

GOMOS Level 2 Daily Report

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

Item	Value
Time of report generation	24APR2013 18:12:36
Data source version	GOMOS/6.01
Start time of products	16-12-2011 (16DEC2011 00:00:00)
Stop time of products	17-12-2011 (17DEC2011 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	15
Nb of prods with errors	0

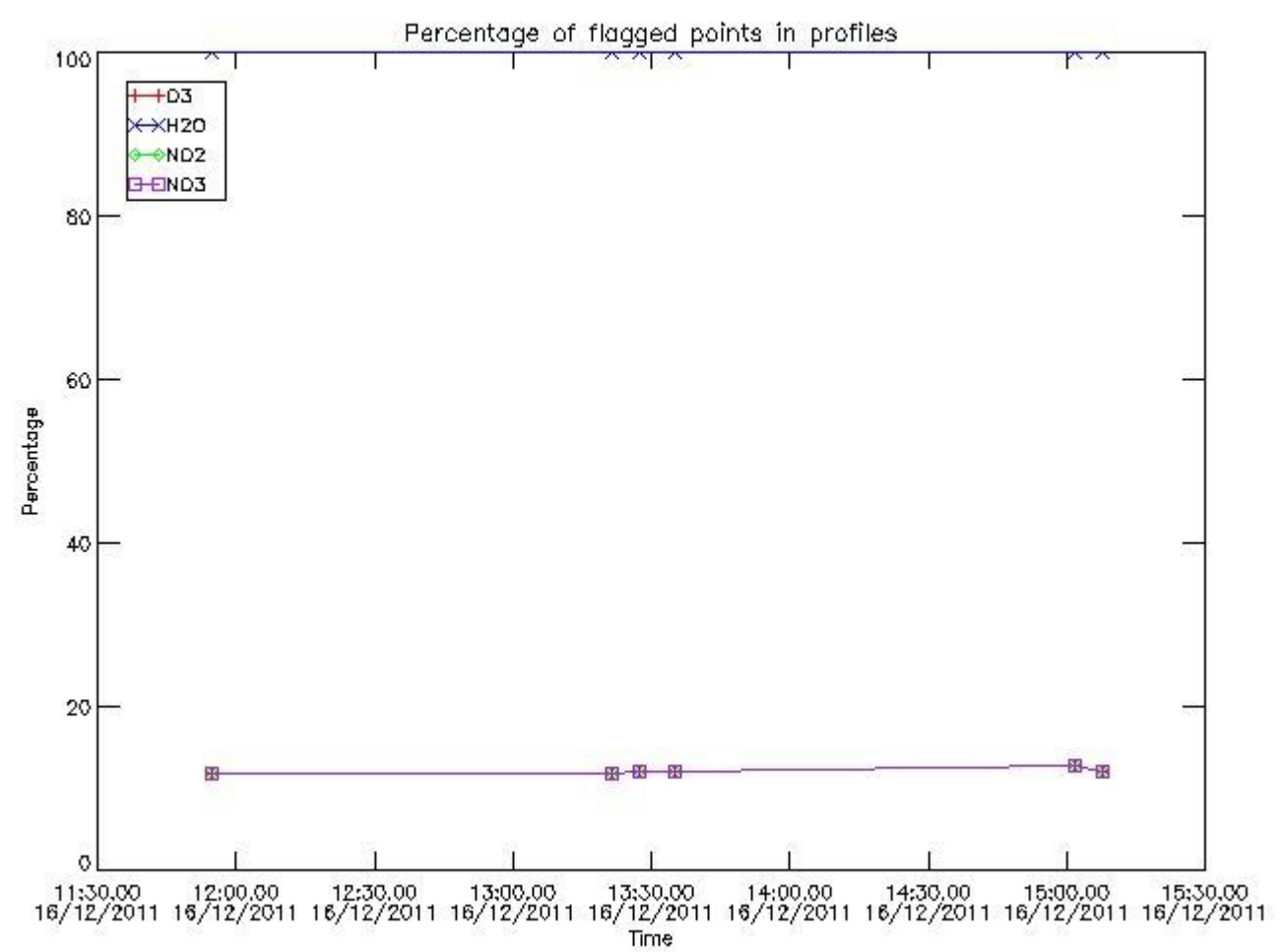
2. Summary of processed GOM_NL__2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20111216_115440_000000443109_00354_51230_0576.N1	16-DEC-2011 11:54:40	Dark	43.500	71	Iot Car	2.2460	7700.0	87	51230	No
2	GOM_NL__2PRFIN20111216_120719_000000413109_00354_51230_0577.N1	16-DEC-2011 12:07:19	Straylight	41.000	108	Alp Col	2.6520	15200.	82	51230	No
3	GOM_NL__2PRFIN20111216_121516_000000463109_00354_51230_0578.N1	16-DEC-2011 12:15:16	Straylight	46.000	7	19Bet Ori	0.10000	14000.	92	51230	No
4	GOM_NL__2PRFIN20111216_122232_000000543109_00354_51230_0579.N1	16-DEC-2011 12:22:32	Twilight_stray	54.000	13	87Alp Tau	0.86700	3800.0	108	51230	No
5	GOM_NL__2PRFIN20111216_124741_000000343109_00354_51230_0580.N1	16-DEC-2011 12:47:41	Bright	33.500	60	7Bet UMi	2.0810	3950.0	67	51230	No
6	GOM_NL__2PRFIN20111216_125815_000000363109_00354_51230_0581.N1	16-DEC-2011 12:58:15	Bright	36.000	180	27Gam Boo	3.0400	8000.0	72	51230	No
7	GOM_NL__2PRFIN20111216_132135_000000433109_00354_51230_0582.N1	16-DEC-2011 13:21:35	Dark	43.000	123	Iot Cen	2.7500	10200.	86	51230	No
8	GOM_NL__2PRFIN20111216_132720_000000423109_00355_51231_0604.N1	16-DEC-2011 13:27:20	Dark	42.000	99	Del Cen	2.5750	26000.	84	51231	No
9	GOM_NL__2PRFIN20111216_133455_000000423109_00355_51231_0605.N1	16-DEC-2011 13:34:55	Dark	42.000	71	Iot Car	2.2460	7700.0	84	51231	No
10	GOM_NL__2PRFIN20111216_134733_000000433109_00355_51231_0606.N1	16-DEC-2011 13:47:33	Straylight	43.000	108	Alp Col	2.6520	15200.	86	51231	No
11	GOM_NL__2PRFIN20111216_135530_000000473109_00355_51231_0607.N1	16-DEC-2011 13:55:30	Straylight	47.000	7	19Bet Ori	0.10000	14000.	94	51231	No
12	GOM_NL__2PRFIN20111216_140246_000000483109_00355_51231_0608.N1	16-DEC-2011 14:02:46	Twilight_stray	47.500	13	87Alp Tau	0.86700	3800.0	95	51231	No
13	GOM_NL__2PRFIN20111216_143829_000000563109_00355_51231_0609.N1	16-DEC-2011 14:38:29	Bright	56.000	180	27Gam Boo	3.0400	8000.0	112	51231	No
14	GOM_NL__2PRFIN20111216_150150_000000403109_00355_51231_0610.N1	16-DEC-2011 15:01:50	Dark	40.000	123	Iot Cen	2.7500	10200.	80	51231	No
15	GOM_NL__2PRFIN20111216_150735_000000423109_00356_51232_0667.N1	16-DEC-2011 15:07:35	Dark	42.000	99	Del Cen	2.5750	26000.	84	51232	No

3. Quality information per product

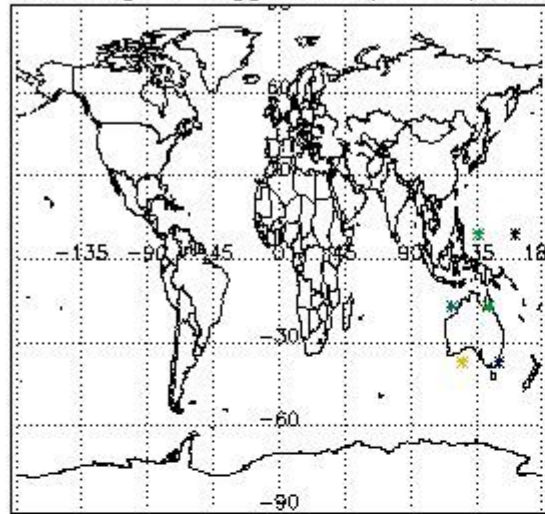
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

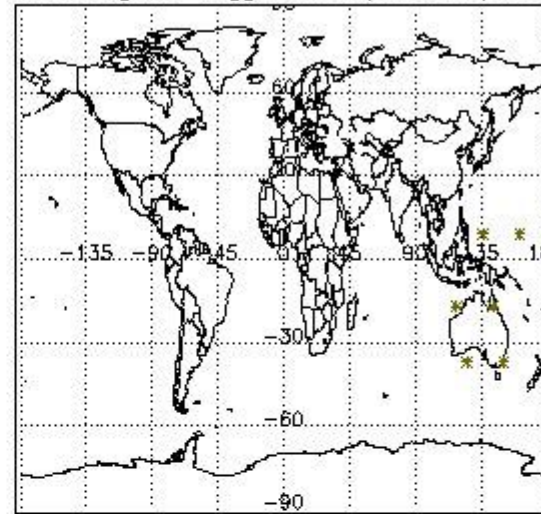


3.2 Plot quality information per product (world map)

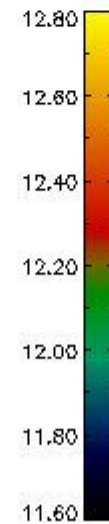
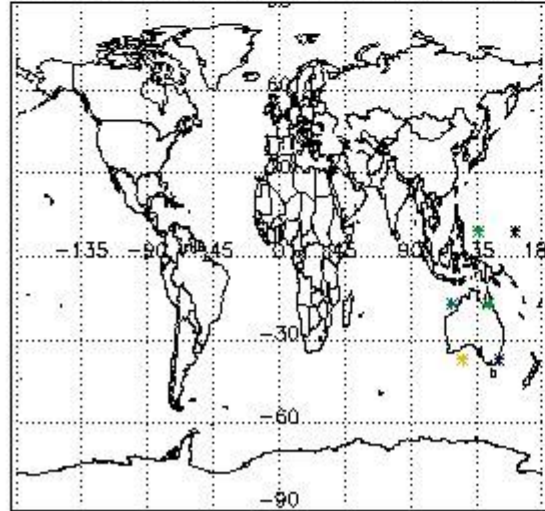
Percentage of flagged data per O3 profile



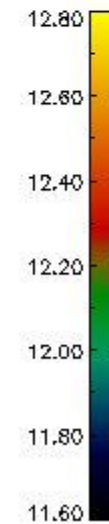
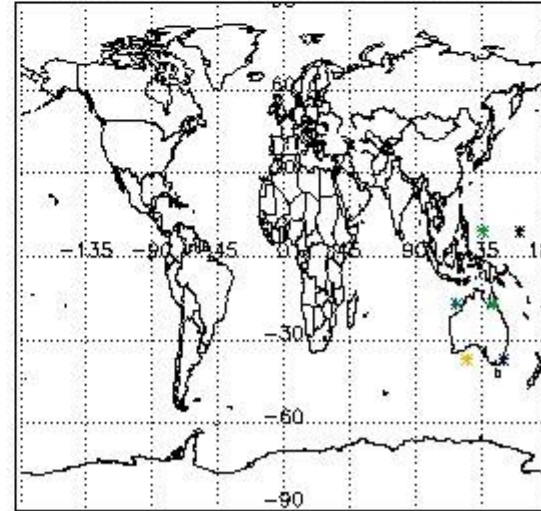
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

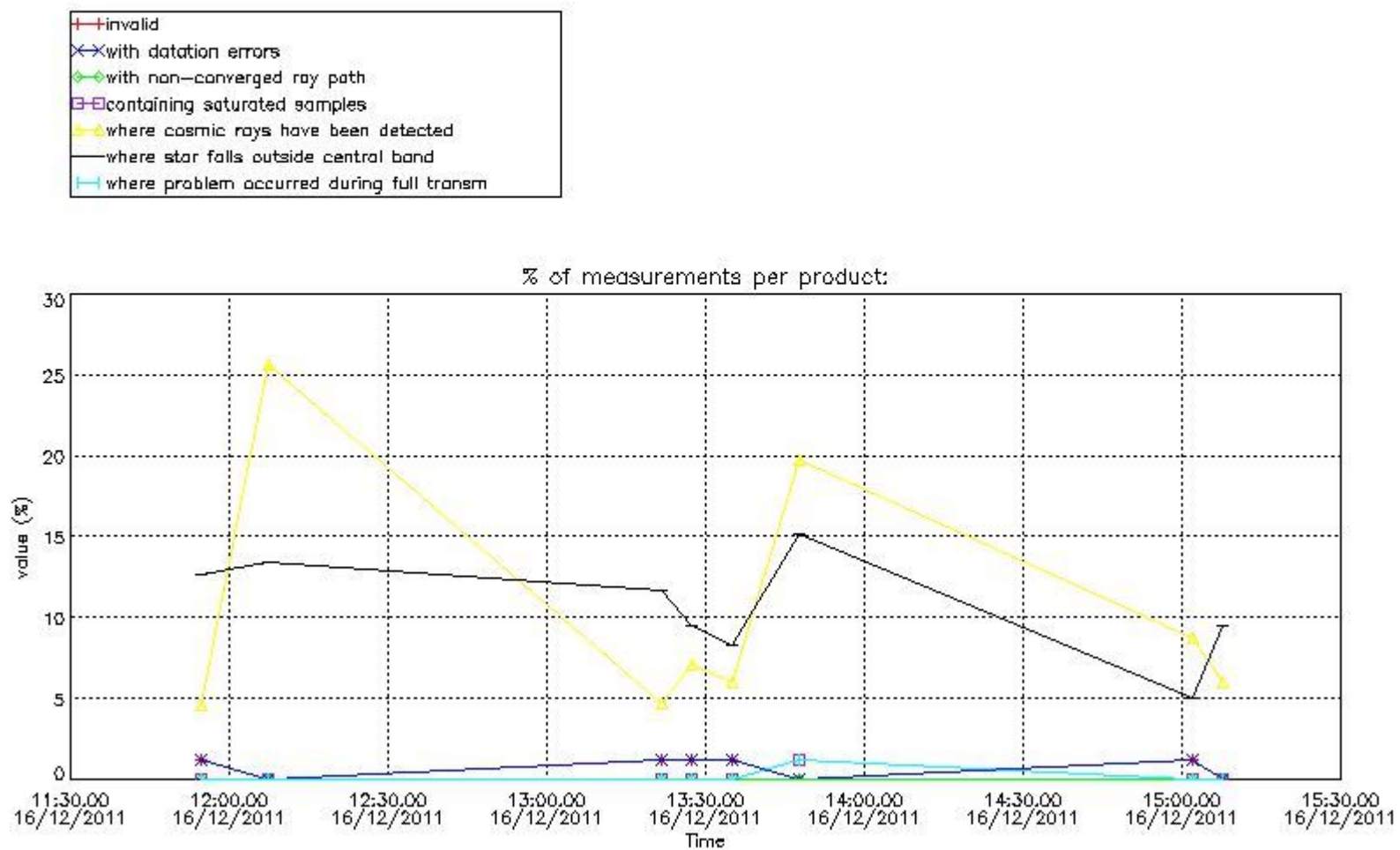


4. Level 1 quality information per product

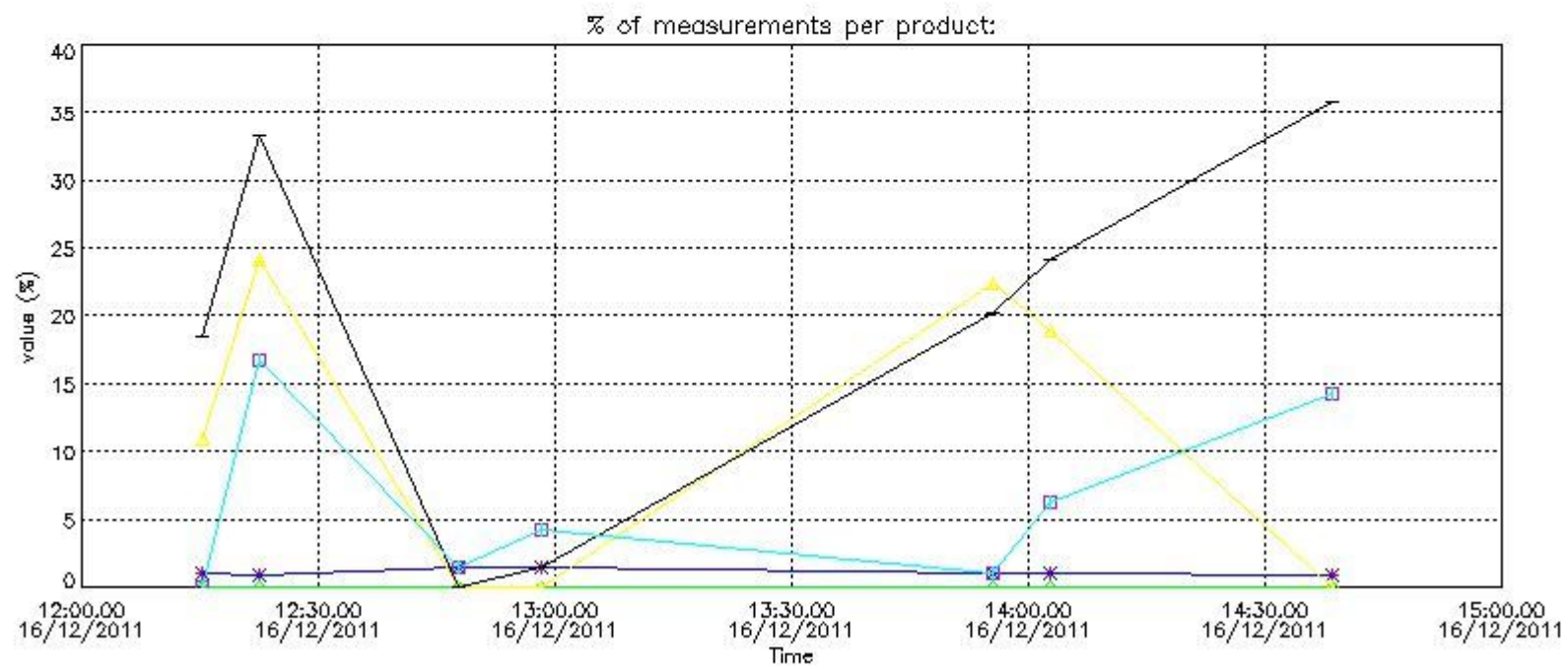
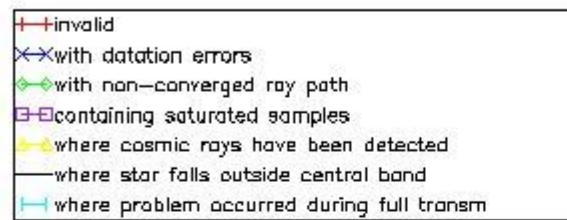
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



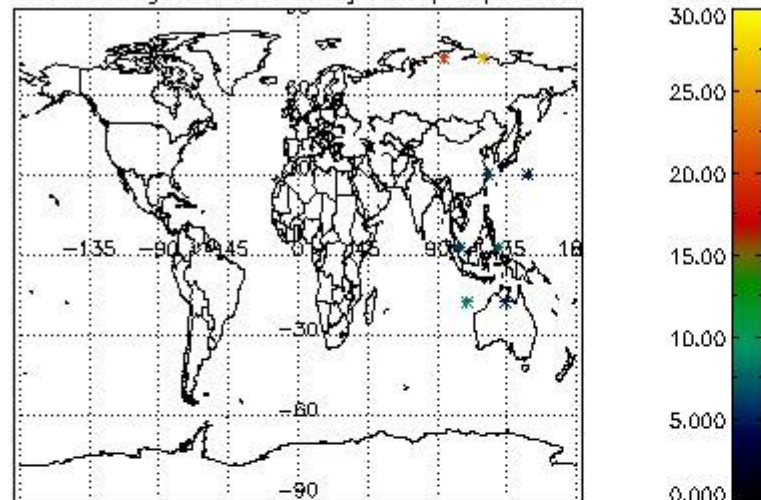
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



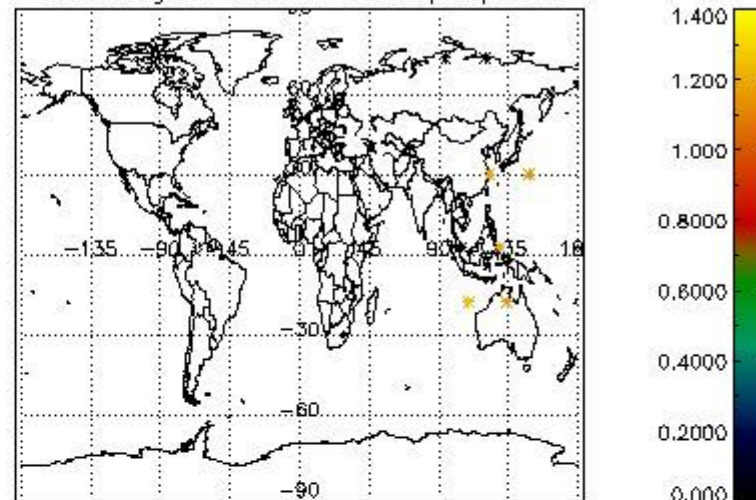
4.2 Plot quality information per product coming from level 1b processing (world map)

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

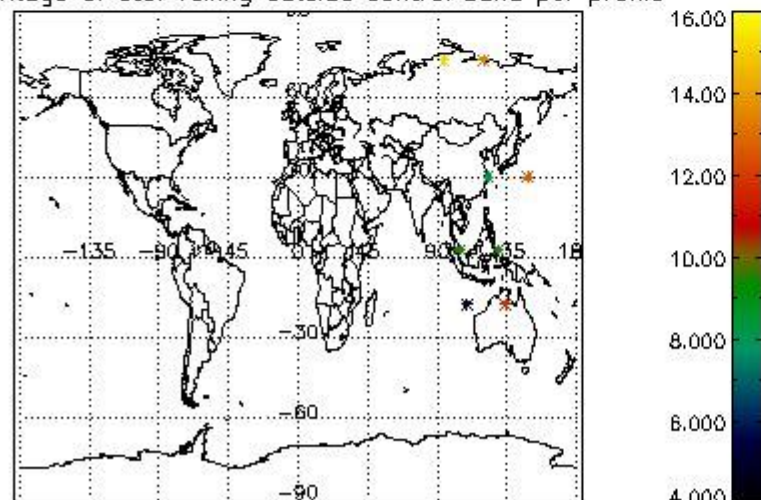
Percentage of cosmic ray hits per profile



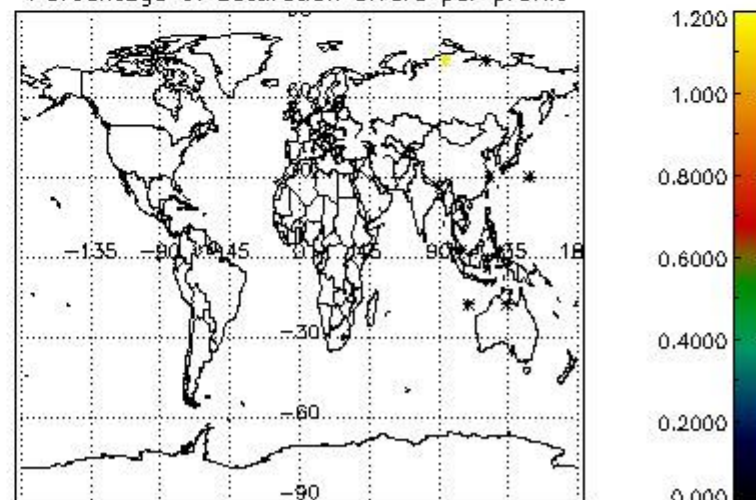
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

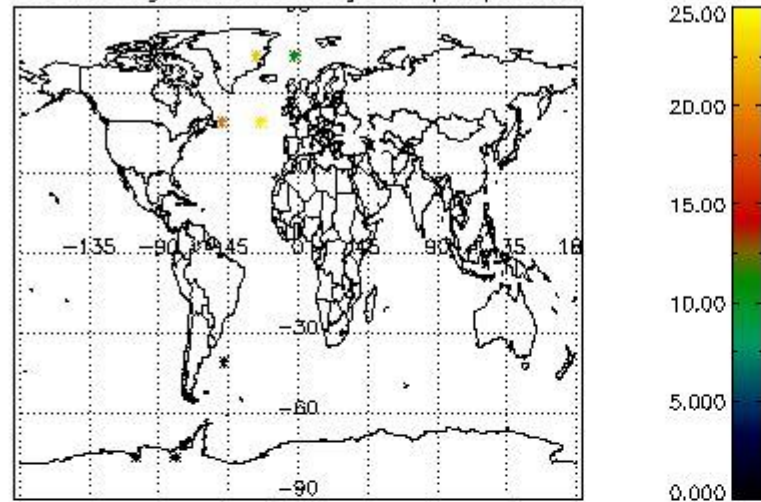


Percentage of saturation errors per profile

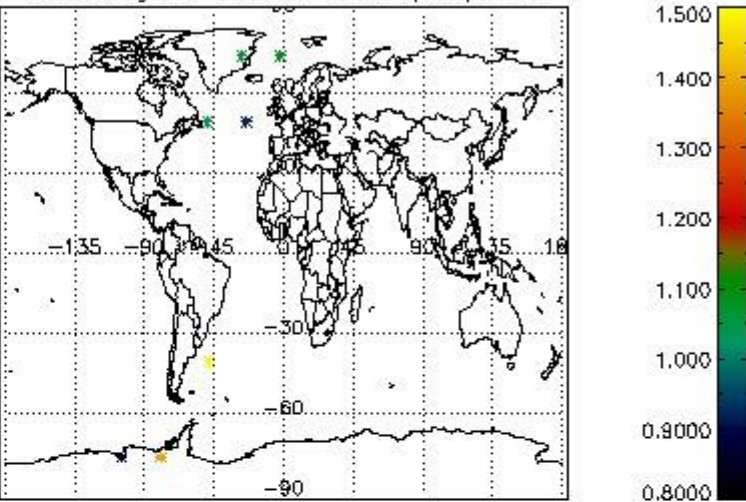


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

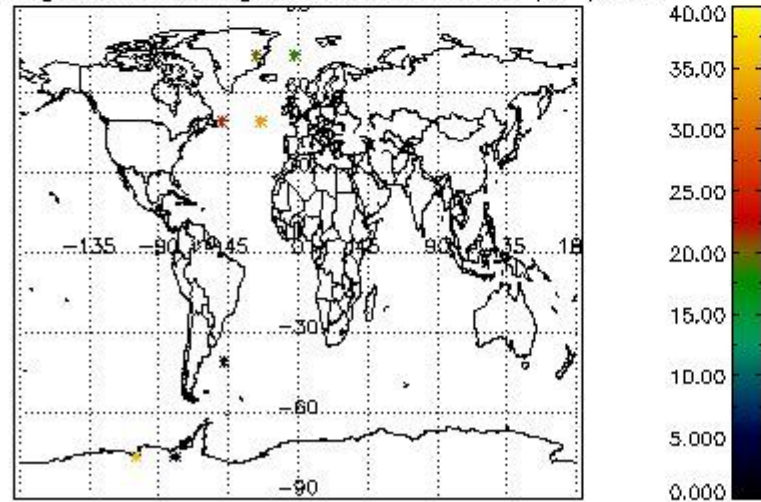
Percentage of cosmic ray hits per profile



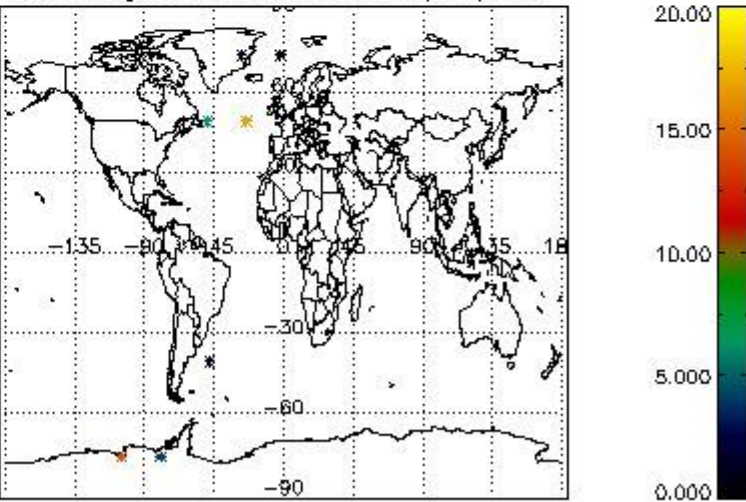
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

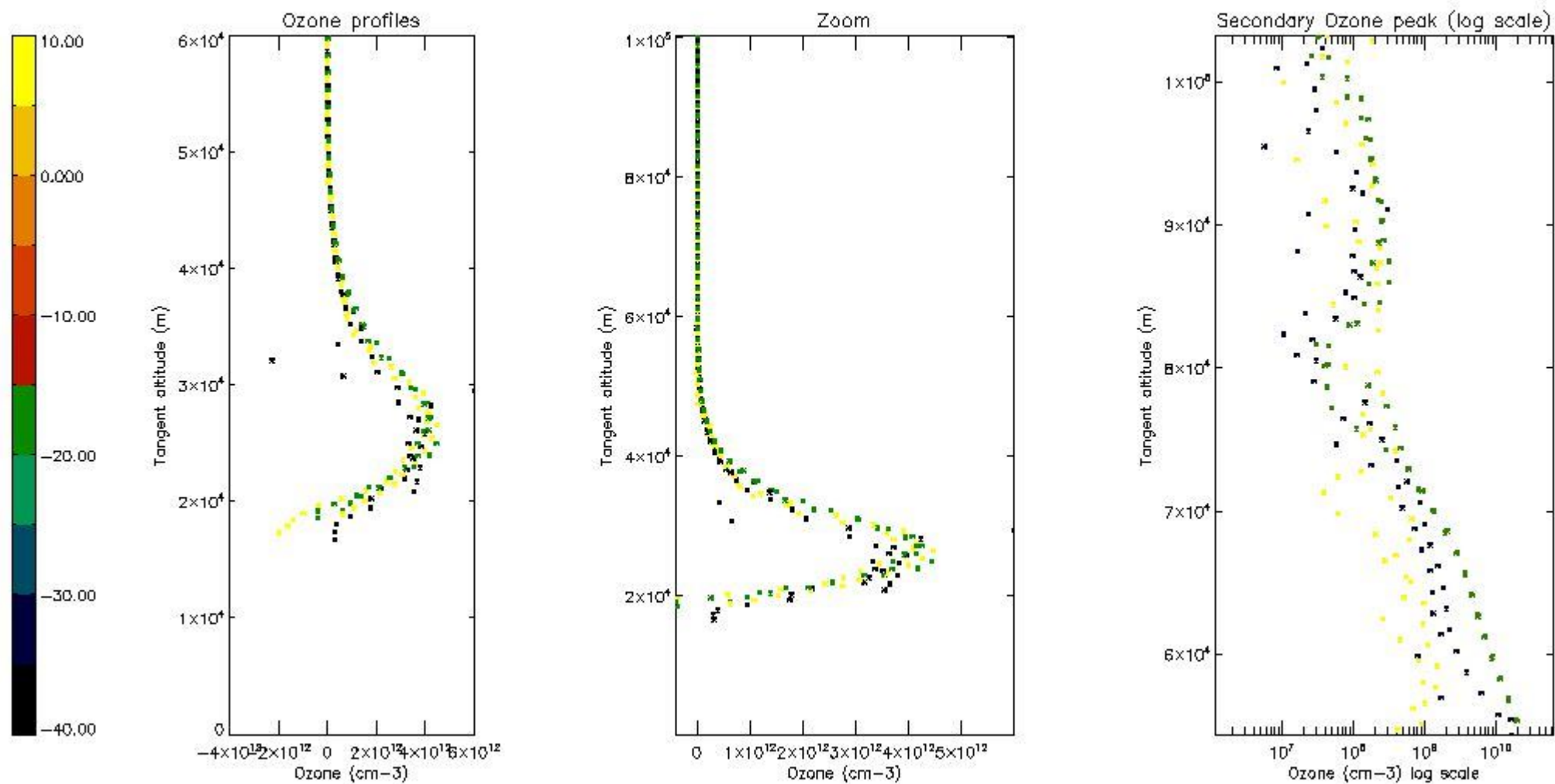
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	39
STD < 20	18

STD < 10	14
STD < 5	5

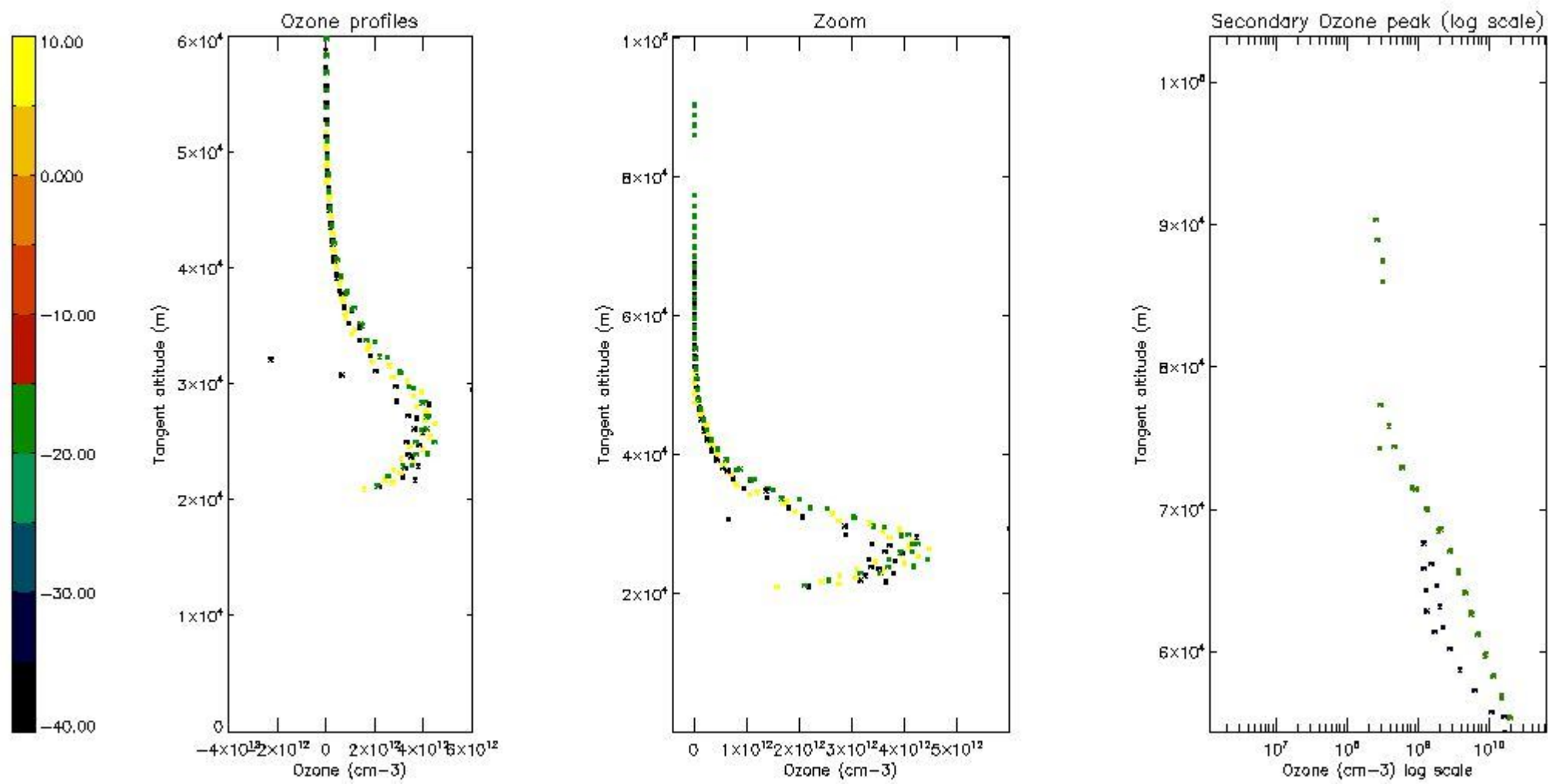
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



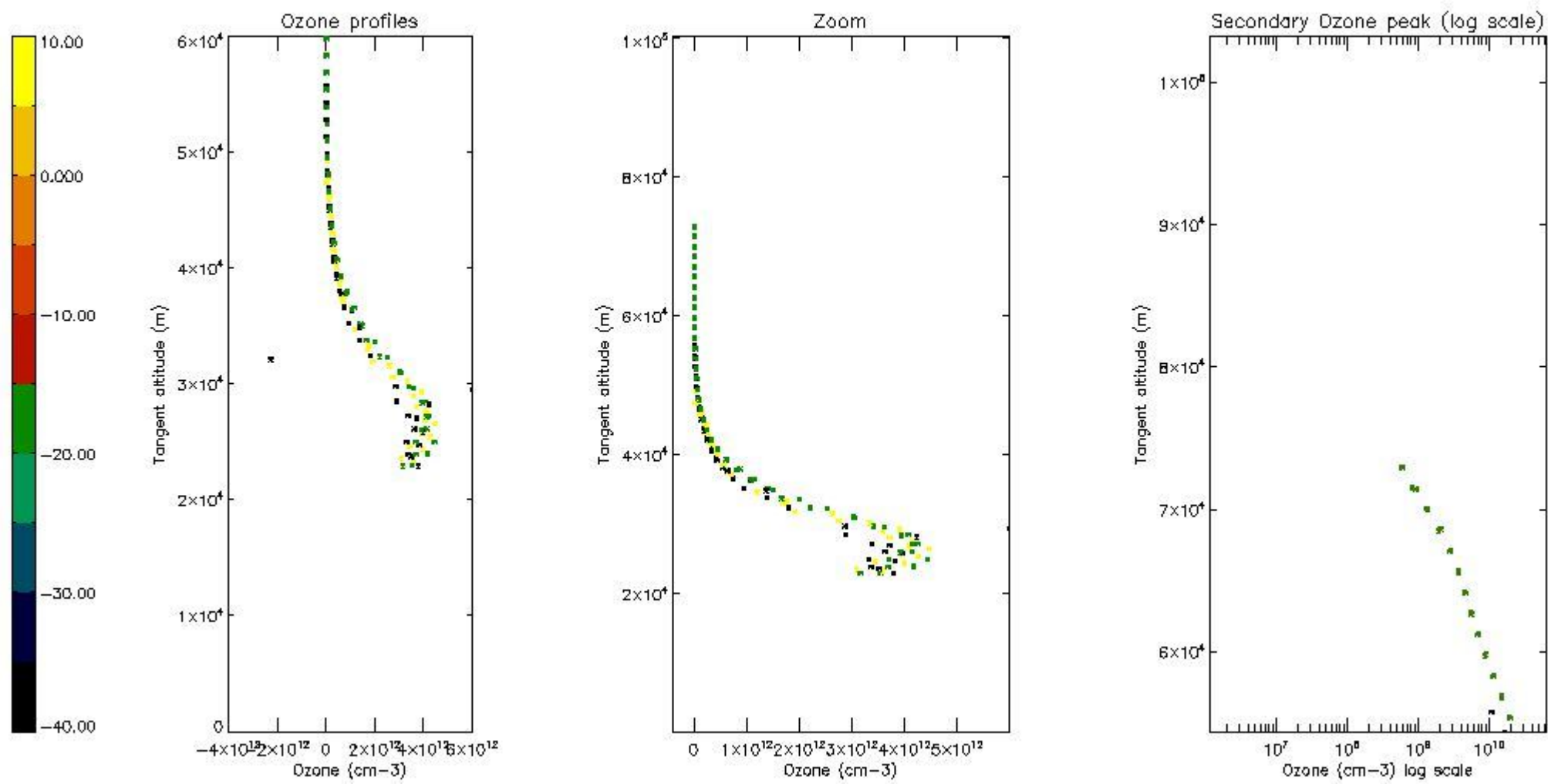
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



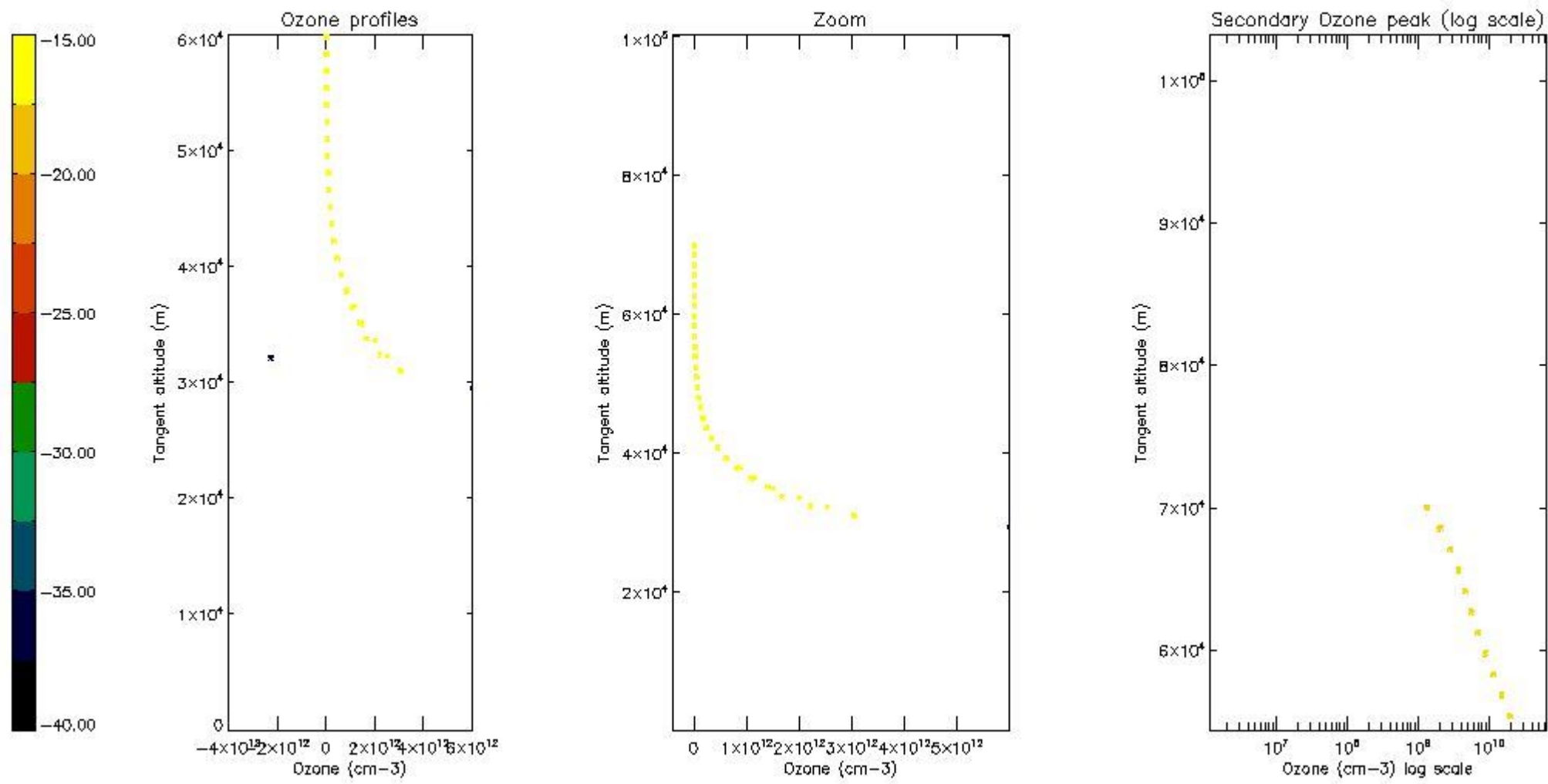
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



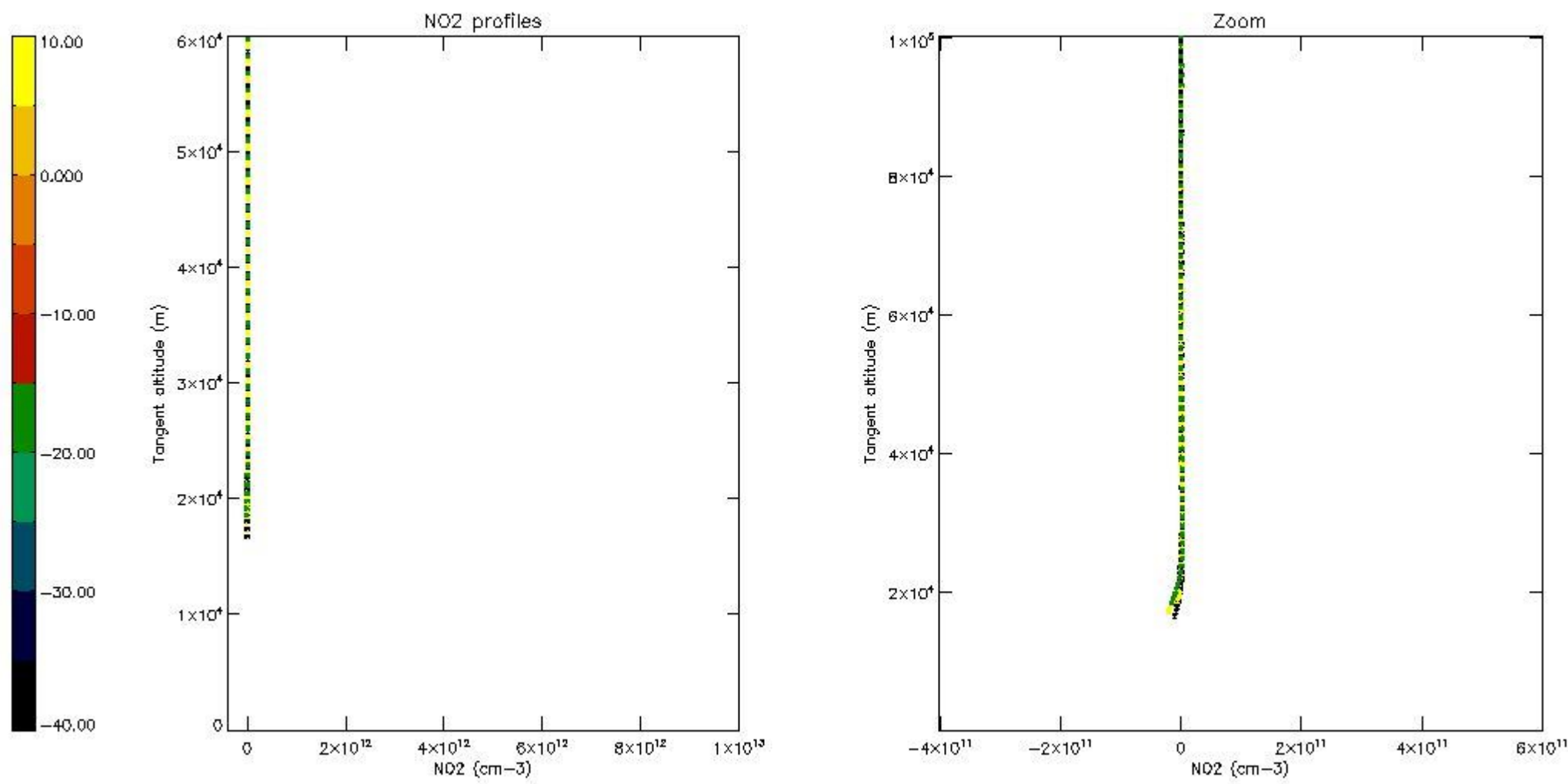
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



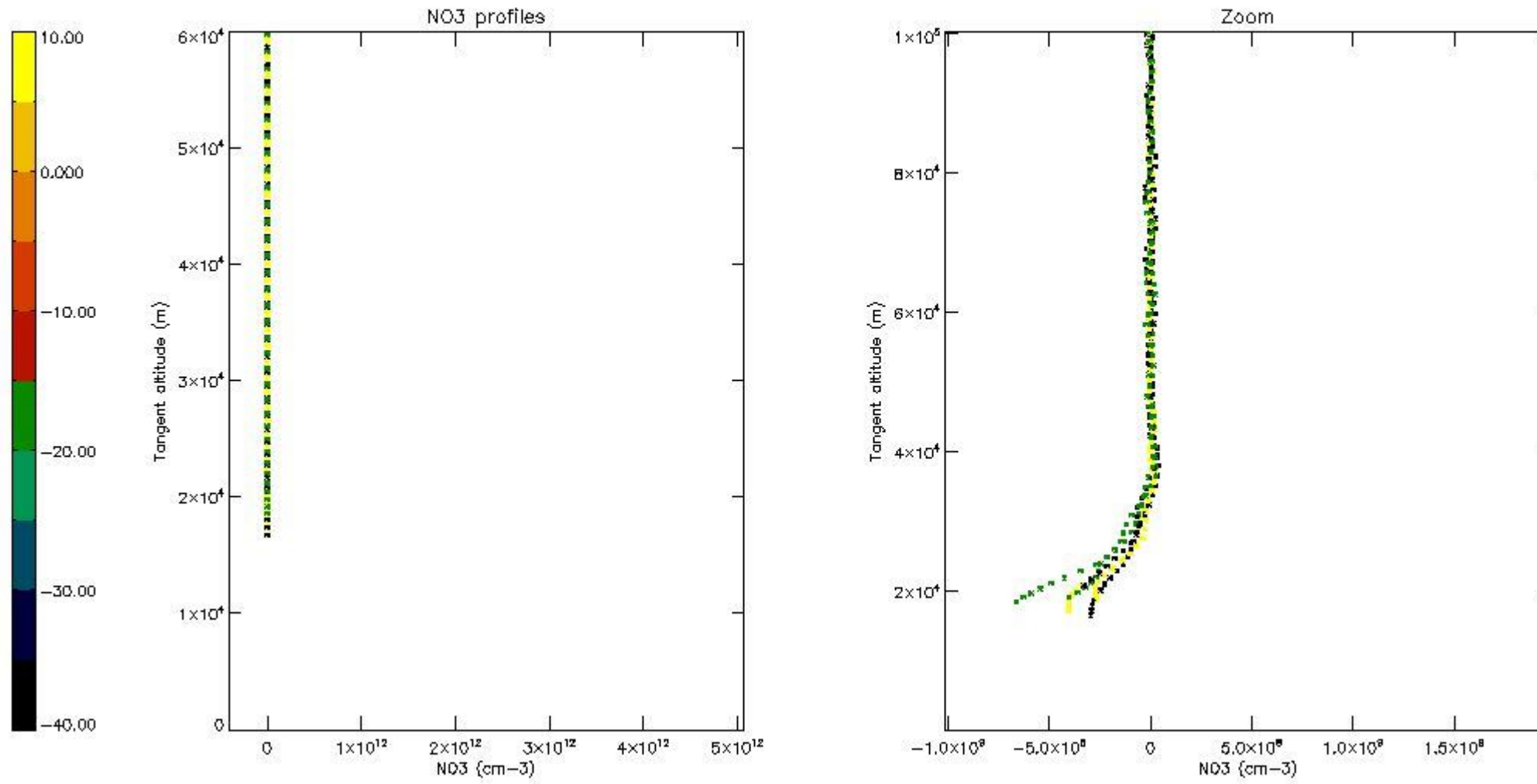
5.6 Plot NO₂ profiles for all STD (dark without errors)

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_AXVIEC20111213_163131_20111215_000000_20500101_000000	1	16-DEC-2011 11:54:40
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	16-DEC-2011 11:54:40
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	16-DEC-2011 11:54:40

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[3.2 Plot of level 2 quality information per product \(world map\)](#)

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

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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](#)

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

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

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[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.

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Nb of prods with errors	0

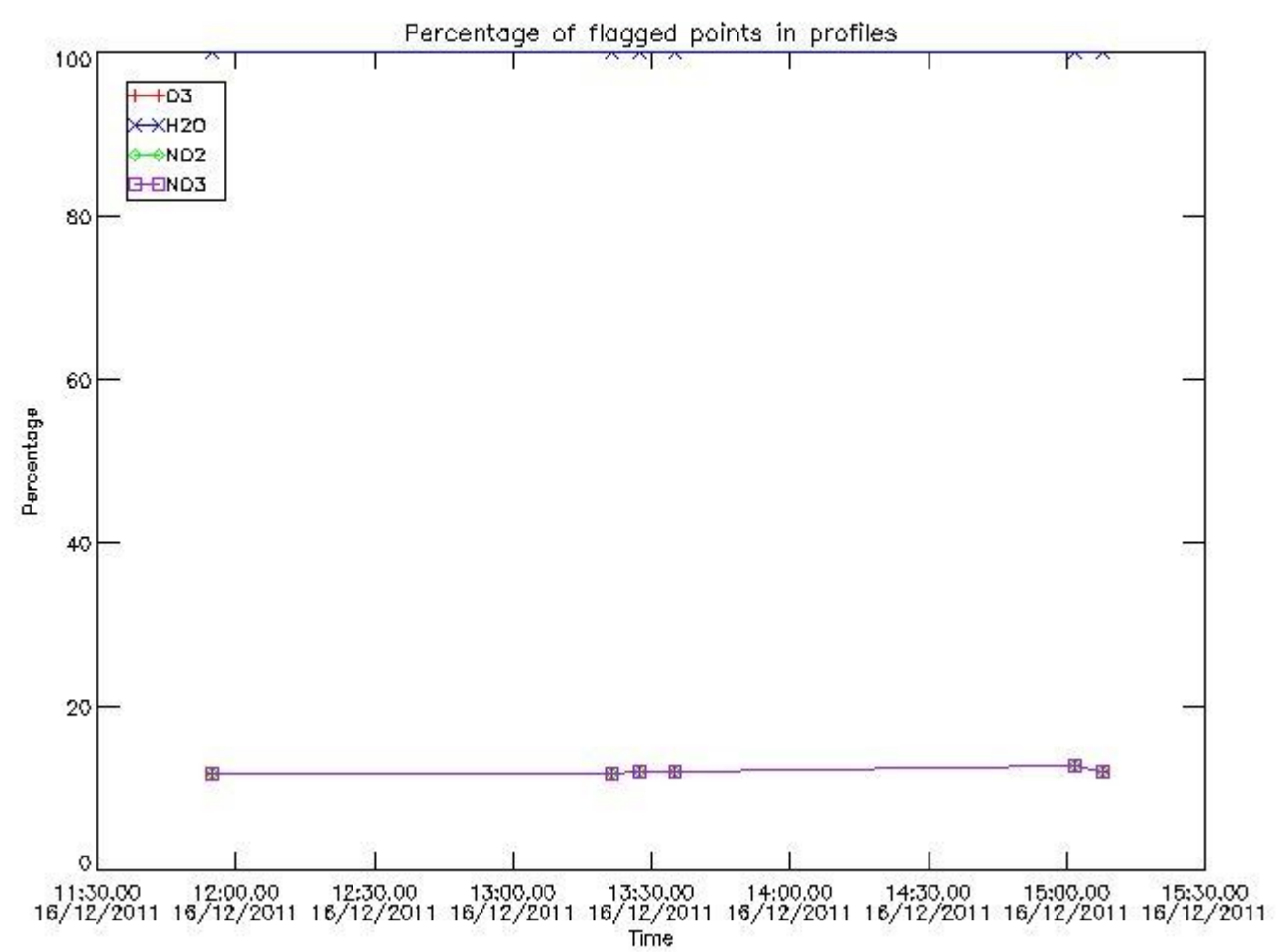
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2	GOM_NL__2PRFIN20111216_120719_000000413109_00354_51230_0577.N1	16-DEC-2011 12:07:19	Straylight	41.000	108	Alp Col	2.6520	15200.	82	51230	No
3	GOM_NL__2PRFIN20111216_121516_000000463109_00354_51230_0578.N1	16-DEC-2011 12:15:16	Straylight	46.000	7	19Bet Ori	0.10000	14000.	92	51230	No
4	GOM_NL__2PRFIN20111216_122232_000000543109_00354_51230_0579.N1	16-DEC-2011 12:22:32	Twilight_stray	54.000	13	87Alp Tau	0.86700	3800.0	108	51230	No
5	GOM_NL__2PRFIN20111216_124741_000000343109_00354_51230_0580.N1	16-DEC-2011 12:47:41	Bright	33.500	60	7Bet UMi	2.0810	3950.0	67	51230	No
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9	GOM_NL__2PRFIN20111216_133455_000000423109_00355_51231_0605.N1	16-DEC-2011 13:34:55	Dark	42.000	71	Iot Car	2.2460	7700.0	84	51231	No
10	GOM_NL__2PRFIN20111216_134733_000000433109_00355_51231_0606.N1	16-DEC-2011 13:47:33	Straylight	43.000	108	Alp Col	2.6520	15200.	86	51231	No
11	GOM_NL__2PRFIN20111216_135530_000000473109_00355_51231_0607.N1	16-DEC-2011 13:55:30	Straylight	47.000	7	19Bet Ori	0.10000	14000.	94	51231	No
12	GOM_NL__2PRFIN20111216_140246_000000483109_00355_51231_0608.N1	16-DEC-2011 14:02:46	Twilight_stray	47.500	13	87Alp Tau	0.86700	3800.0	95	51231	No
13	GOM_NL__2PRFIN20111216_143829_000000563109_00355_51231_0609.N1	16-DEC-2011 14:38:29	Bright	56.000	180	27Gam Boo	3.0400	8000.0	112	51231	No
14	GOM_NL__2PRFIN20111216_150150_000000403109_00355_51231_0610.N1	16-DEC-2011 15:01:50	Dark	40.000	123	Iot Cen	2.7500	10200.	80	51231	No
15	GOM_NL__2PRFIN20111216_150735_000000423109_00356_51232_0667.N1	16-DEC-2011 15:07:35	Dark	42.000	99	Del Cen	2.5750	26000.	84	51232	No

3. Quality information per product

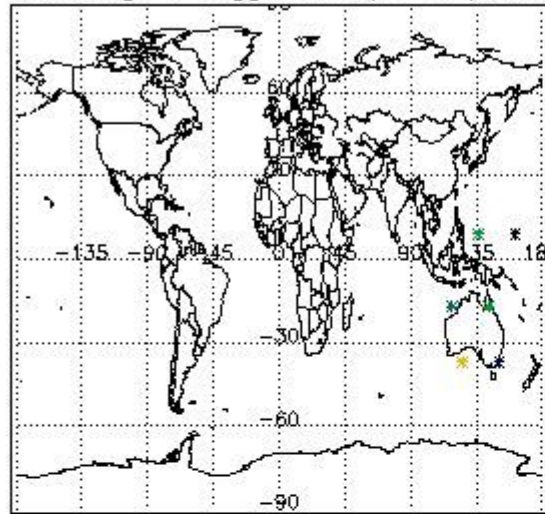
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

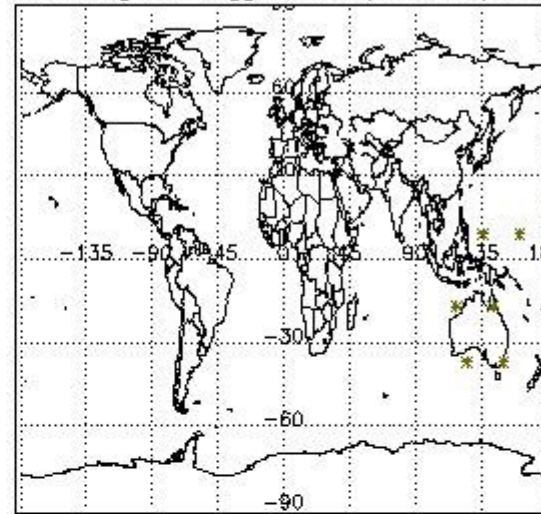


3.2 Plot quality information per product (world map)

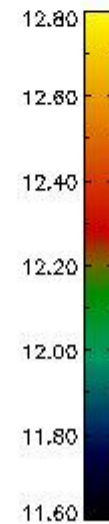
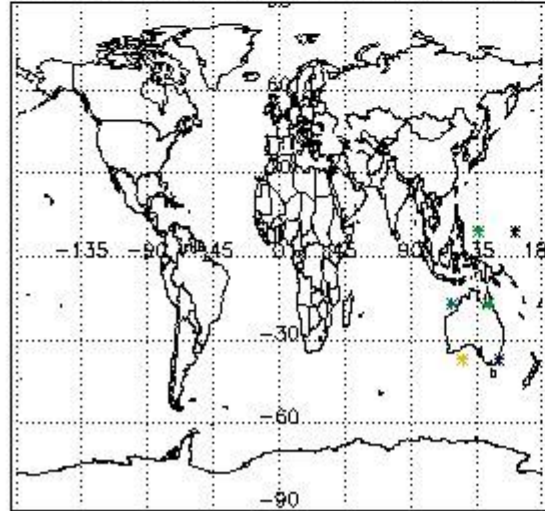
Percentage of flagged data per O3 profile



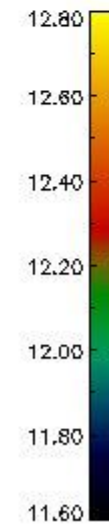
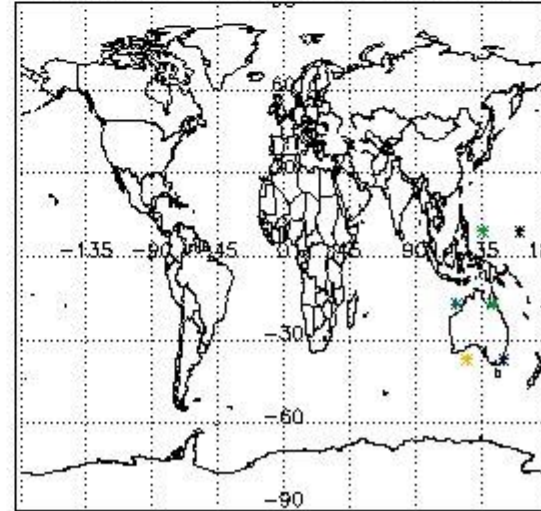
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

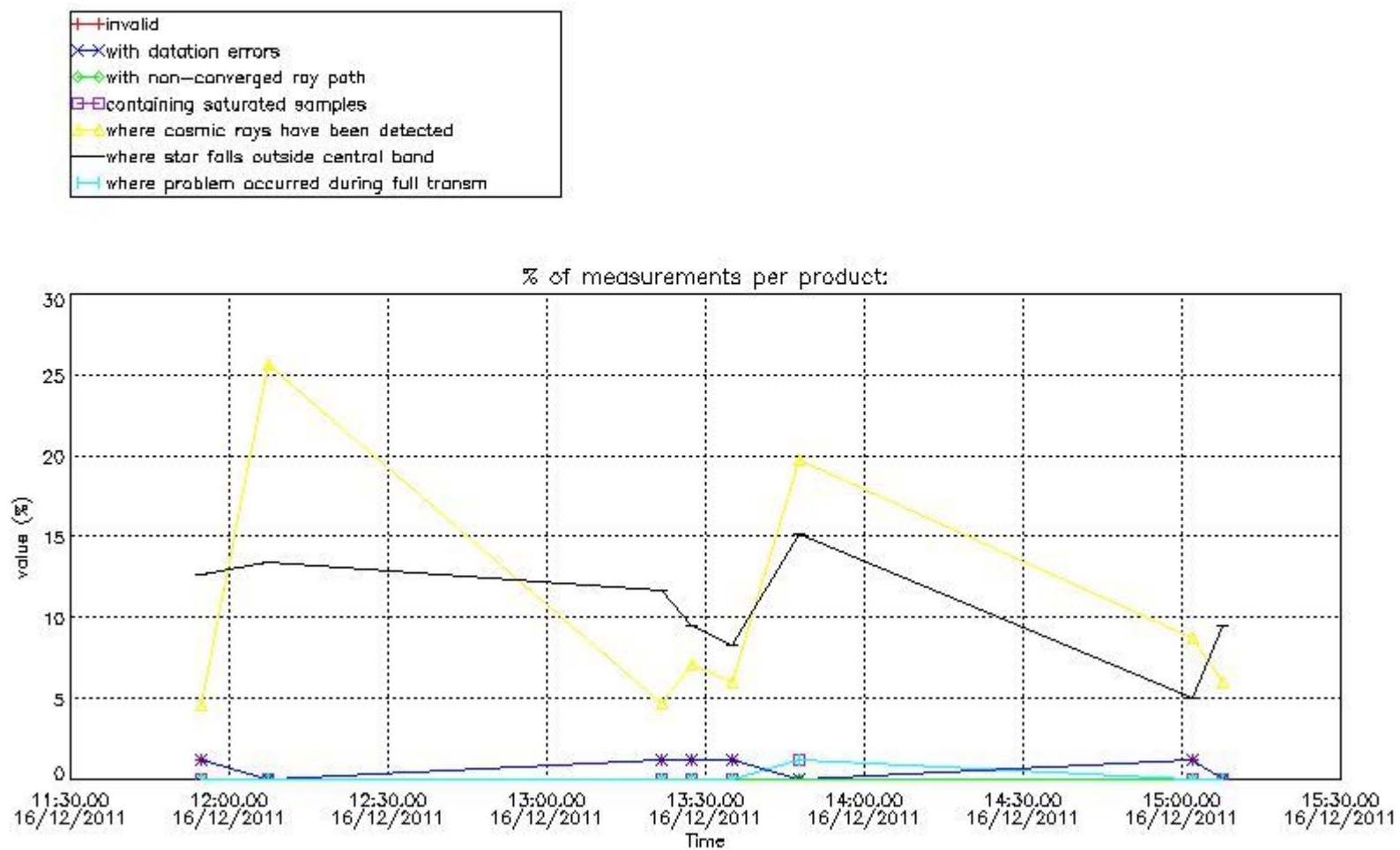


4. Level 1 quality information per product

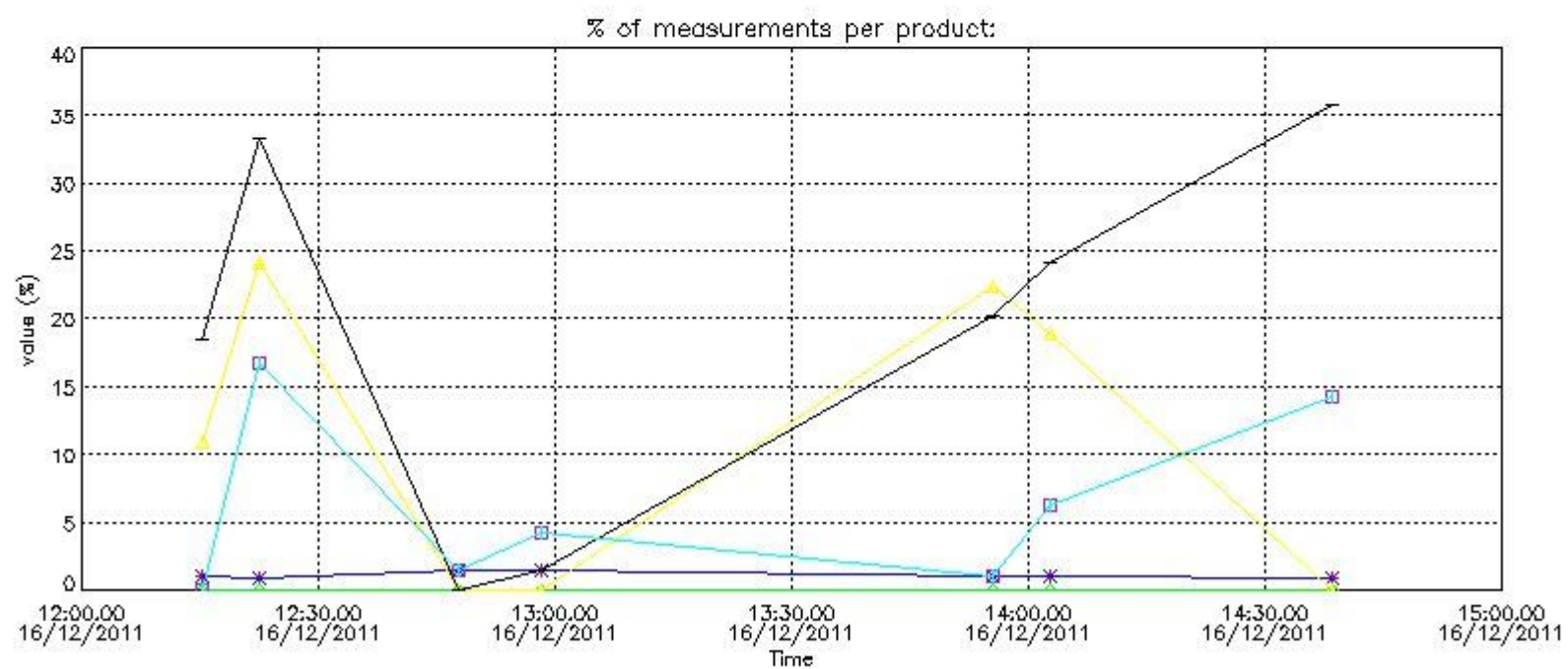
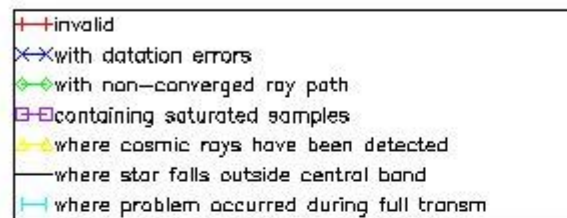
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



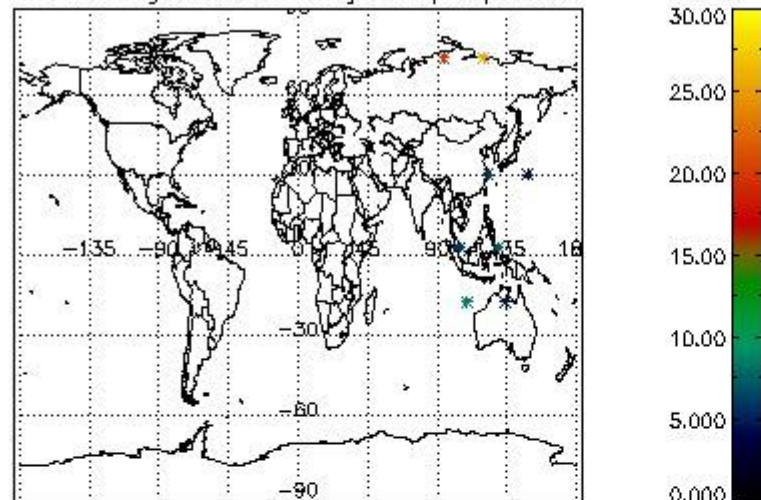
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



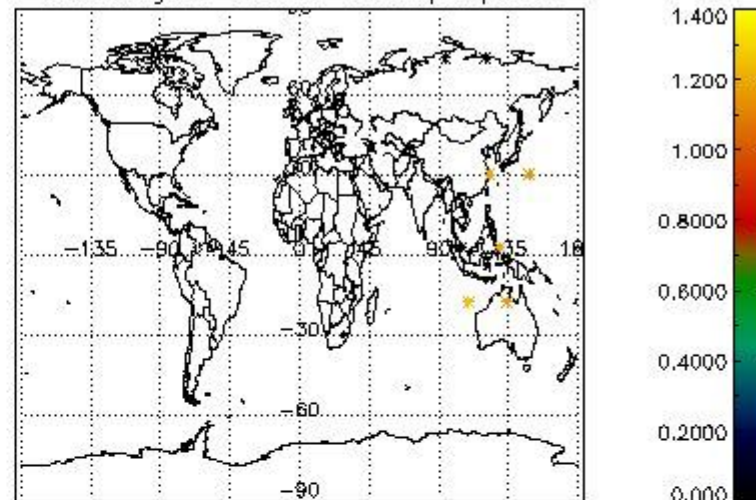
4.2 Plot quality information per product coming from level 1b processing (world map)

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

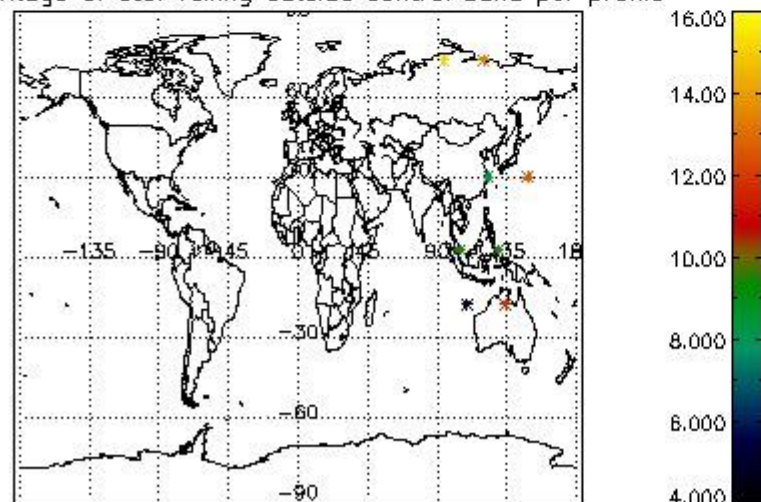
Percentage of cosmic ray hits per profile



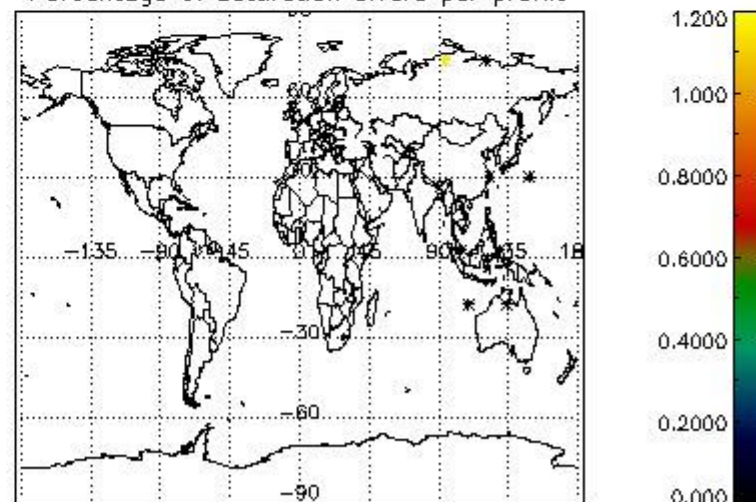
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

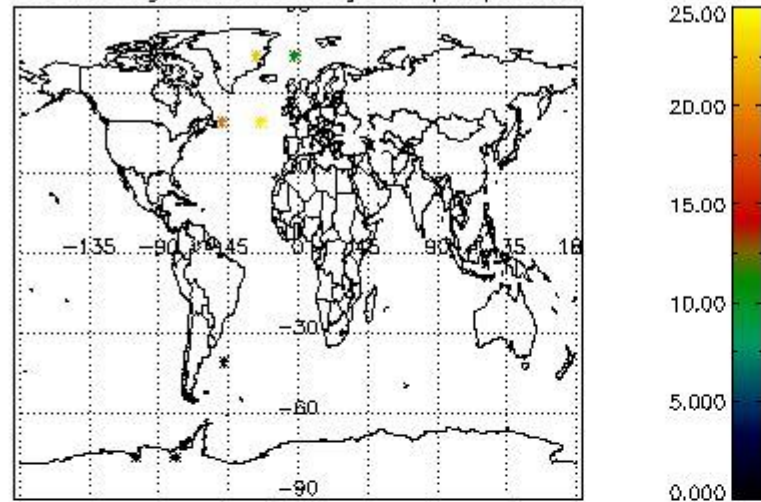


Percentage of saturation errors per profile

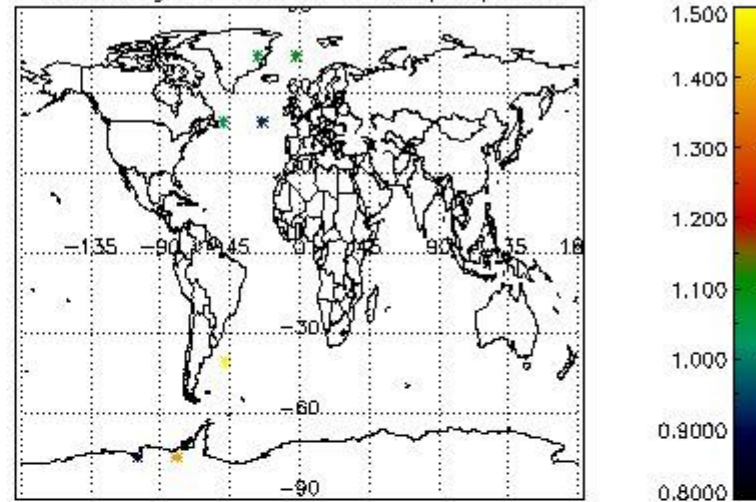


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

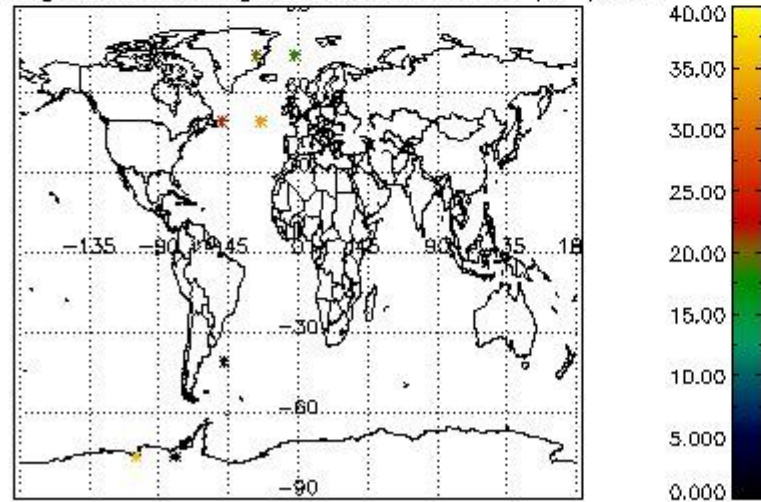
Percentage of cosmic ray hits per profile



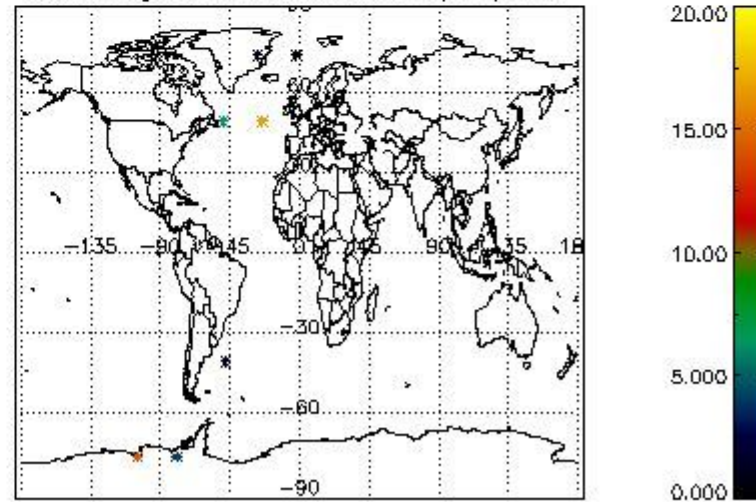
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

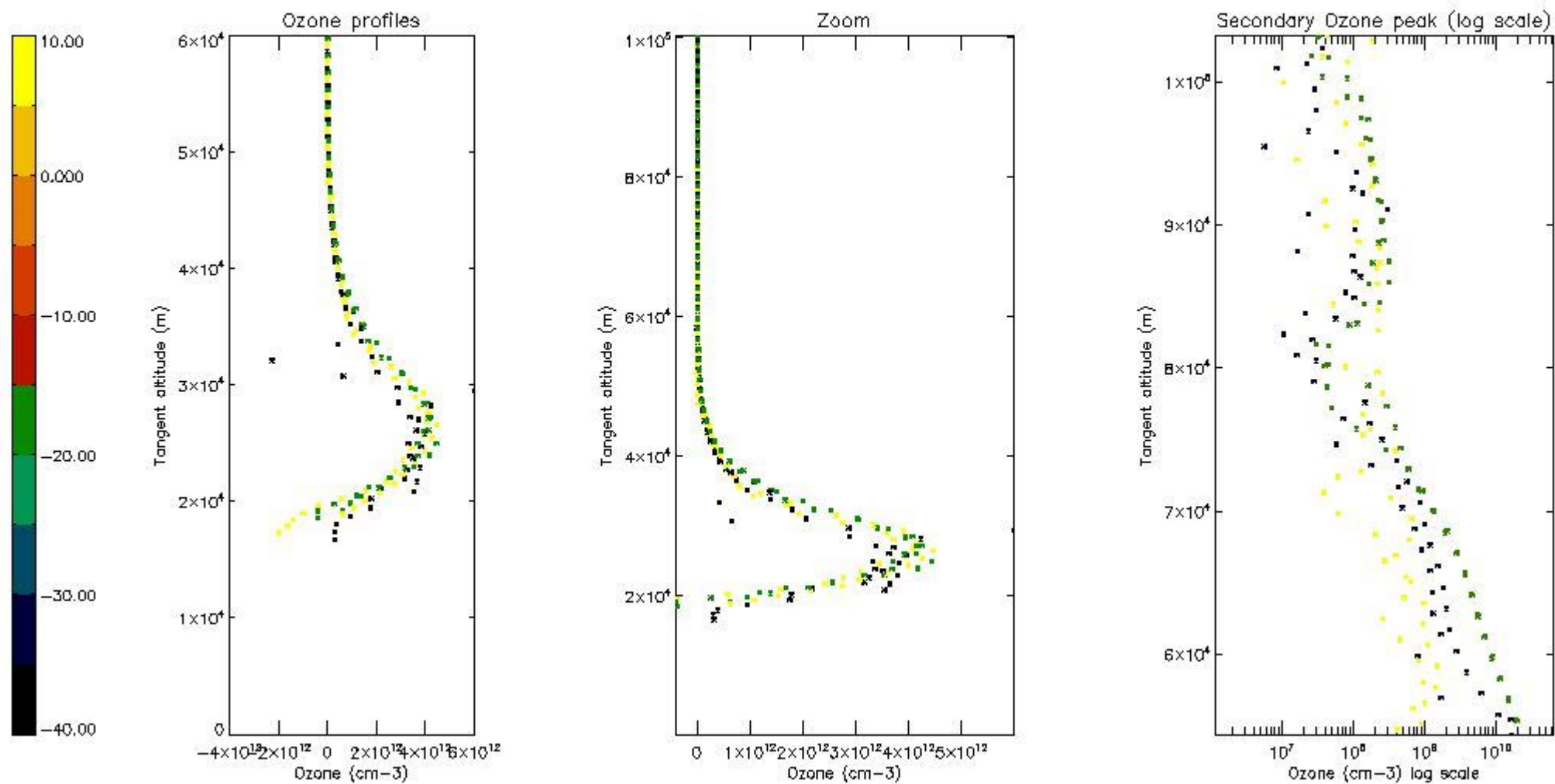
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	39
STD < 20	18

STD < 10	14
STD < 5	5

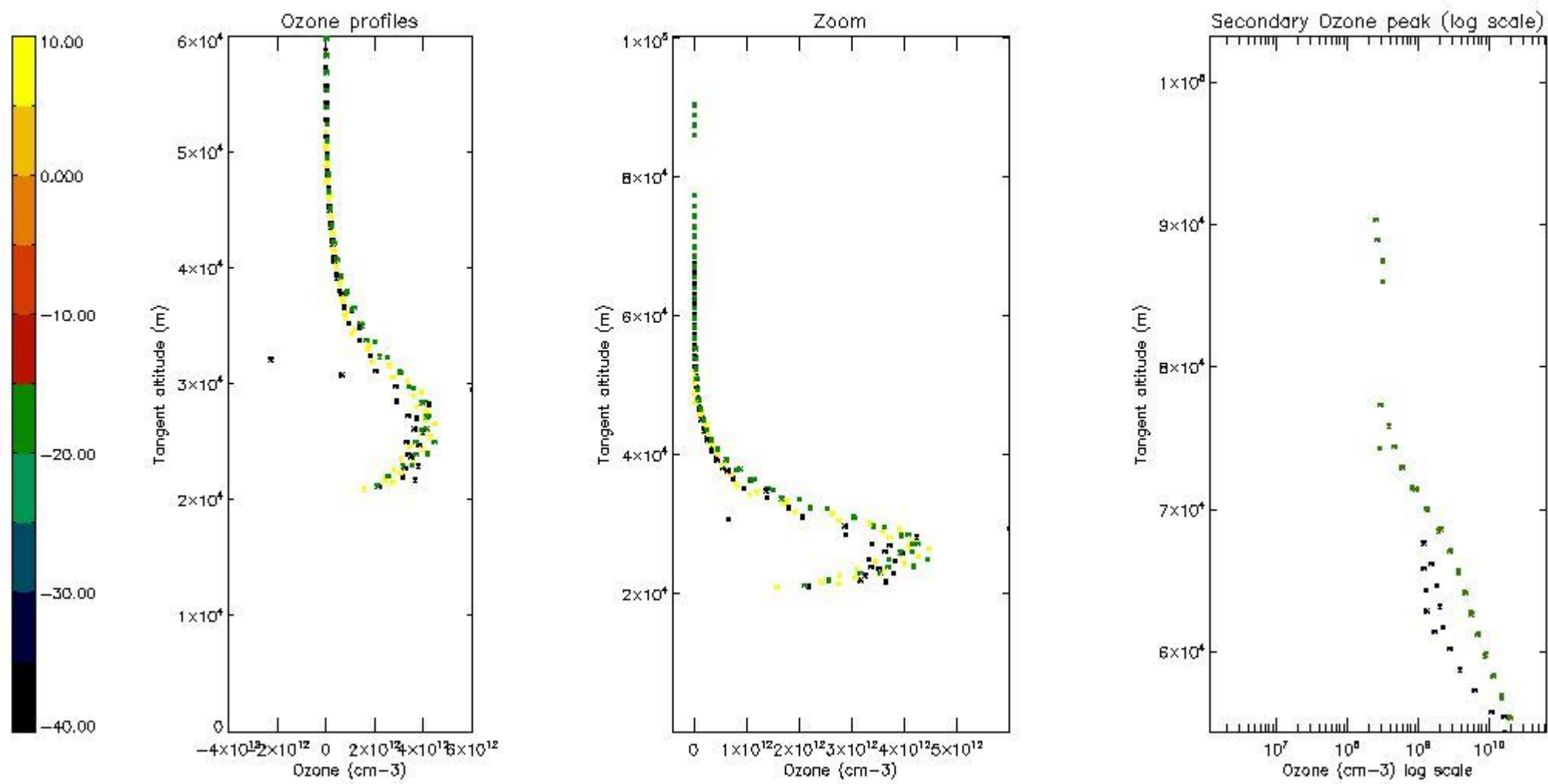
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



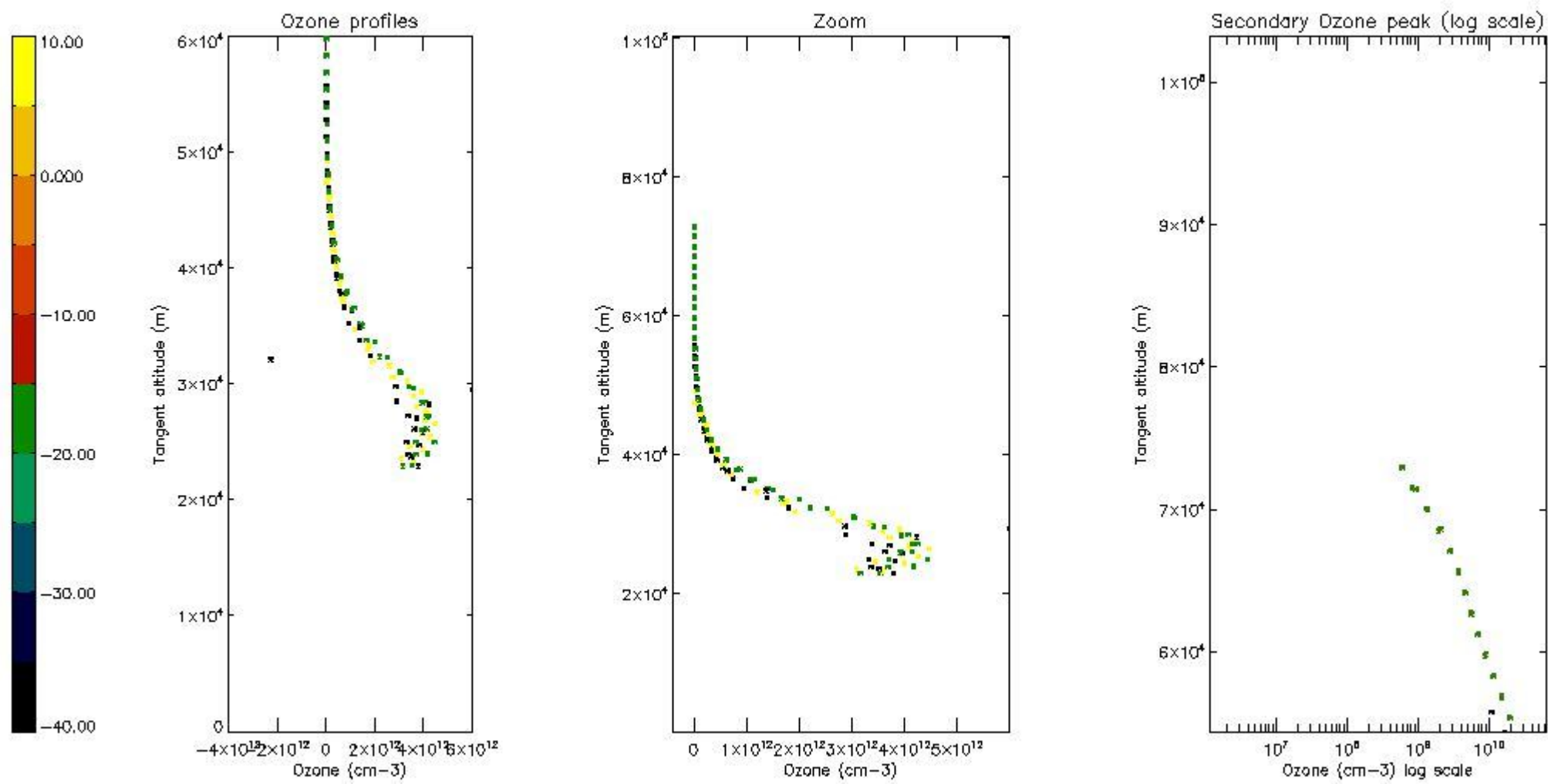
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



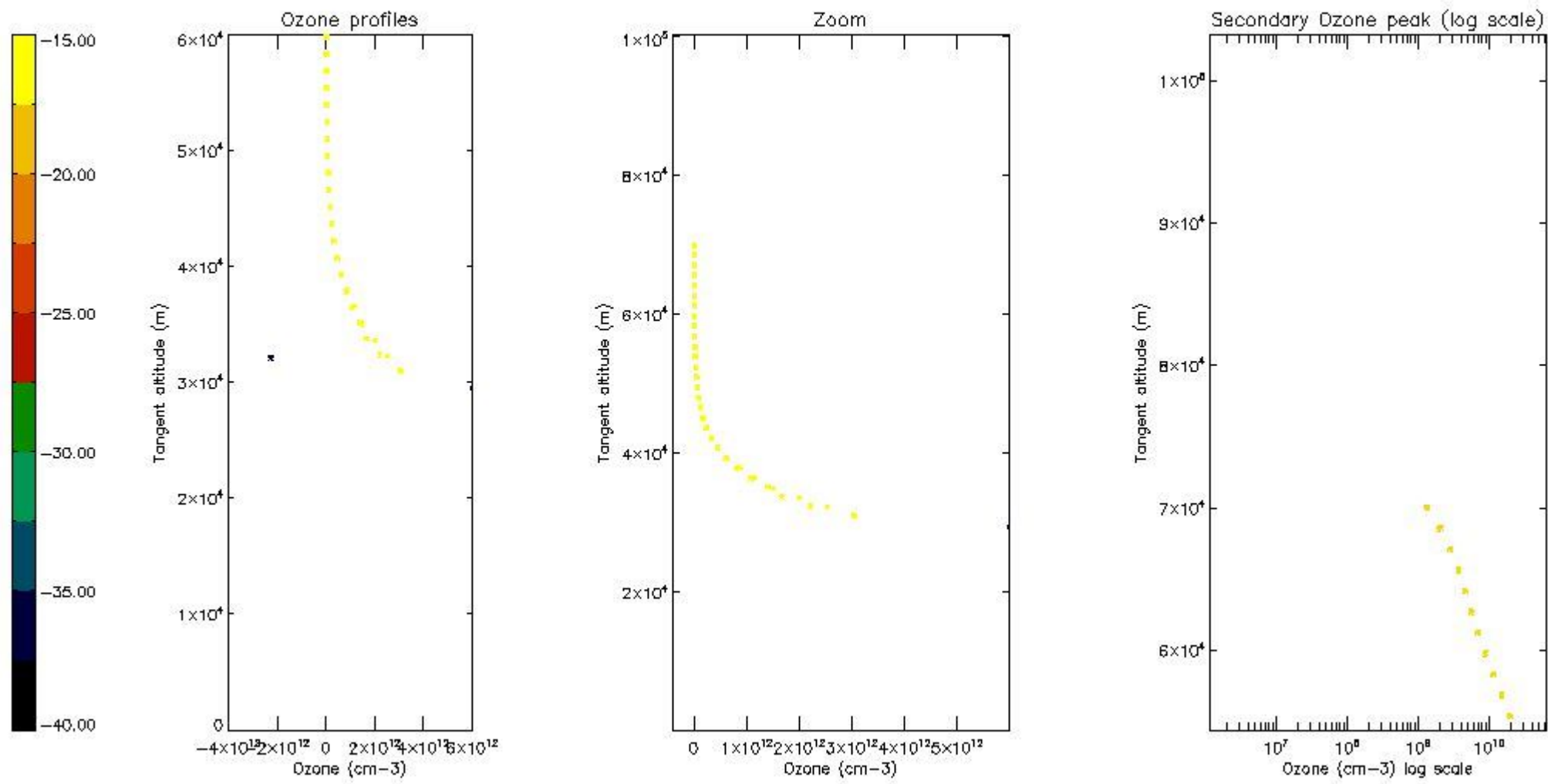
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



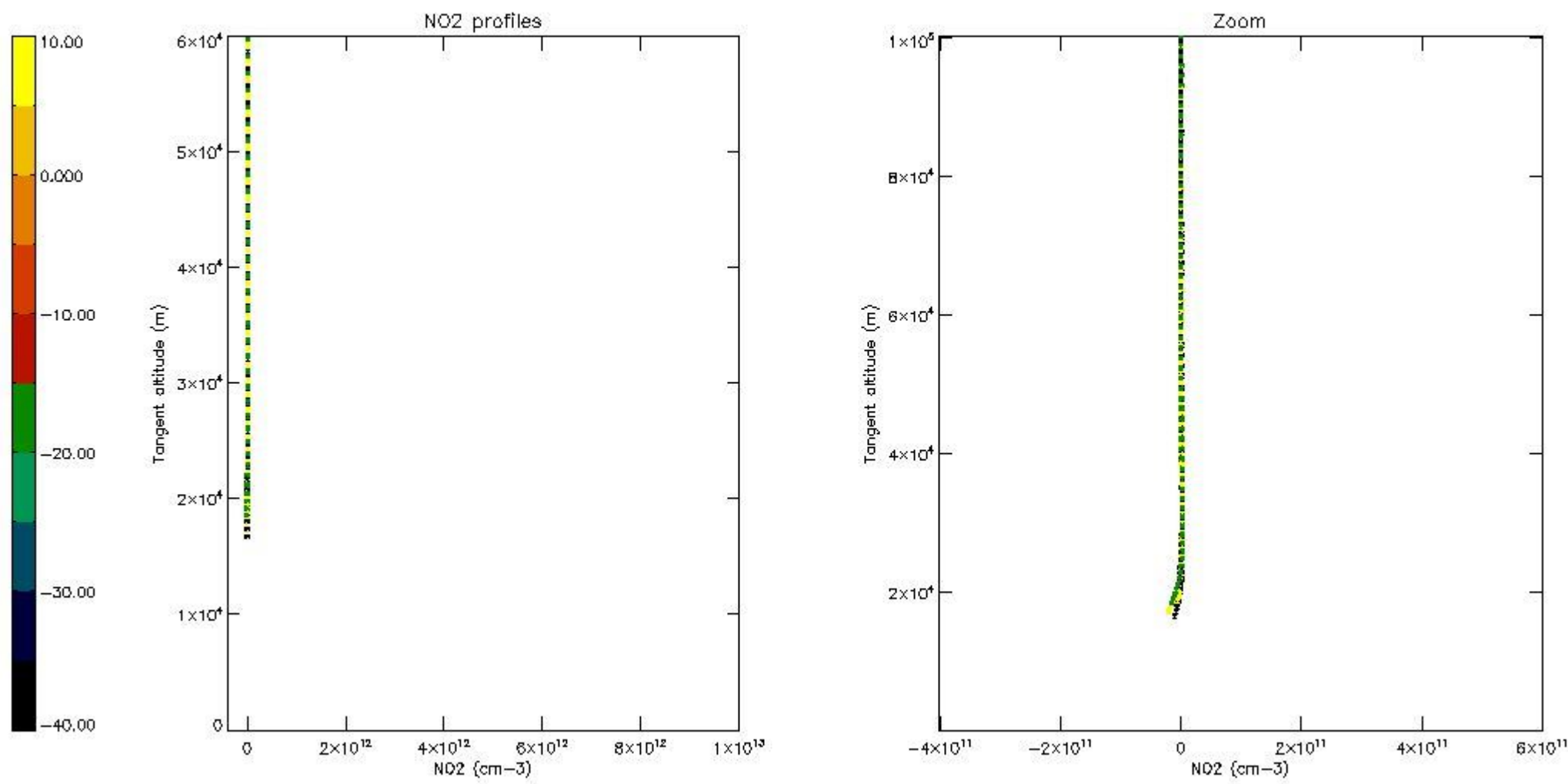
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



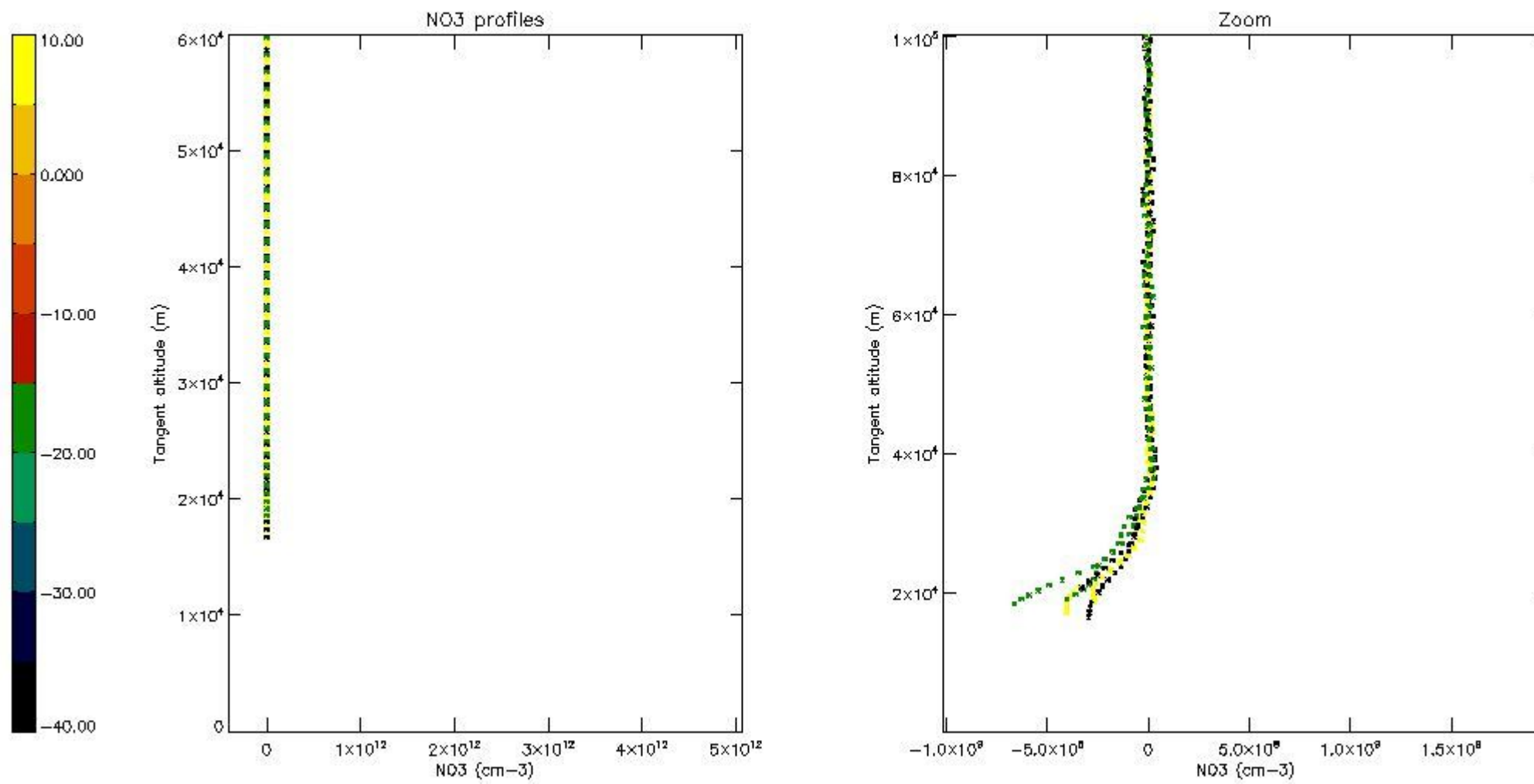
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

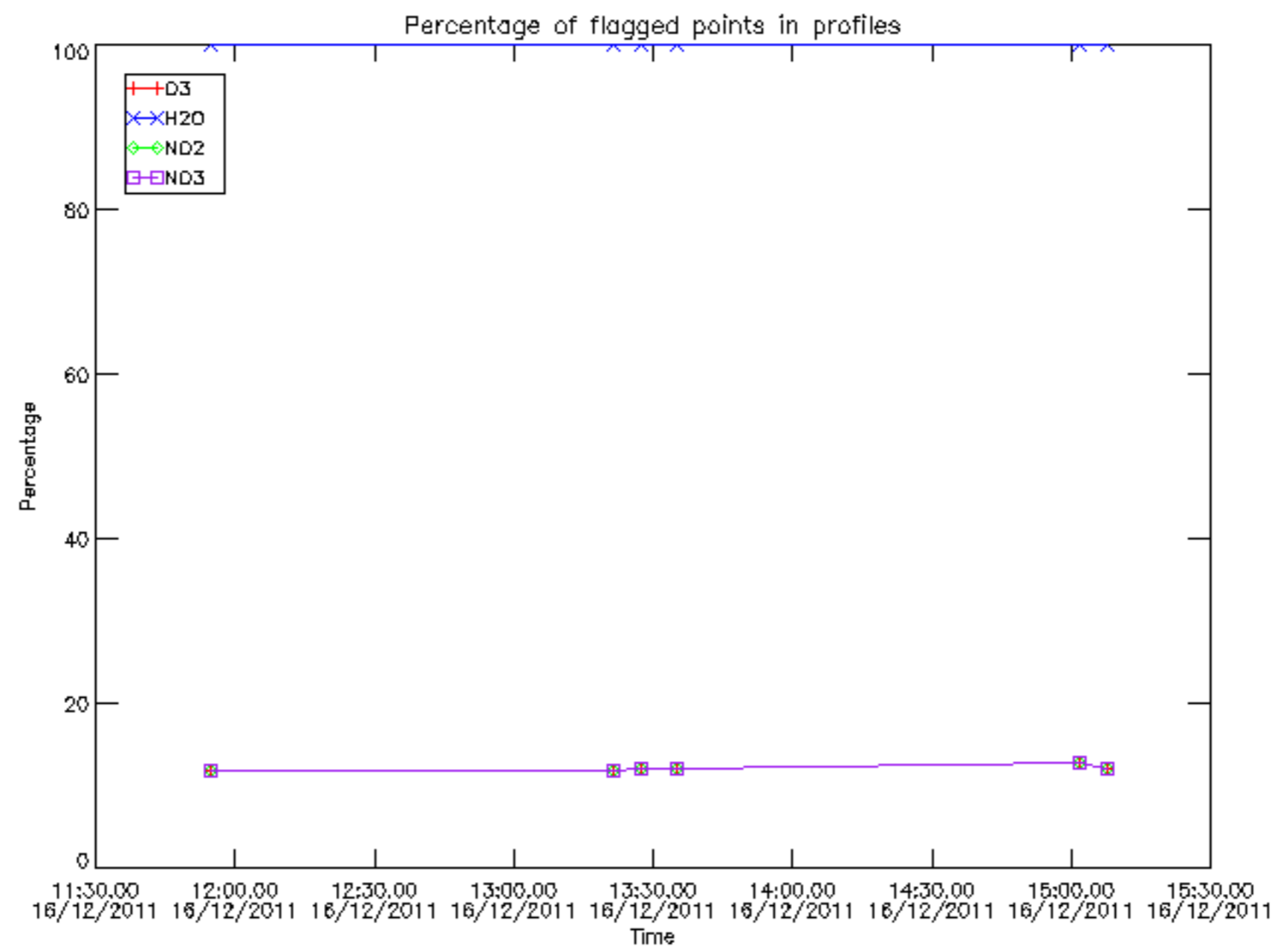
The colorbar represents the latitude.



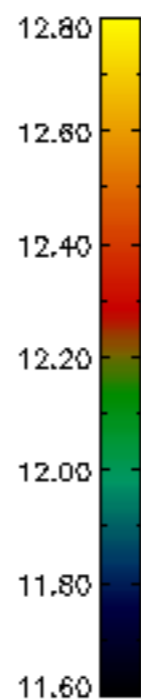
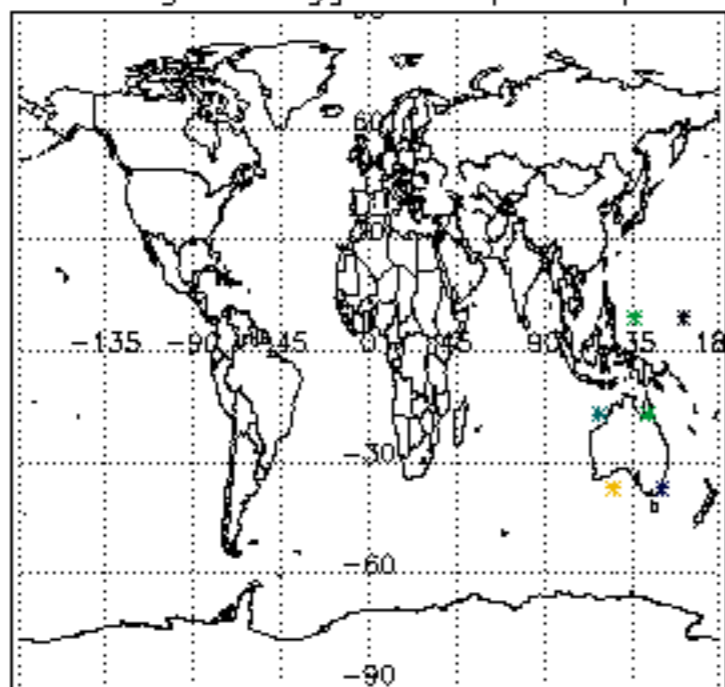
6. Auxiliary Data Files used for the production reported in section 2

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.

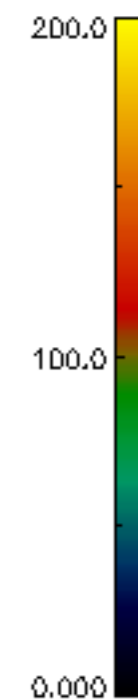
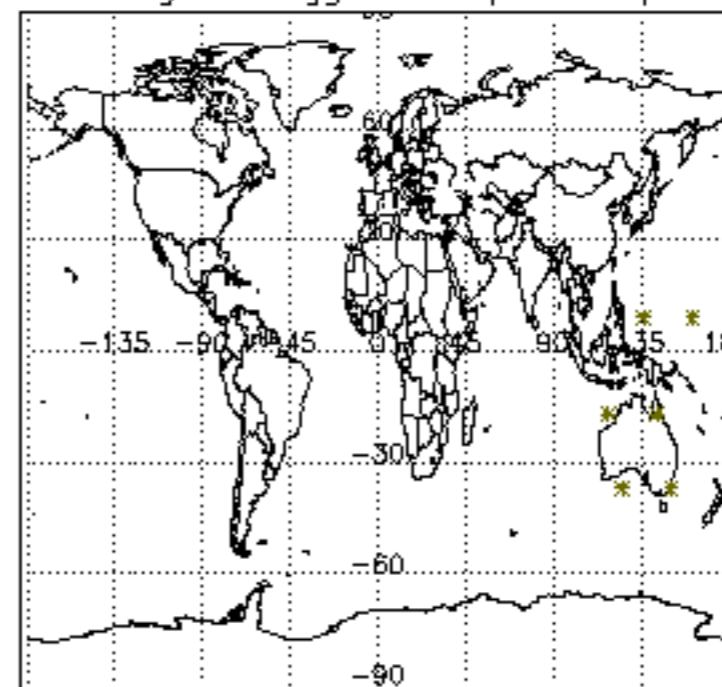
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20111213_163131_20111215_000000_20500101_000000	1	16-DEC-2011 11:54:40
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	16-DEC-2011 11:54:40
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	16-DEC-2011 11:54:40



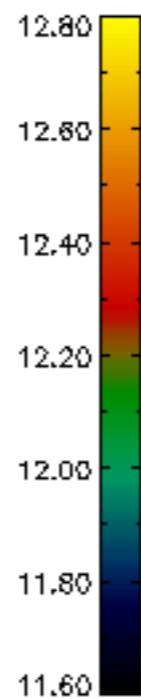
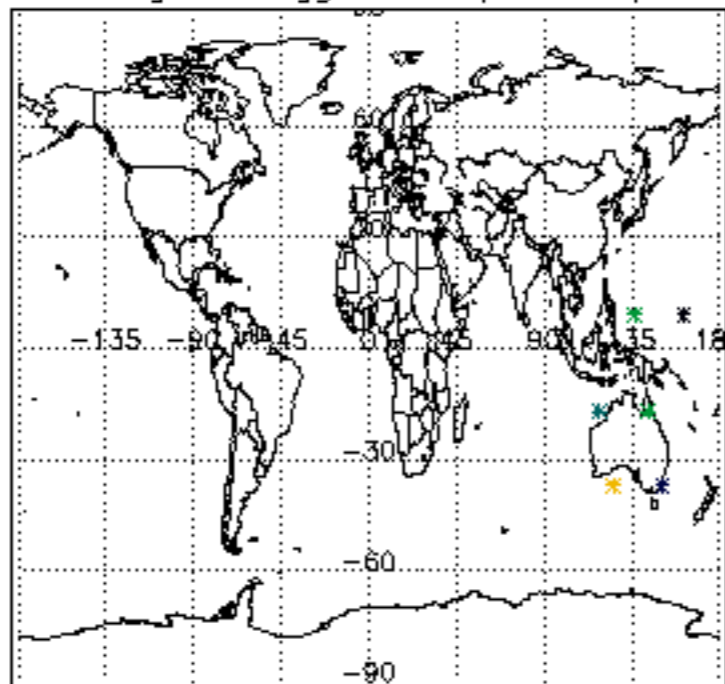
Percentage of flagged data per D3 profile



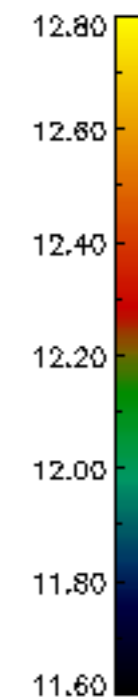
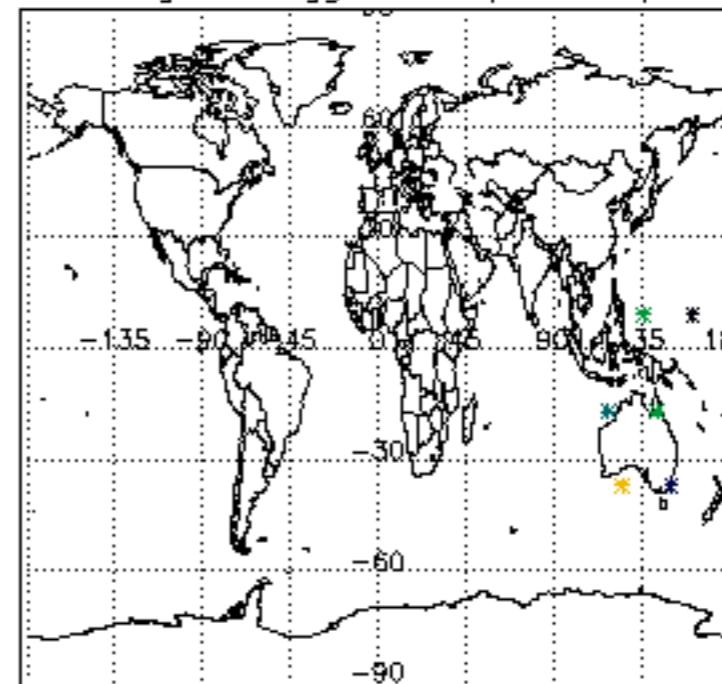
Percentage of flagged data per H2O profile

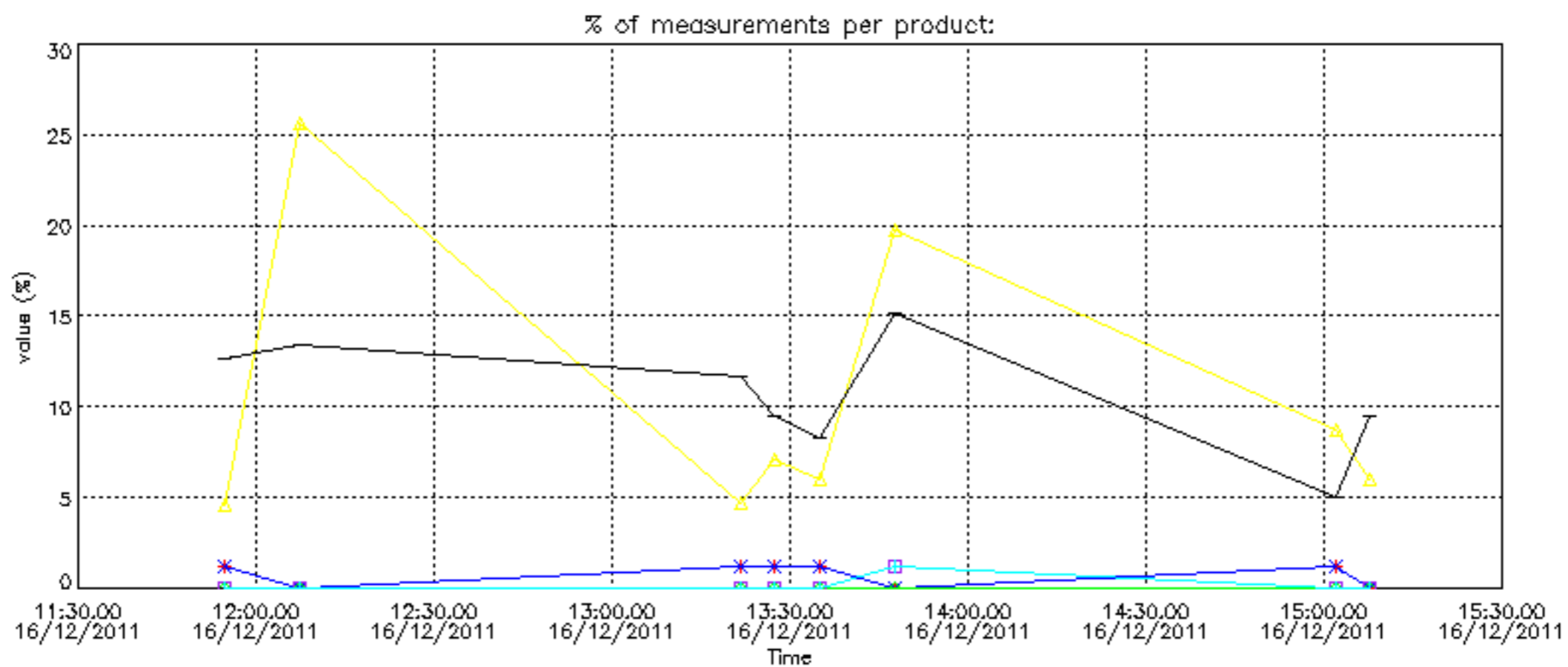


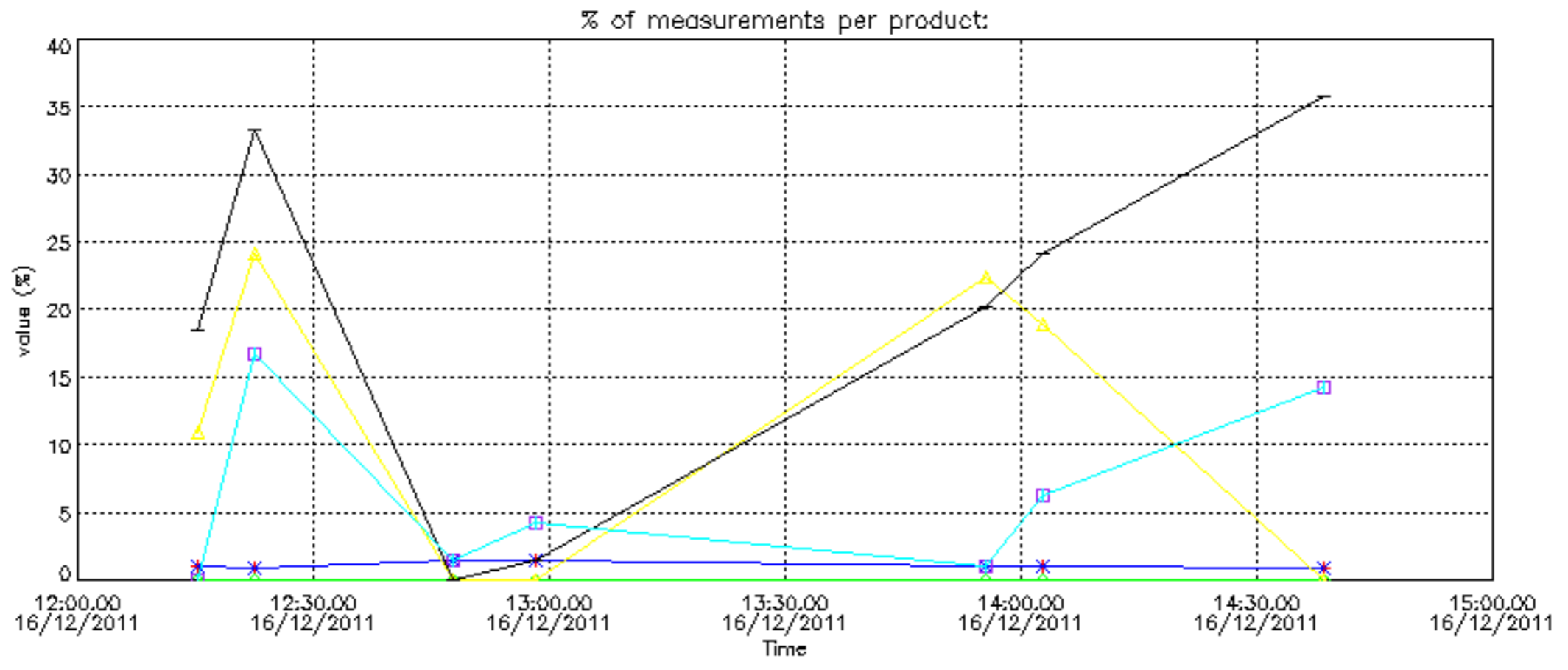
Percentage of flagged data per NO2 profile



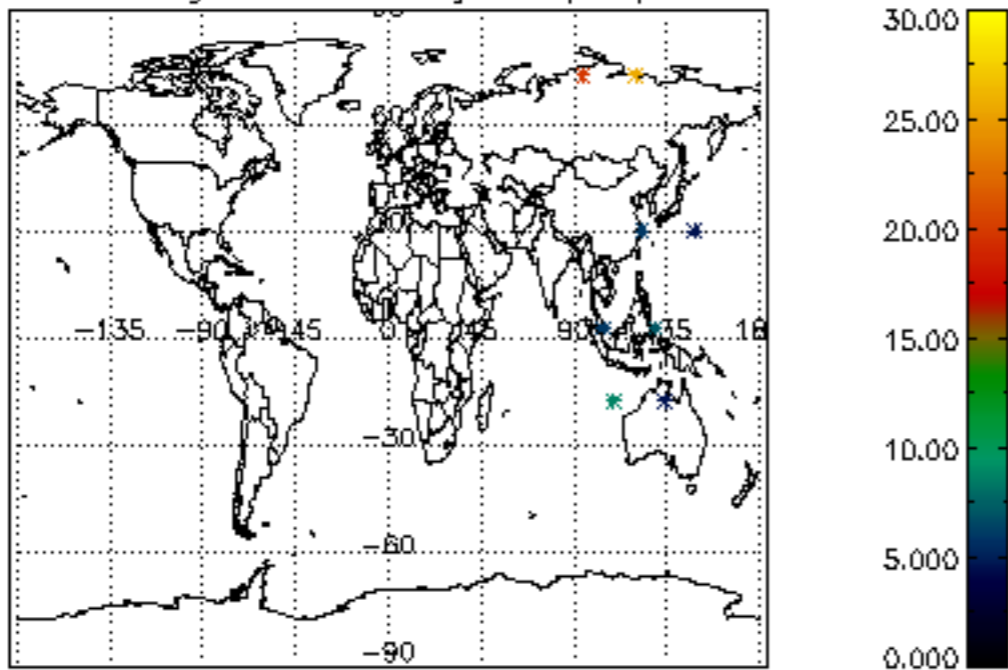
Percentage of flagged data per NO3 profile



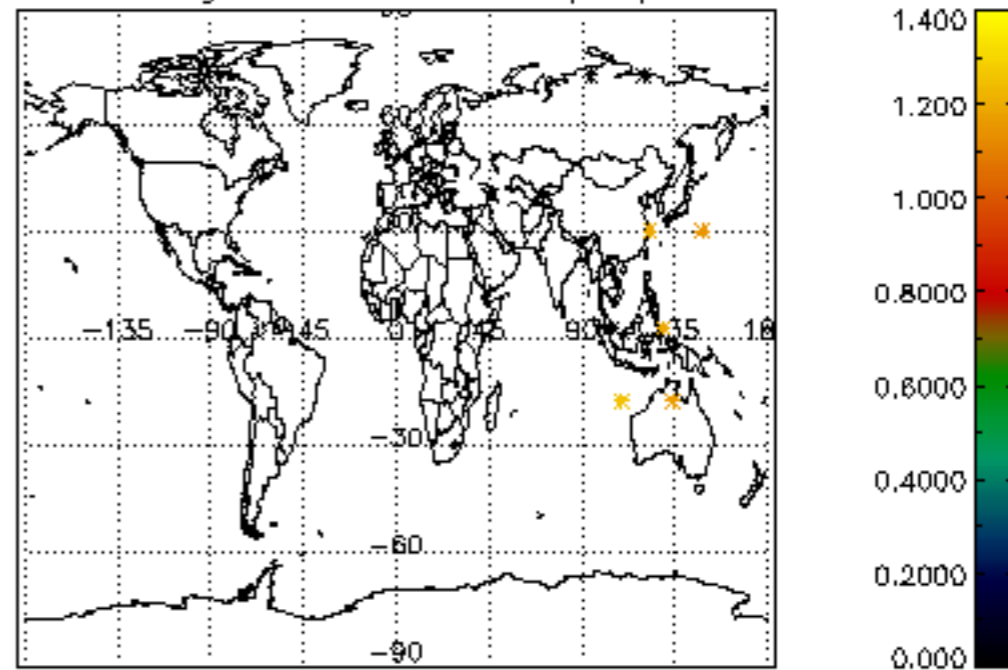




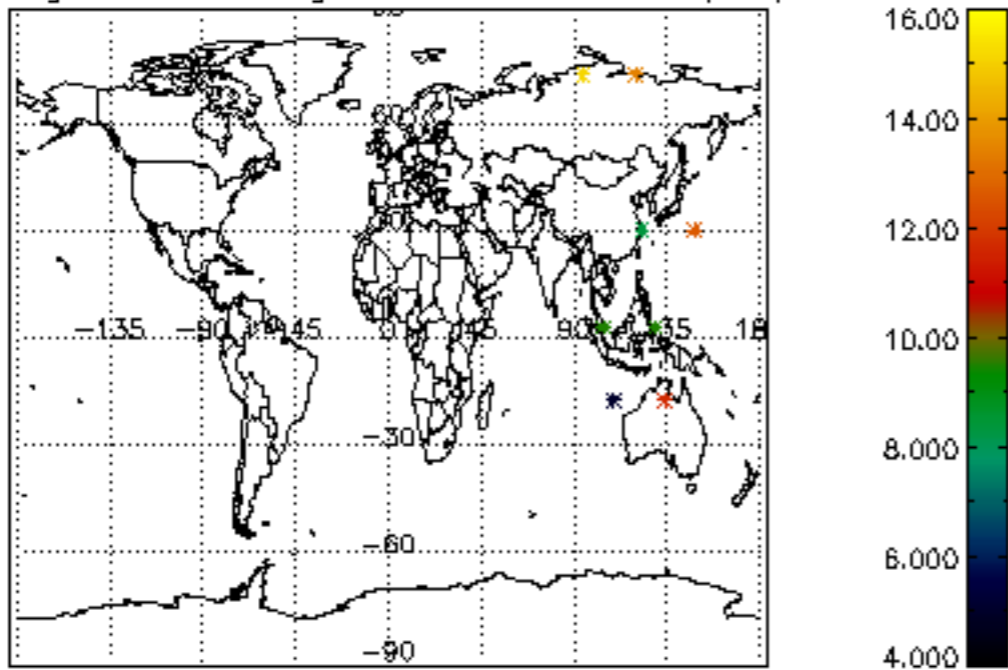
Percentage of cosmic ray hits per profile



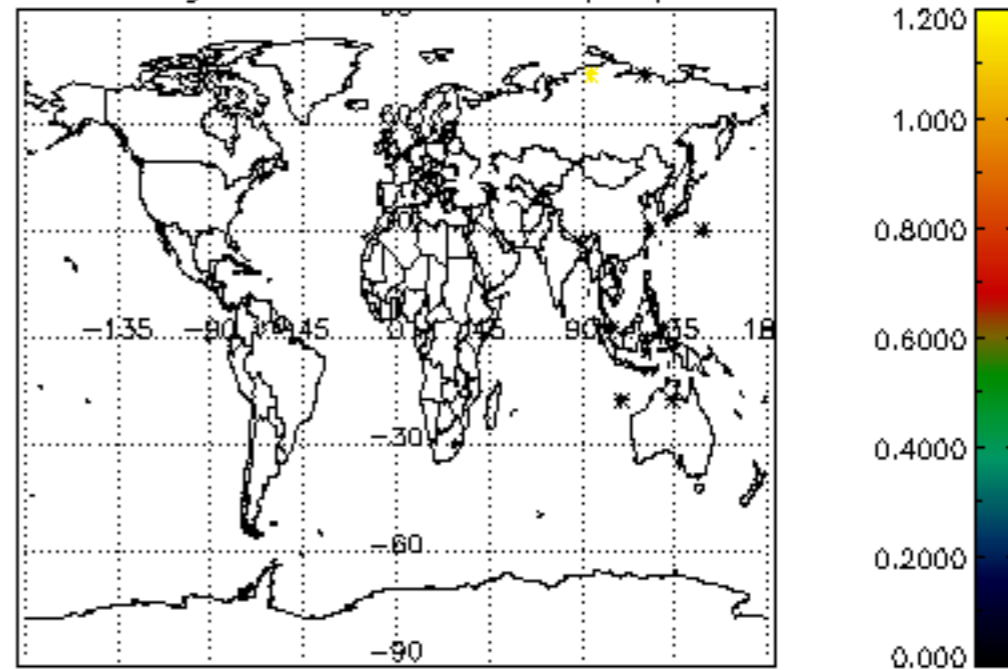
Percentage of datation errors per profile



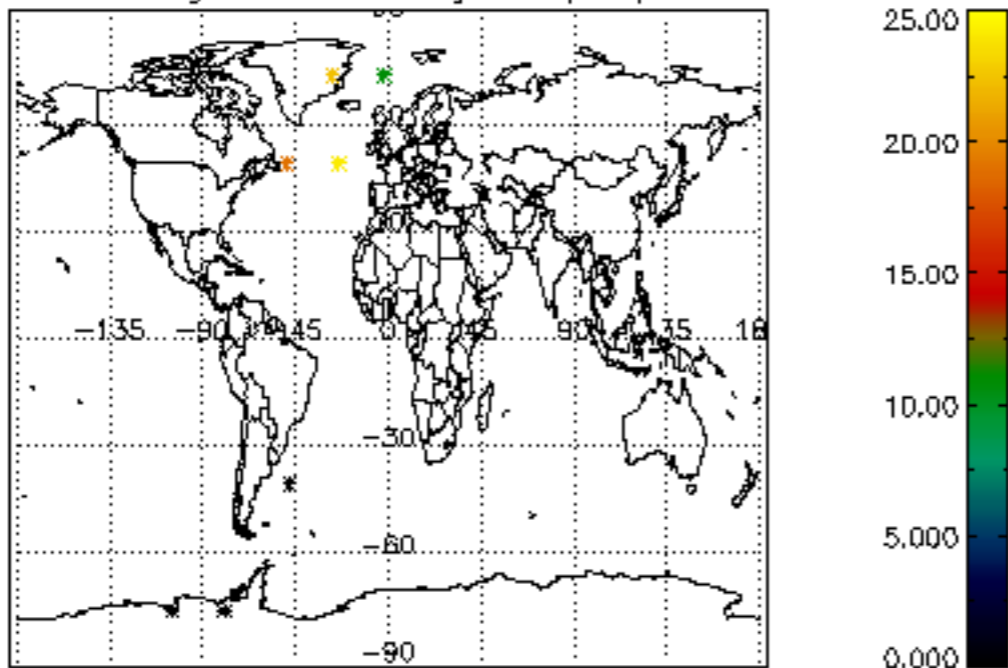
Percentage of star falling outside central band per profile



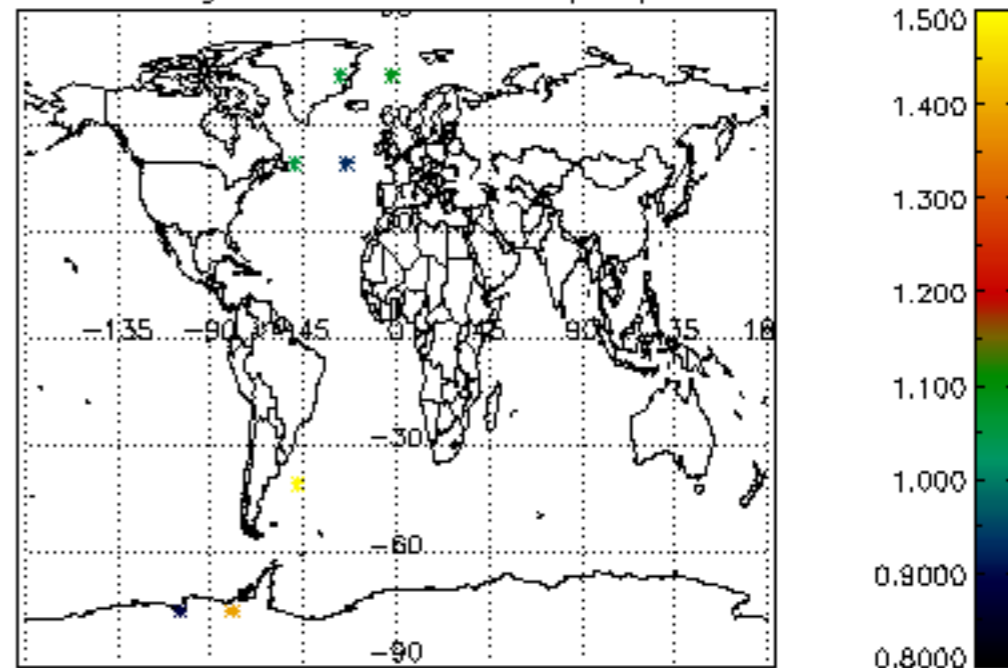
Percentage of saturation errors per profile



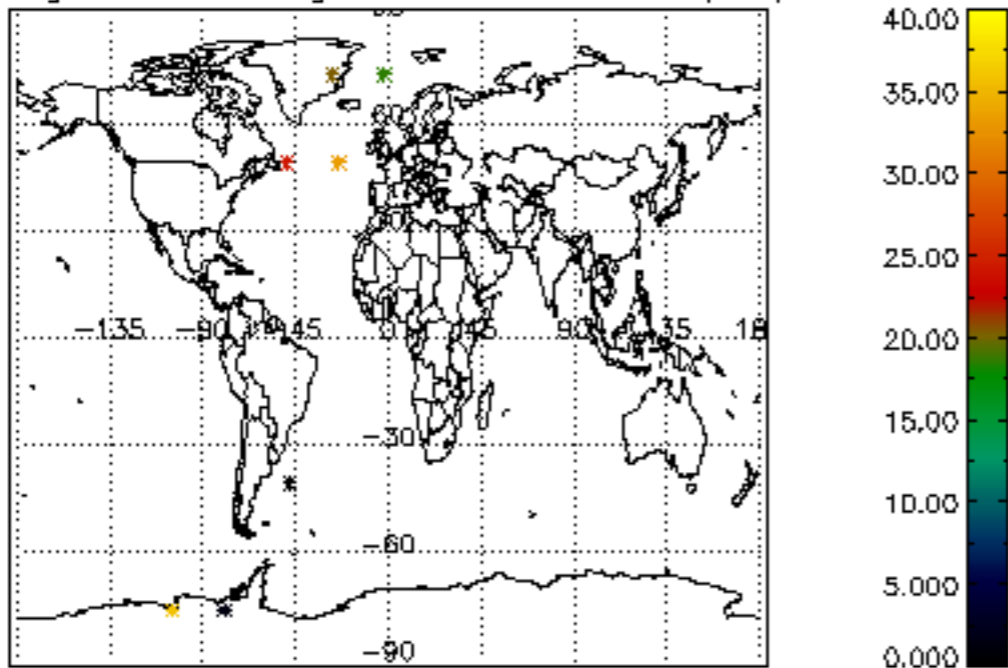
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

