

# 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	24APR2013 11:21:04
Data source version	GOMOS/6.01
Start time of products	15-03-2011 (15MAR2011 00:00:00)
Stop time of products	16-03-2011 (16MAR2011 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	324
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__2PRFIN20110315_000219_000000523100_00260_47257_7562.N1	15-MAR-2011 00:02:19	Twilight	51.500	11	53Alp Aql	0.76500	8000.0	103	47257	No
2	GOM_NL__2PRFIN20110315_001223_000000463100_00260_47257_7563.N1	15-MAR-2011 00:12:23	Dark	45.500	155	41Pi Sgr	2.9000	6600.0	91	47257	No
3	GOM_NL__2PRFIN20110315_001424_000000463100_00260_47257_7564.N1	15-MAR-2011 00:14:24	Dark	45.500	57	34Sig Sgr	2.0660	26000.	91	47257	No
4	GOM_NL__2PRFIN20110315_001750_000000513100_00260_47257_7565.N1	15-MAR-2011 00:17:50	Dark	51.000	38	20Eps Sgr	1.8360	11000.	102	47257	No
5	GOM_NL__2PRFIN20110315_002435_000000253100_00261_47258_7558.N1	15-MAR-2011 00:24:35	Dark	25.000	75	26Eps Sco	2.2910	4250.0	50	47258	No
6	GOM_NL__2PRFIN20110315_003019_000000503100_00261_47258_7559.N1	15-MAR-2011 00:30:19	Dark	49.500	4	Alp1Cen	-0.010000	5800.0	99	47258	No
7	GOM_NL__2PRFIN20110315_003132_000000513100_00261_47258_7560.N1	15-MAR-2011 00:31:32	Dark	50.500	10	Bet Cen	0.61000	28000.	101	47258	No
8	GOM_NL__2PRFIN20110315_003335_000000453100_00261_47258_7561.N1	15-MAR-2011 00:33:35	Dark	45.000	77	Eps Cen	2.3030	28000.	90	47258	No
9	GOM_NL__2PRFIN20110315_003644_000000633100_00261_47258_7562.N1	15-MAR-2011 00:36:44	Straylight	63.000	54	5The Cen	2.0550	4500.0	126	47258	No
10	GOM_NL__2PRFIN20110315_003837_000000513100_00261_47258_7563.N1	15-MAR-2011 00:38:37	Straylight	50.500	123	lot Cen	2.7500	10200.	101	47258	No
11	GOM_NL__2PRFIN20110315_004427_000000533100_00261_47258_7564.N1	15-MAR-2011 00:44:27	Straylight	52.500	106	9Bet Crv	2.6480	5600.0	105	47258	No
12	GOM_NL__2PRFIN20110315_004648_000000513100_00261_47258_7565.N1	15-MAR-2011 00:46:48	Straylight	50.500	100	4Gam Crv	2.5800	13100.	101	47258	No
13	GOM_NL__2PRFIN20110315_005826_000000393100_00261_47258_7566.N1	15-MAR-2011 00:58:26	Bright	38.500	51	41Gam1Leo	2.0100	4500.0	77	47258	No
14	GOM_NL__2PRFIN20110315_010613_000000403100_00261_47258_7567.N1	15-MAR-2011 01:06:13	Bright	39.500	174	52Psi UMa	3.0040	4400.0	79	47258	No
15	GOM_NL__2PRFIN20110315_010923_000000393100_00261_47258_7568.N1	15-MAR-2011 01:09:23	Bright	38.500	82	48Bet UMa	2.3650	10600.	77	47258	No
16	GOM_NL__2PRFIN20110315_011052_000000393100_00261_47258_7569.N1	15-MAR-2011 01:10:52	Bright	38.500	36	50Alp UMa	1.8000	6300.0	77	47258	No
17	GOM_NL__2PRFIN20110315_011231_000000443100_00261_47258_7570.N1	15-MAR-2011 01:12:31	Bright	44.000	32	77Eps UMa	1.7630	11000.	88	47258	No
18	GOM_NL__2PRFIN20110315_011755_000000413100_00261_47258_7571.N1	15-MAR-2011 01:17:55	Bright	40.500	60	7Bet UMi	2.0810	3950.0	81	47258	No
19	GOM_NL__2PRFIN20110315_012200_000000493100_00261_47258_7572.N1	15-MAR-2011 01:22:00	Bright	48.500	119	14Eta Dra	2.7270	4700.0	97	47258	No
20	GOM_NL__2PRFIN20110315_012752_000000533100_00261_47258_7573.N1	15-MAR-2011 01:27:52	Bright	52.500	69	33Gam Dra	2.2310	3800.0	105	47258	No
21	GOM_NL__2PRFIN20110315_013102_000000373100_00261_47258_7574.N1	15-MAR-2011 01:31:02	Bright	36.500	19	50Alp Cyg	1.2460	10500.	73	47258	No
22	GOM_NL__2PRFIN20110315_013236_000000383100_00261_47258_7575.N1	15-MAR-2011 01:32:36	Bright	38.000	66	37Gam Cyg	2.2080	5900.0	76	47258	No
23	GOM_NL__2PRFIN20110315_014233_000000523100_00261_47258_7576.N1	15-MAR-2011 01:42:33	Twilight	51.500	11	53Alp Aql	0.76500	8000.0	103	47258	No
24	GOM_NL__2PRFIN20110315_015237_000000463100_00261_47258_7577.N1	15-MAR-2011 01:52:37	Dark	45.500	155	41Pi Sgr	2.9000	6600.0	91	47258	No
25	GOM_NL__2PRFIN20110315_015438_000000473100_00261_47258_7578.N1	15-MAR-2011 01:54:38	Dark	47.000	57	34Sig Sgr	2.0660	26000.	94	47258	No
26	GOM_NL__2PRFIN20110315_015805_000000473100_00261_47258_7579.N1	15-MAR-2011 01:58:05	Dark	46.500	38	20Eps Sgr	1.8360	11000.	93	47258	No
27	GOM_NL__2PRFIN20110315_020450_000000253100_00262_47259_7611.N1	15-MAR-2011 02:04:50	Dark	25.000	75	26Eps Sco	2.2910	4250.0	50	47259	No
28	GOM_NL__2PRFIN20110315_021033_000000473100_00262_47259_7612.N1	15-MAR-2011 02:10:33	Dark	47.000	4	Alp1Cen	-0.010000	5800.0	94	47259	No
29	GOM_NL__2PRFIN20110315_021146_000000433100_00262_47259_7613.N1	15-MAR-2011 02:11:46	Dark	43.000	10	Bet Cen	0.61000	28000.	86	47259	No
30	GOM_NL__2PRFIN20110315_021349_000000463100_00262_47259_7614.N1	15-MAR-2011 02:13:49	Dark	46.000	77	Eps Cen	2.3030	28000.	92	47259	No
31	GOM_NL__2PRFIN20110315_021659_000000653100_00262_47259_7615.N1	15-MAR-2011 02:16:59	Straylight	65.000	54	5The Cen	2.0550	4500.0	130	47259	No
32	GOM_NL__2PRFIN20110315_021851_000000503100_00262_47259_7616.N1	15-MAR-2011 02:18:51	Straylight	50.000	123	lot Cen	2.7500	10200.	100	47259	No
33	GOM_NL__2PRFIN20110315_022442_000000583100_00262_47259_7617.N1	15-MAR-2011 02:24:42	Straylight	57.500	106	9Bet Crv	2.6480	5600.0	115	47259	No
34	GOM_NL__2PRFIN20110315_022702_000000503100_00262_47259_7618.N1	15-MAR-2011 02:27:02	Straylight	50.000	100	4Gam Crv	2.5800	13100.	100	47259	No
35	GOM_NL__2PRFIN20110315_023841_000000403100_00262_47259_7619.N1	15-MAR-2011 02:38:41	Bright	39.500	51	41Gam1Leo	2.0100	4500.0	79	47259	No
36	GOM_NL__2PRFIN20110315_024627_000000413100_00262_47259_7620.N1	15-MAR-2011 02:46:27	Bright	40.500	174	52Psi UMa	3.0040	4400.0	81	47259	No
37	GOM_NL__2PRFIN20110315_024937_000000383100_00262_47259_7621.N1	15-MAR-2011 02:49:37	Bright	38.000	82	48Bet UMa	2.3650	10600.	76	47259	No
38	GOM_NL__2PRFIN20110315_025105_000000373100_00262_47259_7622.N1	15-MAR-2011 02:51:05	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	47259	No
39	GOM_NL__2PRFIN20110315_025244_000000443100_00262_47259_7623.N1	15-MAR-2011 02:52:44	Bright	43.500	32	77Eps UMa	1.7630	11000.	87	47259	No
40	GOM_NL__2PRFIN20110315_025809_000000423100_00262_47259_7624.N1	15-MAR-2011 02:58:09	Bright	41.500	60	7Bet UMi	2.0810	3950.0	83	47259	No
41	GOM_NL__2PRFIN20110315_030214_000000483100_00262_47259_7625.N1	15-MAR-2011 03:02:14	Bright	47.500	119	14Eta Dra	2.7270	4700.0	95	47259	No
42	GOM_NL__2PRFIN20110315_030806_000000513100_00262_47259_7626.N1	15-MAR-2011 03:08:06	Bright	51.000	69	33Gam Dra	2.2310	3800.0	102	47259	No







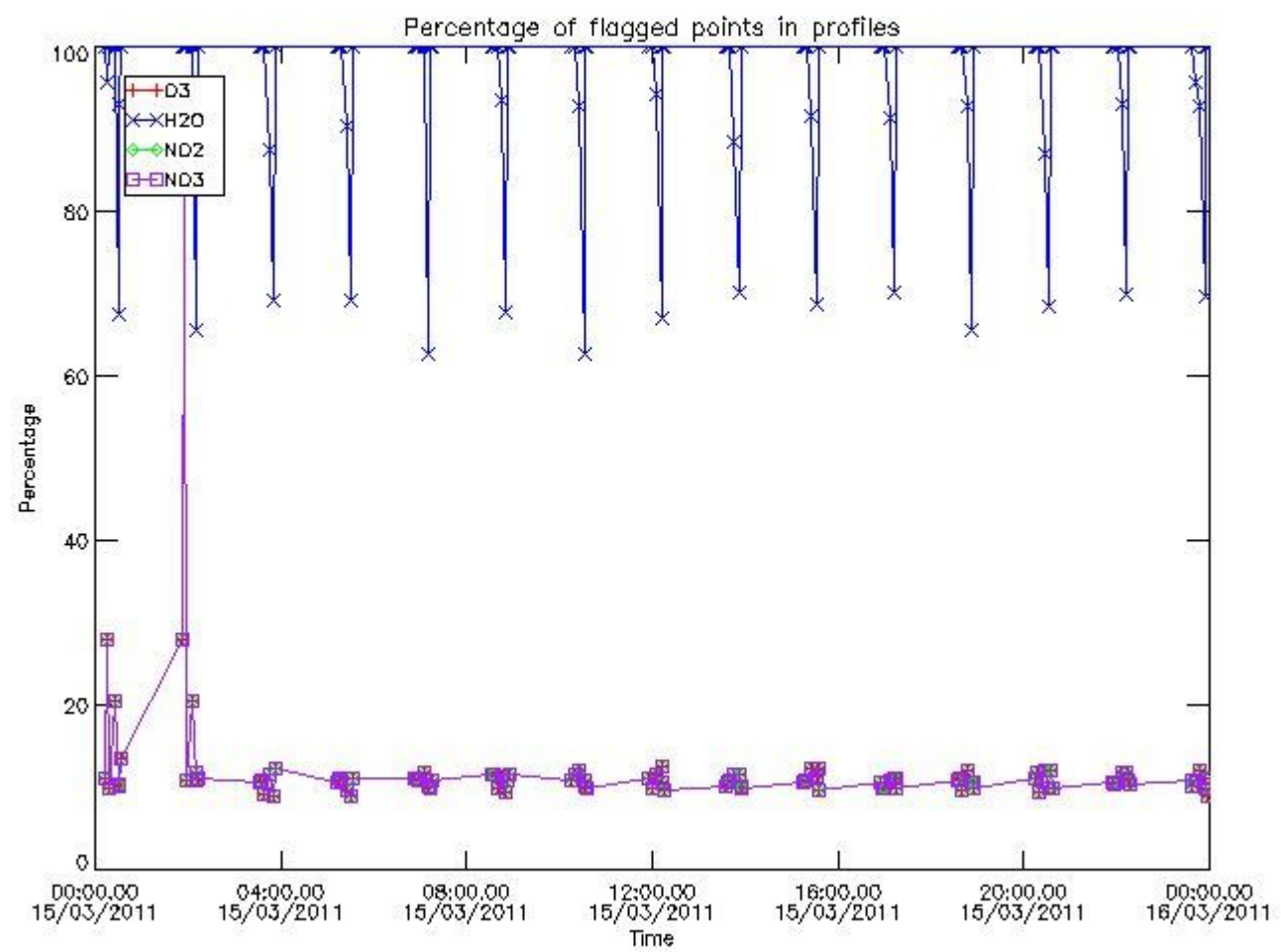


279	GOM_NL__2PRFIN20110315_203942_000000613100_00273_47270_8012.N1	15-MAR-2011 20:39:42	Straylight	60.500	54	5The Cen	2.0550	4500.0	121	47270	No
280	GOM_NL__2PRFIN20110315_204132_000000523100_00273_47270_8013.N1	15-MAR-2011 20:41:32	Straylight	52.000	123	1ot Cen	2.7500	10200.	104	47270	No
281	GOM_NL__2PRFIN20110315_204719_000000523100_00273_47270_8014.N1	15-MAR-2011 20:47:19	Straylight	51.500	106	9Bet Crv	2.6480	5600.0	103	47270	No
282	GOM_NL__2PRFIN20110315_204938_000000513100_00273_47270_8015.N1	15-MAR-2011 20:49:38	Tw_i_and_stray	50.500	100	4Gam Crv	2.5800	13100.	101	47270	No
283	GOM_NL__2PRFIN20110315_210114_000000383100_00273_47270_8016.N1	15-MAR-2011 21:01:14	Bright	38.000	51	41Gam1Leo	2.0100	4500.0	76	47270	No
284	GOM_NL__2PRFIN20110315_210857_000000413100_00273_47270_8017.N1	15-MAR-2011 21:08:57	Bright	40.500	174	52Psi UMa	3.0040	4400.0	81	47270	No
285	GOM_NL__2PRFIN20110315_211208_000000373100_00273_47270_8018.N1	15-MAR-2011 21:12:08	Bright	36.500	82	48Bet UMa	2.3650	10600.	73	47270	No
286	GOM_NL__2PRFIN20110315_211337_000000373100_00273_47270_8019.N1	15-MAR-2011 21:13:37	Bright	36.500	36	50Alp UMa	1.8000	6300.0	73	47270	No
287	GOM_NL__2PRFIN20110315_211511_000000473100_00273_47270_8020.N1	15-MAR-2011 21:15:11	Bright	47.000	32	77Eps UMa	1.7630	11000.	94	47270	No
288	GOM_NL__2PRFIN20110315_212039_000000433100_00273_47270_8021.N1	15-MAR-2011 21:20:39	Bright	42.500	60	7Bet UMi	2.0810	3950.0	85	47270	No
289	GOM_NL__2PRFIN20110315_212441_000000493100_00273_47270_8022.N1	15-MAR-2011 21:24:41	Bright	48.500	119	14Eta Dra	2.7270	4700.0	97	47270	No
290	GOM_NL__2PRFIN20110315_213036_000000373100_00273_47270_8023.N1	15-MAR-2011 21:30:36	Bright	37.000	69	33Gam Dra	2.2310	3800.0	74	47270	No
291	GOM_NL__2PRFIN20110315_213351_000000383100_00273_47270_8024.N1	15-MAR-2011 21:33:51	Bright	37.500	19	50Alp Cyg	1.2460	10500.	75	47270	No
292	GOM_NL__2PRFIN20110315_213525_000000373100_00273_47270_8025.N1	15-MAR-2011 21:35:25	Bright	36.500	66	37Gam Cyg	2.2080	5900.0	73	47270	No
293	GOM_NL__2PRFIN20110315_213708_000000373100_00273_47270_8026.N1	15-MAR-2011 21:37:08	Bright	37.000	92	53Eps Cyg	2.5000	4500.0	74	47270	No
294	GOM_NL__2PRFIN20110315_214526_000000503100_00273_47270_8027.N1	15-MAR-2011 21:45:26	Tw_i_and_stray	49.500	11	53Alp Aql	0.76500	8000.0	99	47270	No
295	GOM_NL__2PRFIN20110315_215535_000000483100_00273_47270_8028.N1	15-MAR-2011 21:55:35	Dark	48.000	155	41Pi Sgr	2.9000	6600.0	96	47270	No
296	GOM_NL__2PRFIN20110315_215737_000000493100_00273_47270_8029.N1	15-MAR-2011 21:57:37	Dark	49.000	57	34Sig Sgr	2.0660	26000.	98	47270	No
297	GOM_NL__2PRFIN20110315_220104_000000483100_00273_47270_8030.N1	15-MAR-2011 22:01:04	Dark	48.000	38	20Eps Sgr	1.8360	11000.	96	47270	No
298	GOM_NL__2PRFIN20110315_220703_000000443100_00274_47271_8011.N1	15-MAR-2011 22:07:03	Dark	43.500	141	Bet Ara	2.8400	4600.0	87	47271	No
299	GOM_NL__2PRFIN20110315_221328_000000443100_00274_47271_8012.N1	15-MAR-2011 22:13:28	Dark	43.500	4	Alp1Cen	-0.010000	5800.0	87	47271	No
300	GOM_NL__2PRFIN20110315_221524_000000483100_00274_47271_8013.N1	15-MAR-2011 22:15:24	Dark	47.500	78	Alp Lup	2.3040	28000.	95	47271	No
301	GOM_NL__2PRFIN20110315_221650_000000503100_00274_47271_8014.N1	15-MAR-2011 22:16:50	Dark	49.500	81	Eta Cen	2.3560	28000.	99	47271	No
302	GOM_NL__2PRFIN20110315_221957_000000673100_00274_47271_8015.N1	15-MAR-2011 22:19:57	Straylight	66.500	54	5The Cen	2.0550	4500.0	133	47271	No
303	GOM_NL__2PRFIN20110315_222147_000000503100_00274_47271_8016.N1	15-MAR-2011 22:21:47	Straylight	50.000	123	1ot Cen	2.7500	10200.	100	47271	No
304	GOM_NL__2PRFIN20110315_222733_000000543100_00274_47271_8017.N1	15-MAR-2011 22:27:33	Straylight	54.000	106	9Bet Crv	2.6480	5600.0	108	47271	No
305	GOM_NL__2PRFIN20110315_222952_000000493100_00274_47271_8018.N1	15-MAR-2011 22:29:52	Tw_i_and_stray	49.000	100	4Gam Crv	2.5800	13100.	98	47271	No
306	GOM_NL__2PRFIN20110315_224128_000000383100_00274_47271_8019.N1	15-MAR-2011 22:41:28	Bright	38.000	51	41Gam1Leo	2.0100	4500.0	76	47271	No
307	GOM_NL__2PRFIN20110315_224911_000000383100_00274_47271_8020.N1	15-MAR-2011 22:49:11	Bright	38.000	174	52Psi UMa	3.0040	4400.0	76	47271	No
308	GOM_NL__2PRFIN20110315_225221_000000393100_00274_47271_8021.N1	15-MAR-2011 22:52:21	Bright	38.500	82	48Bet UMa	2.3650	10600.	77	47271	No
309	GOM_NL__2PRFIN20110315_225351_000000403100_00274_47271_8022.N1	15-MAR-2011 22:53:51	Bright	39.500	36	50Alp UMa	1.8000	6300.0	79	47271	No
310	GOM_NL__2PRFIN20110315_225524_000000453100_00274_47271_8023.N1	15-MAR-2011 22:55:24	Bright	45.000	32	77Eps UMa	1.7630	11000.	90	47271	No
311	GOM_NL__2PRFIN20110315_230053_000000403100_00274_47271_8024.N1	15-MAR-2011 23:00:53	Bright	40.000	60	7Bet UMi	2.0810	3950.0	80	47271	No
312	GOM_NL__2PRFIN20110315_230455_000000483100_00274_47271_8025.N1	15-MAR-2011 23:04:55	Bright	48.000	119	14Eta Dra	2.7270	4700.0	96	47271	No
313	GOM_NL__2PRFIN20110315_231050_000000373100_00274_47271_8026.N1	15-MAR-2011 23:10:50	Bright	37.000	69	33Gam Dra	2.2310	3800.0	74	47271	No
314	GOM_NL__2PRFIN20110315_231405_000000373100_00274_47271_8027.N1	15-MAR-2011 23:14:05	Bright	37.000	19	50Alp Cyg	1.2460	10500.	74	47271	No
315	GOM_NL__2PRFIN20110315_231539_000000383100_00274_47271_8028.N1	15-MAR-2011 23:15:39	Bright	38.000	66	37Gam Cyg	2.2080	5900.0	76	47271	No
316	GOM_NL__2PRFIN20110315_231721_000000373100_00274_47271_8029.N1	15-MAR-2011 23:17:21	Bright	36.500	92	53Eps Cyg	2.5000	4500.0	73	47271	No
317	GOM_NL__2PRFIN20110315_232540_000000513100_00274_47271_8030.N1	15-MAR-2011 23:25:40	Tw_i_and_stray	51.000	11	53Alp Aql	0.76500	8000.0	102	47271	No
318	GOM_NL__2PRFIN20110315_233550_000000473100_00274_47271_8031.N1	15-MAR-2011 23:35:50	Dark	46.500	155	41Pi Sgr	2.9000	6600.0	93	47271	No
319	GOM_NL__2PRFIN20110315_233751_000000503100_00274_47271_8032.N1	15-MAR-2011 23:37:51	Dark	50.000	57	34Sig Sgr	2.0660	26000.	100	47271	No
320	GOM_NL__2PRFIN20110315_234119_000000473100_00274_47271_8033.N1	15-MAR-2011 23:41:19	Dark	47.000	38	20Eps Sgr	1.8360	11000.	94	47271	No
321	GOM_NL__2PRFIN20110315_234718_000000433100_00275_47272_7993.N1	15-MAR-2011 23:47:18	Dark	42.500	141	Bet Ara	2.8400	4600.0	85	47272	No
322	GOM_NL__2PRFIN20110315_235342_000000523100_00275_47272_7994.N1	15-MAR-2011 23:53:42	Dark	51.500	4	Alp1Cen	-0.010000	5800.0	103	47272	No
323	GOM_NL__2PRFIN20110315_235538_000000463100_00275_47272_7995.N1	15-MAR-2011 23:55:38	Dark	45.500	78	Alp Lup	2.3040	28000.	91	47272	No
324	GOM_NL__2PRFIN20110315_235705_000000583100_00275_47272_7996.N1	15-MAR-2011 23:57:05	Dark	57.500	81	Eta Cen	2.3560	28000.	115	47272	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.

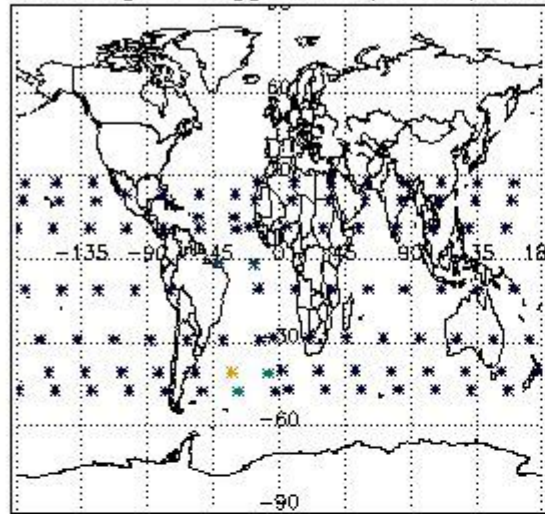
#### 3.1 Plot quality information per product (time dependant)



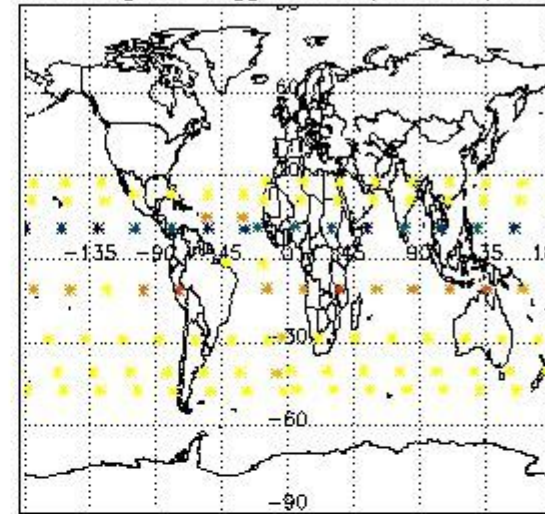
*3.2 Plot quality information per product (world map)*



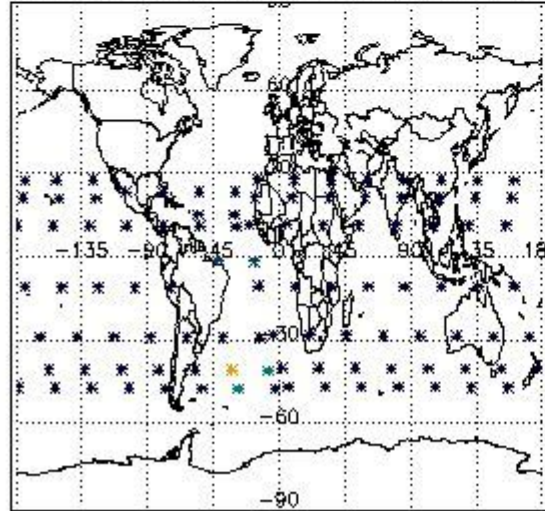
Percentage of flagged data per O3 profile



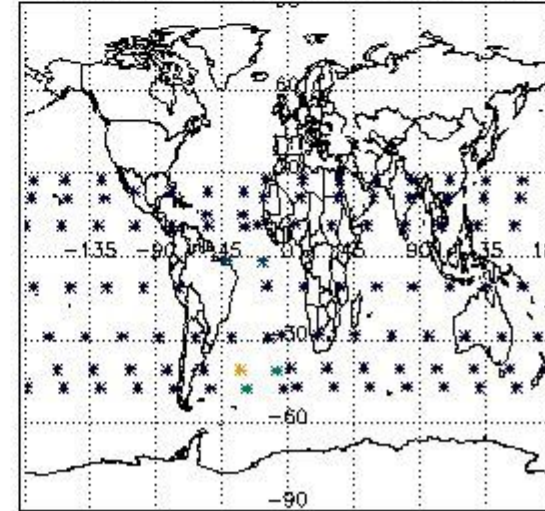
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

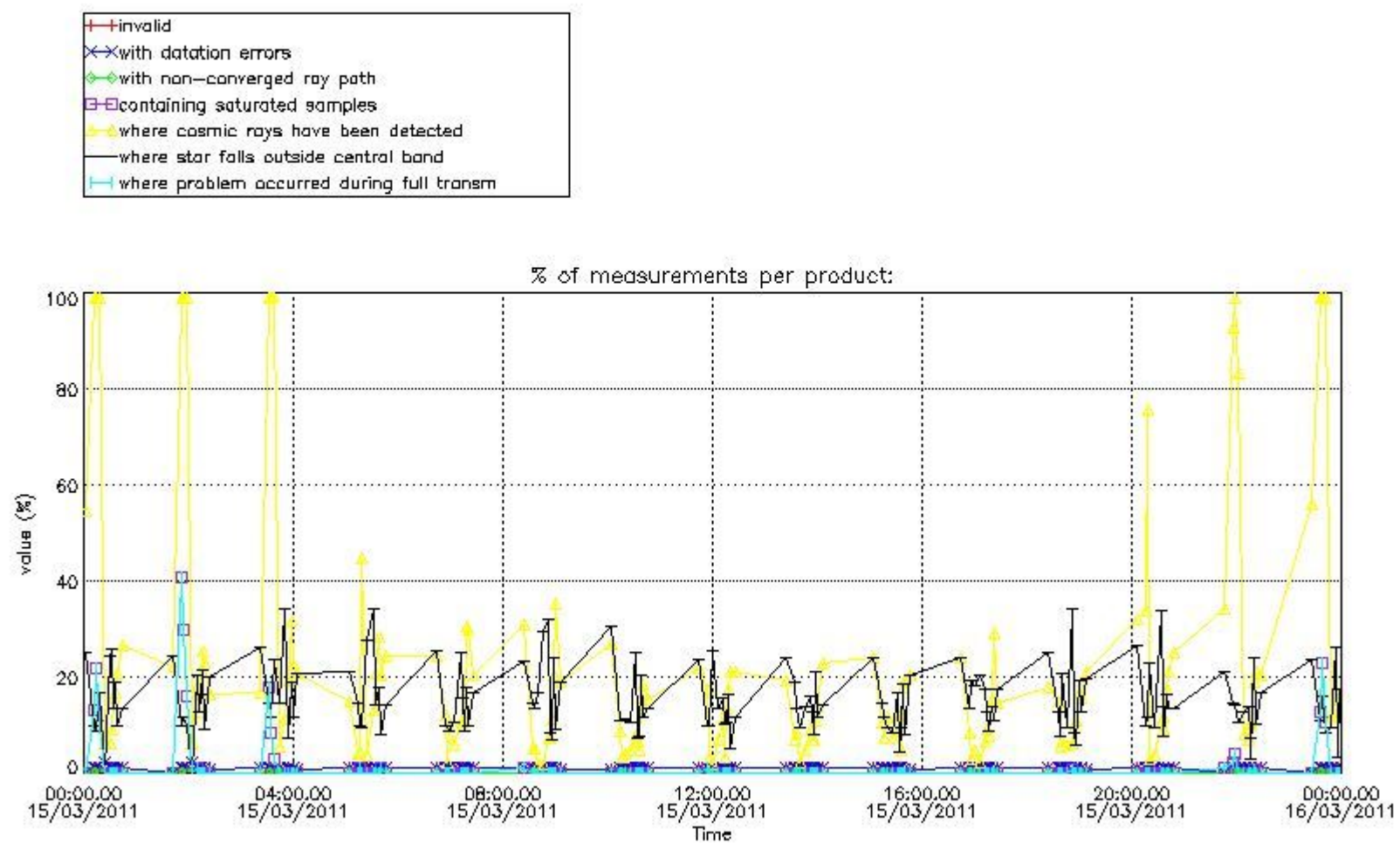


#### 4. Level 1 quality information per product

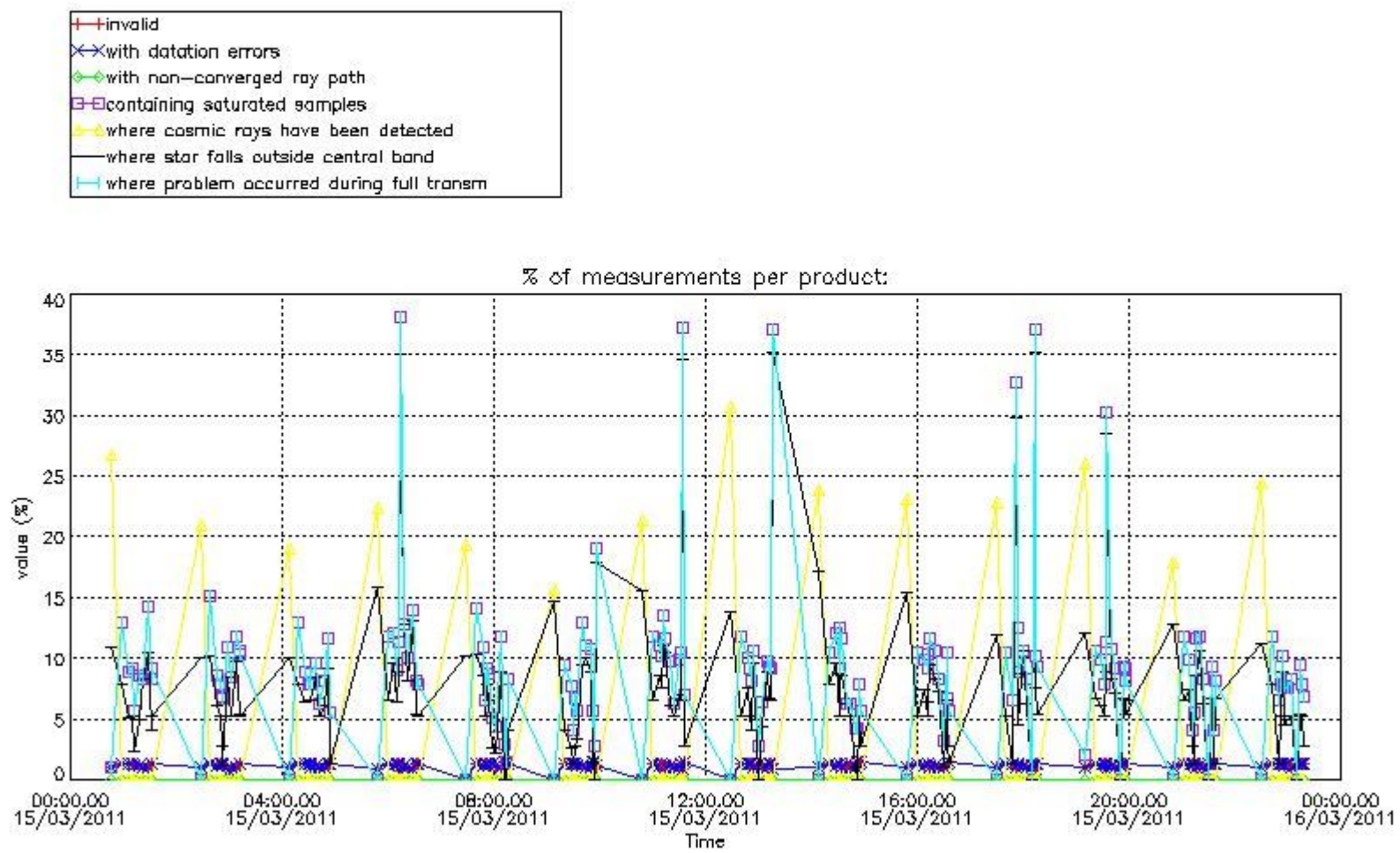
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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



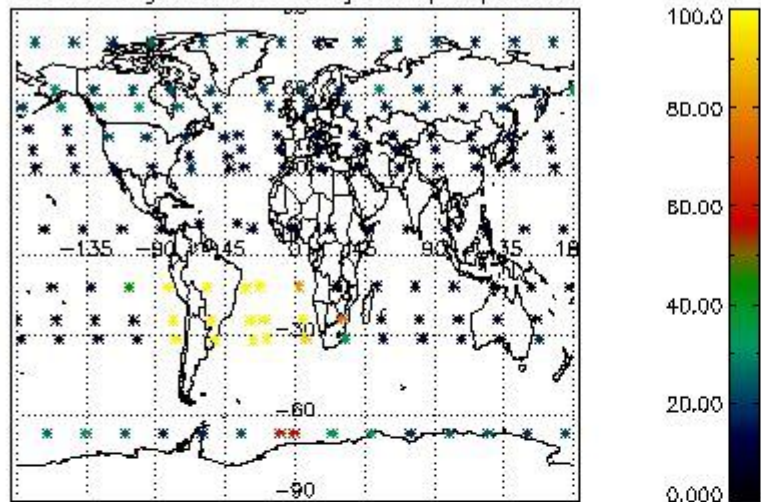
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



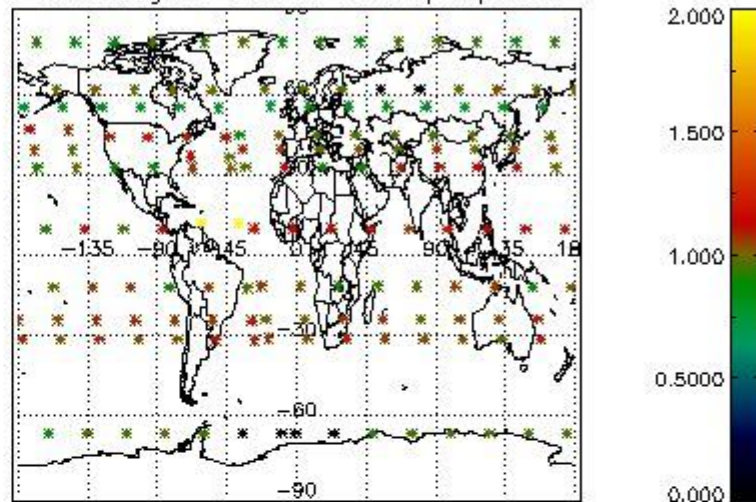
4.2 Plot quality information per product coming from level 1b processing (world map)

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

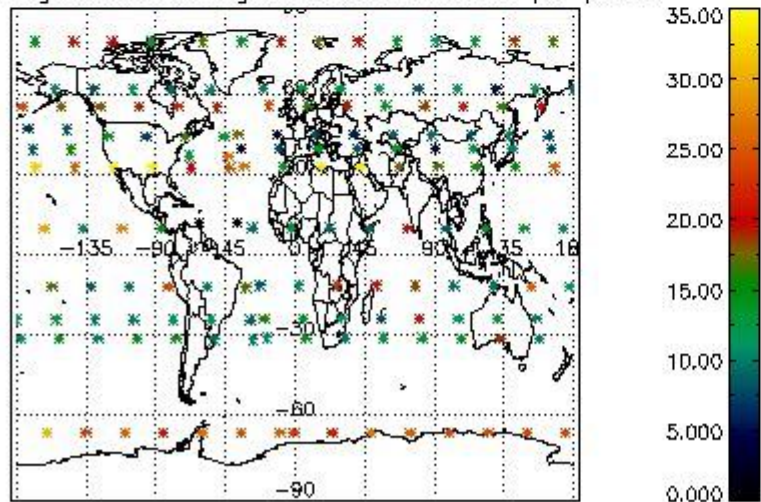
Percentage of cosmic ray hits per profile



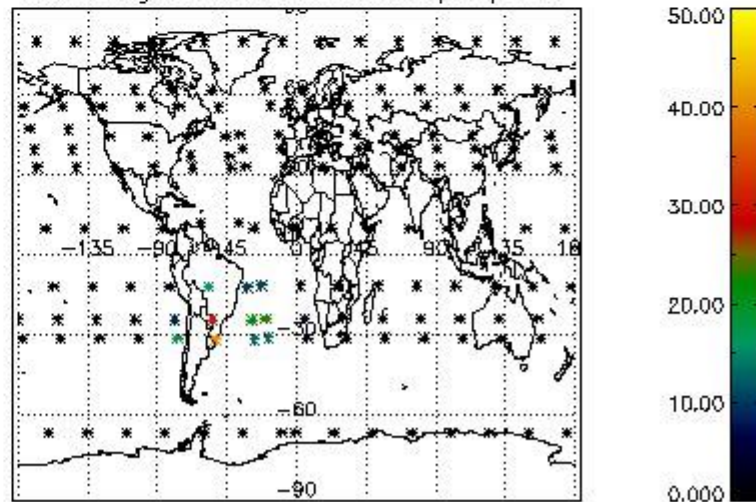
Percentage of datation errors per profile



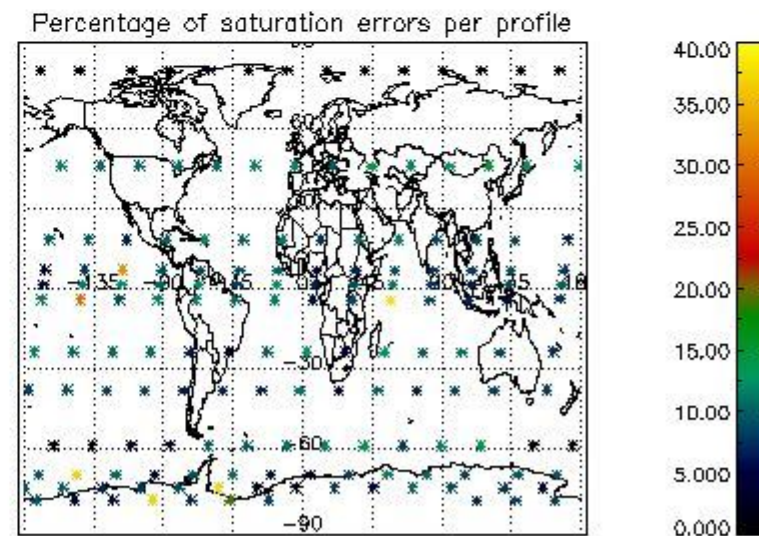
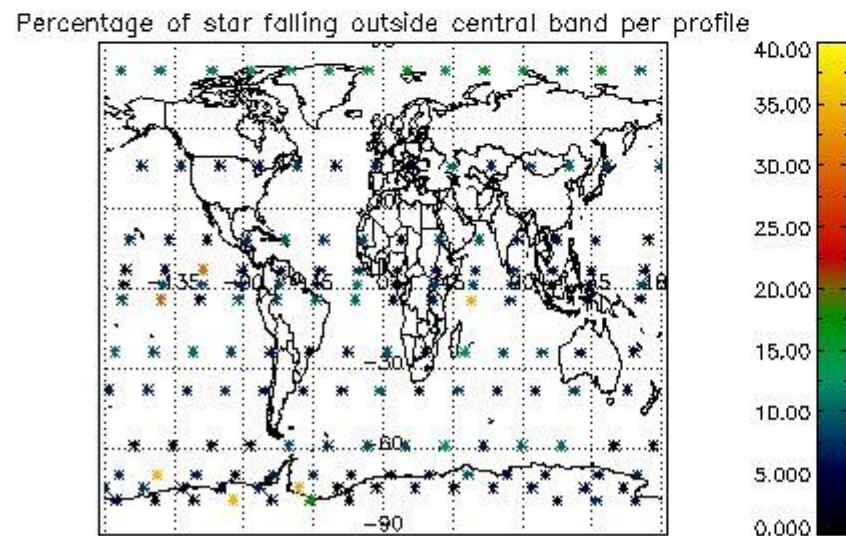
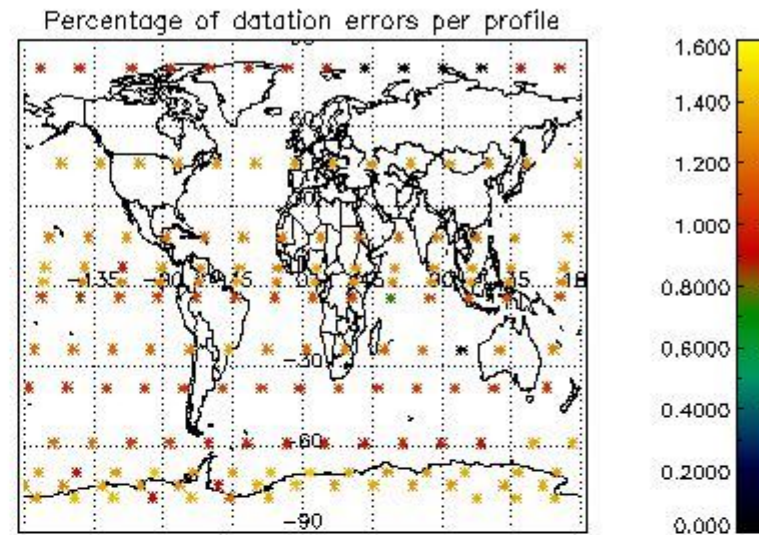
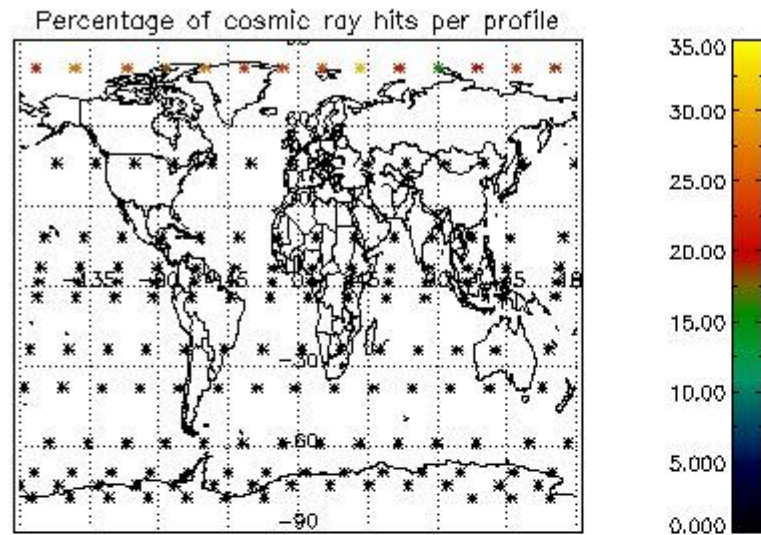
Percentage of star falling outside central band per profile



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

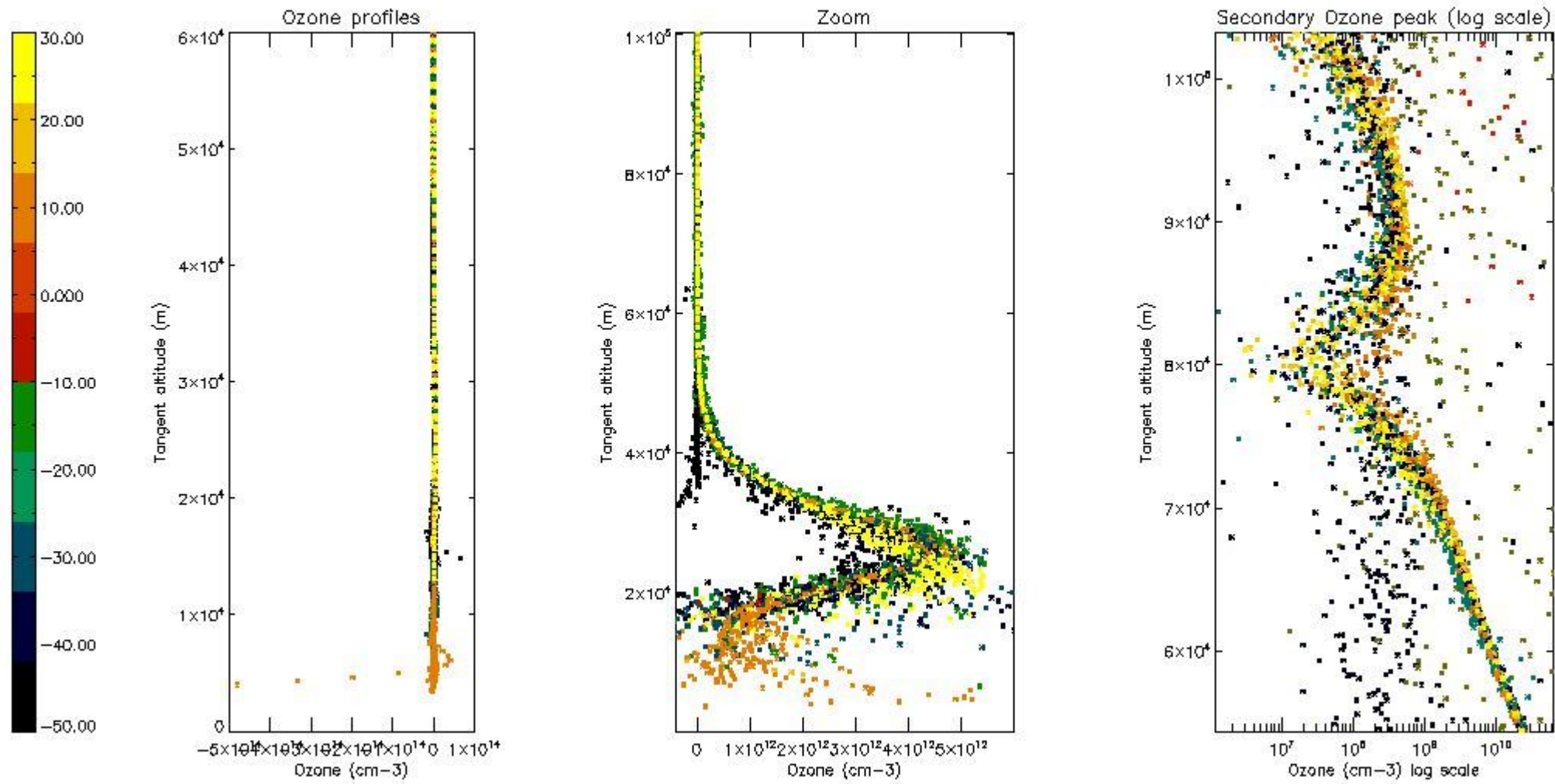
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	33
STD < 20	16

STD < 10	12
STD < 5	9

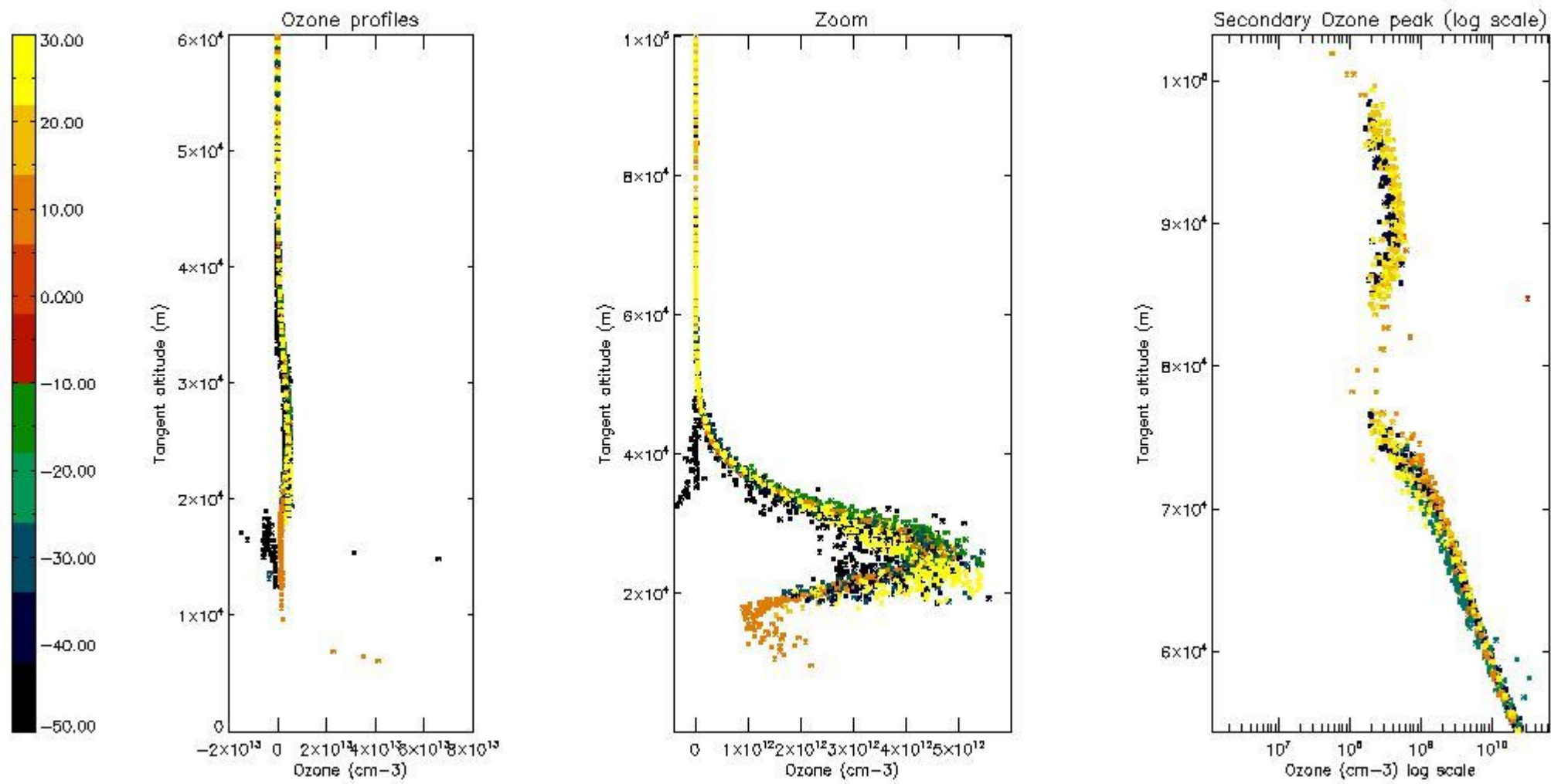
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



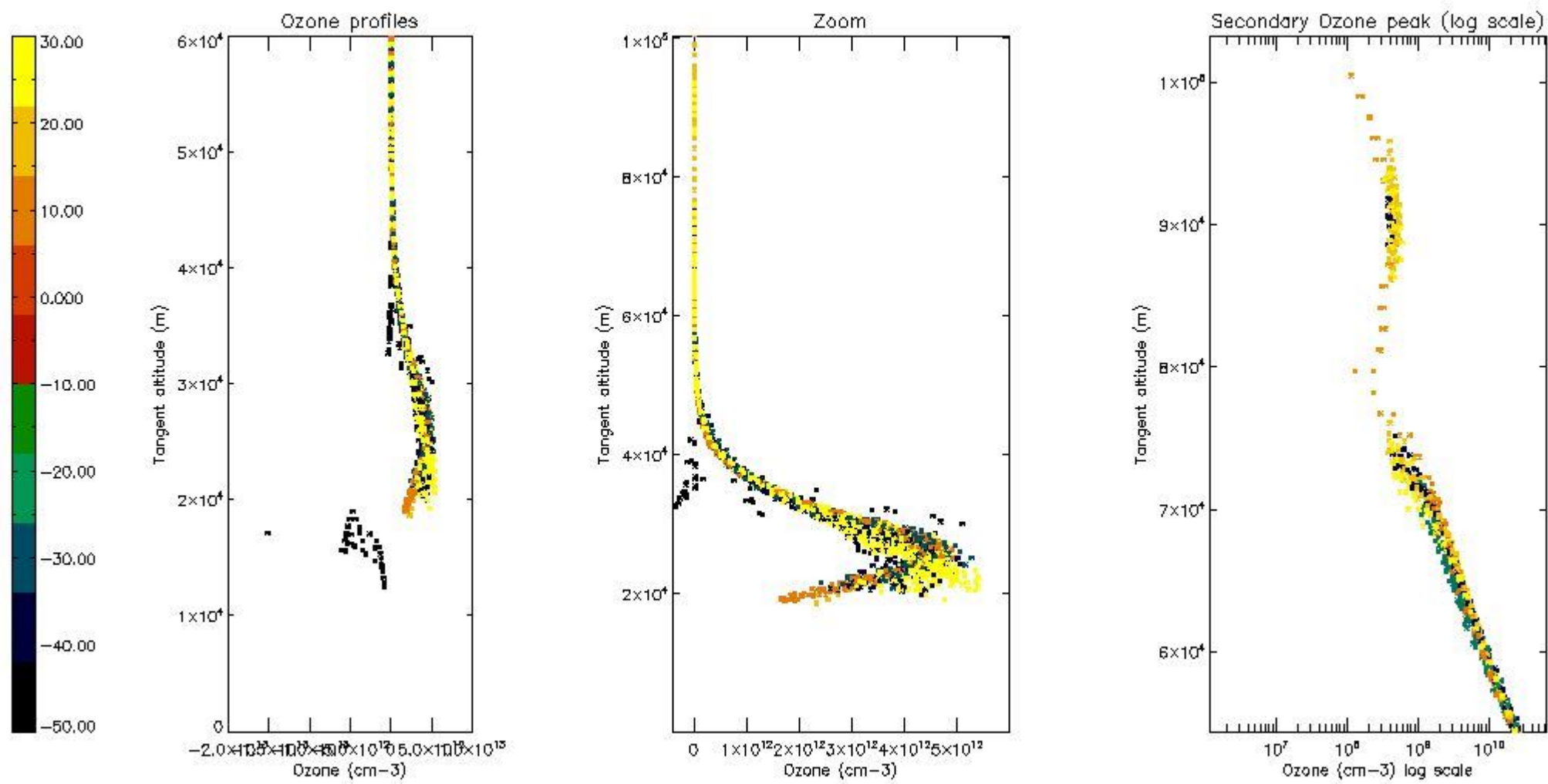
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



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

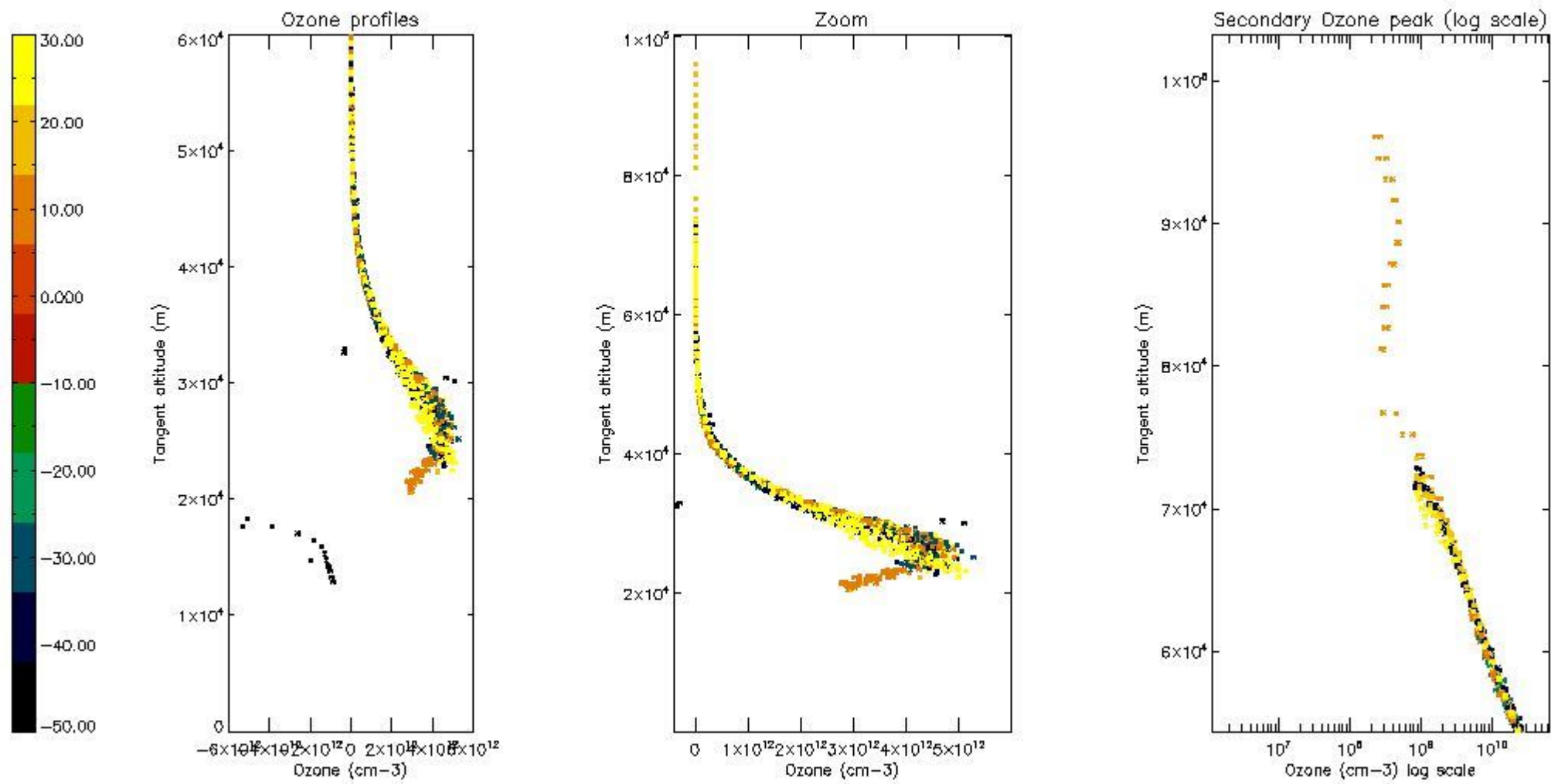
The colorbar represents the latitude.



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

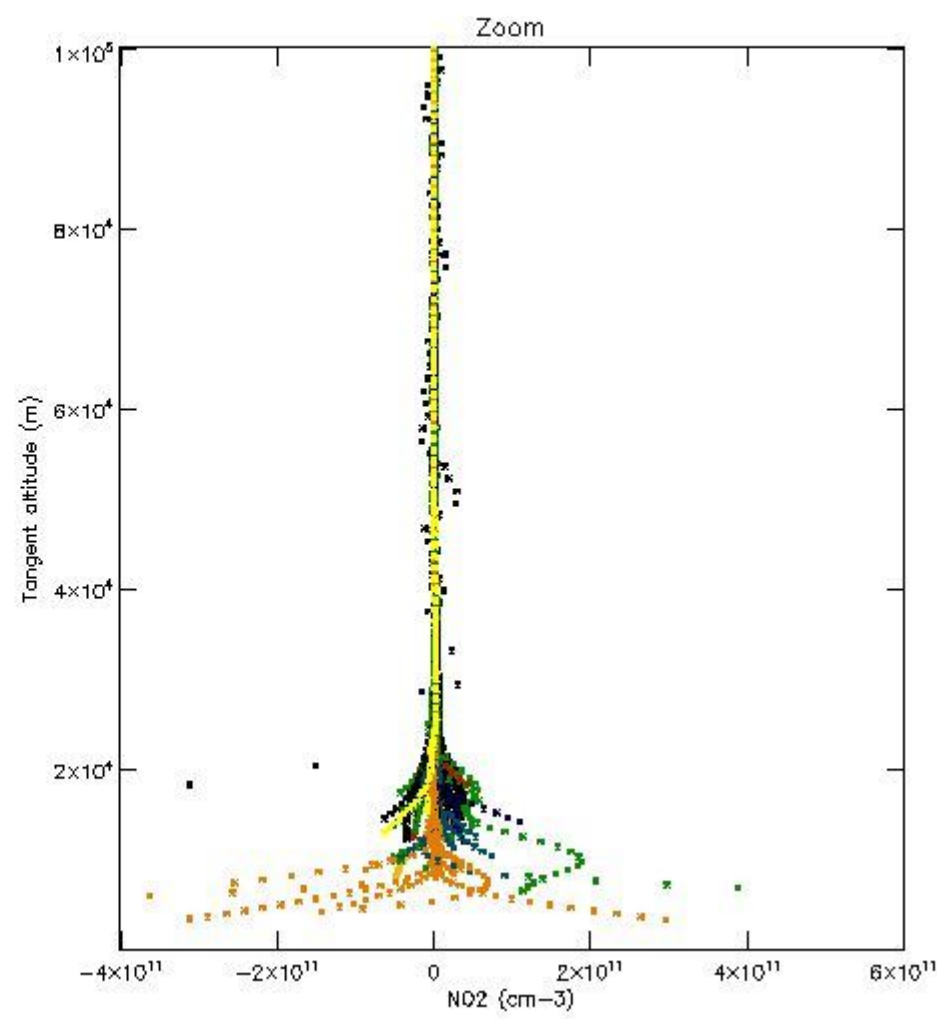
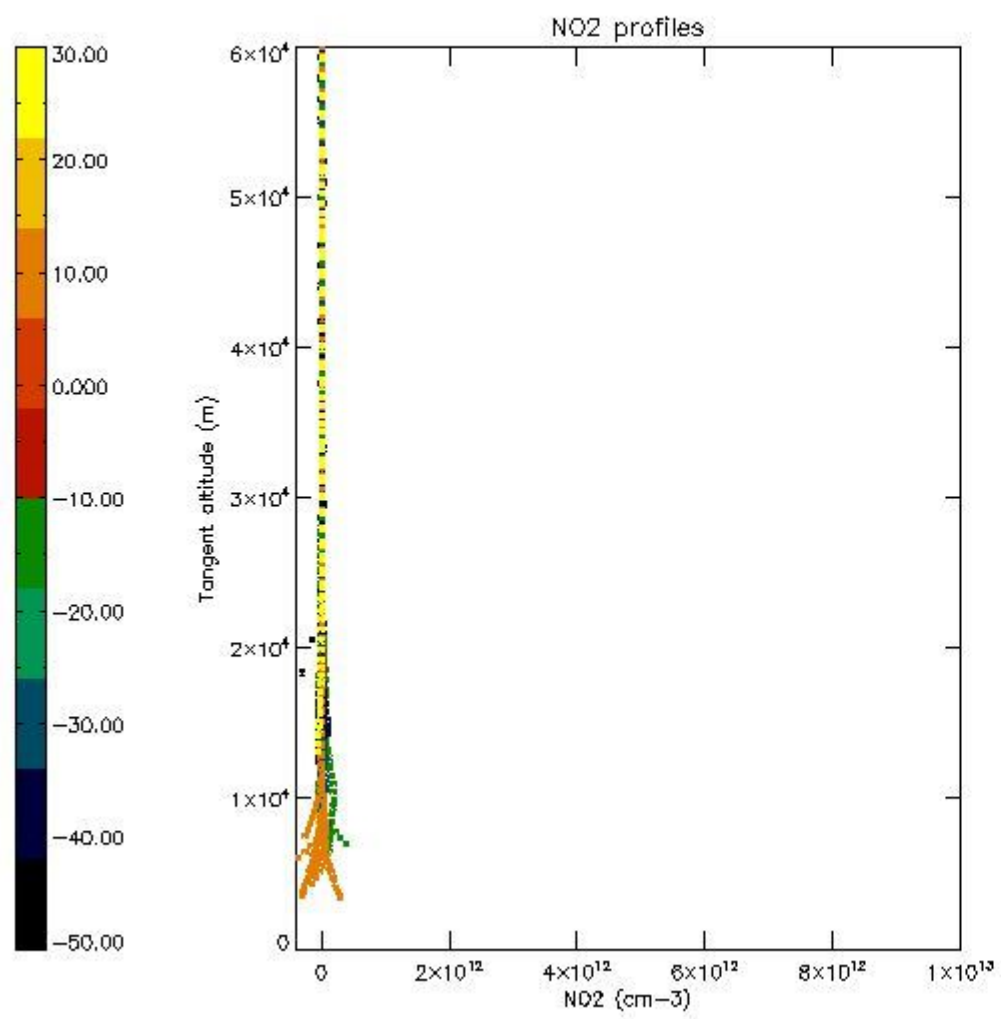
The colorbar represents the latitude.





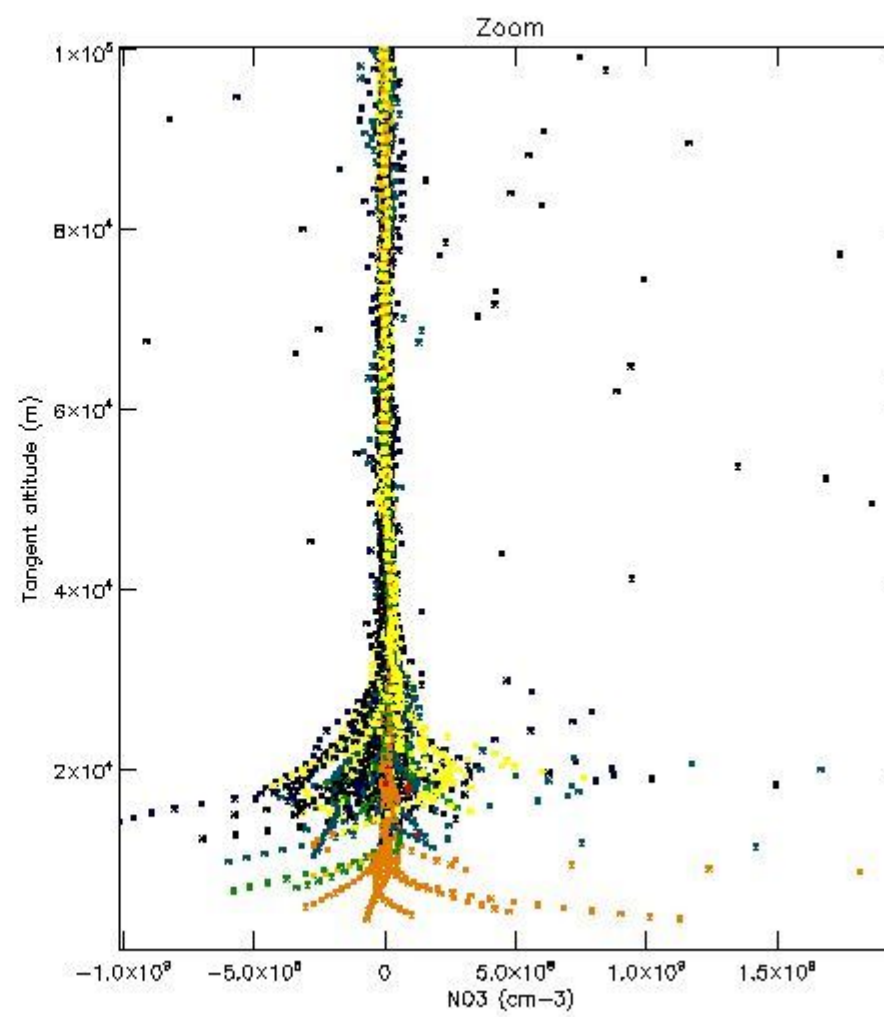
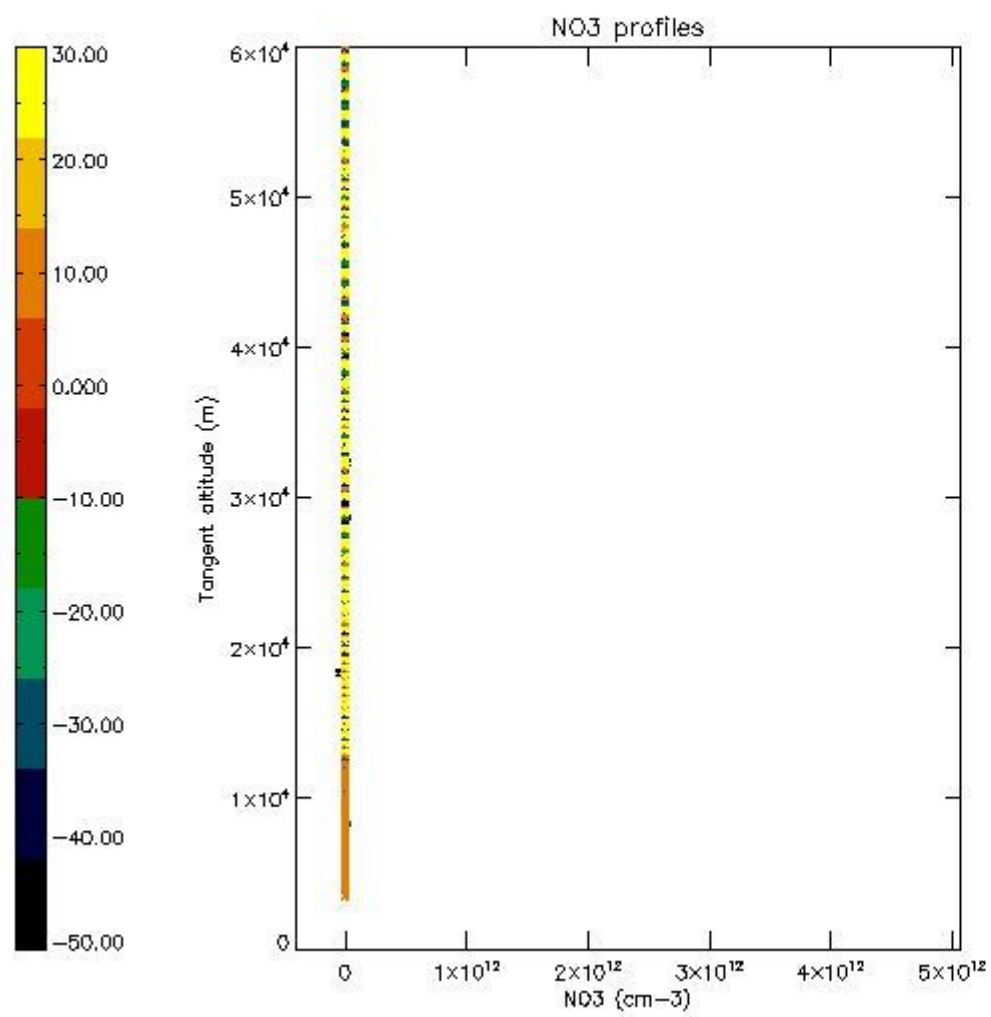
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



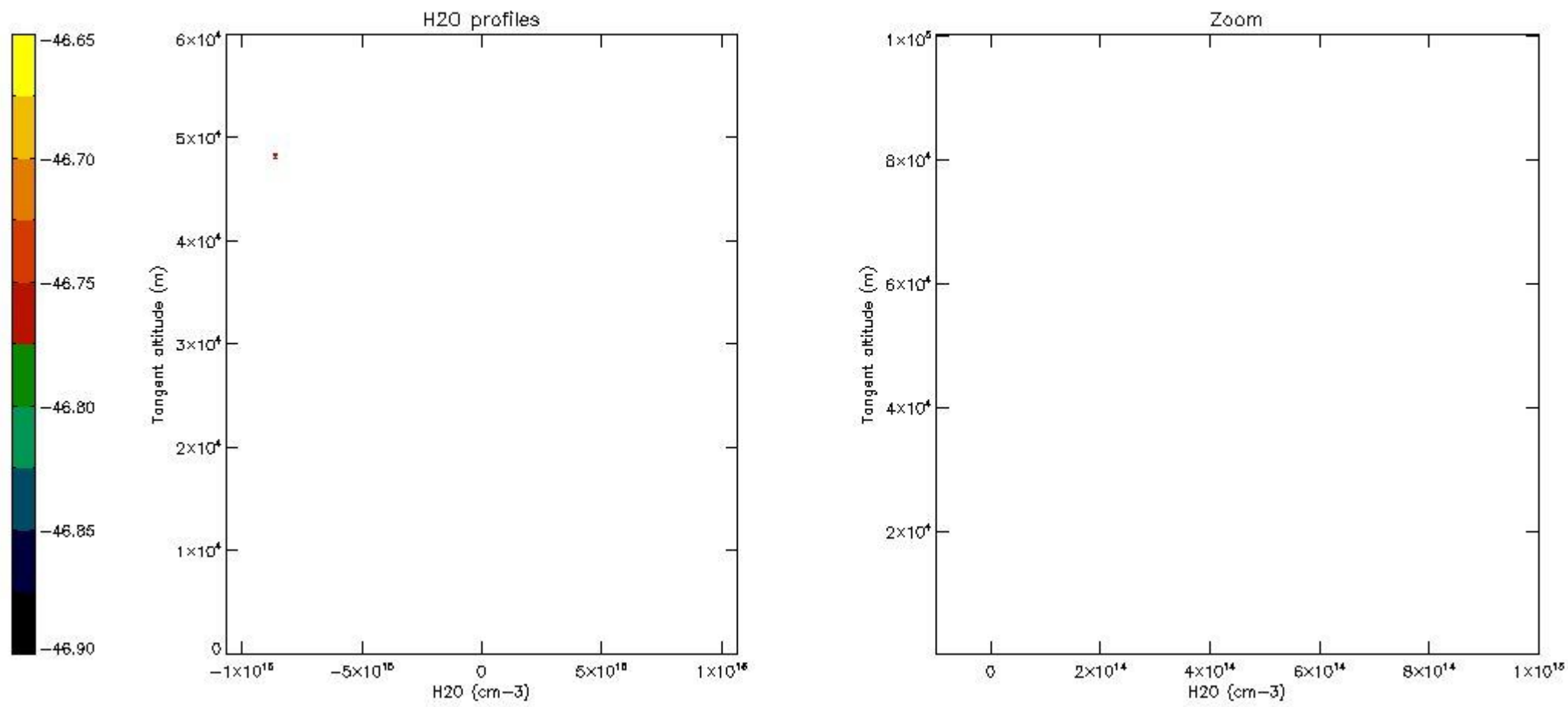
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



*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	15-MAR-2011 00:02:19
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	15-MAR-2011 00:02:19
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	15-MAR-2011 00:02:19

# GOMOS Level 2 Daily Report

## SUMMARY

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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 11:21:04
Data source version	GOMOS/6.01
Start time of products	15-03-2011 (15MAR2011 00:00:00)
Stop time of products	16-03-2011 (16MAR2011 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	324
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__2PRFIN20110315_000219_000000523100_00260_47257_7562.N1	15-MAR-2011 00:02:19	Twilight	51.500	11	53Alp Aql	0.76500	8000.0	103	47257	No
2	GOM_NL__2PRFIN20110315_001223_000000463100_00260_47257_7563.N1	15-MAR-2011 00:12:23	Dark	45.500	155	41Pi Sgr	2.9000	6600.0	91	47257	No
3	GOM_NL__2PRFIN20110315_001424_000000463100_00260_47257_7564.N1	15-MAR-2011 00:14:24	Dark	45.500	57	34Sig Sgr	2.0660	26000.	91	47257	No
4	GOM_NL__2PRFIN20110315_001750_000000513100_00260_47257_7565.N1	15-MAR-2011 00:17:50	Dark	51.000	38	20Eps Sgr	1.8360	11000.	102	47257	No
5	GOM_NL__2PRFIN20110315_002435_000000253100_00261_47258_7558.N1	15-MAR-2011 00:24:35	Dark	25.000	75	26Eps Sco	2.2910	4250.0	50	47258	No
6	GOM_NL__2PRFIN20110315_003019_000000503100_00261_47258_7559.N1	15-MAR-2011 00:30:19	Dark	49.500	4	Alp1Cen	-0.010000	5800.0	99	47258	No
7	GOM_NL__2PRFIN20110315_003132_000000513100_00261_47258_7560.N1	15-MAR-2011 00:31:32	Dark	50.500	10	Bet Cen	0.61000	28000.	101	47258	No
8	GOM_NL__2PRFIN20110315_003335_000000453100_00261_47258_7561.N1	15-MAR-2011 00:33:35	Dark	45.000	77	Eps Cen	2.3030	28000.	90	47258	No
9	GOM_NL__2PRFIN20110315_003644_000000633100_00261_47258_7562.N1	15-MAR-2011 00:36:44	Straylight	63.000	54	5The Cen	2.0550	4500.0	126	47258	No
10	GOM_NL__2PRFIN20110315_003837_000000513100_00261_47258_7563.N1	15-MAR-2011 00:38:37	Straylight	50.500	123	lot Cen	2.7500	10200.	101	47258	No
11	GOM_NL__2PRFIN20110315_004427_000000533100_00261_47258_7564.N1	15-MAR-2011 00:44:27	Straylight	52.500	106	9Bet Crv	2.6480	5600.0	105	47258	No
12	GOM_NL__2PRFIN20110315_004648_000000513100_00261_47258_7565.N1	15-MAR-2011 00:46:48	Straylight	50.500	100	4Gam Crv	2.5800	13100.	101	47258	No
13	GOM_NL__2PRFIN20110315_005826_000000393100_00261_47258_7566.N1	15-MAR-2011 00:58:26	Bright	38.500	51	41Gam1Leo	2.0100	4500.0	77	47258	No
14	GOM_NL__2PRFIN20110315_010613_000000403100_00261_47258_7567.N1	15-MAR-2011 01:06:13	Bright	39.500	174	52Psi UMa	3.0040	4400.0	79	47258	No
15	GOM_NL__2PRFIN20110315_010923_000000393100_00261_47258_7568.N1	15-MAR-2011 01:09:23	Bright	38.500	82	48Bet UMa	2.3650	10600.	77	47258	No
16	GOM_NL__2PRFIN20110315_011052_000000393100_00261_47258_7569.N1	15-MAR-2011 01:10:52	Bright	38.500	36	50Alp UMa	1.8000	6300.0	77	47258	No
17	GOM_NL__2PRFIN20110315_011231_000000443100_00261_47258_7570.N1	15-MAR-2011 01:12:31	Bright	44.000	32	77Eps UMa	1.7630	11000.	88	47258	No
18	GOM_NL__2PRFIN20110315_011755_000000413100_00261_47258_7571.N1	15-MAR-2011 01:17:55	Bright	40.500	60	7Bet UMi	2.0810	3950.0	81	47258	No
19	GOM_NL__2PRFIN20110315_012200_000000493100_00261_47258_7572.N1	15-MAR-2011 01:22:00	Bright	48.500	119	14Eta Dra	2.7270	4700.0	97	47258	No
20	GOM_NL__2PRFIN20110315_012752_000000533100_00261_47258_7573.N1	15-MAR-2011 01:27:52	Bright	52.500	69	33Gam Dra	2.2310	3800.0	105	47258	No
21	GOM_NL__2PRFIN20110315_013102_000000373100_00261_47258_7574.N1	15-MAR-2011 01:31:02	Bright	36.500	19	50Alp Cyg	1.2460	10500.	73	47258	No
22	GOM_NL__2PRFIN20110315_013236_000000383100_00261_47258_7575.N1	15-MAR-2011 01:32:36	Bright	38.000	66	37Gam Cyg	2.2080	5900.0	76	47258	No
23	GOM_NL__2PRFIN20110315_014233_000000523100_00261_47258_7576.N1	15-MAR-2011 01:42:33	Twilight	51.500	11	53Alp Aql	0.76500	8000.0	103	47258	No
24	GOM_NL__2PRFIN20110315_015237_000000463100_00261_47258_7577.N1	15-MAR-2011 01:52:37	Dark	45.500	155	41Pi Sgr	2.9000	6600.0	91	47258	No
25	GOM_NL__2PRFIN20110315_015438_000000473100_00261_47258_7578.N1	15-MAR-2011 01:54:38	Dark	47.000	57	34Sig Sgr	2.0660	26000.	94	47258	No
26	GOM_NL__2PRFIN20110315_015805_000000473100_00261_47258_7579.N1	15-MAR-2011 01:58:05	Dark	46.500	38	20Eps Sgr	1.8360	11000.	93	47258	No
27	GOM_NL__2PRFIN20110315_020450_000000253100_00262_47259_7611.N1	15-MAR-2011 02:04:50	Dark	25.000	75	26Eps Sco	2.2910	4250.0	50	47259	No
28	GOM_NL__2PRFIN20110315_021033_000000473100_00262_47259_7612.N1	15-MAR-2011 02:10:33	Dark	47.000	4	Alp1Cen	-0.010000	5800.0	94	47259	No
29	GOM_NL__2PRFIN20110315_021146_000000433100_00262_47259_7613.N1	15-MAR-2011 02:11:46	Dark	43.000	10	Bet Cen	0.61000	28000.	86	47259	No
30	GOM_NL__2PRFIN20110315_021349_000000463100_00262_47259_7614.N1	15-MAR-2011 02:13:49	Dark	46.000	77	Eps Cen	2.3030	28000.	92	47259	No
31	GOM_NL__2PRFIN20110315_021659_000000653100_00262_47259_7615.N1	15-MAR-2011 02:16:59	Straylight	65.000	54	5The Cen	2.0550	4500.0	130	47259	No
32	GOM_NL__2PRFIN20110315_021851_000000503100_00262_47259_7616.N1	15-MAR-2011 02:18:51	Straylight	50.000	123	lot Cen	2.7500	10200.	100	47259	No
33	GOM_NL__2PRFIN20110315_022442_000000583100_00262_47259_7617.N1	15-MAR-2011 02:24:42	Straylight	57.500	106	9Bet Crv	2.6480	5600.0	115	47259	No
34	GOM_NL__2PRFIN20110315_022702_000000503100_00262_47259_7618.N1	15-MAR-2011 02:27:02	Straylight	50.000	100	4Gam Crv	2.5800	13100.	100	47259	No
35	GOM_NL__2PRFIN20110315_023841_000000403100_00262_47259_7619.N1	15-MAR-2011 02:38:41	Bright	39.500	51	41Gam1Leo	2.0100	4500.0	79	47259	No
36	GOM_NL__2PRFIN20110315_024627_000000413100_00262_47259_7620.N1	15-MAR-2011 02:46:27	Bright	40.500	174	52Psi UMa	3.0040	4400.0	81	47259	No
37	GOM_NL__2PRFIN20110315_024937_000000383100_00262_47259_7621.N1	15-MAR-2011 02:49:37	Bright	38.000	82	48Bet UMa	2.3650	10600.	76	47259	No
38	GOM_NL__2PRFIN20110315_025105_000000373100_00262_47259_7622.N1	15-MAR-2011 02:51:05	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	47259	No
39	GOM_NL__2PRFIN20110315_025244_000000443100_00262_47259_7623.N1	15-MAR-2011 02:52:44	Bright	43.500	32	77Eps UMa	1.7630	11000.	87	47259	No
40	GOM_NL__2PRFIN20110315_025809_000000423100_00262_47259_7624.N1	15-MAR-2011 02:58:09	Bright	41.500	60	7Bet UMi	2.0810	3950.0	83	47259	No
41	GOM_NL__2PRFIN20110315_030214_000000483100_00262_47259_7625.N1	15-MAR-2011 03:02:14	Bright	47.500	119	14Eta Dra	2.7270	4700.0	95	47259	No
42	GOM_NL__2PRFIN20110315_030806_000000513100_00262_47259_7626.N1	15-MAR-2011 03:08:06	Bright	51.000	69	33Gam Dra	2.2310	3800.0	102	47259	No



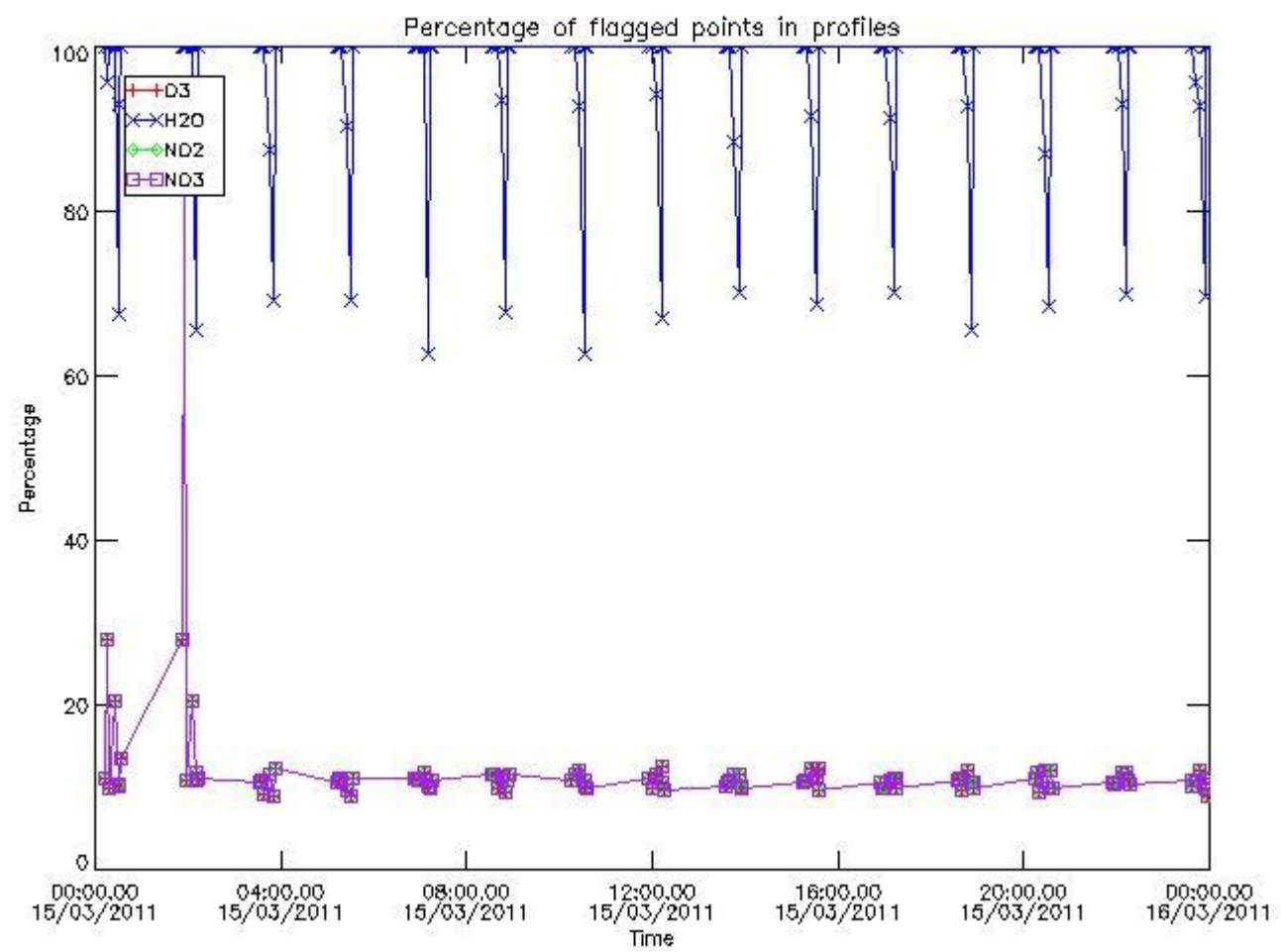






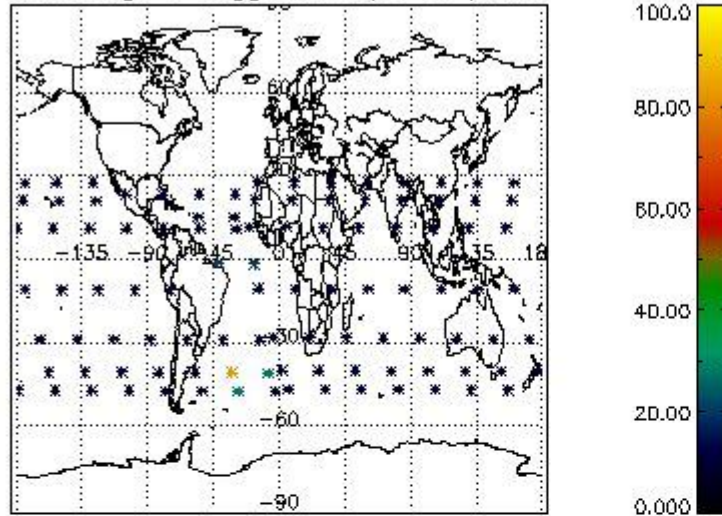




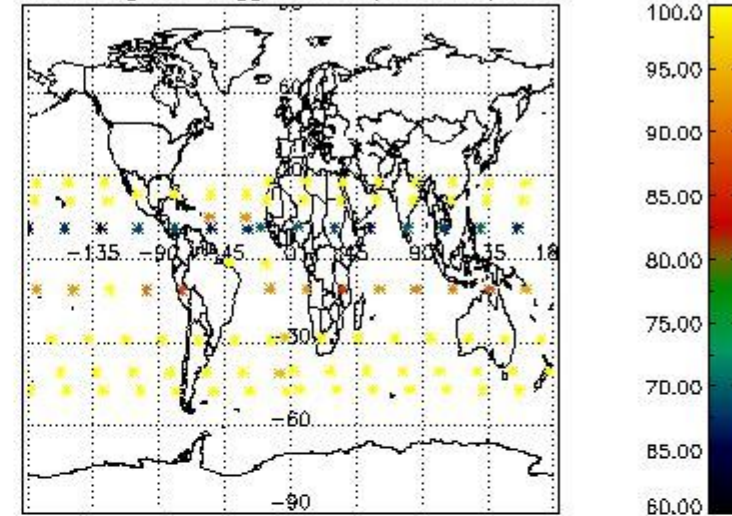


3.2 Plot quality information per product (world map)

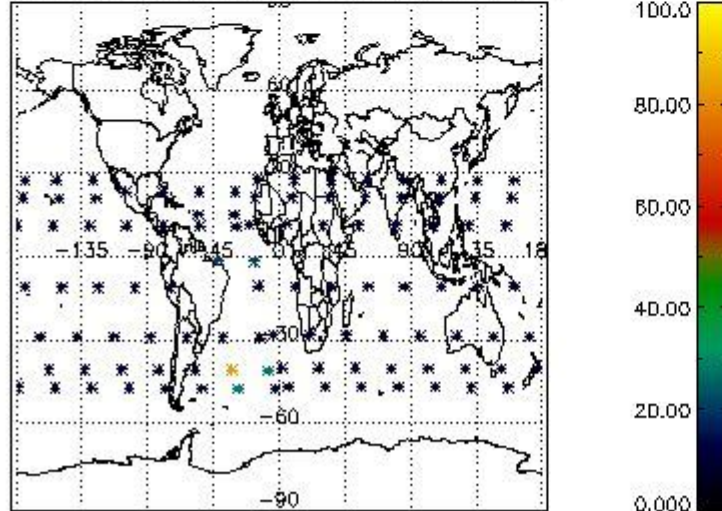
Percentage of flagged data per O3 profile



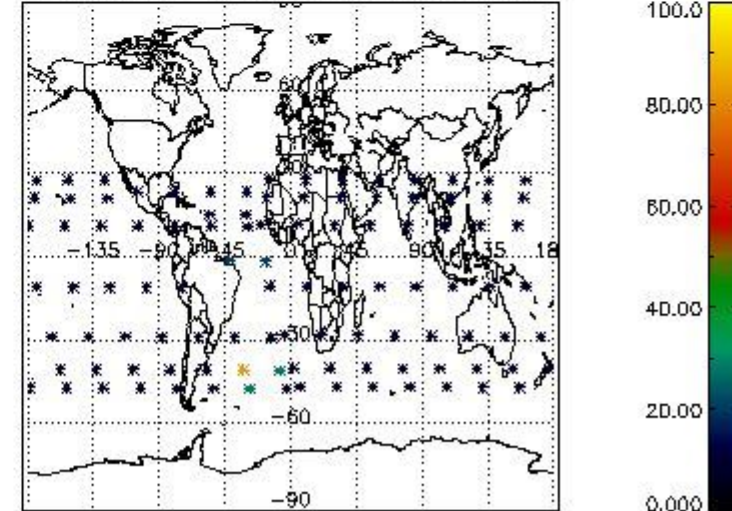
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

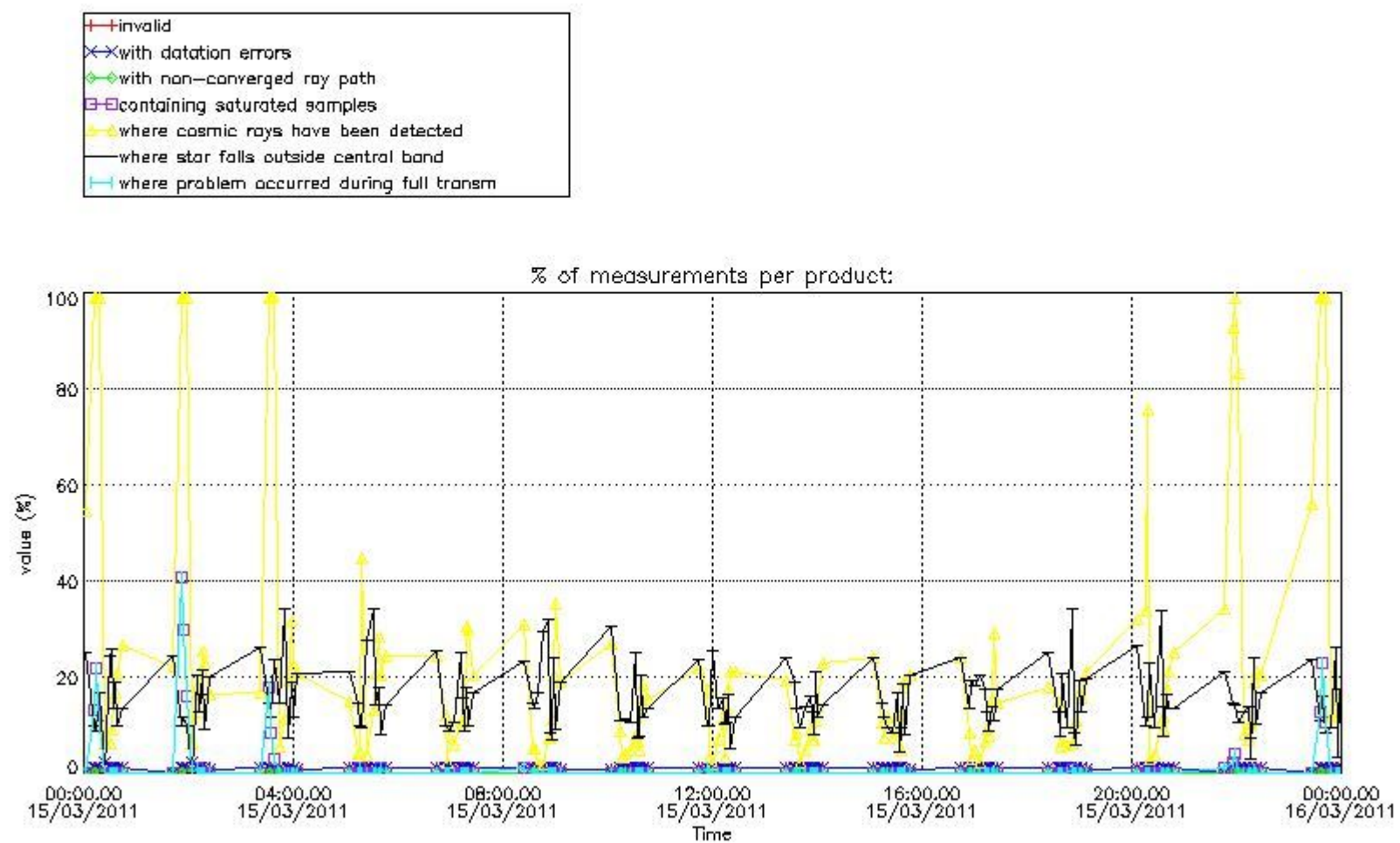


#### 4. Level 1 quality information per product

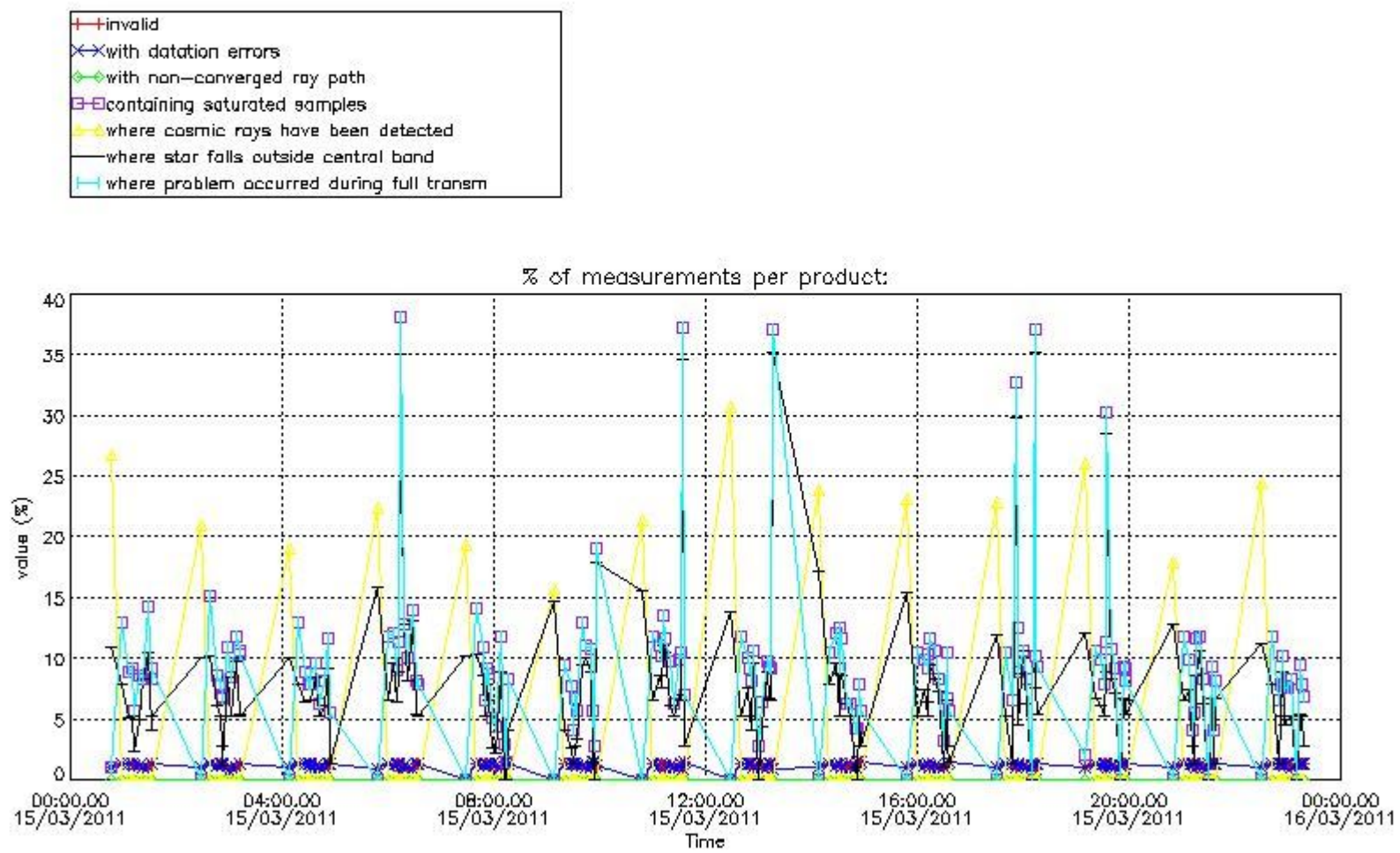
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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



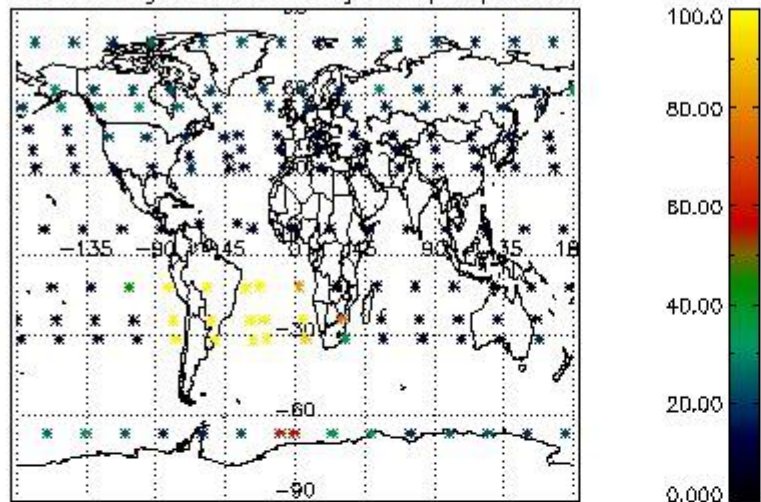
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



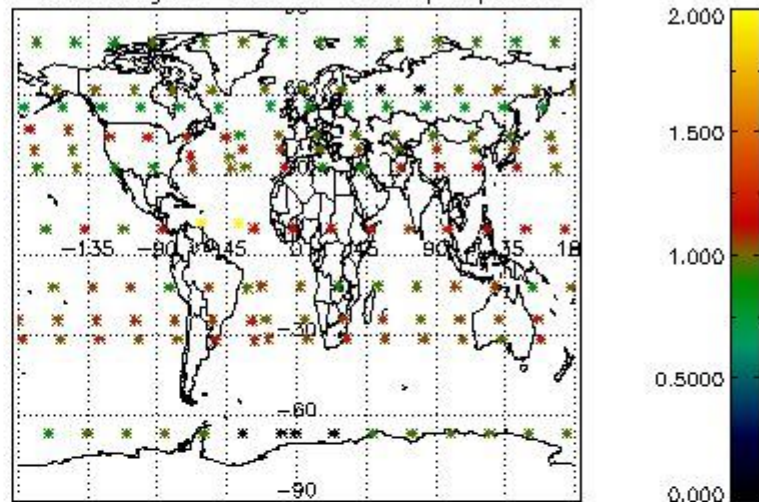
*4.2 Plot quality information per product coming from level 1b processing (world map)*

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

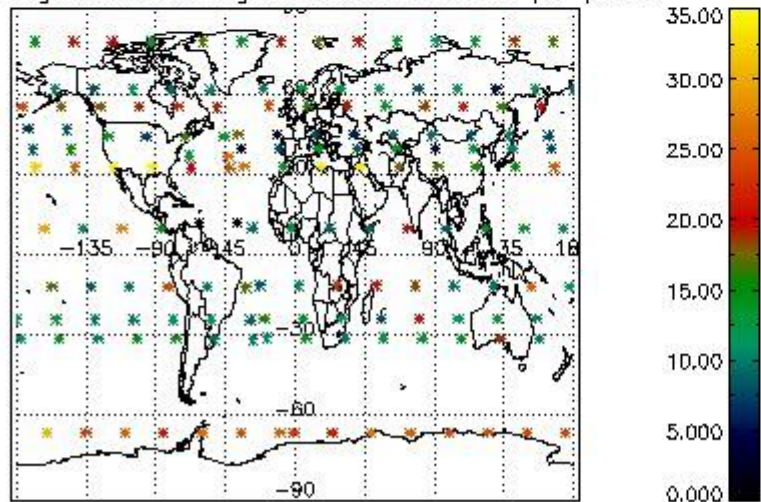
Percentage of cosmic ray hits per profile



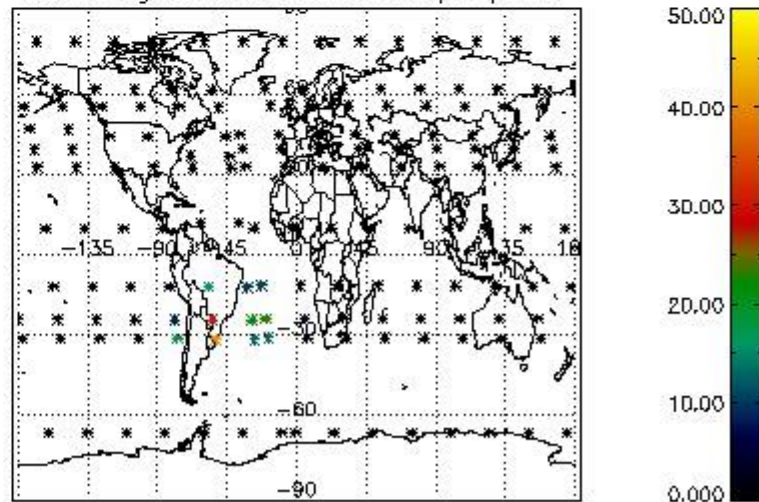
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

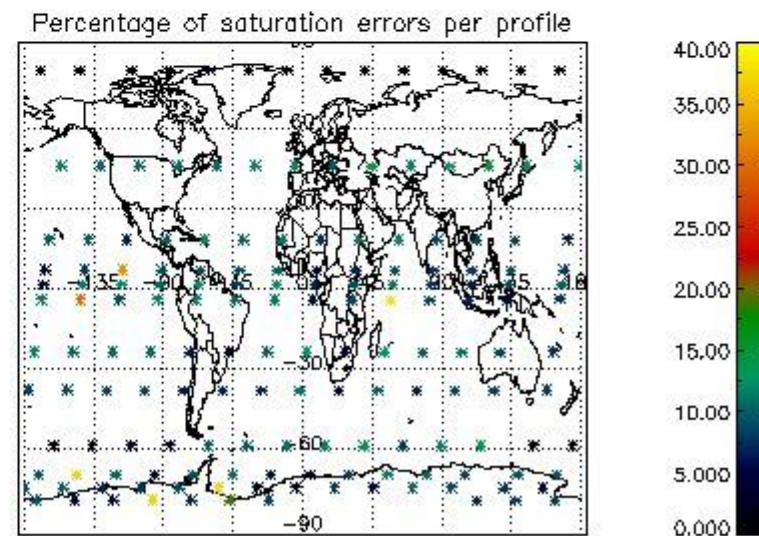
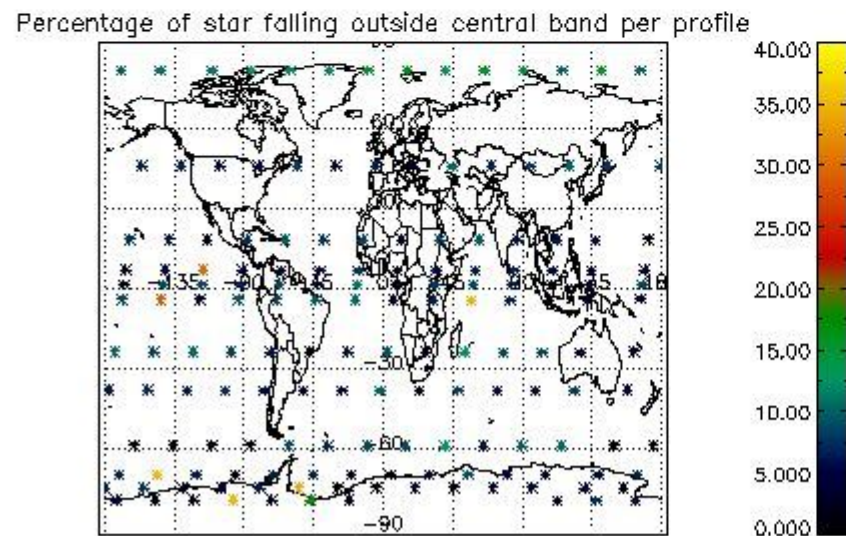
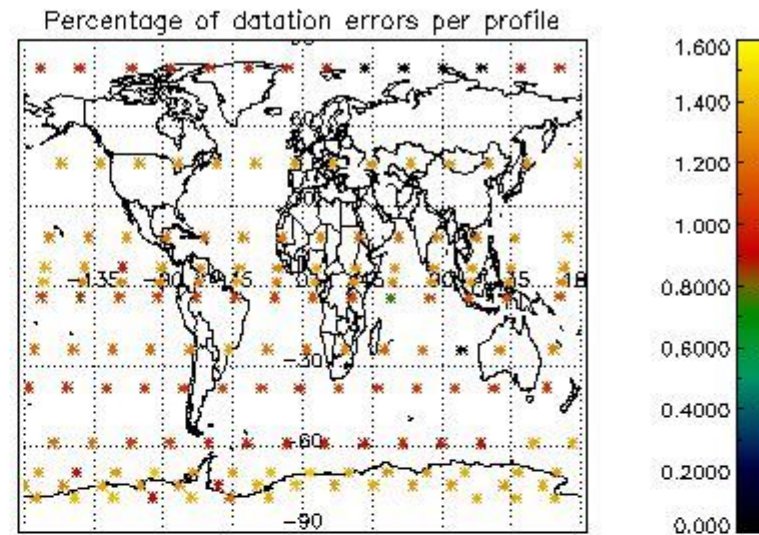
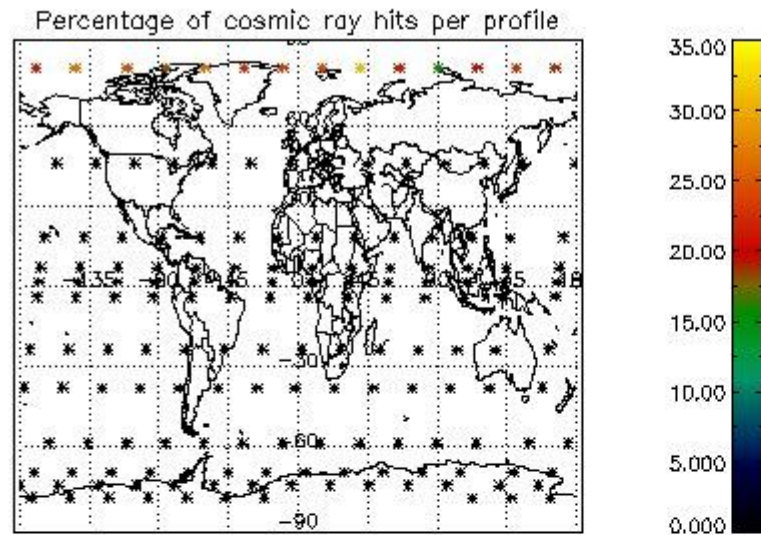


Percentage of saturation errors per profile



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

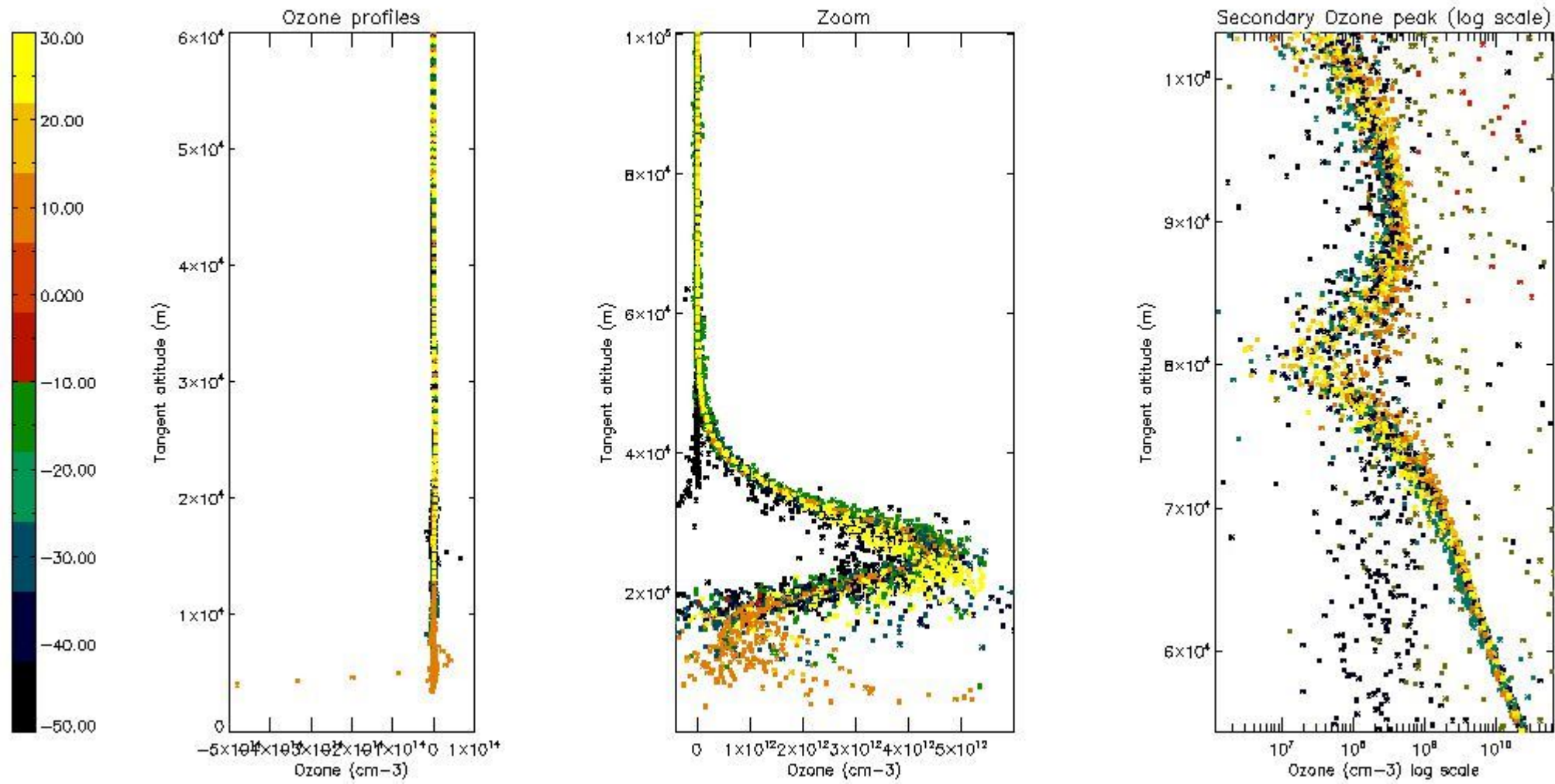
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	33
STD < 20	16

STD < 10	12
STD < 5	9

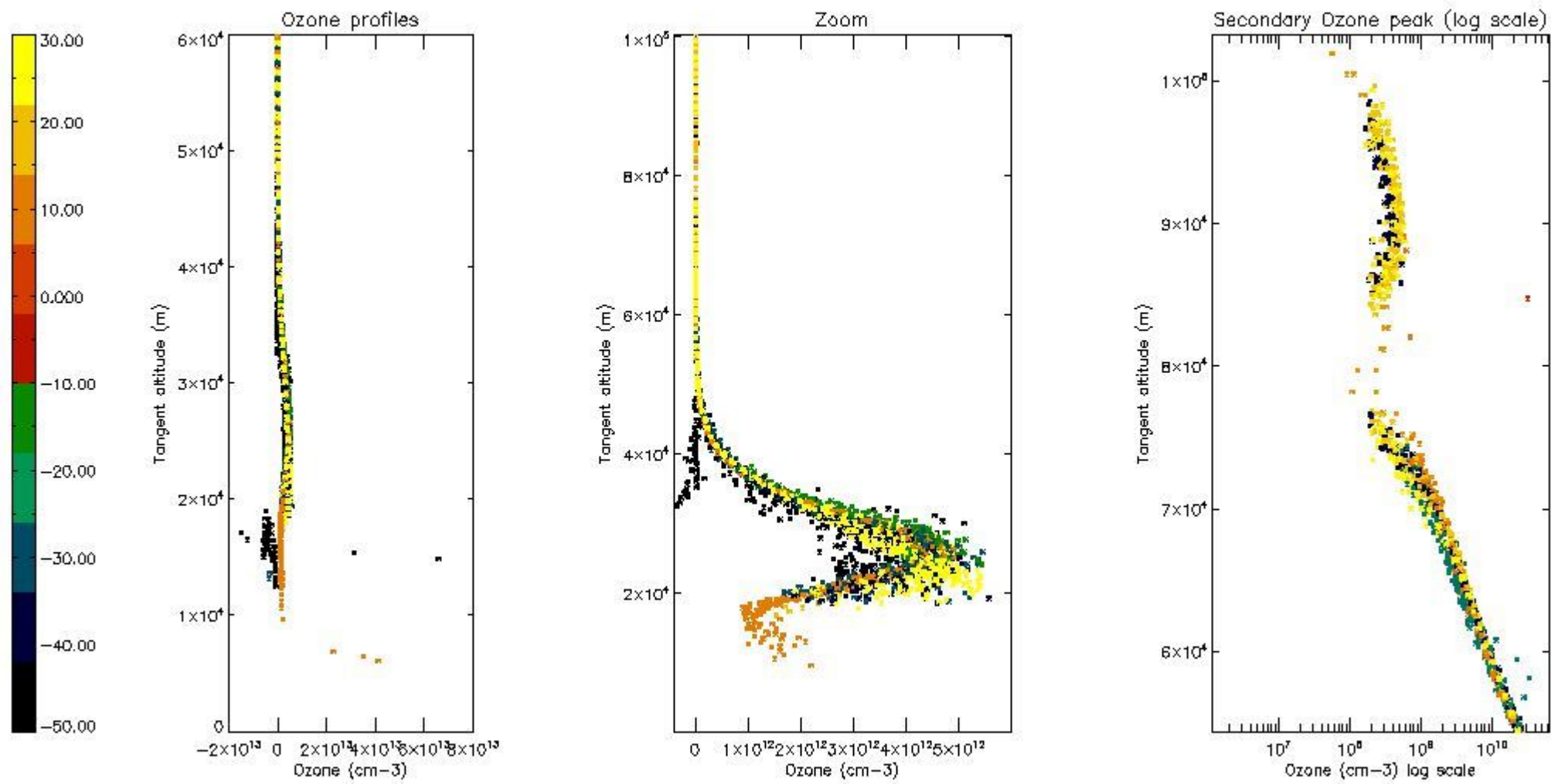
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



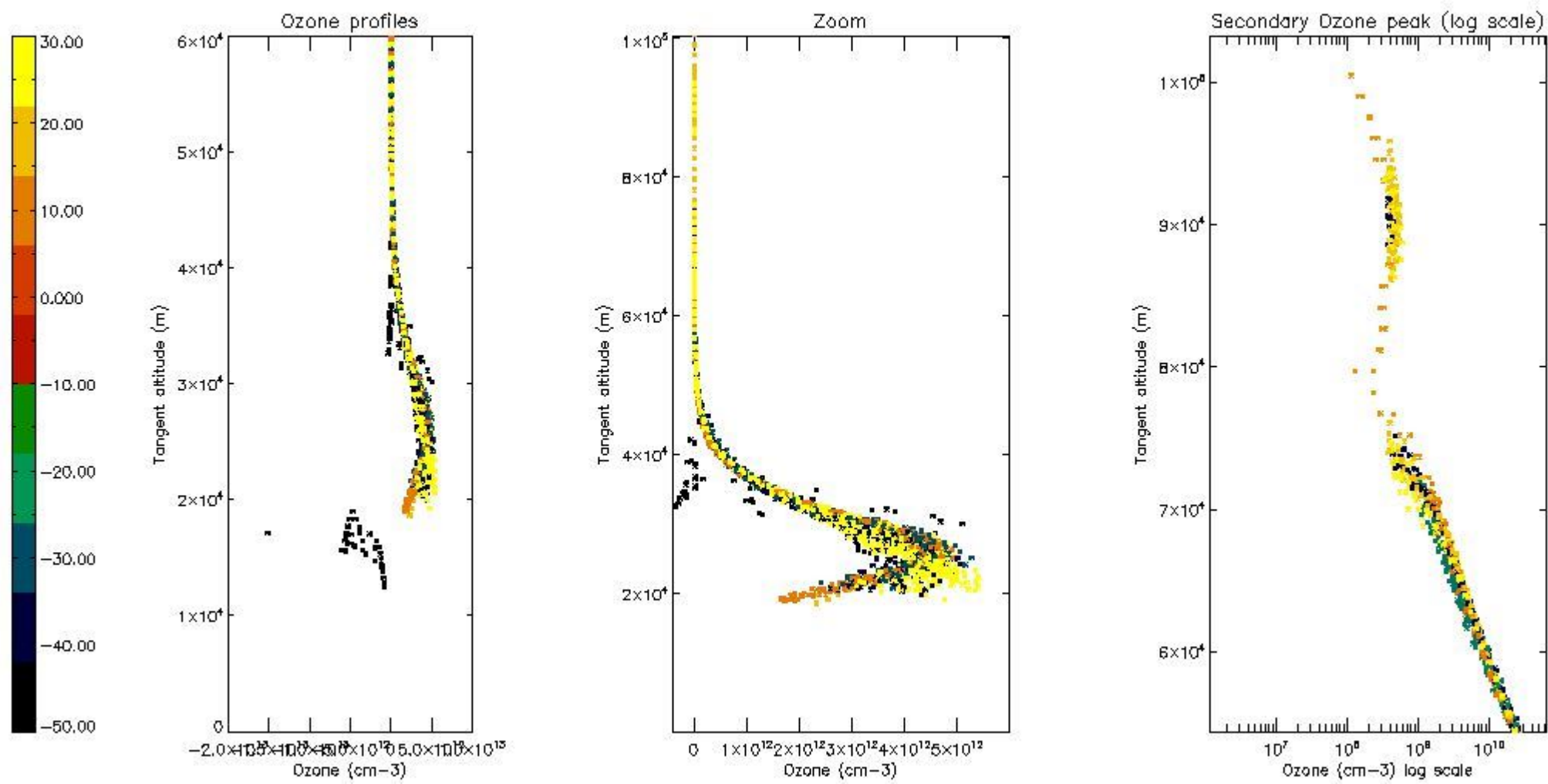
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



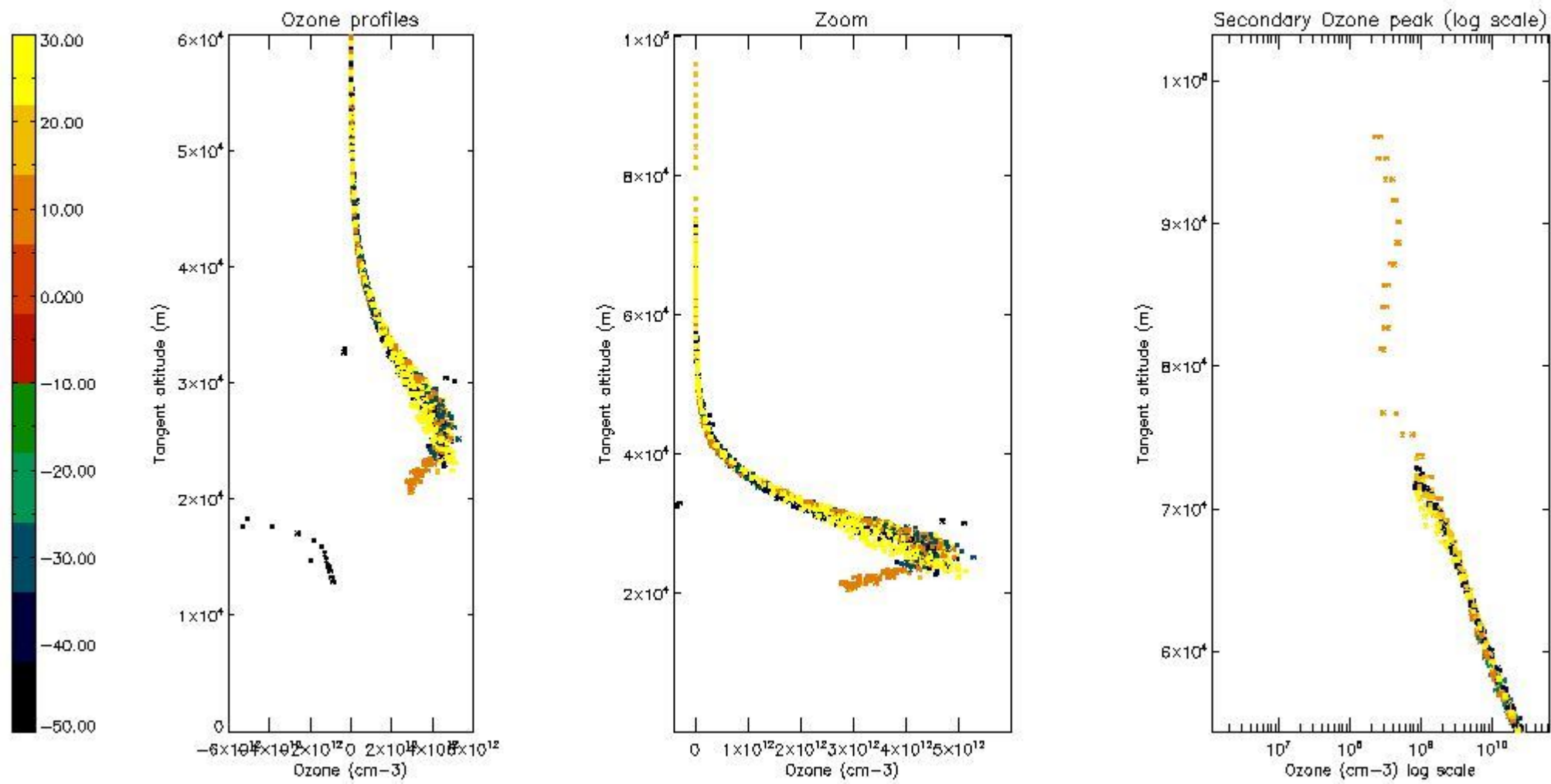
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



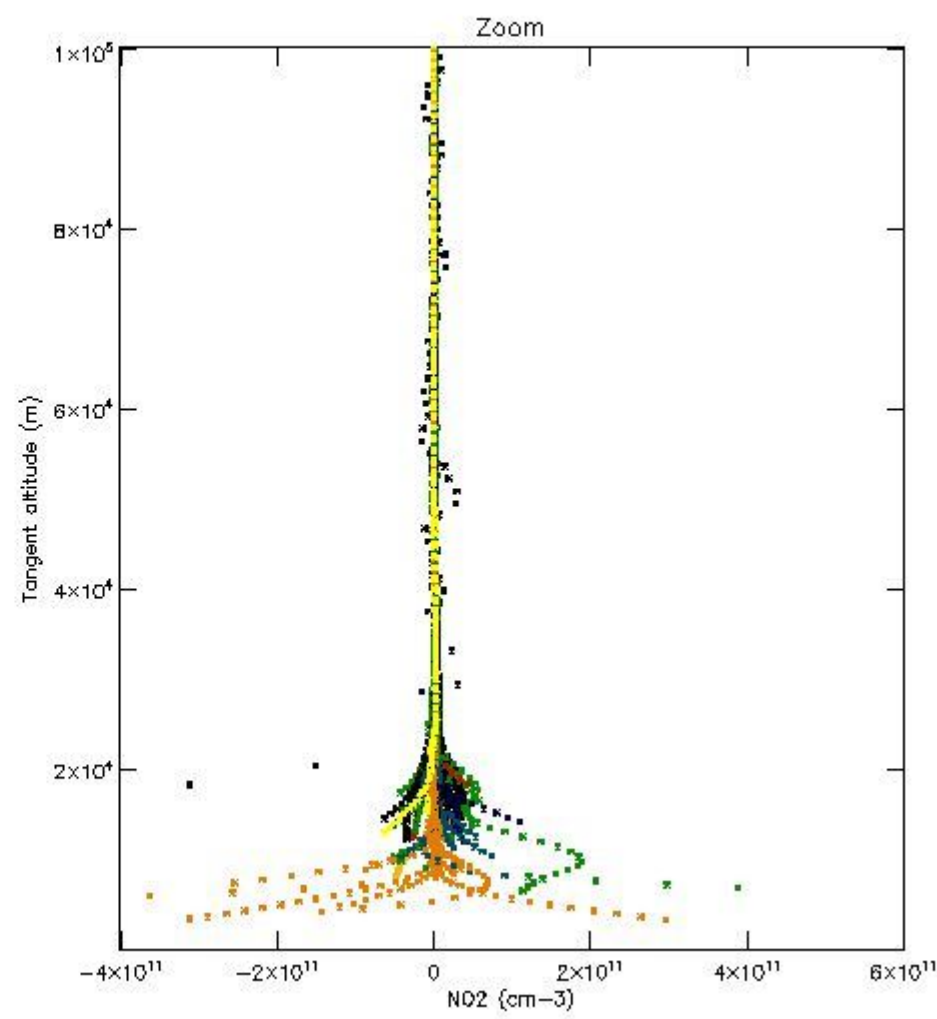
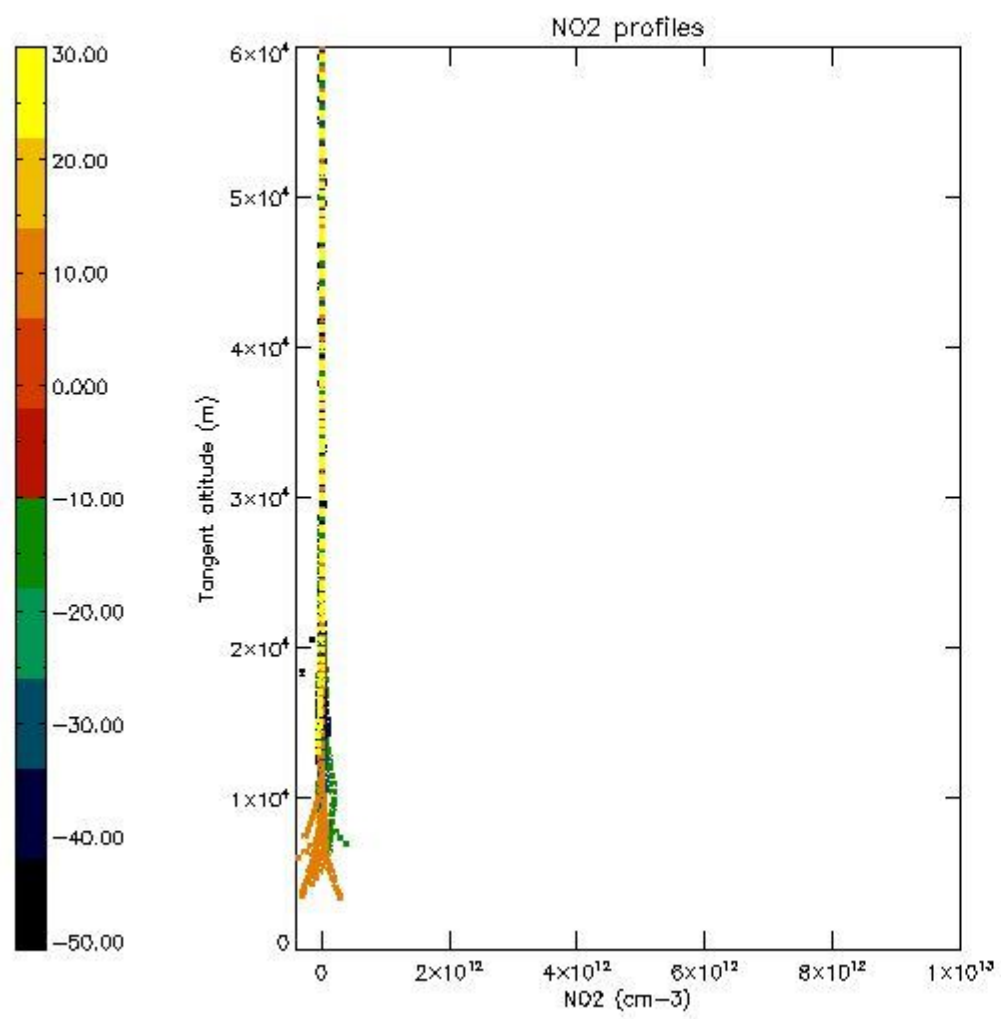
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



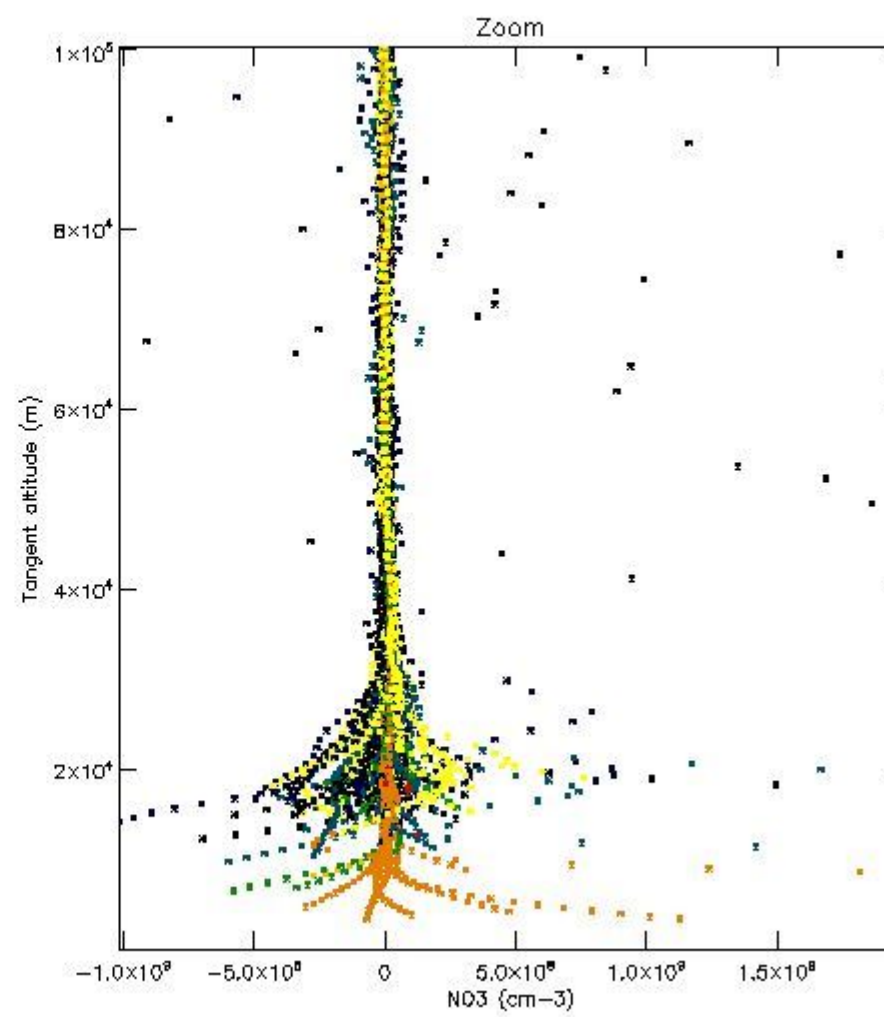
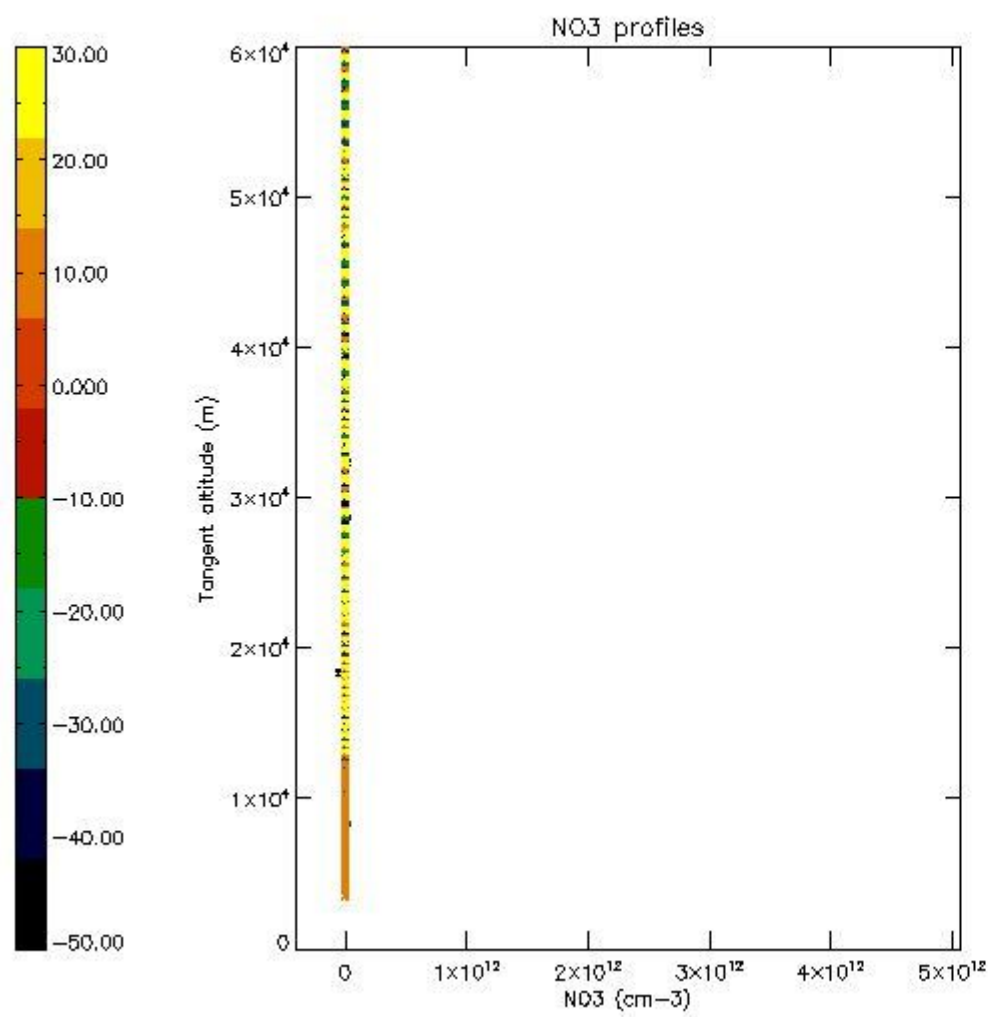
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



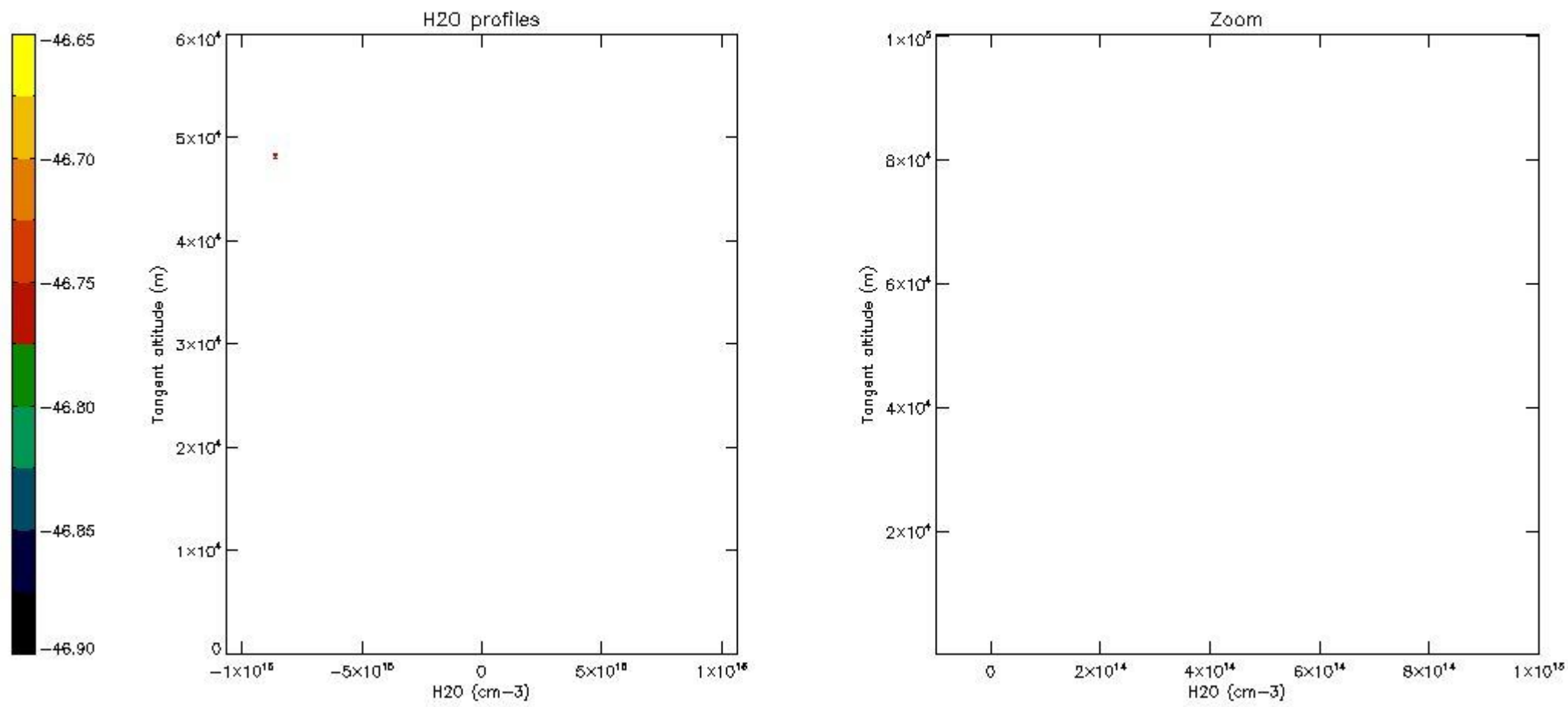
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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.

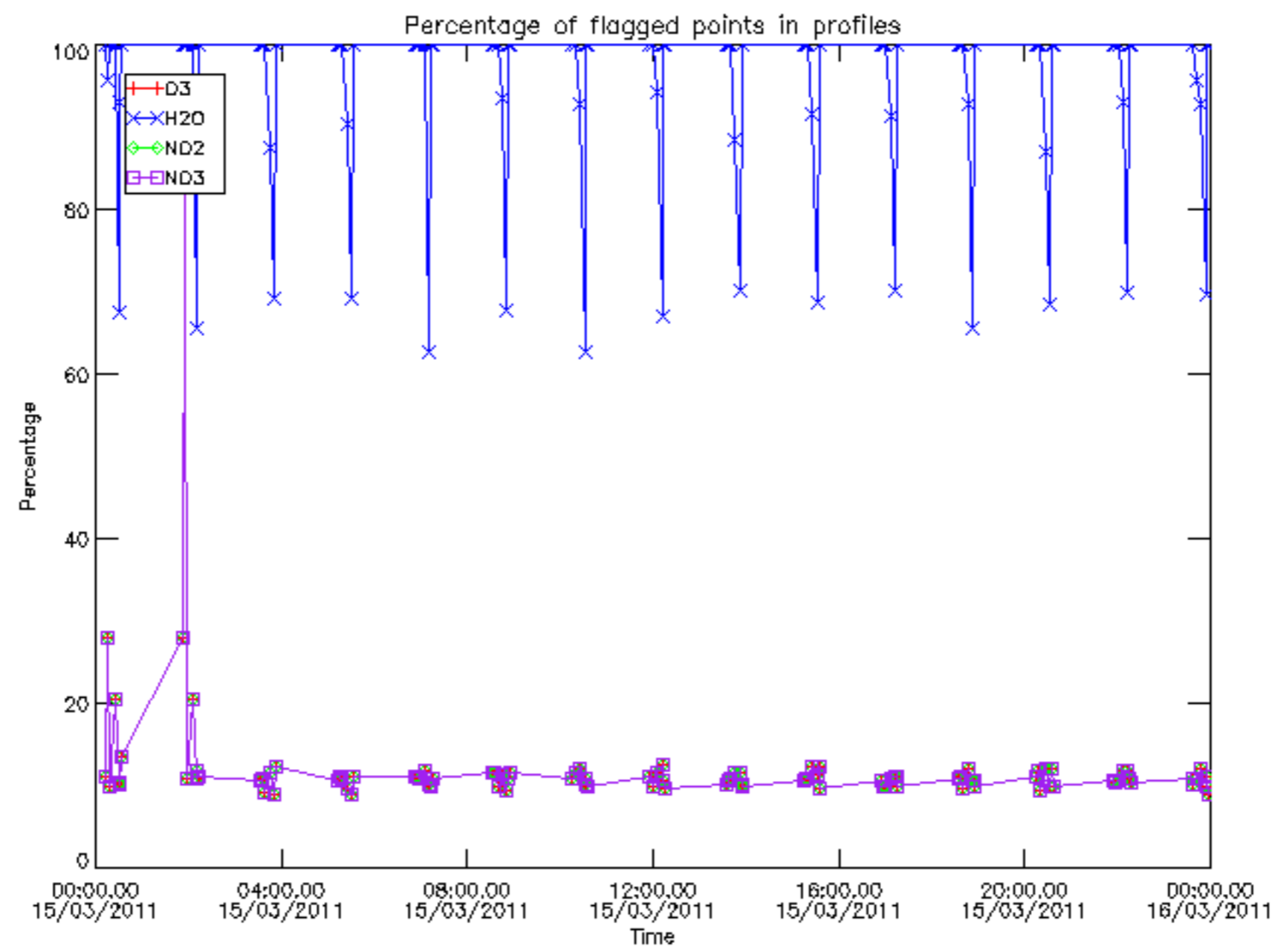


## 6. Auxiliary Data Files used for the production reported in section 2

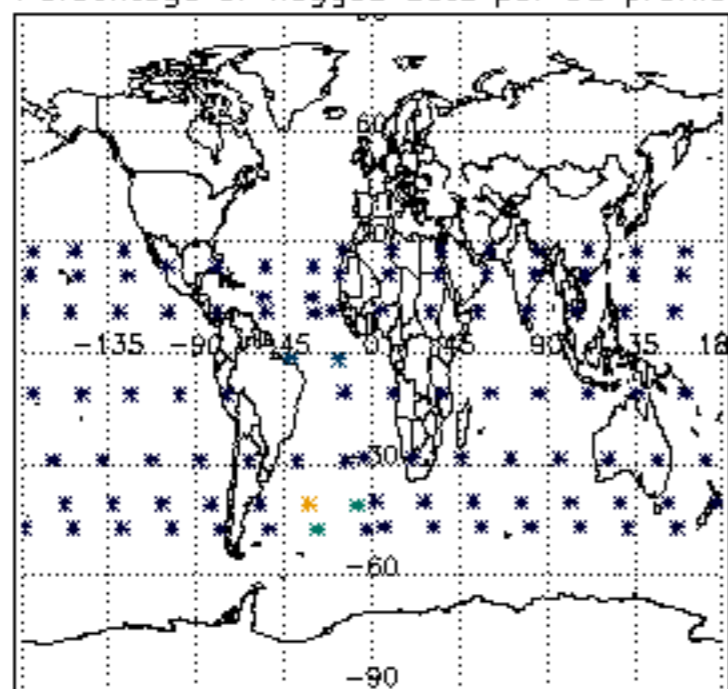
The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	15-MAR-2011 00:02:19
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	15-MAR-2011 00:02:19
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	15-MAR-2011 00:02:19

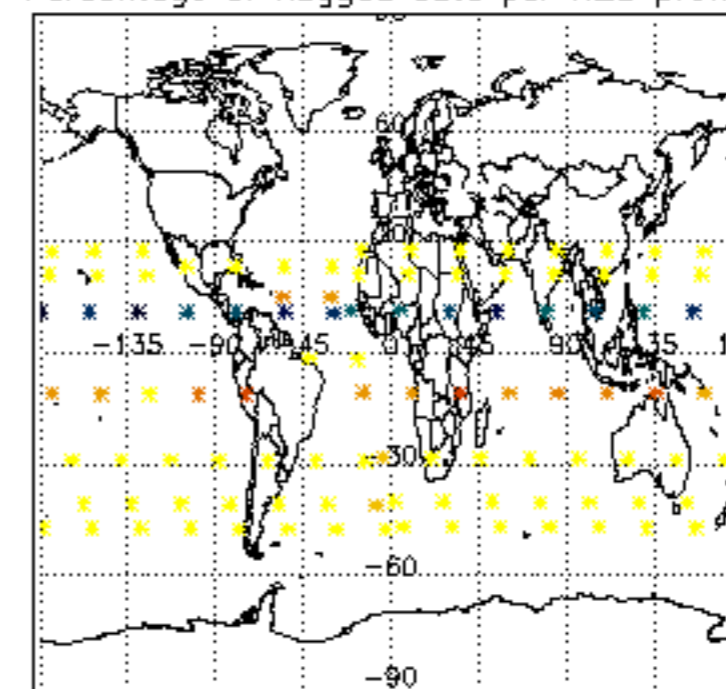




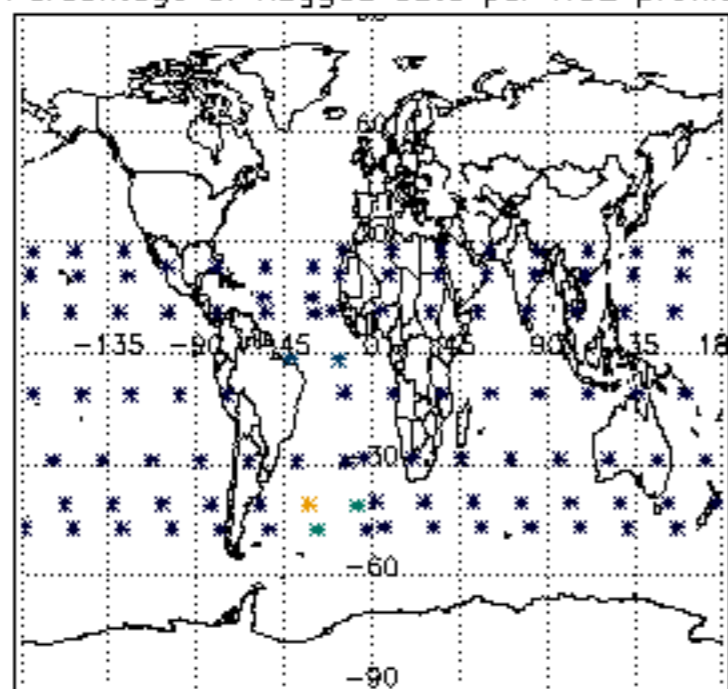
Percentage of flagged data per D3 profile



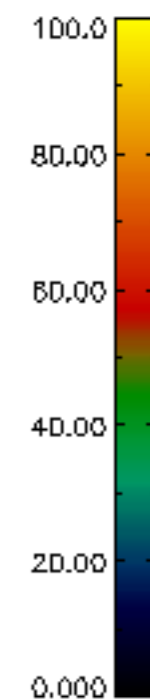
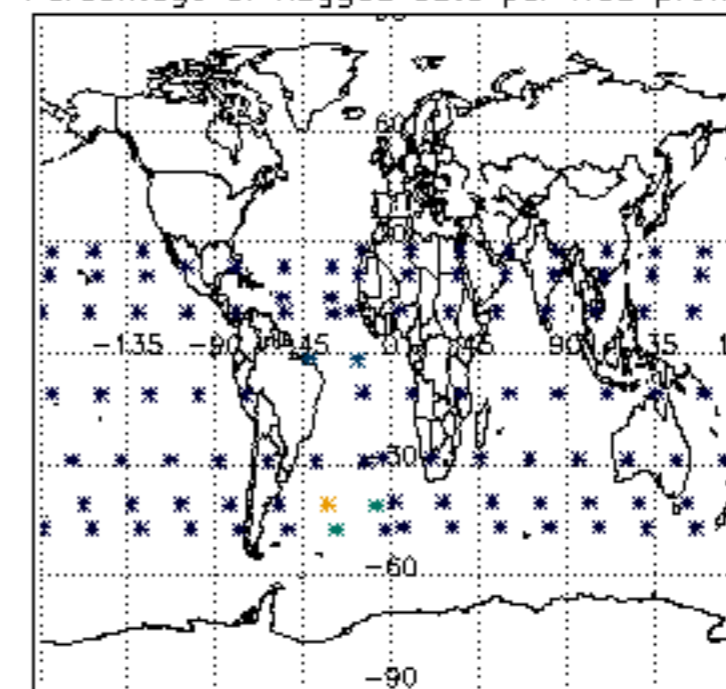
Percentage of flagged data per H2O profile

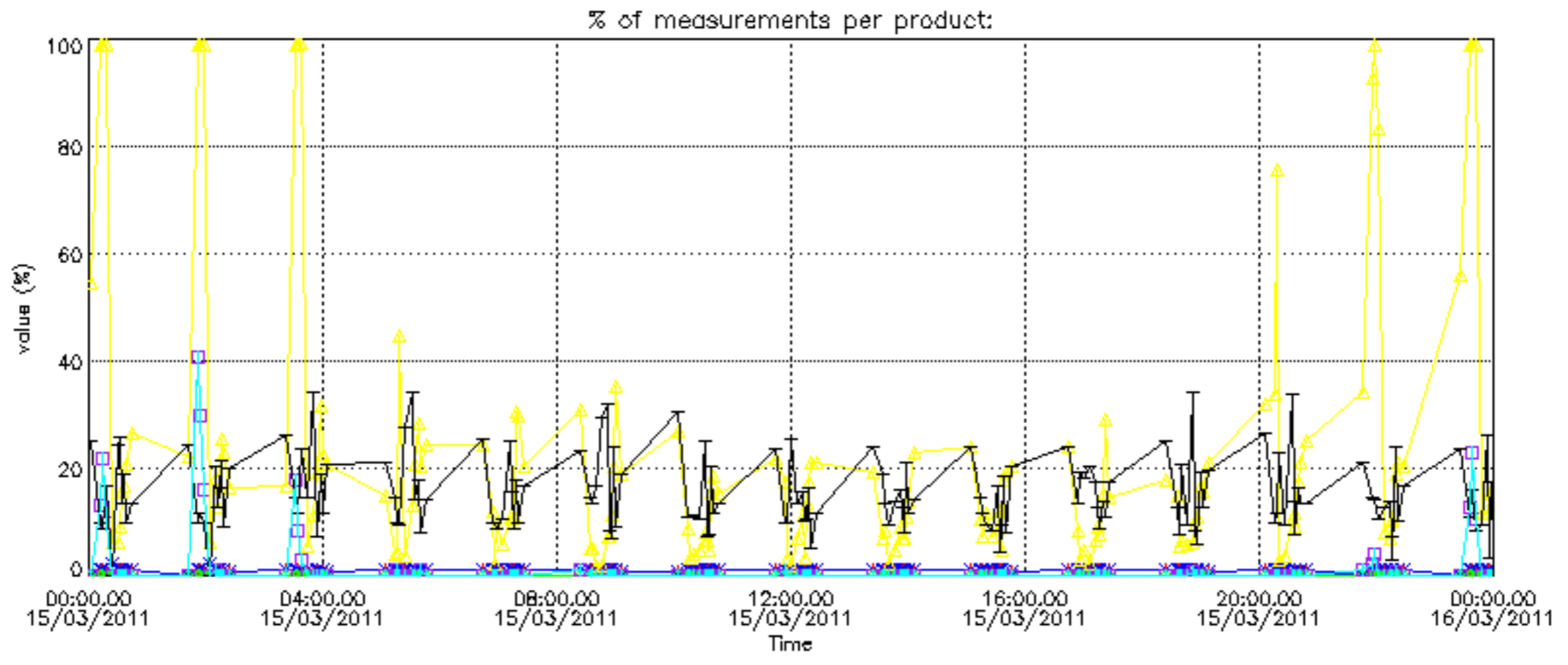


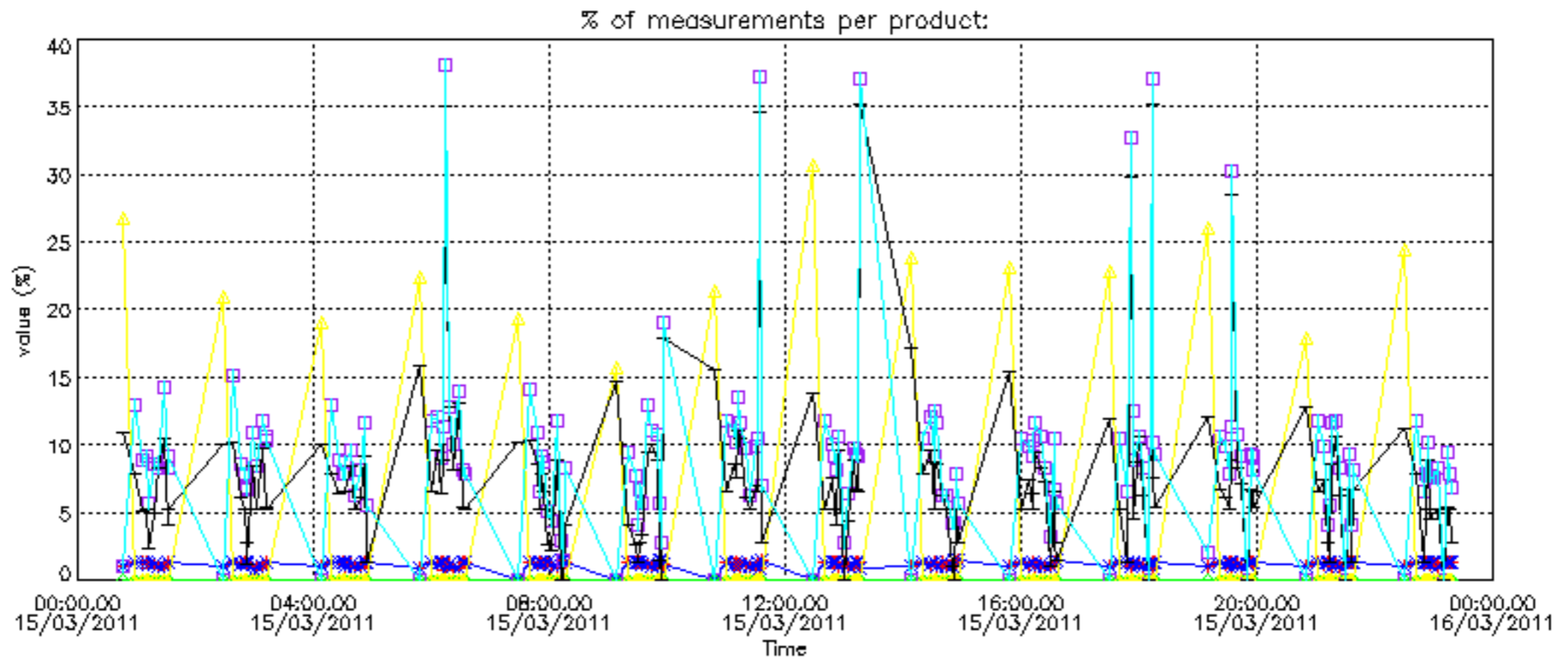
Percentage of flagged data per NO2 profile



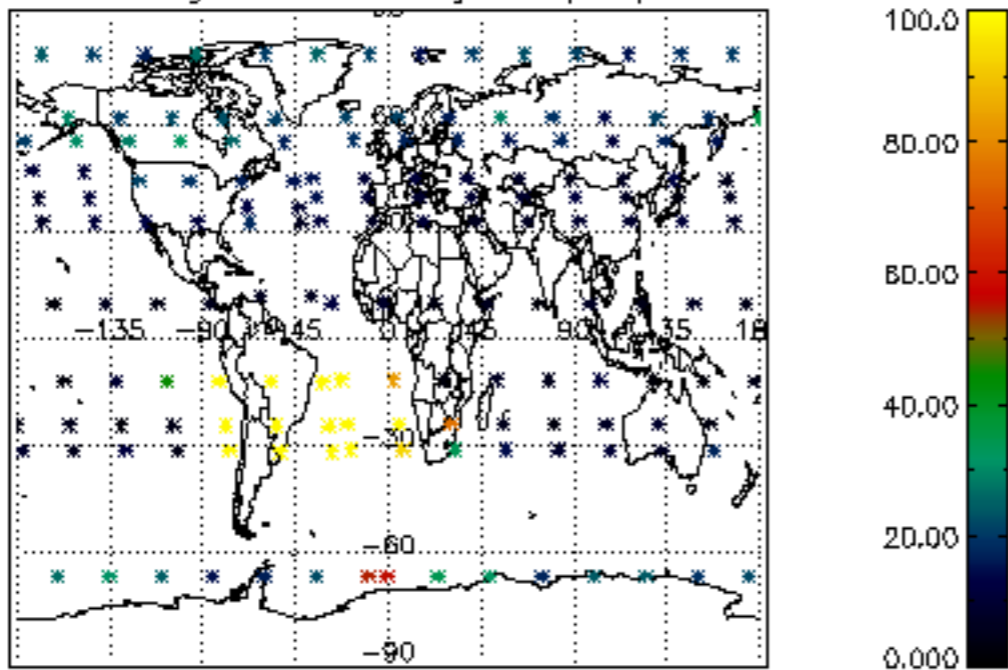
Percentage of flagged data per NO3 profile



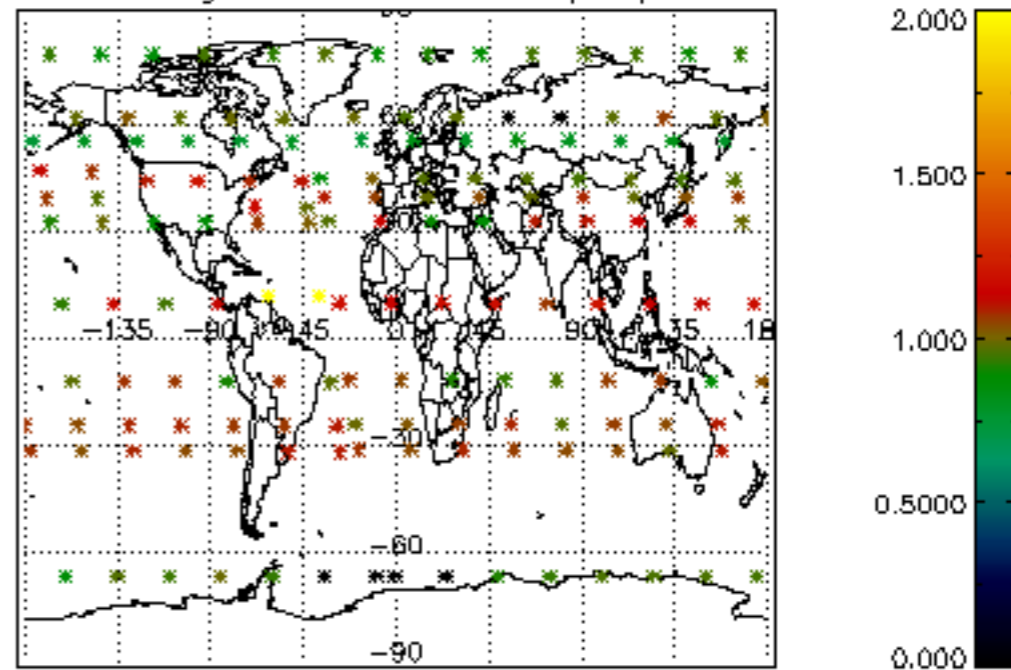




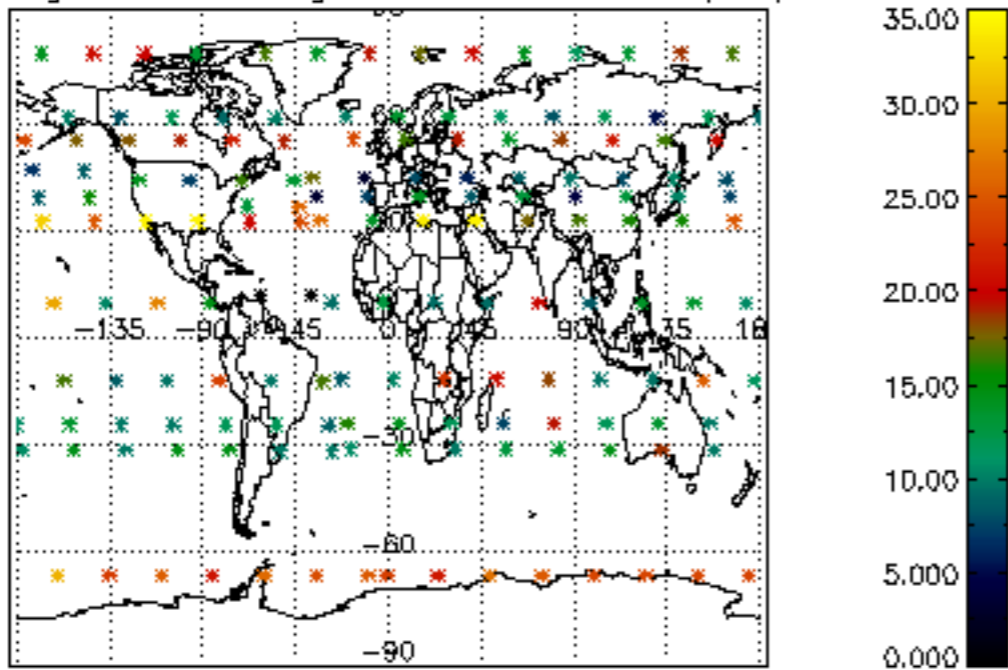
Percentage of cosmic ray hits per profile



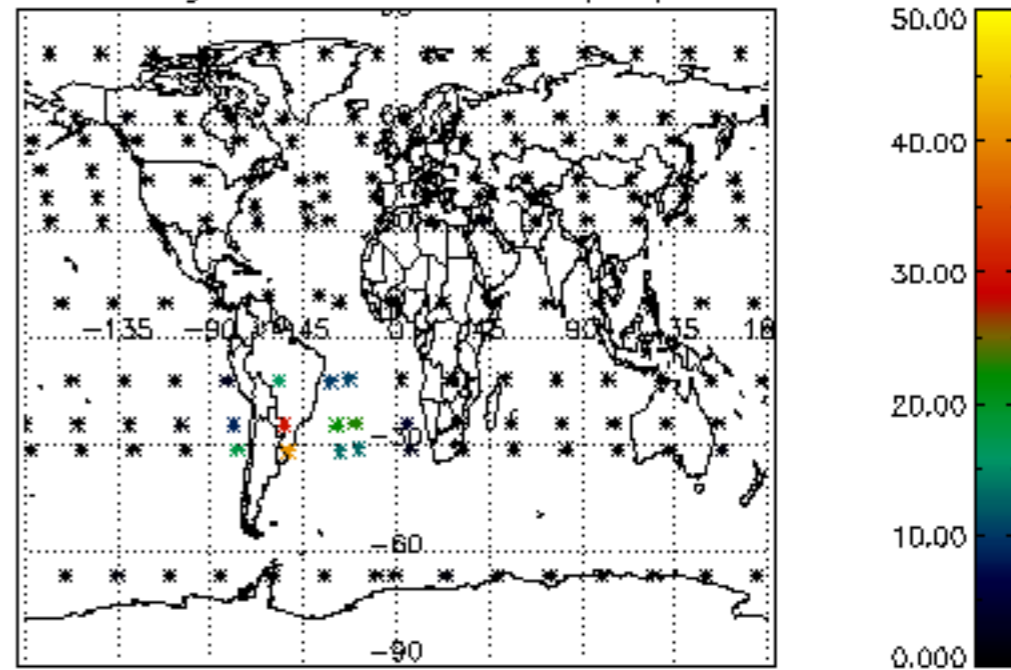
Percentage of datation errors per profile



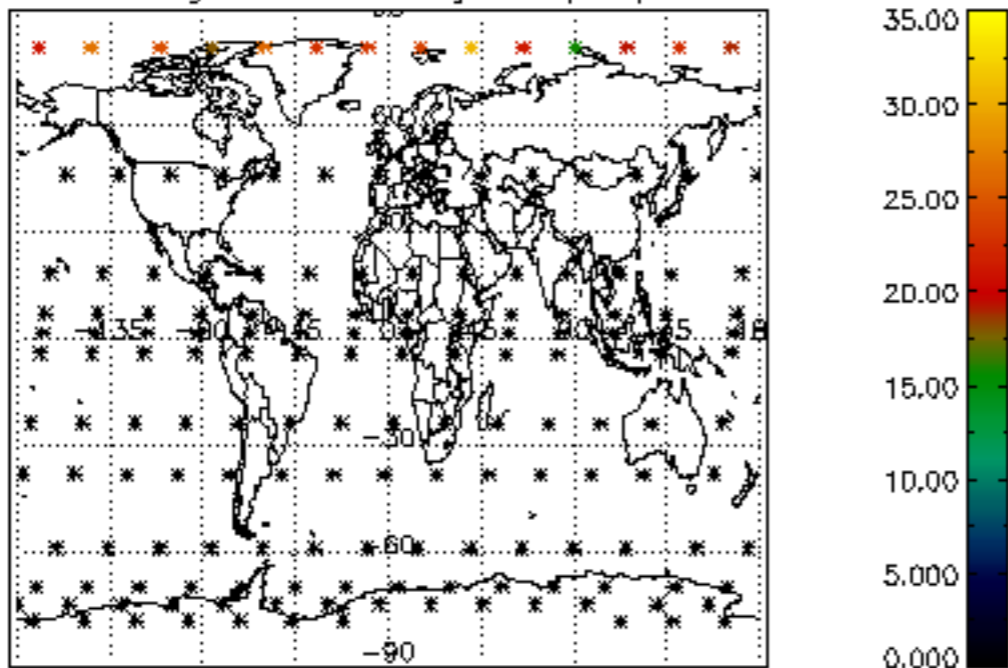
Percentage of star falling outside central band per profile



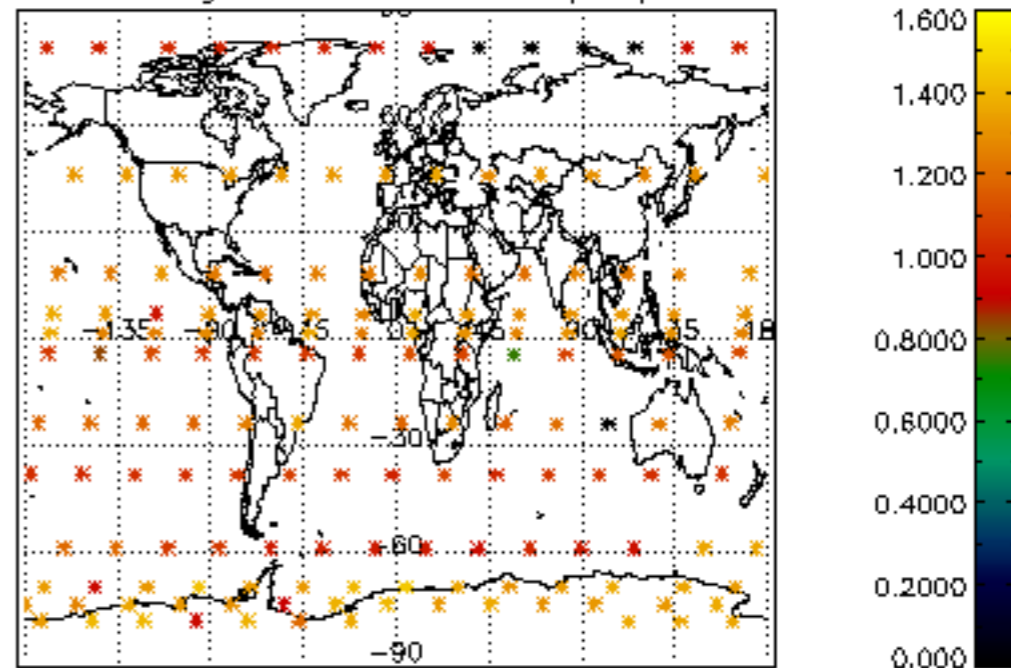
Percentage of saturation errors per profile



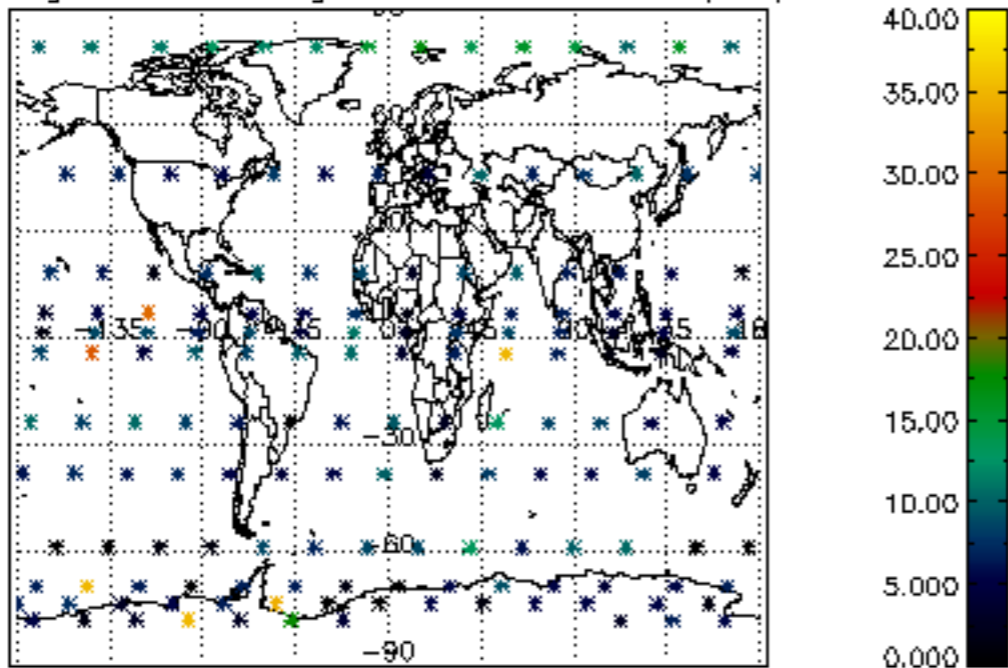
Percentage of cosmic ray hits per profile



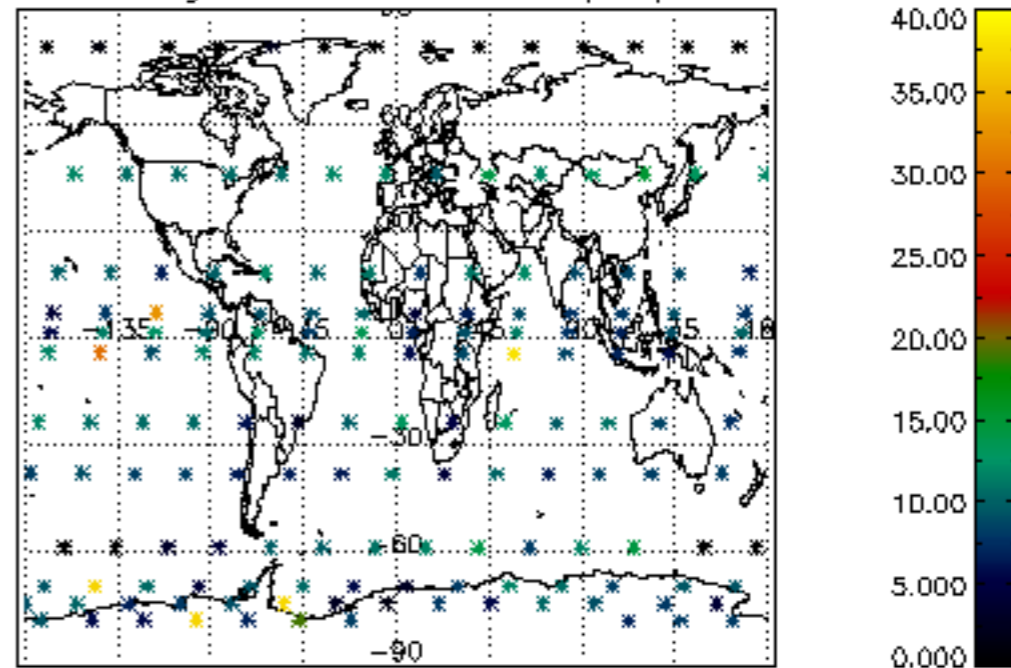
Percentage of datation errors per profile

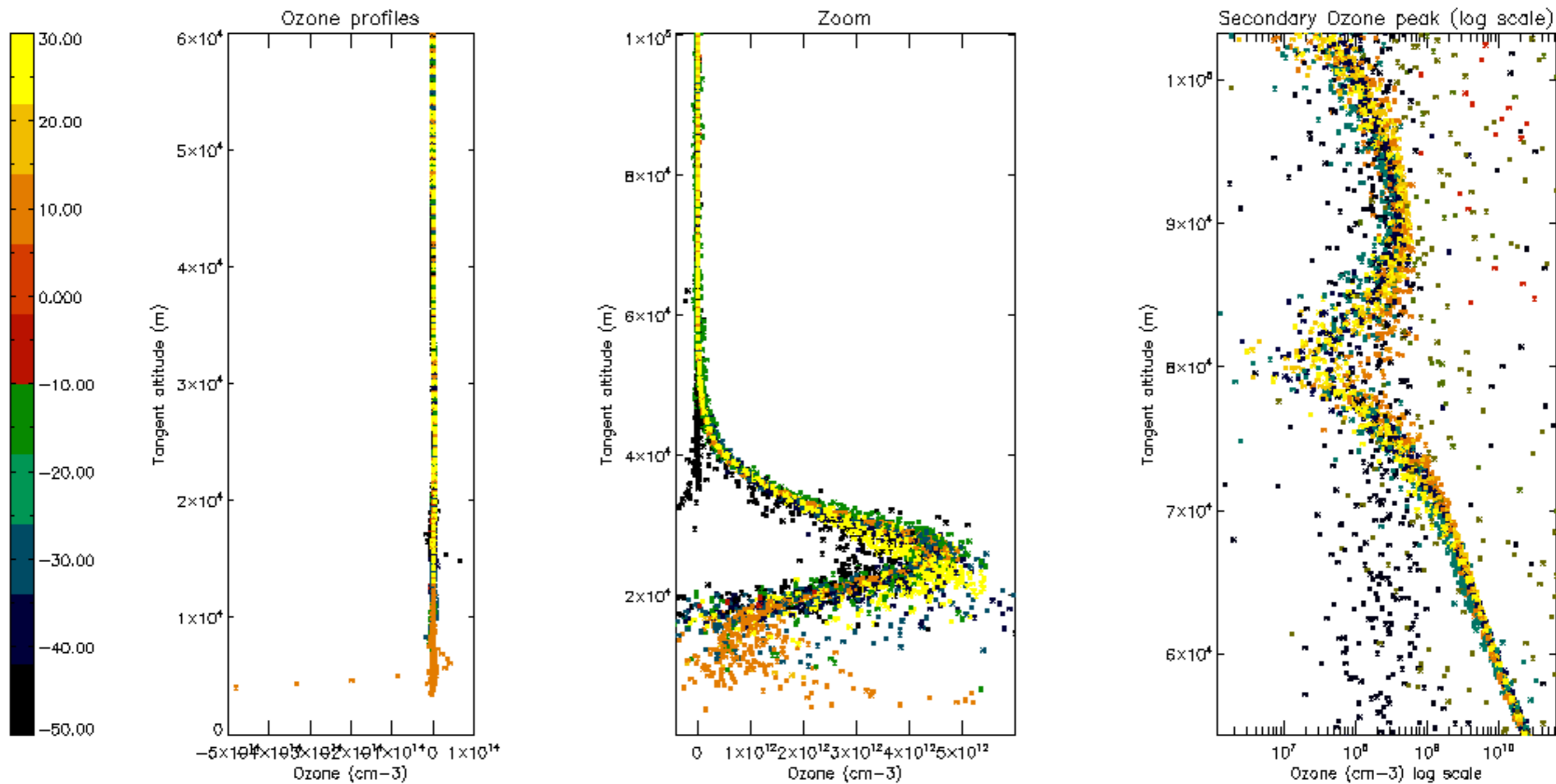


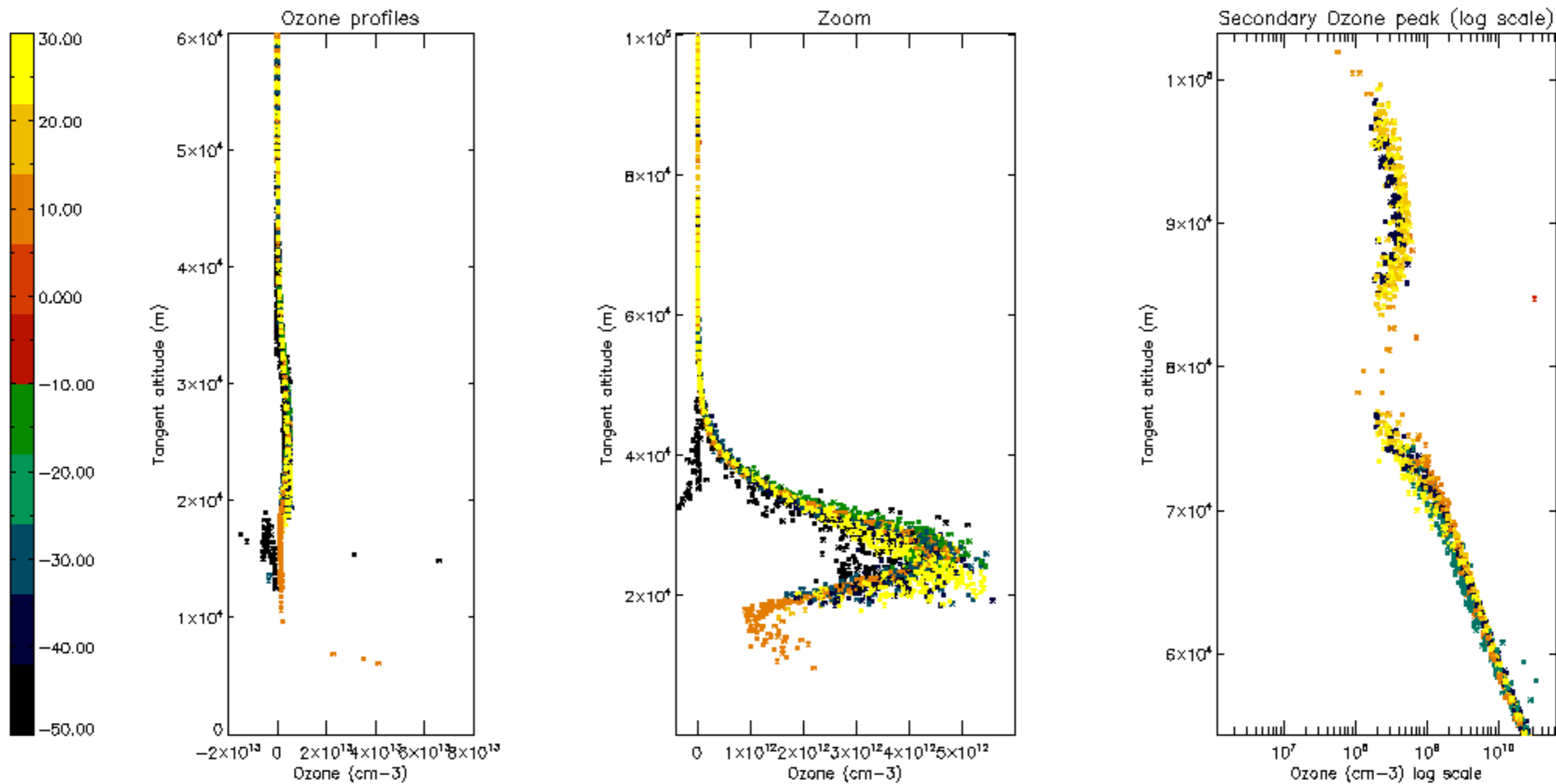
Percentage of star falling outside central band per profile



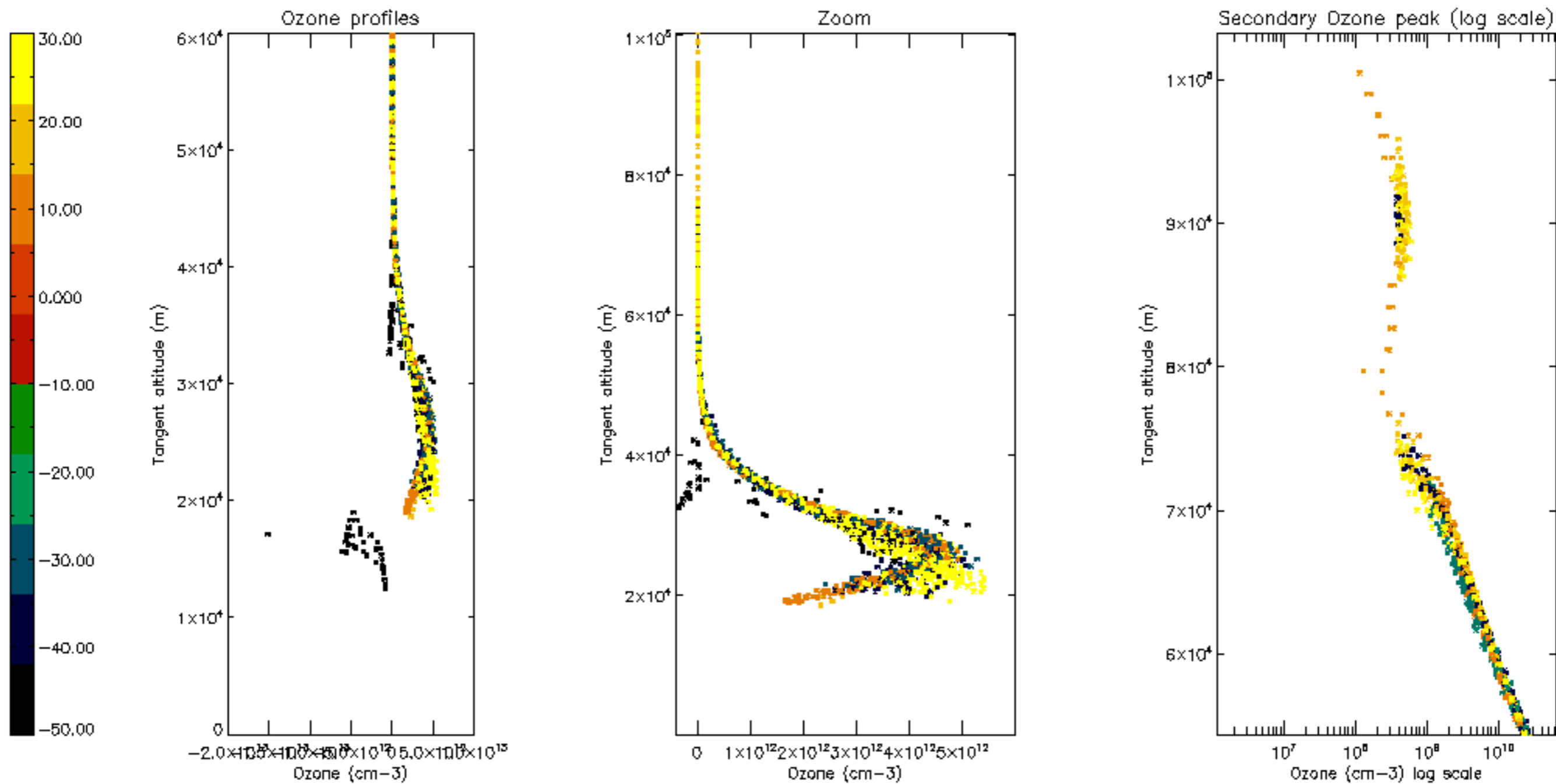
Percentage of saturation errors per profile

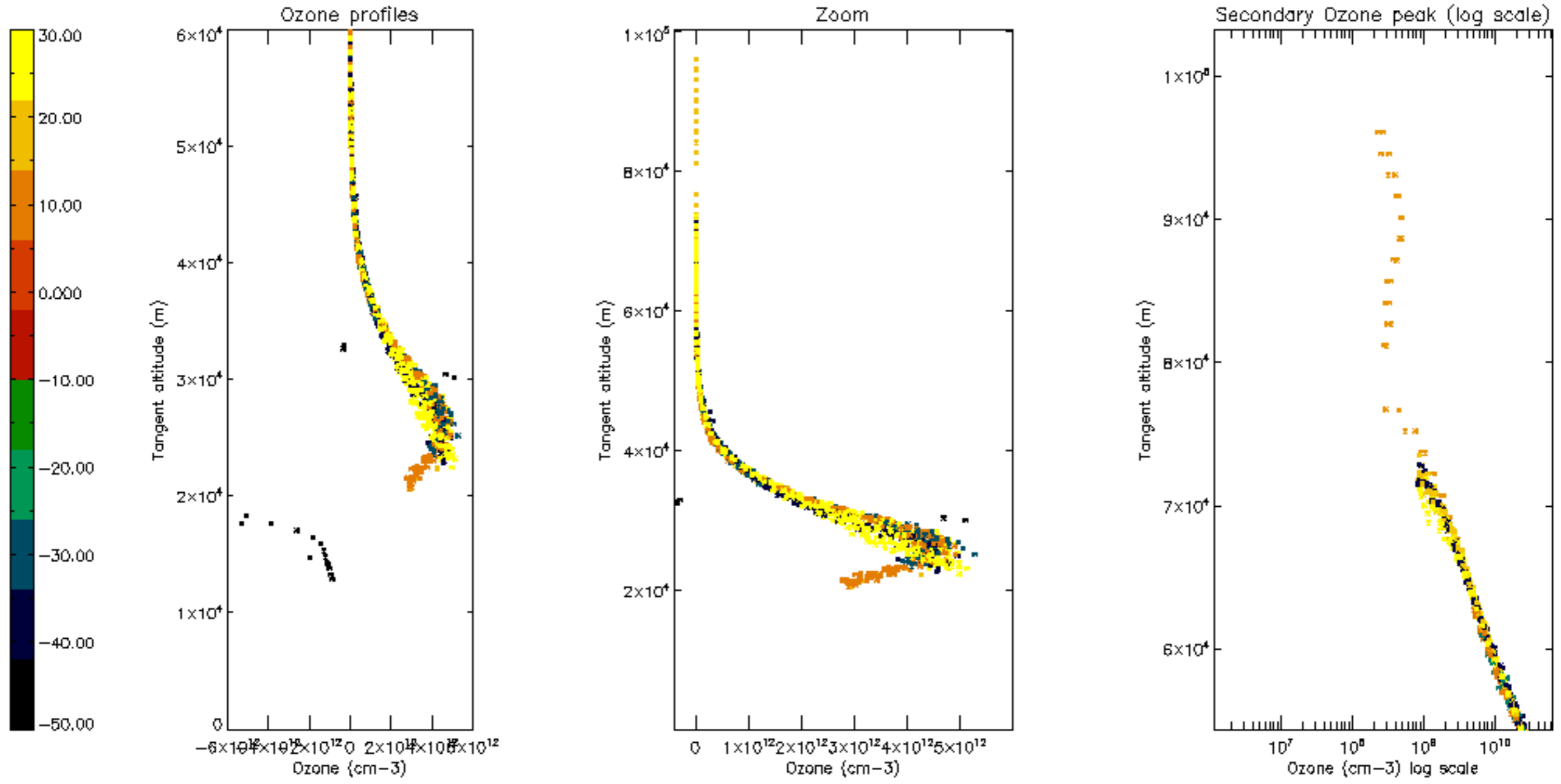


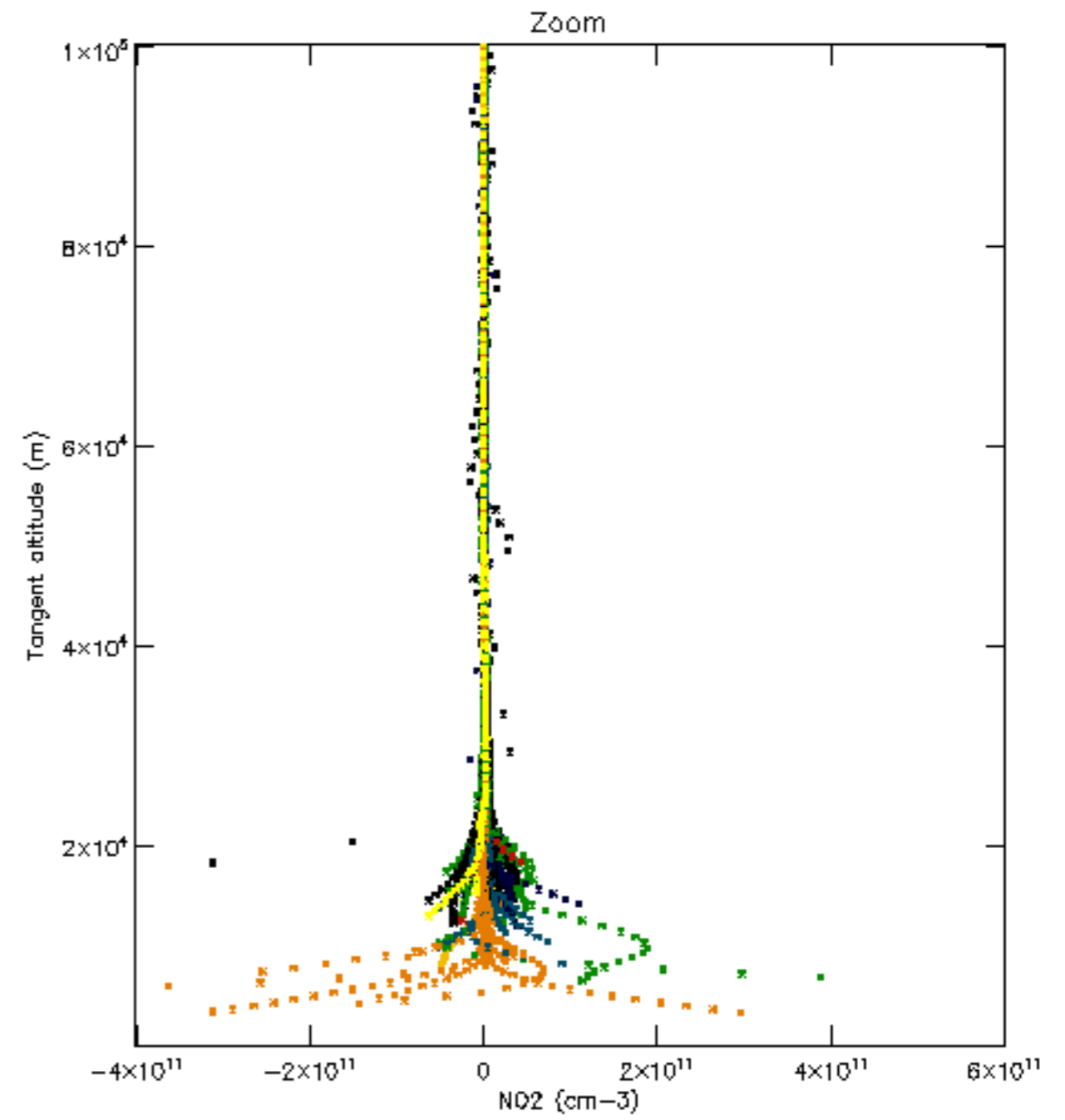
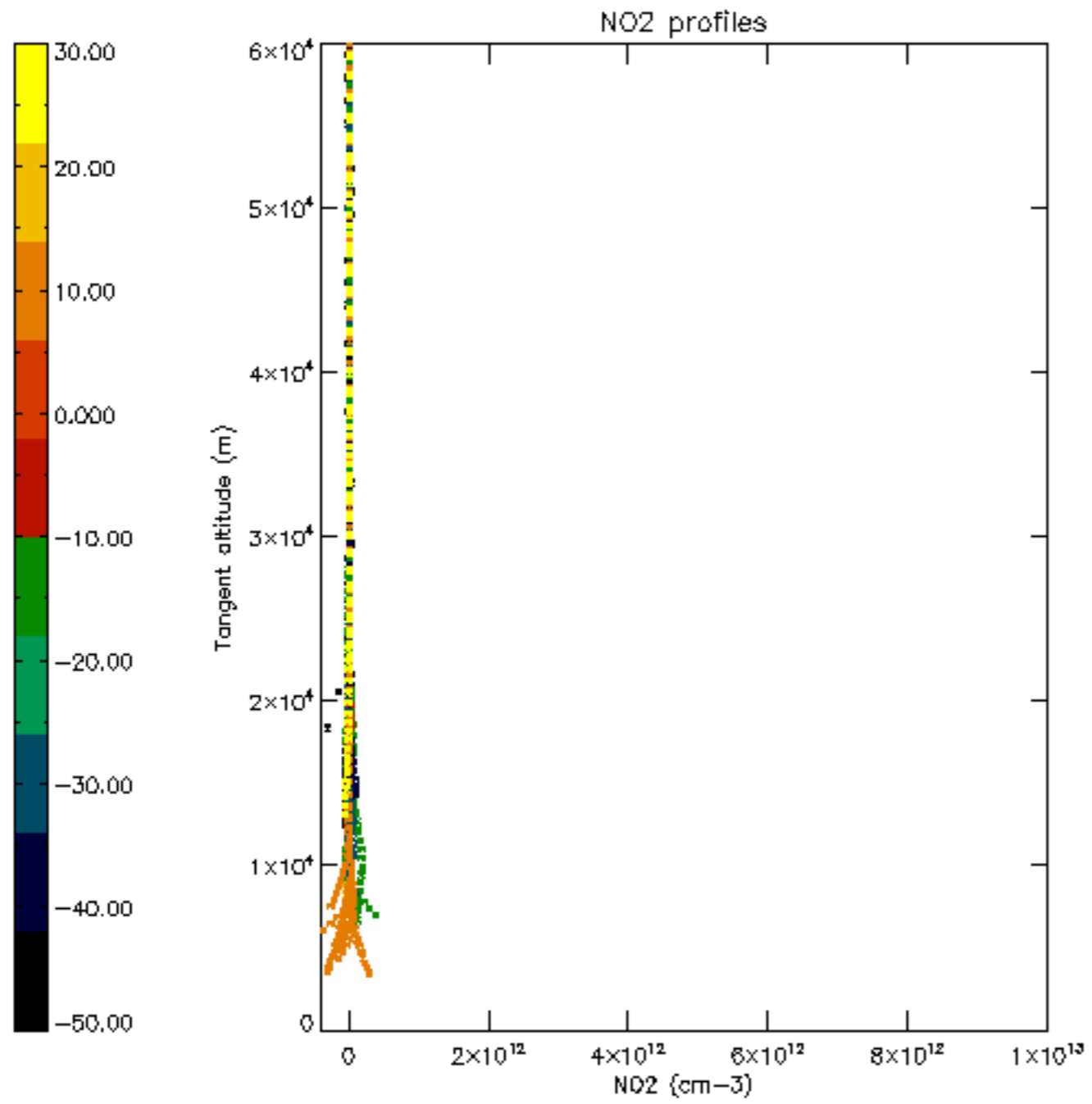


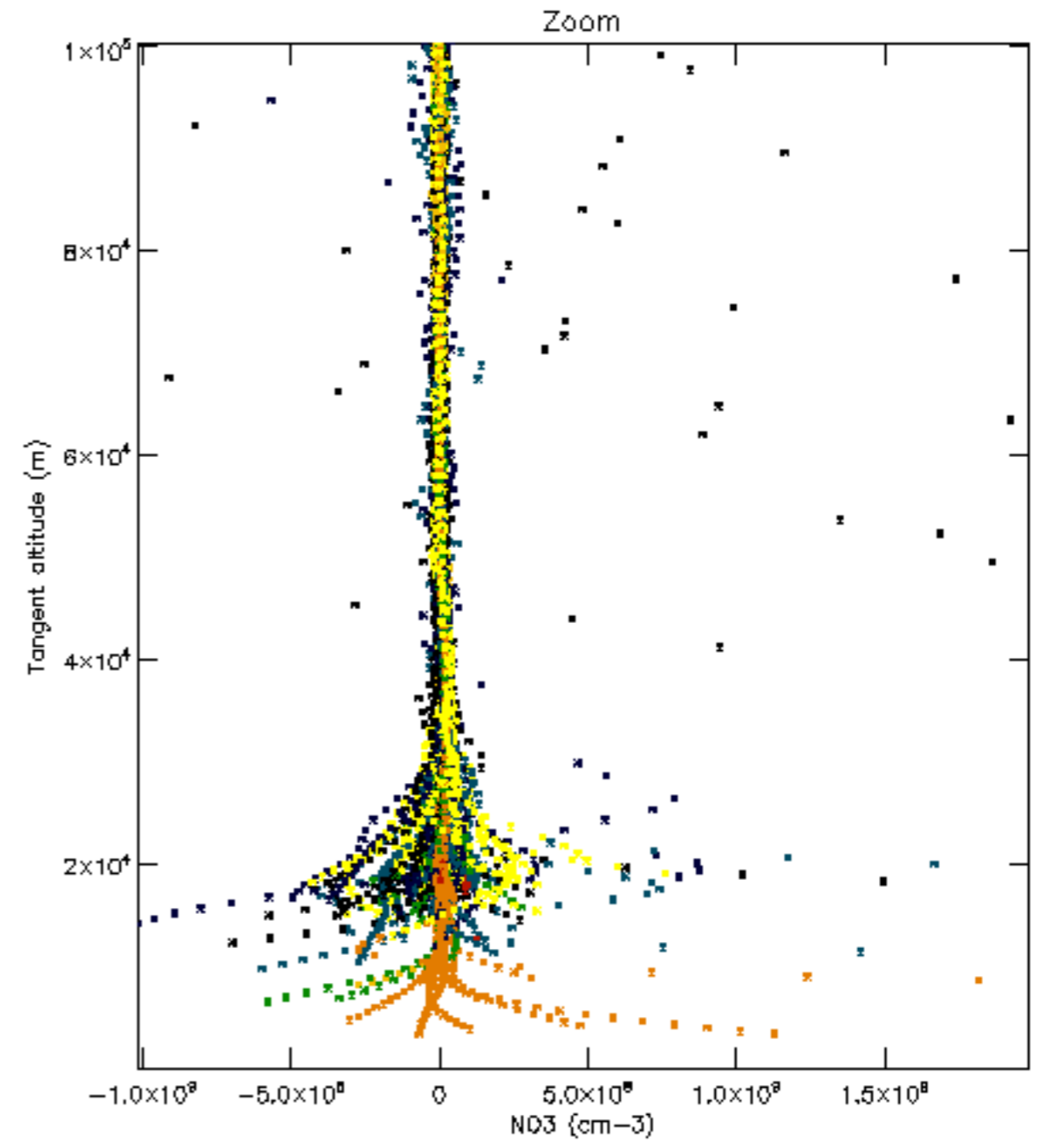
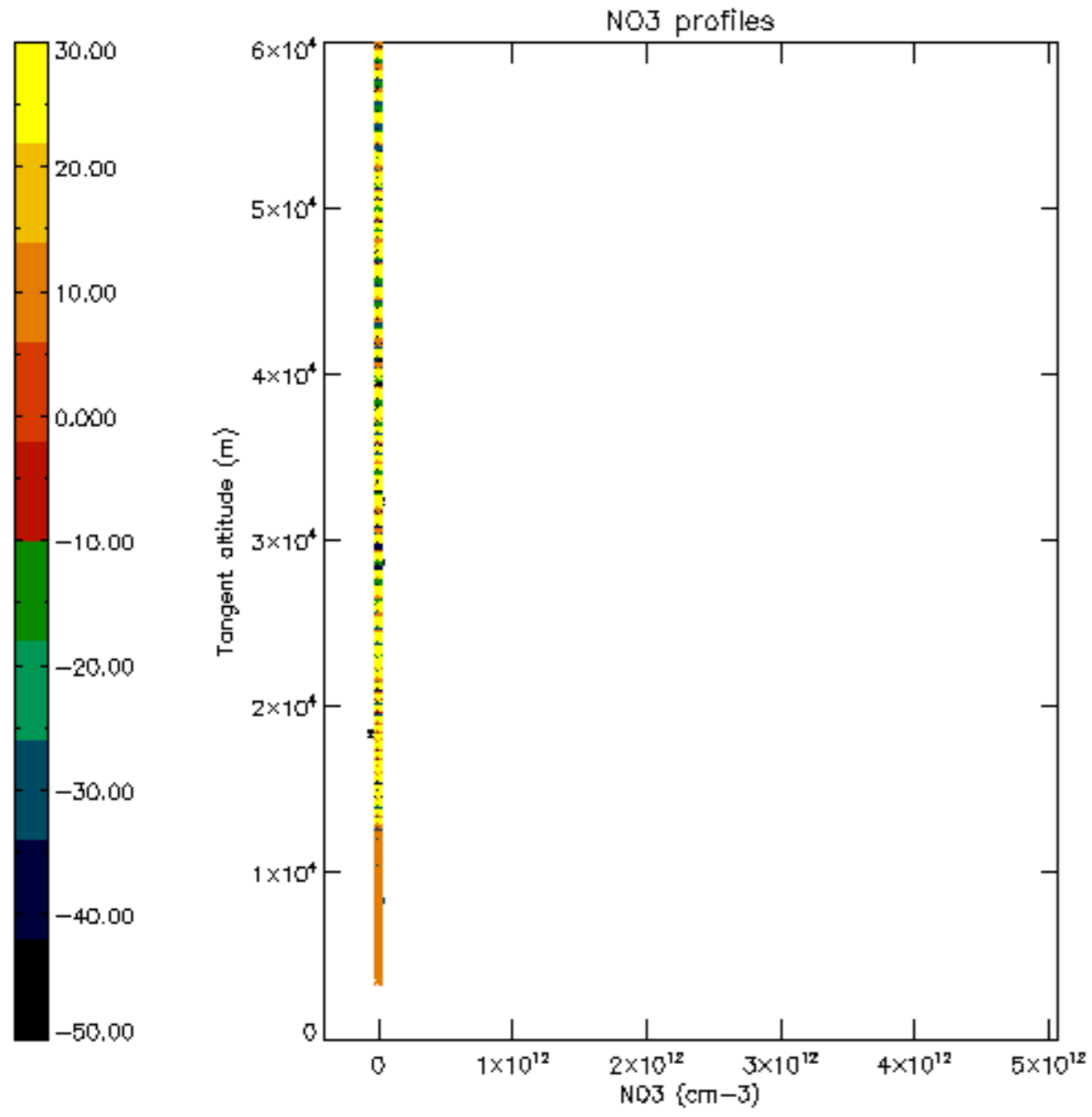


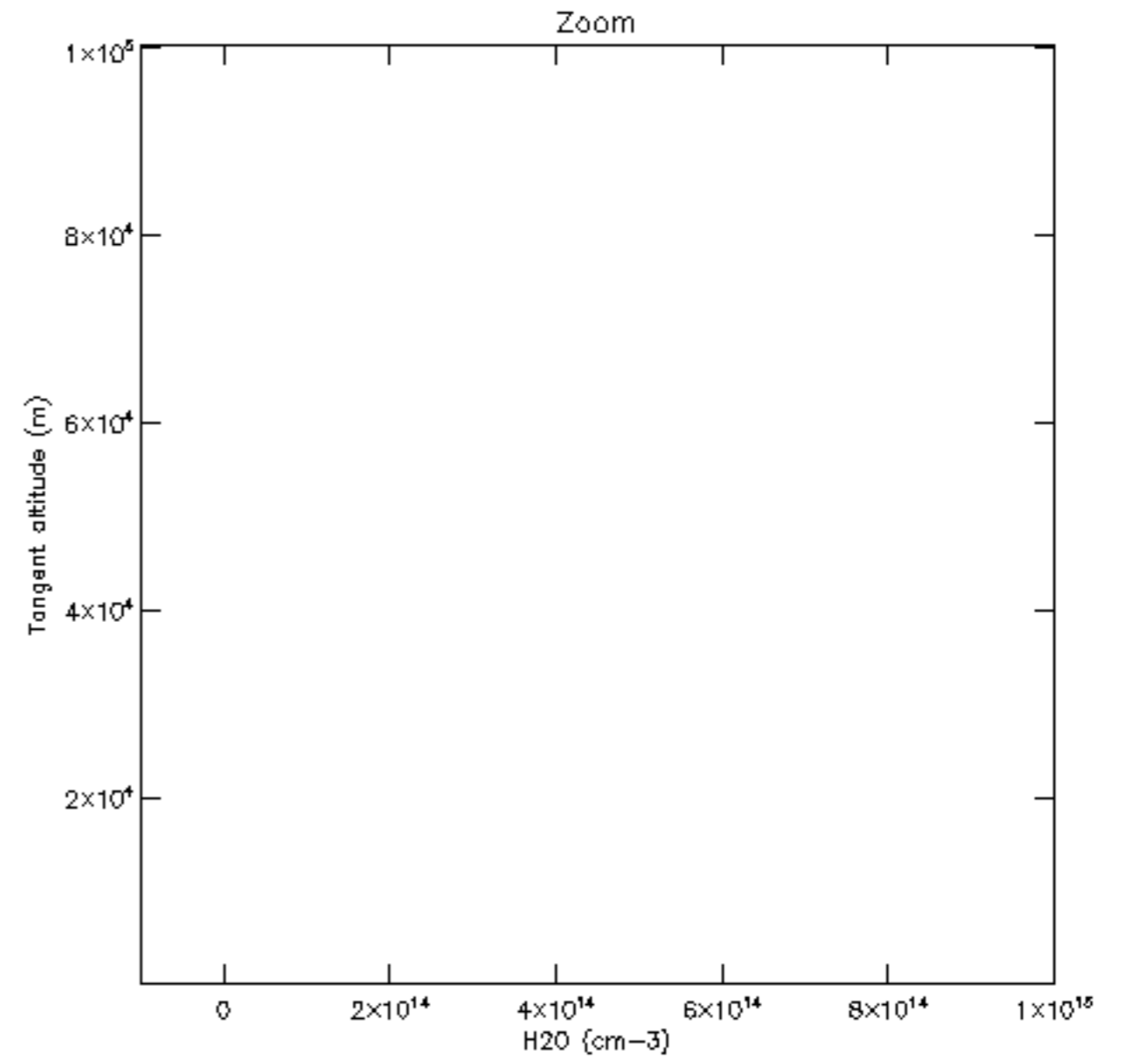
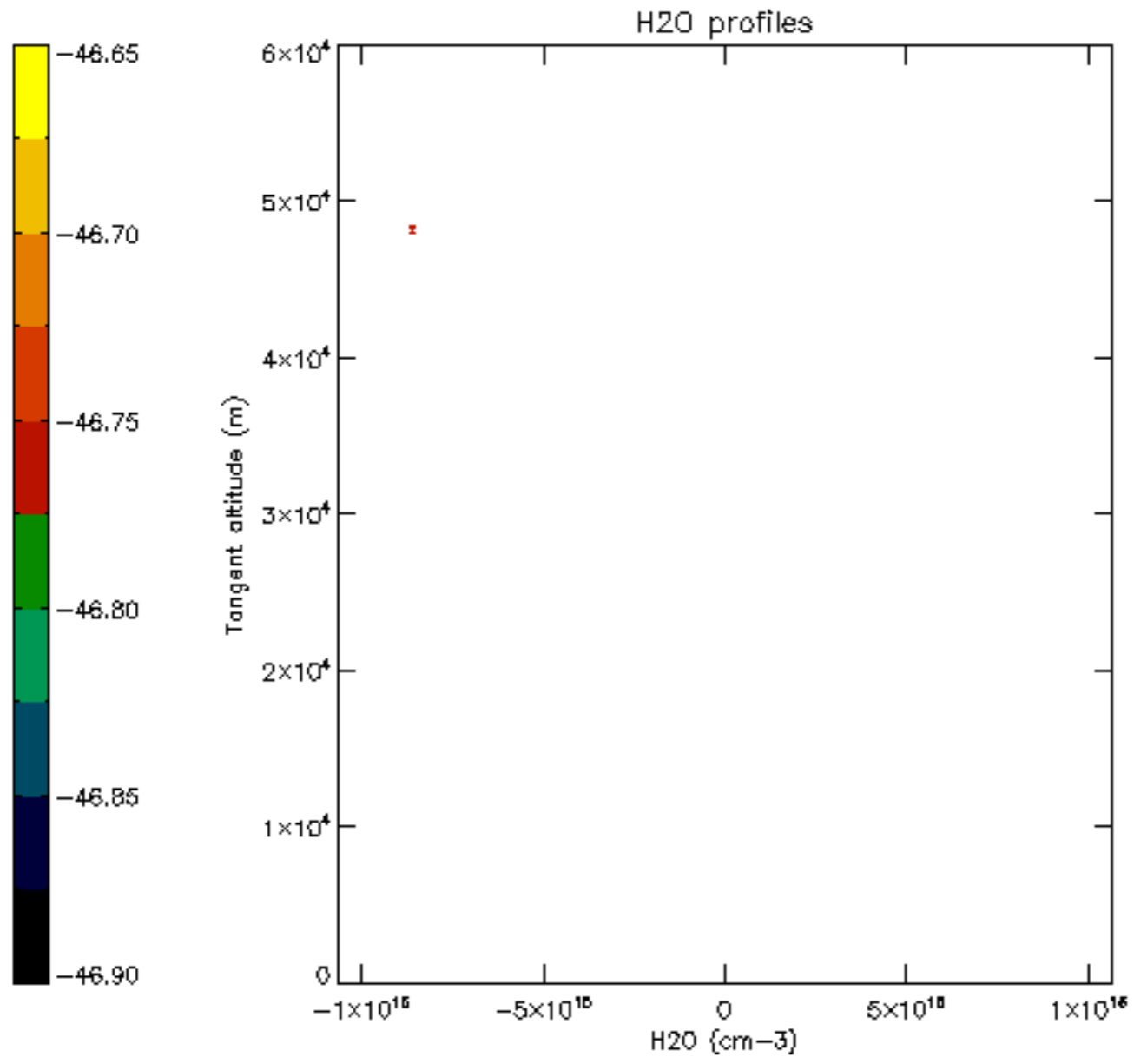


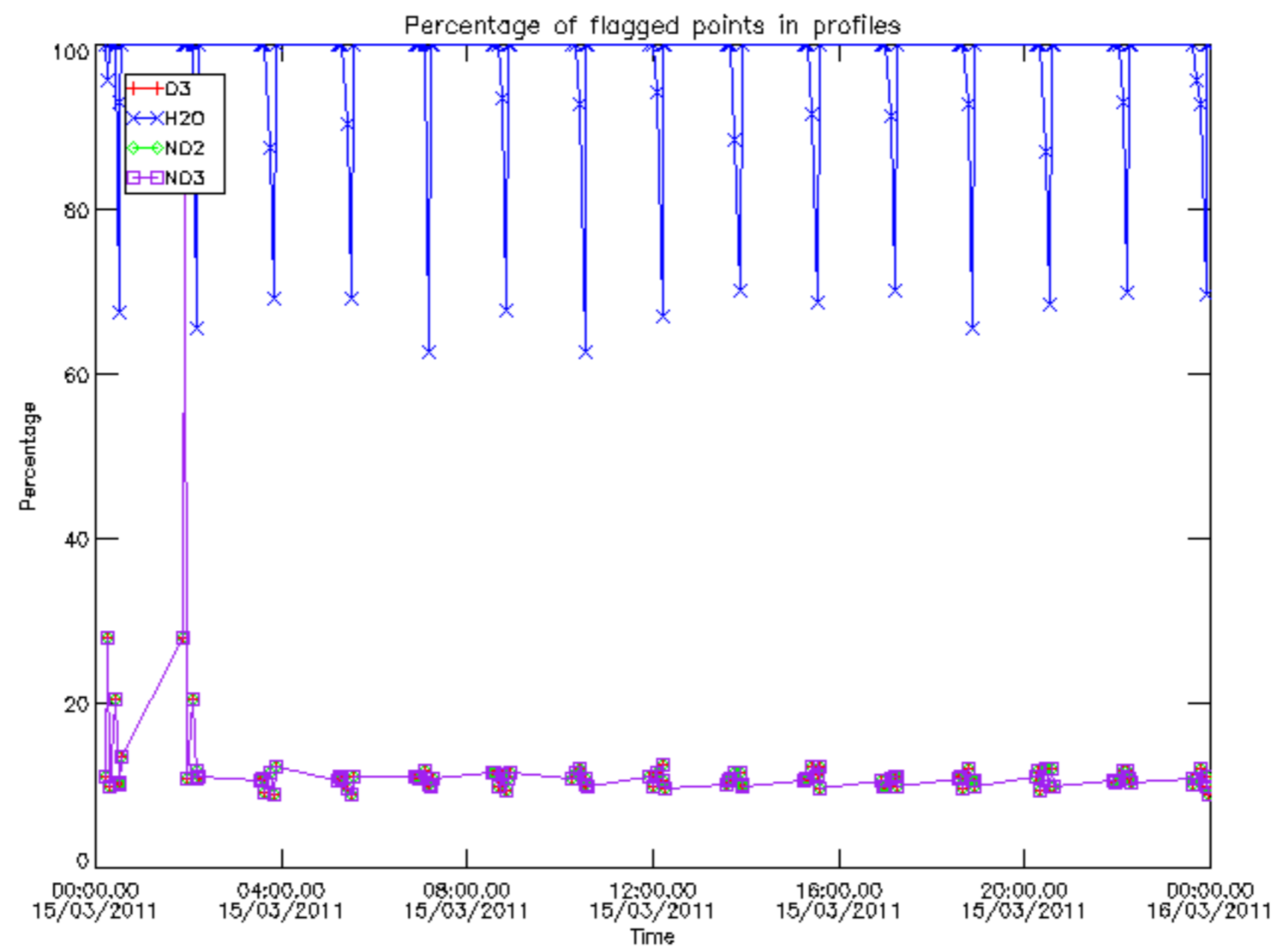




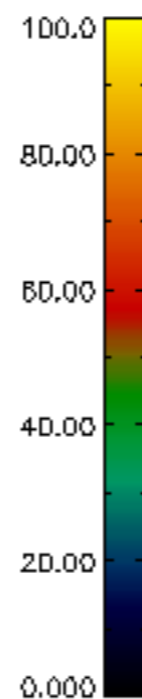
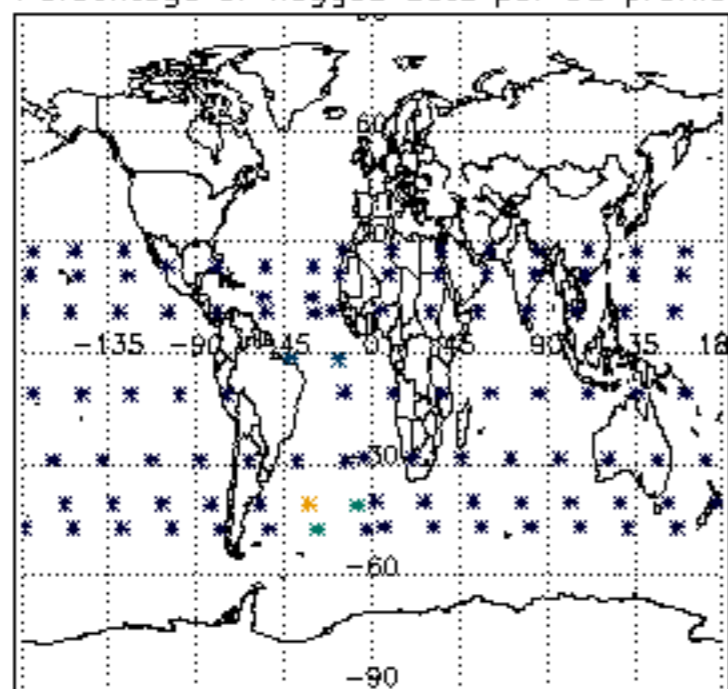




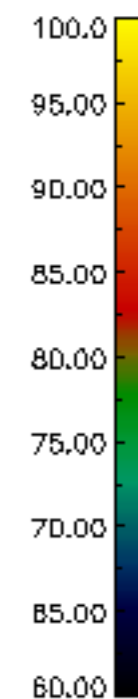
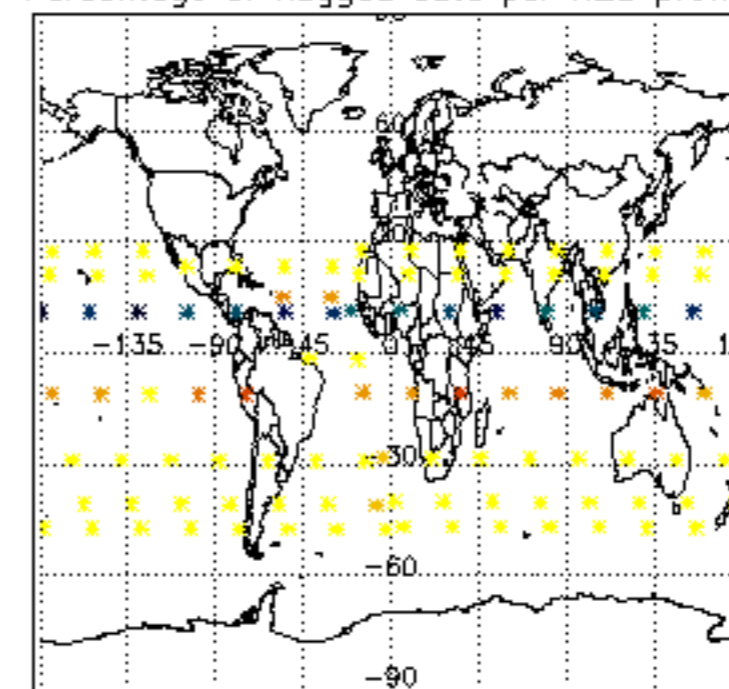




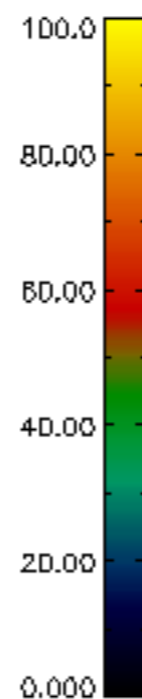
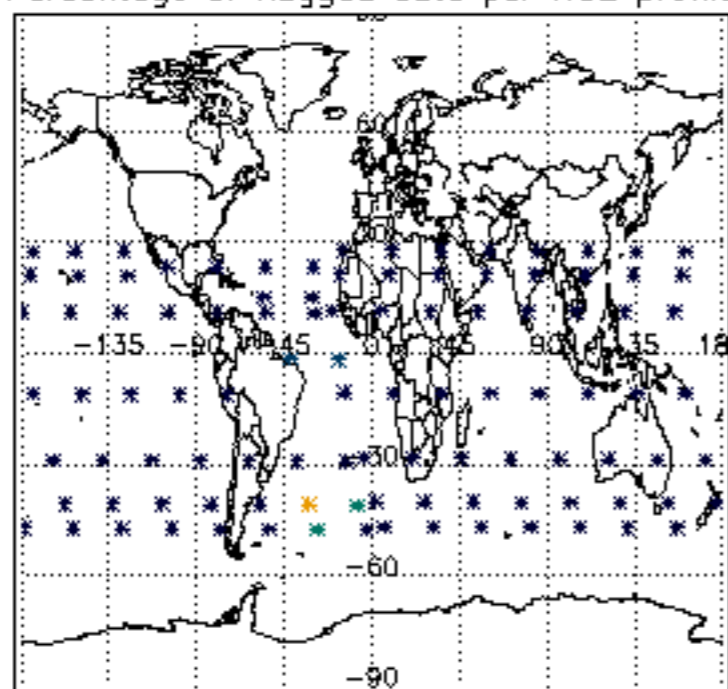
Percentage of flagged data per D3 profile



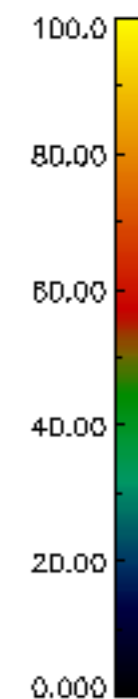
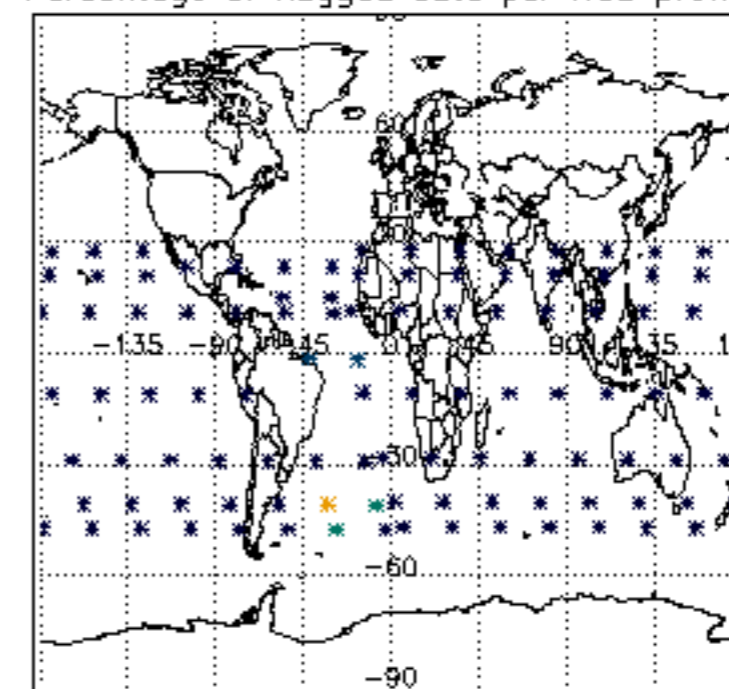
Percentage of flagged data per H2O profile

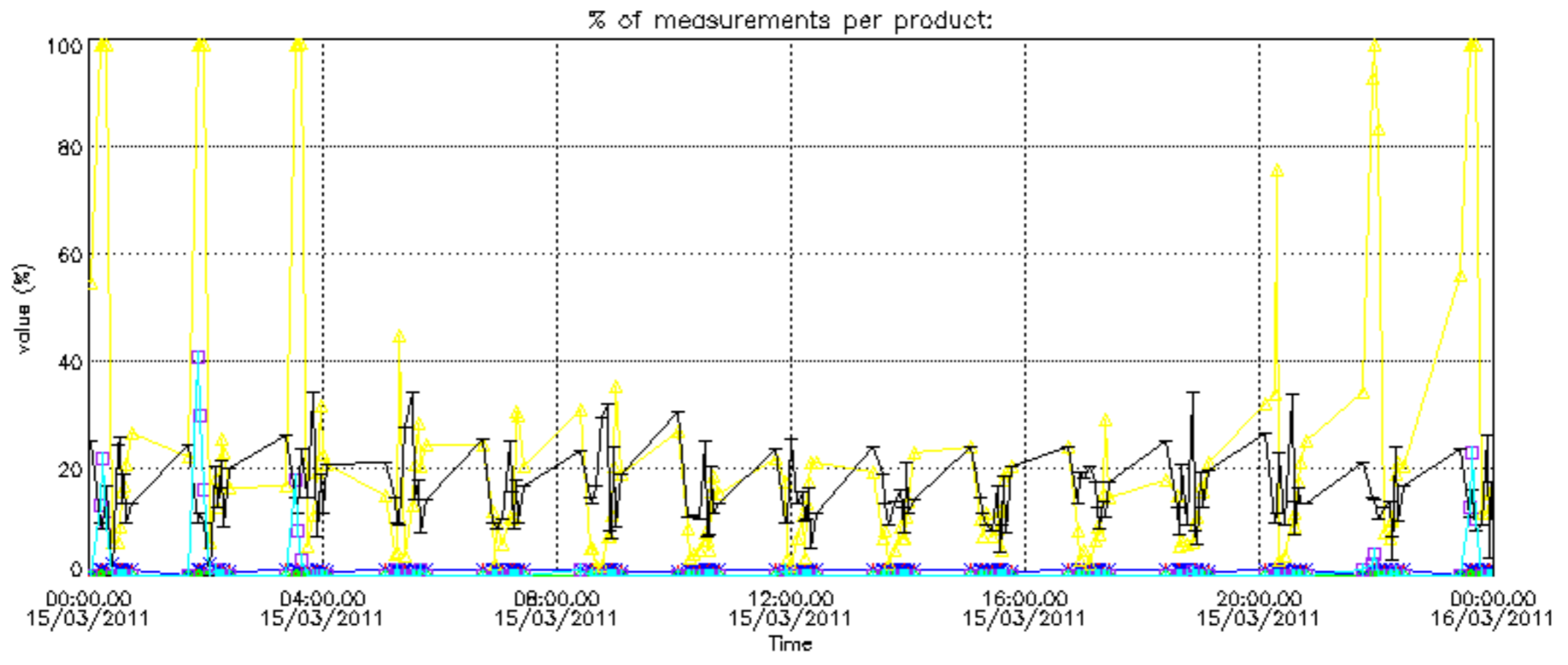


Percentage of flagged data per NO2 profile

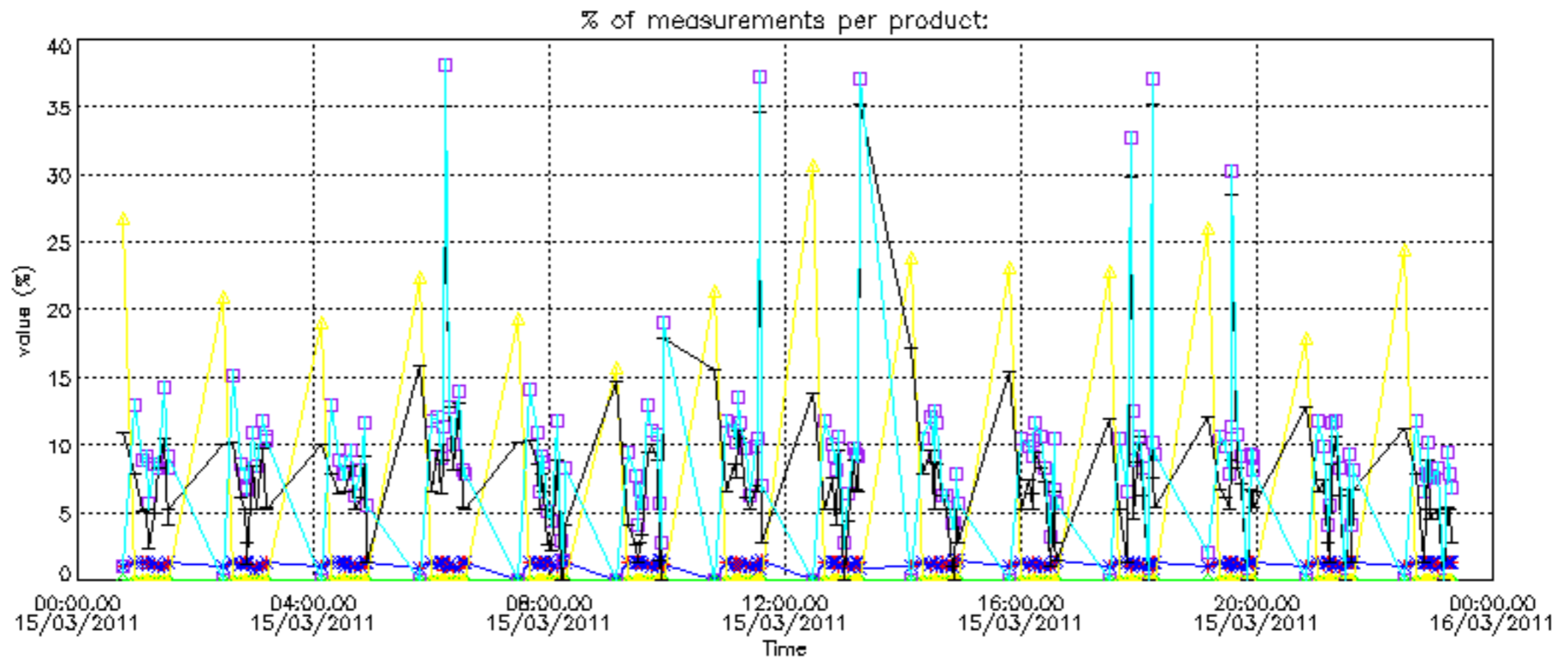


Percentage of flagged data per NO3 profile

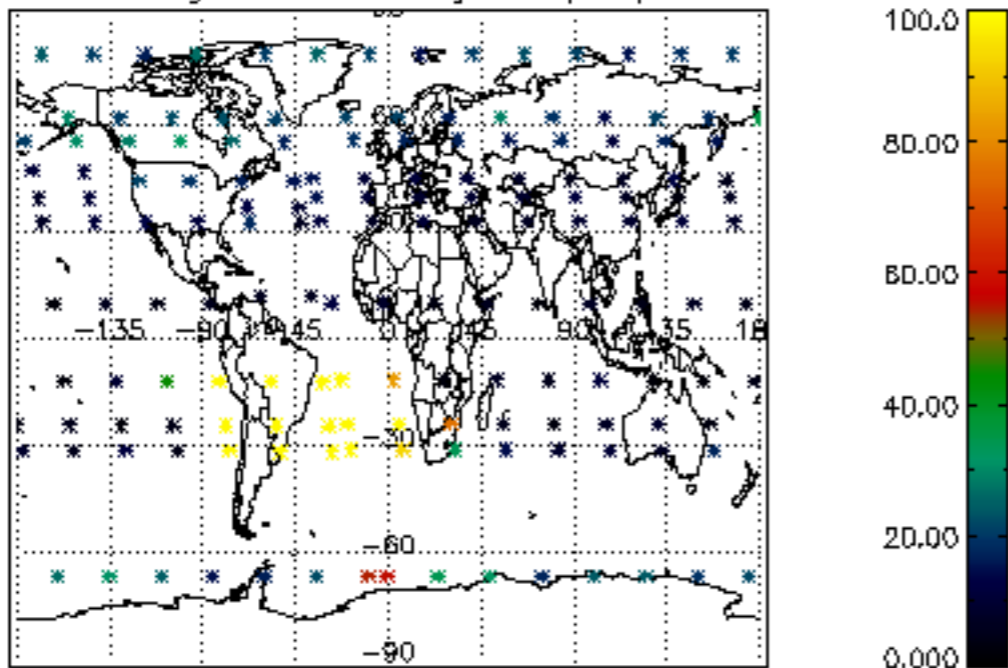




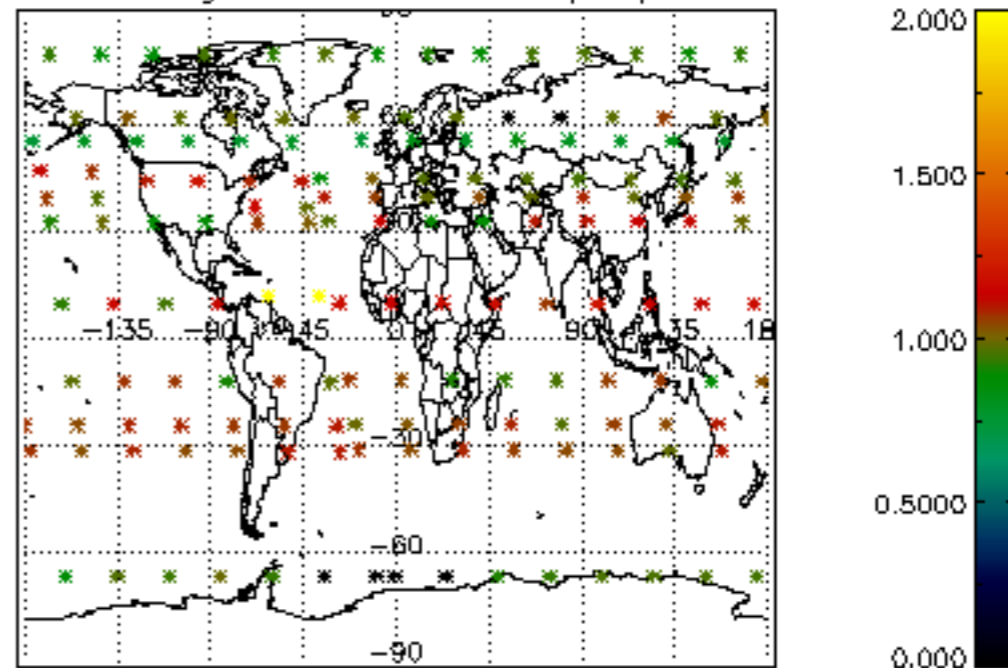




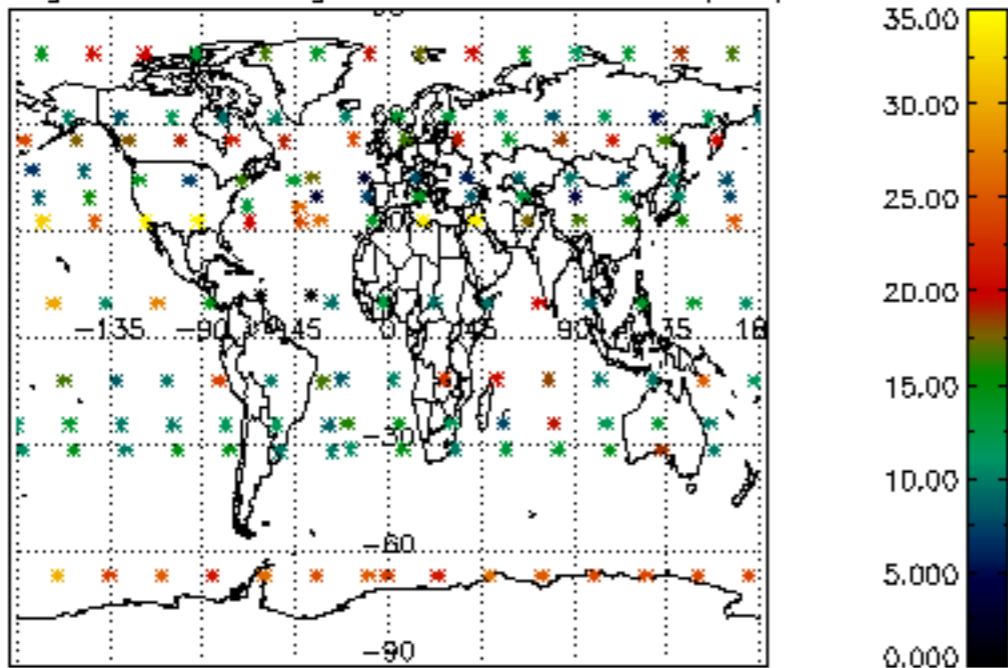
Percentage of cosmic ray hits per profile



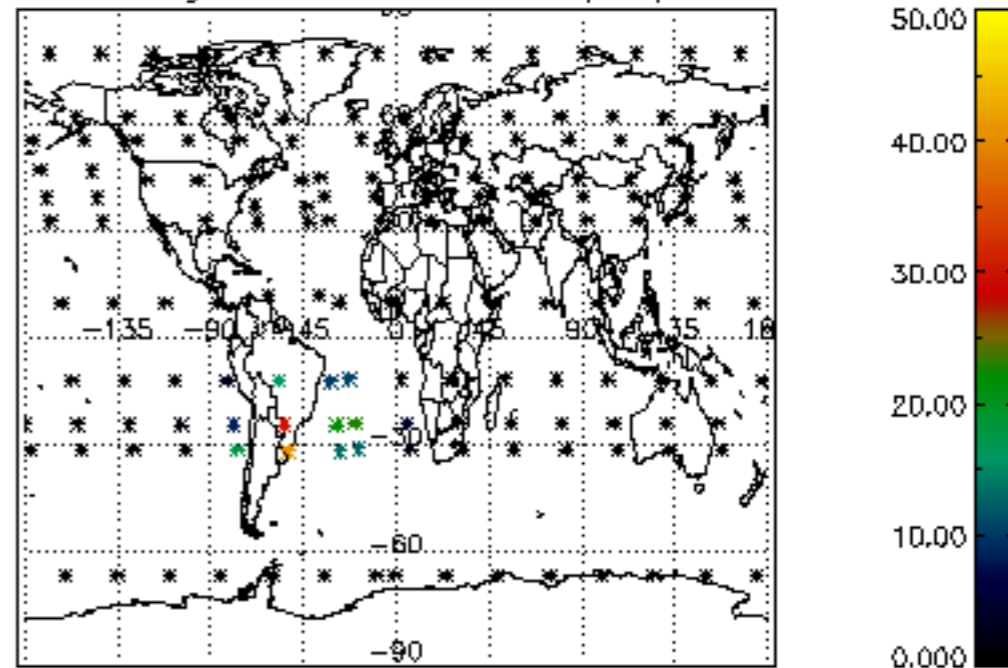
Percentage of datation errors per profile



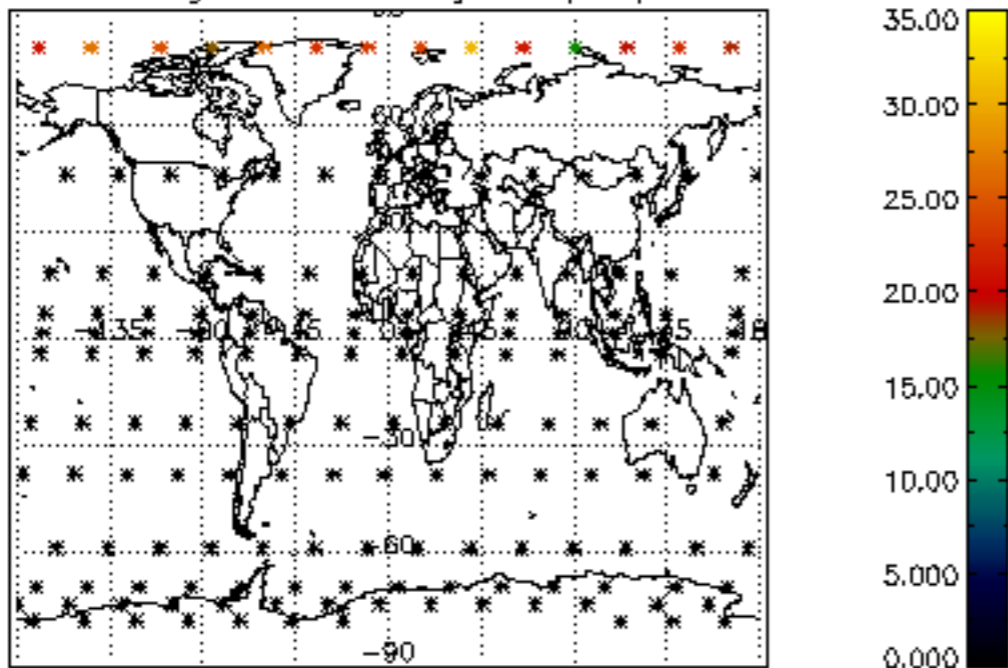
Percentage of star falling outside central band per profile



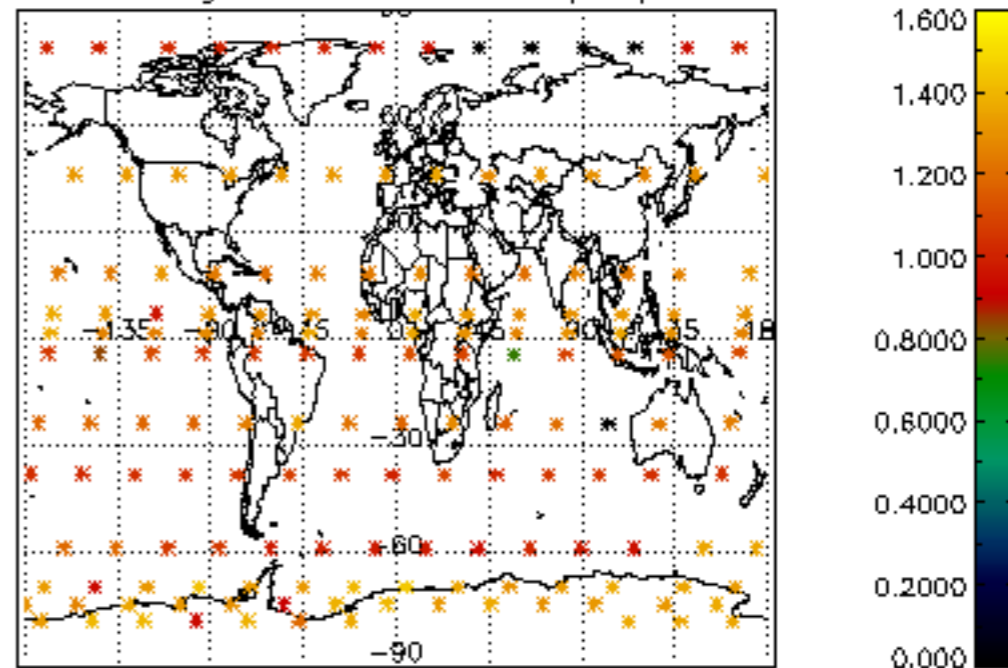
Percentage of saturation errors per profile



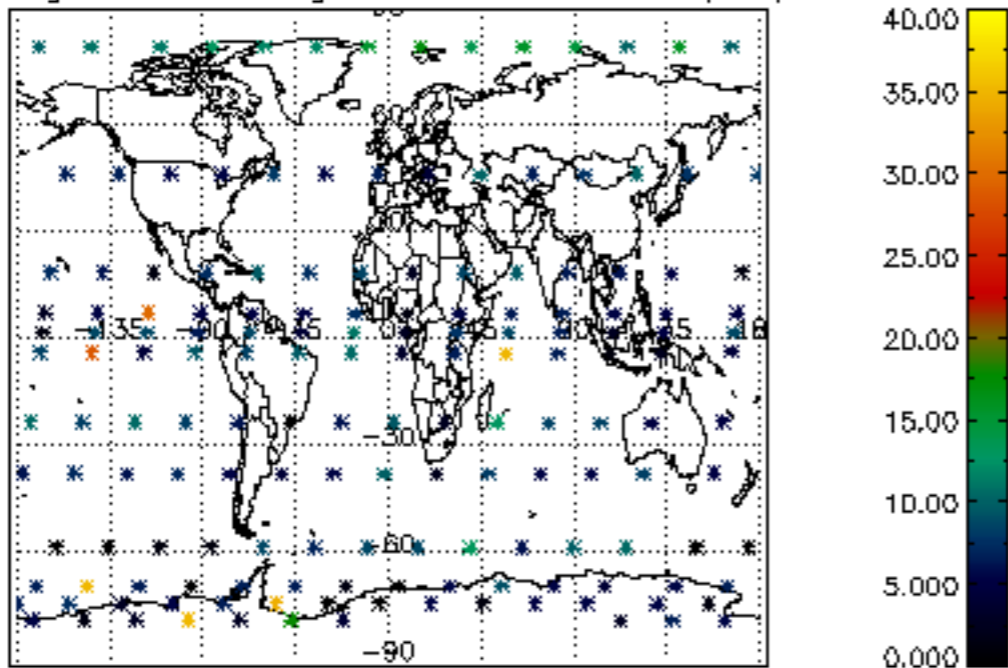
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

