

# GOMOS Level 2 Daily Report

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This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM\_NL\_\_2P). It is intended to monitor some important parameters that will impact the quality of these products. A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

Item	Value
Time of report generation	18APR2013 11:34:23
Data source version	GOMOS/6.01
Start time of products	12-10-2005 (12OCT2005 00:00:00)
Stop time of products	13-10-2005 (13OCT2005 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	242
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__2PRFIN20051012_000202_000000382041_00317_18908_7520.N1	12-OCT-2005 00:02:02	Dark	37.500	143	Alp Hyi	2.8570	7200.0	75	18908	No
2	GOM_NL__2PRFIN20051012_000329_000000442041_00317_18908_7521.N1	12-OCT-2005 00:03:29	Dark	44.000	9	Alp Eri	0.45300	24000.	88	18908	No
3	GOM_NL__2PRFIN20051012_000835_000000422041_00317_18908_7522.N1	12-OCT-2005 00:08:35	Straylight	41.500	84	Alp Phe	2.3970	4500.0	83	18908	No
4	GOM_NL__2PRFIN20051012_001514_000000442041_00317_18908_7523.N1	12-OCT-2005 00:15:14	Straylight	43.500	52	16Bet Cet	2.0370	4500.0	87	18908	No
5	GOM_NL__2PRFIN20051012_002502_000000362041_00317_18908_7524.N1	12-OCT-2005 00:25:02	Bright	36.000	140	88Gam Peg	2.8340	26000.	72	18908	No
6	GOM_NL__2PRFIN20051012_002901_000000372041_00317_18908_7525.N1	12-OCT-2005 00:29:01	Bright	37.000	58	21Alp And	2.0730	11000.	74	18908	No
7	GOM_NL__2PRFIN20051012_003736_000000352041_00317_18908_7526.N1	12-OCT-2005 00:37:36	Bright	34.500	74	11Bet Cas	2.2680	6600.0	69	18908	No
8	GOM_NL__2PRFIN20051012_003934_000000362041_00317_18908_7527.N1	12-OCT-2005 00:39:34	Bright	36.000	89	5Alp Cep	2.4510	8000.0	72	18908	No
9	GOM_NL__2PRFIN20051012_004601_000000342041_00317_18908_7528.N1	12-OCT-2005 00:46:01	Bright	33.500	49	1Alp UMi	1.9900	6300.0	67	18908	No
10	GOM_NL__2PRFIN20051012_004848_000000372041_00317_18908_7529.N1	12-OCT-2005 00:48:48	Bright	37.000	60	7Bet UMi	2.0810	3950.0	74	18908	No
11	GOM_NL__2PRFIN20051012_005413_000000382041_00317_18908_7530.N1	12-OCT-2005 00:54:13	Bright	37.500	36	50Alp UMa	1.8000	6300.0	75	18908	No
12	GOM_NL__2PRFIN20051012_005545_000000362041_00317_18908_7531.N1	12-OCT-2005 00:55:45	Bright	35.500	82	48Bet UMa	2.3650	10600.	71	18908	No
13	GOM_NL__2PRFIN20051012_005906_000000352041_00317_18908_7532.N1	12-OCT-2005 00:59:06	Bright	34.500	174	52Psi UMa	3.0040	4400.0	69	18908	No
14	GOM_NL__2PRFIN20051012_010639_000000362041_00317_18908_7533.N1	12-OCT-2005 01:06:39	Bright	35.500	51	41Gam1Leo	2.0100	4500.0	71	18908	No
15	GOM_NL__2PRFIN20051012_012550_000000482041_00317_18908_7534.N1	12-OCT-2005 01:25:50	Dark	47.500	65	Lam Vel	2.2040	4400.0	95	18908	No
16	GOM_NL__2PRFIN20051012_012901_000000392041_00317_18908_7535.N1	12-OCT-2005 01:29:01	Dark	39.000	46	Del Vel	1.9540	10600.	78	18908	No
17	GOM_NL__2PRFIN20051012_013140_000000392041_00318_18909_7521.N1	12-OCT-2005 01:31:40	Dark	38.500	29	Bet Car	1.6720	10200.	77	18909	No
18	GOM_NL__2PRFIN20051012_014239_000000392041_00318_18909_7522.N1	12-OCT-2005 01:42:39	Dark	38.500	143	Alp Hyi	2.8570	7200.0	77	18909	No
19	GOM_NL__2PRFIN20051012_014406_000000422041_00318_18909_7523.N1	12-OCT-2005 01:44:06	Dark	42.000	9	Alp Eri	0.45300	24000.	84	18909	No
20	GOM_NL__2PRFIN20051012_014911_000000412041_00318_18909_7524.N1	12-OCT-2005 01:49:11	Straylight	40.500	84	Alp Phe	2.3970	4500.0	81	18909	No
21	GOM_NL__2PRFIN20051012_015550_000000462041_00318_18909_7525.N1	12-OCT-2005 01:55:50	Straylight	46.000	52	16Bet Cet	2.0370	4500.0	92	18909	No
22	GOM_NL__2PRFIN20051012_020537_000000372041_00318_18909_7526.N1	12-OCT-2005 02:05:37	Bright	37.000	140	88Gam Peg	2.8340	26000.	74	18909	No
23	GOM_NL__2PRFIN20051012_020937_000000362041_00318_18909_7527.N1	12-OCT-2005 02:09:37	Bright	36.000	58	21Alp And	2.0730	11000.	72	18909	No
24	GOM_NL__2PRFIN20051012_021812_000000372041_00318_18909_7528.N1	12-OCT-2005 02:18:12	Bright	37.000	74	11Bet Cas	2.2680	6600.0	74	18909	No
25	GOM_NL__2PRFIN20051012_022010_000000352041_00318_18909_7529.N1	12-OCT-2005 02:20:10	Bright	35.000	89	5Alp Cep	2.4510	8000.0	70	18909	No
26	GOM_NL__2PRFIN20051012_022637_000000332041_00318_18909_7530.N1	12-OCT-2005 02:26:37	Bright	32.500	49	1Alp UMi	1.9900	6300.0	65	18909	No
27	GOM_NL__2PRFIN20051012_022924_000000372041_00318_18909_7531.N1	12-OCT-2005 02:29:24	Bright	36.500	60	7Bet UMi	2.0810	3950.0	73	18909	No
28	GOM_NL__2PRFIN20051012_023449_000000372041_00318_18909_7532.N1	12-OCT-2005 02:34:49	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	18909	No
29	GOM_NL__2PRFIN20051012_023621_000000402041_00318_18909_7533.N1	12-OCT-2005 02:36:21	Bright	40.000	82	48Bet UMa	2.3650	10600.	80	18909	No
30	GOM_NL__2PRFIN20051012_023942_000000352041_00318_18909_7534.N1	12-OCT-2005 02:39:42	Bright	34.500	174	52Psi UMa	3.0040	4400.0	69	18909	No
31	GOM_NL__2PRFIN20051012_024715_000000362041_00318_18909_7535.N1	12-OCT-2005 02:47:15	Bright	35.500	51	41Gam1Leo	2.0100	4500.0	71	18909	No
32	GOM_NL__2PRFIN20051012_030627_000000472041_00318_18909_7536.N1	12-OCT-2005 03:06:27	Dark	46.500	65	Lam Vel	2.2040	4400.0	93	18909	No
33	GOM_NL__2PRFIN20051012_030938_000000392041_00318_18909_7537.N1	12-OCT-2005 03:09:38	Dark	39.000	46	Del Vel	1.9540	10600.	78	18909	No
34	GOM_NL__2PRFIN20051012_031216_000000362041_00319_18910_7541.N1	12-OCT-2005 03:12:16	Dark	35.500	29	Bet Car	1.6720	10200.	71	18910	No
35	GOM_NL__2PRFIN20051012_032315_000000382041_00319_18910_7542.N1	12-OCT-2005 03:23:15	Dark	37.500	143	Alp Hyi	2.8570	7200.0	75	18910	No
36	GOM_NL__2PRFIN20051012_032442_000000452041_00319_18910_7543.N1	12-OCT-2005 03:24:42	Dark	44.500	9	Alp Eri	0.45300	24000.	89	18910	No
37	GOM_NL__2PRFIN20051012_032948_000000402041_00319_18910_7544.N1	12-OCT-2005 03:29:48	Straylight	40.000	84	Alp Phe	2.3970	4500.0	80	18910	No
38	GOM_NL__2PRFIN20051012_033627_000000442041_00319_18910_7545.N1	12-OCT-2005 03:36:27	Straylight	44.000	52	16Bet Cet	2.0370	4500.0	88	18910	No
39	GOM_NL__2PRFIN20051012_034613_000000362041_00319_18910_7546.N1	12-OCT-2005 03:46:13	Bright	35.500	140	88Gam Peg	2.8340	26000.	71	18910	No
40	GOM_NL__2PRFIN20051012_035013_000000362041_00319_18910_7547.N1	12-OCT-2005 03:50:13	Bright	36.000	58	21Alp And	2.0730	11000.	72	18910	No
41	GOM_NL__2PRFIN20051012_035848_000000362041_00319_18910_7548.N1	12-OCT-2005 03:58:48	Bright	36.000	74	11Bet Cas	2.2680	6600.0	72	18910	No
42	GOM_NL__2PRFIN20051012_040047_000000362041_00319_18910_7549.N1	12-OCT-2005 04:00:47	Bright	35.500	89	5Alp Cep	2.4510	8000.0	71	18910	No





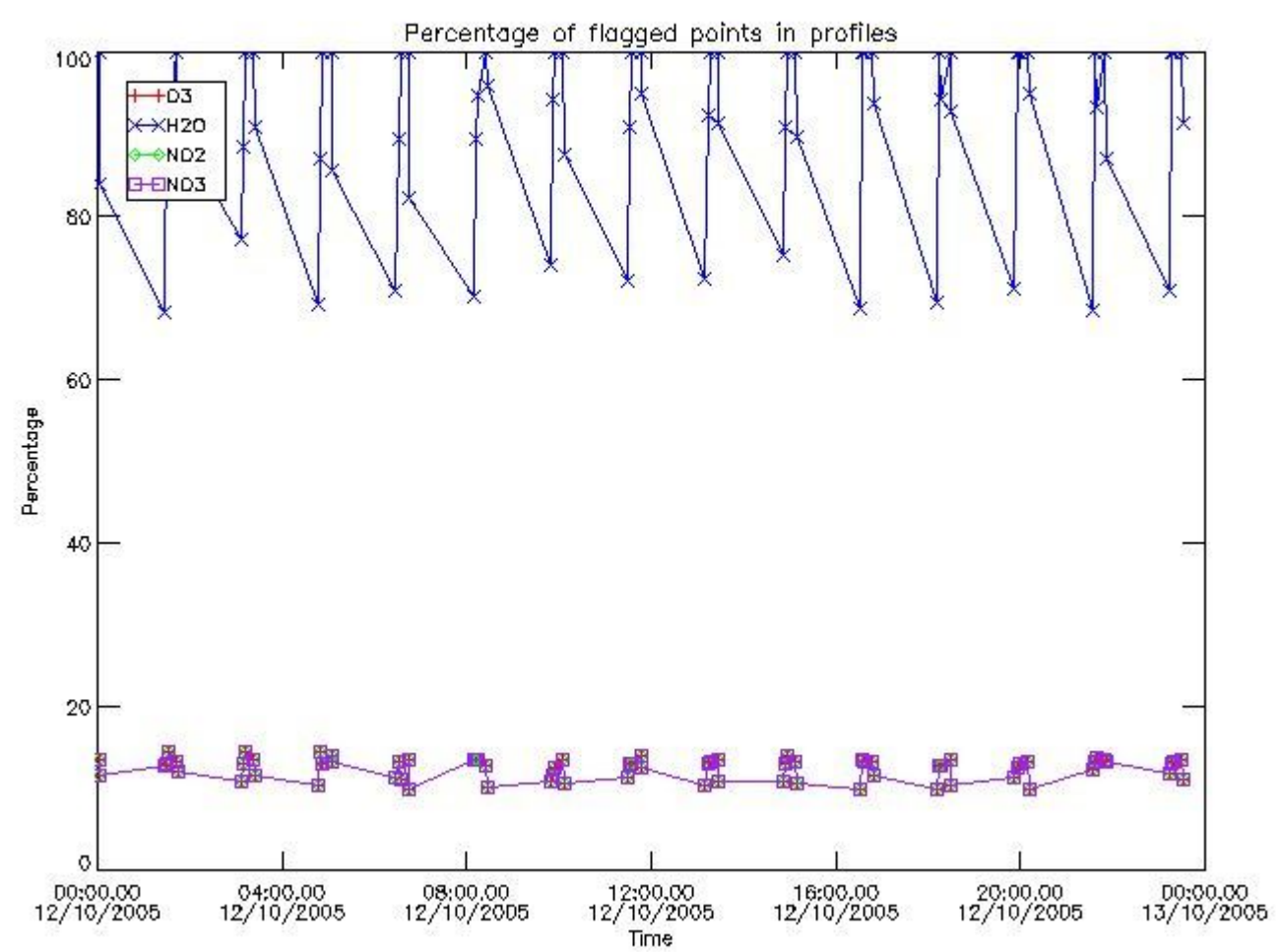


220	GOM_NL__2PRFIN20051012_214954_000000382041_00330_18921_7561.N1	12-OCT-2005 21:49:54	Dark	38.000	143	Alp Hyi	2.8570	7200.0	76	18921	No
221	GOM_NL__2PRFIN20051012_215121_000000432041_00330_18921_7562.N1	12-OCT-2005 21:51:21	Dark	42.500	9	Alp Eri	0.45300	24000.	85	18921	No
222	GOM_NL__2PRFIN20051012_215625_000000422041_00330_18921_7563.N1	12-OCT-2005 21:56:25	Straylight	41.500	84	Alp Phe	2.3970	4500.0	83	18921	No
223	GOM_NL__2PRFIN20051012_220303_000000472041_00330_18921_7564.N1	12-OCT-2005 22:03:03	Straylight	47.000	52	16Bet Cet	2.0370	4500.0	94	18921	No
224	GOM_NL__2PRFIN20051012_221249_000000372041_00330_18921_7565.N1	12-OCT-2005 22:12:49	Bright	36.500	140	88Gam Peg	2.8340	26000.	73	18921	No
225	GOM_NL__2PRFIN20051012_221648_000000362041_00330_18921_7566.N1	12-OCT-2005 22:16:48	Bright	35.500	58	21Alp And	2.0730	11000.	71	18921	No
226	GOM_NL__2PRFIN20051012_222522_000000372041_00330_18921_7567.N1	12-OCT-2005 22:25:22	Bright	37.000	74	11Bet Cas	2.2680	6600.0	74	18921	No
227	GOM_NL__2PRFIN20051012_222726_000000362041_00330_18921_7568.N1	12-OCT-2005 22:27:26	Bright	35.500	89	5Alp Cep	2.4510	8000.0	71	18921	No
228	GOM_NL__2PRFIN20051012_223349_000000372041_00330_18921_7569.N1	12-OCT-2005 22:33:49	Bright	36.500	49	1Alp UMi	1.9900	6300.0	73	18921	No
229	GOM_NL__2PRFIN20051012_223638_000000372041_00330_18921_7570.N1	12-OCT-2005 22:36:38	Bright	36.500	60	7Bet UMi	2.0810	3950.0	73	18921	No
230	GOM_NL__2PRFIN20051012_224201_000000382041_00330_18921_7571.N1	12-OCT-2005 22:42:01	Bright	38.000	36	50Alp UMa	1.8000	6300.0	76	18921	No
231	GOM_NL__2PRFIN20051012_224333_000000372041_00330_18921_7572.N1	12-OCT-2005 22:43:33	Bright	37.000	82	48Bet UMa	2.3650	10600.	74	18921	No
232	GOM_NL__2PRFIN20051012_224654_000000342041_00330_18921_7573.N1	12-OCT-2005 22:46:54	Bright	34.000	174	52Psi UMa	3.0040	4400.0	68	18921	No
233	GOM_NL__2PRFIN20051012_225337_000000322041_00330_18921_7574.N1	12-OCT-2005 22:53:37	Bright	32.000	96	68Del Leo	2.5600	9300.0	64	18921	No
234	GOM_NL__2PRFIN20051012_231345_000000522041_00330_18921_7575.N1	12-OCT-2005 23:13:45	Dark	52.000	65	Lam Vel	2.2040	4400.0	104	18921	No
235	GOM_NL__2PRFIN20051012_231655_000000402041_00330_18921_7576.N1	12-OCT-2005 23:16:55	Dark	39.500	46	Del Vel	1.9540	10600.	79	18921	No
236	GOM_NL__2PRFIN20051012_231930_000000392041_00331_18922_7560.N1	12-OCT-2005 23:19:30	Dark	38.500	29	Bet Car	1.6720	10200.	77	18922	No
237	GOM_NL__2PRFIN20051012_233030_000000382041_00331_18922_7561.N1	12-OCT-2005 23:30:30	Dark	37.500	143	Alp Hyi	2.8570	7200.0	75	18922	No
238	GOM_NL__2PRFIN20051012_233157_000000462041_00331_18922_7562.N1	12-OCT-2005 23:31:57	Dark	46.000	9	Alp Eri	0.45300	24000.	92	18922	No
239	GOM_NL__2PRFIN20051012_233701_000000422041_00331_18922_7563.N1	12-OCT-2005 23:37:01	Straylight	42.000	84	Alp Phe	2.3970	4500.0	84	18922	No
240	GOM_NL__2PRFIN20051012_234340_000000422041_00331_18922_7564.N1	12-OCT-2005 23:43:40	Straylight	41.500	52	16Bet Cet	2.0370	4500.0	83	18922	No
241	GOM_NL__2PRFIN20051012_235324_000000372041_00331_18922_7565.N1	12-OCT-2005 23:53:24	Bright	36.500	140	88Gam Peg	2.8340	26000.	73	18922	No
242	GOM_NL__2PRFIN20051012_235723_000000372041_00331_18922_7566.N1	12-OCT-2005 23:57:23	Bright	36.500	58	21Alp And	2.0730	11000.	73	18922	No

### 3. Quality information per product

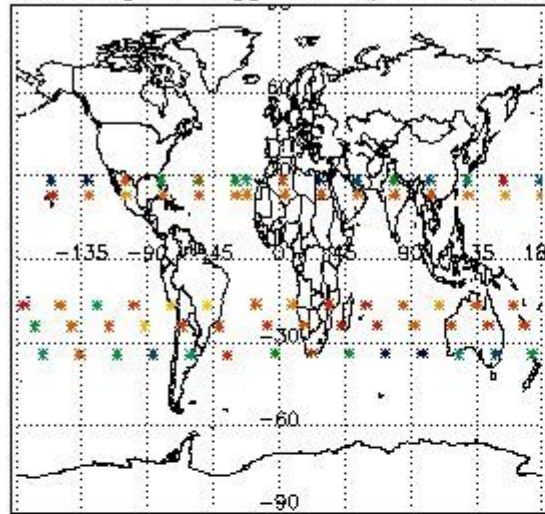
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

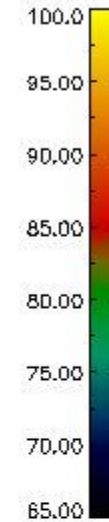
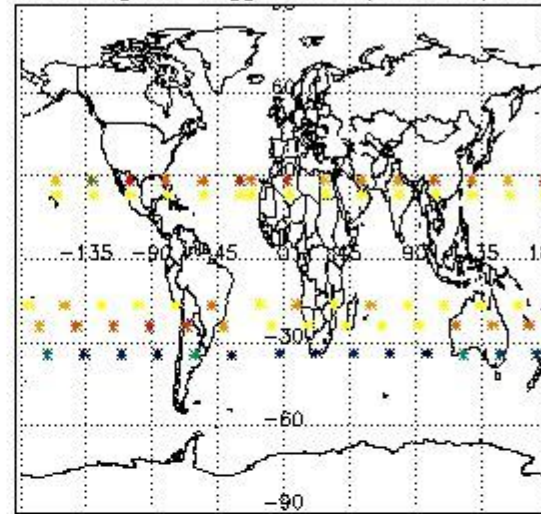


3.2 Plot quality information per product (world map)

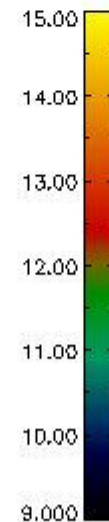
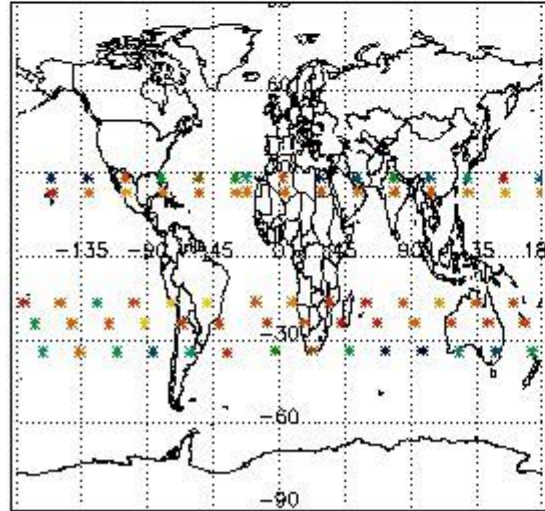
Percentage of flagged data per O3 profile



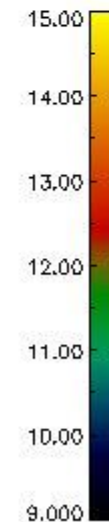
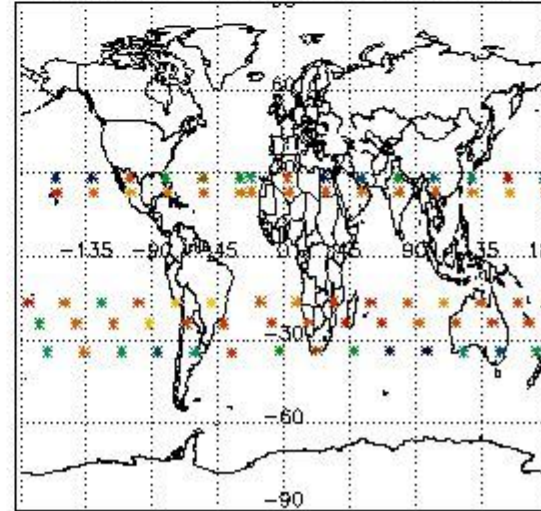
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile



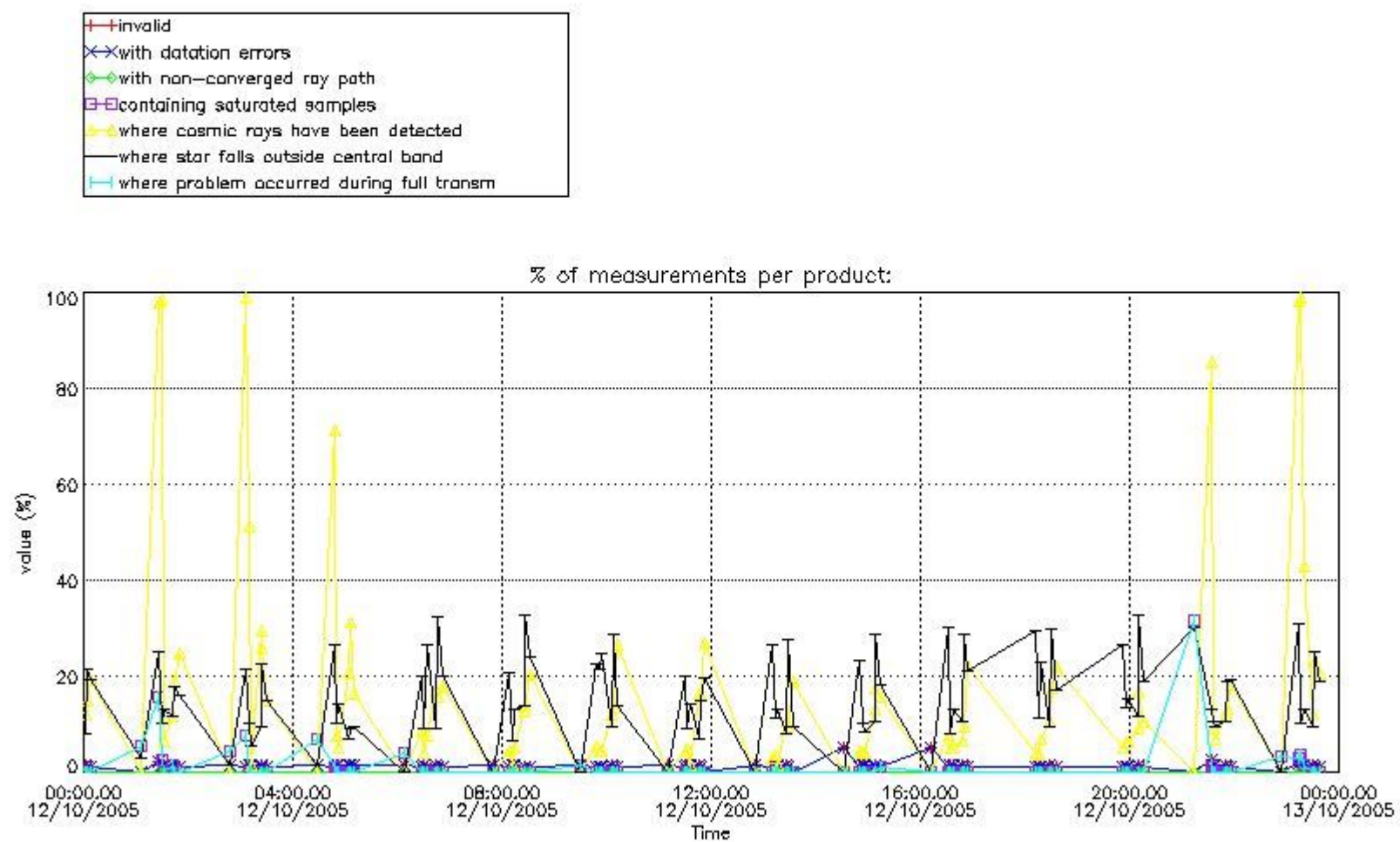
#### 4. Level 1 quality information per product

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.

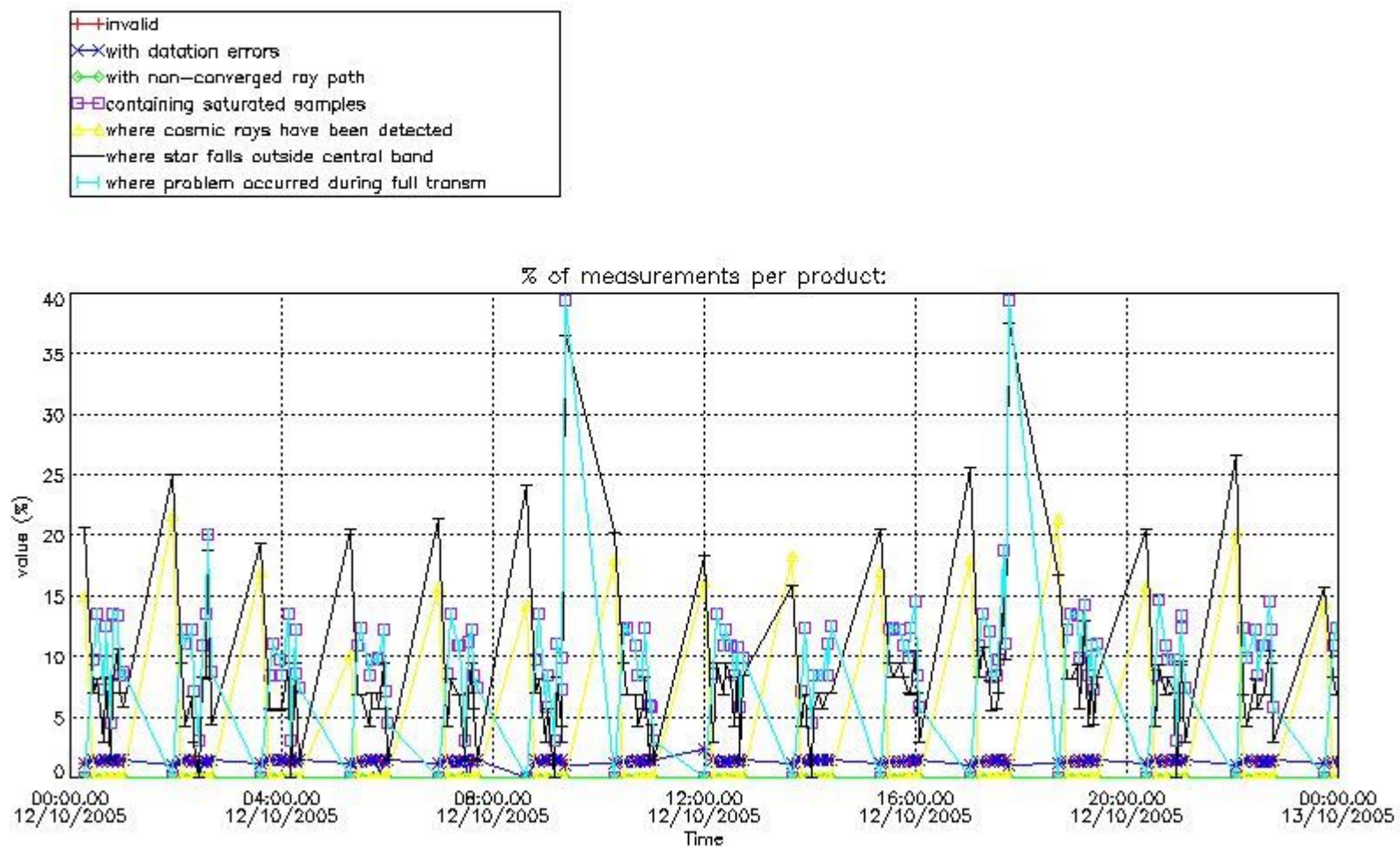
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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





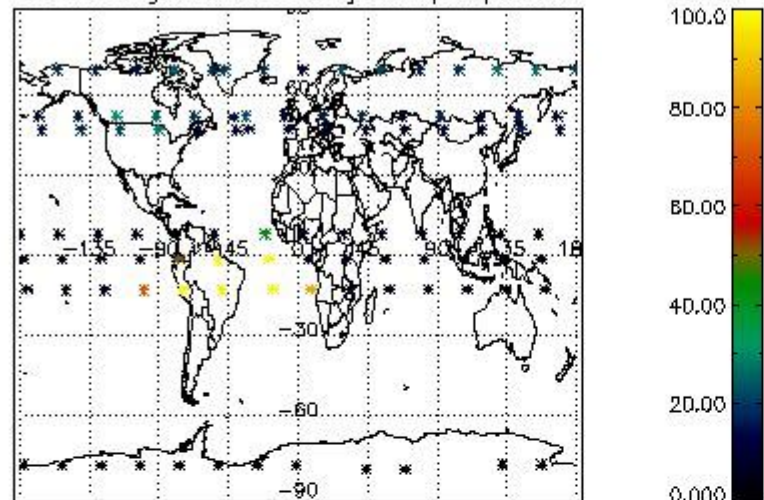
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



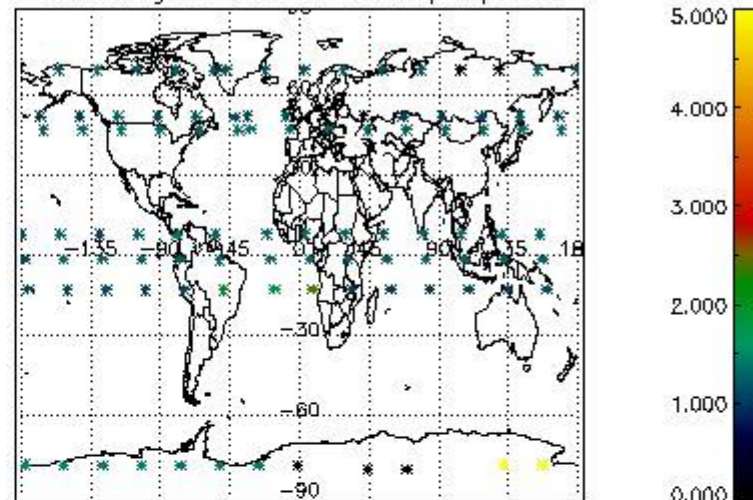
4.2 Plot quality information per product coming from level 1b processing (world map)

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

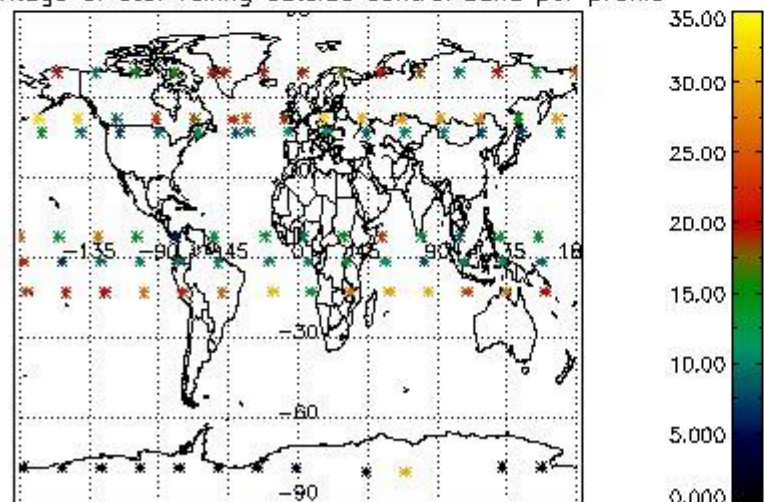
Percentage of cosmic ray hits per profile



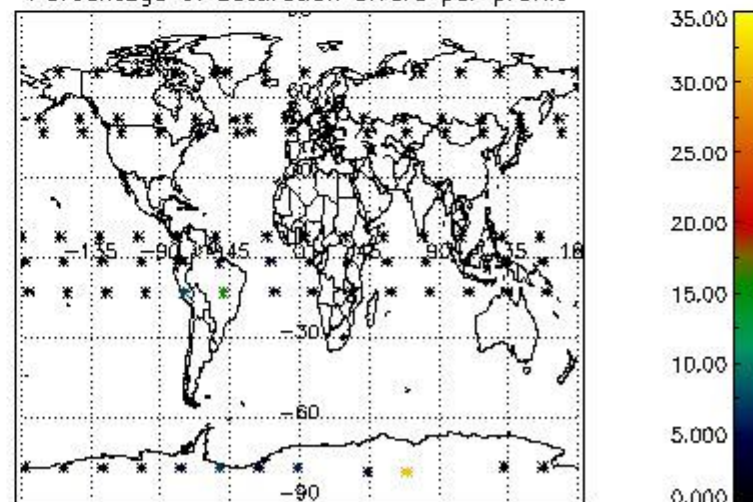
Percentage of datation errors per profile



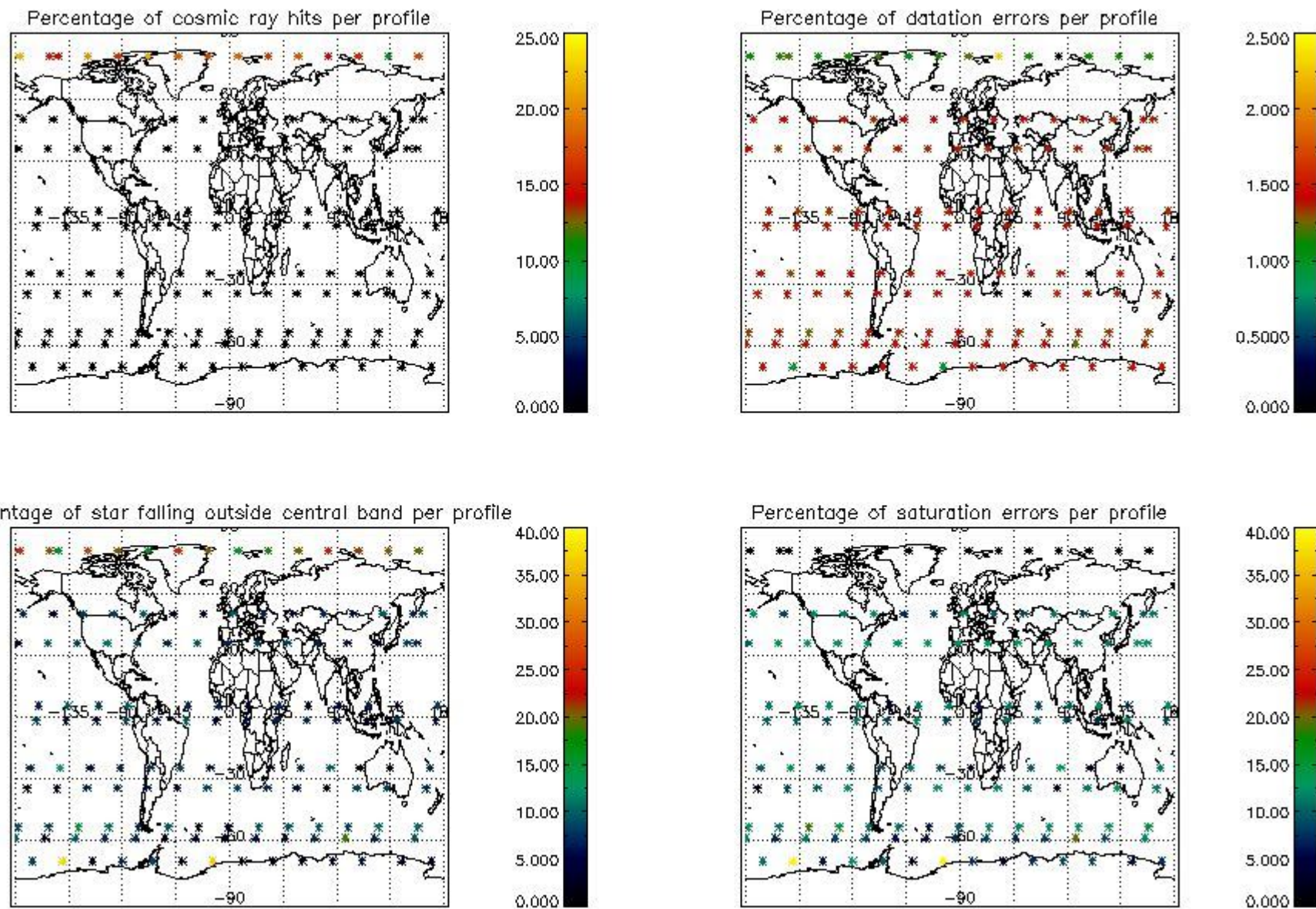
Percentage of star falling outside central band per profile



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

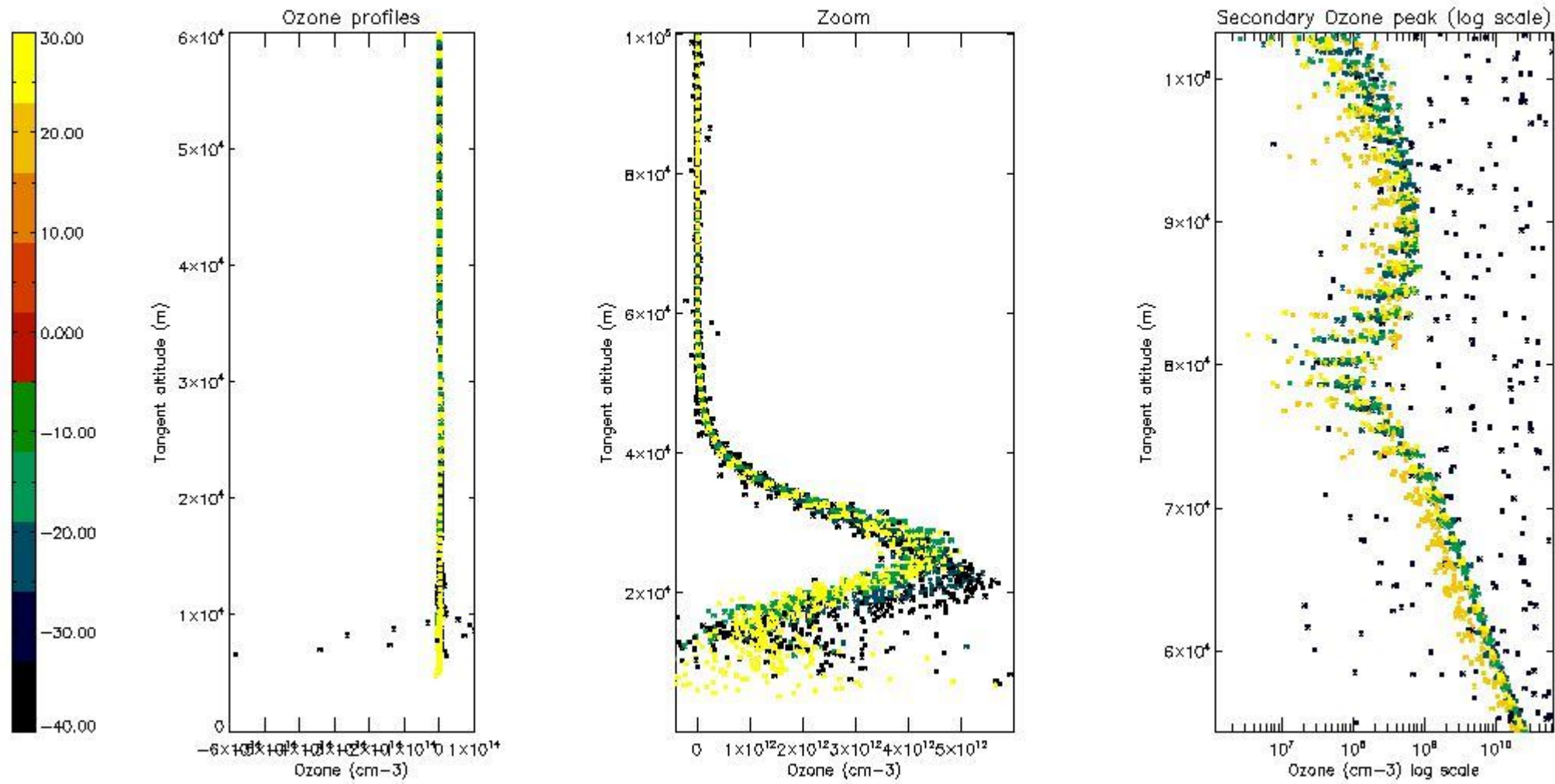
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	34
STD < 20	19

STD < 10	15
STD < 5	9

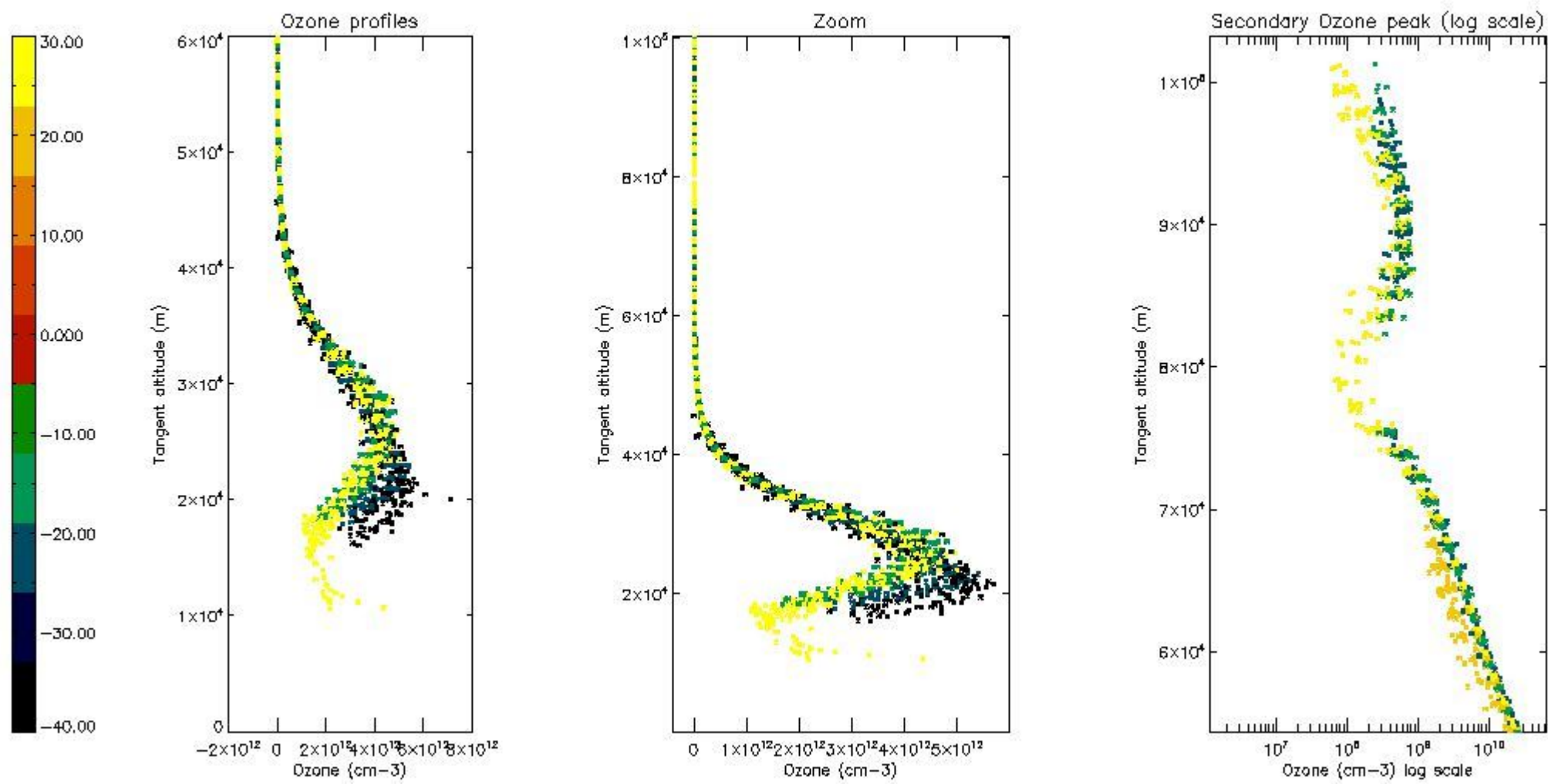
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



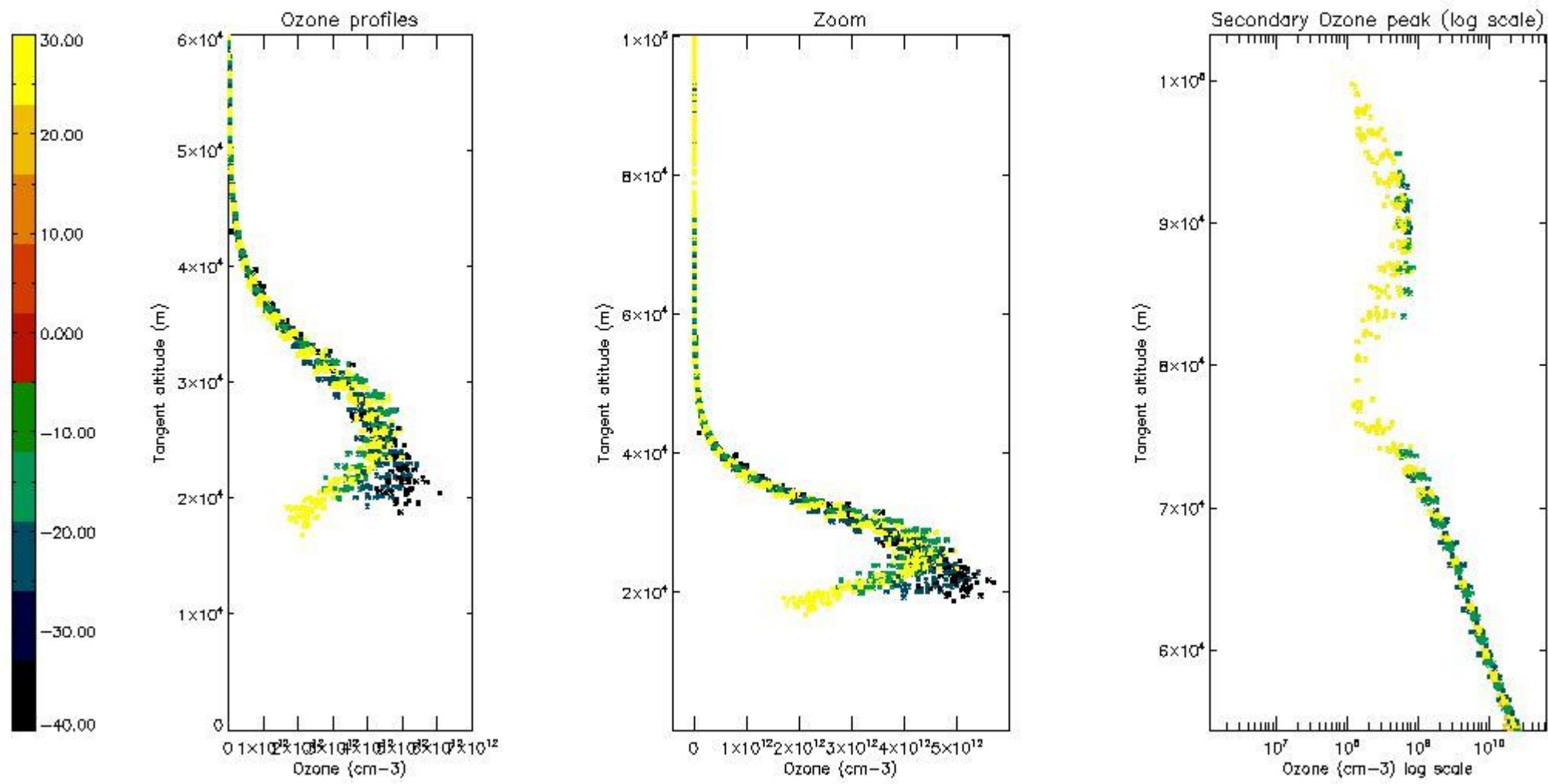
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



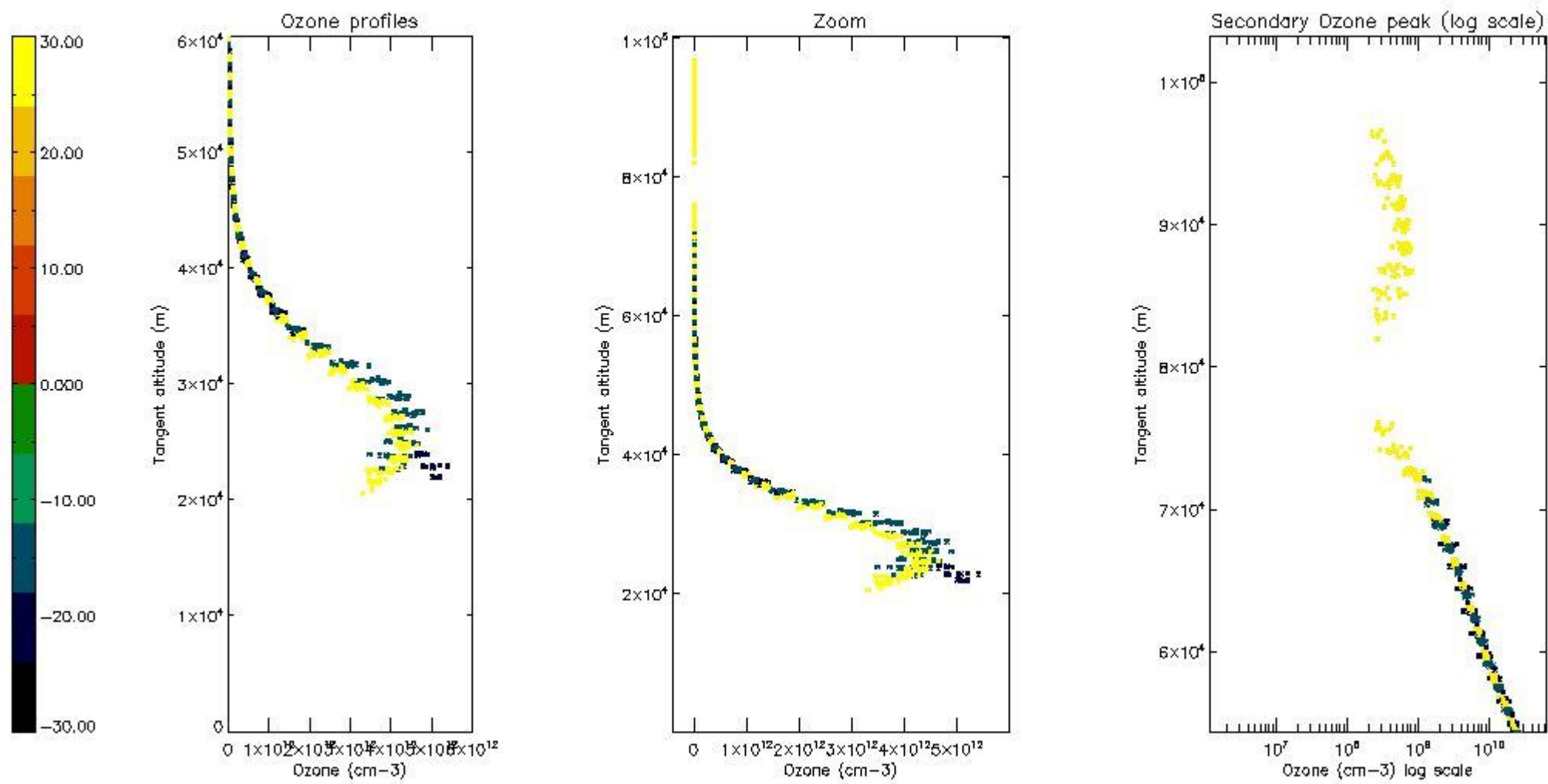
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



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

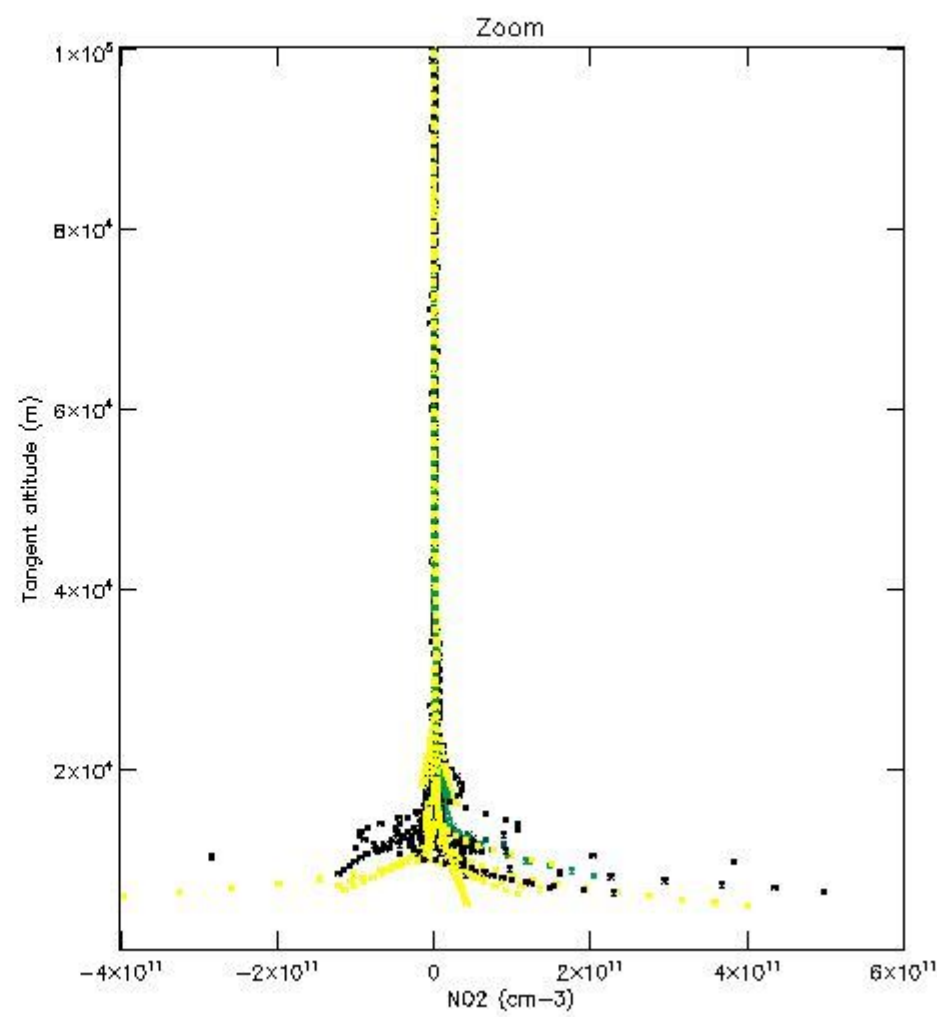
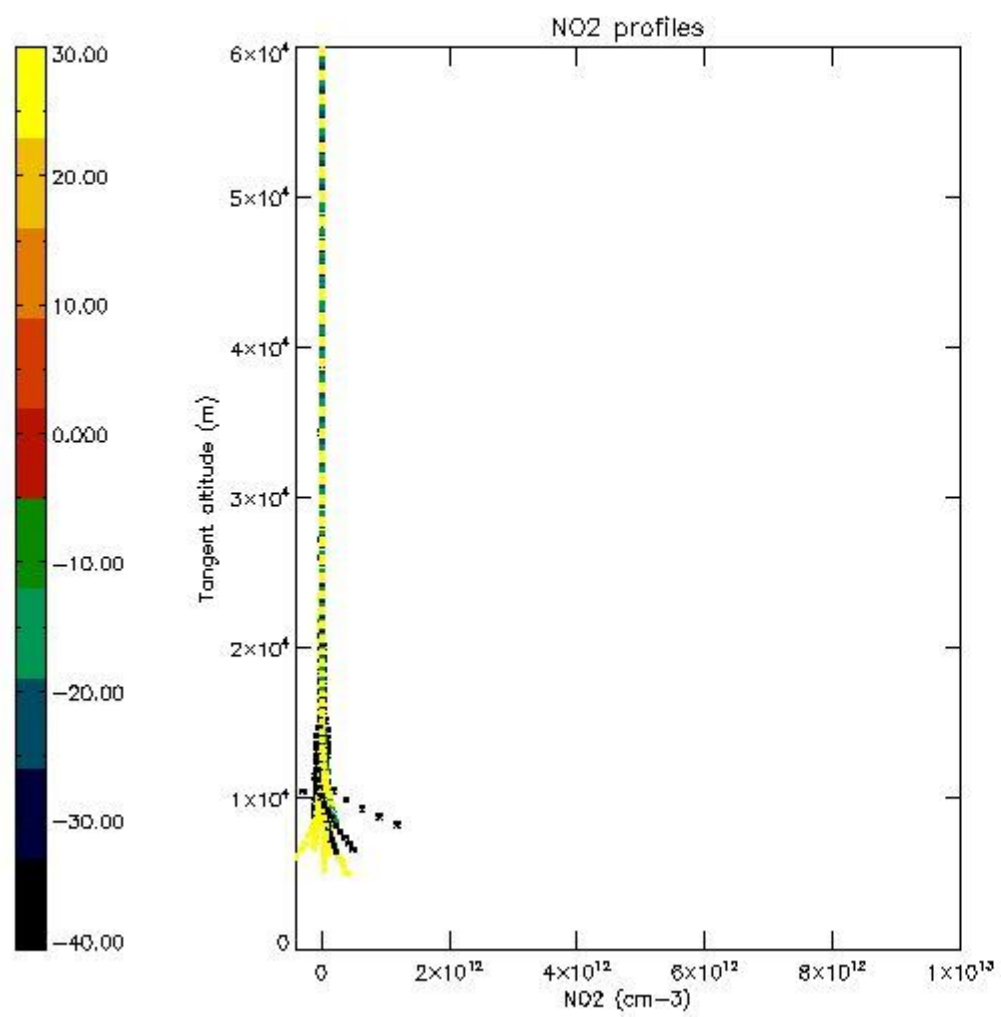
The colorbar represents the latitude.



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

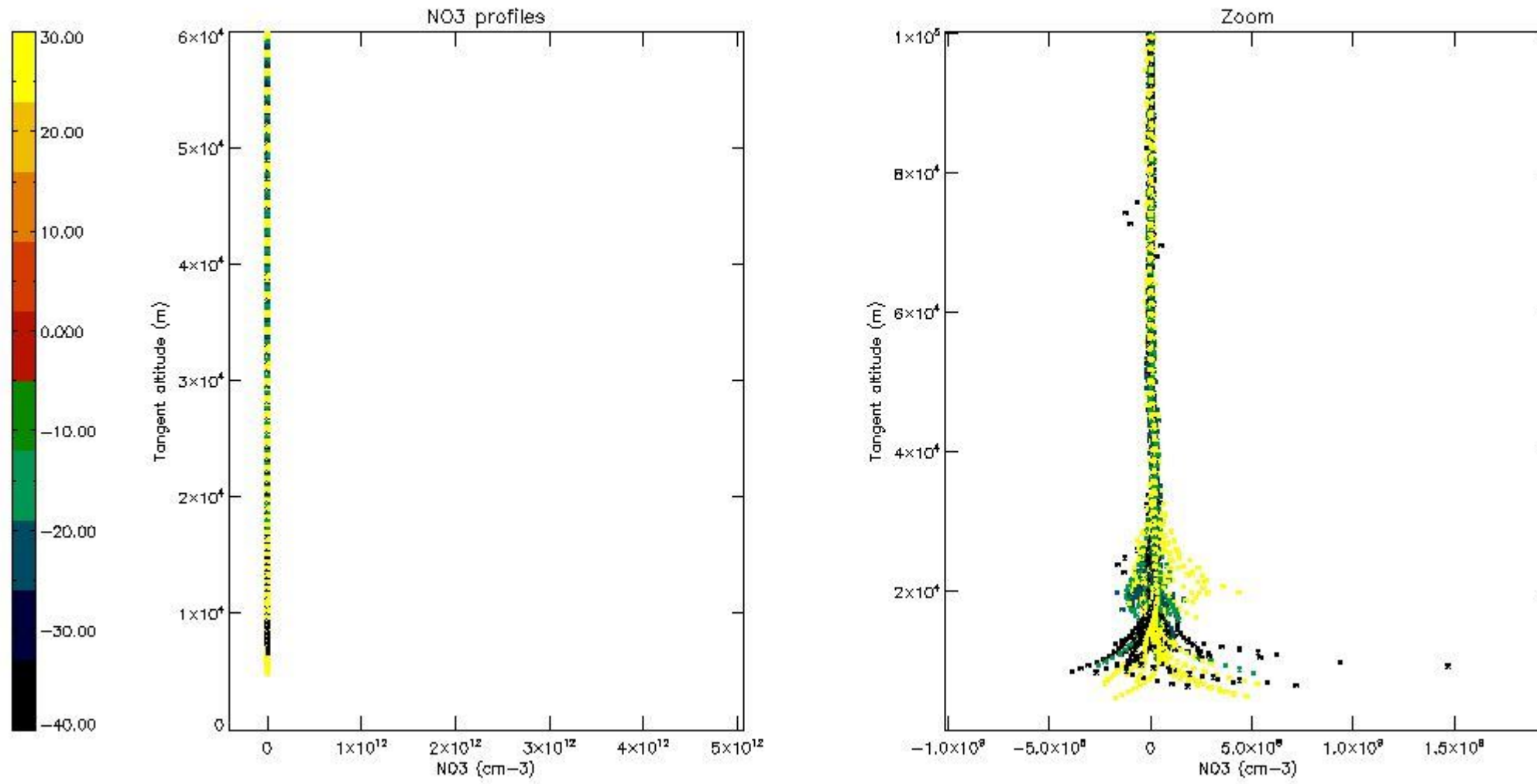
The colorbar represents the latitude.





*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	12-OCT-2005 00:02:02
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	12-OCT-2005 00:02:02
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	12-OCT-2005 00:02:02

# 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	18APR2013 11:34:23
Data source version	GOMOS/6.01
Start time of products	12-10-2005 (12OCT2005 00:00:00)
Stop time of products	13-10-2005 (13OCT2005 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	242
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__2PRFIN20051012_000202_000000382041_00317_18908_7520.N1	12-OCT-2005 00:02:02	Dark	37.500	143	Alp Hyi	2.8570	7200.0	75	18908	No
2	GOM_NL__2PRFIN20051012_000329_000000442041_00317_18908_7521.N1	12-OCT-2005 00:03:29	Dark	44.000	9	Alp Eri	0.45300	24000.	88	18908	No
3	GOM_NL__2PRFIN20051012_000835_000000422041_00317_18908_7522.N1	12-OCT-2005 00:08:35	Straylight	41.500	84	Alp Phe	2.3970	4500.0	83	18908	No
4	GOM_NL__2PRFIN20051012_001514_000000442041_00317_18908_7523.N1	12-OCT-2005 00:15:14	Straylight	43.500	52	16Bet Cet	2.0370	4500.0	87	18908	No
5	GOM_NL__2PRFIN20051012_002502_000000362041_00317_18908_7524.N1	12-OCT-2005 00:25:02	Bright	36.000	140	88Gam Peg	2.8340	26000.	72	18908	No
6	GOM_NL__2PRFIN20051012_002901_000000372041_00317_18908_7525.N1	12-OCT-2005 00:29:01	Bright	37.000	58	21Alp And	2.0730	11000.	74	18908	No
7	GOM_NL__2PRFIN20051012_003736_000000352041_00317_18908_7526.N1	12-OCT-2005 00:37:36	Bright	34.500	74	11Bet Cas	2.2680	6600.0	69	18908	No
8	GOM_NL__2PRFIN20051012_003934_000000362041_00317_18908_7527.N1	12-OCT-2005 00:39:34	Bright	36.000	89	5Alp Cep	2.4510	8000.0	72	18908	No
9	GOM_NL__2PRFIN20051012_004601_000000342041_00317_18908_7528.N1	12-OCT-2005 00:46:01	Bright	33.500	49	1Alp UMi	1.9900	6300.0	67	18908	No
10	GOM_NL__2PRFIN20051012_004848_000000372041_00317_18908_7529.N1	12-OCT-2005 00:48:48	Bright	37.000	60	7Bet UMi	2.0810	3950.0	74	18908	No
11	GOM_NL__2PRFIN20051012_005413_000000382041_00317_18908_7530.N1	12-OCT-2005 00:54:13	Bright	37.500	36	50Alp UMa	1.8000	6300.0	75	18908	No
12	GOM_NL__2PRFIN20051012_005545_000000362041_00317_18908_7531.N1	12-OCT-2005 00:55:45	Bright	35.500	82	48Bet UMa	2.3650	10600.	71	18908	No
13	GOM_NL__2PRFIN20051012_005906_000000352041_00317_18908_7532.N1	12-OCT-2005 00:59:06	Bright	34.500	174	52Psi UMa	3.0040	4400.0	69	18908	No
14	GOM_NL__2PRFIN20051012_010639_000000362041_00317_18908_7533.N1	12-OCT-2005 01:06:39	Bright	35.500	51	41Gam1Leo	2.0100	4500.0	71	18908	No
15	GOM_NL__2PRFIN20051012_012550_000000482041_00317_18908_7534.N1	12-OCT-2005 01:25:50	Dark	47.500	65	Lam Vel	2.2040	4400.0	95	18908	No
16	GOM_NL__2PRFIN20051012_012901_000000392041_00317_18908_7535.N1	12-OCT-2005 01:29:01	Dark	39.000	46	Del Vel	1.9540	10600.	78	18908	No
17	GOM_NL__2PRFIN20051012_013140_000000392041_00318_18909_7521.N1	12-OCT-2005 01:31:40	Dark	38.500	29	Bet Car	1.6720	10200.	77	18909	No
18	GOM_NL__2PRFIN20051012_014239_000000392041_00318_18909_7522.N1	12-OCT-2005 01:42:39	Dark	38.500	143	Alp Hyi	2.8570	7200.0	77	18909	No
19	GOM_NL__2PRFIN20051012_014406_000000422041_00318_18909_7523.N1	12-OCT-2005 01:44:06	Dark	42.000	9	Alp Eri	0.45300	24000.	84	18909	No
20	GOM_NL__2PRFIN20051012_014911_000000412041_00318_18909_7524.N1	12-OCT-2005 01:49:11	Straylight	40.500	84	Alp Phe	2.3970	4500.0	81	18909	No
21	GOM_NL__2PRFIN20051012_015550_000000462041_00318_18909_7525.N1	12-OCT-2005 01:55:50	Straylight	46.000	52	16Bet Cet	2.0370	4500.0	92	18909	No
22	GOM_NL__2PRFIN20051012_020537_000000372041_00318_18909_7526.N1	12-OCT-2005 02:05:37	Bright	37.000	140	88Gam Peg	2.8340	26000.	74	18909	No
23	GOM_NL__2PRFIN20051012_020937_000000362041_00318_18909_7527.N1	12-OCT-2005 02:09:37	Bright	36.000	58	21Alp And	2.0730	11000.	72	18909	No
24	GOM_NL__2PRFIN20051012_021812_000000372041_00318_18909_7528.N1	12-OCT-2005 02:18:12	Bright	37.000	74	11Bet Cas	2.2680	6600.0	74	18909	No
25	GOM_NL__2PRFIN20051012_022010_000000352041_00318_18909_7529.N1	12-OCT-2005 02:20:10	Bright	35.000	89	5Alp Cep	2.4510	8000.0	70	18909	No
26	GOM_NL__2PRFIN20051012_022637_000000332041_00318_18909_7530.N1	12-OCT-2005 02:26:37	Bright	32.500	49	1Alp UMi	1.9900	6300.0	65	18909	No
27	GOM_NL__2PRFIN20051012_022924_000000372041_00318_18909_7531.N1	12-OCT-2005 02:29:24	Bright	36.500	60	7Bet UMi	2.0810	3950.0	73	18909	No
28	GOM_NL__2PRFIN20051012_023449_000000372041_00318_18909_7532.N1	12-OCT-2005 02:34:49	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	18909	No
29	GOM_NL__2PRFIN20051012_023621_000000402041_00318_18909_7533.N1	12-OCT-2005 02:36:21	Bright	40.000	82	48Bet UMa	2.3650	10600.	80	18909	No
30	GOM_NL__2PRFIN20051012_023942_000000352041_00318_18909_7534.N1	12-OCT-2005 02:39:42	Bright	34.500	174	52Psi UMa	3.0040	4400.0	69	18909	No
31	GOM_NL__2PRFIN20051012_024715_000000362041_00318_18909_7535.N1	12-OCT-2005 02:47:15	Bright	35.500	51	41Gam1Leo	2.0100	4500.0	71	18909	No
32	GOM_NL__2PRFIN20051012_030627_000000472041_00318_18909_7536.N1	12-OCT-2005 03:06:27	Dark	46.500	65	Lam Vel	2.2040	4400.0	93	18909	No
33	GOM_NL__2PRFIN20051012_030938_000000392041_00318_18909_7537.N1	12-OCT-2005 03:09:38	Dark	39.000	46	Del Vel	1.9540	10600.	78	18909	No
34	GOM_NL__2PRFIN20051012_031216_000000362041_00319_18910_7541.N1	12-OCT-2005 03:12:16	Dark	35.500	29	Bet Car	1.6720	10200.	71	18910	No
35	GOM_NL__2PRFIN20051012_032315_000000382041_00319_18910_7542.N1	12-OCT-2005 03:23:15	Dark	37.500	143	Alp Hyi	2.8570	7200.0	75	18910	No
36	GOM_NL__2PRFIN20051012_032442_000000452041_00319_18910_7543.N1	12-OCT-2005 03:24:42	Dark	44.500	9	Alp Eri	0.45300	24000.	89	18910	No
37	GOM_NL__2PRFIN20051012_032948_000000402041_00319_18910_7544.N1	12-OCT-2005 03:29:48	Straylight	40.000	84	Alp Phe	2.3970	4500.0	80	18910	No
38	GOM_NL__2PRFIN20051012_033627_000000442041_00319_18910_7545.N1	12-OCT-2005 03:36:27	Straylight	44.000	52	16Bet Cet	2.0370	4500.0	88	18910	No
39	GOM_NL__2PRFIN20051012_034613_000000362041_00319_18910_7546.N1	12-OCT-2005 03:46:13	Bright	35.500	140	88Gam Peg	2.8340	26000.	71	18910	No
40	GOM_NL__2PRFIN20051012_035013_000000362041_00319_18910_7547.N1	12-OCT-2005 03:50:13	Bright	36.000	58	21Alp And	2.0730	11000.	72	18910	No
41	GOM_NL__2PRFIN20051012_035848_000000362041_00319_18910_7548.N1	12-OCT-2005 03:58:48	Bright	36.000	74	11Bet Cas	2.2680	6600.0	72	18910	No
42	GOM_NL__2PRFIN20051012_040047_000000362041_00319_18910_7549.N1	12-OCT-2005 04:00:47	Bright	35.500	89	5Alp Cep	2.4510	8000.0	71	18910	No







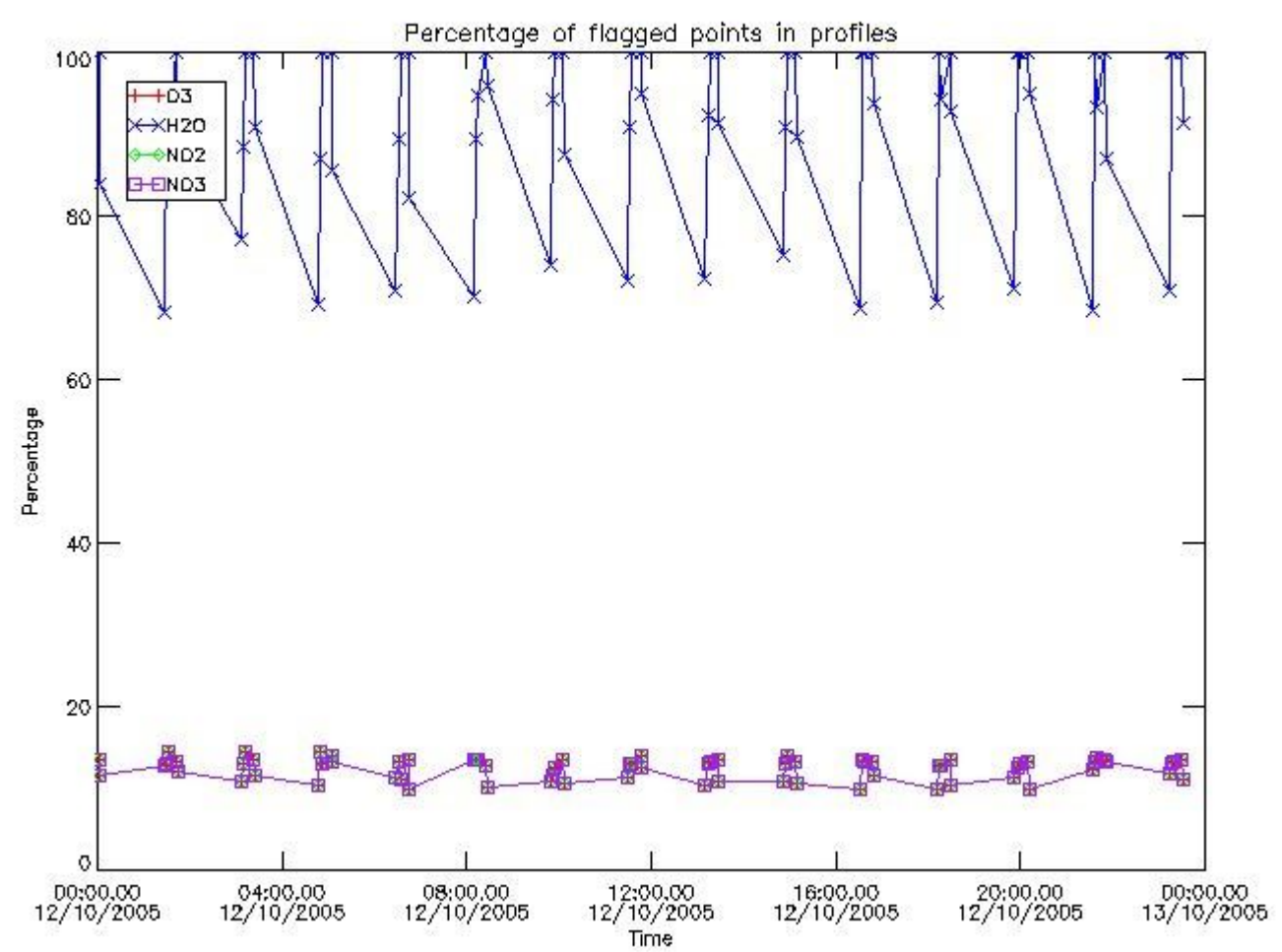
220	GOM_NL__2PRFIN20051012_214954_000000382041_00330_18921_7561.N1	12-OCT-2005 21:49:54	Dark	38.000	143	Alp Hyi	2.8570	7200.0	76	18921	No
221	GOM_NL__2PRFIN20051012_215121_000000432041_00330_18921_7562.N1	12-OCT-2005 21:51:21	Dark	42.500	9	Alp Eri	0.45300	24000.	85	18921	No
222	GOM_NL__2PRFIN20051012_215625_000000422041_00330_18921_7563.N1	12-OCT-2005 21:56:25	Straylight	41.500	84	Alp Phe	2.3970	4500.0	83	18921	No
223	GOM_NL__2PRFIN20051012_220303_000000472041_00330_18921_7564.N1	12-OCT-2005 22:03:03	Straylight	47.000	52	16Bet Cet	2.0370	4500.0	94	18921	No
224	GOM_NL__2PRFIN20051012_221249_000000372041_00330_18921_7565.N1	12-OCT-2005 22:12:49	Bright	36.500	140	88Gam Peg	2.8340	26000.	73	18921	No
225	GOM_NL__2PRFIN20051012_221648_000000362041_00330_18921_7566.N1	12-OCT-2005 22:16:48	Bright	35.500	58	21Alp And	2.0730	11000.	71	18921	No
226	GOM_NL__2PRFIN20051012_222522_000000372041_00330_18921_7567.N1	12-OCT-2005 22:25:22	Bright	37.000	74	11Bet Cas	2.2680	6600.0	74	18921	No
227	GOM_NL__2PRFIN20051012_222726_000000362041_00330_18921_7568.N1	12-OCT-2005 22:27:26	Bright	35.500	89	5Alp Cep	2.4510	8000.0	71	18921	No
228	GOM_NL__2PRFIN20051012_223349_000000372041_00330_18921_7569.N1	12-OCT-2005 22:33:49	Bright	36.500	49	1Alp UMi	1.9900	6300.0	73	18921	No
229	GOM_NL__2PRFIN20051012_223638_000000372041_00330_18921_7570.N1	12-OCT-2005 22:36:38	Bright	36.500	60	7Bet UMi	2.0810	3950.0	73	18921	No
230	GOM_NL__2PRFIN20051012_224201_000000382041_00330_18921_7571.N1	12-OCT-2005 22:42:01	Bright	38.000	36	50Alp UMa	1.8000	6300.0	76	18921	No
231	GOM_NL__2PRFIN20051012_224333_000000372041_00330_18921_7572.N1	12-OCT-2005 22:43:33	Bright	37.000	82	48Bet UMa	2.3650	10600.	74	18921	No
232	GOM_NL__2PRFIN20051012_224654_000000342041_00330_18921_7573.N1	12-OCT-2005 22:46:54	Bright	34.000	174	52Psi UMa	3.0040	4400.0	68	18921	No
233	GOM_NL__2PRFIN20051012_225337_000000322041_00330_18921_7574.N1	12-OCT-2005 22:53:37	Bright	32.000	96	68Del Leo	2.5600	9300.0	64	18921	No
234	GOM_NL__2PRFIN20051012_231345_000000522041_00330_18921_7575.N1	12-OCT-2005 23:13:45	Dark	52.000	65	Lam Vel	2.2040	4400.0	104	18921	No
235	GOM_NL__2PRFIN20051012_231655_000000402041_00330_18921_7576.N1	12-OCT-2005 23:16:55	Dark	39.500	46	Del Vel	1.9540	10600.	79	18921	No
236	GOM_NL__2PRFIN20051012_231930_000000392041_00331_18922_7560.N1	12-OCT-2005 23:19:30	Dark	38.500	29	Bet Car	1.6720	10200.	77	18922	No
237	GOM_NL__2PRFIN20051012_233030_000000382041_00331_18922_7561.N1	12-OCT-2005 23:30:30	Dark	37.500	143	Alp Hyi	2.8570	7200.0	75	18922	No
238	GOM_NL__2PRFIN20051012_233157_000000462041_00331_18922_7562.N1	12-OCT-2005 23:31:57	Dark	46.000	9	Alp Eri	0.45300	24000.	92	18922	No
239	GOM_NL__2PRFIN20051012_233701_000000422041_00331_18922_7563.N1	12-OCT-2005 23:37:01	Straylight	42.000	84	Alp Phe	2.3970	4500.0	84	18922	No
240	GOM_NL__2PRFIN20051012_234340_000000422041_00331_18922_7564.N1	12-OCT-2005 23:43:40	Straylight	41.500	52	16Bet Cet	2.0370	4500.0	83	18922	No
241	GOM_NL__2PRFIN20051012_235324_000000372041_00331_18922_7565.N1	12-OCT-2005 23:53:24	Bright	36.500	140	88Gam Peg	2.8340	26000.	73	18922	No
242	GOM_NL__2PRFIN20051012_235723_000000372041_00331_18922_7566.N1	12-OCT-2005 23:57:23	Bright	36.500	58	21Alp And	2.0730	11000.	73	18922	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.

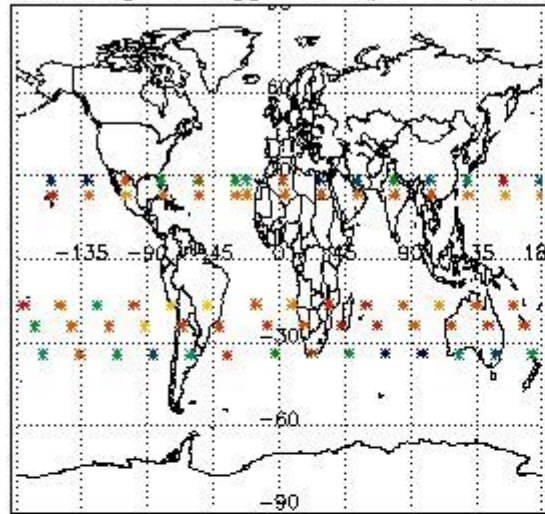
#### 3.1 Plot quality information per product (time dependant)



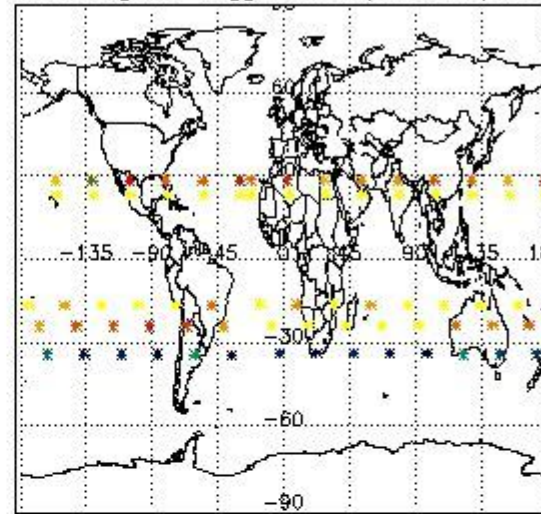


3.2 Plot quality information per product (world map)

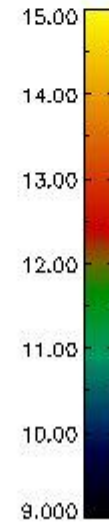
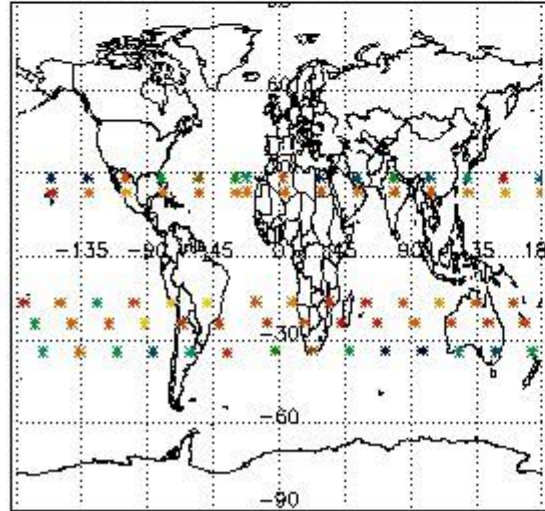
Percentage of flagged data per O3 profile



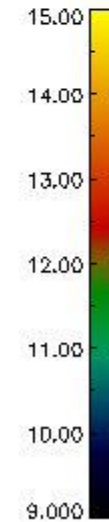
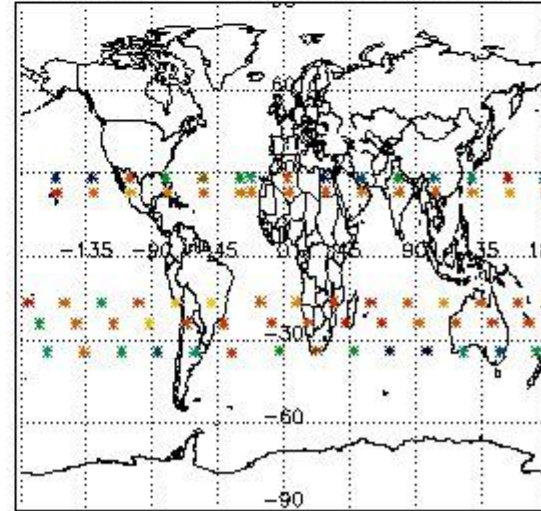
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

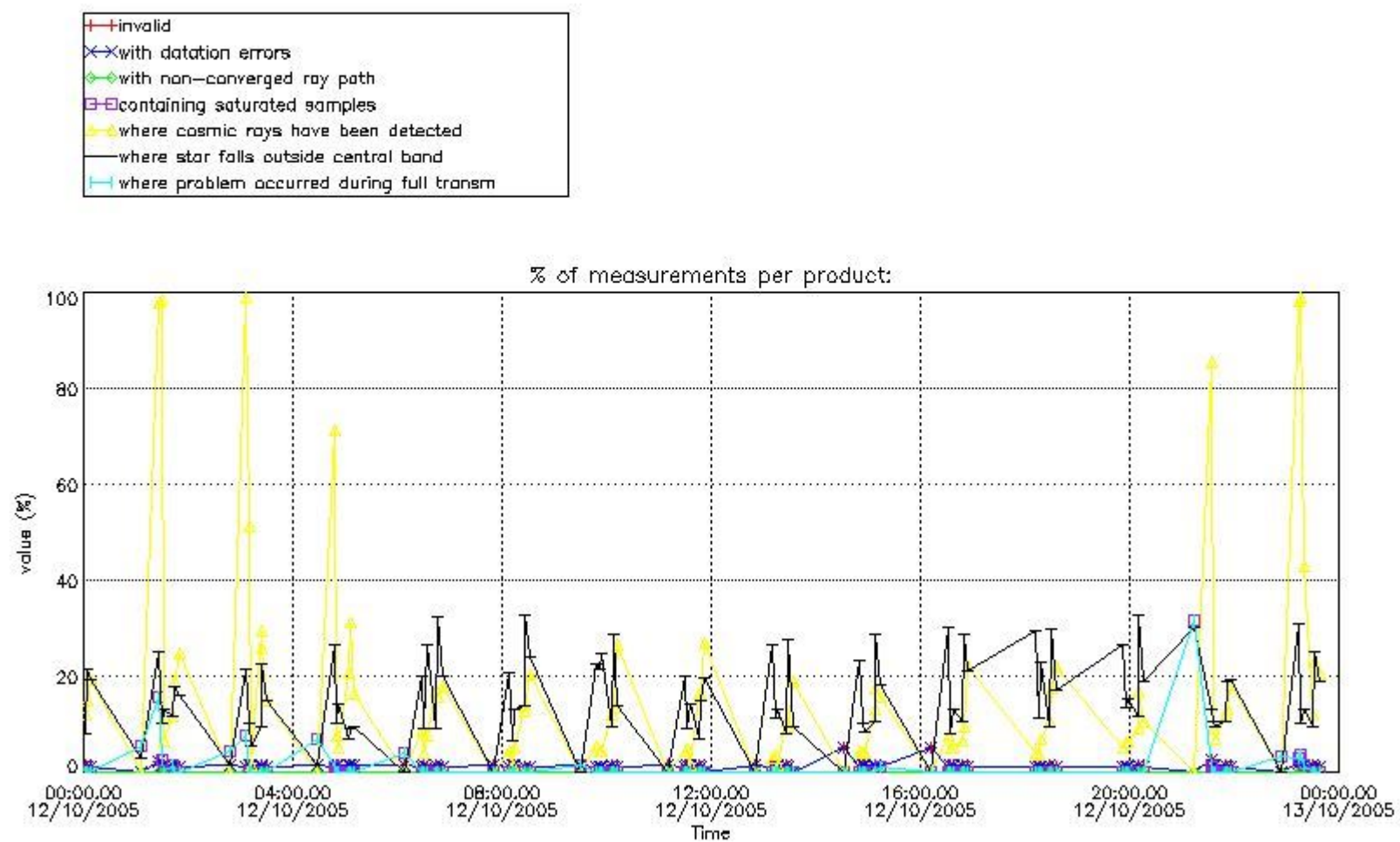


#### 4. Level 1 quality information per product

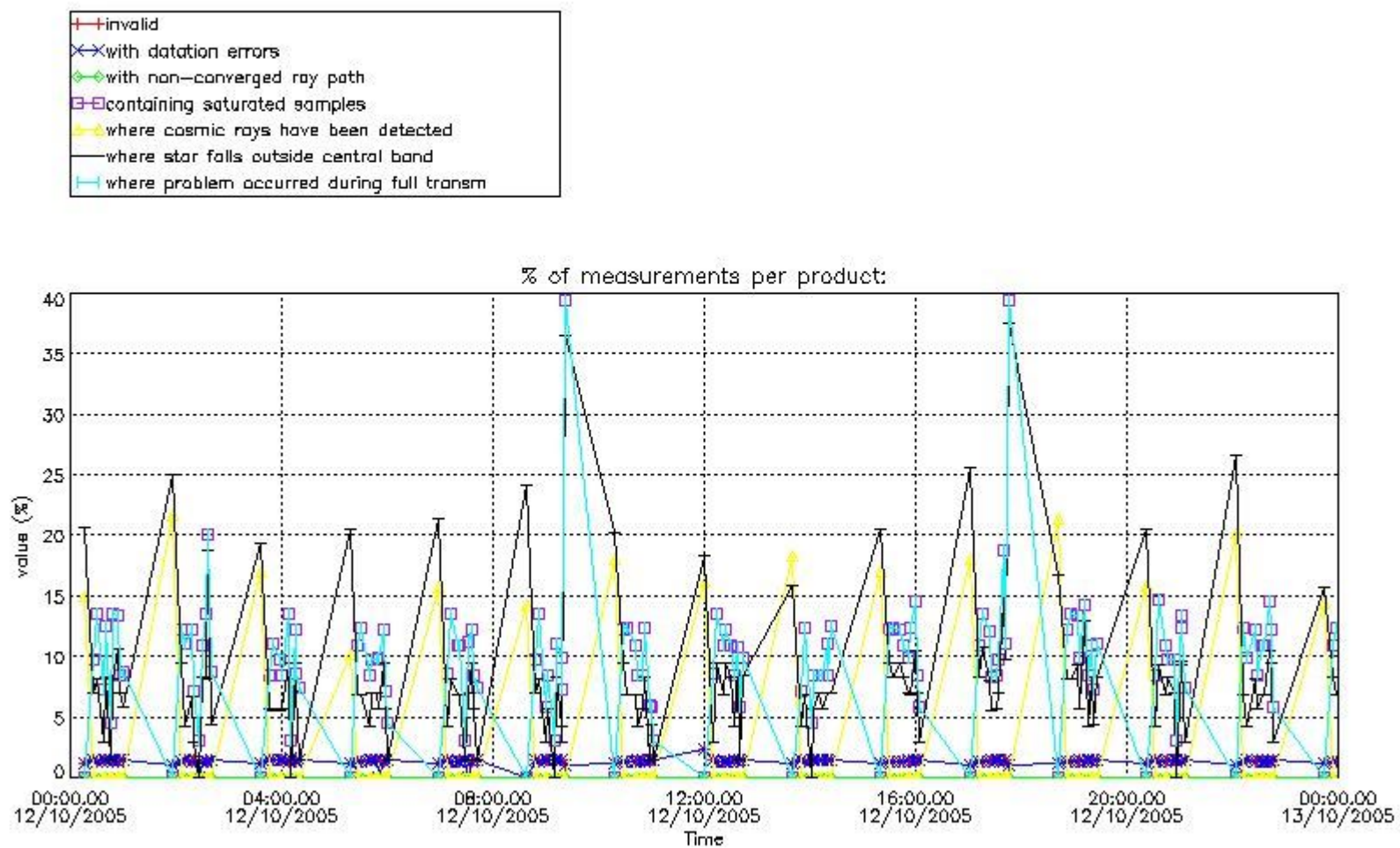
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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



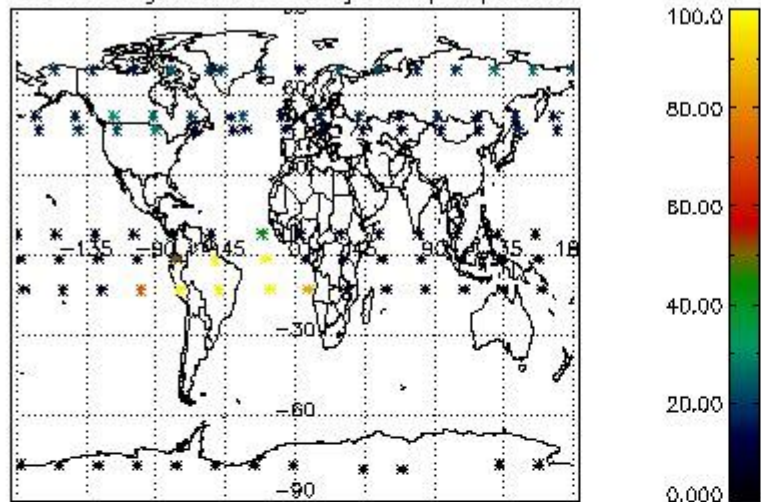
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



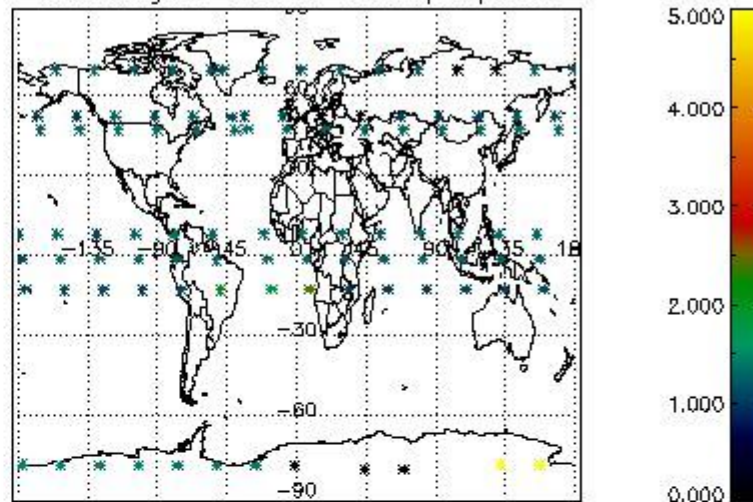
4.2 Plot quality information per product coming from level 1b processing (world map)

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

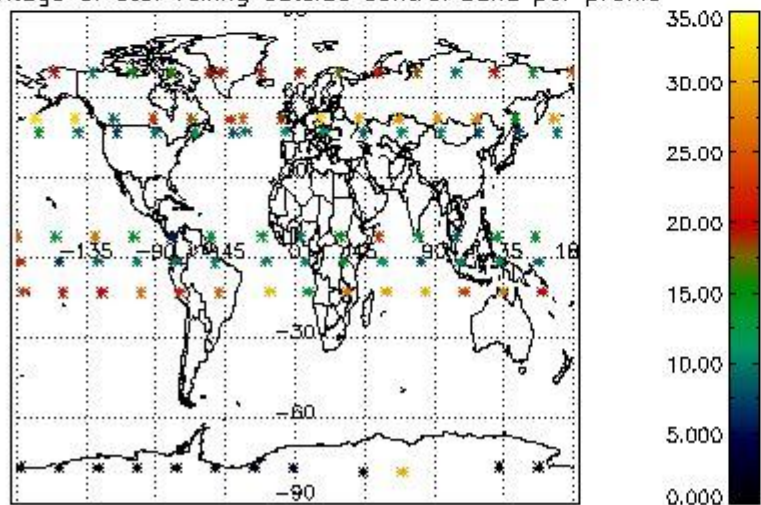
Percentage of cosmic ray hits per profile



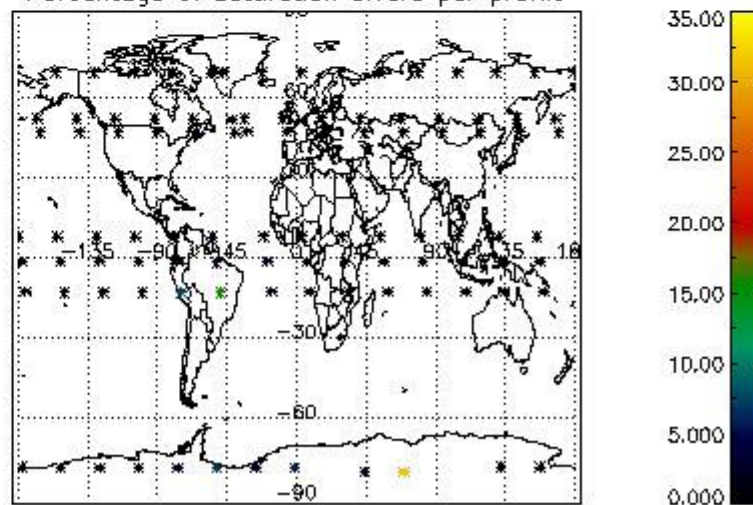
Percentage of datation errors per profile



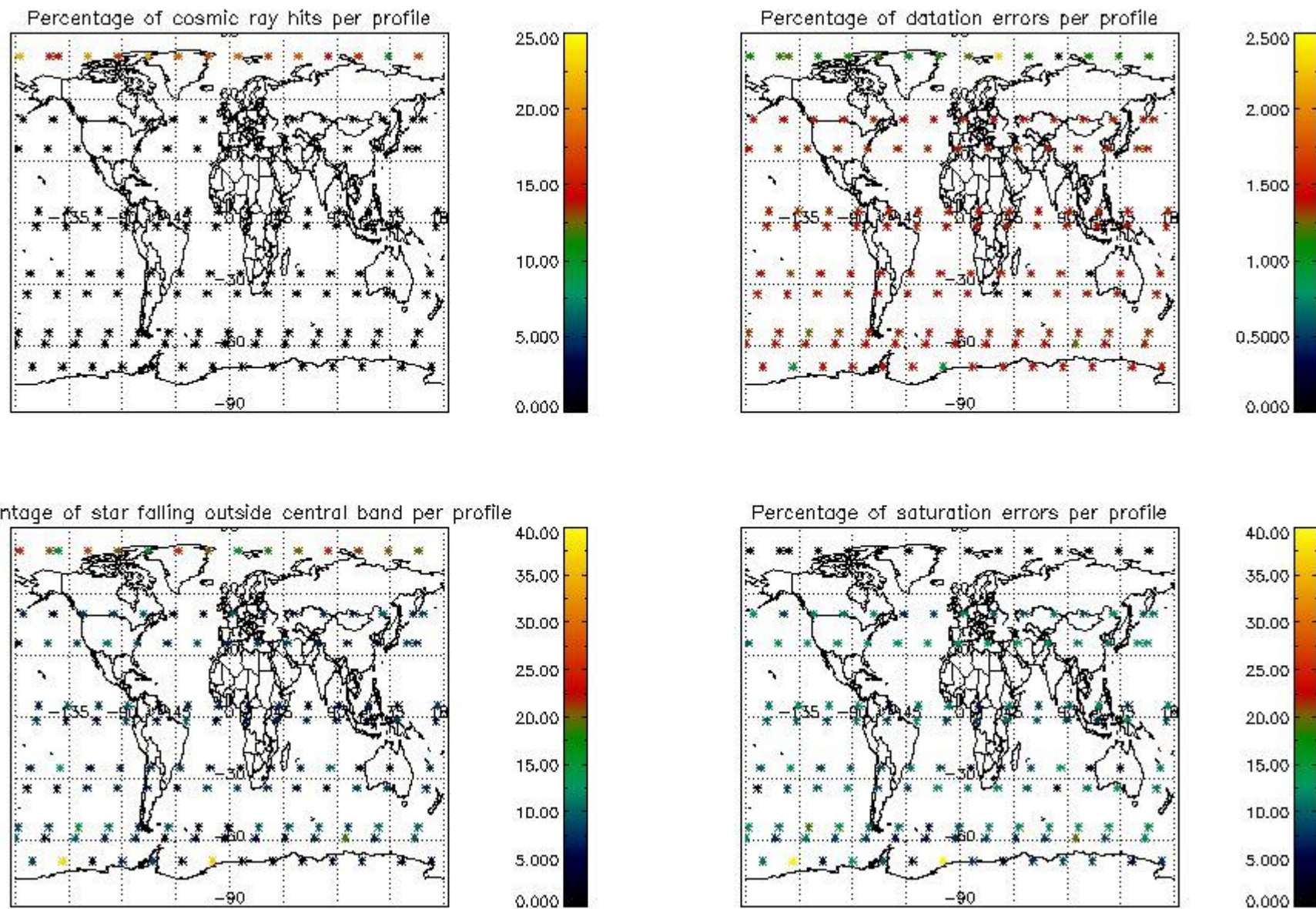
Percentage of star falling outside central band per profile



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

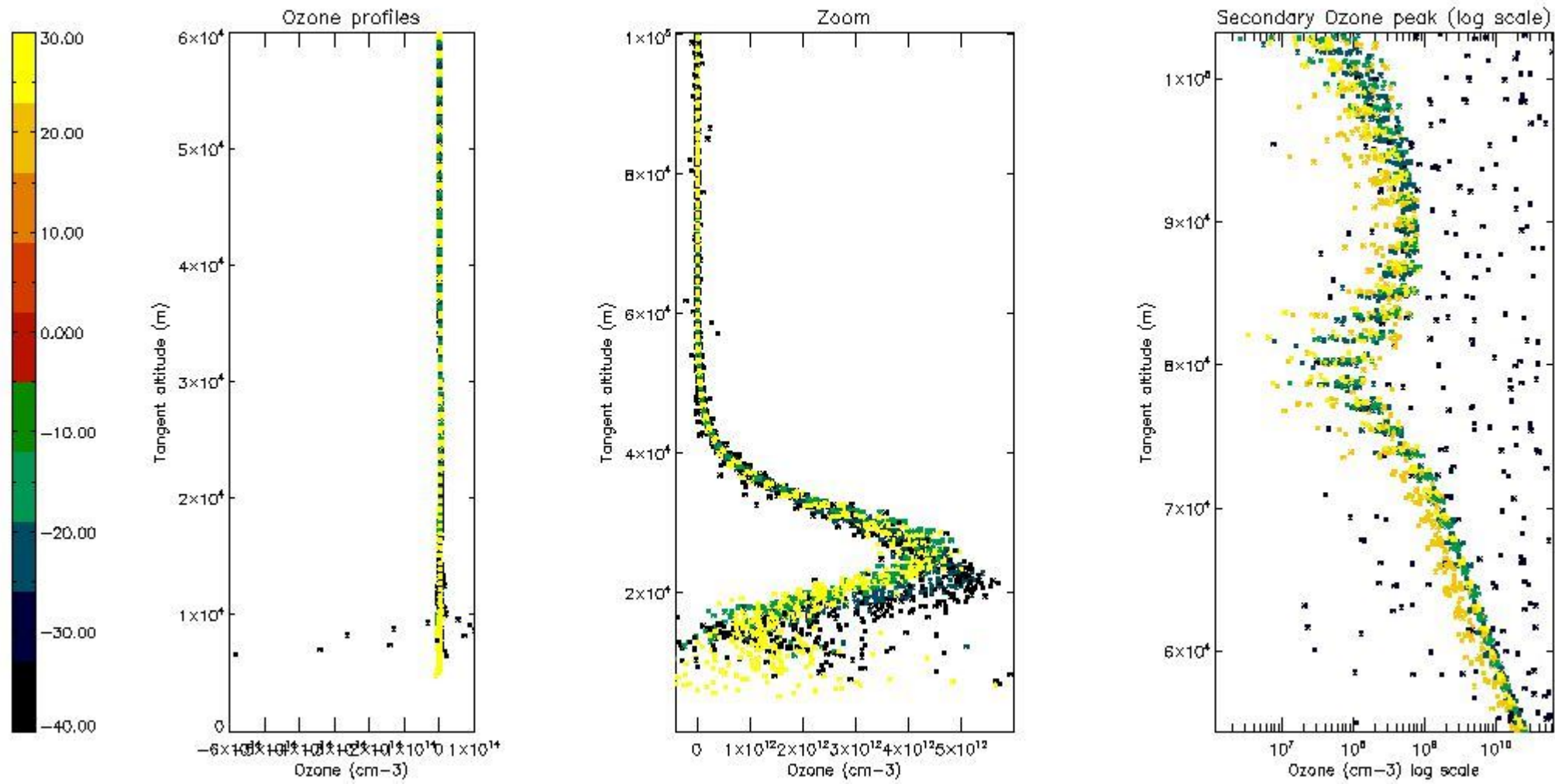
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	34
STD < 20	19

STD < 10	15
STD < 5	9

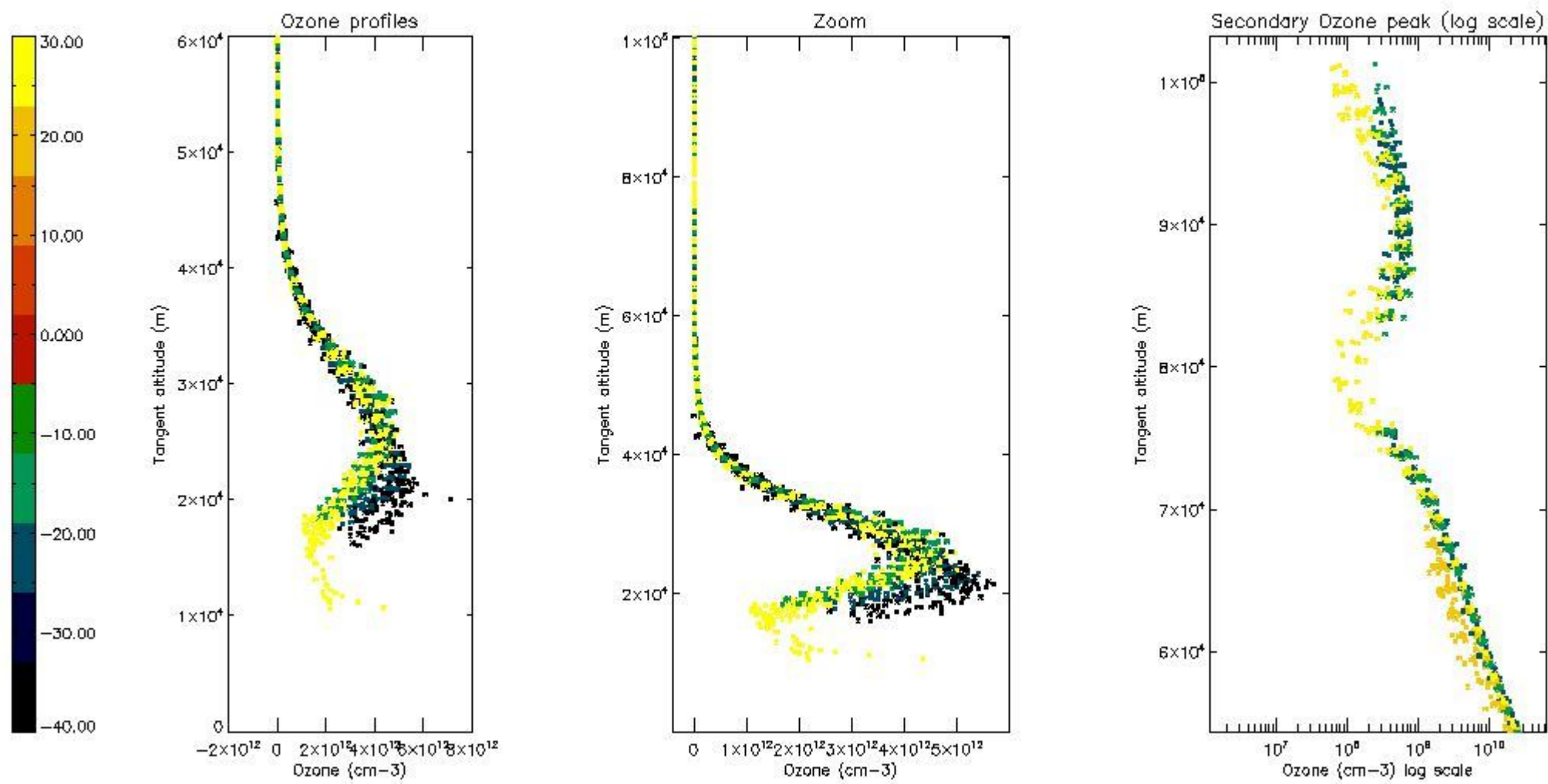
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

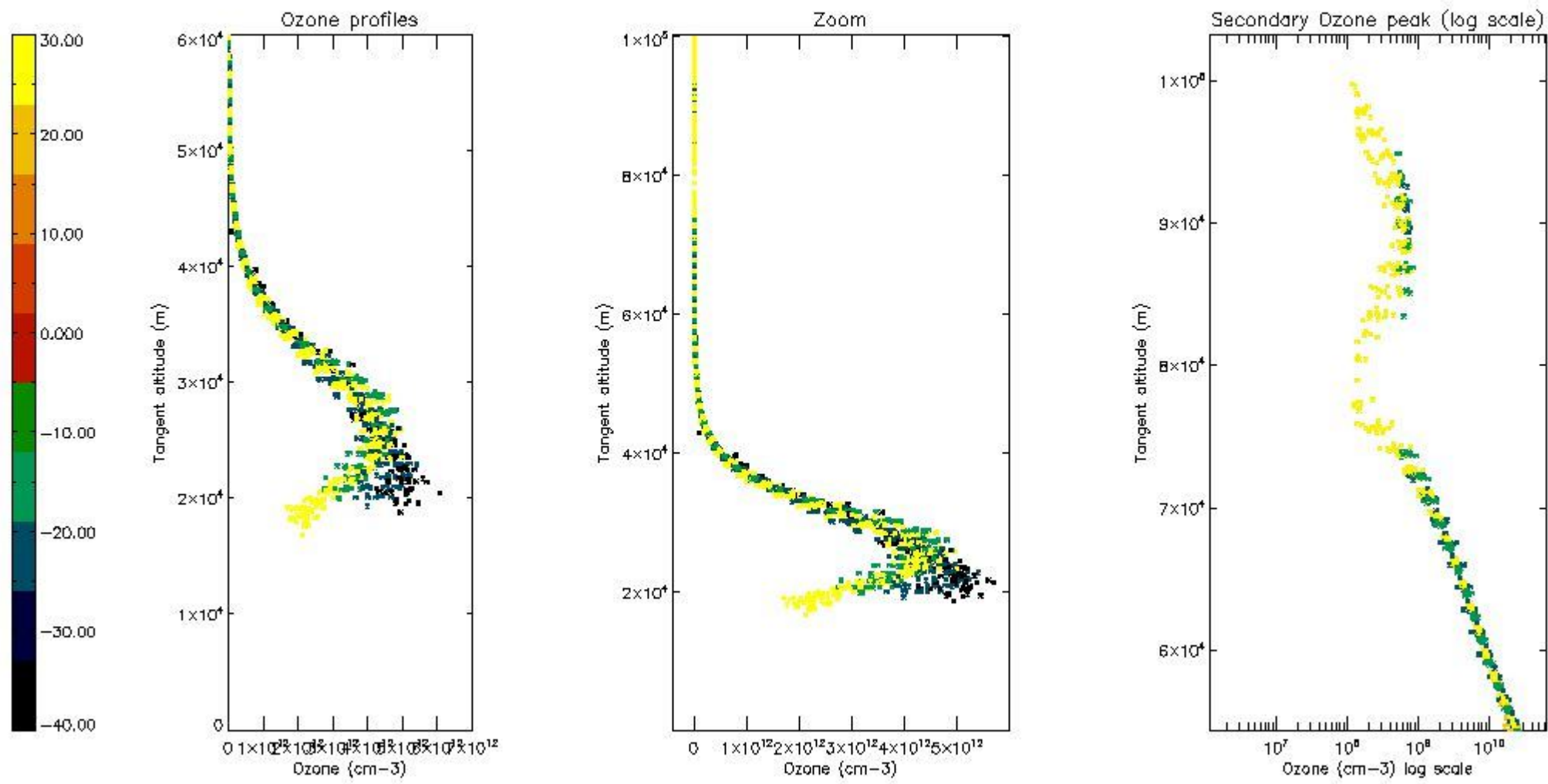
The colorbar represents the latitude.



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

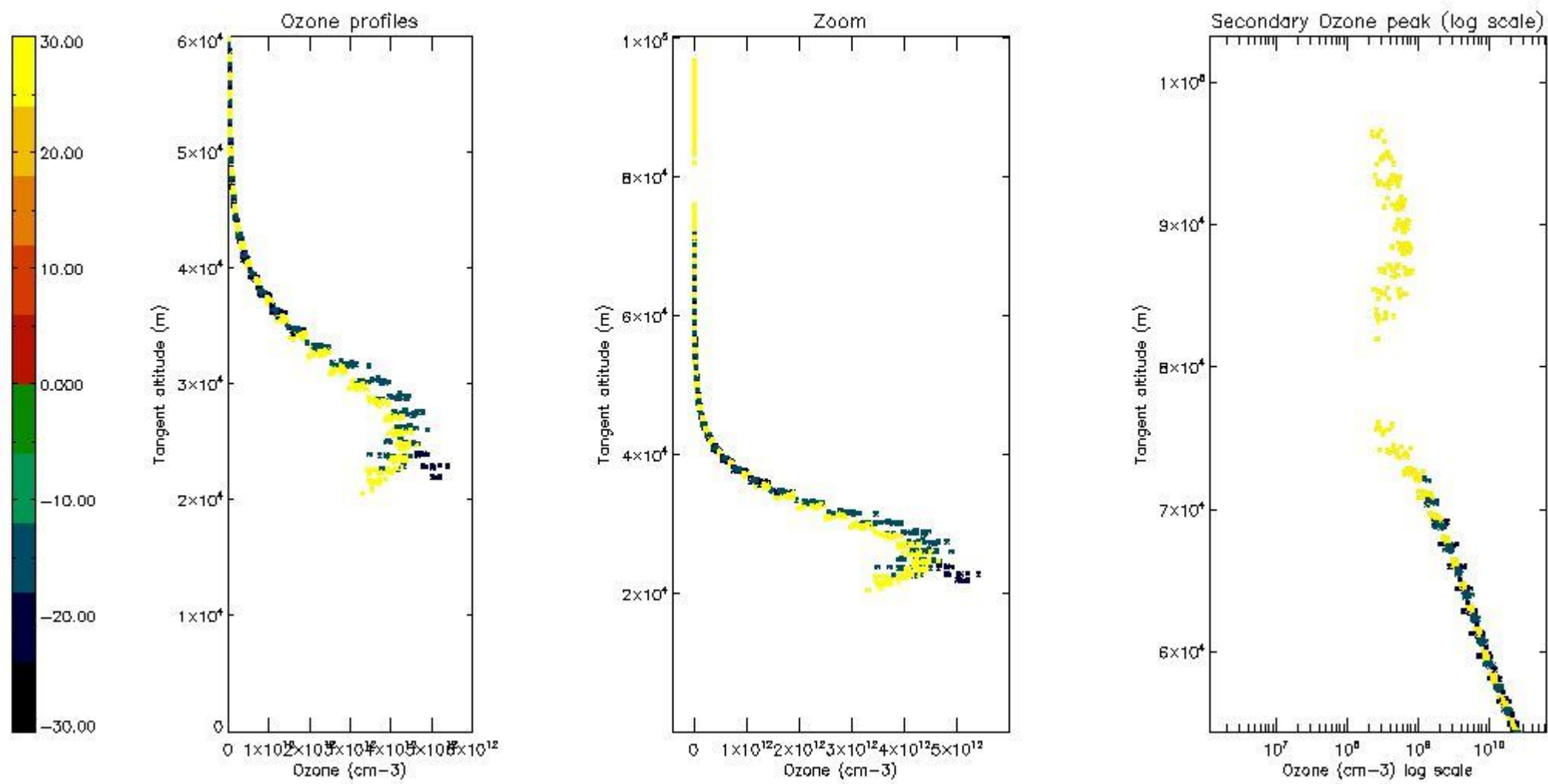
The colorbar represents the latitude.





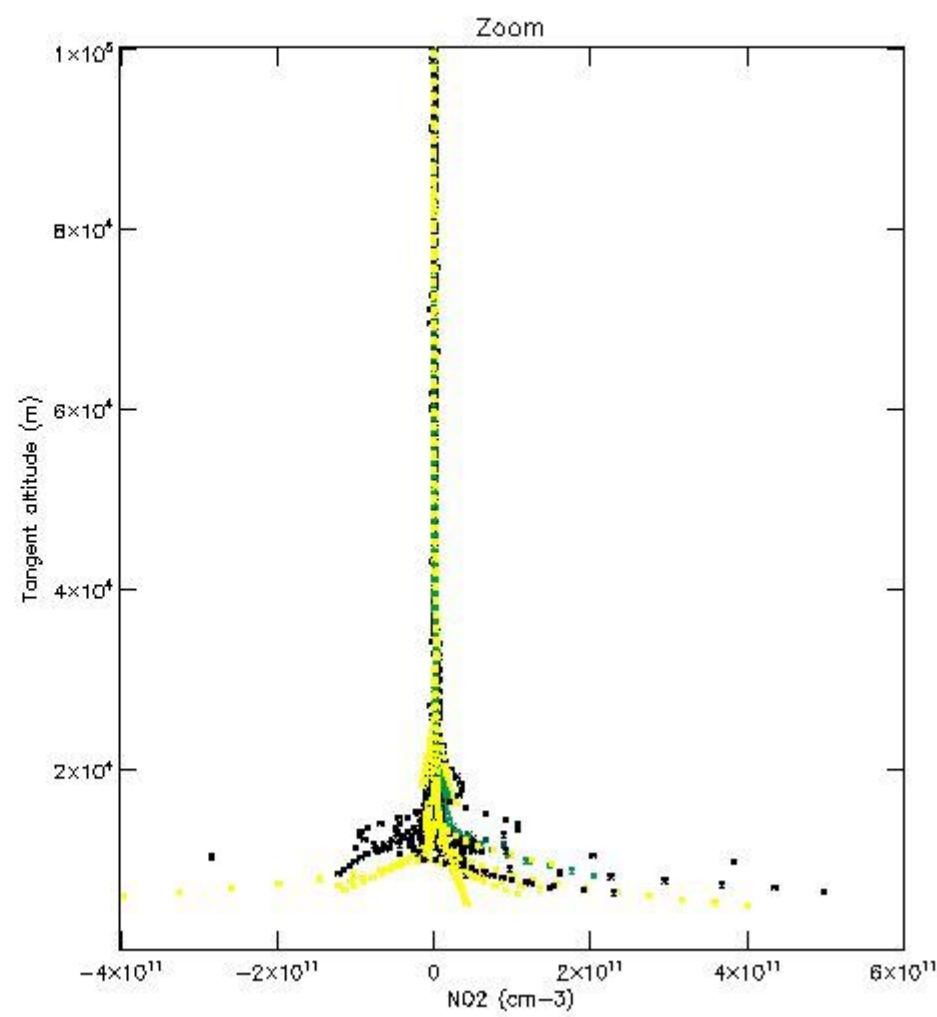
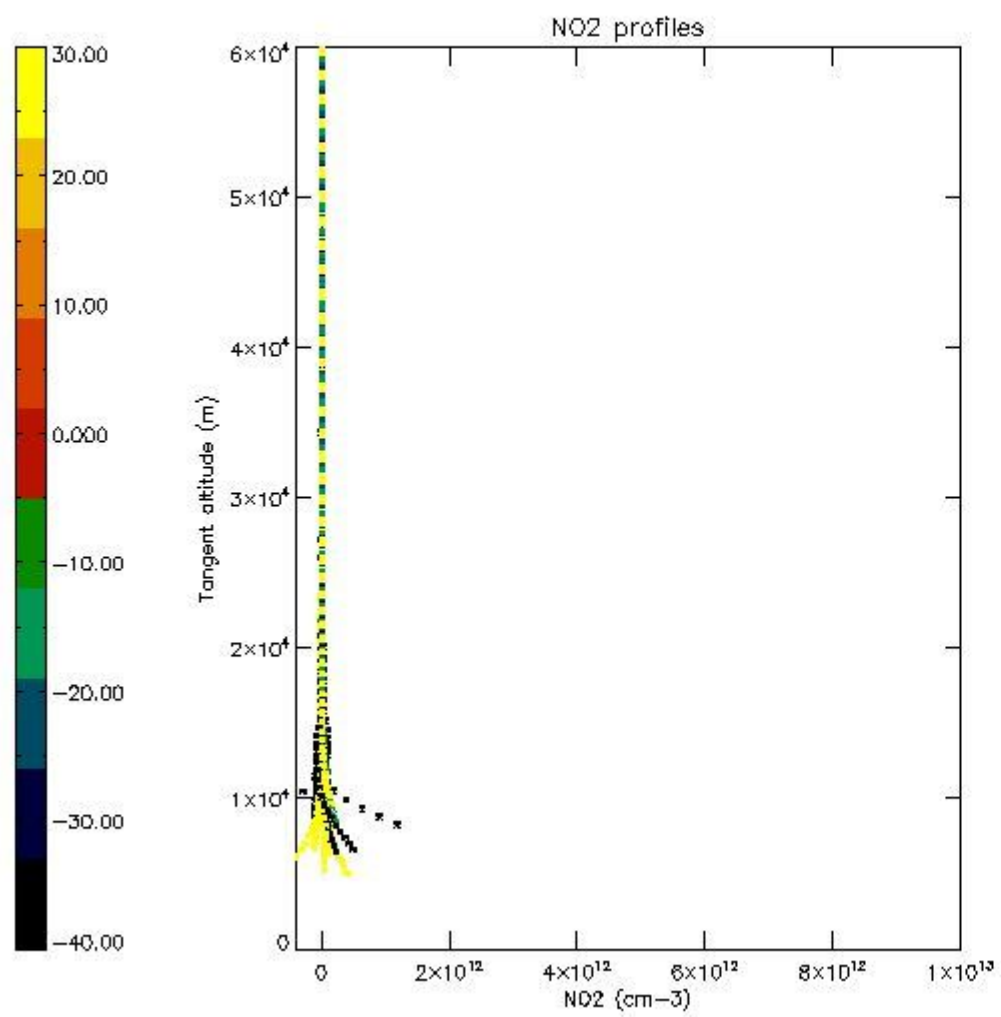
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



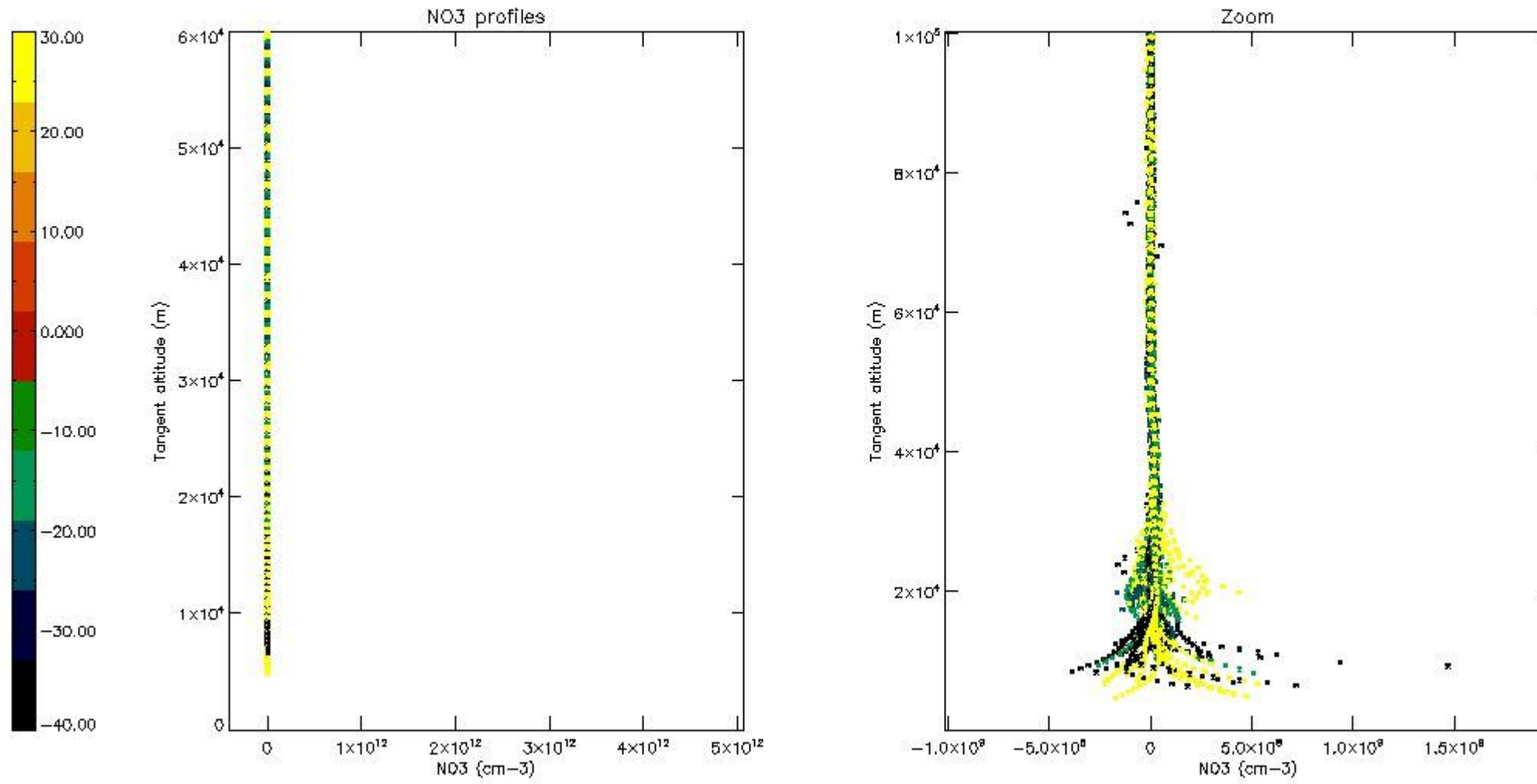
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

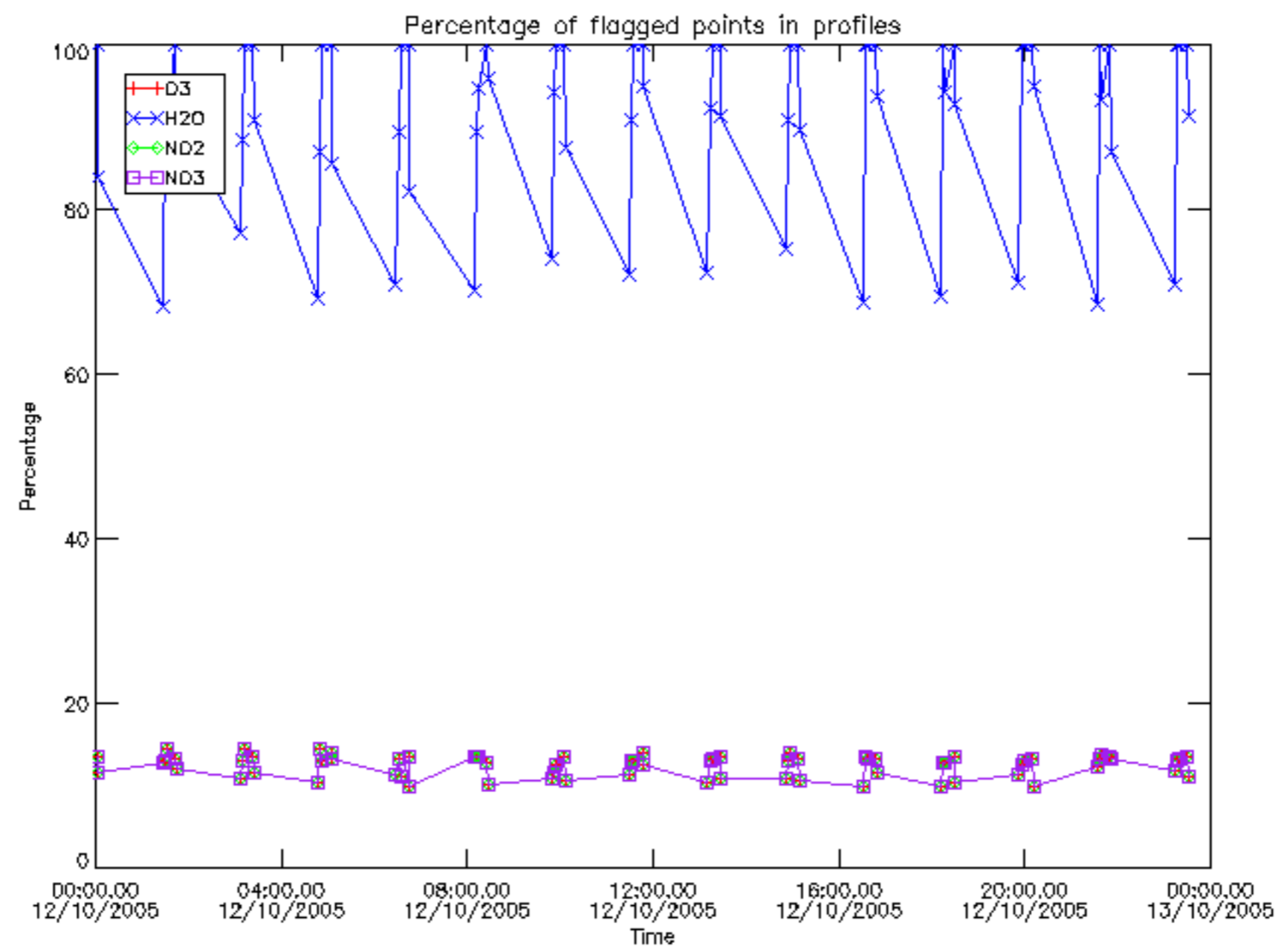
The colorbar represents the latitude.



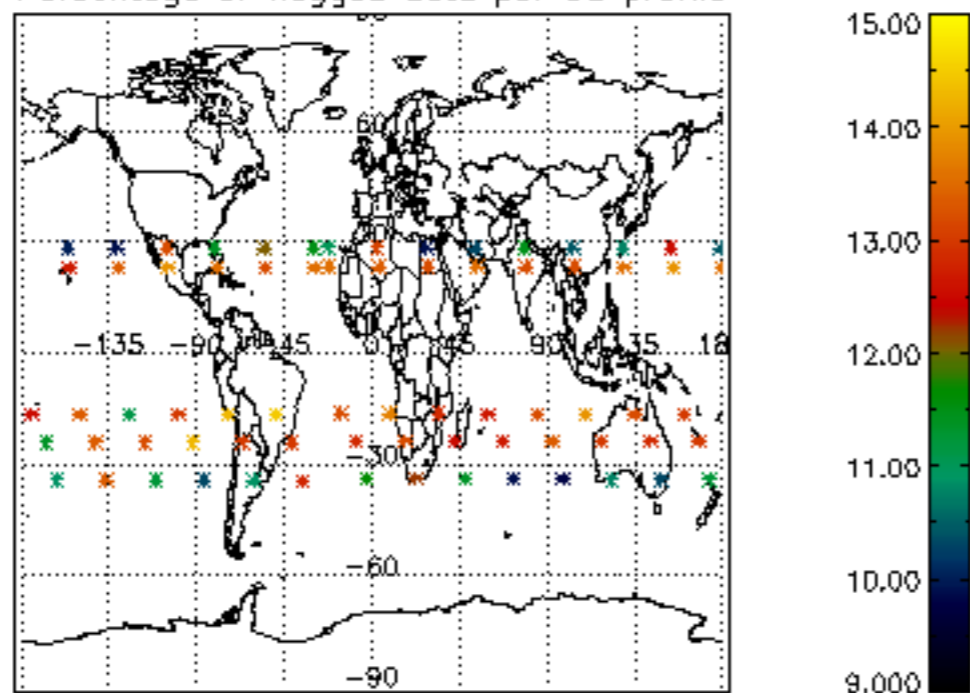
## 6. Auxiliary Data Files used for the production reported in section 2

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.

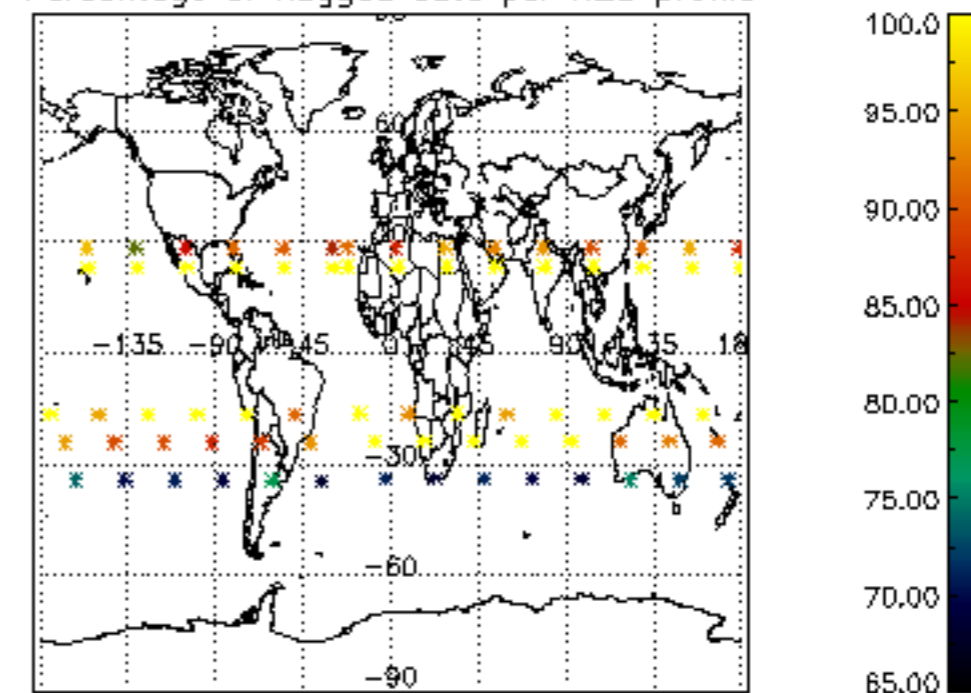
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	12-OCT-2005 00:02:02
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	12-OCT-2005 00:02:02
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	12-OCT-2005 00:02:02



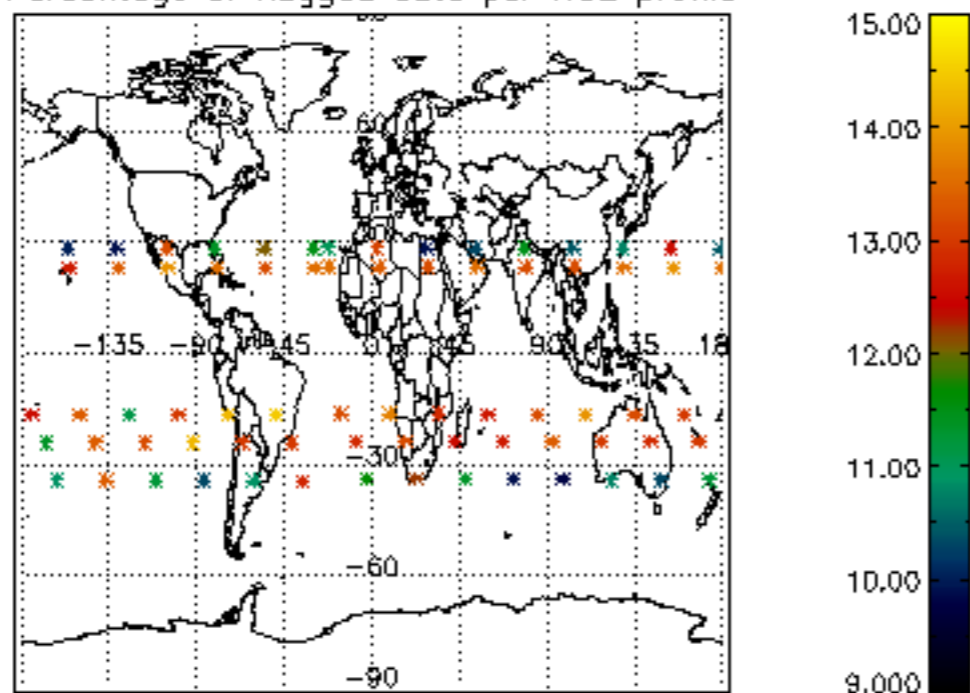
Percentage of flagged data per D3 profile



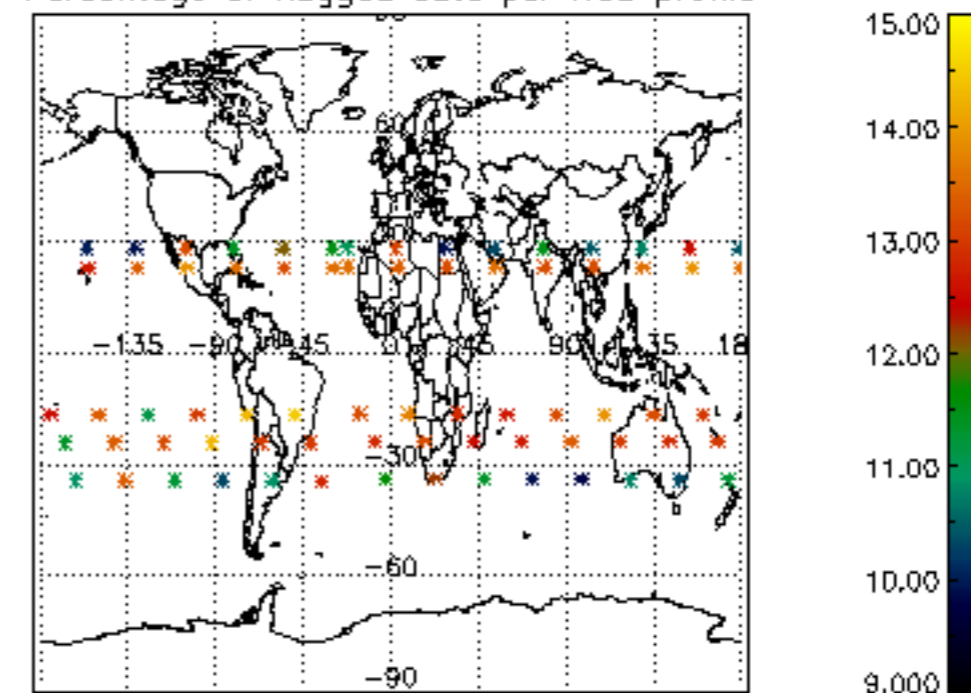
Percentage of flagged data per H2O profile

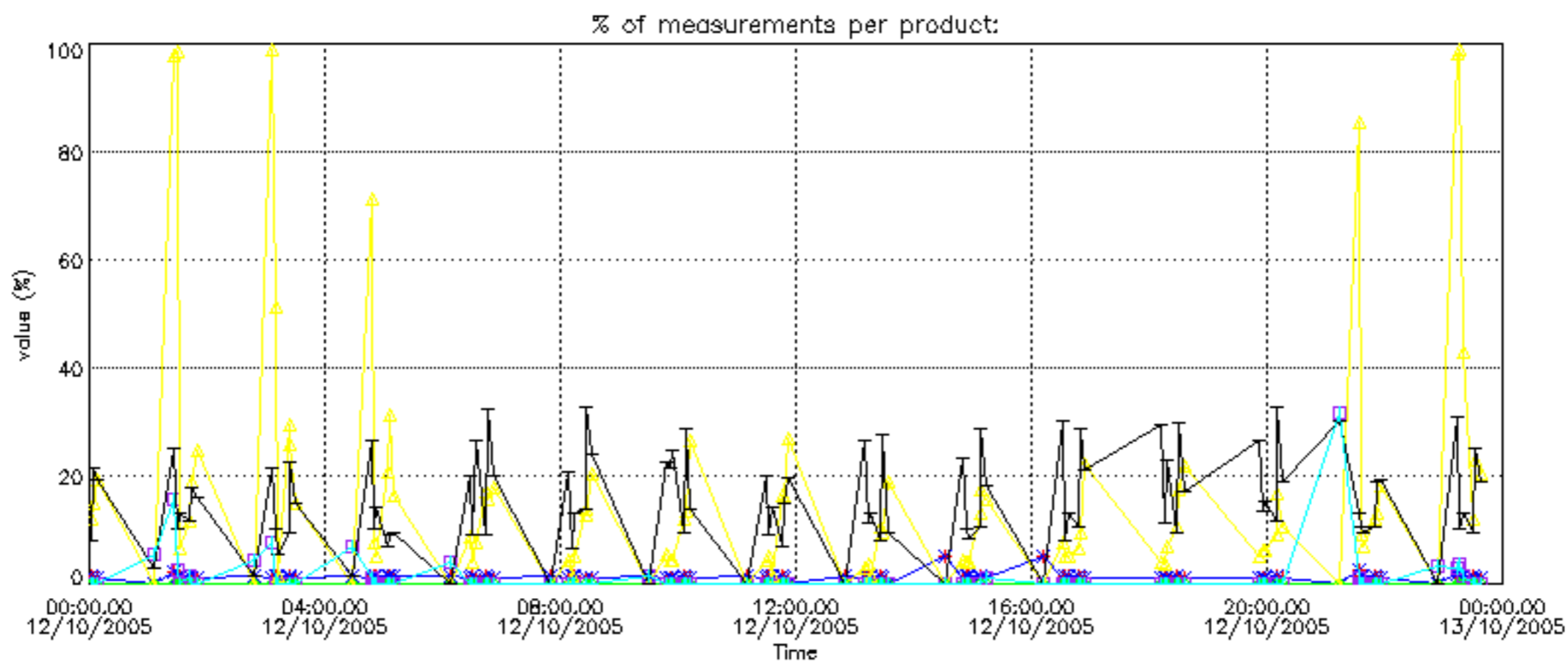


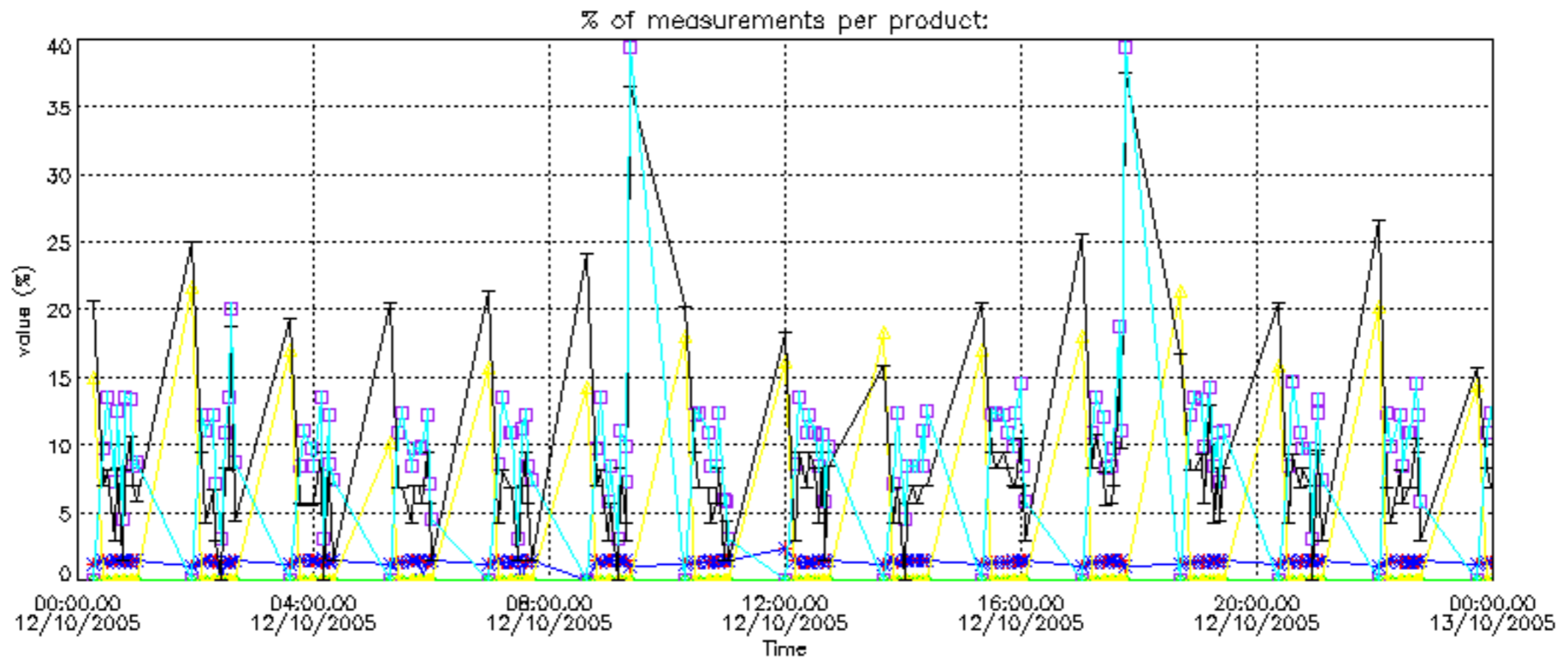
Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

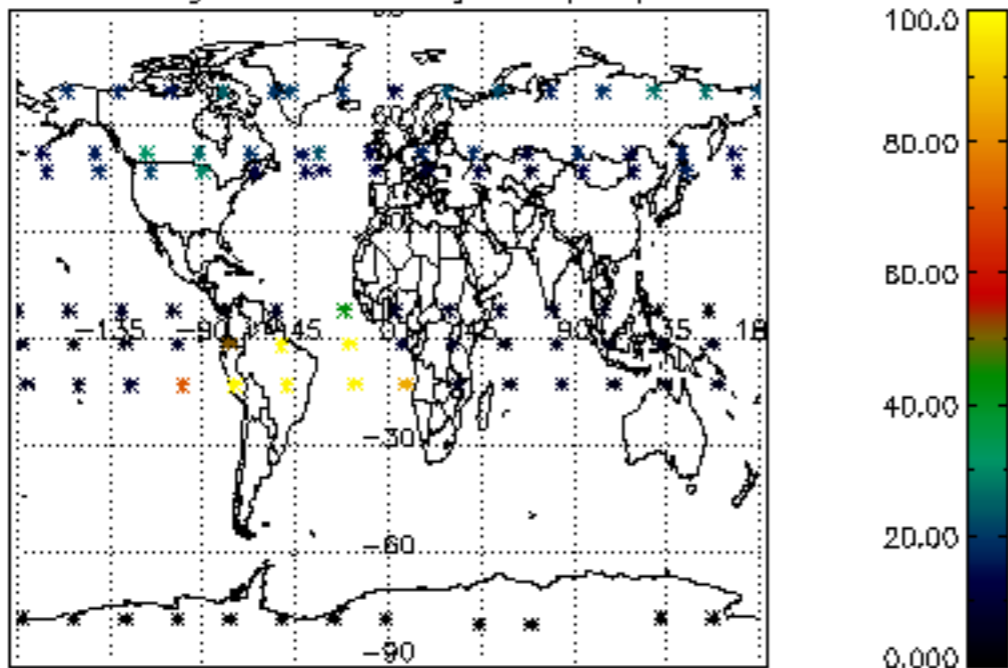




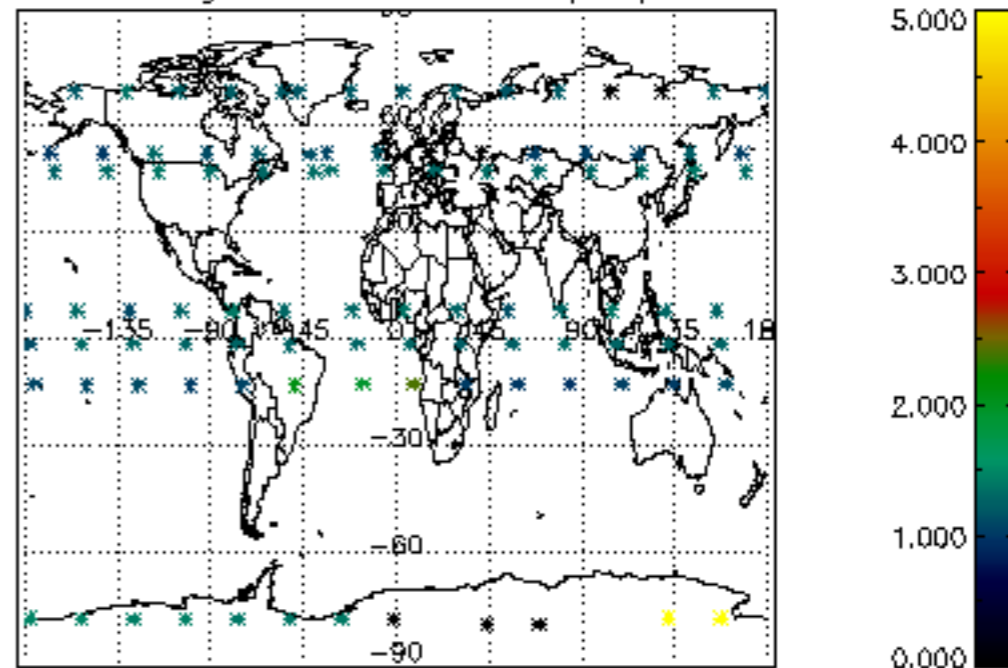




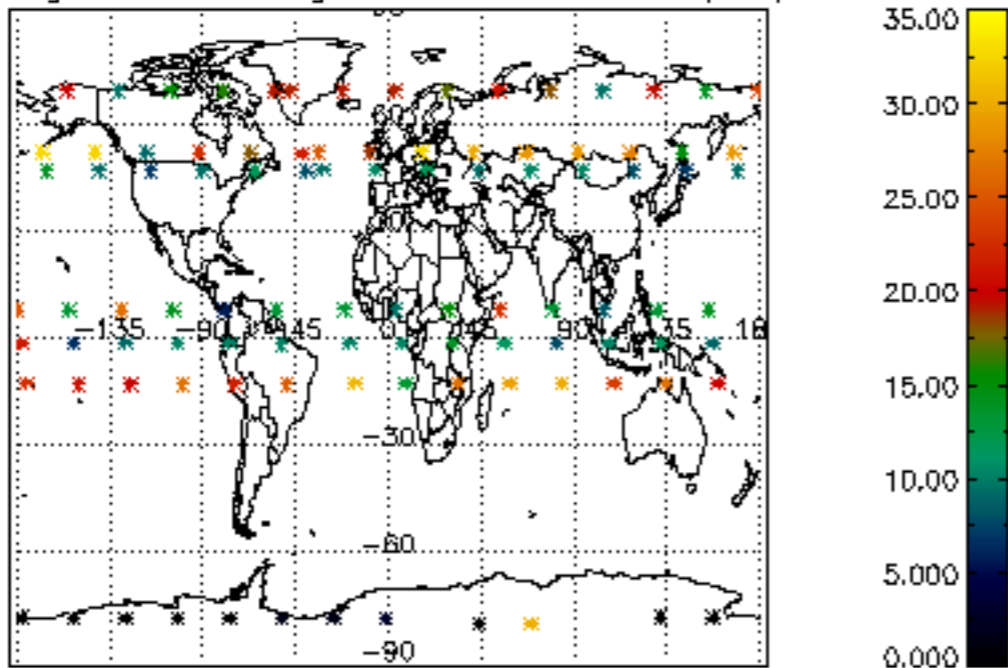
Percentage of cosmic ray hits per profile



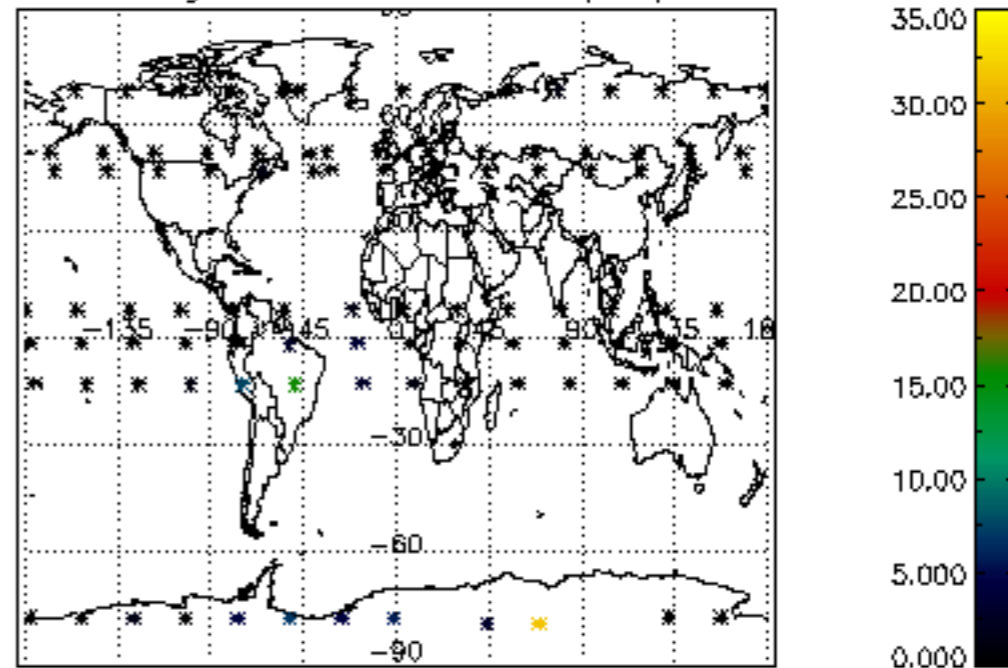
Percentage of datation errors per profile



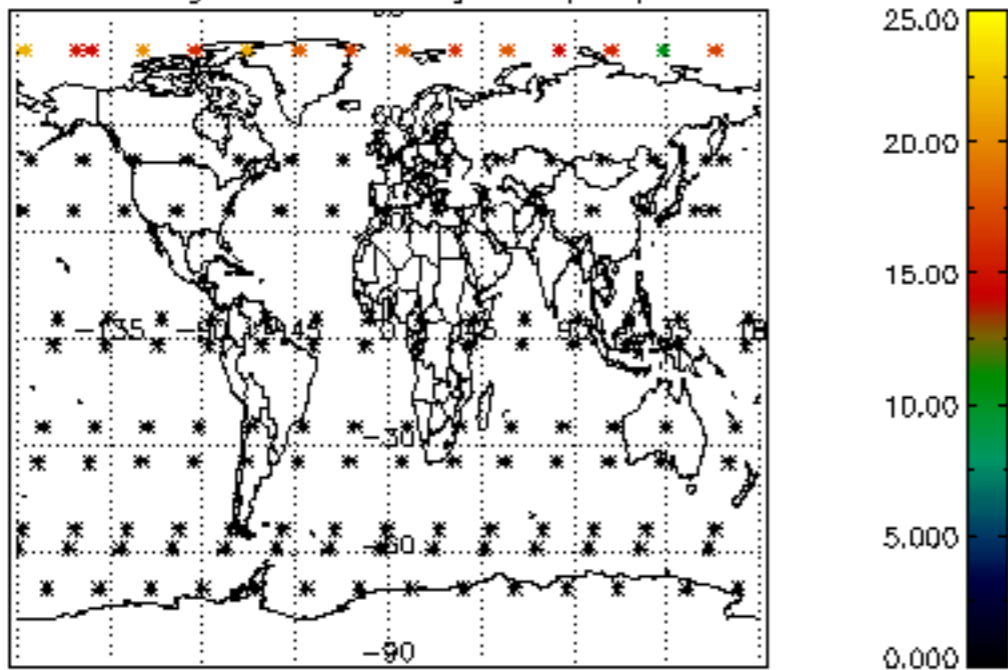
Percentage of star falling outside central band per profile



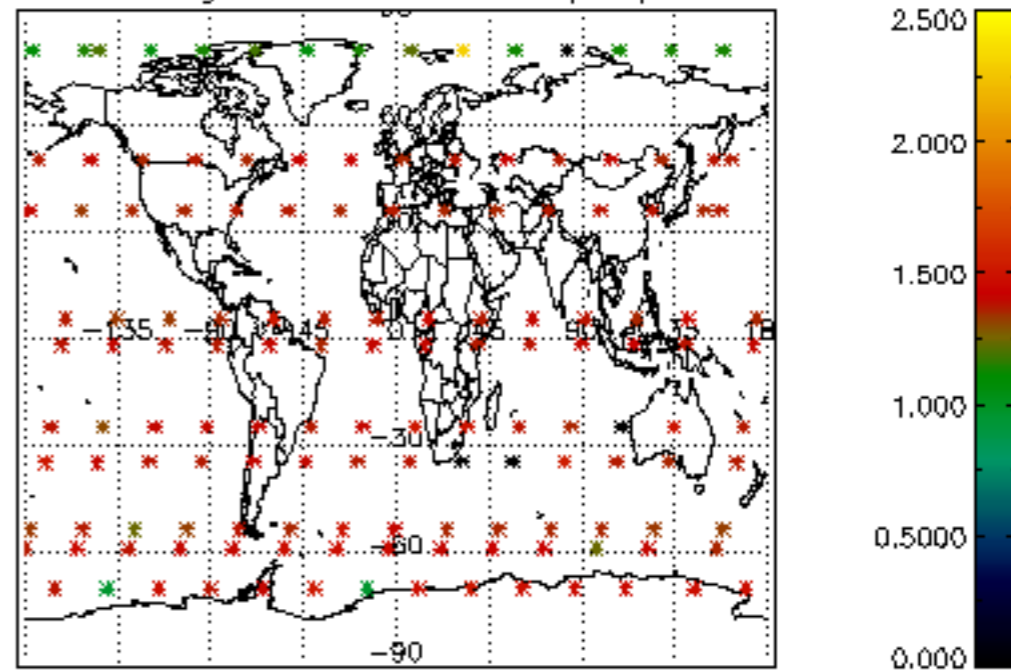
Percentage of saturation errors per profile



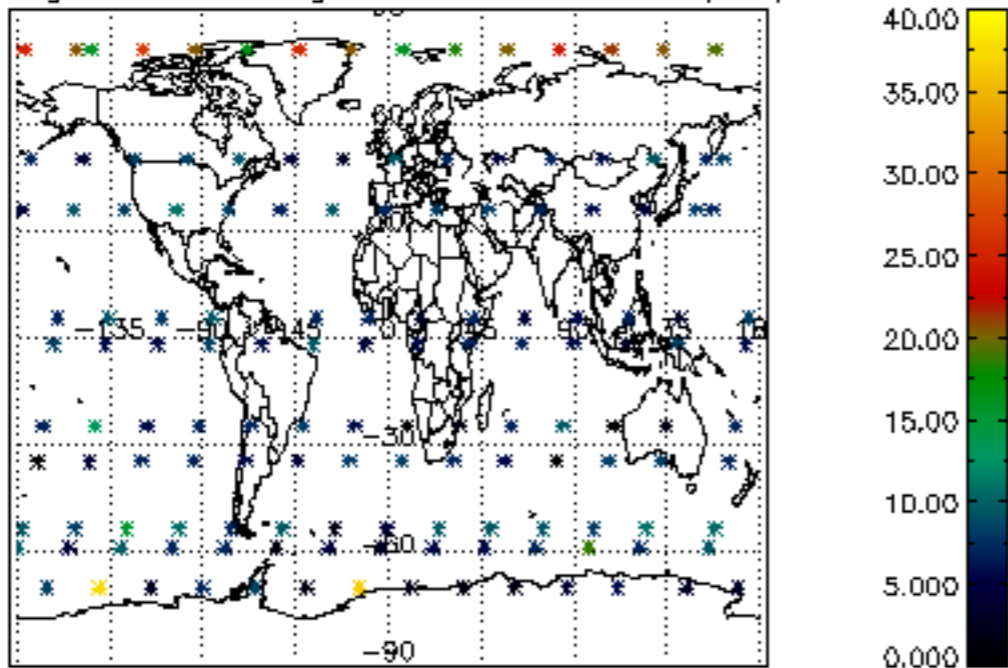
Percentage of cosmic ray hits per profile



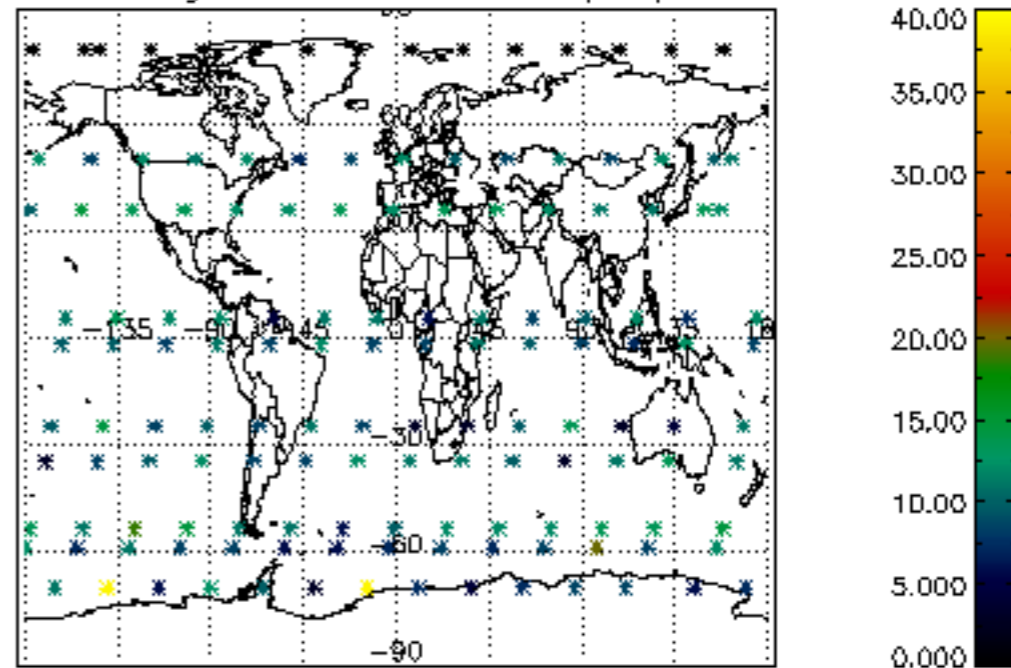
Percentage of datation errors per profile

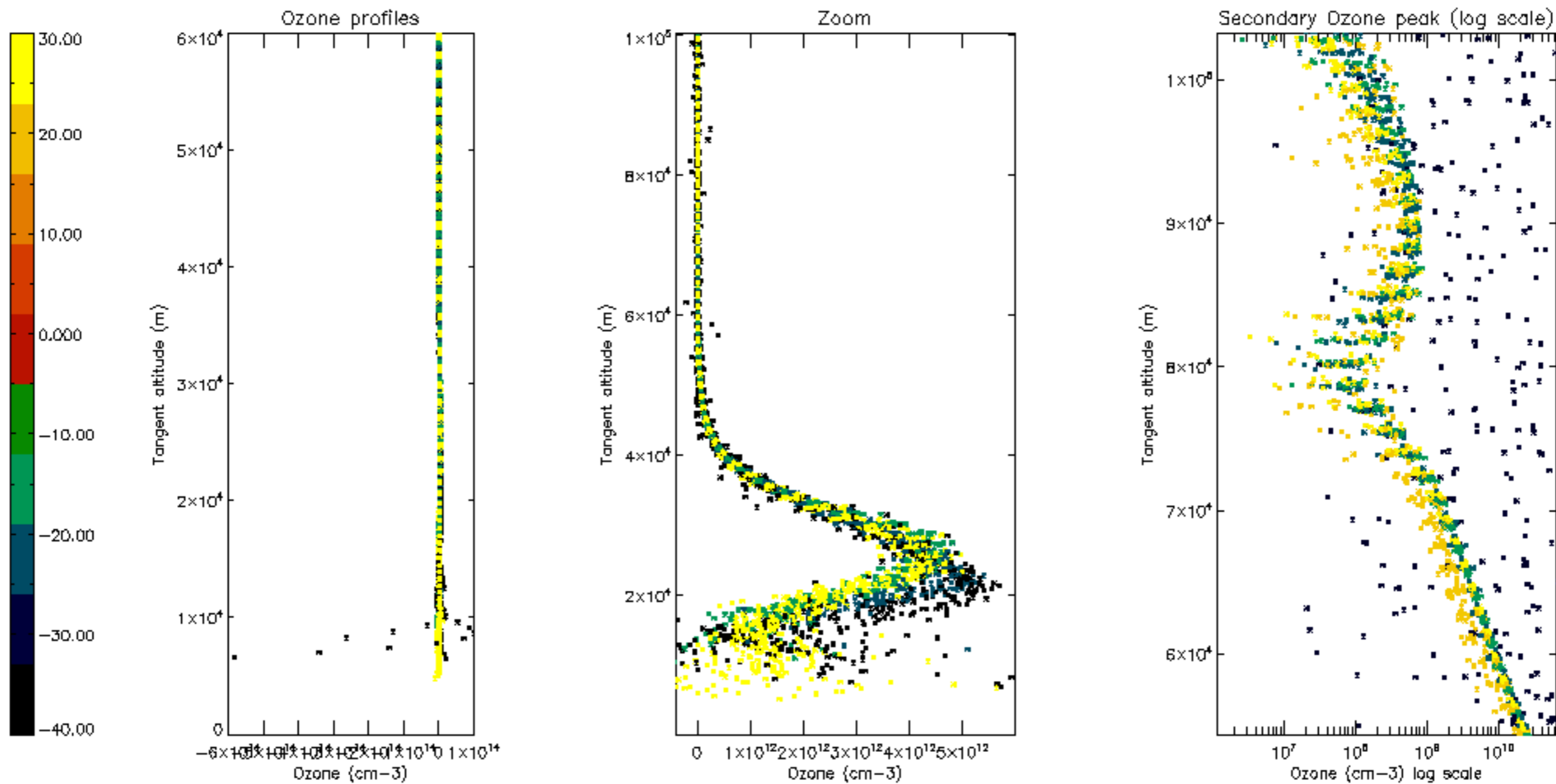


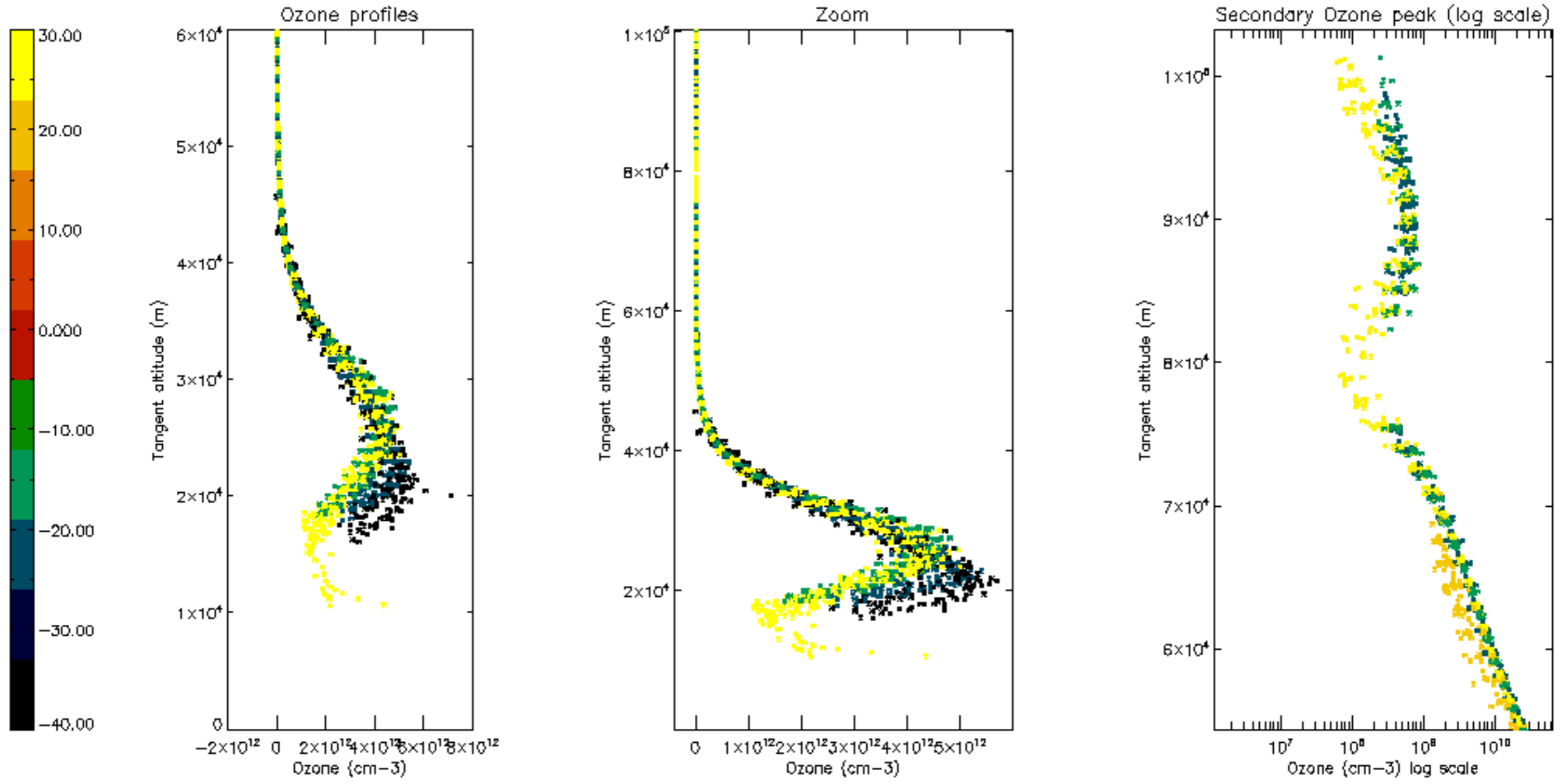
Percentage of star falling outside central band per profile

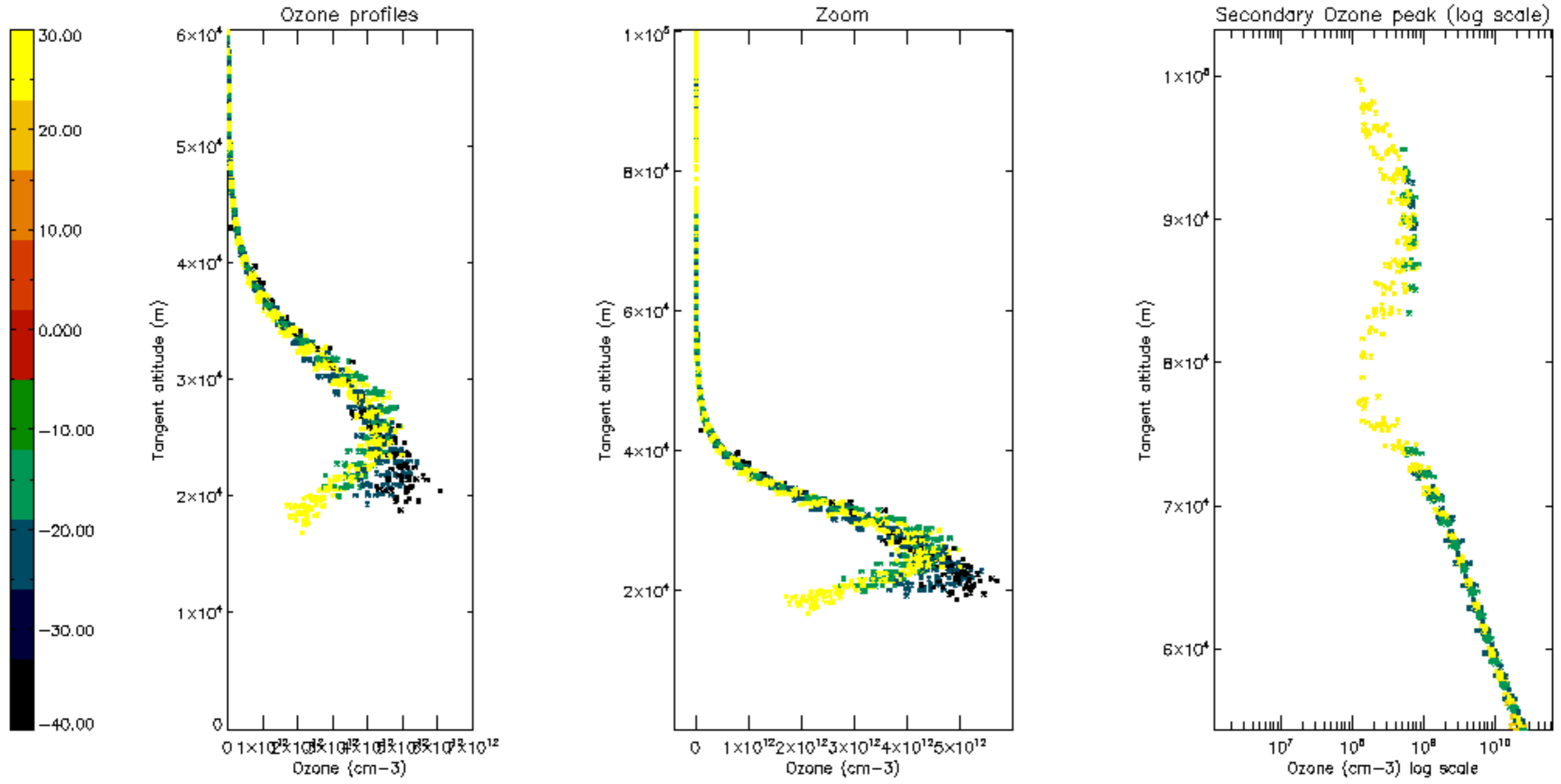


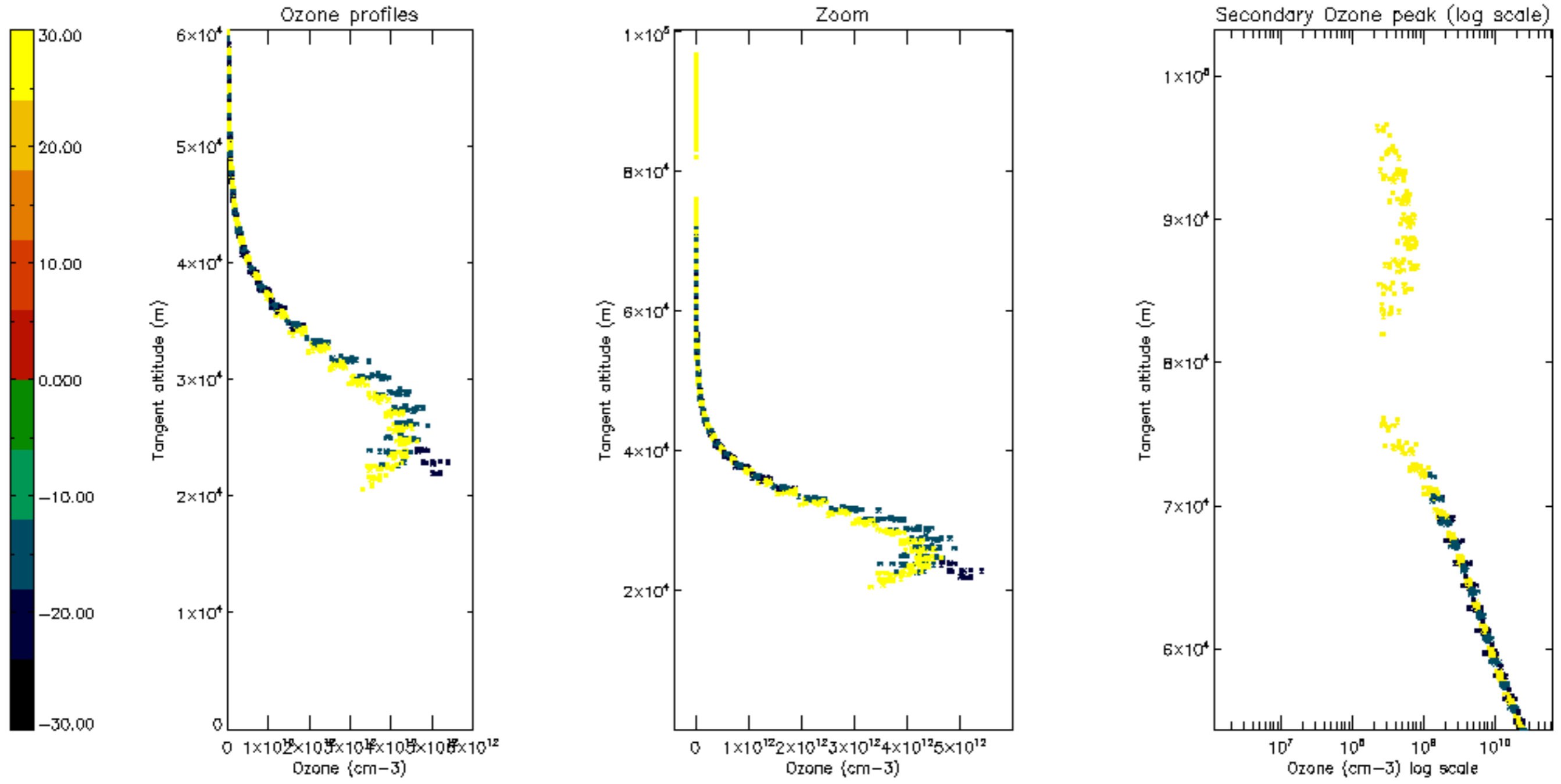
Percentage of saturation errors per profile

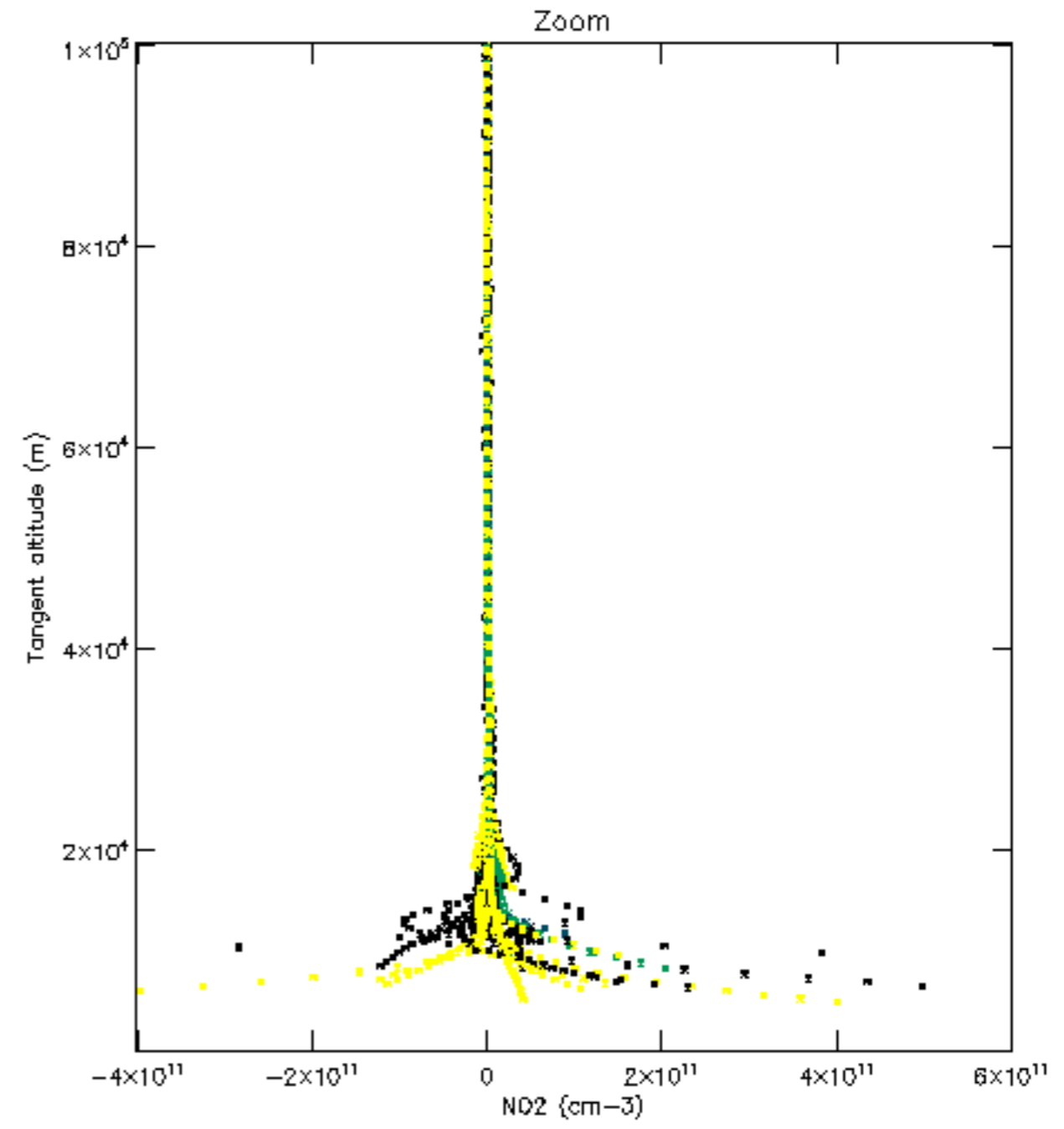
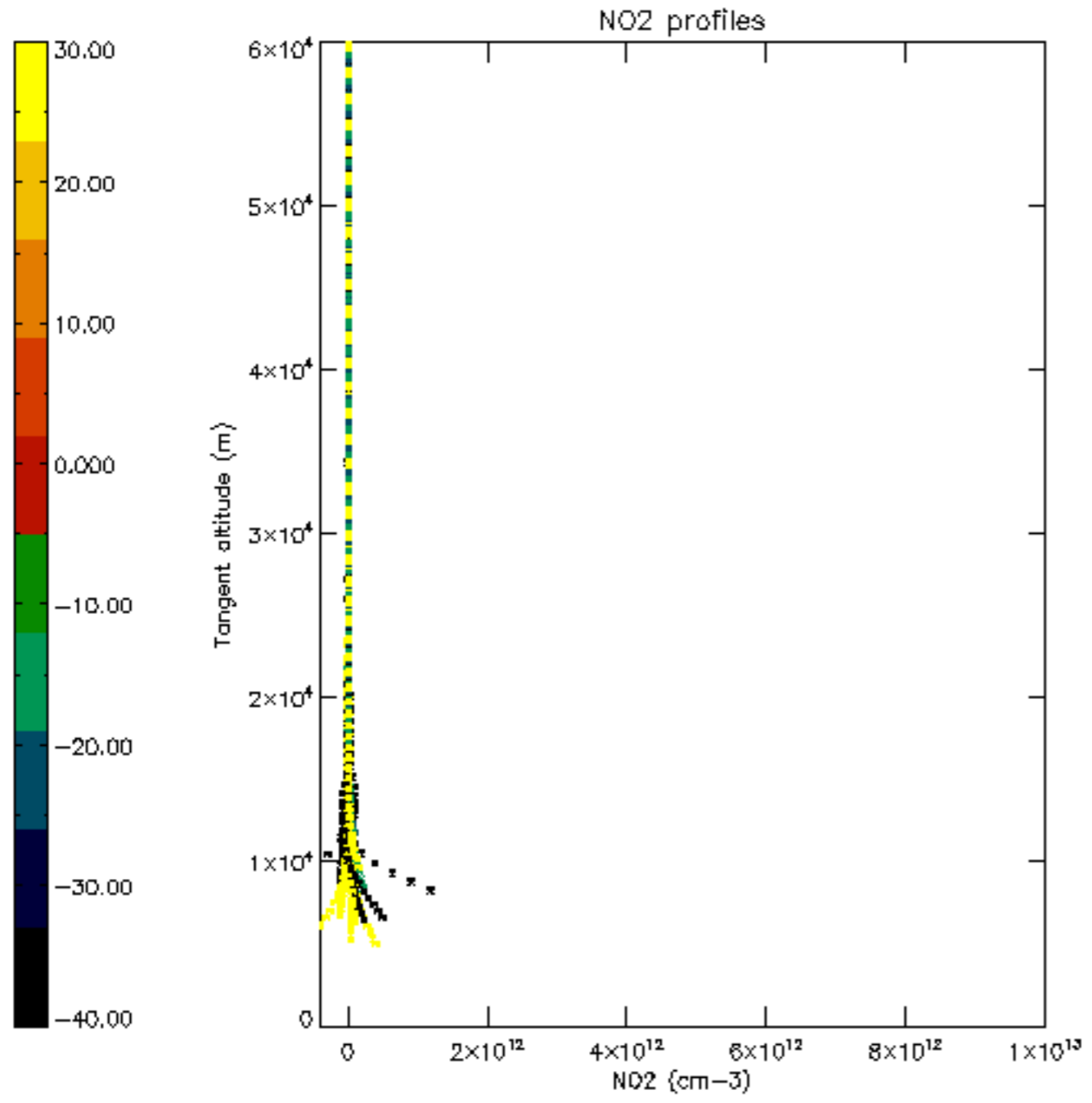


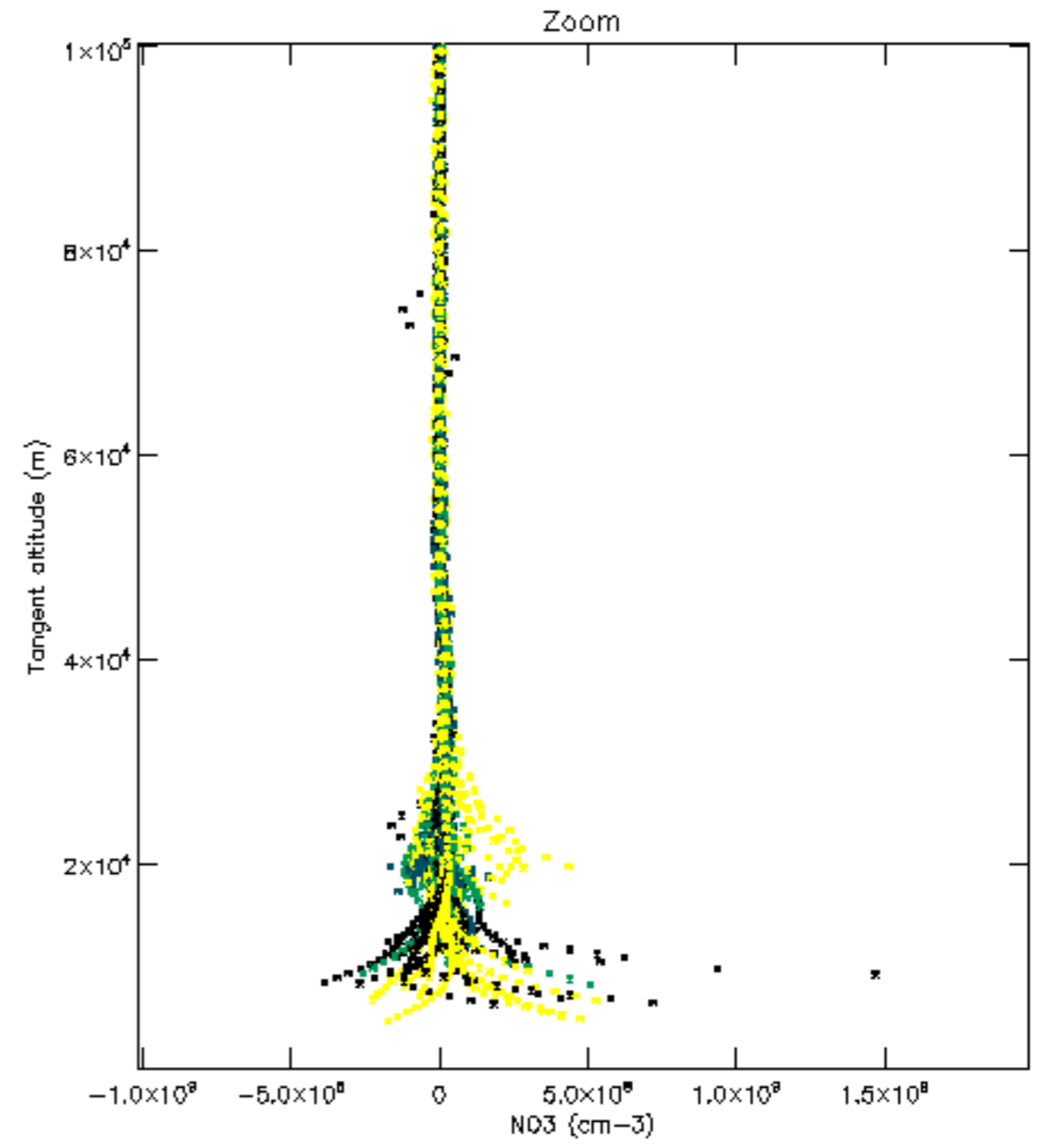
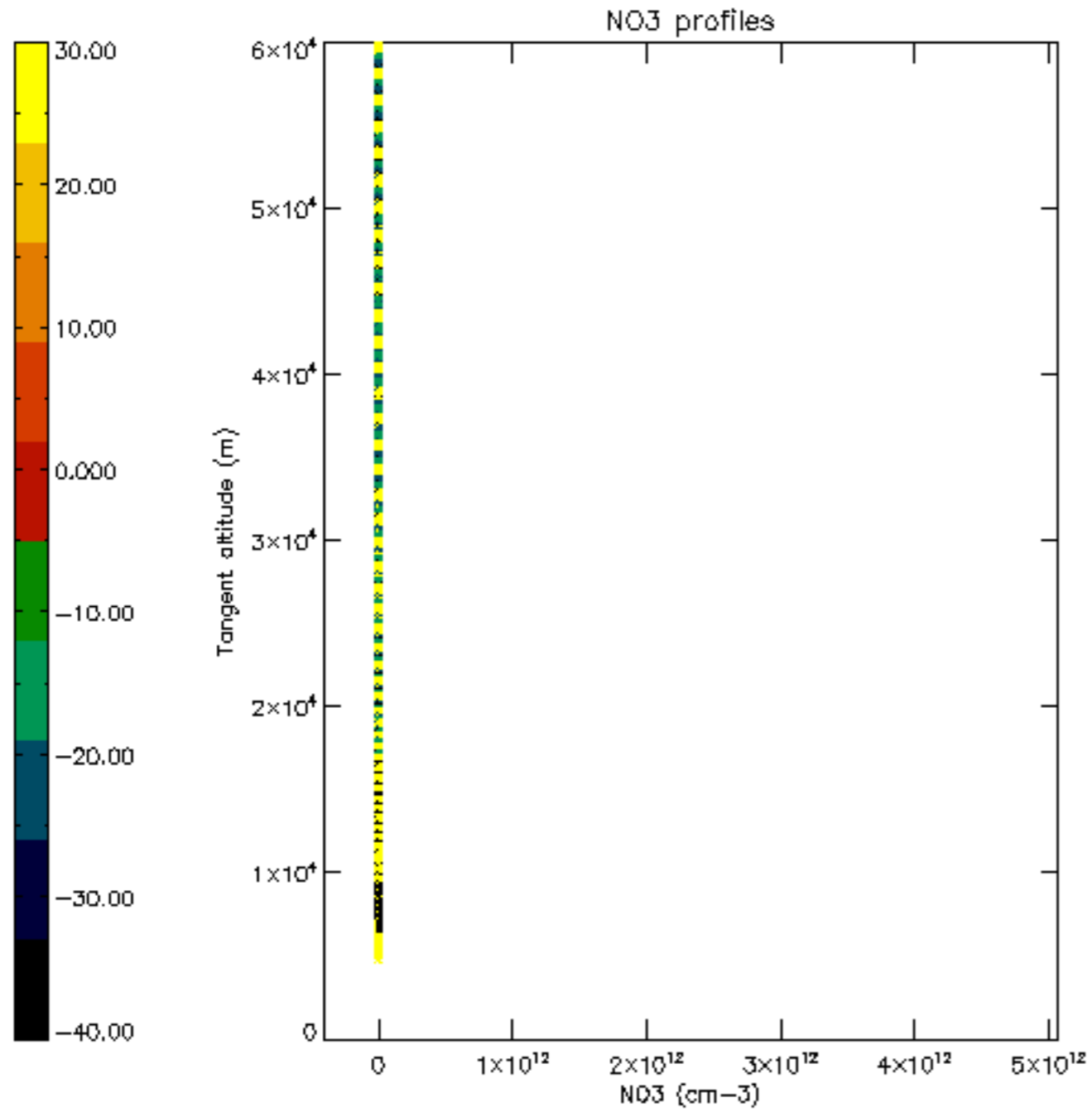




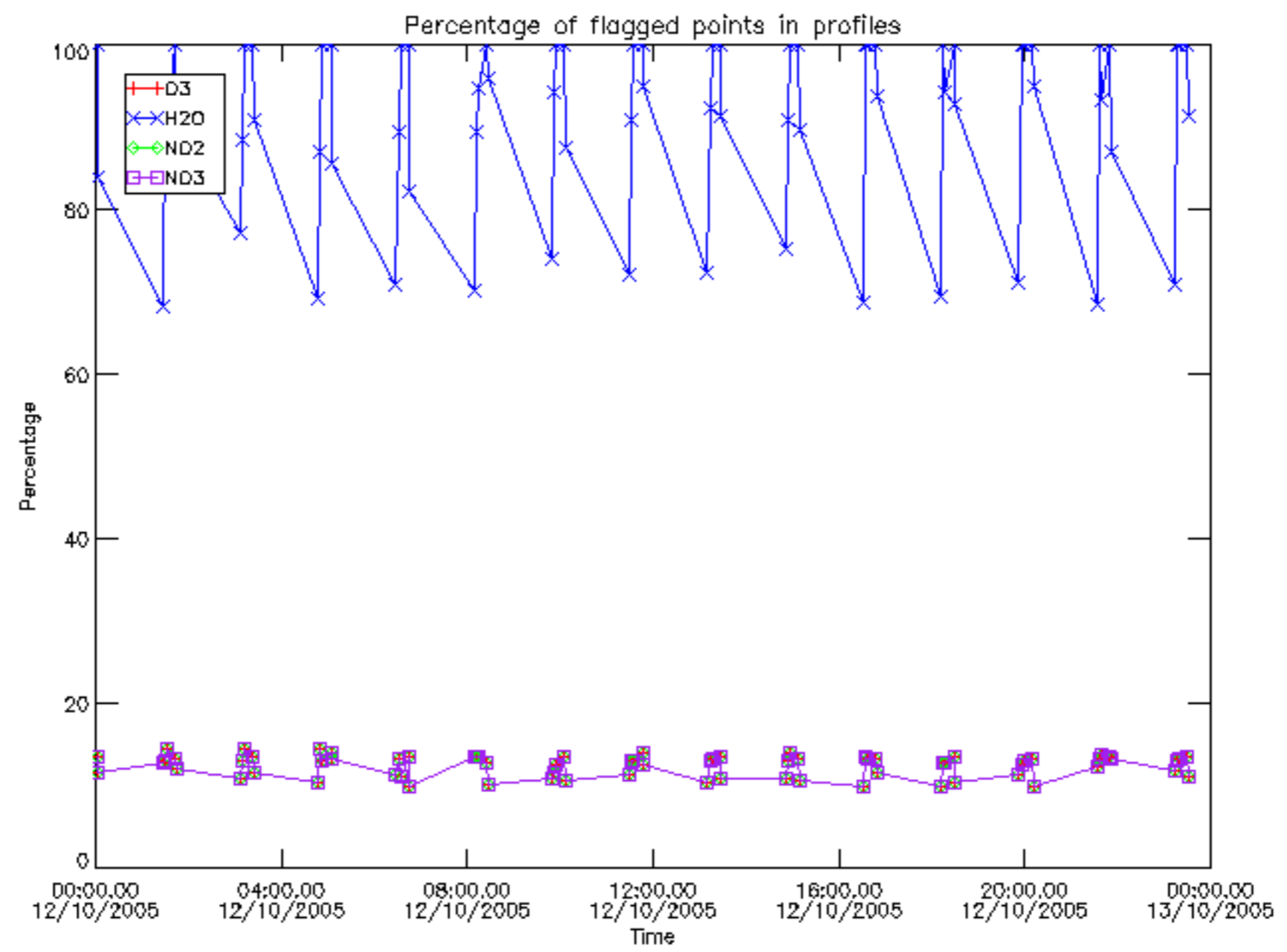




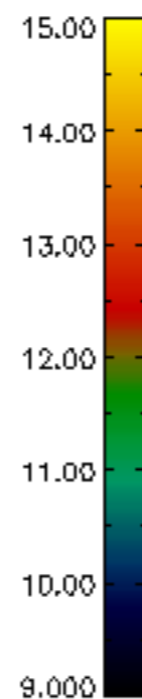
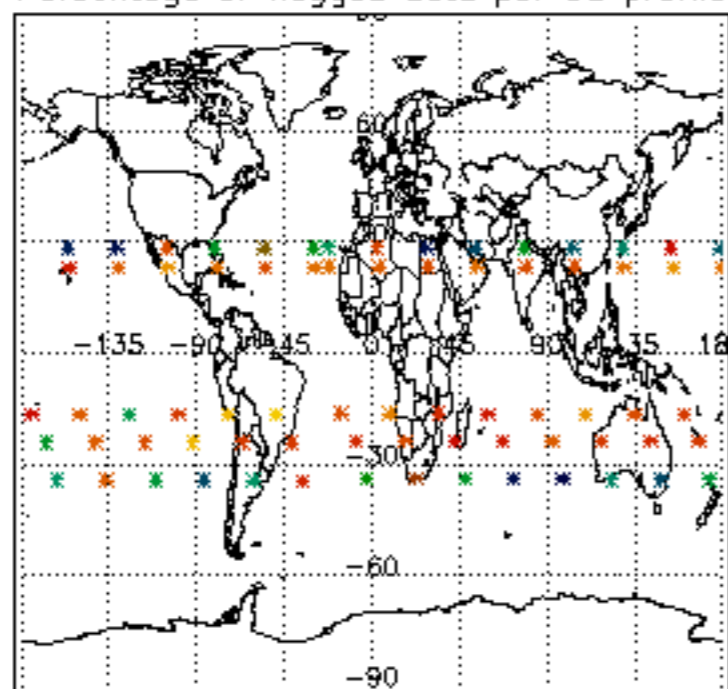




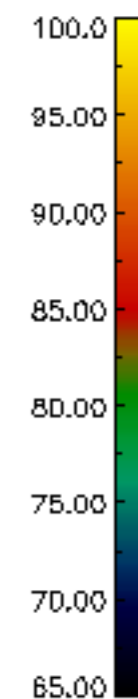
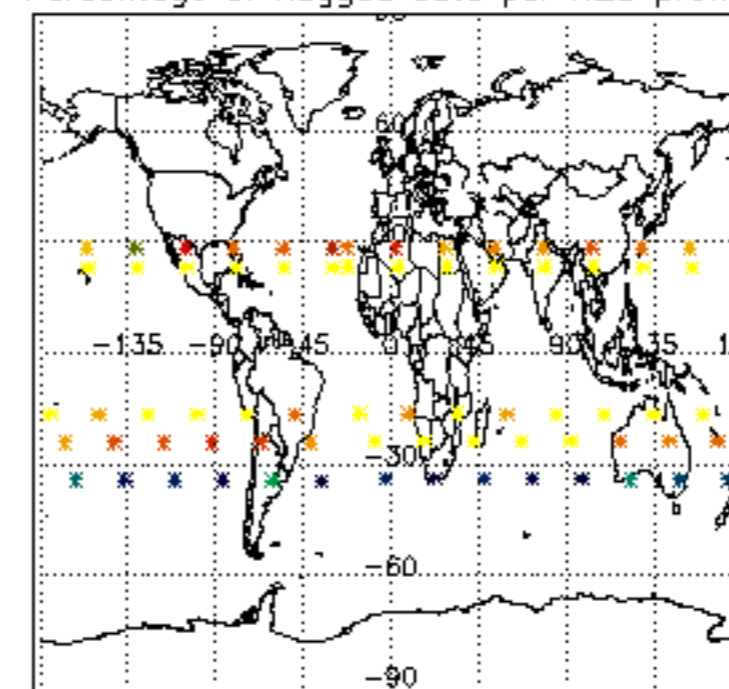




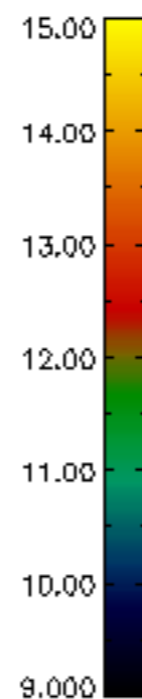
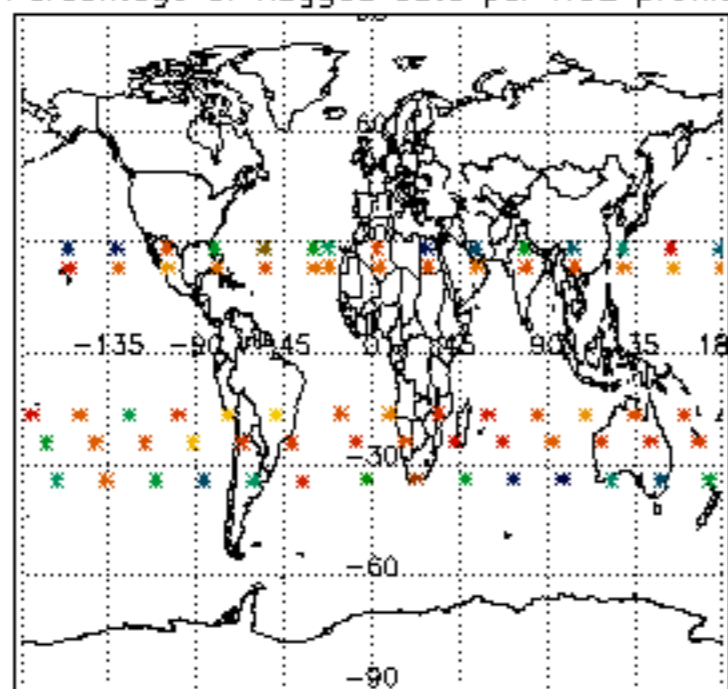
Percentage of flagged data per D3 profile



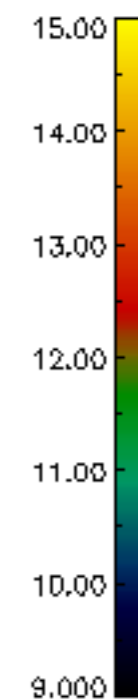
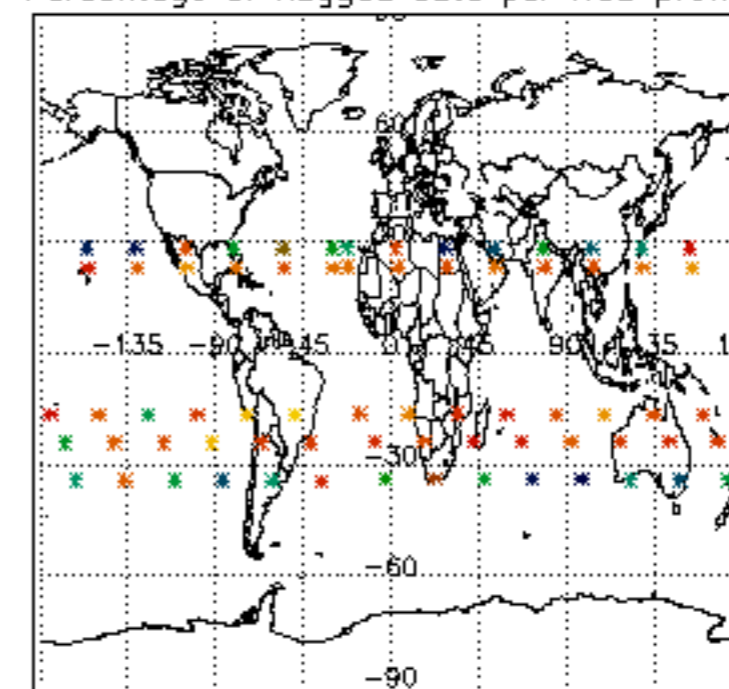
Percentage of flagged data per H2O profile

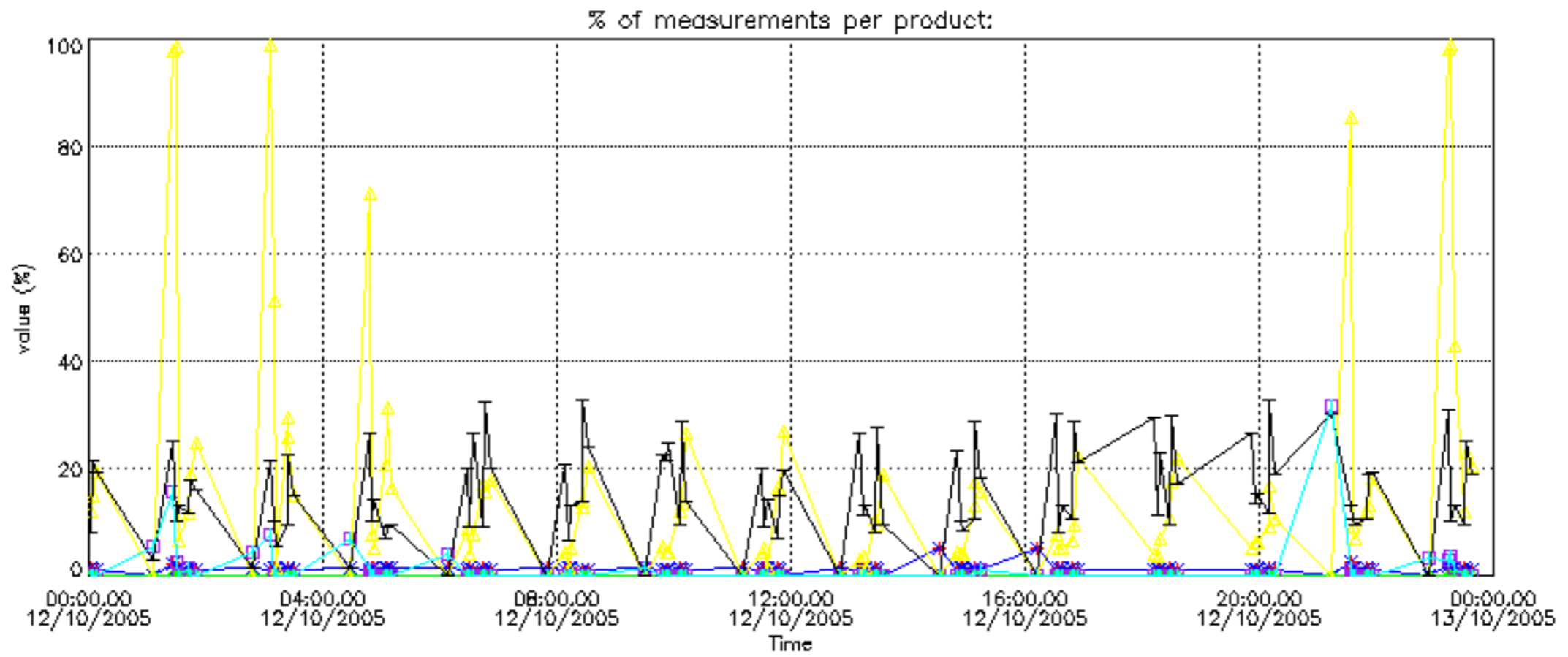


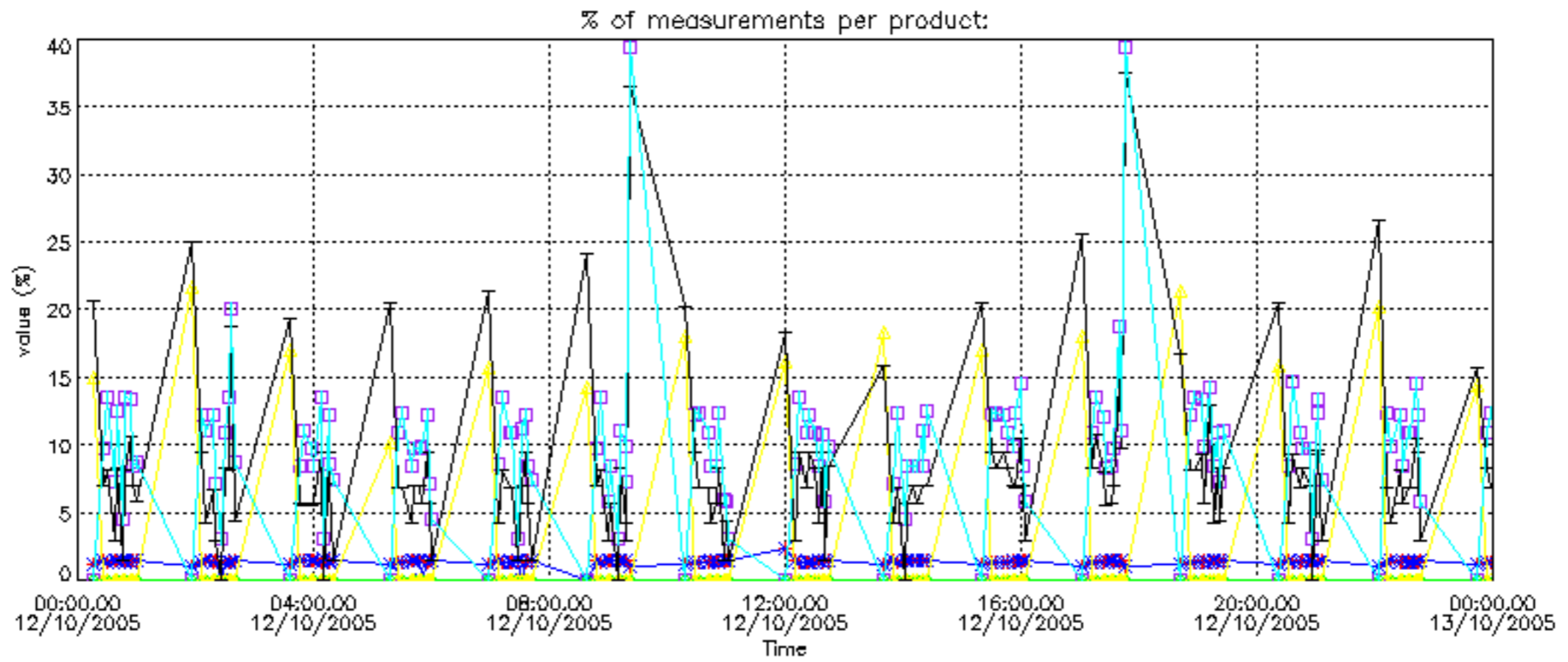
Percentage of flagged data per NO2 profile



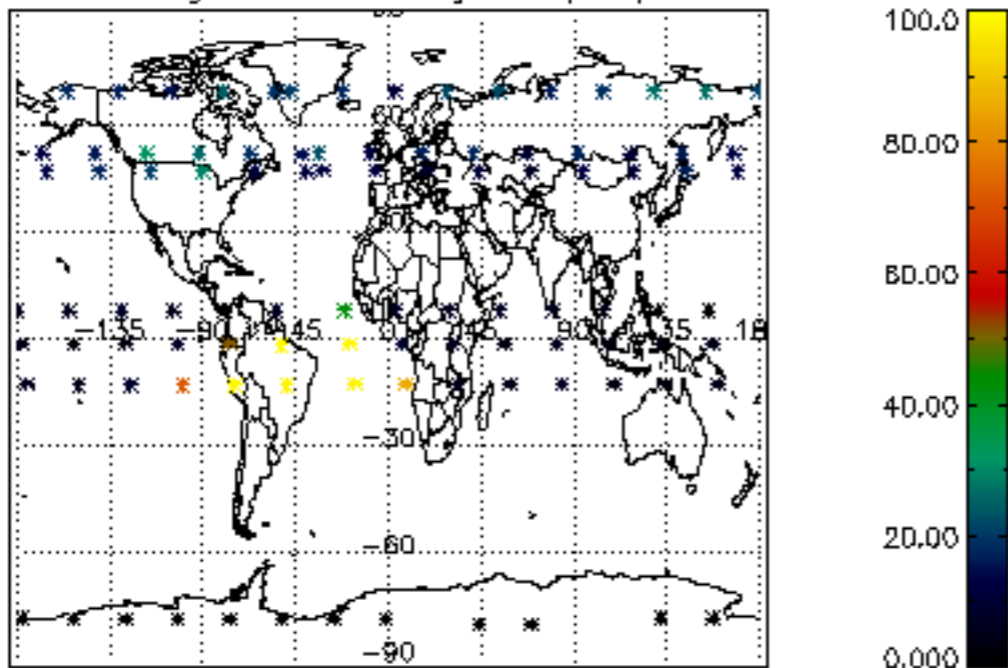
Percentage of flagged data per NO3 profile



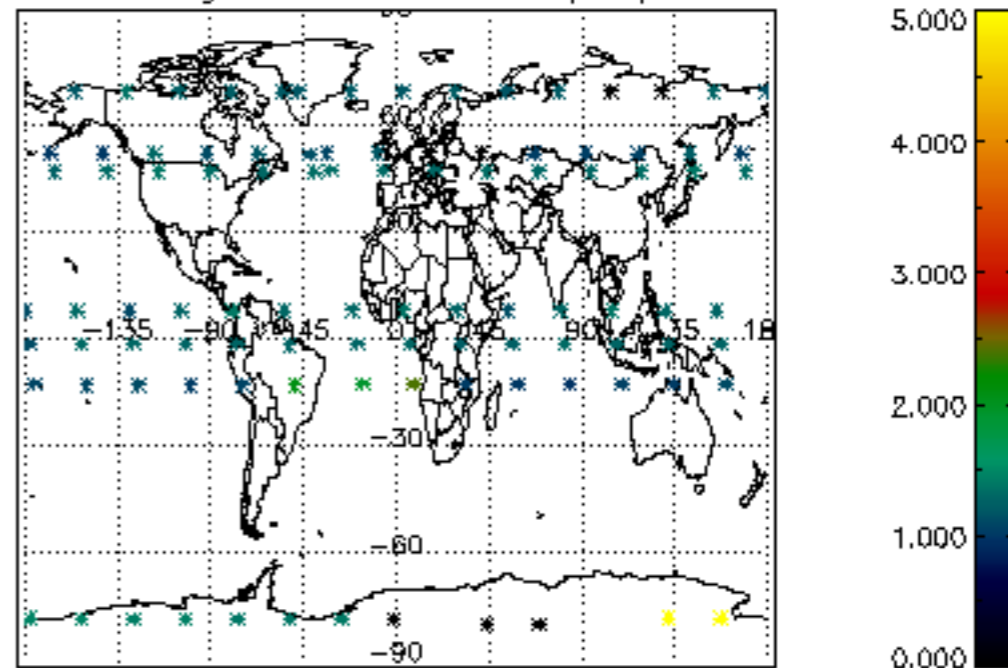




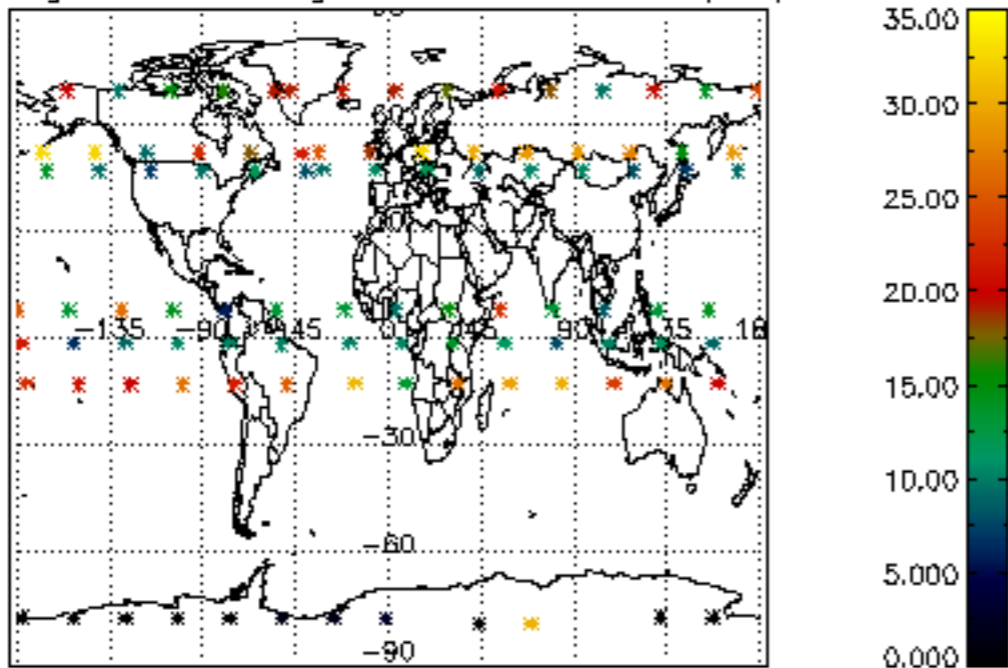
Percentage of cosmic ray hits per profile



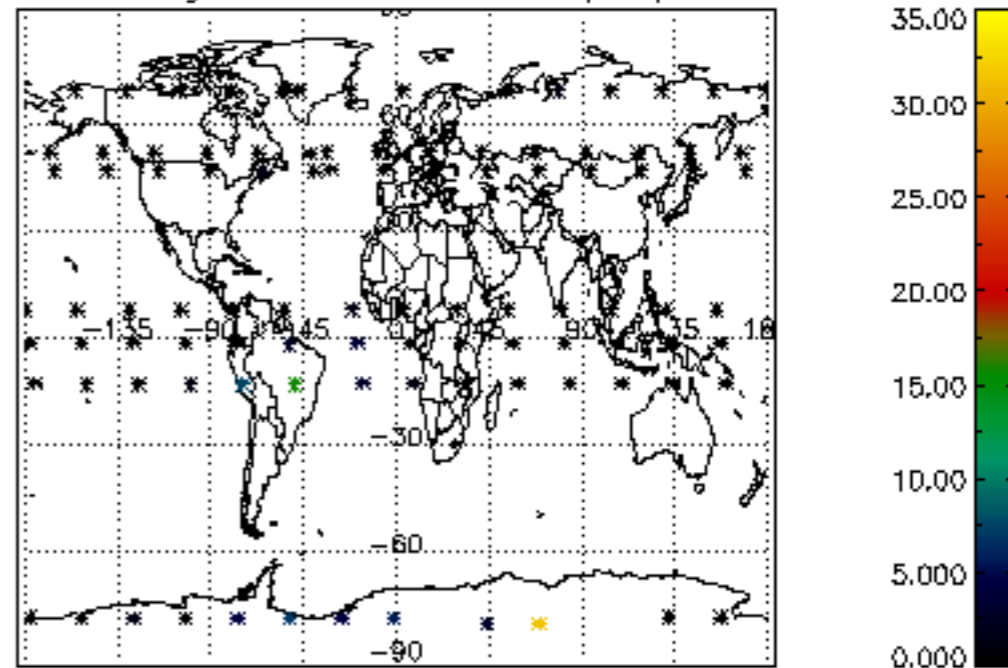
Percentage of datation errors per profile



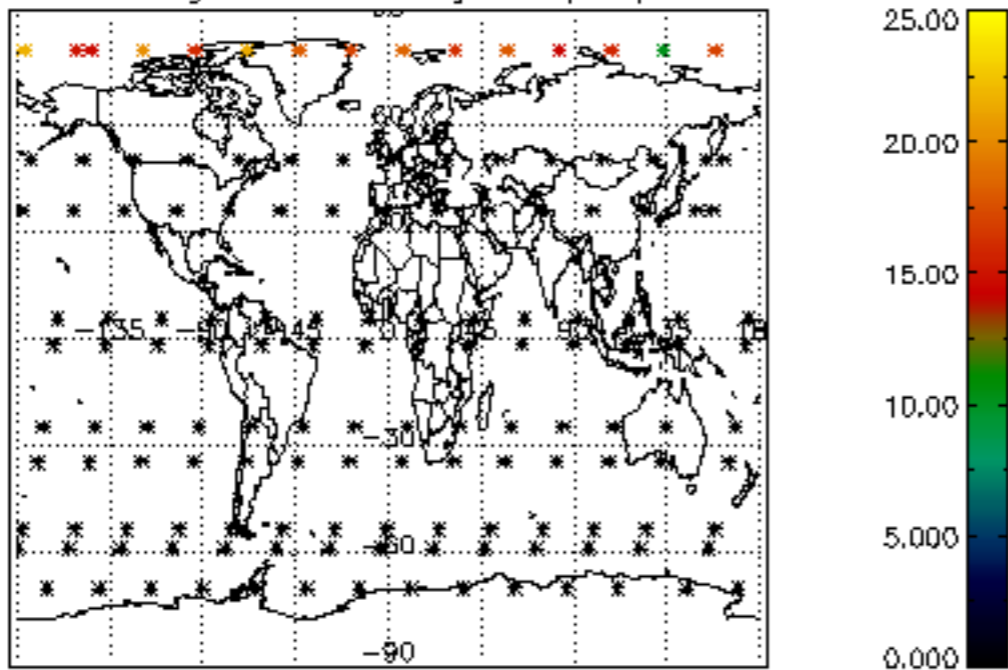
Percentage of star falling outside central band per profile



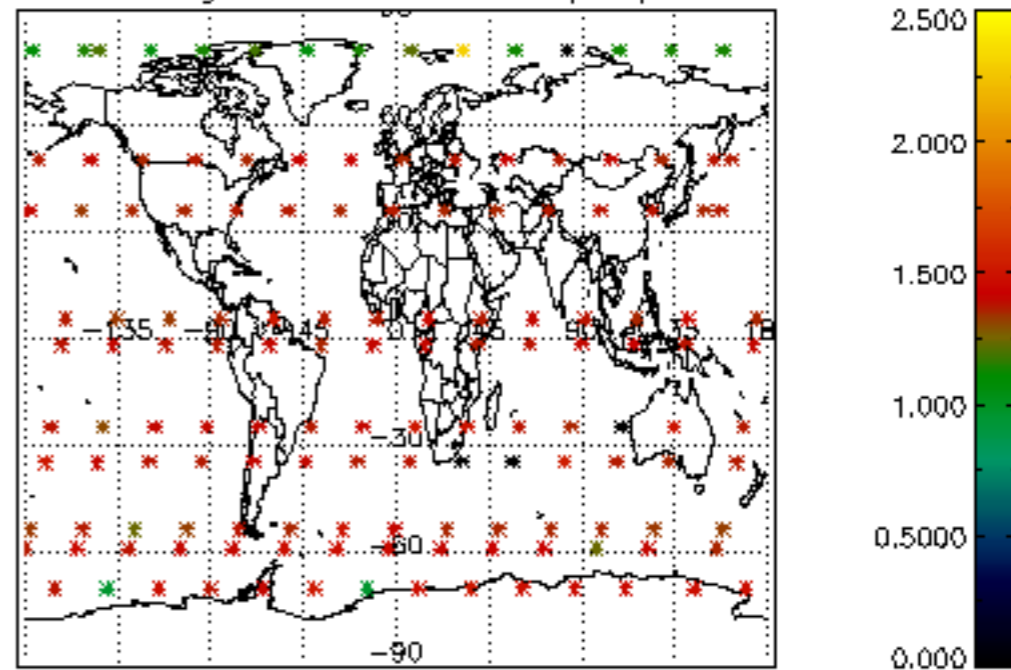
Percentage of saturation errors per profile



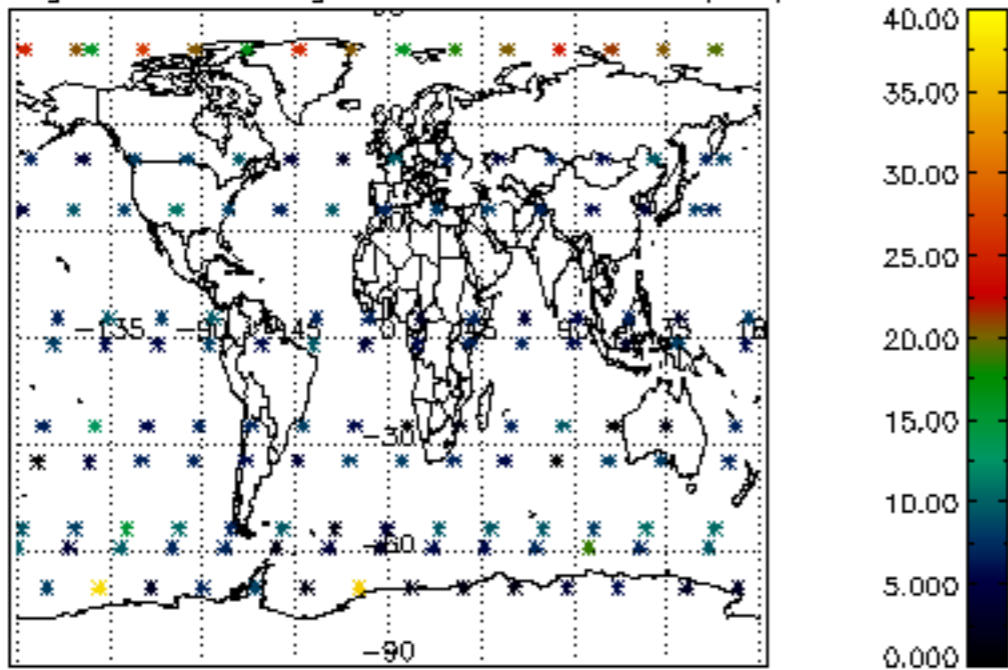
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

