

# 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	23APR2013 20:25:47
Data source version	GOMOS/6.01
Start time of products	08-05-2006 (08MAY2006 00:00:00)
Stop time of products	09-05-2006 (09MAY2006 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__2PRFIN20060508_000447_000000342047_00288_21885_9709.N1	08-MAY-2006 00:04:47	Bright	34.000	60	7Bet UMi	2.0810	3950.0	68	21885	No
2	GOM_NL__2PRFIN20060508_000852_000000322047_00288_21885_9710.N1	08-MAY-2006 00:08:52	Bright	32.000	49	1Alp UMi	1.9900	6300.0	64	21885	No
3	GOM_NL__2PRFIN20060508_001659_000000352047_00288_21885_9711.N1	08-MAY-2006 00:16:59	Bright	34.500	76	27Gam Cas	2.3000	30000.	69	21885	No
4	GOM_NL__2PRFIN20060508_001814_000000522047_00288_21885_9712.N1	08-MAY-2006 00:18:14	Bright	51.500	68	18Alp Cas	2.2250	4500.0	103	21885	No
5	GOM_NL__2PRFIN20060508_002622_000000382047_00288_21885_9713.N1	08-MAY-2006 00:26:22	Bright	38.000	58	21Alp And	2.0730	11000.	76	21885	No
6	GOM_NL__2PRFIN20060508_004443_000000472047_00288_21885_9714.N1	08-MAY-2006 00:44:43	Dark	47.000	18	24Alp PsA	1.1660	9700.0	94	21885	No
7	GOM_NL__2PRFIN20060508_004919_000000552047_00288_21885_9715.N1	08-MAY-2006 00:49:19	Dark	54.500	63	Bet Gru	2.1500	2800.0	109	21885	No
8	GOM_NL__2PRFIN20060508_005034_000000402047_00288_21885_9716.N1	08-MAY-2006 00:50:34	Dark	40.000	31	Alp Gru	1.7340	15200.	80	21885	No
9	GOM_NL__2PRFIN20060508_005250_000000412047_00289_21886_9694.N1	08-MAY-2006 00:52:50	Dark	40.500	148	Alp Tuc	2.8780	4100.0	81	21886	No
10	GOM_NL__2PRFIN20060508_005608_000000402047_00289_21886_9695.N1	08-MAY-2006 00:56:08	Dark	40.000	45	Alp Pav	1.9400	26000.	80	21886	No
11	GOM_NL__2PRFIN20060508_010213_000000412047_00289_21886_9696.N1	08-MAY-2006 01:02:13	Straylight	41.000	43	Alp TrA	1.9100	4250.0	82	21886	No
12	GOM_NL__2PRFIN20060508_010425_000000362047_00289_21886_9697.N1	08-MAY-2006 01:04:25	Straylight	36.000	134	Bet TrA	2.8100	6600.0	72	21886	No
13	GOM_NL__2PRFIN20060508_010619_000000442047_00289_21886_9698.N1	08-MAY-2006 01:06:19	Straylight	43.500	4	Alp1Cen	-0.010000	5800.0	87	21886	No
14	GOM_NL__2PRFIN20060508_010949_000000402047_00289_21886_9699.N1	08-MAY-2006 01:09:49	Straylight	40.000	78	Alp Lup	2.3040	28000.	80	21886	No
15	GOM_NL__2PRFIN20060508_011120_000000392047_00289_21886_9700.N1	08-MAY-2006 01:11:20	Straylight	39.000	81	Eta Cen	2.3560	28000.	78	21886	No
16	GOM_NL__2PRFIN20060508_011320_000000392047_00289_21886_9701.N1	08-MAY-2006 01:13:20	Tw_i_and_stray	39.000	54	5The Cen	2.0550	4500.0	78	21886	No
17	GOM_NL__2PRFIN20060508_011732_000000372047_00289_21886_9702.N1	08-MAY-2006 01:17:32	Bright	36.500	169	46Gam Hya	2.9910	4700.0	73	21886	No
18	GOM_NL__2PRFIN20060508_012048_000000382047_00289_21886_9703.N1	08-MAY-2006 01:20:48	Bright	38.000	15	67Alp Vir	0.97600	28000.	76	21886	No
19	GOM_NL__2PRFIN20060508_012709_000000352047_00289_21886_9704.N1	08-MAY-2006 01:27:09	Bright	35.000	138	47Eps Vir	2.8280	4700.0	70	21886	No
20	GOM_NL__2PRFIN20060508_012905_000000362047_00289_21886_9705.N1	08-MAY-2006 01:29:05	Bright	35.500	111	8Eta Boo	2.6800	6000.0	71	21886	No
21	GOM_NL__2PRFIN20060508_013446_000000342047_00289_21886_9706.N1	08-MAY-2006 01:34:46	Bright	33.500	152	12Alp2CVn	2.8900	11000.	67	21886	No
22	GOM_NL__2PRFIN20060508_013755_000000372047_00289_21886_9707.N1	08-MAY-2006 01:37:55	Bright	36.500	39	85Eta UMa	1.8540	24000.	73	21886	No
23	GOM_NL__2PRFIN20060508_013923_000000342047_00289_21886_9708.N1	08-MAY-2006 01:39:23	Bright	33.500	55	79Zet UMa	2.0600	10200.	67	21886	No
24	GOM_NL__2PRFIN20060508_014523_000000402047_00289_21886_9709.N1	08-MAY-2006 01:45:23	Bright	40.000	60	7Bet UMi	2.0810	3950.0	80	21886	No
25	GOM_NL__2PRFIN20060508_014927_000000332047_00289_21886_9710.N1	08-MAY-2006 01:49:27	Bright	33.000	49	1Alp UMi	1.9900	6300.0	66	21886	No
26	GOM_NL__2PRFIN20060508_015735_000000342047_00289_21886_9711.N1	08-MAY-2006 01:57:35	Bright	34.000	76	27Gam Cas	2.3000	30000.	68	21886	No
27	GOM_NL__2PRFIN20060508_015850_000000342047_00289_21886_9712.N1	08-MAY-2006 01:58:50	Bright	33.500	68	18Alp Cas	2.2250	4500.0	67	21886	No
28	GOM_NL__2PRFIN20060508_020658_000000372047_00289_21886_9713.N1	08-MAY-2006 02:06:58	Bright	37.000	58	21Alp And	2.0730	11000.	74	21886	No
29	GOM_NL__2PRFIN20060508_022520_000000452047_00289_21886_9714.N1	08-MAY-2006 02:25:20	Dark	44.500	18	24Alp PsA	1.1660	9700.0	89	21886	No
30	GOM_NL__2PRFIN20060508_022955_000000482047_00289_21886_9715.N1	08-MAY-2006 02:29:55	Dark	48.000	63	Bet Gru	2.1500	2800.0	96	21886	No
31	GOM_NL__2PRFIN20060508_023110_000000422047_00289_21886_9716.N1	08-MAY-2006 02:31:10	Dark	41.500	31	Alp Gru	1.7340	15200.	83	21886	No
32	GOM_NL__2PRFIN20060508_023326_000000452047_00290_21887_9694.N1	08-MAY-2006 02:33:26	Dark	45.000	148	Alp Tuc	2.8780	4100.0	90	21887	No
33	GOM_NL__2PRFIN20060508_023645_000000422047_00290_21887_9695.N1	08-MAY-2006 02:36:45	Dark	41.500	45	Alp Pav	1.9400	26000.	83	21887	No
34	GOM_NL__2PRFIN20060508_024250_000000412047_00290_21887_9696.N1	08-MAY-2006 02:42:50	Straylight	41.000	43	Alp TrA	1.9100	4250.0	82	21887	No
35	GOM_NL__2PRFIN20060508_024501_000000392047_00290_21887_9697.N1	08-MAY-2006 02:45:01	Straylight	38.500	134	Bet TrA	2.8100	6600.0	77	21887	No
36	GOM_NL__2PRFIN20060508_024655_000000492047_00290_21887_9698.N1	08-MAY-2006 02:46:55	Straylight	49.000	4	Alp1Cen	-0.010000	5800.0	98	21887	No
37	GOM_NL__2PRFIN20060508_025025_000000392047_00290_21887_9699.N1	08-MAY-2006 02:50:25	Straylight	39.000	78	Alp Lup	2.3040	28000.	78	21887	No
38	GOM_NL__2PRFIN20060508_025156_000000392047_00290_21887_9700.N1	08-MAY-2006 02:51:56	Straylight	39.000	81	Eta Cen	2.3560	28000.	78	21887	No
39	GOM_NL__2PRFIN20060508_025356_000000462047_00290_21887_9701.N1	08-MAY-2006 02:53:56	Tw_i_and_stray	45.500	54	5The Cen	2.0550	4500.0	91	21887	No
40	GOM_NL__2PRFIN20060508_025808_000000372047_00290_21887_9702.N1	08-MAY-2006 02:58:08	Bright	36.500	169	46Gam Hya	2.9910	4700.0	73	21887	No
41	GOM_NL__2PRFIN20060508_030124_000000382047_00290_21887_9703.N1	08-MAY-2006 03:01:24	Bright	38.000	15	67Alp Vir	0.97600	28000.	76	21887	No
42	GOM_NL__2PRFIN20060508_030745_000000362047_00290_21887_9704.N1	08-MAY-2006 03:07:45	Bright	35.500	138	47Eps Vir	2.8280	4700.0	71	21887	No







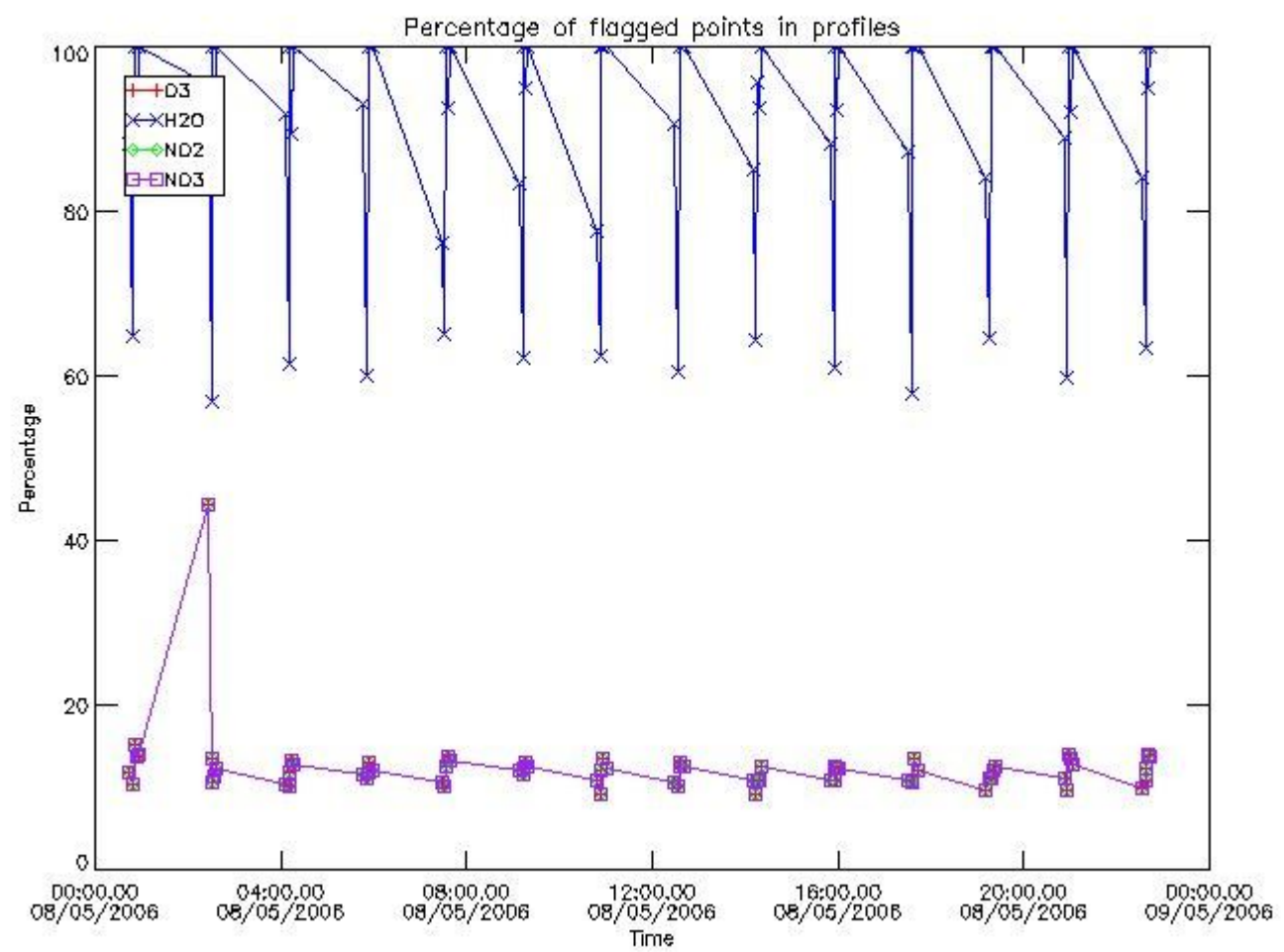


279	GOM_NL__2PRFIN20060508_205202_000000462047_00300_21897_9736.N1	08-MAY-2006 20:52:02	Dark	45.500	18	24Alp PsA	1.1660	9700.0	91	21897	No
280	GOM_NL__2PRFIN20060508_205636_000000532047_00300_21897_9737.N1	08-MAY-2006 20:56:36	Dark	52.500	63	Bet Gru	2.1500	2800.0	105	21897	No
281	GOM_NL__2PRFIN20060508_205753_000000442047_00300_21897_9738.N1	08-MAY-2006 20:57:53	Dark	43.500	31	Alp Gru	1.7340	15200.	87	21897	No
282	GOM_NL__2PRFIN20060508_210006_000000382047_00301_21898_9716.N1	08-MAY-2006 21:00:06	Dark	38.000	148	Alp Tuc	2.8780	4100.0	76	21898	No
283	GOM_NL__2PRFIN20060508_210328_000000402047_00301_21898_9717.N1	08-MAY-2006 21:03:28	Dark	40.000	45	Alp Pav	1.9400	26000.	80	21898	No
284	GOM_NL__2PRFIN20060508_210929_000000402047_00301_21898_9718.N1	08-MAY-2006 21:09:29	Straylight	40.000	43	Alp TrA	1.9100	4250.0	80	21898	No
285	GOM_NL__2PRFIN20060508_211140_000000372047_00301_21898_9719.N1	08-MAY-2006 21:11:40	Straylight	37.000	134	Bet TrA	2.8100	6600.0	74	21898	No
286	GOM_NL__2PRFIN20060508_211333_000000492047_00301_21898_9720.N1	08-MAY-2006 21:13:33	Straylight	48.500	4	Alp1Cen	-0.010000	5800.0	97	21898	No
287	GOM_NL__2PRFIN20060508_211703_000000392047_00301_21898_9721.N1	08-MAY-2006 21:17:03	Straylight	38.500	78	Alp Lup	2.3040	28000.	77	21898	No
288	GOM_NL__2PRFIN20060508_211834_000000392047_00301_21898_9722.N1	08-MAY-2006 21:18:34	Straylight	39.000	81	Eta Cen	2.3560	28000.	78	21898	No
289	GOM_NL__2PRFIN20060508_212034_000000432047_00301_21898_9723.N1	08-MAY-2006 21:20:34	Twilight	42.500	54	5The Cen	2.0550	4500.0	85	21898	No
290	GOM_NL__2PRFIN20060508_212801_000000382047_00301_21898_9724.N1	08-MAY-2006 21:28:01	Bright	38.000	15	67Alp Vir	0.97600	28000.	76	21898	No
291	GOM_NL__2PRFIN20060508_213421_000000352047_00301_21898_9725.N1	08-MAY-2006 21:34:21	Bright	34.500	138	47Eps Vir	2.8280	4700.0	69	21898	No
292	GOM_NL__2PRFIN20060508_213615_000000362047_00301_21898_9726.N1	08-MAY-2006 21:36:15	Bright	35.500	111	8Eta Boo	2.6800	6000.0	71	21898	No
293	GOM_NL__2PRFIN20060508_214158_000000342047_00301_21898_9727.N1	08-MAY-2006 21:41:58	Bright	34.000	152	12Alp2CVn	2.8900	11000.	68	21898	No
294	GOM_NL__2PRFIN20060508_214505_000000372047_00301_21898_9728.N1	08-MAY-2006 21:45:05	Bright	36.500	39	85Eta UMa	1.8540	24000.	73	21898	No
295	GOM_NL__2PRFIN20060508_214634_000000372047_00301_21898_9729.N1	08-MAY-2006 21:46:34	Bright	36.500	55	79Zet UMa	2.0600	10200.	73	21898	No
296	GOM_NL__2PRFIN20060508_215232_000000362047_00301_21898_9730.N1	08-MAY-2006 21:52:32	Bright	36.000	60	7Bet UMi	2.0810	3950.0	72	21898	No
297	GOM_NL__2PRFIN20060508_215639_000000362047_00301_21898_9731.N1	08-MAY-2006 21:56:39	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	21898	No
298	GOM_NL__2PRFIN20060508_220447_000000522047_00301_21898_9732.N1	08-MAY-2006 22:04:47	Bright	52.000	76	27Gam Cas	2.3000	30000.	104	21898	No
299	GOM_NL__2PRFIN20060508_220602_000000362047_00301_21898_9733.N1	08-MAY-2006 22:06:02	Bright	35.500	68	18Alp Cas	2.2250	4500.0	71	21898	No
300	GOM_NL__2PRFIN20060508_221411_000000372047_00301_21898_9734.N1	08-MAY-2006 22:14:11	Bright	37.000	58	21Alp And	2.0730	11000.	74	21898	No
301	GOM_NL__2PRFIN20060508_221809_000000402047_00301_21898_9735.N1	08-MAY-2006 22:18:09	Twilight	40.000	140	88Gam Peg	2.8340	26000.	80	21898	No
302	GOM_NL__2PRFIN20060508_223238_000000512047_00301_21898_9736.N1	08-MAY-2006 22:32:38	Dark	51.000	18	24Alp PsA	1.1660	9700.0	102	21898	No
303	GOM_NL__2PRFIN20060508_223713_000000472047_00301_21898_9737.N1	08-MAY-2006 22:37:13	Dark	47.000	63	Bet Gru	2.1500	2800.0	94	21898	No
304	GOM_NL__2PRFIN20060508_223829_000000462047_00301_21898_9738.N1	08-MAY-2006 22:38:29	Dark	45.500	31	Alp Gru	1.7340	15200.	91	21898	No
305	GOM_NL__2PRFIN20060508_224042_000000402047_00302_21899_9716.N1	08-MAY-2006 22:40:42	Dark	40.000	148	Alp Tuc	2.8780	4100.0	80	21899	No
306	GOM_NL__2PRFIN20060508_224404_000000412047_00302_21899_9717.N1	08-MAY-2006 22:44:04	Dark	41.000	45	Alp Pav	1.9400	26000.	82	21899	No
307	GOM_NL__2PRFIN20060508_225005_000000402047_00302_21899_9718.N1	08-MAY-2006 22:50:05	Straylight	40.000	43	Alp TrA	1.9100	4250.0	80	21899	No
308	GOM_NL__2PRFIN20060508_225217_000000382047_00302_21899_9719.N1	08-MAY-2006 22:52:17	Straylight	37.500	134	Bet TrA	2.8100	6600.0	75	21899	No
309	GOM_NL__2PRFIN20060508_225409_000000452047_00302_21899_9720.N1	08-MAY-2006 22:54:09	Straylight	44.500	4	Alp1Cen	-0.010000	5800.0	89	21899	No
310	GOM_NL__2PRFIN20060508_225739_000000392047_00302_21899_9721.N1	08-MAY-2006 22:57:39	Straylight	38.500	78	Alp Lup	2.3040	28000.	77	21899	No
311	GOM_NL__2PRFIN20060508_225911_000000412047_00302_21899_9722.N1	08-MAY-2006 22:59:11	Straylight	41.000	81	Eta Cen	2.3560	28000.	82	21899	No
312	GOM_NL__2PRFIN20060508_230110_000000442047_00302_21899_9723.N1	08-MAY-2006 23:01:10	Twilight	44.000	54	5The Cen	2.0550	4500.0	88	21899	No
313	GOM_NL__2PRFIN20060508_230837_000000382047_00302_21899_9724.N1	08-MAY-2006 23:08:37	Bright	37.500	15	67Alp Vir	0.97600	28000.	75	21899	No
314	GOM_NL__2PRFIN20060508_231457_000000352047_00302_21899_9725.N1	08-MAY-2006 23:14:57	Bright	34.500	138	47Eps Vir	2.8280	4700.0	69	21899	No
315	GOM_NL__2PRFIN20060508_231651_000000362047_00302_21899_9726.N1	08-MAY-2006 23:16:51	Bright	35.500	111	8Eta Boo	2.6800	6000.0	71	21899	No
316	GOM_NL__2PRFIN20060508_232234_000000362047_00302_21899_9727.N1	08-MAY-2006 23:22:34	Bright	35.500	152	12Alp2CVn	2.8900	11000.	71	21899	No
317	GOM_NL__2PRFIN20060508_232541_000000362047_00302_21899_9728.N1	08-MAY-2006 23:25:41	Bright	35.500	39	85Eta UMa	1.8540	24000.	71	21899	No
318	GOM_NL__2PRFIN20060508_232710_000000342047_00302_21899_9729.N1	08-MAY-2006 23:27:10	Bright	33.500	55	79Zet UMa	2.0600	10200.	67	21899	No
319	GOM_NL__2PRFIN20060508_233307_000000382047_00302_21899_9730.N1	08-MAY-2006 23:33:07	Bright	38.000	60	7Bet UMi	2.0810	3950.0	76	21899	No
320	GOM_NL__2PRFIN20060508_233715_000000352047_00302_21899_9731.N1	08-MAY-2006 23:37:15	Bright	34.500	49	1Alp UMi	1.9900	6300.0	69	21899	No
321	GOM_NL__2PRFIN20060508_234523_000000352047_00302_21899_9732.N1	08-MAY-2006 23:45:23	Bright	35.000	76	27Gam Cas	2.3000	30000.	70	21899	No
322	GOM_NL__2PRFIN20060508_234638_000000402047_00302_21899_9733.N1	08-MAY-2006 23:46:38	Bright	40.000	68	18Alp Cas	2.2250	4500.0	80	21899	No
323	GOM_NL__2PRFIN20060508_235447_000000402047_00302_21899_9734.N1	08-MAY-2006 23:54:47	Bright	39.500	58	21Alp And	2.0730	11000.	79	21899	No
324	GOM_NL__2PRFIN20060508_235846_000000402047_00302_21899_9735.N1	08-MAY-2006 23:58:46	Twilight	39.500	140	88Gam Peg	2.8340	26000.	79	21899	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.

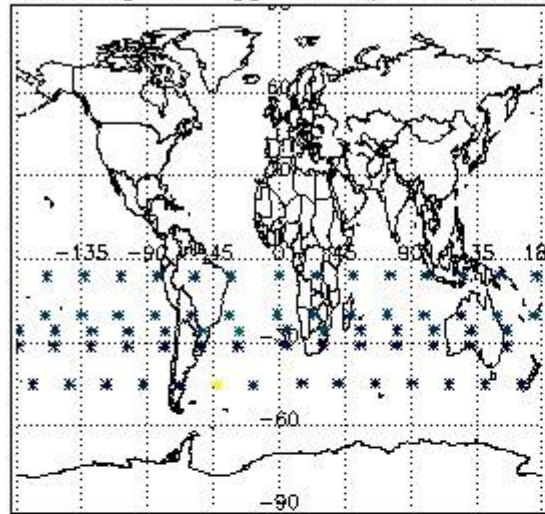
#### 3.1 Plot quality information per product (time dependant)



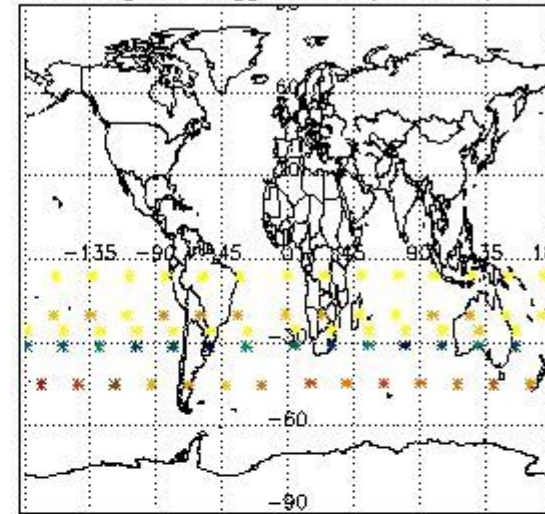
3.2 Plot quality information per product (world map)



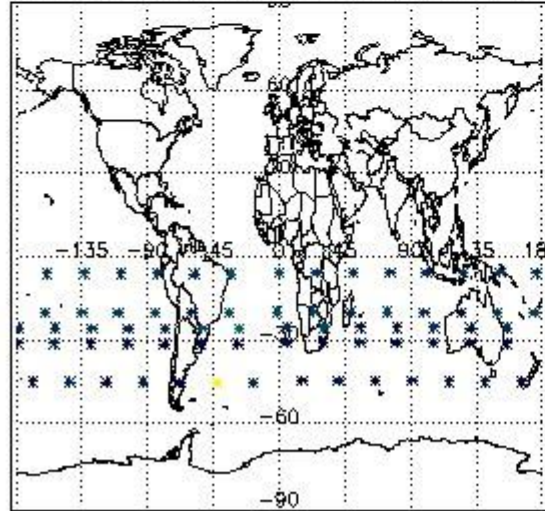
Percentage of flagged data per O3 profile



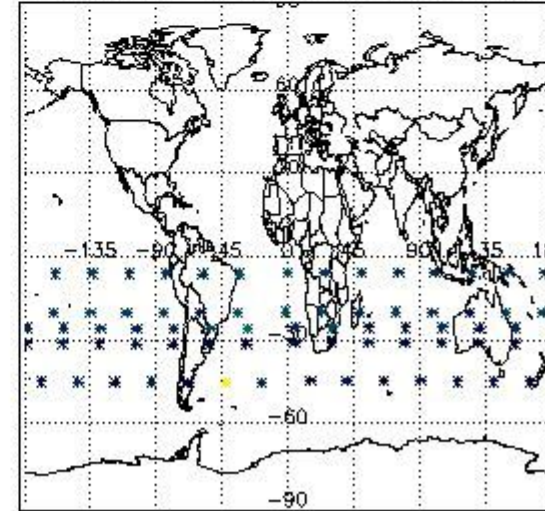
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

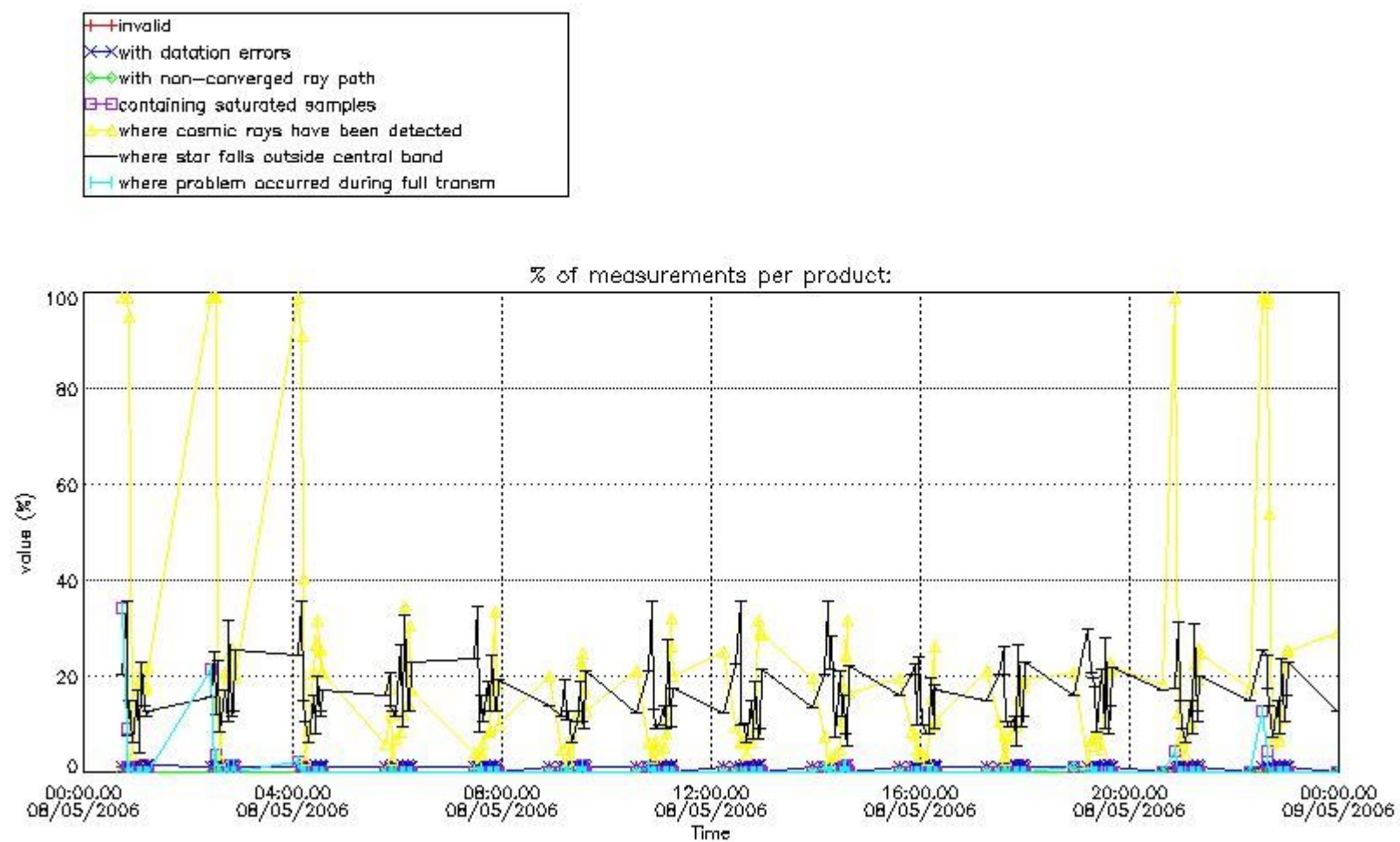


#### 4. Level 1 quality information per product

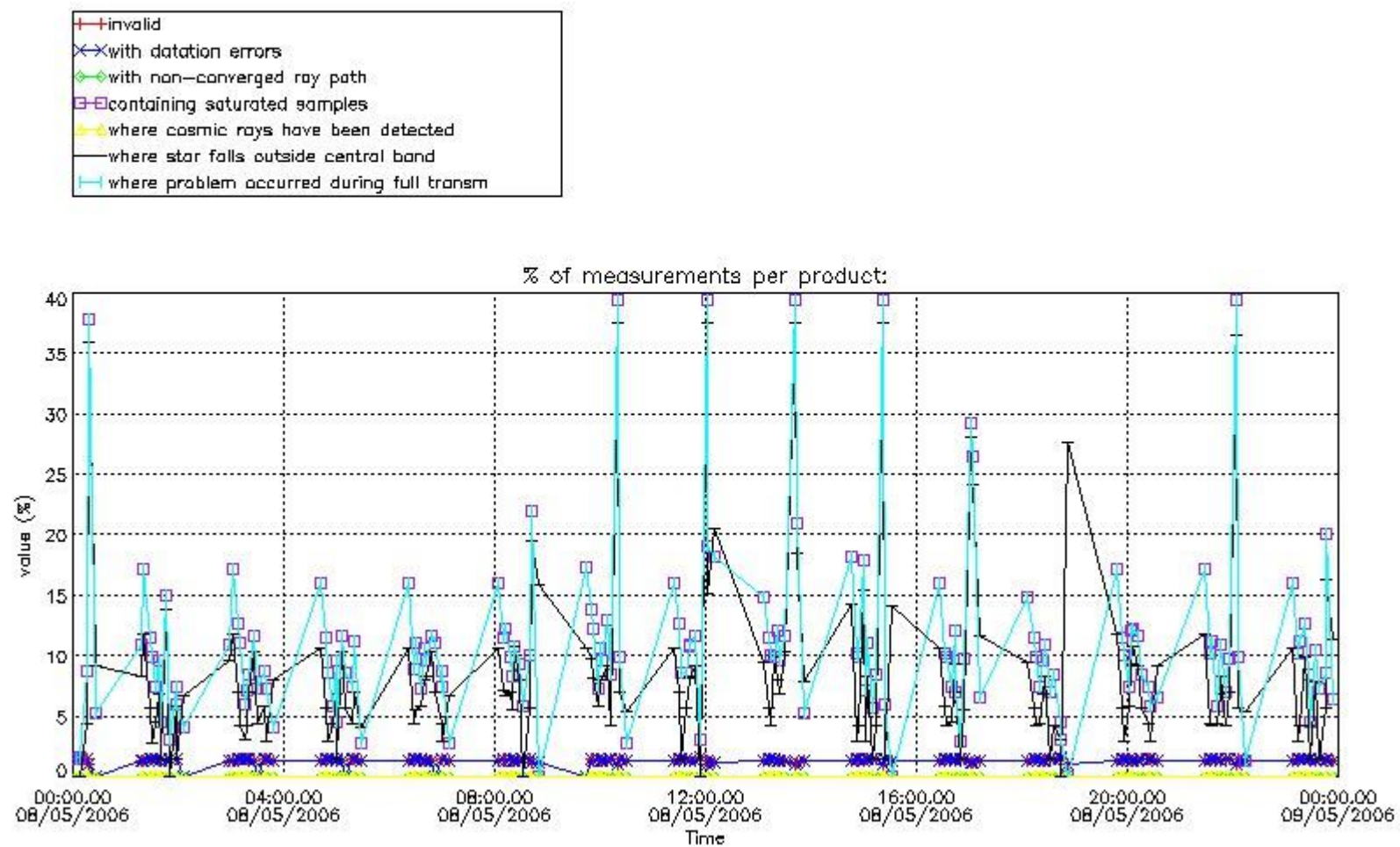
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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



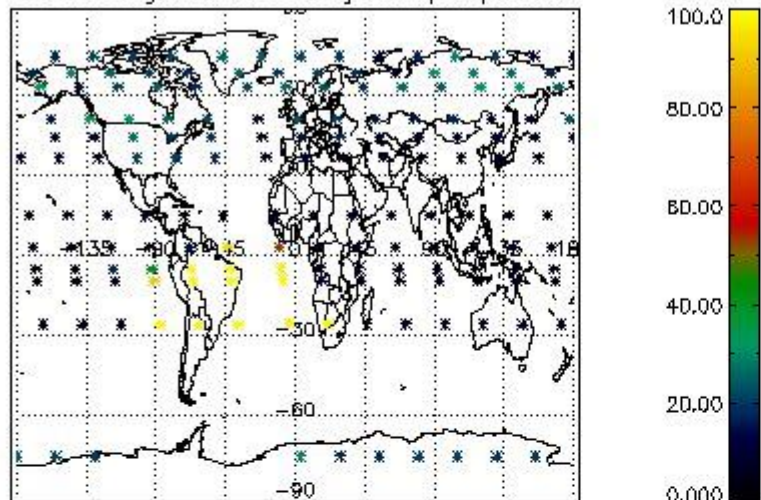
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



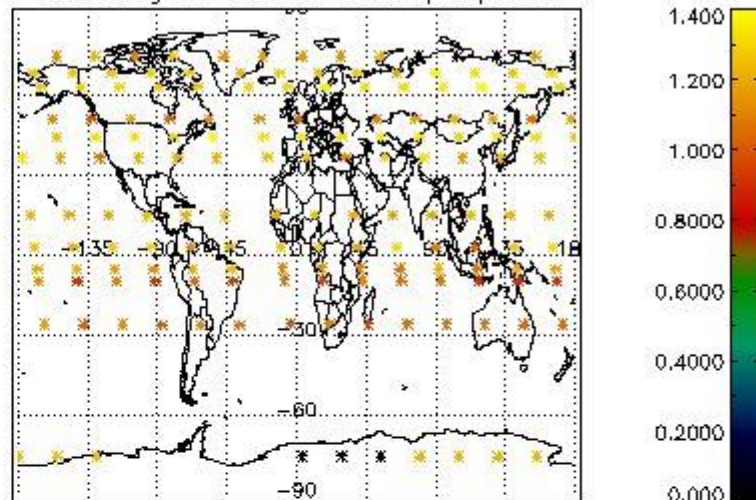
4.2 Plot quality information per product coming from level 1b processing (world map)

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

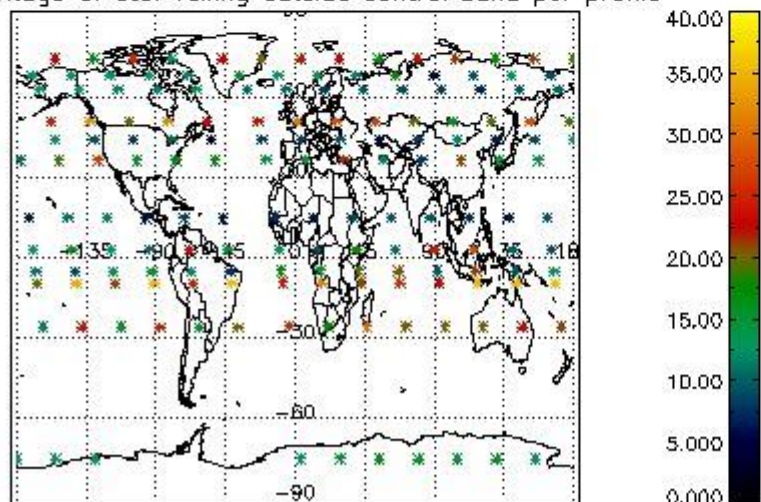
Percentage of cosmic ray hits per profile



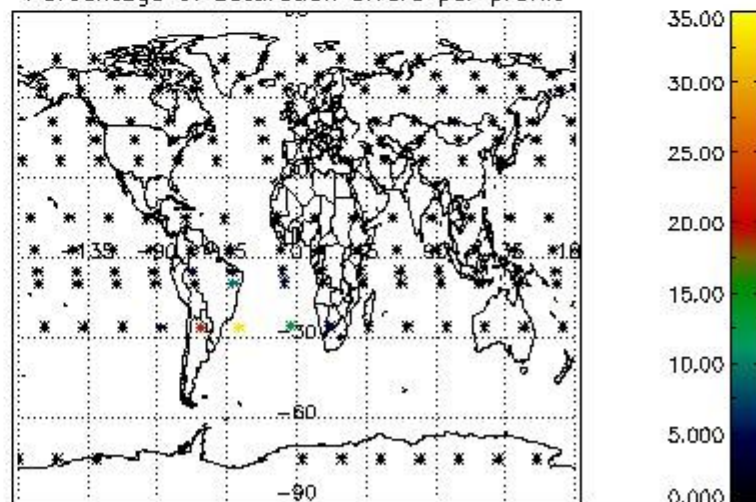
Percentage of datation errors per profile



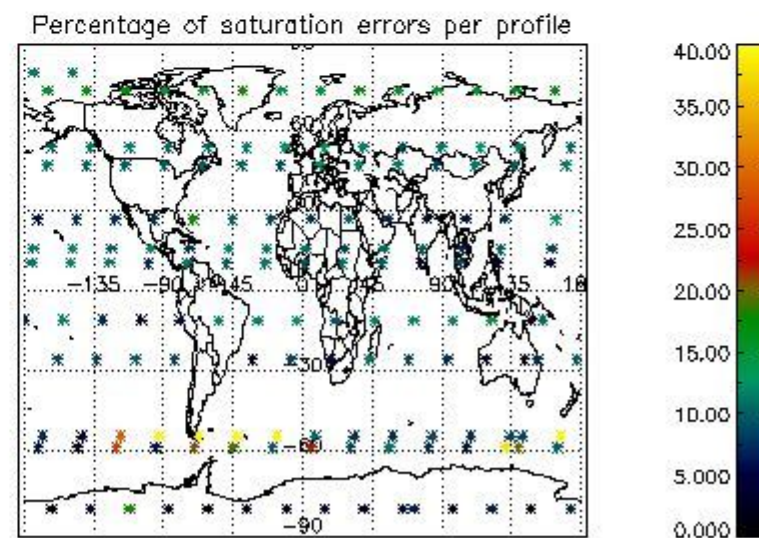
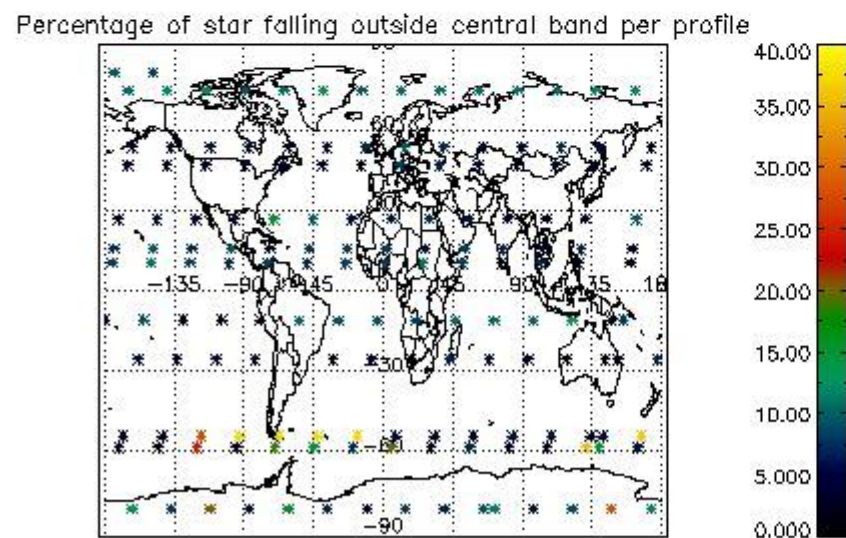
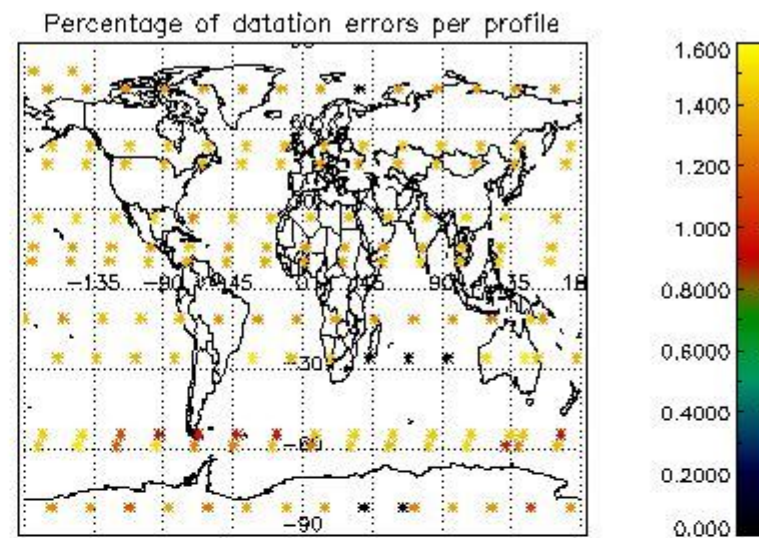
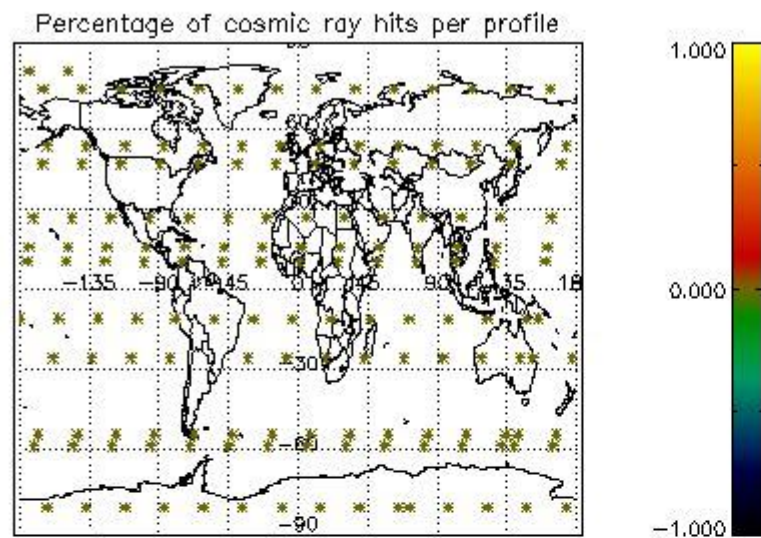
Percentage of star falling outside central band per profile



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

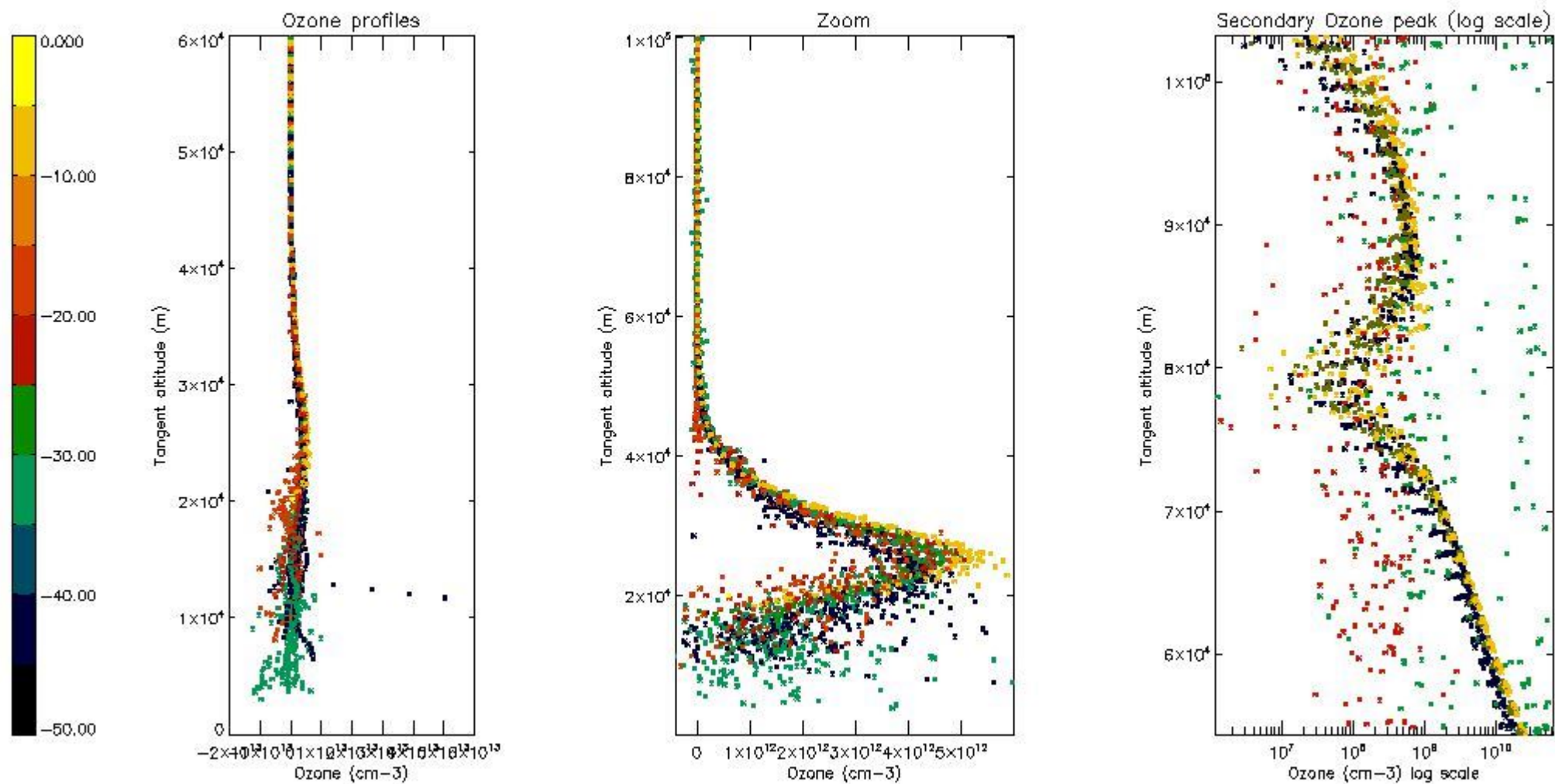
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	25
STD < 20	13

STD < 10	10
STD < 5	7

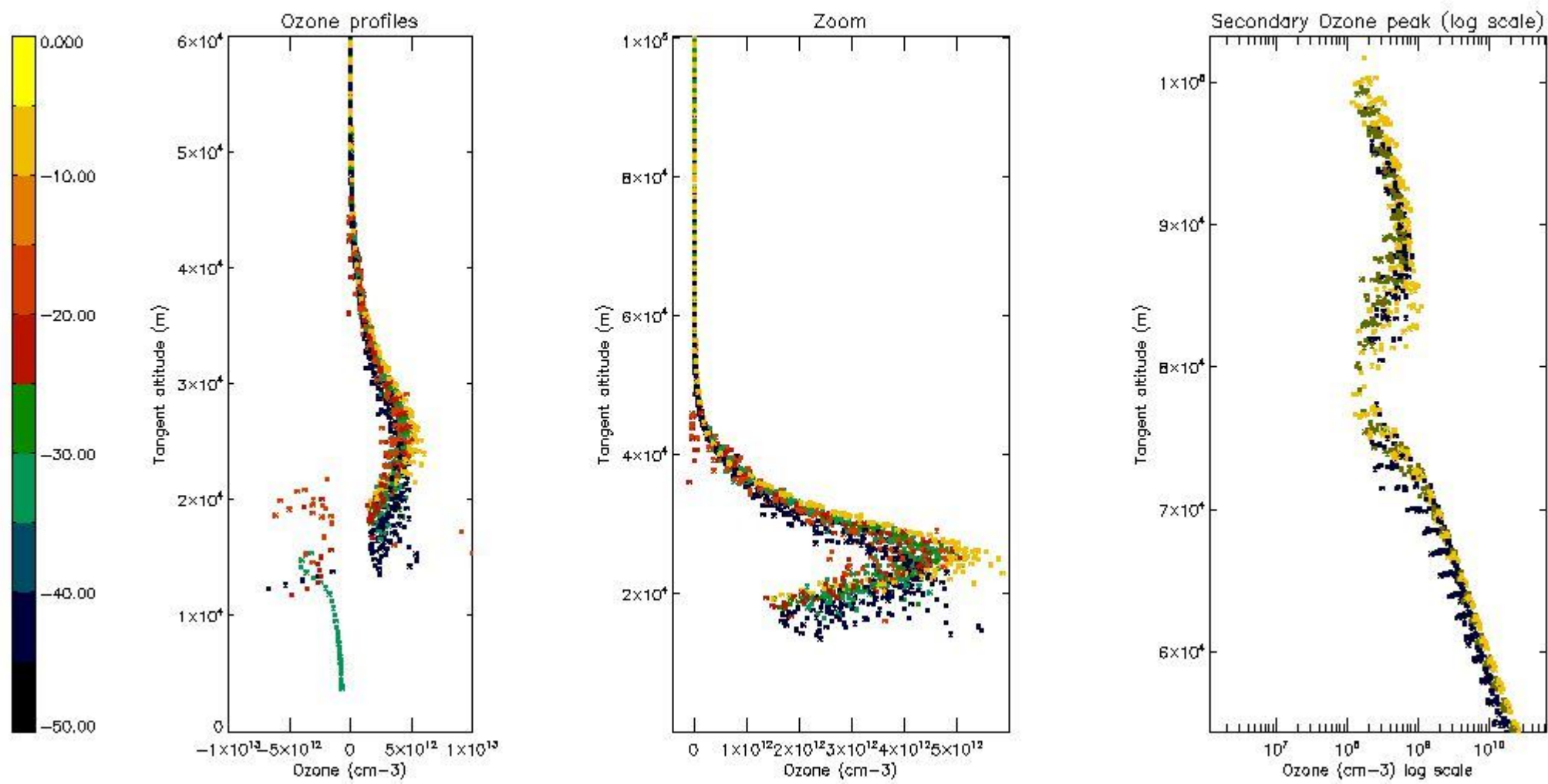
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



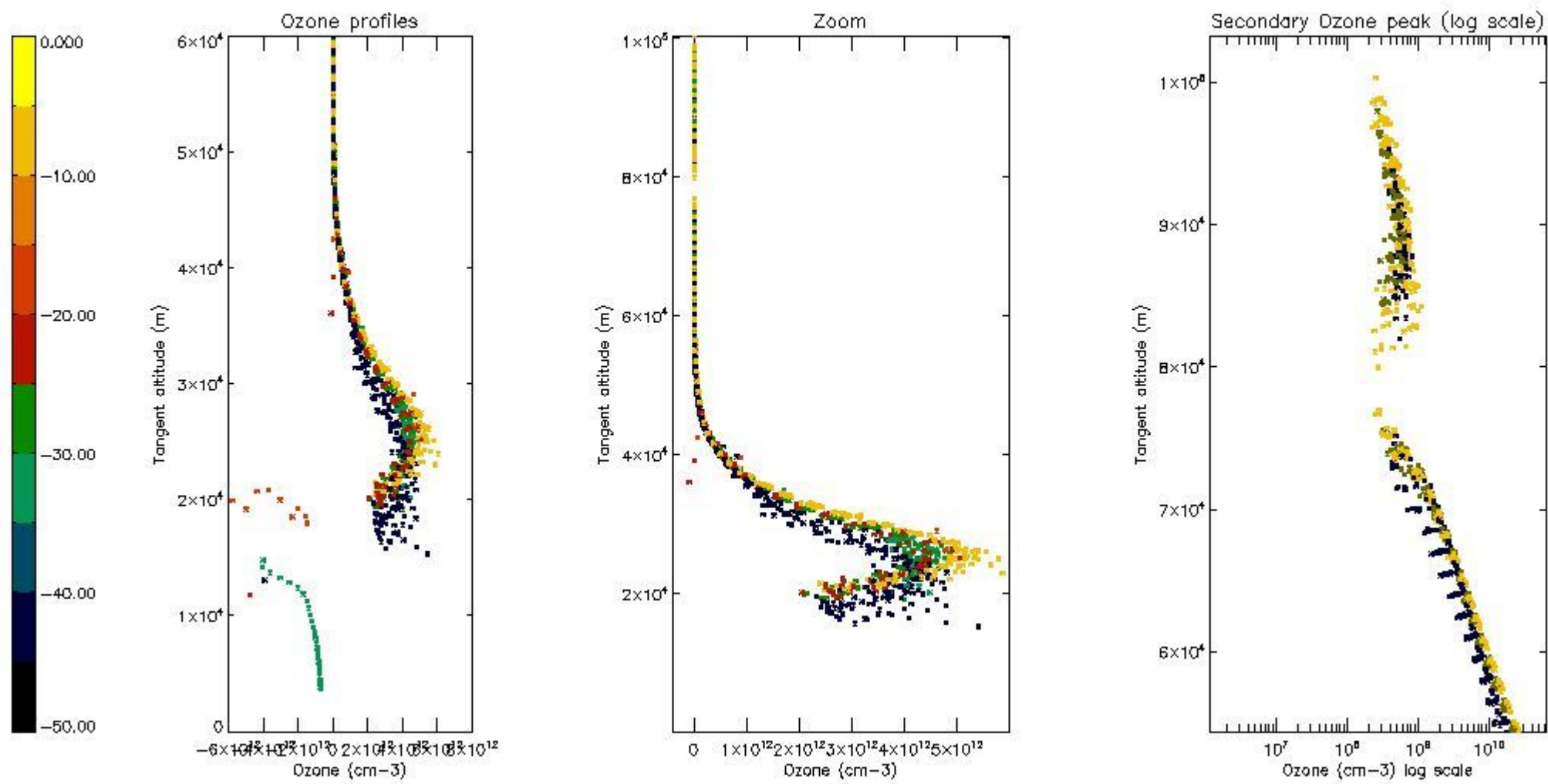
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



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

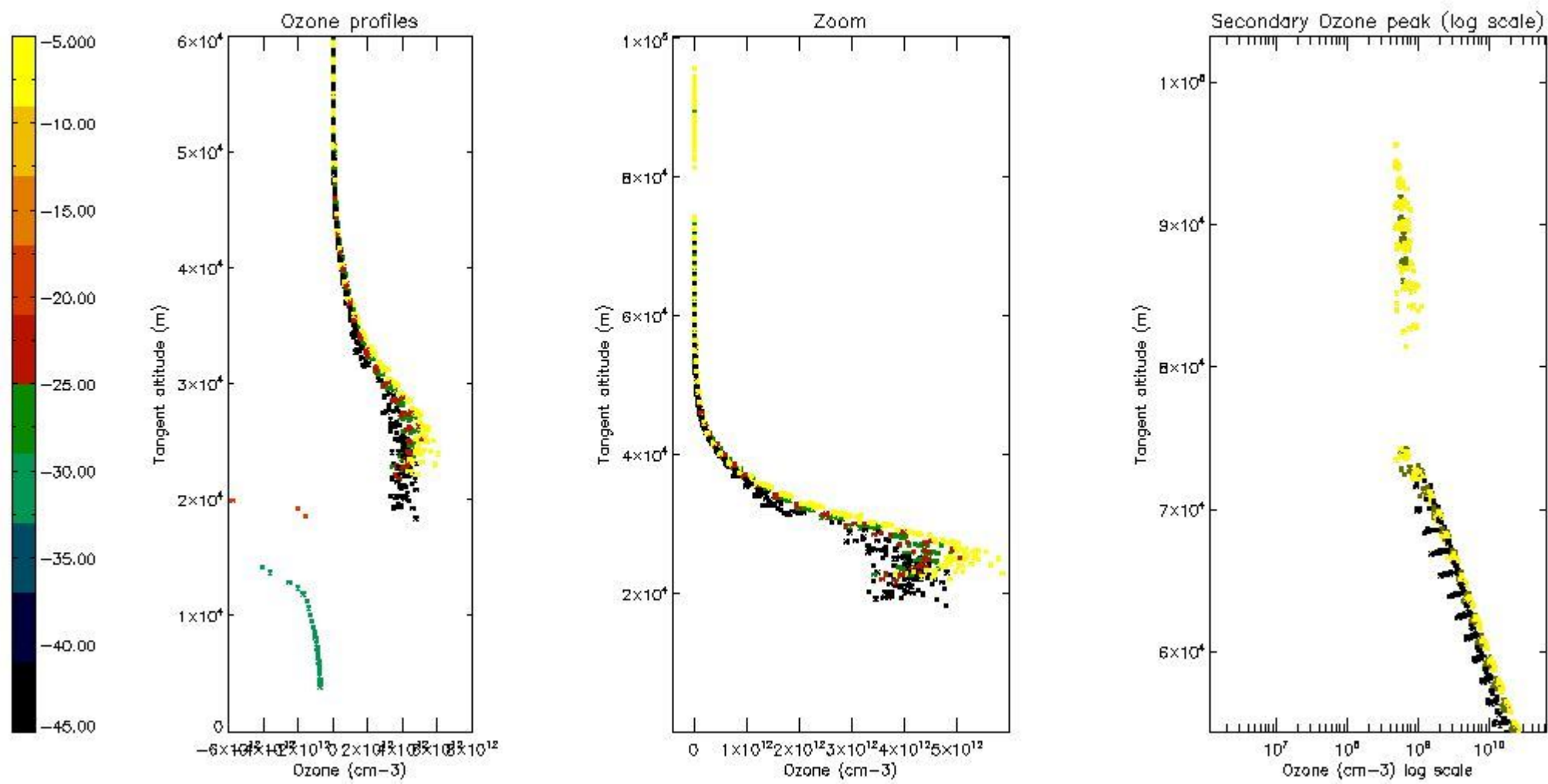
The colorbar represents the latitude.



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

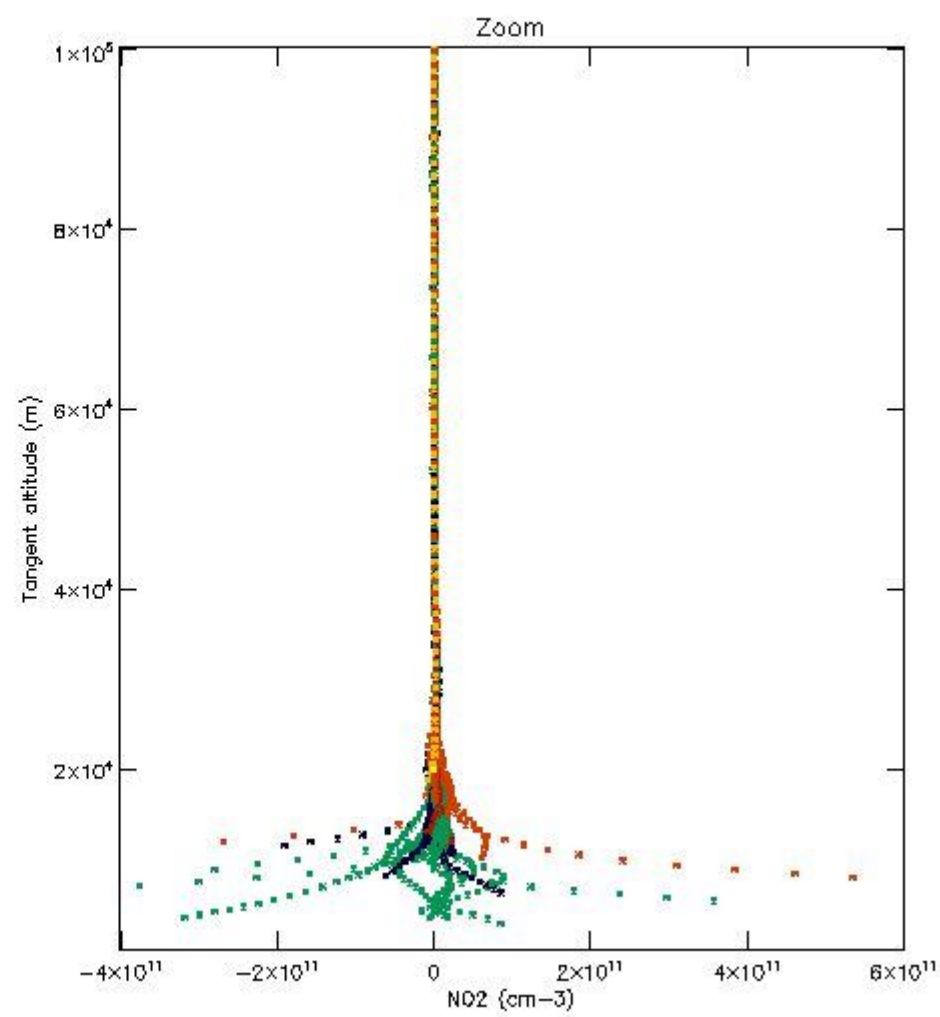
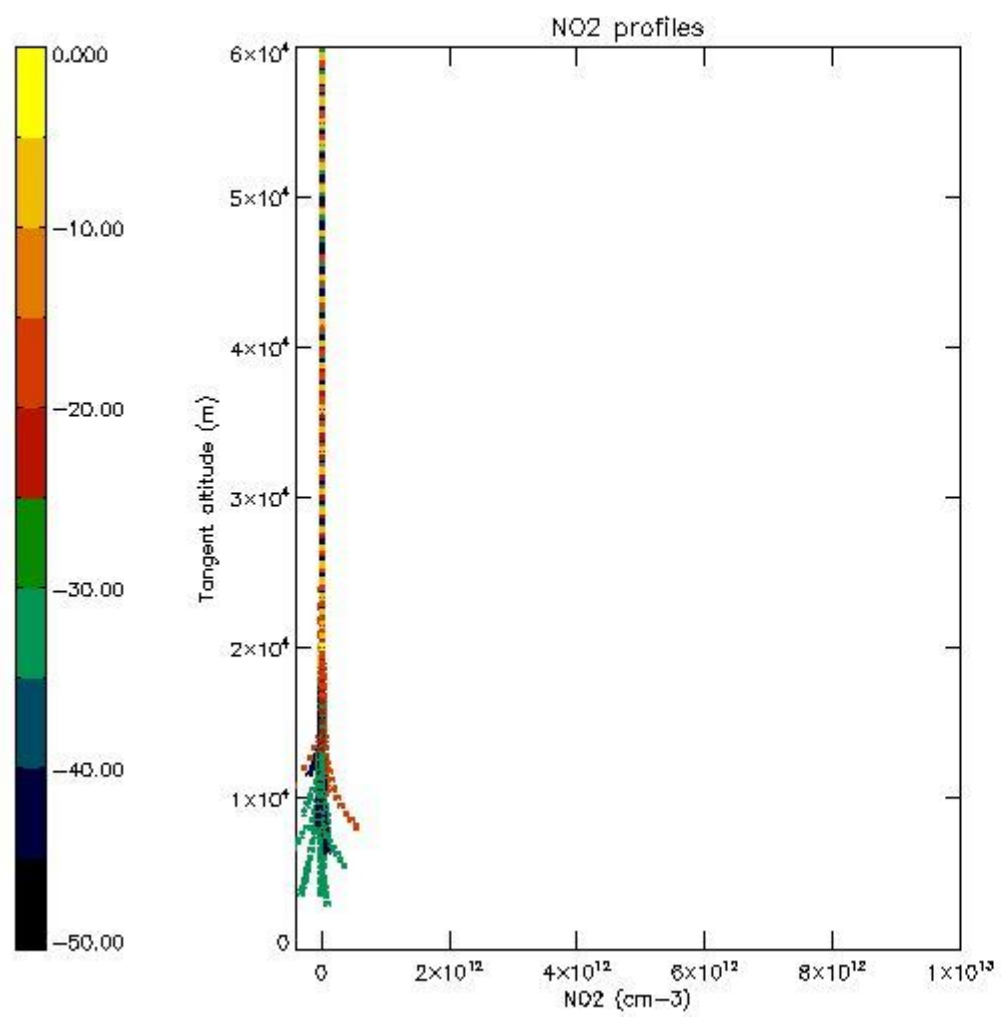
The colorbar represents the latitude.





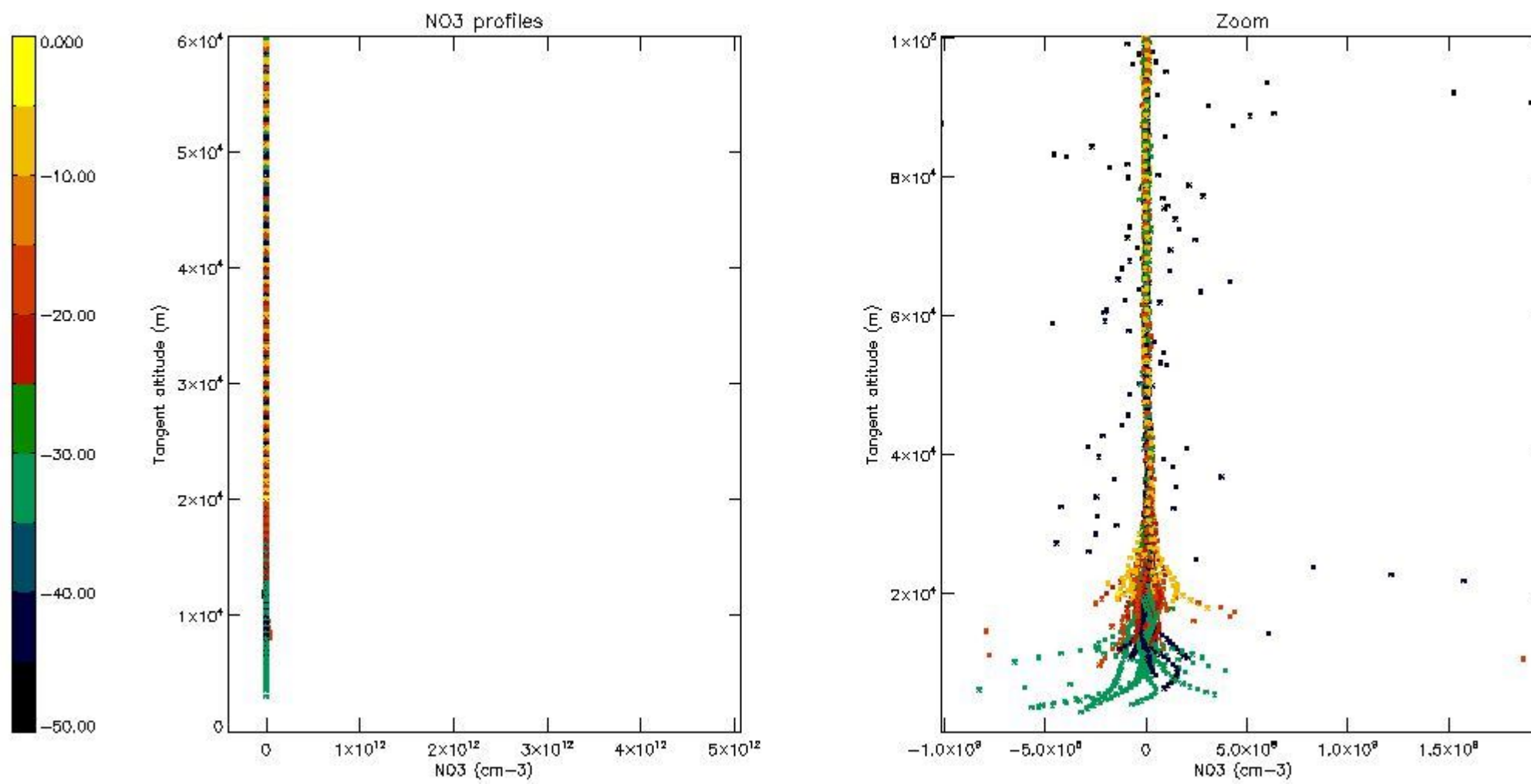
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



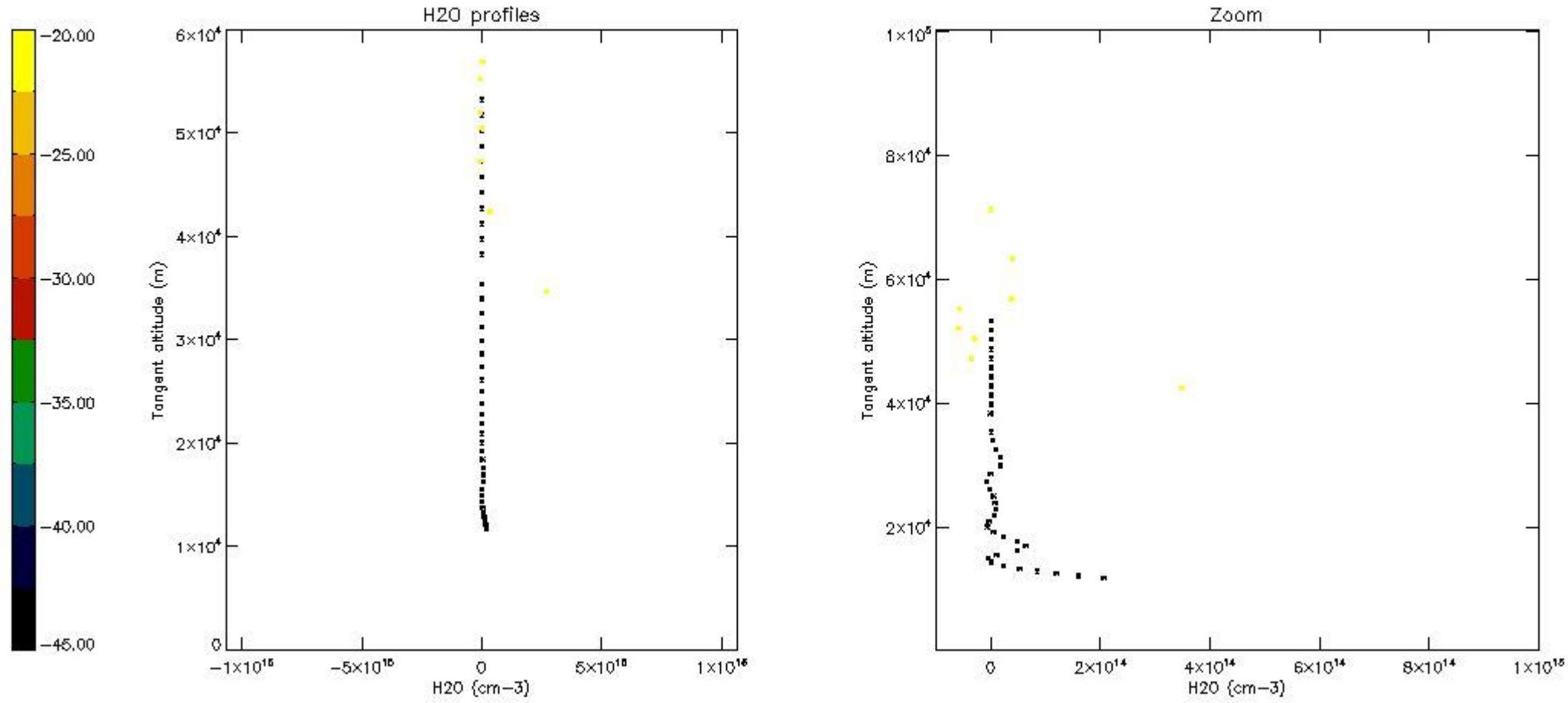
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



5.8 Plot H<sub>2</sub>O 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	08-MAY-2006 00:04:47
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	08-MAY-2006 00:04:47
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	08-MAY-2006 00:04:47

# 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](#)

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### [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](#)





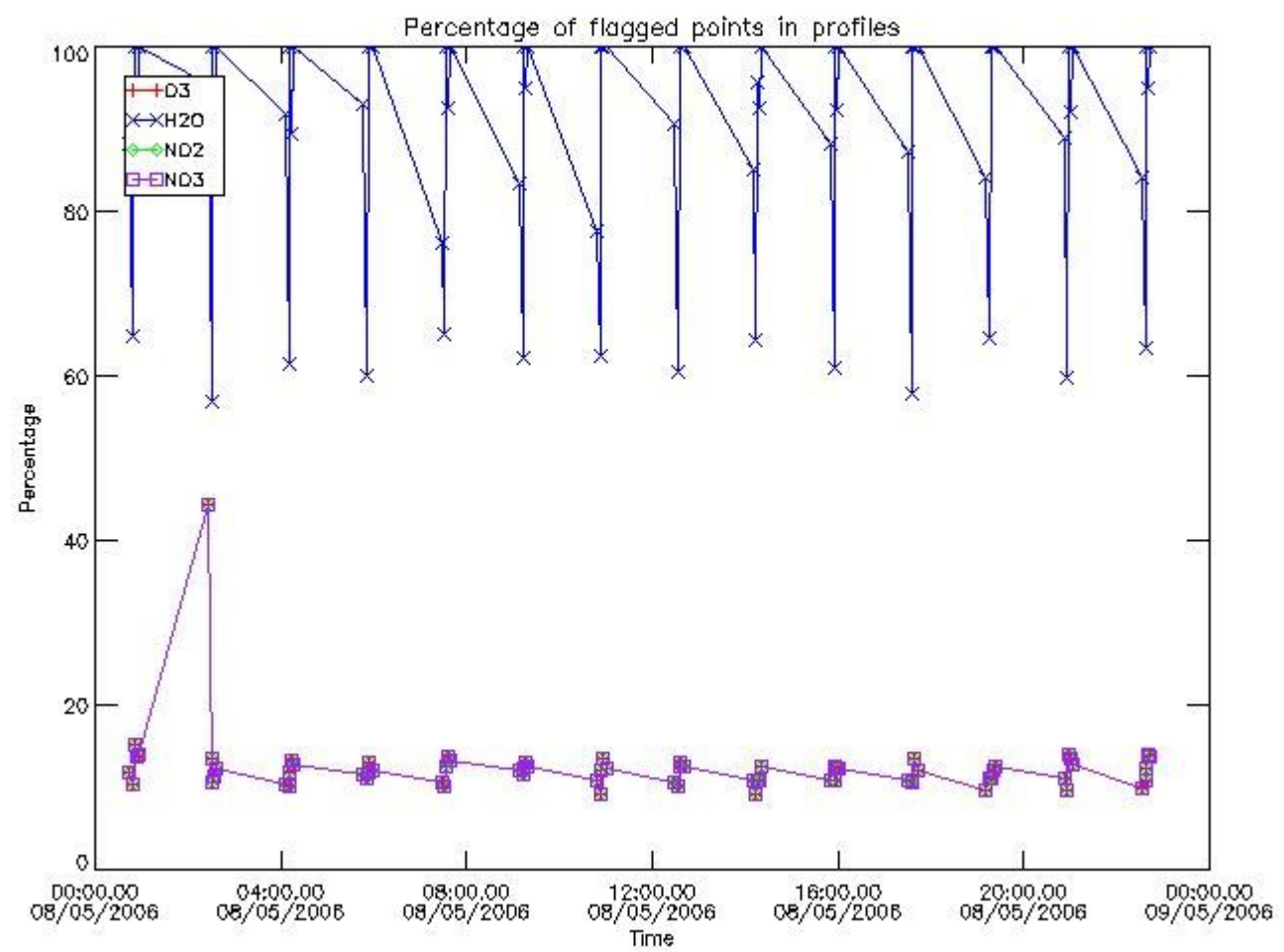






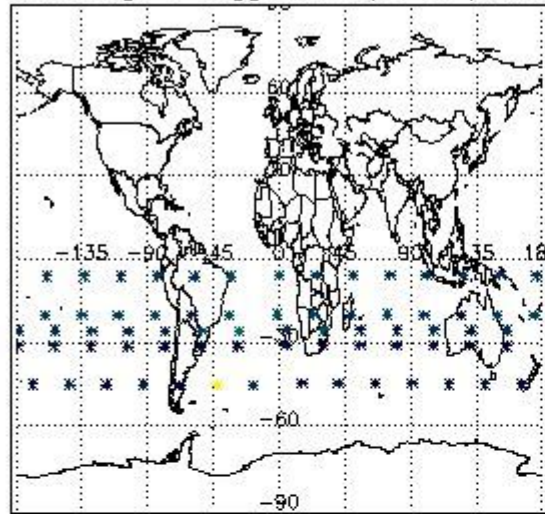




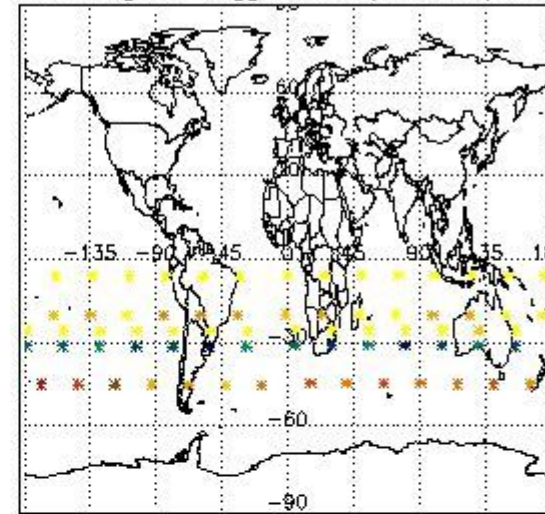


3.2 Plot quality information per product (world map)

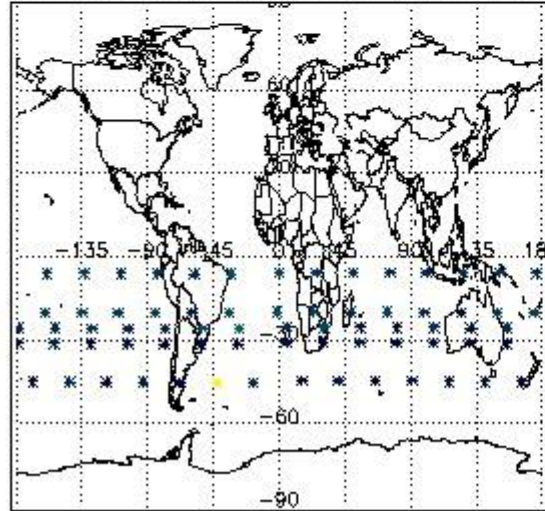
Percentage of flagged data per O3 profile



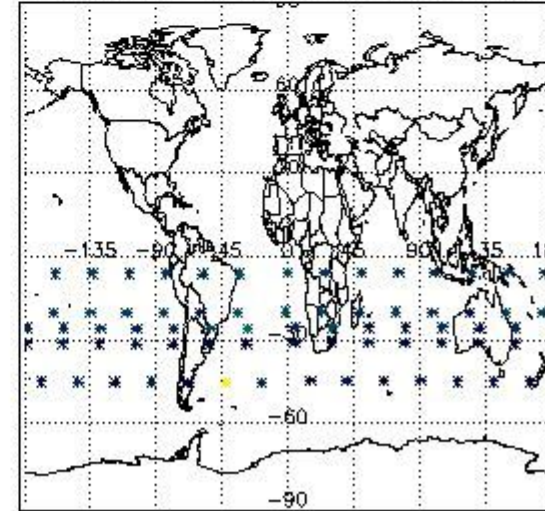
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

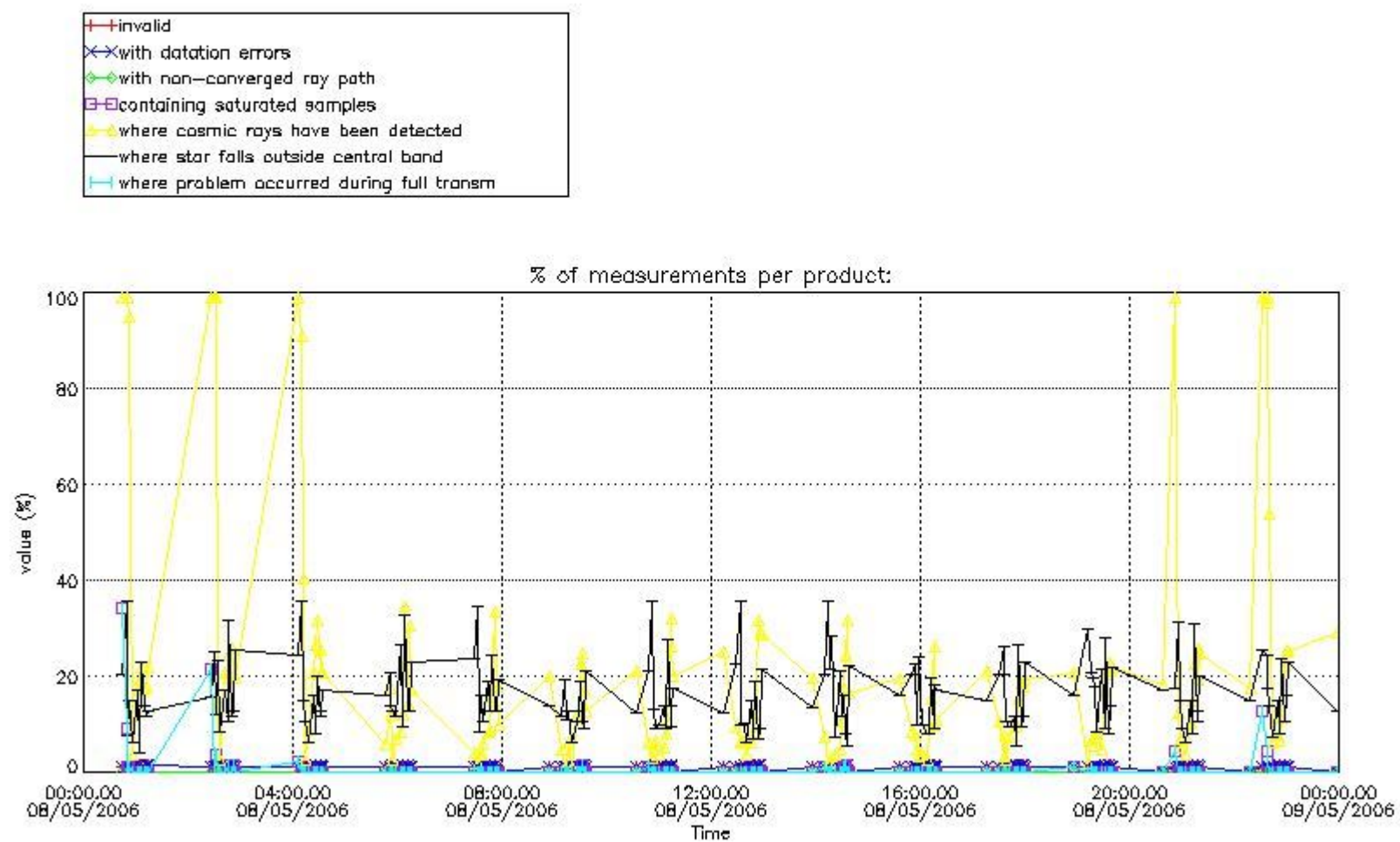


#### 4. Level 1 quality information per product

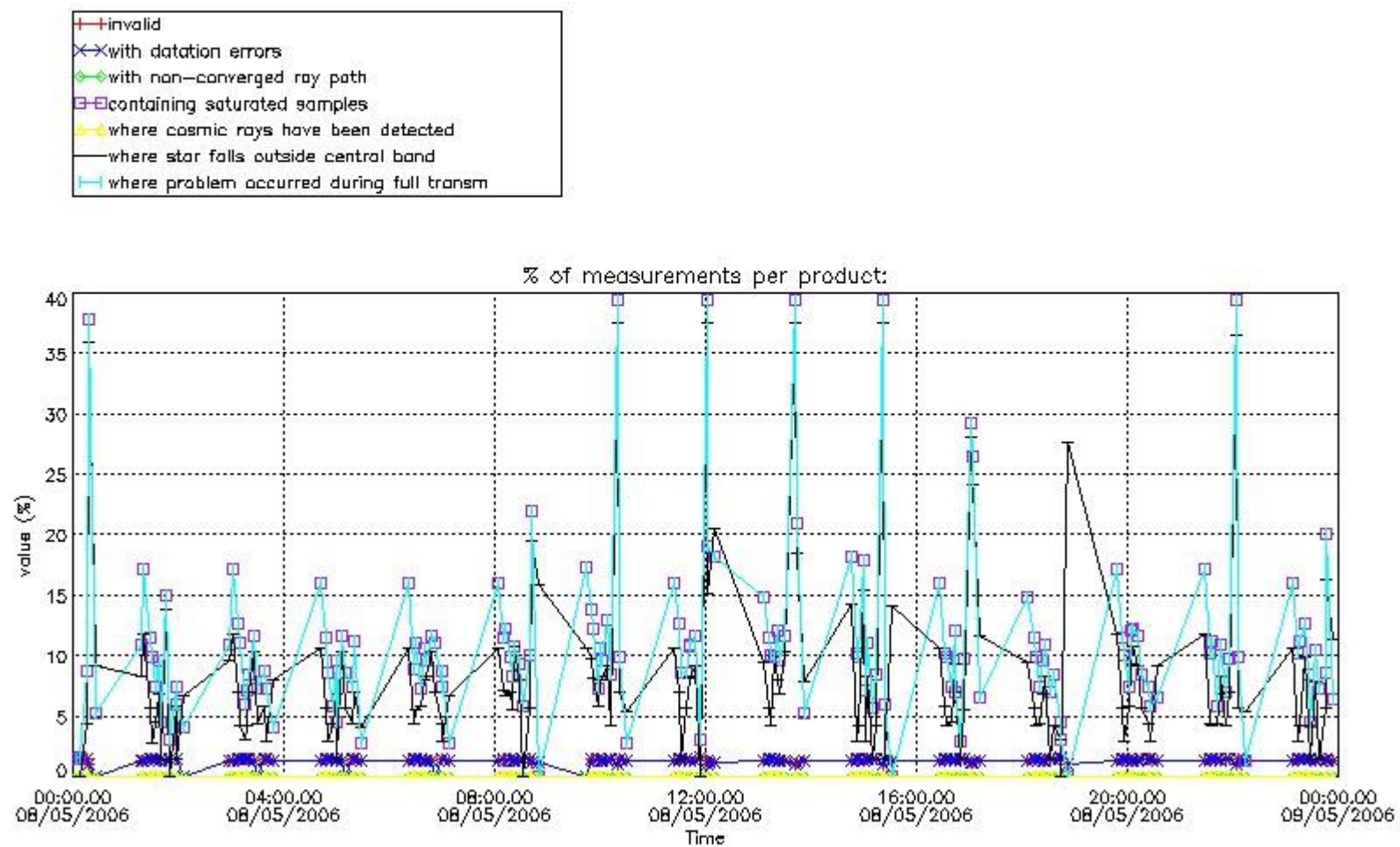
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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



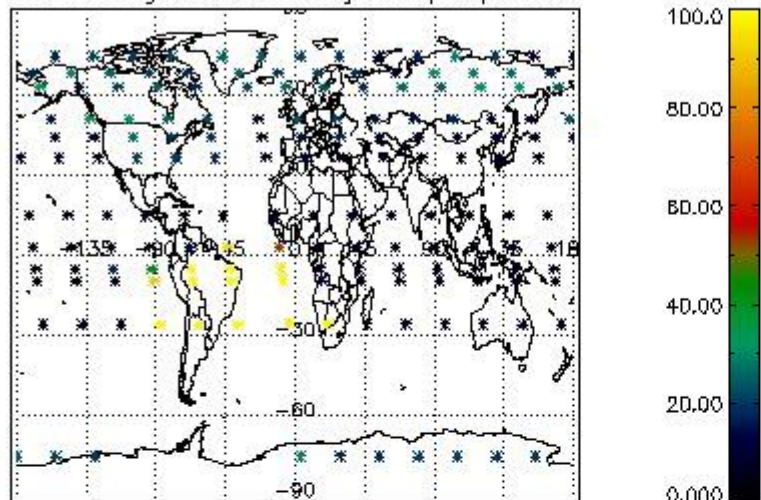
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



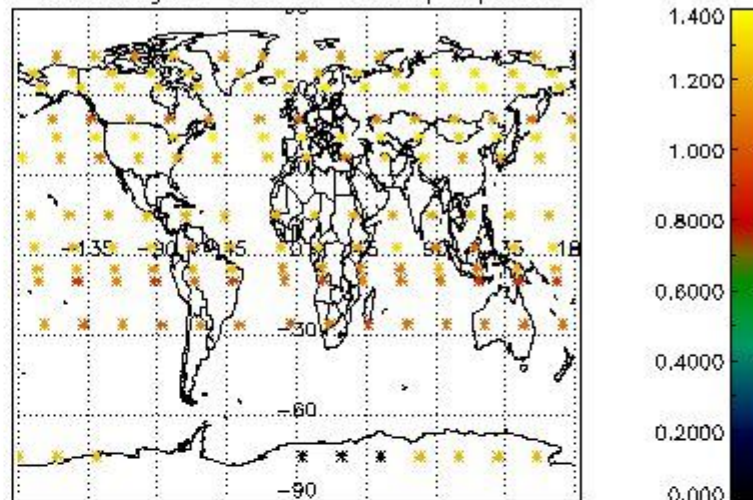
4.2 Plot quality information per product coming from level 1b processing (world map)

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

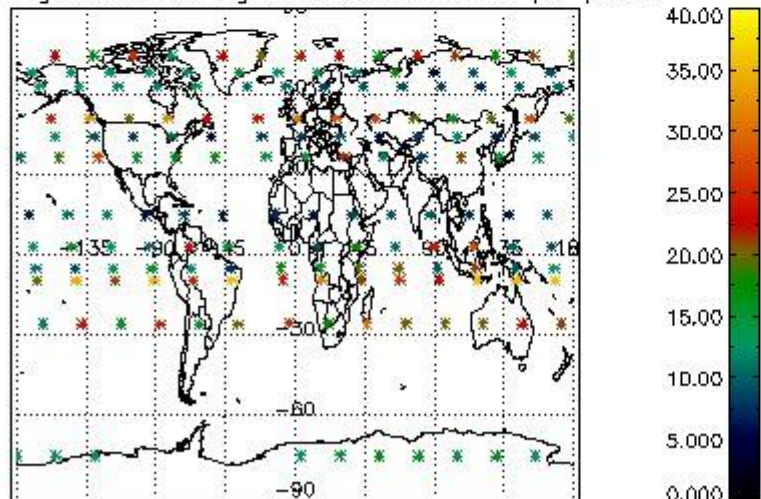
Percentage of cosmic ray hits per profile



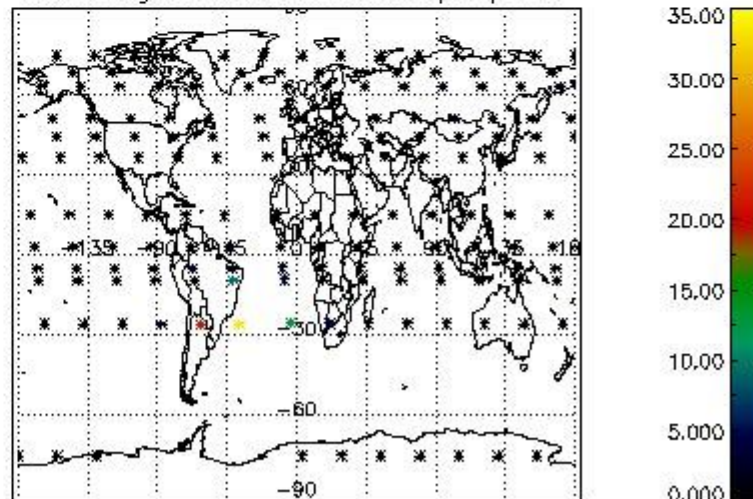
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

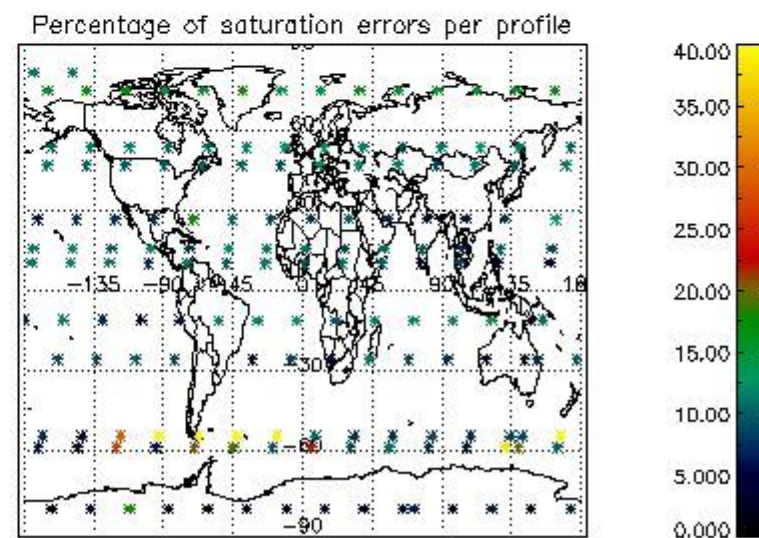
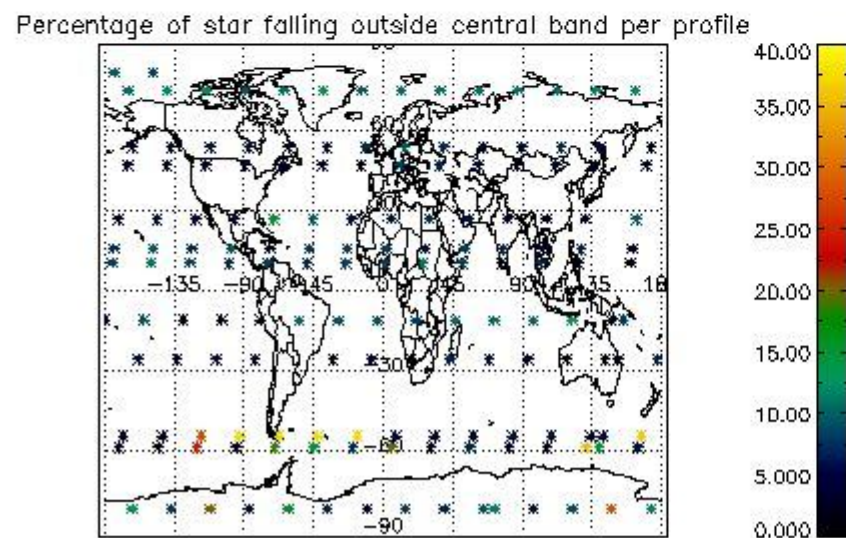
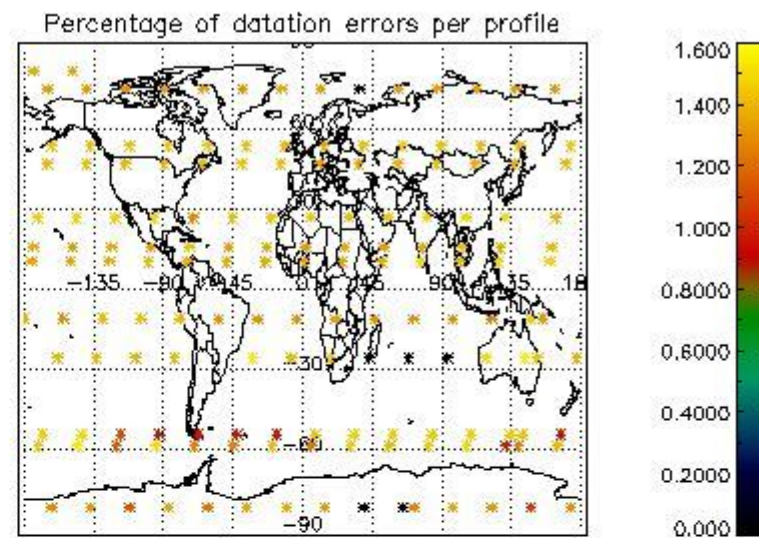
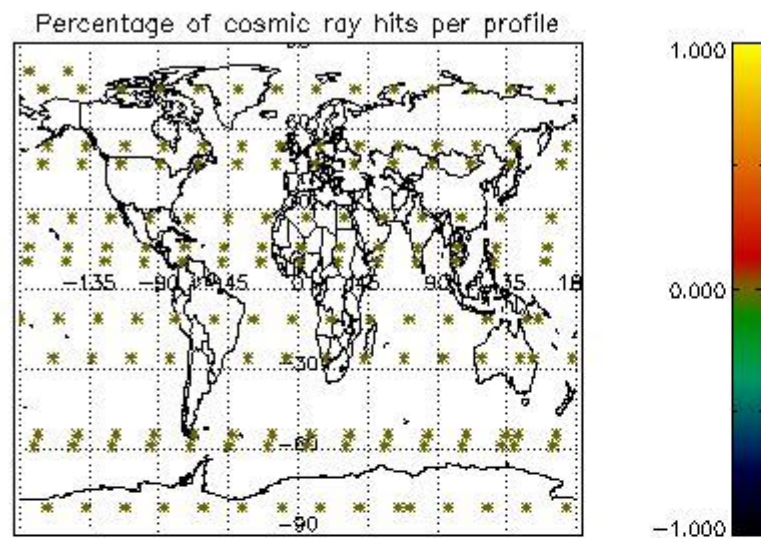


Percentage of saturation errors per profile



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

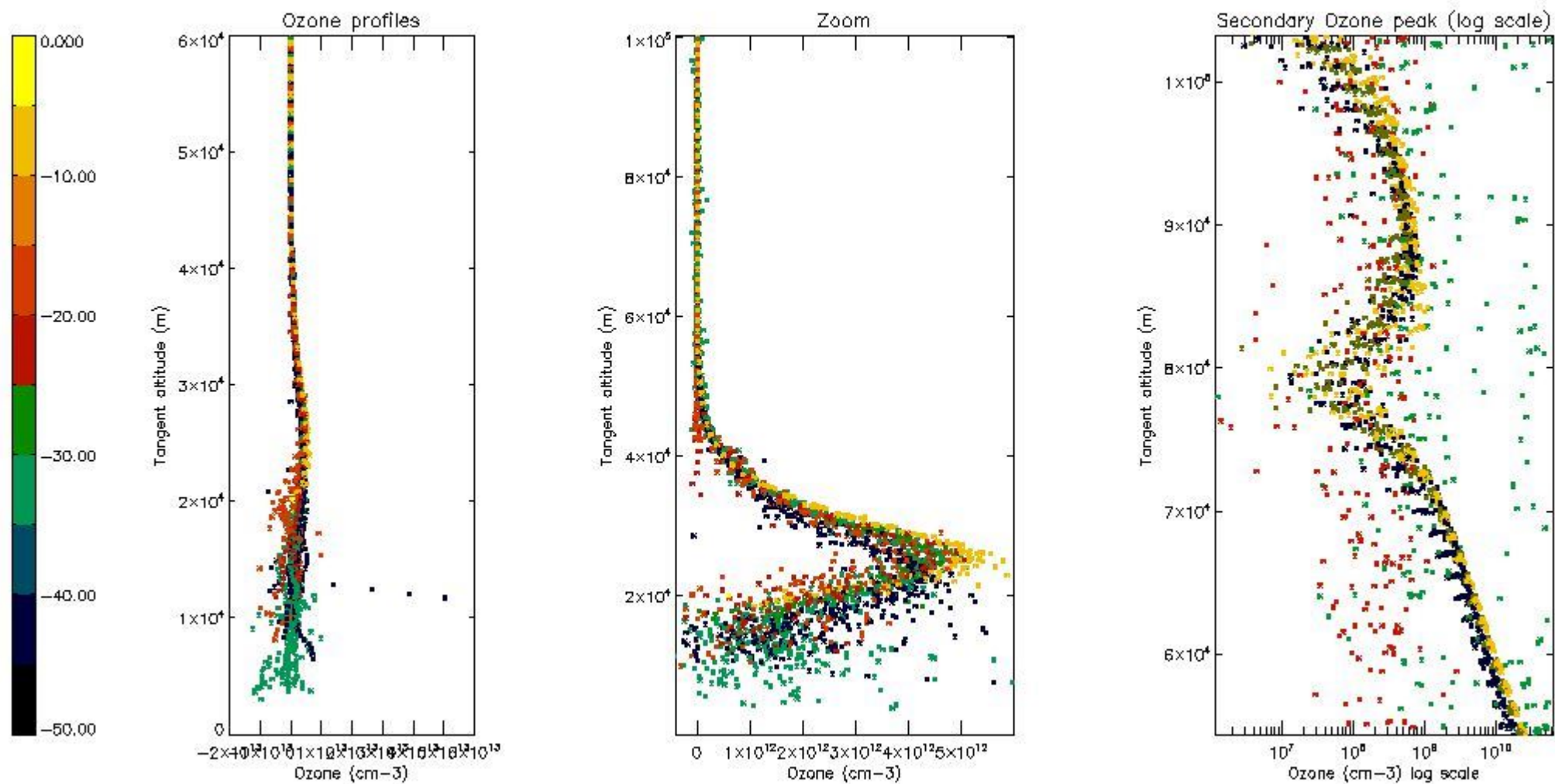
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	25
STD < 20	13

STD < 10	10
STD < 5	7

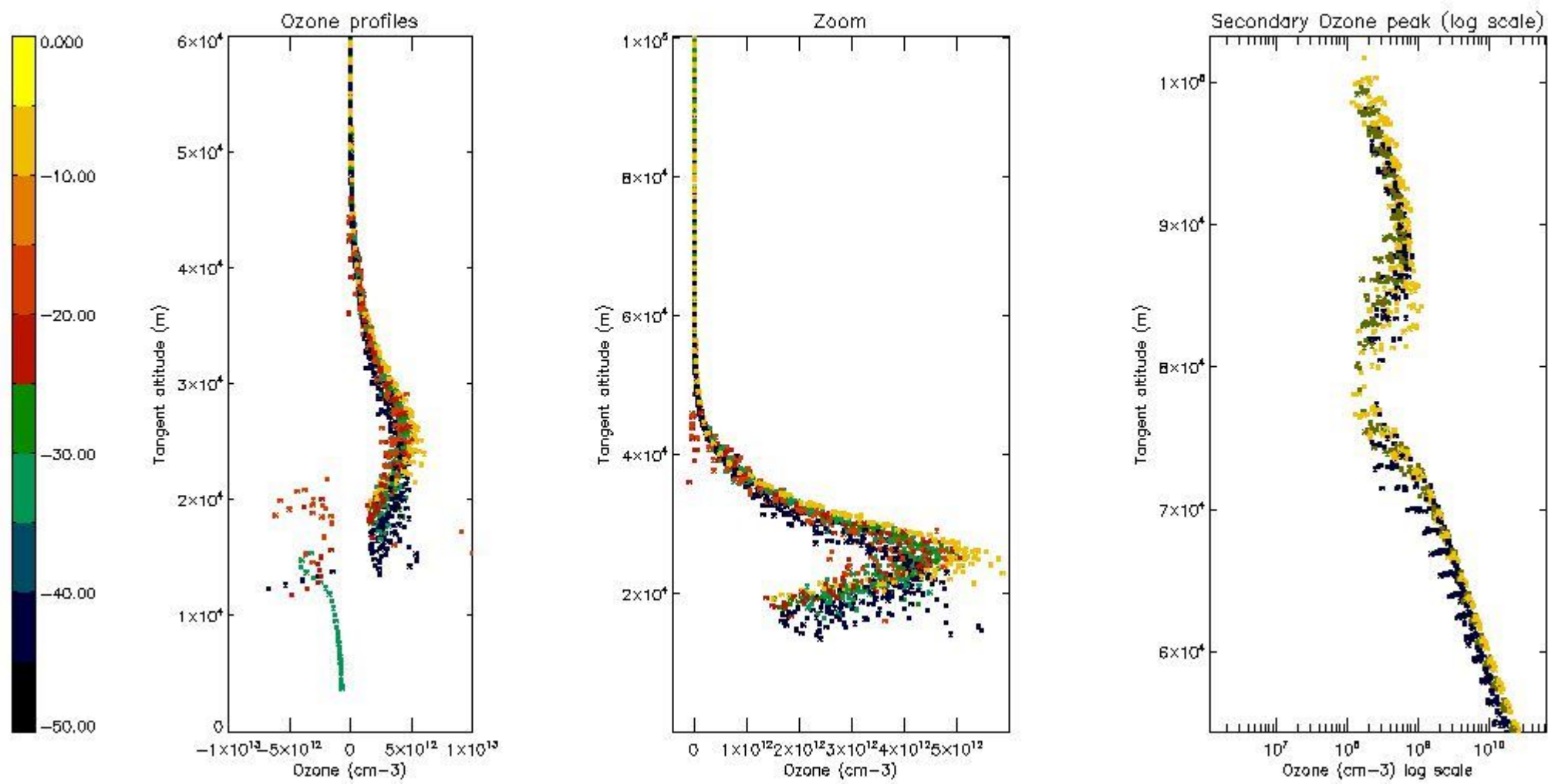
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



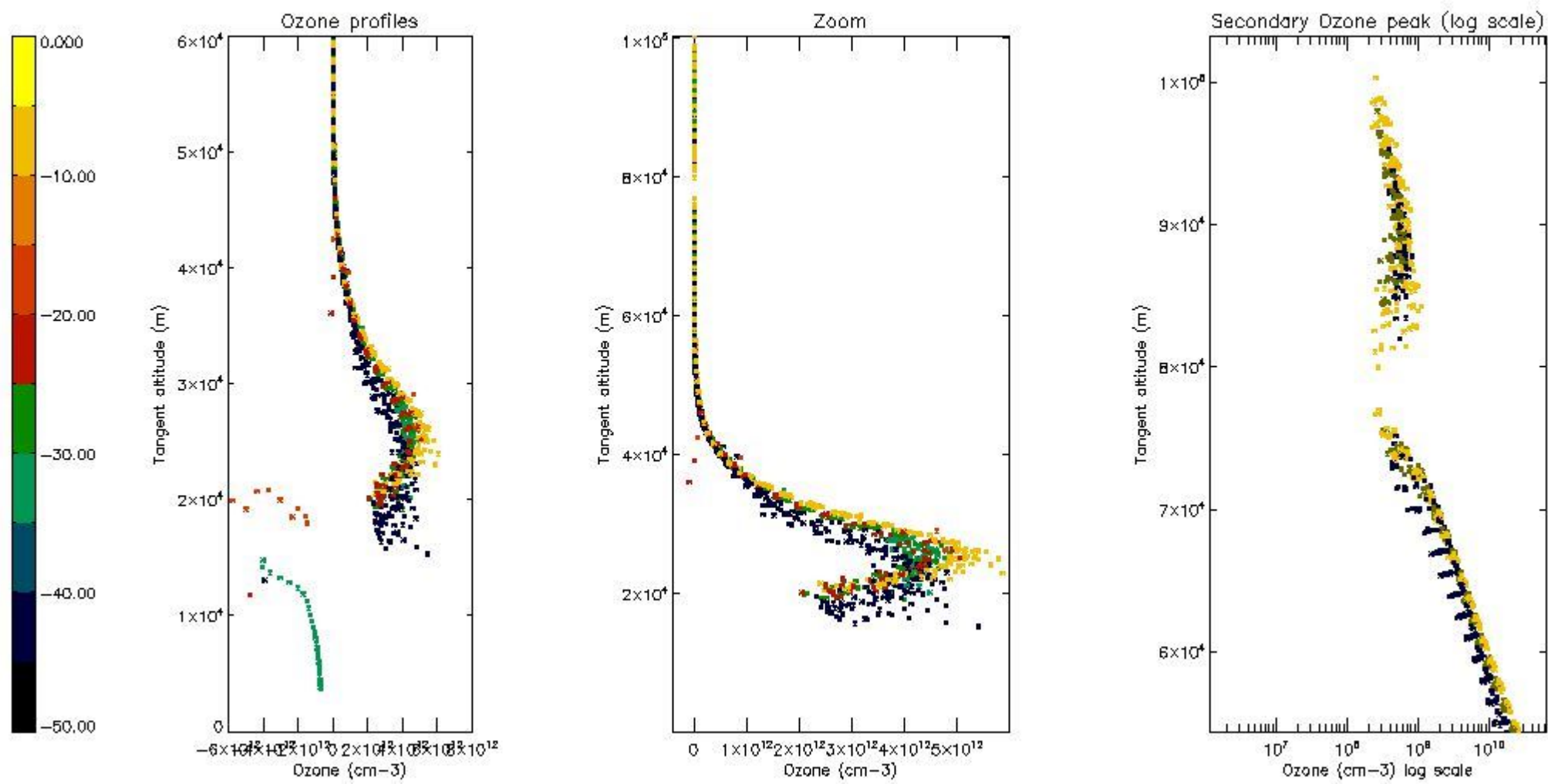
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



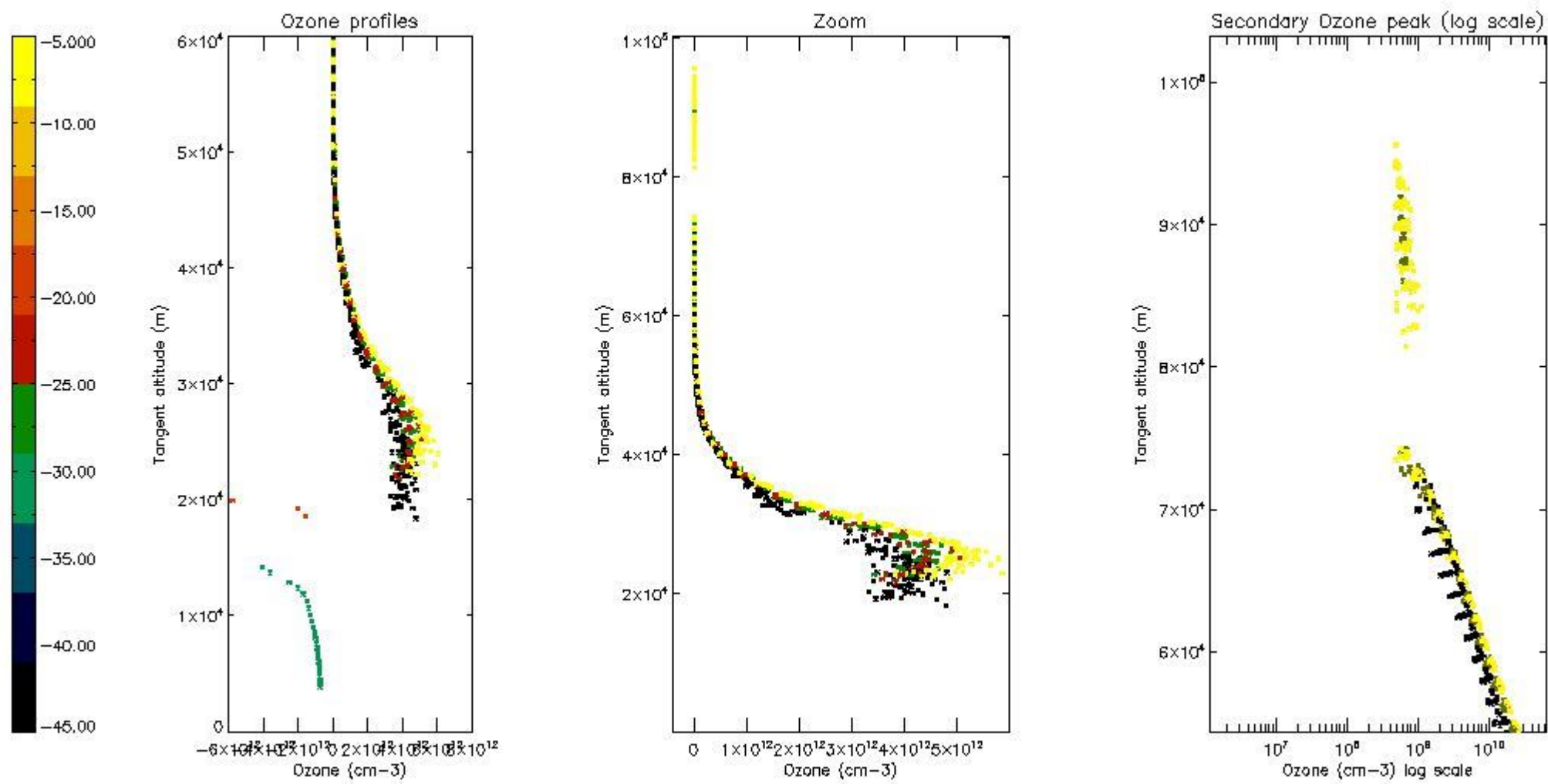
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



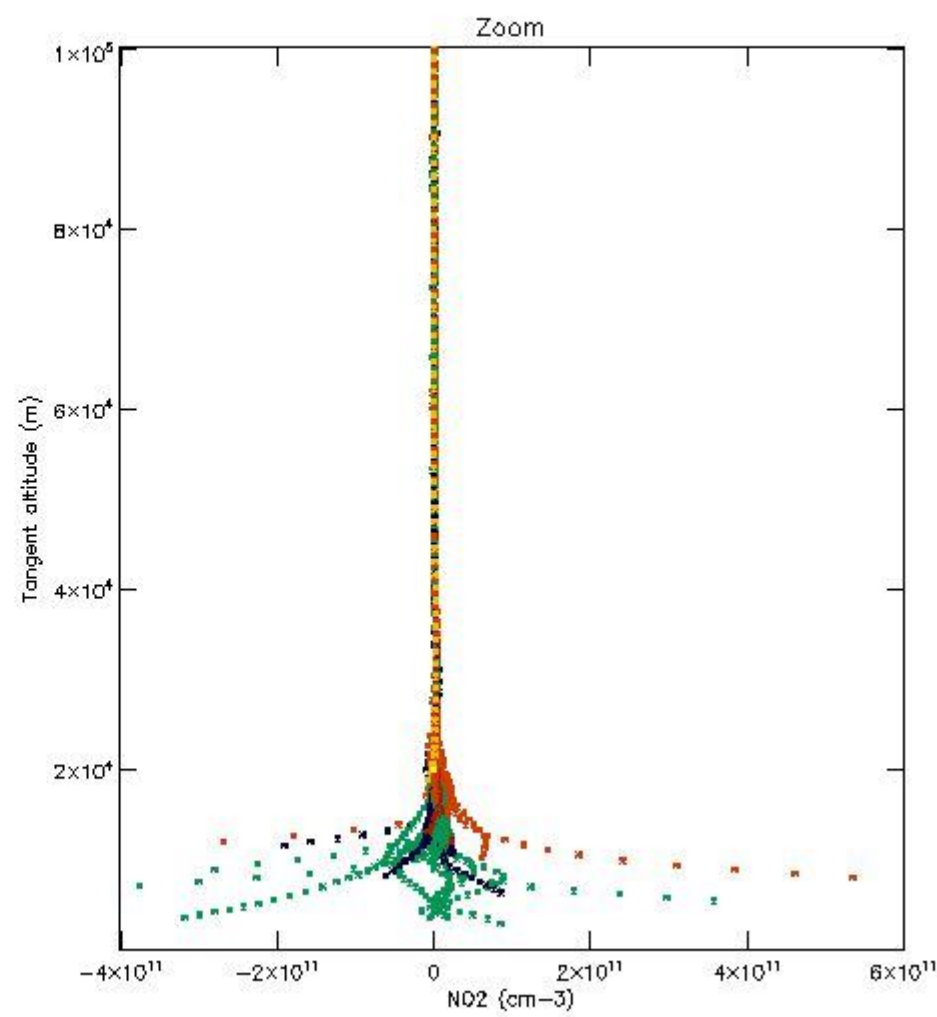
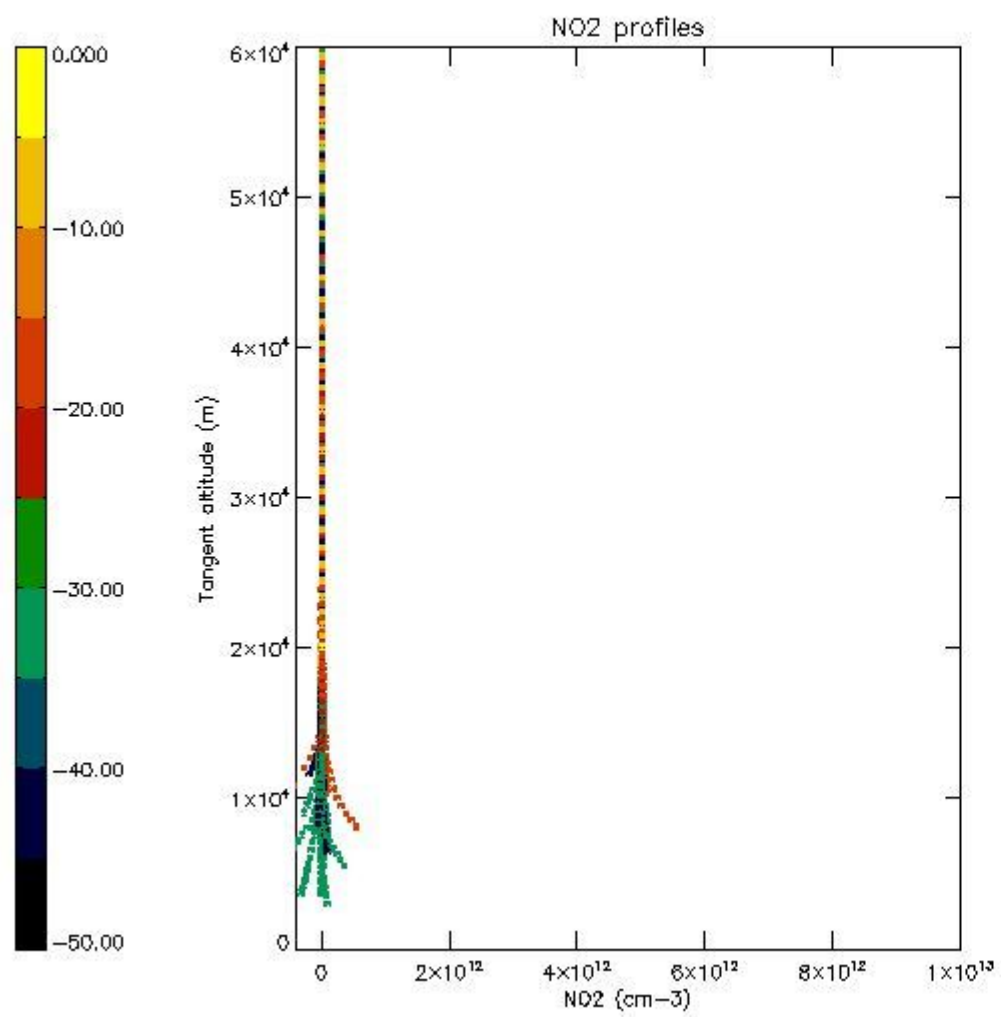
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



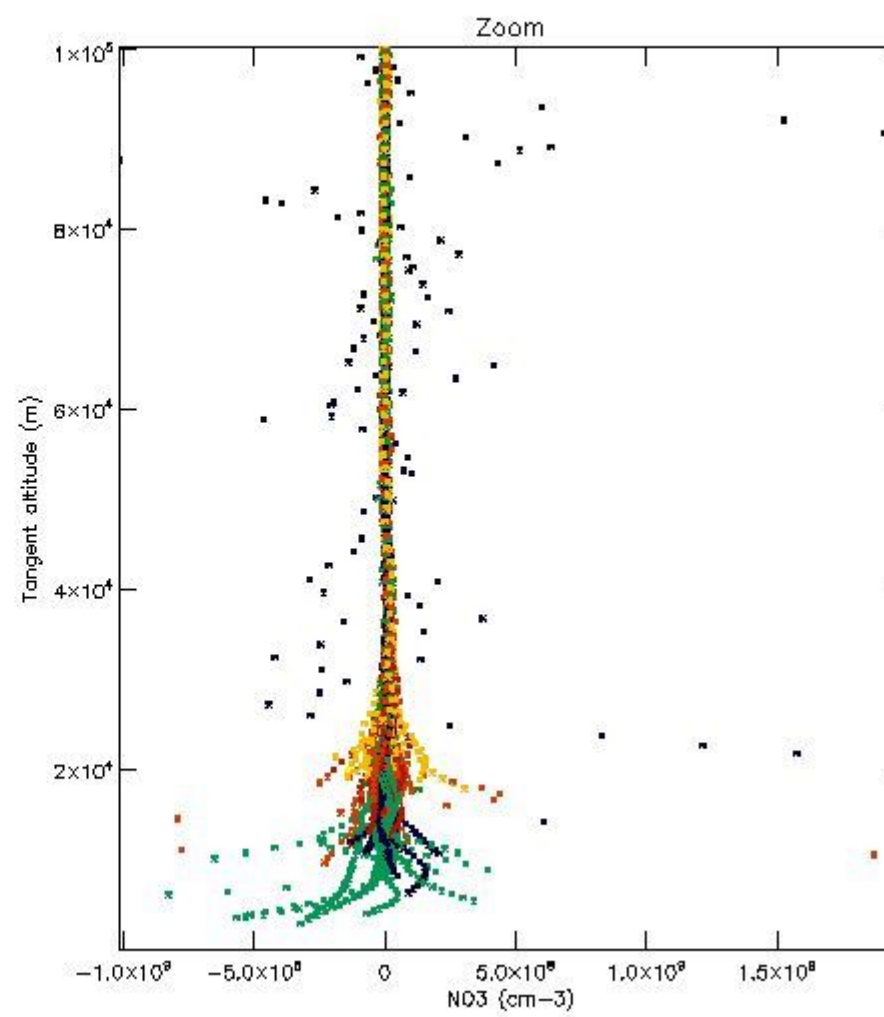
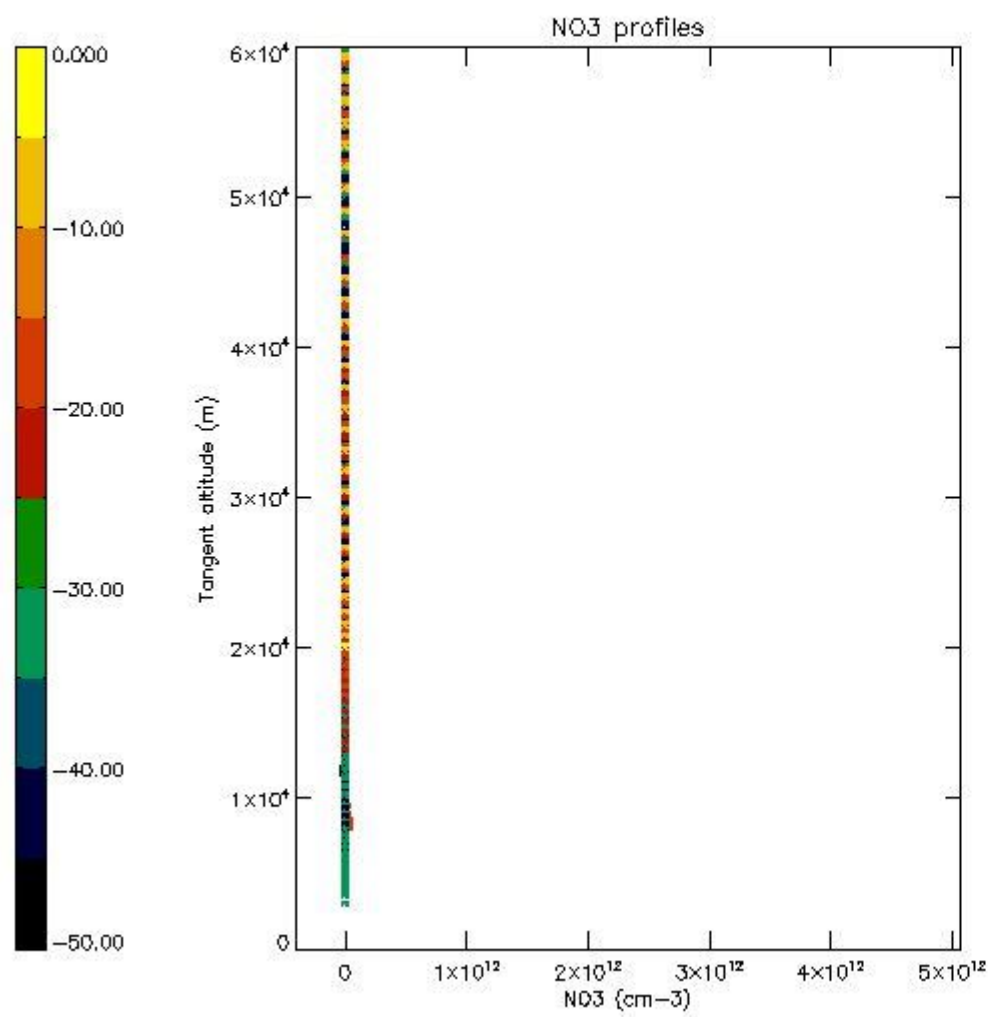
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



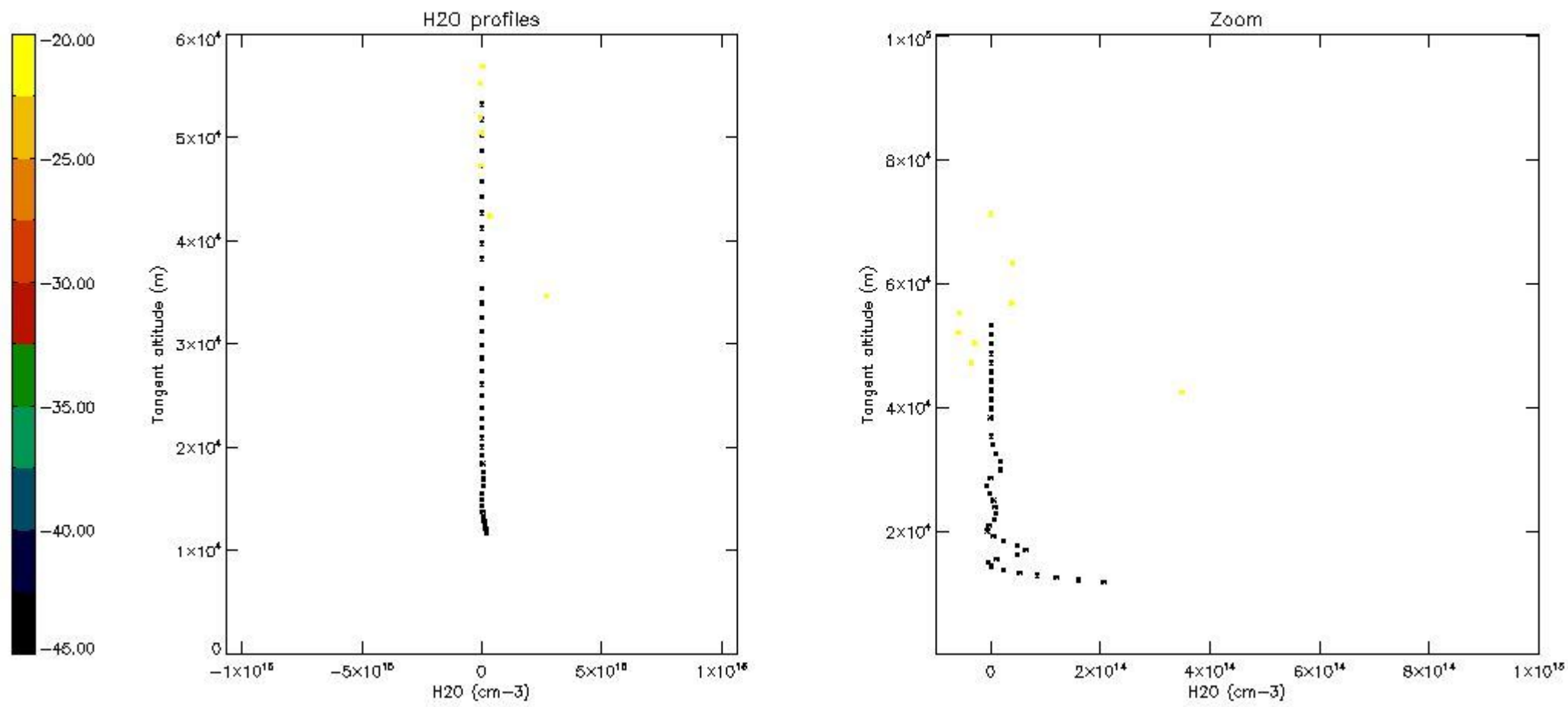
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

The colorbar represents the latitude.

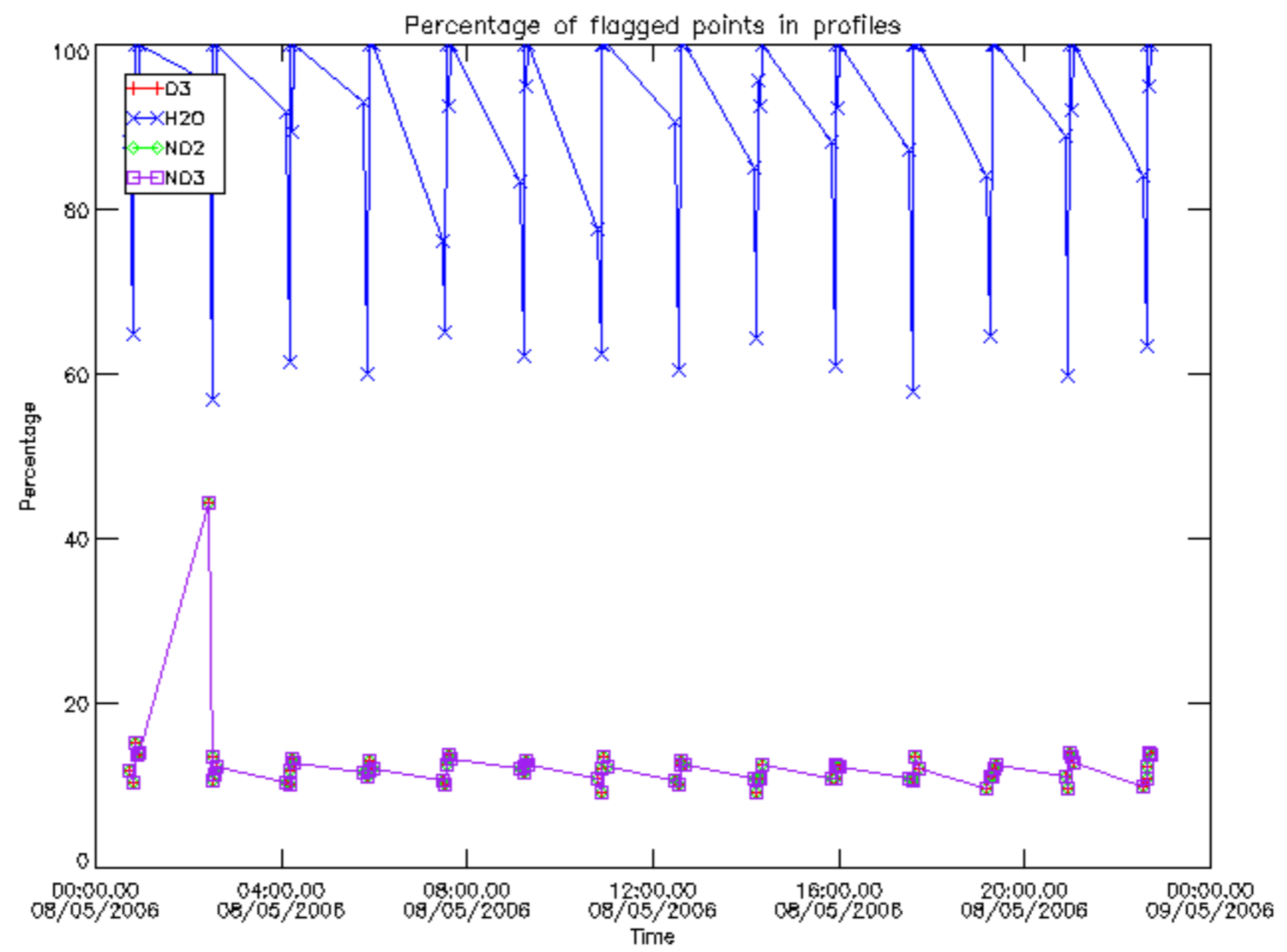


## 6. Auxiliary Data Files used for the production reported in section 2

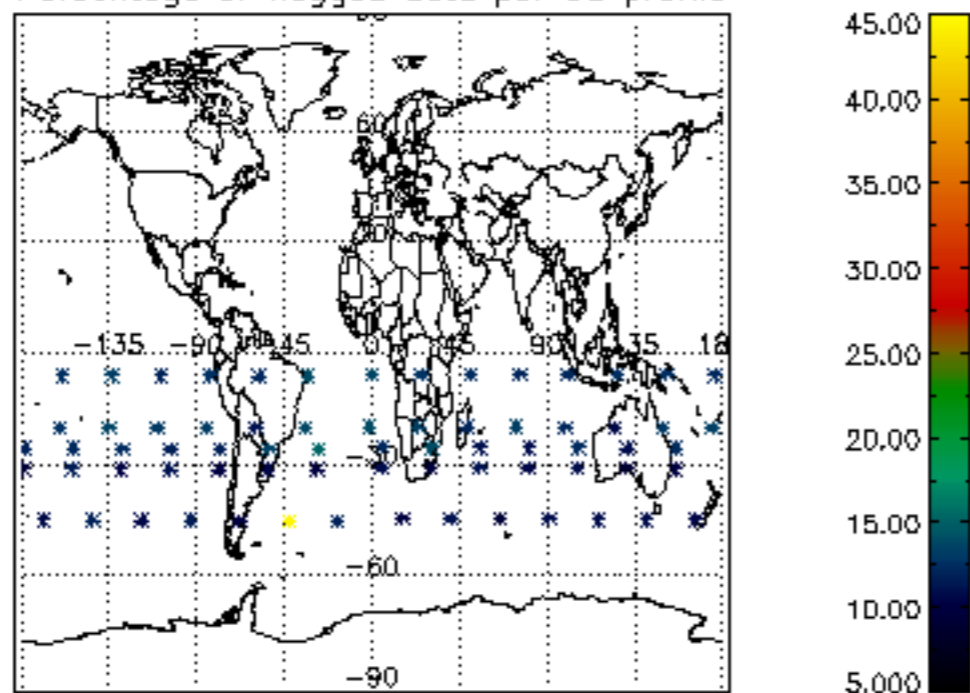
The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	08-MAY-2006 00:04:47
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	08-MAY-2006 00:04:47
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	08-MAY-2006 00:04:47

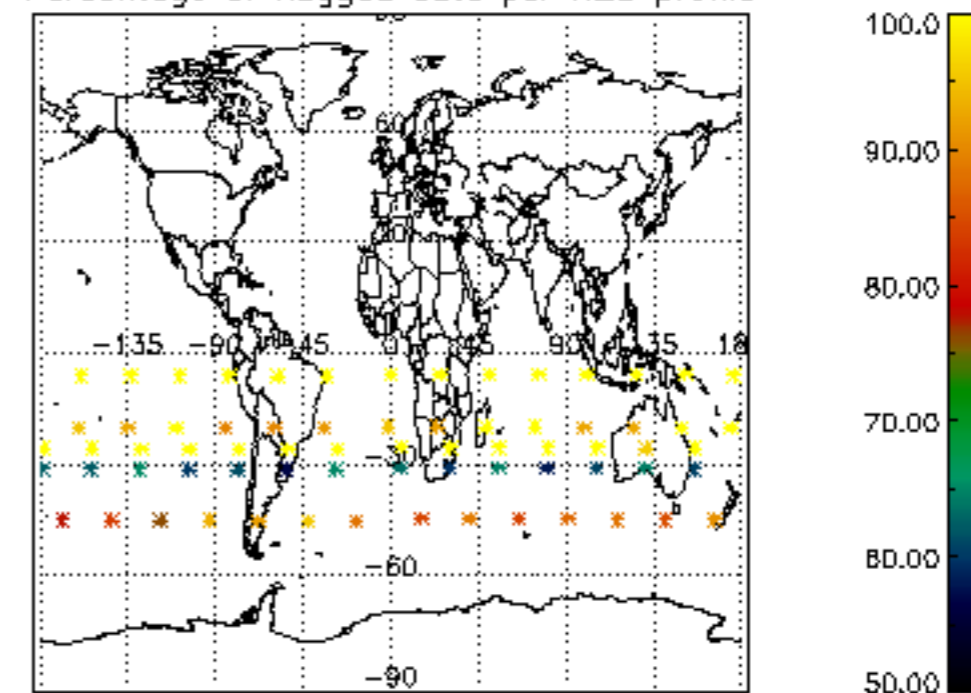




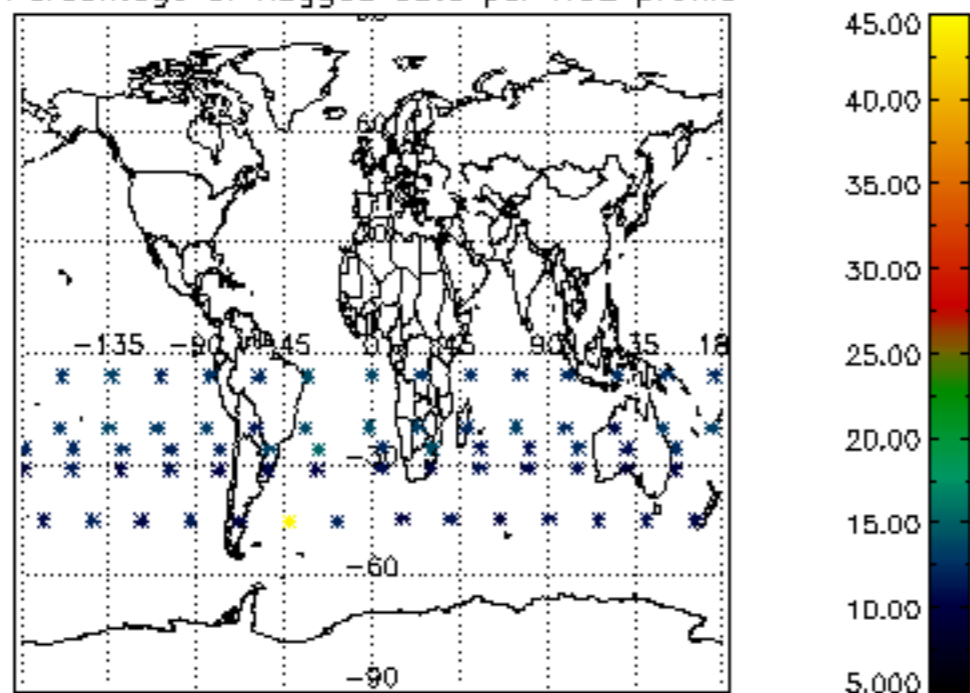
Percentage of flagged data per D3 profile



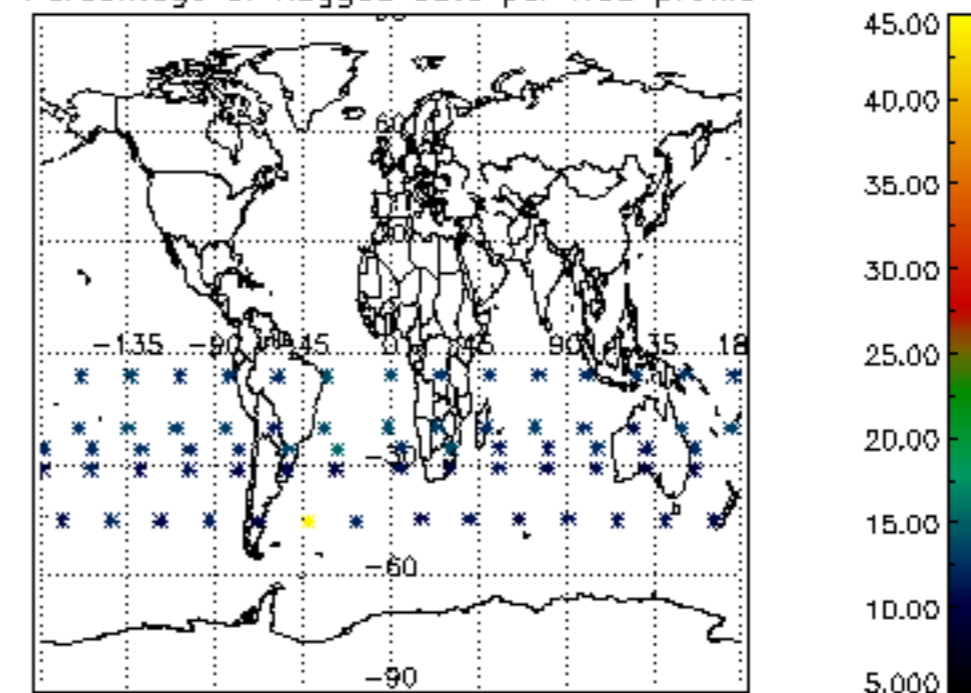
Percentage of flagged data per H2O profile

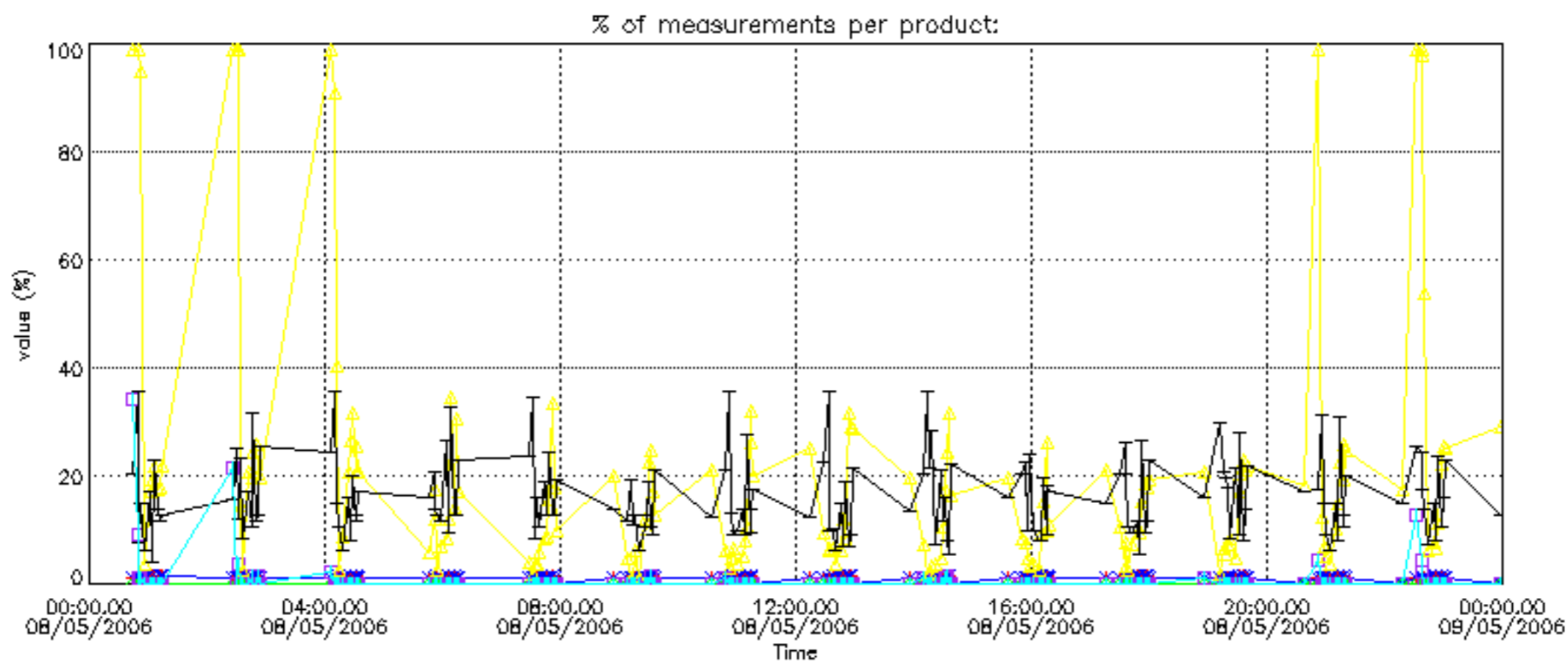


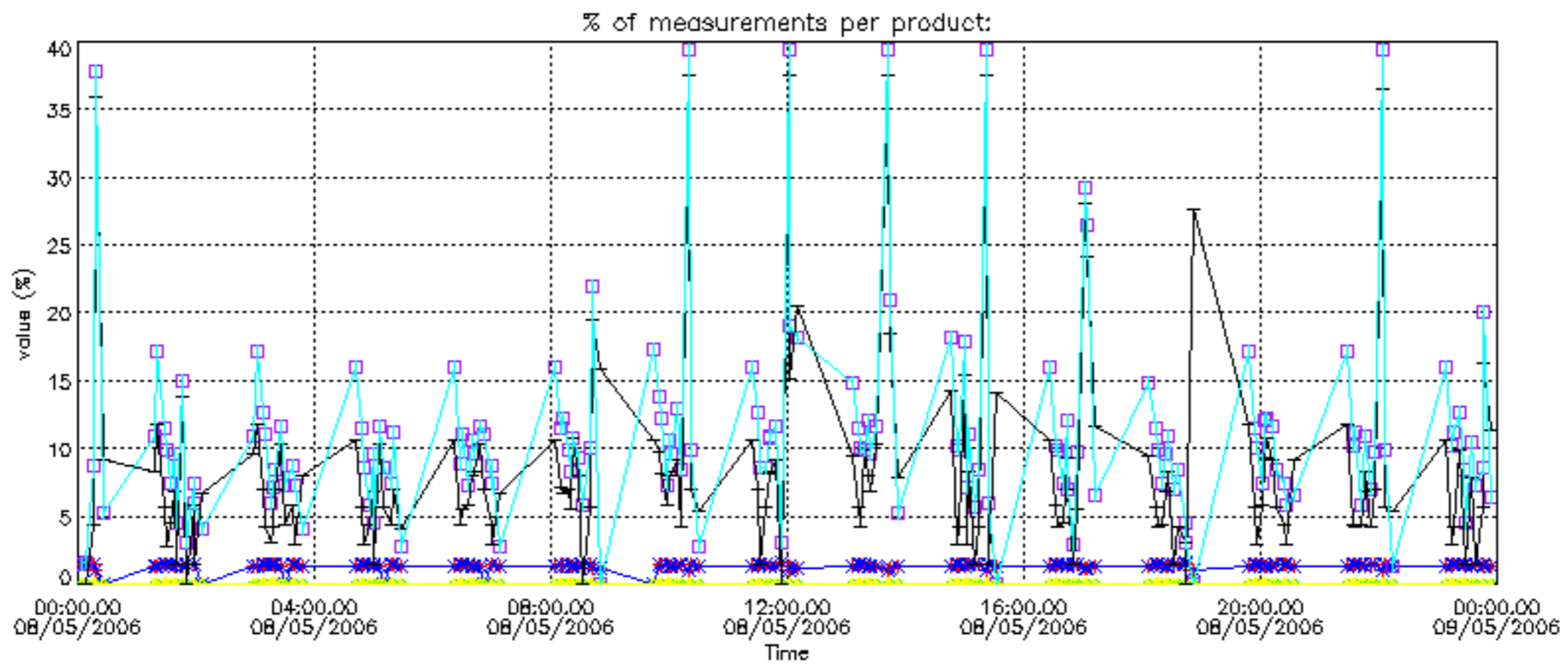
Percentage of flagged data per NO2 profile



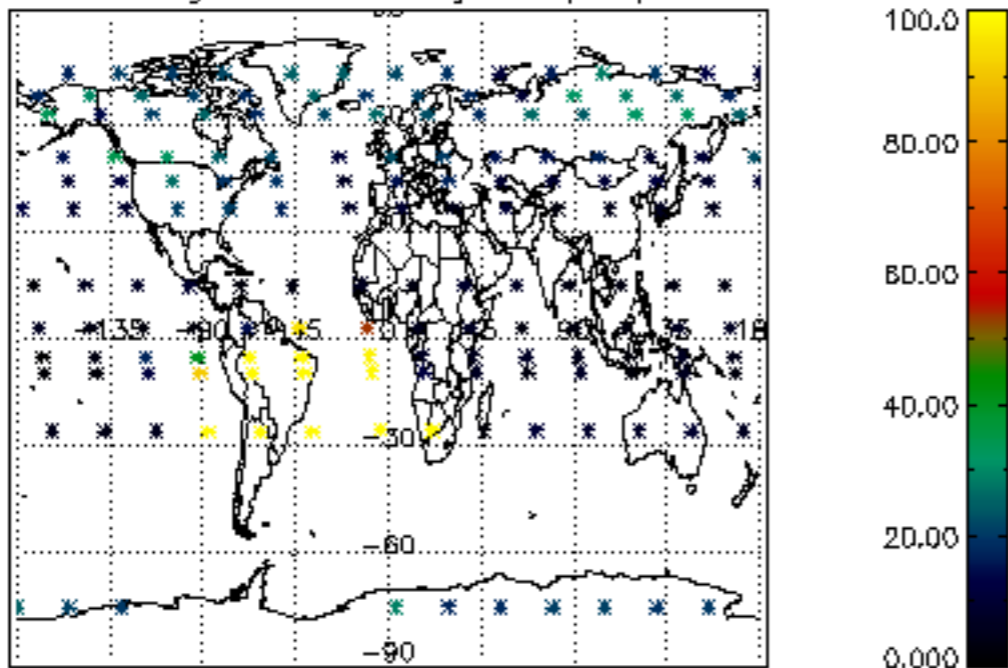
Percentage of flagged data per NO3 profile



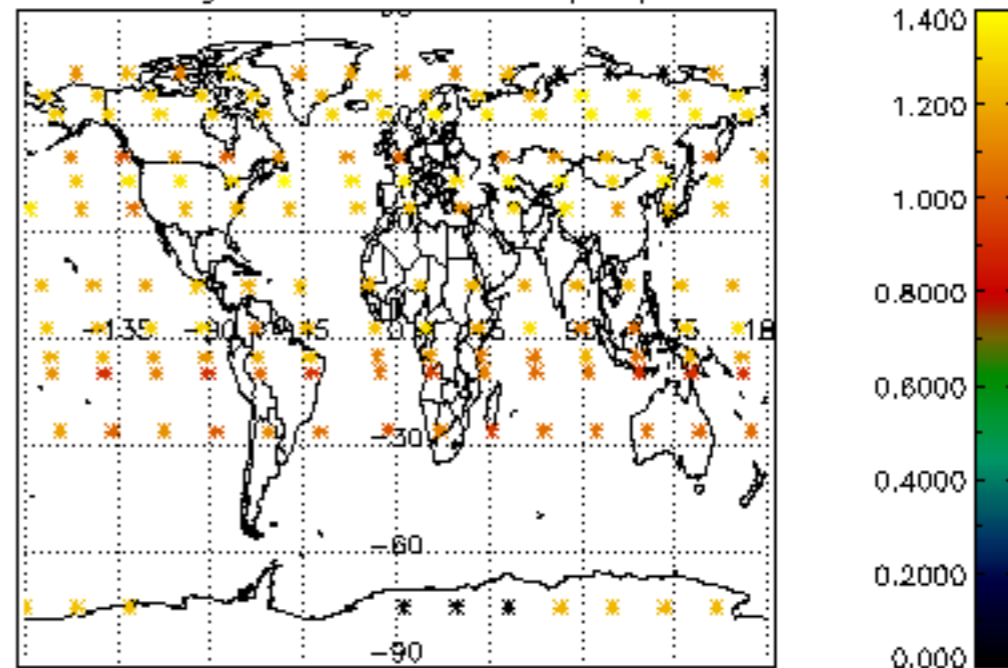




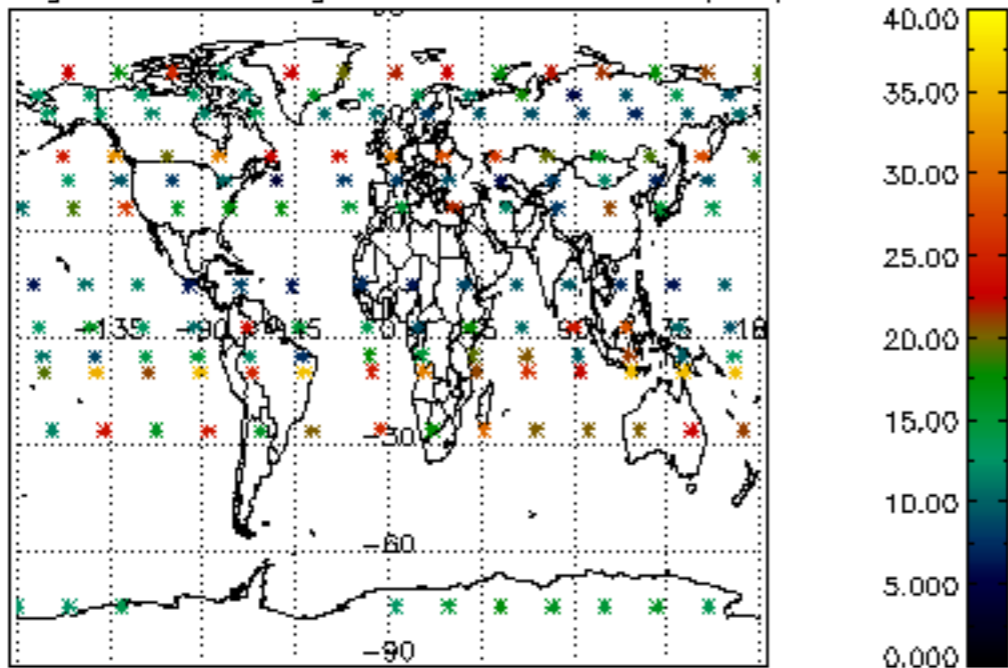
Percentage of cosmic ray hits per profile



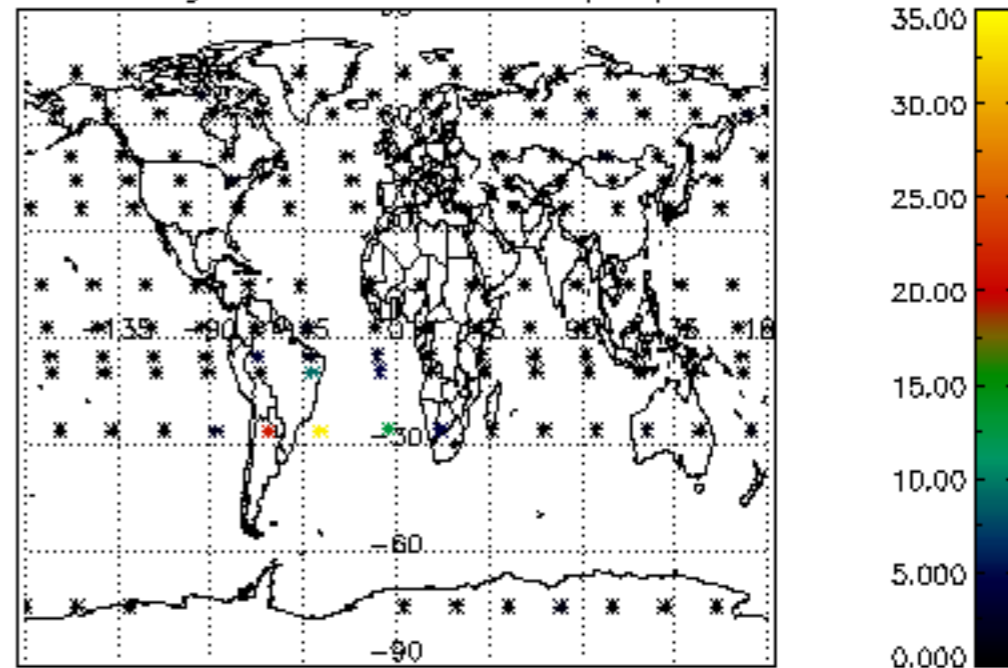
Percentage of datation errors per profile



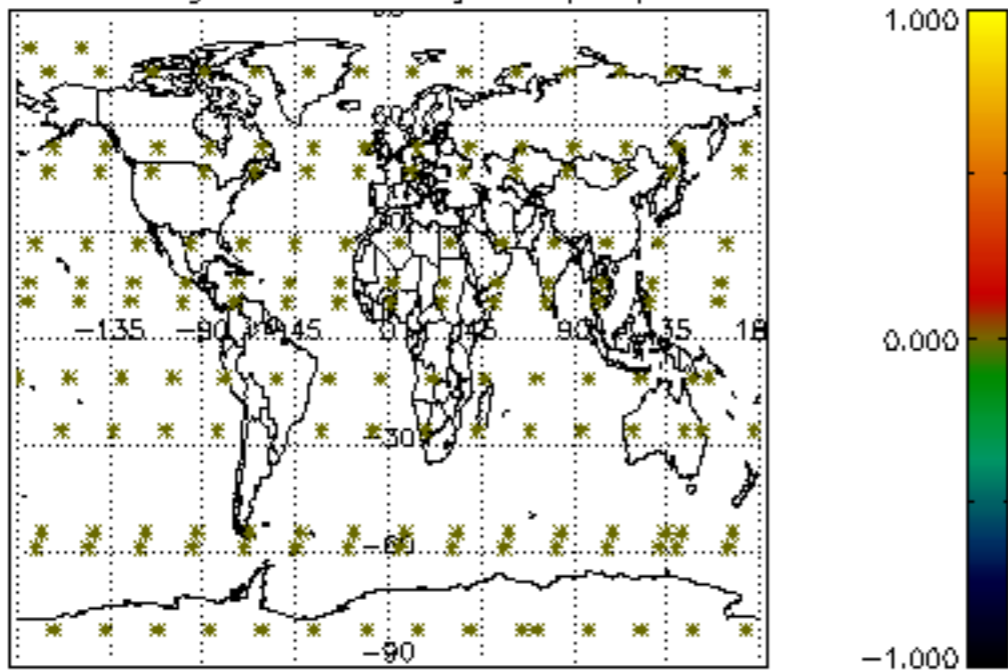
Percentage of star falling outside central band per profile



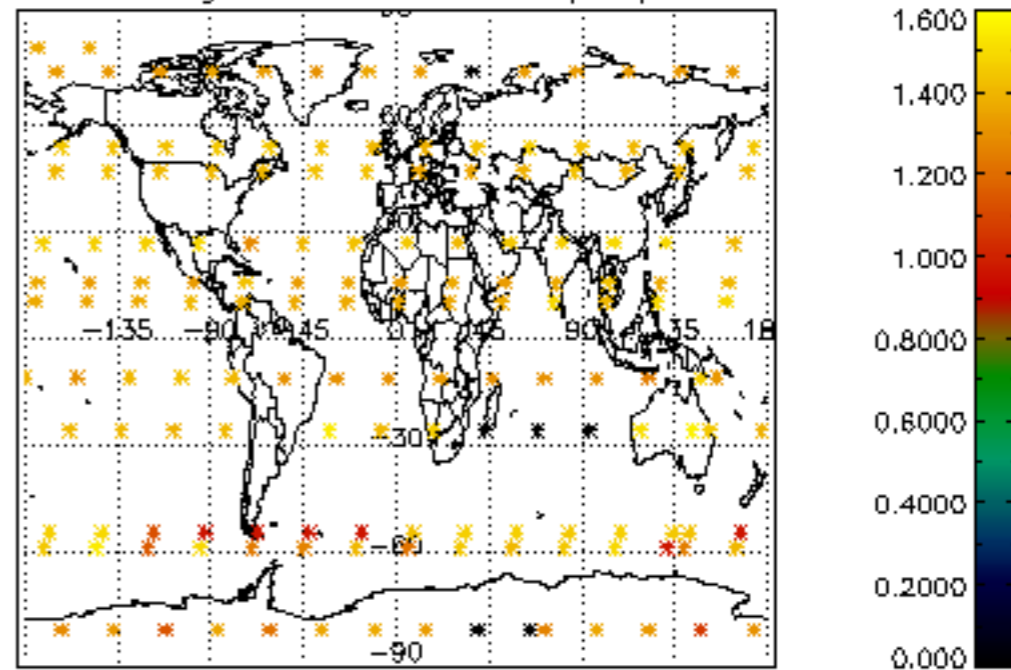
Percentage of saturation errors per profile



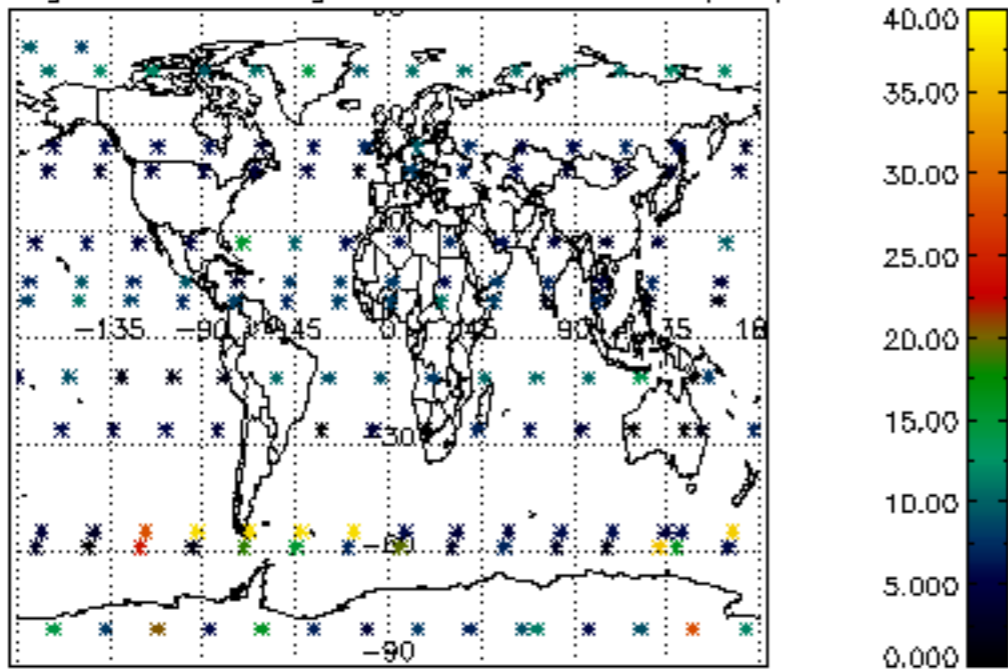
Percentage of cosmic ray hits per profile



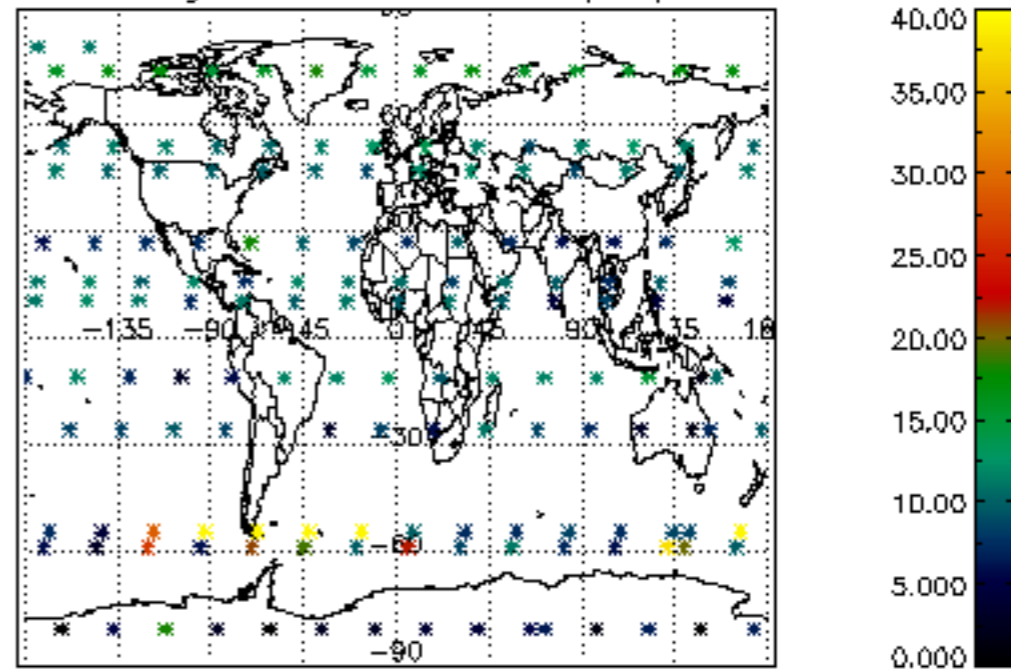
Percentage of datation errors per profile

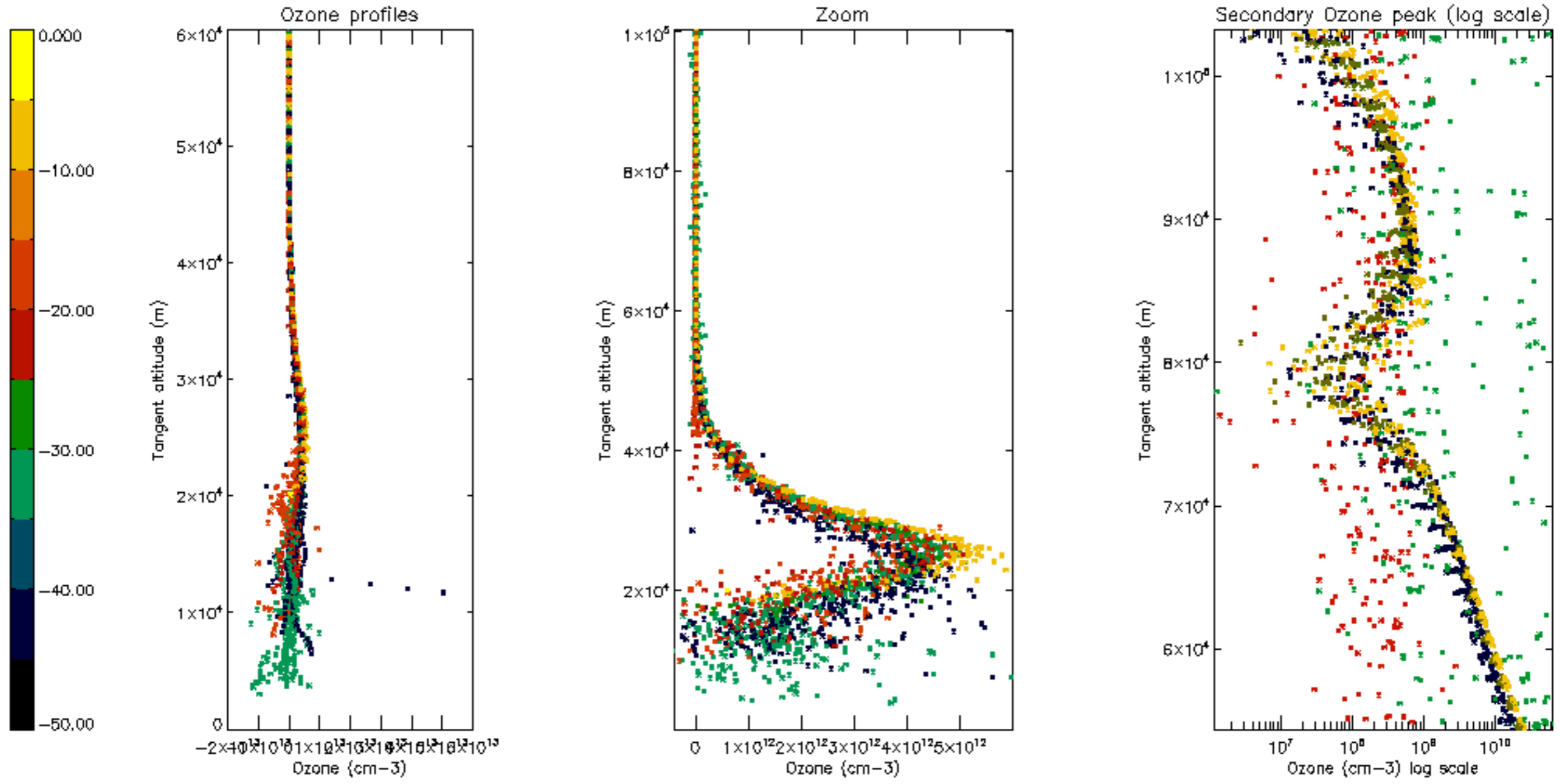


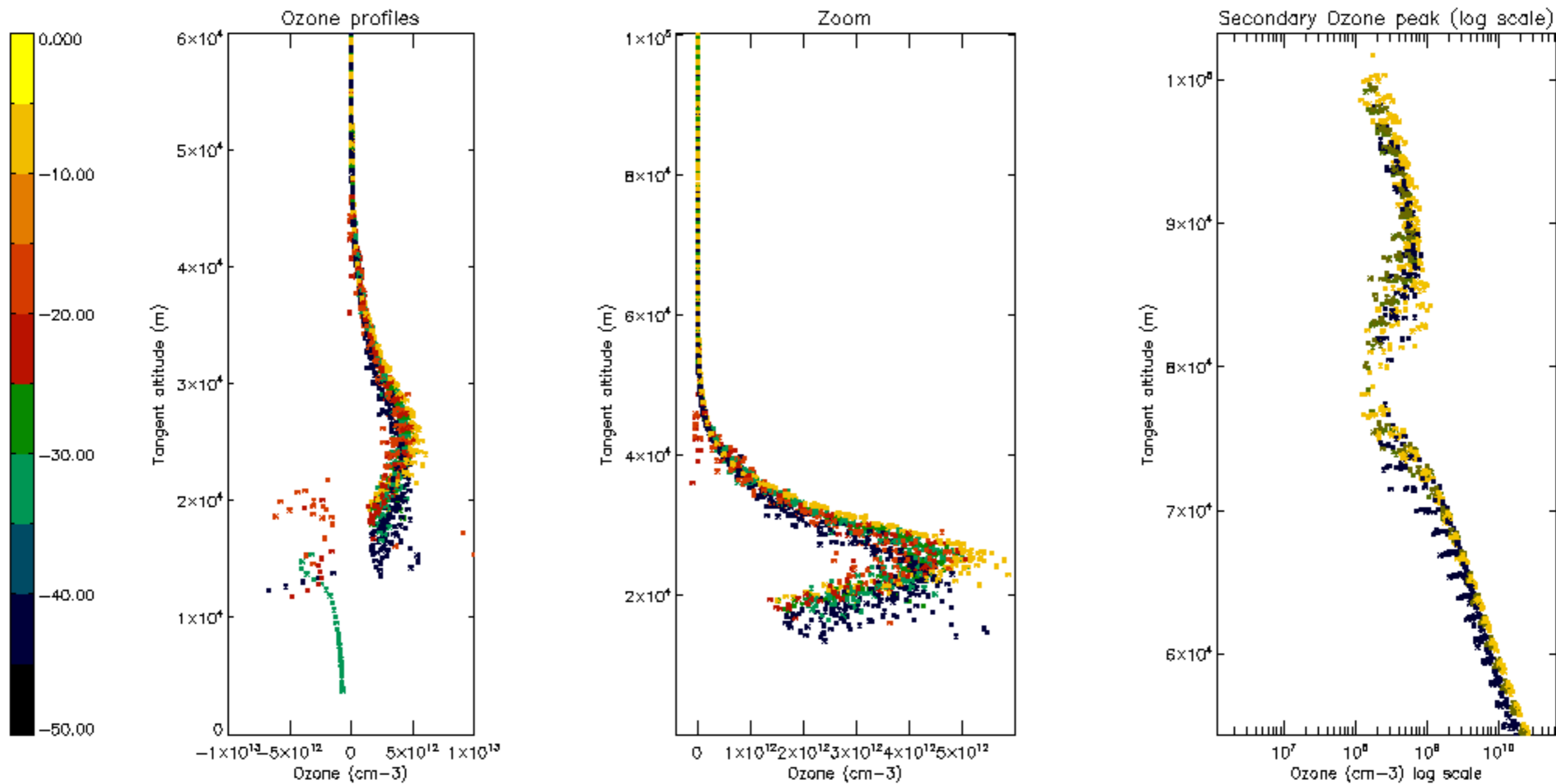
Percentage of star falling outside central band per profile



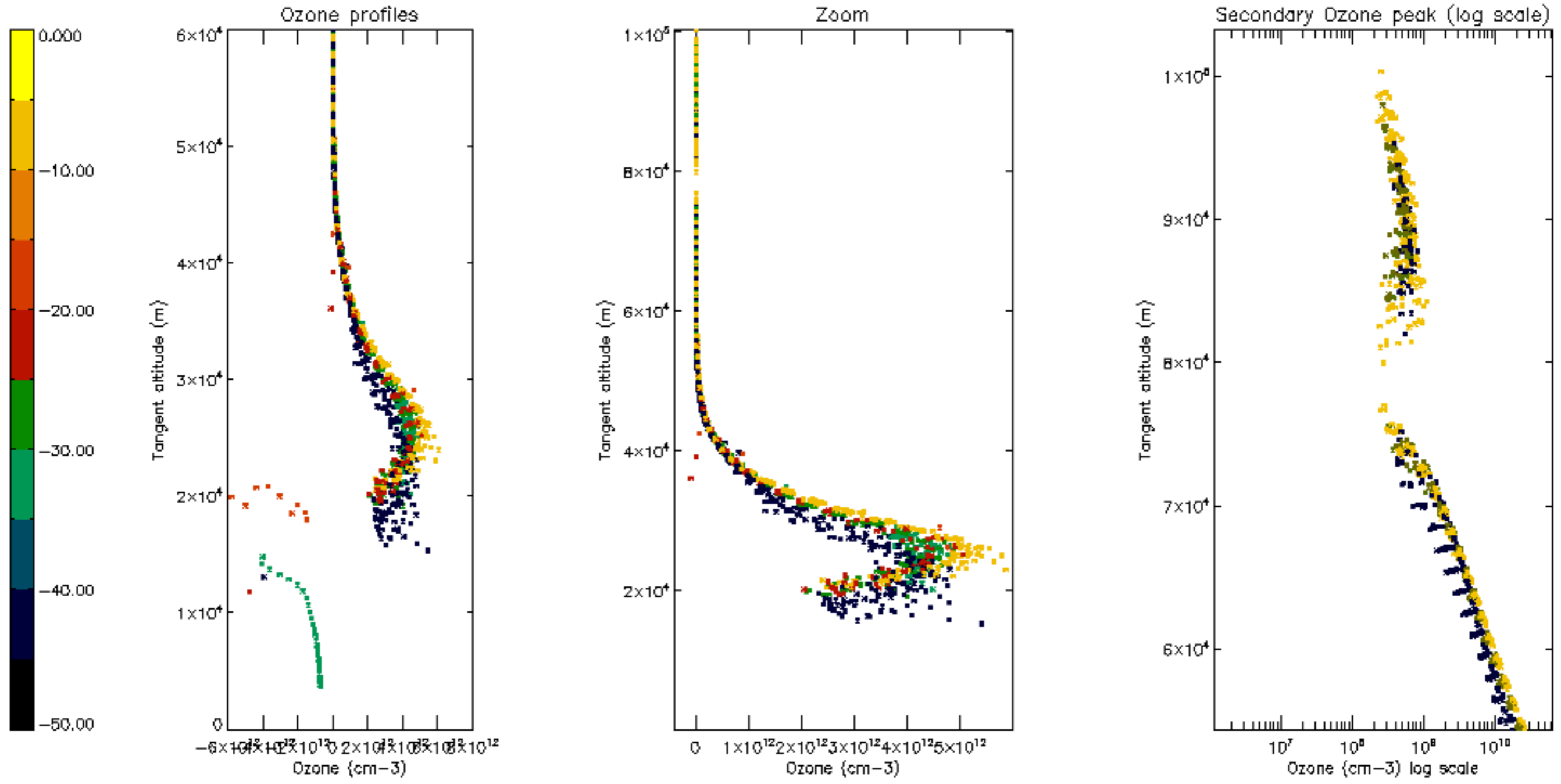
Percentage of saturation errors per profile

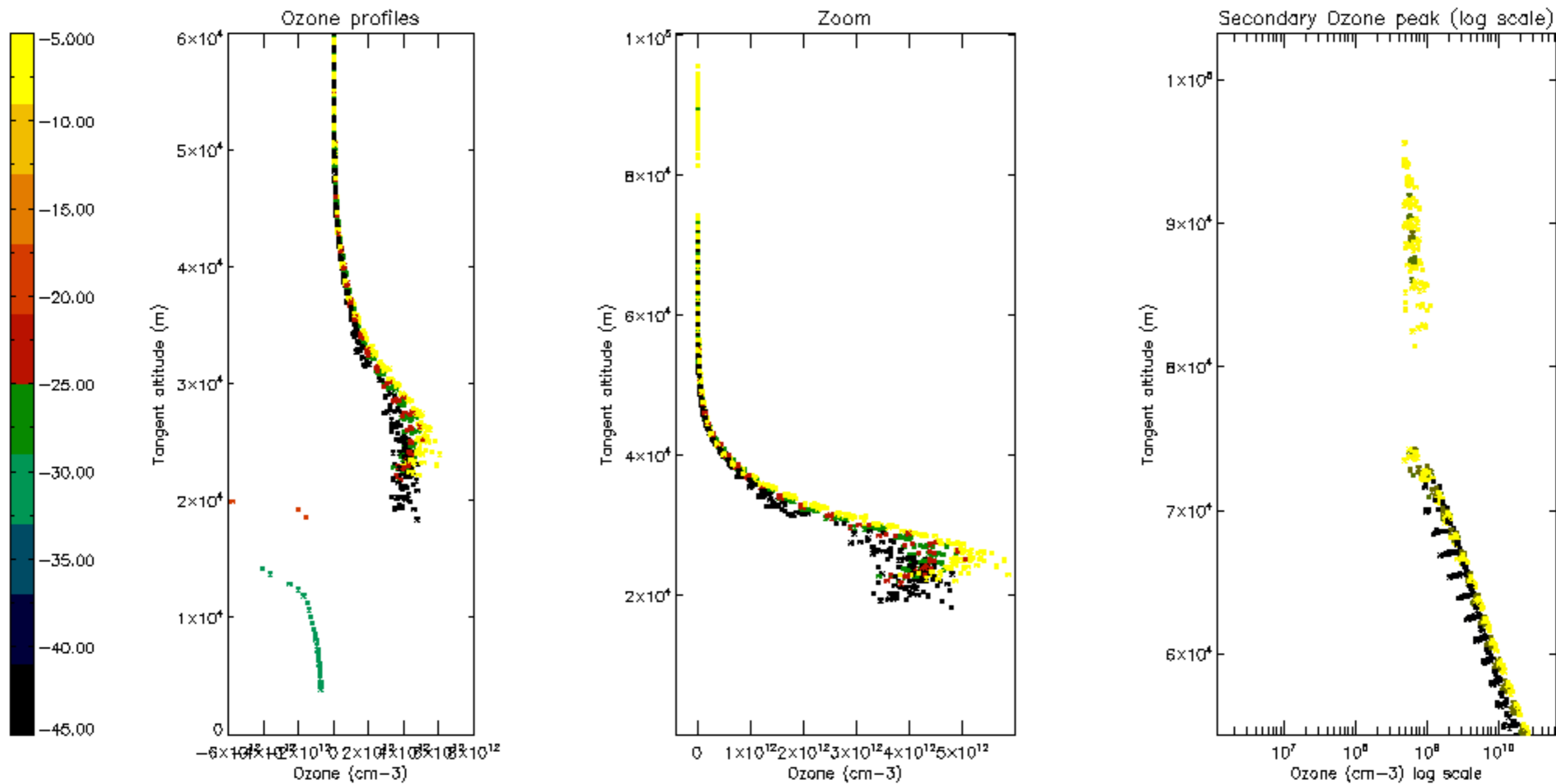


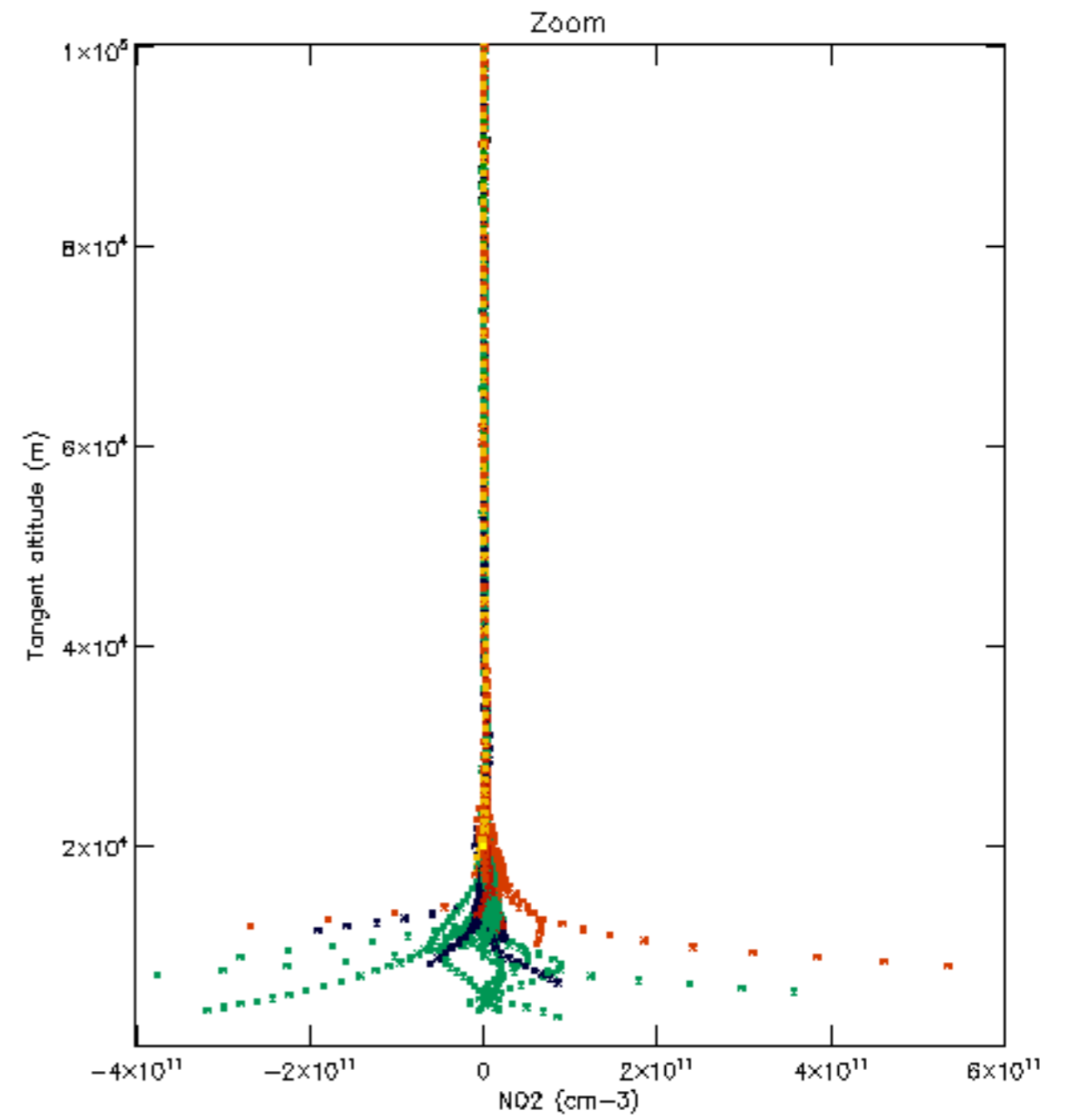
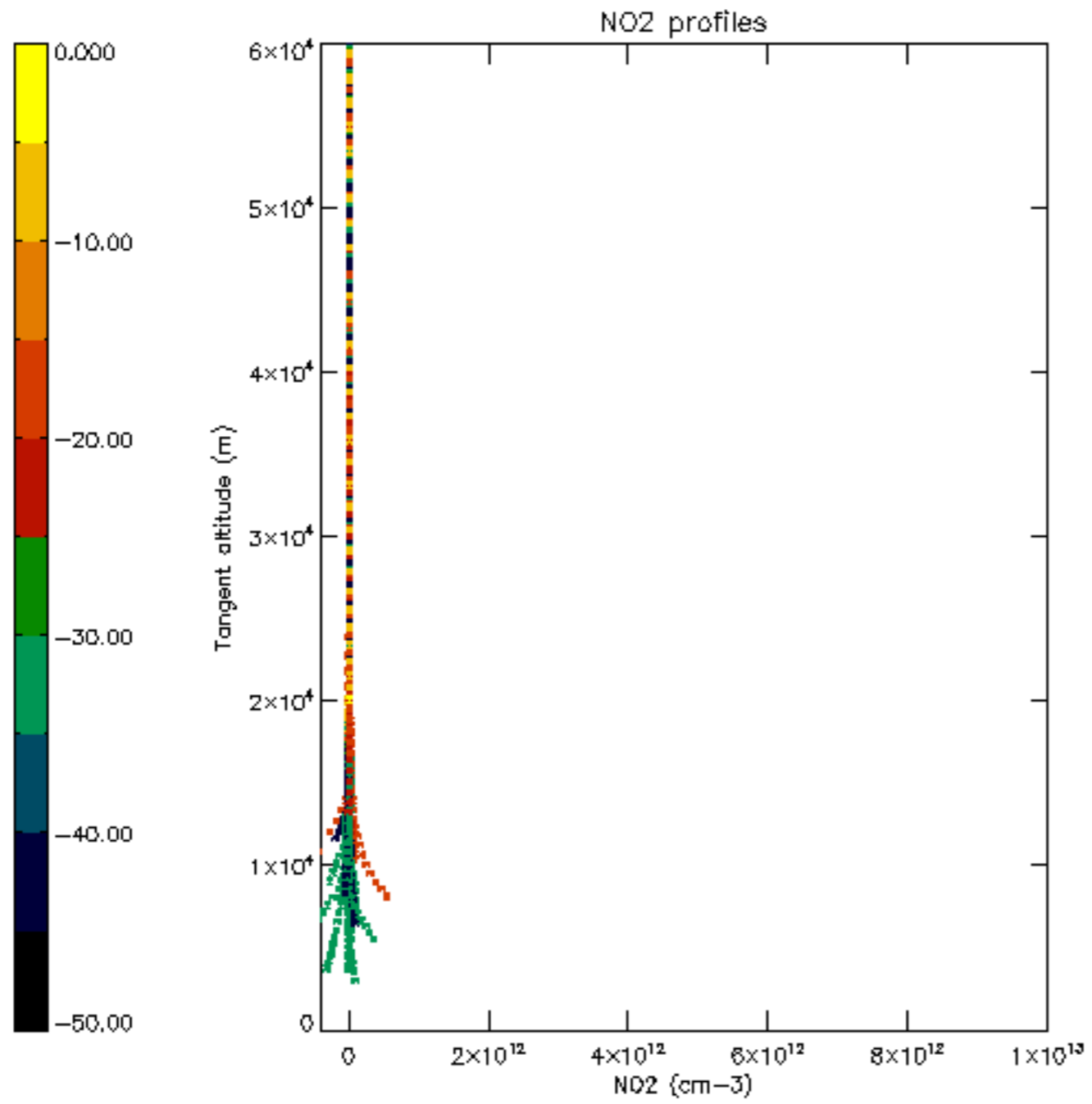


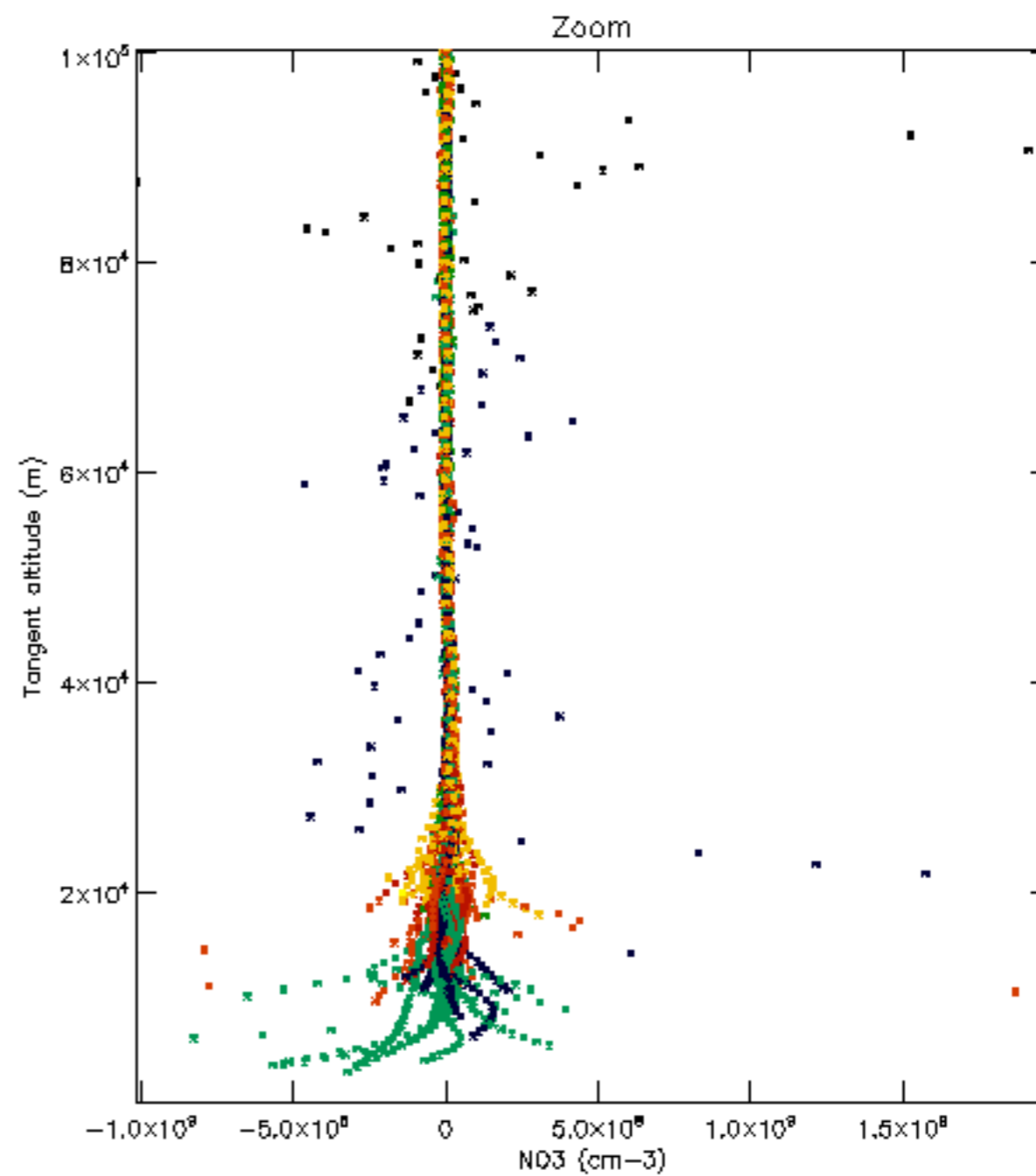
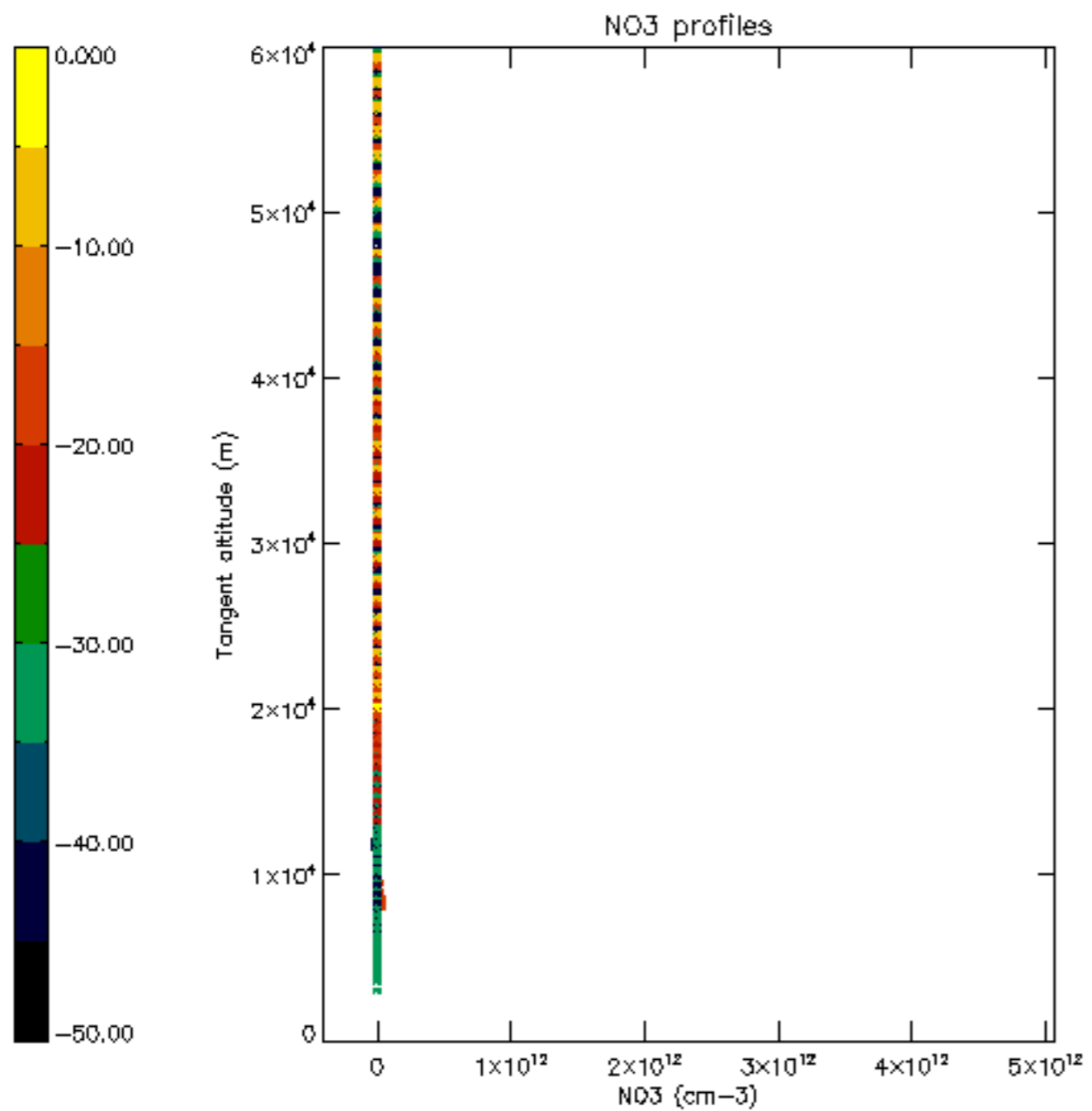


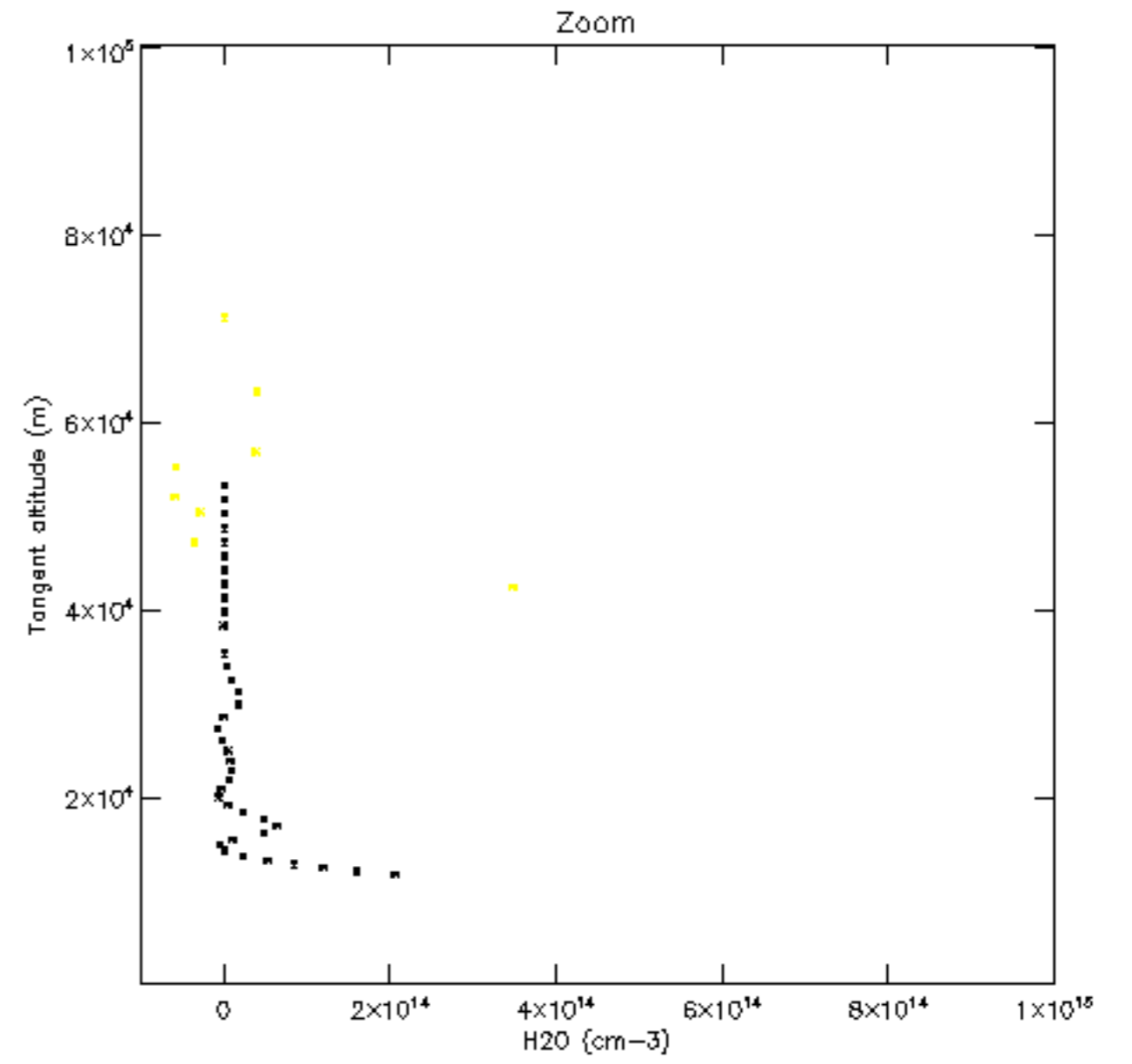
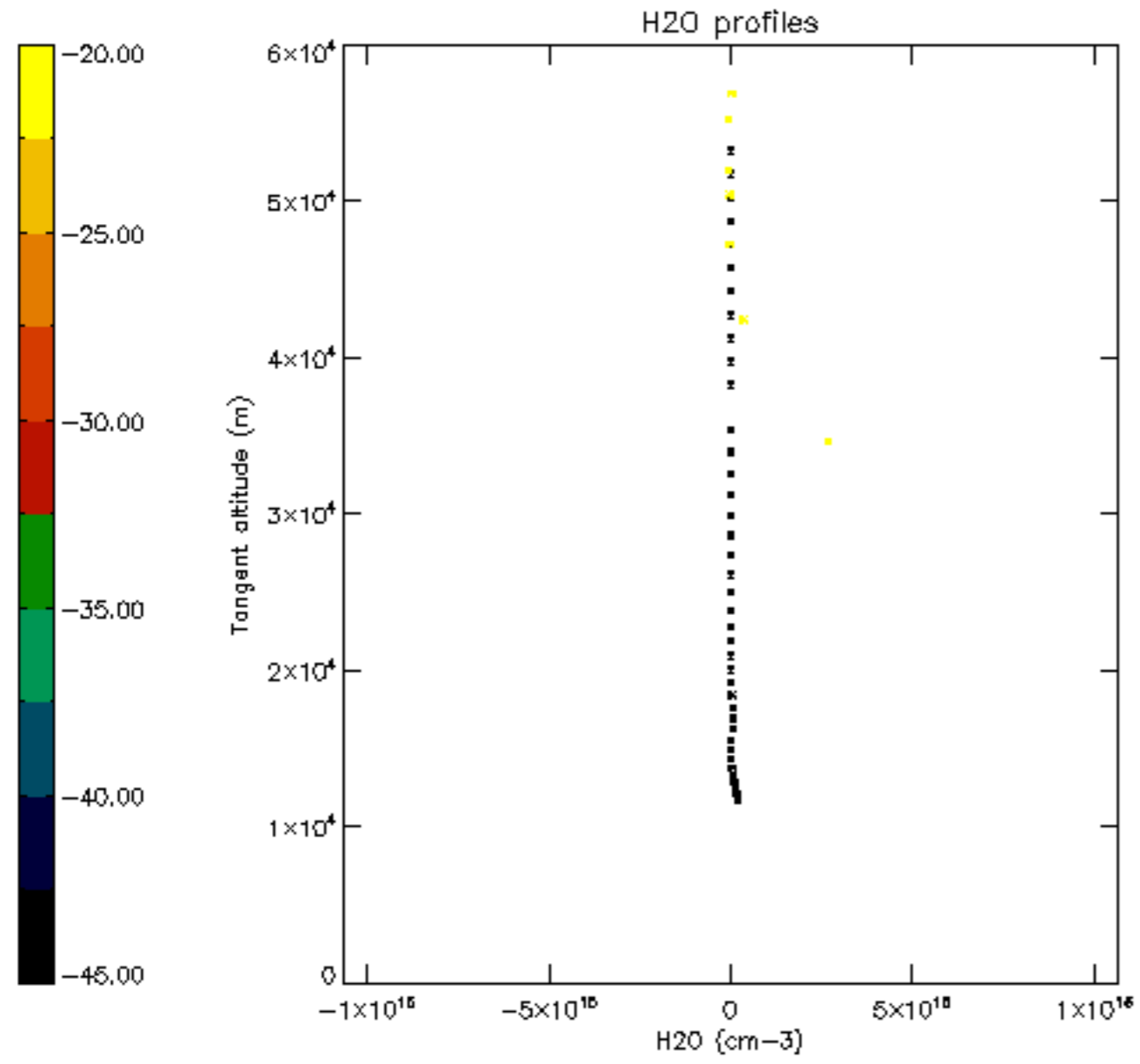


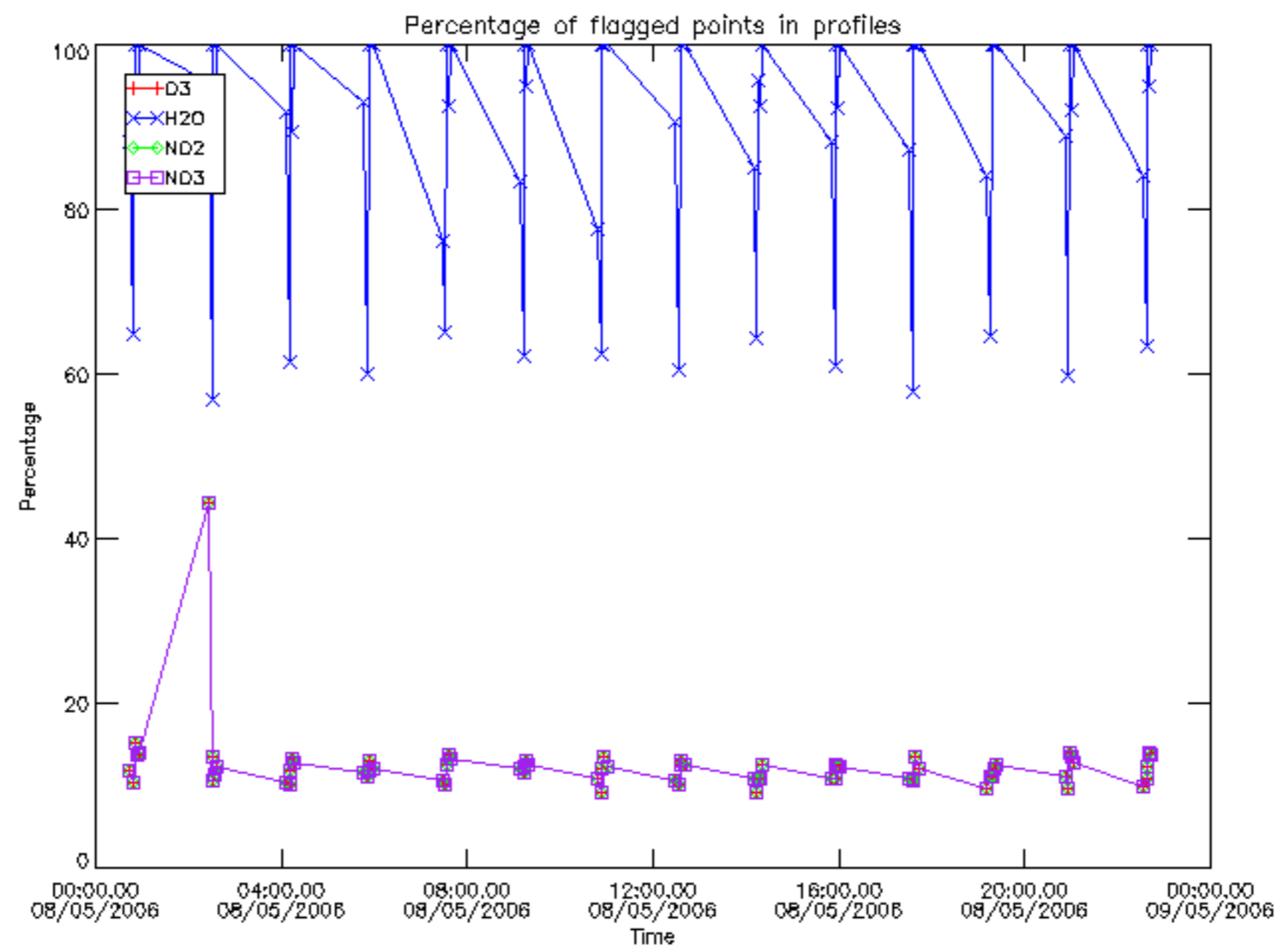




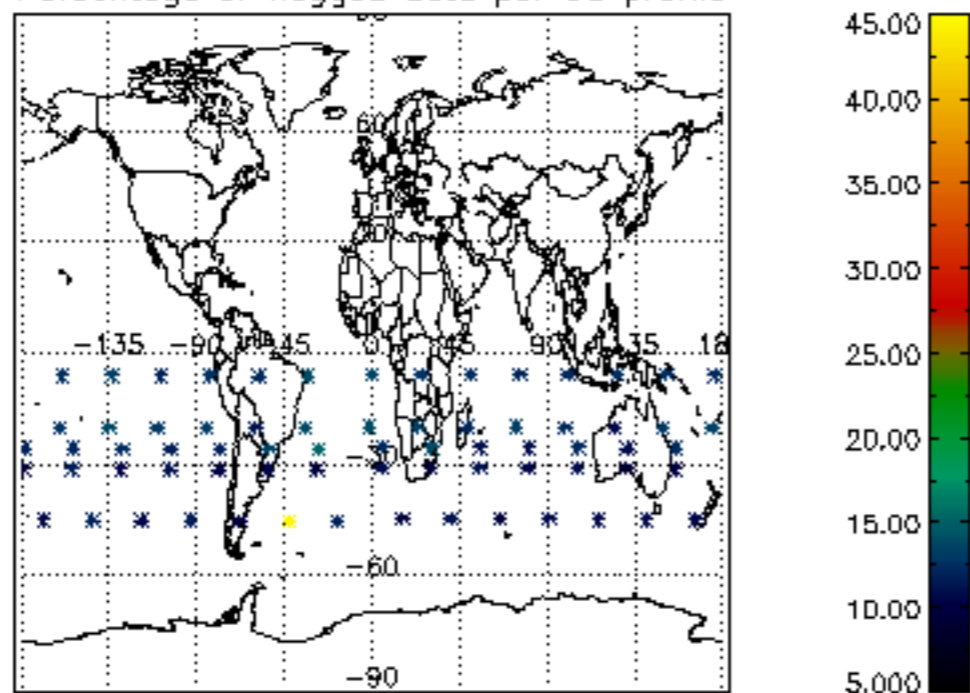




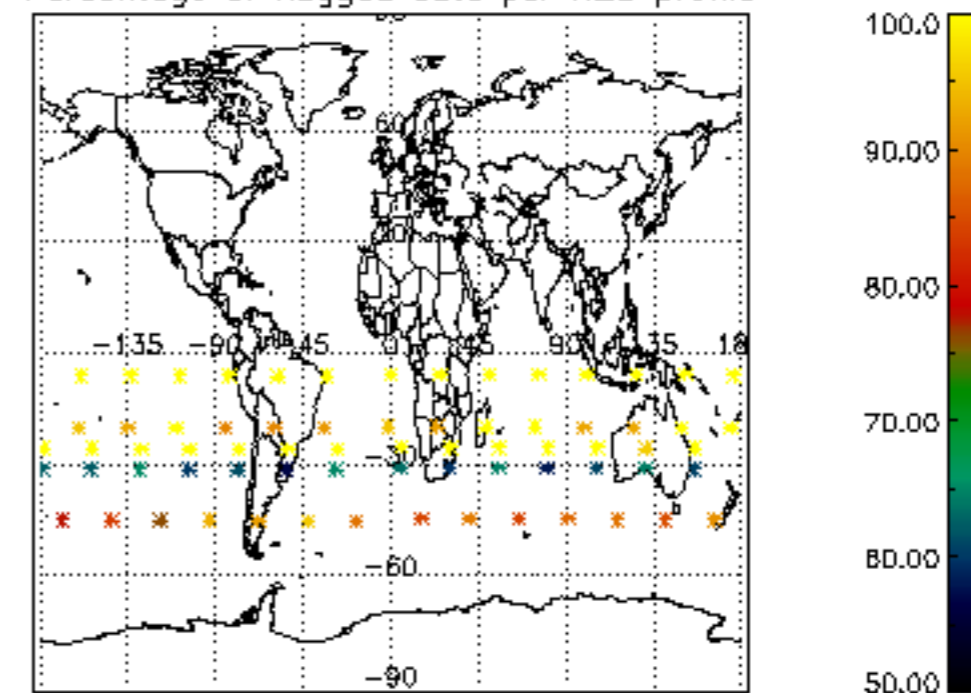




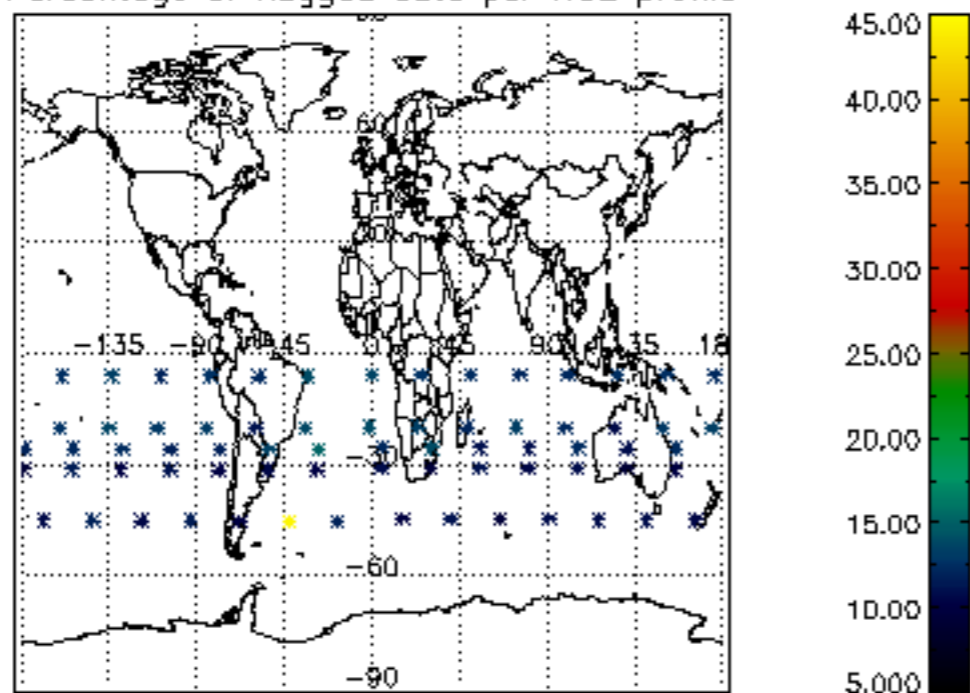
Percentage of flagged data per D3 profile



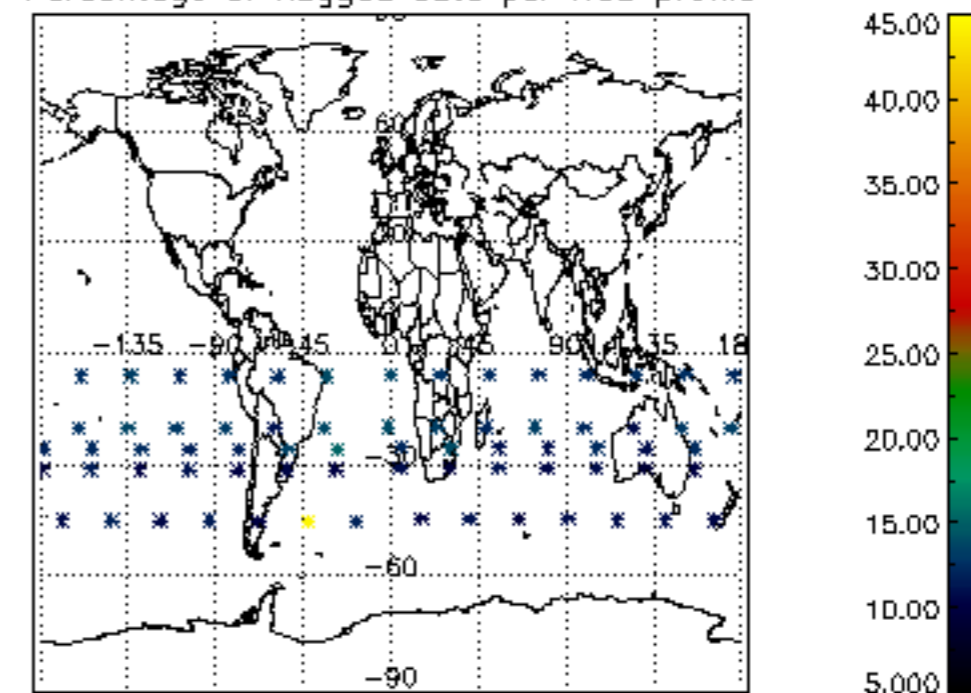
Percentage of flagged data per H2O profile

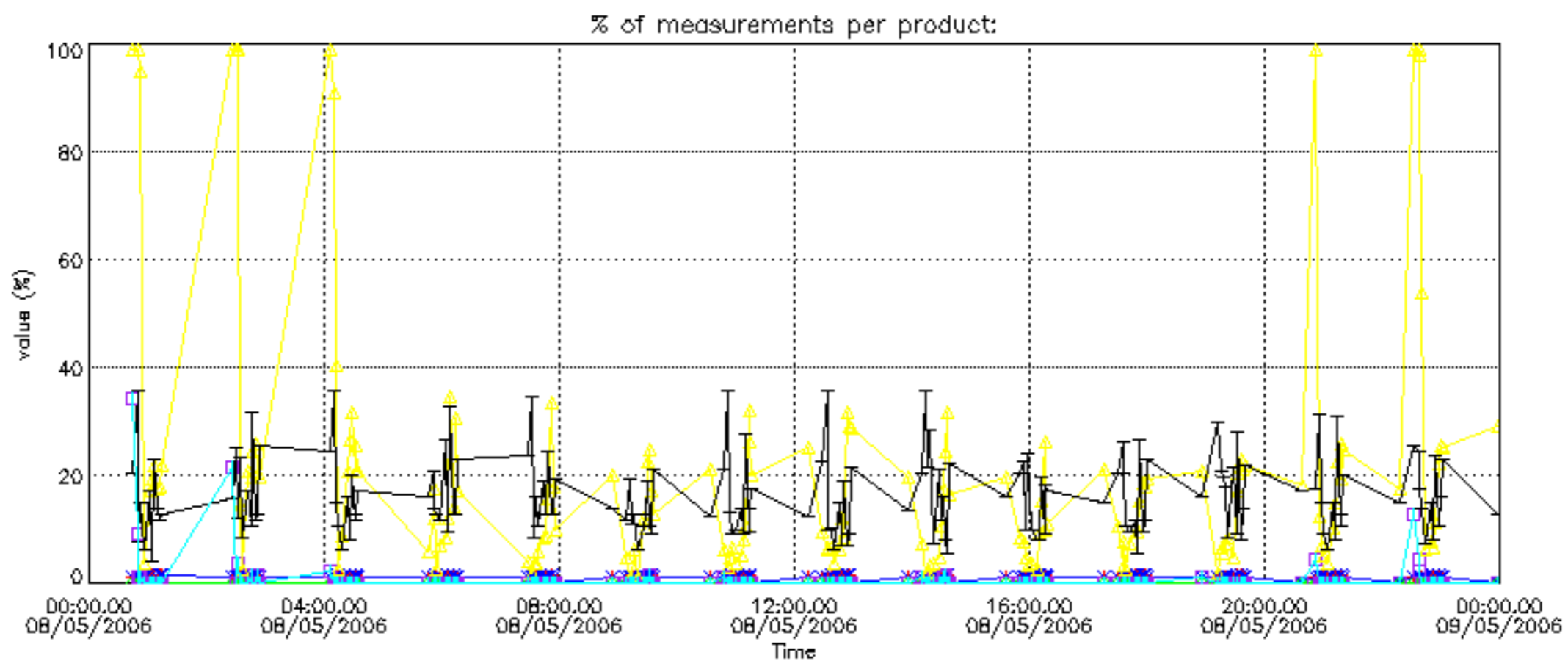


Percentage of flagged data per NO2 profile

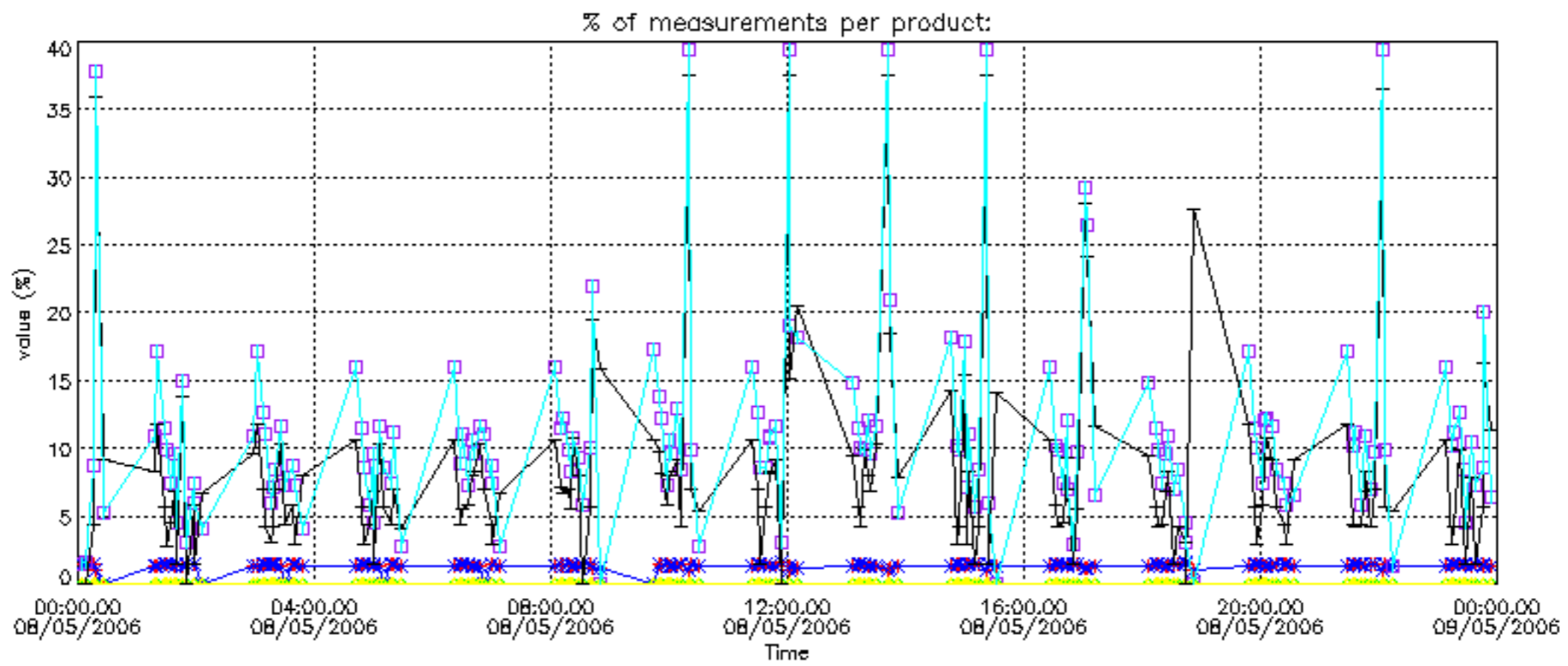


Percentage of flagged data per NO3 profile

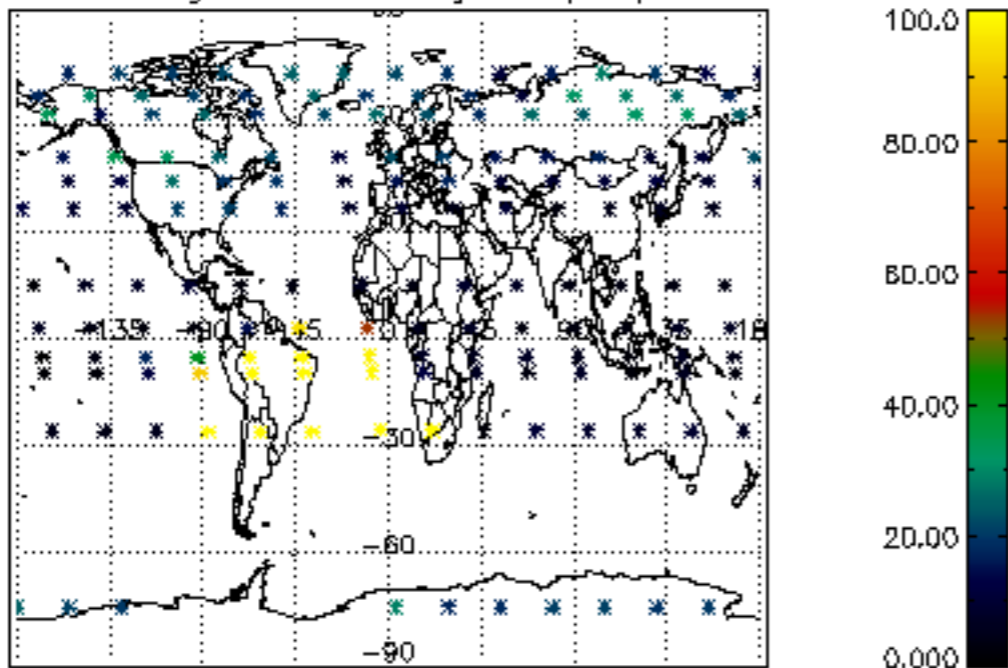




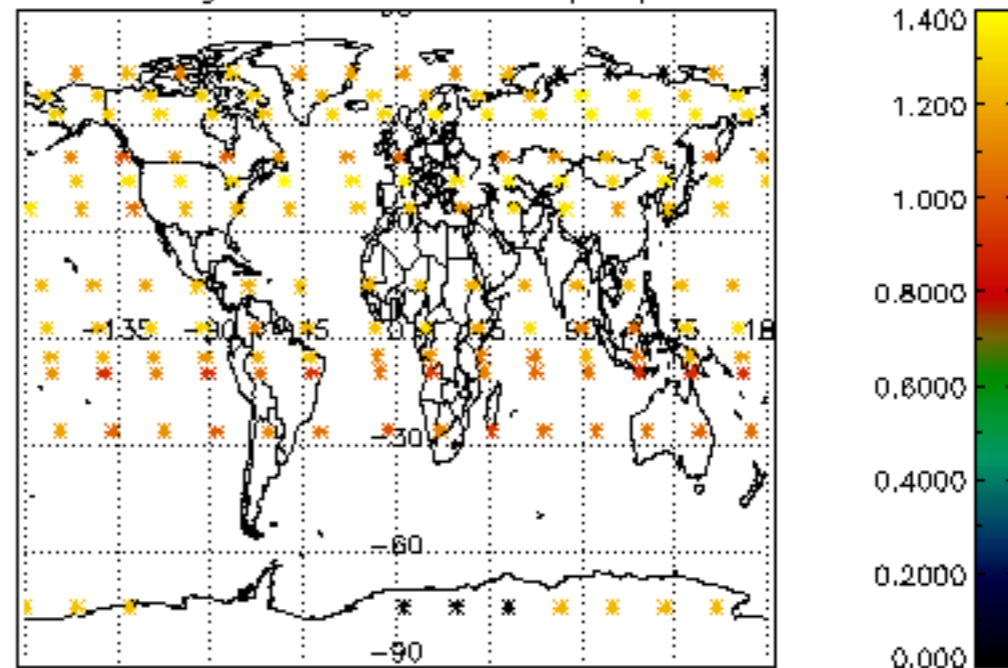




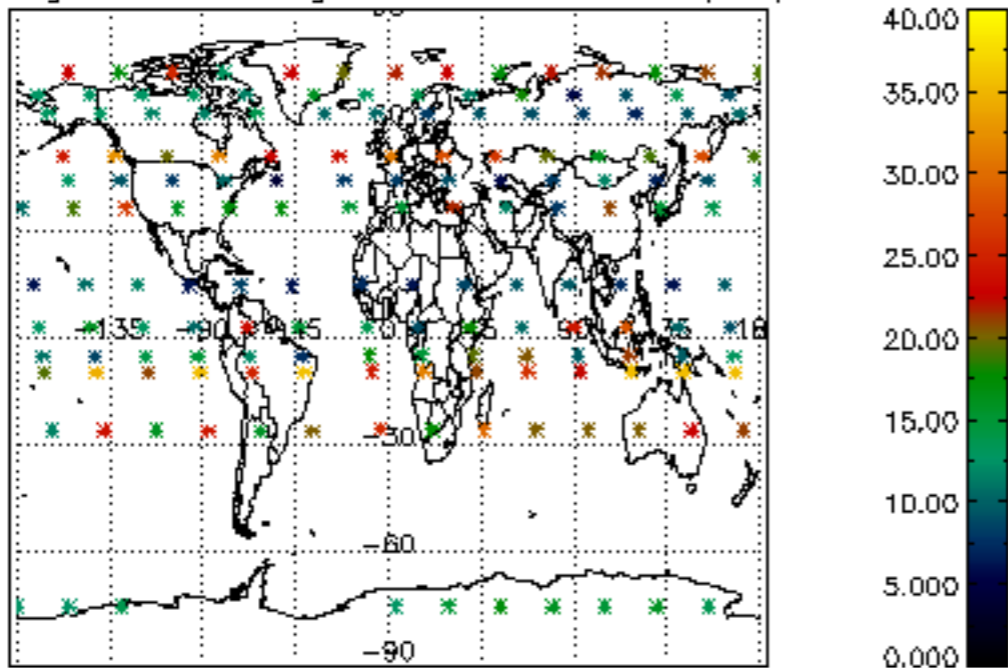
Percentage of cosmic ray hits per profile



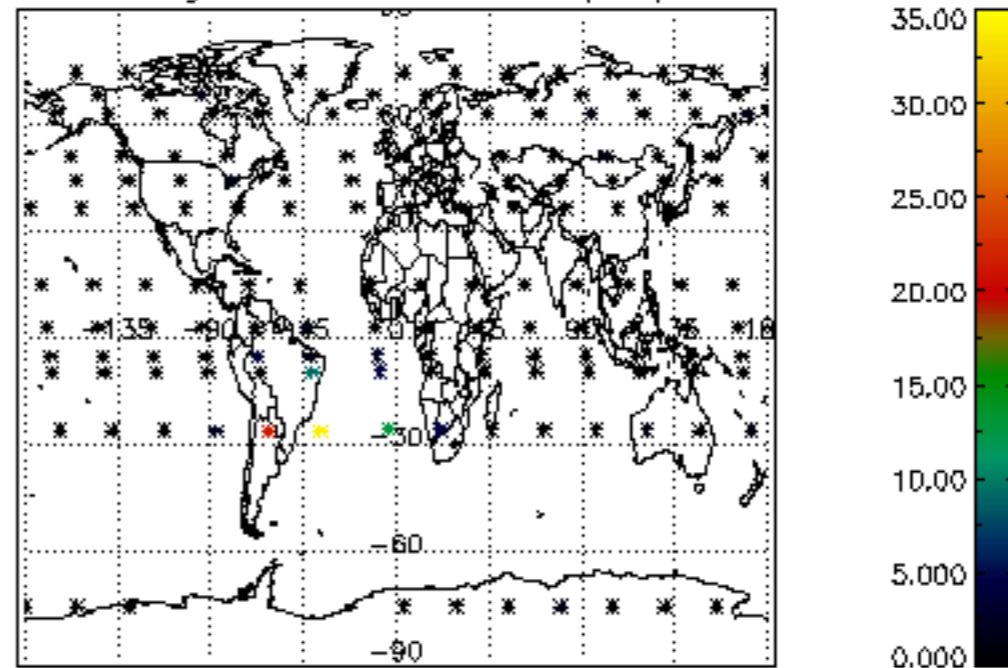
Percentage of datation errors per profile



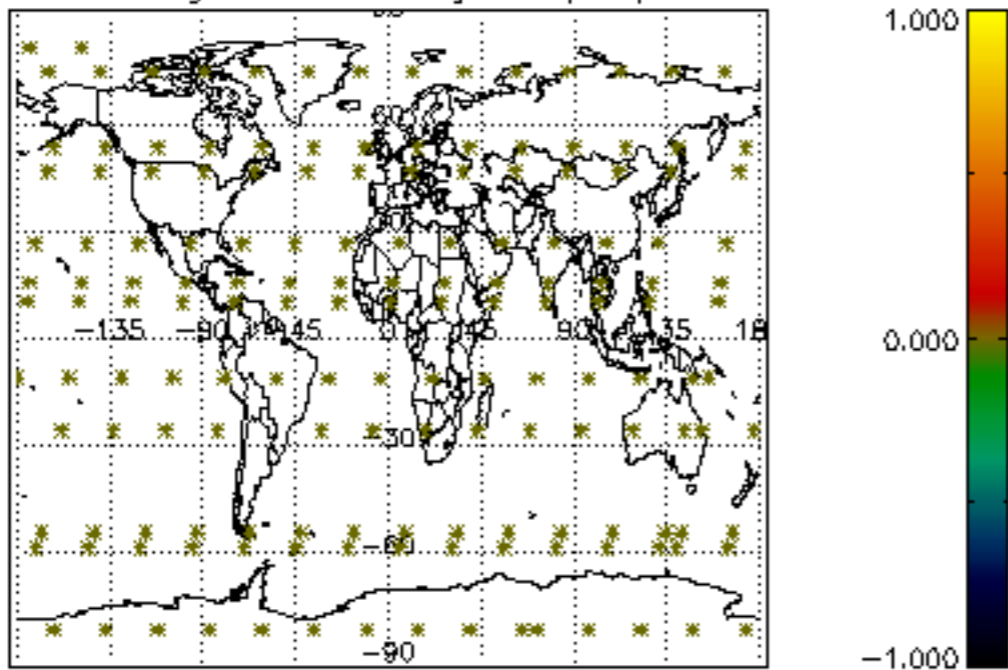
Percentage of star falling outside central band per profile



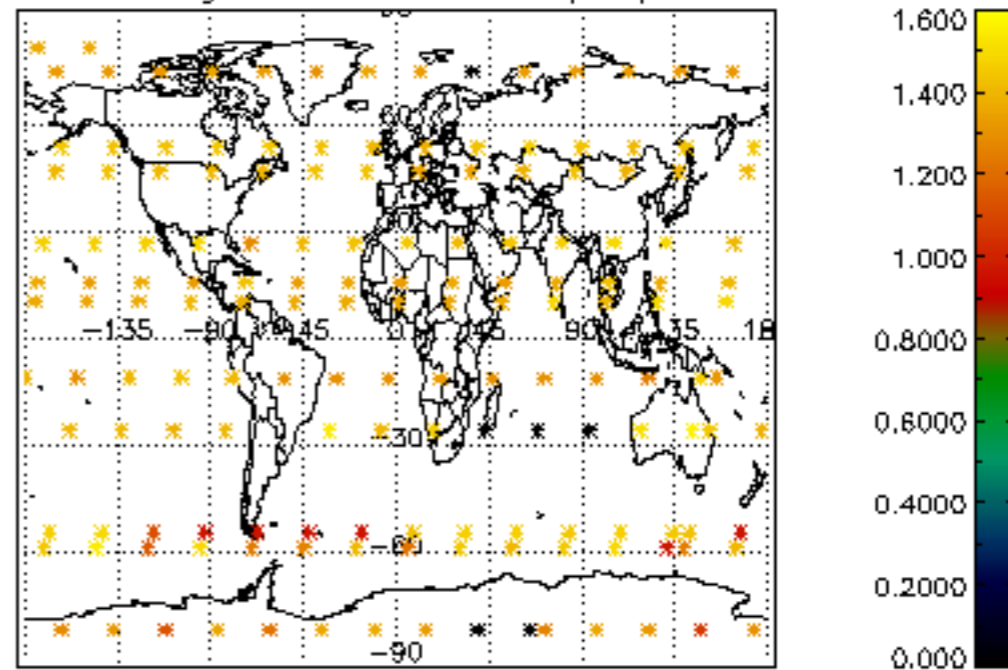
Percentage of saturation errors per profile



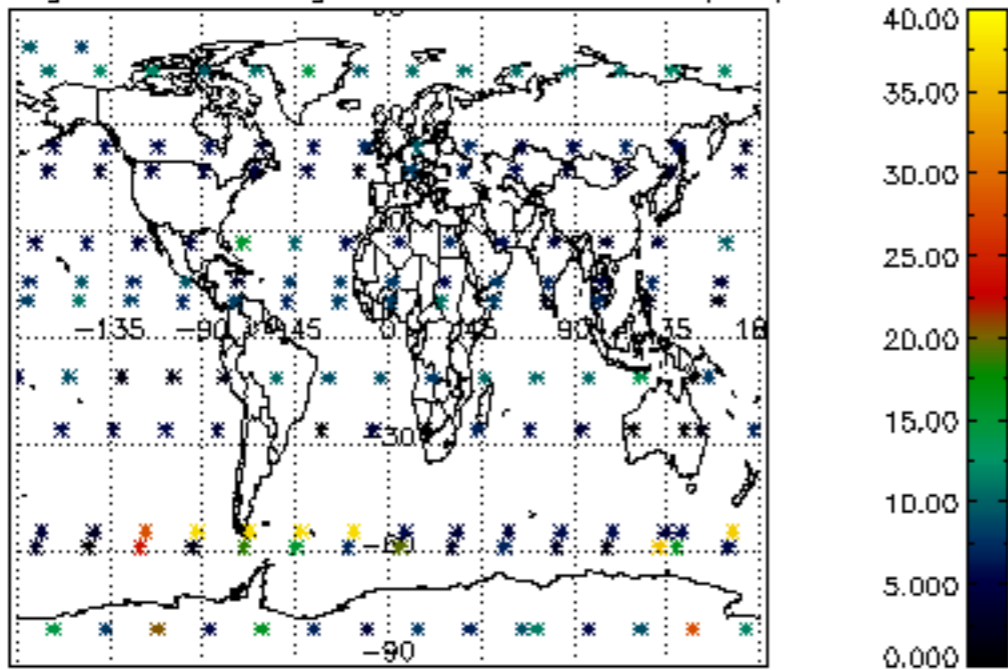
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

