

# 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	22APR2013 18:25:55
Data source version	GOMOS/6.01
Start time of products	14-04-2007 (14APR2007 00:00:00)
Stop time of products	15-04-2007 (15APR2007 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	301
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__2PRFIN20070414_000839_000000352057_00159_26766_9738.N1	14-APR-2007 00:08:39	Bright	35.000	164	44Eta Peg	2.9480	5400.0	70	26766	No
2	GOM_NL__2PRFIN20070414_001536_000000502057_00159_26766_9739.N1	14-APR-2007 00:15:36	Twilight	50.000	61	8Eps Peg	2.1000	3900.0	100	26766	No
3	GOM_NL__2PRFIN20070414_001804_000000452057_00159_26766_9740.N1	14-APR-2007 00:18:04	Dark	45.000	162	34Alp Aqr	2.9440	5350.0	90	26766	No
4	GOM_NL__2PRFIN20070414_002035_000000492057_00159_26766_9741.N1	14-APR-2007 00:20:35	Dark	49.000	154	22Bet Aqr	2.8990	5700.0	98	26766	No
5	GOM_NL__2PRFIN20070414_002301_000000432057_00159_26766_9742.N1	14-APR-2007 00:23:01	Dark	42.500	142	49Del Cap	2.8500	8900.0	85	26766	No
6	GOM_NL__2PRFIN20070414_003520_000000402057_00160_26767_9738.N1	14-APR-2007 00:35:20	Dark	40.000	45	Alp Pav	1.9400	26000.	80	26767	No
7	GOM_NL__2PRFIN20070414_004231_000000442057_00160_26767_9739.N1	14-APR-2007 00:42:31	Dark	44.000	141	Bet Ara	2.8400	4600.0	88	26767	No
8	GOM_NL__2PRFIN20070414_004449_000000392057_00160_26767_9740.N1	14-APR-2007 00:44:49	Dark	38.500	134	Bet TrA	2.8100	6600.0	77	26767	No
9	GOM_NL__2PRFIN20070414_004716_000000522057_00160_26767_9741.N1	14-APR-2007 00:47:16	Straylight	51.500	4	Alp1Cen	-0.010000	5800.0	103	26767	No
10	GOM_NL__2PRFIN20070414_005023_000000412057_00160_26767_9742.N1	14-APR-2007 00:50:23	Straylight	40.500	78	Alp Lup	2.3040	28000.	81	26767	No
11	GOM_NL__2PRFIN20070414_005159_000000452057_00160_26767_9743.N1	14-APR-2007 00:51:59	Straylight	44.500	81	Eta Cen	2.3560	28000.	89	26767	No
12	GOM_NL__2PRFIN20070414_005424_000000462057_00160_26767_9744.N1	14-APR-2007 00:54:24	Straylight	46.000	54	5The Cen	2.0550	4500.0	92	26767	No
13	GOM_NL__2PRFIN20070414_005938_000000442057_00160_26767_9745.N1	14-APR-2007 00:59:38	Tw_and_stray	43.500	106	9Bet Crv	2.6480	5600.0	87	26767	No
14	GOM_NL__2PRFIN20070414_010138_000000392057_00160_26767_9746.N1	14-APR-2007 01:01:38	Bright	38.500	163	7Del Crv	2.9450	11000.	77	26767	No
15	GOM_NL__2PRFIN20070414_010559_000000392057_00160_26767_9747.N1	14-APR-2007 01:05:59	Bright	39.000	121	29Gam Vir	2.7400	7200.0	78	26767	No
16	GOM_NL__2PRFIN20070414_010951_000000392057_00160_26767_9748.N1	14-APR-2007 01:09:51	Bright	39.000	138	47Eps Vir	2.8280	4700.0	78	26767	No
17	GOM_NL__2PRFIN20070414_011803_000000392057_00160_26767_9749.N1	14-APR-2007 01:18:03	Bright	38.500	152	12Alp2CVn	2.8900	11000.	77	26767	No
18	GOM_NL__2PRFIN20070414_012146_000000372057_00160_26767_9750.N1	14-APR-2007 01:21:46	Bright	36.500	87	64Gam UMa	2.4330	11000.	73	26767	No
19	GOM_NL__2PRFIN20070414_012318_000000382057_00160_26767_9751.N1	14-APR-2007 01:23:18	Bright	38.000	55	79Zet UMa	2.0600	10200.	76	26767	No
20	GOM_NL__2PRFIN20070414_012926_000000422057_00160_26767_9752.N1	14-APR-2007 01:29:26	Bright	42.000	60	7Bet UMi	2.0810	3950.0	84	26767	No
21	GOM_NL__2PRFIN20070414_013207_000000352057_00160_26767_9753.N1	14-APR-2007 01:32:07	Bright	34.500	49	1Alp UMi	1.9900	6300.0	69	26767	No
22	GOM_NL__2PRFIN20070414_013928_000000392057_00160_26767_9754.N1	14-APR-2007 01:39:28	Bright	38.500	89	5Alp Cep	2.4510	8000.0	77	26767	No
23	GOM_NL__2PRFIN20070414_014915_000000352057_00160_26767_9755.N1	14-APR-2007 01:49:15	Bright	35.000	164	44Eta Peg	2.9480	5400.0	70	26767	No
24	GOM_NL__2PRFIN20070414_015612_000000512057_00160_26767_9756.N1	14-APR-2007 01:56:12	Twilight	51.000	61	8Eps Peg	2.1000	3900.0	102	26767	No
25	GOM_NL__2PRFIN20070414_015840_000000462057_00160_26767_9757.N1	14-APR-2007 01:58:40	Dark	45.500	162	34Alp Aqr	2.9440	5350.0	91	26767	No
26	GOM_NL__2PRFIN20070414_020112_000000462057_00160_26767_9758.N1	14-APR-2007 02:01:12	Dark	45.500	154	22Bet Aqr	2.8990	5700.0	91	26767	No
27	GOM_NL__2PRFIN20070414_020337_000000412057_00160_26767_9759.N1	14-APR-2007 02:03:37	Dark	41.000	142	49Del Cap	2.8500	8900.0	82	26767	No
28	GOM_NL__2PRFIN20070414_021557_000000392057_00161_26768_9753.N1	14-APR-2007 02:15:57	Dark	39.000	45	Alp Pav	1.9400	26000.	78	26768	No
29	GOM_NL__2PRFIN20070414_022308_000000432057_00161_26768_9754.N1	14-APR-2007 02:23:08	Dark	42.500	141	Bet Ara	2.8400	4600.0	85	26768	No
30	GOM_NL__2PRFIN20070414_022526_000000382057_00161_26768_9755.N1	14-APR-2007 02:25:26	Dark	38.000	134	Bet TrA	2.8100	6600.0	76	26768	No
31	GOM_NL__2PRFIN20070414_022752_000000532057_00161_26768_9756.N1	14-APR-2007 02:27:52	Straylight	53.000	4	Alp1Cen	-0.010000	5800.0	106	26768	No
32	GOM_NL__2PRFIN20070414_023100_000000422057_00161_26768_9757.N1	14-APR-2007 02:31:00	Straylight	42.000	78	Alp Lup	2.3040	28000.	84	26768	No
33	GOM_NL__2PRFIN20070414_023236_000000442057_00161_26768_9758.N1	14-APR-2007 02:32:36	Straylight	43.500	81	Eta Cen	2.3560	28000.	87	26768	No
34	GOM_NL__2PRFIN20070414_023501_000000482057_00161_26768_9759.N1	14-APR-2007 02:35:01	Straylight	47.500	54	5The Cen	2.0550	4500.0	95	26768	No
35	GOM_NL__2PRFIN20070414_024014_000000432057_00161_26768_9760.N1	14-APR-2007 02:40:14	Tw_and_stray	43.000	106	9Bet Crv	2.6480	5600.0	86	26768	No
36	GOM_NL__2PRFIN20070414_024214_000000532057_00161_26768_9761.N1	14-APR-2007 02:42:14	Bright	53.000	163	7Del Crv	2.9450	11000.	106	26768	No
37	GOM_NL__2PRFIN20070414_024635_000000392057_00161_26768_9762.N1	14-APR-2007 02:46:35	Bright	39.000	121	29Gam Vir	2.7400	7200.0	78	26768	No
38	GOM_NL__2PRFIN20070414_025027_000000402057_00161_26768_9763.N1	14-APR-2007 02:50:27	Bright	39.500	138	47Eps Vir	2.8280	4700.0	79	26768	No
39	GOM_NL__2PRFIN20070414_025838_000000382057_00161_26768_9764.N1	14-APR-2007 02:58:38	Bright	37.500	152	12Alp2CVn	2.8900	11000.	75	26768	No
40	GOM_NL__2PRFIN20070414_030222_000000342057_00161_26768_9765.N1	14-APR-2007 03:02:22	Bright	34.000	87	64Gam UMa	2.4330	11000.	68	26768	No
41	GOM_NL__2PRFIN20070414_030354_000000402057_00161_26768_9766.N1	14-APR-2007 03:03:54	Bright	40.000	55	79Zet UMa	2.0600	10200.	80	26768	No
42	GOM_NL__2PRFIN20070414_031001_000000382057_00161_26768_9767.N1	14-APR-2007 03:10:01	Bright	38.000	60	7Bet UMi	2.0810	3950.0	76	26768	No







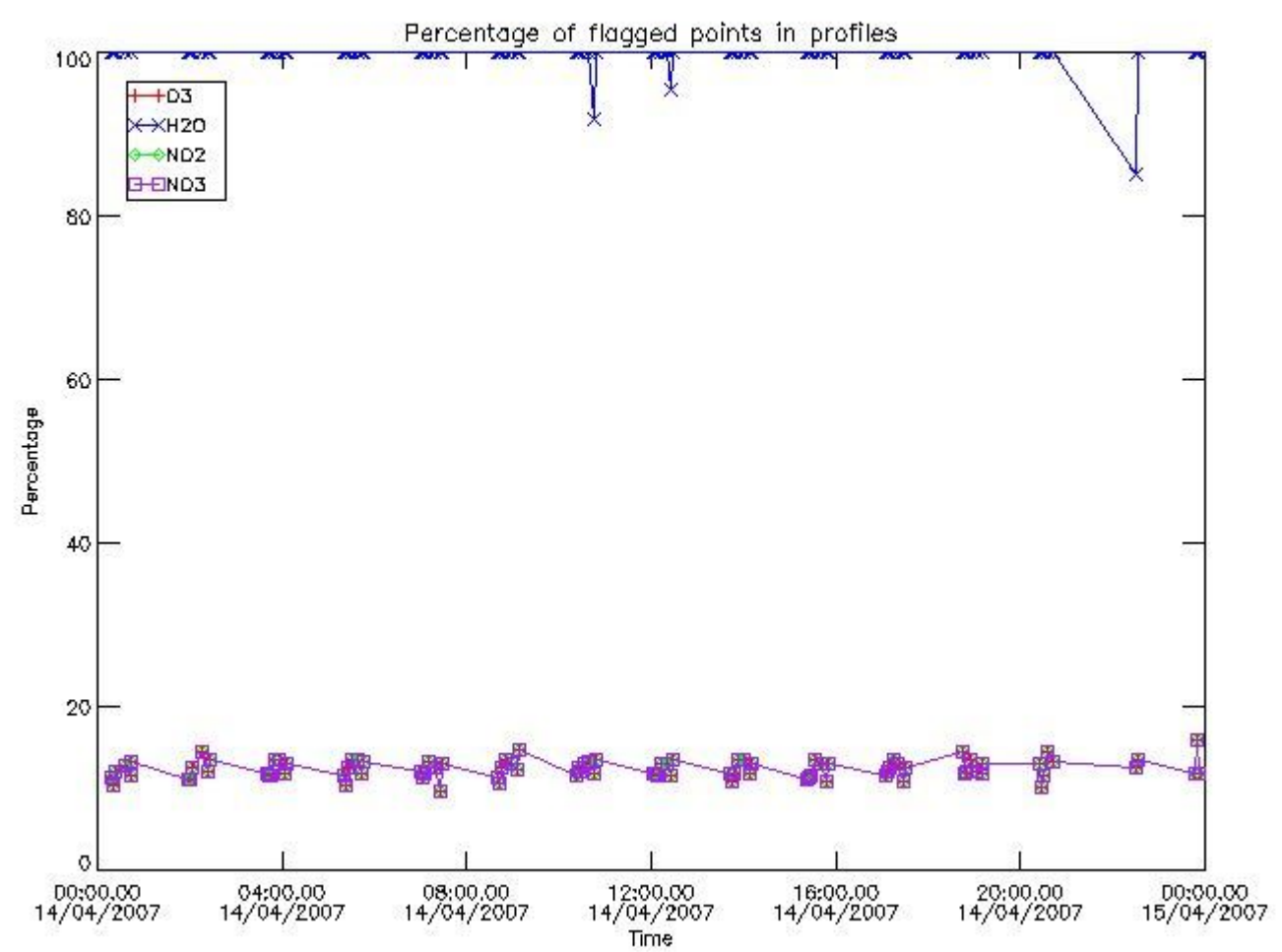


279	GOM_NL__2PRFIN20070414_203018_000000442057_00171_26778_9931.N1	14-APR-2007 20:30:18	Dark	44.000	142	49Del Cap	2.8500	8900.0	88	26778	No
280	GOM_NL__2PRFIN20070414_203538_000000392057_00171_26778_9932.N1	14-APR-2007 20:35:38	Dark	39.000	172	Gam Gru	3.0030	13100.	78	26778	No
281	GOM_NL__2PRFIN20070414_204238_000000382057_00172_26779_9935.N1	14-APR-2007 20:42:38	Dark	38.000	45	Alp Pav	1.9400	26000.	76	26779	No
282	GOM_NL__2PRFIN20070414_223038_000000412057_00173_26780_9946.N1	14-APR-2007 22:30:38	Dark	40.500	43	Alp TrA	1.9100	4250.0	81	26780	No
283	GOM_NL__2PRFIN20070414_223243_000000382057_00173_26780_9947.N1	14-APR-2007 22:32:43	Dark	37.500	134	Bet TrA	2.8100	6600.0	75	26780	No
284	GOM_NL__2PRFIN20070414_223508_000000542057_00173_26780_9948.N1	14-APR-2007 22:35:08	Straylight	53.500	4	Alp1Cen	-0.010000	5800.0	107	26780	No
285	GOM_NL__2PRFIN20070414_223817_000000402057_00173_26780_9949.N1	14-APR-2007 22:38:17	Straylight	40.000	78	Alp Lup	2.3040	28000.	80	26780	No
286	GOM_NL__2PRFIN20070414_223953_000000452057_00173_26780_9950.N1	14-APR-2007 22:39:53	Straylight	44.500	81	Eta Cen	2.3560	28000.	89	26780	No
287	GOM_NL__2PRFIN20070414_224216_000000452057_00173_26780_9951.N1	14-APR-2007 22:42:16	Straylight	44.500	54	5The Cen	2.0550	4500.0	89	26780	No
288	GOM_NL__2PRFIN20070414_224728_000000442057_00173_26780_9952.N1	14-APR-2007 22:47:28	Twl_and_stray	43.500	106	9Bet Crv	2.6480	5600.0	87	26780	No
289	GOM_NL__2PRFIN20070414_224918_000000432057_00173_26780_9953.N1	14-APR-2007 22:49:18	Bright	42.500	100	4Gam Crv	2.5800	13100.	85	26780	No
290	GOM_NL__2PRFIN20070414_225347_000000392057_00173_26780_9954.N1	14-APR-2007 22:53:47	Bright	38.500	121	29Gam Vir	2.7400	7200.0	77	26780	No
291	GOM_NL__2PRFIN20070414_225737_000000402057_00173_26780_9955.N1	14-APR-2007 22:57:37	Bright	39.500	138	47Eps Vir	2.8280	4700.0	79	26780	No
292	GOM_NL__2PRFIN20070414_230546_000000382057_00173_26780_9956.N1	14-APR-2007 23:05:46	Bright	38.000	152	12Alp2CVn	2.8900	11000.	76	26780	No
293	GOM_NL__2PRFIN20070414_230933_000000512057_00173_26780_9957.N1	14-APR-2007 23:09:33	Bright	51.000	87	64Gam UMa	2.4330	11000.	102	26780	No
294	GOM_NL__2PRFIN20070414_231151_000000342057_00173_26780_9958.N1	14-APR-2007 23:11:51	Bright	34.000	36	50Alp UMa	1.8000	6300.0	68	26780	No
295	GOM_NL__2PRFIN20070414_231710_000000392057_00173_26780_9959.N1	14-APR-2007 23:17:10	Bright	39.000	60	7Bet UMi	2.0810	3950.0	78	26780	No
296	GOM_NL__2PRFIN20070414_231954_000000322057_00173_26780_9960.N1	14-APR-2007 23:19:54	Bright	32.000	49	1Alp UMi	1.9900	6300.0	64	26780	No
297	GOM_NL__2PRFIN20070414_232714_000000372057_00173_26780_9961.N1	14-APR-2007 23:27:14	Bright	37.000	89	5Alp Cep	2.4510	8000.0	74	26780	No
298	GOM_NL__2PRFIN20070414_233704_000000402057_00173_26780_9962.N1	14-APR-2007 23:37:04	Bright	40.000	164	44Eta Peg	2.9480	5400.0	80	26780	No
299	GOM_NL__2PRFIN20070414_234633_000000432057_00173_26780_9963.N1	14-APR-2007 23:46:33	Dark	43.000	162	34Alp Aqr	2.9440	5350.0	86	26780	No
300	GOM_NL__2PRFIN20070414_234907_000000352057_00173_26780_9964.N1	14-APR-2007 23:49:07	Dark	35.000	154	22Bet Aqr	2.8990	5700.0	70	26780	No
301	GOM_NL__2PRFIN20070414_235131_000000432057_00173_26780_9965.N1	14-APR-2007 23:51:31	Dark	43.000	142	49Del Cap	2.8500	8900.0	86	26780	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.

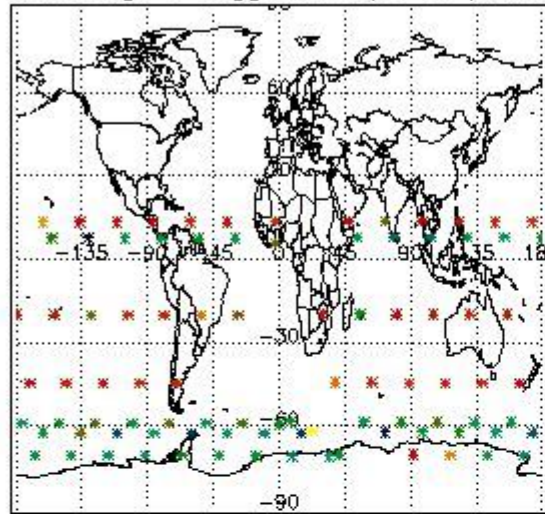
#### 3.1 Plot quality information per product (time dependant)



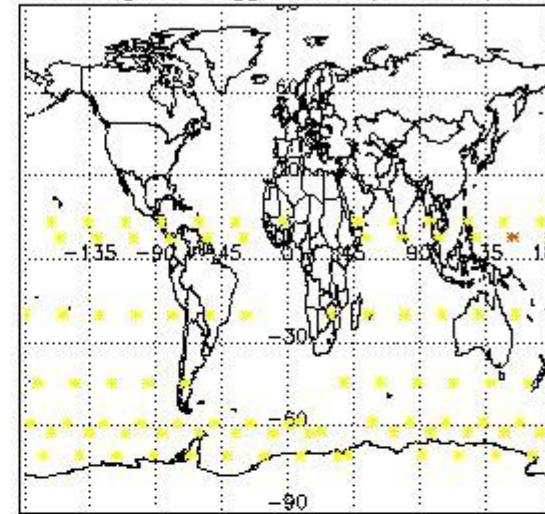
3.2 Plot quality information per product (world map)



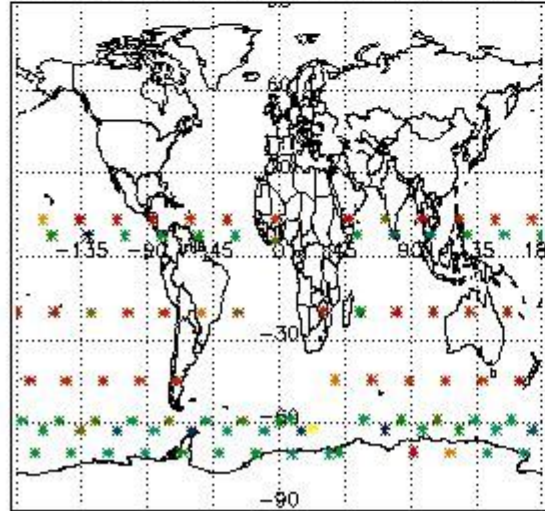
Percentage of flagged data per O3 profile



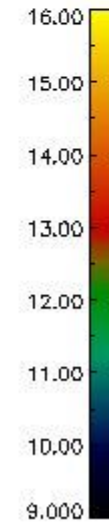
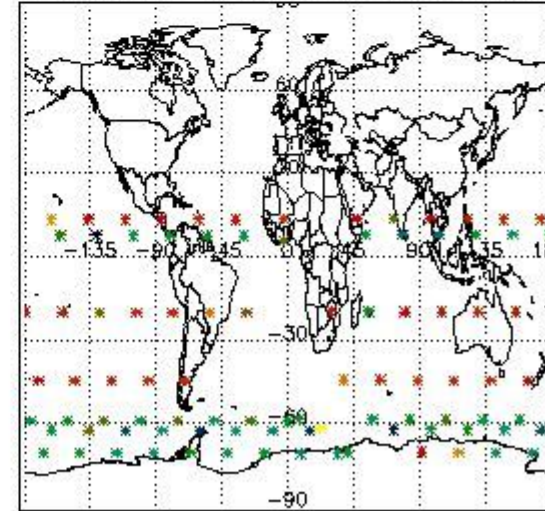
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

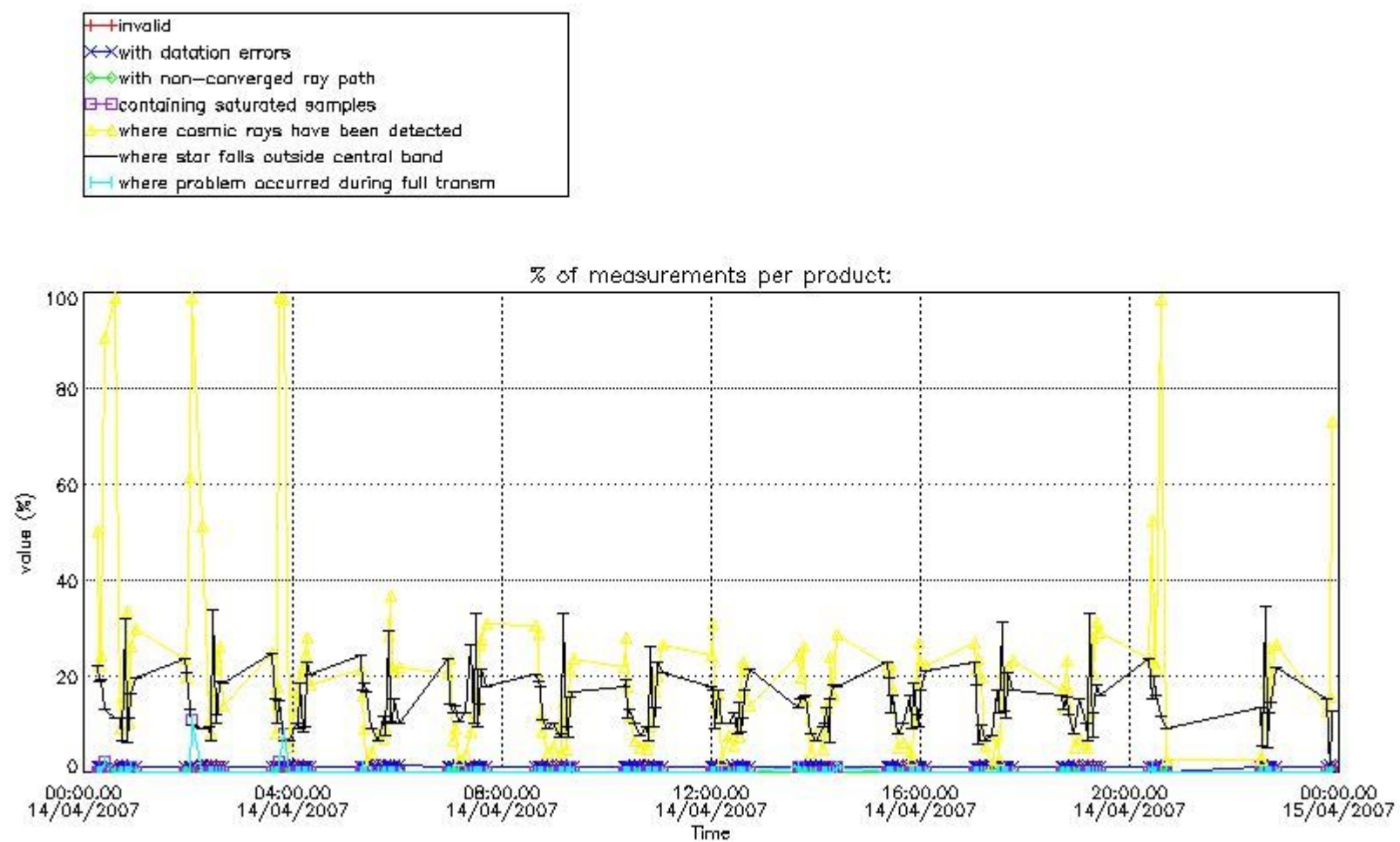


#### 4. Level 1 quality information per product

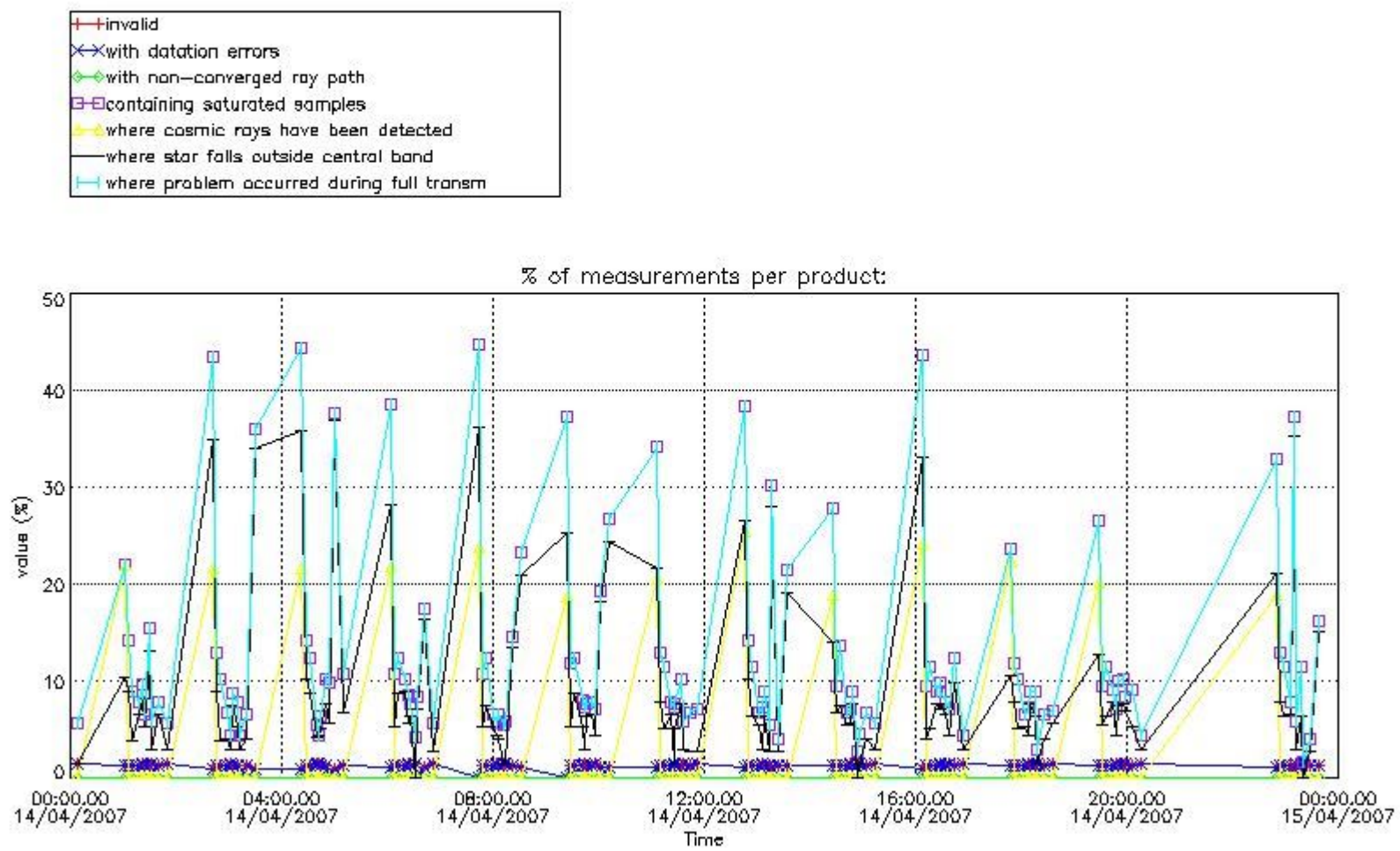
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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

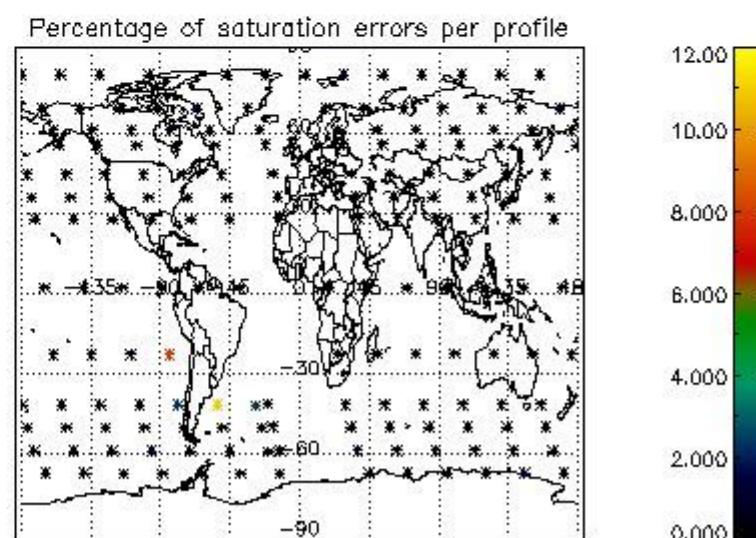
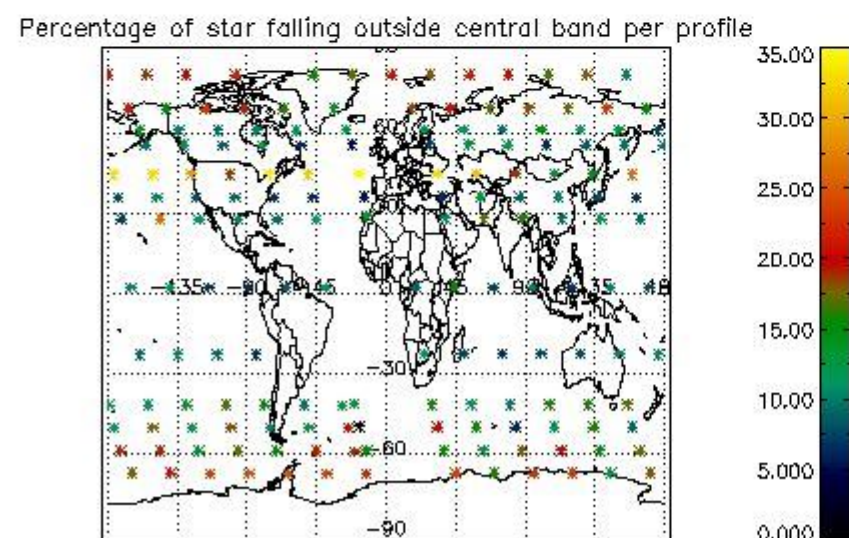
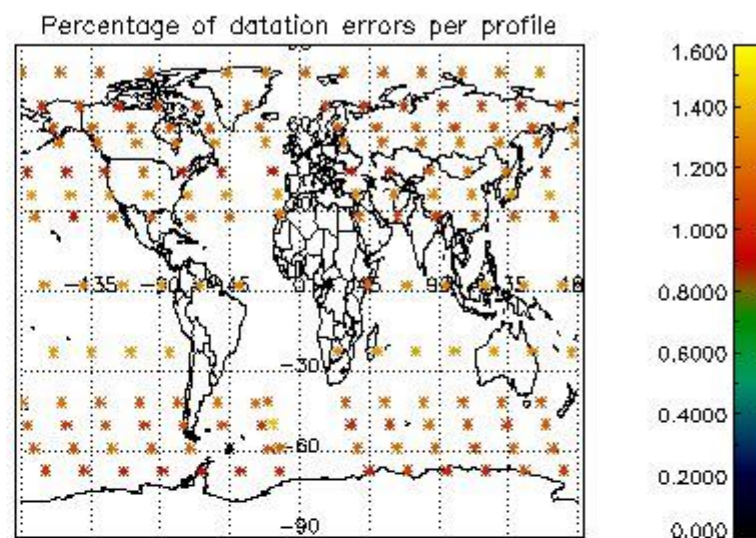
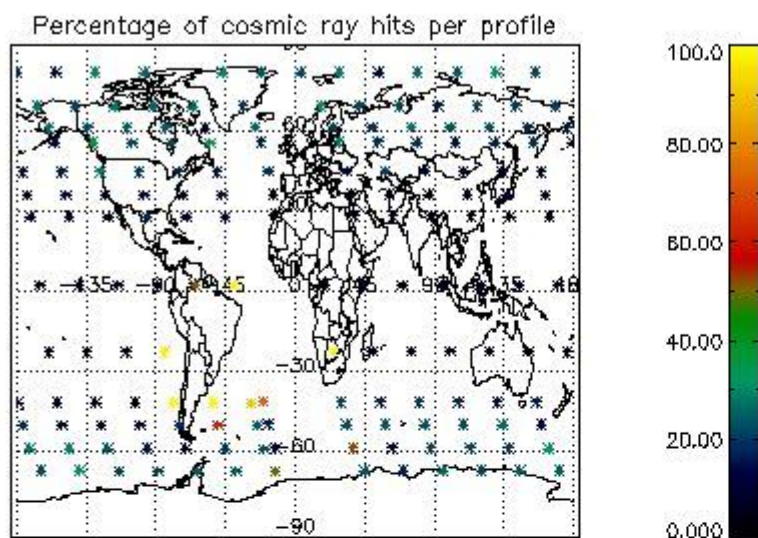


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

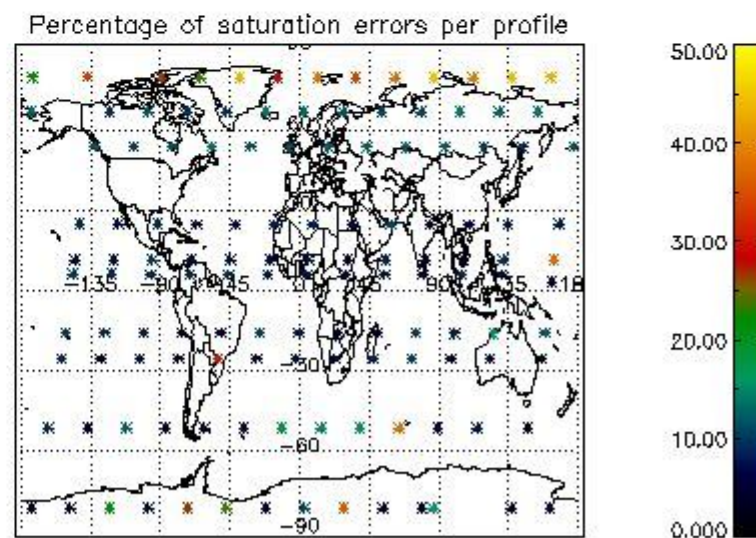
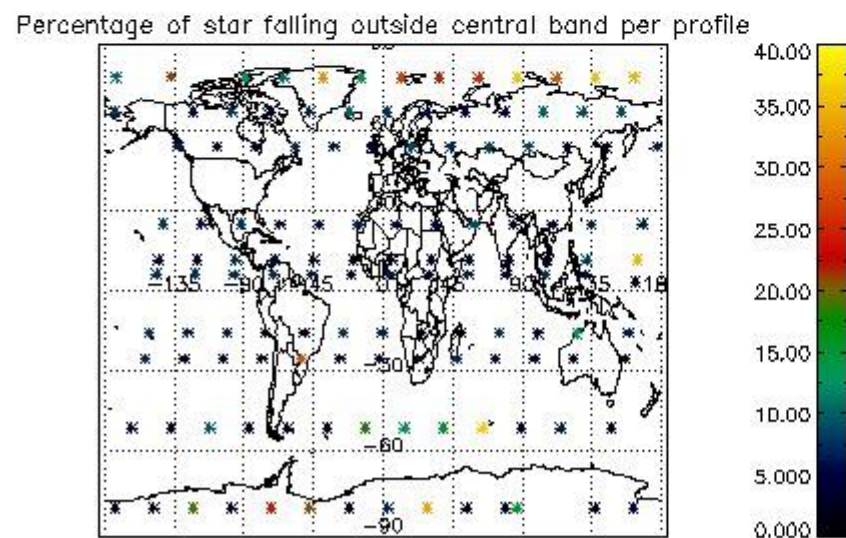
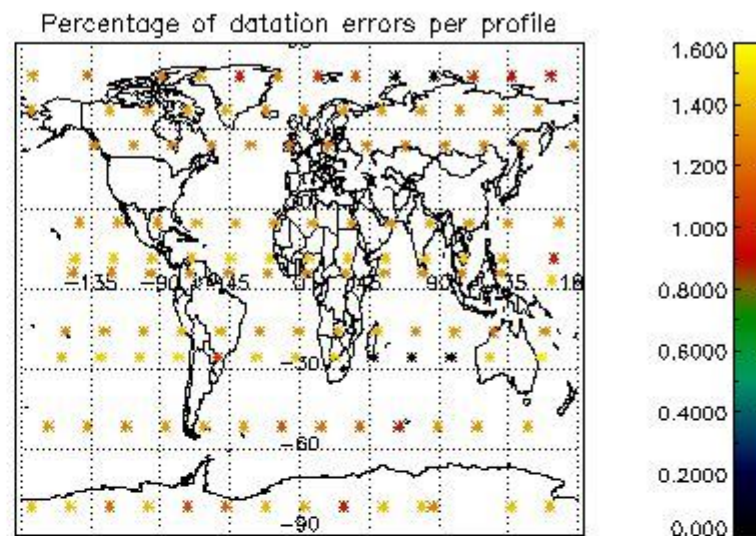
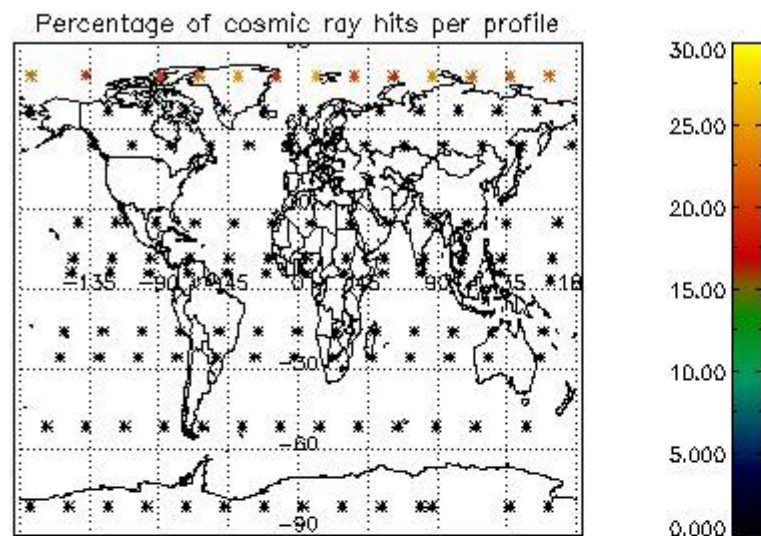


4.2 Plot quality information per product coming from level 1b processing (world map)

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

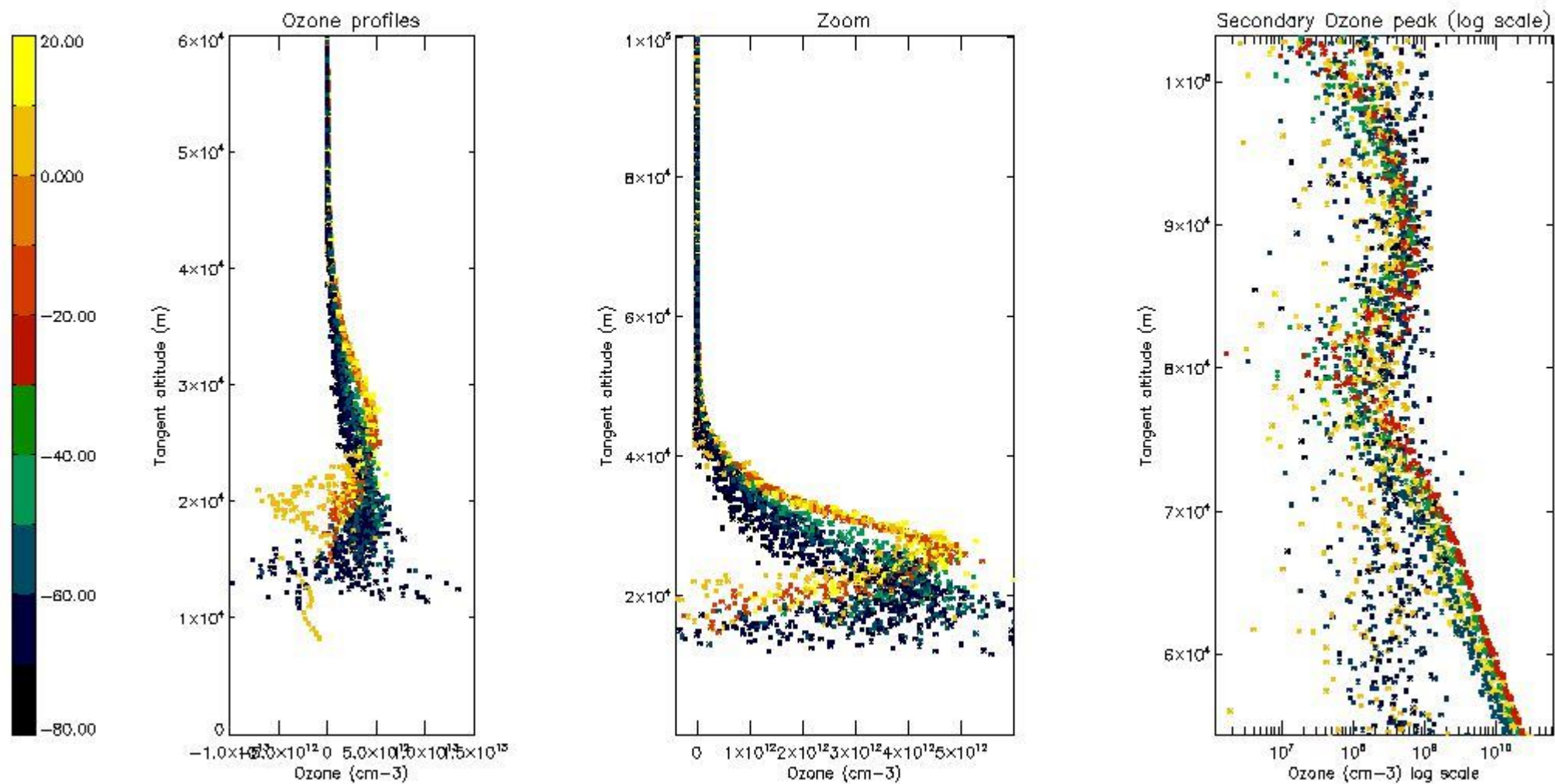
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	32
STD < 20	13

STD < 10	7
STD < 5	3

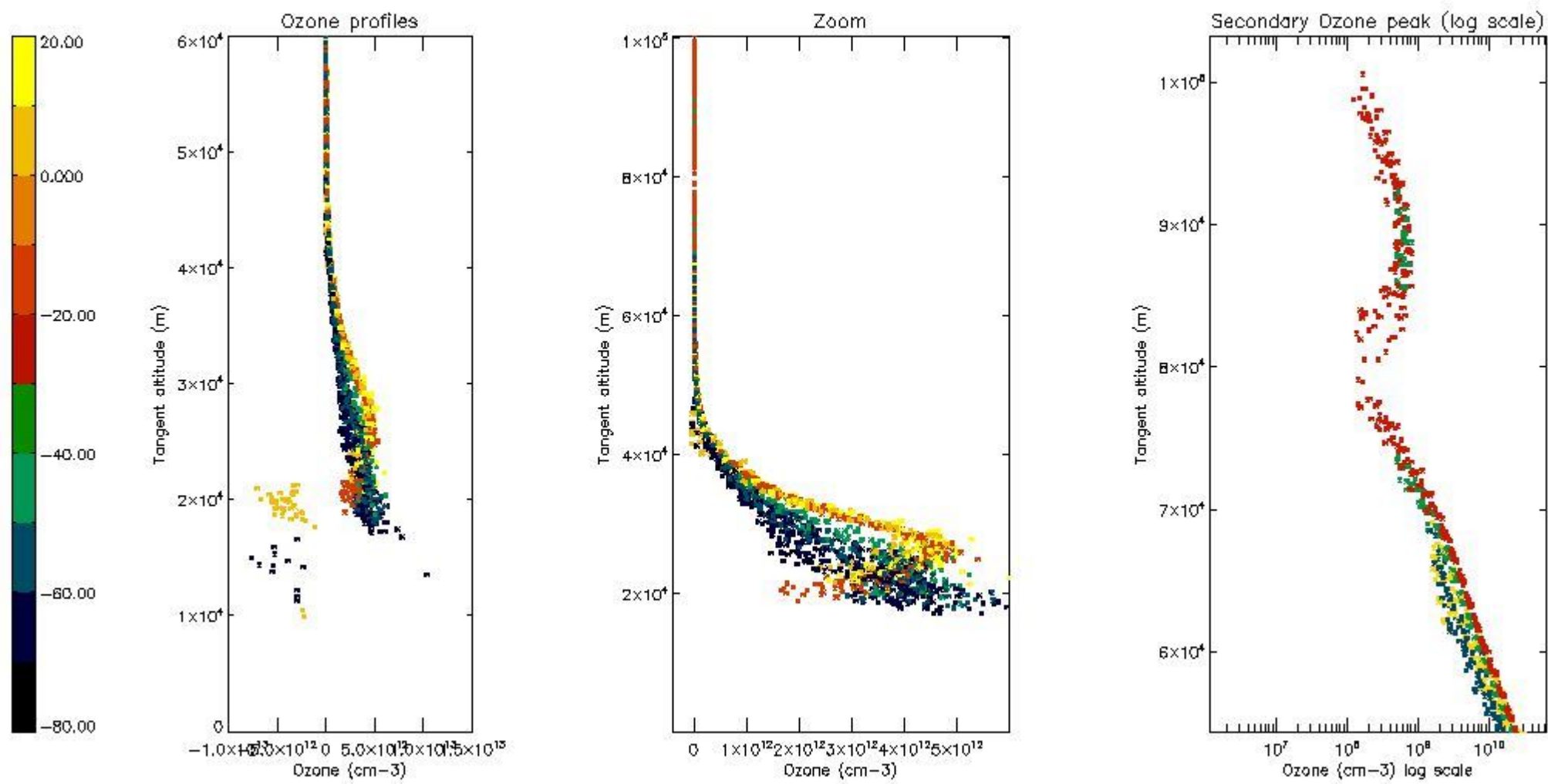
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



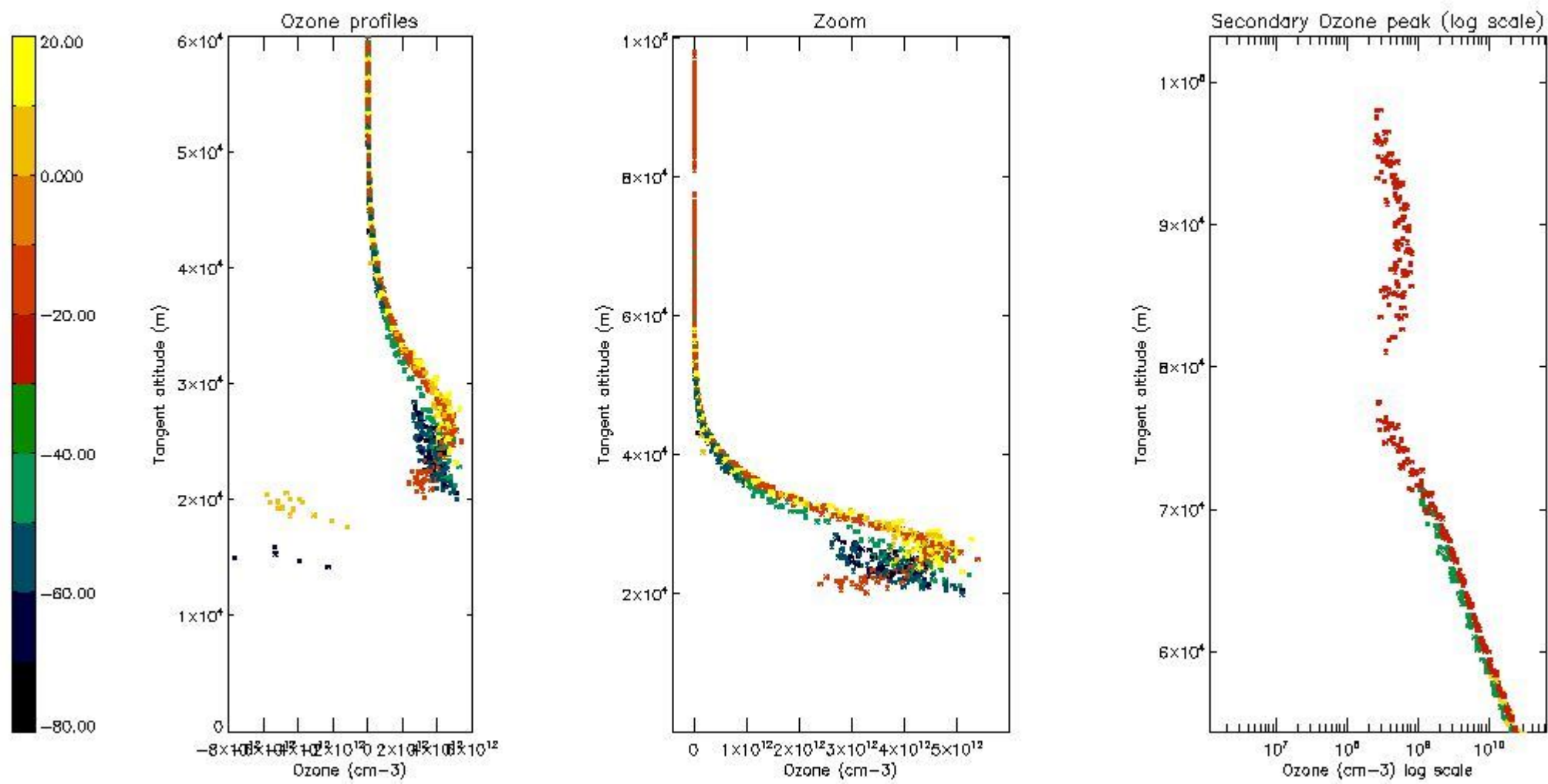
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



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

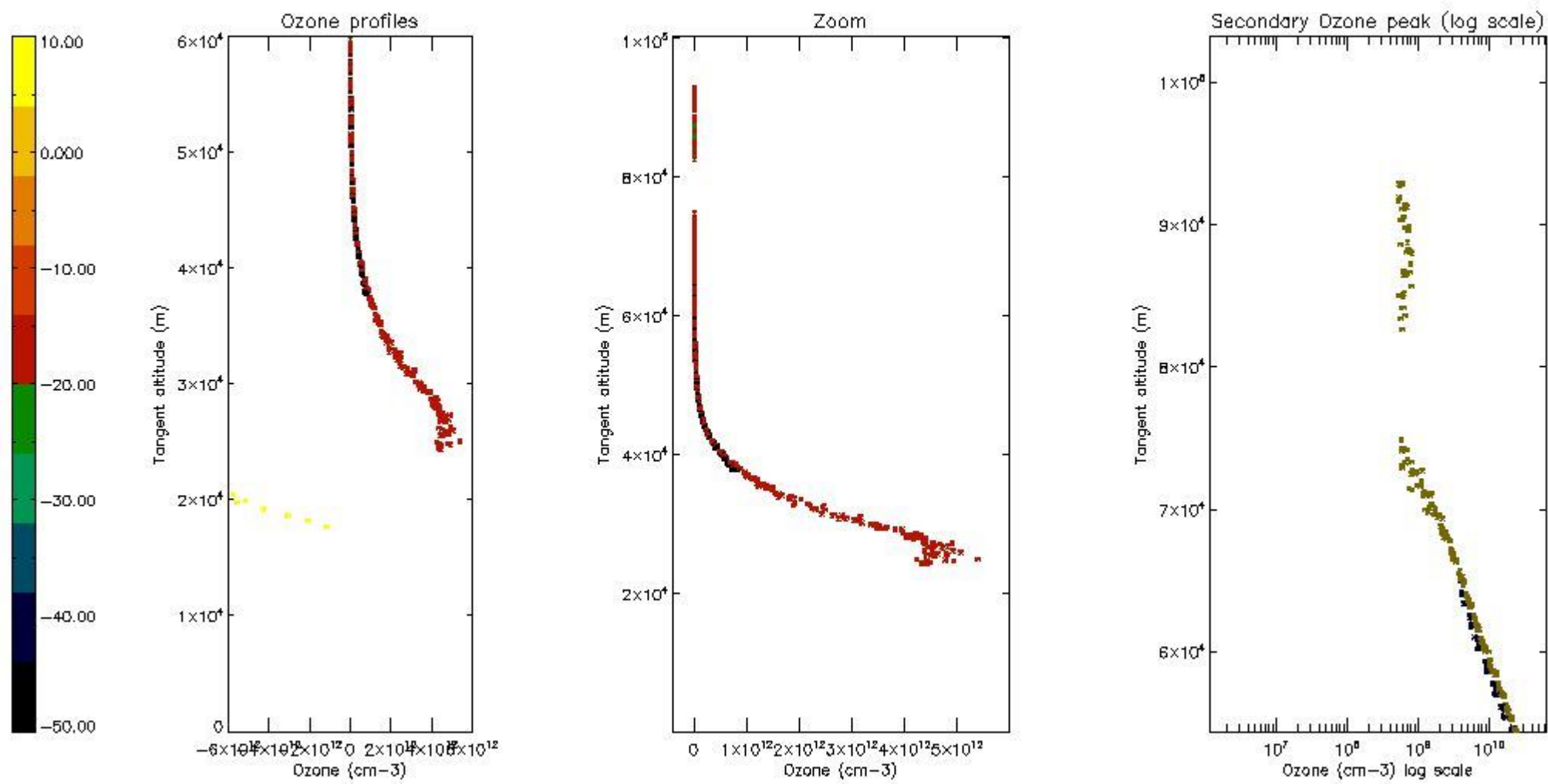
The colorbar represents the latitude.



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

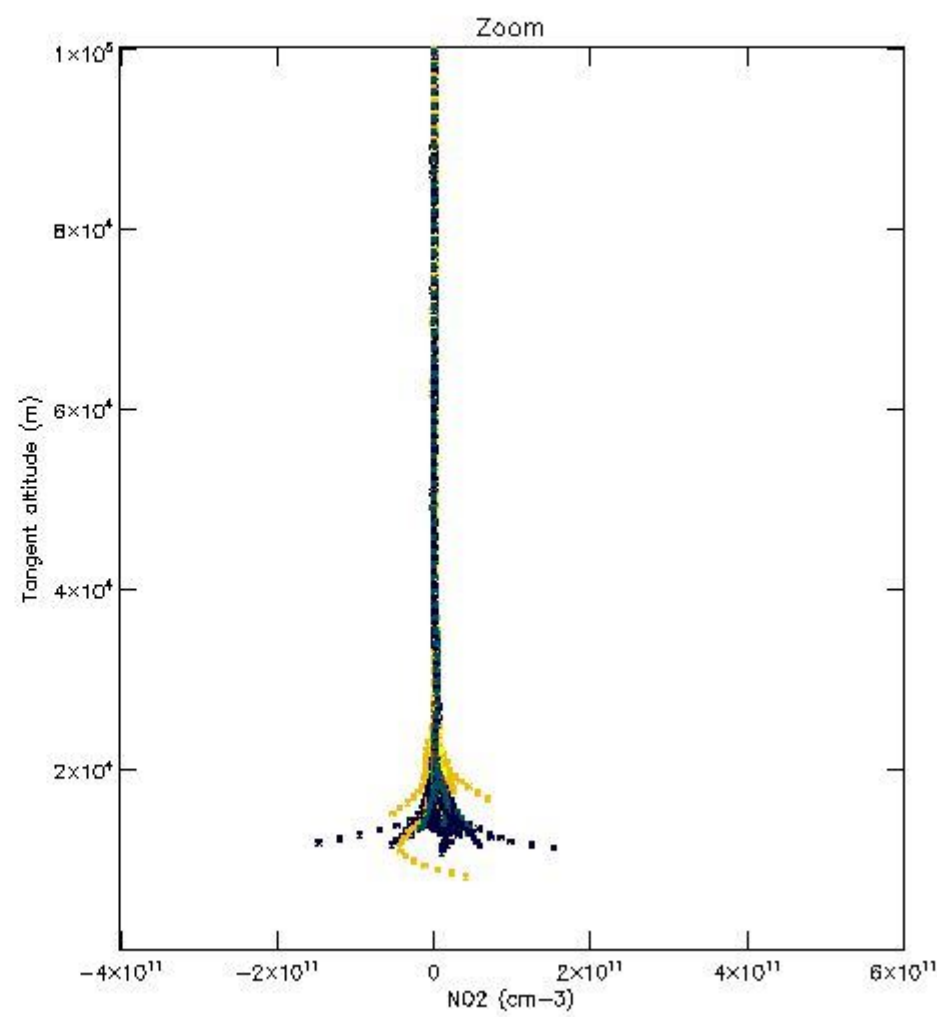
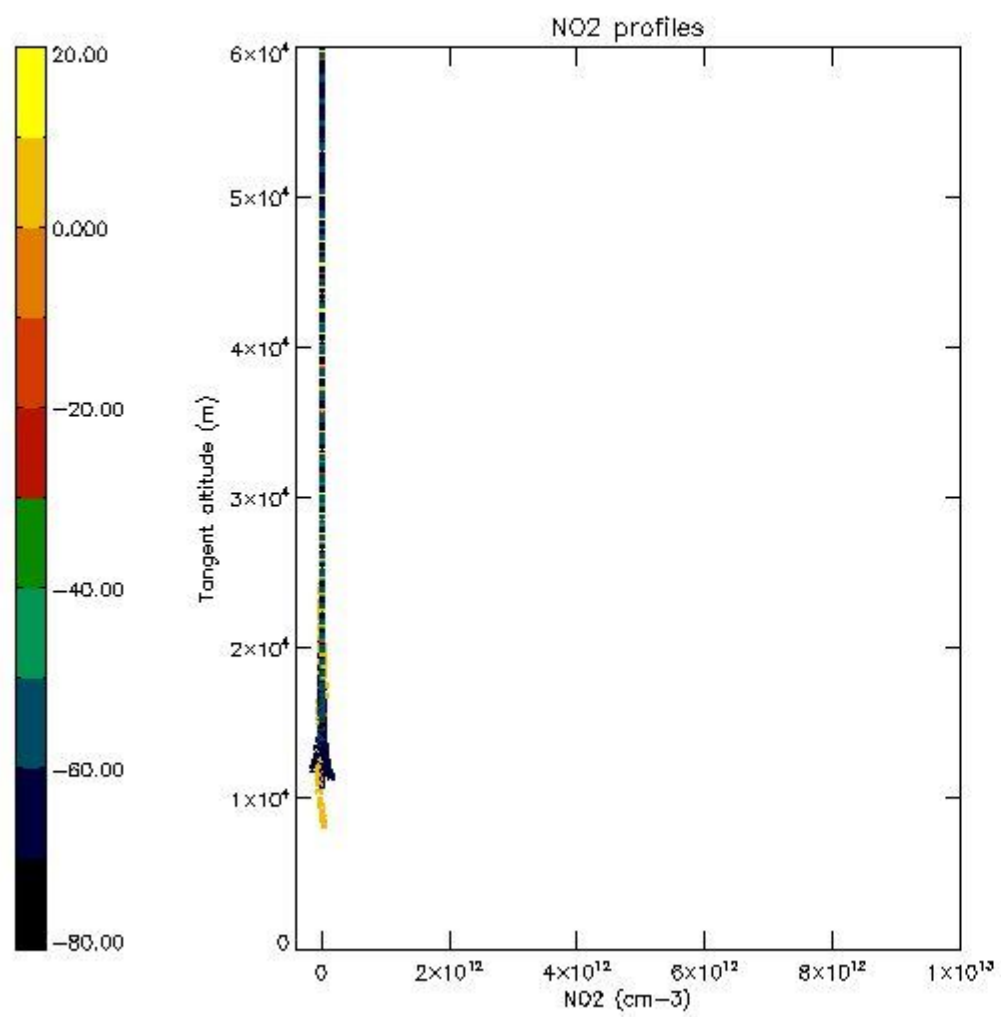
The colorbar represents the latitude.





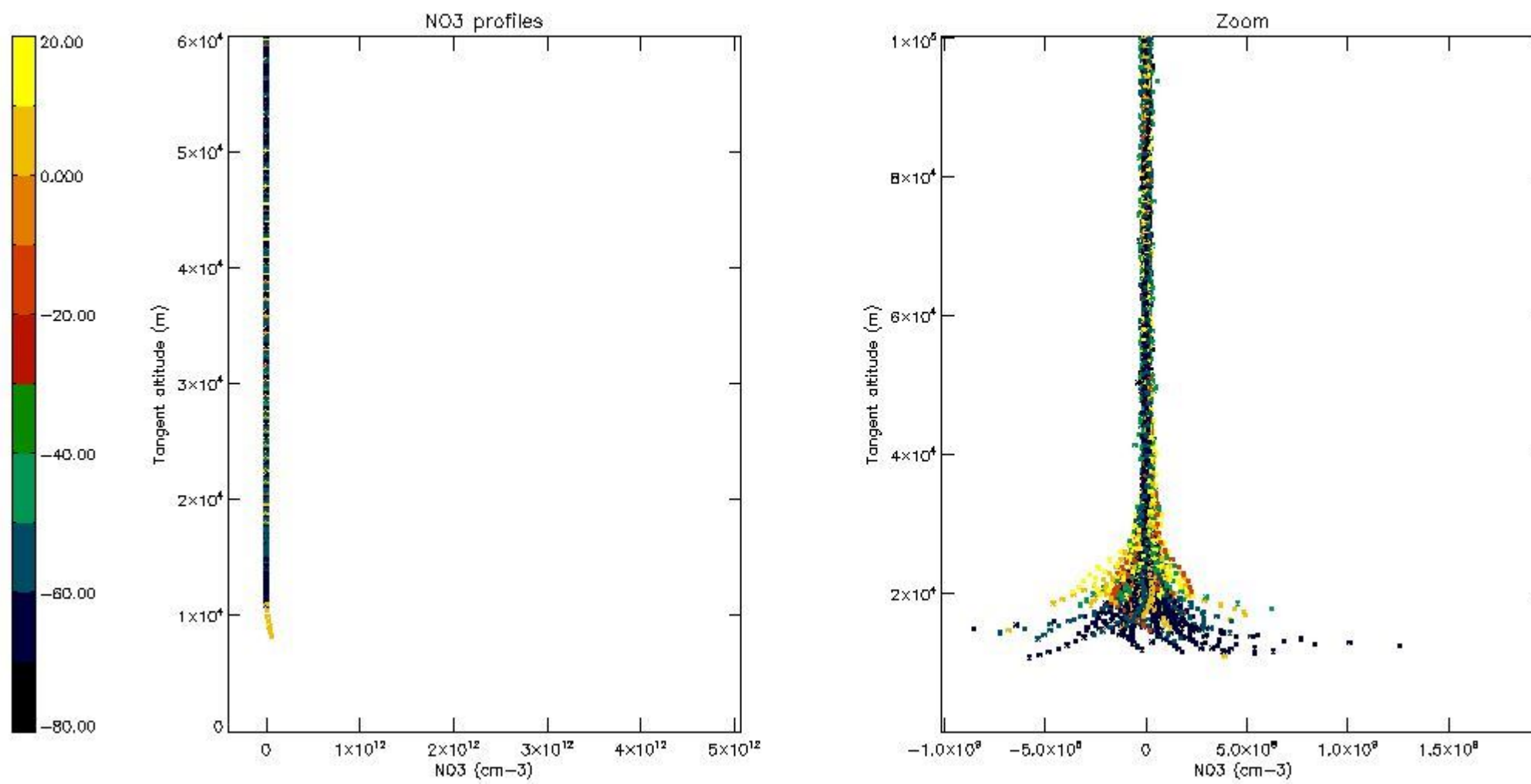
5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

The colorbar represents the latitude.



## 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	14-APR-2007 00:08:39
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	14-APR-2007 00:08:39
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	14-APR-2007 00:08:39

# GOMOS Level 2 Daily Report

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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	22APR2013 18:25:55
Data source version	GOMOS/6.01
Start time of products	14-04-2007 (14APR2007 00:00:00)
Stop time of products	15-04-2007 (15APR2007 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	301
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__2PRFIN20070414_000839_000000352057_00159_26766_9738.N1	14-APR-2007 00:08:39	Bright	35.000	164	44Eta Peg	2.9480	5400.0	70	26766	No
2	GOM_NL__2PRFIN20070414_001536_000000502057_00159_26766_9739.N1	14-APR-2007 00:15:36	Twilight	50.000	61	8Eps Peg	2.1000	3900.0	100	26766	No
3	GOM_NL__2PRFIN20070414_001804_000000452057_00159_26766_9740.N1	14-APR-2007 00:18:04	Dark	45.000	162	34Alp Aqr	2.9440	5350.0	90	26766	No
4	GOM_NL__2PRFIN20070414_002035_000000492057_00159_26766_9741.N1	14-APR-2007 00:20:35	Dark	49.000	154	22Bet Aqr	2.8990	5700.0	98	26766	No
5	GOM_NL__2PRFIN20070414_002301_000000432057_00159_26766_9742.N1	14-APR-2007 00:23:01	Dark	42.500	142	49Del Cap	2.8500	8900.0	85	26766	No
6	GOM_NL__2PRFIN20070414_003520_000000402057_00160_26767_9738.N1	14-APR-2007 00:35:20	Dark	40.000	45	Alp Pav	1.9400	26000.	80	26767	No
7	GOM_NL__2PRFIN20070414_004231_000000442057_00160_26767_9739.N1	14-APR-2007 00:42:31	Dark	44.000	141	Bet Ara	2.8400	4600.0	88	26767	No
8	GOM_NL__2PRFIN20070414_004449_000000392057_00160_26767_9740.N1	14-APR-2007 00:44:49	Dark	38.500	134	Bet TrA	2.8100	6600.0	77	26767	No
9	GOM_NL__2PRFIN20070414_004716_000000522057_00160_26767_9741.N1	14-APR-2007 00:47:16	Straylight	51.500	4	Alp1Cen	-0.010000	5800.0	103	26767	No
10	GOM_NL__2PRFIN20070414_005023_000000412057_00160_26767_9742.N1	14-APR-2007 00:50:23	Straylight	40.500	78	Alp Lup	2.3040	28000.	81	26767	No
11	GOM_NL__2PRFIN20070414_005159_000000452057_00160_26767_9743.N1	14-APR-2007 00:51:59	Straylight	44.500	81	Eta Cen	2.3560	28000.	89	26767	No
12	GOM_NL__2PRFIN20070414_005424_000000462057_00160_26767_9744.N1	14-APR-2007 00:54:24	Straylight	46.000	54	5The Cen	2.0550	4500.0	92	26767	No
13	GOM_NL__2PRFIN20070414_005938_000000442057_00160_26767_9745.N1	14-APR-2007 00:59:38	Tw_and_stray	43.500	106	9Bet Crv	2.6480	5600.0	87	26767	No
14	GOM_NL__2PRFIN20070414_010138_000000392057_00160_26767_9746.N1	14-APR-2007 01:01:38	Bright	38.500	163	7Del Crv	2.9450	11000.	77	26767	No
15	GOM_NL__2PRFIN20070414_010559_000000392057_00160_26767_9747.N1	14-APR-2007 01:05:59	Bright	39.000	121	29Gam Vir	2.7400	7200.0	78	26767	No
16	GOM_NL__2PRFIN20070414_010951_000000392057_00160_26767_9748.N1	14-APR-2007 01:09:51	Bright	39.000	138	47Eps Vir	2.8280	4700.0	78	26767	No
17	GOM_NL__2PRFIN20070414_011803_000000392057_00160_26767_9749.N1	14-APR-2007 01:18:03	Bright	38.500	152	12Alp2CVn	2.8900	11000.	77	26767	No
18	GOM_NL__2PRFIN20070414_012146_000000372057_00160_26767_9750.N1	14-APR-2007 01:21:46	Bright	36.500	87	64Gam UMa	2.4330	11000.	73	26767	No
19	GOM_NL__2PRFIN20070414_012318_000000382057_00160_26767_9751.N1	14-APR-2007 01:23:18	Bright	38.000	55	79Zet UMa	2.0600	10200.	76	26767	No
20	GOM_NL__2PRFIN20070414_012926_000000422057_00160_26767_9752.N1	14-APR-2007 01:29:26	Bright	42.000	60	7Bet UMi	2.0810	3950.0	84	26767	No
21	GOM_NL__2PRFIN20070414_013207_000000352057_00160_26767_9753.N1	14-APR-2007 01:32:07	Bright	34.500	49	1Alp UMi	1.9900	6300.0	69	26767	No
22	GOM_NL__2PRFIN20070414_013928_000000392057_00160_26767_9754.N1	14-APR-2007 01:39:28	Bright	38.500	89	5Alp Cep	2.4510	8000.0	77	26767	No
23	GOM_NL__2PRFIN20070414_014915_000000352057_00160_26767_9755.N1	14-APR-2007 01:49:15	Bright	35.000	164	44Eta Peg	2.9480	5400.0	70	26767	No
24	GOM_NL__2PRFIN20070414_015612_000000512057_00160_26767_9756.N1	14-APR-2007 01:56:12	Twilight	51.000	61	8Eps Peg	2.1000	3900.0	102	26767	No
25	GOM_NL__2PRFIN20070414_015840_000000462057_00160_26767_9757.N1	14-APR-2007 01:58:40	Dark	45.500	162	34Alp Aqr	2.9440	5350.0	91	26767	No
26	GOM_NL__2PRFIN20070414_020112_000000462057_00160_26767_9758.N1	14-APR-2007 02:01:12	Dark	45.500	154	22Bet Aqr	2.8990	5700.0	91	26767	No
27	GOM_NL__2PRFIN20070414_020337_000000412057_00160_26767_9759.N1	14-APR-2007 02:03:37	Dark	41.000	142	49Del Cap	2.8500	8900.0	82	26767	No
28	GOM_NL__2PRFIN20070414_021557_000000392057_00161_26768_9753.N1	14-APR-2007 02:15:57	Dark	39.000	45	Alp Pav	1.9400	26000.	78	26768	No
29	GOM_NL__2PRFIN20070414_022308_000000432057_00161_26768_9754.N1	14-APR-2007 02:23:08	Dark	42.500	141	Bet Ara	2.8400	4600.0	85	26768	No
30	GOM_NL__2PRFIN20070414_022526_000000382057_00161_26768_9755.N1	14-APR-2007 02:25:26	Dark	38.000	134	Bet TrA	2.8100	6600.0	76	26768	No
31	GOM_NL__2PRFIN20070414_022752_000000532057_00161_26768_9756.N1	14-APR-2007 02:27:52	Straylight	53.000	4	Alp1Cen	-0.010000	5800.0	106	26768	No
32	GOM_NL__2PRFIN20070414_023100_000000422057_00161_26768_9757.N1	14-APR-2007 02:31:00	Straylight	42.000	78	Alp Lup	2.3040	28000.	84	26768	No
33	GOM_NL__2PRFIN20070414_023236_000000442057_00161_26768_9758.N1	14-APR-2007 02:32:36	Straylight	43.500	81	Eta Cen	2.3560	28000.	87	26768	No
34	GOM_NL__2PRFIN20070414_023501_000000482057_00161_26768_9759.N1	14-APR-2007 02:35:01	Straylight	47.500	54	5The Cen	2.0550	4500.0	95	26768	No
35	GOM_NL__2PRFIN20070414_024014_000000432057_00161_26768_9760.N1	14-APR-2007 02:40:14	Tw_and_stray	43.000	106	9Bet Crv	2.6480	5600.0	86	26768	No
36	GOM_NL__2PRFIN20070414_024214_000000532057_00161_26768_9761.N1	14-APR-2007 02:42:14	Bright	53.000	163	7Del Crv	2.9450	11000.	106	26768	No
37	GOM_NL__2PRFIN20070414_024635_000000392057_00161_26768_9762.N1	14-APR-2007 02:46:35	Bright	39.000	121	29Gam Vir	2.7400	7200.0	78	26768	No
38	GOM_NL__2PRFIN20070414_025027_000000402057_00161_26768_9763.N1	14-APR-2007 02:50:27	Bright	39.500	138	47Eps Vir	2.8280	4700.0	79	26768	No
39	GOM_NL__2PRFIN20070414_025838_000000382057_00161_26768_9764.N1	14-APR-2007 02:58:38	Bright	37.500	152	12Alp2CVn	2.8900	11000.	75	26768	No
40	GOM_NL__2PRFIN20070414_030222_000000342057_00161_26768_9765.N1	14-APR-2007 03:02:22	Bright	34.000	87	64Gam UMa	2.4330	11000.	68	26768	No
41	GOM_NL__2PRFIN20070414_030354_000000402057_00161_26768_9766.N1	14-APR-2007 03:03:54	Bright	40.000	55	79Zet UMa	2.0600	10200.	80	26768	No
42	GOM_NL__2PRFIN20070414_031001_000000382057_00161_26768_9767.N1	14-APR-2007 03:10:01	Bright	38.000	60	7Bet UMi	2.0810	3950.0	76	26768	No









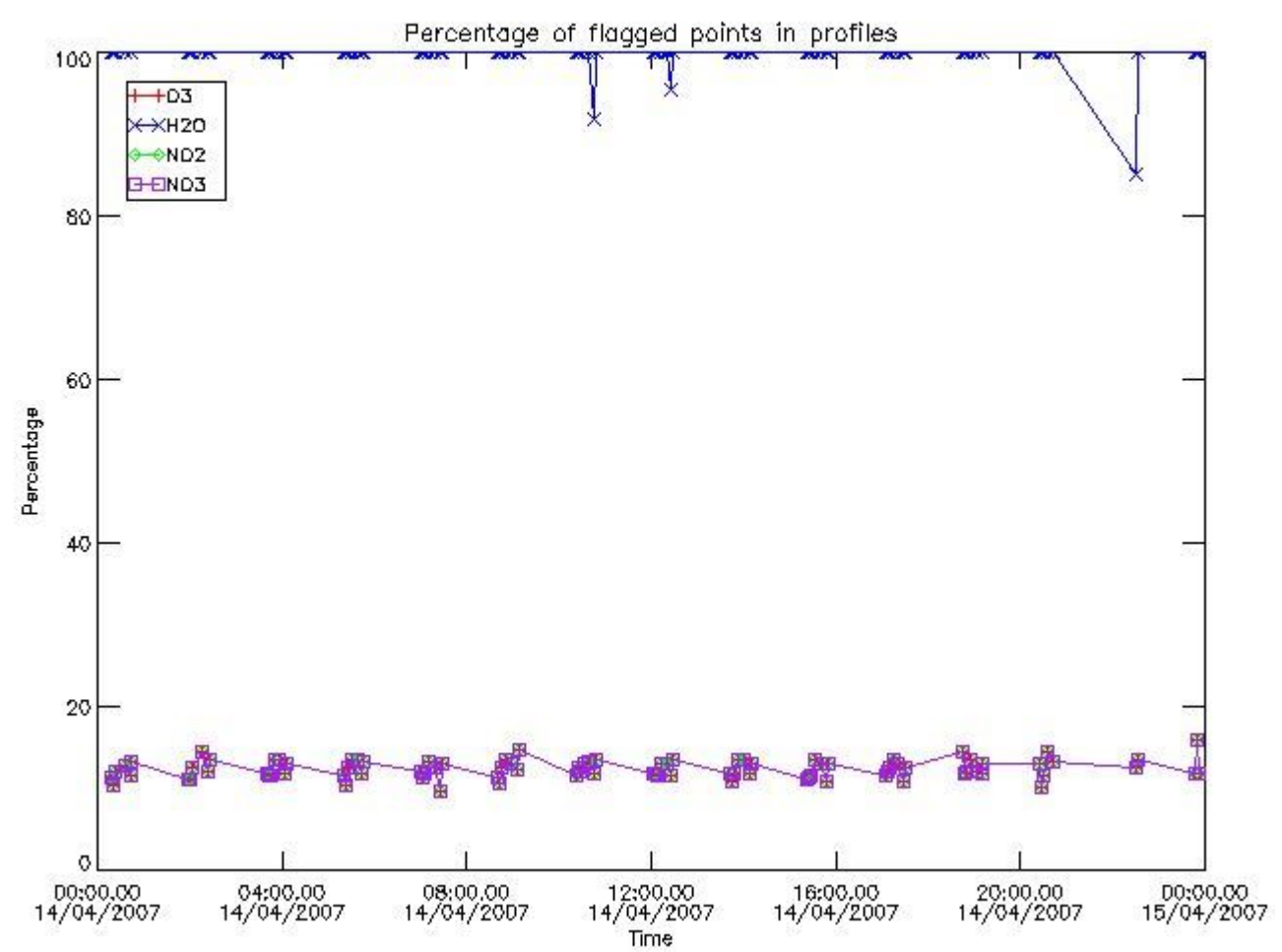


279	GOM_NL__2PRFIN20070414_203018_000000442057_00171_26778_9931.N1	14-APR-2007 20:30:18	Dark	44.000	142	49Del Cap	2.8500	8900.0	88	26778	No
280	GOM_NL__2PRFIN20070414_203538_000000392057_00171_26778_9932.N1	14-APR-2007 20:35:38	Dark	39.000	172	Gam Gru	3.0030	13100.	78	26778	No
281	GOM_NL__2PRFIN20070414_204238_000000382057_00172_26779_9935.N1	14-APR-2007 20:42:38	Dark	38.000	45	Alp Pav	1.9400	26000.	76	26779	No
282	GOM_NL__2PRFIN20070414_223038_000000412057_00173_26780_9946.N1	14-APR-2007 22:30:38	Dark	40.500	43	Alp TrA	1.9100	4250.0	81	26780	No
283	GOM_NL__2PRFIN20070414_223243_000000382057_00173_26780_9947.N1	14-APR-2007 22:32:43	Dark	37.500	134	Bet TrA	2.8100	6600.0	75	26780	No
284	GOM_NL__2PRFIN20070414_223508_000000542057_00173_26780_9948.N1	14-APR-2007 22:35:08	Straylight	53.500	4	Alp1Cen	-0.010000	5800.0	107	26780	No
285	GOM_NL__2PRFIN20070414_223817_000000402057_00173_26780_9949.N1	14-APR-2007 22:38:17	Straylight	40.000	78	Alp Lup	2.3040	28000.	80	26780	No
286	GOM_NL__2PRFIN20070414_223953_000000452057_00173_26780_9950.N1	14-APR-2007 22:39:53	Straylight	44.500	81	Eta Cen	2.3560	28000.	89	26780	No
287	GOM_NL__2PRFIN20070414_224216_000000452057_00173_26780_9951.N1	14-APR-2007 22:42:16	Straylight	44.500	54	5The Cen	2.0550	4500.0	89	26780	No
288	GOM_NL__2PRFIN20070414_224728_000000442057_00173_26780_9952.N1	14-APR-2007 22:47:28	Twl_and_stray	43.500	106	9Bet Crv	2.6480	5600.0	87	26780	No
289	GOM_NL__2PRFIN20070414_224918_000000432057_00173_26780_9953.N1	14-APR-2007 22:49:18	Bright	42.500	100	4Gam Crv	2.5800	13100.	85	26780	No
290	GOM_NL__2PRFIN20070414_225347_000000392057_00173_26780_9954.N1	14-APR-2007 22:53:47	Bright	38.500	121	29Gam Vir	2.7400	7200.0	77	26780	No
291	GOM_NL__2PRFIN20070414_225737_000000402057_00173_26780_9955.N1	14-APR-2007 22:57:37	Bright	39.500	138	47Eps Vir	2.8280	4700.0	79	26780	No
292	GOM_NL__2PRFIN20070414_230546_000000382057_00173_26780_9956.N1	14-APR-2007 23:05:46	Bright	38.000	152	12Alp2CVn	2.8900	11000.	76	26780	No
293	GOM_NL__2PRFIN20070414_230933_000000512057_00173_26780_9957.N1	14-APR-2007 23:09:33	Bright	51.000	87	64Gam UMa	2.4330	11000.	102	26780	No
294	GOM_NL__2PRFIN20070414_231151_000000342057_00173_26780_9958.N1	14-APR-2007 23:11:51	Bright	34.000	36	50Alp UMa	1.8000	6300.0	68	26780	No
295	GOM_NL__2PRFIN20070414_231710_000000392057_00173_26780_9959.N1	14-APR-2007 23:17:10	Bright	39.000	60	7Bet UMi	2.0810	3950.0	78	26780	No
296	GOM_NL__2PRFIN20070414_231954_000000322057_00173_26780_9960.N1	14-APR-2007 23:19:54	Bright	32.000	49	1Alp UMi	1.9900	6300.0	64	26780	No
297	GOM_NL__2PRFIN20070414_232714_000000372057_00173_26780_9961.N1	14-APR-2007 23:27:14	Bright	37.000	89	5Alp Cep	2.4510	8000.0	74	26780	No
298	GOM_NL__2PRFIN20070414_233704_000000402057_00173_26780_9962.N1	14-APR-2007 23:37:04	Bright	40.000	164	44Eta Peg	2.9480	5400.0	80	26780	No
299	GOM_NL__2PRFIN20070414_234633_000000432057_00173_26780_9963.N1	14-APR-2007 23:46:33	Dark	43.000	162	34Alp Aqr	2.9440	5350.0	86	26780	No
300	GOM_NL__2PRFIN20070414_234907_000000352057_00173_26780_9964.N1	14-APR-2007 23:49:07	Dark	35.000	154	22Bet Aqr	2.8990	5700.0	70	26780	No
301	GOM_NL__2PRFIN20070414_235131_000000432057_00173_26780_9965.N1	14-APR-2007 23:51:31	Dark	43.000	142	49Del Cap	2.8500	8900.0	86	26780	No

### 3. Quality information per product

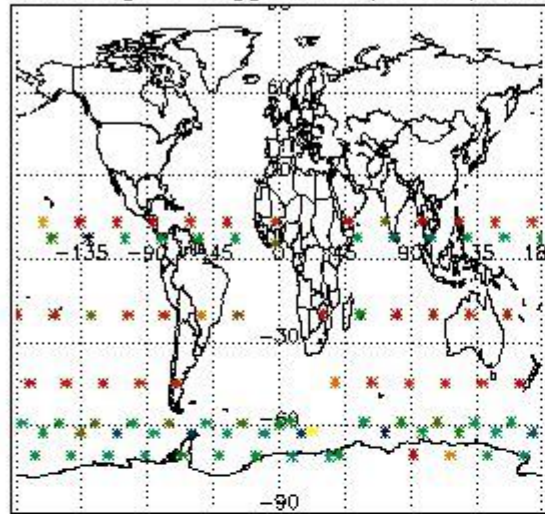
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

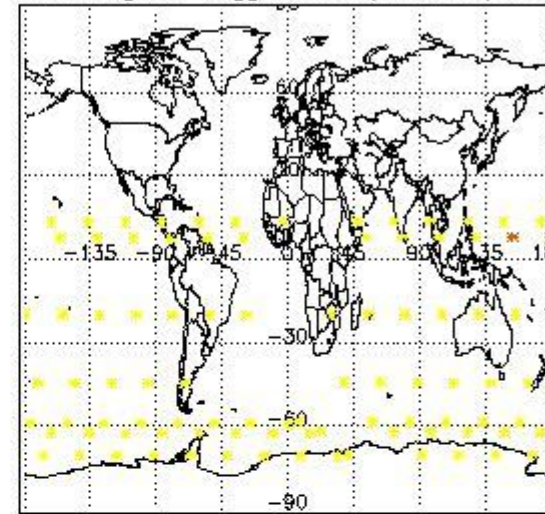


3.2 Plot quality information per product (world map)

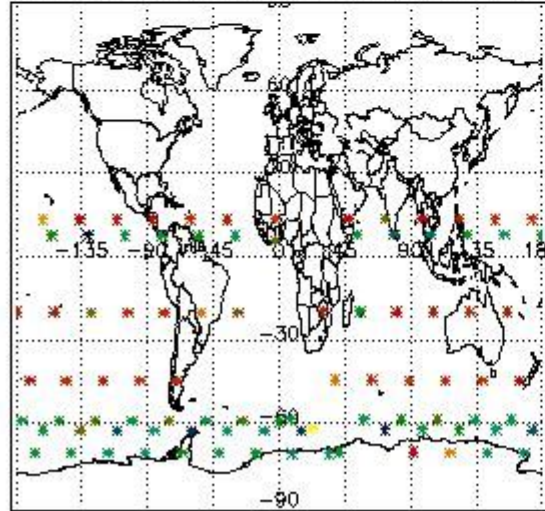
Percentage of flagged data per O3 profile



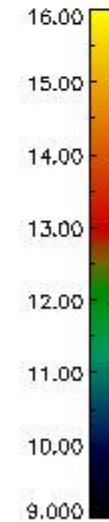
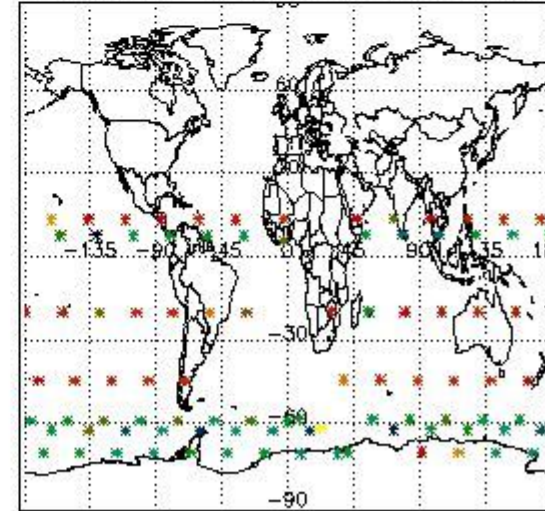
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

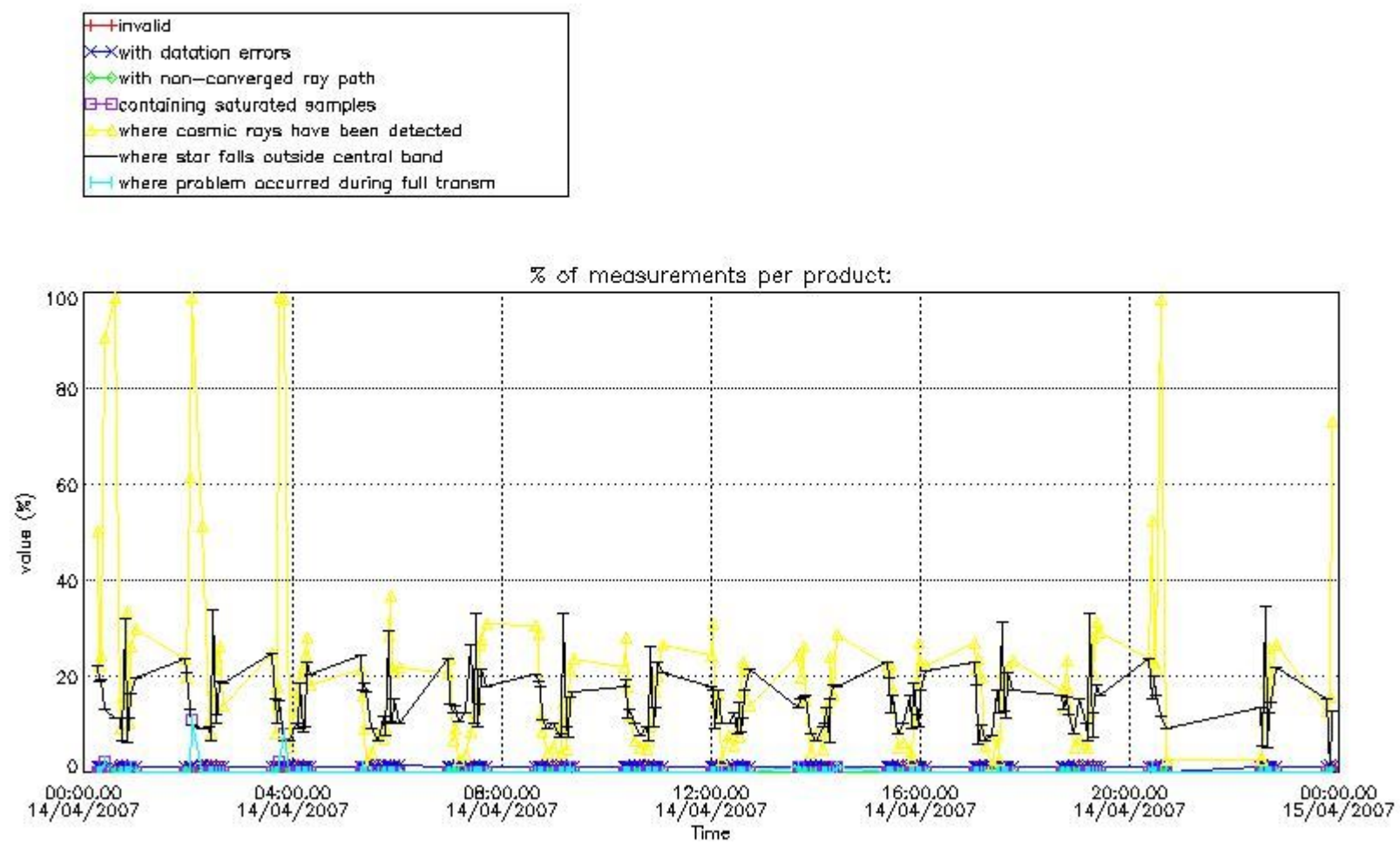


#### 4. Level 1 quality information per product

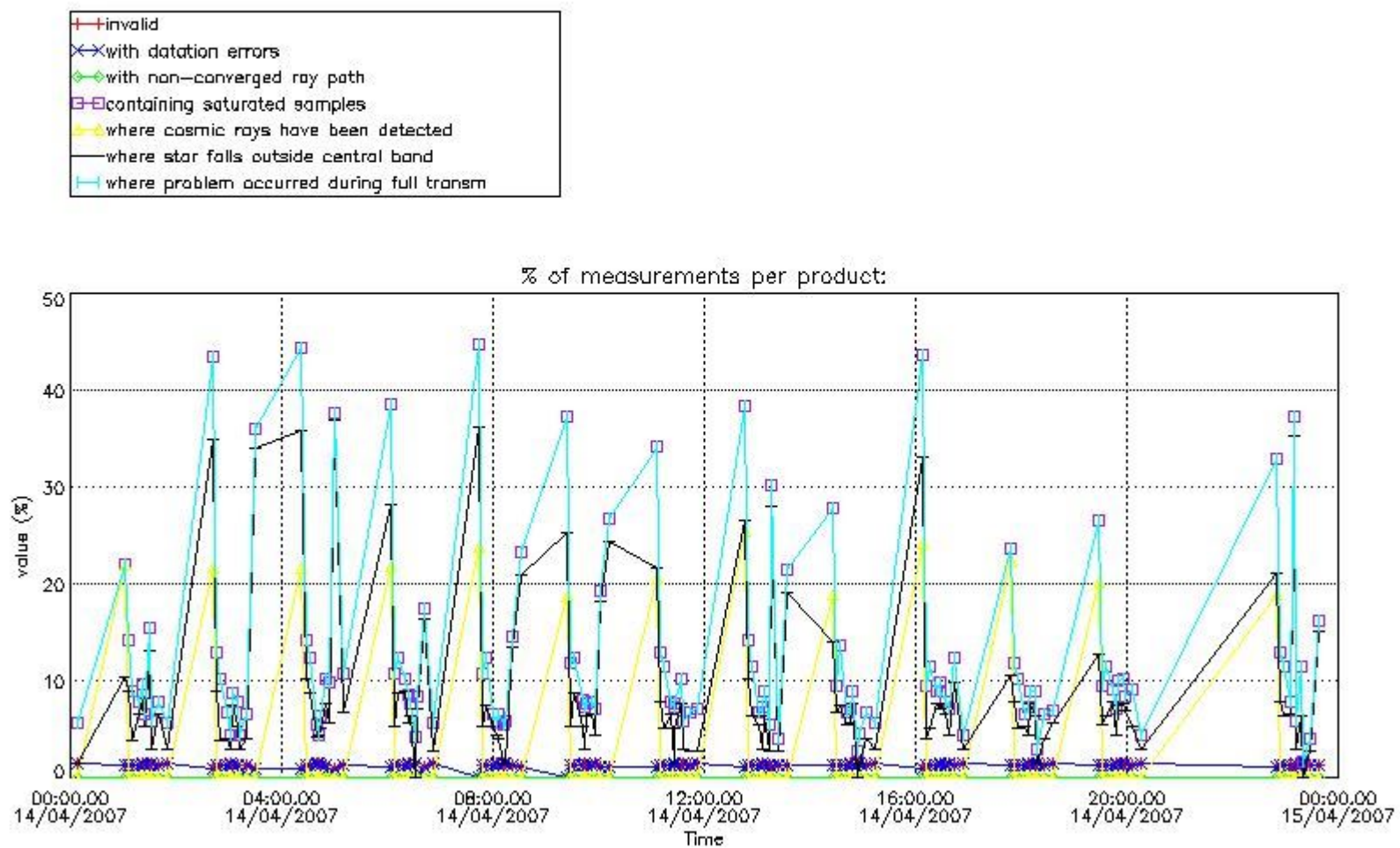
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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

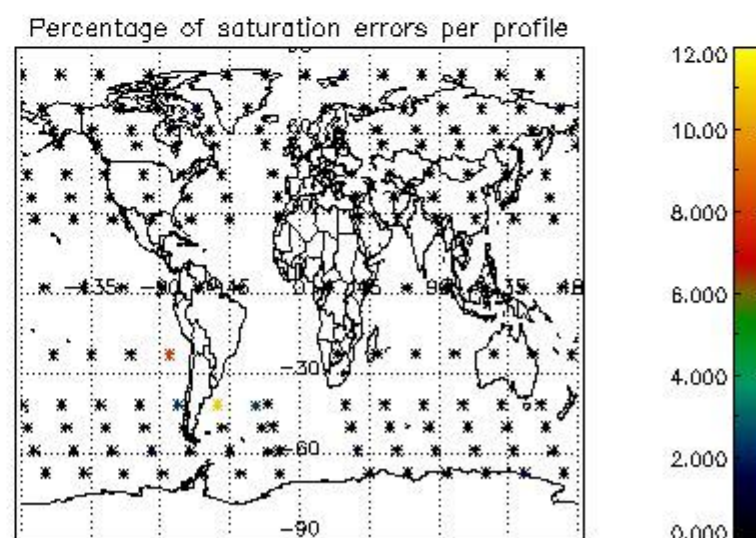
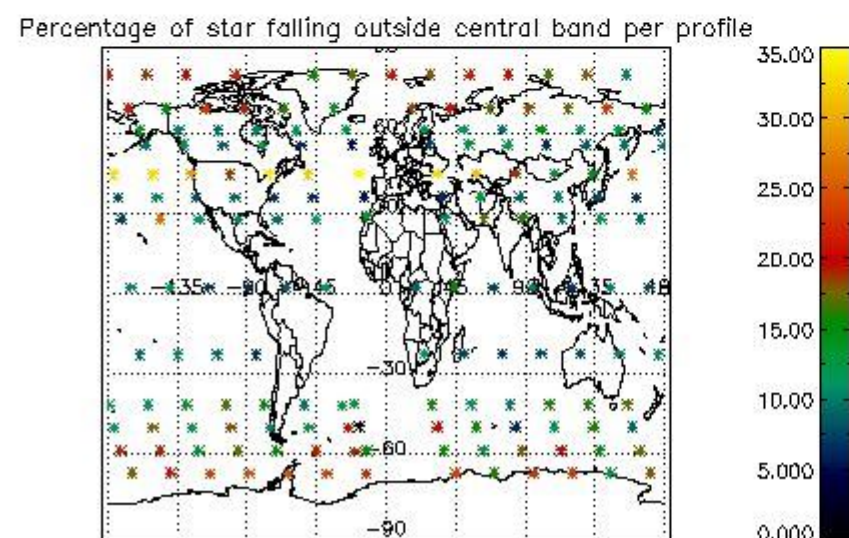
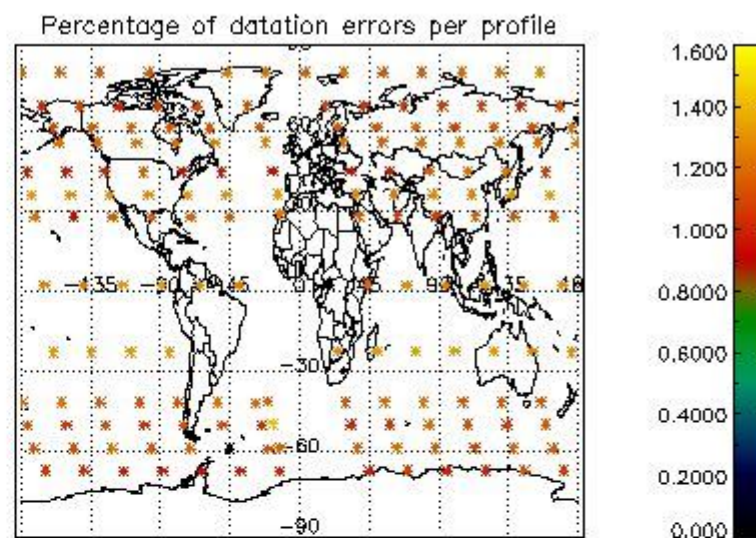
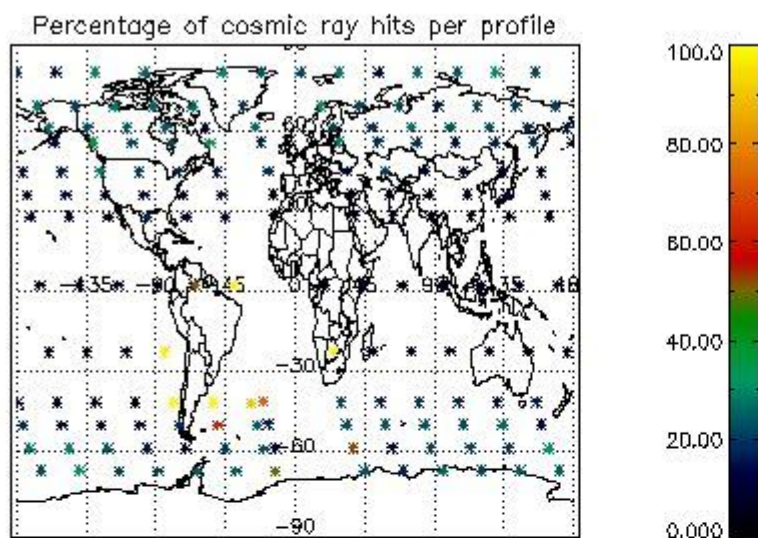


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

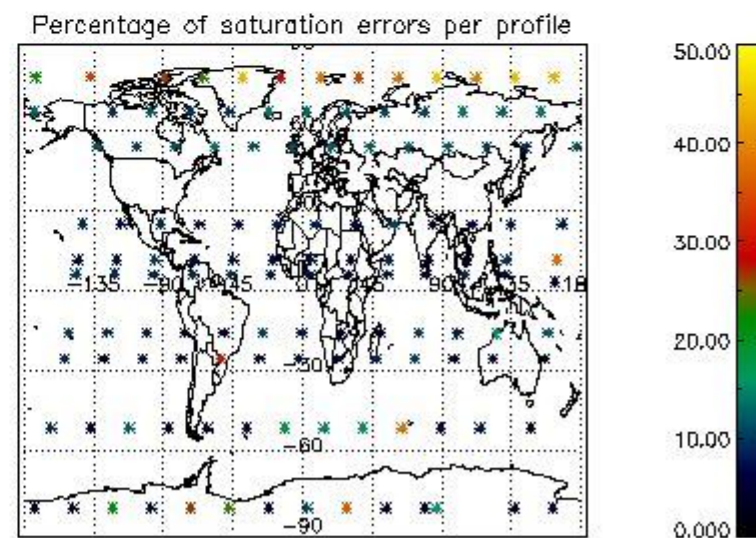
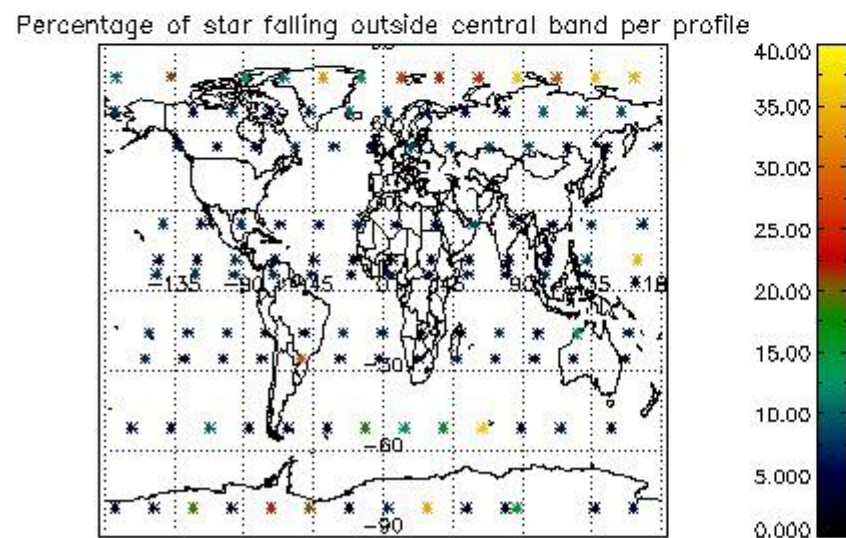
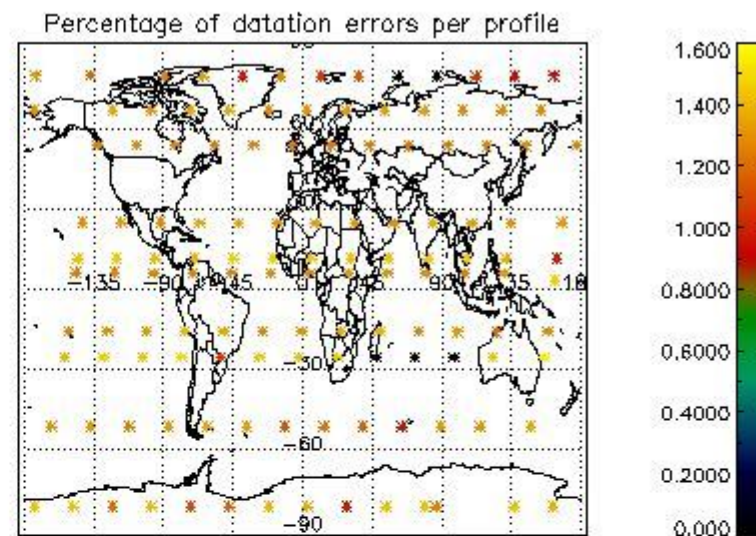
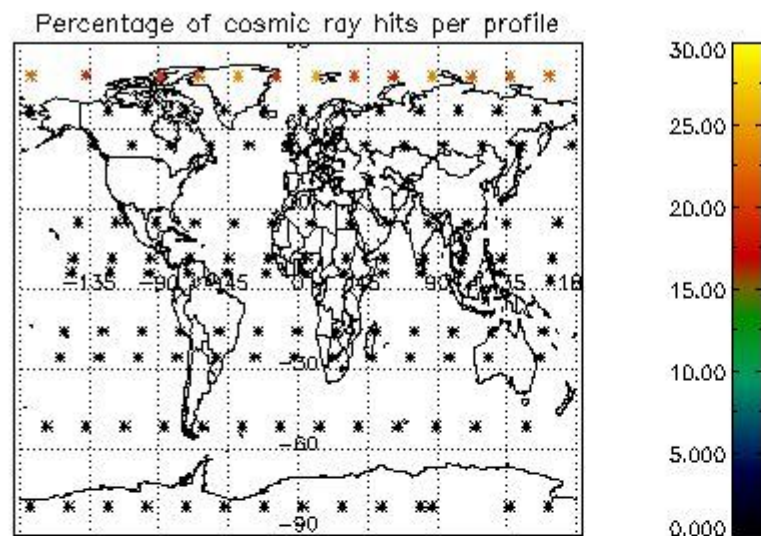


*4.2 Plot quality information per product coming from level 1b processing (world map)*

*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.

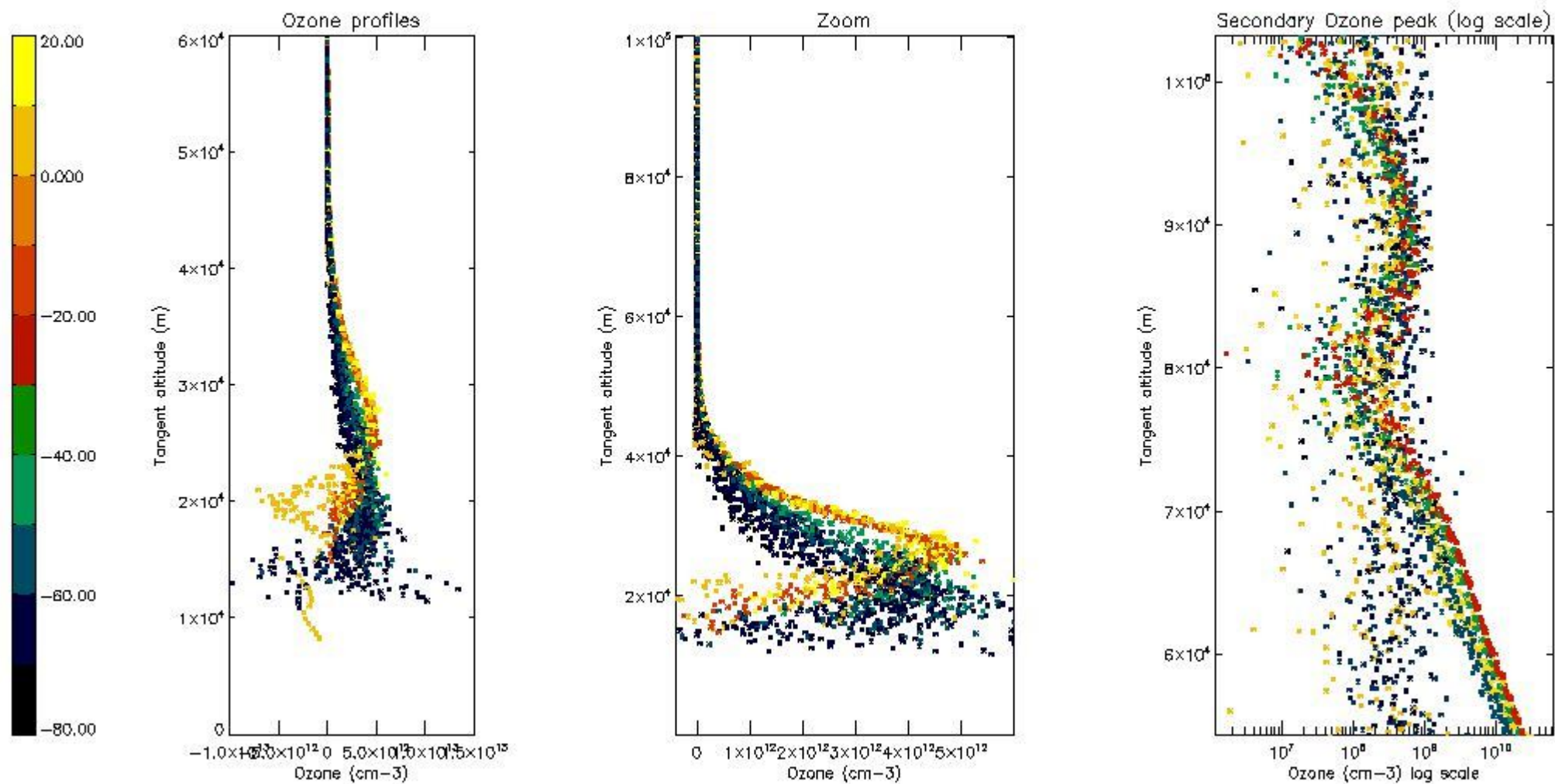
Criteria	% of total production
All STD	32
STD < 20	13



STD < 10	7
STD < 5	3

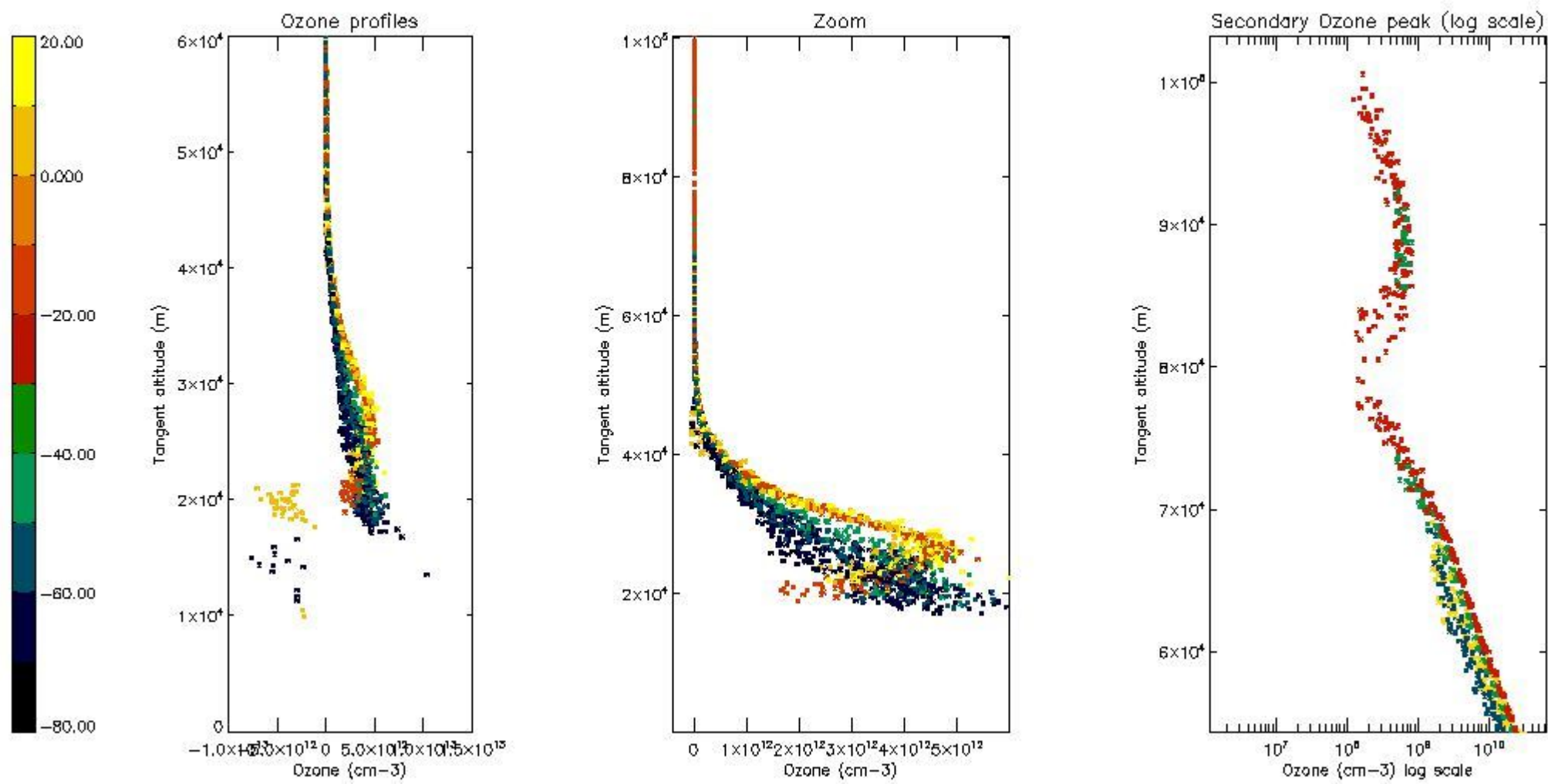
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



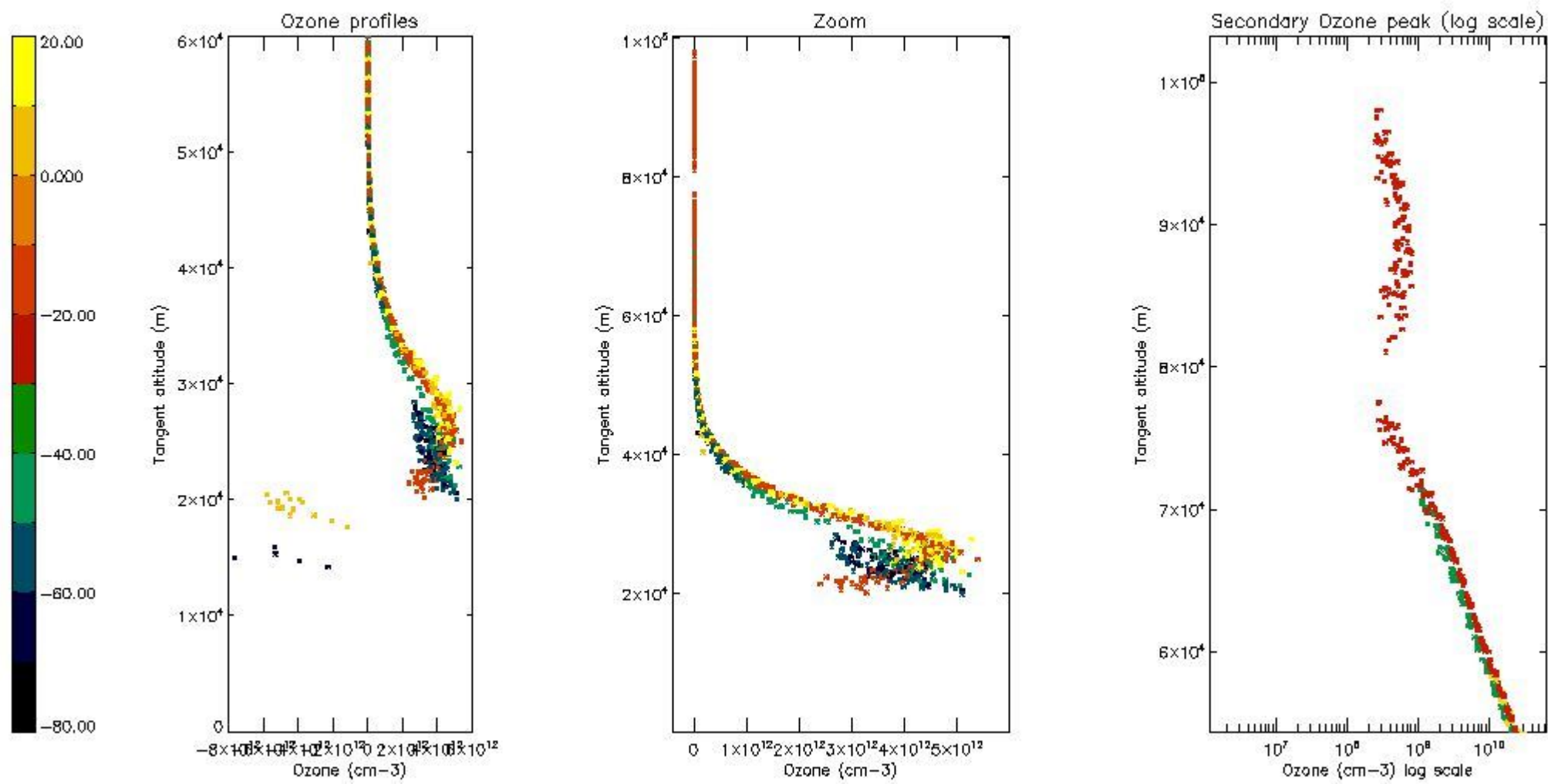
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



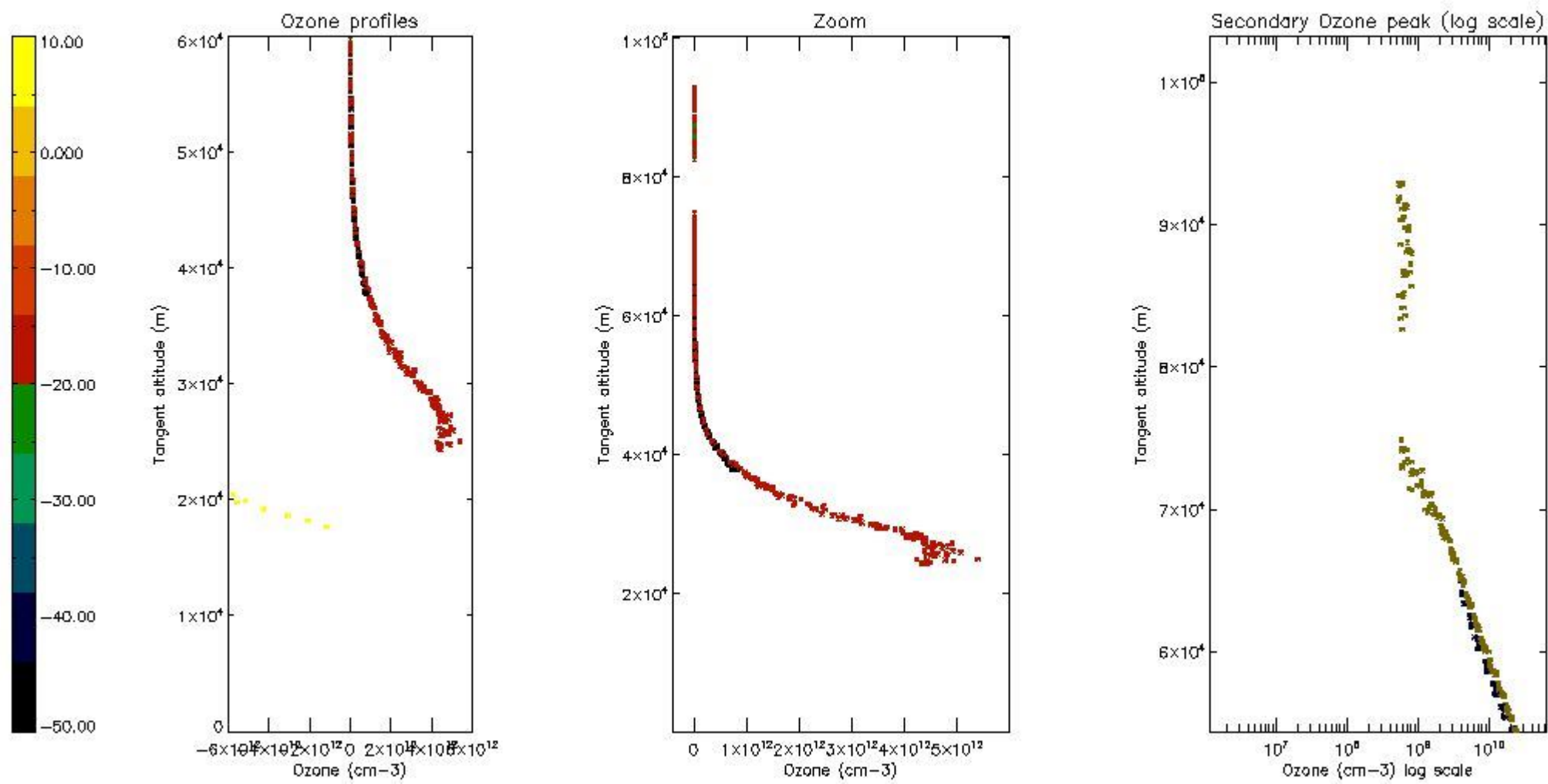
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



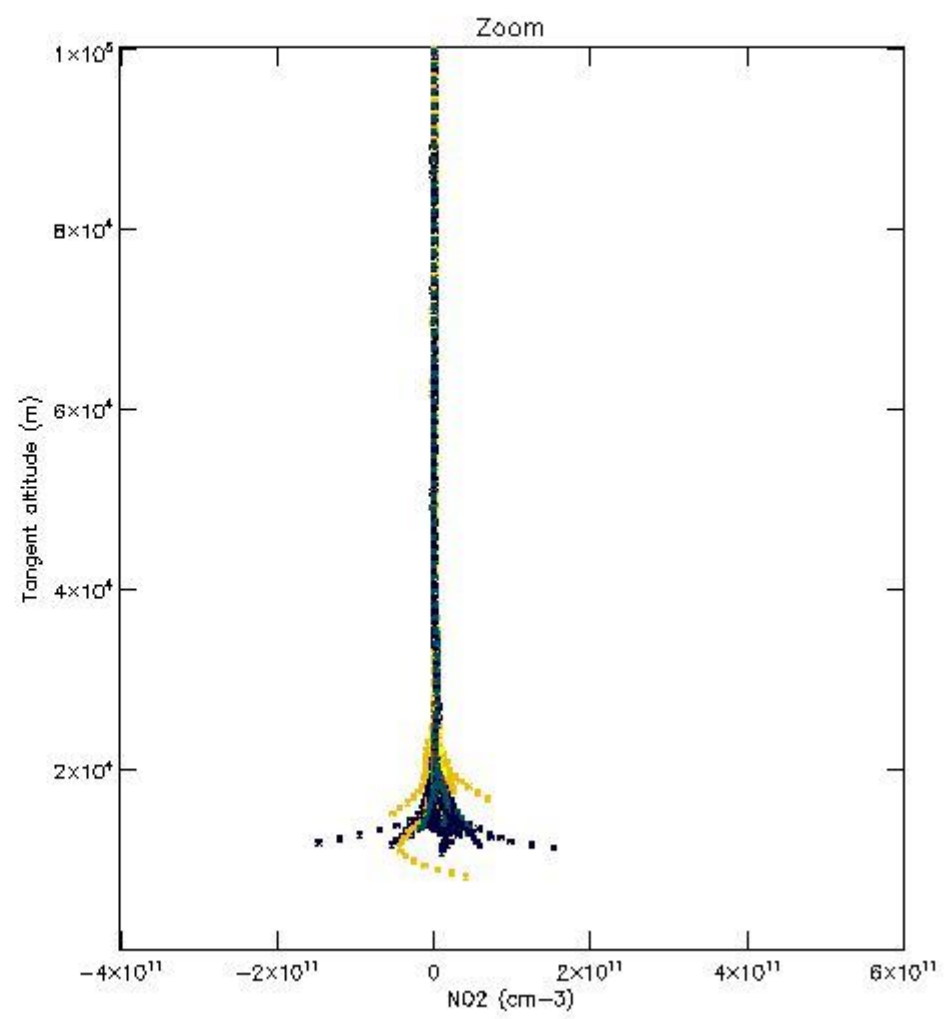
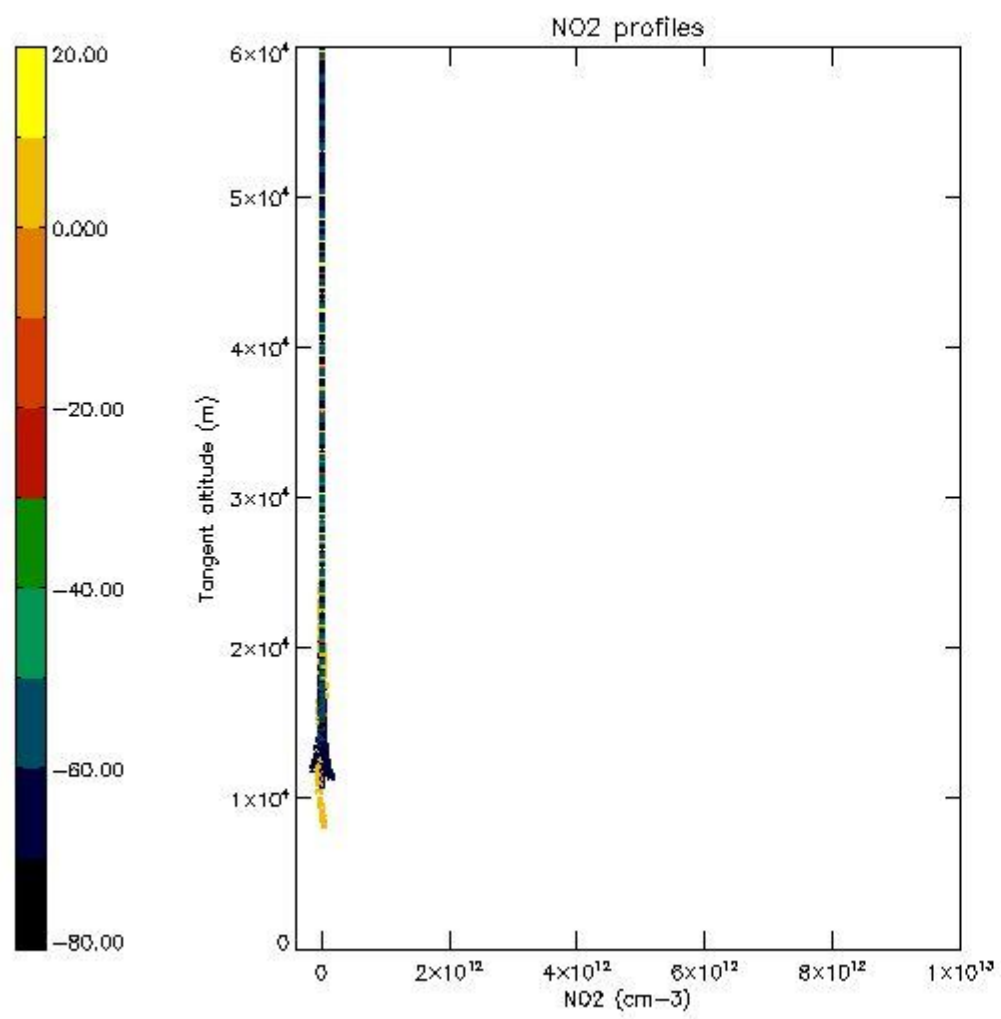
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



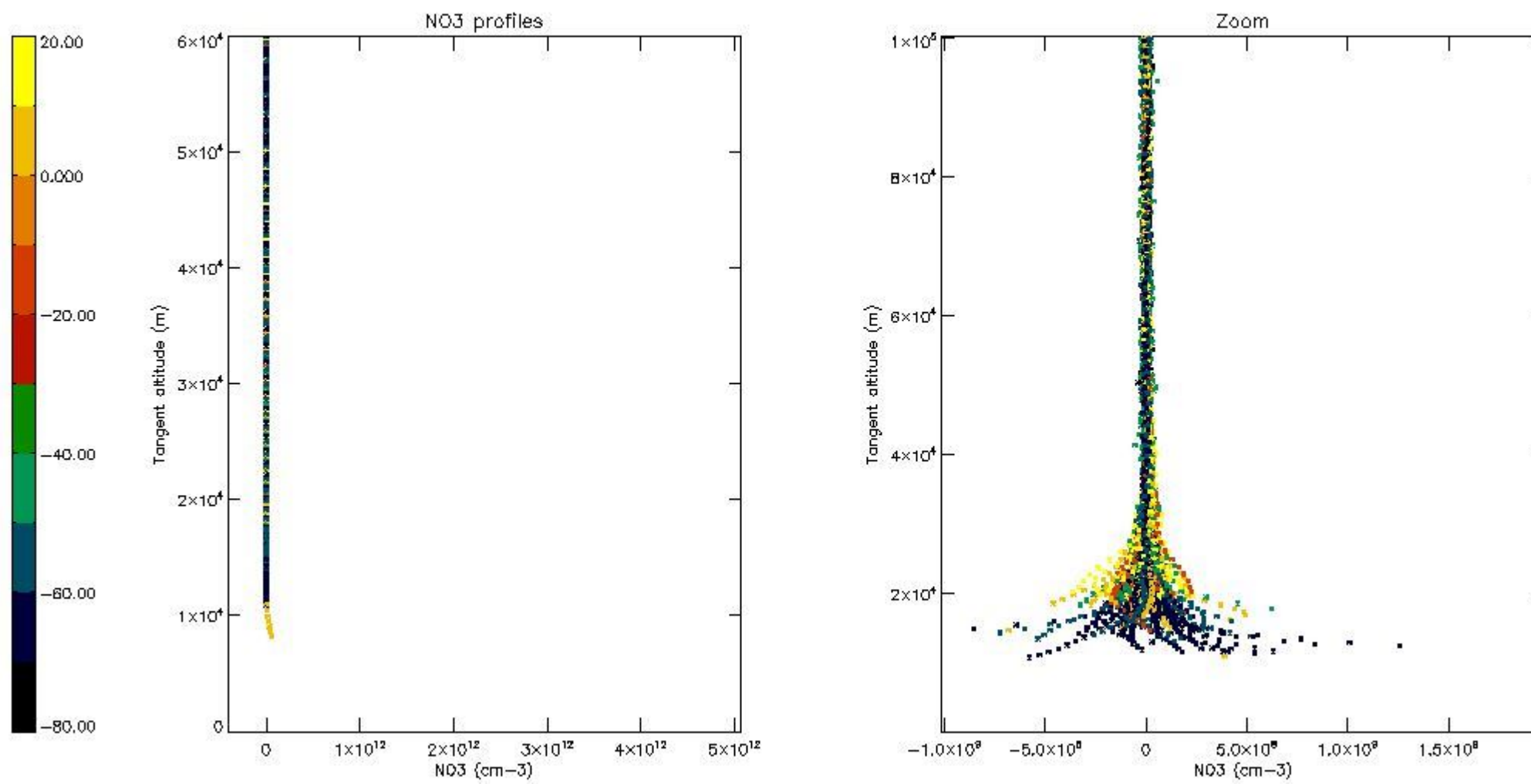
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

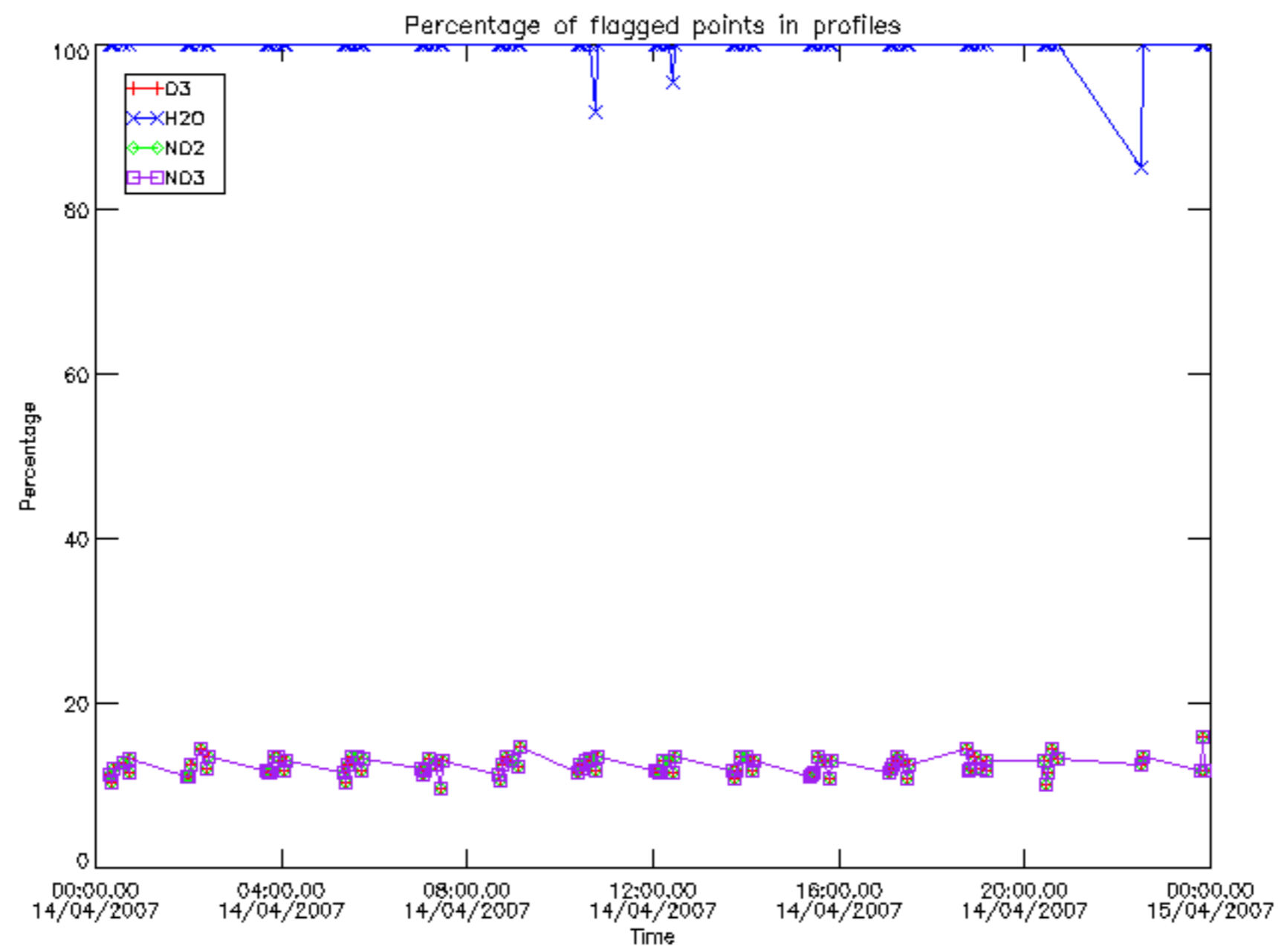
The colorbar represents the latitude.



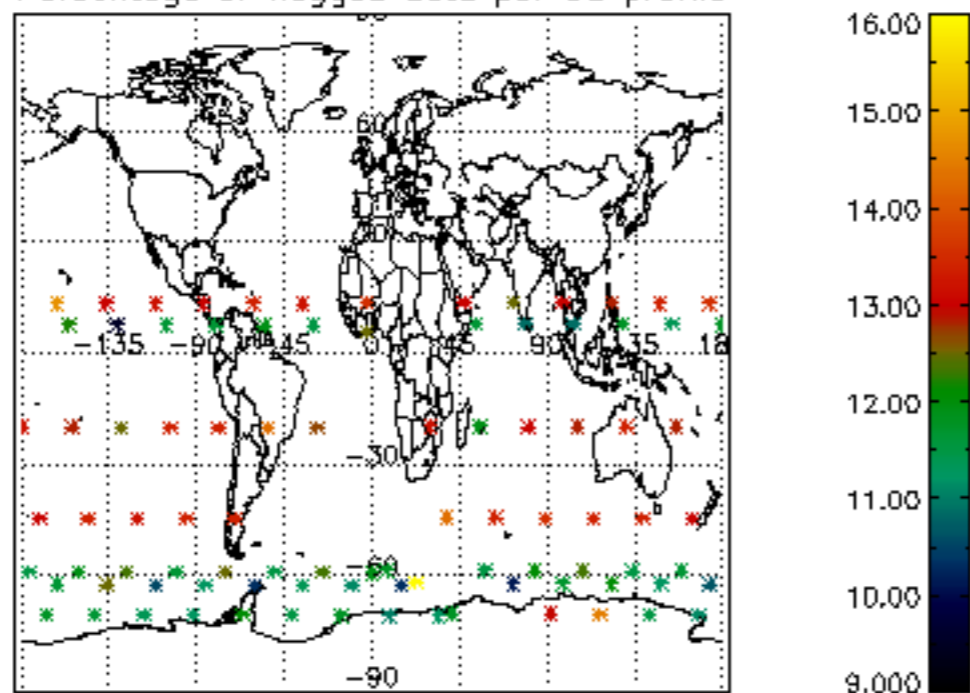
## 6. Auxiliary Data Files used for the production reported in section 2

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.

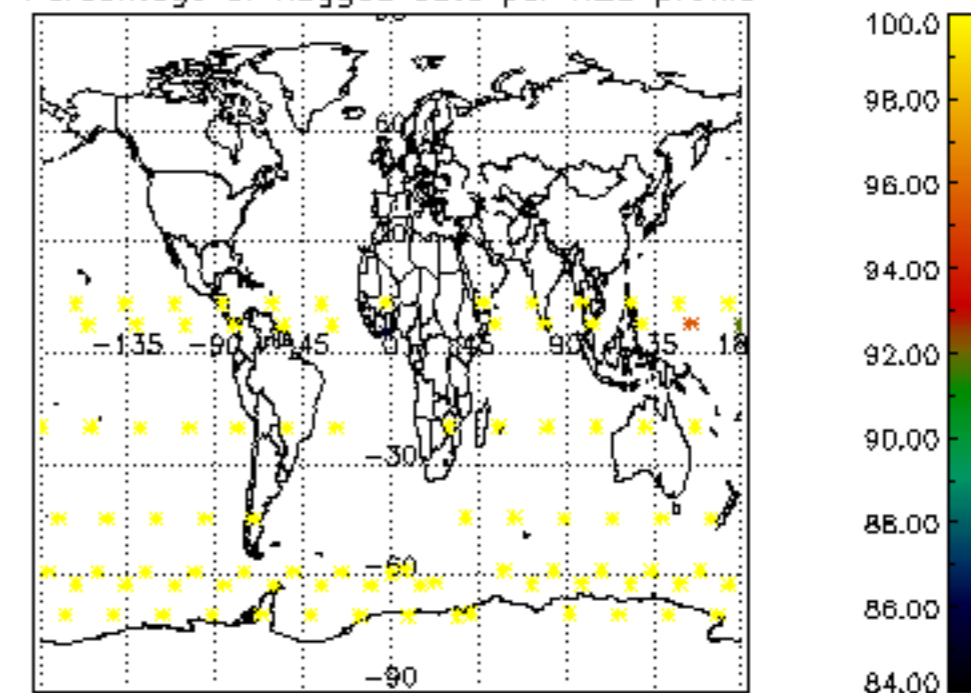
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	14-APR-2007 00:08:39
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	14-APR-2007 00:08:39
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	14-APR-2007 00:08:39



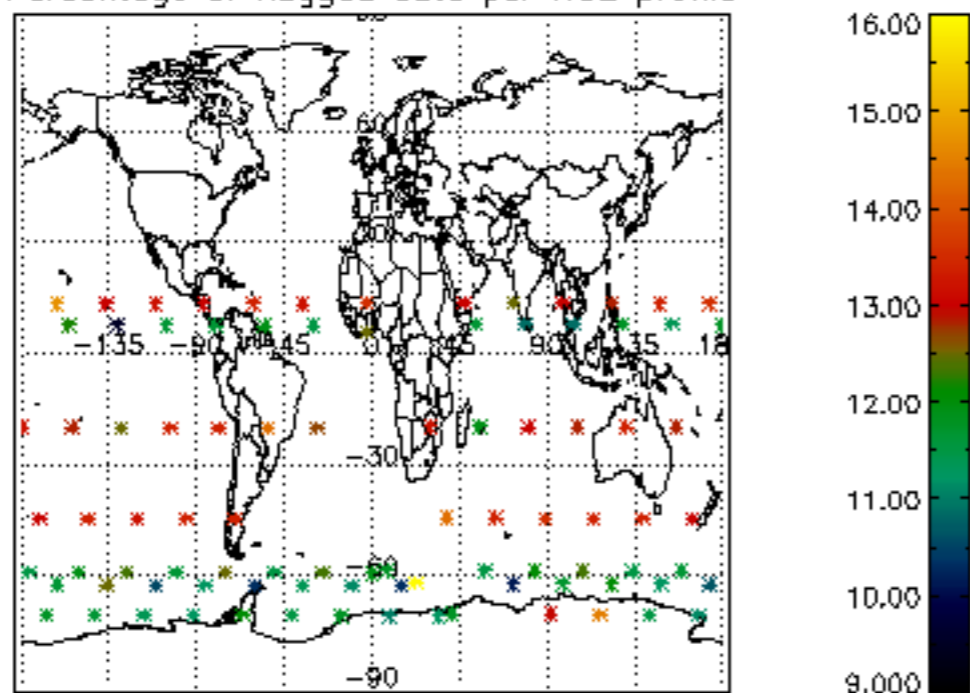
Percentage of flagged data per D3 profile



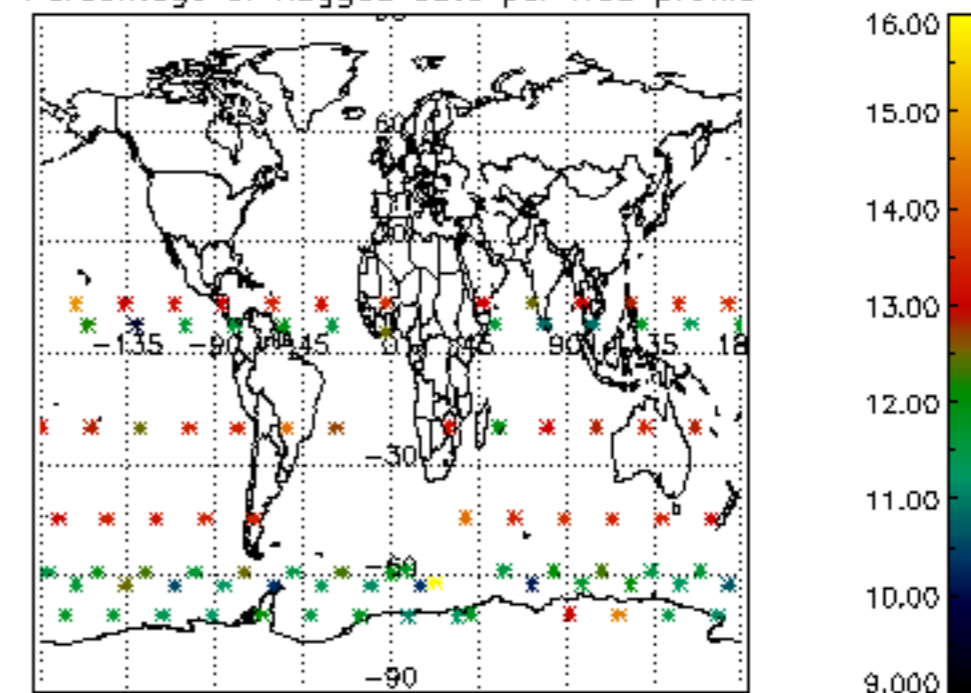
Percentage of flagged data per H2O profile



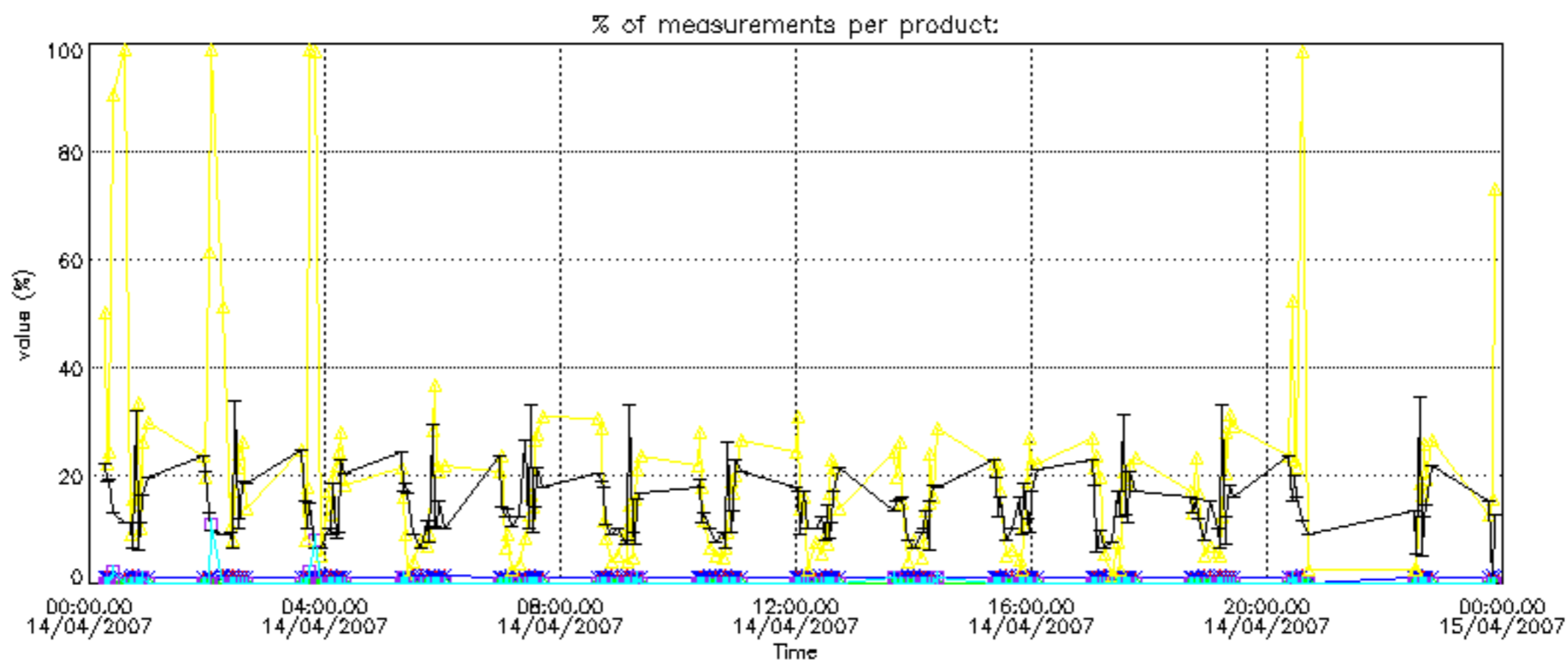
Percentage of flagged data per NO2 profile

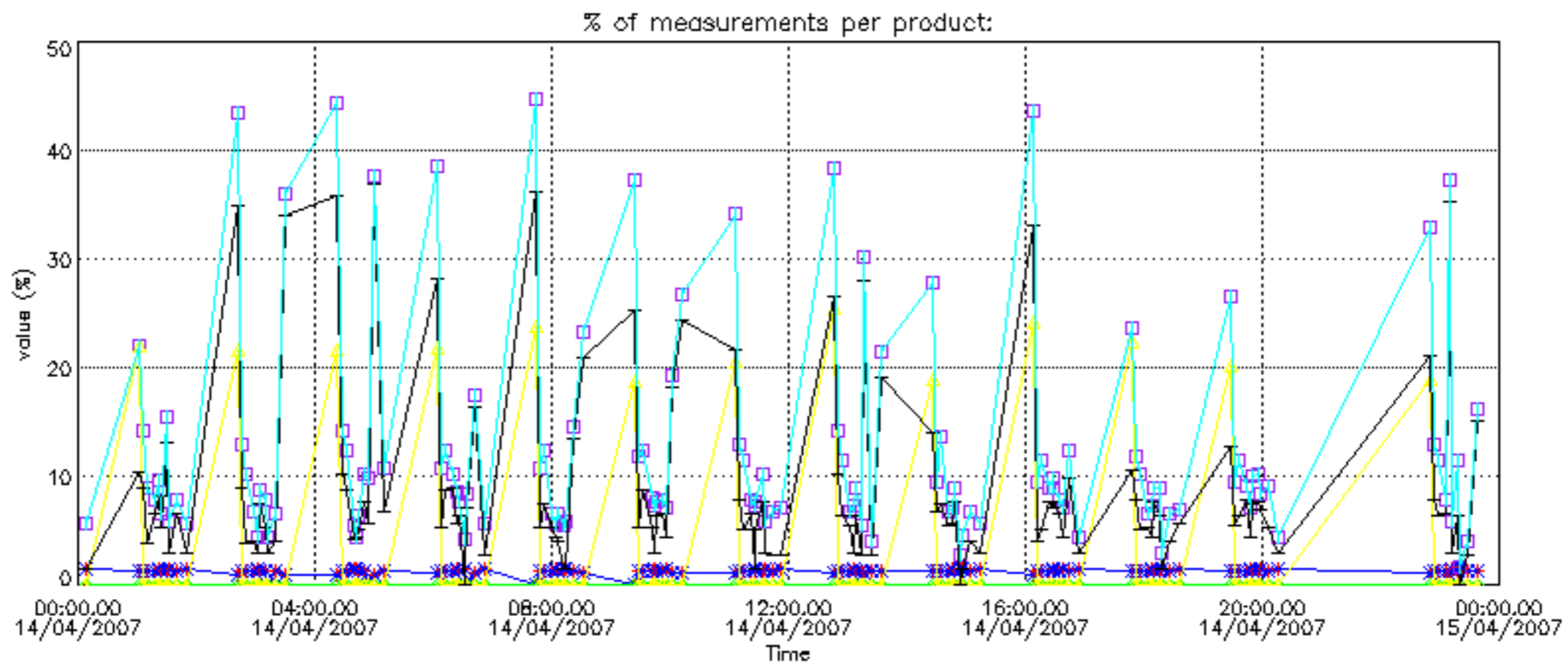


Percentage of flagged data per NO3 profile

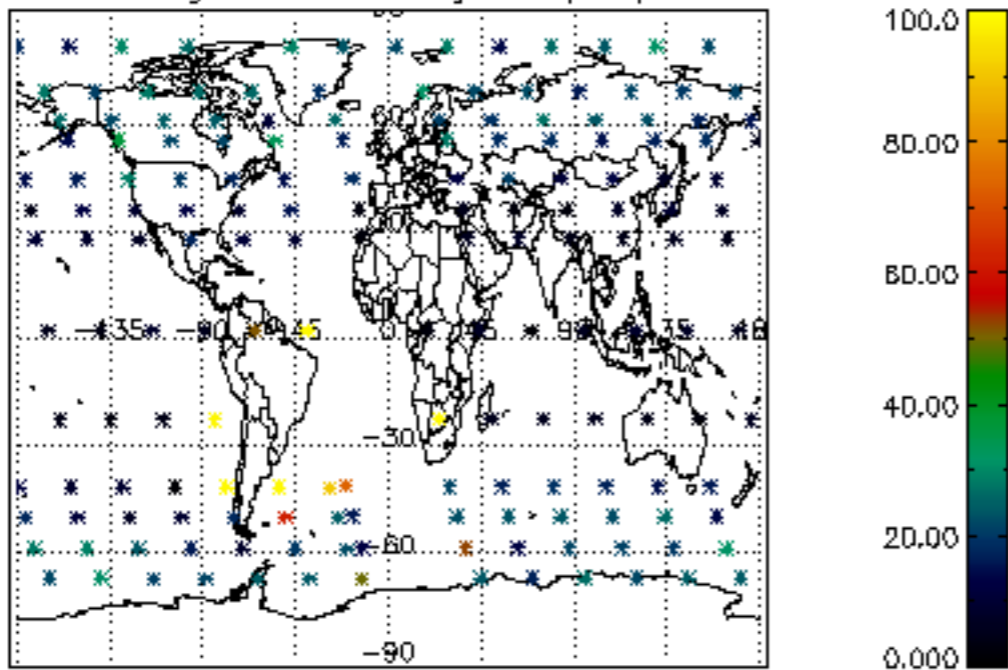




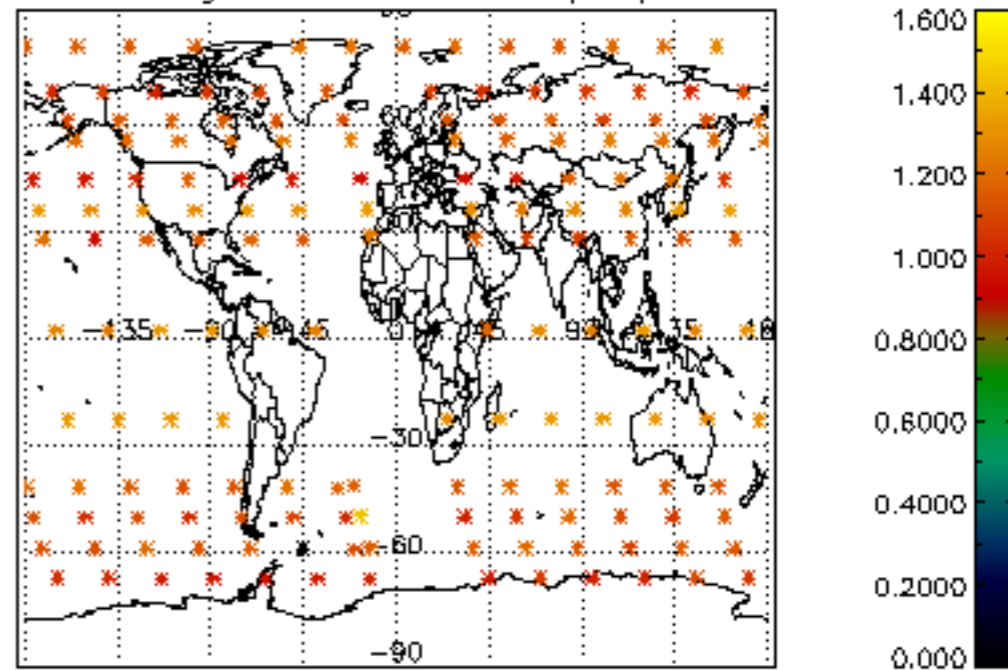




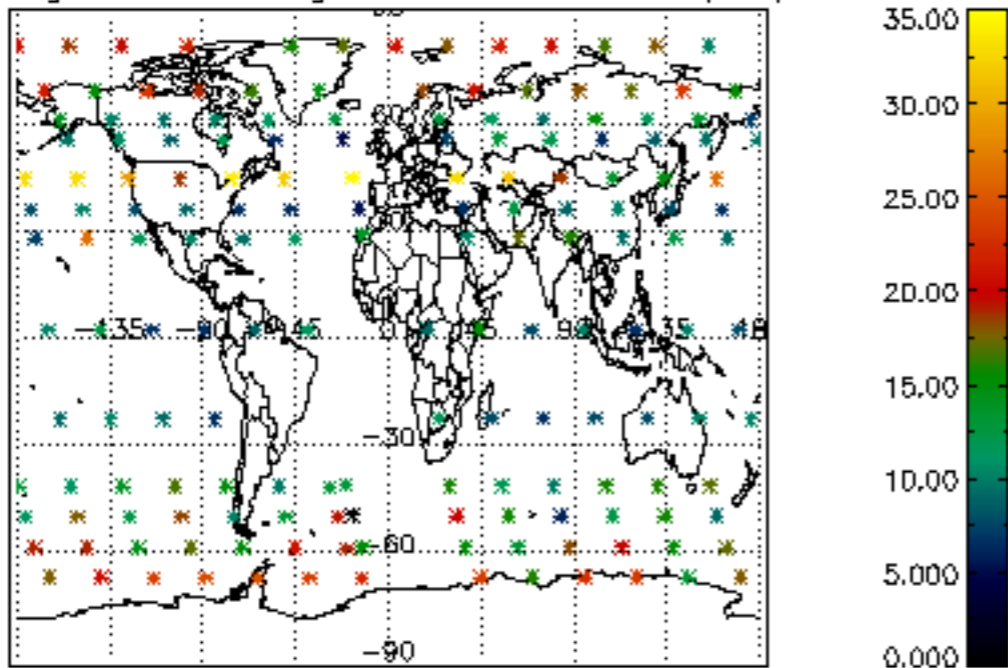
Percentage of cosmic ray hits per profile



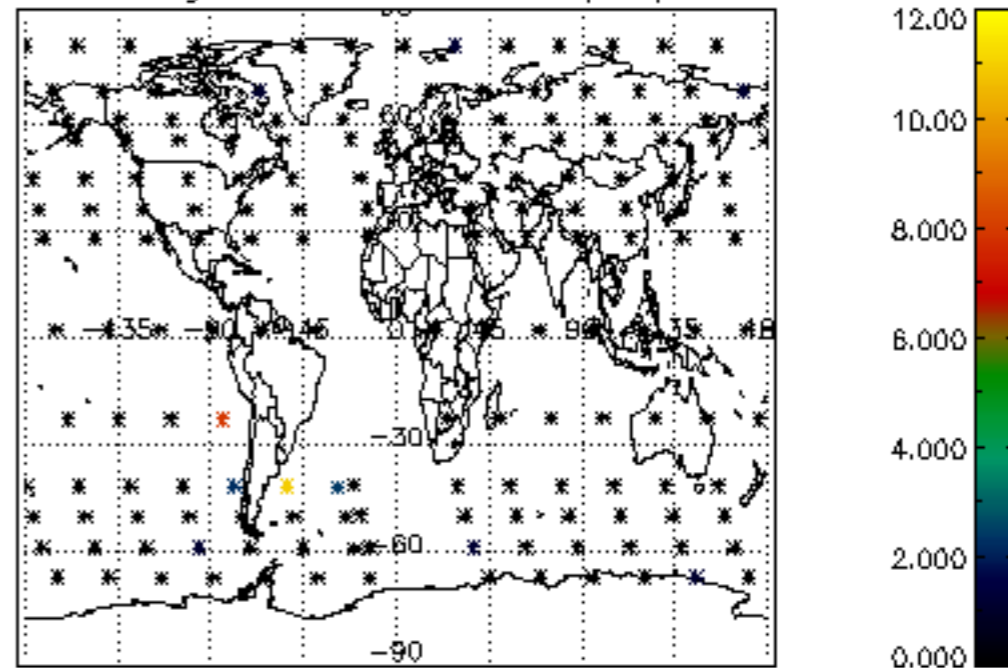
Percentage of datation errors per profile



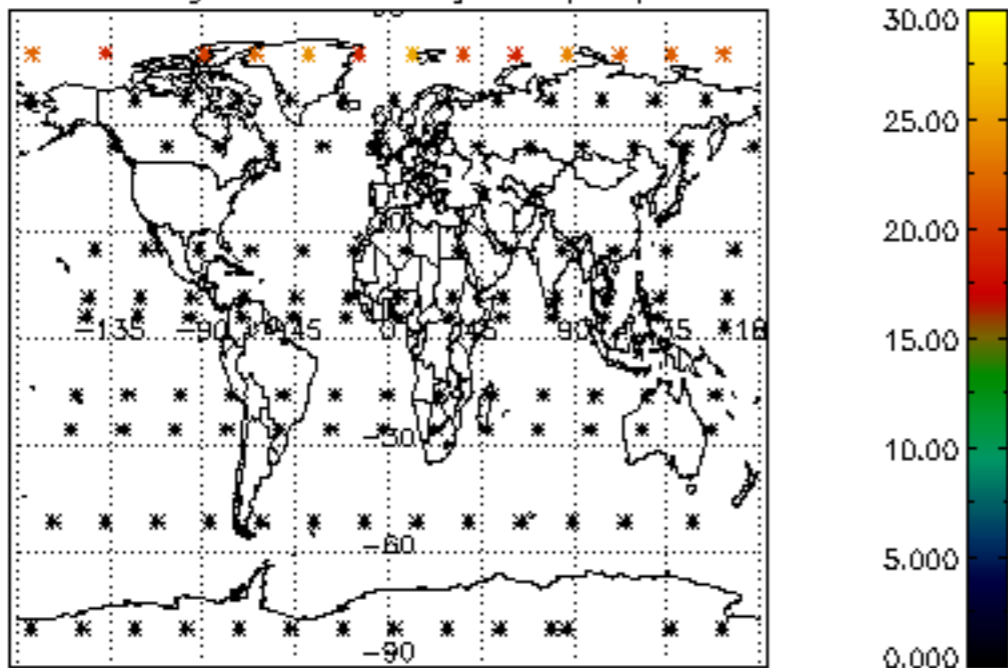
Percentage of star falling outside central band per profile



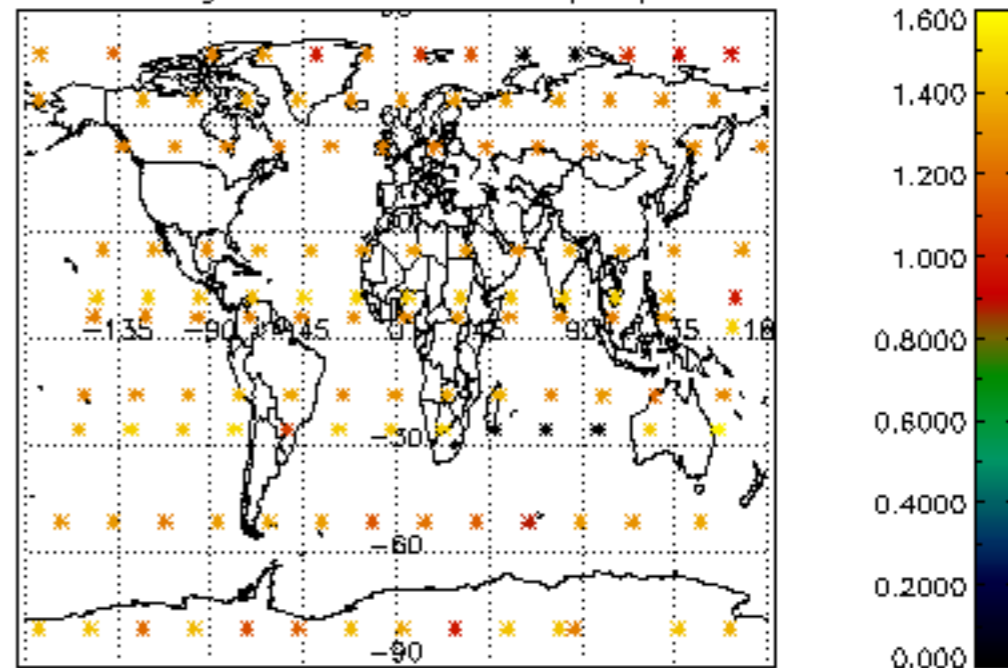
Percentage of saturation errors per profile



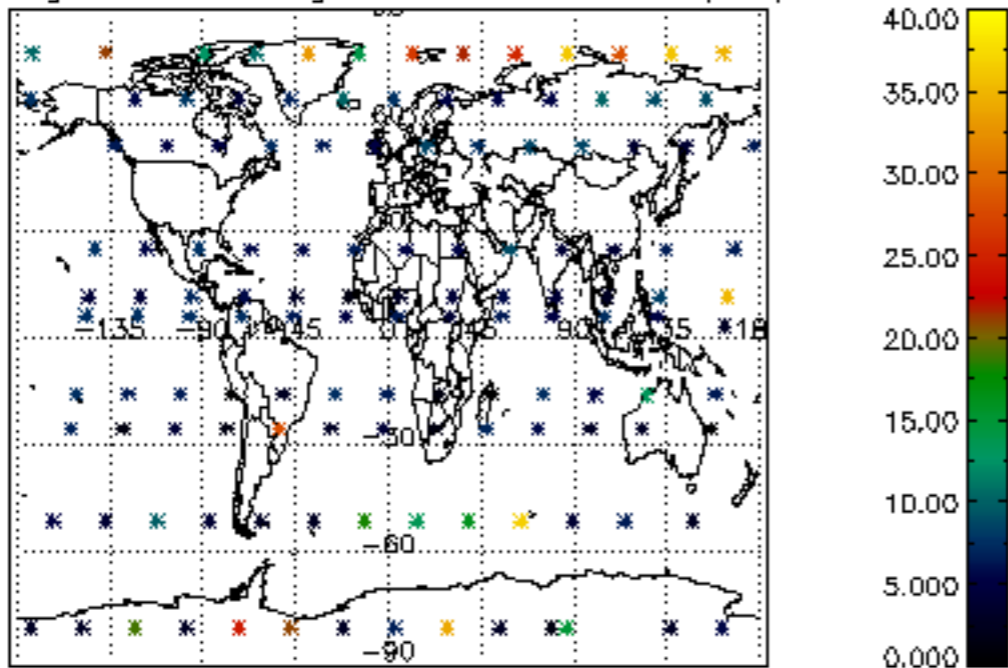
Percentage of cosmic ray hits per profile



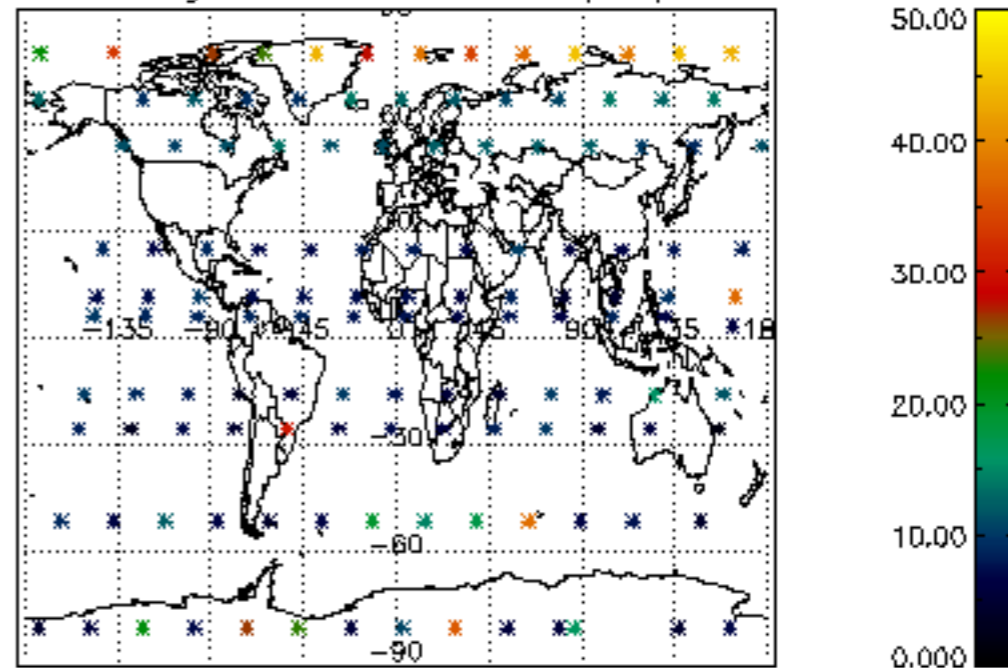
Percentage of datation errors per profile

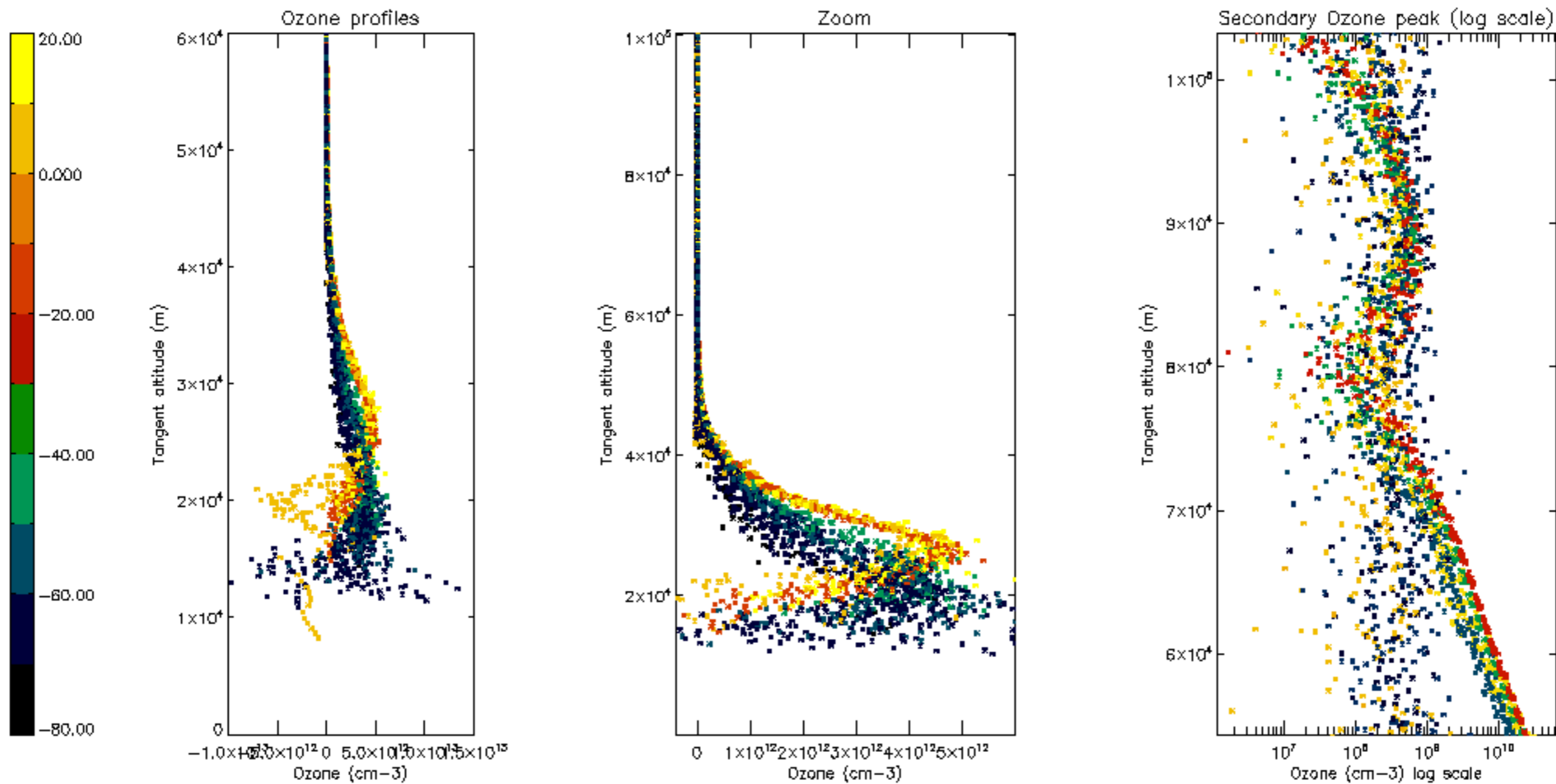


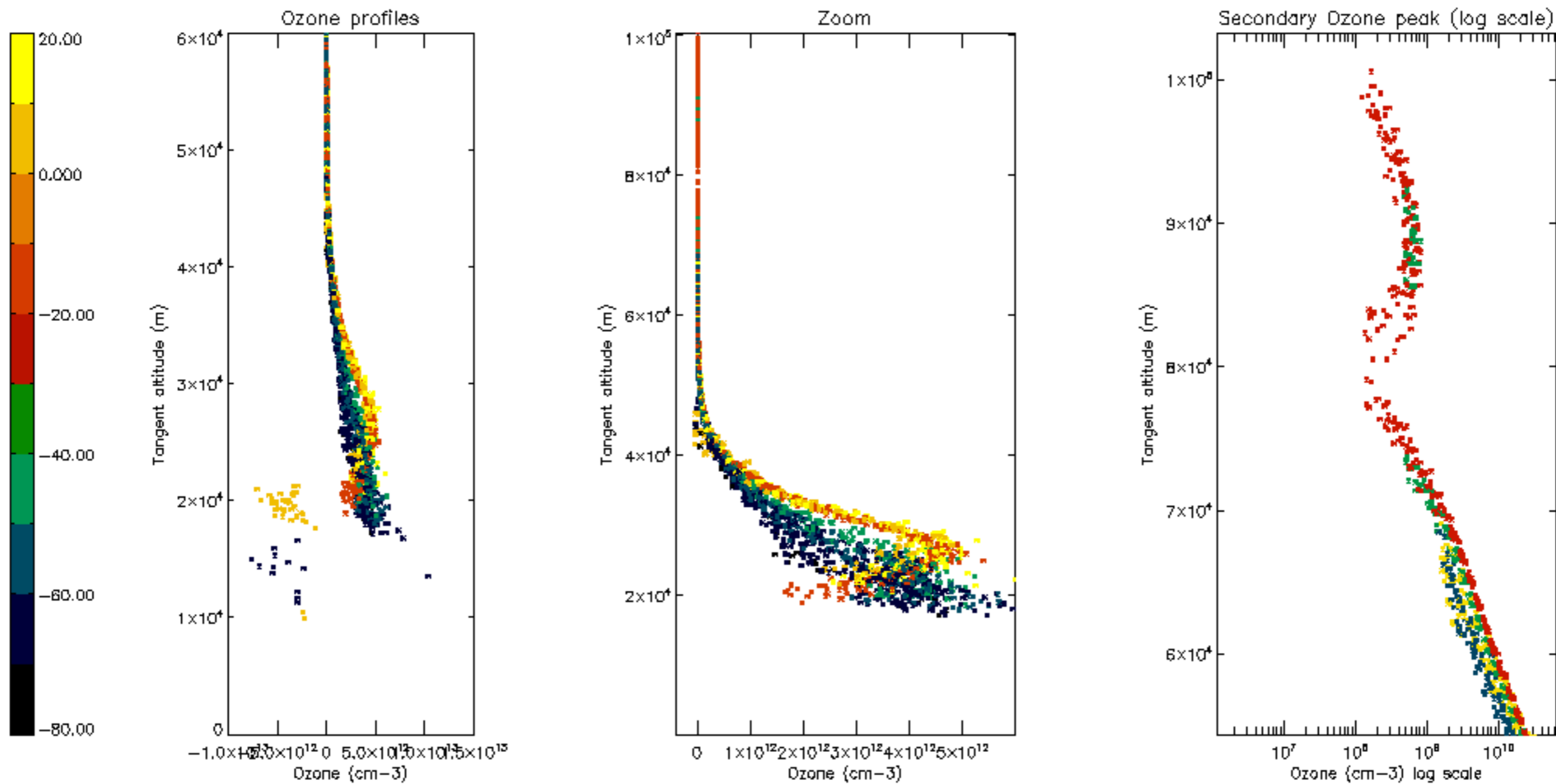
Percentage of star falling outside central band per profile

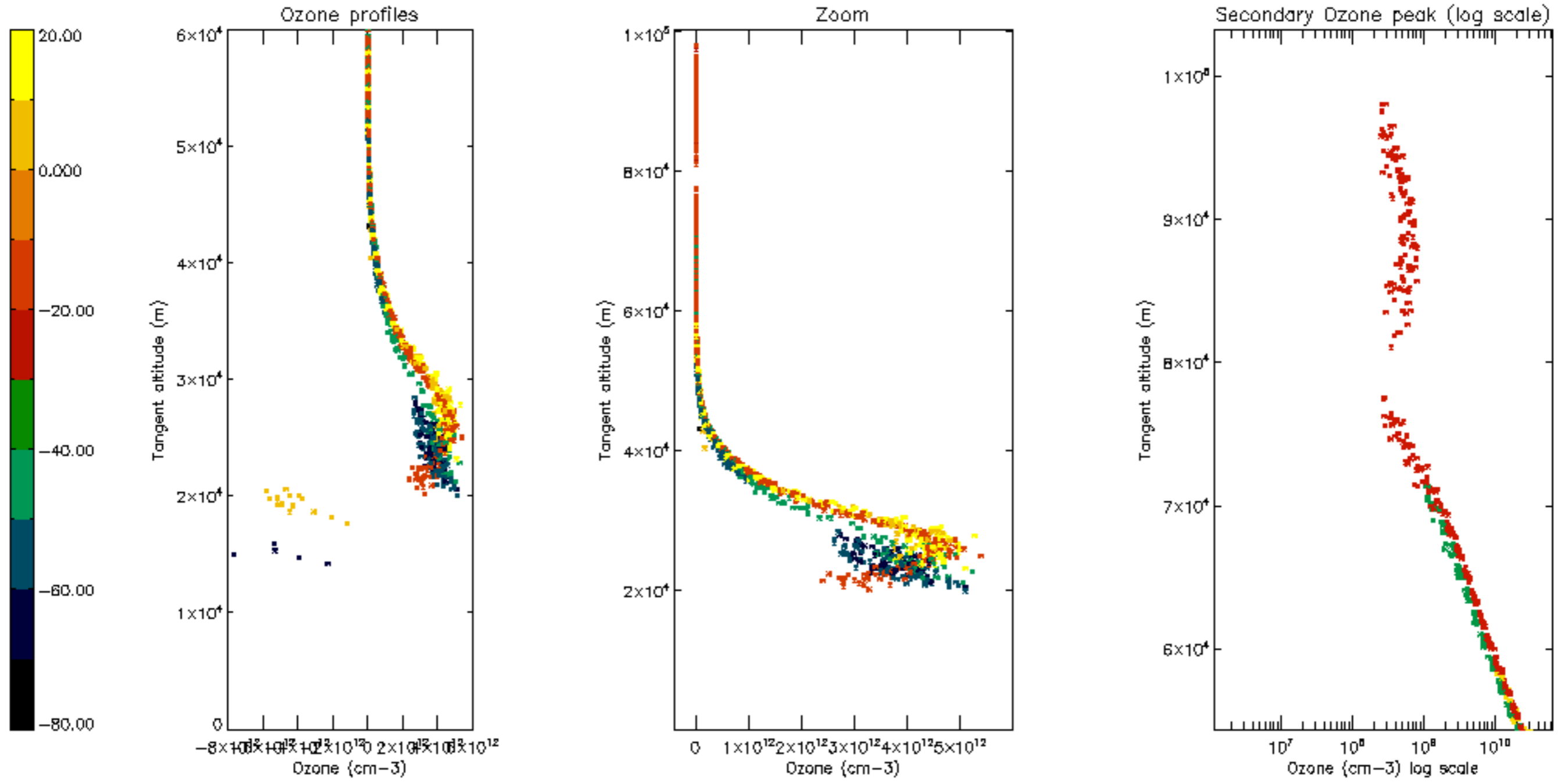


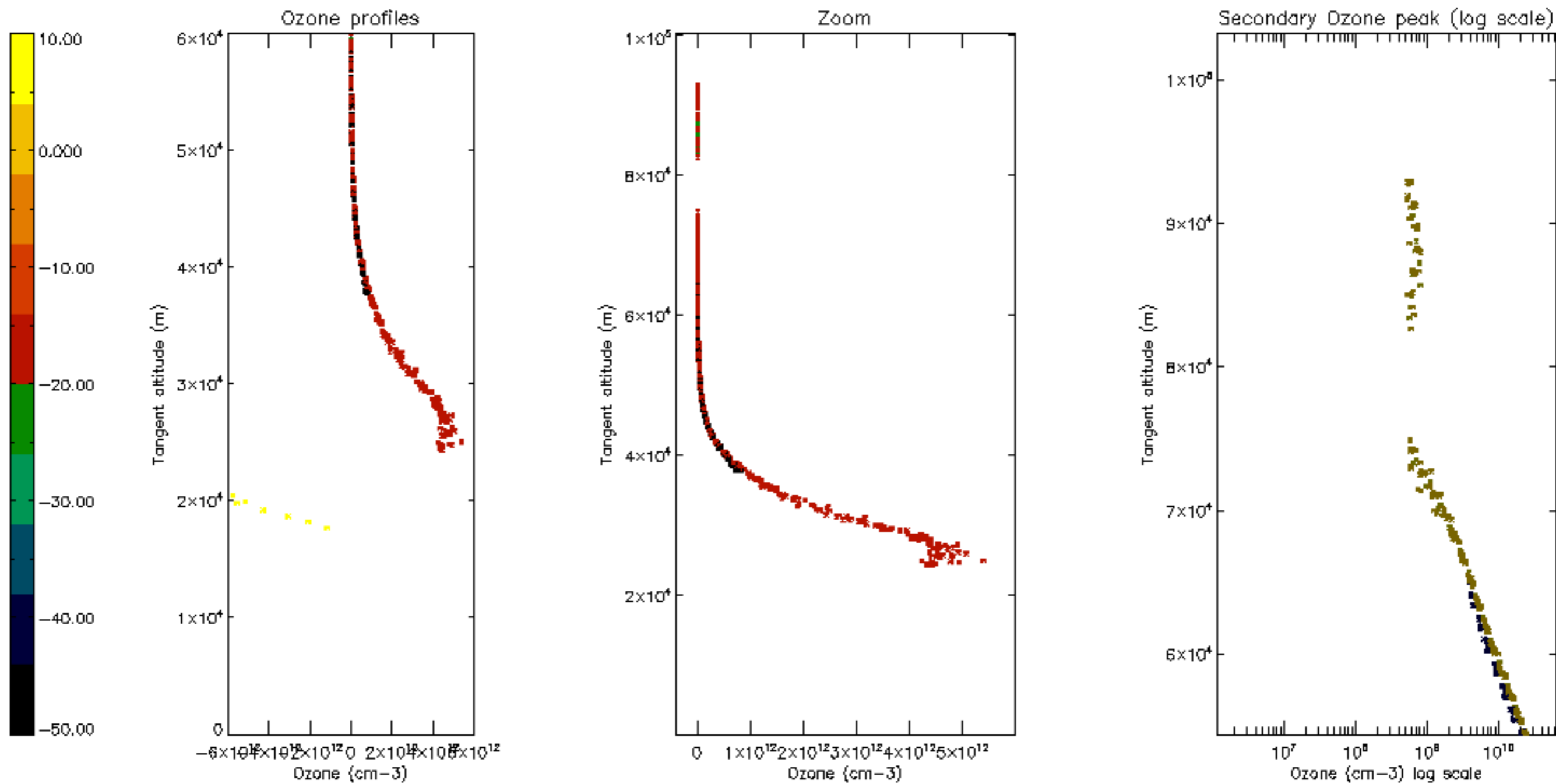
Percentage of saturation errors per profile



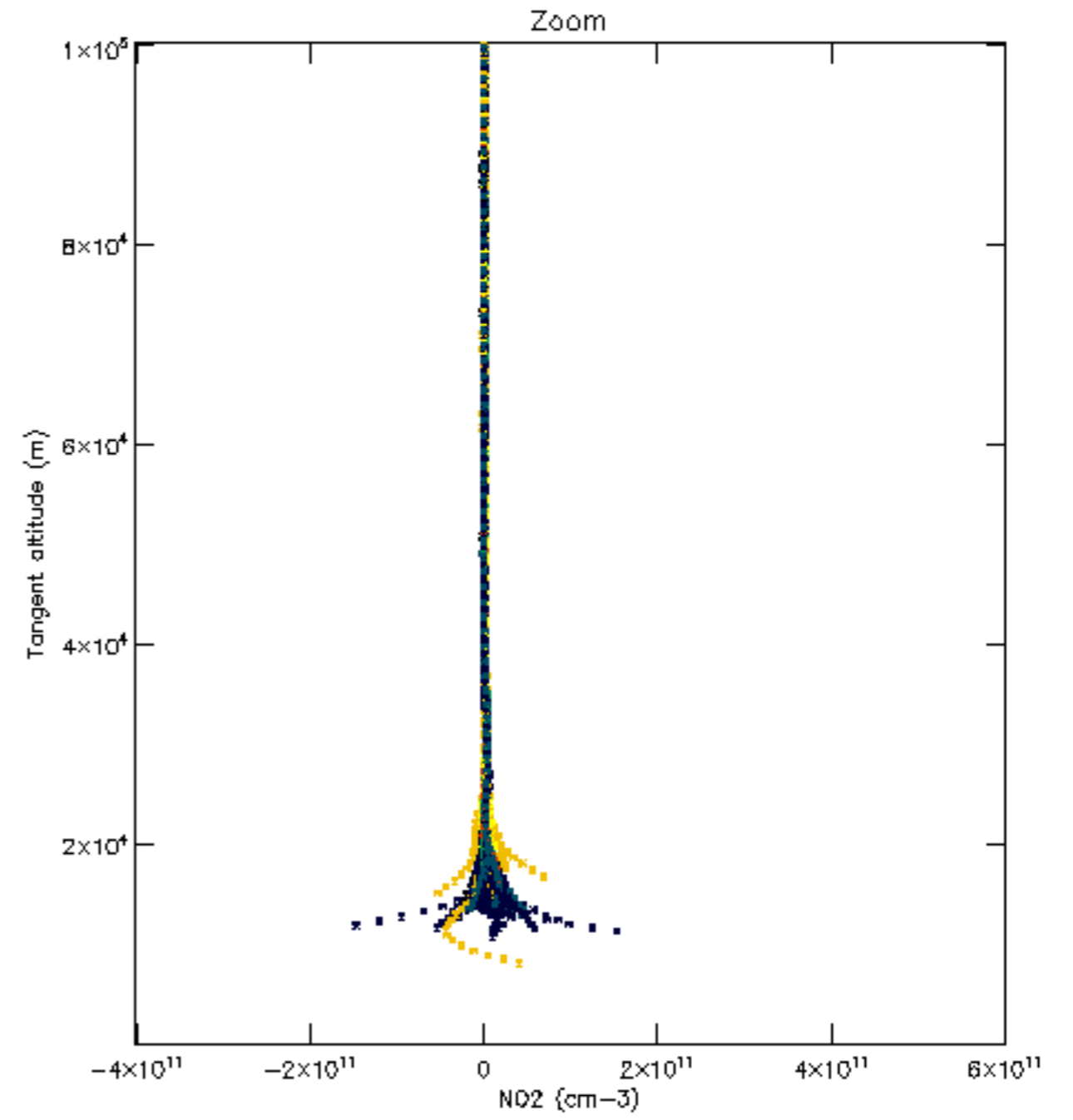
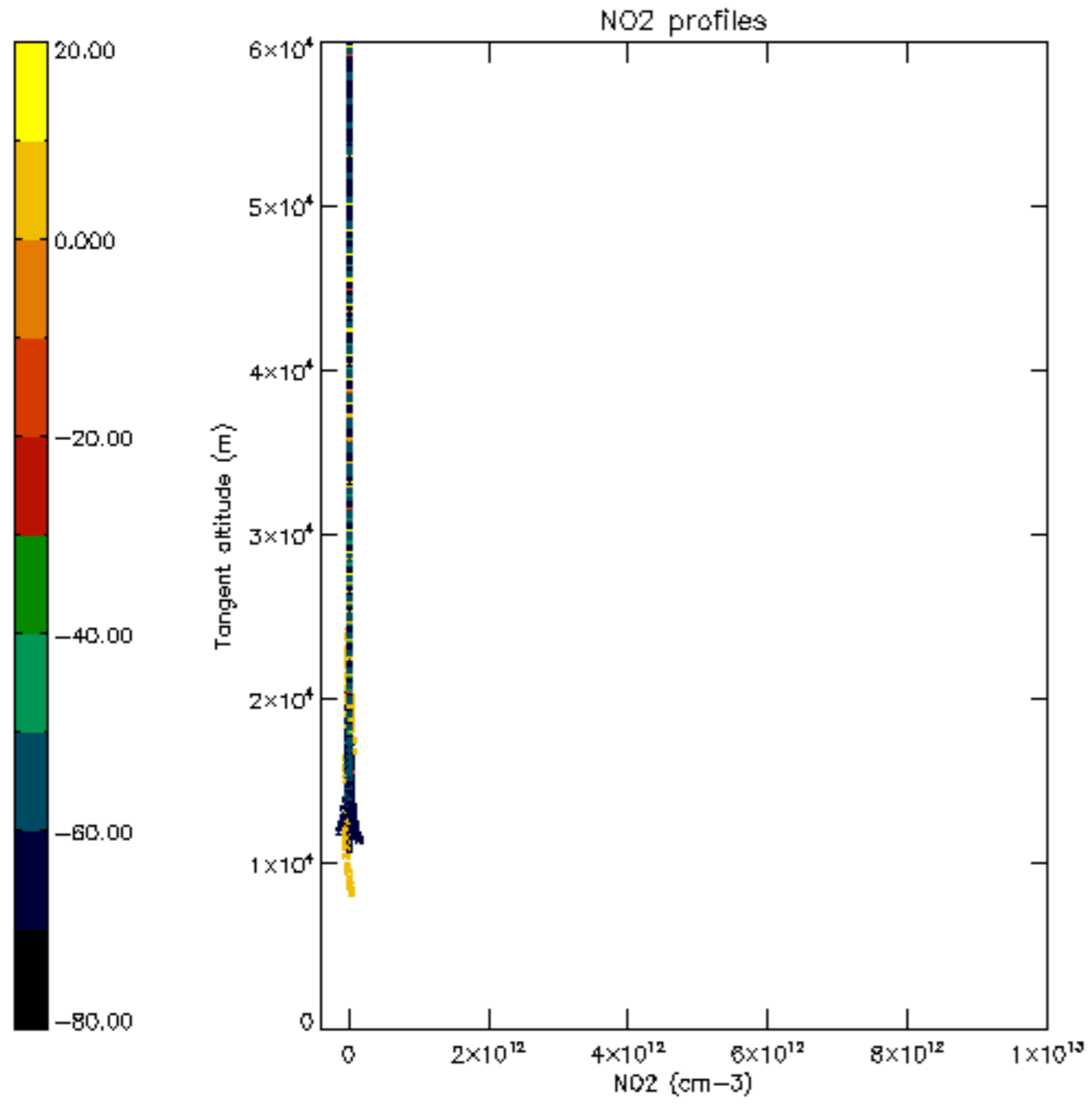


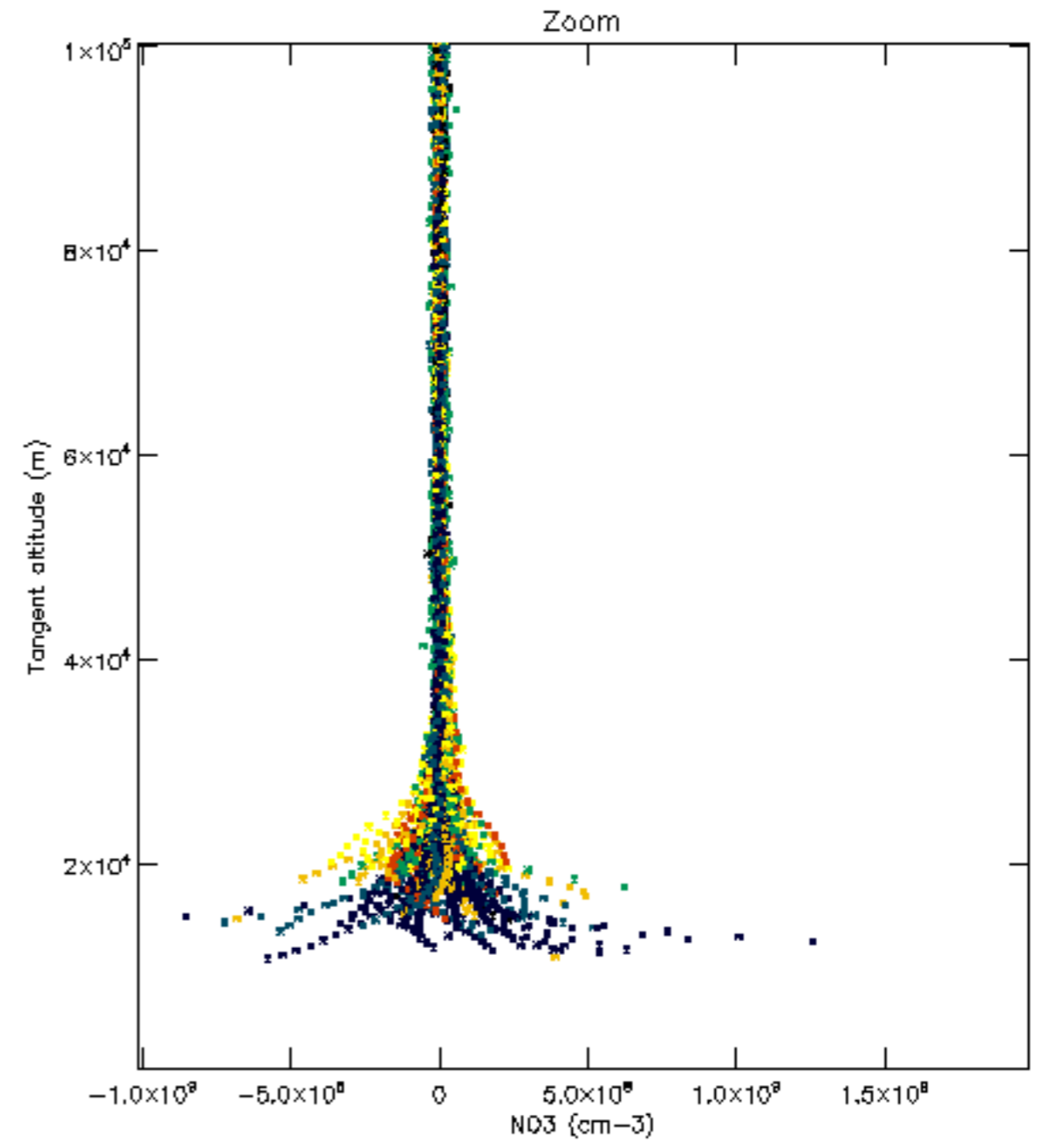
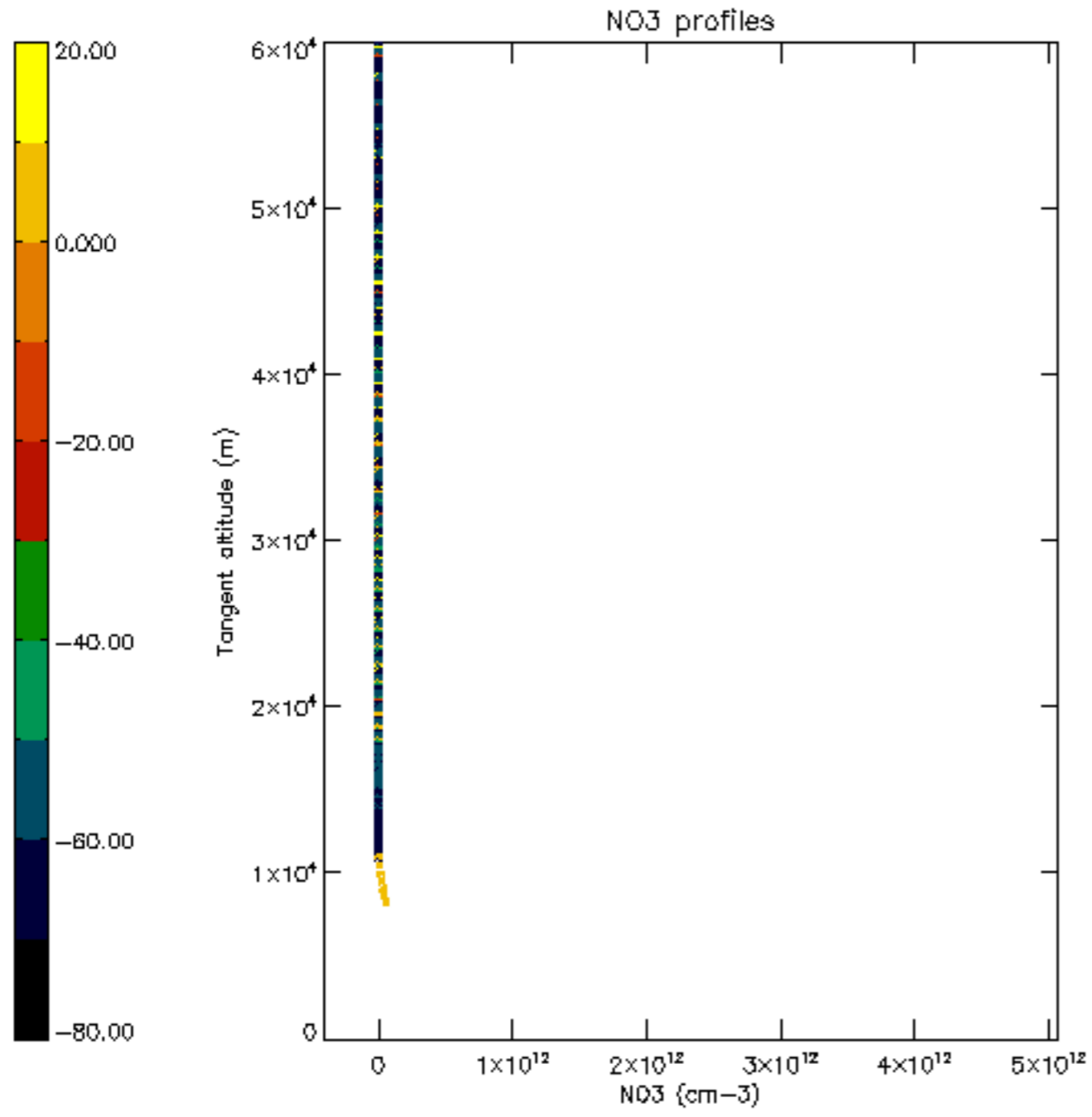


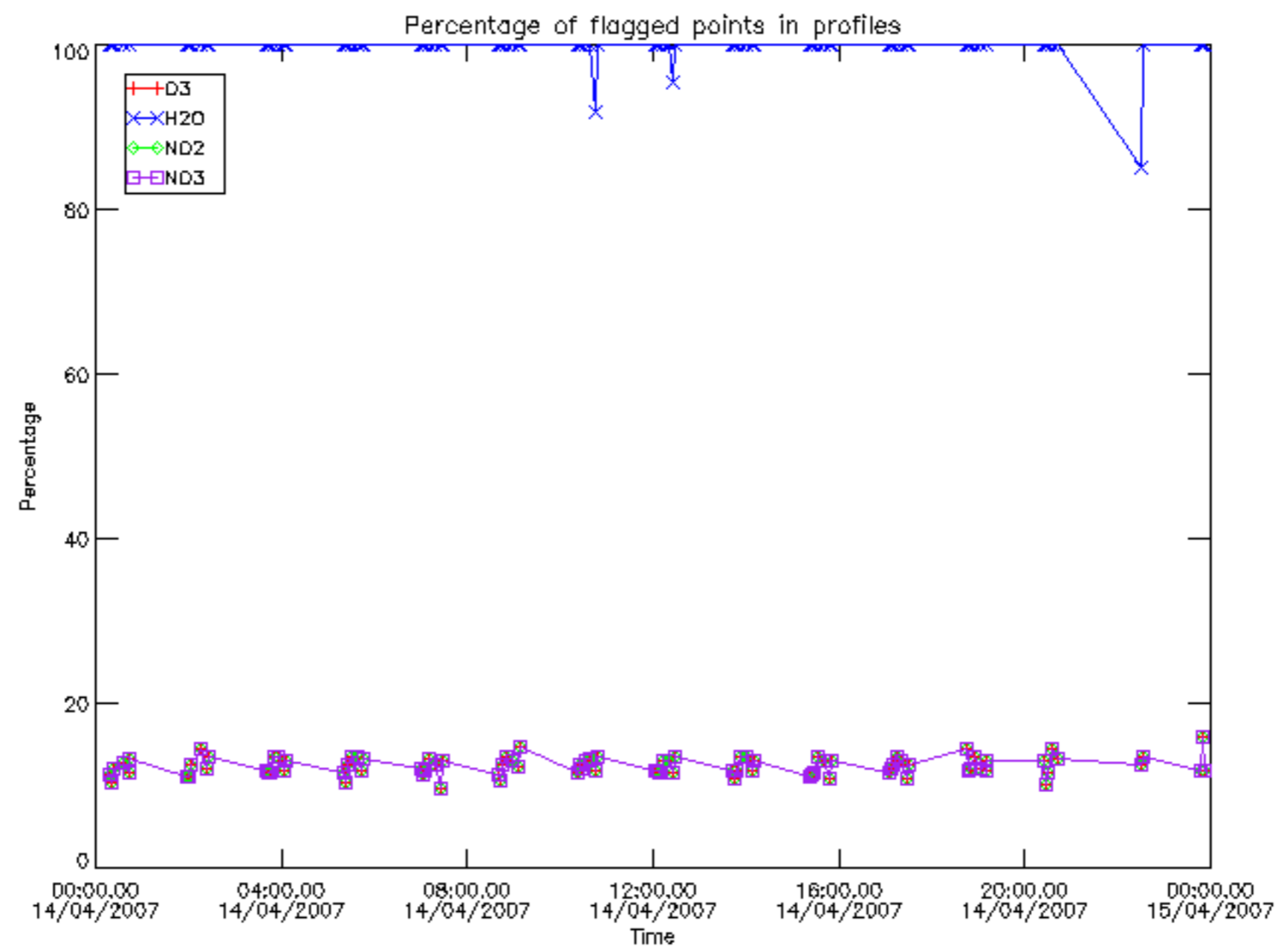




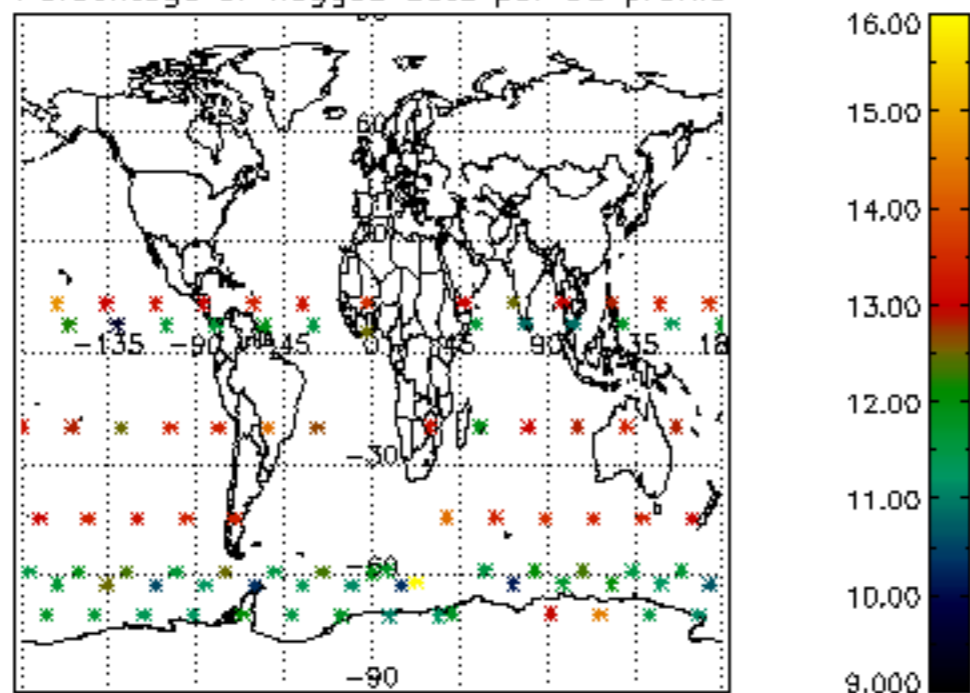




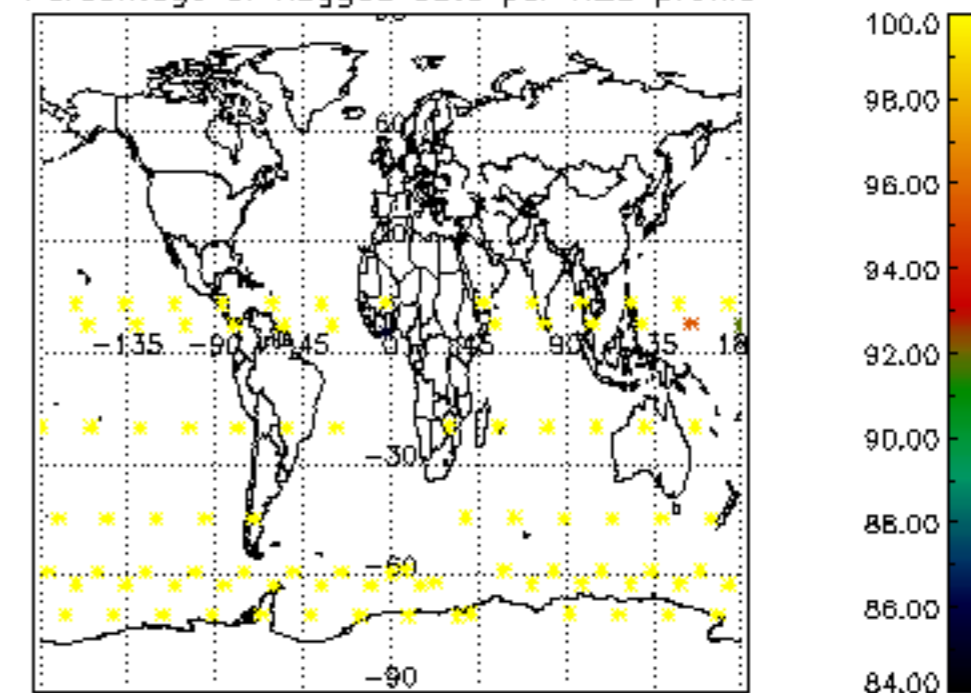




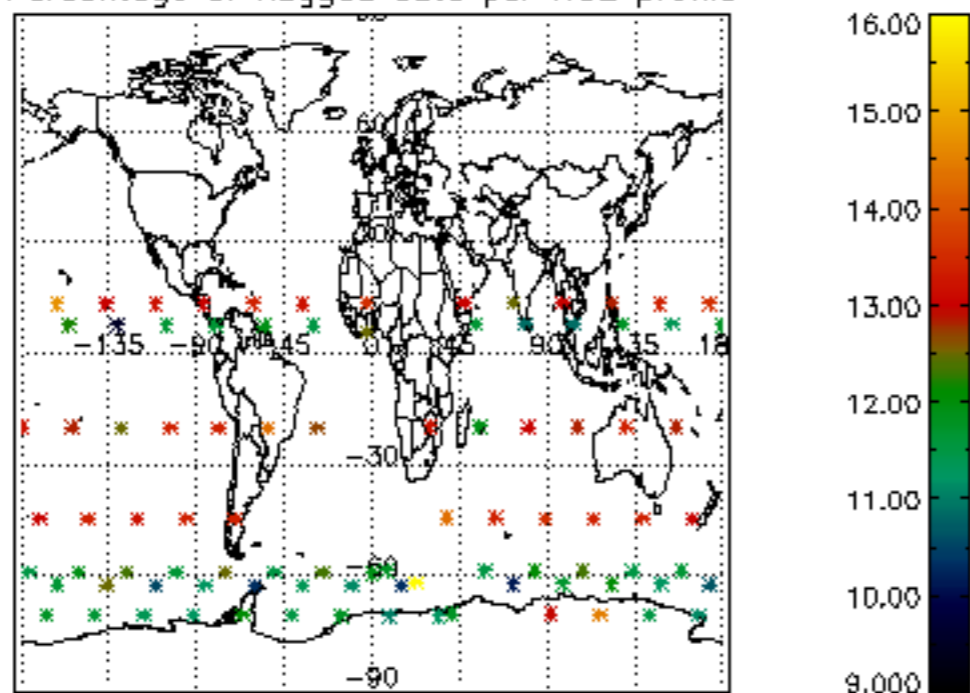
Percentage of flagged data per D3 profile



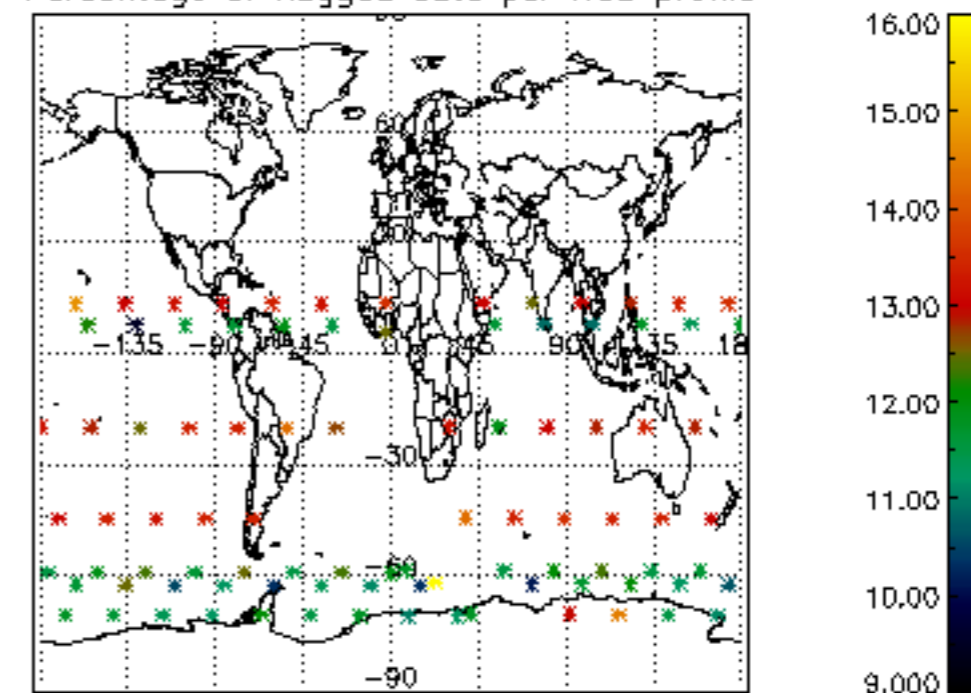
Percentage of flagged data per H2O profile

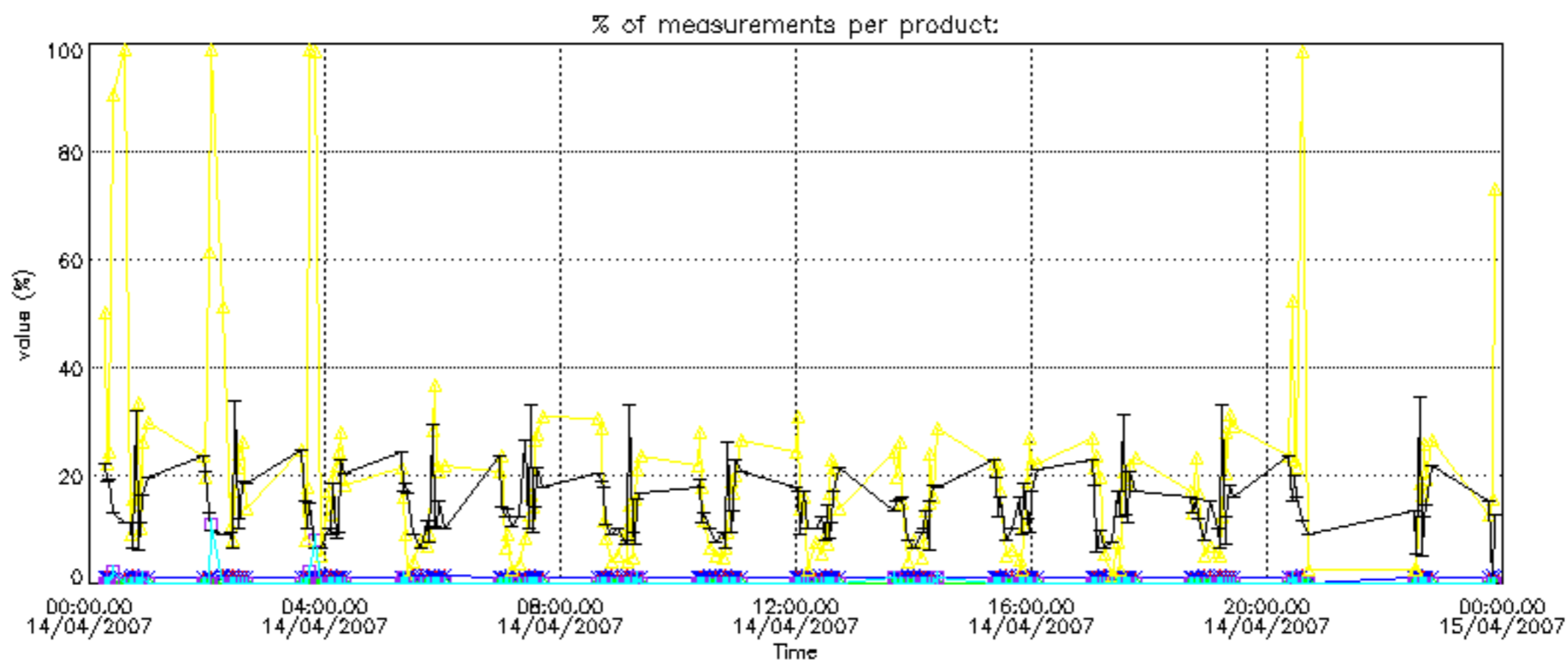


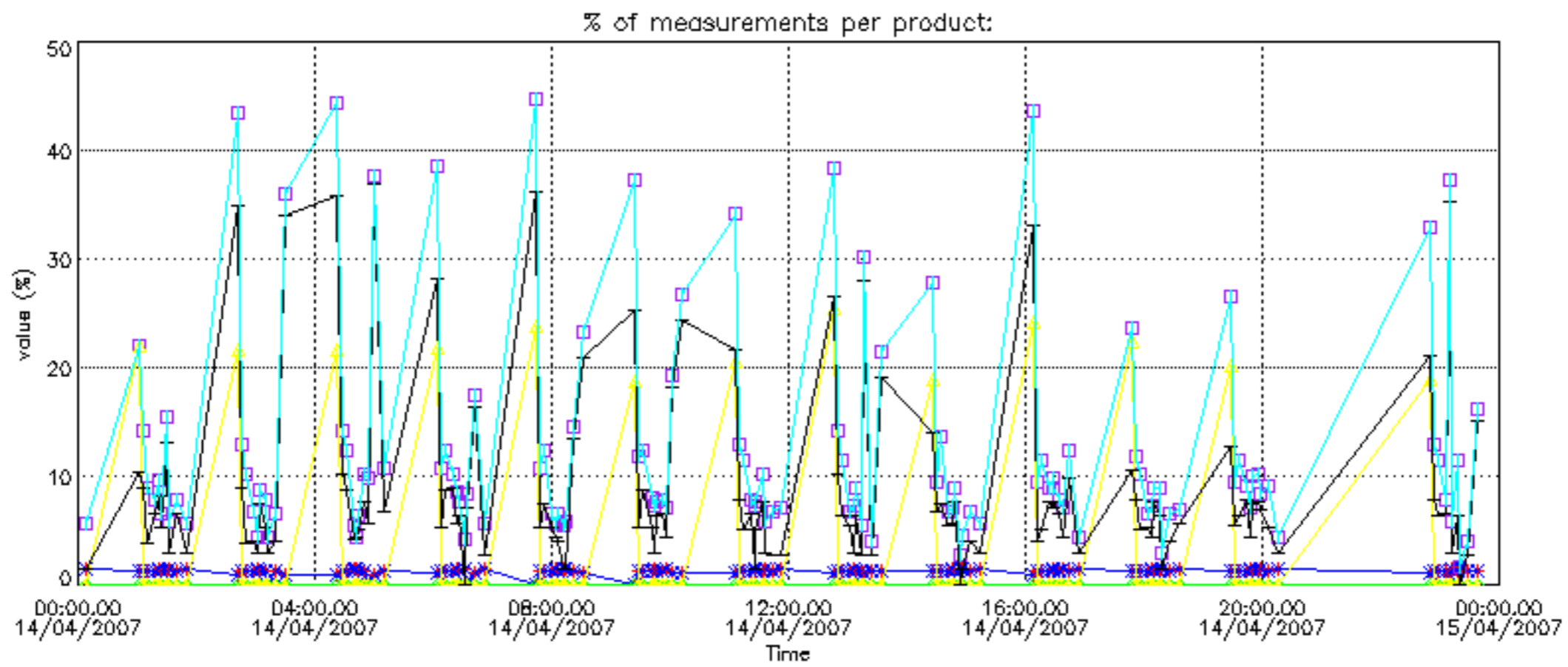
Percentage of flagged data per NO2 profile



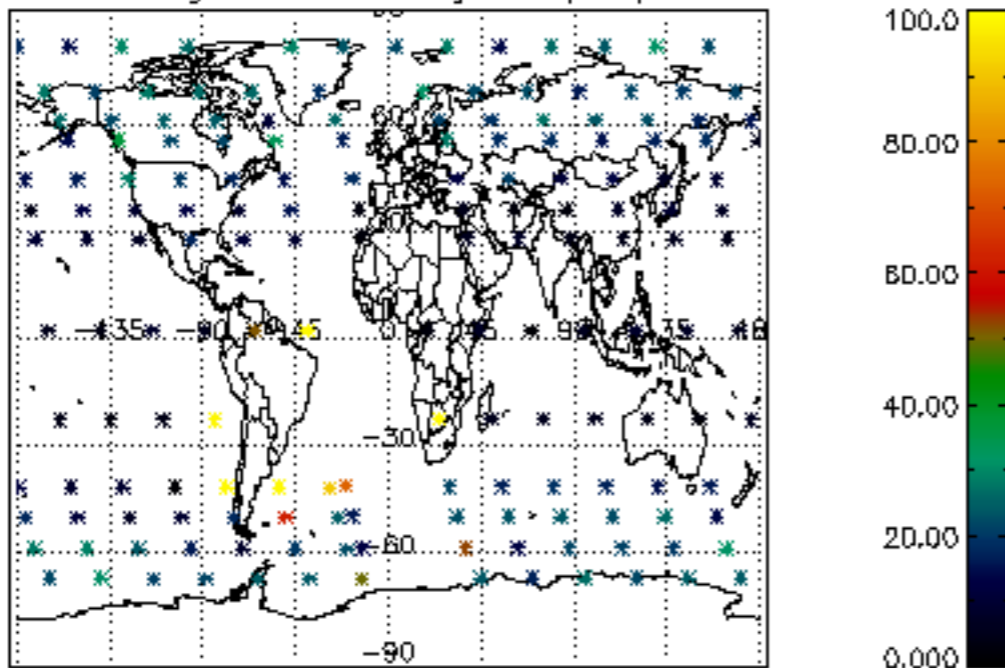
Percentage of flagged data per NO3 profile



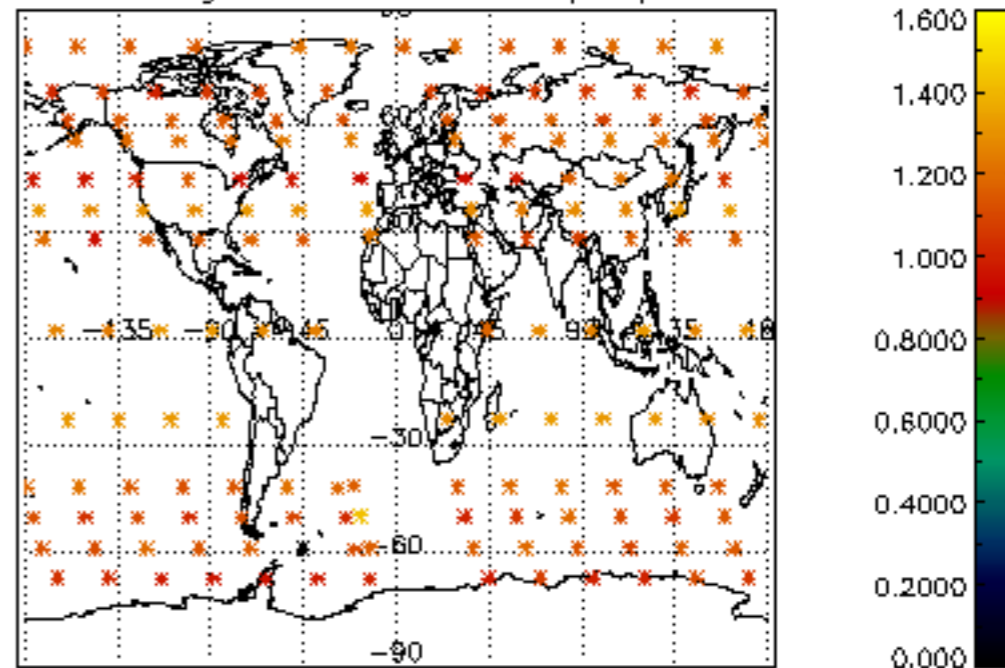




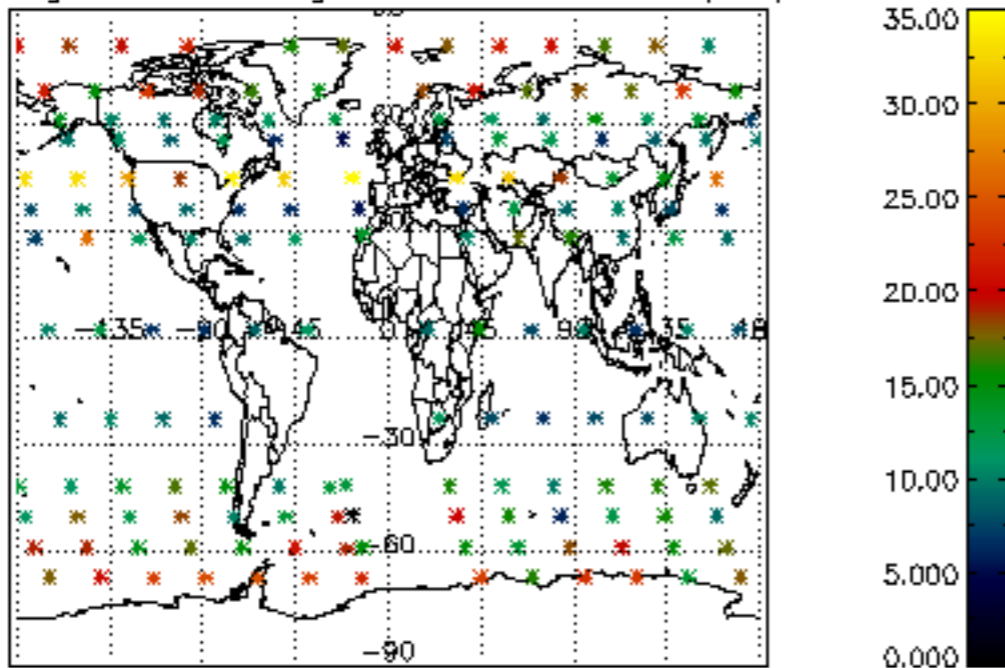
Percentage of cosmic ray hits per profile



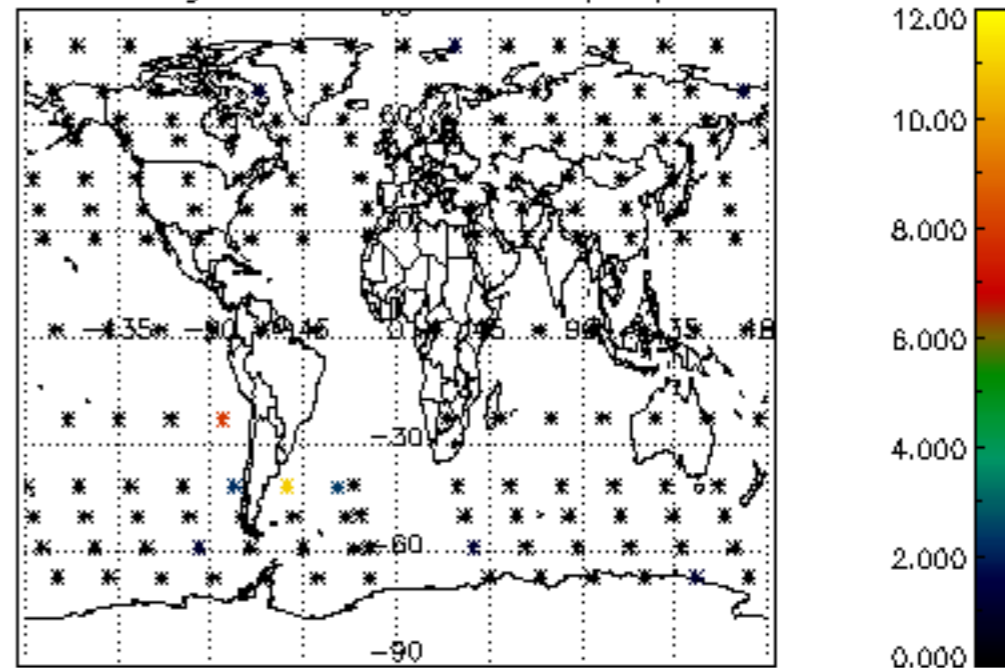
Percentage of datation errors per profile



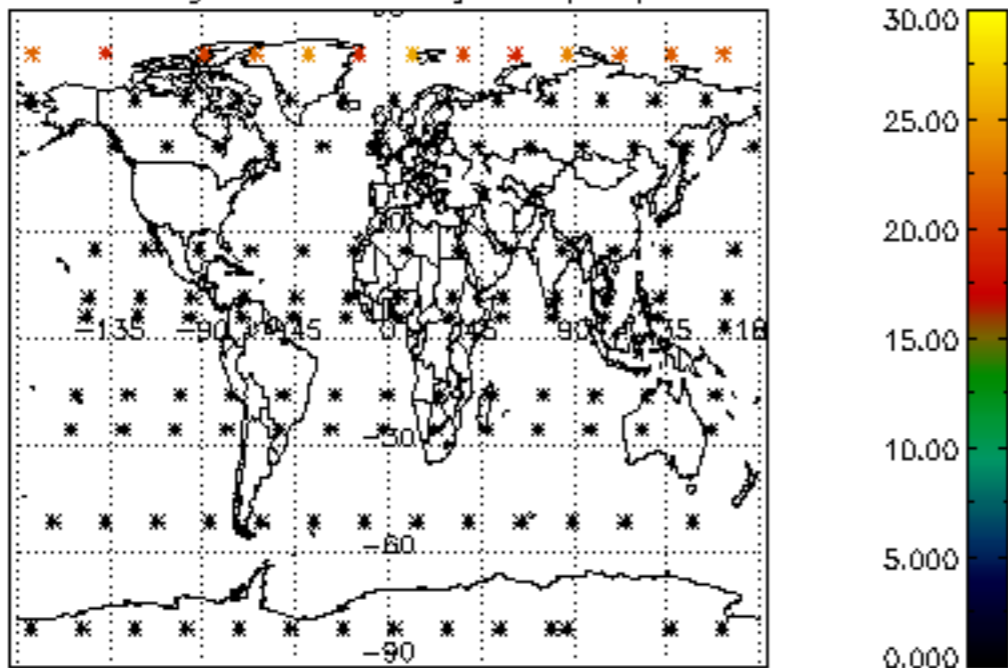
Percentage of star falling outside central band per profile



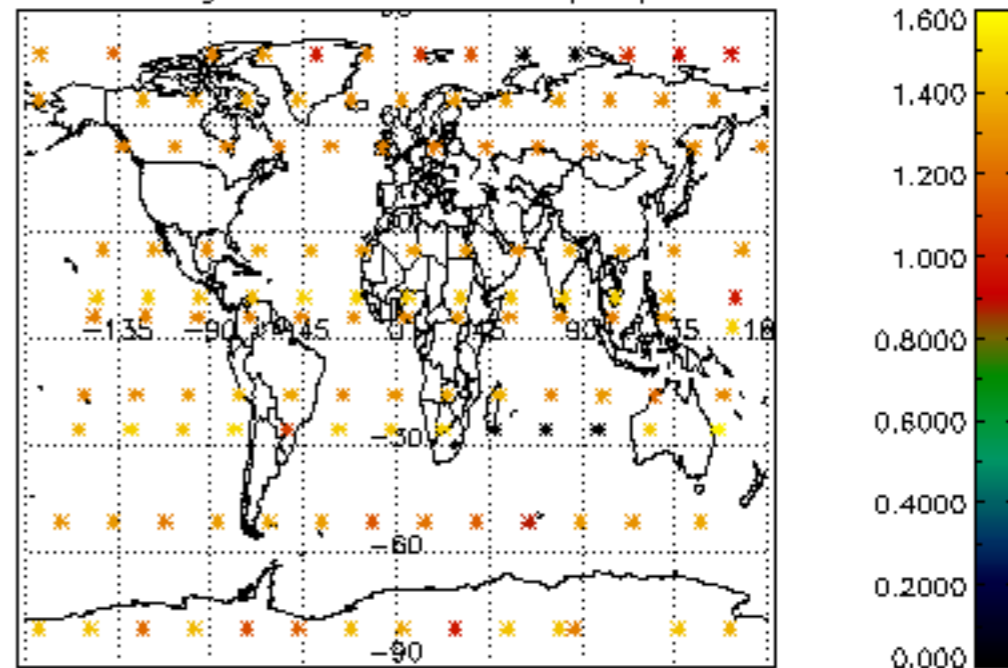
Percentage of saturation errors per profile



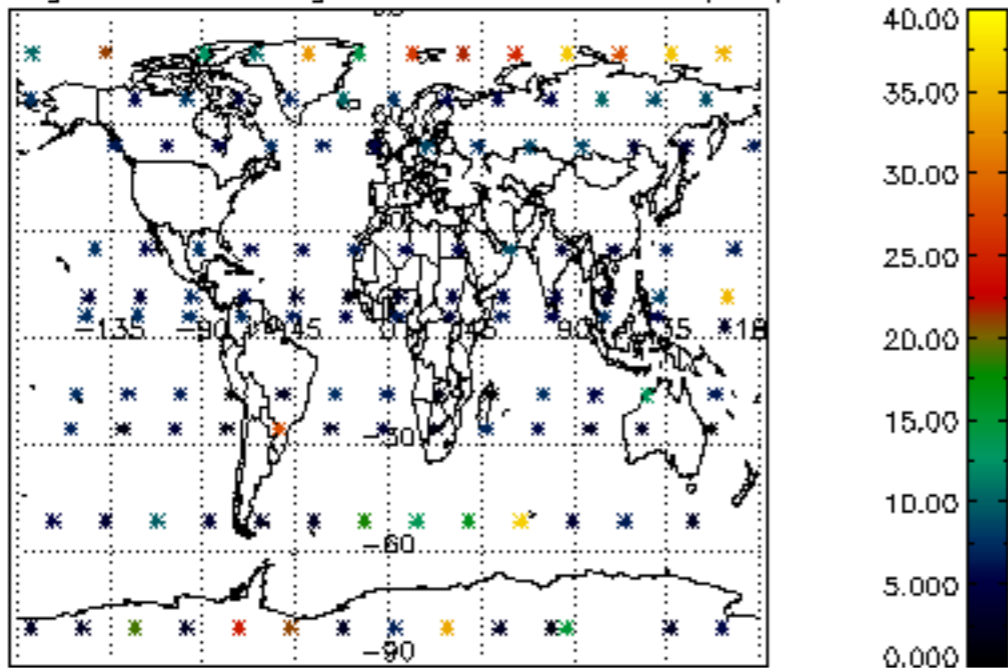
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

