

# GOMOS Level 2 Daily Report

## SUMMARY

### [1. General Info](#)

### [2. Summary of processed GOM\\_NL\\_2P products](#)

### [3. Level 2 Quality information per product](#)

#### [3.1 Plot of level 2 quality information per product \(time dependant\)](#)

#### [3.2 Plot of level 2 quality information per product \(world map\)](#)

### [4. Level 1 Quality information per product \(stored on level 2 products\)](#)

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

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

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

#### [4.2 Plot of level 1 quality information per product \(world map\)](#)

##### [4.2.1 Plot of level 1 quality information per product \(world map\): ASCENDING](#)

##### [4.2.2 Plot of level 1 quality information per product \(world map\): DESCENDING](#)

### [5. Ozone profiles based on quality statistics and other trace gas profiles](#)

#### [5.1 Ozone statistics based on quality of products](#)

#### [5.2 Plot ozone profiles for all STD \(dark without errors\)](#)

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

#### [5.4. Plot ozone profiles where STD < 10% \(dark without errors\)](#)

#### [5.5. Plot ozone profiles where STD < 5% \(dark without errors\)](#)

#### [5.6 Plot NO2 profiles for all STD \(dark without errors\)](#)

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

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

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









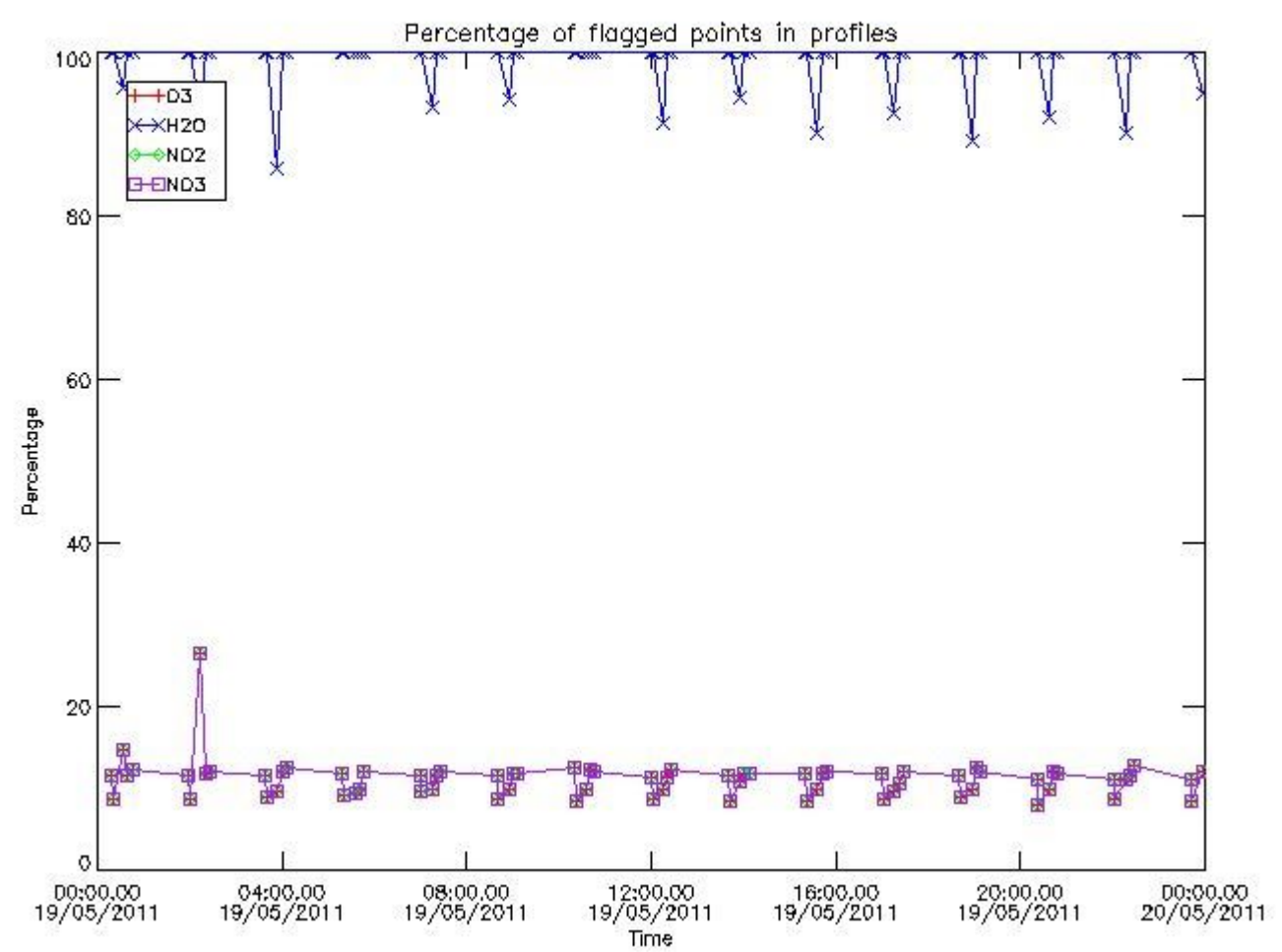


279	GOM_NL__2PRFIN20110519_210755_000000563102_00345_48204_9784.N1	19-MAY-2011 21:07:55	Bright	56.000	86	35Eta Oph	2.4300	10200.	112	48204	No
280	GOM_NL__2PRFIN20110519_211000_000000493102_00345_48204_9785.N1	19-MAY-2011 21:10:00	Bright	48.500	98	13Zet Oph	2.5710	30000.	97	48204	No
281	GOM_NL__2PRFIN20110519_211224_000000473102_00345_48204_9786.N1	19-MAY-2011 21:12:24	Bright	46.500	120	1Del Oph	2.7340	3200.0	93	48204	No
282	GOM_NL__2PRFIN20110519_211530_000000423102_00345_48204_9787.N1	19-MAY-2011 21:15:30	Bright	41.500	102	24Alp Ser	2.6000	4250.0	83	48204	No
283	GOM_NL__2PRFIN20110519_212142_000000413102_00345_48204_9788.N1	19-MAY-2011 21:21:42	Bright	41.000	67	5Alp CrB	2.2210	11000.	82	48204	No
284	GOM_NL__2PRFIN20110519_212533_000000533102_00345_48204_9789.N1	19-MAY-2011 21:25:33	Bright	52.500	133	40Zet Her	2.8070	6000.0	105	48204	No
285	GOM_NL__2PRFIN20110519_213237_000000443102_00345_48204_9790.N1	19-MAY-2011 21:32:37	Bright	43.500	119	14Eta Dra	2.7270	4700.0	87	48204	No
286	GOM_NL__2PRFIN20110519_213433_000000543102_00345_48204_9791.N1	19-MAY-2011 21:34:33	Bright	54.000	69	33Gam Dra	2.2310	3800.0	108	48204	No
287	GOM_NL__2PRFIN20110519_214328_000000453102_00345_48204_9792.N1	19-MAY-2011 21:43:28	Bright	45.000	89	5Alp Cep	2.4510	8000.0	90	48204	No
288	GOM_NL__2PRFIN20110519_214727_000000373102_00345_48204_9793.N1	19-MAY-2011 21:47:27	Bright	36.500	74	11Bet Cas	2.2680	6600.0	73	48204	No
289	GOM_NL__2PRFIN20110519_215654_000000483102_00345_48204_9794.N1	19-MAY-2011 21:56:54	Twilight	47.500	58	21Alp And	2.0730	11000.	95	48204	No
290	GOM_NL__2PRFIN20110519_220112_000000463102_00345_48204_9795.N1	19-MAY-2011 22:01:12	Dark	45.500	140	88Gam Peg	2.8340	26000.	91	48204	No
291	GOM_NL__2PRFIN20110519_220305_000000583102_00345_48204_9796.N1	19-MAY-2011 22:03:05	Dark	58.000	90	54Alp Peg	2.4870	11000.	116	48204	No
292	GOM_NL__2PRFIN20110519_221700_000000513102_00345_48204_9797.N1	19-MAY-2011 22:17:00	Dark	50.500	18	24Alp PsA	1.1660	9700.0	101	48204	No
293	GOM_NL__2PRFIN20110519_222244_000000453102_00346_48205_9855.N1	19-MAY-2011 22:22:44	Dark	44.500	31	Alp Gru	1.7340	15200.	89	48205	No
294	GOM_NL__2PRFIN20110519_222811_000000443102_00346_48205_9856.N1	19-MAY-2011 22:28:11	Dark	43.500	45	Alp Pav	1.9400	26000.	87	48205	No
295	GOM_NL__2PRFIN20110519_223613_000000413102_00346_48205_9857.N1	19-MAY-2011 22:36:13	Straylight	41.000	147	Alp Ara	2.8770	26000.	82	48205	No
296	GOM_NL__2PRFIN20110519_223748_000000533102_00346_48205_9858.N1	19-MAY-2011 22:37:48	Straylight	53.000	40	The Sco	1.8590	7100.0	106	48205	No
297	GOM_NL__2PRFIN20110519_223939_000000543102_00346_48205_9859.N1	19-MAY-2011 22:39:39	Straylight	53.500	25	35Lam Sco	1.6200	28000.	107	48205	No
298	GOM_NL__2PRFIN20110519_224148_000000513102_00346_48205_9860.N1	19-MAY-2011 22:41:48	Twilight	51.000	75	26Eps Sco	2.2910	4250.0	102	48205	No
299	GOM_NL__2PRFIN20110519_224444_000000593102_00346_48205_9861.N1	19-MAY-2011 22:44:44	Twilight	59.000	16	21Alp Sco	1.0200	3000.0	118	48205	No
300	GOM_NL__2PRFIN20110519_224621_000000563102_00346_48205_9862.N1	19-MAY-2011 22:46:21	Bright	55.500	80	7Del Sco	2.3160	30000.	111	48205	No
301	GOM_NL__2PRFIN20110519_224809_000000563102_00346_48205_9863.N1	19-MAY-2011 22:48:09	Bright	55.500	86	35Eta Oph	2.4300	10200.	111	48205	No
302	GOM_NL__2PRFIN20110519_225014_000000493102_00346_48205_9864.N1	19-MAY-2011 22:50:14	Bright	49.000	98	13Zet Oph	2.5710	30000.	98	48205	No
303	GOM_NL__2PRFIN20110519_225237_000000463102_00346_48205_9865.N1	19-MAY-2011 22:52:37	Bright	46.000	120	1Del Oph	2.7340	3200.0	92	48205	No
304	GOM_NL__2PRFIN20110519_225543_000000413102_00346_48205_9866.N1	19-MAY-2011 22:55:43	Bright	41.000	102	24Alp Ser	2.6000	4250.0	82	48205	No
305	GOM_NL__2PRFIN20110519_230156_000000423102_00346_48205_9867.N1	19-MAY-2011 23:01:56	Bright	41.500	67	5Alp CrB	2.2210	11000.	83	48205	No
306	GOM_NL__2PRFIN20110519_230547_000000513102_00346_48205_9868.N1	19-MAY-2011 23:05:47	Bright	50.500	133	40Zet Her	2.8070	6000.0	101	48205	No
307	GOM_NL__2PRFIN20110519_231250_000000413102_00346_48205_9869.N1	19-MAY-2011 23:12:50	Bright	41.000	119	14Eta Dra	2.7270	4700.0	82	48205	No
308	GOM_NL__2PRFIN20110519_231446_000000543102_00346_48205_9870.N1	19-MAY-2011 23:14:46	Bright	53.500	69	33Gam Dra	2.2310	3800.0	107	48205	No
309	GOM_NL__2PRFIN20110519_232342_000000443102_00346_48205_9871.N1	19-MAY-2011 23:23:42	Bright	44.000	89	5Alp Cep	2.4510	8000.0	88	48205	No
310	GOM_NL__2PRFIN20110519_232741_000000563102_00346_48205_9872.N1	19-MAY-2011 23:27:41	Bright	56.000	74	11Bet Cas	2.2680	6600.0	112	48205	No
311	GOM_NL__2PRFIN20110519_233708_000000483102_00346_48205_9873.N1	19-MAY-2011 23:37:08	Twilight	47.500	58	21Alp And	2.0730	11000.	95	48205	No
312	GOM_NL__2PRFIN20110519_234126_000000463102_00346_48205_9874.N1	19-MAY-2011 23:41:26	Dark	46.000	140	88Gam Peg	2.8340	26000.	92	48205	No
313	GOM_NL__2PRFIN20110519_234320_000000603102_00346_48205_9875.N1	19-MAY-2011 23:43:20	Dark	59.500	90	54Alp Peg	2.4870	11000.	119	48205	No
314	GOM_NL__2PRFIN20110519_235715_000000603102_00346_48205_9876.N1	19-MAY-2011 23:57:15	Dark	59.500	18	24Alp PsA	1.1660	9700.0	119	48205	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.

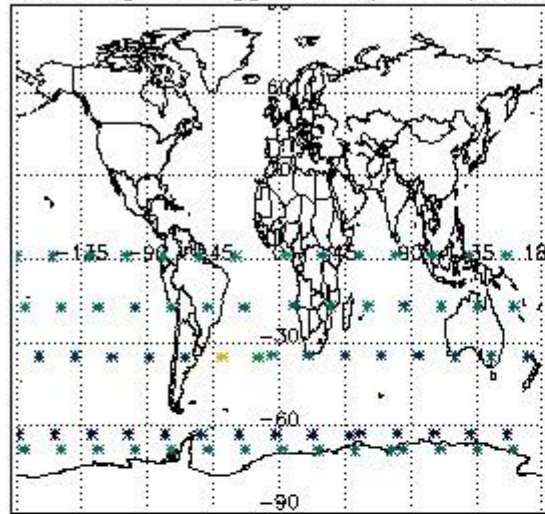
#### 3.1 Plot quality information per product (time dependant)



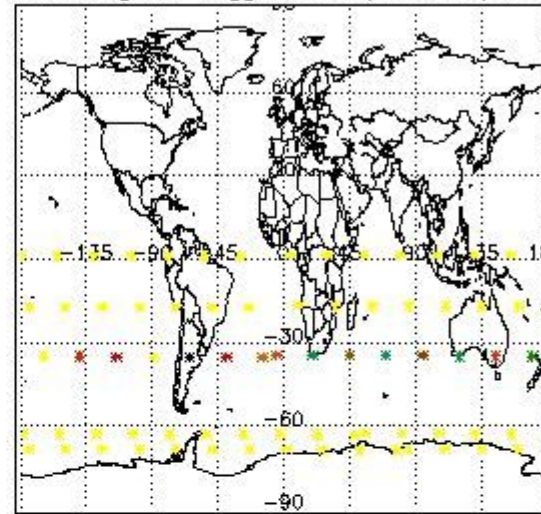
3.2 Plot quality information per product (world map)



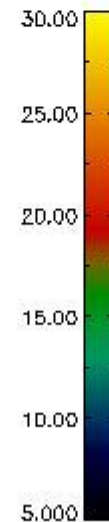
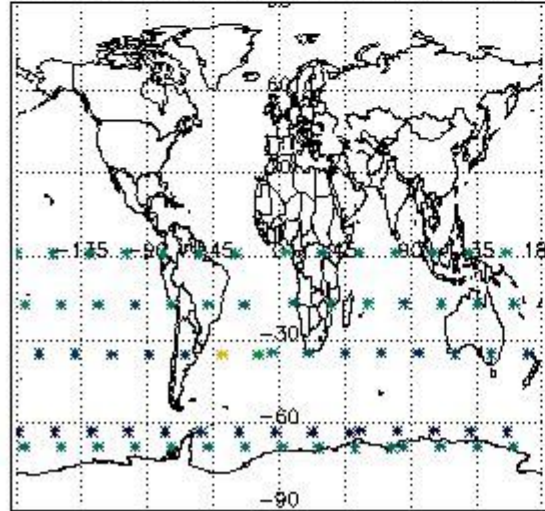
Percentage of flagged data per O3 profile



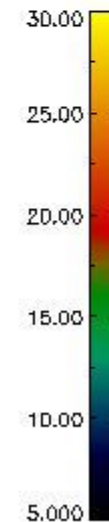
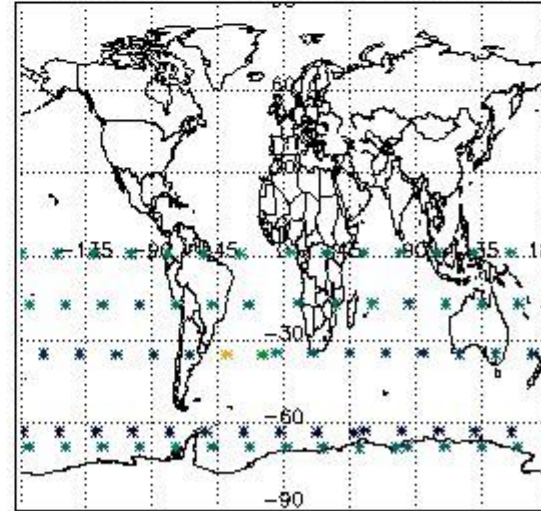
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

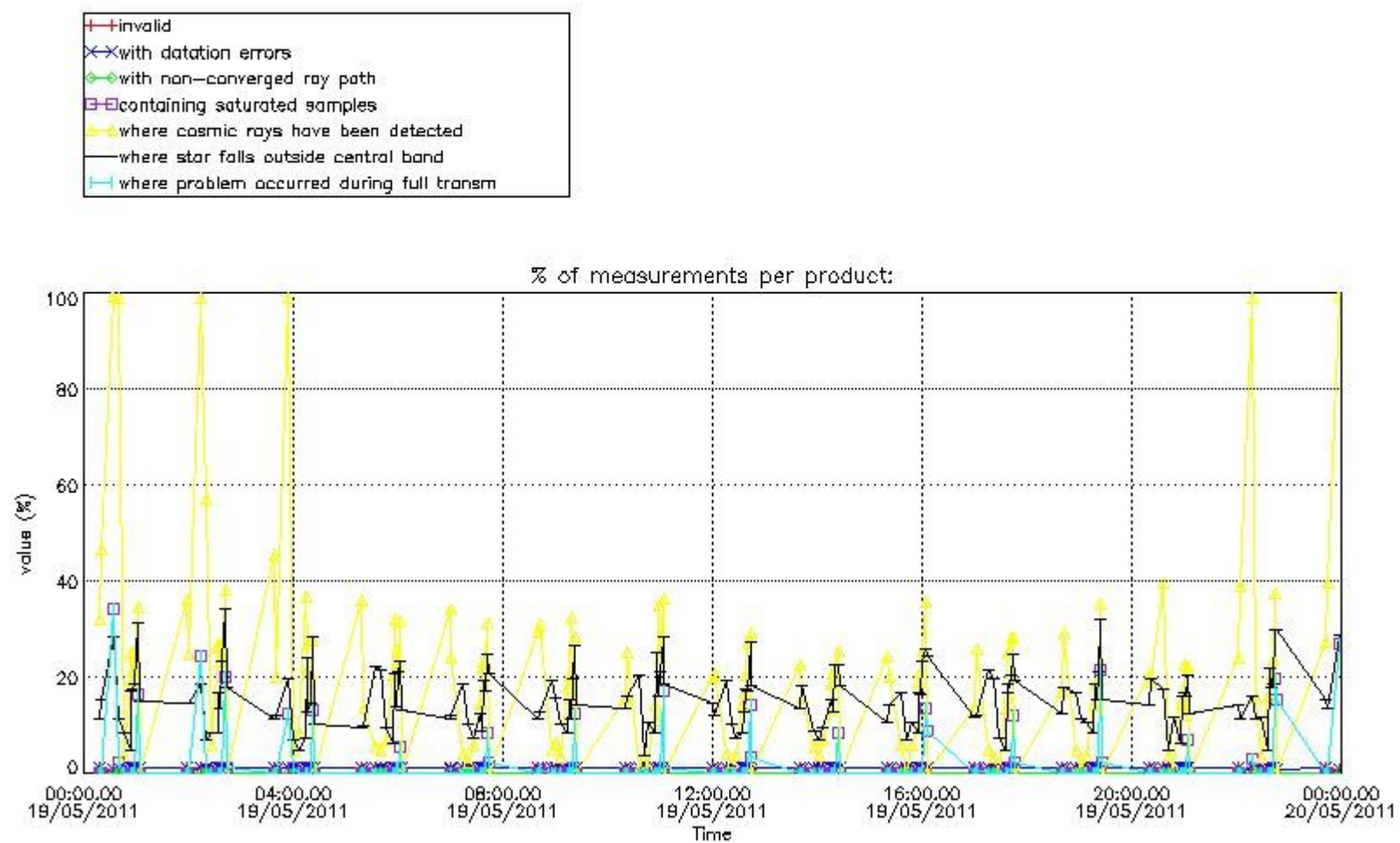


#### 4. Level 1 quality information per product

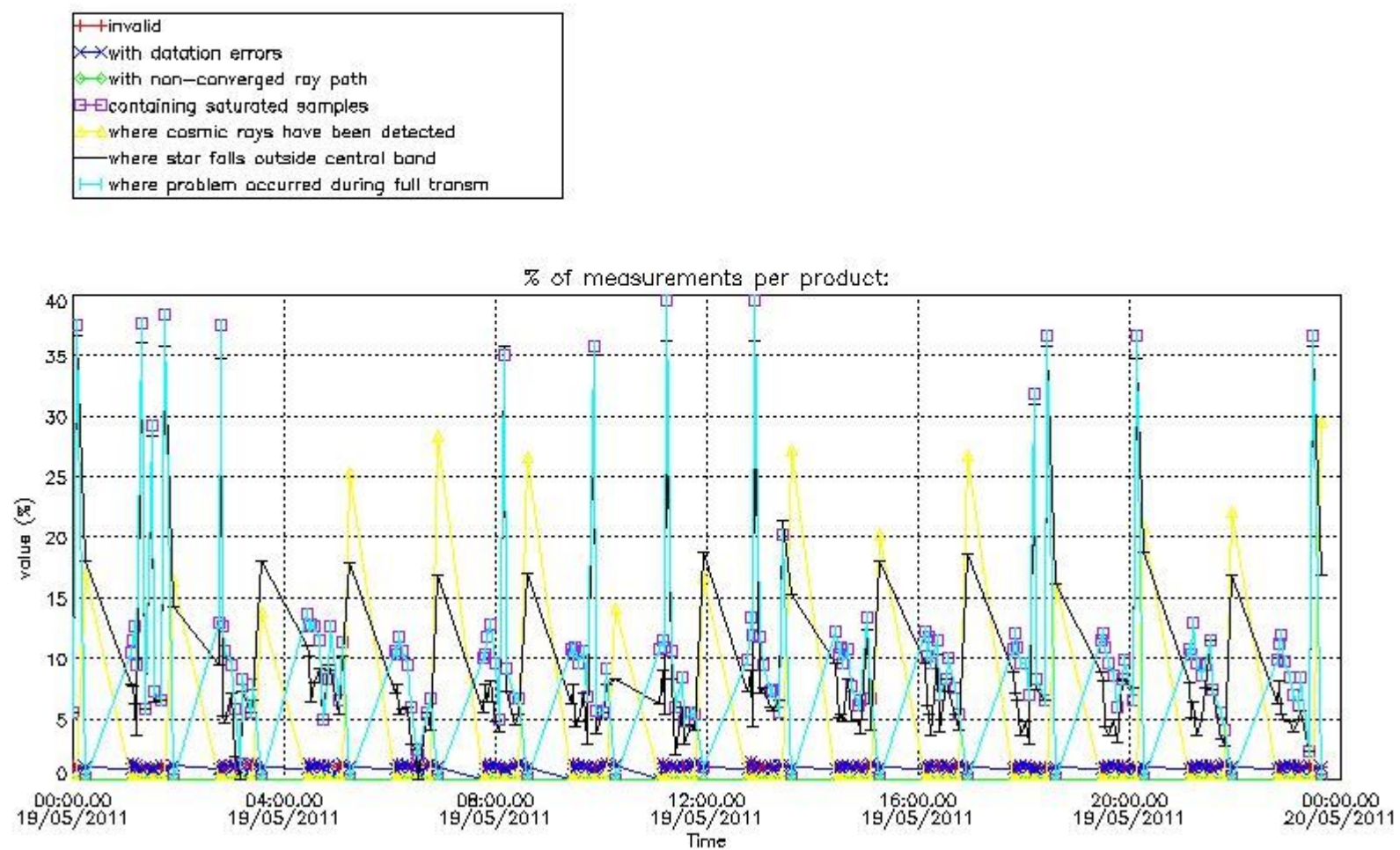
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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

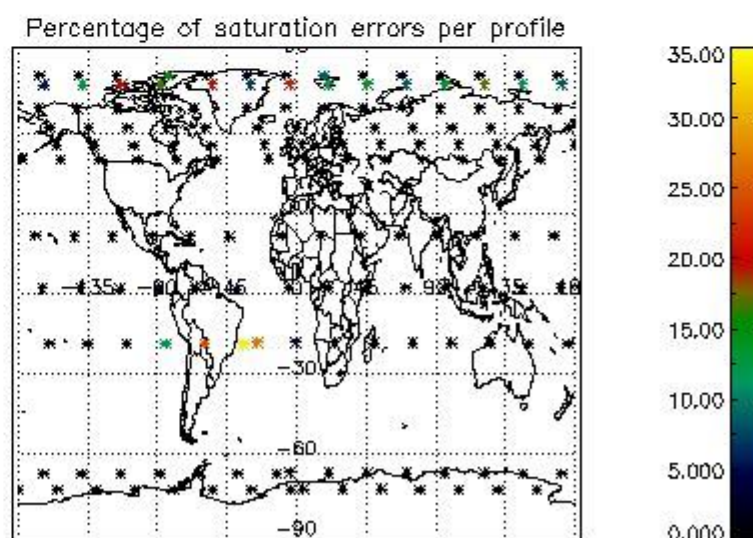
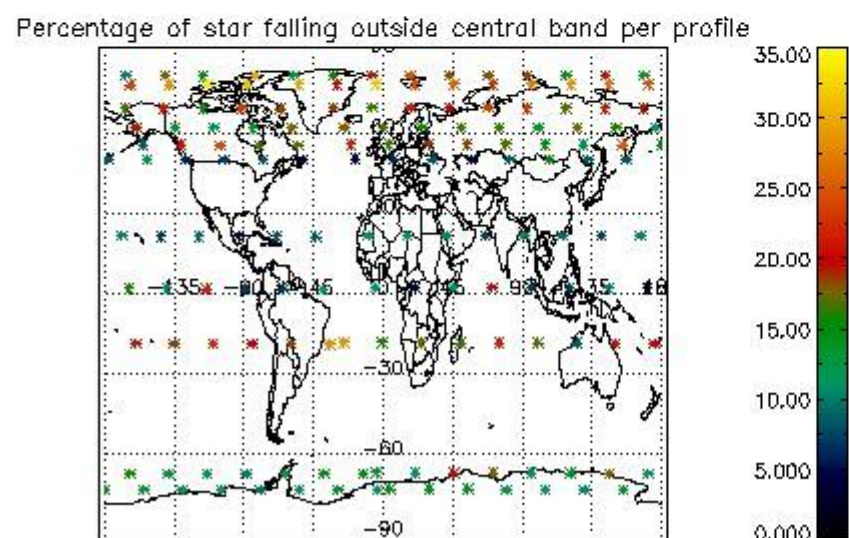
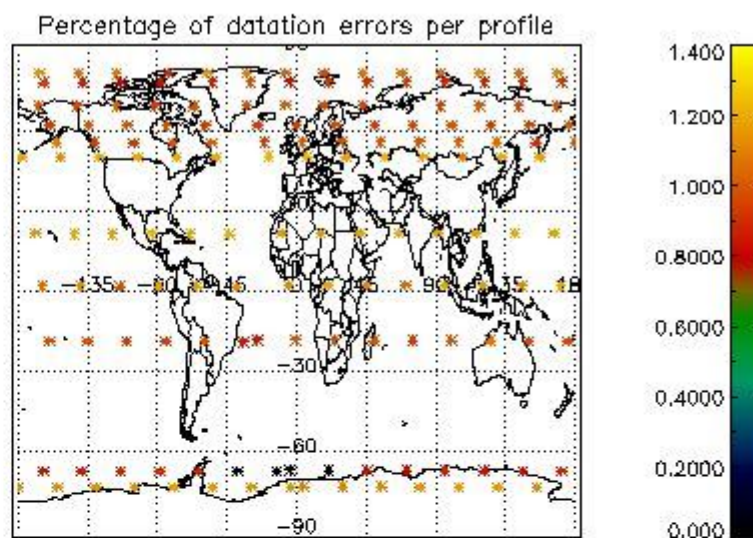
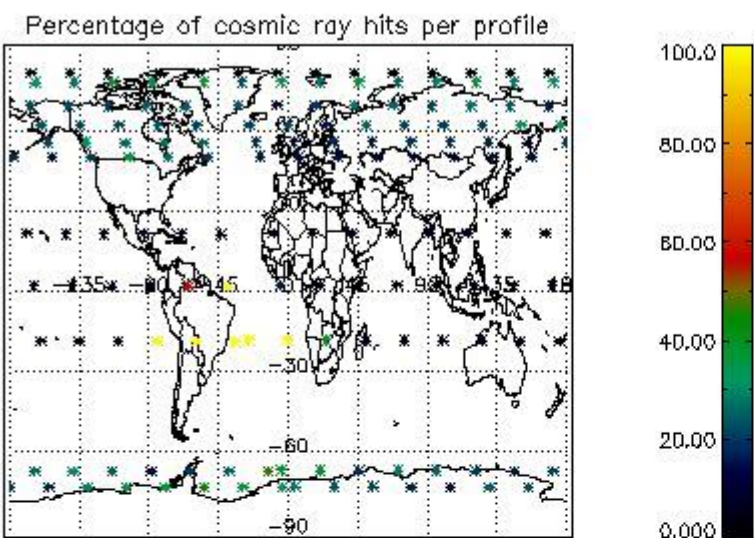


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

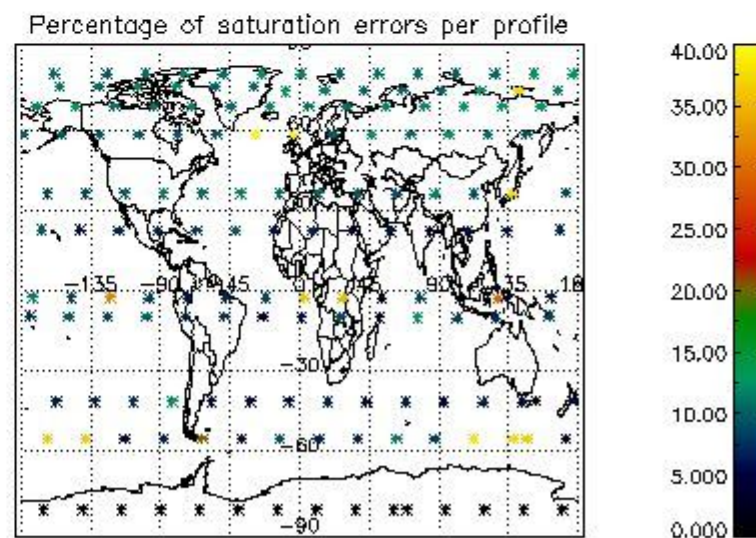
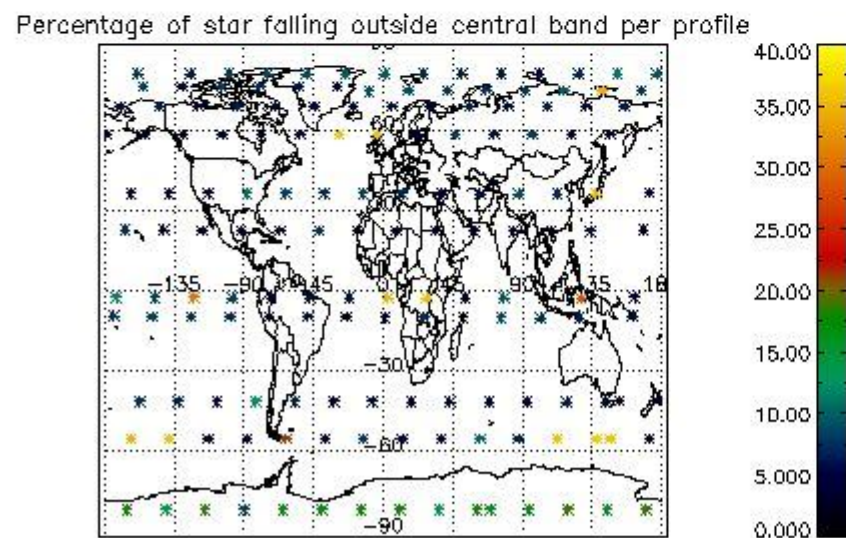
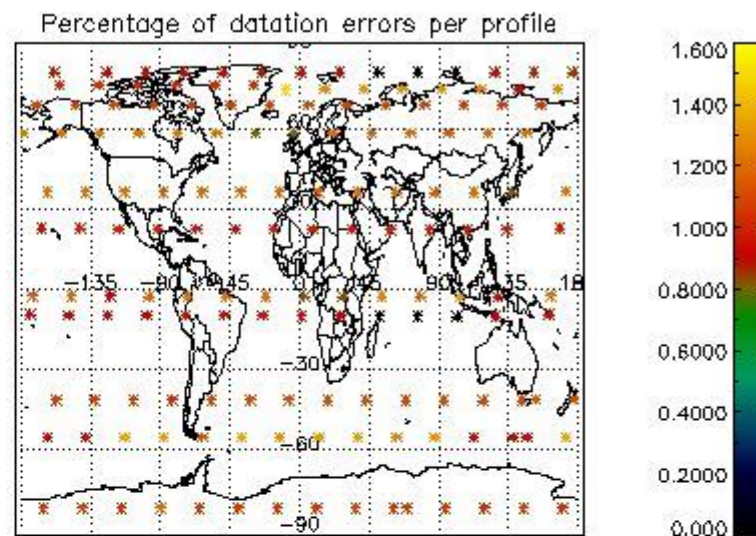
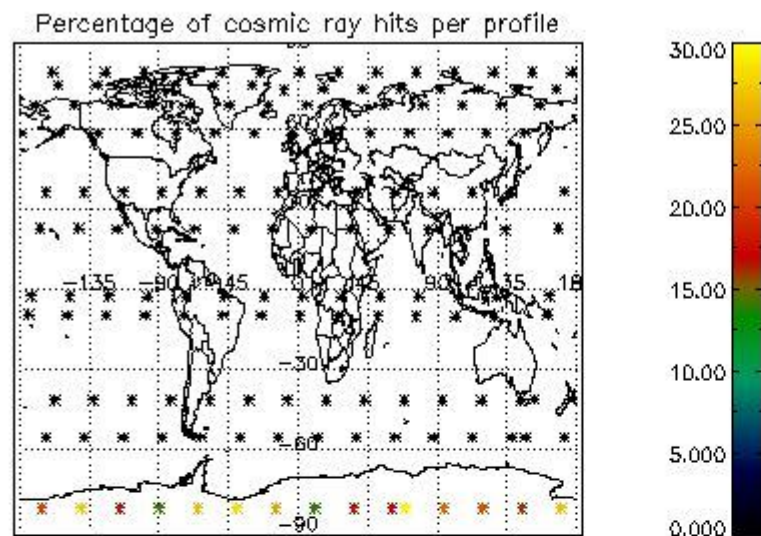


4.2 Plot quality information per product coming from level 1b processing (world map)

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

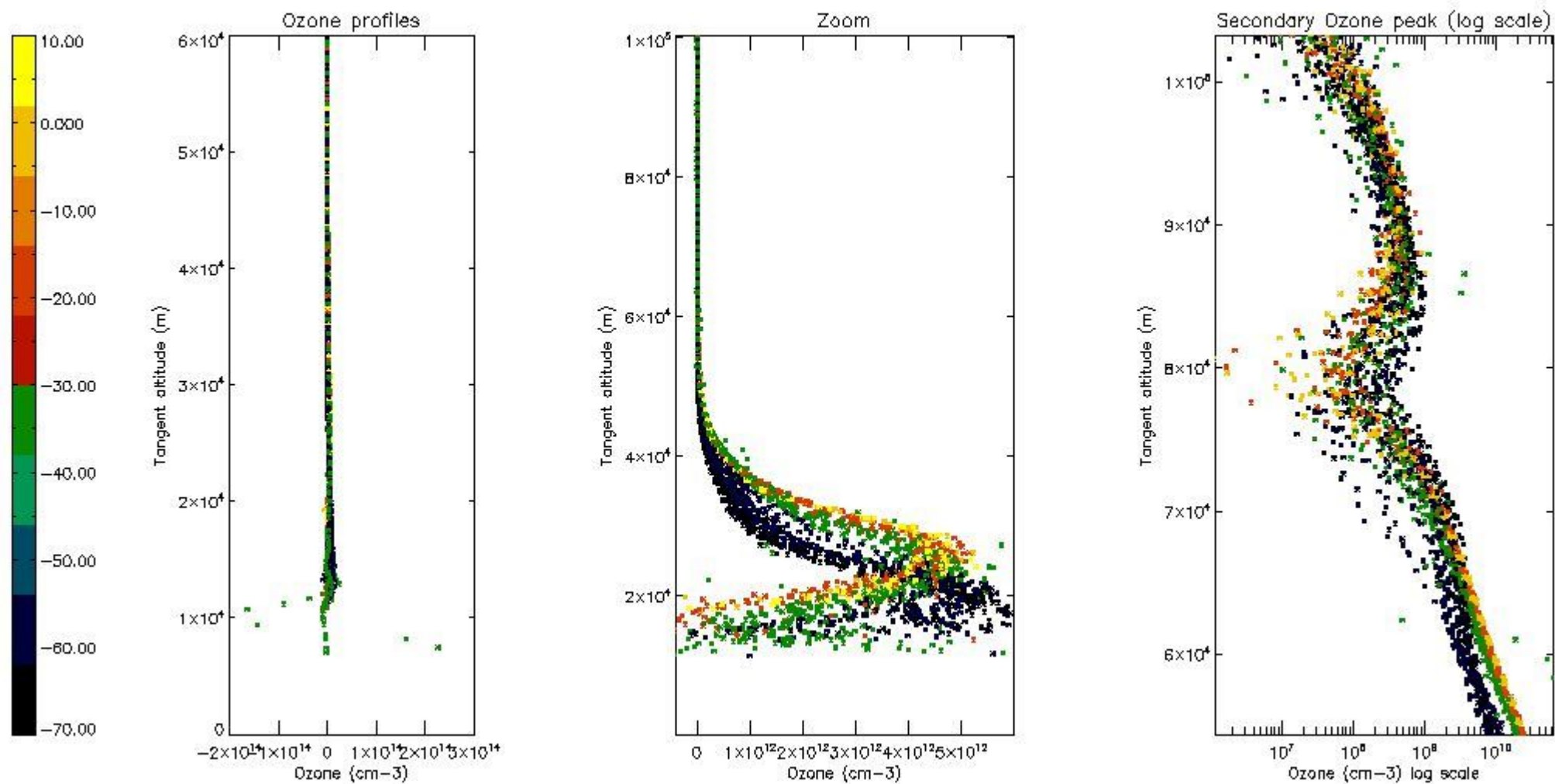
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	24
STD < 20	14

STD < 10	11
STD < 5	7

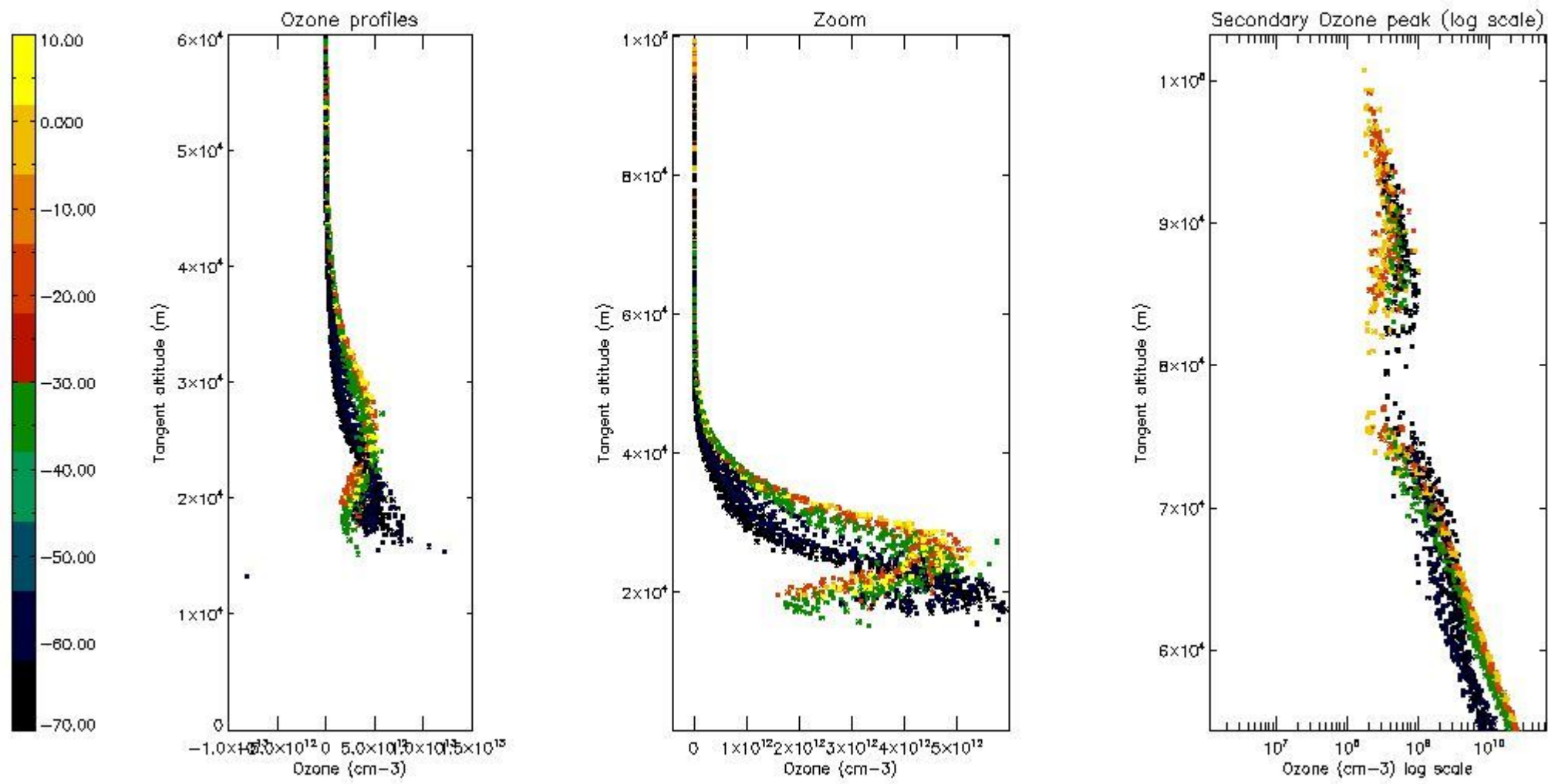
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



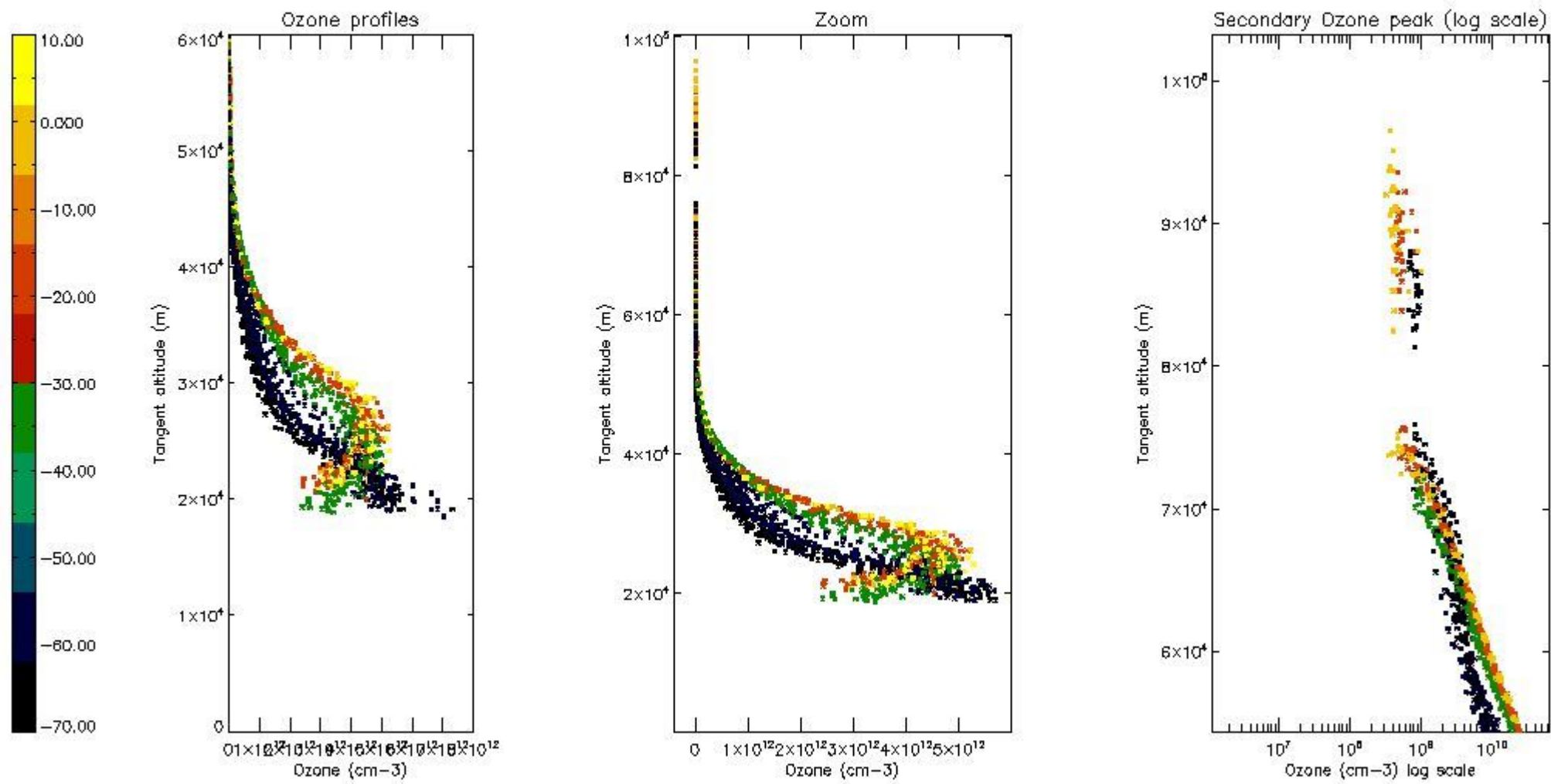
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



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

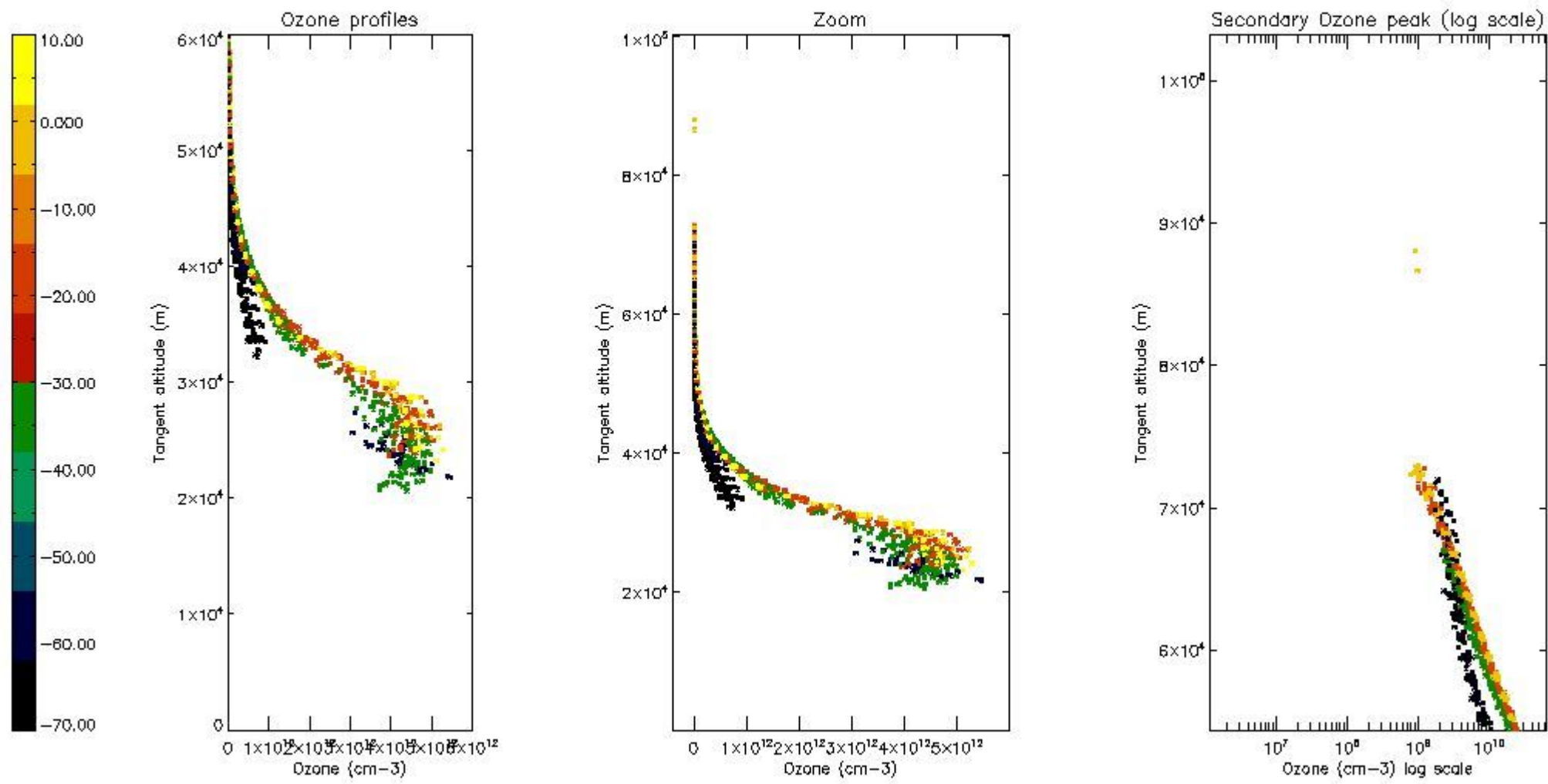
The colorbar represents the latitude.



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

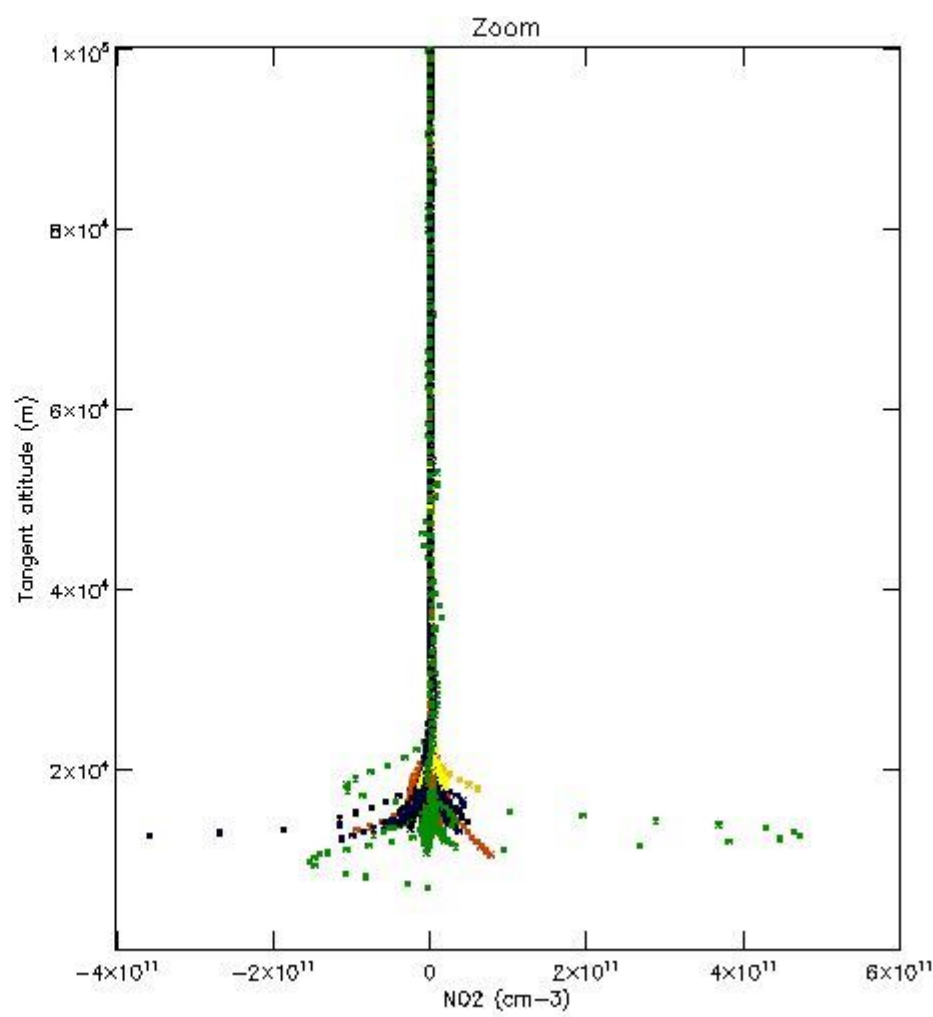
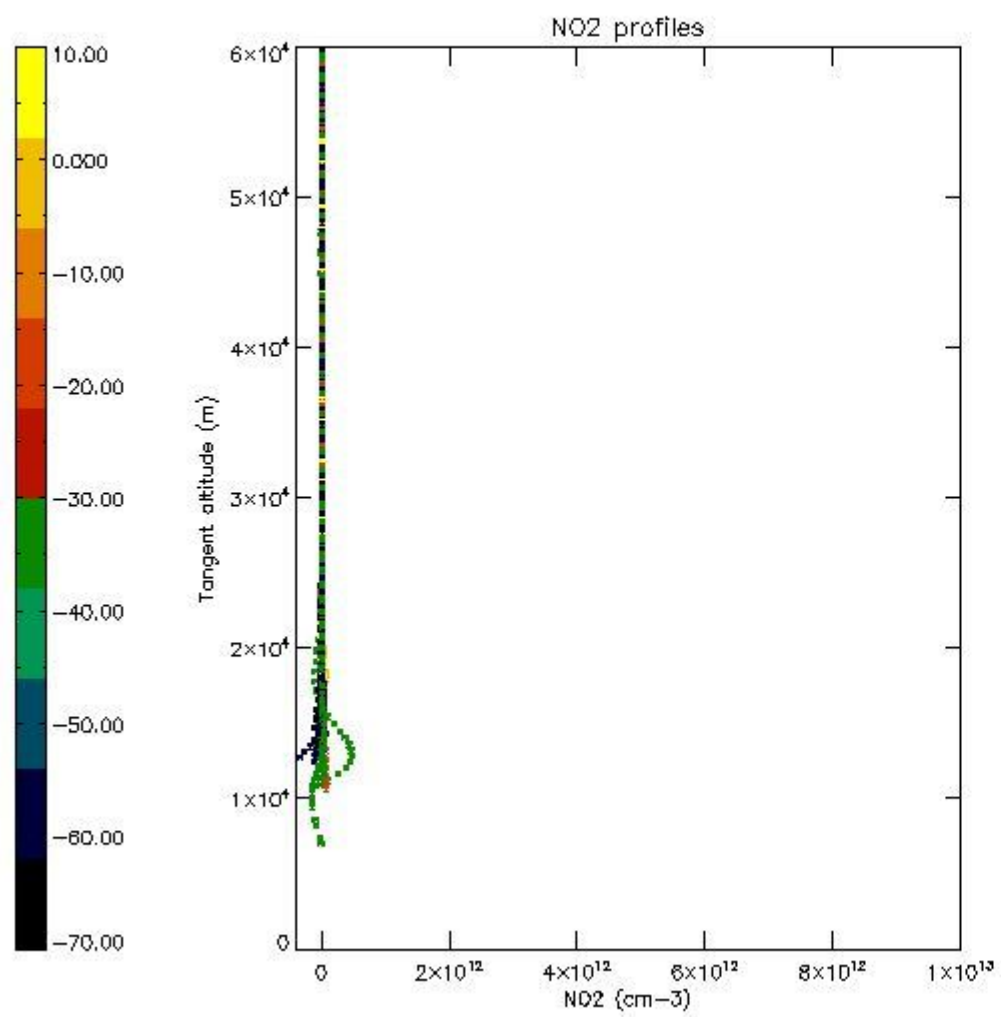
The colorbar represents the latitude.





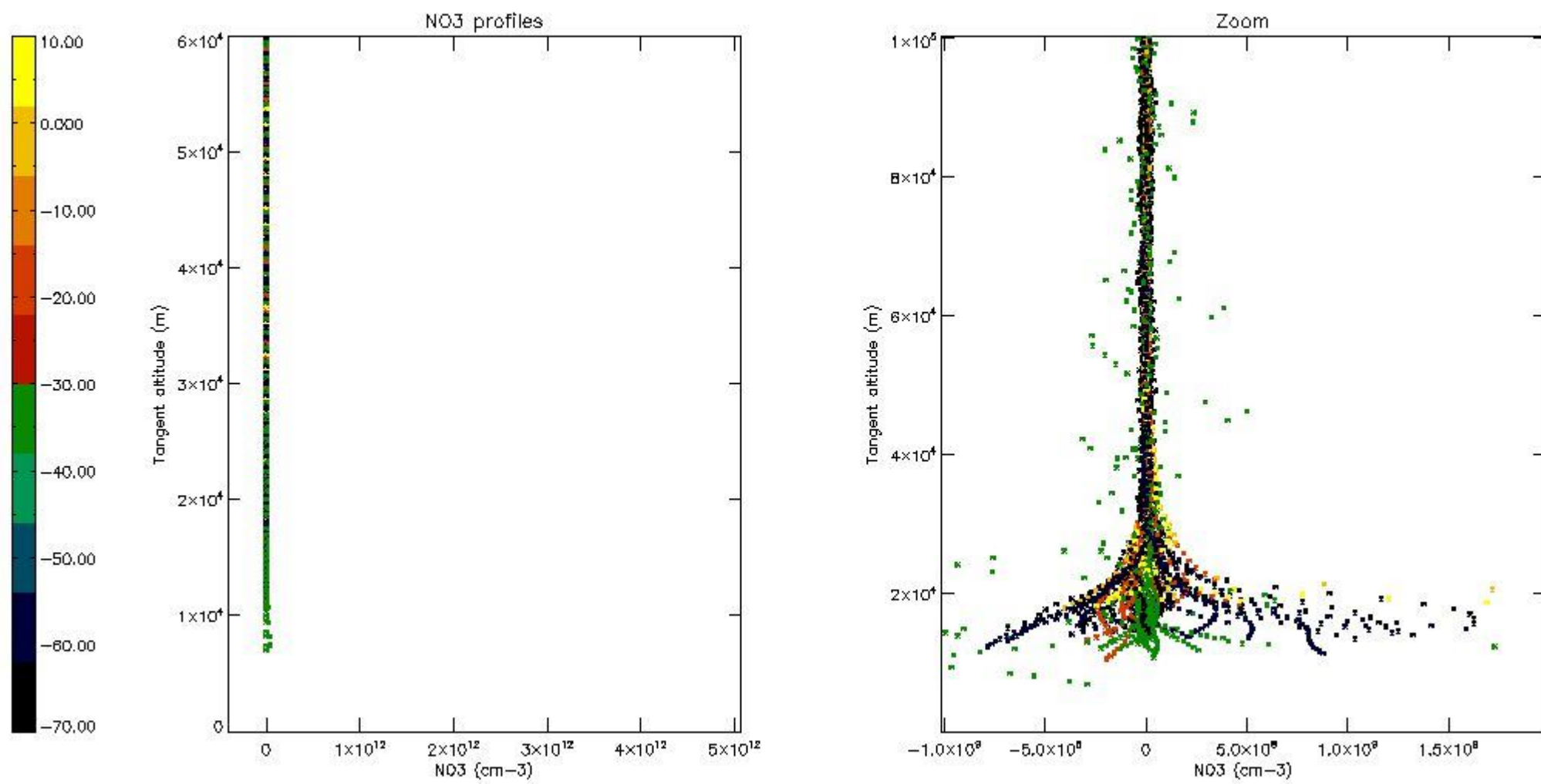
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



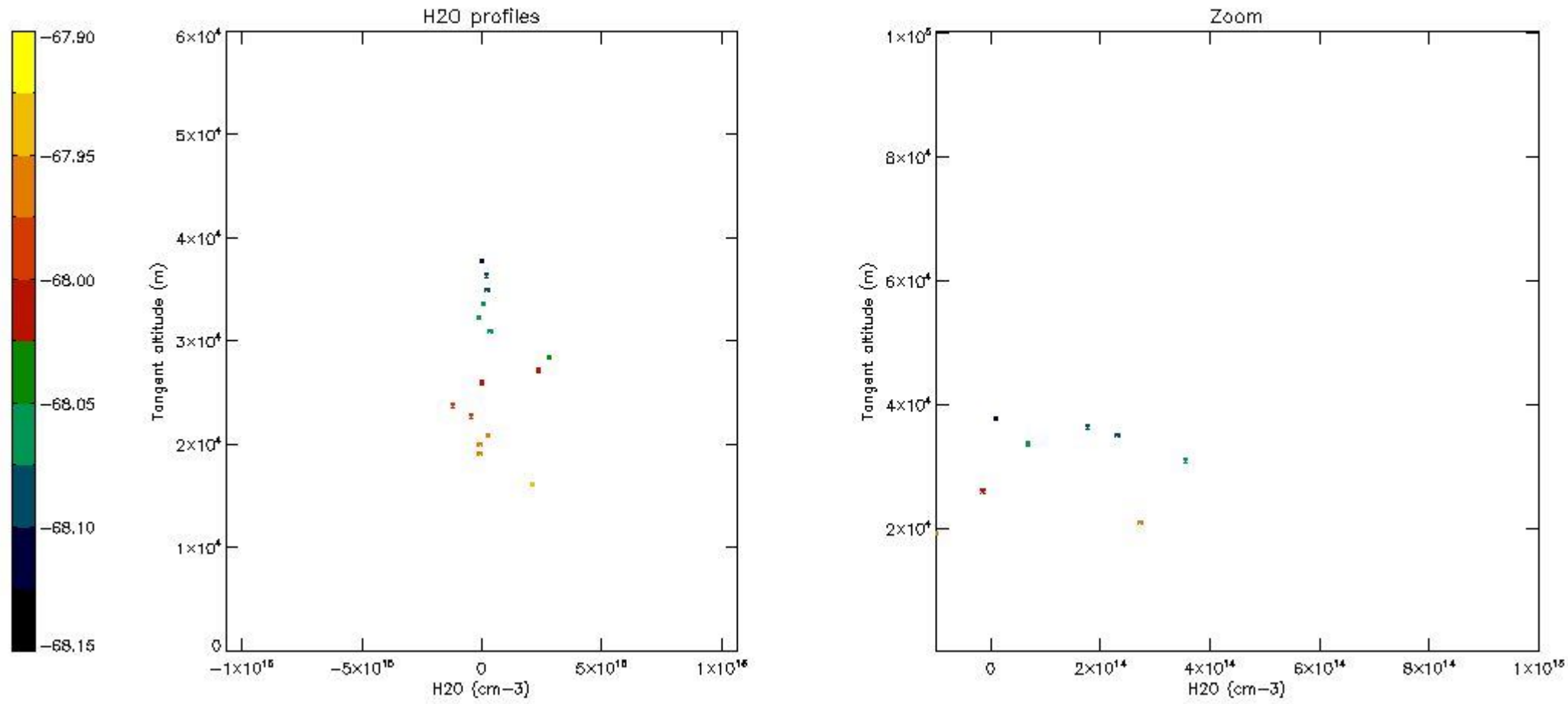
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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

The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	19-MAY-2011 00:00:33
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	19-MAY-2011 00:00:33
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	19-MAY-2011 00:00:33

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### [4. Level 1 Quality information per product \(stored on level 2 products\)](#)

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

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

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

#### [4.2 Plot of level 1 quality information per product \(world map\)](#)

##### [4.2.1 Plot of level 1 quality information per product \(world map\): ASCENDING](#)

##### [4.2.2 Plot of level 1 quality information per product \(world map\): DESCENDING](#)

### [5. Ozone profiles based on quality statistics and other trace gas profiles](#)

#### [5.1 Ozone statistics based on quality of products](#)

#### [5.2 Plot ozone profiles for all STD \(dark without errors\)](#)

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

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#### [5.5. Plot ozone profiles where STD < 5% \(dark without errors\)](#)

#### [5.6 Plot NO2 profiles for all STD \(dark without errors\)](#)

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

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

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

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

Item	Value
Time of report generation	24APR2013 13:48:04
Data source version	GOMOS/6.01
Start time of products	19-05-2011 (19MAY2011 00:00:00)
Stop time of products	20-05-2011 (20MAY2011 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	314
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__2PRFIN20110519_000033_00000463102_00332_48191_9204.N1	19-MAY-2011 00:00:33	Bright	45.500	89	5Alp Cep	2.4510	8000.0	91	48191	No
2	GOM_NL__2PRFIN20110519_000426_000000563102_00332_48191_9205.N1	19-MAY-2011 00:04:26	Bright	56.000	74	11Bet Cas	2.2680	6600.0	112	48191	No
3	GOM_NL__2PRFIN20110519_001349_000000473102_00332_48191_9206.N1	19-MAY-2011 00:13:49	Twilight	47.000	58	21Alp And	2.0730	11000.	94	48191	No
4	GOM_NL__2PRFIN20110519_001805_000000443102_00332_48191_9207.N1	19-MAY-2011 00:18:05	Dark	44.000	140	88Gam Peg	2.8340	26000.	88	48191	No
5	GOM_NL__2PRFIN20110519_001955_000000593102_00332_48191_9208.N1	19-MAY-2011 00:19:55	Dark	59.000	90	54Alp Peg	2.4870	11000.	118	48191	No
6	GOM_NL__2PRFIN20110519_003346_000000593102_00332_48191_9209.N1	19-MAY-2011 00:33:46	Dark	58.500	18	24Alp PsA	1.1660	9700.0	117	48191	No
7	GOM_NL__2PRFIN20110519_003931_000000453102_00333_48192_9201.N1	19-MAY-2011 00:39:31	Dark	44.500	31	Alp Gru	1.7340	15200.	89	48192	No
8	GOM_NL__2PRFIN20110519_004500_000000423102_00333_48192_9202.N1	19-MAY-2011 00:45:00	Dark	41.500	45	Alp Pav	1.9400	26000.	83	48192	No
9	GOM_NL__2PRFIN20110519_005304_000000423102_00333_48192_9203.N1	19-MAY-2011 00:53:04	Straylight	41.500	147	Alp Ara	2.8770	26000.	83	48192	No
10	GOM_NL__2PRFIN20110519_005438_000000503102_00333_48192_9204.N1	19-MAY-2011 00:54:38	Straylight	50.000	40	The Sco	1.8590	7100.0	100	48192	No
11	GOM_NL__2PRFIN20110519_005629_000000543102_00333_48192_9205.N1	19-MAY-2011 00:56:29	Straylight	54.000	25	35Lam Sco	1.6200	28000.	108	48192	No
12	GOM_NL__2PRFIN20110519_005840_000000513102_00333_48192_9206.N1	19-MAY-2011 00:58:40	Twilight	51.000	75	26Eps Sco	2.2910	4250.0	102	48192	No
13	GOM_NL__2PRFIN20110519_010138_000000613102_00333_48192_9207.N1	19-MAY-2011 01:01:38	Twilight	60.500	16	21Alp Sco	1.0200	3000.0	121	48192	No
14	GOM_NL__2PRFIN20110519_010317_000000473102_00333_48192_9208.N1	19-MAY-2011 01:03:17	Bright	46.500	80	7Del Sco	2.3160	30000.	93	48192	No
15	GOM_NL__2PRFIN20110519_010505_000000573102_00333_48192_9209.N1	19-MAY-2011 01:05:05	Bright	57.000	86	35Eta Oph	2.4300	10200.	114	48192	No
16	GOM_NL__2PRFIN20110519_010741_000000393102_00333_48192_9210.N1	19-MAY-2011 01:07:41	Bright	39.000	104	27Bet Lib	2.6140	13100.	78	48192	No
17	GOM_NL__2PRFIN20110519_010937_000000483102_00333_48192_9211.N1	19-MAY-2011 01:09:37	Bright	47.500	120	1Del Oph	2.7340	3200.0	95	48192	No
18	GOM_NL__2PRFIN20110519_011244_000000423102_00333_48192_9212.N1	19-MAY-2011 01:12:44	Bright	42.000	102	24Alp Ser	2.6000	4250.0	84	48192	No
19	GOM_NL__2PRFIN20110519_011859_000000613102_00333_48192_9213.N1	19-MAY-2011 01:18:59	Bright	61.000	67	5Alp CrB	2.2210	11000.	122	48192	No
20	GOM_NL__2PRFIN20110519_012256_000000523102_00333_48192_9214.N1	19-MAY-2011 01:22:56	Bright	51.500	133	40Zet Her	2.8070	6000.0	103	48192	No
21	GOM_NL__2PRFIN20110519_012954_000000533102_00333_48192_9215.N1	19-MAY-2011 01:29:54	Bright	53.000	119	14Eta Dra	2.7270	4700.0	106	48192	No
22	GOM_NL__2PRFIN20110519_013157_000000553102_00333_48192_9216.N1	19-MAY-2011 01:31:57	Bright	54.500	69	33Gam Dra	2.2310	3800.0	109	48192	No
23	GOM_NL__2PRFIN20110519_014046_000000463102_00333_48192_9217.N1	19-MAY-2011 01:40:46	Bright	45.500	89	5Alp Cep	2.4510	8000.0	91	48192	No
24	GOM_NL__2PRFIN20110519_014440_000000563102_00333_48192_9218.N1	19-MAY-2011 01:44:40	Bright	56.000	74	11Bet Cas	2.2680	6600.0	112	48192	No
25	GOM_NL__2PRFIN20110519_015403_000000463102_00333_48192_9219.N1	19-MAY-2011 01:54:03	Twilight	45.500	58	21Alp And	2.0730	11000.	91	48192	No
26	GOM_NL__2PRFIN20110519_015820_000000453102_00333_48192_9220.N1	19-MAY-2011 01:58:20	Dark	44.500	140	88Gam Peg	2.8340	26000.	89	48192	No
27	GOM_NL__2PRFIN20110519_020010_000000593102_00333_48192_9221.N1	19-MAY-2011 02:00:10	Dark	58.500	90	54Alp Peg	2.4870	11000.	117	48192	No
28	GOM_NL__2PRFIN20110519_021401_000000523102_00333_48192_9222.N1	19-MAY-2011 02:14:01	Dark	51.500	18	24Alp PsA	1.1660	9700.0	103	48192	No
29	GOM_NL__2PRFIN20110519_021946_000000433102_00334_48193_9213.N1	19-MAY-2011 02:19:46	Dark	43.000	31	Alp Gru	1.7340	15200.	86	48193	No
30	GOM_NL__2PRFIN20110519_022514_000000423102_00334_48193_9214.N1	19-MAY-2011 02:25:14	Dark	42.000	45	Alp Pav	1.9400	26000.	84	48193	No
31	GOM_NL__2PRFIN20110519_023319_000000423102_00334_48193_9215.N1	19-MAY-2011 02:33:19	Straylight	42.000	147	Alp Ara	2.8770	26000.	84	48193	No
32	GOM_NL__2PRFIN20110519_023453_000000513102_00334_48193_9216.N1	19-MAY-2011 02:34:53	Straylight	50.500	40	The Sco	1.8590	7100.0	101	48193	No
33	GOM_NL__2PRFIN20110519_023644_000000523102_00334_48193_9217.N1	19-MAY-2011 02:36:44	Straylight	51.500	25	35Lam Sco	1.6200	28000.	103	48193	No
34	GOM_NL__2PRFIN20110519_023855_000000543102_00334_48193_9218.N1	19-MAY-2011 02:38:55	Twilight	54.000	75	26Eps Sco	2.2910	4250.0	108	48193	No
35	GOM_NL__2PRFIN20110519_024152_000000633102_00334_48193_9219.N1	19-MAY-2011 02:41:52	Twilight	63.000	16	21Alp Sco	1.0200	3000.0	126	48193	No
36	GOM_NL__2PRFIN20110519_024331_000000483102_00334_48193_9220.N1	19-MAY-2011 02:43:31	Bright	48.000	80	7Del Sco	2.3160	30000.	96	48193	No
37	GOM_NL__2PRFIN20110519_024520_000000583102_00334_48193_9221.N1	19-MAY-2011 02:45:20	Bright	58.000	86	35Eta Oph	2.4300	10200.	116	48193	No
38	GOM_NL__2PRFIN20110519_024755_000000563102_00334_48193_9222.N1	19-MAY-2011 02:47:55	Bright	56.000	104	27Bet Lib	2.6140	13100.	112	48193	No
39	GOM_NL__2PRFIN20110519_024951_000000483102_00334_48193_9223.N1	19-MAY-2011 02:49:51	Bright	47.500	120	1Del Oph	2.7340	3200.0	95	48193	No
40	GOM_NL__2PRFIN20110519_025258_000000433102_00334_48193_9224.N1	19-MAY-2011 02:52:58	Bright	42.500	102	24Alp Ser	2.6000	4250.0	85	48193	No
41	GOM_NL__2PRFIN20110519_025912_000000423102_00334_48193_9225.N1	19-MAY-2011 02:59:12	Bright	42.000	67	5Alp CrB	2.2210	11000.	84	48193	No
42	GOM_NL__2PRFIN20110519_030309_000000513102_00334_48193_9226.N1	19-MAY-2011 03:03:09	Bright	51.000	133	40Zet Her	2.8070	6000.0	102	48193	No









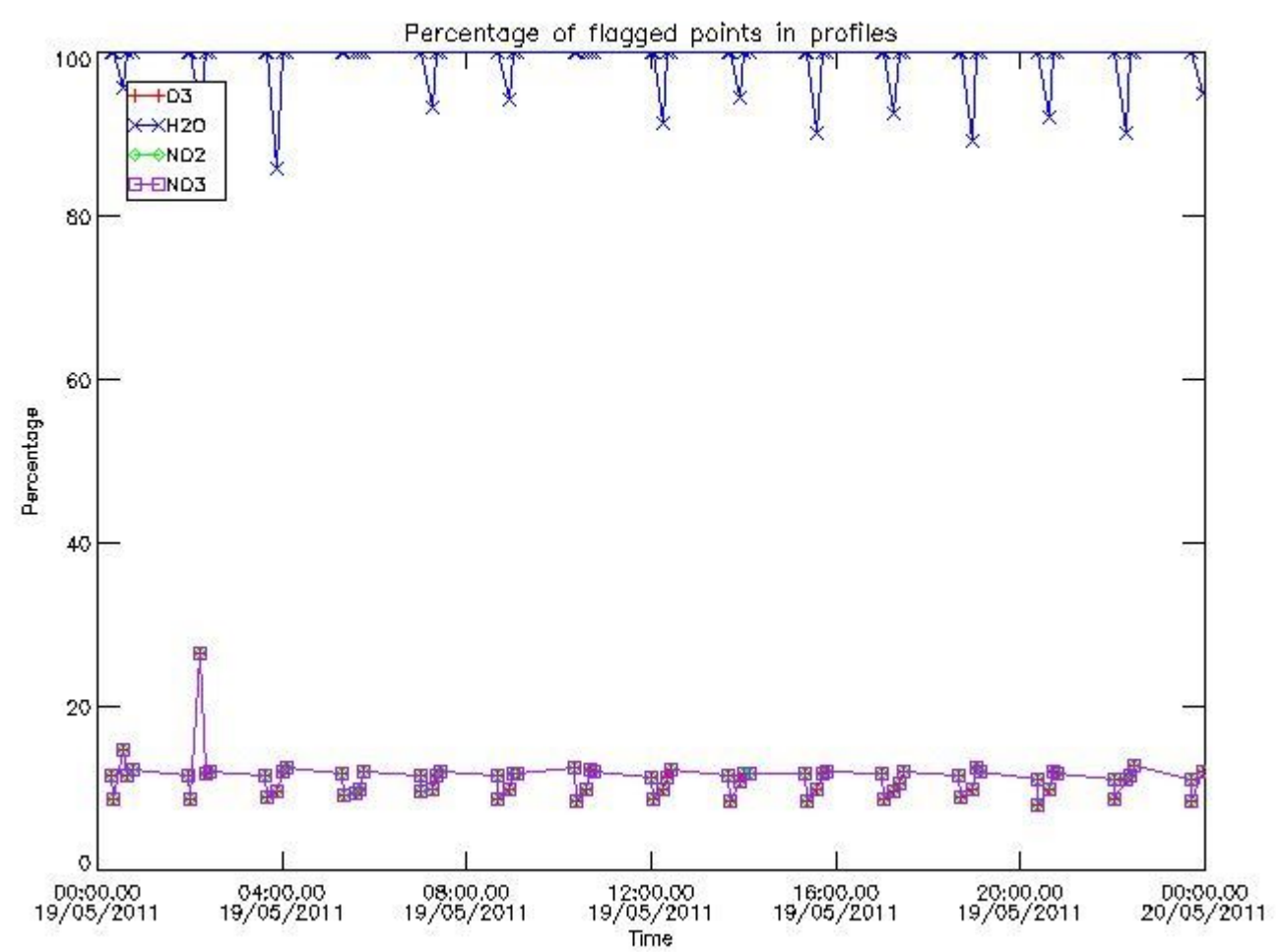


279	GOM_NL__2PRFIN20110519_210755_000000563102_00345_48204_9784.N1	19-MAY-2011 21:07:55	Bright	56.000	86	35Eta Oph	2.4300	10200.	112	48204	No
280	GOM_NL__2PRFIN20110519_211000_000000493102_00345_48204_9785.N1	19-MAY-2011 21:10:00	Bright	48.500	98	13Zet Oph	2.5710	30000.	97	48204	No
281	GOM_NL__2PRFIN20110519_211224_000000473102_00345_48204_9786.N1	19-MAY-2011 21:12:24	Bright	46.500	120	1Del Oph	2.7340	3200.0	93	48204	No
282	GOM_NL__2PRFIN20110519_211530_000000423102_00345_48204_9787.N1	19-MAY-2011 21:15:30	Bright	41.500	102	24Alp Ser	2.6000	4250.0	83	48204	No
283	GOM_NL__2PRFIN20110519_212142_000000413102_00345_48204_9788.N1	19-MAY-2011 21:21:42	Bright	41.000	67	5Alp CrB	2.2210	11000.	82	48204	No
284	GOM_NL__2PRFIN20110519_212533_000000533102_00345_48204_9789.N1	19-MAY-2011 21:25:33	Bright	52.500	133	40Zet Her	2.8070	6000.0	105	48204	No
285	GOM_NL__2PRFIN20110519_213237_000000443102_00345_48204_9790.N1	19-MAY-2011 21:32:37	Bright	43.500	119	14Eta Dra	2.7270	4700.0	87	48204	No
286	GOM_NL__2PRFIN20110519_213433_000000543102_00345_48204_9791.N1	19-MAY-2011 21:34:33	Bright	54.000	69	33Gam Dra	2.2310	3800.0	108	48204	No
287	GOM_NL__2PRFIN20110519_214328_000000453102_00345_48204_9792.N1	19-MAY-2011 21:43:28	Bright	45.000	89	5Alp Cep	2.4510	8000.0	90	48204	No
288	GOM_NL__2PRFIN20110519_214727_000000373102_00345_48204_9793.N1	19-MAY-2011 21:47:27	Bright	36.500	74	11Bet Cas	2.2680	6600.0	73	48204	No
289	GOM_NL__2PRFIN20110519_215654_000000483102_00345_48204_9794.N1	19-MAY-2011 21:56:54	Twilight	47.500	58	21Alp And	2.0730	11000.	95	48204	No
290	GOM_NL__2PRFIN20110519_220112_000000463102_00345_48204_9795.N1	19-MAY-2011 22:01:12	Dark	45.500	140	88Gam Peg	2.8340	26000.	91	48204	No
291	GOM_NL__2PRFIN20110519_220305_000000583102_00345_48204_9796.N1	19-MAY-2011 22:03:05	Dark	58.000	90	54Alp Peg	2.4870	11000.	116	48204	No
292	GOM_NL__2PRFIN20110519_221700_000000513102_00345_48204_9797.N1	19-MAY-2011 22:17:00	Dark	50.500	18	24Alp PsA	1.1660	9700.0	101	48204	No
293	GOM_NL__2PRFIN20110519_222244_000000453102_00346_48205_9855.N1	19-MAY-2011 22:22:44	Dark	44.500	31	Alp Gru	1.7340	15200.	89	48205	No
294	GOM_NL__2PRFIN20110519_222811_000000443102_00346_48205_9856.N1	19-MAY-2011 22:28:11	Dark	43.500	45	Alp Pav	1.9400	26000.	87	48205	No
295	GOM_NL__2PRFIN20110519_223613_000000413102_00346_48205_9857.N1	19-MAY-2011 22:36:13	Straylight	41.000	147	Alp Ara	2.8770	26000.	82	48205	No
296	GOM_NL__2PRFIN20110519_223748_000000533102_00346_48205_9858.N1	19-MAY-2011 22:37:48	Straylight	53.000	40	The Sco	1.8590	7100.0	106	48205	No
297	GOM_NL__2PRFIN20110519_223939_000000543102_00346_48205_9859.N1	19-MAY-2011 22:39:39	Straylight	53.500	25	35Lam Sco	1.6200	28000.	107	48205	No
298	GOM_NL__2PRFIN20110519_224148_000000513102_00346_48205_9860.N1	19-MAY-2011 22:41:48	Twilight	51.000	75	26Eps Sco	2.2910	4250.0	102	48205	No
299	GOM_NL__2PRFIN20110519_224444_000000593102_00346_48205_9861.N1	19-MAY-2011 22:44:44	Twilight	59.000	16	21Alp Sco	1.0200	3000.0	118	48205	No
300	GOM_NL__2PRFIN20110519_224621_000000563102_00346_48205_9862.N1	19-MAY-2011 22:46:21	Bright	55.500	80	7Del Sco	2.3160	30000.	111	48205	No
301	GOM_NL__2PRFIN20110519_224809_000000563102_00346_48205_9863.N1	19-MAY-2011 22:48:09	Bright	55.500	86	35Eta Oph	2.4300	10200.	111	48205	No
302	GOM_NL__2PRFIN20110519_225014_000000493102_00346_48205_9864.N1	19-MAY-2011 22:50:14	Bright	49.000	98	13Zet Oph	2.5710	30000.	98	48205	No
303	GOM_NL__2PRFIN20110519_225237_000000463102_00346_48205_9865.N1	19-MAY-2011 22:52:37	Bright	46.000	120	1Del Oph	2.7340	3200.0	92	48205	No
304	GOM_NL__2PRFIN20110519_225543_000000413102_00346_48205_9866.N1	19-MAY-2011 22:55:43	Bright	41.000	102	24Alp Ser	2.6000	4250.0	82	48205	No
305	GOM_NL__2PRFIN20110519_230156_000000423102_00346_48205_9867.N1	19-MAY-2011 23:01:56	Bright	41.500	67	5Alp CrB	2.2210	11000.	83	48205	No
306	GOM_NL__2PRFIN20110519_230547_000000513102_00346_48205_9868.N1	19-MAY-2011 23:05:47	Bright	50.500	133	40Zet Her	2.8070	6000.0	101	48205	No
307	GOM_NL__2PRFIN20110519_231250_000000413102_00346_48205_9869.N1	19-MAY-2011 23:12:50	Bright	41.000	119	14Eta Dra	2.7270	4700.0	82	48205	No
308	GOM_NL__2PRFIN20110519_231446_000000543102_00346_48205_9870.N1	19-MAY-2011 23:14:46	Bright	53.500	69	33Gam Dra	2.2310	3800.0	107	48205	No
309	GOM_NL__2PRFIN20110519_232342_000000443102_00346_48205_9871.N1	19-MAY-2011 23:23:42	Bright	44.000	89	5Alp Cep	2.4510	8000.0	88	48205	No
310	GOM_NL__2PRFIN20110519_232741_000000563102_00346_48205_9872.N1	19-MAY-2011 23:27:41	Bright	56.000	74	11Bet Cas	2.2680	6600.0	112	48205	No
311	GOM_NL__2PRFIN20110519_233708_000000483102_00346_48205_9873.N1	19-MAY-2011 23:37:08	Twilight	47.500	58	21Alp And	2.0730	11000.	95	48205	No
312	GOM_NL__2PRFIN20110519_234126_000000463102_00346_48205_9874.N1	19-MAY-2011 23:41:26	Dark	46.000	140	88Gam Peg	2.8340	26000.	92	48205	No
313	GOM_NL__2PRFIN20110519_234320_000000603102_00346_48205_9875.N1	19-MAY-2011 23:43:20	Dark	59.500	90	54Alp Peg	2.4870	11000.	119	48205	No
314	GOM_NL__2PRFIN20110519_235715_000000603102_00346_48205_9876.N1	19-MAY-2011 23:57:15	Dark	59.500	18	24Alp PsA	1.1660	9700.0	119	48205	No

### 3. Quality information per product

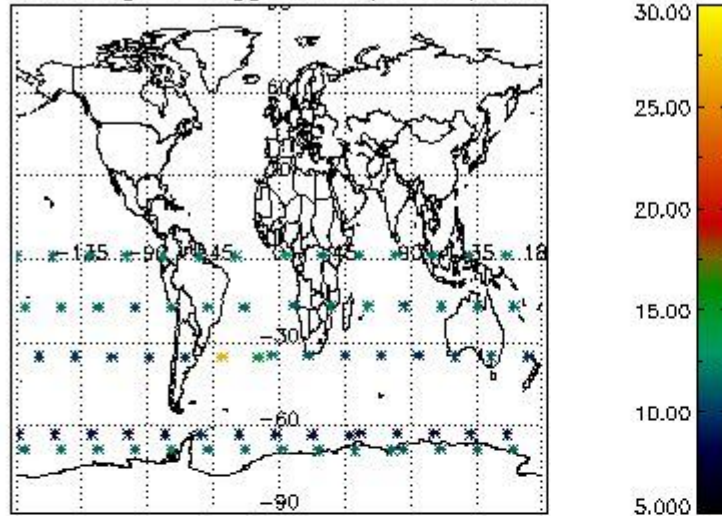
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

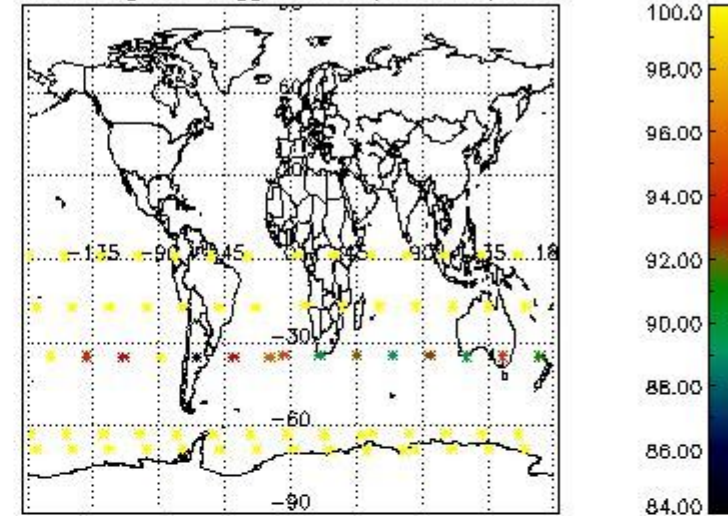


3.2 Plot quality information per product (world map)

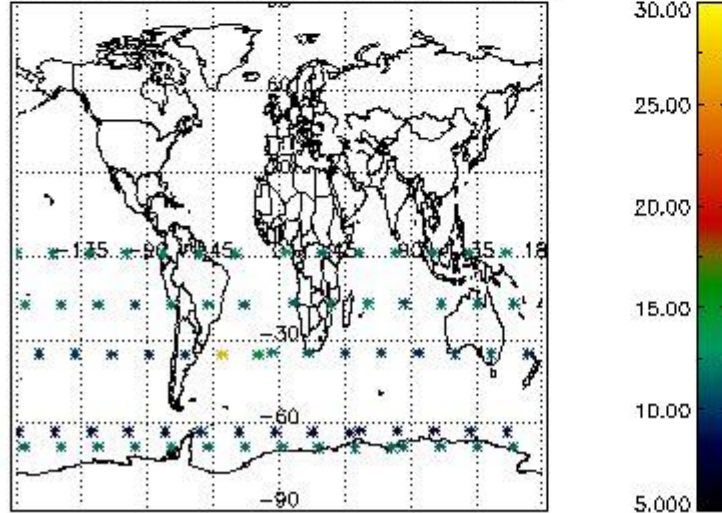
Percentage of flagged data per O3 profile



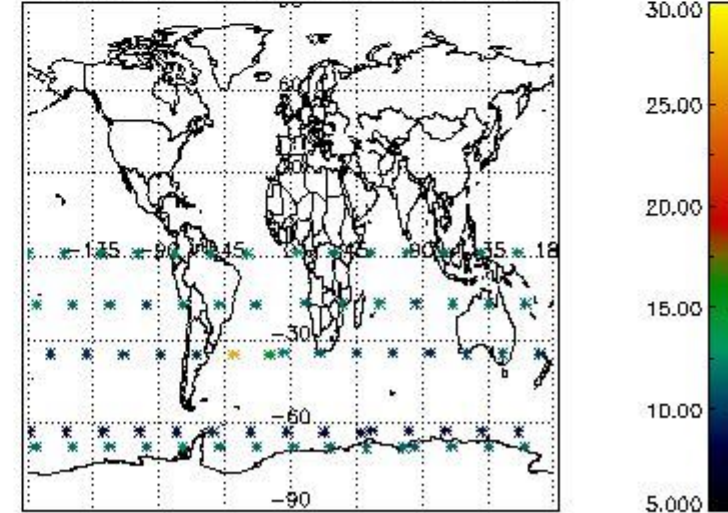
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

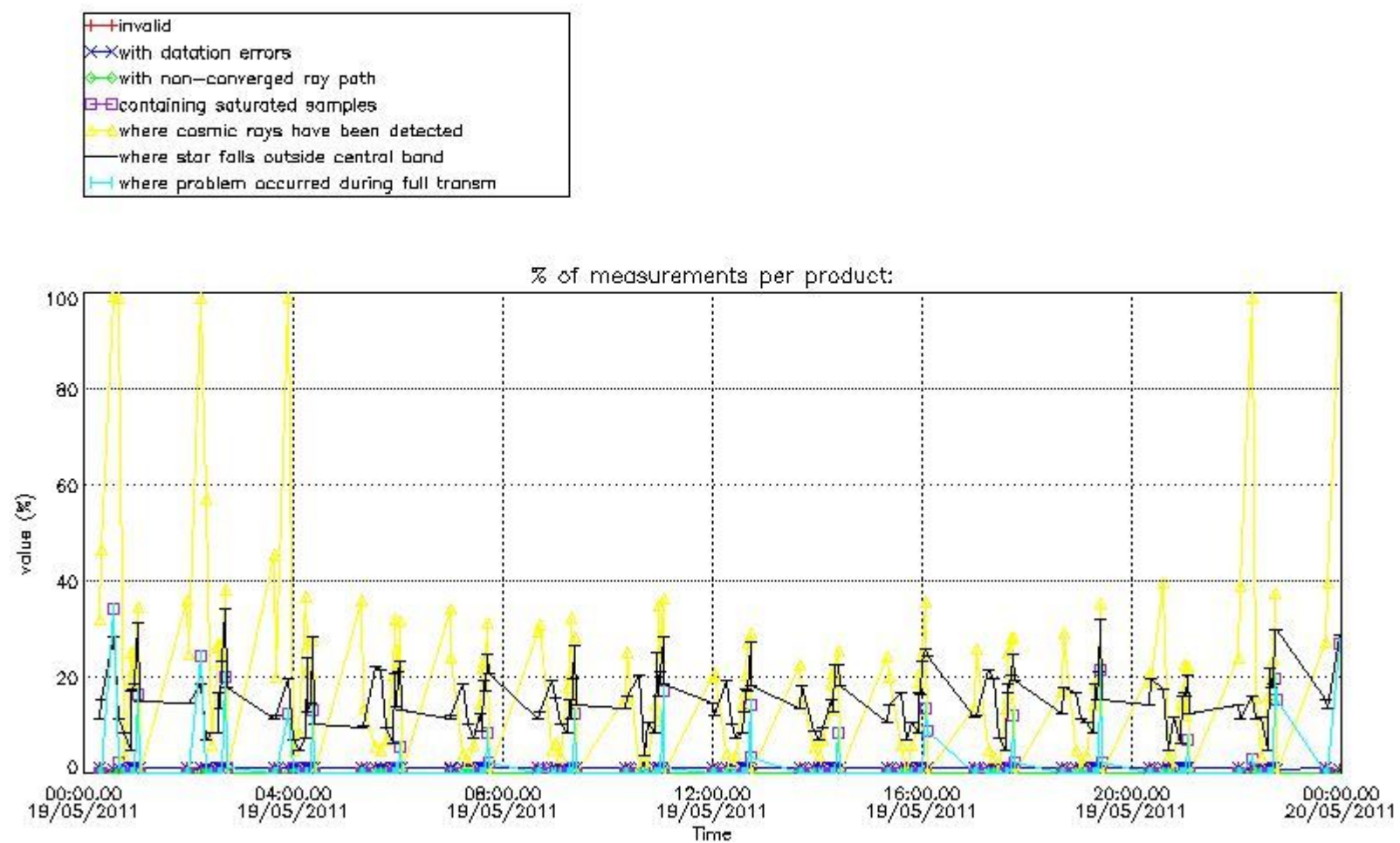


#### 4. Level 1 quality information per product

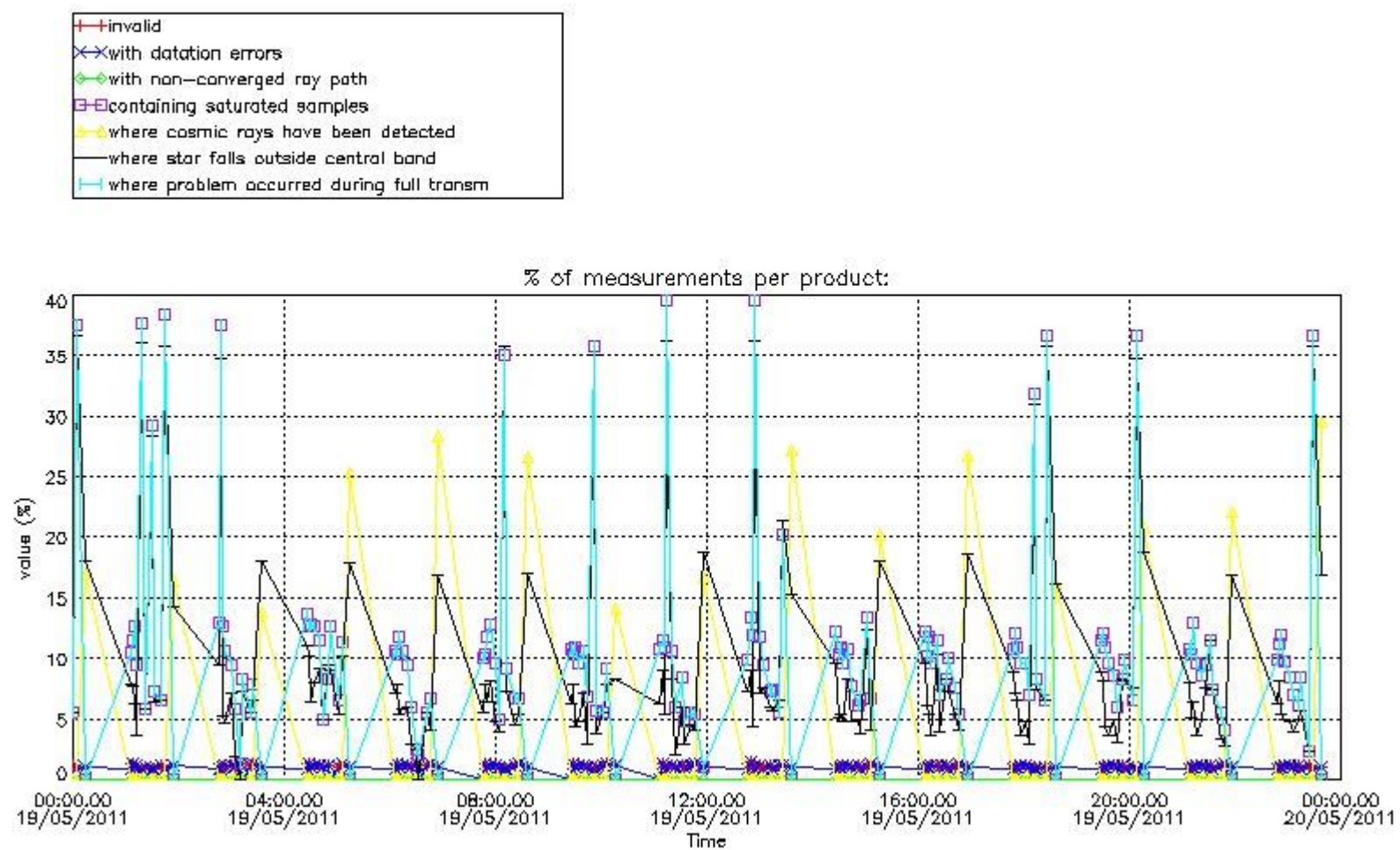
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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



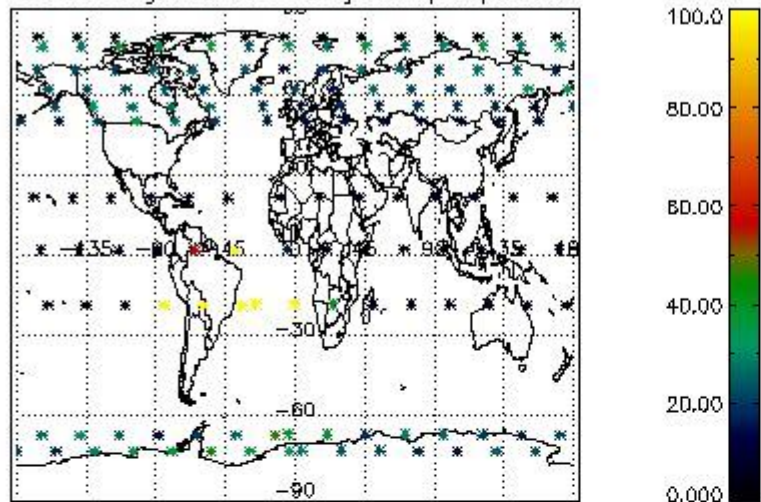
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



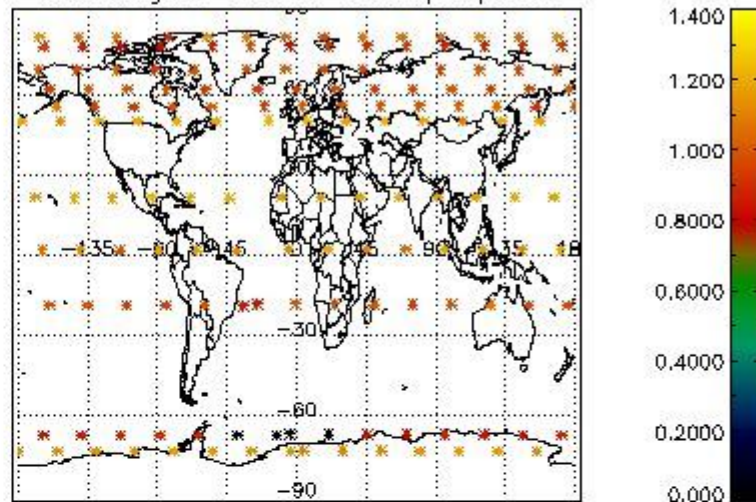
4.2 Plot quality information per product coming from level 1b processing (world map)

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

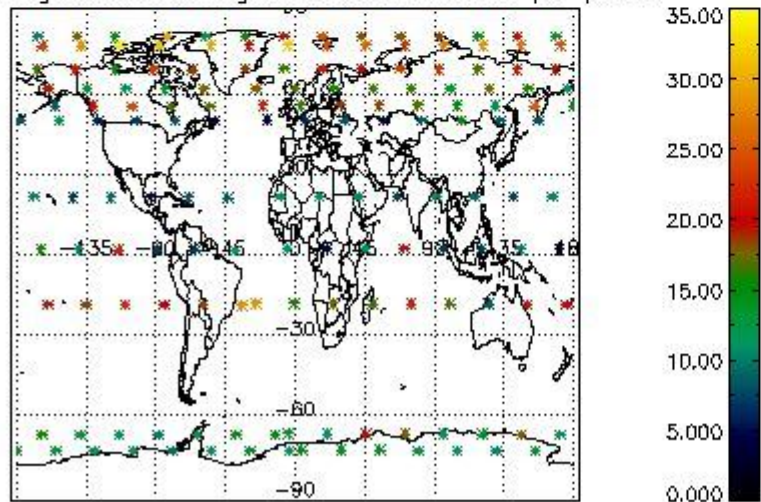
Percentage of cosmic ray hits per profile



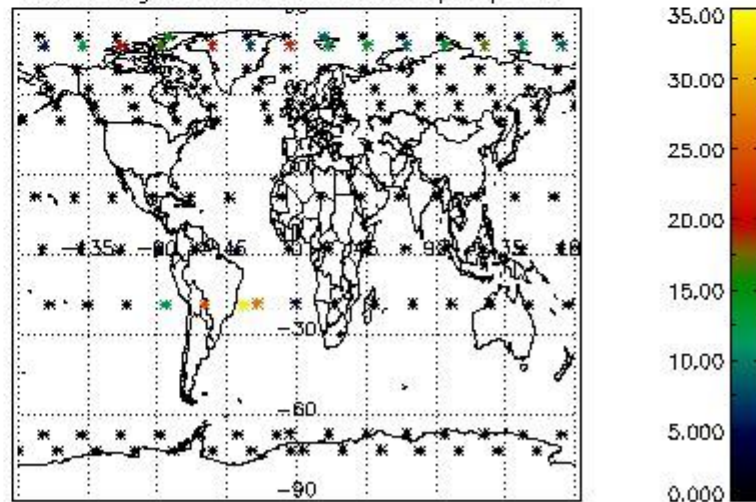
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

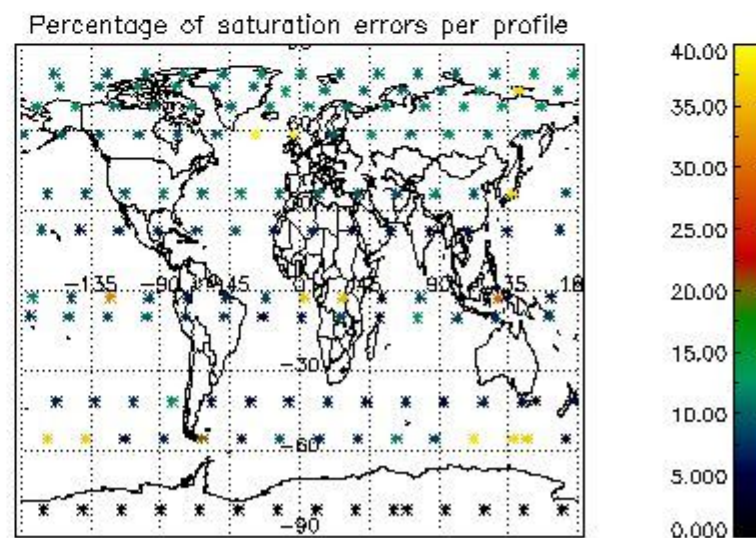
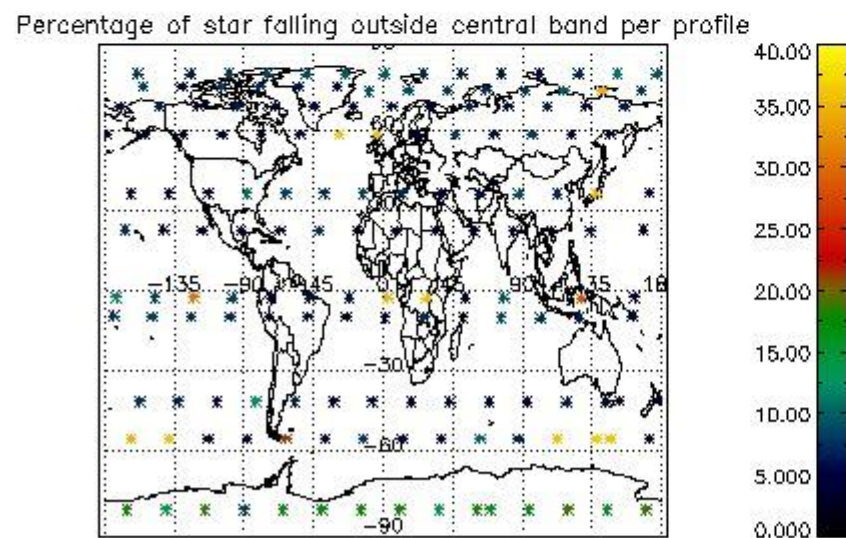
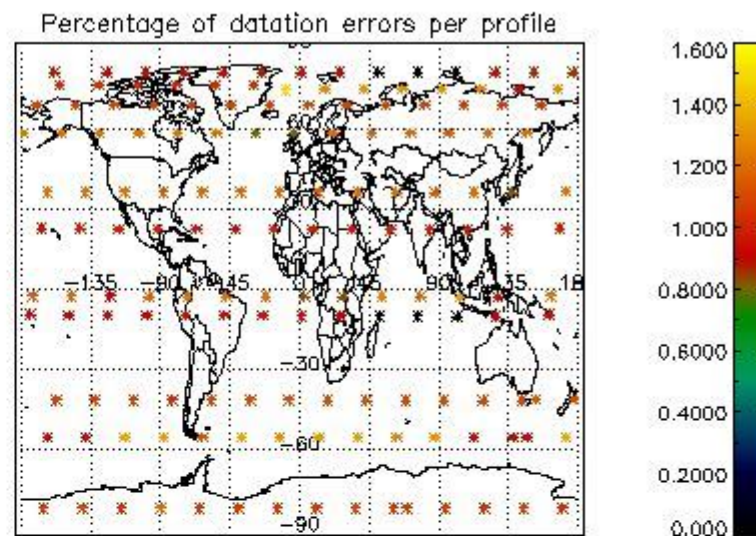
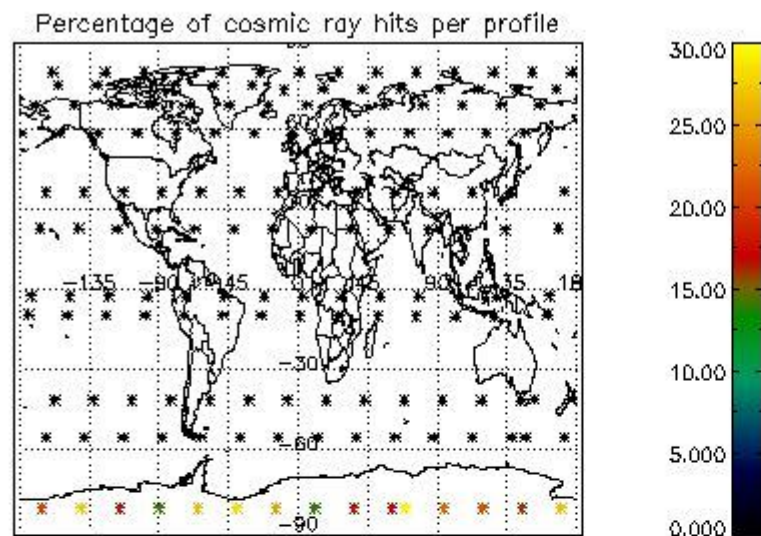


Percentage of saturation errors per profile



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

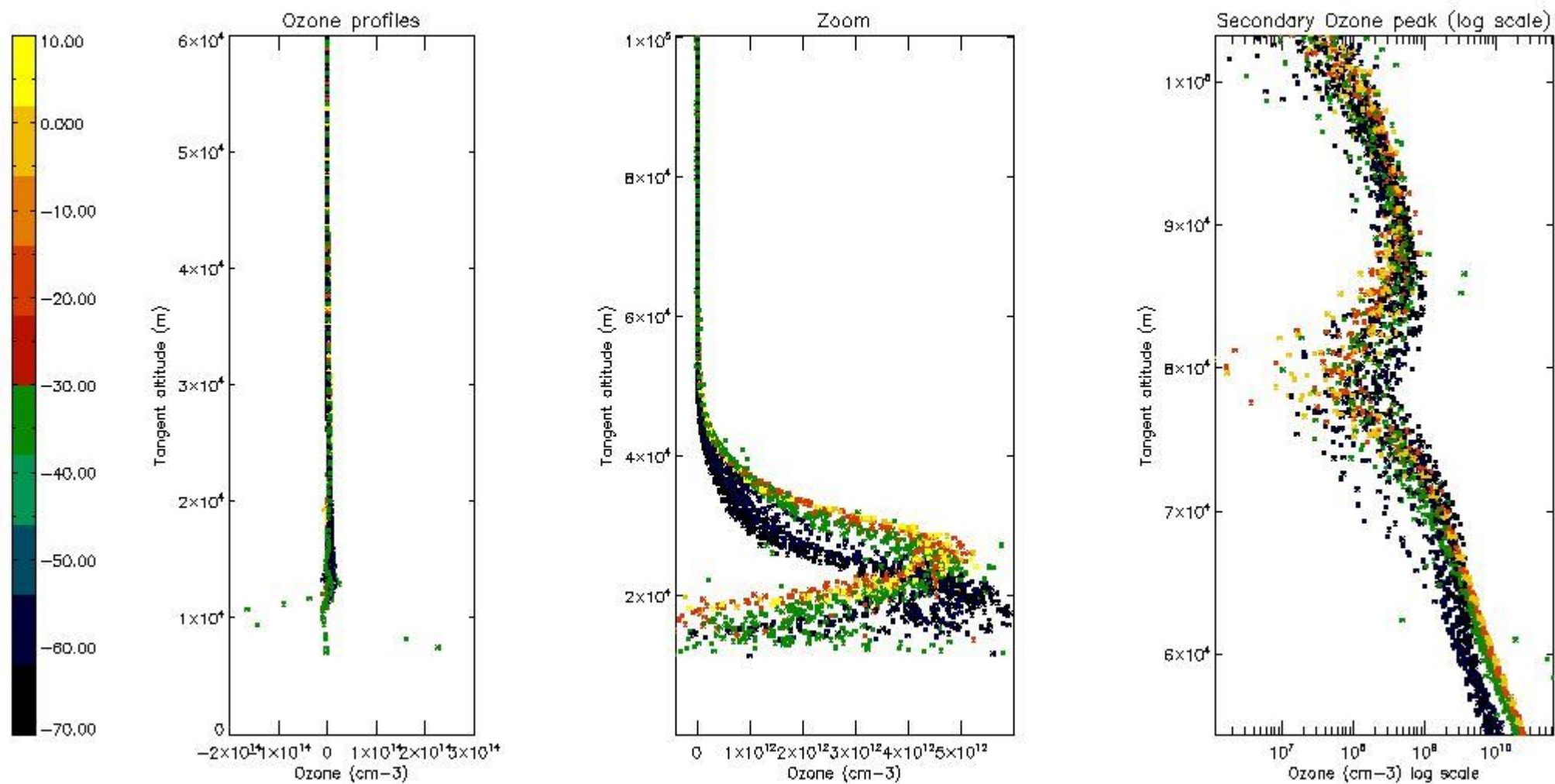
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	24
STD < 20	14

STD < 10	11
STD < 5	7

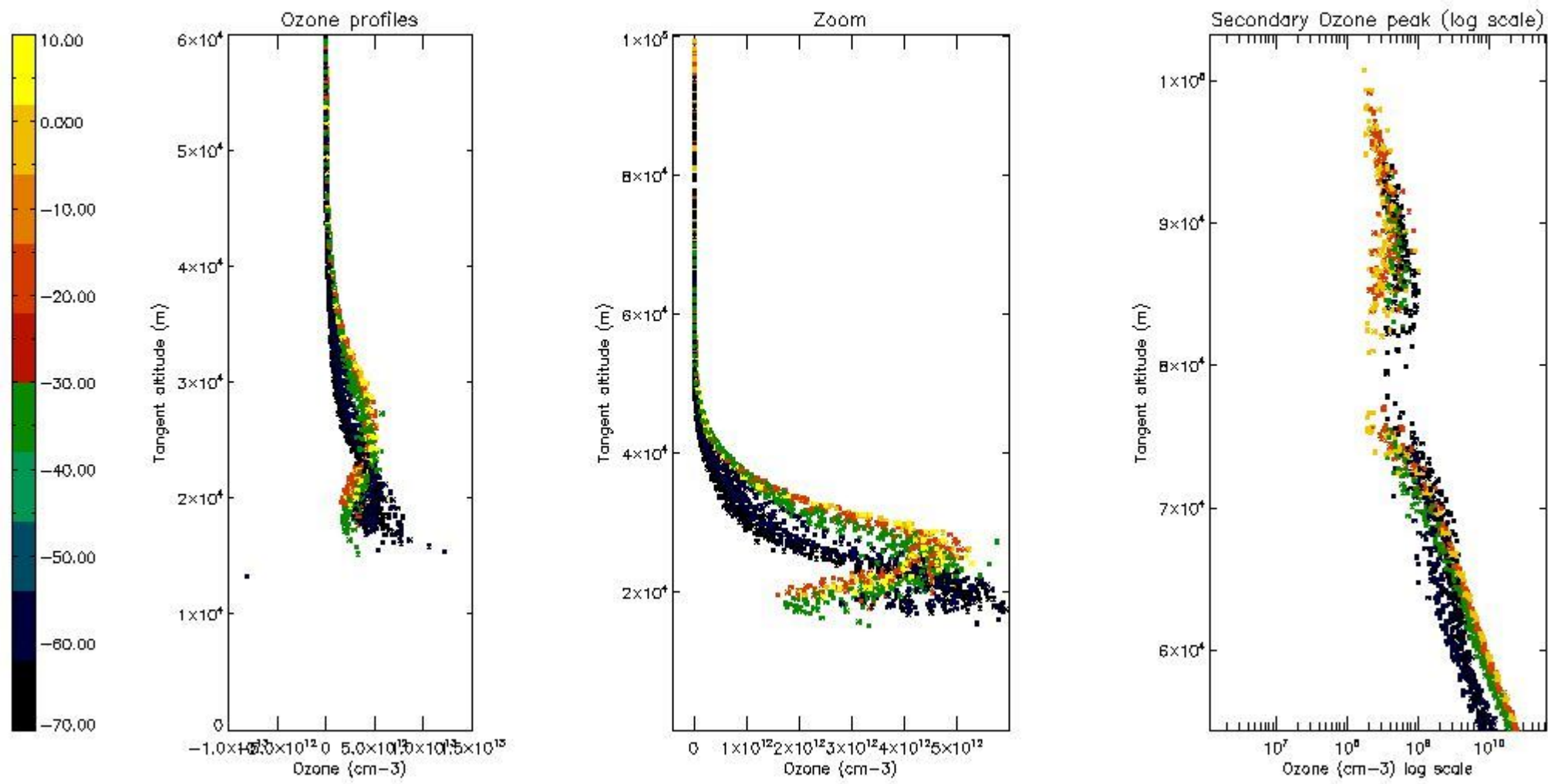
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



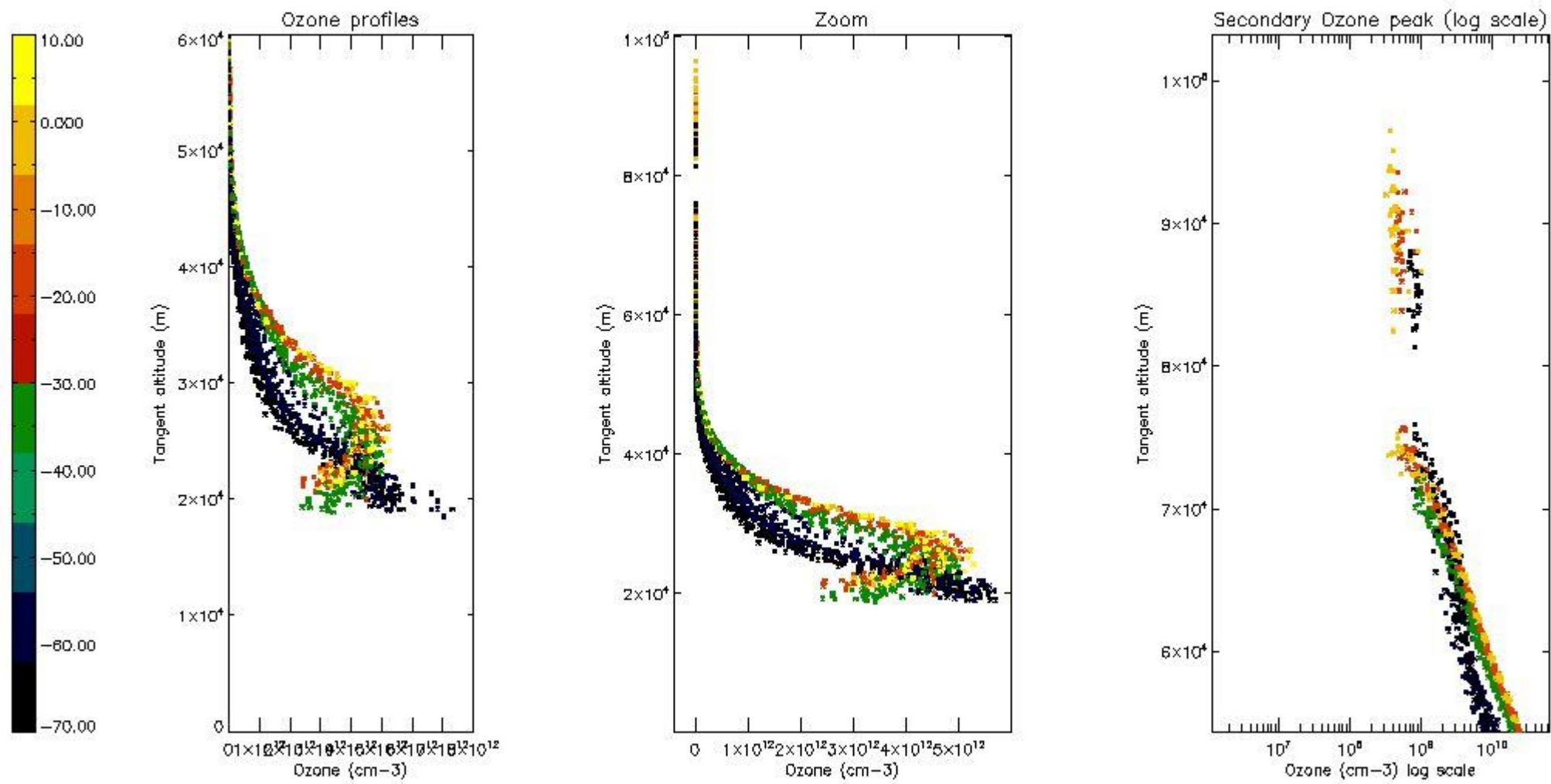
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



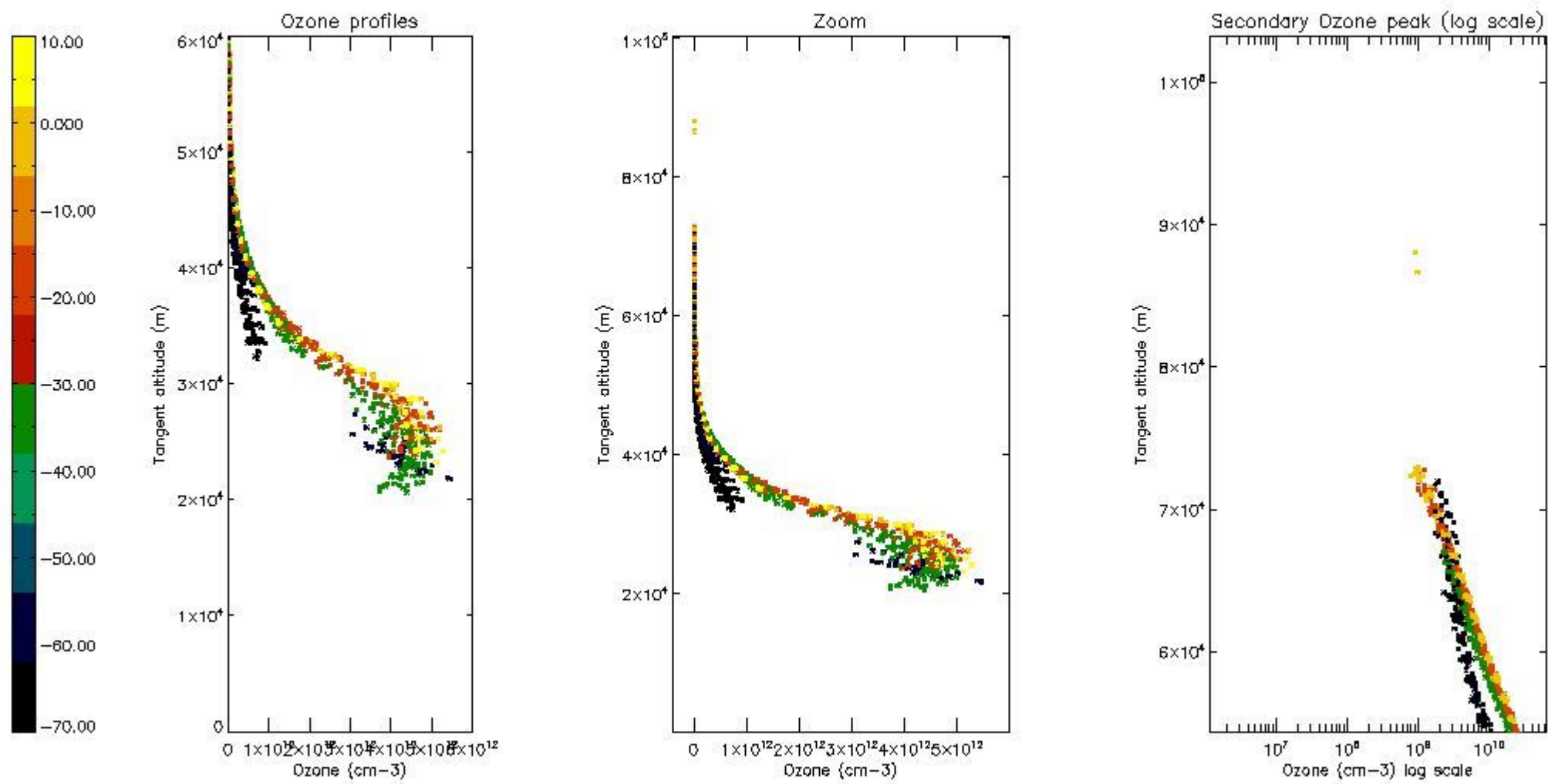
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



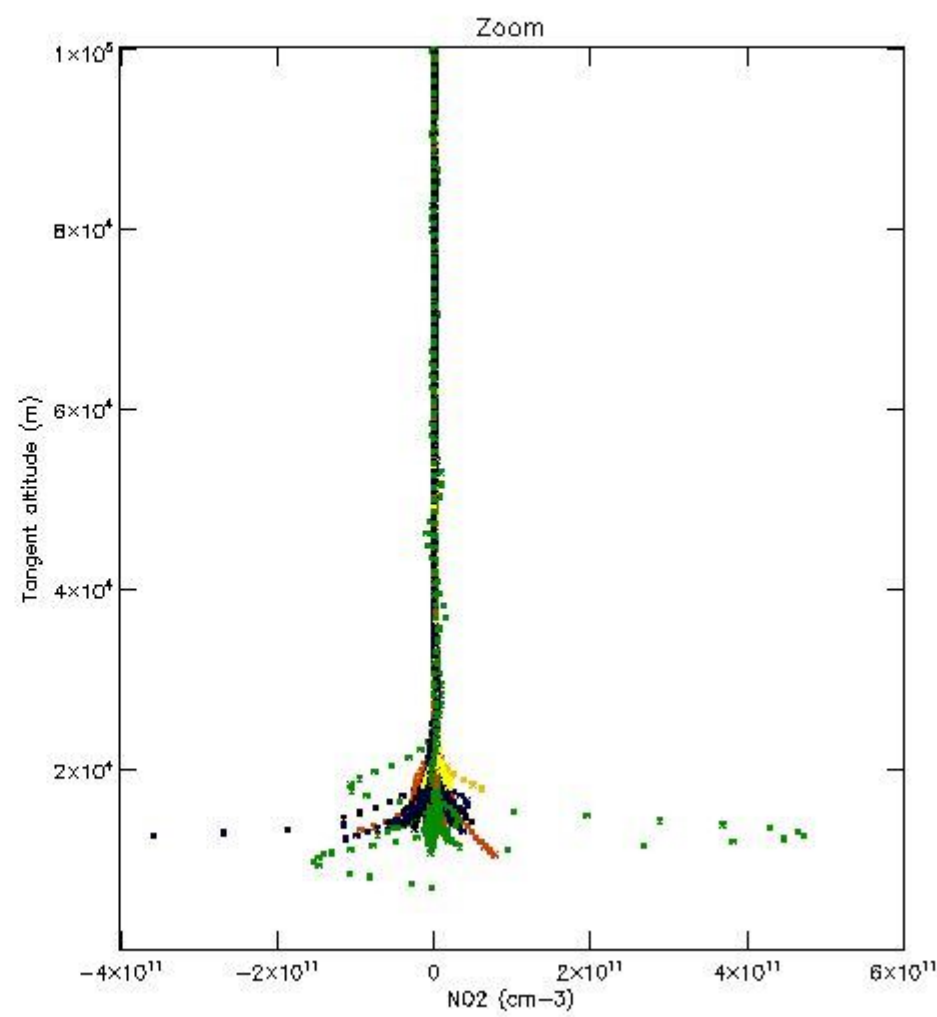
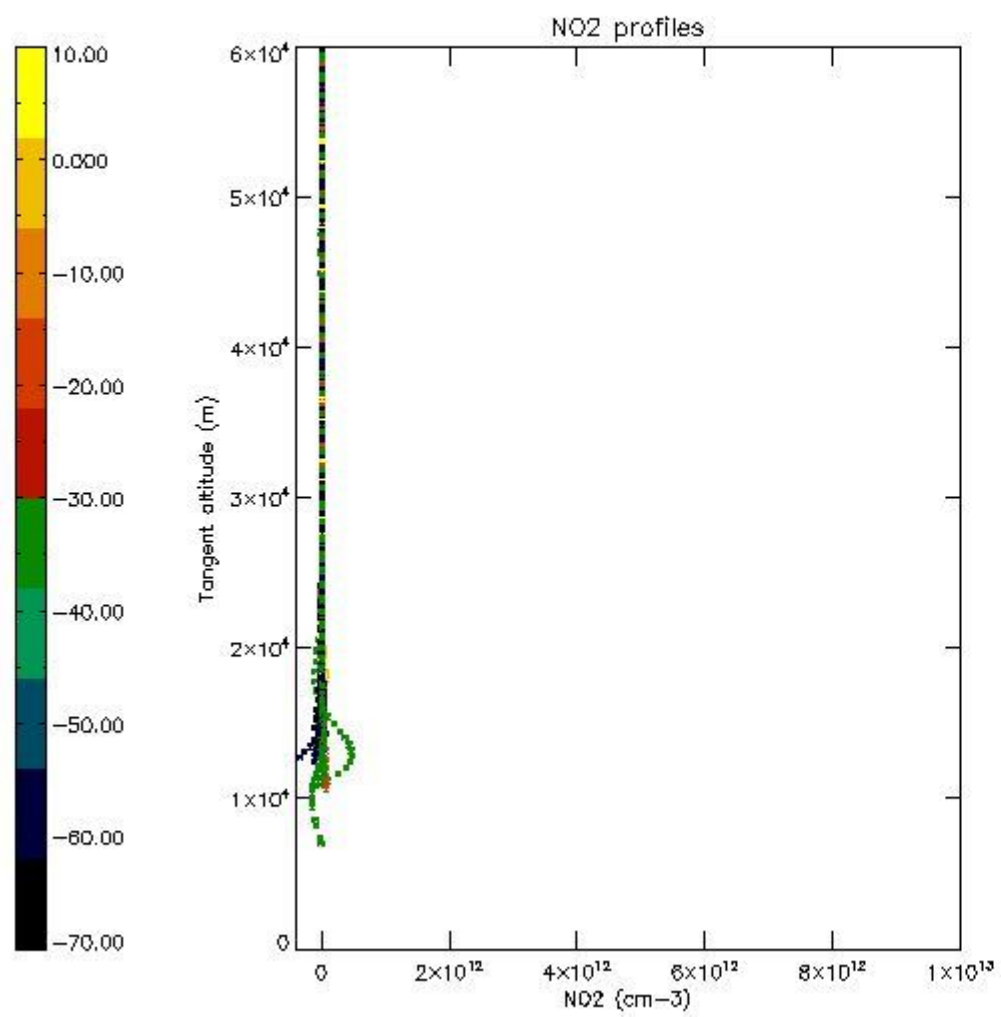
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



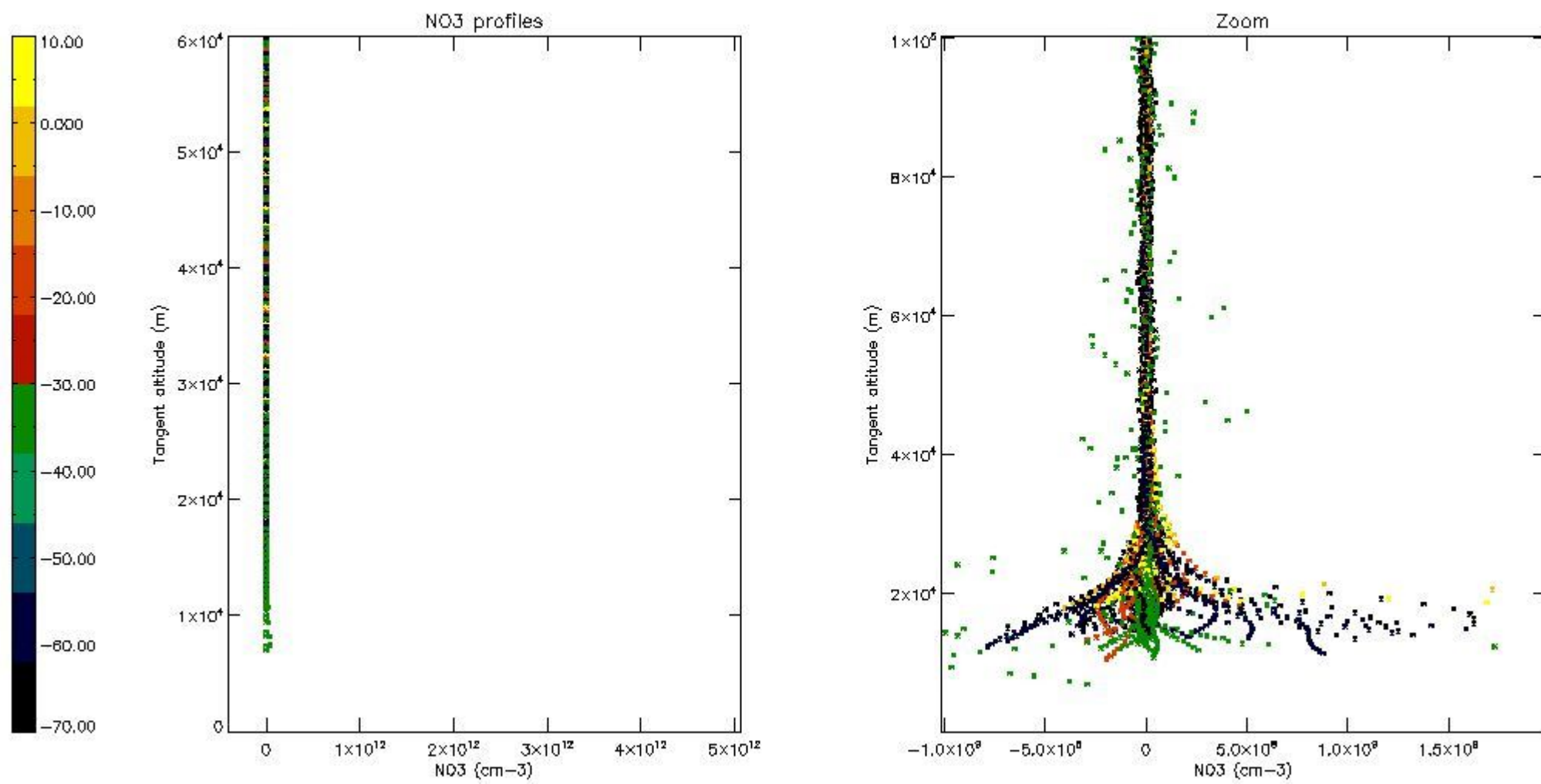
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



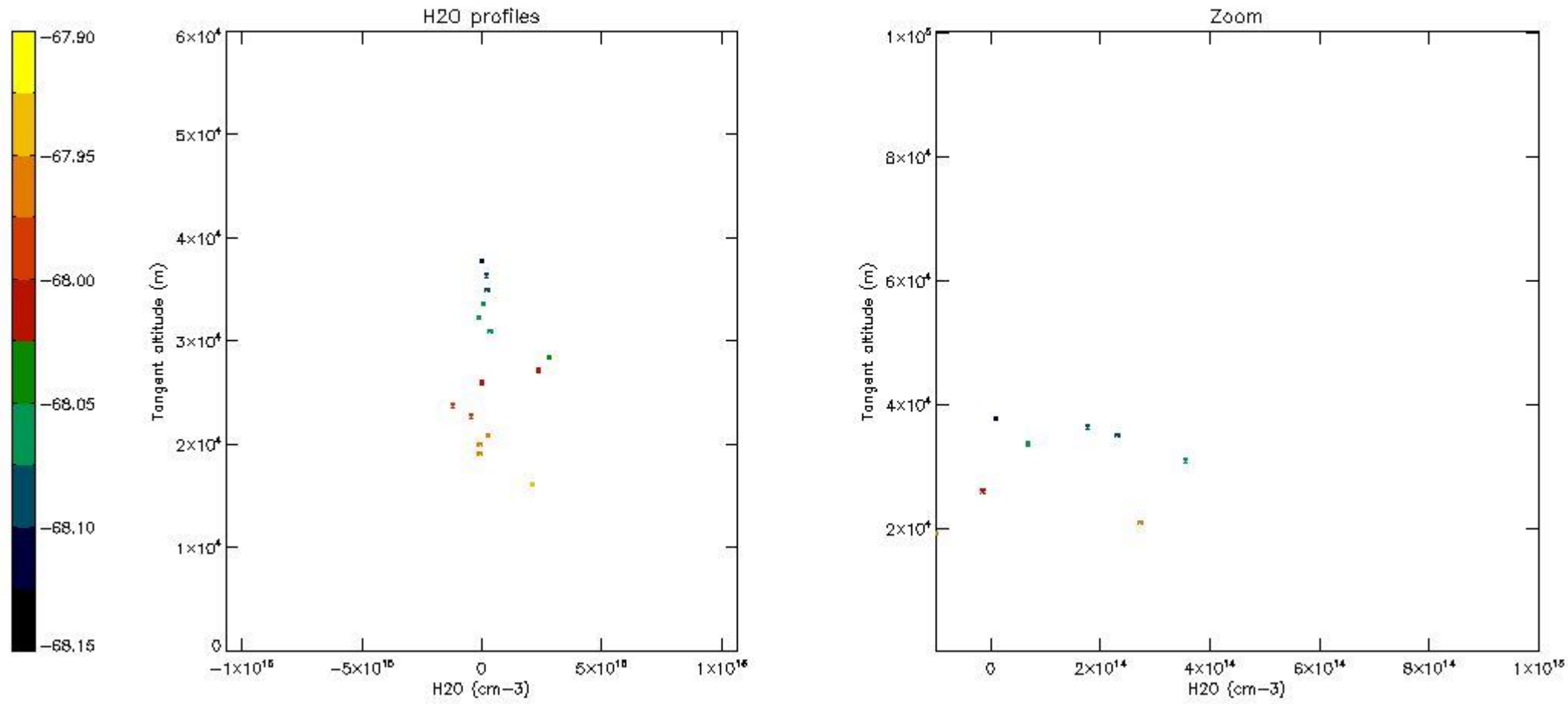
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

The colorbar represents the latitude.

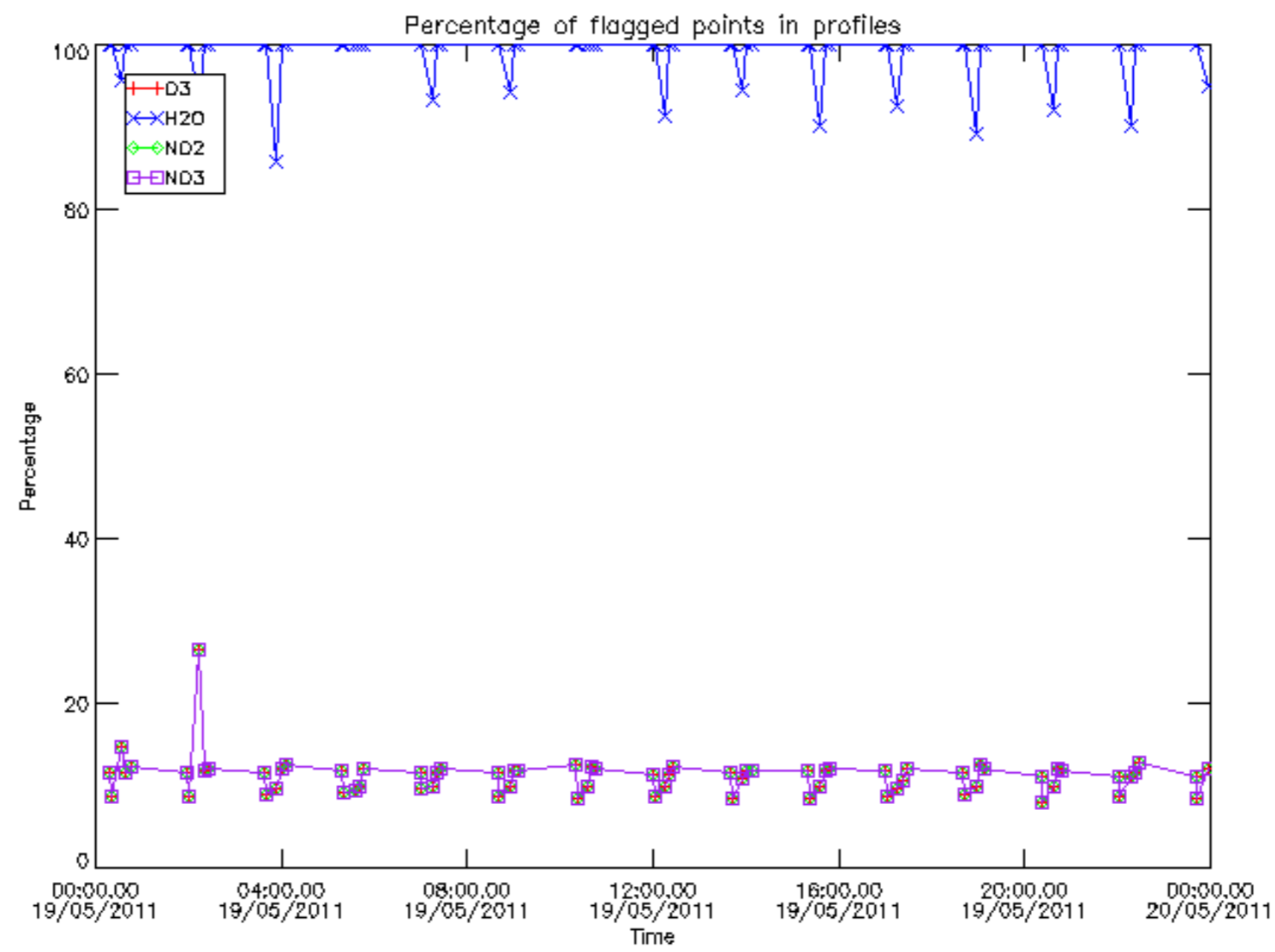


## 6. Auxiliary Data Files used for the production reported in section 2

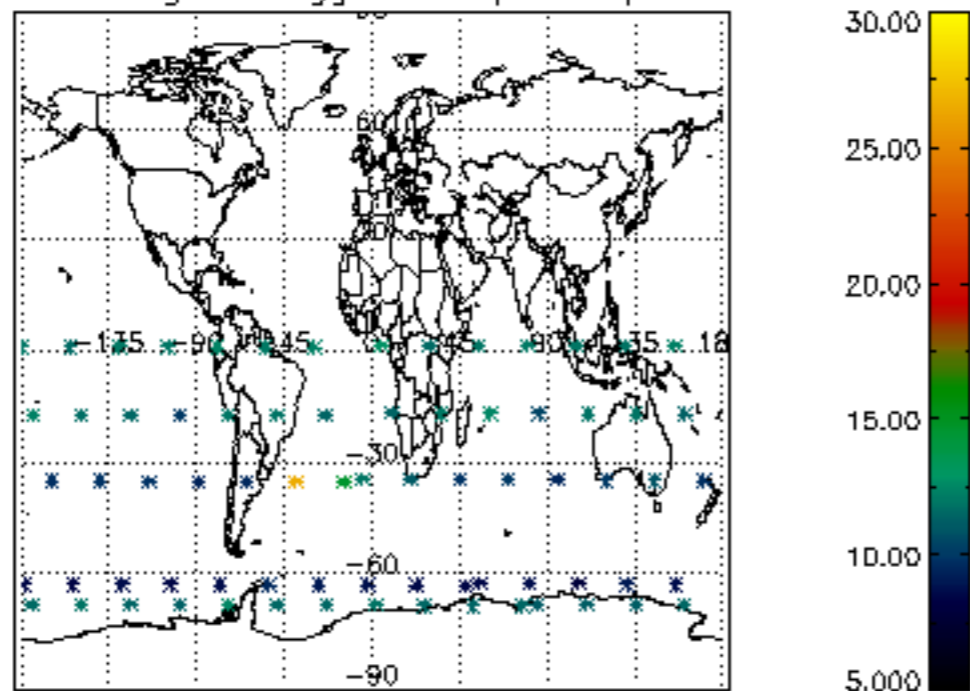
The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	19-MAY-2011 00:00:33
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	19-MAY-2011 00:00:33
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	19-MAY-2011 00:00:33

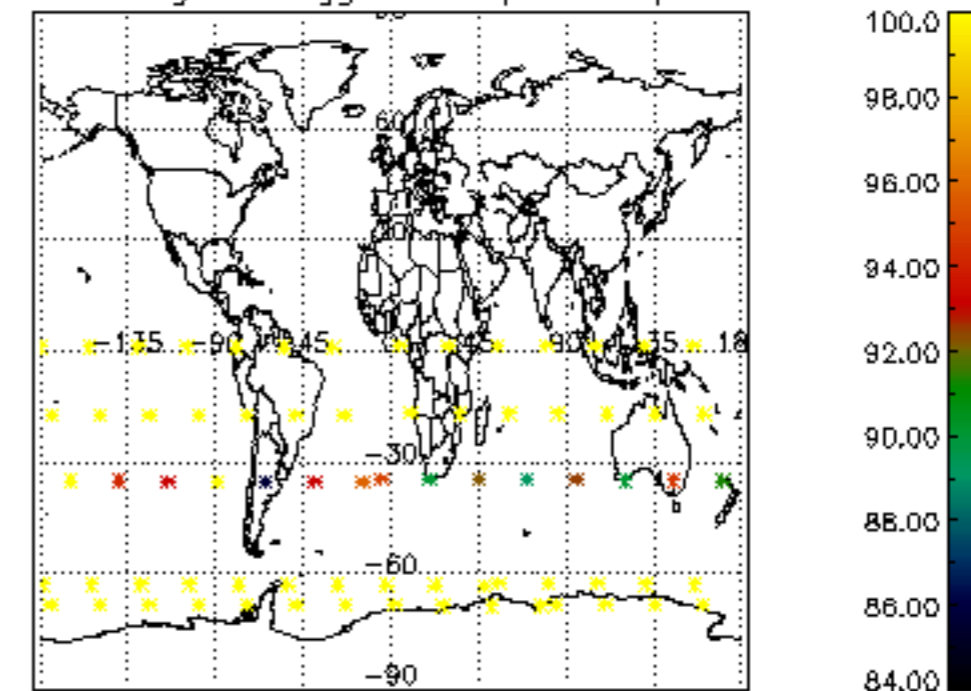




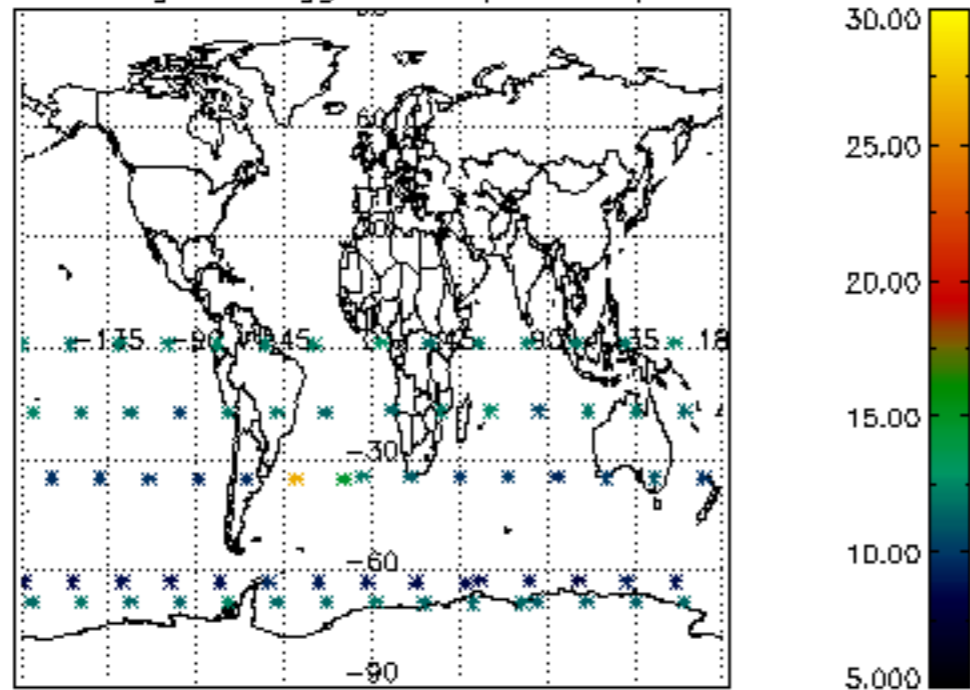
Percentage of flagged data per D3 profile



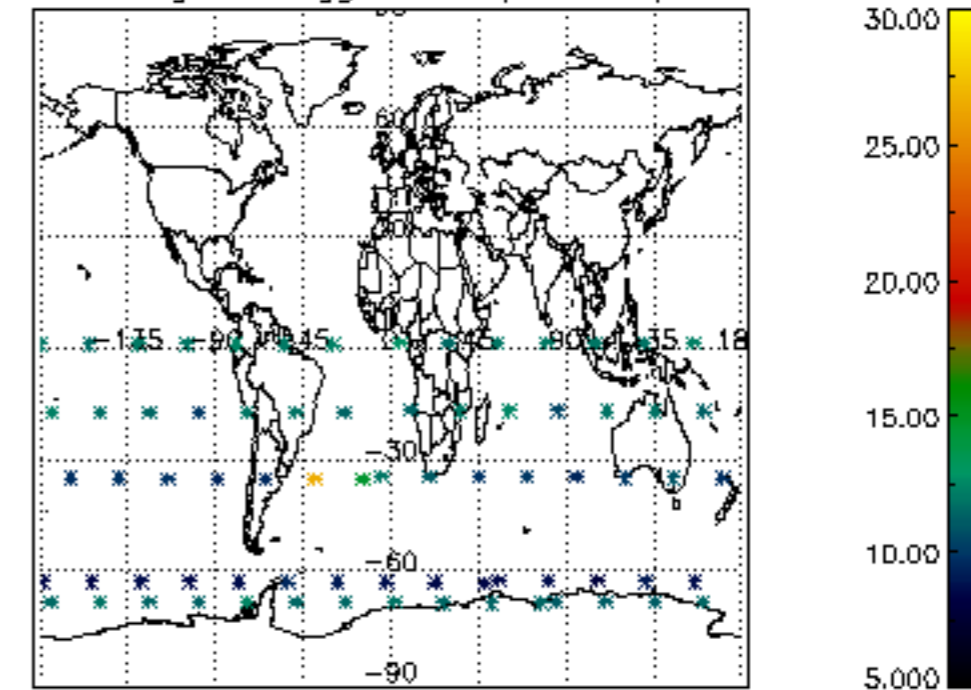
Percentage of flagged data per H2O profile

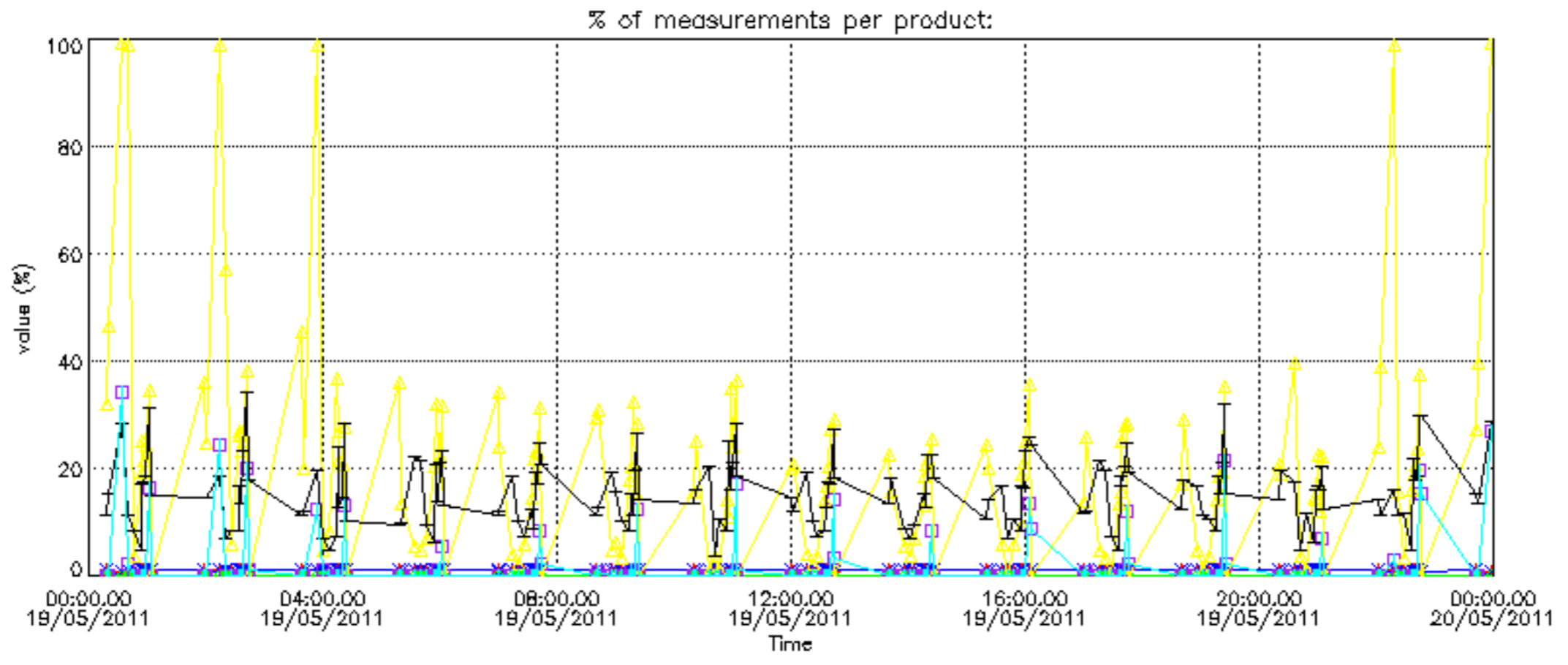


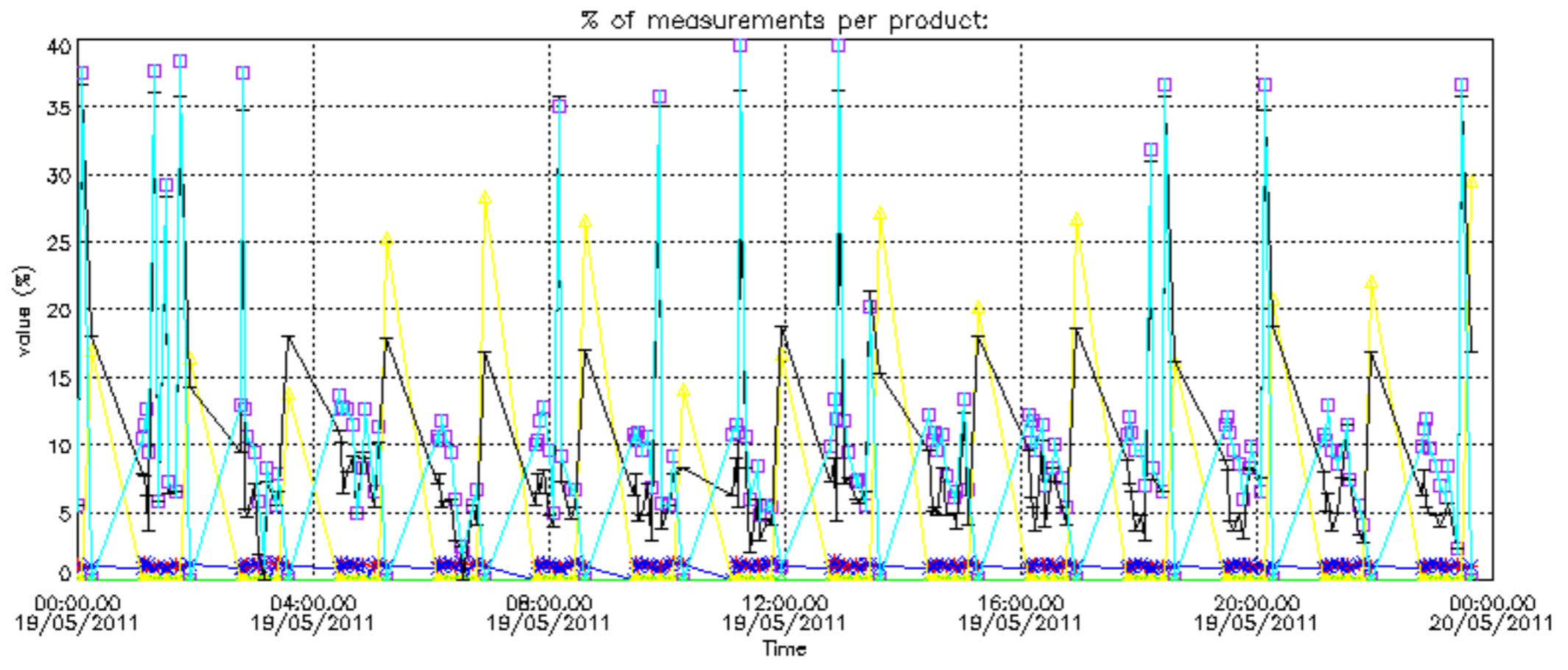
Percentage of flagged data per NO2 profile



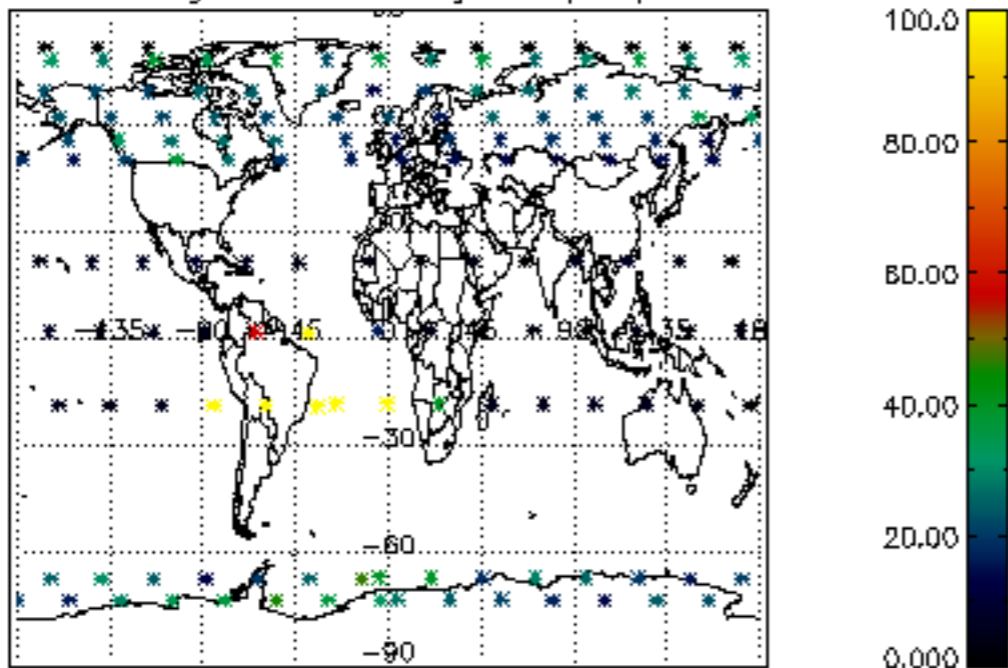
Percentage of flagged data per NO3 profile



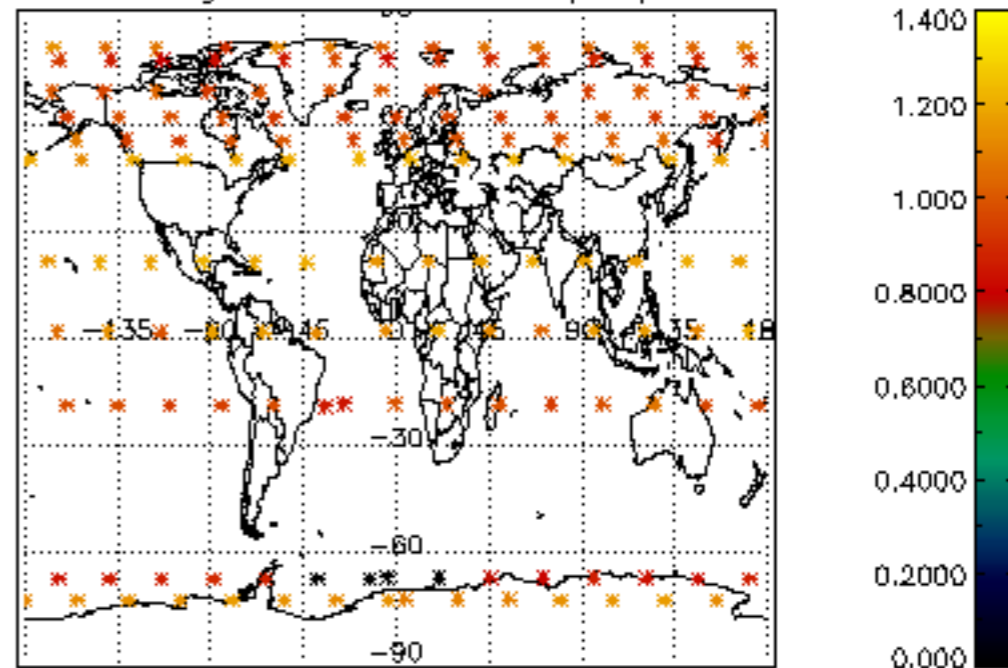




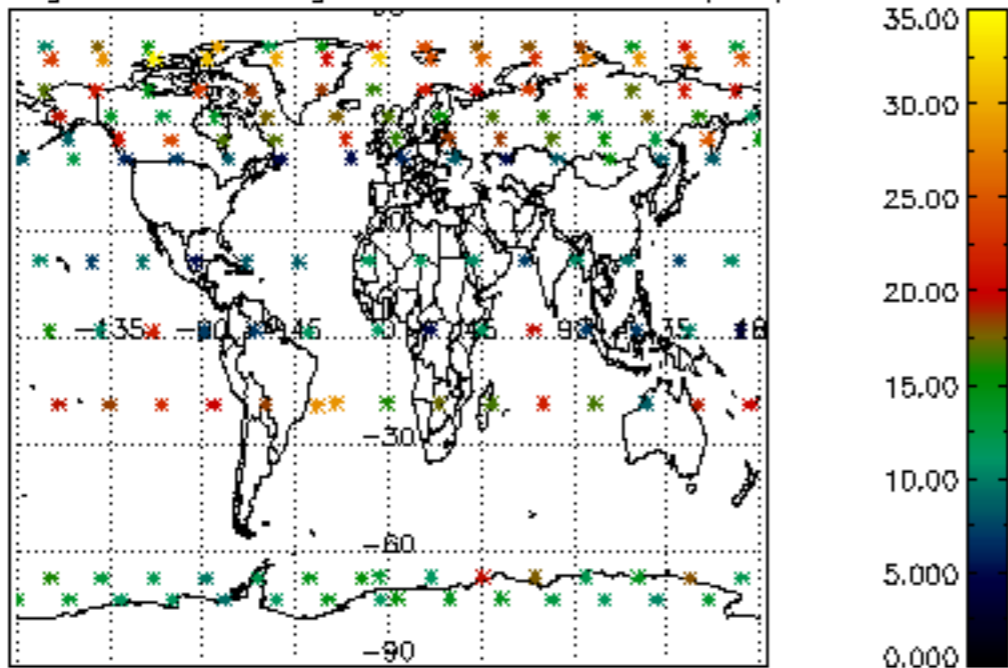
Percentage of cosmic ray hits per profile



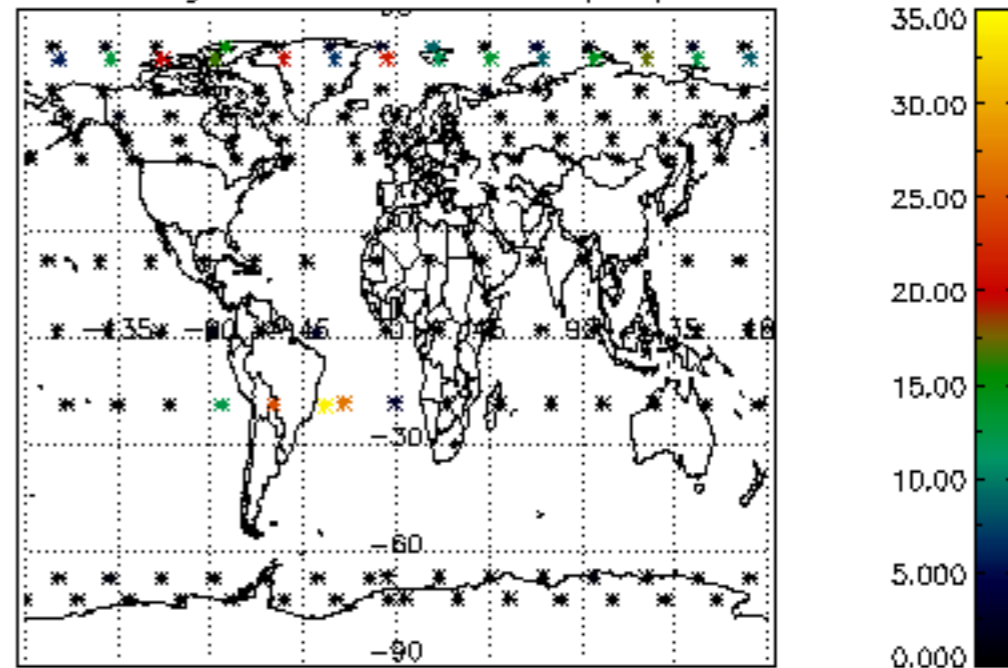
Percentage of datation errors per profile



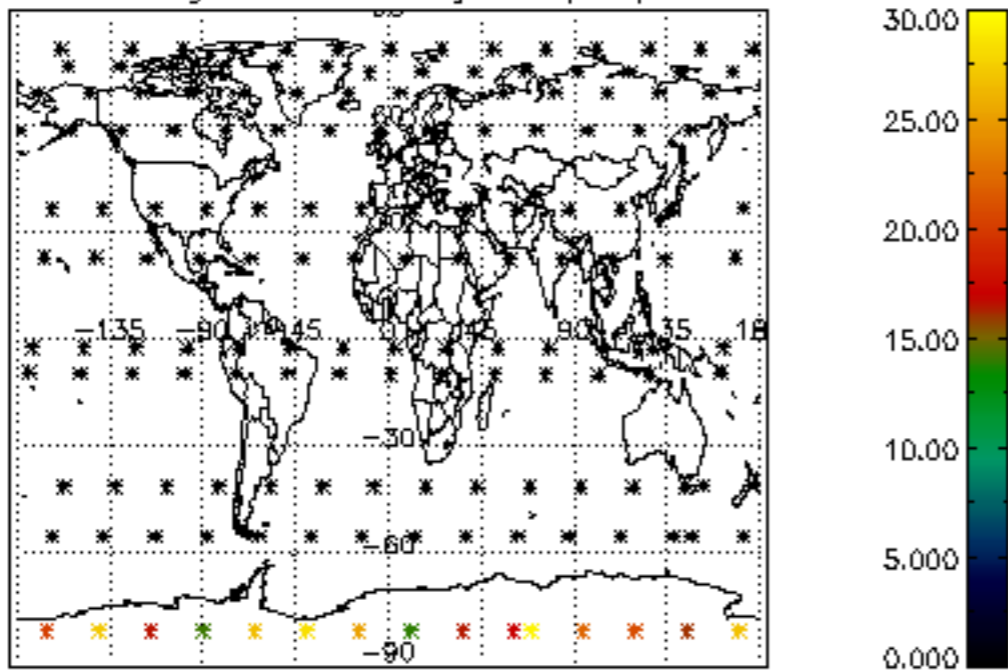
Percentage of star falling outside central band per profile



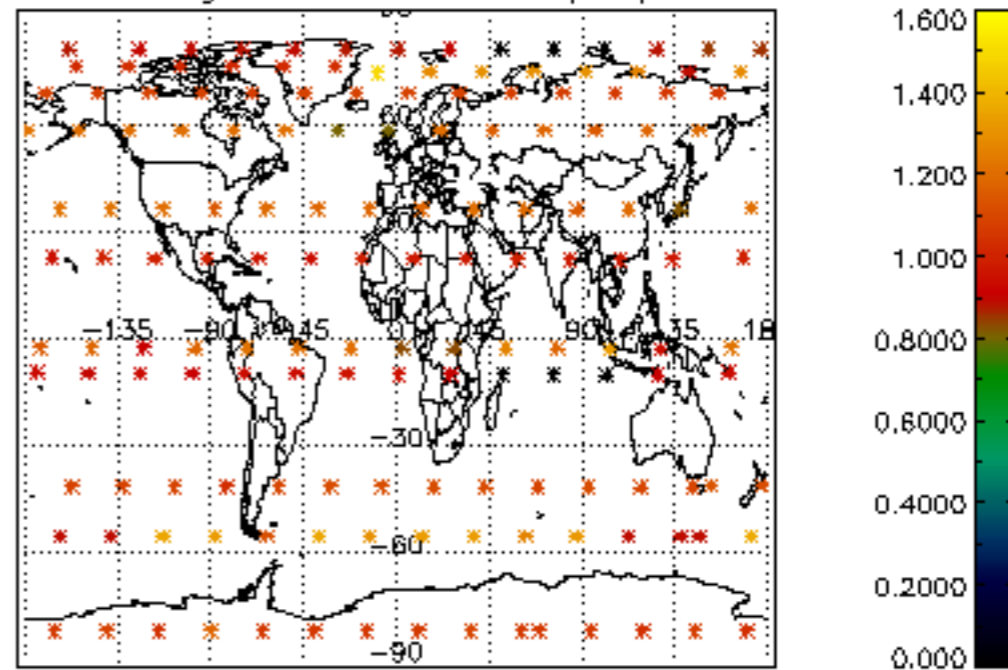
Percentage of saturation errors per profile



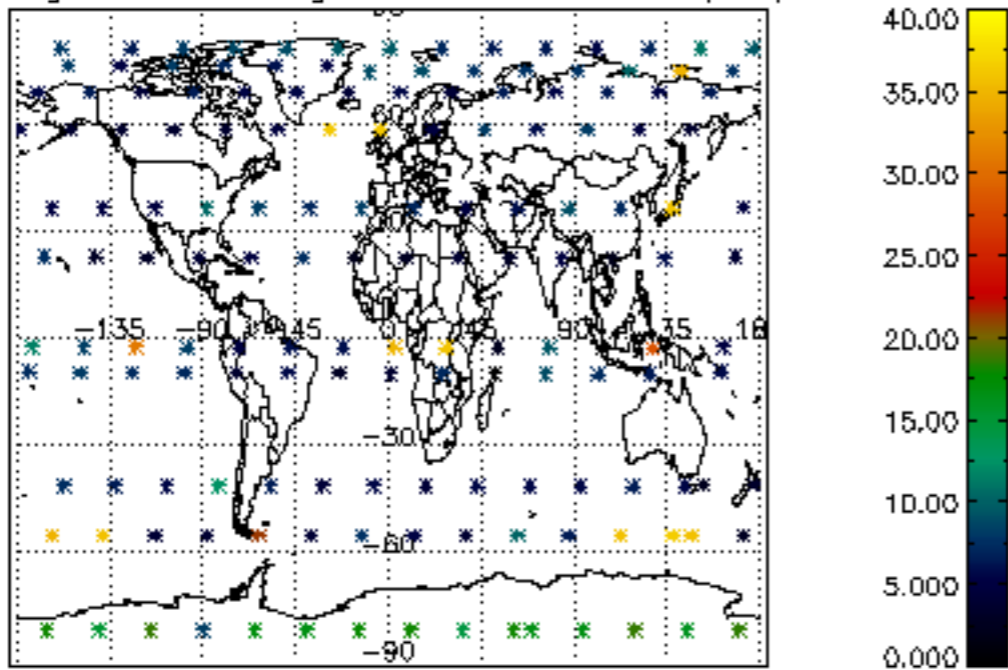
Percentage of cosmic ray hits per profile



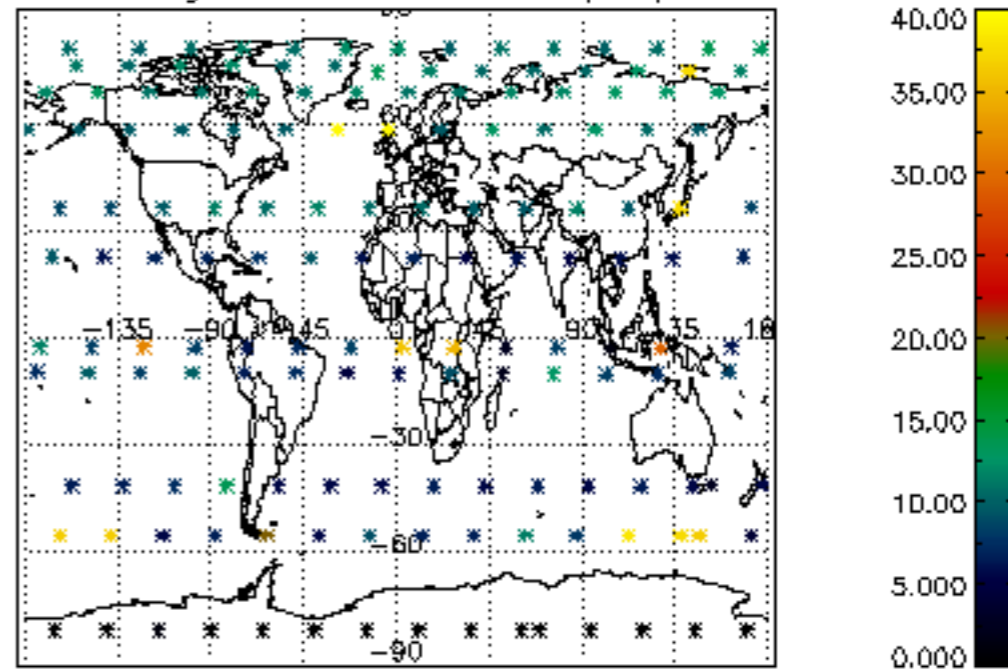
Percentage of datation errors per profile

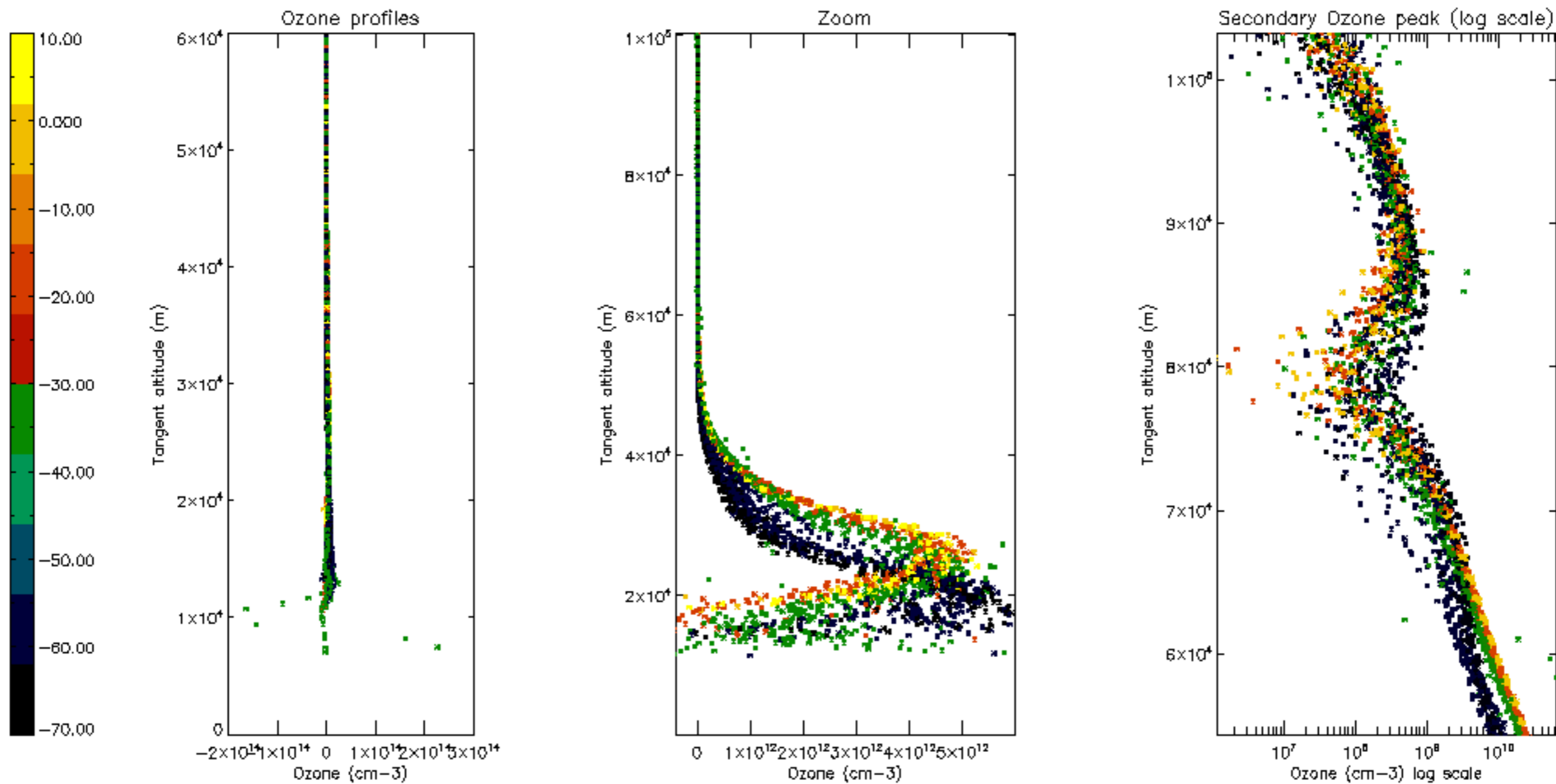


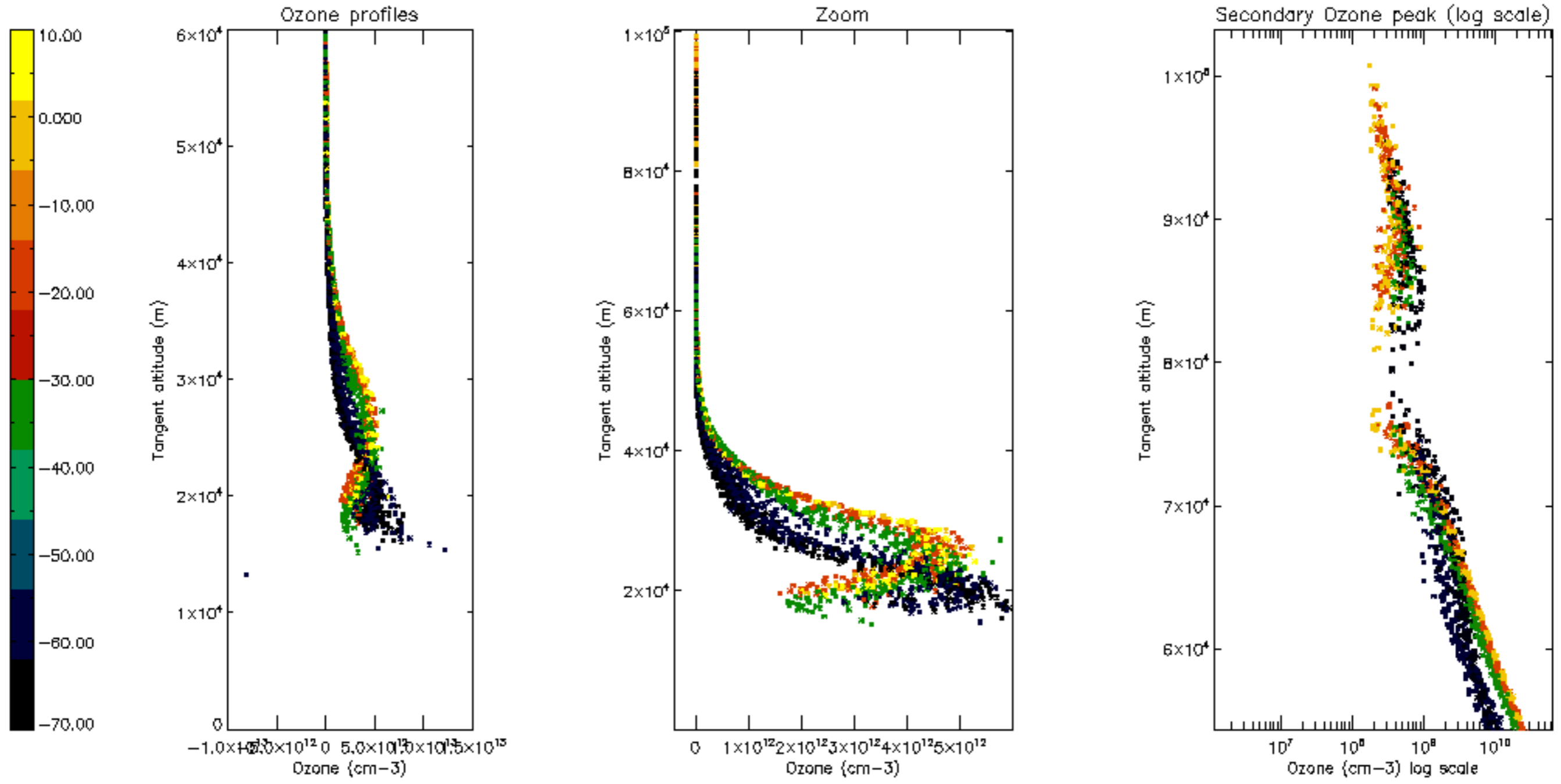
Percentage of star falling outside central band per profile



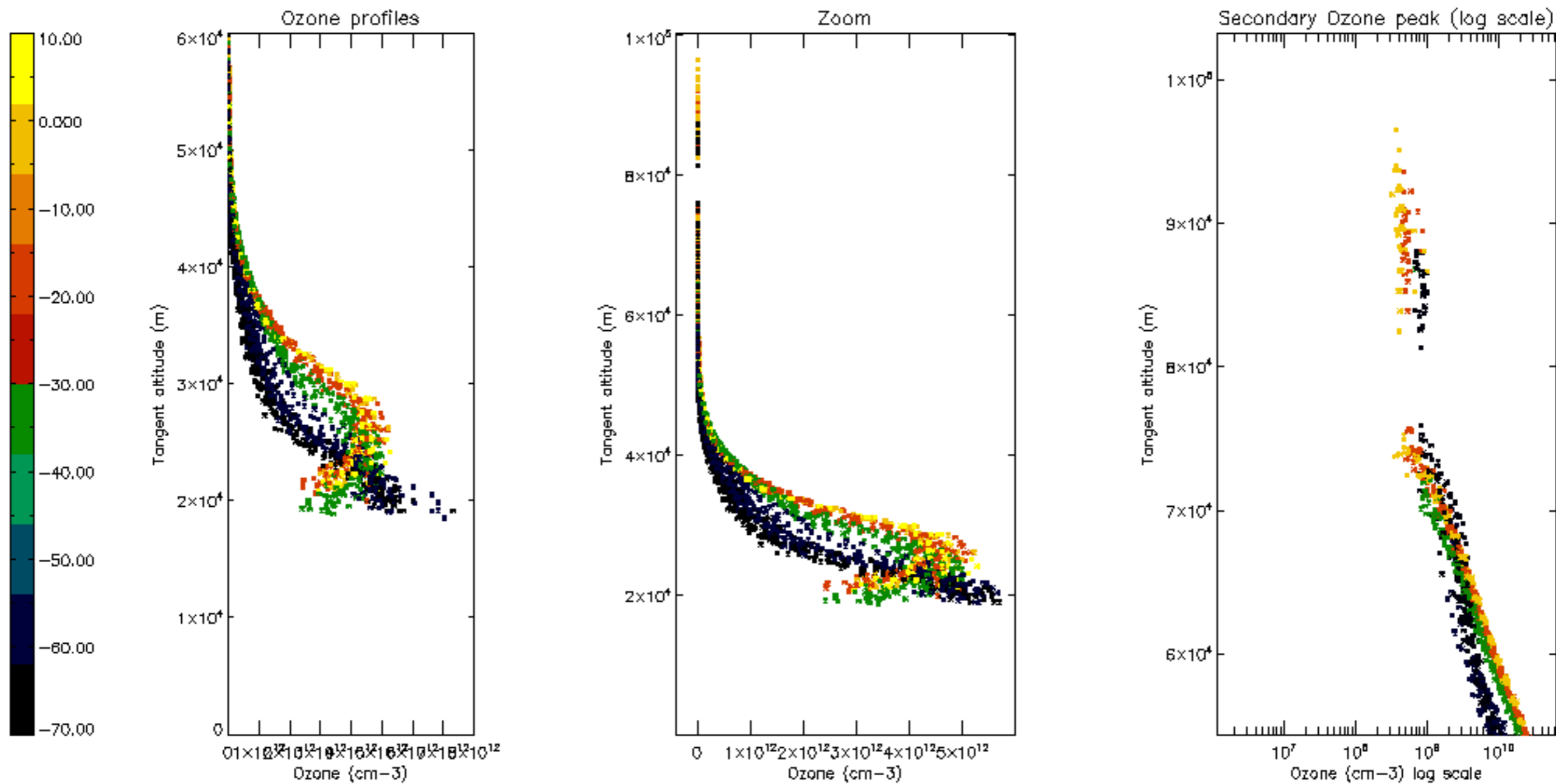
Percentage of saturation errors per profile

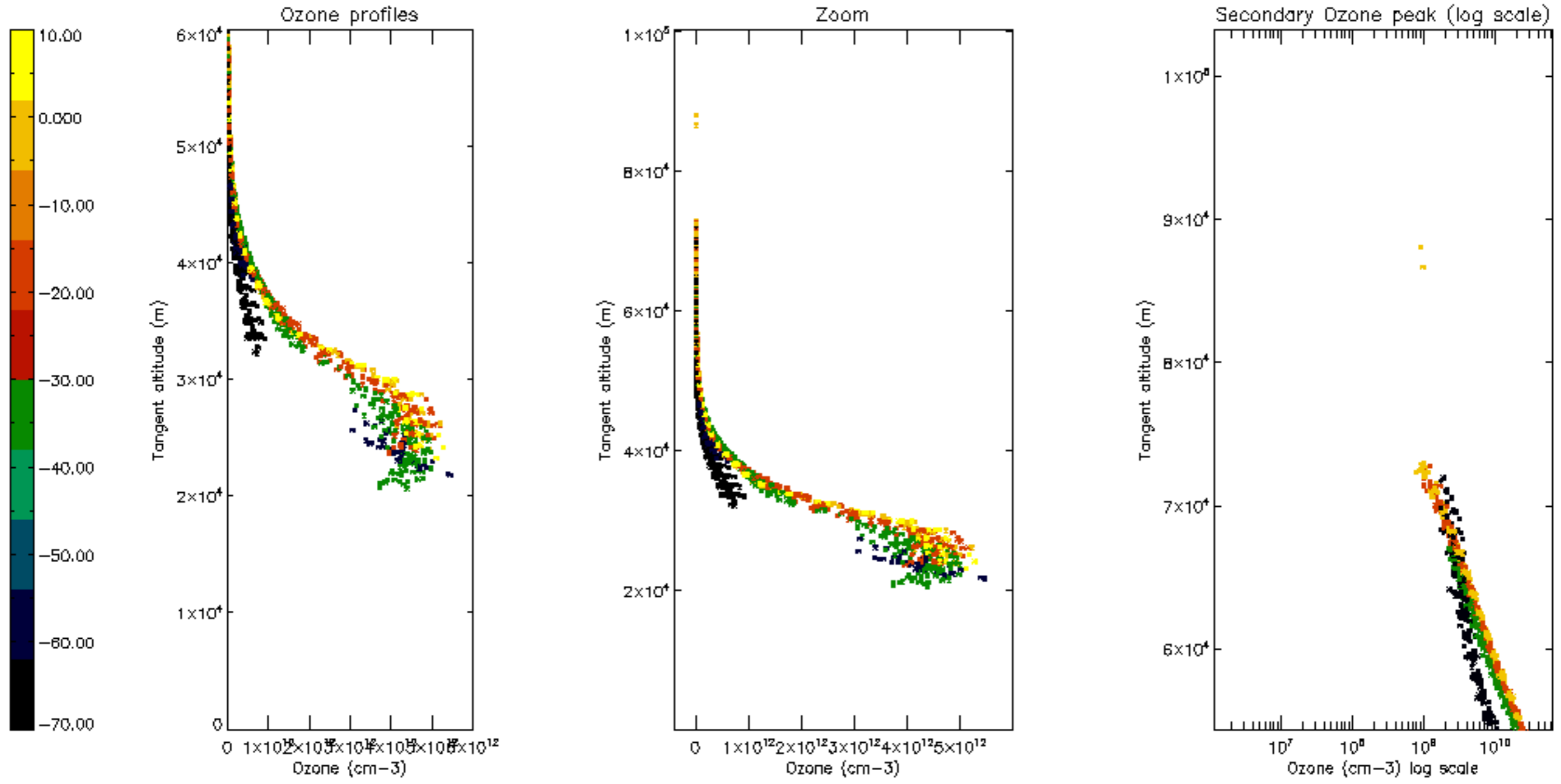


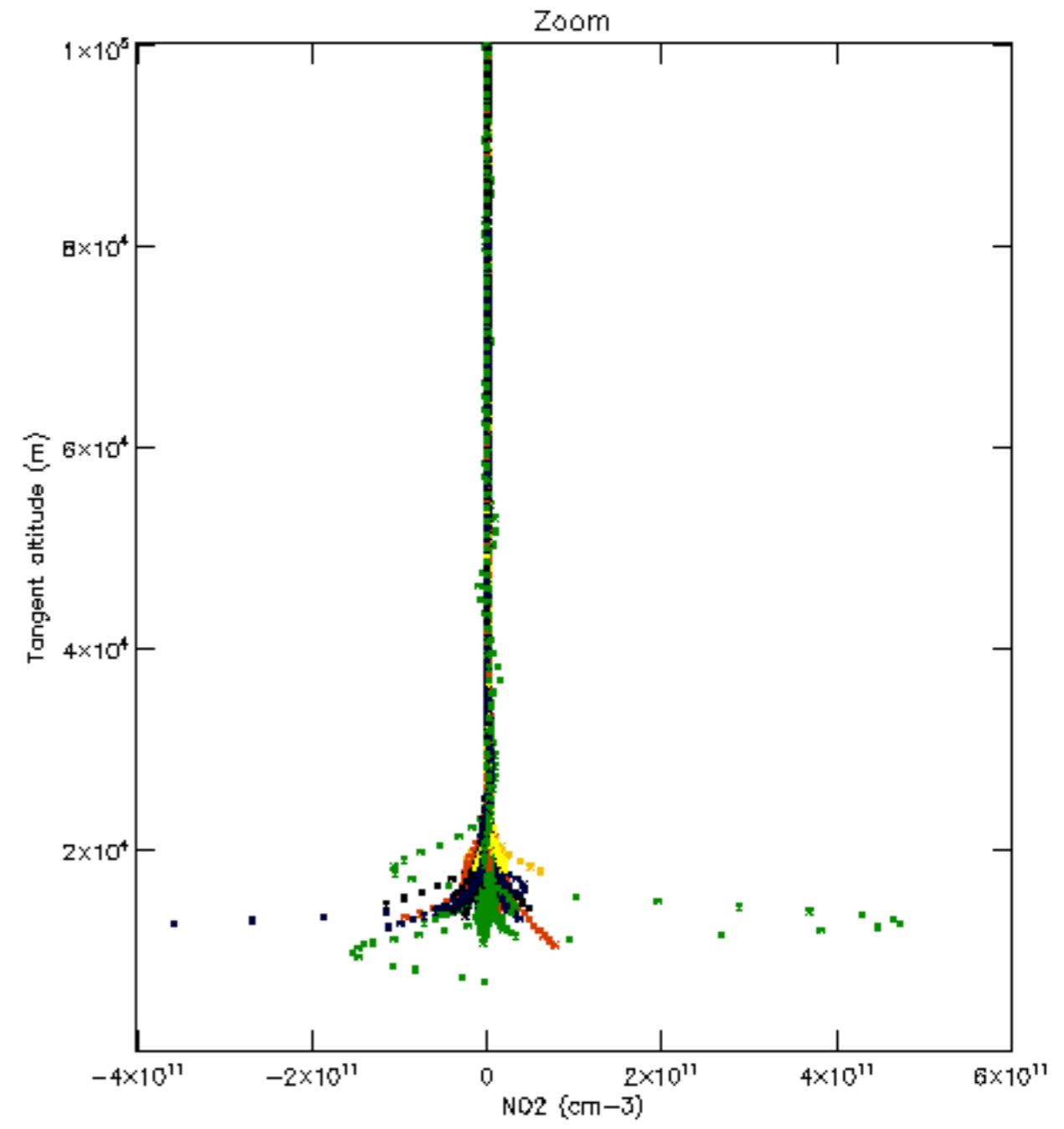
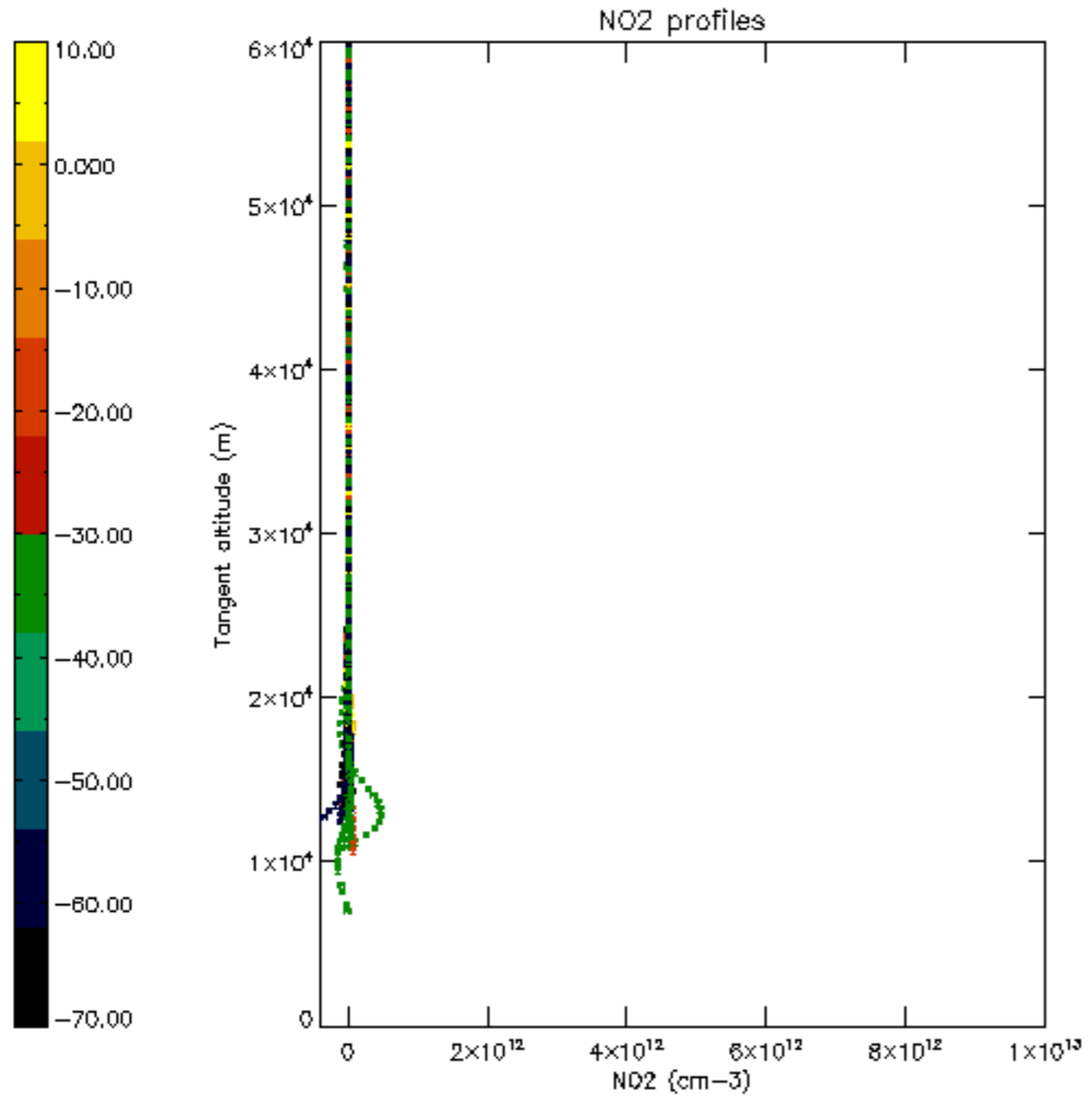


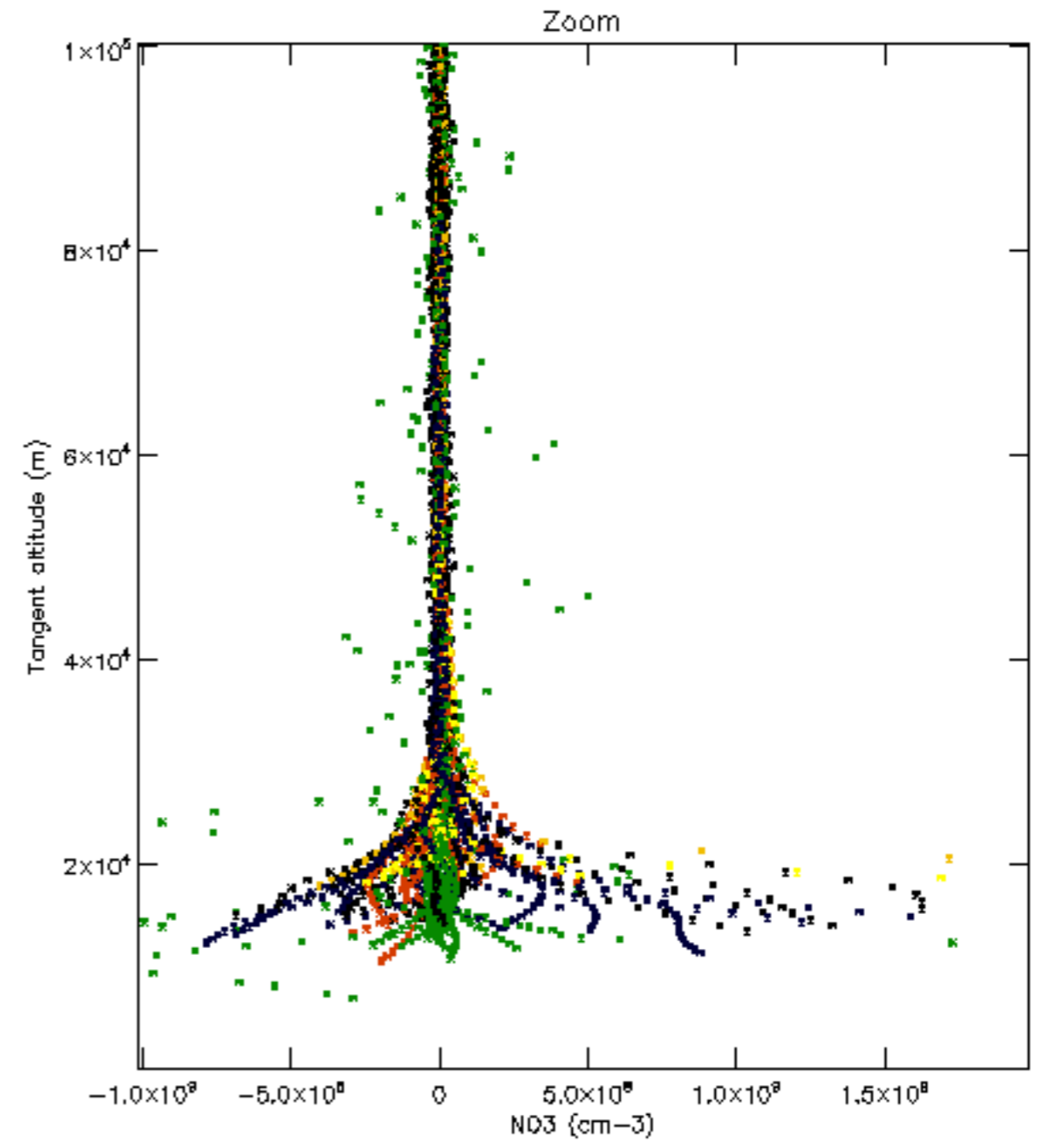
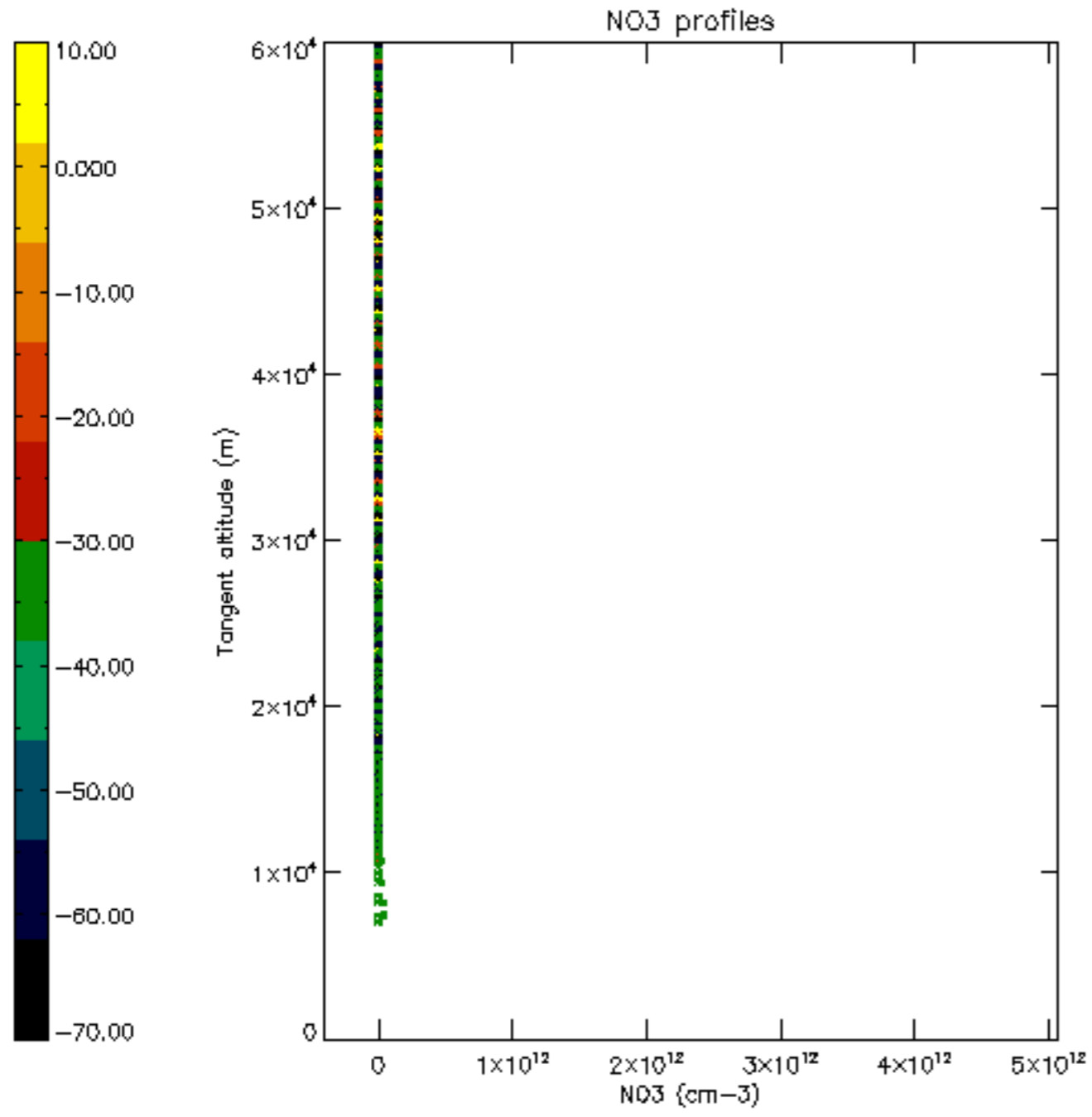


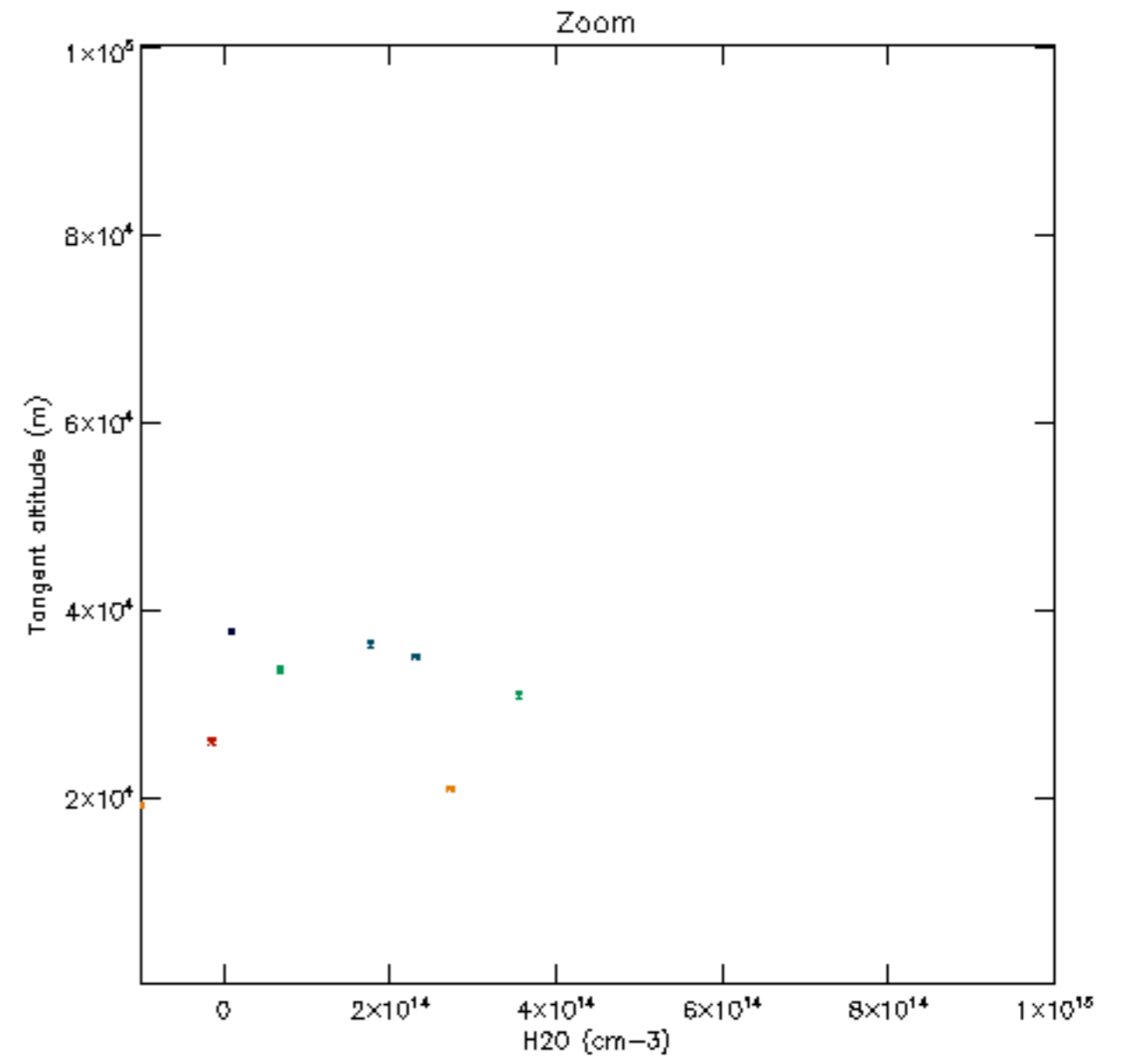
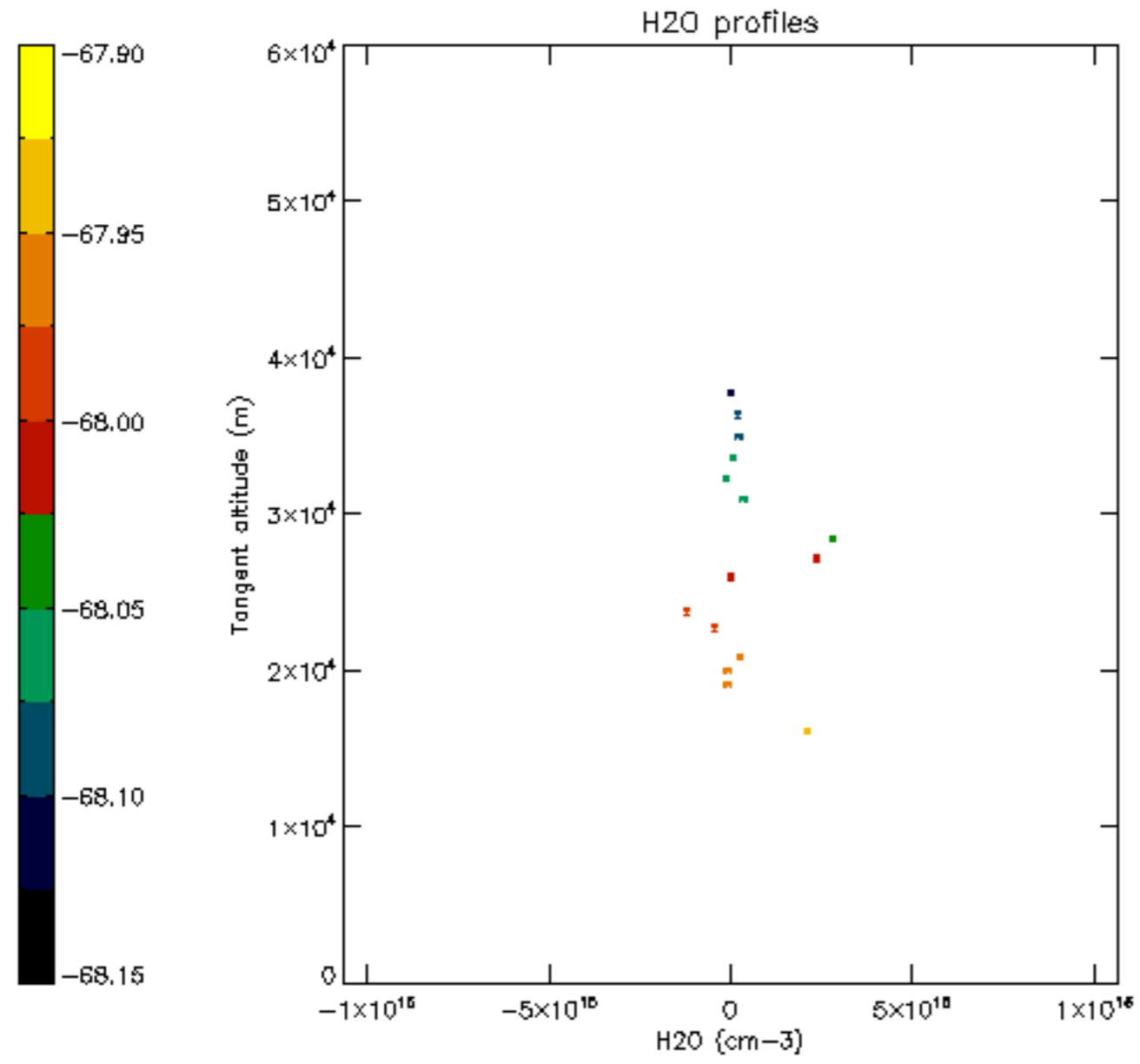


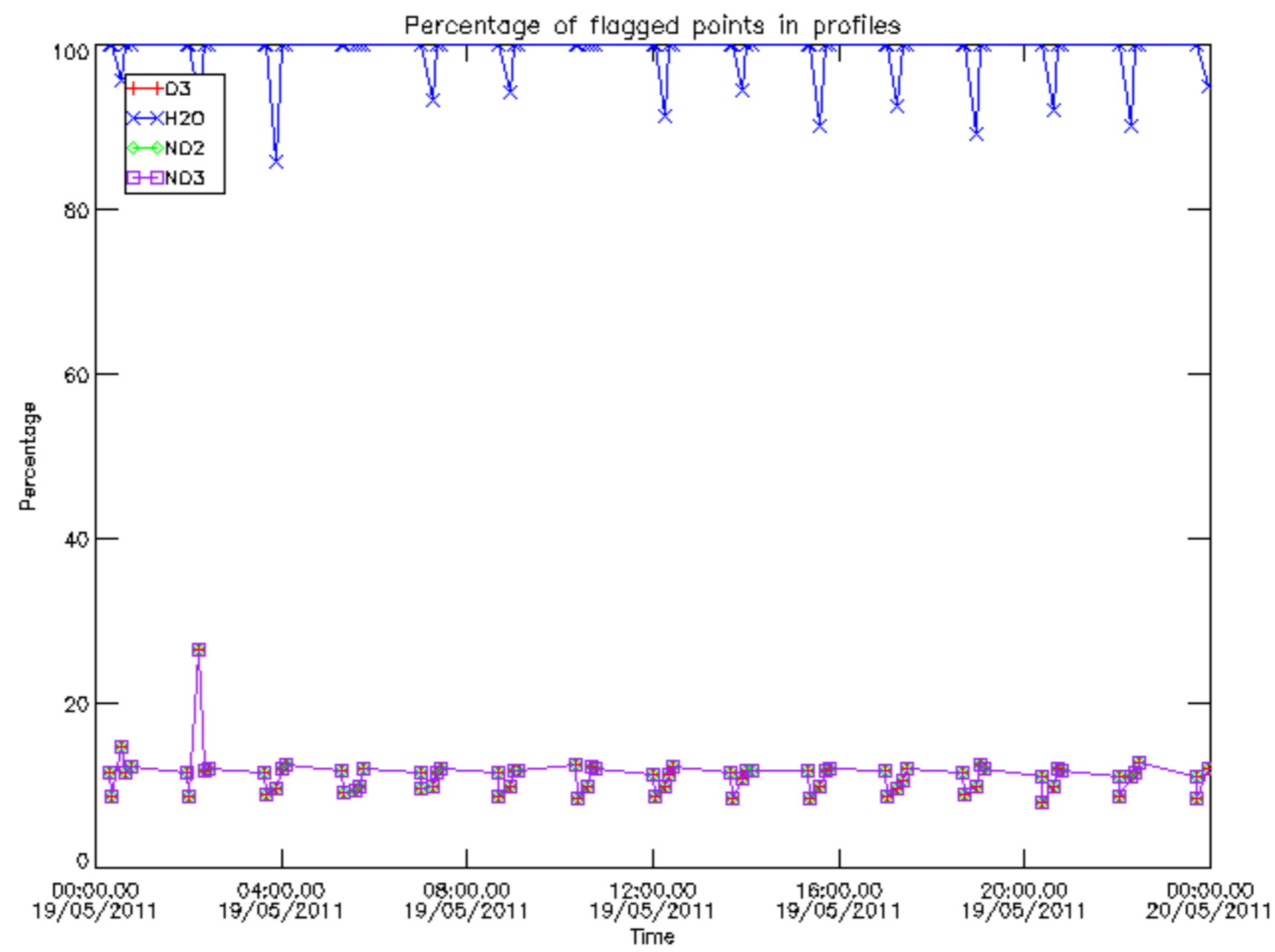




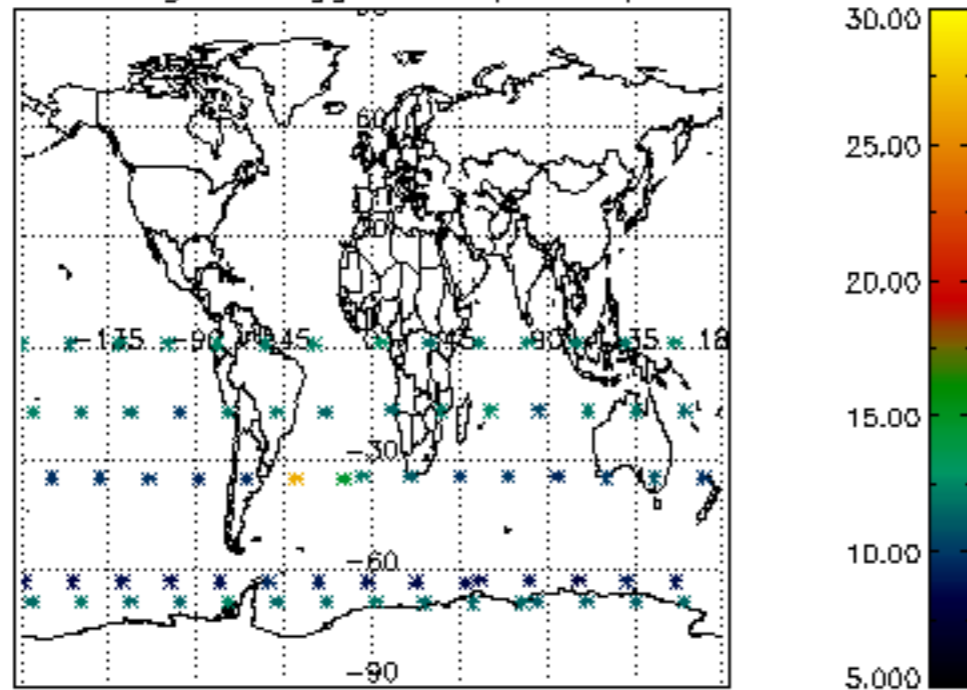




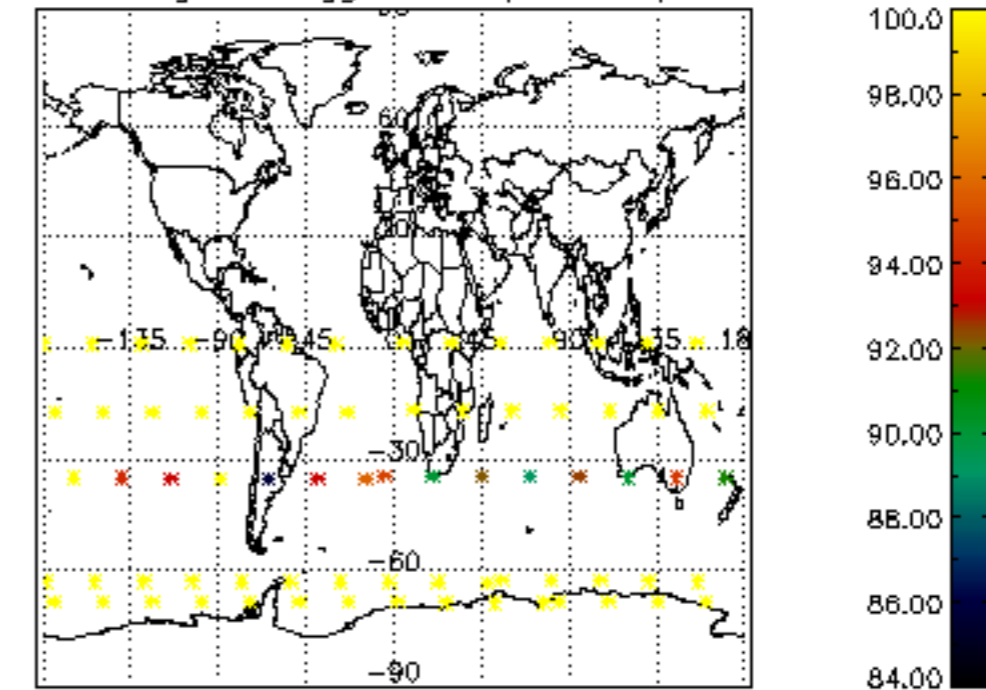




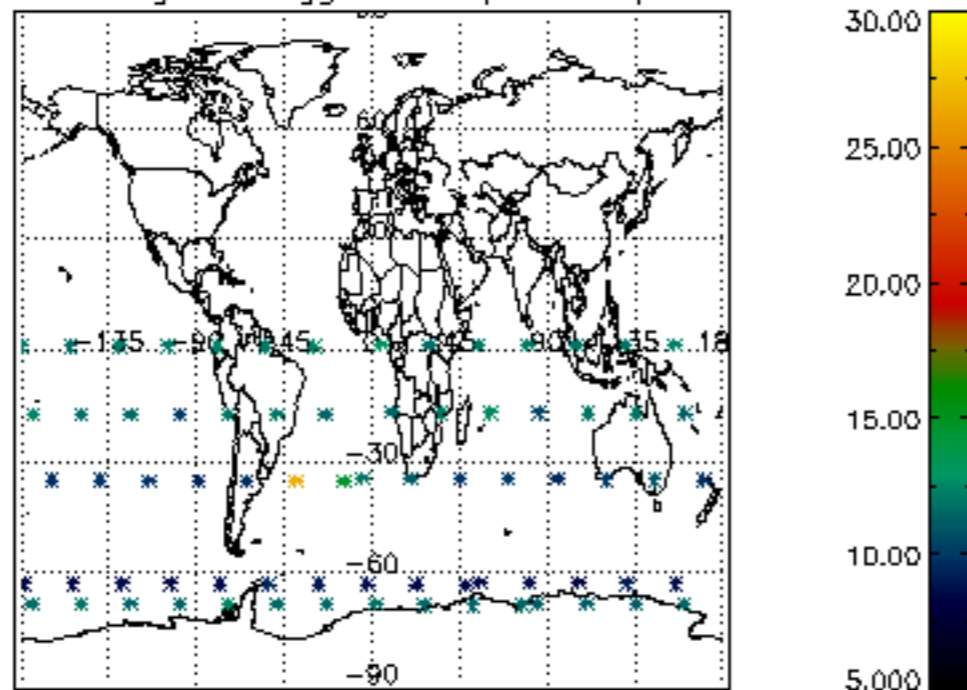
Percentage of flagged data per D3 profile



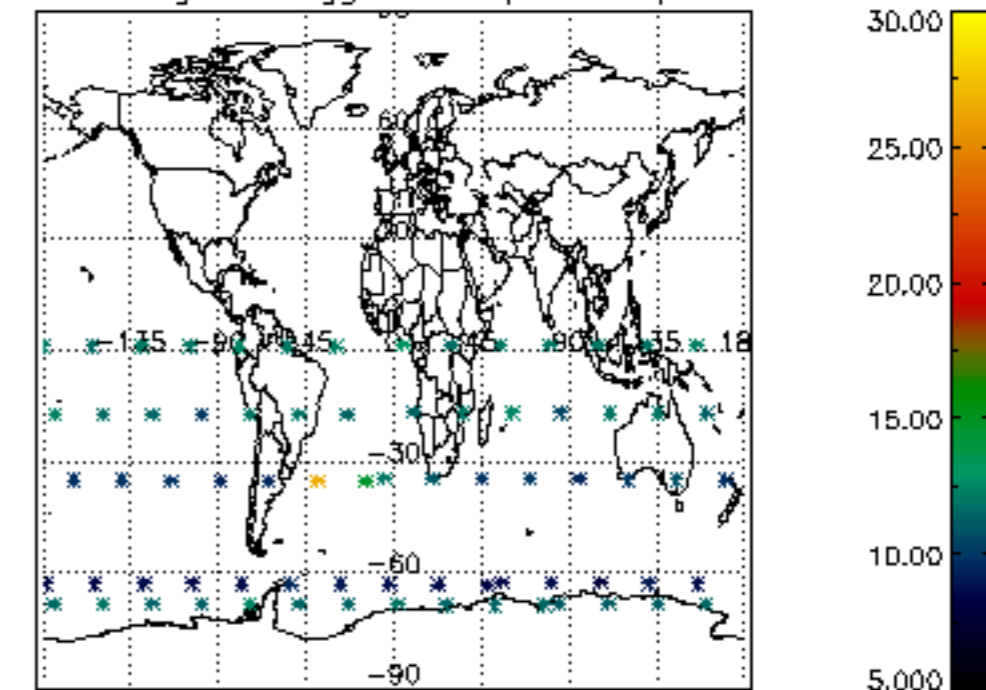
Percentage of flagged data per H2O profile

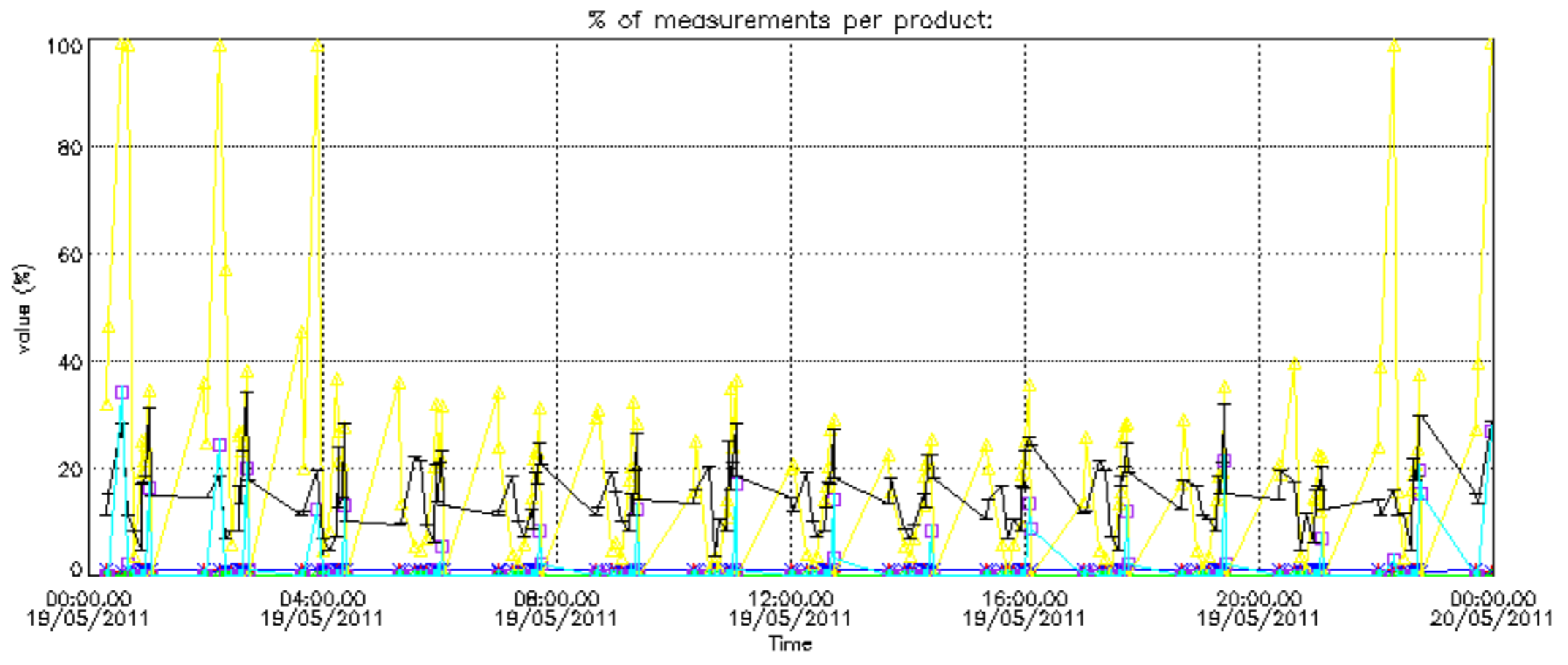


Percentage of flagged data per NO2 profile

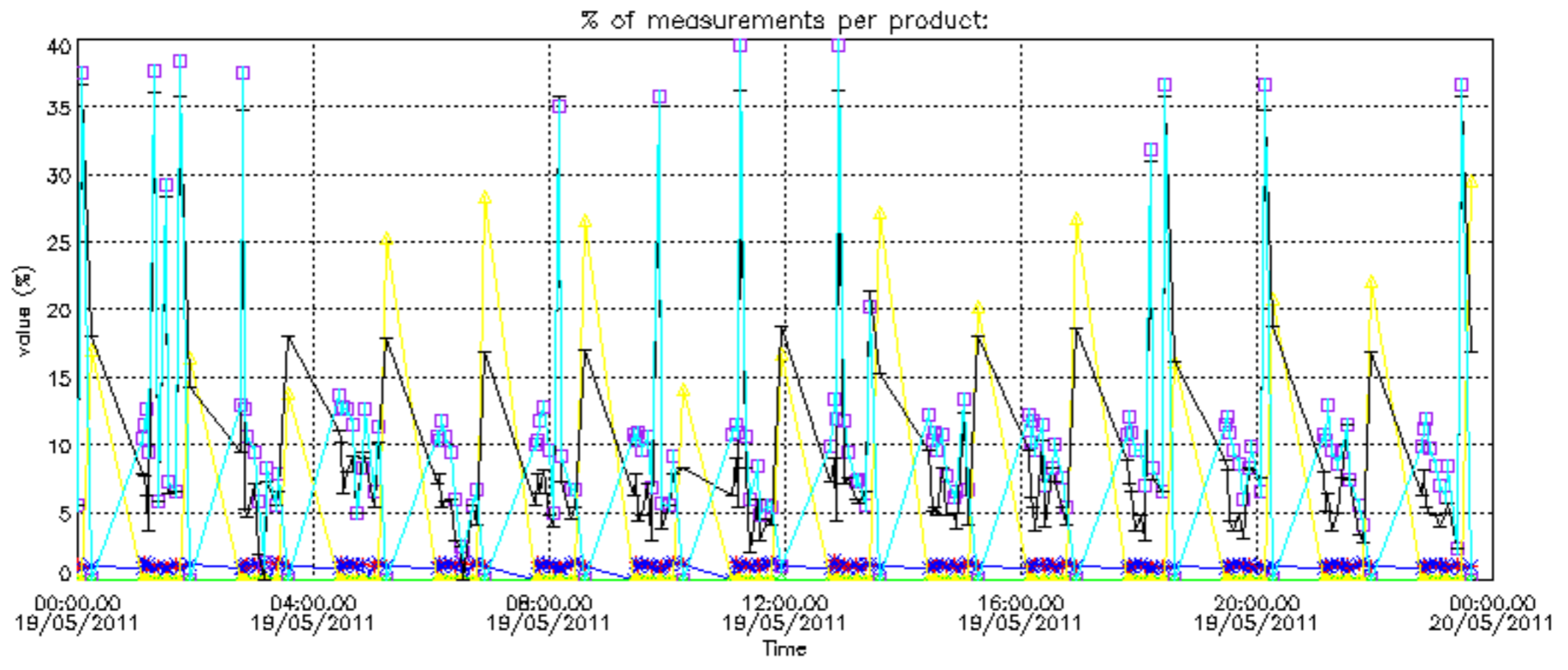


Percentage of flagged data per NO3 profile

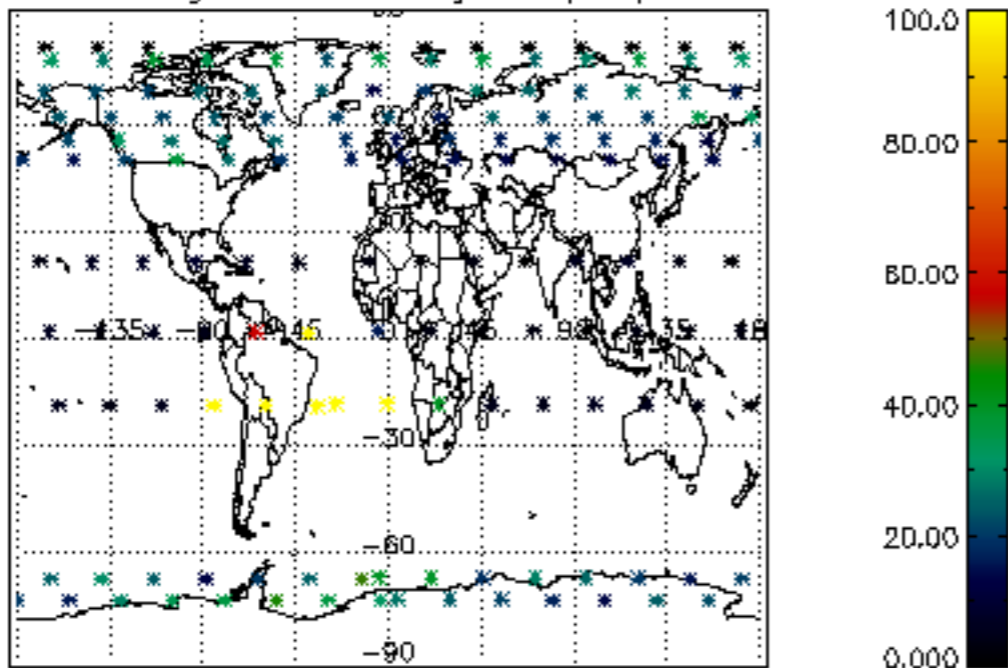




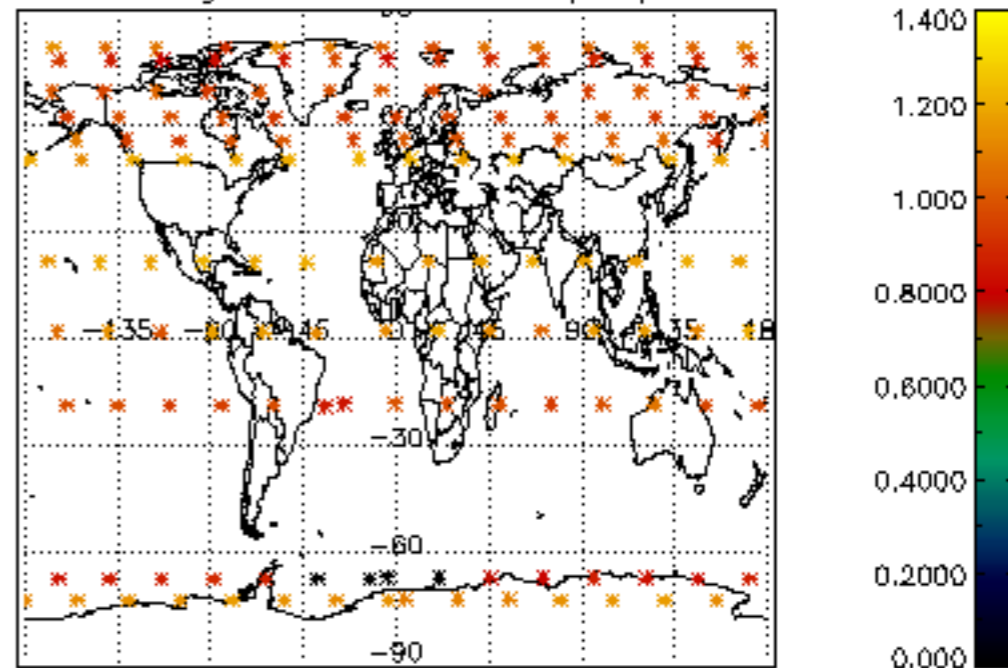




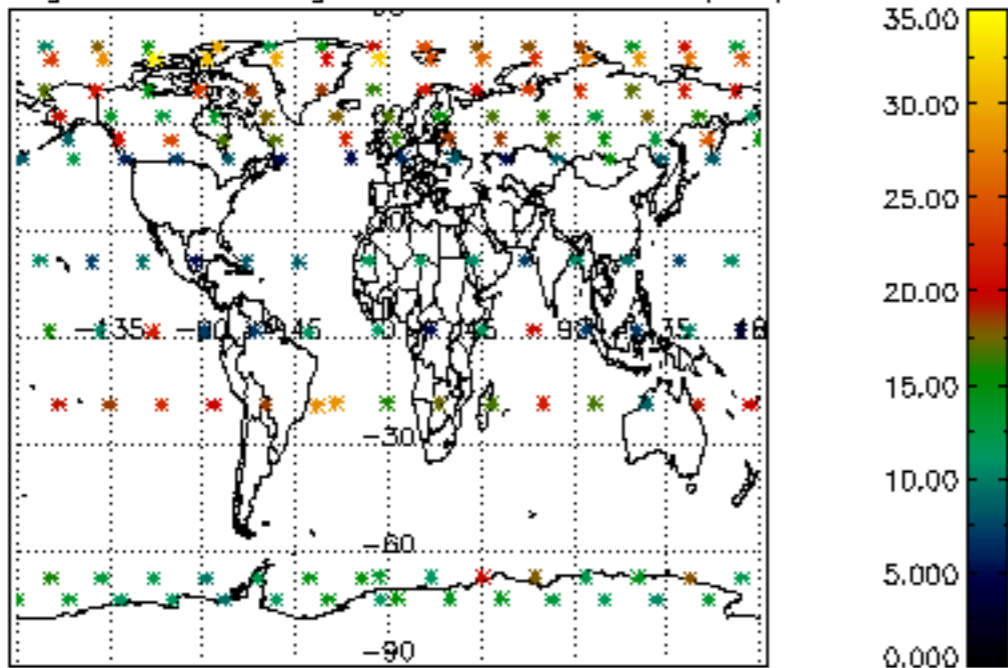
Percentage of cosmic ray hits per profile



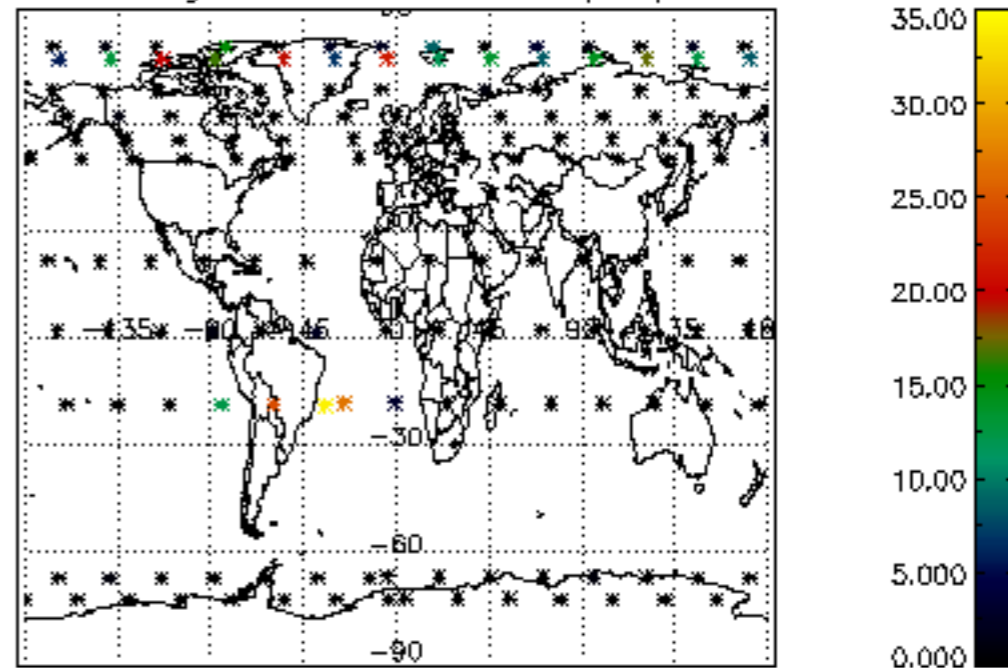
Percentage of datation errors per profile



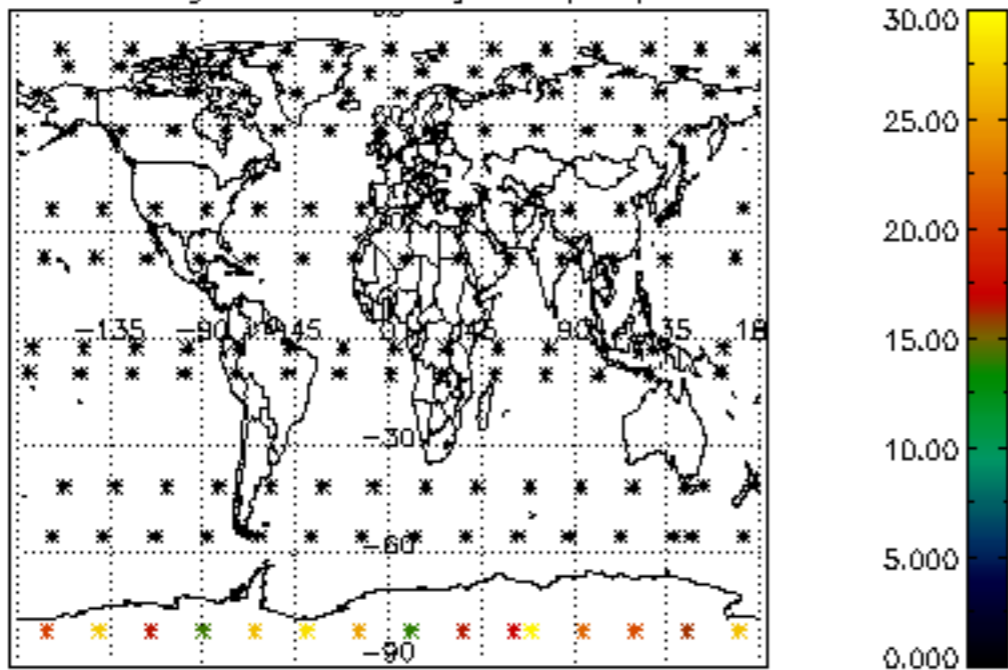
Percentage of star falling outside central band per profile



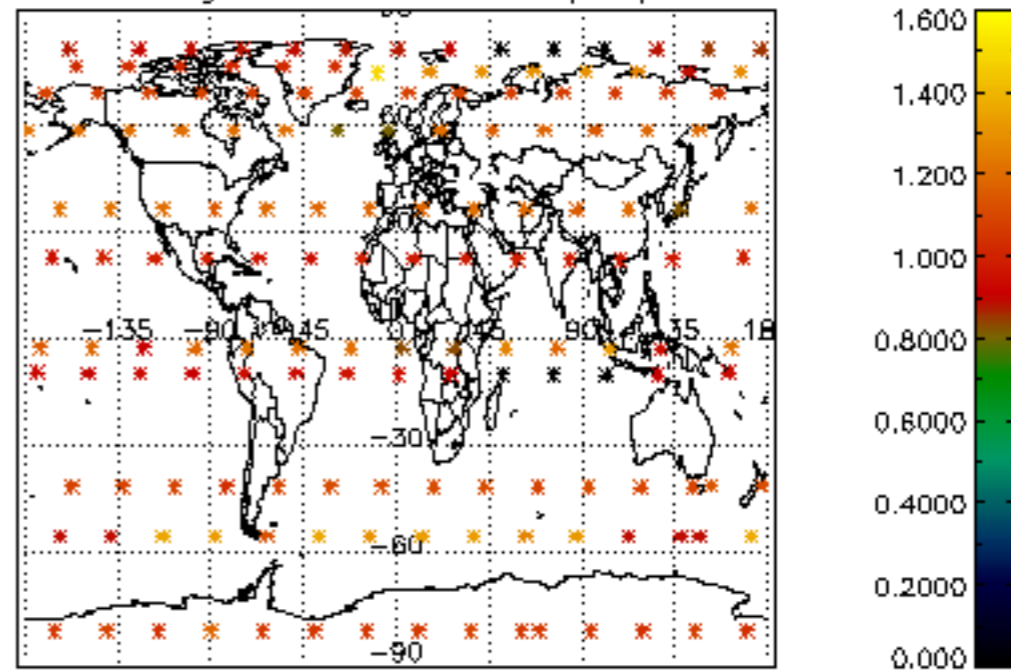
Percentage of saturation errors per profile



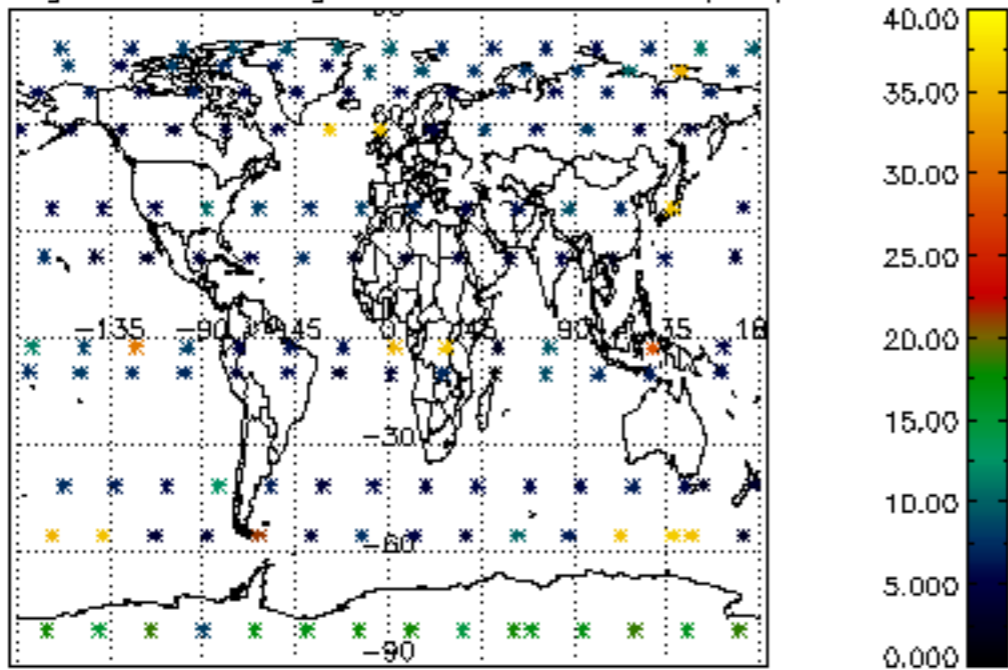
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

