

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 10:15:32
Data source version	GOMOS/6.01
Start time of products	13-02-2011 (13FEB2011 00:00:00)
Stop time of products	14-02-2011 (14FEB2011 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	246
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

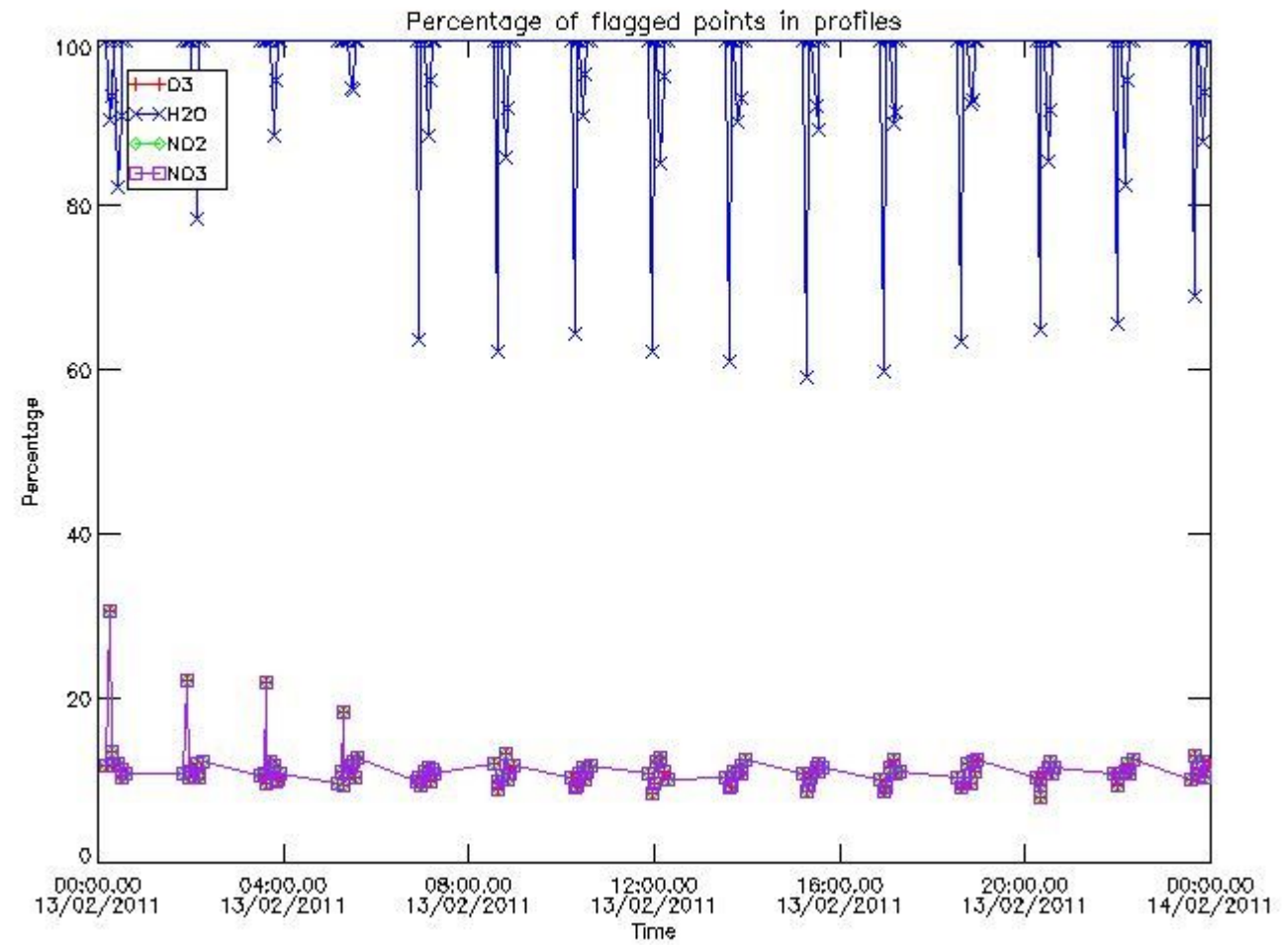
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20110213_000316_000000463099_00260_46826_1196.N1	13-FEB-2011 00:03:16	Bright	46.000	126	60Bet Oph	2.7700	4250.0	92	46826	No
2	GOM_NL__2PRFIN20110213_001026_000000523099_00260_46826_1197.N1	13-FEB-2011 00:10:26	Dark	51.500	86	35Eta Oph	2.4300	10200.	103	46826	No
3	GOM_NL__2PRFIN20110213_001521_000000583099_00260_46826_1198.N1	13-FEB-2011 00:15:21	Dark	58.000	16	21Alp Sco	1.0200	3000.0	116	46826	No
4	GOM_NL__2PRFIN20110213_001725_000000533099_00260_46826_1199.N1	13-FEB-2011 00:17:25	Dark	52.500	158	6Pi Sco	2.9060	28000.	105	46826	No
5	GOM_NL__2PRFIN20110213_002117_000000473099_00261_46827_1360.N1	13-FEB-2011 00:21:17	Dark	47.000	131	Gam Lup	2.8000	26000.	94	46827	No
6	GOM_NL__2PRFIN20110213_002647_000000433099_00261_46827_1361.N1	13-FEB-2011 00:26:47	Dark	42.500	10	Bet Cen	0.61000	28000.	85	46827	No
7	GOM_NL__2PRFIN20110213_002954_000000493099_00261_46827_1362.N1	13-FEB-2011 00:29:54	Dark	49.000	12	Alp1Cru	0.77500	30000.	98	46827	No
8	GOM_NL__2PRFIN20110213_003124_000000493099_00261_46827_1363.N1	13-FEB-2011 00:31:24	Dark	49.000	64	Gam Cen	2.2000	10600.	98	46827	No
9	GOM_NL__2PRFIN20110213_003539_000000473099_00261_46827_1364.N1	13-FEB-2011 00:35:39	Dark	47.000	113	Mu Vel	2.6920	5000.0	94	46827	No
10	GOM_NL__2PRFIN20110213_004926_000000483099_00261_46827_1365.N1	13-FEB-2011 00:49:26	Straylight	48.000	48	30Alp Hya	1.9770	4100.0	96	46827	No
11	GOM_NL__2PRFIN20110213_010023_000000483099_00261_46827_1366.N1	13-FEB-2011 01:00:23	Bright	48.000	166	17Eps Leo	2.9800	6000.0	96	46827	No
12	GOM_NL__2PRFIN20110213_011218_000000473099_00261_46827_1367.N1	13-FEB-2011 01:12:18	Bright	46.500	82	48Bet UMa	2.3650	10600.	93	46827	No
13	GOM_NL__2PRFIN20110213_011945_000000393099_00261_46827_1368.N1	13-FEB-2011 01:19:45	Bright	39.000	60	7Bet UMi	2.0810	3950.0	78	46827	No
14	GOM_NL__2PRFIN20110213_012435_000000433099_00261_46827_1369.N1	13-FEB-2011 01:24:35	Bright	42.500	119	14Eta Dra	2.7270	4700.0	85	46827	No
15	GOM_NL__2PRFIN20110213_012816_000000403099_00261_46827_1370.N1	13-FEB-2011 01:28:16	Bright	40.000	130	23Bet Dra	2.7990	5800.0	80	46827	No
16	GOM_NL__2PRFIN20110213_013224_000000363099_00261_46827_1371.N1	13-FEB-2011 01:32:24	Bright	36.000	5	3Alp Lyr	0.033000	11000.	72	46827	No
17	GOM_NL__2PRFIN20110213_014330_000000423099_00261_46827_1372.N1	13-FEB-2011 01:43:30	Bright	41.500	126	60Bet Oph	2.7700	4250.0	83	46827	No
18	GOM_NL__2PRFIN20110213_015040_000000523099_00261_46827_1373.N1	13-FEB-2011 01:50:40	Dark	51.500	86	35Eta Oph	2.4300	10200.	103	46827	No
19	GOM_NL__2PRFIN20110213_015536_000000603099_00261_46827_1374.N1	13-FEB-2011 01:55:36	Dark	59.500	16	21Alp Sco	1.0200	3000.0	119	46827	No
20	GOM_NL__2PRFIN20110213_015740_000000543099_00261_46827_1375.N1	13-FEB-2011 01:57:40	Dark	53.500	158	6Pi Sco	2.9060	28000.	107	46827	No
21	GOM_NL__2PRFIN20110213_020132_000000463099_00262_46828_1362.N1	13-FEB-2011 02:01:32	Dark	46.000	131	Gam Lup	2.8000	26000.	92	46828	No
22	GOM_NL__2PRFIN20110213_020701_000000423099_00262_46828_1363.N1	13-FEB-2011 02:07:01	Dark	42.000	10	Bet Cen	0.61000	28000.	84	46828	No
23	GOM_NL__2PRFIN20110213_021009_000000493099_00262_46828_1364.N1	13-FEB-2011 02:10:09	Dark	49.000	12	Alp1Cru	0.77500	30000.	98	46828	No
24	GOM_NL__2PRFIN20110213_021139_000000483099_00262_46828_1365.N1	13-FEB-2011 02:11:39	Dark	47.500	64	Gam Cen	2.2000	10600.	95	46828	No
25	GOM_NL__2PRFIN20110213_021554_000000423099_00262_46828_1366.N1	13-FEB-2011 02:15:54	Dark	41.500	113	Mu Vel	2.6920	5000.0	83	46828	No
26	GOM_NL__2PRFIN20110213_022940_000000443099_00262_46828_1367.N1	13-FEB-2011 02:29:40	Straylight	44.000	48	30Alp Hya	1.9770	4100.0	88	46828	No
27	GOM_NL__2PRFIN20110213_024037_000000463099_00262_46828_1368.N1	13-FEB-2011 02:40:37	Bright	45.500	166	17Eps Leo	2.9800	6000.0	91	46828	No
28	GOM_NL__2PRFIN20110213_025231_000000463099_00262_46828_1369.N1	13-FEB-2011 02:52:31	Bright	45.500	82	48Bet UMa	2.3650	10600.	91	46828	No
29	GOM_NL__2PRFIN20110213_025959_000000413099_00262_46828_1370.N1	13-FEB-2011 02:59:59	Bright	41.000	60	7Bet UMi	2.0810	3950.0	82	46828	No
30	GOM_NL__2PRFIN20110213_030449_000000443099_00262_46828_1371.N1	13-FEB-2011 03:04:49	Bright	43.500	119	14Eta Dra	2.7270	4700.0	87	46828	No
31	GOM_NL__2PRFIN20110213_030830_000000403099_00262_46828_1372.N1	13-FEB-2011 03:08:30	Bright	39.500	130	23Bet Dra	2.7990	5800.0	79	46828	No
32	GOM_NL__2PRFIN20110213_031238_000000383099_00262_46828_1373.N1	13-FEB-2011 03:12:38	Bright	37.500	5	3Alp Lyr	0.033000	11000.	75	46828	No
33	GOM_NL__2PRFIN20110213_032130_000000453099_00262_46828_1374.N1	13-FEB-2011 03:21:30	Bright	45.000	59	55Alp Oph	2.0800	8900.0	90	46828	No
34	GOM_NL__2PRFIN20110213_032345_000000503099_00262_46828_1375.N1	13-FEB-2011 03:23:45	Bright	49.500	126	60Bet Oph	2.7700	4250.0	99	46828	No
35	GOM_NL__2PRFIN20110213_033055_000000493099_00262_46828_1376.N1	13-FEB-2011 03:30:55	Dark	48.500	86	35Eta Oph	2.4300	10200.	97	46828	No
36	GOM_NL__2PRFIN20110213_033523_000000473099_00262_46828_1377.N1	13-FEB-2011 03:35:23	Dark	46.500	25	35Lam Sco	1.6200	28000.	93	46828	No
37	GOM_NL__2PRFIN20110213_033708_000000283099_00262_46828_1378.N1	13-FEB-2011 03:37:08	Dark	28.000	80	7Del Sco	2.3160	30000.	56	46828	No
38	GOM_NL__2PRFIN20110213_033755_000000543099_00262_46828_1379.N1	13-FEB-2011 03:37:55	Dark	53.500	158	6Pi Sco	2.9060	28000.	107	46828	No
39	GOM_NL__2PRFIN20110213_034147_000000463099_00263_46829_1466.N1	13-FEB-2011 03:41:47	Dark	45.500	131	Gam Lup	2.8000	26000.	91	46829	No
40	GOM_NL__2PRFIN20110213_034716_000000443099_00263_46829_1467.N1	13-FEB-2011 03:47:16	Dark	43.500	10	Bet Cen	0.61000	28000.	87	46829	No
41	GOM_NL__2PRFIN20110213_035023_000000523099_00263_46829_1468.N1	13-FEB-2011 03:50:23	Dark	52.000	12	Alp1Cru	0.77500	30000.	104	46829	No
42	GOM_NL__2PRFIN20110213_035154_000000553099_00263_46829_1469.N1	13-FEB-2011 03:51:54	Dark	55.000	64	Gam Cen	2.2000	10600.	110	46829	No

220	GOM_NL__2PRFIN20110213_214409_000000523099_00273_46839_1932.N1	13-FEB-2011 21:44:09	Bright	51.500	59	55Alp Oph	2.0800	8900.0	103	46839	No
221	GOM_NL__2PRFIN20110213_214625_000000513099_00273_46839_1933.N1	13-FEB-2011 21:46:25	Bright	50.500	126	60Bet Oph	2.7700	4250.0	101	46839	No
222	GOM_NL__2PRFIN20110213_215339_000000483099_00273_46839_1934.N1	13-FEB-2011 21:53:39	Dark	47.500	86	35Eta Oph	2.4300	10200.	95	46839	No
223	GOM_NL__2PRFIN20110213_215837_000000543099_00273_46839_1935.N1	13-FEB-2011 21:58:37	Dark	54.000	16	21Alp Sco	1.0200	3000.0	108	46839	No
224	GOM_NL__2PRFIN20110213_220044_000000553099_00273_46839_1936.N1	13-FEB-2011 22:00:44	Dark	54.500	158	6Pi Sco	2.9060	28000.	109	46839	No
225	GOM_NL__2PRFIN20110213_220433_000000473099_00274_46840_1952.N1	13-FEB-2011 22:04:33	Dark	47.000	131	Gam Lup	2.8000	26000.	94	46840	No
226	GOM_NL__2PRFIN20110213_220957_000000463099_00274_46840_1953.N1	13-FEB-2011 22:09:57	Dark	46.000	10	Bet Cen	0.61000	28000.	92	46840	No
227	GOM_NL__2PRFIN20110213_221303_000000423099_00274_46840_1954.N1	13-FEB-2011 22:13:03	Dark	42.000	12	Alp1Cru	0.77500	30000.	84	46840	No
228	GOM_NL__2PRFIN20110213_221436_000000483099_00274_46840_1955.N1	13-FEB-2011 22:14:36	Dark	47.500	64	Gam Cen	2.2000	10600.	95	46840	No
229	GOM_NL__2PRFIN20110213_221847_000000453099_00274_46840_1956.N1	13-FEB-2011 22:18:47	Dark	45.000	113	Mu Vel	2.6920	5000.0	90	46840	No
230	GOM_NL__2PRFIN20110213_223229_000000493099_00274_46840_1957.N1	13-FEB-2011 22:32:29	Straylight	49.000	48	30Alp Hya	1.9770	4100.0	98	46840	No
231	GOM_NL__2PRFIN20110213_224319_000000443099_00274_46840_1958.N1	13-FEB-2011 22:43:19	Bright	44.000	166	17Eps Leo	2.9800	6000.0	88	46840	No
232	GOM_NL__2PRFIN20110213_225511_000000463099_00274_46840_1959.N1	13-FEB-2011 22:55:11	Bright	45.500	82	48Bet UMa	2.3650	10600.	91	46840	No
233	GOM_NL__2PRFIN20110213_230244_000000423099_00274_46840_1960.N1	13-FEB-2011 23:02:44	Bright	42.000	60	7Bet UMi	2.0810	3950.0	84	46840	No
234	GOM_NL__2PRFIN20110213_230734_000000433099_00274_46840_1961.N1	13-FEB-2011 23:07:34	Bright	43.000	119	14Eta Dra	2.7270	4700.0	86	46840	No
235	GOM_NL__2PRFIN20110213_231117_000000413099_00274_46840_1962.N1	13-FEB-2011 23:11:17	Bright	41.000	130	23Bet Dra	2.7990	5800.0	82	46840	No
236	GOM_NL__2PRFIN20110213_231527_000000363099_00274_46840_1963.N1	13-FEB-2011 23:15:27	Bright	35.500	5	3Alp Lyr	0.033000	11000.	71	46840	No
237	GOM_NL__2PRFIN20110213_232424_000000443099_00274_46840_1964.N1	13-FEB-2011 23:24:24	Bright	43.500	59	55Alp Oph	2.0800	8900.0	87	46840	No
238	GOM_NL__2PRFIN20110213_232639_000000483099_00274_46840_1965.N1	13-FEB-2011 23:26:39	Bright	47.500	126	60Bet Oph	2.7700	4250.0	95	46840	No
239	GOM_NL__2PRFIN20110213_233353_000000503099_00274_46840_1966.N1	13-FEB-2011 23:33:53	Dark	50.000	86	35Eta Oph	2.4300	10200.	100	46840	No
240	GOM_NL__2PRFIN20110213_233852_000000703099_00274_46840_1967.N1	13-FEB-2011 23:38:52	Dark	69.500	16	21Alp Sco	1.0200	3000.0	139	46840	No
241	GOM_NL__2PRFIN20110213_234059_000000533099_00274_46840_1968.N1	13-FEB-2011 23:40:59	Dark	52.500	158	6Pi Sco	2.9060	28000.	105	46840	No
242	GOM_NL__2PRFIN20110213_234448_000000483099_00275_46841_2022.N1	13-FEB-2011 23:44:48	Dark	48.000	131	Gam Lup	2.8000	26000.	96	46841	No
243	GOM_NL__2PRFIN20110213_235012_000000423099_00275_46841_2023.N1	13-FEB-2011 23:50:12	Dark	41.500	10	Bet Cen	0.61000	28000.	83	46841	No
244	GOM_NL__2PRFIN20110213_235317_000000493099_00275_46841_2024.N1	13-FEB-2011 23:53:17	Dark	49.000	12	Alp1Cru	0.77500	30000.	98	46841	No
245	GOM_NL__2PRFIN20110213_235451_000000463099_00275_46841_2025.N1	13-FEB-2011 23:54:51	Dark	46.000	64	Gam Cen	2.2000	10600.	92	46841	No
246	GOM_NL__2PRFIN20110213_235902_000000483099_00275_46841_2026.N1	13-FEB-2011 23:59:02	Dark	47.500	113	Mu Vel	2.6920	5000.0	95	46841	No

3. Quality information per product

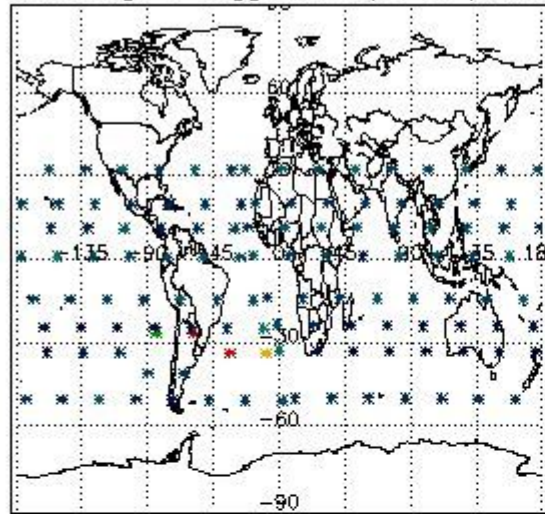
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

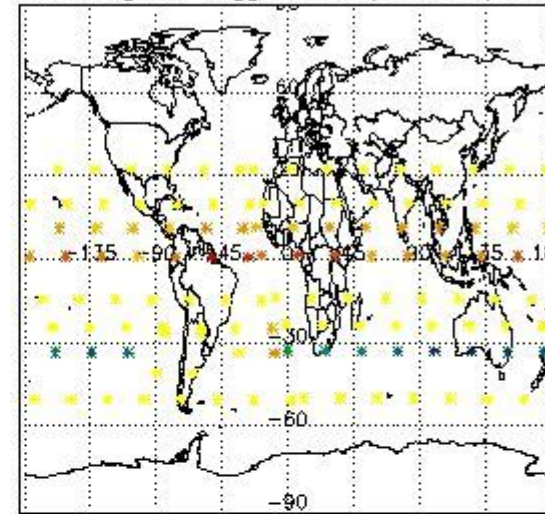


3.2 Plot quality information per product (world map)

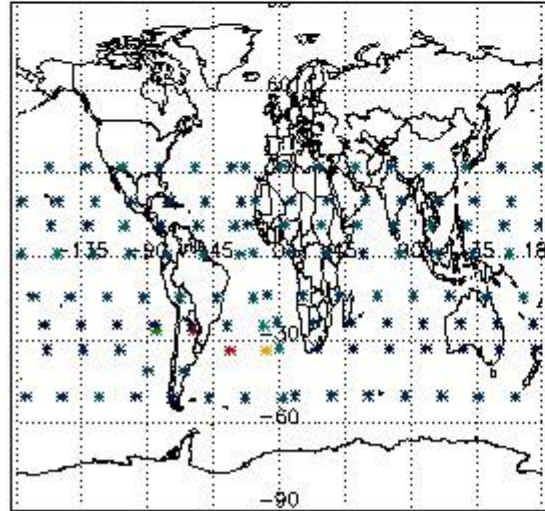
Percentage of flagged data per O3 profile



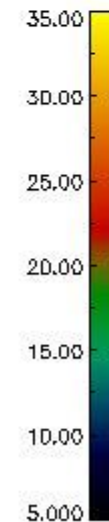
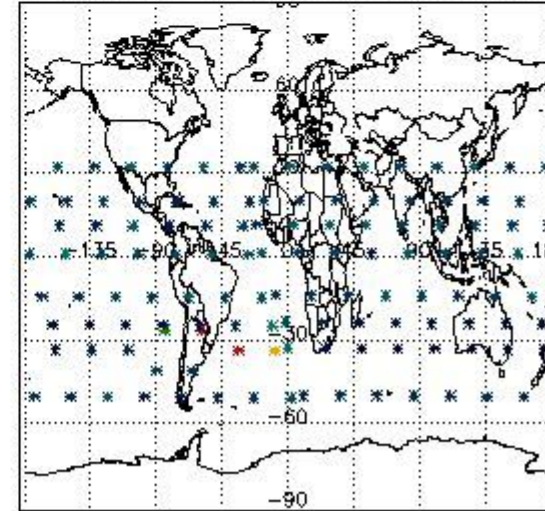
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

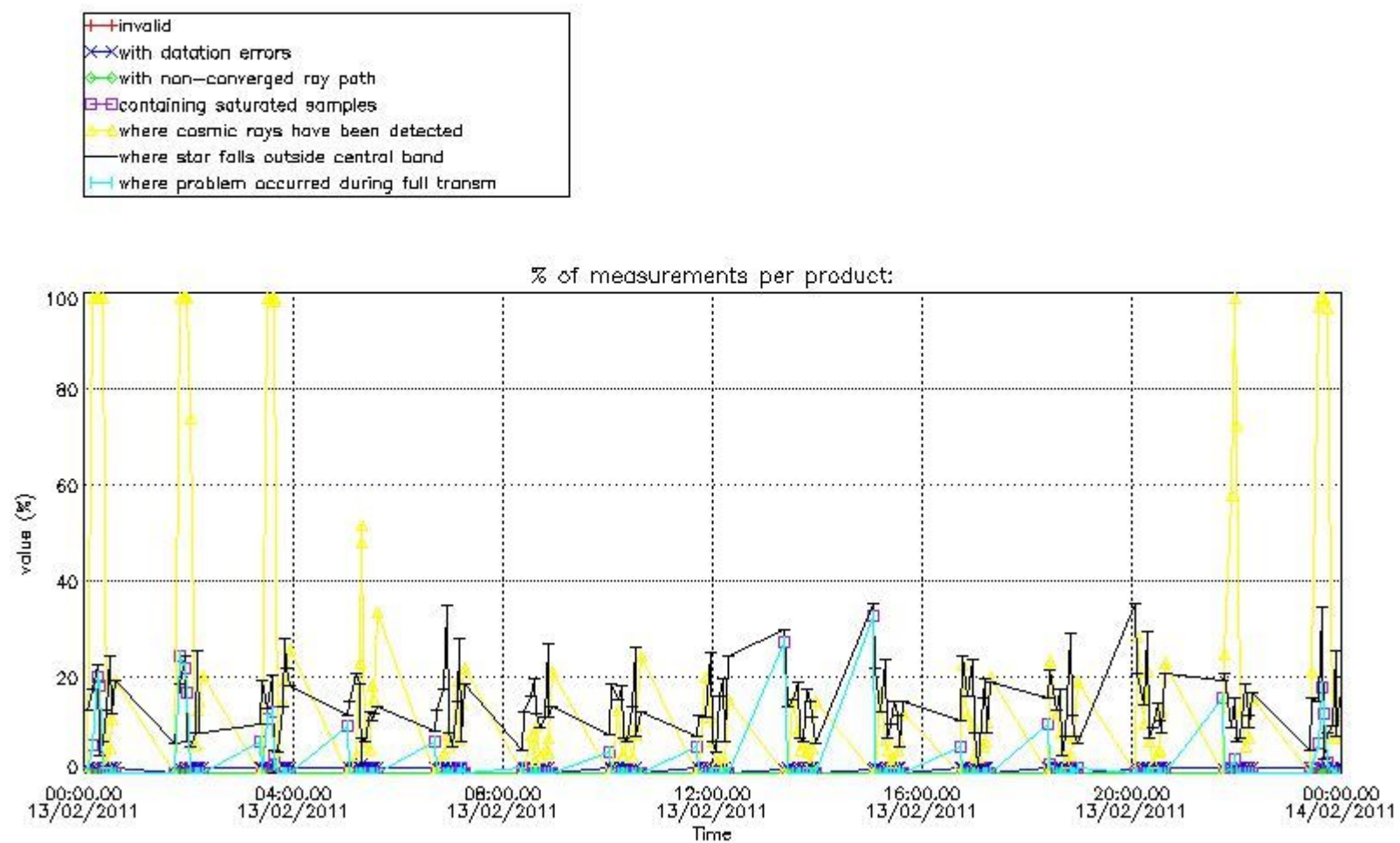


4. Level 1 quality information per product

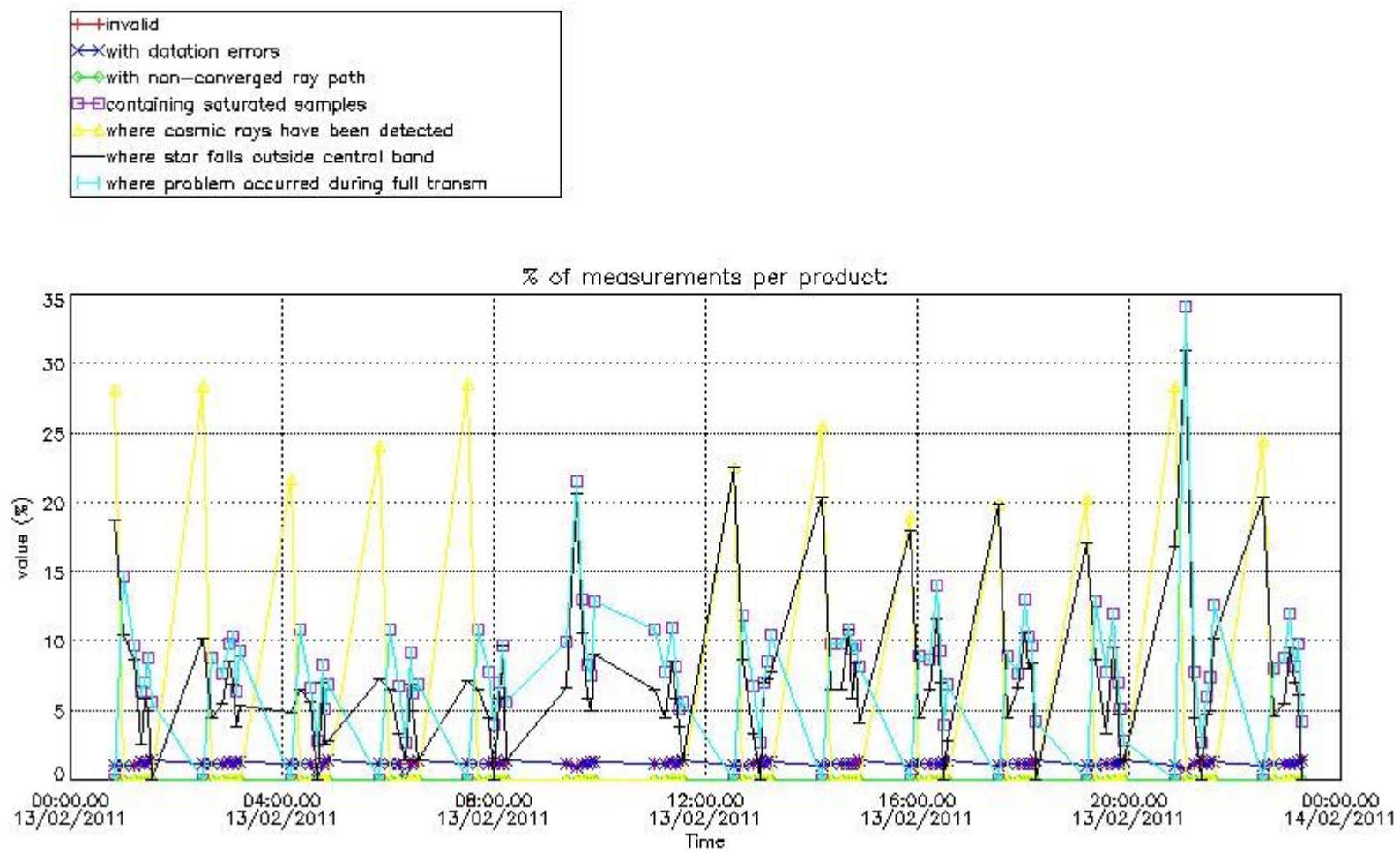
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



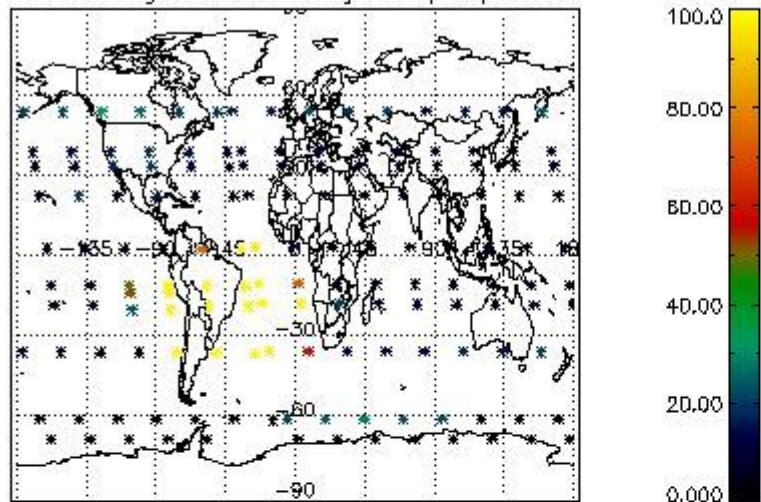
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



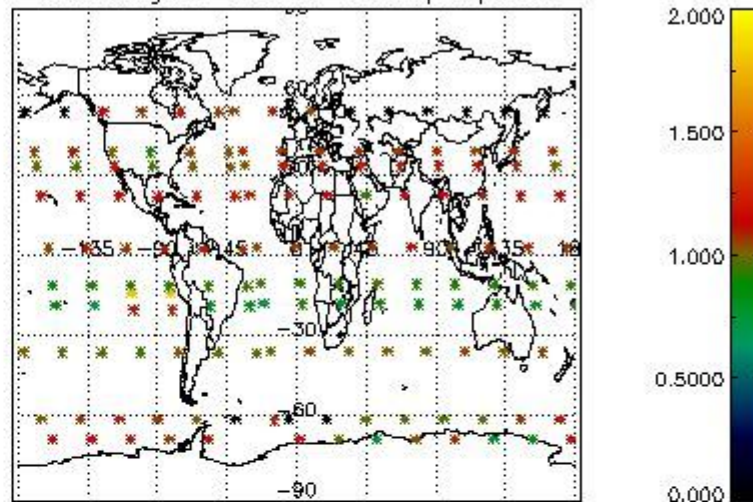
4.2 Plot quality information per product coming from level 1b processing (world map)

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

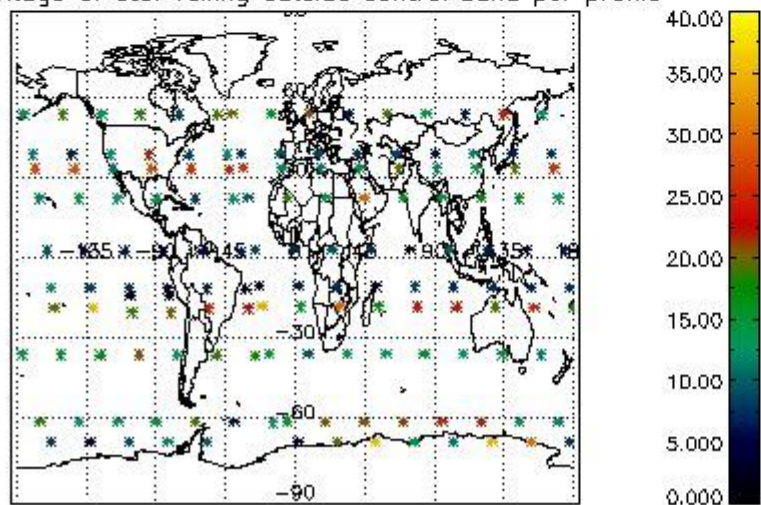
Percentage of cosmic ray hits per profile



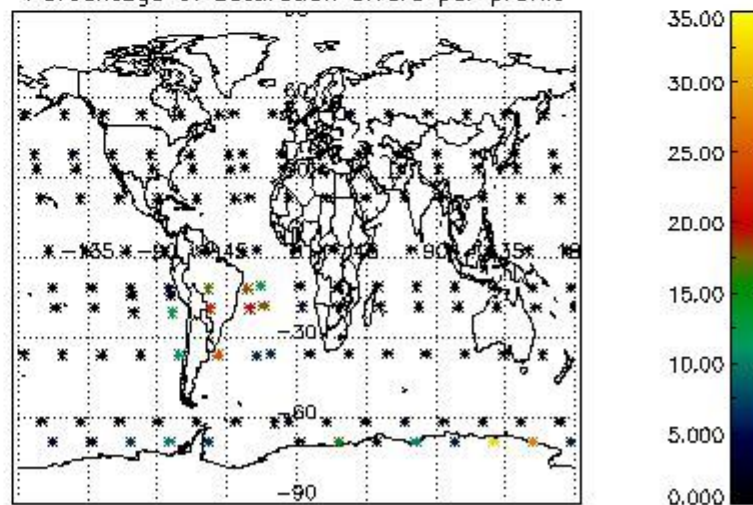
Percentage of datation errors per profile



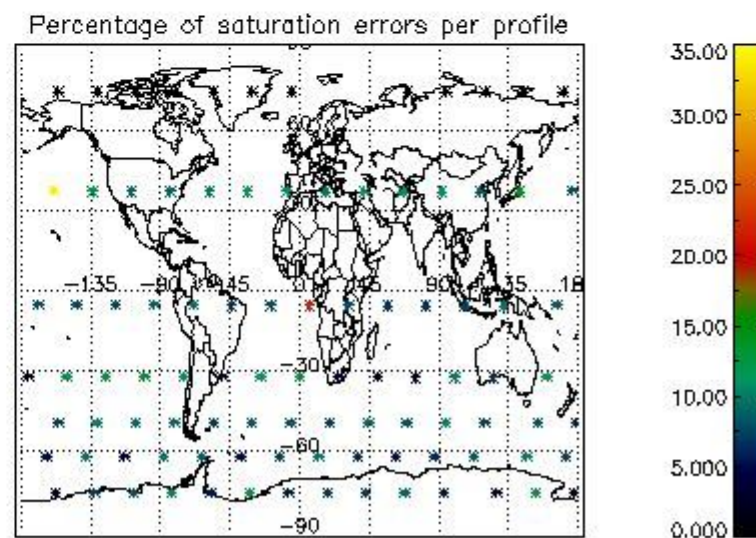
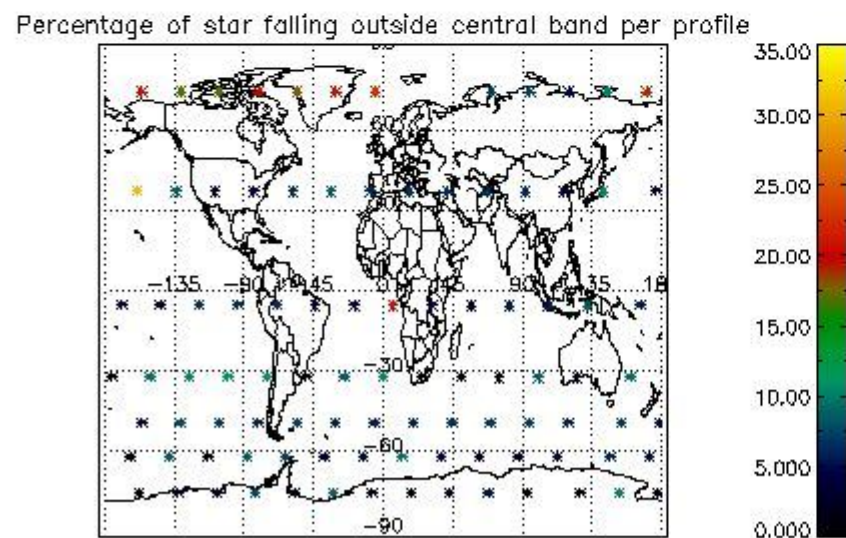
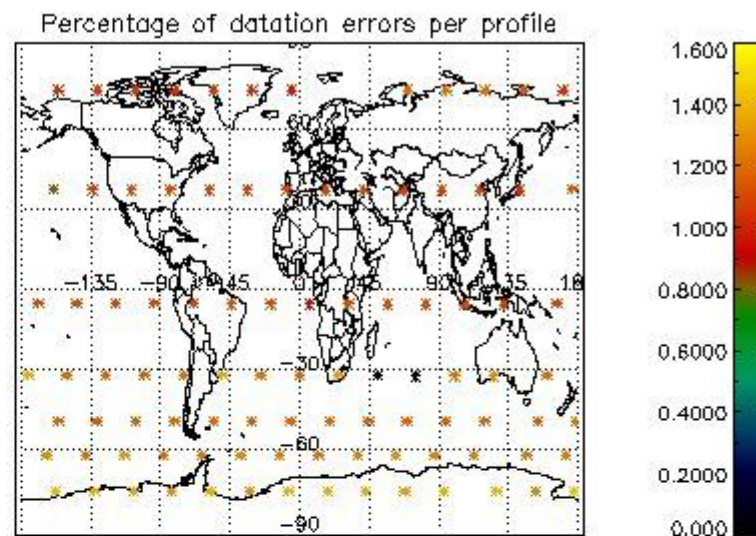
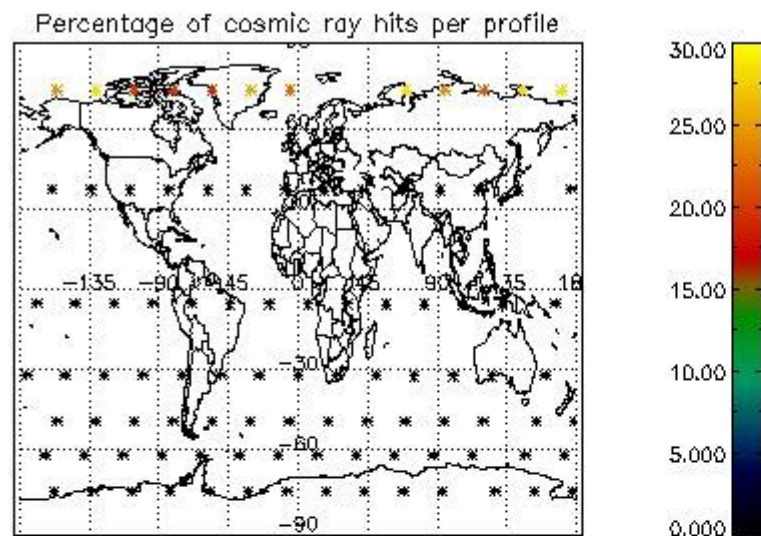
Percentage of star falling outside central band per profile



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

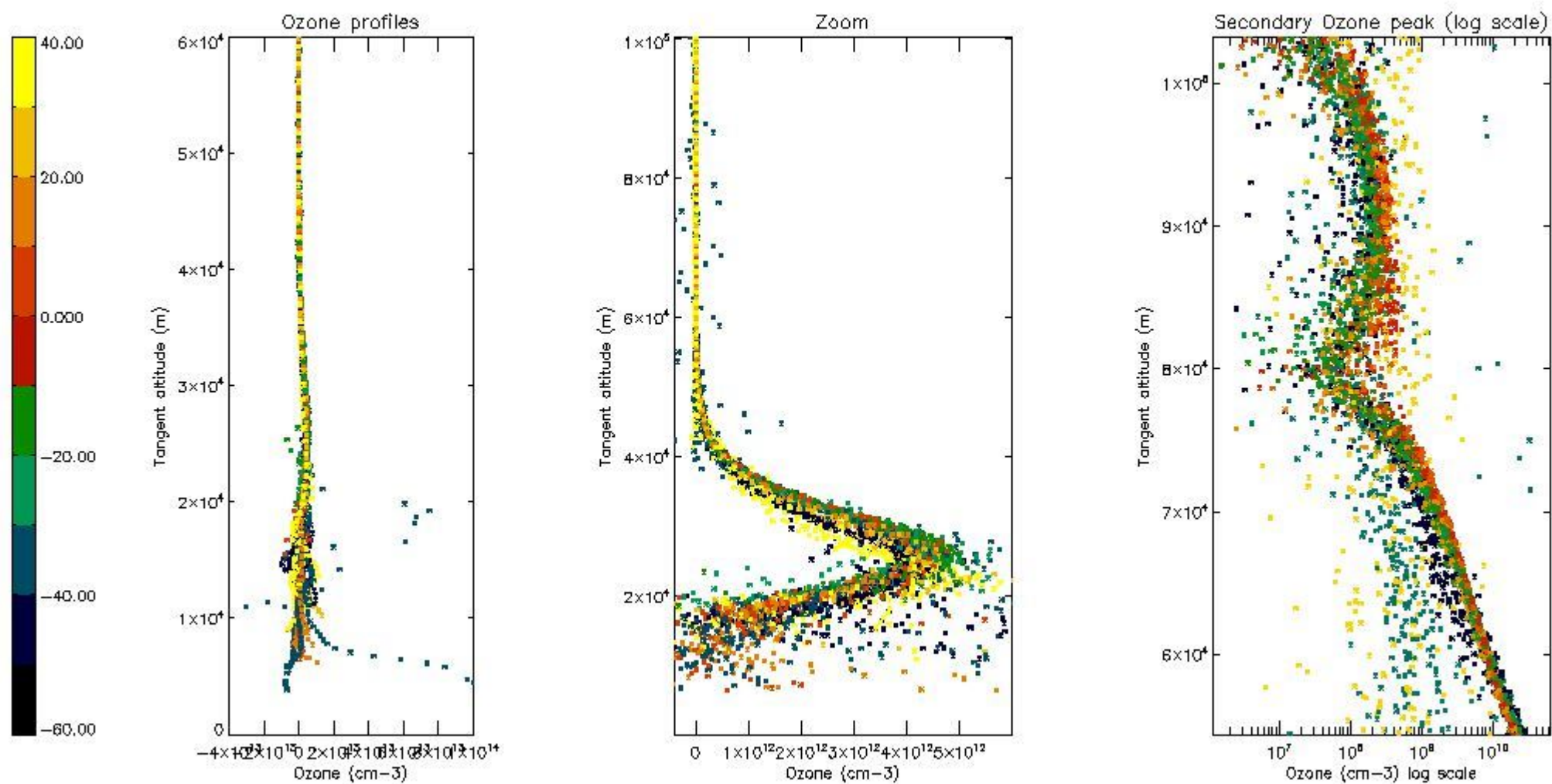
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	53
STD < 20	27

STD < 10	22
STD < 5	14

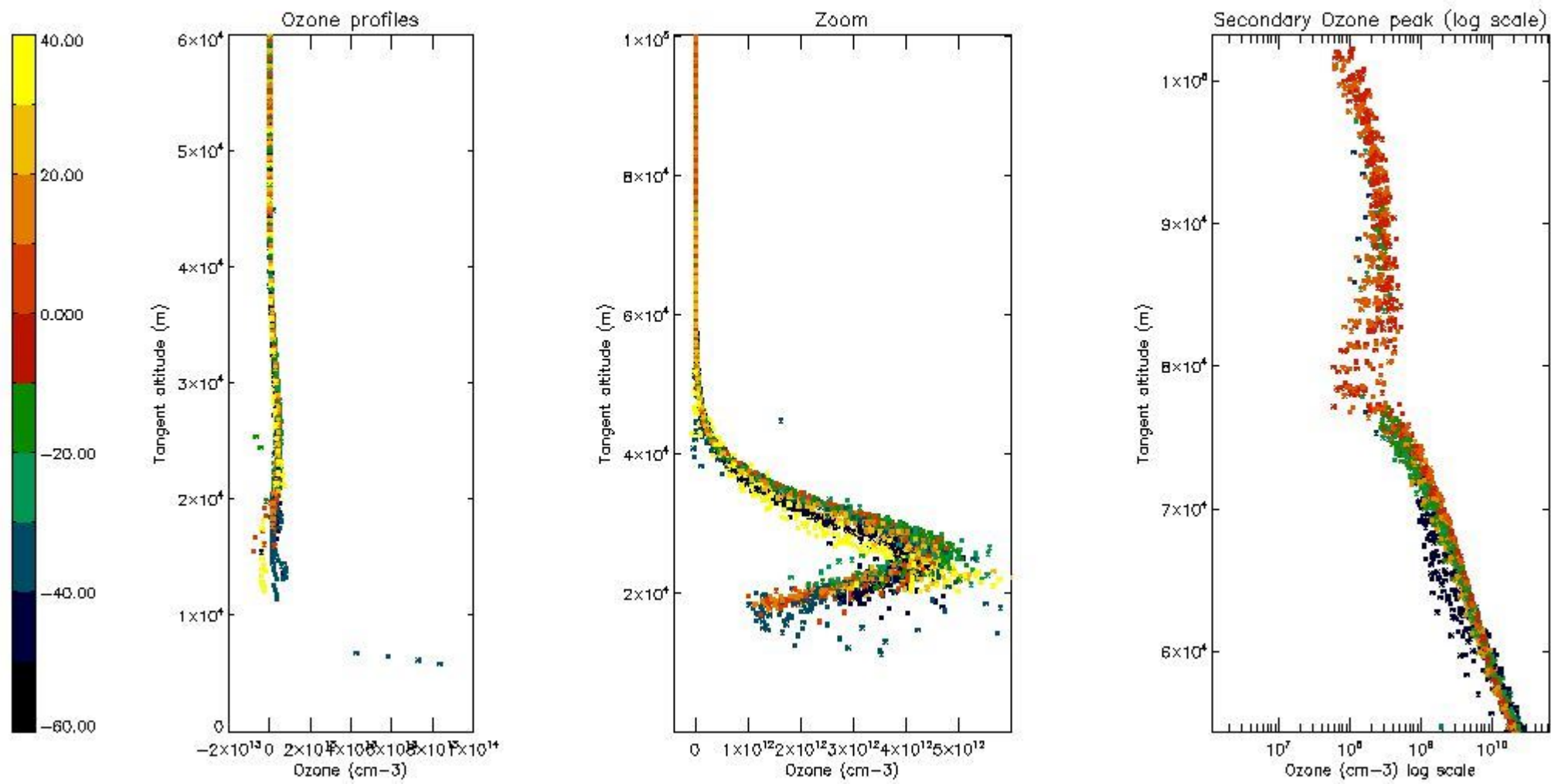
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



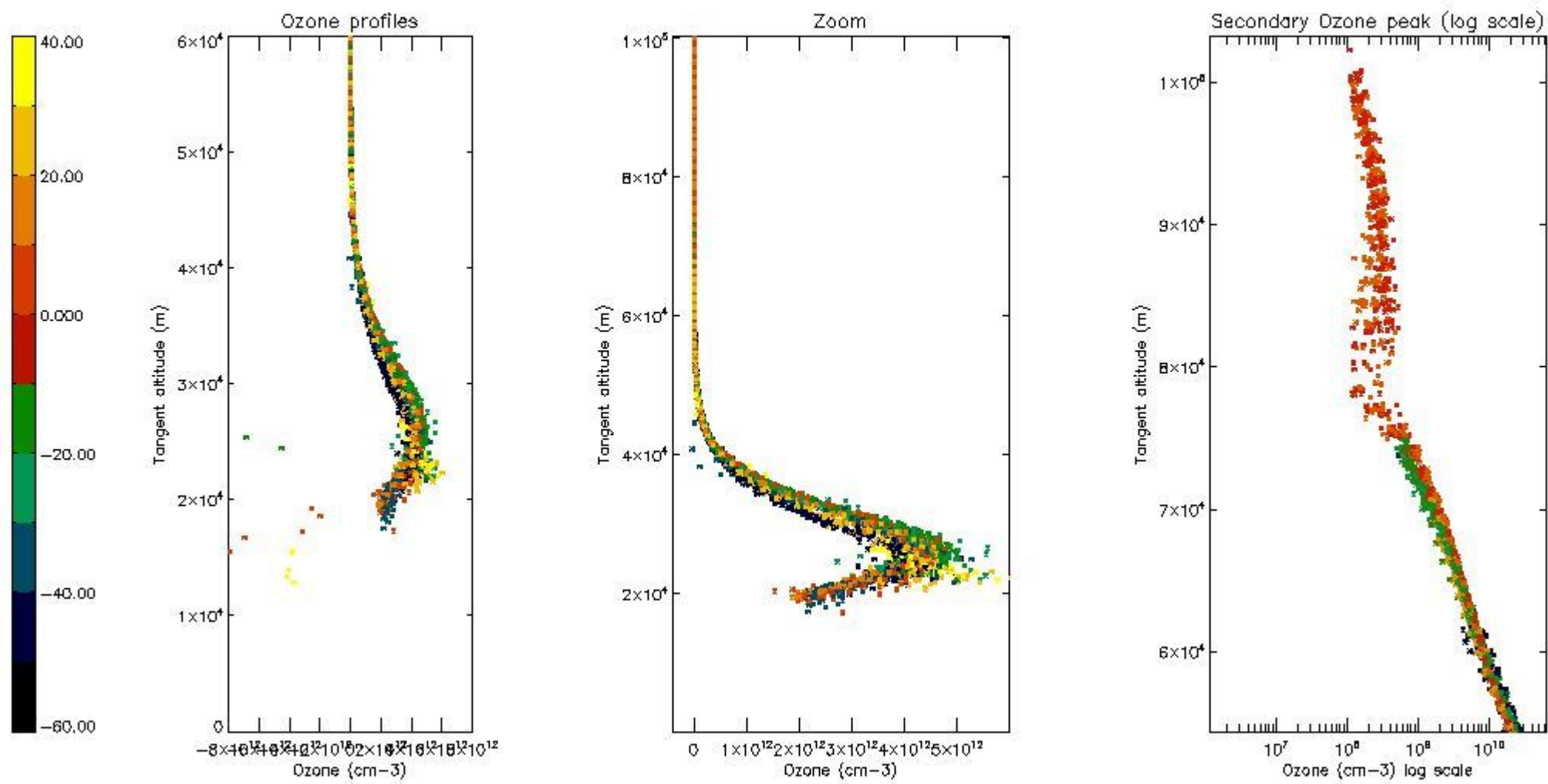
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



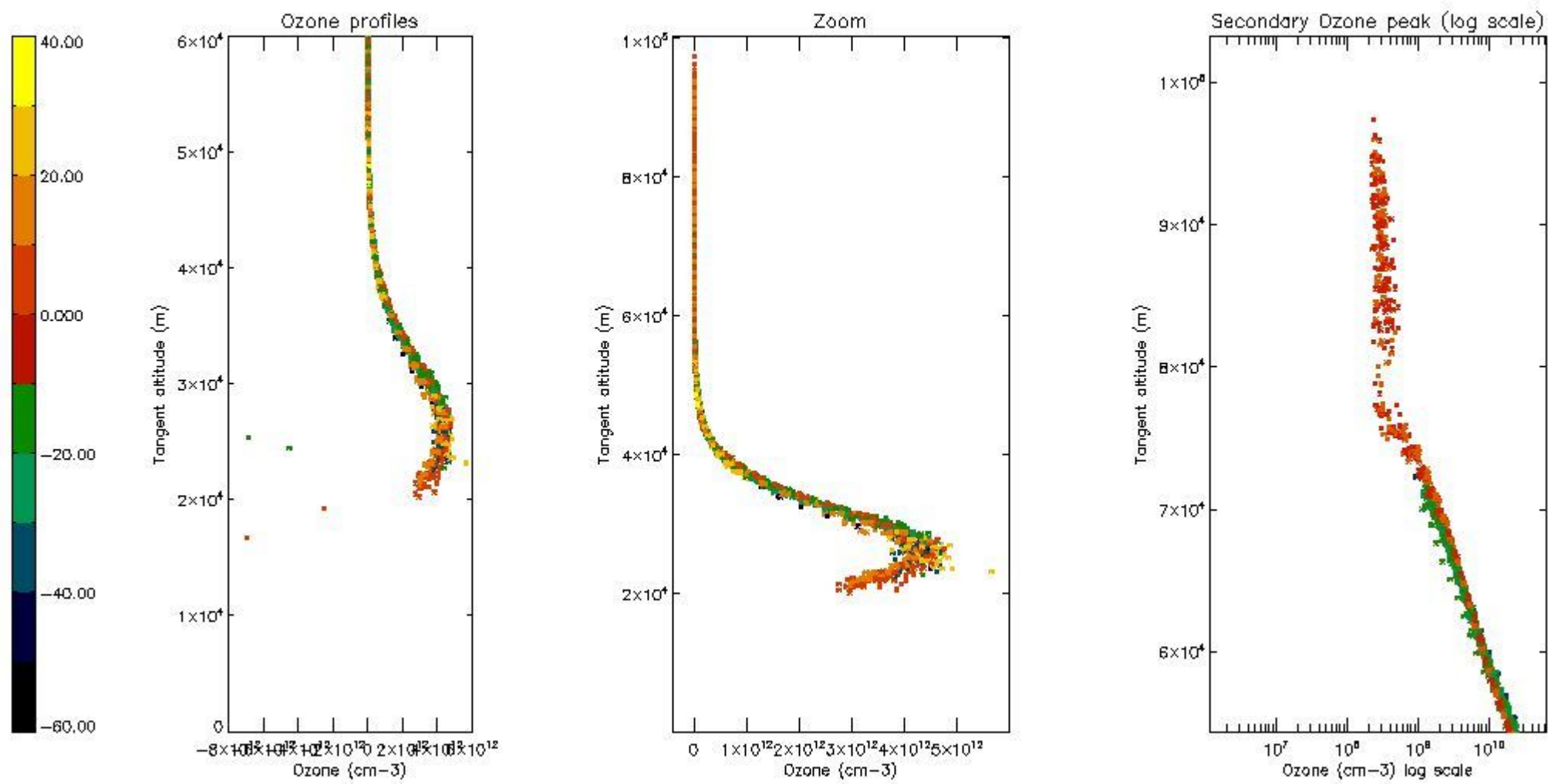
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



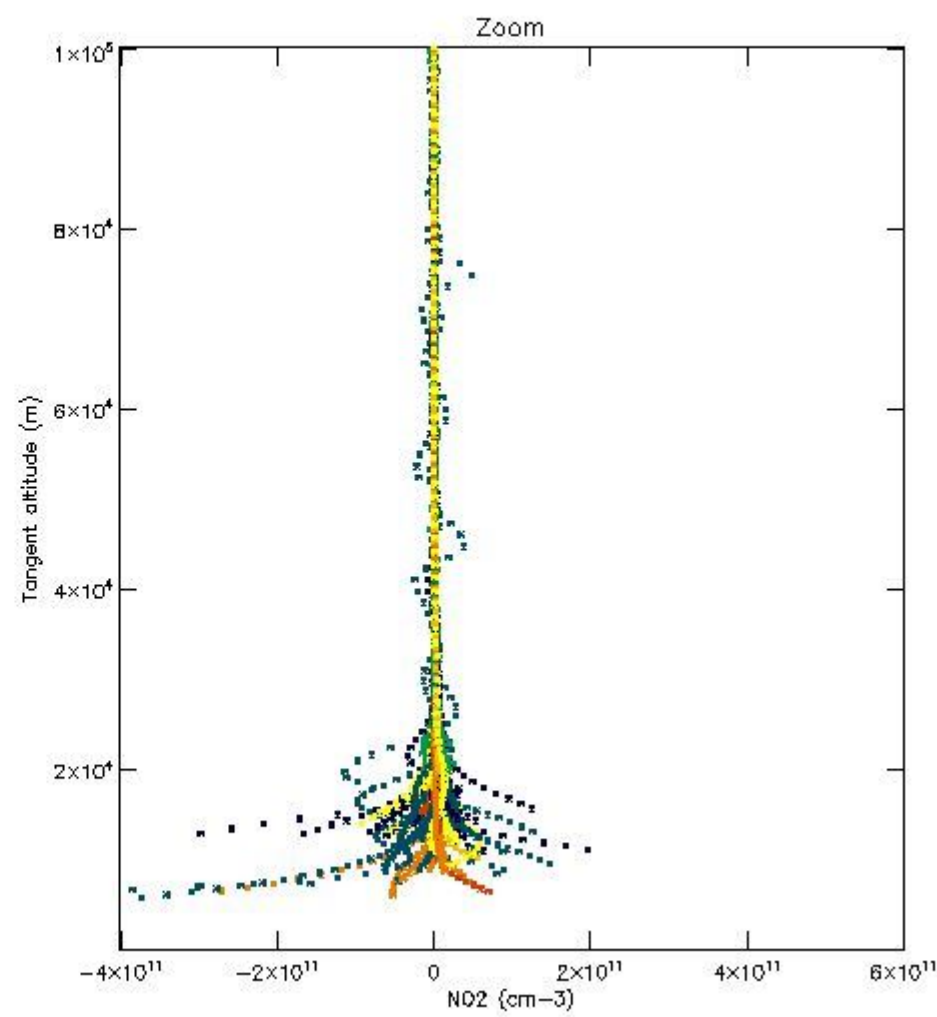
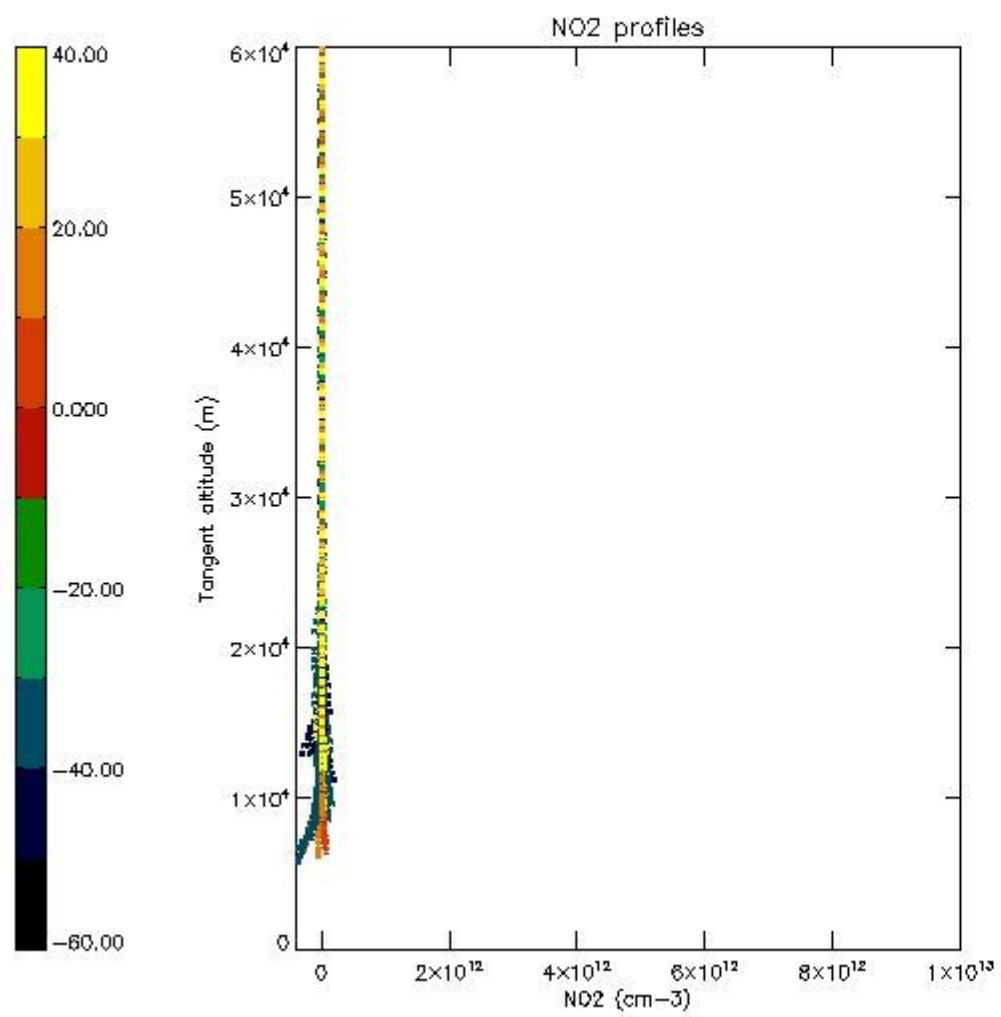
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



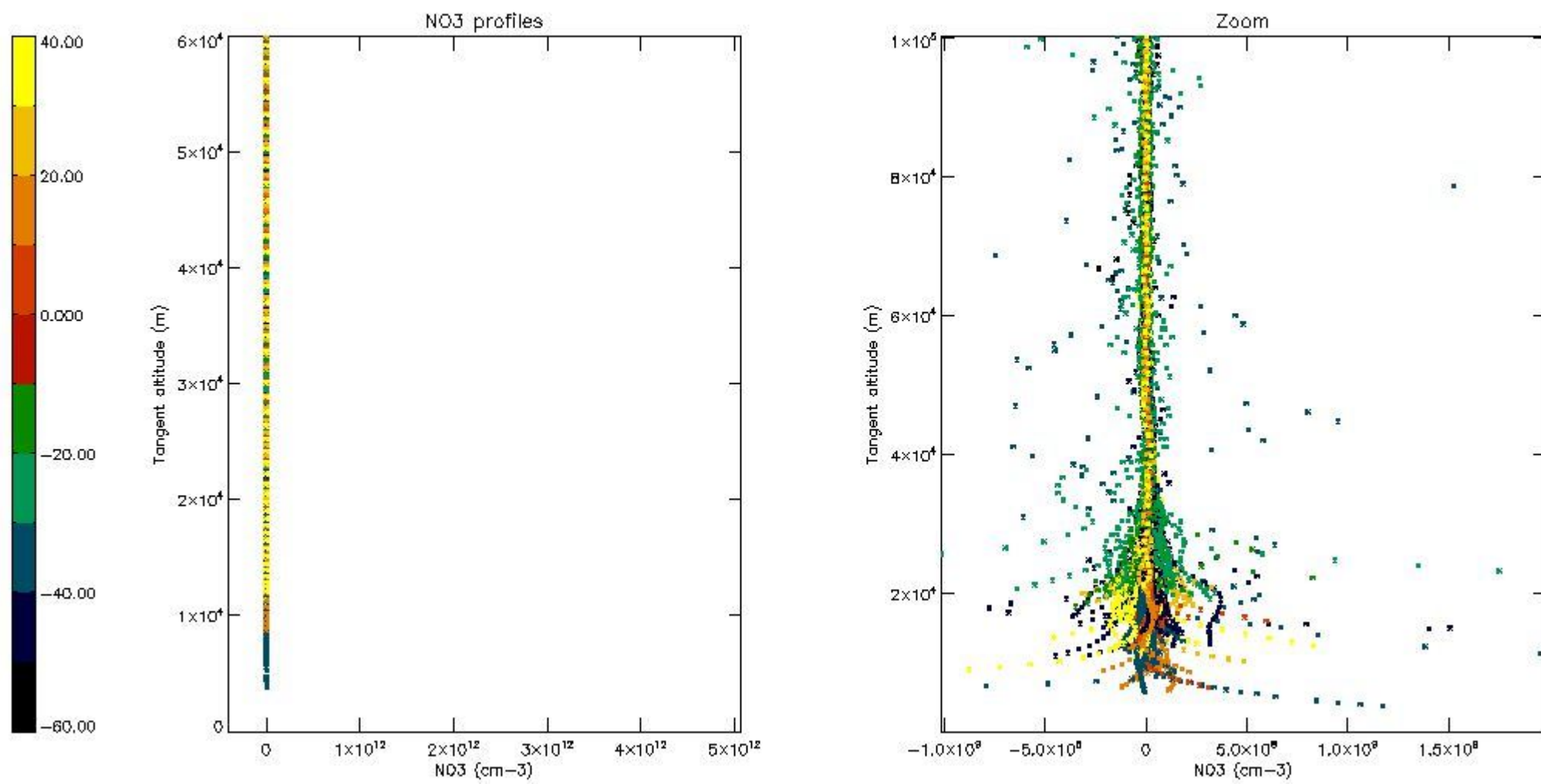
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



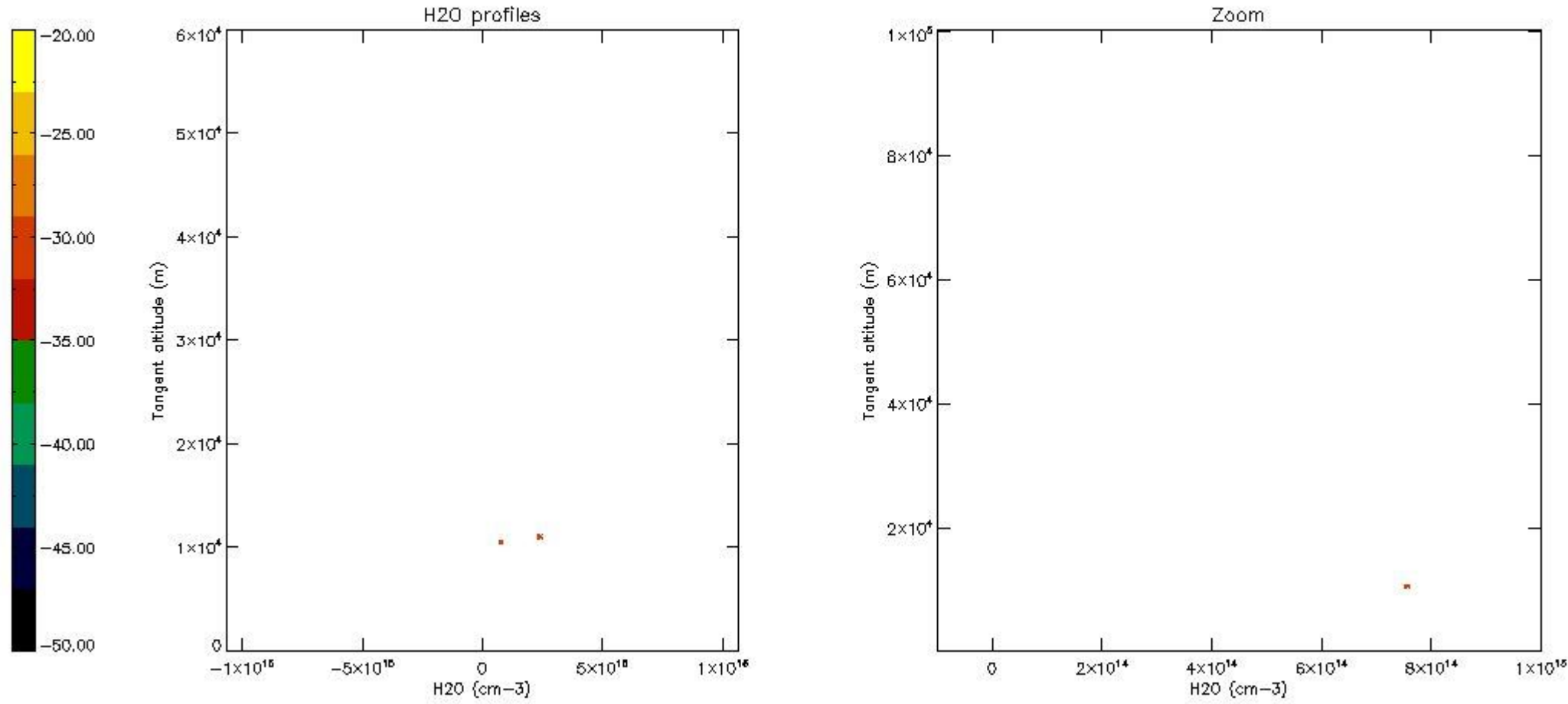
5.7 Plot NO3 profiles for all STD (dark without errors)

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	13-FEB-2011 00:03:16
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	13-FEB-2011 00:03:16
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	13-FEB-2011 00:03:16

GOMOS Level 2 Daily Report

SUMMARY

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[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](#)

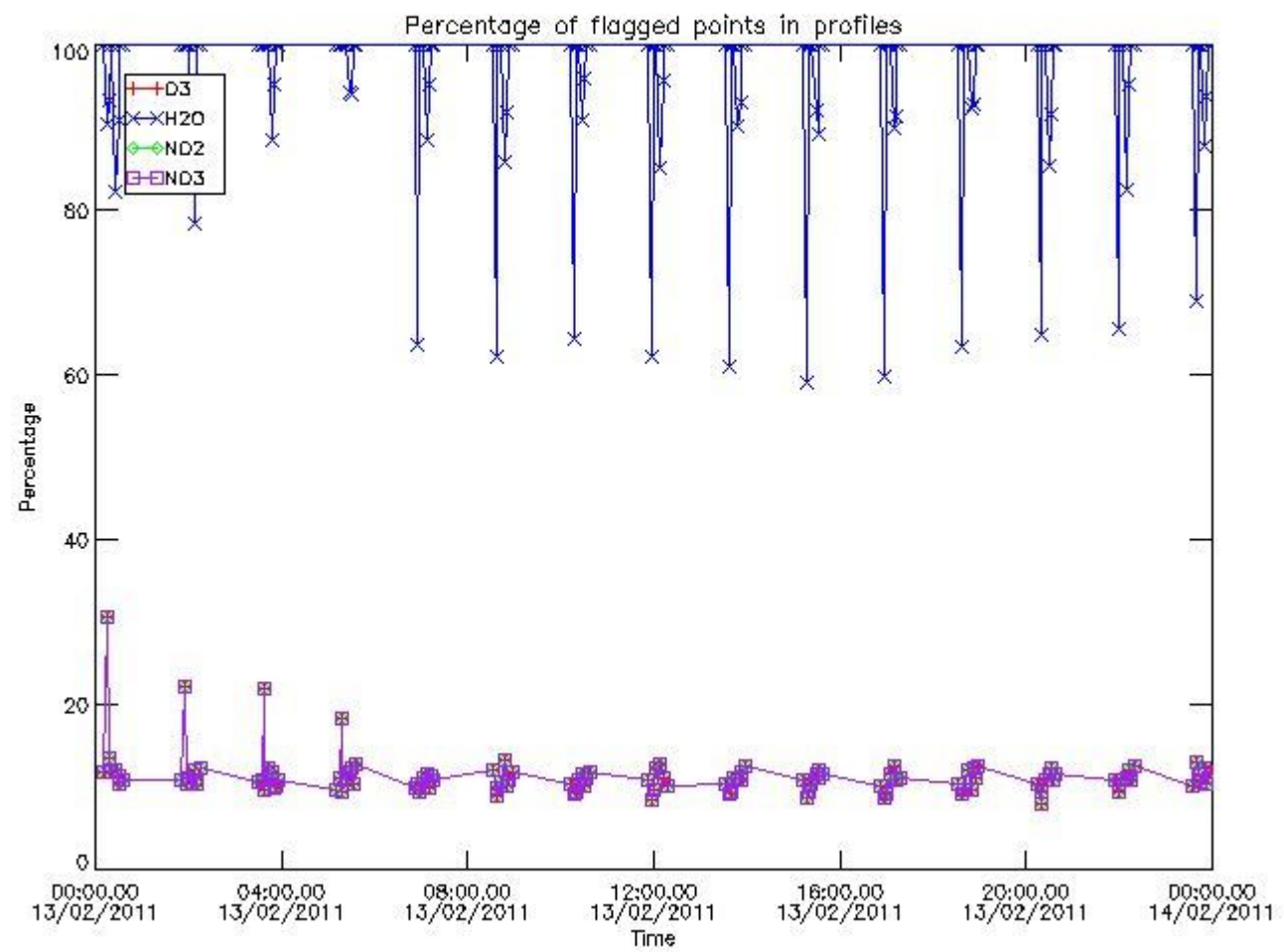
[6. Auxiliary Data Files used for the production reported in section 2](#)

220	GOM_NL__2PRFIN20110213_214409_000000523099_00273_46839_1932.N1	13-FEB-2011 21:44:09	Bright	51.500	59	55Alp Oph	2.0800	8900.0	103	46839	No
221	GOM_NL__2PRFIN20110213_214625_000000513099_00273_46839_1933.N1	13-FEB-2011 21:46:25	Bright	50.500	126	60Bet Oph	2.7700	4250.0	101	46839	No
222	GOM_NL__2PRFIN20110213_215339_000000483099_00273_46839_1934.N1	13-FEB-2011 21:53:39	Dark	47.500	86	35Eta Oph	2.4300	10200.	95	46839	No
223	GOM_NL__2PRFIN20110213_215837_000000543099_00273_46839_1935.N1	13-FEB-2011 21:58:37	Dark	54.000	16	21Alp Sco	1.0200	3000.0	108	46839	No
224	GOM_NL__2PRFIN20110213_220044_000000553099_00273_46839_1936.N1	13-FEB-2011 22:00:44	Dark	54.500	158	6Pi Sco	2.9060	28000.	109	46839	No
225	GOM_NL__2PRFIN20110213_220433_000000473099_00274_46840_1952.N1	13-FEB-2011 22:04:33	Dark	47.000	131	Gam Lup	2.8000	26000.	94	46840	No
226	GOM_NL__2PRFIN20110213_220957_000000463099_00274_46840_1953.N1	13-FEB-2011 22:09:57	Dark	46.000	10	Bet Cen	0.61000	28000.	92	46840	No
227	GOM_NL__2PRFIN20110213_221303_000000423099_00274_46840_1954.N1	13-FEB-2011 22:13:03	Dark	42.000	12	Alp1Cru	0.77500	30000.	84	46840	No
228	GOM_NL__2PRFIN20110213_221436_000000483099_00274_46840_1955.N1	13-FEB-2011 22:14:36	Dark	47.500	64	Gam Cen	2.2000	10600.	95	46840	No
229	GOM_NL__2PRFIN20110213_221847_000000453099_00274_46840_1956.N1	13-FEB-2011 22:18:47	Dark	45.000	113	Mu Vel	2.6920	5000.0	90	46840	No
230	GOM_NL__2PRFIN20110213_223229_000000493099_00274_46840_1957.N1	13-FEB-2011 22:32:29	Straylight	49.000	48	30Alp Hya	1.9770	4100.0	98	46840	No
231	GOM_NL__2PRFIN20110213_224319_000000443099_00274_46840_1958.N1	13-FEB-2011 22:43:19	Bright	44.000	166	17Eps Leo	2.9800	6000.0	88	46840	No
232	GOM_NL__2PRFIN20110213_225511_000000463099_00274_46840_1959.N1	13-FEB-2011 22:55:11	Bright	45.500	82	48Bet UMa	2.3650	10600.	91	46840	No
233	GOM_NL__2PRFIN20110213_230244_000000423099_00274_46840_1960.N1	13-FEB-2011 23:02:44	Bright	42.000	60	7Bet UMi	2.0810	3950.0	84	46840	No
234	GOM_NL__2PRFIN20110213_230734_000000433099_00274_46840_1961.N1	13-FEB-2011 23:07:34	Bright	43.000	119	14Eta Dra	2.7270	4700.0	86	46840	No
235	GOM_NL__2PRFIN20110213_231117_000000413099_00274_46840_1962.N1	13-FEB-2011 23:11:17	Bright	41.000	130	23Bet Dra	2.7990	5800.0	82	46840	No
236	GOM_NL__2PRFIN20110213_231527_000000363099_00274_46840_1963.N1	13-FEB-2011 23:15:27	Bright	35.500	5	3Alp Lyr	0.033000	11000.	71	46840	No
237	GOM_NL__2PRFIN20110213_232424_000000443099_00274_46840_1964.N1	13-FEB-2011 23:24:24	Bright	43.500	59	55Alp Oph	2.0800	8900.0	87	46840	No
238	GOM_NL__2PRFIN20110213_232639_000000483099_00274_46840_1965.N1	13-FEB-2011 23:26:39	Bright	47.500	126	60Bet Oph	2.7700	4250.0	95	46840	No
239	GOM_NL__2PRFIN20110213_233353_000000503099_00274_46840_1966.N1	13-FEB-2011 23:33:53	Dark	50.000	86	35Eta Oph	2.4300	10200.	100	46840	No
240	GOM_NL__2PRFIN20110213_233852_000000703099_00274_46840_1967.N1	13-FEB-2011 23:38:52	Dark	69.500	16	21Alp Sco	1.0200	3000.0	139	46840	No
241	GOM_NL__2PRFIN20110213_234059_000000533099_00274_46840_1968.N1	13-FEB-2011 23:40:59	Dark	52.500	158	6Pi Sco	2.9060	28000.	105	46840	No
242	GOM_NL__2PRFIN20110213_234448_000000483099_00275_46841_2022.N1	13-FEB-2011 23:44:48	Dark	48.000	131	Gam Lup	2.8000	26000.	96	46841	No
243	GOM_NL__2PRFIN20110213_235012_000000423099_00275_46841_2023.N1	13-FEB-2011 23:50:12	Dark	41.500	10	Bet Cen	0.61000	28000.	83	46841	No
244	GOM_NL__2PRFIN20110213_235317_000000493099_00275_46841_2024.N1	13-FEB-2011 23:53:17	Dark	49.000	12	Alp1Cru	0.77500	30000.	98	46841	No
245	GOM_NL__2PRFIN20110213_235451_000000463099_00275_46841_2025.N1	13-FEB-2011 23:54:51	Dark	46.000	64	Gam Cen	2.2000	10600.	92	46841	No
246	GOM_NL__2PRFIN20110213_235902_000000483099_00275_46841_2026.N1	13-FEB-2011 23:59:02	Dark	47.500	113	Mu Vel	2.6920	5000.0	95	46841	No

3. Quality information per product

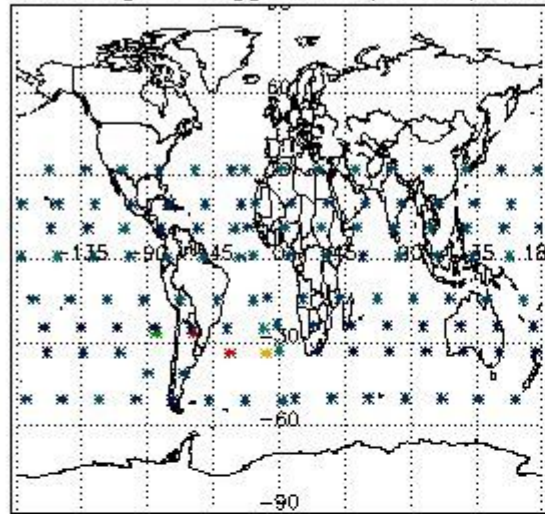
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

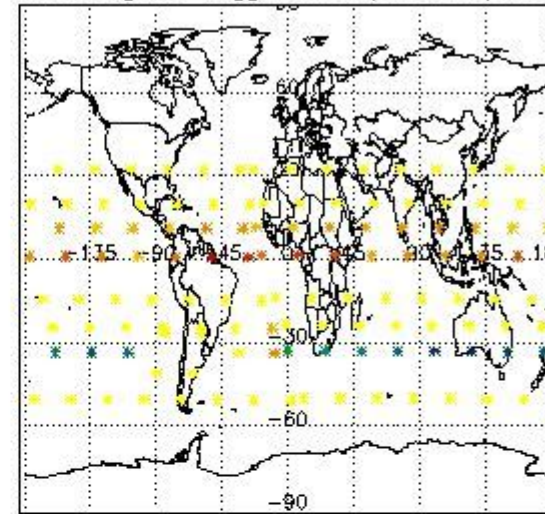


3.2 Plot quality information per product (world map)

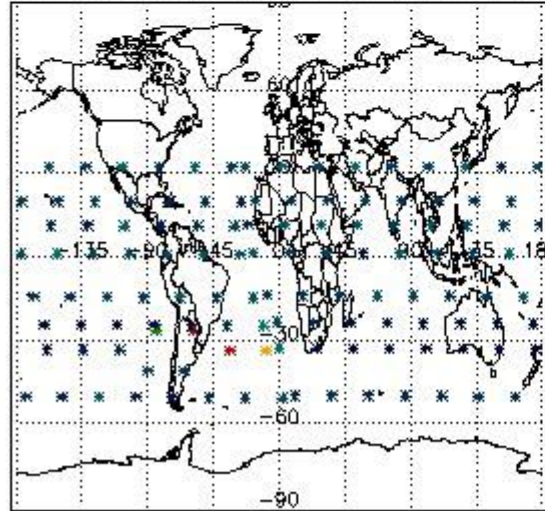
Percentage of flagged data per O3 profile



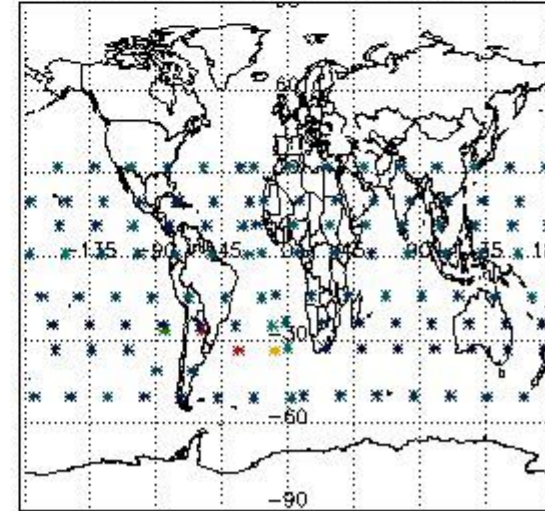
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

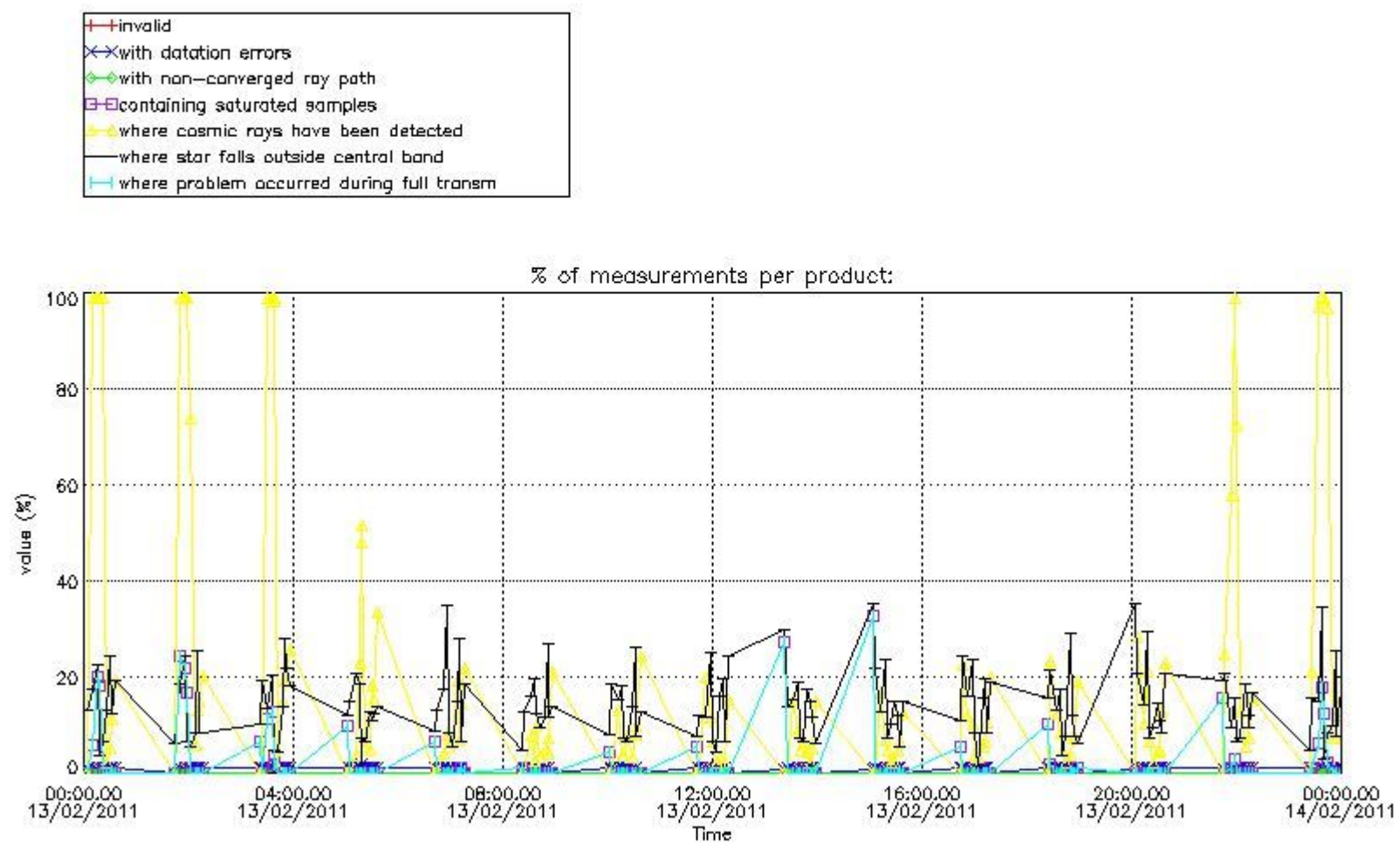


4. Level 1 quality information per product

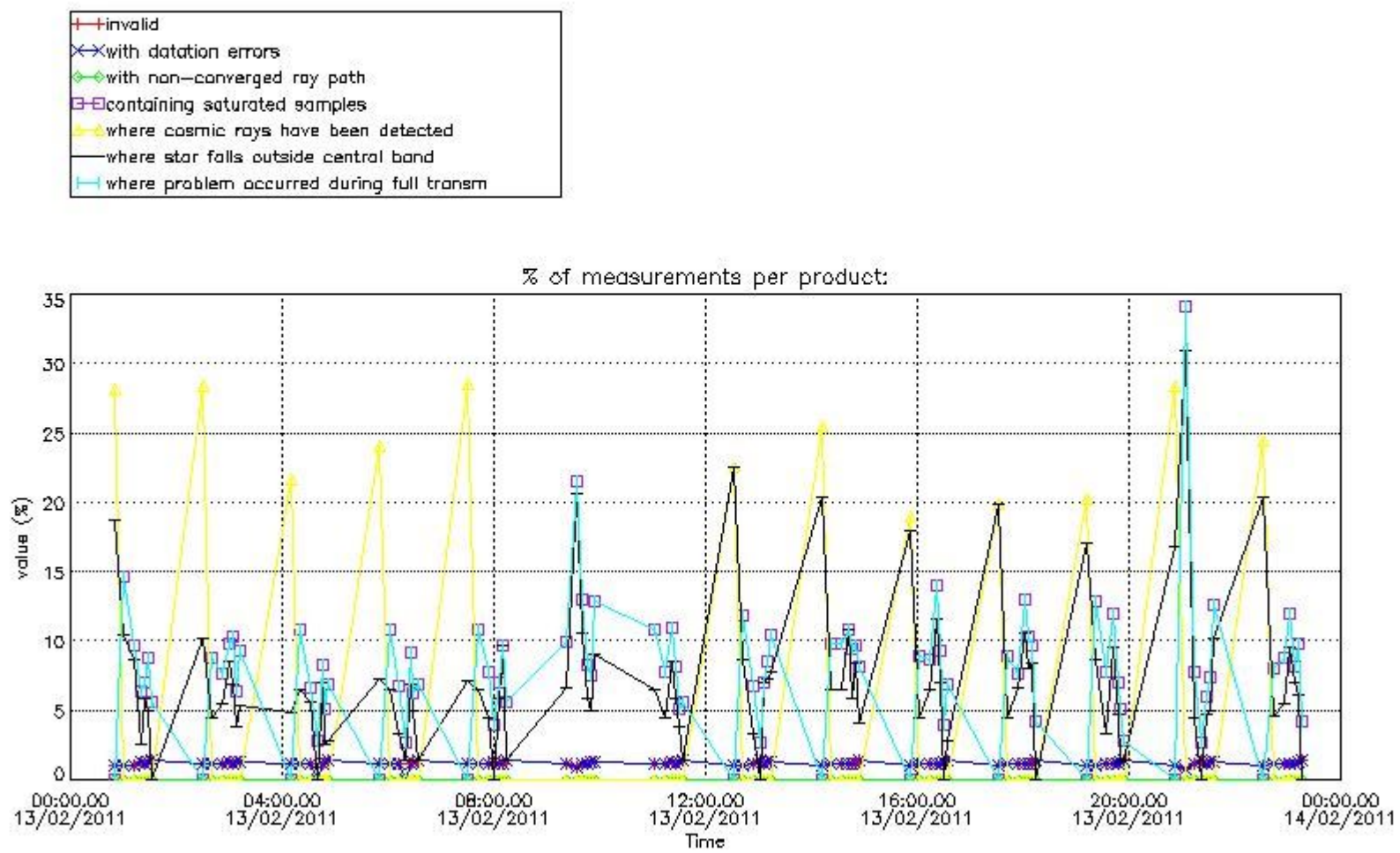
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



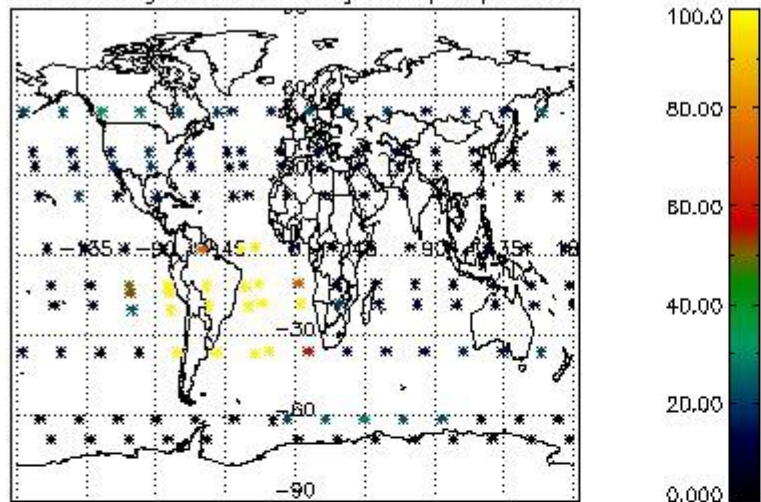
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



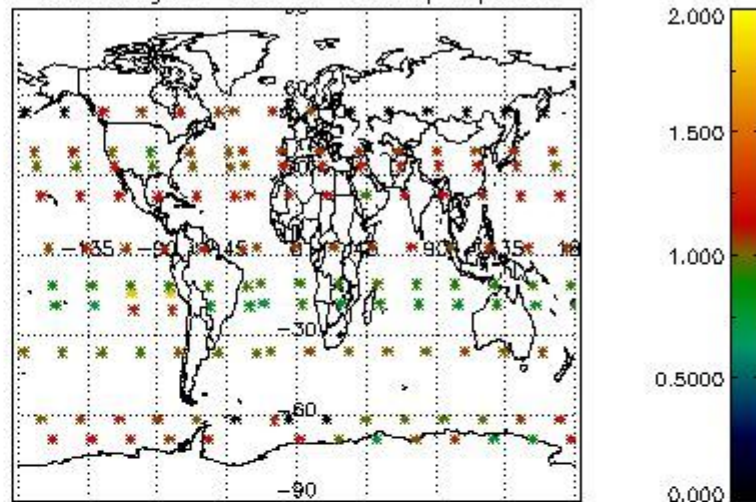
4.2 Plot quality information per product coming from level 1b processing (world map)

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

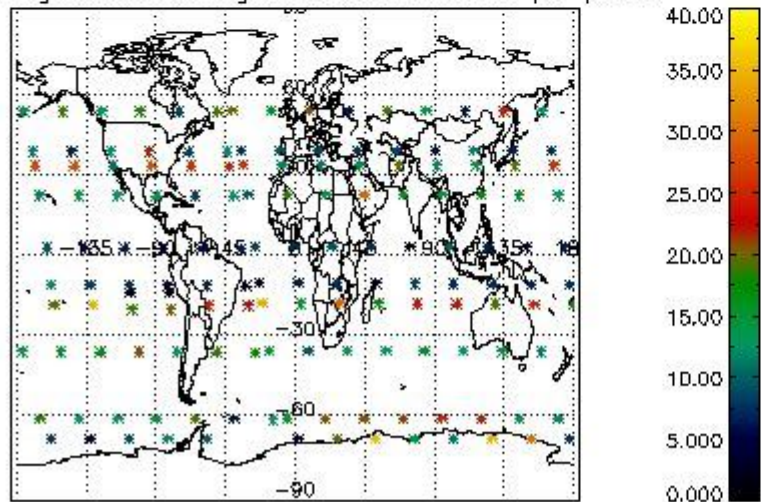
Percentage of cosmic ray hits per profile



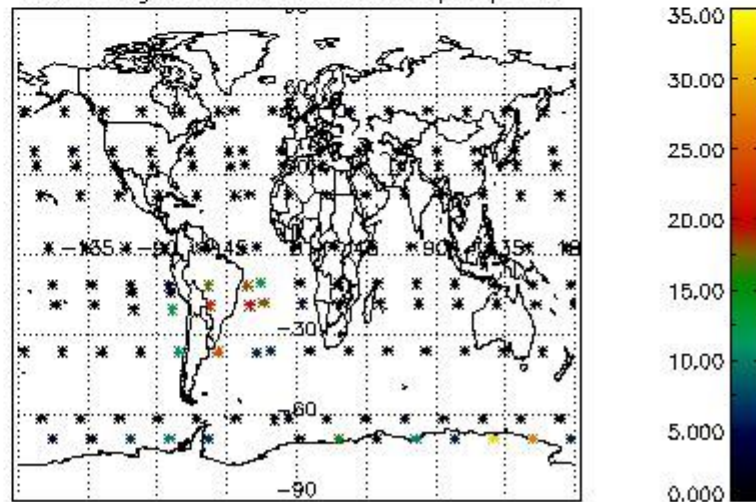
Percentage of datation errors per profile



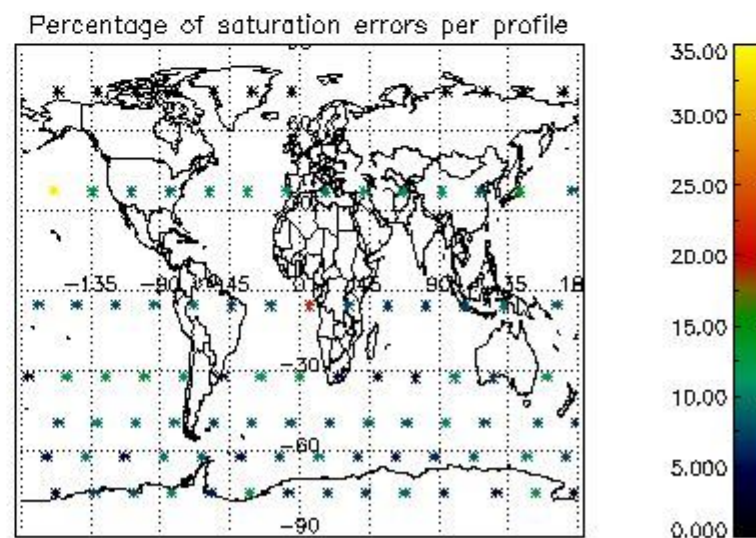
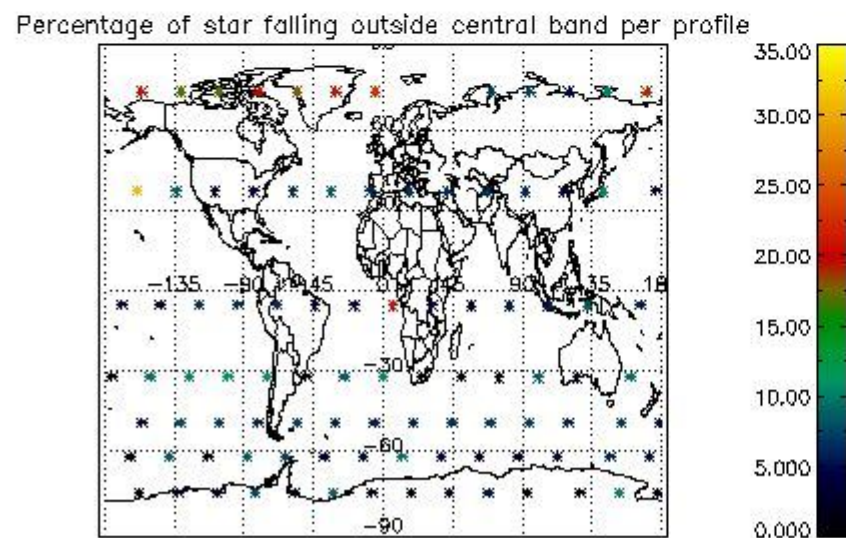
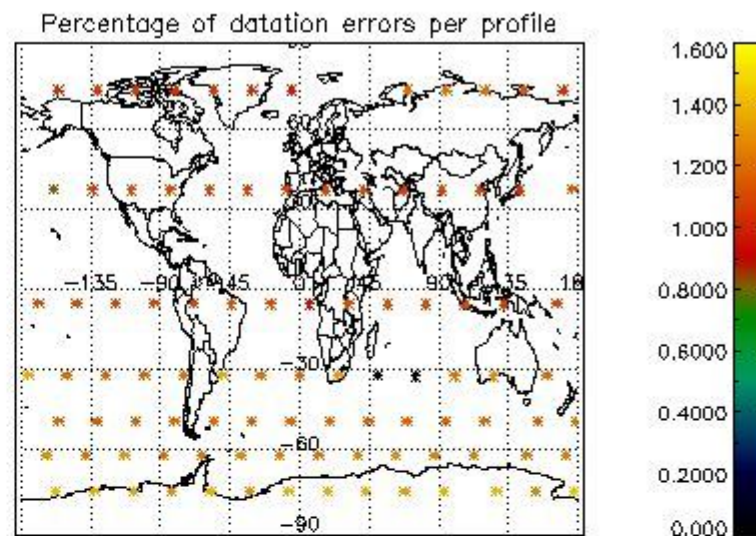
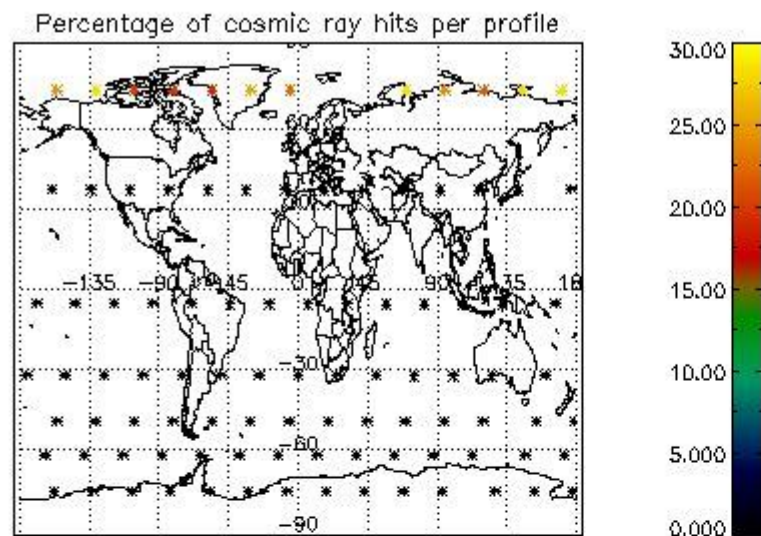
Percentage of star falling outside central band per profile



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

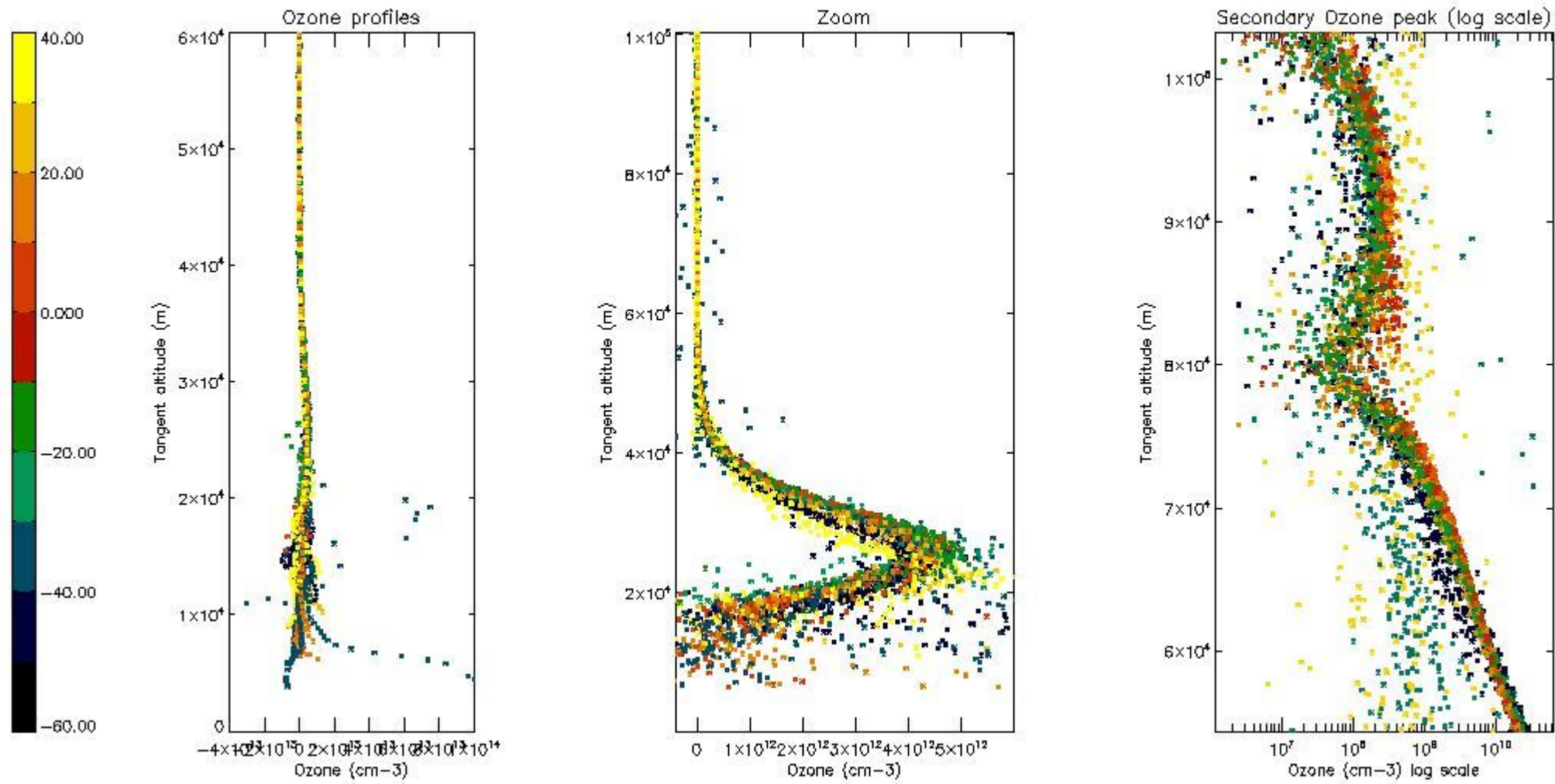
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	53
STD < 20	27

STD < 10	22
STD < 5	14

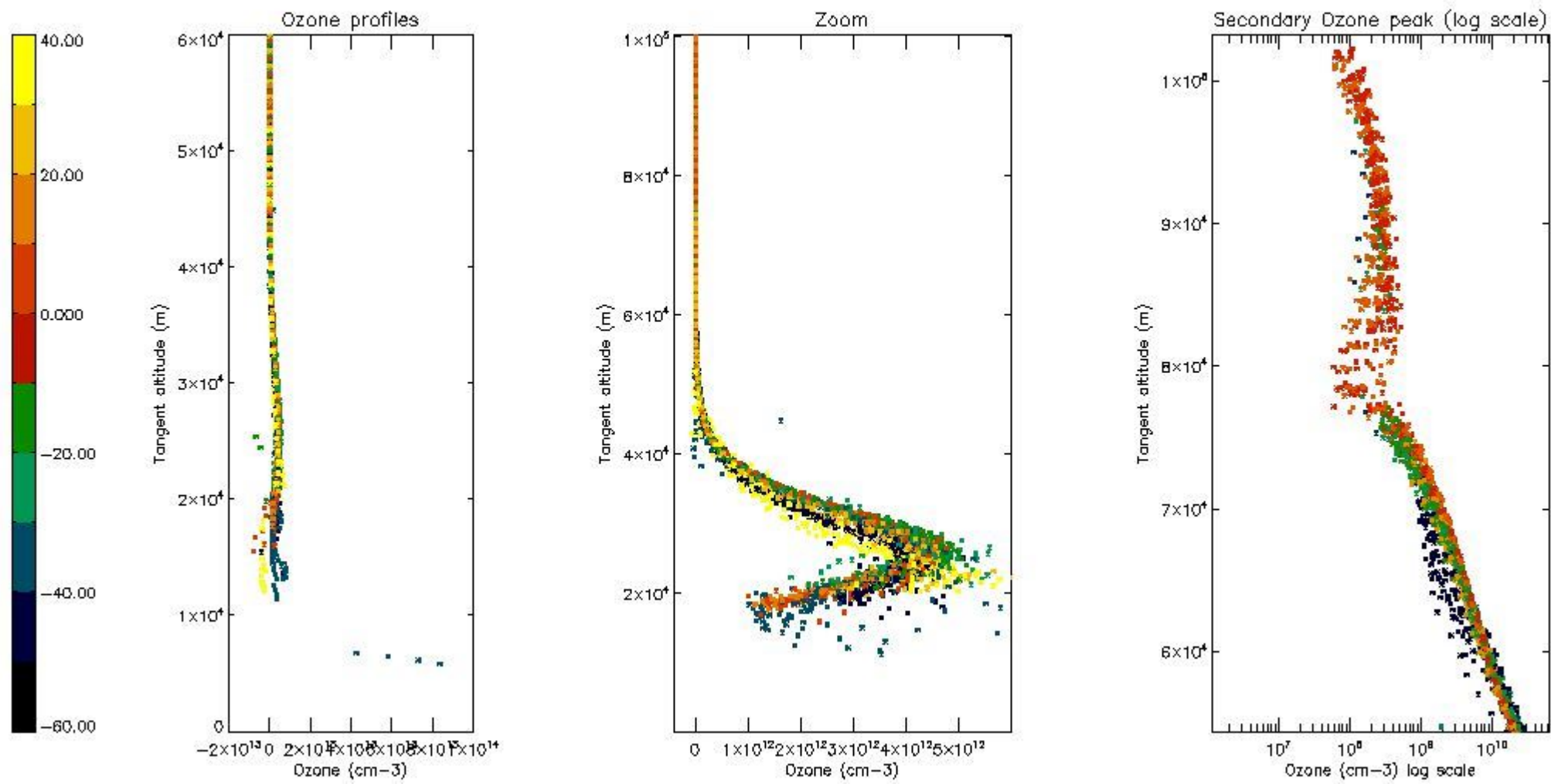
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



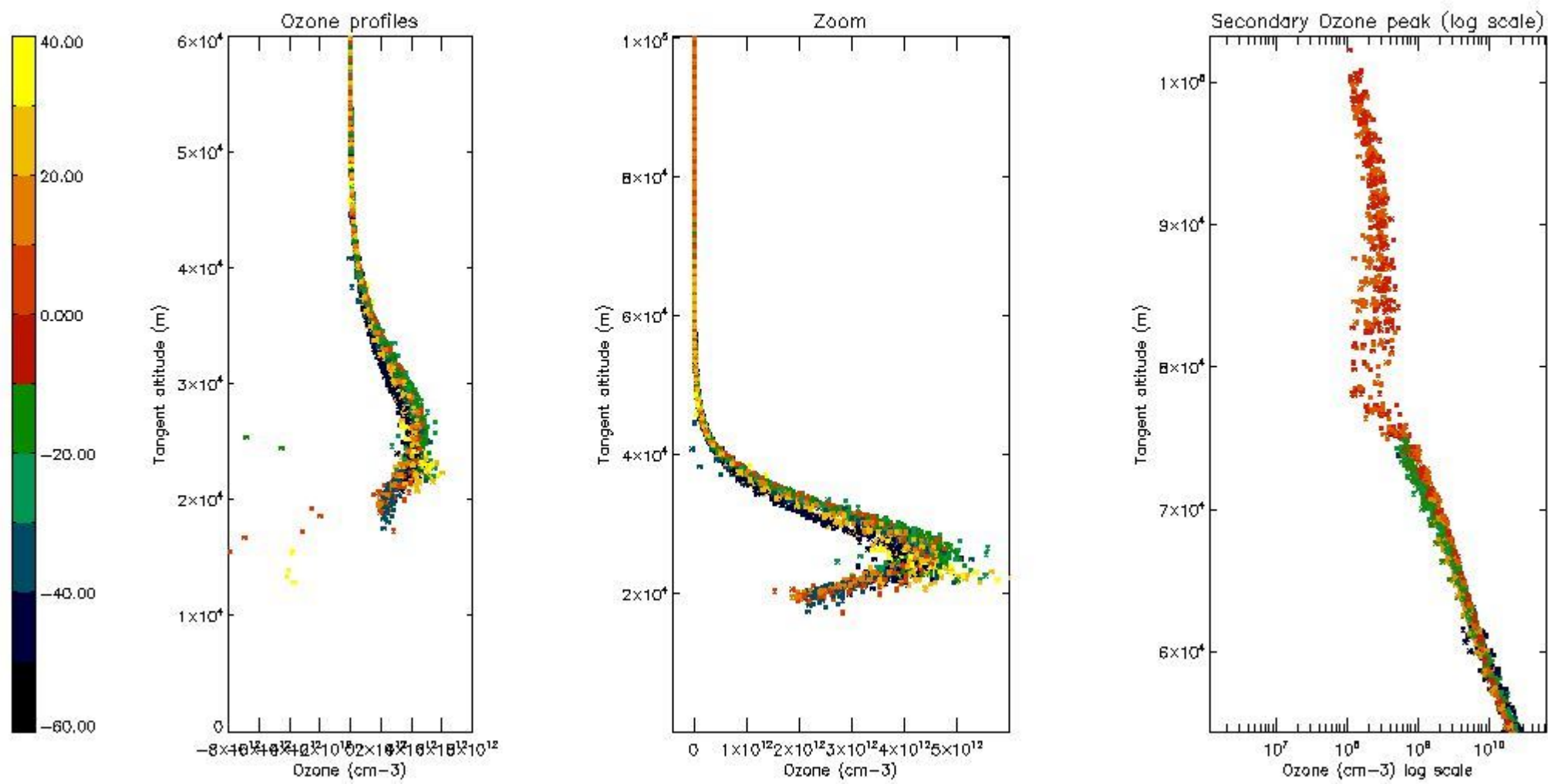
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



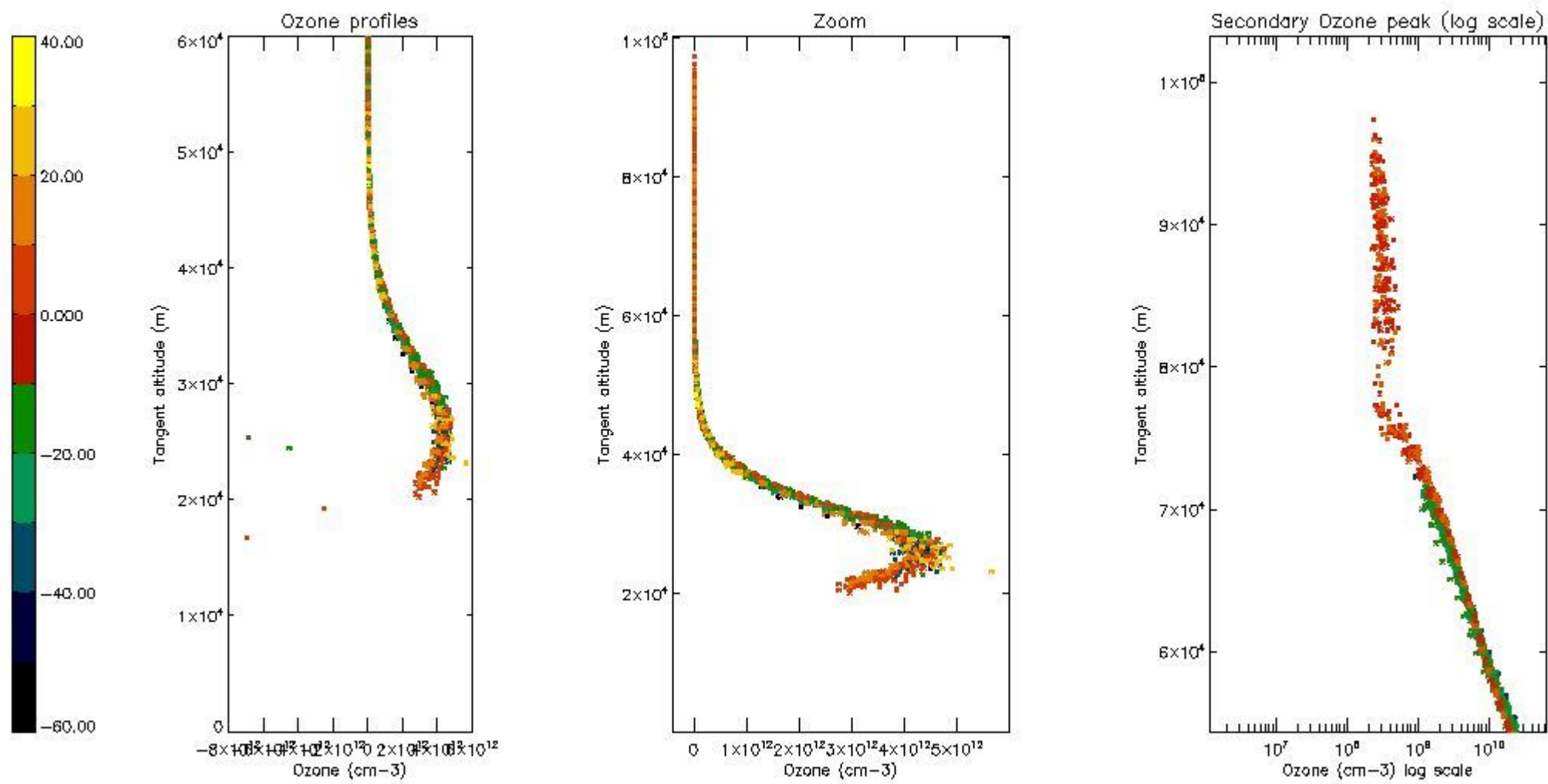
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



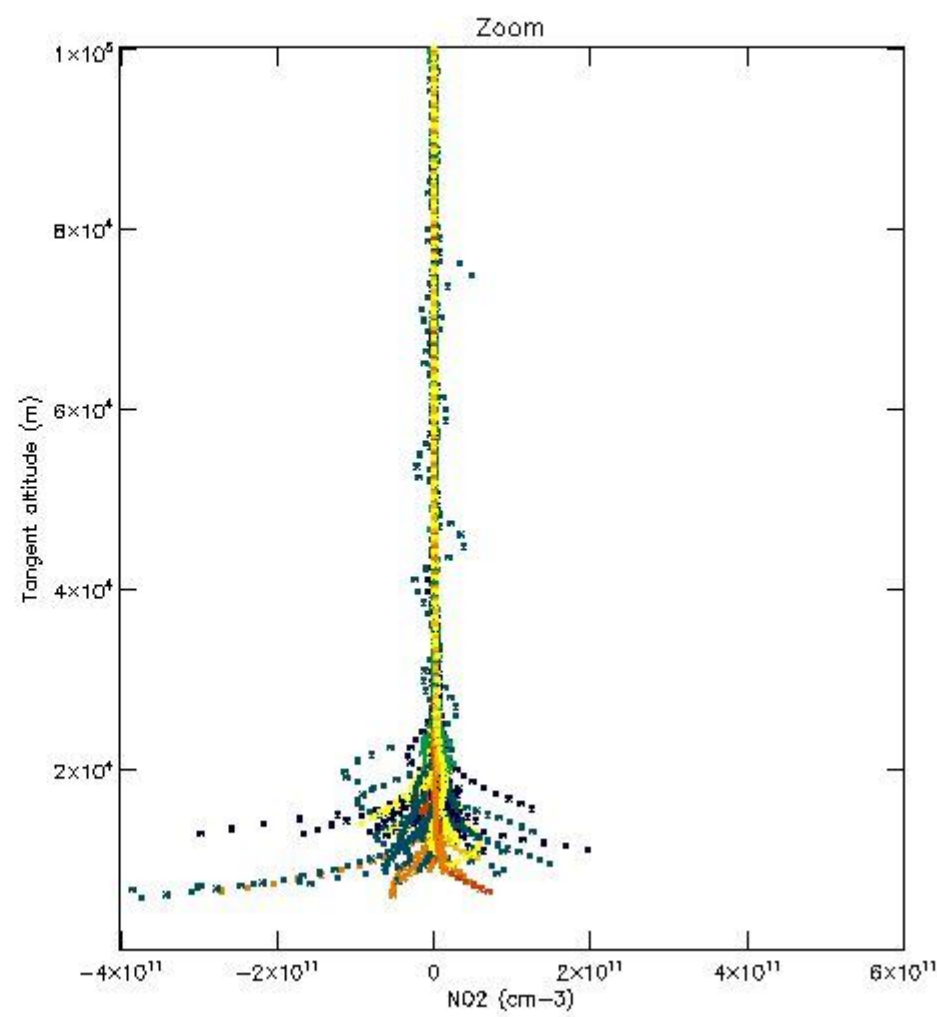
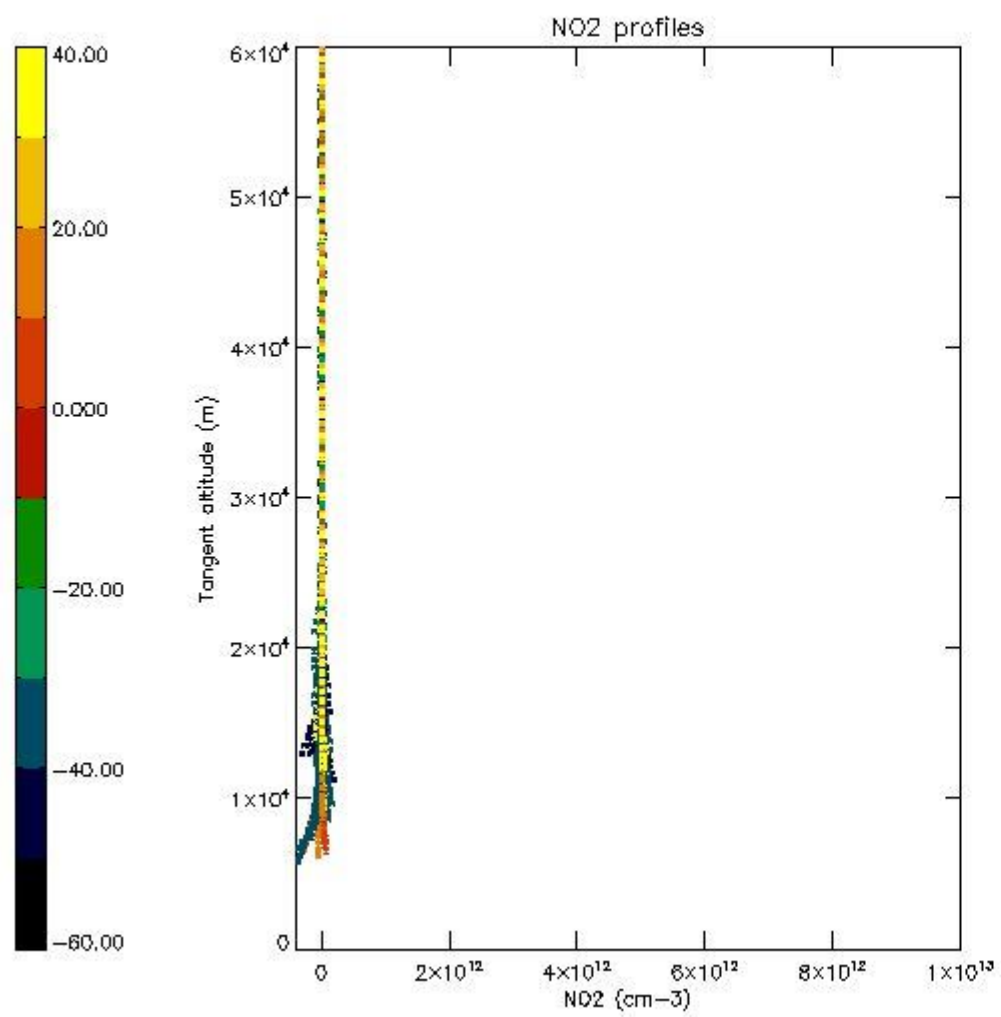
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



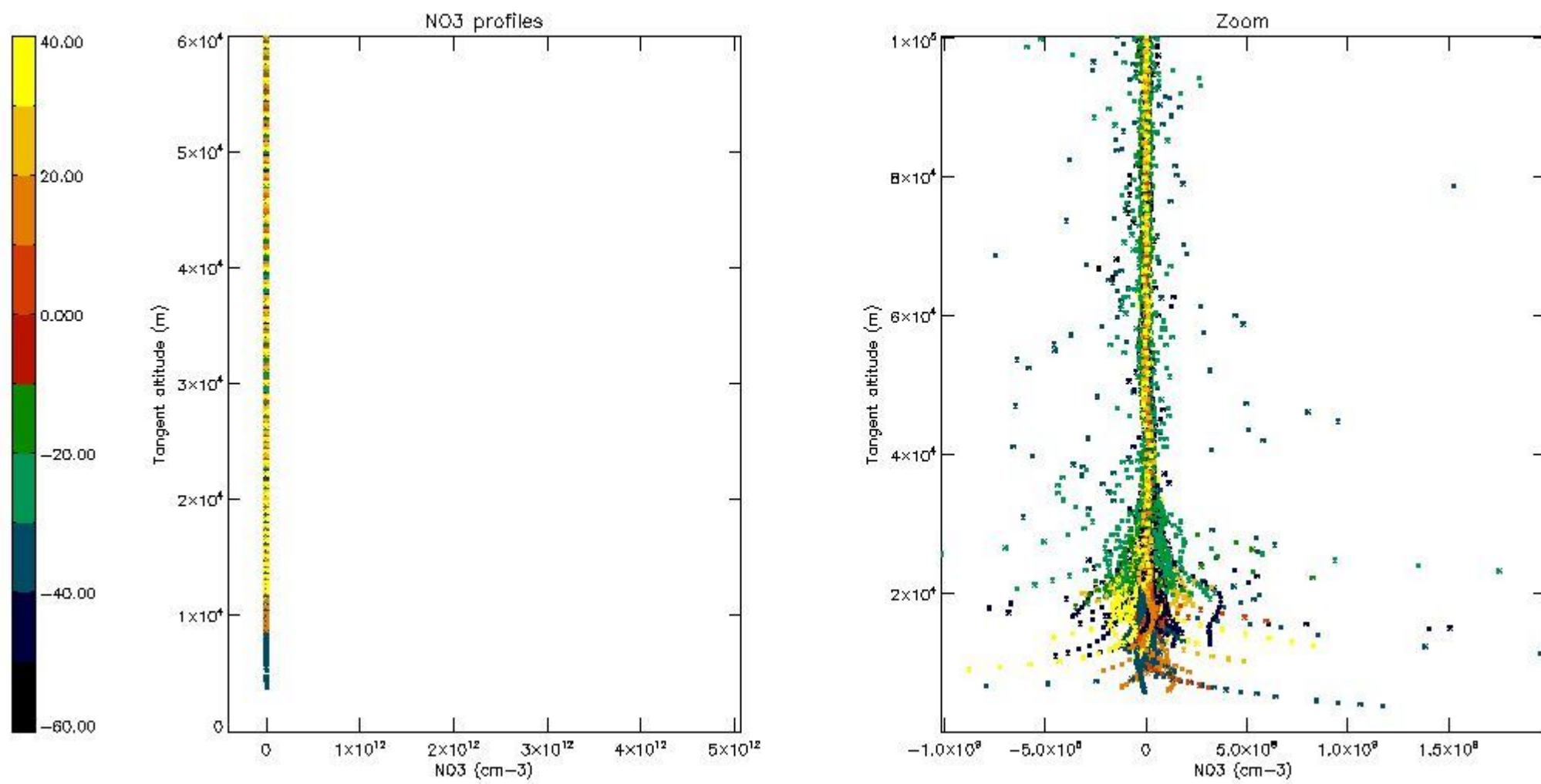
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



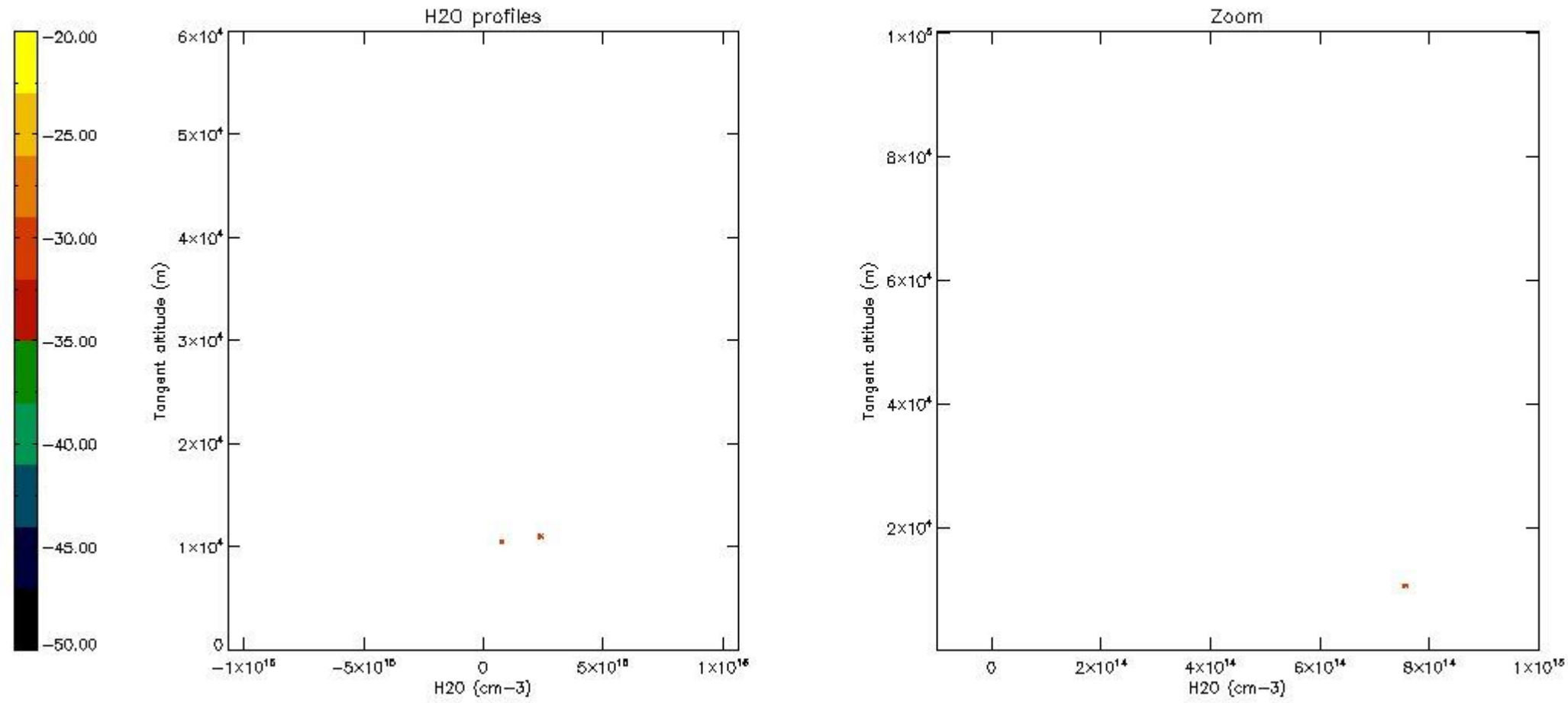
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

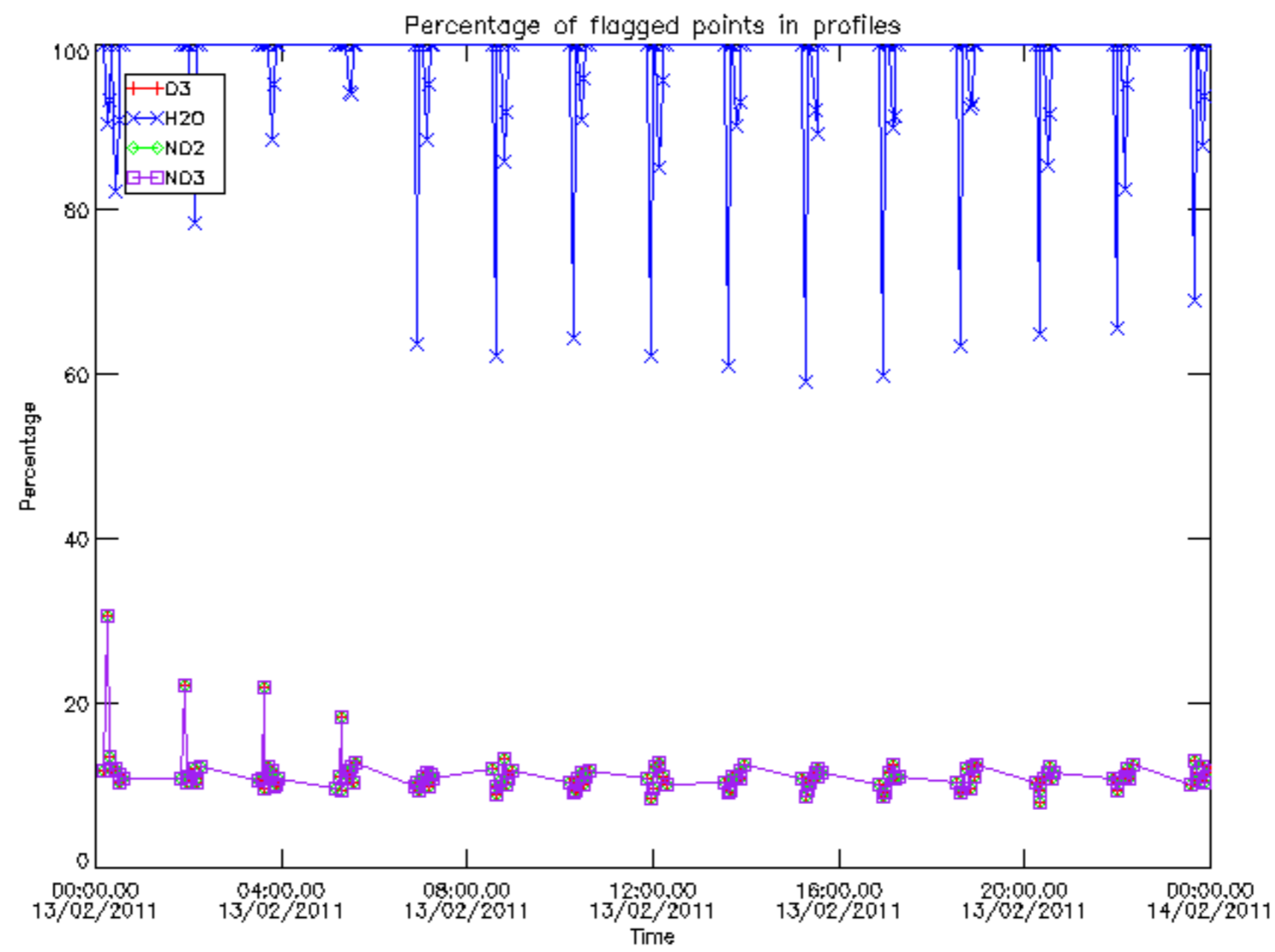
The colorbar represents the latitude.



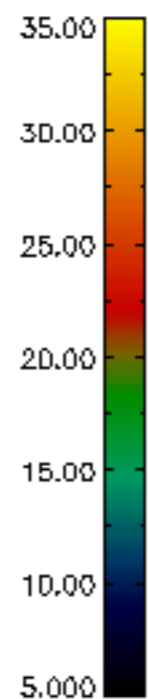
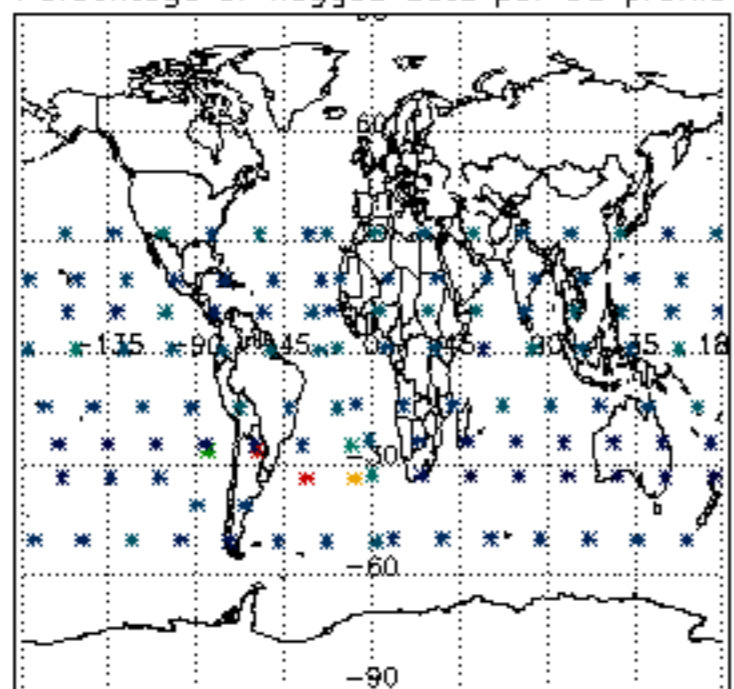
6. Auxiliary Data Files used for the production reported in section 2

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.

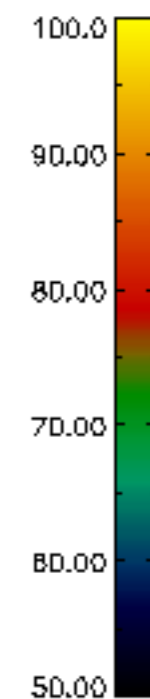
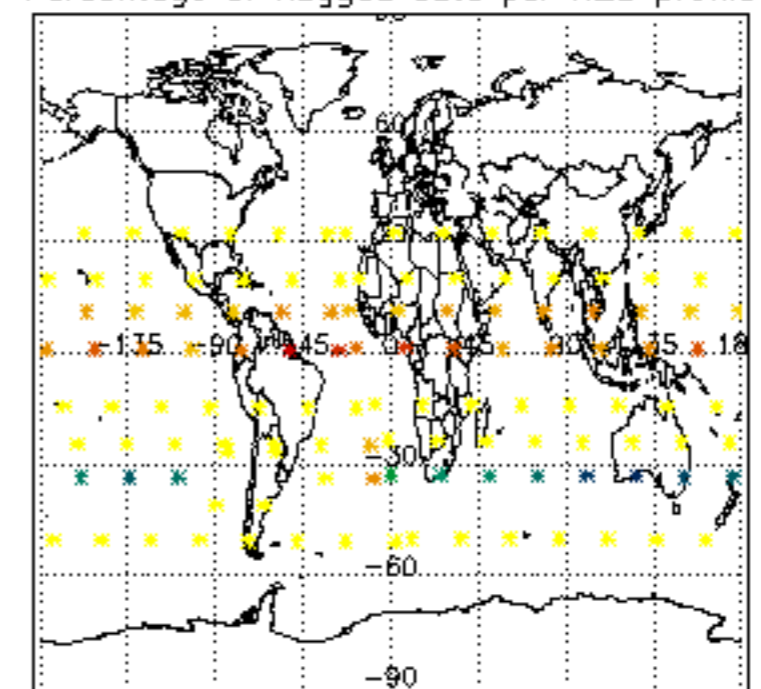
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	13-FEB-2011 00:03:16
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	13-FEB-2011 00:03:16
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	13-FEB-2011 00:03:16



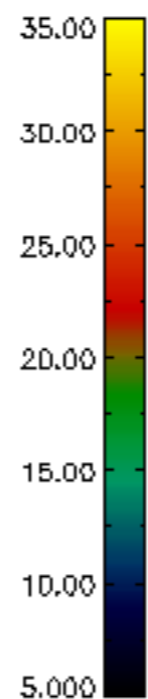
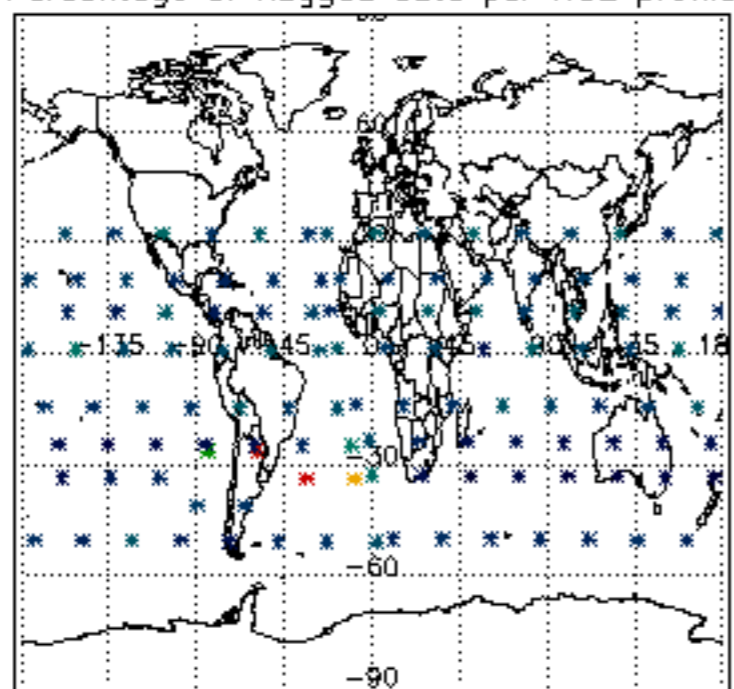
Percentage of flagged data per D3 profile



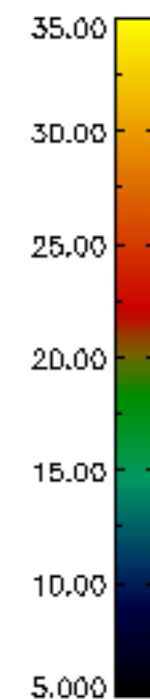
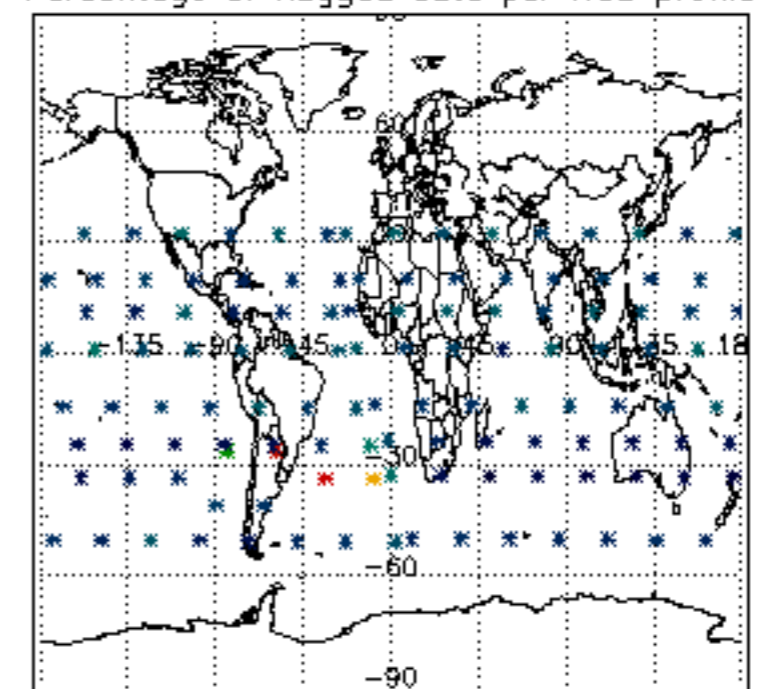
Percentage of flagged data per H2O profile

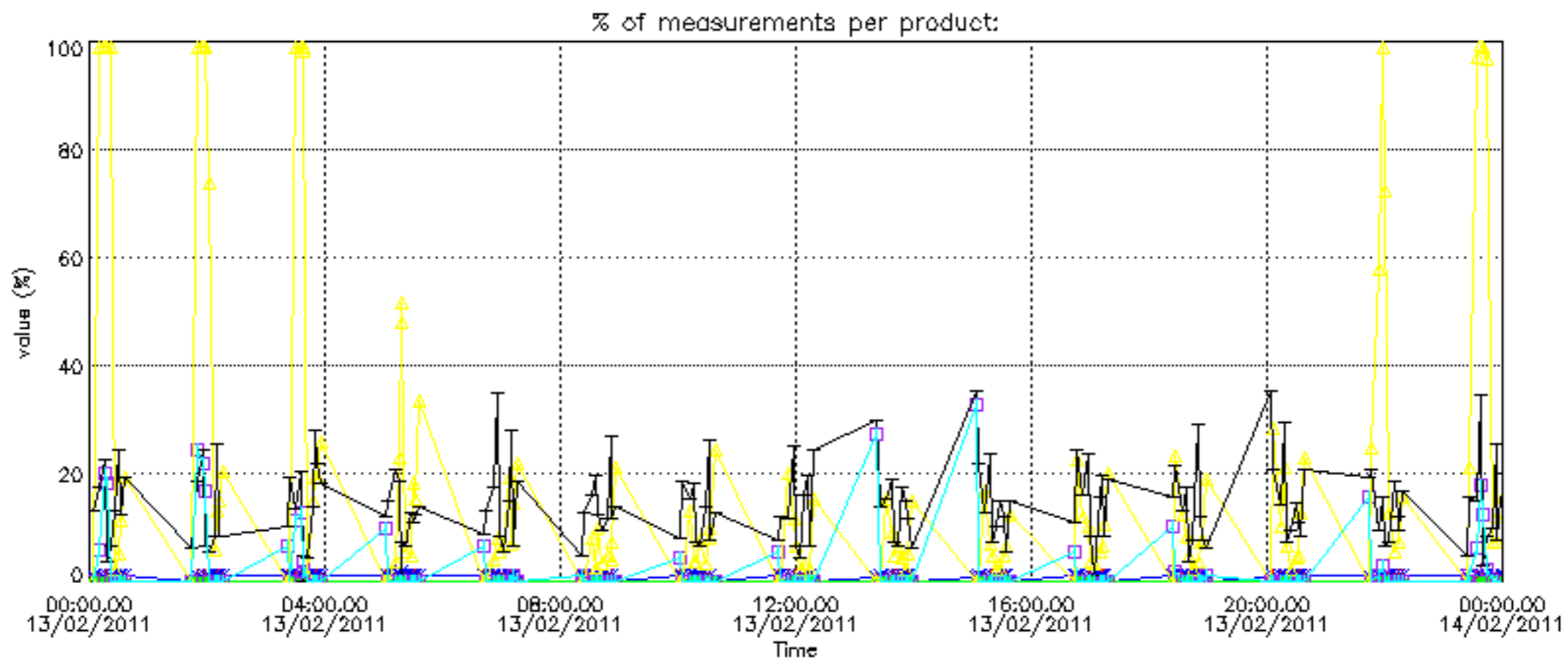


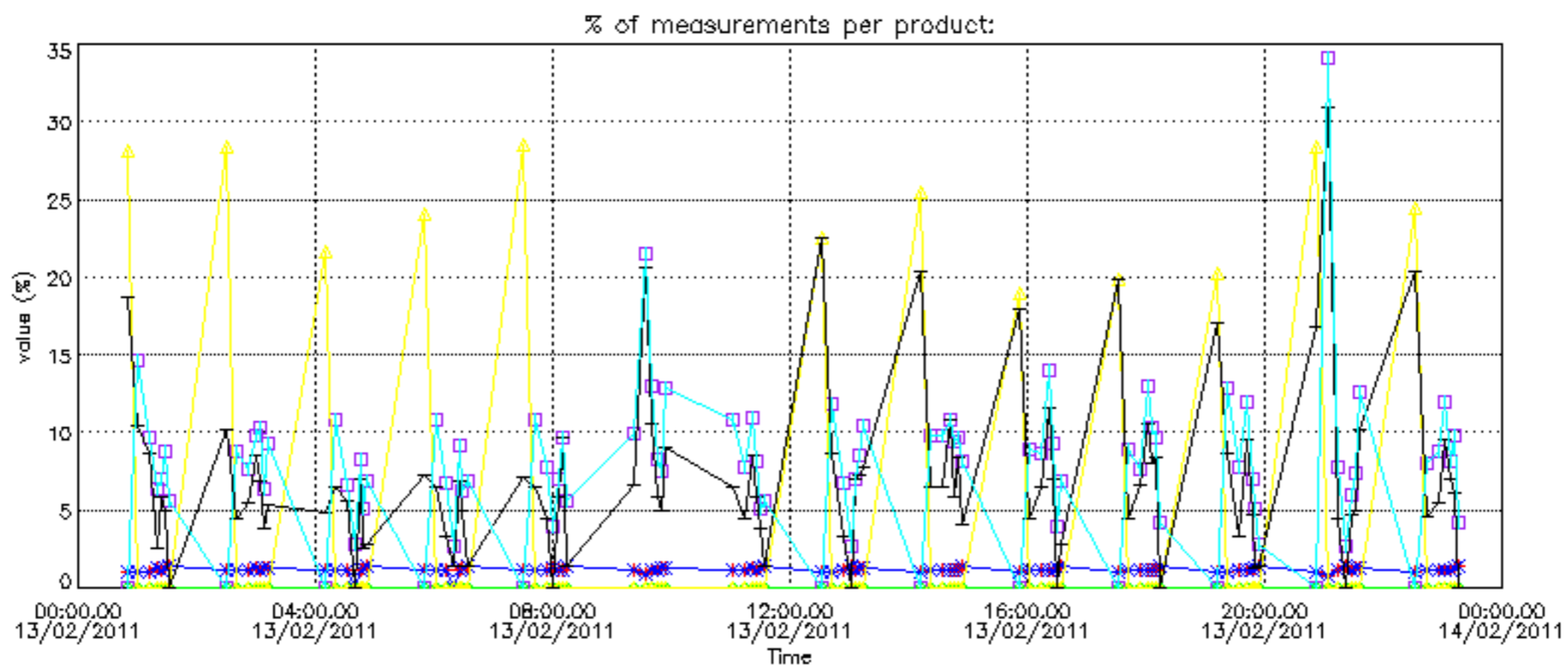
Percentage of flagged data per NO2 profile



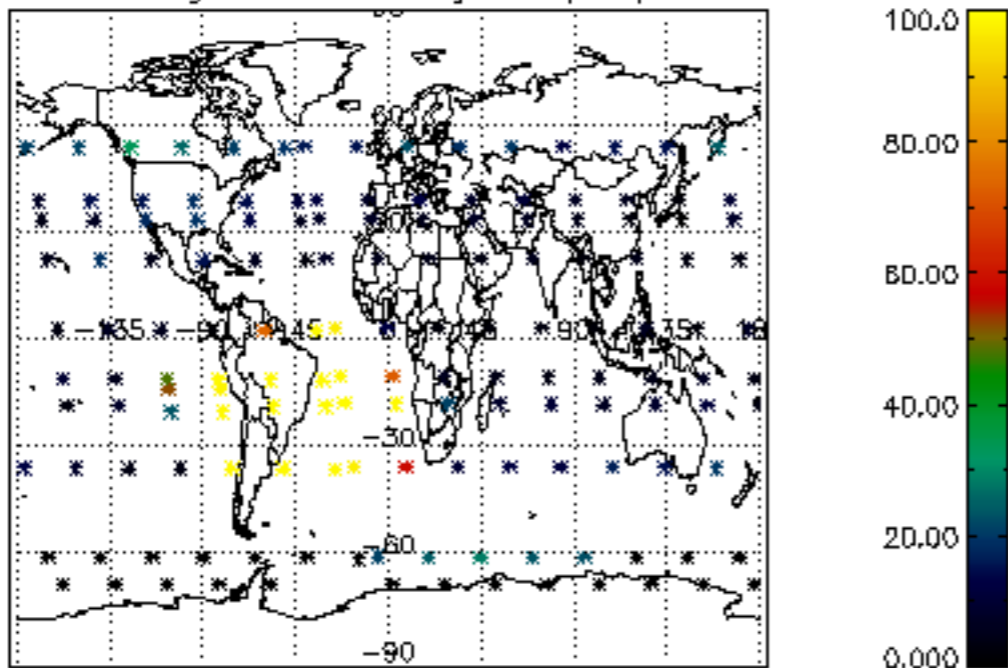
Percentage of flagged data per NO3 profile



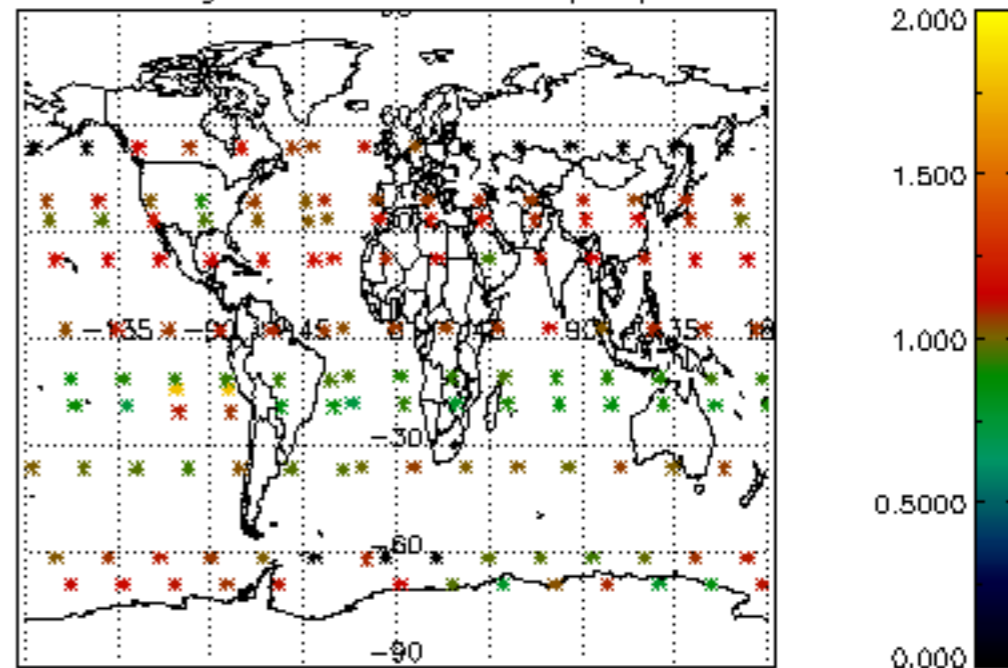




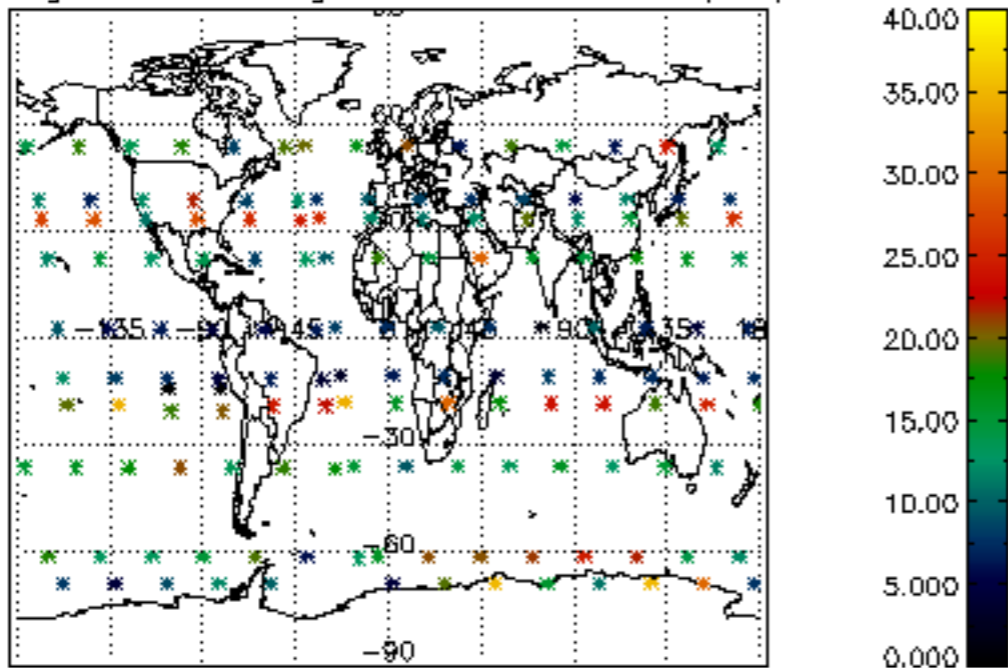
Percentage of cosmic ray hits per profile



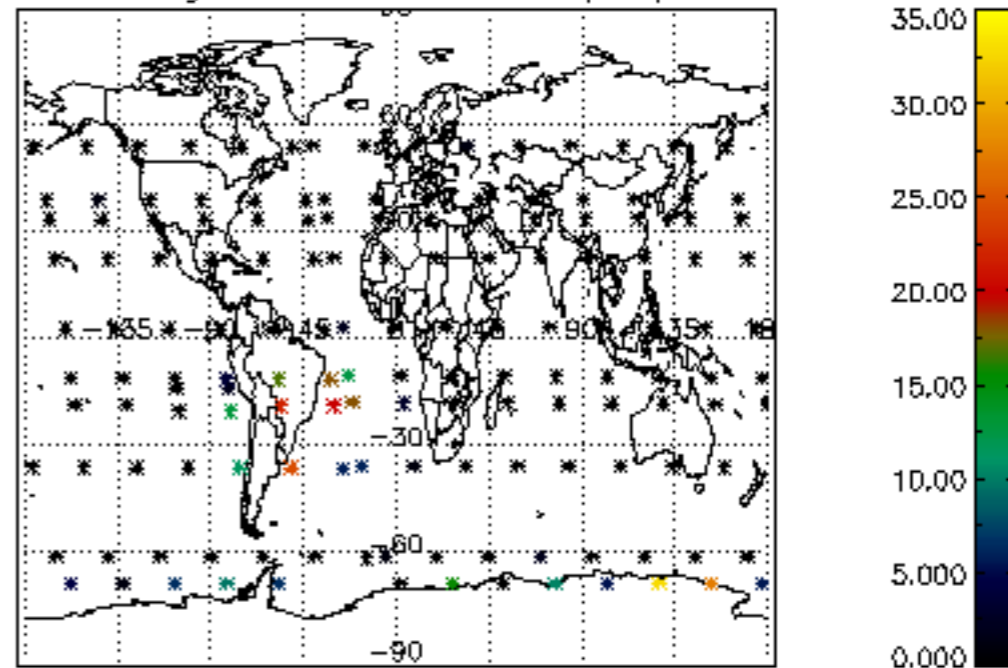
Percentage of datation errors per profile



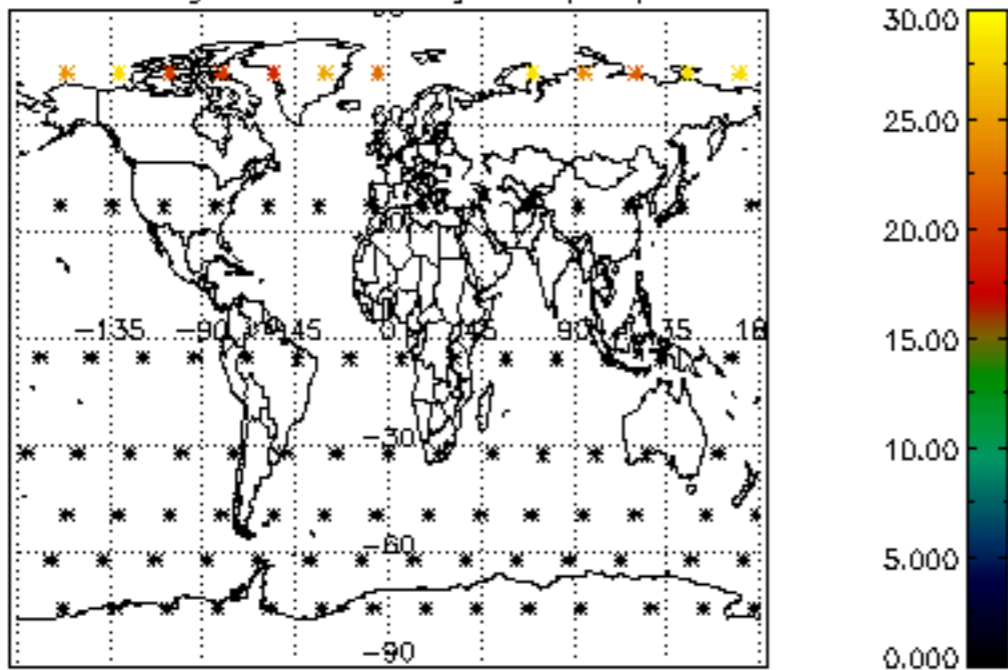
Percentage of star falling outside central band per profile



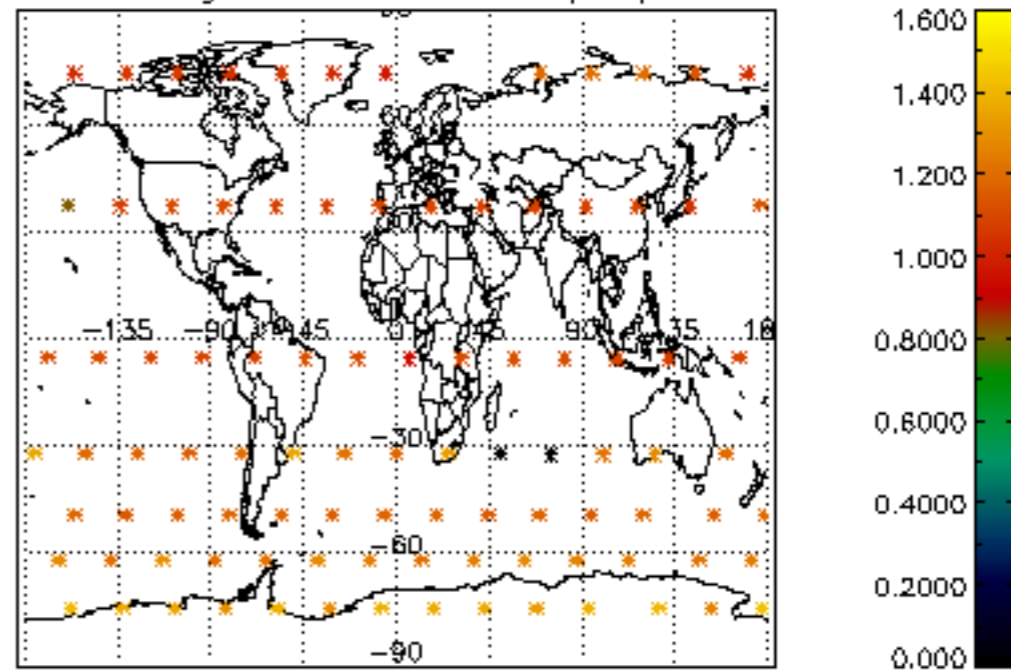
Percentage of saturation errors per profile



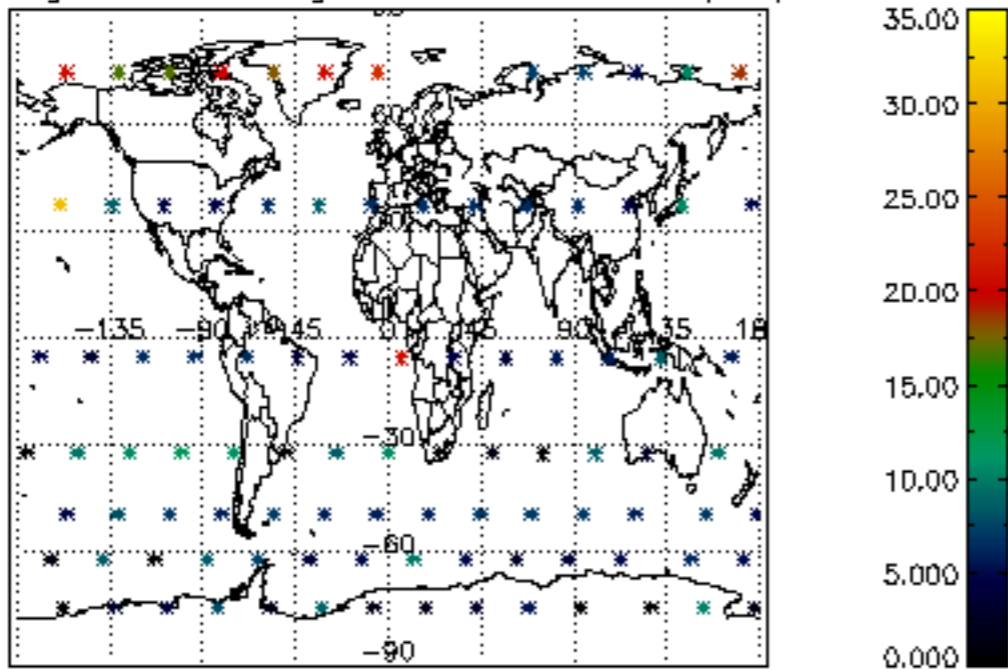
Percentage of cosmic ray hits per profile



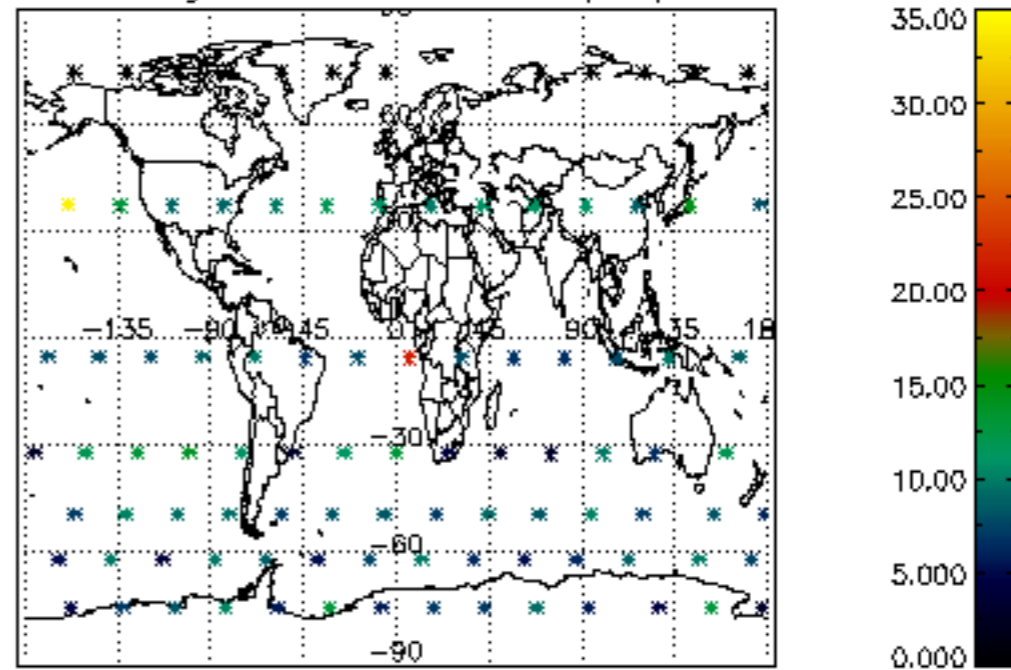
Percentage of datation errors per profile

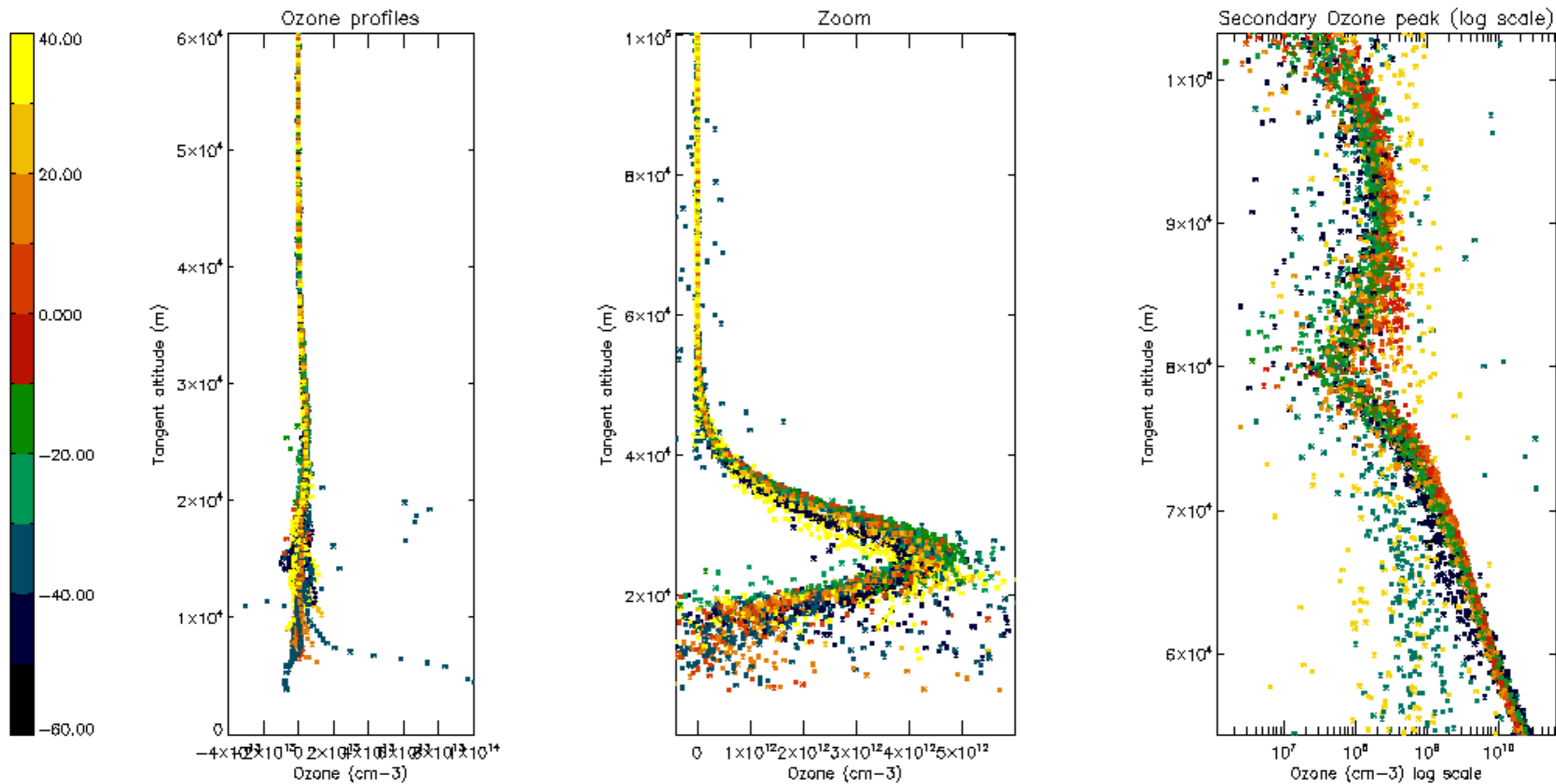


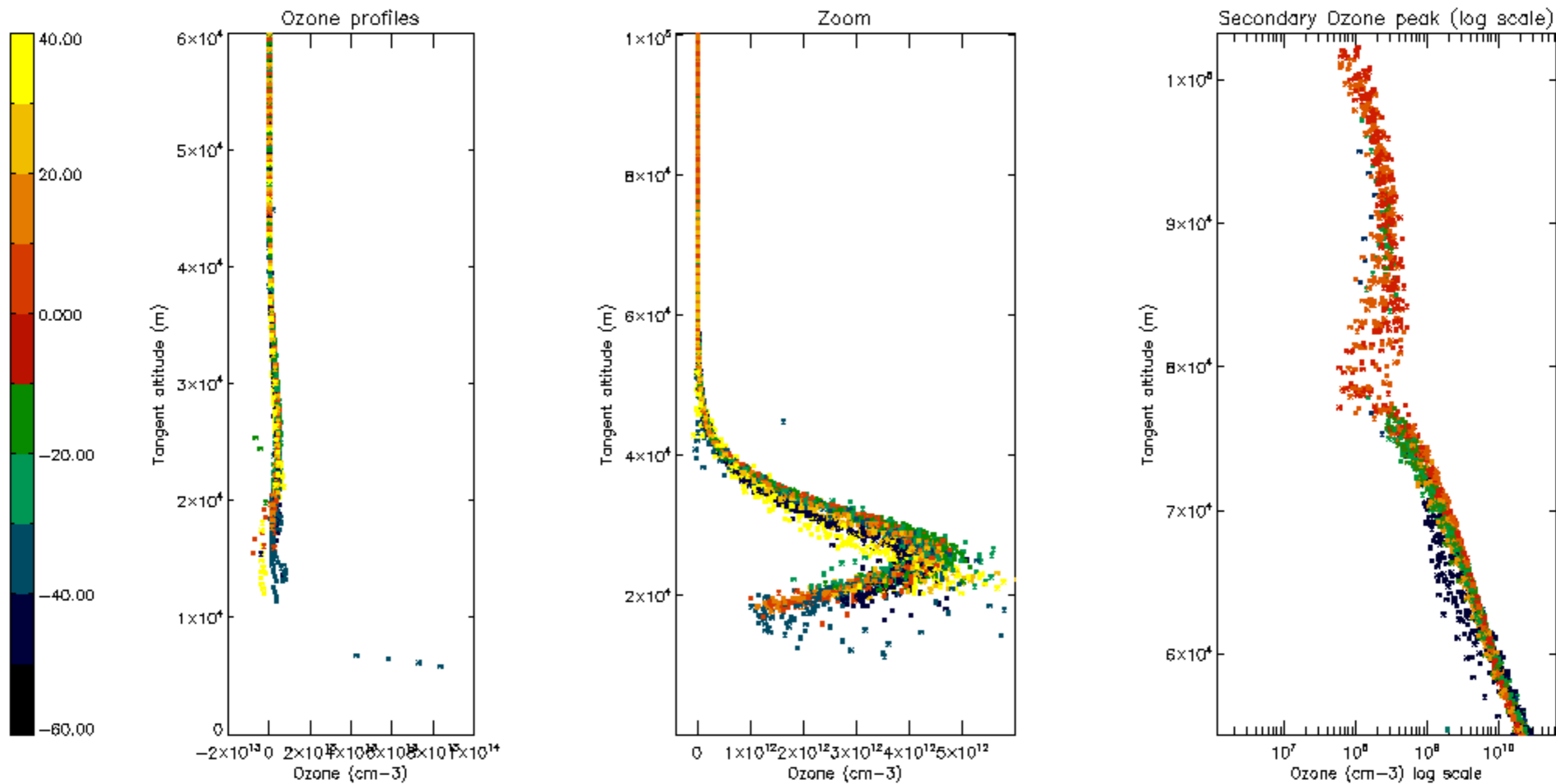
Percentage of star falling outside central band per profile

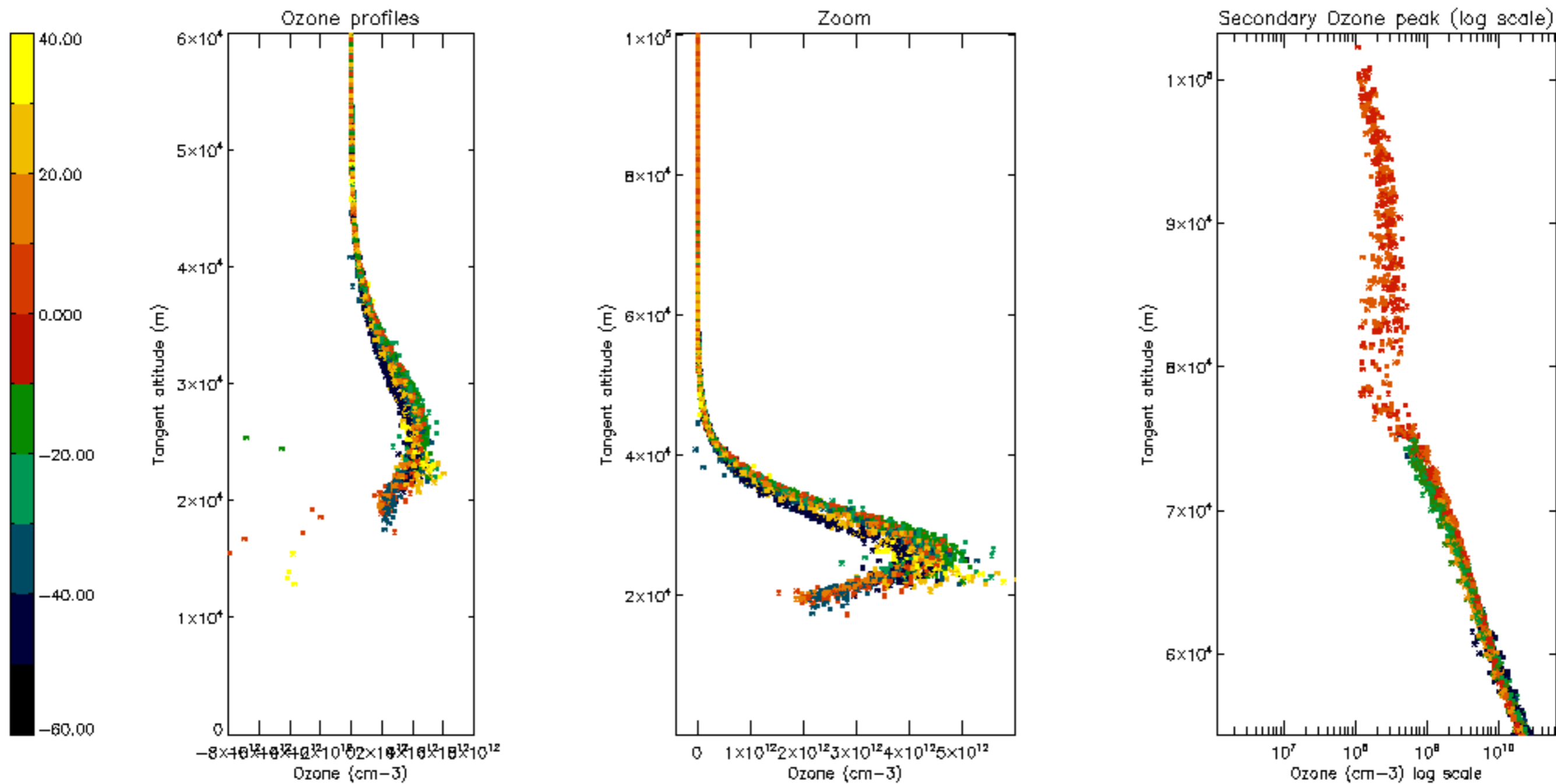


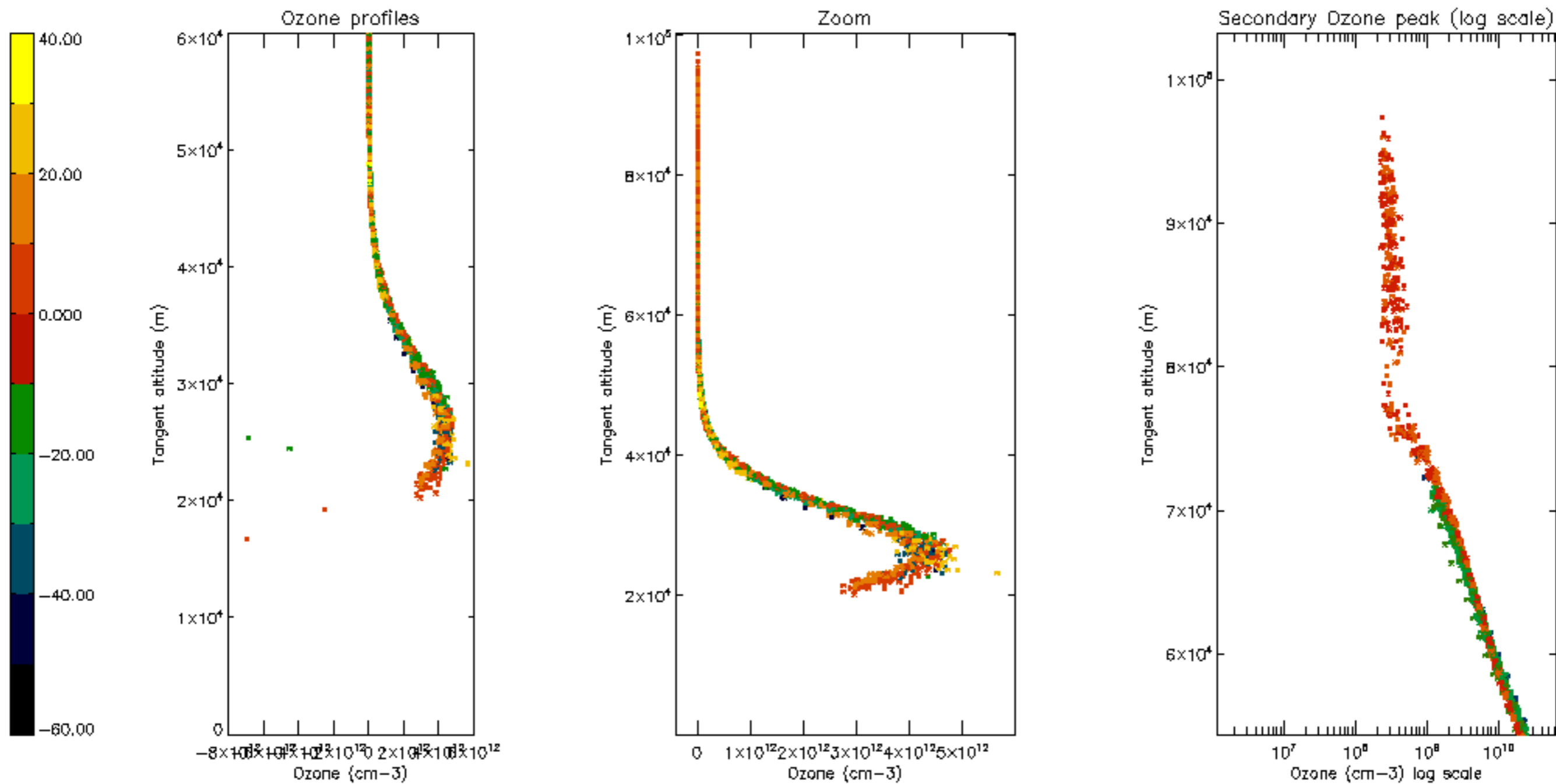
Percentage of saturation errors per profile

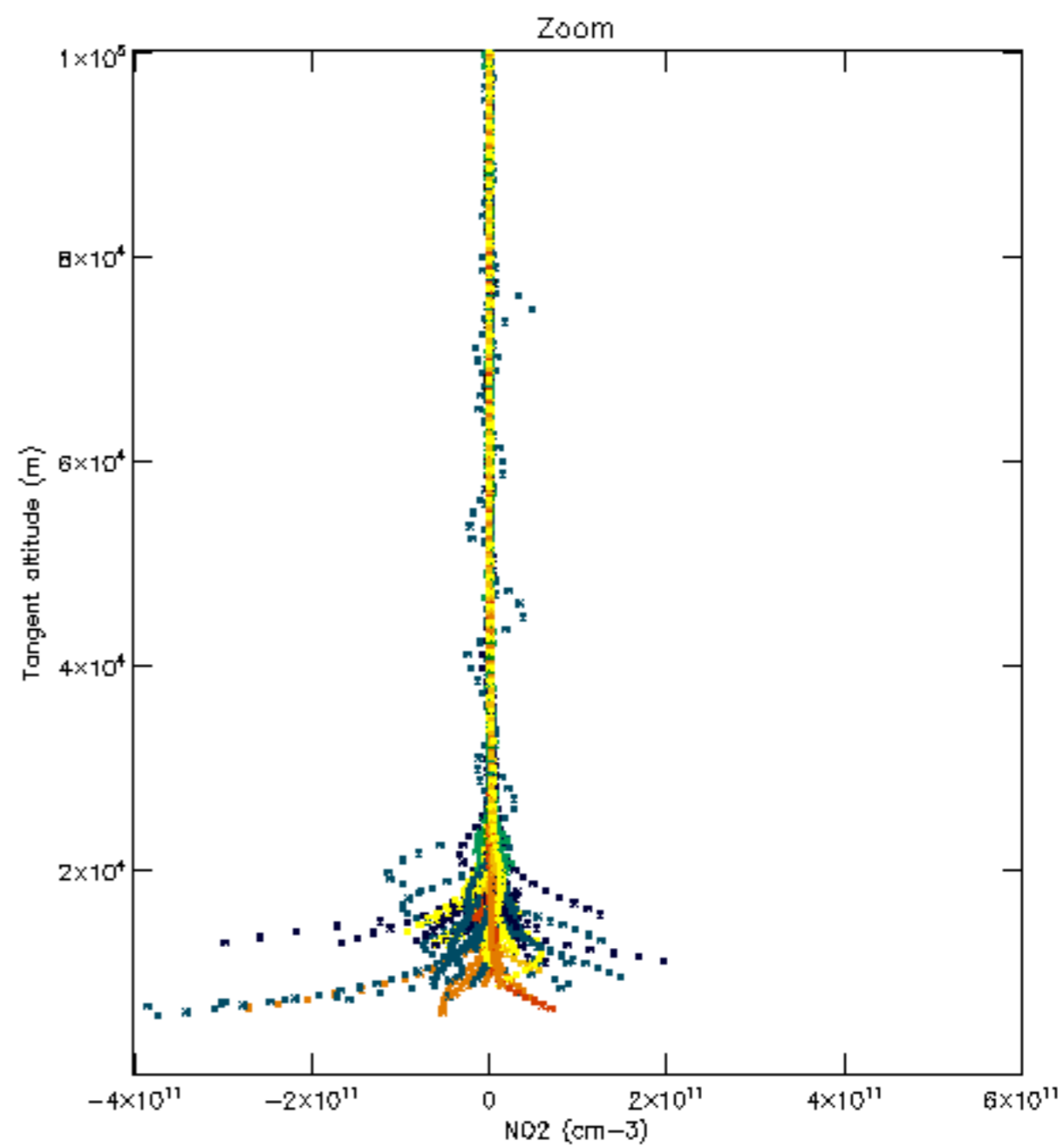
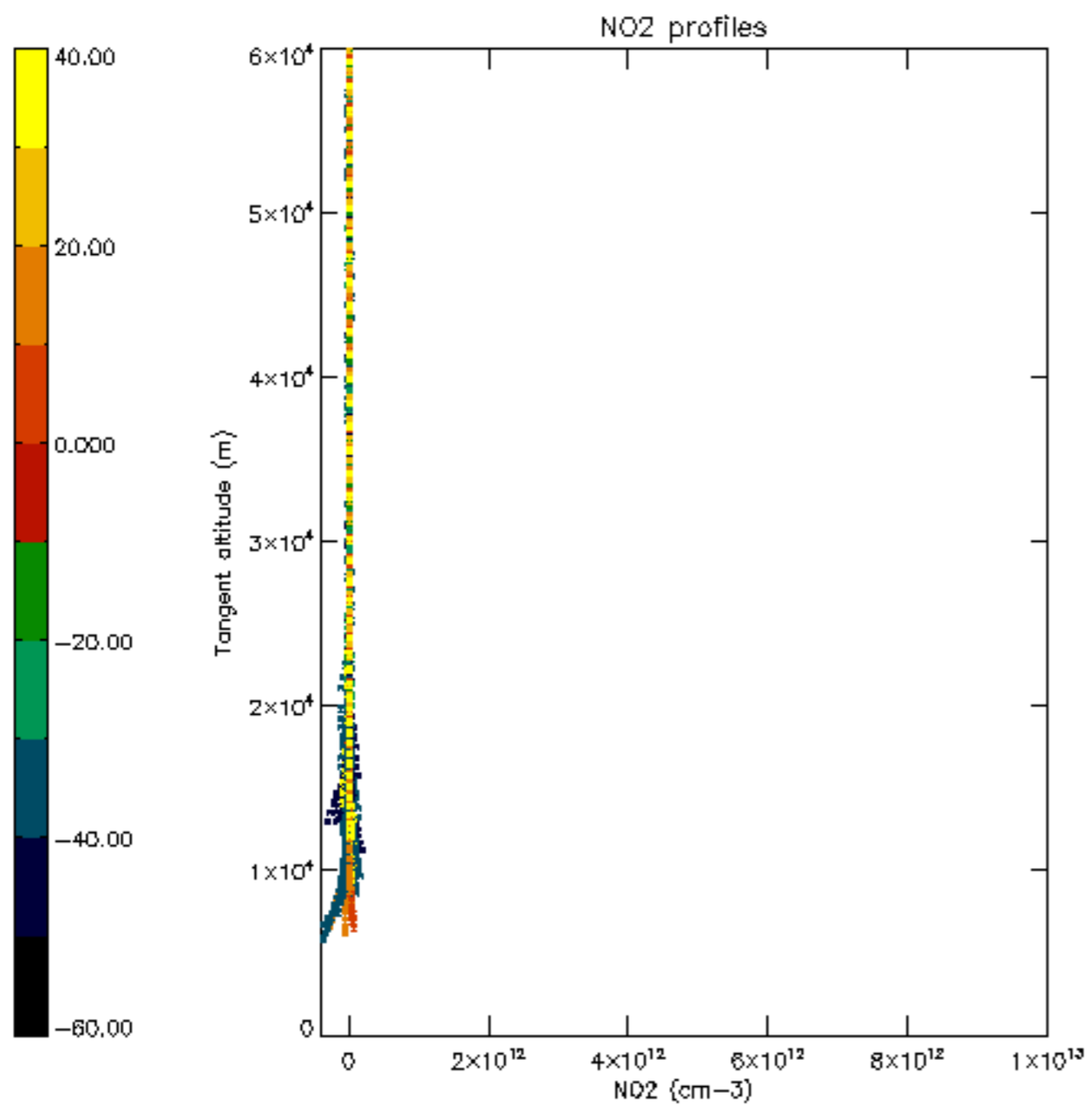


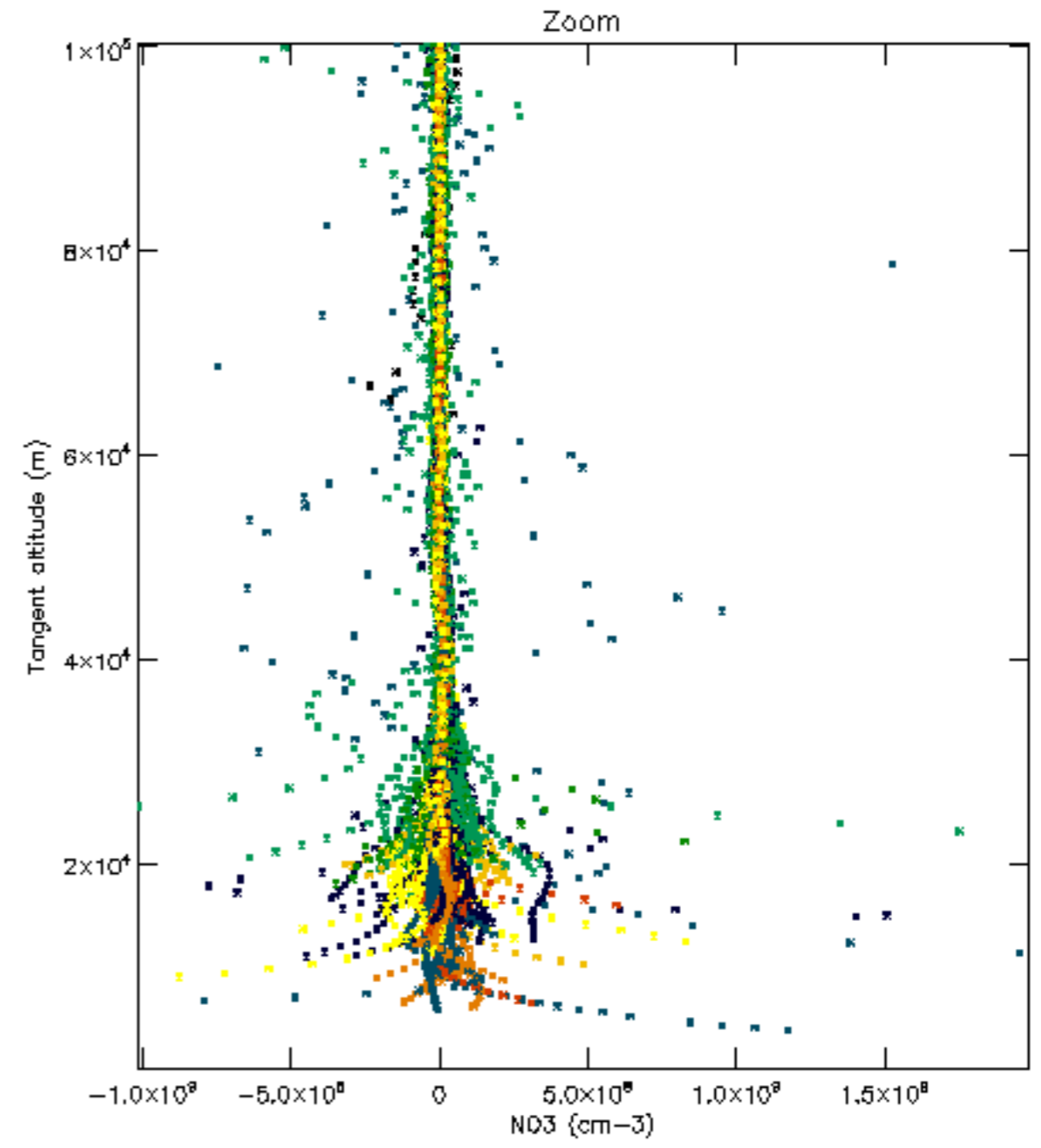
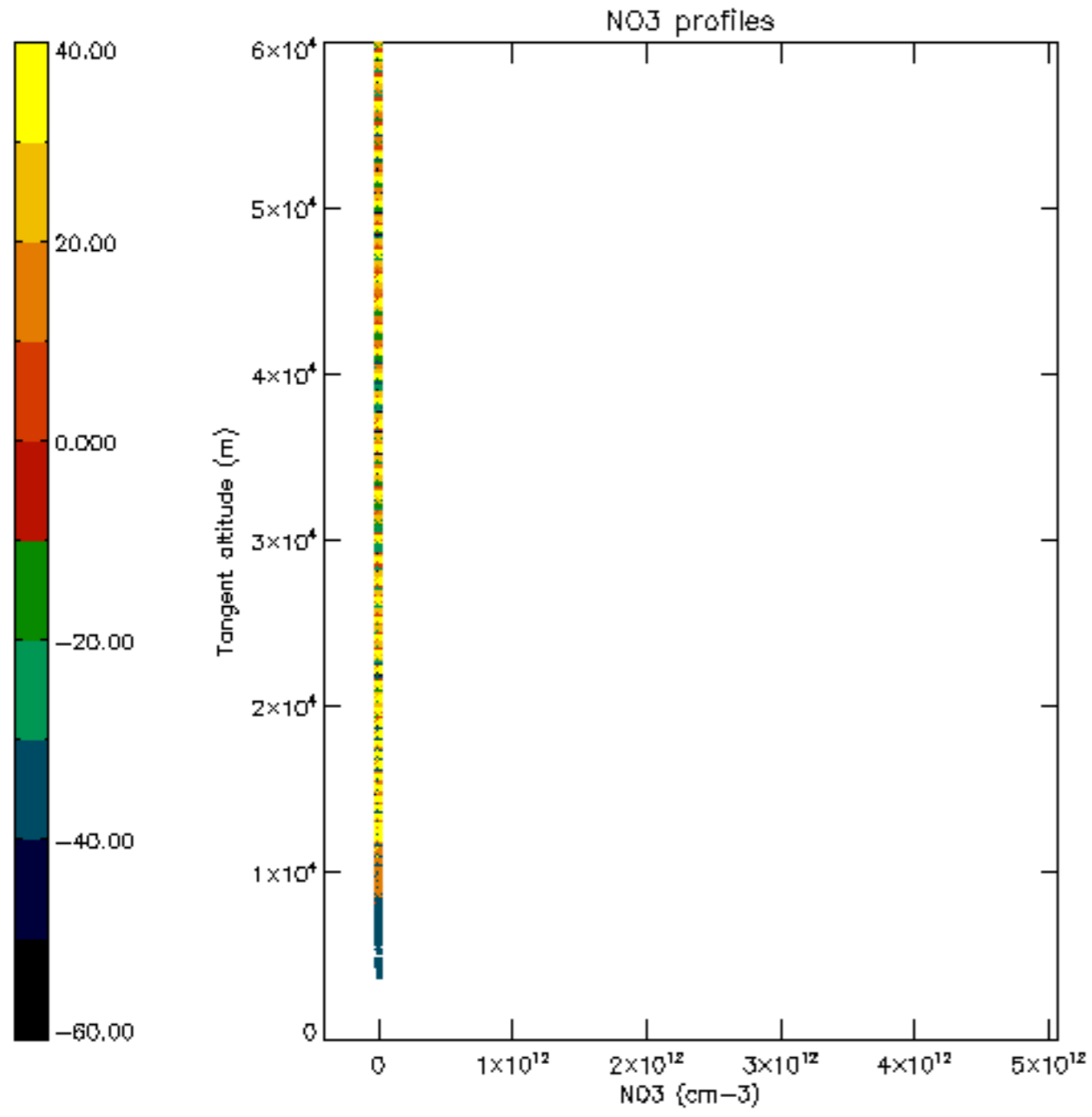


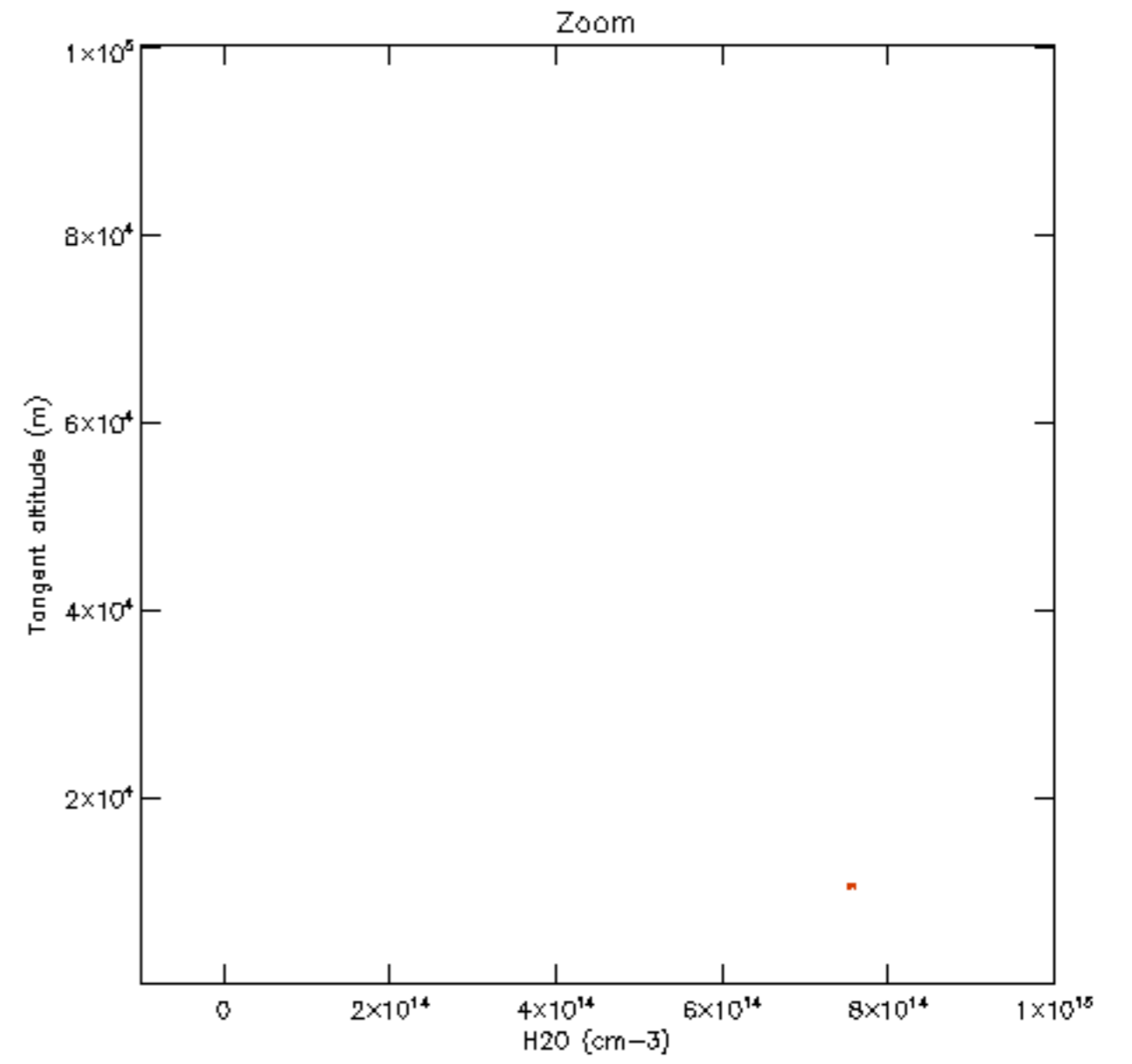
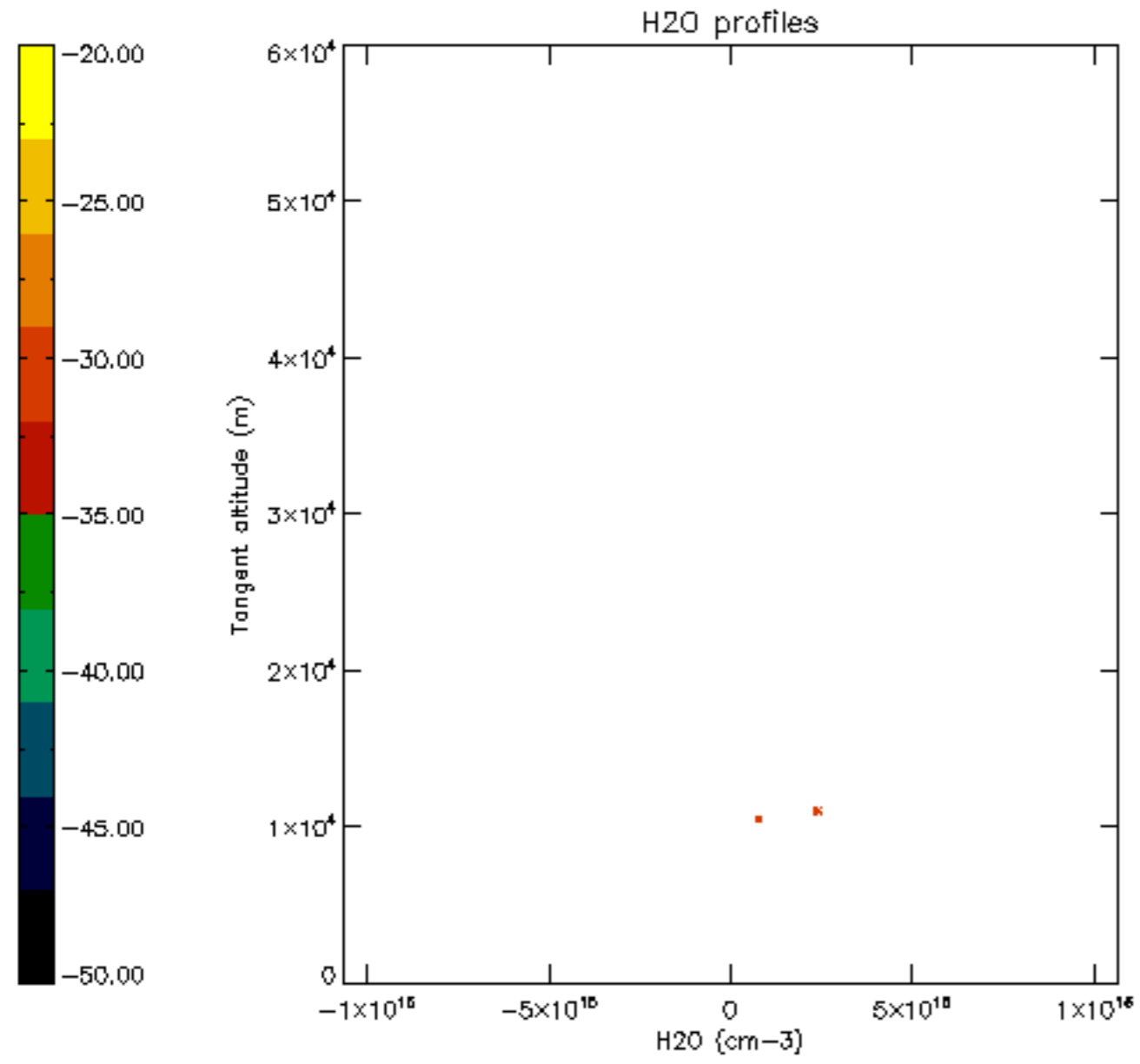


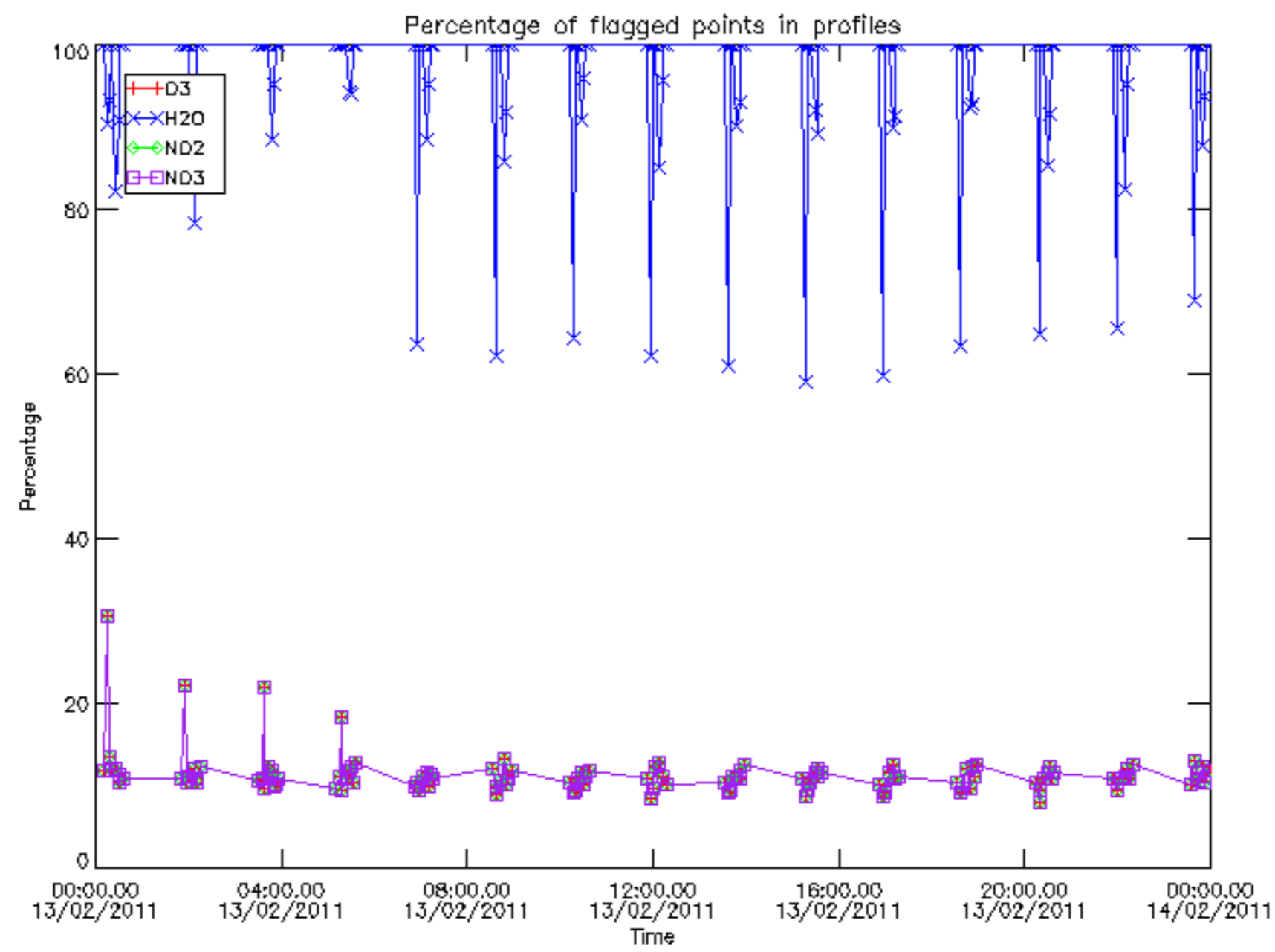




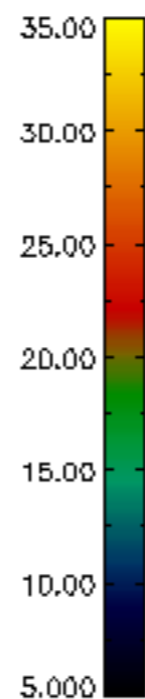
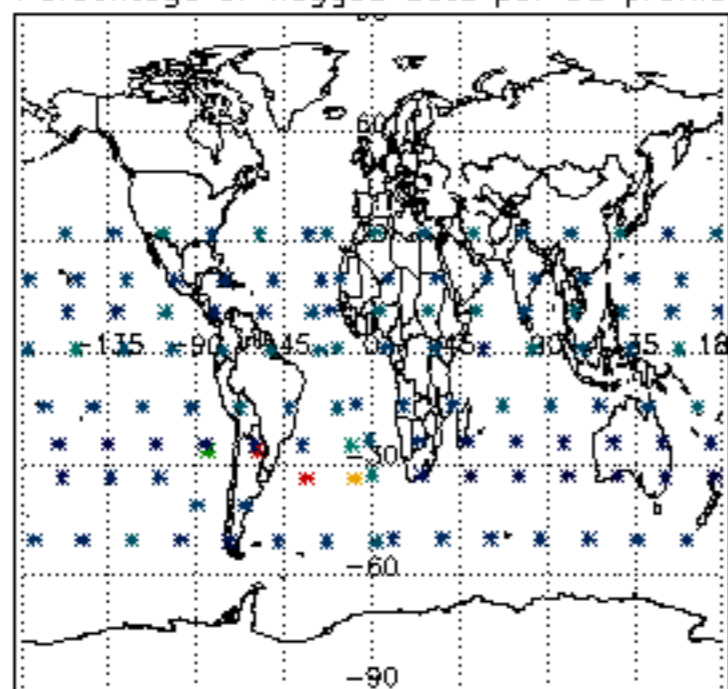




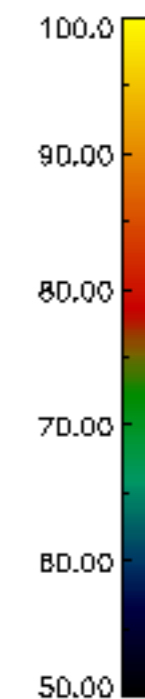
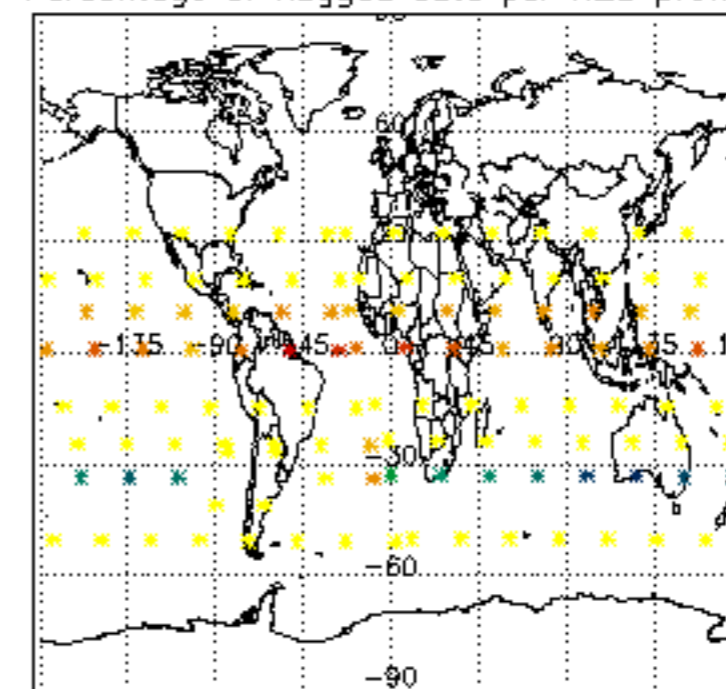




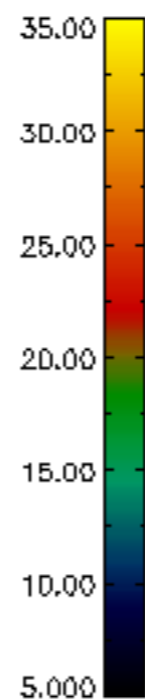
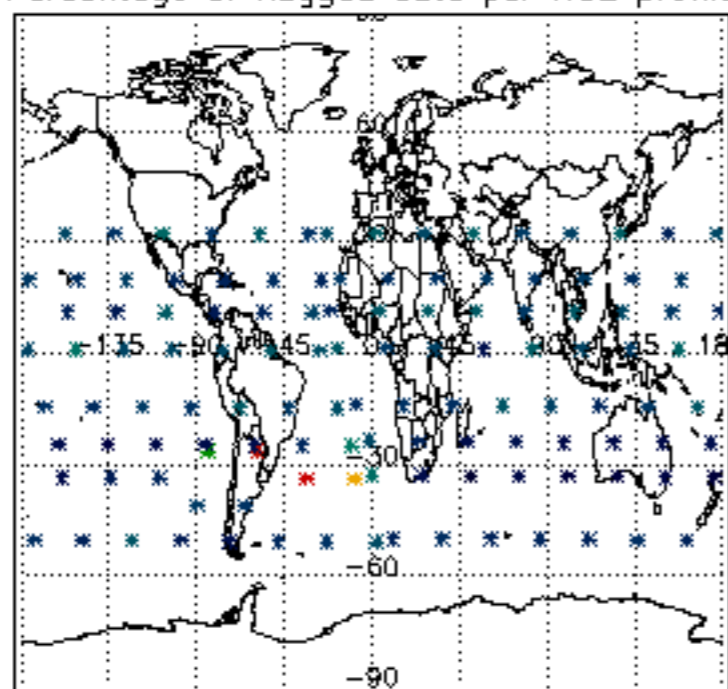
Percentage of flagged data per D3 profile



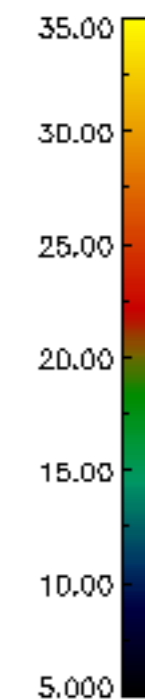
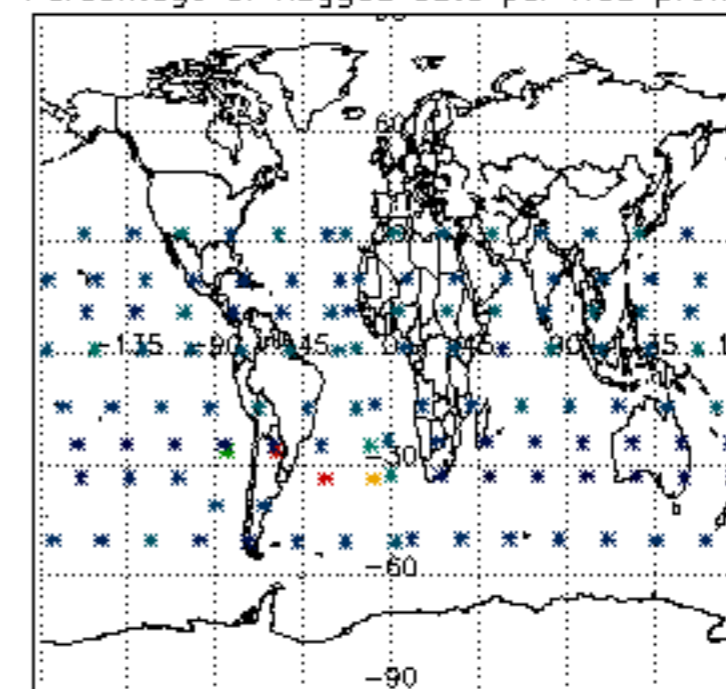
Percentage of flagged data per H2O profile

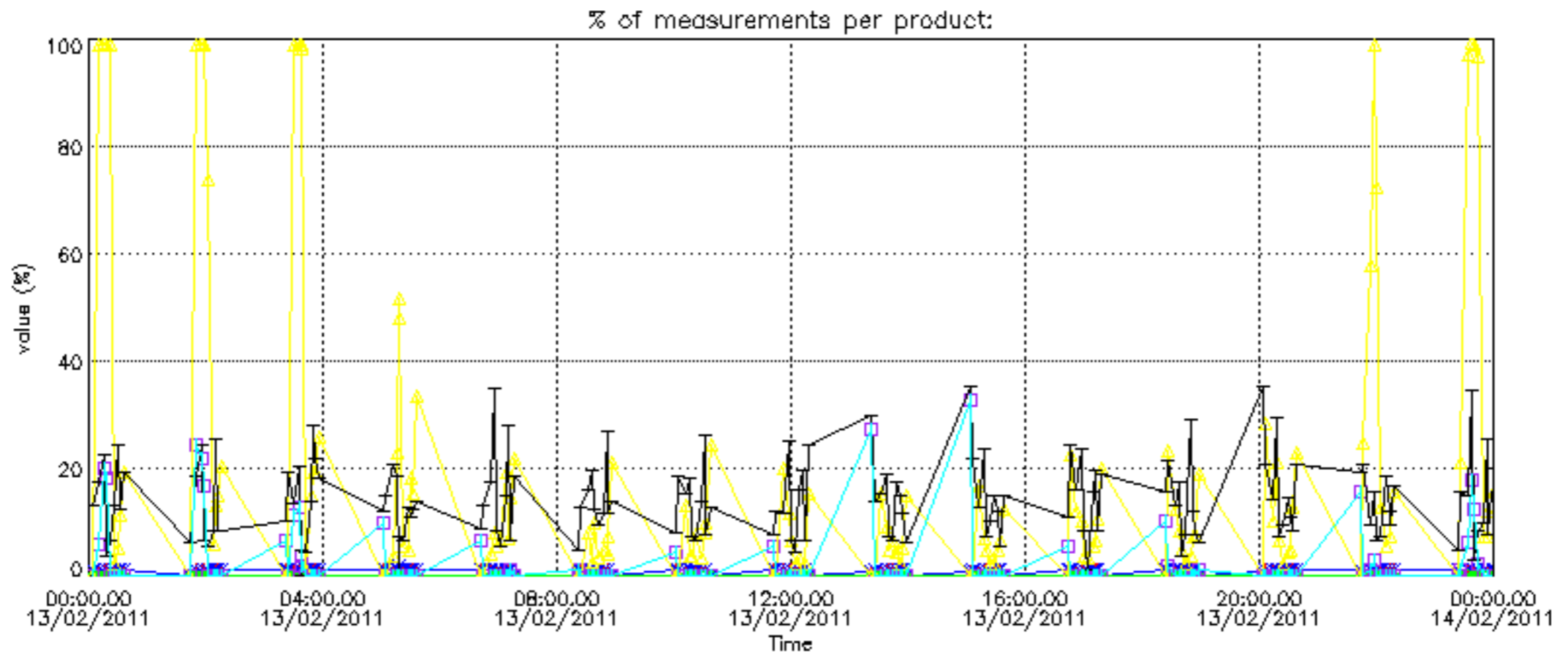


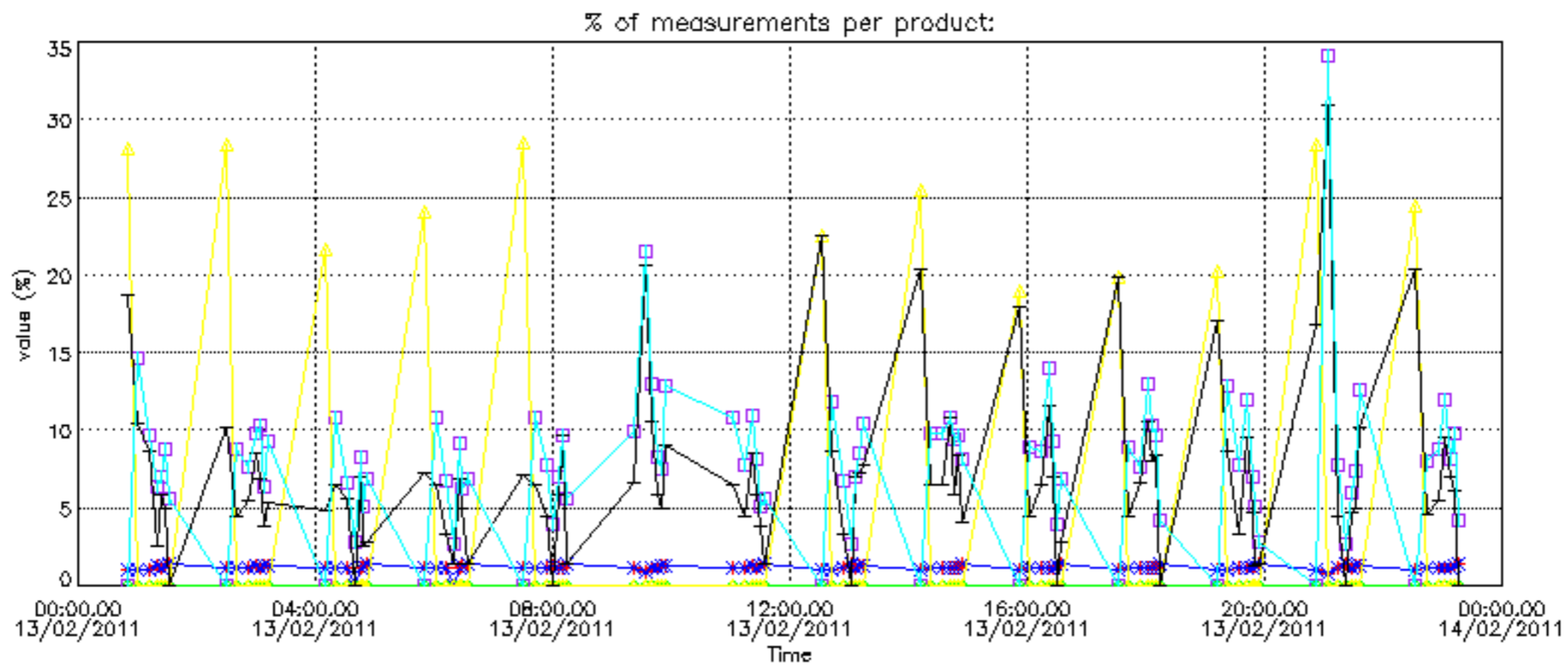
Percentage of flagged data per NO2 profile



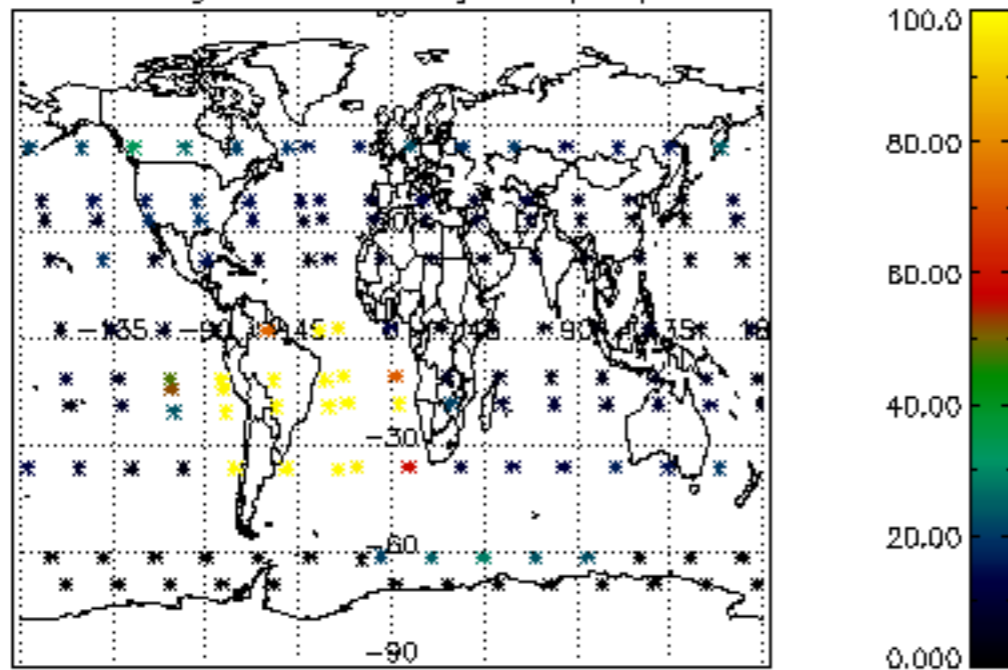
Percentage of flagged data per NO3 profile



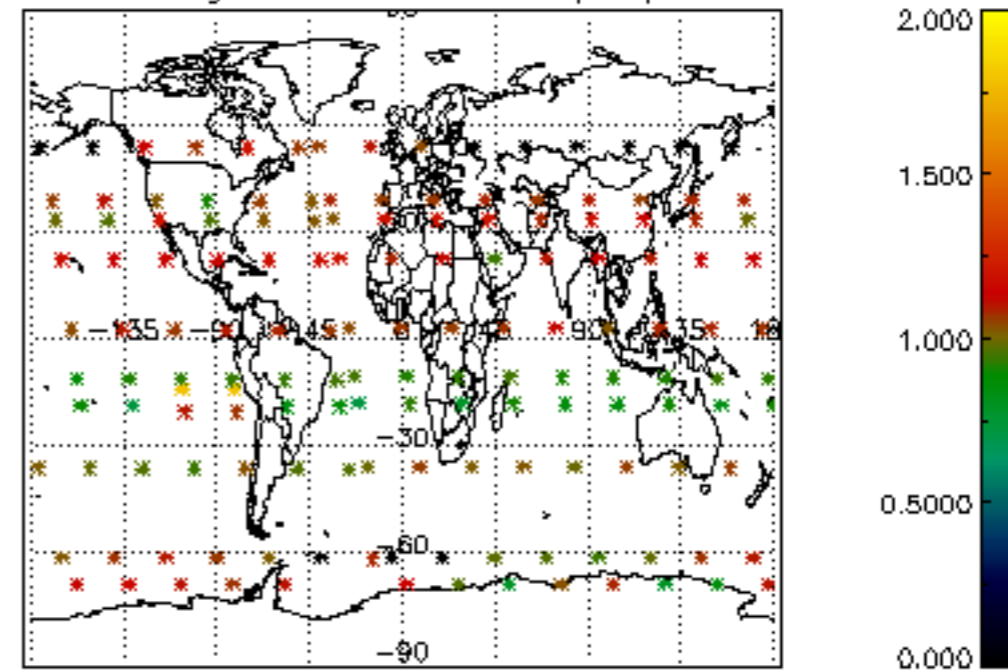




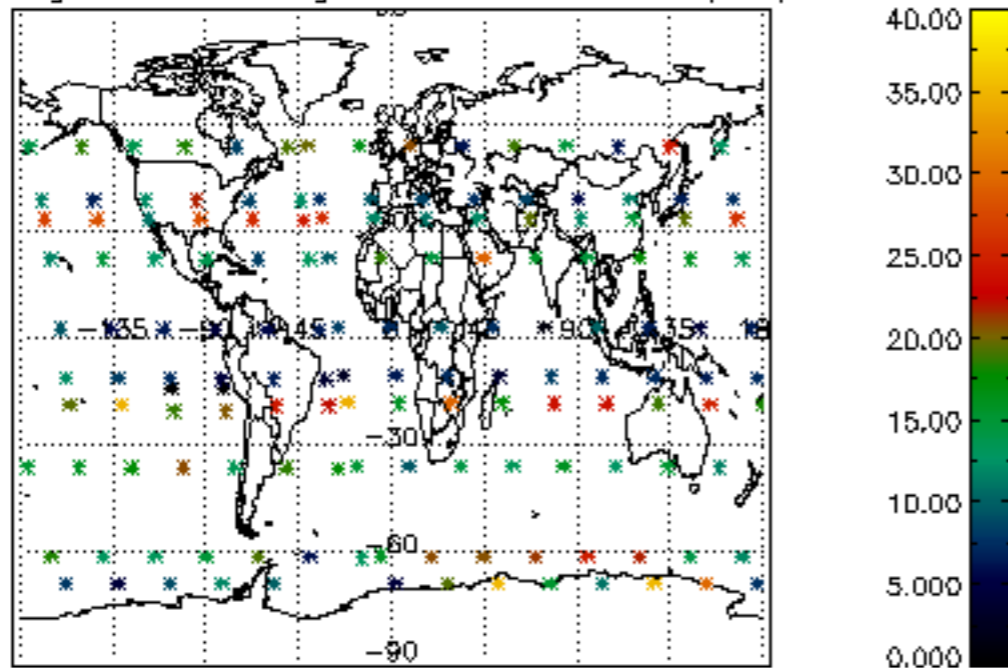
Percentage of cosmic ray hits per profile



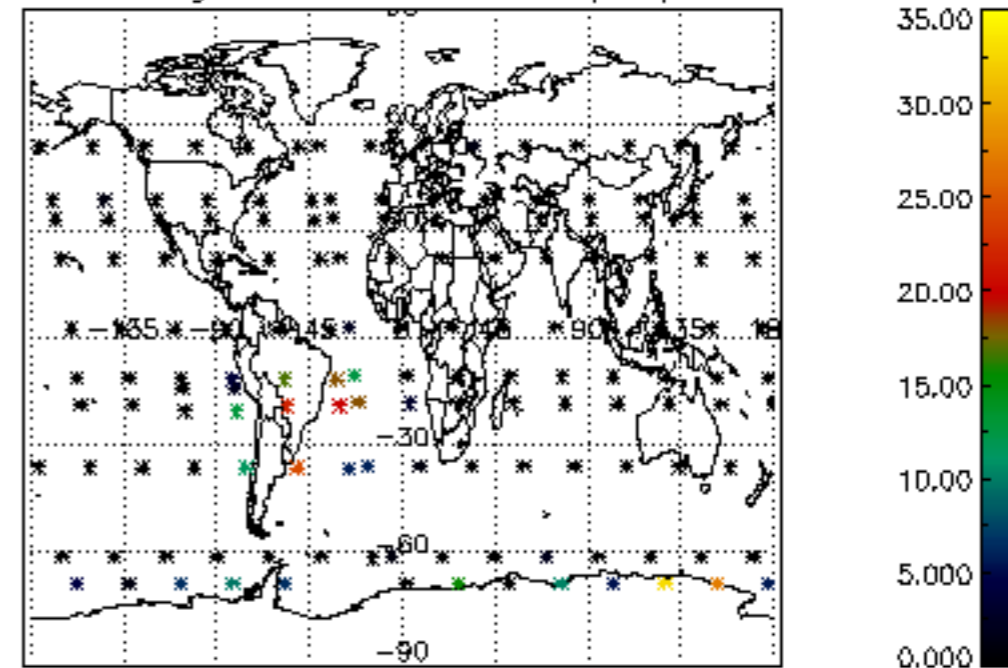
Percentage of datation errors per profile



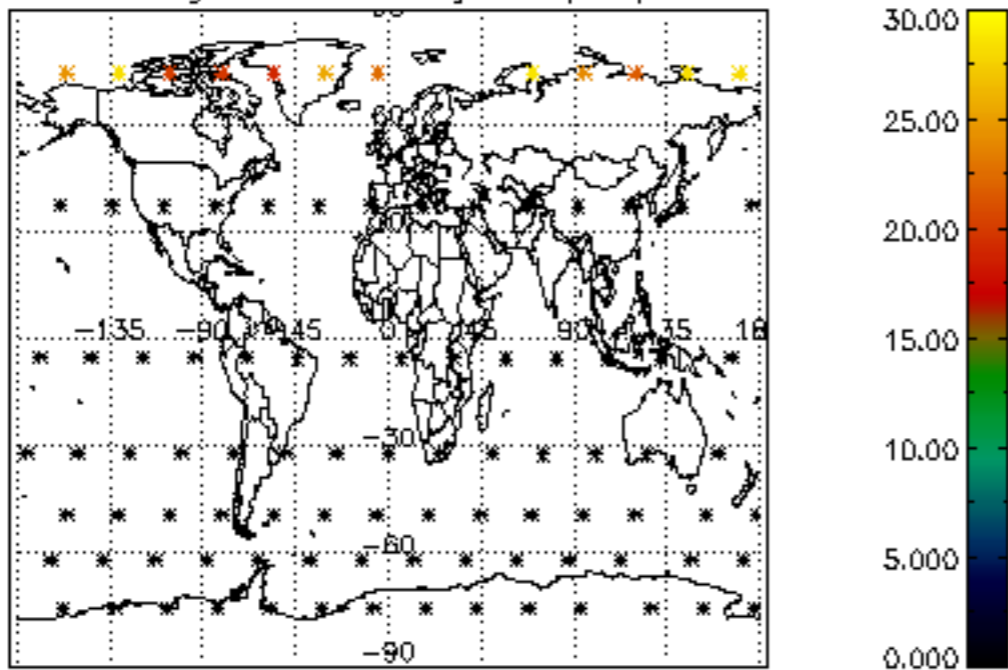
Percentage of star falling outside central band per profile



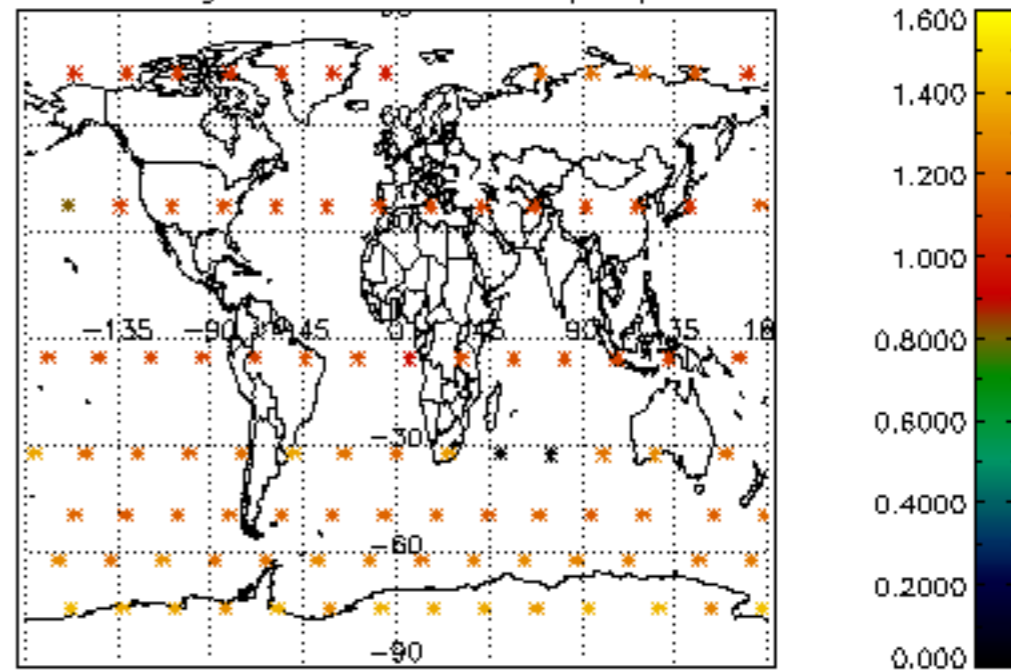
Percentage of saturation errors per profile



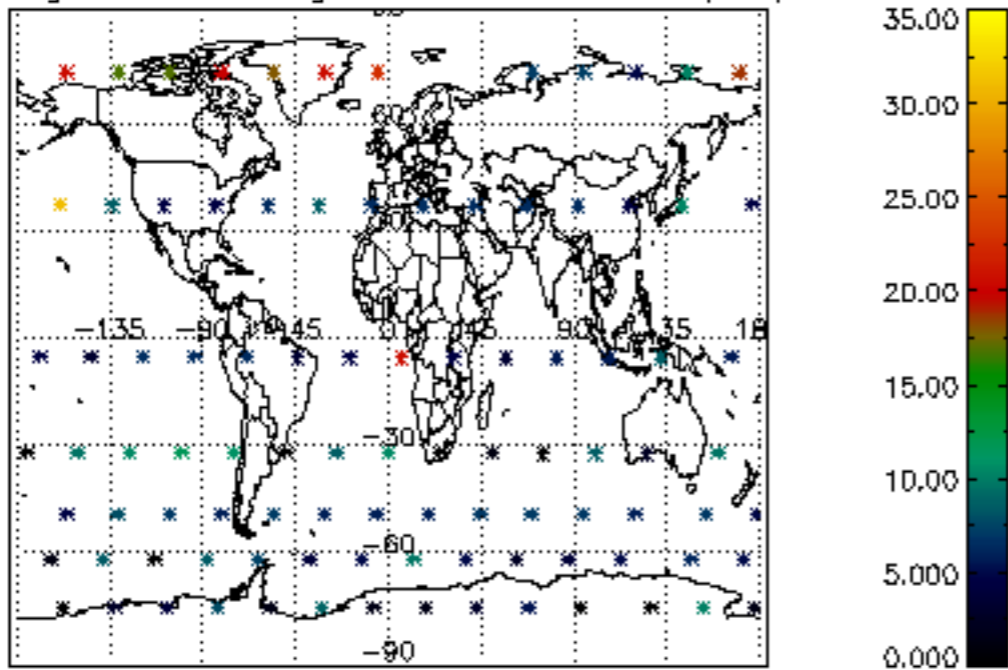
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

