

GOMOS Level 2 Daily Report

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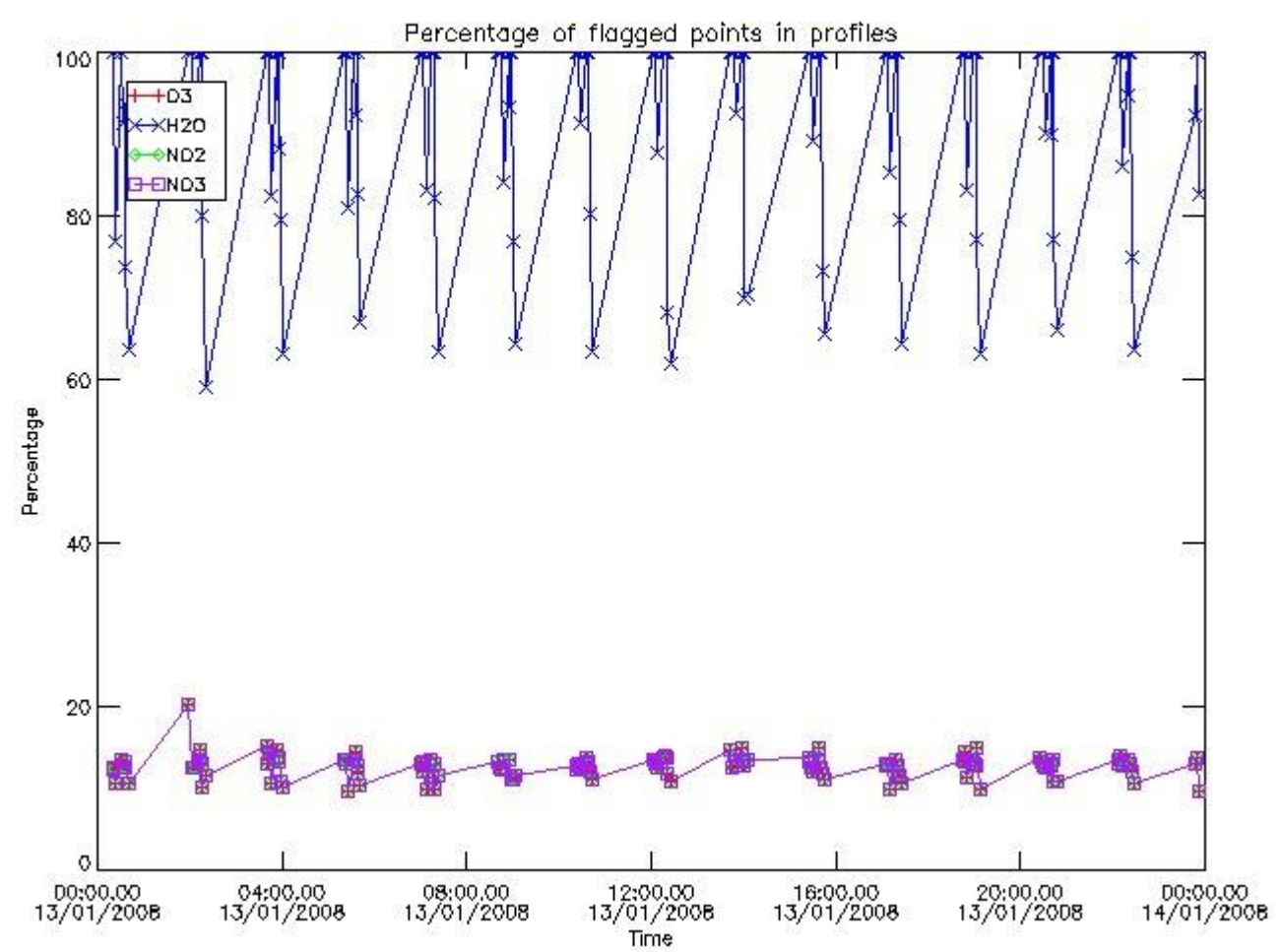
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| | | | | | | | | | | | |
|-----|--|----------------------|---------------|--------|-----|-----------|-----------|--------|-----|-------|----|
| 397 | GOM_NL__2PRFIN20080113_221941_000000382065_00087_30702_7966.N1 | 13-JAN-2008 22:19:41 | Dark | 38.000 | 124 | The Car | 2.7640 | 30000. | 76 | 30702 | No |
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| 414 | GOM_NL__2PRFIN20080113_230805_000000362065_00087_30702_7983.N1 | 13-JAN-2008 23:08:05 | Bright | 36.000 | 49 | 1Alp UMi | 1.9900 | 6300.0 | 72 | 30702 | No |
| 415 | GOM_NL__2PRFIN20080113_231624_000000382065_00087_30702_7984.N1 | 13-JAN-2008 23:16:24 | Bright | 37.500 | 119 | 14Eta Dra | 2.7270 | 4700.0 | 75 | 30702 | No |
| 416 | GOM_NL__2PRFIN20080113_231854_000000522065_00087_30702_7985.N1 | 13-JAN-2008 23:18:54 | Bright | 52.000 | 130 | 23Bet Dra | 2.7990 | 5800.0 | 104 | 30702 | No |
| 417 | GOM_NL__2PRFIN20080113_232510_000000542065_00087_30702_7986.N1 | 13-JAN-2008 23:25:10 | Bright | 54.000 | 133 | 40Zet Her | 2.8070 | 6000.0 | 108 | 30702 | No |
| 418 | GOM_NL__2PRFIN20080113_232814_000000382065_00087_30702_7987.N1 | 13-JAN-2008 23:28:14 | Bright | 37.500 | 127 | 27Bet Her | 2.7810 | 4700.0 | 75 | 30702 | No |
| 419 | GOM_NL__2PRFIN20080113_232957_000000332065_00087_30702_7988.N1 | 13-JAN-2008 23:29:57 | Bright | 32.500 | 59 | 55Alp Oph | 2.0800 | 8900.0 | 65 | 30702 | No |
| 420 | GOM_NL__2PRFIN20080113_233546_000000552065_00087_30702_7989.N1 | 13-JAN-2008 23:35:46 | Bright | 55.000 | 120 | 1Del Oph | 2.7340 | 3200.0 | 110 | 30702 | No |
| 421 | GOM_NL__2PRFIN20080113_233710_000000532065_00087_30702_7990.N1 | 13-JAN-2008 23:37:10 | Bright | 52.500 | 98 | 13Zet Oph | 2.5710 | 30000. | 105 | 30702 | No |
| 422 | GOM_NL__2PRFIN20080113_234137_000000532065_00087_30702_7991.N1 | 13-JAN-2008 23:41:37 | Twl_and_stray | 53.000 | 16 | 21Alp Sco | 1.0200 | 3000.0 | 106 | 30702 | No |
| 423 | GOM_NL__2PRFIN20080113_234648_000000392065_00087_30702_7992.N1 | 13-JAN-2008 23:46:48 | Dark | 39.000 | 131 | Gam Lup | 2.8000 | 26000. | 78 | 30702 | No |
| 424 | GOM_NL__2PRFIN20080113_235000_000000412065_00087_30702_7993.N1 | 13-JAN-2008 23:50:00 | Dark | 40.500 | 78 | Alp Lup | 2.3040 | 28000. | 81 | 30702 | No |
| 425 | GOM_NL__2PRFIN20080113_235241_000000532065_00088_30703_7986.N1 | 13-JAN-2008 23:52:41 | Dark | 52.500 | 4 | Alp1Cen | -0.010000 | 5800.0 | 105 | 30703 | No |

3. Quality information per product

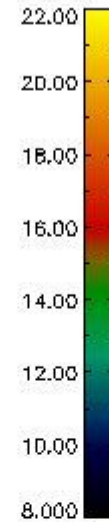
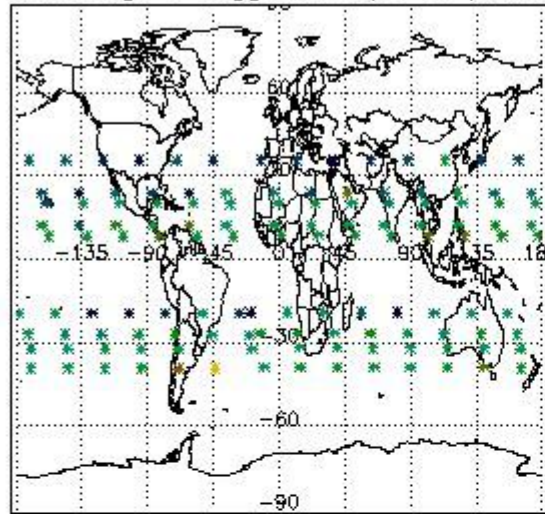
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

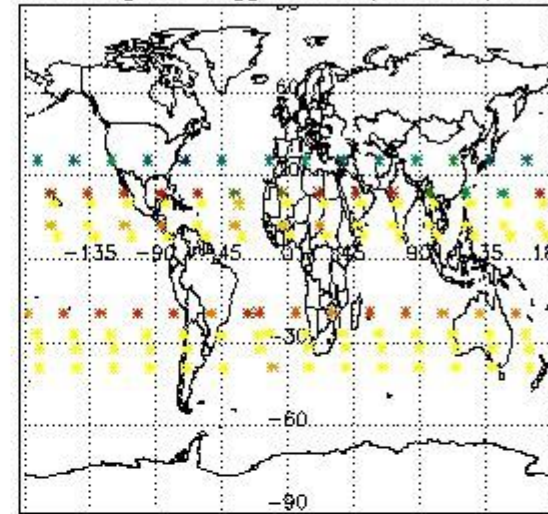


3.2 Plot quality information per product (world map)

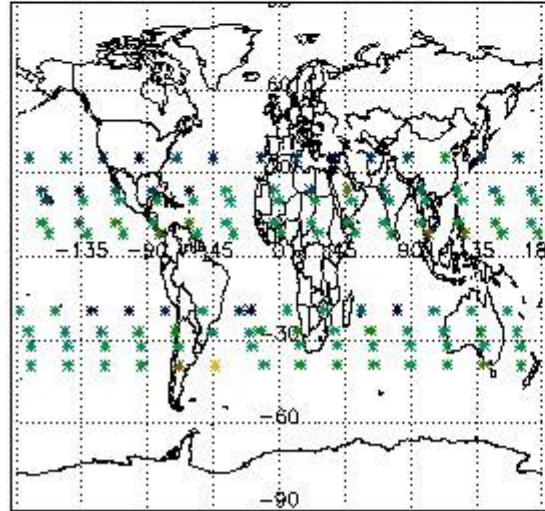
Percentage of flagged data per O3 profile



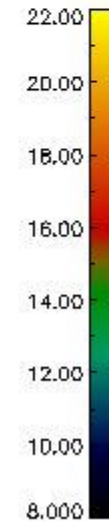
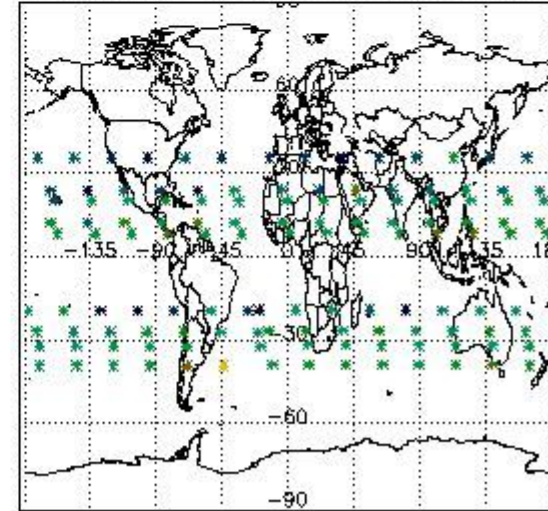
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

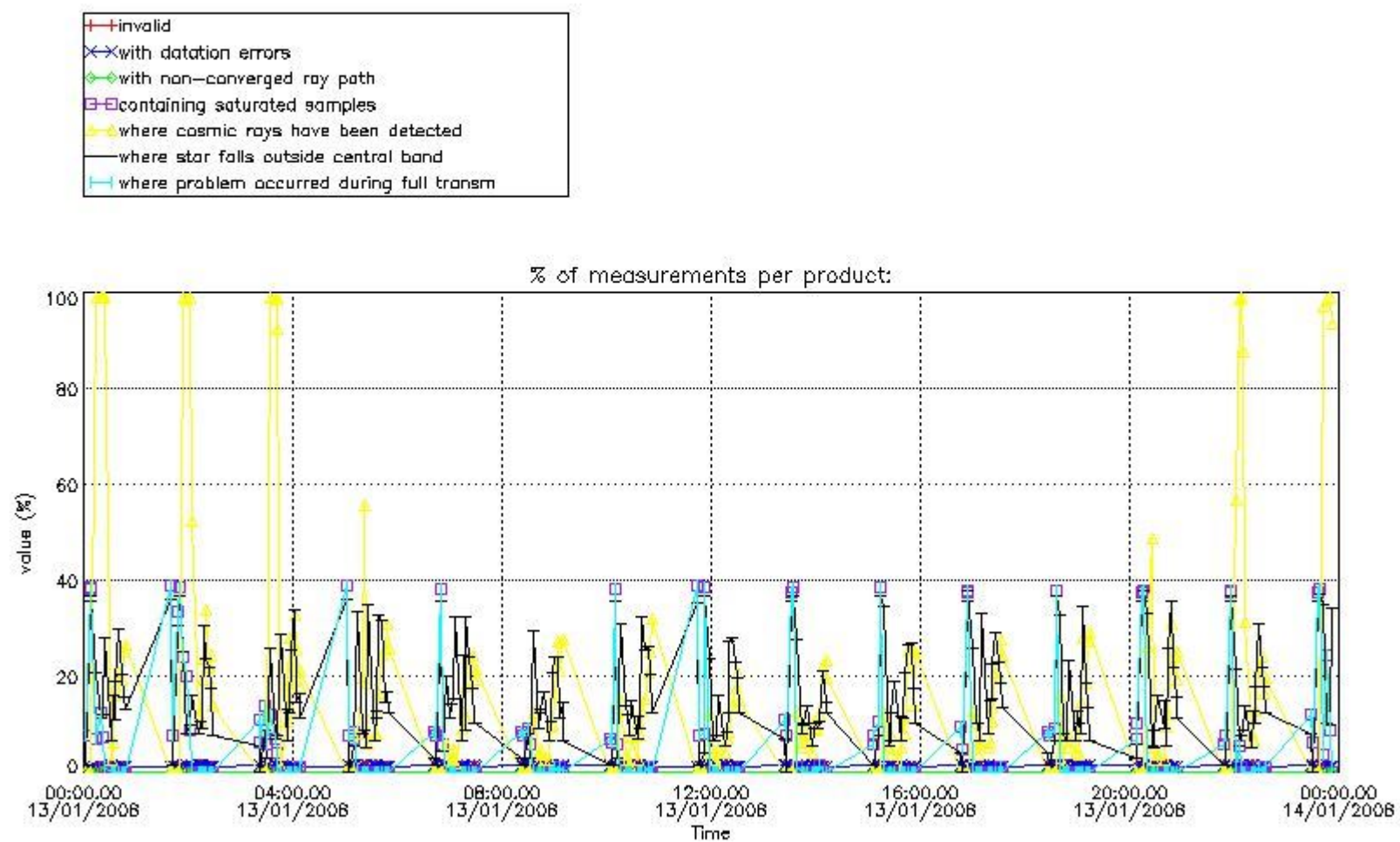


4. Level 1 quality information per product

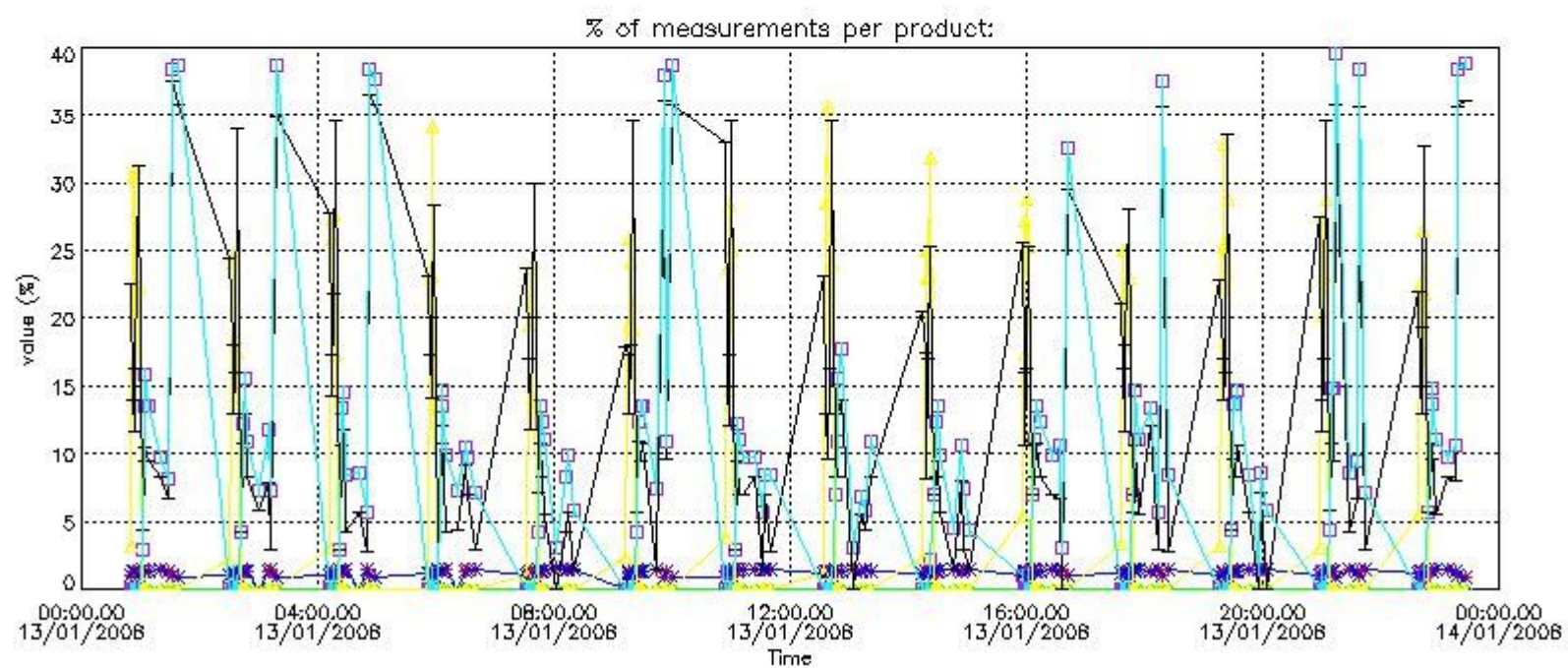
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



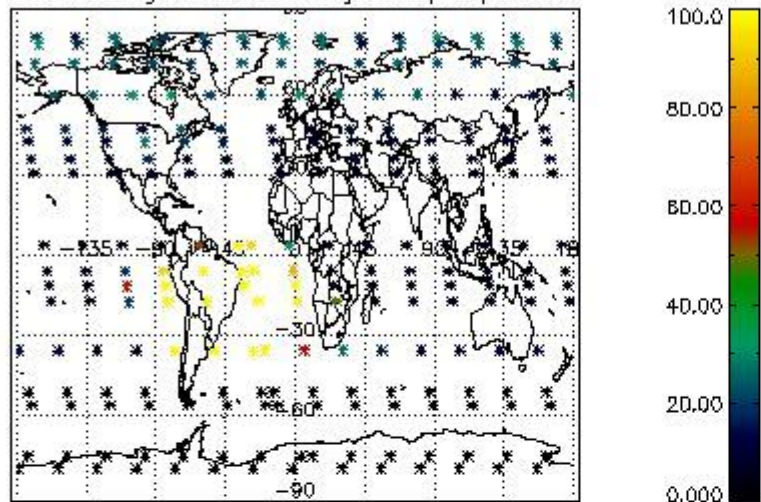
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



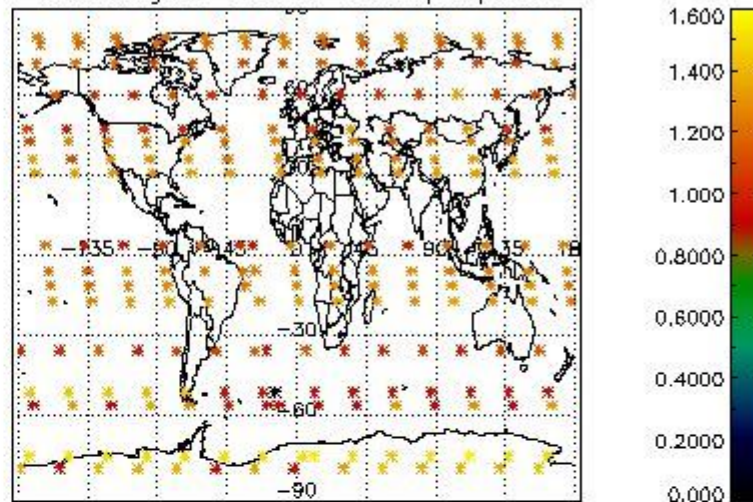
4.2 Plot quality information per product coming from level 1b processing (world map)

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

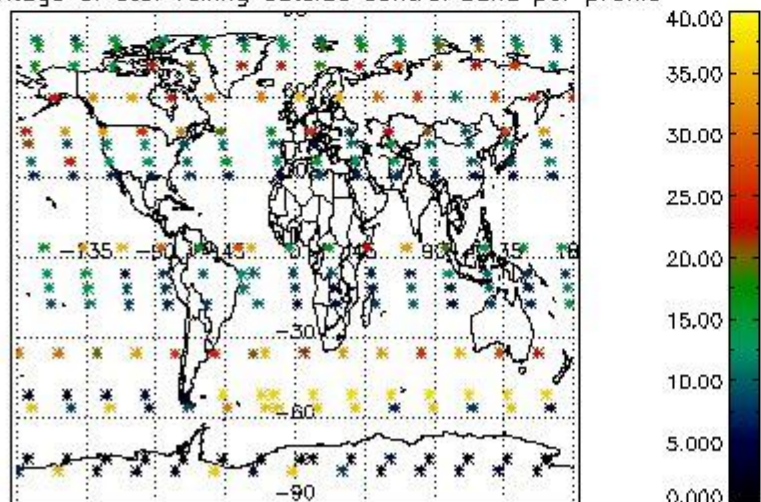
Percentage of cosmic ray hits per profile



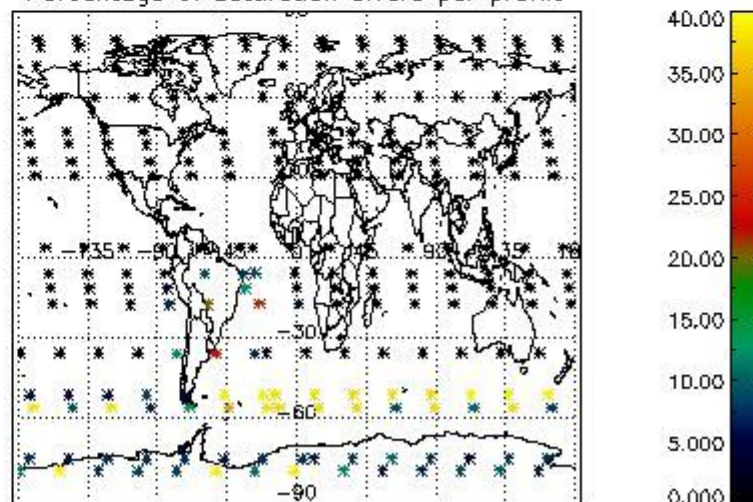
Percentage of datation errors per profile



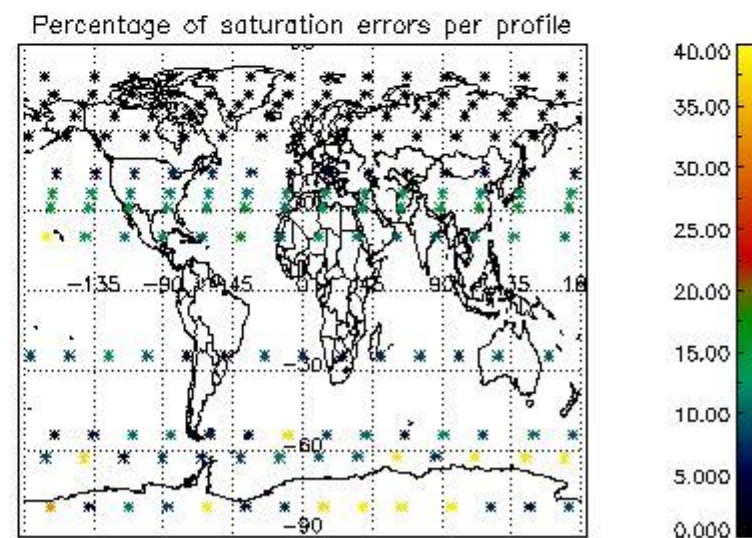
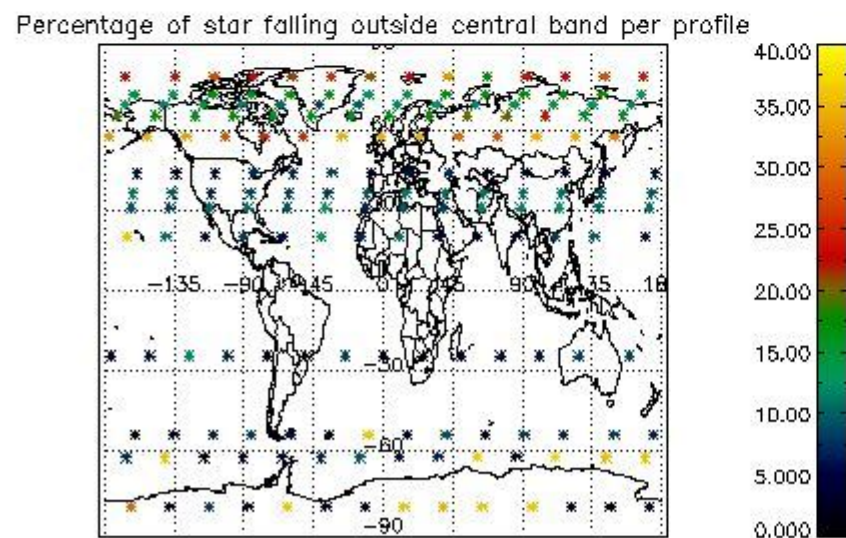
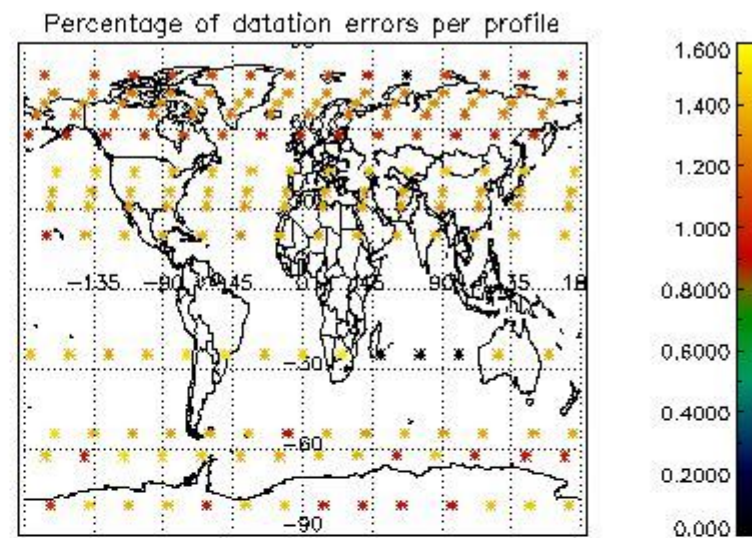
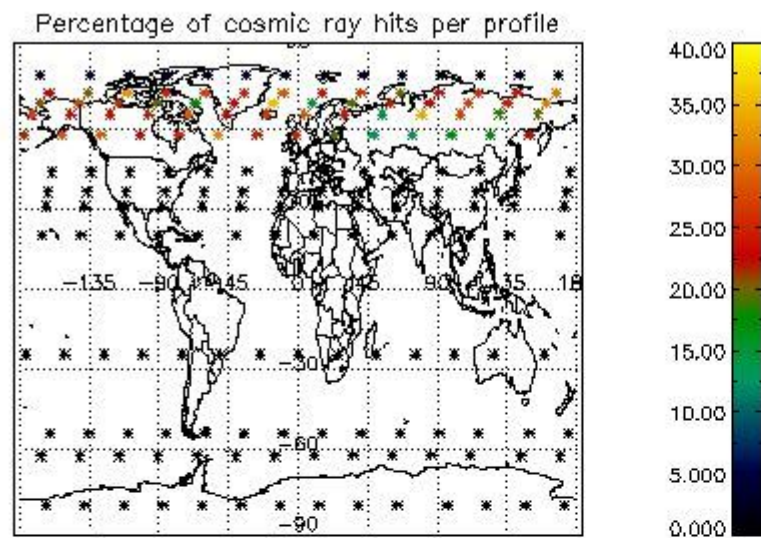
Percentage of star falling outside central band per profile



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

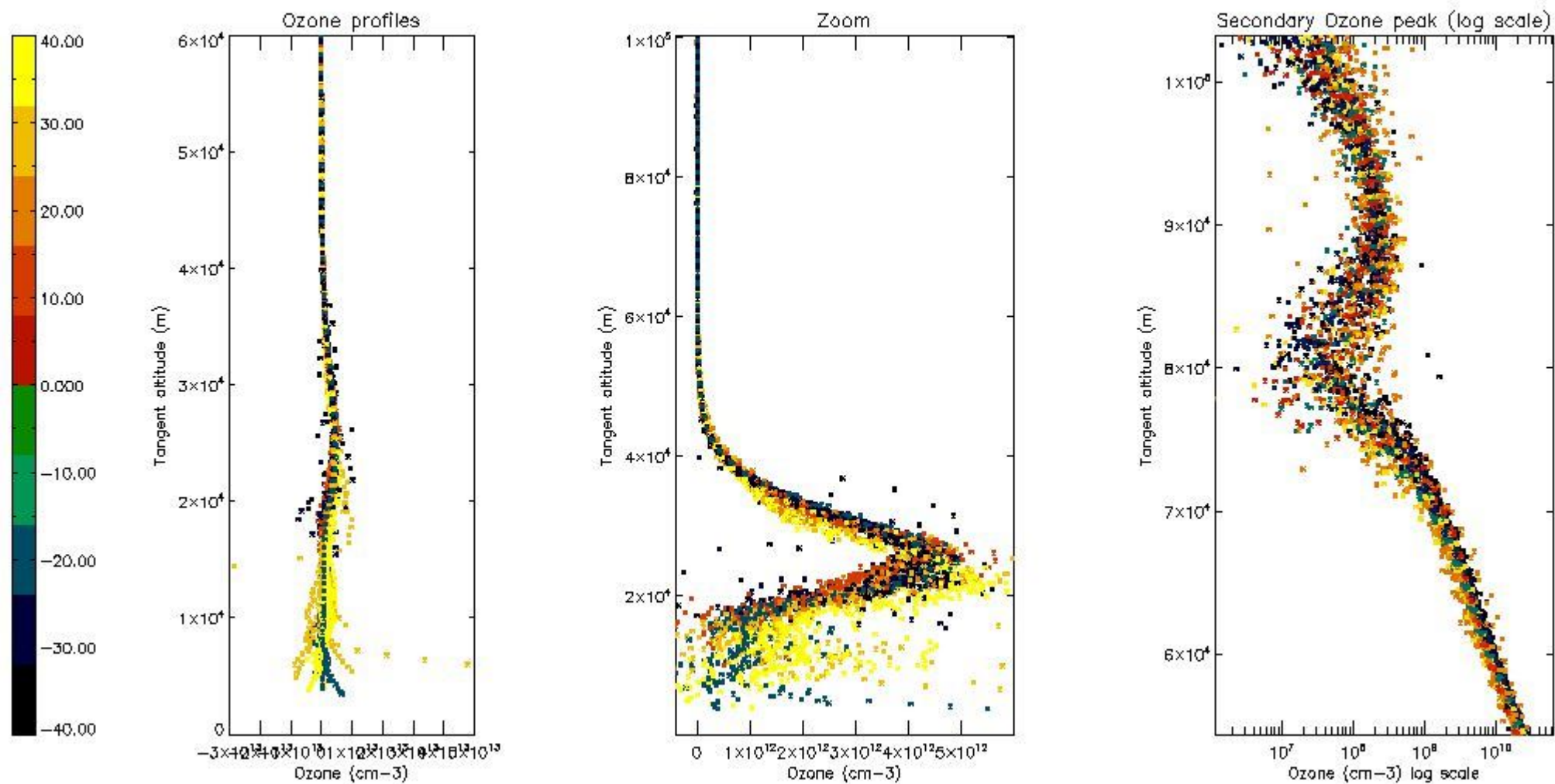
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

| Criteria | % of total production |
|----------|-----------------------|
| All STD | 31 |
| STD < 20 | 18 |

| | |
|----------|----|
| STD < 10 | 15 |
| STD < 5 | 9 |

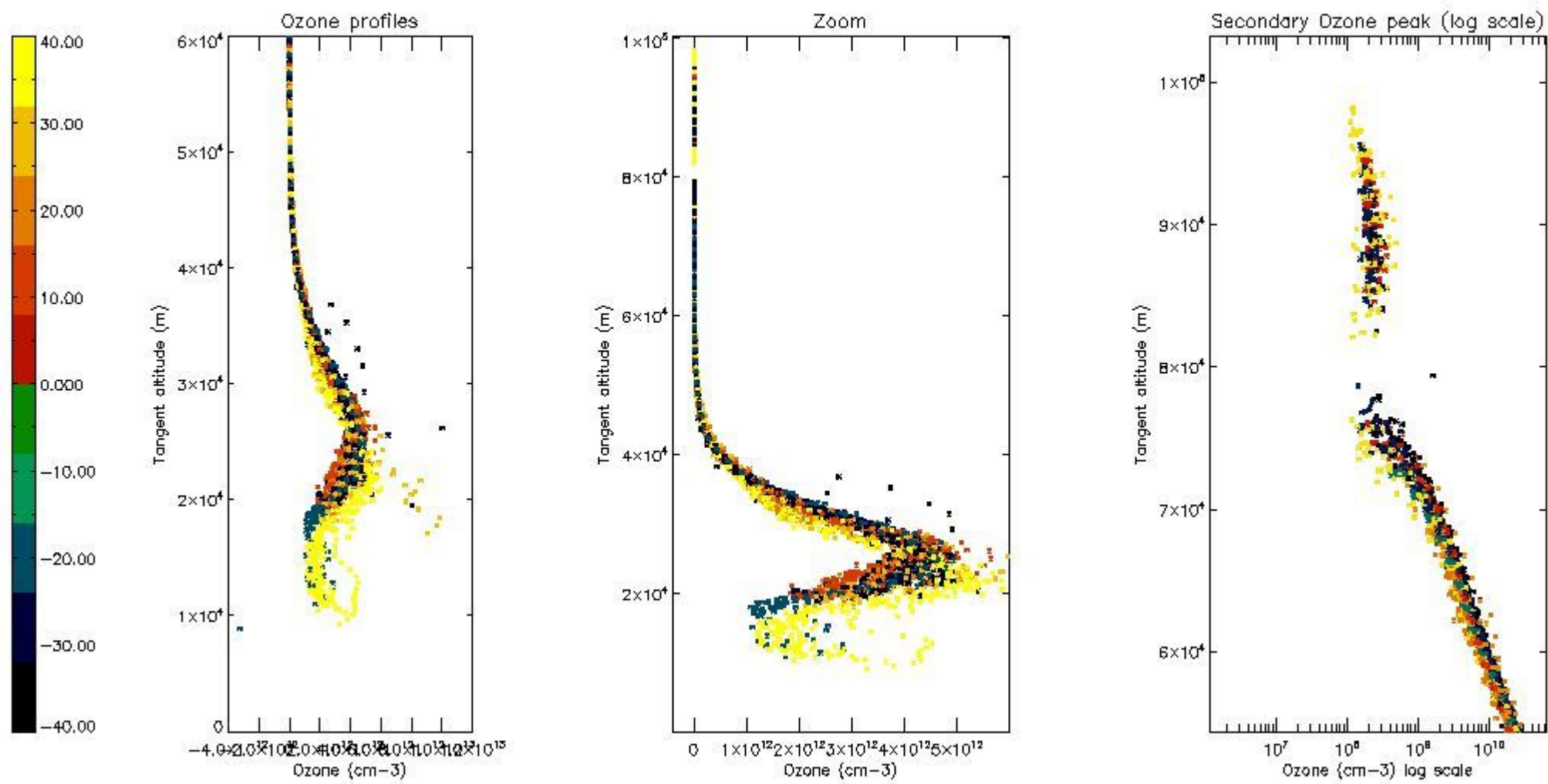
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



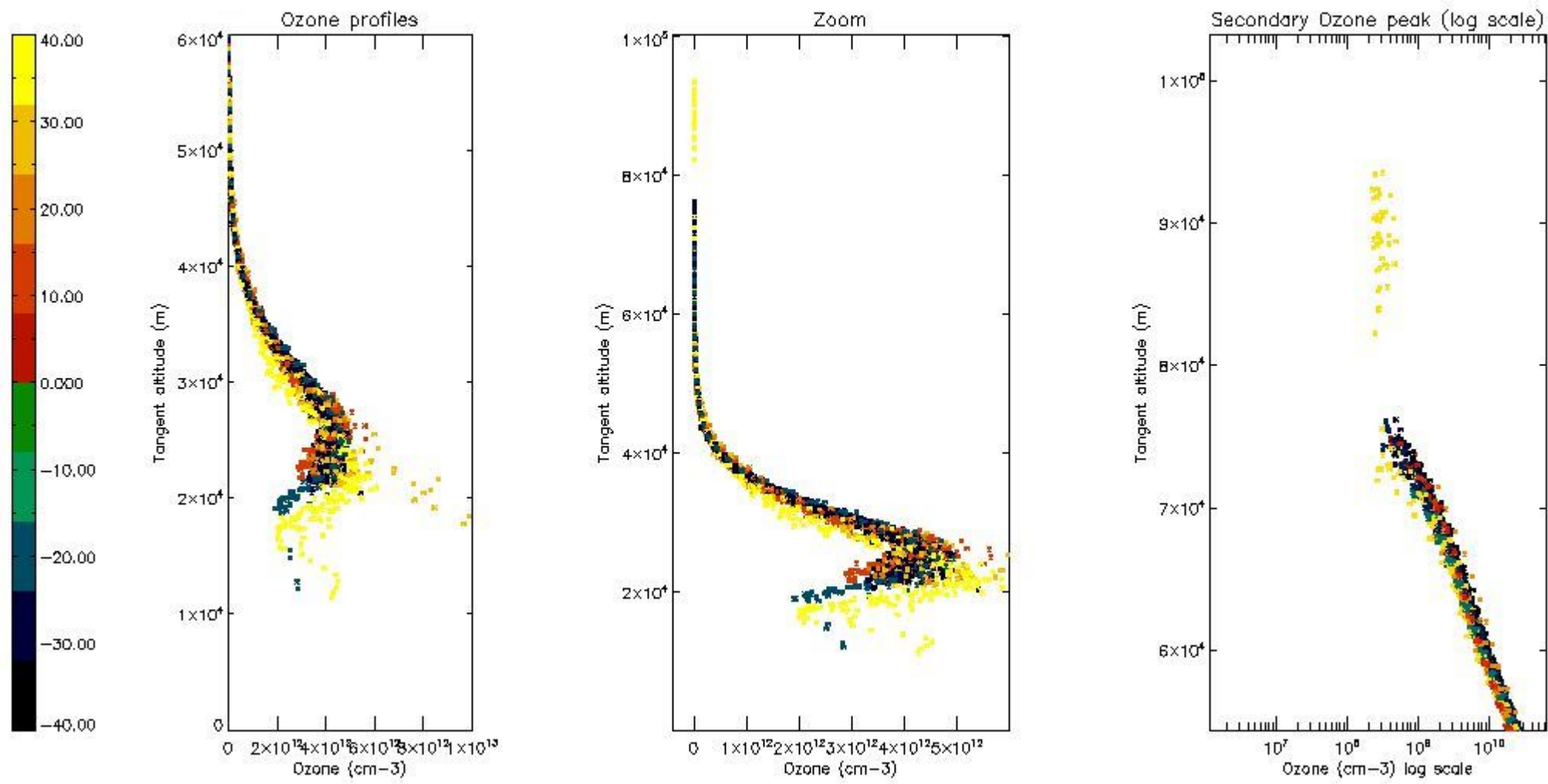
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



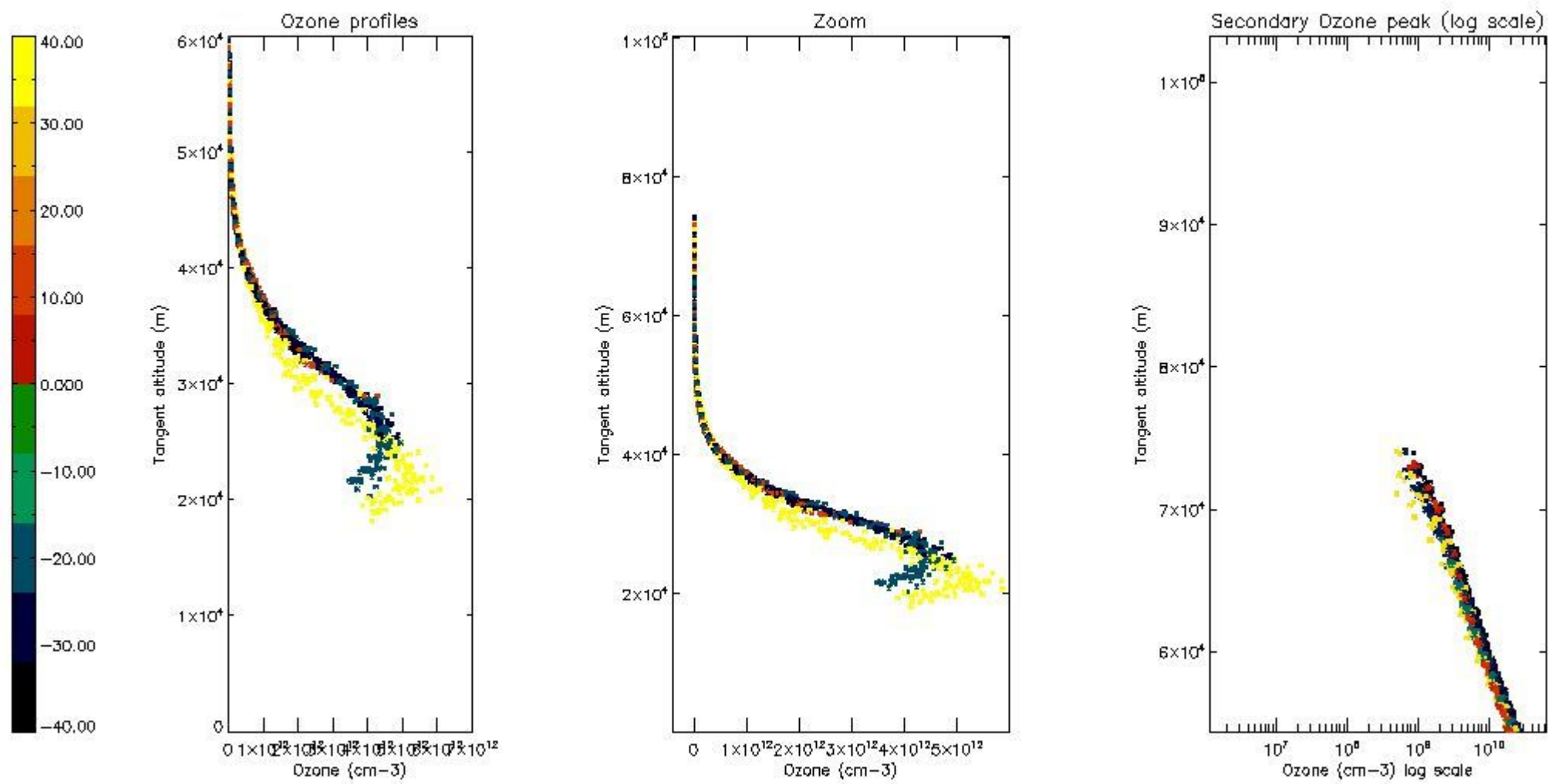
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



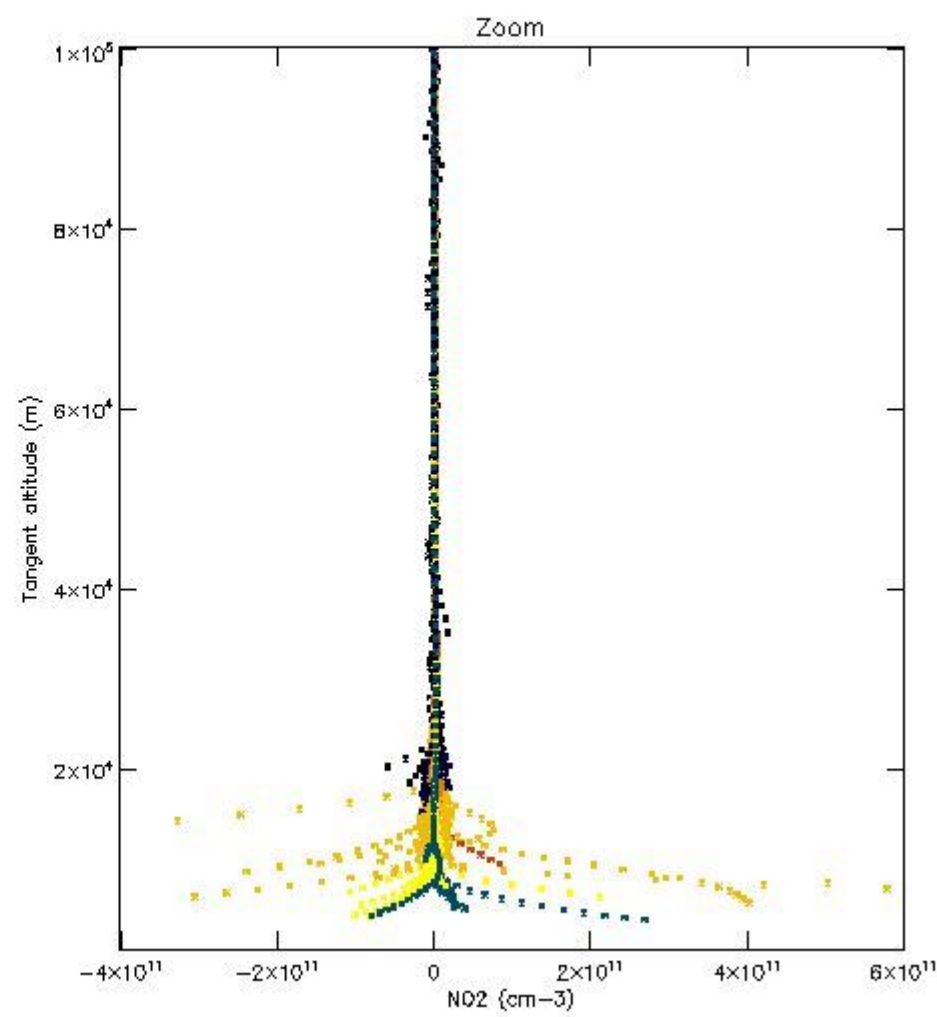
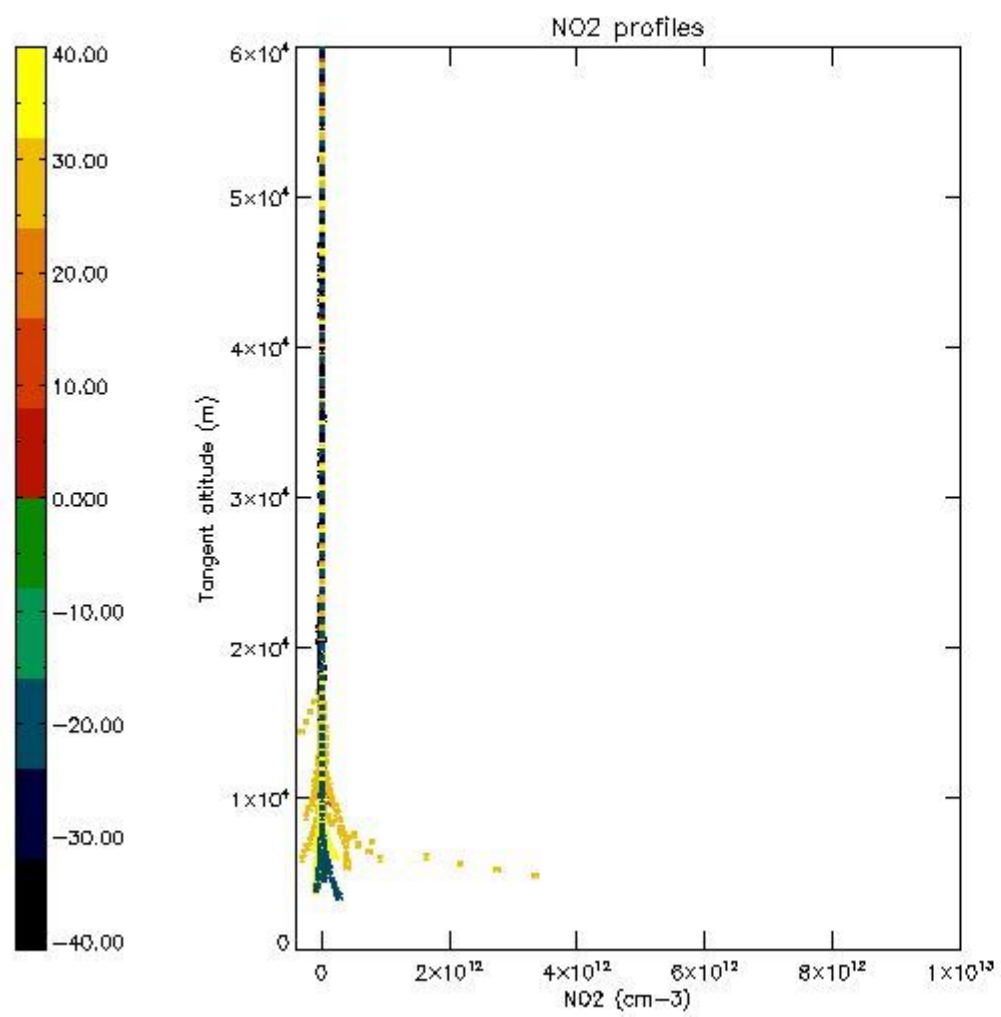
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



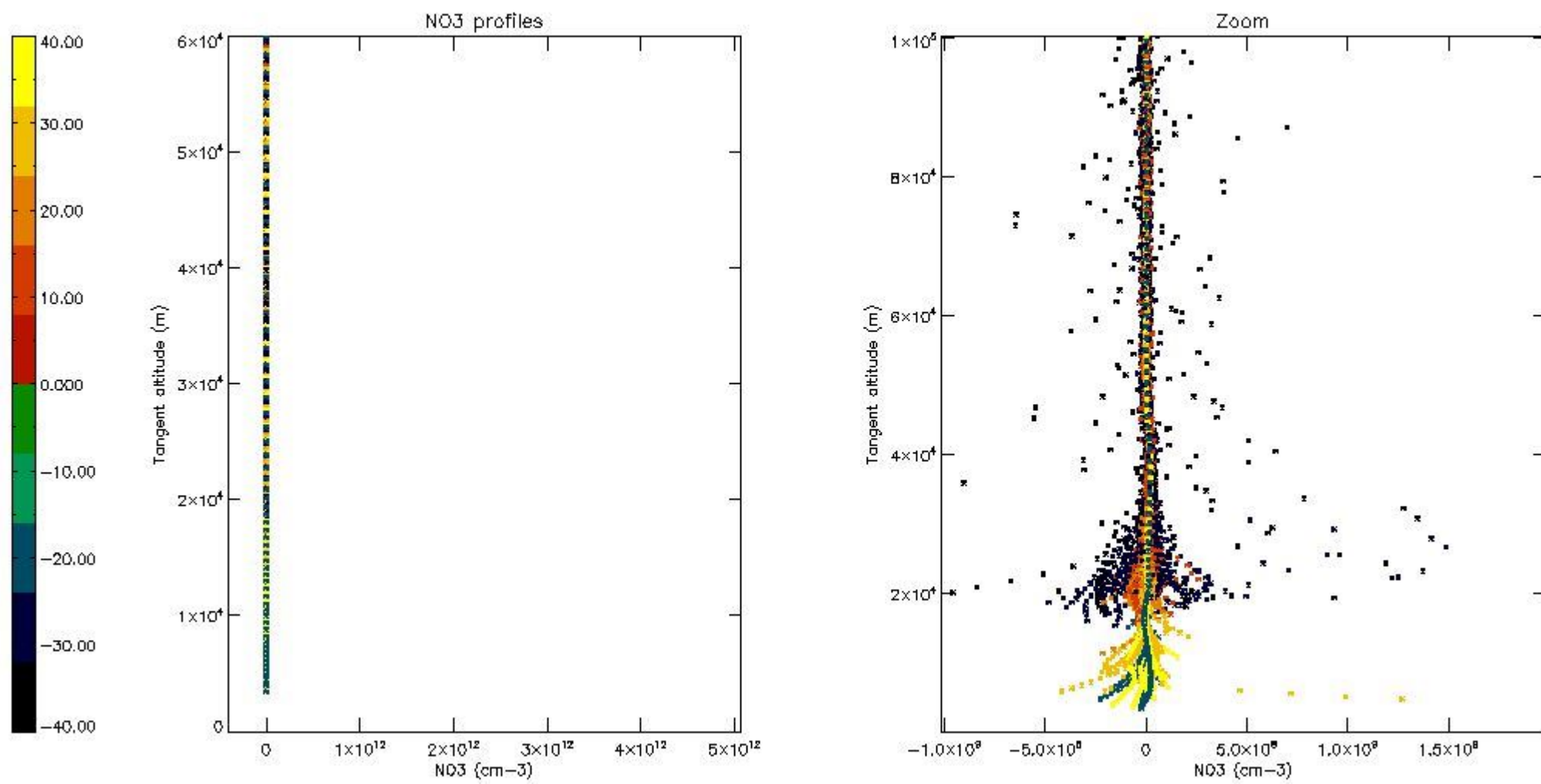
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



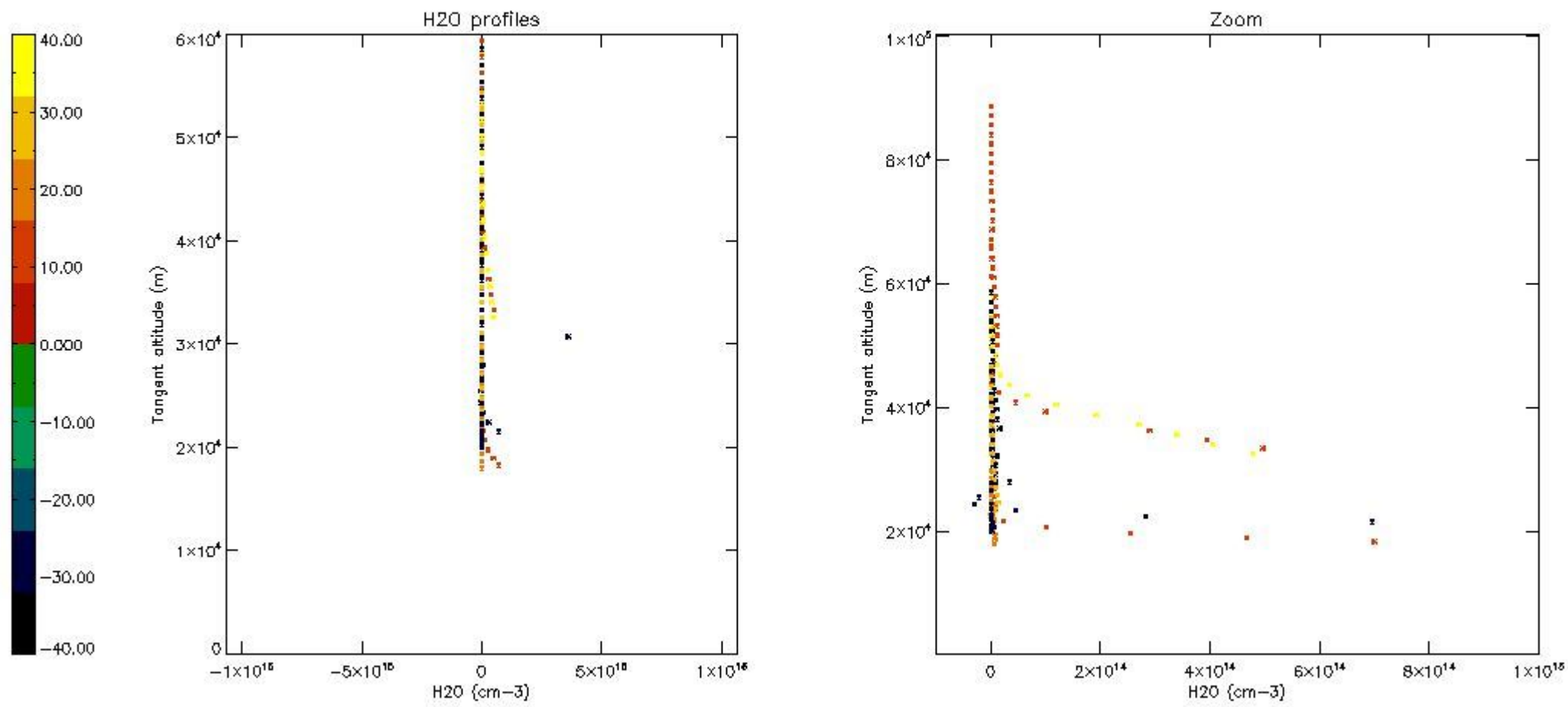
5.7 Plot NO3 profiles for all STD (dark without errors)

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 | 13-JAN-2008 00:01:32 |
| LEVEL-2_PROC_CONFIG | GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000 | 1 | 13-JAN-2008 00:01:32 |
| CROSS_SECTIONS_FILE | GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000 | 1 | 13-JAN-2008 00:01:32 |

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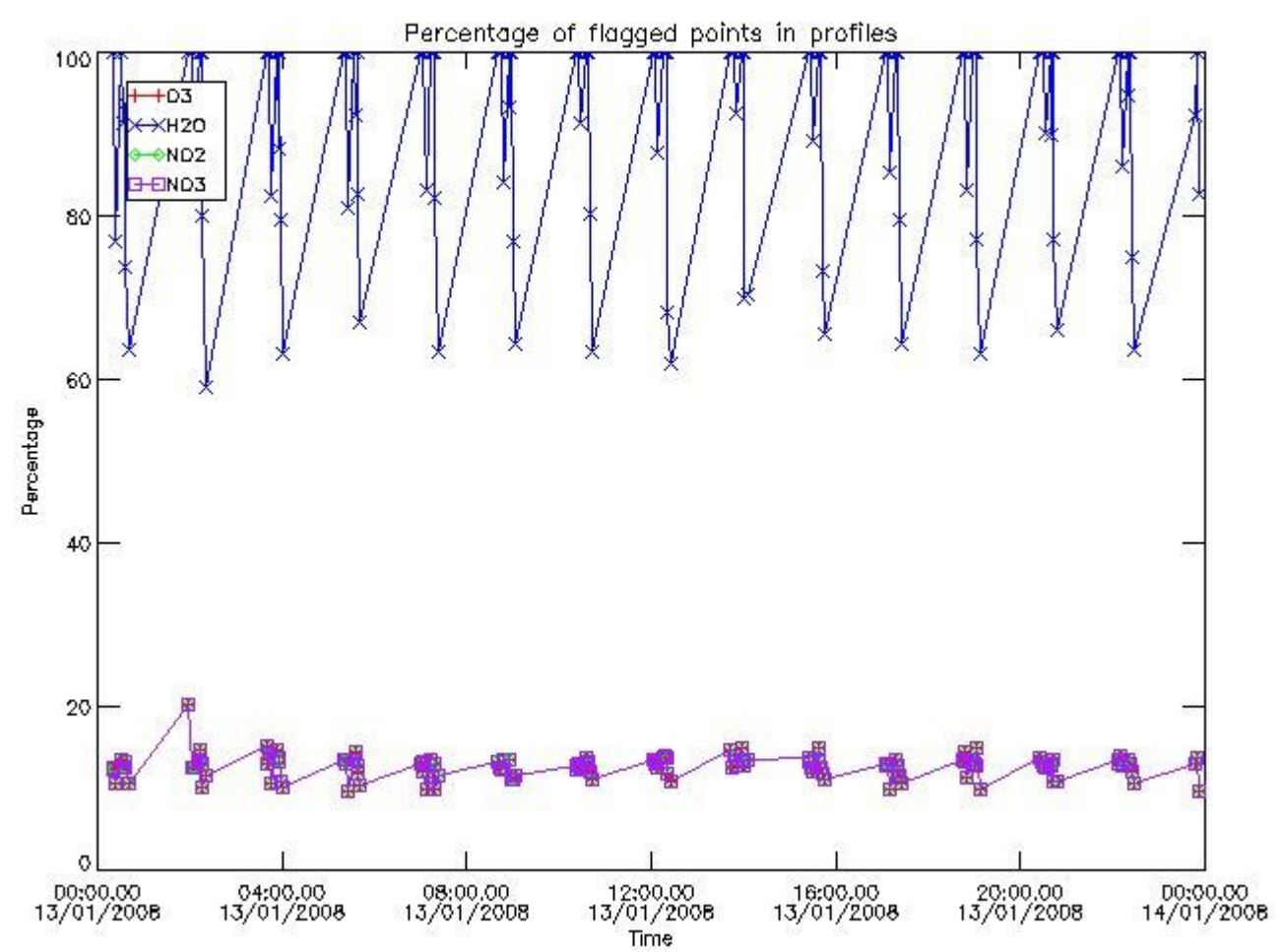
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| 412 | GOM_NL__2PRFIN20080113_225234_000000372065_00087_30702_7981.N1 | 13-JAN-2008 22:52:34 | Bright | 37.000 | 114 | 3lot Aur | 2.6930 | 4600.0 | 74 | 30702 | No |
| 413 | GOM_NL__2PRFIN20080113_225534_000000362065_00087_30702_7982.N1 | 13-JAN-2008 22:55:34 | Bright | 36.000 | 42 | 34Bet Aur | 1.9000 | 10200. | 72 | 30702 | No |
| 414 | GOM_NL__2PRFIN20080113_230805_000000362065_00087_30702_7983.N1 | 13-JAN-2008 23:08:05 | Bright | 36.000 | 49 | 1Alp UMi | 1.9900 | 6300.0 | 72 | 30702 | No |
| 415 | GOM_NL__2PRFIN20080113_231624_000000382065_00087_30702_7984.N1 | 13-JAN-2008 23:16:24 | Bright | 37.500 | 119 | 14Eta Dra | 2.7270 | 4700.0 | 75 | 30702 | No |
| 416 | GOM_NL__2PRFIN20080113_231854_000000522065_00087_30702_7985.N1 | 13-JAN-2008 23:18:54 | Bright | 52.000 | 130 | 23Bet Dra | 2.7990 | 5800.0 | 104 | 30702 | No |
| 417 | GOM_NL__2PRFIN20080113_232510_000000542065_00087_30702_7986.N1 | 13-JAN-2008 23:25:10 | Bright | 54.000 | 133 | 40Zet Her | 2.8070 | 6000.0 | 108 | 30702 | No |
| 418 | GOM_NL__2PRFIN20080113_232814_000000382065_00087_30702_7987.N1 | 13-JAN-2008 23:28:14 | Bright | 37.500 | 127 | 27Bet Her | 2.7810 | 4700.0 | 75 | 30702 | No |
| 419 | GOM_NL__2PRFIN20080113_232957_000000332065_00087_30702_7988.N1 | 13-JAN-2008 23:29:57 | Bright | 32.500 | 59 | 55Alp Oph | 2.0800 | 8900.0 | 65 | 30702 | No |
| 420 | GOM_NL__2PRFIN20080113_233546_000000552065_00087_30702_7989.N1 | 13-JAN-2008 23:35:46 | Bright | 55.000 | 120 | 1Del Oph | 2.7340 | 3200.0 | 110 | 30702 | No |
| 421 | GOM_NL__2PRFIN20080113_233710_000000532065_00087_30702_7990.N1 | 13-JAN-2008 23:37:10 | Bright | 52.500 | 98 | 13Zet Oph | 2.5710 | 30000. | 105 | 30702 | No |
| 422 | GOM_NL__2PRFIN20080113_234137_000000532065_00087_30702_7991.N1 | 13-JAN-2008 23:41:37 | Twl_and_stray | 53.000 | 16 | 21Alp Sco | 1.0200 | 3000.0 | 106 | 30702 | No |
| 423 | GOM_NL__2PRFIN20080113_234648_000000392065_00087_30702_7992.N1 | 13-JAN-2008 23:46:48 | Dark | 39.000 | 131 | Gam Lup | 2.8000 | 26000. | 78 | 30702 | No |
| 424 | GOM_NL__2PRFIN20080113_235000_000000412065_00087_30702_7993.N1 | 13-JAN-2008 23:50:00 | Dark | 40.500 | 78 | Alp Lup | 2.3040 | 28000. | 81 | 30702 | No |
| 425 | GOM_NL__2PRFIN20080113_235241_000000532065_00088_30703_7986.N1 | 13-JAN-2008 23:52:41 | Dark | 52.500 | 4 | Alp1Cen | -0.010000 | 5800.0 | 105 | 30703 | No |

3. Quality information per product

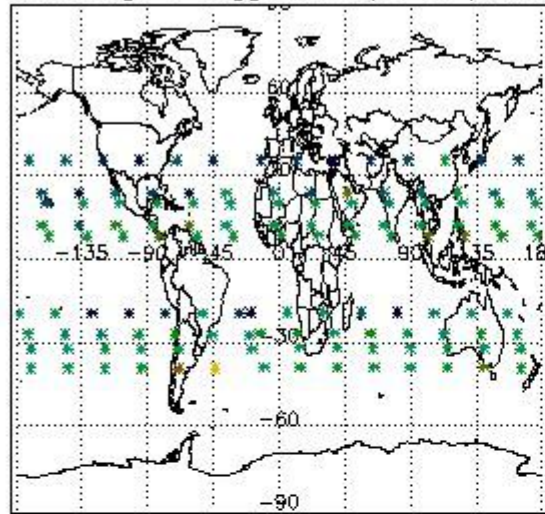
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

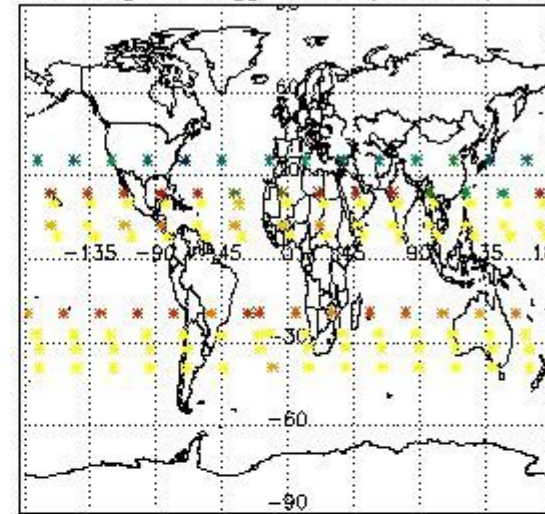


3.2 Plot quality information per product (world map)

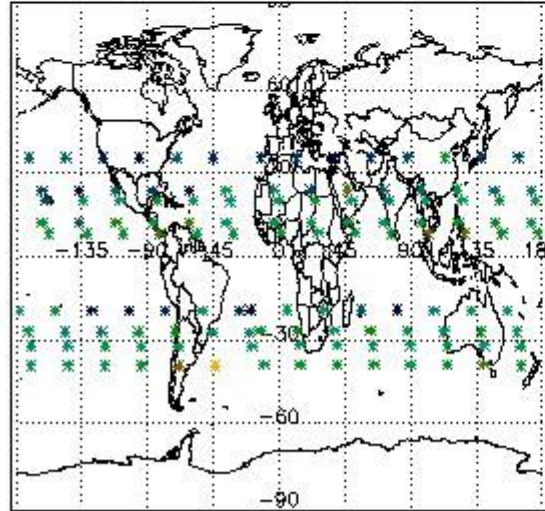
Percentage of flagged data per O3 profile



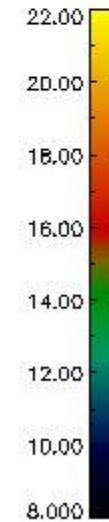
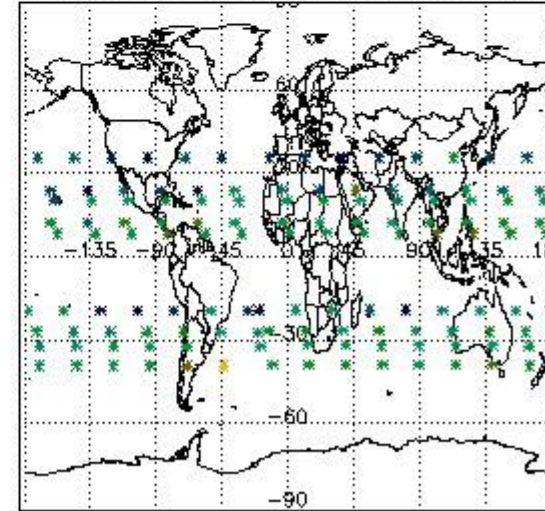
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

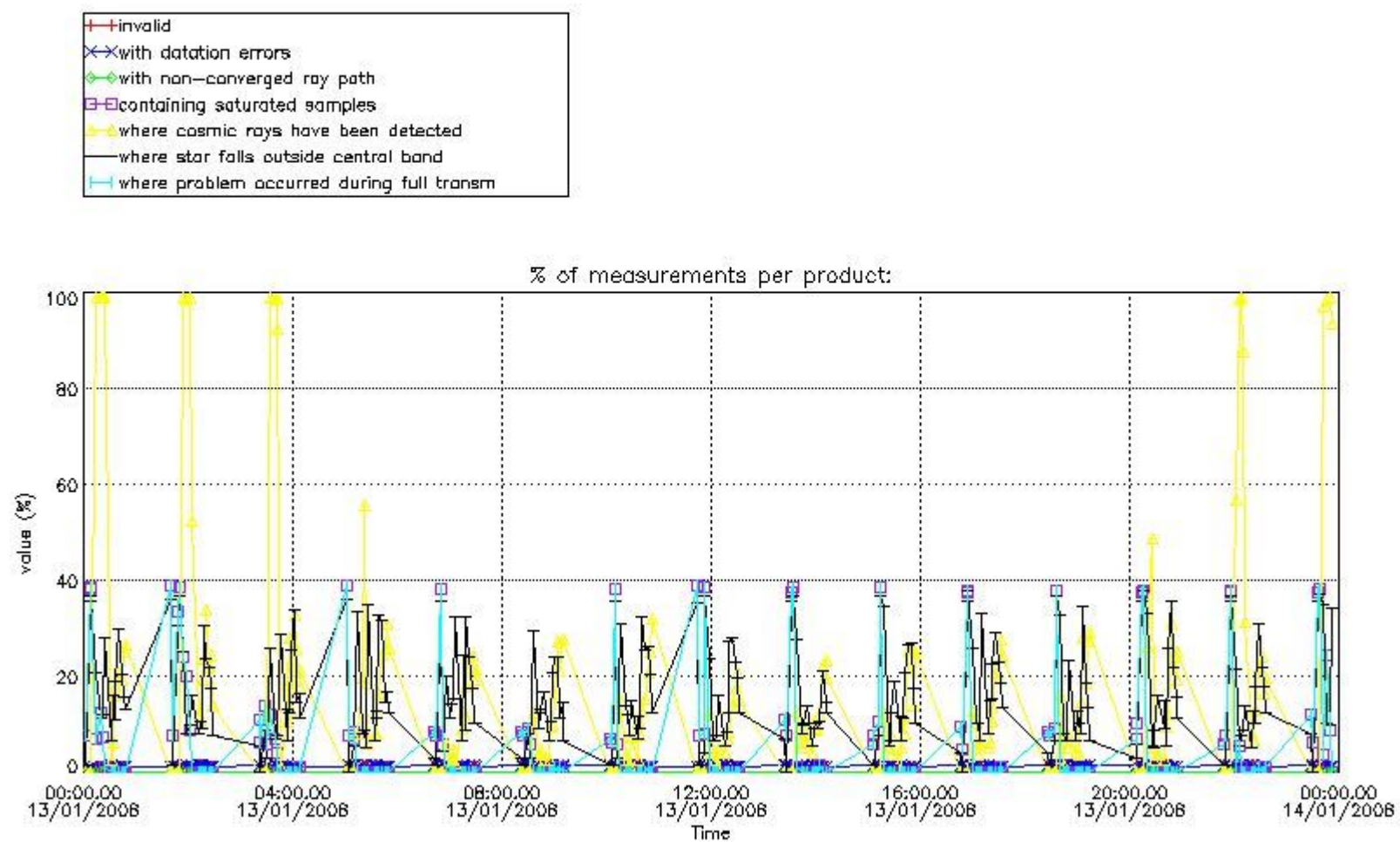


4. Level 1 quality information per product

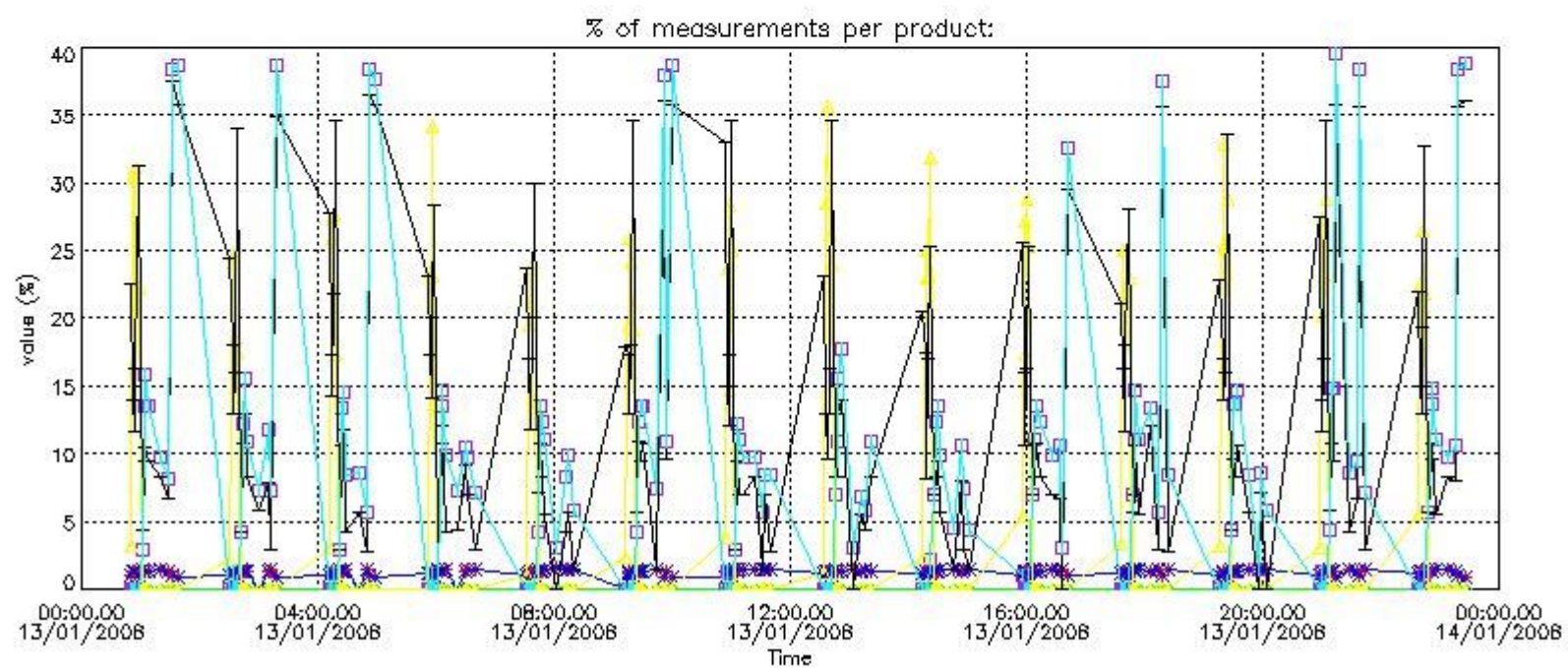
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



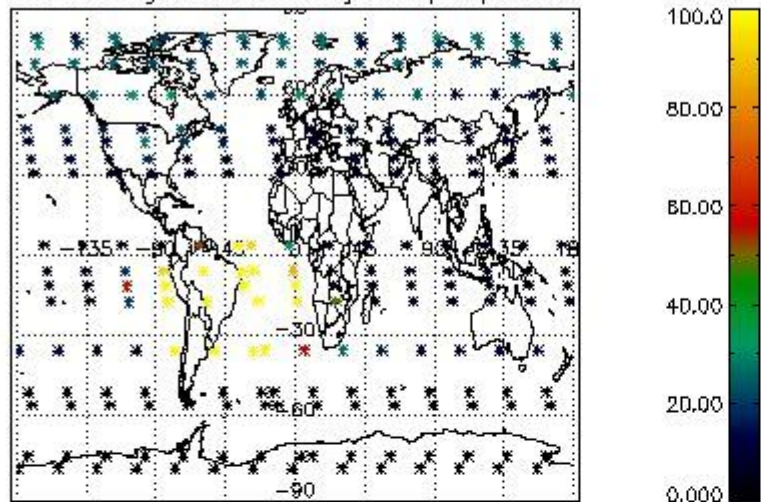
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



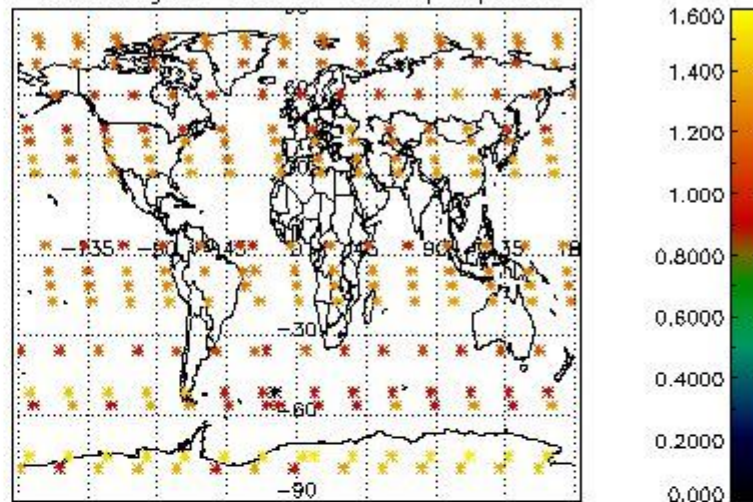
4.2 Plot quality information per product coming from level 1b processing (world map)

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

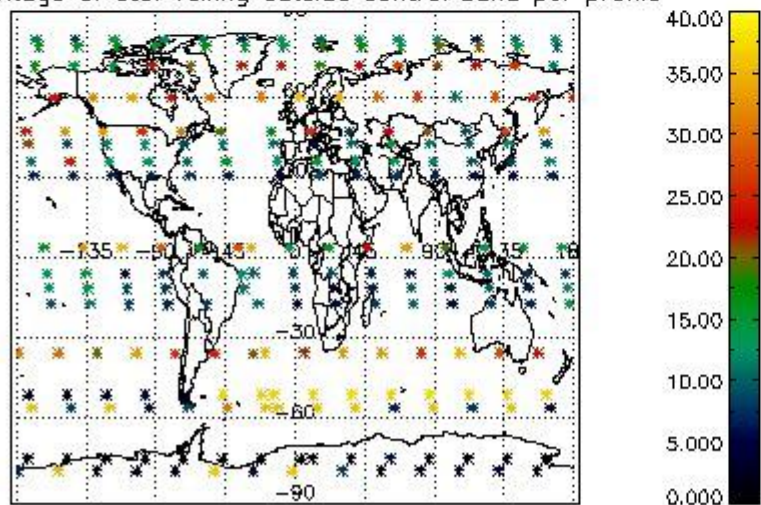
Percentage of cosmic ray hits per profile



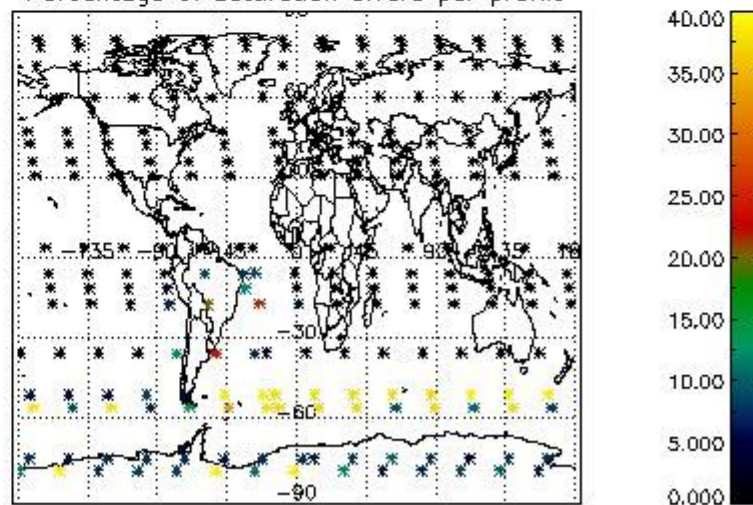
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

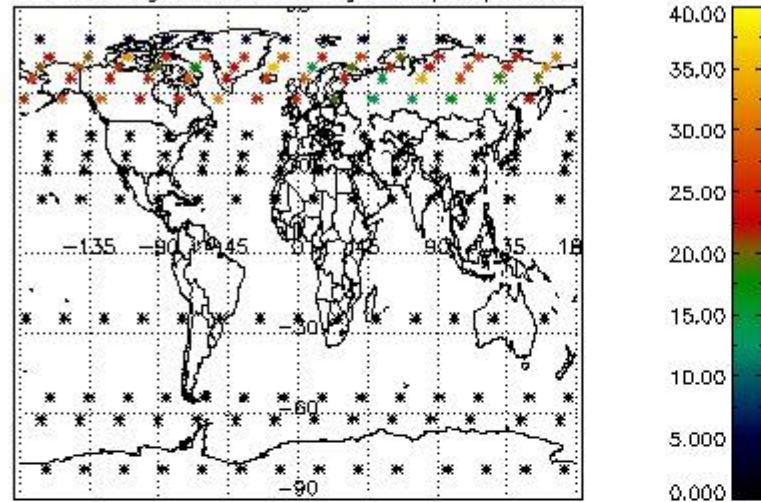


Percentage of saturation errors per profile

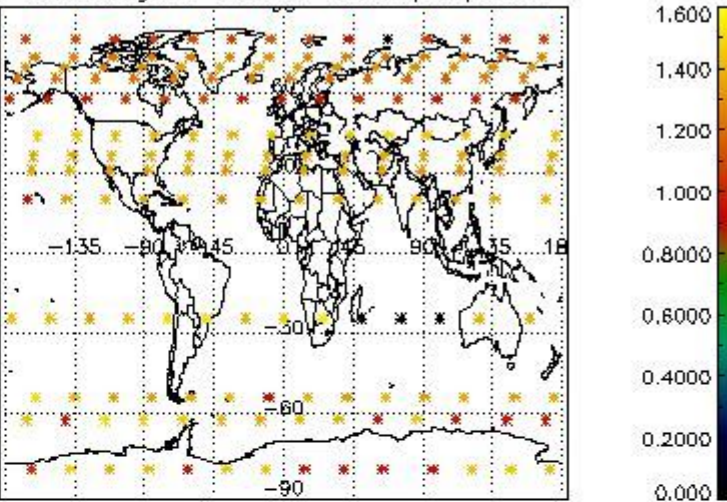


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

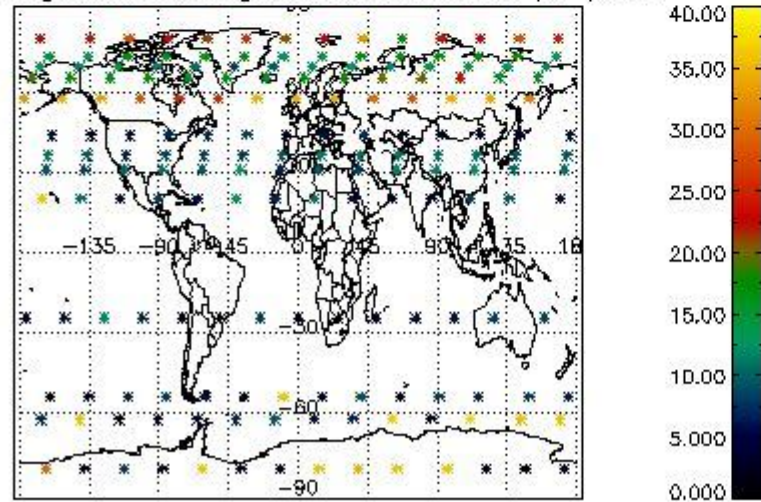
Percentage of cosmic ray hits per profile



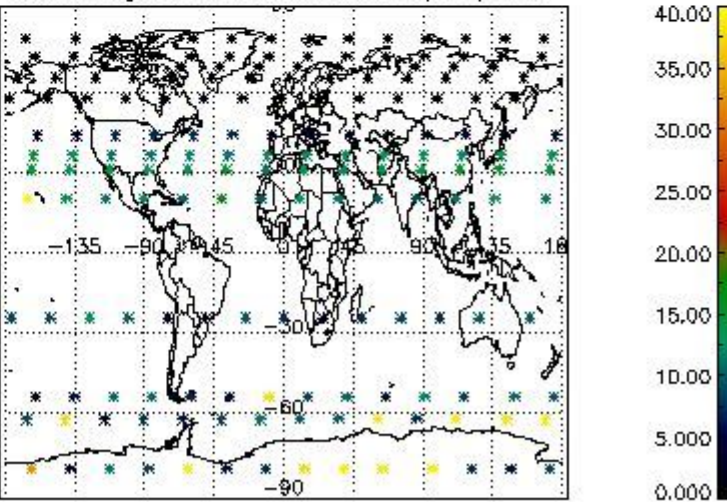
Percentage of datation errors per profile



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

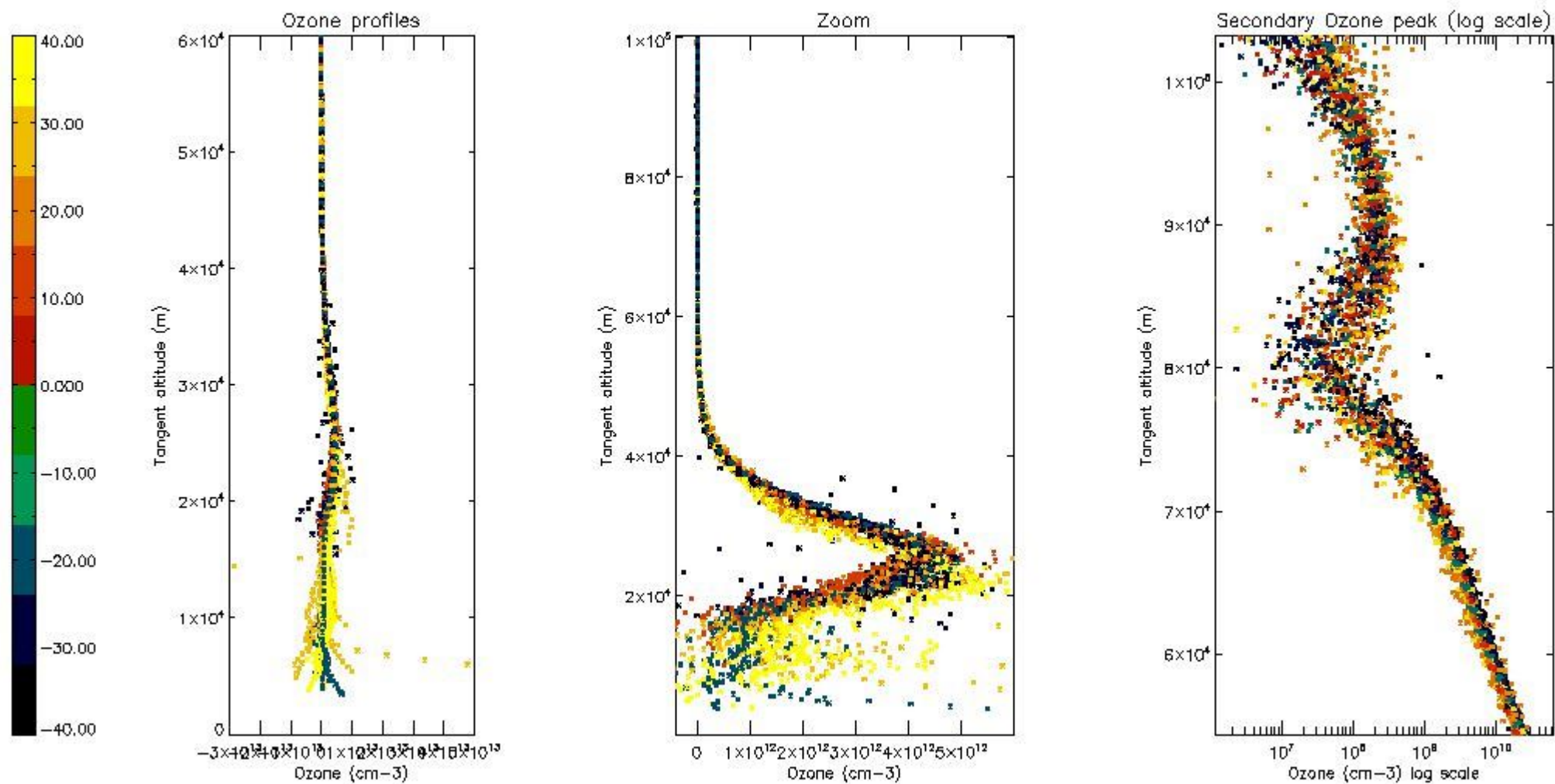
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

| Criteria | % of total production |
|----------|-----------------------|
| All STD | 31 |
| STD < 20 | 18 |

| | |
|----------|----|
| STD < 10 | 15 |
| STD < 5 | 9 |

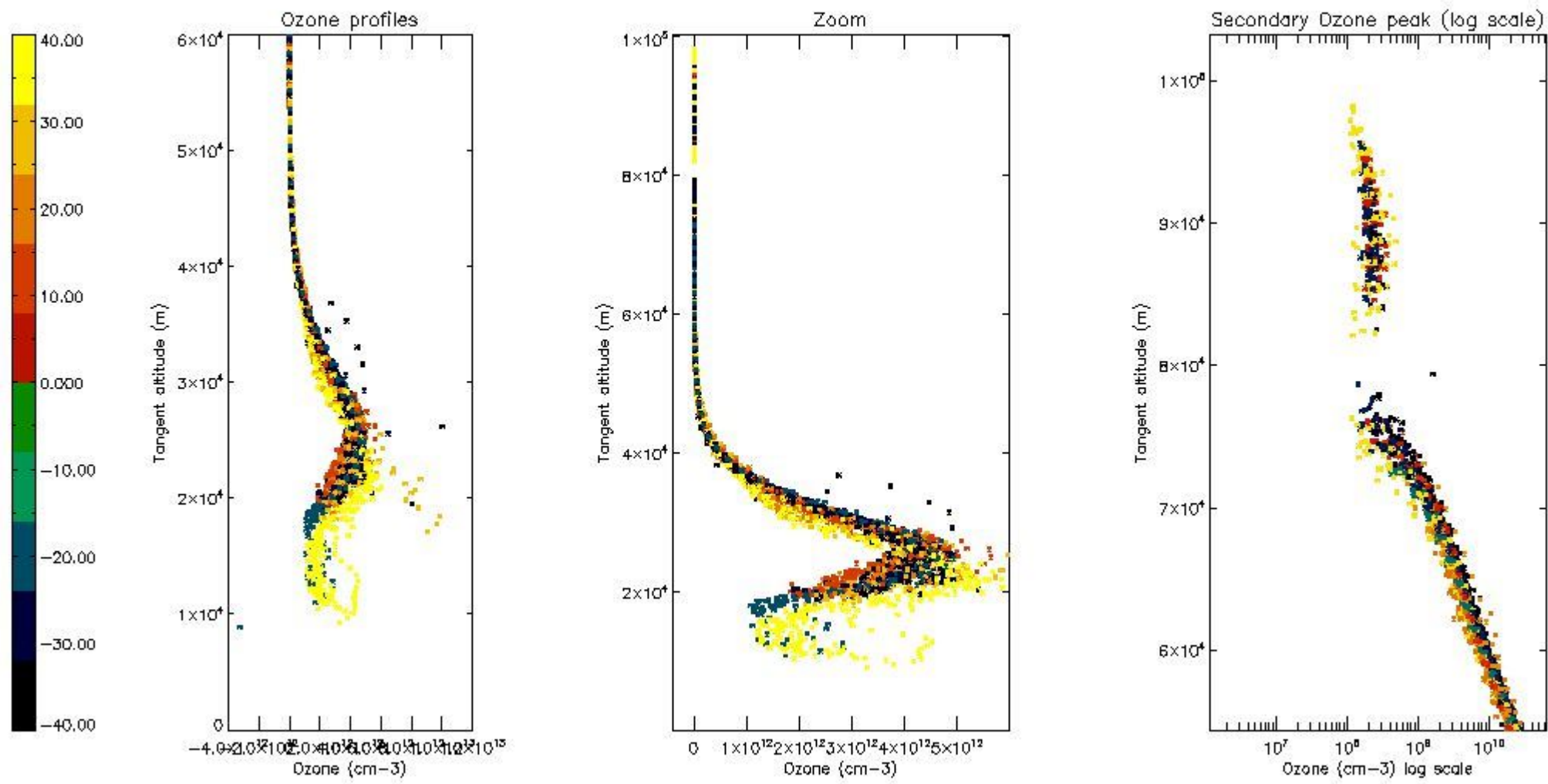
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



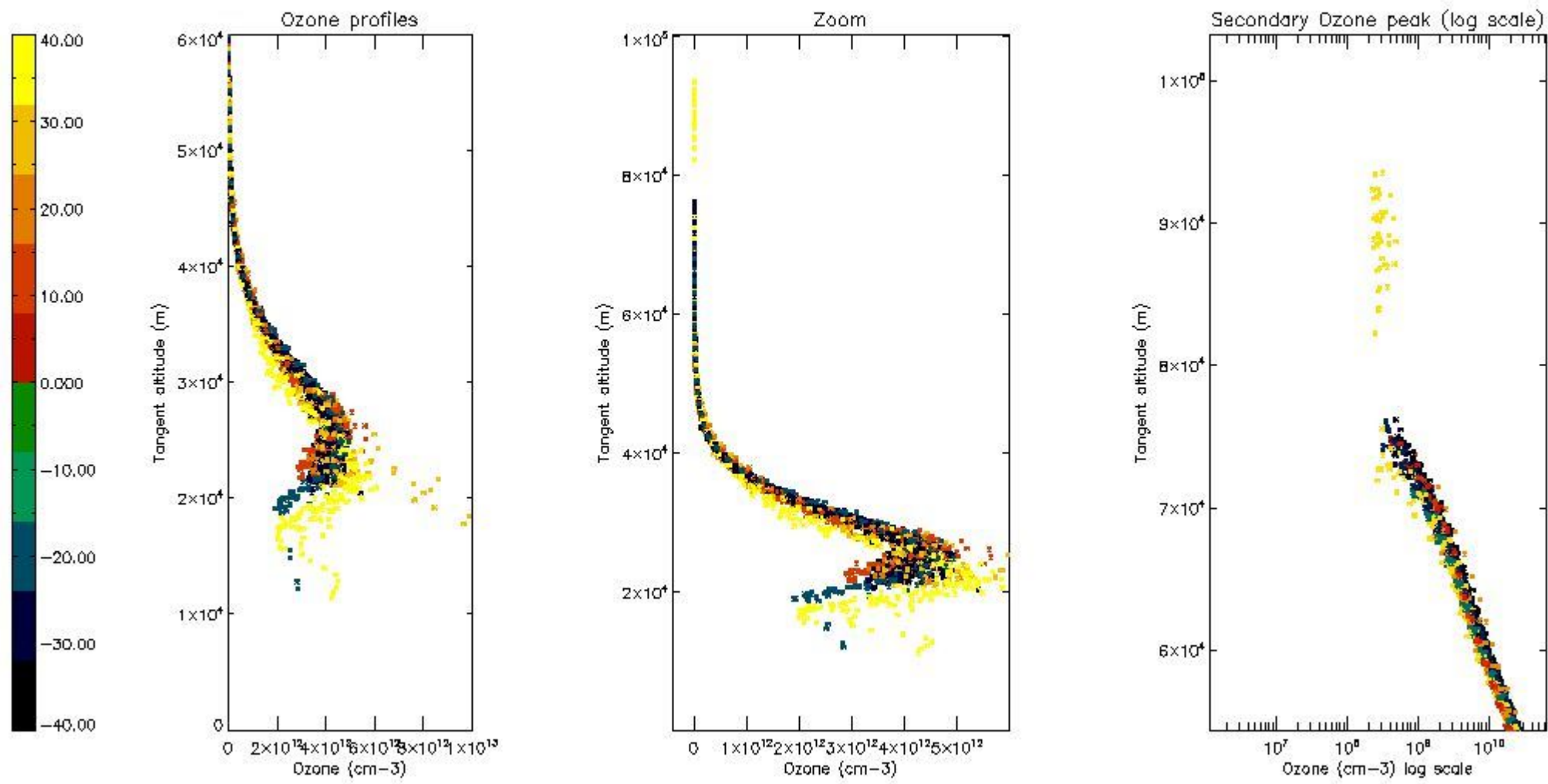
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



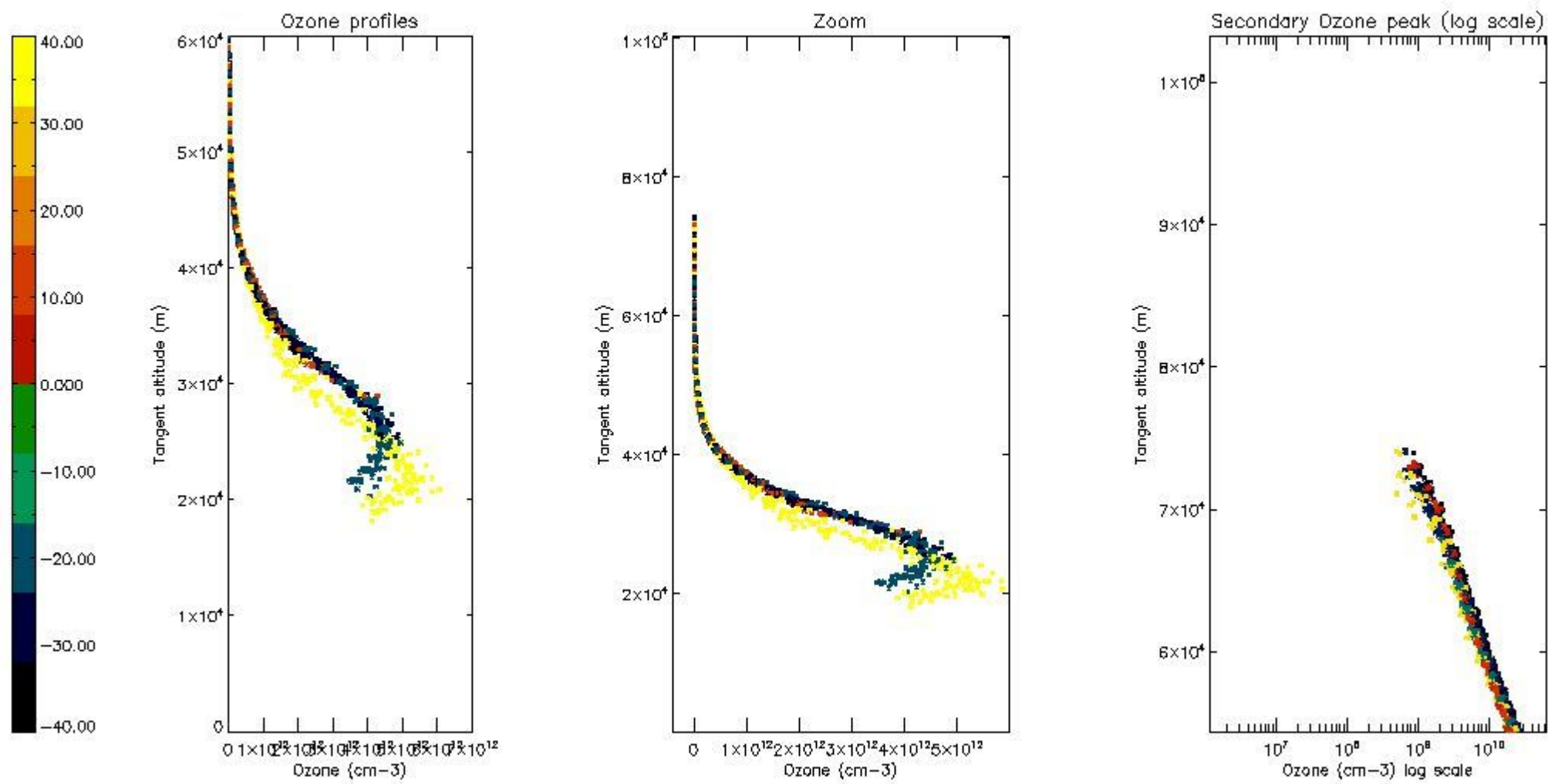
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



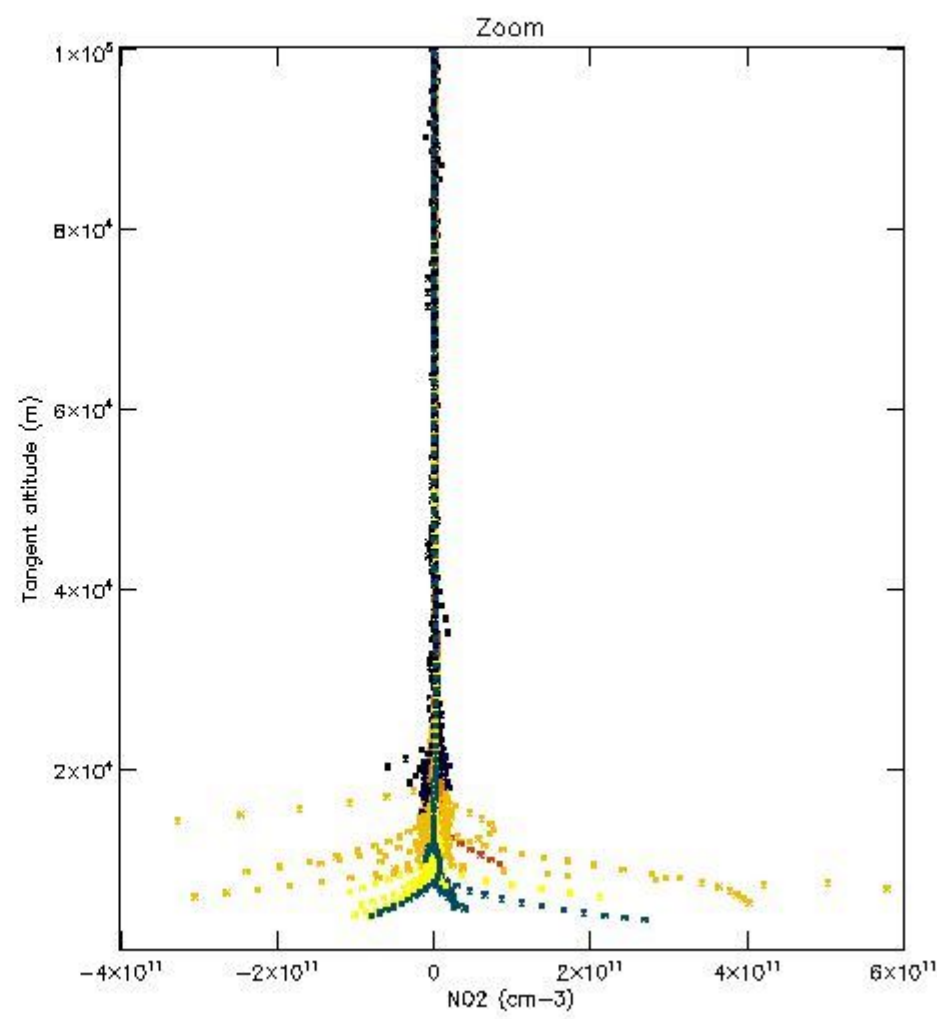
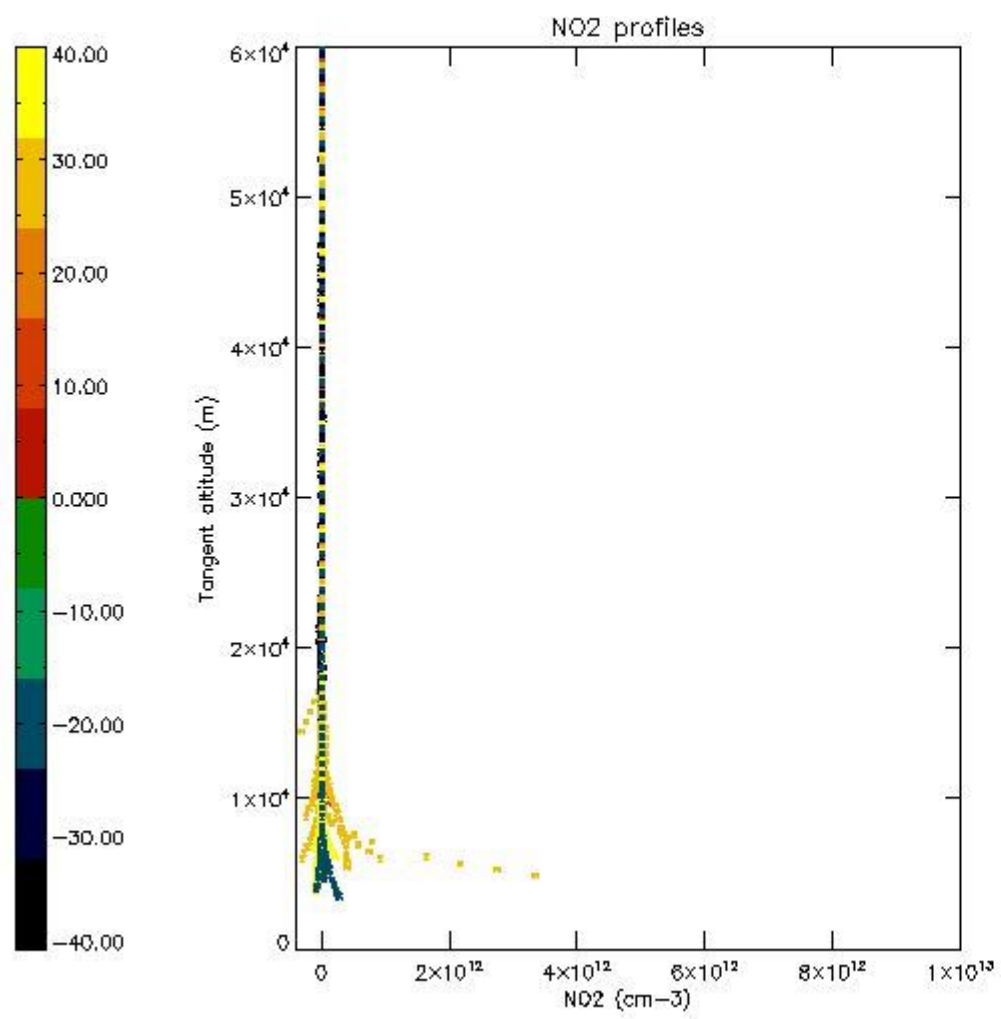
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



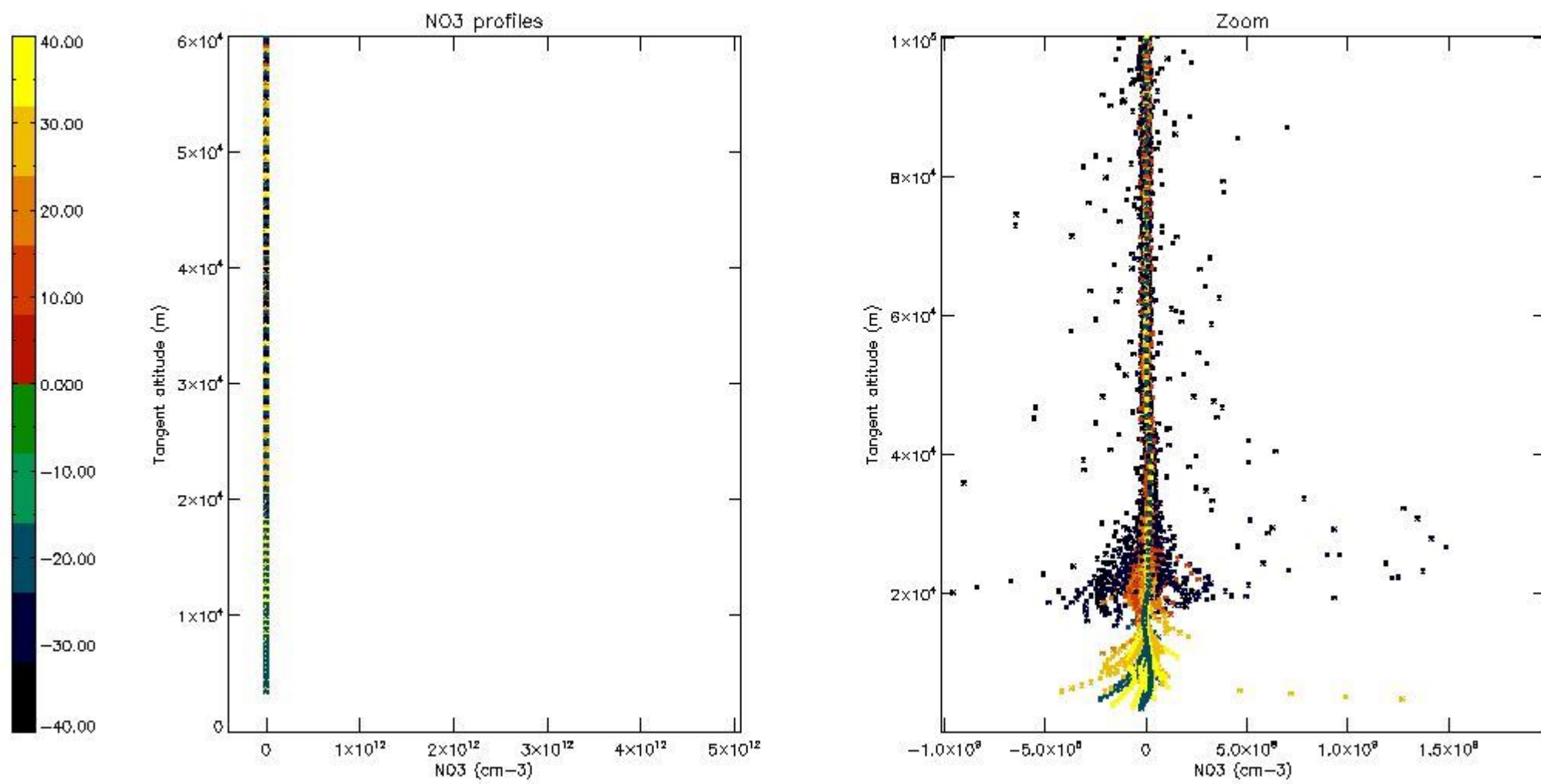
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



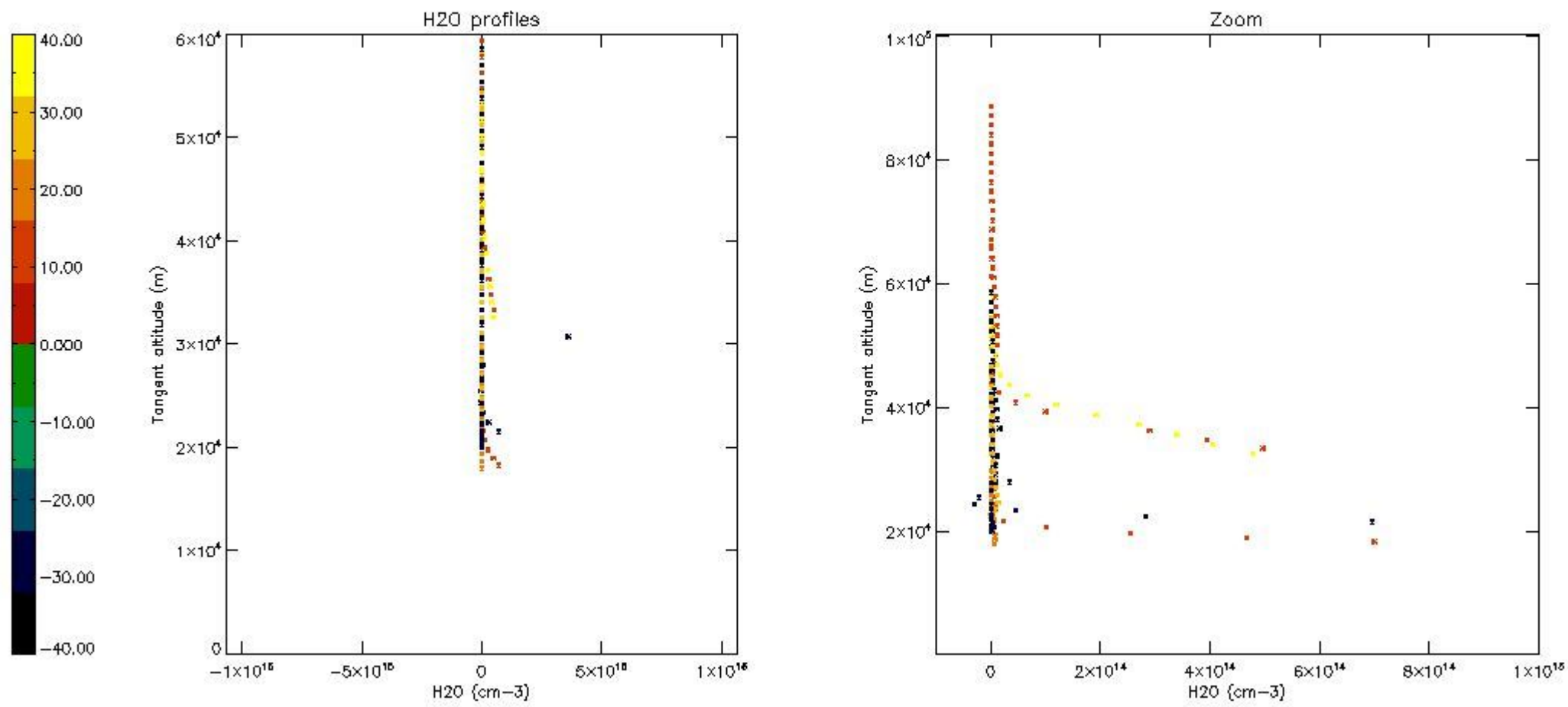
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

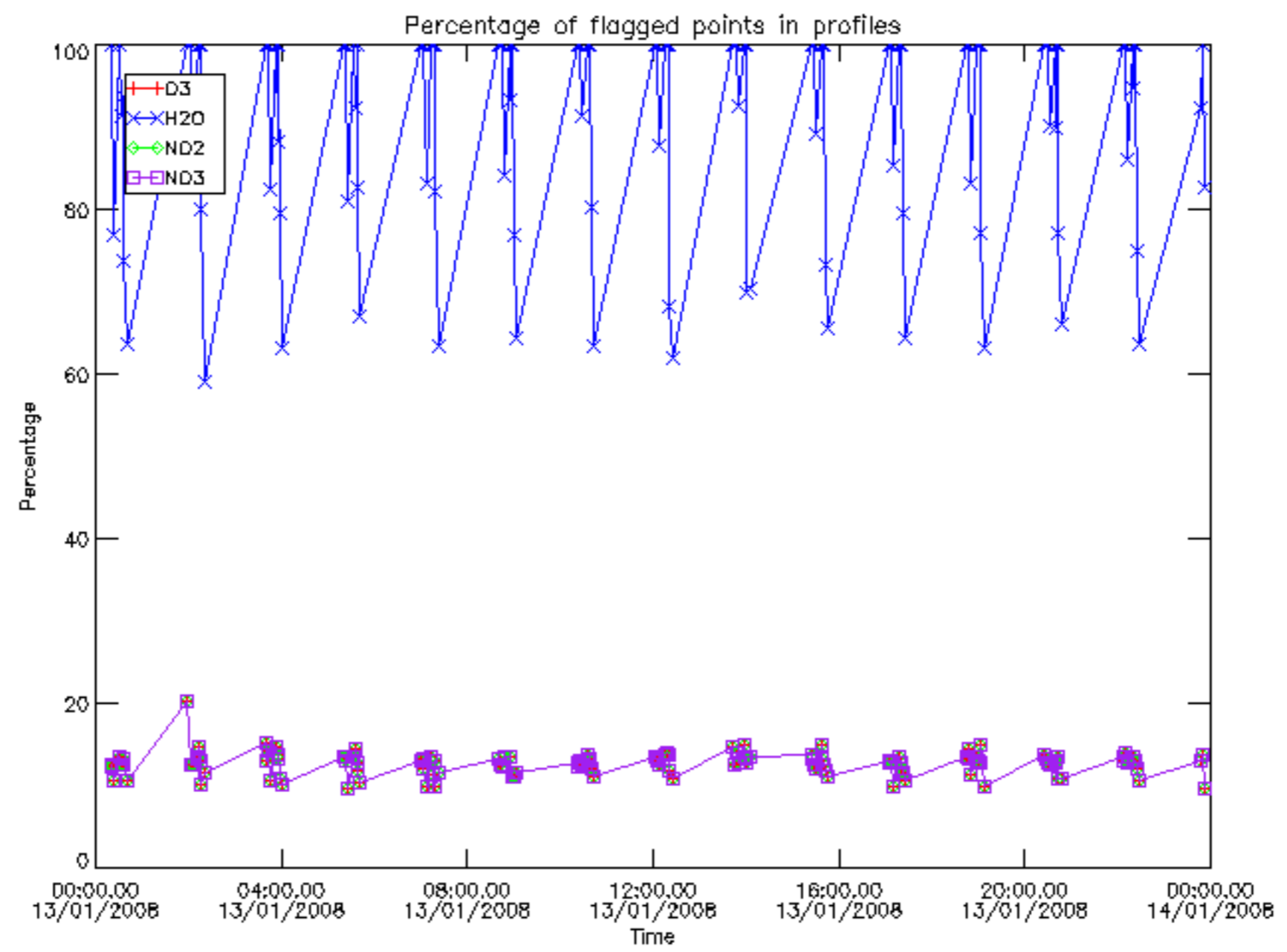
The colorbar represents the latitude.



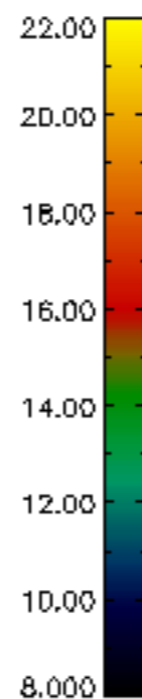
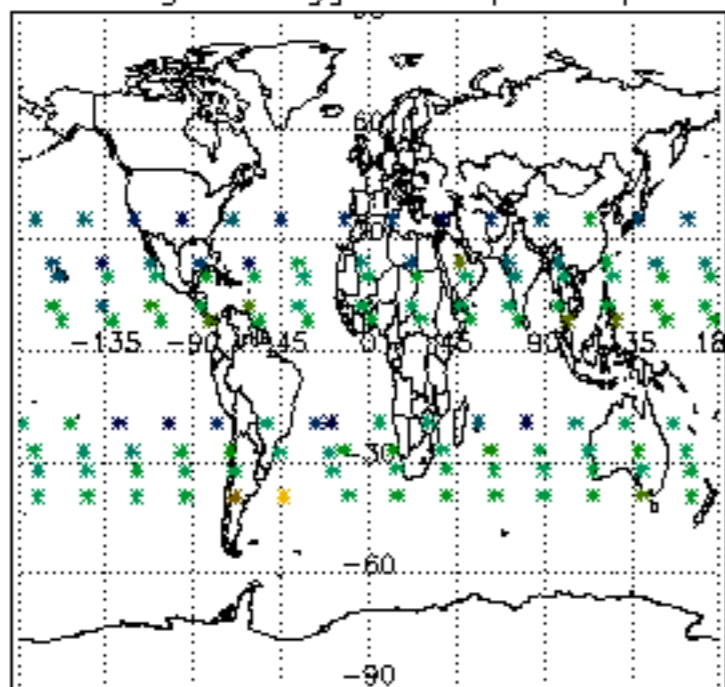
6. Auxiliary Data Files used for the production reported in section 2

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.

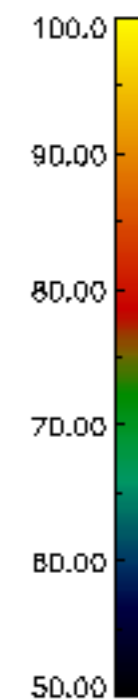
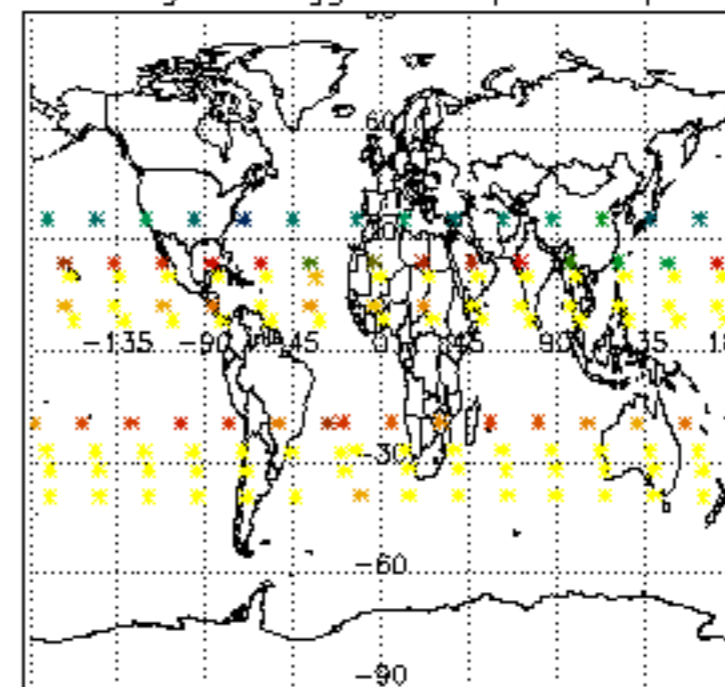
| Type | Auxiliary Filename | Used since product | Used since product date |
|---------------------------|---|--------------------|-------------------------|
| INST_PHYS_CHARACTERISTICS | GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000 | 1 | 13-JAN-2008 00:01:32 |
| LEVEL-2_PROC_CONFIG | GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000 | 1 | 13-JAN-2008 00:01:32 |
| CROSS_SECTIONS_FILE | GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000 | 1 | 13-JAN-2008 00:01:32 |



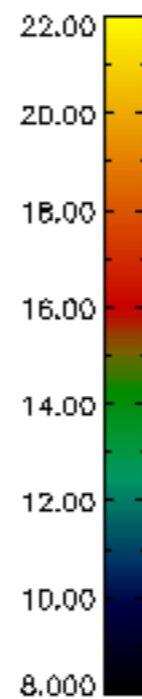
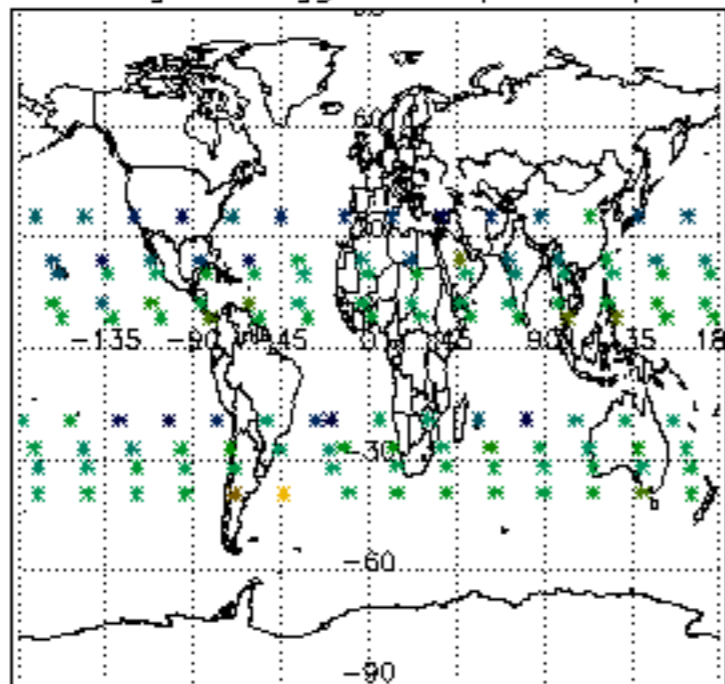
Percentage of flagged data per D3 profile



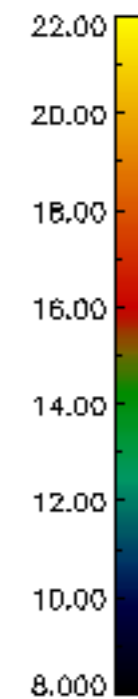
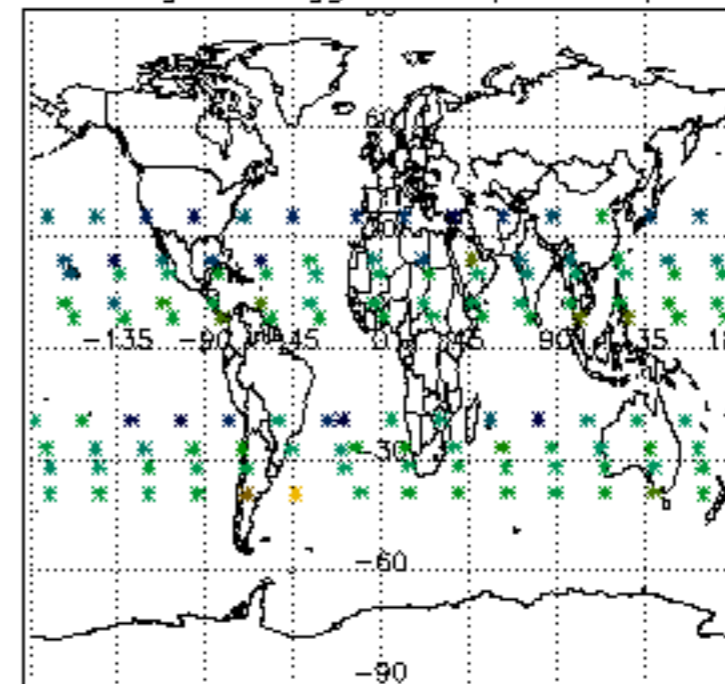
Percentage of flagged data per H2O profile

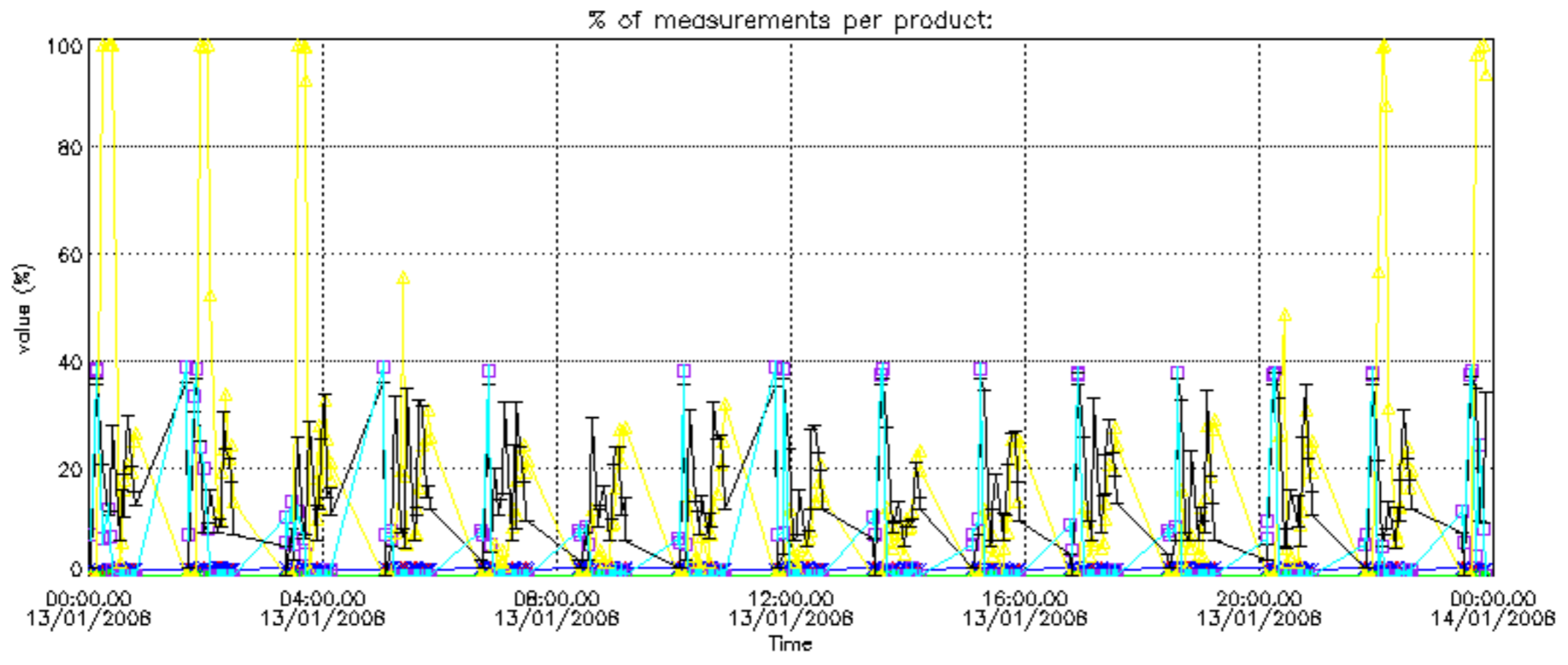


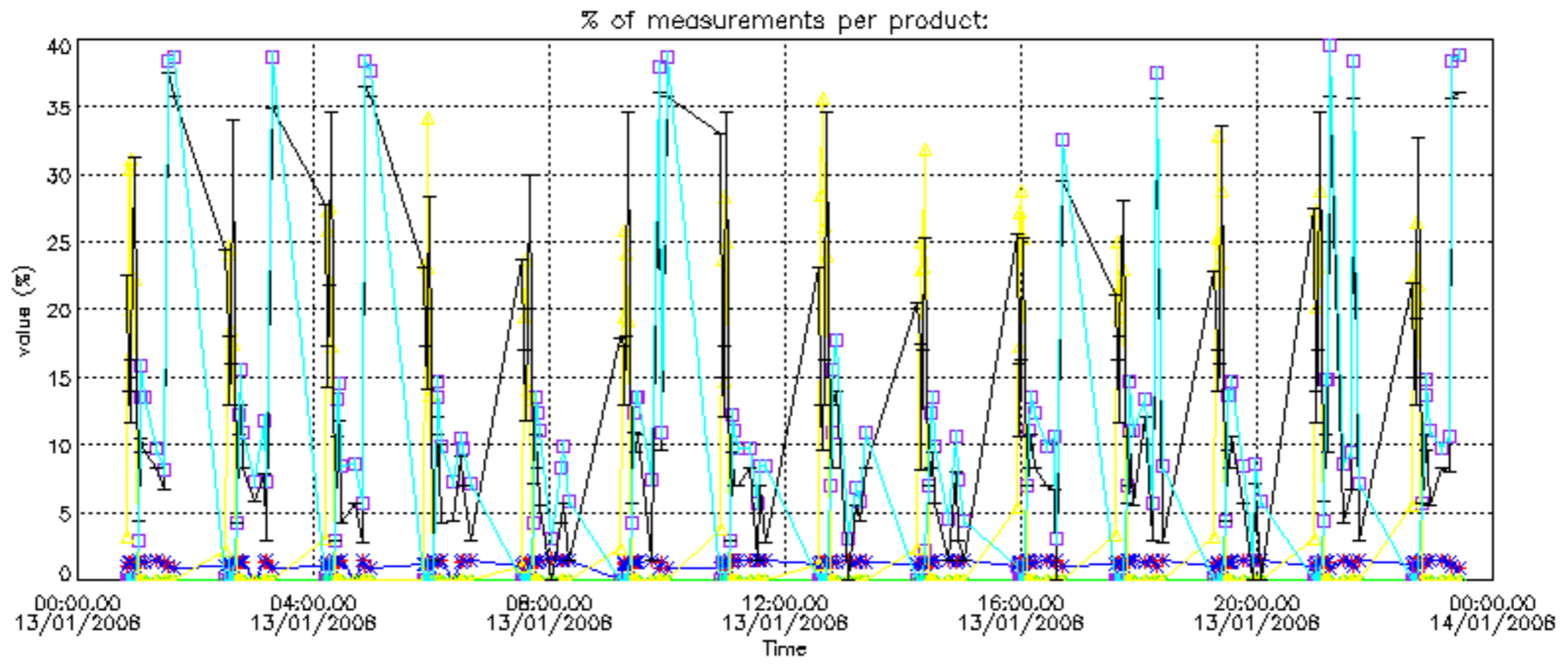
Percentage of flagged data per NO2 profile



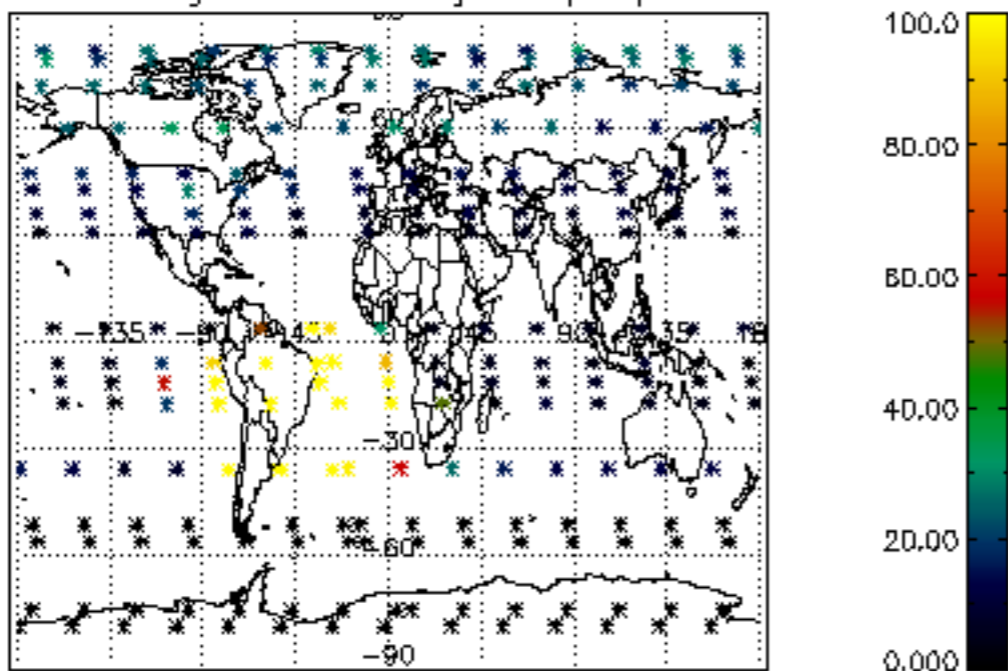
Percentage of flagged data per NO3 profile



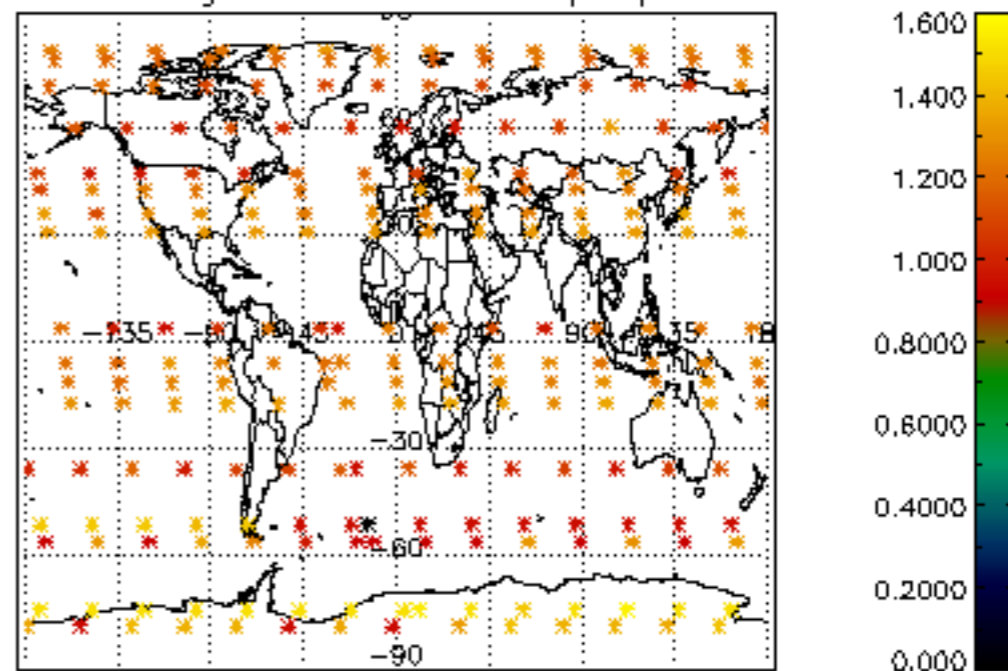




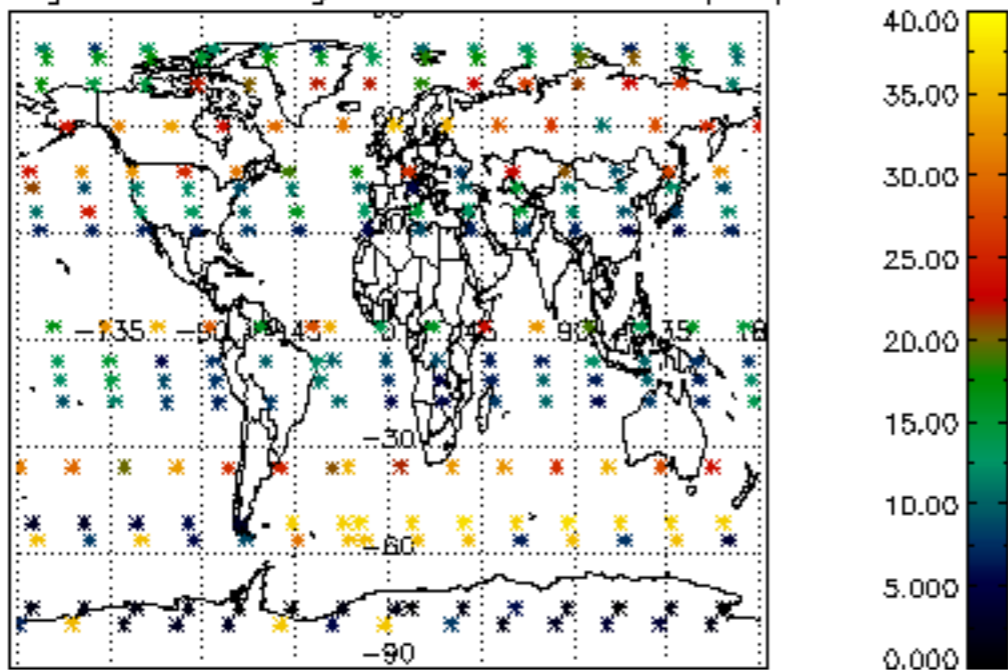
Percentage of cosmic ray hits per profile



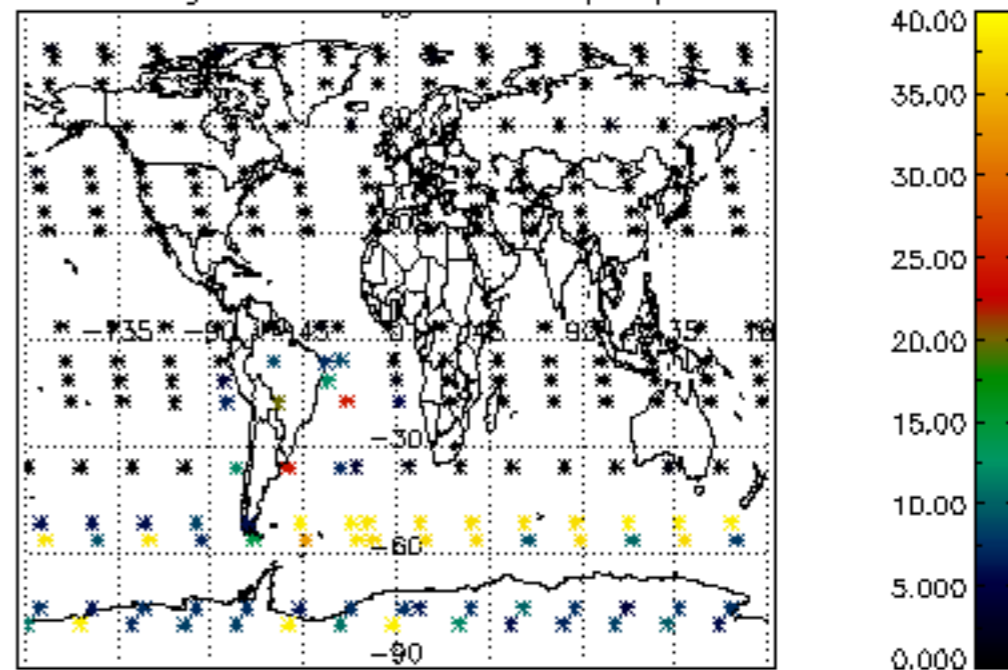
Percentage of datation errors per profile



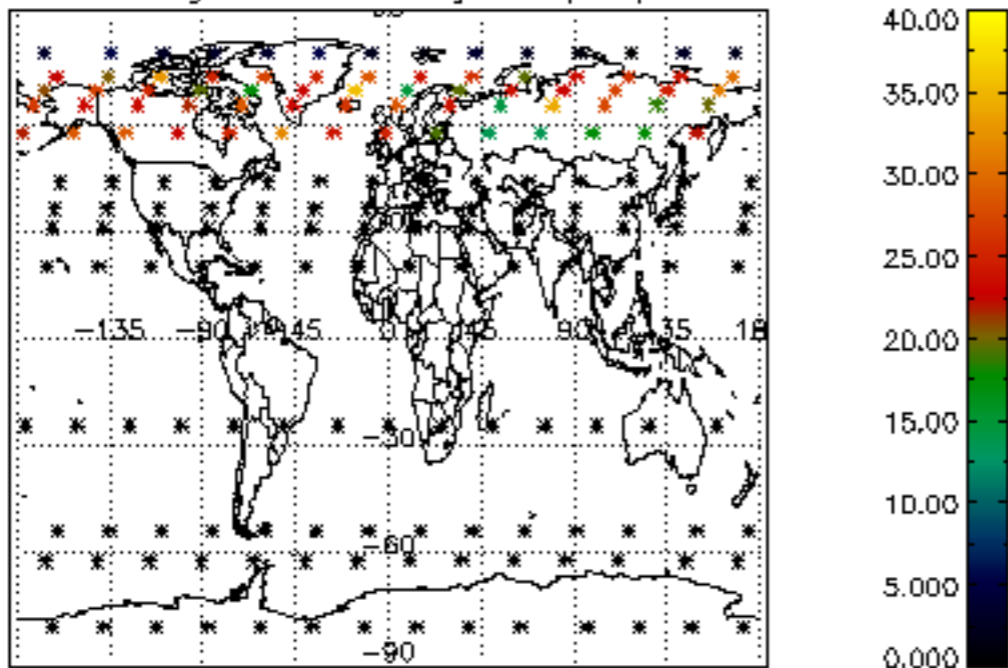
Percentage of star falling outside central band per profile



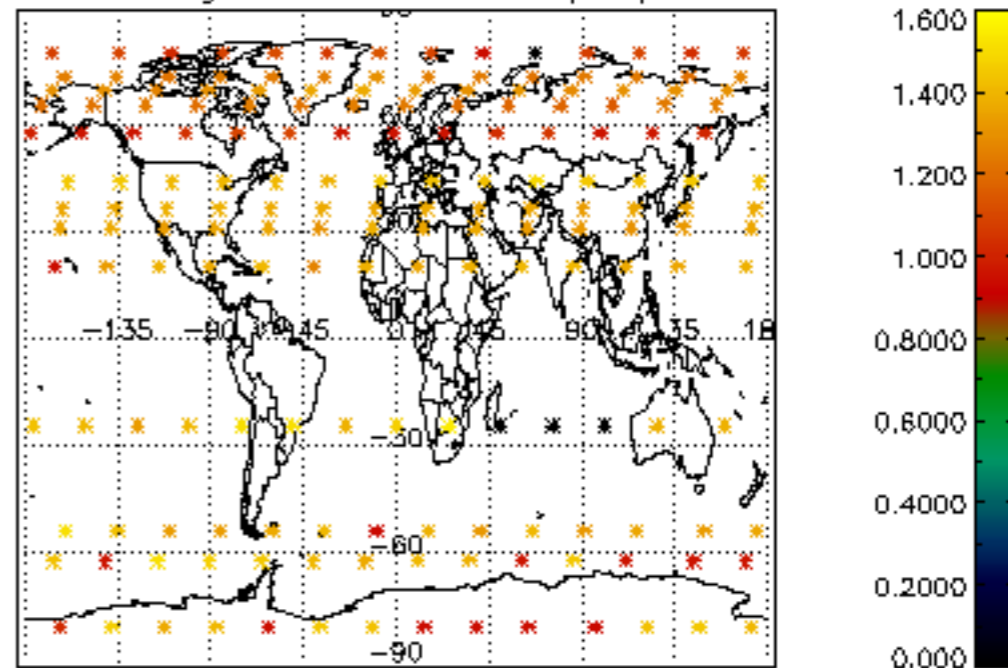
Percentage of saturation errors per profile



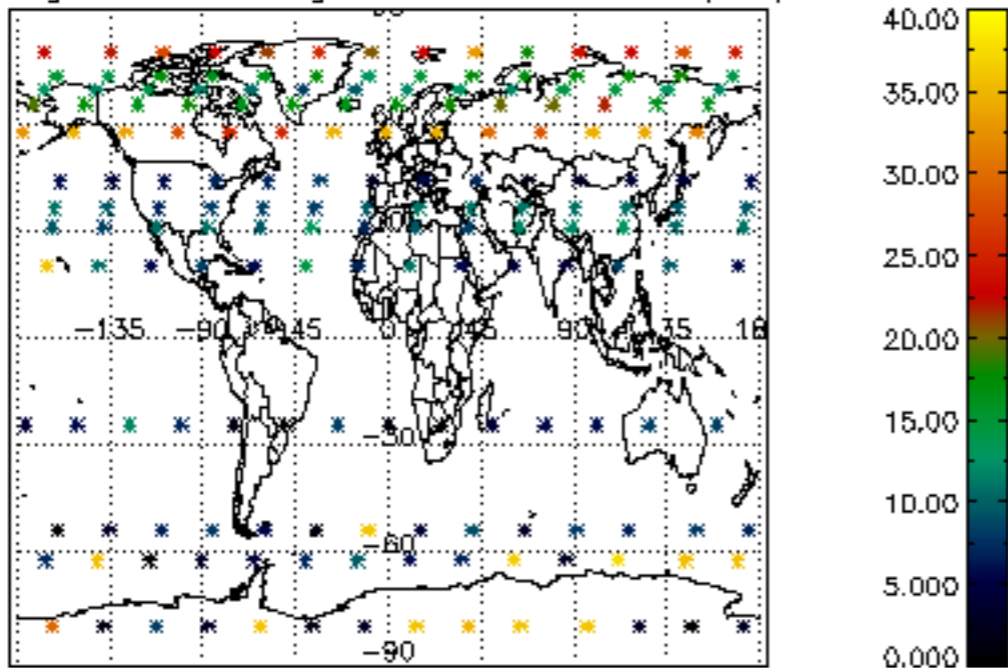
Percentage of cosmic ray hits per profile



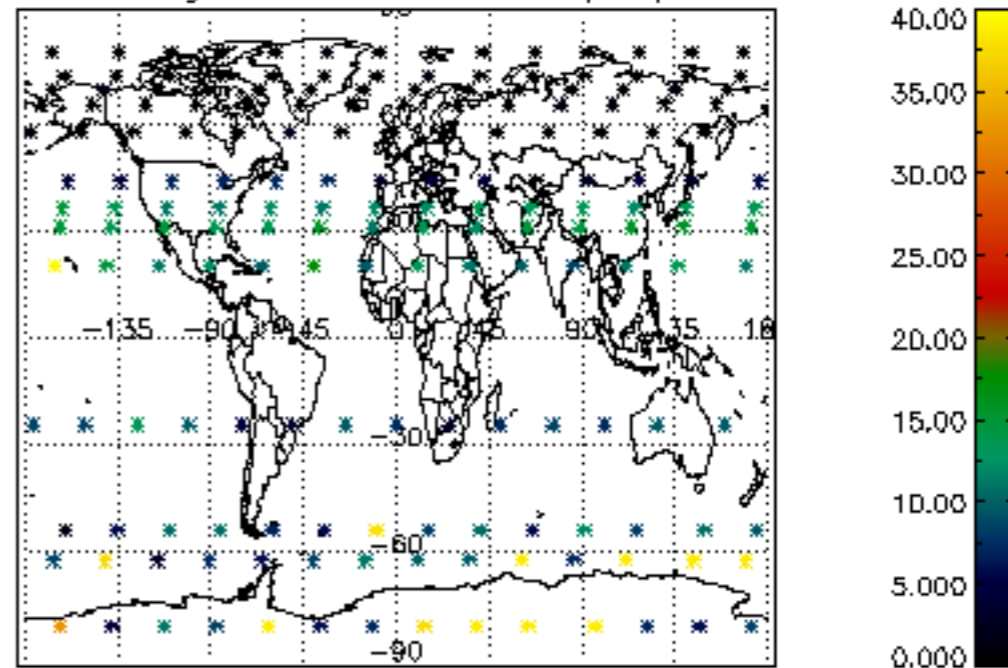
Percentage of datation errors per profile

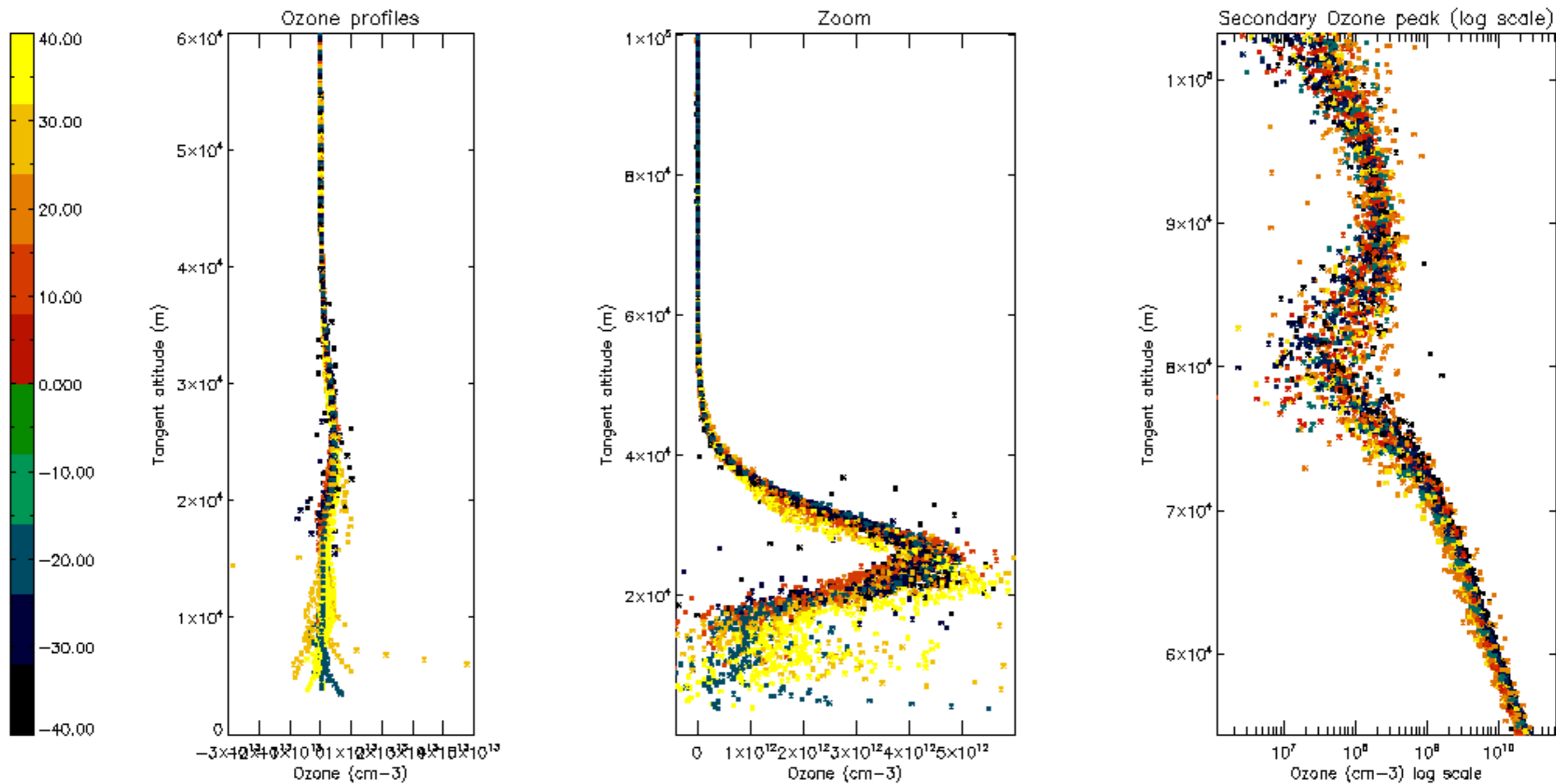


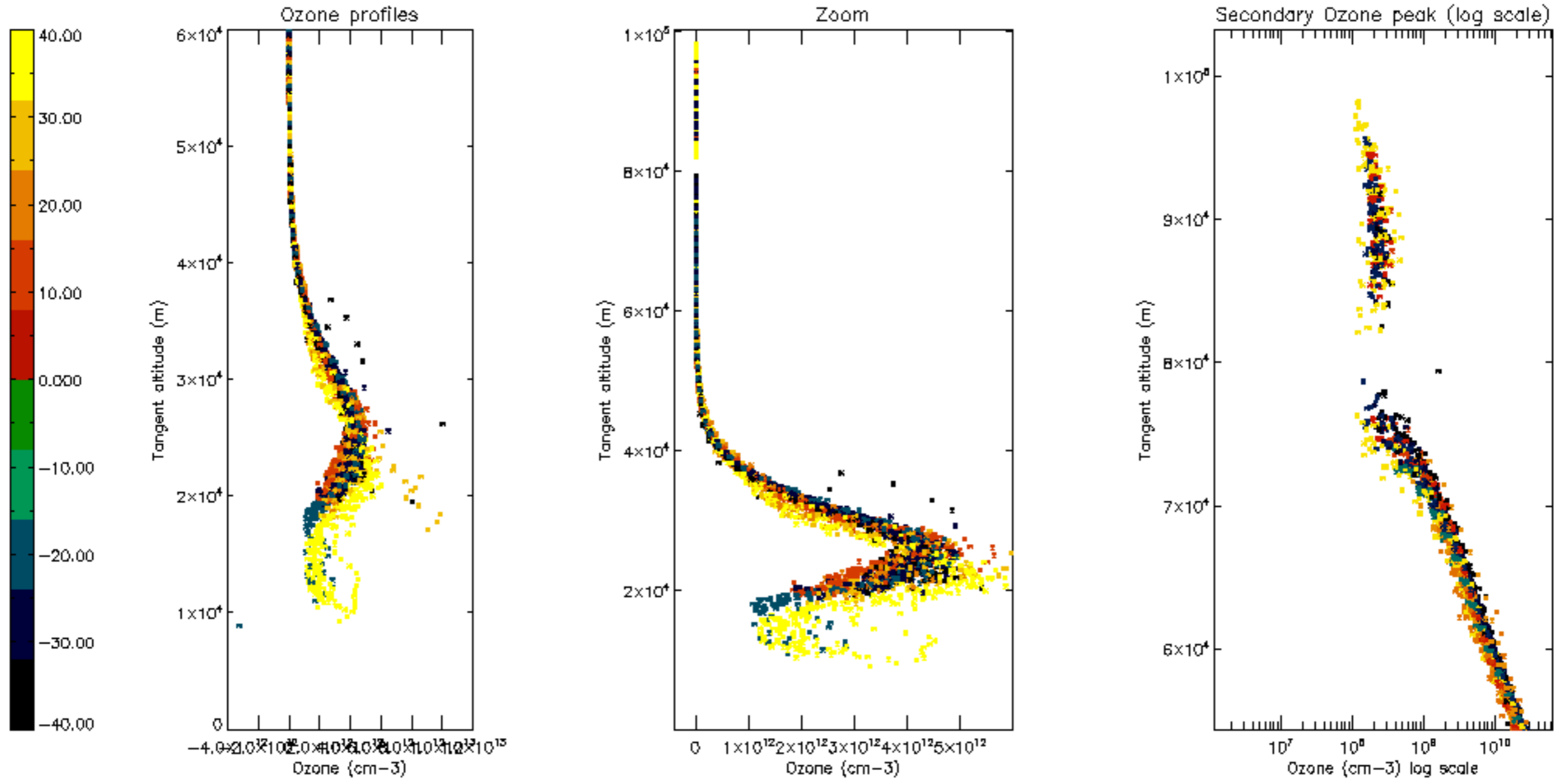
Percentage of star falling outside central band per profile

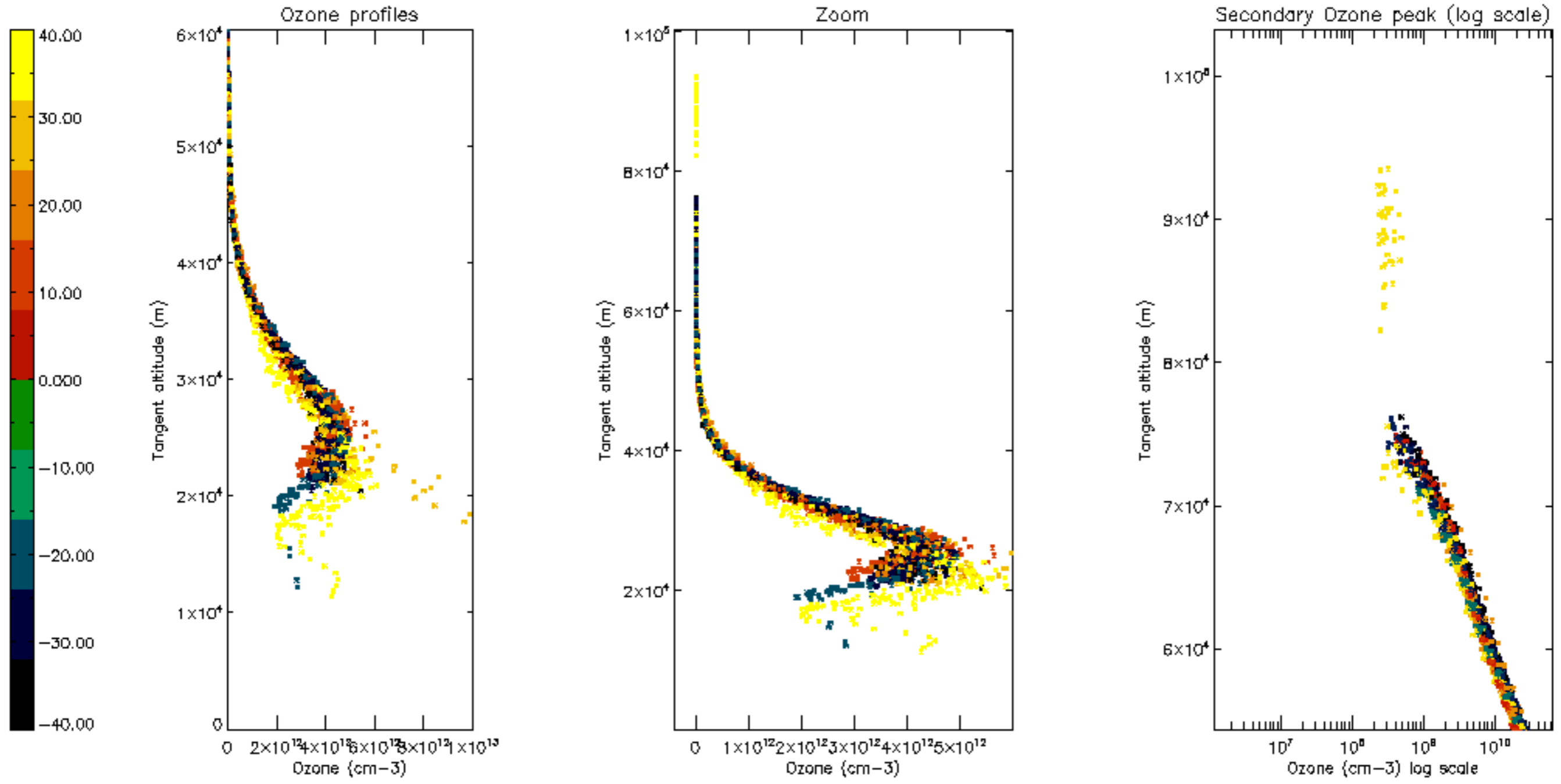


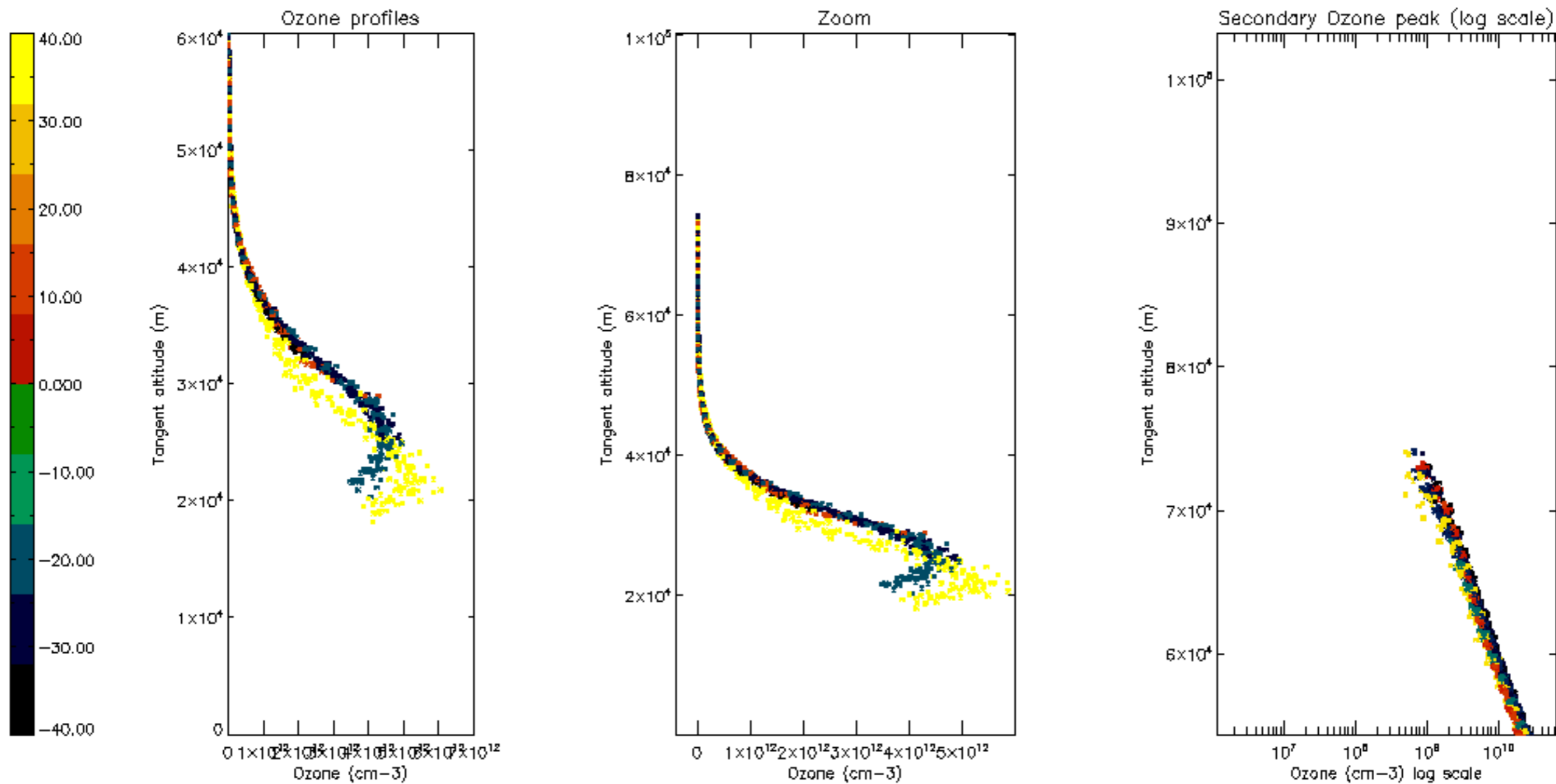
Percentage of saturation errors per profile

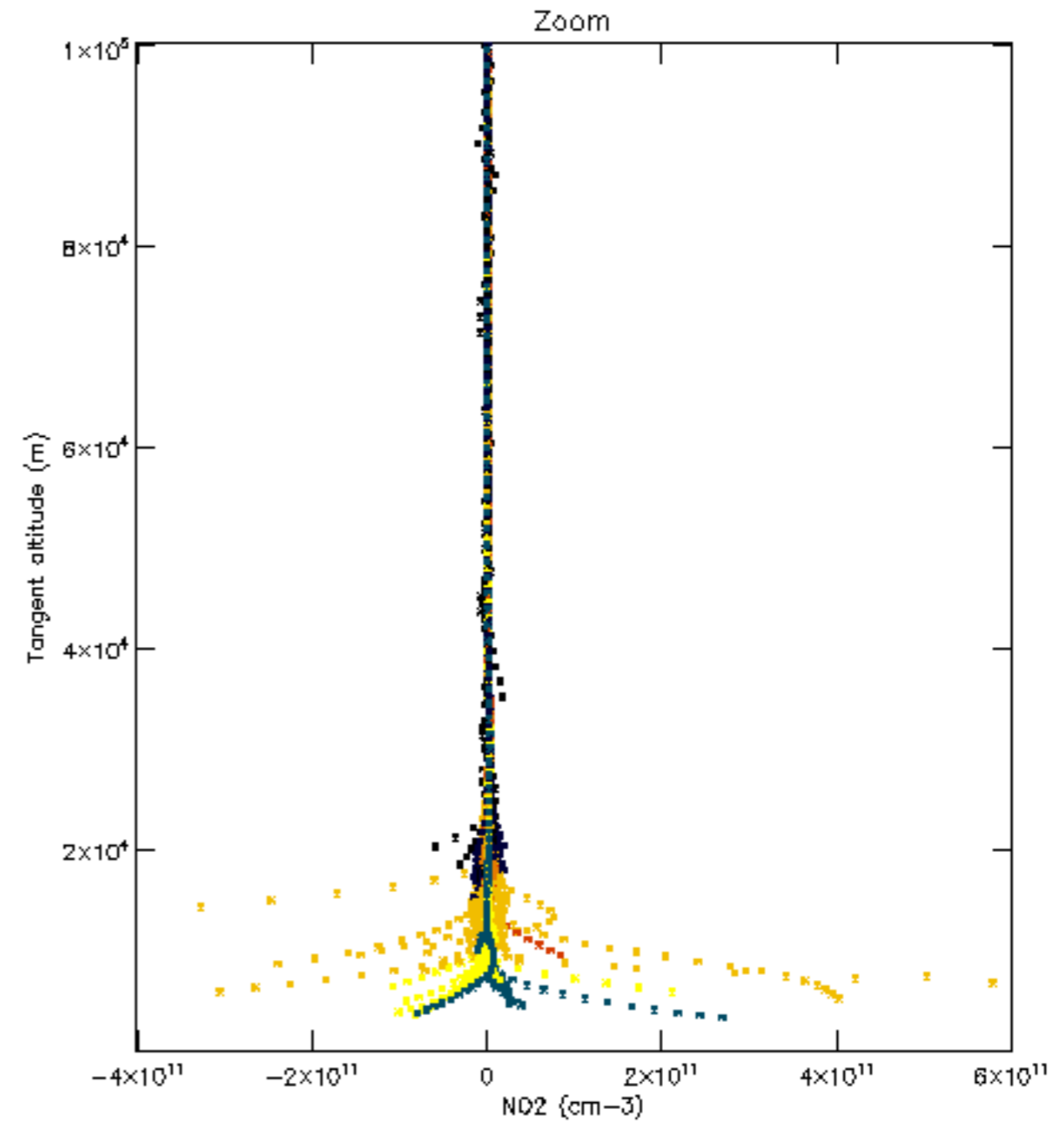
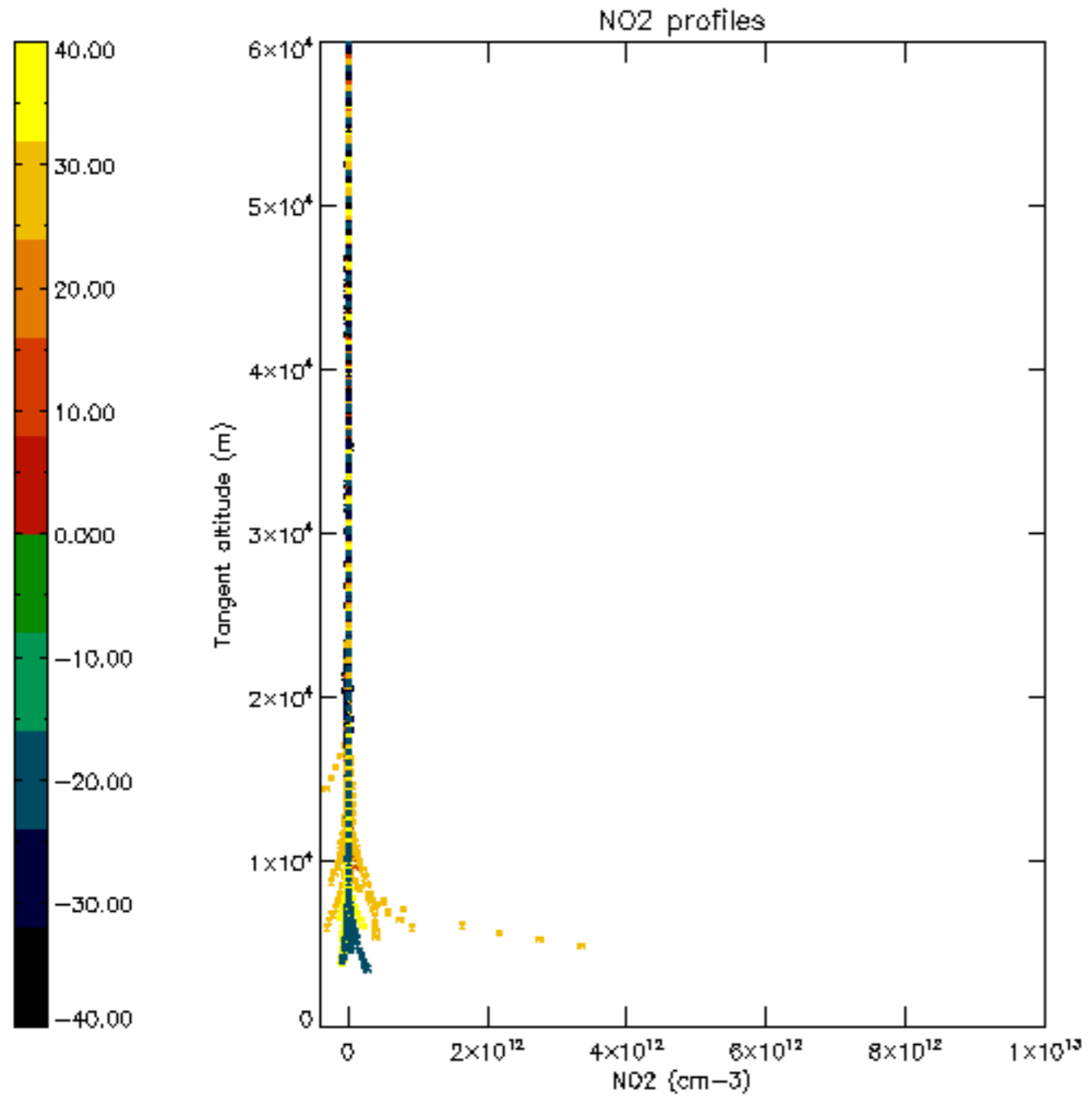


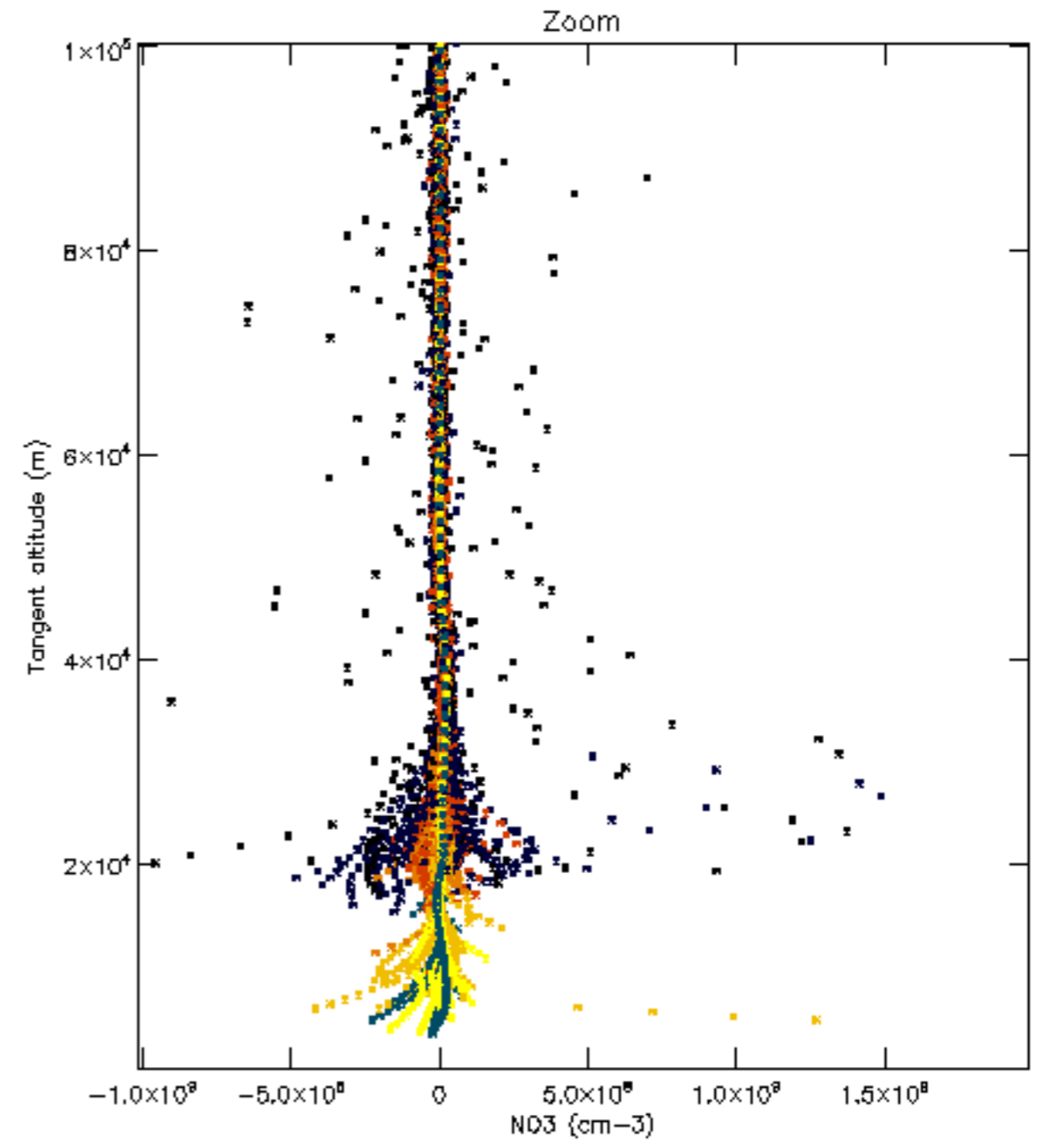
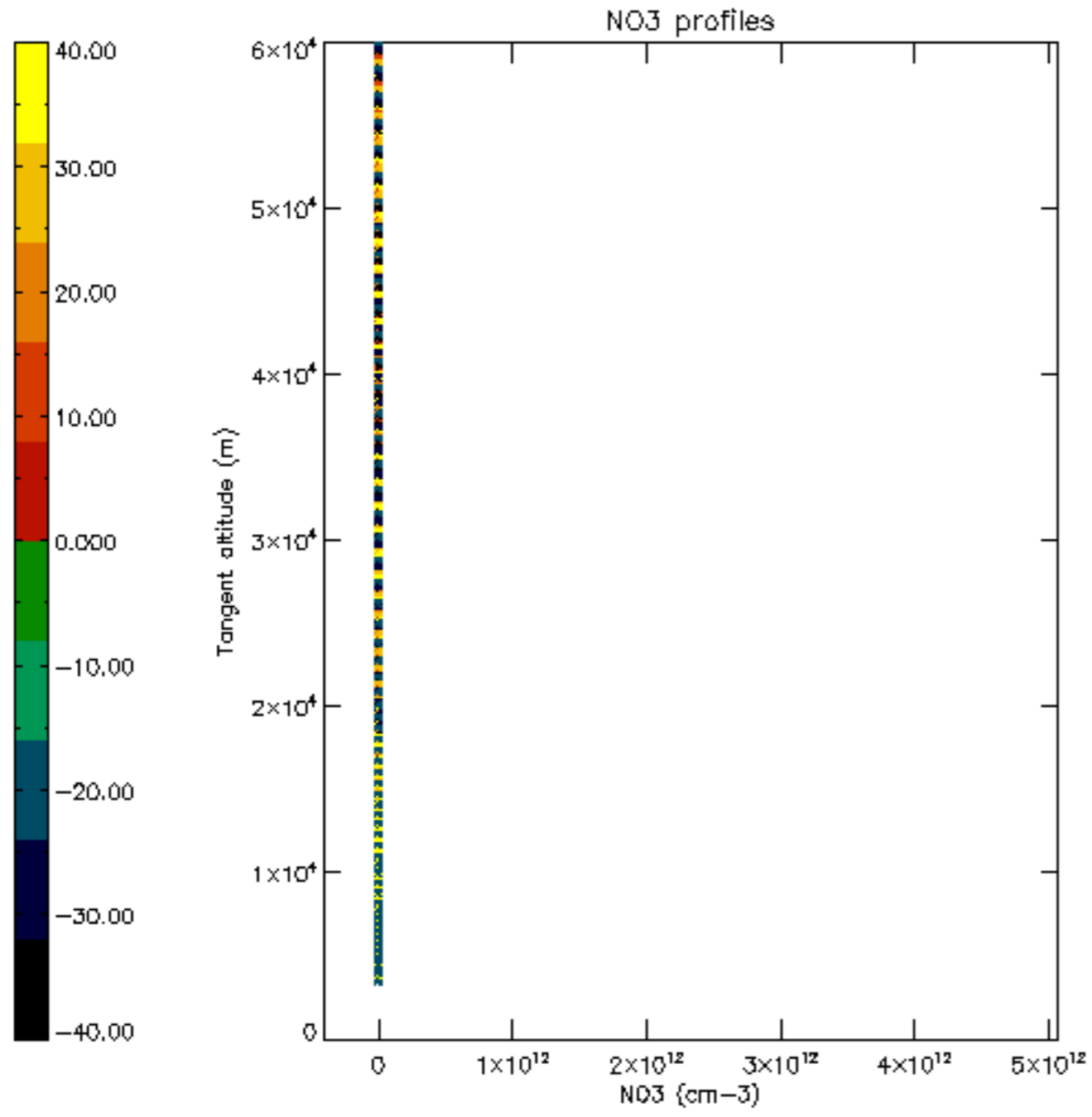


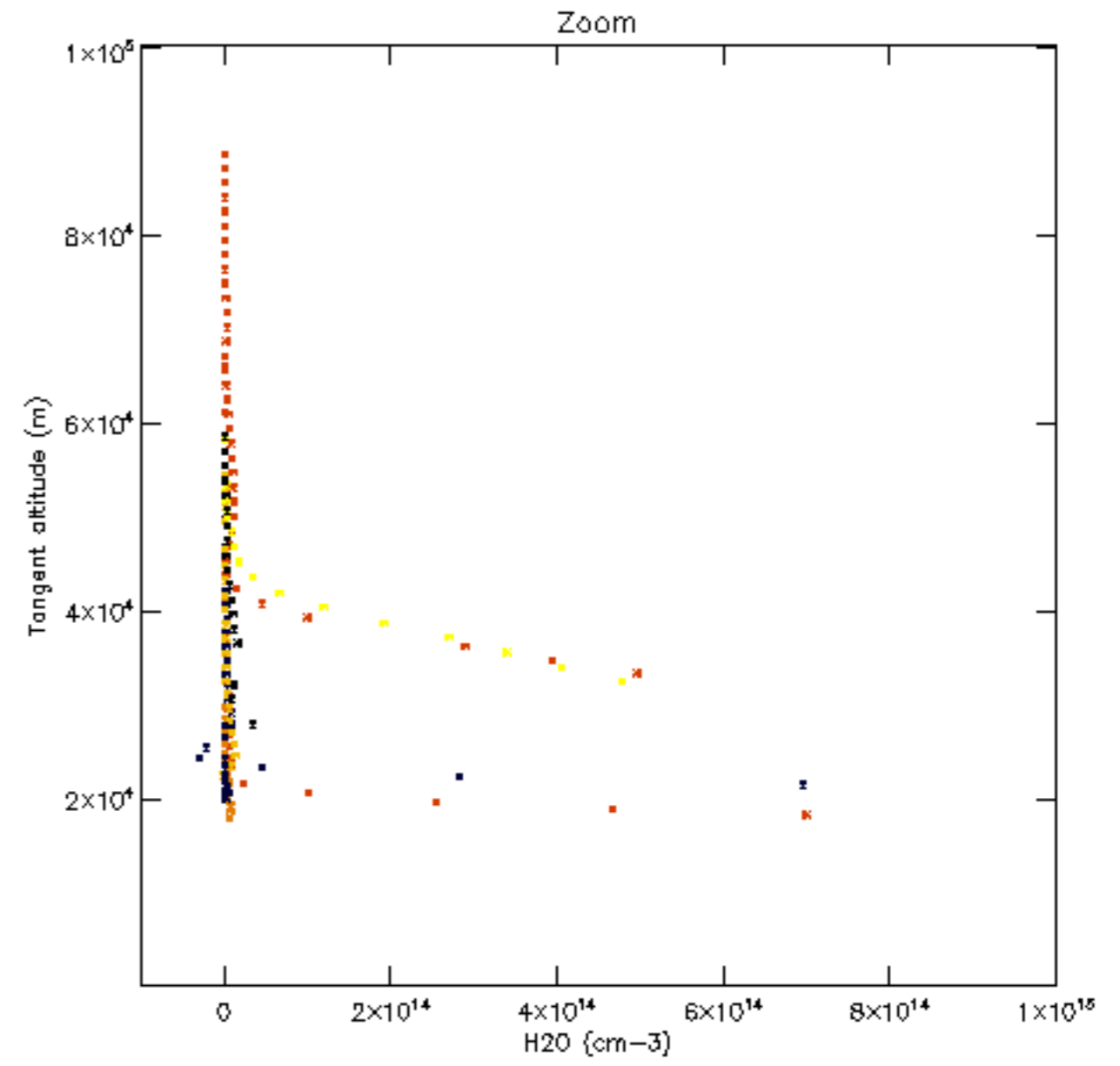
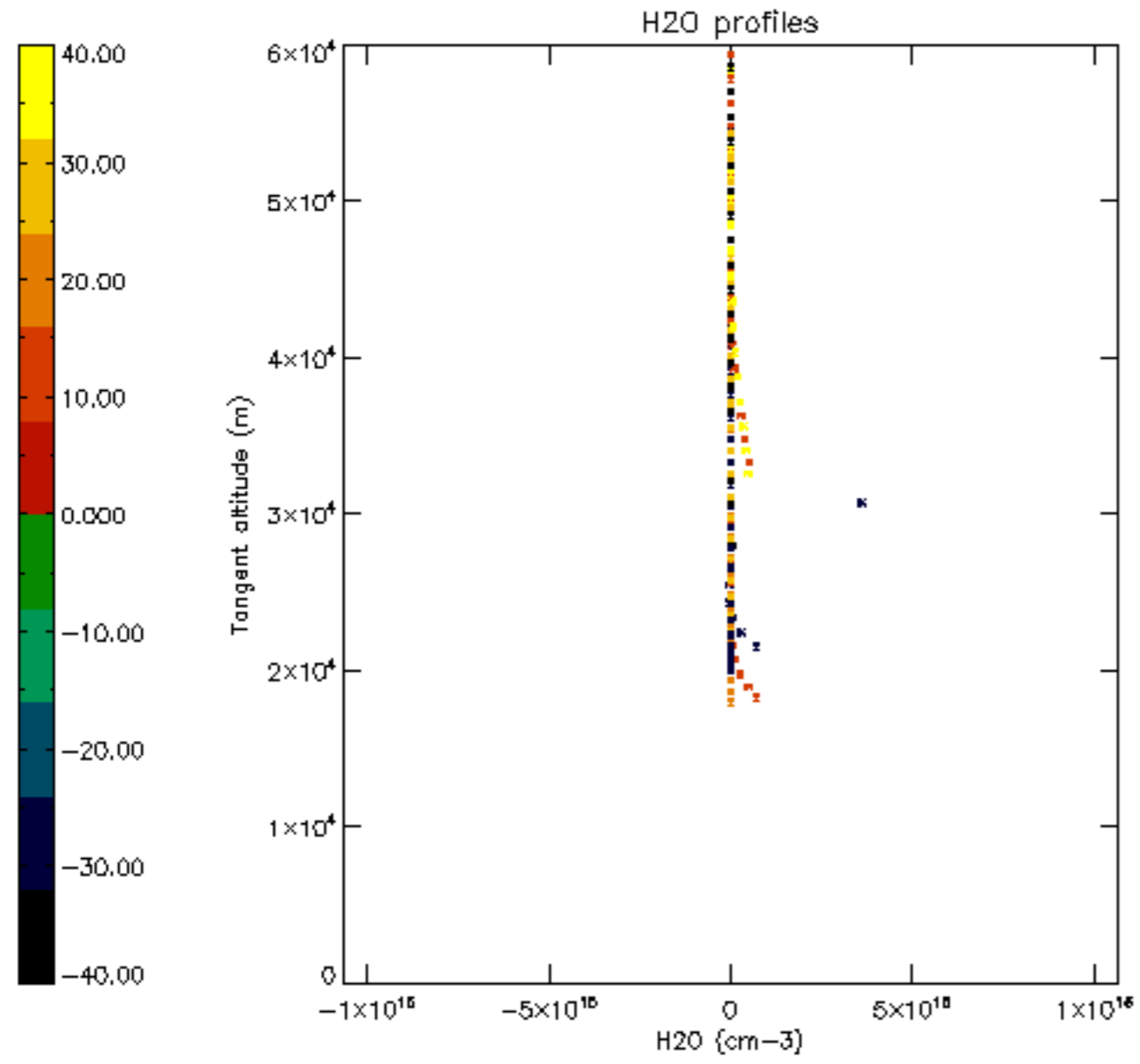


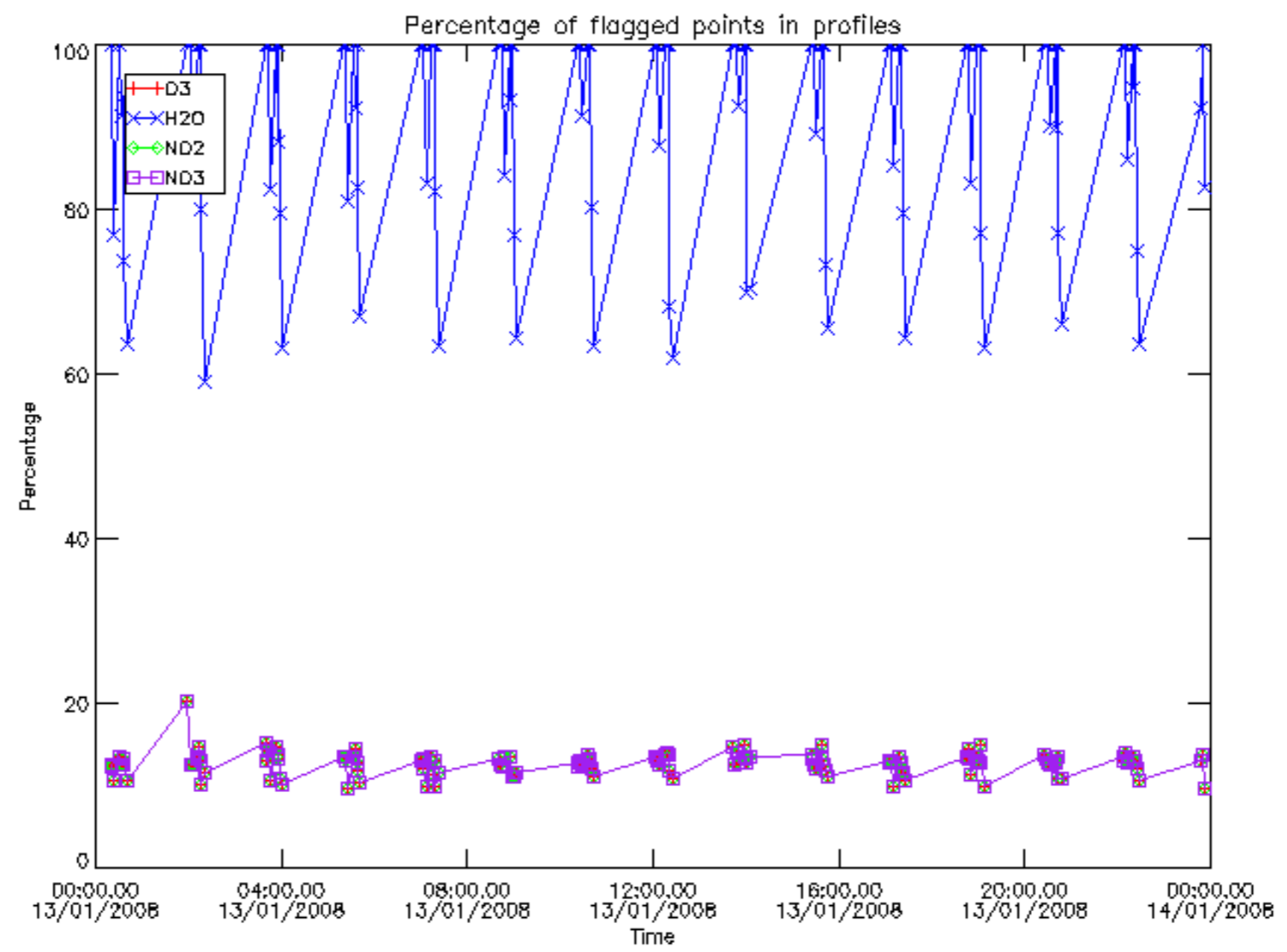




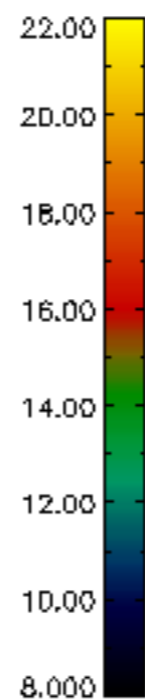
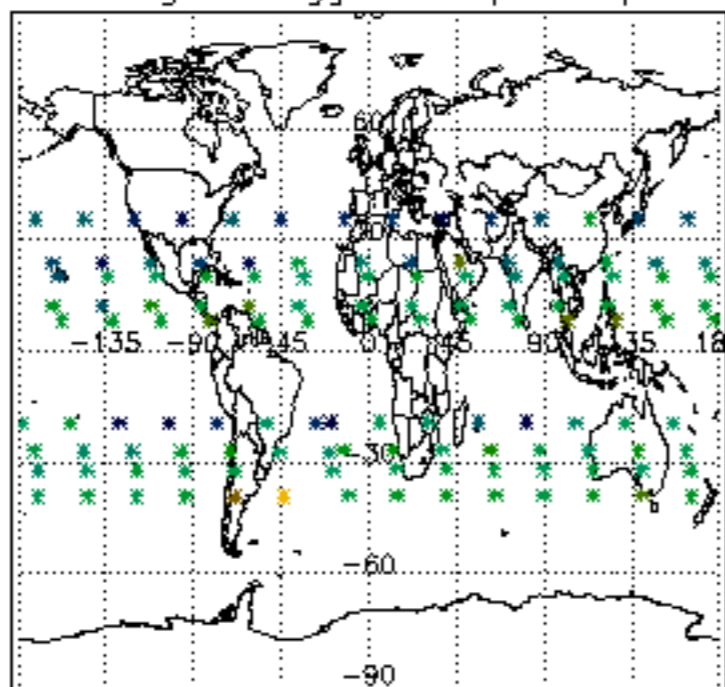




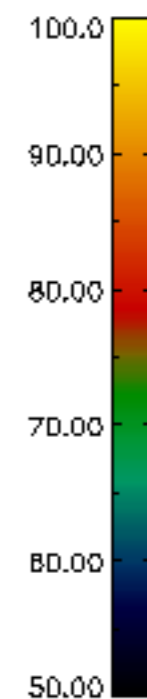
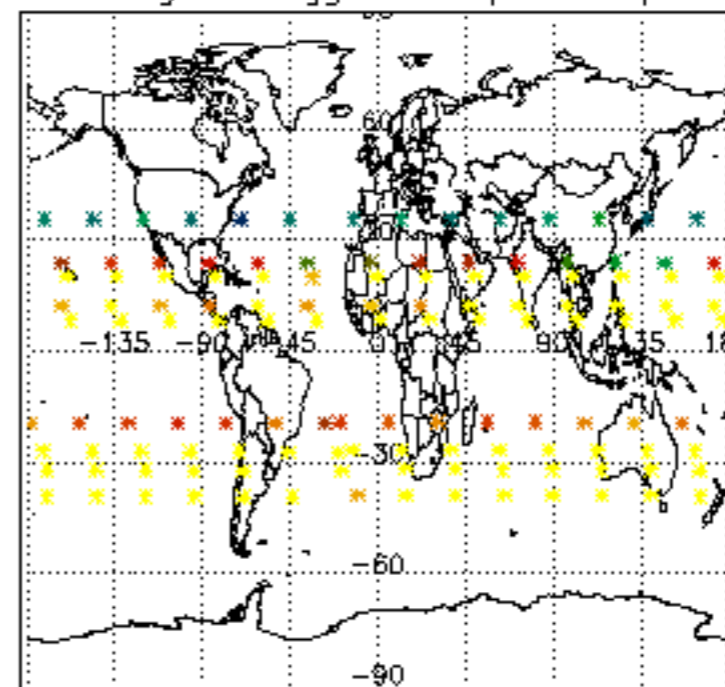




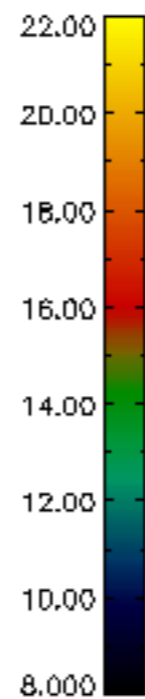
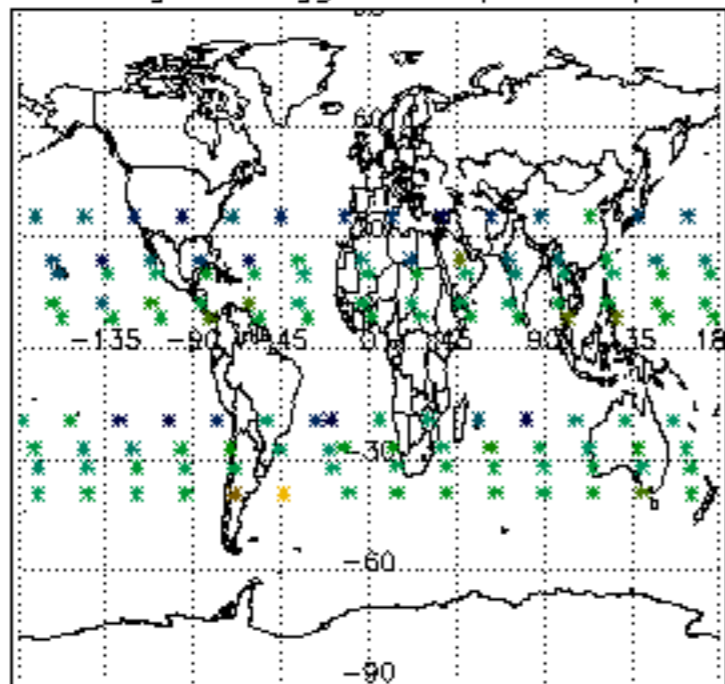
Percentage of flagged data per D3 profile



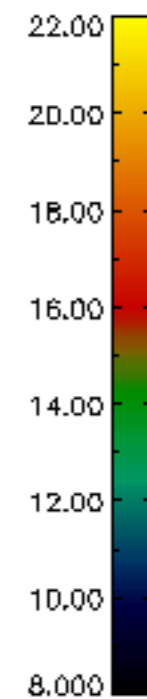
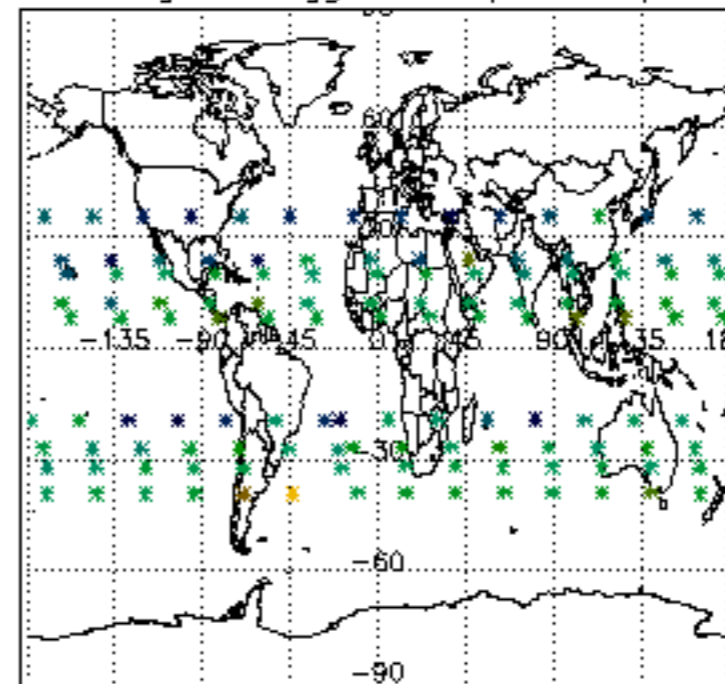
Percentage of flagged data per H2O profile

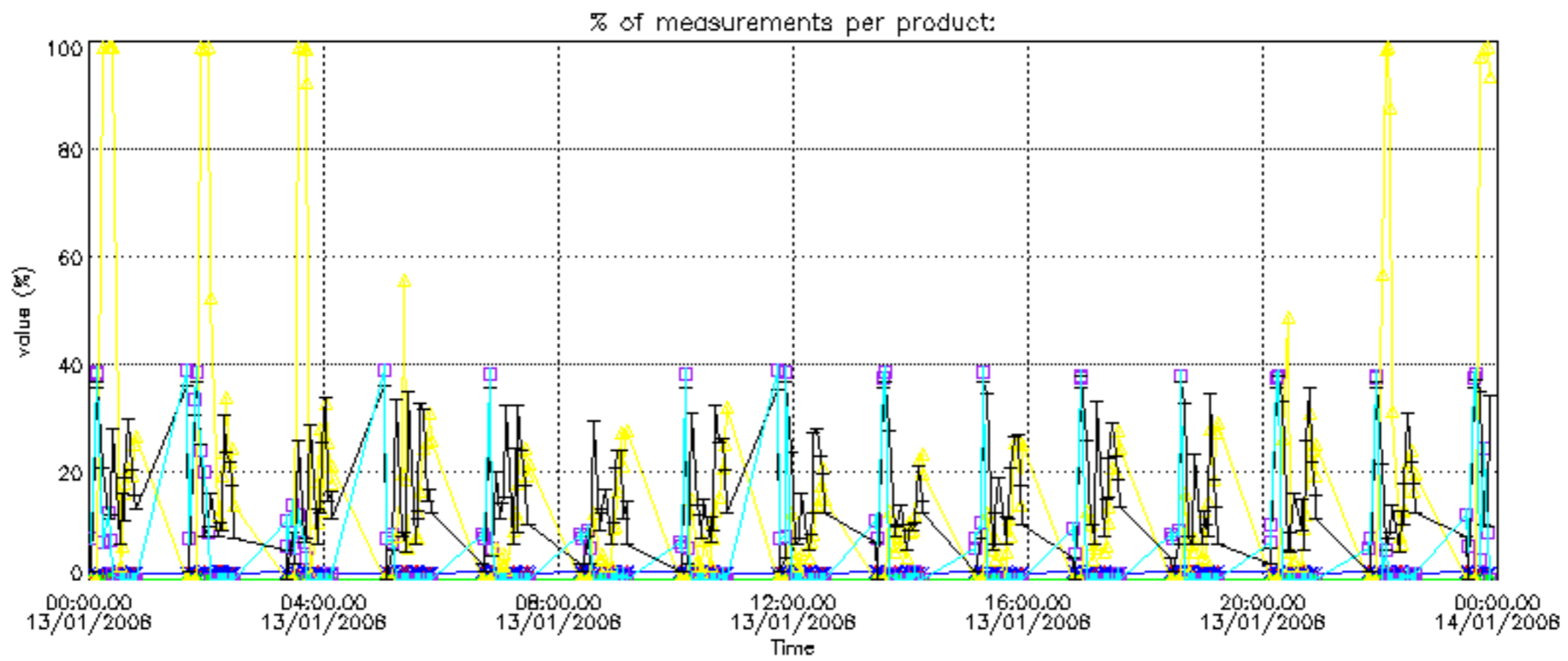


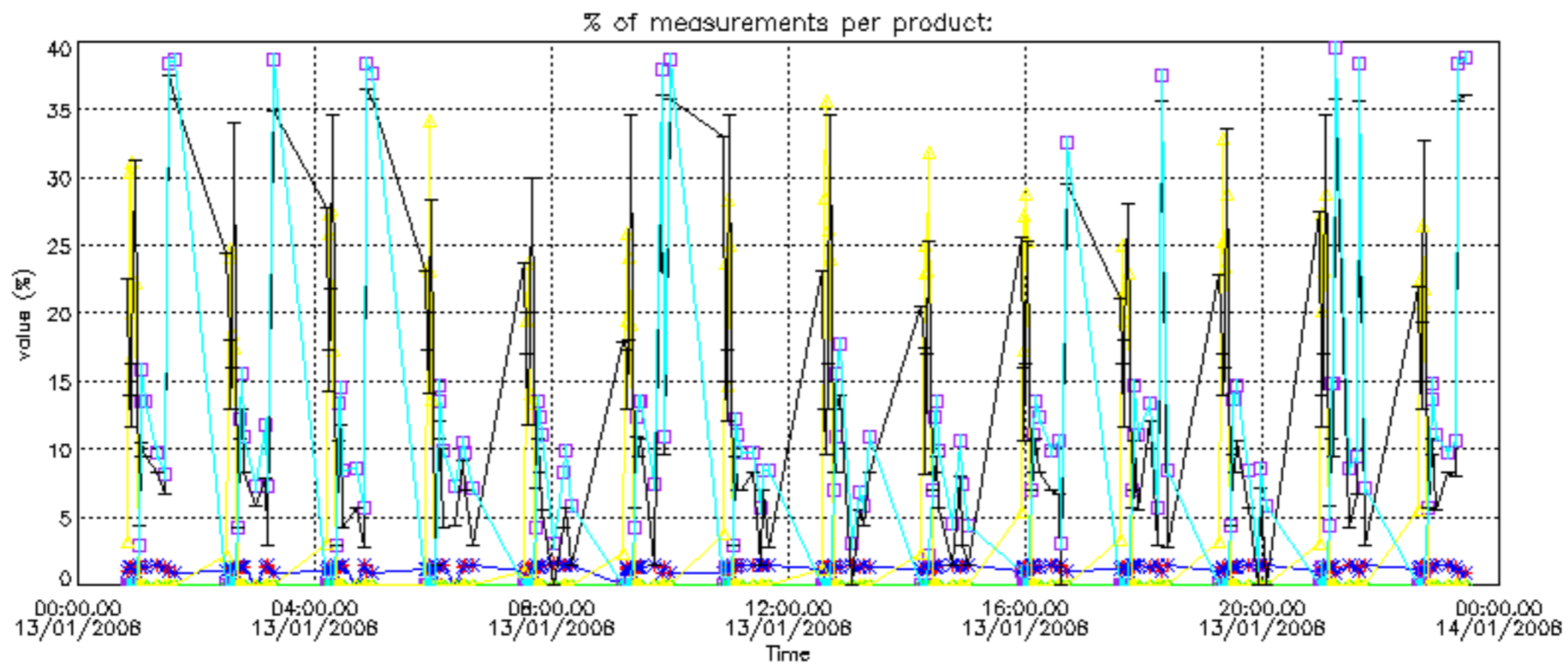
Percentage of flagged data per NO2 profile



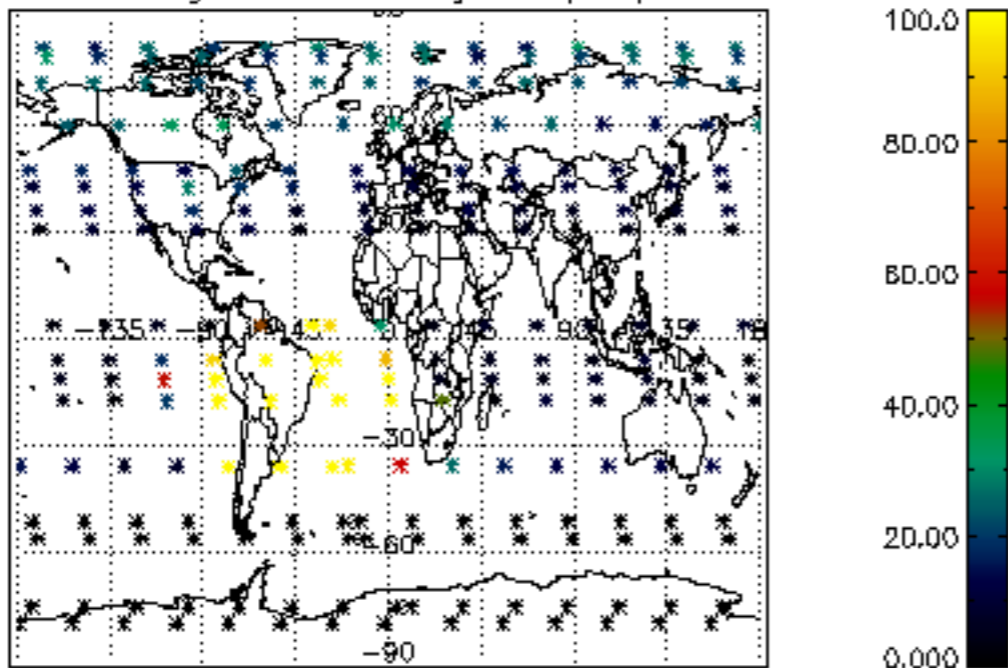
Percentage of flagged data per NO3 profile



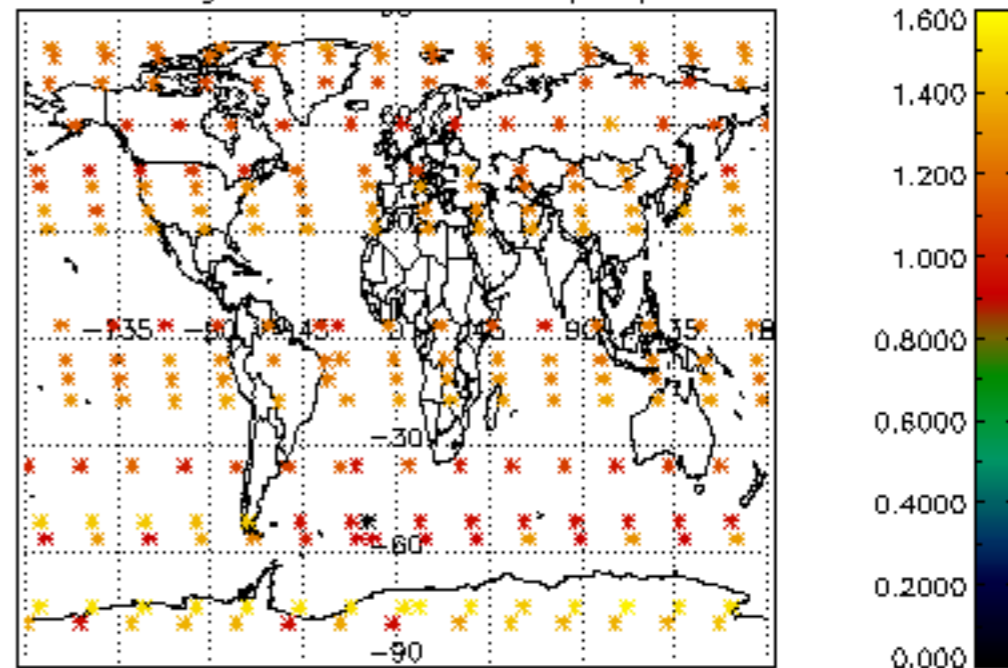




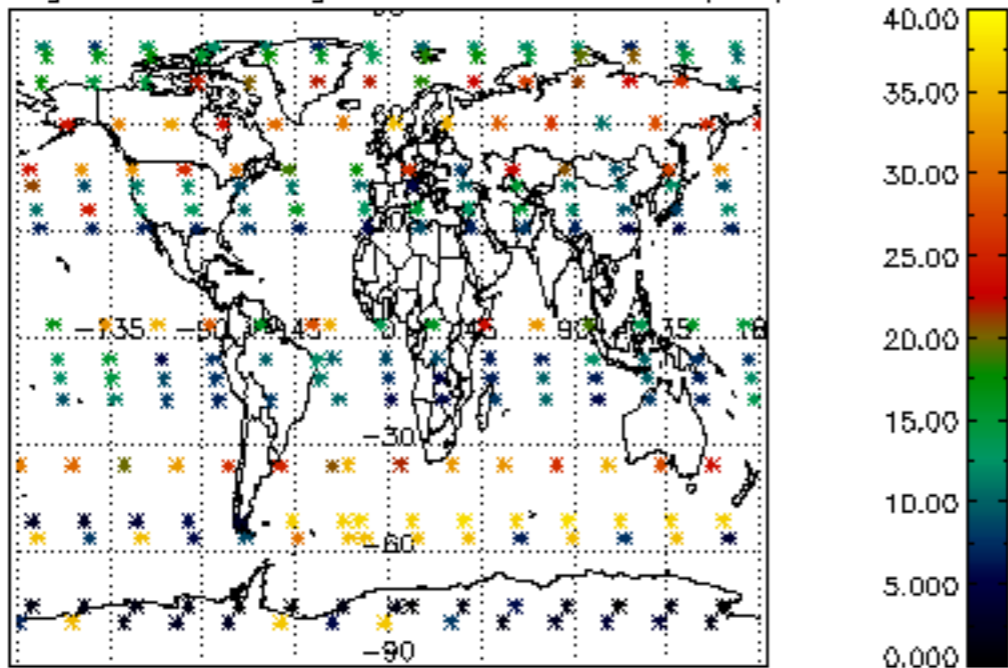
Percentage of cosmic ray hits per profile



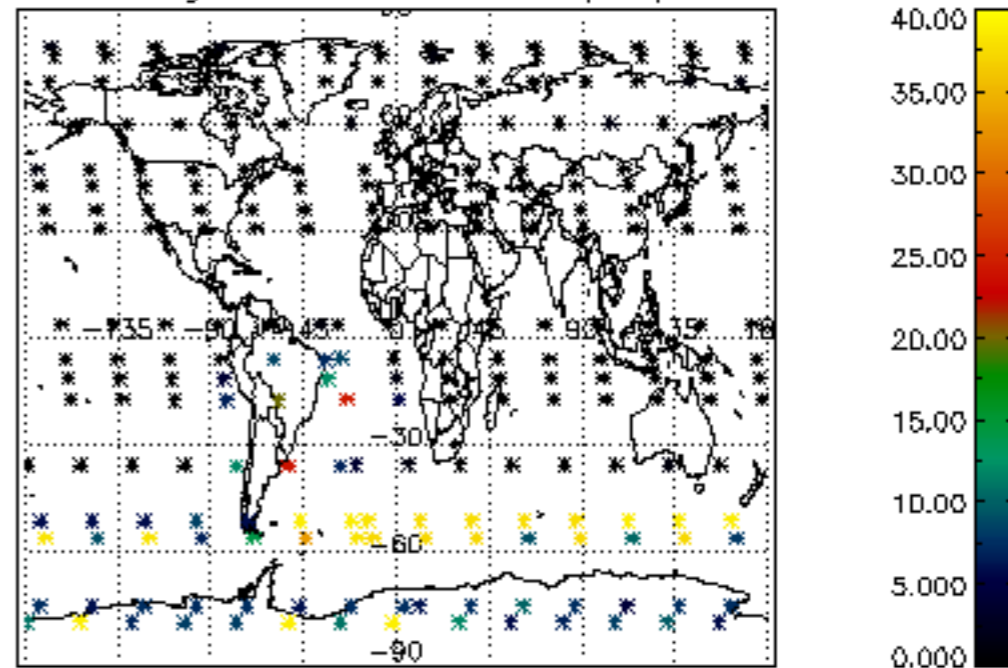
Percentage of datation errors per profile



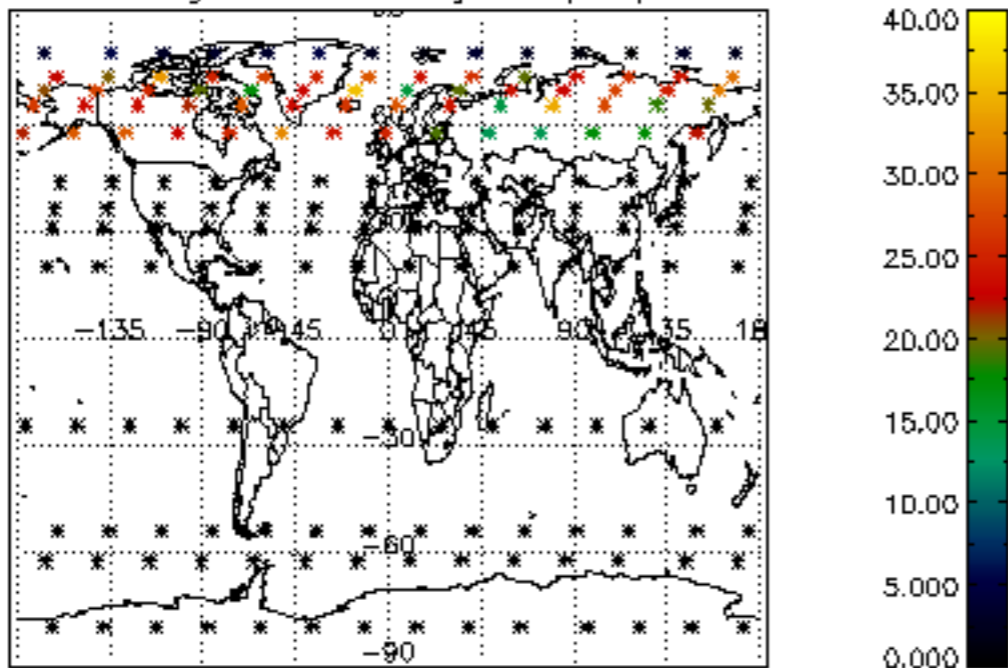
Percentage of star falling outside central band per profile



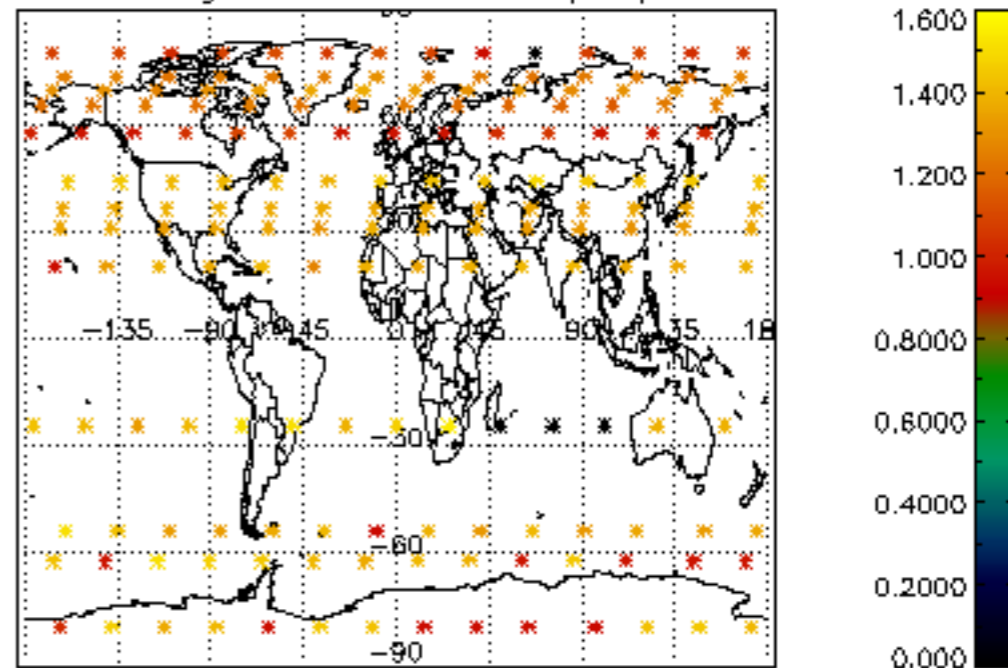
Percentage of saturation errors per profile



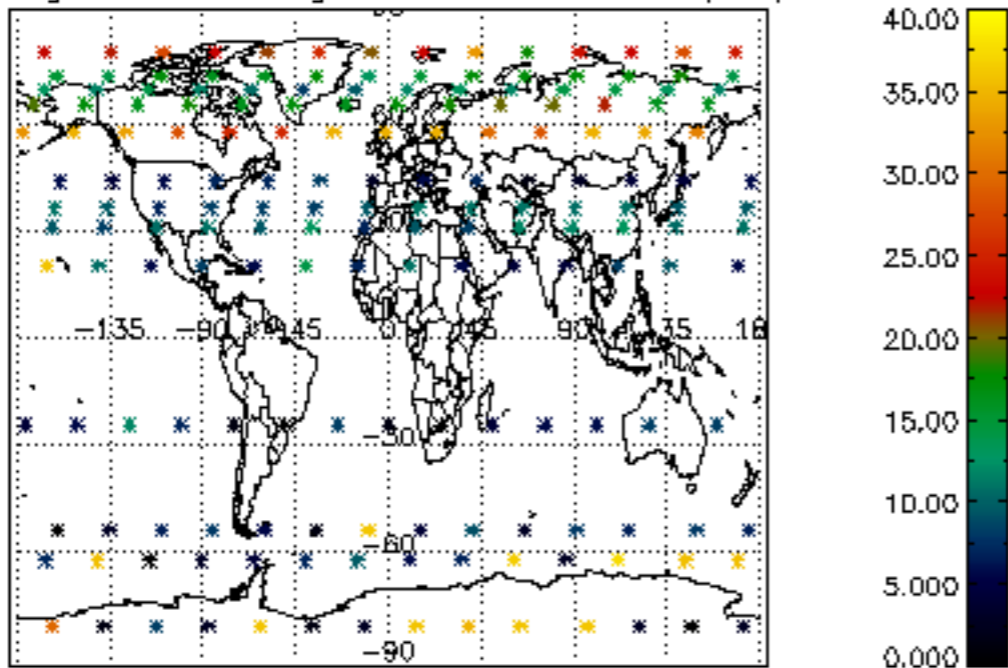
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

