

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	17APR2013 17:51:11
Data source version	GOMOS/6.01
Start time of products	24-08-2002 (24AUG2002 00:00:00)
Stop time of products	25-08-2002 (25AUG2002 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	16
Nb of prods with errors	0

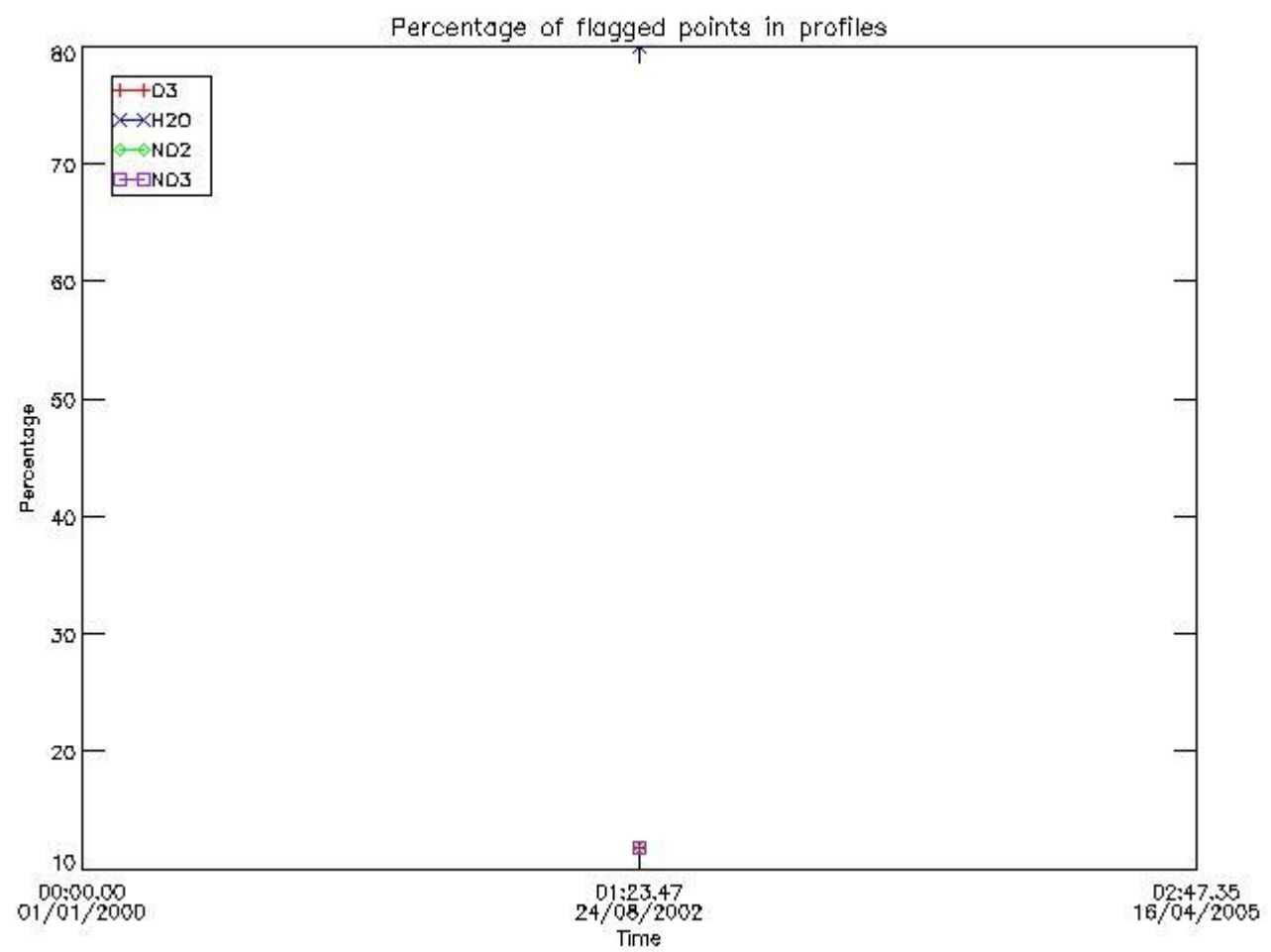
2. Summary of processed GOM_NL__2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20020824_012347_000000432008_00461_02519_8364.N1	24-AUG-2002 01:23:47	Dark	43.000	9	Alp Eri	0.45300	24000.	86	2519	No
2	GOM_NL__2PRFIN20020824_012942_000000612008_00461_02519_8365.N1	24-AUG-2002 01:29:42	Straylight	60.500	84	Alp Phe	2.3970	4500.0	121	2519	No
3	GOM_NL__2PRFIN20020824_013229_000000432008_00461_02519_8366.N1	24-AUG-2002 01:32:29	Straylight	43.000	31	Alp Gru	1.7340	15200.	86	2519	No
4	GOM_NL__2PRFIN20020824_013522_000000422008_00461_02519_8367.N1	24-AUG-2002 01:35:22	Straylight	41.500	172	Gam Gru	3.0030	13100.	83	2519	No
5	GOM_NL__2PRFIN20020824_014141_000000472008_00461_02519_8368.N1	24-AUG-2002 01:41:41	Bright	47.000	142	49Del Cap	2.8500	8900.0	94	2519	No
6	GOM_NL__2PRFIN20020824_014457_000000412008_00461_02519_8369.N1	24-AUG-2002 01:44:57	Bright	41.000	154	22Bet Aqr	2.8990	5700.0	82	2519	No
7	GOM_NL__2PRFIN20020824_014640_000000452008_00461_02519_8370.N1	24-AUG-2002 01:46:40	Bright	45.000	162	34Alp Aqr	2.9440	5350.0	90	2519	No
8	GOM_NL__2PRFIN20020824_014940_000000372008_00461_02519_8371.N1	24-AUG-2002 01:49:40	Bright	37.000	11	53Alp Aql	0.76500	8000.0	74	2519	No
9	GOM_NL__2PRFIN20020824_015347_000000592008_00461_02519_8372.N1	24-AUG-2002 01:53:47	Bright	59.000	90	54Alp Peg	2.4870	11000.	118	2519	No
10	GOM_NL__2PRFIN20020824_015624_000000392008_00461_02519_8373.N1	24-AUG-2002 01:56:24	Bright	39.000	92	53Eps Cyg	2.5000	4500.0	78	2519	No
11	GOM_NL__2PRFIN20020824_015906_000000372008_00461_02519_8374.N1	24-AUG-2002 01:59:06	Bright	36.500	5	3Alp Lyr	0.033000	11000.	73	2519	No
12	GOM_NL__2PRFIN20020824_020421_000000862008_00461_02519_8375.N1	24-AUG-2002 02:04:21	Bright	86.000	58	21Alp And	2.0730	11000.	172	2519	No
13	GOM_NL__2PRFIN20020824_020839_000000492008_00461_02519_8376.N1	24-AUG-2002 02:08:39	Bright	48.500	74	11Bet Cas	2.2680	6600.0	97	2519	No
14	GOM_NL__2PRFIN20020824_021053_000000492008_00461_02519_8377.N1	24-AUG-2002 02:10:53	Bright	48.500	76	27Gam Cas	2.3000	30000.	97	2519	No
15	GOM_NL__2PRFIN20020824_021409_000001372008_00461_02519_8378.N1	24-AUG-2002 02:14:09	Bright	136.50	53	43Bet And	2.0480	3300.0	273	2519	No
16	GOM_NL__2PRFIN20020824_021828_000000992008_00461_02519_8379.N1	24-AUG-2002 02:18:28	Bright	98.500	73	57Gam1And	2.2600	13100.	197	2519	No

3. Quality information per product

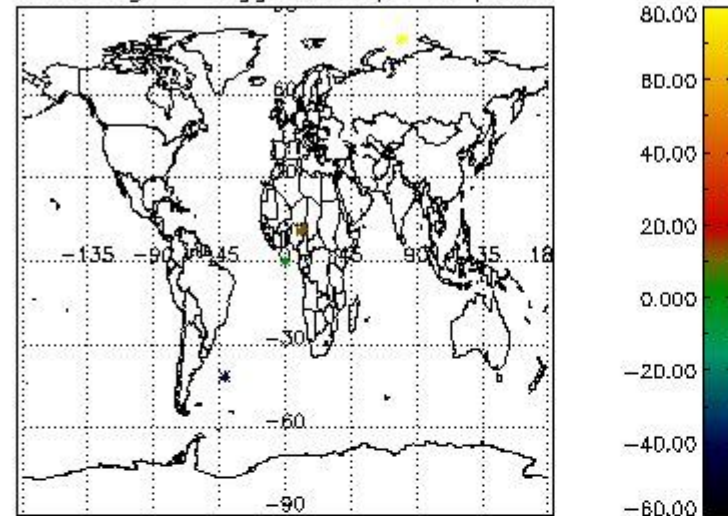
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

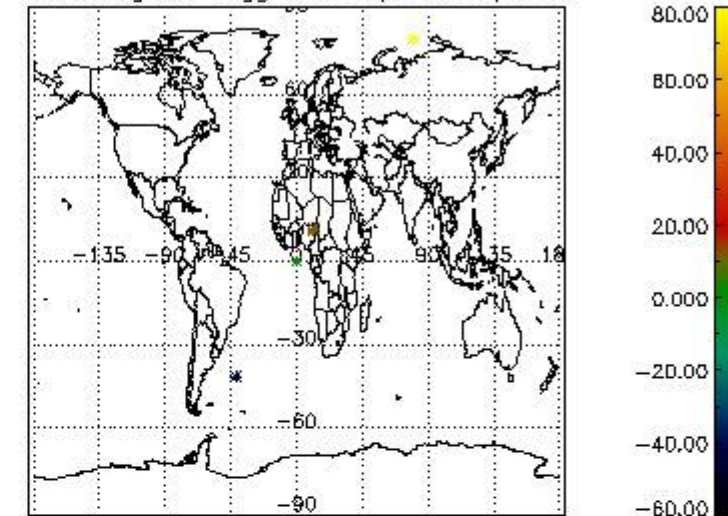


3.2 Plot quality information per product (world map)

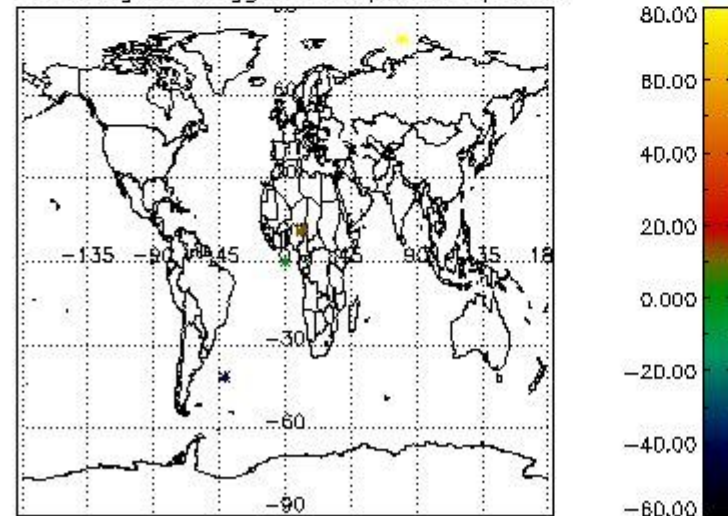
Percentage of flagged data per O3 profile



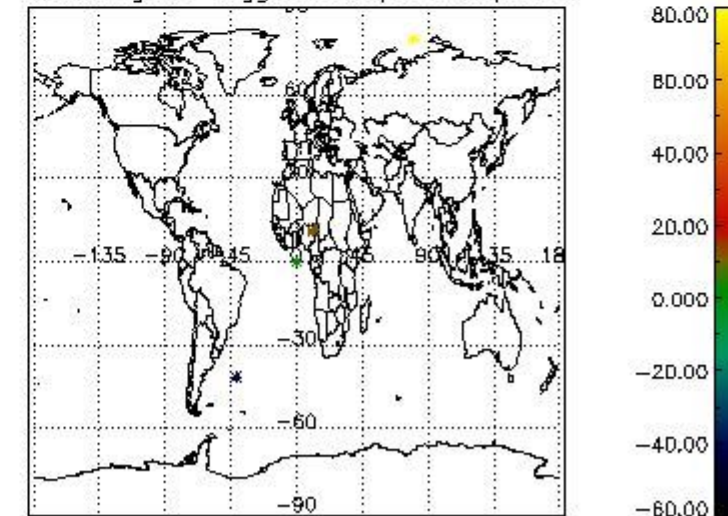
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

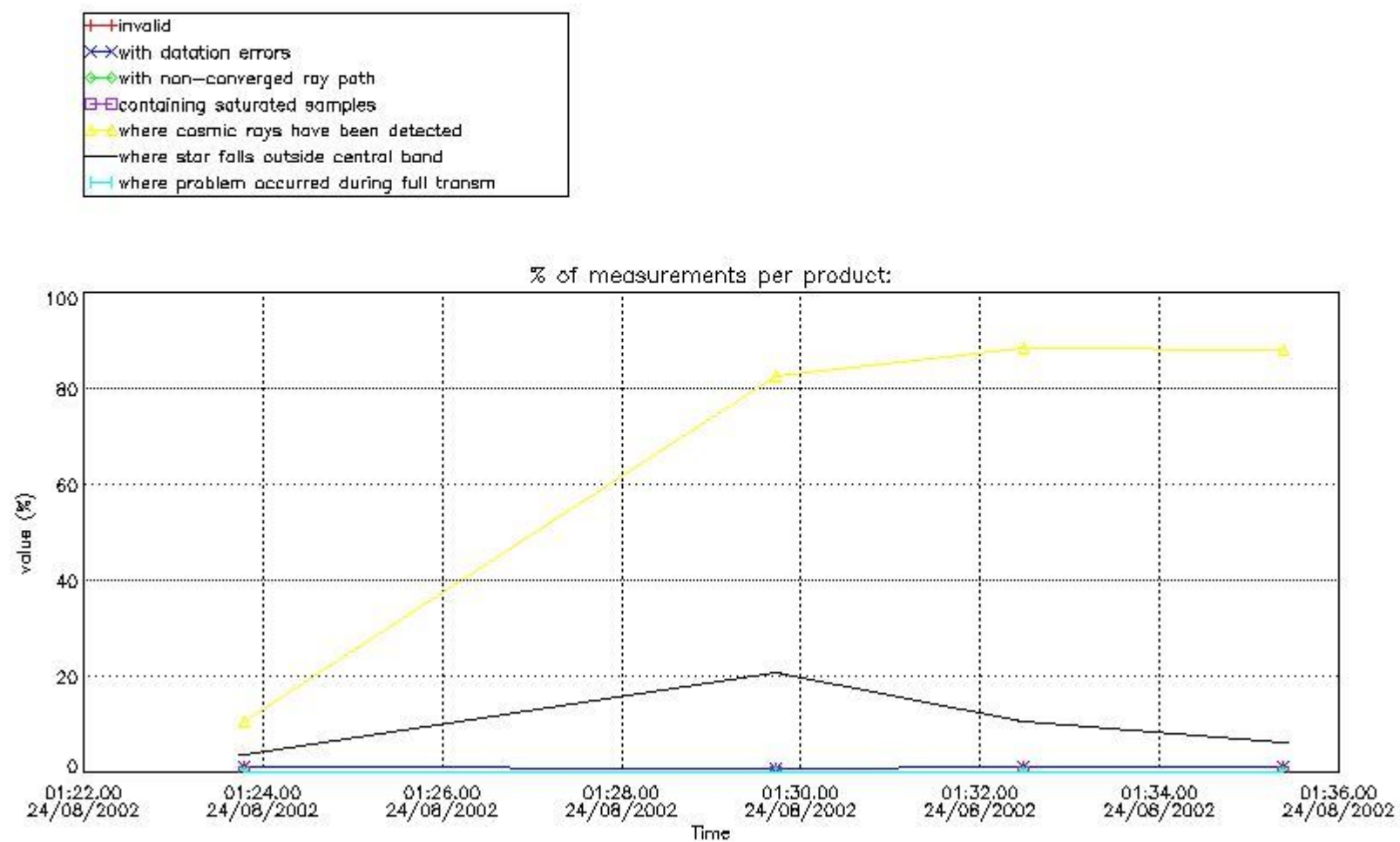


4. Level 1 quality information per product

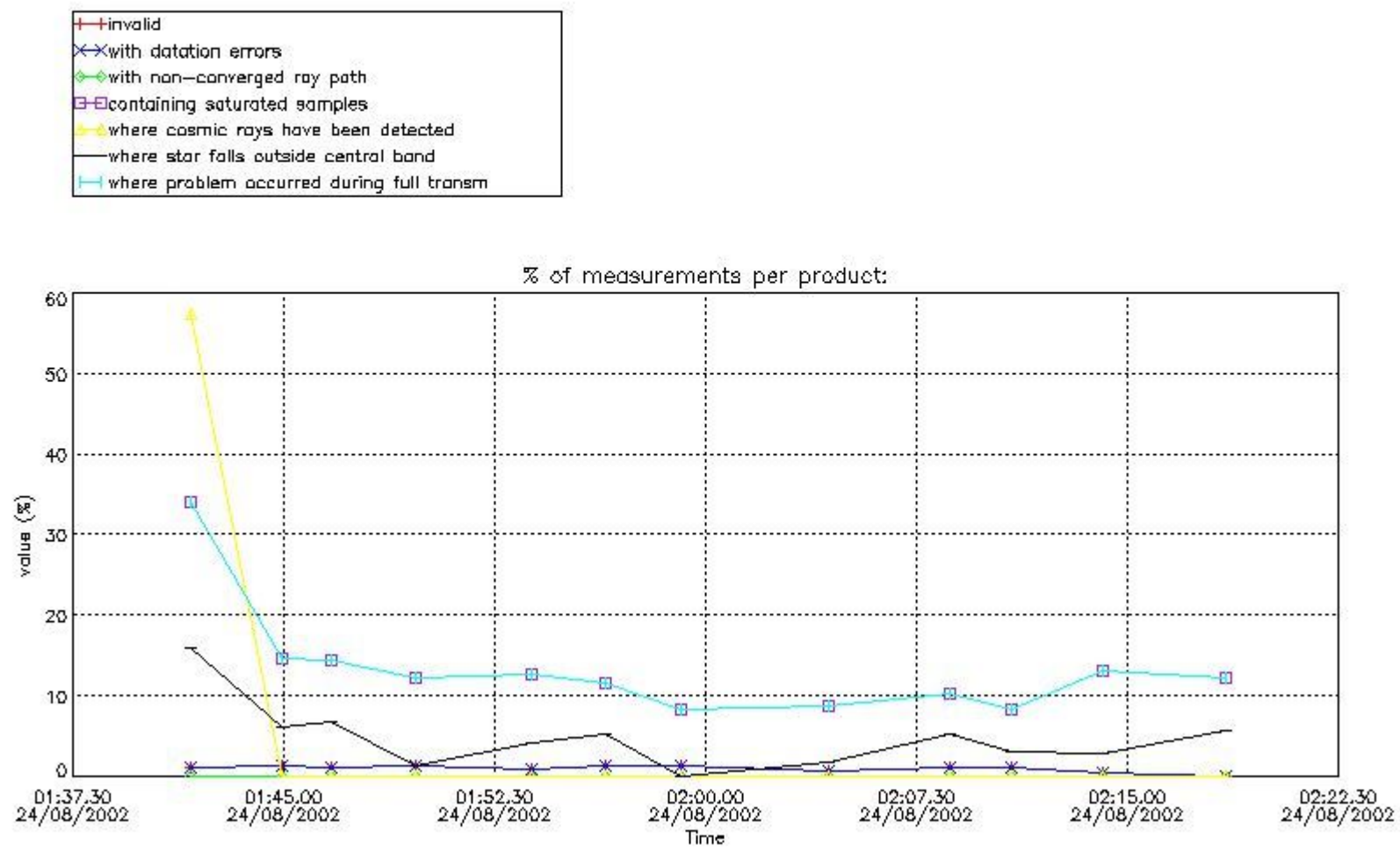
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

4.1 Plot quality information per product (time dependant) coming from level 1b processing

4.1.1 Plot level 1 quality information per product (time dependant): ENVISAT ASCENDING passes



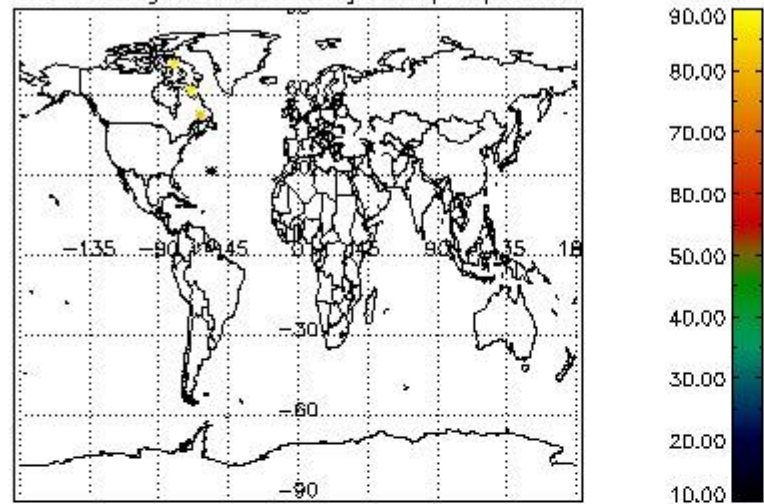
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



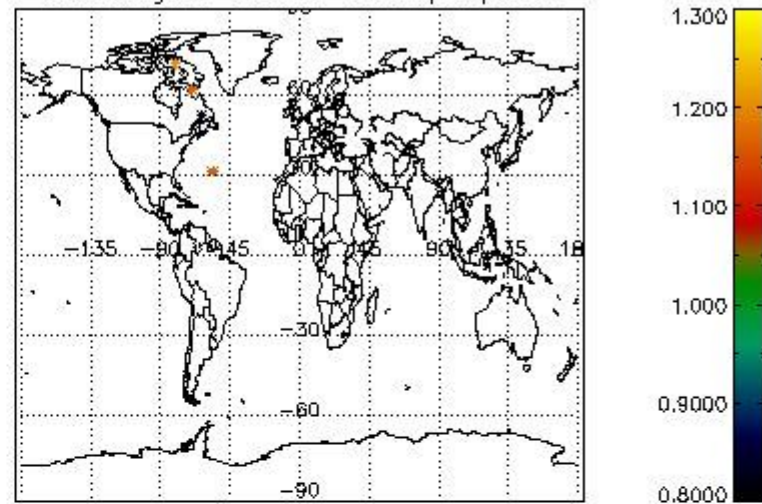
4.2 Plot quality information per product coming from level 1b processing (world map)

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

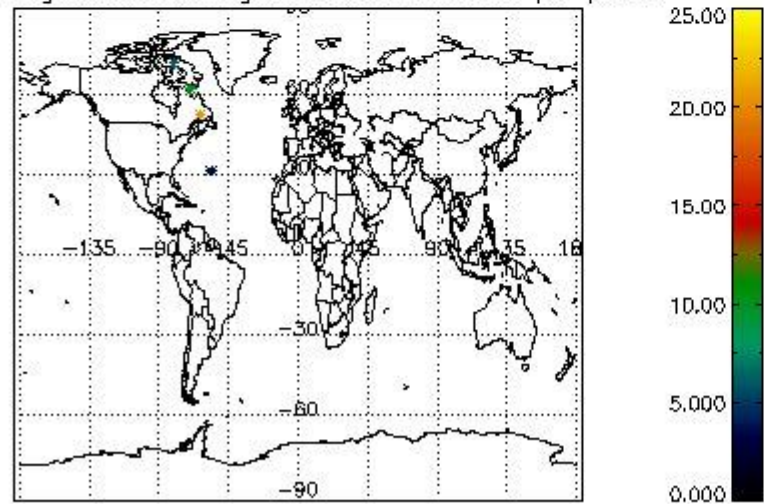
Percentage of cosmic ray hits per profile



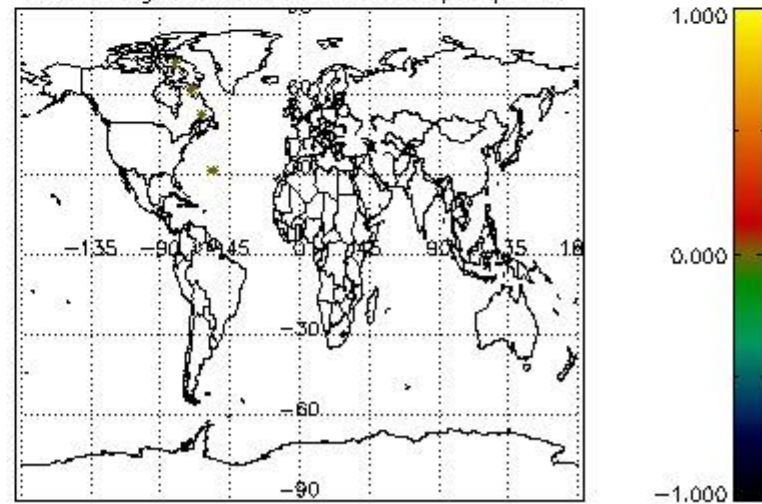
Percentage of datation errors per profile



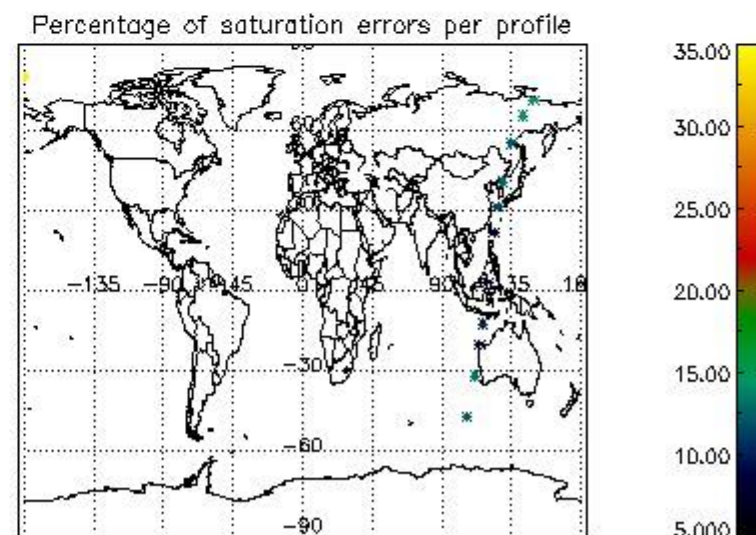
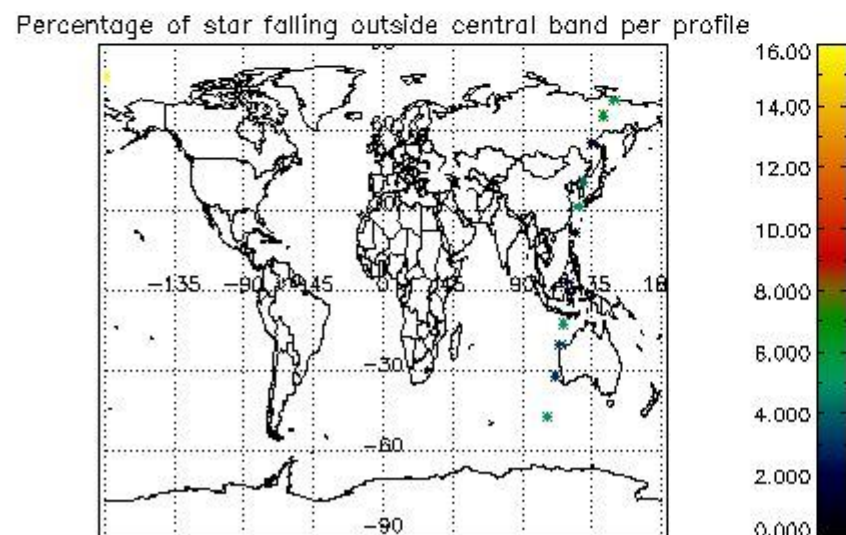
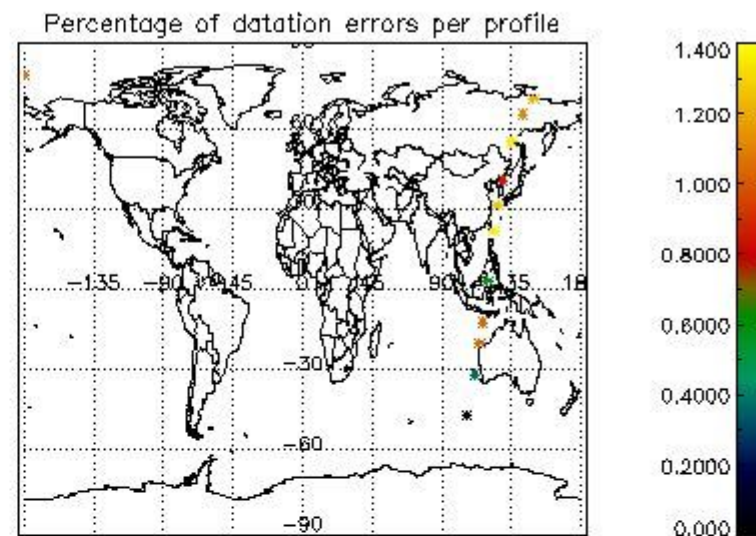
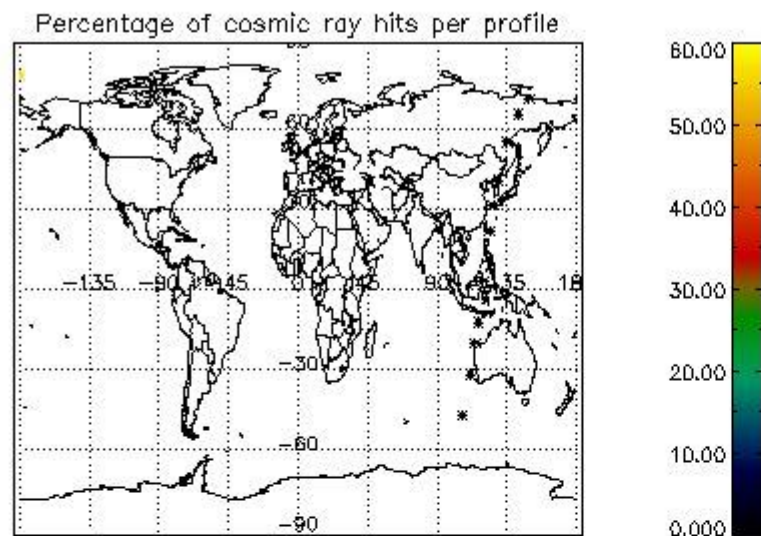
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile. This information is written to the parameter GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/o3_std of the level 2 products. The table below shows the statistics for given STD ranges.

The statistics are given with respect to the overall valid production:

- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

The 'Criteria' is applied to valid points of dark limb products:

- Products in dark limb illumination condition: GOM_NL__2P/NL_SUMMARY_QUALITY/obs_ill_cond=0
- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

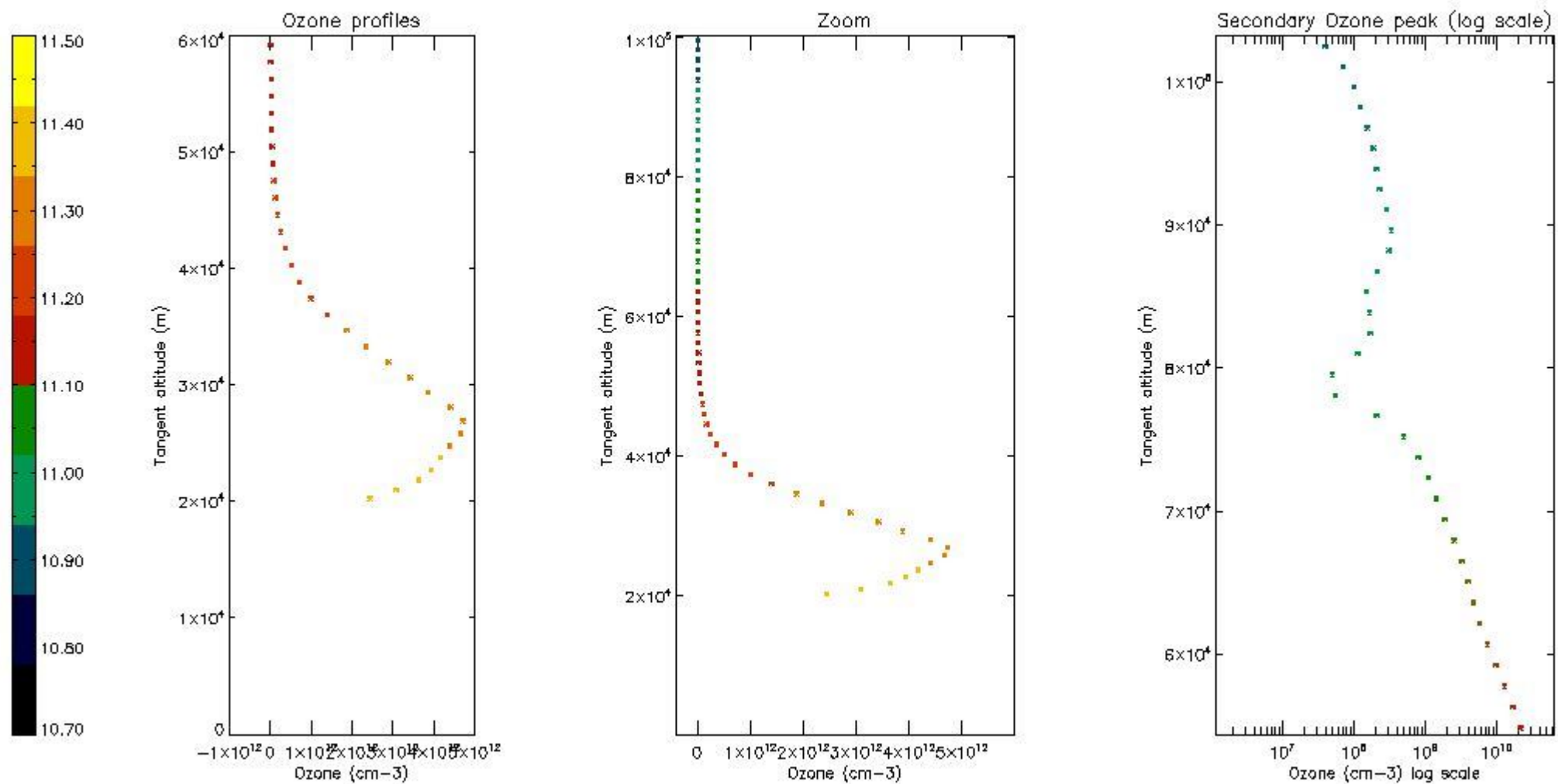
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	5
STD < 20	4

STD < 10	4
STD < 5	3

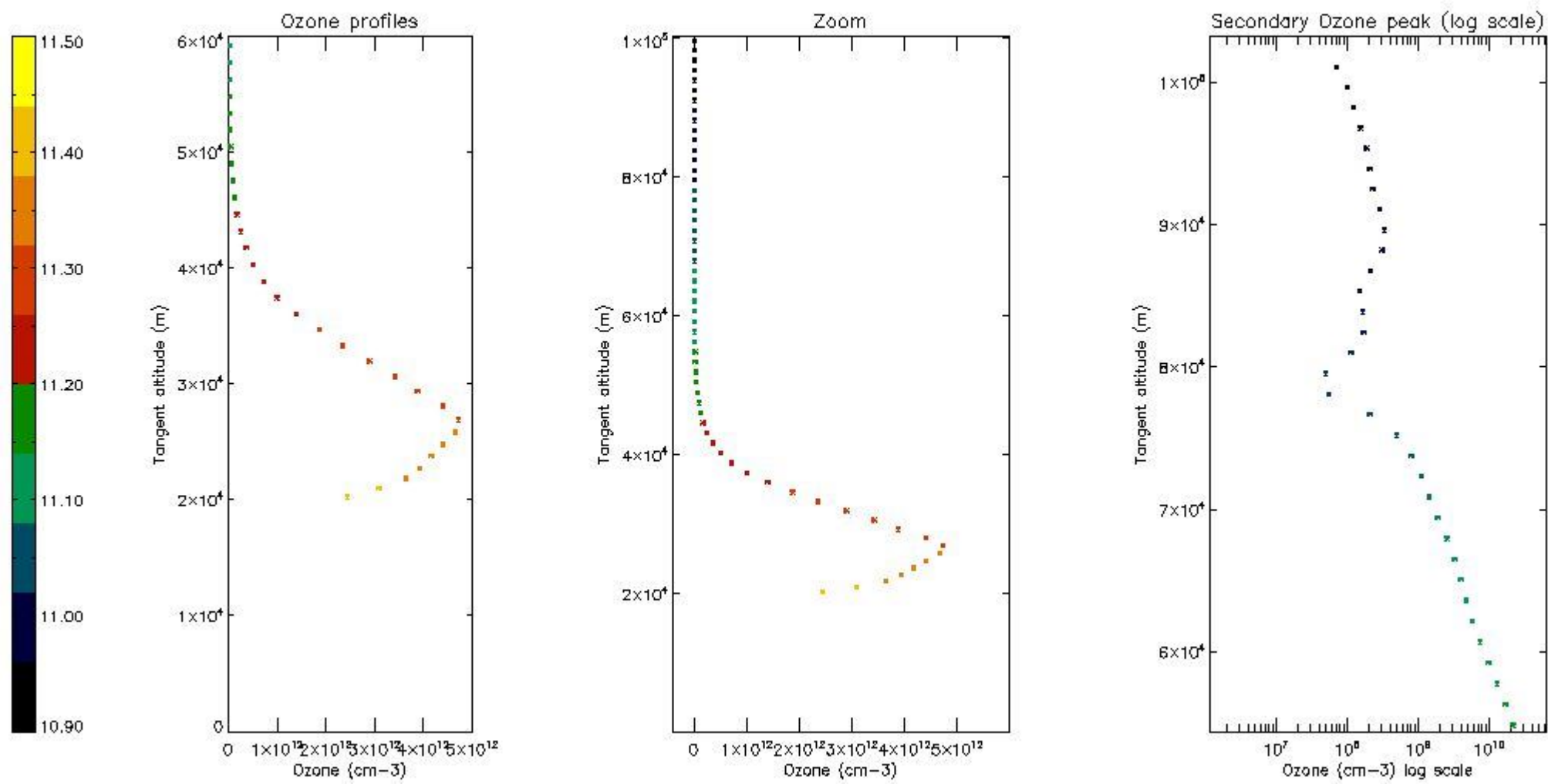
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



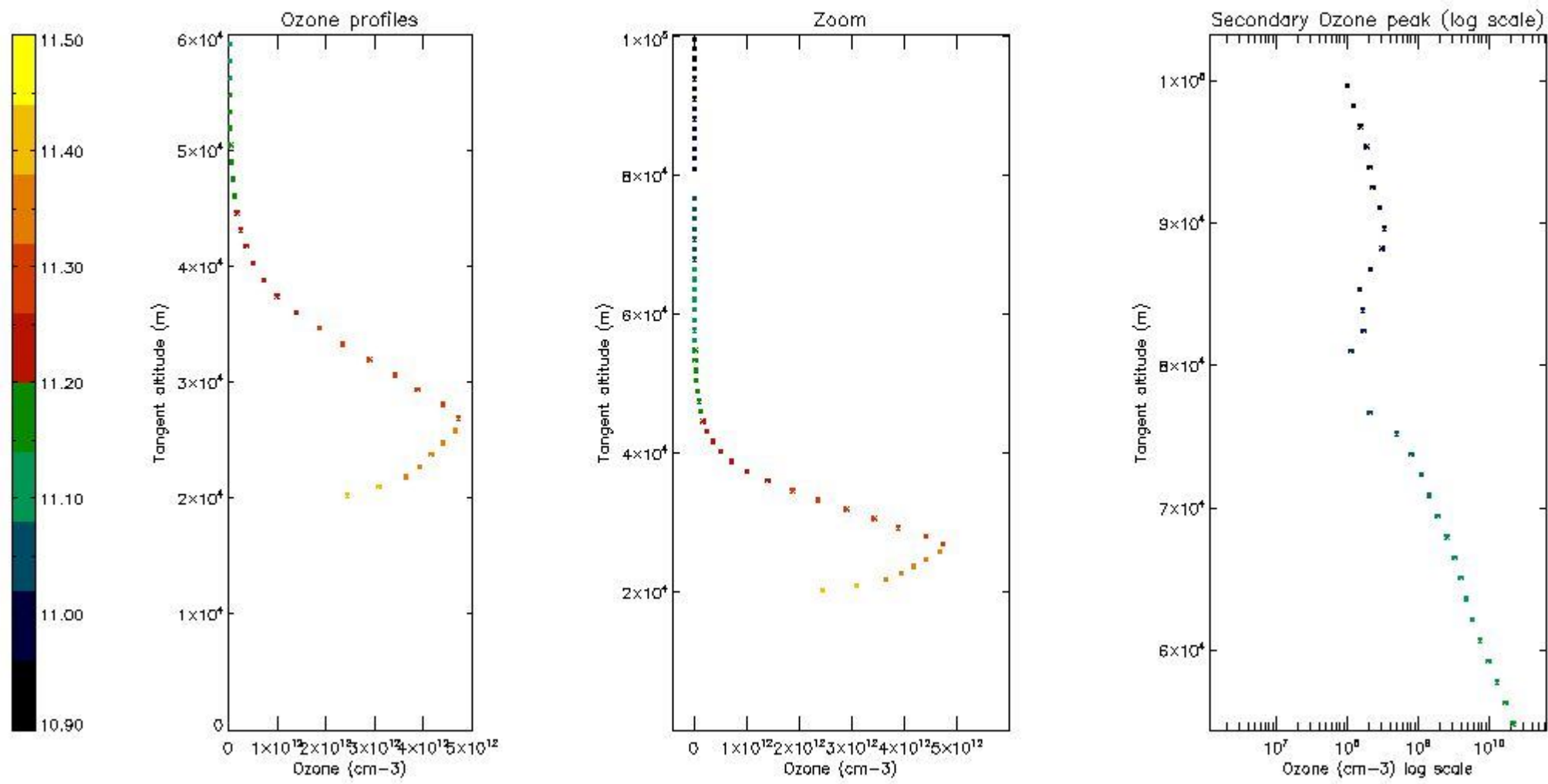
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



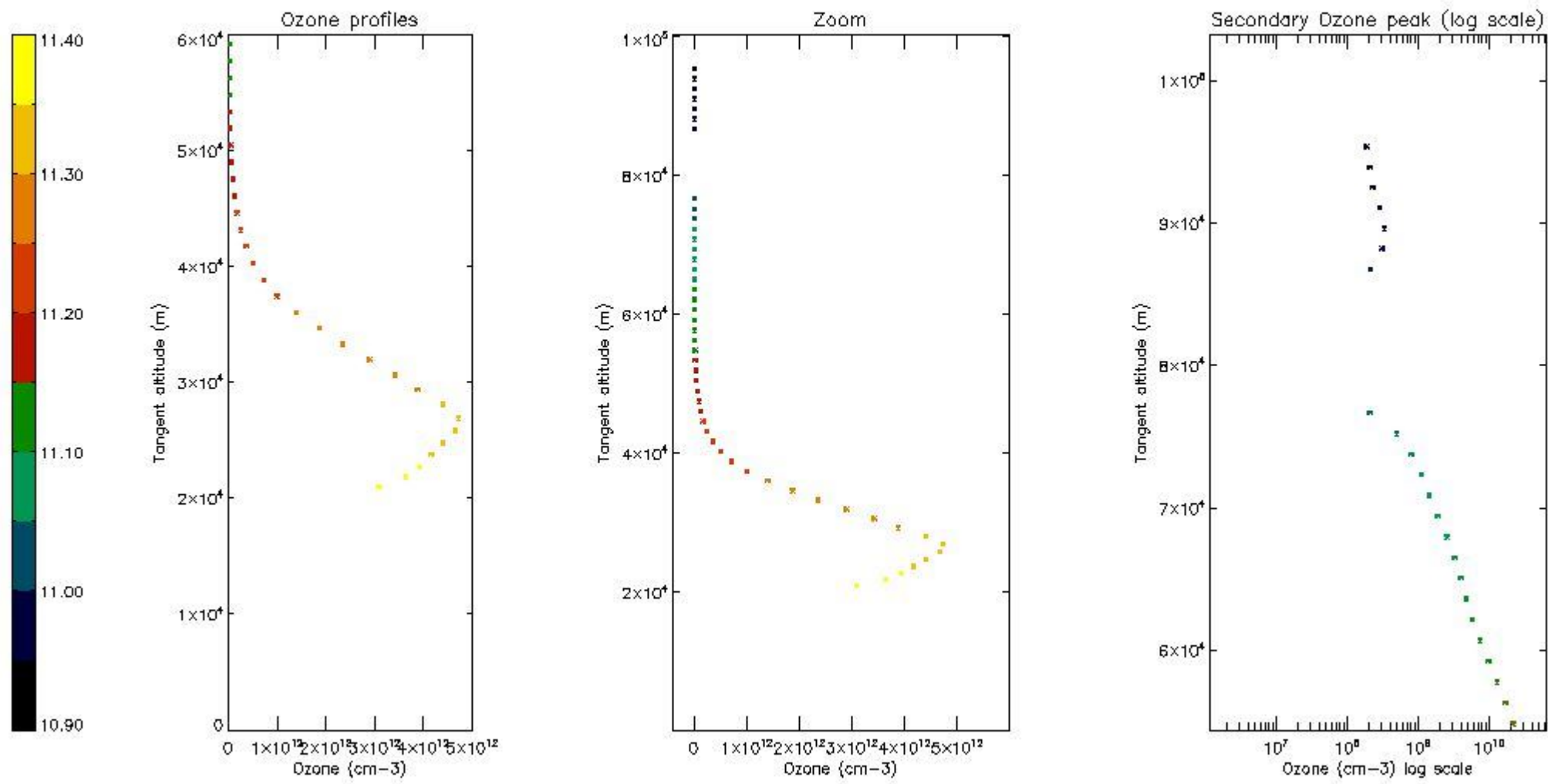
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



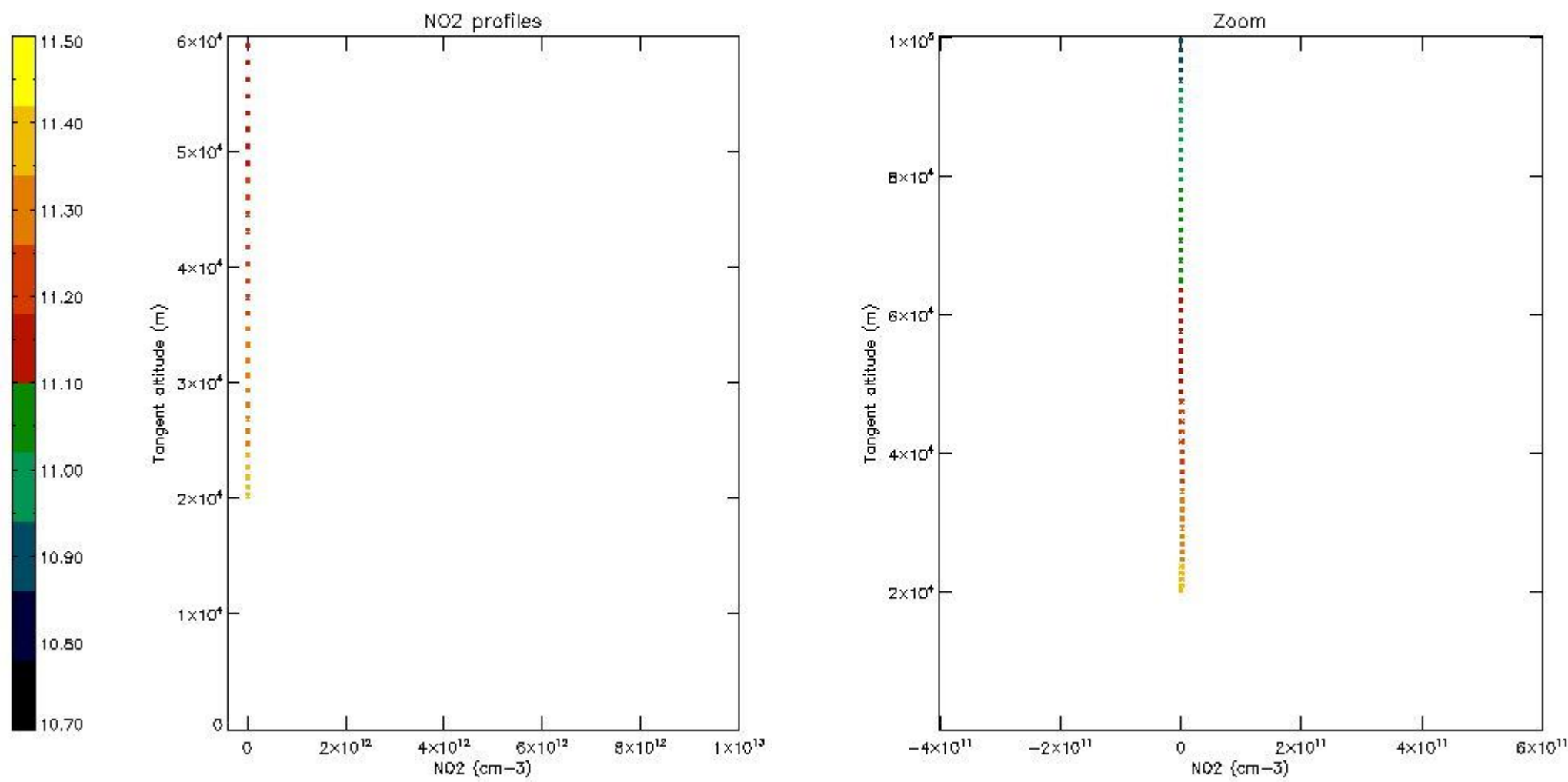
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



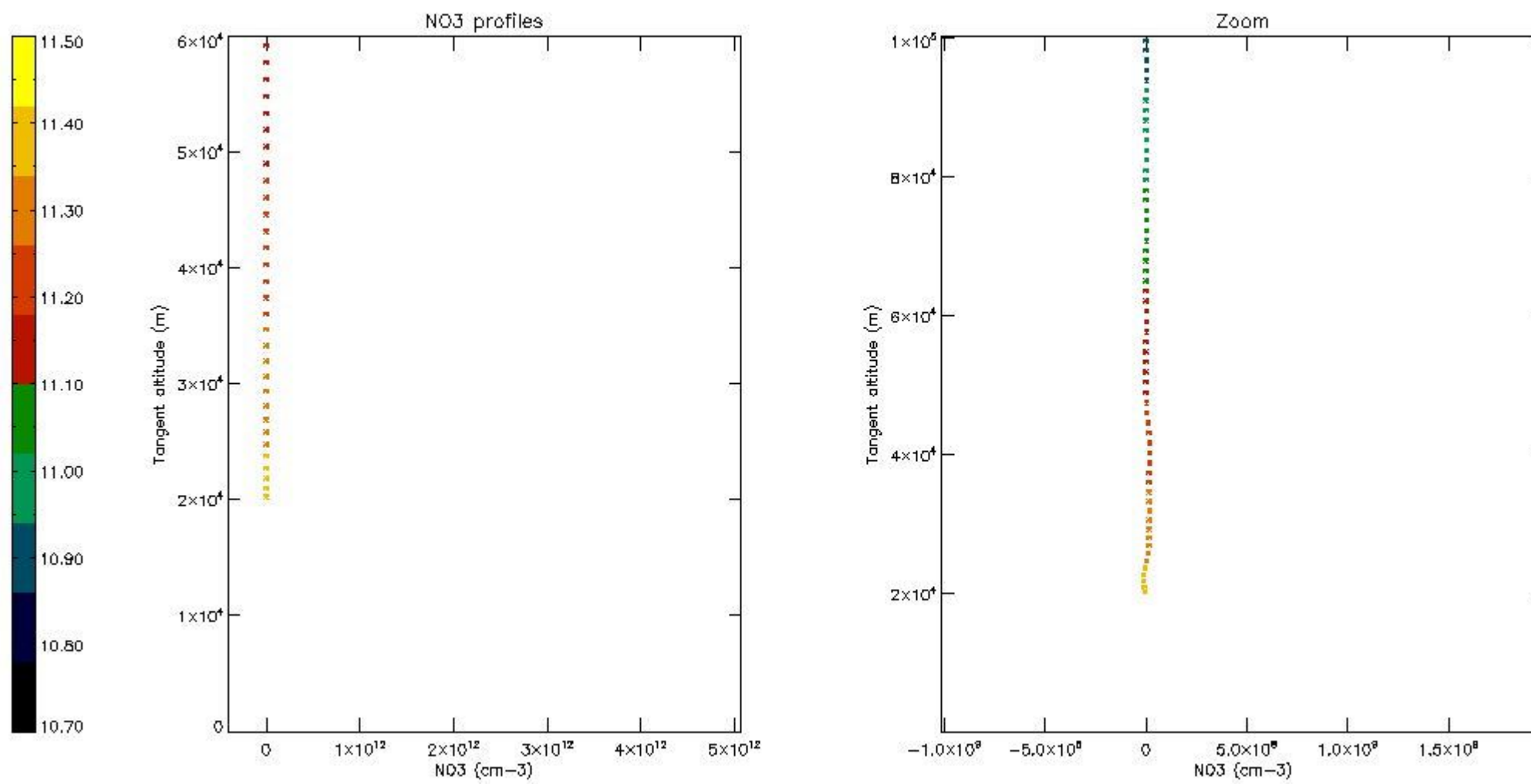
5.6 Plot NO₂ profiles for all STD (dark without errors)

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_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	24-AUG-2002 01:23:47
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	24-AUG-2002 01:23:47
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	24-AUG-2002 01:23:47

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[4. Level 1 Quality information per product \(stored on level 2 products\)](#)

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

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

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

[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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[5.3 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 \(dark without errors\)](#)

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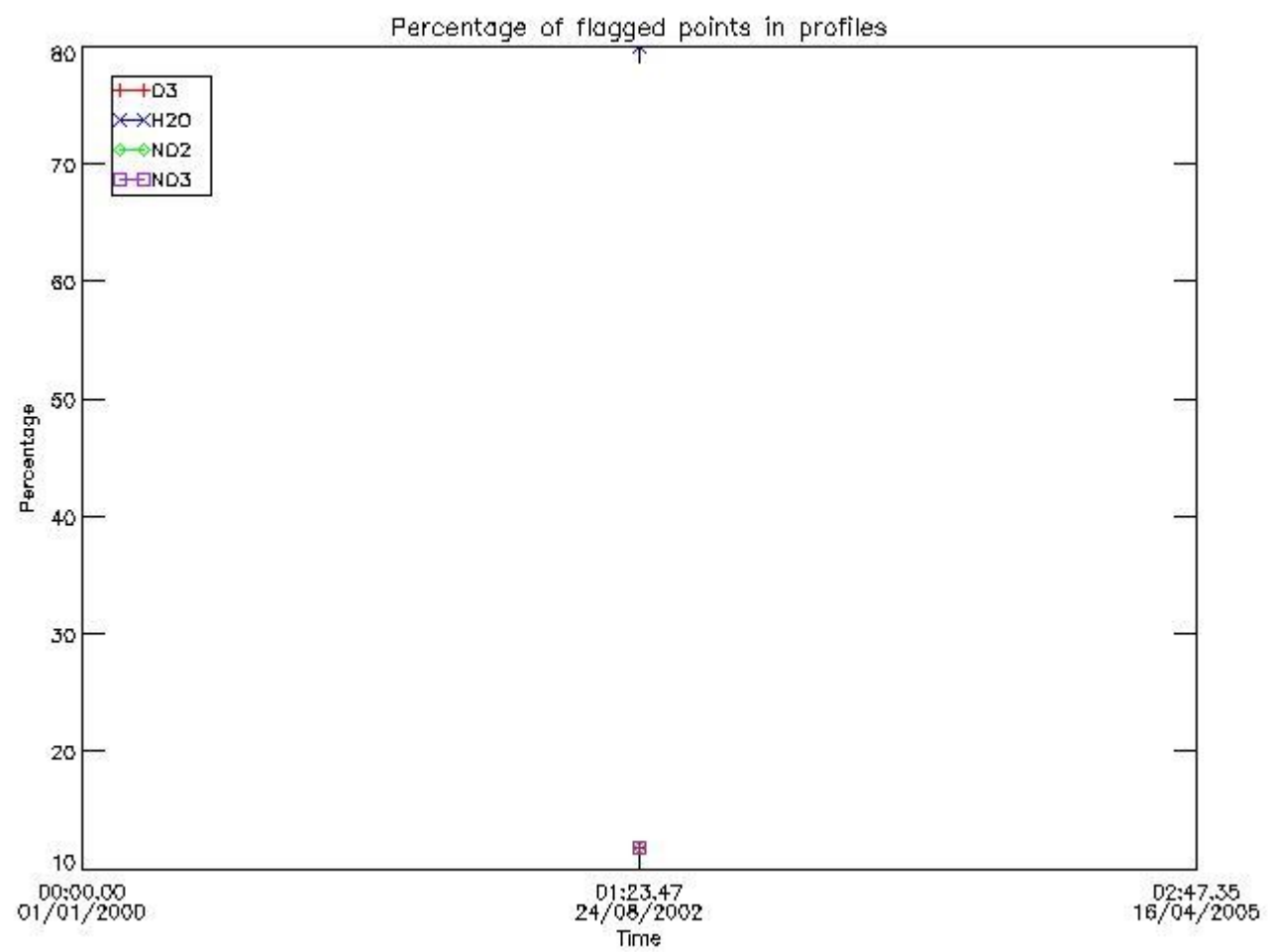
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13	GOM_NL__2PRFIN20020824_020839_000000492008_00461_02519_8376.N1	24-AUG-2002 02:08:39	Bright	48.500	74	11Bet Cas	2.2680	6600.0	97	2519	No
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15	GOM_NL__2PRFIN20020824_021409_000001372008_00461_02519_8378.N1	24-AUG-2002 02:14:09	Bright	136.50	53	43Bet And	2.0480	3300.0	273	2519	No
16	GOM_NL__2PRFIN20020824_021828_000000992008_00461_02519_8379.N1	24-AUG-2002 02:18:28	Bright	98.500	73	57Gam1And	2.2600	13100.	197	2519	No

3. Quality information per product

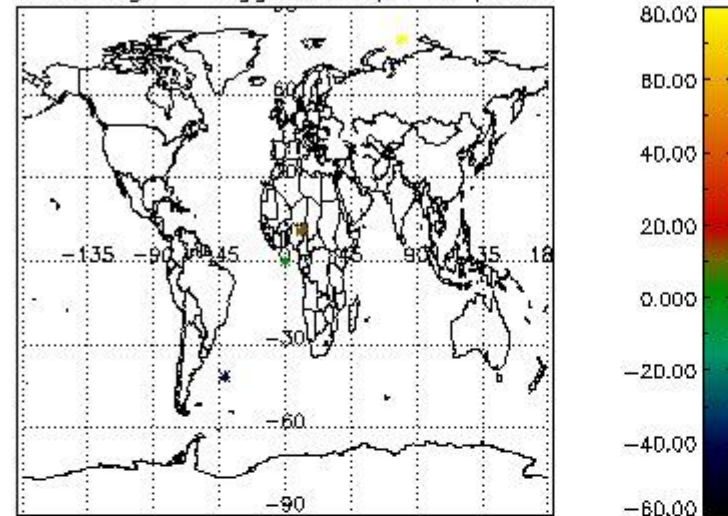
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3.1 Plot quality information per product (time dependant)

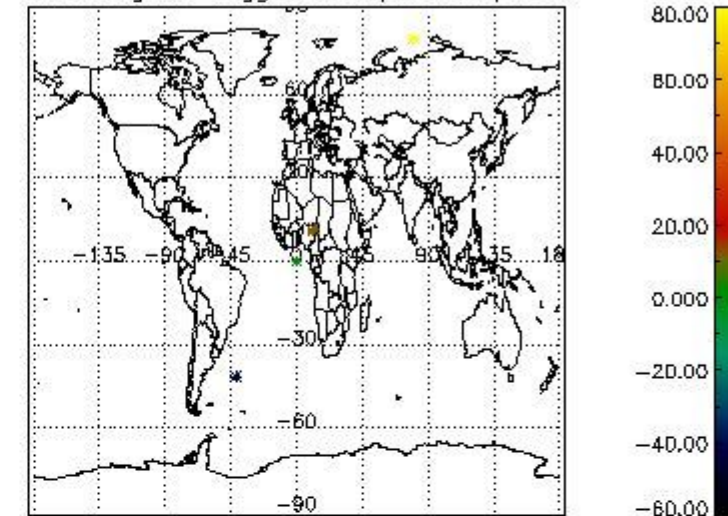


3.2 Plot quality information per product (world map)

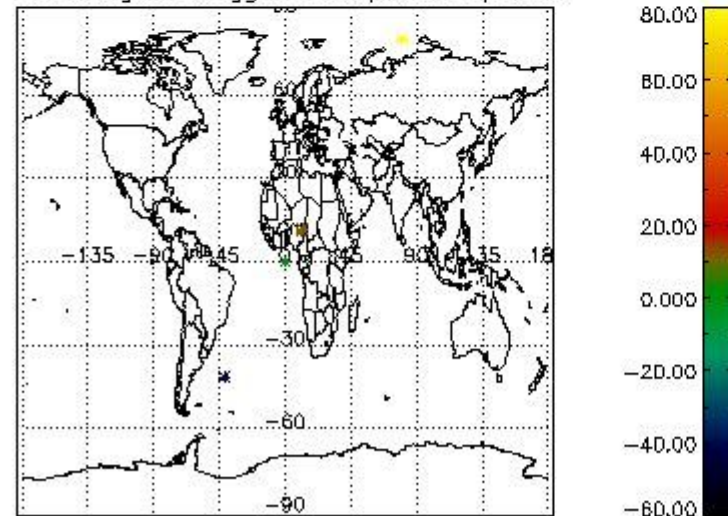
Percentage of flagged data per O3 profile



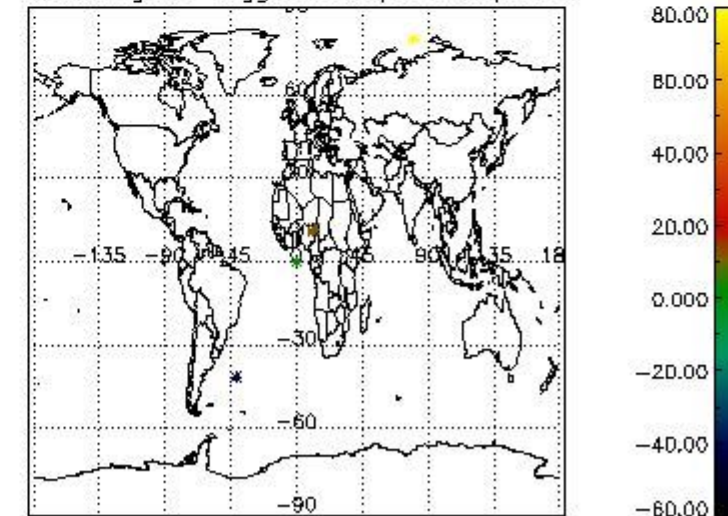
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

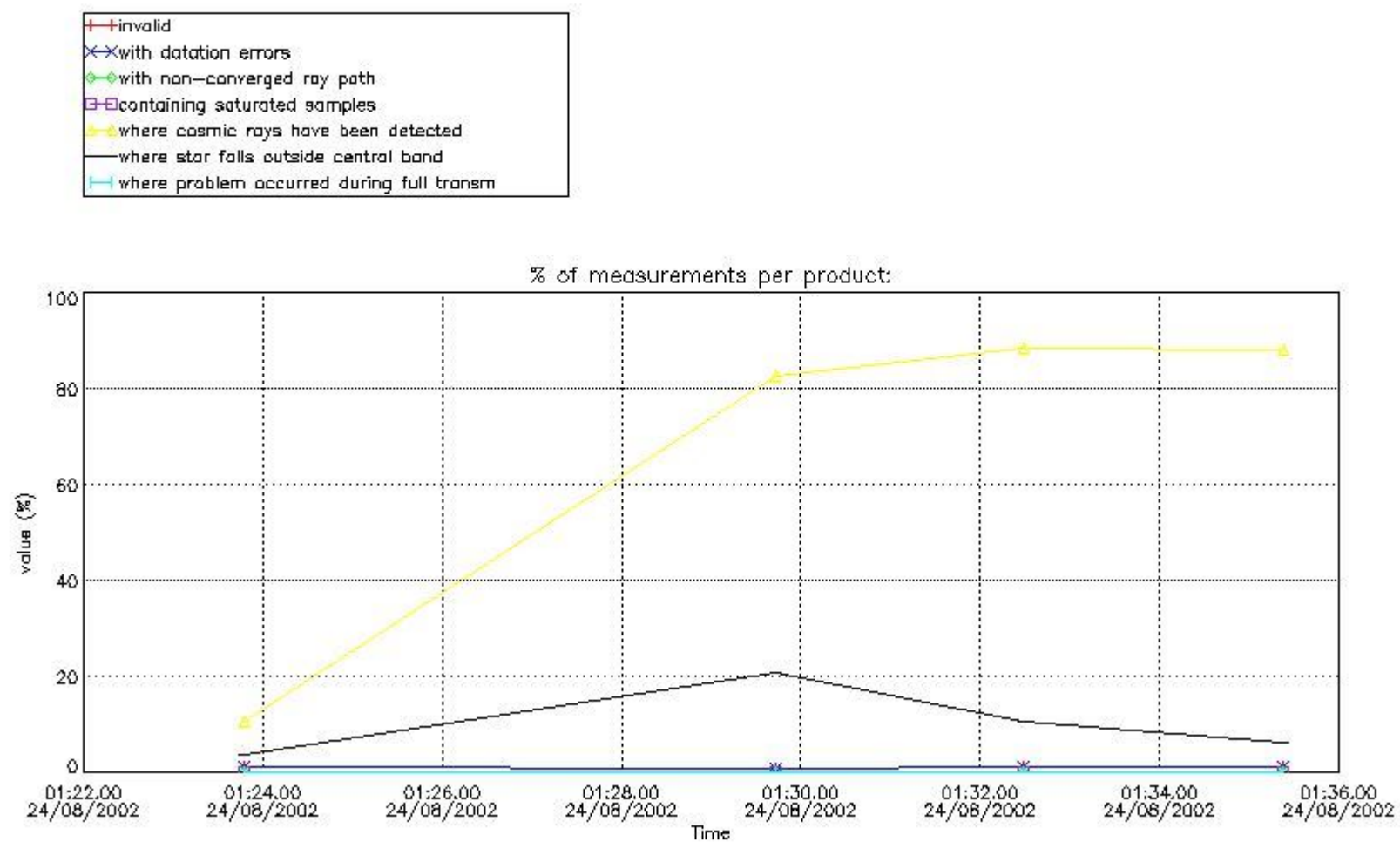


4. Level 1 quality information per product

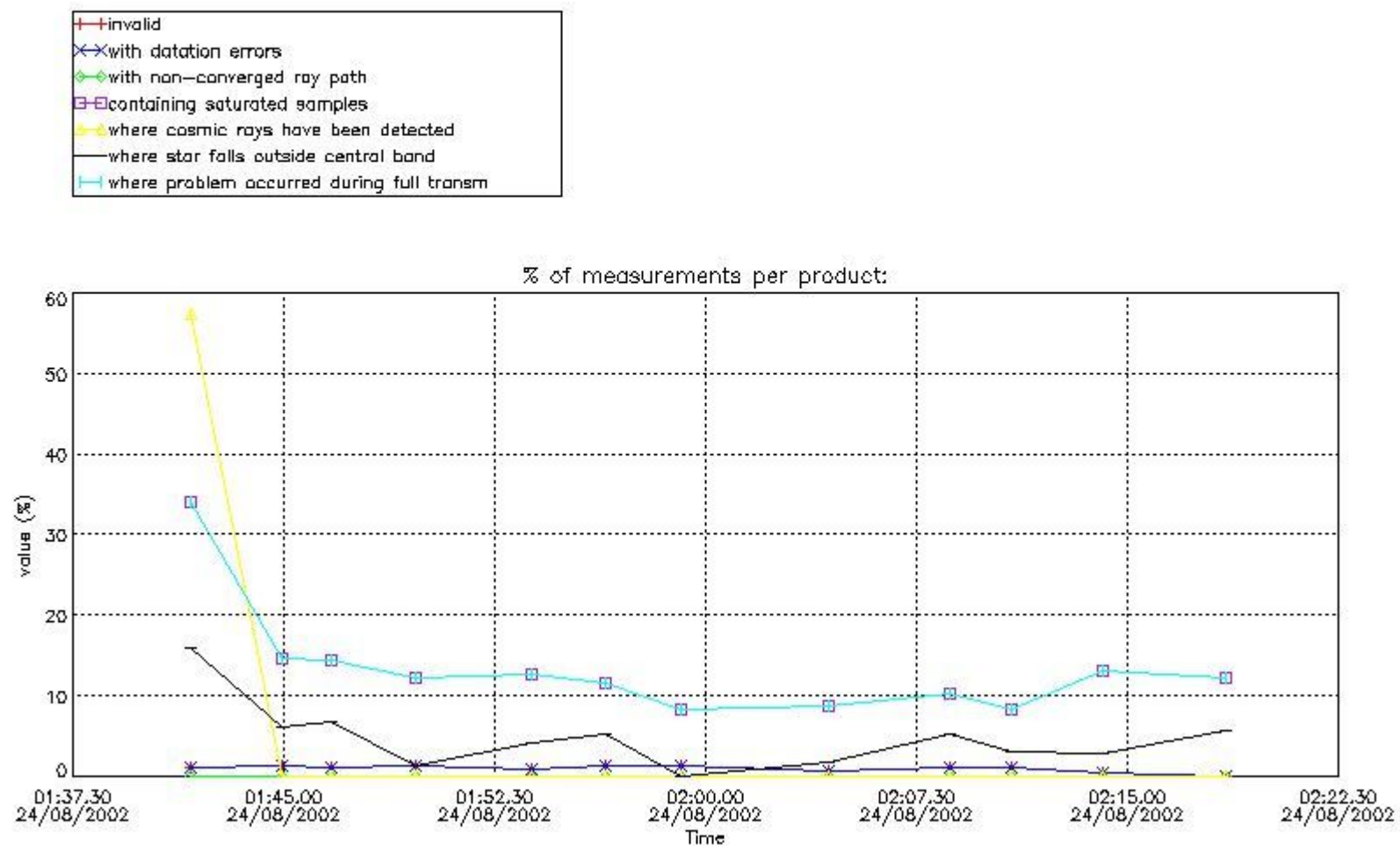
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

4.1 Plot quality information per product (time dependant) coming from level 1b processing

4.1.1 Plot level 1 quality information per product (time dependant): ENVISAT ASCENDING passes



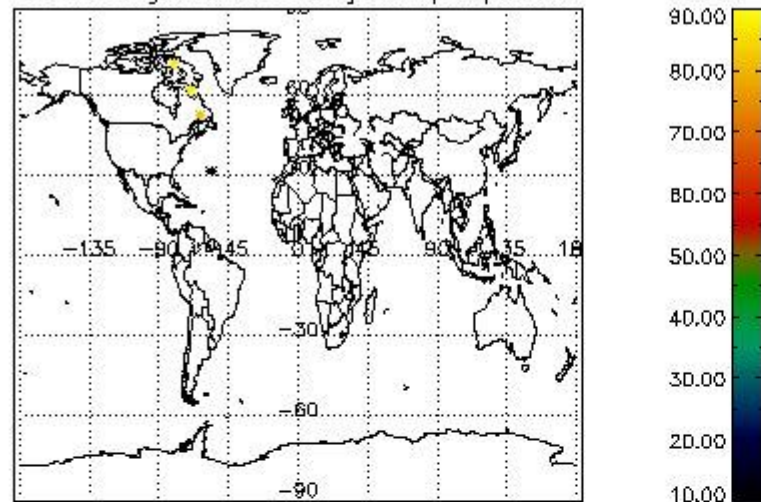
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



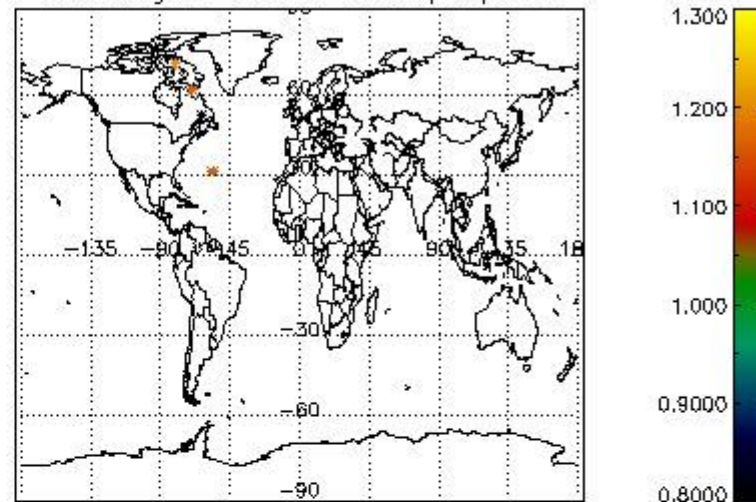
4.2 Plot quality information per product coming from level 1b processing (world map)

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

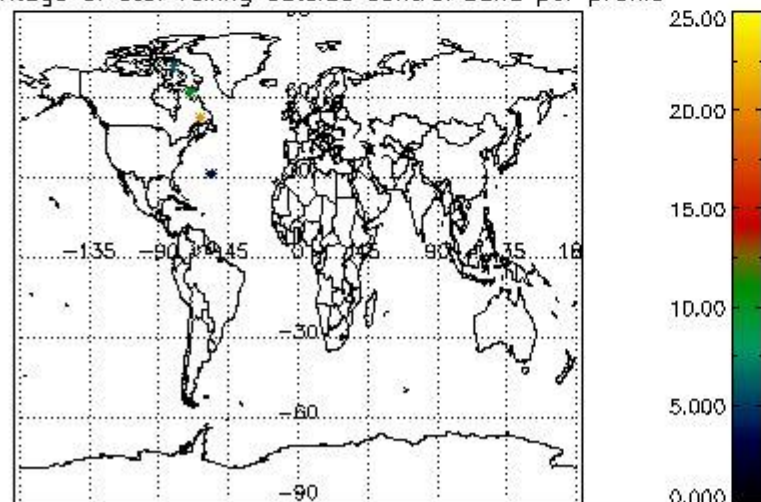
Percentage of cosmic ray hits per profile



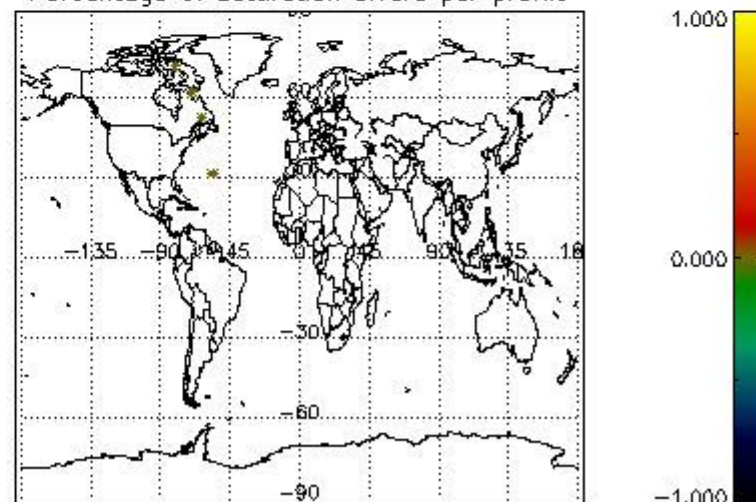
Percentage of datation errors per profile



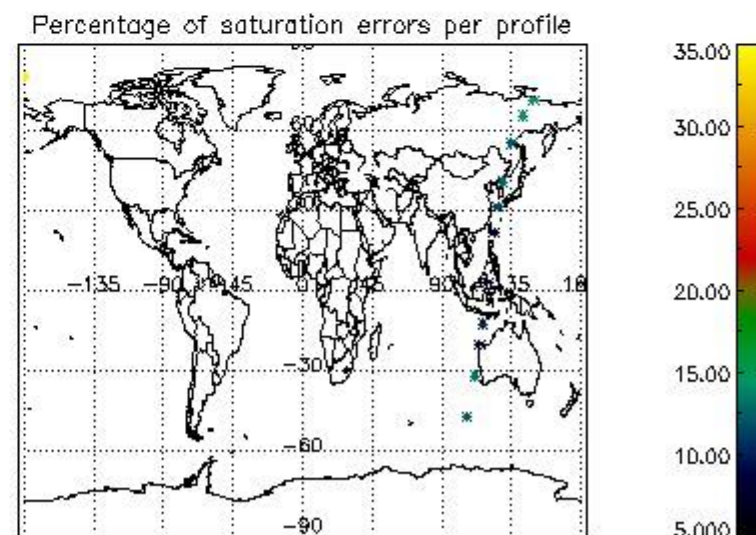
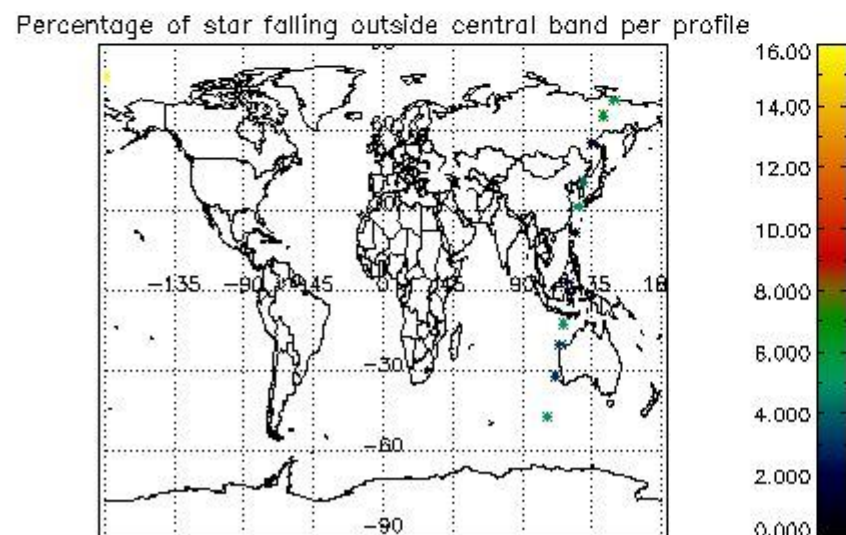
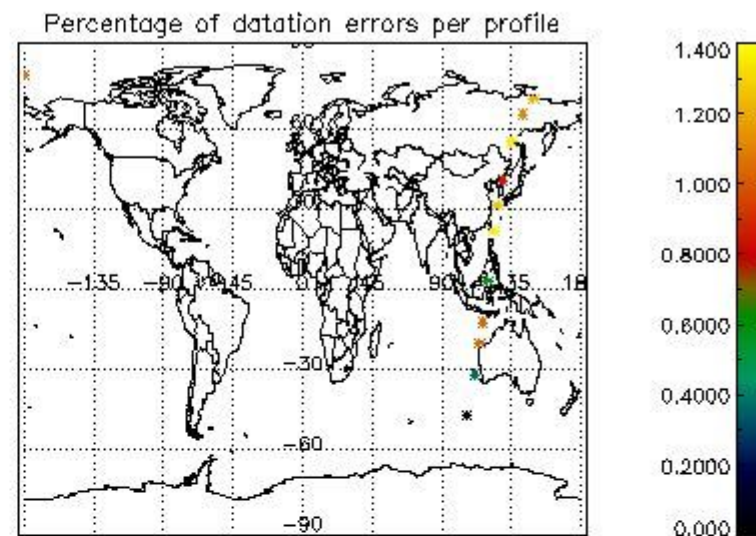
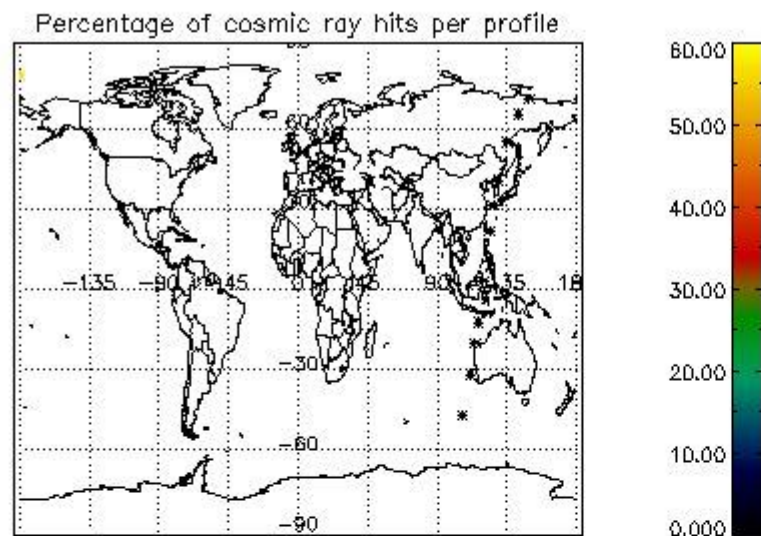
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile. This information is written to the parameter GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/o3_std of the level 2 products. The table below shows the statistics for given STD ranges.

The statistics are given with respect to the overall valid production:

- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

The 'Criteria' is applied to valid points of dark limb products:

- Products in dark limb illumination condition: GOM_NL__2P/NL_SUMMARY_QUALITY/obs_ill_cond=0
- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

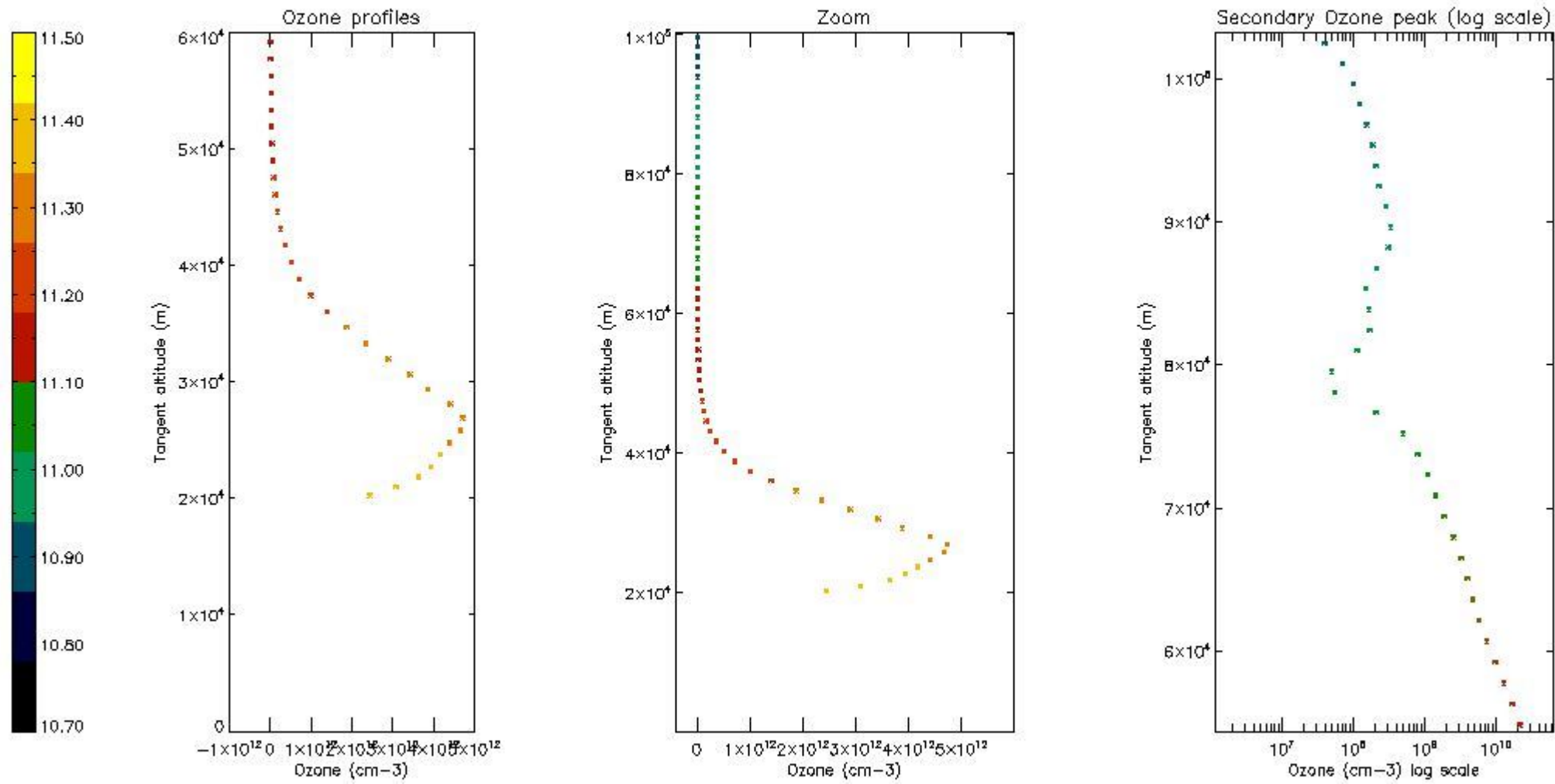
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	5
STD < 20	4

STD < 10	4
STD < 5	3

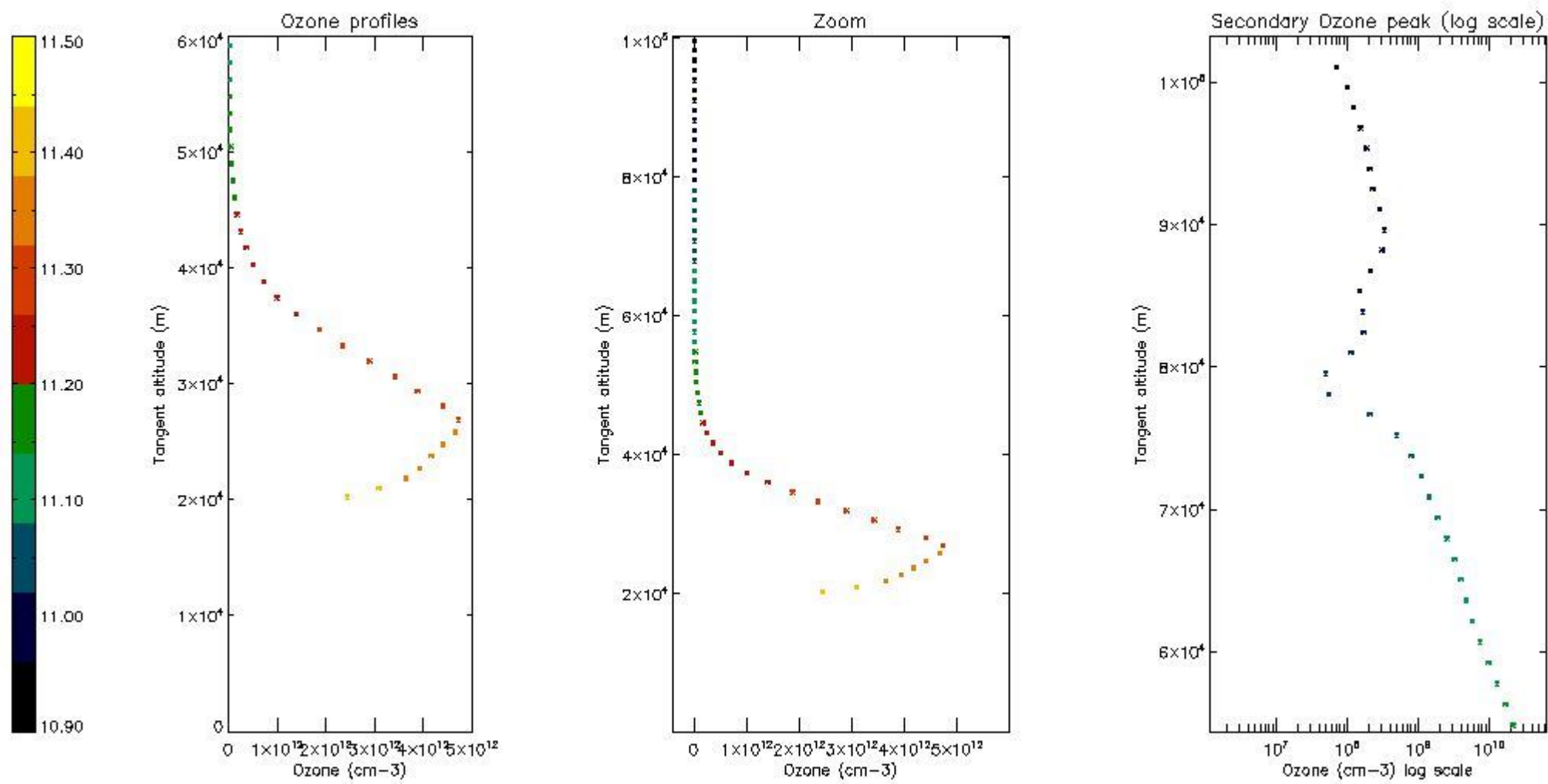
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



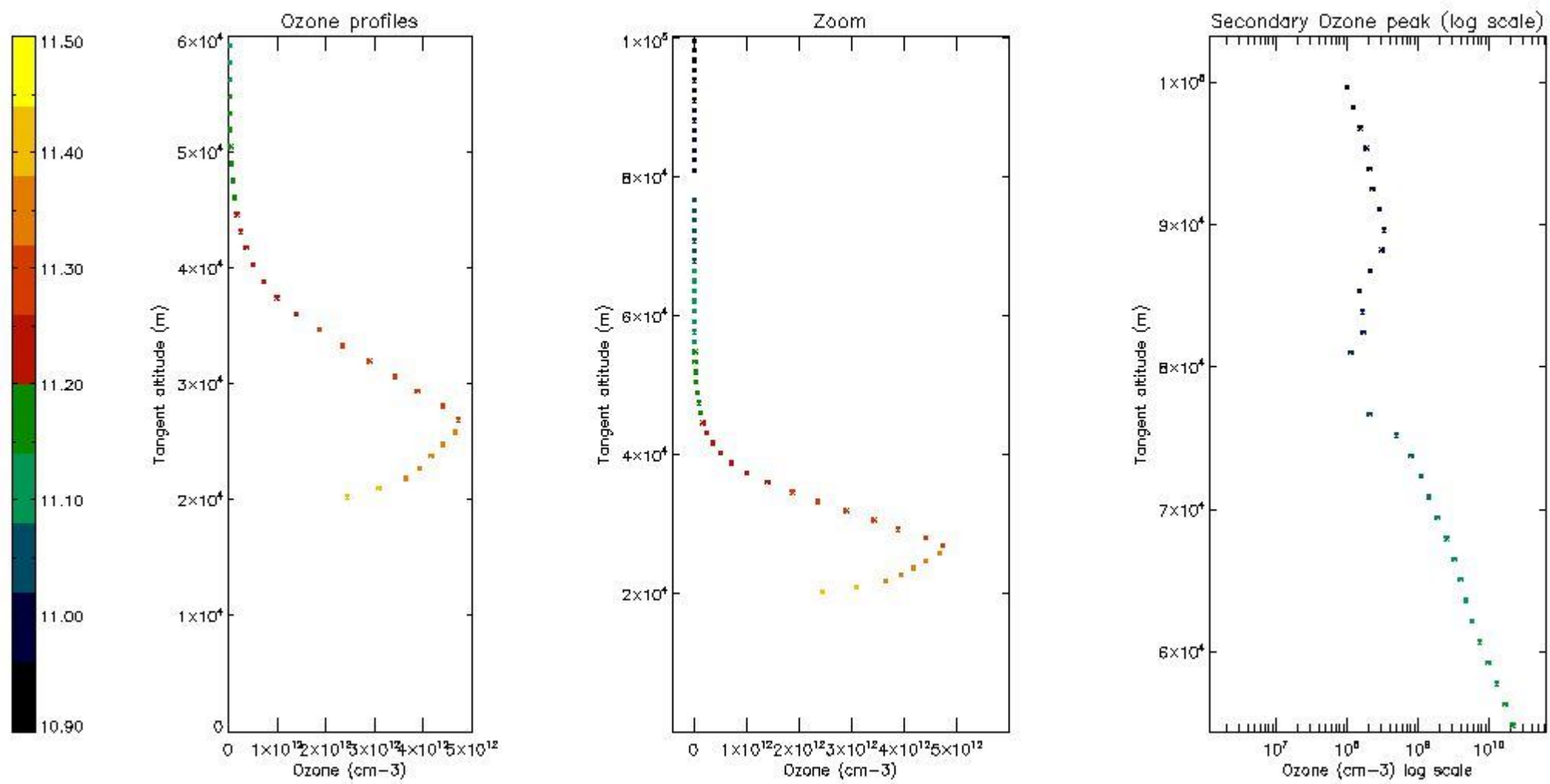
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



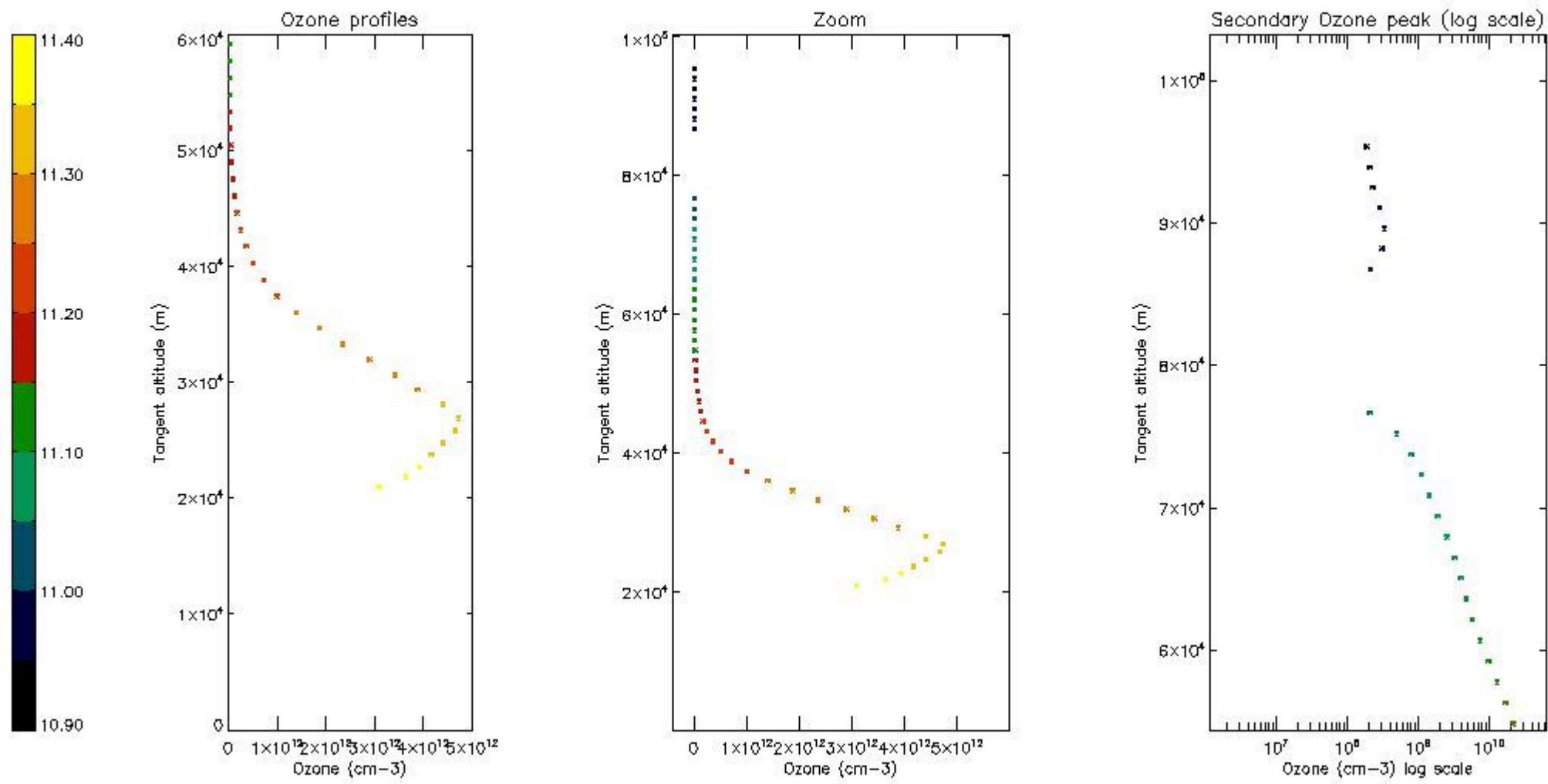
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



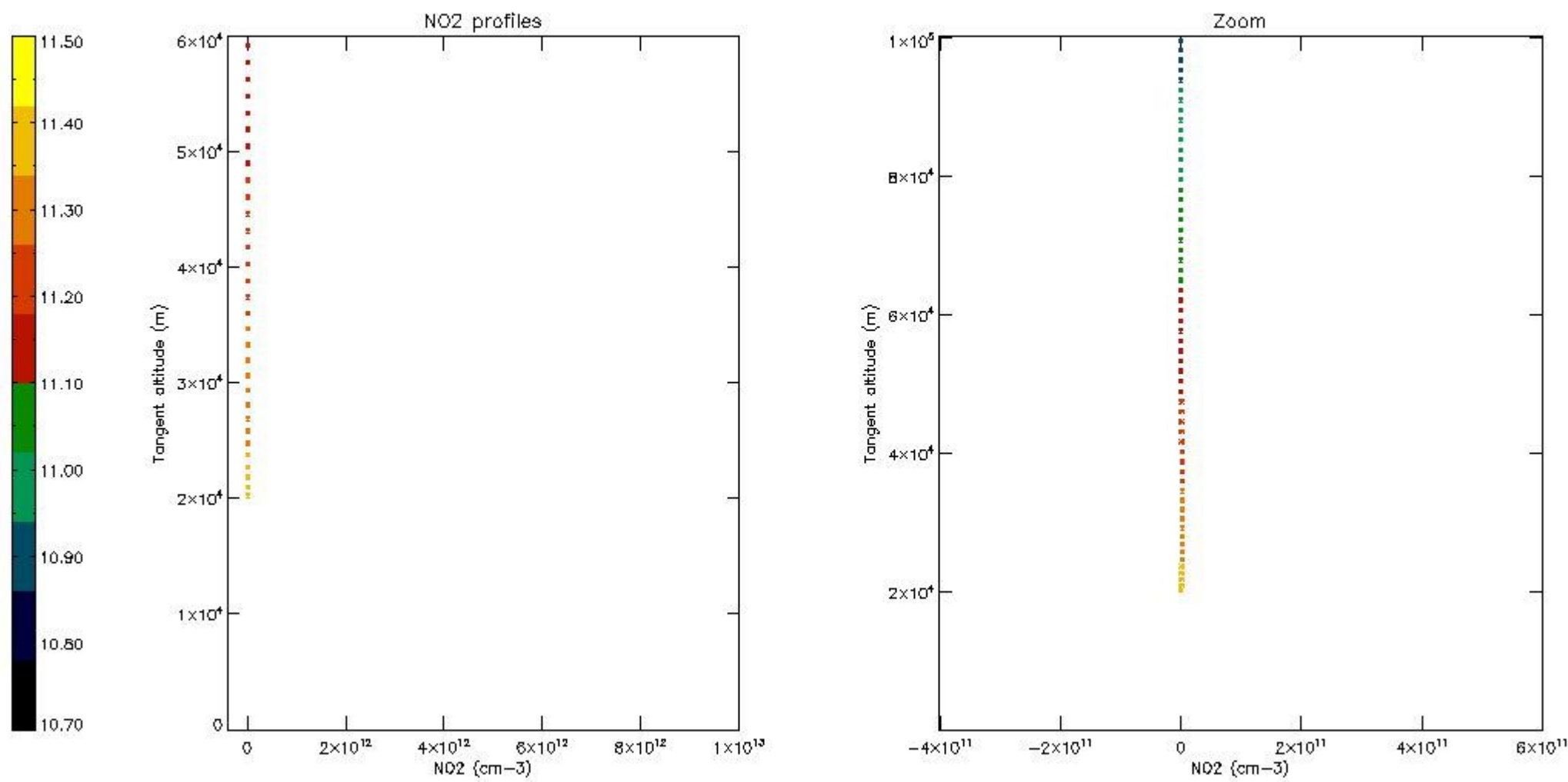
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



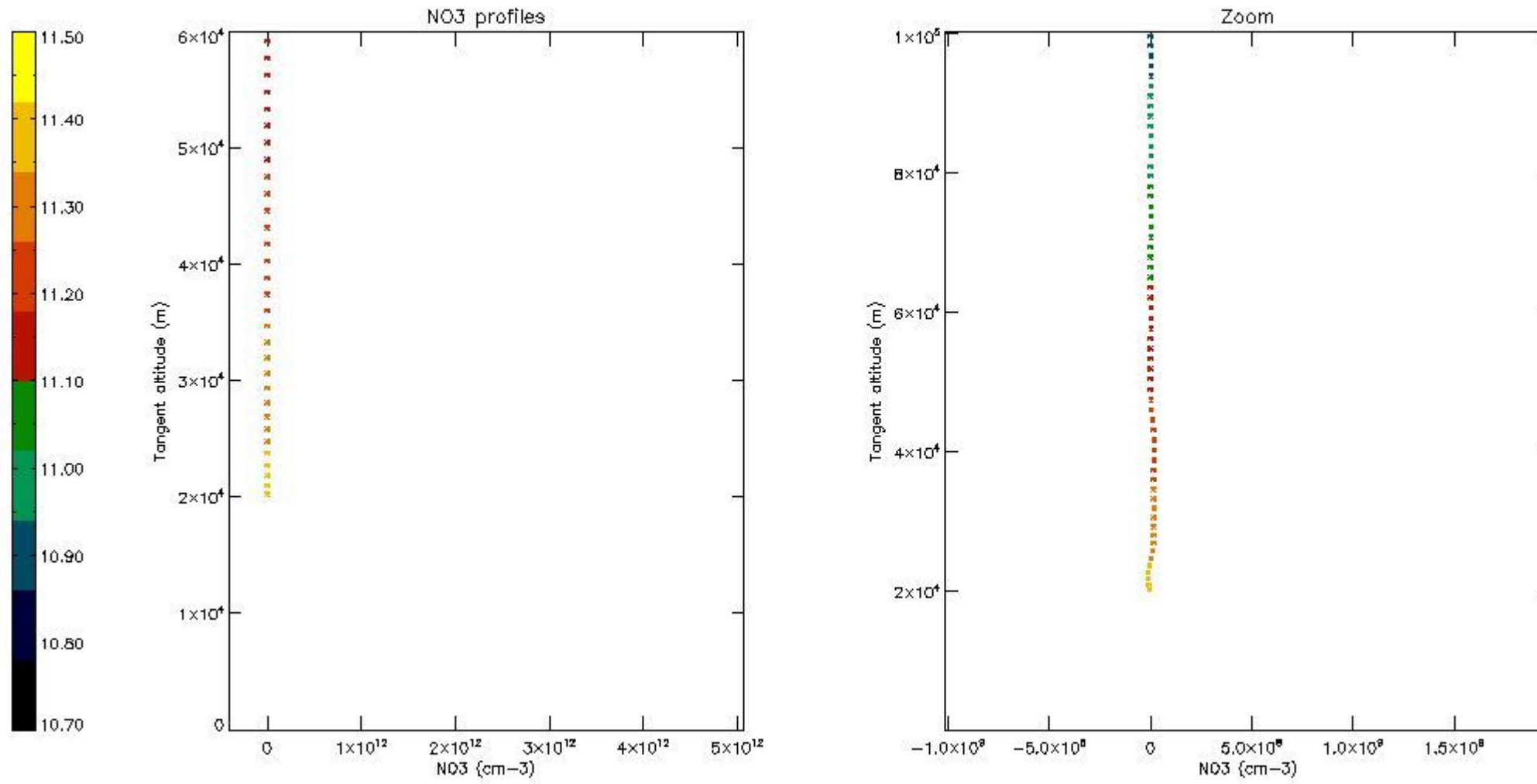
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

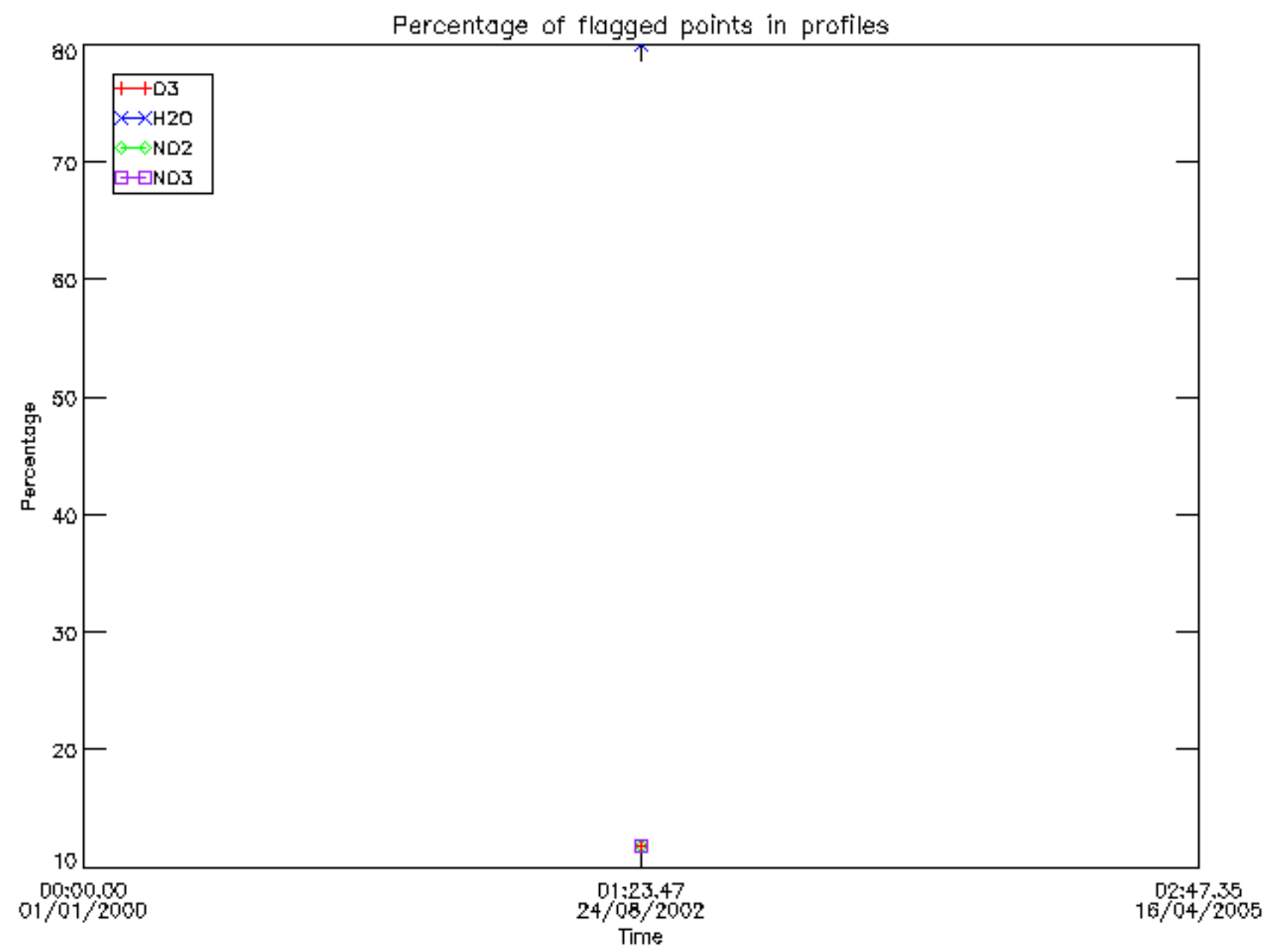
The colorbar represents the latitude.



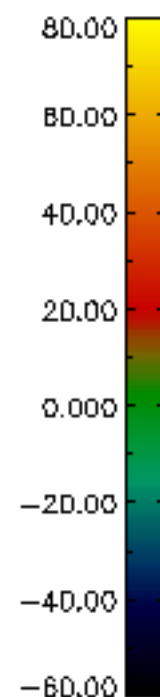
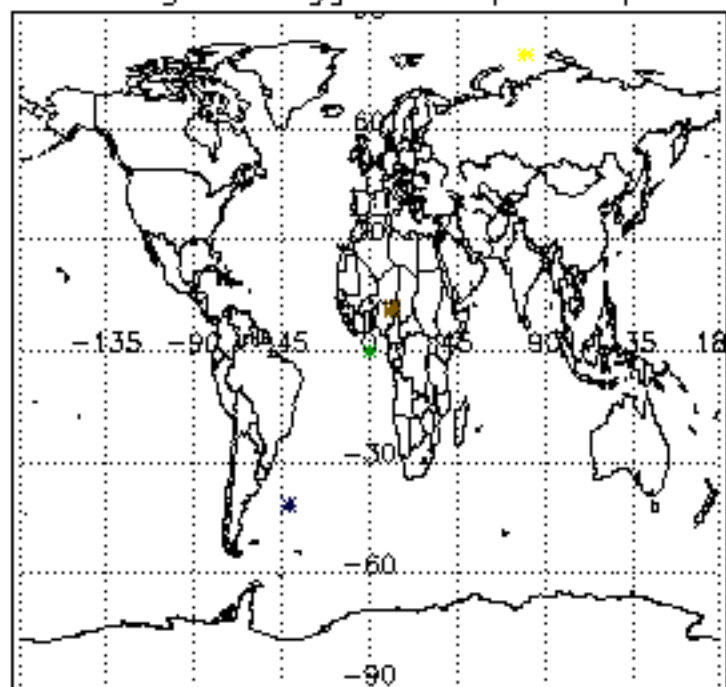
6. Auxiliary Data Files used for the production reported in section 2

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.

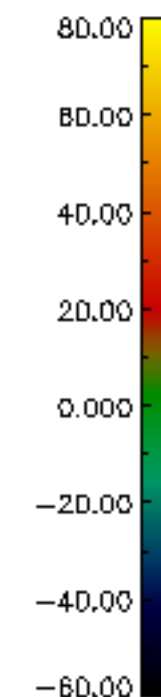
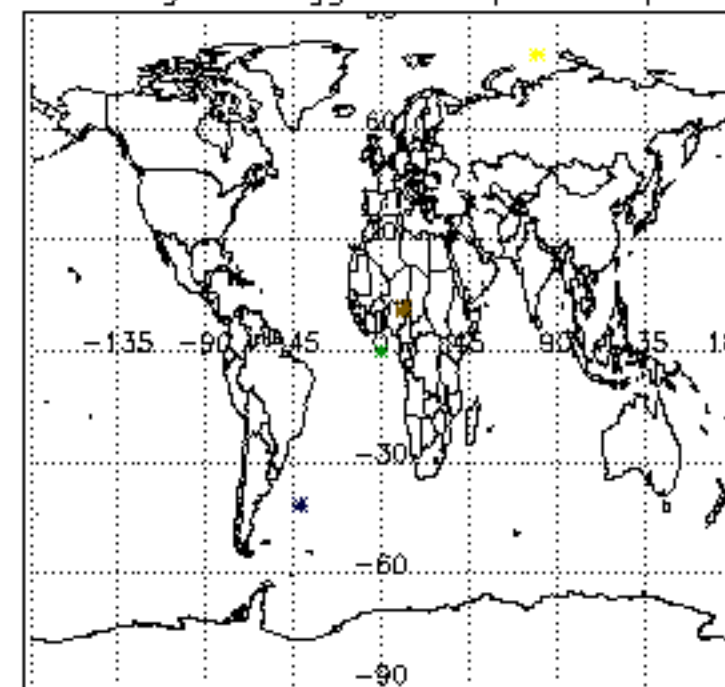
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	24-AUG-2002 01:23:47
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	24-AUG-2002 01:23:47
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	24-AUG-2002 01:23:47



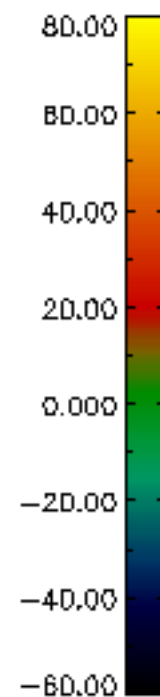
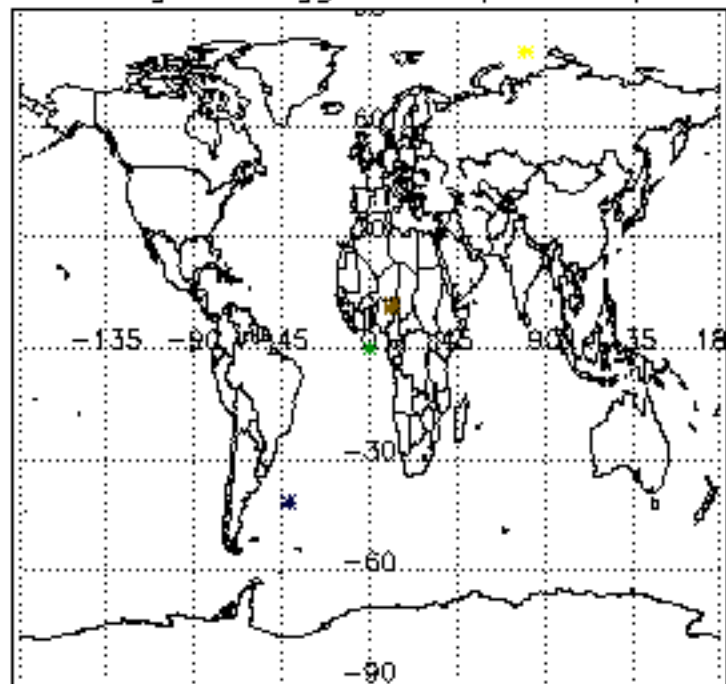
Percentage of flagged data per D3 profile



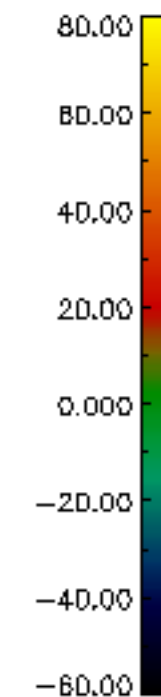
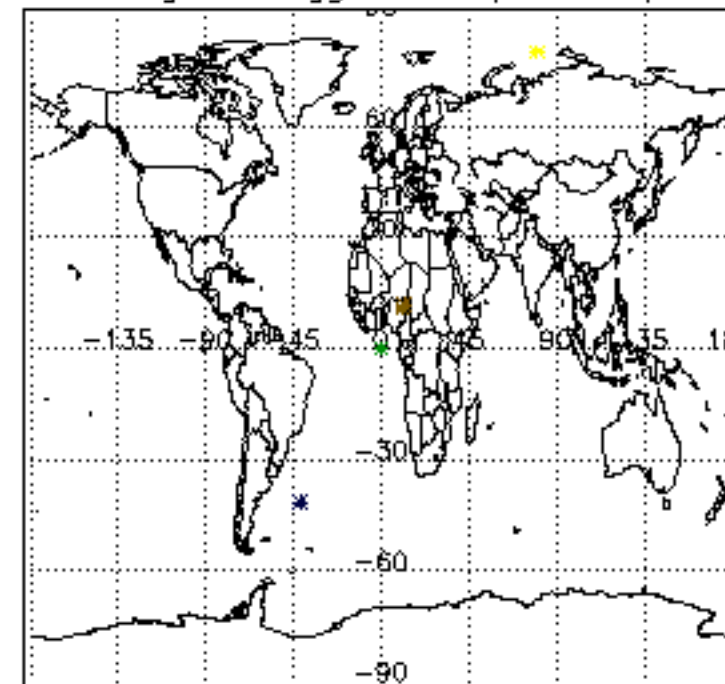
Percentage of flagged data per H2O profile

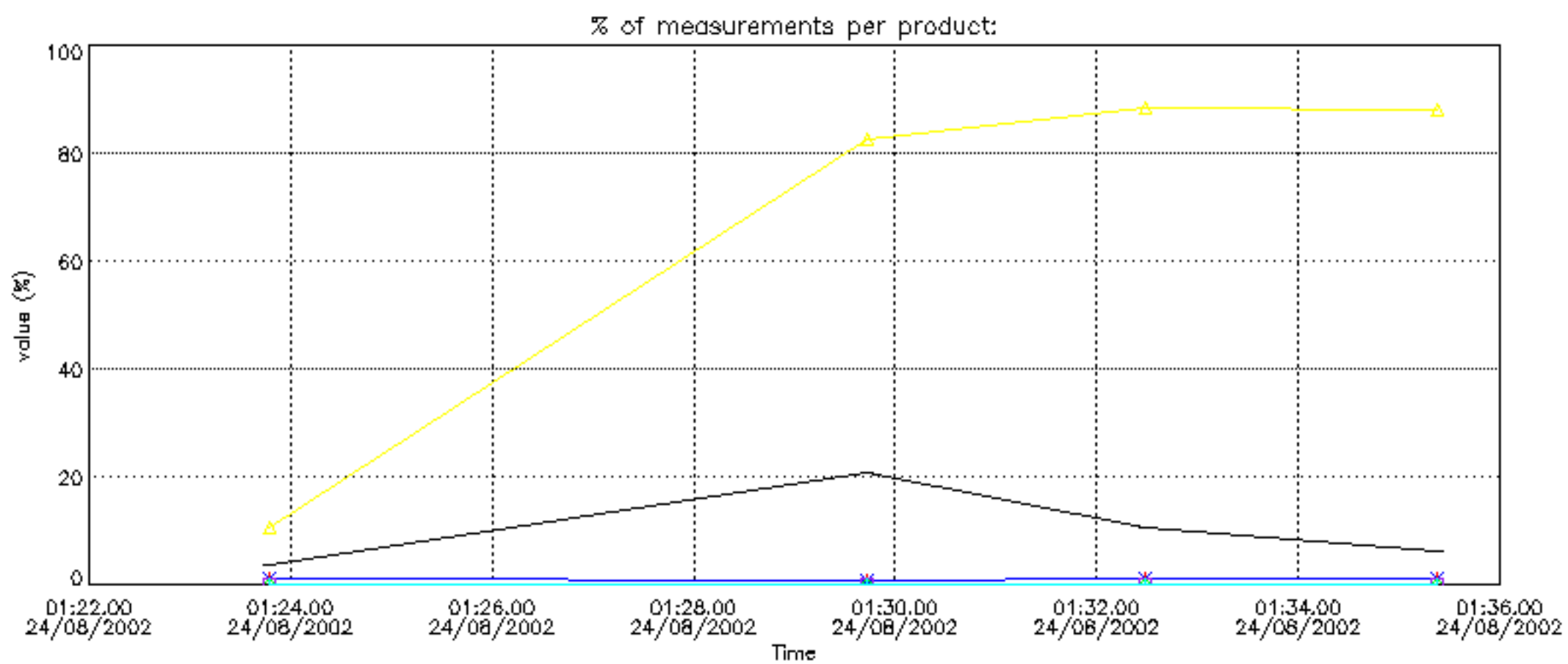
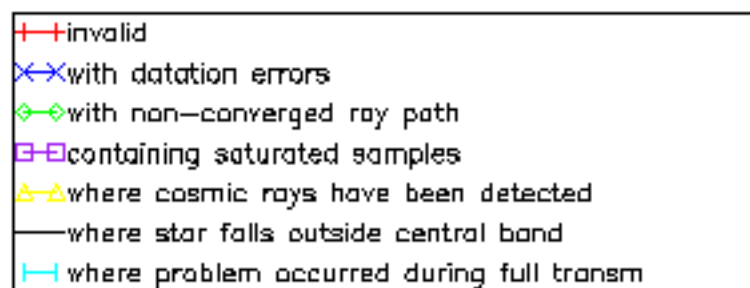


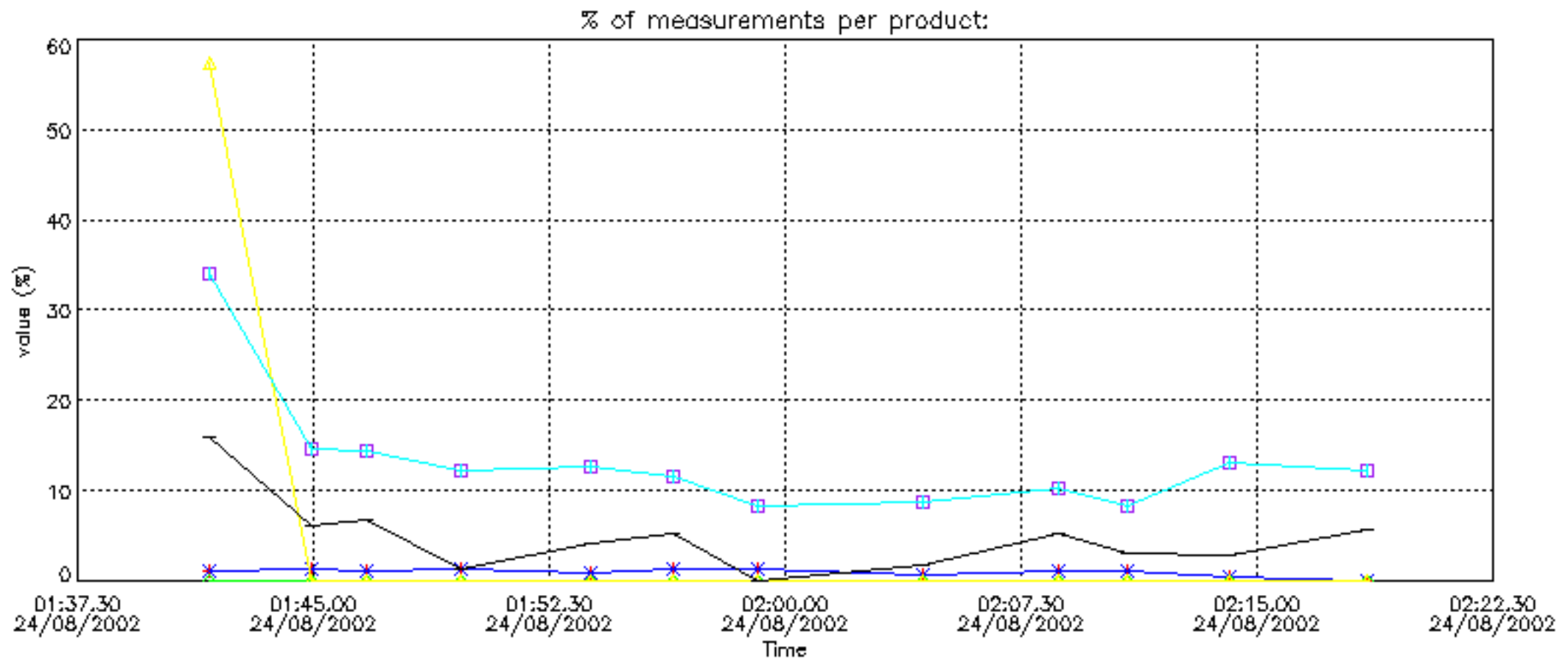
Percentage of flagged data per NO2 profile



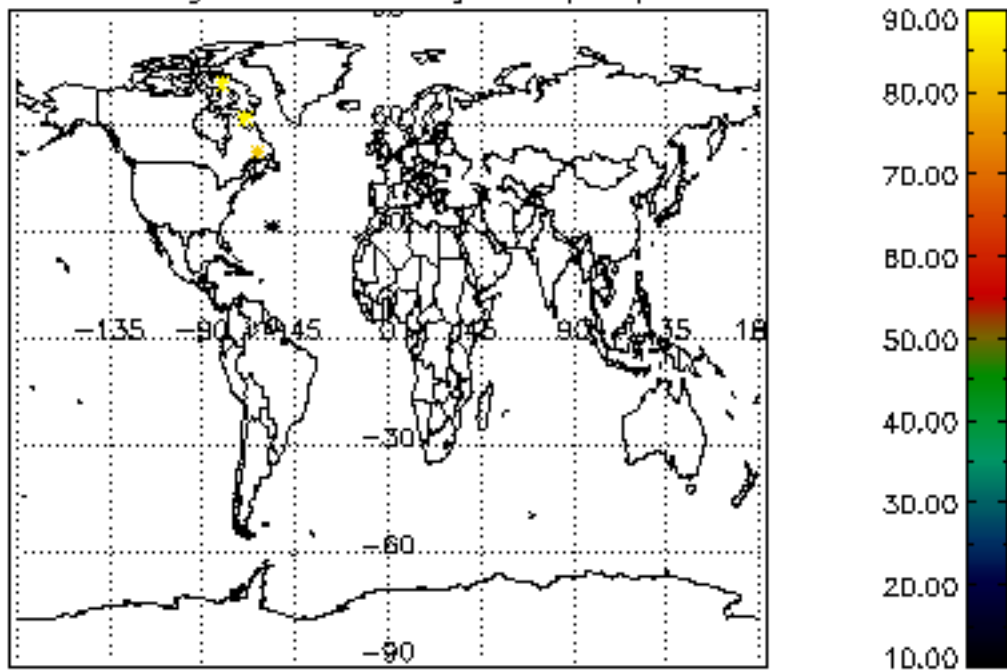
Percentage of flagged data per NO3 profile



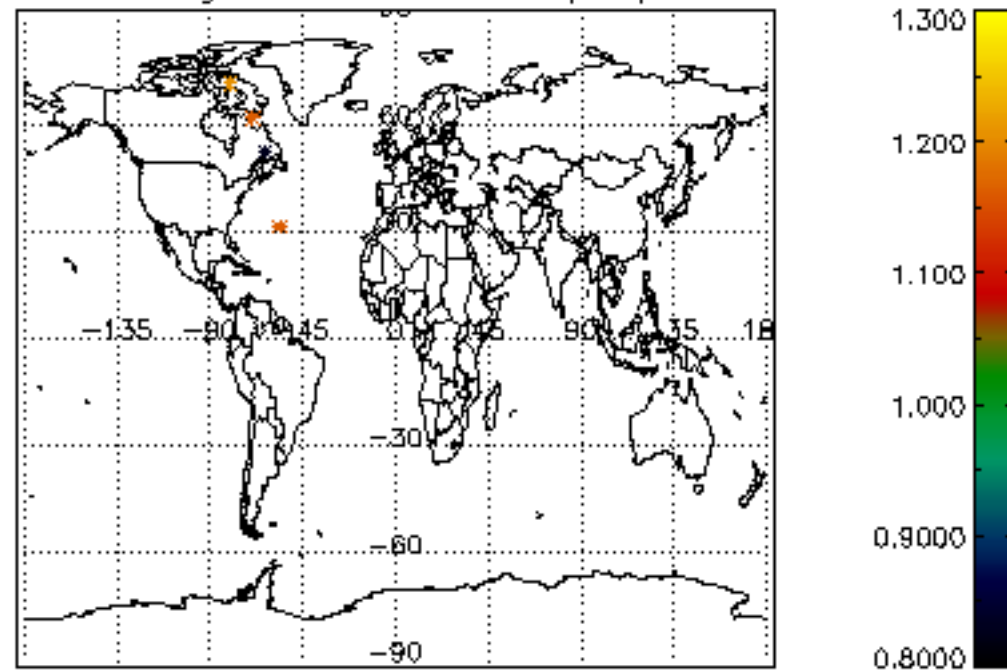




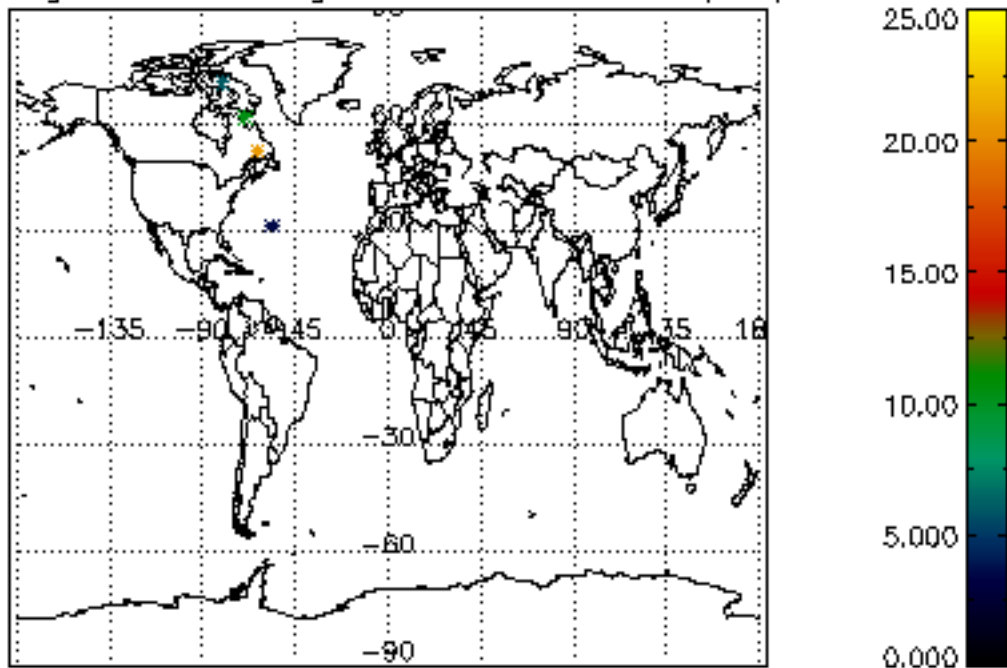
Percentage of cosmic ray hits per profile



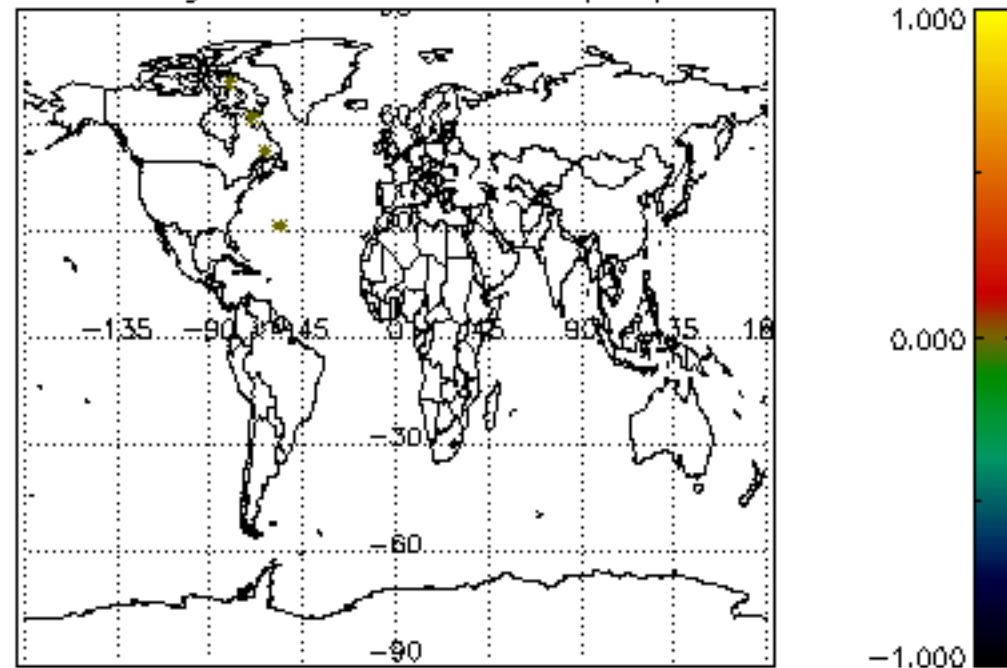
Percentage of datation errors per profile



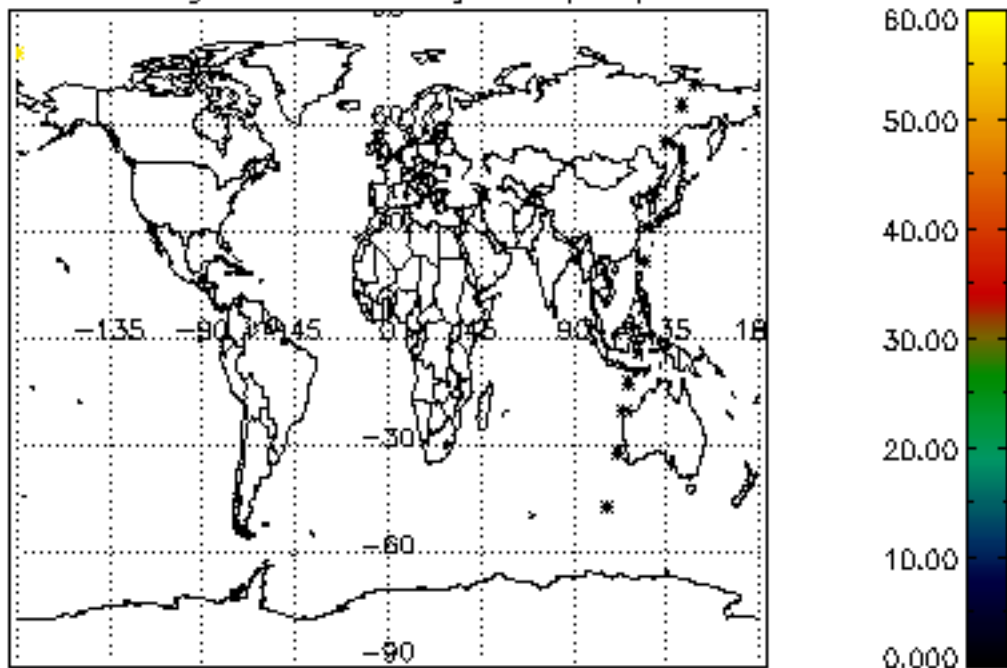
Percentage of star falling outside central band per profile



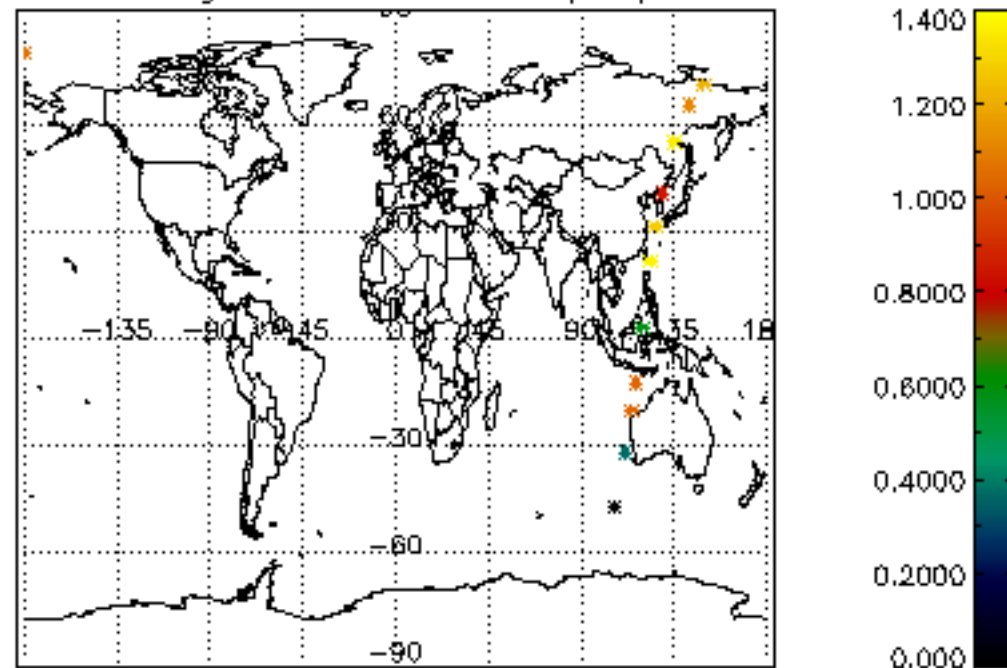
Percentage of saturation errors per profile



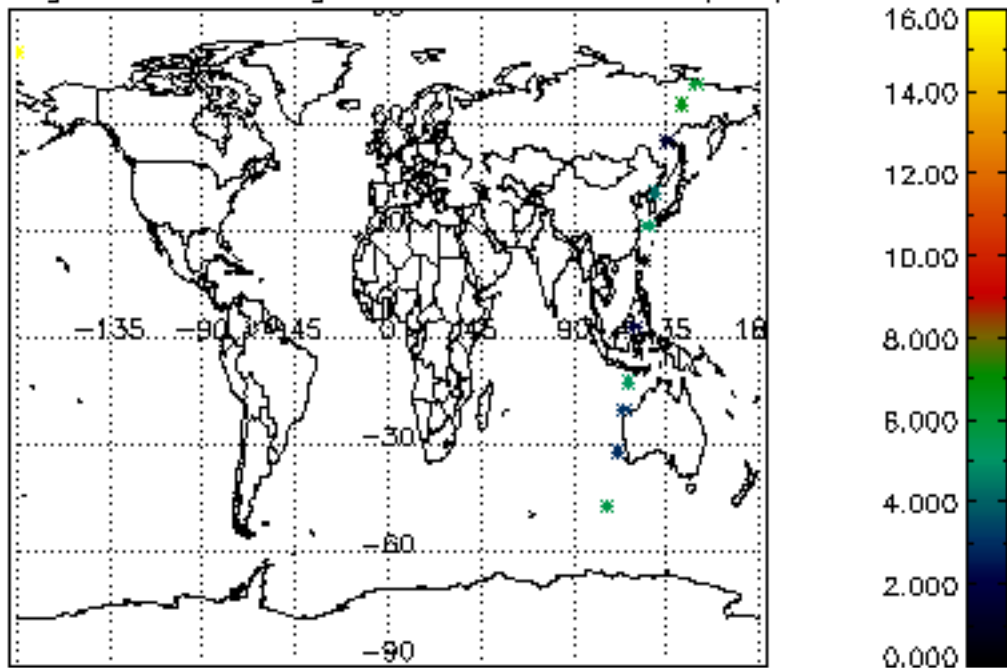
Percentage of cosmic ray hits per profile



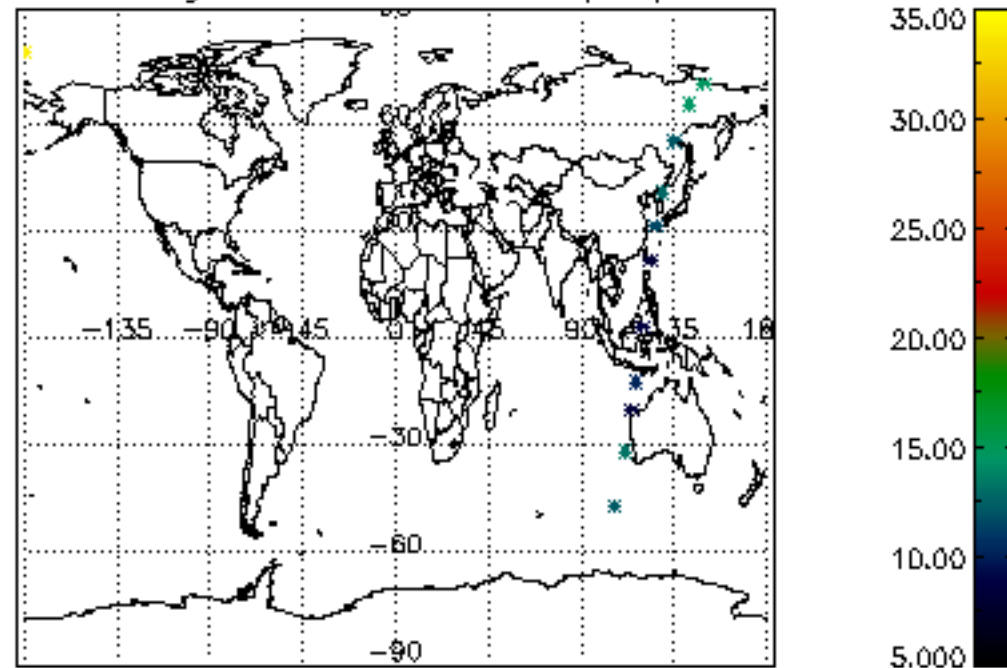
Percentage of datation errors per profile

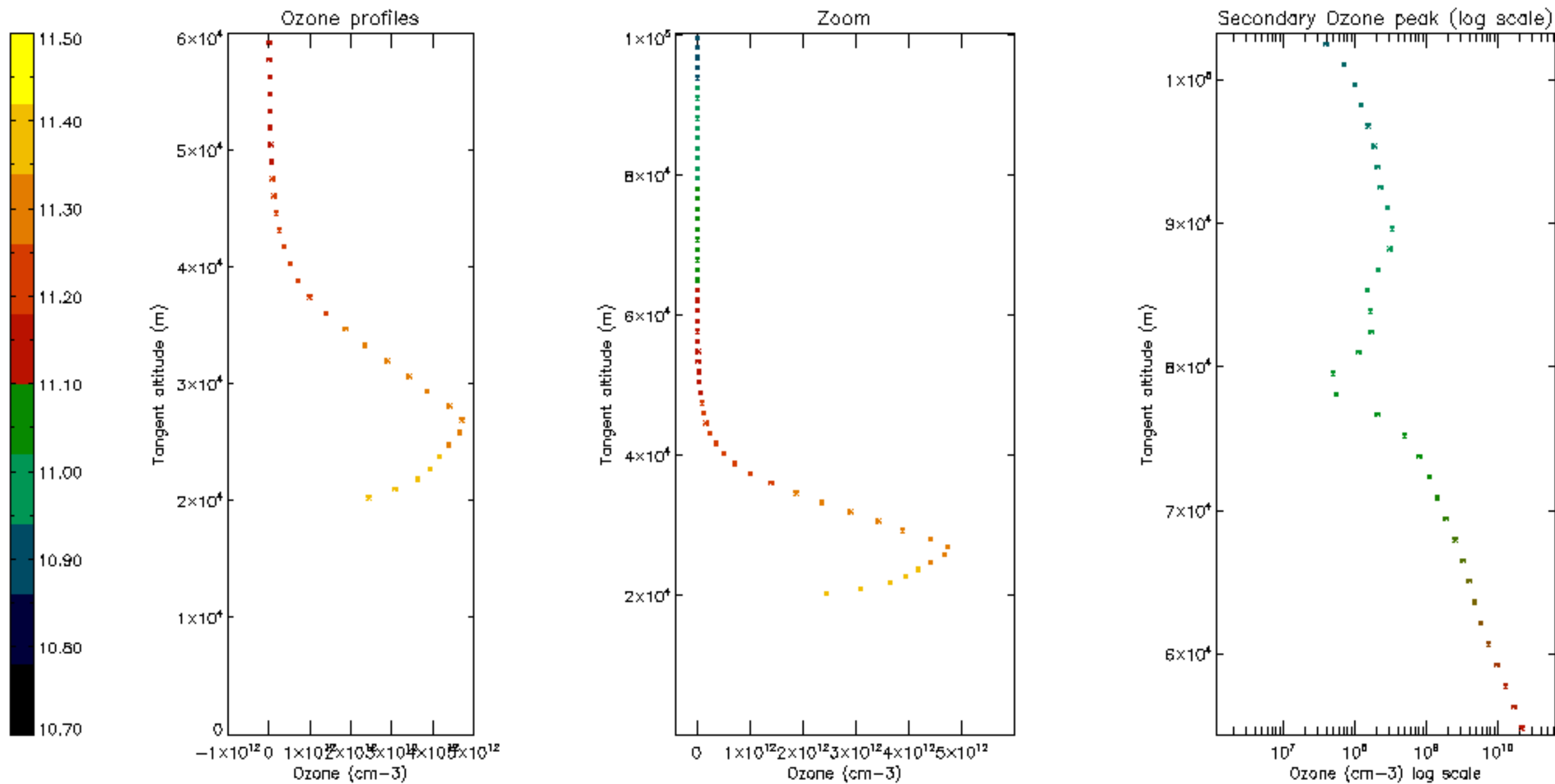


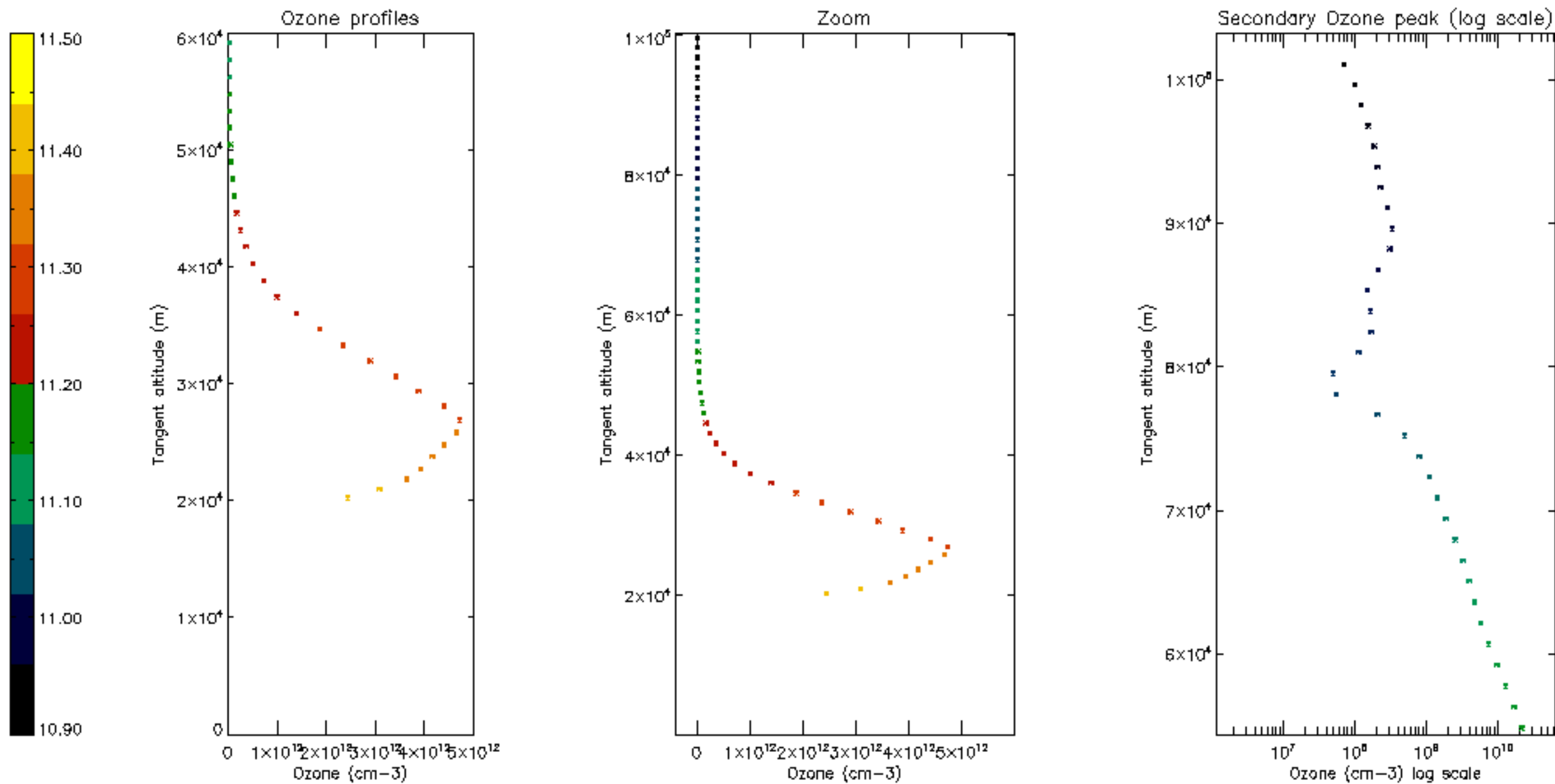
Percentage of star falling outside central band per profile

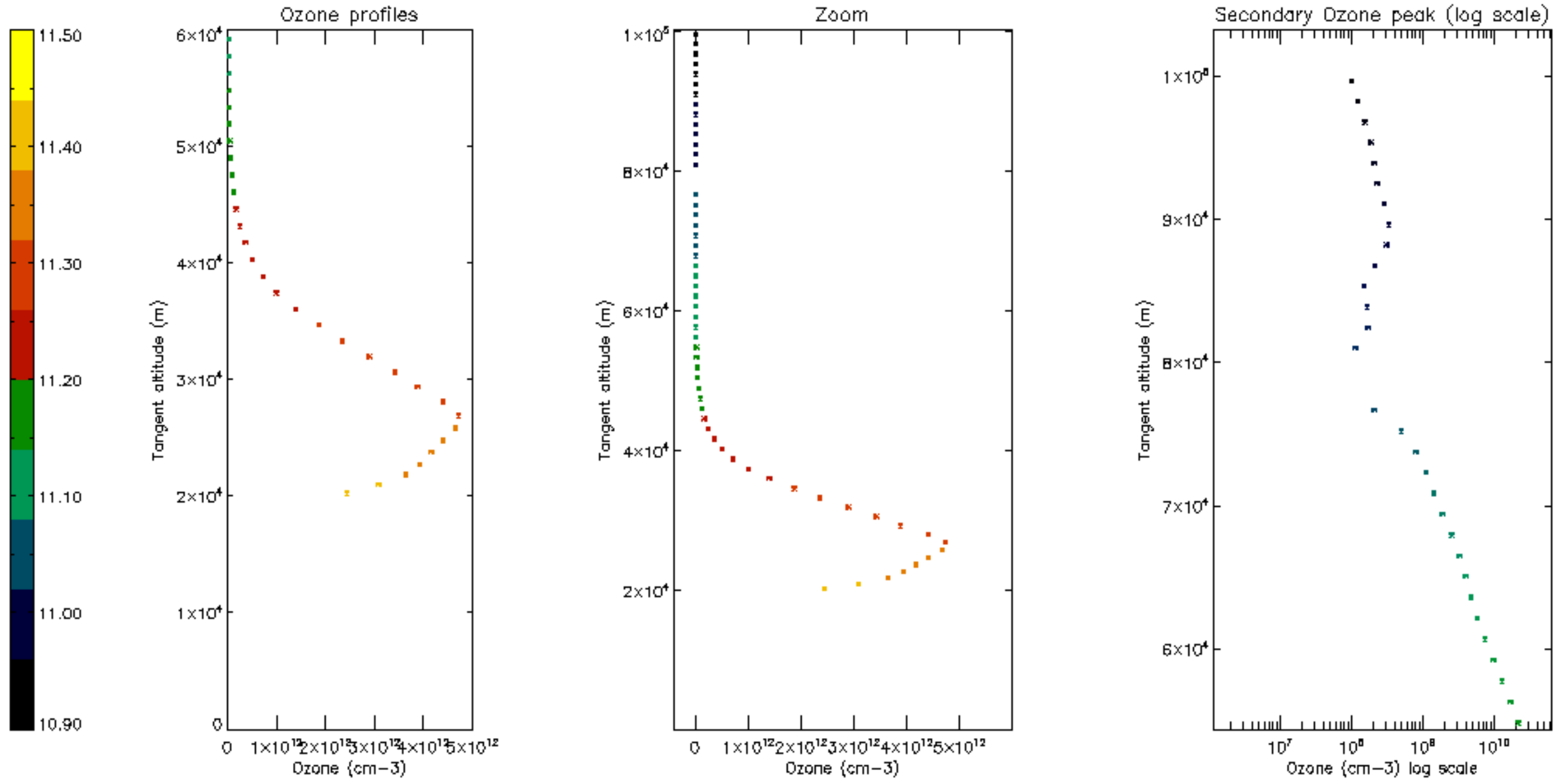


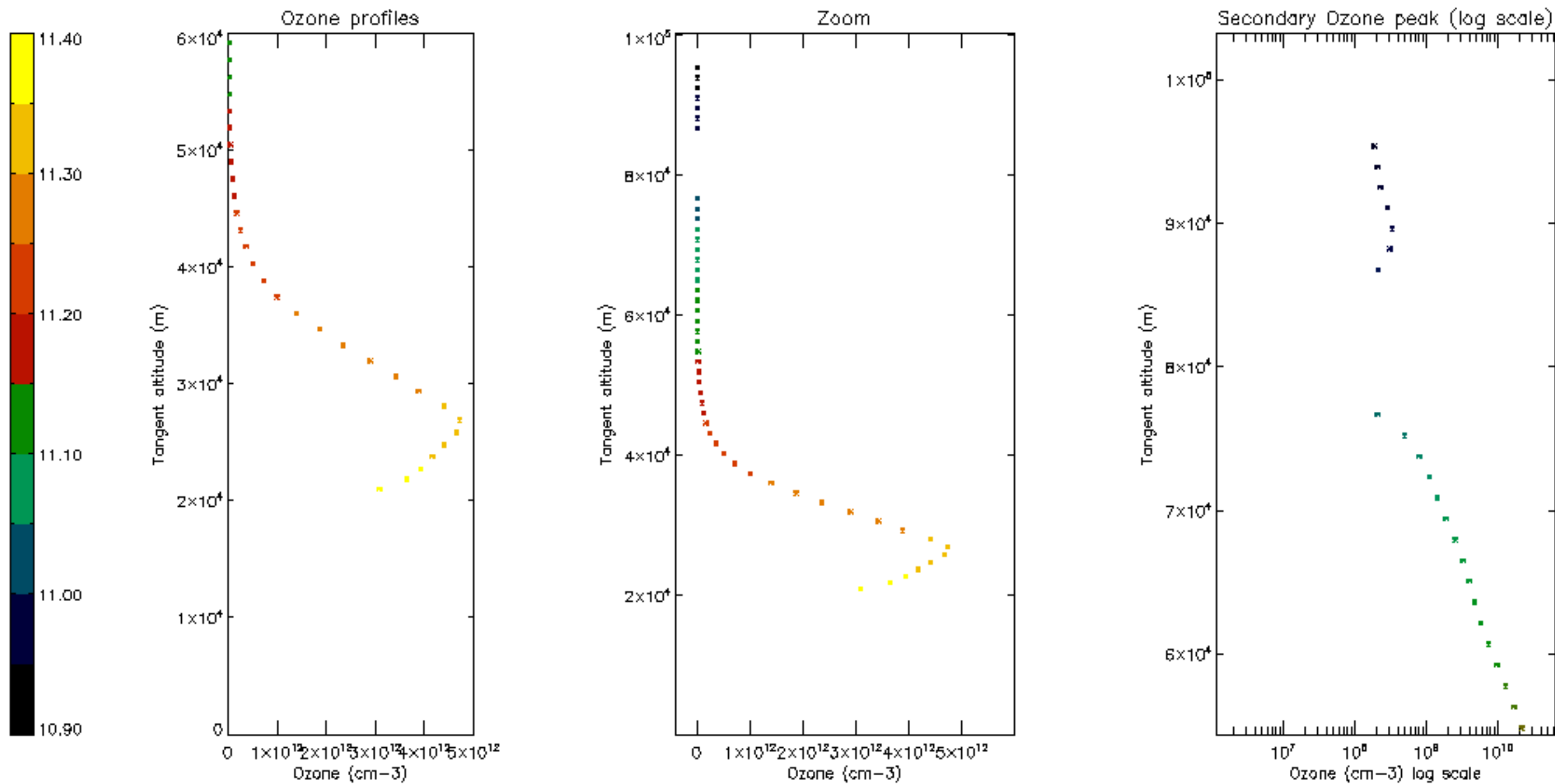
Percentage of saturation errors per profile

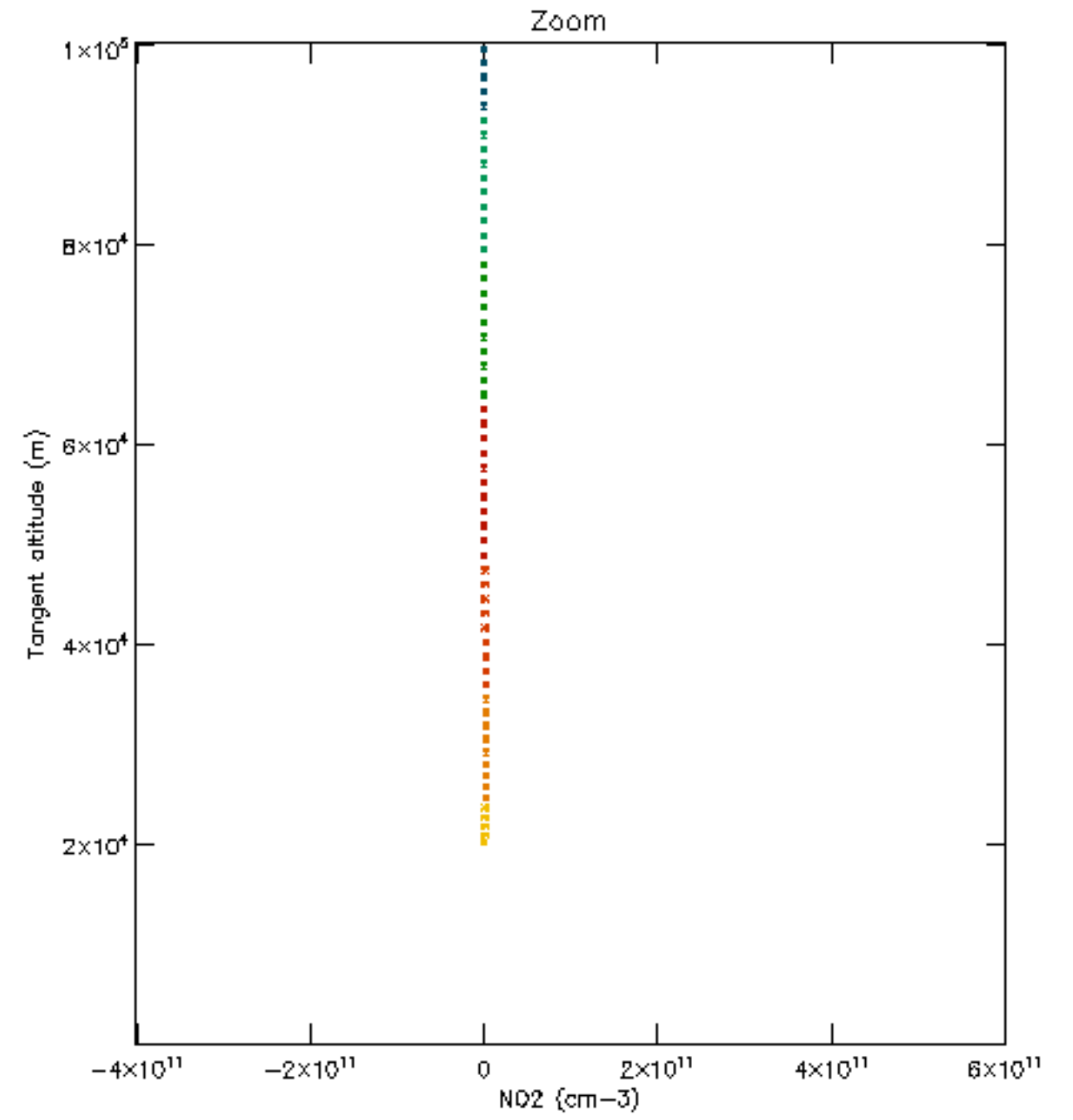
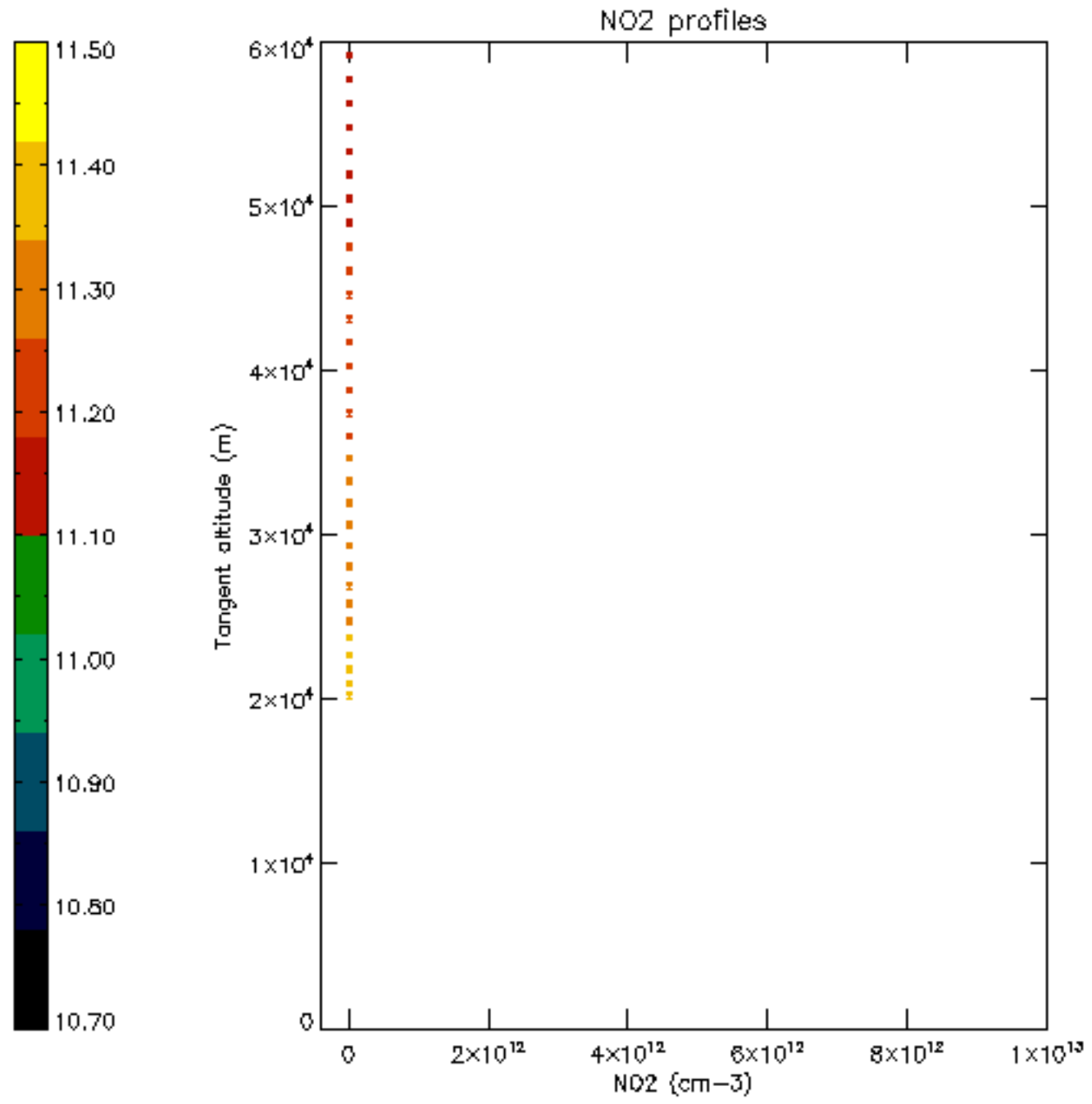


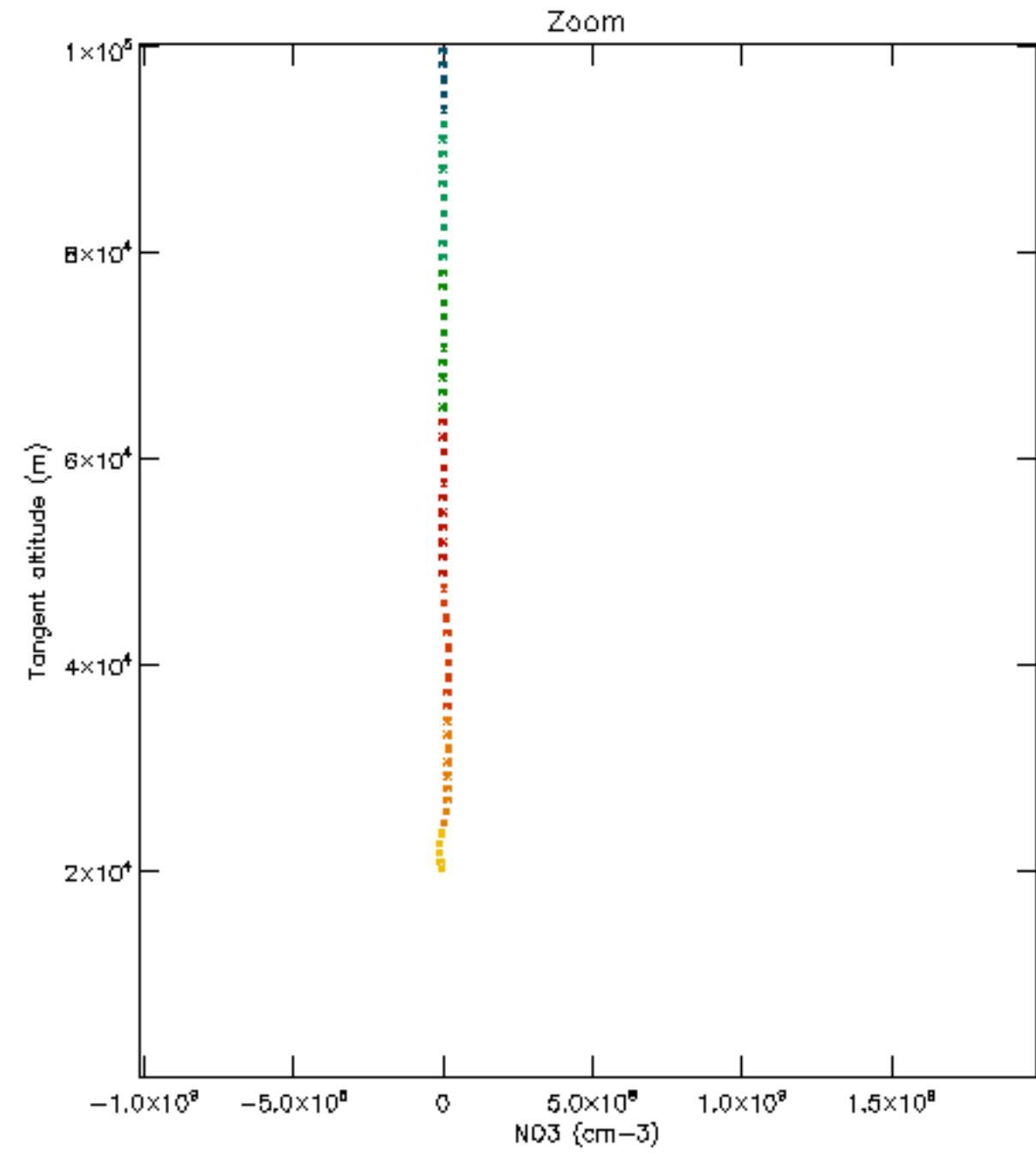
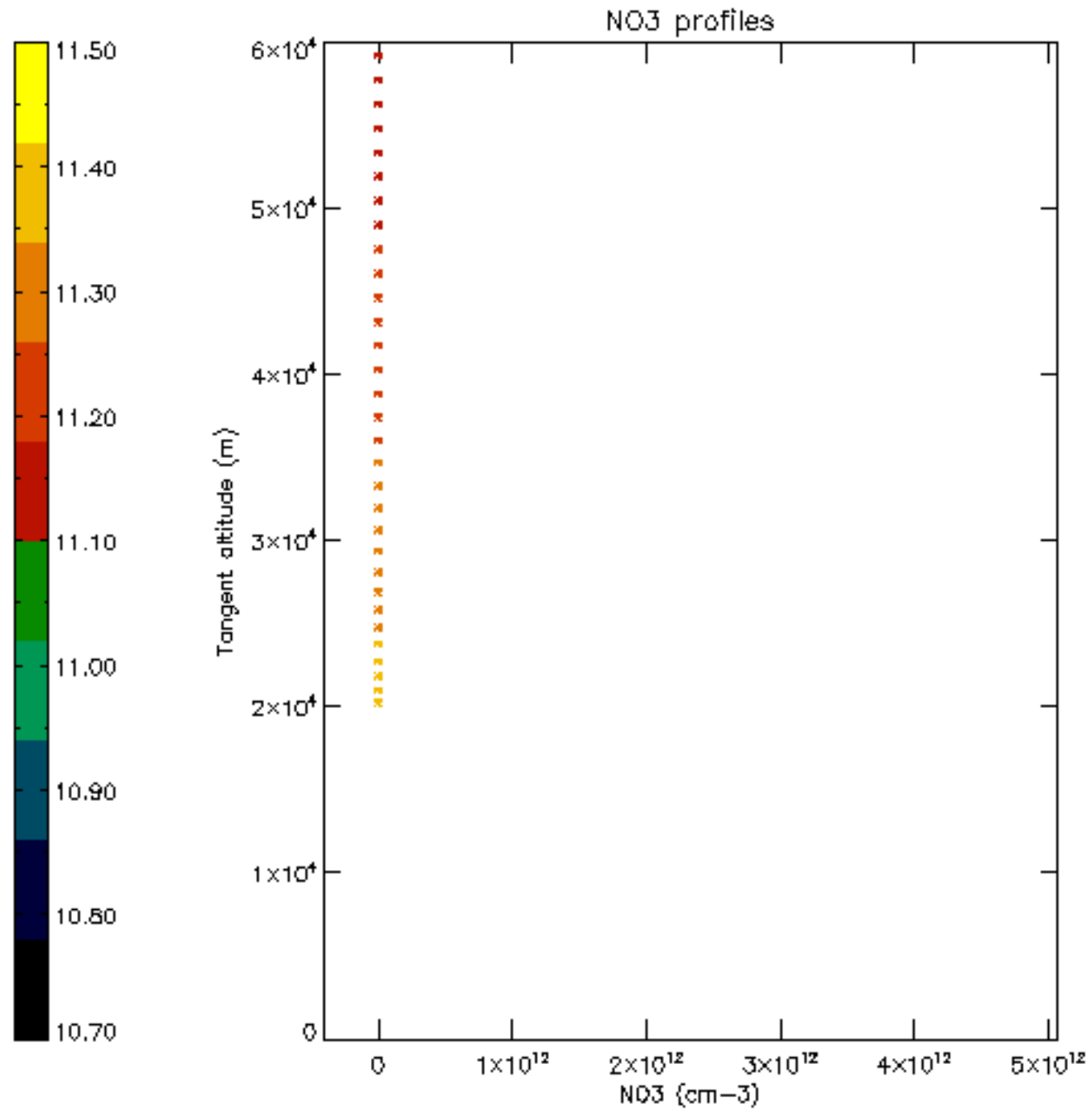


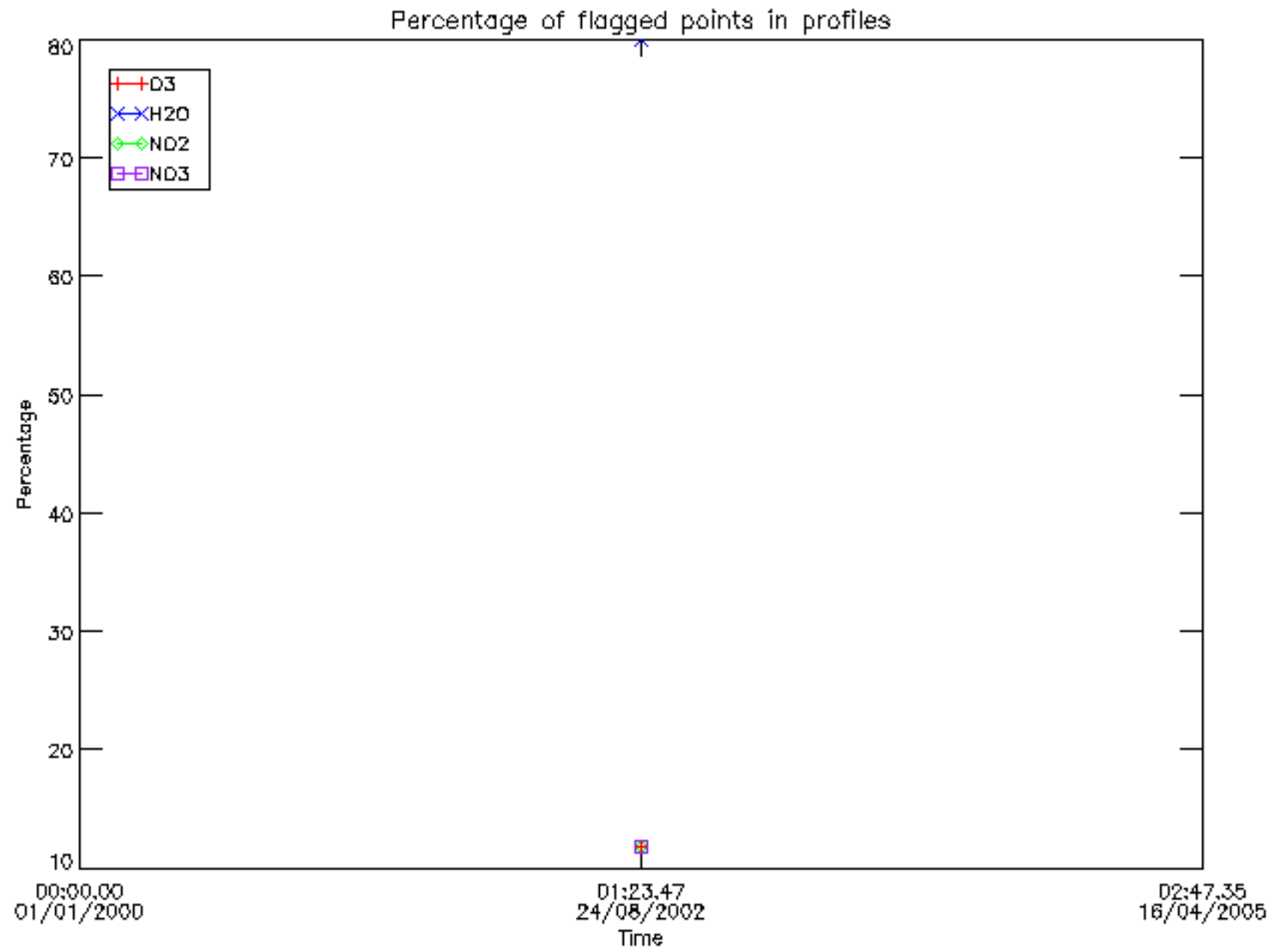




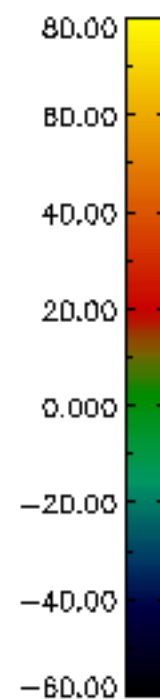
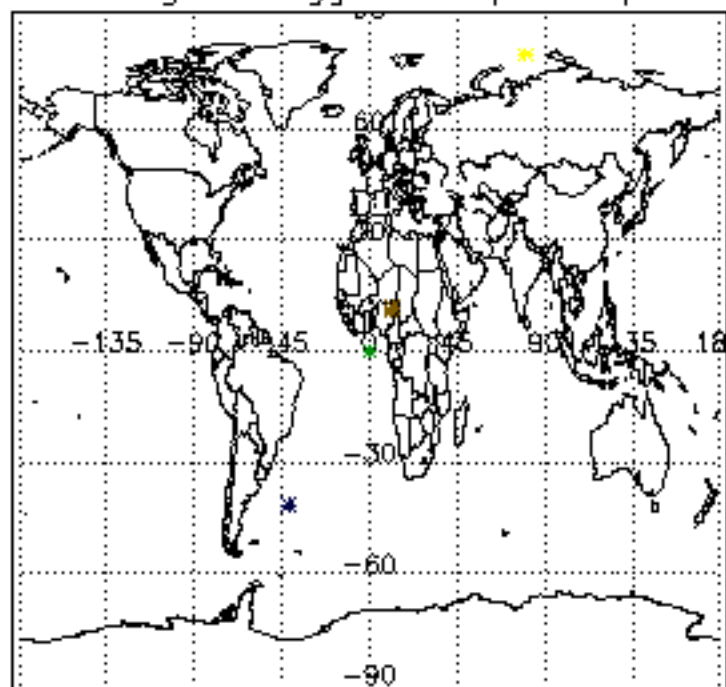




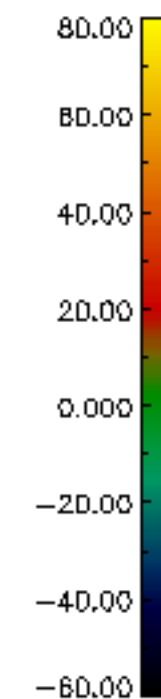
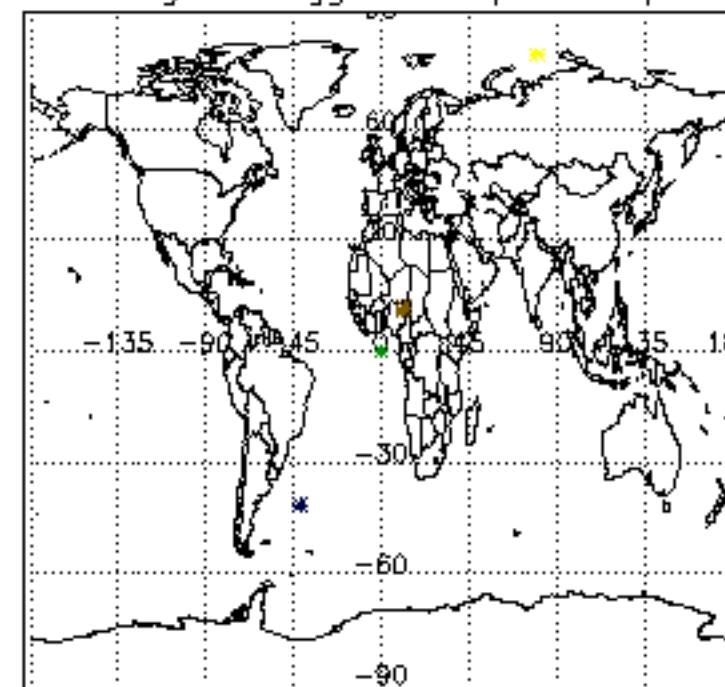




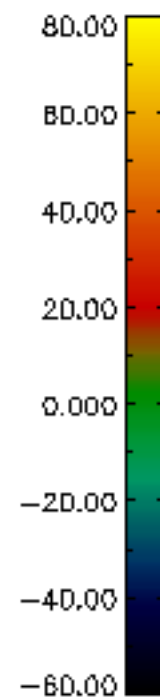
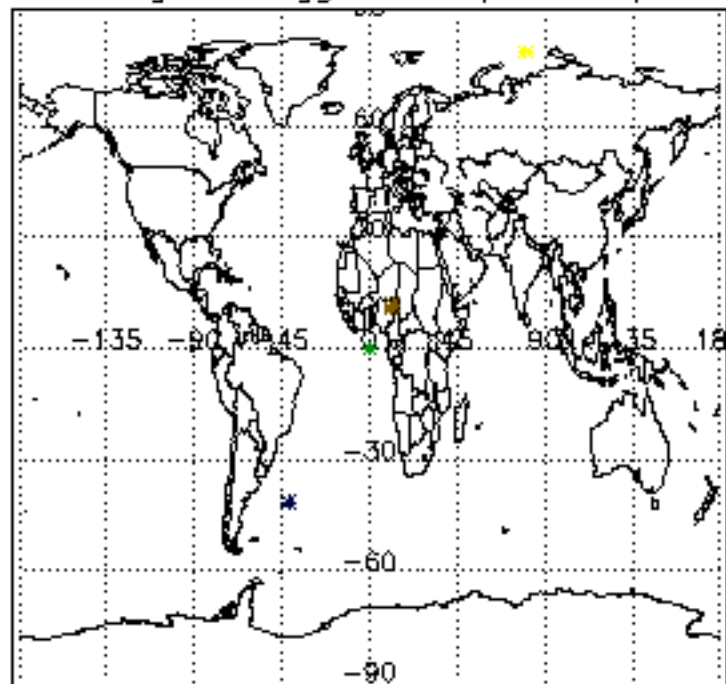
Percentage of flagged data per D3 profile



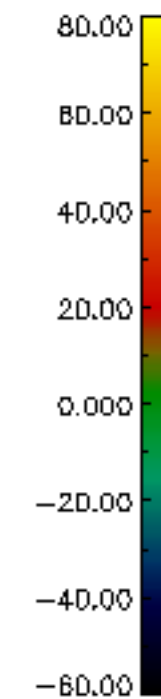
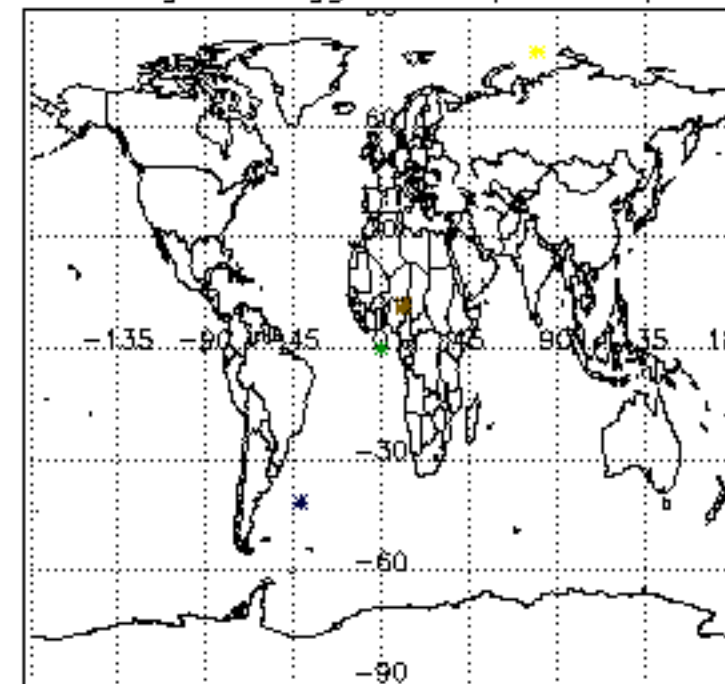
Percentage of flagged data per H2O profile

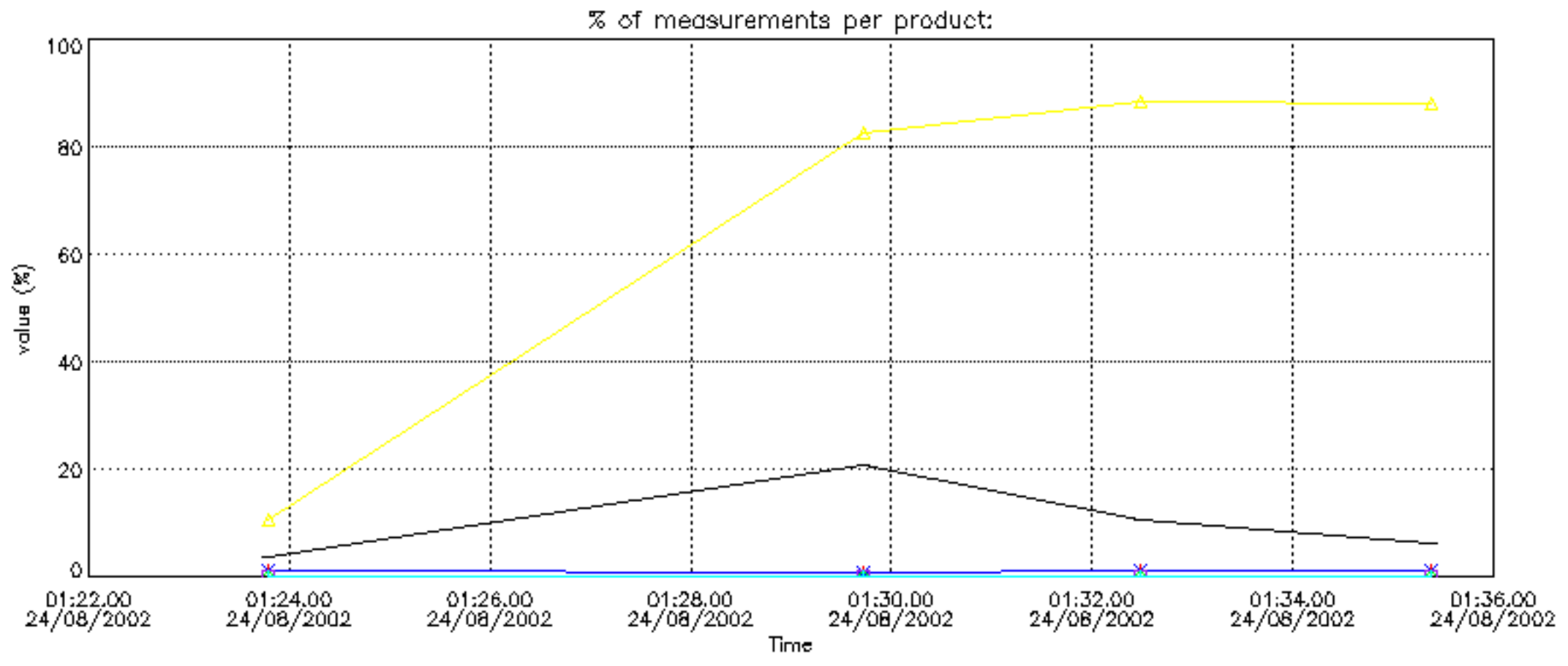


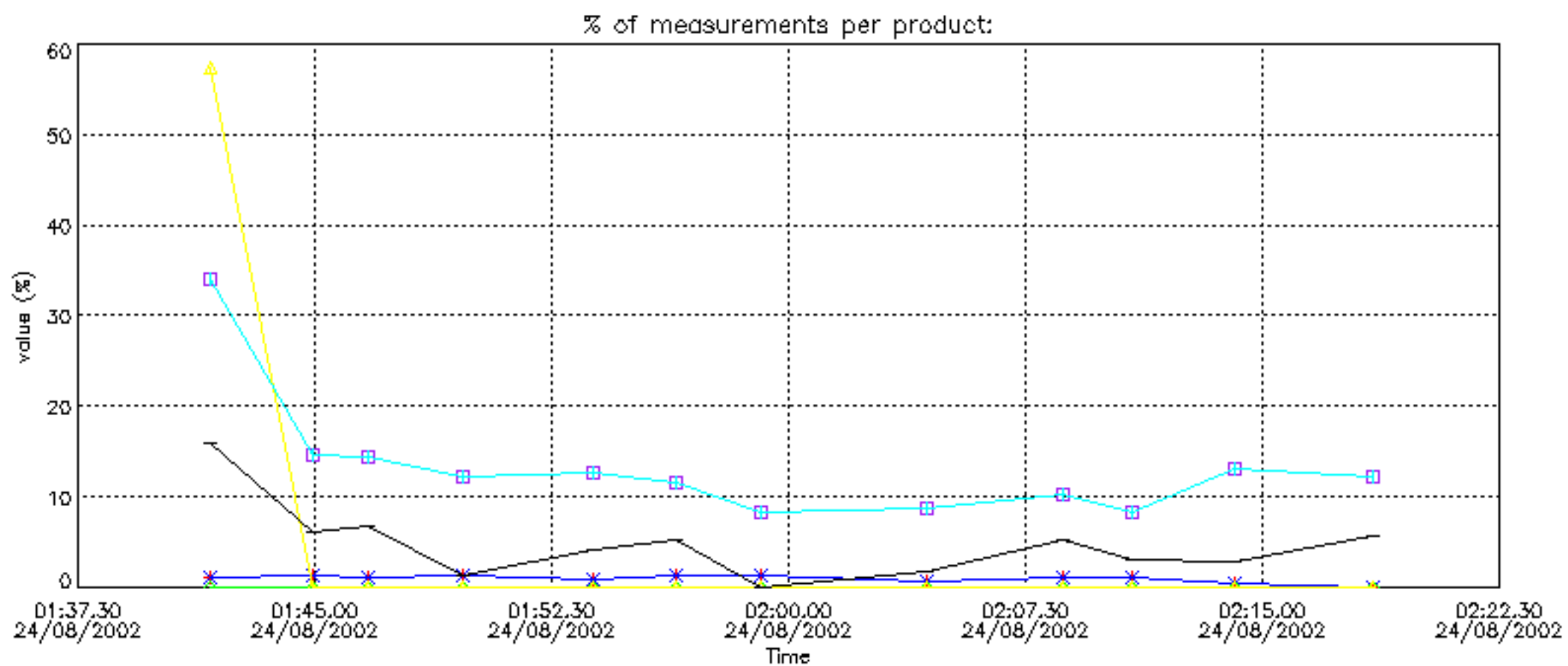
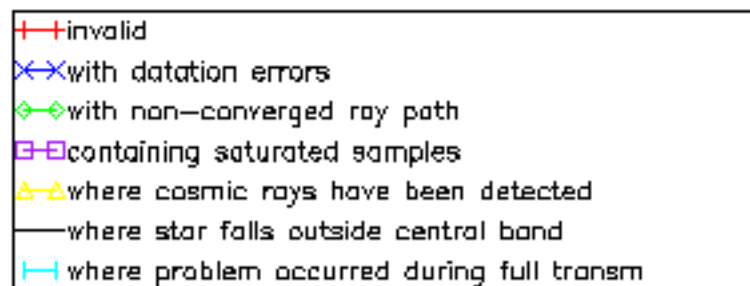
Percentage of flagged data per NO2 profile



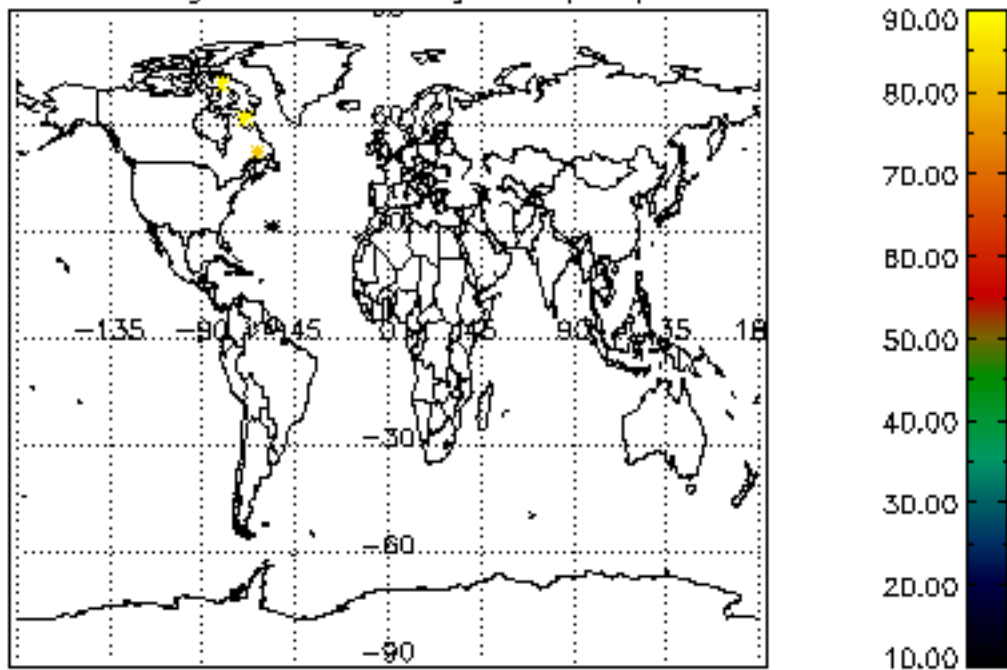
Percentage of flagged data per NO3 profile



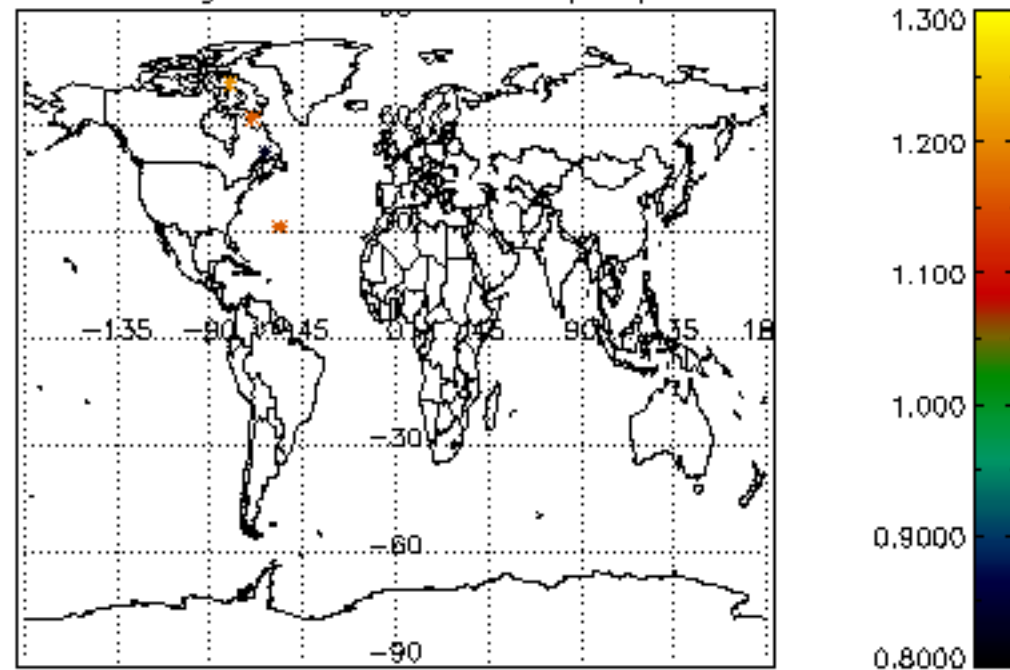




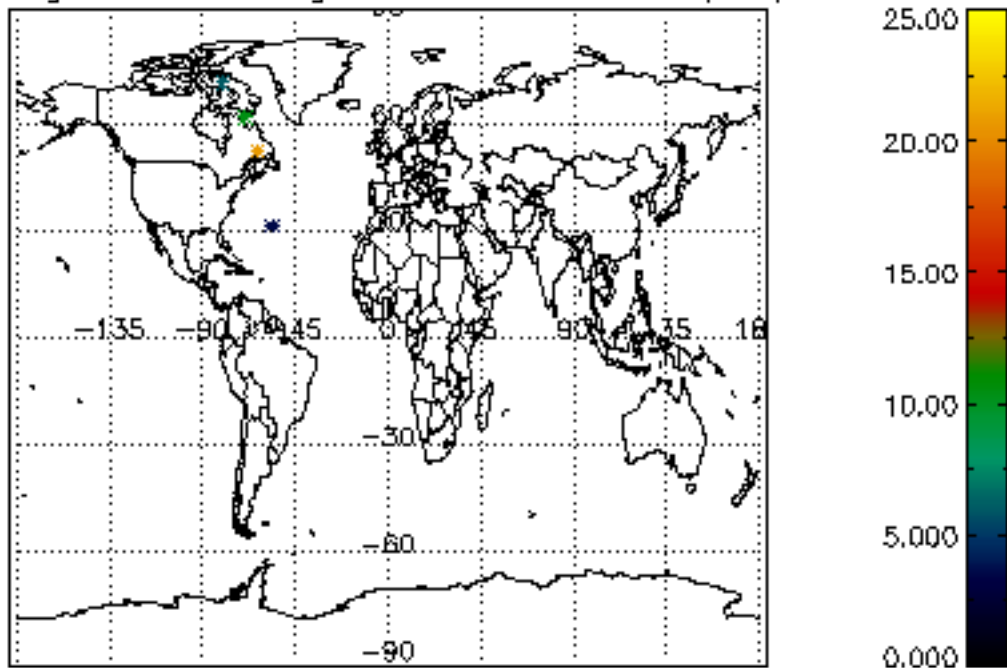
Percentage of cosmic ray hits per profile



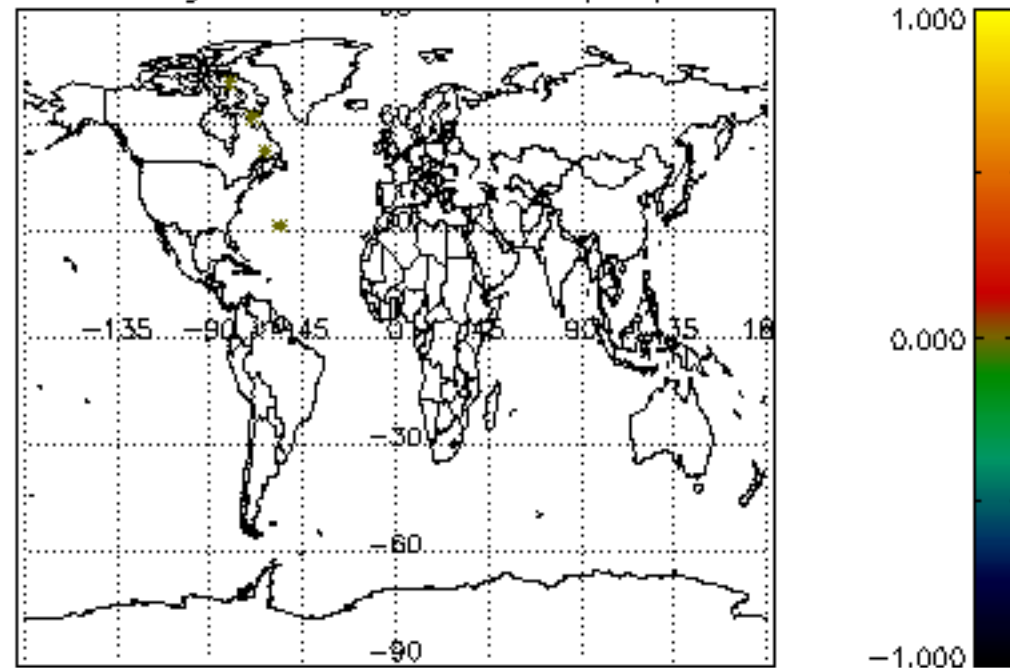
Percentage of datation errors per profile



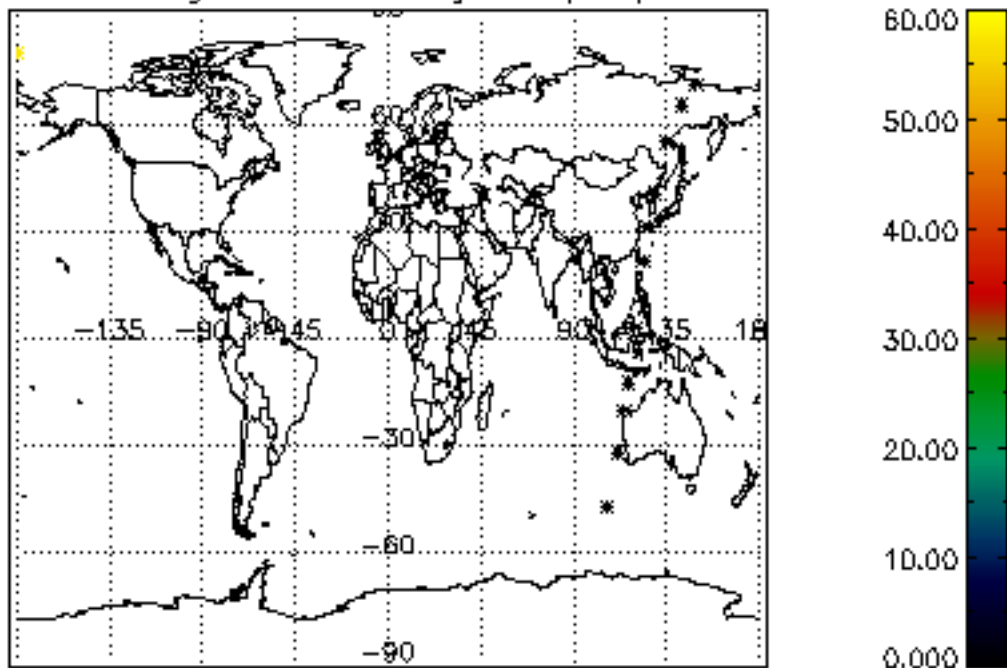
Percentage of star falling outside central band per profile



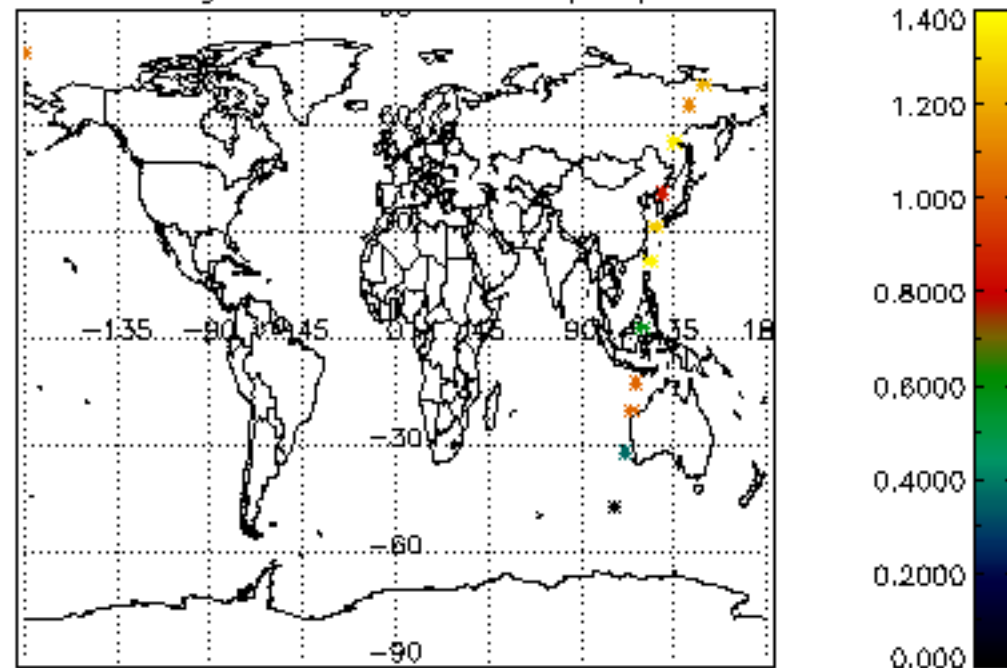
Percentage of saturation errors per profile



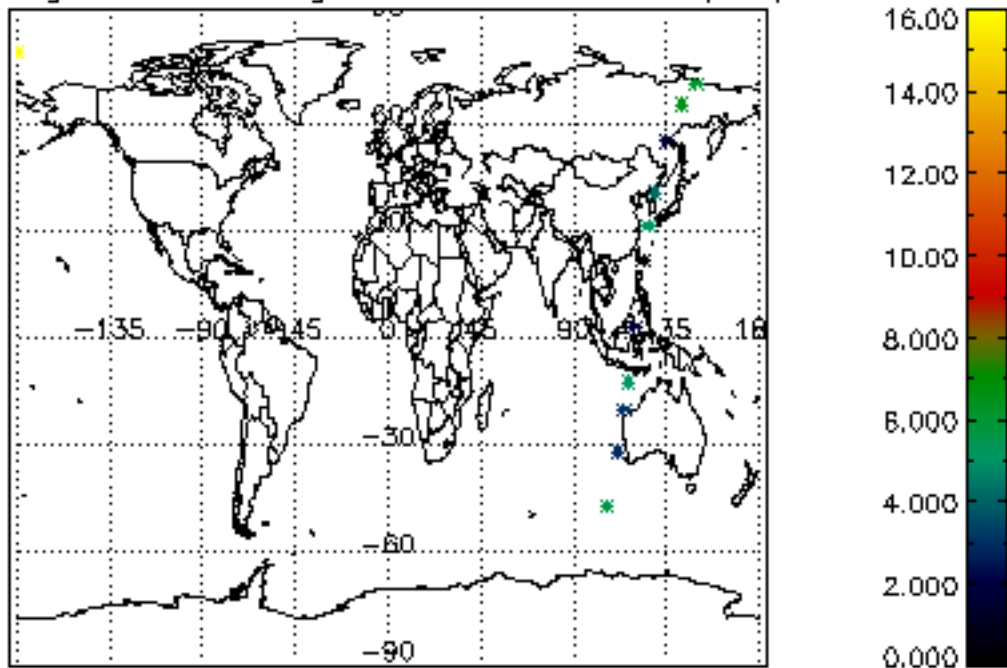
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

