

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 05:43:09
Data source version	GOMOS/6.01
Start time of products	21-09-2007 (21SEP2007 00:00:00)
Stop time of products	22-09-2007 (22SEP2007 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	182
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

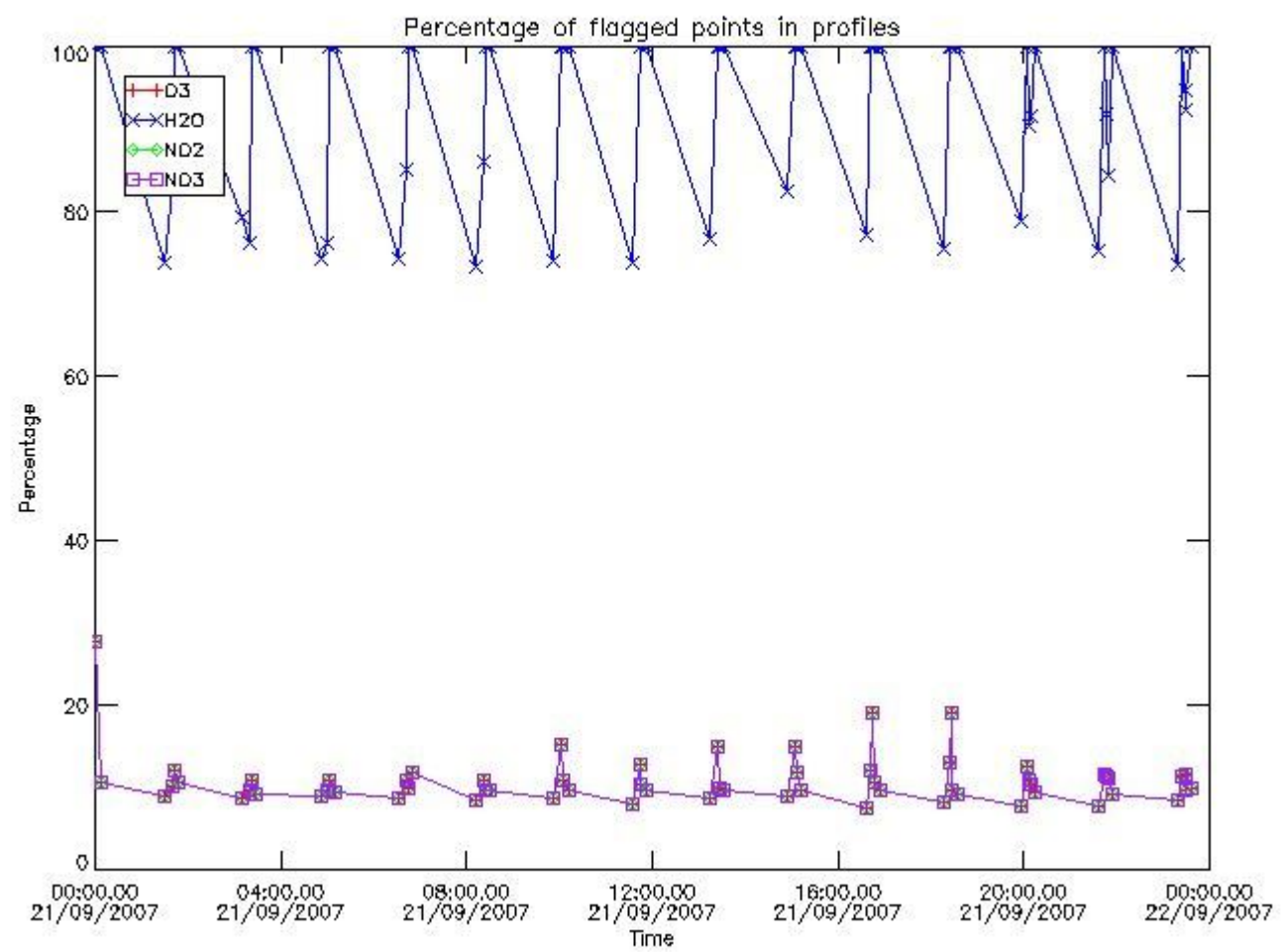
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20070921_000106_000000552061_00445_29056_7136.N1	21-SEP-2007 00:01:06	Dark	55.000	23	21Eps CMa	1.5020	26000.	110	29056	No
2	GOM_NL__2PRFIN20070921_000730_000000532061_00446_29057_7147.N1	21-SEP-2007 00:07:30	Dark	53.000	108	Alp Col	2.6520	15200.	106	29057	No
3	GOM_NL__2PRFIN20070921_001912_000000562061_00446_29057_7148.N1	21-SEP-2007 00:19:12	Straylight	55.500	157	The1Eri	2.9060	9300.0	111	29057	No
4	GOM_NL__2PRFIN20070921_002414_000000452061_00446_29057_7149.N1	21-SEP-2007 00:24:14	Straylight	44.500	84	Alp Phe	2.3970	4500.0	89	29057	No
5	GOM_NL__2PRFIN20070921_003137_000000542061_00446_29057_7150.N1	21-SEP-2007 00:31:37	Twilight_and_stray	54.000	52	16Bet Cet	2.0370	4500.0	108	29057	No
6	GOM_NL__2PRFIN20070921_004211_000000392061_00446_29057_7151.N1	21-SEP-2007 00:42:11	Bright	38.500	90	54Alp Peg	2.4870	11000.	77	29057	No
7	GOM_NL__2PRFIN20070921_004559_000000392061_00446_29057_7152.N1	21-SEP-2007 00:45:59	Bright	39.000	93	53Bet Peg	2.5200	3100.0	78	29057	No
8	GOM_NL__2PRFIN20070921_004737_000000432061_00446_29057_7153.N1	21-SEP-2007 00:47:37	Bright	43.000	58	21Alp And	2.0730	11000.	86	29057	No
9	GOM_NL__2PRFIN20070921_005600_000000382061_00446_29057_7154.N1	21-SEP-2007 00:56:00	Bright	37.500	74	11Bet Cas	2.2680	6600.0	75	29057	No
10	GOM_NL__2PRFIN20070921_005740_000000392061_00446_29057_7155.N1	21-SEP-2007 00:57:40	Bright	38.500	76	27Gam Cas	2.3000	30000.	77	29057	No
11	GOM_NL__2PRFIN20070921_012051_000000542061_00446_29057_7156.N1	21-SEP-2007 01:20:51	Bright	53.500	24	66Alp Gem	1.5800	10200.	107	29057	No
12	GOM_NL__2PRFIN20070921_013002_000000572061_00446_29057_7157.N1	21-SEP-2007 01:30:02	Dark	57.000	8	10Alp CMi	0.40000	6500.0	114	29057	No
13	GOM_NL__2PRFIN20070921_013947_000000602061_00446_29057_7158.N1	21-SEP-2007 01:39:47	Dark	60.000	1	9Alp CMa	-1.4400	11000.	120	29057	No
14	GOM_NL__2PRFIN20070921_014143_000000512061_00446_29057_7159.N1	21-SEP-2007 01:41:43	Dark	50.500	23	21Eps CMa	1.5020	26000.	101	29057	No
15	GOM_NL__2PRFIN20070921_014808_000000532061_00447_29058_7152.N1	21-SEP-2007 01:48:08	Dark	52.500	108	Alp Col	2.6520	15200.	105	29058	No
16	GOM_NL__2PRFIN20070921_015948_000000532061_00447_29058_7153.N1	21-SEP-2007 01:59:48	Straylight	52.500	157	The1Eri	2.9060	9300.0	105	29058	No
17	GOM_NL__2PRFIN20070921_020450_000000432061_00447_29058_7154.N1	21-SEP-2007 02:04:50	Straylight	42.500	84	Alp Phe	2.3970	4500.0	85	29058	No
18	GOM_NL__2PRFIN20070921_021213_000000552061_00447_29058_7155.N1	21-SEP-2007 02:12:13	Twilight_and_stray	54.500	52	16Bet Cet	2.0370	4500.0	109	29058	No
19	GOM_NL__2PRFIN20070921_022247_000000392061_00447_29058_7156.N1	21-SEP-2007 02:22:47	Bright	39.000	90	54Alp Peg	2.4870	11000.	78	29058	No
20	GOM_NL__2PRFIN20070921_022634_000000392061_00447_29058_7157.N1	21-SEP-2007 02:26:34	Bright	38.500	93	53Bet Peg	2.5200	3100.0	77	29058	No
21	GOM_NL__2PRFIN20070921_022812_000000452061_00447_29058_7158.N1	21-SEP-2007 02:28:12	Bright	45.000	58	21Alp And	2.0730	11000.	90	29058	No
22	GOM_NL__2PRFIN20070921_023636_000000392061_00447_29058_7159.N1	21-SEP-2007 02:36:36	Bright	39.000	74	11Bet Cas	2.2680	6600.0	78	29058	No
23	GOM_NL__2PRFIN20070921_023816_000000392061_00447_29058_7160.N1	21-SEP-2007 02:38:16	Bright	38.500	76	27Gam Cas	2.3000	30000.	77	29058	No
24	GOM_NL__2PRFIN20070921_030128_000000472061_00447_29058_7161.N1	21-SEP-2007 03:01:28	Bright	46.500	24	66Alp Gem	1.5800	10200.	93	29058	No
25	GOM_NL__2PRFIN20070921_031039_000000592061_00447_29058_7162.N1	21-SEP-2007 03:10:39	Dark	58.500	8	10Alp CMi	0.40000	6500.0	117	29058	No
26	GOM_NL__2PRFIN20070921_032024_000000532061_00447_29058_7163.N1	21-SEP-2007 03:20:24	Dark	53.000	1	9Alp CMa	-1.4400	11000.	106	29058	No
27	GOM_NL__2PRFIN20070921_032219_000000482061_00447_29058_7164.N1	21-SEP-2007 03:22:19	Dark	47.500	23	21Eps CMa	1.5020	26000.	95	29058	No
28	GOM_NL__2PRFIN20070921_032845_000000552061_00448_29059_7163.N1	21-SEP-2007 03:28:45	Dark	55.000	108	Alp Col	2.6520	15200.	110	29059	No
29	GOM_NL__2PRFIN20070921_034025_000000562061_00448_29059_7164.N1	21-SEP-2007 03:40:25	Straylight	55.500	157	The1Eri	2.9060	9300.0	111	29059	No
30	GOM_NL__2PRFIN20070921_034526_000000422061_00448_29059_7165.N1	21-SEP-2007 03:45:26	Straylight	41.500	84	Alp Phe	2.3970	4500.0	83	29059	No
31	GOM_NL__2PRFIN20070921_035250_000000582061_00448_29059_7166.N1	21-SEP-2007 03:52:50	Twilight_and_stray	57.500	52	16Bet Cet	2.0370	4500.0	115	29059	No
32	GOM_NL__2PRFIN20070921_040323_000000382061_00448_29059_7167.N1	21-SEP-2007 04:03:23	Bright	38.000	90	54Alp Peg	2.4870	11000.	76	29059	No
33	GOM_NL__2PRFIN20070921_040710_000000412061_00448_29059_7168.N1	21-SEP-2007 04:07:10	Bright	40.500	93	53Bet Peg	2.5200	3100.0	81	29059	No
34	GOM_NL__2PRFIN20070921_040848_000000442061_00448_29059_7169.N1	21-SEP-2007 04:08:48	Bright	44.000	58	21Alp And	2.0730	11000.	88	29059	No
35	GOM_NL__2PRFIN20070921_041712_000000402061_00448_29059_7170.N1	21-SEP-2007 04:17:12	Bright	39.500	74	11Bet Cas	2.2680	6600.0	79	29059	No
36	GOM_NL__2PRFIN20070921_041851_000000402061_00448_29059_7171.N1	21-SEP-2007 04:18:51	Bright	39.500	76	27Gam Cas	2.3000	30000.	79	29059	No
37	GOM_NL__2PRFIN20070921_044204_000000492061_00448_29059_7172.N1	21-SEP-2007 04:42:04	Bright	49.000	24	66Alp Gem	1.5800	10200.	98	29059	No
38	GOM_NL__2PRFIN20070921_045115_000000572061_00448_29059_7173.N1	21-SEP-2007 04:51:15	Dark	56.500	8	10Alp CMi	0.40000	6500.0	113	29059	No
39	GOM_NL__2PRFIN20070921_050102_000000532061_00448_29059_7174.N1	21-SEP-2007 05:01:02	Dark	53.000	1	9Alp CMa	-1.4400	11000.	106	29059	No
40	GOM_NL__2PRFIN20070921_050256_000000522061_00448_29059_7175.N1	21-SEP-2007 05:02:56	Dark	52.000	23	21Eps CMa	1.5020	26000.	104	29059	No
41	GOM_NL__2PRFIN20070921_050922_000000542061_00449_29060_7186.N1	21-SEP-2007 05:09:22	Dark	54.000	108	Alp Col	2.6520	15200.	108	29060	No
42	GOM_NL__2PRFIN20070921_052102_000000532061_00449_29060_7187.N1	21-SEP-2007 05:21:02	Straylight	53.000	157	The1Eri	2.9060	9300.0	106	29060	No

161	GOM_NL__2PRFIN20070921_210446_000000412061_00458_29069_7337.N1	21-SEP-2007 21:04:46	Bright	41.000	76	27Gam Cas	2.3000	30000.	82	29069	No
162	GOM_NL__2PRFIN20070921_212804_000000672061_00458_29069_7338.N1	21-SEP-2007 21:28:04	Bright	67.000	24	66Alp Gem	1.5800	10200.	134	29069	No
163	GOM_NL__2PRFIN20070921_213721_000000672061_00458_29069_7339.N1	21-SEP-2007 21:37:21	Dark	66.500	8	10Alp CMi	0.40000	6500.0	133	29069	No
164	GOM_NL__2PRFIN20070921_214442_000000452061_00458_29069_7340.N1	21-SEP-2007 21:44:42	Dark	44.500	132	15Rho Pup	2.8030	6900.0	89	29069	No
165	GOM_NL__2PRFIN20070921_214757_000000492061_00458_29069_7341.N1	21-SEP-2007 21:47:57	Dark	49.000	37	25Del CMa	1.8300	5900.0	98	29069	No
166	GOM_NL__2PRFIN20070921_214952_000000552061_00458_29069_7342.N1	21-SEP-2007 21:49:52	Dark	55.000	117	Pi Pup	2.7060	3800.0	110	29069	No
167	GOM_NL__2PRFIN20070921_215535_000000552061_00459_29070_7340.N1	21-SEP-2007 21:55:35	Dark	55.000	108	Alp Col	2.6520	15200.	110	29070	No
168	GOM_NL__2PRFIN20070921_220710_000000552061_00459_29070_7341.N1	21-SEP-2007 22:07:10	Straylight	54.500	157	The1Eri	2.9060	9300.0	109	29070	No
169	GOM_NL__2PRFIN20070921_221926_000000532061_00459_29070_7342.N1	21-SEP-2007 22:19:26	Twl_and_stray	53.000	52	16Bet Cet	2.0370	4500.0	106	29070	No
170	GOM_NL__2PRFIN20070921_222957_000000392061_00459_29070_7343.N1	21-SEP-2007 22:29:57	Bright	38.500	90	54Alp Peg	2.4870	11000.	77	29070	No
171	GOM_NL__2PRFIN20070921_223344_000000402061_00459_29070_7344.N1	21-SEP-2007 22:33:44	Bright	39.500	93	53Bet Peg	2.5200	3100.0	79	29070	No
172	GOM_NL__2PRFIN20070921_223517_000000432061_00459_29070_7345.N1	21-SEP-2007 22:35:17	Bright	42.500	58	21Alp And	2.0730	11000.	85	29070	No
173	GOM_NL__2PRFIN20070921_224342_000000412061_00459_29070_7346.N1	21-SEP-2007 22:43:42	Bright	40.500	74	11Bet Cas	2.2680	6600.0	81	29070	No
174	GOM_NL__2PRFIN20070921_224521_000000412061_00459_29070_7347.N1	21-SEP-2007 22:45:21	Bright	40.500	76	27Gam Cas	2.3000	30000.	81	29070	No
175	GOM_NL__2PRFIN20070921_230840_000000452061_00459_29070_7348.N1	21-SEP-2007 23:08:40	Bright	45.000	24	66Alp Gem	1.5800	10200.	90	29070	No
176	GOM_NL__2PRFIN20070921_230956_000000482061_00459_29070_7349.N1	21-SEP-2007 23:09:56	Bright	48.000	17	78Bet Gem	1.1610	4500.0	96	29070	No
177	GOM_NL__2PRFIN20070921_231758_000000612061_00459_29070_7350.N1	21-SEP-2007 23:17:58	Dark	60.500	8	10Alp CMi	0.40000	6500.0	121	29070	No
178	GOM_NL__2PRFIN20070921_232519_000000452061_00459_29070_7351.N1	21-SEP-2007 23:25:19	Dark	45.000	132	15Rho Pup	2.8030	6900.0	90	29070	No
179	GOM_NL__2PRFIN20070921_232833_000000532061_00459_29070_7352.N1	21-SEP-2007 23:28:33	Dark	52.500	37	25Del CMa	1.8300	5900.0	105	29070	No
180	GOM_NL__2PRFIN20070921_233028_000000482061_00459_29070_7353.N1	21-SEP-2007 23:30:28	Dark	48.000	117	Pi Pup	2.7060	3800.0	96	29070	No
181	GOM_NL__2PRFIN20070921_233612_000000522061_00460_29071_7360.N1	21-SEP-2007 23:36:12	Dark	52.000	108	Alp Col	2.6520	15200.	104	29071	No
182	GOM_NL__2PRFIN20070921_234747_000000522061_00460_29071_7361.N1	21-SEP-2007 23:47:47	Straylight	52.000	157	The1Eri	2.9060	9300.0	104	29071	No

3. Quality information per product

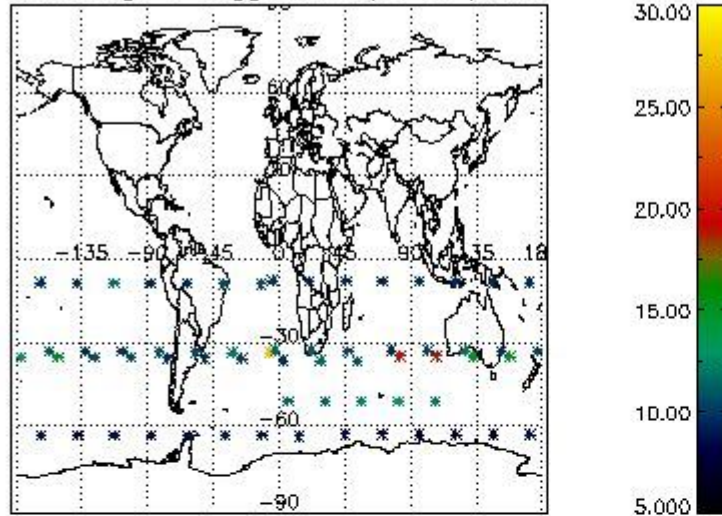
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

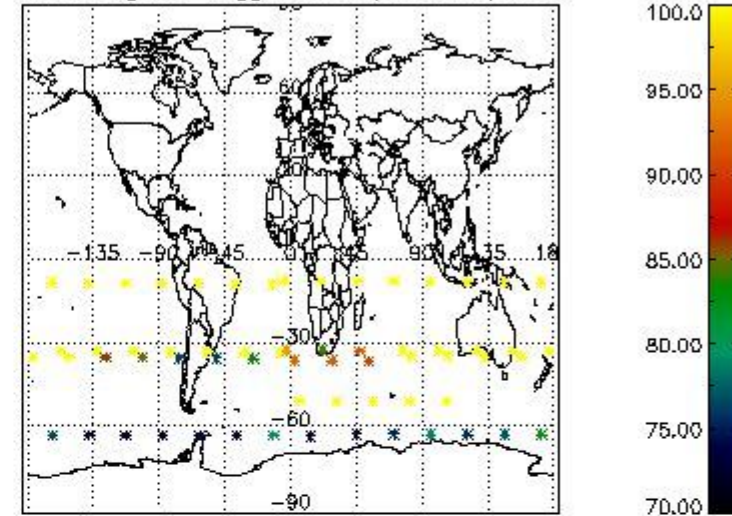


3.2 Plot quality information per product (world map)

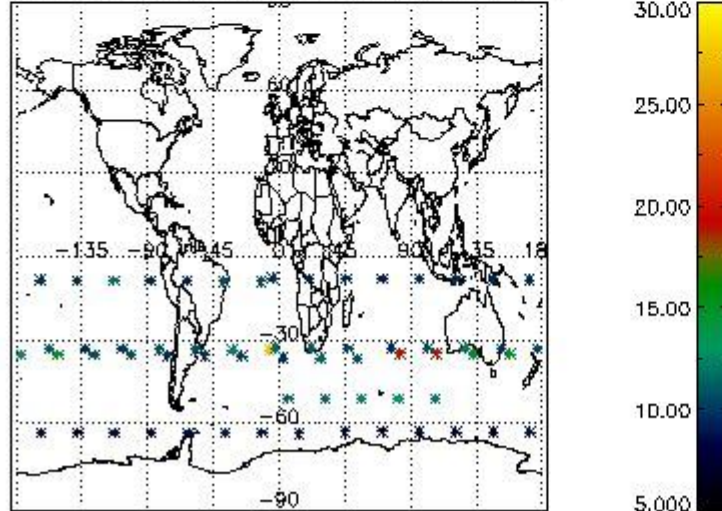
Percentage of flagged data per O3 profile



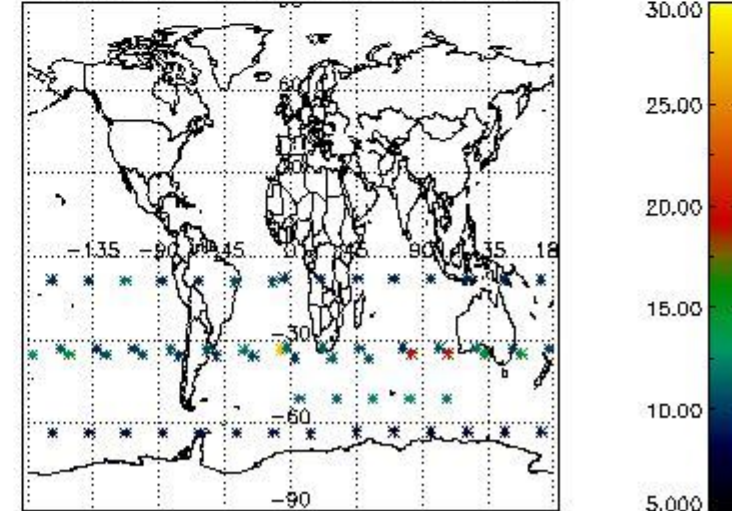
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

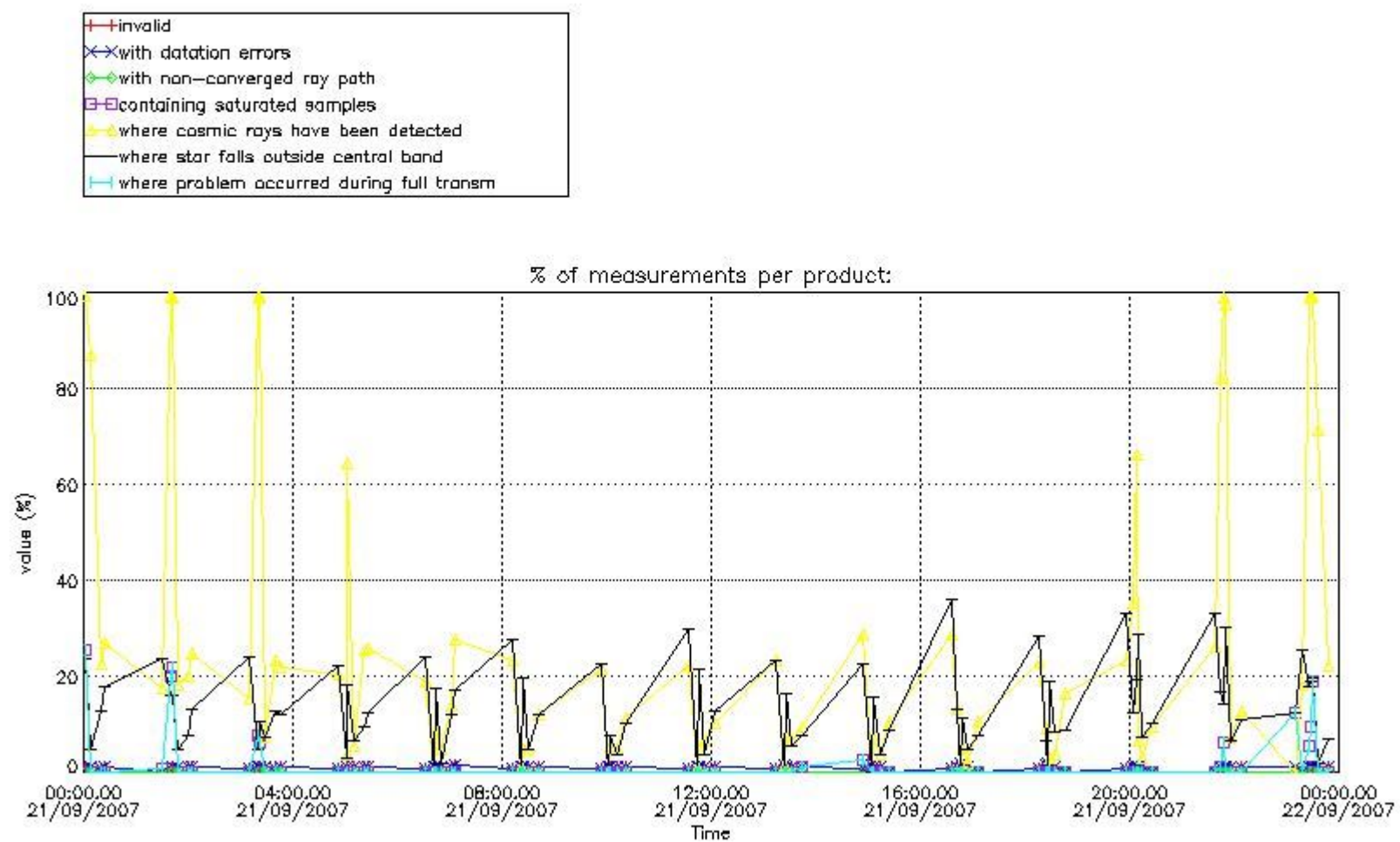


4. Level 1 quality information per product

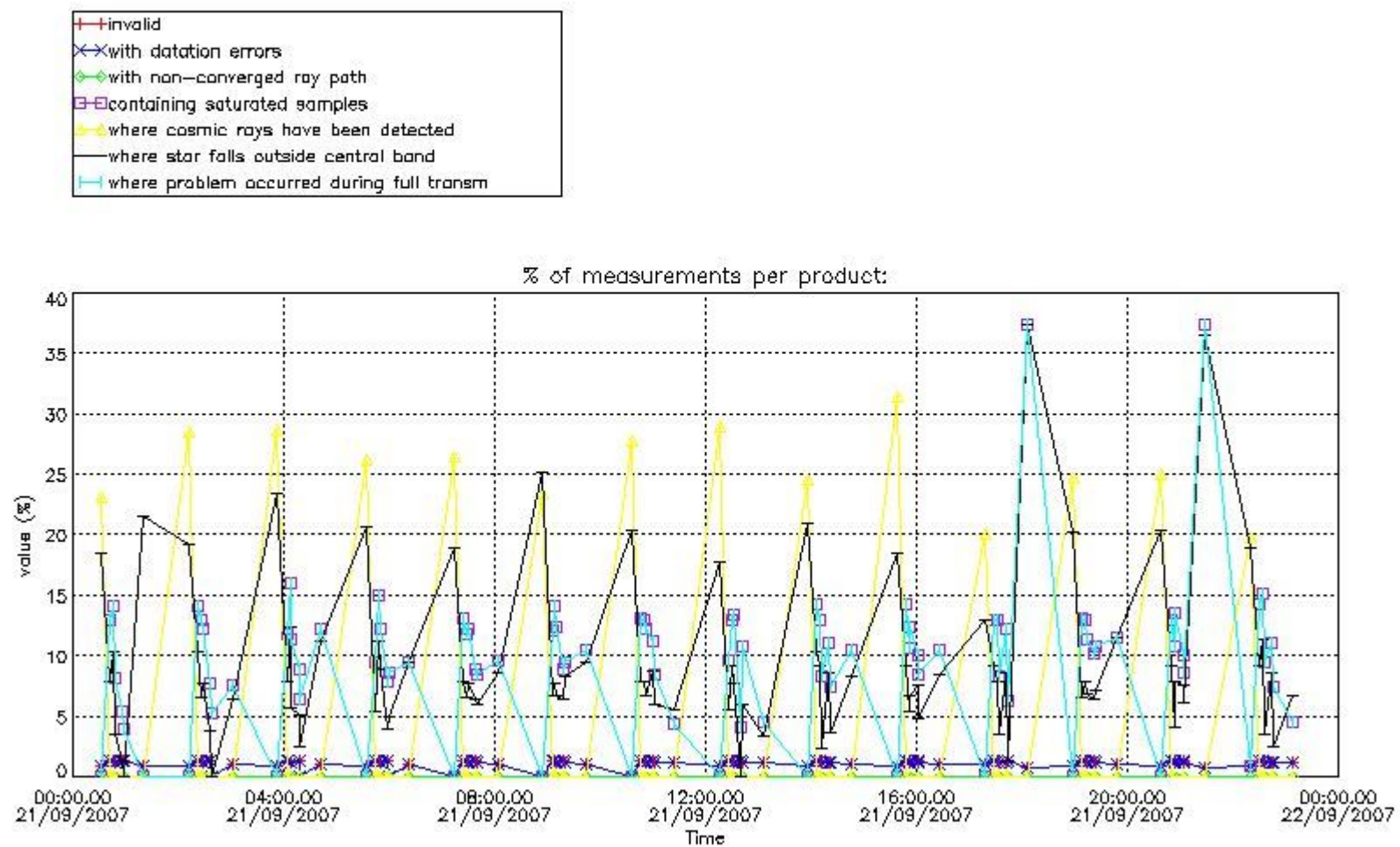
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



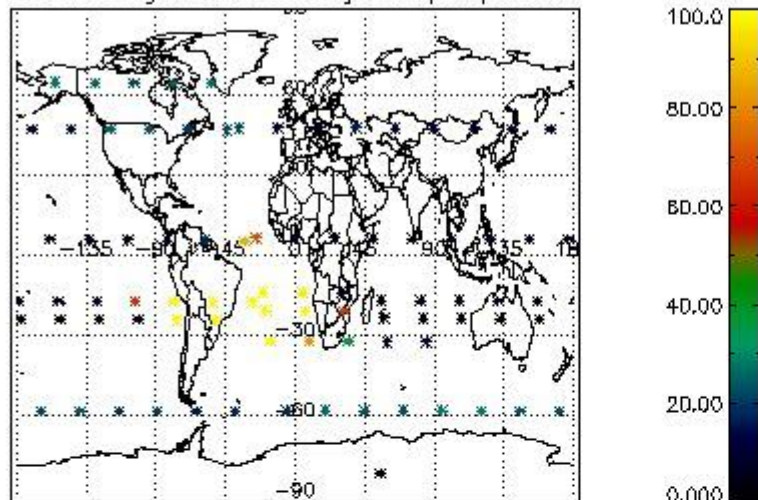
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



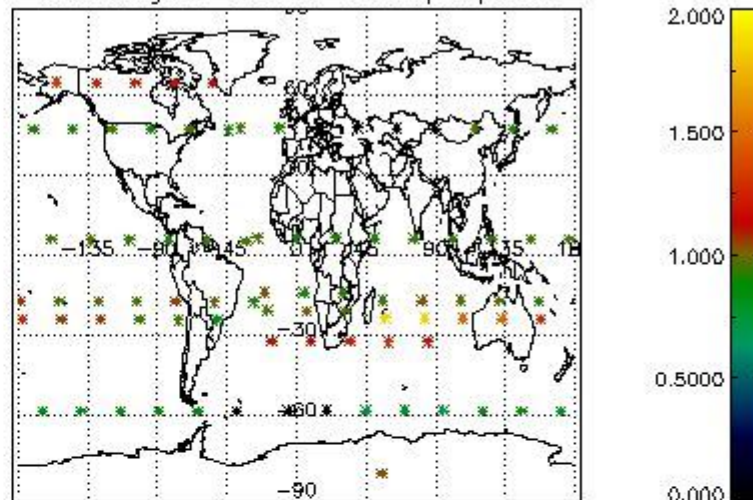
4.2 Plot quality information per product coming from level 1b processing (world map)

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

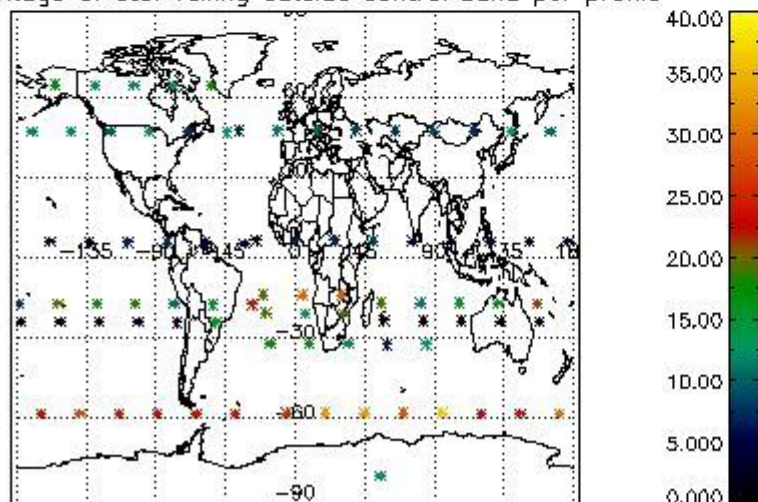
Percentage of cosmic ray hits per profile



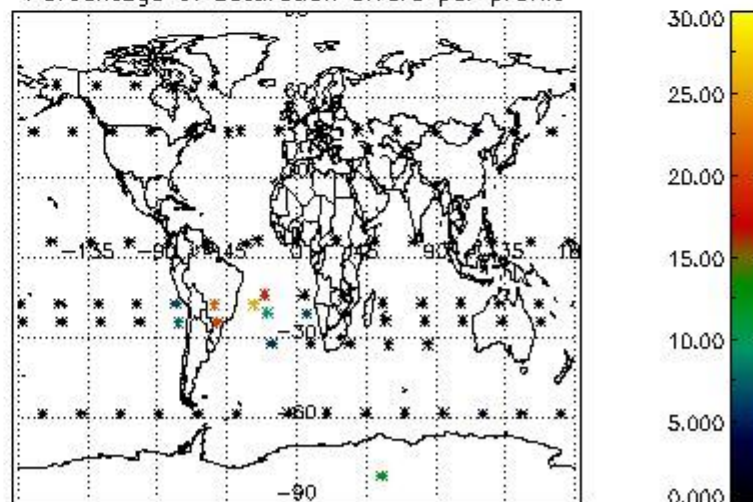
Percentage of datation errors per profile



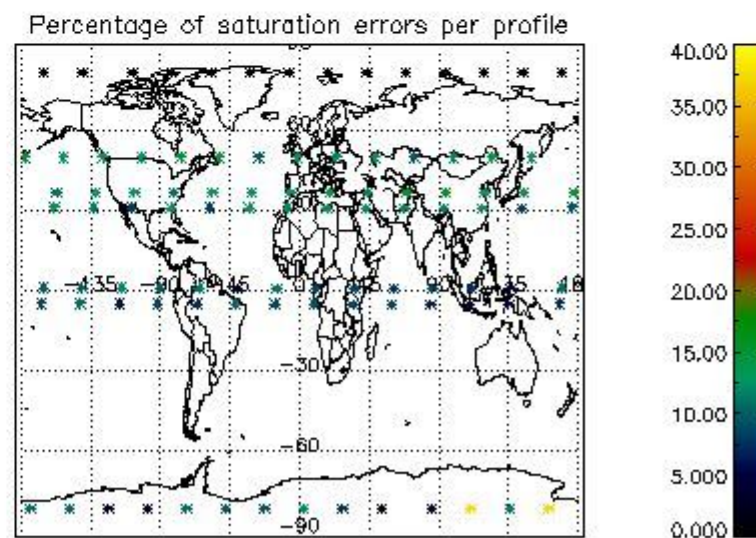
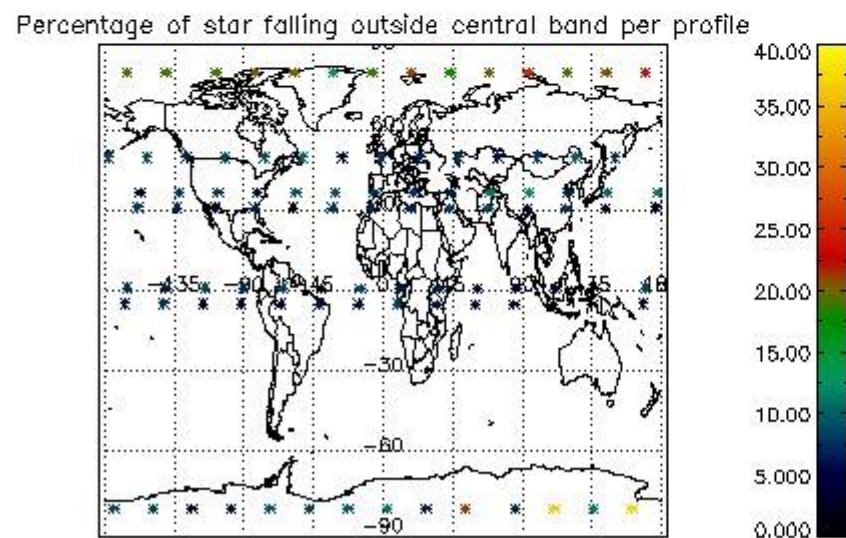
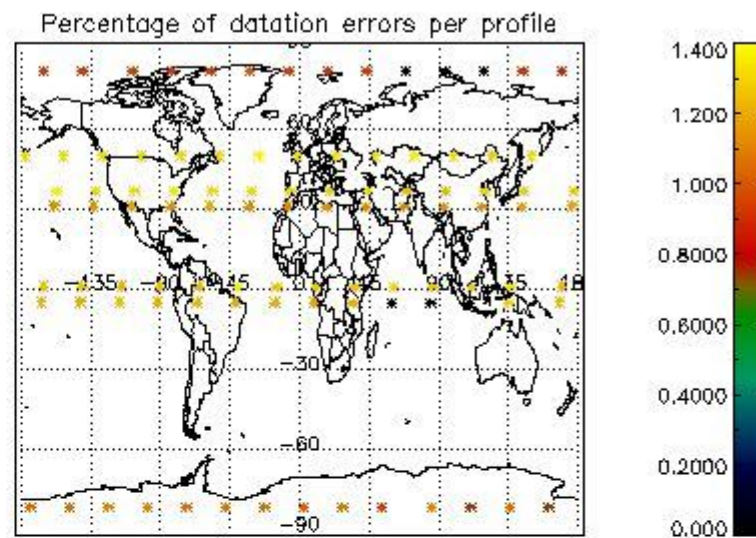
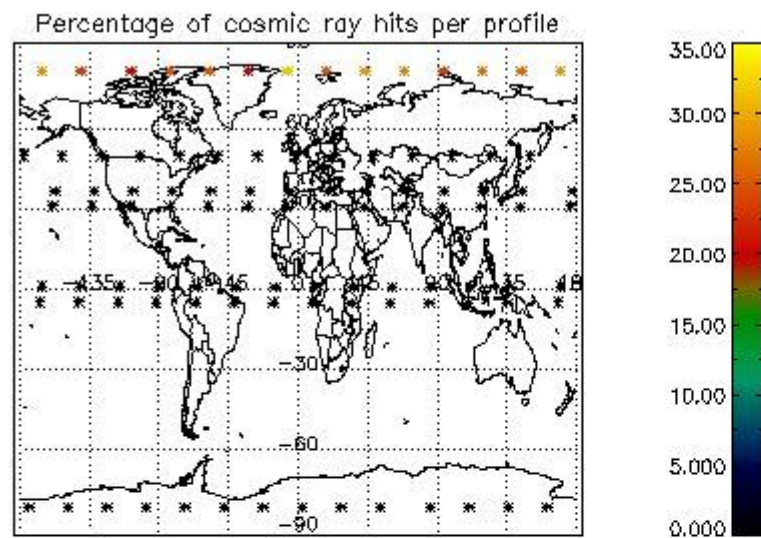
Percentage of star falling outside central band per profile



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

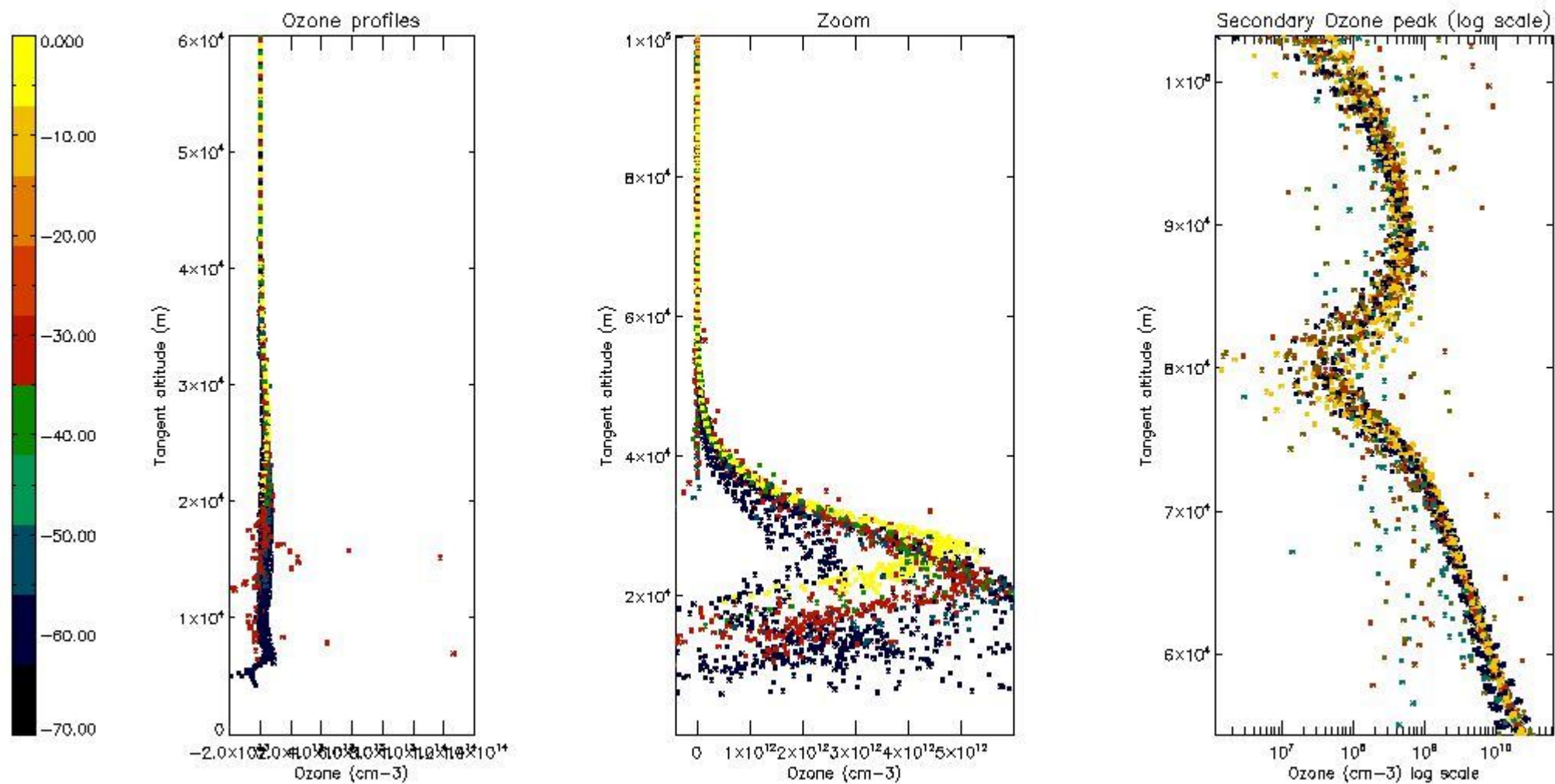
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	39
STD < 20	24

STD < 10	19
STD < 5	16

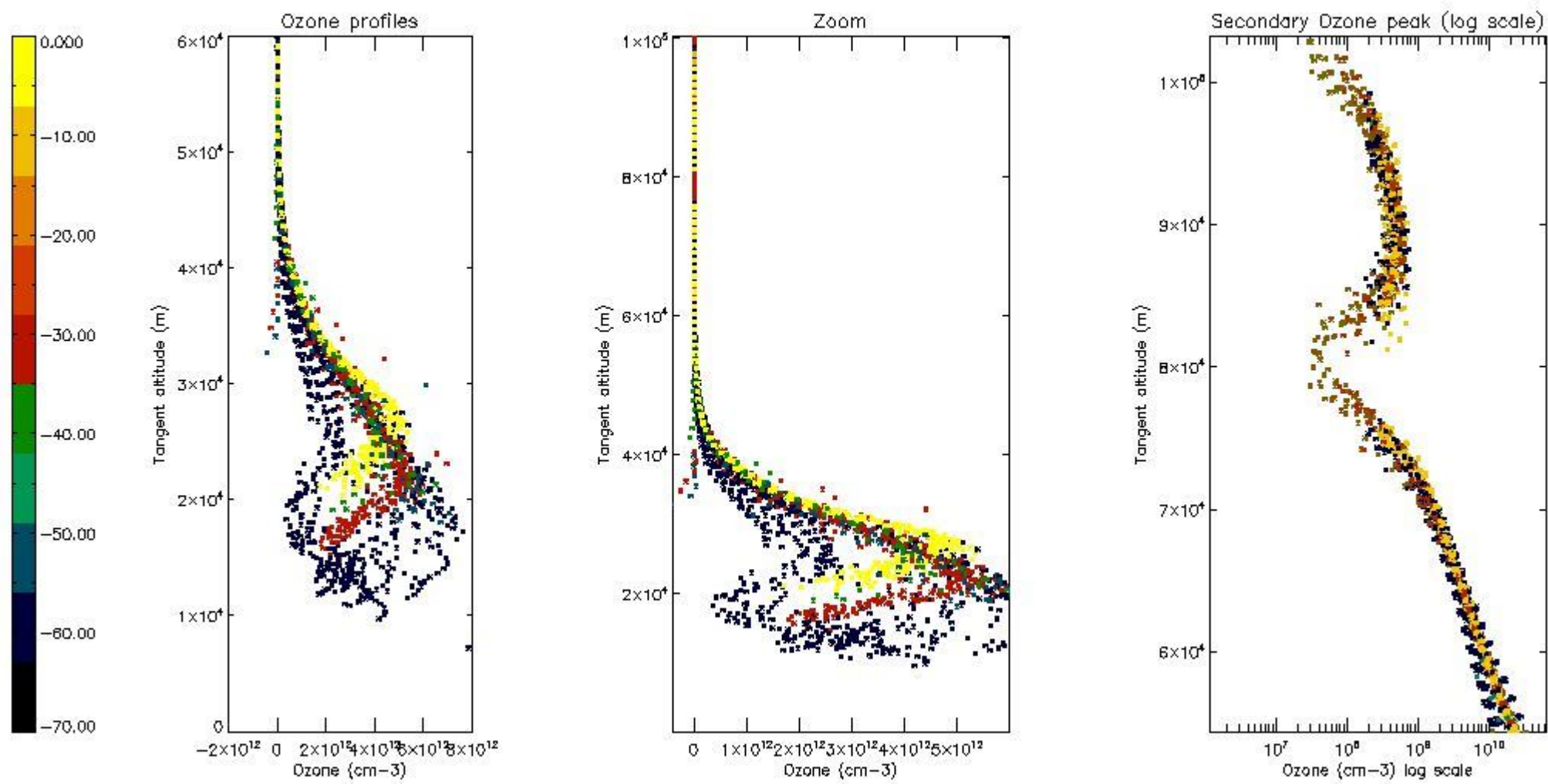
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



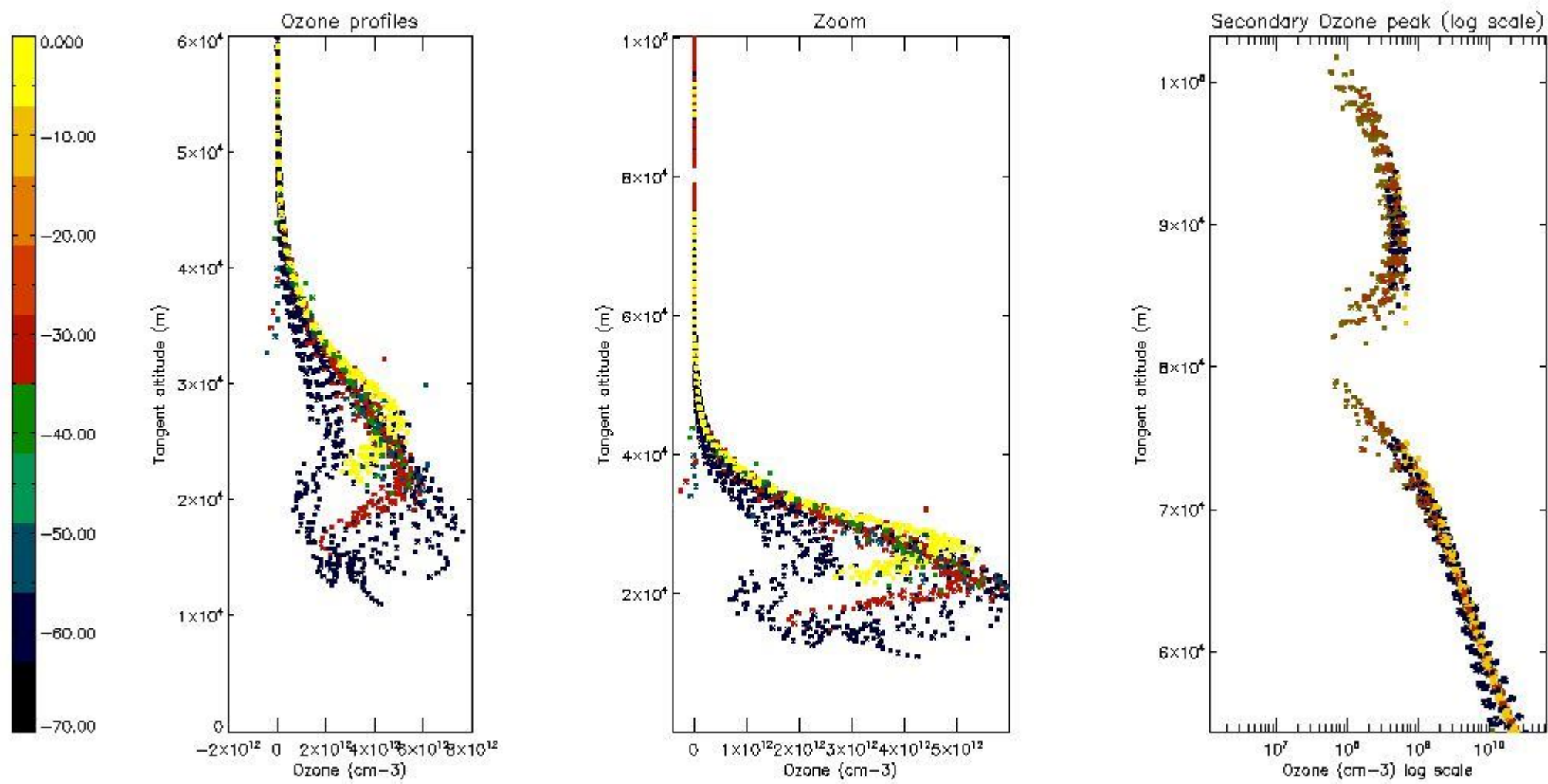
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



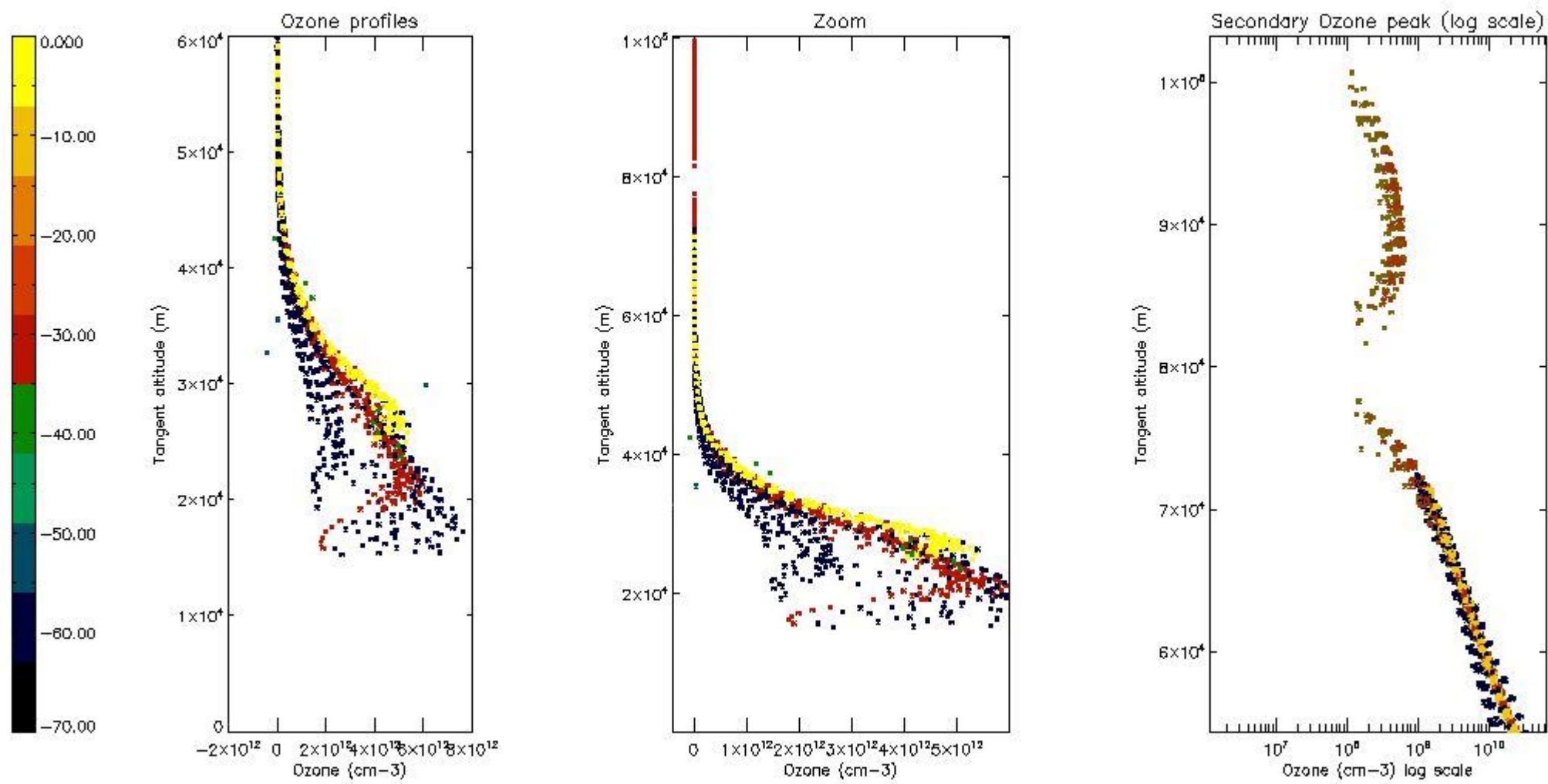
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



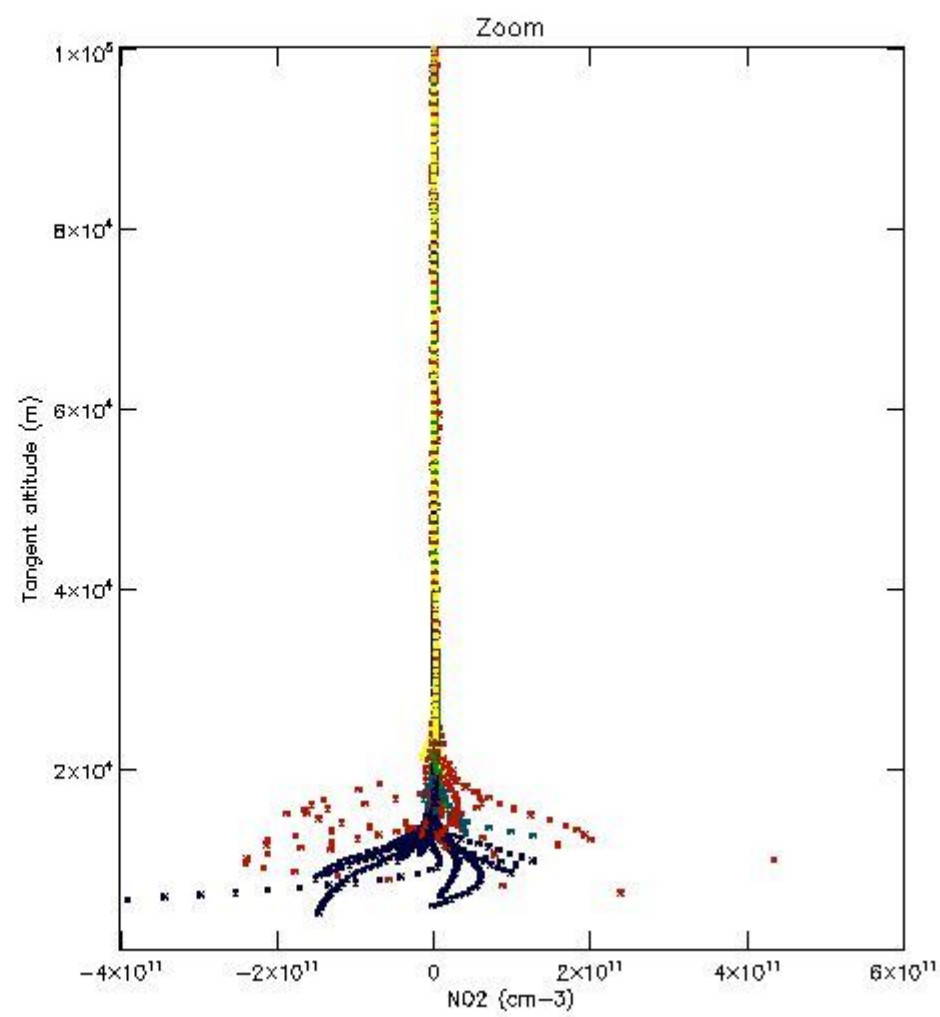
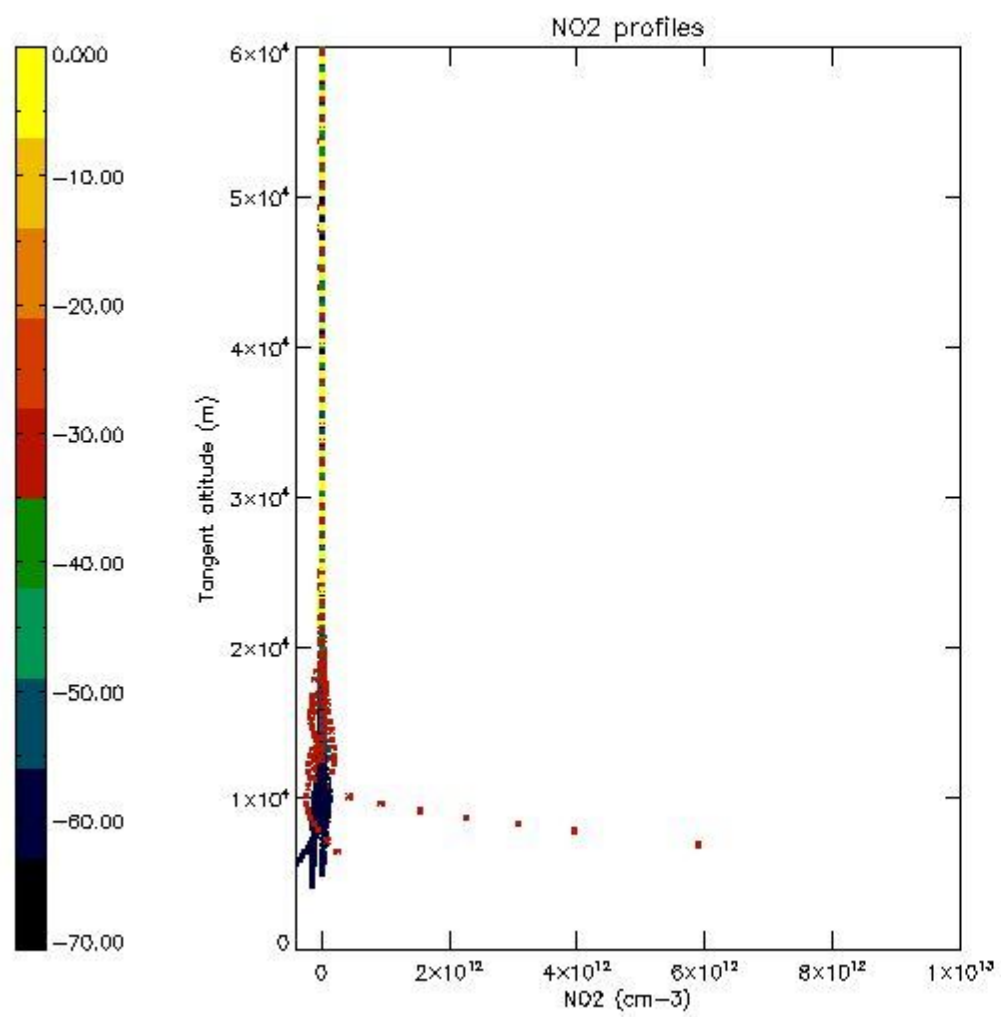
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



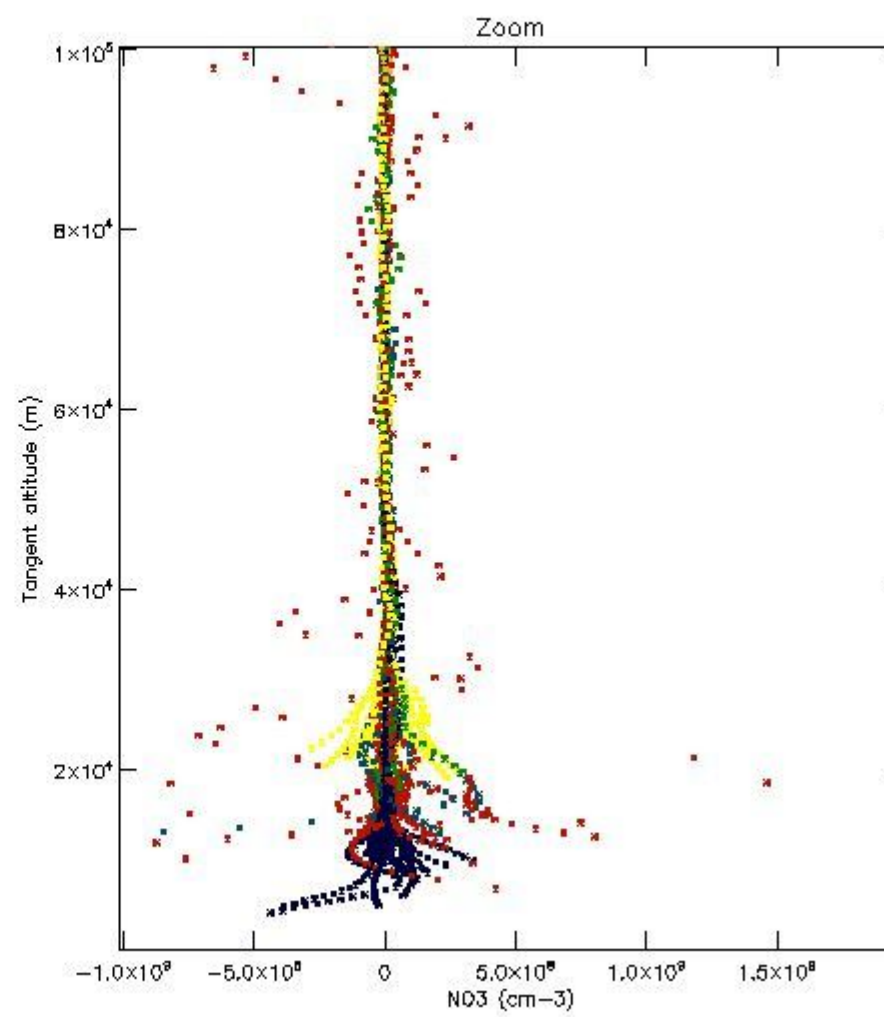
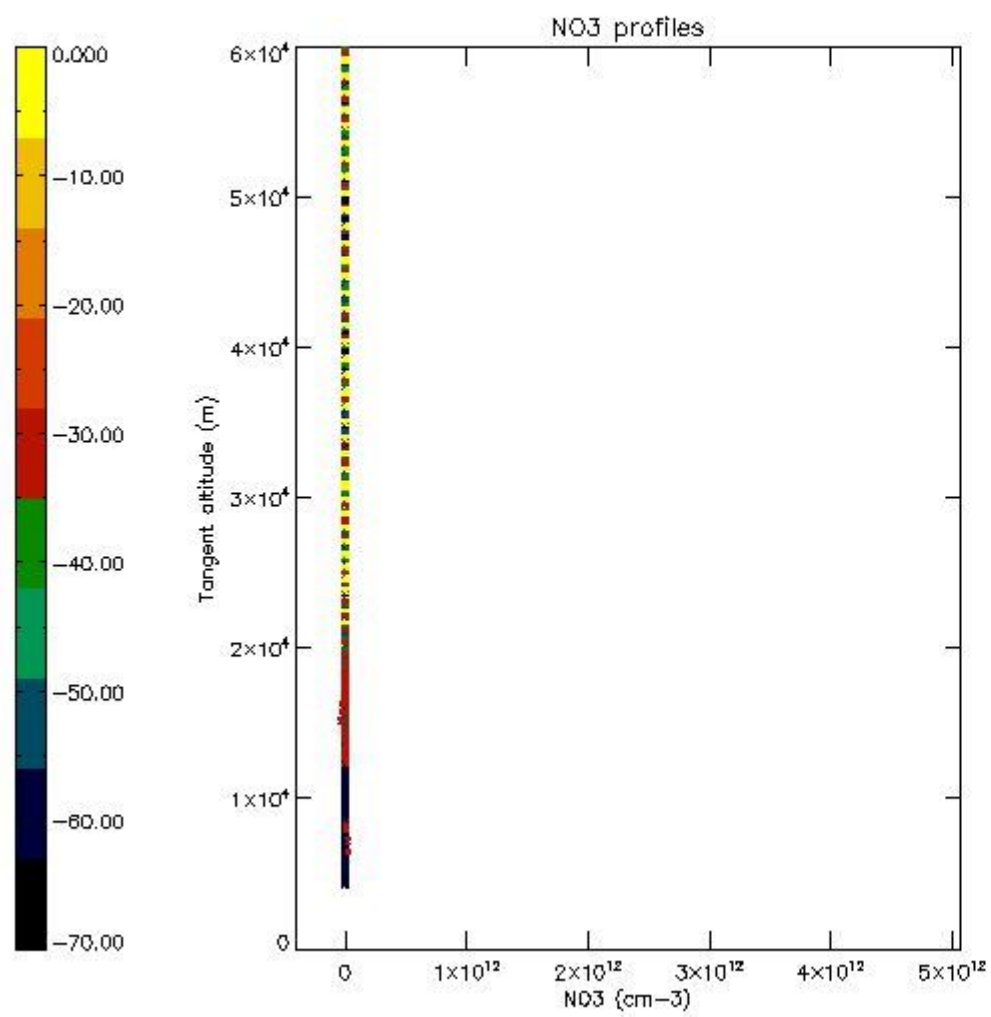
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



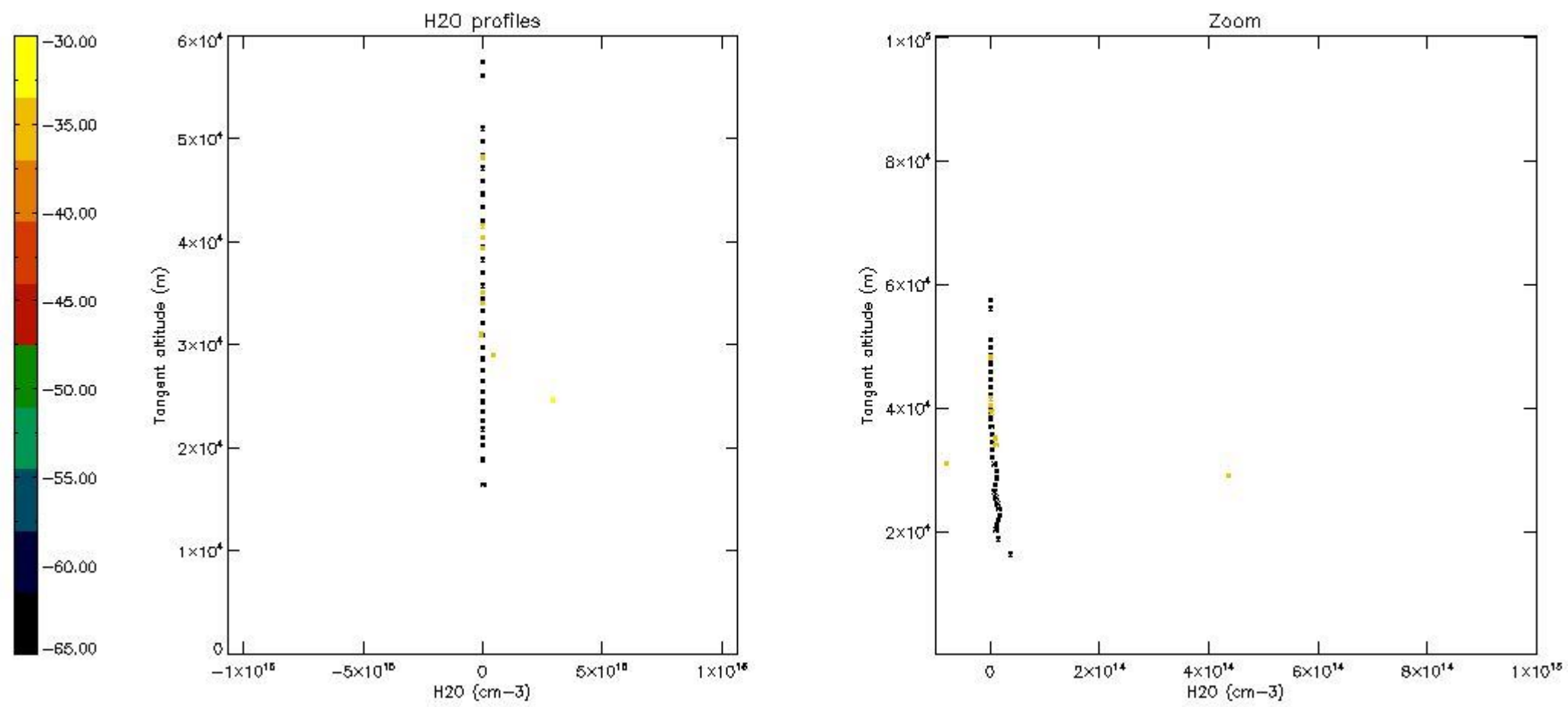
5.7 Plot NO3 profiles for all STD (dark without errors)

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	21-SEP-2007 00:01:06
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	21-SEP-2007 00:01:06
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	21-SEP-2007 00:01:06

GOMOS Level 2 Daily Report

SUMMARY

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[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	23APR2013 05:43:09
Data source version	GOMOS/6.01
Start time of products	21-09-2007 (21SEP2007 00:00:00)
Stop time of products	22-09-2007 (22SEP2007 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	182
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

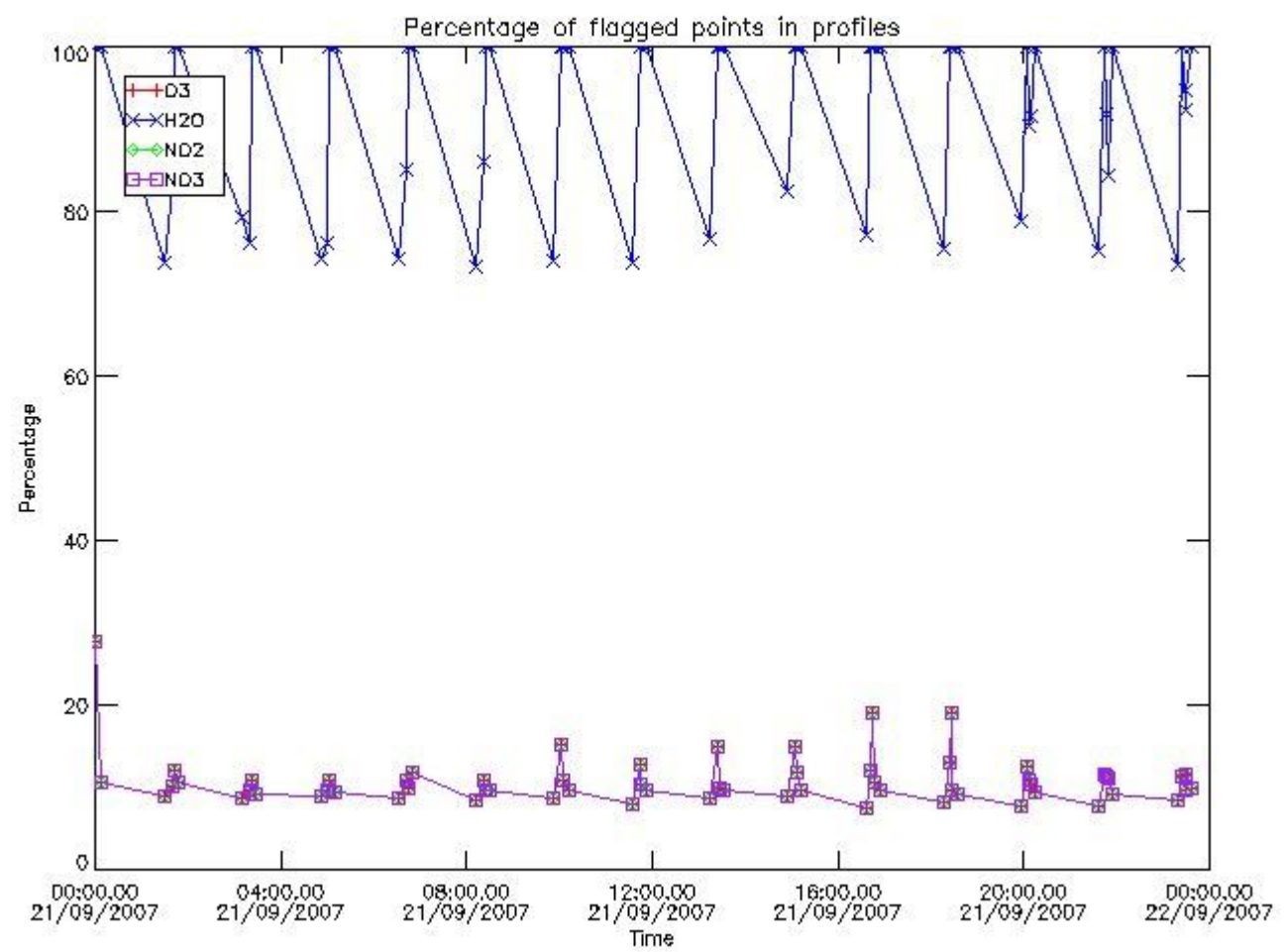
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20070921_000106_000000552061_00445_29056_7136.N1	21-SEP-2007 00:01:06	Dark	55.000	23	21Eps CMa	1.5020	26000.	110	29056	No
2	GOM_NL__2PRFIN20070921_000730_000000532061_00446_29057_7147.N1	21-SEP-2007 00:07:30	Dark	53.000	108	Alp Col	2.6520	15200.	106	29057	No
3	GOM_NL__2PRFIN20070921_001912_000000562061_00446_29057_7148.N1	21-SEP-2007 00:19:12	Straylight	55.500	157	The1Eri	2.9060	9300.0	111	29057	No
4	GOM_NL__2PRFIN20070921_002414_000000452061_00446_29057_7149.N1	21-SEP-2007 00:24:14	Straylight	44.500	84	Alp Phe	2.3970	4500.0	89	29057	No
5	GOM_NL__2PRFIN20070921_003137_000000542061_00446_29057_7150.N1	21-SEP-2007 00:31:37	Twilight_and_stray	54.000	52	16Bet Cet	2.0370	4500.0	108	29057	No
6	GOM_NL__2PRFIN20070921_004211_000000392061_00446_29057_7151.N1	21-SEP-2007 00:42:11	Bright	38.500	90	54Alp Peg	2.4870	11000.	77	29057	No
7	GOM_NL__2PRFIN20070921_004559_000000392061_00446_29057_7152.N1	21-SEP-2007 00:45:59	Bright	39.000	93	53Bet Peg	2.5200	3100.0	78	29057	No
8	GOM_NL__2PRFIN20070921_004737_000000432061_00446_29057_7153.N1	21-SEP-2007 00:47:37	Bright	43.000	58	21Alp And	2.0730	11000.	86	29057	No
9	GOM_NL__2PRFIN20070921_005600_000000382061_00446_29057_7154.N1	21-SEP-2007 00:56:00	Bright	37.500	74	11Bet Cas	2.2680	6600.0	75	29057	No
10	GOM_NL__2PRFIN20070921_005740_000000392061_00446_29057_7155.N1	21-SEP-2007 00:57:40	Bright	38.500	76	27Gam Cas	2.3000	30000.	77	29057	No
11	GOM_NL__2PRFIN20070921_012051_000000542061_00446_29057_7156.N1	21-SEP-2007 01:20:51	Bright	53.500	24	66Alp Gem	1.5800	10200.	107	29057	No
12	GOM_NL__2PRFIN20070921_013002_000000572061_00446_29057_7157.N1	21-SEP-2007 01:30:02	Dark	57.000	8	10Alp CMi	0.40000	6500.0	114	29057	No
13	GOM_NL__2PRFIN20070921_013947_000000602061_00446_29057_7158.N1	21-SEP-2007 01:39:47	Dark	60.000	1	9Alp CMa	-1.4400	11000.	120	29057	No
14	GOM_NL__2PRFIN20070921_014143_000000512061_00446_29057_7159.N1	21-SEP-2007 01:41:43	Dark	50.500	23	21Eps CMa	1.5020	26000.	101	29057	No
15	GOM_NL__2PRFIN20070921_014808_000000532061_00447_29058_7152.N1	21-SEP-2007 01:48:08	Dark	52.500	108	Alp Col	2.6520	15200.	105	29058	No
16	GOM_NL__2PRFIN20070921_015948_000000532061_00447_29058_7153.N1	21-SEP-2007 01:59:48	Straylight	52.500	157	The1Eri	2.9060	9300.0	105	29058	No
17	GOM_NL__2PRFIN20070921_020450_000000432061_00447_29058_7154.N1	21-SEP-2007 02:04:50	Straylight	42.500	84	Alp Phe	2.3970	4500.0	85	29058	No
18	GOM_NL__2PRFIN20070921_021213_000000552061_00447_29058_7155.N1	21-SEP-2007 02:12:13	Twilight_and_stray	54.500	52	16Bet Cet	2.0370	4500.0	109	29058	No
19	GOM_NL__2PRFIN20070921_022247_000000392061_00447_29058_7156.N1	21-SEP-2007 02:22:47	Bright	39.000	90	54Alp Peg	2.4870	11000.	78	29058	No
20	GOM_NL__2PRFIN20070921_022634_000000392061_00447_29058_7157.N1	21-SEP-2007 02:26:34	Bright	38.500	93	53Bet Peg	2.5200	3100.0	77	29058	No
21	GOM_NL__2PRFIN20070921_022812_000000452061_00447_29058_7158.N1	21-SEP-2007 02:28:12	Bright	45.000	58	21Alp And	2.0730	11000.	90	29058	No
22	GOM_NL__2PRFIN20070921_023636_000000392061_00447_29058_7159.N1	21-SEP-2007 02:36:36	Bright	39.000	74	11Bet Cas	2.2680	6600.0	78	29058	No
23	GOM_NL__2PRFIN20070921_023816_000000392061_00447_29058_7160.N1	21-SEP-2007 02:38:16	Bright	38.500	76	27Gam Cas	2.3000	30000.	77	29058	No
24	GOM_NL__2PRFIN20070921_030128_000000472061_00447_29058_7161.N1	21-SEP-2007 03:01:28	Bright	46.500	24	66Alp Gem	1.5800	10200.	93	29058	No
25	GOM_NL__2PRFIN20070921_031039_000000592061_00447_29058_7162.N1	21-SEP-2007 03:10:39	Dark	58.500	8	10Alp CMi	0.40000	6500.0	117	29058	No
26	GOM_NL__2PRFIN20070921_032024_000000532061_00447_29058_7163.N1	21-SEP-2007 03:20:24	Dark	53.000	1	9Alp CMa	-1.4400	11000.	106	29058	No
27	GOM_NL__2PRFIN20070921_032219_000000482061_00447_29058_7164.N1	21-SEP-2007 03:22:19	Dark	47.500	23	21Eps CMa	1.5020	26000.	95	29058	No
28	GOM_NL__2PRFIN20070921_032845_000000552061_00448_29059_7163.N1	21-SEP-2007 03:28:45	Dark	55.000	108	Alp Col	2.6520	15200.	110	29059	No
29	GOM_NL__2PRFIN20070921_034025_000000562061_00448_29059_7164.N1	21-SEP-2007 03:40:25	Straylight	55.500	157	The1Eri	2.9060	9300.0	111	29059	No
30	GOM_NL__2PRFIN20070921_034526_000000422061_00448_29059_7165.N1	21-SEP-2007 03:45:26	Straylight	41.500	84	Alp Phe	2.3970	4500.0	83	29059	No
31	GOM_NL__2PRFIN20070921_035250_000000582061_00448_29059_7166.N1	21-SEP-2007 03:52:50	Twilight_and_stray	57.500	52	16Bet Cet	2.0370	4500.0	115	29059	No
32	GOM_NL__2PRFIN20070921_040323_000000382061_00448_29059_7167.N1	21-SEP-2007 04:03:23	Bright	38.000	90	54Alp Peg	2.4870	11000.	76	29059	No
33	GOM_NL__2PRFIN20070921_040710_000000412061_00448_29059_7168.N1	21-SEP-2007 04:07:10	Bright	40.500	93	53Bet Peg	2.5200	3100.0	81	29059	No
34	GOM_NL__2PRFIN20070921_040848_000000442061_00448_29059_7169.N1	21-SEP-2007 04:08:48	Bright	44.000	58	21Alp And	2.0730	11000.	88	29059	No
35	GOM_NL__2PRFIN20070921_041712_000000402061_00448_29059_7170.N1	21-SEP-2007 04:17:12	Bright	39.500	74	11Bet Cas	2.2680	6600.0	79	29059	No
36	GOM_NL__2PRFIN20070921_041851_000000402061_00448_29059_7171.N1	21-SEP-2007 04:18:51	Bright	39.500	76	27Gam Cas	2.3000	30000.	79	29059	No
37	GOM_NL__2PRFIN20070921_044204_000000492061_00448_29059_7172.N1	21-SEP-2007 04:42:04	Bright	49.000	24	66Alp Gem	1.5800	10200.	98	29059	No
38	GOM_NL__2PRFIN20070921_045115_000000572061_00448_29059_7173.N1	21-SEP-2007 04:51:15	Dark	56.500	8	10Alp CMi	0.40000	6500.0	113	29059	No
39	GOM_NL__2PRFIN20070921_050102_000000532061_00448_29059_7174.N1	21-SEP-2007 05:01:02	Dark	53.000	1	9Alp CMa	-1.4400	11000.	106	29059	No
40	GOM_NL__2PRFIN20070921_050256_000000522061_00448_29059_7175.N1	21-SEP-2007 05:02:56	Dark	52.000	23	21Eps CMa	1.5020	26000.	104	29059	No
41	GOM_NL__2PRFIN20070921_050922_000000542061_00449_29060_7186.N1	21-SEP-2007 05:09:22	Dark	54.000	108	Alp Col	2.6520	15200.	108	29060	No
42	GOM_NL__2PRFIN20070921_052102_000000532061_00449_29060_7187.N1	21-SEP-2007 05:21:02	Straylight	53.000	157	The1Eri	2.9060	9300.0	106	29060	No

161	GOM_NL__2PRFIN20070921_210446_000000412061_00458_29069_7337.N1	21-SEP-2007 21:04:46	Bright	41.000	76	27Gam Cas	2.3000	30000.	82	29069	No
162	GOM_NL__2PRFIN20070921_212804_000000672061_00458_29069_7338.N1	21-SEP-2007 21:28:04	Bright	67.000	24	66Alp Gem	1.5800	10200.	134	29069	No
163	GOM_NL__2PRFIN20070921_213721_000000672061_00458_29069_7339.N1	21-SEP-2007 21:37:21	Dark	66.500	8	10Alp CMi	0.40000	6500.0	133	29069	No
164	GOM_NL__2PRFIN20070921_214442_000000452061_00458_29069_7340.N1	21-SEP-2007 21:44:42	Dark	44.500	132	15Rho Pup	2.8030	6900.0	89	29069	No
165	GOM_NL__2PRFIN20070921_214757_000000492061_00458_29069_7341.N1	21-SEP-2007 21:47:57	Dark	49.000	37	25Del CMa	1.8300	5900.0	98	29069	No
166	GOM_NL__2PRFIN20070921_214952_000000552061_00458_29069_7342.N1	21-SEP-2007 21:49:52	Dark	55.000	117	Pi Pup	2.7060	3800.0	110	29069	No
167	GOM_NL__2PRFIN20070921_215535_000000552061_00459_29070_7340.N1	21-SEP-2007 21:55:35	Dark	55.000	108	Alp Col	2.6520	15200.	110	29070	No
168	GOM_NL__2PRFIN20070921_220710_000000552061_00459_29070_7341.N1	21-SEP-2007 22:07:10	Straylight	54.500	157	The1Eri	2.9060	9300.0	109	29070	No
169	GOM_NL__2PRFIN20070921_221926_000000532061_00459_29070_7342.N1	21-SEP-2007 22:19:26	Twl_and_stray	53.000	52	16Bet Cet	2.0370	4500.0	106	29070	No
170	GOM_NL__2PRFIN20070921_222957_000000392061_00459_29070_7343.N1	21-SEP-2007 22:29:57	Bright	38.500	90	54Alp Peg	2.4870	11000.	77	29070	No
171	GOM_NL__2PRFIN20070921_223344_000000402061_00459_29070_7344.N1	21-SEP-2007 22:33:44	Bright	39.500	93	53Bet Peg	2.5200	3100.0	79	29070	No
172	GOM_NL__2PRFIN20070921_223517_000000432061_00459_29070_7345.N1	21-SEP-2007 22:35:17	Bright	42.500	58	21Alp And	2.0730	11000.	85	29070	No
173	GOM_NL__2PRFIN20070921_224342_000000412061_00459_29070_7346.N1	21-SEP-2007 22:43:42	Bright	40.500	74	11Bet Cas	2.2680	6600.0	81	29070	No
174	GOM_NL__2PRFIN20070921_224521_000000412061_00459_29070_7347.N1	21-SEP-2007 22:45:21	Bright	40.500	76	27Gam Cas	2.3000	30000.	81	29070	No
175	GOM_NL__2PRFIN20070921_230840_000000452061_00459_29070_7348.N1	21-SEP-2007 23:08:40	Bright	45.000	24	66Alp Gem	1.5800	10200.	90	29070	No
176	GOM_NL__2PRFIN20070921_230956_000000482061_00459_29070_7349.N1	21-SEP-2007 23:09:56	Bright	48.000	17	78Bet Gem	1.1610	4500.0	96	29070	No
177	GOM_NL__2PRFIN20070921_231758_000000612061_00459_29070_7350.N1	21-SEP-2007 23:17:58	Dark	60.500	8	10Alp CMi	0.40000	6500.0	121	29070	No
178	GOM_NL__2PRFIN20070921_232519_000000452061_00459_29070_7351.N1	21-SEP-2007 23:25:19	Dark	45.000	132	15Rho Pup	2.8030	6900.0	90	29070	No
179	GOM_NL__2PRFIN20070921_232833_000000532061_00459_29070_7352.N1	21-SEP-2007 23:28:33	Dark	52.500	37	25Del CMa	1.8300	5900.0	105	29070	No
180	GOM_NL__2PRFIN20070921_233028_000000482061_00459_29070_7353.N1	21-SEP-2007 23:30:28	Dark	48.000	117	Pi Pup	2.7060	3800.0	96	29070	No
181	GOM_NL__2PRFIN20070921_233612_000000522061_00460_29071_7360.N1	21-SEP-2007 23:36:12	Dark	52.000	108	Alp Col	2.6520	15200.	104	29071	No
182	GOM_NL__2PRFIN20070921_234747_000000522061_00460_29071_7361.N1	21-SEP-2007 23:47:47	Straylight	52.000	157	The1Eri	2.9060	9300.0	104	29071	No

3. Quality information per product

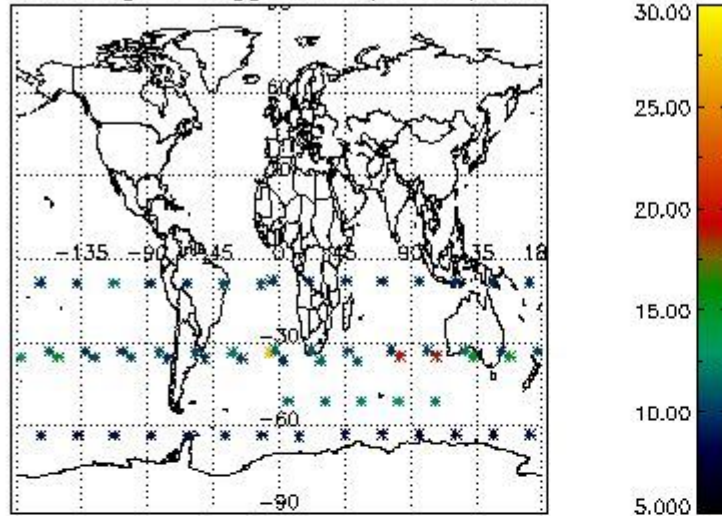
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

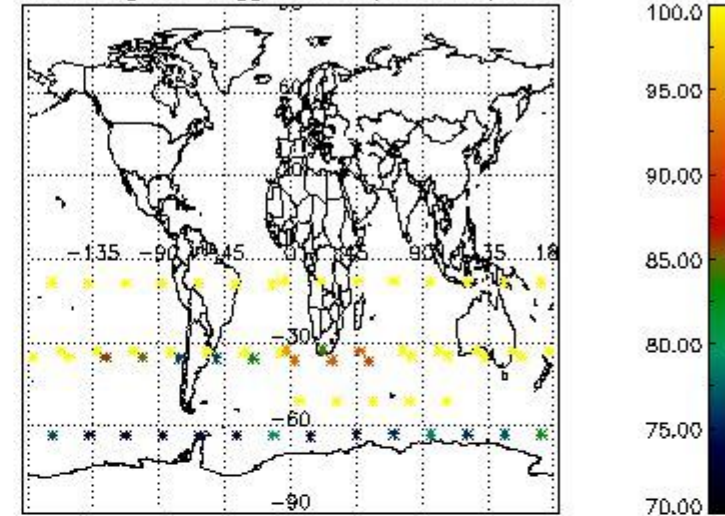


3.2 Plot quality information per product (world map)

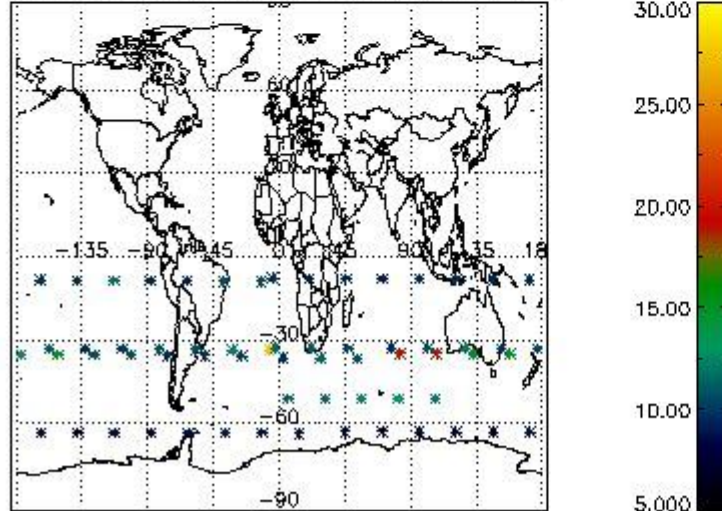
Percentage of flagged data per O3 profile



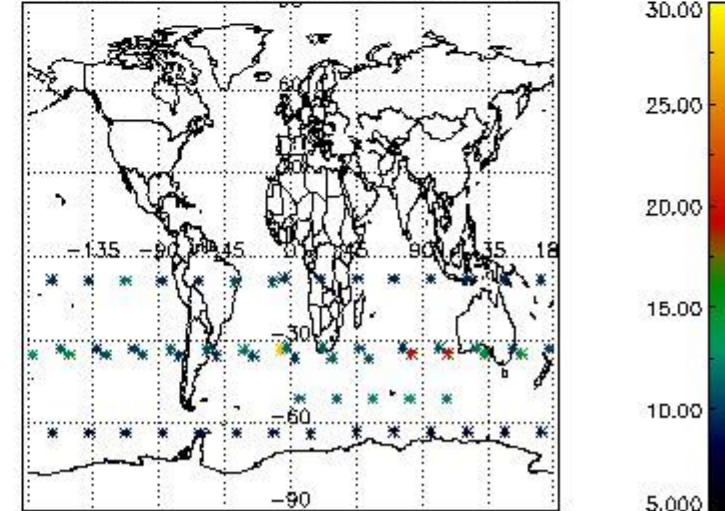
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

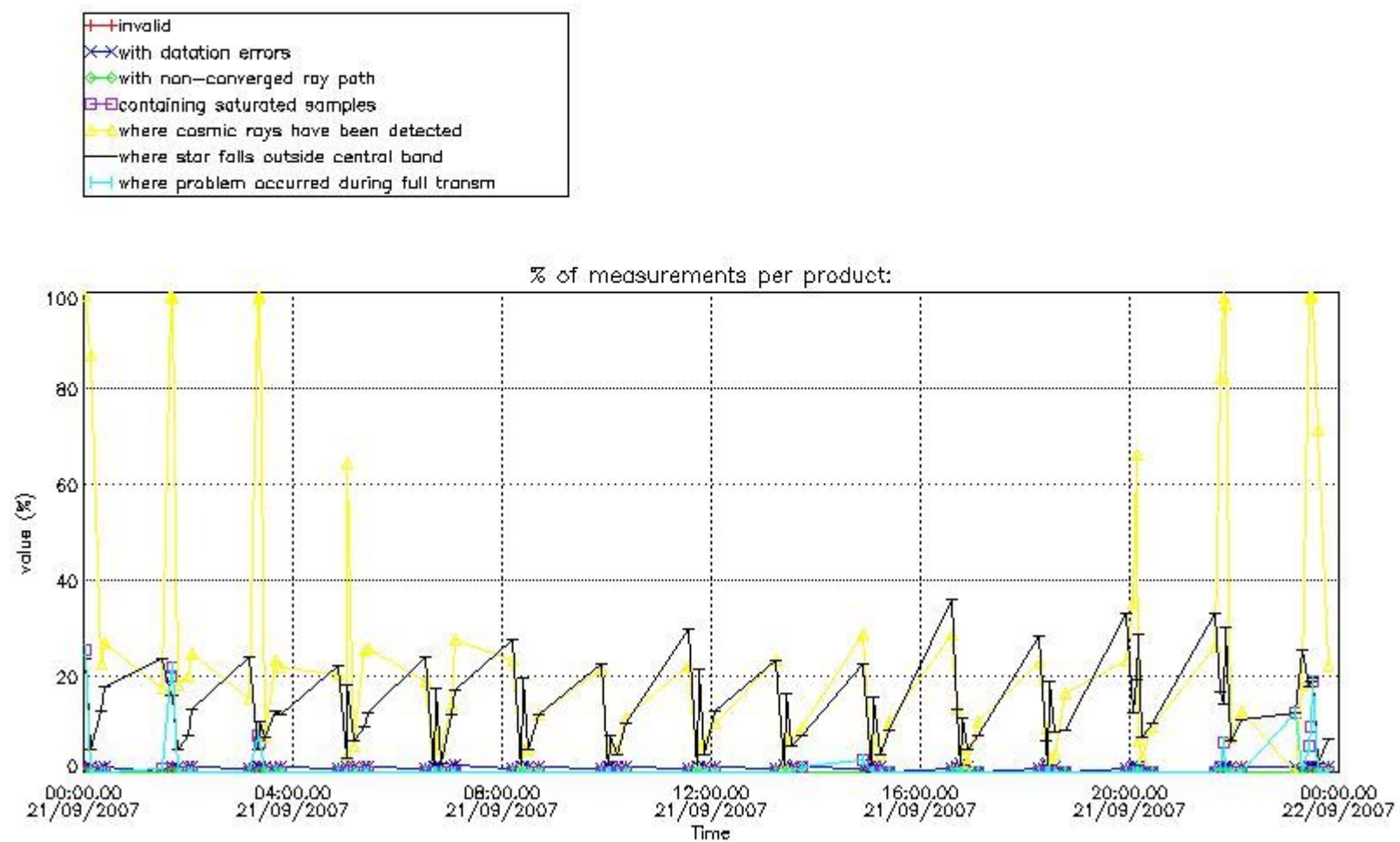


4. Level 1 quality information per product

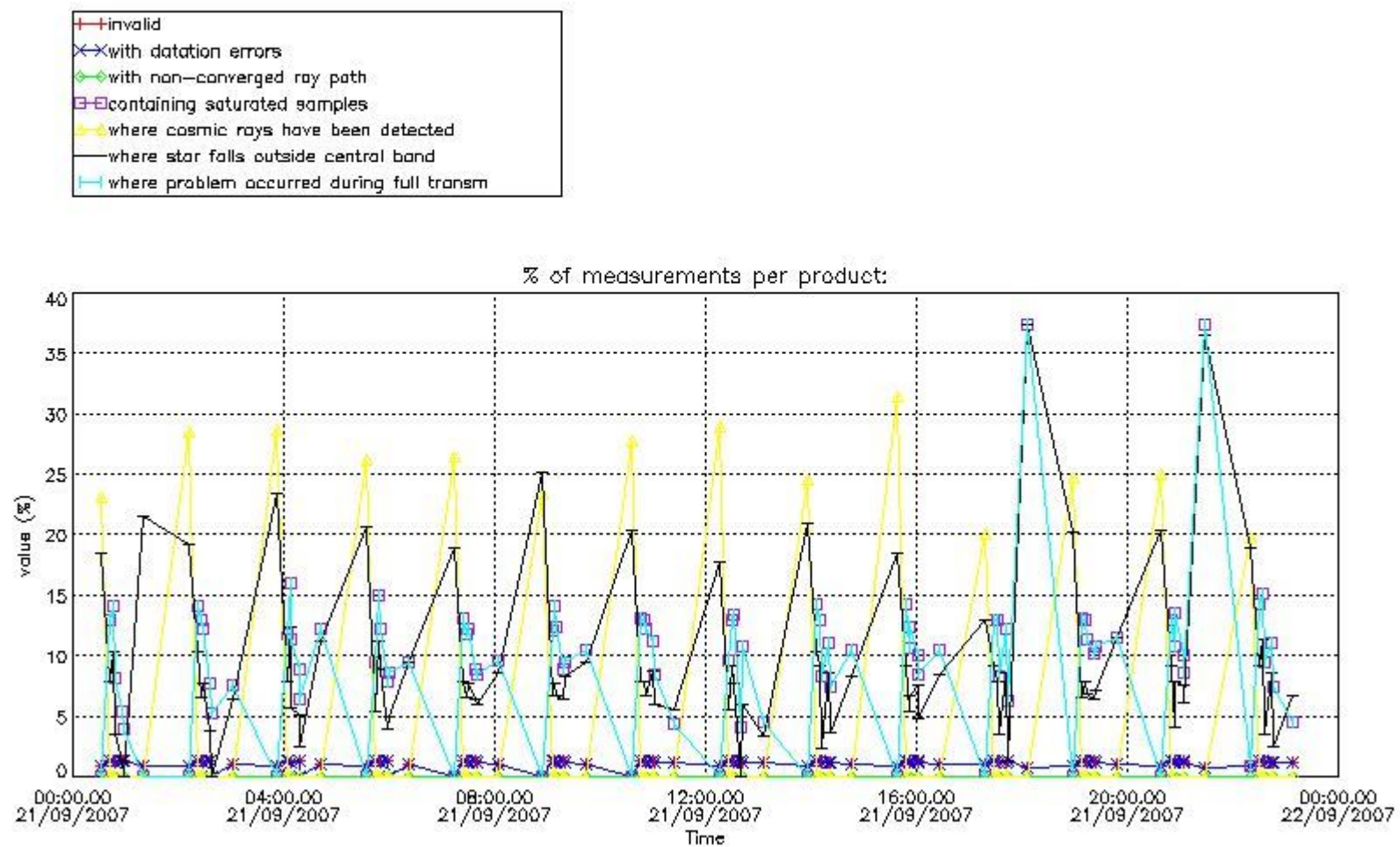
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



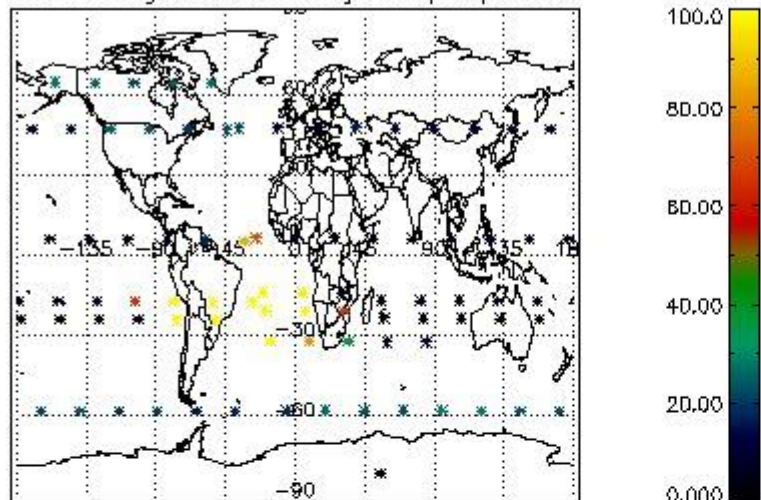
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



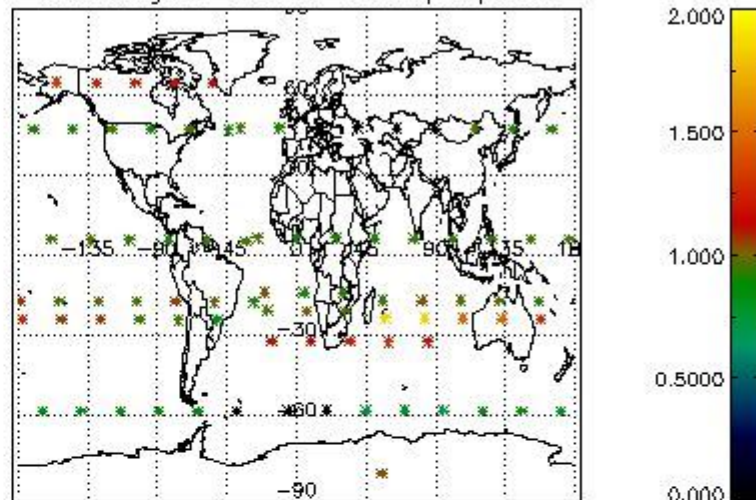
4.2 Plot quality information per product coming from level 1b processing (world map)

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

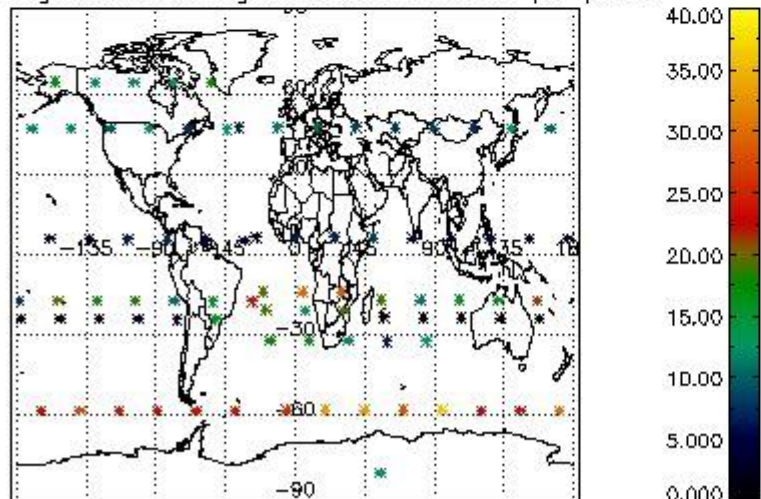
Percentage of cosmic ray hits per profile



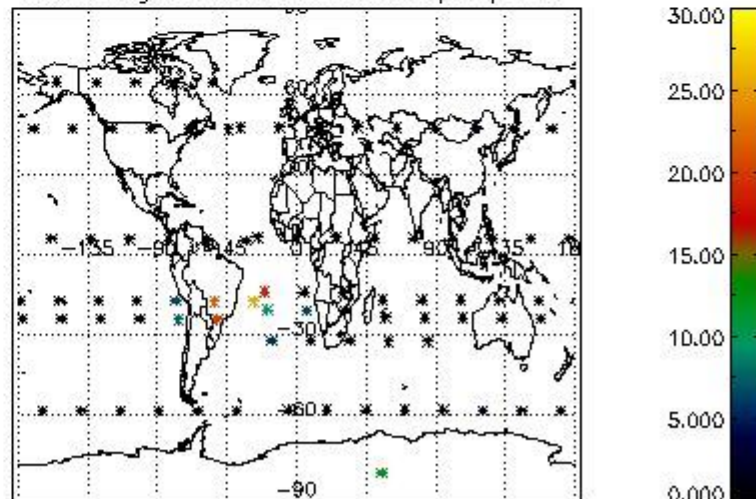
Percentage of datation errors per profile



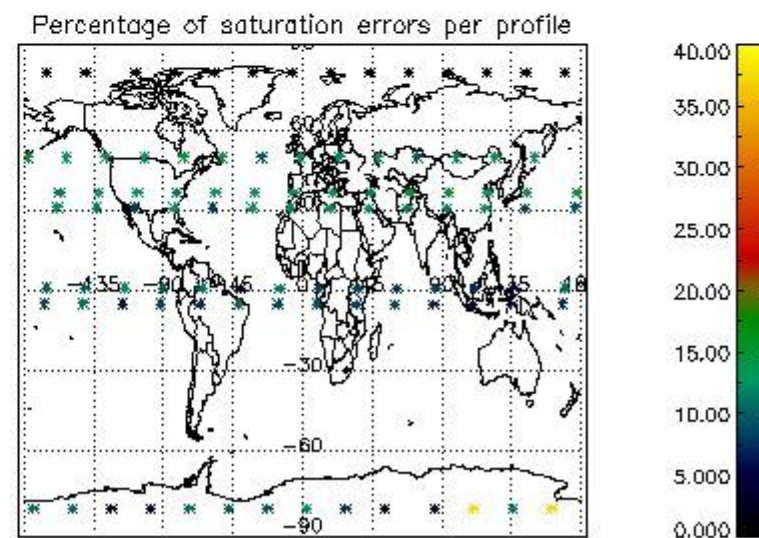
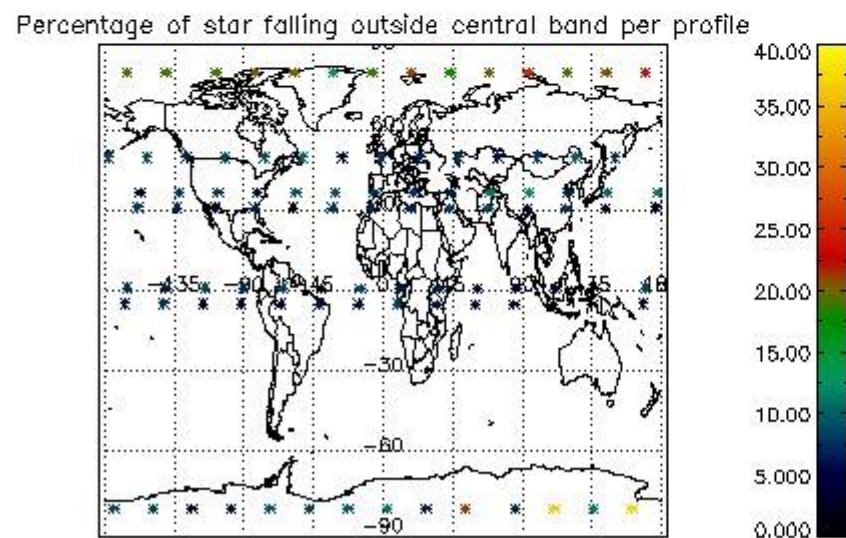
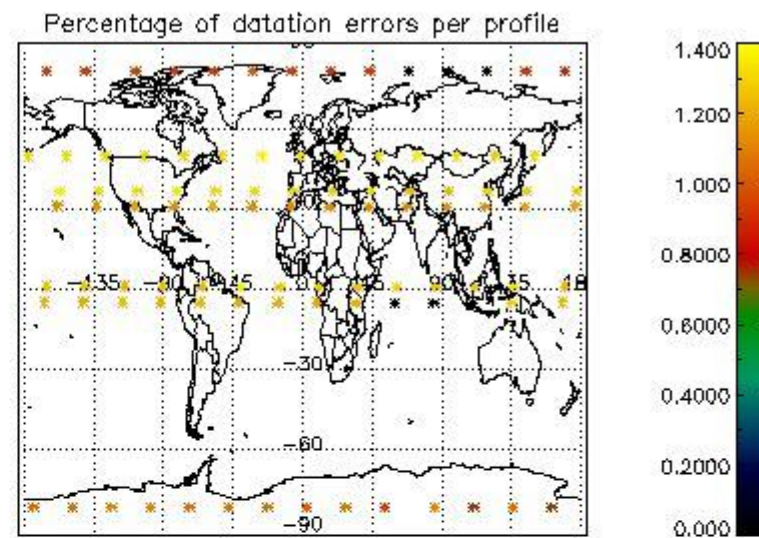
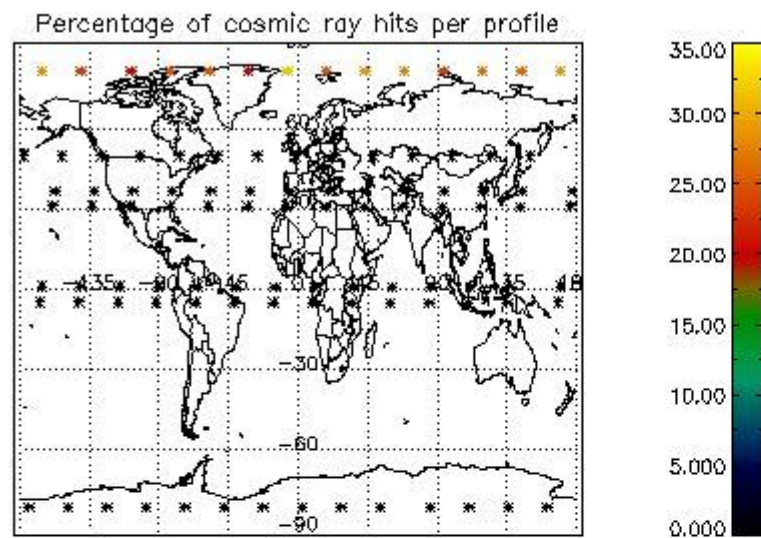
Percentage of star falling outside central band per profile



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

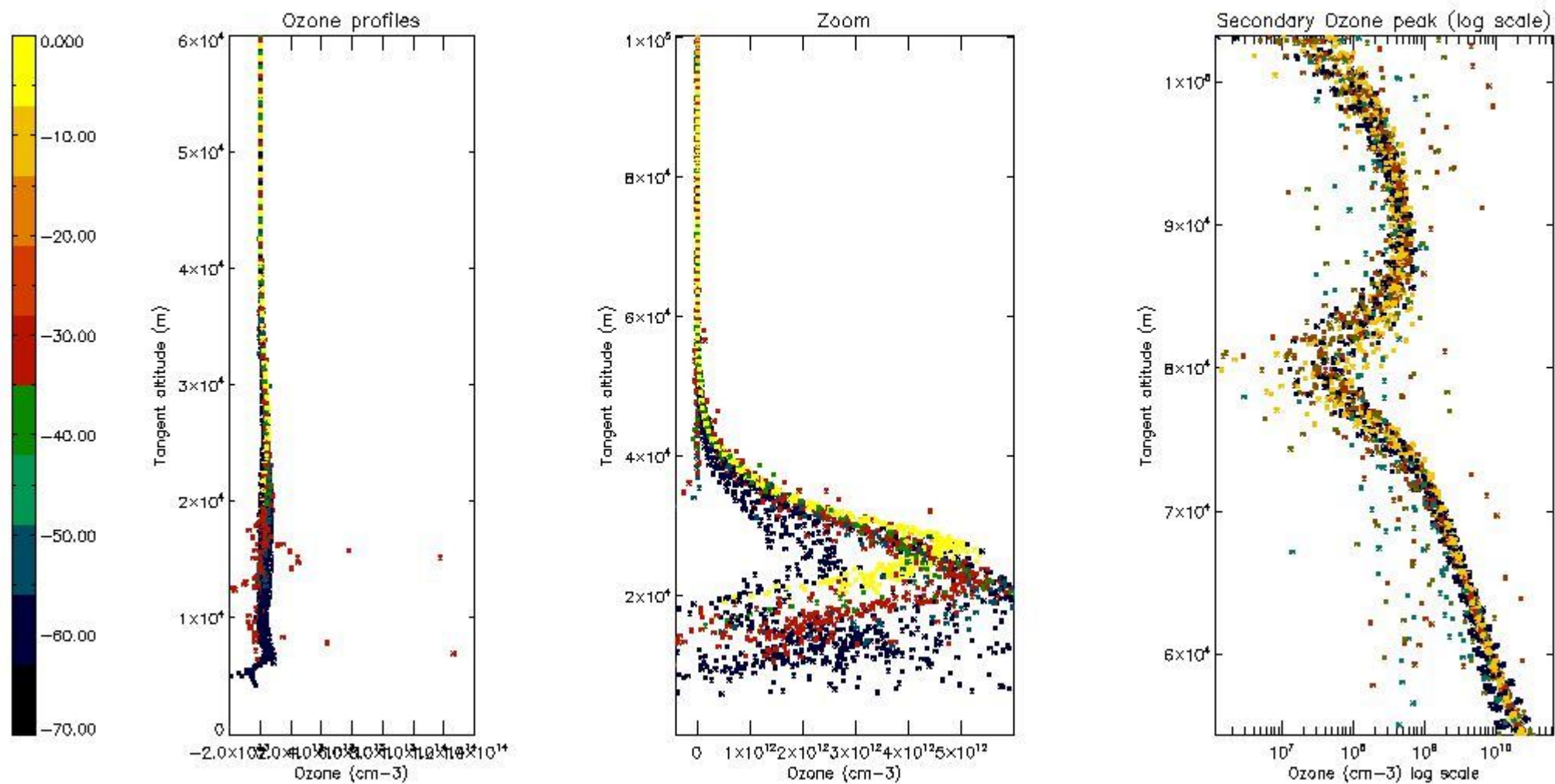
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	39
STD < 20	24

STD < 10	19
STD < 5	16

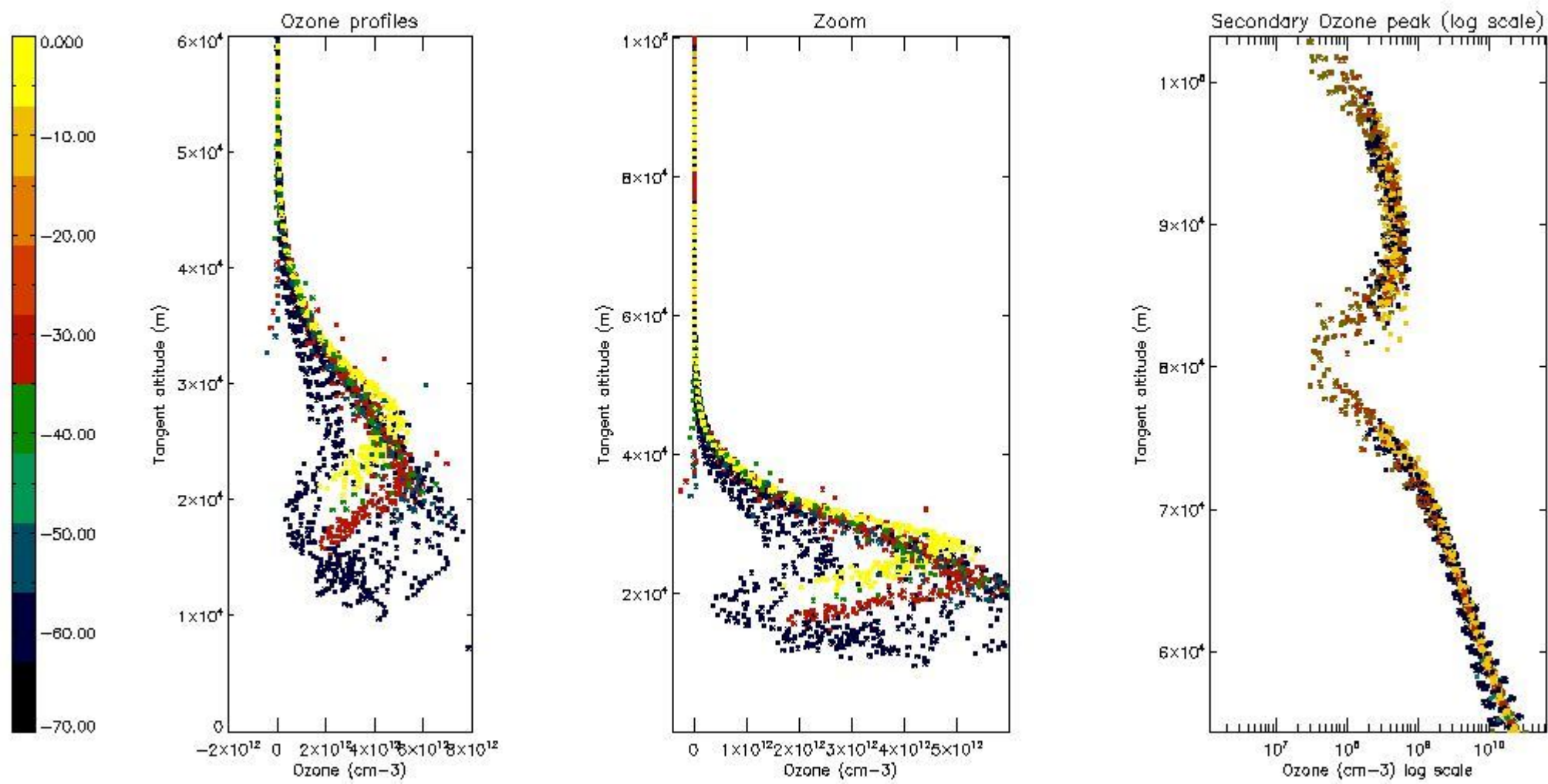
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



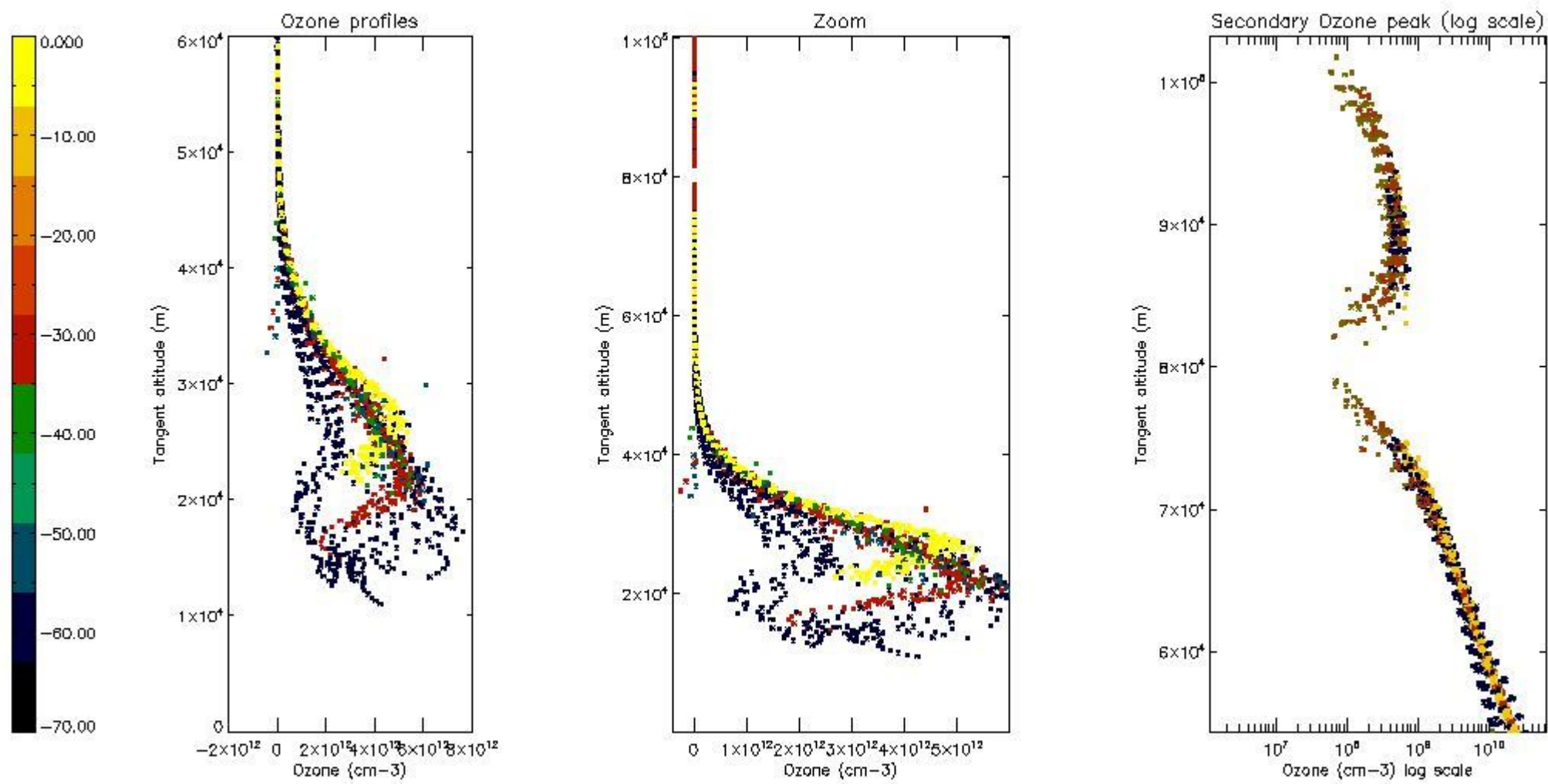
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



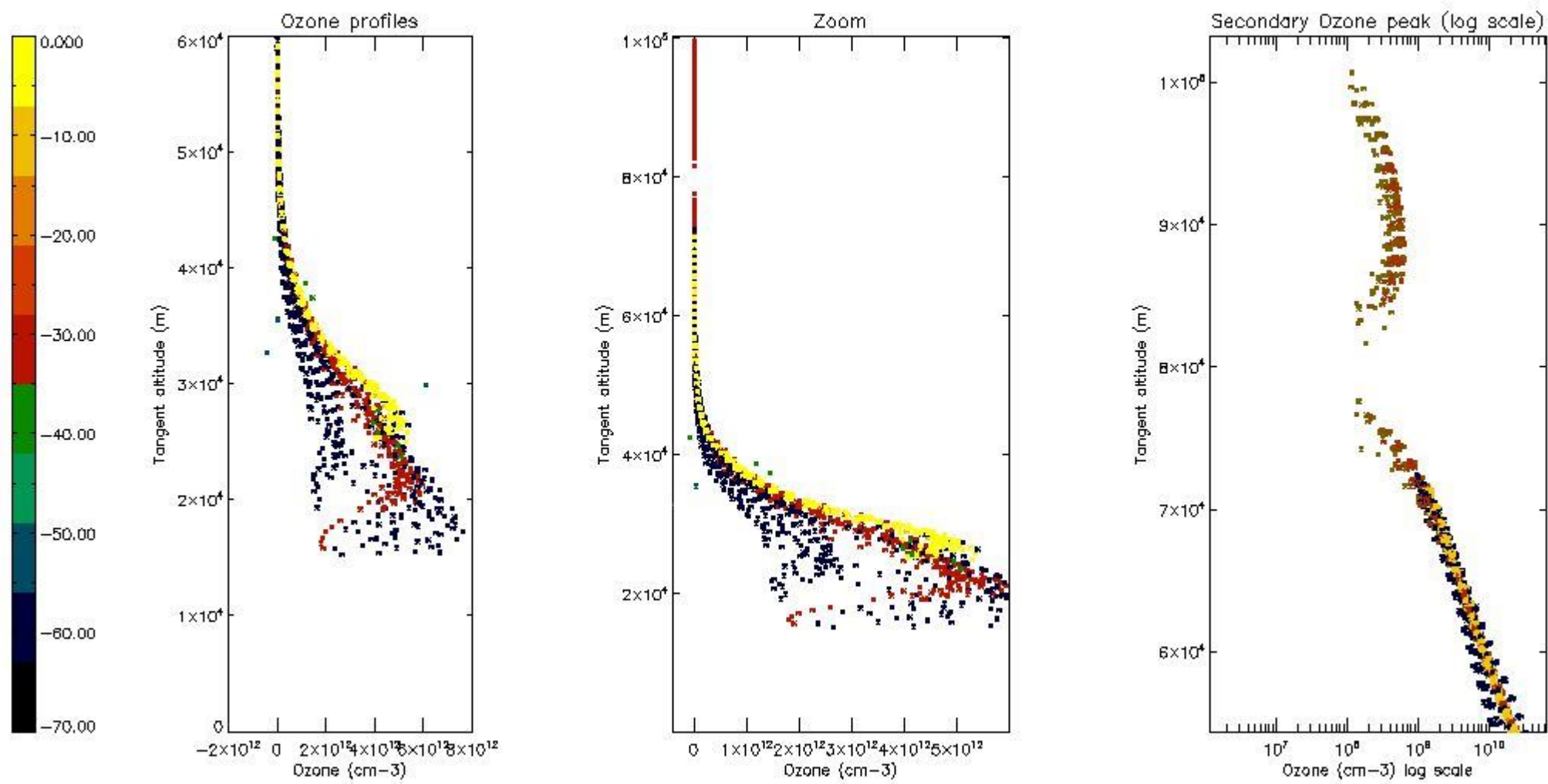
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



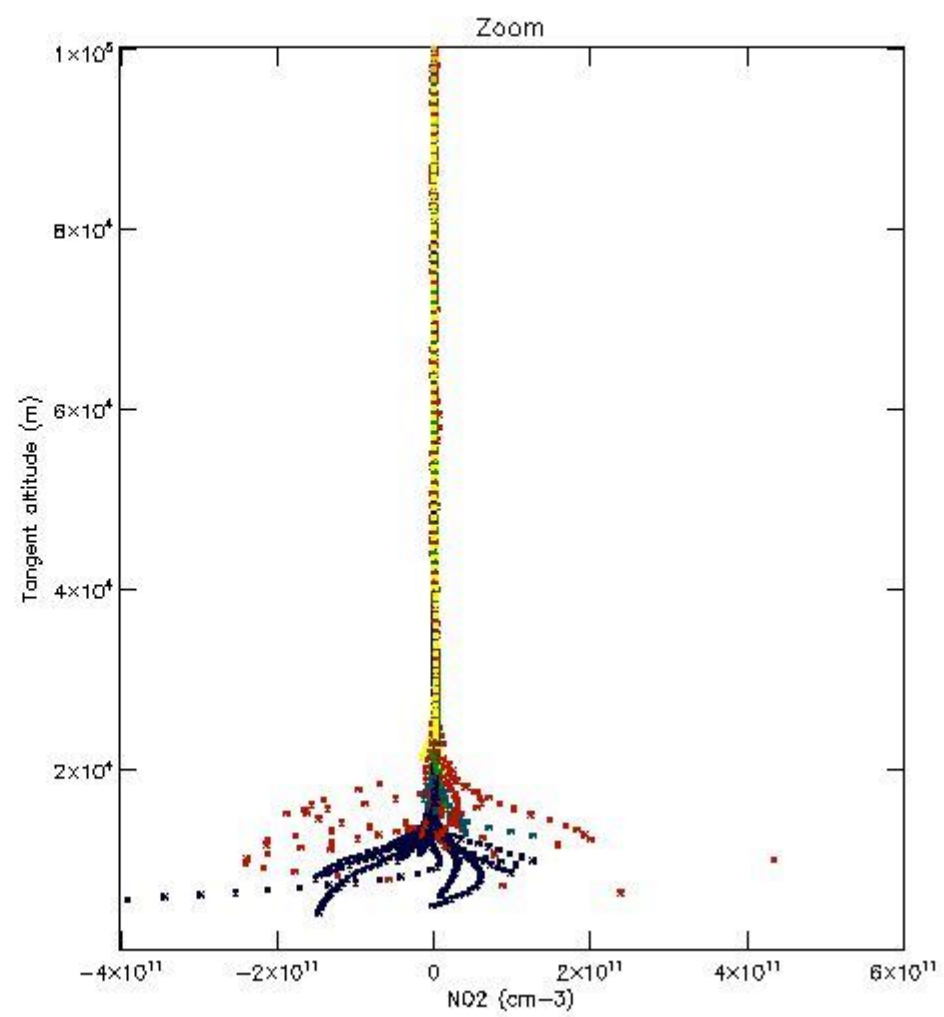
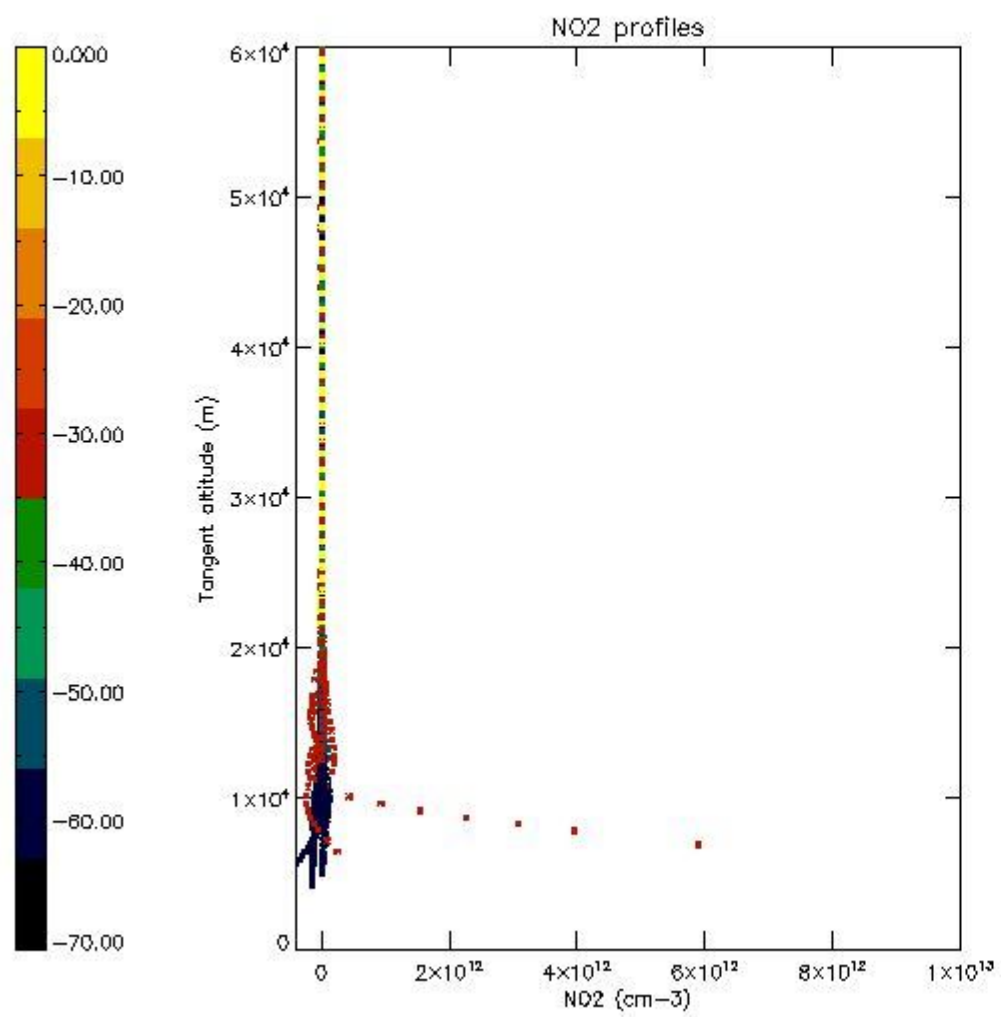
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



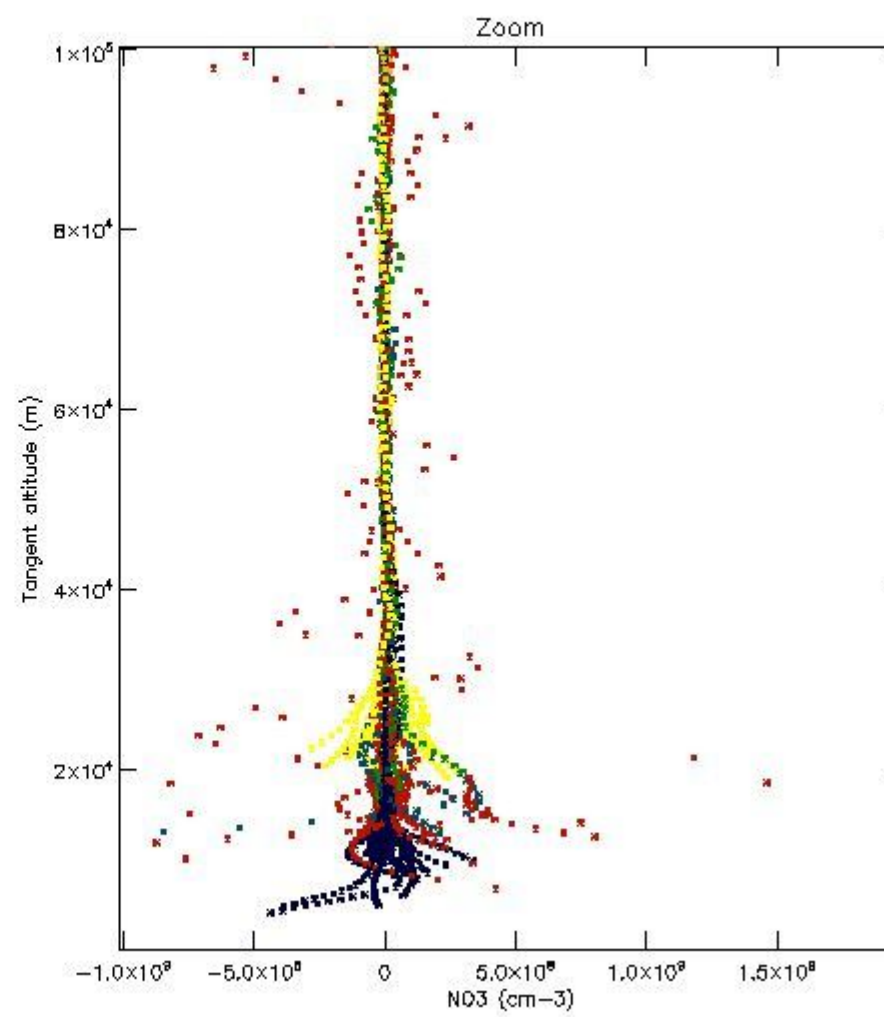
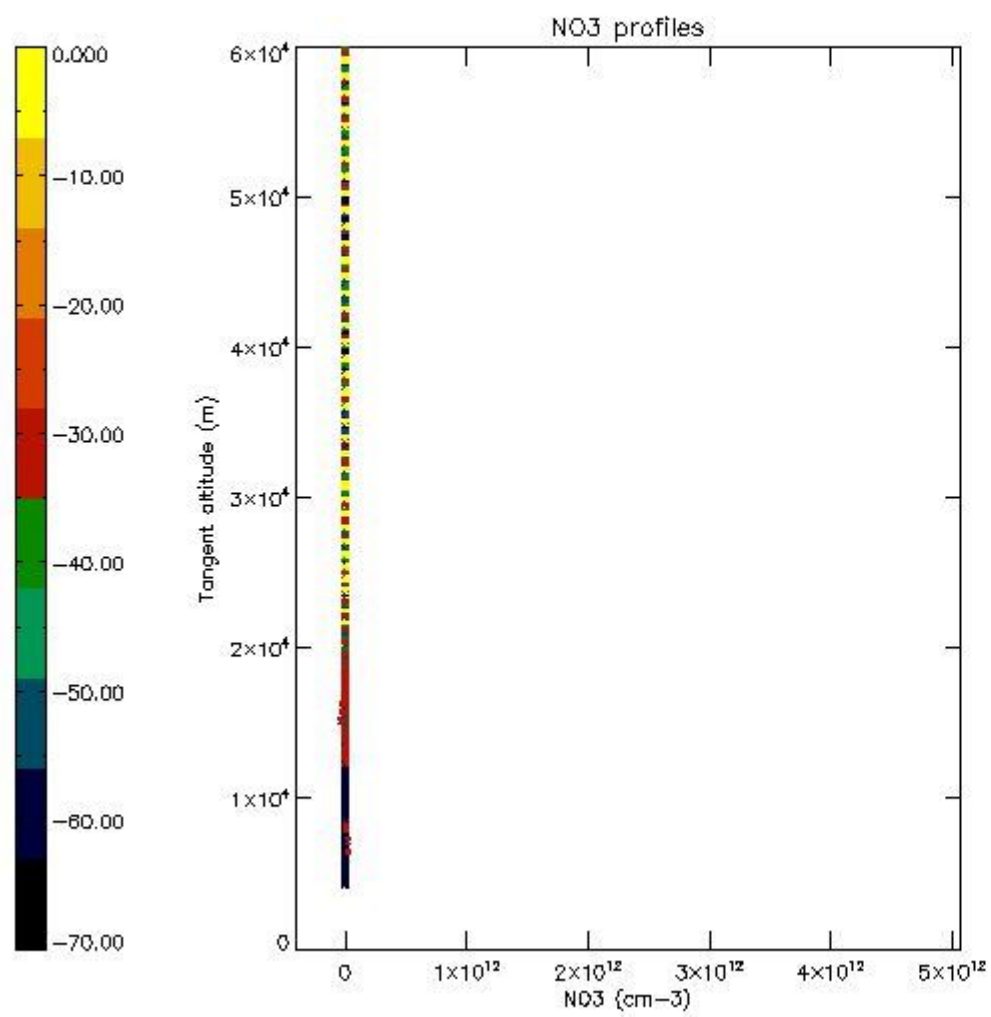
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



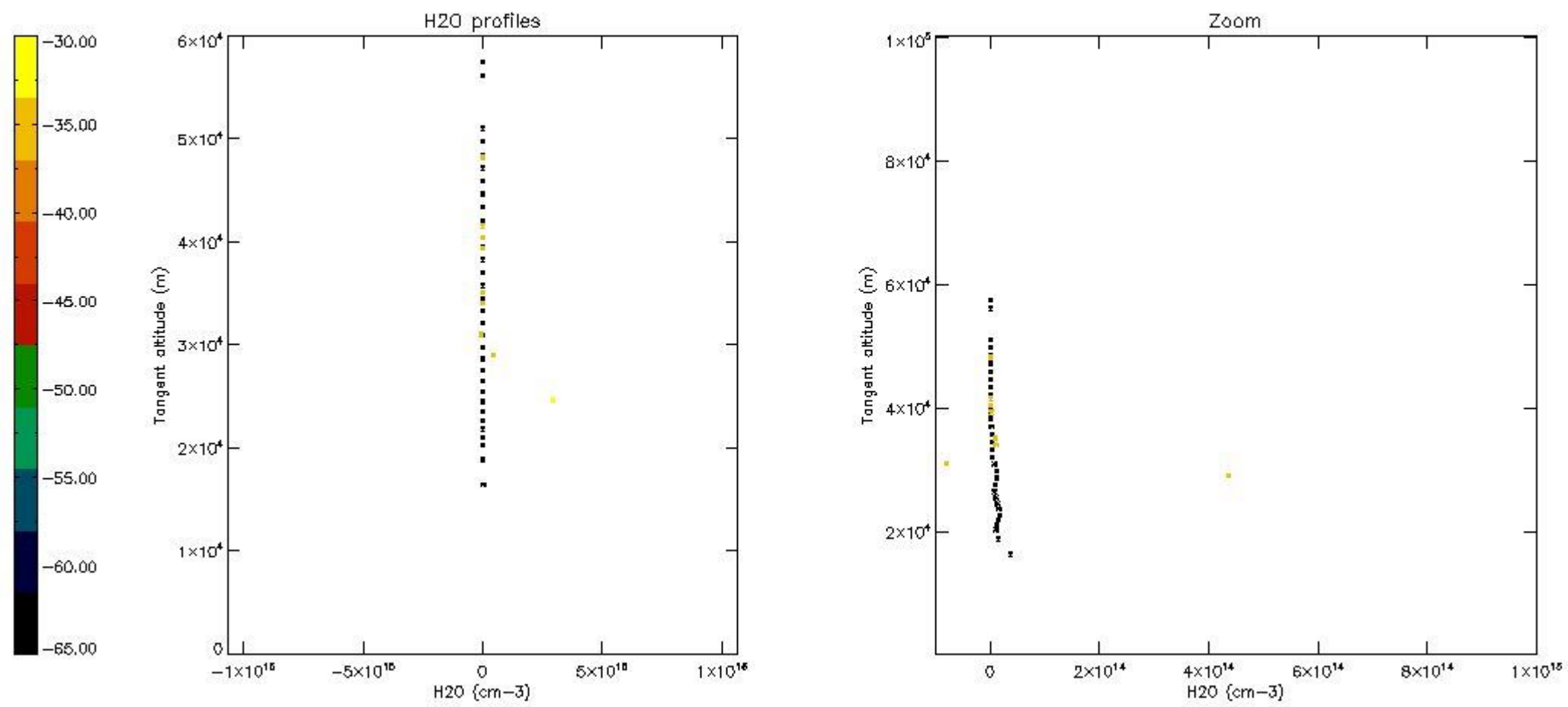
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

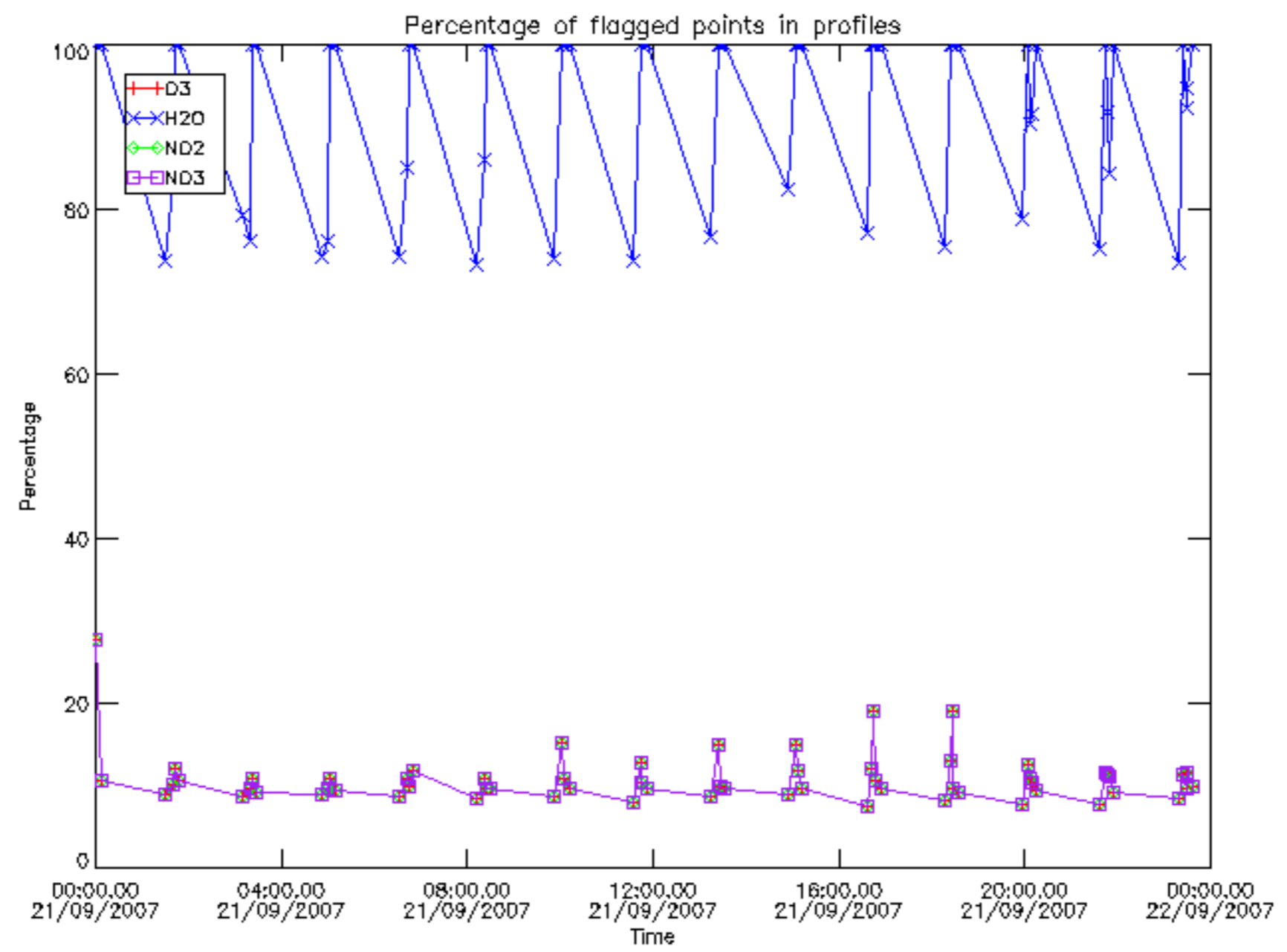
The colorbar represents the latitude.



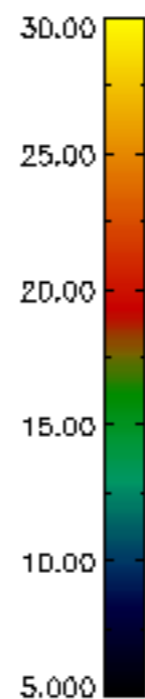
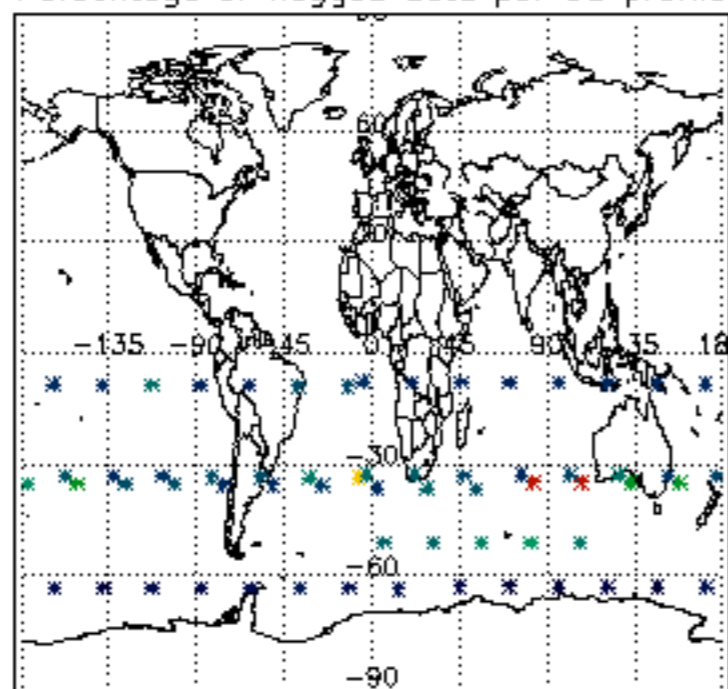
6. Auxiliary Data Files used for the production reported in section 2

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.

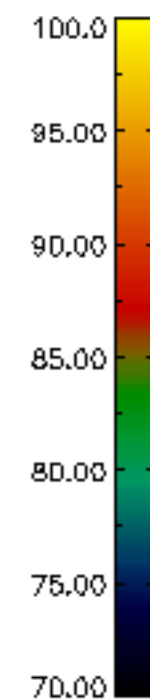
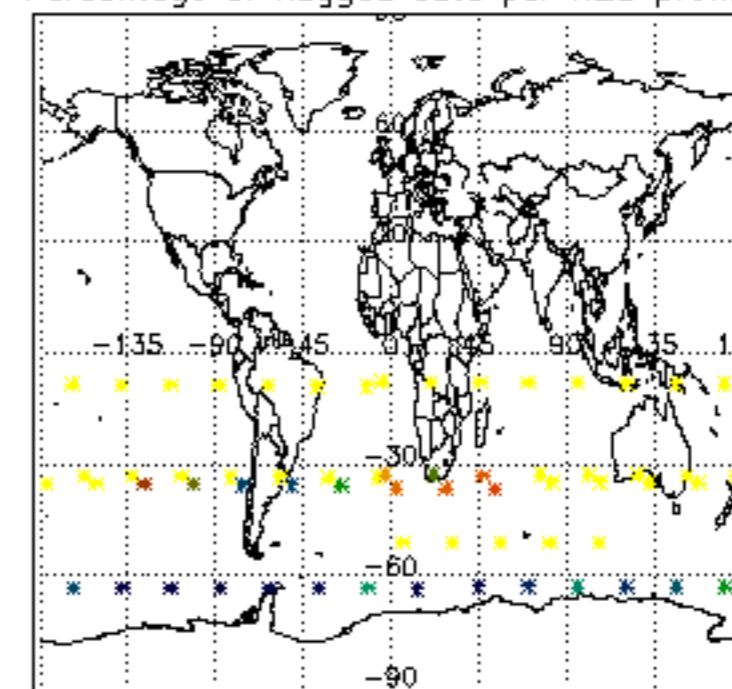
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	21-SEP-2007 00:01:06
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	21-SEP-2007 00:01:06
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	21-SEP-2007 00:01:06



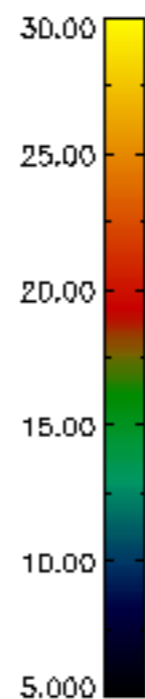
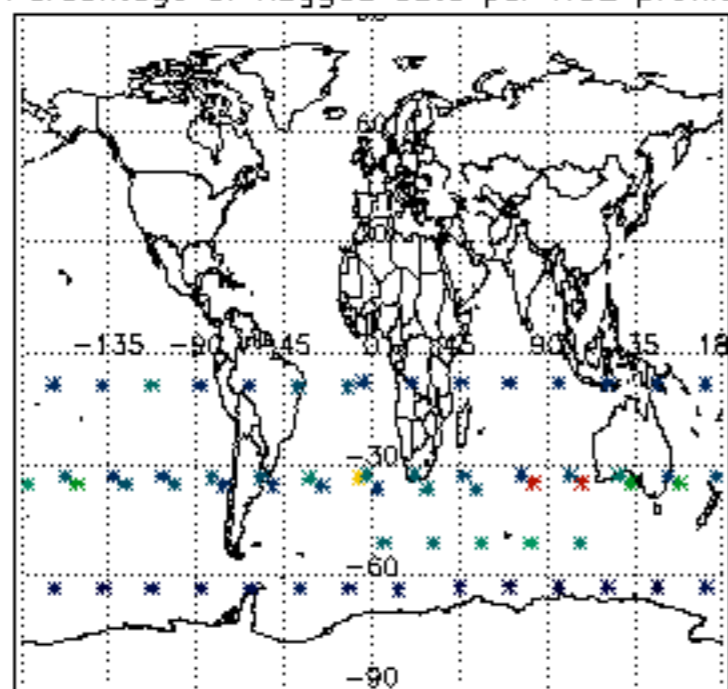
Percentage of flagged data per D3 profile



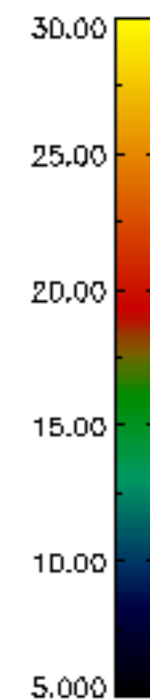
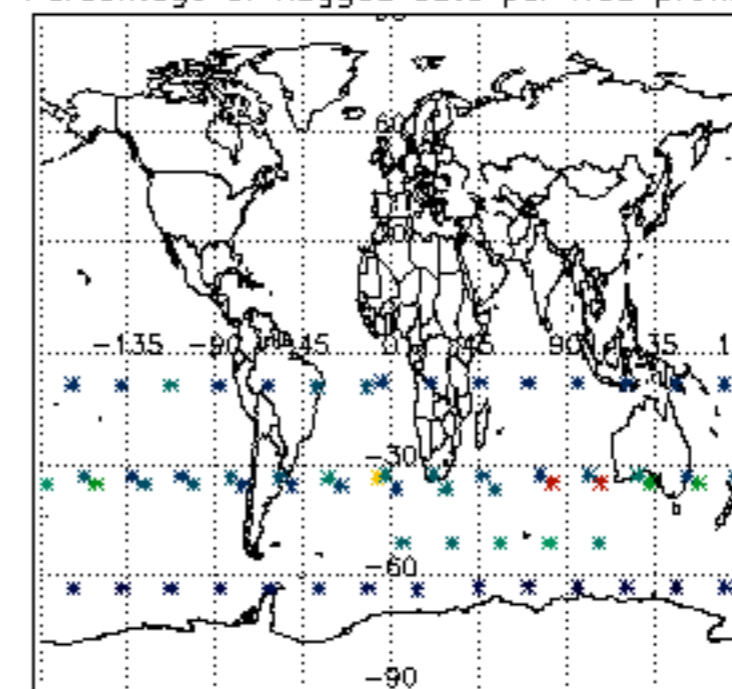
Percentage of flagged data per H2O profile

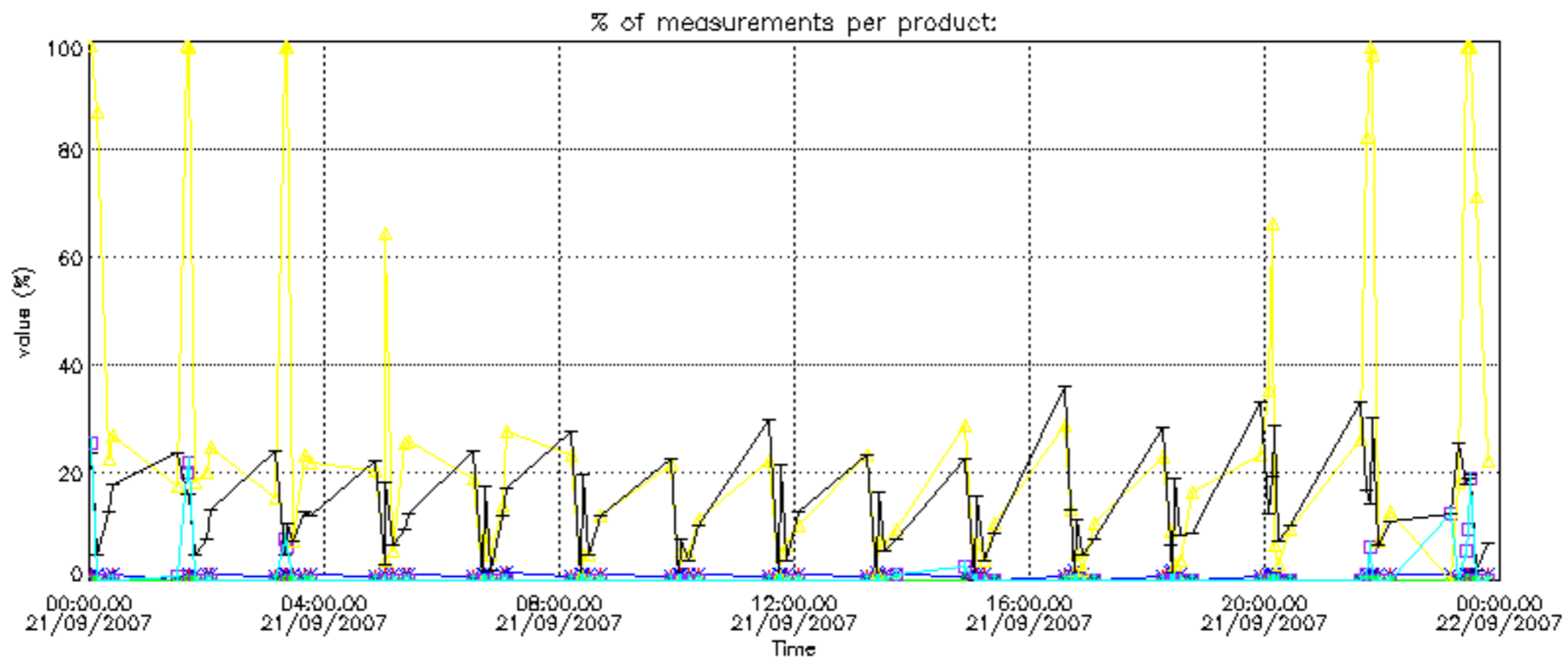


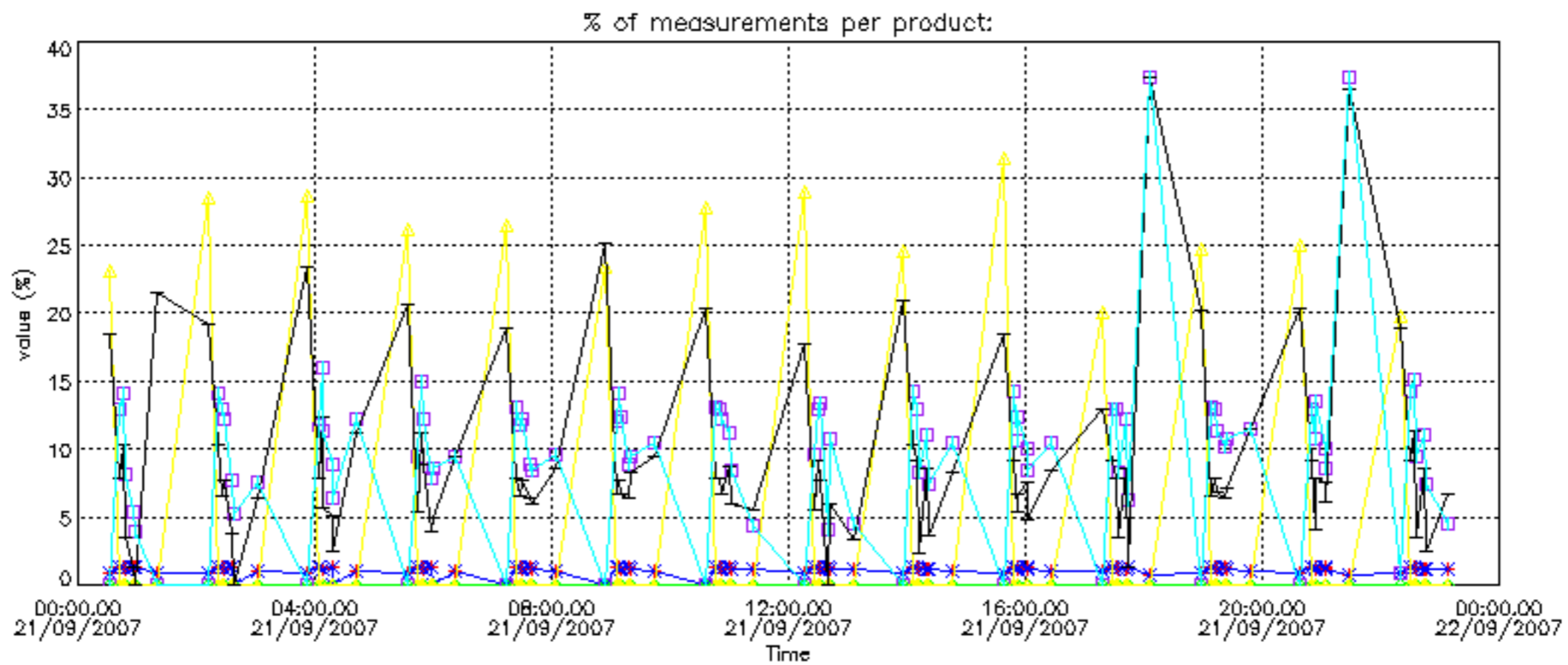
Percentage of flagged data per NO2 profile



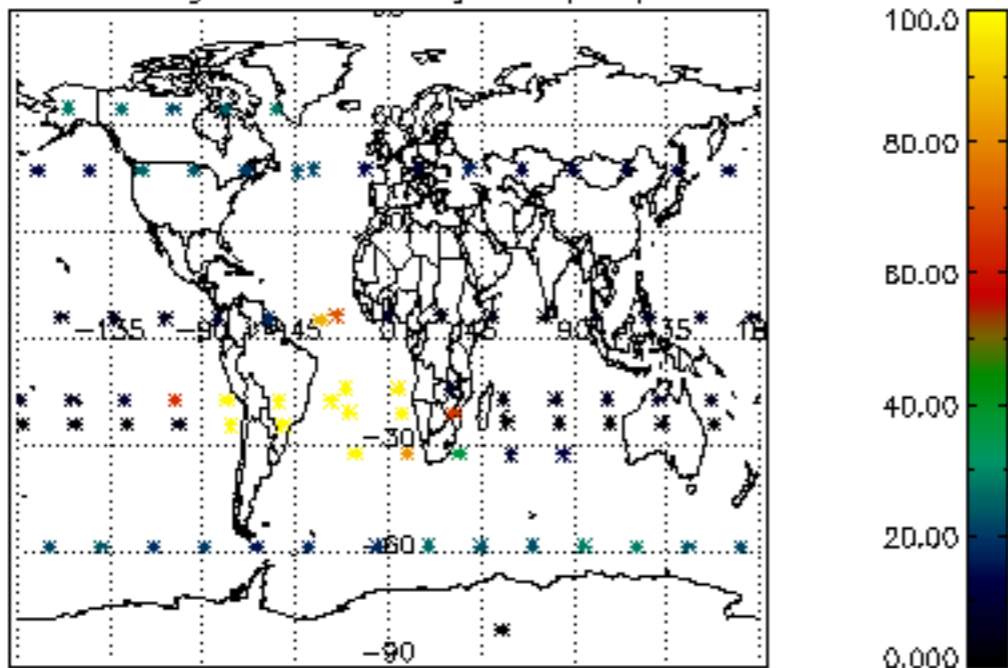
Percentage of flagged data per NO3 profile



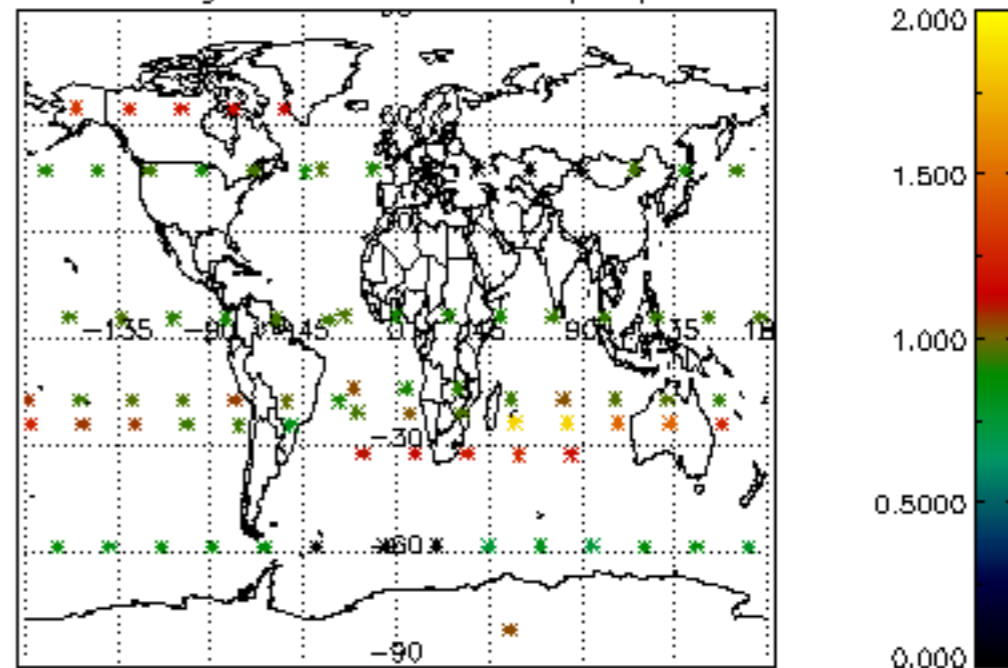




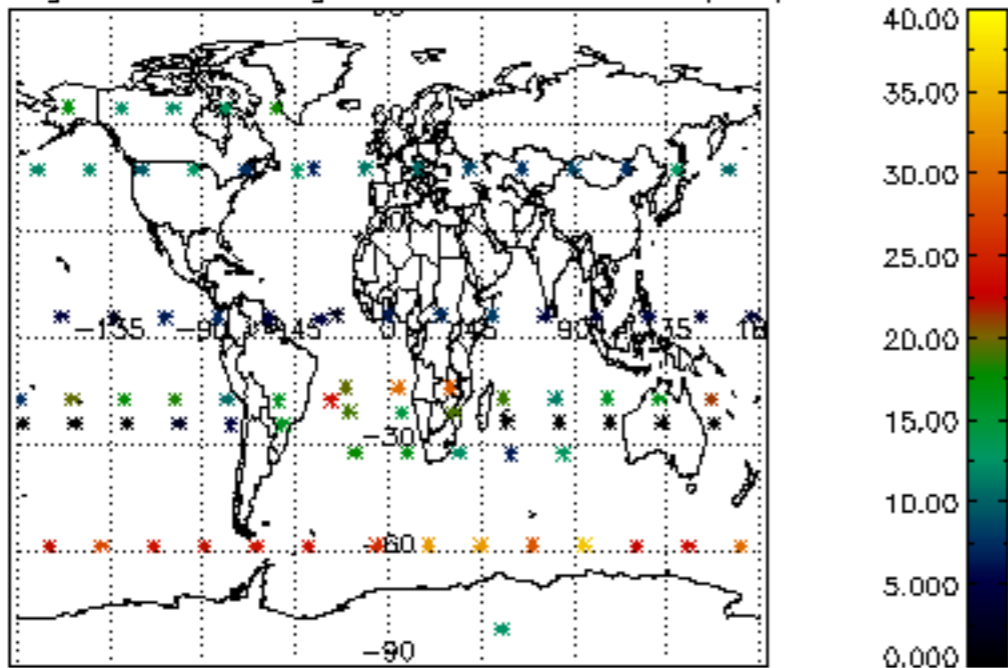
Percentage of cosmic ray hits per profile



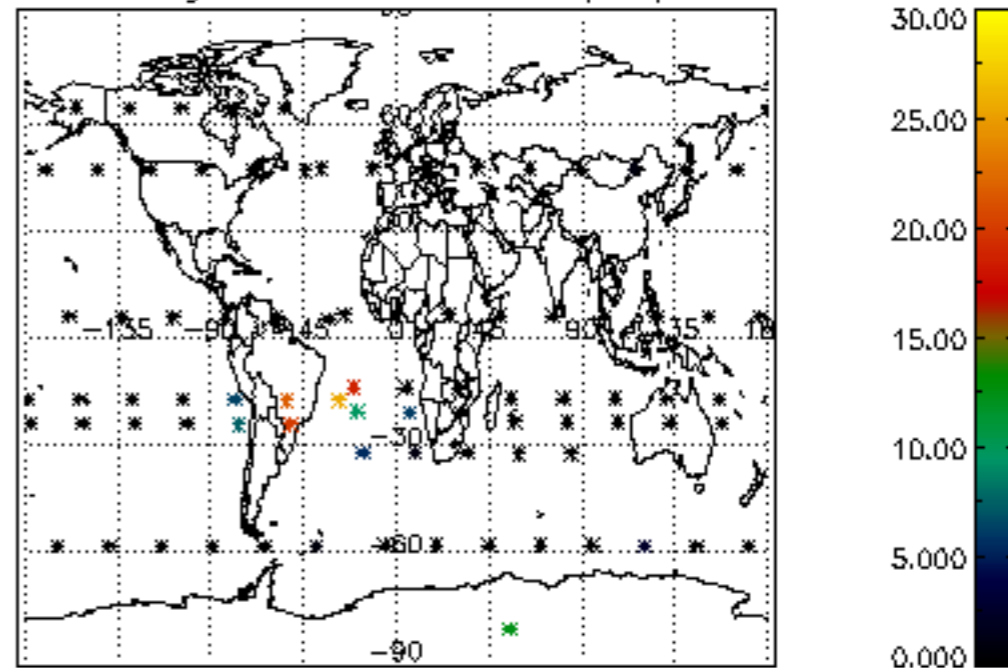
Percentage of datation errors per profile



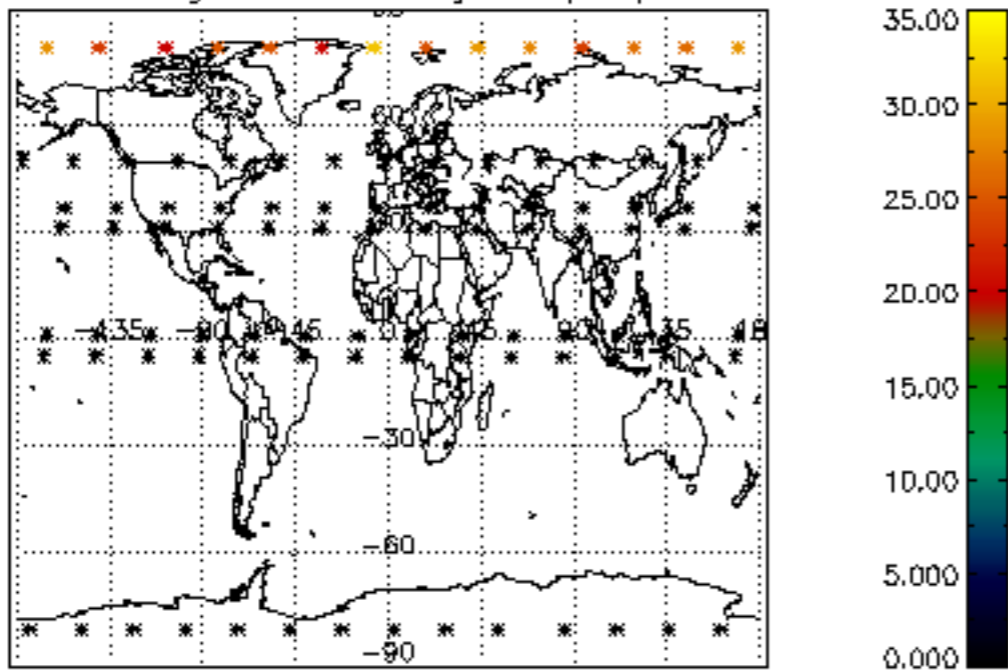
Percentage of star falling outside central band per profile



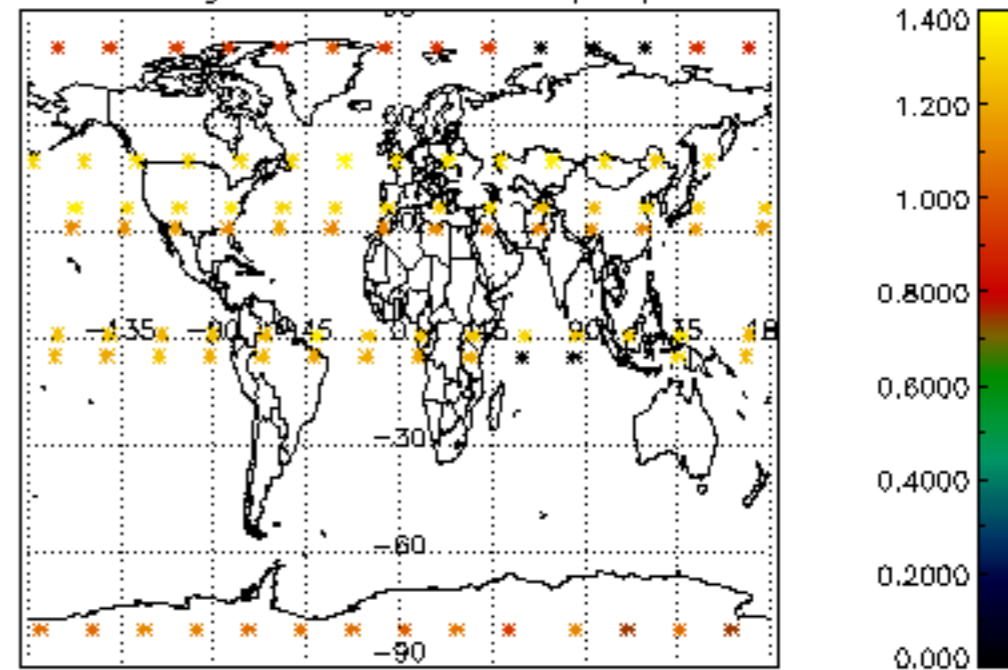
Percentage of saturation errors per profile



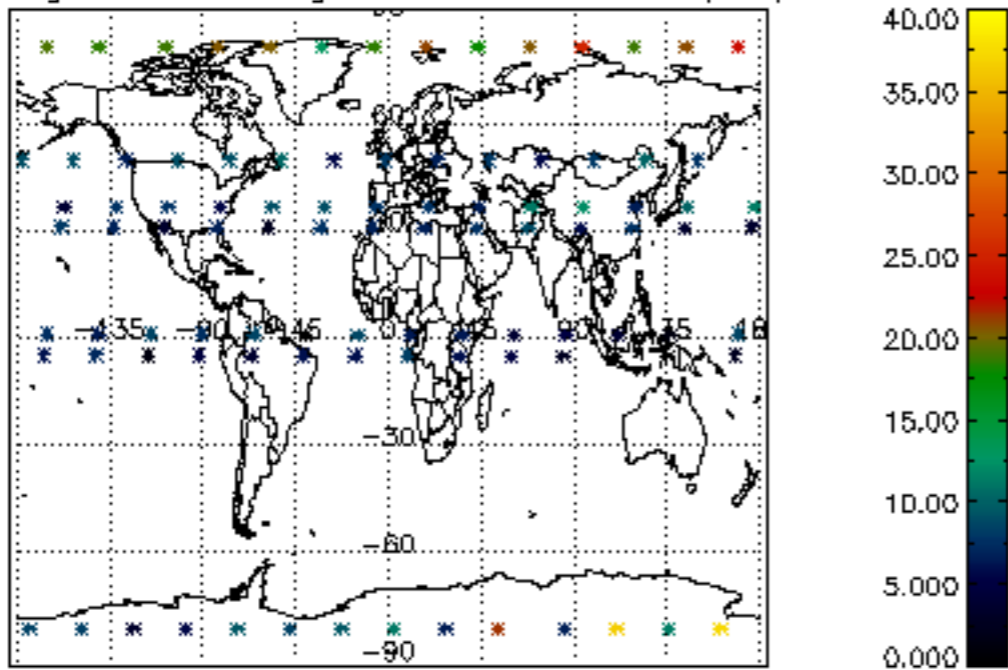
Percentage of cosmic ray hits per profile



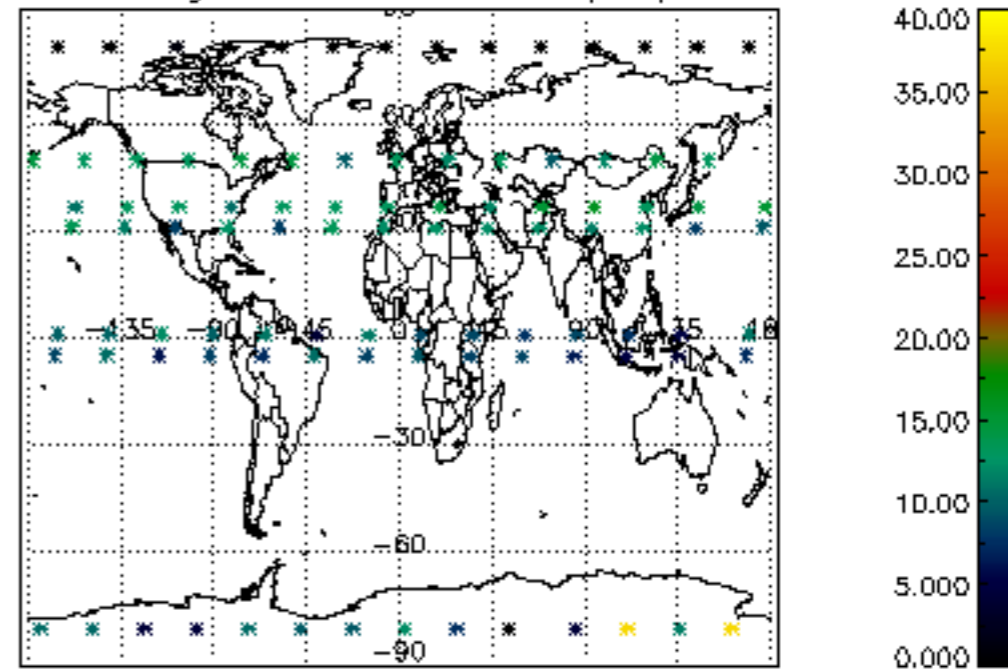
Percentage of datation errors per profile

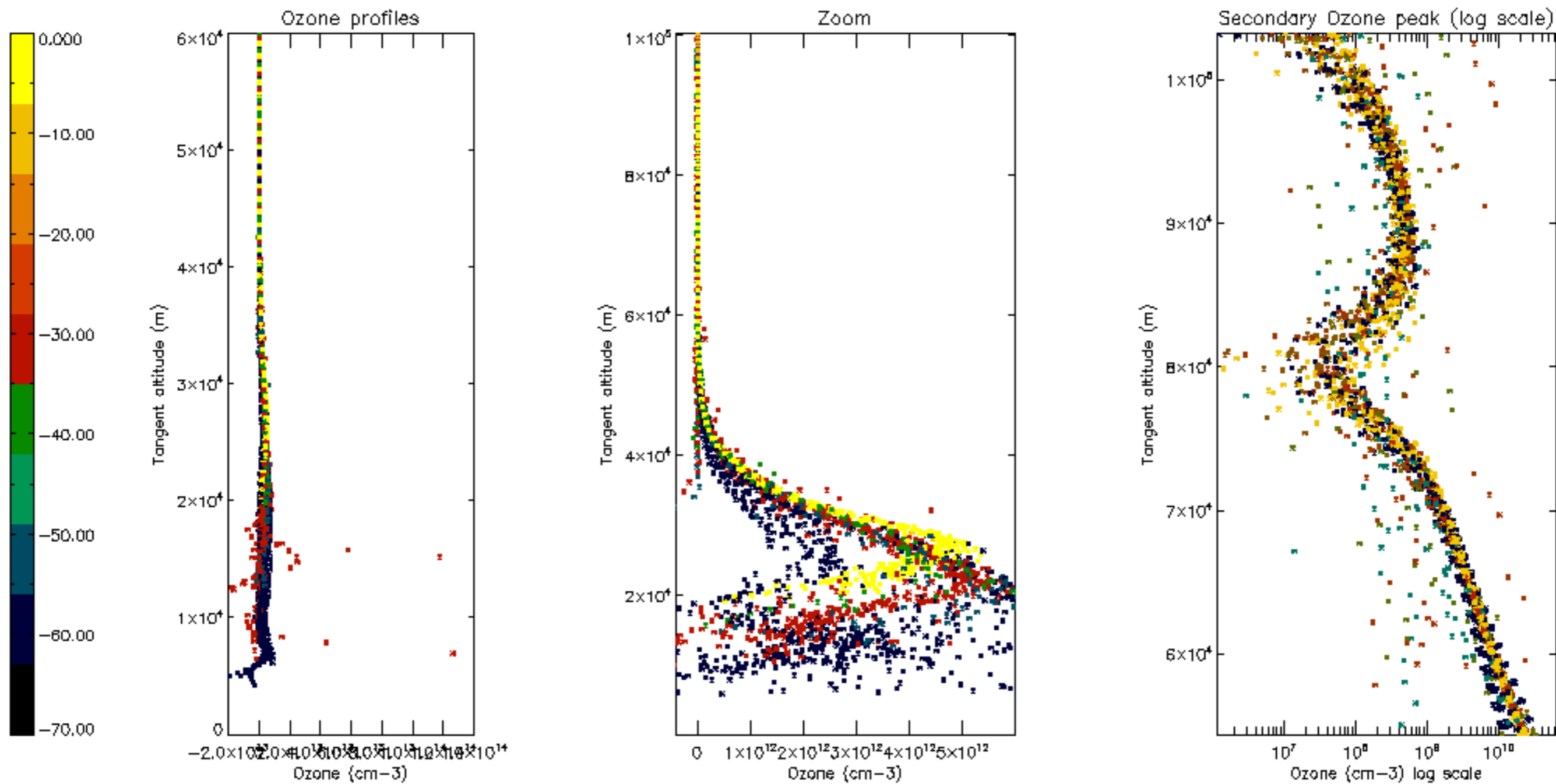


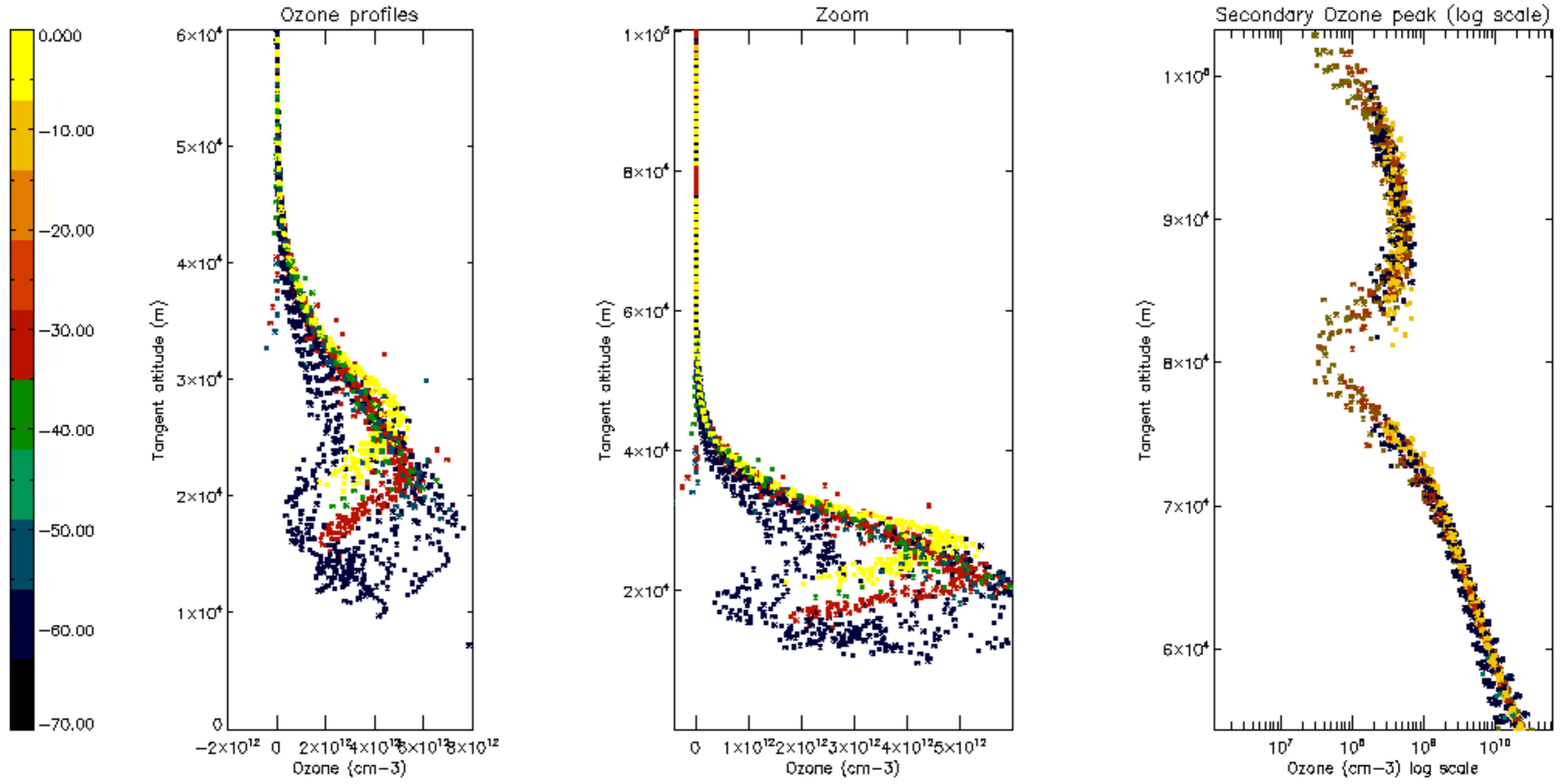
Percentage of star falling outside central band per profile

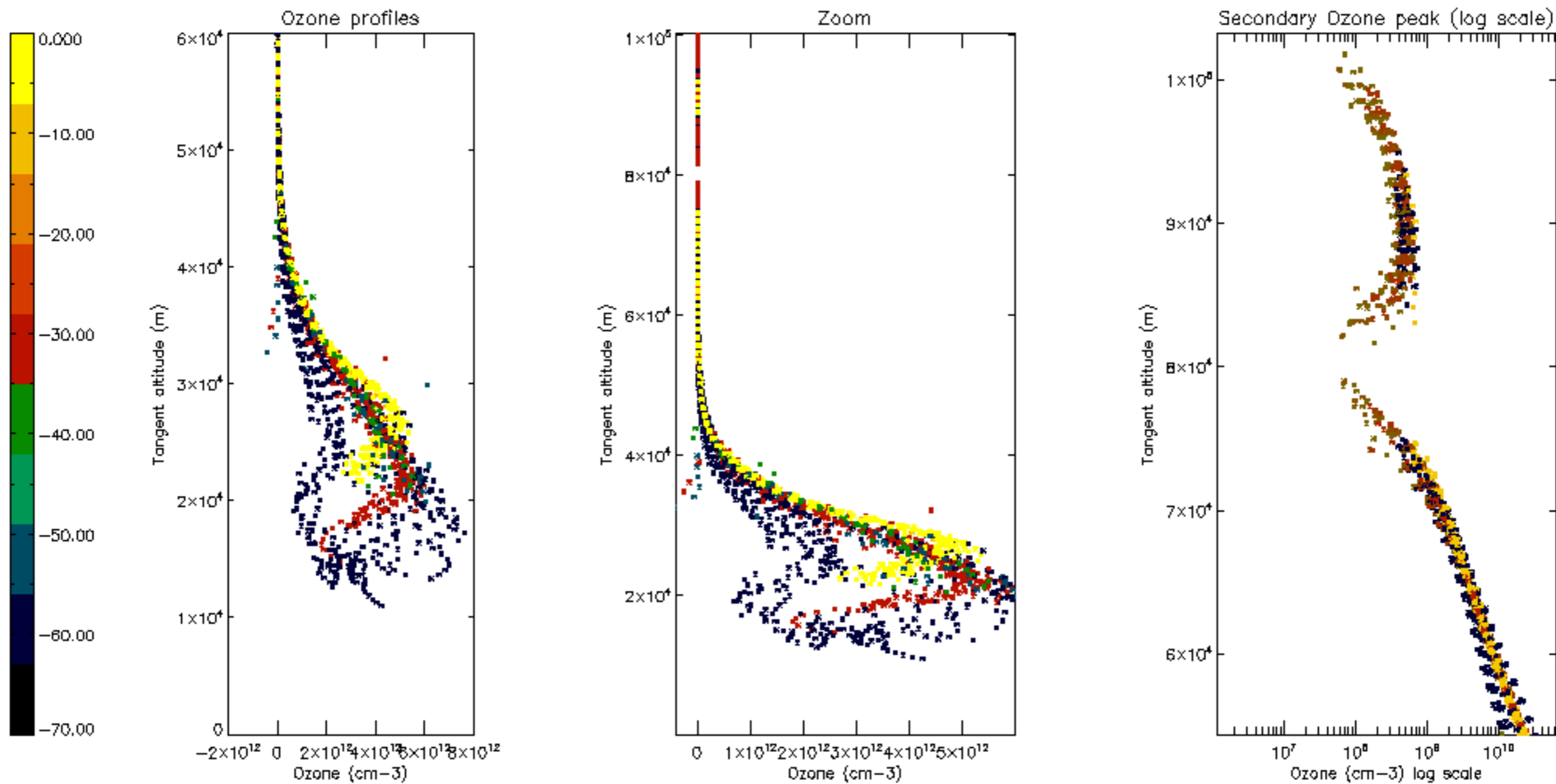


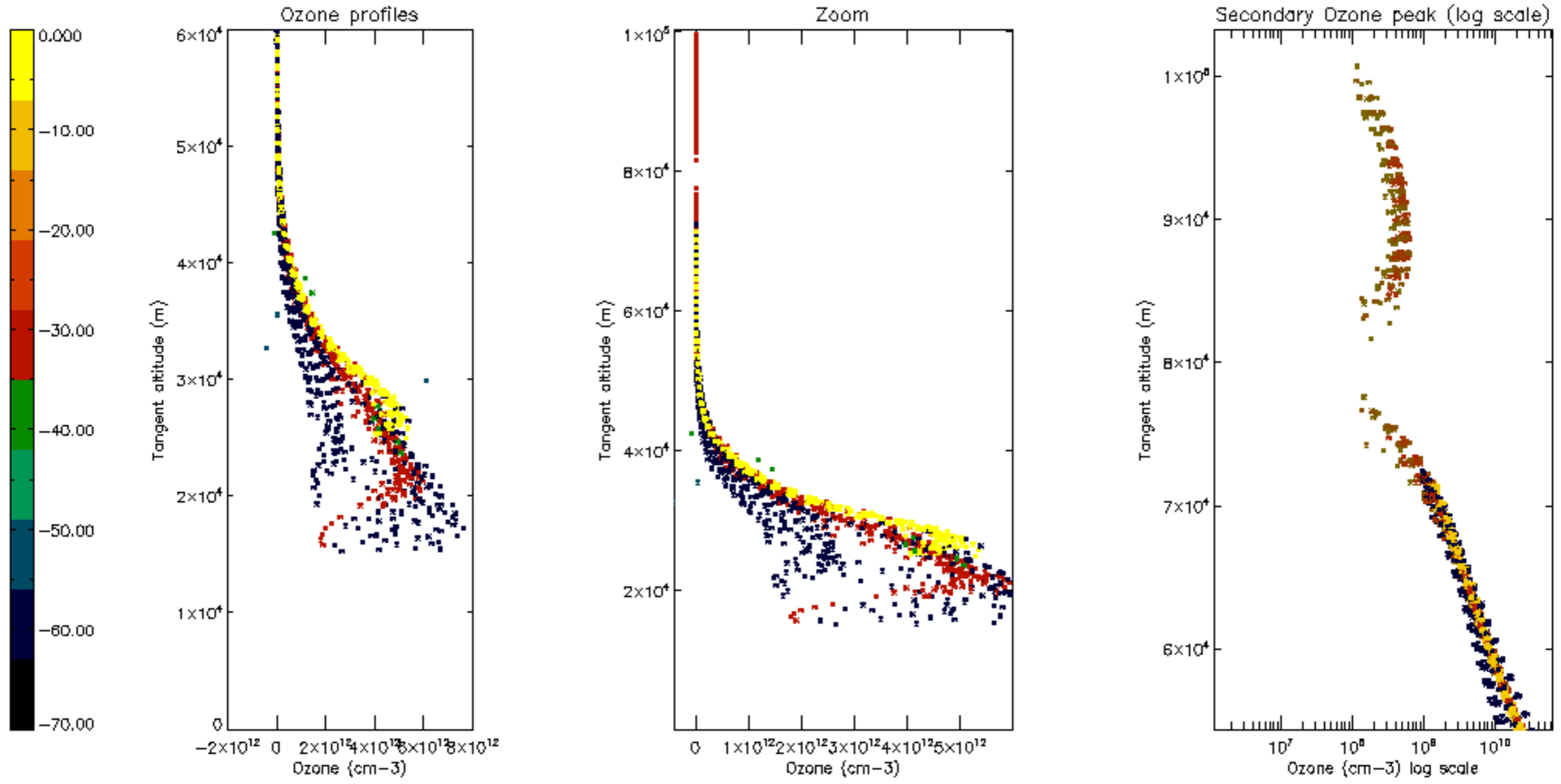
Percentage of saturation errors per profile

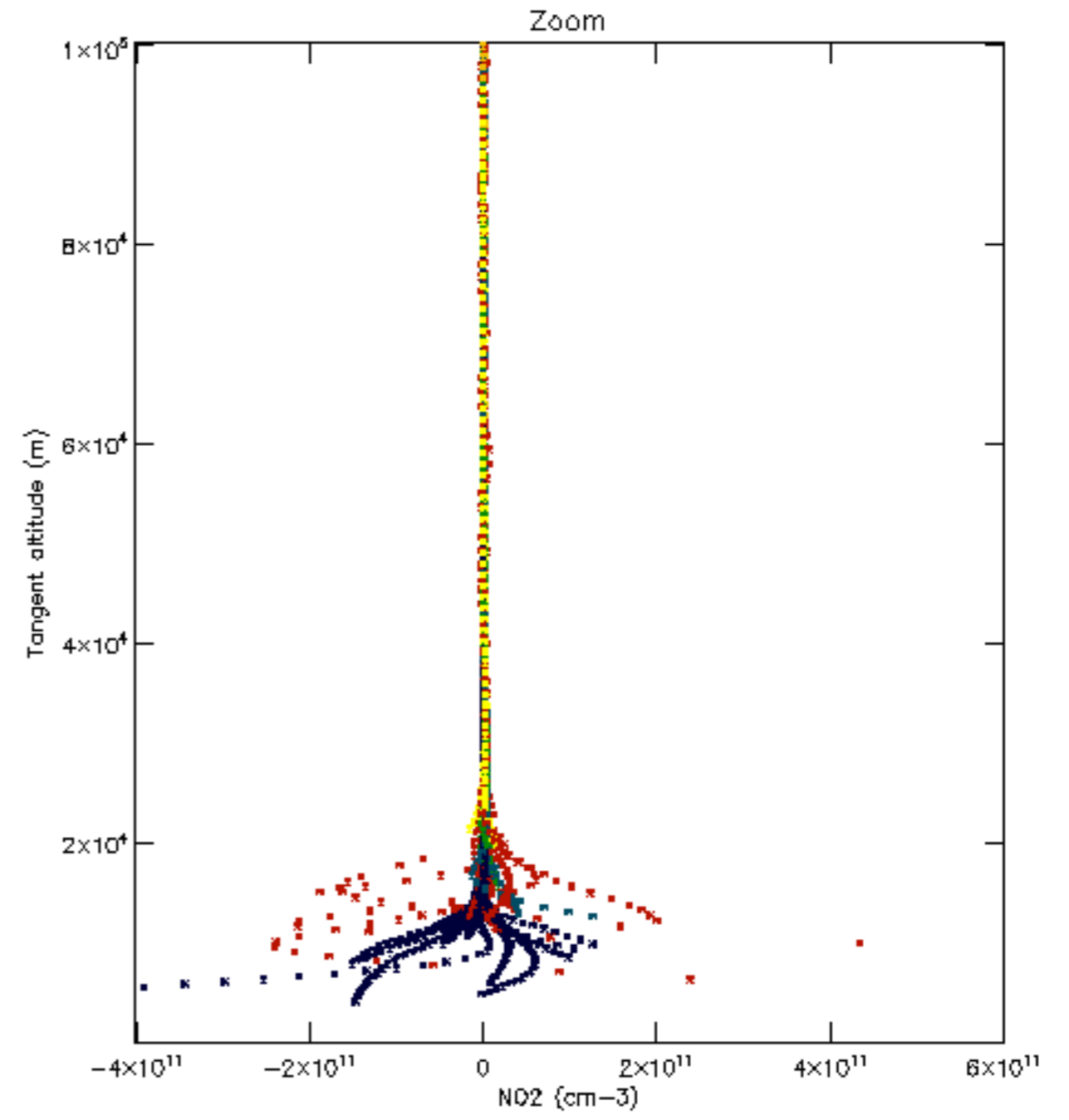
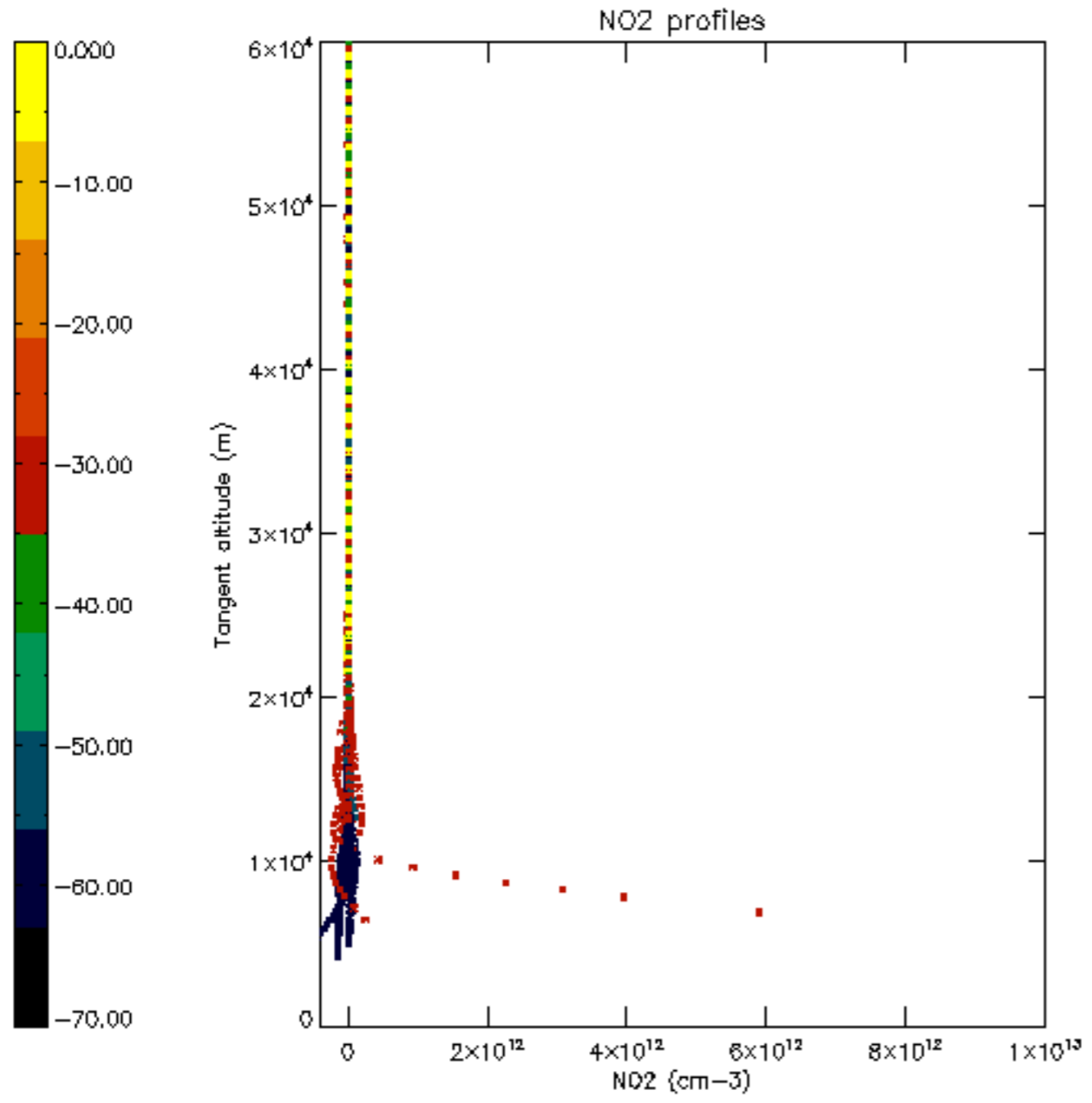


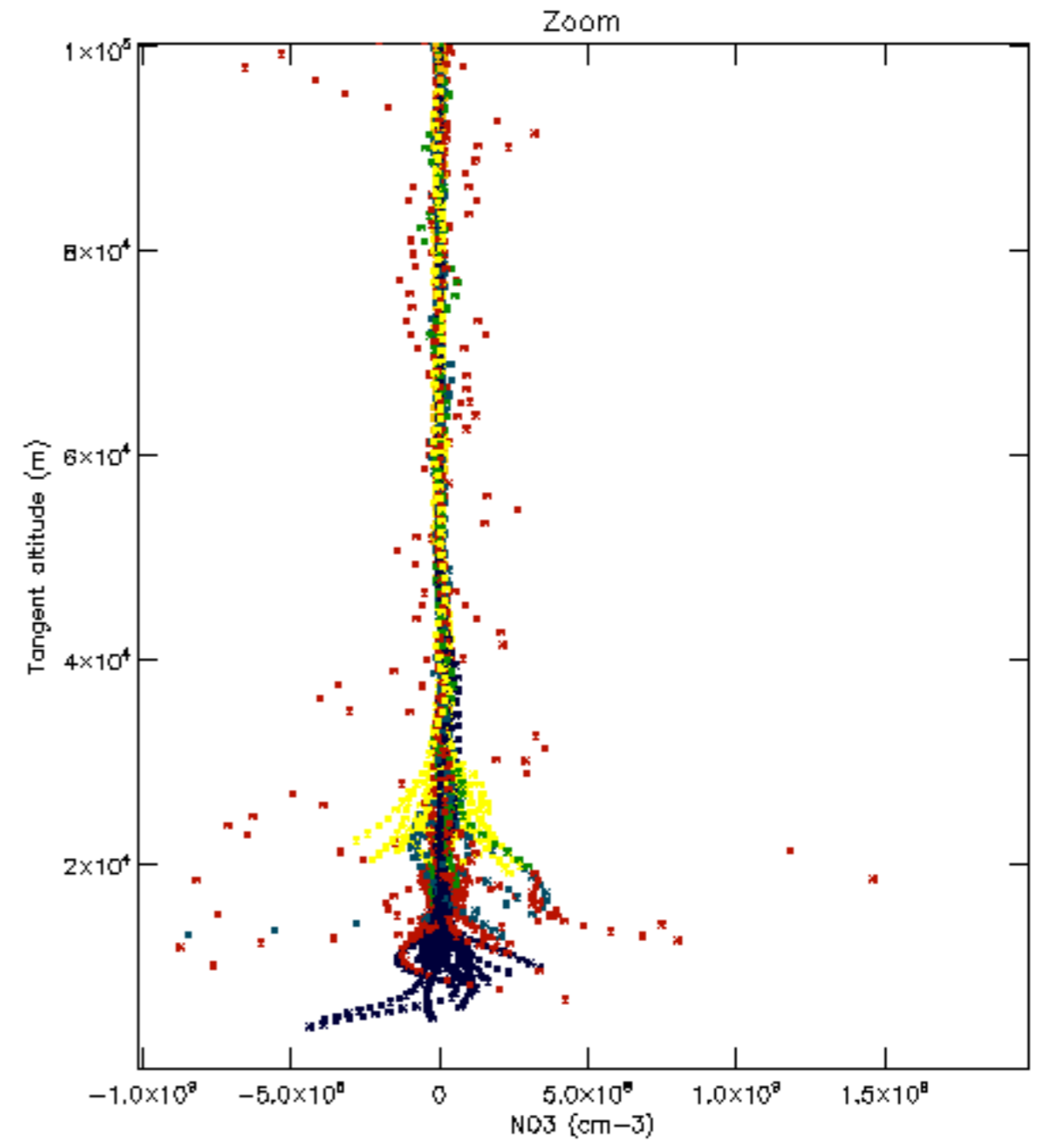
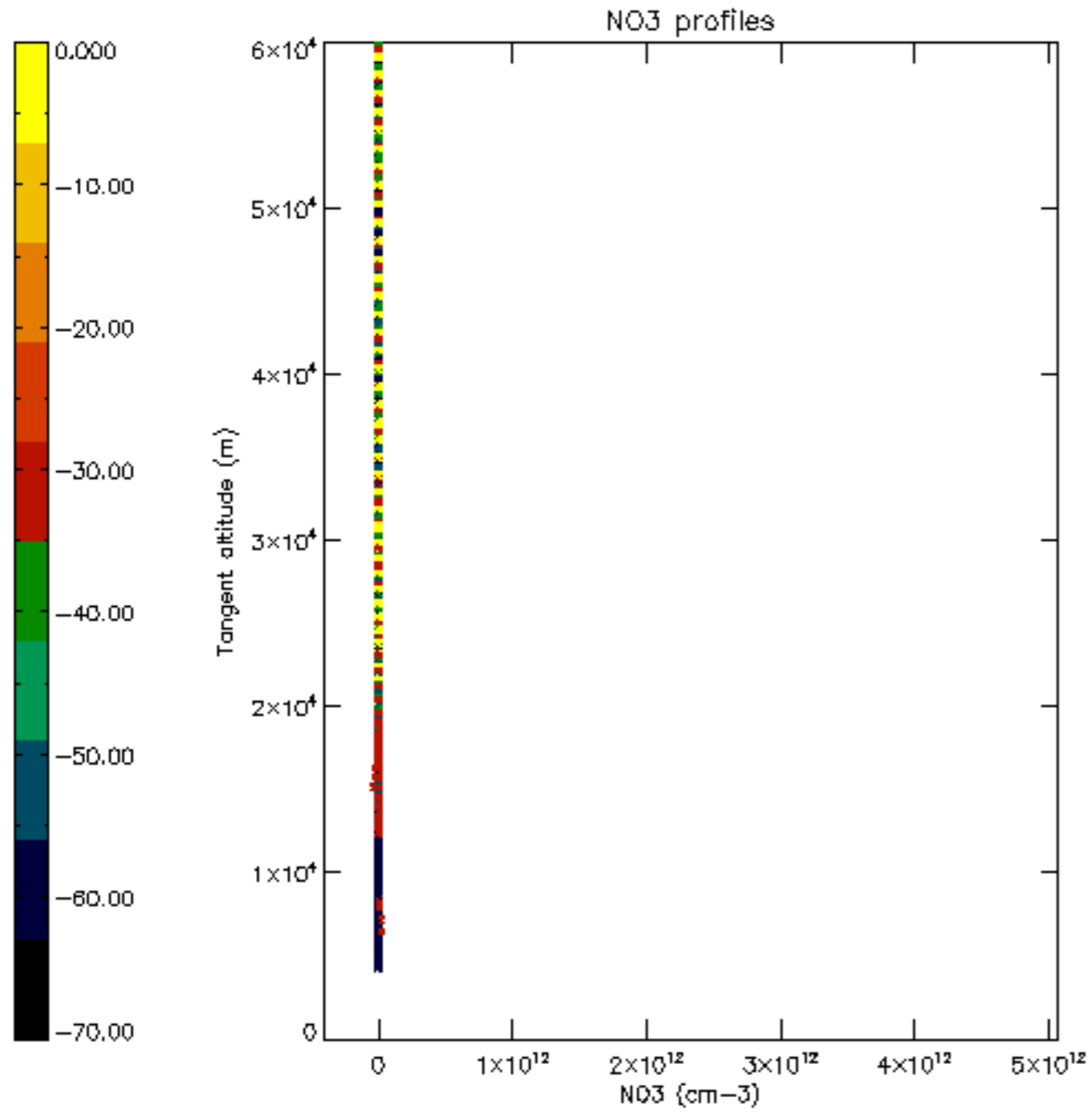


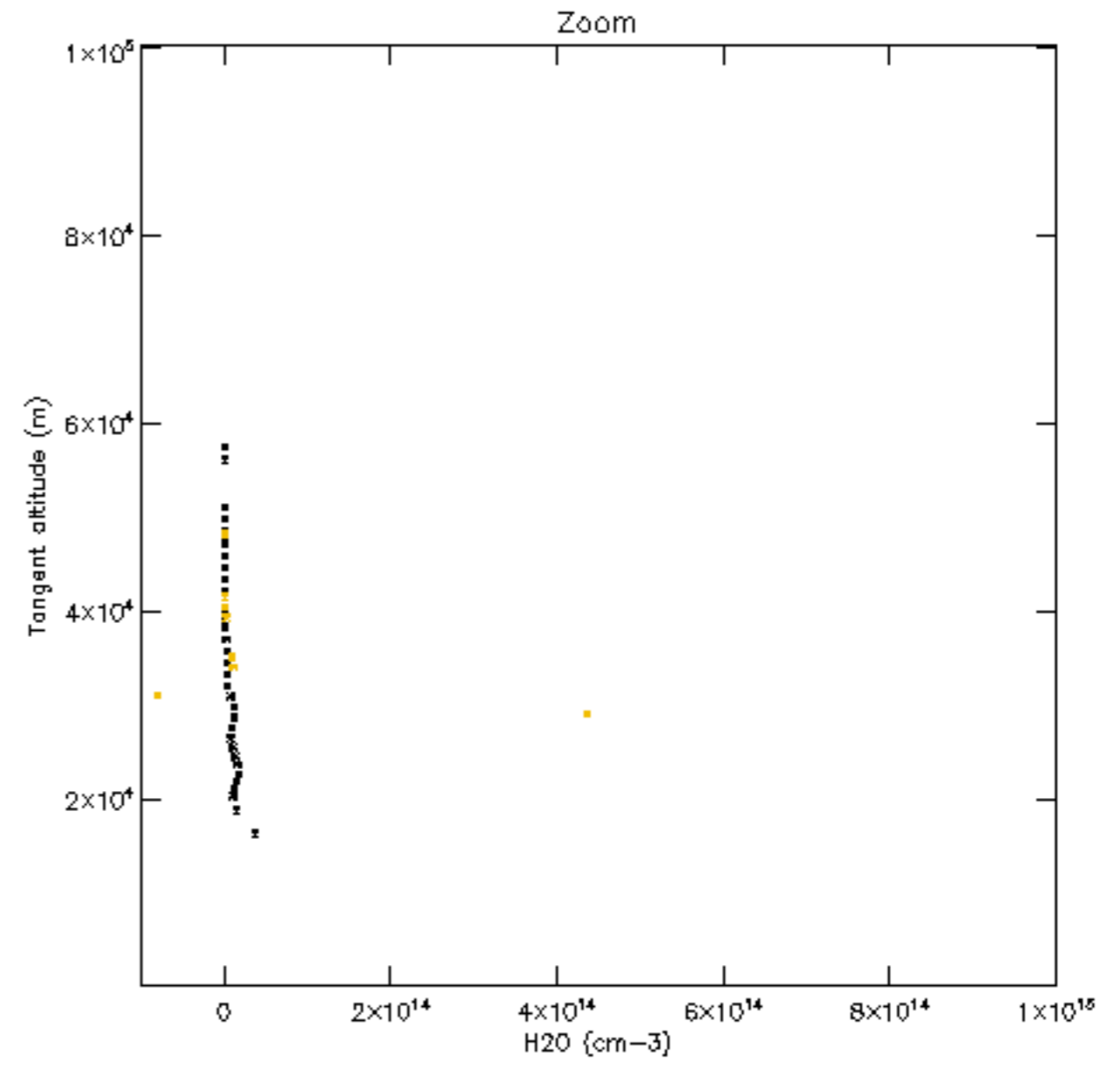
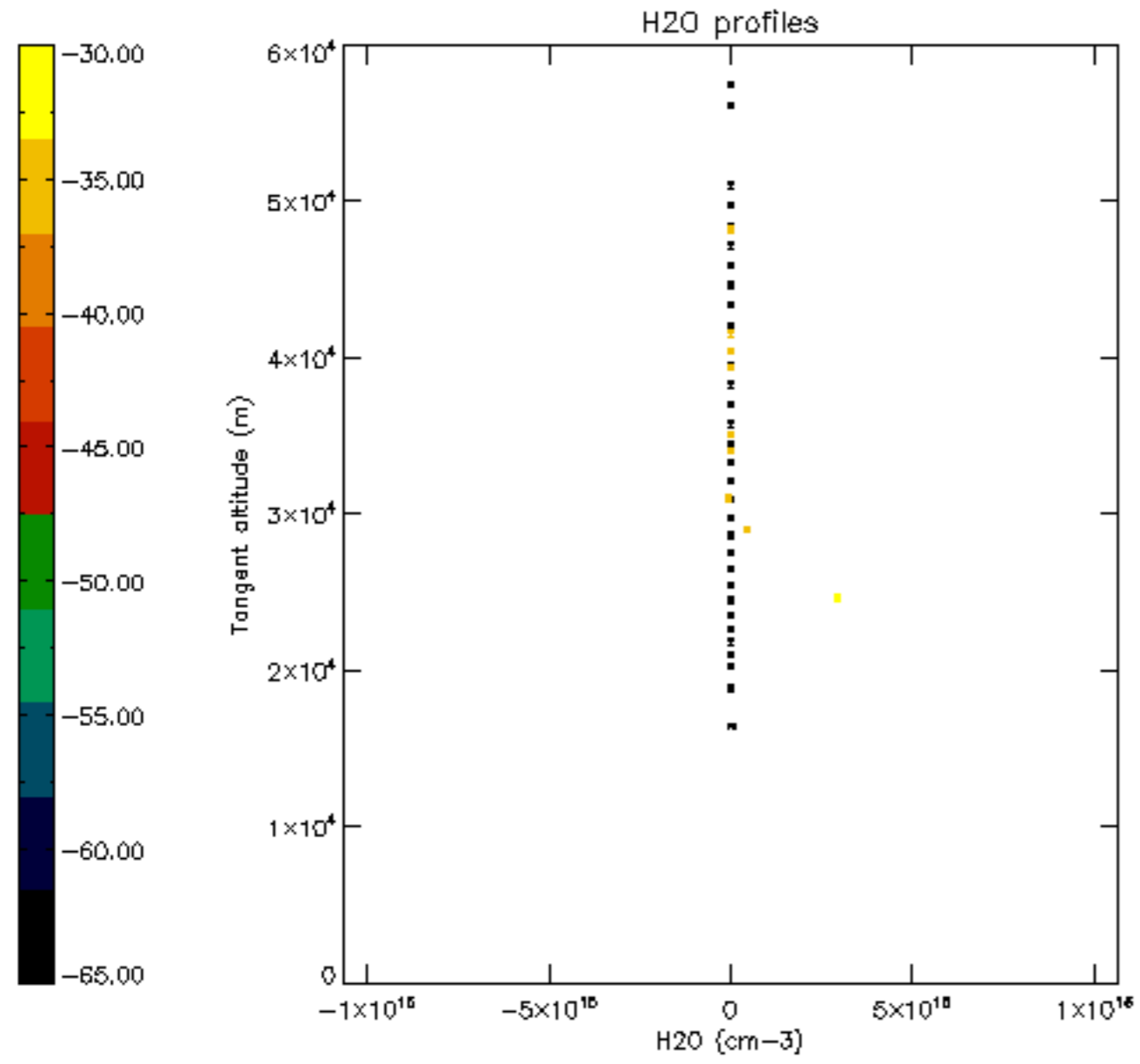


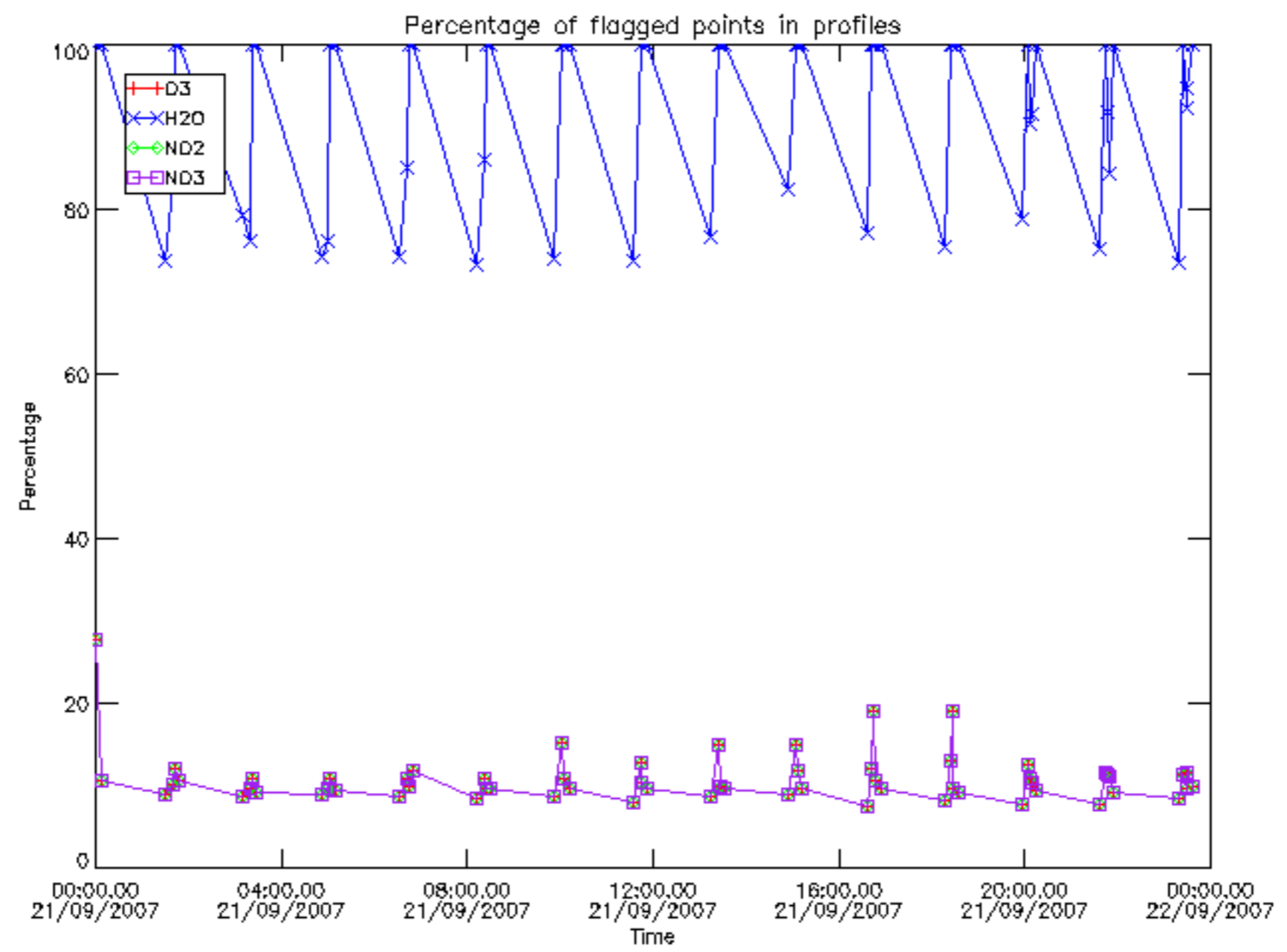




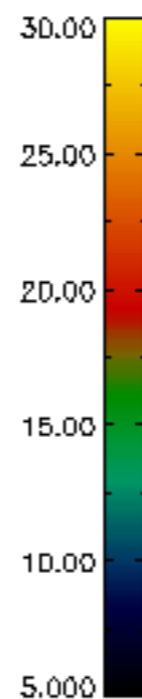
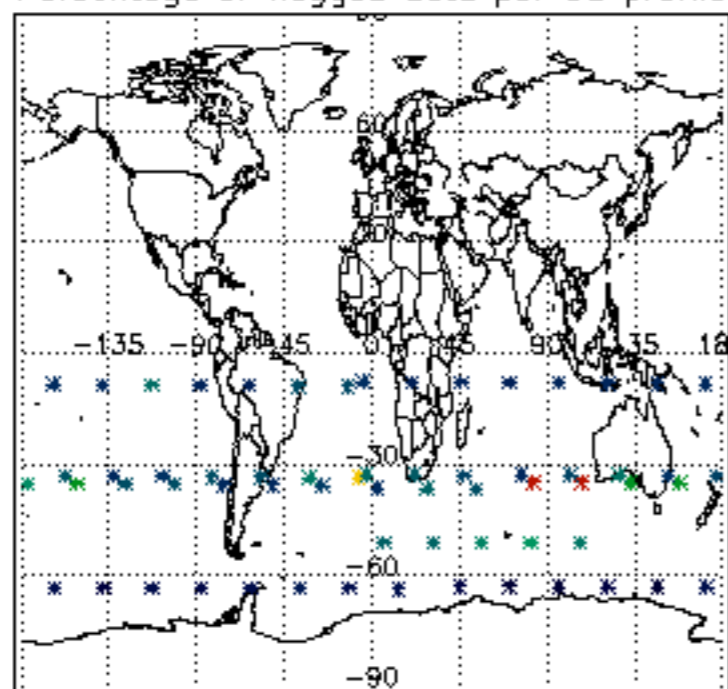




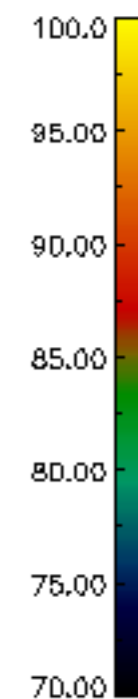
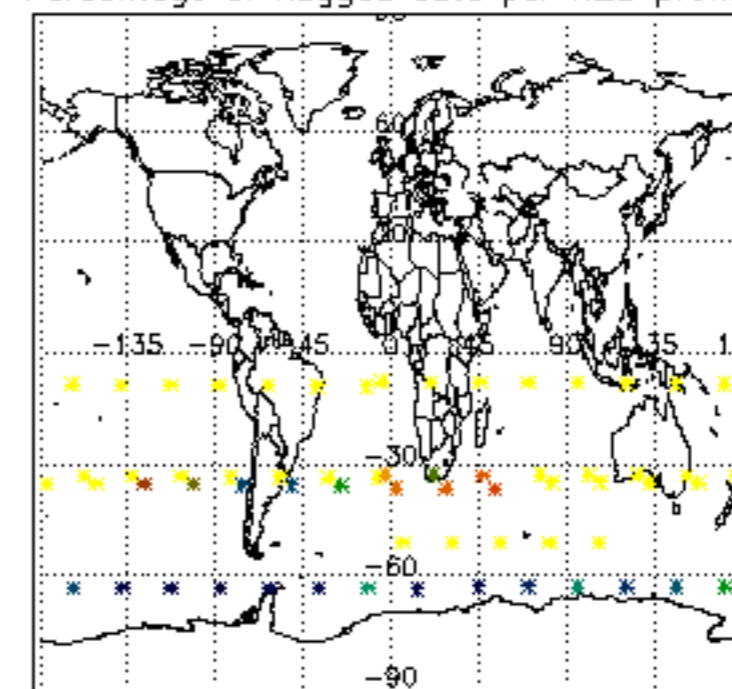




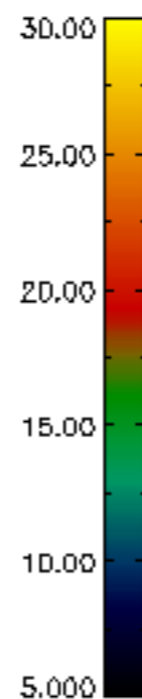
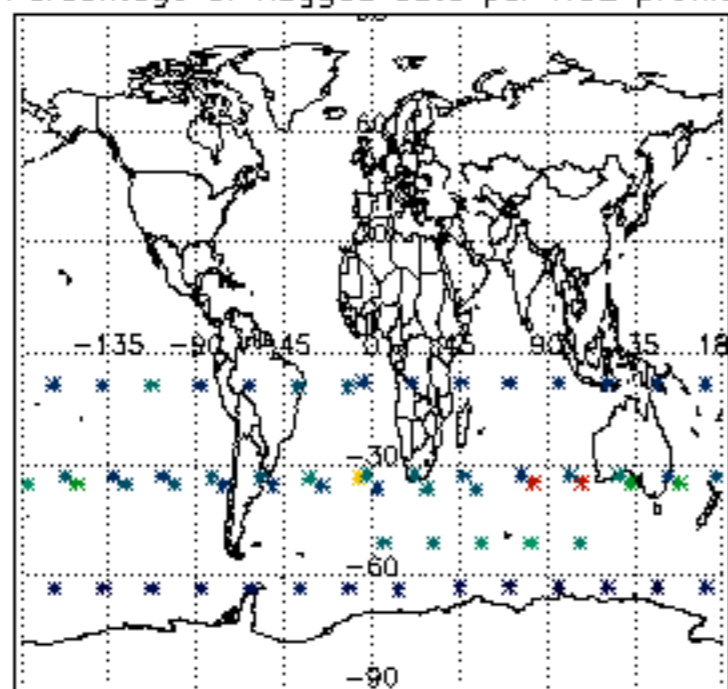
Percentage of flagged data per D3 profile



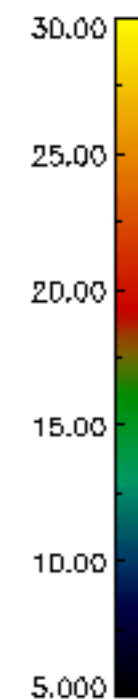
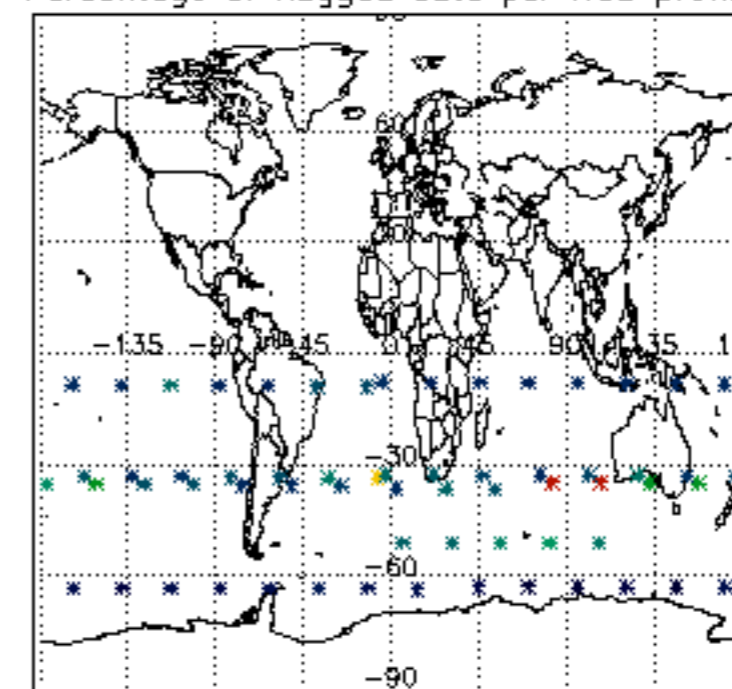
Percentage of flagged data per H2O profile

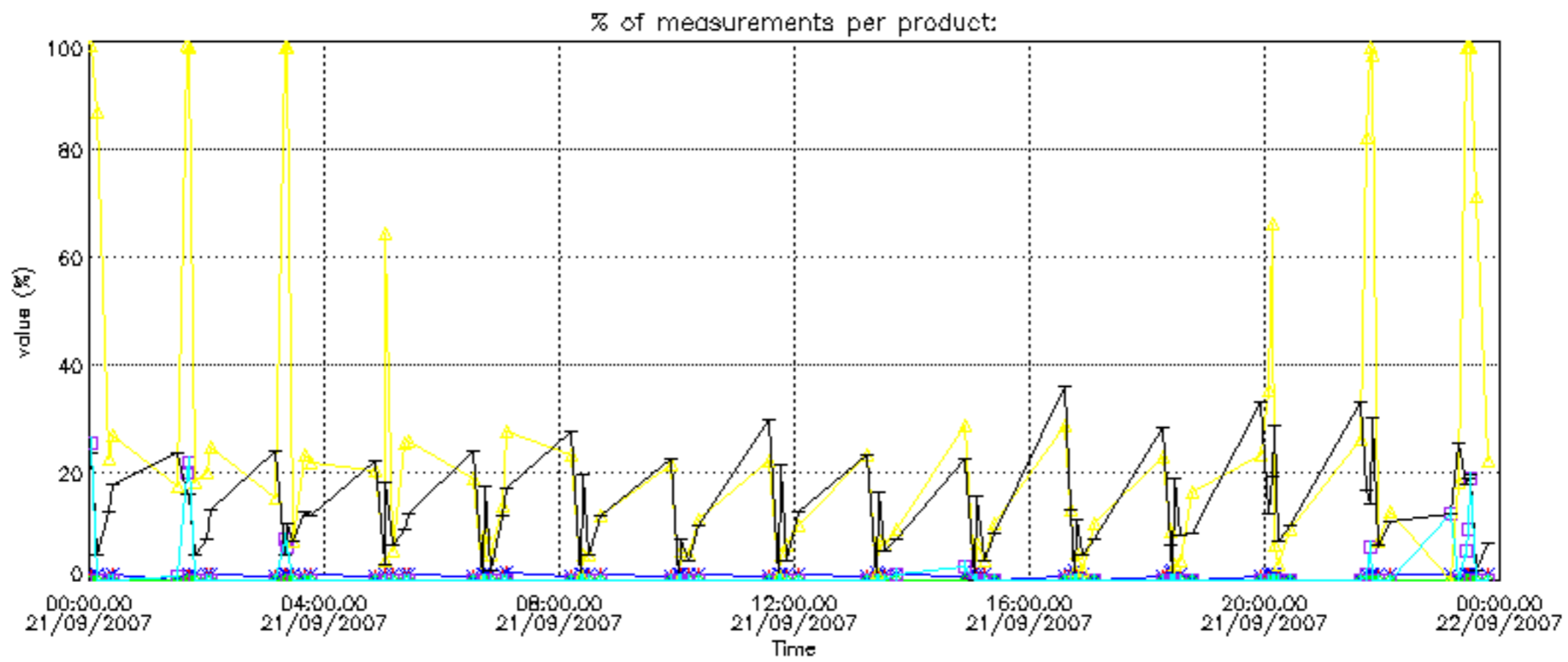


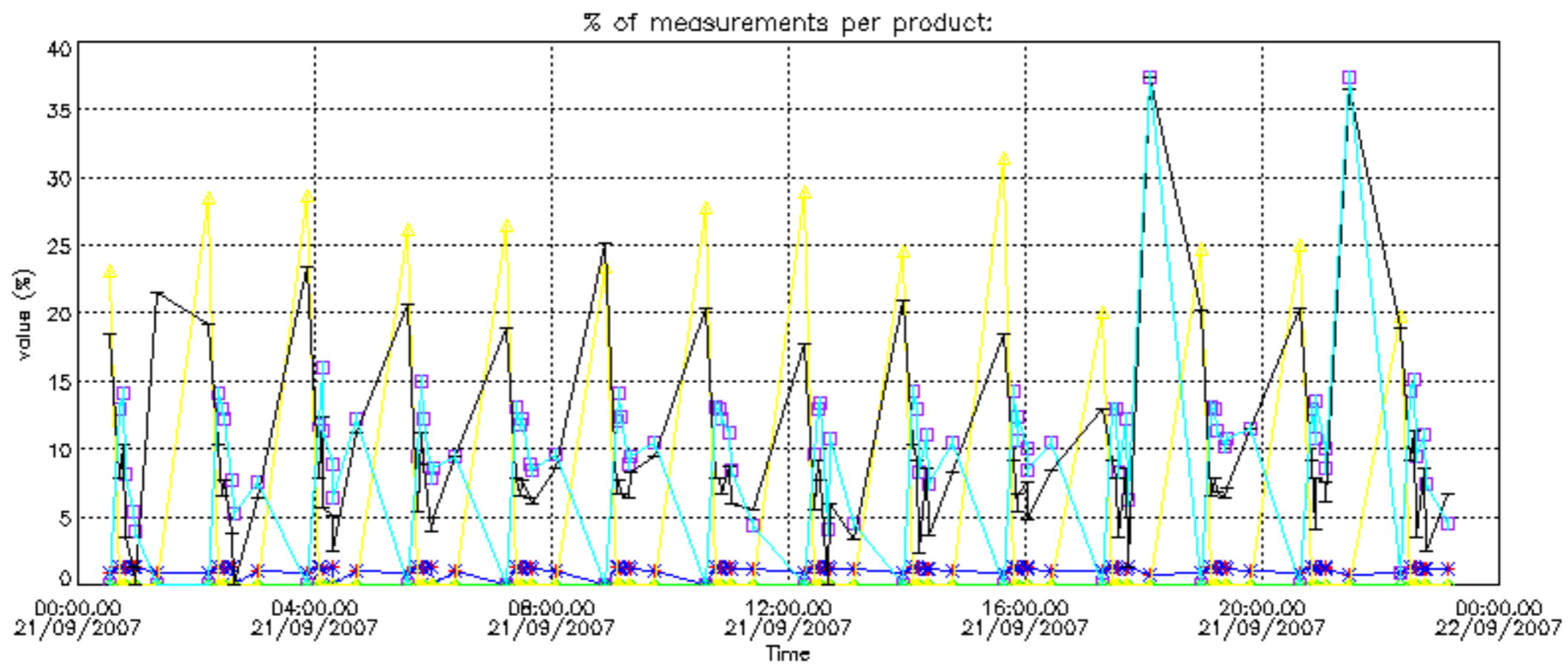
Percentage of flagged data per NO2 profile



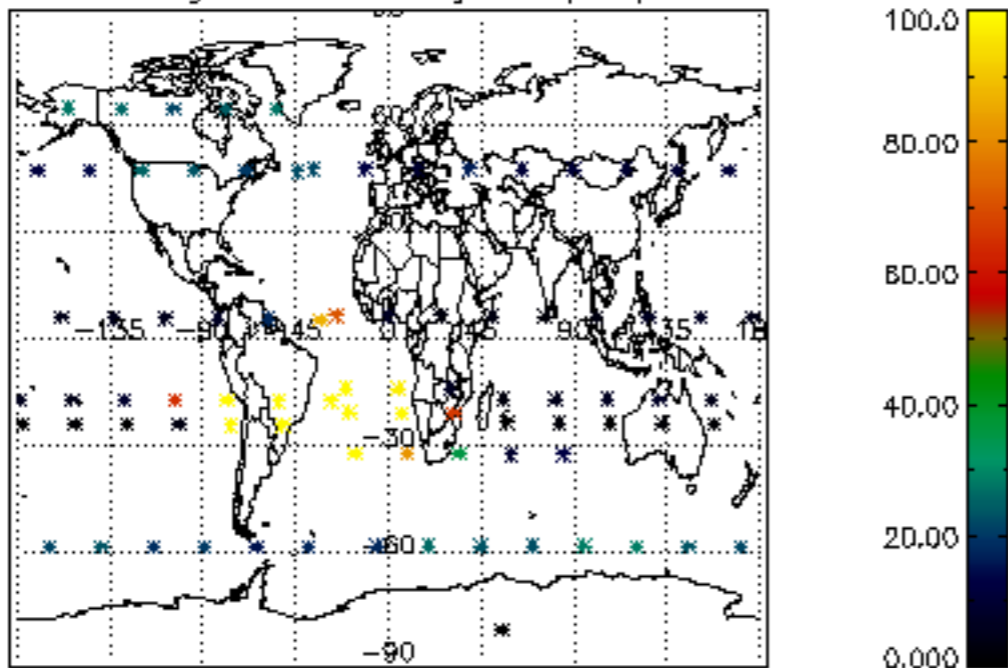
Percentage of flagged data per NO3 profile



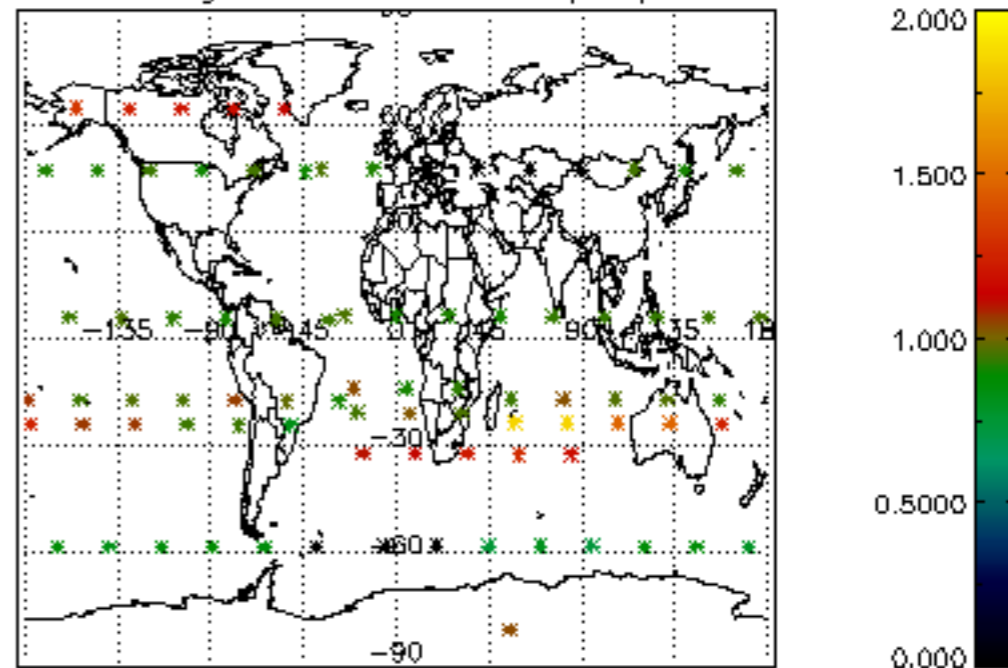




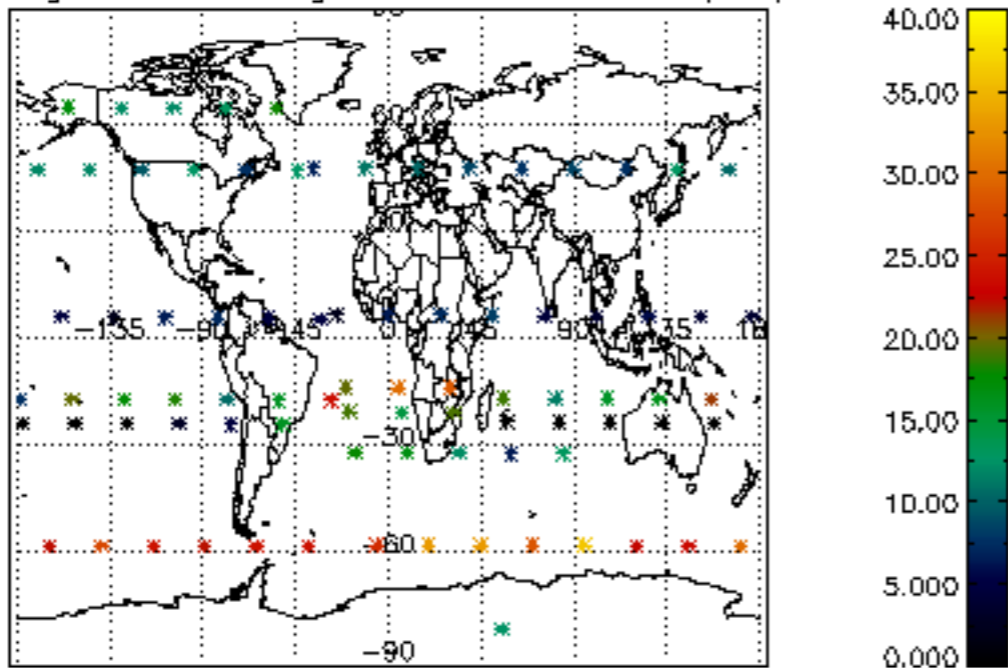
Percentage of cosmic ray hits per profile



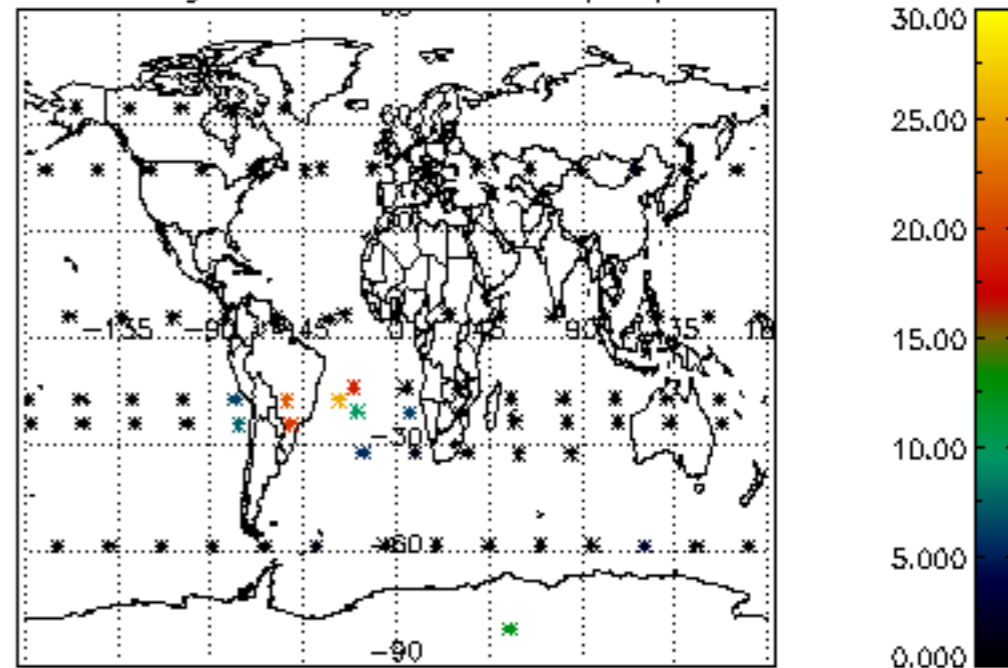
Percentage of datation errors per profile



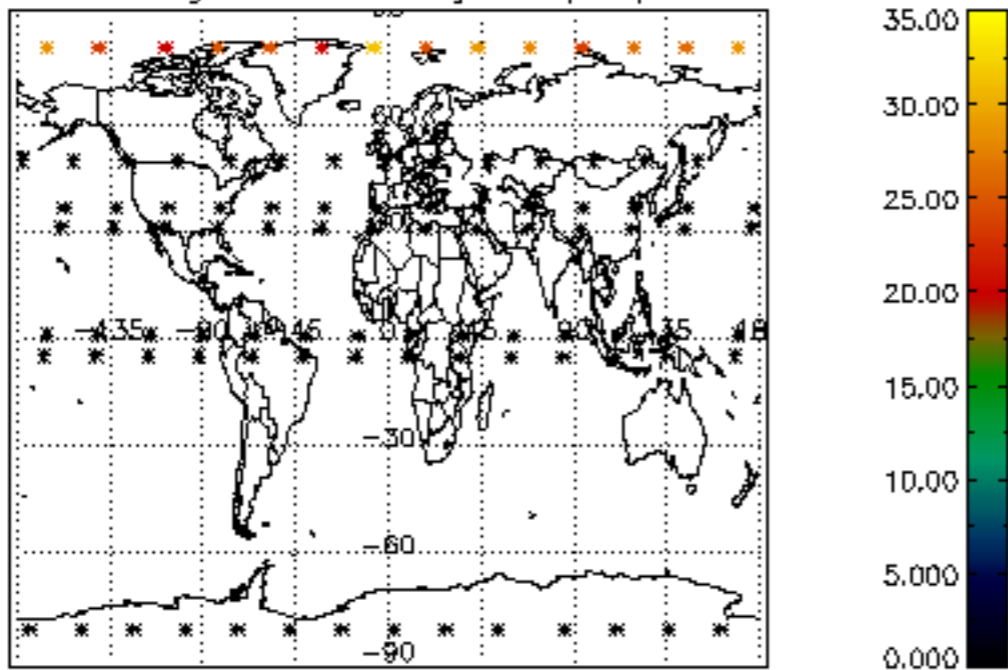
Percentage of star falling outside central band per profile



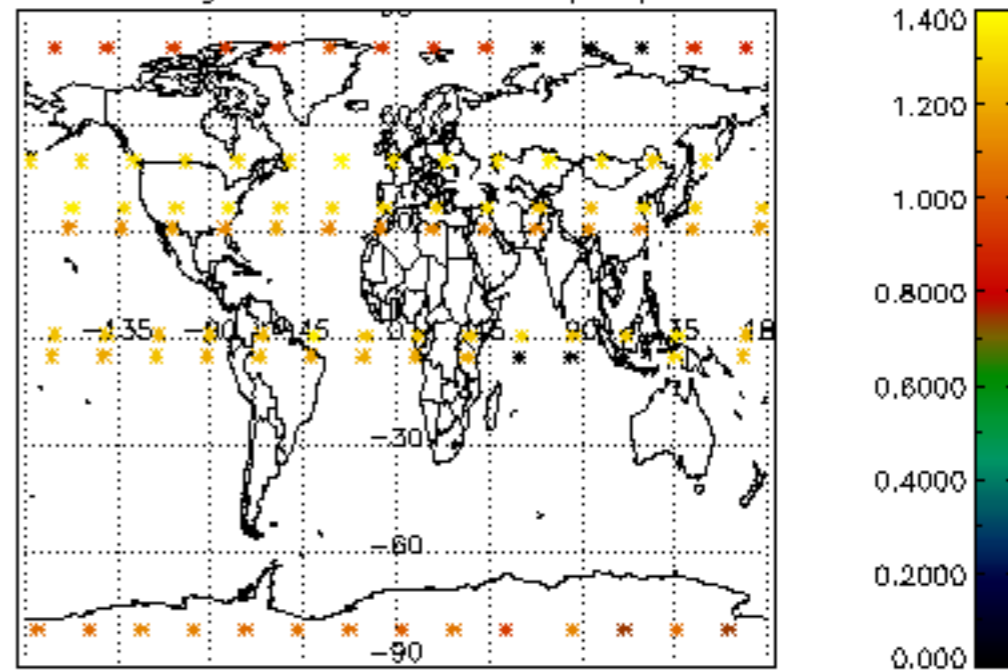
Percentage of saturation errors per profile



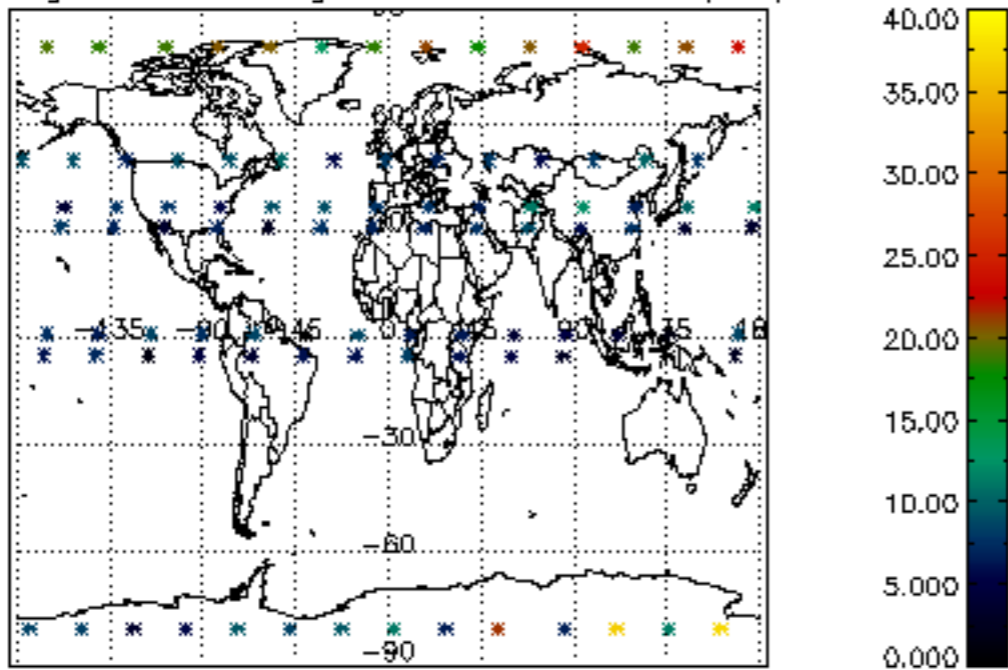
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

