

# GOMOS Level 2 Daily Report

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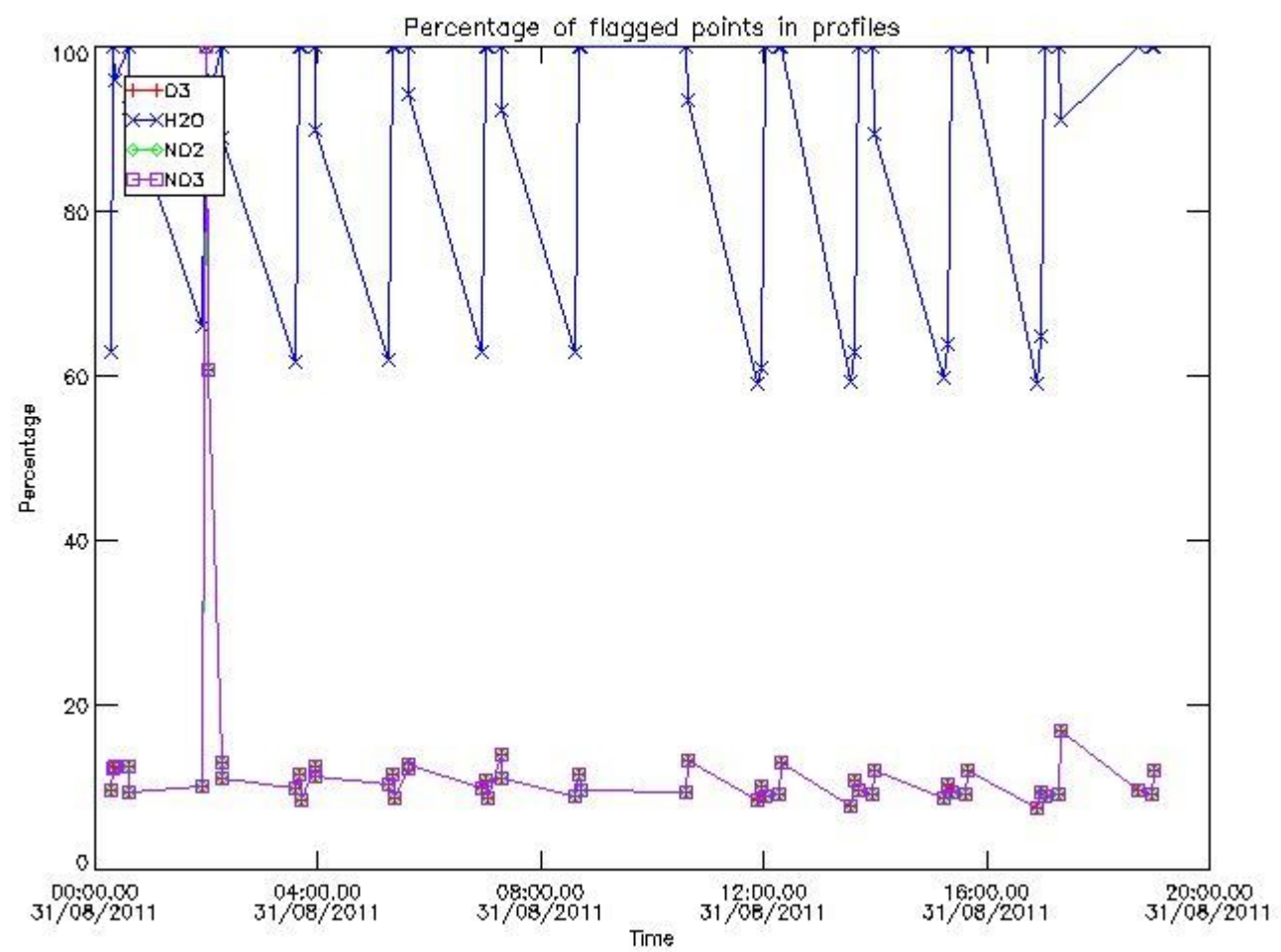
### [6. Auxiliary Data Files used for the production reported in section 2](#)





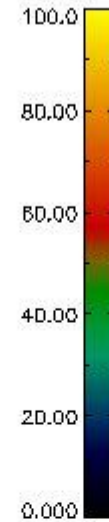
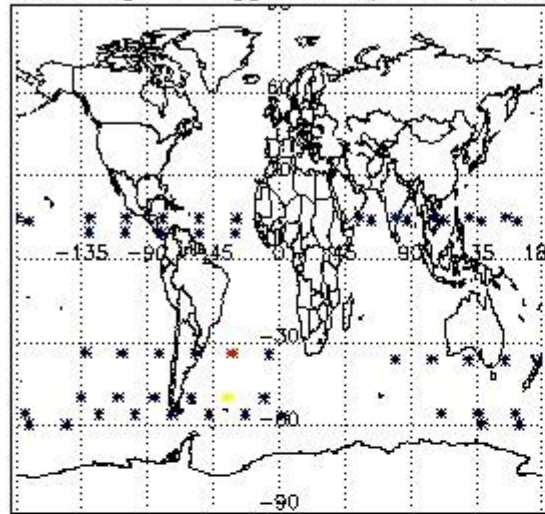




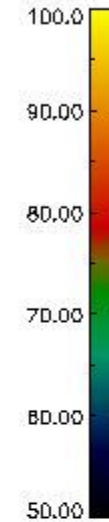
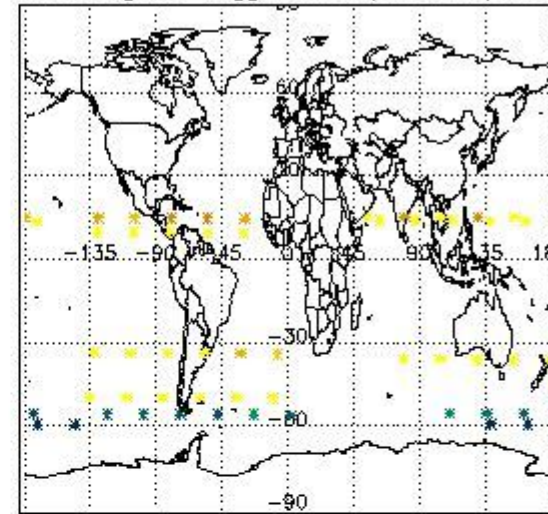


3.2 Plot quality information per product (world map)

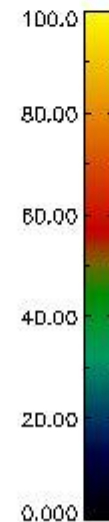
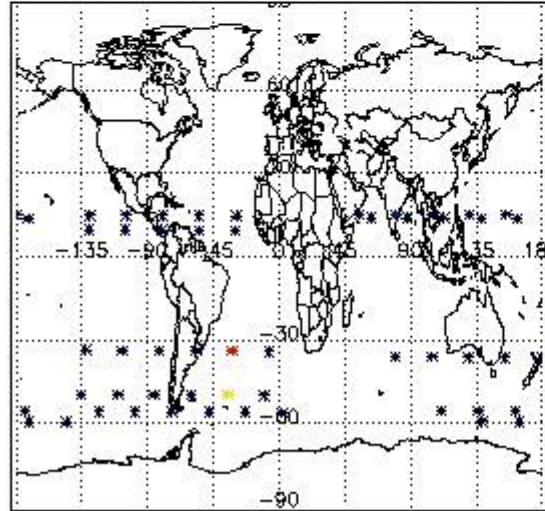
Percentage of flagged data per O3 profile



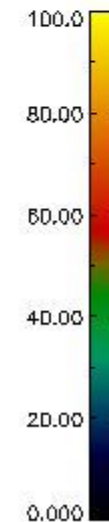
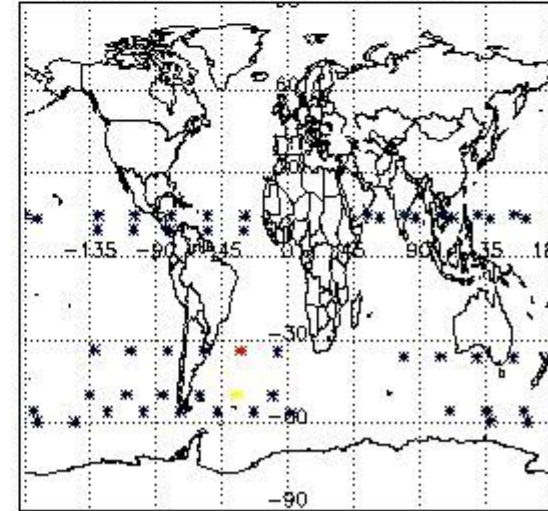
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

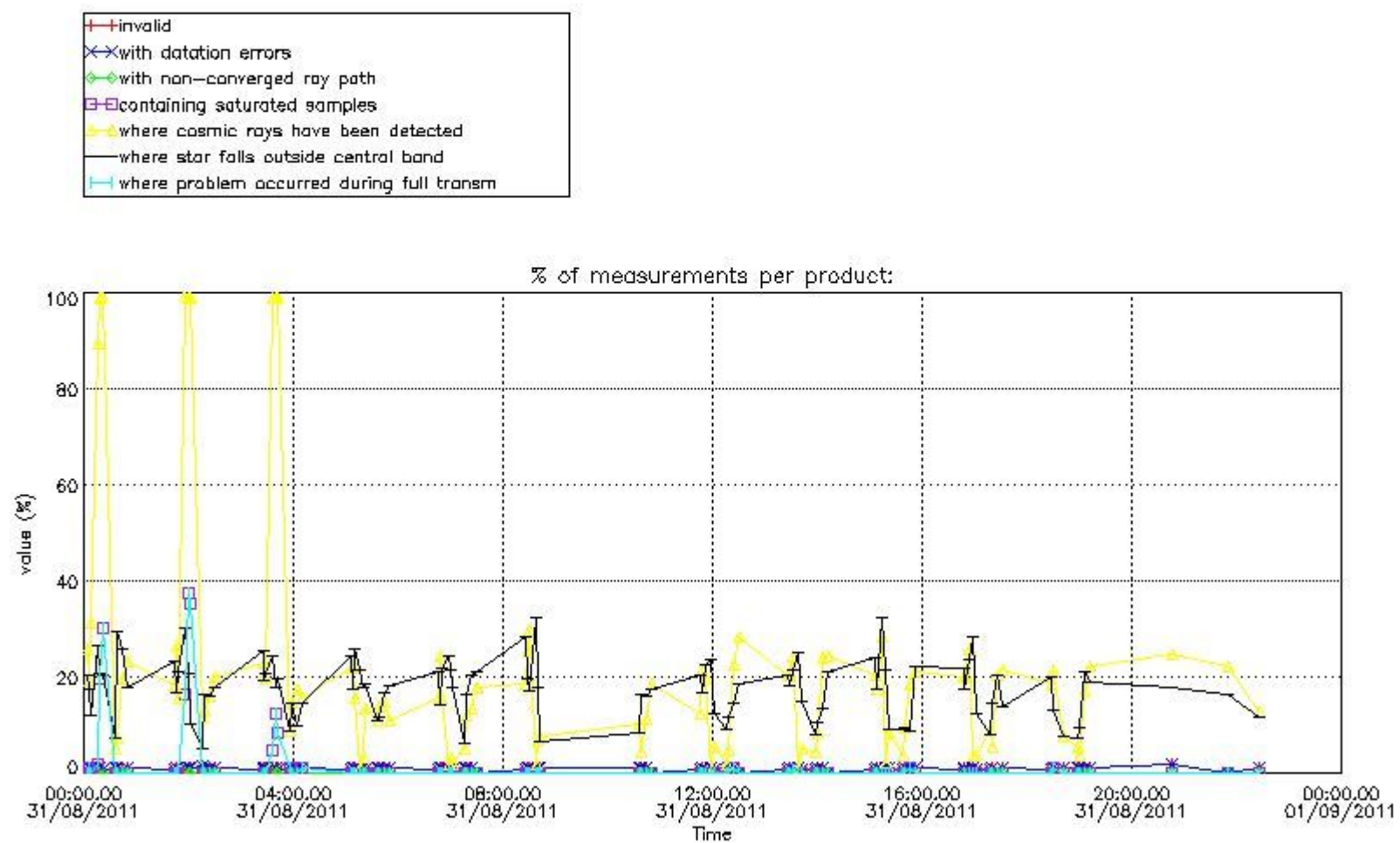


#### 4. Level 1 quality information per product

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.

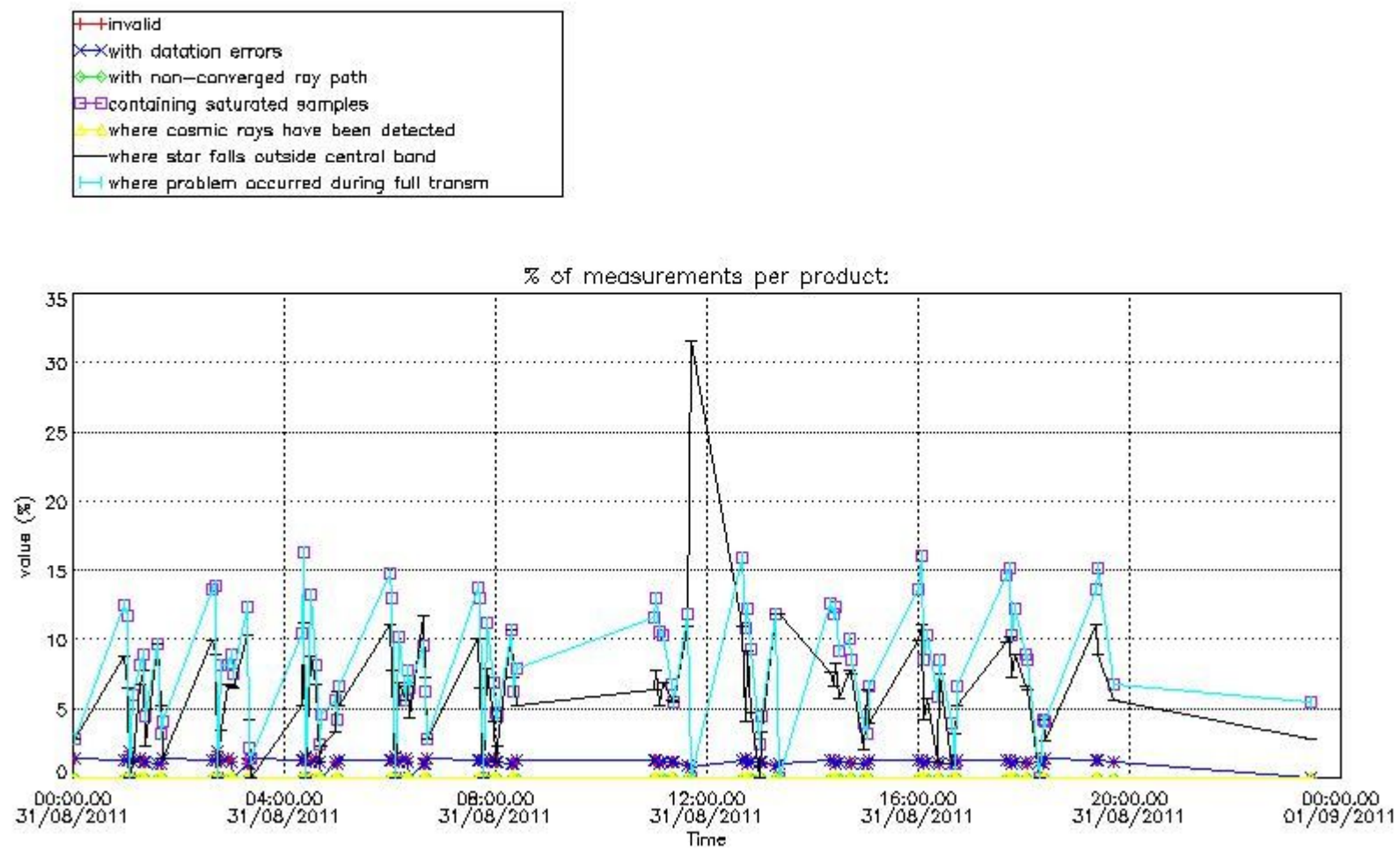
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

###### 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

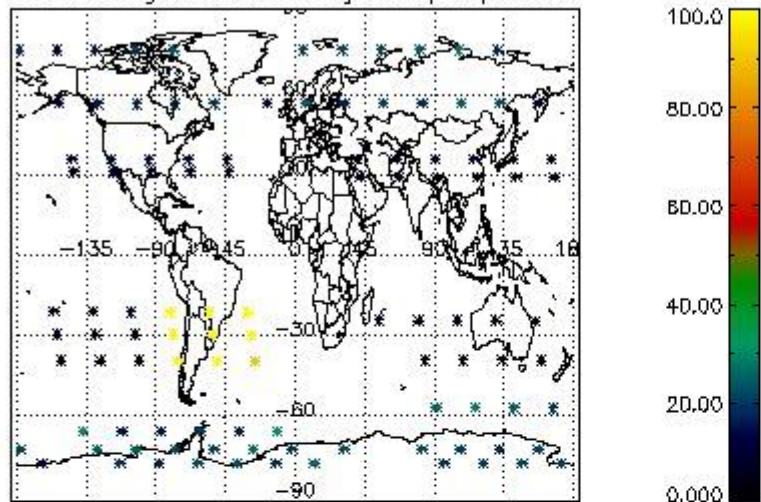




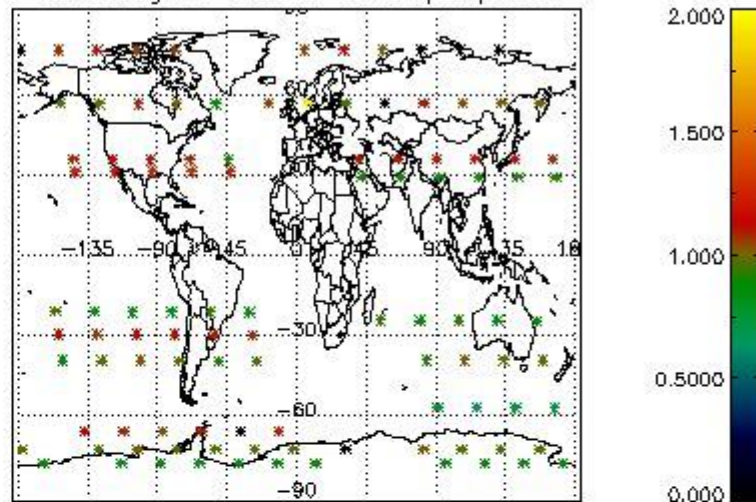
#### 4.2 Plot quality information per product coming from level 1b processing (world map)

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

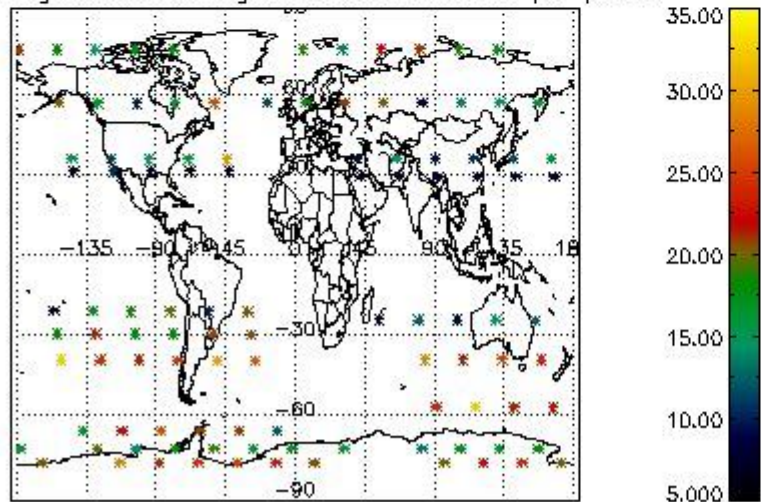
Percentage of cosmic ray hits per profile



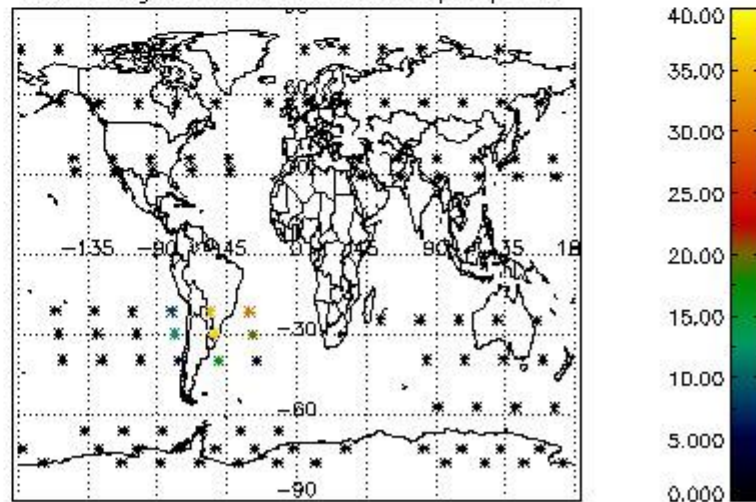
Percentage of datation errors per profile



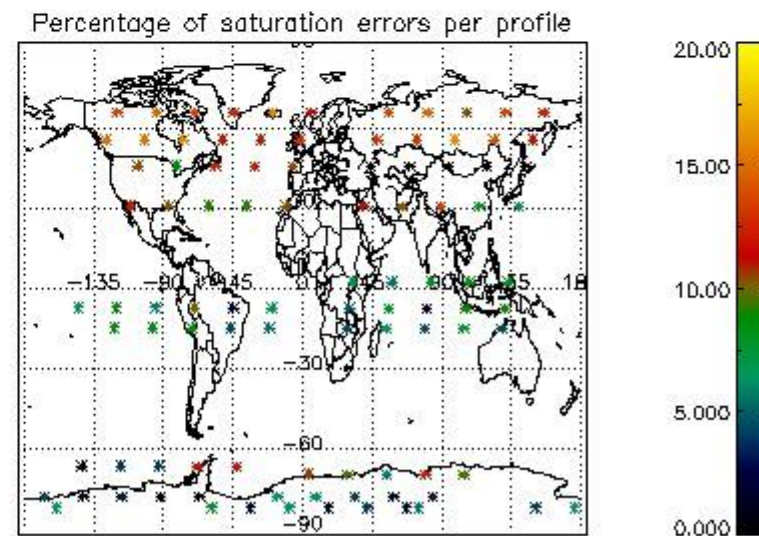
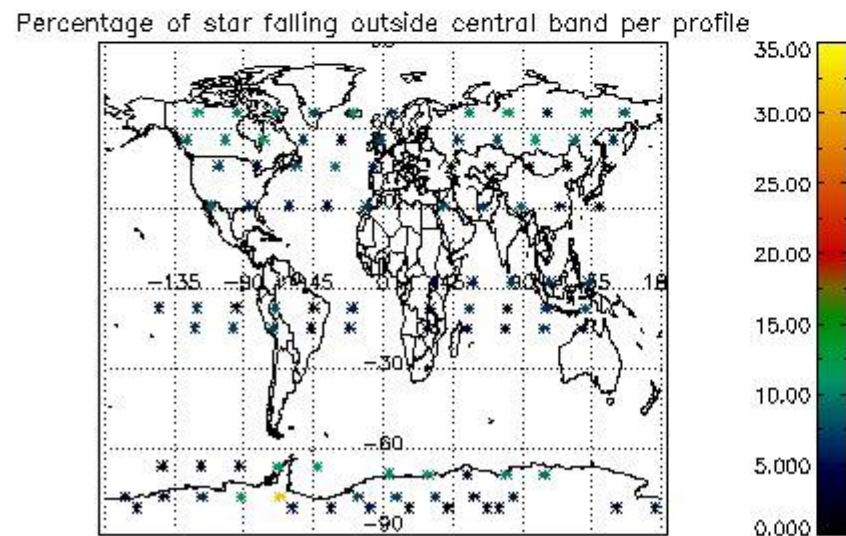
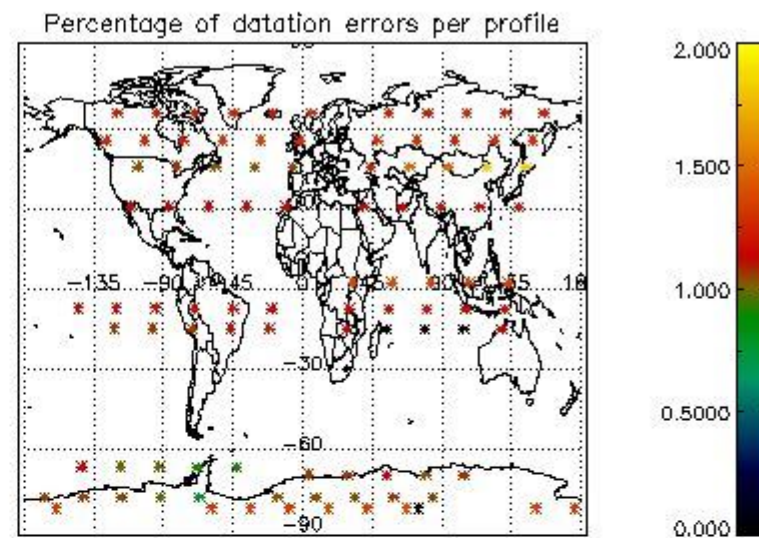
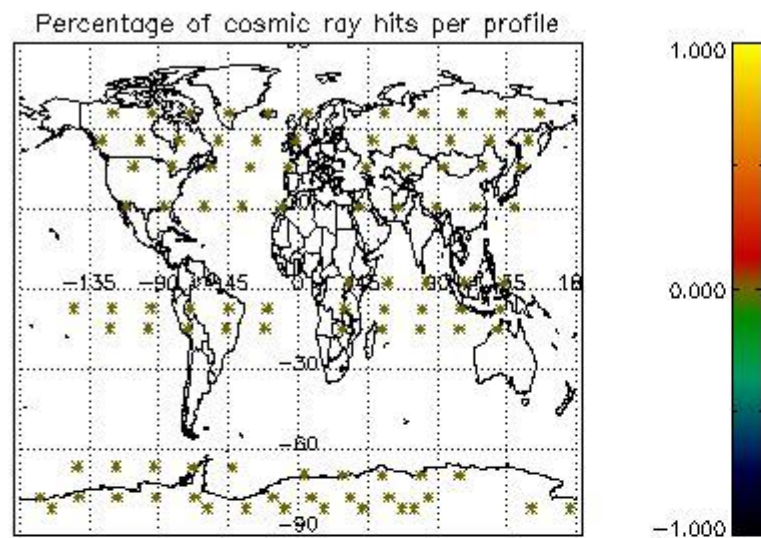
Percentage of star falling outside central band per profile



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

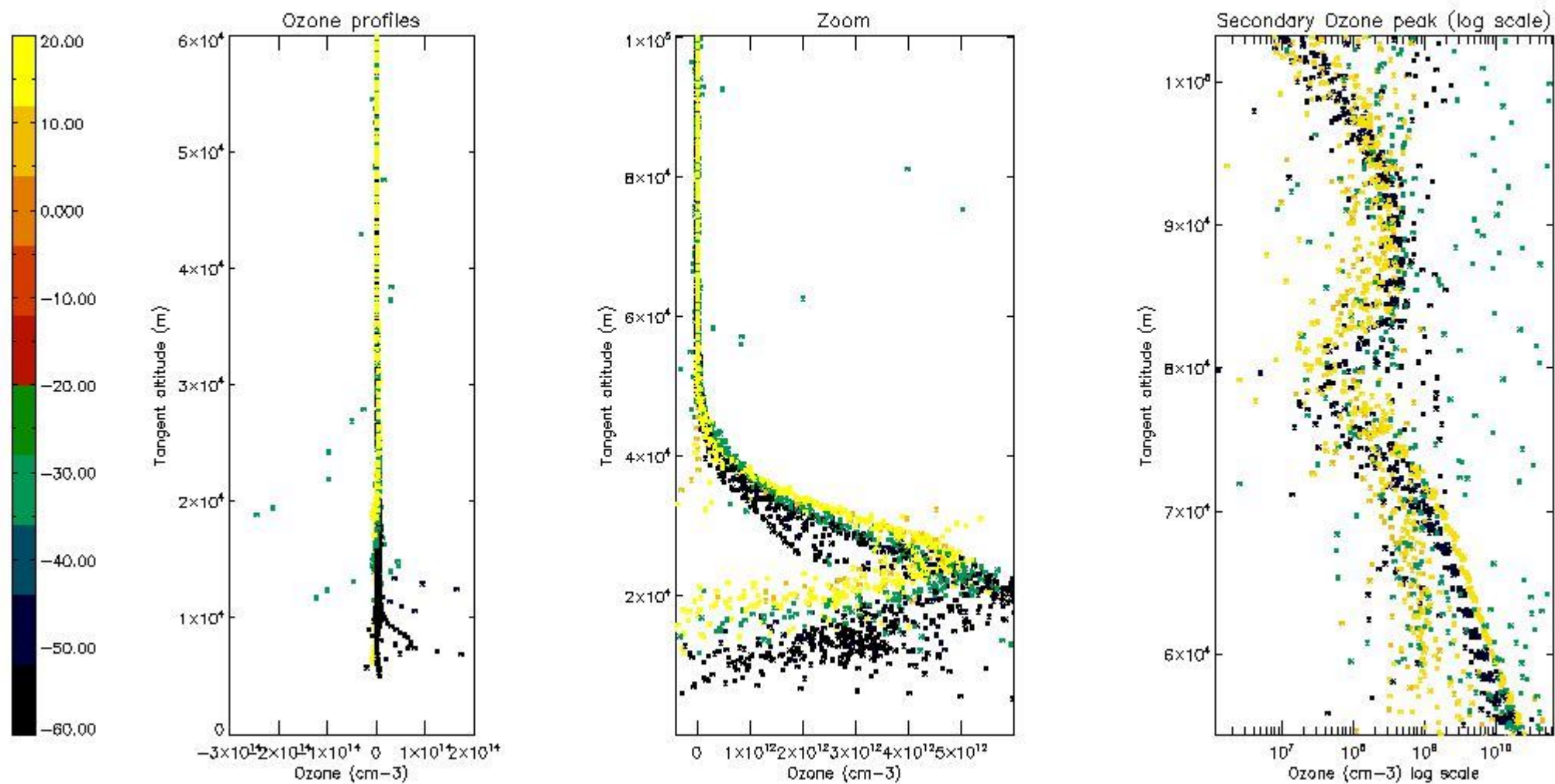
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	28
STD < 20	14

STD < 10	12
STD < 5	8

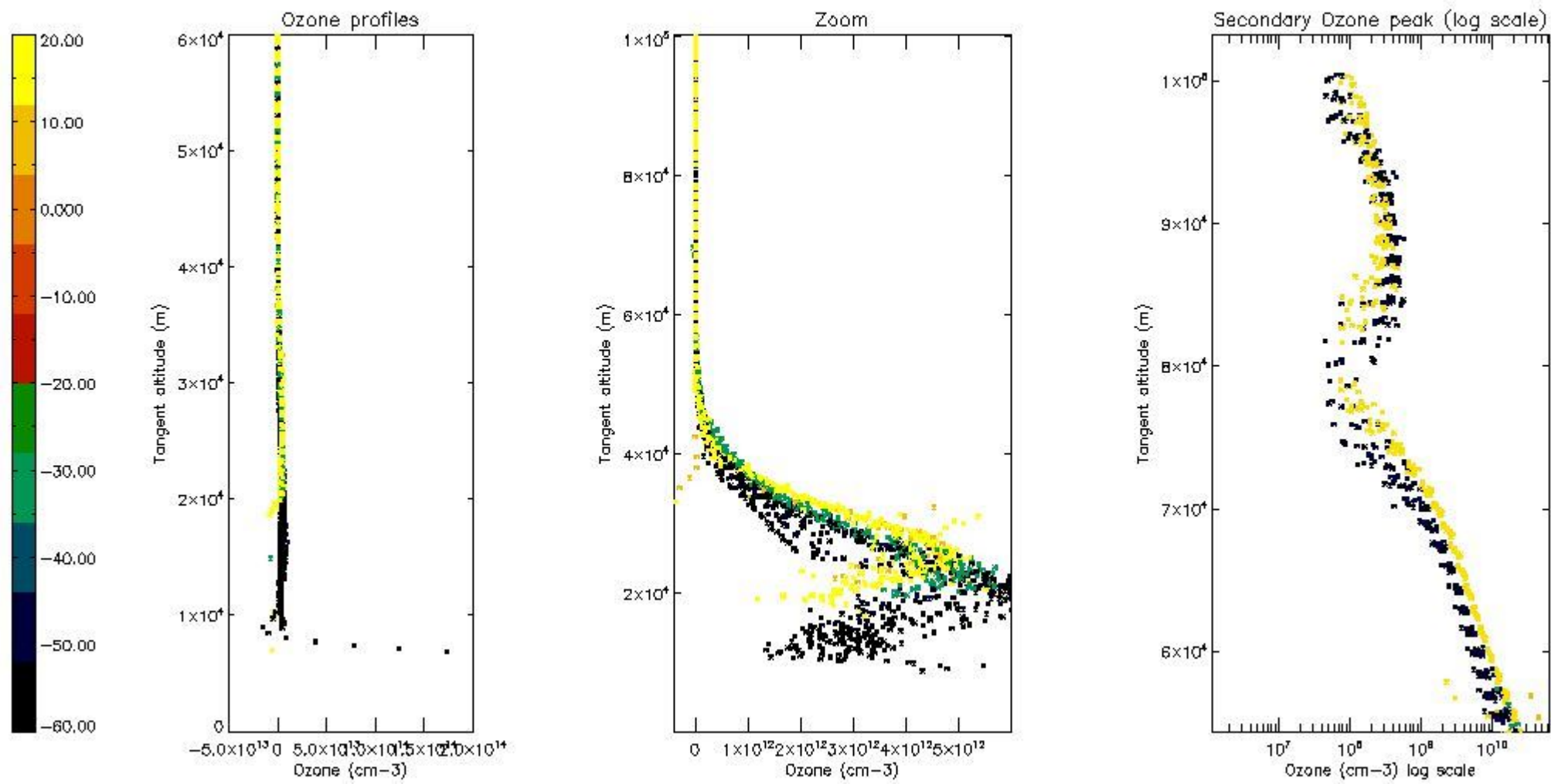
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



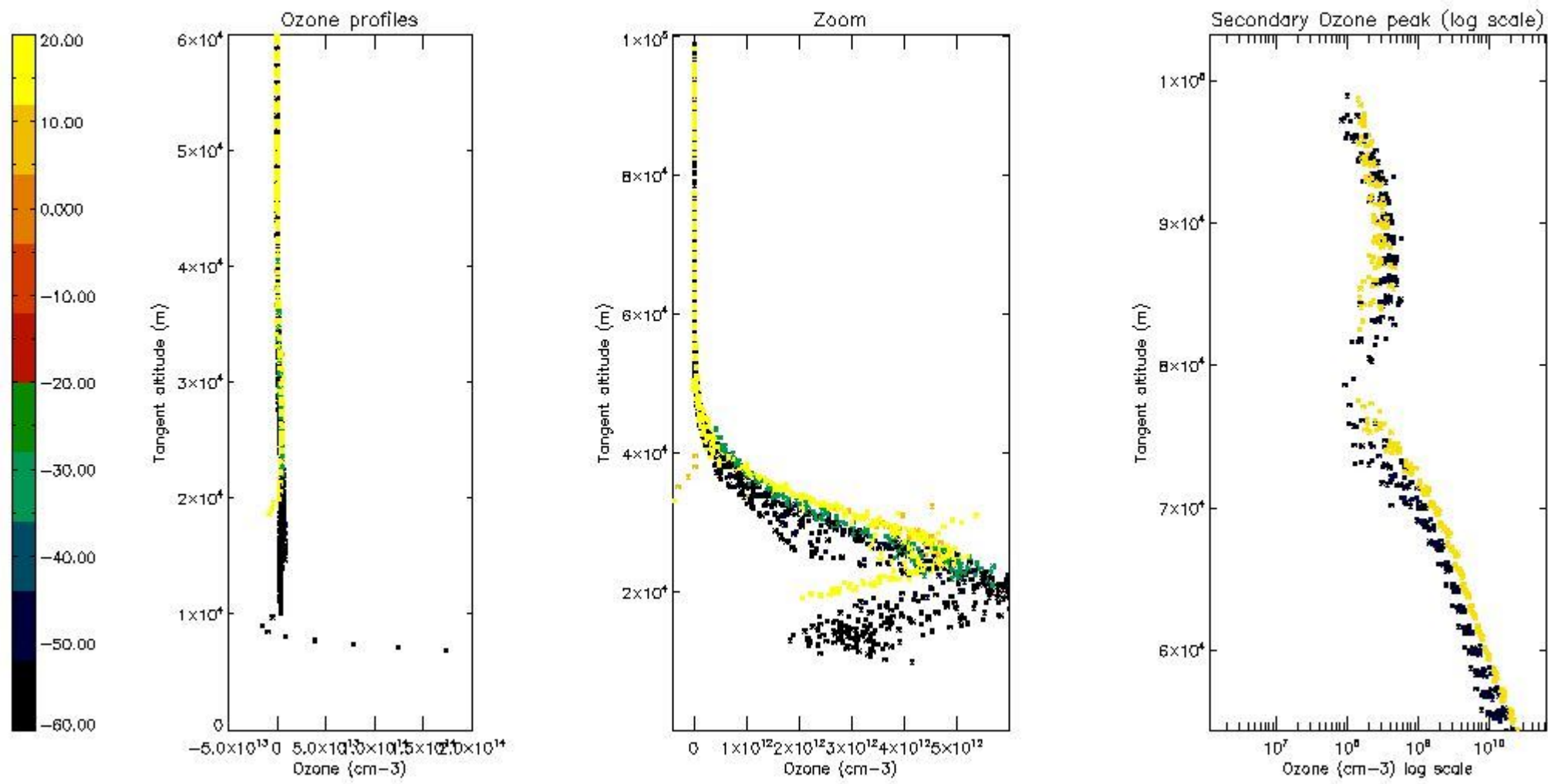
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



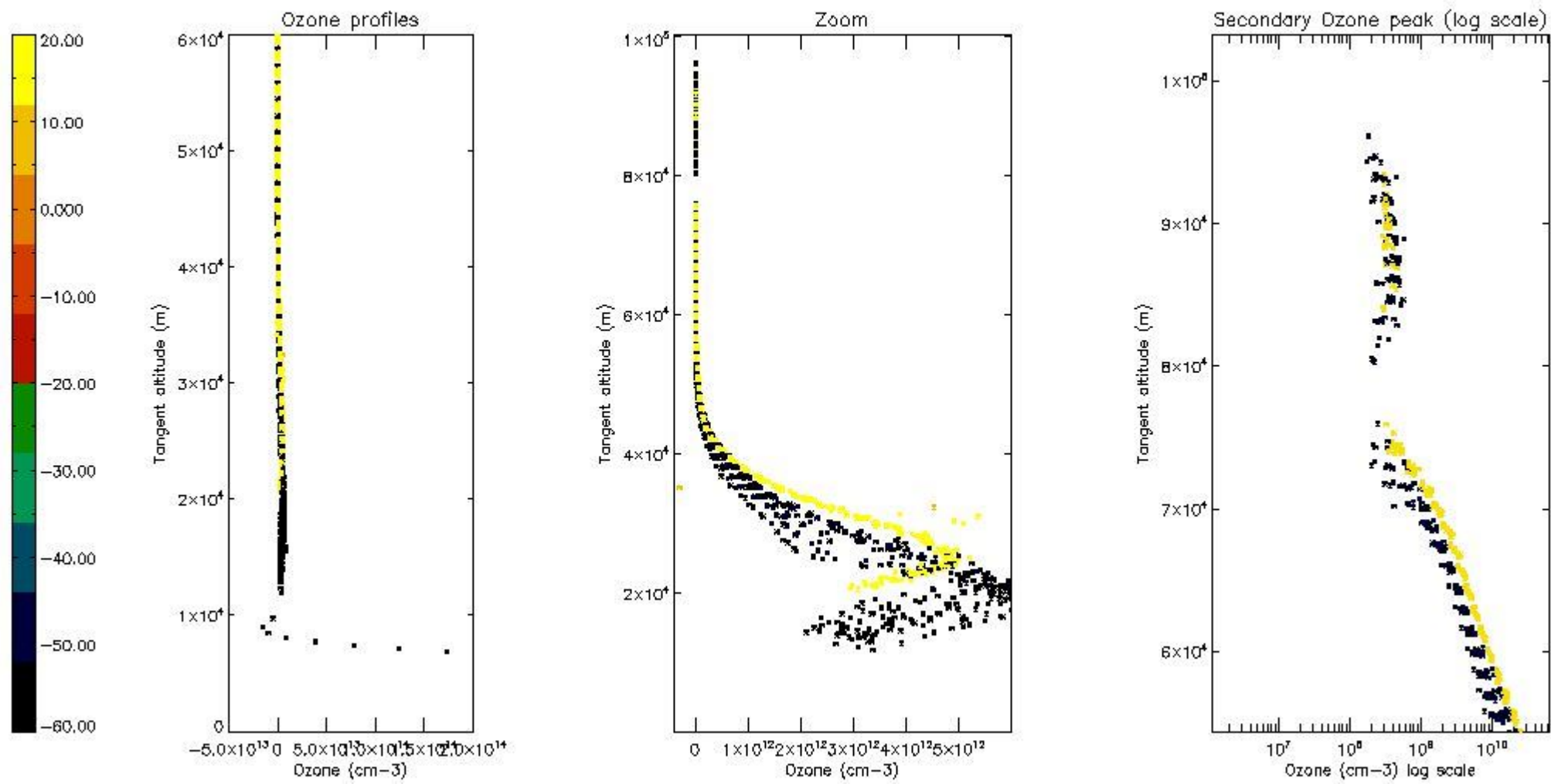
5.4 Plot ozone profiles where  $STD < 10\%$  (dark without errors)

The colorbar represents the latitude.



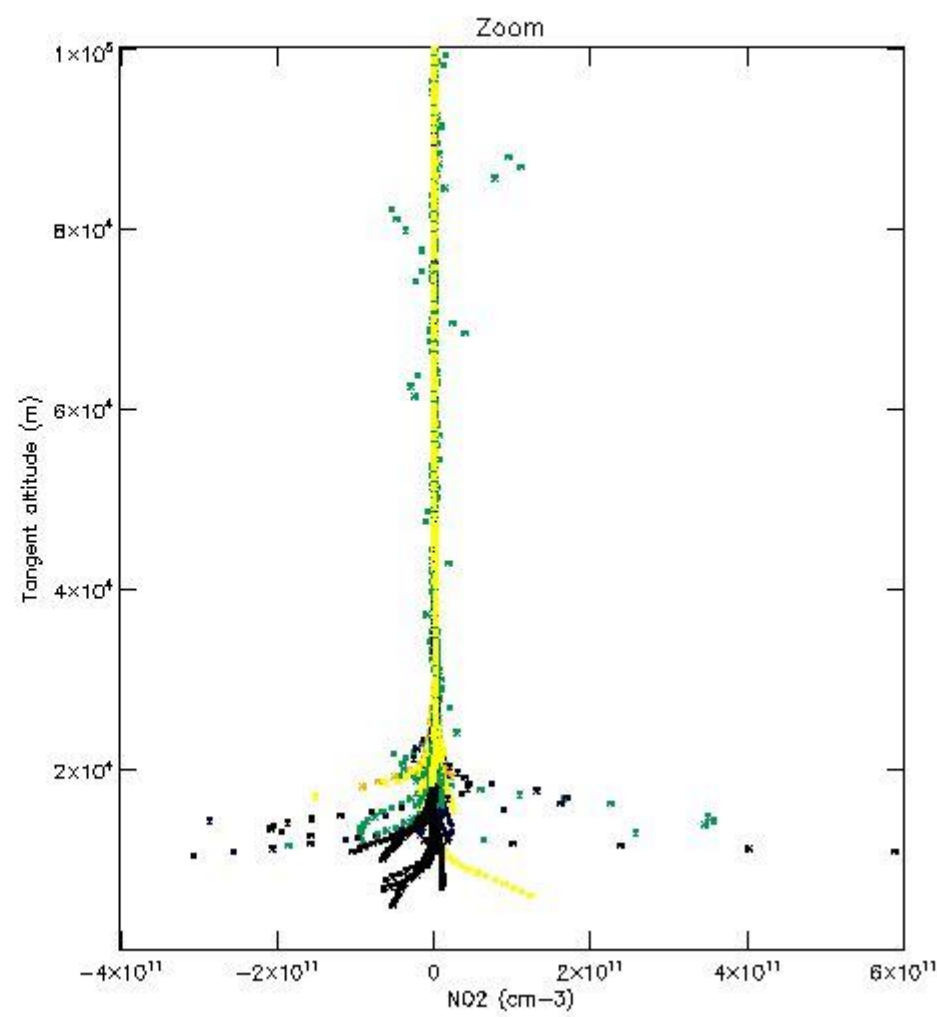
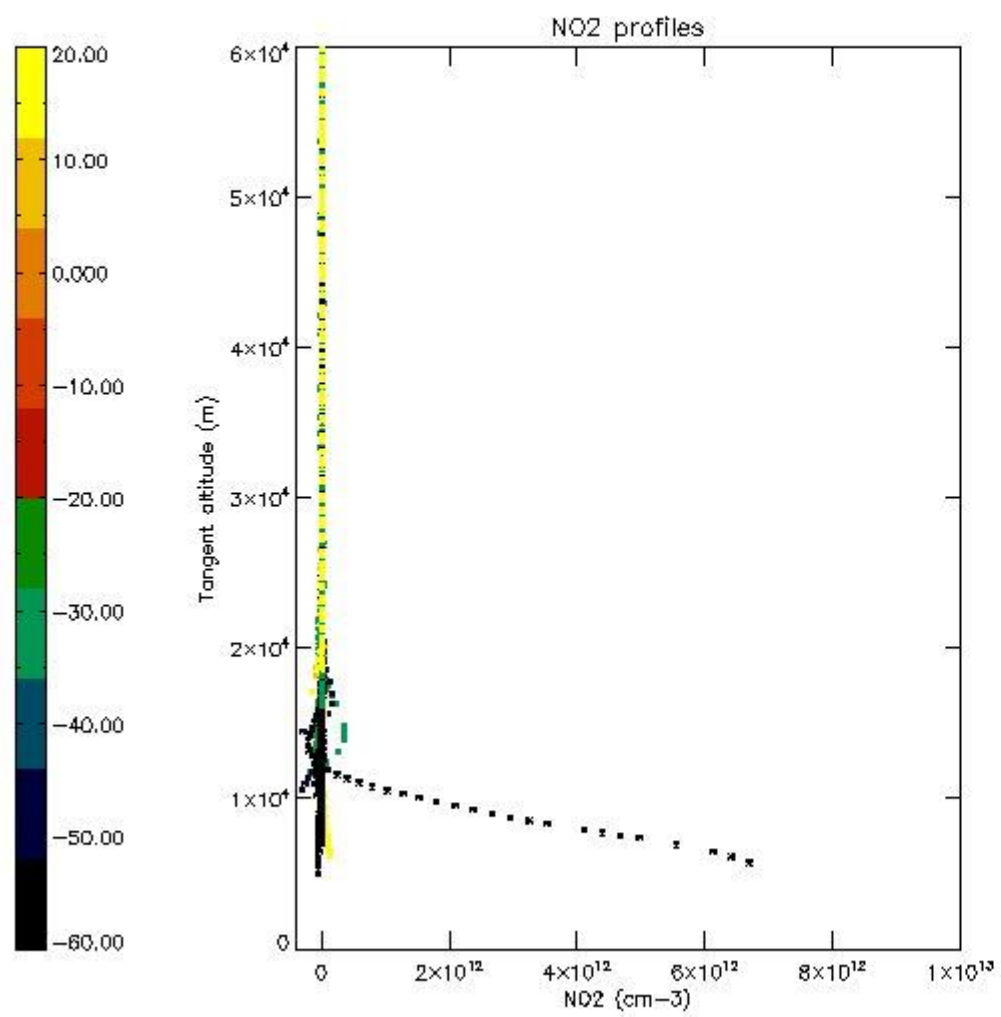
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



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

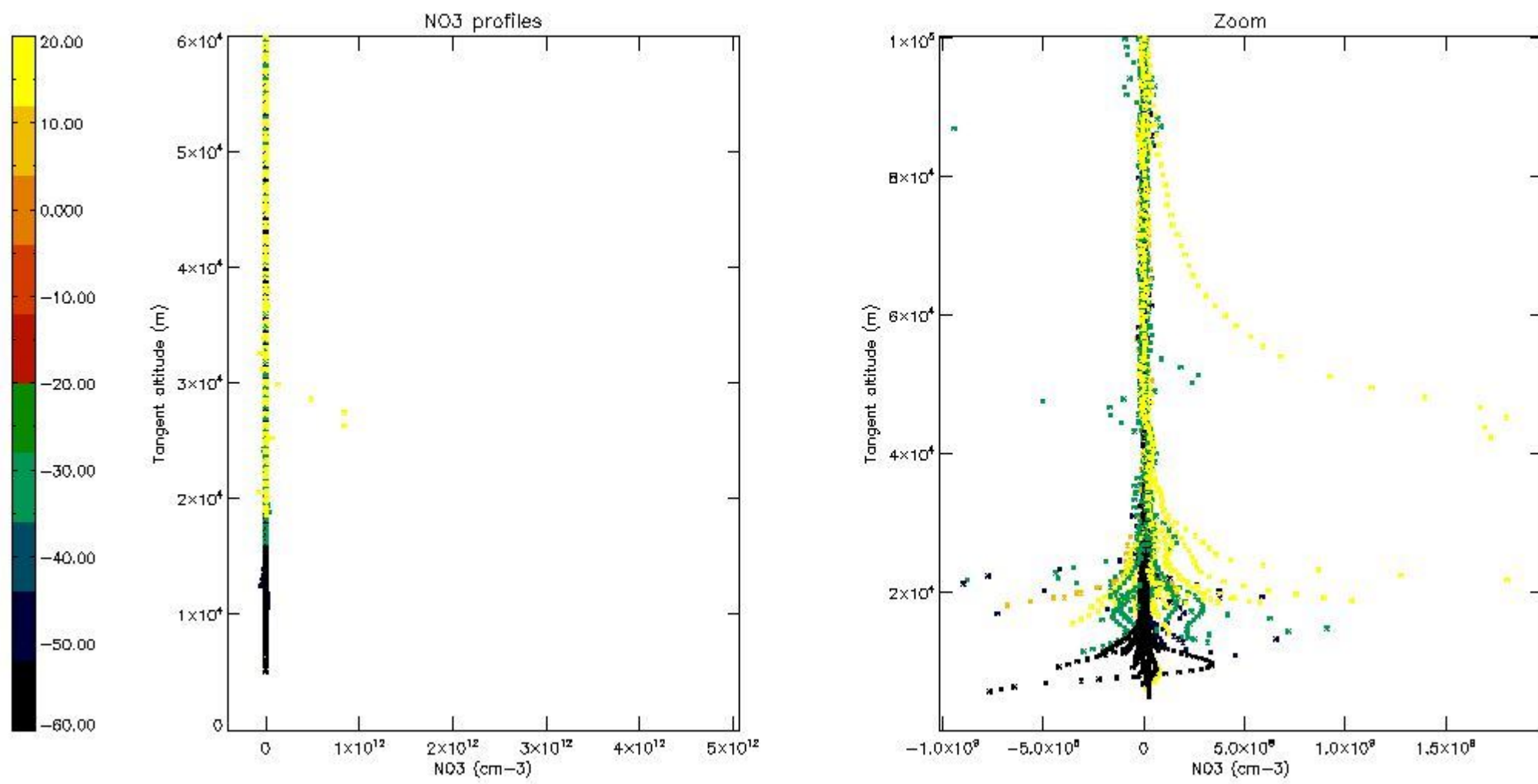
The colorbar represents the latitude.



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

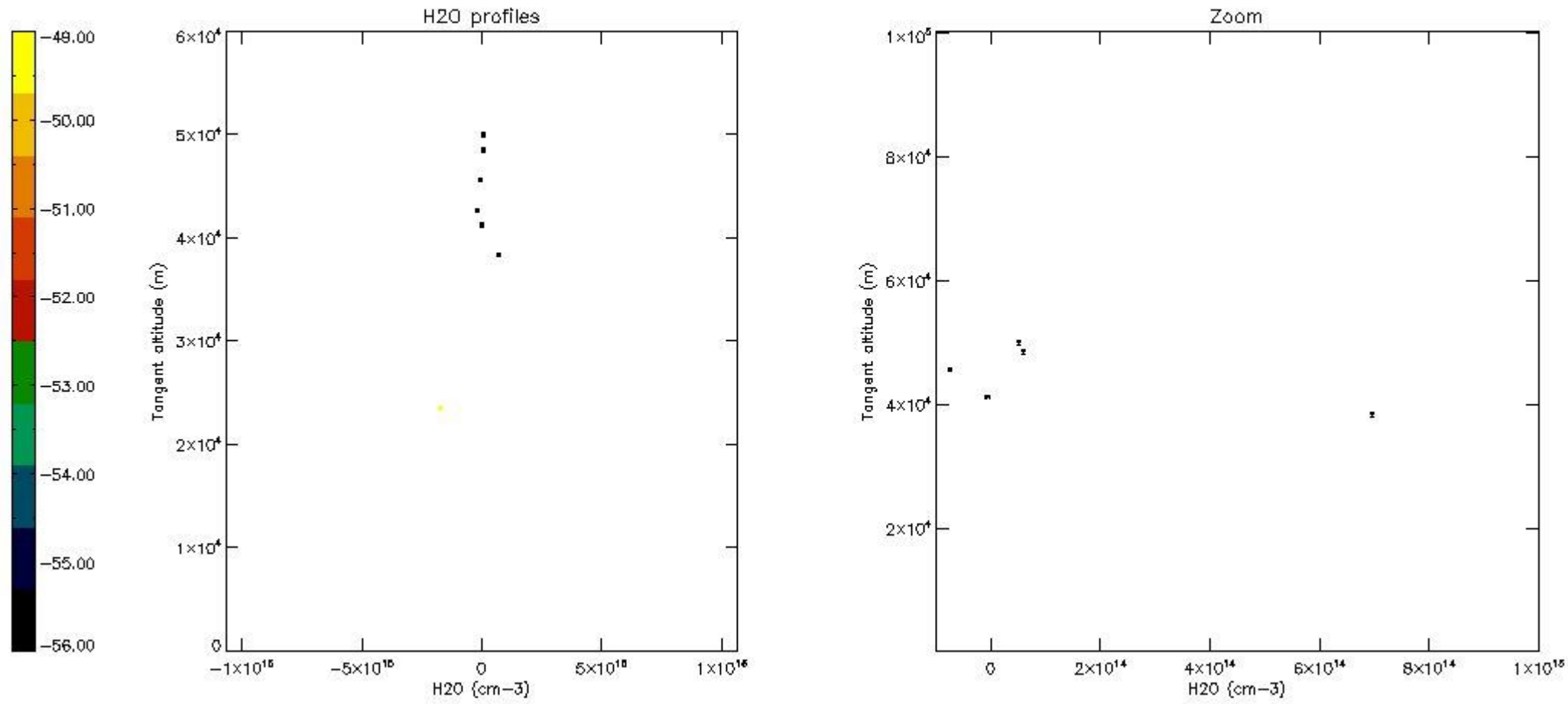
The colorbar represents the latitude.





5.8 Plot H<sub>2</sub>O 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	31-AUG-2011 00:01:49
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	31-AUG-2011 00:01:49
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	31-AUG-2011 00:01:49

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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	24APR2013 17:32:30
Data source version	GOMOS/6.01
Start time of products	31-08-2011 (31AUG2011 00:00:00)
Stop time of products	01-09-2011 (01SEP2011 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	204
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__2PRFIN20110831_000149_000000363106_00102_49685_9019.N1	31-AUG-2011 00:01:49	Bright	36.000	17	78Bet Gem	1.1610	4500.0	72	49685	No
2	GOM_NL__2PRFIN20110831_000438_000000563106_00102_49685_9020.N1	31-AUG-2011 00:04:38	Twilight	56.000	151	13Mu Gem	2.8900	3000.0	112	49685	No
3	GOM_NL__2PRFIN20110831_000624_000000523106_00102_49685_9021.N1	31-AUG-2011 00:06:24	Twilight	51.500	44	24Gam Gem	1.9280	11000.	103	49685	No
4	GOM_NL__2PRFIN20110831_000828_000000423106_00102_49685_9022.N1	31-AUG-2011 00:08:28	Twilight	41.500	8	10Alp CMi	0.40000	6500.0	83	49685	No
5	GOM_NL__2PRFIN20110831_001605_000000533106_00102_49685_9023.N1	31-AUG-2011 00:16:05	Dark	53.000	1	9Alp CMa	-1.4400	11000.	106	49685	No
6	GOM_NL__2PRFIN20110831_001850_000000463106_00102_49685_9024.N1	31-AUG-2011 00:18:50	Dark	46.000	23	21Eps CMa	1.5020	26000.	92	49685	No
7	GOM_NL__2PRFIN20110831_002111_000000613106_00102_49685_9025.N1	31-AUG-2011 00:21:11	Dark	61.000	139	9Bet Lep	2.8330	5600.0	122	49685	No
8	GOM_NL__2PRFIN20110831_003550_000000413106_00103_49686_9016.N1	31-AUG-2011 00:35:50	Dark	40.500	143	Alp Hyi	2.8570	7200.0	81	49686	No
9	GOM_NL__2PRFIN20110831_003707_000000553106_00103_49686_9017.N1	31-AUG-2011 00:37:07	Dark	54.500	9	Alp Eri	0.45300	24000.	109	49686	No
10	GOM_NL__2PRFIN20110831_004303_000000573106_00103_49686_9018.N1	31-AUG-2011 00:43:03	Straylight	56.500	84	Alp Phe	2.3970	4500.0	113	49686	No
11	GOM_NL__2PRFIN20110831_004910_000000483106_00103_49686_9019.N1	31-AUG-2011 00:49:10	Straylight	47.500	18	24Alp PsA	1.1660	9700.0	95	49686	No
12	GOM_NL__2PRFIN20110831_005834_000000403106_00103_49686_9020.N1	31-AUG-2011 00:58:34	Bright	40.000	162	34Alp Aqr	2.9440	5350.0	80	49686	No
13	GOM_NL__2PRFIN20110831_010133_000000393106_00103_49686_9021.N1	31-AUG-2011 01:01:33	Bright	38.500	61	8Eps Peg	2.1000	3900.0	77	49686	No
14	GOM_NL__2PRFIN20110831_010426_000000273106_00103_49686_9022.N1	31-AUG-2011 01:04:26	Twilight	27.000	90	54Alp Peg	2.4870	11000.	54	49686	No
15	GOM_NL__2PRFIN20110831_010837_000000423106_00103_49686_9023.N1	31-AUG-2011 01:08:37	Bright	41.500	164	44Eta Peg	2.9480	5400.0	83	49686	No
16	GOM_NL__2PRFIN20110831_011630_000000373106_00103_49686_9024.N1	31-AUG-2011 01:16:30	Bright	37.000	89	5Alp Cep	2.4510	8000.0	74	49686	No
17	GOM_NL__2PRFIN20110831_011916_000000453106_00103_49686_9025.N1	31-AUG-2011 01:19:16	Bright	45.000	74	11Bet Cas	2.2680	6600.0	90	49686	No
18	GOM_NL__2PRFIN20110831_012123_000000453106_00103_49686_9026.N1	31-AUG-2011 01:21:23	Bright	44.500	76	27Gam Cas	2.3000	30000.	89	49686	No
19	GOM_NL__2PRFIN20110831_013656_000000473106_00103_49686_9027.N1	31-AUG-2011 01:36:56	Bright	46.500	42	34Bet Aur	1.9000	10200.	93	49686	No
20	GOM_NL__2PRFIN20110831_013945_000000483106_00103_49686_9028.N1	31-AUG-2011 01:39:45	Bright	47.500	107	37The Aur	2.6490	11000.	95	49686	No
21	GOM_NL__2PRFIN20110831_014203_000000373106_00103_49686_9029.N1	31-AUG-2011 01:42:03	Bright	37.000	17	78Bet Gem	1.1610	4500.0	74	49686	No
22	GOM_NL__2PRFIN20110831_014453_000000583106_00103_49686_9030.N1	31-AUG-2011 01:44:53	Twilight	58.000	151	13Mu Gem	2.8900	3000.0	116	49686	No
23	GOM_NL__2PRFIN20110831_014638_000000513106_00103_49686_9031.N1	31-AUG-2011 01:46:38	Twilight	51.000	44	24Gam Gem	1.9280	11000.	102	49686	No
24	GOM_NL__2PRFIN20110831_014842_000000453106_00103_49686_9032.N1	31-AUG-2011 01:48:42	Twilight	45.000	8	10Alp CMi	0.40000	6500.0	90	49686	No
25	GOM_NL__2PRFIN20110831_015619_000000553106_00103_49686_9033.N1	31-AUG-2011 01:56:19	Dark	55.000	1	9Alp CMa	-1.4400	11000.	110	49686	No
26	GOM_NL__2PRFIN20110831_015905_000000463106_00103_49686_9034.N1	31-AUG-2011 01:59:05	Dark	45.500	23	21Eps CMa	1.5020	26000.	91	49686	No
27	GOM_NL__2PRFIN20110831_020126_000000543106_00103_49686_9035.N1	31-AUG-2011 02:01:26	Dark	54.000	139	9Bet Lep	2.8330	5600.0	108	49686	No
28	GOM_NL__2PRFIN20110831_021605_000000393106_00104_49687_9032.N1	31-AUG-2011 02:16:05	Dark	39.000	143	Alp Hyi	2.8570	7200.0	78	49687	No
29	GOM_NL__2PRFIN20110831_021721_000000463106_00104_49687_9033.N1	31-AUG-2011 02:17:21	Dark	46.000	9	Alp Eri	0.45300	24000.	92	49687	No
30	GOM_NL__2PRFIN20110831_022317_000000503106_00104_49687_9034.N1	31-AUG-2011 02:23:17	Straylight	49.500	84	Alp Phe	2.3970	4500.0	99	49687	No
31	GOM_NL__2PRFIN20110831_022924_000000483106_00104_49687_9035.N1	31-AUG-2011 02:29:24	Straylight	47.500	18	24Alp PsA	1.1660	9700.0	95	49687	No
32	GOM_NL__2PRFIN20110831_023848_000000413106_00104_49687_9036.N1	31-AUG-2011 02:38:48	Bright	40.500	162	34Alp Aqr	2.9440	5350.0	81	49687	No
33	GOM_NL__2PRFIN20110831_024147_000000403106_00104_49687_9037.N1	31-AUG-2011 02:41:47	Bright	39.500	61	8Eps Peg	2.1000	3900.0	79	49687	No
34	GOM_NL__2PRFIN20110831_024439_000000273106_00104_49687_9038.N1	31-AUG-2011 02:44:39	Twilight	27.000	90	54Alp Peg	2.4870	11000.	54	49687	No
35	GOM_NL__2PRFIN20110831_024850_000000433106_00104_49687_9039.N1	31-AUG-2011 02:48:50	Bright	43.000	164	44Eta Peg	2.9480	5400.0	86	49687	No
36	GOM_NL__2PRFIN20110831_025644_000000373106_00104_49687_9040.N1	31-AUG-2011 02:56:44	Bright	37.000	89	5Alp Cep	2.4510	8000.0	74	49687	No
37	GOM_NL__2PRFIN20110831_025929_000000453106_00104_49687_9041.N1	31-AUG-2011 02:59:29	Bright	45.000	74	11Bet Cas	2.2680	6600.0	90	49687	No
38	GOM_NL__2PRFIN20110831_030136_000000473106_00104_49687_9042.N1	31-AUG-2011 03:01:36	Bright	46.500	76	27Gam Cas	2.3000	30000.	93	49687	No
39	GOM_NL__2PRFIN20110831_031710_000000493106_00104_49687_9043.N1	31-AUG-2011 03:17:10	Bright	48.500	42	34Bet Aur	1.9000	10200.	97	49687	No
40	GOM_NL__2PRFIN20110831_031959_000000473106_00104_49687_9044.N1	31-AUG-2011 03:19:59	Bright	47.000	107	37The Aur	2.6490	11000.	94	49687	No
41	GOM_NL__2PRFIN20110831_032217_000000363106_00104_49687_9045.N1	31-AUG-2011 03:22:17	Bright	36.000	17	78Bet Gem	1.1610	4500.0	72	49687	No
42	GOM_NL__2PRFIN20110831_032507_000000593106_00104_49687_9046.N1	31-AUG-2011 03:25:07	Twilight	59.000	151	13Mu Gem	2.8900	3000.0	118	49687	No



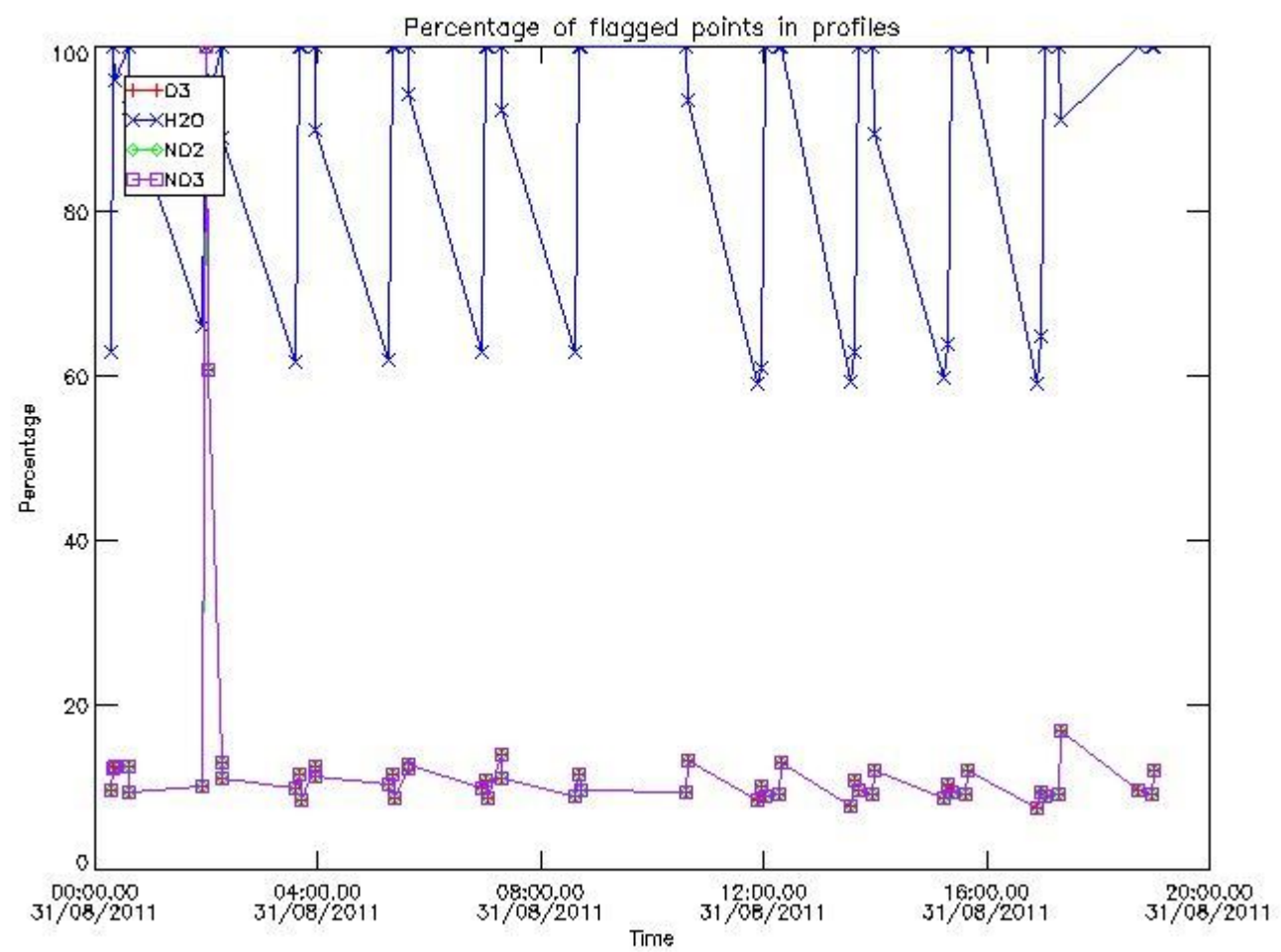


161	GOM_NL__2PRFIN20110831_153918_000000433106_00112_49695_9348.N1	31-AUG-2011 15:39:18	Dark	42.500	9	Alp Eri	0.45300	24000.	85	49695	No
162	GOM_NL__2PRFIN20110831_154514_000000463106_00112_49695_9349.N1	31-AUG-2011 15:45:14	Straylight	45.500	84	Alp Phe	2.3970	4500.0	91	49695	No
163	GOM_NL__2PRFIN20110831_155118_000000503106_00112_49695_9350.N1	31-AUG-2011 15:51:18	Straylight	49.500	18	24Alp PsA	1.1660	9700.0	99	49695	No
164	GOM_NL__2PRFIN20110831_160039_000000413106_00112_49695_9351.N1	31-AUG-2011 16:00:39	Bright	40.500	162	34Alp Aqr	2.9440	5350.0	81	49695	No
165	GOM_NL__2PRFIN20110831_160338_000000413106_00112_49695_9352.N1	31-AUG-2011 16:03:38	Bright	40.500	61	8Eps Peg	2.1000	3900.0	81	49695	No
166	GOM_NL__2PRFIN20110831_160627_000000473106_00112_49695_9353.N1	31-AUG-2011 16:06:27	Bright	47.000	90	54Alp Peg	2.4870	11000.	94	49695	No
167	GOM_NL__2PRFIN20110831_161038_000000443106_00112_49695_9354.N1	31-AUG-2011 16:10:38	Bright	43.500	164	44Eta Peg	2.9480	5400.0	87	49695	No
168	GOM_NL__2PRFIN20110831_162116_000000433106_00112_49695_9355.N1	31-AUG-2011 16:21:16	Bright	43.000	74	11Bet Cas	2.2680	6600.0	86	49695	No
169	GOM_NL__2PRFIN20110831_162323_000000473106_00112_49695_9356.N1	31-AUG-2011 16:23:23	Bright	47.000	76	27Gam Cas	2.3000	30000.	94	49695	No
170	GOM_NL__2PRFIN20110831_163806_000000503106_00112_49695_9357.N1	31-AUG-2011 16:38:06	Bright	50.000	6	13Alp Aur	0.080000	3400.0	100	49695	No
171	GOM_NL__2PRFIN20110831_164151_000000473106_00112_49695_9358.N1	31-AUG-2011 16:41:51	Bright	46.500	107	37The Aur	2.6490	11000.	93	49695	No
172	GOM_NL__2PRFIN20110831_164410_000000383106_00112_49695_9359.N1	31-AUG-2011 16:44:10	Bright	38.000	17	78Bet Gem	1.1610	4500.0	76	49695	No
173	GOM_NL__2PRFIN20110831_164701_000000583106_00112_49695_9360.N1	31-AUG-2011 16:47:01	Tw_i_and_stray	57.500	151	13Mu Gem	2.8900	3000.0	115	49695	No
174	GOM_NL__2PRFIN20110831_164848_000000523106_00112_49695_9361.N1	31-AUG-2011 16:48:48	Tw_i_and_stray	52.000	44	24Gam Gem	1.9280	11000.	104	49695	No
175	GOM_NL__2PRFIN20110831_165325_000000683106_00112_49695_9362.N1	31-AUG-2011 16:53:25	Dark	67.500	14	58Alp Ori	0.87000	3000.0	135	49695	No
176	GOM_NL__2PRFIN20110831_165831_000000553106_00112_49695_9363.N1	31-AUG-2011 16:58:31	Dark	54.500	1	9Alp CMa	-1.4400	11000.	109	49695	No
177	GOM_NL__2PRFIN20110831_170241_000000573106_00112_49695_9364.N1	31-AUG-2011 17:02:41	Dark	56.500	101	11Alp Lep	2.5820	7000.0	113	49695	No
178	GOM_NL__2PRFIN20110831_171740_000000563106_00113_49696_9380.N1	31-AUG-2011 17:17:40	Dark	55.500	157	The1Eri	2.9060	9300.0	111	49696	No
179	GOM_NL__2PRFIN20110831_171933_000000453106_00113_49696_9381.N1	31-AUG-2011 17:19:33	Dark	45.000	9	Alp Eri	0.45300	24000.	90	49696	No
180	GOM_NL__2PRFIN20110831_172529_000000523106_00113_49696_9382.N1	31-AUG-2011 17:25:29	Straylight	51.500	84	Alp Phe	2.3970	4500.0	103	49696	No
181	GOM_NL__2PRFIN20110831_173132_000000443106_00113_49696_9383.N1	31-AUG-2011 17:31:32	Straylight	44.000	18	24Alp PsA	1.1660	9700.0	88	49696	No
182	GOM_NL__2PRFIN20110831_174053_000000413106_00113_49696_9384.N1	31-AUG-2011 17:40:53	Bright	41.000	162	34Alp Aqr	2.9440	5350.0	82	49696	No
183	GOM_NL__2PRFIN20110831_174352_000000403106_00113_49696_9385.N1	31-AUG-2011 17:43:52	Bright	39.500	61	8Eps Peg	2.1000	3900.0	79	49696	No
184	GOM_NL__2PRFIN20110831_174641_000000493106_00113_49696_9386.N1	31-AUG-2011 17:46:41	Bright	48.500	90	54Alp Peg	2.4870	11000.	97	49696	No
185	GOM_NL__2PRFIN20110831_175052_000000453106_00113_49696_9387.N1	31-AUG-2011 17:50:52	Bright	45.000	164	44Eta Peg	2.9480	5400.0	90	49696	No
186	GOM_NL__2PRFIN20110831_180129_000000453106_00113_49696_9388.N1	31-AUG-2011 18:01:29	Bright	45.000	74	11Bet Cas	2.2680	6600.0	90	49696	No
187	GOM_NL__2PRFIN20110831_180336_000000473106_00113_49696_9389.N1	31-AUG-2011 18:03:36	Bright	47.000	76	27Gam Cas	2.3000	30000.	94	49696	No
188	GOM_NL__2PRFIN20110831_181820_000000443106_00113_49696_9390.N1	31-AUG-2011 18:18:20	Bright	44.000	6	13Alp Aur	0.080000	3400.0	88	49696	No
189	GOM_NL__2PRFIN20110831_182205_000000483106_00113_49696_9391.N1	31-AUG-2011 18:22:05	Bright	47.500	107	37The Aur	2.6490	11000.	95	49696	No
190	GOM_NL__2PRFIN20110831_182424_000000373106_00113_49696_9392.N1	31-AUG-2011 18:24:24	Bright	37.000	17	78Bet Gem	1.1610	4500.0	74	49696	No
191	GOM_NL__2PRFIN20110831_182716_000000573106_00113_49696_9393.N1	31-AUG-2011 18:27:16	Tw_i_and_stray	57.000	151	13Mu Gem	2.8900	3000.0	114	49696	No
192	GOM_NL__2PRFIN20110831_182902_000000493106_00113_49696_9394.N1	31-AUG-2011 18:29:02	Tw_i_and_stray	49.000	44	24Gam Gem	1.9280	11000.	98	49696	No
193	GOM_NL__2PRFIN20110831_184257_000000543106_00113_49696_9395.N1	31-AUG-2011 18:42:57	Dark	53.500	101	11Alp Lep	2.5820	7000.0	107	49696	No
194	GOM_NL__2PRFIN20110831_185755_000000553106_00114_49697_9408.N1	31-AUG-2011 18:57:55	Dark	55.000	157	The1Eri	2.9060	9300.0	110	49697	No
195	GOM_NL__2PRFIN20110831_185947_000000433106_00114_49697_9409.N1	31-AUG-2011 18:59:47	Dark	42.500	9	Alp Eri	0.45300	24000.	85	49697	No
196	GOM_NL__2PRFIN20110831_190543_000000533106_00114_49697_9410.N1	31-AUG-2011 19:05:43	Straylight	52.500	84	Alp Phe	2.3970	4500.0	105	49697	No
197	GOM_NL__2PRFIN20110831_191147_000000483106_00114_49697_9411.N1	31-AUG-2011 19:11:47	Straylight	47.500	18	24Alp PsA	1.1660	9700.0	95	49697	No
198	GOM_NL__2PRFIN20110831_192107_000000413106_00114_49697_9412.N1	31-AUG-2011 19:21:07	Bright	40.500	162	34Alp Aqr	2.9440	5350.0	81	49697	No
199	GOM_NL__2PRFIN20110831_192406_000000403106_00114_49697_9413.N1	31-AUG-2011 19:24:06	Bright	39.500	61	8Eps Peg	2.1000	3900.0	79	49697	No
200	GOM_NL__2PRFIN20110831_194143_000000453106_00114_49697_9414.N1	31-AUG-2011 19:41:43	Bright	44.500	74	11Bet Cas	2.2680	6600.0	89	49697	No
201	GOM_NL__2PRFIN20110831_204558_000000513106_00115_49698_9447.N1	31-AUG-2011 20:45:58	Straylight	50.500	84	Alp Phe	2.3970	4500.0	101	49698	No
202	GOM_NL__2PRFIN20110831_214931_000000523106_00115_49698_9448.N1	31-AUG-2011 21:49:31	Tw_i_and_stray	51.500	44	24Gam Gem	1.9280	11000.	103	49698	No
203	GOM_NL__2PRFIN20110831_222612_000000483106_00116_49699_9466.N1	31-AUG-2011 22:26:12	Straylight	47.500	84	Alp Phe	2.3970	4500.0	95	49699	No
204	GOM_NL__2PRFIN20110831_232507_000000373106_00116_49699_9467.N1	31-AUG-2011 23:25:07	Bright	36.500	17	78Bet Gem	1.1610	4500.0	73	49699	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.

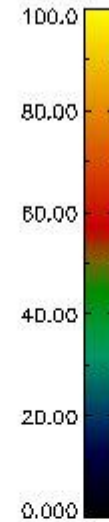
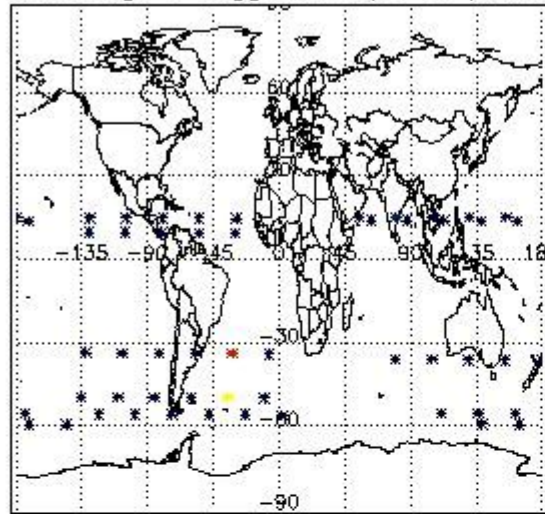
#### 3.1 Plot quality information per product (time dependant)



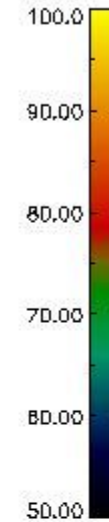
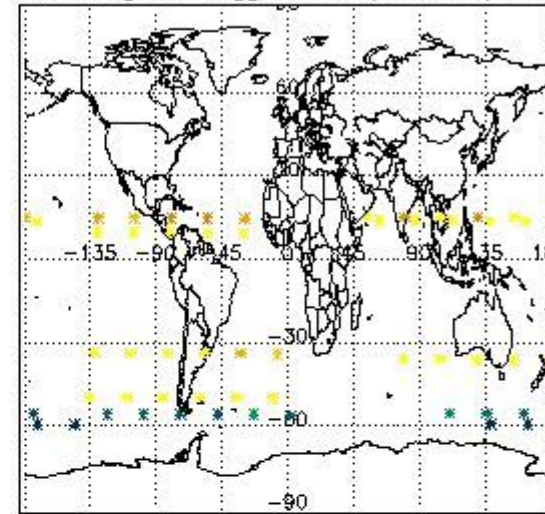
3.2 Plot quality information per product (world map)



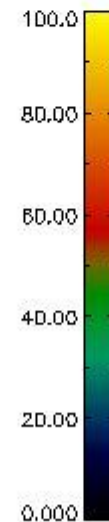
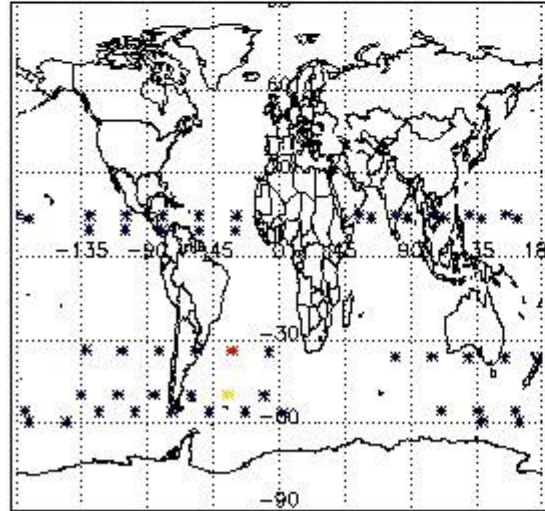
Percentage of flagged data per O3 profile



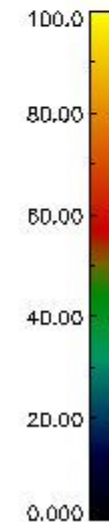
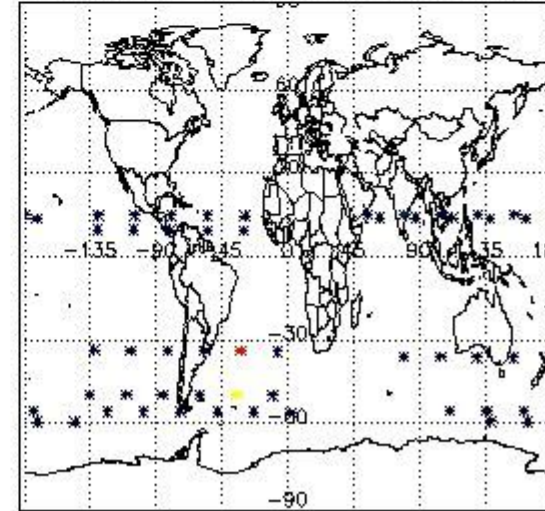
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

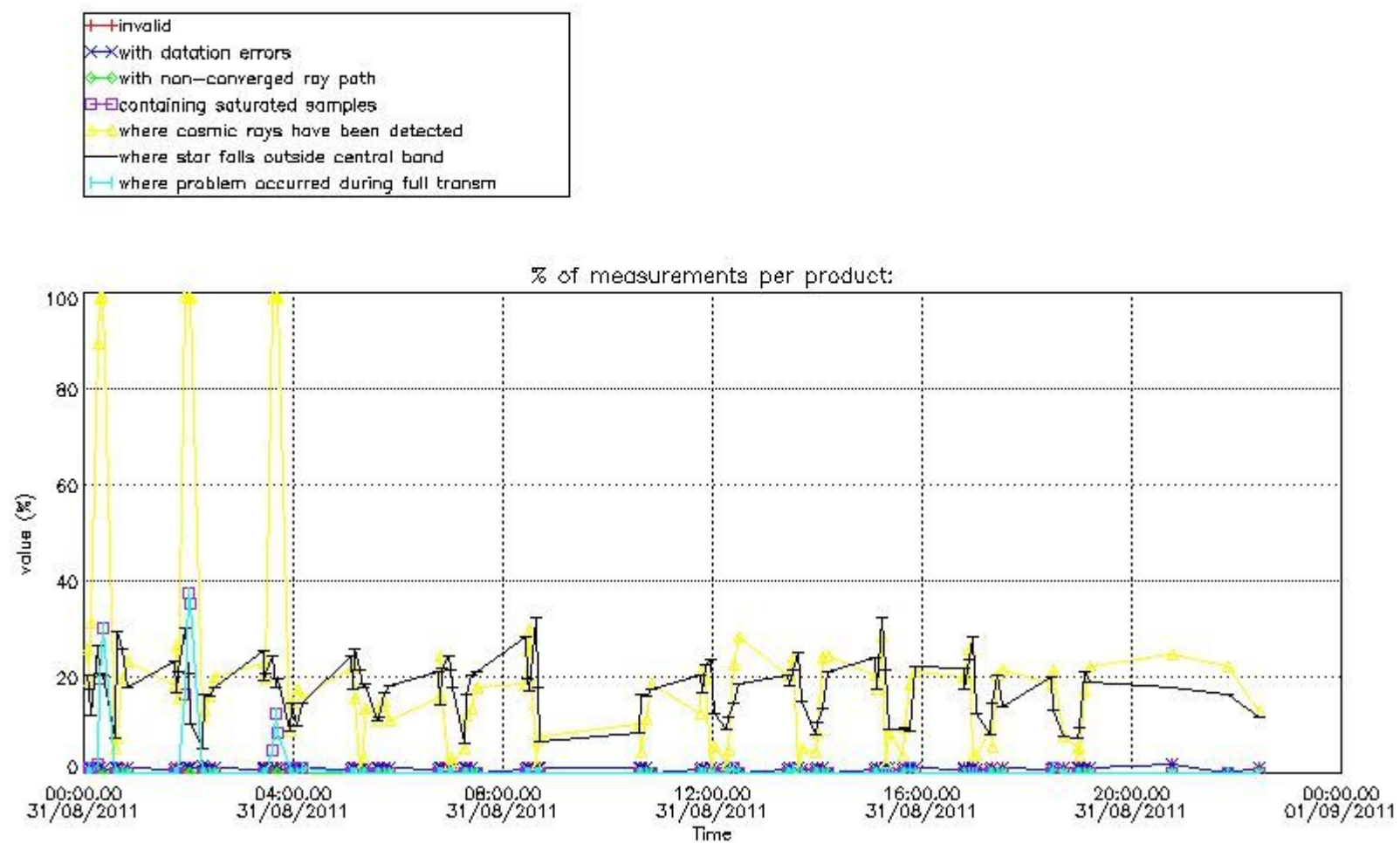


#### 4. Level 1 quality information per product

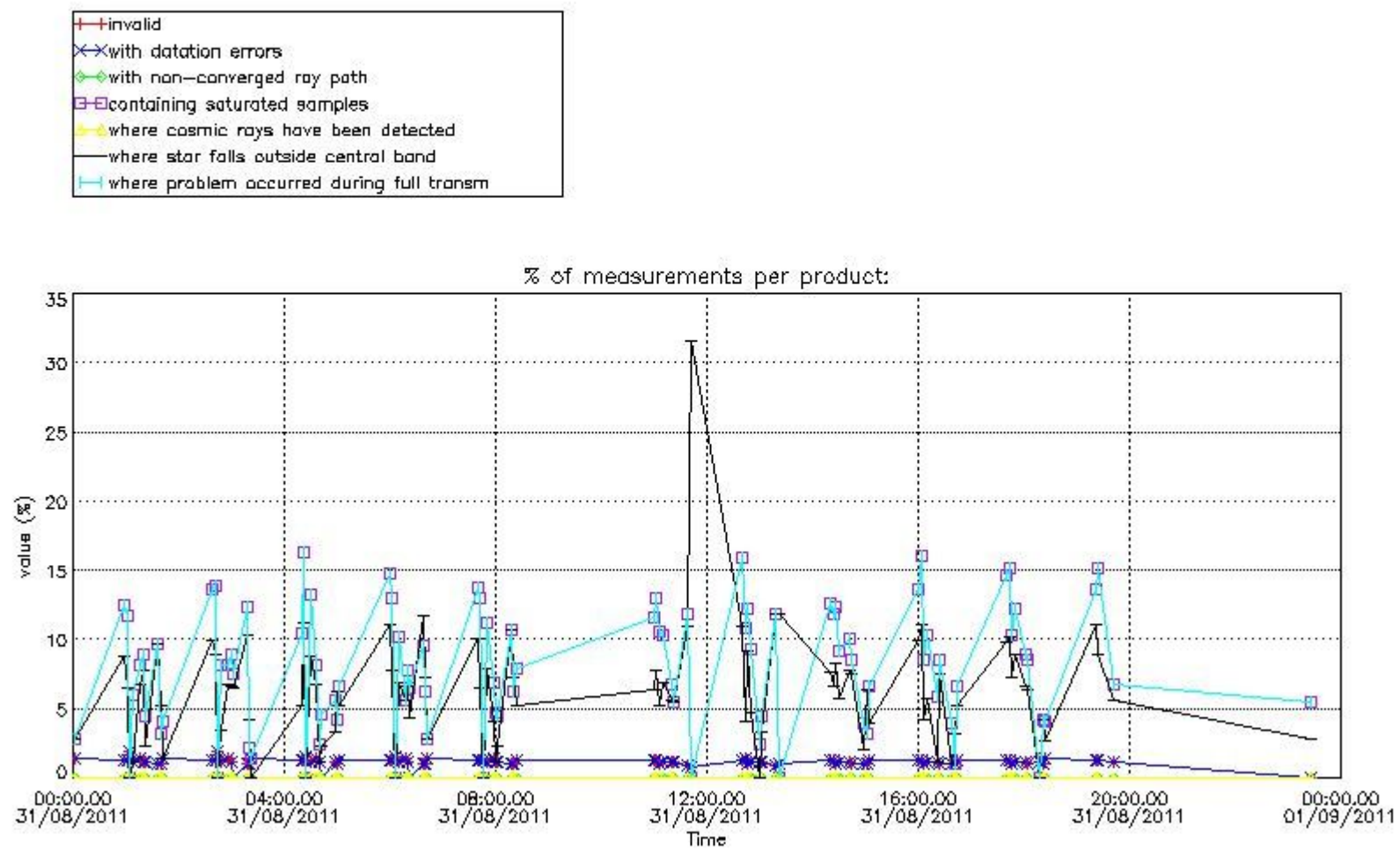
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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



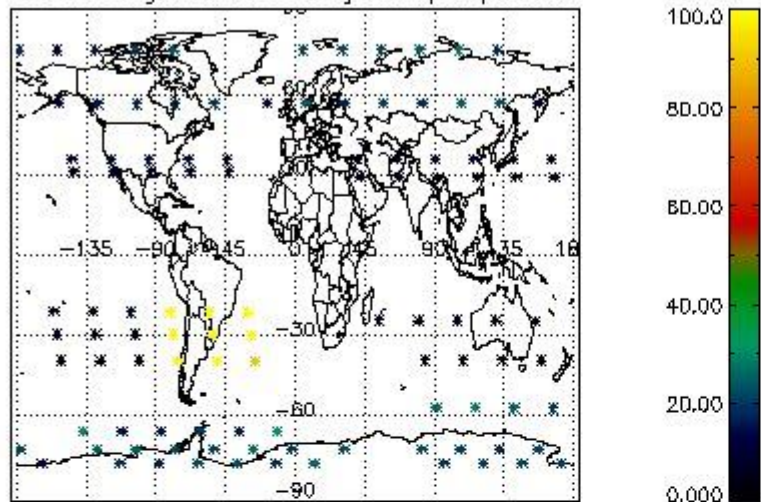
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



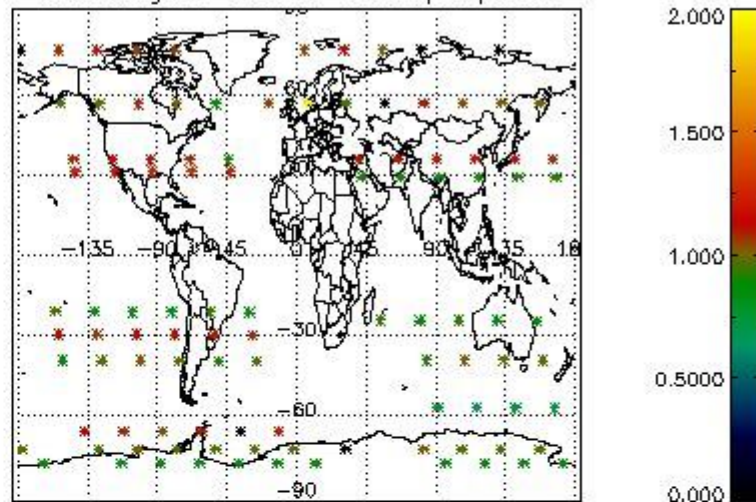
#### 4.2 Plot quality information per product coming from level 1b processing (world map)

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

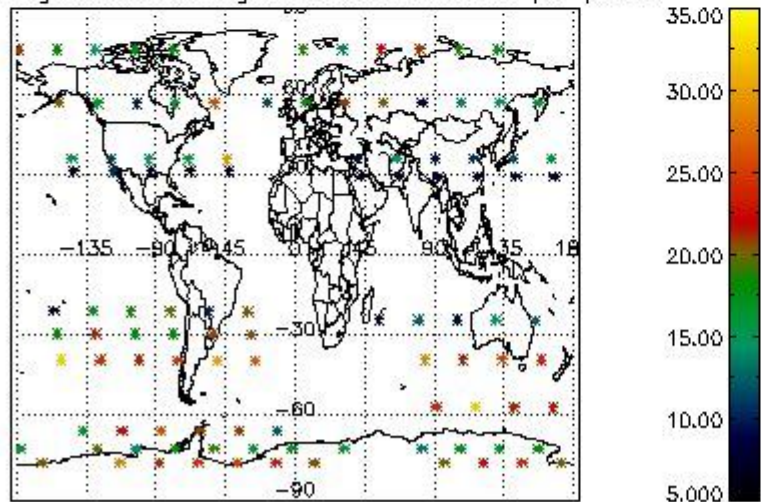
Percentage of cosmic ray hits per profile



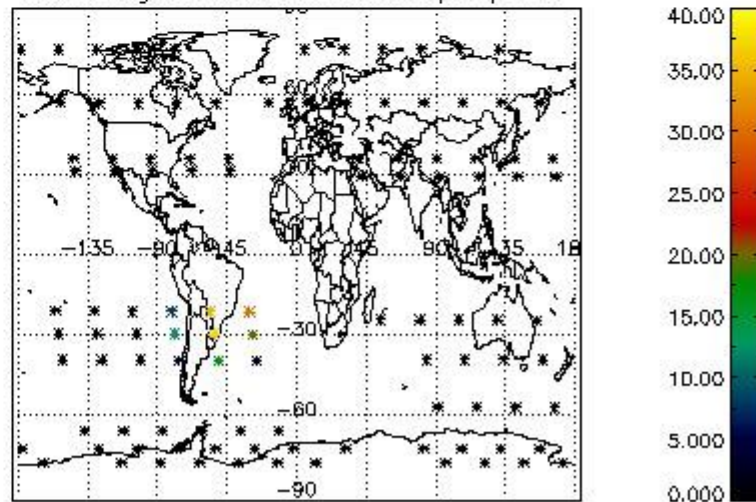
Percentage of datation errors per profile



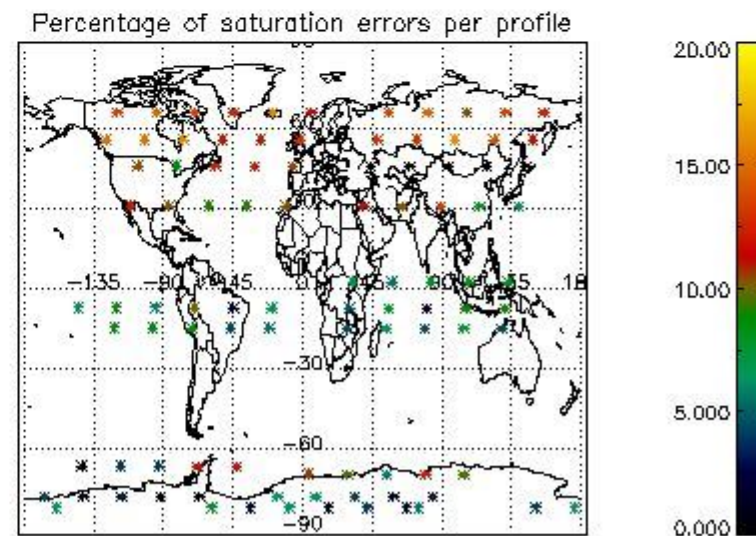
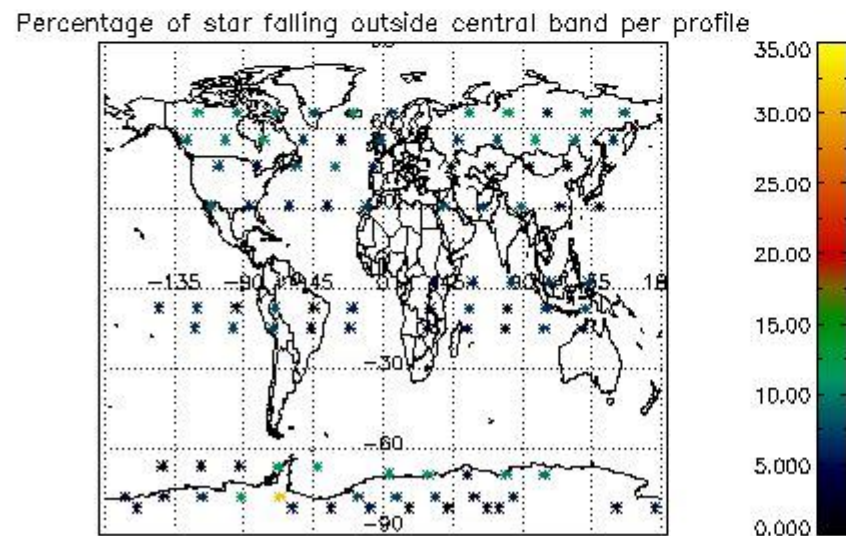
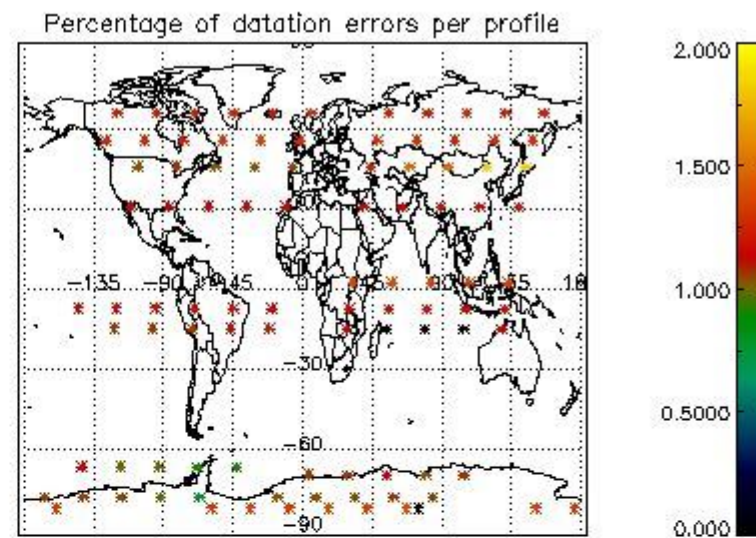
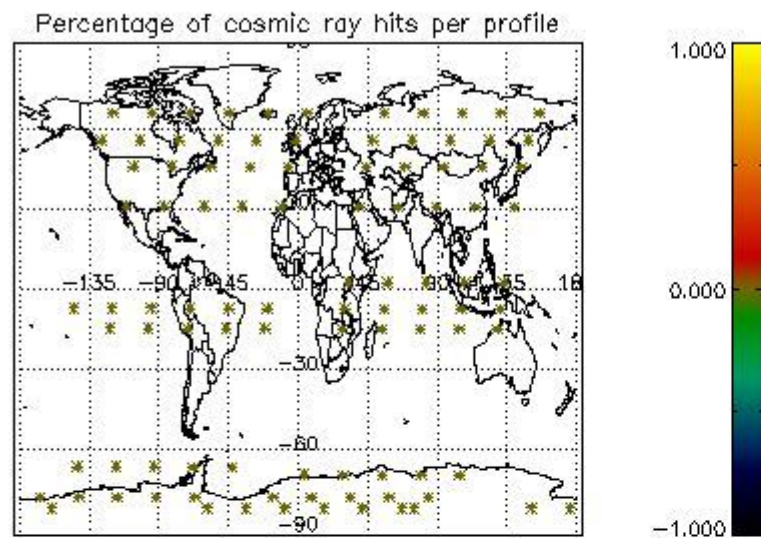
Percentage of star falling outside central band per profile



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

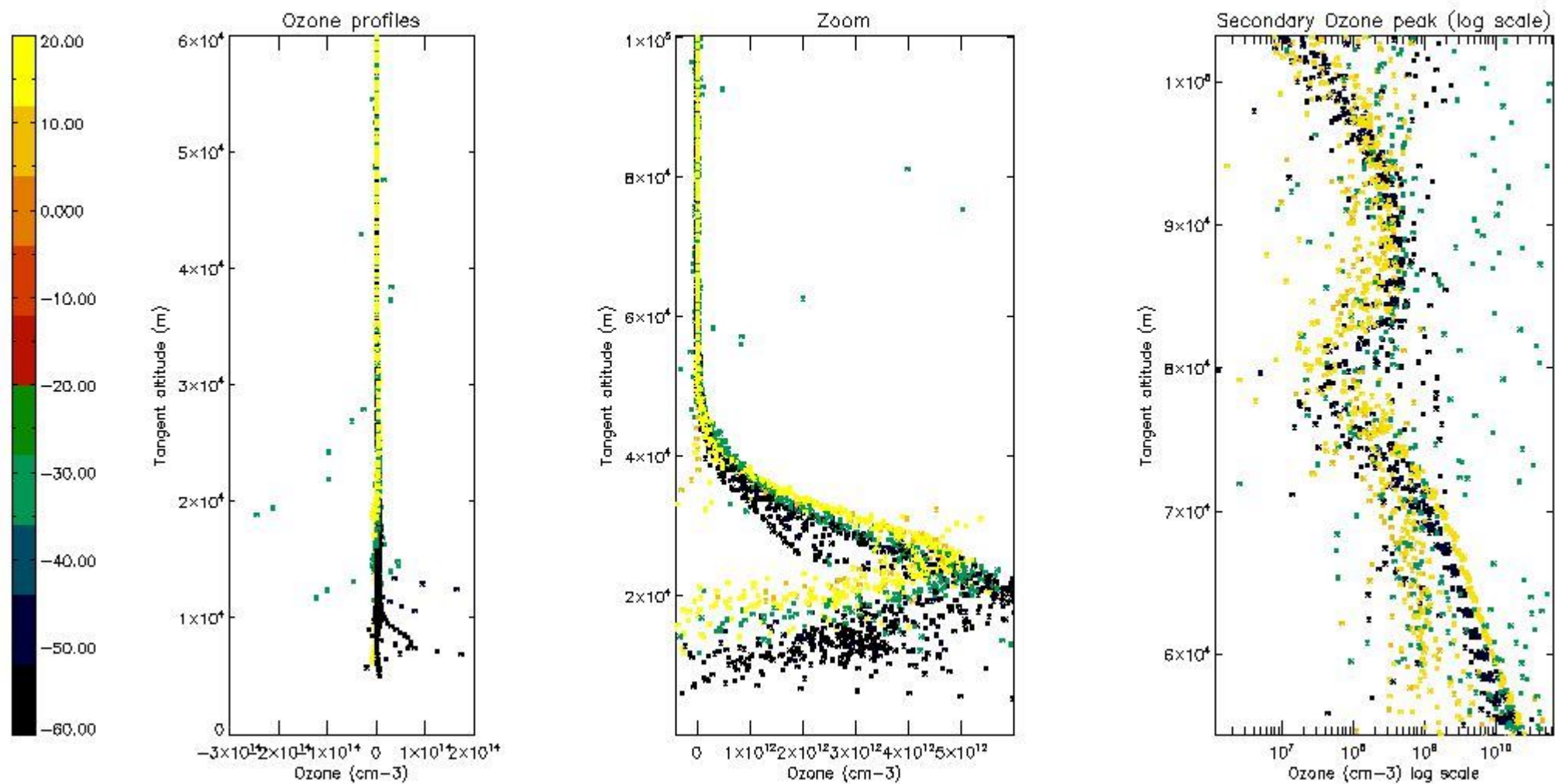
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	28
STD < 20	14

STD < 10	12
STD < 5	8

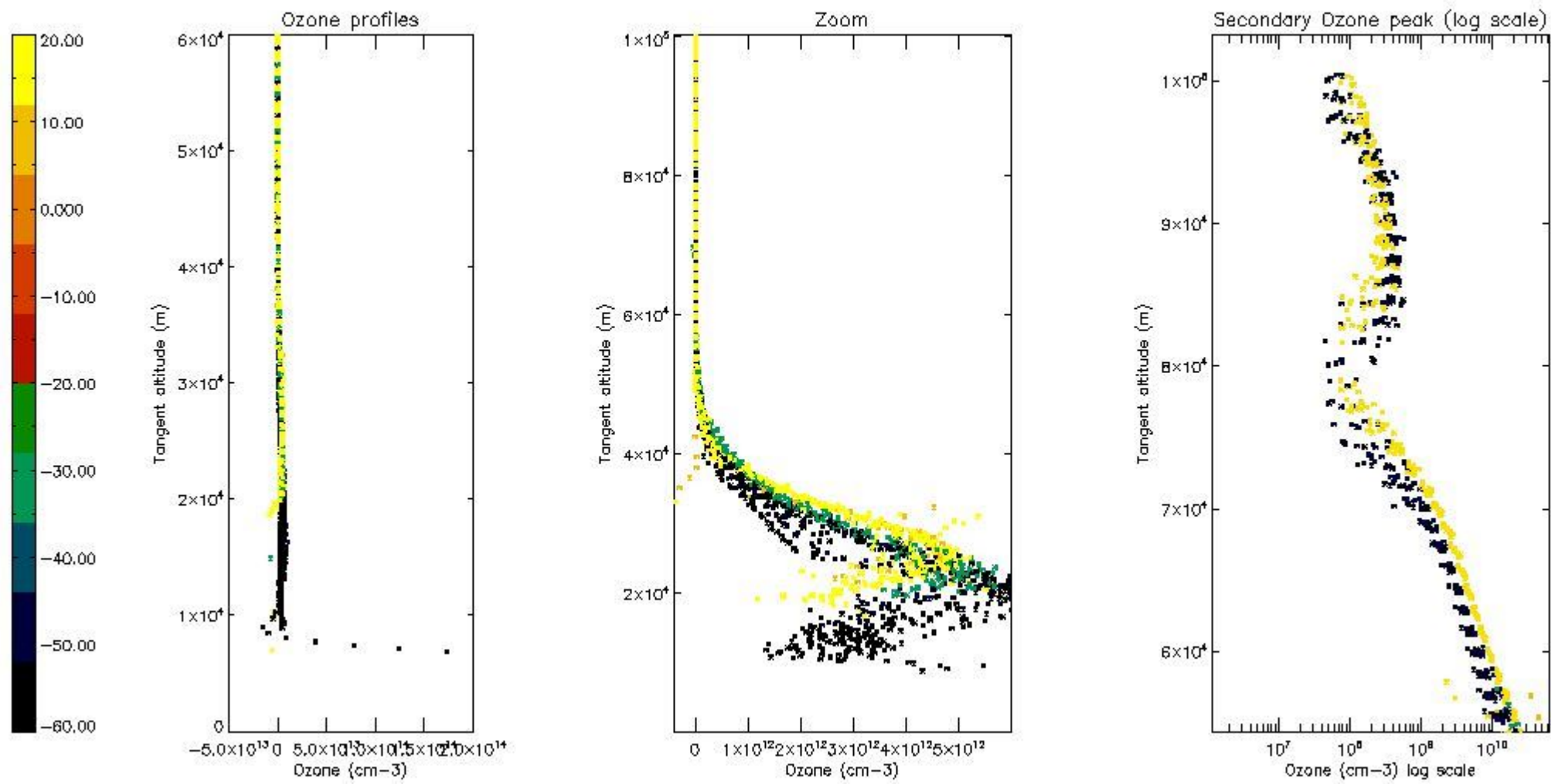
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



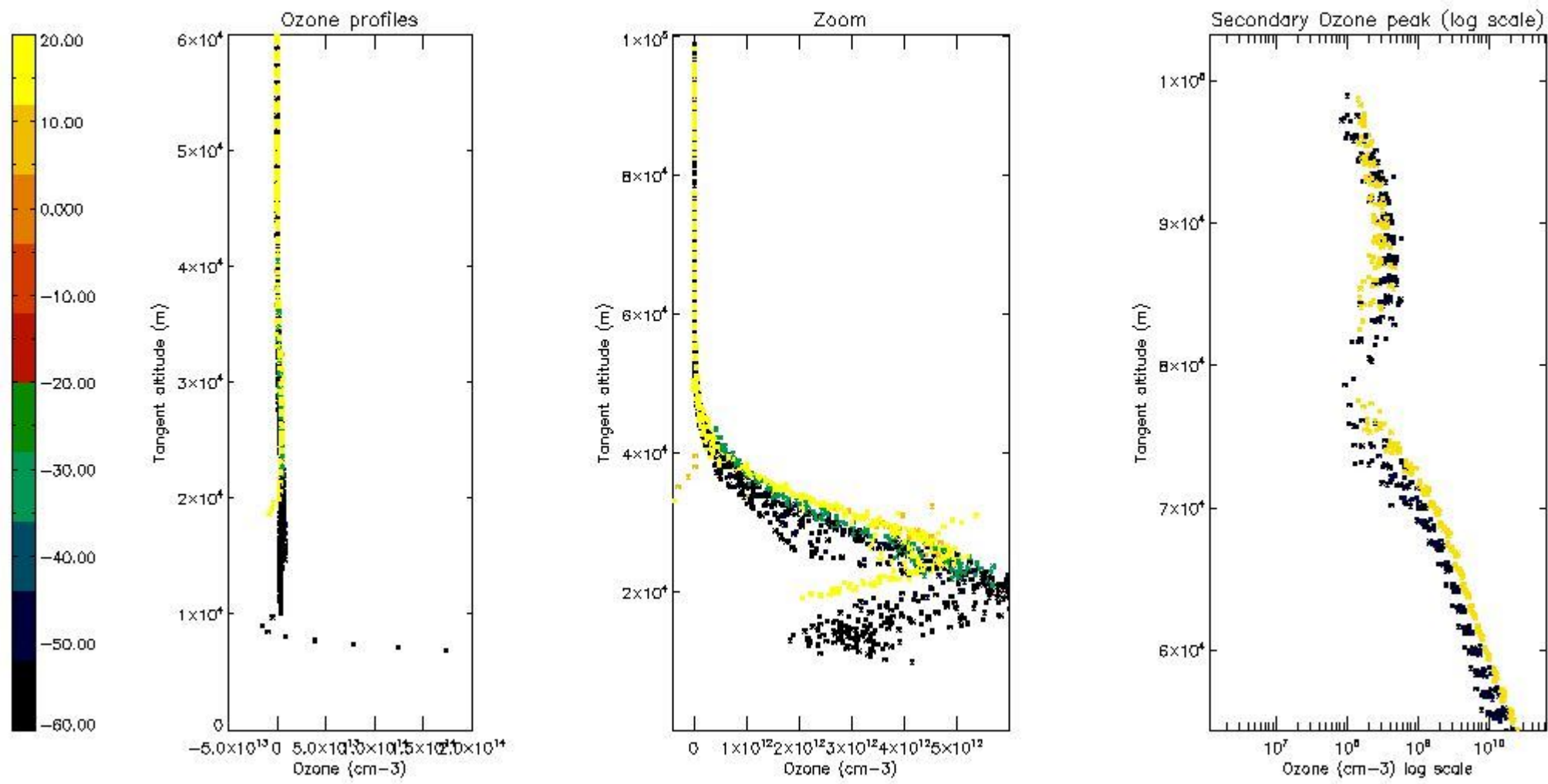
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



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

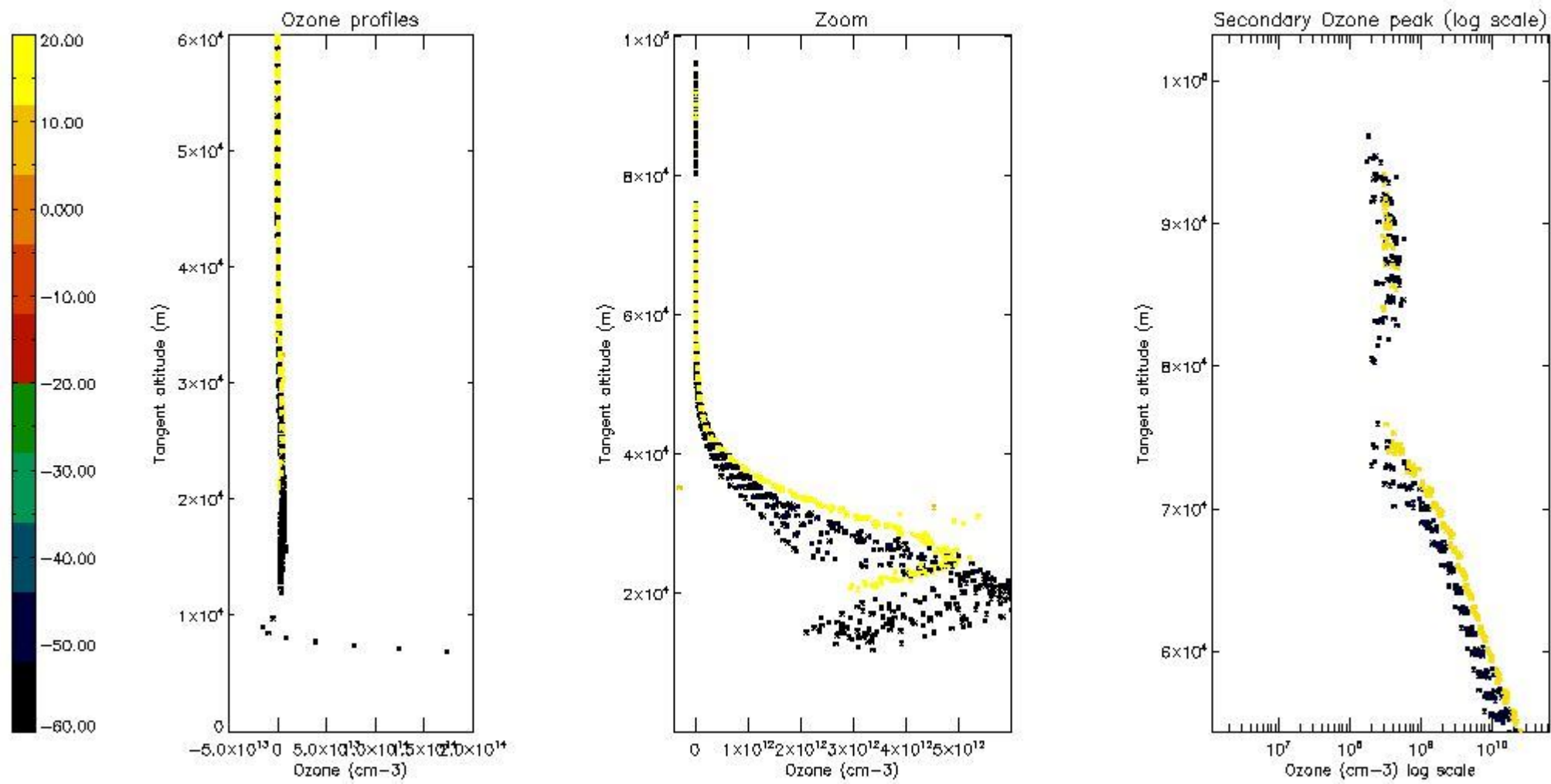
The colorbar represents the latitude.



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

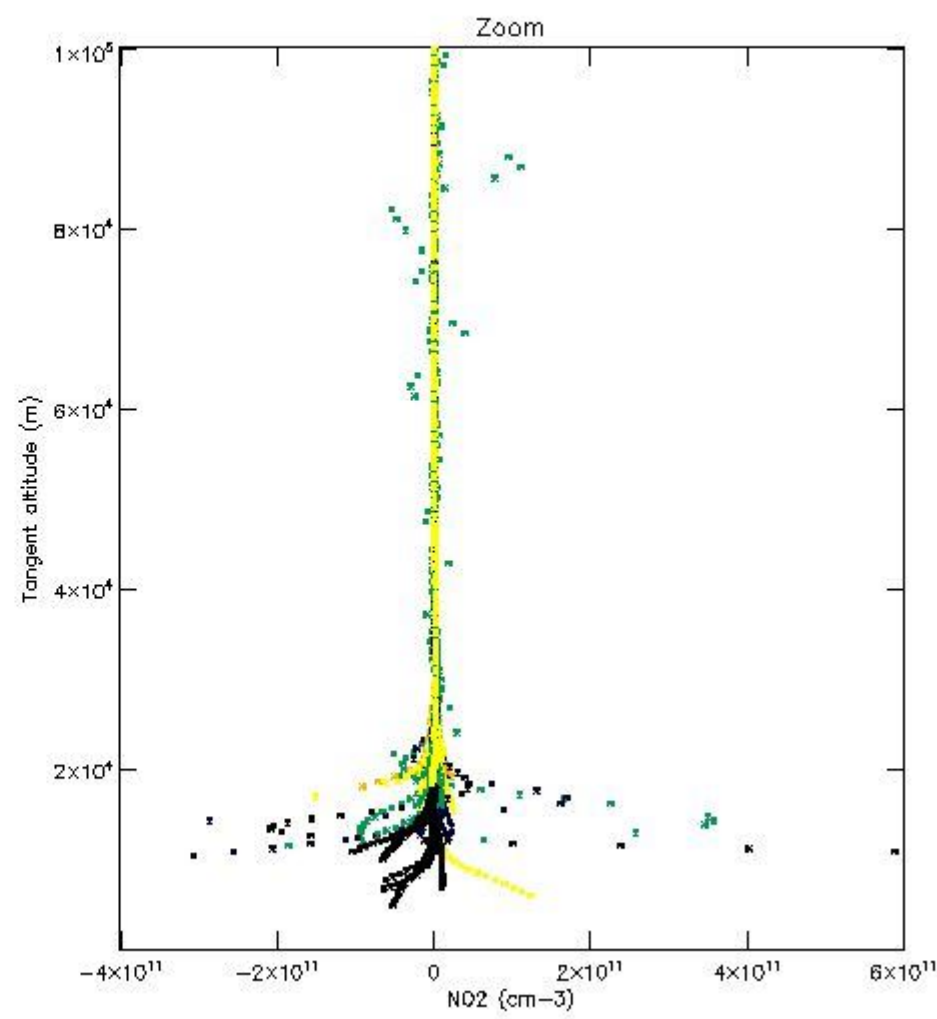
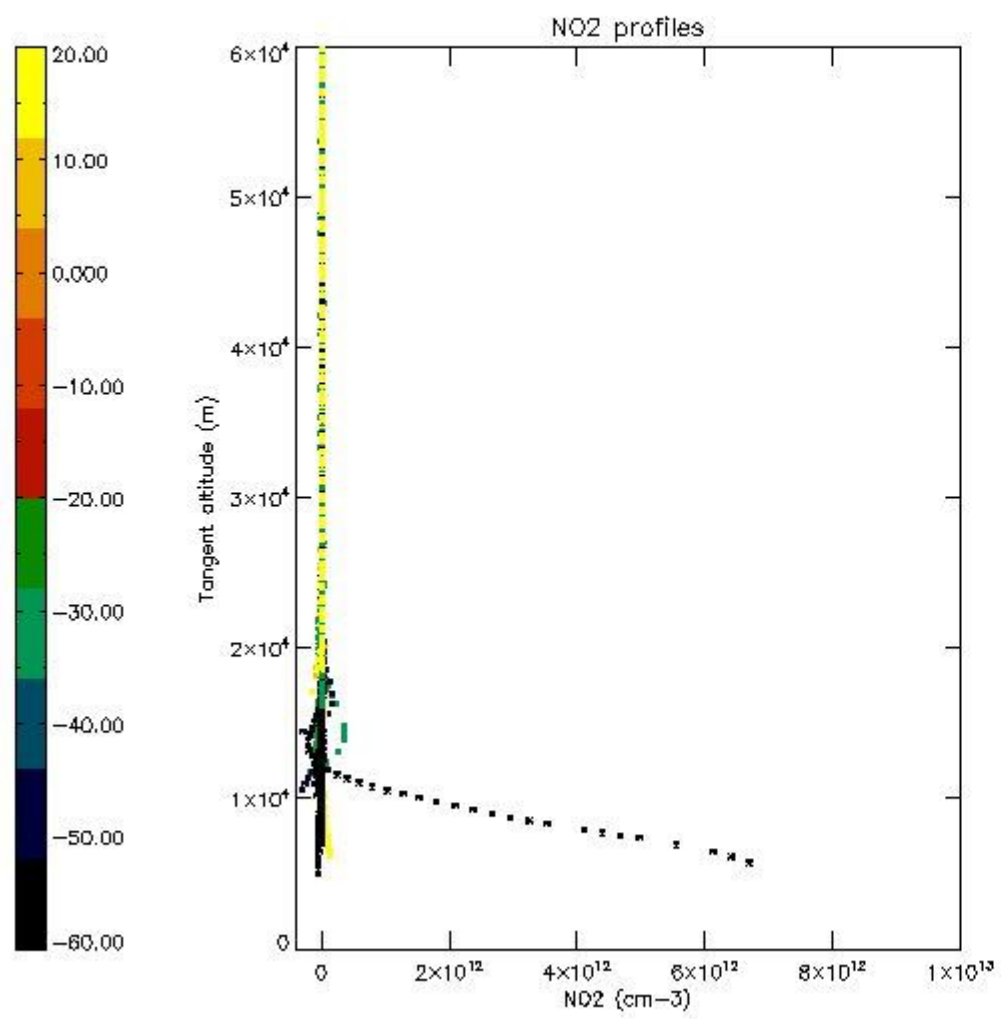
The colorbar represents the latitude.





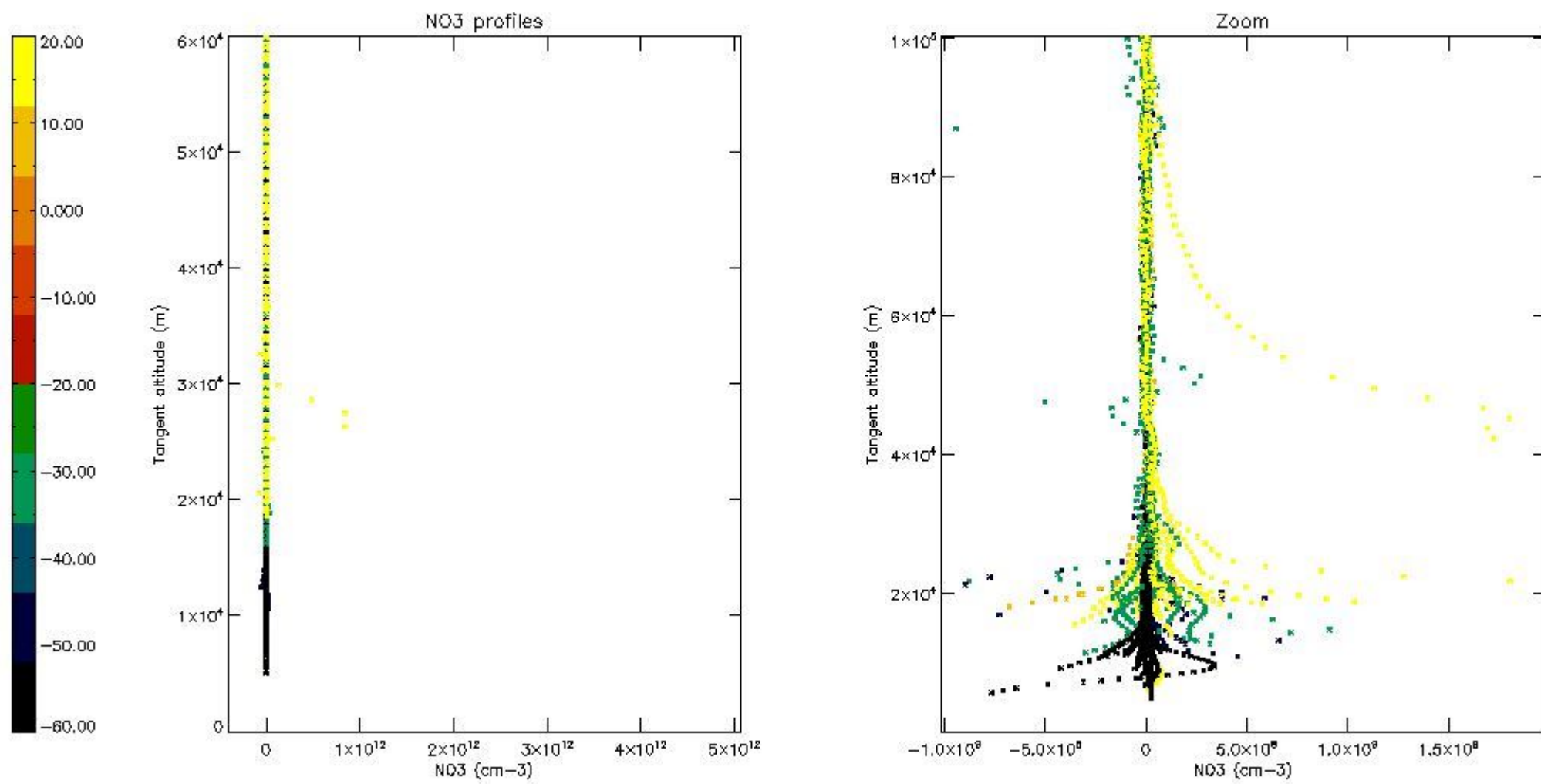
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



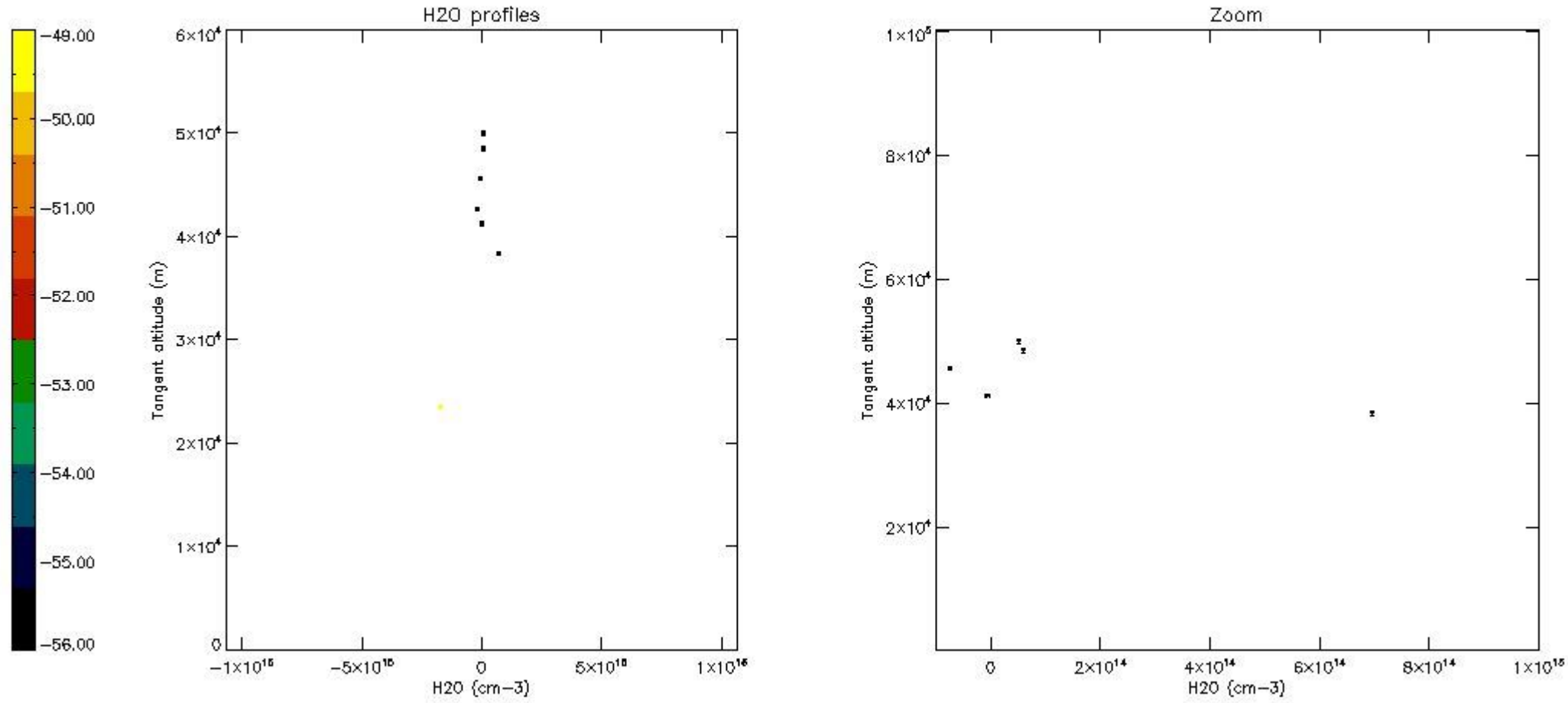
*5.7 Plot NO3 profiles for all STD (dark without errors)*

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)

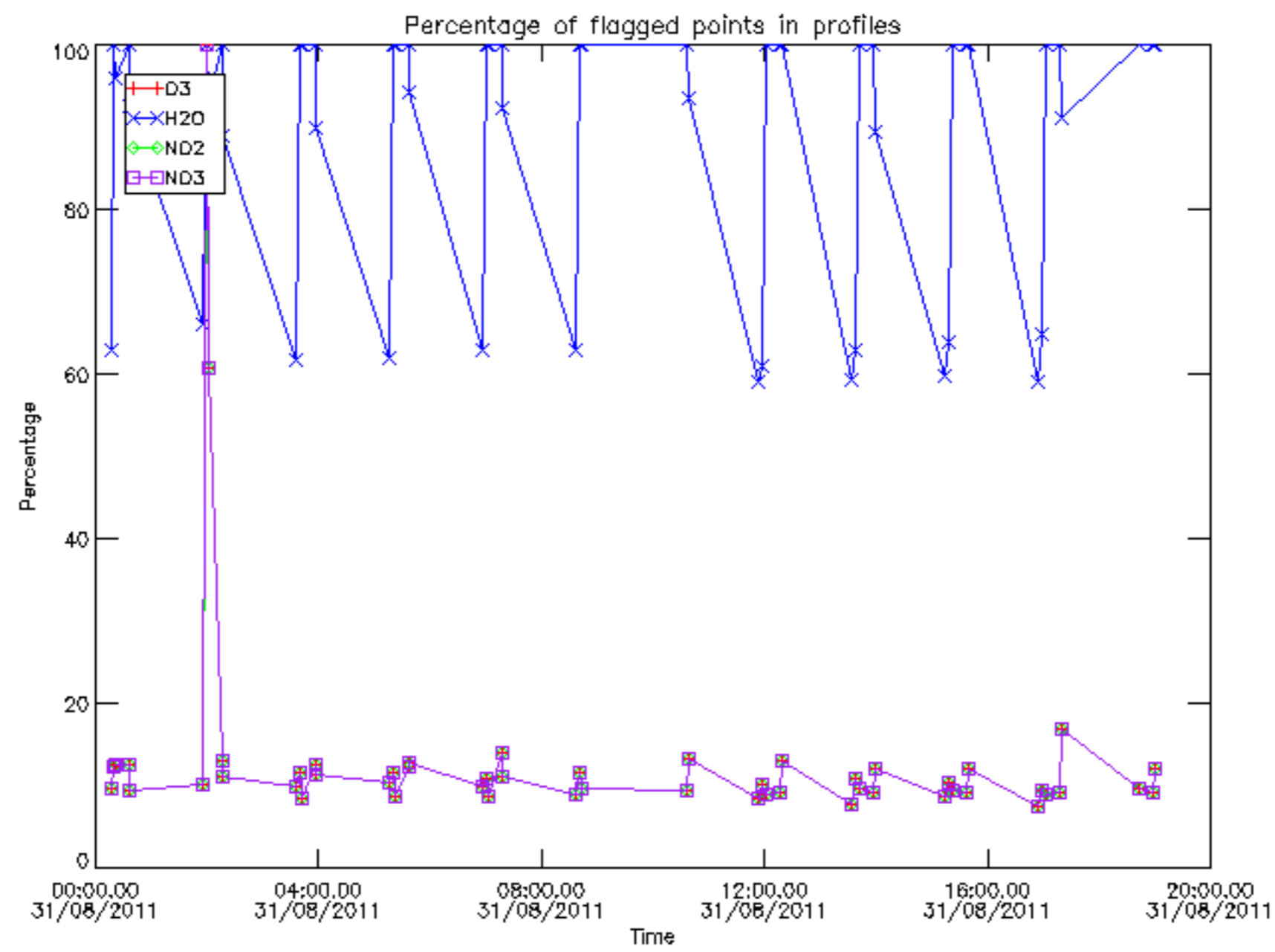
The colorbar represents the latitude.



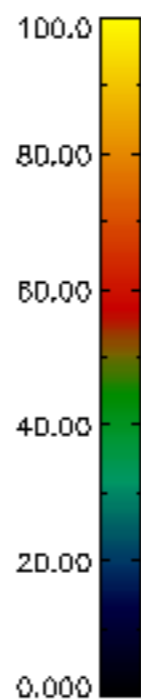
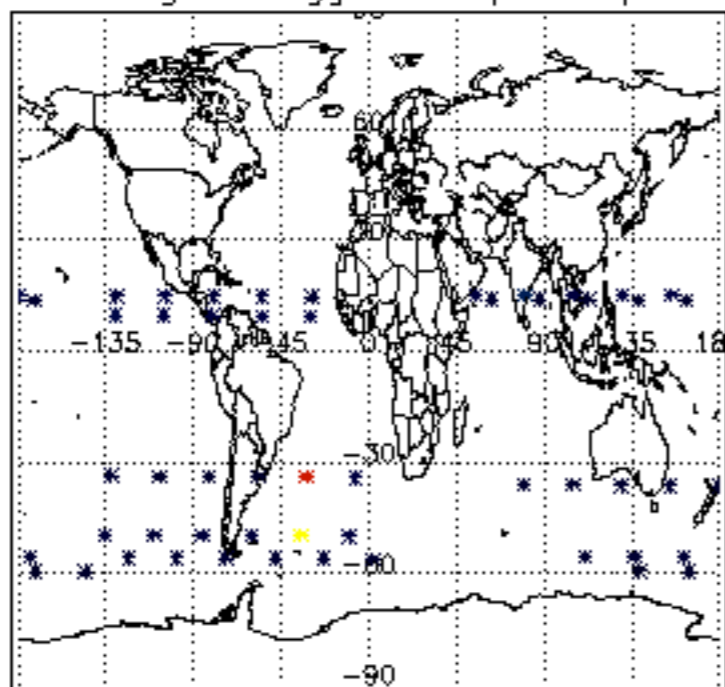
## 6. Auxiliary Data Files used for the production reported in section 2

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.

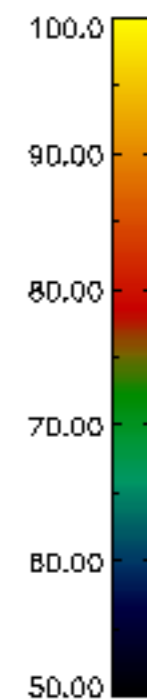
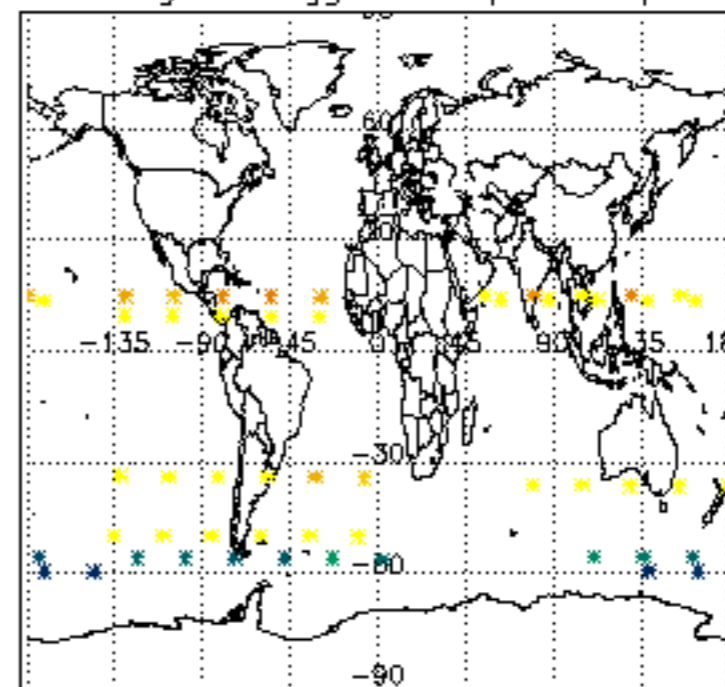
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	31-AUG-2011 00:01:49
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	31-AUG-2011 00:01:49
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	31-AUG-2011 00:01:49



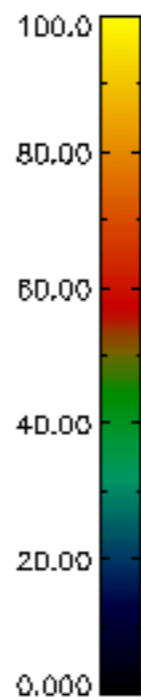
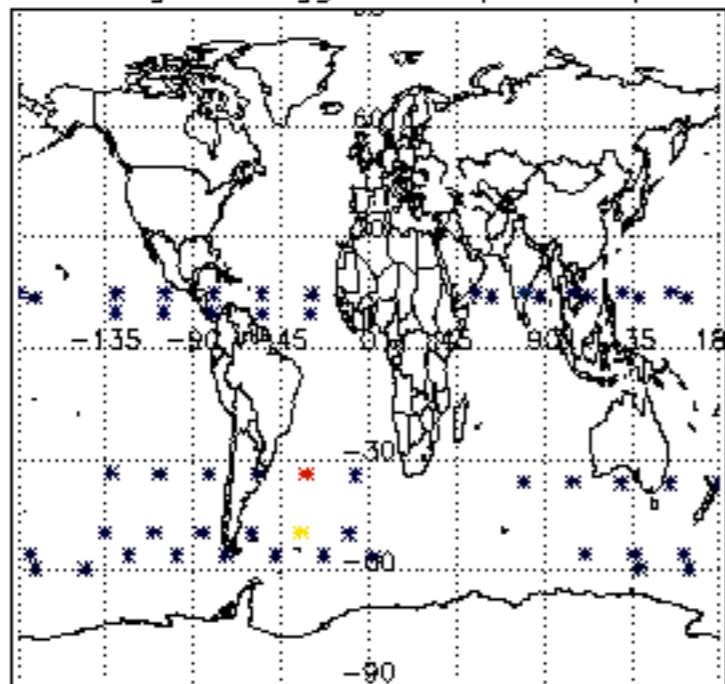
Percentage of flagged data per D3 profile



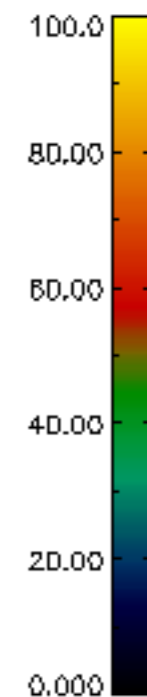
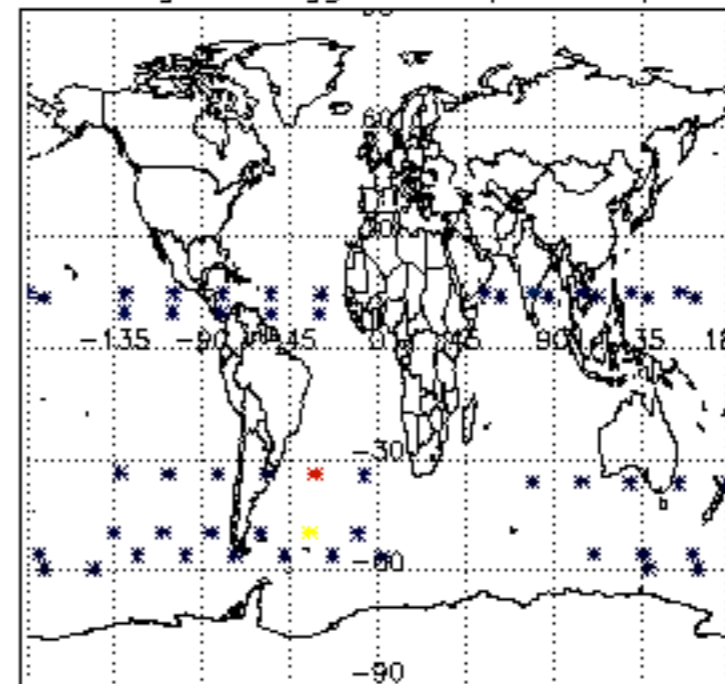
Percentage of flagged data per H2O profile

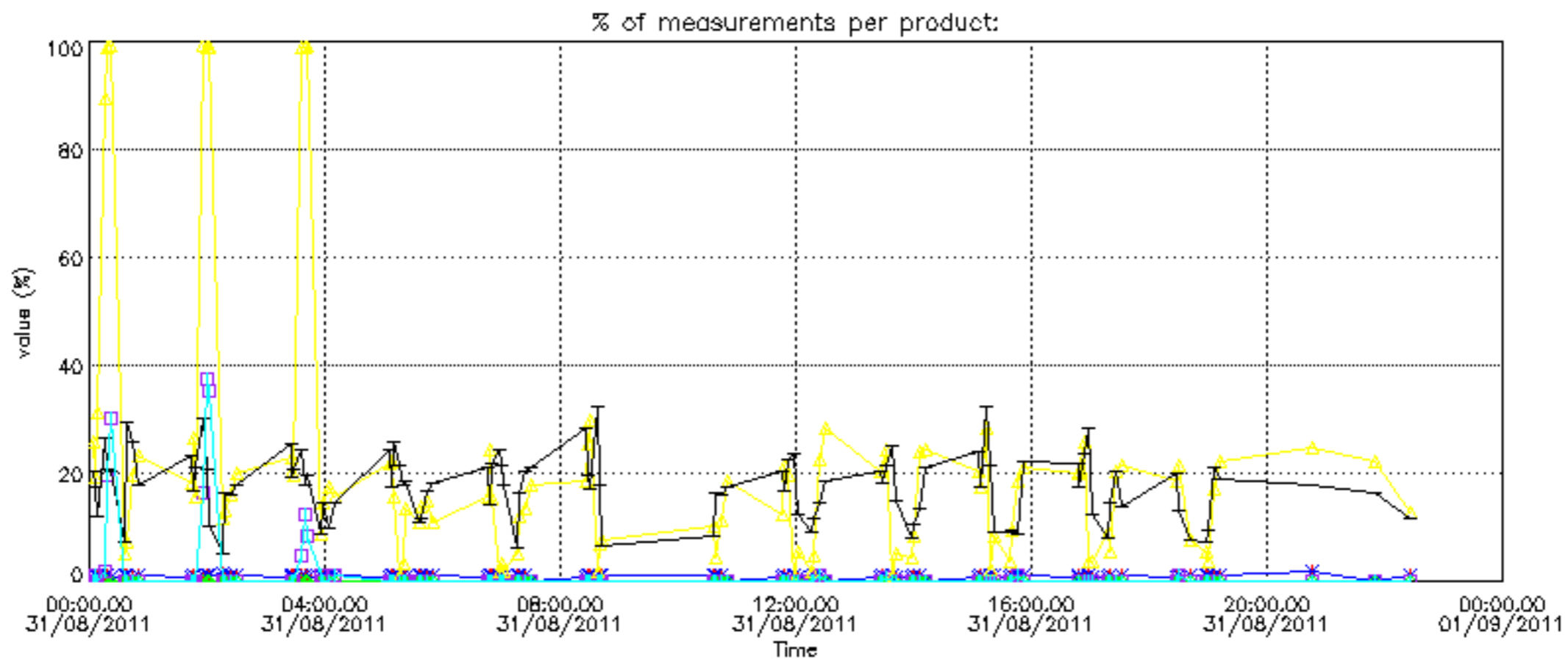
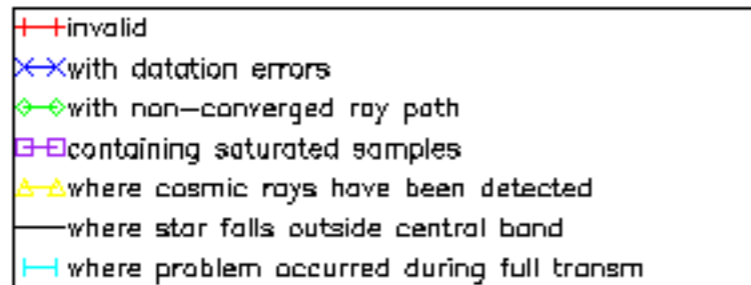


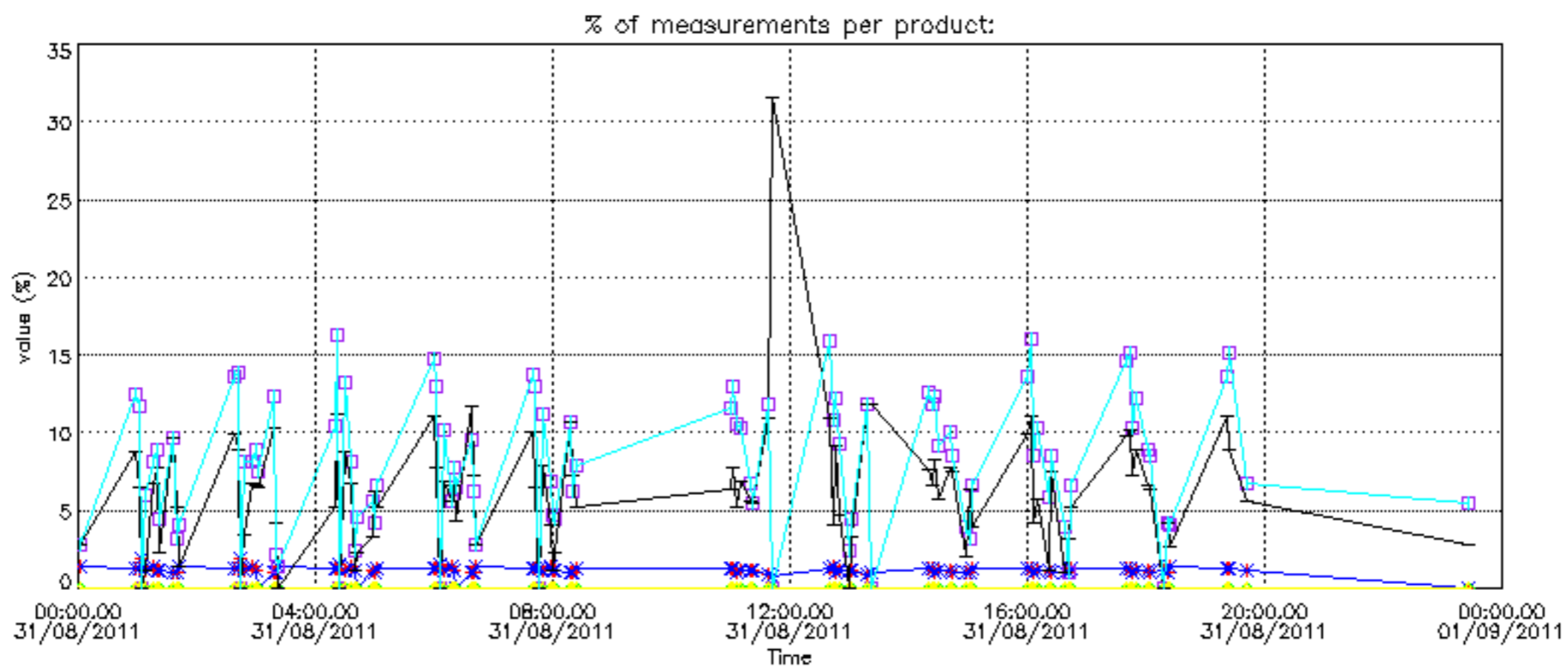
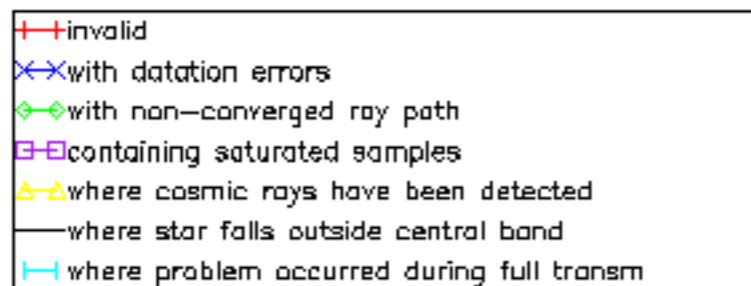
Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

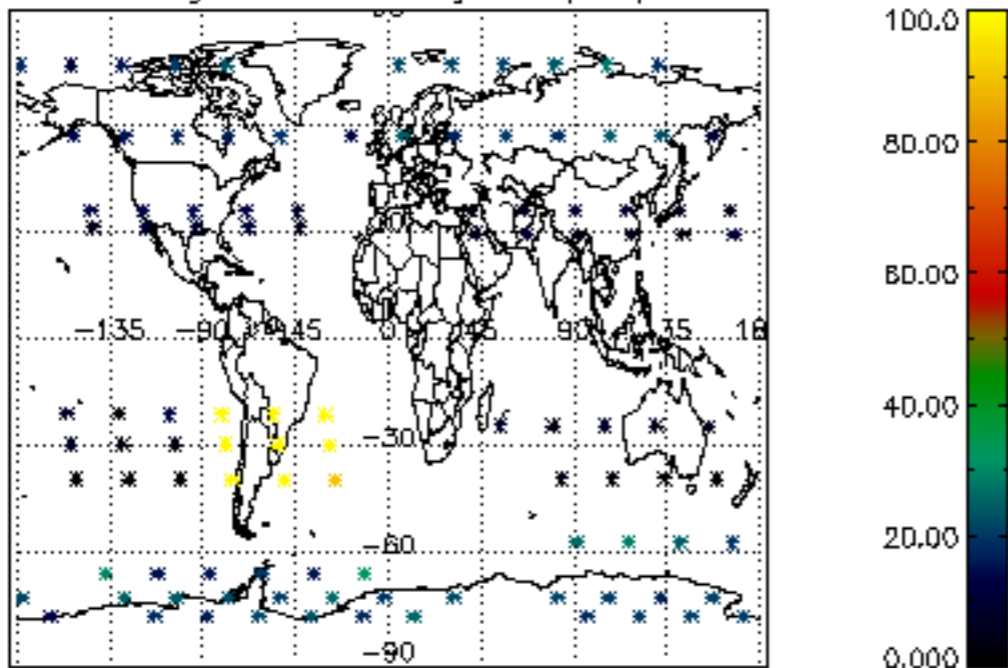




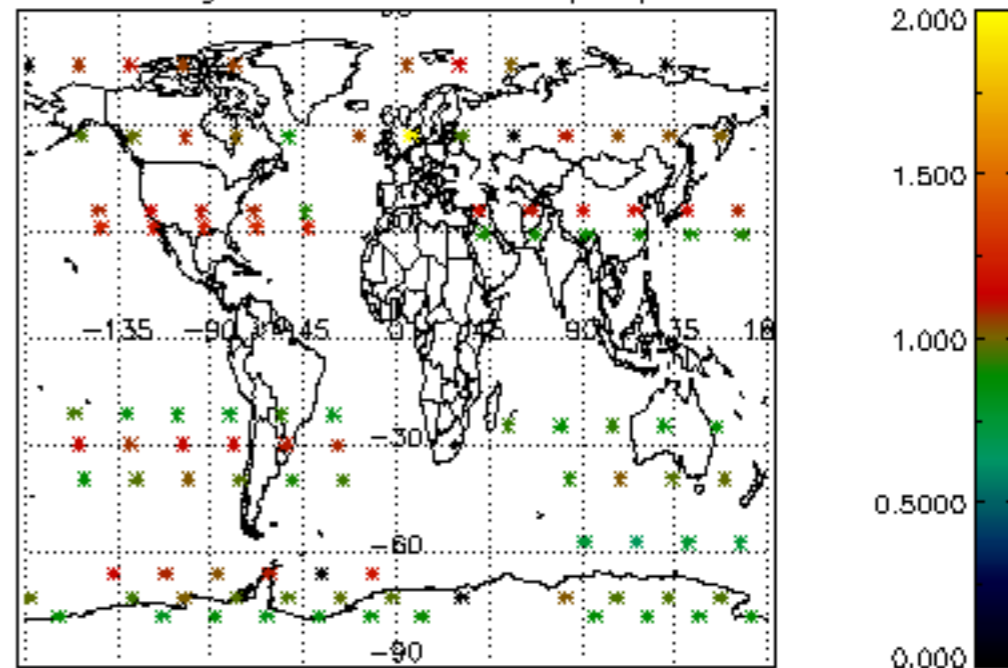




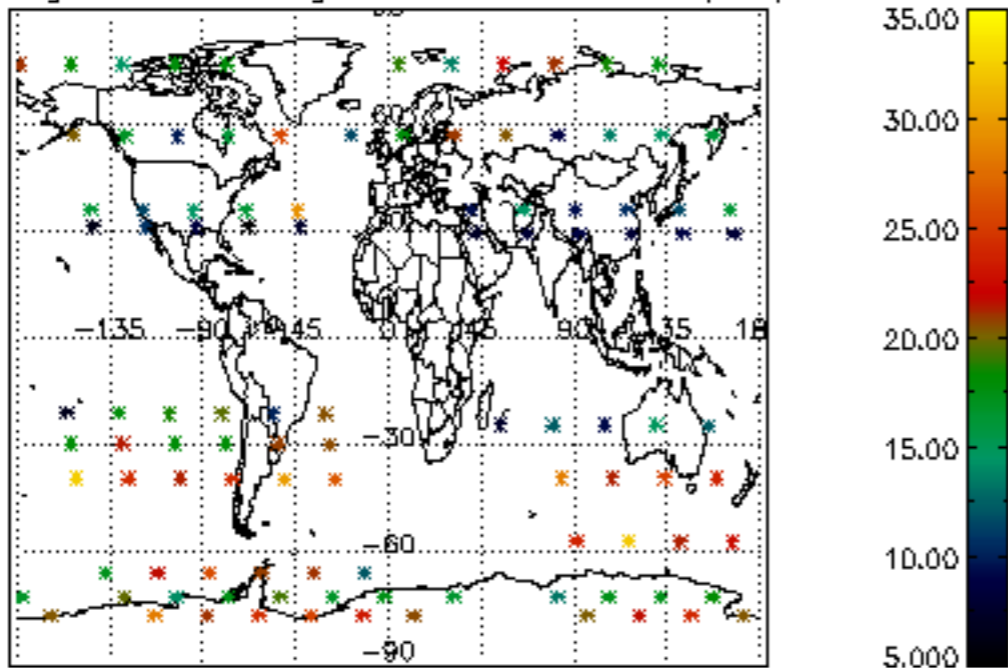
Percentage of cosmic ray hits per profile



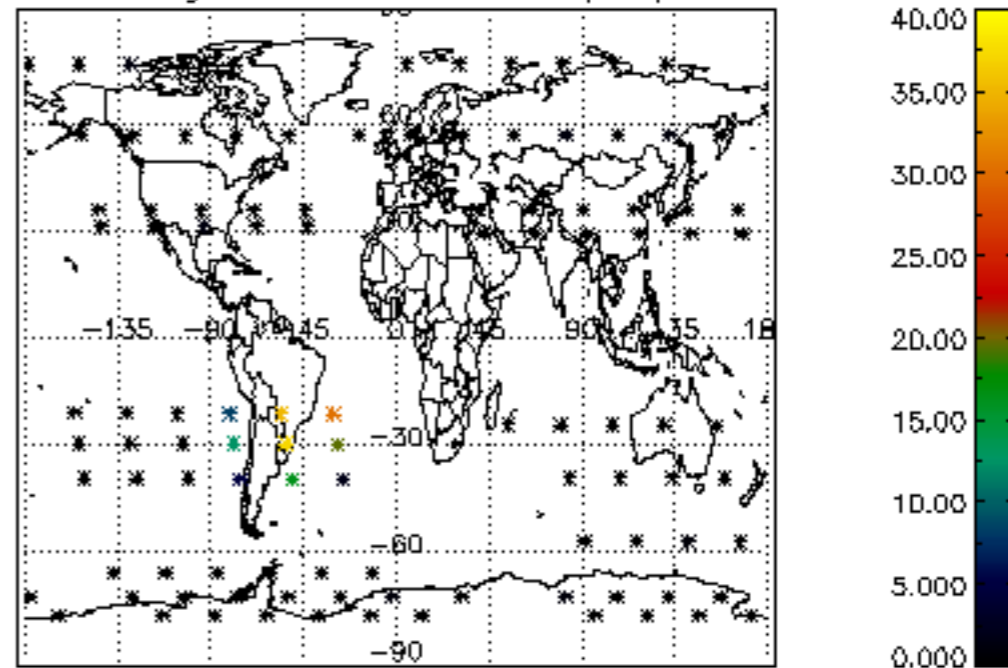
Percentage of datation errors per profile



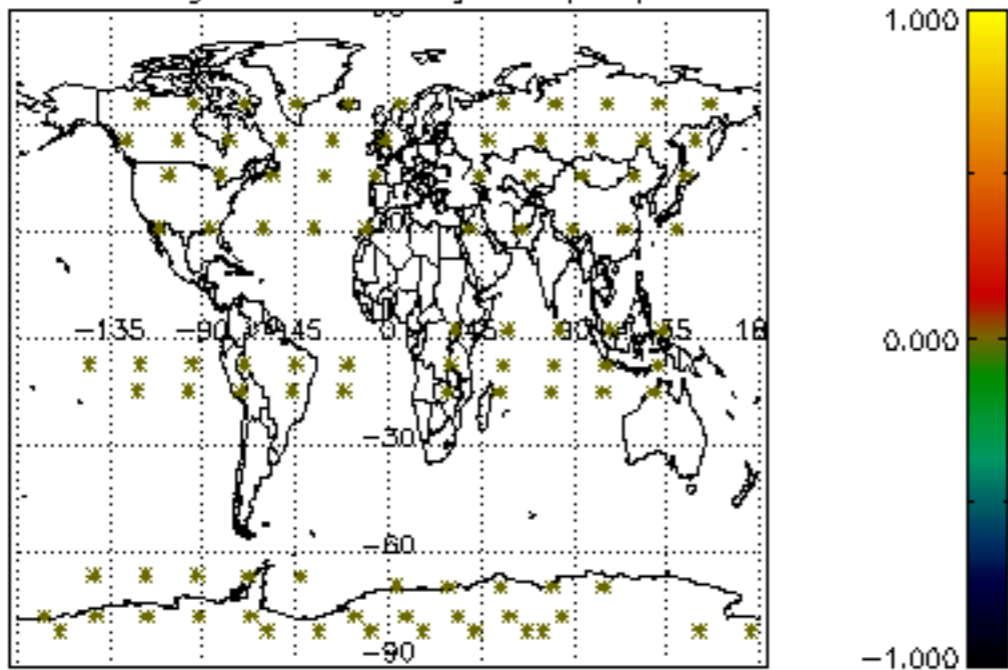
Percentage of star falling outside central band per profile



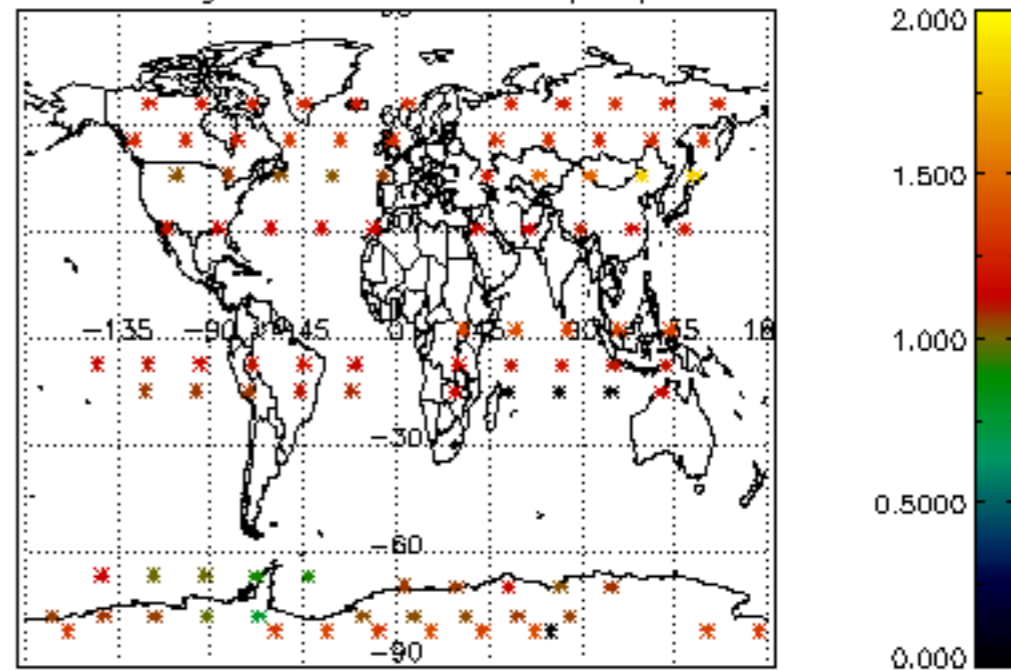
Percentage of saturation errors per profile



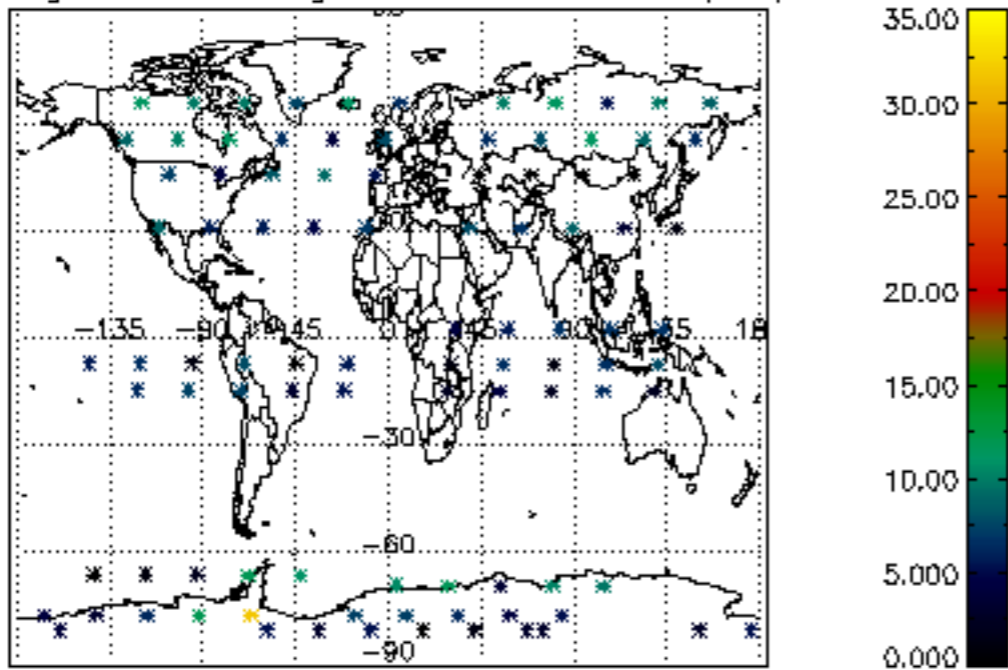
Percentage of cosmic ray hits per profile



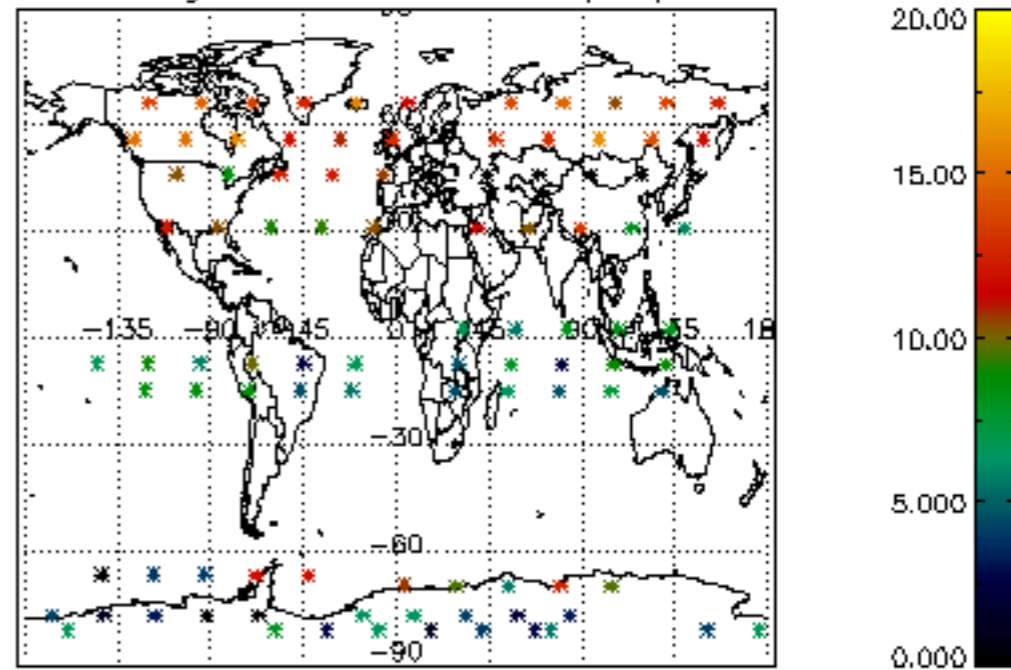
Percentage of datation errors per profile

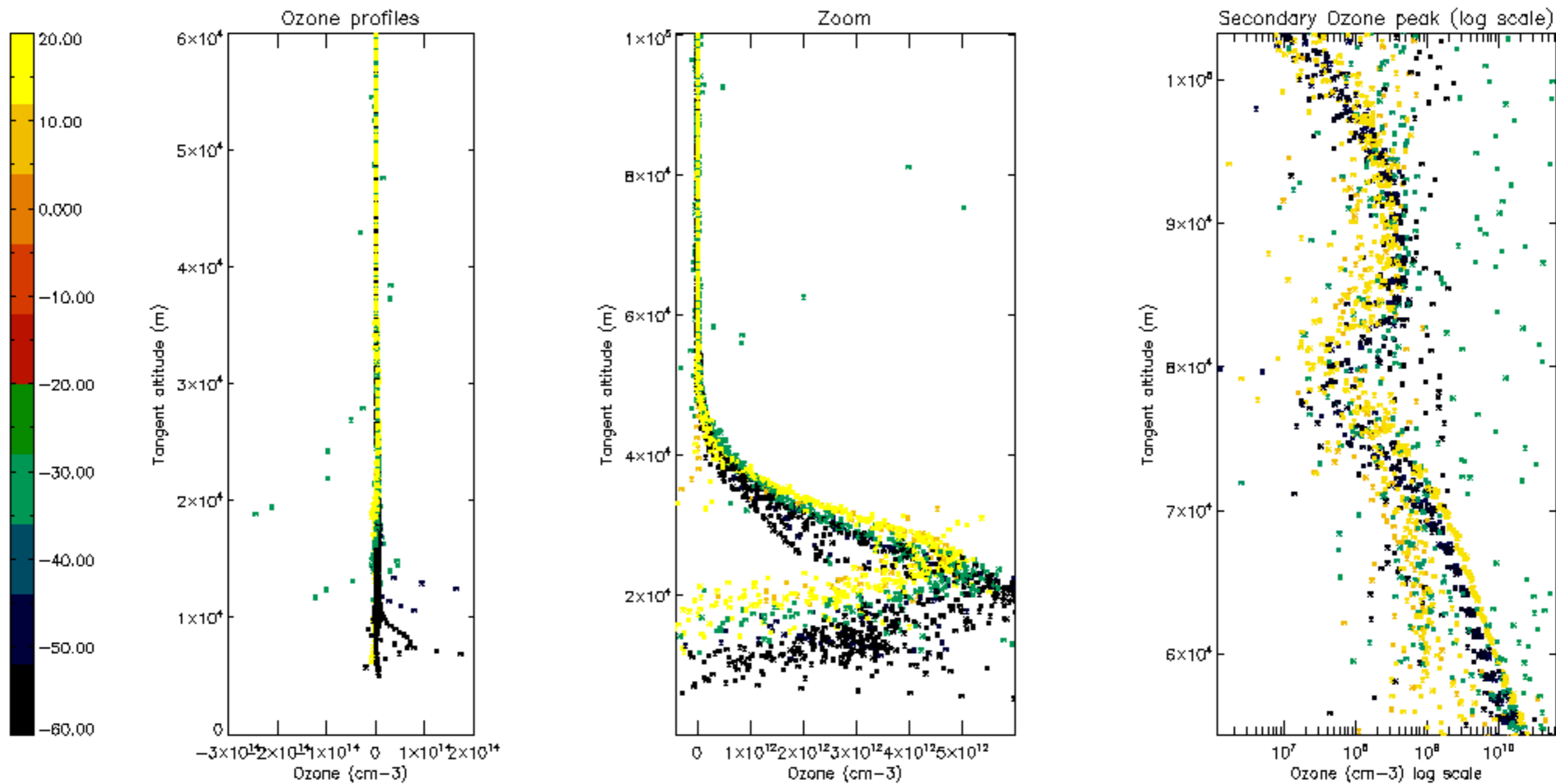


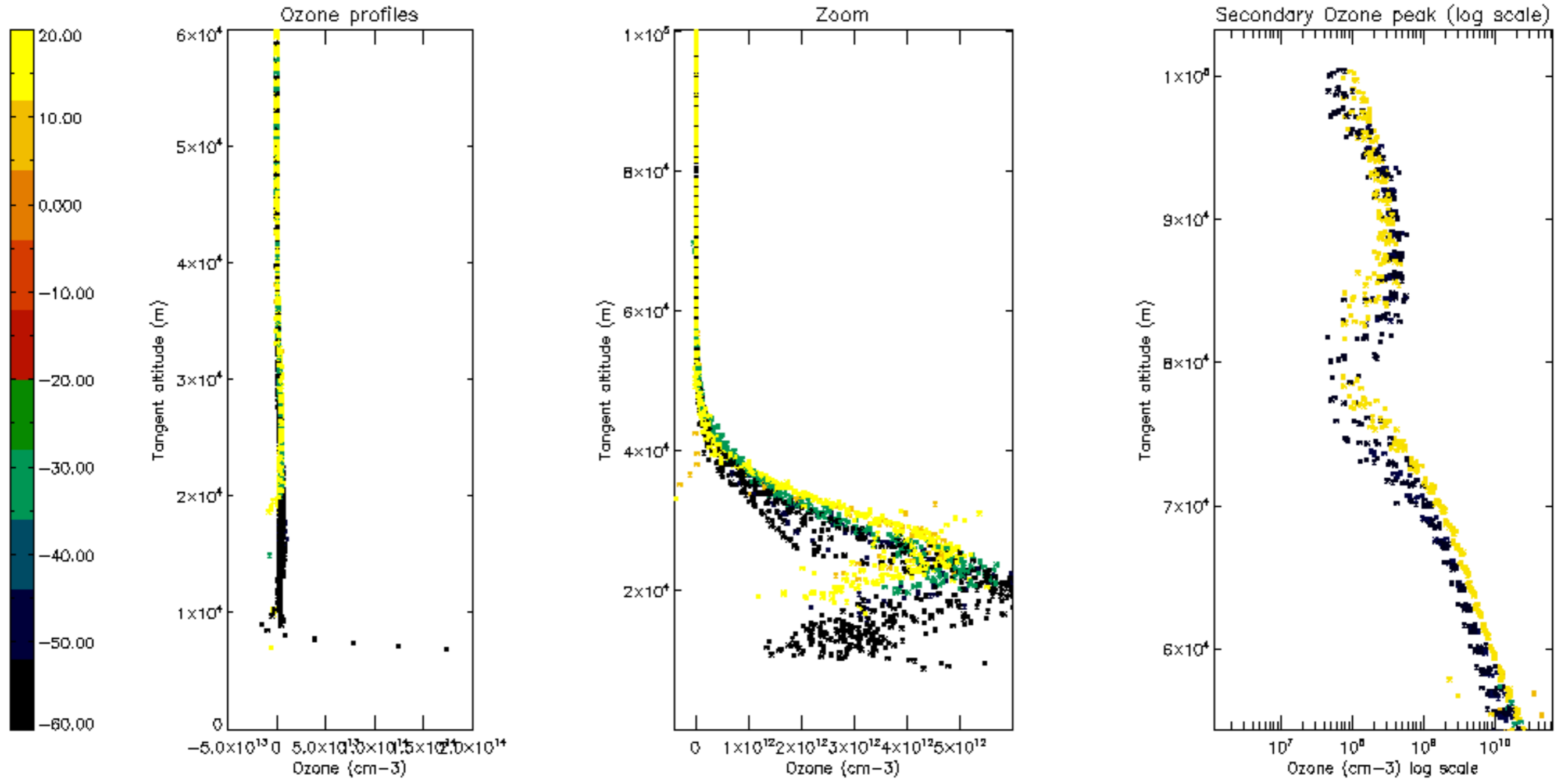
Percentage of star falling outside central band per profile

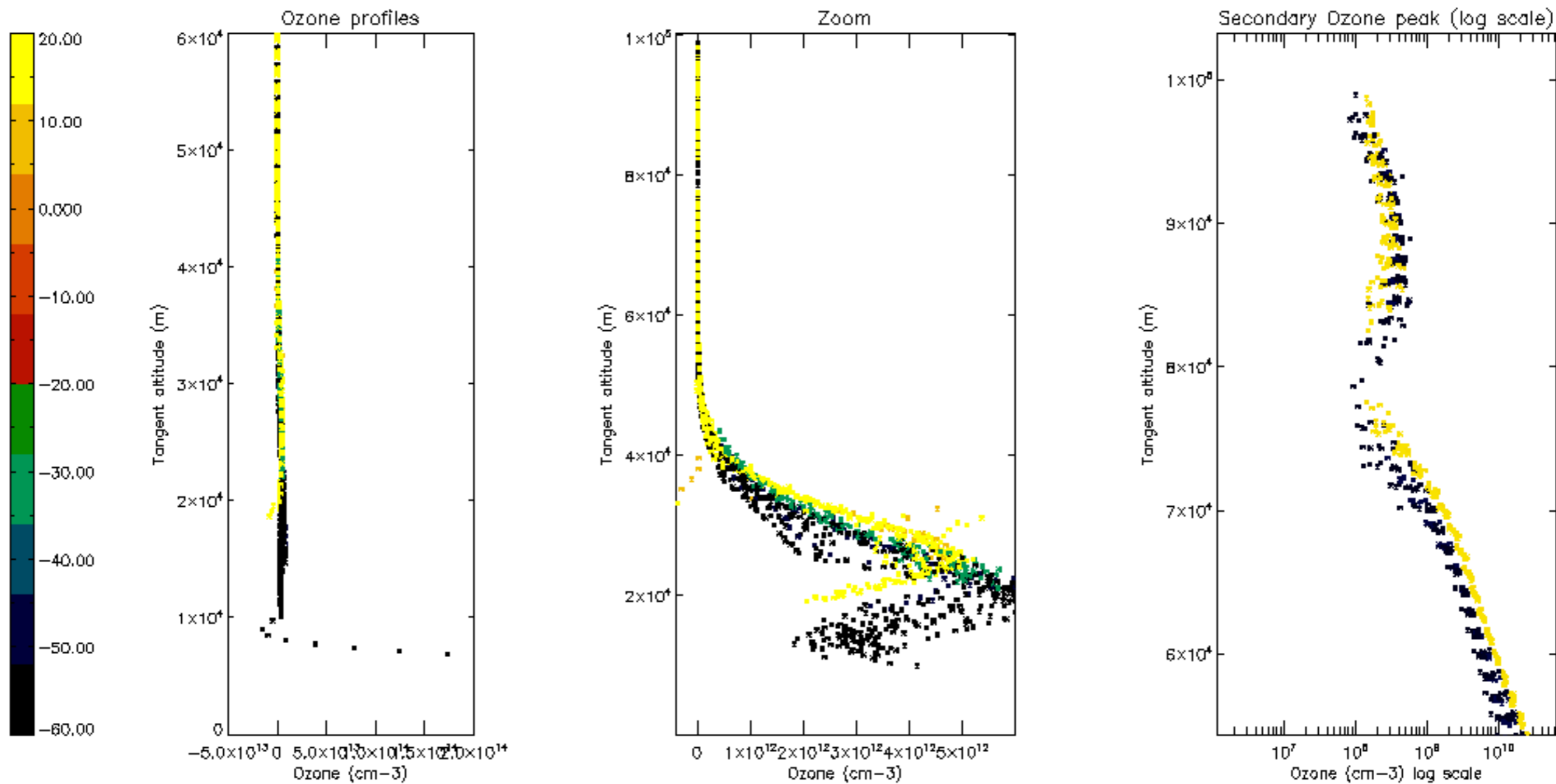


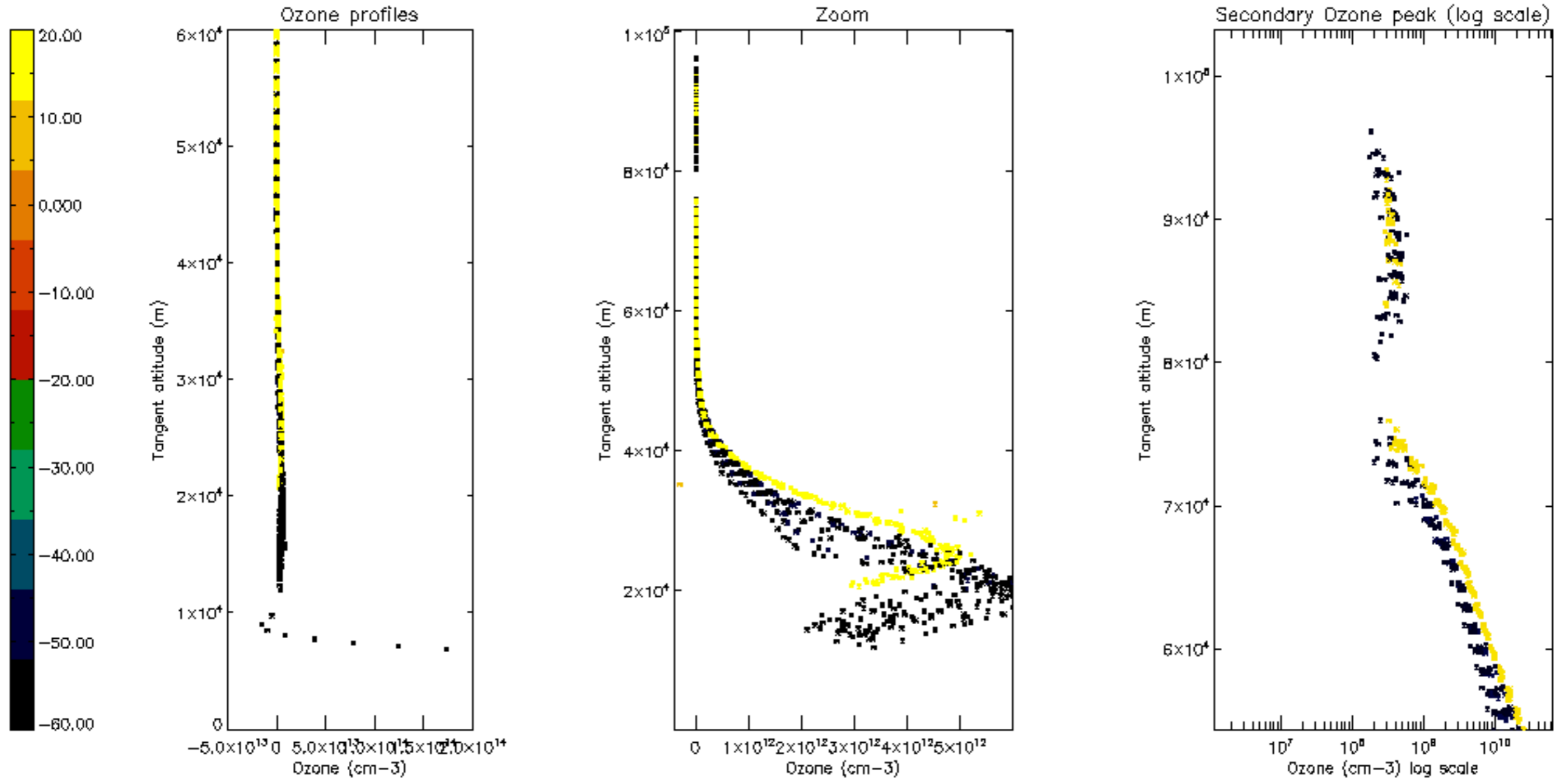
Percentage of saturation errors per profile

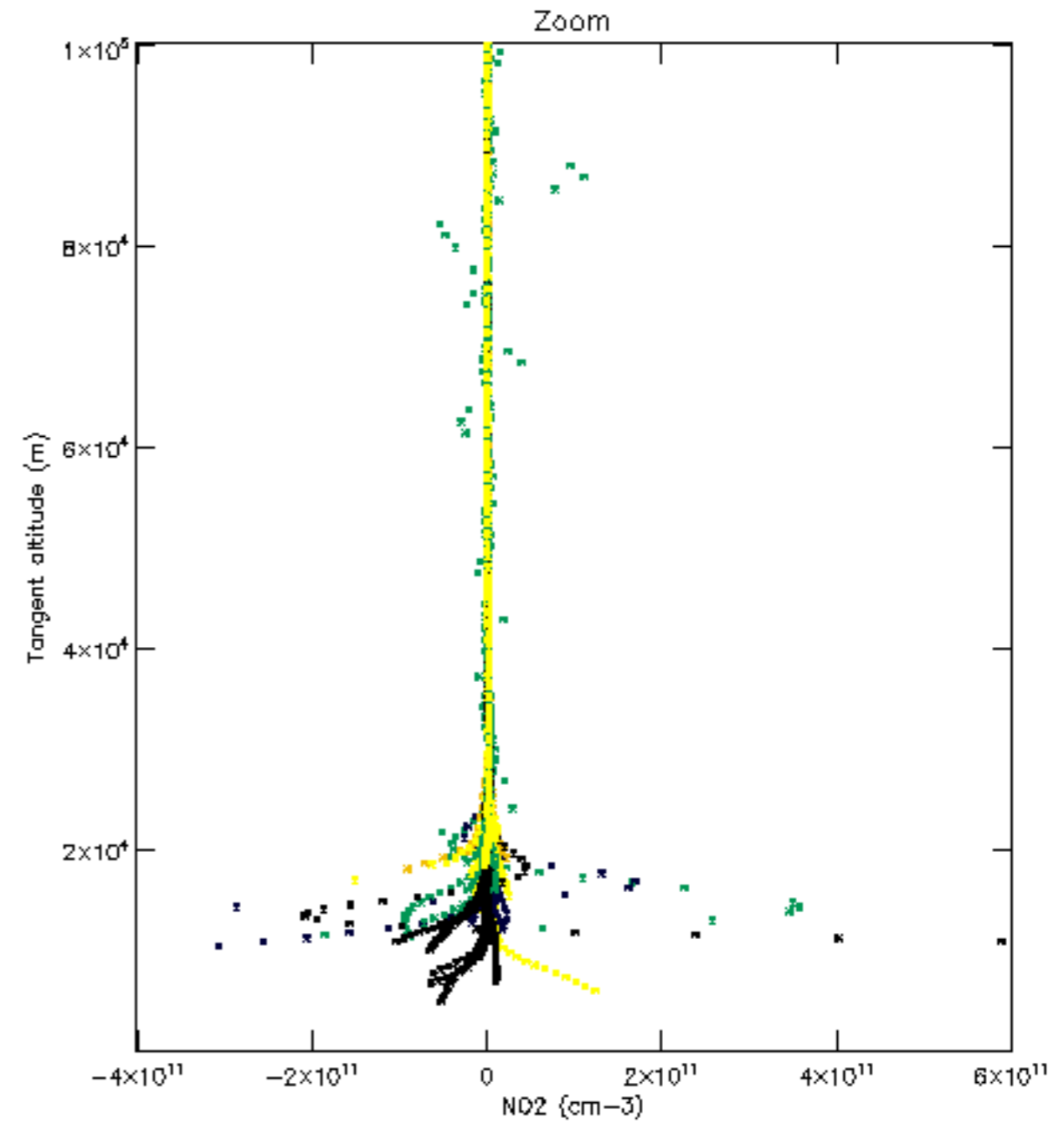
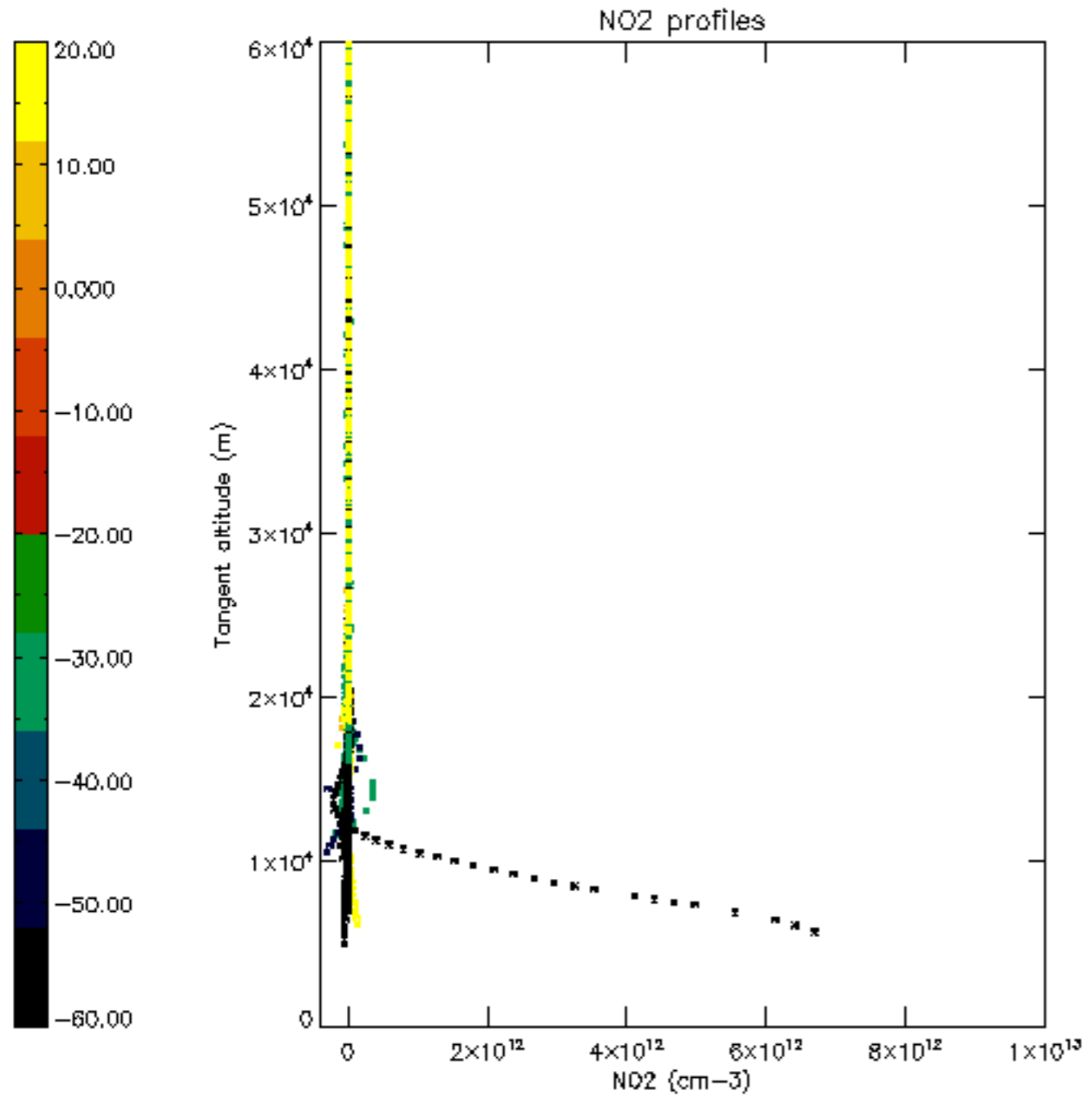


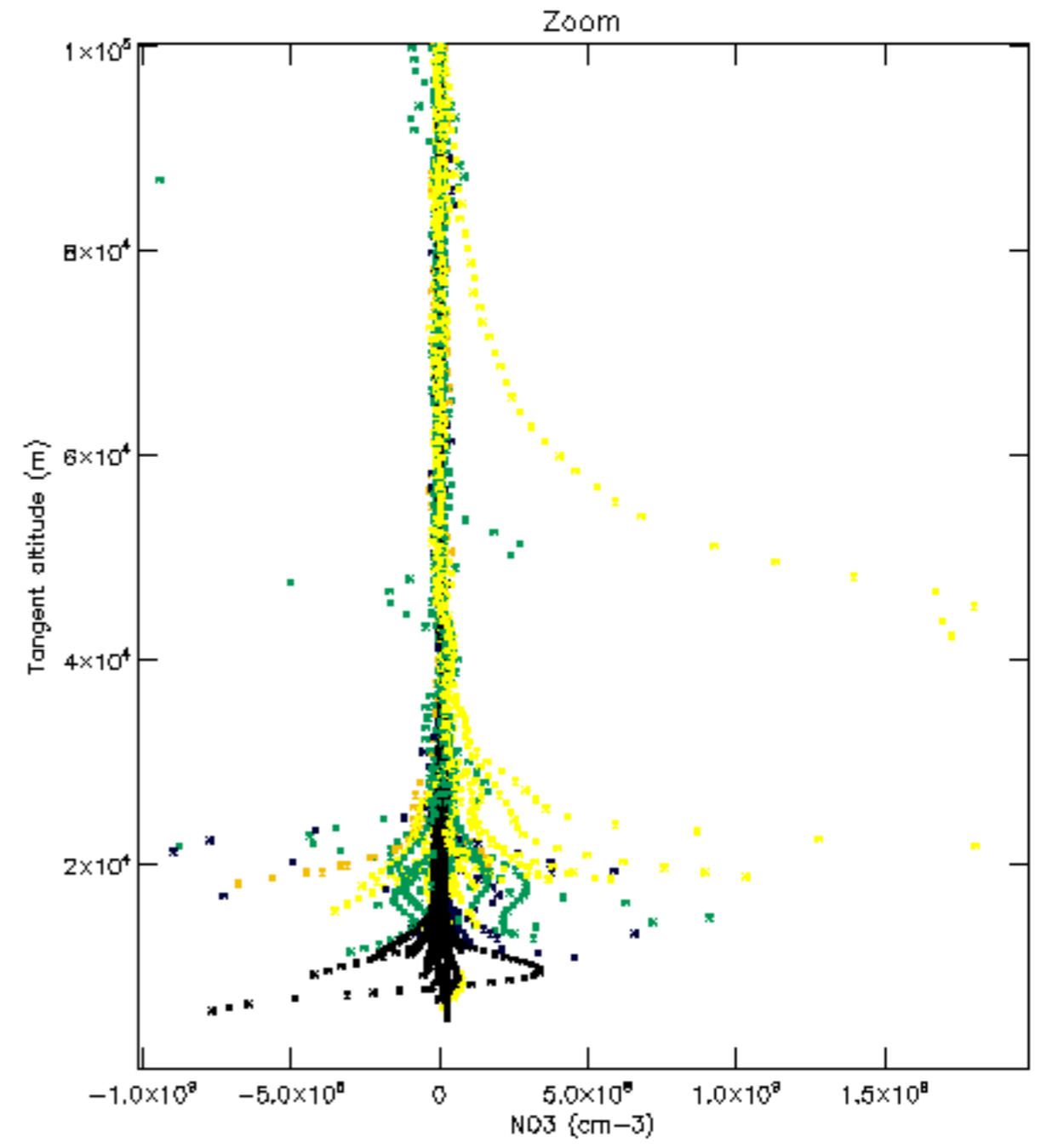
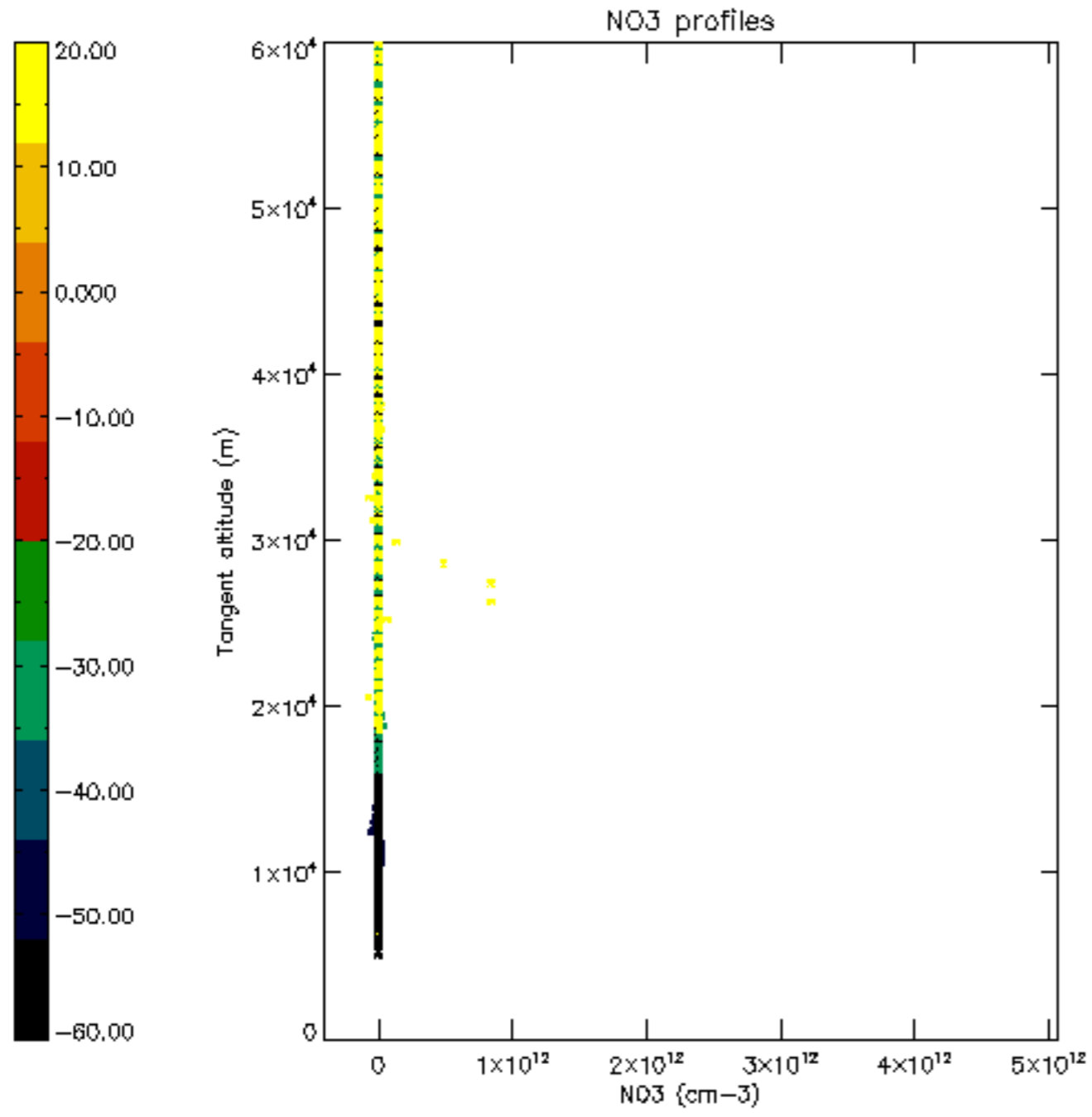




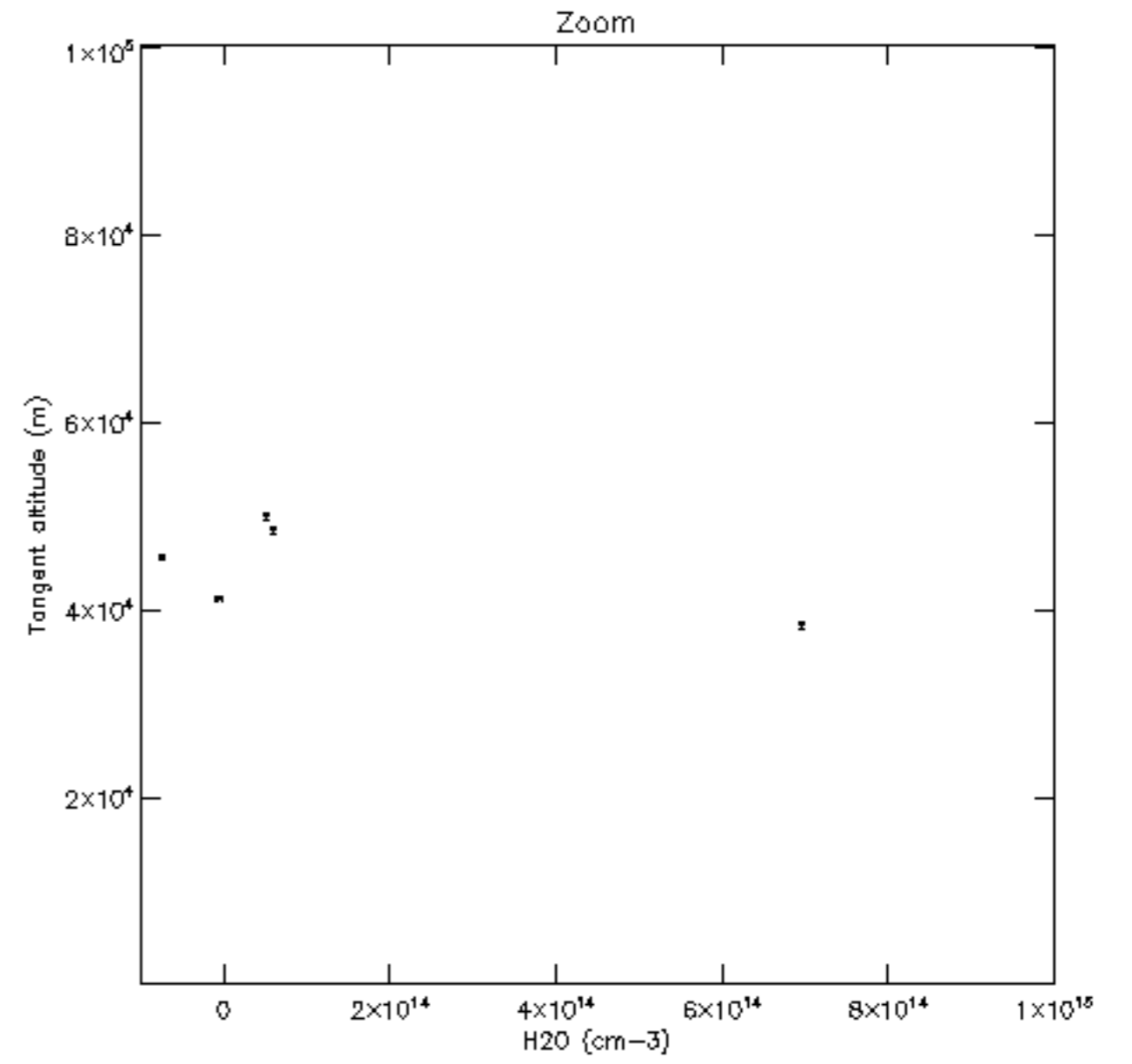
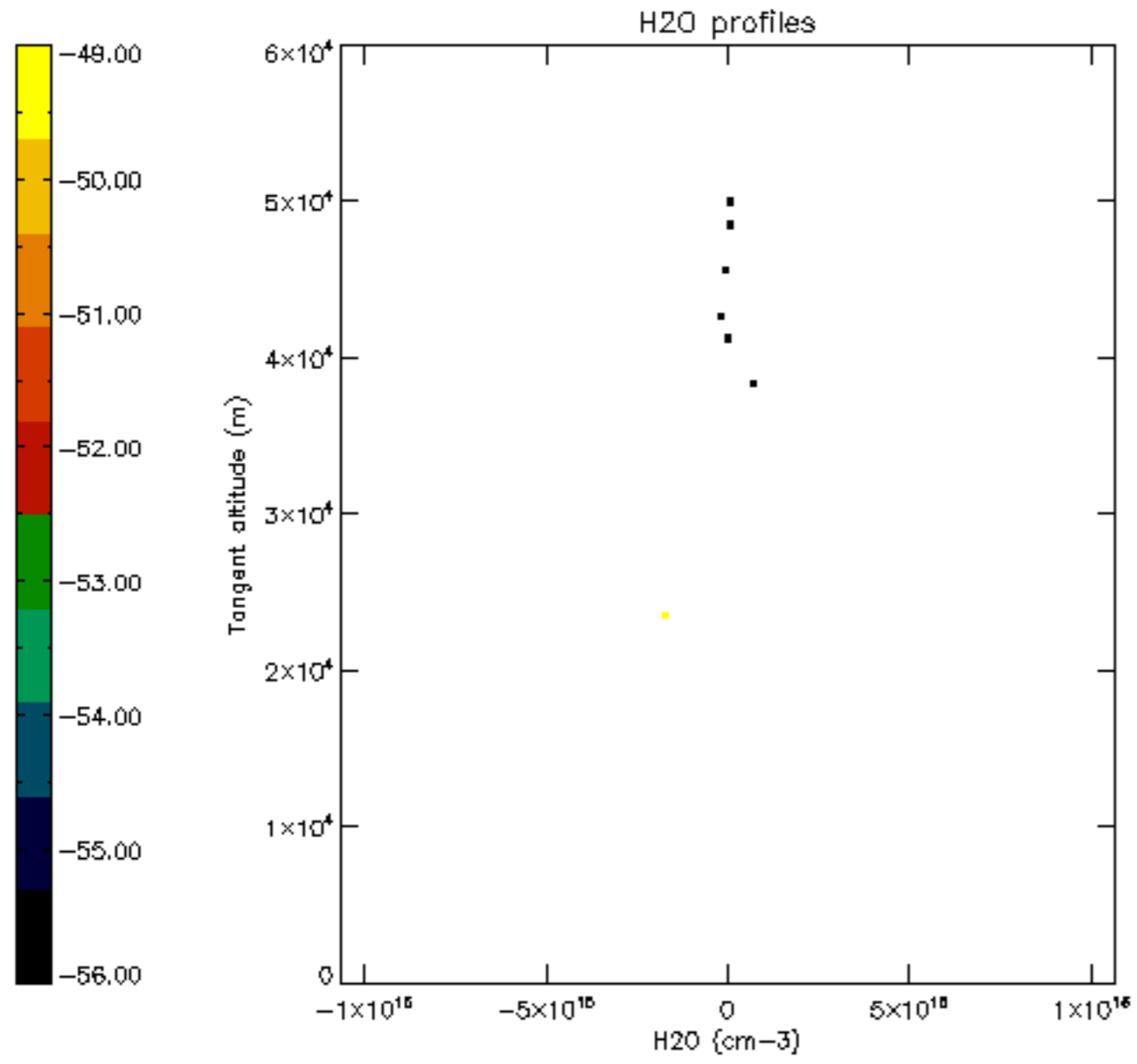


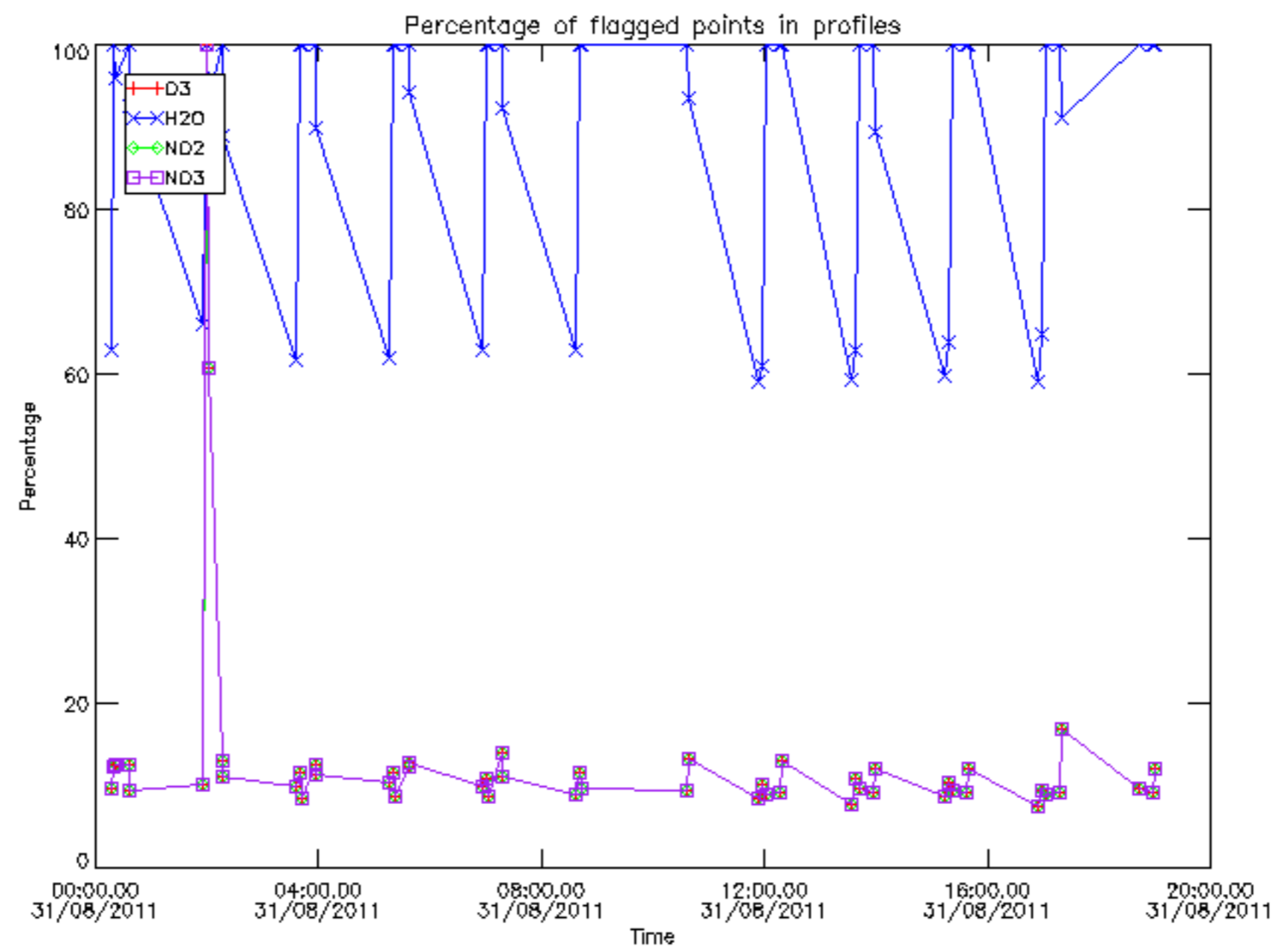




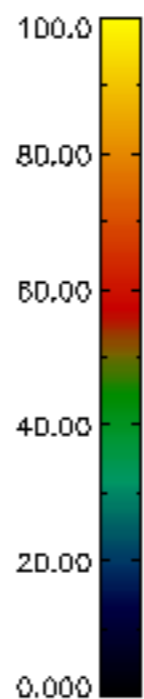
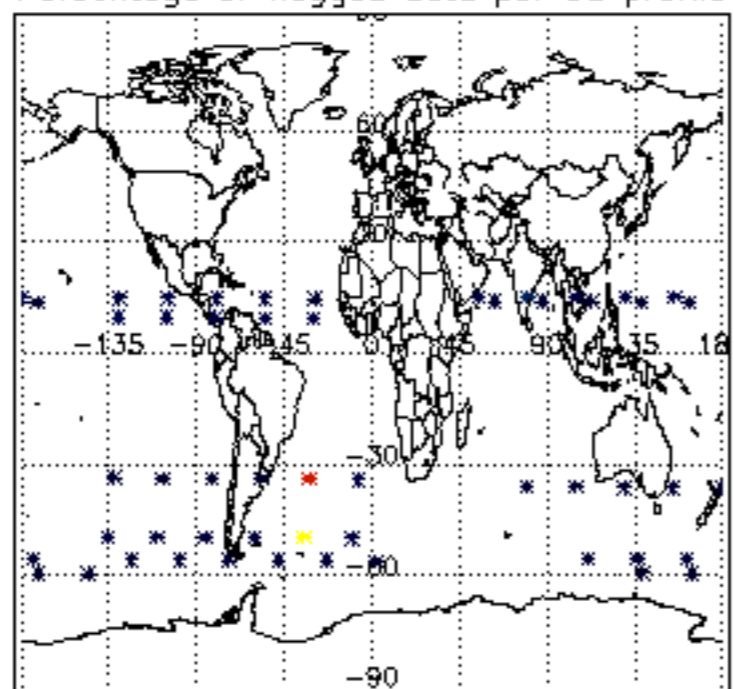




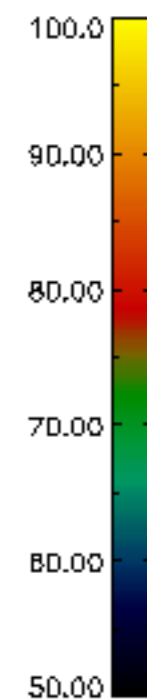
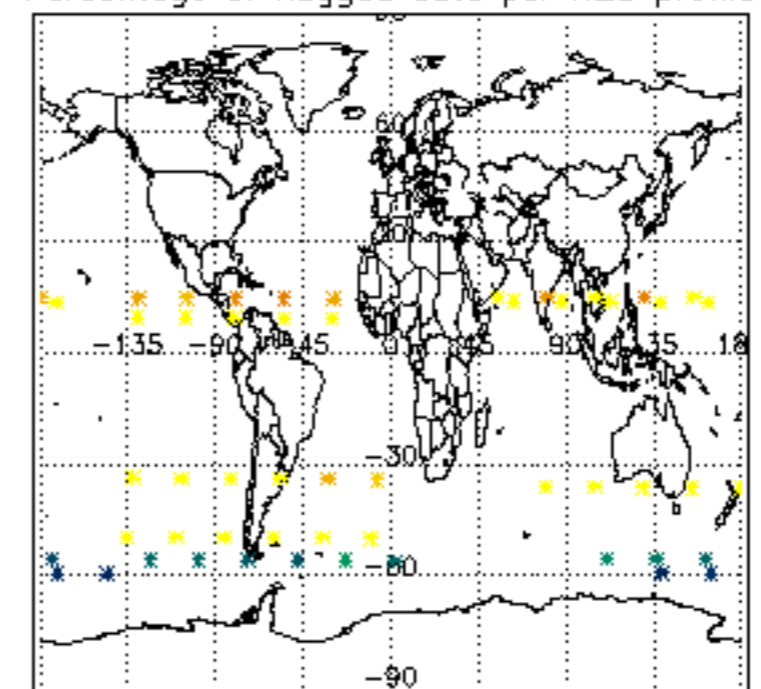




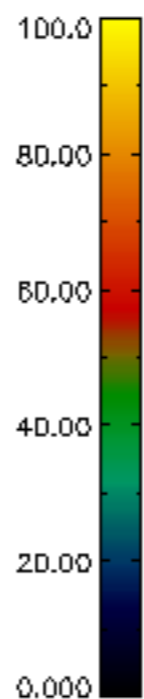
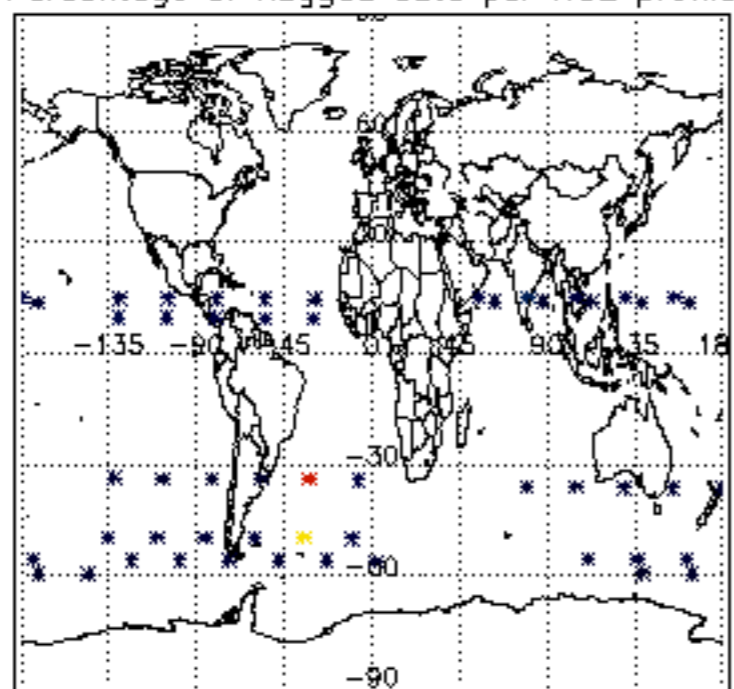
Percentage of flagged data per D3 profile



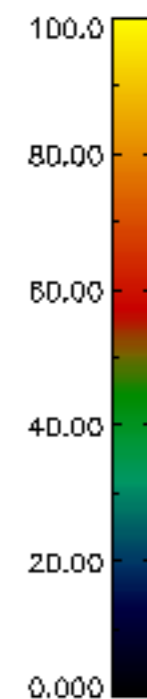
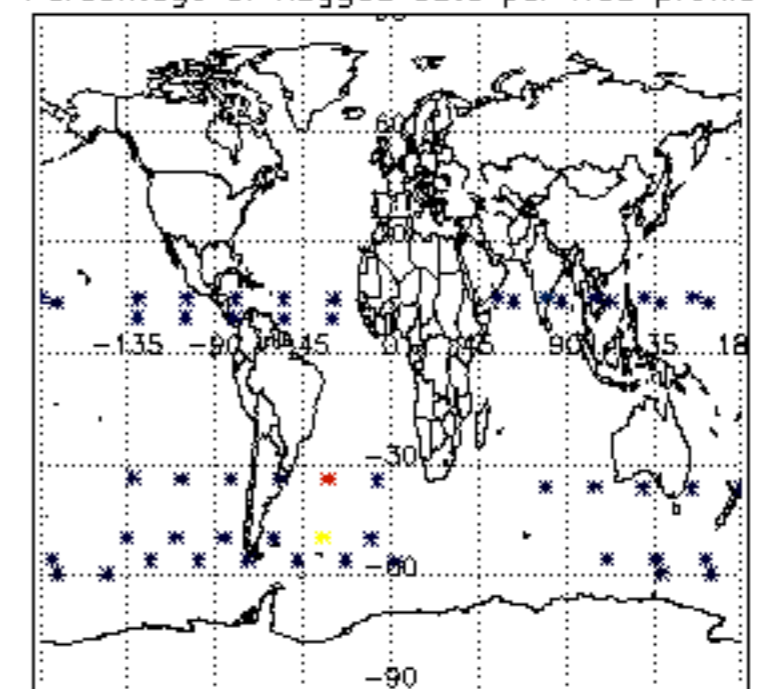
Percentage of flagged data per H2O profile

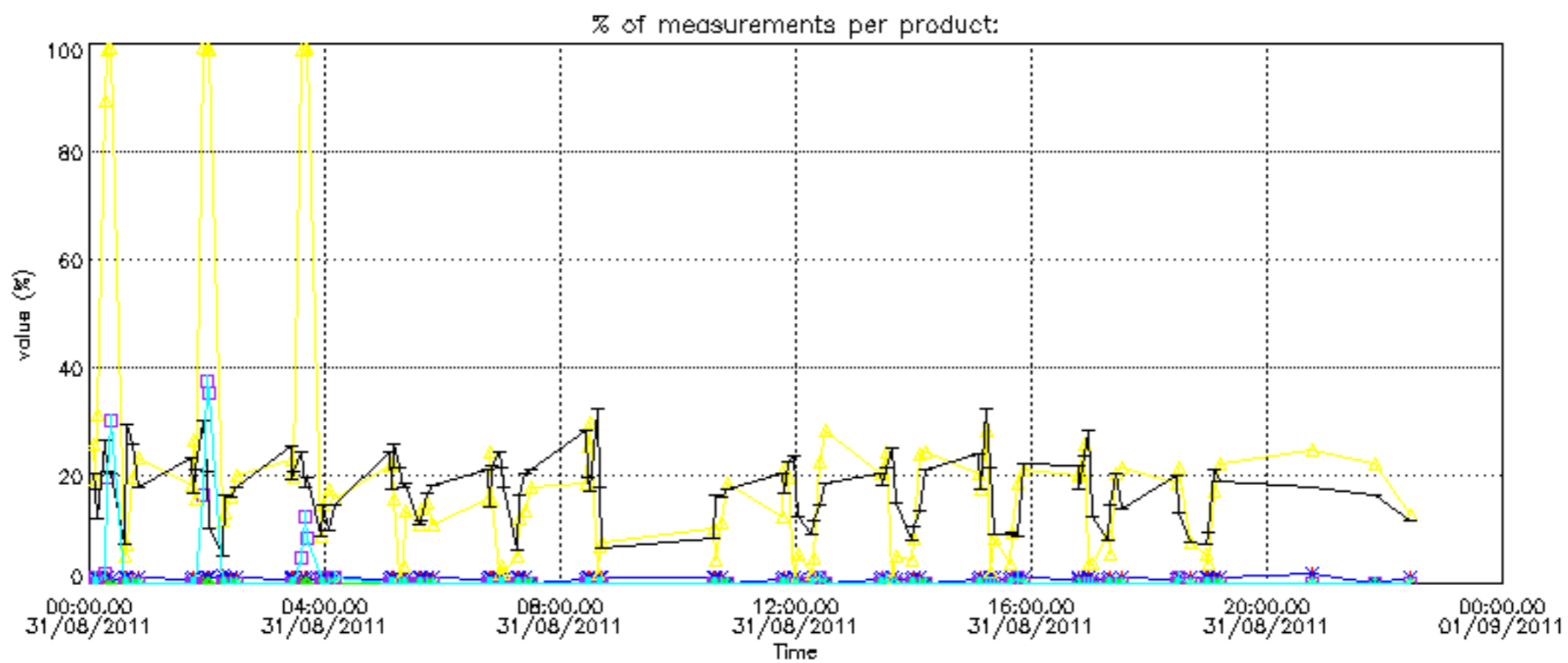
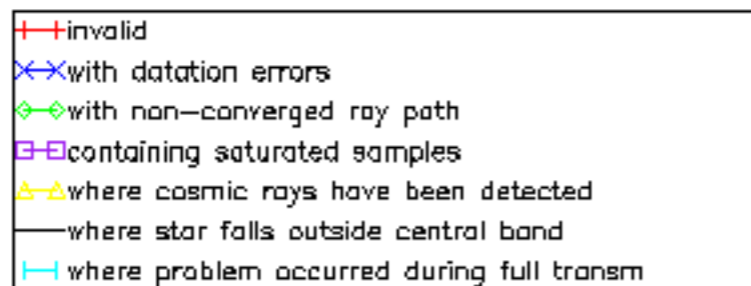


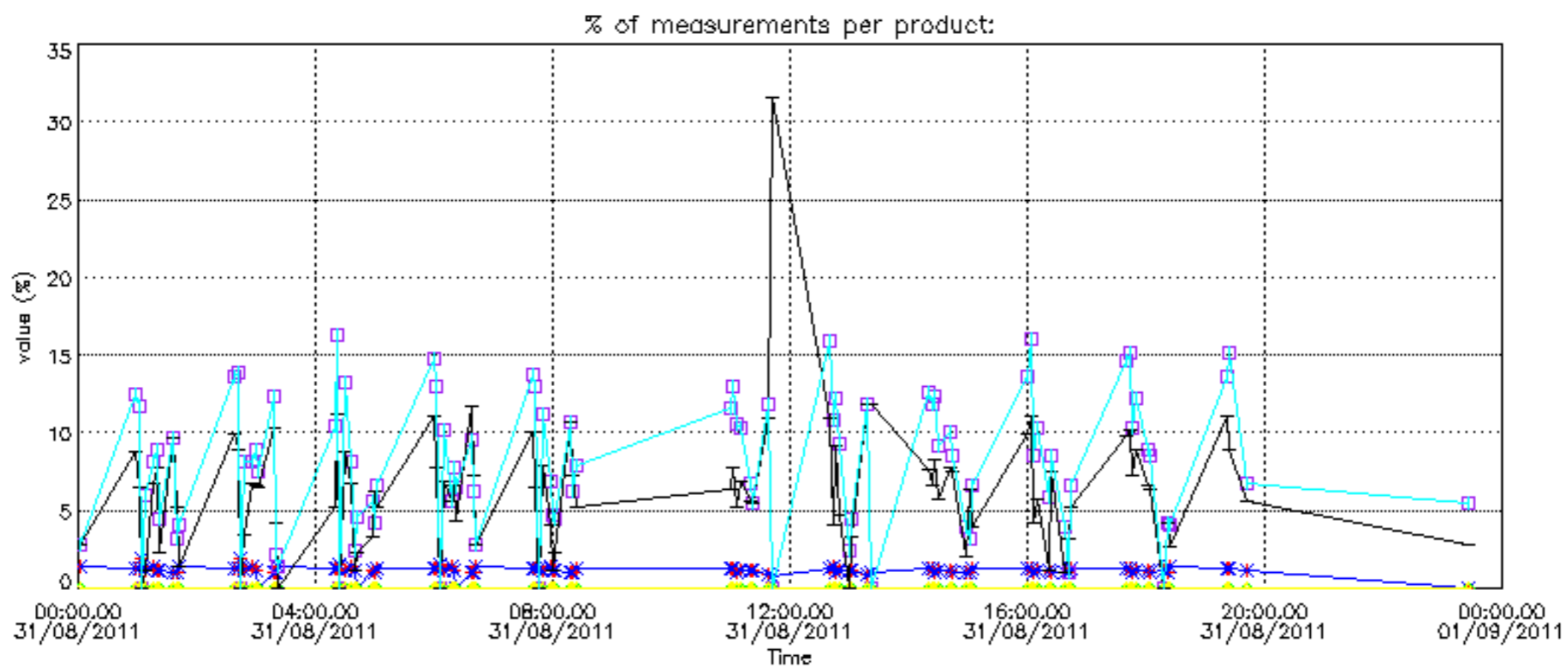
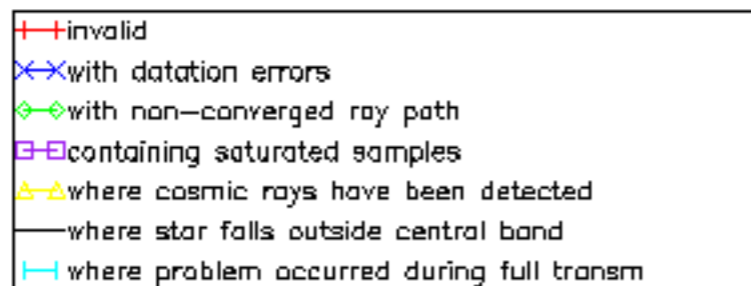
Percentage of flagged data per NO2 profile



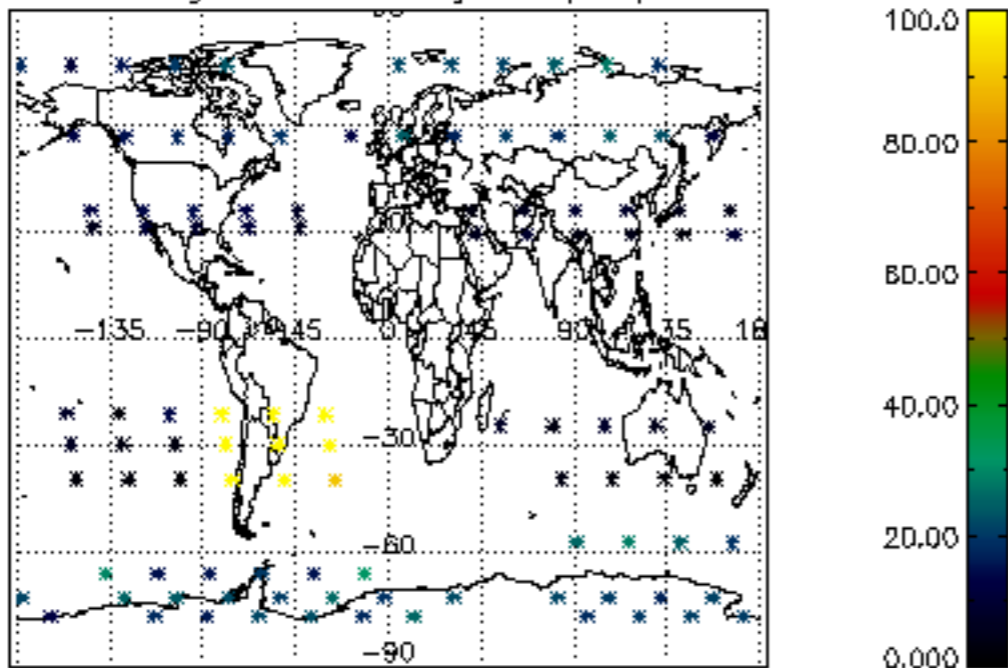
Percentage of flagged data per NO3 profile



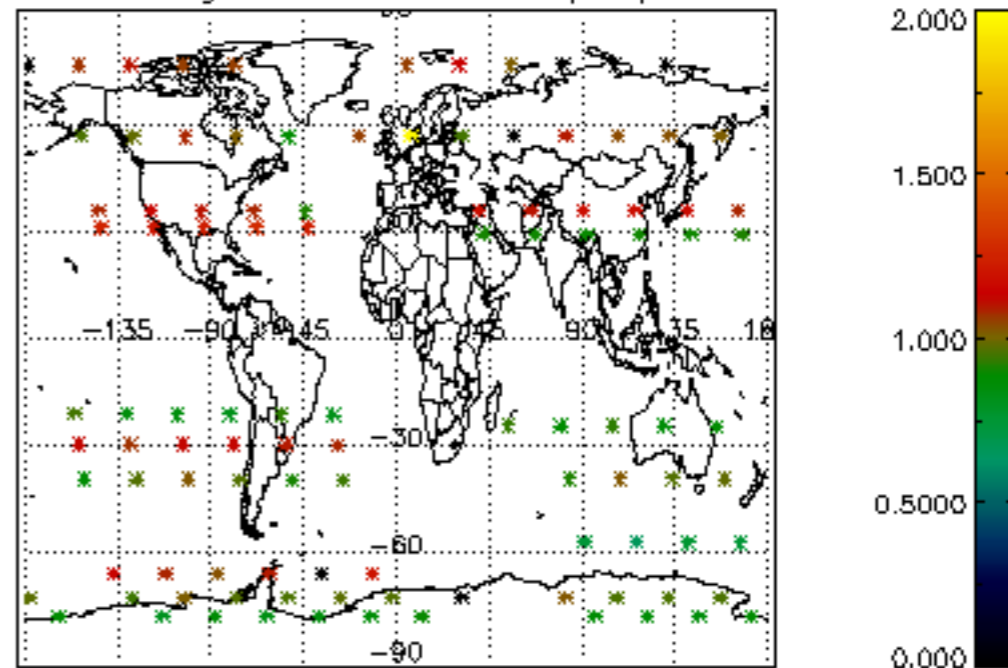




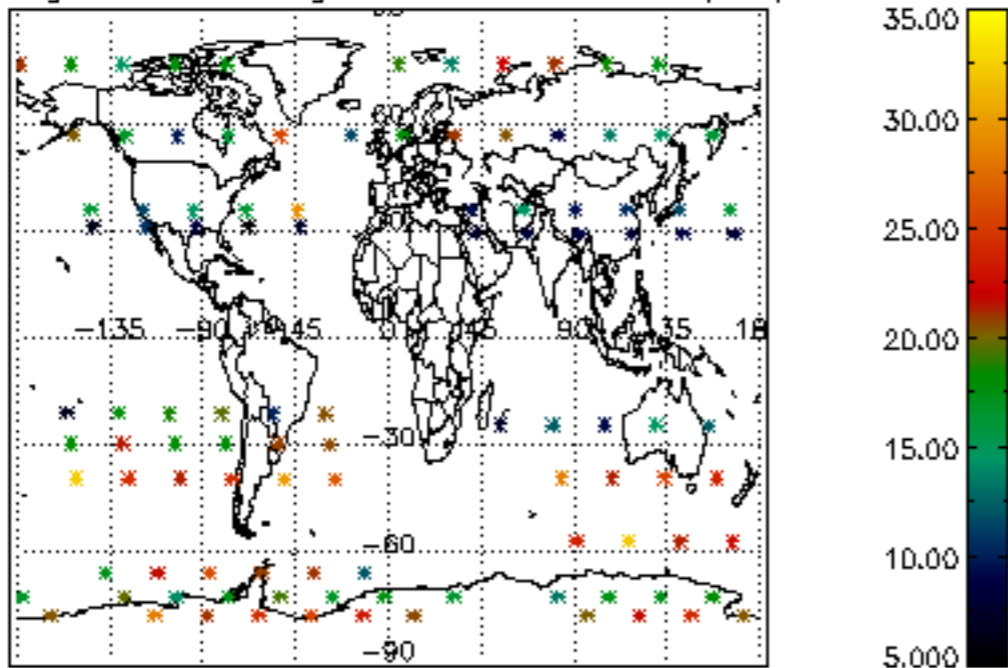
Percentage of cosmic ray hits per profile



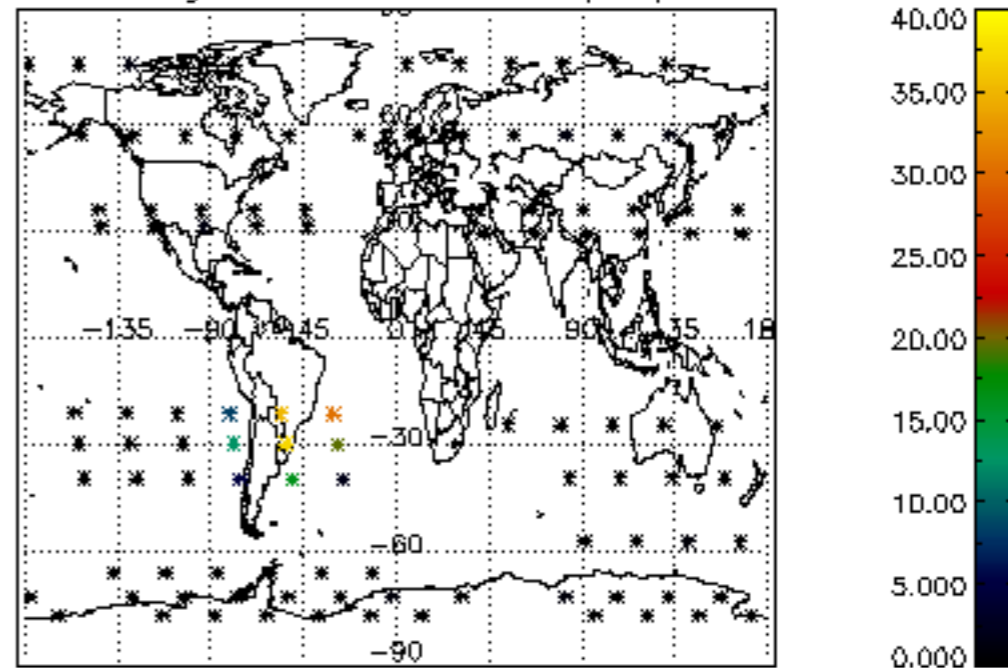
Percentage of datation errors per profile



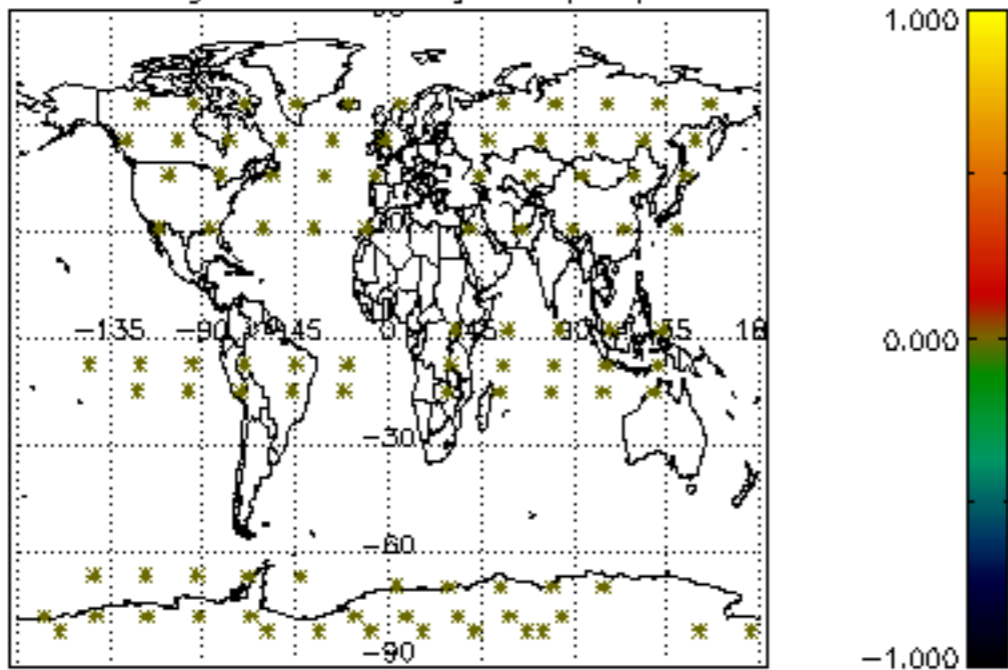
Percentage of star falling outside central band per profile



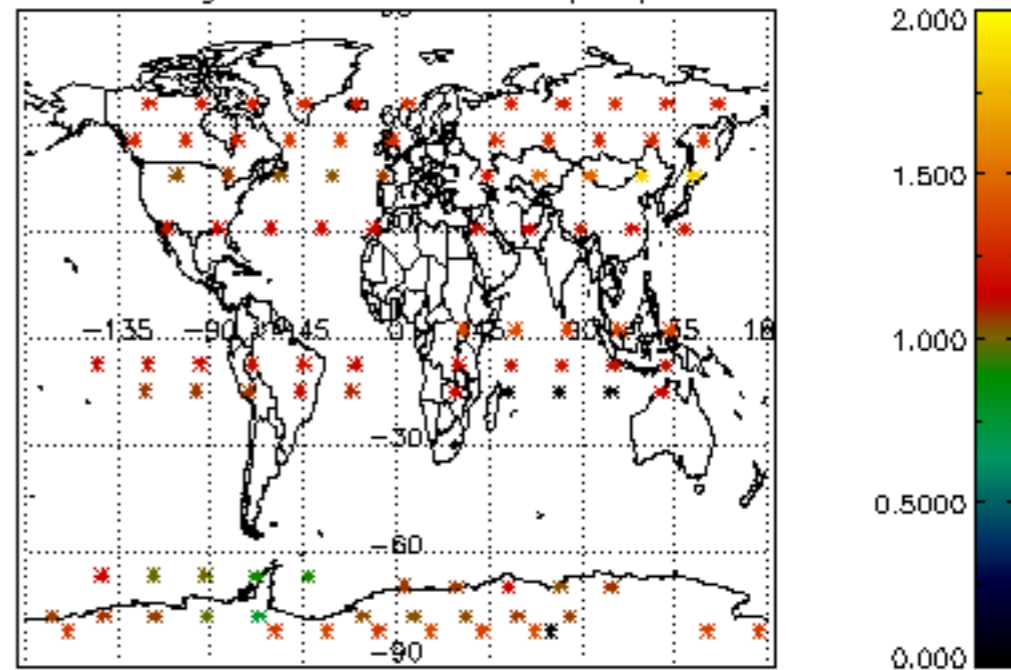
Percentage of saturation errors per profile



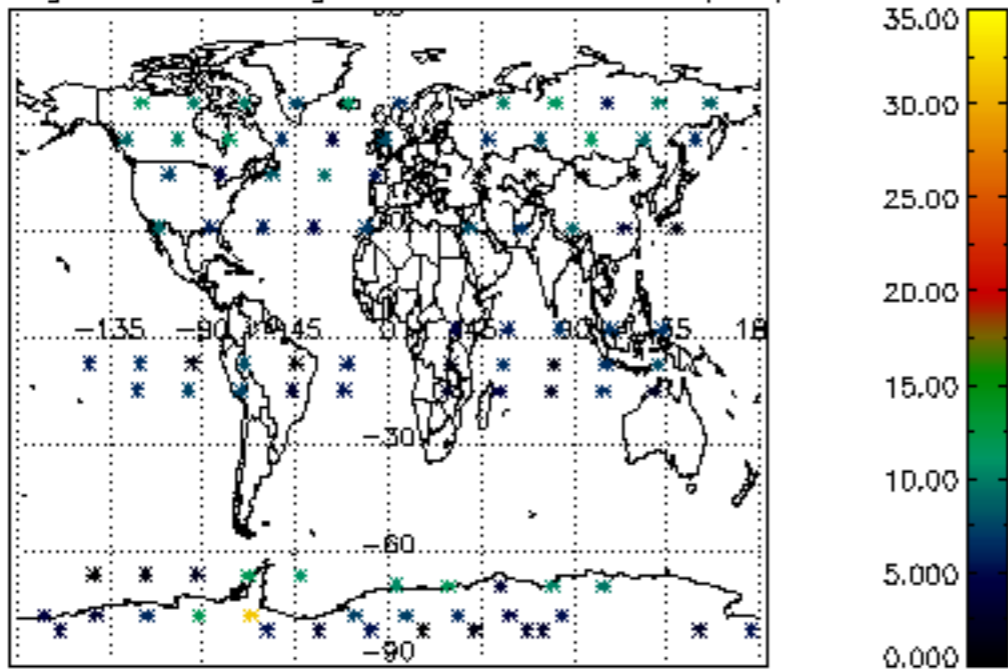
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

