

GOMOS Level 2 Daily Report

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This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM_NL__2P). It is intended to monitor some important parameters that will impact the quality of these products. A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

Item	Value
Time of report generation	19APR2013 19:44:27
Data source version	GOMOS/6.01
Start time of products	06-09-2003 (06SEP2003 00:00:00)
Stop time of products	07-09-2003 (07SEP2003 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	67
Nb of prods with errors	4

2. Summary of processed GOM_NL__2P products.

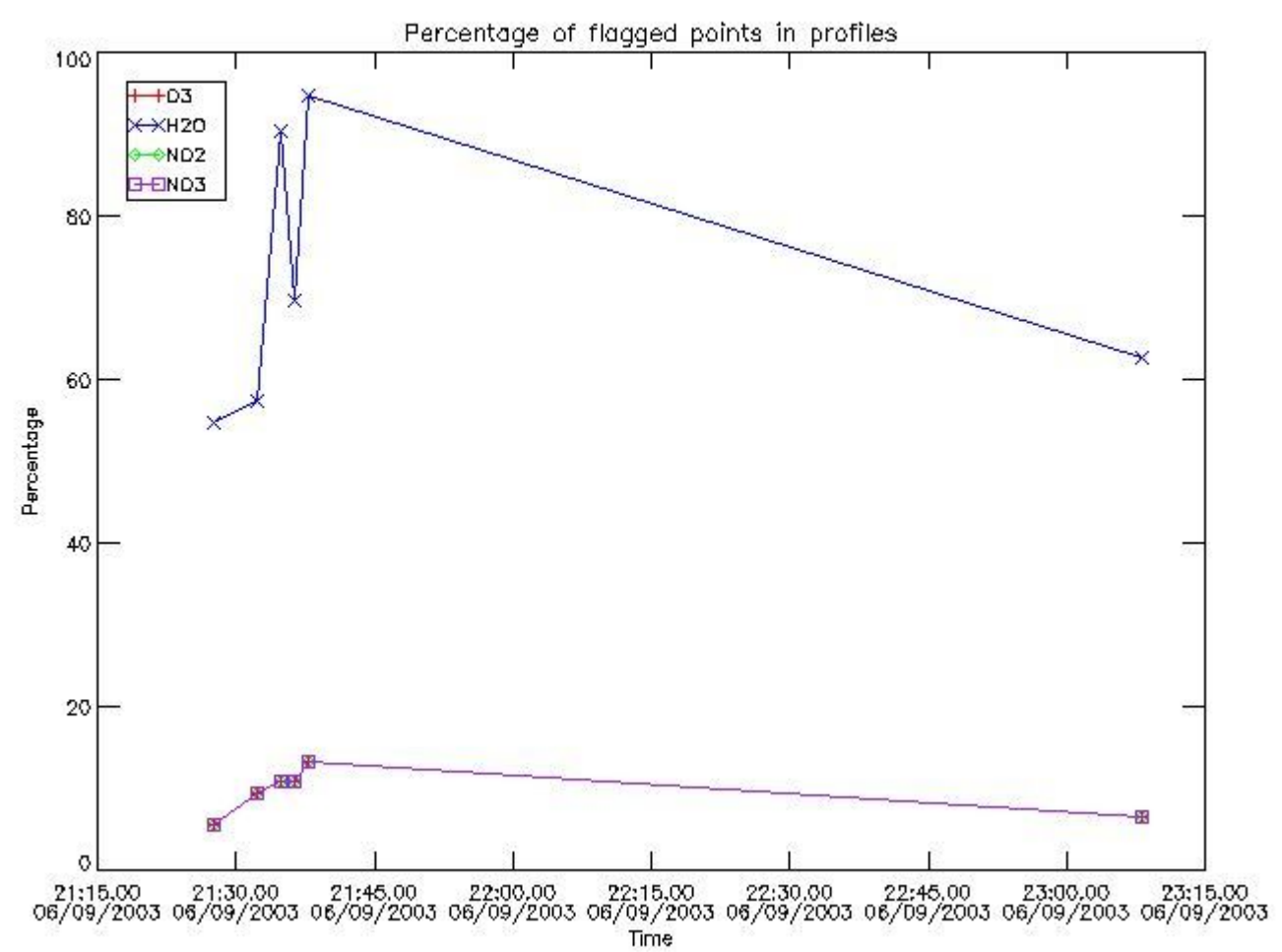
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20030906_201243_000000452019_00372_07941_8462.N1	06-SEP-2003 20:12:43	Dark	44.500	9	Alp Eri	0.45300	24000.	89	7941	Yes
2	GOM_NL__2PRFIN20030906_201634_000000462019_00372_07941_8463.N1	06-SEP-2003 20:16:34	Straylight	46.000	148	Alp Tuc	2.8780	4100.0	92	7941	No
3	GOM_NL__2PRFIN20030906_201837_000000542019_00372_07941_8464.N1	06-SEP-2003 20:18:37	Straylight	53.500	84	Alp Phe	2.3970	4500.0	107	7941	No
4	GOM_NL__2PRFIN20030906_202015_000000452019_00372_07941_8465.N1	06-SEP-2003 20:20:15	Straylight	45.000	31	Alp Gru	1.7340	15200.	90	7941	No
5	GOM_NL__2PRFIN20030906_202303_000000392019_00372_07941_8466.N1	06-SEP-2003 20:23:03	Straylight	39.000	172	Gam Gru	3.0030	13100.	78	7941	No
6	GOM_NL__2PRFIN20030906_202422_000000472019_00372_07941_8467.N1	06-SEP-2003 20:24:22	Straylight	46.500	18	24Alp PsA	1.1660	9700.0	93	7941	No
7	GOM_NL__2PRFIN20030906_202837_000000512019_00372_07941_8468.N1	06-SEP-2003 20:28:37	Dark	51.000	1014	Mars	0.0000	0.0000	102	7941	Yes
8	GOM_NL__2PRFIN20030906_203209_000000382019_00372_07941_8469.N1	06-SEP-2003 20:32:09	Bright	37.500	154	22Bet Aqr	2.8990	5700.0	75	7941	No
9	GOM_NL__2PRFIN20030906_203329_000000402019_00372_07941_8470.N1	06-SEP-2003 20:33:29	Bright	39.500	162	34Alp Aqr	2.9440	5350.0	79	7941	No
10	GOM_NL__2PRFIN20030906_203627_000000392019_00372_07941_8471.N1	06-SEP-2003 20:36:27	Bright	39.000	61	8Eps Peg	2.1000	3900.0	78	7941	No
11	GOM_NL__2PRFIN20030906_203849_000000452019_00372_07941_8472.N1	06-SEP-2003 20:38:49	Bright	44.500	90	54Alp Peg	2.4870	11000.	89	7941	No
12	GOM_NL__2PRFIN20030906_204328_000000392019_00372_07941_8473.N1	06-SEP-2003 20:43:28	Bright	38.500	92	53Eps Cyg	2.5000	4500.0	77	7941	No
13	GOM_NL__2PRFIN20030906_204526_000000382019_00372_07941_8474.N1	06-SEP-2003 20:45:26	Bright	38.000	66	37Gam Cyg	2.2080	5900.0	76	7941	No
14	GOM_NL__2PRFIN20030906_204719_000000372019_00372_07941_8475.N1	06-SEP-2003 20:47:19	Bright	37.000	144	18Del Cyg	2.8600	11000.	74	7941	No
15	GOM_NL__2PRFIN20030906_205123_000000382019_00372_07941_8476.N1	06-SEP-2003 20:51:23	Bright	37.500	89	5Alp Cep	2.4510	8000.0	75	7941	No
16	GOM_NL__2PRFIN20030906_205330_000000452019_00372_07941_8477.N1	06-SEP-2003 20:53:30	Bright	44.500	74	11Bet Cas	2.2680	6600.0	89	7941	No
17	GOM_NL__2PRFIN20030906_205531_000000472019_00372_07941_8478.N1	06-SEP-2003 20:55:31	Bright	47.000	76	27Gam Cas	2.3000	30000.	94	7941	No
18	GOM_NL__2PRFIN20030906_205906_000000372019_00372_07941_8479.N1	06-SEP-2003 20:59:06	Bright	37.000	49	1Alp UMi	1.9900	6300.0	74	7941	No
19	GOM_NL__2PRFIN20030906_210226_000000582019_00372_07941_8480.N1	06-SEP-2003 21:02:26	Bright	58.000	160	23Gam Per	2.9300	4700.0	116	7941	No
20	GOM_NL__2PRFIN20030906_210552_000000382019_00372_07941_8481.N1	06-SEP-2003 21:05:52	Bright	38.000	36	50Alp UMa	1.8000	6300.0	76	7941	No
21	GOM_NL__2PRFIN20030906_210716_000000382019_00372_07941_8482.N1	06-SEP-2003 21:07:16	Bright	37.500	82	48Bet UMa	2.3650	10600.	75	7941	No
22	GOM_NL__2PRFIN20030906_211046_000000642019_00372_07941_8483.N1	06-SEP-2003 21:10:46	Bright	63.500	6	13Alp Aur	0.080000	3400.0	127	7941	No
23	GOM_NL__2PRFIN20030906_211451_000000532019_00372_07941_8484.N1	06-SEP-2003 21:14:51	Bright	53.000	107	37The Aur	2.6490	11000.	106	7941	No
24	GOM_NL__2PRFIN20030906_211721_000000432019_00372_07941_8485.N1	06-SEP-2003 21:17:21	Bright	42.500	17	78Bet Gem	1.1610	4500.0	85	7941	No
25	GOM_NL__2PRFIN20030906_211906_000000872019_00372_07941_8486.N1	06-SEP-2003 21:19:06	Twilight	87.000	28	12Bet Tau	1.6500	15200.	174	7941	No
26	GOM_NL__2PRFIN20030906_212218_000000622019_00372_07941_8487.N1	06-SEP-2003 21:22:18	Twilight	62.000	44	24Gam Gem	1.9280	11000.	124	7941	No
27	GOM_NL__2PRFIN20030906_212414_000000542019_00372_07941_8488.N1	06-SEP-2003 21:24:14	Twilight	53.500	8	10Alp CMi	0.40000	6500.0	107	7941	No
28	GOM_NL__2PRFIN20030906_212735_000000912019_00372_07941_8489.N1	06-SEP-2003 21:27:35	Dark	91.000	14	58Alp Ori	0.87000	3000.0	182	7941	No
29	GOM_NL__2PRFIN20030906_213220_000000592019_00372_07941_8490.N1	06-SEP-2003 21:32:20	Dark	59.000	1	9Alp CMa	-1.4400	11000.	118	7941	No
30	GOM_NL__2PRFIN20030906_213457_000000472019_00372_07941_8491.N1	06-SEP-2003 21:34:57	Dark	47.000	23	21Eps CMa	1.5020	26000.	94	7941	No
31	GOM_NL__2PRFIN20030906_213621_000000472019_00372_07941_8492.N1	06-SEP-2003 21:36:21	Dark	46.500	117	Pi Pup	2.7060	3800.0	93	7941	No
32	GOM_NL__2PRFIN20030906_213754_000000392019_00372_07941_8493.N1	06-SEP-2003 21:37:54	Dark	38.500	34	Gam2Vel	1.7930	23000.	77	7941	No
33	GOM_NL__2PRFIN20030906_215710_000000472019_00373_07942_8593.N1	06-SEP-2003 21:57:10	Straylight	47.000	148	Alp Tuc	2.8780	4100.0	94	7942	No
34	GOM_NL__2PRFIN20030906_215913_000000512019_00373_07942_8594.N1	06-SEP-2003 21:59:13	Straylight	51.000	84	Alp Phe	2.3970	4500.0	102	7942	No
35	GOM_NL__2PRFIN20030906_220051_000000422019_00373_07942_8595.N1	06-SEP-2003 22:00:51	Straylight	42.000	31	Alp Gru	1.7340	15200.	84	7942	No
36	GOM_NL__2PRFIN20030906_220340_000000392019_00373_07942_8596.N1	06-SEP-2003 22:03:40	Straylight	38.500	172	Gam Gru	3.0030	13100.	77	7942	No
37	GOM_NL__2PRFIN20030906_220458_000000482019_00373_07942_8597.N1	06-SEP-2003 22:04:58	Straylight	47.500	18	24Alp PsA	1.1660	9700.0	95	7942	No
38	GOM_NL__2PRFIN20030906_220911_000000542019_00373_07942_8598.N1	06-SEP-2003 22:09:11	Dark	53.500	1014	Mars	0.0000	0.0000	107	7942	Yes
39	GOM_NL__2PRFIN20030906_221245_000000382019_00373_07942_8599.N1	06-SEP-2003 22:12:45	Bright	38.000	154	22Bet Aqr	2.8990	5700.0	76	7942	No
40	GOM_NL__2PRFIN20030906_221404_000000402019_00373_07942_8600.N1	06-SEP-2003 22:14:04	Bright	39.500	162	34Alp Aqr	2.9440	5350.0	79	7942	No
41	GOM_NL__2PRFIN20030906_221703_000000392019_00373_07942_8601.N1	06-SEP-2003 22:17:03	Bright	38.500	61	8Eps Peg	2.1000	3900.0	77	7942	No
42	GOM_NL__2PRFIN20030906_221924_000000452019_00373_07942_8602.N1	06-SEP-2003 22:19:24	Bright	45.000	90	54Alp Peg	2.4870	11000.	90	7942	No

43	GOM_NL__2PRFIN20030906_222404_000000362019_00373_07942_8603.N1	06-SEP-2003 22:24:04	Bright	35.500	92	53Eps Cyg	2.5000	4500.0	71	7942	No
44	GOM_NL__2PRFIN20030906_222602_000000382019_00373_07942_8604.N1	06-SEP-2003 22:26:02	Bright	38.000	66	37Gam Cyg	2.2080	5900.0	76	7942	No
45	GOM_NL__2PRFIN20030906_222755_000000362019_00373_07942_8605.N1	06-SEP-2003 22:27:55	Bright	35.500	144	18Del Cyg	2.8600	11000.	71	7942	No
46	GOM_NL__2PRFIN20030906_223159_000000392019_00373_07942_8606.N1	06-SEP-2003 22:31:59	Bright	38.500	89	5Alp Cep	2.4510	8000.0	77	7942	No
47	GOM_NL__2PRFIN20030906_223405_000000452019_00373_07942_8607.N1	06-SEP-2003 22:34:05	Bright	45.000	74	11Bet Cas	2.2680	6600.0	90	7942	No
48	GOM_NL__2PRFIN20030906_223606_000000462019_00373_07942_8608.N1	06-SEP-2003 22:36:06	Bright	45.500	76	27Gam Cas	2.3000	30000.	91	7942	No
49	GOM_NL__2PRFIN20030906_223942_000000372019_00373_07942_8609.N1	06-SEP-2003 22:39:42	Bright	37.000	49	1Alp UMi	1.9900	6300.0	74	7942	No
50	GOM_NL__2PRFIN20030906_224301_000000592019_00373_07942_8610.N1	06-SEP-2003 22:43:01	Bright	58.500	160	23Gam Per	2.9300	4700.0	117	7942	No
51	GOM_NL__2PRFIN20030906_224628_000000392019_00373_07942_8611.N1	06-SEP-2003 22:46:28	Bright	39.000	36	50Alp UMa	1.8000	6300.0	78	7942	No
52	GOM_NL__2PRFIN20030906_224752_000000352019_00373_07942_8612.N1	06-SEP-2003 22:47:52	Bright	34.500	82	48Bet UMa	2.3650	10600.	69	7942	No
53	GOM_NL__2PRFIN20030906_225121_000000602019_00373_07942_8613.N1	06-SEP-2003 22:51:21	Bright	59.500	6	13Alp Aur	0.080000	3400.0	119	7942	No
54	GOM_NL__2PRFIN20030906_225527_000000522019_00373_07942_8614.N1	06-SEP-2003 22:55:27	Bright	52.000	107	37The Aur	2.6490	11000.	104	7942	No
55	GOM_NL__2PRFIN20030906_225757_000000432019_00373_07942_8615.N1	06-SEP-2003 22:57:57	Bright	43.000	17	78Bet Gem	1.1610	4500.0	86	7942	No
56	GOM_NL__2PRFIN20030906_225942_000000832019_00373_07942_8616.N1	06-SEP-2003 22:59:42	Tw_i_and_stray	82.500	28	12Bet Tau	1.6500	15200.	165	7942	No
57	GOM_NL__2PRFIN20030906_230254_000000582019_00373_07942_8617.N1	06-SEP-2003 23:02:54	Tw_i_and_stray	58.000	44	24Gam Gem	1.9280	11000.	116	7942	No
58	GOM_NL__2PRFIN20030906_230450_000000562019_00373_07942_8618.N1	06-SEP-2003 23:04:50	Twilight	56.000	8	10Alp CMi	0.40000	6500.0	112	7942	No
59	GOM_NL__2PRFIN20030906_230812_000000782019_00373_07942_8619.N1	06-SEP-2003 23:08:12	Dark	77.500	14	58Alp Ori	0.87000	3000.0	155	7942	No
60	GOM_NL__2PRFIN20030906_234127_000000422019_00374_07943_8595.N1	06-SEP-2003 23:41:27	Straylight	41.500	31	Alp Gru	1.7340	15200.	83	7943	No
61	GOM_NL__2PRFIN20030906_234415_000000402019_00374_07943_8596.N1	06-SEP-2003 23:44:15	Straylight	39.500	172	Gam Gru	3.0030	13100.	79	7943	No
62	GOM_NL__2PRFIN20030906_234534_000000522019_00374_07943_8597.N1	06-SEP-2003 23:45:34	Straylight	51.500	18	24Alp PsA	1.1660	9700.0	103	7943	No
63	GOM_NL__2PRFIN20030906_234949_000000542019_00374_07943_8598.N1	06-SEP-2003 23:49:49	Dark	54.000	1014	Mars	0.0000	0.0000	108	7943	Yes
64	GOM_NL__2PRFIN20030906_235320_000000392019_00374_07943_8599.N1	06-SEP-2003 23:53:20	Bright	38.500	154	22Bet Aqr	2.8990	5700.0	77	7943	No
65	GOM_NL__2PRFIN20030906_235440_000000412019_00374_07943_8600.N1	06-SEP-2003 23:54:40	Bright	40.500	162	34Alp Aqr	2.9440	5350.0	81	7943	No
66	GOM_NL__2PRFIN20030906_235738_000000412019_00374_07943_8601.N1	06-SEP-2003 23:57:38	Bright	40.500	61	8Eps Peg	2.1000	3900.0	81	7943	No
67	GOM_NL__2PRFIN20030906_235959_000000452019_00374_07943_8602.N1	06-SEP-2003 23:59:59	Bright	44.500	90	54Alp Peg	2.4870	11000.	89	7943	No

3. Quality information per product

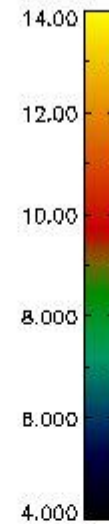
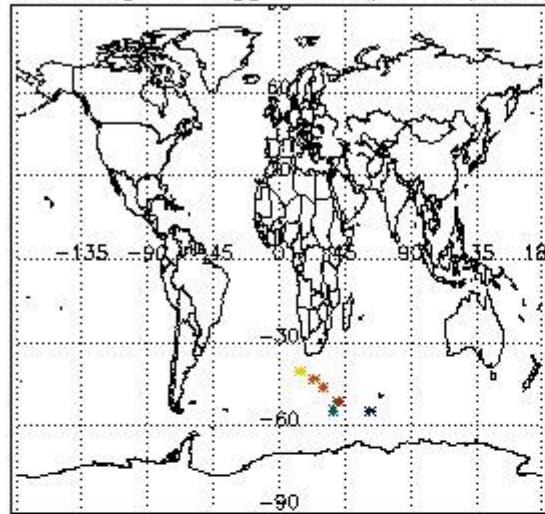
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

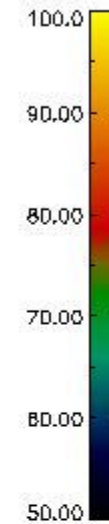
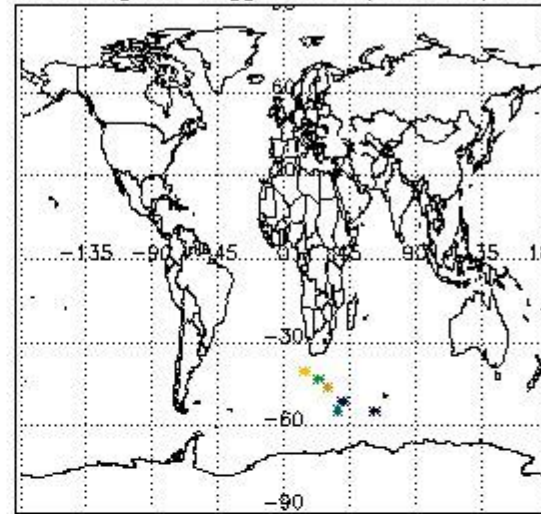


3.2 Plot quality information per product (world map)

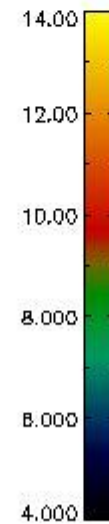
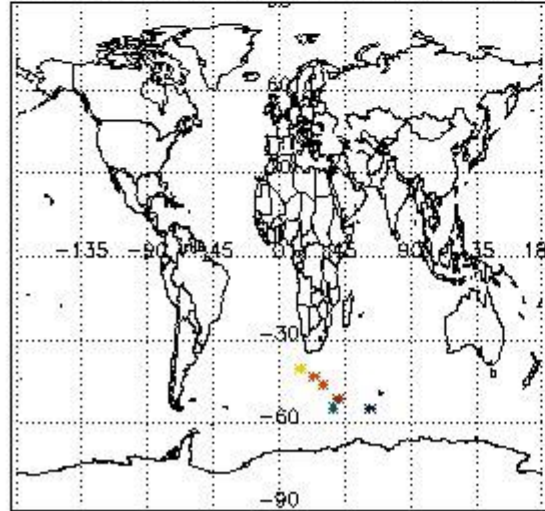
Percentage of flagged data per O3 profile



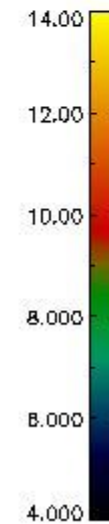
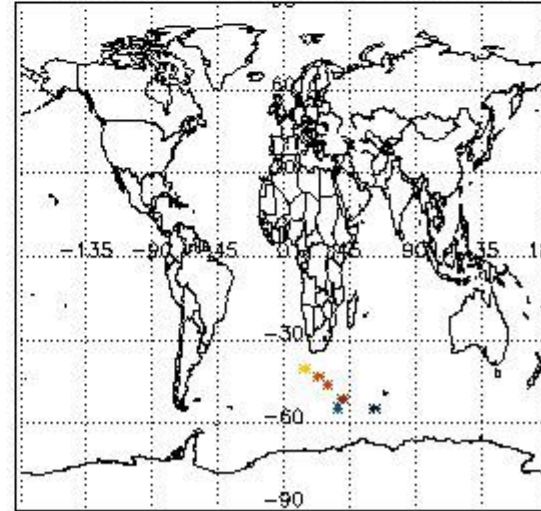
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

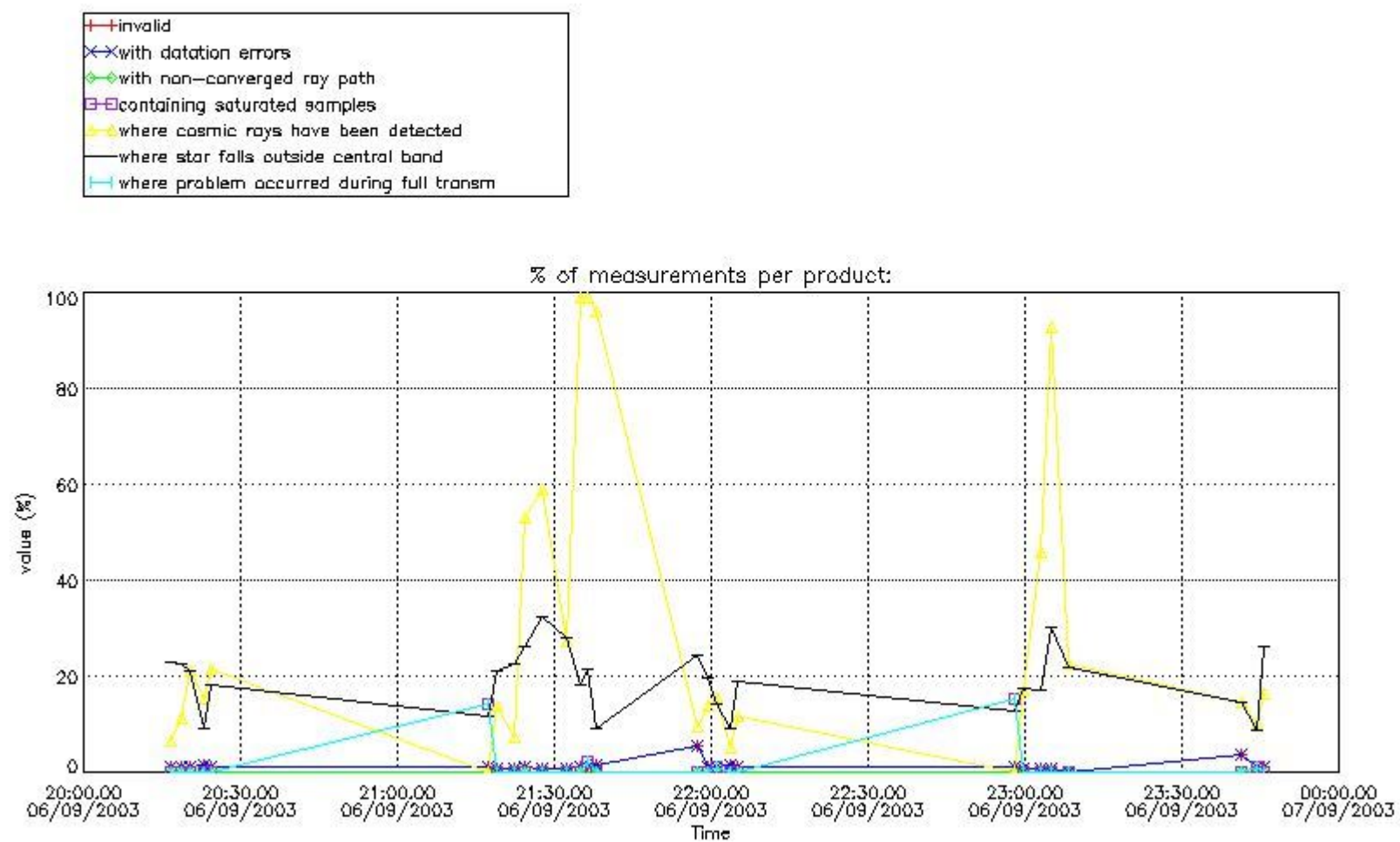


4. Level 1 quality information per product

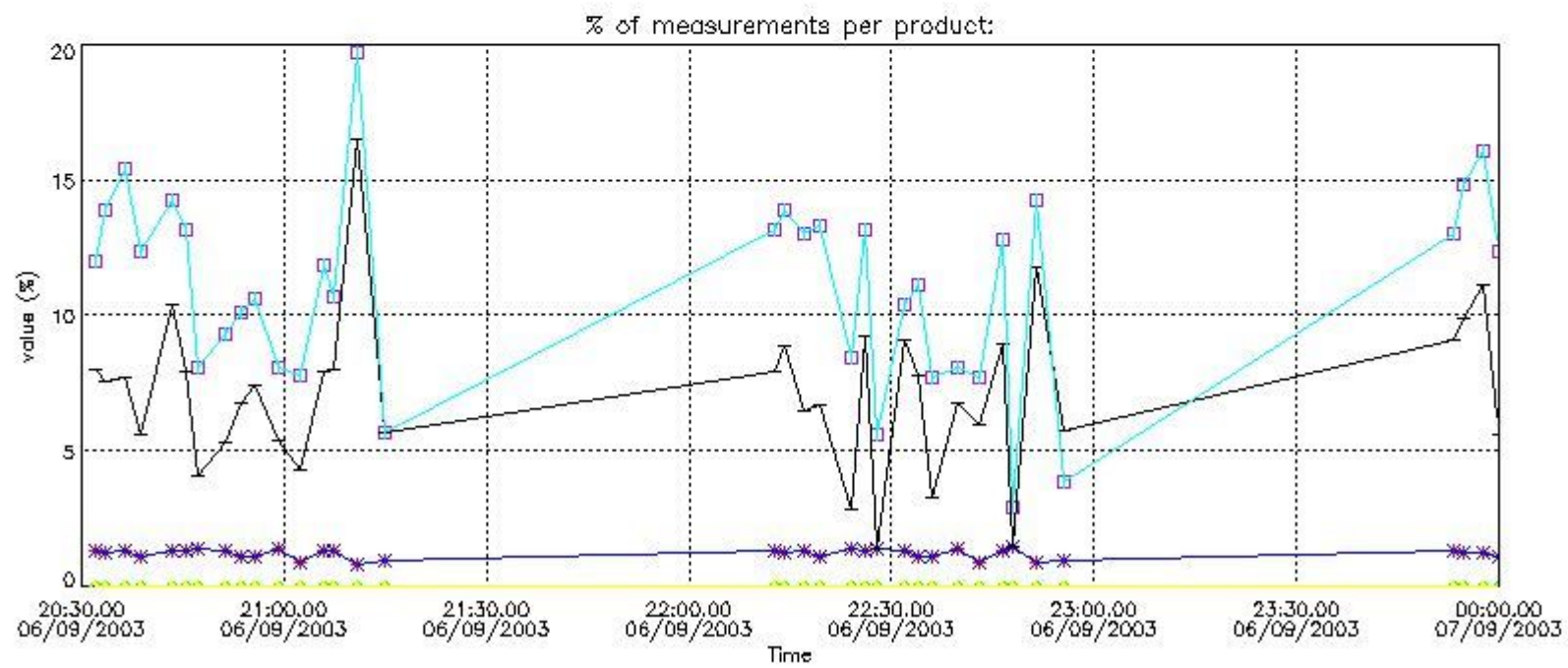
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



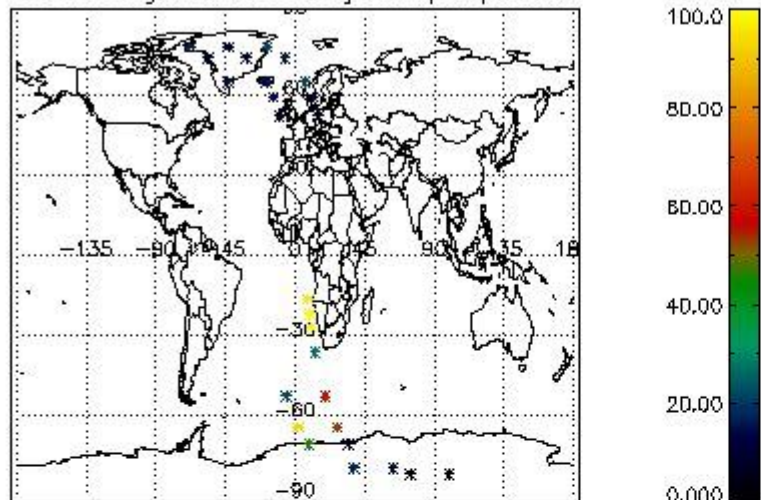
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



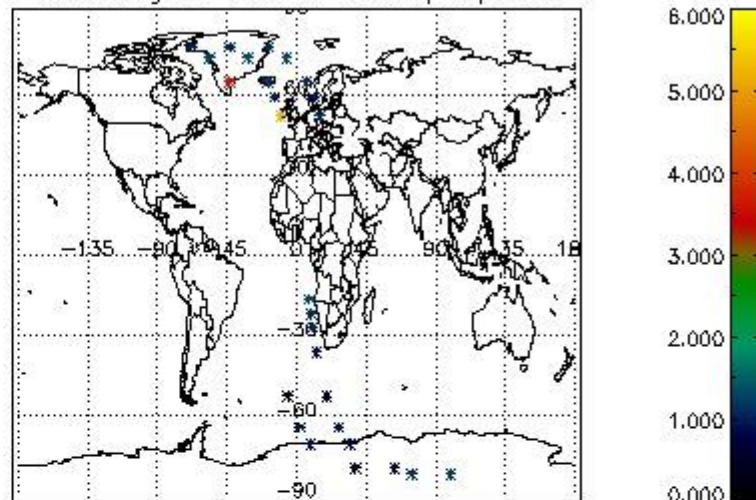
4.2 Plot quality information per product coming from level 1b processing (world map)

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

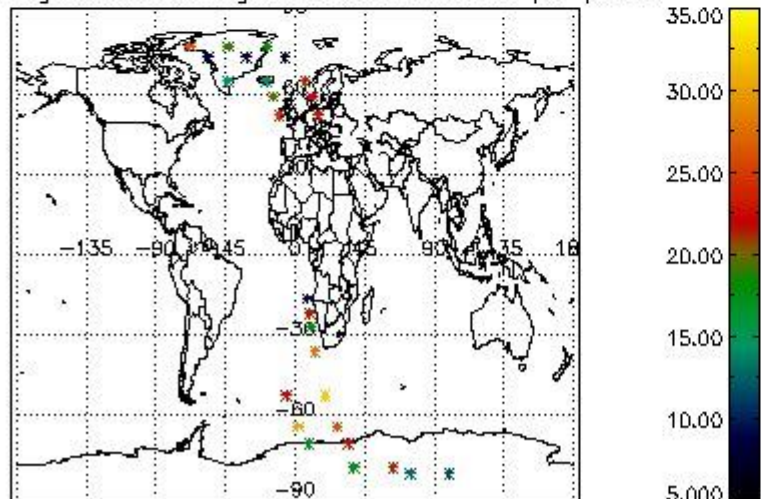
Percentage of cosmic ray hits per profile



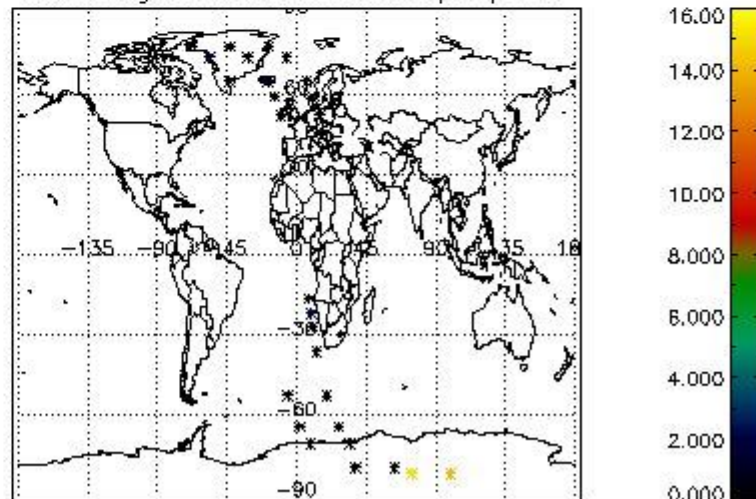
Percentage of datation errors per profile



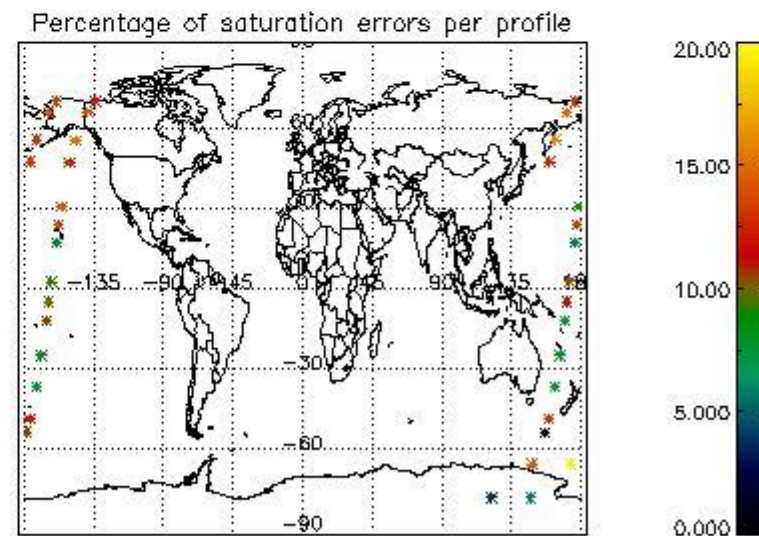
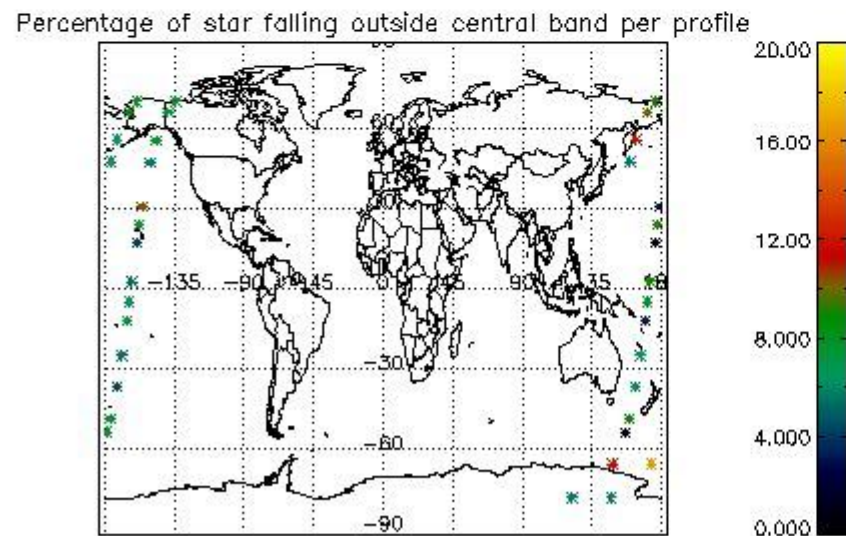
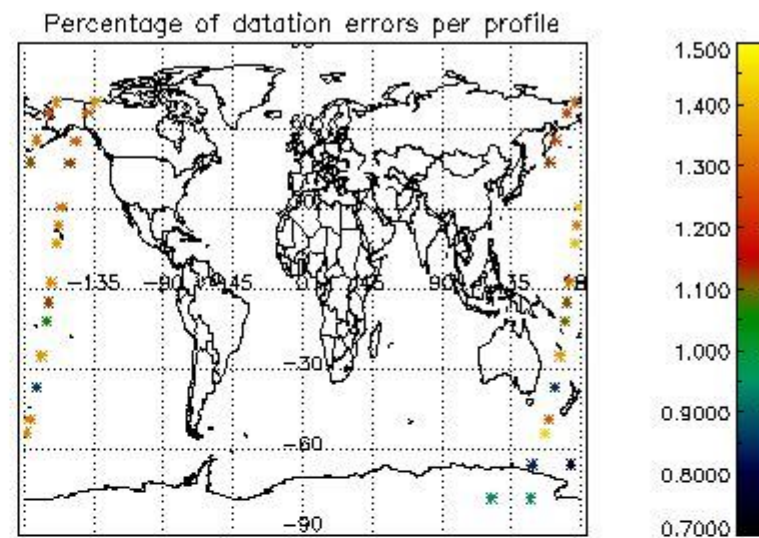
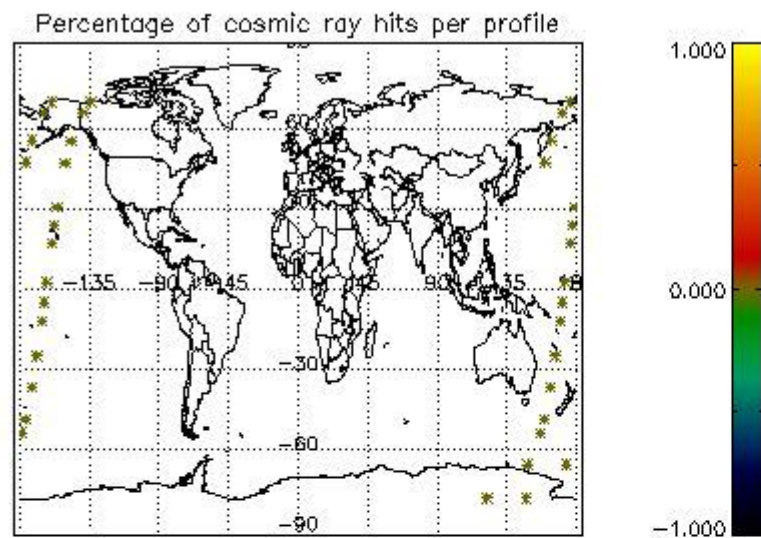
Percentage of star falling outside central band per profile



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

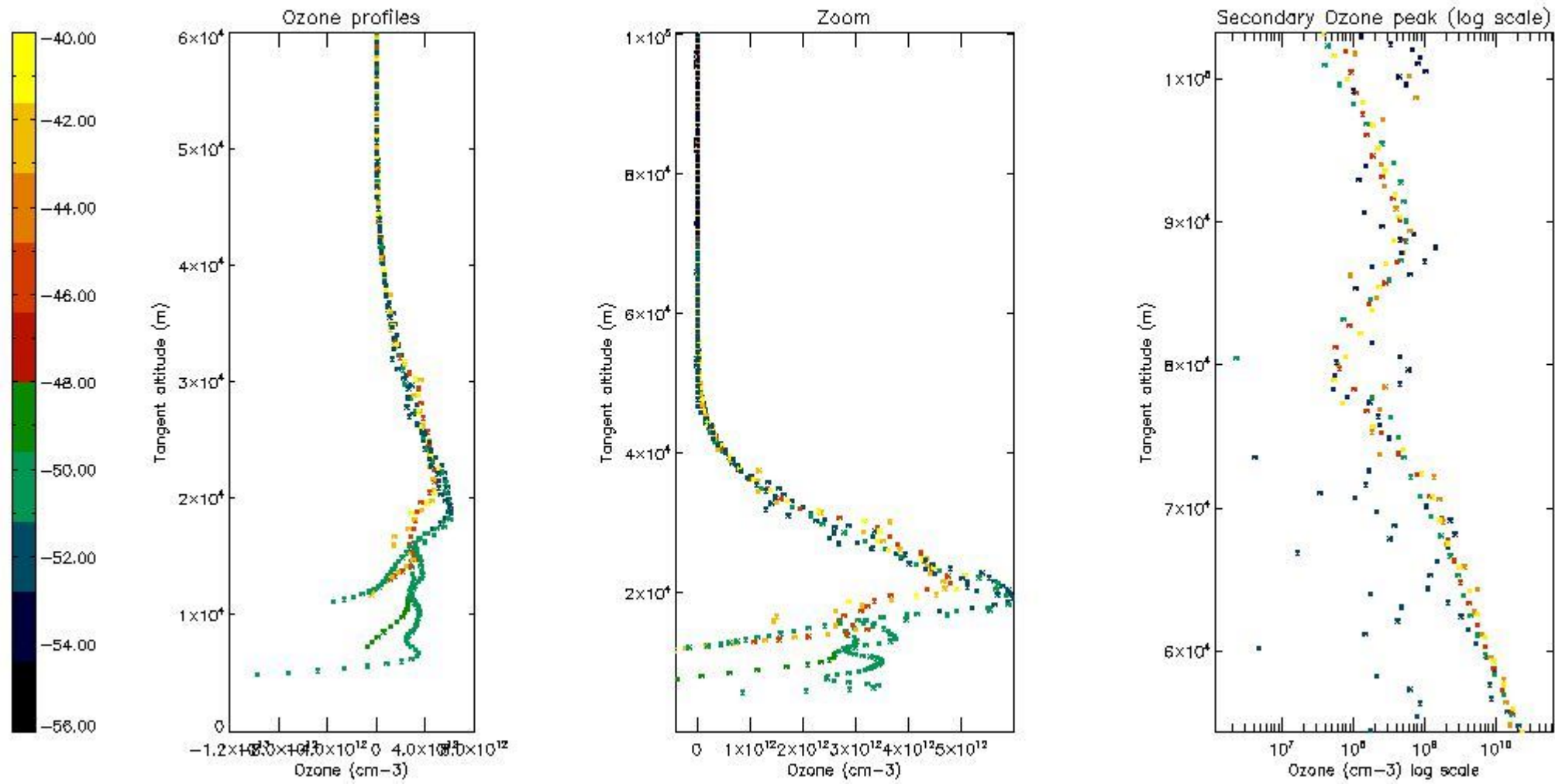
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	13
STD < 20	7

STD < 10	6
STD < 5	4

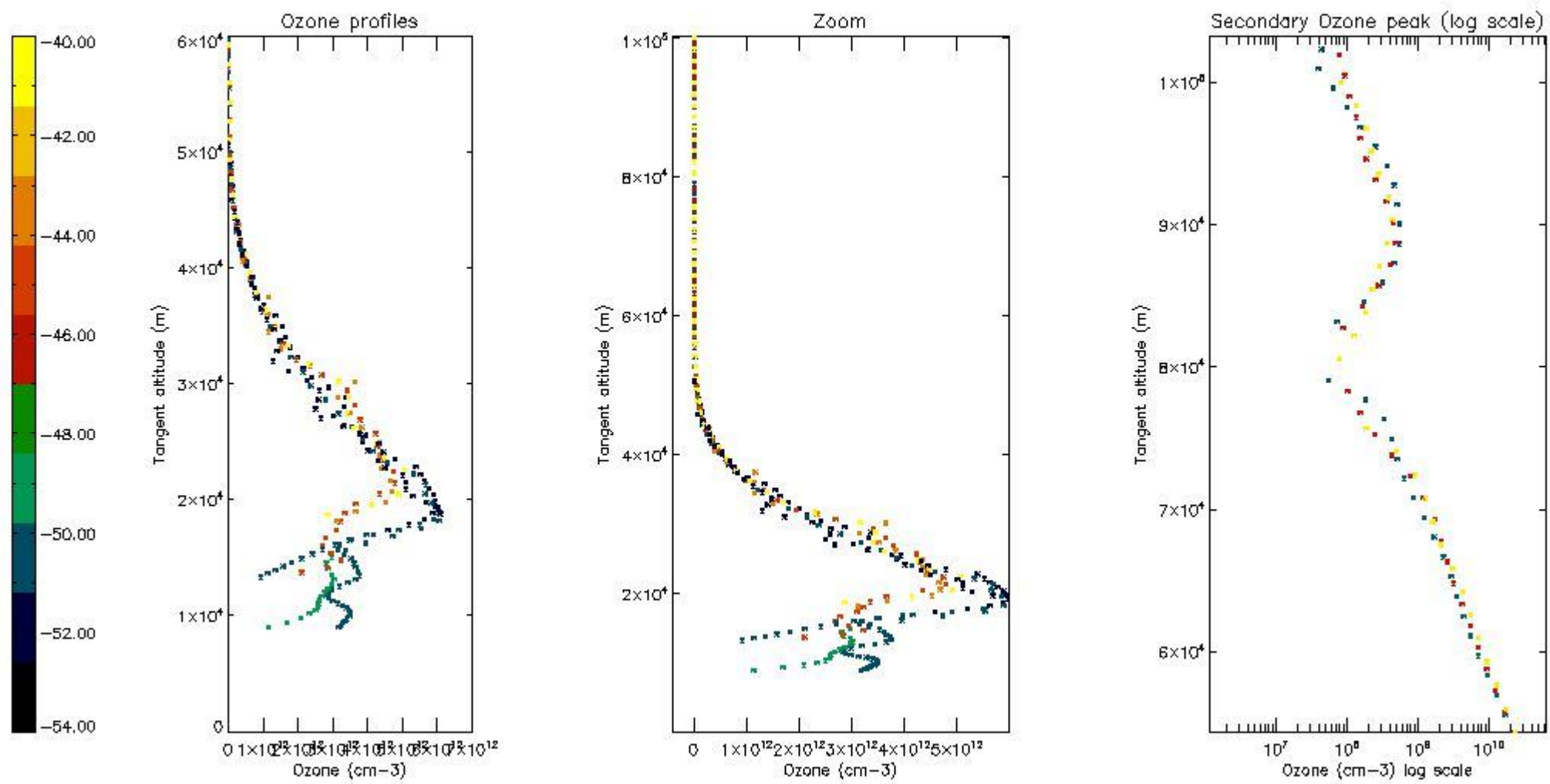
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



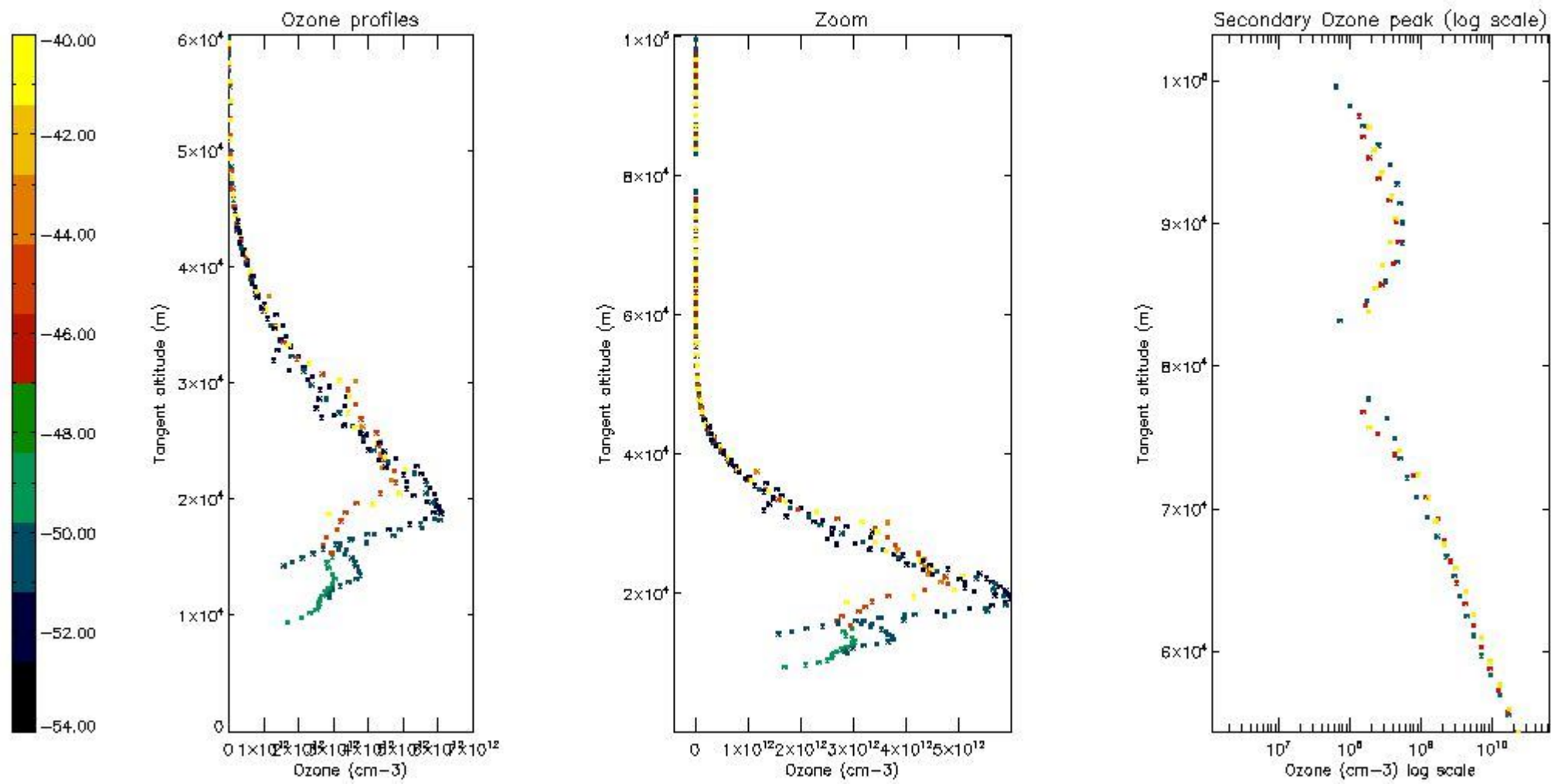
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



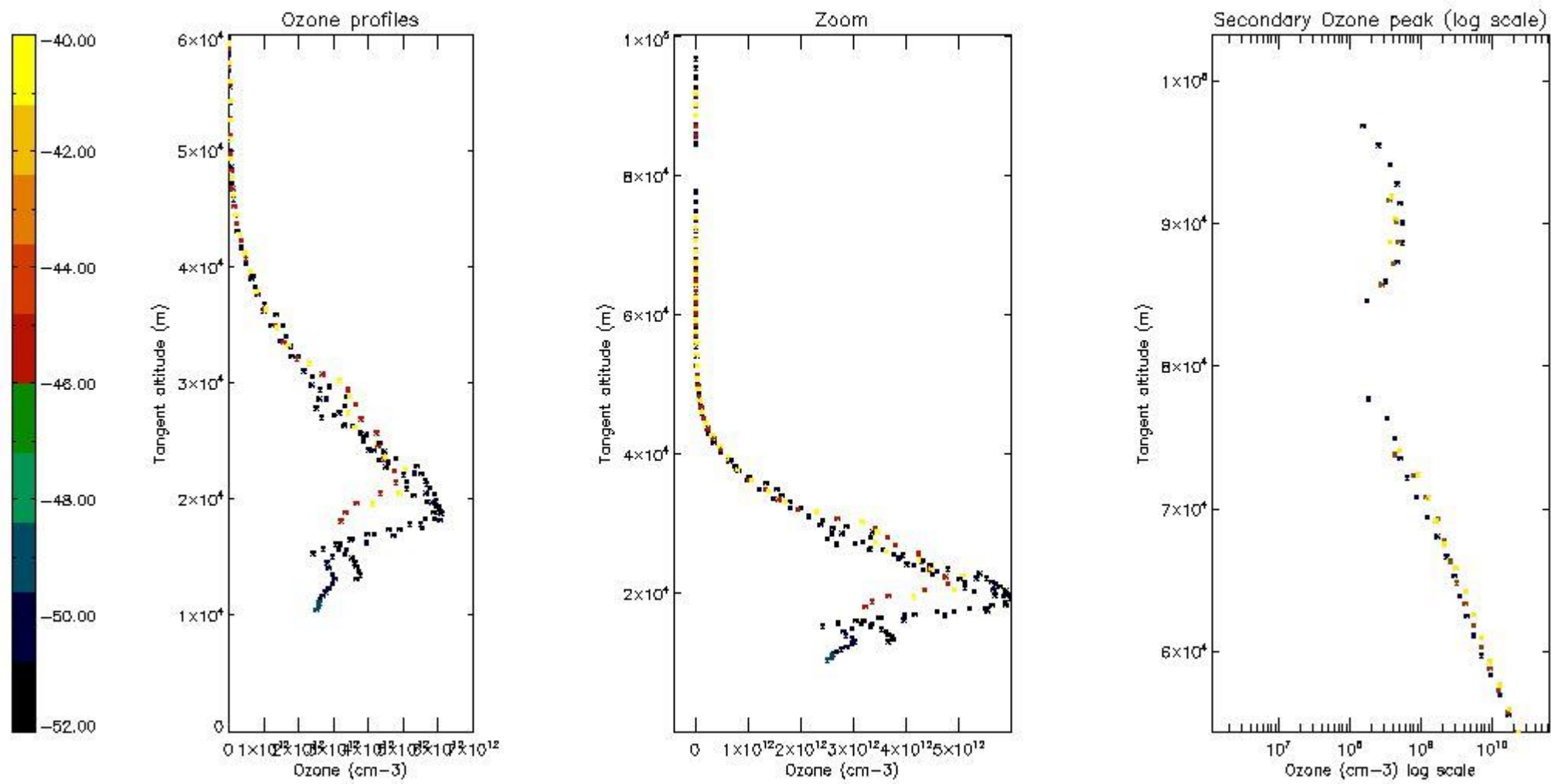
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



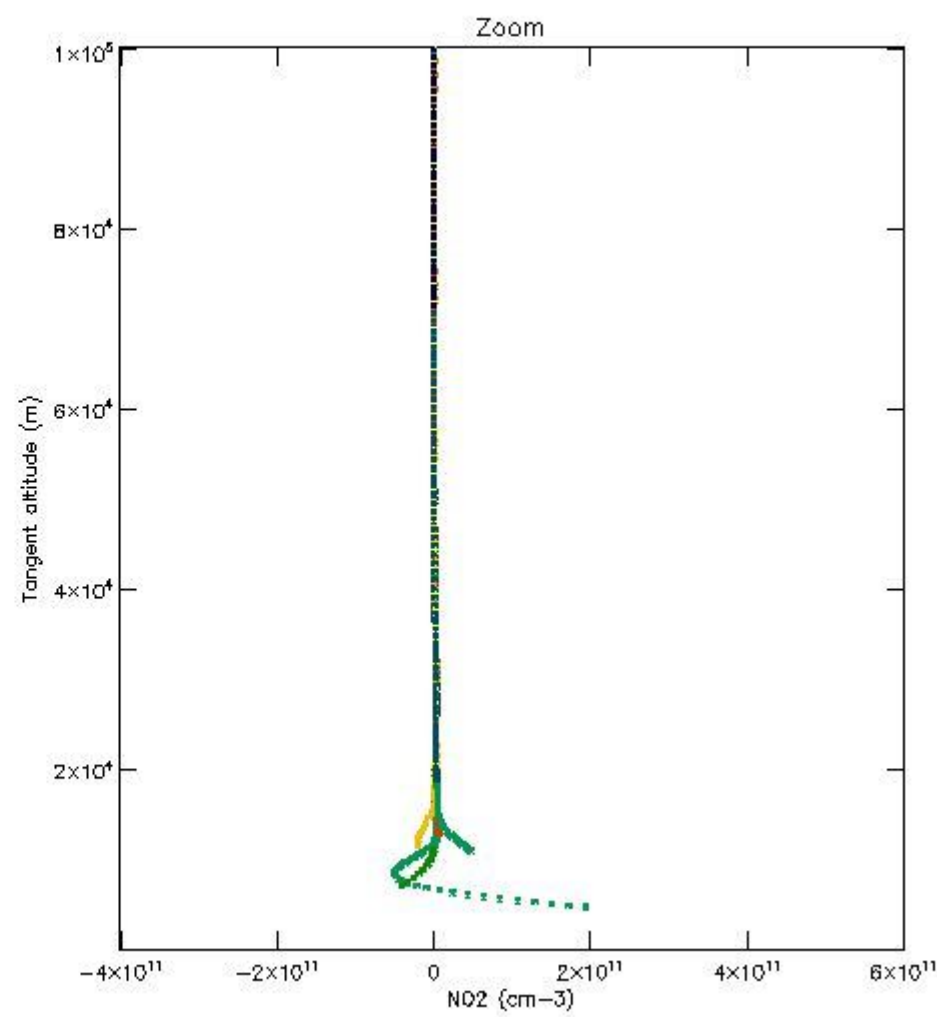
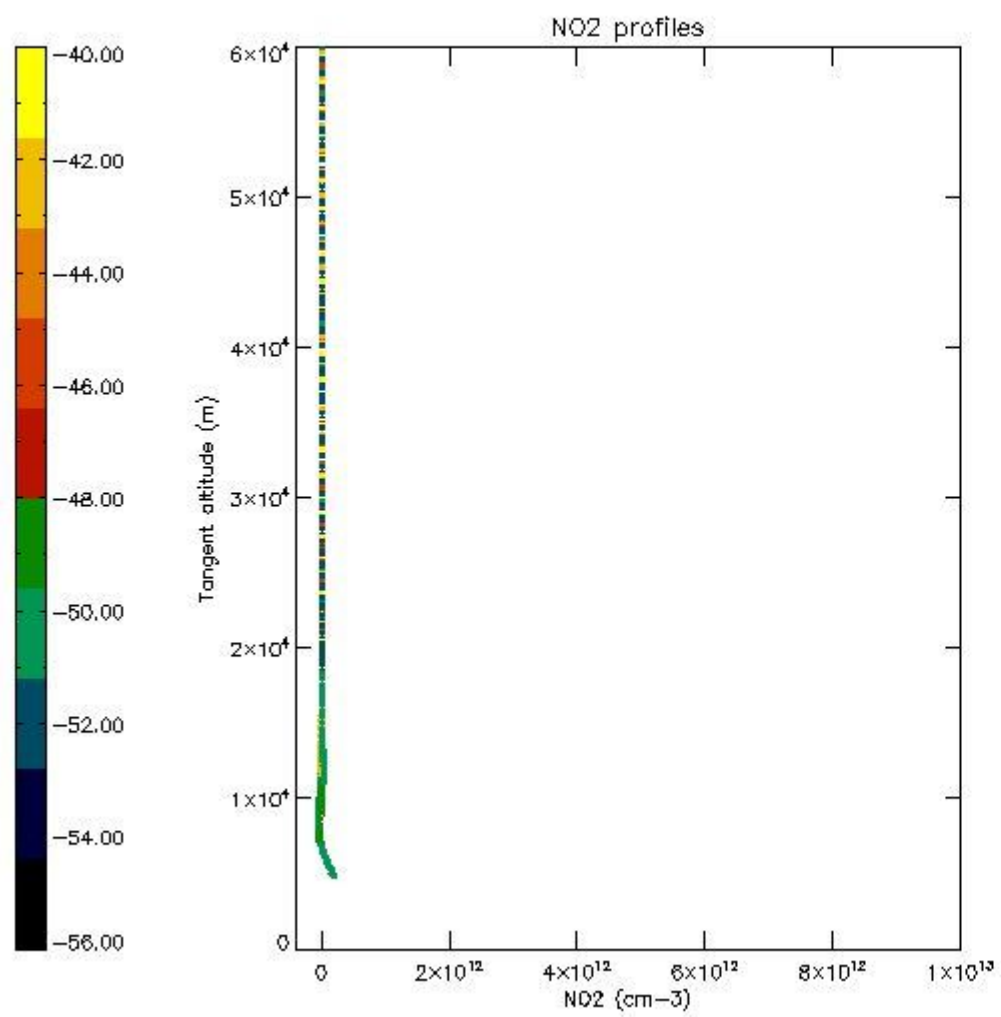
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



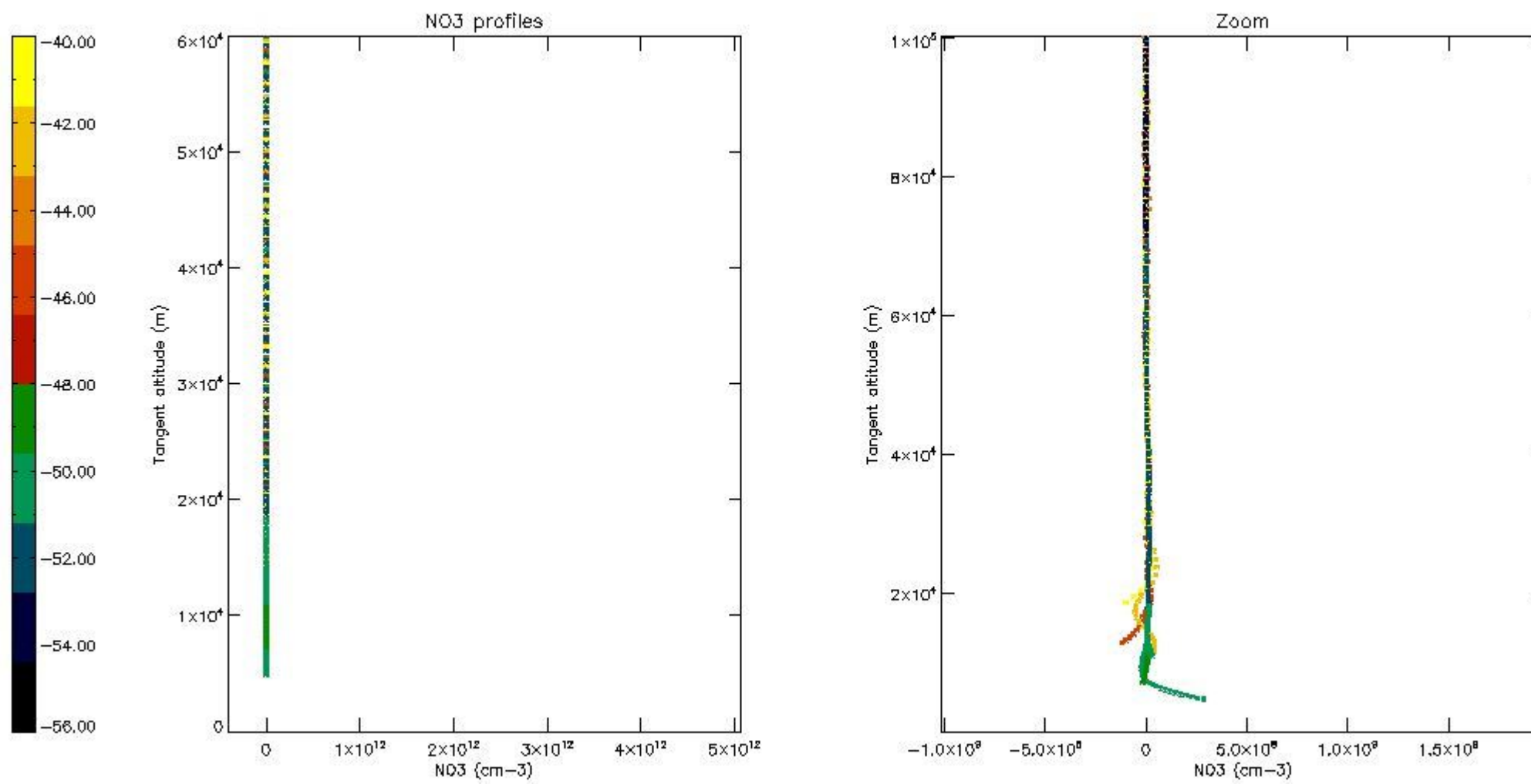
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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	06-SEP-2003 20:12:43
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	06-SEP-2003 20:12:43
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	06-SEP-2003 20:12:43

GOMOS Level 2 Daily Report

SUMMARY

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[4.1.1 Plot of level 1 quality information per product \(time dependant\): ASCENDING](#)

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[4.2 Plot of level 1 quality information per product \(world map\)](#)

[4.2.1 Plot of level 1 quality information per product \(world map\): ASCENDING](#)

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[5. Ozone profiles based on quality statistics and other trace gas profiles](#)

[5.1 Ozone statistics based on quality of products](#)

[5.2 Plot ozone profiles for all STD \(dark without errors\)](#)

[5.3 Plot ozone profiles where STD < 20% \(dark without errors\)](#)

[5.4. Plot ozone profiles where STD < 10% \(dark without errors\)](#)

[5.5. Plot ozone profiles where STD < 5% \(dark without errors\)](#)

[5.6 Plot NO2 profiles for all STD \(dark without errors\)](#)

[5.7 Plot NO3 profiles for all STD \(dark without errors\)](#)

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

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

This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM_NL__2P). It is intended to monitor some important parameters that will impact the quality of these products. A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

Item	Value
Time of report generation	19APR2013 19:44:27
Data source version	GOMOS/6.01
Start time of products	06-09-2003 (06SEP2003 00:00:00)
Stop time of products	07-09-2003 (07SEP2003 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	67
Nb of prods with errors	4

2. Summary of processed GOM_NL__2P products.

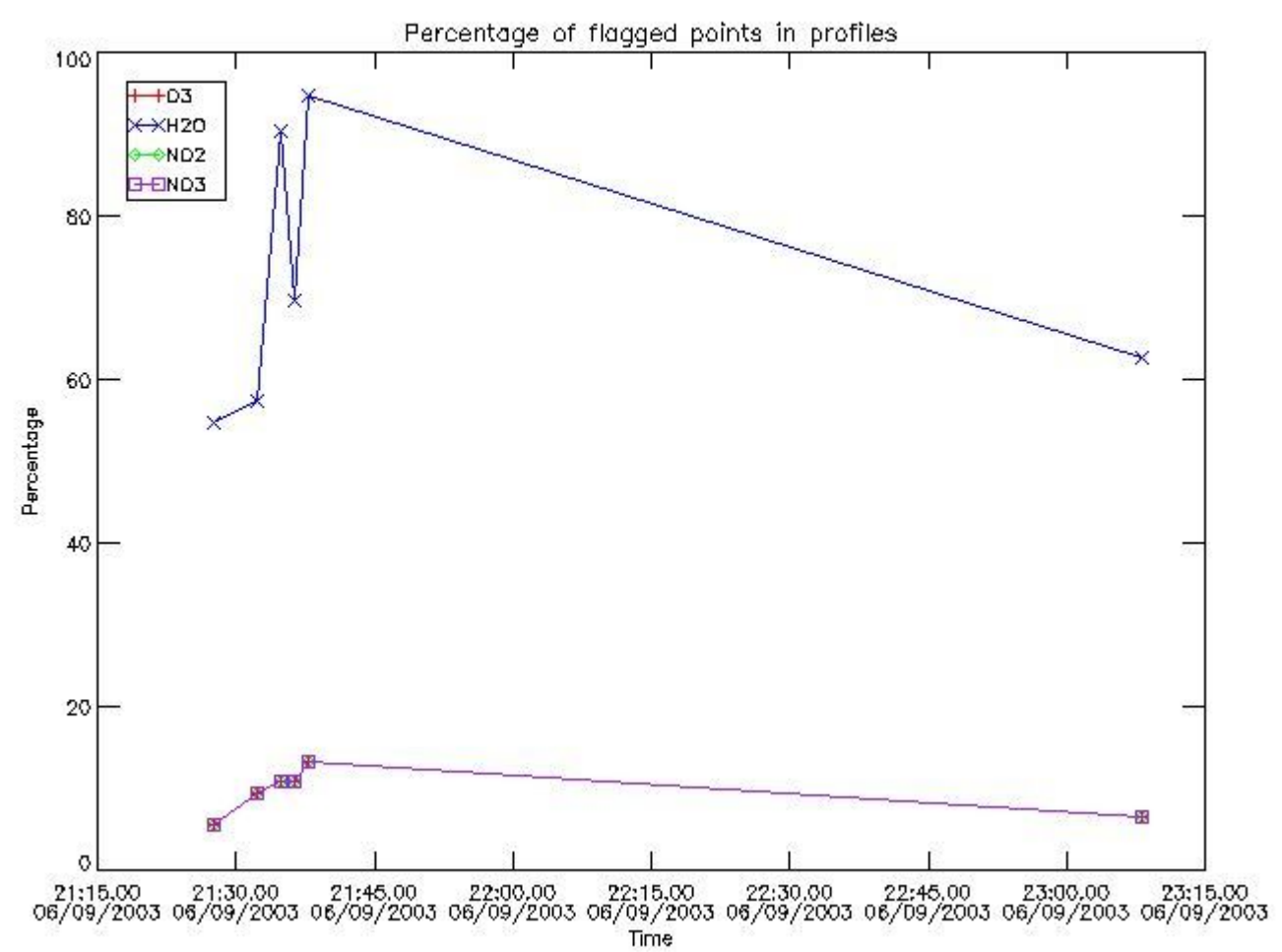
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20030906_201243_000000452019_00372_07941_8462.N1	06-SEP-2003 20:12:43	Dark	44.500	9	Alp Eri	0.45300	24000.	89	7941	Yes
2	GOM_NL__2PRFIN20030906_201634_000000462019_00372_07941_8463.N1	06-SEP-2003 20:16:34	Straylight	46.000	148	Alp Tuc	2.8780	4100.0	92	7941	No
3	GOM_NL__2PRFIN20030906_201837_000000542019_00372_07941_8464.N1	06-SEP-2003 20:18:37	Straylight	53.500	84	Alp Phe	2.3970	4500.0	107	7941	No
4	GOM_NL__2PRFIN20030906_202015_000000452019_00372_07941_8465.N1	06-SEP-2003 20:20:15	Straylight	45.000	31	Alp Gru	1.7340	15200.	90	7941	No
5	GOM_NL__2PRFIN20030906_202303_000000392019_00372_07941_8466.N1	06-SEP-2003 20:23:03	Straylight	39.000	172	Gam Gru	3.0030	13100.	78	7941	No
6	GOM_NL__2PRFIN20030906_202422_000000472019_00372_07941_8467.N1	06-SEP-2003 20:24:22	Straylight	46.500	18	24Alp PsA	1.1660	9700.0	93	7941	No
7	GOM_NL__2PRFIN20030906_202837_000000512019_00372_07941_8468.N1	06-SEP-2003 20:28:37	Dark	51.000	1014	Mars	0.0000	0.0000	102	7941	Yes
8	GOM_NL__2PRFIN20030906_203209_000000382019_00372_07941_8469.N1	06-SEP-2003 20:32:09	Bright	37.500	154	22Bet Aqr	2.8990	5700.0	75	7941	No
9	GOM_NL__2PRFIN20030906_203329_000000402019_00372_07941_8470.N1	06-SEP-2003 20:33:29	Bright	39.500	162	34Alp Aqr	2.9440	5350.0	79	7941	No
10	GOM_NL__2PRFIN20030906_203627_000000392019_00372_07941_8471.N1	06-SEP-2003 20:36:27	Bright	39.000	61	8Eps Peg	2.1000	3900.0	78	7941	No
11	GOM_NL__2PRFIN20030906_203849_000000452019_00372_07941_8472.N1	06-SEP-2003 20:38:49	Bright	44.500	90	54Alp Peg	2.4870	11000.	89	7941	No
12	GOM_NL__2PRFIN20030906_204328_000000392019_00372_07941_8473.N1	06-SEP-2003 20:43:28	Bright	38.500	92	53Eps Cyg	2.5000	4500.0	77	7941	No
13	GOM_NL__2PRFIN20030906_204526_000000382019_00372_07941_8474.N1	06-SEP-2003 20:45:26	Bright	38.000	66	37Gam Cyg	2.2080	5900.0	76	7941	No
14	GOM_NL__2PRFIN20030906_204719_000000372019_00372_07941_8475.N1	06-SEP-2003 20:47:19	Bright	37.000	144	18Del Cyg	2.8600	11000.	74	7941	No
15	GOM_NL__2PRFIN20030906_205123_000000382019_00372_07941_8476.N1	06-SEP-2003 20:51:23	Bright	37.500	89	5Alp Cep	2.4510	8000.0	75	7941	No
16	GOM_NL__2PRFIN20030906_205330_000000452019_00372_07941_8477.N1	06-SEP-2003 20:53:30	Bright	44.500	74	11Bet Cas	2.2680	6600.0	89	7941	No
17	GOM_NL__2PRFIN20030906_205531_000000472019_00372_07941_8478.N1	06-SEP-2003 20:55:31	Bright	47.000	76	27Gam Cas	2.3000	30000.	94	7941	No
18	GOM_NL__2PRFIN20030906_205906_000000372019_00372_07941_8479.N1	06-SEP-2003 20:59:06	Bright	37.000	49	1Alp UMi	1.9900	6300.0	74	7941	No
19	GOM_NL__2PRFIN20030906_210226_000000582019_00372_07941_8480.N1	06-SEP-2003 21:02:26	Bright	58.000	160	23Gam Per	2.9300	4700.0	116	7941	No
20	GOM_NL__2PRFIN20030906_210552_000000382019_00372_07941_8481.N1	06-SEP-2003 21:05:52	Bright	38.000	36	50Alp UMa	1.8000	6300.0	76	7941	No
21	GOM_NL__2PRFIN20030906_210716_000000382019_00372_07941_8482.N1	06-SEP-2003 21:07:16	Bright	37.500	82	48Bet UMa	2.3650	10600.	75	7941	No
22	GOM_NL__2PRFIN20030906_211046_000000642019_00372_07941_8483.N1	06-SEP-2003 21:10:46	Bright	63.500	6	13Alp Aur	0.080000	3400.0	127	7941	No
23	GOM_NL__2PRFIN20030906_211451_000000532019_00372_07941_8484.N1	06-SEP-2003 21:14:51	Bright	53.000	107	37The Aur	2.6490	11000.	106	7941	No
24	GOM_NL__2PRFIN20030906_211721_000000432019_00372_07941_8485.N1	06-SEP-2003 21:17:21	Bright	42.500	17	78Bet Gem	1.1610	4500.0	85	7941	No
25	GOM_NL__2PRFIN20030906_211906_000000872019_00372_07941_8486.N1	06-SEP-2003 21:19:06	Twilight	87.000	28	12Bet Tau	1.6500	15200.	174	7941	No
26	GOM_NL__2PRFIN20030906_212218_000000622019_00372_07941_8487.N1	06-SEP-2003 21:22:18	Twilight	62.000	44	24Gam Gem	1.9280	11000.	124	7941	No
27	GOM_NL__2PRFIN20030906_212414_000000542019_00372_07941_8488.N1	06-SEP-2003 21:24:14	Twilight	53.500	8	10Alp CMi	0.40000	6500.0	107	7941	No
28	GOM_NL__2PRFIN20030906_212735_000000912019_00372_07941_8489.N1	06-SEP-2003 21:27:35	Dark	91.000	14	58Alp Ori	0.87000	3000.0	182	7941	No
29	GOM_NL__2PRFIN20030906_213220_000000592019_00372_07941_8490.N1	06-SEP-2003 21:32:20	Dark	59.000	1	9Alp CMa	-1.4400	11000.	118	7941	No
30	GOM_NL__2PRFIN20030906_213457_000000472019_00372_07941_8491.N1	06-SEP-2003 21:34:57	Dark	47.000	23	21Eps CMa	1.5020	26000.	94	7941	No
31	GOM_NL__2PRFIN20030906_213621_000000472019_00372_07941_8492.N1	06-SEP-2003 21:36:21	Dark	46.500	117	Pi Pup	2.7060	3800.0	93	7941	No
32	GOM_NL__2PRFIN20030906_213754_000000392019_00372_07941_8493.N1	06-SEP-2003 21:37:54	Dark	38.500	34	Gam2Vel	1.7930	23000.	77	7941	No
33	GOM_NL__2PRFIN20030906_215710_000000472019_00373_07942_8593.N1	06-SEP-2003 21:57:10	Straylight	47.000	148	Alp Tuc	2.8780	4100.0	94	7942	No
34	GOM_NL__2PRFIN20030906_215913_000000512019_00373_07942_8594.N1	06-SEP-2003 21:59:13	Straylight	51.000	84	Alp Phe	2.3970	4500.0	102	7942	No
35	GOM_NL__2PRFIN20030906_220051_000000422019_00373_07942_8595.N1	06-SEP-2003 22:00:51	Straylight	42.000	31	Alp Gru	1.7340	15200.	84	7942	No
36	GOM_NL__2PRFIN20030906_220340_000000392019_00373_07942_8596.N1	06-SEP-2003 22:03:40	Straylight	38.500	172	Gam Gru	3.0030	13100.	77	7942	No
37	GOM_NL__2PRFIN20030906_220458_000000482019_00373_07942_8597.N1	06-SEP-2003 22:04:58	Straylight	47.500	18	24Alp PsA	1.1660	9700.0	95	7942	No
38	GOM_NL__2PRFIN20030906_220911_000000542019_00373_07942_8598.N1	06-SEP-2003 22:09:11	Dark	53.500	1014	Mars	0.0000	0.0000	107	7942	Yes
39	GOM_NL__2PRFIN20030906_221245_000000382019_00373_07942_8599.N1	06-SEP-2003 22:12:45	Bright	38.000	154	22Bet Aqr	2.8990	5700.0	76	7942	No
40	GOM_NL__2PRFIN20030906_221404_000000402019_00373_07942_8600.N1	06-SEP-2003 22:14:04	Bright	39.500	162	34Alp Aqr	2.9440	5350.0	79	7942	No
41	GOM_NL__2PRFIN20030906_221703_000000392019_00373_07942_8601.N1	06-SEP-2003 22:17:03	Bright	38.500	61	8Eps Peg	2.1000	3900.0	77	7942	No
42	GOM_NL__2PRFIN20030906_221924_000000452019_00373_07942_8602.N1	06-SEP-2003 22:19:24	Bright	45.000	90	54Alp Peg	2.4870	11000.	90	7942	No

43	GOM_NL__2PRFIN20030906_222404_000000362019_00373_07942_8603.N1	06-SEP-2003 22:24:04	Bright	35.500	92	53Eps Cyg	2.5000	4500.0	71	7942	No
44	GOM_NL__2PRFIN20030906_222602_000000382019_00373_07942_8604.N1	06-SEP-2003 22:26:02	Bright	38.000	66	37Gam Cyg	2.2080	5900.0	76	7942	No
45	GOM_NL__2PRFIN20030906_222755_000000362019_00373_07942_8605.N1	06-SEP-2003 22:27:55	Bright	35.500	144	18Del Cyg	2.8600	11000.	71	7942	No
46	GOM_NL__2PRFIN20030906_223159_000000392019_00373_07942_8606.N1	06-SEP-2003 22:31:59	Bright	38.500	89	5Alp Cep	2.4510	8000.0	77	7942	No
47	GOM_NL__2PRFIN20030906_223405_000000452019_00373_07942_8607.N1	06-SEP-2003 22:34:05	Bright	45.000	74	11Bet Cas	2.2680	6600.0	90	7942	No
48	GOM_NL__2PRFIN20030906_223606_000000462019_00373_07942_8608.N1	06-SEP-2003 22:36:06	Bright	45.500	76	27Gam Cas	2.3000	30000.	91	7942	No
49	GOM_NL__2PRFIN20030906_223942_000000372019_00373_07942_8609.N1	06-SEP-2003 22:39:42	Bright	37.000	49	1Alp UMi	1.9900	6300.0	74	7942	No
50	GOM_NL__2PRFIN20030906_224301_000000592019_00373_07942_8610.N1	06-SEP-2003 22:43:01	Bright	58.500	160	23Gam Per	2.9300	4700.0	117	7942	No
51	GOM_NL__2PRFIN20030906_224628_000000392019_00373_07942_8611.N1	06-SEP-2003 22:46:28	Bright	39.000	36	50Alp UMa	1.8000	6300.0	78	7942	No
52	GOM_NL__2PRFIN20030906_224752_000000352019_00373_07942_8612.N1	06-SEP-2003 22:47:52	Bright	34.500	82	48Bet UMa	2.3650	10600.	69	7942	No
53	GOM_NL__2PRFIN20030906_225121_000000602019_00373_07942_8613.N1	06-SEP-2003 22:51:21	Bright	59.500	6	13Alp Aur	0.080000	3400.0	119	7942	No
54	GOM_NL__2PRFIN20030906_225527_000000522019_00373_07942_8614.N1	06-SEP-2003 22:55:27	Bright	52.000	107	37The Aur	2.6490	11000.	104	7942	No
55	GOM_NL__2PRFIN20030906_225757_000000432019_00373_07942_8615.N1	06-SEP-2003 22:57:57	Bright	43.000	17	78Bet Gem	1.1610	4500.0	86	7942	No
56	GOM_NL__2PRFIN20030906_225942_000000832019_00373_07942_8616.N1	06-SEP-2003 22:59:42	Twilight	82.500	28	12Bet Tau	1.6500	15200.	165	7942	No
57	GOM_NL__2PRFIN20030906_230254_000000582019_00373_07942_8617.N1	06-SEP-2003 23:02:54	Twilight	58.000	44	24Gam Gem	1.9280	11000.	116	7942	No
58	GOM_NL__2PRFIN20030906_230450_000000562019_00373_07942_8618.N1	06-SEP-2003 23:04:50	Twilight	56.000	8	10Alp CMi	0.40000	6500.0	112	7942	No
59	GOM_NL__2PRFIN20030906_230812_000000782019_00373_07942_8619.N1	06-SEP-2003 23:08:12	Dark	77.500	14	58Alp Ori	0.87000	3000.0	155	7942	No
60	GOM_NL__2PRFIN20030906_234127_000000422019_00374_07943_8595.N1	06-SEP-2003 23:41:27	Straylight	41.500	31	Alp Gru	1.7340	15200.	83	7943	No
61	GOM_NL__2PRFIN20030906_234415_000000402019_00374_07943_8596.N1	06-SEP-2003 23:44:15	Straylight	39.500	172	Gam Gru	3.0030	13100.	79	7943	No
62	GOM_NL__2PRFIN20030906_234534_000000522019_00374_07943_8597.N1	06-SEP-2003 23:45:34	Straylight	51.500	18	24Alp PsA	1.1660	9700.0	103	7943	No
63	GOM_NL__2PRFIN20030906_234949_000000542019_00374_07943_8598.N1	06-SEP-2003 23:49:49	Dark	54.000	1014	Mars	0.0000	0.0000	108	7943	Yes
64	GOM_NL__2PRFIN20030906_235320_000000392019_00374_07943_8599.N1	06-SEP-2003 23:53:20	Bright	38.500	154	22Bet Aqr	2.8990	5700.0	77	7943	No
65	GOM_NL__2PRFIN20030906_235440_000000412019_00374_07943_8600.N1	06-SEP-2003 23:54:40	Bright	40.500	162	34Alp Aqr	2.9440	5350.0	81	7943	No
66	GOM_NL__2PRFIN20030906_235738_000000412019_00374_07943_8601.N1	06-SEP-2003 23:57:38	Bright	40.500	61	8Eps Peg	2.1000	3900.0	81	7943	No
67	GOM_NL__2PRFIN20030906_235959_000000452019_00374_07943_8602.N1	06-SEP-2003 23:59:59	Bright	44.500	90	54Alp Peg	2.4870	11000.	89	7943	No

3. Quality information per product

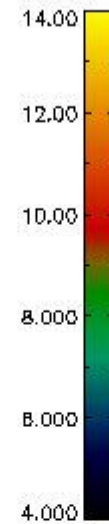
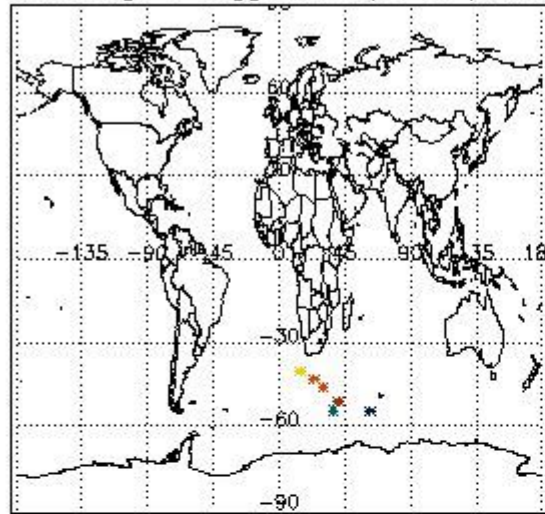
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

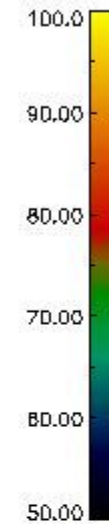
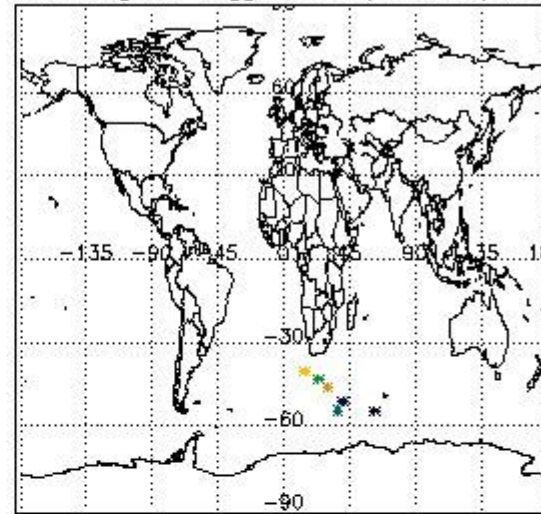


3.2 Plot quality information per product (world map)

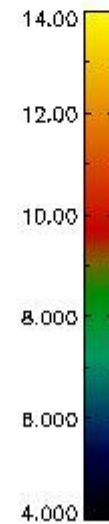
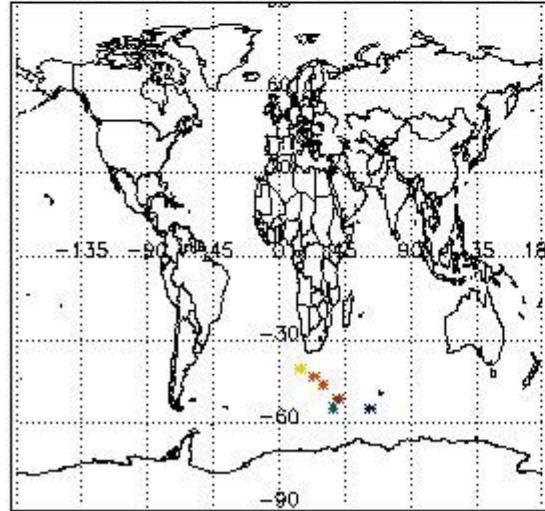
Percentage of flagged data per O3 profile



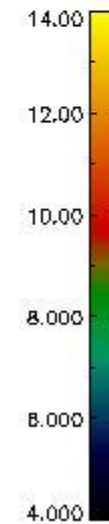
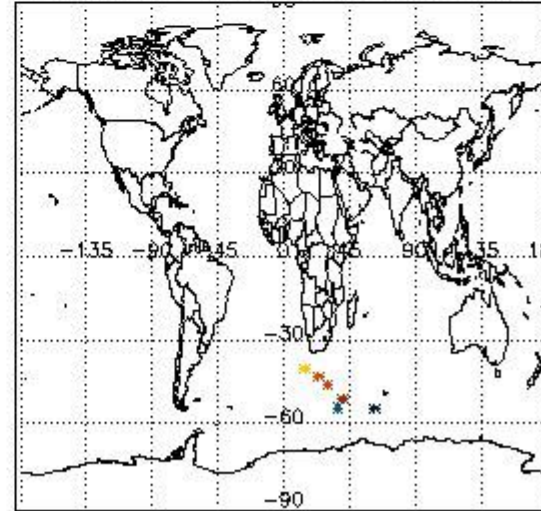
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

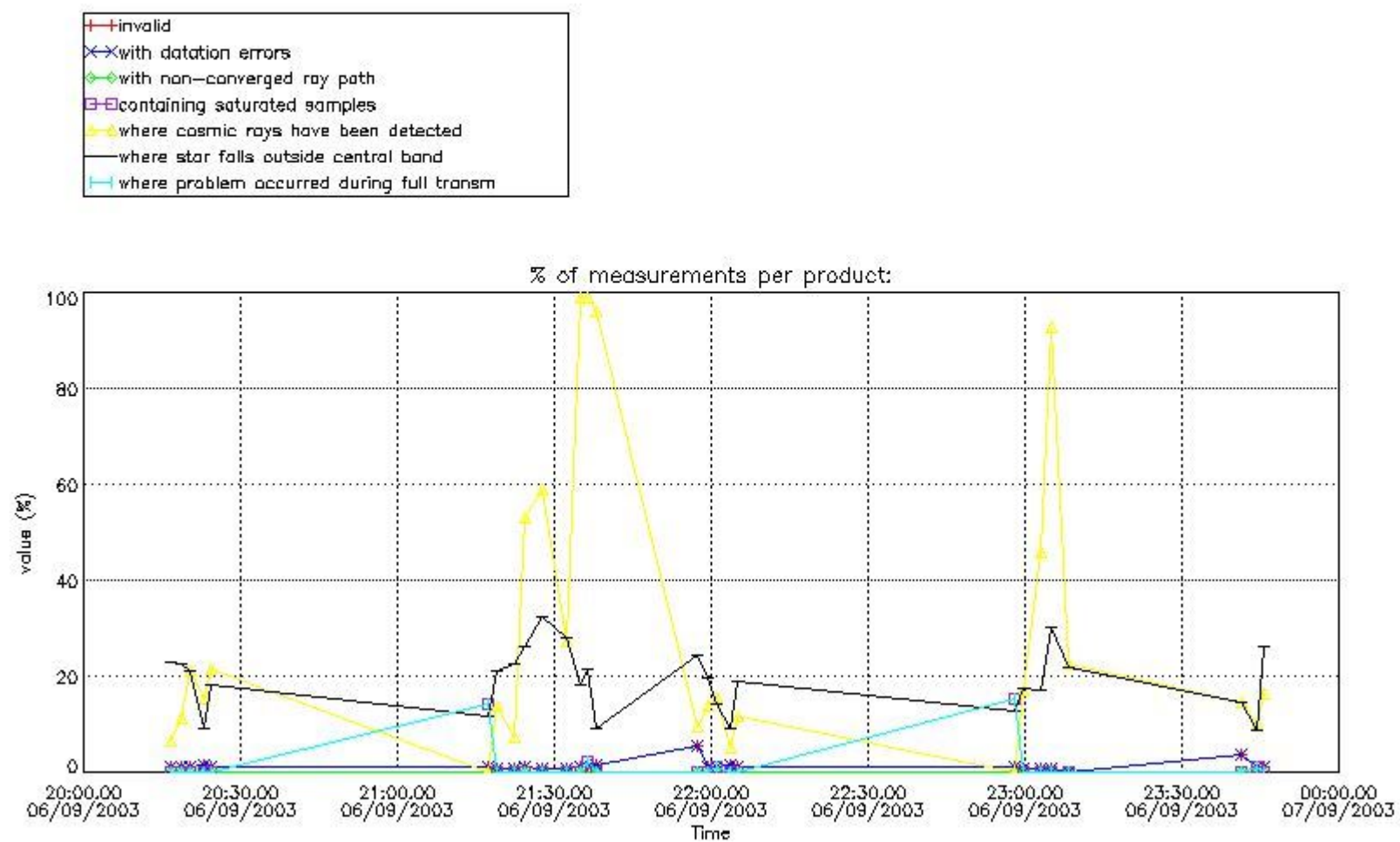


4. Level 1 quality information per product

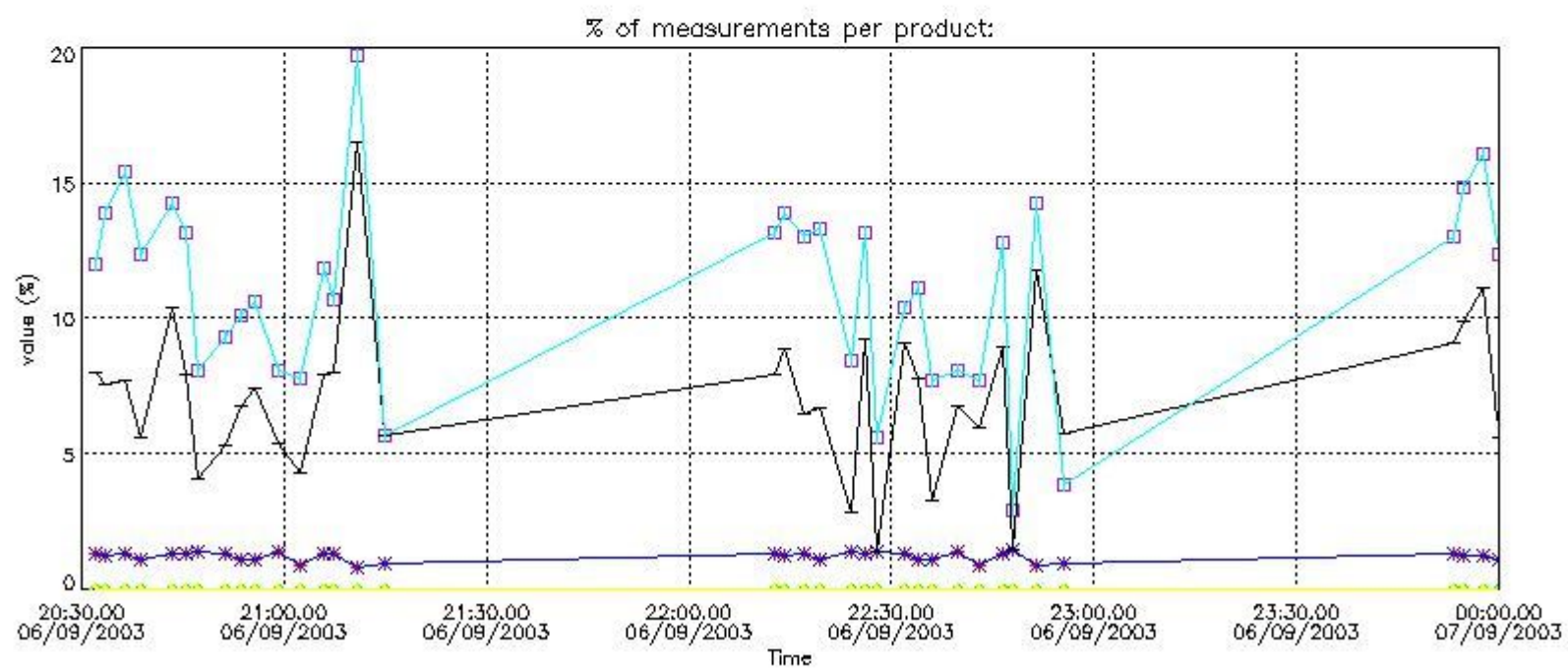
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



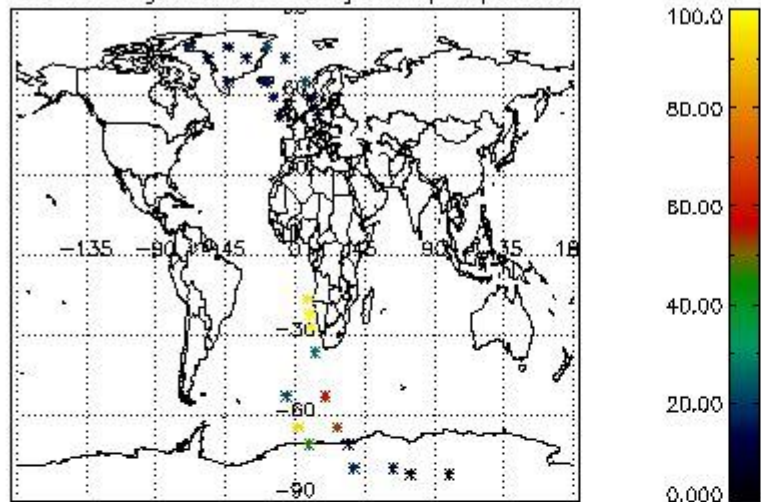
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



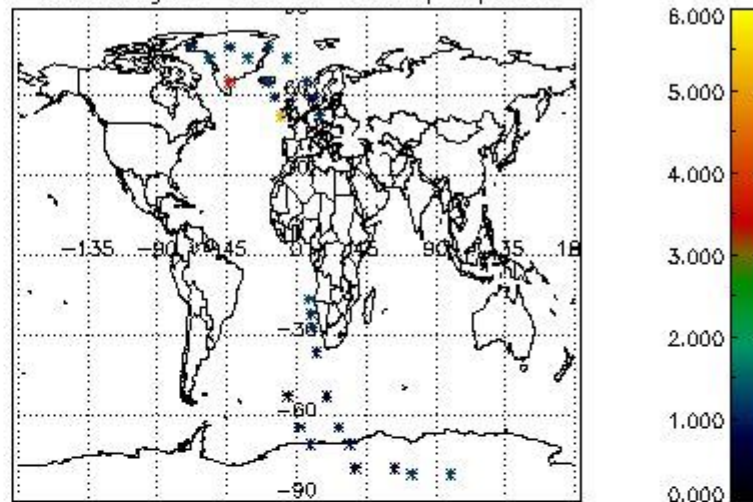
4.2 Plot quality information per product coming from level 1b processing (world map)

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

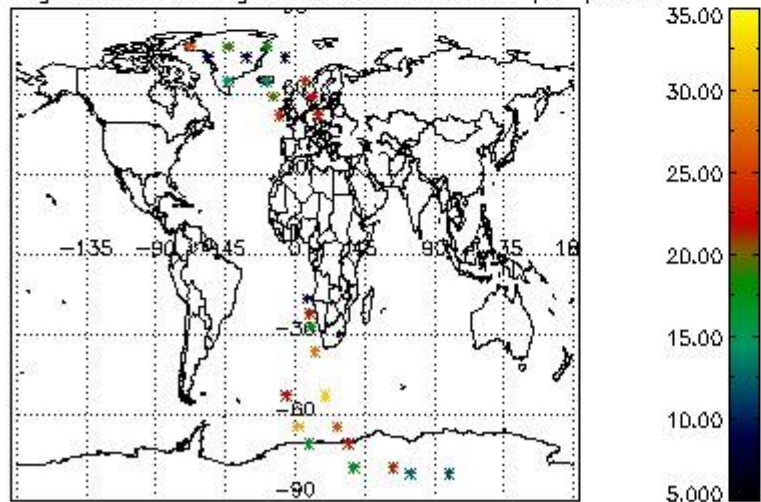
Percentage of cosmic ray hits per profile



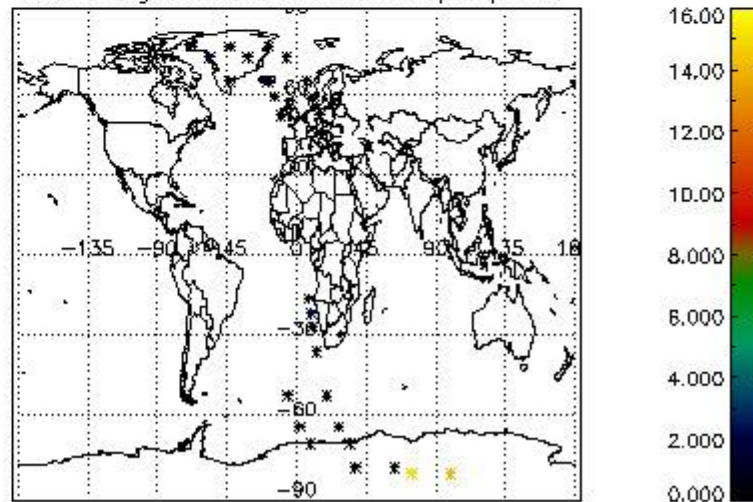
Percentage of datation errors per profile



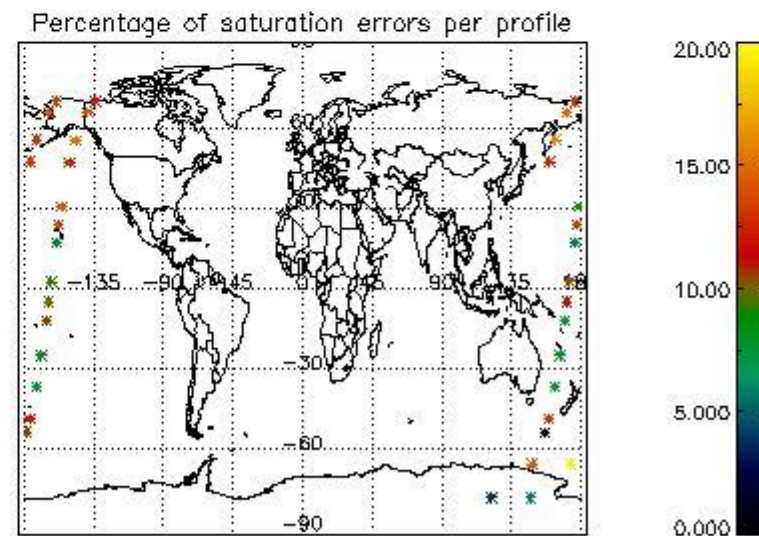
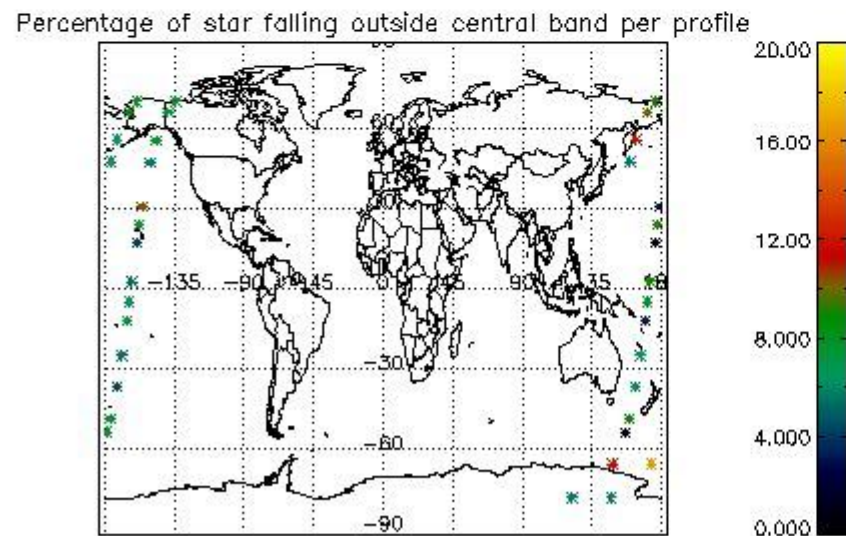
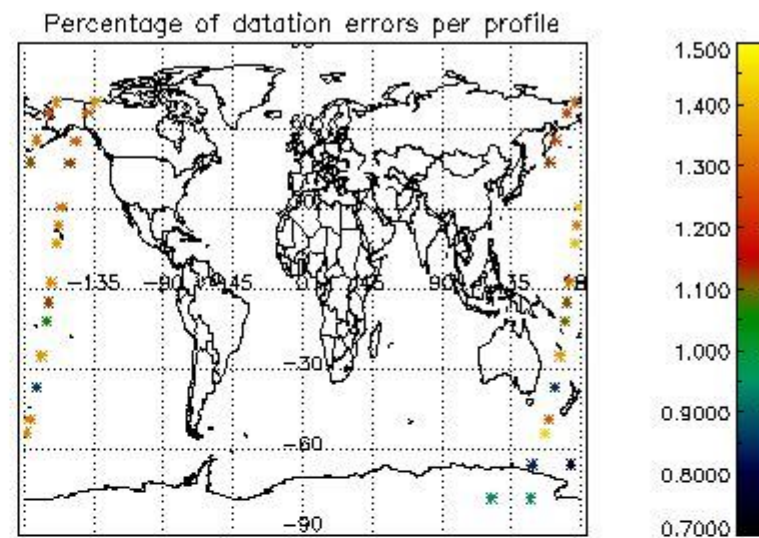
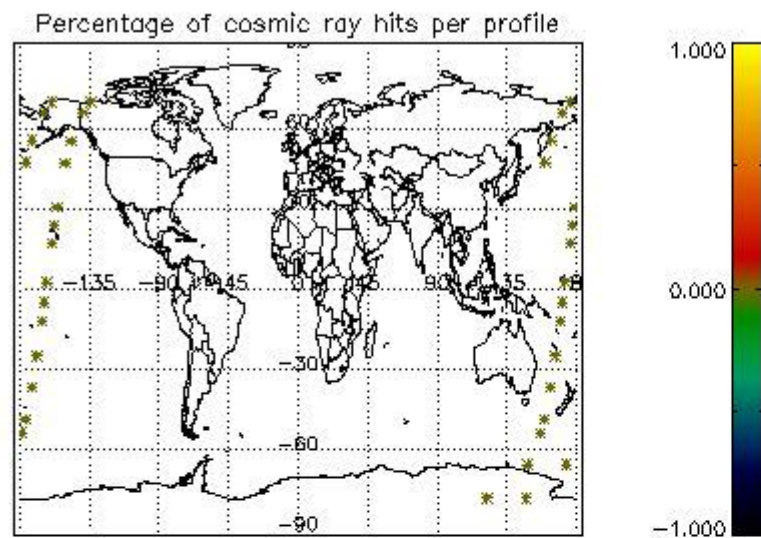
Percentage of star falling outside central band per profile



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

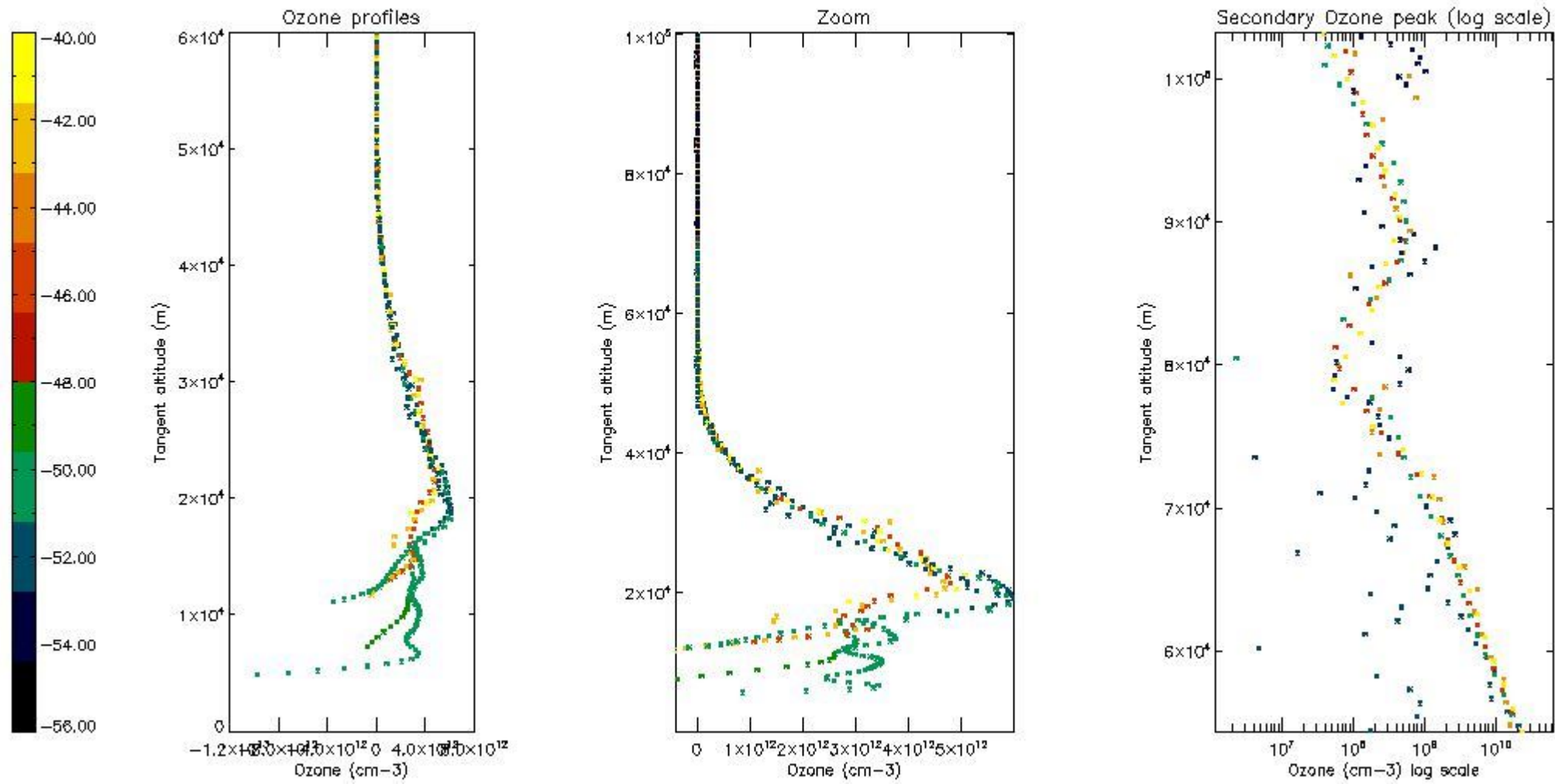
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	13
STD < 20	7

STD < 10	6
STD < 5	4

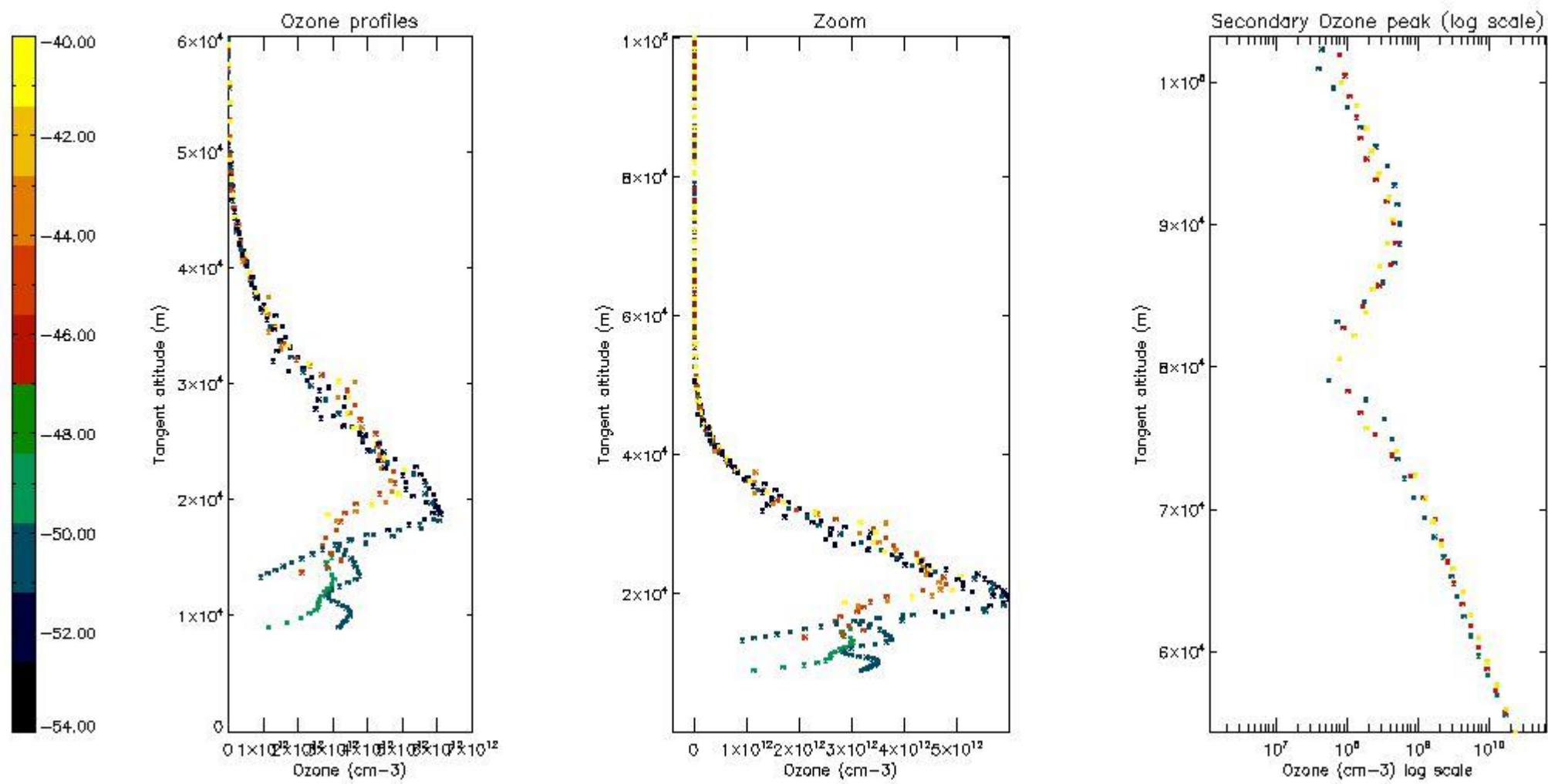
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



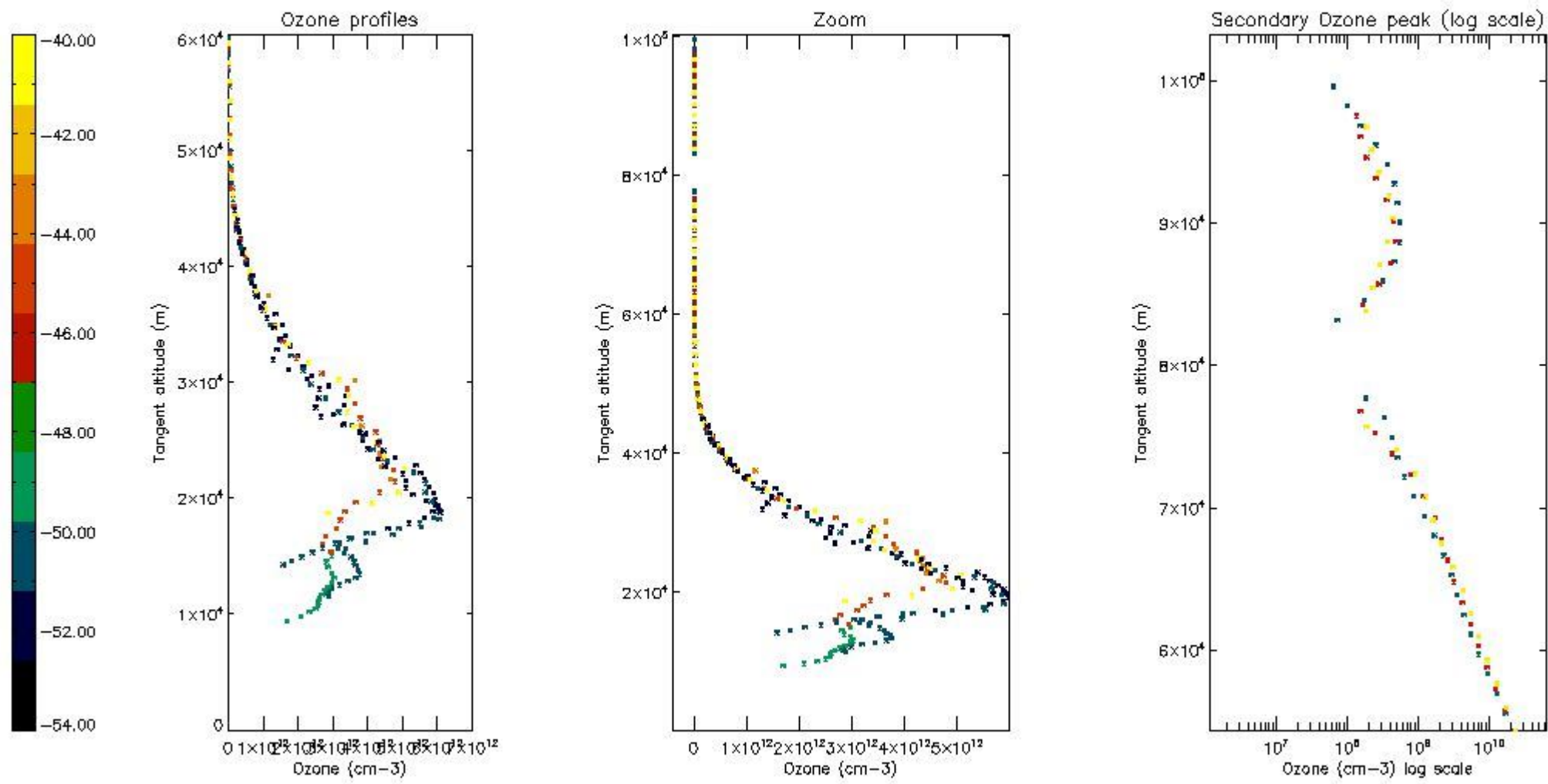
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



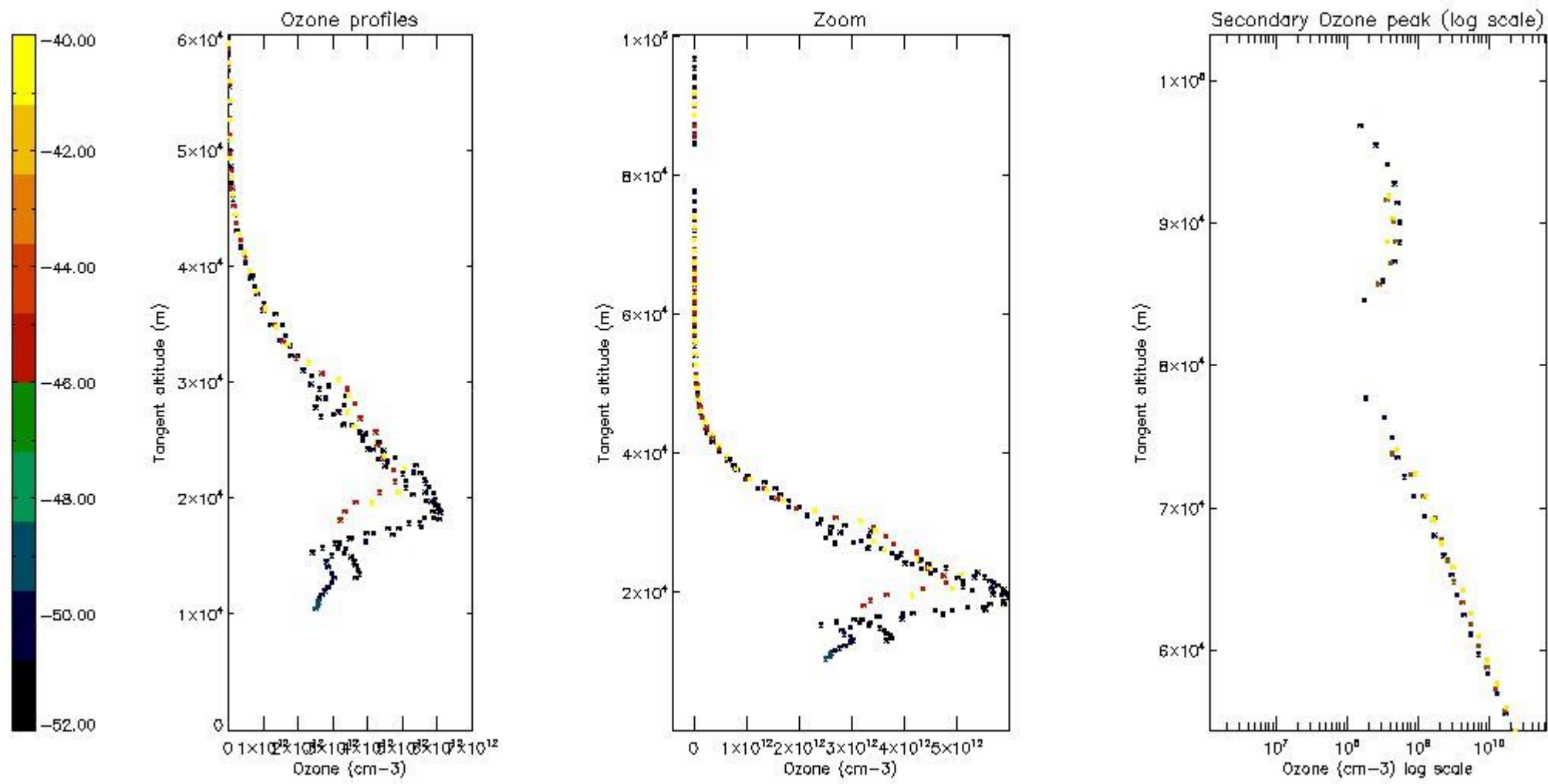
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



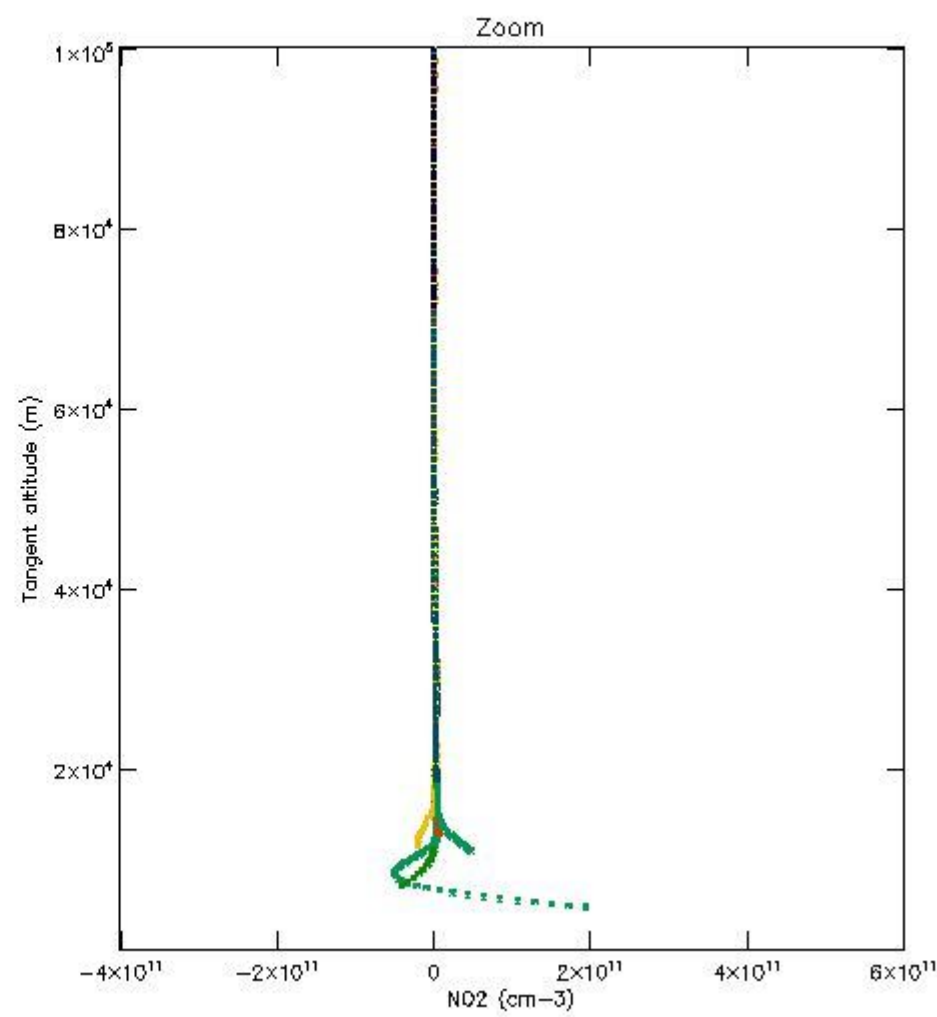
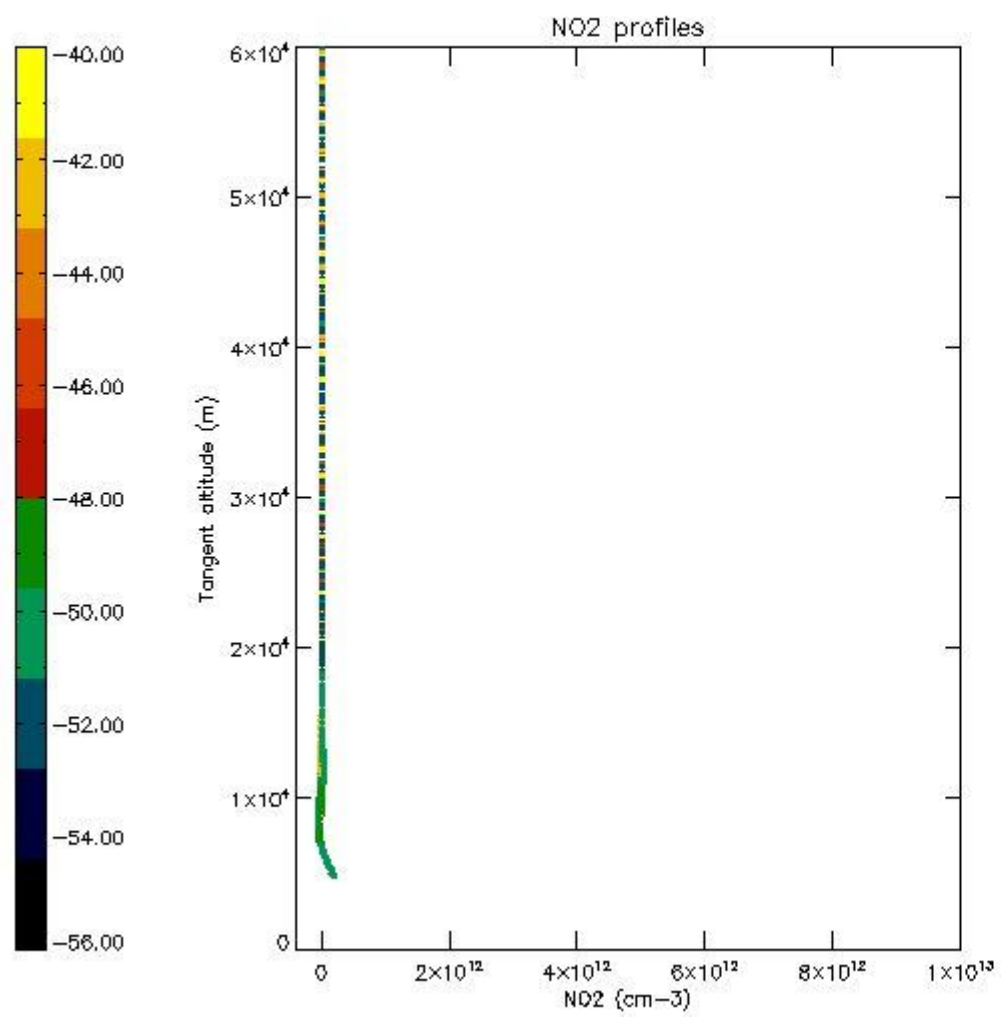
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



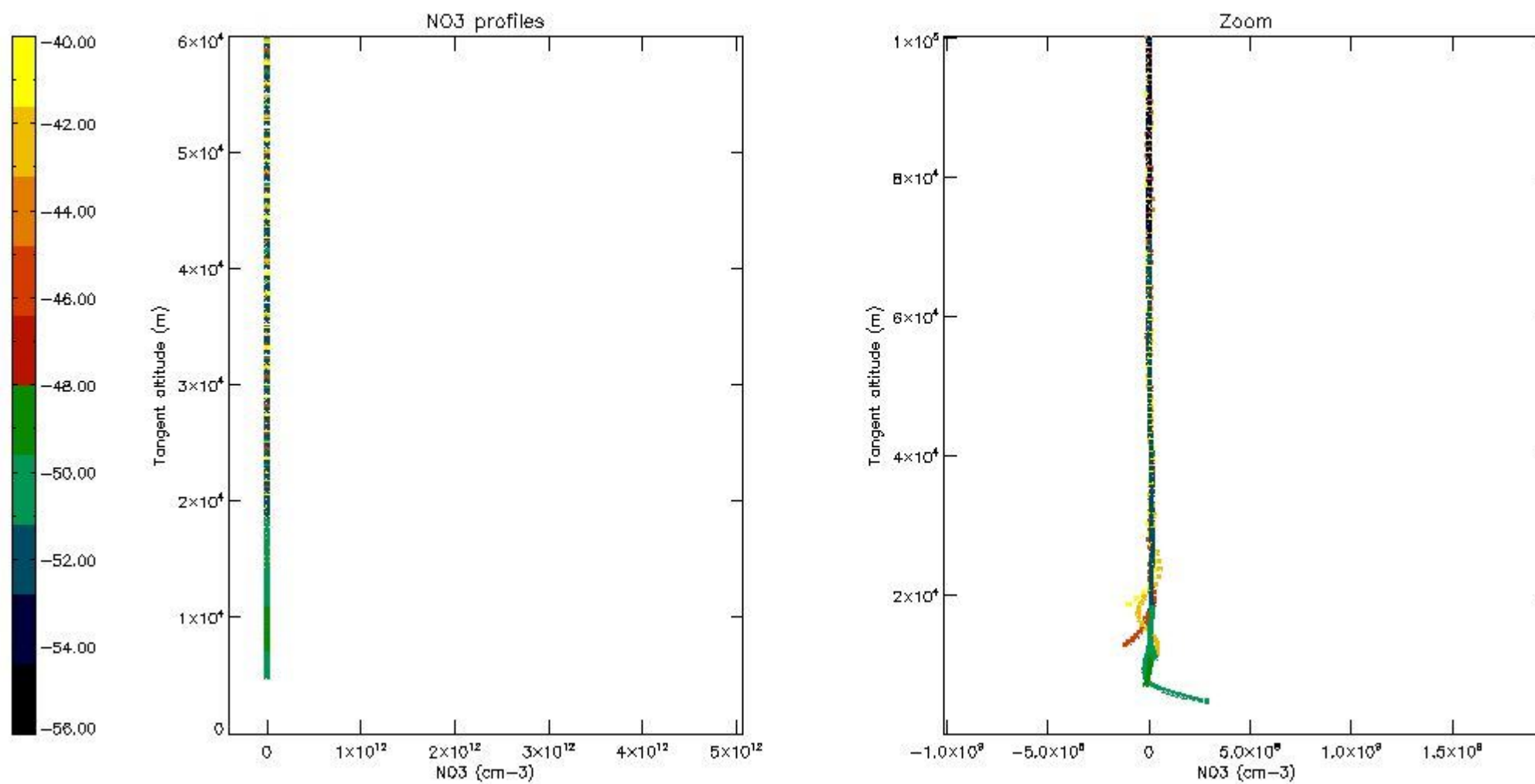
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

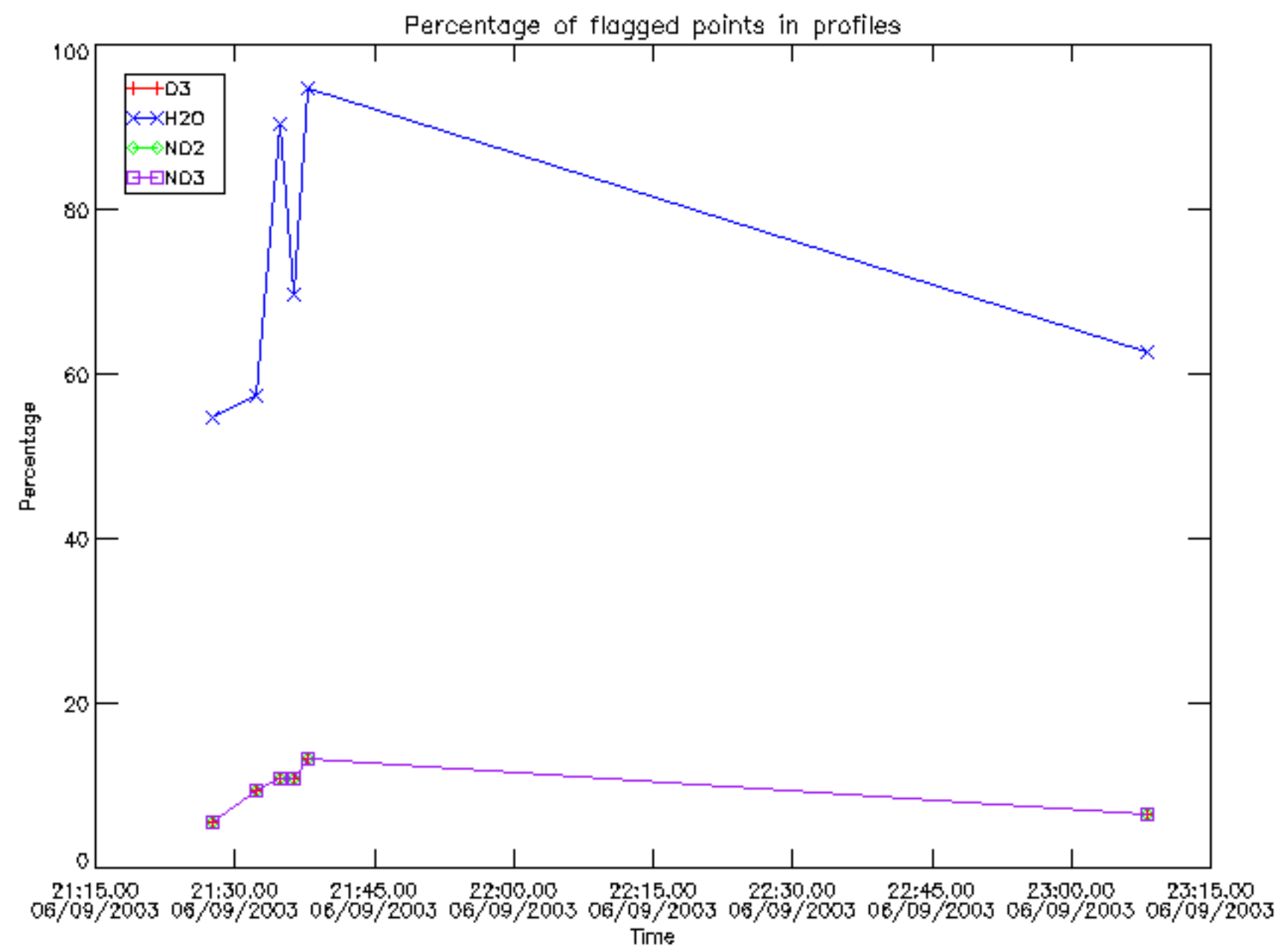
The colorbar represents the latitude.



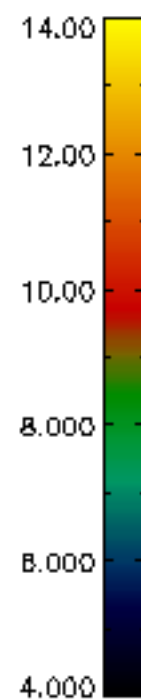
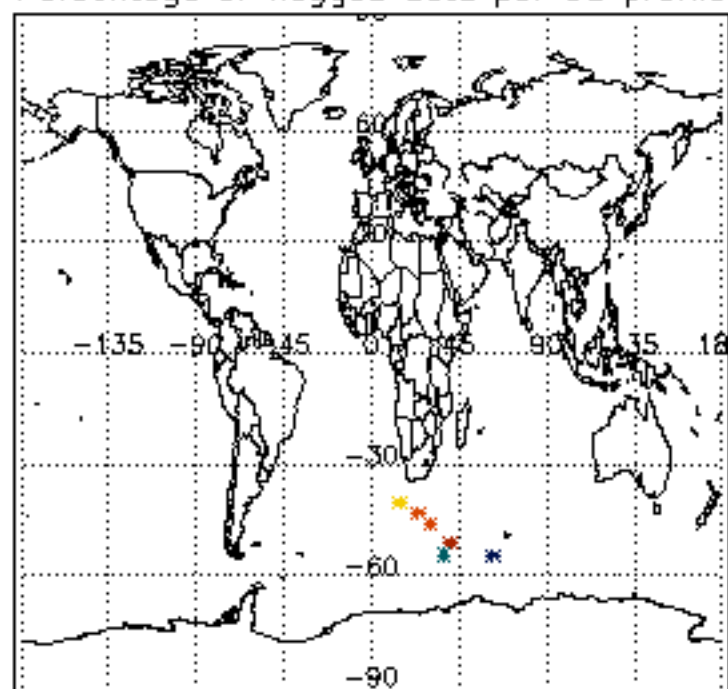
6. Auxiliary Data Files used for the production reported in section 2

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.

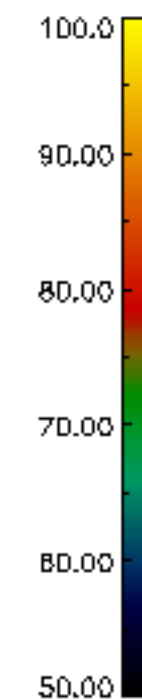
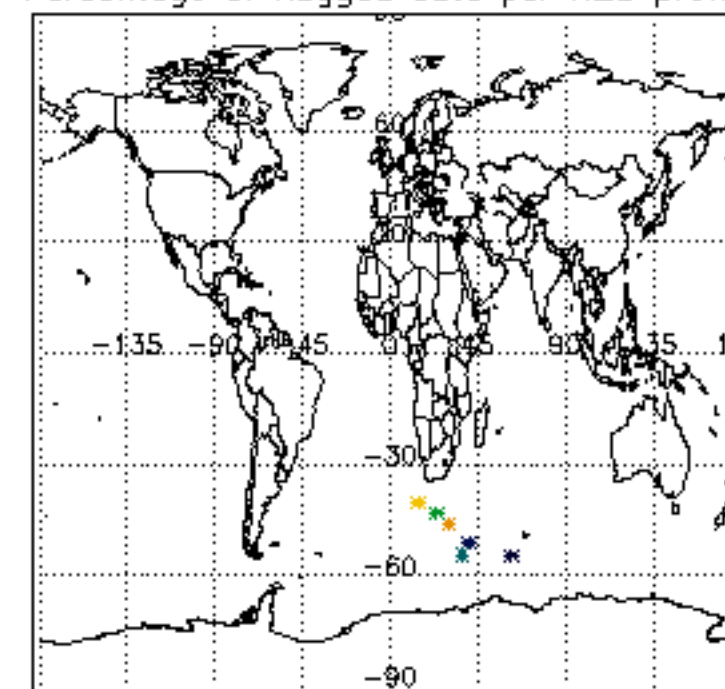
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	06-SEP-2003 20:12:43
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	06-SEP-2003 20:12:43
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	06-SEP-2003 20:12:43



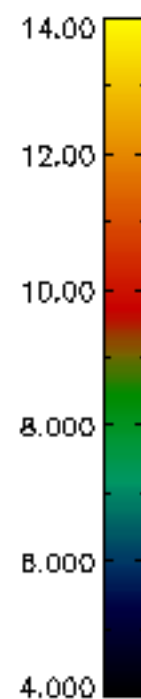
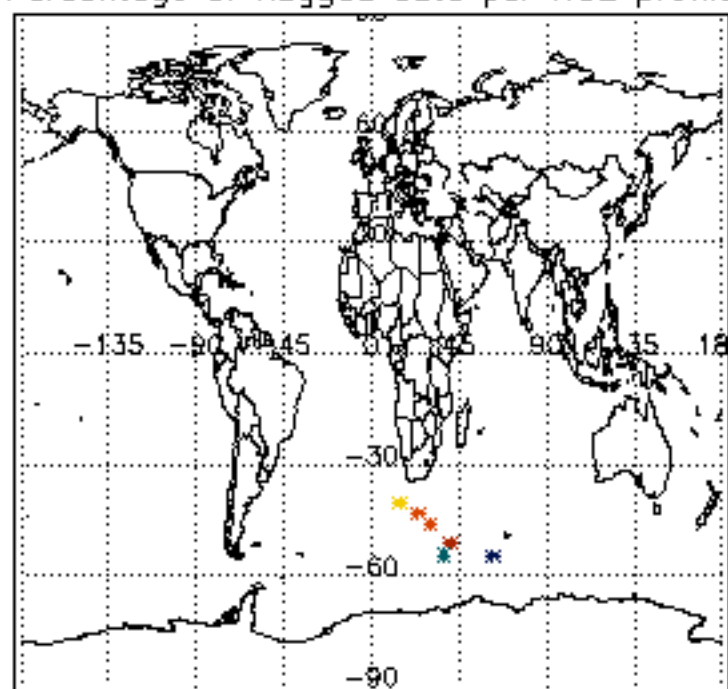
Percentage of flagged data per D3 profile



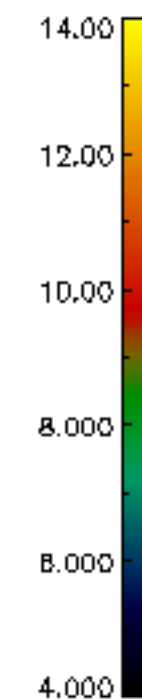
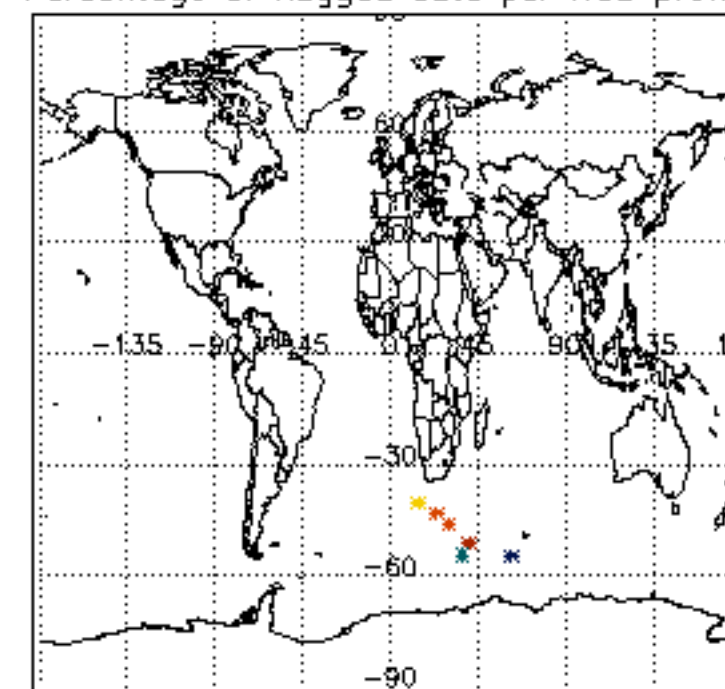
Percentage of flagged data per H2O profile

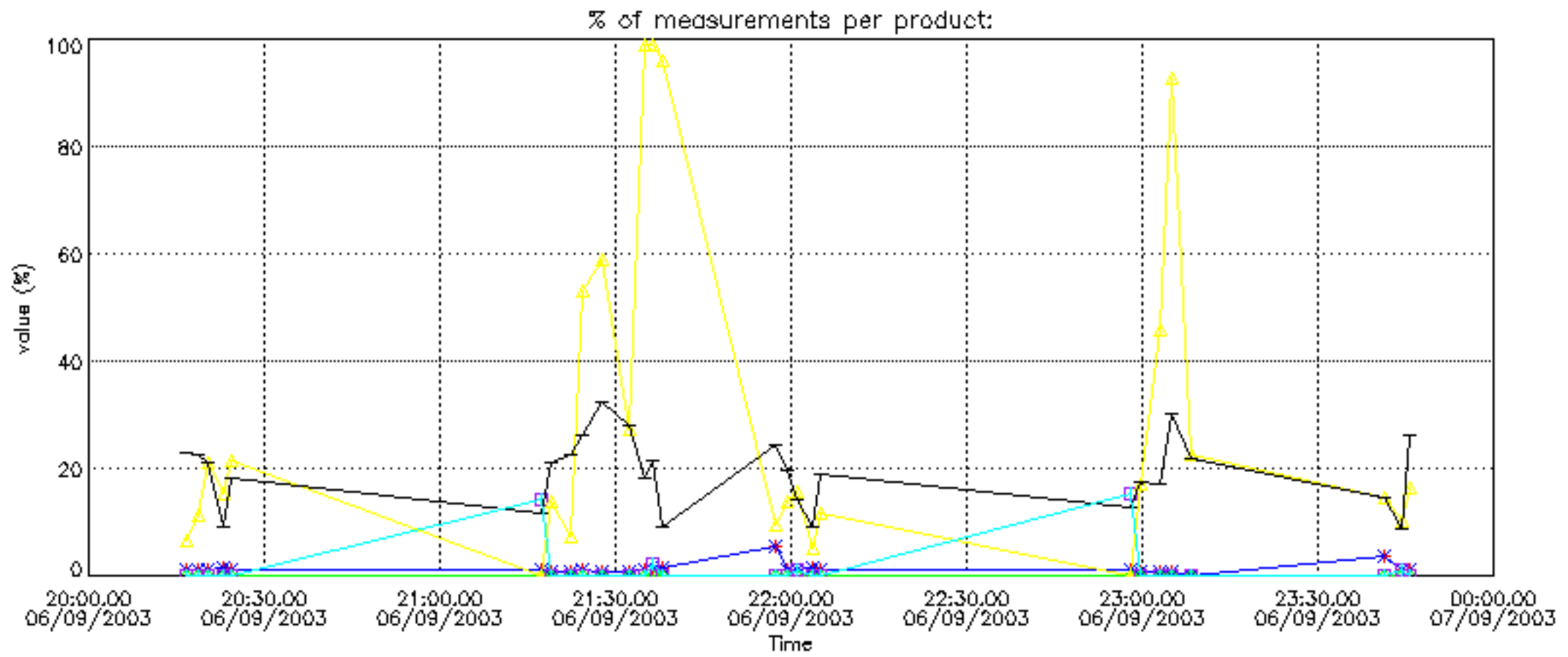


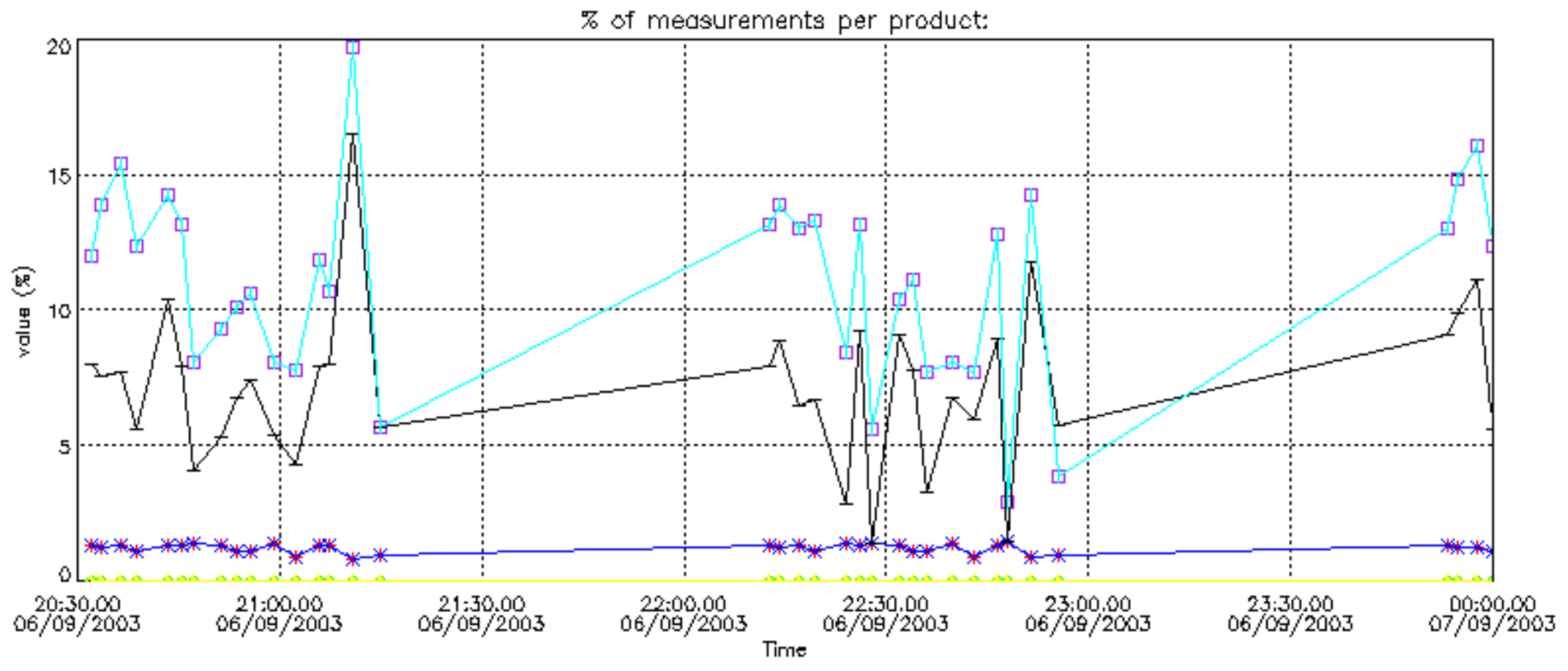
Percentage of flagged data per NO2 profile



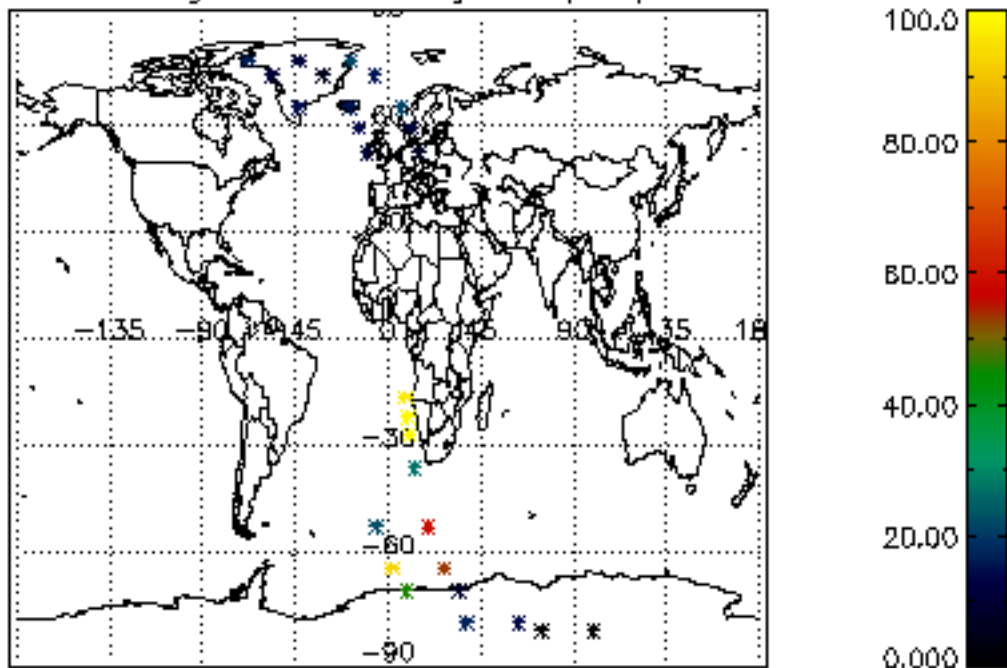
Percentage of flagged data per NO3 profile



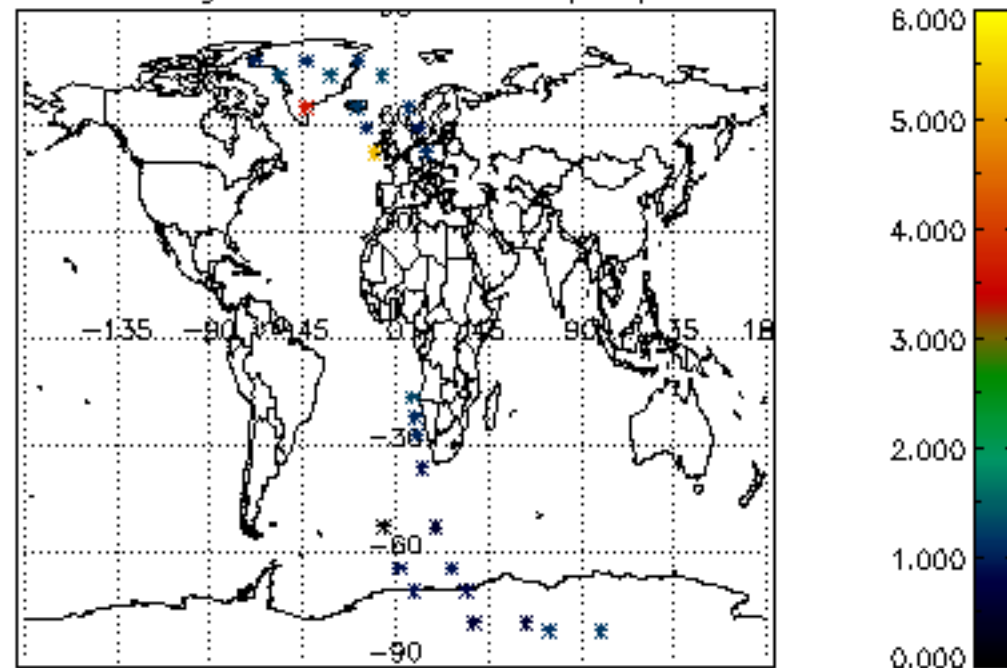




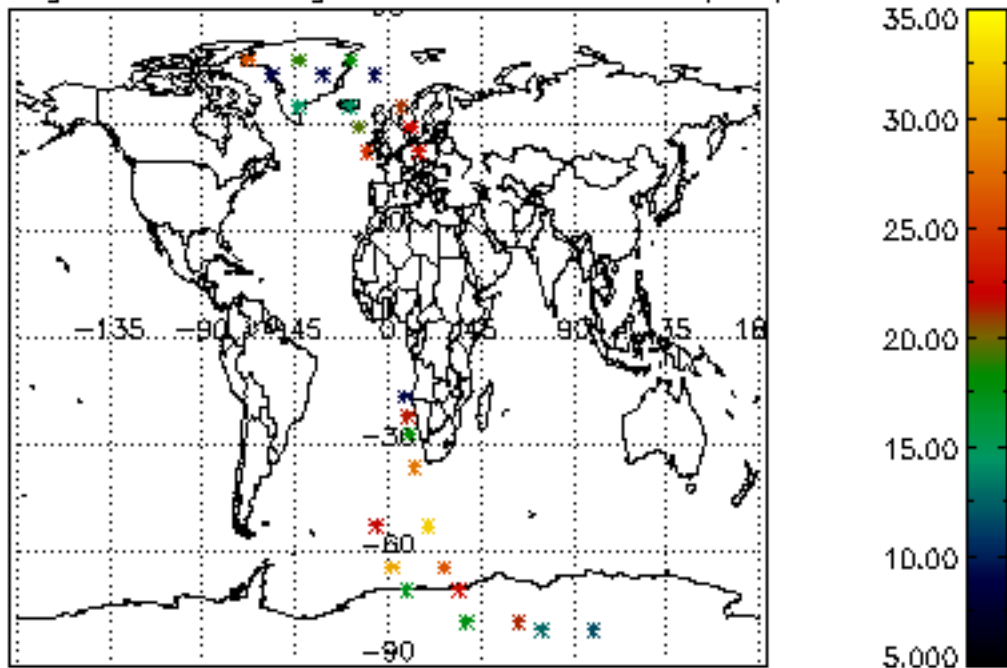
Percentage of cosmic ray hits per profile



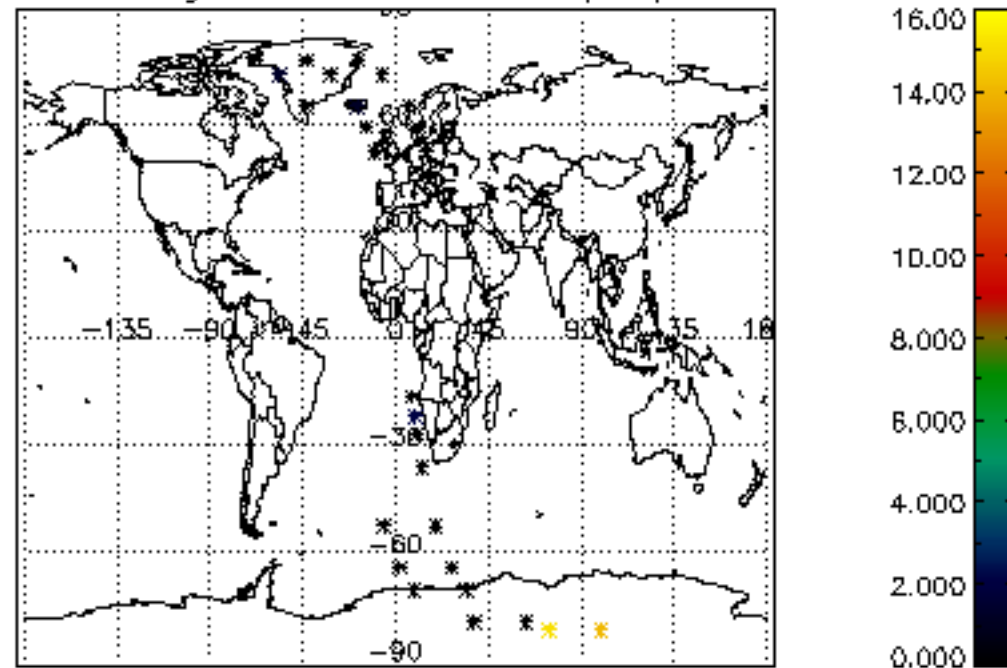
Percentage of datation errors per profile



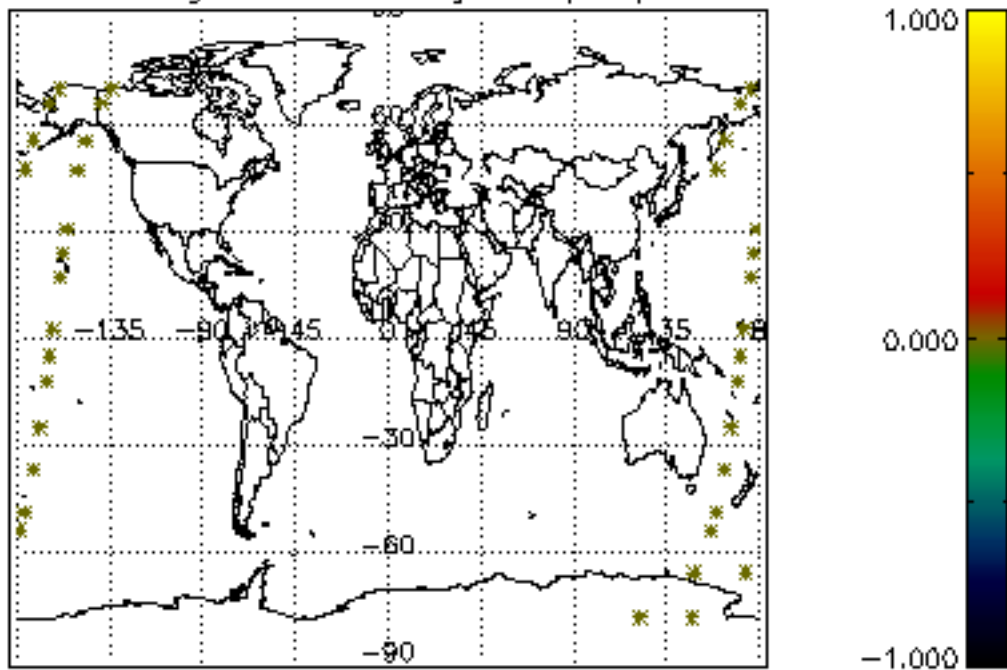
Percentage of star falling outside central band per profile



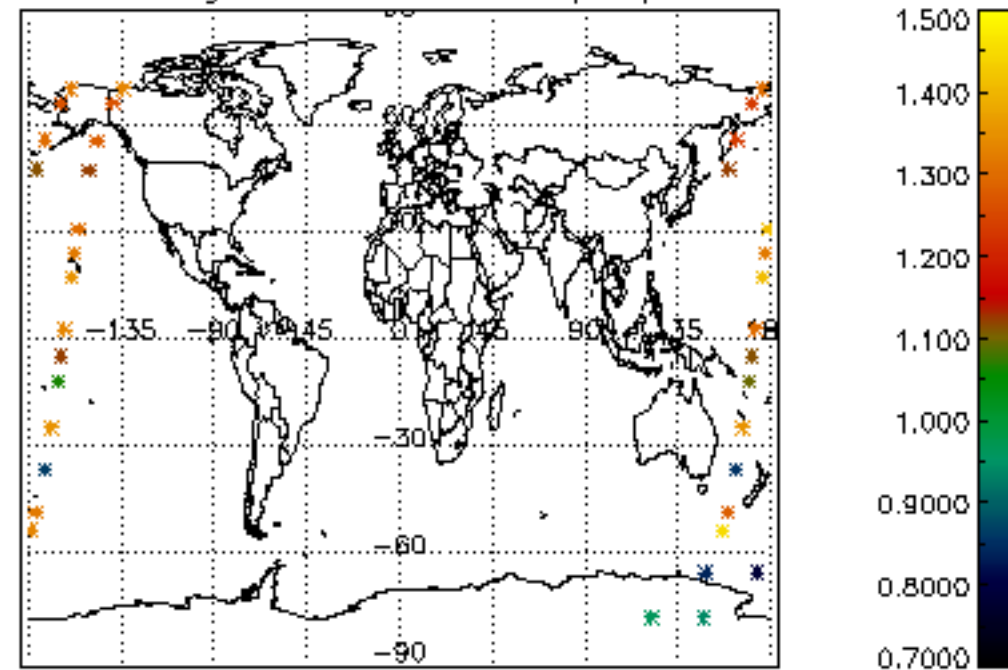
Percentage of saturation errors per profile



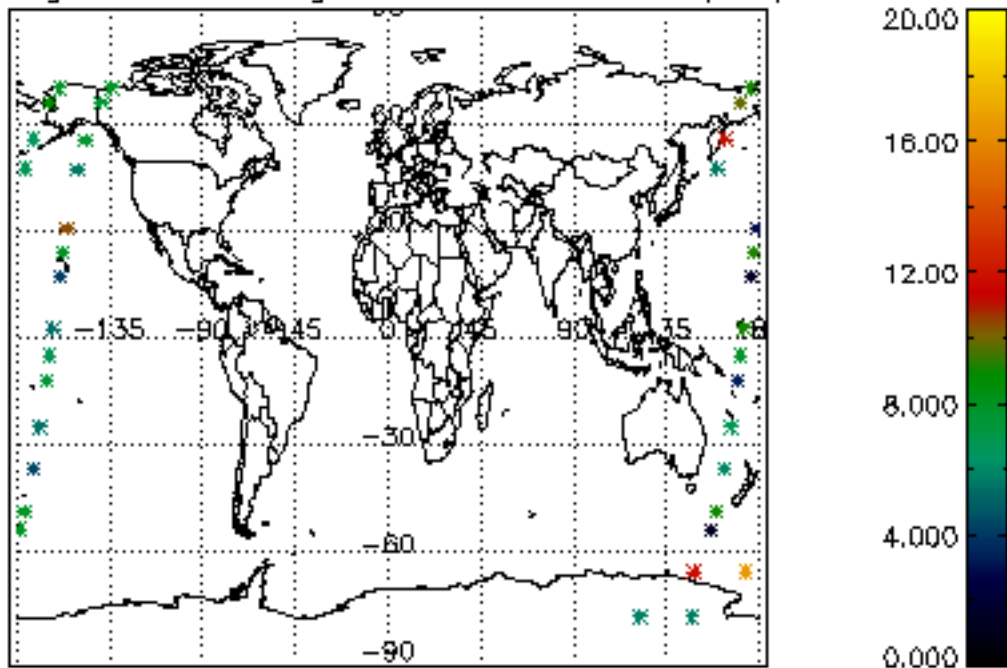
Percentage of cosmic ray hits per profile



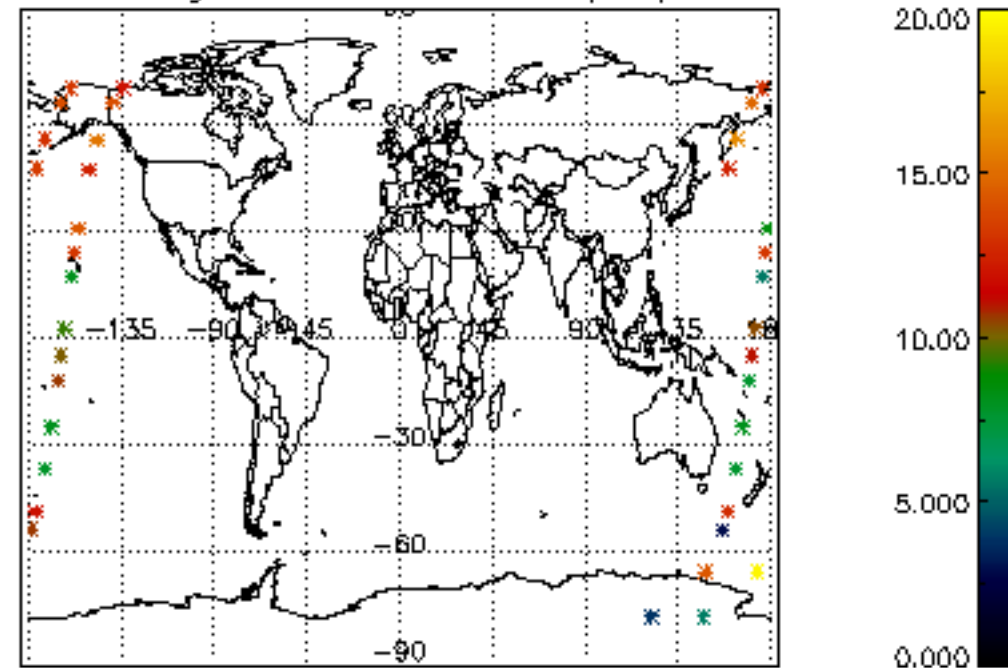
Percentage of datation errors per profile

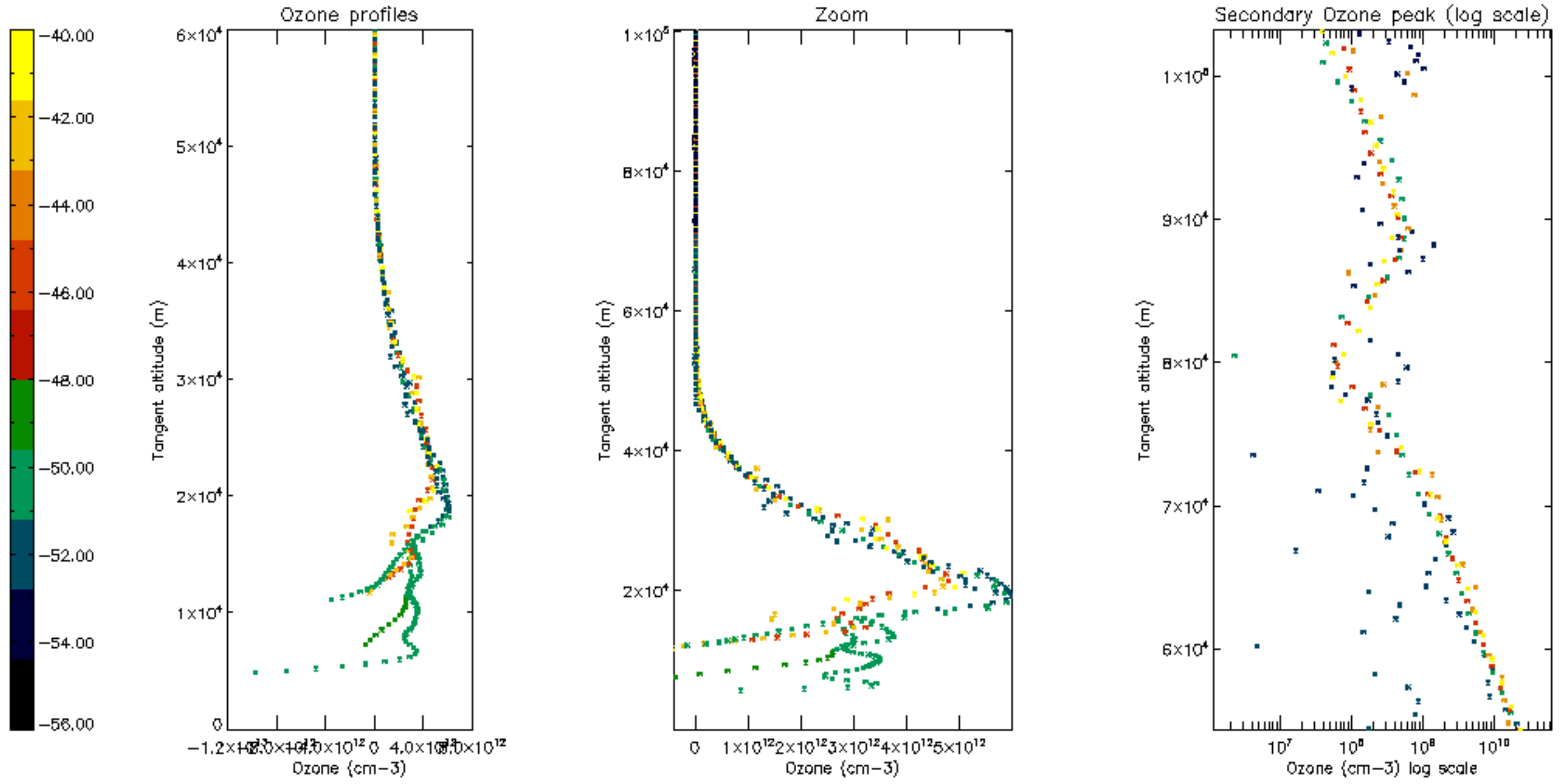


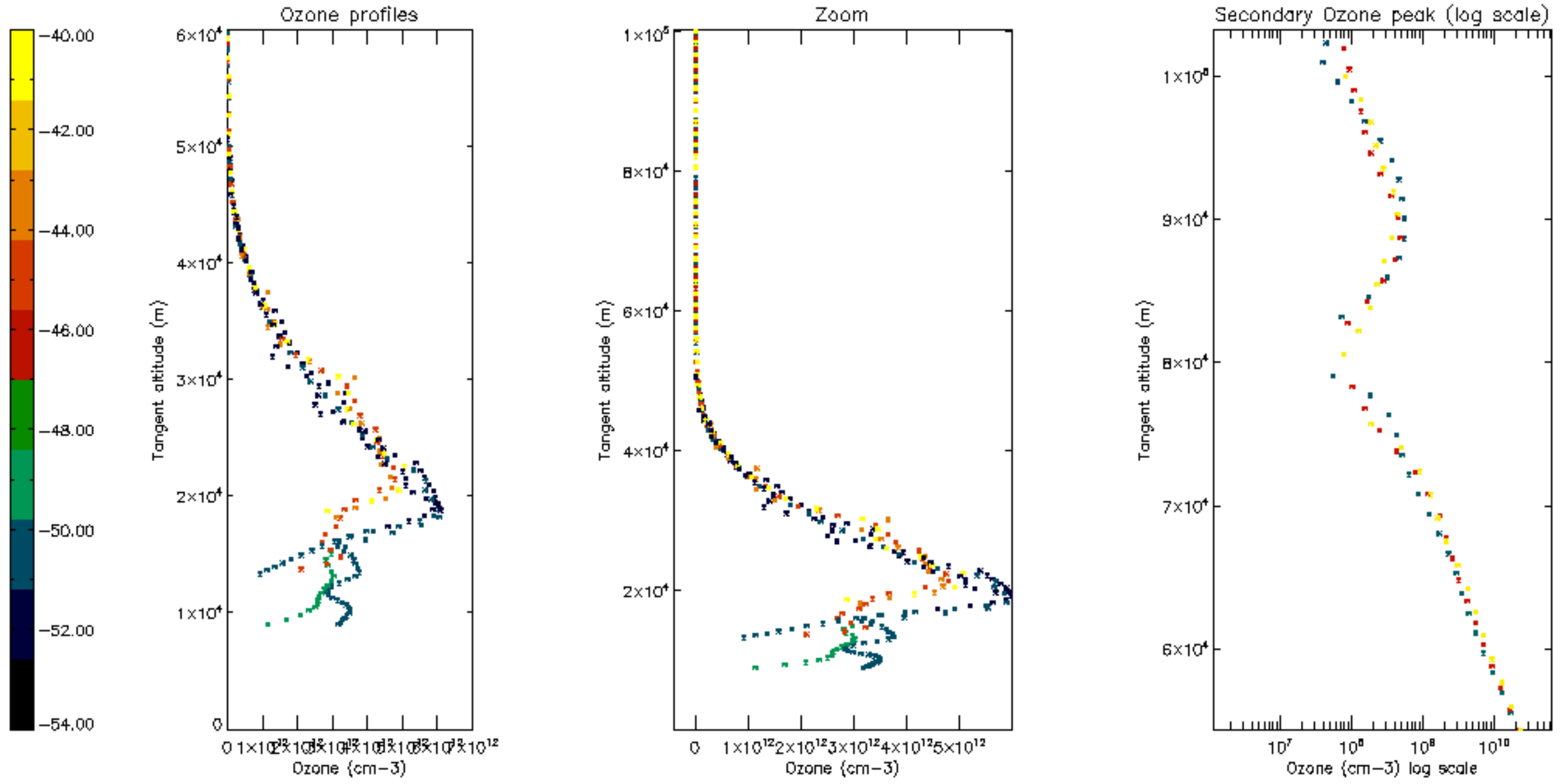
Percentage of star falling outside central band per profile

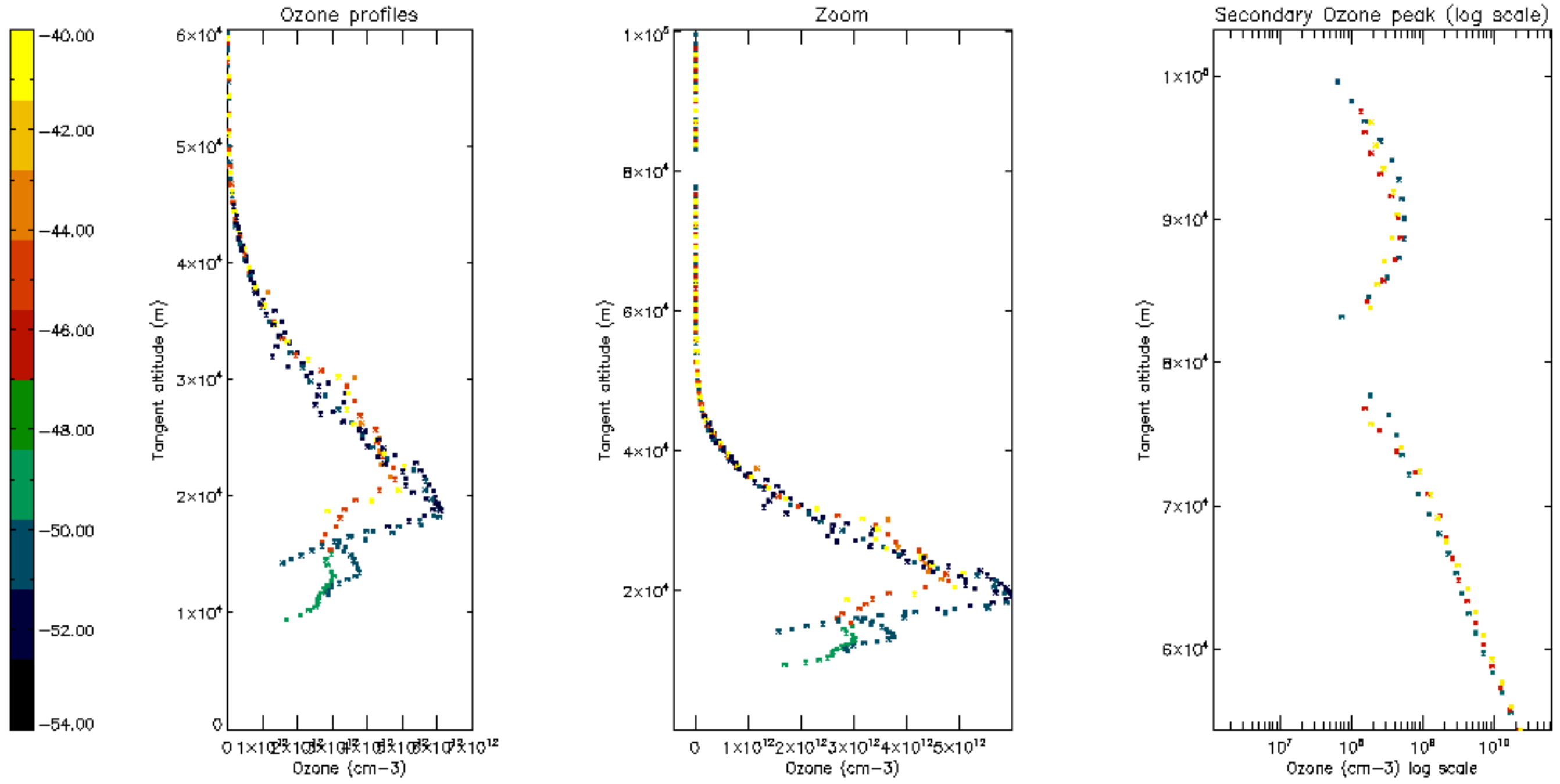


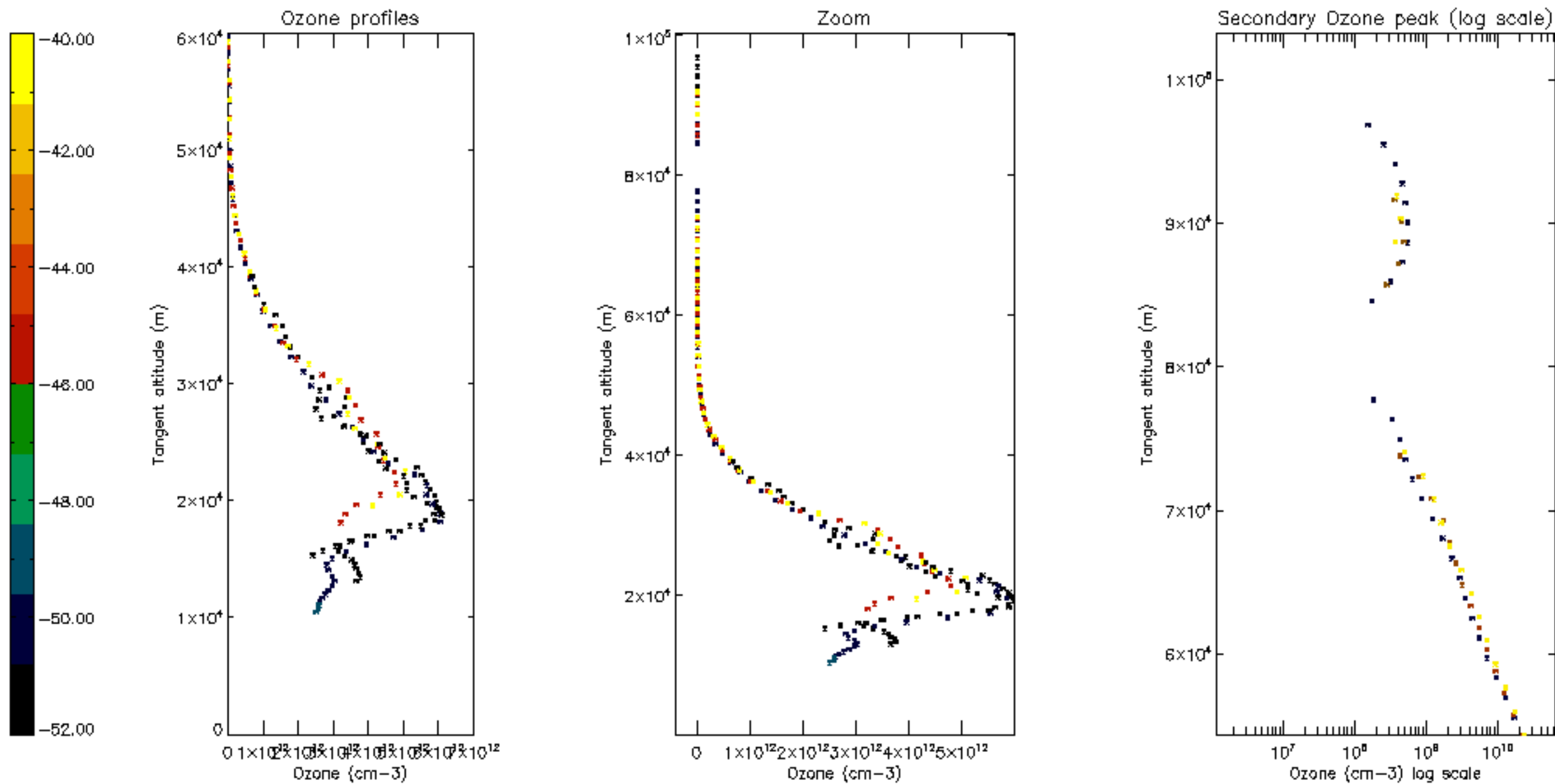
Percentage of saturation errors per profile

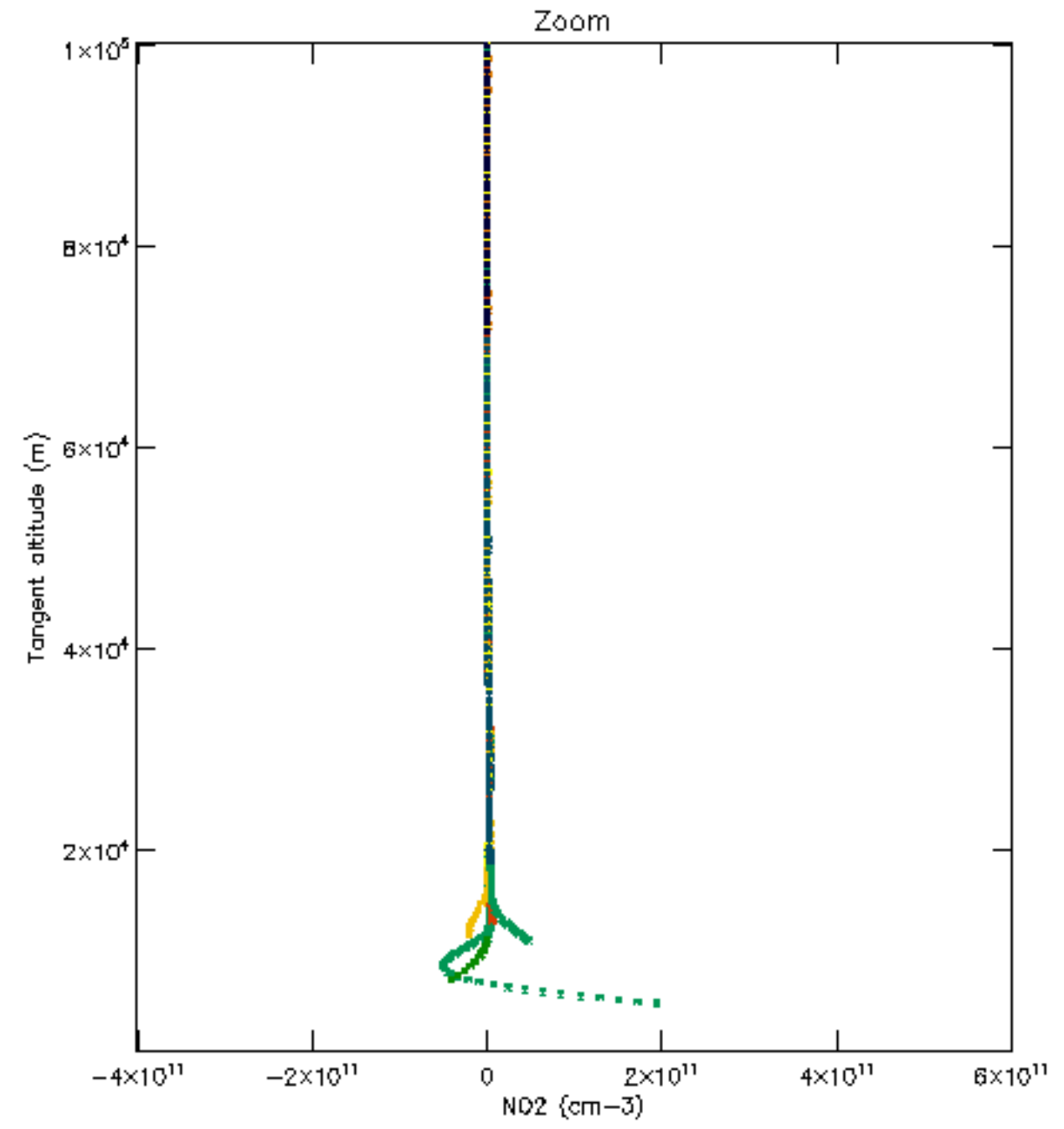
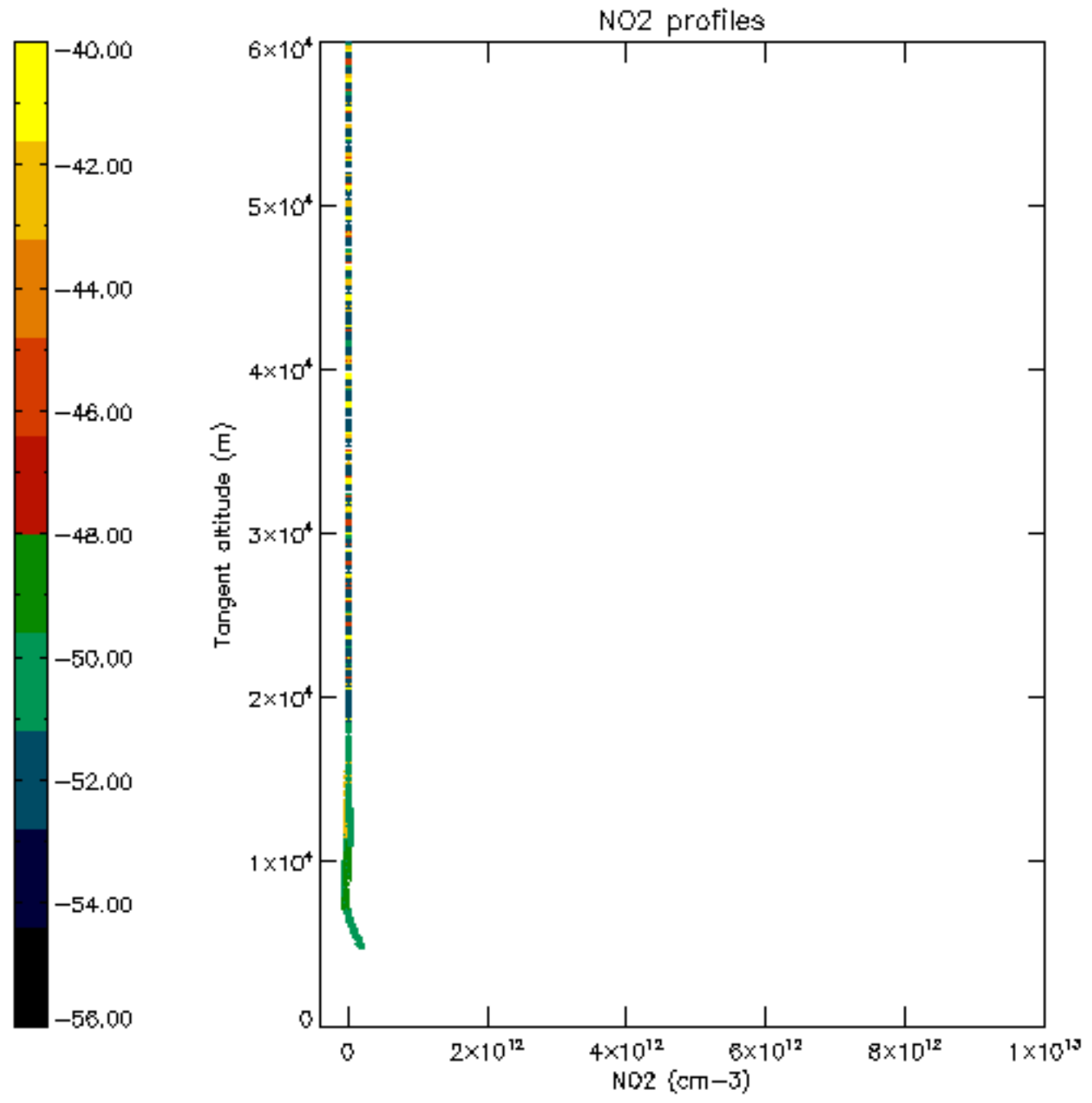


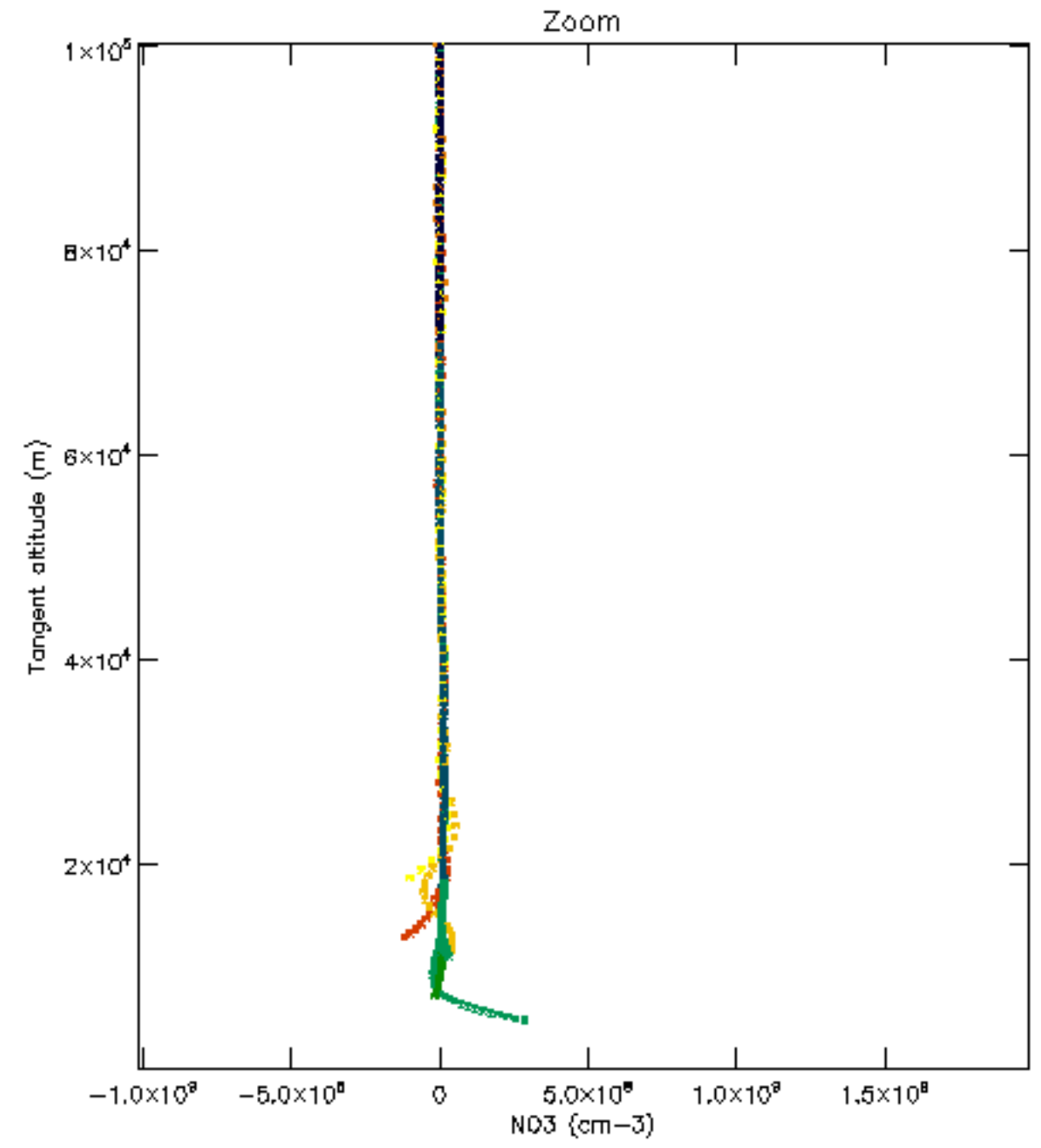
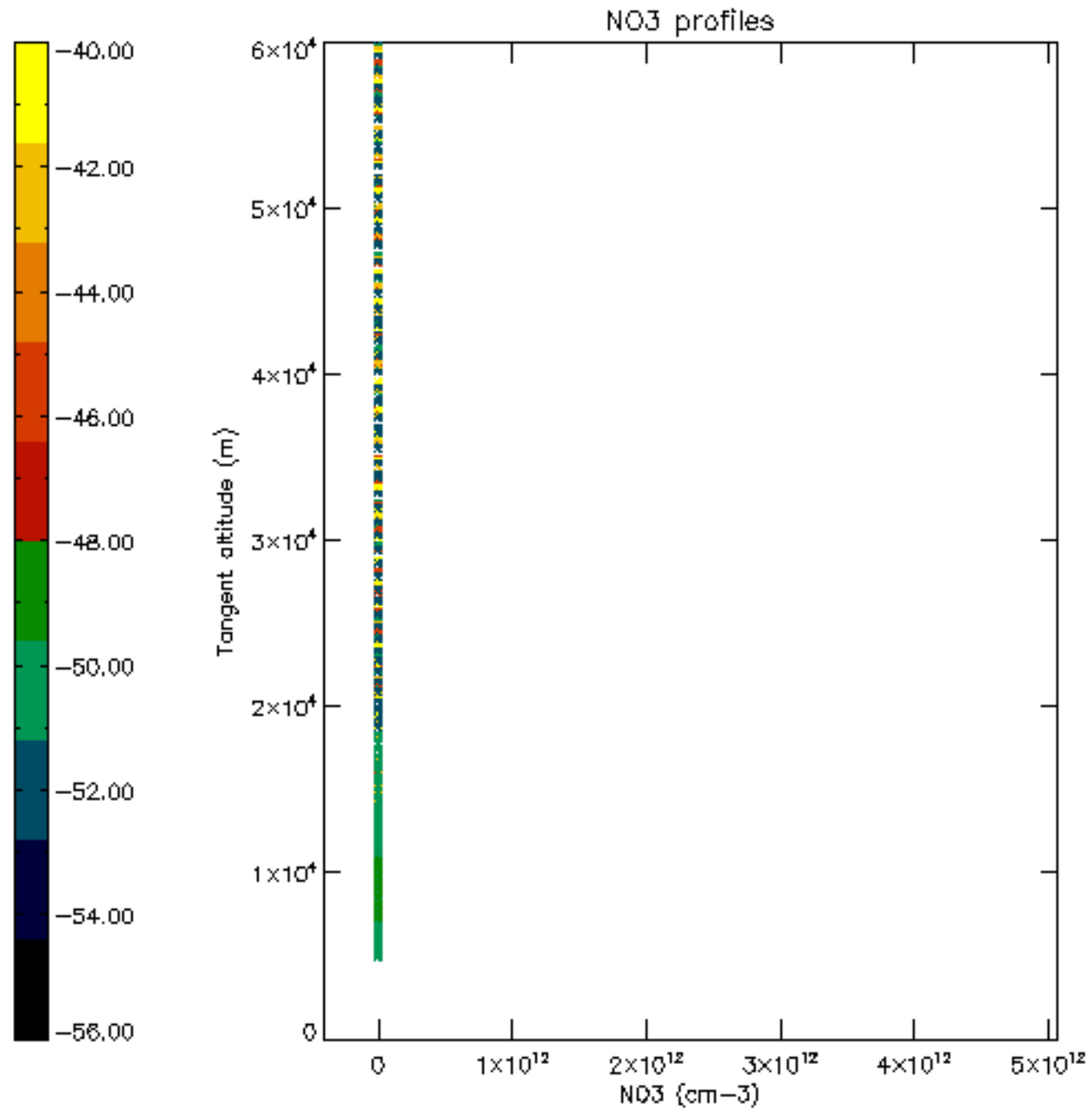


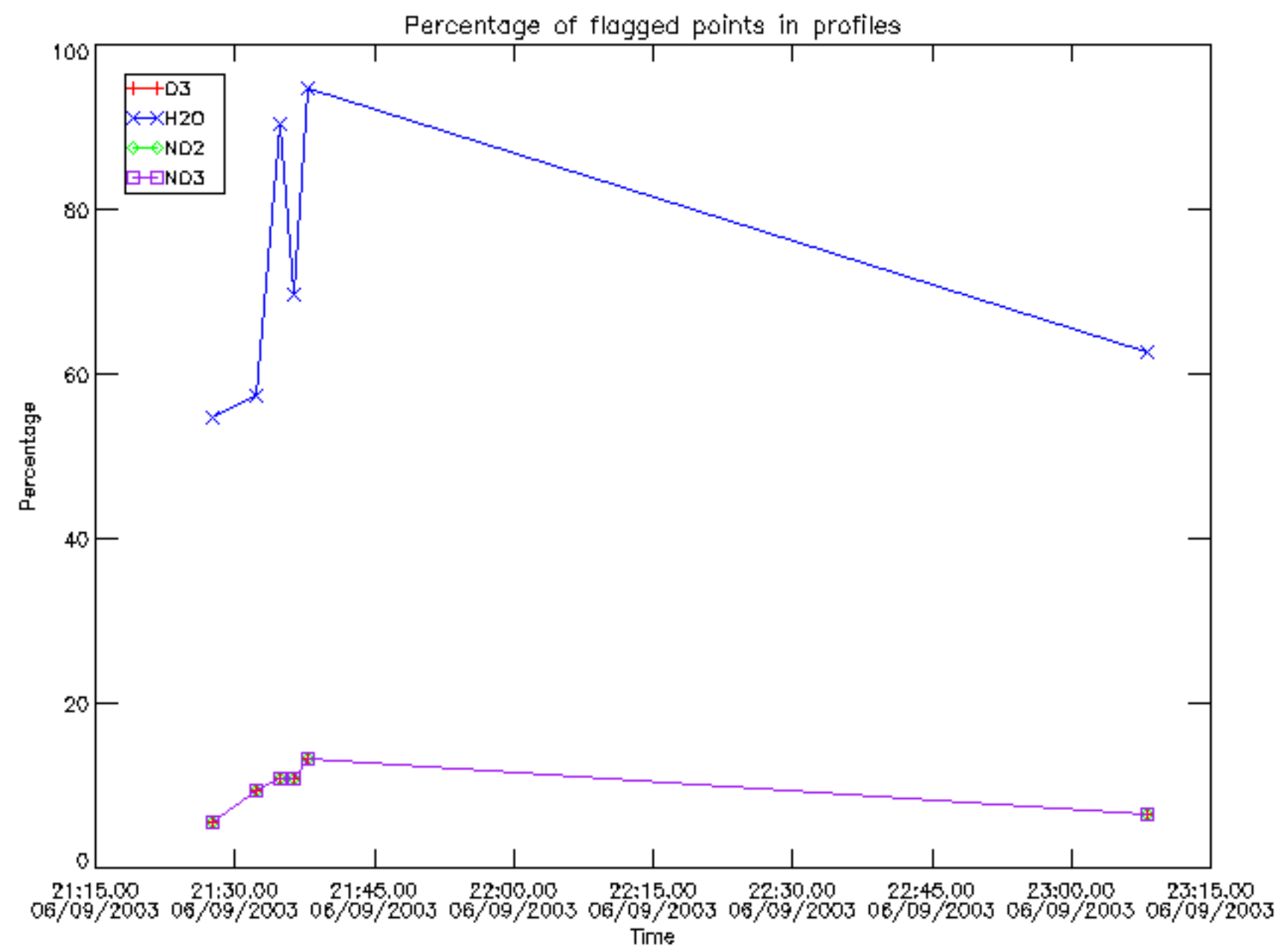




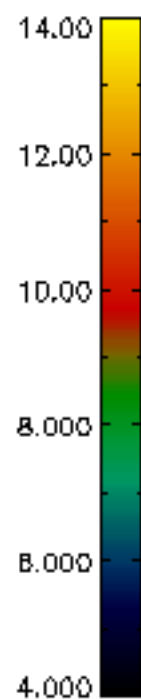
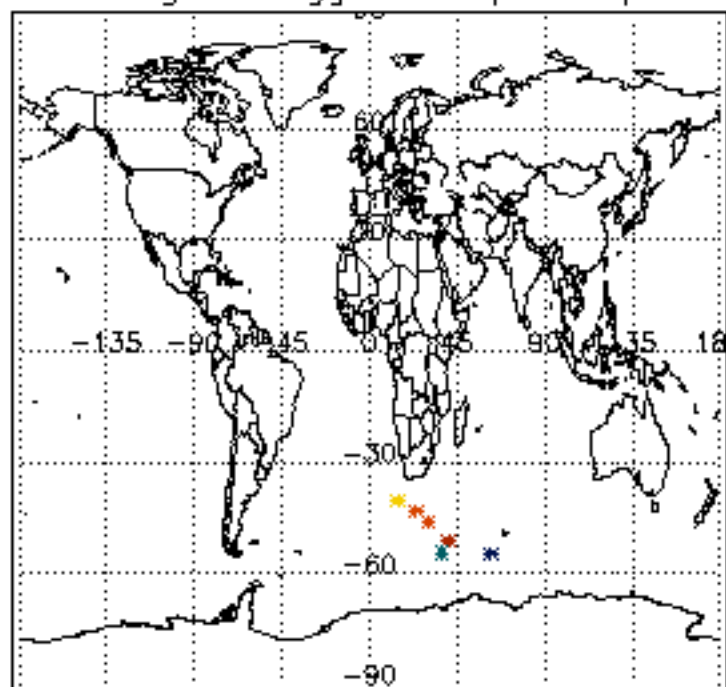




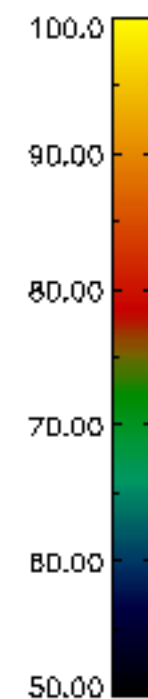
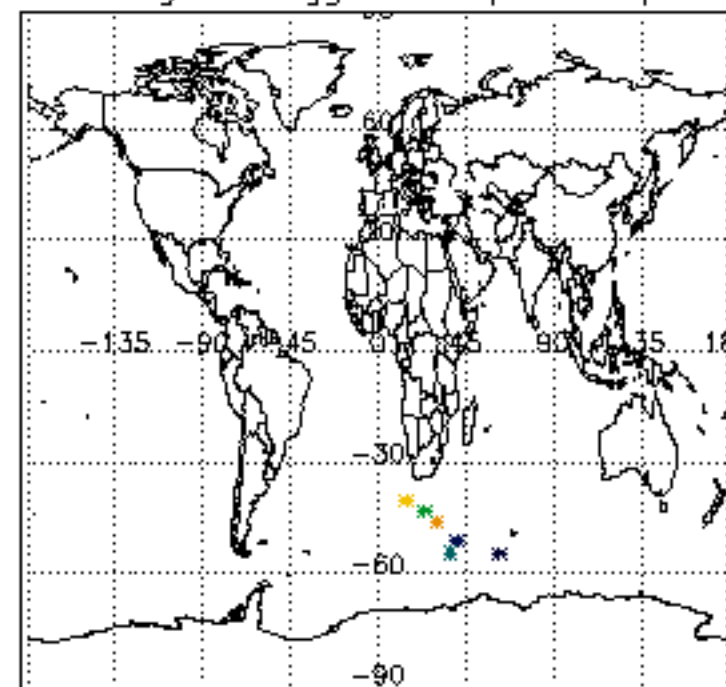




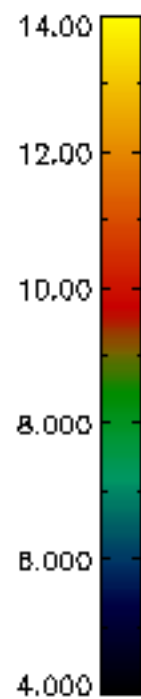
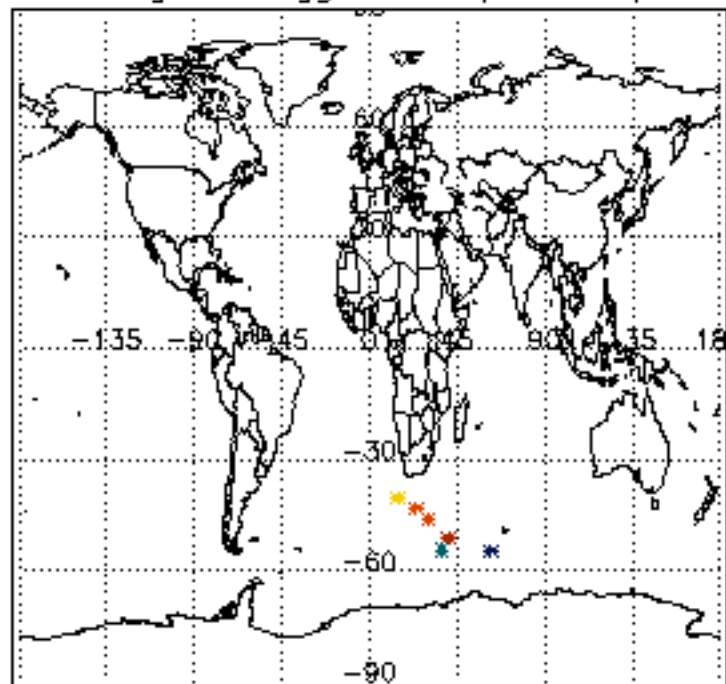
Percentage of flagged data per D3 profile



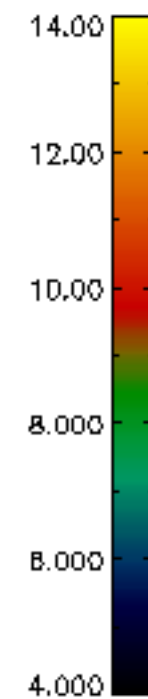
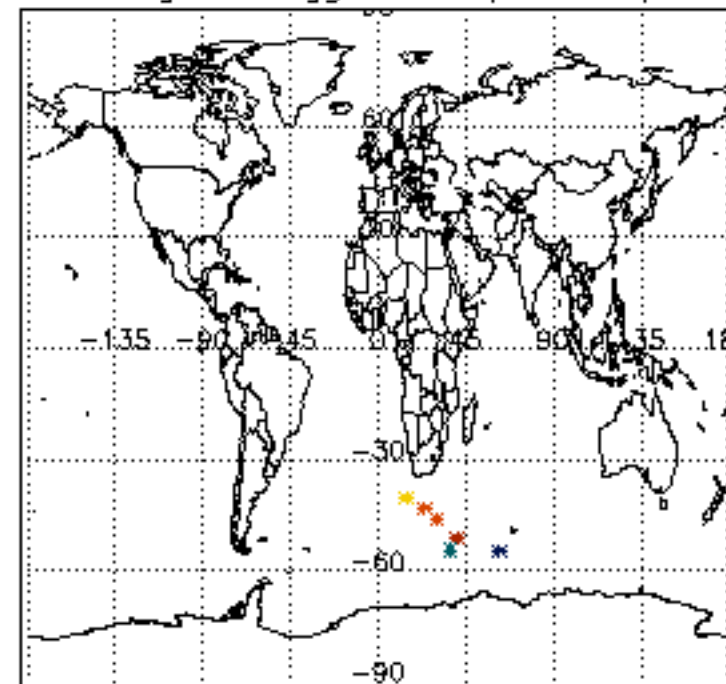
Percentage of flagged data per H2O profile

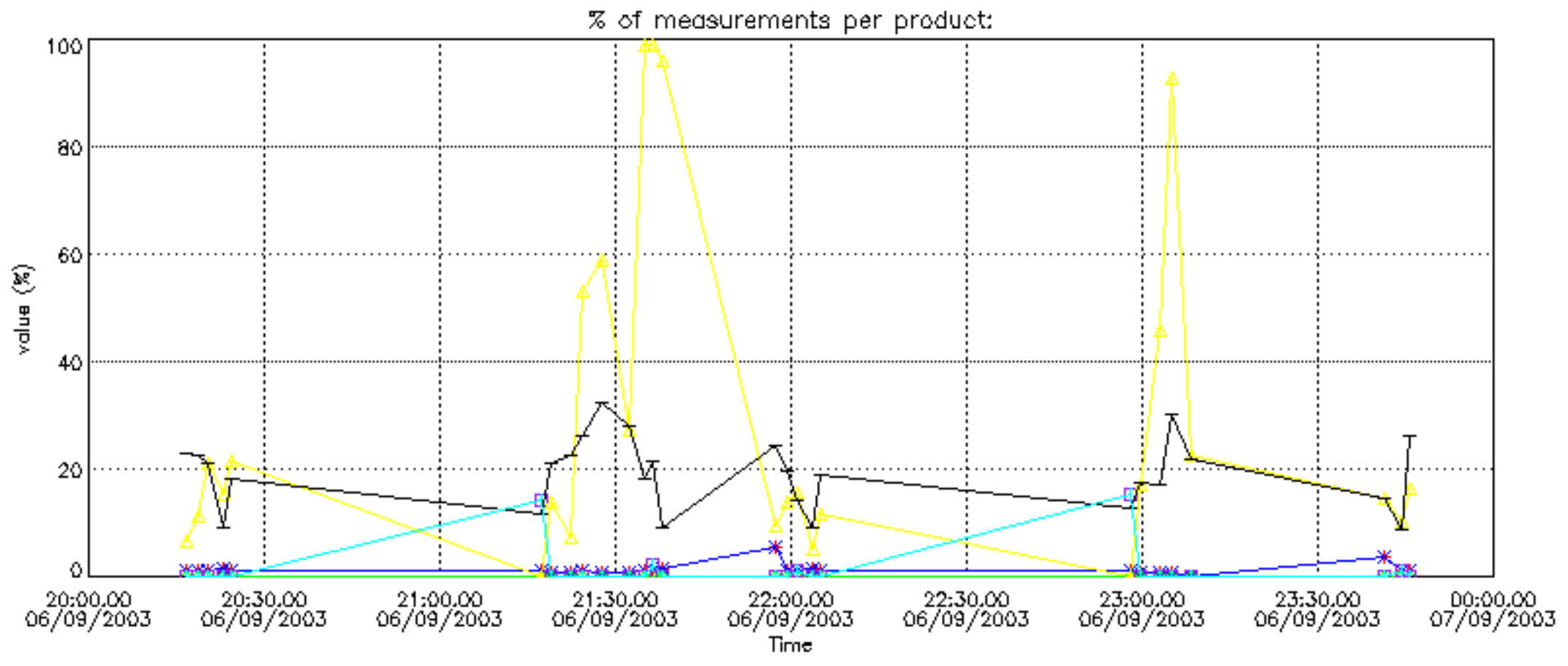


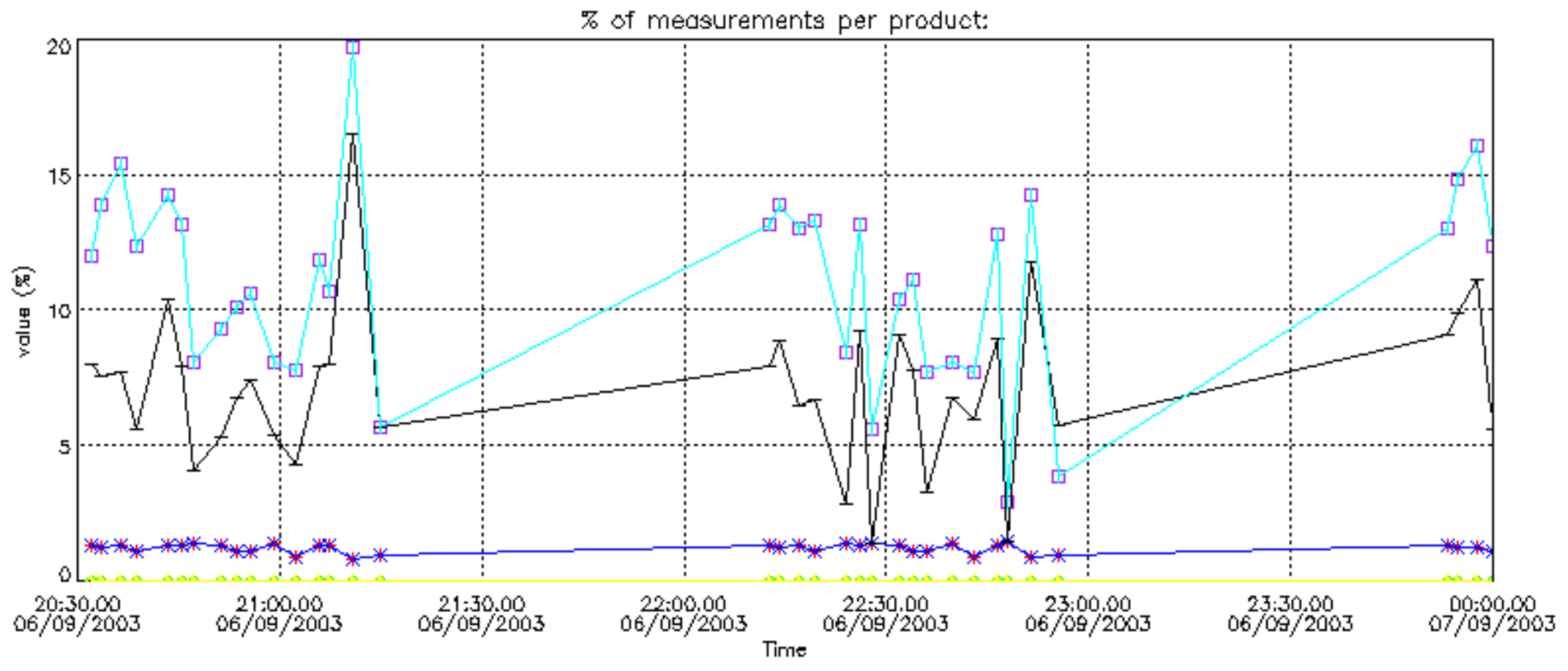
Percentage of flagged data per NO2 profile



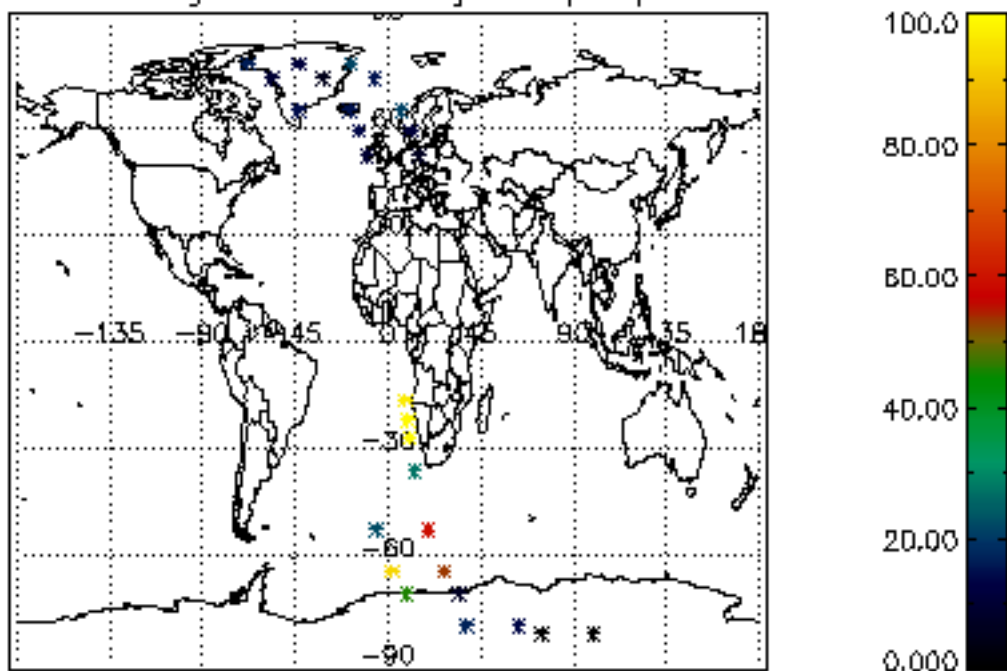
Percentage of flagged data per NO3 profile



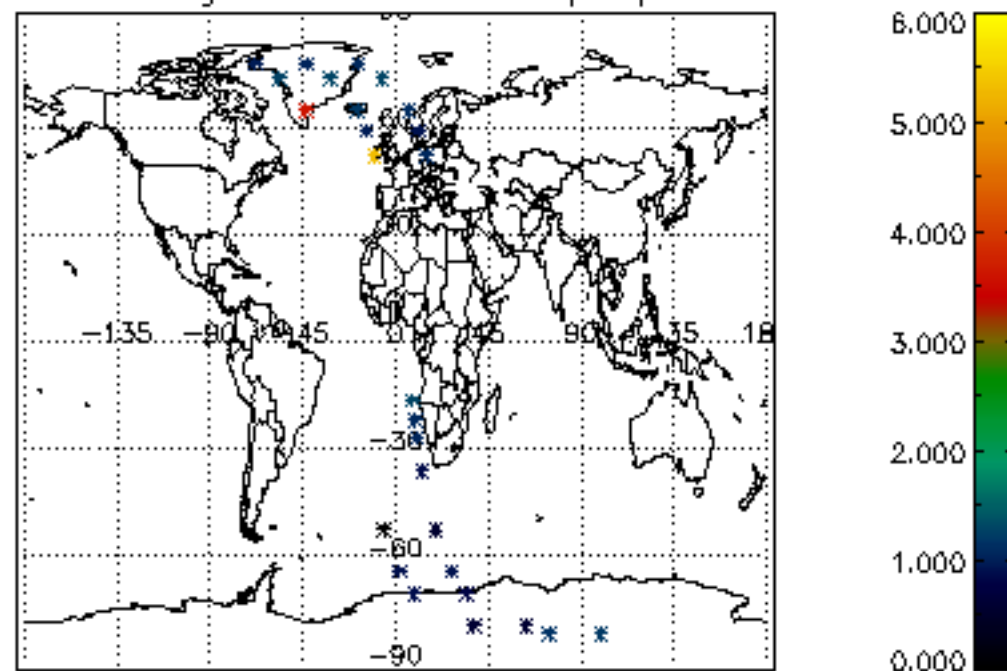




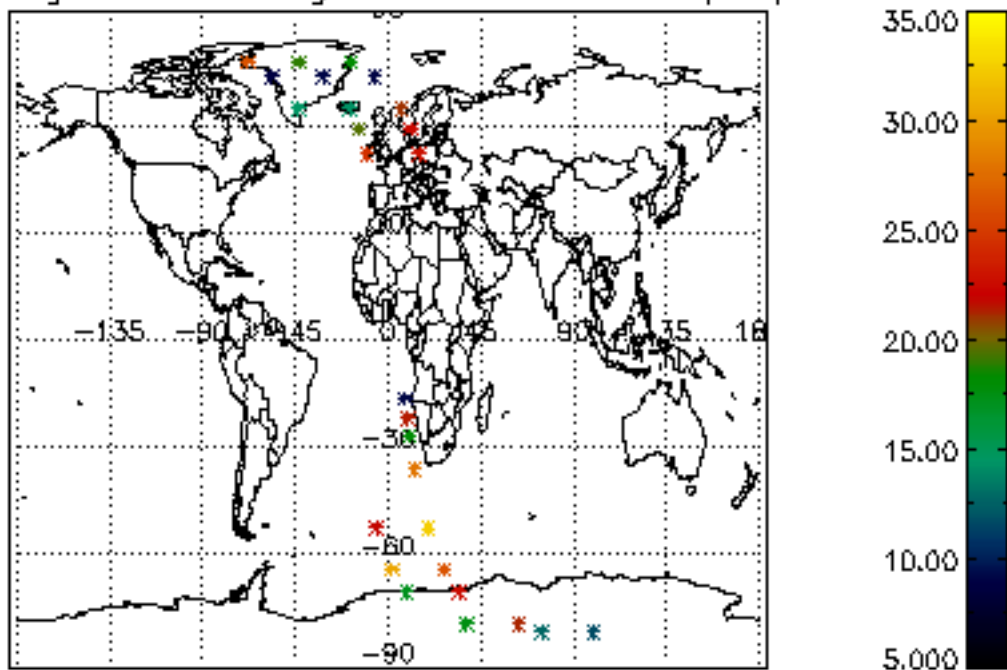
Percentage of cosmic ray hits per profile



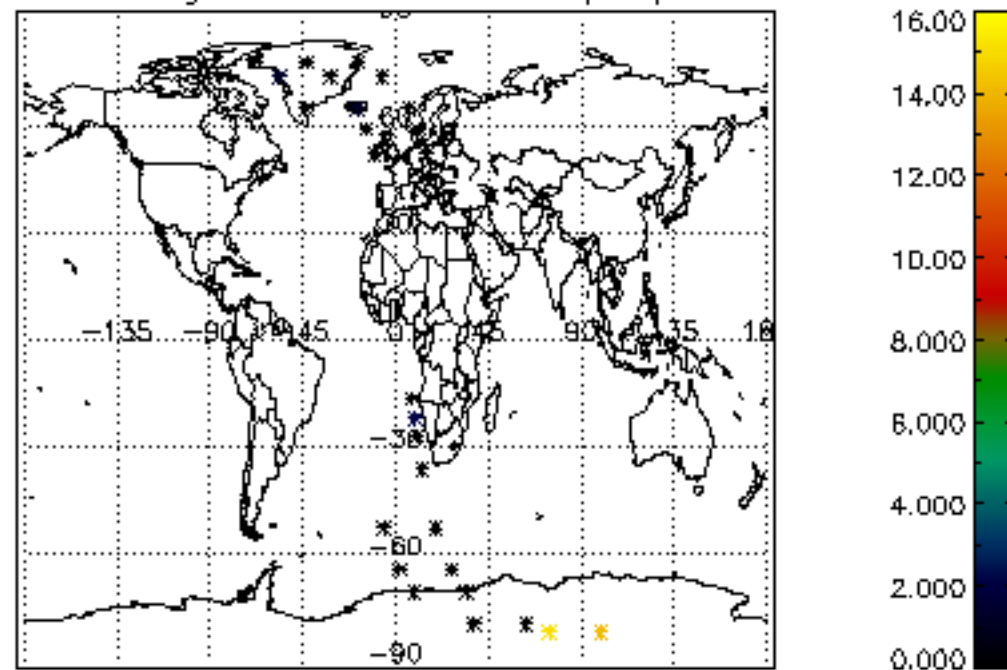
Percentage of datation errors per profile



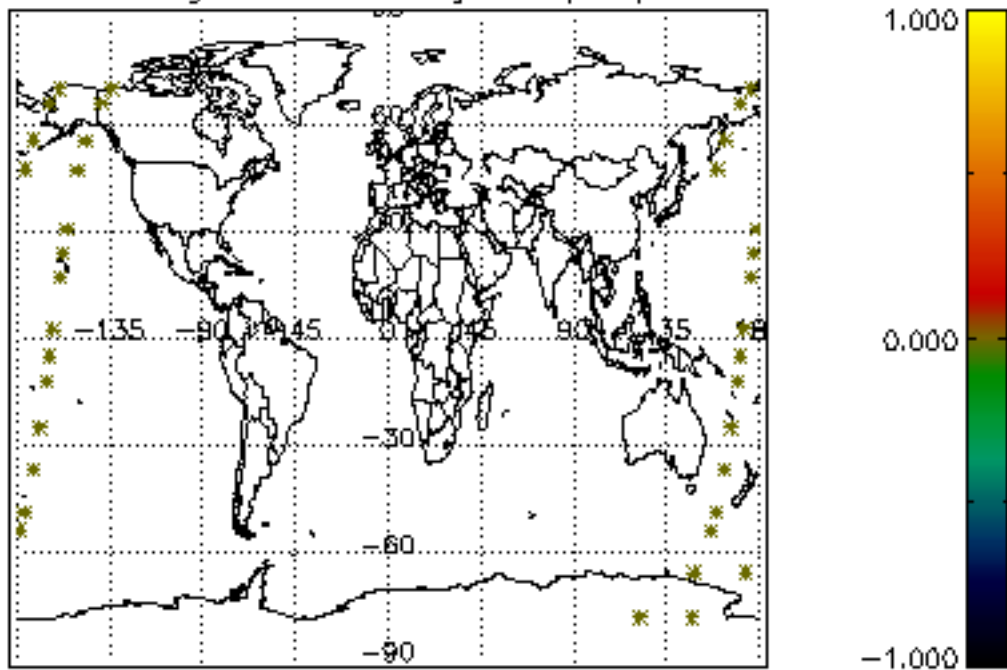
Percentage of star falling outside central band per profile



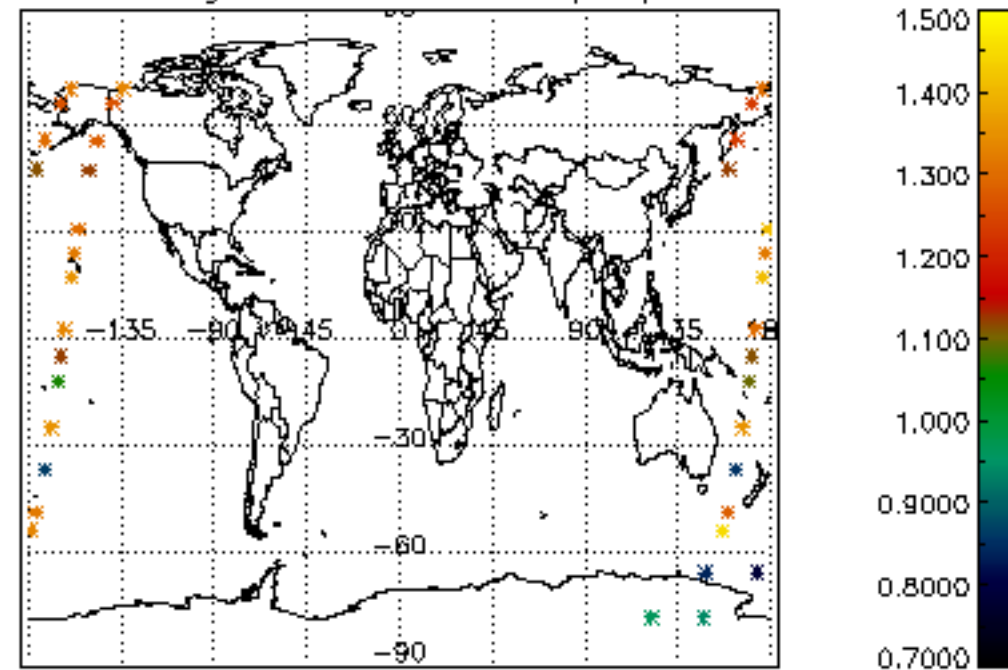
Percentage of saturation errors per profile



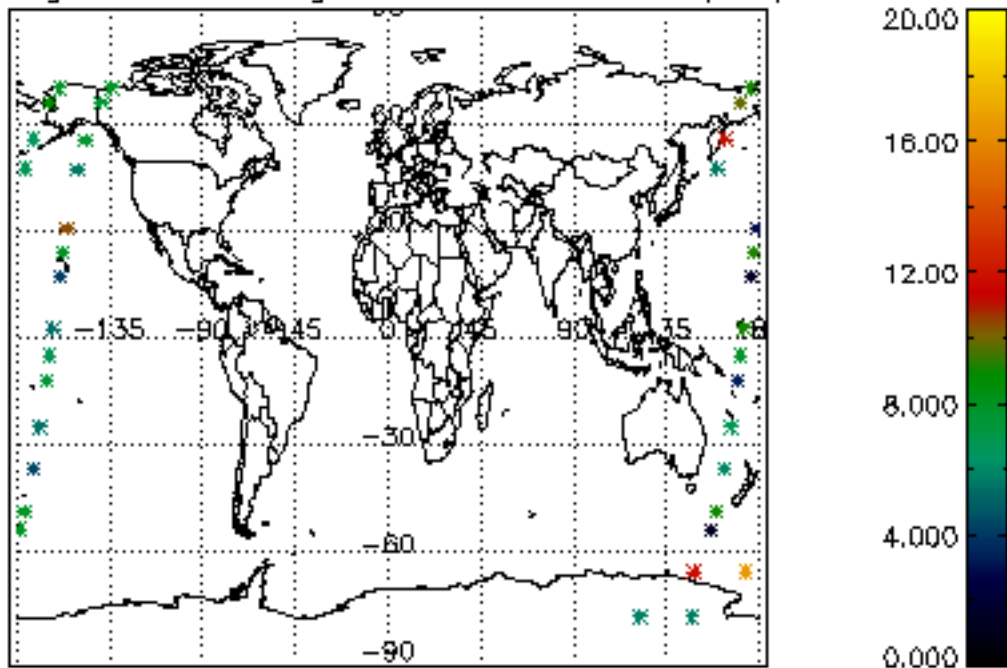
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

