

# 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	19APR2013 12:50:54
Data source version	GOMOS/6.01
Start time of products	09-10-2004 (09OCT2004 00:00:00)
Stop time of products	10-10-2004 (10OCT2004 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	205
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__2PRFIN20041009_124726_000000702031_00067_13648_4659.N1	09-OCT-2004 12:47:26	Dark	69.500	108	Alp Col	2.6520	15200.	139	13648	No
2	GOM_NL__2PRFIN20041009_125207_000000422031_00067_13648_4660.N1	09-OCT-2004 12:52:07	Dark	41.500	143	Alp Hyi	2.8570	7200.0	83	13648	No
3	GOM_NL__2PRFIN20041009_125335_000000432031_00067_13648_4661.N1	09-OCT-2004 12:53:35	Dark	43.000	9	Alp Eri	0.45300	24000.	86	13648	No
4	GOM_NL__2PRFIN20041009_125548_000000492031_00067_13648_4662.N1	09-OCT-2004 12:55:48	Straylight	49.000	157	The1Eri	2.9060	9300.0	98	13648	No
5	GOM_NL__2PRFIN20041009_125845_000000462031_00067_13648_4663.N1	09-OCT-2004 12:58:45	Straylight	45.500	84	Alp Phe	2.3970	4500.0	91	13648	No
6	GOM_NL__2PRFIN20041009_130313_000000472031_00067_13648_4664.N1	09-OCT-2004 13:03:13	Straylight	46.500	18	24Alp PsA	1.1660	9700.0	93	13648	No
7	GOM_NL__2PRFIN20041009_130526_000000502031_00067_13648_4665.N1	09-OCT-2004 13:05:26	Straylight	50.000	52	16Bet Cet	2.0370	4500.0	100	13648	No
8	GOM_NL__2PRFIN20041009_130722_000001642031_00067_13648_4666.N1	09-OCT-2004 13:07:22	Bright	164.00	165	34Gam Eri	2.9500	3200.0	328	13648	No
9	GOM_NL__2PRFIN20041009_131519_000000402031_00067_13648_4667.N1	09-OCT-2004 13:15:19	Bright	40.000	140	88Gam Peg	2.8340	26000.	80	13648	No
10	GOM_NL__2PRFIN20041009_131906_000000392031_00067_13648_4668.N1	09-OCT-2004 13:19:06	Bright	39.000	93	53Bet Peg	2.5200	3100.0	78	13648	No
11	GOM_NL__2PRFIN20041009_132219_000000452031_00067_13648_4669.N1	09-OCT-2004 13:22:19	Bright	44.500	53	43Bet And	2.0480	3300.0	89	13648	No
12	GOM_NL__2PRFIN20041009_132434_000000512031_00067_13648_4670.N1	09-OCT-2004 13:24:34	Bright	50.500	173	4Bet Tri	3.0040	8900.0	101	13648	No
13	GOM_NL__2PRFIN20041009_132616_000000472031_00067_13648_4671.N1	09-OCT-2004 13:26:16	Bright	46.500	73	57Gam1And	2.2600	13100.	93	13648	No
14	GOM_NL__2PRFIN20041009_132900_000000412031_00067_13648_4672.N1	09-OCT-2004 13:29:00	Bright	40.500	76	27Gam Cas	2.3000	30000.	81	13648	No
15	GOM_NL__2PRFIN20041009_133145_000000512031_00067_13648_4673.N1	09-OCT-2004 13:31:45	Bright	51.000	160	23Gam Per	2.9300	4700.0	102	13648	No
16	GOM_NL__2PRFIN20041009_133340_000000572031_00067_13648_4674.N1	09-OCT-2004 13:33:40	Bright	56.500	175	39Del Per	3.0100	19400.	113	13648	No
17	GOM_NL__2PRFIN20041009_133617_000000402031_00067_13648_4675.N1	09-OCT-2004 13:36:17	Bright	40.000	49	1Alp UMi	1.9900	6300.0	80	13648	No
18	GOM_NL__2PRFIN20041009_133856_000000382031_00067_13648_4676.N1	09-OCT-2004 13:38:56	Bright	37.500	60	7Bet UMi	2.0810	3950.0	75	13648	No
19	GOM_NL__2PRFIN20041009_134152_000000842031_00067_13648_4677.N1	09-OCT-2004 13:41:52	Bright	83.500	6	13Alp Aur	0.080000	3400.0	167	13648	No
20	GOM_NL__2PRFIN20041009_134445_000000392031_00067_13648_4678.N1	09-OCT-2004 13:44:45	Bright	39.000	55	79Zet UMa	2.0600	10200.	78	13648	No
21	GOM_NL__2PRFIN20041009_134621_000000372031_00067_13648_4679.N1	09-OCT-2004 13:46:21	Bright	36.500	87	64Gam UMa	2.4330	11000.	73	13648	No
22	GOM_NL__2PRFIN20041009_134918_000000372031_00067_13648_4680.N1	09-OCT-2004 13:49:18	Bright	36.500	174	52Psi UMa	3.0040	4400.0	73	13648	No
23	GOM_NL__2PRFIN20041009_135634_000000852031_00067_13648_4681.N1	09-OCT-2004 13:56:34	Bright	84.500	17	78Bet Gem	1.1610	4500.0	169	13648	No
24	GOM_NL__2PRFIN20041009_135915_000000412031_00067_13648_4682.N1	09-OCT-2004 13:59:15	Bright	41.000	22	32Alp Leo	1.3600	15200.	82	13648	No
25	GOM_NL__2PRFIN20041009_140612_000000482031_00067_13648_4683.N1	09-OCT-2004 14:06:12	Twilight	48.000	48	30Alp Hya	1.9770	4100.0	96	13648	No
26	GOM_NL__2PRFIN20041009_140809_000000992031_00067_13648_4684.N1	09-OCT-2004 14:08:09	Dark	99.000	8	10Alp CMi	0.40000	6500.0	198	13648	No
27	GOM_NL__2PRFIN20041009_141550_000000452031_00067_13648_4685.N1	09-OCT-2004 14:15:50	Dark	45.000	65	Lam Vel	2.2040	4400.0	90	13648	No
28	GOM_NL__2PRFIN20041009_141742_000000462031_00067_13648_4686.N1	09-OCT-2004 14:17:42	Dark	46.000	70	Zet Pup	2.2460	39000.	92	13648	No
29	GOM_NL__2PRFIN20041009_142805_000000702031_00068_13649_4659.N1	09-OCT-2004 14:28:05	Dark	69.500	108	Alp Col	2.6520	15200.	139	13649	No
30	GOM_NL__2PRFIN20041009_143244_000000422031_00068_13649_4660.N1	09-OCT-2004 14:32:44	Dark	41.500	143	Alp Hyi	2.8570	7200.0	83	13649	No
31	GOM_NL__2PRFIN20041009_143412_000000522031_00068_13649_4661.N1	09-OCT-2004 14:34:12	Dark	51.500	9	Alp Eri	0.45300	24000.	103	13649	No
32	GOM_NL__2PRFIN20041009_143625_000000502031_00068_13649_4662.N1	09-OCT-2004 14:36:25	Straylight	49.500	157	The1Eri	2.9060	9300.0	99	13649	No
33	GOM_NL__2PRFIN20041009_143921_000000452031_00068_13649_4663.N1	09-OCT-2004 14:39:21	Straylight	44.500	84	Alp Phe	2.3970	4500.0	89	13649	No
34	GOM_NL__2PRFIN20041009_144349_000000442031_00068_13649_4664.N1	09-OCT-2004 14:43:49	Straylight	43.500	18	24Alp PsA	1.1660	9700.0	87	13649	No
35	GOM_NL__2PRFIN20041009_144601_000000492031_00068_13649_4665.N1	09-OCT-2004 14:46:01	Straylight	48.500	52	16Bet Cet	2.0370	4500.0	97	13649	No
36	GOM_NL__2PRFIN20041009_144758_000001592031_00068_13649_4666.N1	09-OCT-2004 14:47:58	Bright	159.00	165	34Gam Eri	2.9500	3200.0	318	13649	No
37	GOM_NL__2PRFIN20041009_145555_000000402031_00068_13649_4667.N1	09-OCT-2004 14:55:55	Bright	39.500	140	88Gam Peg	2.8340	26000.	79	13649	No
38	GOM_NL__2PRFIN20041009_145941_000000402031_00068_13649_4668.N1	09-OCT-2004 14:59:41	Bright	40.000	93	53Bet Peg	2.5200	3100.0	80	13649	No
39	GOM_NL__2PRFIN20041009_150255_000000452031_00068_13649_4669.N1	09-OCT-2004 15:02:55	Bright	45.000	53	43Bet And	2.0480	3300.0	90	13649	No
40	GOM_NL__2PRFIN20041009_150509_000000502031_00068_13649_4670.N1	09-OCT-2004 15:05:09	Bright	49.500	173	4Bet Tri	3.0040	8900.0	99	13649	No
41	GOM_NL__2PRFIN20041009_150652_000000472031_00068_13649_4671.N1	09-OCT-2004 15:06:52	Bright	46.500	73	57Gam1And	2.2600	13100.	93	13649	No
42	GOM_NL__2PRFIN20041009_150936_000000392031_00068_13649_4672.N1	09-OCT-2004 15:09:36	Bright	38.500	76	27Gam Cas	2.3000	30000.	77	13649	No



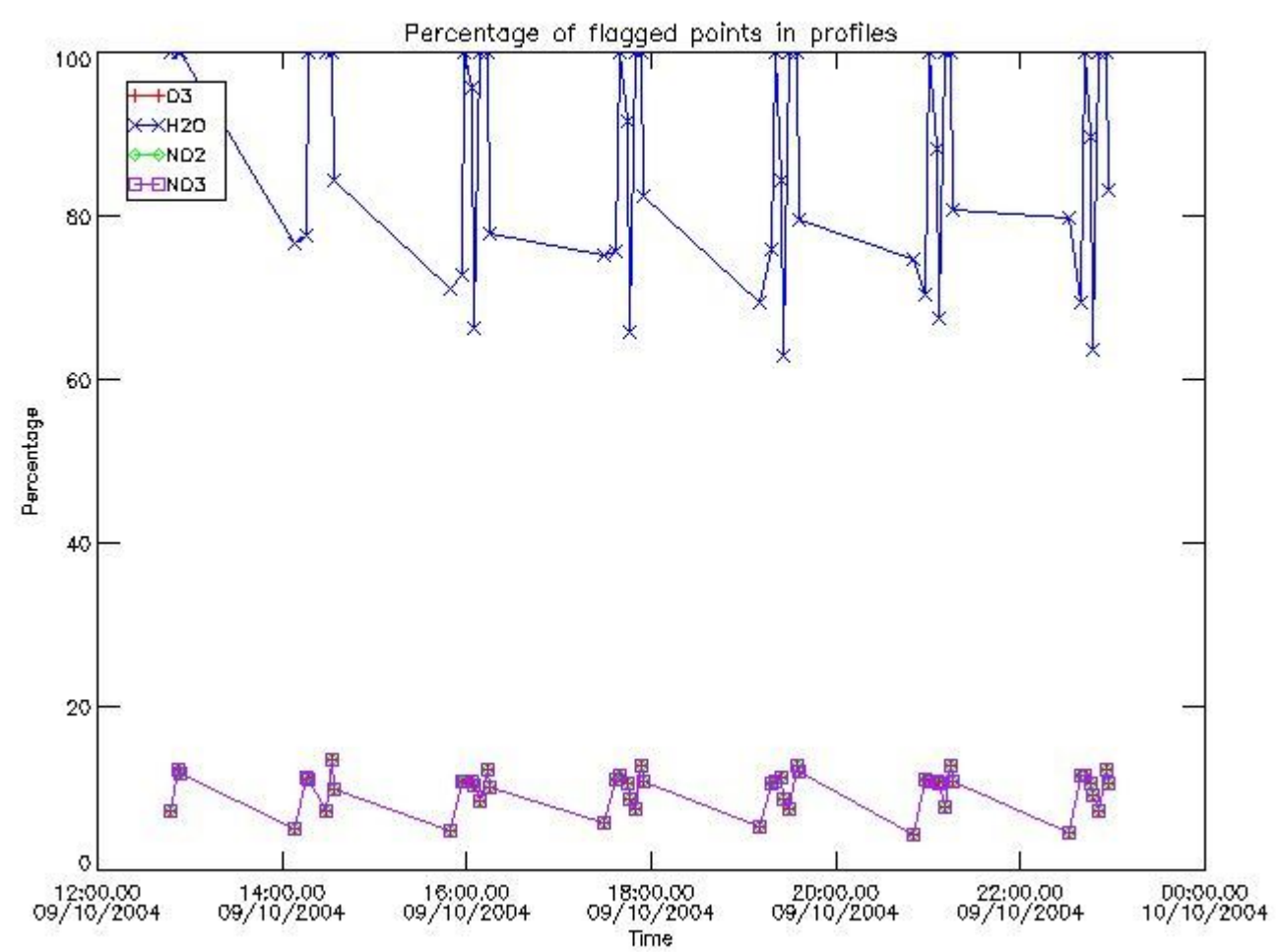


161	GOM_NL__2PRFIN20041009_214207_000000392031_00072_13653_4670.N1	09-OCT-2004 21:42:07	Bright	38.500	93	53Bet Peg	2.5200	3100.0	77	13653	No
162	GOM_NL__2PRFIN20041009_214517_000000442031_00072_13653_4671.N1	09-OCT-2004 21:45:17	Bright	44.000	53	43Bet And	2.0480	3300.0	88	13653	No
163	GOM_NL__2PRFIN20041009_214729_000000512031_00072_13653_4672.N1	09-OCT-2004 21:47:29	Bright	51.000	173	4Bet Tri	3.0040	8900.0	102	13653	No
164	GOM_NL__2PRFIN20041009_214912_000000502031_00072_13653_4673.N1	09-OCT-2004 21:49:12	Bright	50.000	73	57Gam1And	2.2600	13100.	100	13653	No
165	GOM_NL__2PRFIN20041009_215056_000000382031_00072_13653_4674.N1	09-OCT-2004 21:50:56	Bright	38.000	74	11Bet Cas	2.2680	6600.0	76	13653	No
166	GOM_NL__2PRFIN20041009_215226_000000412031_00072_13653_4675.N1	09-OCT-2004 21:52:26	Bright	41.000	110	37Del Cas	2.6780	8900.0	82	13653	No
167	GOM_NL__2PRFIN20041009_215440_000000502031_00072_13653_4676.N1	09-OCT-2004 21:54:40	Bright	49.500	160	23Gam Per	2.9300	4700.0	99	13653	No
168	GOM_NL__2PRFIN20041009_215633_000000552031_00072_13653_4677.N1	09-OCT-2004 21:56:33	Bright	55.000	175	39Del Per	3.0100	19400.	110	13653	No
169	GOM_NL__2PRFIN20041009_215917_000000382031_00072_13653_4678.N1	09-OCT-2004 21:59:17	Bright	37.500	49	1Alp UMi	1.9900	6300.0	75	13653	No
170	GOM_NL__2PRFIN20041009_220158_000000402031_00072_13653_4679.N1	09-OCT-2004 22:01:58	Bright	39.500	60	7Bet UMi	2.0810	3950.0	79	13653	No
171	GOM_NL__2PRFIN20041009_220445_000000952031_00072_13653_4680.N1	09-OCT-2004 22:04:45	Bright	95.000	6	13Alp Aur	0.080000	3400.0	190	13653	No
172	GOM_NL__2PRFIN20041009_220728_000000392031_00072_13653_4681.N1	09-OCT-2004 22:07:28	Bright	39.000	36	50Alp UMa	1.8000	6300.0	78	13653	No
173	GOM_NL__2PRFIN20041009_220859_000000392031_00072_13653_4682.N1	09-OCT-2004 22:08:59	Bright	38.500	82	48Bet UMa	2.3650	10600.	77	13653	No
174	GOM_NL__2PRFIN20041009_221219_000000372031_00072_13653_4683.N1	09-OCT-2004 22:12:19	Bright	36.500	174	52Psi UMa	3.0040	4400.0	73	13653	No
175	GOM_NL__2PRFIN20041009_221936_000000792031_00072_13653_4684.N1	09-OCT-2004 22:19:36	Bright	78.500	17	78Bet Gem	1.1610	4500.0	157	13653	No
176	GOM_NL__2PRFIN20041009_222216_000000452031_00072_13653_4685.N1	09-OCT-2004 22:22:16	Bright	44.500	22	32Alp Leo	1.3600	15200.	89	13653	No
177	GOM_NL__2PRFIN20041009_222915_000000542031_00072_13653_4686.N1	09-OCT-2004 22:29:15	Twilight	54.000	48	30Alp Hya	1.9770	4100.0	108	13653	No
178	GOM_NL__2PRFIN20041009_223117_000001212031_00072_13653_4687.N1	09-OCT-2004 22:31:17	Dark	121.00	8	10Alp CMi	0.40000	6500.0	242	13653	No
179	GOM_NL__2PRFIN20041009_223852_000000452031_00072_13653_4688.N1	09-OCT-2004 22:38:52	Dark	44.500	65	Lam Vel	2.2040	4400.0	89	13653	No
180	GOM_NL__2PRFIN20041009_224150_000000442031_00072_13653_4689.N1	09-OCT-2004 22:41:50	Dark	44.000	34	Gam2Vel	1.7930	23000.	88	13653	No
181	GOM_NL__2PRFIN20041009_224556_000000492031_00073_13654_4659.N1	09-OCT-2004 22:45:56	Dark	48.500	161	Tau Pup	2.9310	4500.0	97	13654	No
182	GOM_NL__2PRFIN20041009_224718_000000612031_00073_13654_4660.N1	09-OCT-2004 22:47:18	Dark	61.000	2	Alp Car	-0.73600	7000.0	122	13654	No
183	GOM_NL__2PRFIN20041009_225113_000000702031_00073_13654_4661.N1	09-OCT-2004 22:51:13	Dark	69.500	108	Alp Col	2.6520	15200.	139	13654	No
184	GOM_NL__2PRFIN20041009_225545_000000422031_00073_13654_4662.N1	09-OCT-2004 22:55:45	Dark	41.500	143	Alp Hyi	2.8570	7200.0	83	13654	No
185	GOM_NL__2PRFIN20041009_225711_000000482031_00073_13654_4663.N1	09-OCT-2004 22:57:11	Dark	48.000	9	Alp Eri	0.45300	24000.	96	13654	No
186	GOM_NL__2PRFIN20041009_225928_000000522031_00073_13654_4664.N1	09-OCT-2004 22:59:28	Straylight	51.500	157	The1Eri	2.9060	9300.0	103	13654	No
187	GOM_NL__2PRFIN20041009_230221_000000472031_00073_13654_4665.N1	09-OCT-2004 23:02:21	Straylight	46.500	84	Alp Phe	2.3970	4500.0	93	13654	No
188	GOM_NL__2PRFIN20041009_230650_000000452031_00073_13654_4666.N1	09-OCT-2004 23:06:50	Straylight	45.000	18	24Alp PsA	1.1660	9700.0	90	13654	No
189	GOM_NL__2PRFIN20041009_230902_000000432031_00073_13654_4667.N1	09-OCT-2004 23:09:02	Straylight	43.000	52	16Bet Cet	2.0370	4500.0	86	13654	No
190	GOM_NL__2PRFIN20041009_231055_000001662031_00073_13654_4668.N1	09-OCT-2004 23:10:55	Bright	165.50	165	34Gam Eri	2.9500	3200.0	331	13654	No
191	GOM_NL__2PRFIN20041009_231855_000000402031_00073_13654_4669.N1	09-OCT-2004 23:18:55	Bright	39.500	140	88Gam Peg	2.8340	26000.	79	13654	No
192	GOM_NL__2PRFIN20041009_232242_000000402031_00073_13654_4670.N1	09-OCT-2004 23:22:42	Bright	39.500	93	53Bet Peg	2.5200	3100.0	79	13654	No
193	GOM_NL__2PRFIN20041009_232552_000000452031_00073_13654_4671.N1	09-OCT-2004 23:25:52	Bright	45.000	53	43Bet And	2.0480	3300.0	90	13654	No
194	GOM_NL__2PRFIN20041009_232804_000000522031_00073_13654_4672.N1	09-OCT-2004 23:28:04	Bright	51.500	173	4Bet Tri	3.0040	8900.0	103	13654	No
195	GOM_NL__2PRFIN20041009_232947_000000482031_00073_13654_4673.N1	09-OCT-2004 23:29:47	Bright	48.000	73	57Gam1And	2.2600	13100.	96	13654	No
196	GOM_NL__2PRFIN20041009_233132_000000392031_00073_13654_4674.N1	09-OCT-2004 23:31:32	Bright	38.500	74	11Bet Cas	2.2680	6600.0	77	13654	No
197	GOM_NL__2PRFIN20041009_233301_000000412031_00073_13654_4675.N1	09-OCT-2004 23:33:01	Bright	41.000	110	37Del Cas	2.6780	8900.0	82	13654	No
198	GOM_NL__2PRFIN20041009_233515_000000472031_00073_13654_4676.N1	09-OCT-2004 23:35:15	Bright	47.000	160	23Gam Per	2.9300	4700.0	94	13654	No
199	GOM_NL__2PRFIN20041009_233708_000000572031_00073_13654_4677.N1	09-OCT-2004 23:37:08	Bright	57.000	175	39Del Per	3.0100	19400.	114	13654	No
200	GOM_NL__2PRFIN20041009_233953_000000362031_00073_13654_4678.N1	09-OCT-2004 23:39:53	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	13654	No
201	GOM_NL__2PRFIN20041009_234233_000000402031_00073_13654_4679.N1	09-OCT-2004 23:42:33	Bright	40.000	60	7Bet UMi	2.0810	3950.0	80	13654	No
202	GOM_NL__2PRFIN20041009_234520_000000832031_00073_13654_4680.N1	09-OCT-2004 23:45:20	Bright	83.000	6	13Alp Aur	0.080000	3400.0	166	13654	No
203	GOM_NL__2PRFIN20041009_234803_000000392031_00073_13654_4681.N1	09-OCT-2004 23:48:03	Bright	39.000	36	50Alp UMa	1.8000	6300.0	78	13654	No
204	GOM_NL__2PRFIN20041009_234935_000000392031_00073_13654_4682.N1	09-OCT-2004 23:49:35	Bright	39.000	82	48Bet UMa	2.3650	10600.	78	13654	No
205	GOM_NL__2PRFIN20041009_235254_000000522031_00073_13654_4683.N1	09-OCT-2004 23:52:54	Bright	52.000	174	52Psi UMa	3.0040	4400.0	104	13654	No

### 3. Quality information per product

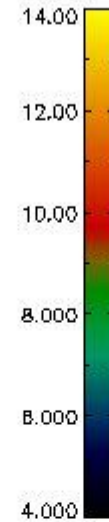
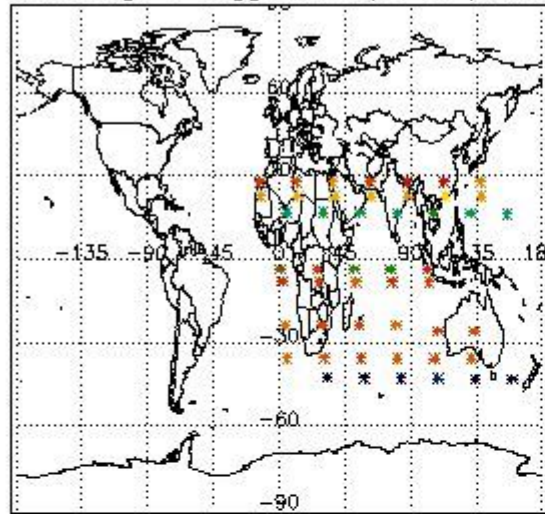
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

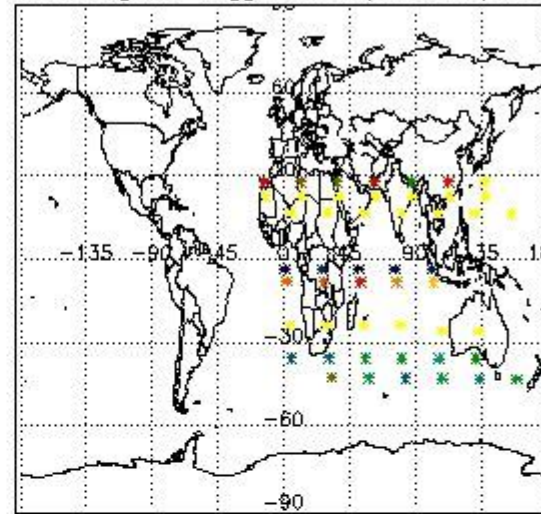


3.2 Plot quality information per product (world map)

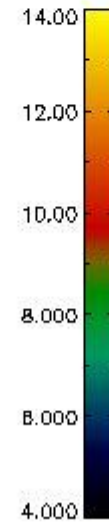
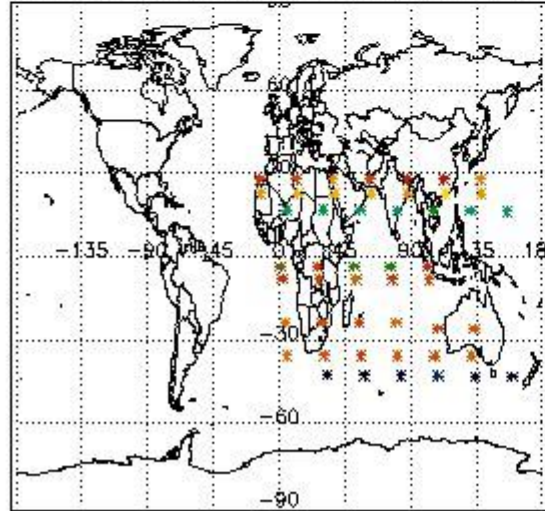
Percentage of flagged data per O3 profile



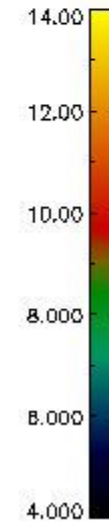
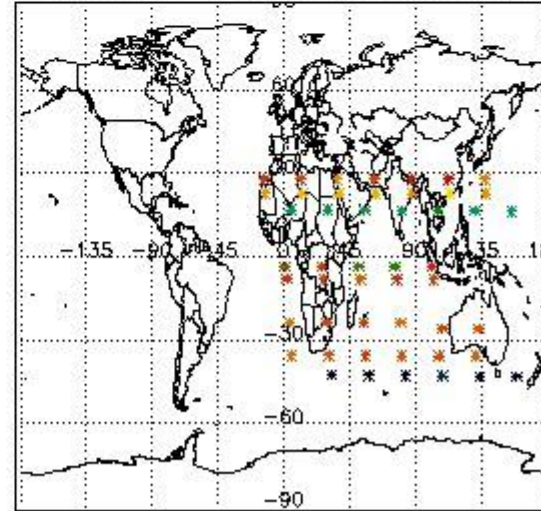
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

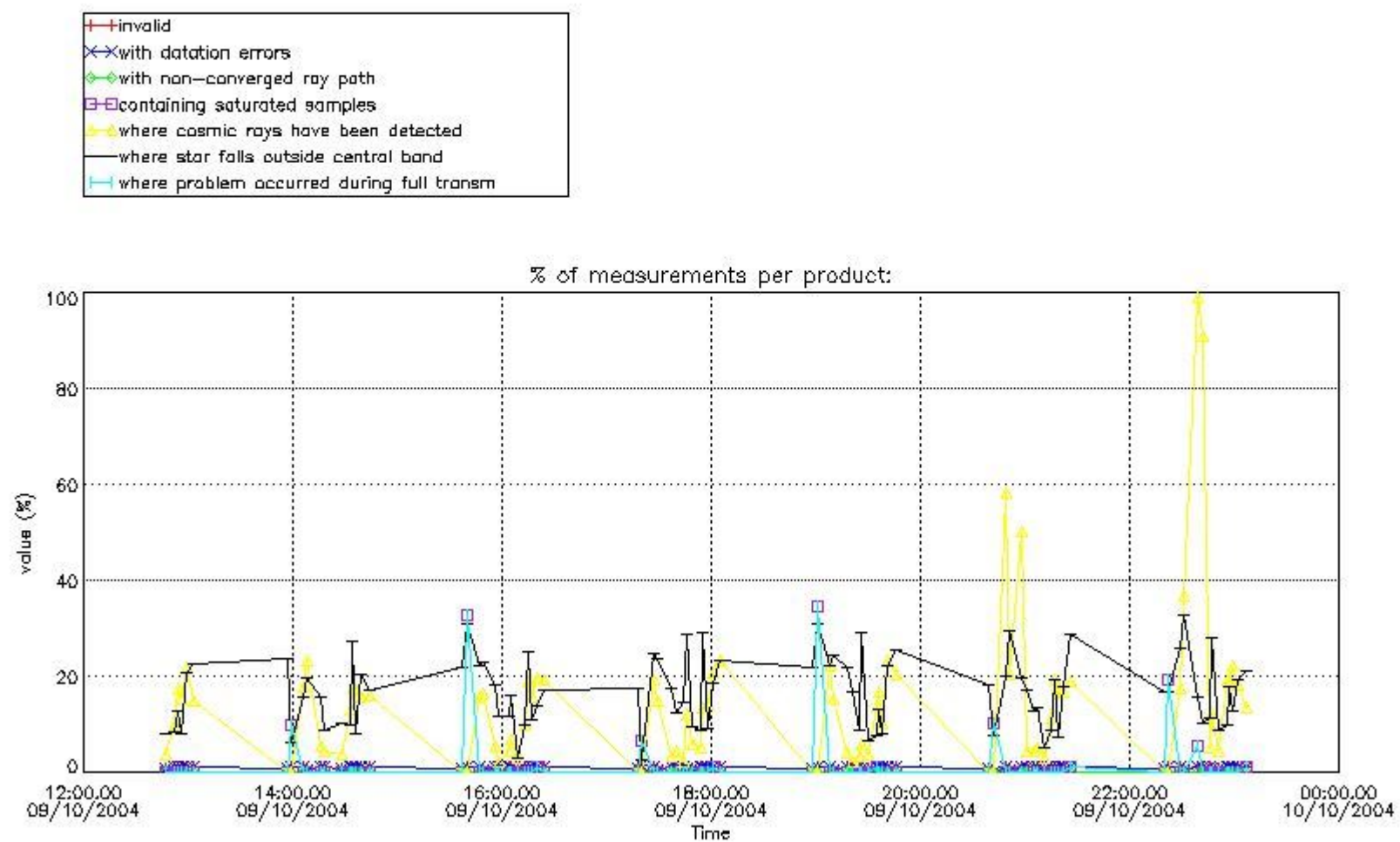


#### 4. Level 1 quality information per product

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.

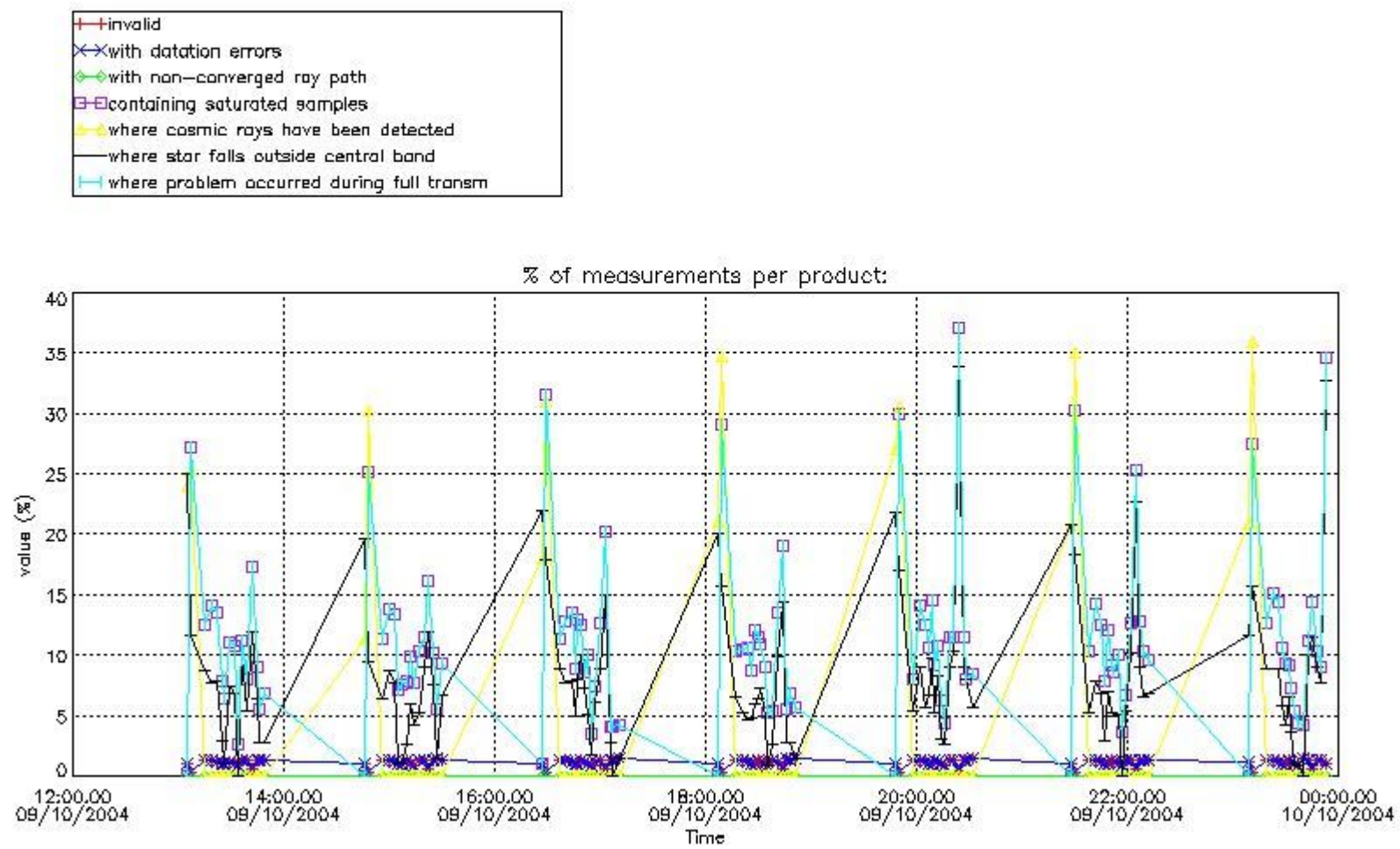
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

###### 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

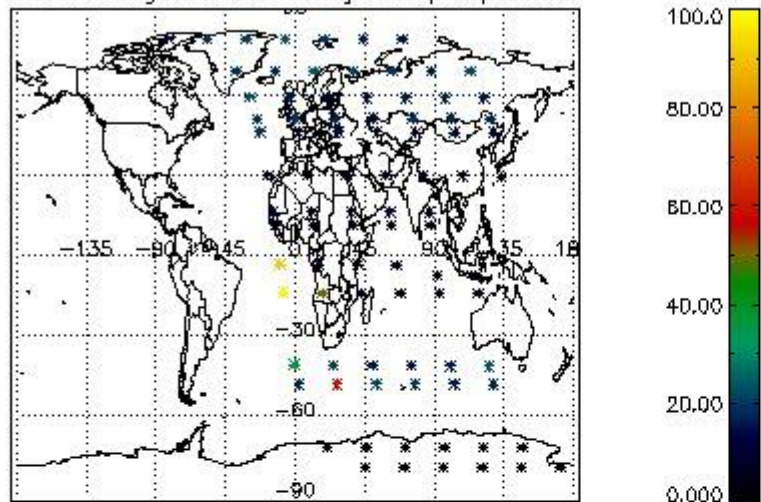




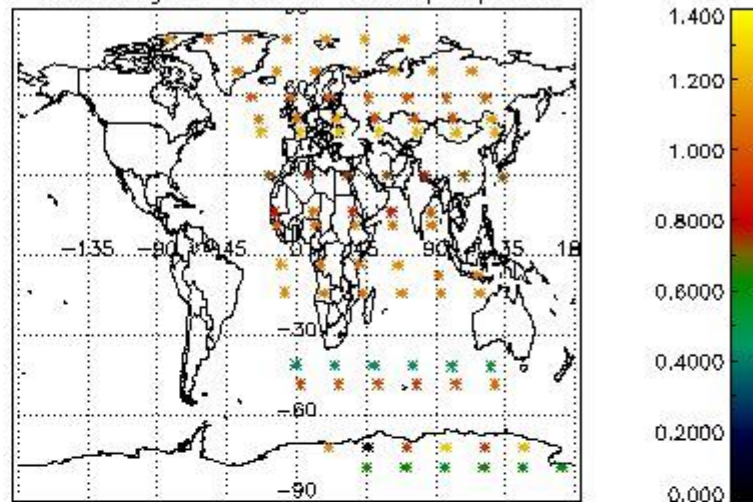
4.2 Plot quality information per product coming from level 1b processing (world map)

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

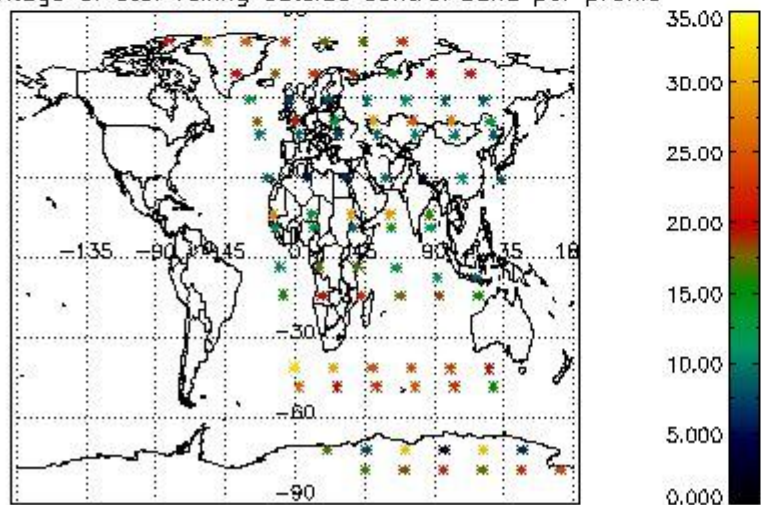
Percentage of cosmic ray hits per profile



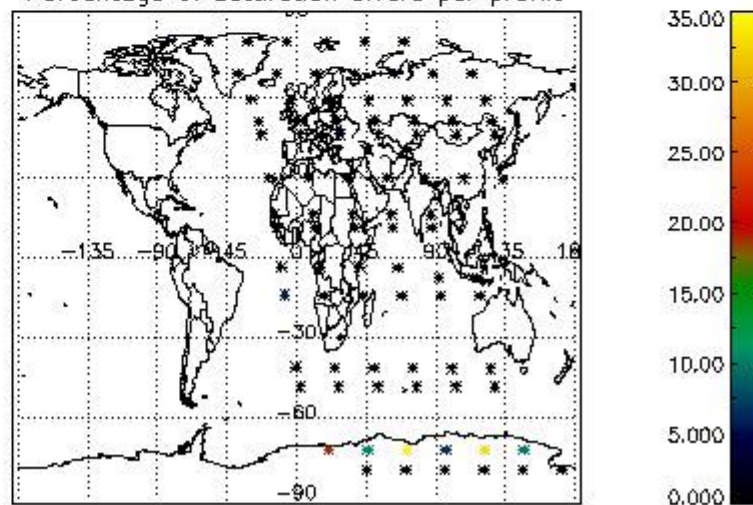
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

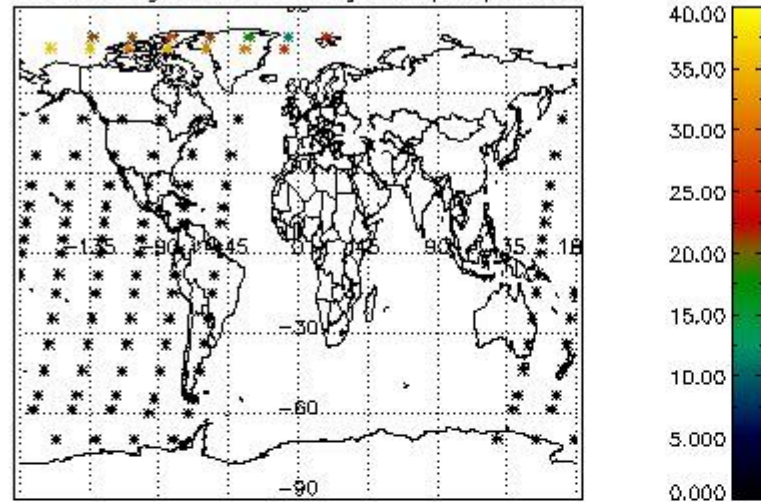


Percentage of saturation errors per profile

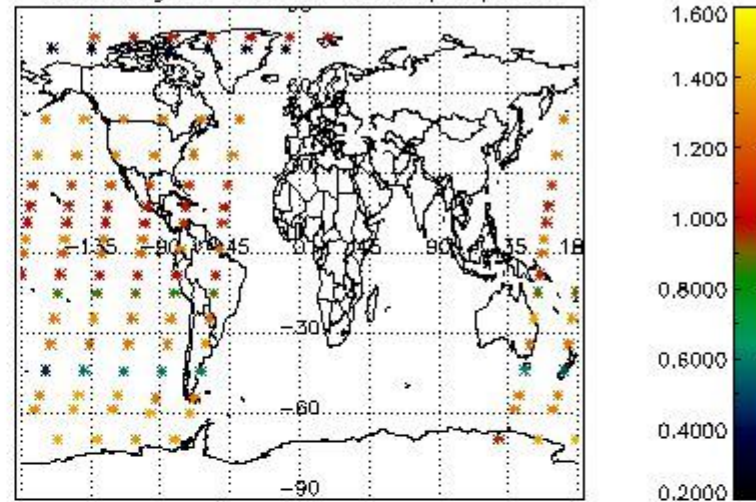


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

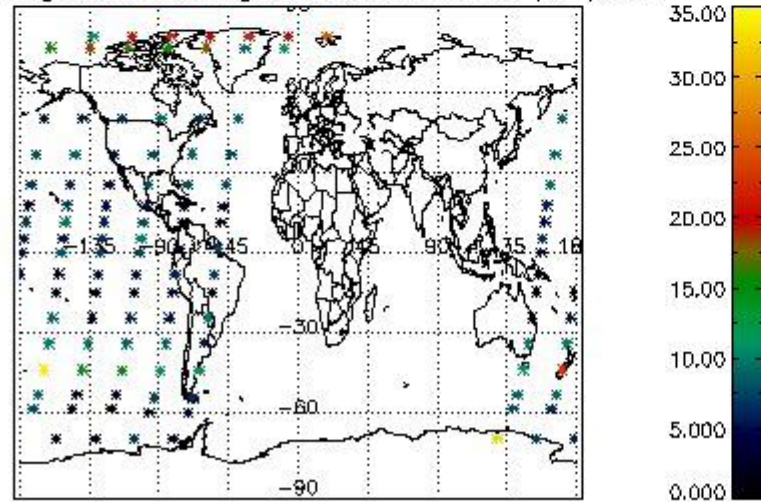
Percentage of cosmic ray hits per profile



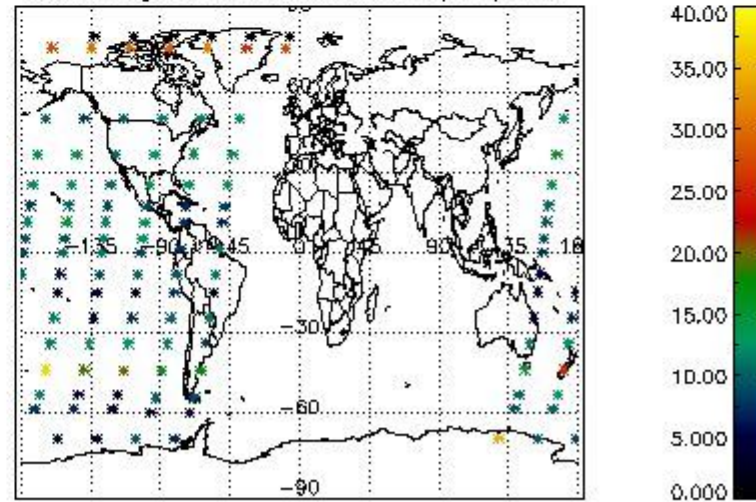
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



## 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

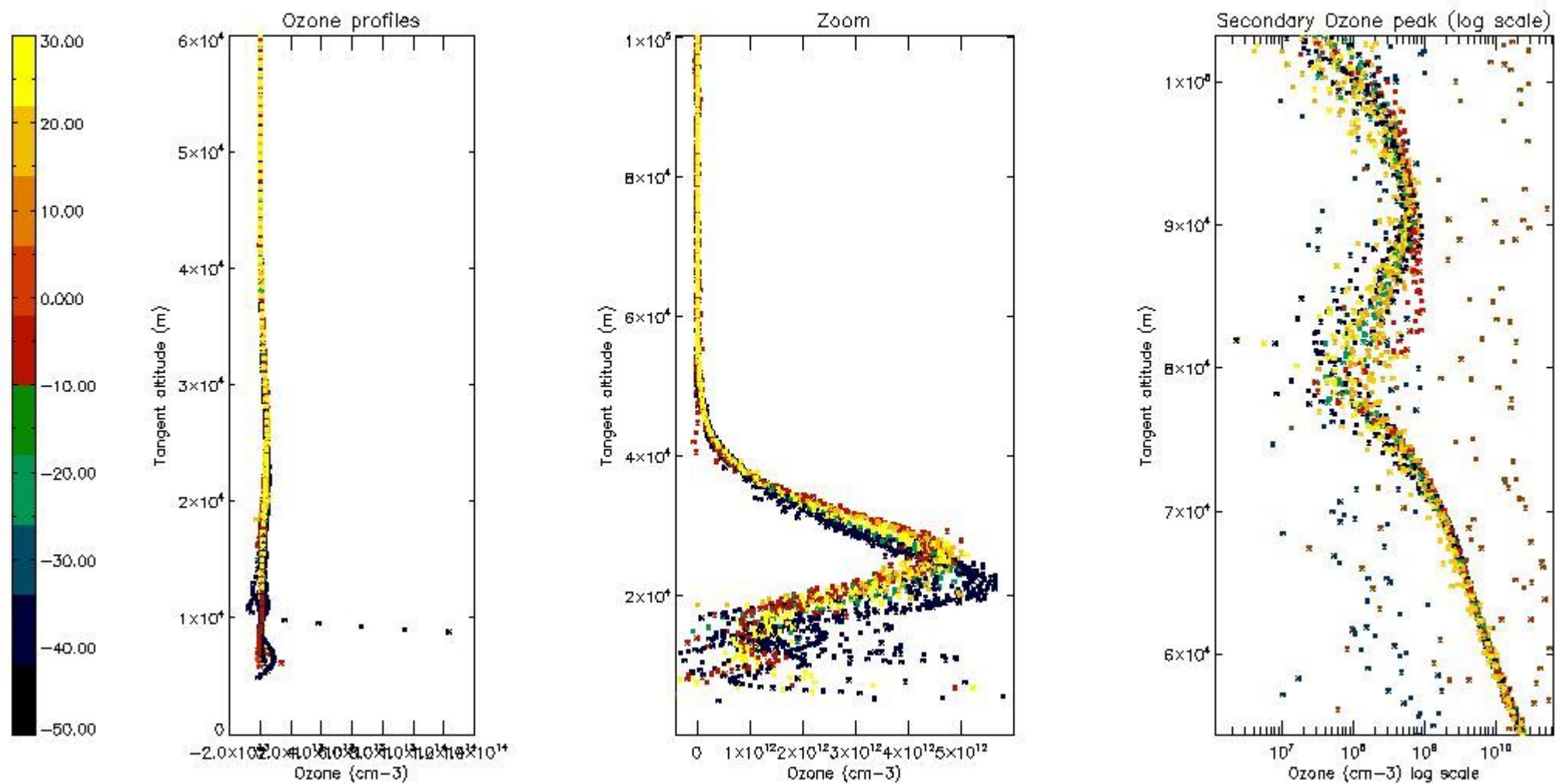
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	26
STD < 20	15

STD < 10	13
STD < 5	9

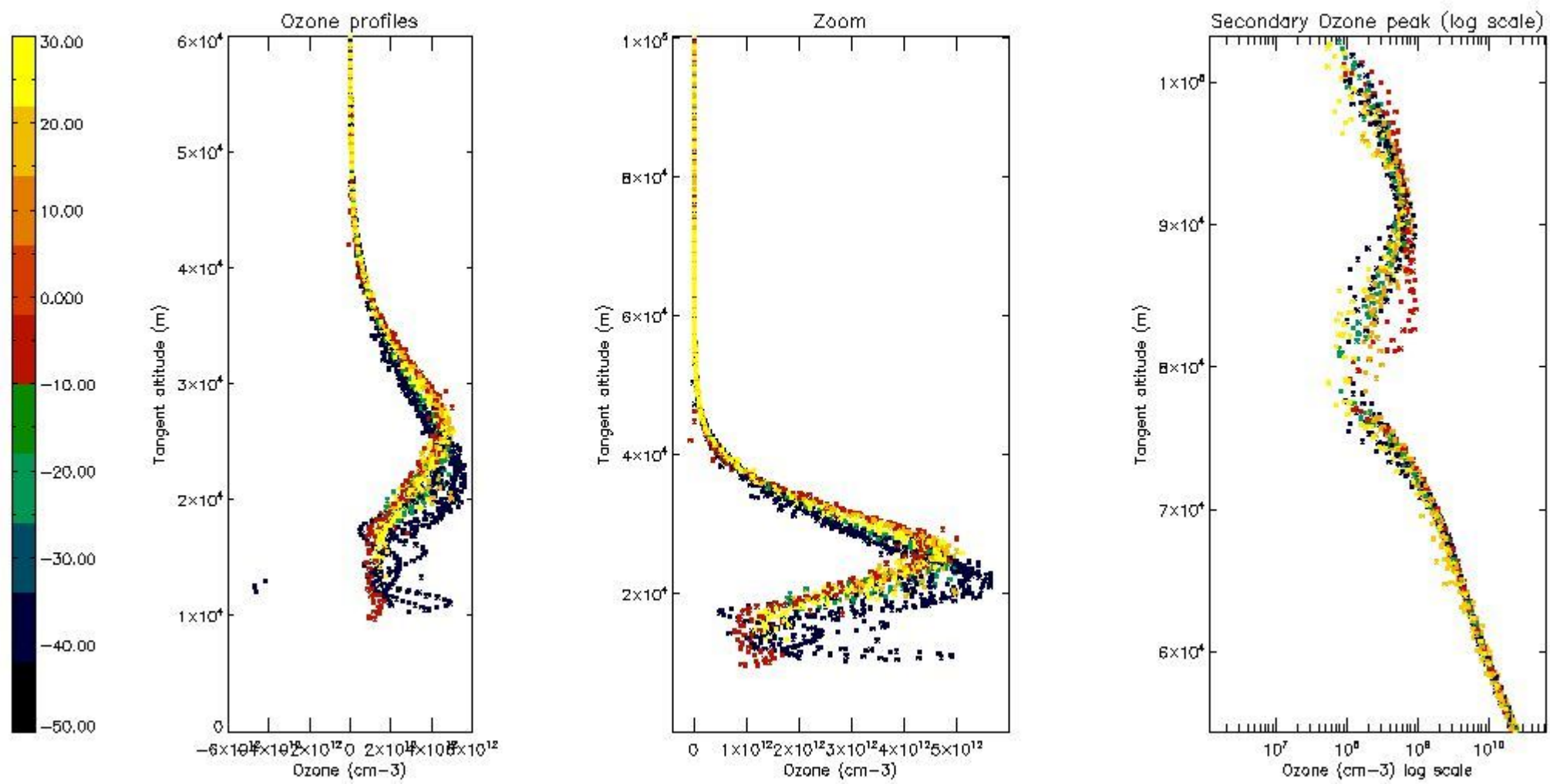
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



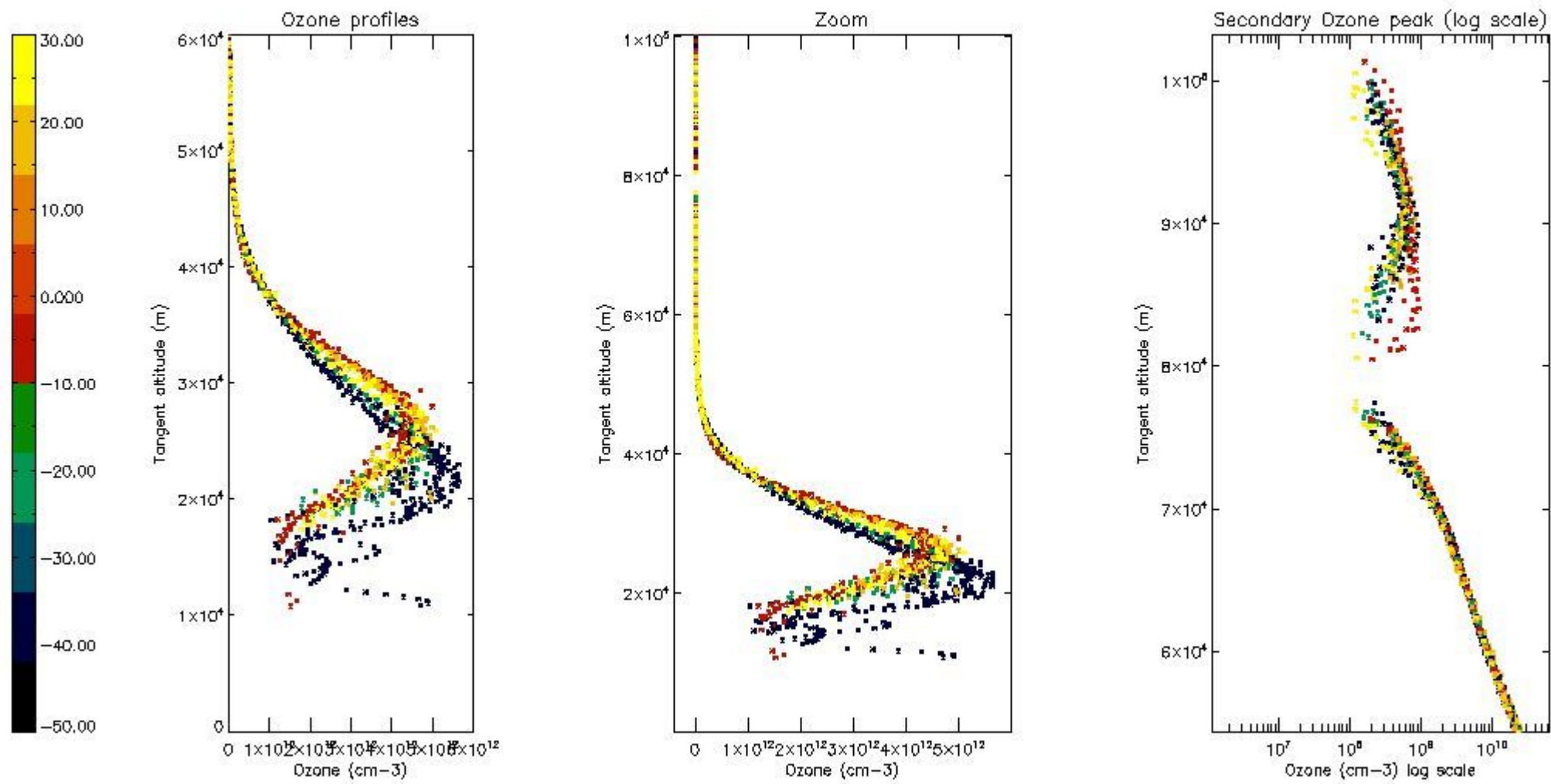
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



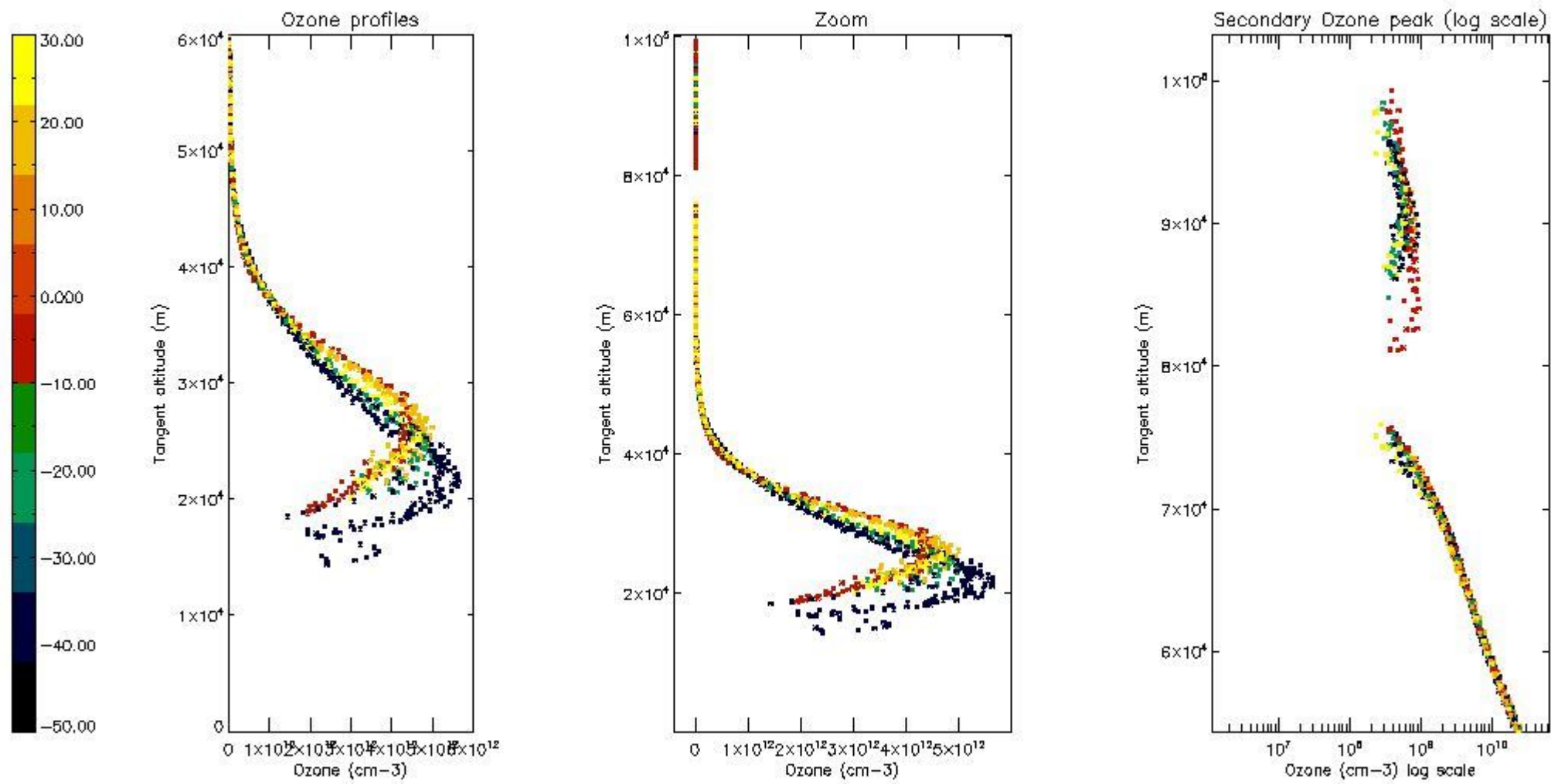
*5.4 Plot ozone profiles where  $STD < 10\%$  (dark without errors)*

The colorbar represents the latitude.



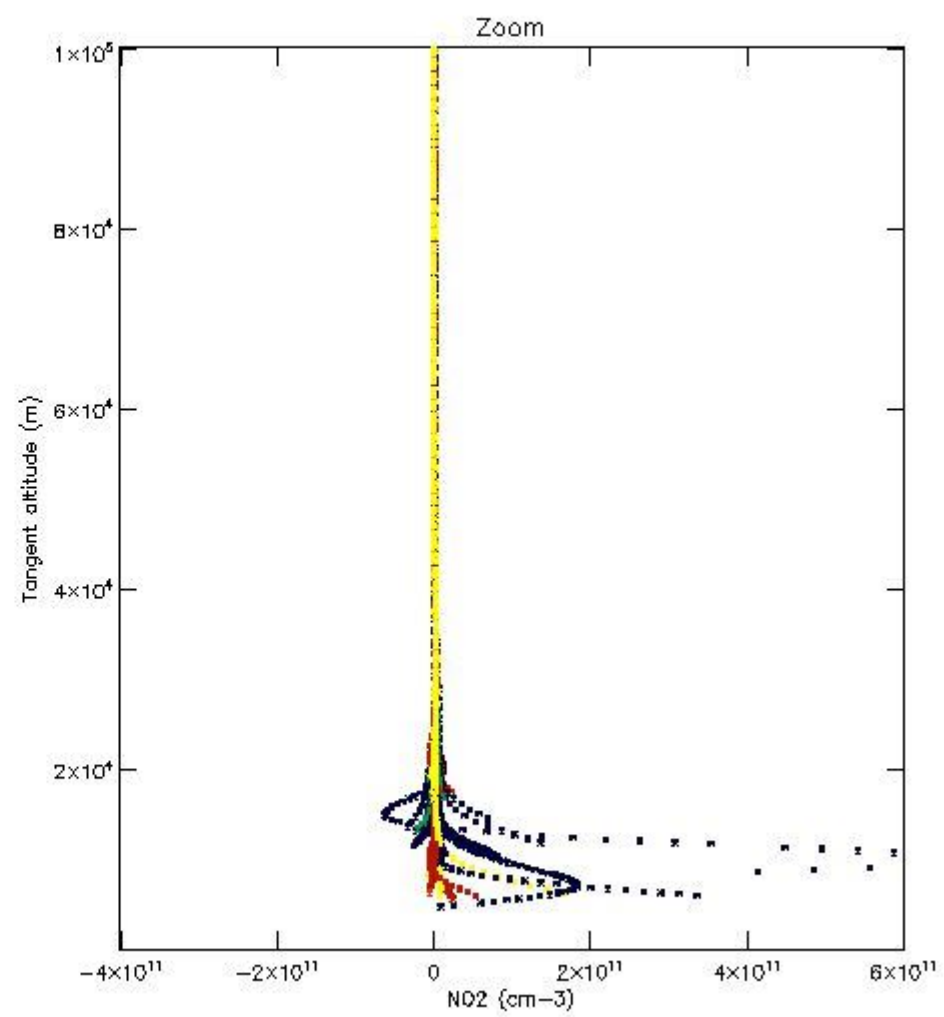
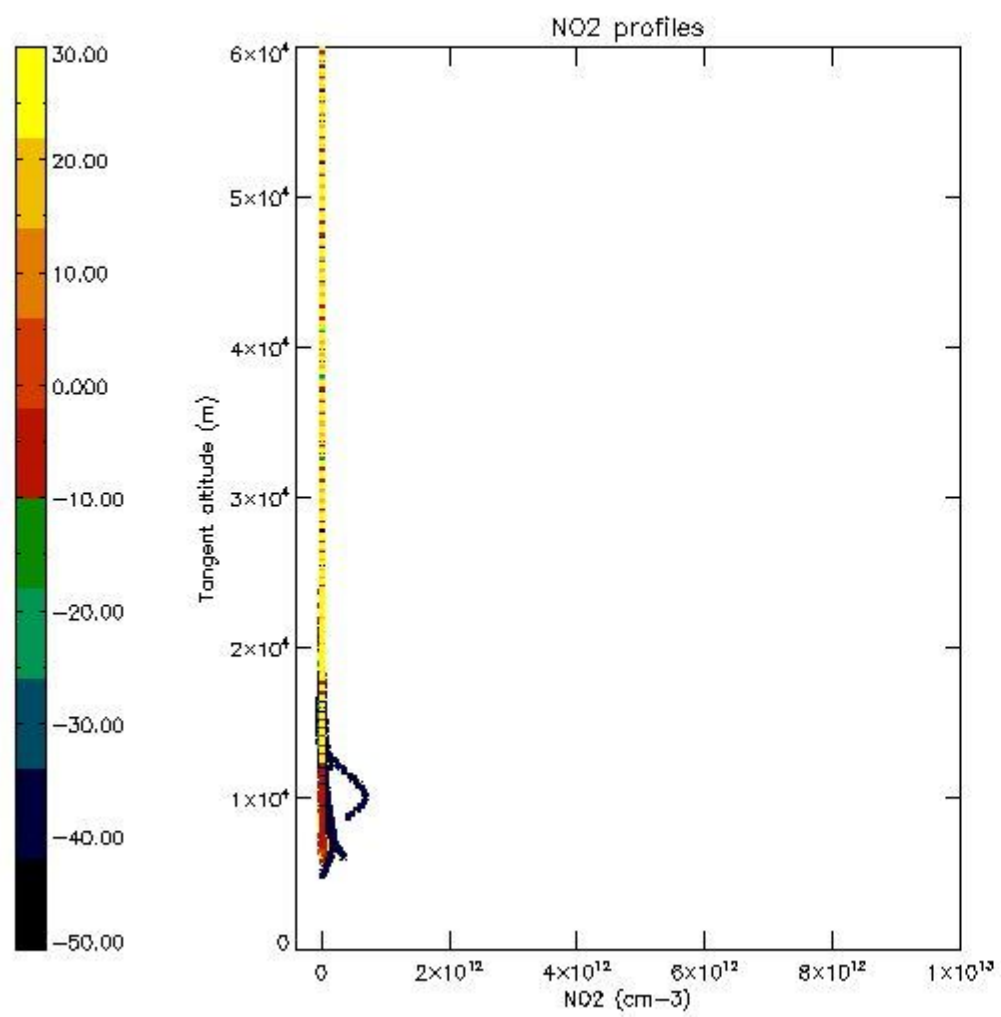
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



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

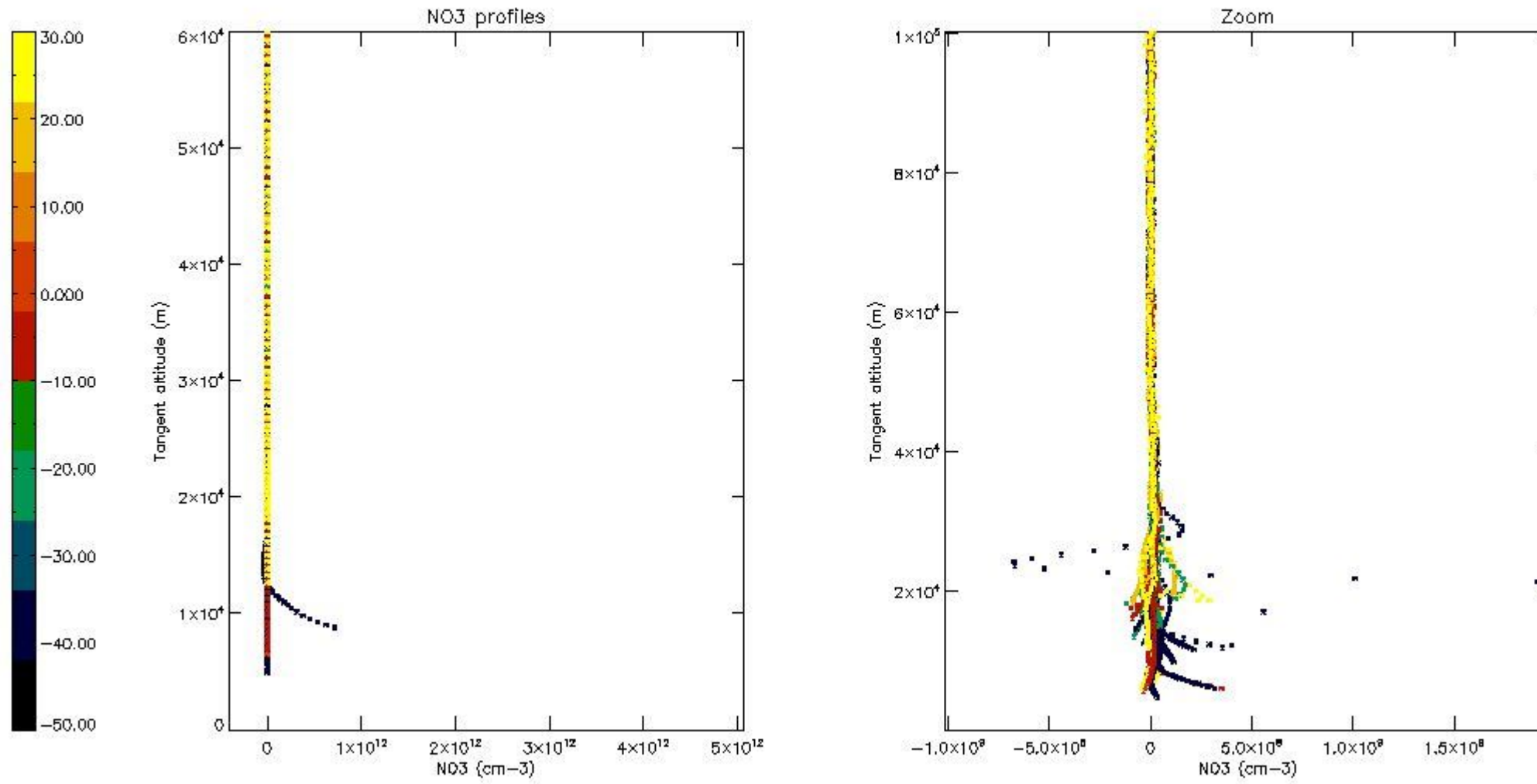
The colorbar represents the latitude.



*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	09-OCT-2004 12:47:26
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	09-OCT-2004 12:47:26
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	09-OCT-2004 12:47:26

# 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](#)

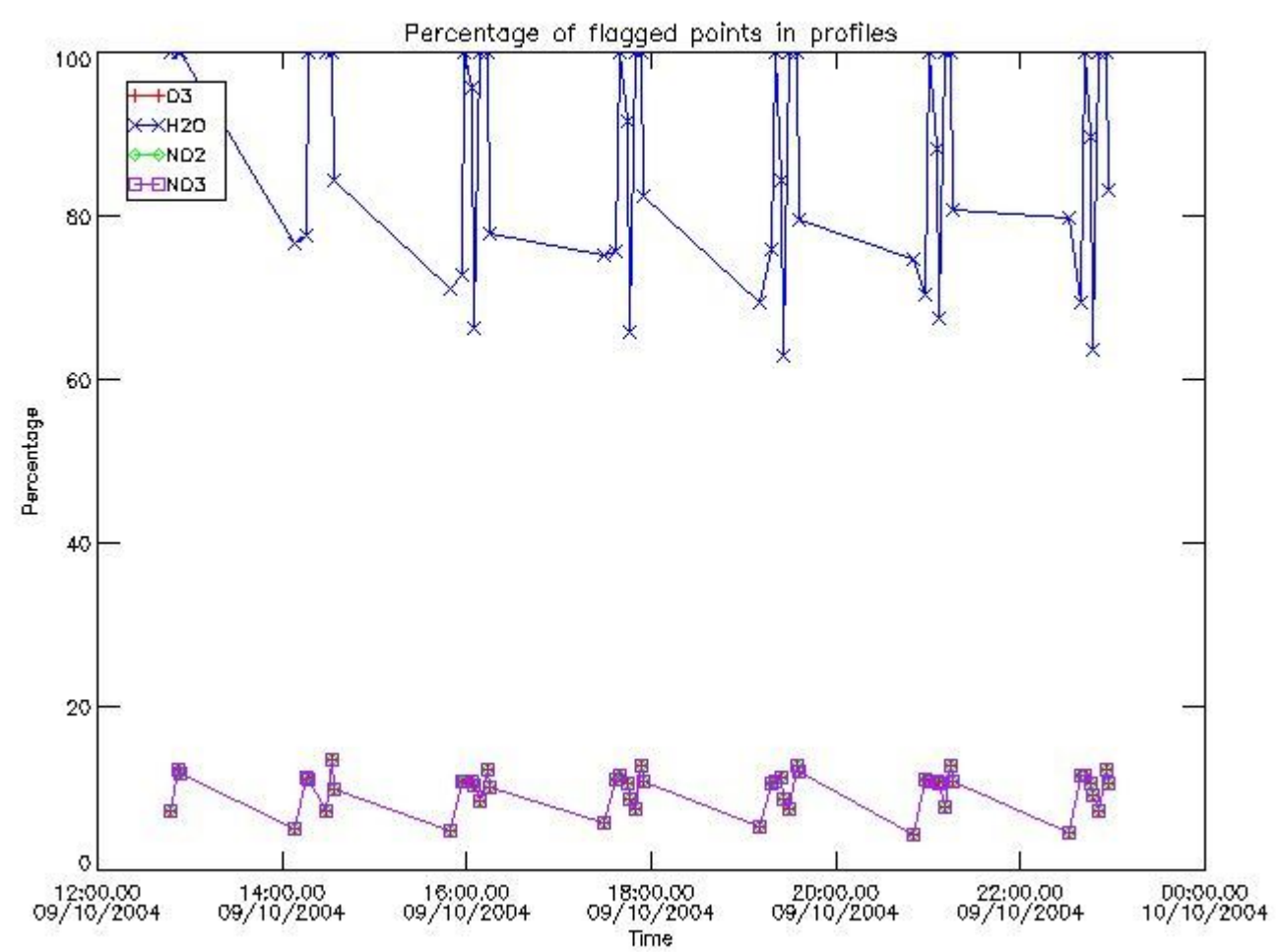
### [6. Auxiliary Data Files used for the production reported in section 2](#)





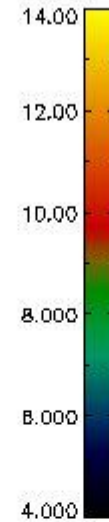
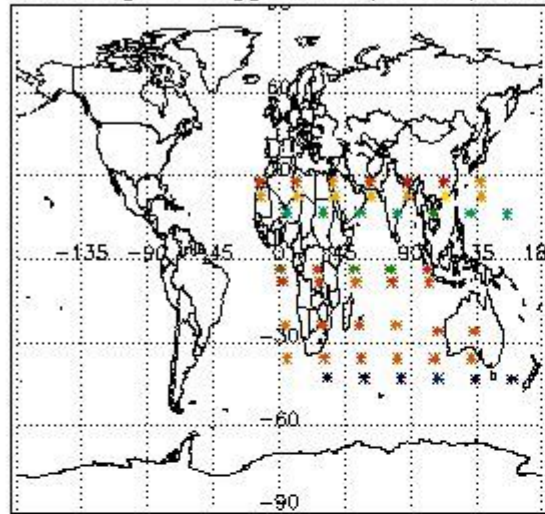




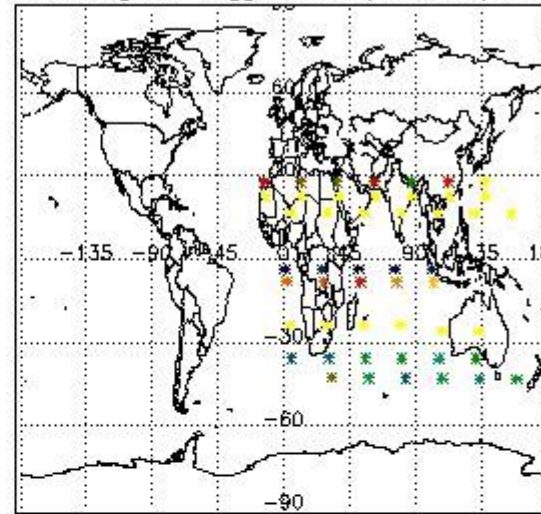


3.2 Plot quality information per product (world map)

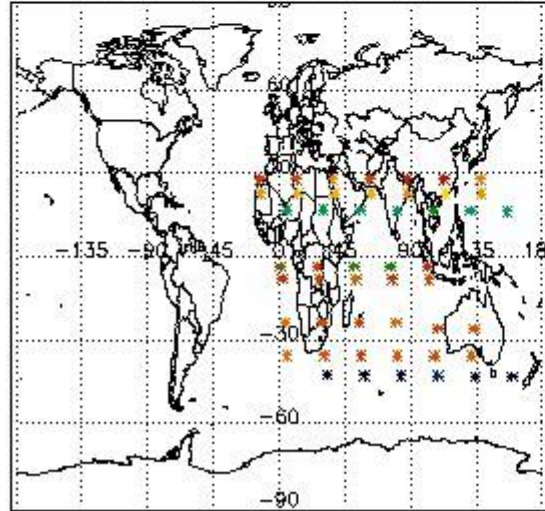
Percentage of flagged data per O3 profile



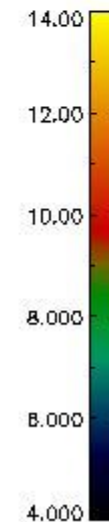
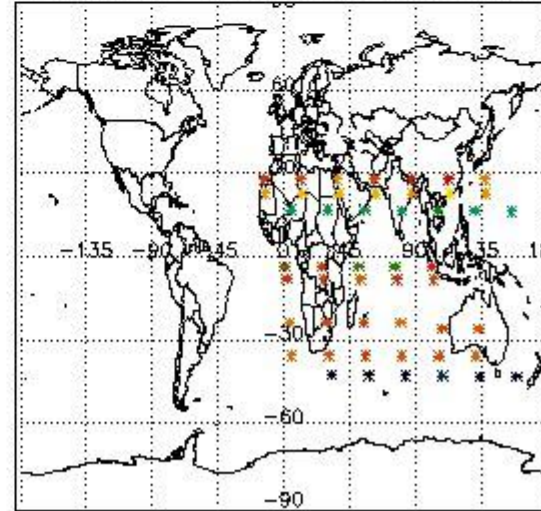
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile



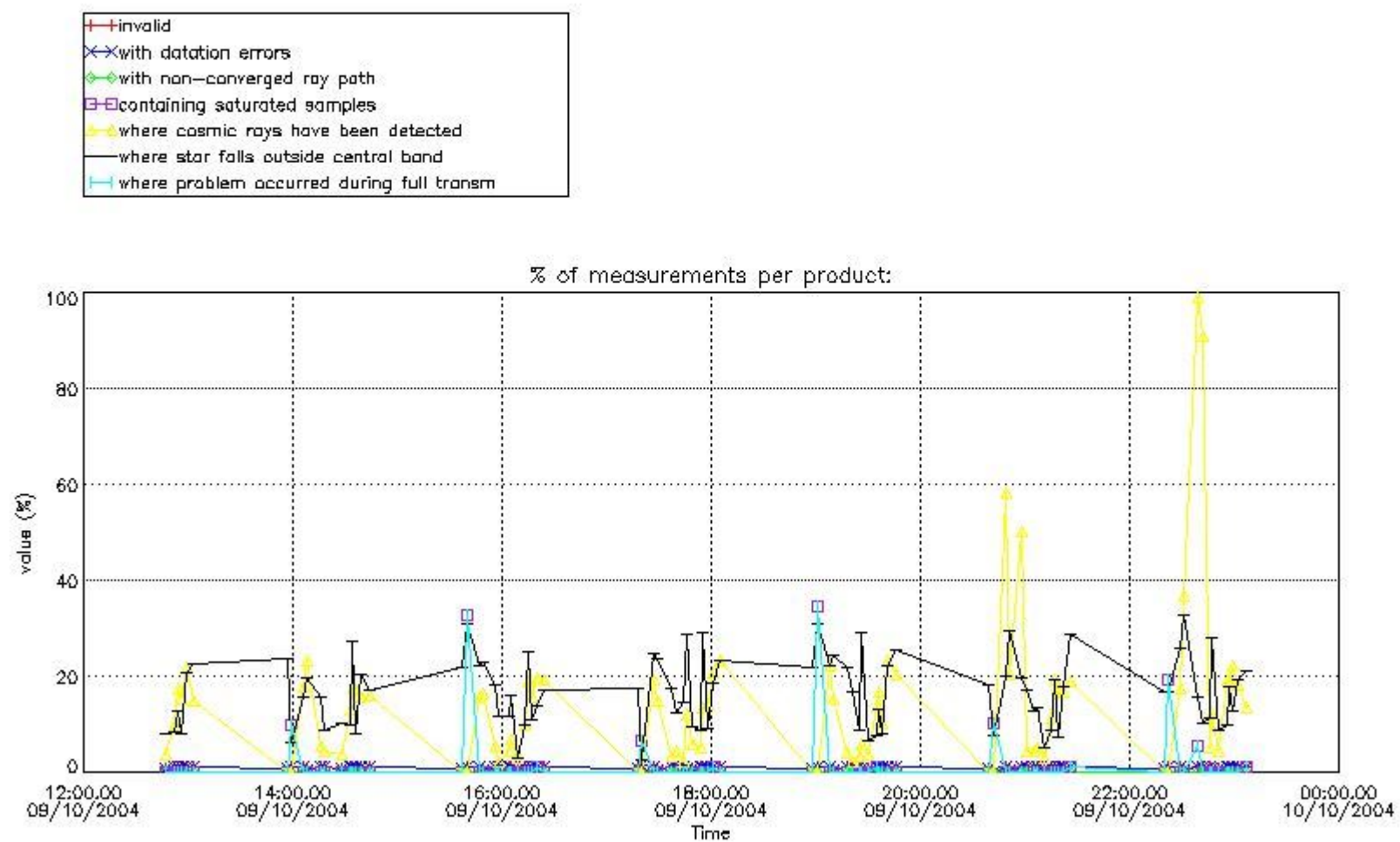
#### 4. Level 1 quality information per product

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.

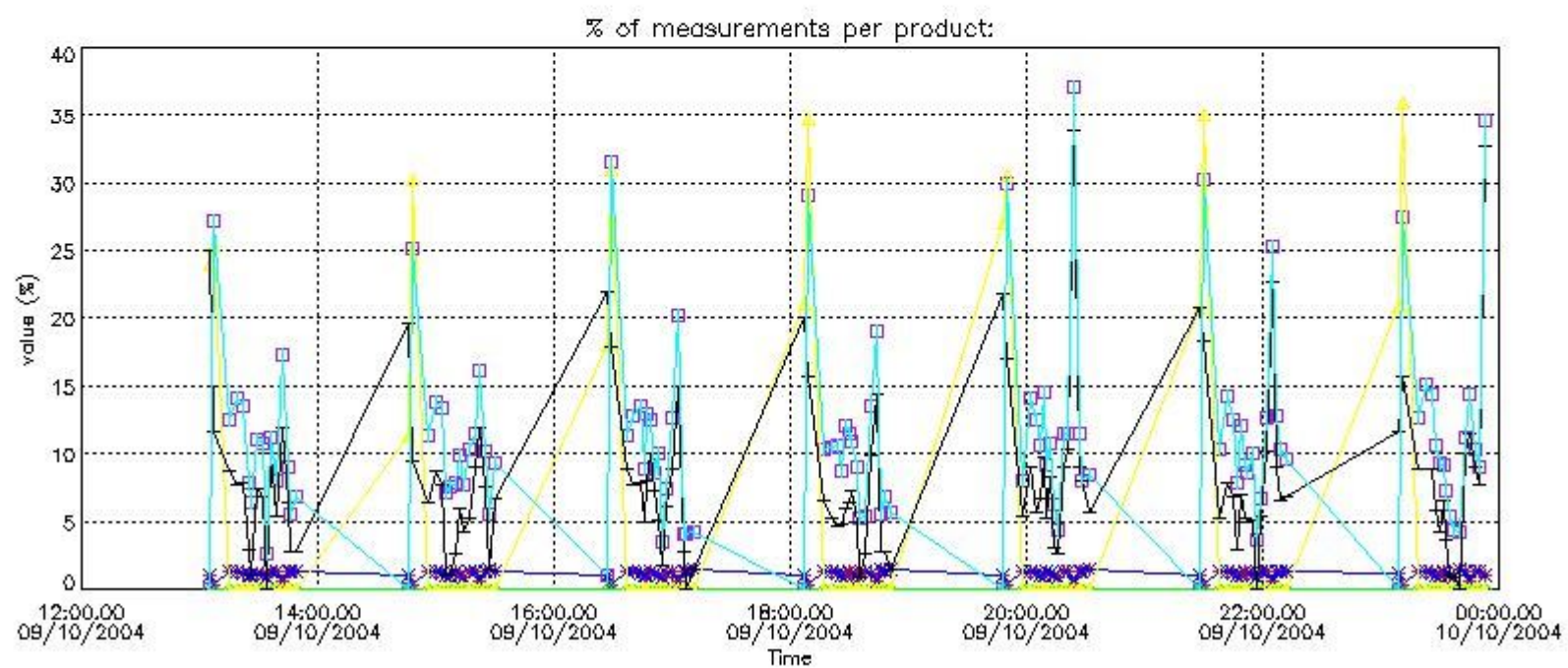
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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





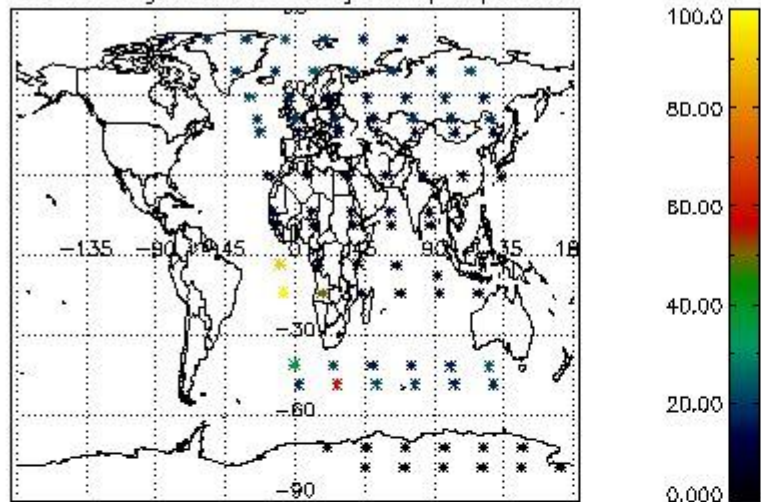
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



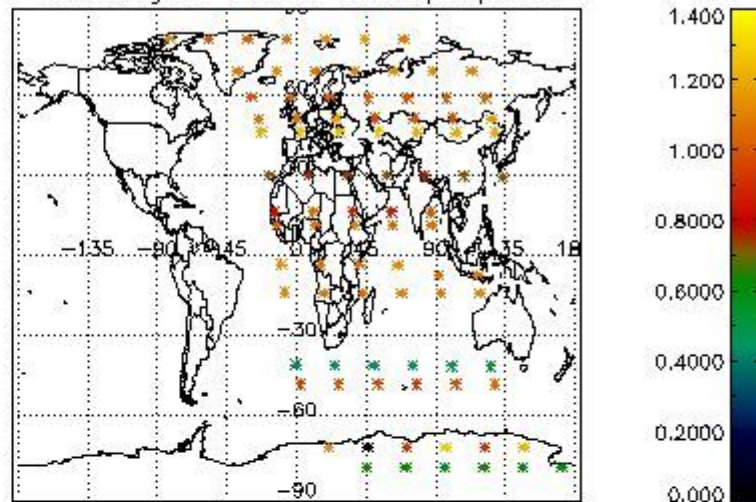
4.2 Plot quality information per product coming from level 1b processing (world map)

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

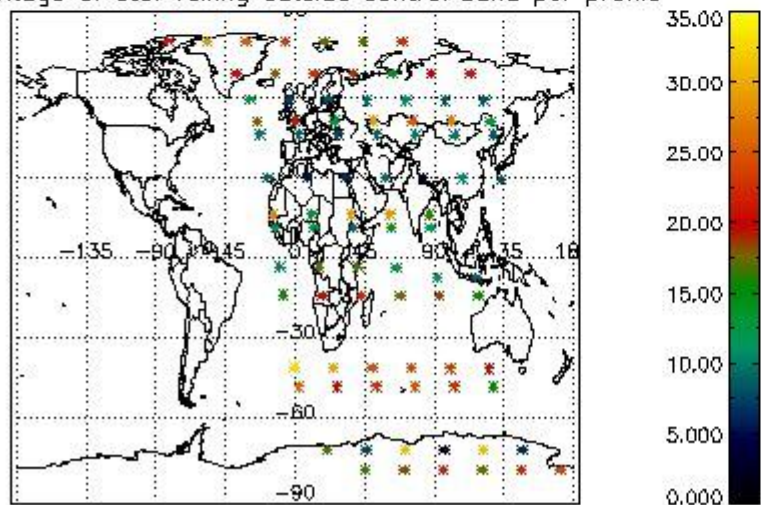
Percentage of cosmic ray hits per profile



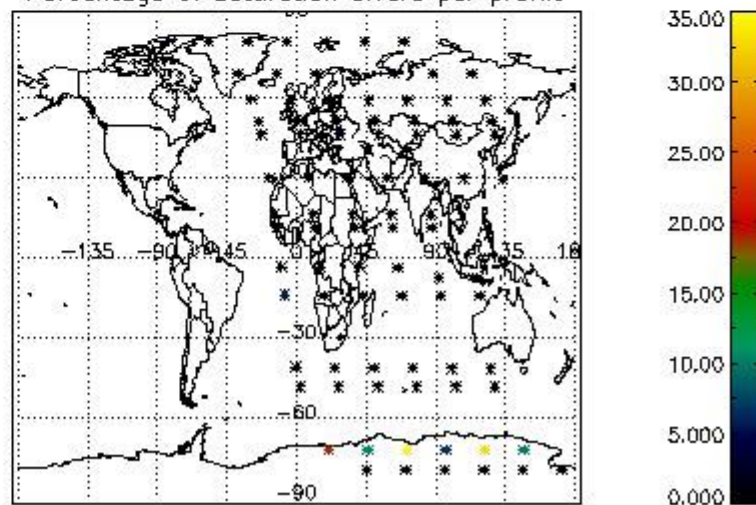
Percentage of datation errors per profile



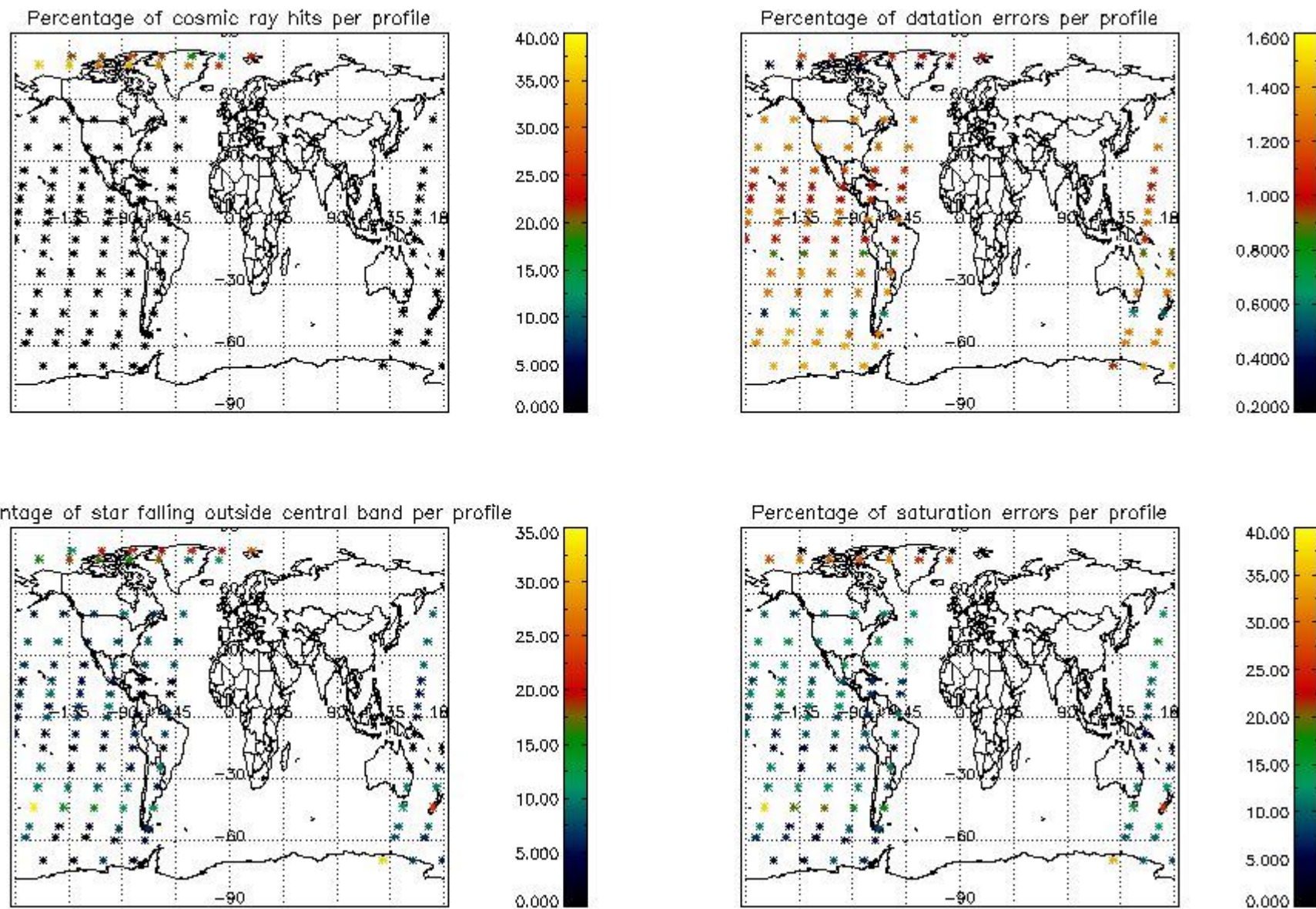
Percentage of star falling outside central band per profile



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

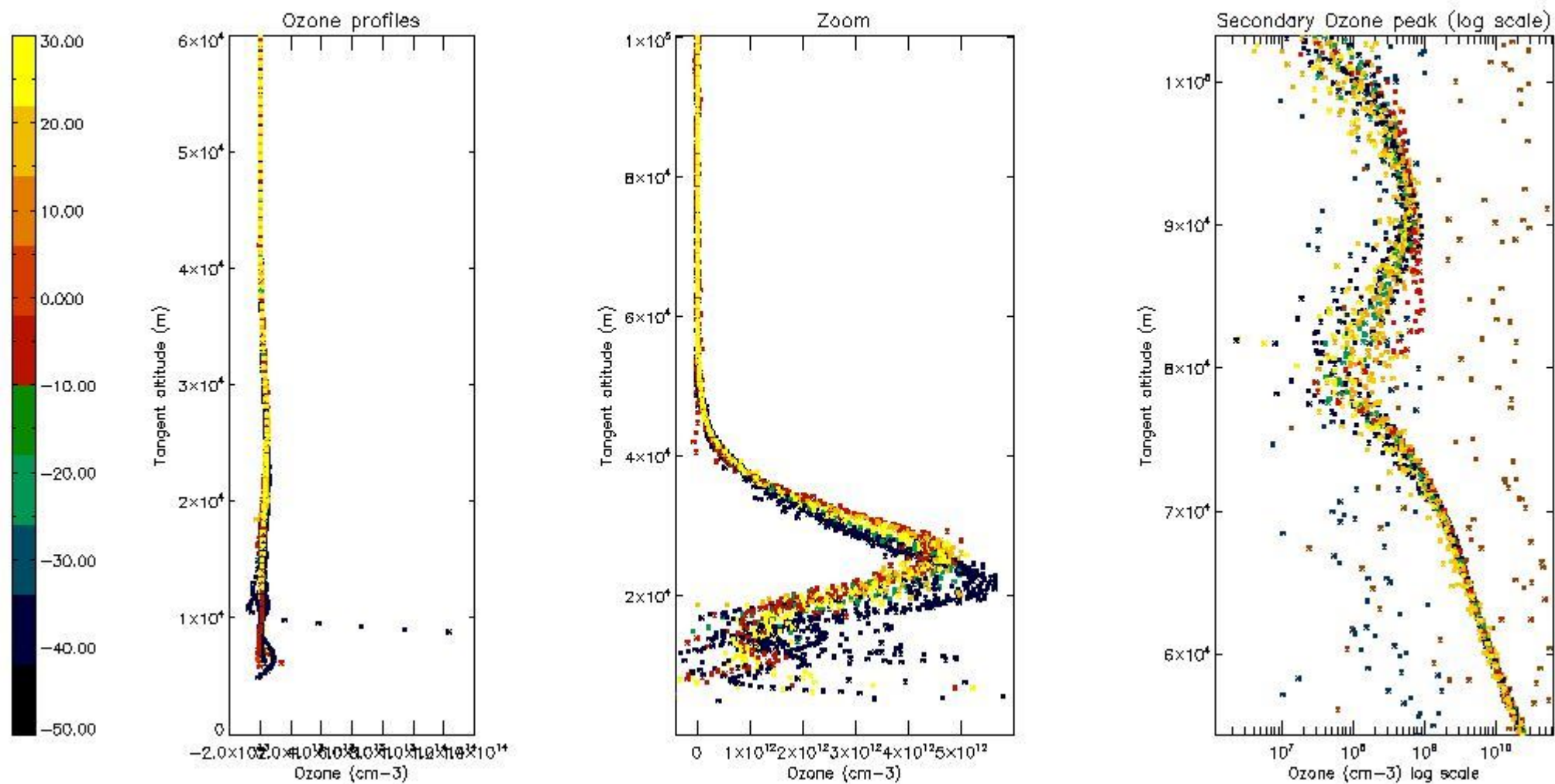
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	26
STD < 20	15

STD < 10	13
STD < 5	9

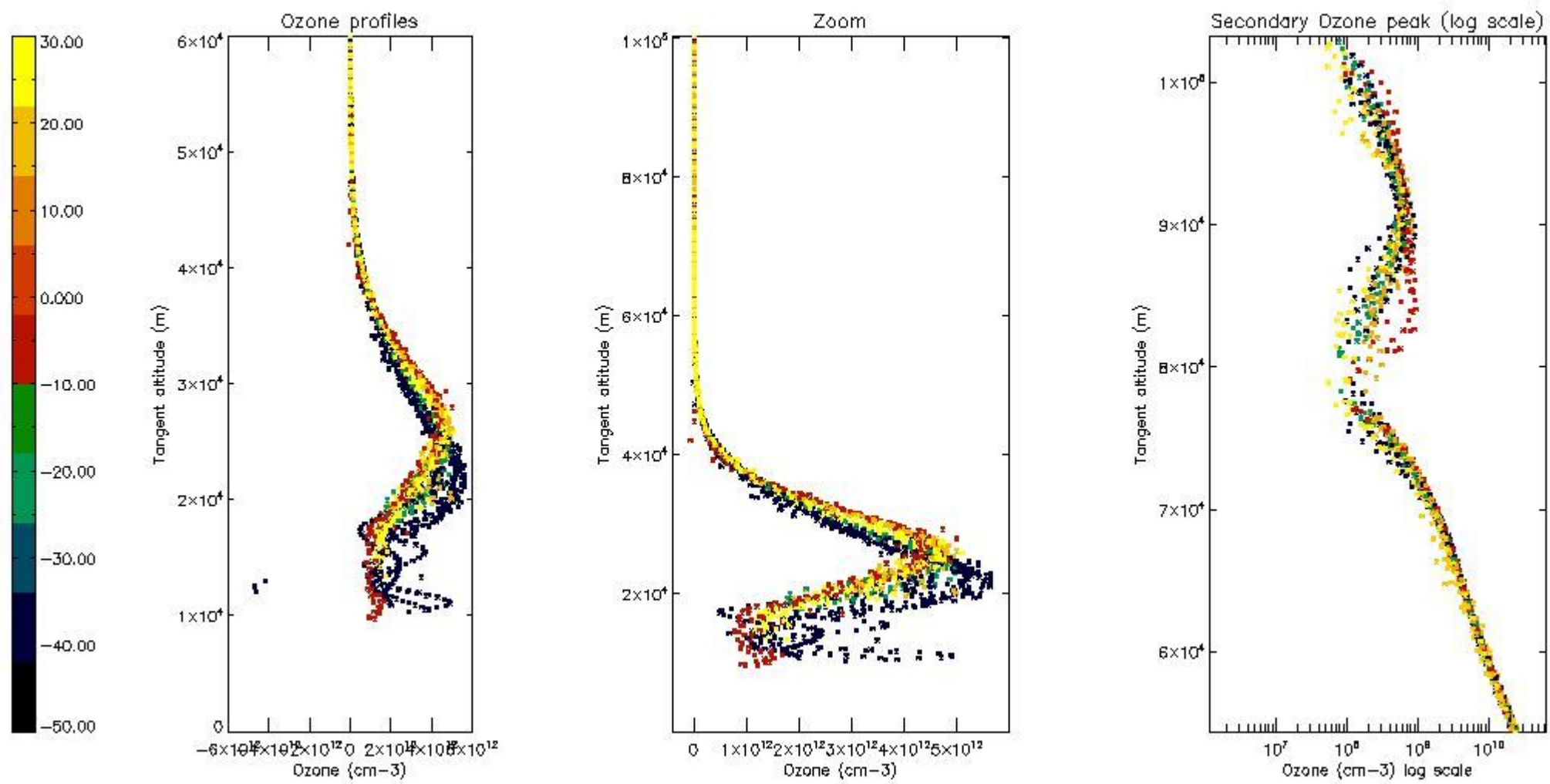
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



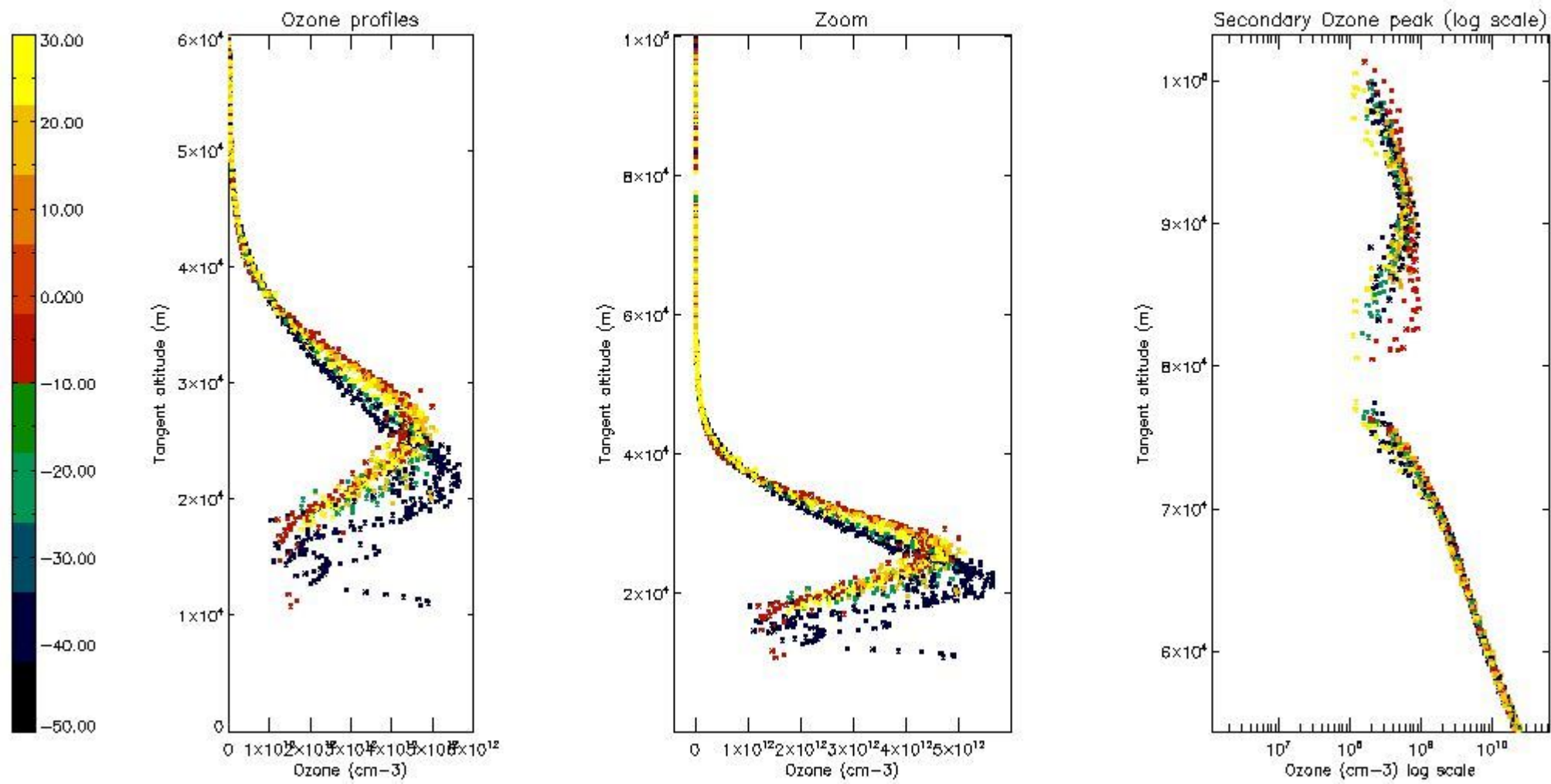
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



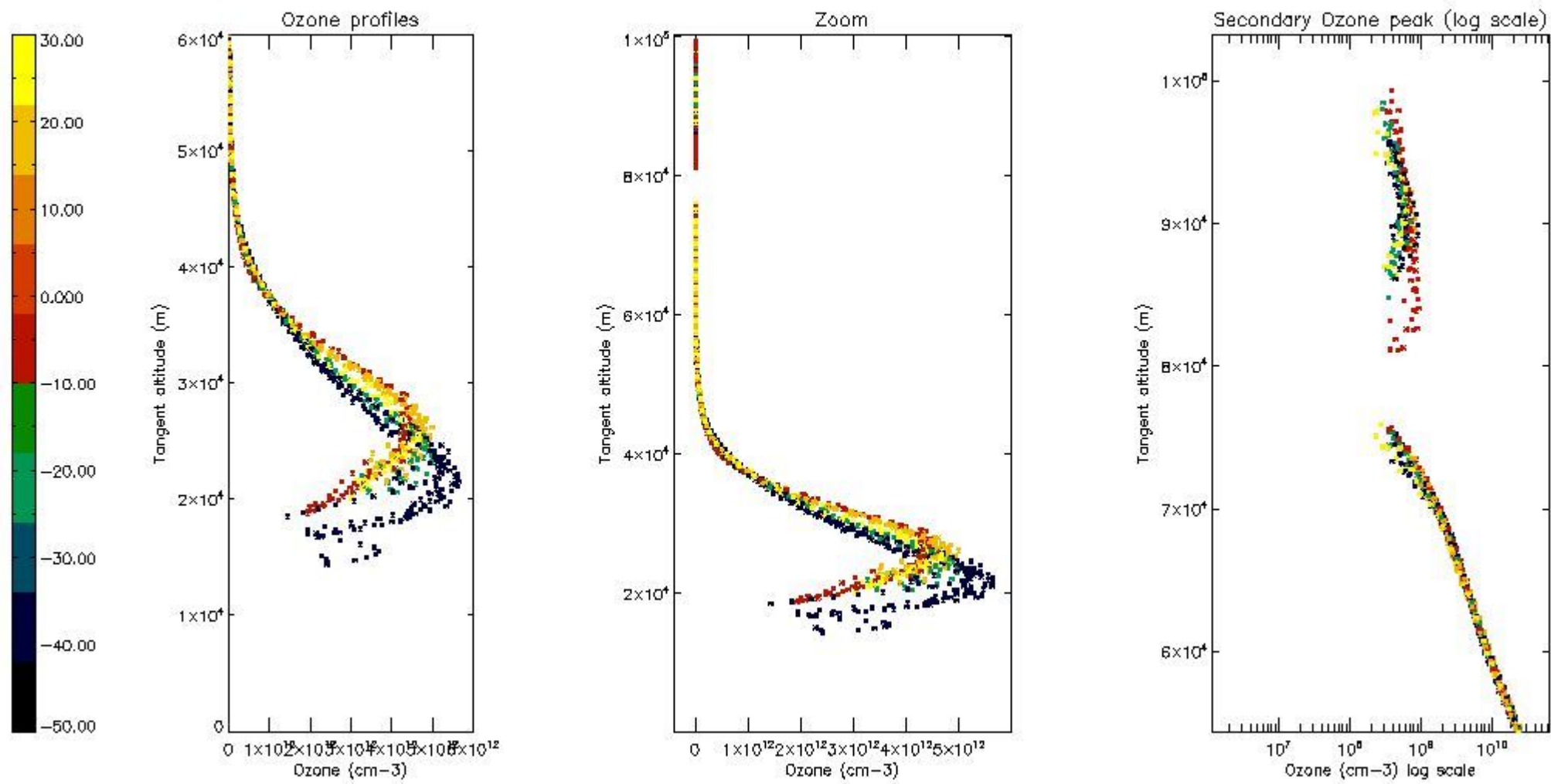
*5.4 Plot ozone profiles where  $STD < 10\%$  (dark without errors)*

The colorbar represents the latitude.



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

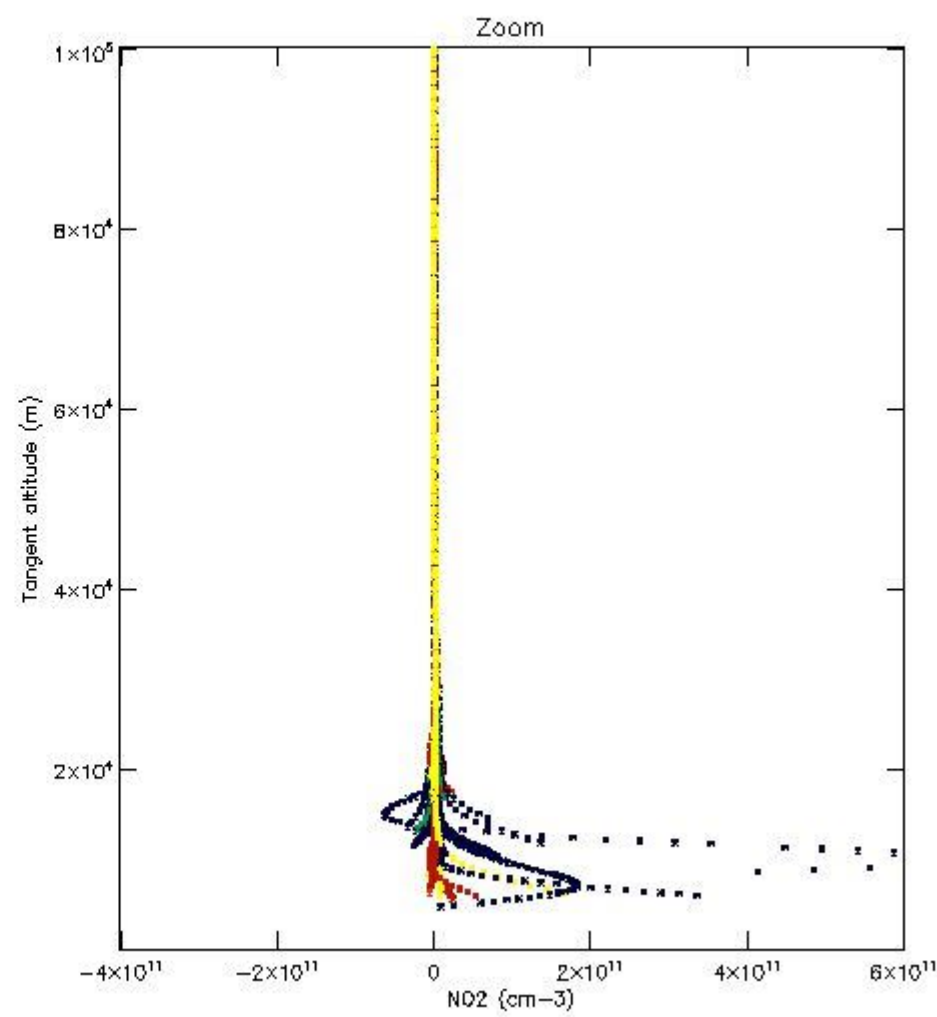
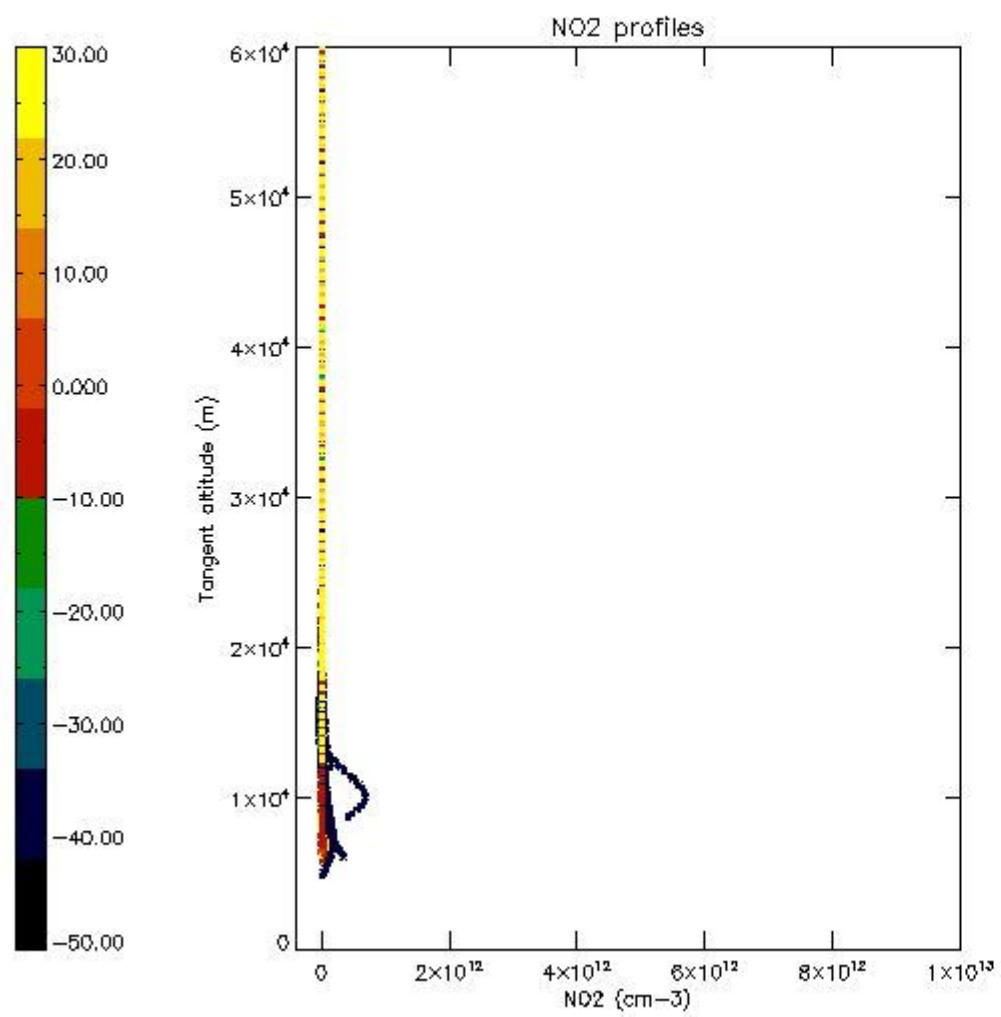
The colorbar represents the latitude.



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

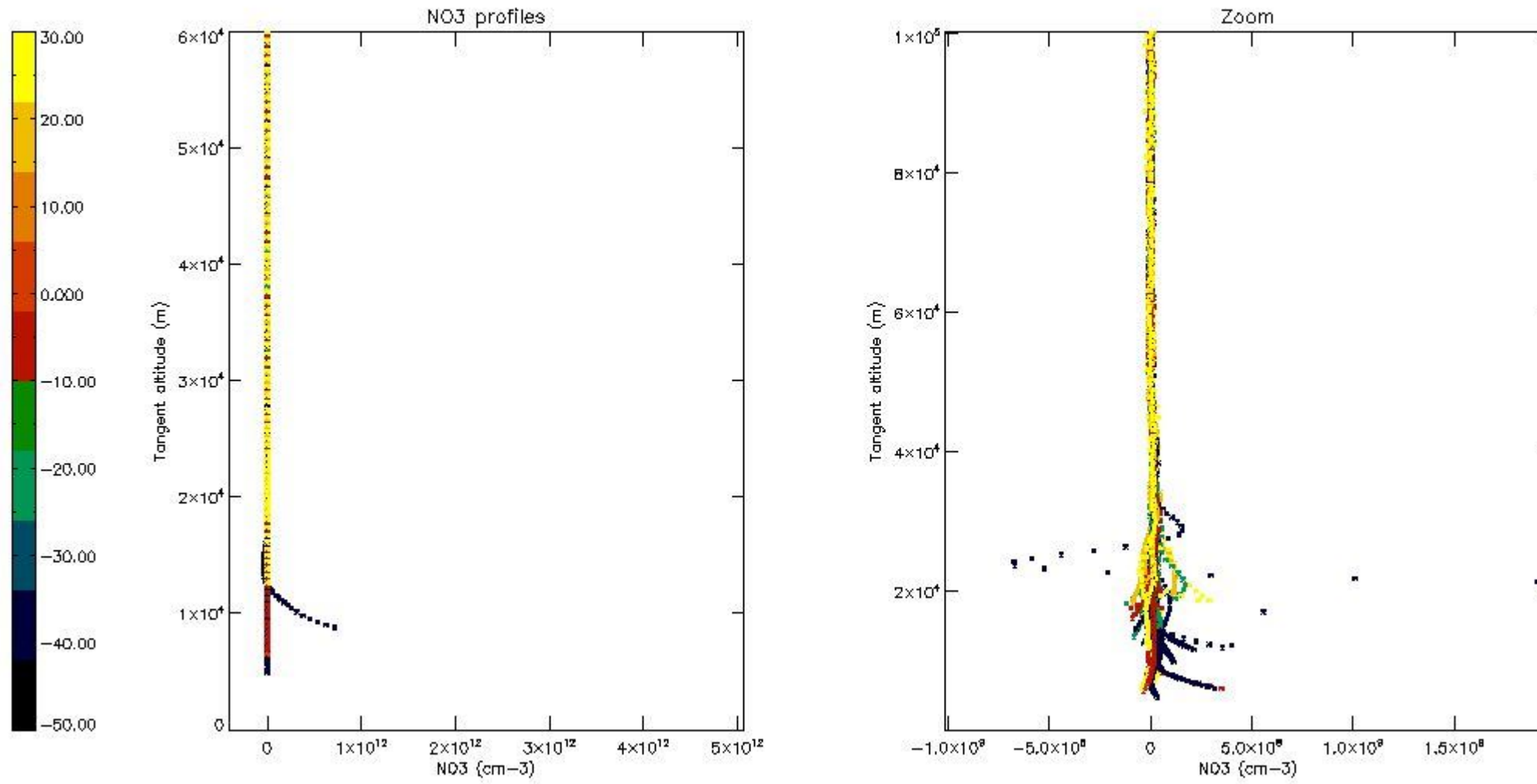
The colorbar represents the latitude.





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

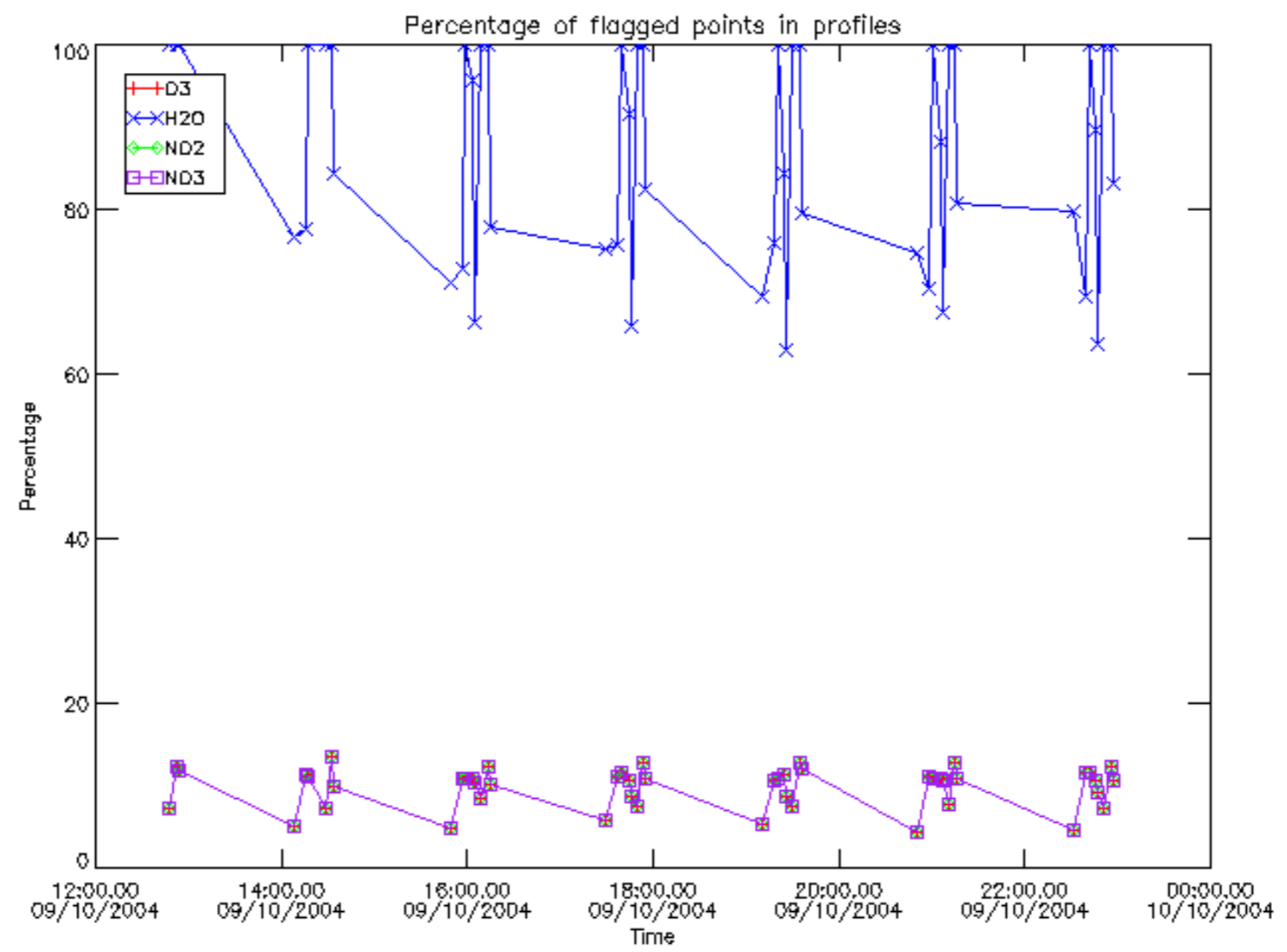
The colorbar represents the latitude.



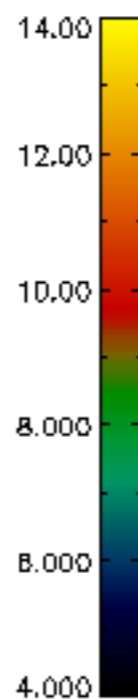
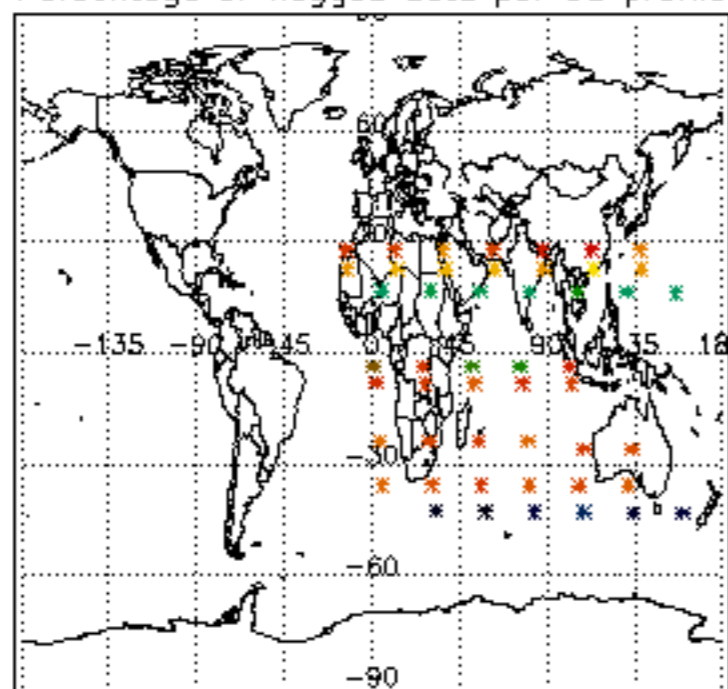
## 6. Auxiliary Data Files used for the production reported in section 2

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.

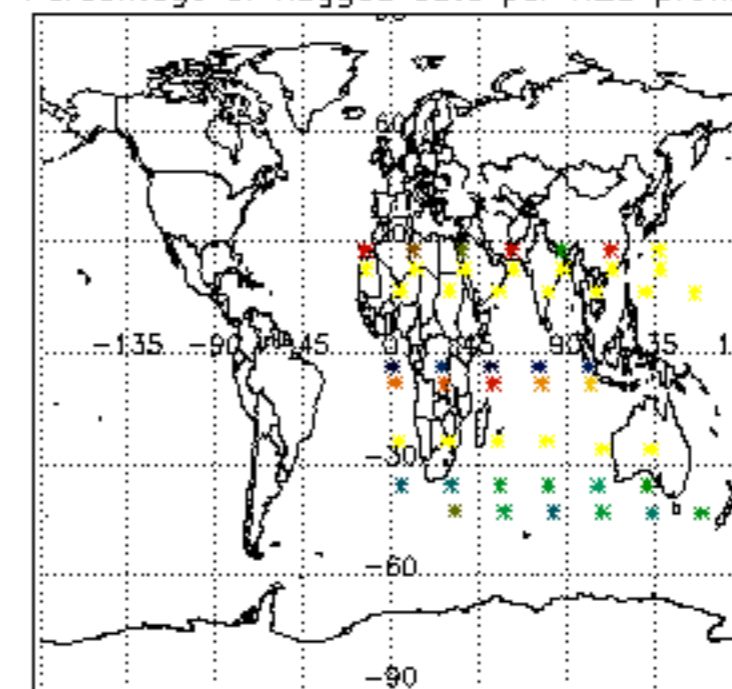
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	09-OCT-2004 12:47:26
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	09-OCT-2004 12:47:26
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	09-OCT-2004 12:47:26



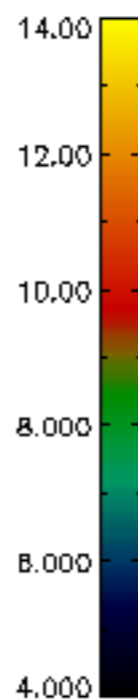
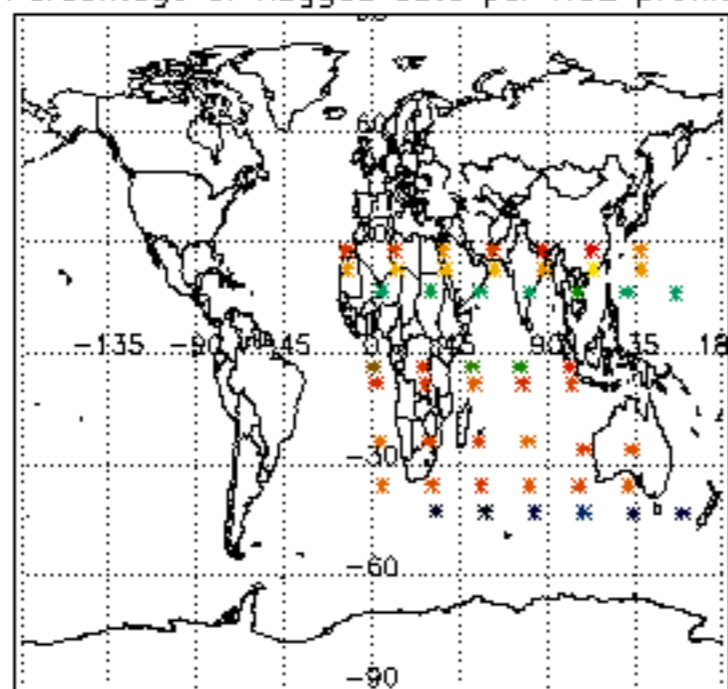
Percentage of flagged data per D3 profile



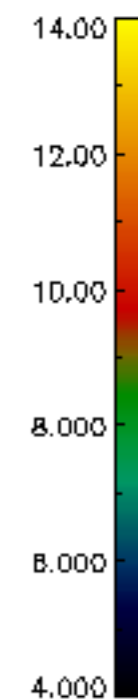
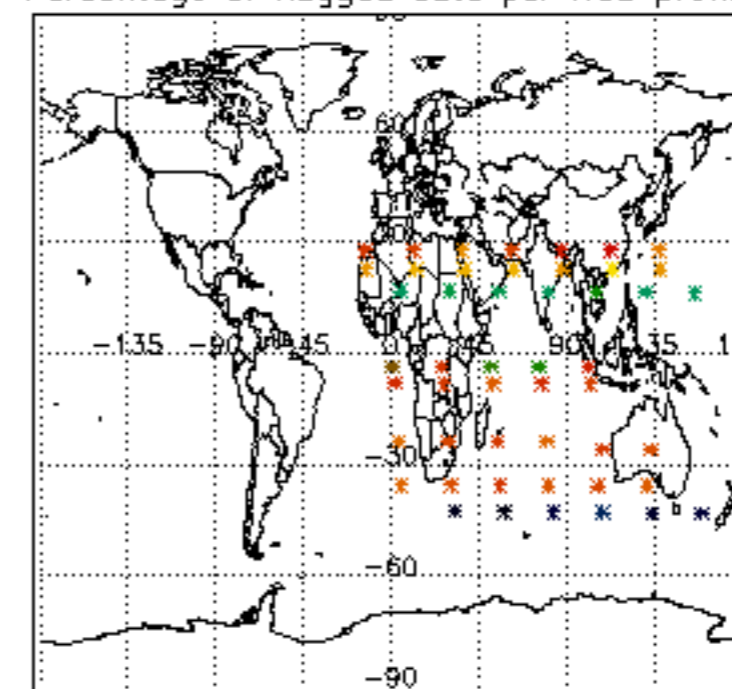
Percentage of flagged data per H2O profile

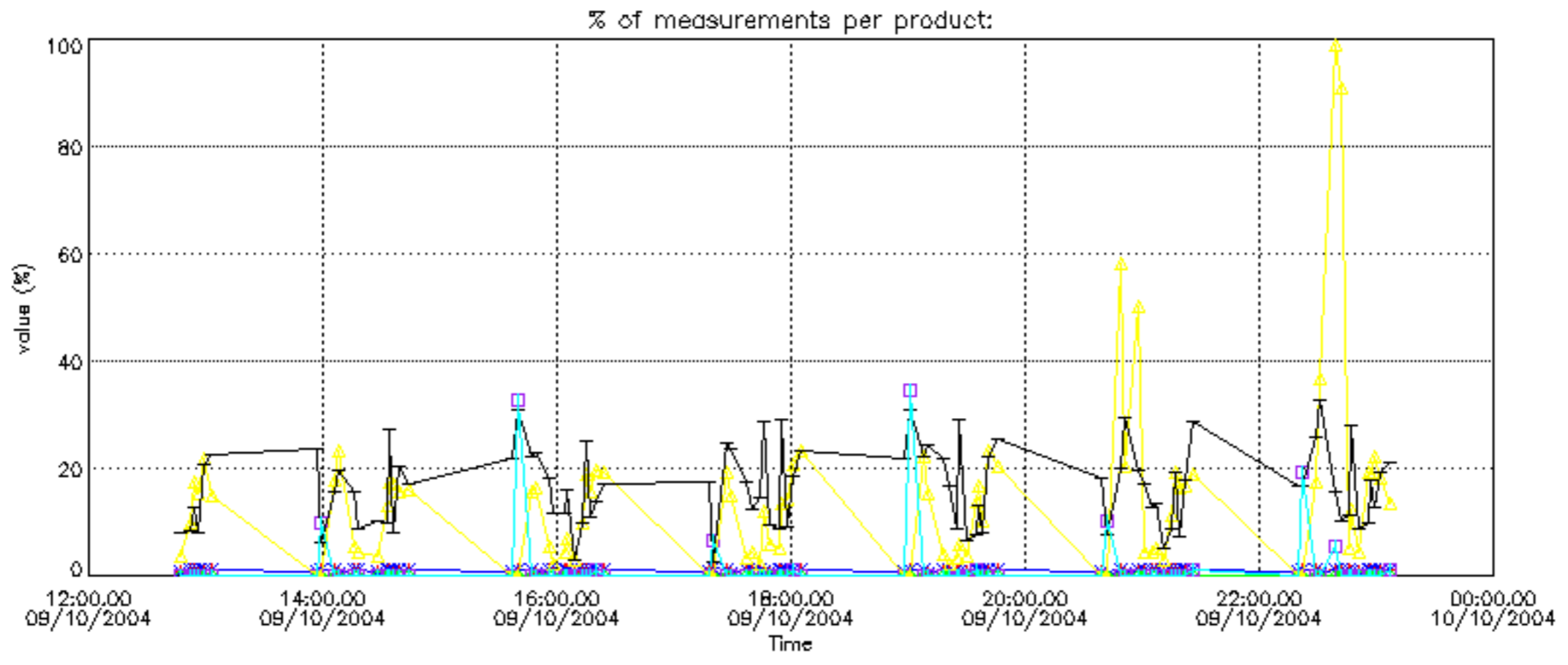


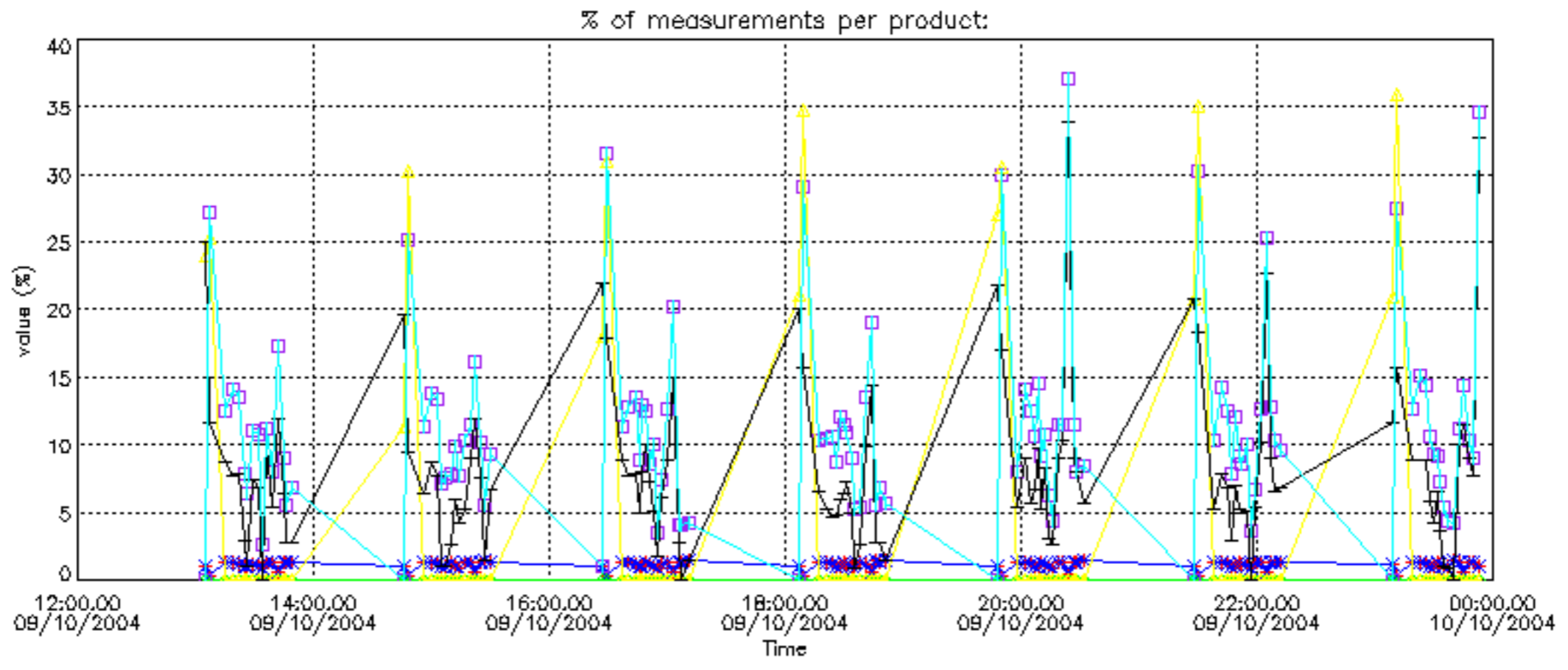
Percentage of flagged data per NO2 profile



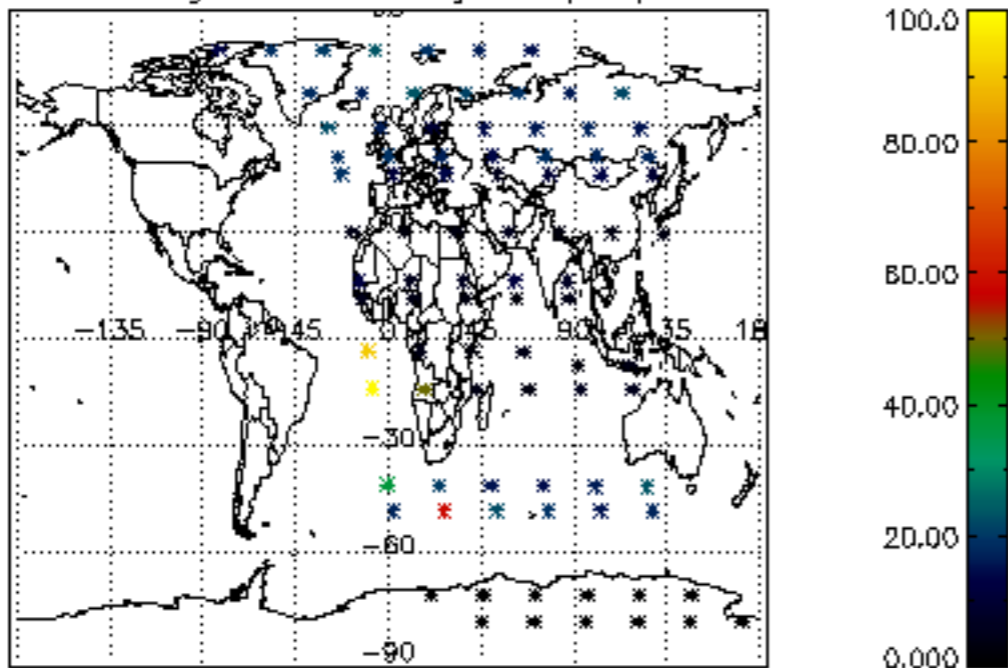
Percentage of flagged data per NO3 profile



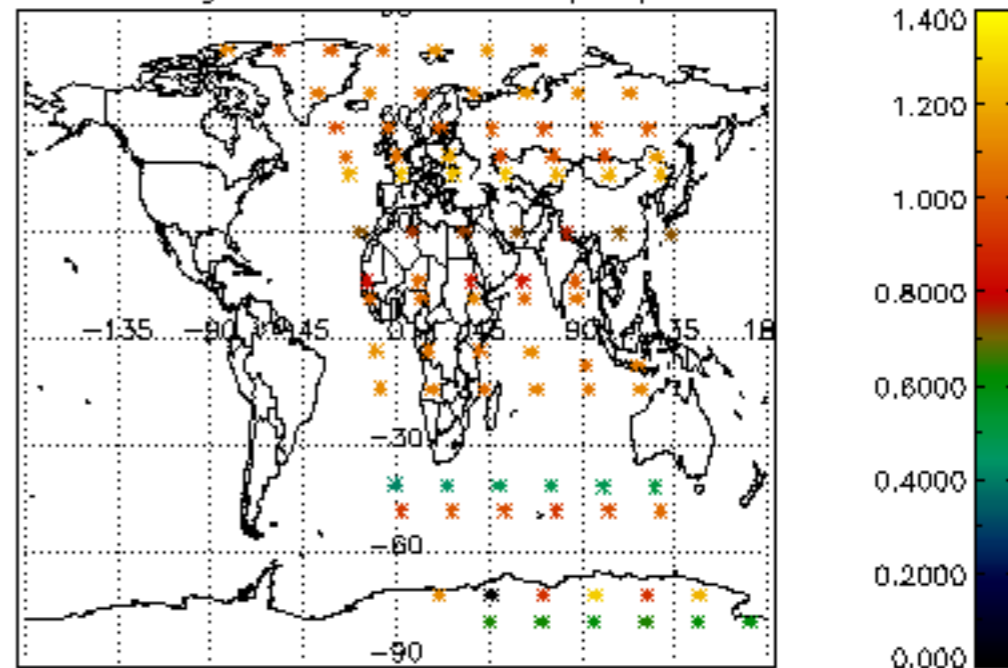




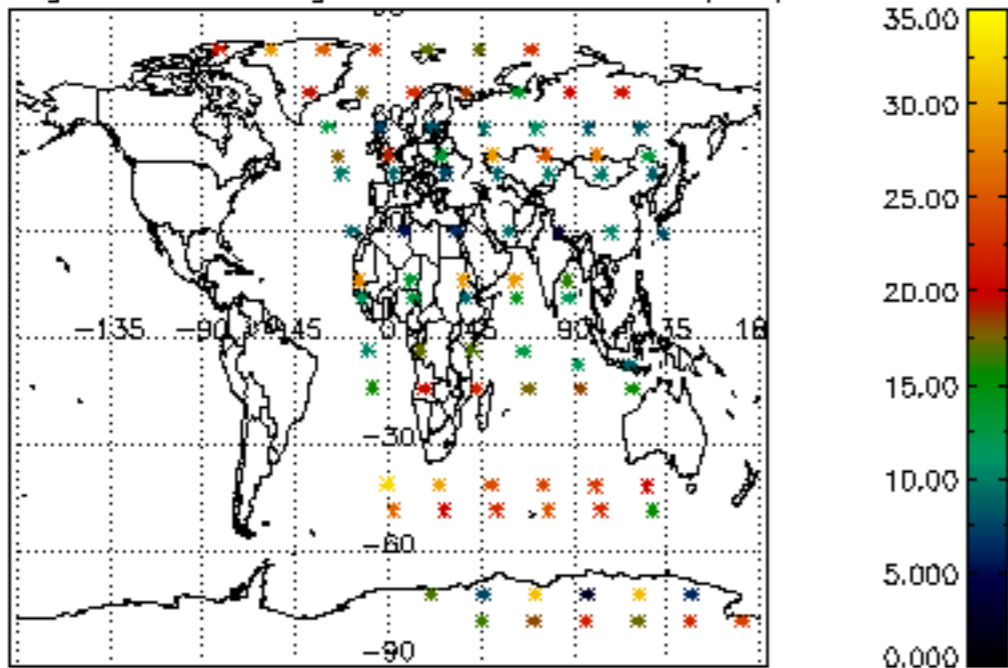
Percentage of cosmic ray hits per profile



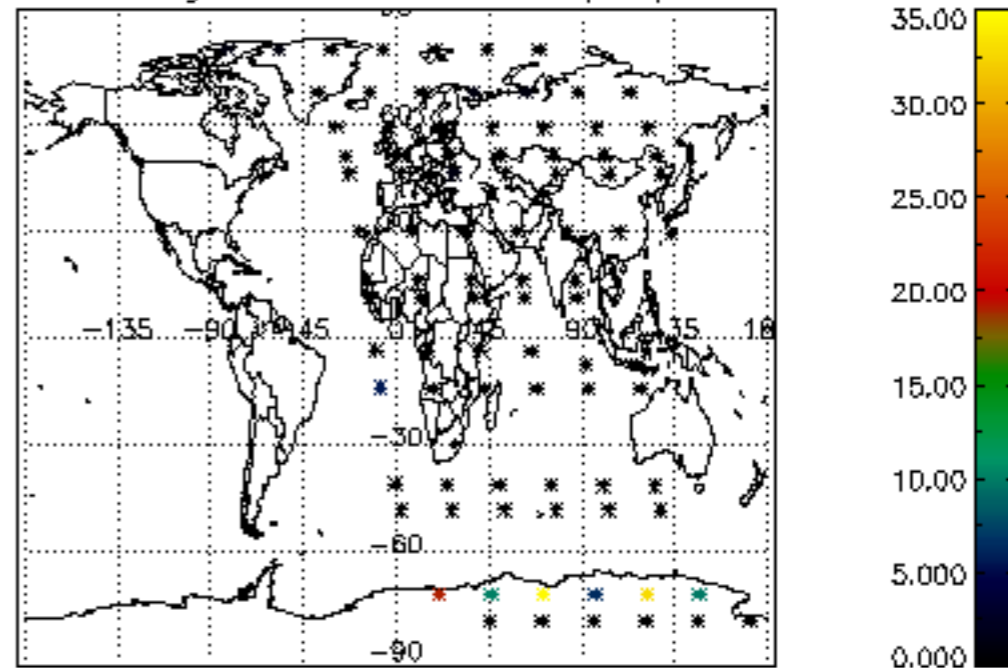
Percentage of datation errors per profile



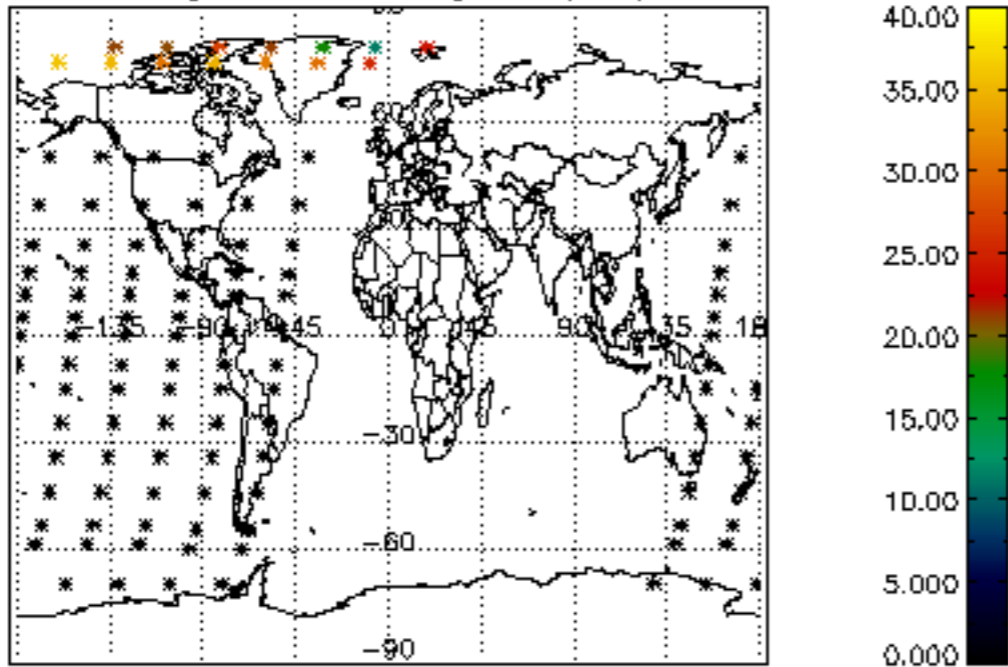
Percentage of star falling outside central band per profile



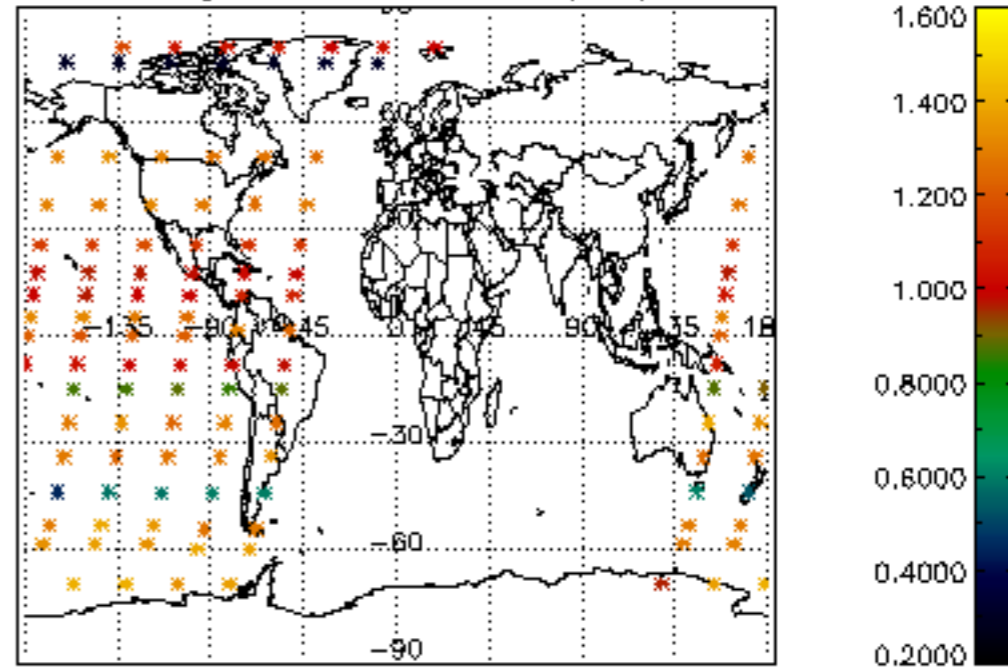
Percentage of saturation errors per profile



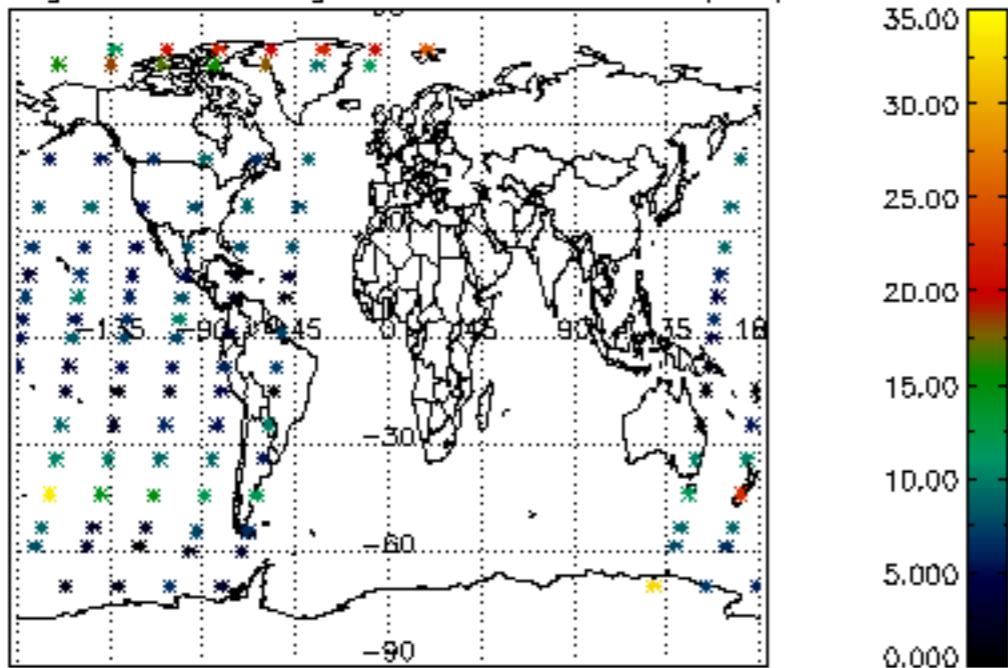
Percentage of cosmic ray hits per profile



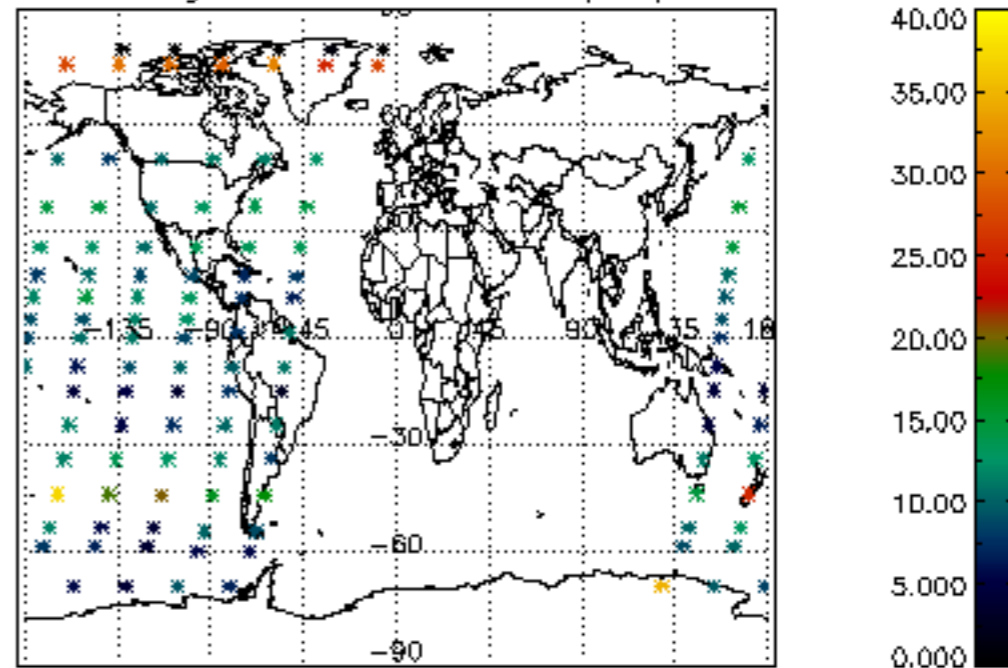
Percentage of datation errors per profile



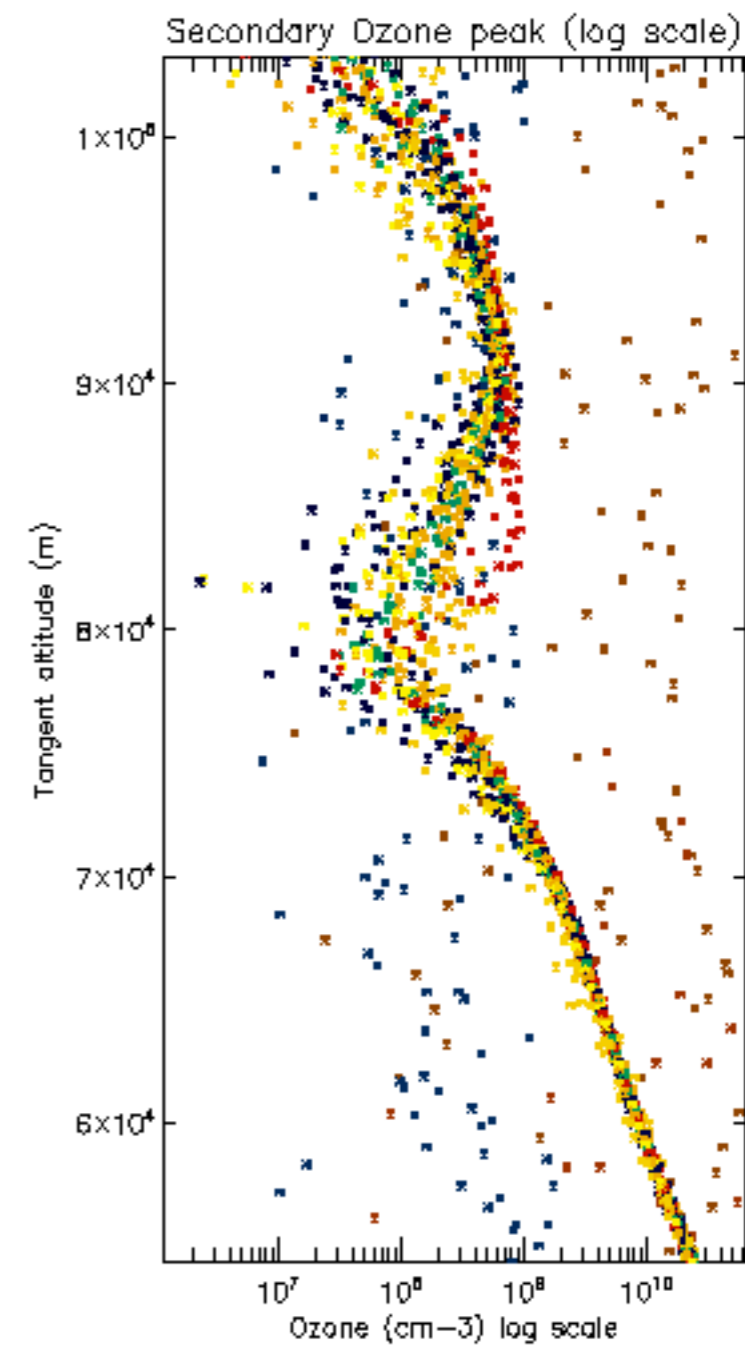
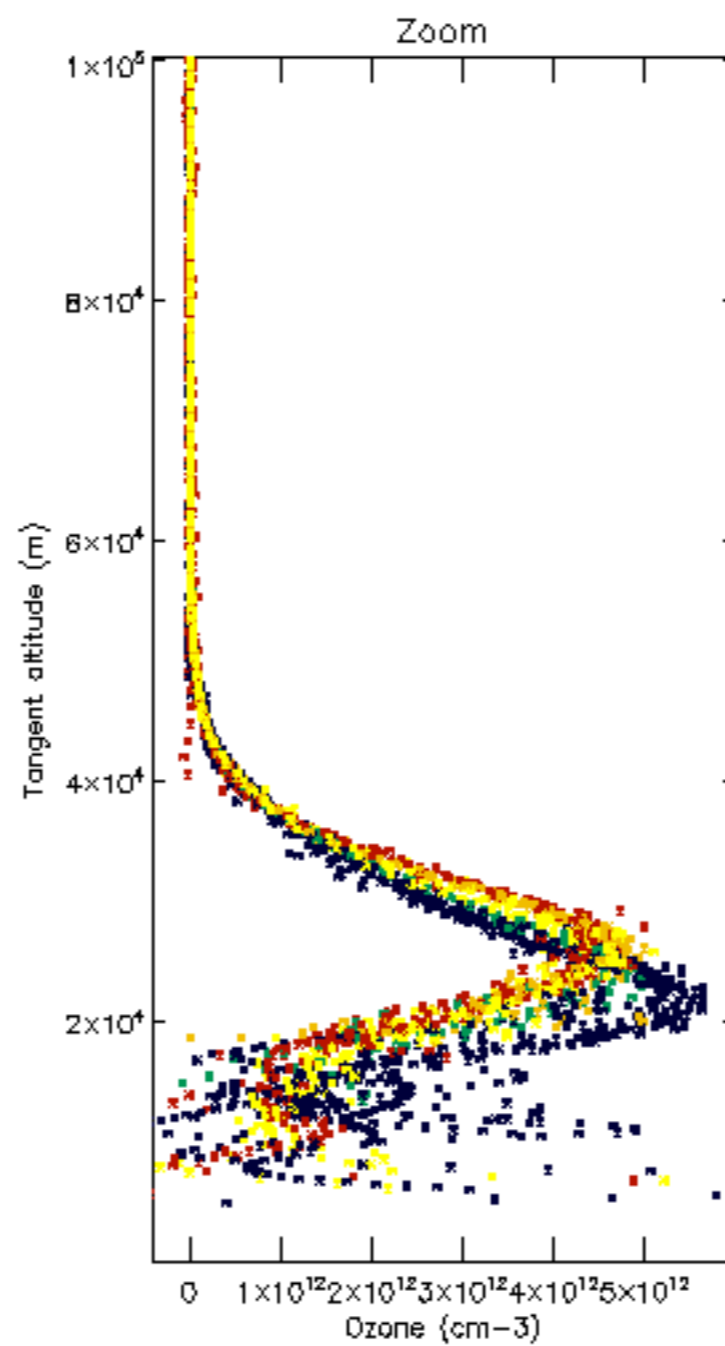
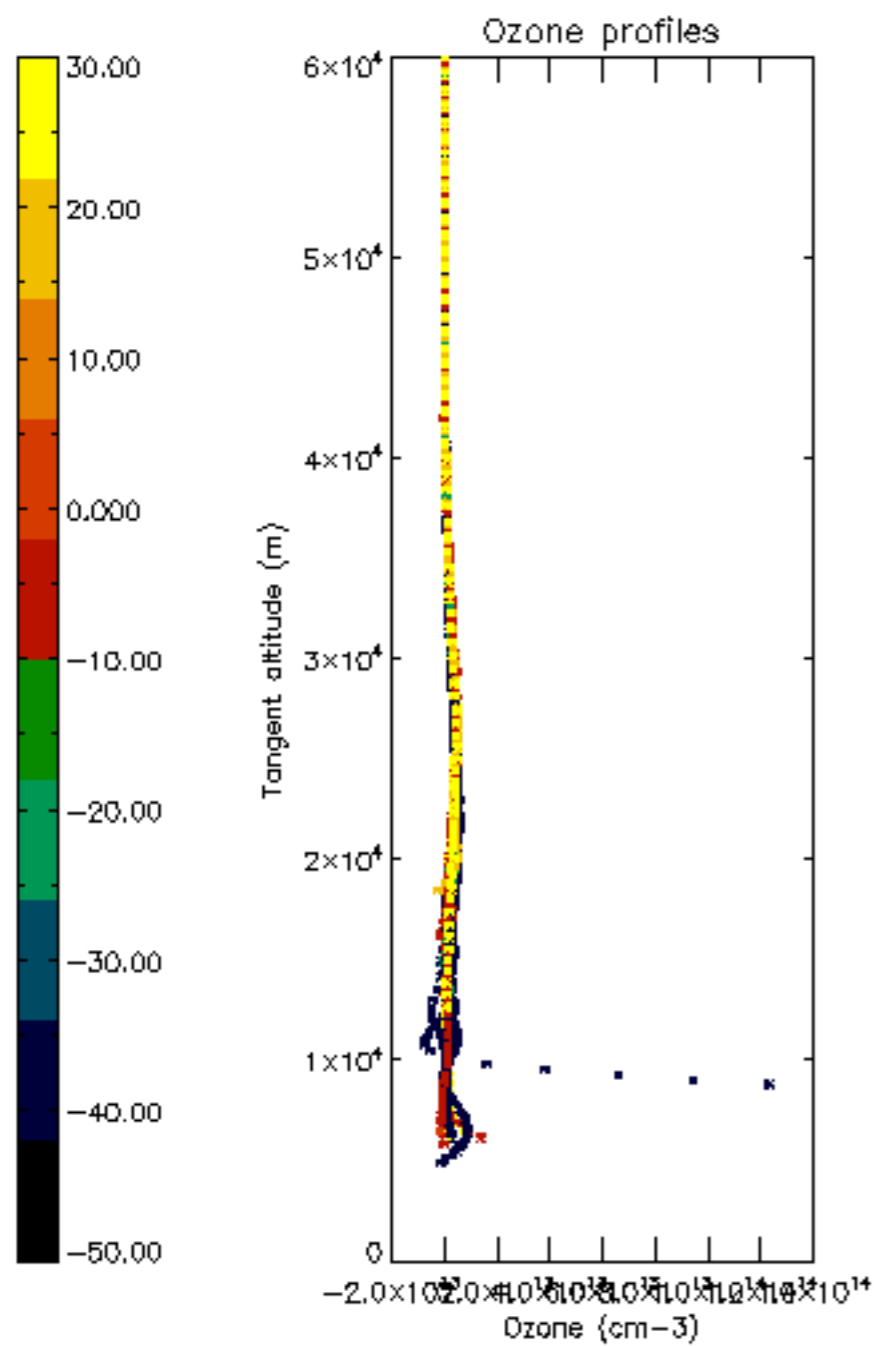
Percentage of star falling outside central band per profile

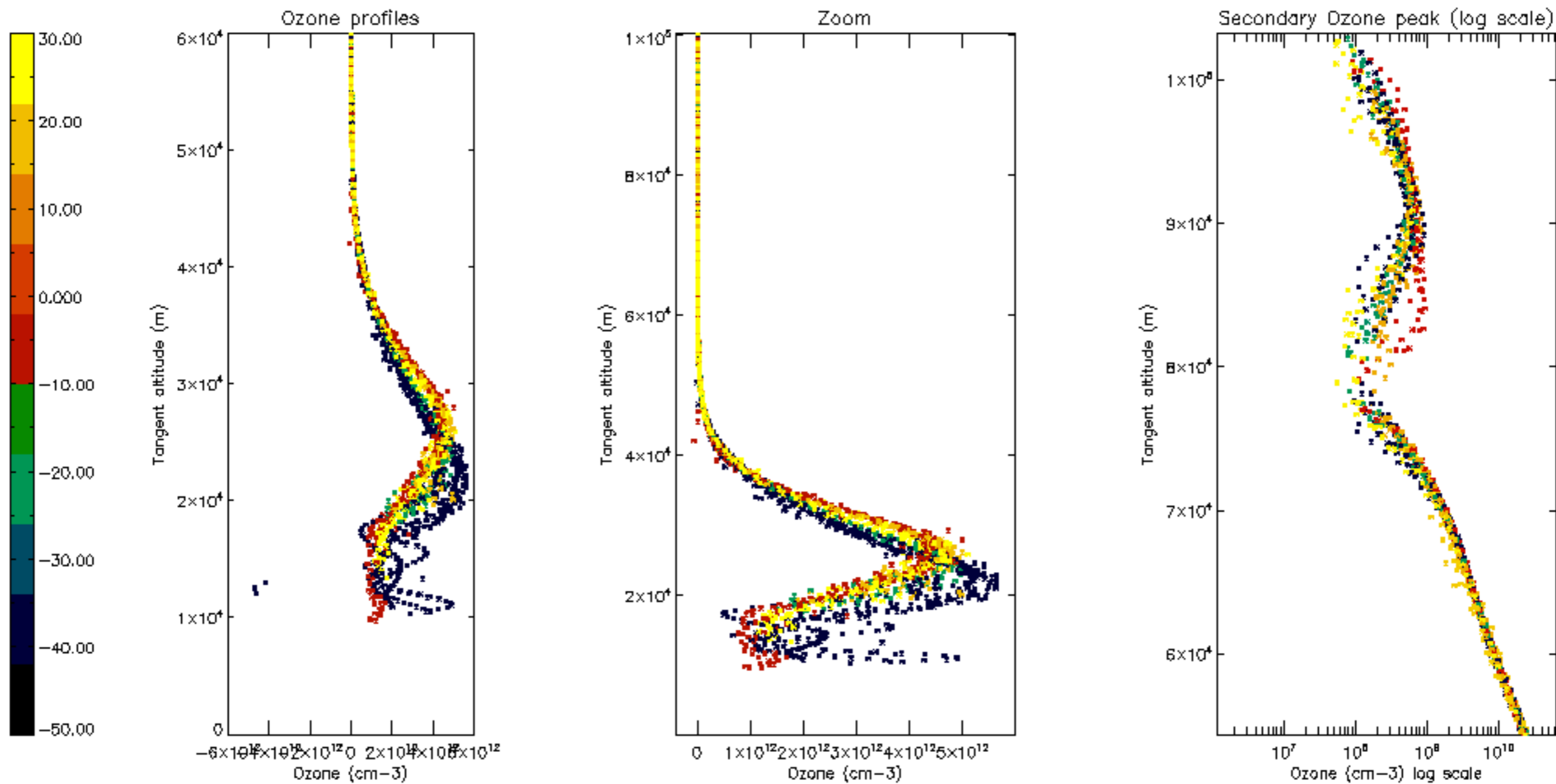


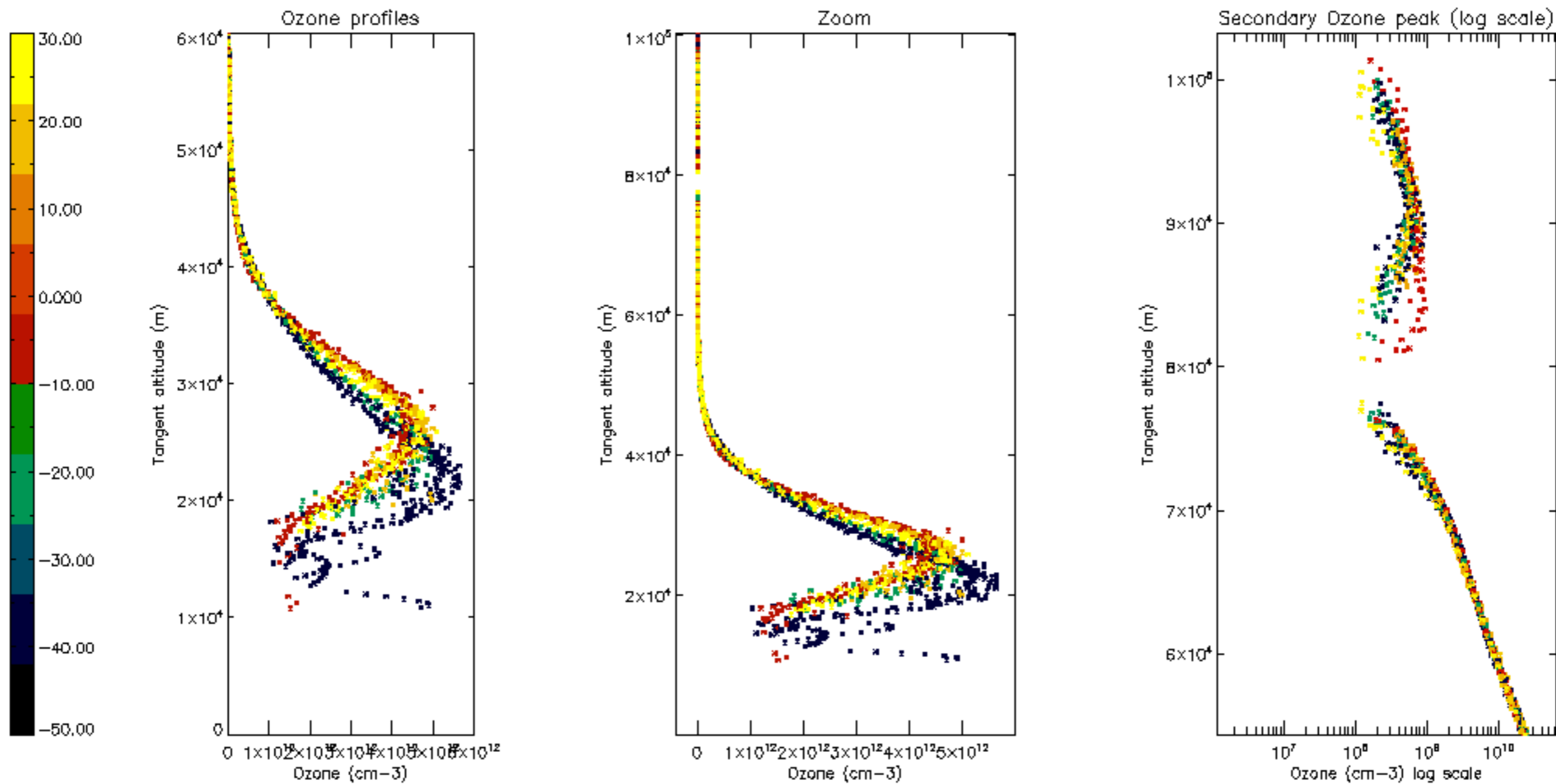
Percentage of saturation errors per profile

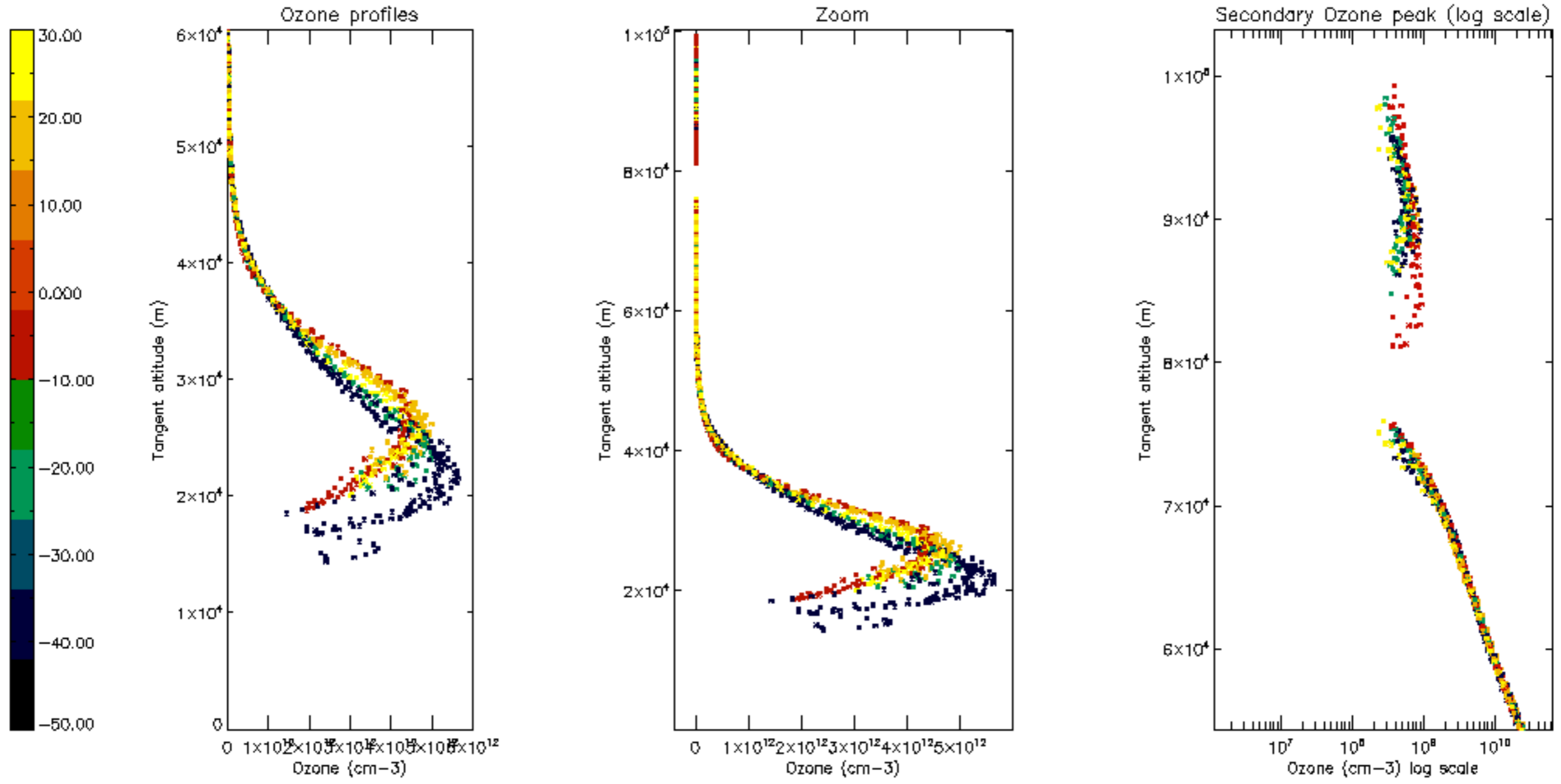


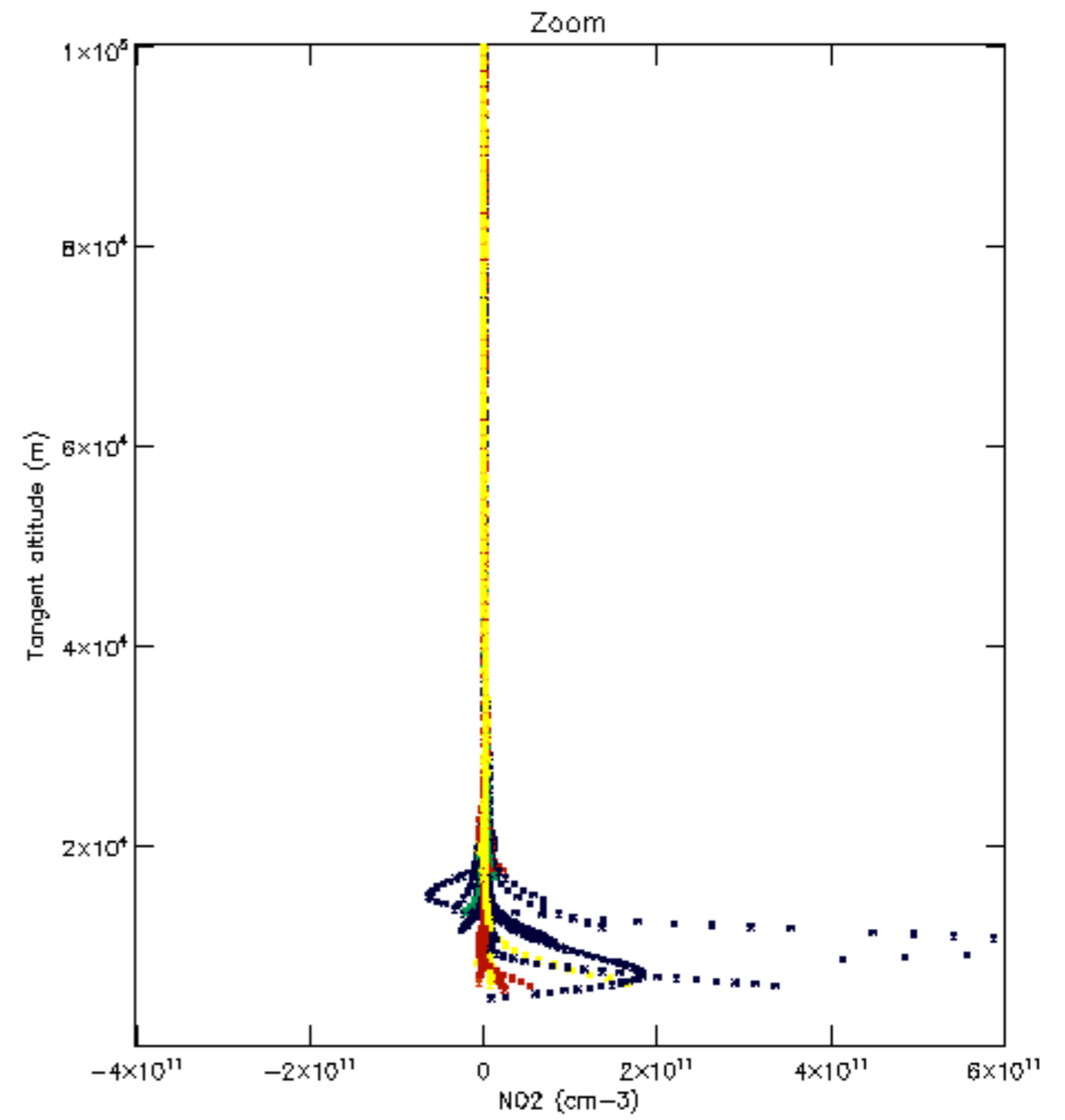
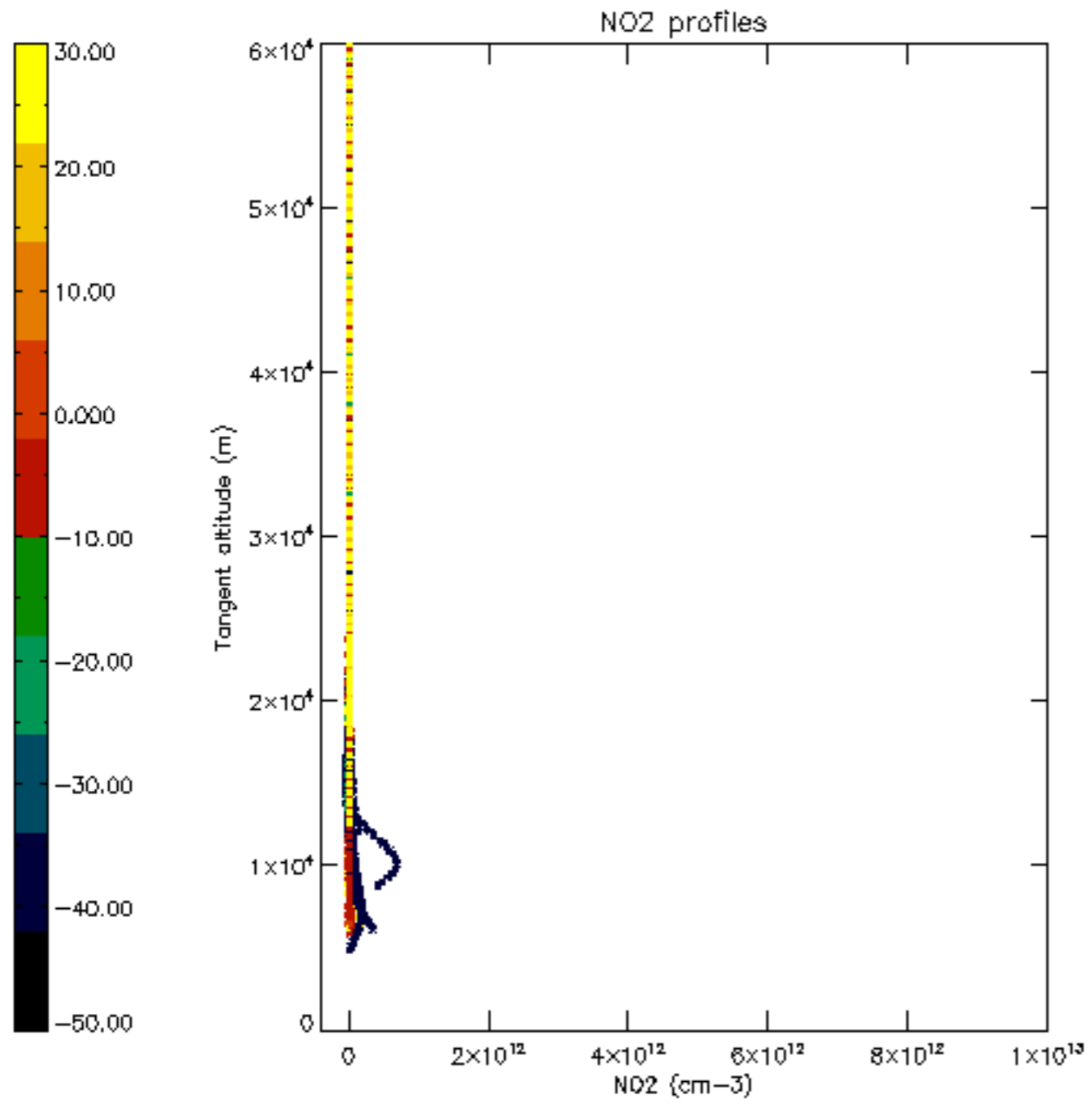


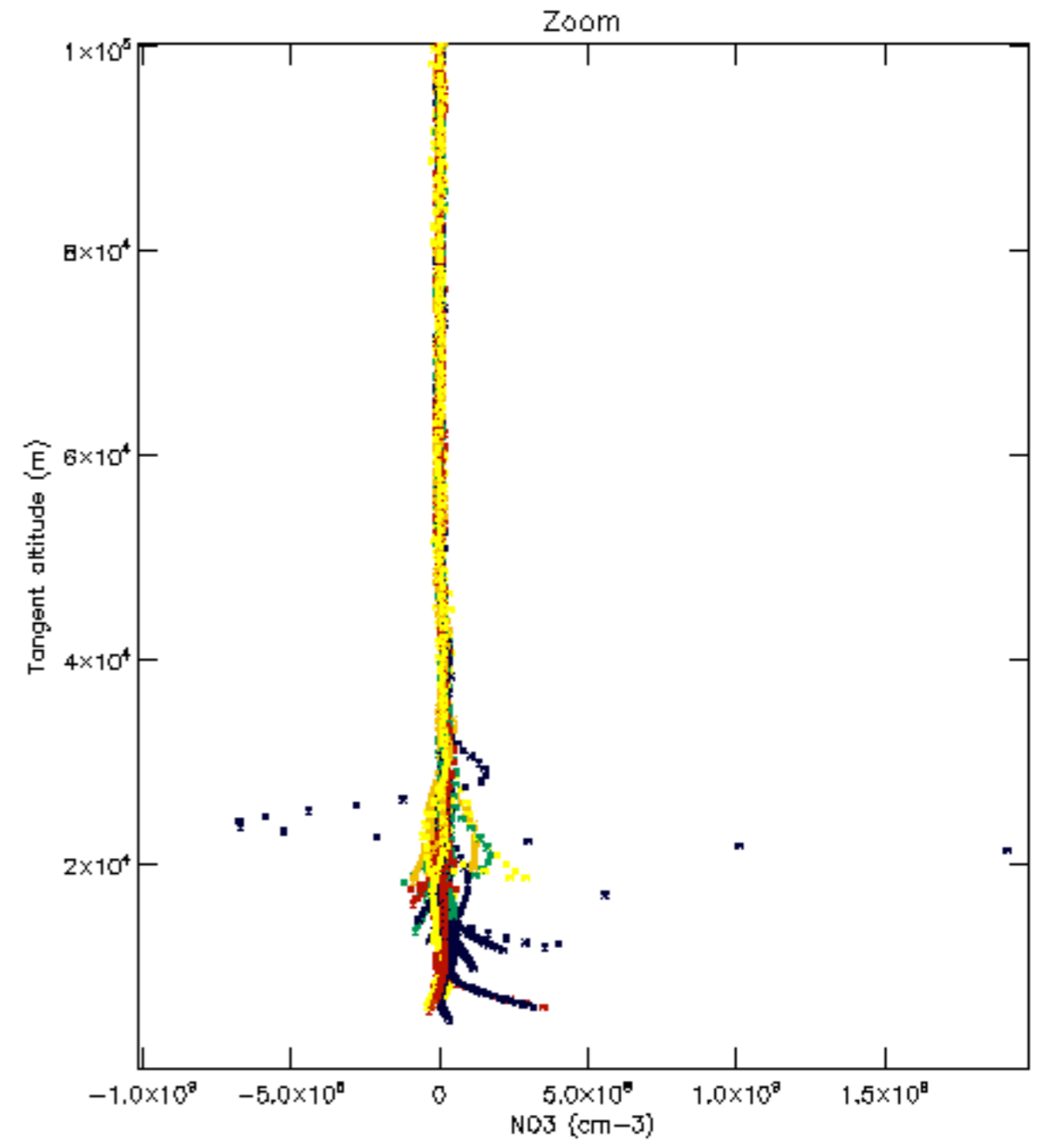
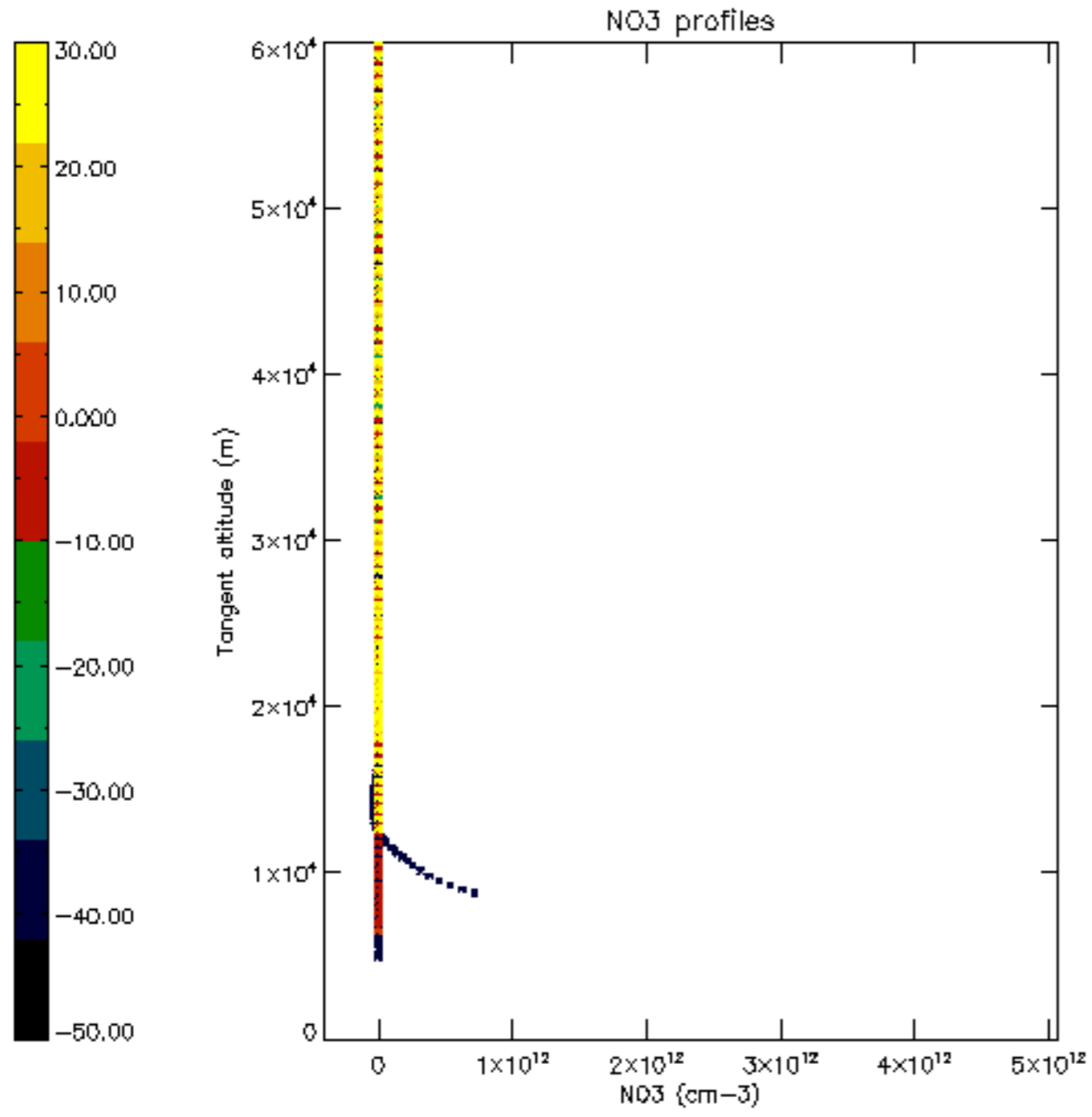


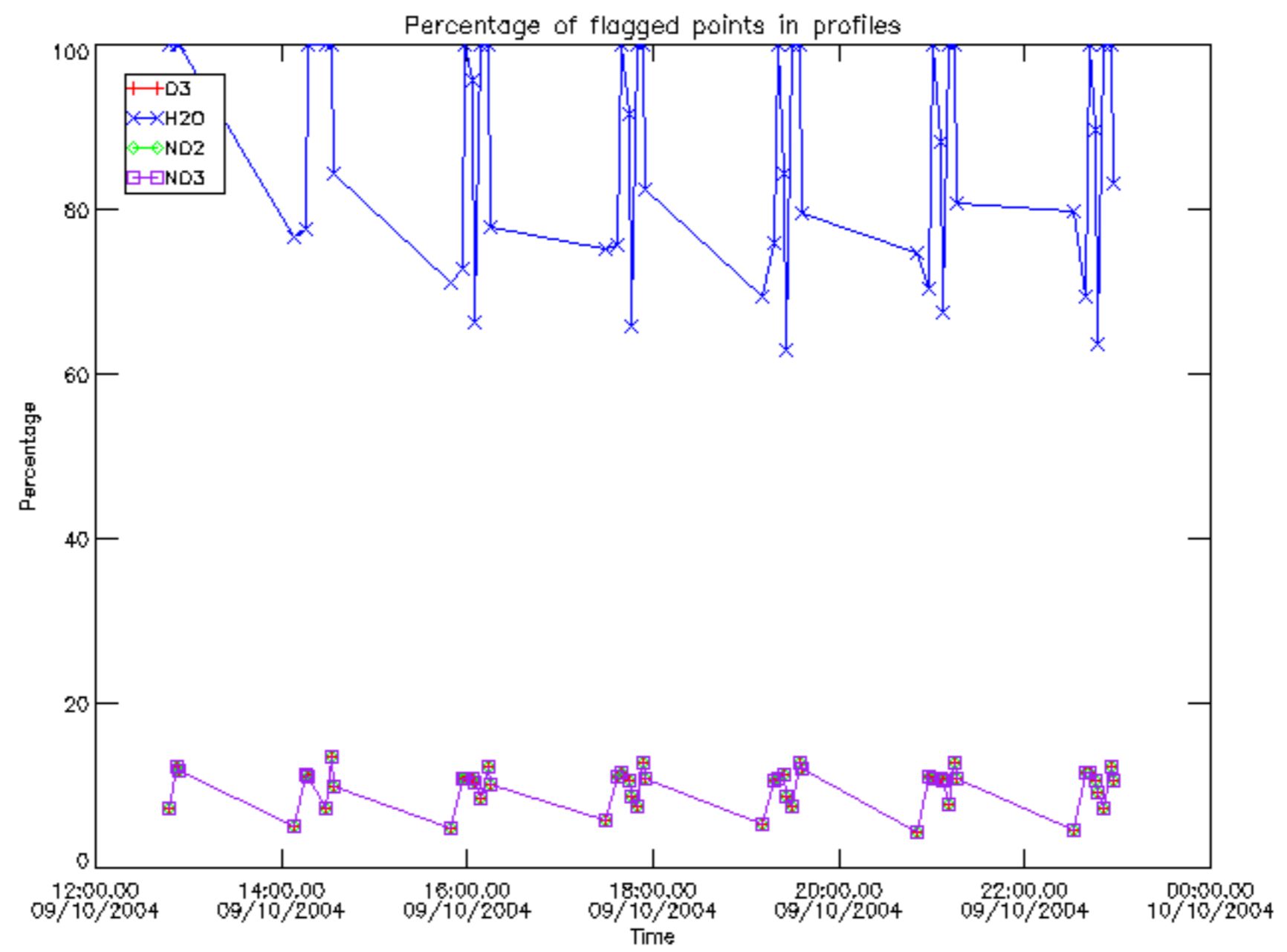




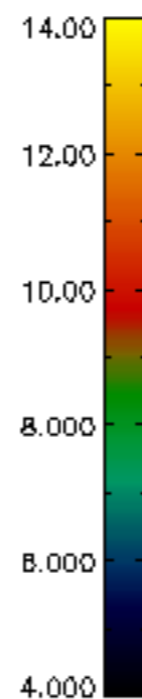
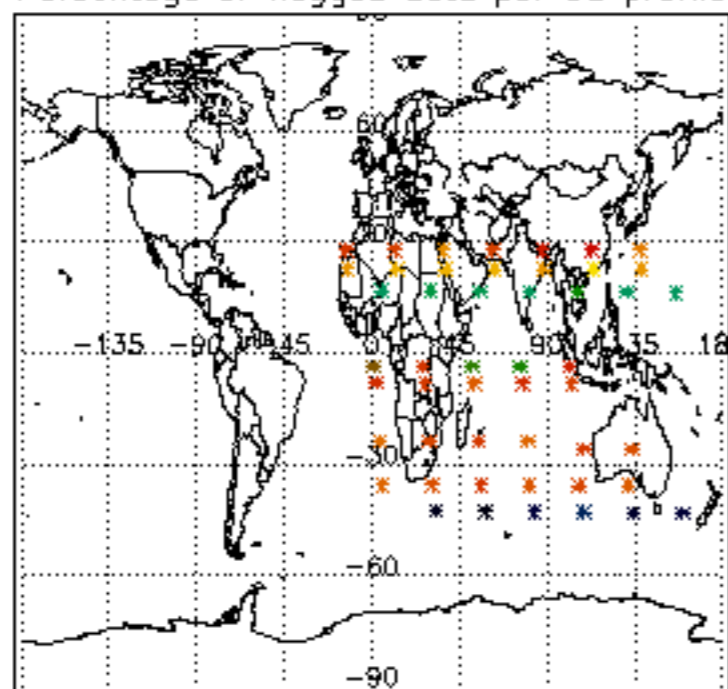




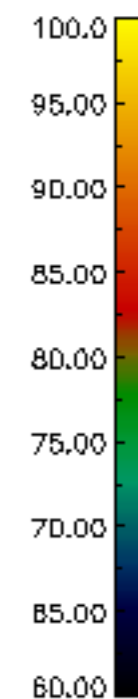
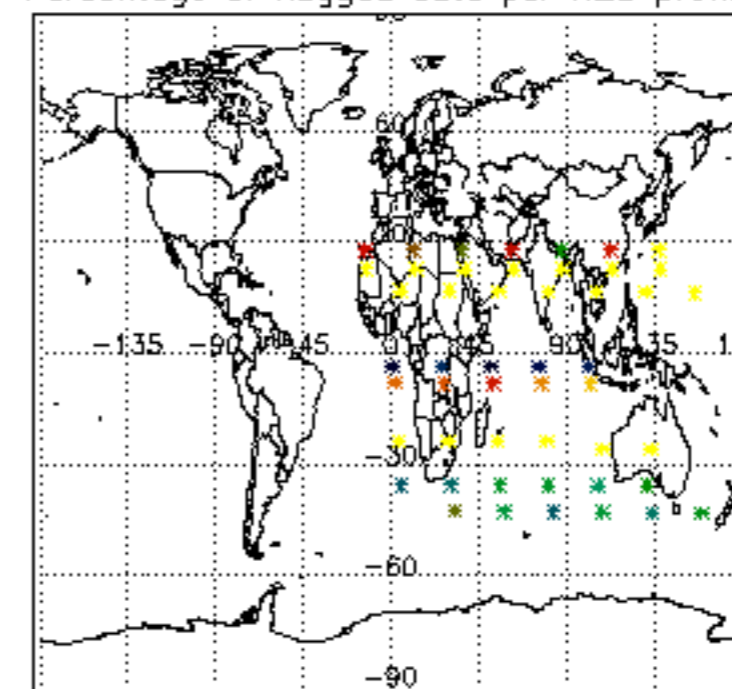




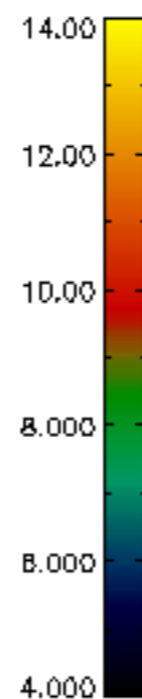
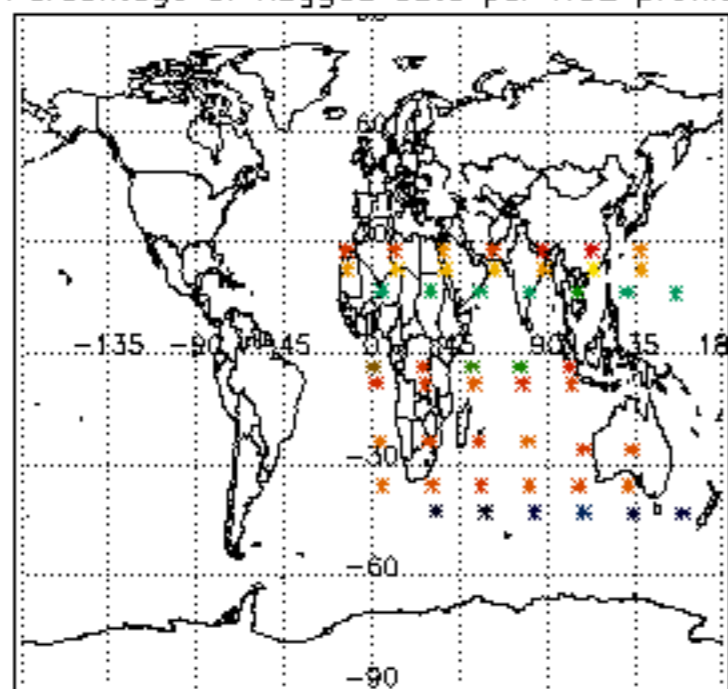
Percentage of flagged data per D3 profile



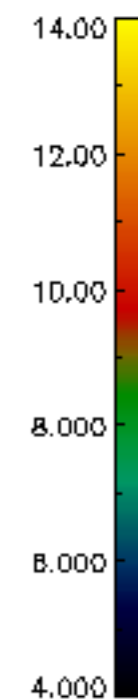
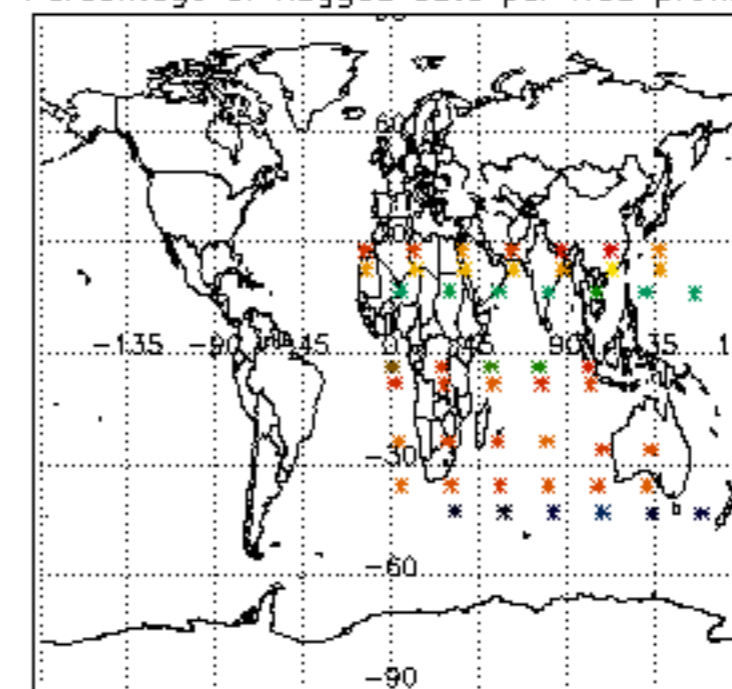
Percentage of flagged data per H2O profile



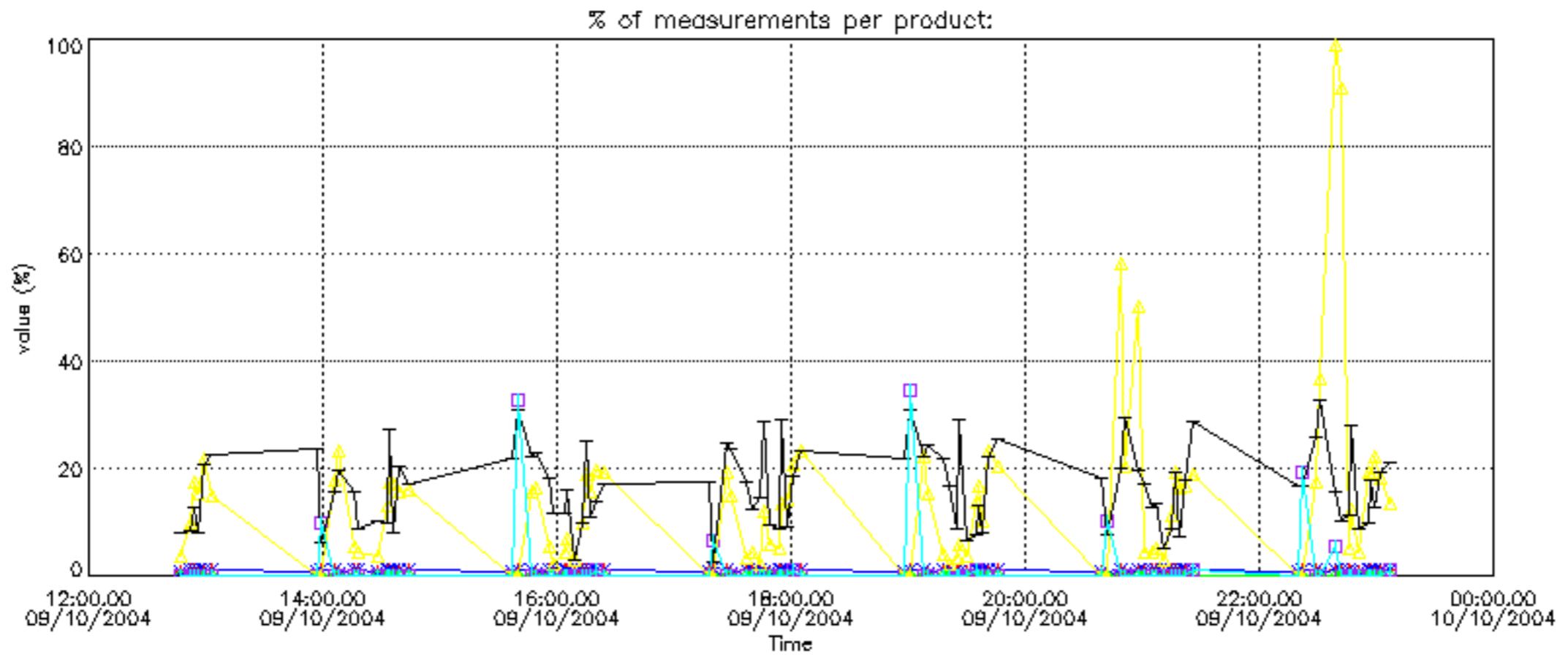
Percentage of flagged data per NO2 profile

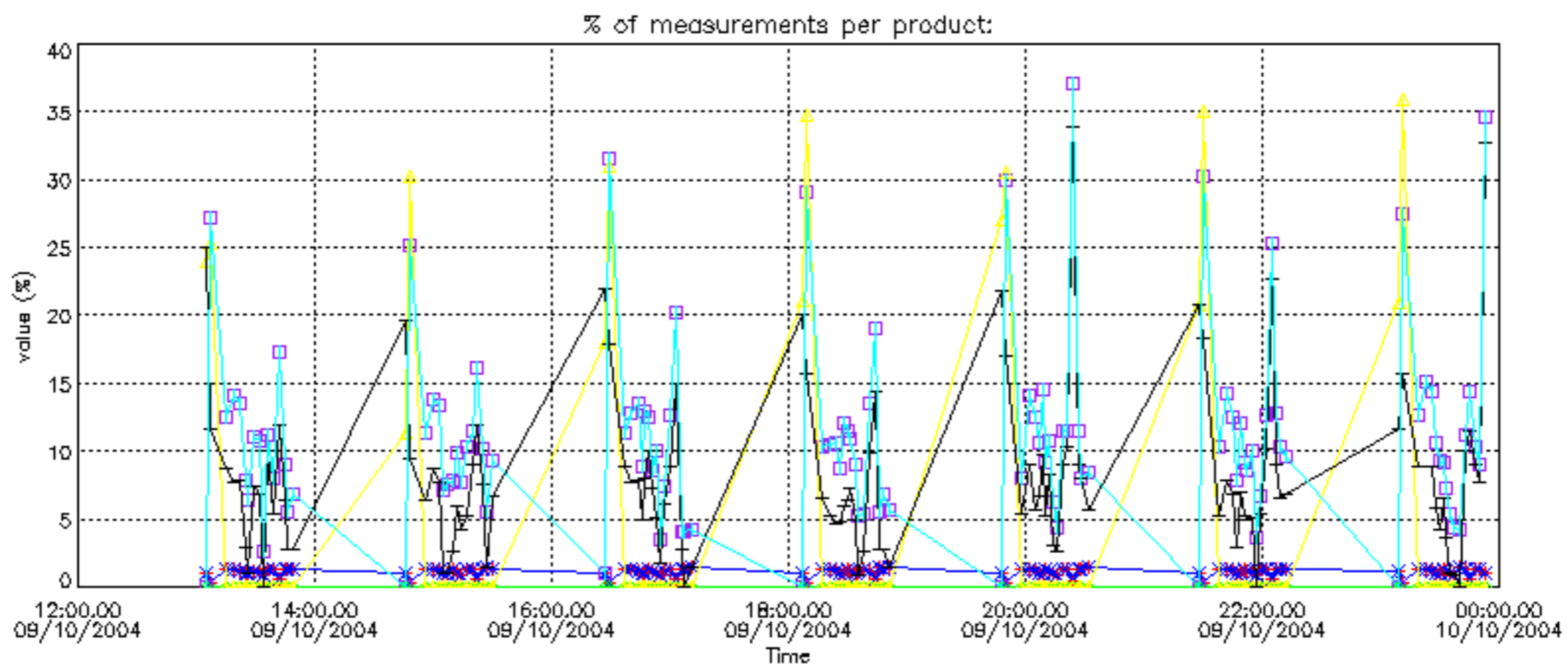


Percentage of flagged data per NO3 profile

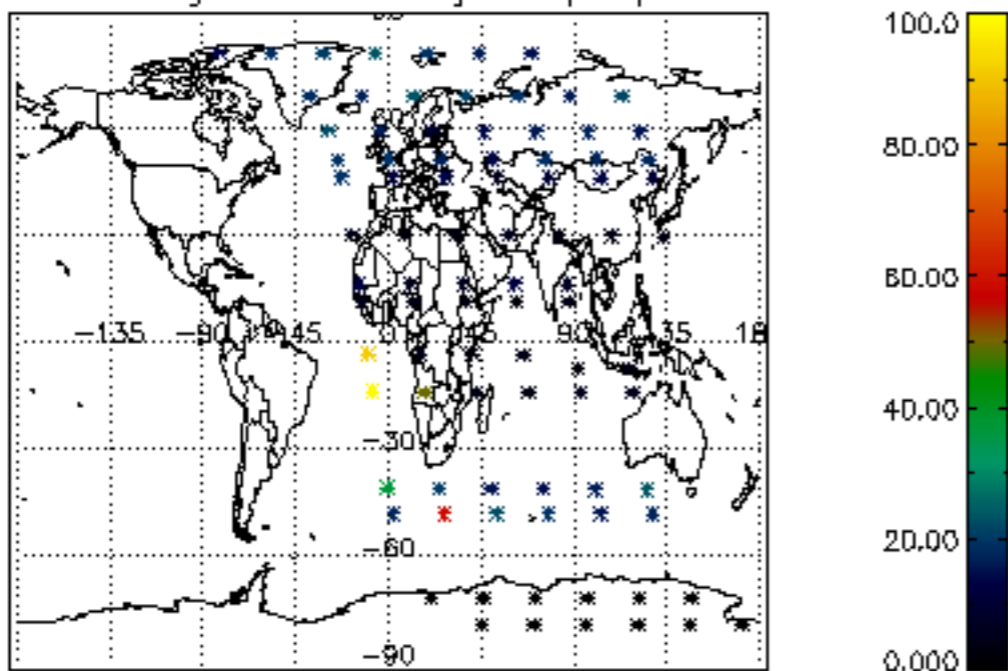




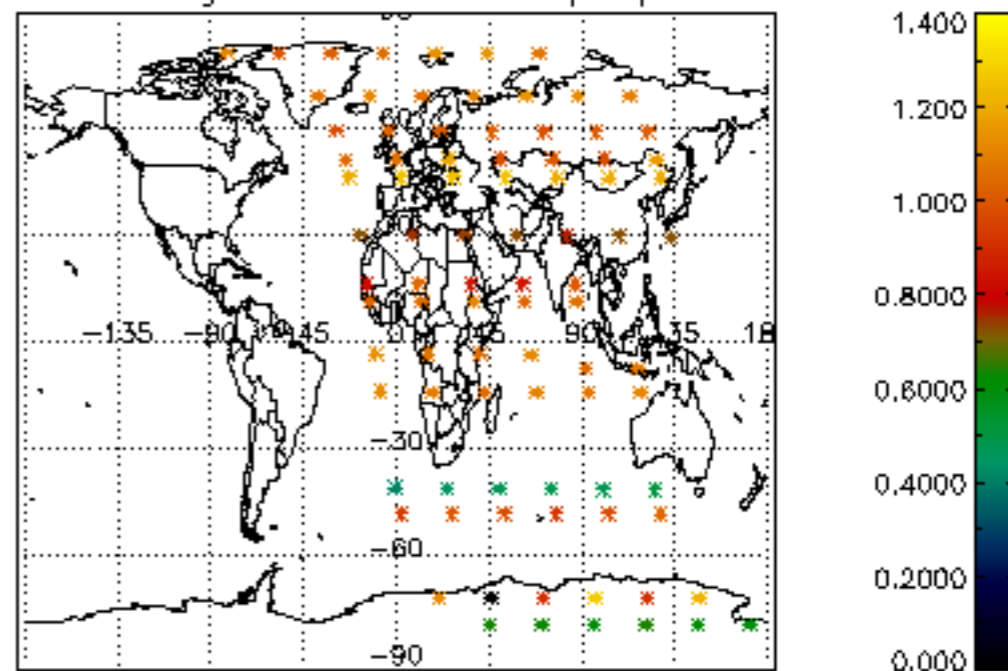




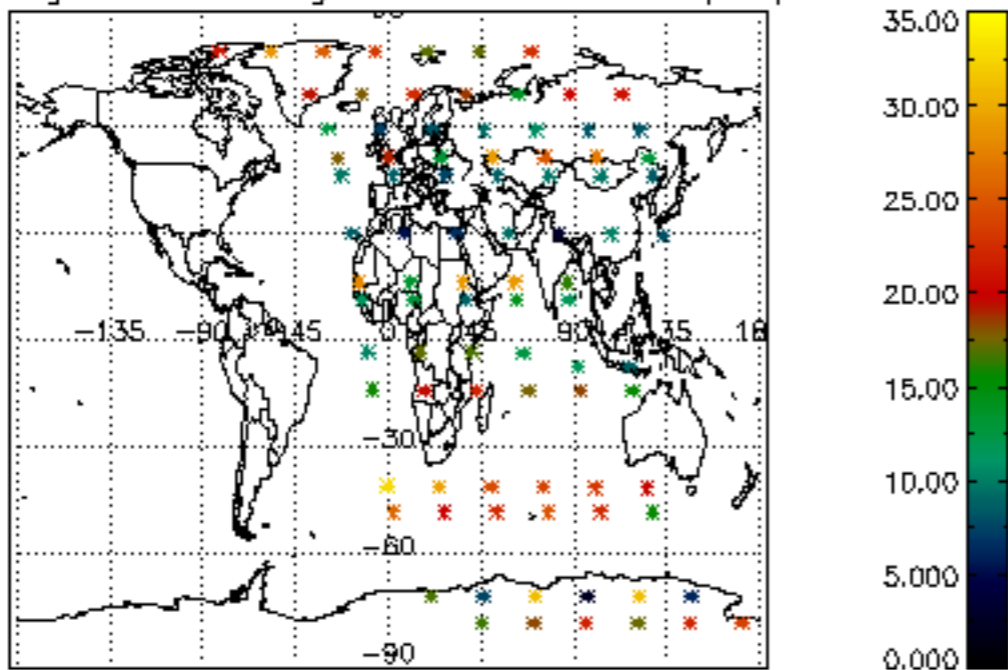
Percentage of cosmic ray hits per profile



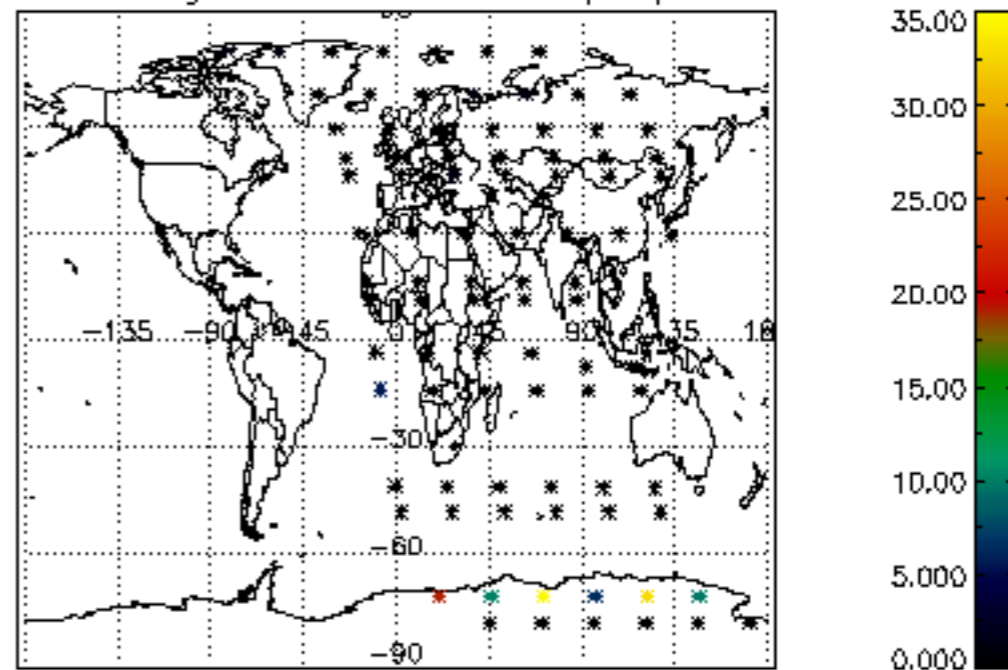
Percentage of datation errors per profile



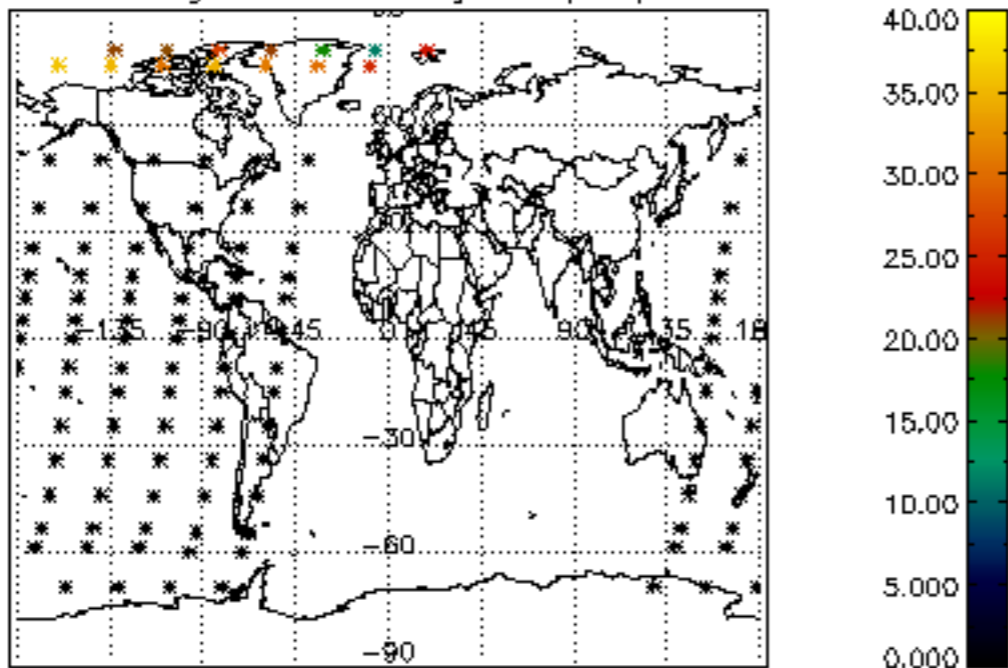
Percentage of star falling outside central band per profile



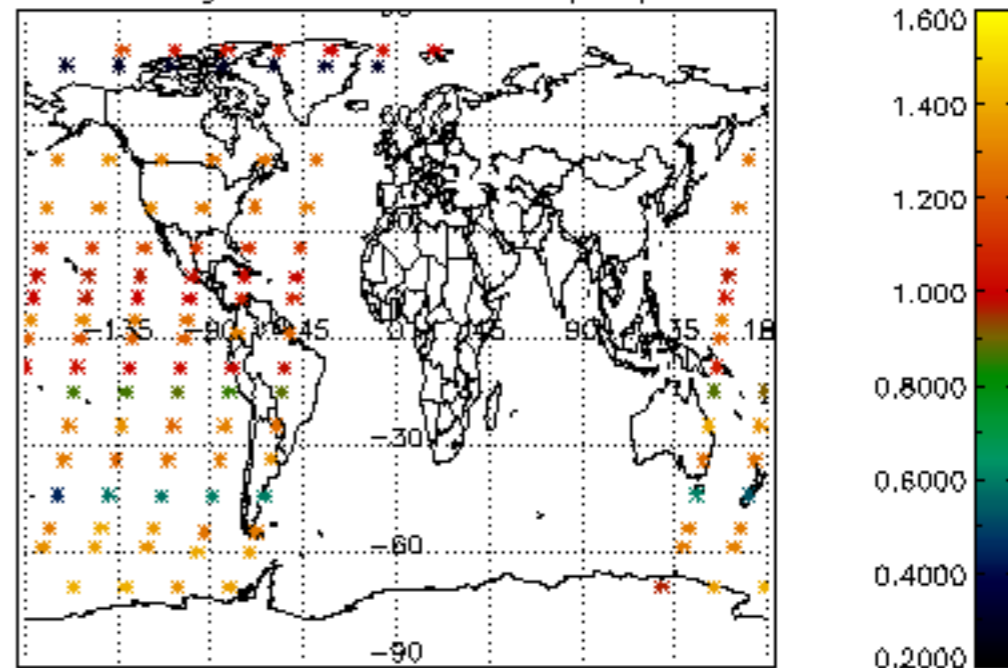
Percentage of saturation errors per profile



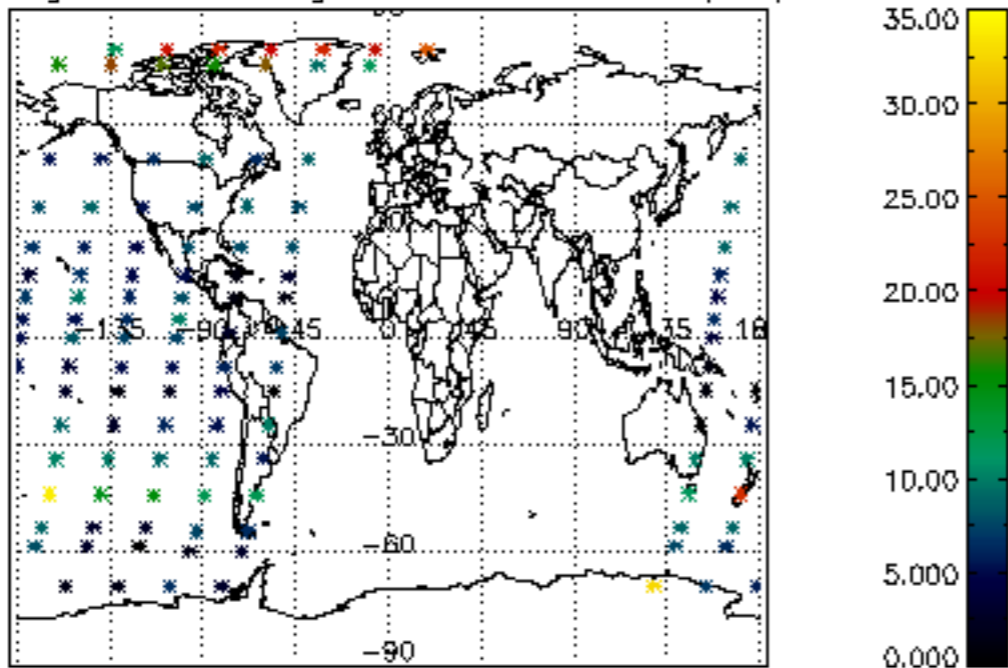
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

