

# 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	25APR2013 17:59:56
Data source version	GOMOS/6.01
Start time of products	15-03-2009 (15MAR2009 00:00:00)
Stop time of products	16-03-2009 (16MAR2009 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	81
Nb of prods with errors	1

## 2. Summary of processed GOM\_NL\_\_2P products.

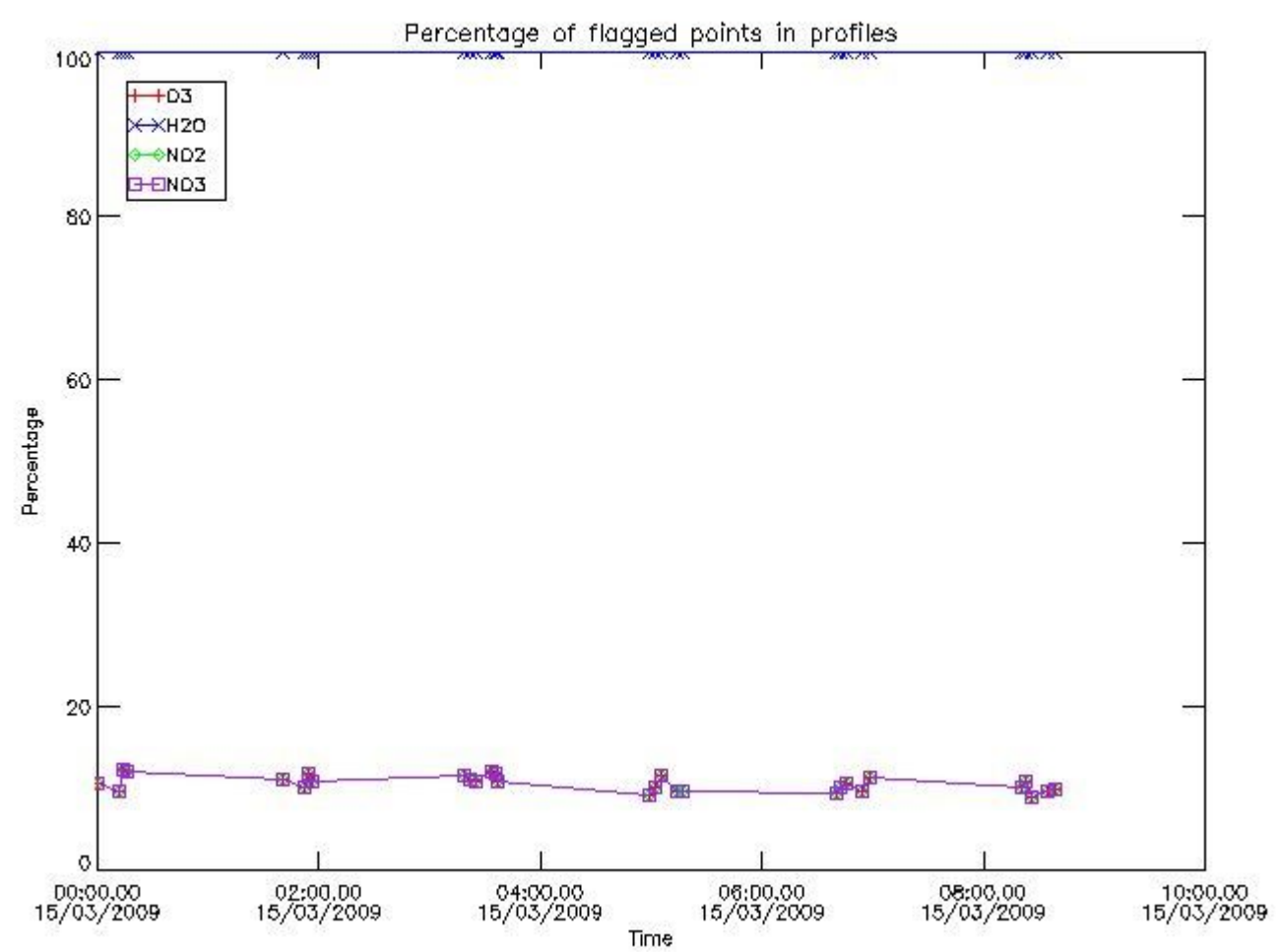
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20090315_000003_000000482077_00173_36800_9286.N1	15-MAR-2009 00:00:03	Dark	48.000	167	10Gam2Sgr	2.9840	4500.0	96	36800	No
2	GOM_NL__2PRFIN20090315_001158_000000532077_00174_36801_9288.N1	15-MAR-2009 00:11:58	Dark	52.500	131	Gam Lup	2.8000	26000.	105	36801	No
3	GOM_NL__2PRFIN20090315_001406_000000462077_00174_36801_9289.N1	15-MAR-2009 00:14:06	Dark	45.500	78	Alp Lup	2.3040	28000.	91	36801	No
4	GOM_NL__2PRFIN20090315_001615_000000422077_00174_36801_9290.N1	15-MAR-2009 00:16:15	Dark	42.000	95	Zet Cen	2.5450	26000.	84	36801	No
5	GOM_NL__2PRFIN20090315_002034_000000452077_00174_36801_9291.N1	15-MAR-2009 00:20:34	Straylight	45.000	123	lot Cen	2.7500	10200.	90	36801	No
6	GOM_NL__2PRFIN20090315_002627_000000442077_00174_36801_9292.N1	15-MAR-2009 00:26:27	Straylight	44.000	106	9Bet Crv	2.6480	5600.0	88	36801	No
7	GOM_NL__2PRFIN20090315_002849_000000422077_00174_36801_9293.N1	15-MAR-2009 00:28:49	Straylight	42.000	100	4Gam Crv	2.5800	13100.	84	36801	No
8	GOM_NL__2PRFIN20090315_004009_000000462077_00174_36801_9294.N1	15-MAR-2009 00:40:09	Bright	45.500	62	94Bet Leo	2.1360	9700.0	91	36801	No
9	GOM_NL__2PRFIN20090315_005441_000000482077_00174_36801_9295.N1	15-MAR-2009 00:54:41	Bright	48.000	32	77Eps UMa	1.7630	11000.	96	36801	No
10	GOM_NL__2PRFIN20090315_010005_000000362077_00174_36801_9296.N1	15-MAR-2009 01:00:05	Bright	35.500	60	7Bet UMi	2.0810	3950.0	71	36801	No
11	GOM_NL__2PRFIN20090315_010909_000000412077_00174_36801_9297.N1	15-MAR-2009 01:09:09	Bright	40.500	130	23Bet Dra	2.7990	5800.0	81	36801	No
12	GOM_NL__2PRFIN20090315_011526_000000382077_00174_36801_9298.N1	15-MAR-2009 01:15:26	Bright	37.500	5	3Alp Lyr	0.033000	11000.	75	36801	No
13	GOM_NL__2PRFIN20090315_012425_000000382077_00174_36801_9299.N1	15-MAR-2009 01:24:25	Tw_i_and_stray	38.000	168	17Zet Aql	2.9860	11000.	76	36801	No
14	GOM_NL__2PRFIN20090315_014040_000000462077_00174_36801_9300.N1	15-MAR-2009 01:40:40	Dark	45.500	167	10Gam2Sgr	2.9840	4500.0	91	36801	No
15	GOM_NL__2PRFIN20090315_015235_000000512077_00175_36802_9296.N1	15-MAR-2009 01:52:35	Dark	50.500	131	Gam Lup	2.8000	26000.	101	36802	No
16	GOM_NL__2PRFIN20090315_015442_000000432077_00175_36802_9297.N1	15-MAR-2009 01:54:42	Dark	43.000	78	Alp Lup	2.3040	28000.	86	36802	No
17	GOM_NL__2PRFIN20090315_015608_000000472077_00175_36802_9298.N1	15-MAR-2009 01:56:08	Dark	47.000	81	Eta Cen	2.3560	28000.	94	36802	No
18	GOM_NL__2PRFIN20090315_015917_000000492077_00175_36802_9299.N1	15-MAR-2009 01:59:17	Straylight	49.000	54	5The Cen	2.0550	4500.0	98	36802	No
19	GOM_NL__2PRFIN20090315_020110_000000442077_00175_36802_9300.N1	15-MAR-2009 02:01:10	Straylight	43.500	123	lot Cen	2.7500	10200.	87	36802	No
20	GOM_NL__2PRFIN20090315_020703_000000442077_00175_36802_9301.N1	15-MAR-2009 02:07:03	Straylight	43.500	106	9Bet Crv	2.6480	5600.0	87	36802	No
21	GOM_NL__2PRFIN20090315_020925_000000432077_00175_36802_9302.N1	15-MAR-2009 02:09:25	Straylight	42.500	100	4Gam Crv	2.5800	13100.	85	36802	No
22	GOM_NL__2PRFIN20090315_022044_000000452077_00175_36802_9303.N1	15-MAR-2009 02:20:44	Bright	45.000	62	94Bet Leo	2.1360	9700.0	90	36802	No
23	GOM_NL__2PRFIN20090315_023516_000000432077_00175_36802_9304.N1	15-MAR-2009 02:35:16	Bright	43.000	32	77Eps UMa	1.7630	11000.	86	36802	No
24	GOM_NL__2PRFIN20090315_024041_000000352077_00175_36802_9305.N1	15-MAR-2009 02:40:41	Bright	35.000	60	7Bet UMi	2.0810	3950.0	70	36802	No
25	GOM_NL__2PRFIN20090315_024945_000000412077_00175_36802_9306.N1	15-MAR-2009 02:49:45	Bright	40.500	130	23Bet Dra	2.7990	5800.0	81	36802	No
26	GOM_NL__2PRFIN20090315_025602_000000382077_00175_36802_9307.N1	15-MAR-2009 02:56:02	Bright	37.500	5	3Alp Lyr	0.033000	11000.	75	36802	No
27	GOM_NL__2PRFIN20090315_030502_000000392077_00175_36802_9308.N1	15-MAR-2009 03:05:02	Tw_i_and_stray	38.500	168	17Zet Aql	2.9860	11000.	77	36802	No
28	GOM_NL__2PRFIN20090315_031848_000000442077_00175_36802_9309.N1	15-MAR-2009 03:18:48	Dark	44.000	137	22Lam Sgr	2.8240	4400.0	88	36802	No
29	GOM_NL__2PRFIN20090315_032117_000000462077_00175_36802_9310.N1	15-MAR-2009 03:21:17	Dark	45.500	167	10Gam2Sgr	2.9840	4500.0	91	36802	No
30	GOM_NL__2PRFIN20090315_032430_000000472077_00176_36803_9306.N1	15-MAR-2009 03:24:30	Dark	46.500	25	35Lam Sco	1.6200	28000.	93	36803	No
31	GOM_NL__2PRFIN20090315_033312_000000512077_00176_36803_9307.N1	15-MAR-2009 03:33:12	Dark	50.500	131	Gam Lup	2.8000	26000.	101	36803	No
32	GOM_NL__2PRFIN20090315_033519_000000442077_00176_36803_9308.N1	15-MAR-2009 03:35:19	Dark	43.500	78	Alp Lup	2.3040	28000.	87	36803	No
33	GOM_NL__2PRFIN20090315_033645_000000472077_00176_36803_9309.N1	15-MAR-2009 03:36:45	Dark	47.000	81	Eta Cen	2.3560	28000.	94	36803	No
34	GOM_NL__2PRFIN20090315_033954_000000502077_00176_36803_9310.N1	15-MAR-2009 03:39:54	Straylight	49.500	54	5The Cen	2.0550	4500.0	99	36803	No
35	GOM_NL__2PRFIN20090315_034147_000000442077_00176_36803_9311.N1	15-MAR-2009 03:41:47	Straylight	43.500	123	lot Cen	2.7500	10200.	87	36803	No
36	GOM_NL__2PRFIN20090315_034739_000000442077_00176_36803_9312.N1	15-MAR-2009 03:47:39	Straylight	43.500	106	9Bet Crv	2.6480	5600.0	87	36803	No
37	GOM_NL__2PRFIN20090315_035001_000000422077_00176_36803_9313.N1	15-MAR-2009 03:50:01	Straylight	42.000	100	4Gam Crv	2.5800	13100.	84	36803	No
38	GOM_NL__2PRFIN20090315_040120_000000462077_00176_36803_9314.N1	15-MAR-2009 04:01:20	Bright	45.500	62	94Bet Leo	2.1360	9700.0	91	36803	No
39	GOM_NL__2PRFIN20090315_041552_000000432077_00176_36803_9315.N1	15-MAR-2009 04:15:52	Bright	42.500	32	77Eps UMa	1.7630	11000.	85	36803	No
40	GOM_NL__2PRFIN20090315_042117_000000342077_00176_36803_9316.N1	15-MAR-2009 04:21:17	Bright	34.000	60	7Bet UMi	2.0810	3950.0	68	36803	No
41	GOM_NL__2PRFIN20090315_043021_000000492077_00176_36803_9317.N1	15-MAR-2009 04:30:21	Bright	48.500	130	23Bet Dra	2.7990	5800.0	97	36803	No
42	GOM_NL__2PRFIN20090315_043638_000000432077_00176_36803_9318.N1	15-MAR-2009 04:36:38	Bright	43.000	5	3Alp Lyr	0.033000	11000.	86	36803	No

43	GOM_NL__2PRFIN20090315_044538_000000452077_00176_36803_9319.N1	15-MAR-2009 04:45:38	Twilight	44.500	168	17Zet Aql	2.9860	11000.	89	36803	No
44	GOM_NL__2PRFIN20090315_045925_000000562077_00176_36803_9320.N1	15-MAR-2009 04:59:25	Dark	55.500	137	22Lam Sgr	2.8240	4400.0	111	36803	No
45	GOM_NL__2PRFIN20090315_050154_000000502077_00176_36803_9321.N1	15-MAR-2009 05:01:54	Dark	50.000	167	10Gam2Sgr	2.9840	4500.0	100	36803	No
46	GOM_NL__2PRFIN20090315_050507_000000492077_00177_36804_9315.N1	15-MAR-2009 05:05:07	Dark	48.500	25	35Lam Sco	1.6200	28000.	97	36804	No
47	GOM_NL__2PRFIN20090315_051349_000000542077_00177_36804_9316.N1	15-MAR-2009 05:13:49	Dark	53.500	131	Gam Lup	2.8000	26000.	107	36804	No
48	GOM_NL__2PRFIN20090315_051722_000000532077_00177_36804_9317.N1	15-MAR-2009 05:17:22	Dark	53.000	81	Eta Cen	2.3560	28000.	106	36804	No
49	GOM_NL__2PRFIN20090315_052031_000000632077_00177_36804_9318.N1	15-MAR-2009 05:20:31	Straylight	62.500	54	5The Cen	2.0550	4500.0	125	36804	No
50	GOM_NL__2PRFIN20090315_052224_000000482077_00177_36804_9319.N1	15-MAR-2009 05:22:24	Straylight	47.500	123	lot Cen	2.7500	10200.	95	36804	No
51	GOM_NL__2PRFIN20090315_052816_000000522077_00177_36804_9320.N1	15-MAR-2009 05:28:16	Straylight	51.500	106	9Bet Crv	2.6480	5600.0	103	36804	No
52	GOM_NL__2PRFIN20090315_053037_000000512077_00177_36804_9321.N1	15-MAR-2009 05:30:37	Twilight	50.500	100	4Gam Crv	2.5800	13100.	101	36804	No
53	GOM_NL__2PRFIN20090315_054155_000000472077_00177_36804_9322.N1	15-MAR-2009 05:41:55	Bright	46.500	62	94Bet Leo	2.1360	9700.0	93	36804	No
54	GOM_NL__2PRFIN20090315_055627_000000462077_00177_36804_9323.N1	15-MAR-2009 05:56:27	Bright	45.500	32	77Eps UMa	1.7630	11000.	91	36804	No
55	GOM_NL__2PRFIN20090315_060152_000000402077_00177_36804_9324.N1	15-MAR-2009 06:01:52	Bright	40.000	60	7Bet UMi	2.0810	3950.0	80	36804	No
56	GOM_NL__2PRFIN20090315_061056_000000472077_00177_36804_9325.N1	15-MAR-2009 06:10:56	Bright	47.000	130	23Bet Dra	2.7990	5800.0	94	36804	No
57	GOM_NL__2PRFIN20090315_061714_000000432077_00177_36804_9326.N1	15-MAR-2009 06:17:14	Bright	43.000	5	3Alp Lyr	0.033000	11000.	86	36804	No
58	GOM_NL__2PRFIN20090315_062615_000000442077_00177_36804_9327.N1	15-MAR-2009 06:26:15	Twilight	43.500	168	17Zet Aql	2.9860	11000.	87	36804	No
59	GOM_NL__2PRFIN20090315_064002_000000552077_00177_36804_9328.N1	15-MAR-2009 06:40:02	Dark	54.500	137	22Lam Sgr	2.8240	4400.0	109	36804	No
60	GOM_NL__2PRFIN20090315_064208_000000502077_00177_36804_9329.N1	15-MAR-2009 06:42:08	Dark	50.000	38	20Eps Sgr	1.8360	11000.	100	36804	No
61	GOM_NL__2PRFIN20090315_064545_000000482077_00178_36805_9323.N1	15-MAR-2009 06:45:45	Dark	48.000	25	35Lam Sco	1.6200	28000.	96	36805	No
62	GOM_NL__2PRFIN20090315_065426_000000532077_00178_36805_9324.N1	15-MAR-2009 06:54:26	Dark	53.000	131	Gam Lup	2.8000	26000.	106	36805	No
63	GOM_NL__2PRFIN20090315_065759_000000502077_00178_36805_9325.N1	15-MAR-2009 06:57:59	Dark	49.500	81	Eta Cen	2.3560	28000.	99	36805	No
64	GOM_NL__2PRFIN20090315_070107_000000522077_00178_36805_9326.N1	15-MAR-2009 07:01:07	Straylight	51.500	54	5The Cen	2.0550	4500.0	103	36805	No
65	GOM_NL__2PRFIN20090315_070852_000000032077_00178_36805_9327.N1	15-MAR-2009 07:08:52	Straylight	3.0000	106	9Bet Crv	2.6480	5600.0	6	36805	No
66	GOM_NL__2PRFIN20090315_072231_000000052077_00178_36805_9329.N1	15-MAR-2009 07:22:31	Straylight	4.5000	62	94Bet Leo	2.1360	9700.0	9	36805	No
67	GOM_NL__2PRFIN20090315_073421_000000042077_00178_36805_9330.N1	15-MAR-2009 07:34:21	Straylight	4.0000	87	64Gam UMa	2.4330	11000.	8	36805	No
68	GOM_NL__2PRFIN20090315_073702_000000042077_00178_36805_9331.N1	15-MAR-2009 07:37:02	Straylight	3.5000	32	77Eps UMa	1.7630	11000.	7	36805	No
69	GOM_NL__2PRFIN20090315_074228_000000022077_00178_36805_9332.N1	15-MAR-2009 07:42:28	Dark	1.5000	60	7Bet UMi	2.0810	3950.0	3	36805	Yes
70	GOM_NL__2PRFIN20090315_074634_000000462077_00178_36805_9333.N1	15-MAR-2009 07:46:34	Bright	46.000	119	14Eta Dra	2.7270	4700.0	92	36805	No
71	GOM_NL__2PRFIN20090315_075131_000000462077_00178_36805_9334.N1	15-MAR-2009 07:51:31	Bright	45.500	130	23Bet Dra	2.7990	5800.0	91	36805	No
72	GOM_NL__2PRFIN20090315_075750_000000422077_00178_36805_9335.N1	15-MAR-2009 07:57:50	Bright	42.000	5	3Alp Lyr	0.033000	11000.	84	36805	No
73	GOM_NL__2PRFIN20090315_080651_000000432077_00178_36805_9336.N1	15-MAR-2009 08:06:51	Twilight	43.000	168	17Zet Aql	2.9860	11000.	86	36805	No
74	GOM_NL__2PRFIN20090315_082039_000000502077_00178_36805_9337.N1	15-MAR-2009 08:20:39	Dark	50.000	137	22Lam Sgr	2.8240	4400.0	100	36805	No
75	GOM_NL__2PRFIN20090315_082245_000000482077_00178_36805_9338.N1	15-MAR-2009 08:22:45	Dark	47.500	38	20Eps Sgr	1.8360	11000.	95	36805	No
76	GOM_NL__2PRFIN20090315_082622_000000572077_00179_36806_9331.N1	15-MAR-2009 08:26:22	Dark	57.000	25	35Lam Sco	1.6200	28000.	114	36806	No
77	GOM_NL__2PRFIN20090315_083503_000000532077_00179_36806_9332.N1	15-MAR-2009 08:35:03	Dark	53.000	131	Gam Lup	2.8000	26000.	106	36806	No
78	GOM_NL__2PRFIN20090315_083836_000000522077_00179_36806_9333.N1	15-MAR-2009 08:38:36	Dark	51.500	81	Eta Cen	2.3560	28000.	103	36806	No
79	GOM_NL__2PRFIN20090315_084144_000000592077_00179_36806_9334.N1	15-MAR-2009 08:41:44	Straylight	58.500	54	5The Cen	2.0550	4500.0	117	36806	No
80	GOM_NL__2PRFIN20090315_084928_000000452077_00179_36806_9335.N1	15-MAR-2009 08:49:28	Straylight	44.500	106	9Bet Crv	2.6480	5600.0	89	36806	No
81	GOM_NL__2PRFIN20090315_085149_000000512077_00179_36806_9336.N1	15-MAR-2009 08:51:49	Twilight	51.000	100	4Gam Crv	2.5800	13100.	102	36806	No

### 3. Quality information per product

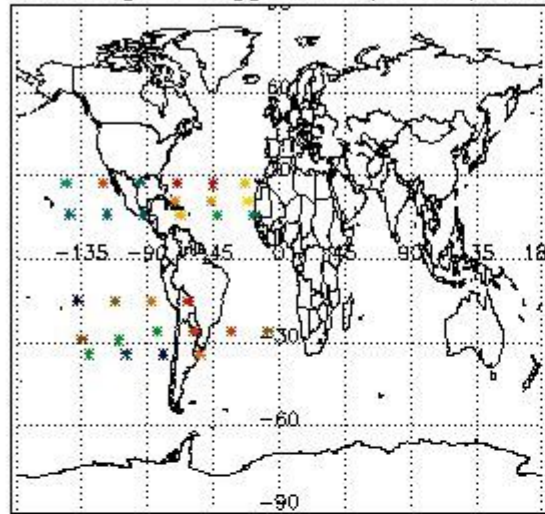
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

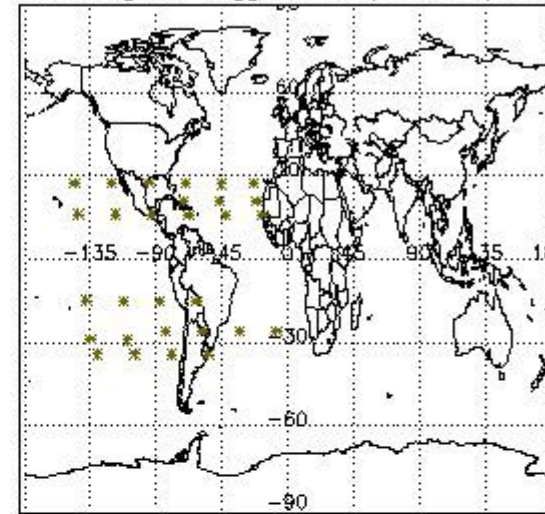


*3.2 Plot quality information per product (world map)*

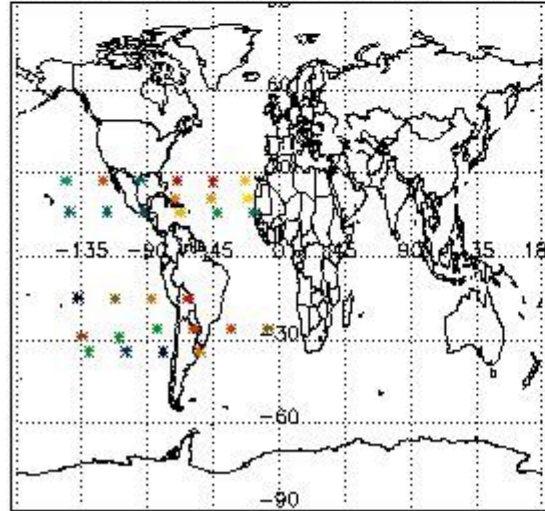
Percentage of flagged data per O3 profile



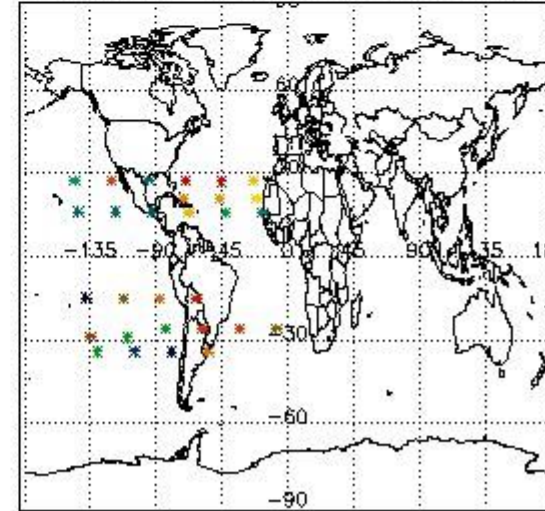
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

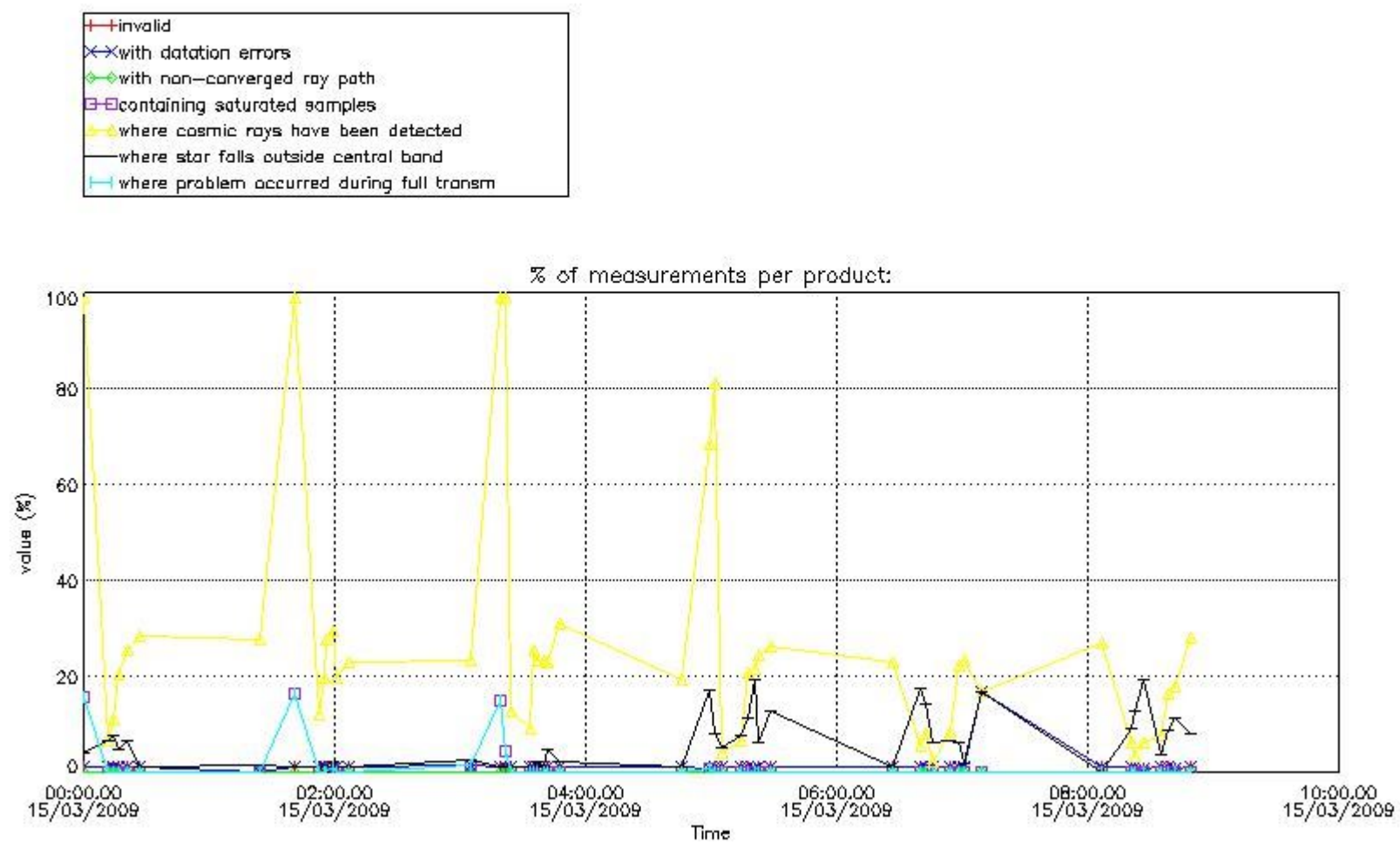


#### 4. Level 1 quality information per product

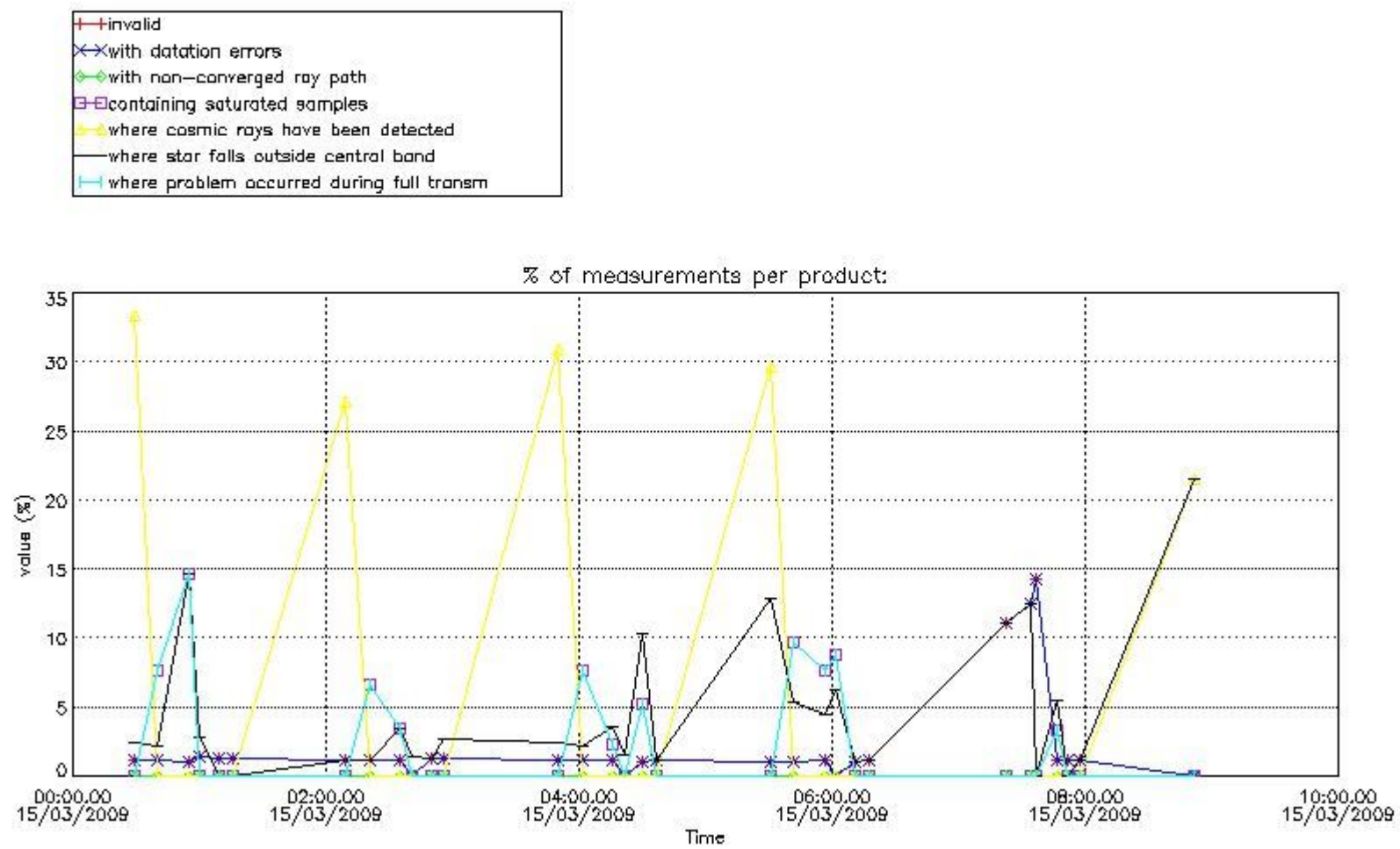
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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

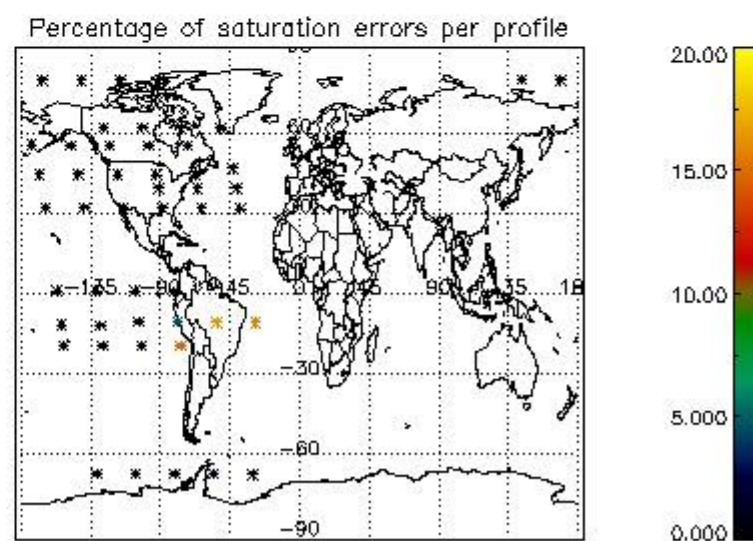
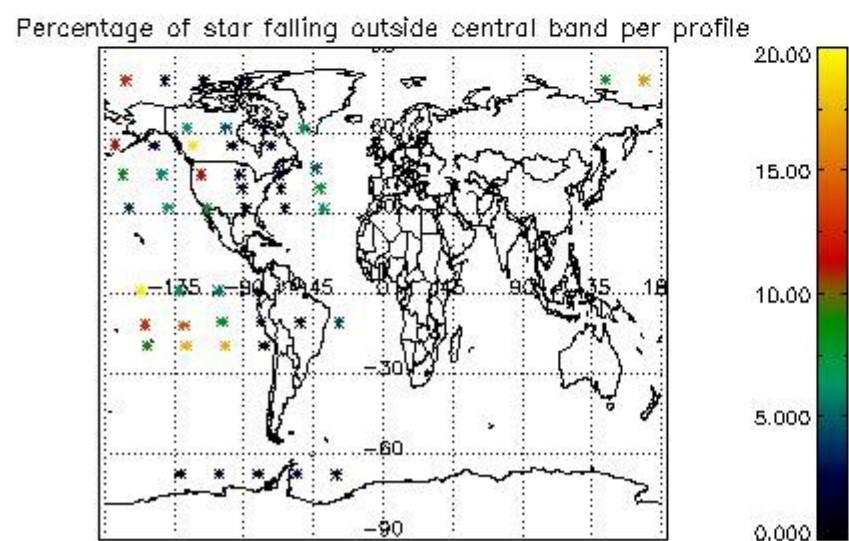
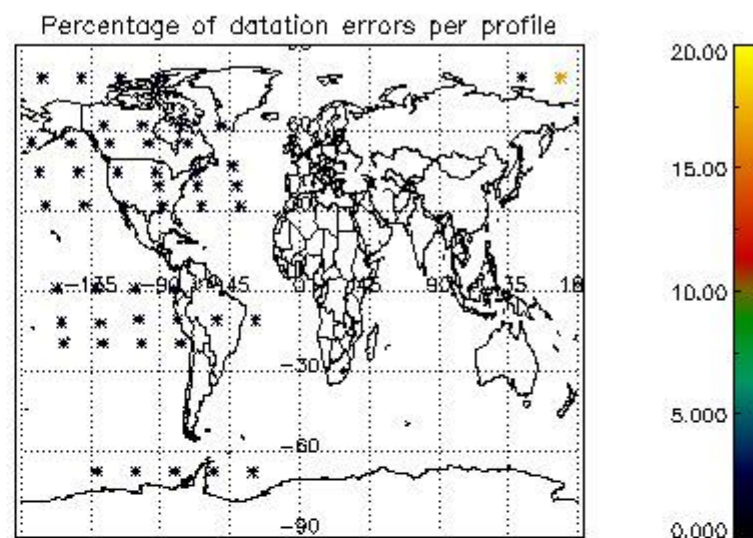
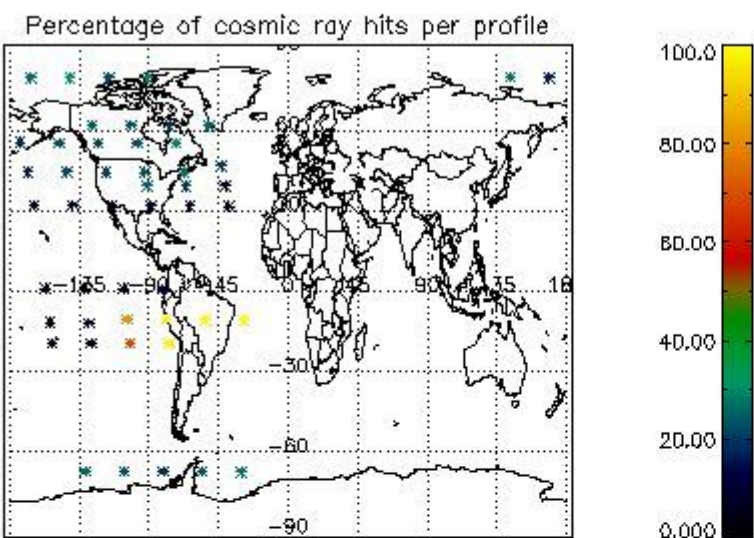


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



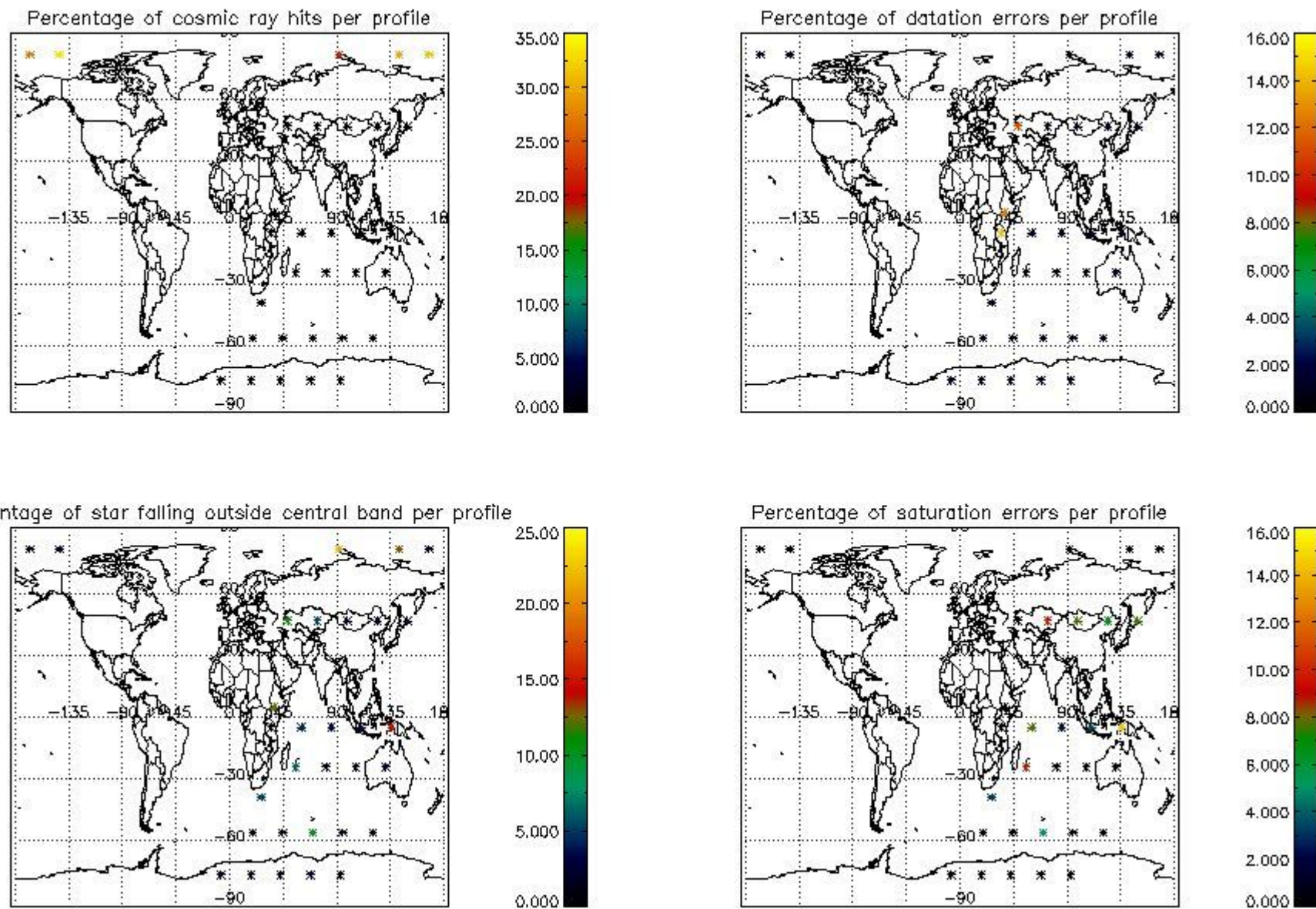
#### 4.2 Plot quality information per product coming from level 1b processing (world map)

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



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

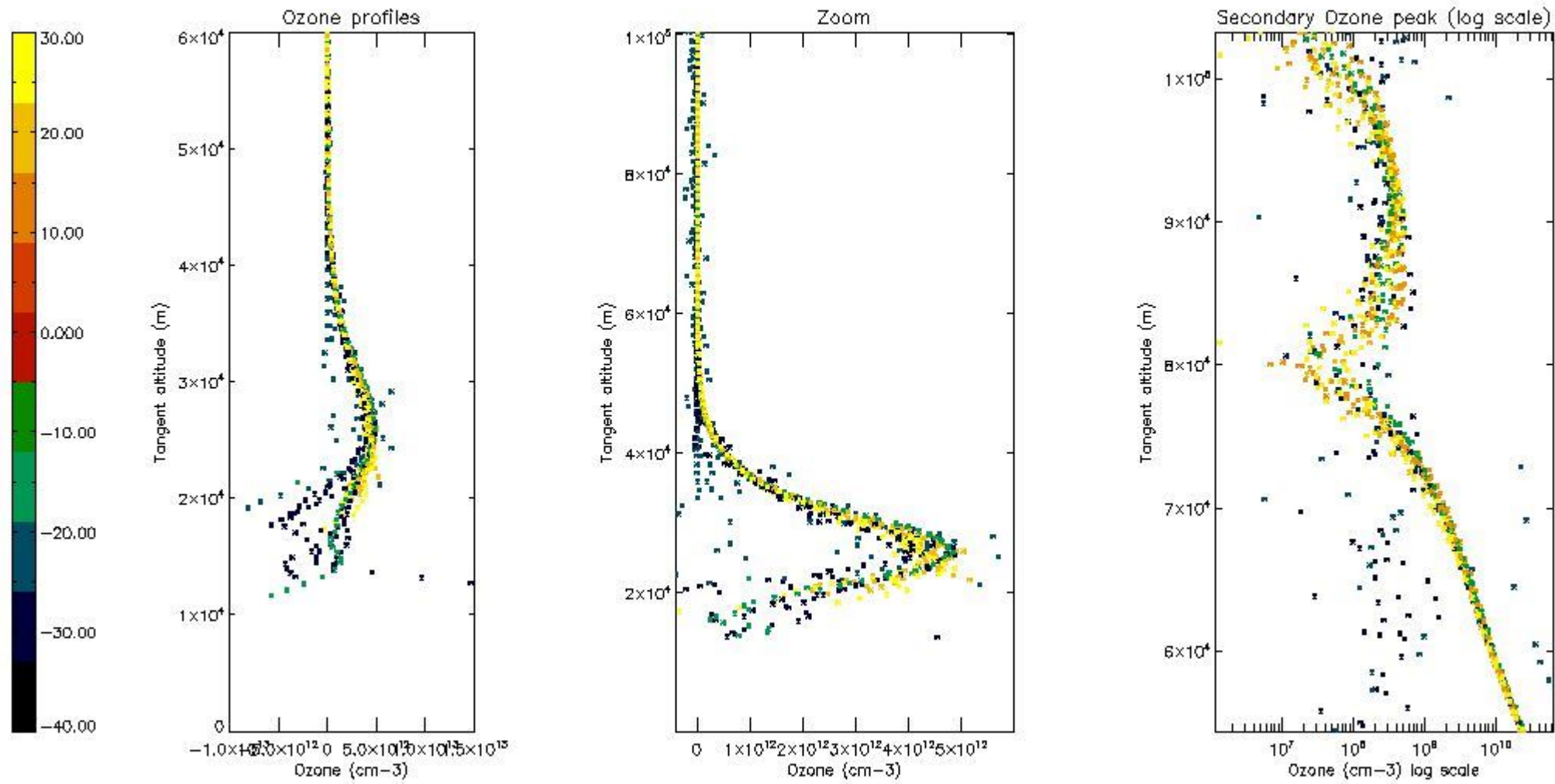
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	41
STD < 20	22

STD < 10	18
STD < 5	14

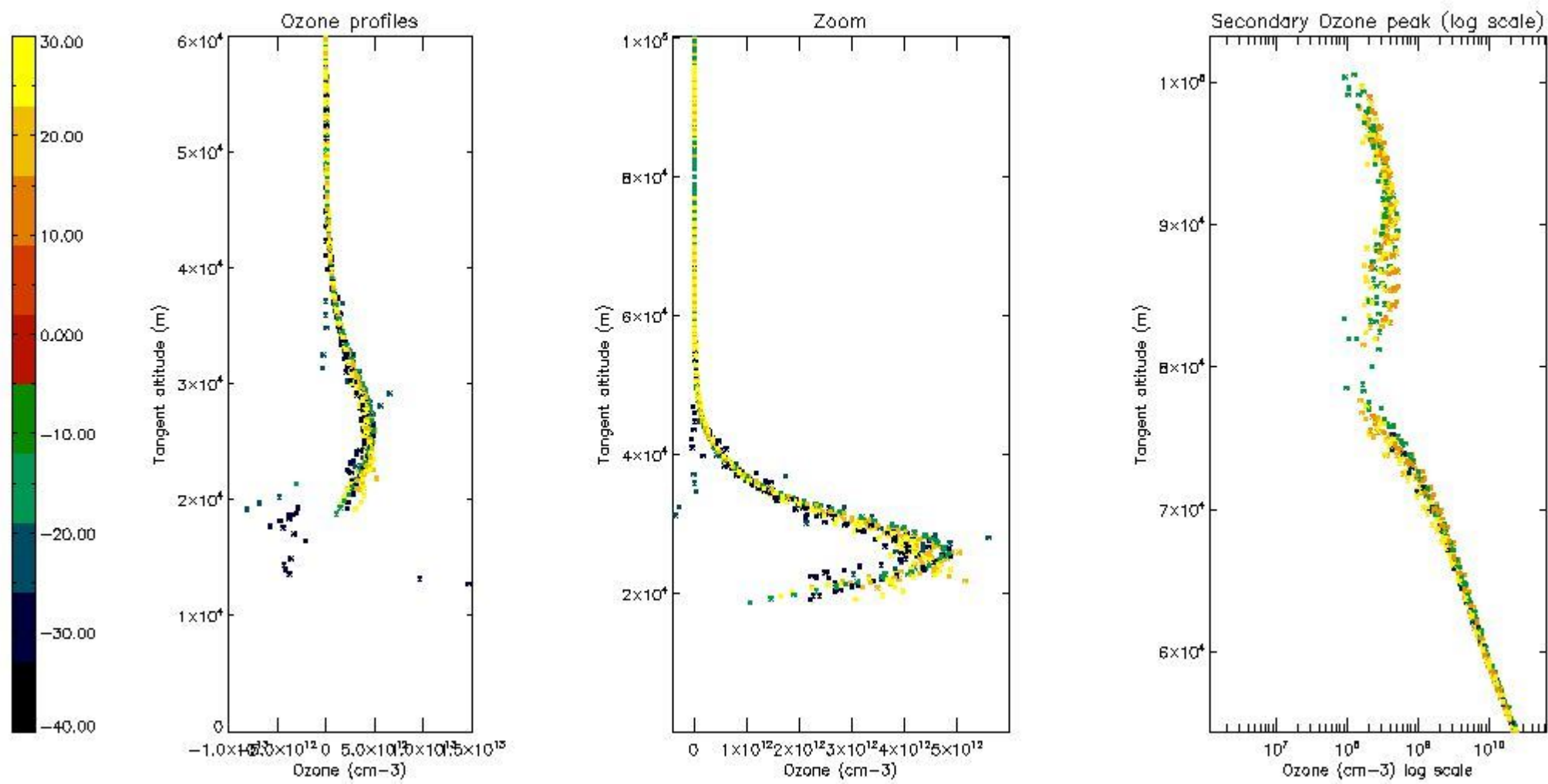
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



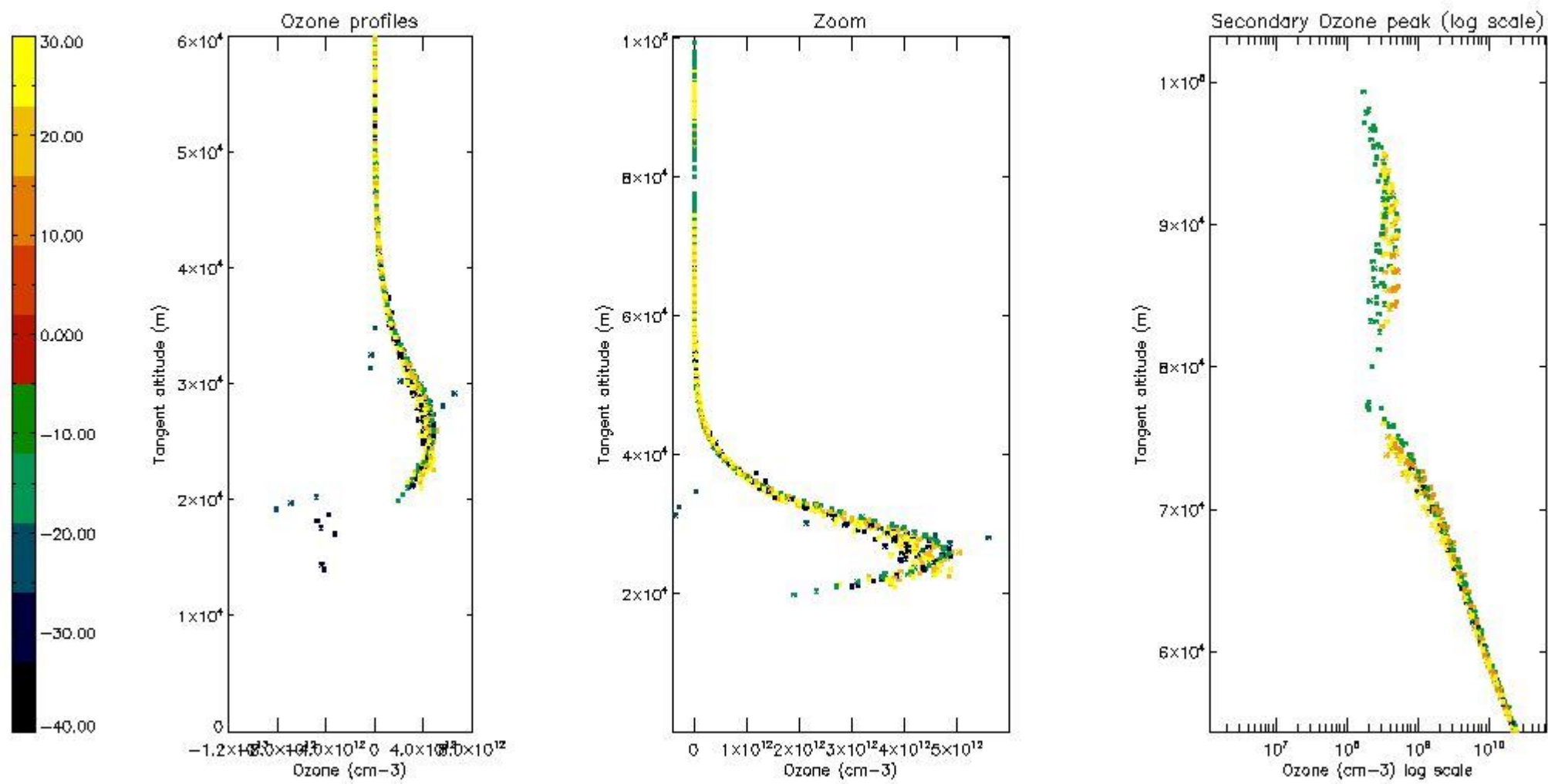
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



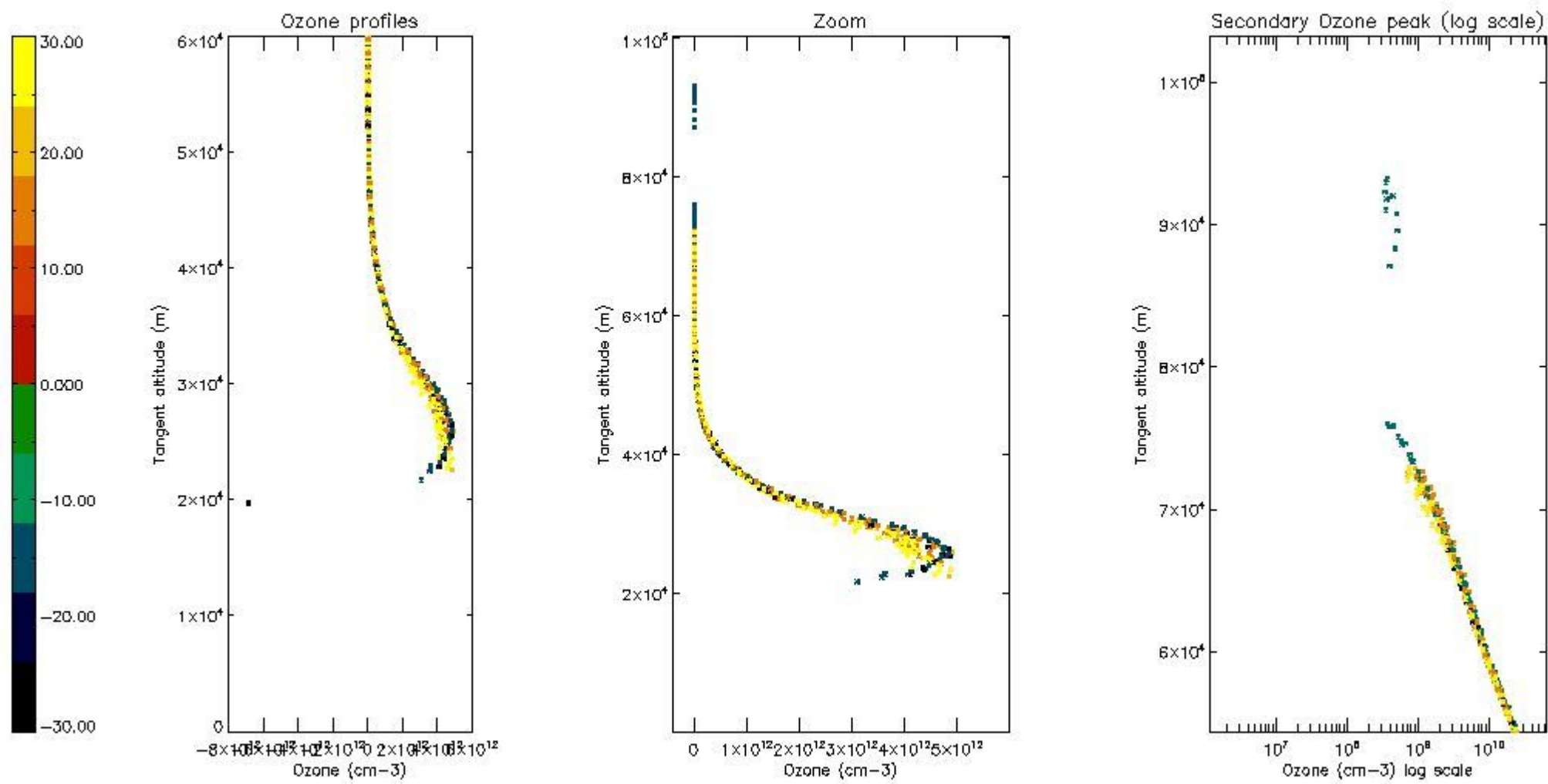
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



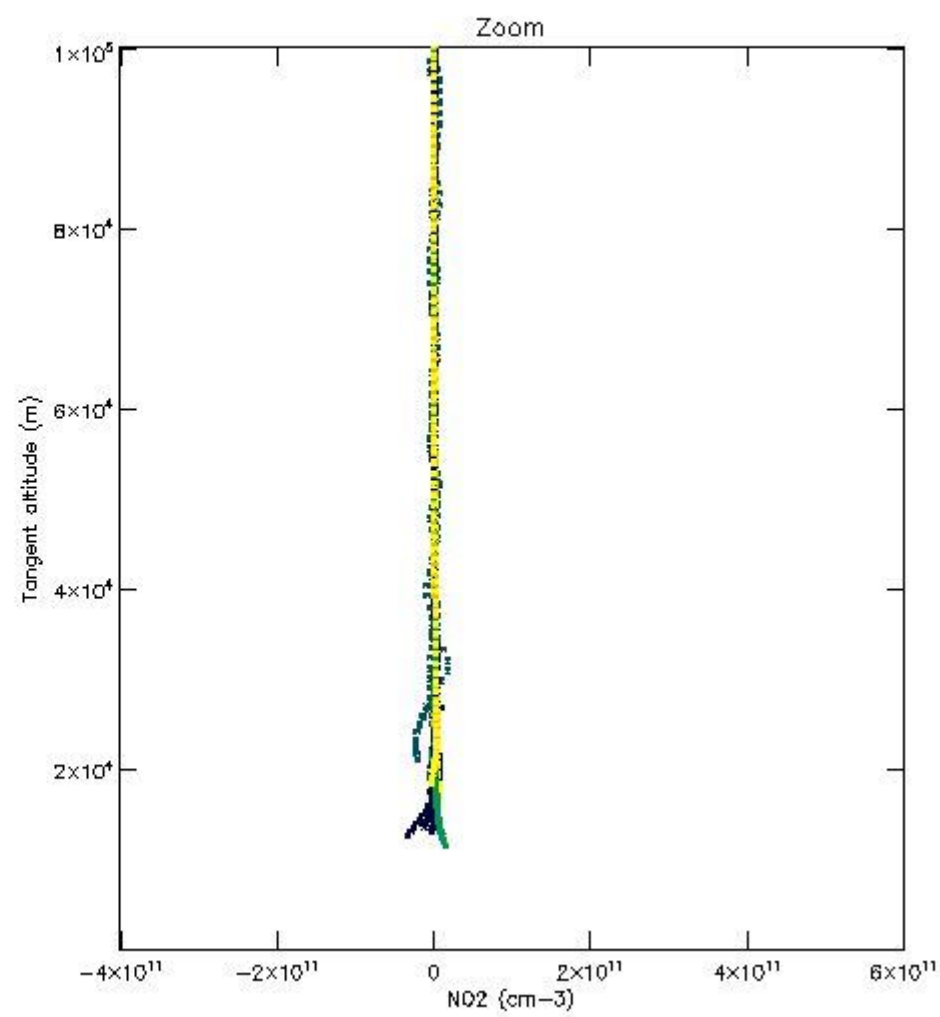
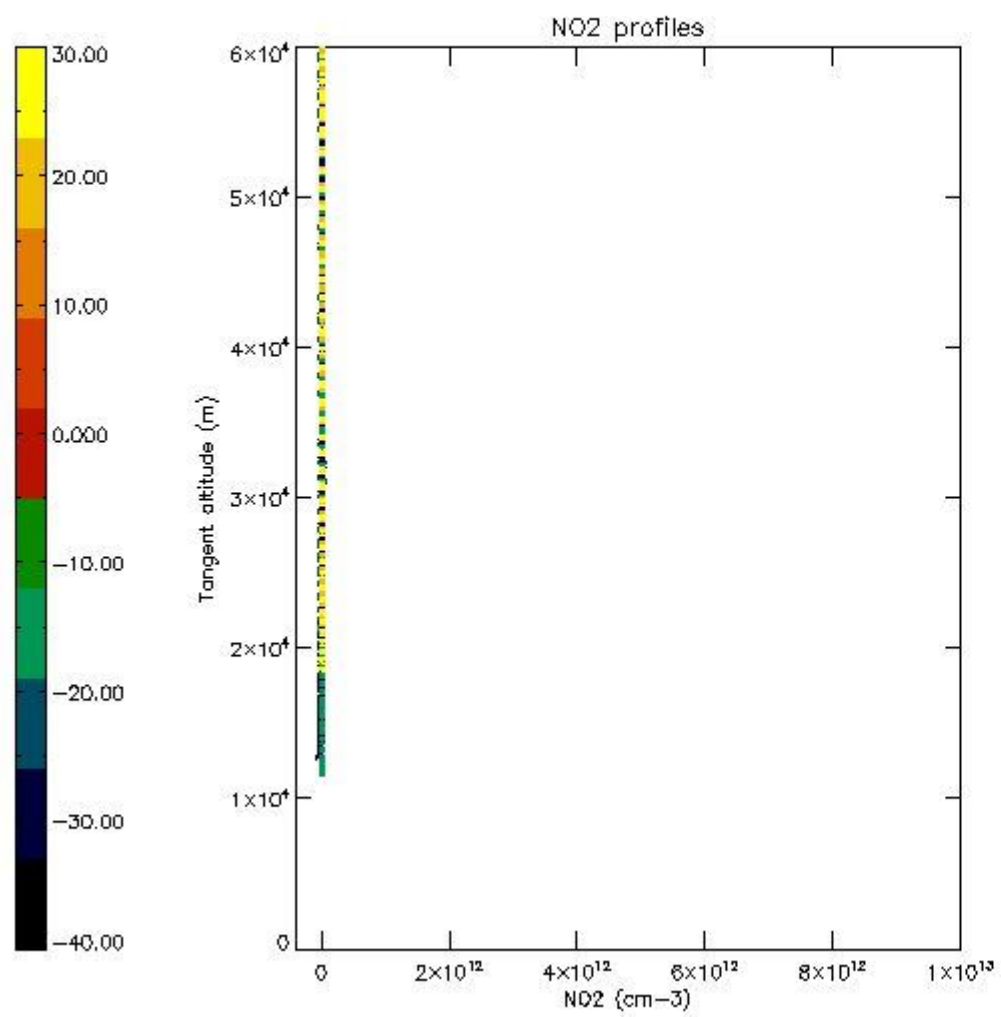
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



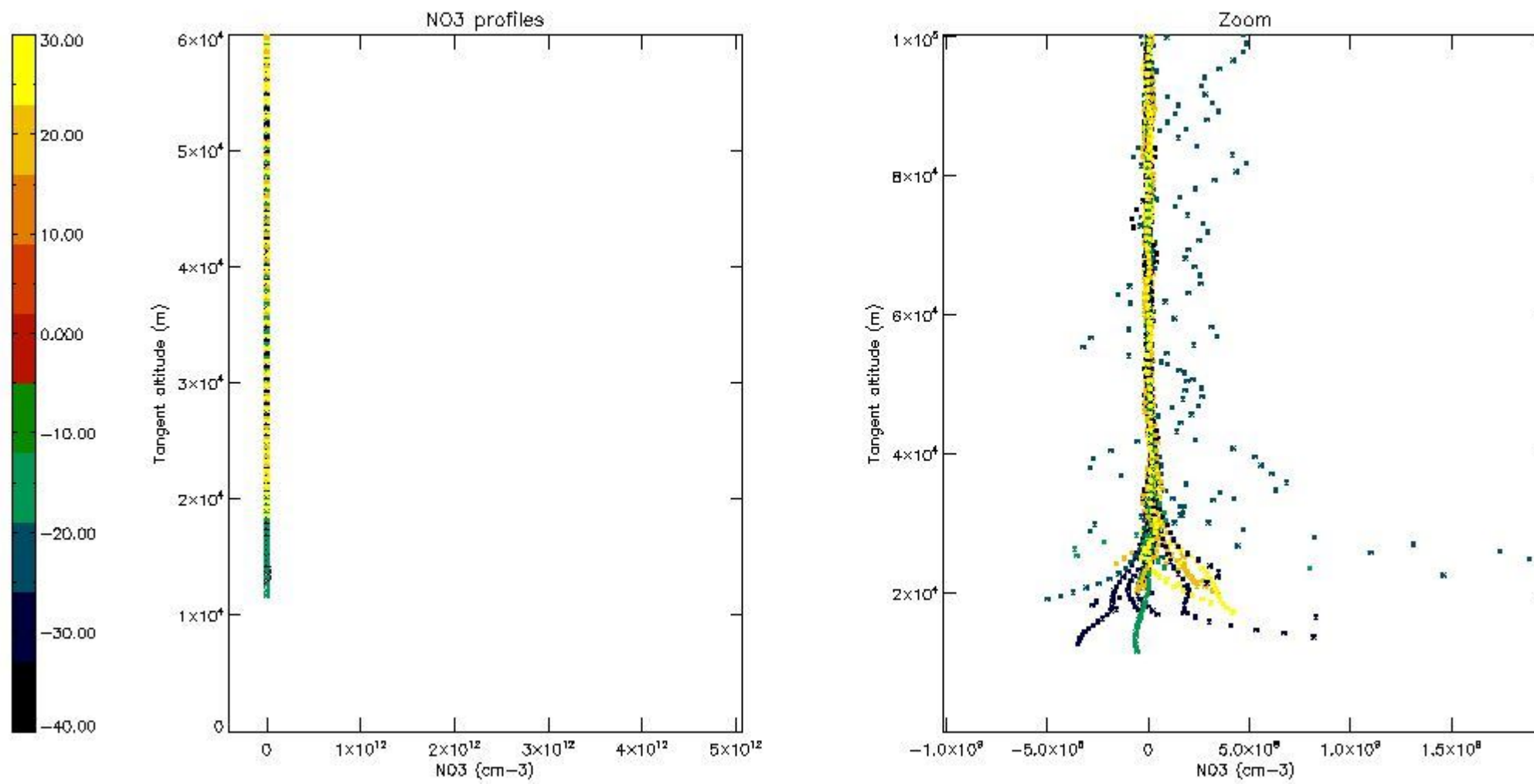
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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

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

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	15-MAR-2009 00:00:03
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	15-MAR-2009 00:00:03
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	15-MAR-2009 00:00:03

# GOMOS Level 2 Daily Report

## SUMMARY

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#### [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](#)



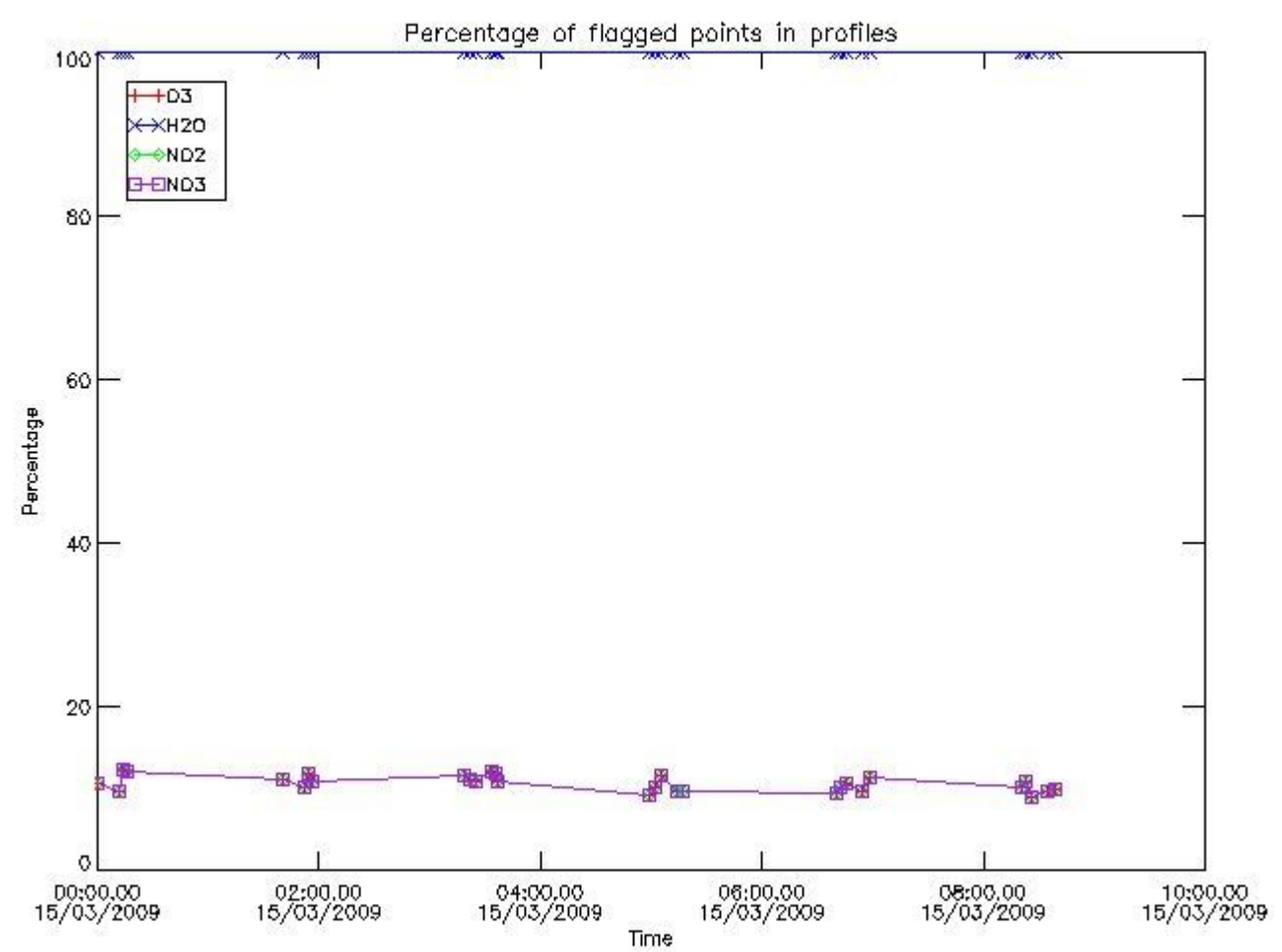


43	GOM_NL__2PRFIN20090315_044538_000000452077_00176_36803_9319.N1	15-MAR-2009 04:45:38	Twilight	44.500	168	17Zet Aql	2.9860	11000.	89	36803	No
44	GOM_NL__2PRFIN20090315_045925_000000562077_00176_36803_9320.N1	15-MAR-2009 04:59:25	Dark	55.500	137	22Lam Sgr	2.8240	4400.0	111	36803	No
45	GOM_NL__2PRFIN20090315_050154_000000502077_00176_36803_9321.N1	15-MAR-2009 05:01:54	Dark	50.000	167	10Gam2Sgr	2.9840	4500.0	100	36803	No
46	GOM_NL__2PRFIN20090315_050507_000000492077_00177_36804_9315.N1	15-MAR-2009 05:05:07	Dark	48.500	25	35Lam Sco	1.6200	28000.	97	36804	No
47	GOM_NL__2PRFIN20090315_051349_000000542077_00177_36804_9316.N1	15-MAR-2009 05:13:49	Dark	53.500	131	Gam Lup	2.8000	26000.	107	36804	No
48	GOM_NL__2PRFIN20090315_051722_000000532077_00177_36804_9317.N1	15-MAR-2009 05:17:22	Dark	53.000	81	Eta Cen	2.3560	28000.	106	36804	No
49	GOM_NL__2PRFIN20090315_052031_000000632077_00177_36804_9318.N1	15-MAR-2009 05:20:31	Straylight	62.500	54	5The Cen	2.0550	4500.0	125	36804	No
50	GOM_NL__2PRFIN20090315_052224_000000482077_00177_36804_9319.N1	15-MAR-2009 05:22:24	Straylight	47.500	123	lot Cen	2.7500	10200.	95	36804	No
51	GOM_NL__2PRFIN20090315_052816_000000522077_00177_36804_9320.N1	15-MAR-2009 05:28:16	Straylight	51.500	106	9Bet Crv	2.6480	5600.0	103	36804	No
52	GOM_NL__2PRFIN20090315_053037_000000512077_00177_36804_9321.N1	15-MAR-2009 05:30:37	Twilight	50.500	100	4Gam Crv	2.5800	13100.	101	36804	No
53	GOM_NL__2PRFIN20090315_054155_000000472077_00177_36804_9322.N1	15-MAR-2009 05:41:55	Bright	46.500	62	94Bet Leo	2.1360	9700.0	93	36804	No
54	GOM_NL__2PRFIN20090315_055627_000000462077_00177_36804_9323.N1	15-MAR-2009 05:56:27	Bright	45.500	32	77Eps UMa	1.7630	11000.	91	36804	No
55	GOM_NL__2PRFIN20090315_060152_000000402077_00177_36804_9324.N1	15-MAR-2009 06:01:52	Bright	40.000	60	7Bet UMi	2.0810	3950.0	80	36804	No
56	GOM_NL__2PRFIN20090315_061056_000000472077_00177_36804_9325.N1	15-MAR-2009 06:10:56	Bright	47.000	130	23Bet Dra	2.7990	5800.0	94	36804	No
57	GOM_NL__2PRFIN20090315_061714_000000432077_00177_36804_9326.N1	15-MAR-2009 06:17:14	Bright	43.000	5	3Alp Lyr	0.033000	11000.	86	36804	No
58	GOM_NL__2PRFIN20090315_062615_000000442077_00177_36804_9327.N1	15-MAR-2009 06:26:15	Twilight	43.500	168	17Zet Aql	2.9860	11000.	87	36804	No
59	GOM_NL__2PRFIN20090315_064002_000000552077_00177_36804_9328.N1	15-MAR-2009 06:40:02	Dark	54.500	137	22Lam Sgr	2.8240	4400.0	109	36804	No
60	GOM_NL__2PRFIN20090315_064208_000000502077_00177_36804_9329.N1	15-MAR-2009 06:42:08	Dark	50.000	38	20Eps Sgr	1.8360	11000.	100	36804	No
61	GOM_NL__2PRFIN20090315_064545_000000482077_00178_36805_9323.N1	15-MAR-2009 06:45:45	Dark	48.000	25	35Lam Sco	1.6200	28000.	96	36805	No
62	GOM_NL__2PRFIN20090315_065426_000000532077_00178_36805_9324.N1	15-MAR-2009 06:54:26	Dark	53.000	131	Gam Lup	2.8000	26000.	106	36805	No
63	GOM_NL__2PRFIN20090315_065759_000000502077_00178_36805_9325.N1	15-MAR-2009 06:57:59	Dark	49.500	81	Eta Cen	2.3560	28000.	99	36805	No
64	GOM_NL__2PRFIN20090315_070107_000000522077_00178_36805_9326.N1	15-MAR-2009 07:01:07	Straylight	51.500	54	5The Cen	2.0550	4500.0	103	36805	No
65	GOM_NL__2PRFIN20090315_070852_000000032077_00178_36805_9327.N1	15-MAR-2009 07:08:52	Straylight	3.0000	106	9Bet Crv	2.6480	5600.0	6	36805	No
66	GOM_NL__2PRFIN20090315_072231_000000052077_00178_36805_9329.N1	15-MAR-2009 07:22:31	Straylight	4.5000	62	94Bet Leo	2.1360	9700.0	9	36805	No
67	GOM_NL__2PRFIN20090315_073421_000000042077_00178_36805_9330.N1	15-MAR-2009 07:34:21	Straylight	4.0000	87	64Gam UMa	2.4330	11000.	8	36805	No
68	GOM_NL__2PRFIN20090315_073702_000000042077_00178_36805_9331.N1	15-MAR-2009 07:37:02	Straylight	3.5000	32	77Eps UMa	1.7630	11000.	7	36805	No
69	GOM_NL__2PRFIN20090315_074228_000000022077_00178_36805_9332.N1	15-MAR-2009 07:42:28	Dark	1.5000	60	7Bet UMi	2.0810	3950.0	3	36805	Yes
70	GOM_NL__2PRFIN20090315_074634_000000462077_00178_36805_9333.N1	15-MAR-2009 07:46:34	Bright	46.000	119	14Eta Dra	2.7270	4700.0	92	36805	No
71	GOM_NL__2PRFIN20090315_075131_000000462077_00178_36805_9334.N1	15-MAR-2009 07:51:31	Bright	45.500	130	23Bet Dra	2.7990	5800.0	91	36805	No
72	GOM_NL__2PRFIN20090315_075750_000000422077_00178_36805_9335.N1	15-MAR-2009 07:57:50	Bright	42.000	5	3Alp Lyr	0.033000	11000.	84	36805	No
73	GOM_NL__2PRFIN20090315_080651_000000432077_00178_36805_9336.N1	15-MAR-2009 08:06:51	Twilight	43.000	168	17Zet Aql	2.9860	11000.	86	36805	No
74	GOM_NL__2PRFIN20090315_082039_000000502077_00178_36805_9337.N1	15-MAR-2009 08:20:39	Dark	50.000	137	22Lam Sgr	2.8240	4400.0	100	36805	No
75	GOM_NL__2PRFIN20090315_082245_000000482077_00178_36805_9338.N1	15-MAR-2009 08:22:45	Dark	47.500	38	20Eps Sgr	1.8360	11000.	95	36805	No
76	GOM_NL__2PRFIN20090315_082622_000000572077_00179_36806_9331.N1	15-MAR-2009 08:26:22	Dark	57.000	25	35Lam Sco	1.6200	28000.	114	36806	No
77	GOM_NL__2PRFIN20090315_083503_000000532077_00179_36806_9332.N1	15-MAR-2009 08:35:03	Dark	53.000	131	Gam Lup	2.8000	26000.	106	36806	No
78	GOM_NL__2PRFIN20090315_083836_000000522077_00179_36806_9333.N1	15-MAR-2009 08:38:36	Dark	51.500	81	Eta Cen	2.3560	28000.	103	36806	No
79	GOM_NL__2PRFIN20090315_084144_000000592077_00179_36806_9334.N1	15-MAR-2009 08:41:44	Straylight	58.500	54	5The Cen	2.0550	4500.0	117	36806	No
80	GOM_NL__2PRFIN20090315_084928_000000452077_00179_36806_9335.N1	15-MAR-2009 08:49:28	Straylight	44.500	106	9Bet Crv	2.6480	5600.0	89	36806	No
81	GOM_NL__2PRFIN20090315_085149_000000512077_00179_36806_9336.N1	15-MAR-2009 08:51:49	Twilight	51.000	100	4Gam Crv	2.5800	13100.	102	36806	No

### 3. Quality information per product

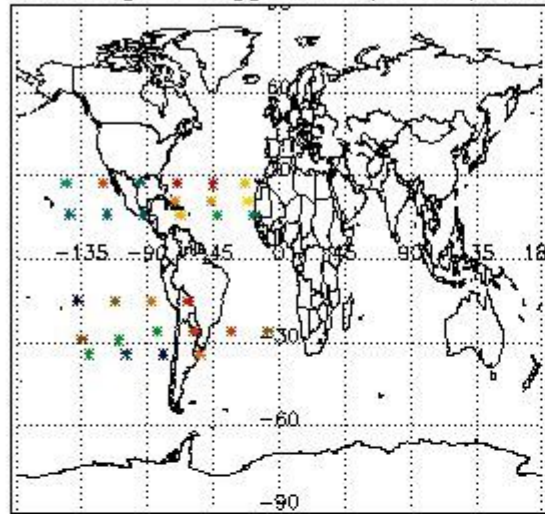
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

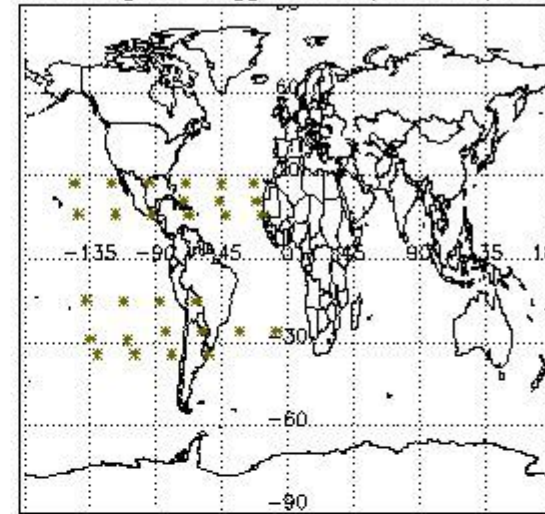


*3.2 Plot quality information per product (world map)*

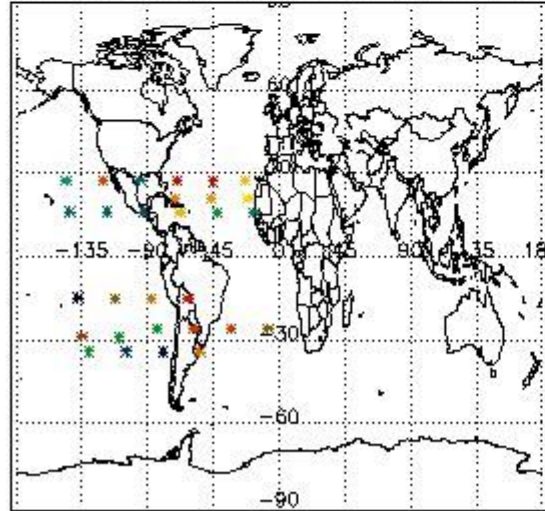
Percentage of flagged data per O3 profile



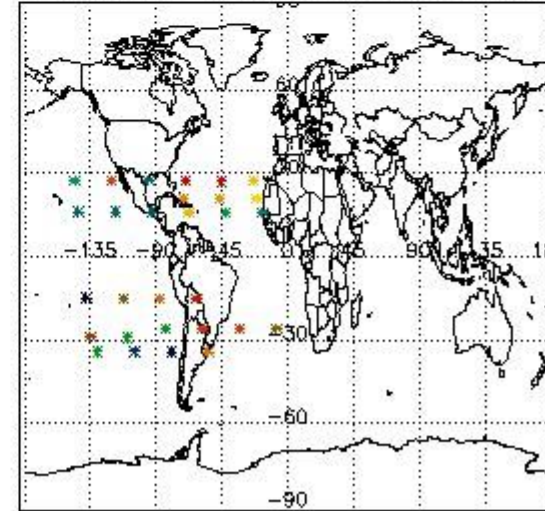
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

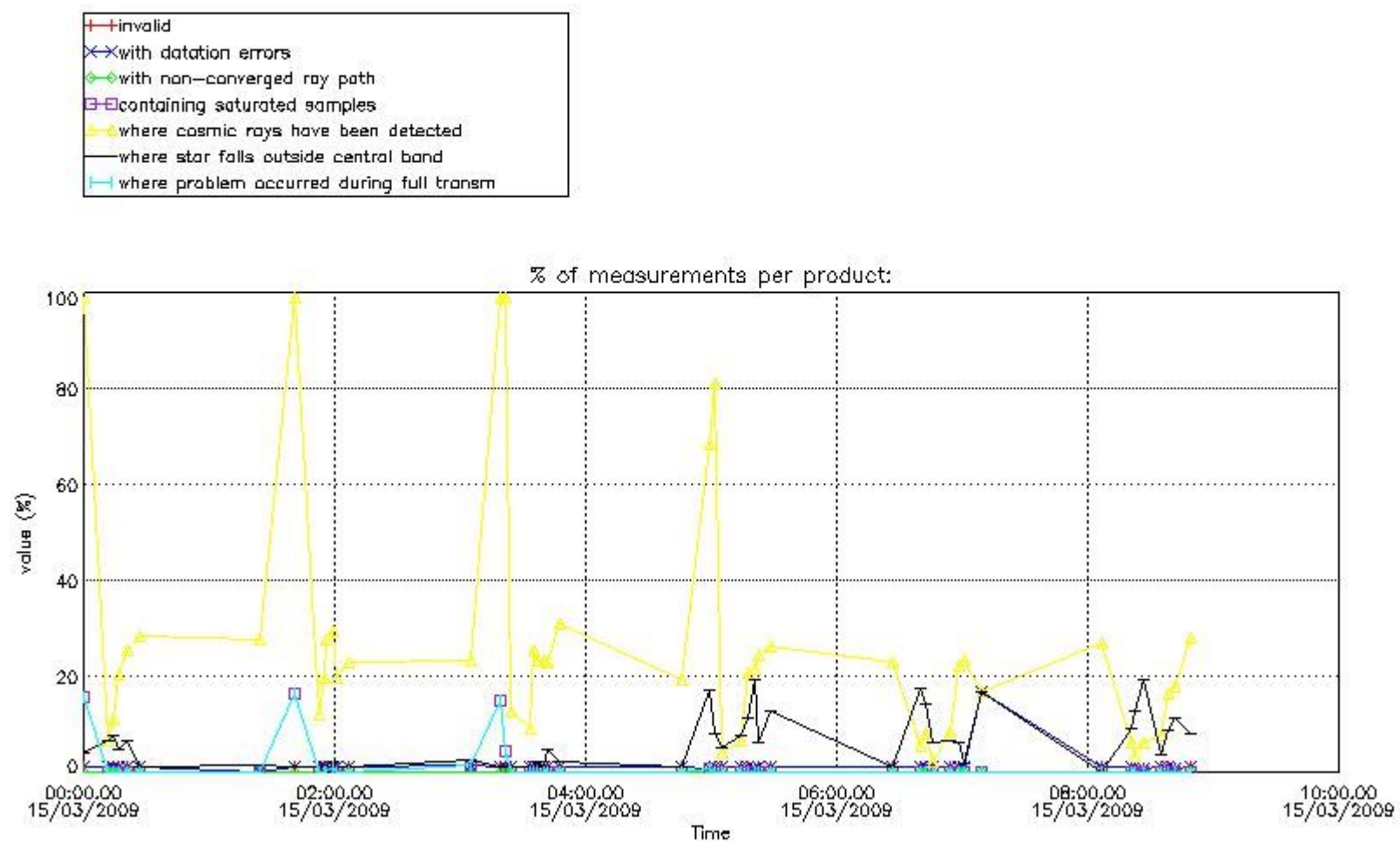


#### 4. Level 1 quality information per product

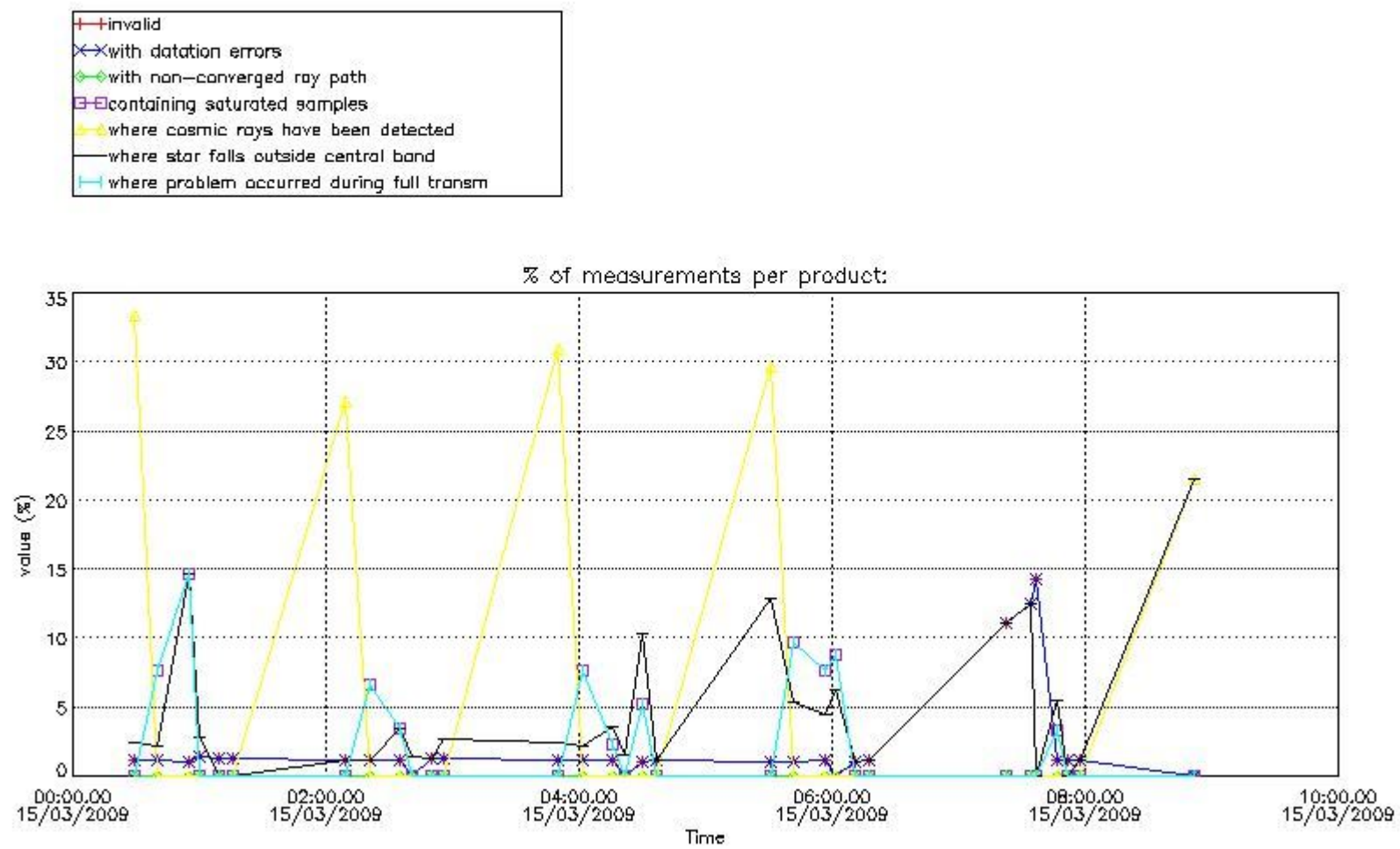
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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

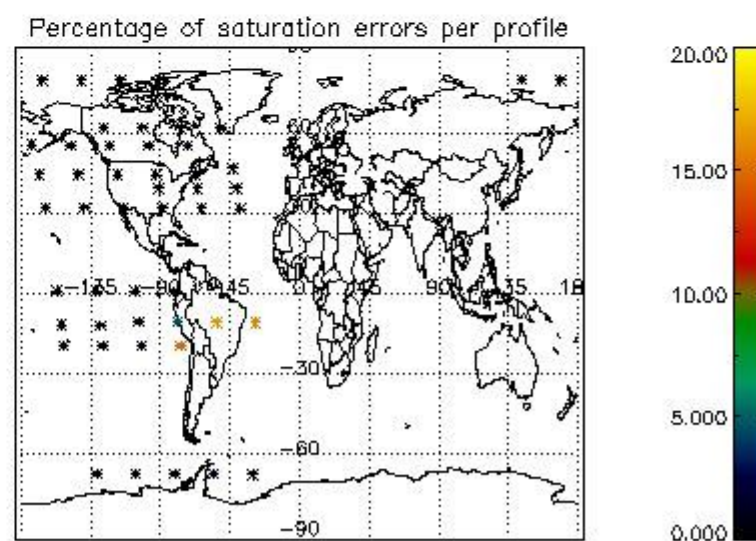
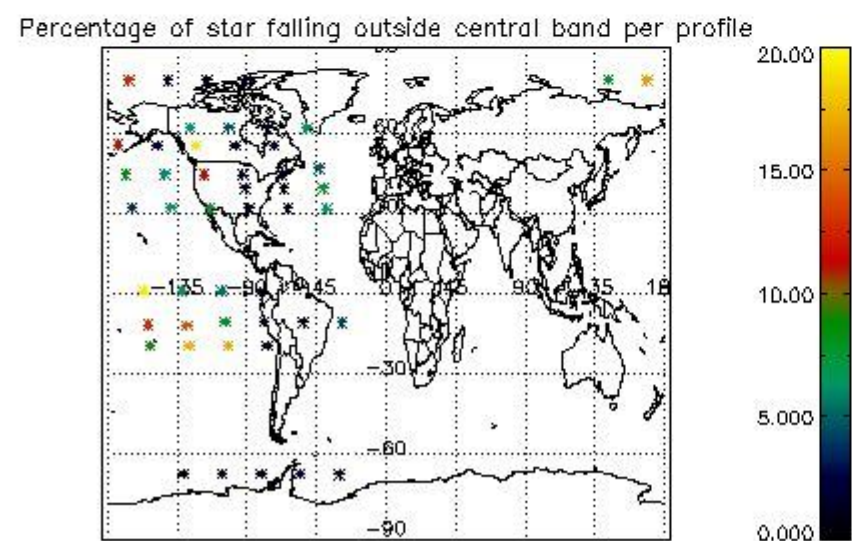
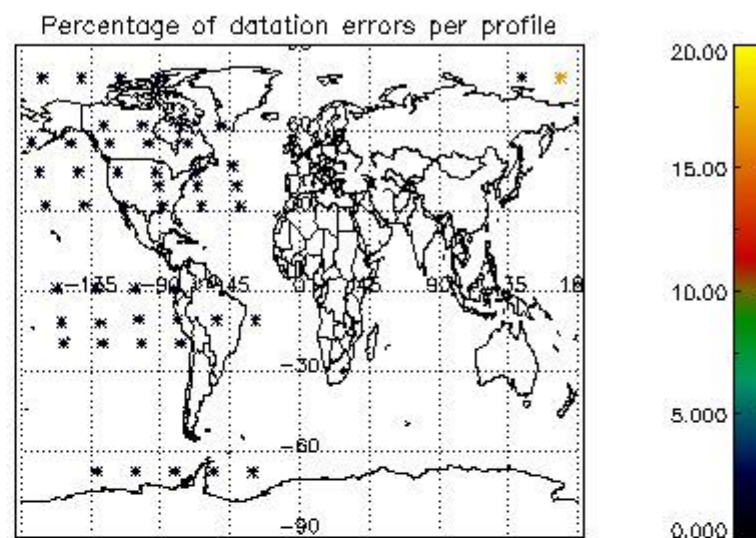
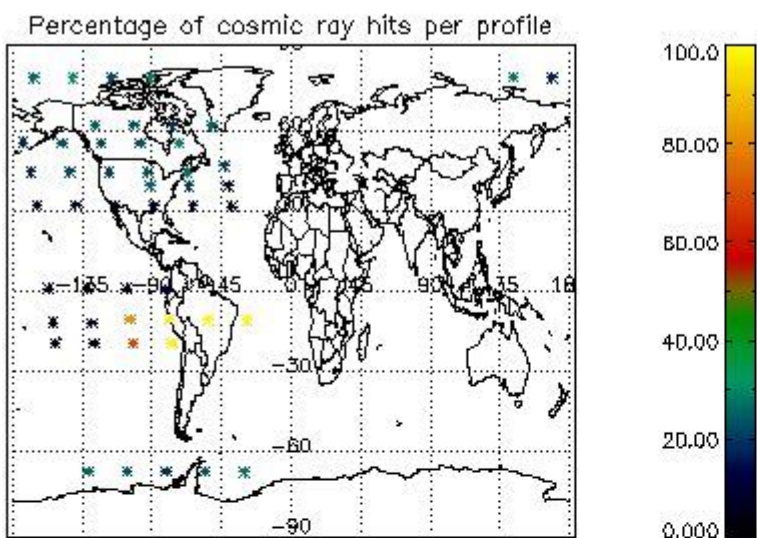


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

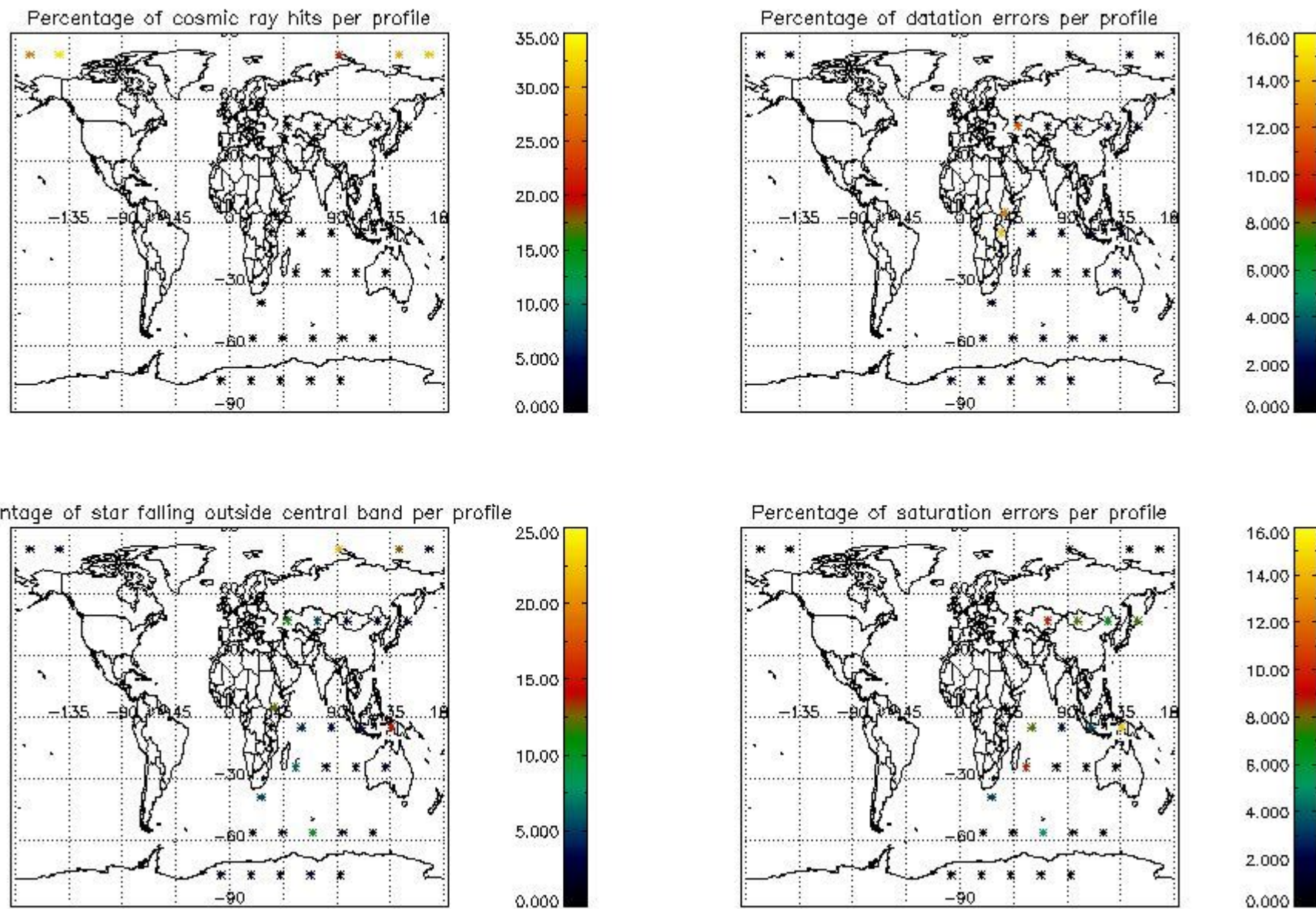


4.2 Plot quality information per product coming from level 1b processing (world map)

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



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.

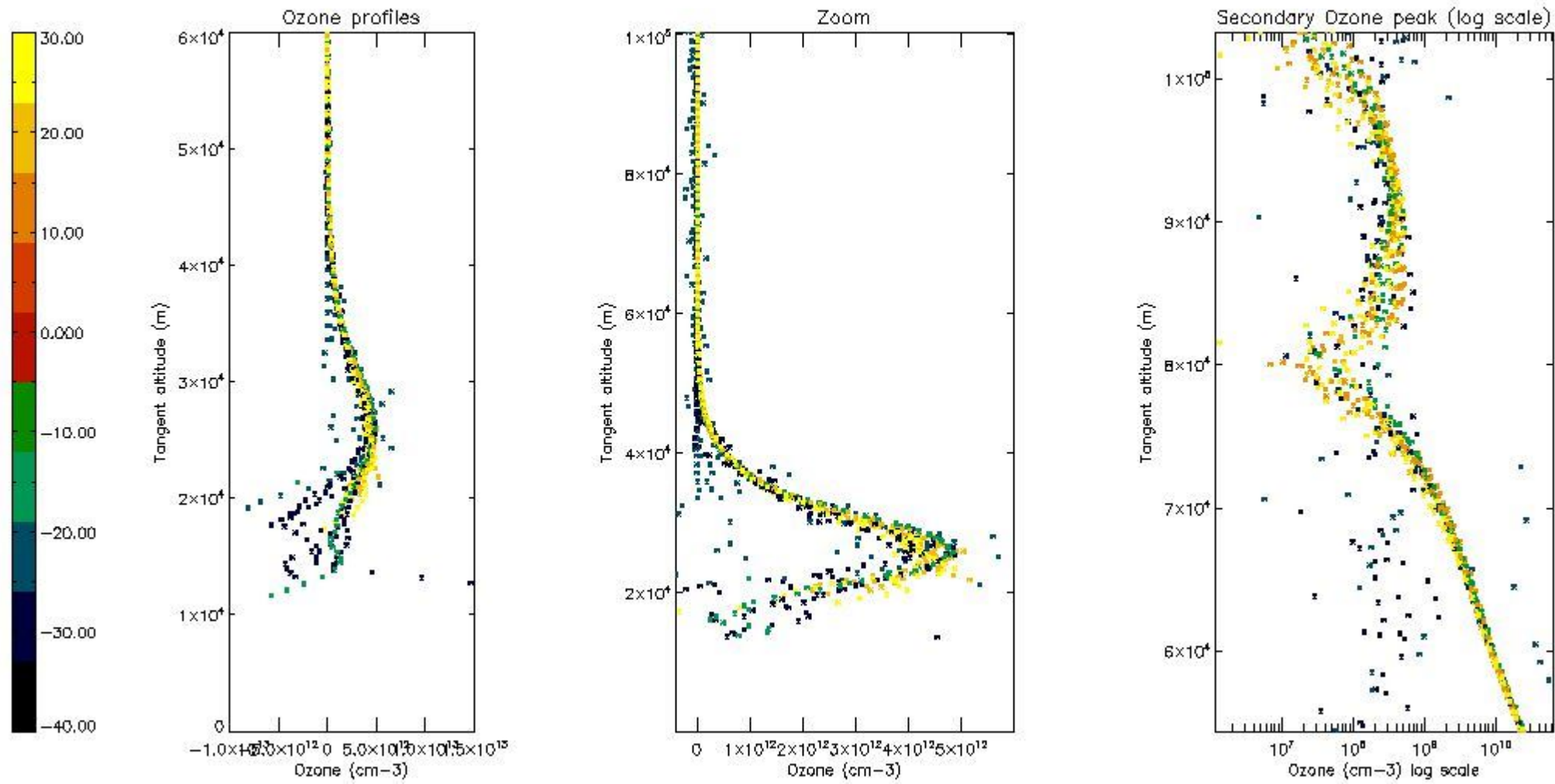
Criteria	% of total production
All STD	41
STD < 20	22



STD < 10	18
STD < 5	14

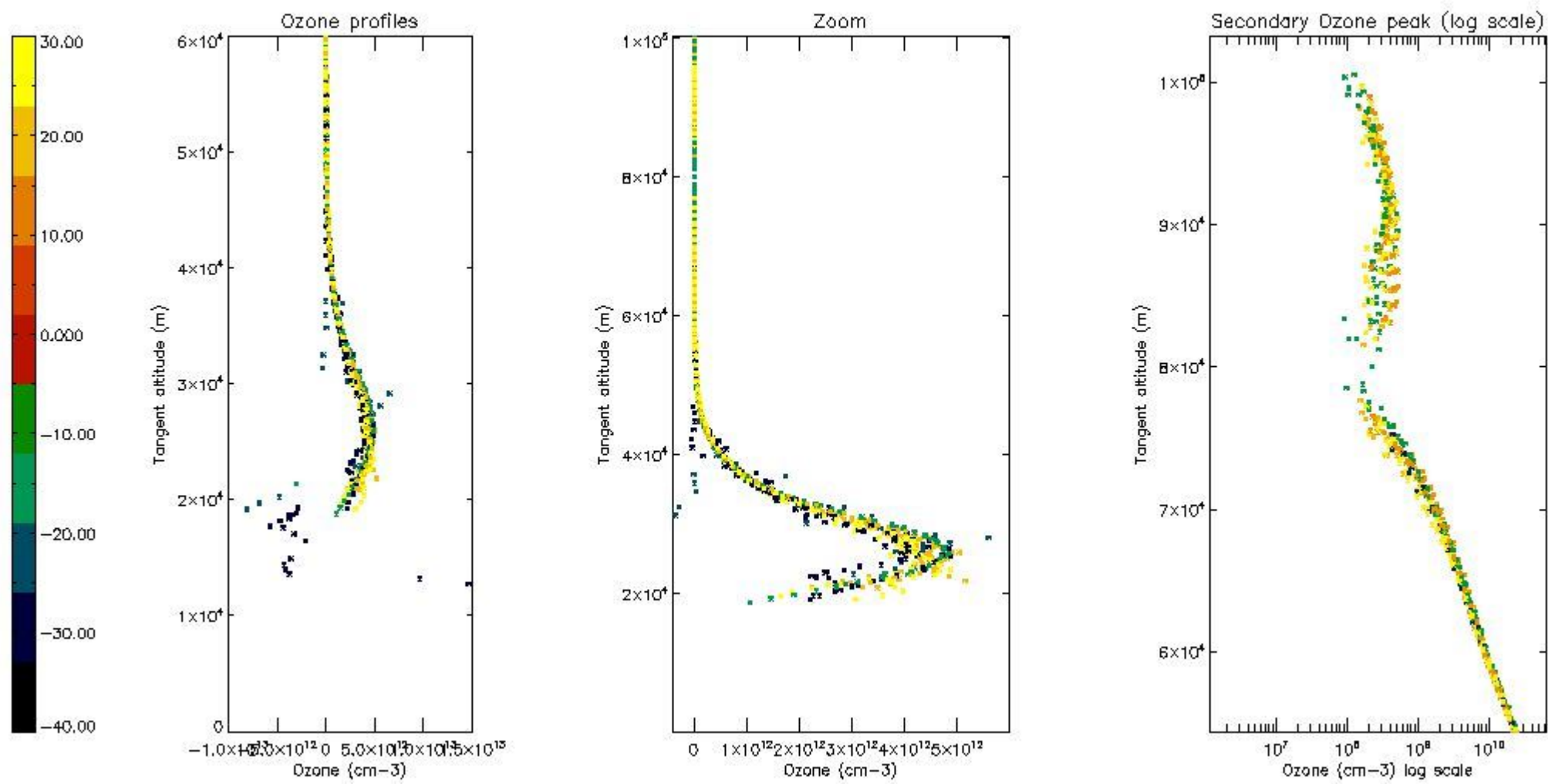
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



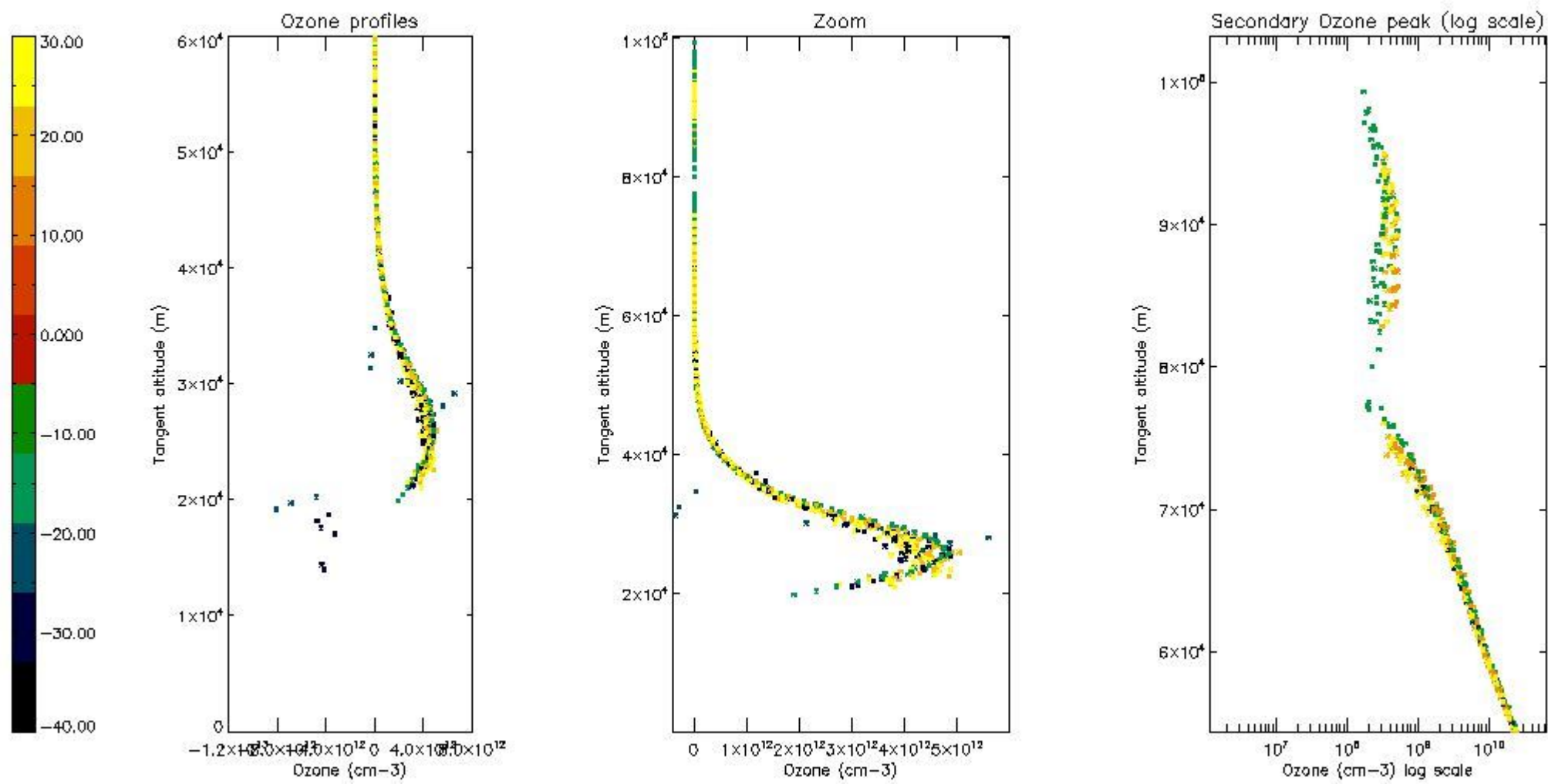
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



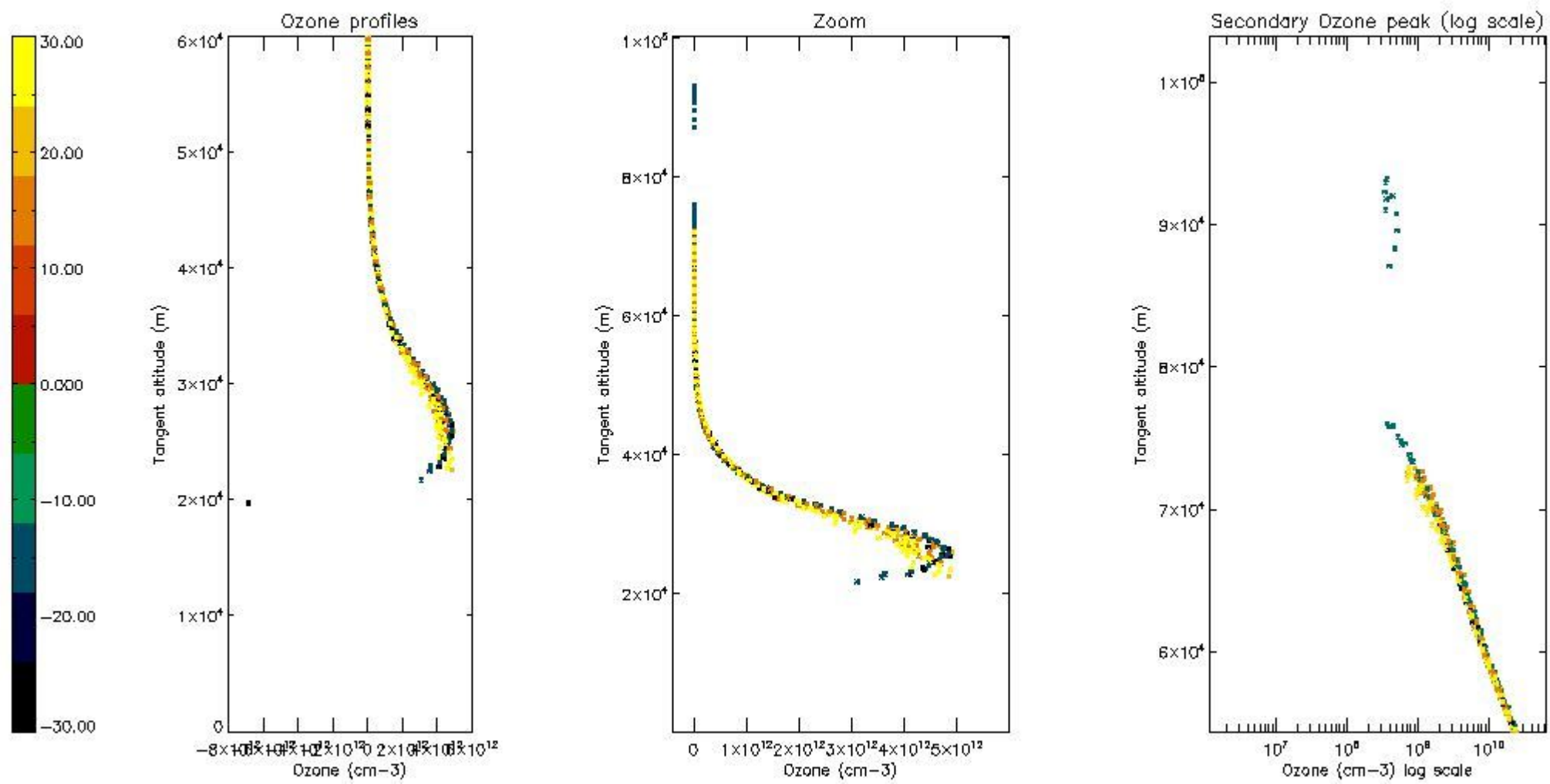
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



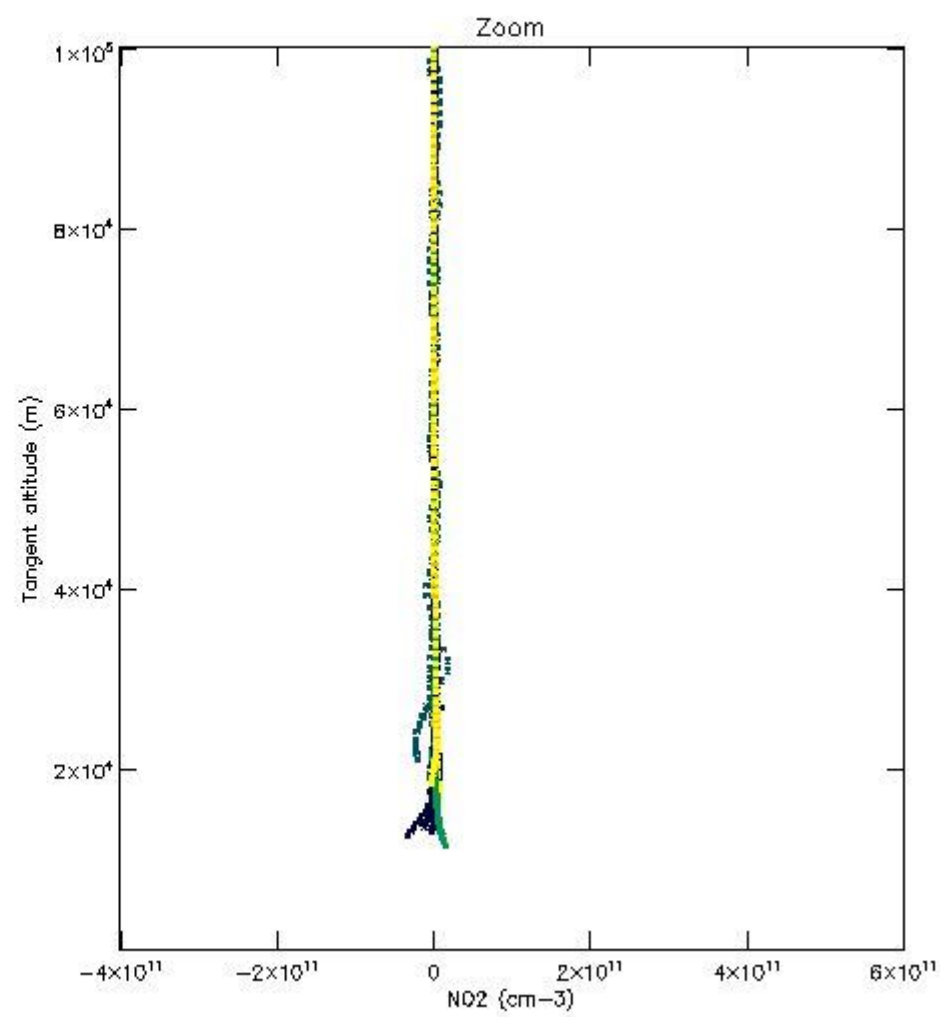
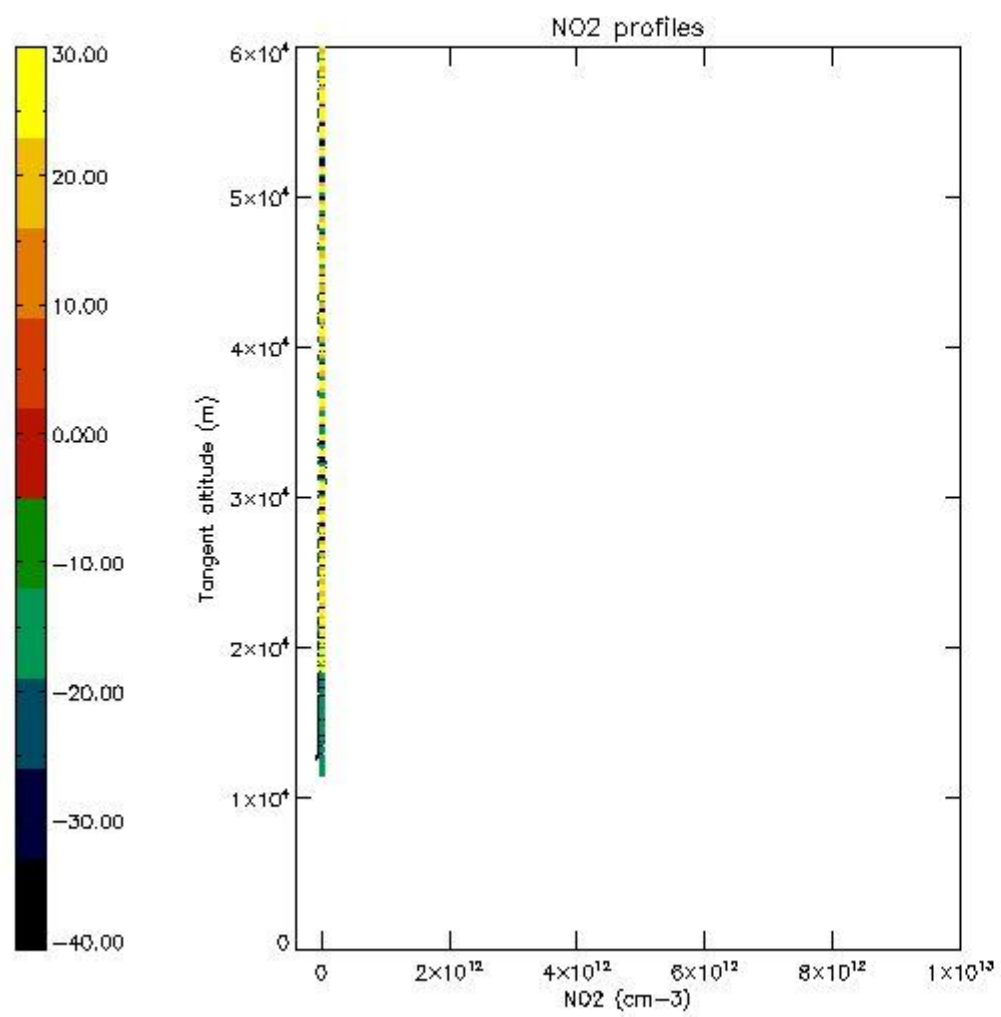
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



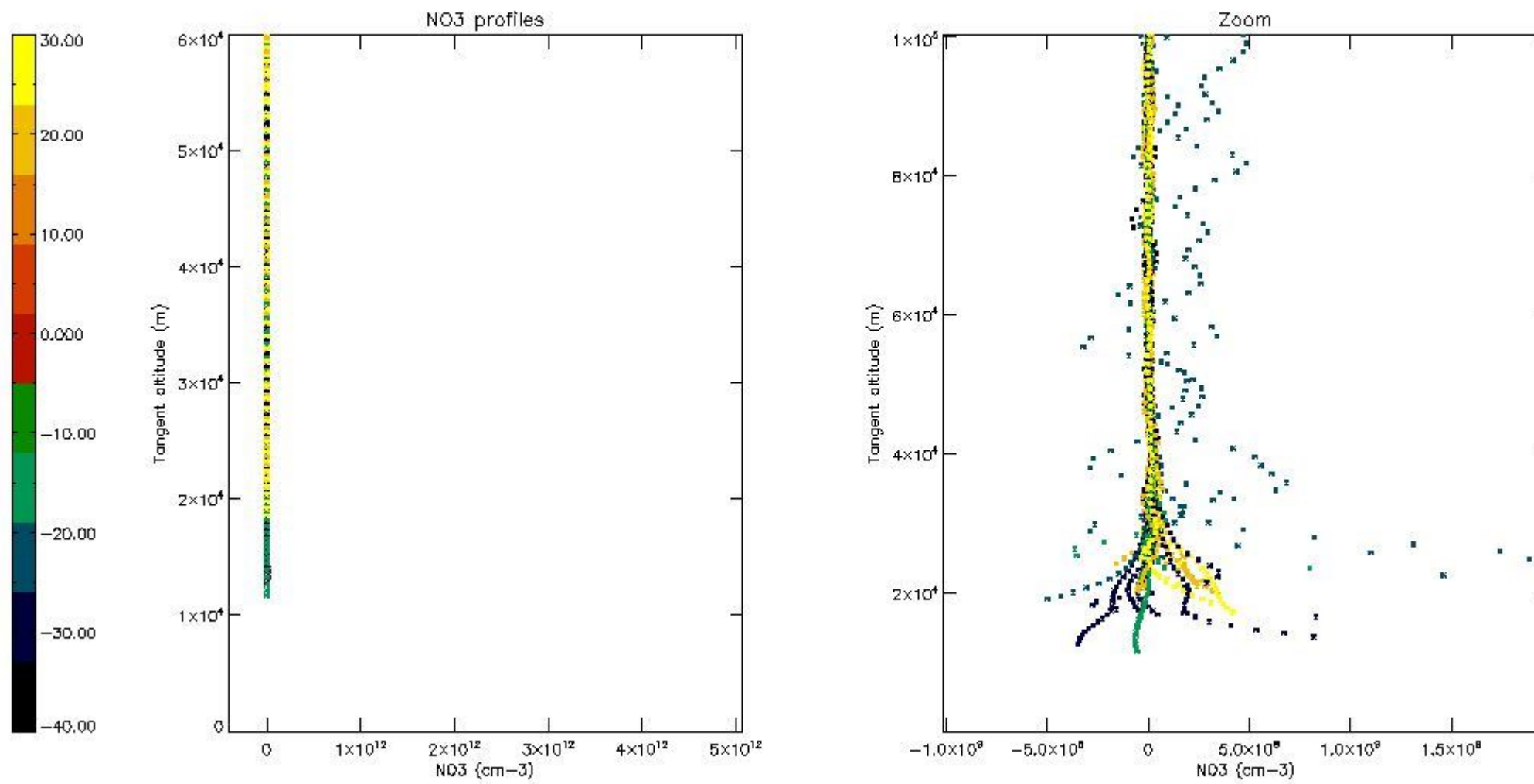
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

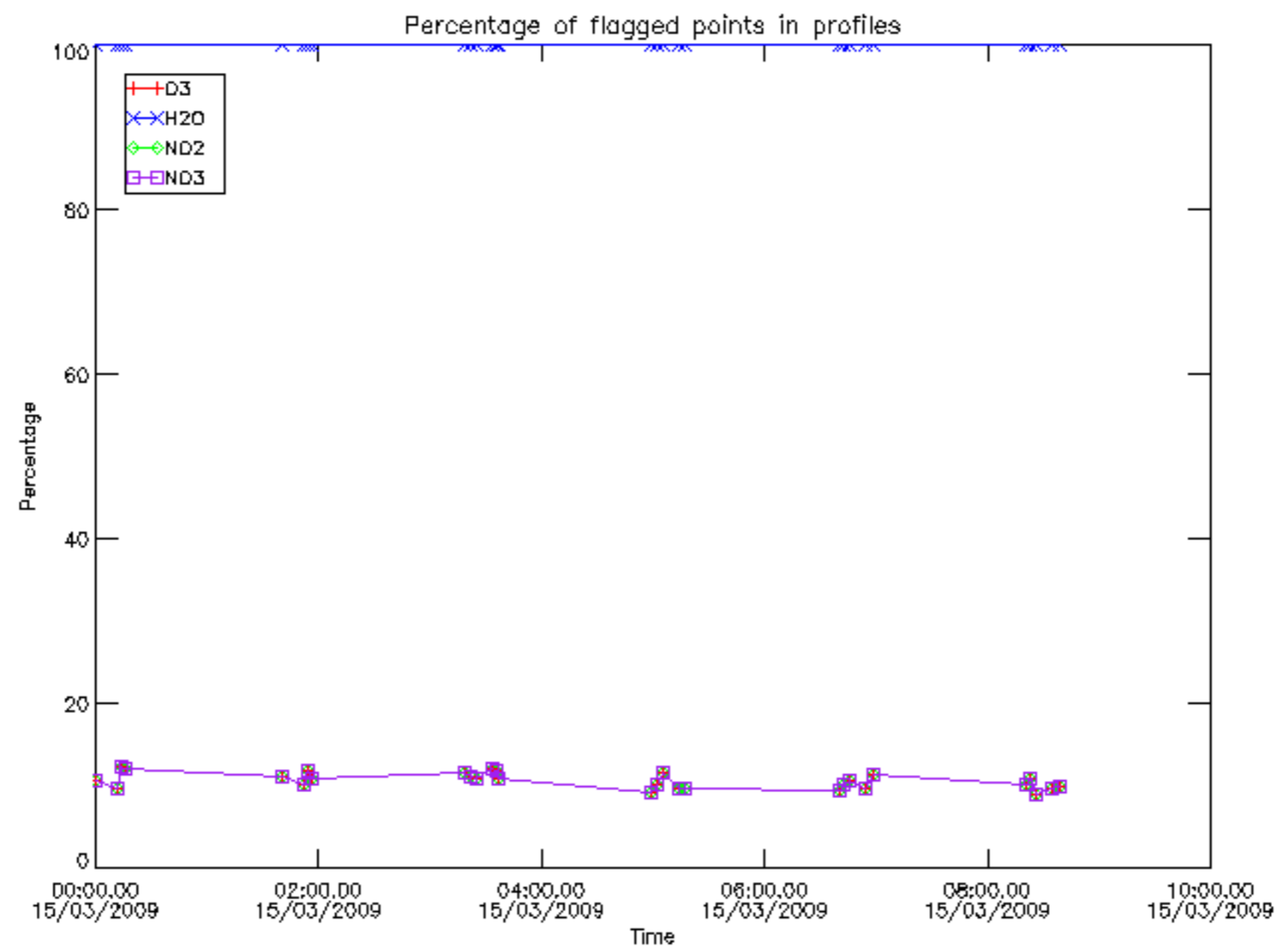
The colorbar represents the latitude.



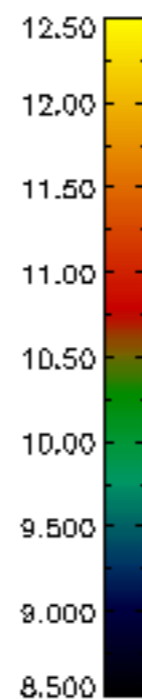
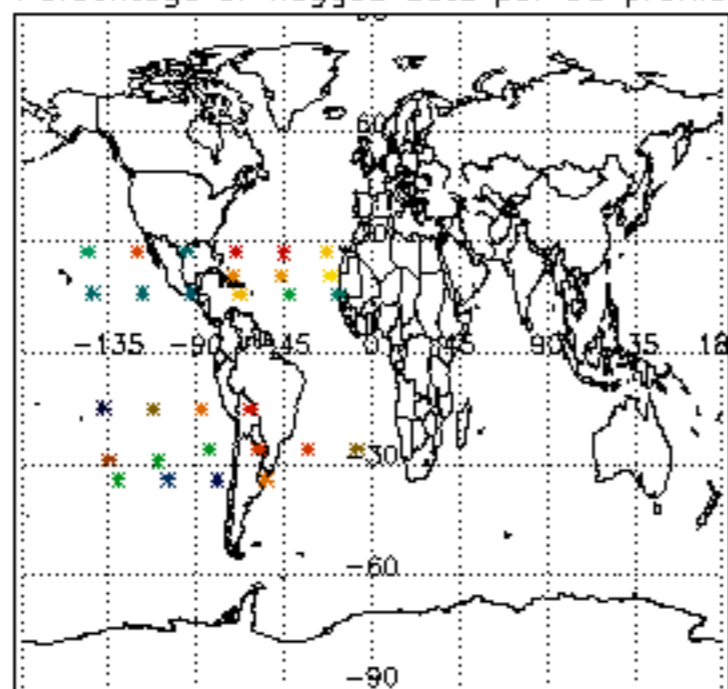
## 6. Auxiliary Data Files used for the production reported in section 2

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

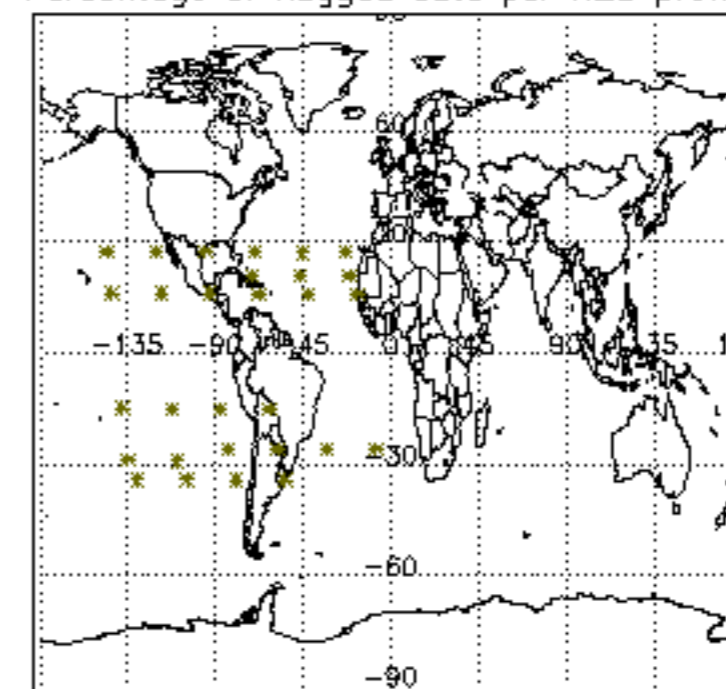
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	15-MAR-2009 00:00:03
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	15-MAR-2009 00:00:03
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	15-MAR-2009 00:00:03



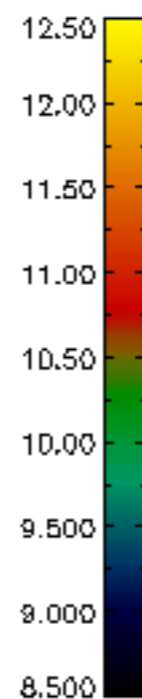
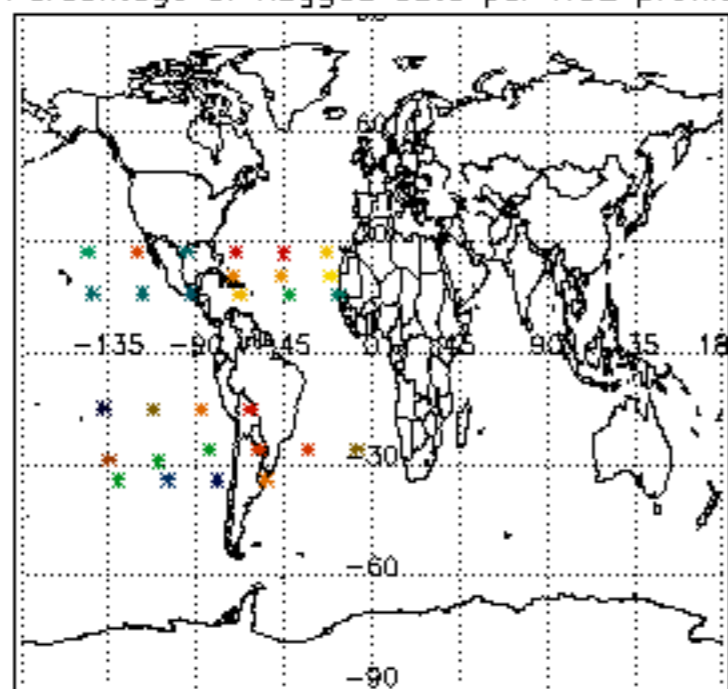
Percentage of flagged data per D3 profile



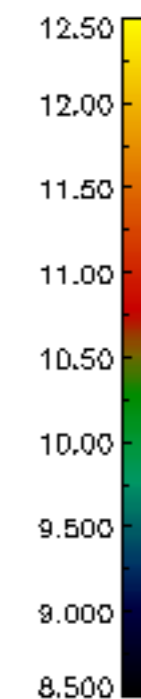
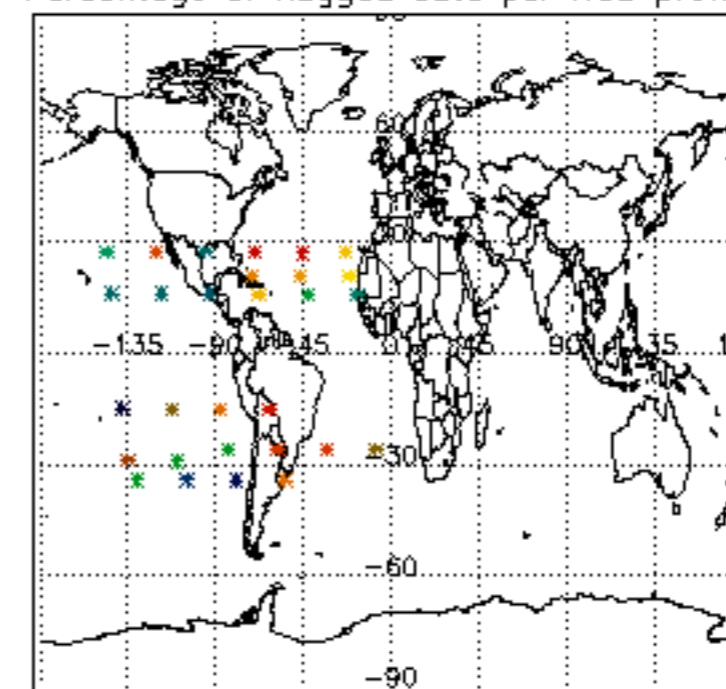
Percentage of flagged data per H2O profile



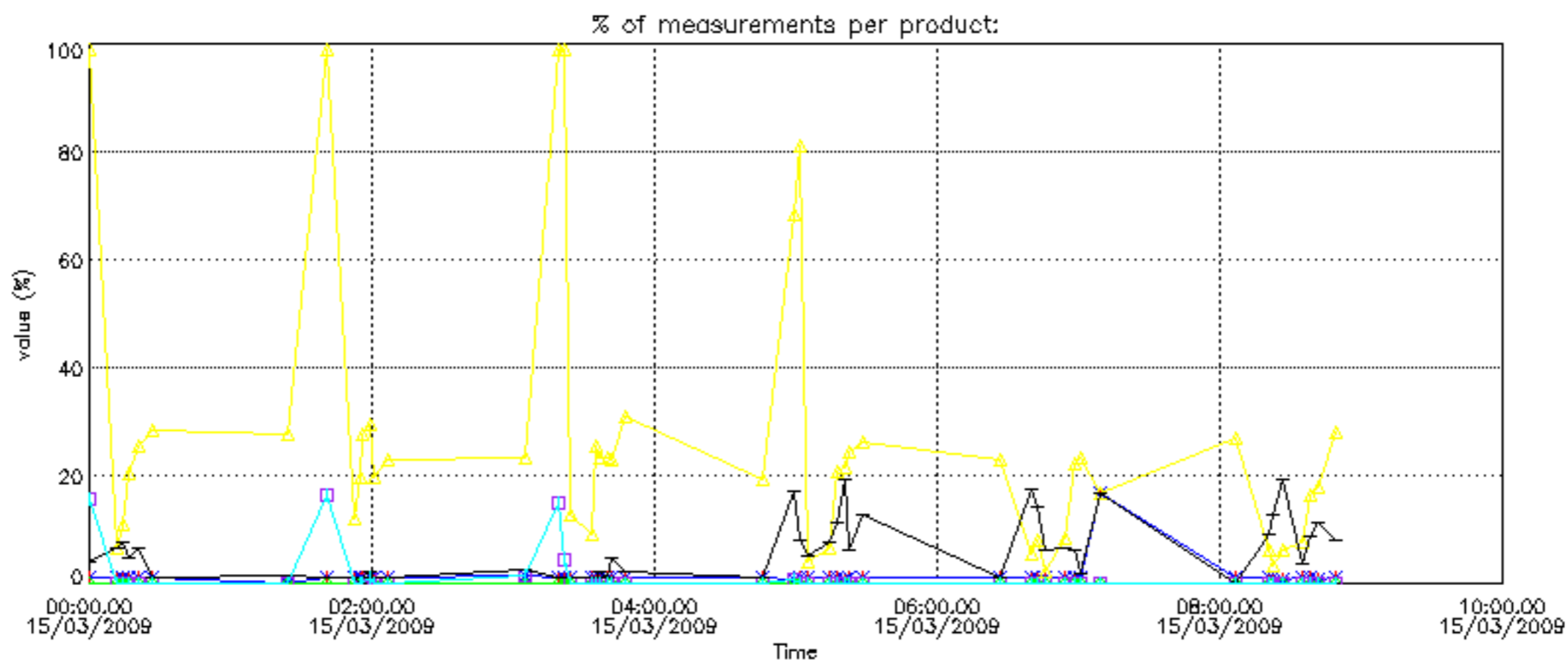
Percentage of flagged data per NO2 profile

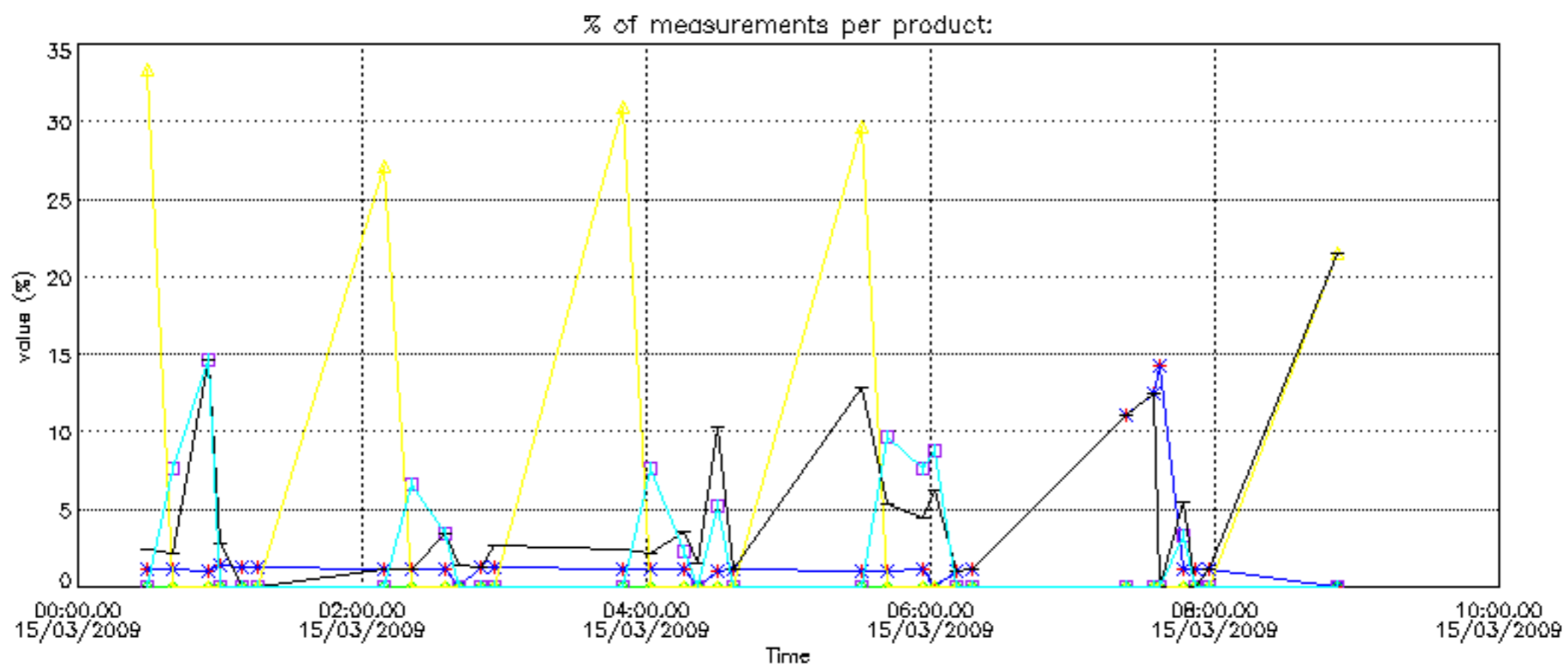


Percentage of flagged data per NO3 profile

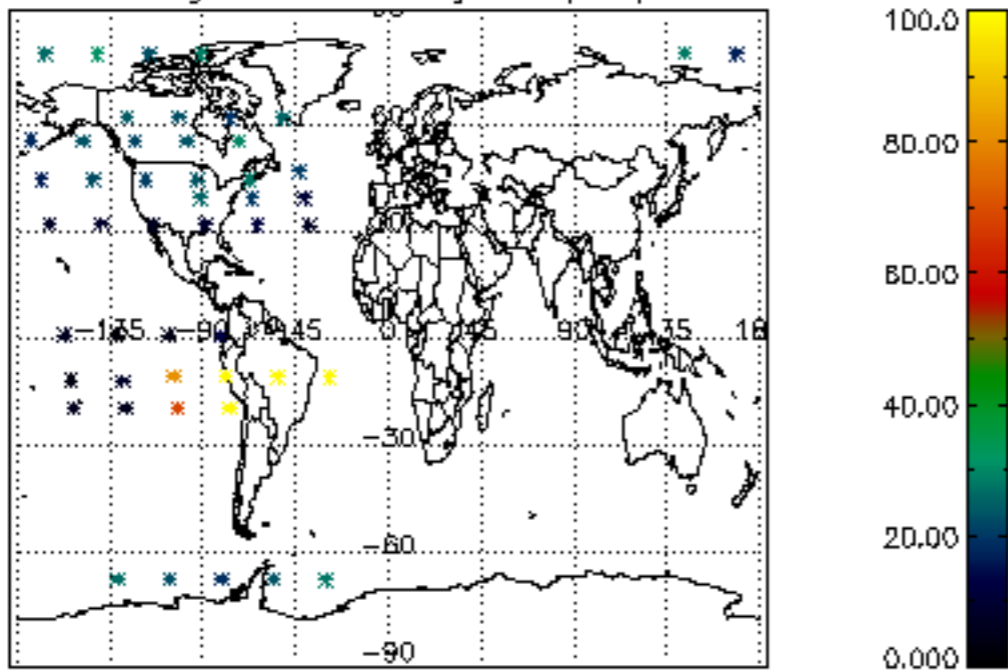




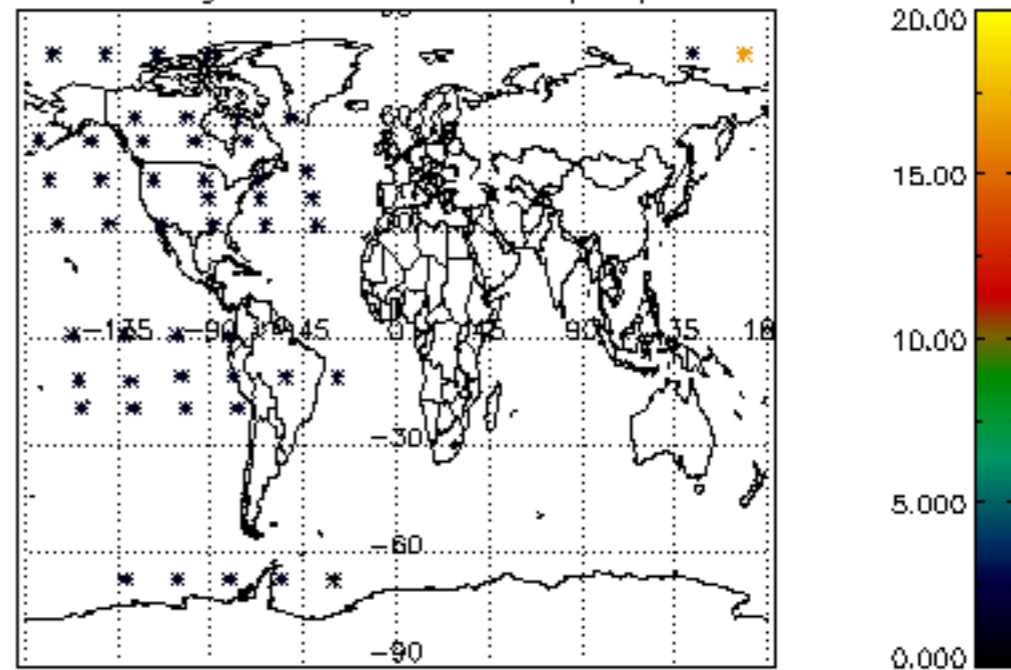




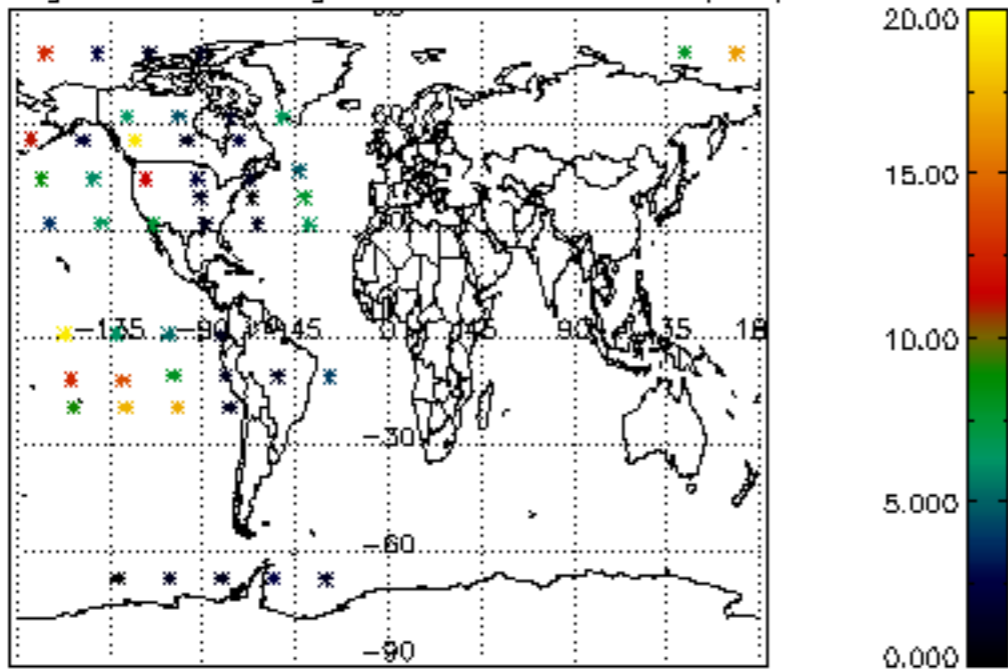
Percentage of cosmic ray hits per profile



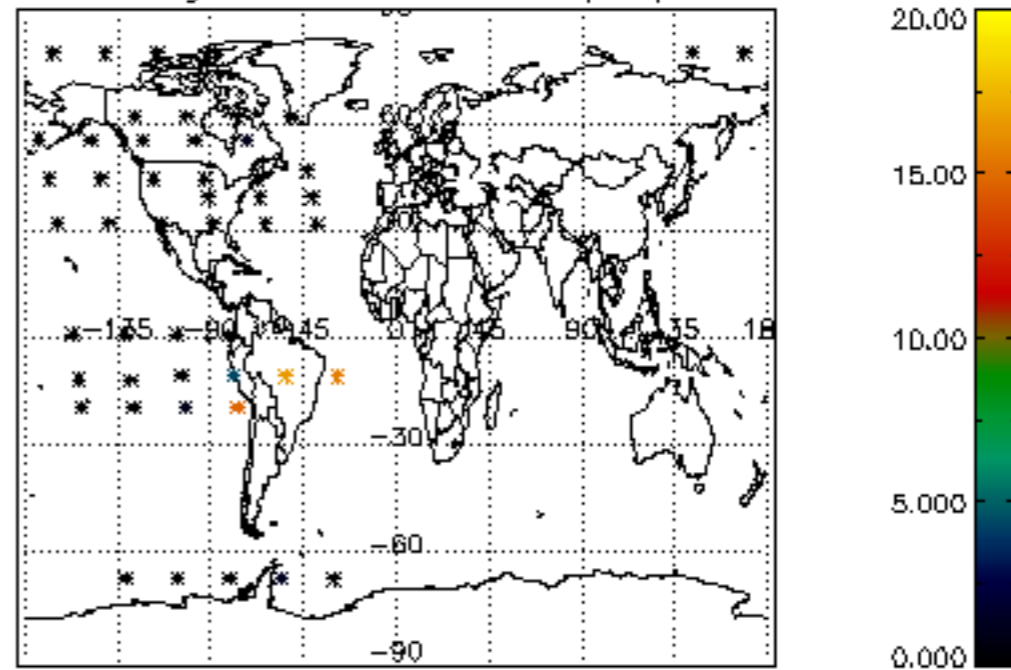
Percentage of datation errors per profile



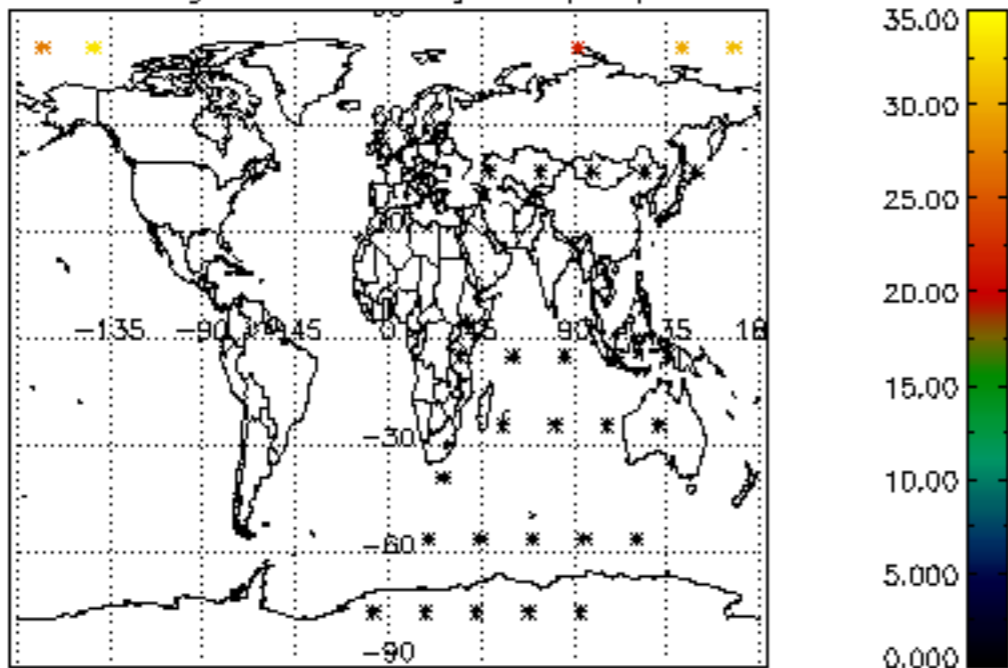
Percentage of star falling outside central band per profile



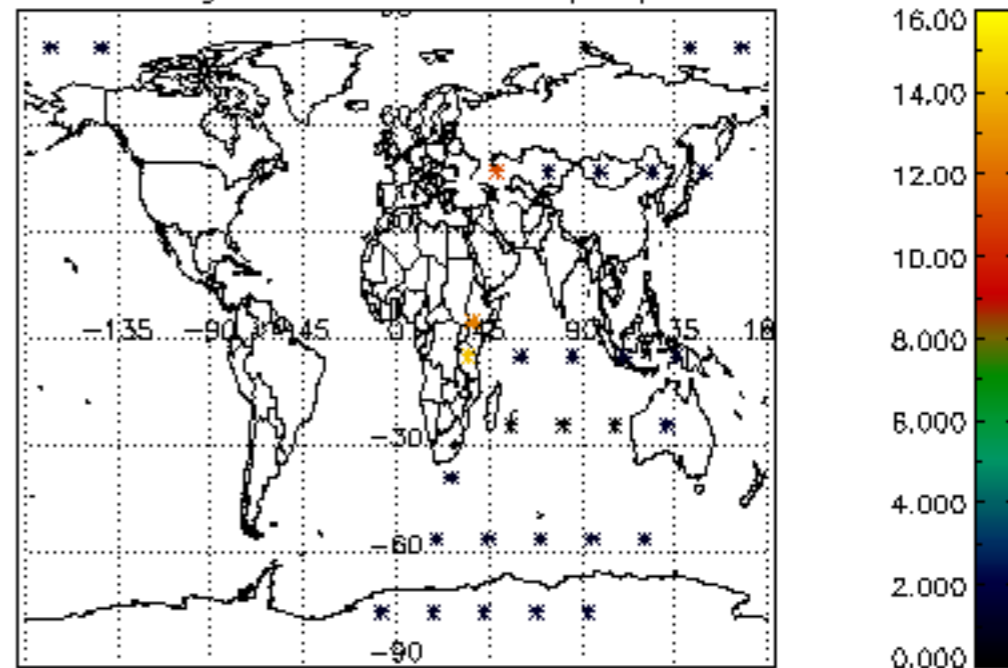
Percentage of saturation errors per profile



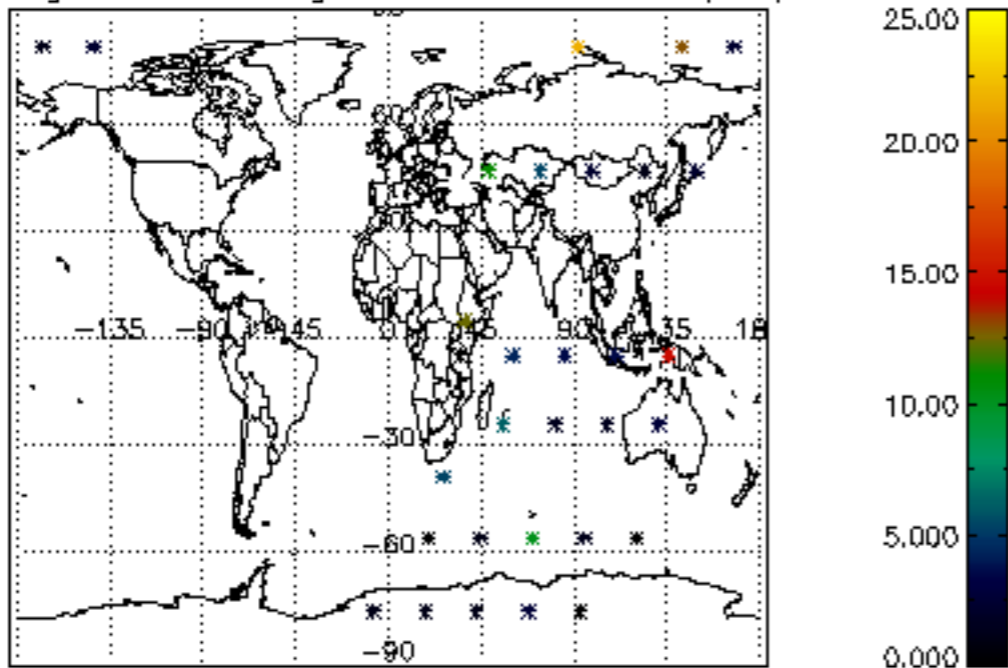
Percentage of cosmic ray hits per profile



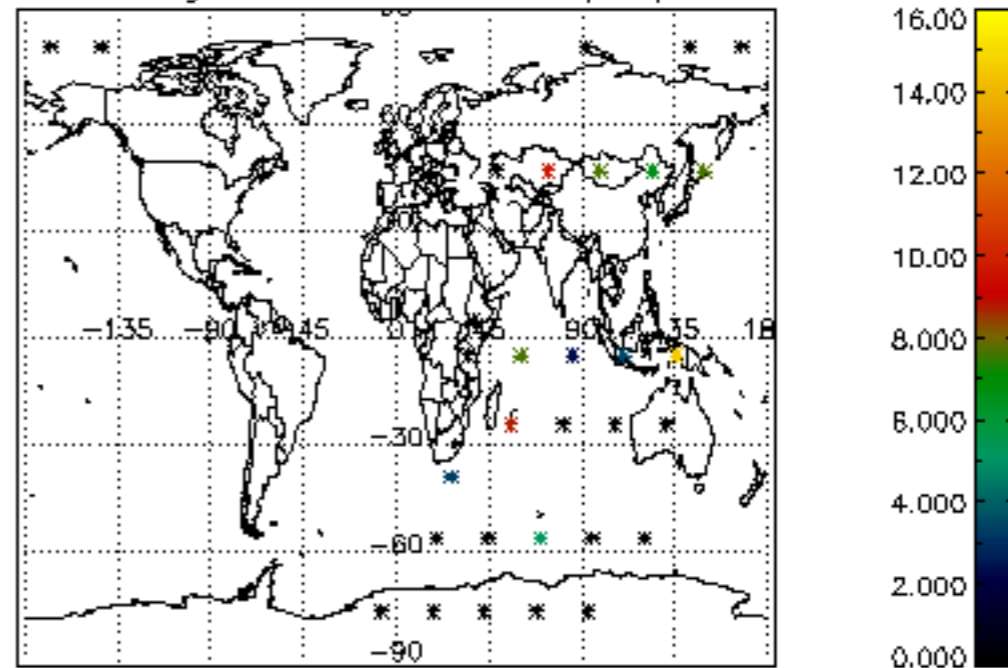
Percentage of datation errors per profile

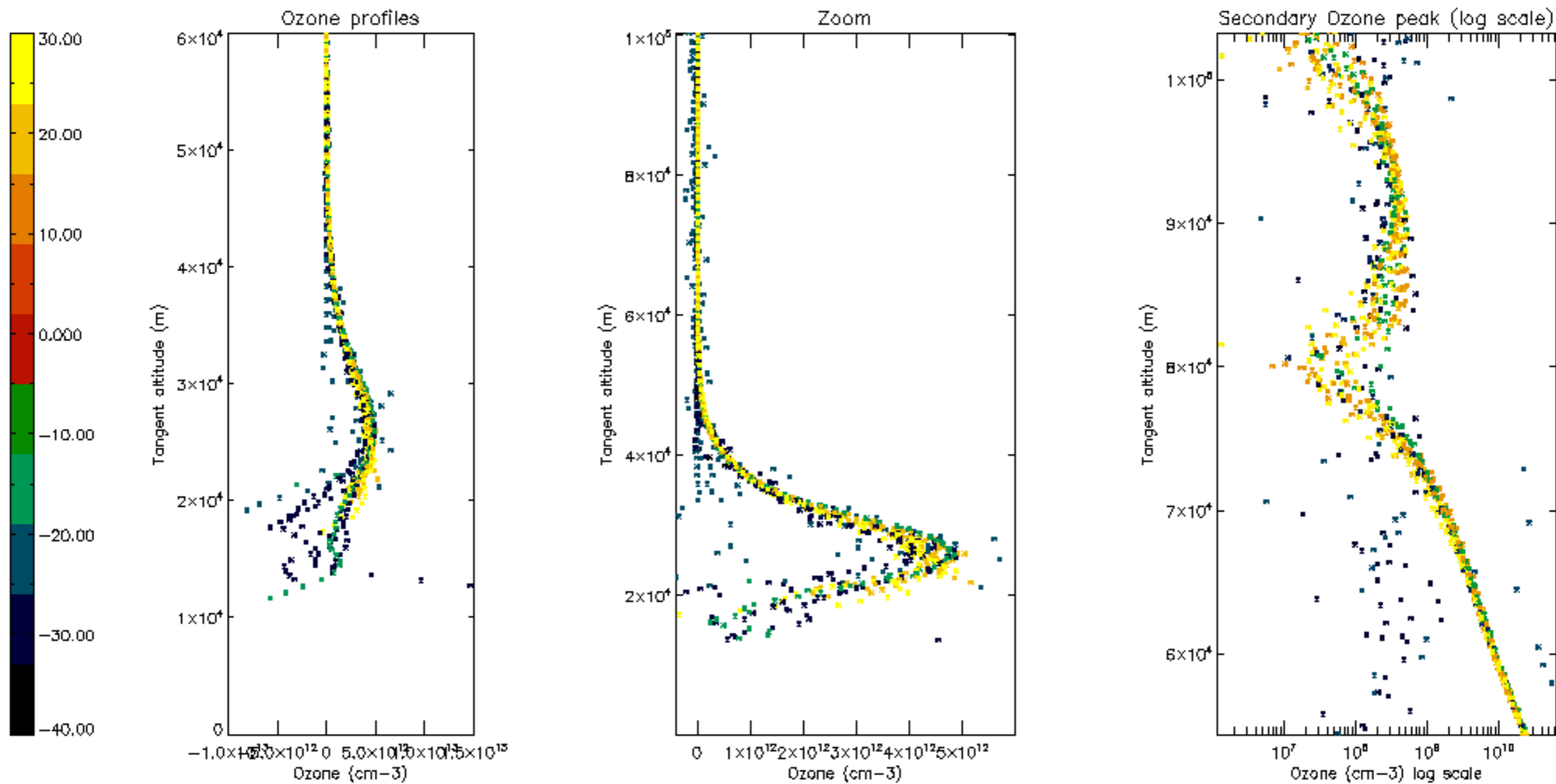


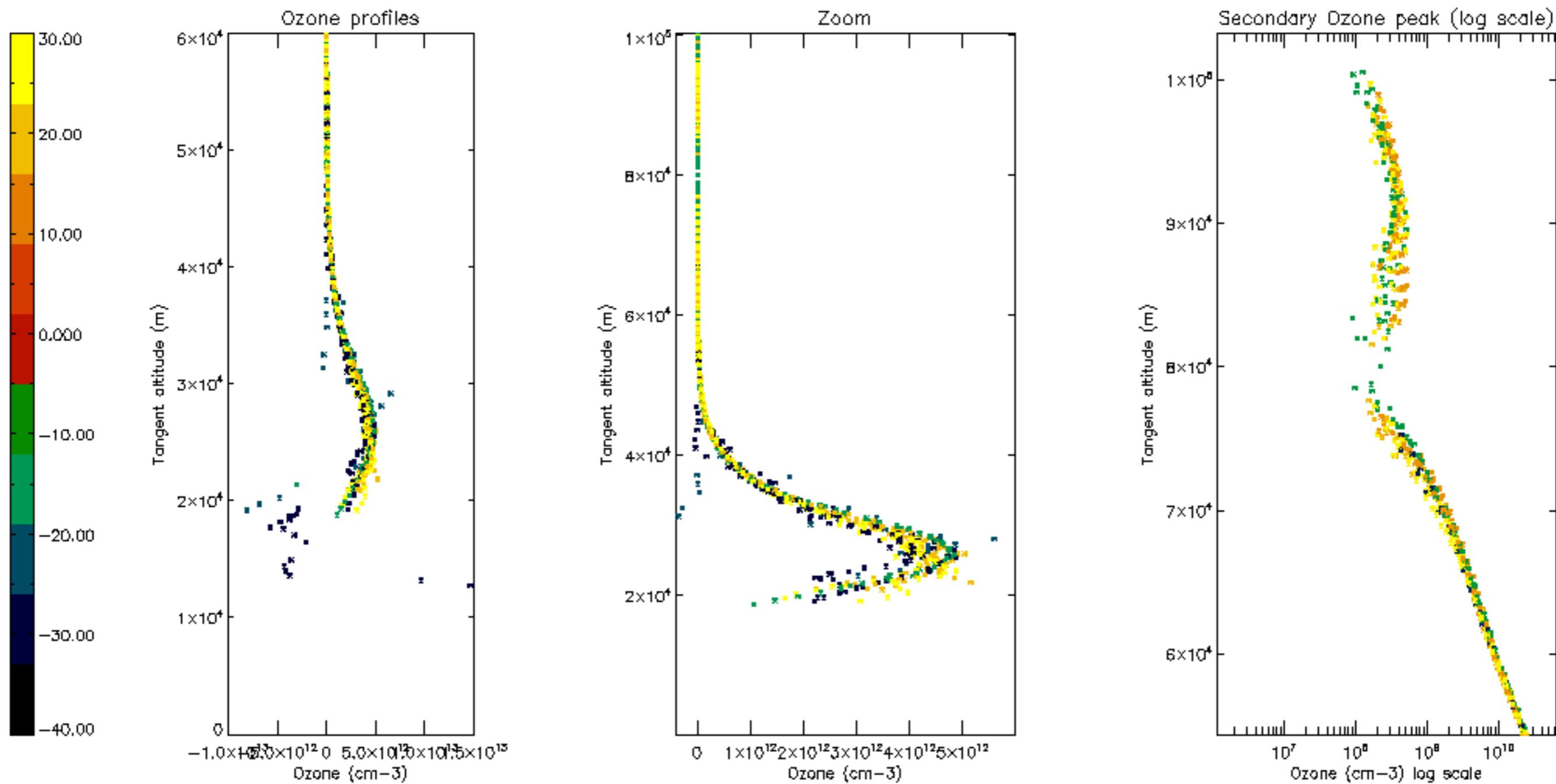
Percentage of star falling outside central band per profile

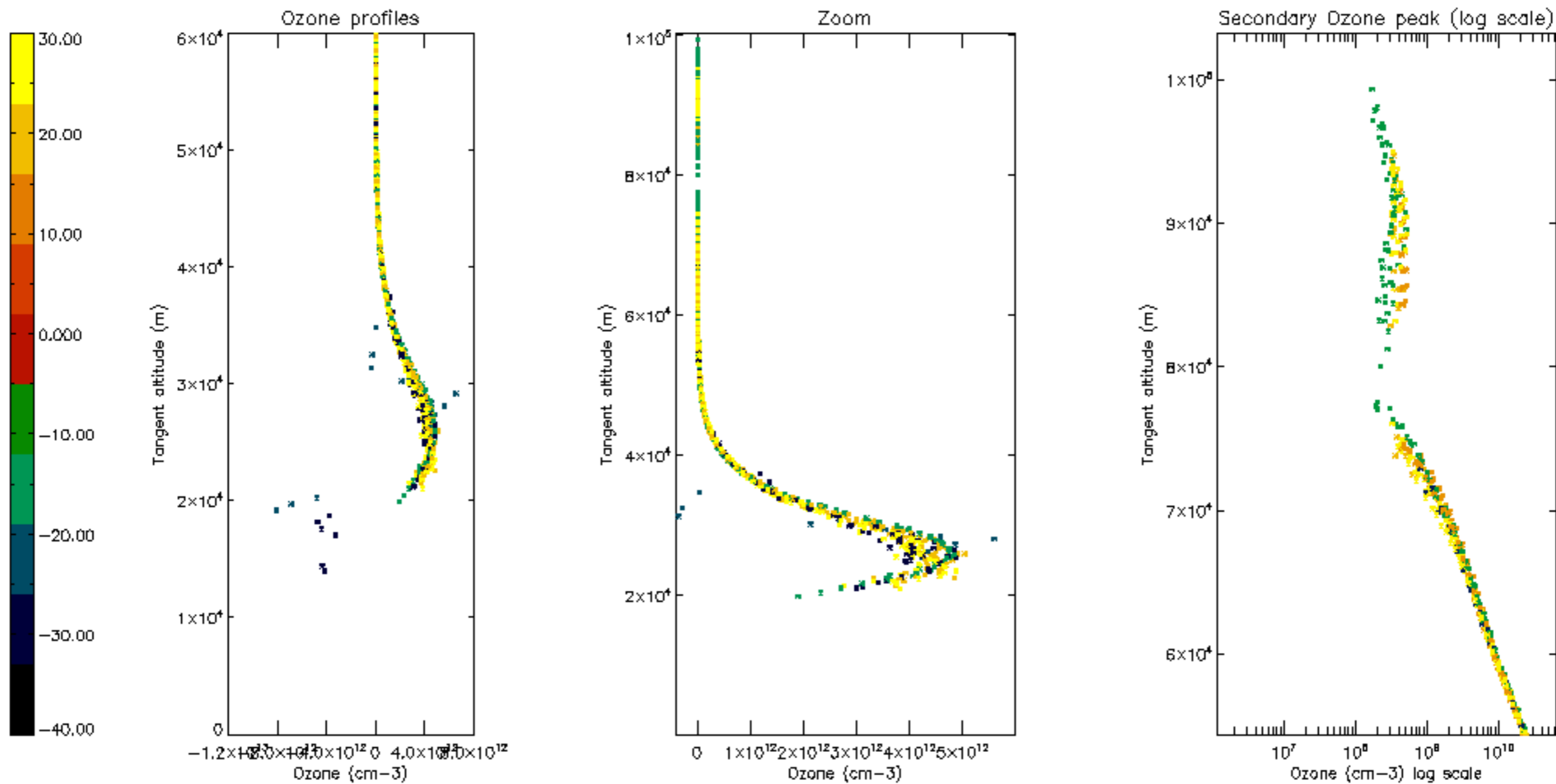


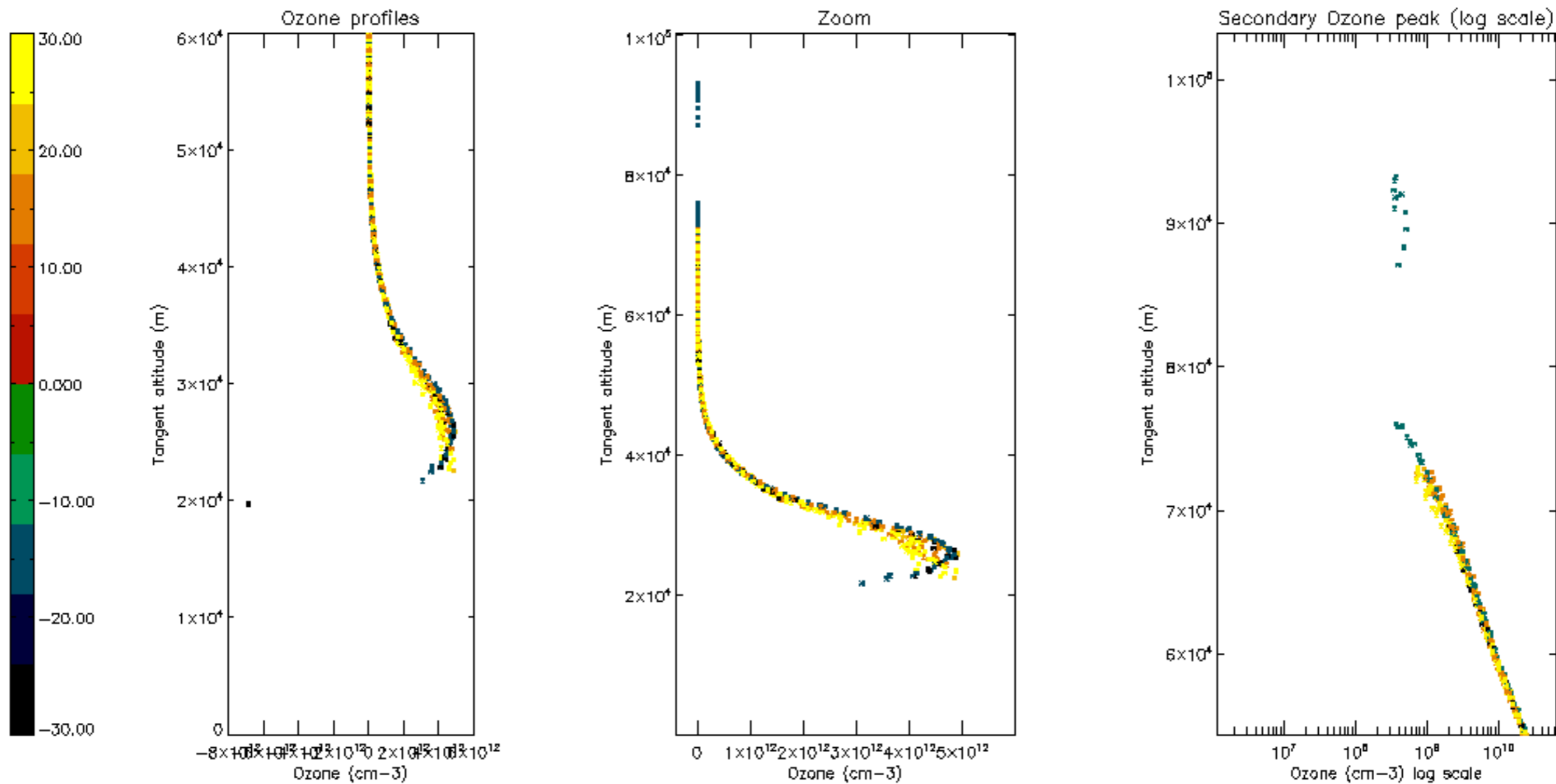
Percentage of saturation errors per profile



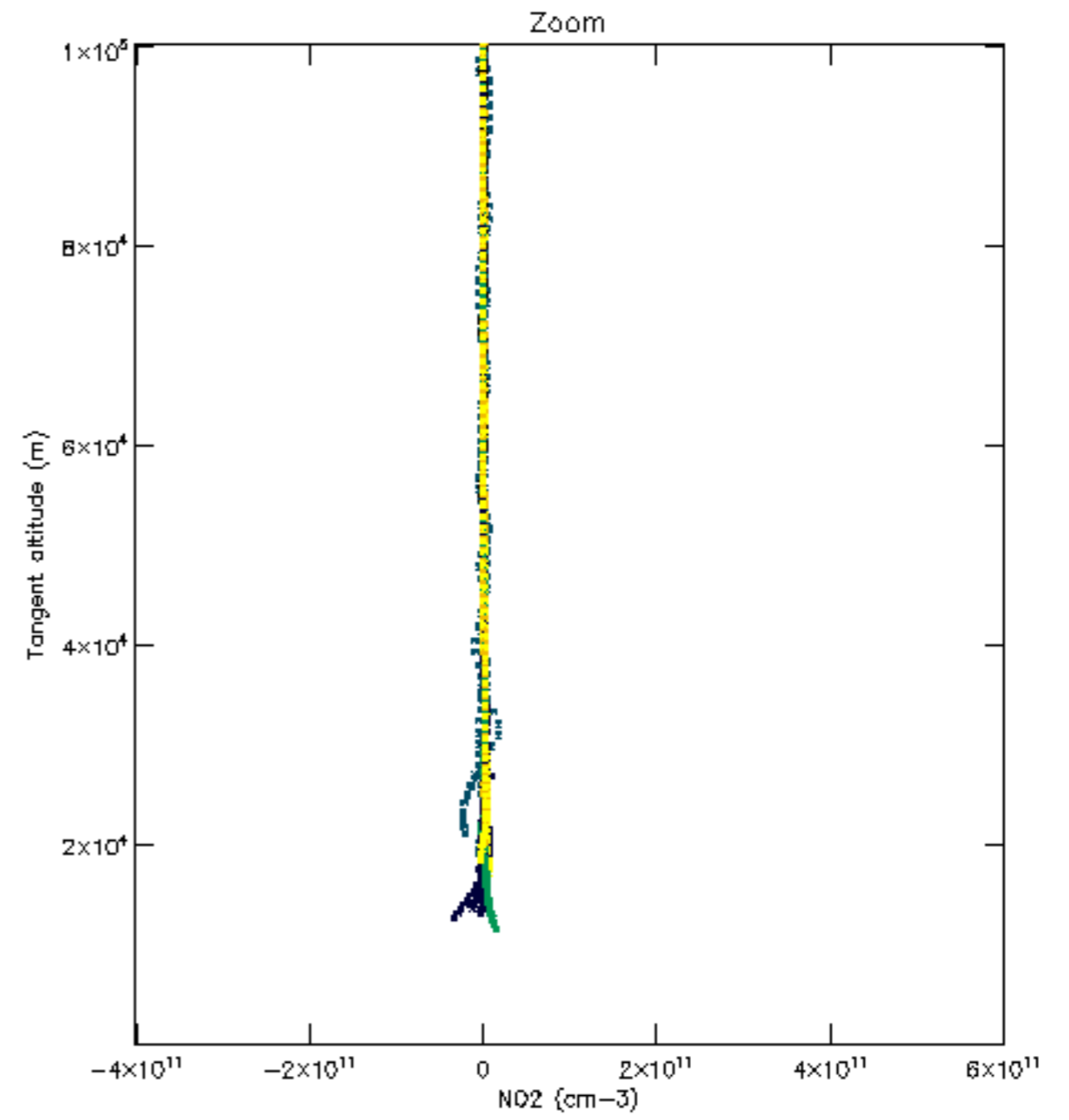
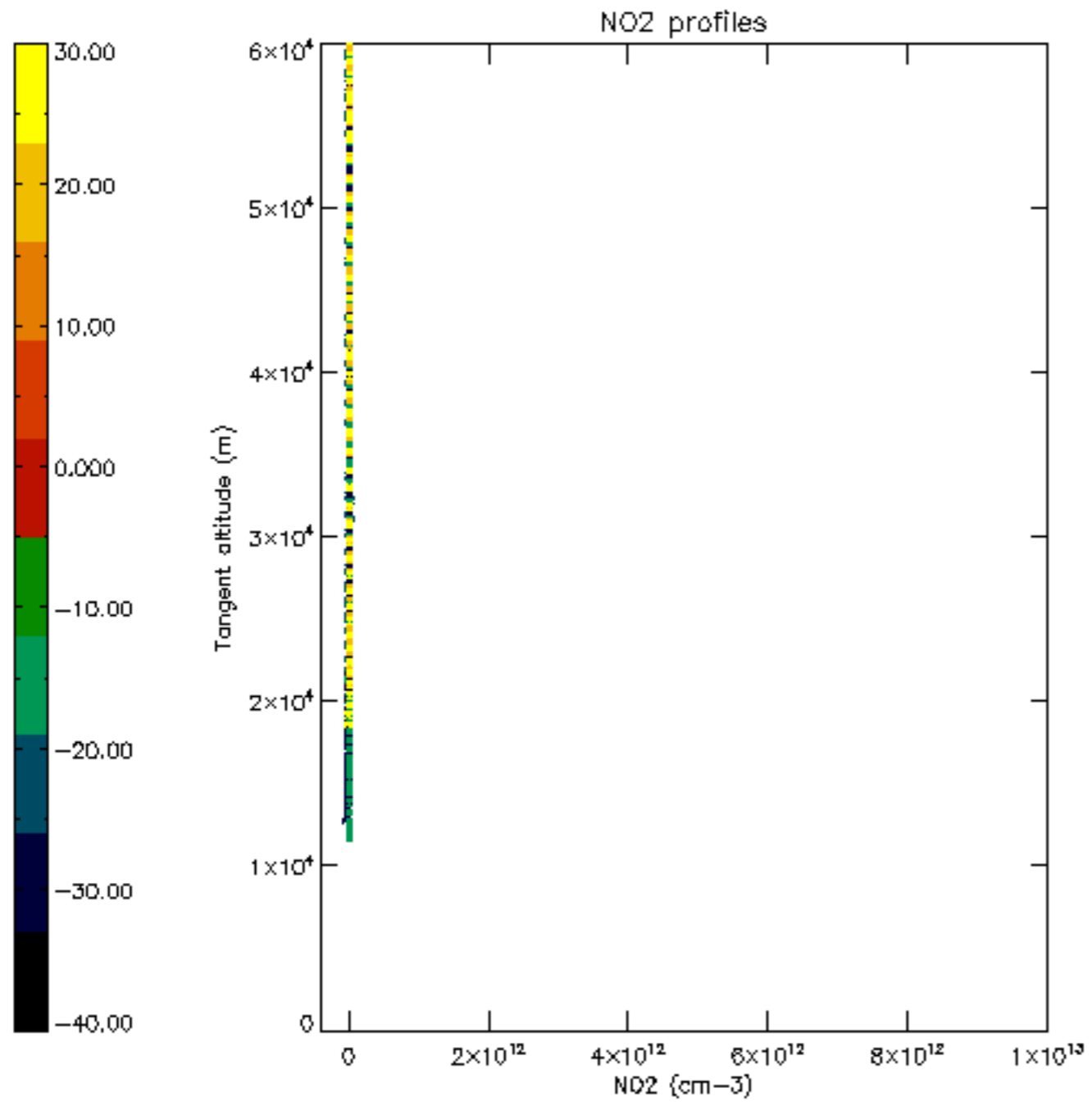


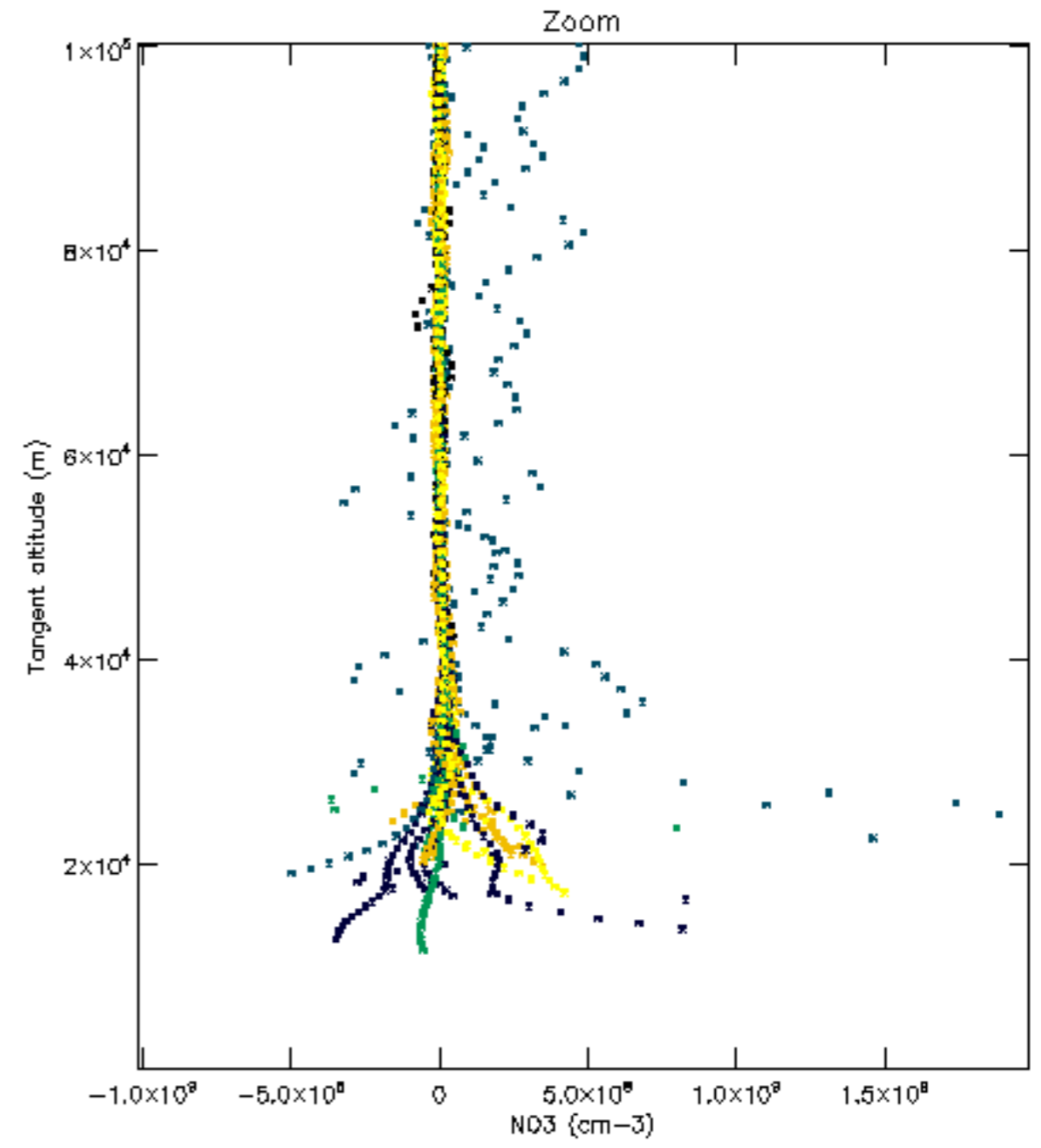
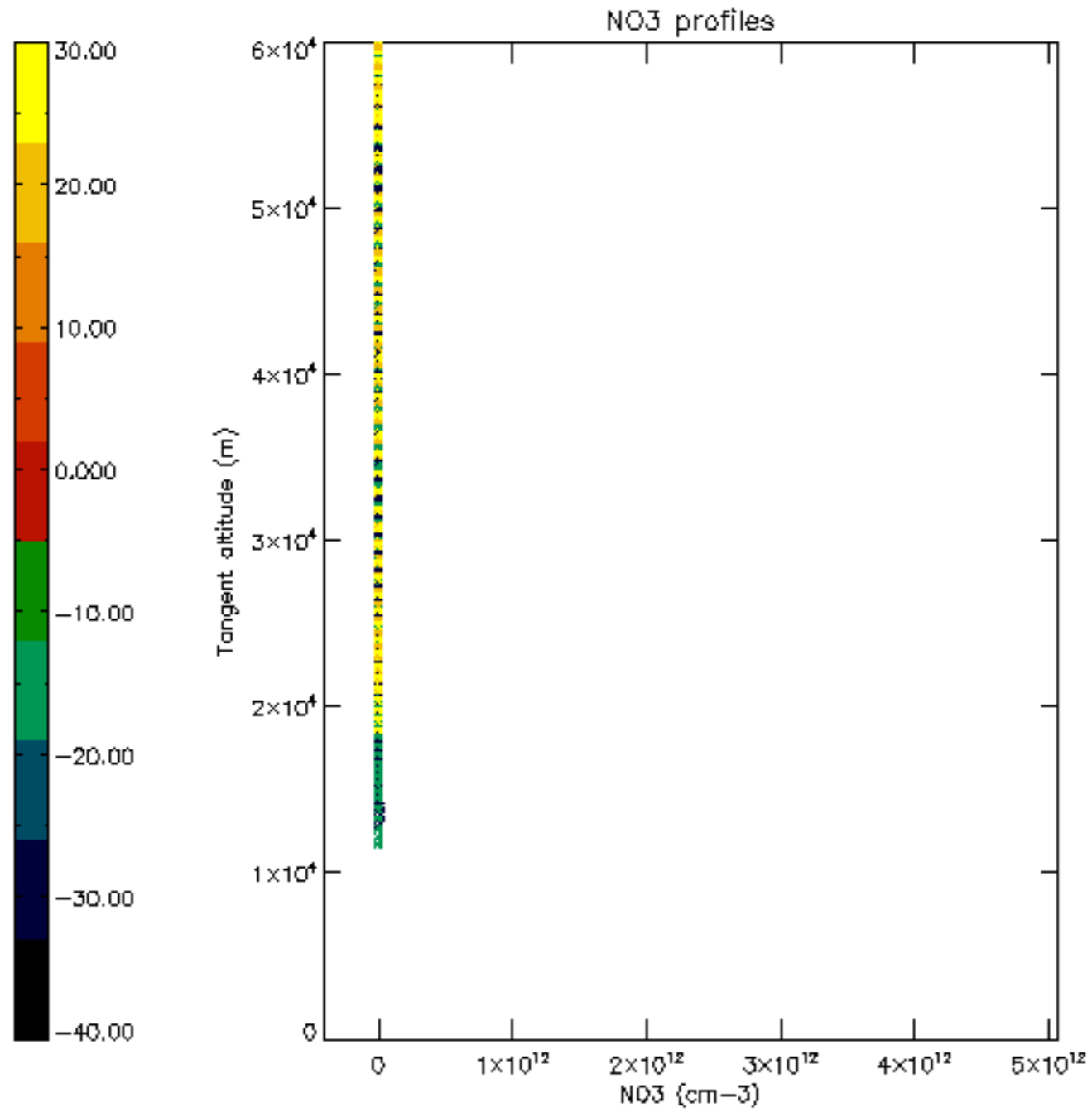


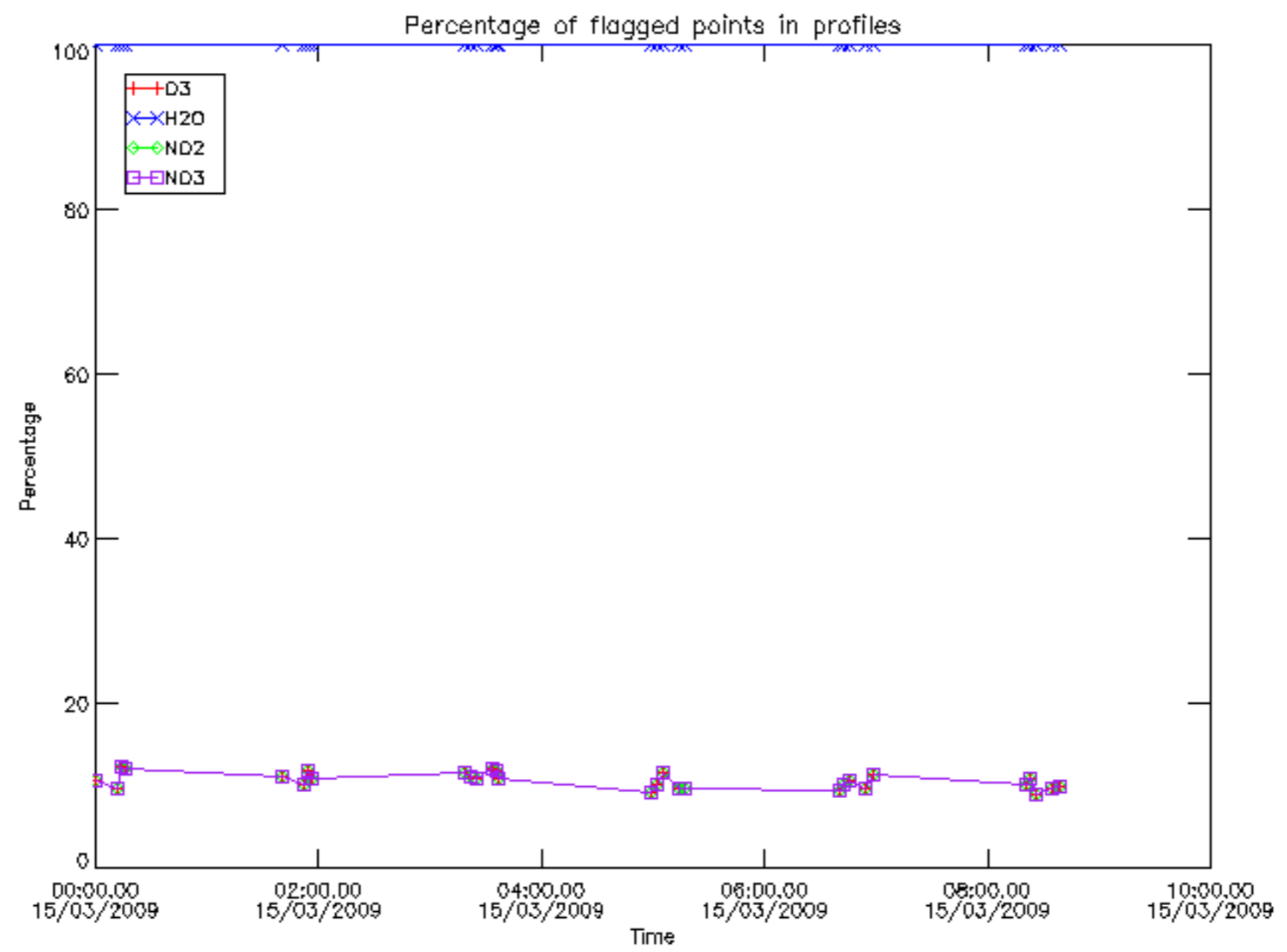




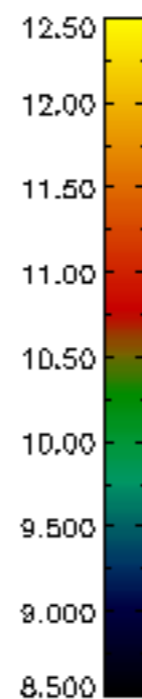
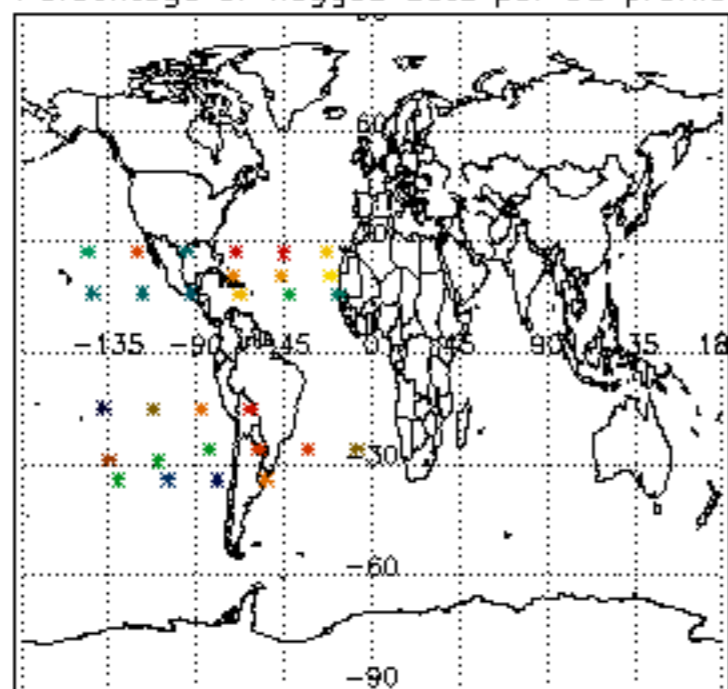




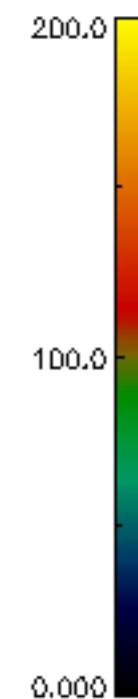
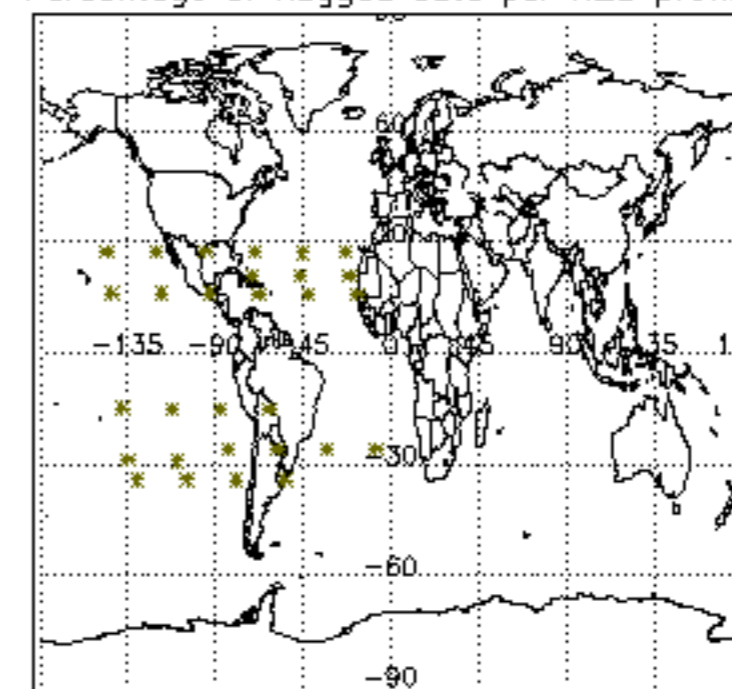




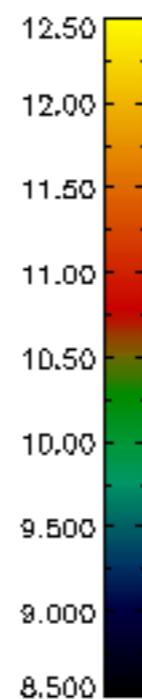
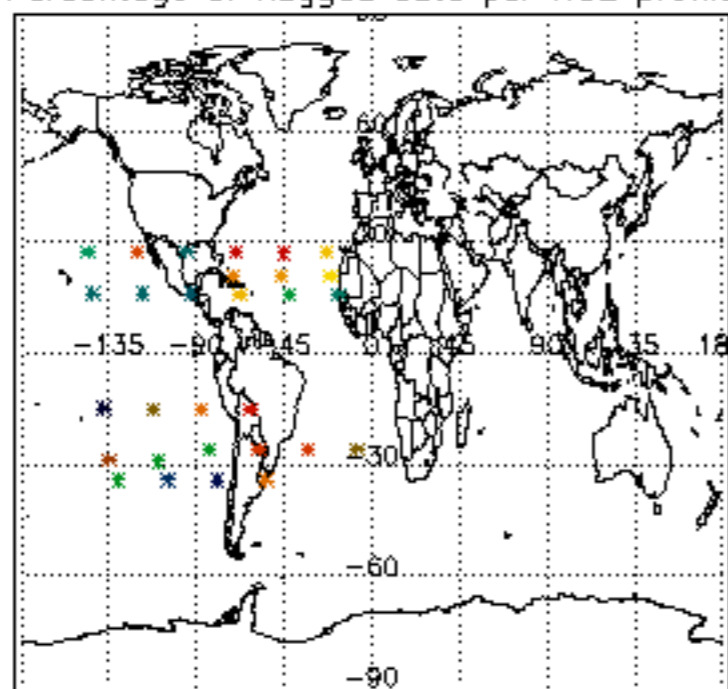
Percentage of flagged data per D3 profile



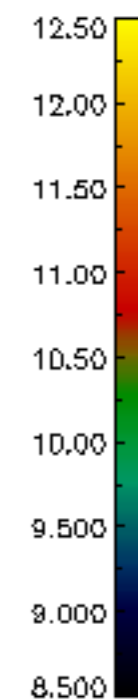
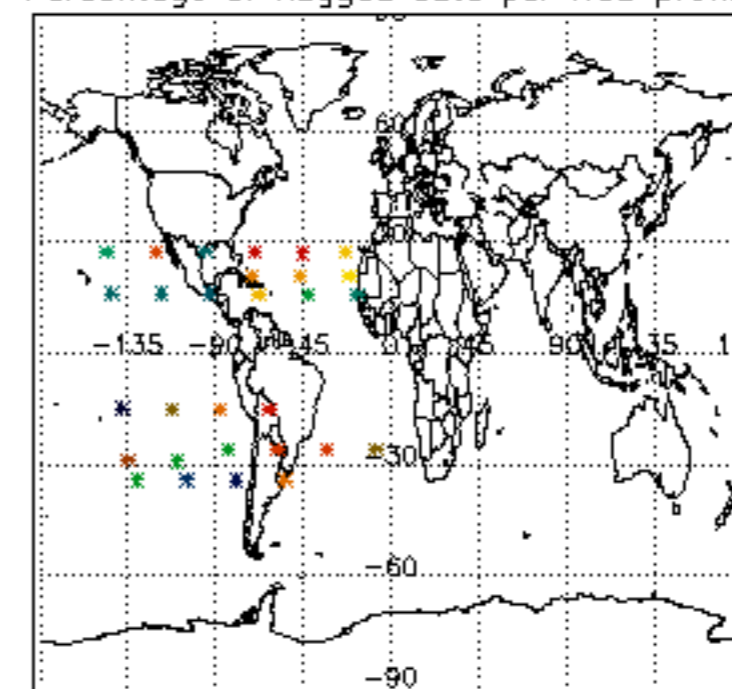
Percentage of flagged data per H2O profile

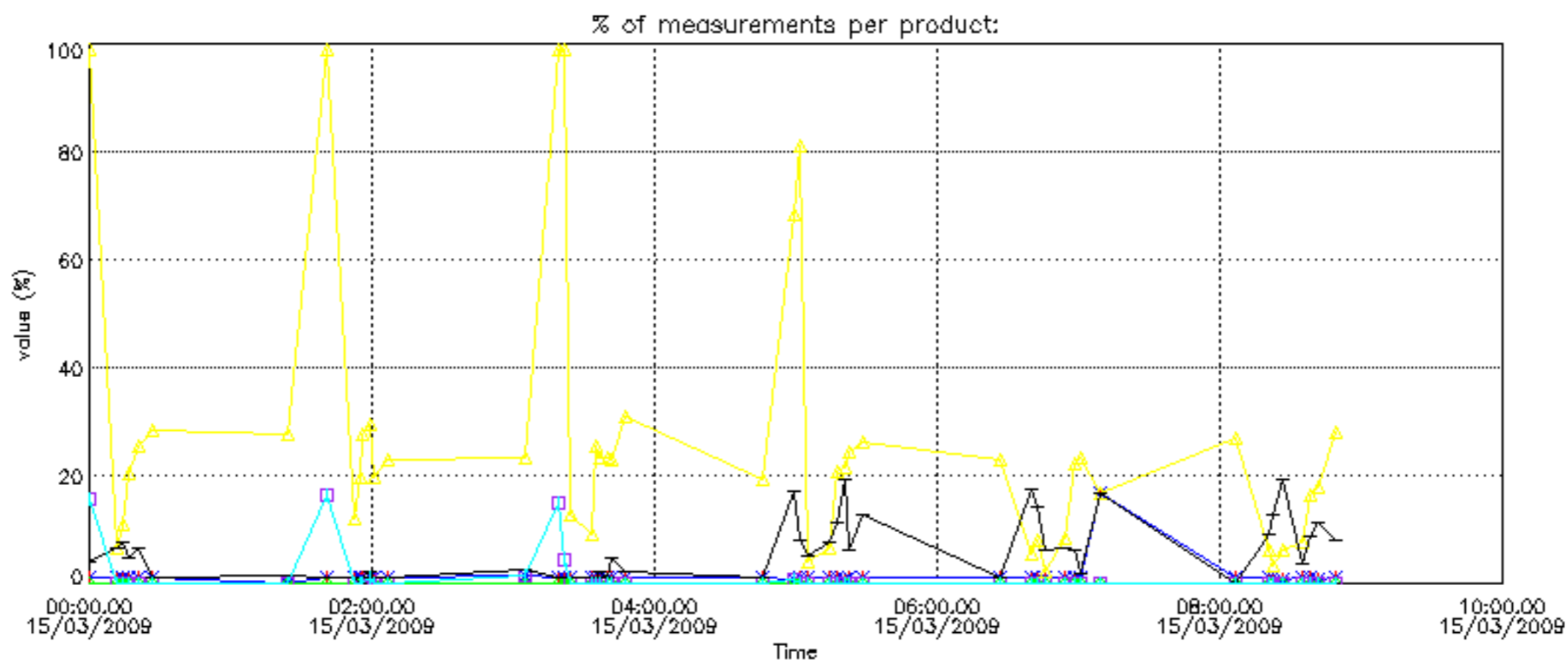


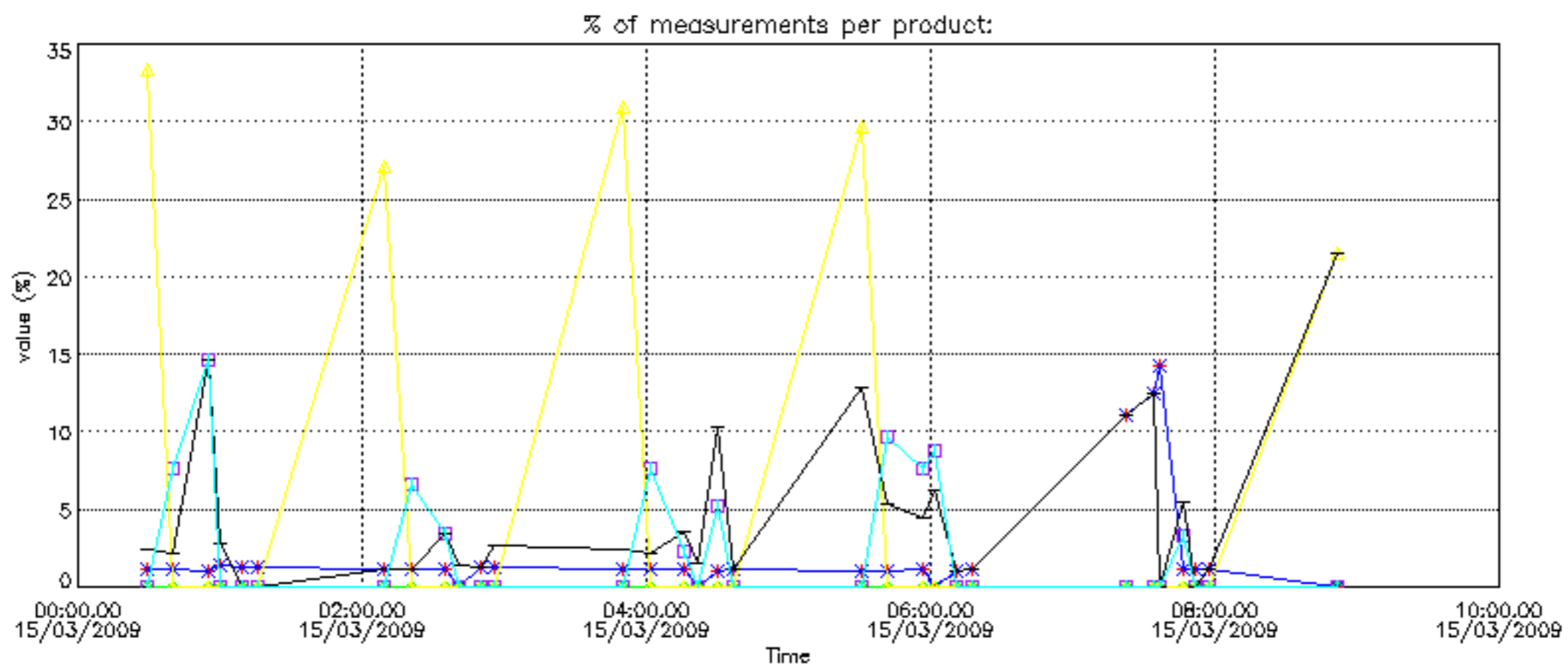
Percentage of flagged data per NO2 profile



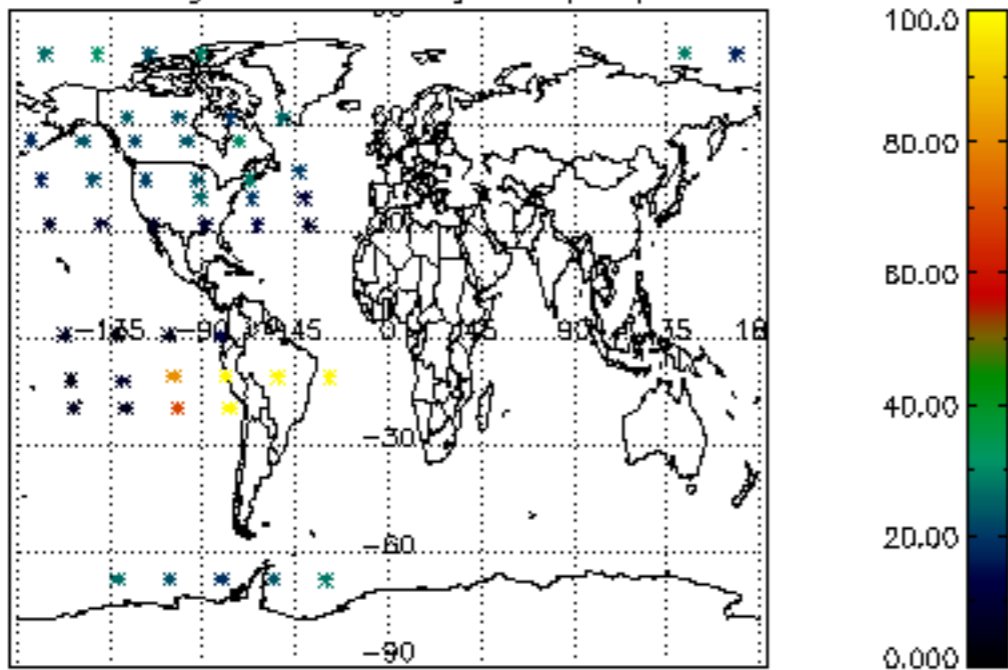
Percentage of flagged data per NO3 profile



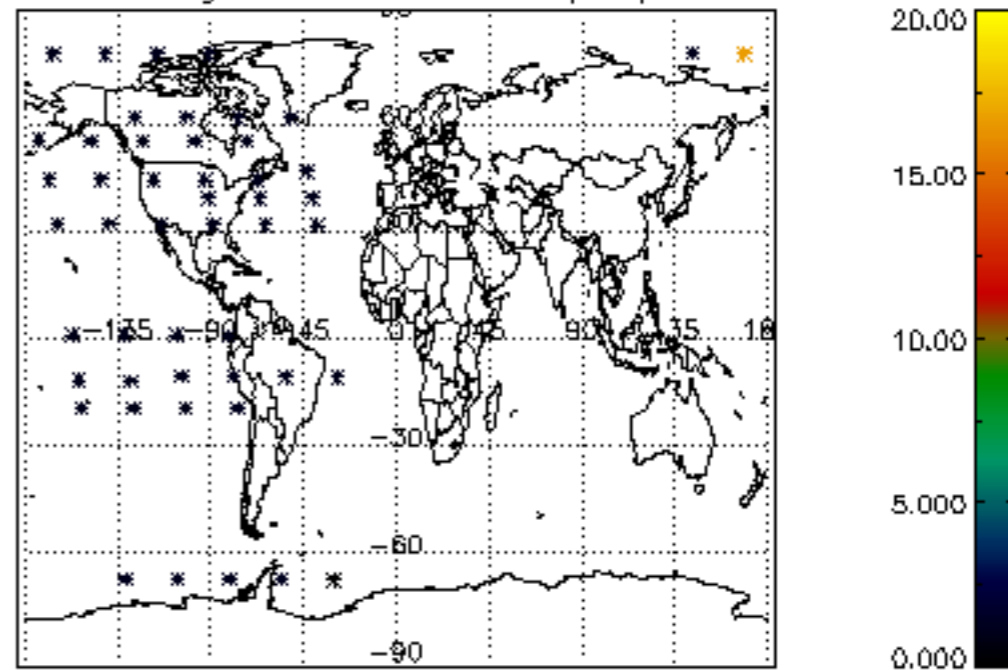




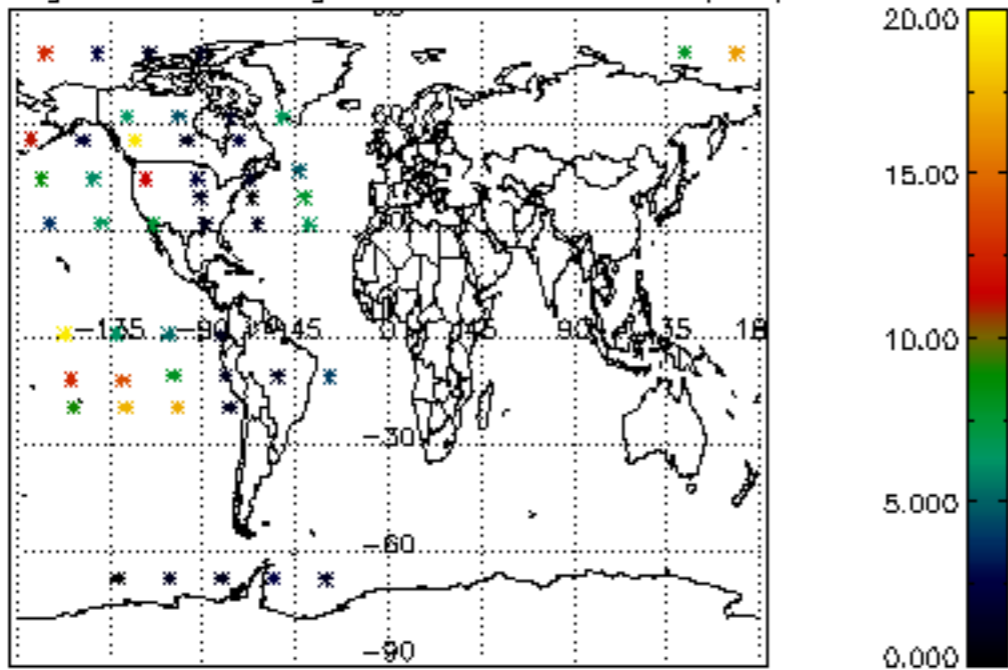
Percentage of cosmic ray hits per profile



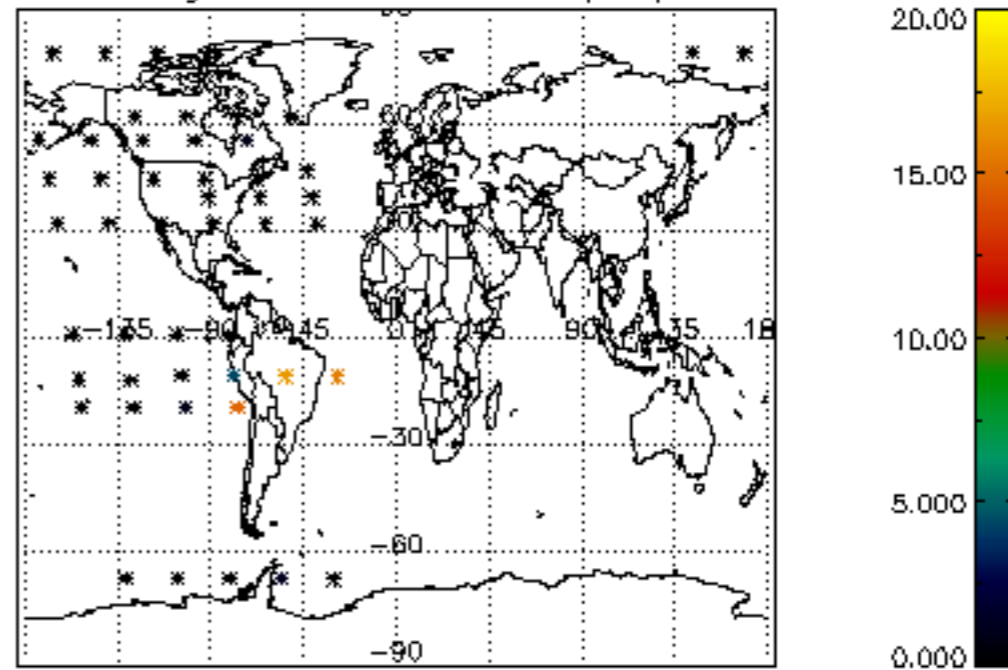
Percentage of datation errors per profile



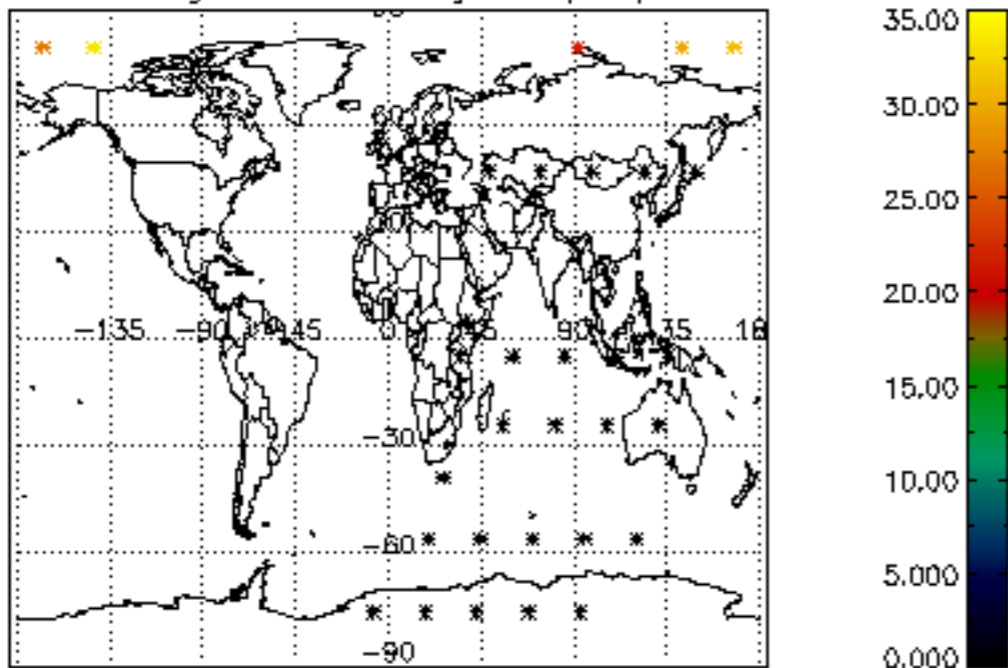
Percentage of star falling outside central band per profile



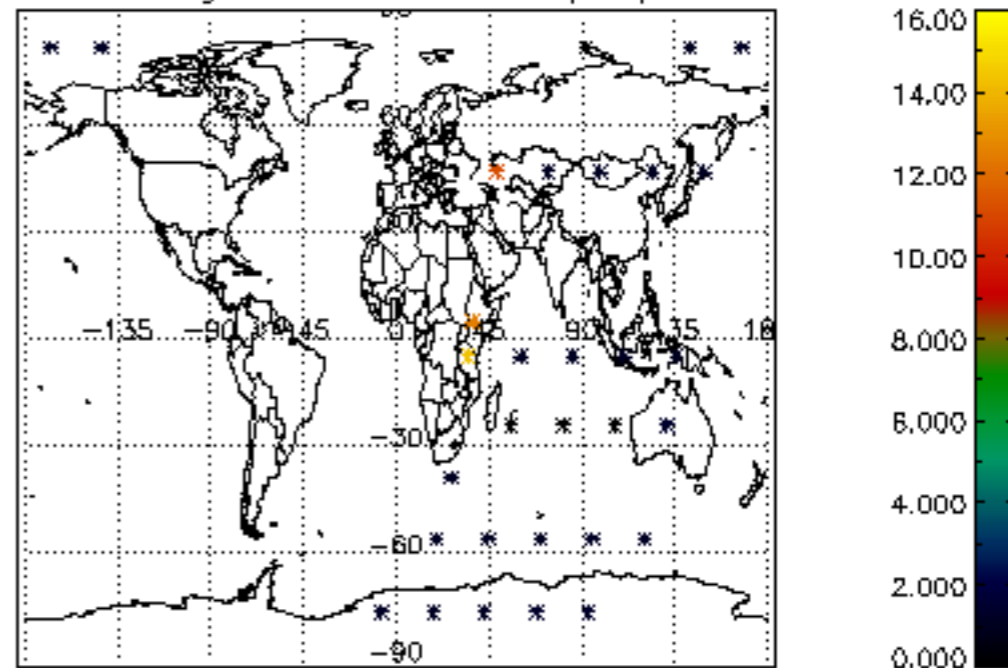
Percentage of saturation errors per profile



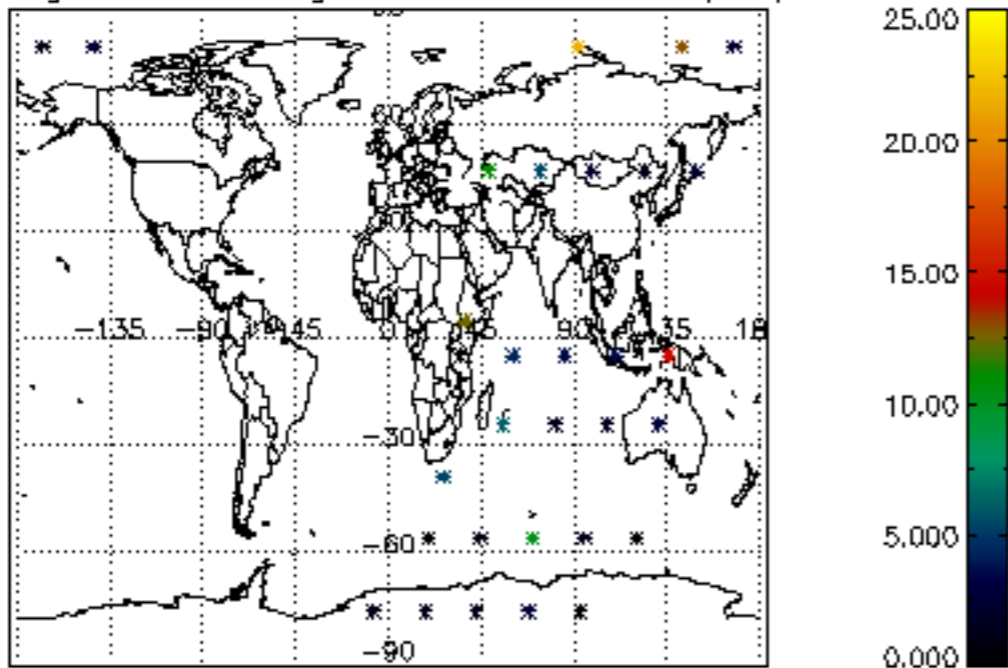
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

