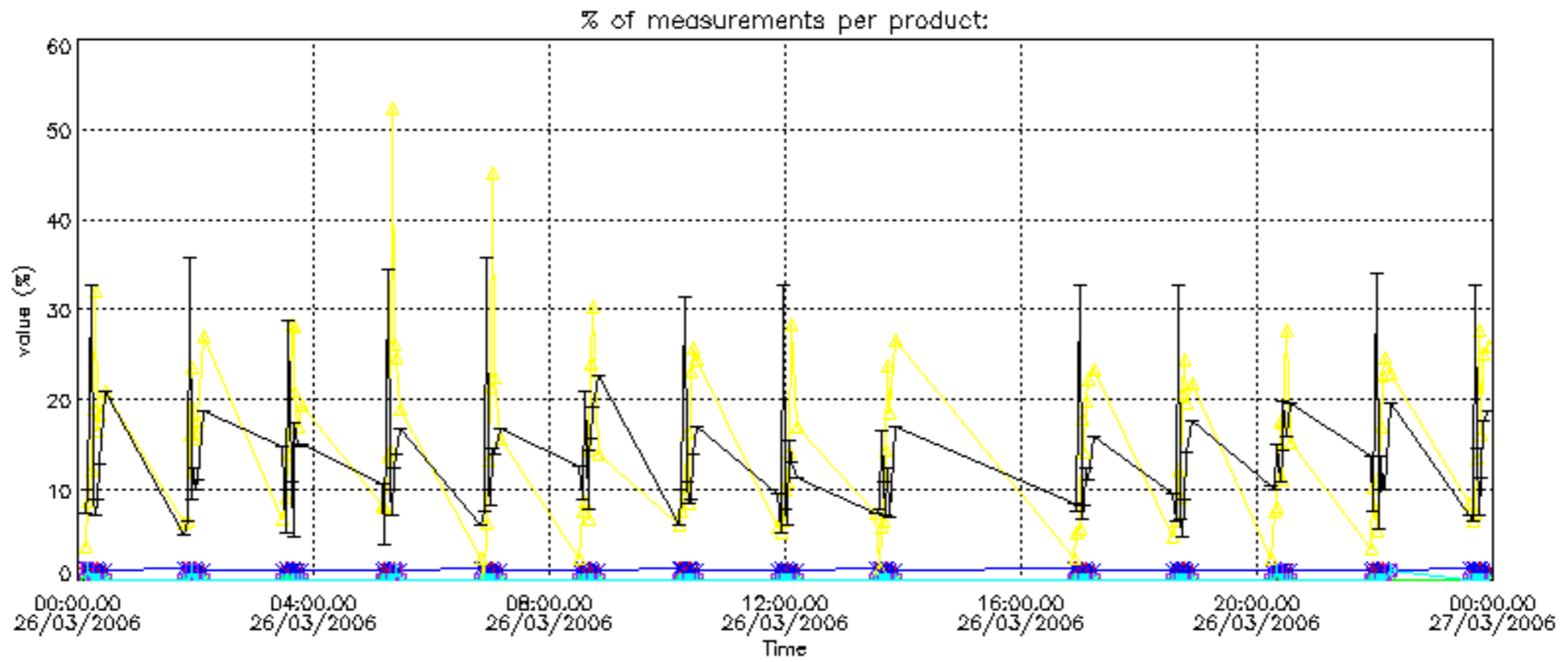


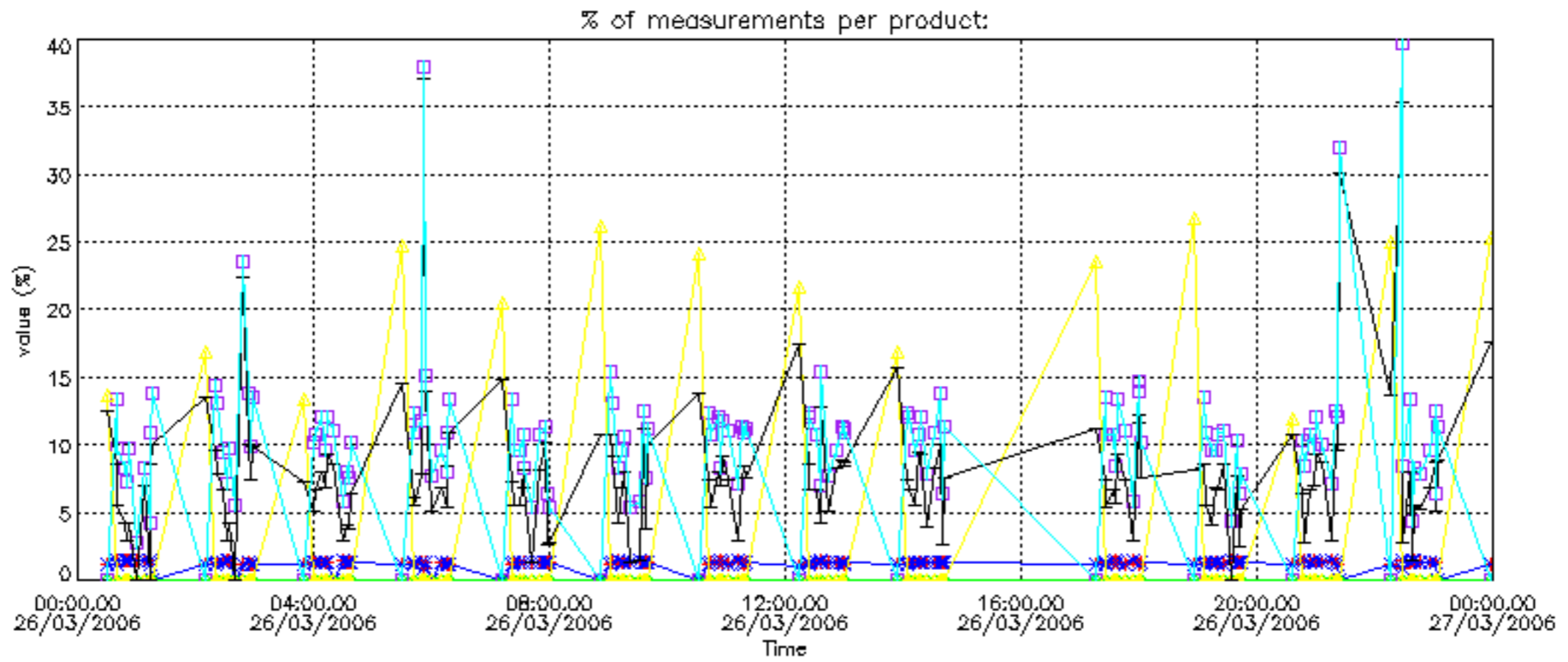
Percentage of flagged data per NO2 profile



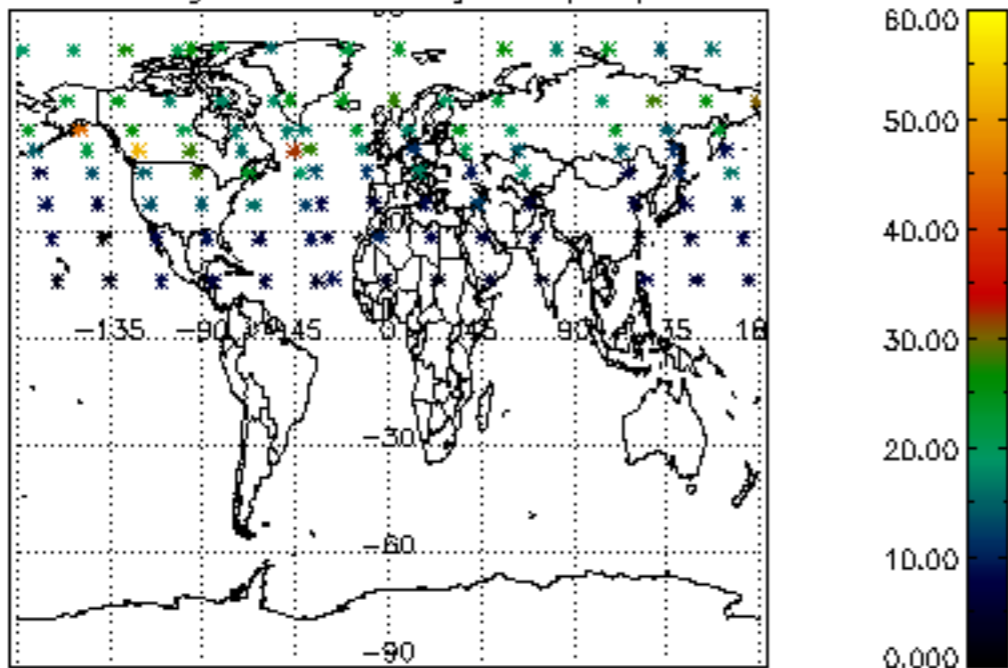
Percentage of flagged data per NO3 profile



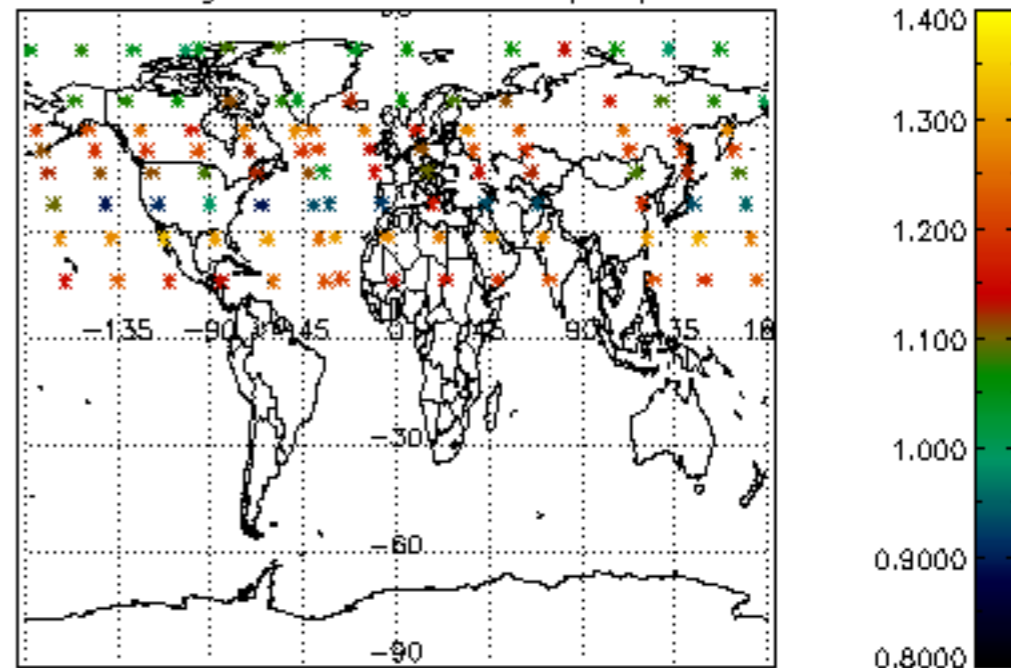




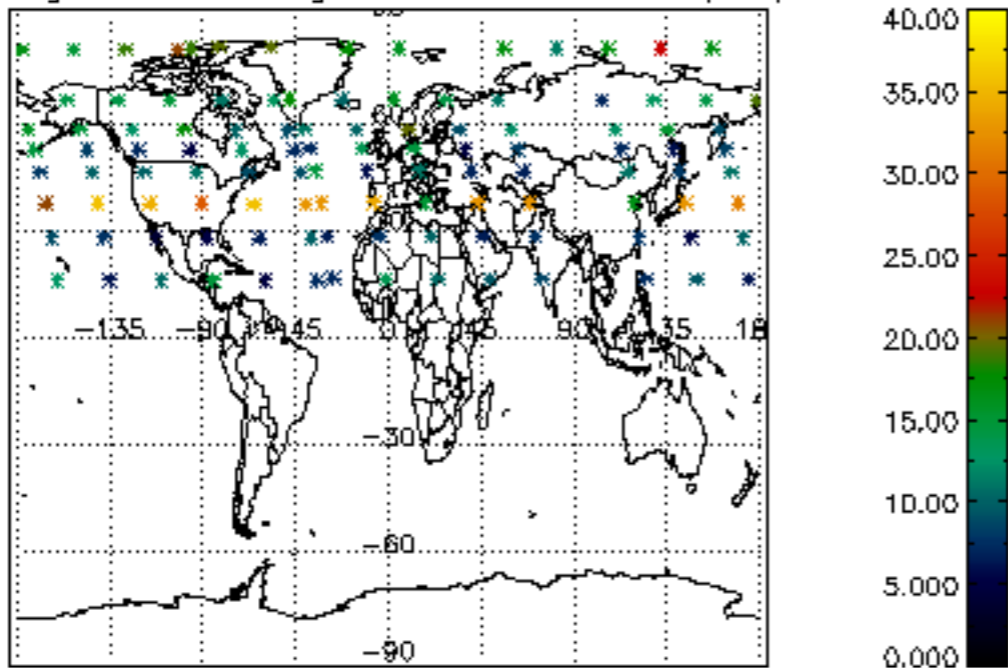
Percentage of cosmic ray hits per profile



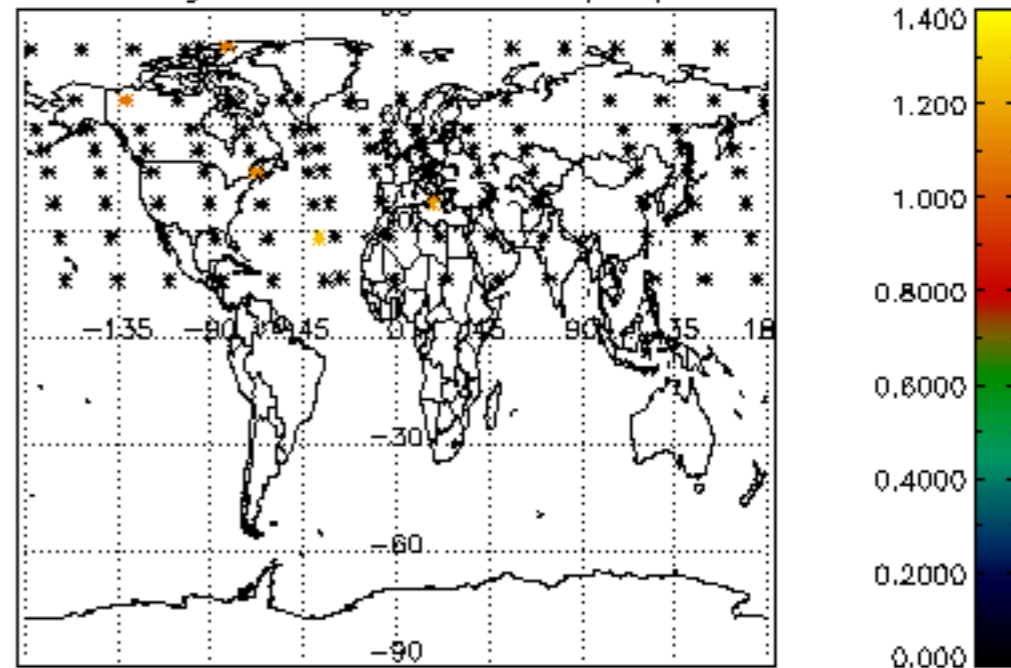
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

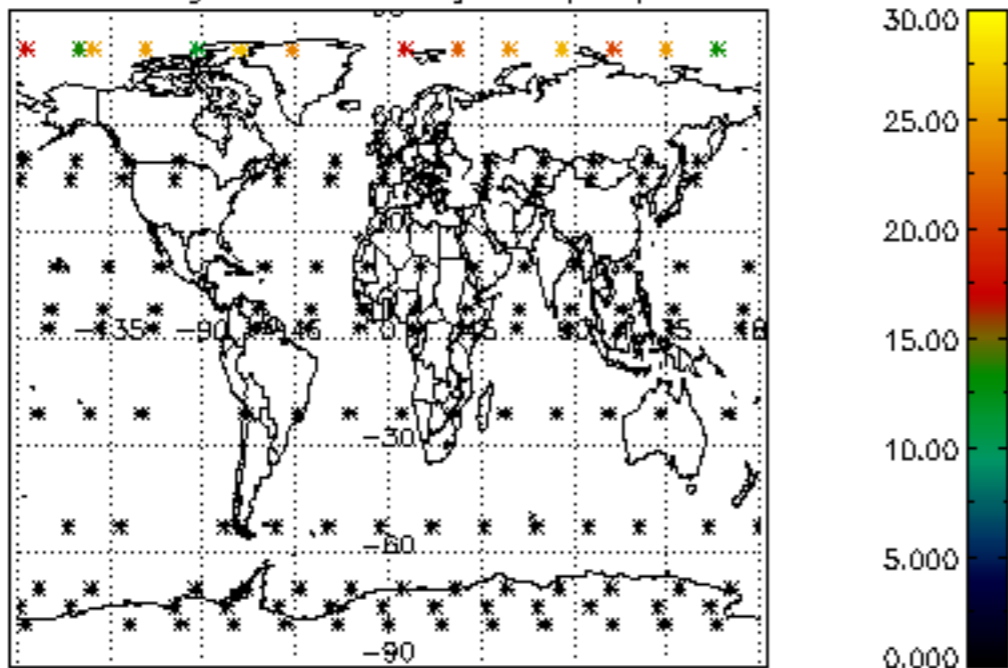


Percentage of saturation errors per profile

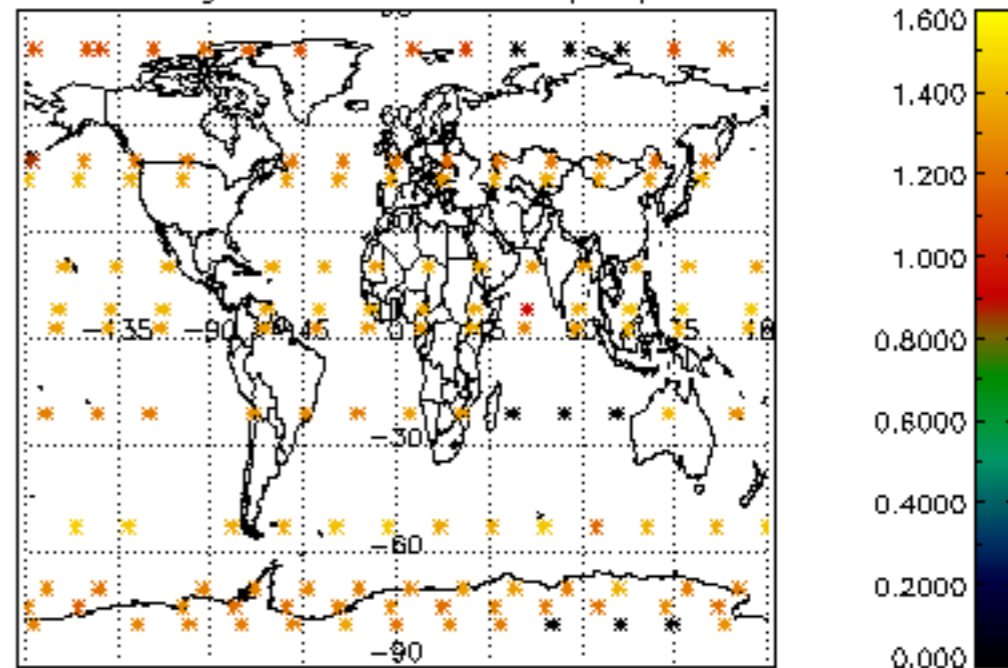




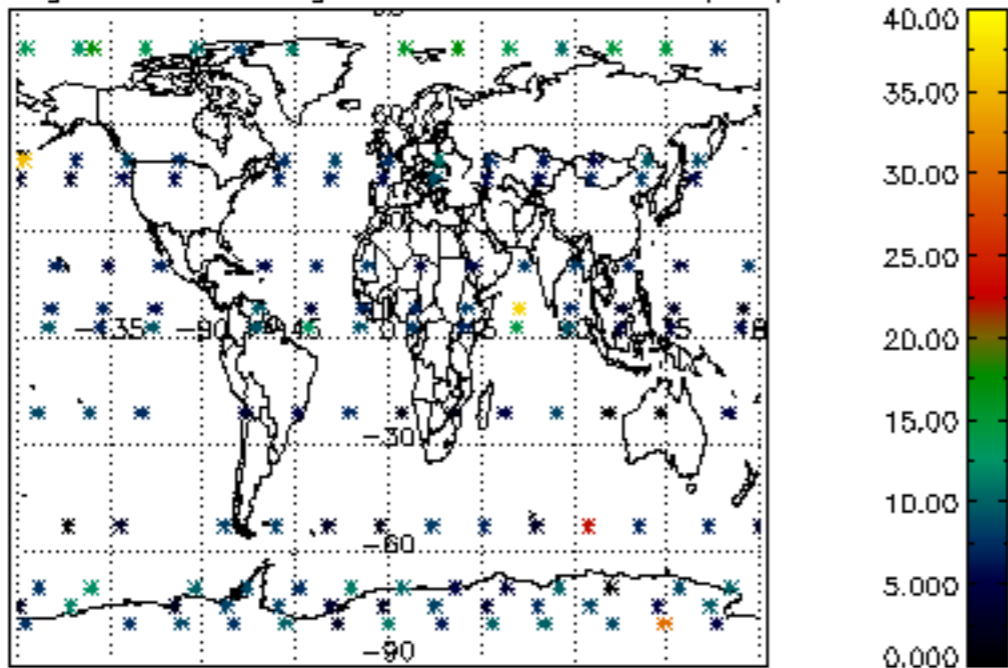
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

