

GOMOS Level 2 Daily Report

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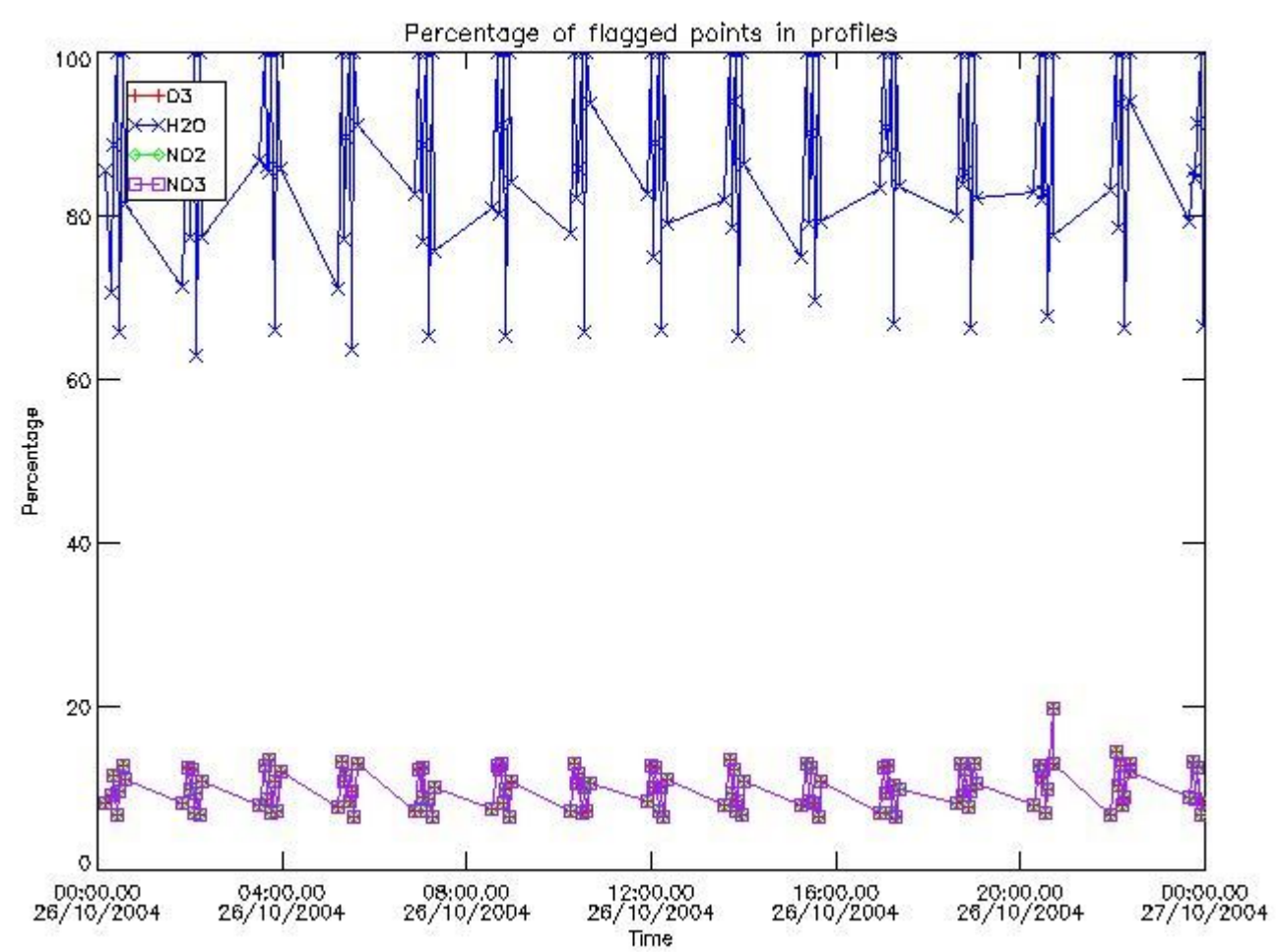
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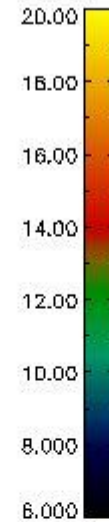
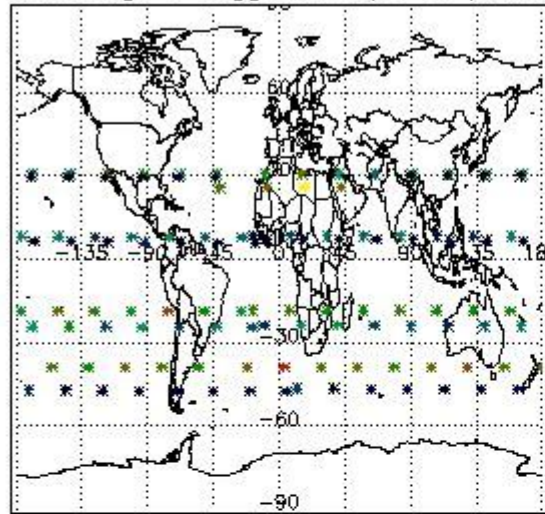
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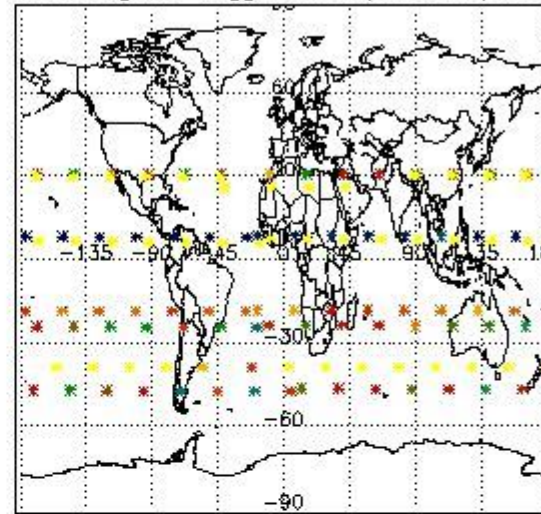


3.2 Plot quality information per product (world map)

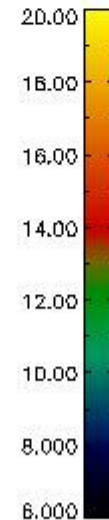
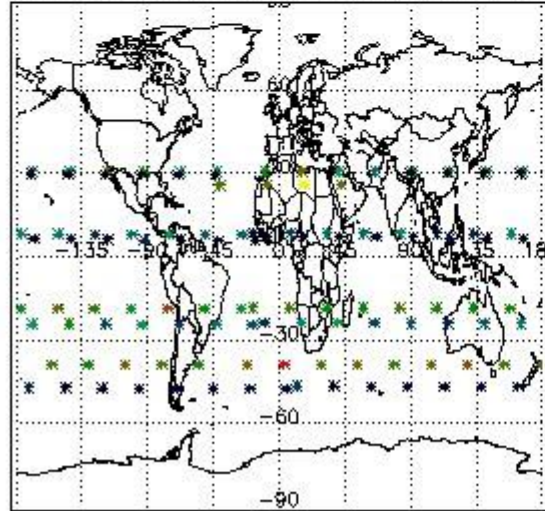
Percentage of flagged data per O3 profile



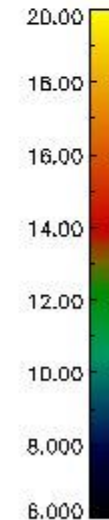
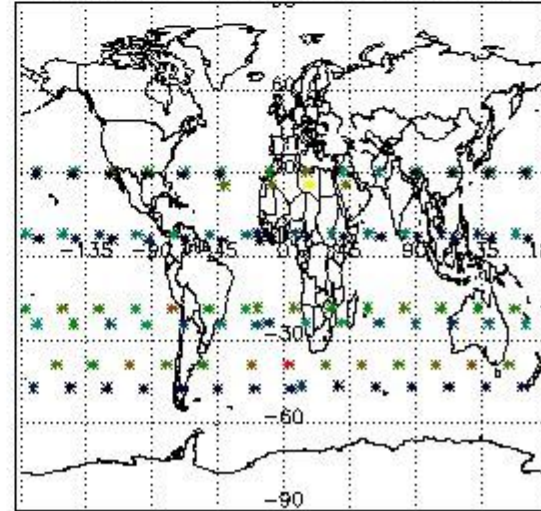
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

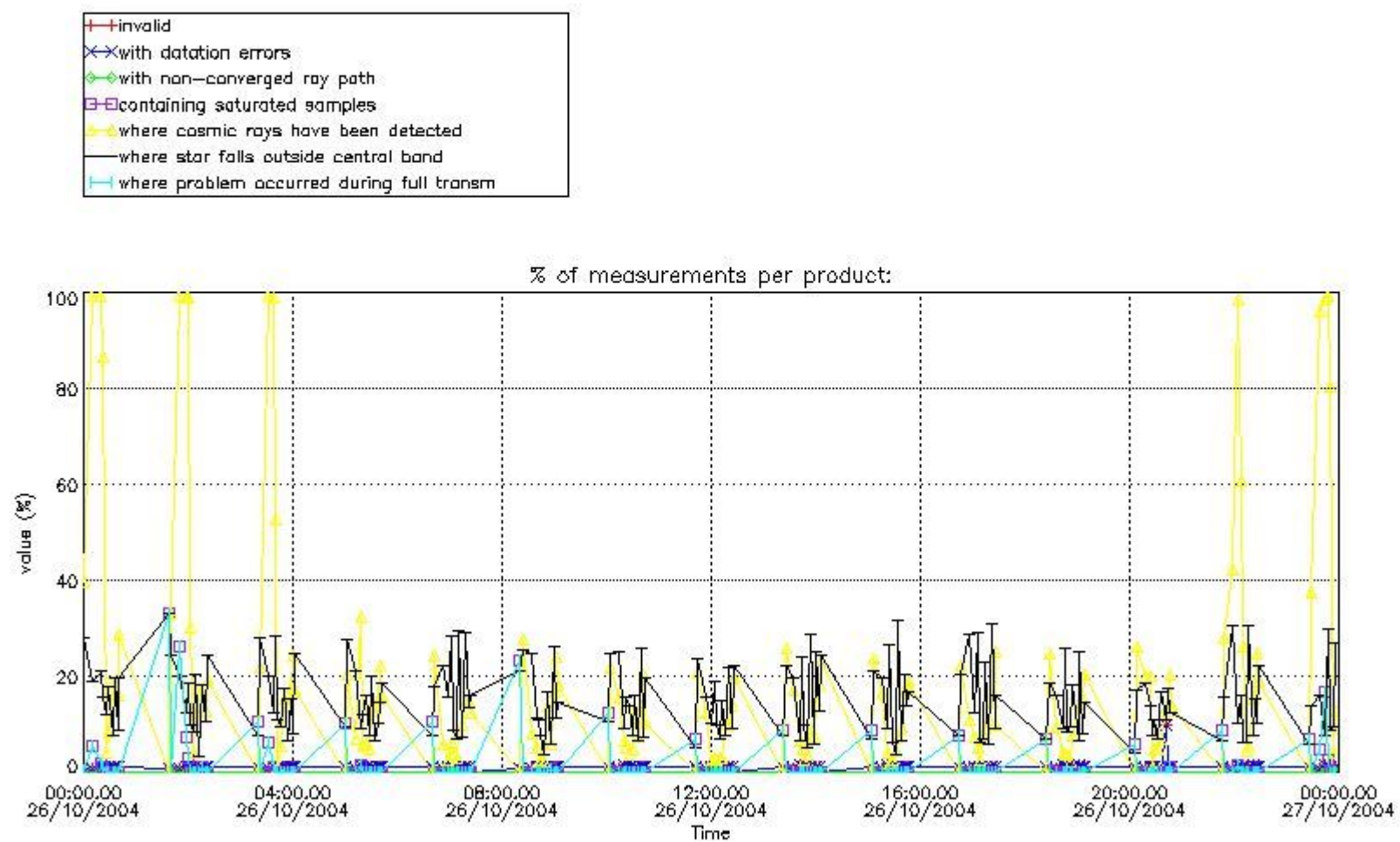


4. Level 1 quality information per product

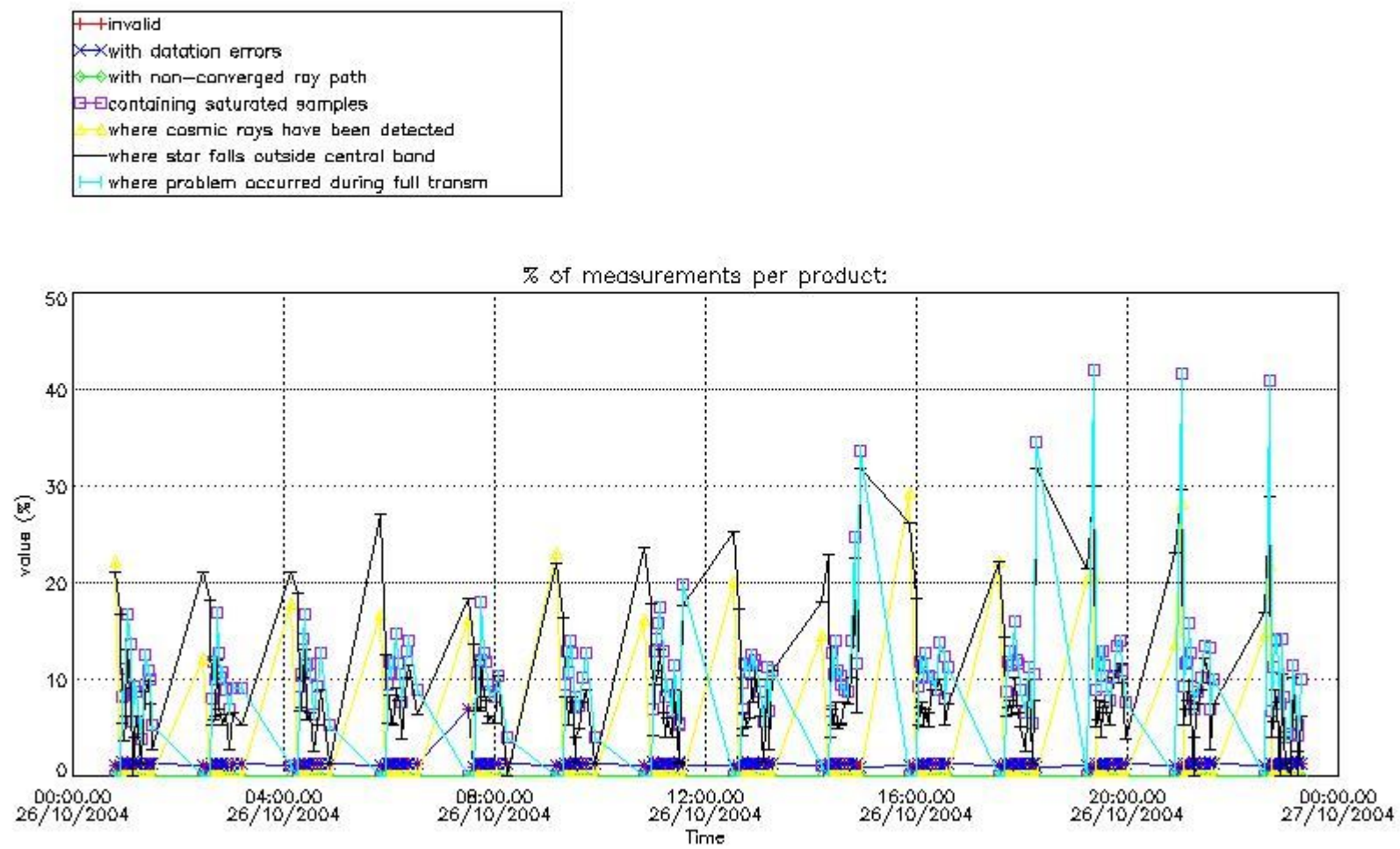
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



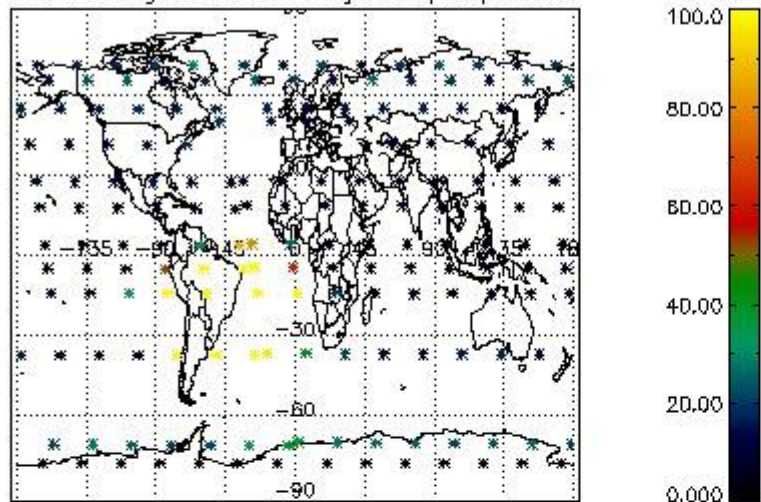
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



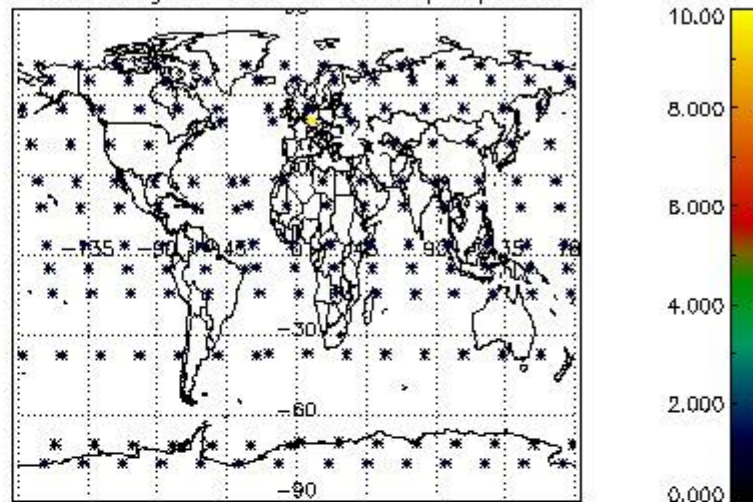
4.2 Plot quality information per product coming from level 1b processing (world map)

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

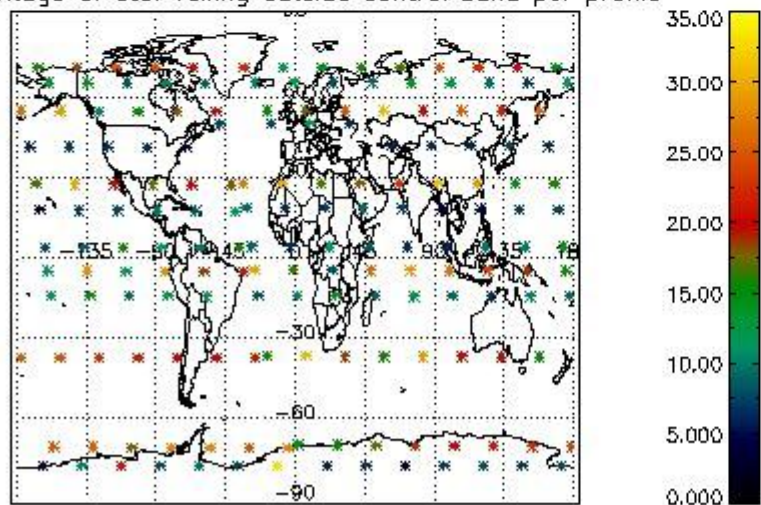
Percentage of cosmic ray hits per profile



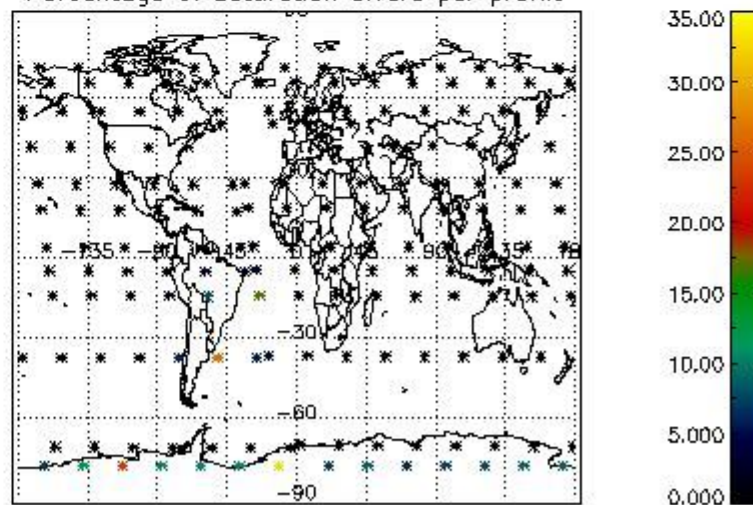
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

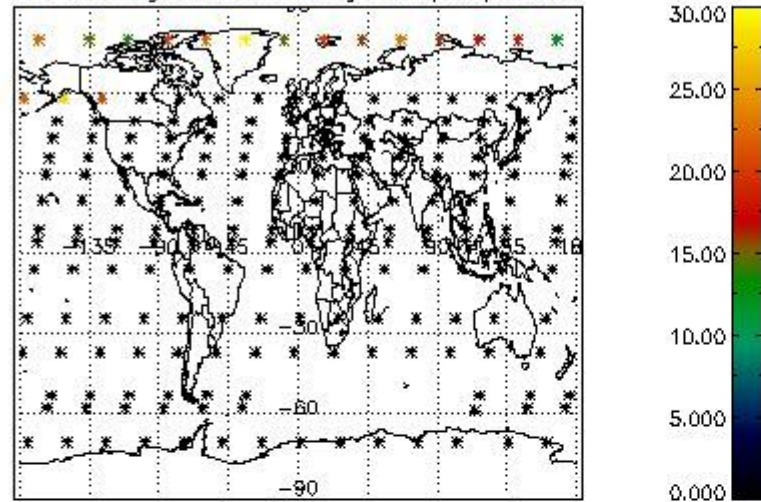


Percentage of saturation errors per profile

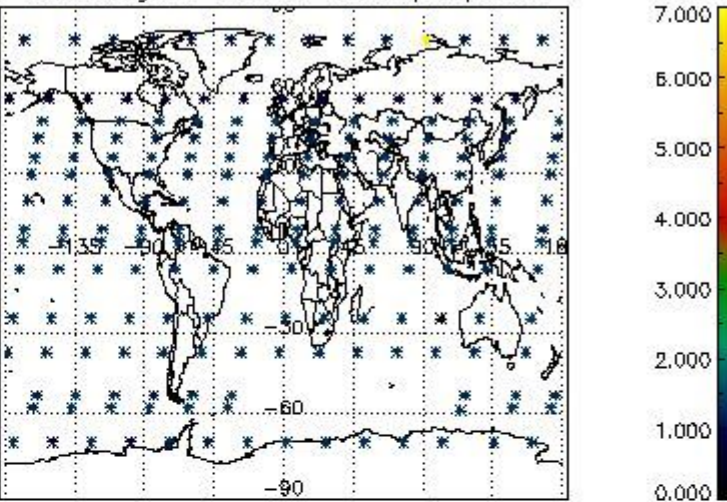


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

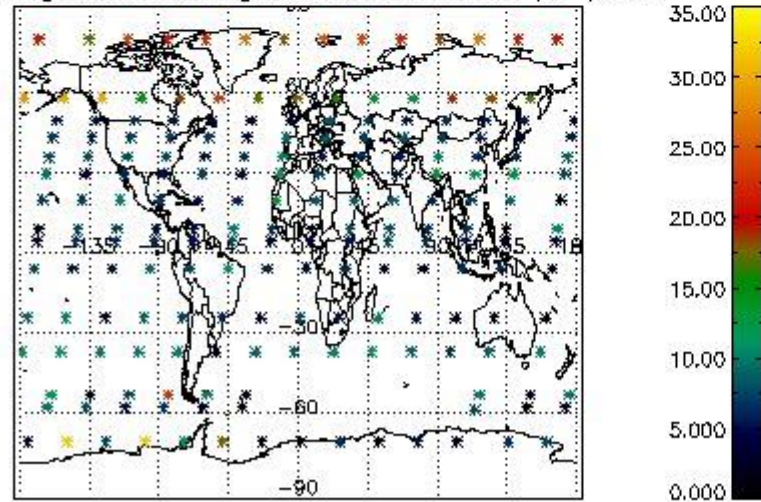
Percentage of cosmic ray hits per profile



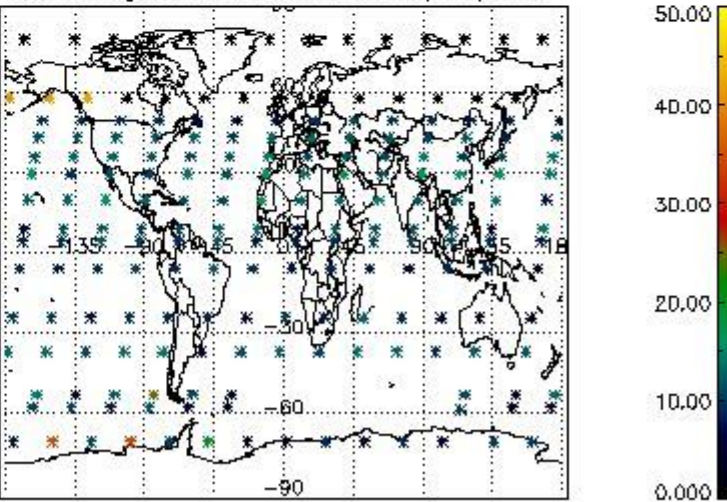
Percentage of datation errors per profile



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

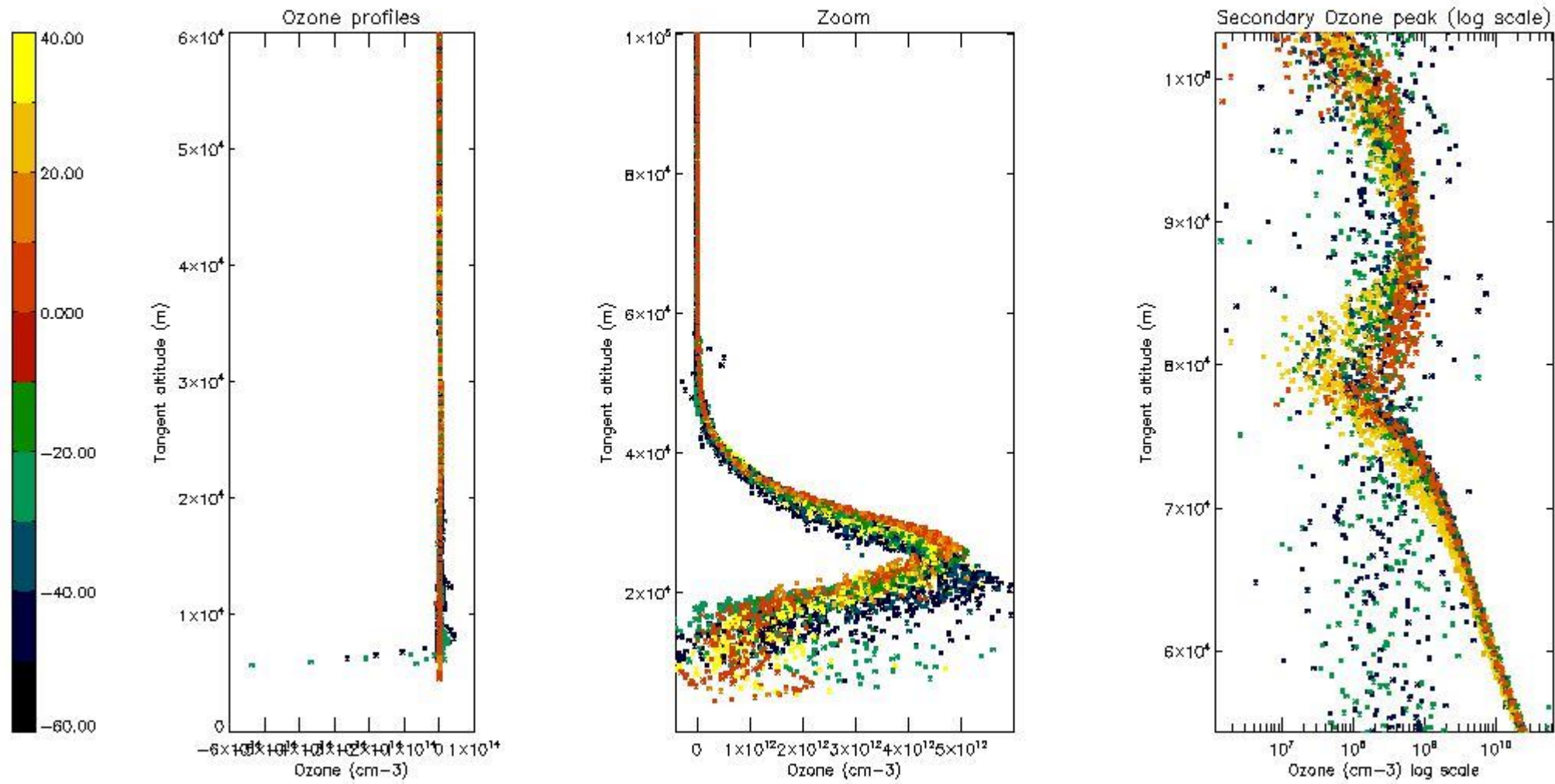
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	32
STD < 20	18

STD < 10	16
STD < 5	11

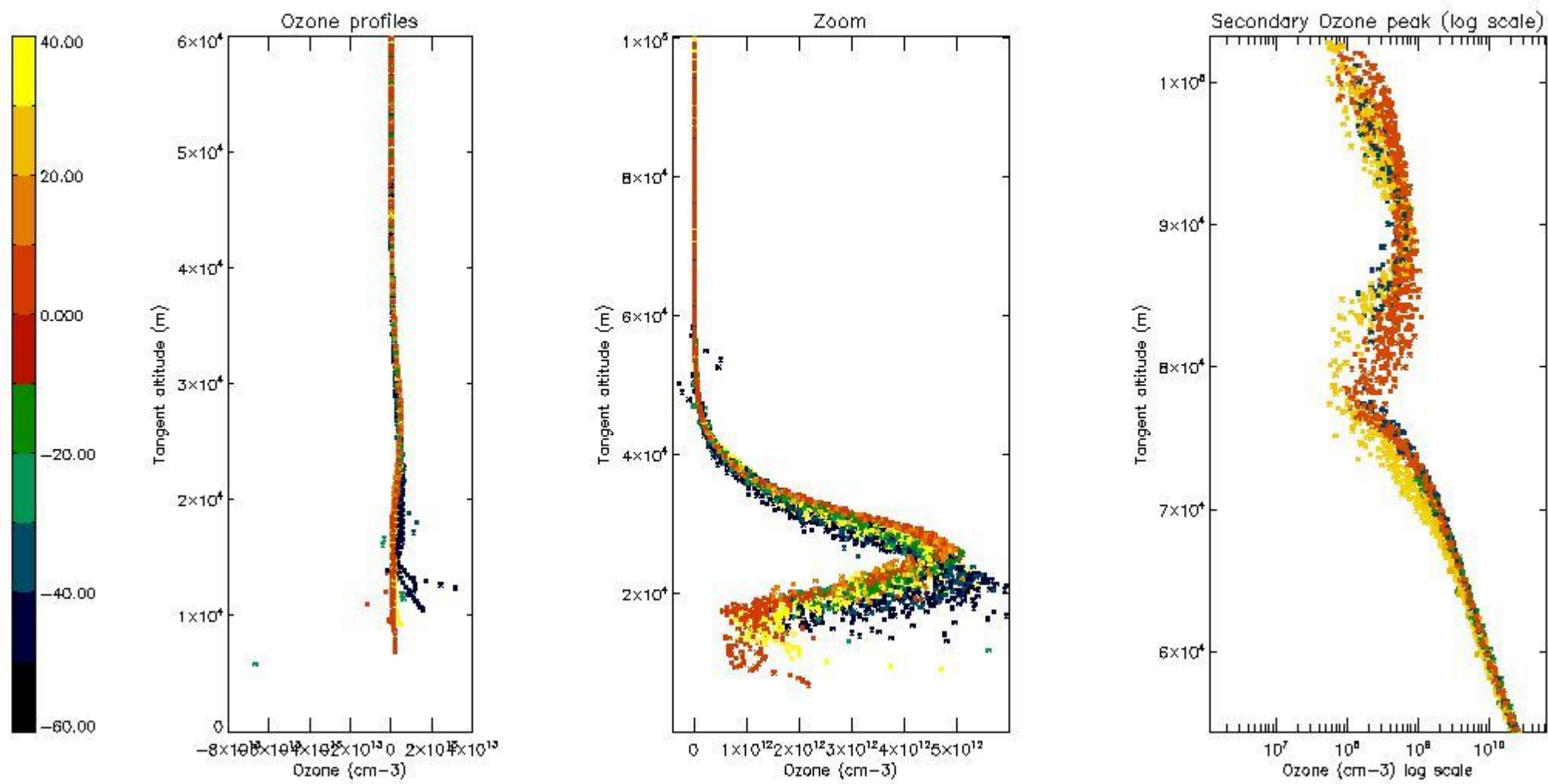
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



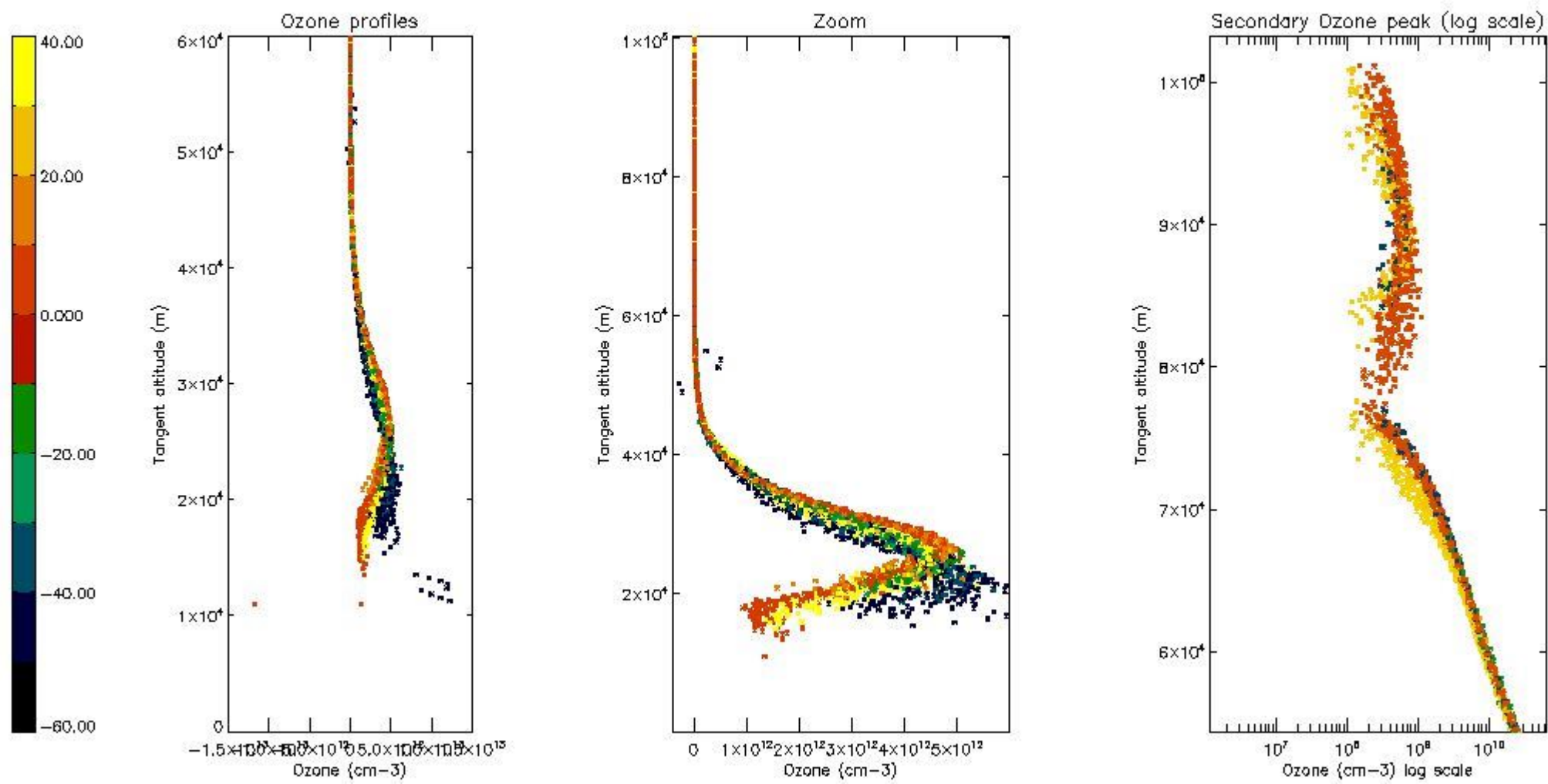
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



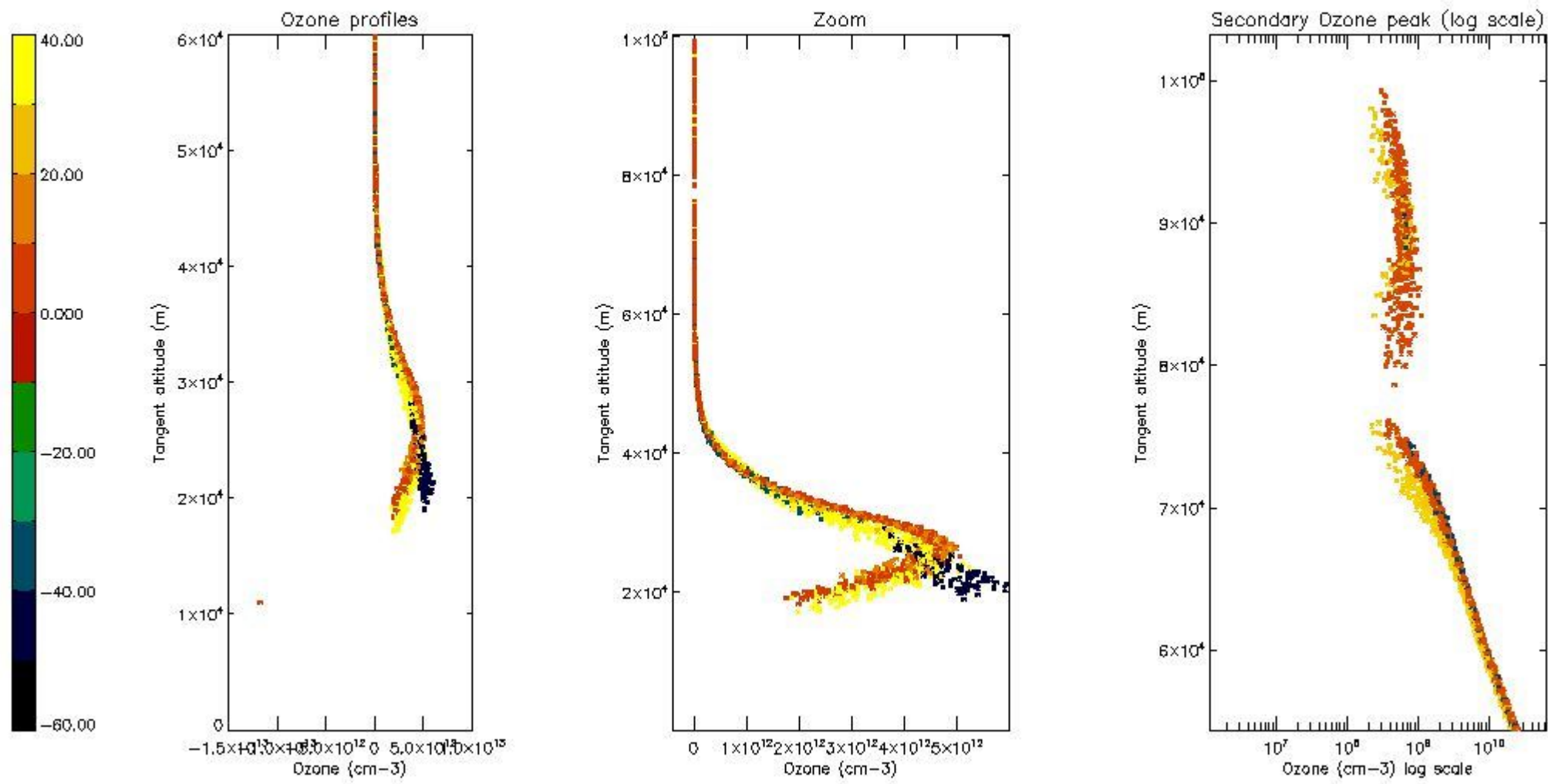
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



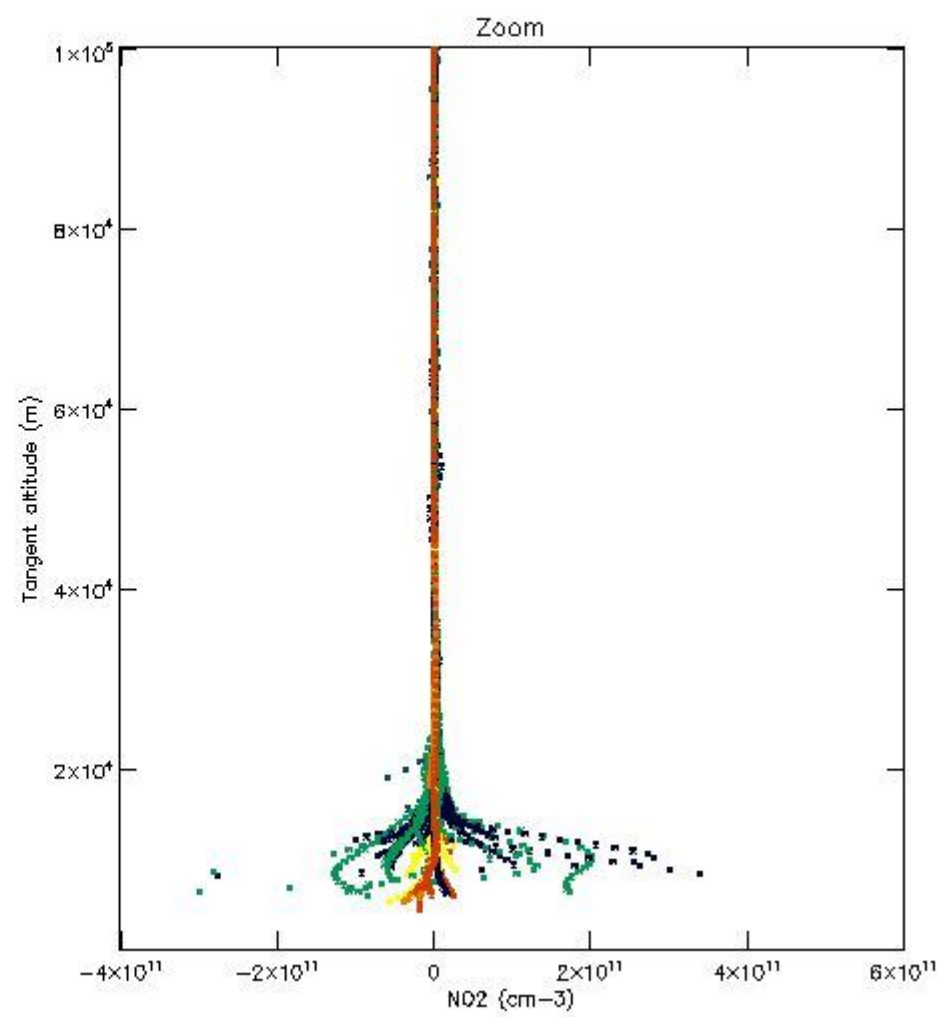
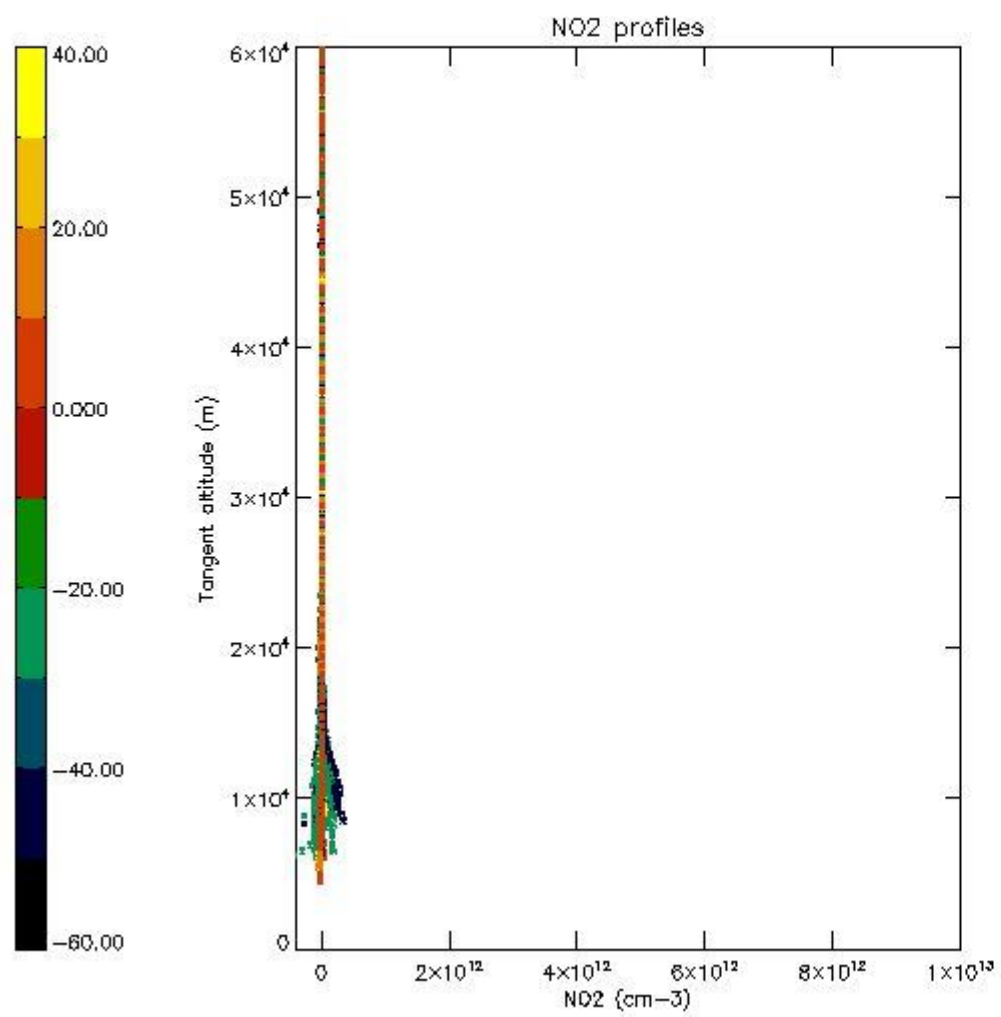
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



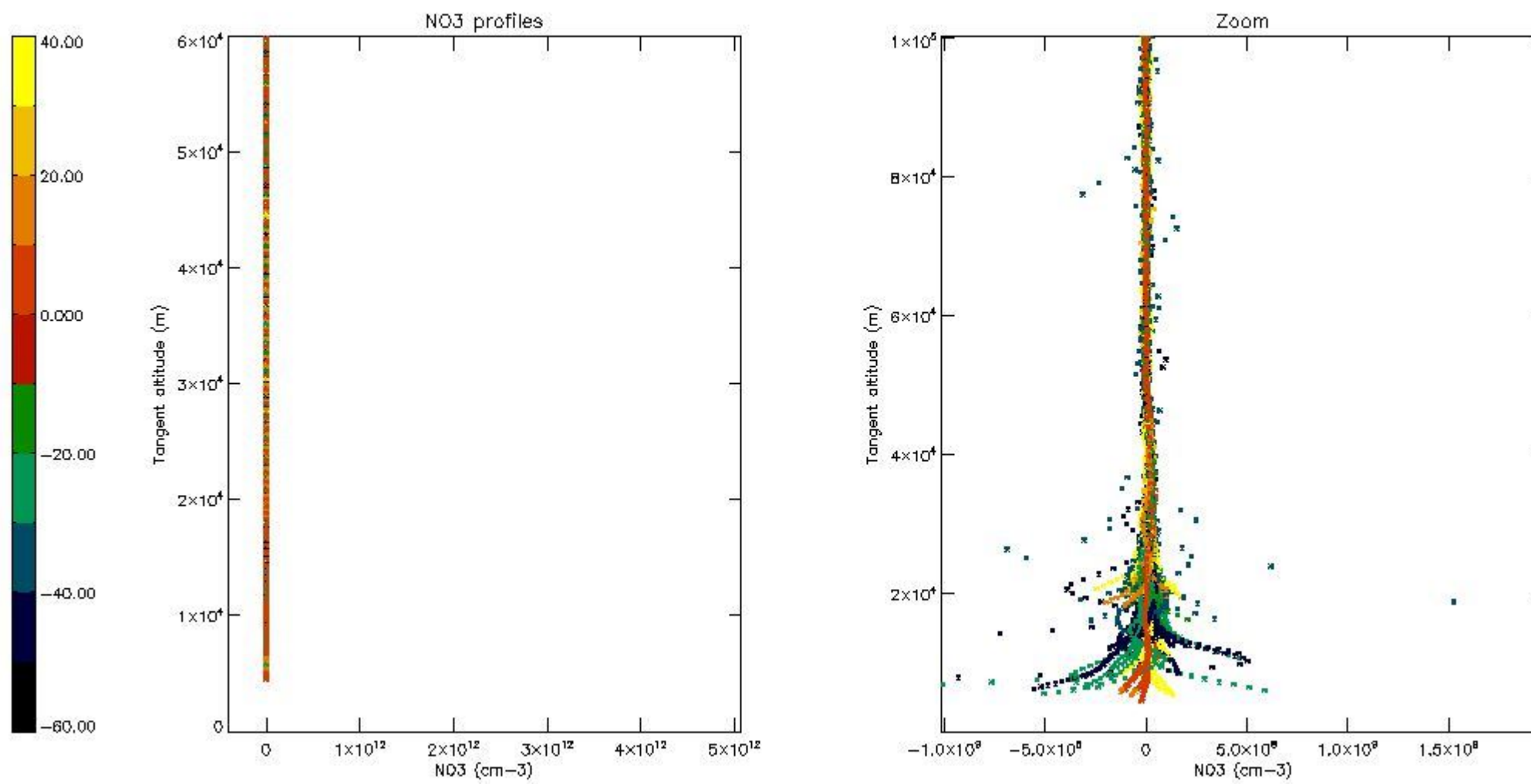
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



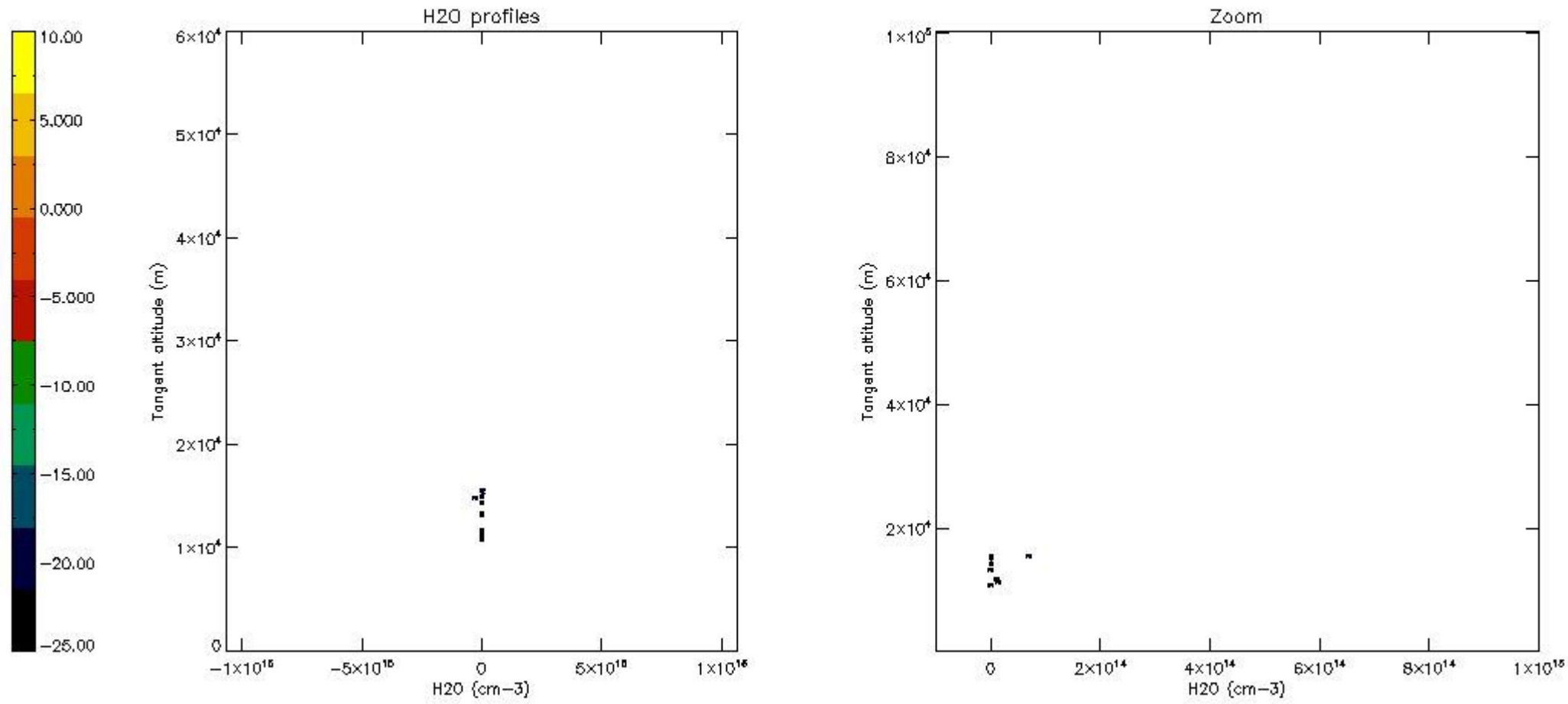
5.7 Plot NO3 profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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

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

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	26-OCT-2004 00:00:11
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	26-OCT-2004 00:00:11
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	26-OCT-2004 00:00:11

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[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](#)

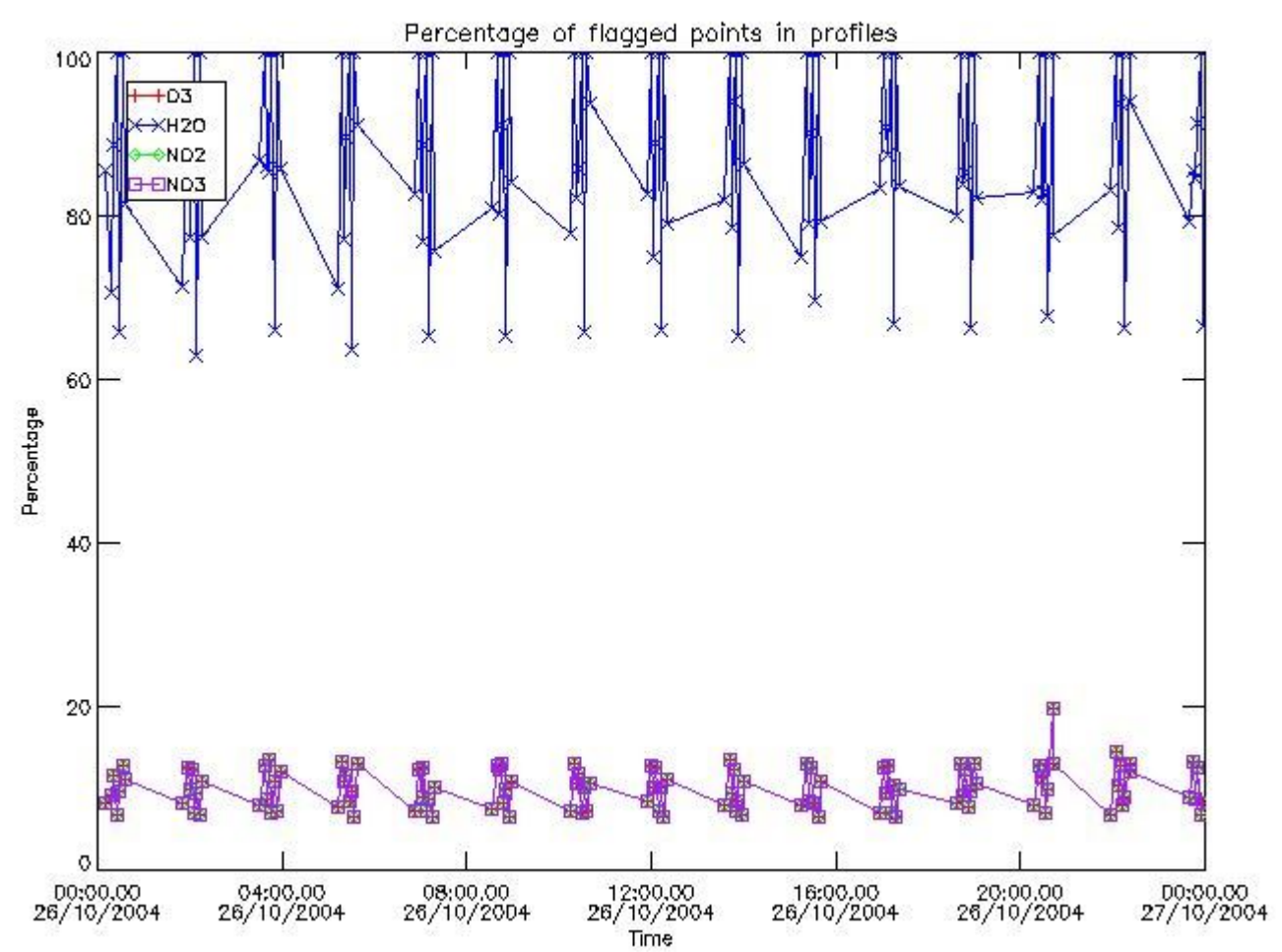
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338	GOM_NL__2PRFIN20041026_213421_000000362031_00315_13896_5513.N1	26-OCT-2004 21:34:21	Bright	36.000	32	77Eps UMa	1.7630	11000.	72	13896	No
339	GOM_NL__2PRFIN20041026_213810_000000402031_00315_13896_5514.N1	26-OCT-2004 21:38:10	Bright	40.000	174	52Psi UMa	3.0040	4400.0	80	13896	No
340	GOM_NL__2PRFIN20041026_214546_000000532031_00315_13896_5515.N1	26-OCT-2004 21:45:46	Bright	52.500	166	17Eps Leo	2.9800	6000.0	105	13896	No
341	GOM_NL__2PRFIN20041026_214820_000002552031_00315_13896_5516.N1	26-OCT-2004 21:48:20	Twilight	254.50	17	78Bet Gem	1.1610	4500.0	509	13896	No
342	GOM_NL__2PRFIN20041026_215800_000000752031_00315_13896_5517.N1	26-OCT-2004 21:58:00	Dark	75.000	48	30Alp Hya	1.9770	4100.0	150	13896	No
343	GOM_NL__2PRFIN20041026_220419_000000392031_00315_13896_5518.N1	26-OCT-2004 22:04:19	Dark	39.000	99	Del Cen	2.5750	26000.	78	13896	No
344	GOM_NL__2PRFIN20041026_220702_000000502031_00315_13896_5519.N1	26-OCT-2004 22:07:02	Dark	49.500	65	Lam Vel	2.2040	4400.0	99	13896	No
345	GOM_NL__2PRFIN20041026_220929_000000402031_00316_13897_5499.N1	26-OCT-2004 22:09:29	Dark	40.000	71	Iot Car	2.2460	7700.0	80	13897	No
346	GOM_NL__2PRFIN20041026_221334_000000722031_00316_13897_5500.N1	26-OCT-2004 22:13:34	Dark	71.500	88	31Eta CMa	2.4480	20000.	143	13897	No
347	GOM_NL__2PRFIN20041026_221608_000000632031_00316_13897_5501.N1	26-OCT-2004 22:16:08	Dark	62.500	2	Alp Car	-0.73600	7000.0	125	13897	No
348	GOM_NL__2PRFIN20041026_222225_000000392031_00316_13897_5502.N1	26-OCT-2004 22:22:25	Dark	39.000	143	Alp Hyi	2.8570	7200.0	78	13897	No
349	GOM_NL__2PRFIN20041026_222349_000000432031_00316_13897_5503.N1	26-OCT-2004 22:23:49	Dark	42.500	9	Alp Eri	0.45300	24000.	85	13897	No
350	GOM_NL__2PRFIN20041026_222655_000000452031_00316_13897_5504.N1	26-OCT-2004 22:26:55	Straylight	44.500	157	The1Eri	2.9060	9300.0	89	13897	No
351	GOM_NL__2PRFIN20041026_222838_000000452031_00316_13897_5505.N1	26-OCT-2004 22:28:38	Straylight	45.000	84	Alp Phe	2.3970	4500.0	90	13897	No
352	GOM_NL__2PRFIN20041026_223510_000000452031_00316_13897_5506.N1	26-OCT-2004 22:35:10	Straylight	44.500	52	16Bet Cet	2.0370	4500.0	89	13897	No
353	GOM_NL__2PRFIN20041026_224213_000000712031_00316_13897_5507.N1	26-OCT-2004 22:42:13	Bright	71.000	94	92Alp Cet	2.5260	3100.0	142	13897	No
354	GOM_NL__2PRFIN20041026_224439_000000372031_00316_13897_5508.N1	26-OCT-2004 22:44:39	Bright	37.000	140	88Gam Peg	2.8340	26000.	74	13897	No
355	GOM_NL__2PRFIN20041026_224624_000000452031_00316_13897_5509.N1	26-OCT-2004 22:46:24	Bright	44.500	105	6Bet Ari	2.6450	8900.0	89	13897	No
356	GOM_NL__2PRFIN20041026_224832_000000392031_00316_13897_5510.N1	26-OCT-2004 22:48:32	Bright	39.000	58	21Alp And	2.0730	11000.	78	13897	No
357	GOM_NL__2PRFIN20041026_225018_000000402031_00316_13897_5511.N1	26-OCT-2004 22:50:18	Bright	39.500	53	43Bet And	2.0480	3300.0	79	13897	No
358	GOM_NL__2PRFIN20041026_225302_000000402031_00316_13897_5512.N1	26-OCT-2004 22:53:02	Bright	40.000	73	57Gam1And	2.2600	13100.	80	13897	No
359	GOM_NL__2PRFIN20041026_225604_000000432031_00316_13897_5513.N1	26-OCT-2004 22:56:04	Bright	42.500	68	18Alp Cas	2.2250	4500.0	85	13897	No
360	GOM_NL__2PRFIN20041026_225722_000000372031_00316_13897_5514.N1	26-OCT-2004 22:57:22	Bright	37.000	76	27Gam Cas	2.3000	30000.	74	13897	No
361	GOM_NL__2PRFIN20041026_230016_000000382031_00316_13897_5515.N1	26-OCT-2004 23:00:16	Bright	37.500	89	5Alp Cep	2.4510	8000.0	75	13897	No
362	GOM_NL__2PRFIN20041026_230523_000000352031_00316_13897_5516.N1	26-OCT-2004 23:05:23	Bright	35.000	49	1Alp UMi	1.9900	6300.0	70	13897	No
363	GOM_NL__2PRFIN20041026_230859_000000392031_00316_13897_5517.N1	26-OCT-2004 23:08:59	Bright	39.000	60	7Bet UMi	2.0810	3950.0	78	13897	No
364	GOM_NL__2PRFIN20041026_231335_000000382031_00316_13897_5518.N1	26-OCT-2004 23:13:35	Bright	38.000	36	50Alp UMa	1.8000	6300.0	76	13897	No
365	GOM_NL__2PRFIN20041026_231456_000000362031_00316_13897_5519.N1	26-OCT-2004 23:14:56	Bright	36.000	32	77Eps UMa	1.7630	11000.	72	13897	No
366	GOM_NL__2PRFIN20041026_231846_000000402031_00316_13897_5520.N1	26-OCT-2004 23:18:46	Bright	40.000	174	52Psi UMa	3.0040	4400.0	80	13897	No
367	GOM_NL__2PRFIN20041026_232622_000000512031_00316_13897_5521.N1	26-OCT-2004 23:26:22	Bright	51.000	166	17Eps Leo	2.9800	6000.0	102	13897	No
368	GOM_NL__2PRFIN20041026_232857_000002552031_00316_13897_5522.N1	26-OCT-2004 23:28:57	Twilight	254.50	17	78Bet Gem	1.1610	4500.0	509	13897	No
369	GOM_NL__2PRFIN20041026_233836_000000632031_00316_13897_5523.N1	26-OCT-2004 23:38:36	Dark	63.000	48	30Alp Hya	1.9770	4100.0	126	13897	No
370	GOM_NL__2PRFIN20041026_234455_000000392031_00316_13897_5524.N1	26-OCT-2004 23:44:55	Dark	38.500	99	Del Cen	2.5750	26000.	77	13897	No
371	GOM_NL__2PRFIN20041026_234739_000000592031_00316_13897_5525.N1	26-OCT-2004 23:47:39	Dark	59.000	65	Lam Vel	2.2040	4400.0	118	13897	No
372	GOM_NL__2PRFIN20041026_235006_000000412031_00317_13898_5501.N1	26-OCT-2004 23:50:06	Dark	40.500	71	Iot Car	2.2460	7700.0	81	13898	No
373	GOM_NL__2PRFIN20041026_235412_000000752031_00317_13898_5502.N1	26-OCT-2004 23:54:12	Dark	74.500	88	31Eta CMa	2.4480	20000.	149	13898	No
374	GOM_NL__2PRFIN20041026_235643_000000632031_00317_13898_5503.N1	26-OCT-2004 23:56:43	Dark	63.000	2	Alp Car	-0.73600	7000.0	126	13898	No

3. Quality information per product

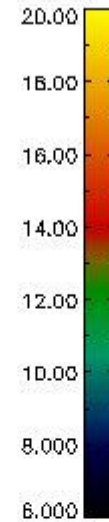
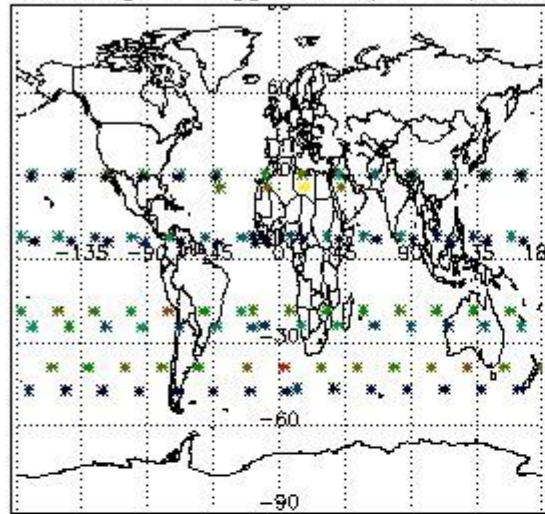
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

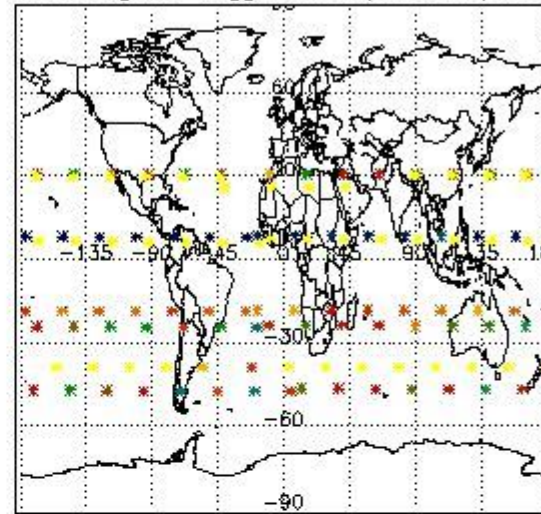


3.2 Plot quality information per product (world map)

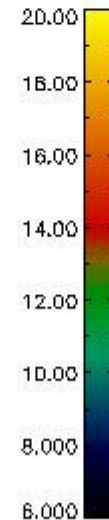
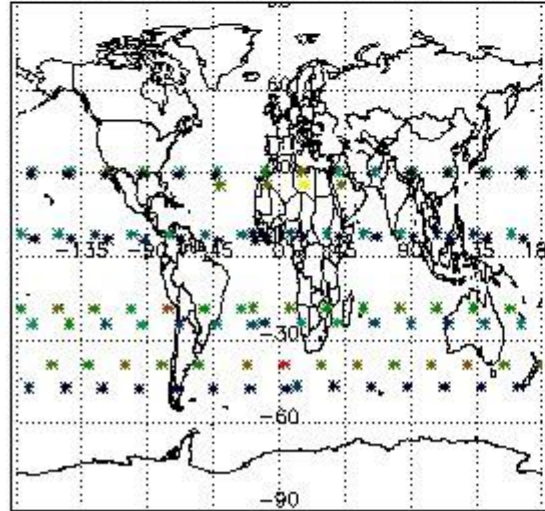
Percentage of flagged data per O3 profile



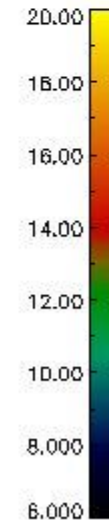
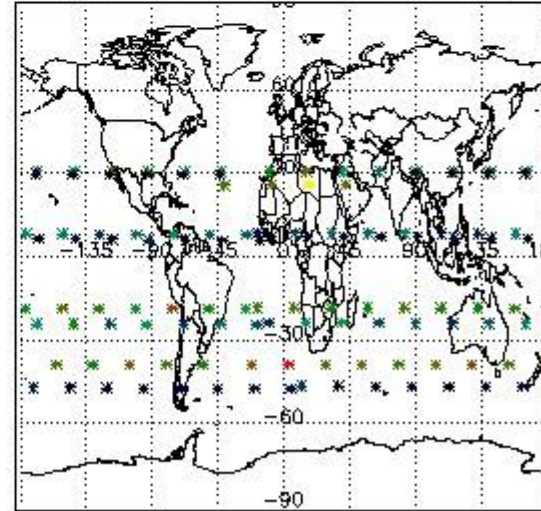
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

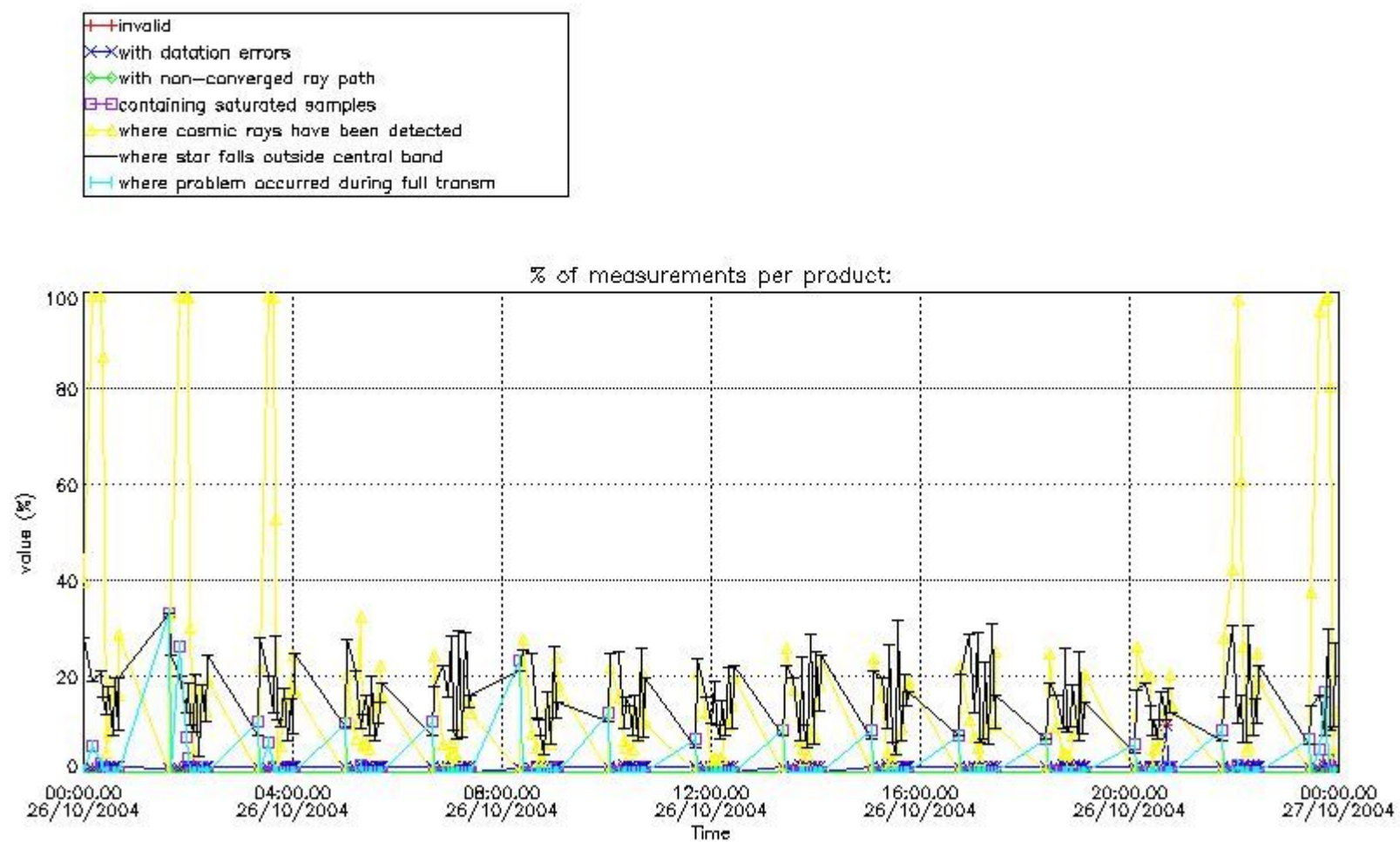


4. Level 1 quality information per product

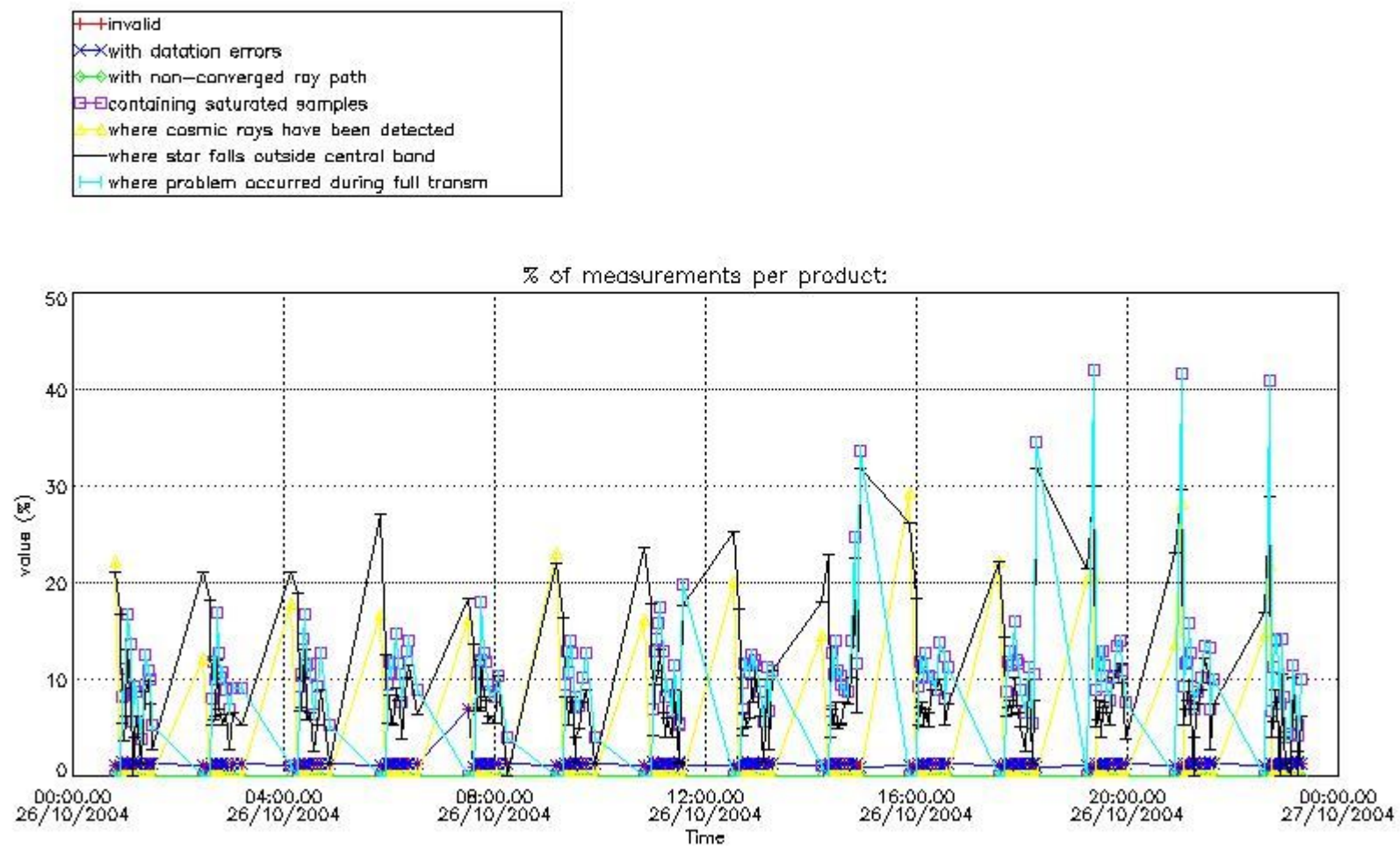
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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



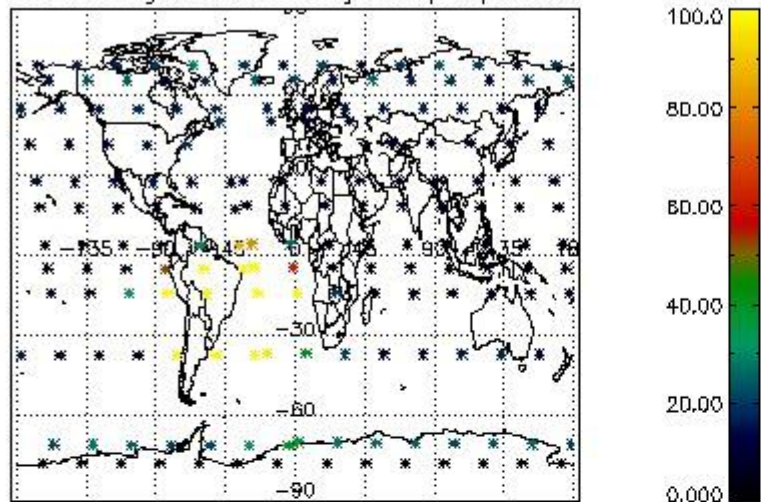
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



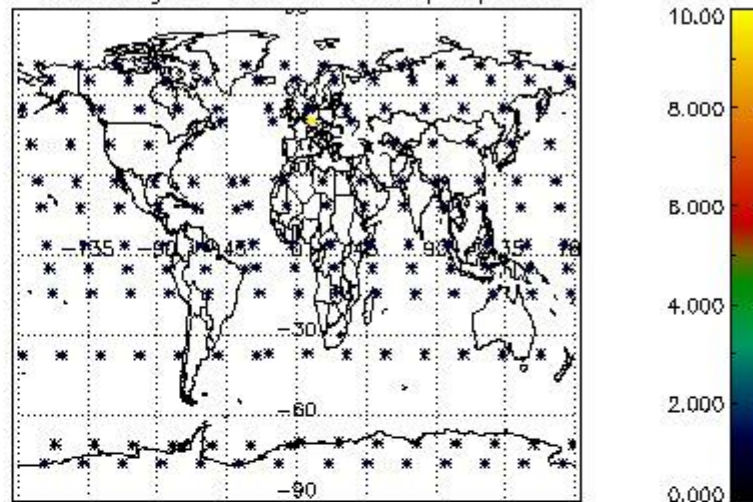
4.2 Plot quality information per product coming from level 1b processing (world map)

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

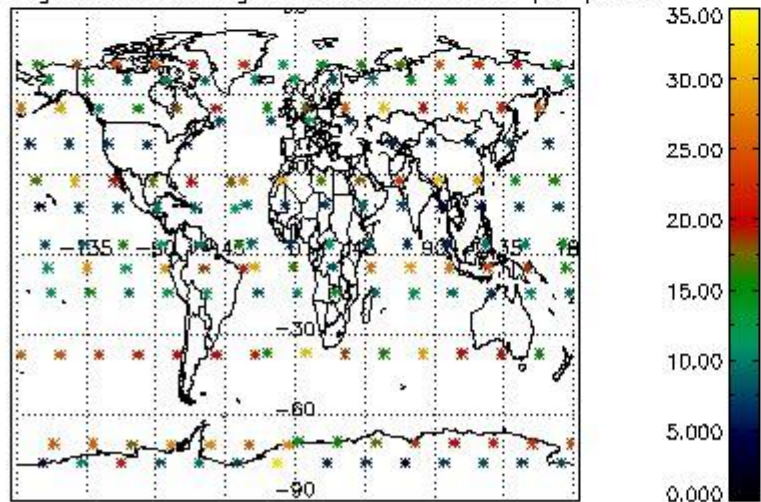
Percentage of cosmic ray hits per profile



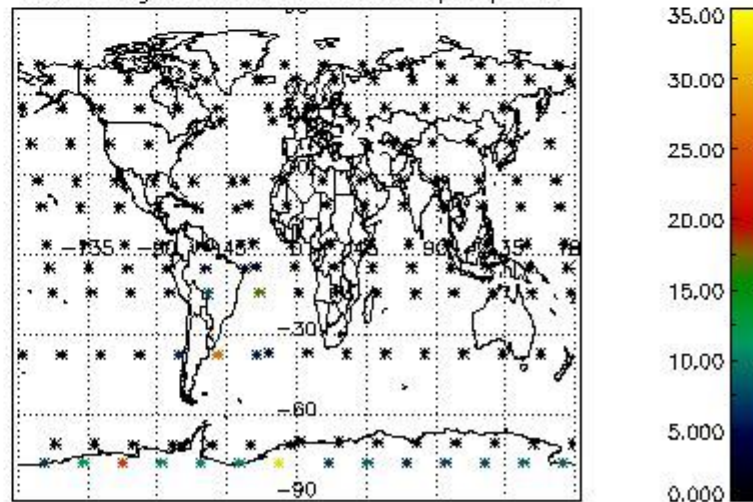
Percentage of datation errors per profile



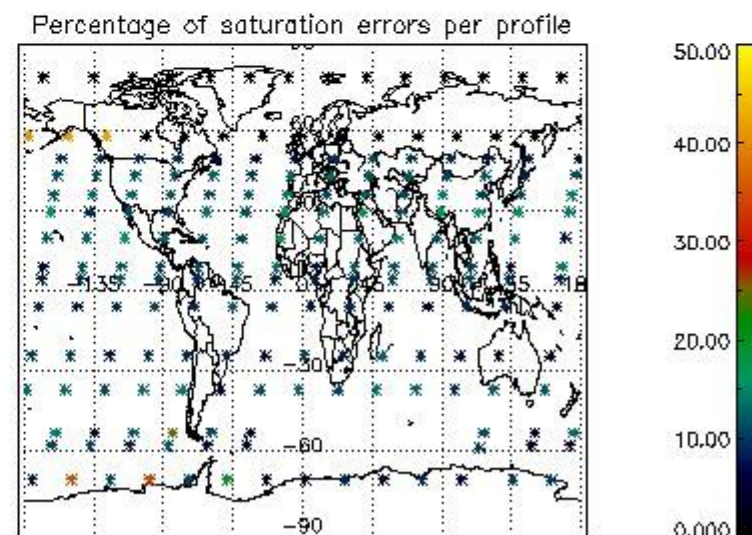
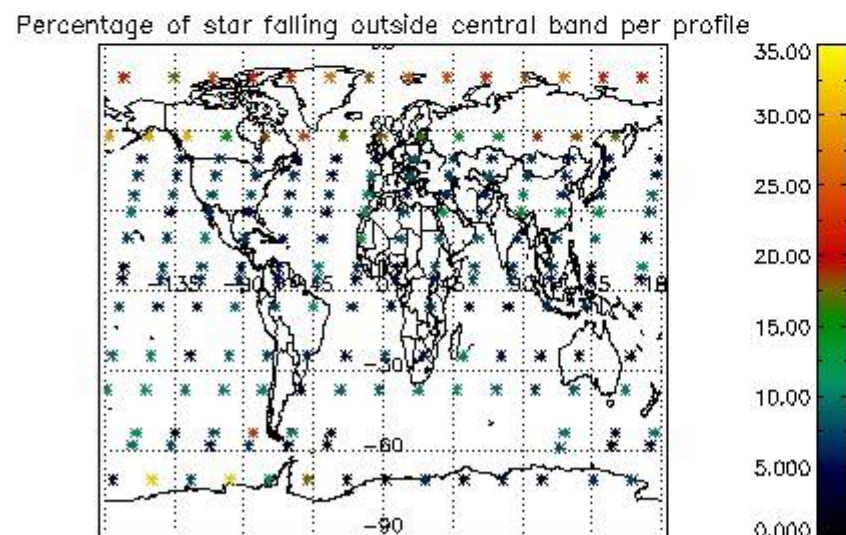
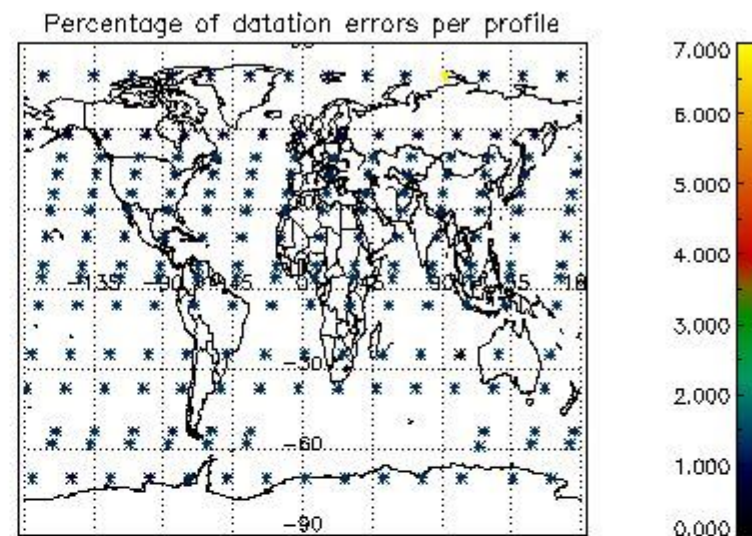
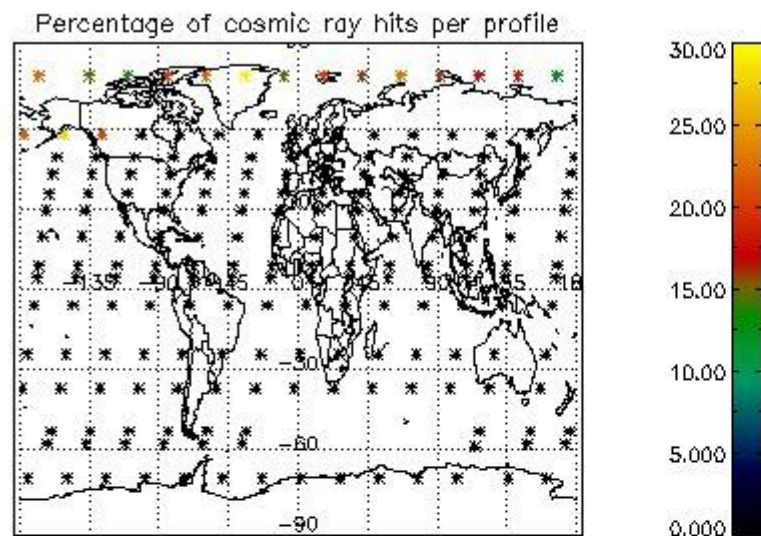
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

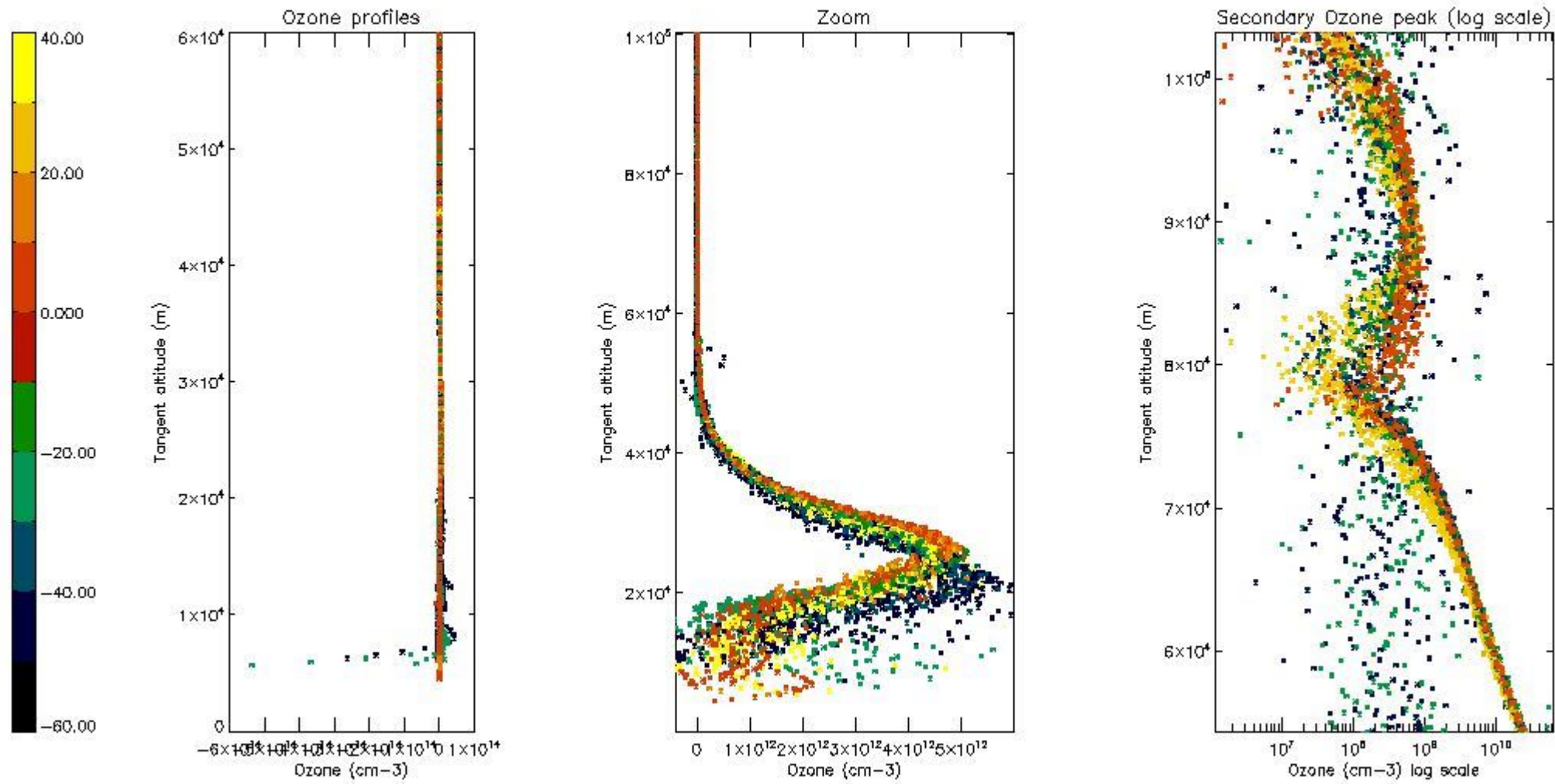
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	32
STD < 20	18

STD < 10	16
STD < 5	11

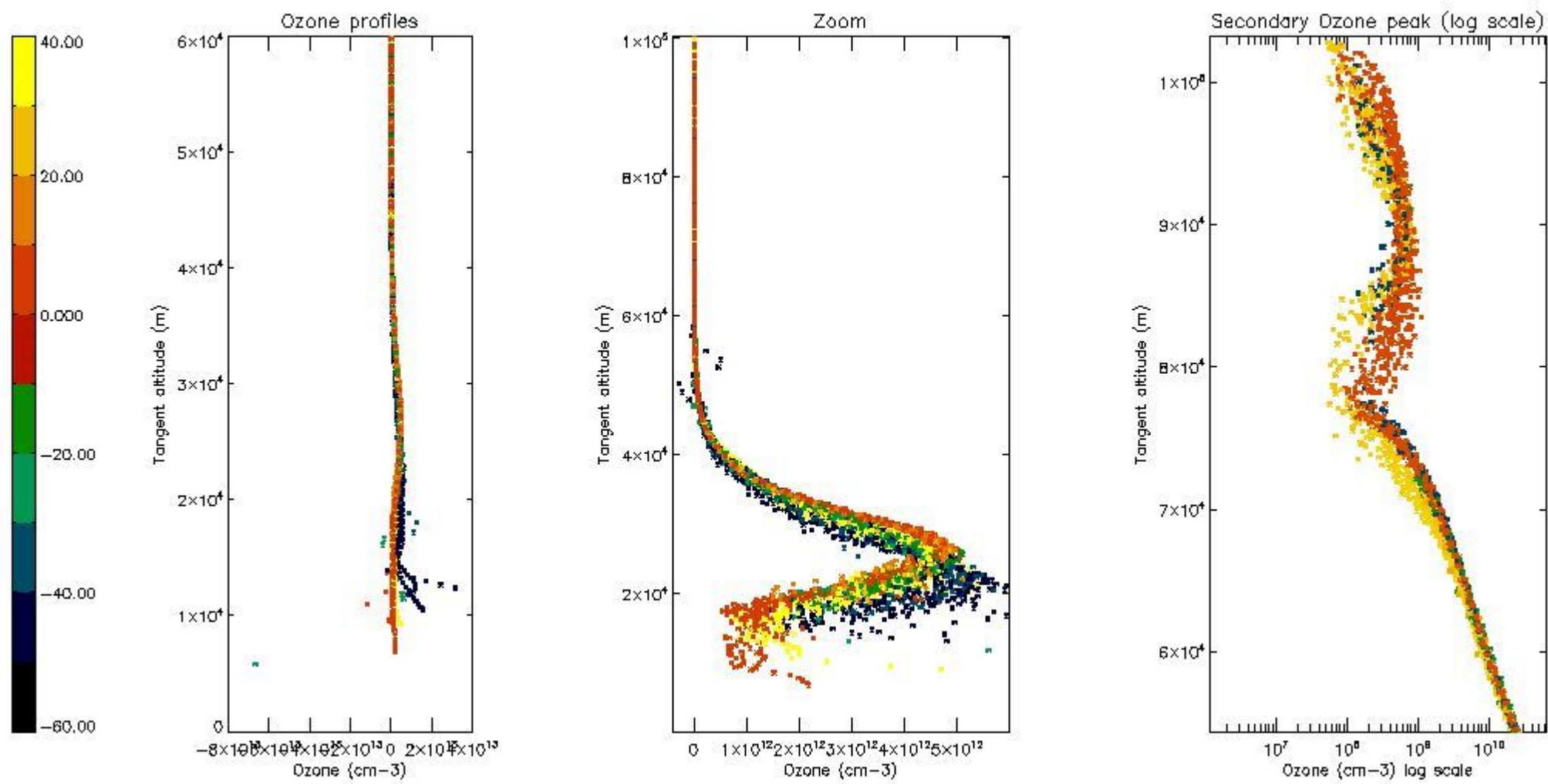
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



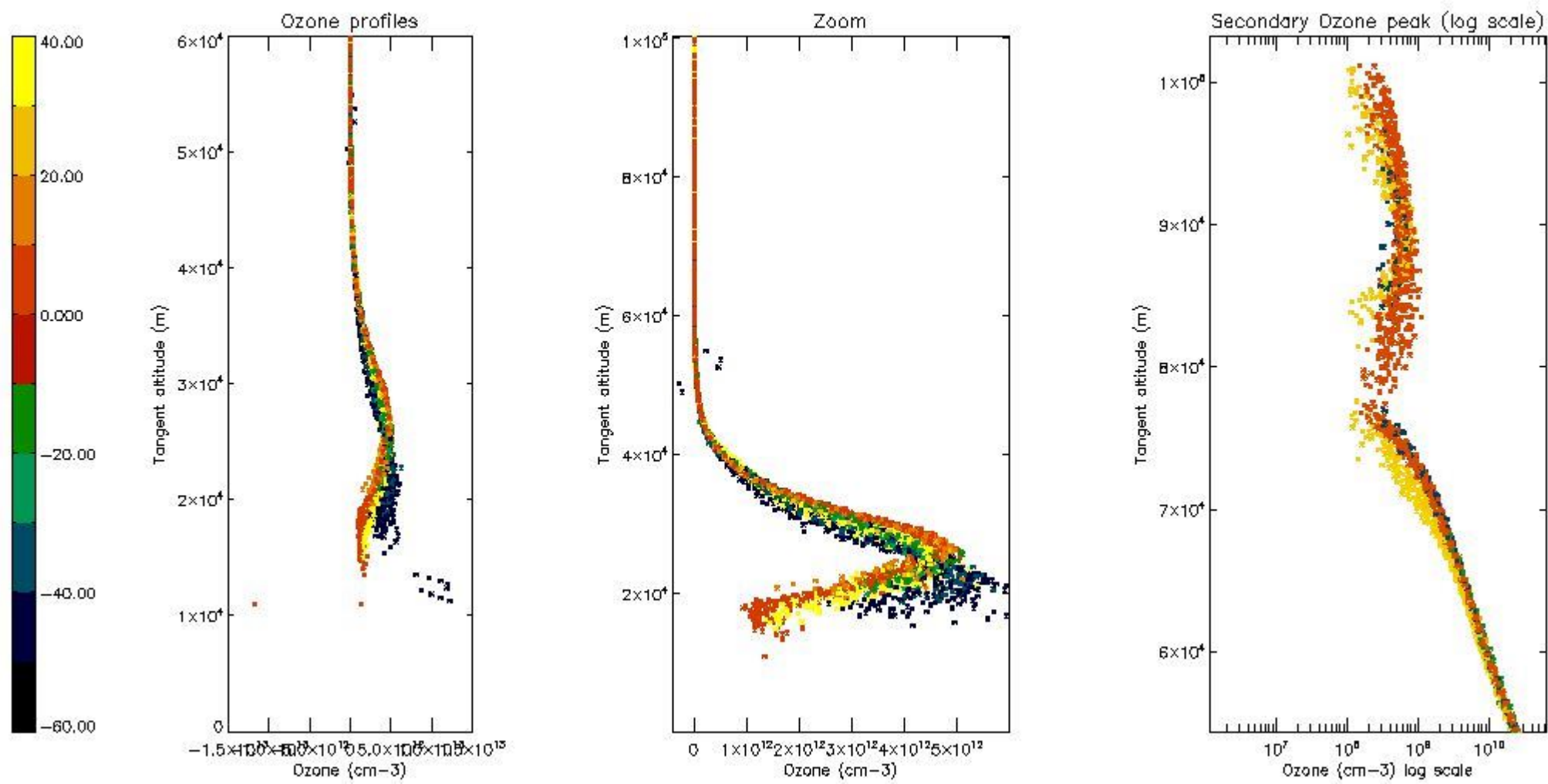
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



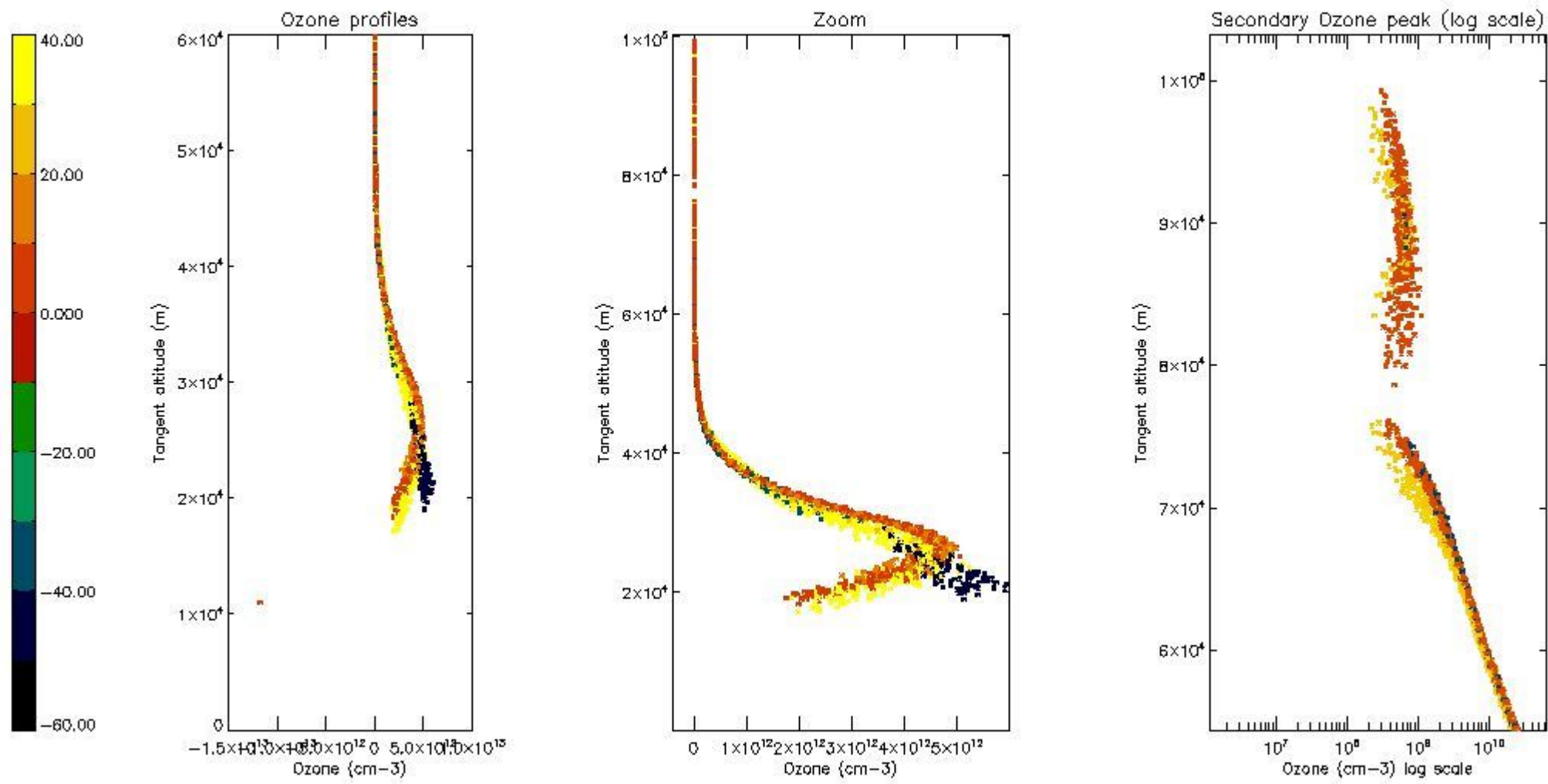
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



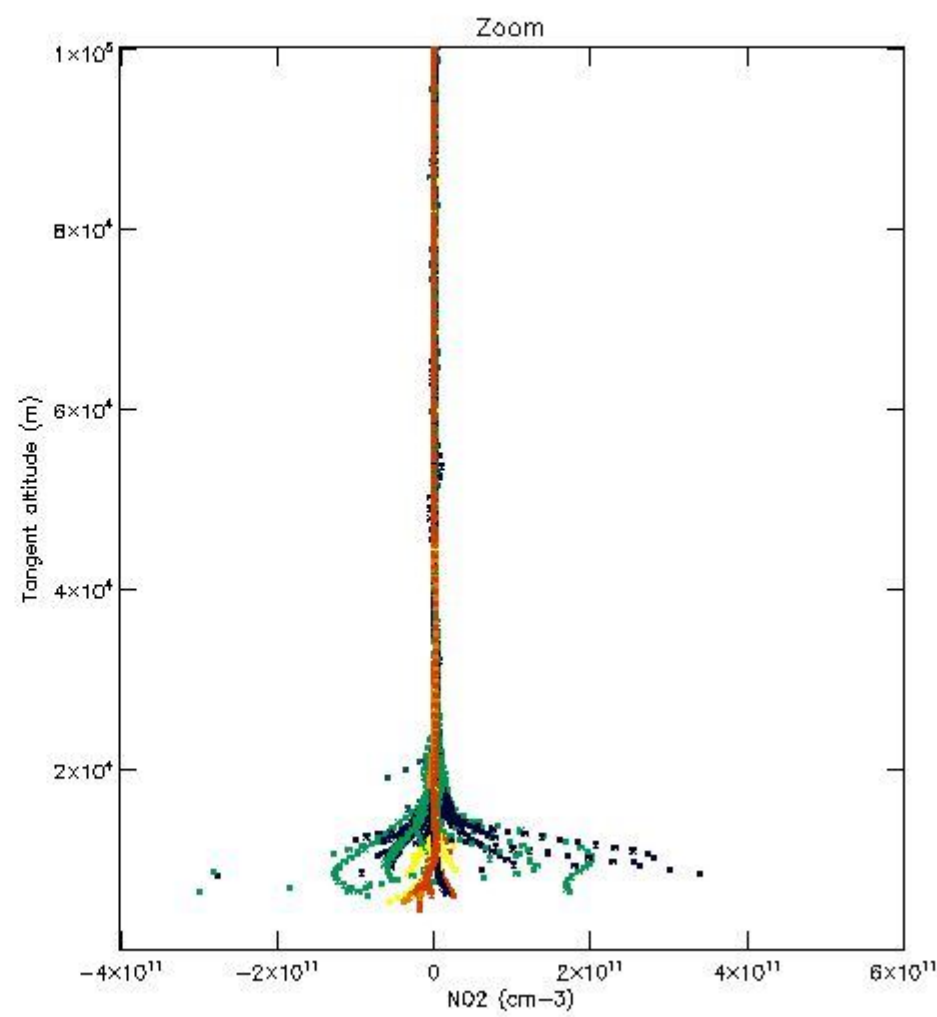
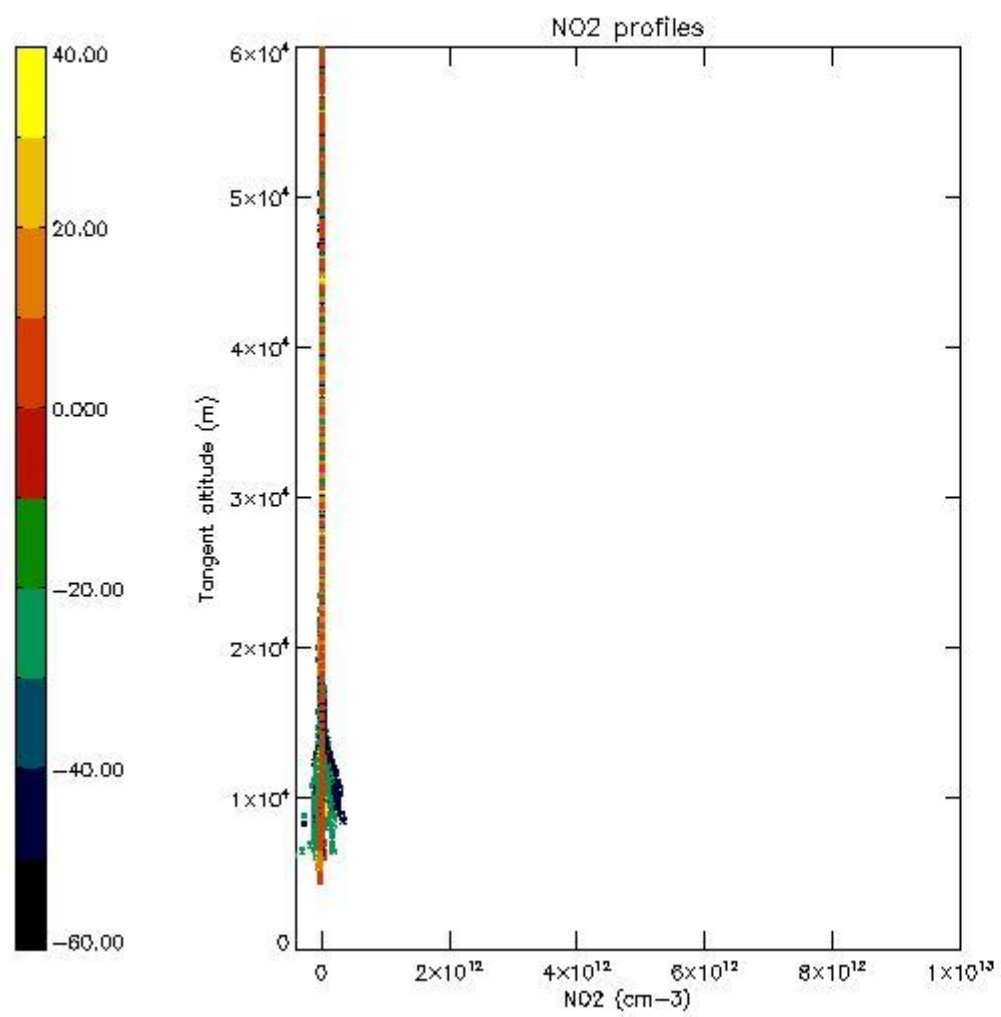
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



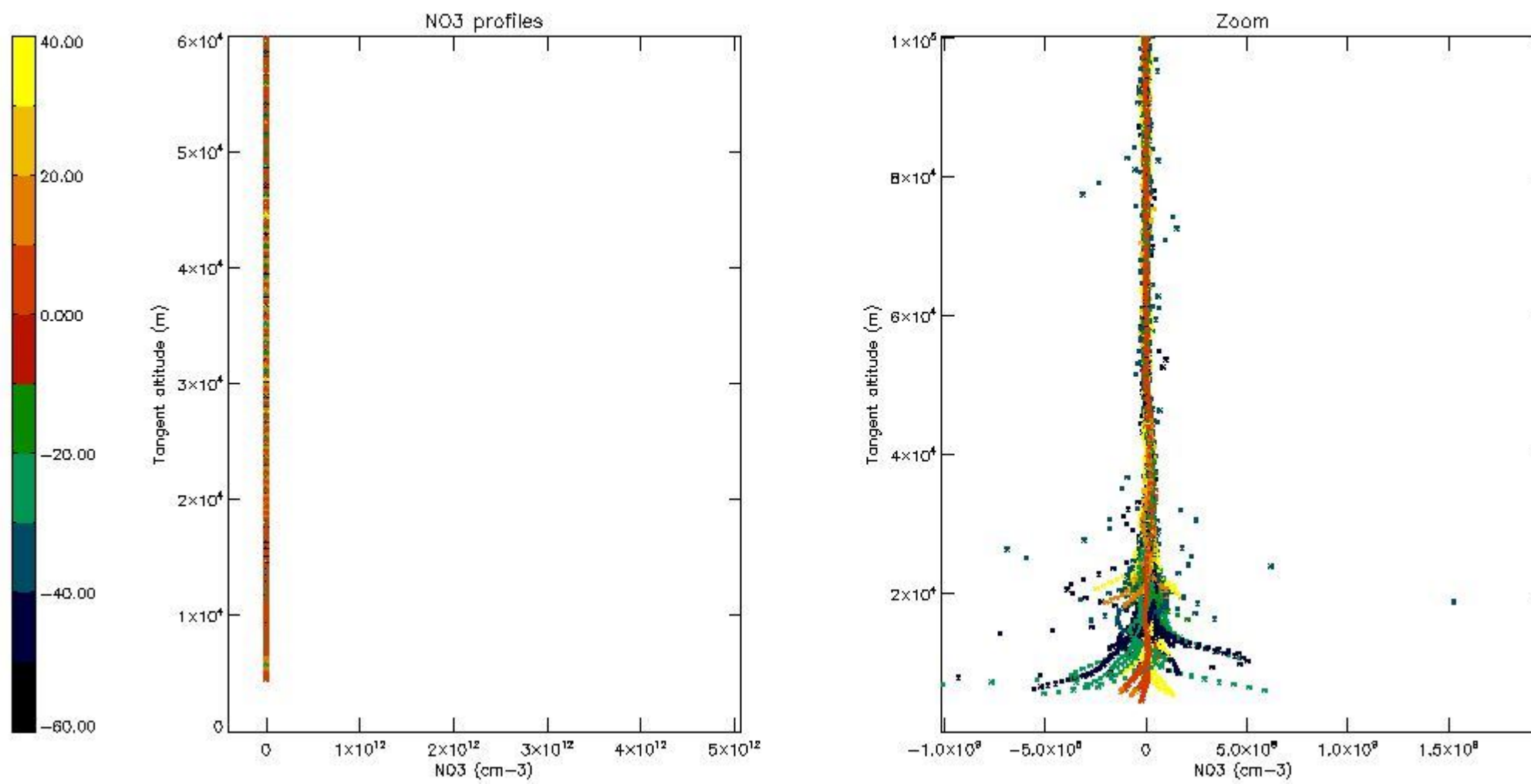
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



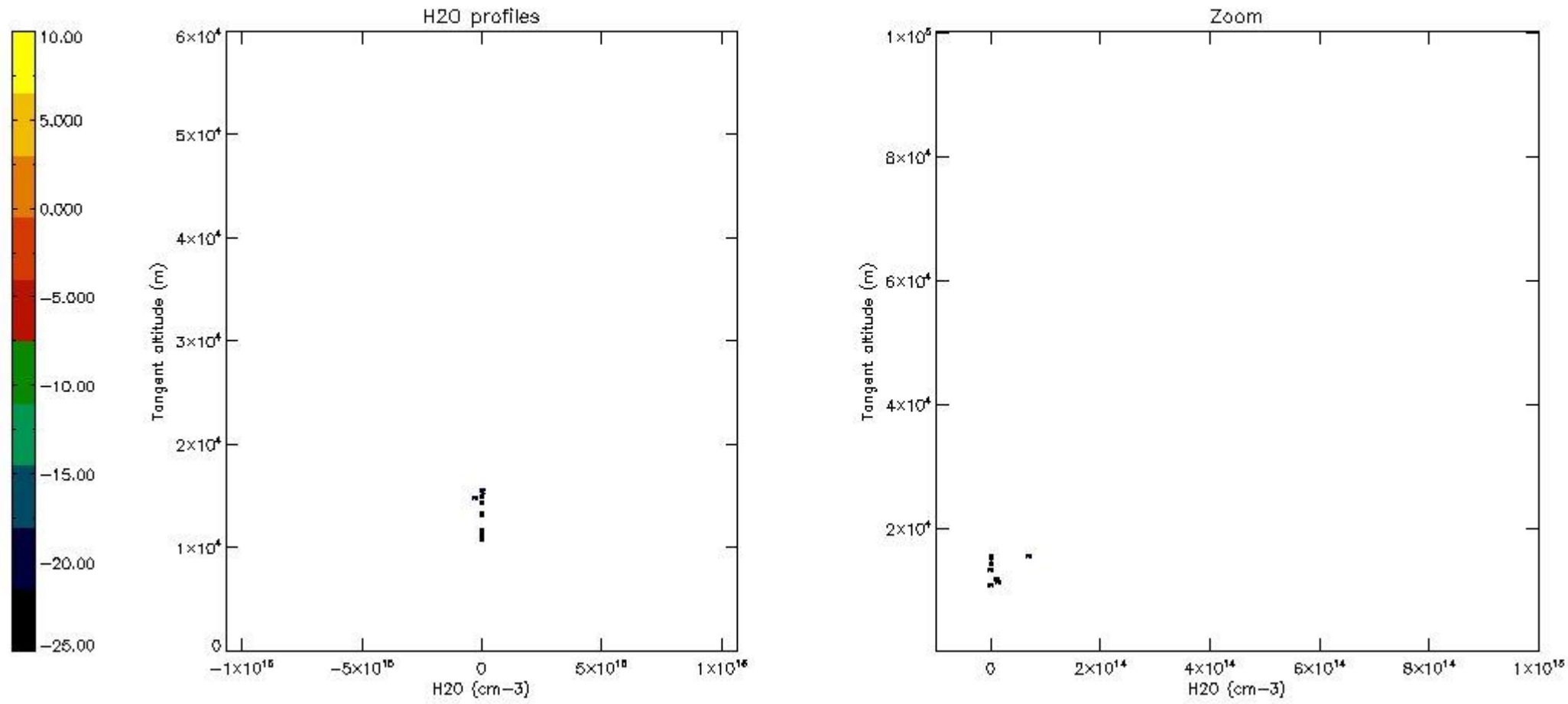
5.7 Plot NO3 profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

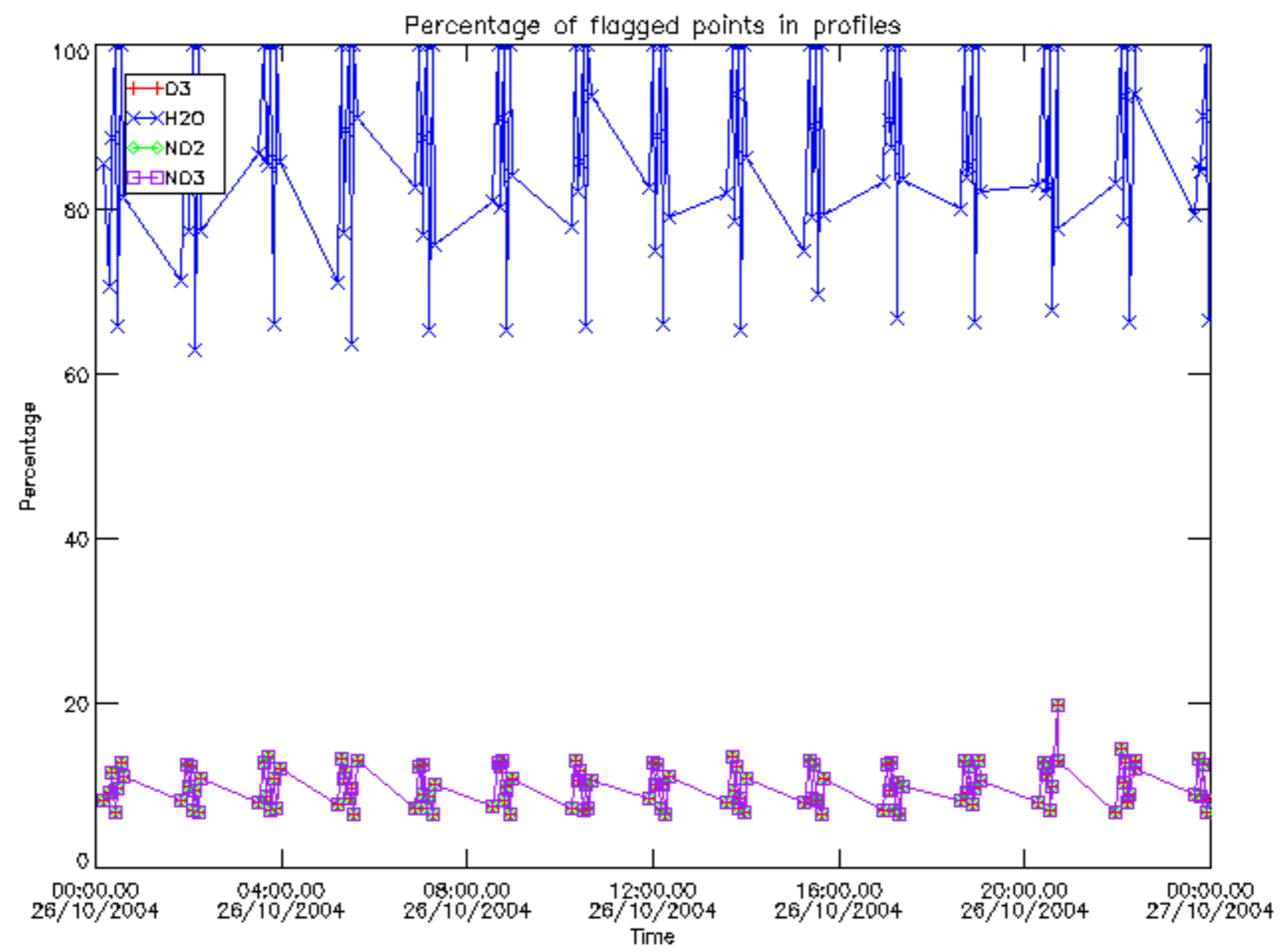
The colorbar represents the latitude.



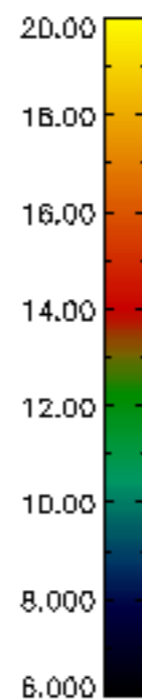
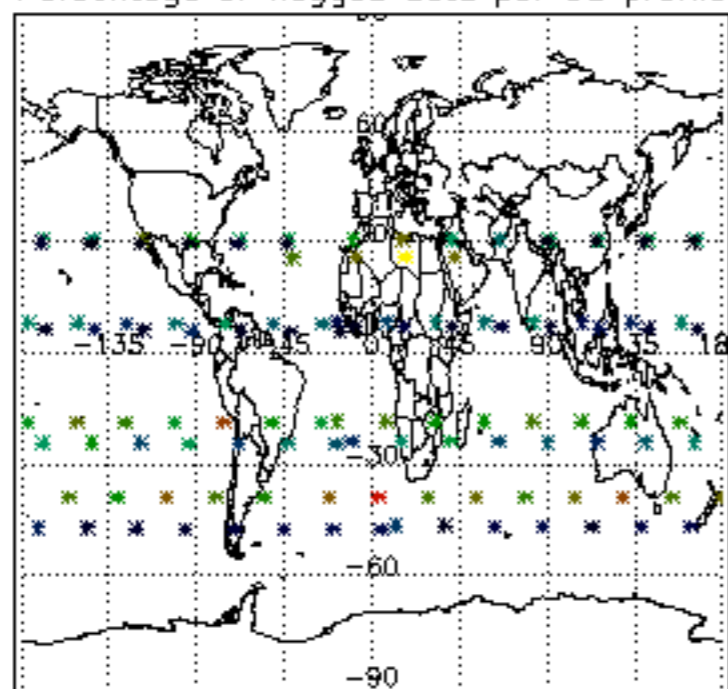
6. Auxiliary Data Files used for the production reported in section 2

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

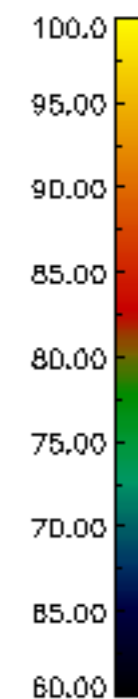
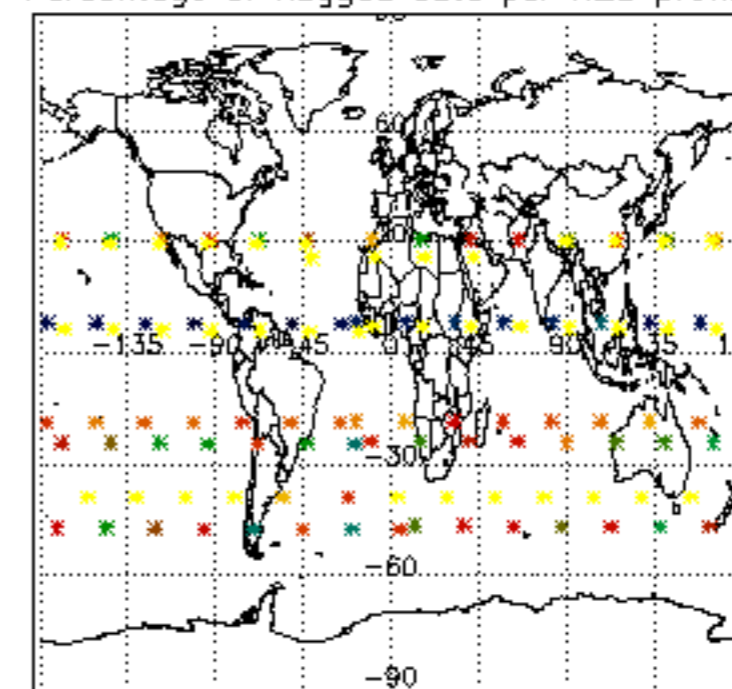
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	26-OCT-2004 00:00:11
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	26-OCT-2004 00:00:11
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	26-OCT-2004 00:00:11



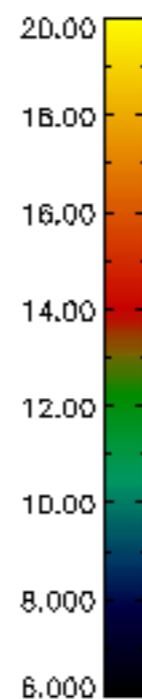
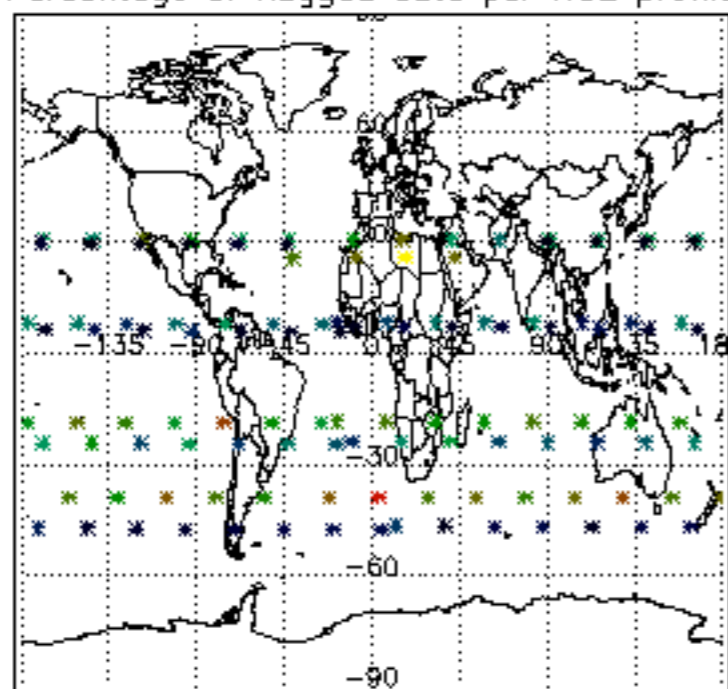
Percentage of flagged data per D3 profile



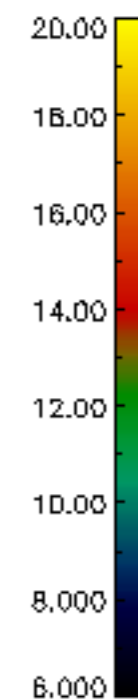
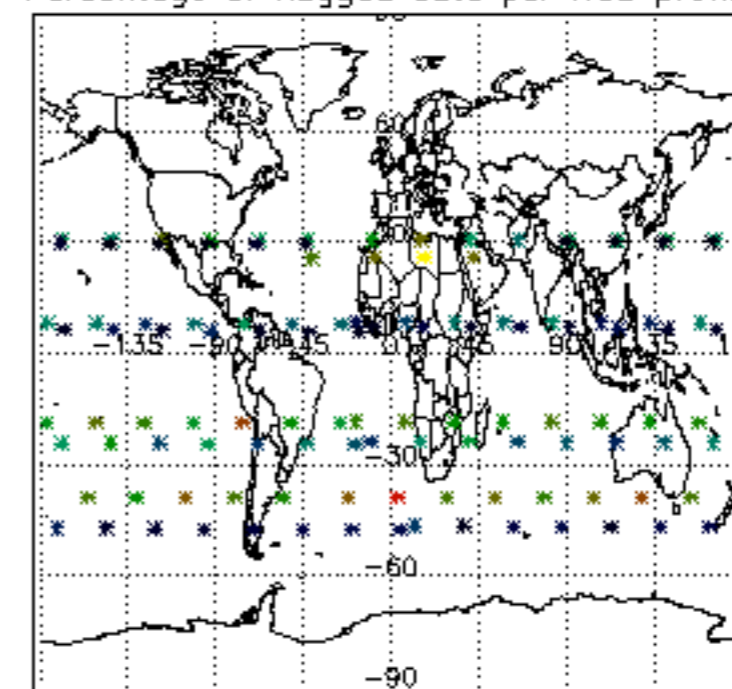
Percentage of flagged data per H2O profile

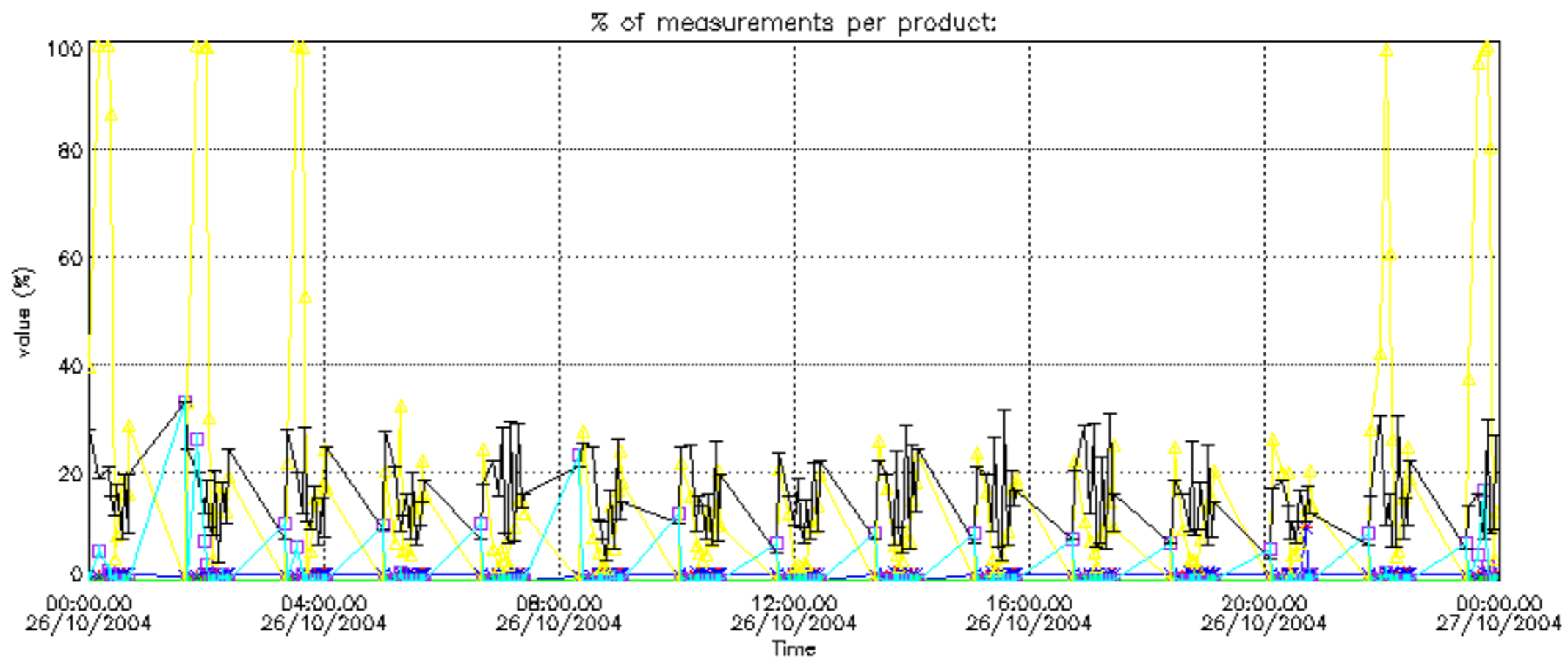


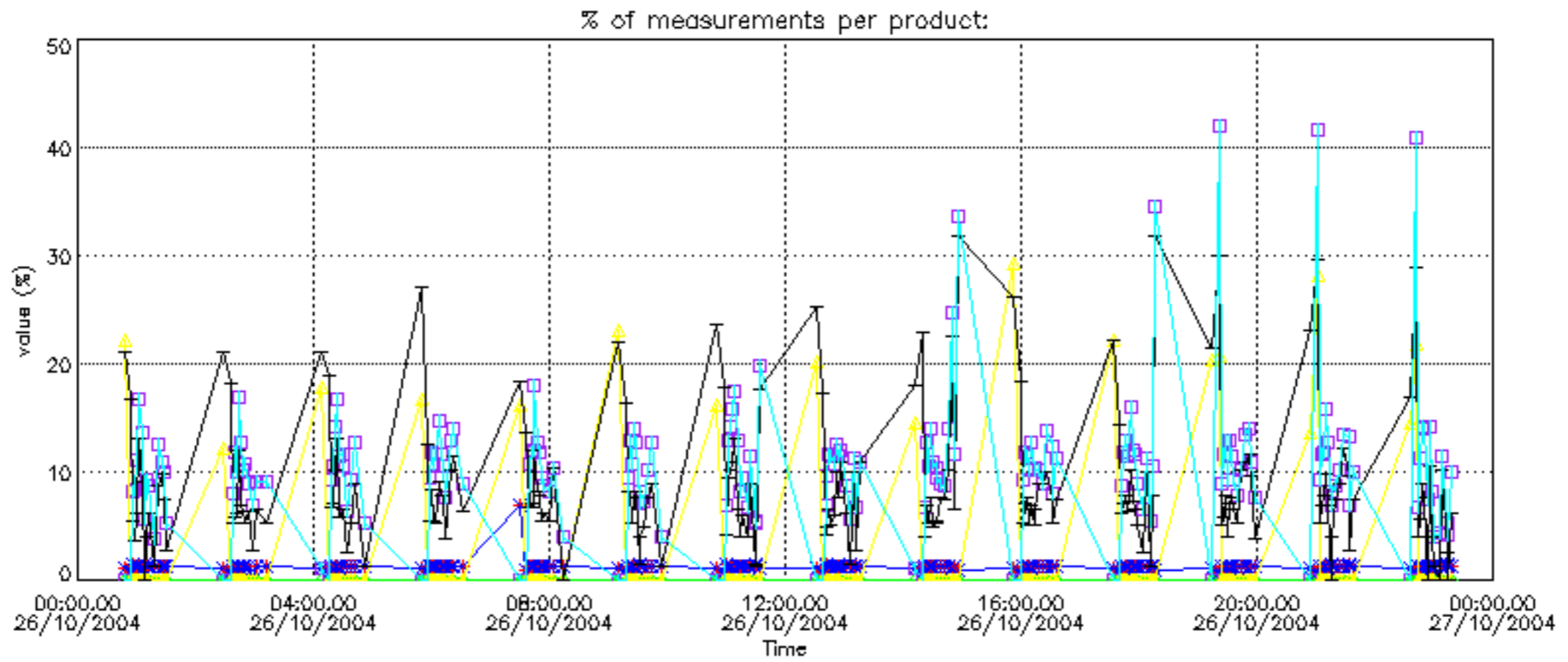
Percentage of flagged data per NO2 profile



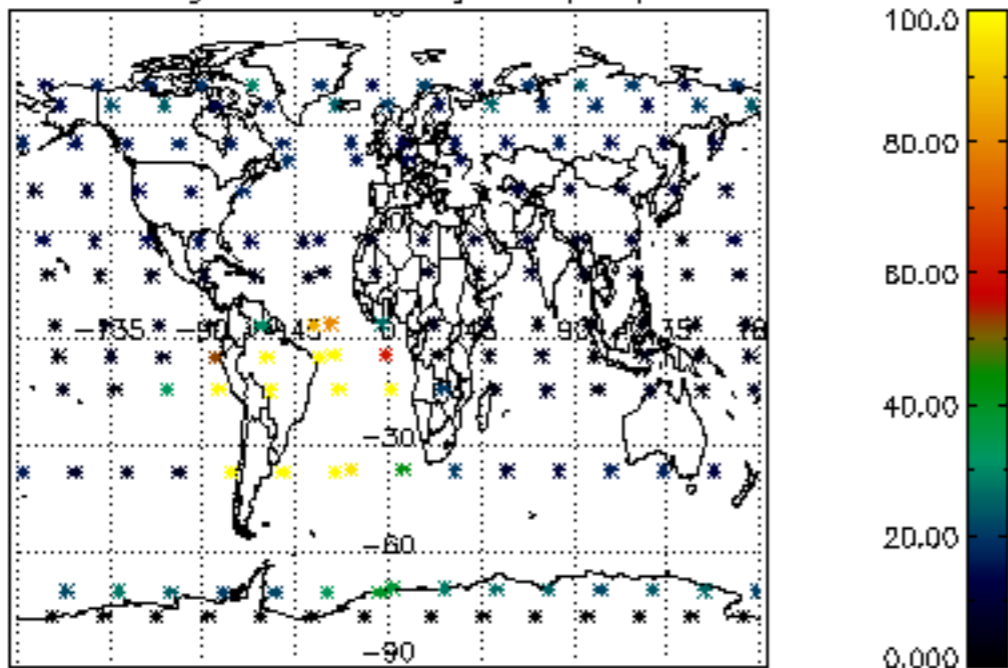
Percentage of flagged data per NO3 profile



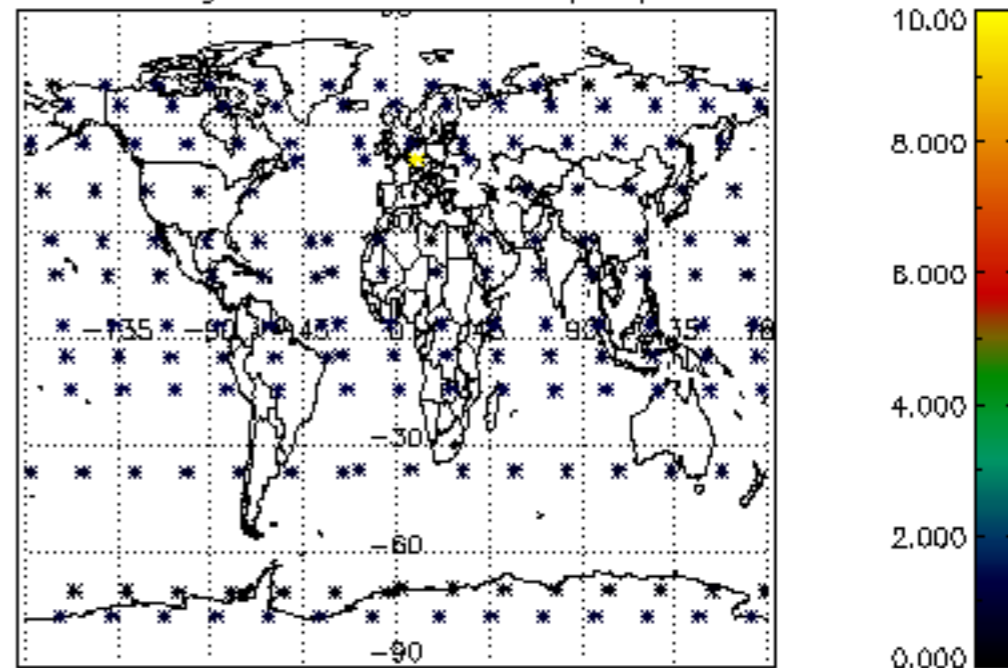




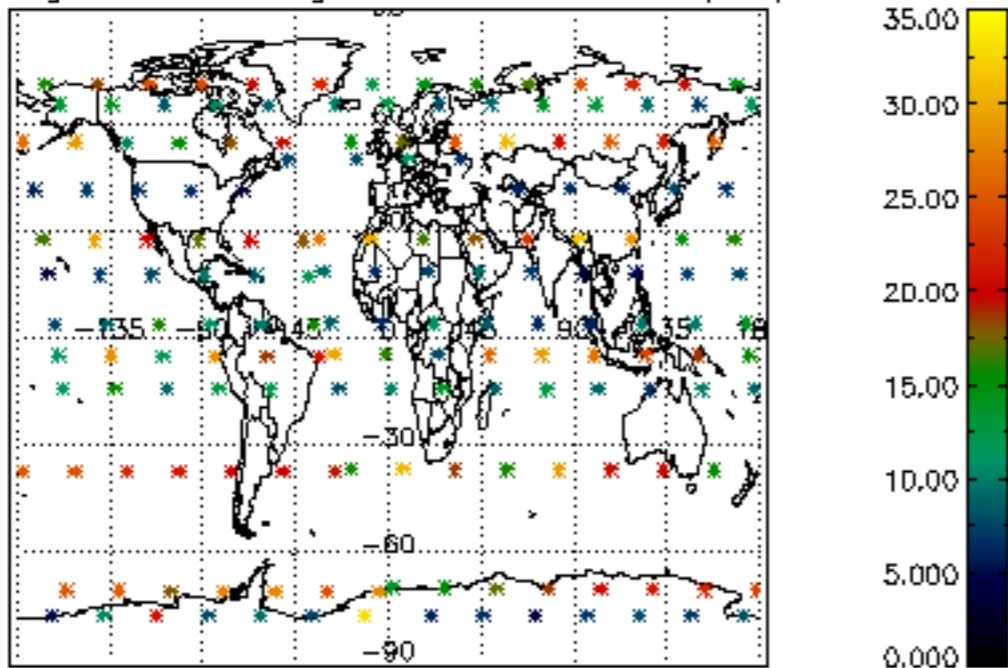
Percentage of cosmic ray hits per profile



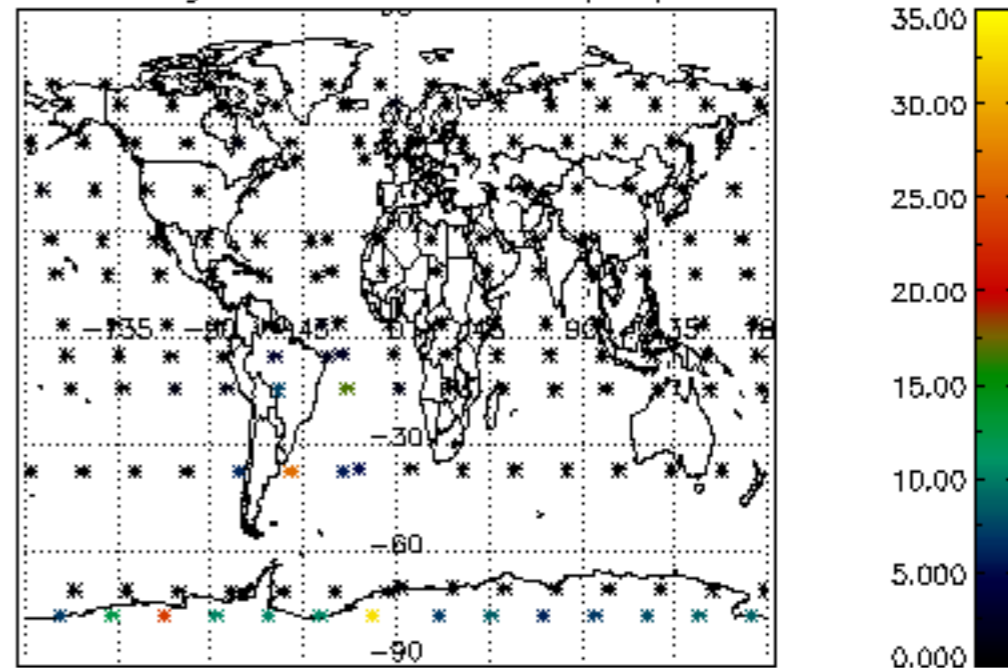
Percentage of datation errors per profile



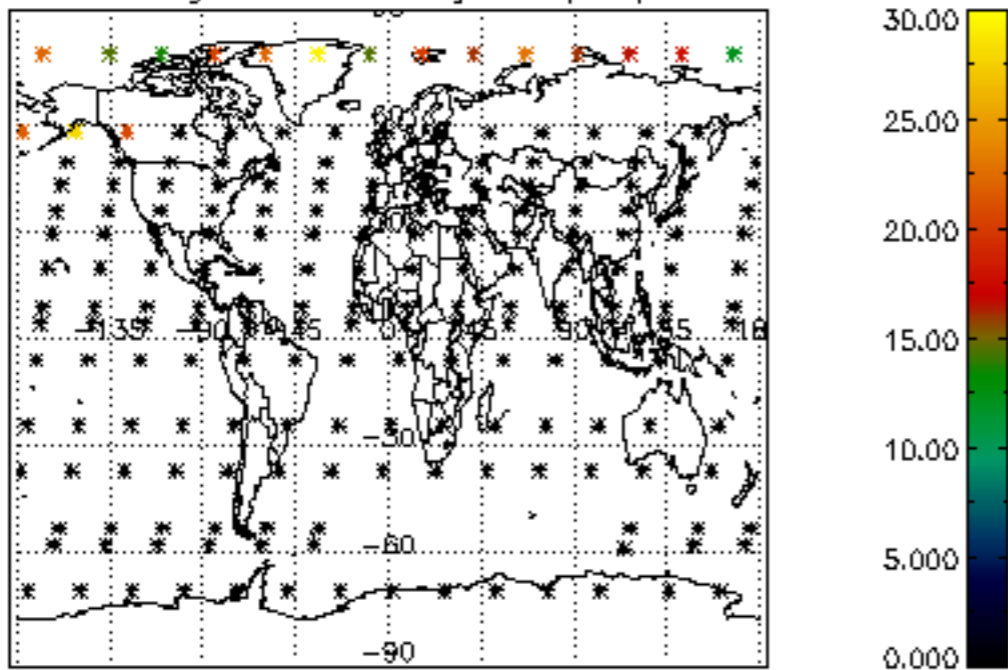
Percentage of star falling outside central band per profile



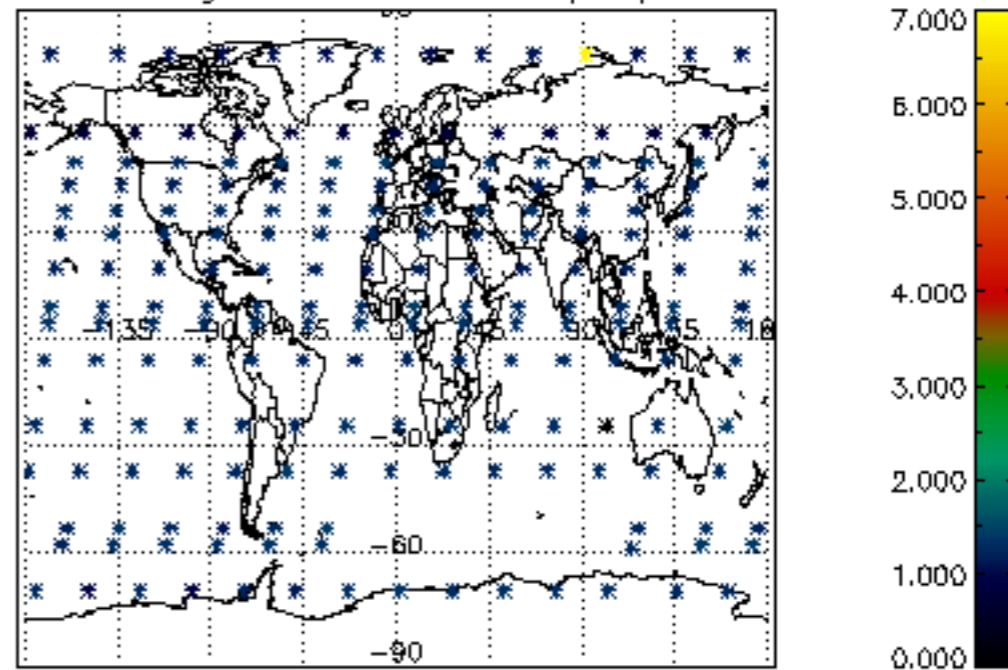
Percentage of saturation errors per profile



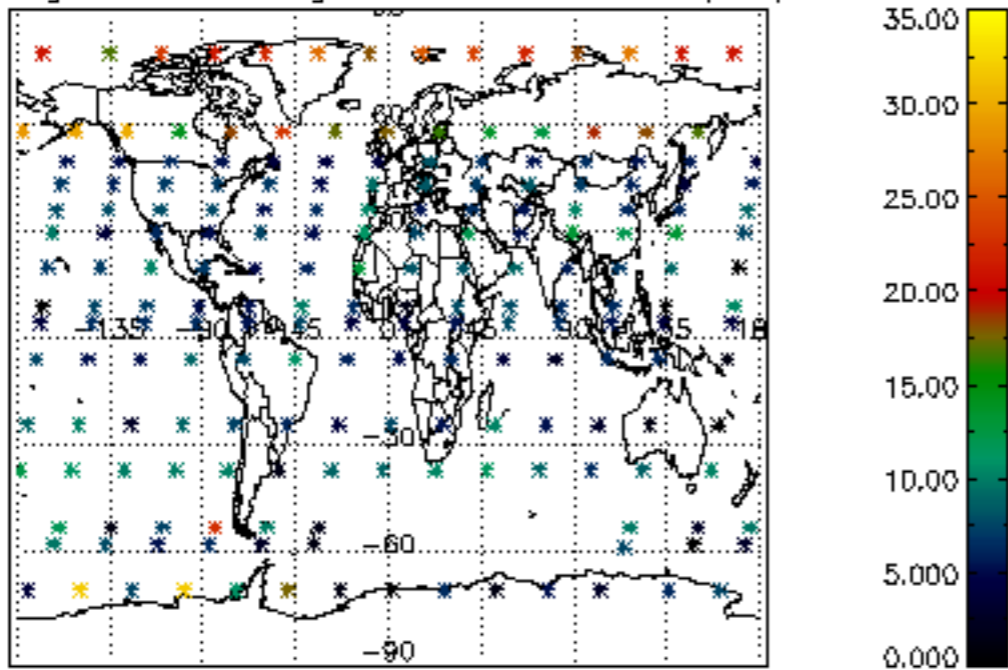
Percentage of cosmic ray hits per profile



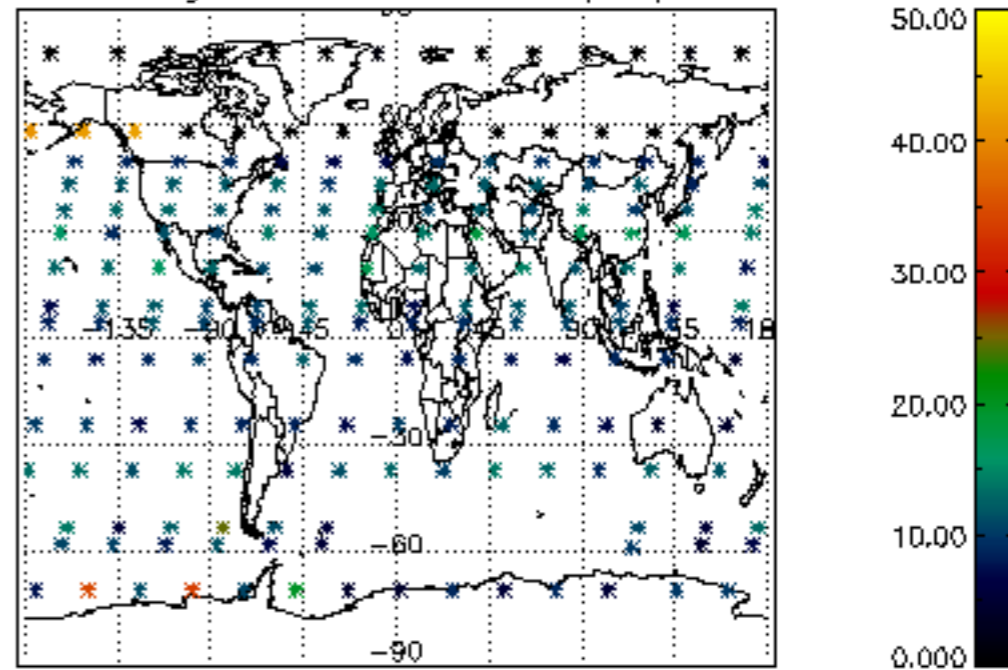
Percentage of datation errors per profile

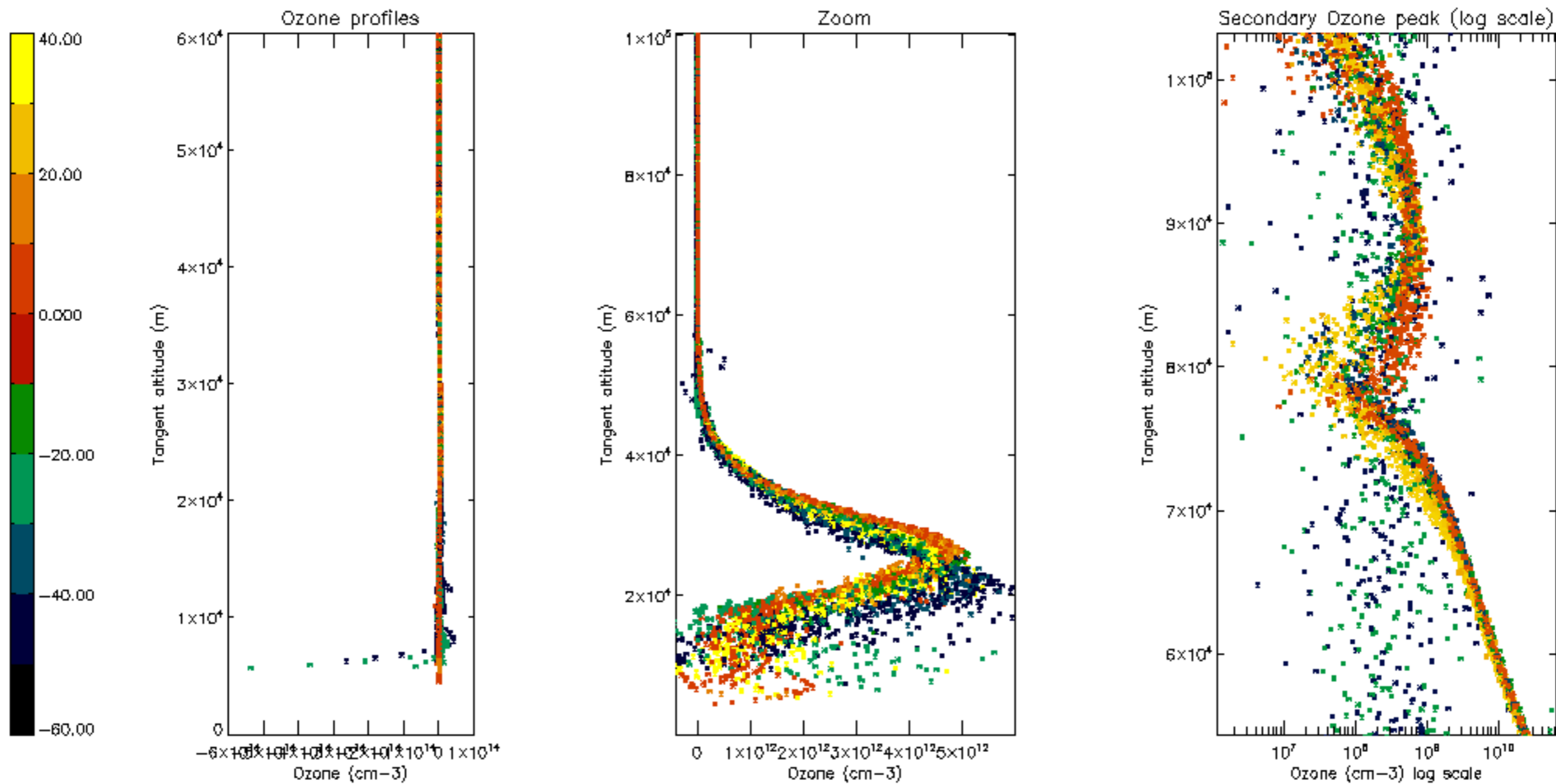


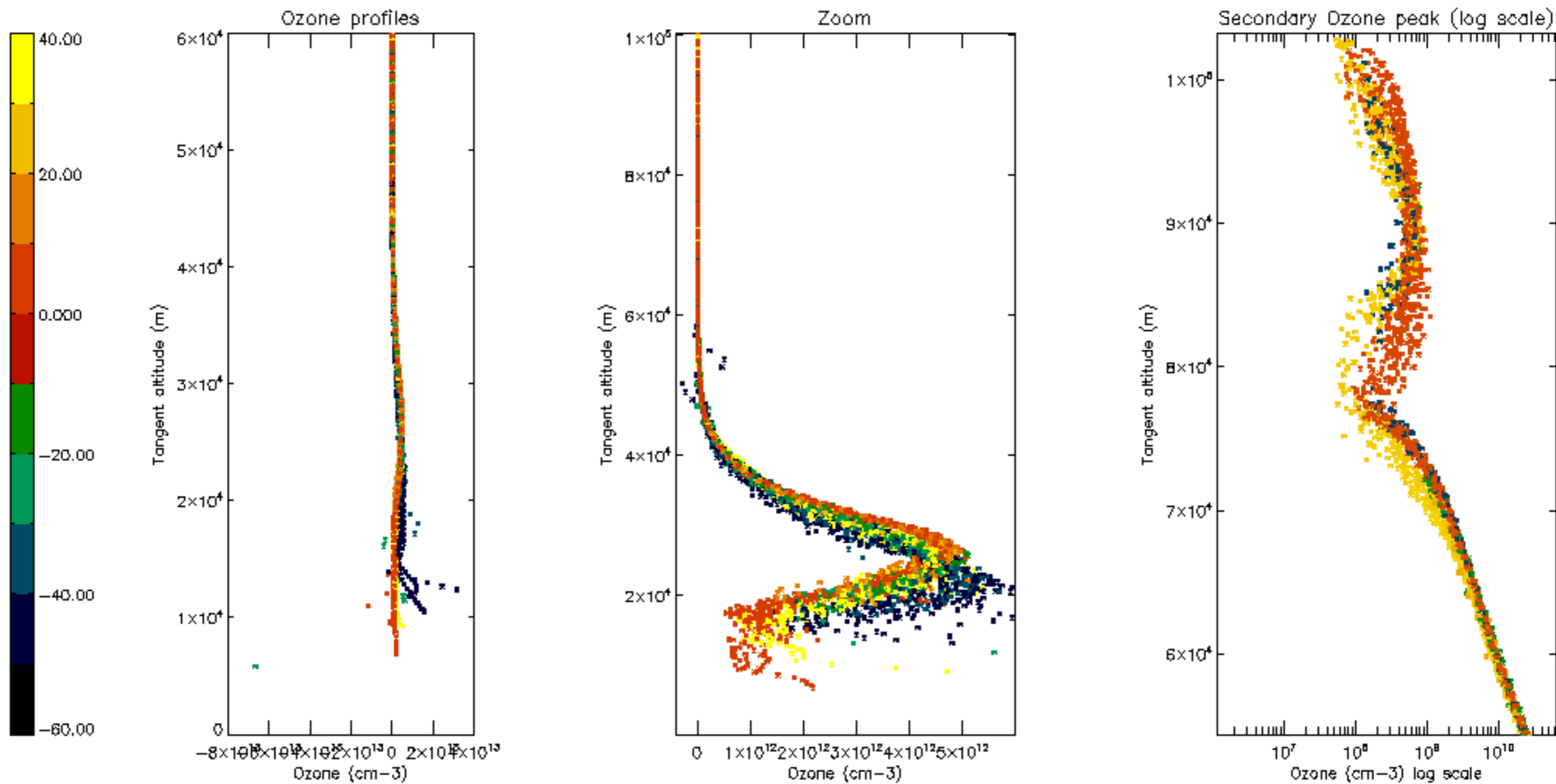
Percentage of star falling outside central band per profile

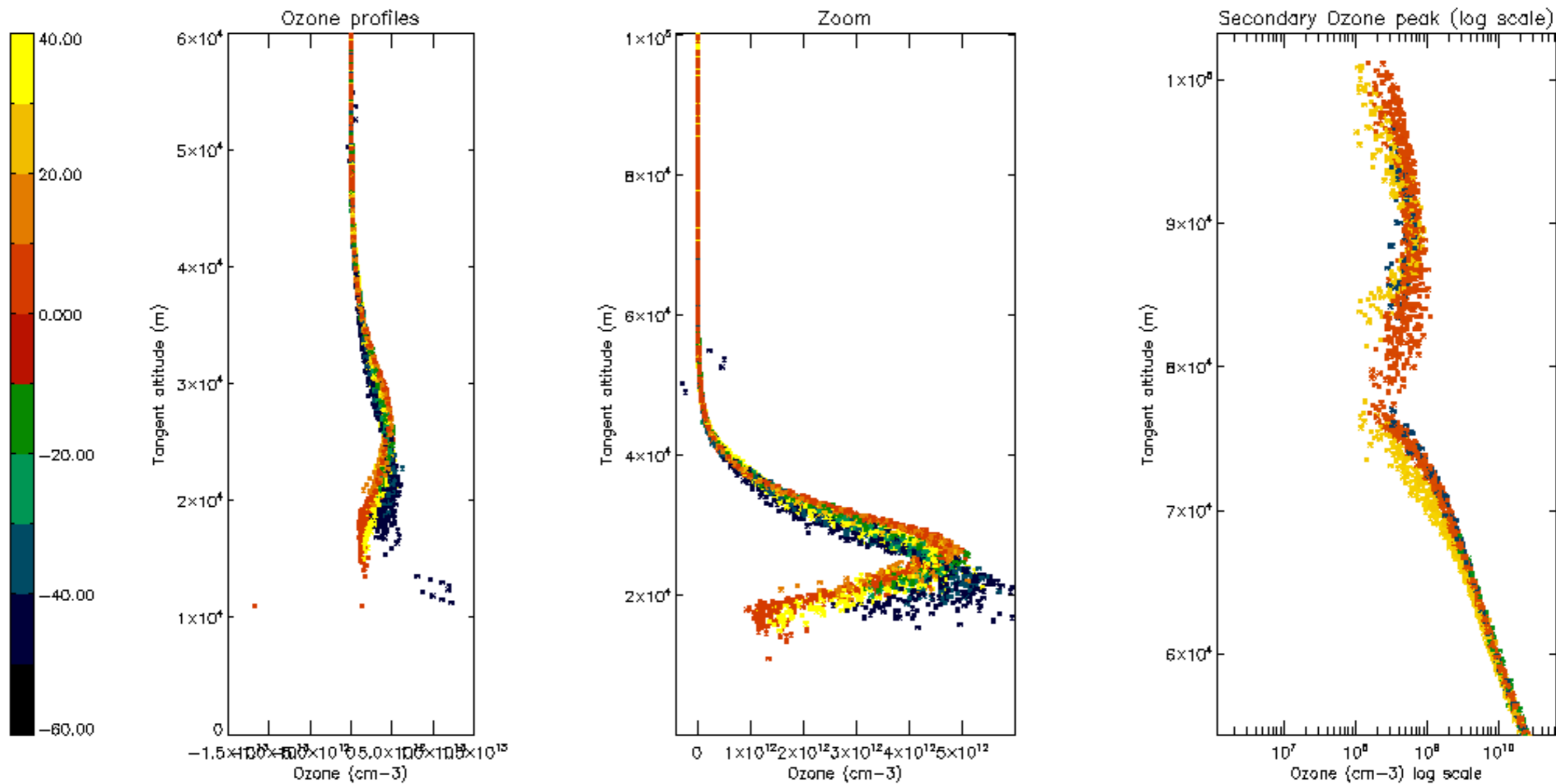


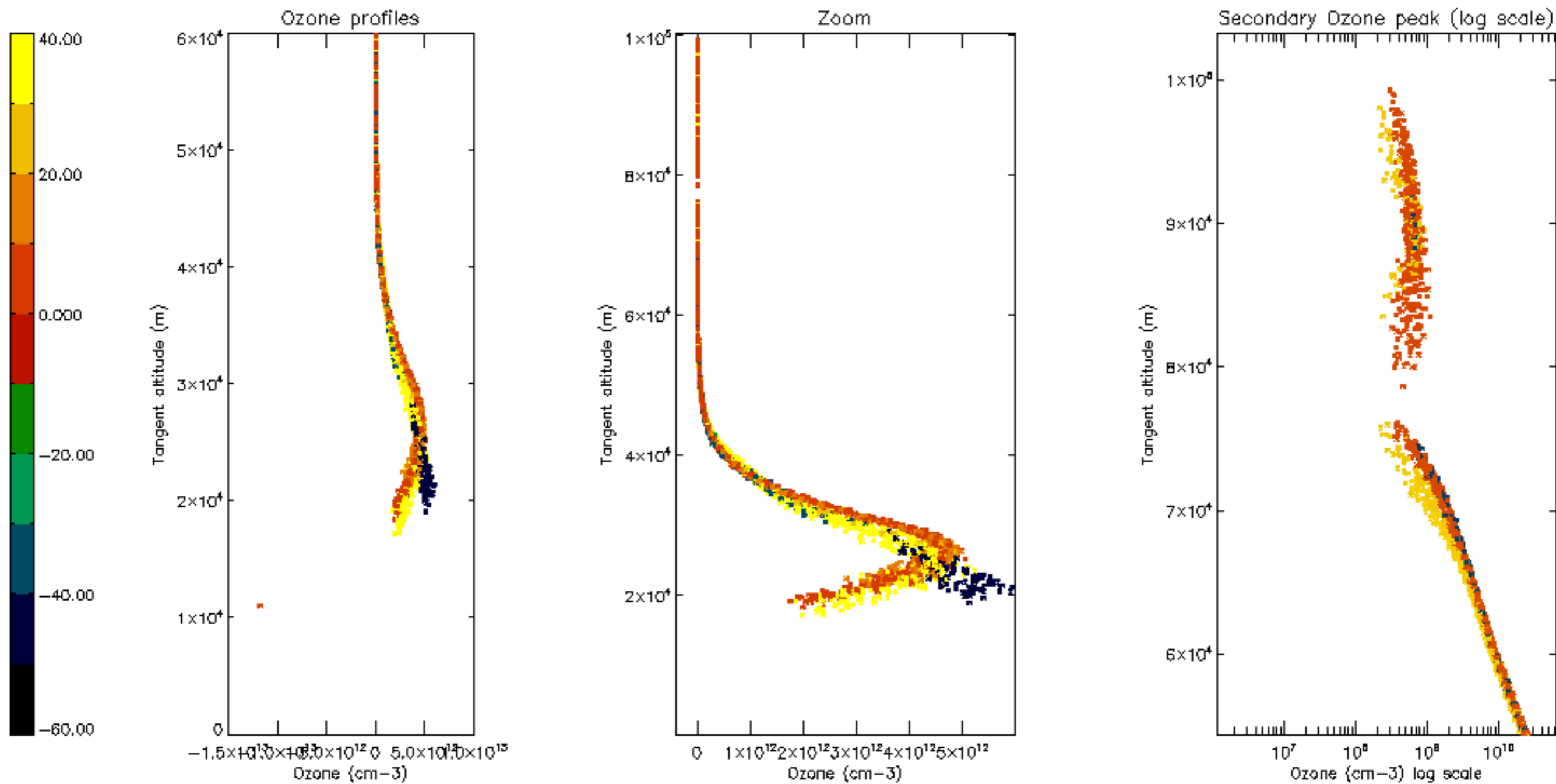
Percentage of saturation errors per profile

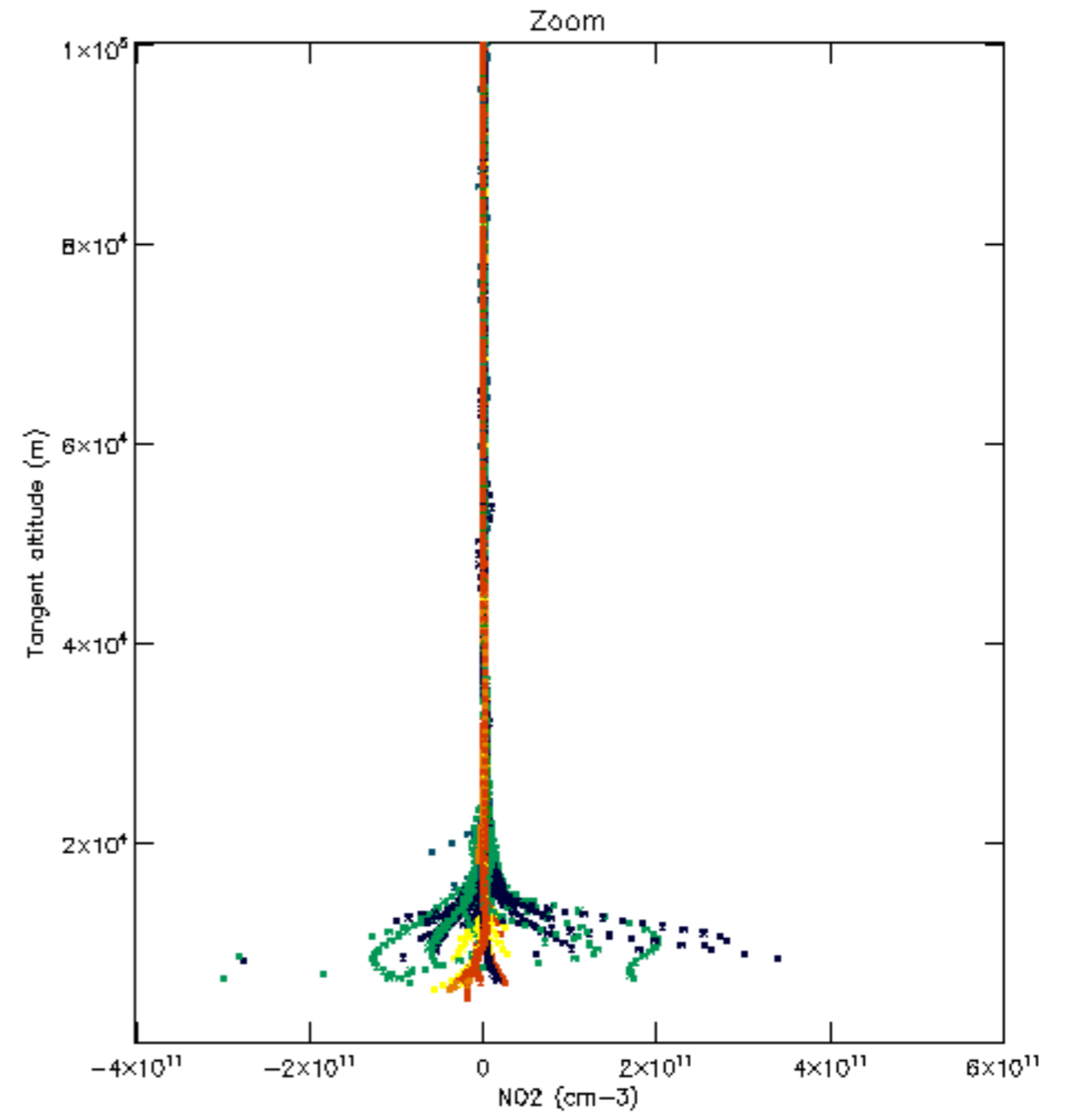
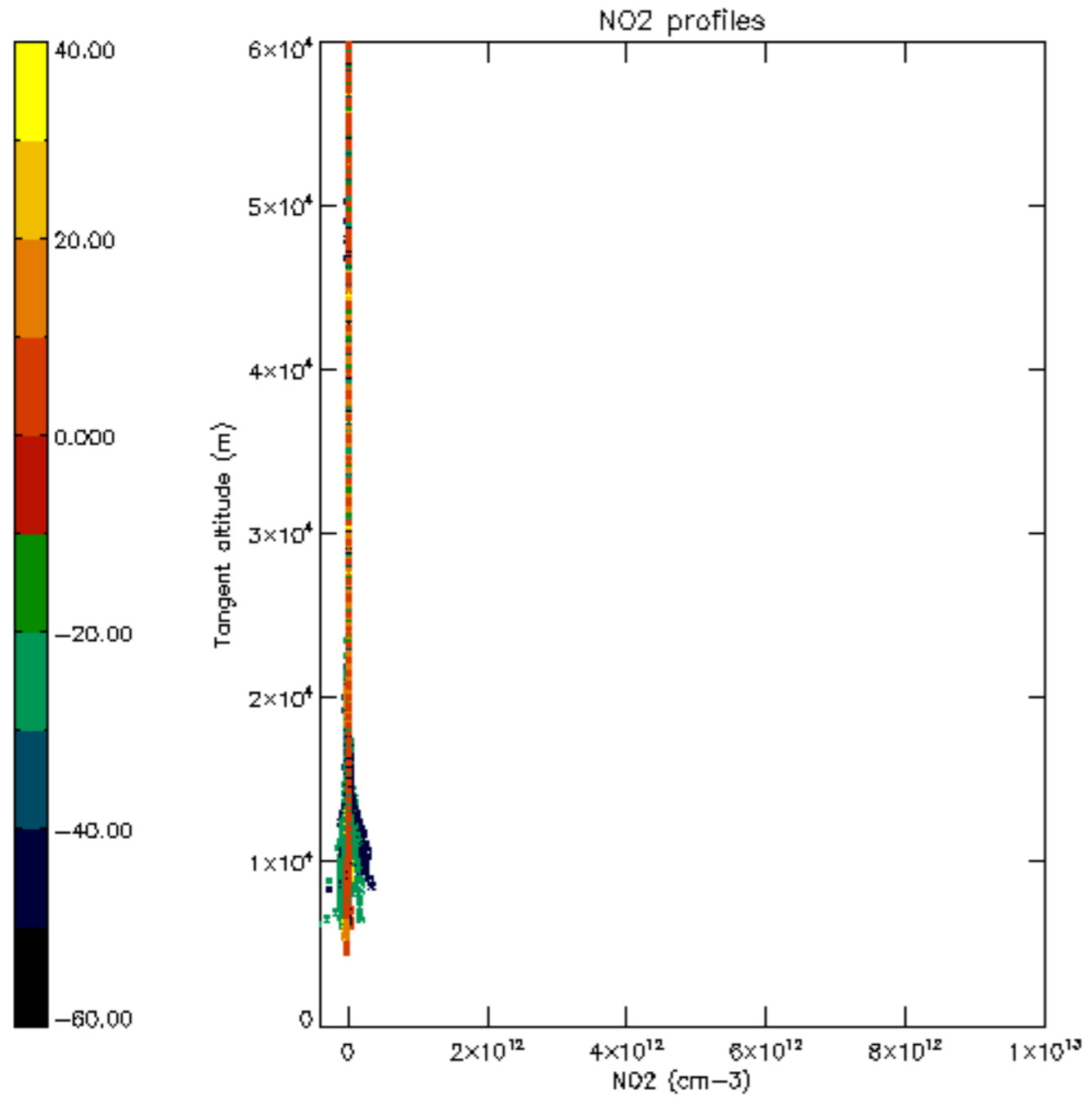


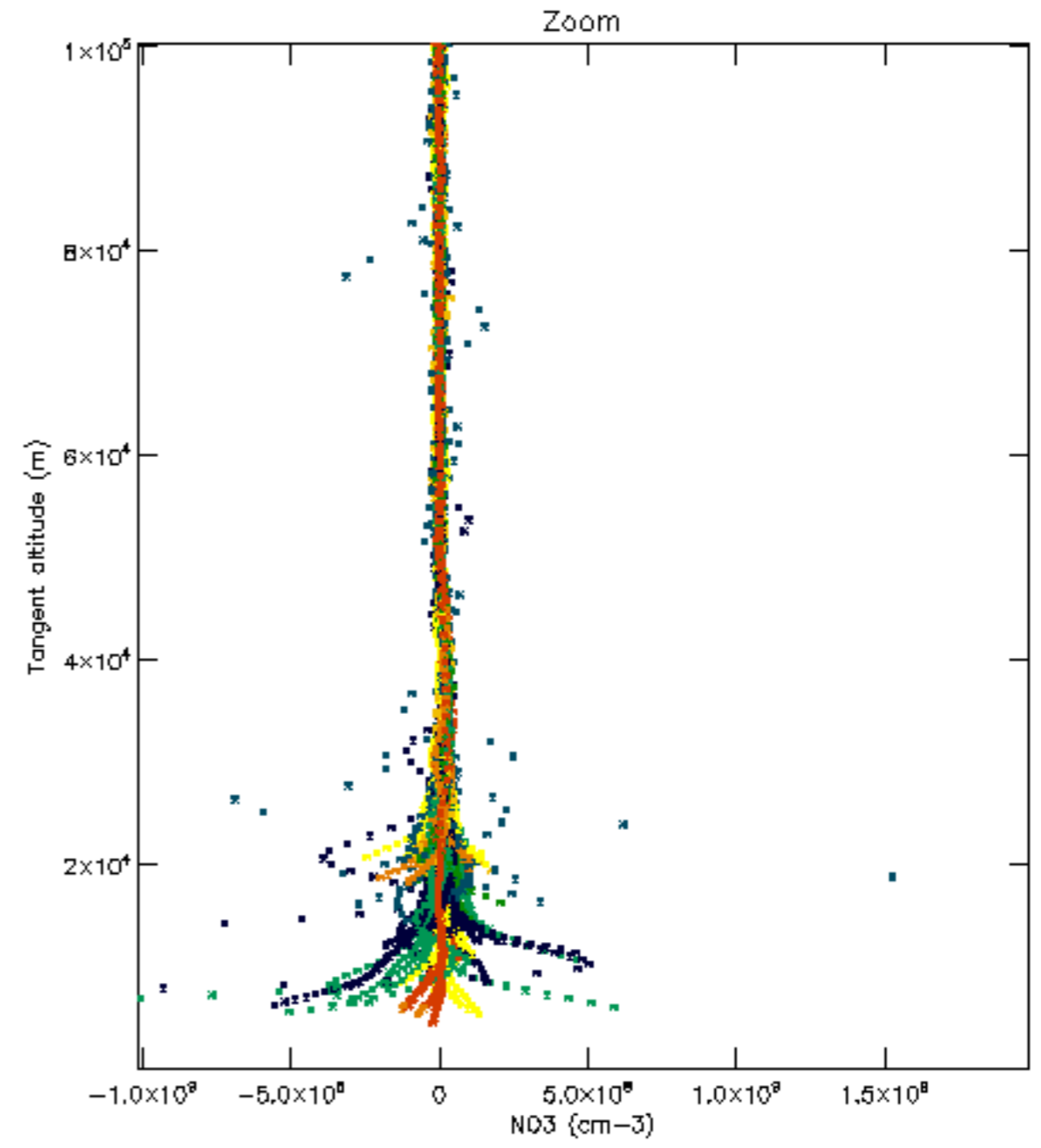
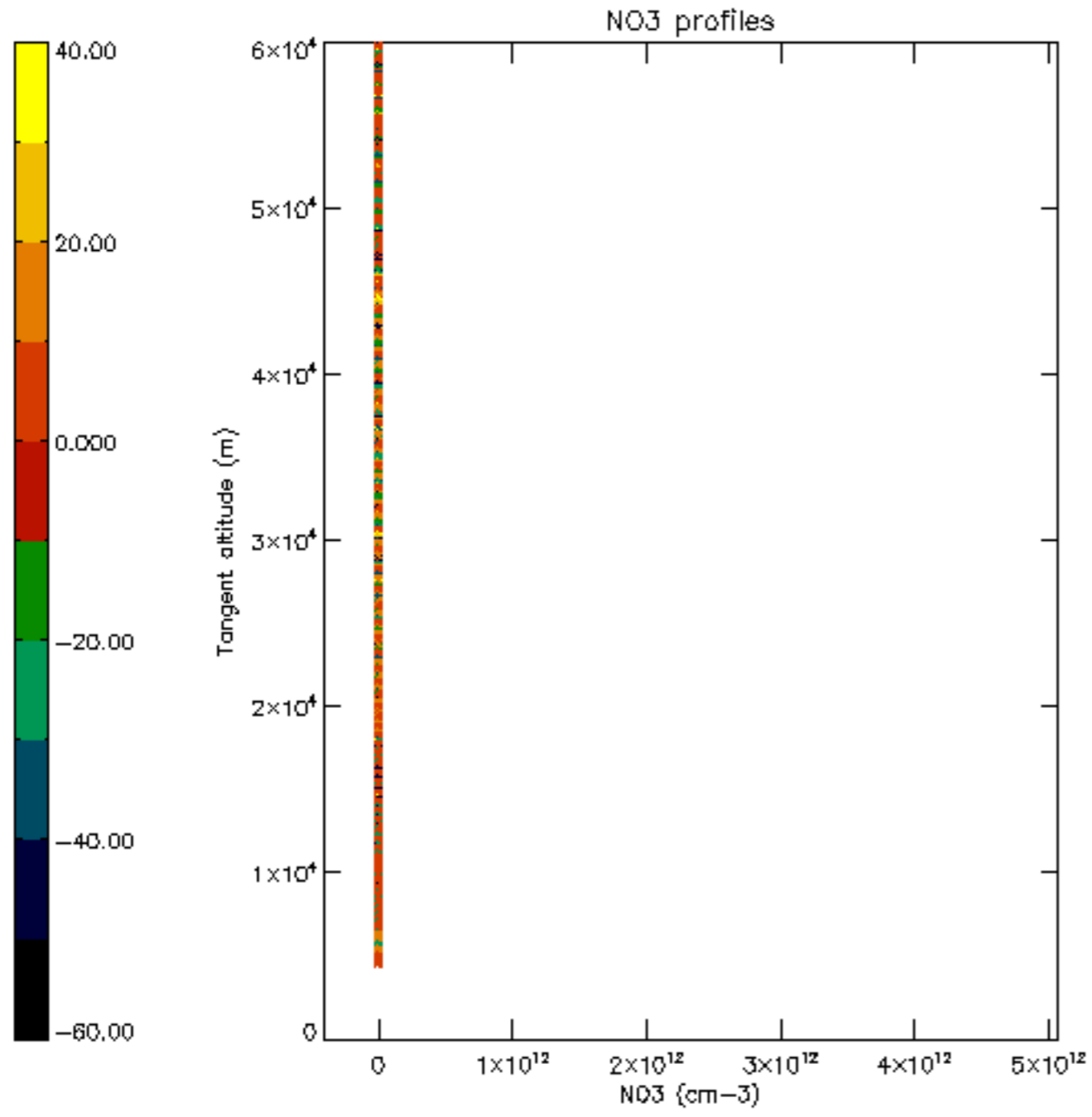


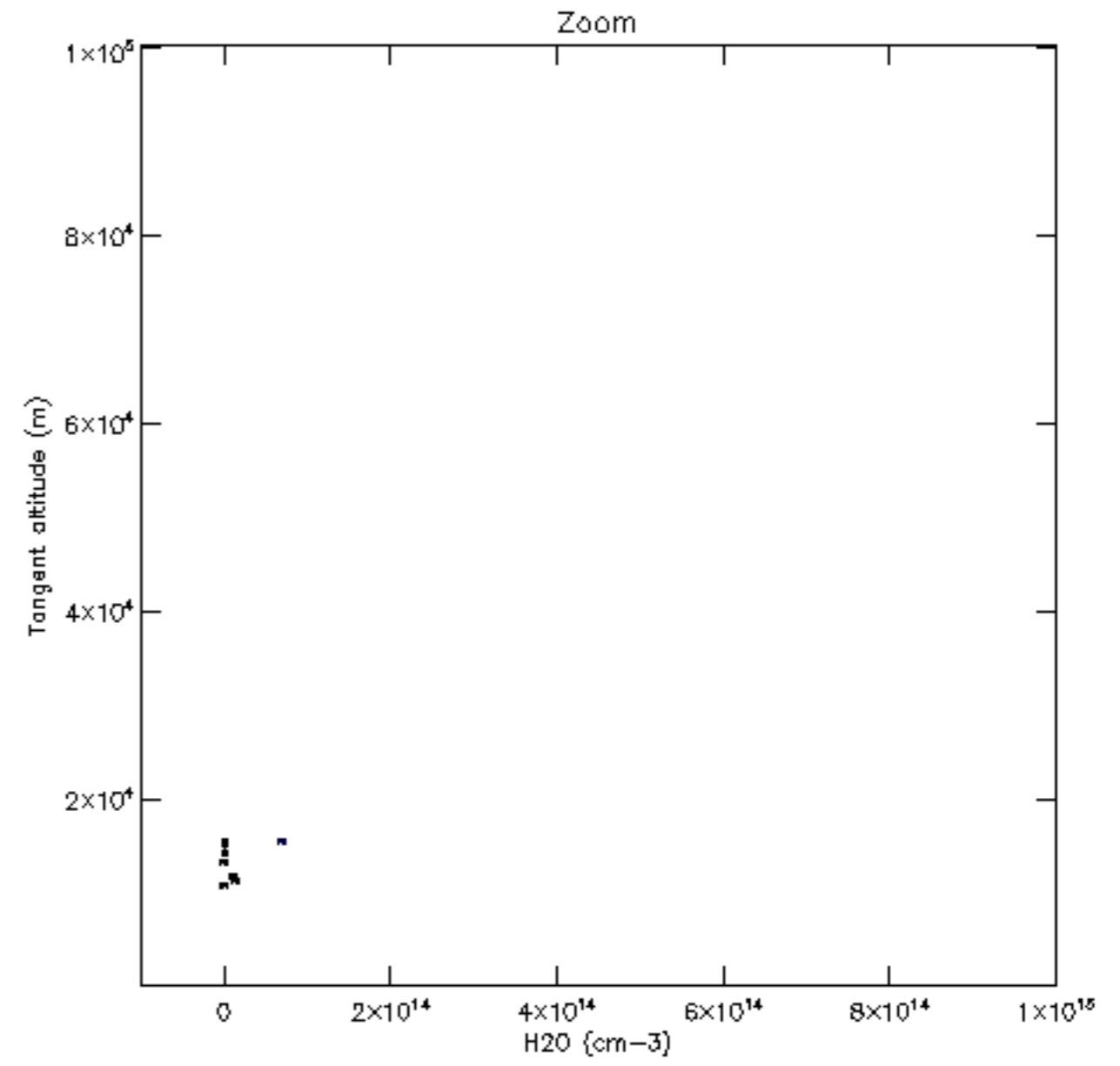
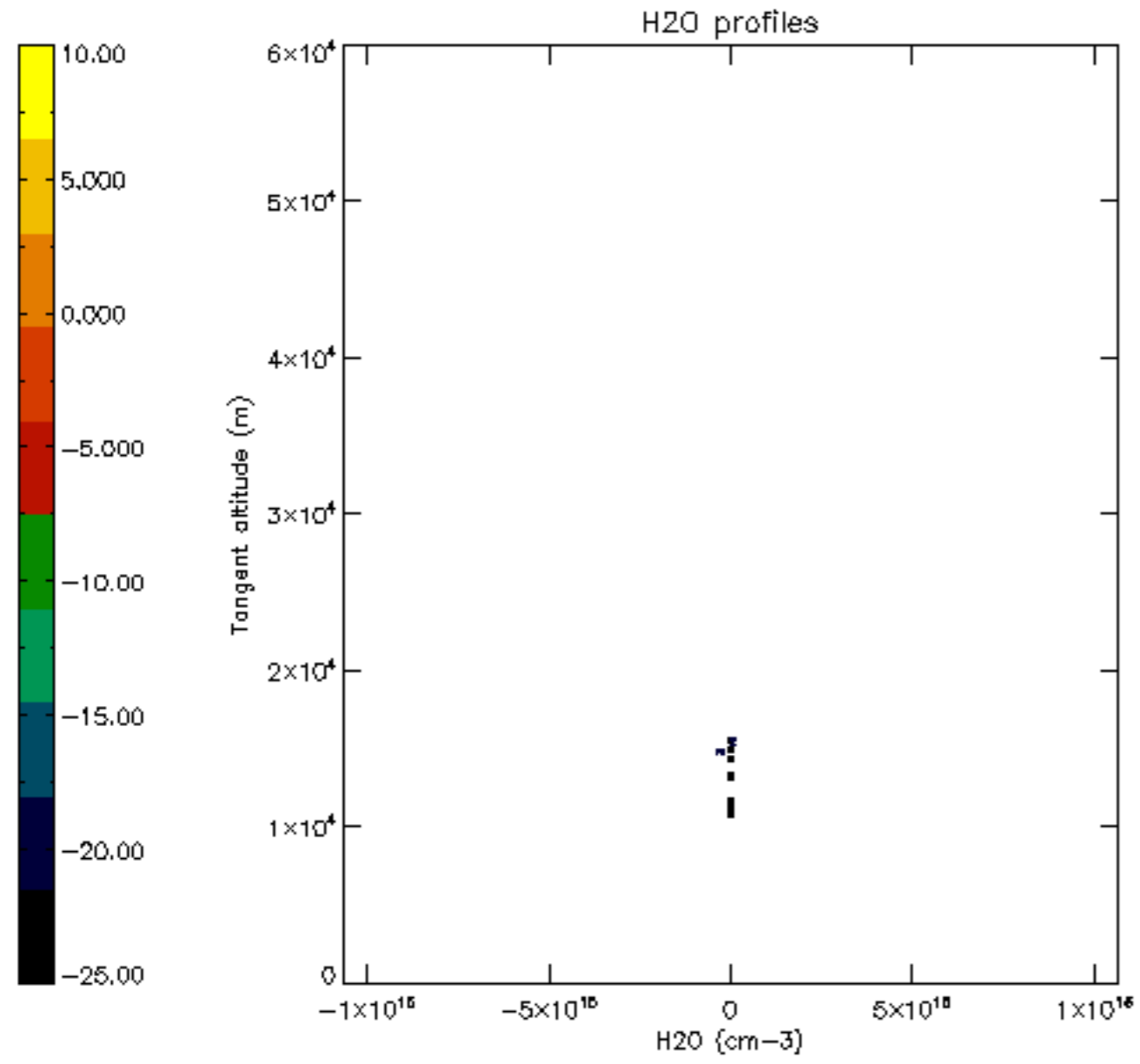


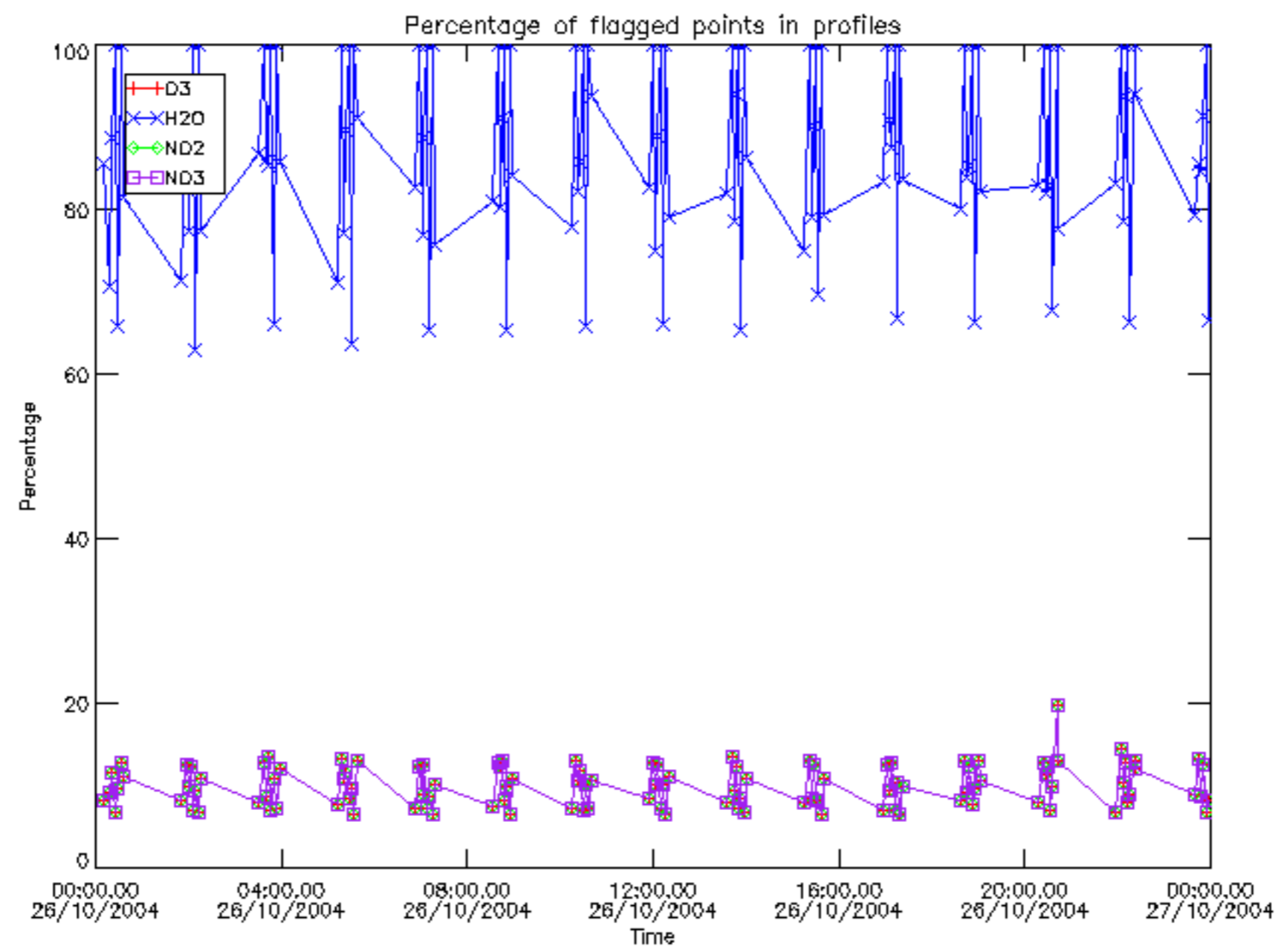




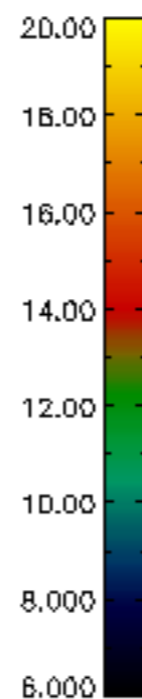
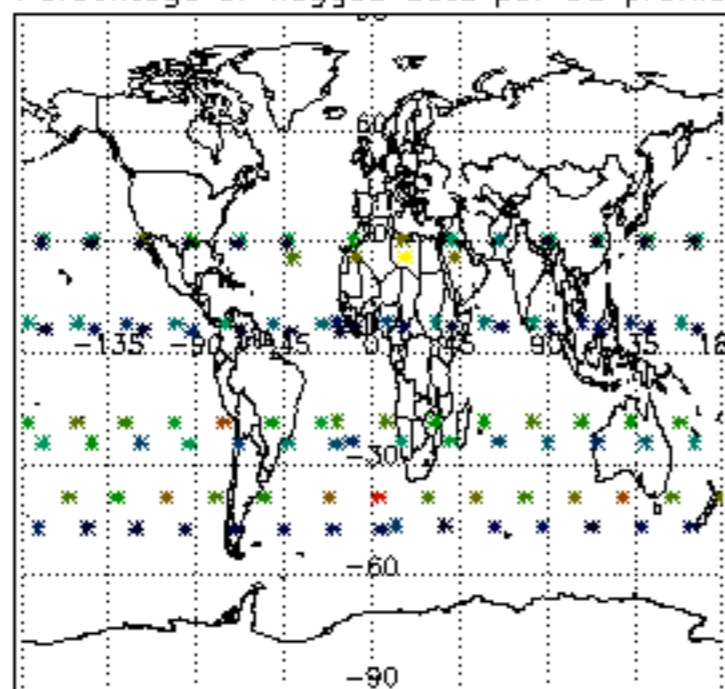




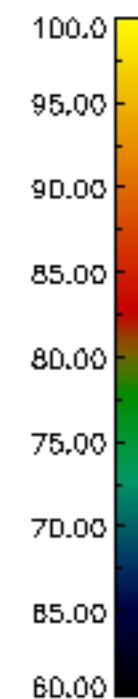
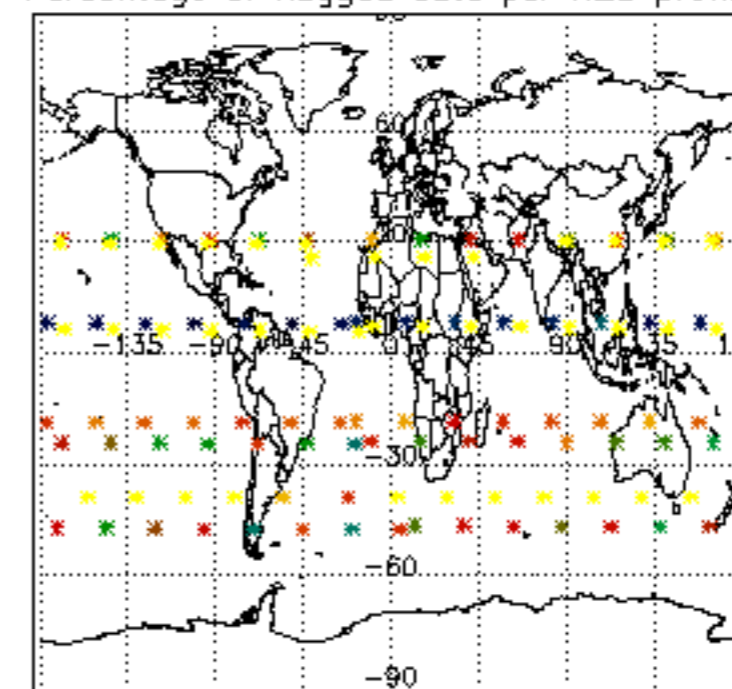




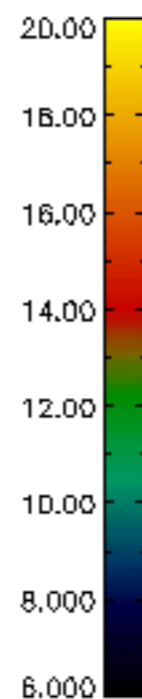
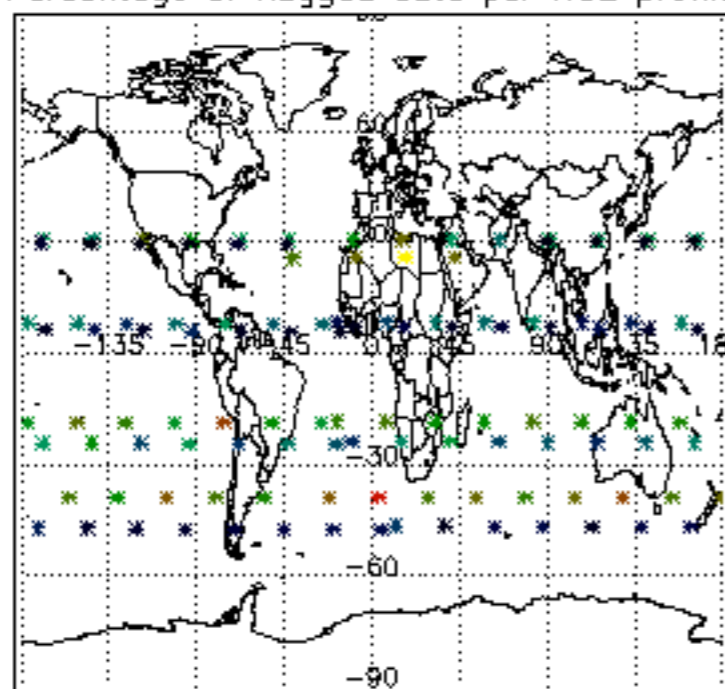
Percentage of flagged data per D3 profile



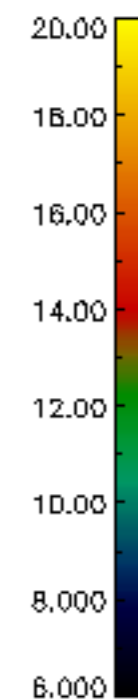
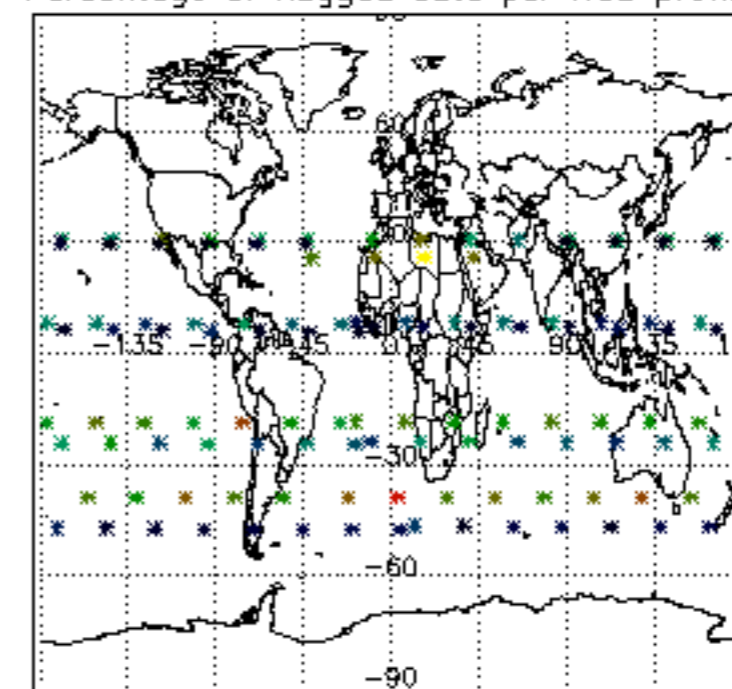
Percentage of flagged data per H2O profile

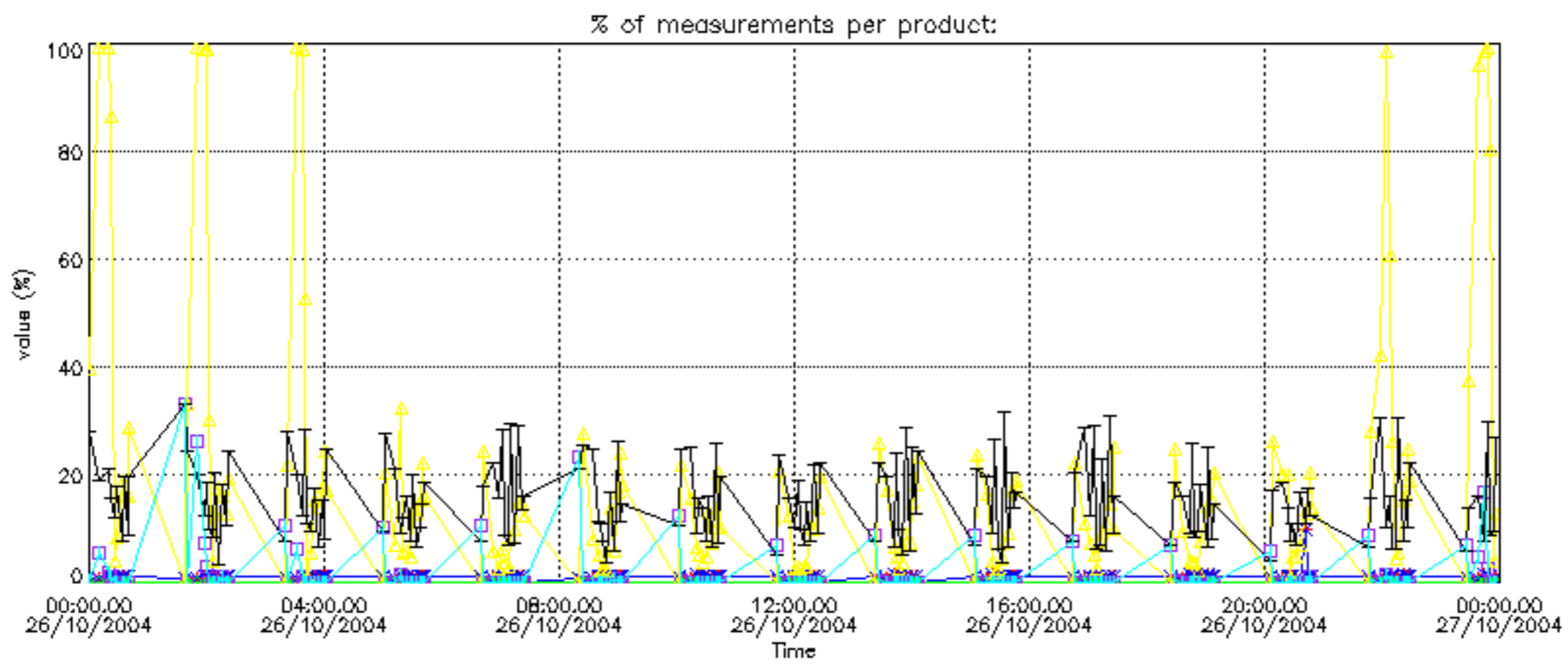


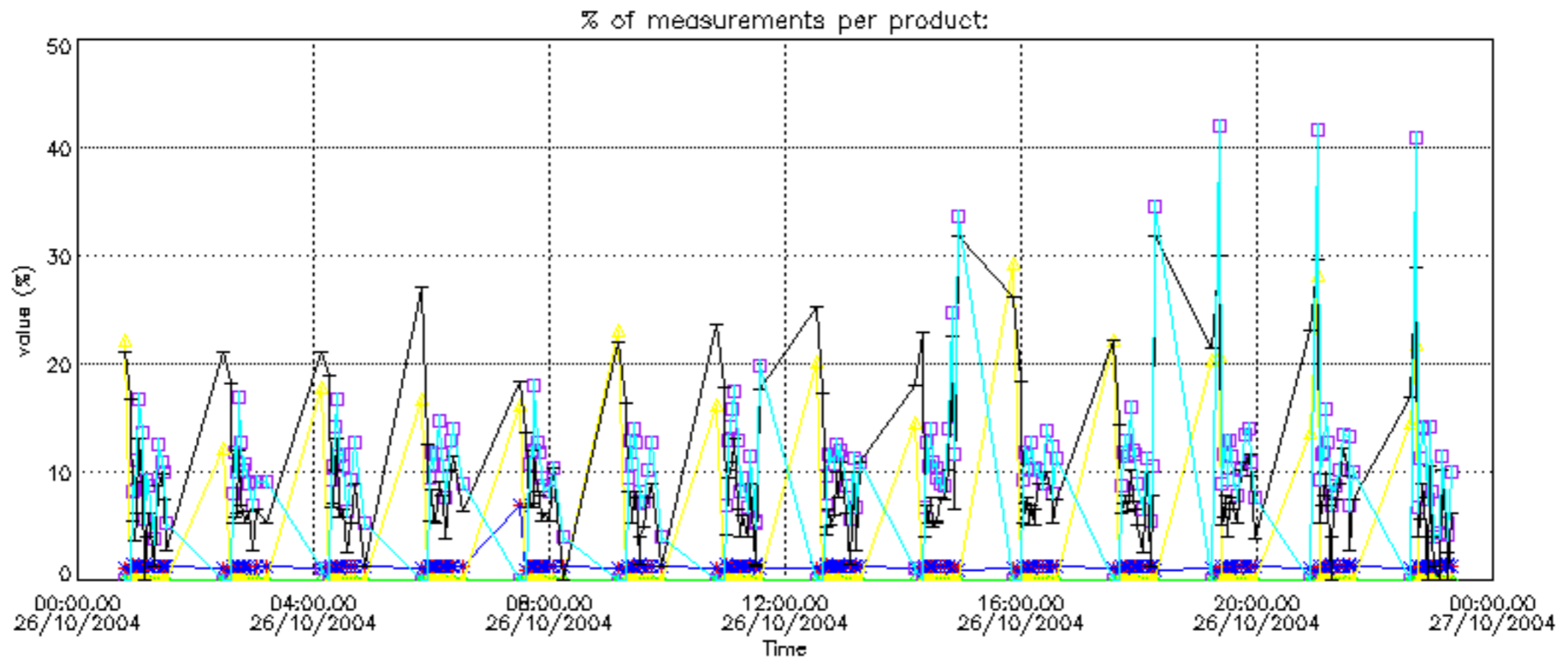
Percentage of flagged data per NO2 profile



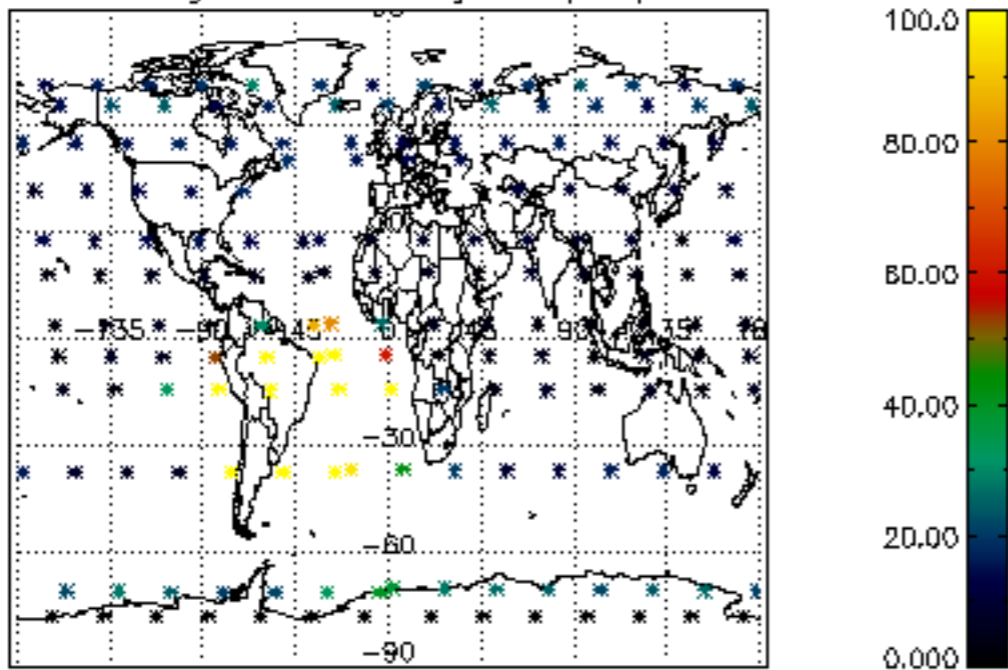
Percentage of flagged data per NO3 profile



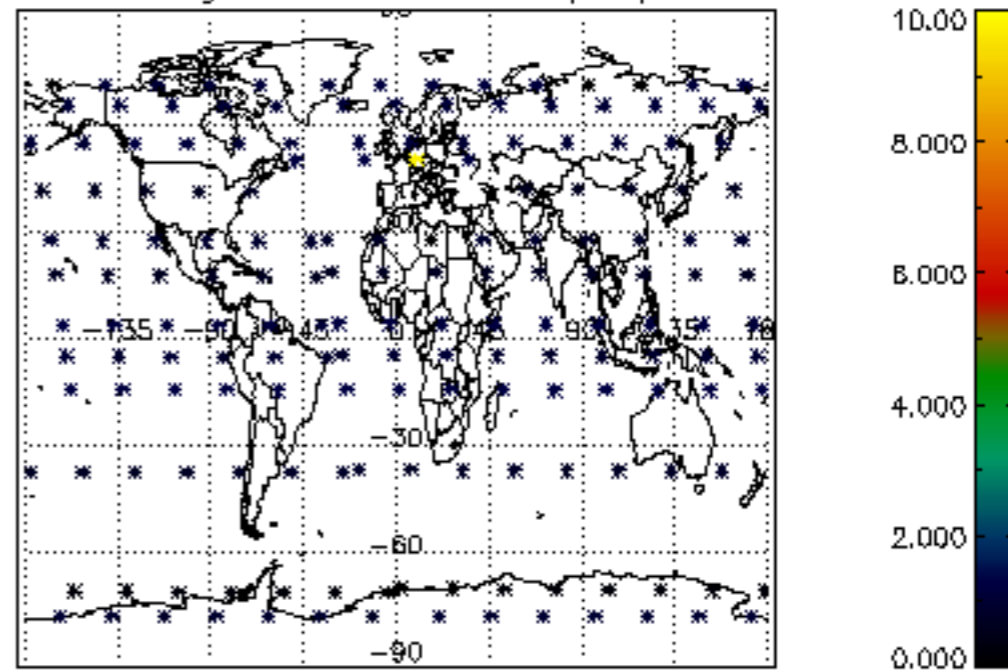




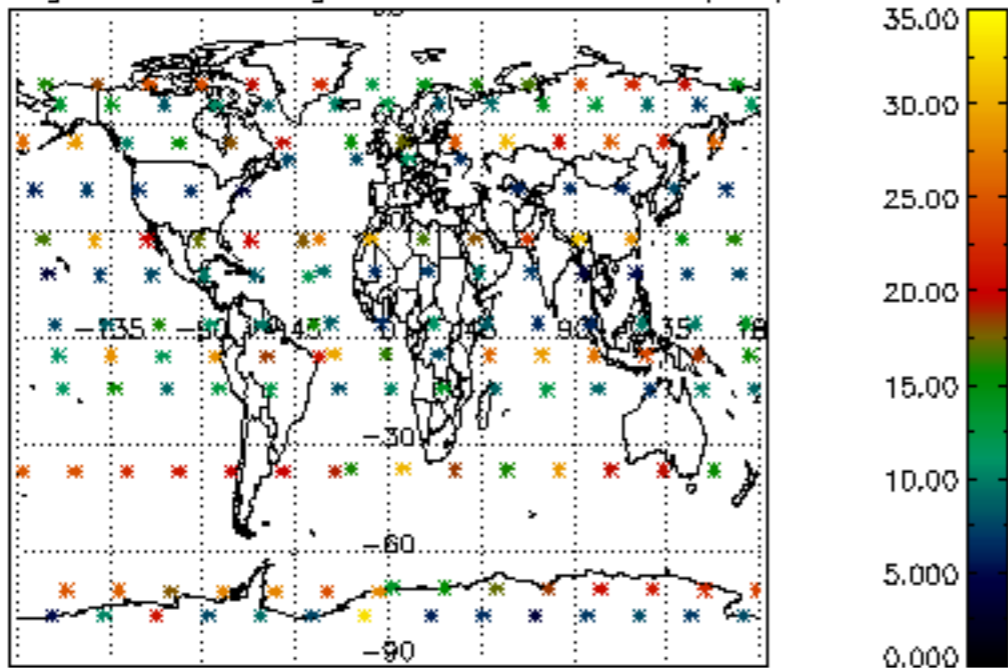
Percentage of cosmic ray hits per profile



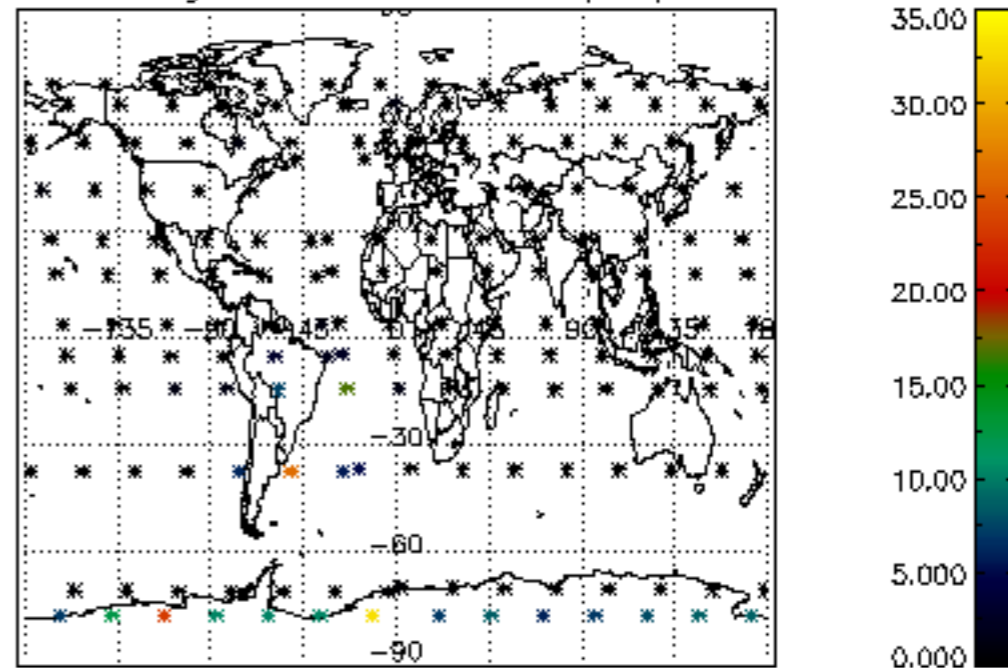
Percentage of datation errors per profile



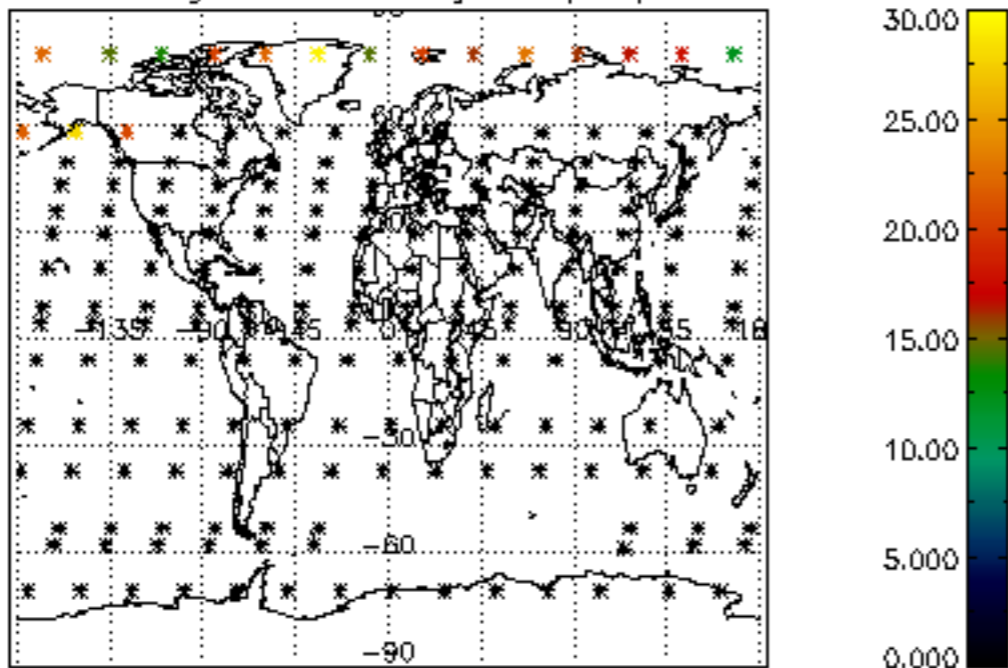
Percentage of star falling outside central band per profile



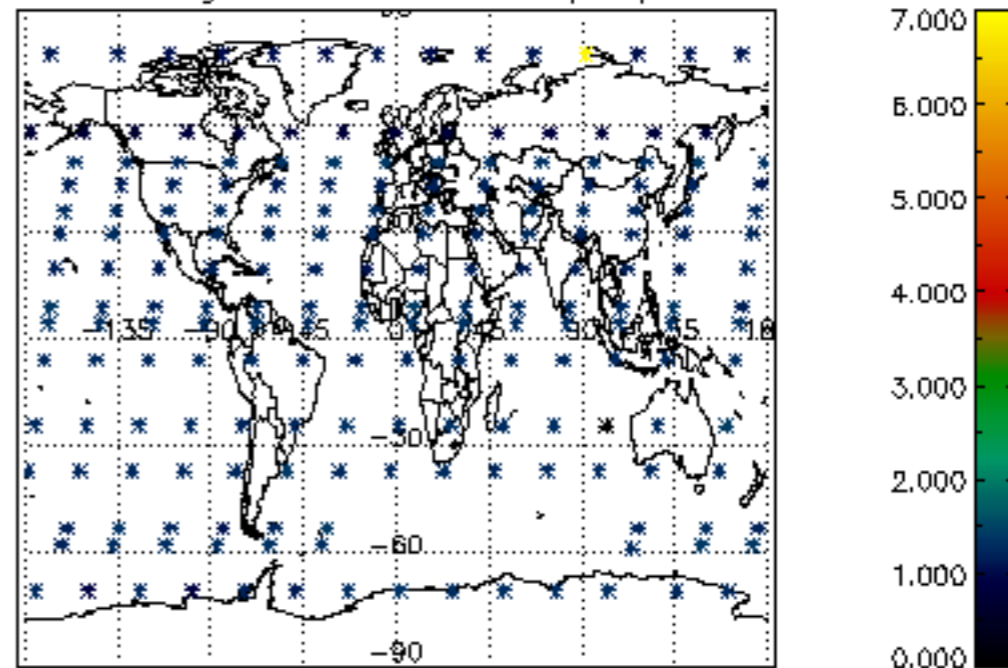
Percentage of saturation errors per profile



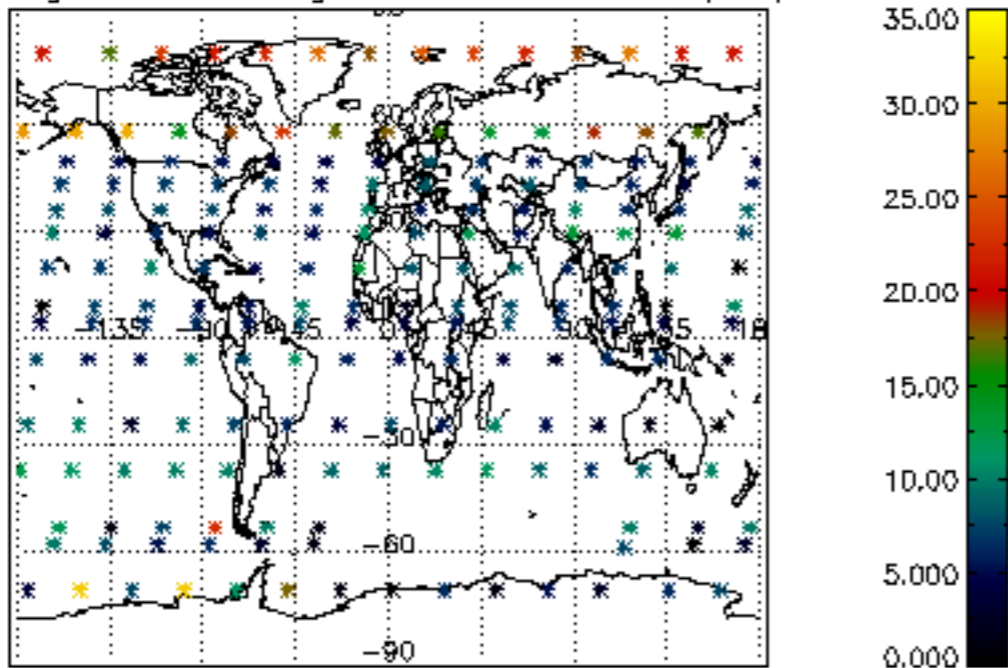
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

