

GOMOS Level 2 Daily Report

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

| Item | Value |
|---------------------------|---------------------------------|
| Time of report generation | 17APR2013 17:33:44 |
| Data source version | GOMOS/6.01 |
| Start time of products | 29-04-2002 (29APR2002 00:00:00) |
| Stop time of products | 30-04-2002 (30APR2002 00:00:00) |
| Store outputs in DB | Yes |
| Nb of level 2 prods | 36 |
| Nb of prods with errors | 1 |

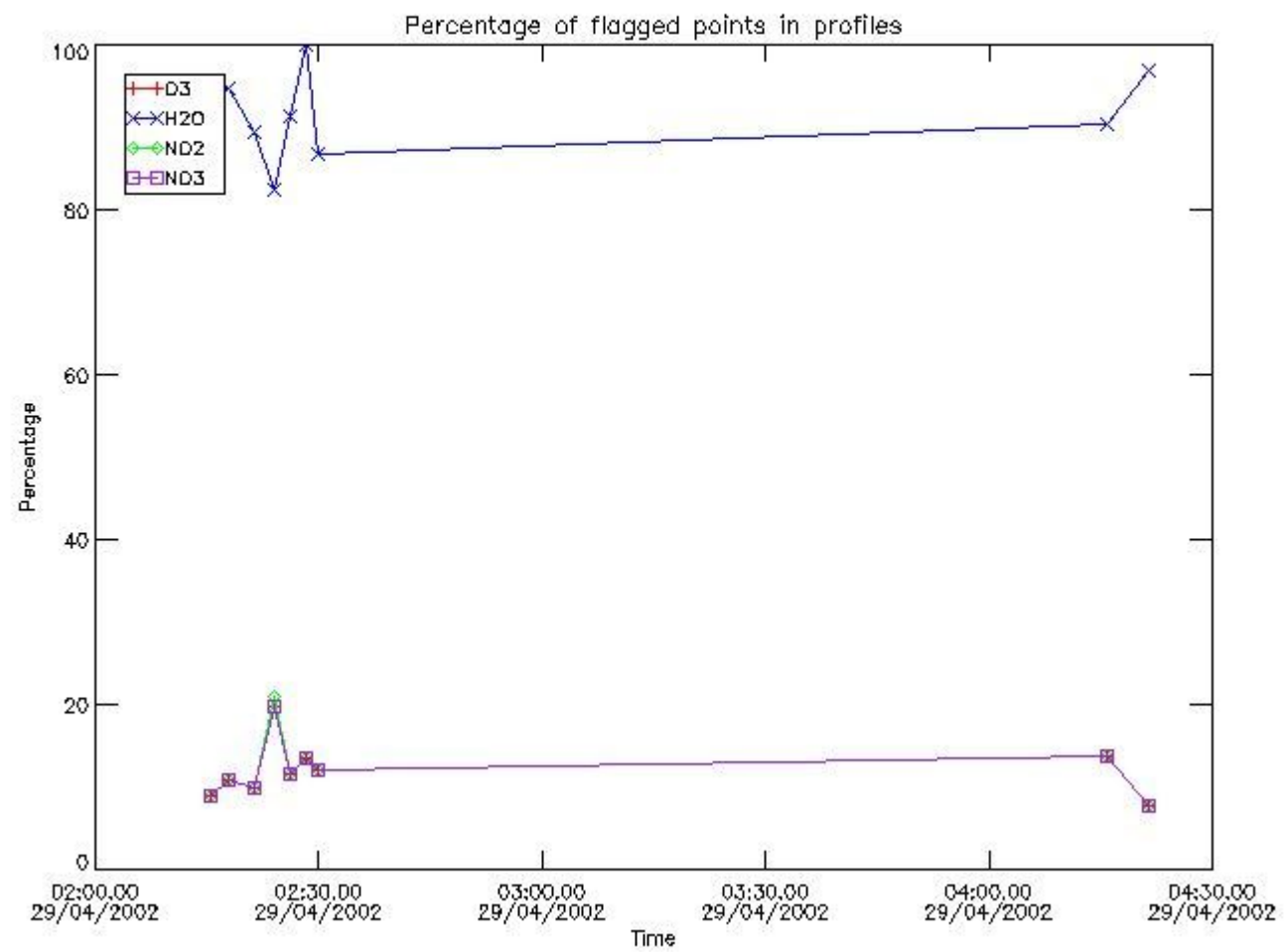
2. Summary of processed GOM_NL__2P products.

| Nr | Filename | UTC Start time | Limb | Duration | Star Id | Star Name | Star Mag | Star Temp | Nb Meas | Orbit | Prod. error |
|----|--|----------------------|------------|----------|---------|-----------|-----------|-----------|---------|-------|-------------|
| 1 | GOM_NL__2PRFIN20020429_015721_000000322005_00289_00844_0847.N1 | 29-APR-2002 01:57:21 | Dark | 31.500 | 76 | 27Gam Cas | 2.3000 | 30000. | 63 | 844 | Yes |
| 2 | GOM_NL__2PRFIN20020429_015916_000001452005_00289_00844_0848.N1 | 29-APR-2002 01:59:16 | Bright | 144.50 | 5 | 3Alp Lyr | 0.033000 | 11000. | 289 | 844 | No |
| 3 | GOM_NL__2PRFIN20020429_020310_000000672005_00289_00844_0849.N1 | 29-APR-2002 02:03:10 | Bright | 66.500 | 66 | 37Gam Cyg | 2.2080 | 5900.0 | 133 | 844 | No |
| 4 | GOM_NL__2PRFIN20020429_020634_000000632005_00289_00844_0850.N1 | 29-APR-2002 02:06:34 | Twilight | 63.000 | 92 | 53Eps Cyg | 2.5000 | 4500.0 | 126 | 844 | No |
| 5 | GOM_NL__2PRFIN20020429_021125_000000402005_00289_00844_0851.N1 | 29-APR-2002 02:11:25 | Twilight | 40.000 | 90 | 54Alp Peg | 2.4870 | 11000. | 80 | 844 | No |
| 6 | GOM_NL__2PRFIN20020429_021531_000000572005_00289_00844_0852.N1 | 29-APR-2002 02:15:31 | Dark | 57.000 | 61 | 8Eps Peg | 2.1000 | 3900.0 | 114 | 844 | No |
| 7 | GOM_NL__2PRFIN20020429_021756_000000482005_00289_00844_0853.N1 | 29-APR-2002 02:17:56 | Dark | 47.500 | 162 | 34Alp Aqr | 2.9440 | 5350.0 | 95 | 844 | No |
| 8 | GOM_NL__2PRFIN20020429_022128_000000522005_00289_00844_0854.N1 | 29-APR-2002 02:21:28 | Dark | 52.000 | 154 | 22Bet Aqr | 2.8990 | 5700.0 | 104 | 844 | No |
| 9 | GOM_NL__2PRFIN20020429_022408_000000462005_00289_00844_0855.N1 | 29-APR-2002 02:24:08 | Dark | 46.000 | 18 | 24Alp PsA | 1.1660 | 9700.0 | 92 | 844 | No |
| 10 | GOM_NL__2PRFIN20020429_022612_000000352005_00289_00844_0856.N1 | 29-APR-2002 02:26:12 | Dark | 35.000 | 84 | Alp Phe | 2.3970 | 4500.0 | 70 | 844 | No |
| 11 | GOM_NL__2PRFIN20020429_022816_000000382005_00289_00844_0857.N1 | 29-APR-2002 02:28:16 | Dark | 37.500 | 172 | Gam Gru | 3.0030 | 13100. | 75 | 844 | No |
| 12 | GOM_NL__2PRFIN20020429_022952_000000382005_00289_00844_0858.N1 | 29-APR-2002 02:29:52 | Dark | 38.000 | 31 | Alp Gru | 1.7340 | 15200. | 76 | 844 | No |
| 13 | GOM_NL__2PRFIN20020429_041555_000000372005_00291_00846_0888.N1 | 29-APR-2002 04:15:55 | Dark | 37.000 | 45 | Alp Pav | 1.9400 | 26000. | 74 | 846 | No |
| 14 | GOM_NL__2PRFIN20020429_042123_000000662005_00291_00846_0889.N1 | 29-APR-2002 04:21:23 | Dark | 66.000 | 103 | 38Zet Sgr | 2.6000 | 9700.0 | 132 | 846 | No |
| 15 | GOM_NL__2PRFIN20020429_042404_000000672005_00291_00846_0890.N1 | 29-APR-2002 04:24:04 | Straylight | 67.000 | 38 | 20Eps Sgr | 1.8360 | 11000. | 134 | 846 | No |
| 16 | GOM_NL__2PRFIN20020429_042657_000000402005_00291_00846_0891.N1 | 29-APR-2002 04:26:57 | Straylight | 40.000 | 4 | Alp1Cen | -0.010000 | 5800.0 | 80 | 846 | No |
| 17 | GOM_NL__2PRFIN20020429_042834_000000342005_00291_00846_0892.N1 | 29-APR-2002 04:28:34 | Straylight | 34.000 | 20 | Bet Cru | 1.2530 | 30000. | 68 | 846 | No |
| 18 | GOM_NL__2PRFIN20020429_042945_000000352005_00291_00846_0893.N1 | 29-APR-2002 04:29:45 | Straylight | 35.000 | 77 | Eps Cen | 2.3030 | 28000. | 70 | 846 | No |
| 19 | GOM_NL__2PRFIN20020429_043111_000000352005_00291_00846_0894.N1 | 29-APR-2002 04:31:11 | Straylight | 35.000 | 95 | Zet Cen | 2.5450 | 26000. | 70 | 846 | No |
| 20 | GOM_NL__2PRFIN20020429_043307_000000562005_00291_00846_0895.N1 | 29-APR-2002 04:33:07 | Twilight | 55.500 | 136 | 23Tau Sco | 2.8220 | 30000. | 111 | 846 | No |
| 21 | GOM_NL__2PRFIN20020429_043441_000000562005_00291_00846_0896.N1 | 29-APR-2002 04:34:41 | Twilight | 56.000 | 156 | 20Sig Sco | 2.9030 | 28000. | 112 | 846 | No |
| 22 | GOM_NL__2PRFIN20020429_043625_000000592005_00291_00846_0897.N1 | 29-APR-2002 04:36:25 | Twilight | 58.500 | 80 | 7Del Sco | 2.3160 | 30000. | 117 | 846 | No |
| 23 | GOM_NL__2PRFIN20020429_043820_000000402005_00291_00846_0898.N1 | 29-APR-2002 04:38:20 | Bright | 40.000 | 169 | 46Gam Hya | 2.9910 | 4700.0 | 80 | 846 | No |
| 24 | GOM_NL__2PRFIN20020429_043940_000000402005_00291_00846_0899.N1 | 29-APR-2002 04:39:40 | Bright | 39.500 | 122 | 9Alp2Lib | 2.7470 | 9700.0 | 79 | 846 | No |
| 25 | GOM_NL__2PRFIN20020429_044141_000000372005_00291_00846_0900.N1 | 29-APR-2002 04:41:41 | Bright | 36.500 | 15 | 67Alp Vir | 0.97600 | 28000. | 73 | 846 | No |
| 26 | GOM_NL__2PRFIN20020429_044444_000000332005_00291_00846_0901.N1 | 29-APR-2002 04:44:44 | Bright | 32.500 | 121 | 29Gam Vir | 2.7400 | 7200.0 | 65 | 846 | No |
| 27 | GOM_NL__2PRFIN20020429_044806_000000332005_00291_00846_0902.N1 | 29-APR-2002 04:48:06 | Bright | 32.500 | 138 | 47Eps Vir | 2.8280 | 4700.0 | 65 | 846 | No |
| 28 | GOM_NL__2PRFIN20020429_044947_000000332005_00291_00846_0903.N1 | 29-APR-2002 04:49:47 | Bright | 33.000 | 62 | 94Bet Leo | 2.1360 | 9700.0 | 66 | 846 | No |
| 29 | GOM_NL__2PRFIN20020429_045424_000000442005_00291_00846_0904.N1 | 29-APR-2002 04:54:24 | Bright | 43.500 | 83 | | 2.3780 | 11000. | 87 | 846 | No |
| 30 | GOM_NL__2PRFIN20020429_045648_000000512005_00291_00846_0905.N1 | 29-APR-2002 04:56:48 | Bright | 50.500 | 67 | 5Alp CrB | 2.2210 | 11000. | 101 | 846 | No |
| 31 | GOM_NL__2PRFIN20020429_045930_000000352005_00291_00846_0906.N1 | 29-APR-2002 04:59:30 | Bright | 35.000 | 39 | 85Eta UMa | 1.8540 | 24000. | 70 | 846 | No |
| 32 | GOM_NL__2PRFIN20020429_050052_000000342005_00291_00846_0907.N1 | 29-APR-2002 05:00:52 | Bright | 34.000 | 32 | 77Eps UMa | 1.7630 | 11000. | 68 | 846 | No |
| 33 | GOM_NL__2PRFIN20020429_050301_000000342005_00291_00846_0908.N1 | 29-APR-2002 05:03:01 | Bright | 34.000 | 36 | 50Alp UMa | 1.8000 | 6300.0 | 68 | 846 | No |
| 34 | GOM_NL__2PRFIN20020429_050701_000000412005_00291_00846_0909.N1 | 29-APR-2002 05:07:01 | Bright | 41.000 | 119 | 14Eta Dra | 2.7270 | 4700.0 | 82 | 846 | No |
| 35 | GOM_NL__2PRFIN20020429_051037_000000312005_00291_00846_0910.N1 | 29-APR-2002 05:10:37 | Bright | 31.000 | 49 | 1Alp UMi | 1.9900 | 6300.0 | 62 | 846 | No |
| 36 | GOM_NL__2PRFIN20020429_051833_000000322005_00291_00846_0911.N1 | 29-APR-2002 05:18:33 | Bright | 31.500 | 76 | 27Gam Cas | 2.3000 | 30000. | 63 | 846 | No |

3. Quality information per product

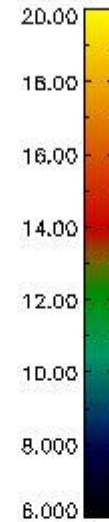
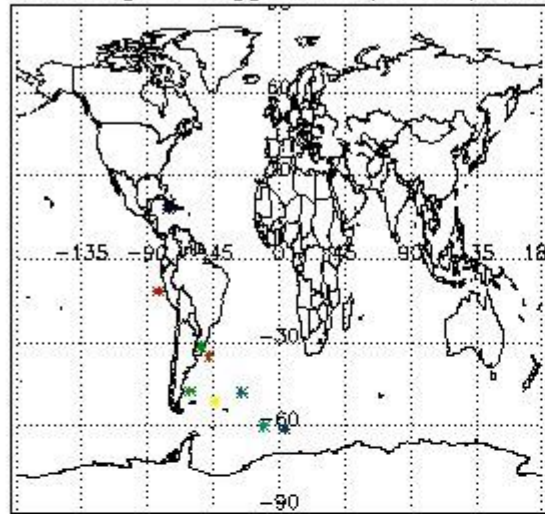
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

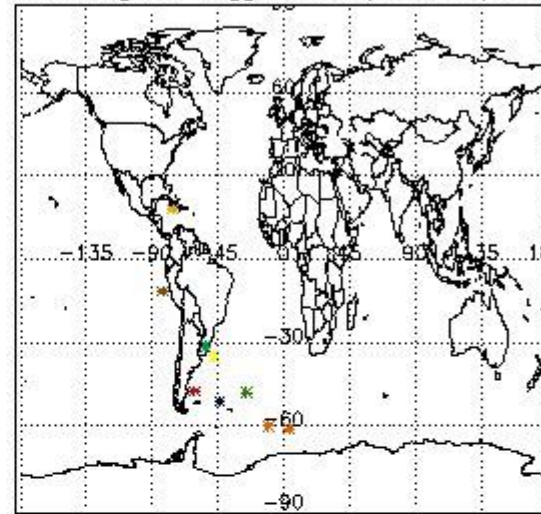


3.2 Plot quality information per product (world map)

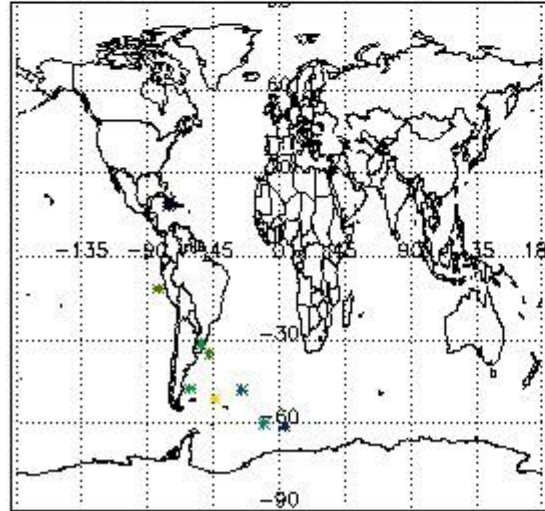
Percentage of flagged data per O3 profile



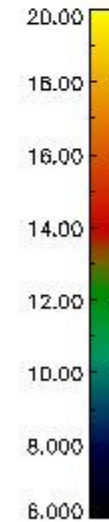
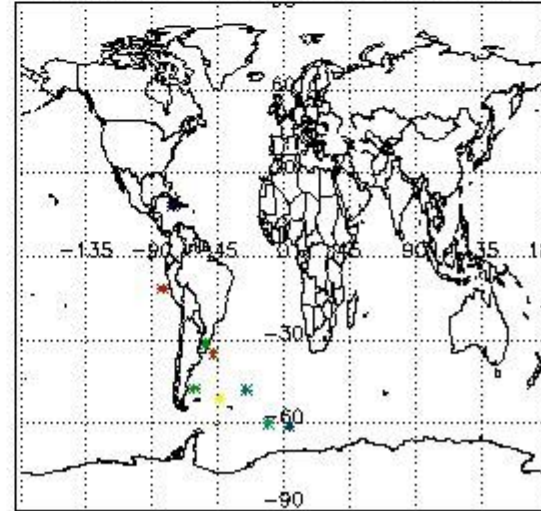
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

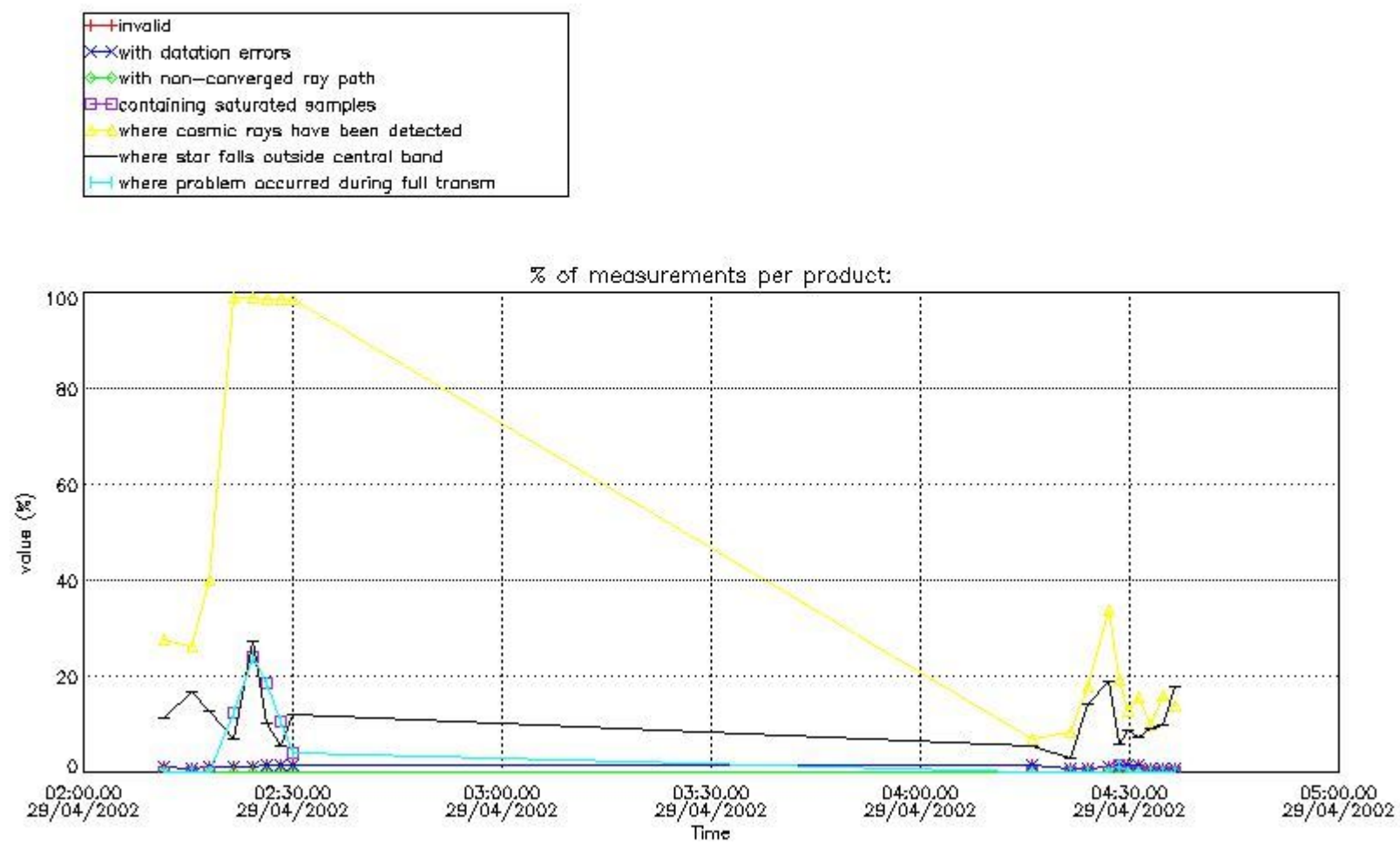


4. Level 1 quality information per product

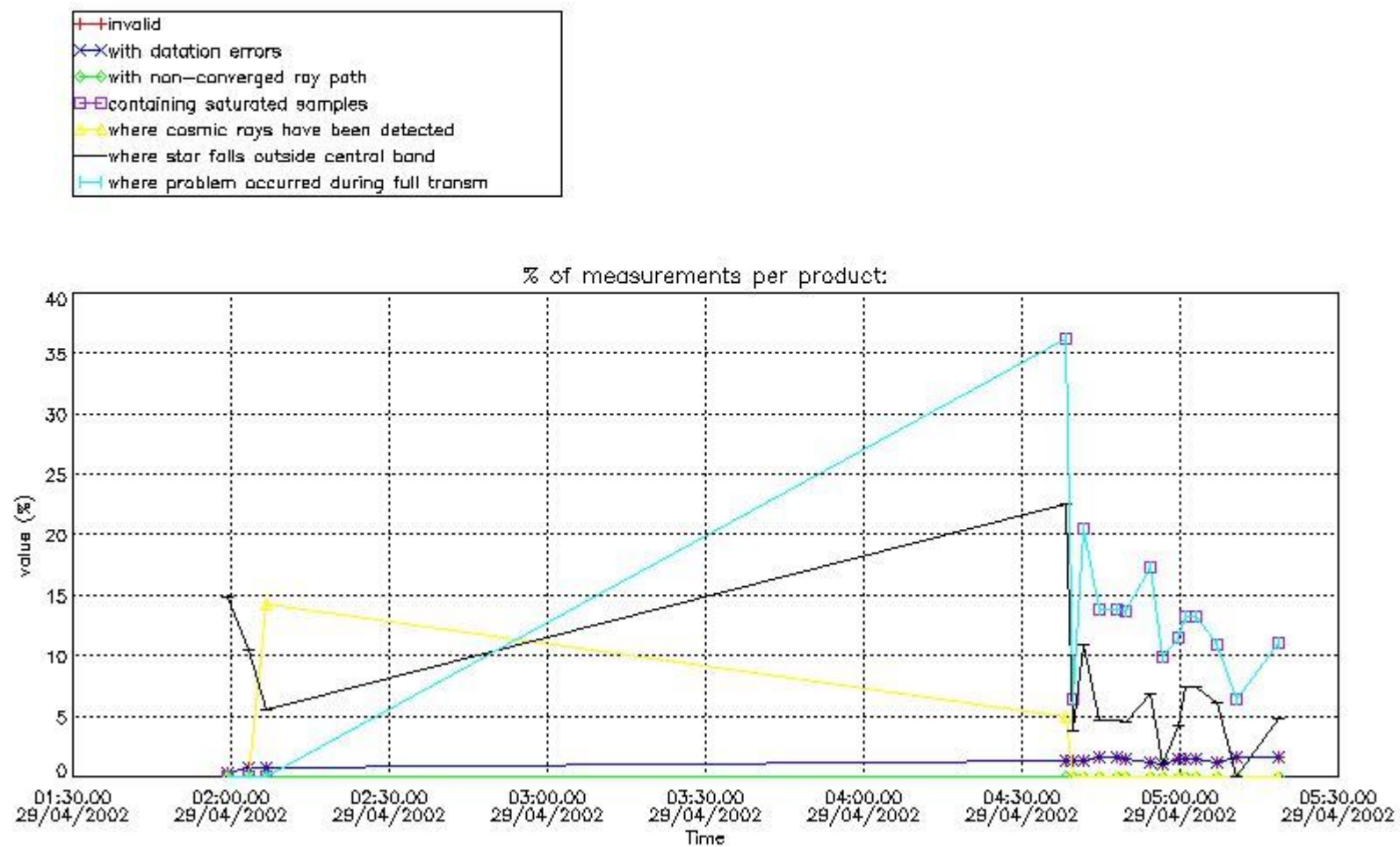
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

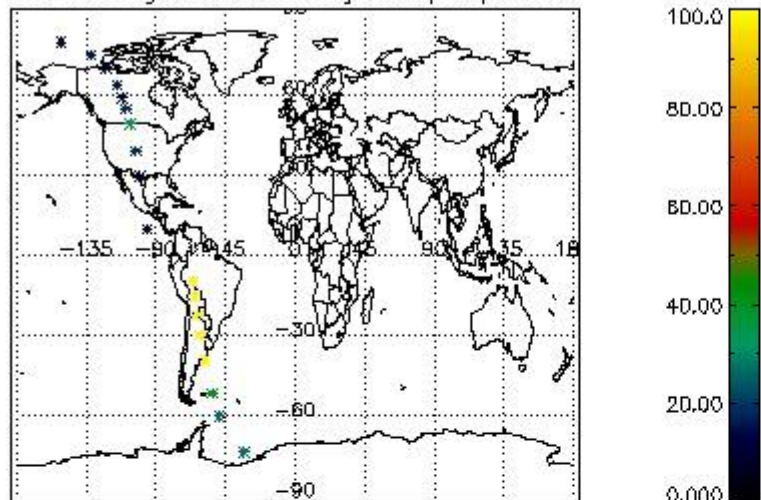


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

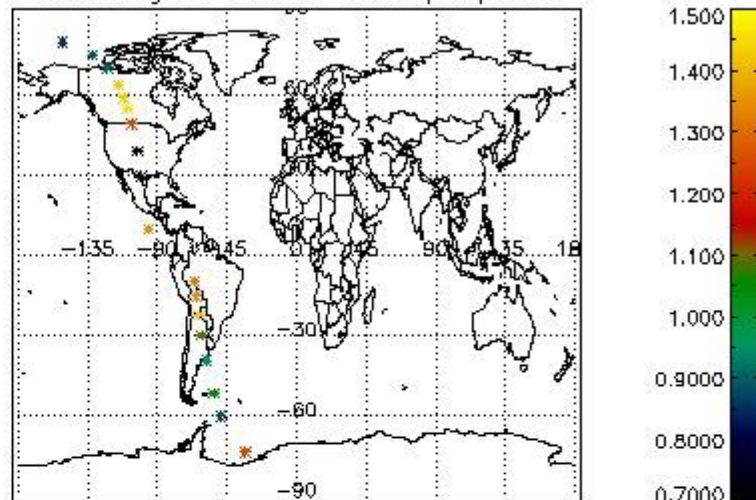


4.2 Plot quality information per product coming from level 1b processing (world map)
 4.2.1 Plot level 1 quality information per product (world map): ENVISAT ASCENDING passes

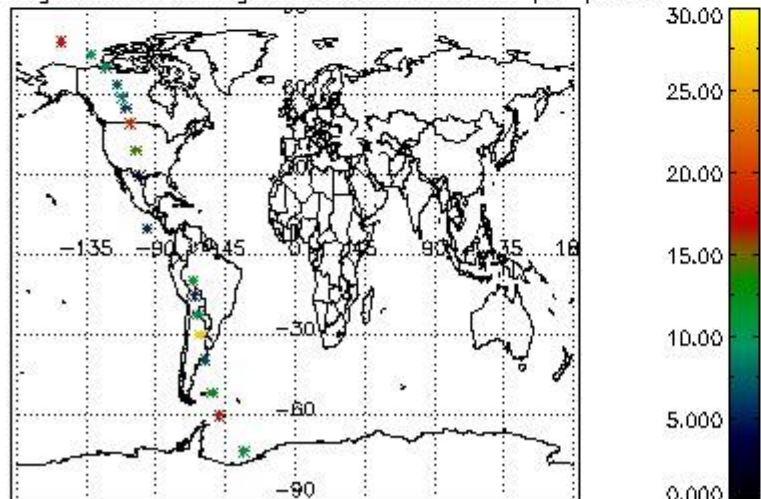
Percentage of cosmic ray hits per profile



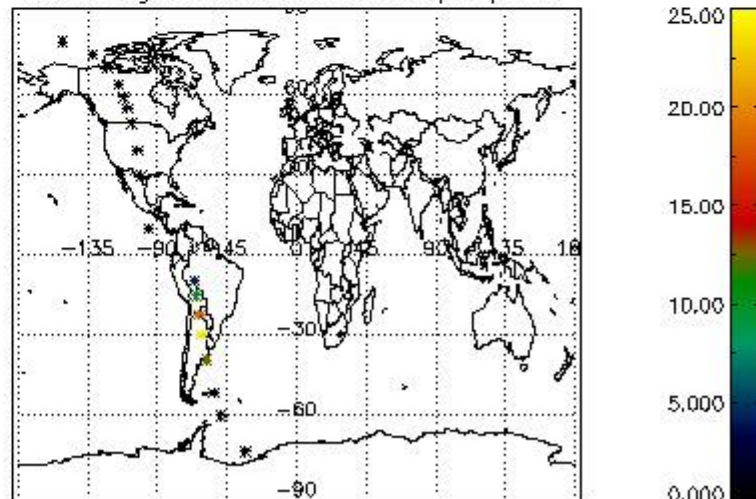
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

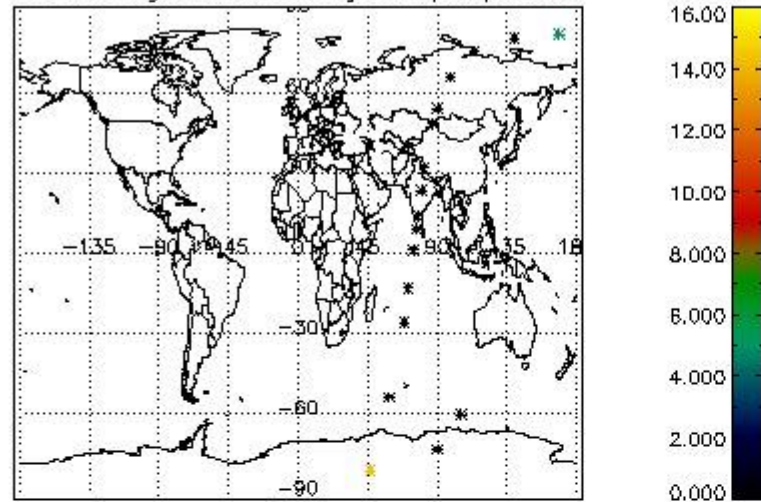


Percentage of saturation errors per profile

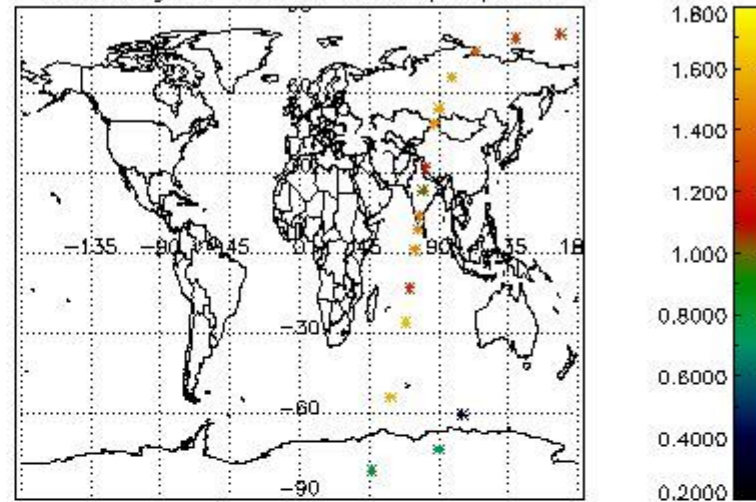


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

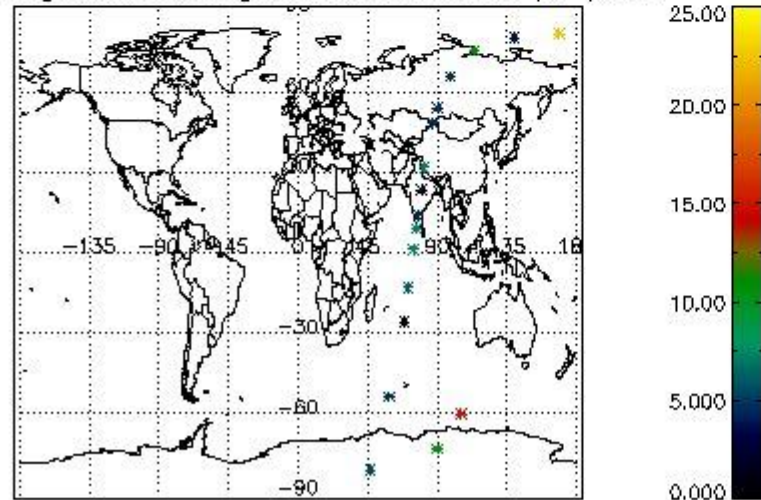
Percentage of cosmic ray hits per profile



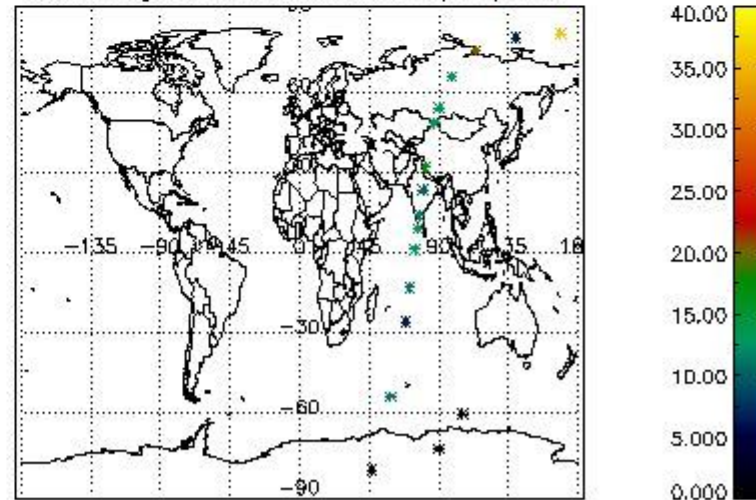
Percentage of datation errors per profile



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

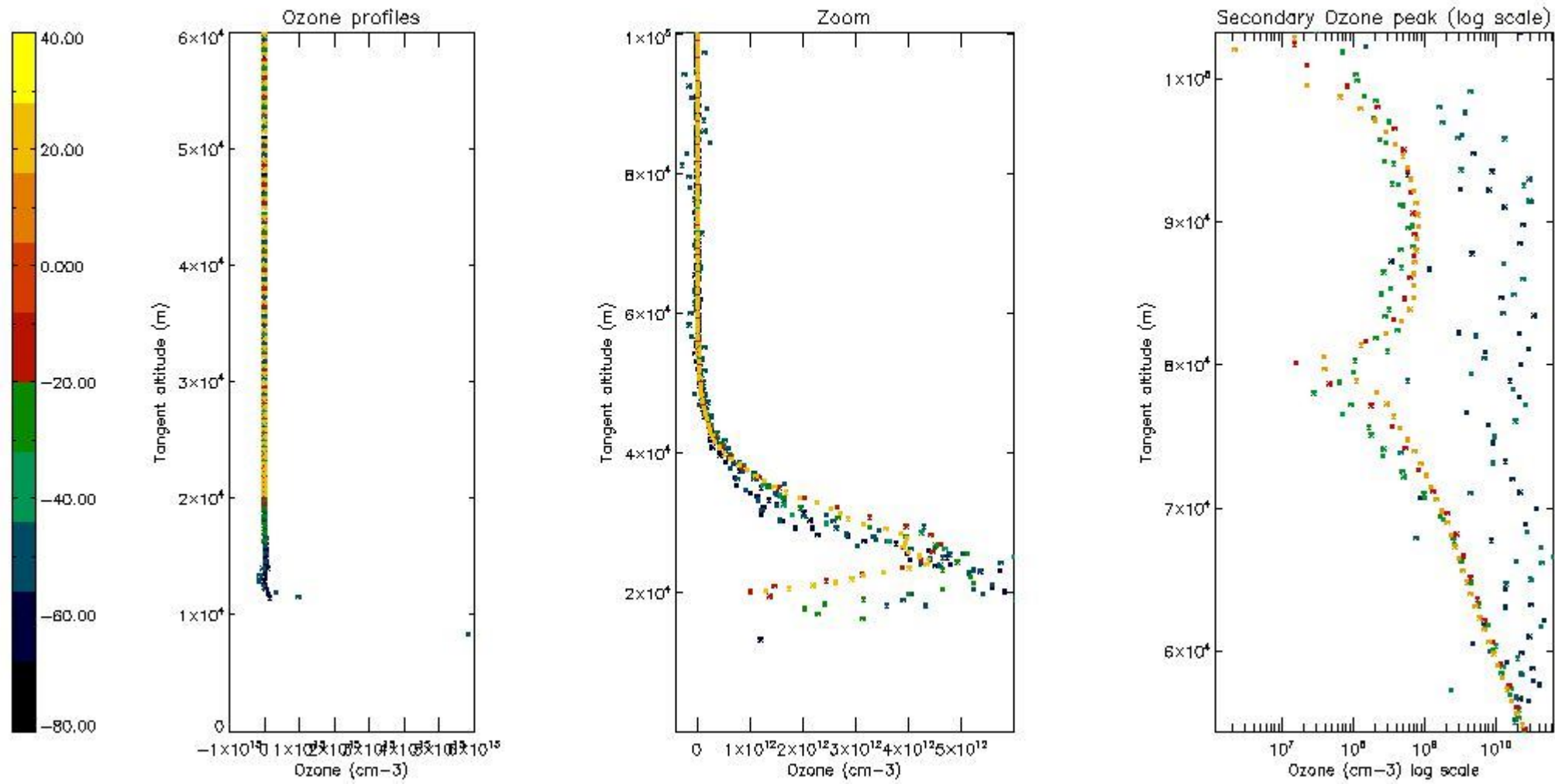
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

| Criteria | % of total production |
|----------|-----------------------|
| All STD | 26 |
| STD < 20 | 13 |

| | |
|----------|----|
| STD < 10 | 10 |
| STD < 5 | 6 |

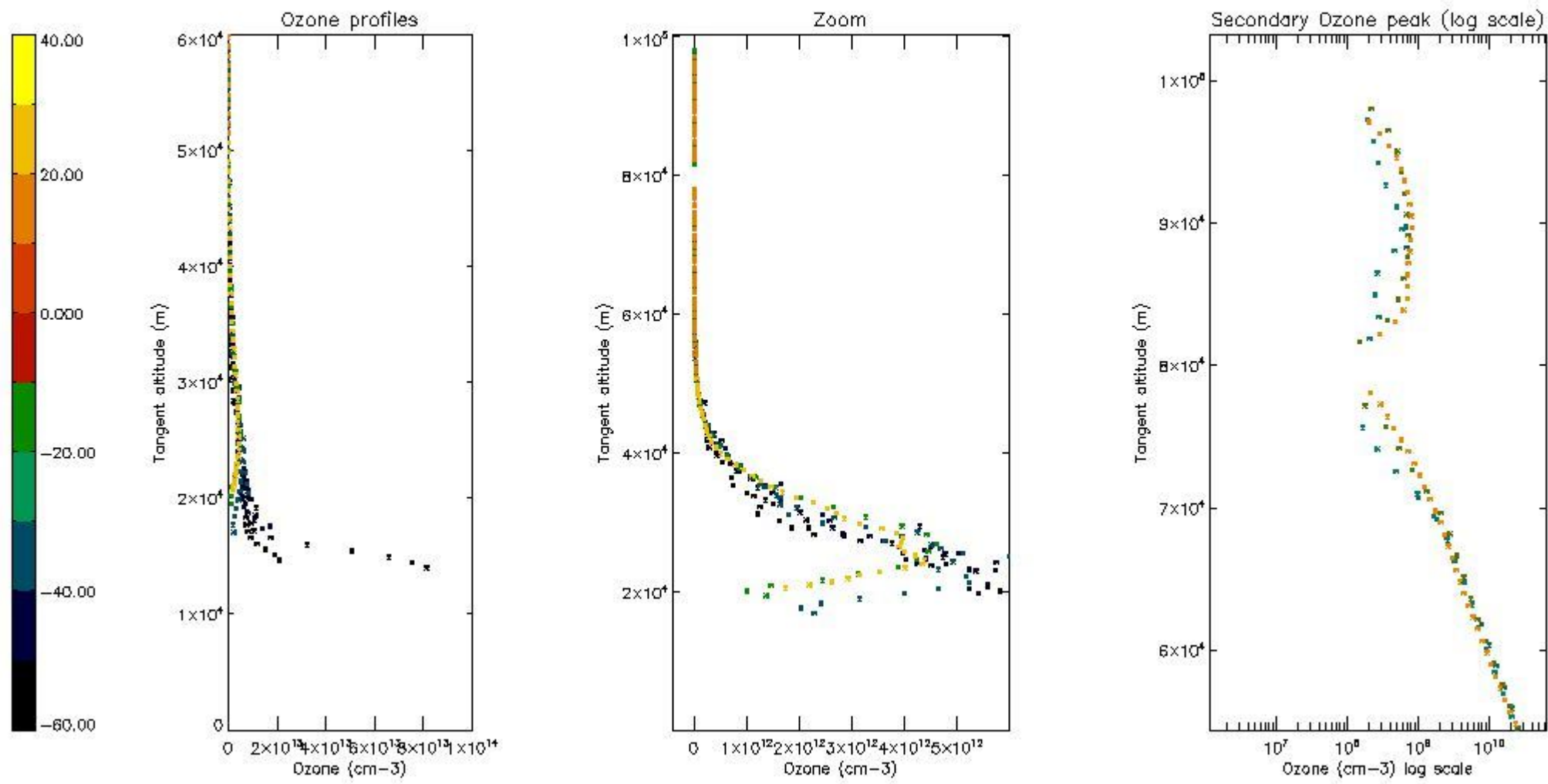
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



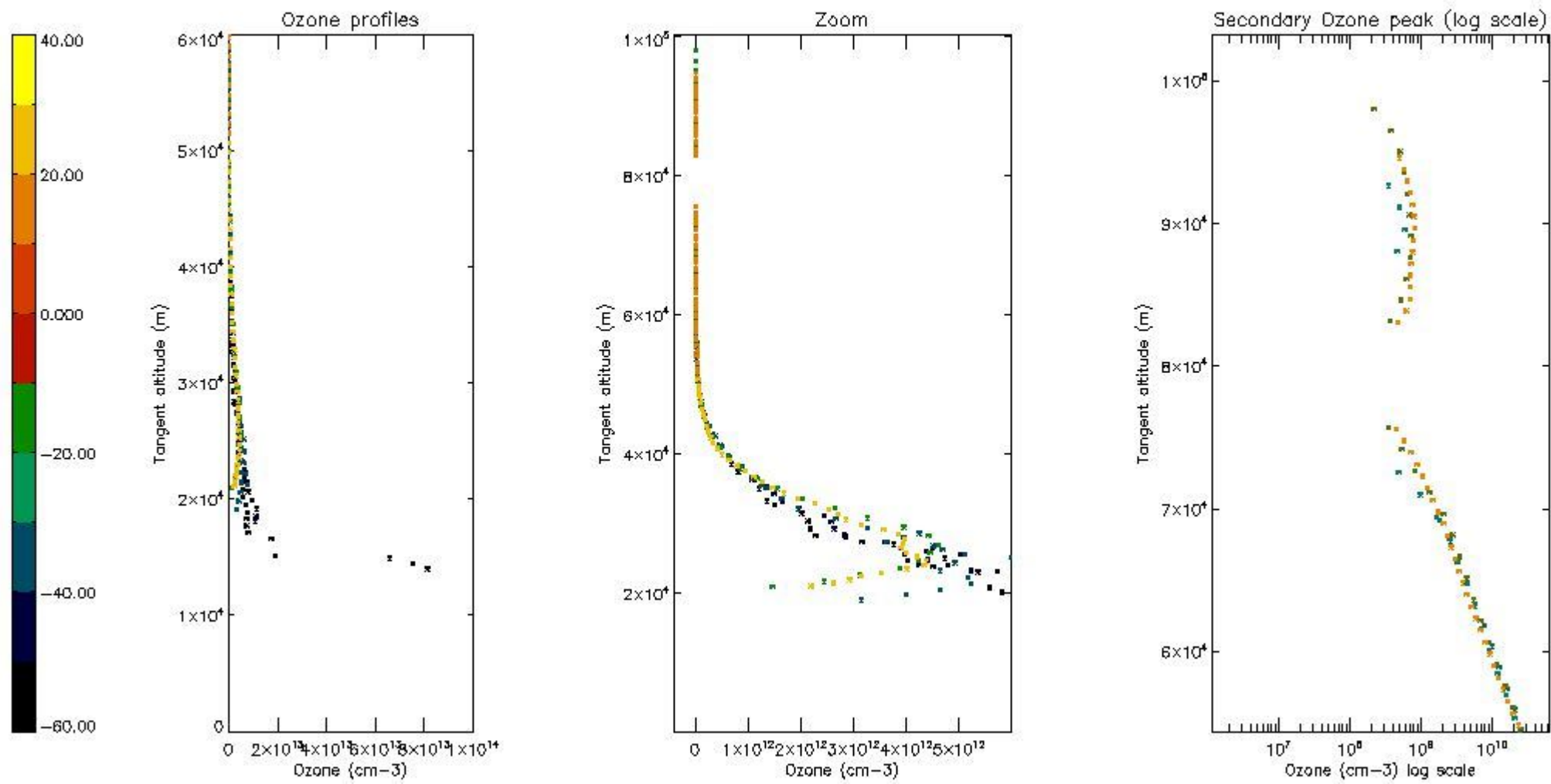
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



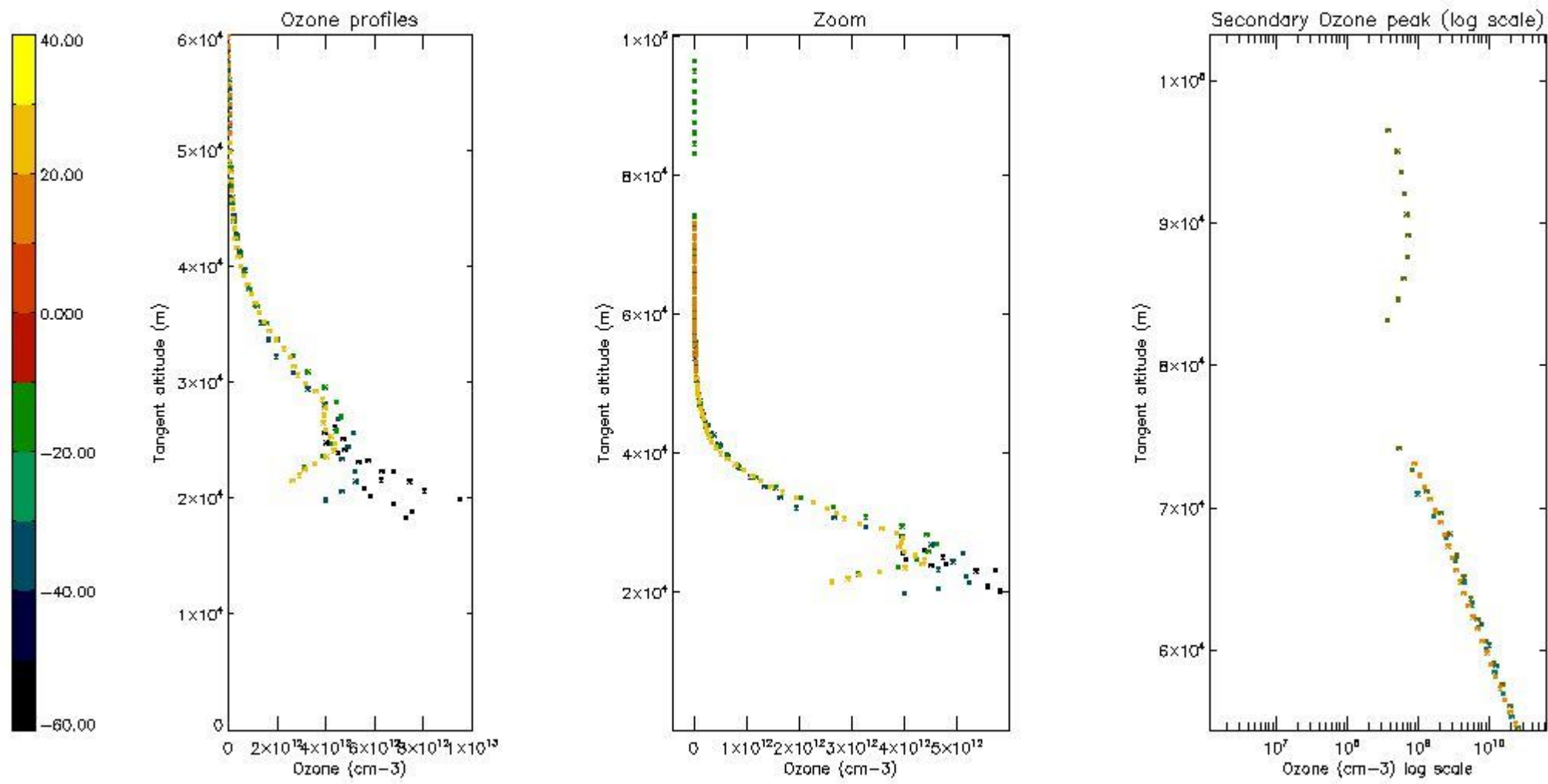
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



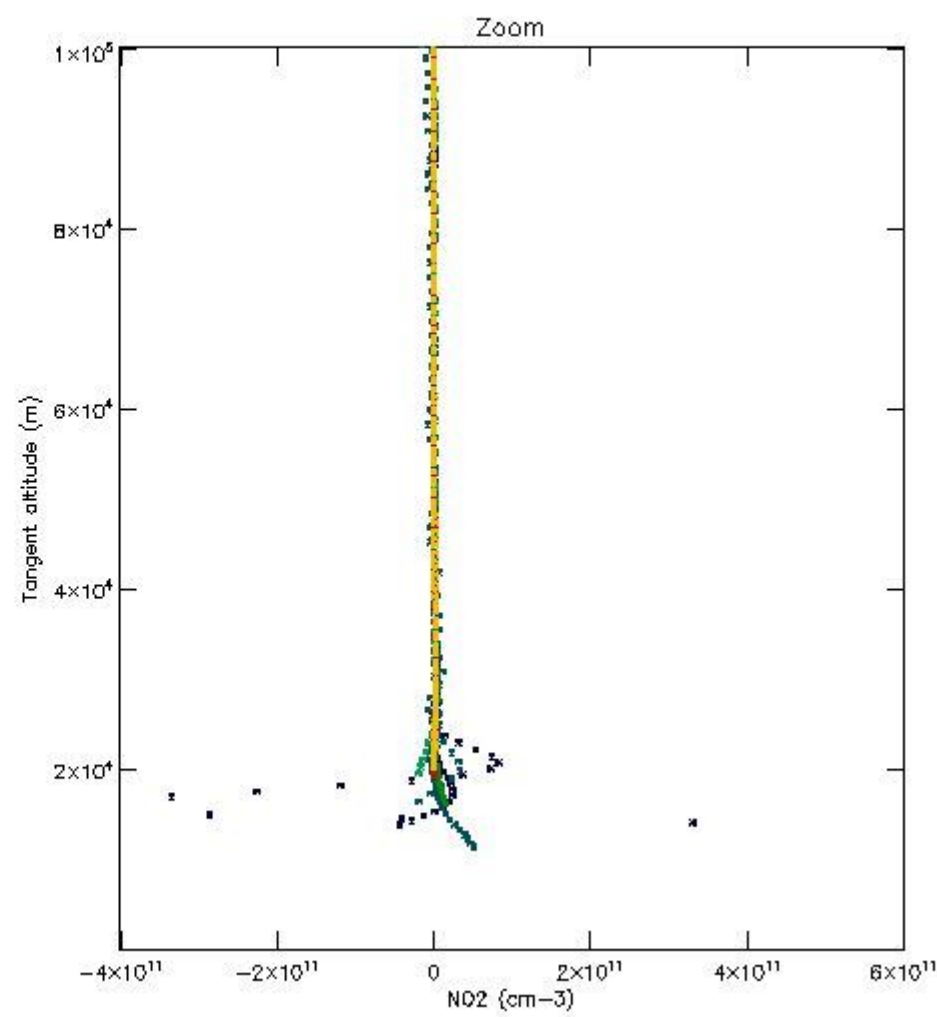
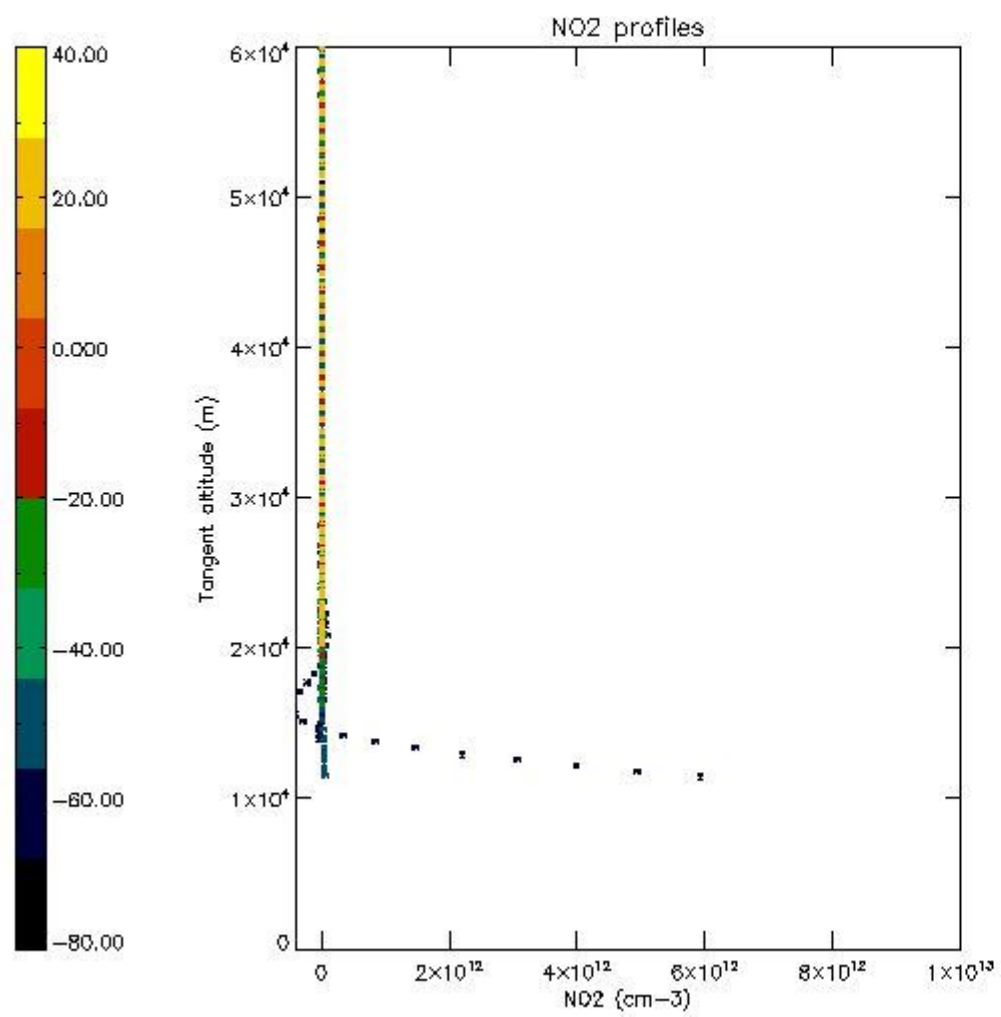
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



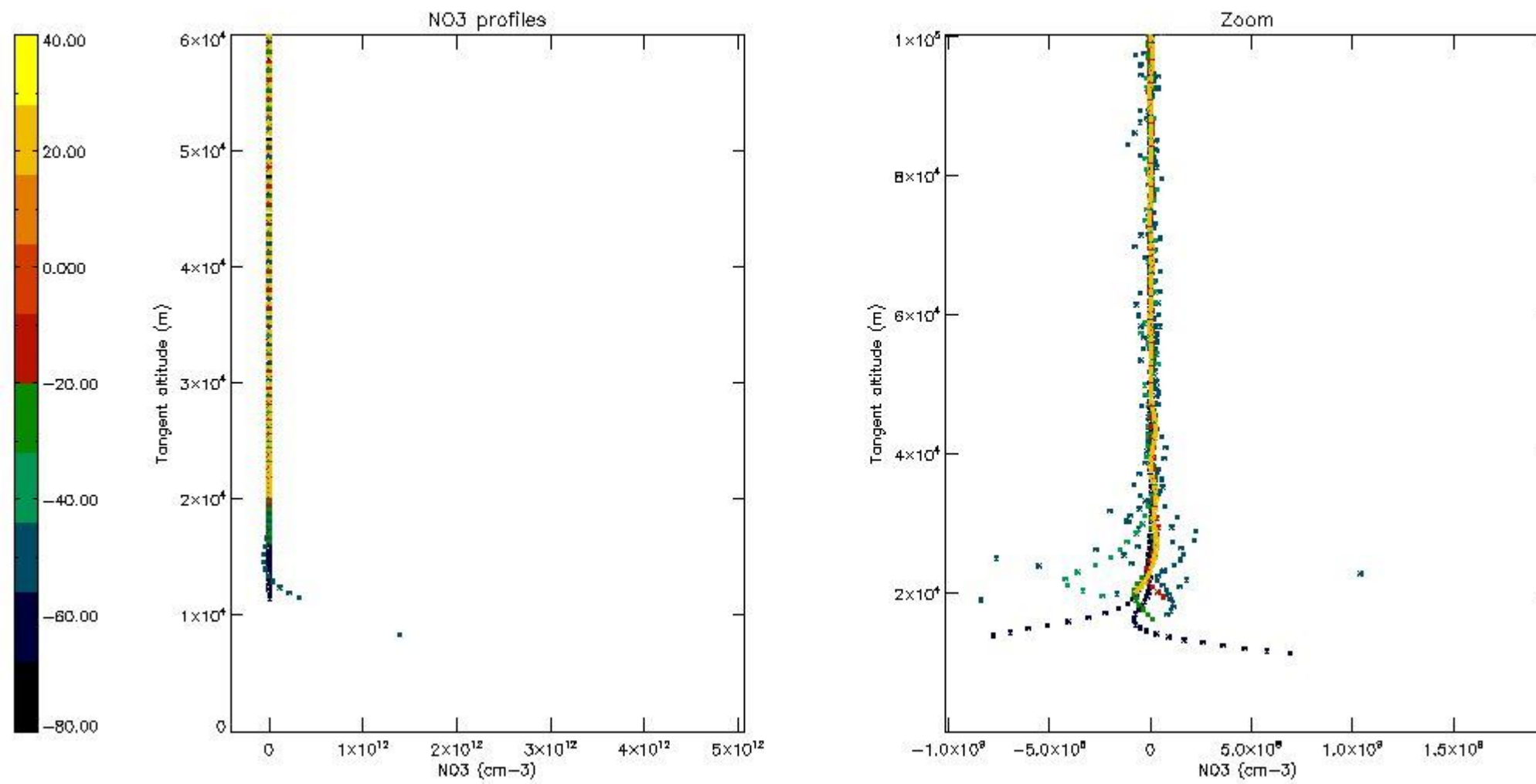
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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

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

| Type | Auxiliary Filename | Used since product | Used since product date |
|---------------------------|---|--------------------|-------------------------|
| INST_PHYS_CHARACTERISTICS | GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000 | 1 | 29-APR-2002 01:57:21 |
| LEVEL-2_PROC_CONFIG | GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000 | 1 | 29-APR-2002 01:57:21 |
| CROSS_SECTIONS_FILE | GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000 | 1 | 29-APR-2002 01:57:21 |

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

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

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

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

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

[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](#)

[5.1 Ozone statistics based on quality of products](#)

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[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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| Stop time of products | 30-04-2002 (30APR2002 00:00:00) |
| Store outputs in DB | Yes |
| Nb of level 2 prods | 36 |
| Nb of prods with errors | 1 |

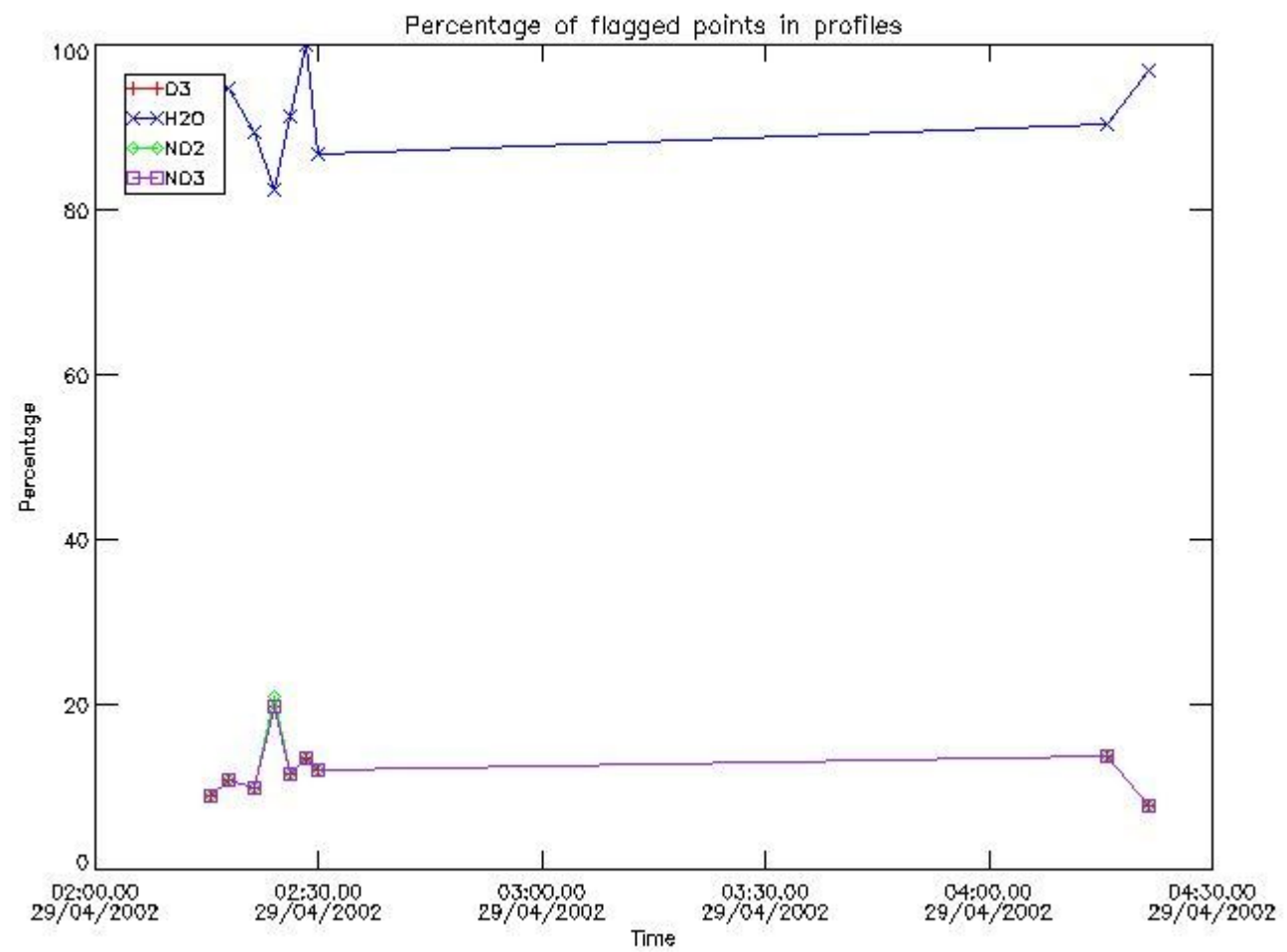
2. Summary of processed GOM_NL__2P products.

| Nr | Filename | UTC Start time | Limb | Duration | Star Id | Star Name | Star Mag | Star Temp | Nb Meas | Orbit | Prod. error |
|----|--|----------------------|------------|----------|---------|-----------|-----------|-----------|---------|-------|-------------|
| 1 | GOM_NL__2PRFIN20020429_015721_000000322005_00289_00844_0847.N1 | 29-APR-2002 01:57:21 | Dark | 31.500 | 76 | 27Gam Cas | 2.3000 | 30000. | 63 | 844 | Yes |
| 2 | GOM_NL__2PRFIN20020429_015916_000001452005_00289_00844_0848.N1 | 29-APR-2002 01:59:16 | Bright | 144.50 | 5 | 3Alp Lyr | 0.033000 | 11000. | 289 | 844 | No |
| 3 | GOM_NL__2PRFIN20020429_020310_000000672005_00289_00844_0849.N1 | 29-APR-2002 02:03:10 | Bright | 66.500 | 66 | 37Gam Cyg | 2.2080 | 5900.0 | 133 | 844 | No |
| 4 | GOM_NL__2PRFIN20020429_020634_000000632005_00289_00844_0850.N1 | 29-APR-2002 02:06:34 | Twilight | 63.000 | 92 | 53Eps Cyg | 2.5000 | 4500.0 | 126 | 844 | No |
| 5 | GOM_NL__2PRFIN20020429_021125_000000402005_00289_00844_0851.N1 | 29-APR-2002 02:11:25 | Twilight | 40.000 | 90 | 54Alp Peg | 2.4870 | 11000. | 80 | 844 | No |
| 6 | GOM_NL__2PRFIN20020429_021531_000000572005_00289_00844_0852.N1 | 29-APR-2002 02:15:31 | Dark | 57.000 | 61 | 8Eps Peg | 2.1000 | 3900.0 | 114 | 844 | No |
| 7 | GOM_NL__2PRFIN20020429_021756_000000482005_00289_00844_0853.N1 | 29-APR-2002 02:17:56 | Dark | 47.500 | 162 | 34Alp Aqr | 2.9440 | 5350.0 | 95 | 844 | No |
| 8 | GOM_NL__2PRFIN20020429_022128_000000522005_00289_00844_0854.N1 | 29-APR-2002 02:21:28 | Dark | 52.000 | 154 | 22Bet Aqr | 2.8990 | 5700.0 | 104 | 844 | No |
| 9 | GOM_NL__2PRFIN20020429_022408_000000462005_00289_00844_0855.N1 | 29-APR-2002 02:24:08 | Dark | 46.000 | 18 | 24Alp PsA | 1.1660 | 9700.0 | 92 | 844 | No |
| 10 | GOM_NL__2PRFIN20020429_022612_000000352005_00289_00844_0856.N1 | 29-APR-2002 02:26:12 | Dark | 35.000 | 84 | Alp Phe | 2.3970 | 4500.0 | 70 | 844 | No |
| 11 | GOM_NL__2PRFIN20020429_022816_000000382005_00289_00844_0857.N1 | 29-APR-2002 02:28:16 | Dark | 37.500 | 172 | Gam Gru | 3.0030 | 13100. | 75 | 844 | No |
| 12 | GOM_NL__2PRFIN20020429_022952_000000382005_00289_00844_0858.N1 | 29-APR-2002 02:29:52 | Dark | 38.000 | 31 | Alp Gru | 1.7340 | 15200. | 76 | 844 | No |
| 13 | GOM_NL__2PRFIN20020429_041555_000000372005_00291_00846_0888.N1 | 29-APR-2002 04:15:55 | Dark | 37.000 | 45 | Alp Pav | 1.9400 | 26000. | 74 | 846 | No |
| 14 | GOM_NL__2PRFIN20020429_042123_000000662005_00291_00846_0889.N1 | 29-APR-2002 04:21:23 | Dark | 66.000 | 103 | 38Zet Sgr | 2.6000 | 9700.0 | 132 | 846 | No |
| 15 | GOM_NL__2PRFIN20020429_042404_000000672005_00291_00846_0890.N1 | 29-APR-2002 04:24:04 | Straylight | 67.000 | 38 | 20Eps Sgr | 1.8360 | 11000. | 134 | 846 | No |
| 16 | GOM_NL__2PRFIN20020429_042657_000000402005_00291_00846_0891.N1 | 29-APR-2002 04:26:57 | Straylight | 40.000 | 4 | Alp1Cen | -0.010000 | 5800.0 | 80 | 846 | No |
| 17 | GOM_NL__2PRFIN20020429_042834_000000342005_00291_00846_0892.N1 | 29-APR-2002 04:28:34 | Straylight | 34.000 | 20 | Bet Cru | 1.2530 | 30000. | 68 | 846 | No |
| 18 | GOM_NL__2PRFIN20020429_042945_000000352005_00291_00846_0893.N1 | 29-APR-2002 04:29:45 | Straylight | 35.000 | 77 | Eps Cen | 2.3030 | 28000. | 70 | 846 | No |
| 19 | GOM_NL__2PRFIN20020429_043111_000000352005_00291_00846_0894.N1 | 29-APR-2002 04:31:11 | Straylight | 35.000 | 95 | Zet Cen | 2.5450 | 26000. | 70 | 846 | No |
| 20 | GOM_NL__2PRFIN20020429_043307_000000562005_00291_00846_0895.N1 | 29-APR-2002 04:33:07 | Twilight | 55.500 | 136 | 23Tau Sco | 2.8220 | 30000. | 111 | 846 | No |
| 21 | GOM_NL__2PRFIN20020429_043441_000000562005_00291_00846_0896.N1 | 29-APR-2002 04:34:41 | Twilight | 56.000 | 156 | 20Sig Sco | 2.9030 | 28000. | 112 | 846 | No |
| 22 | GOM_NL__2PRFIN20020429_043625_000000592005_00291_00846_0897.N1 | 29-APR-2002 04:36:25 | Twilight | 58.500 | 80 | 7Del Sco | 2.3160 | 30000. | 117 | 846 | No |
| 23 | GOM_NL__2PRFIN20020429_043820_000000402005_00291_00846_0898.N1 | 29-APR-2002 04:38:20 | Bright | 40.000 | 169 | 46Gam Hya | 2.9910 | 4700.0 | 80 | 846 | No |
| 24 | GOM_NL__2PRFIN20020429_043940_000000402005_00291_00846_0899.N1 | 29-APR-2002 04:39:40 | Bright | 39.500 | 122 | 9Alp2Lib | 2.7470 | 9700.0 | 79 | 846 | No |
| 25 | GOM_NL__2PRFIN20020429_044141_000000372005_00291_00846_0900.N1 | 29-APR-2002 04:41:41 | Bright | 36.500 | 15 | 67Alp Vir | 0.97600 | 28000. | 73 | 846 | No |
| 26 | GOM_NL__2PRFIN20020429_044444_000000332005_00291_00846_0901.N1 | 29-APR-2002 04:44:44 | Bright | 32.500 | 121 | 29Gam Vir | 2.7400 | 7200.0 | 65 | 846 | No |
| 27 | GOM_NL__2PRFIN20020429_044806_000000332005_00291_00846_0902.N1 | 29-APR-2002 04:48:06 | Bright | 32.500 | 138 | 47Eps Vir | 2.8280 | 4700.0 | 65 | 846 | No |
| 28 | GOM_NL__2PRFIN20020429_044947_000000332005_00291_00846_0903.N1 | 29-APR-2002 04:49:47 | Bright | 33.000 | 62 | 94Bet Leo | 2.1360 | 9700.0 | 66 | 846 | No |
| 29 | GOM_NL__2PRFIN20020429_045424_000000442005_00291_00846_0904.N1 | 29-APR-2002 04:54:24 | Bright | 43.500 | 83 | | 2.3780 | 11000. | 87 | 846 | No |
| 30 | GOM_NL__2PRFIN20020429_045648_000000512005_00291_00846_0905.N1 | 29-APR-2002 04:56:48 | Bright | 50.500 | 67 | 5Alp CrB | 2.2210 | 11000. | 101 | 846 | No |
| 31 | GOM_NL__2PRFIN20020429_045930_000000352005_00291_00846_0906.N1 | 29-APR-2002 04:59:30 | Bright | 35.000 | 39 | 85Eta UMa | 1.8540 | 24000. | 70 | 846 | No |
| 32 | GOM_NL__2PRFIN20020429_050052_000000342005_00291_00846_0907.N1 | 29-APR-2002 05:00:52 | Bright | 34.000 | 32 | 77Eps UMa | 1.7630 | 11000. | 68 | 846 | No |
| 33 | GOM_NL__2PRFIN20020429_050301_000000342005_00291_00846_0908.N1 | 29-APR-2002 05:03:01 | Bright | 34.000 | 36 | 50Alp UMa | 1.8000 | 6300.0 | 68 | 846 | No |
| 34 | GOM_NL__2PRFIN20020429_050701_000000412005_00291_00846_0909.N1 | 29-APR-2002 05:07:01 | Bright | 41.000 | 119 | 14Eta Dra | 2.7270 | 4700.0 | 82 | 846 | No |
| 35 | GOM_NL__2PRFIN20020429_051037_000000312005_00291_00846_0910.N1 | 29-APR-2002 05:10:37 | Bright | 31.000 | 49 | 1Alp UMi | 1.9900 | 6300.0 | 62 | 846 | No |
| 36 | GOM_NL__2PRFIN20020429_051833_000000322005_00291_00846_0911.N1 | 29-APR-2002 05:18:33 | Bright | 31.500 | 76 | 27Gam Cas | 2.3000 | 30000. | 63 | 846 | No |

3. Quality information per product

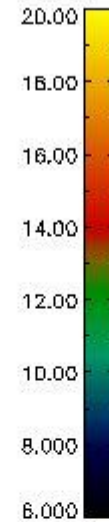
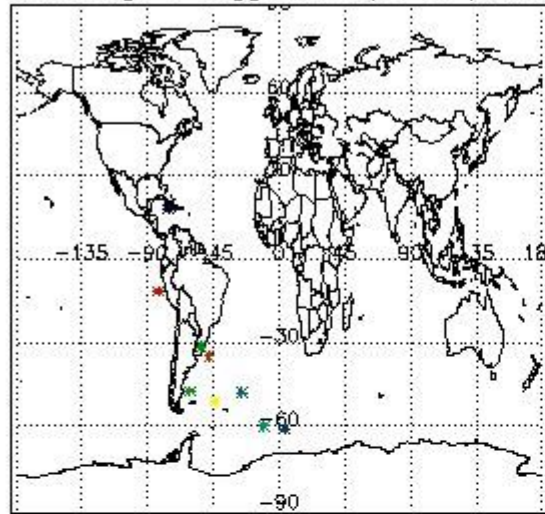
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

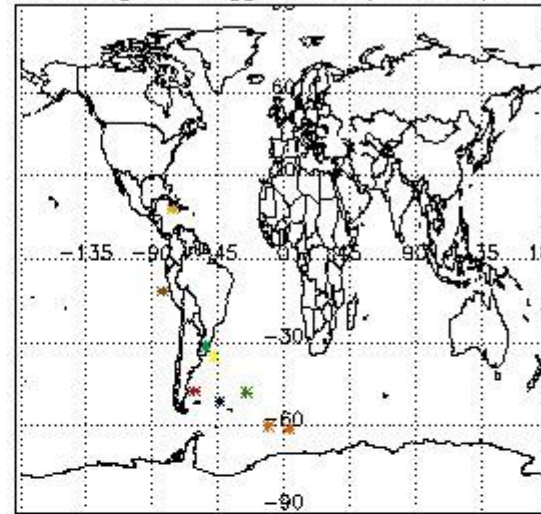


3.2 Plot quality information per product (world map)

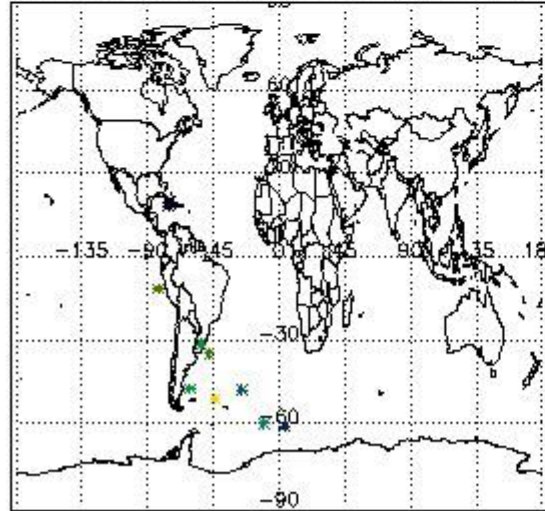
Percentage of flagged data per O3 profile



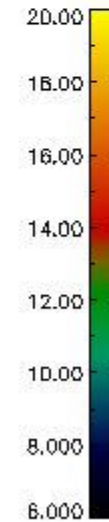
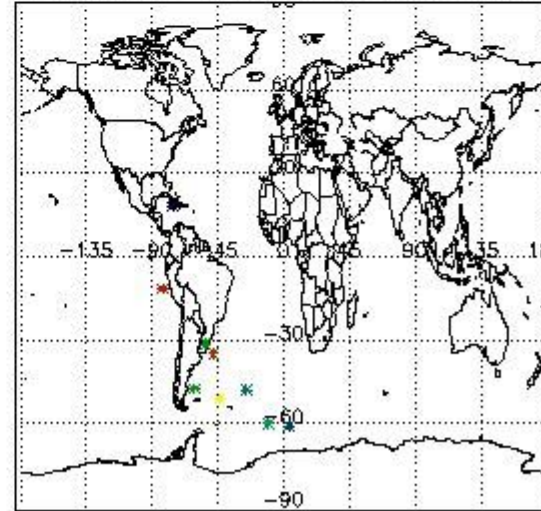
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

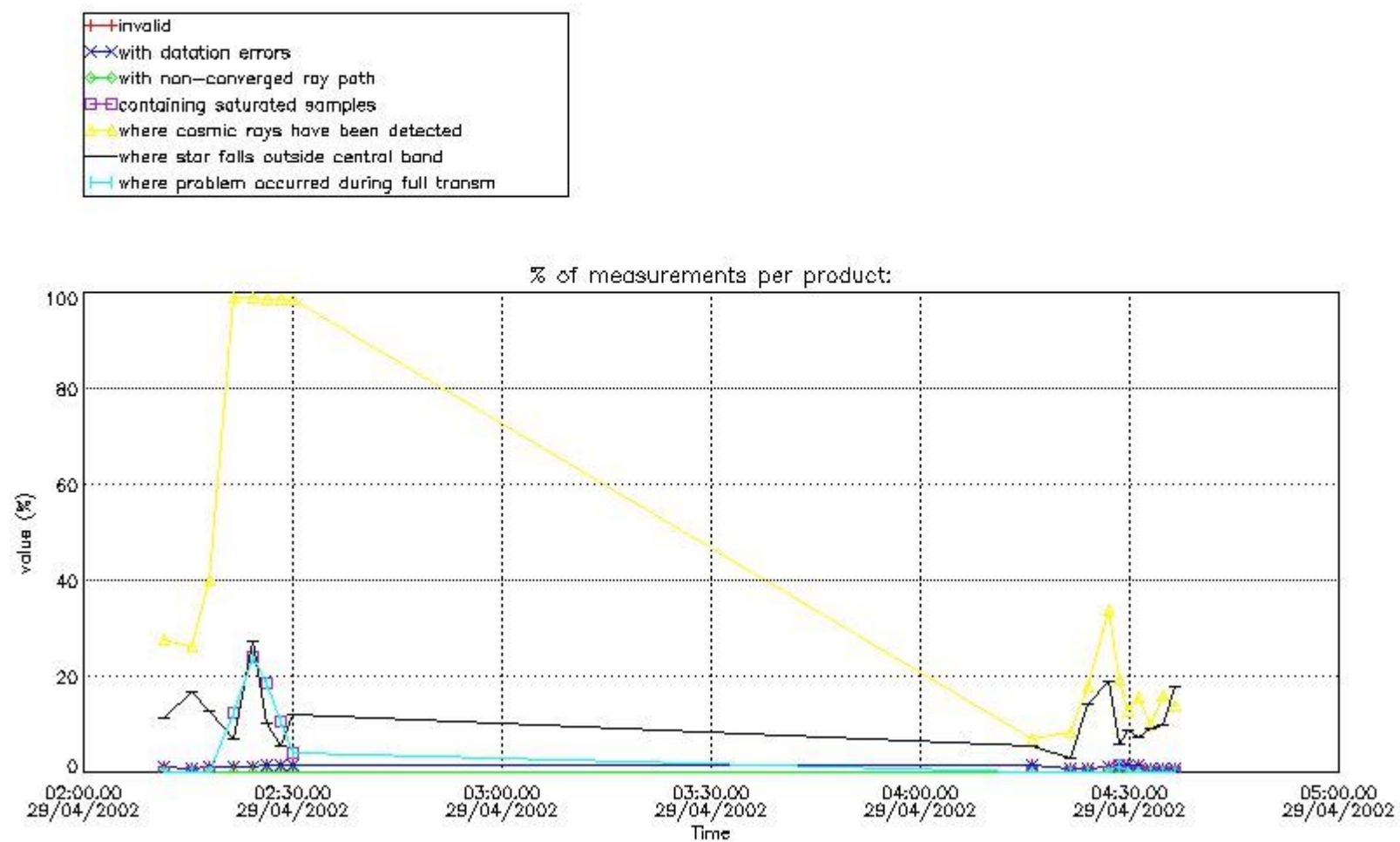


4. Level 1 quality information per product

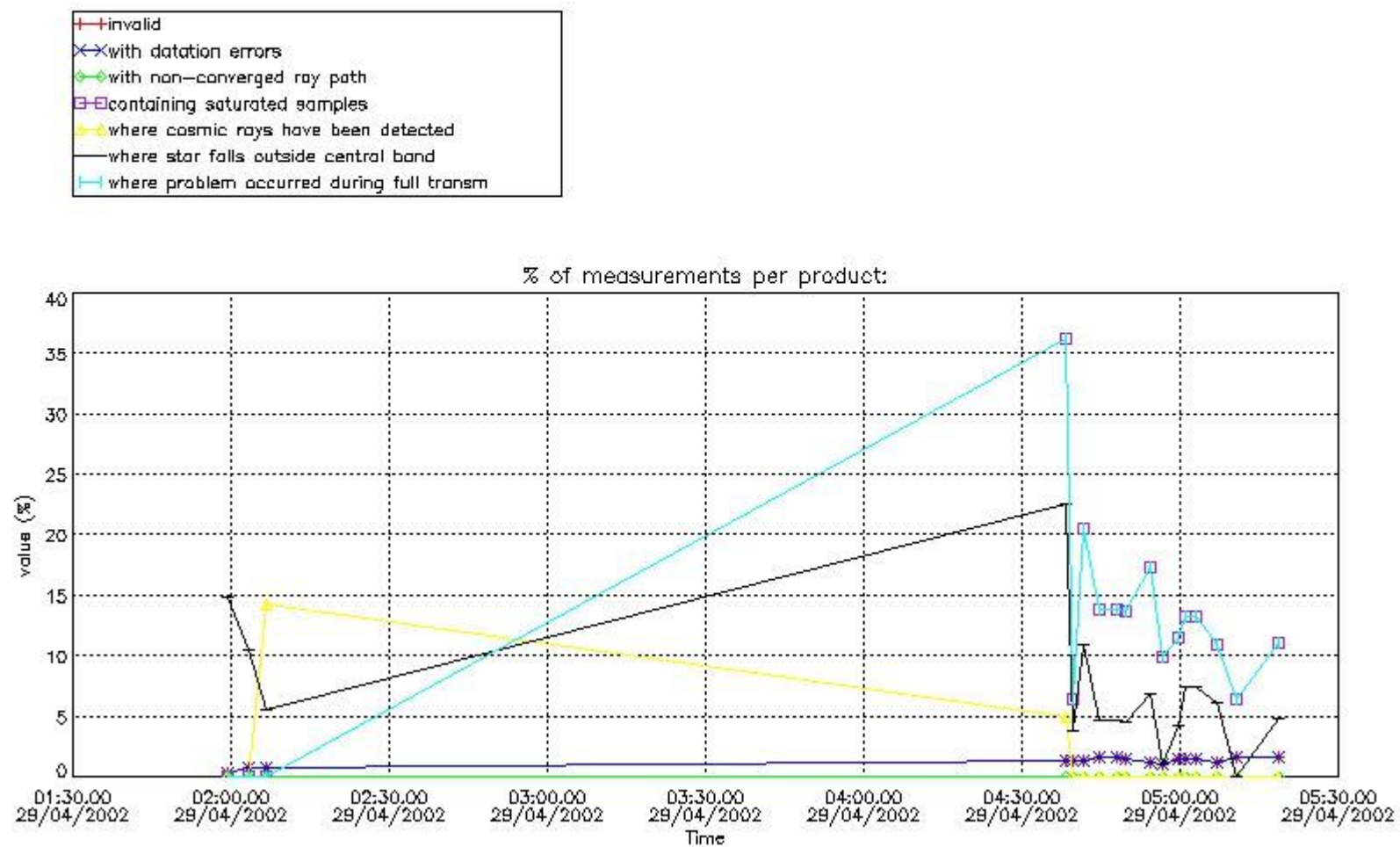
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



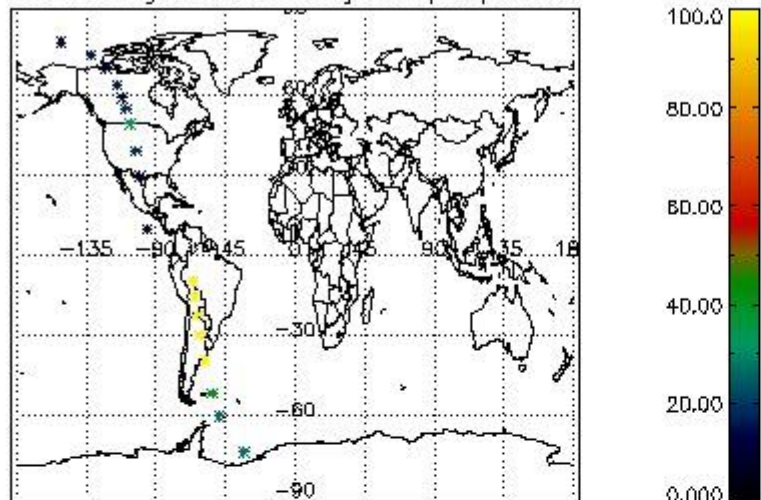
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



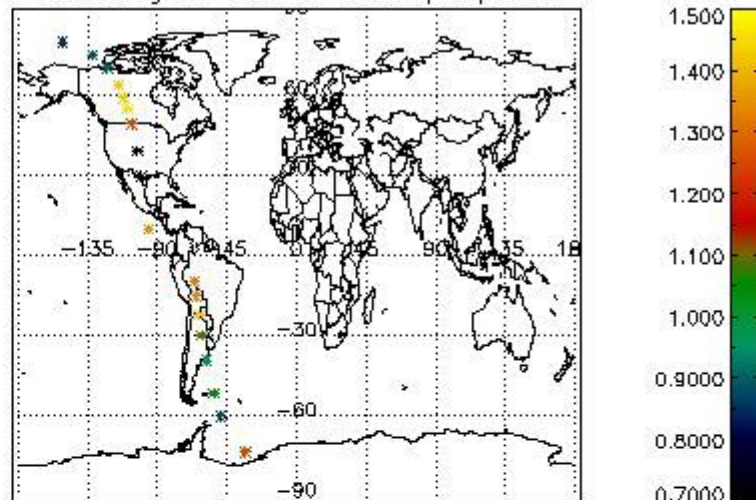
4.2 Plot quality information per product coming from level 1b processing (world map)

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

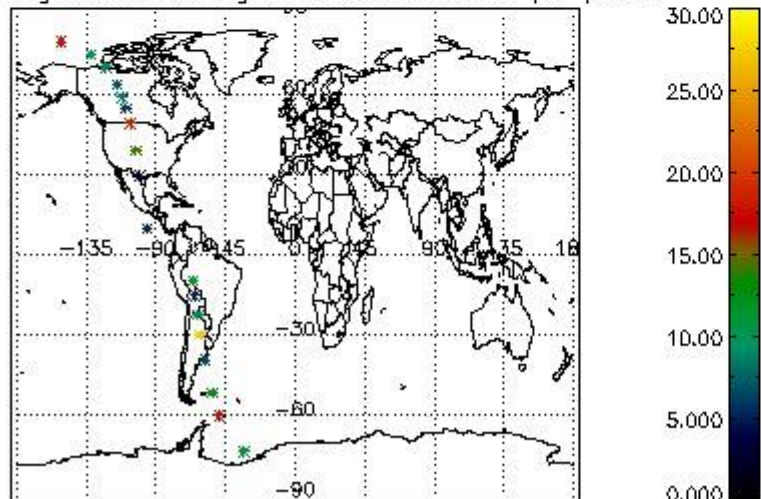
Percentage of cosmic ray hits per profile



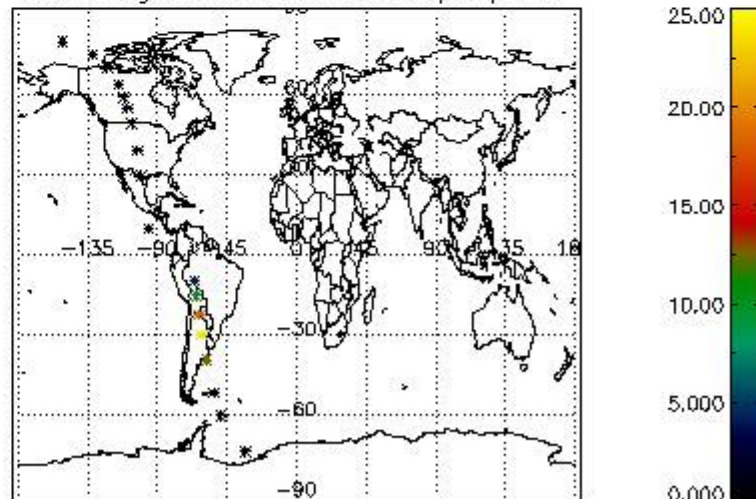
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

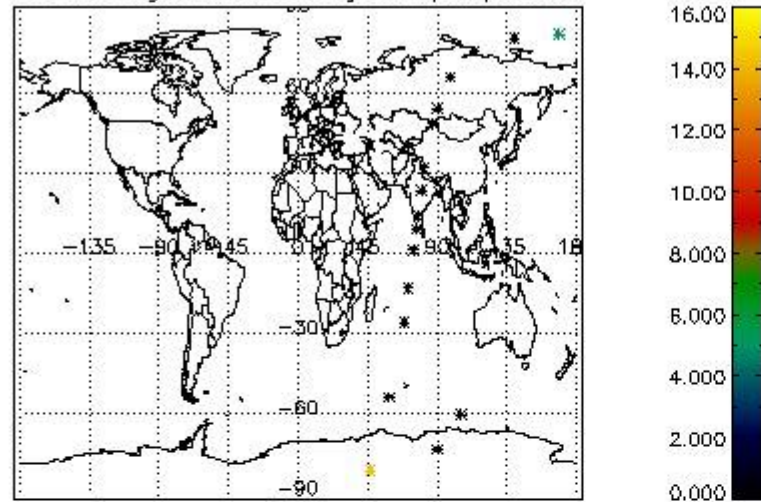


Percentage of saturation errors per profile

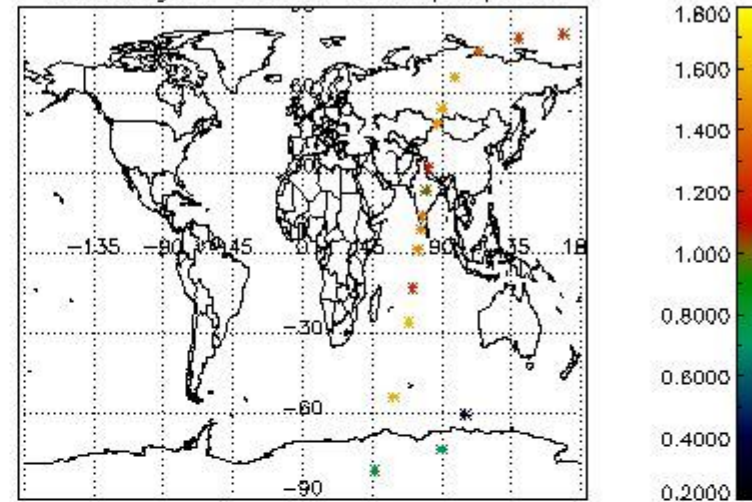


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

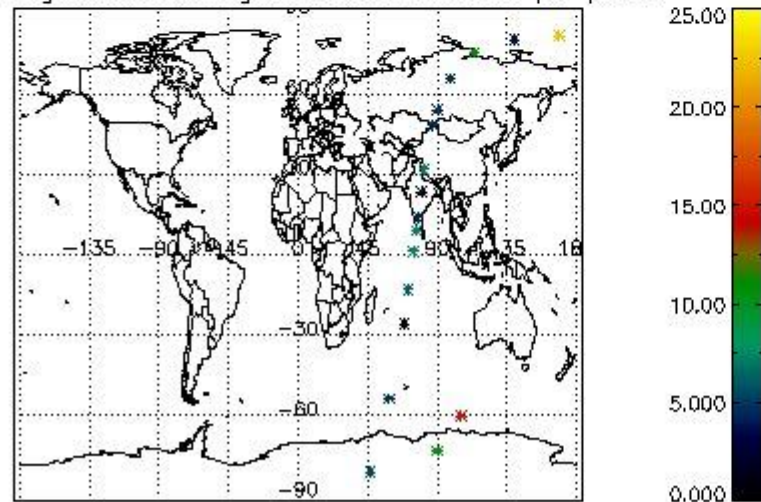
Percentage of cosmic ray hits per profile



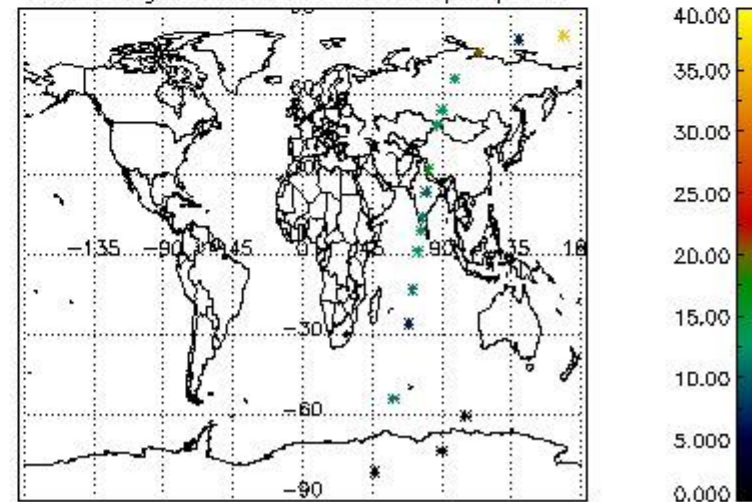
Percentage of datation errors per profile



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

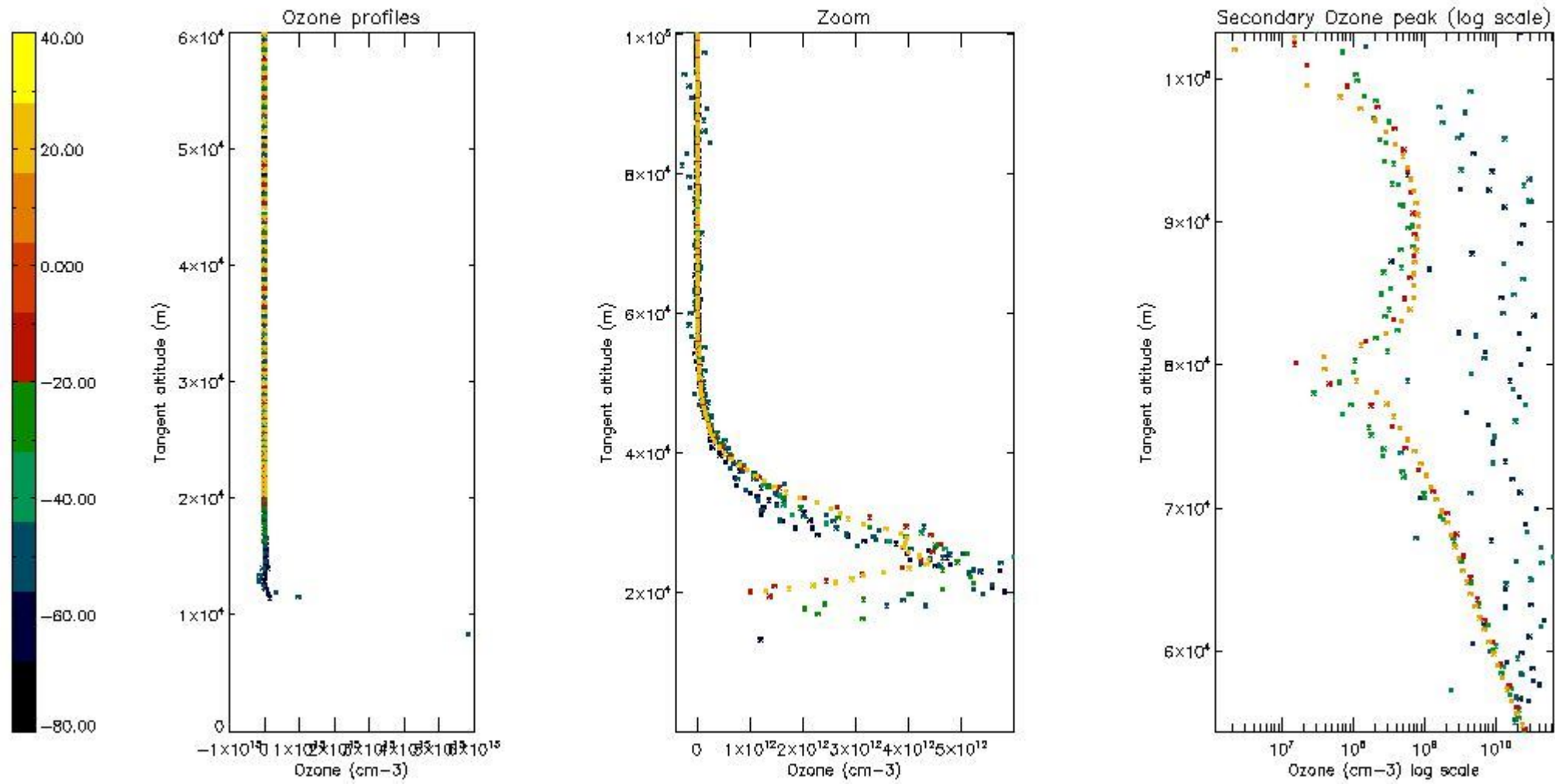
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

| Criteria | % of total production |
|----------|-----------------------|
| All STD | 26 |
| STD < 20 | 13 |

| | |
|----------|----|
| STD < 10 | 10 |
| STD < 5 | 6 |

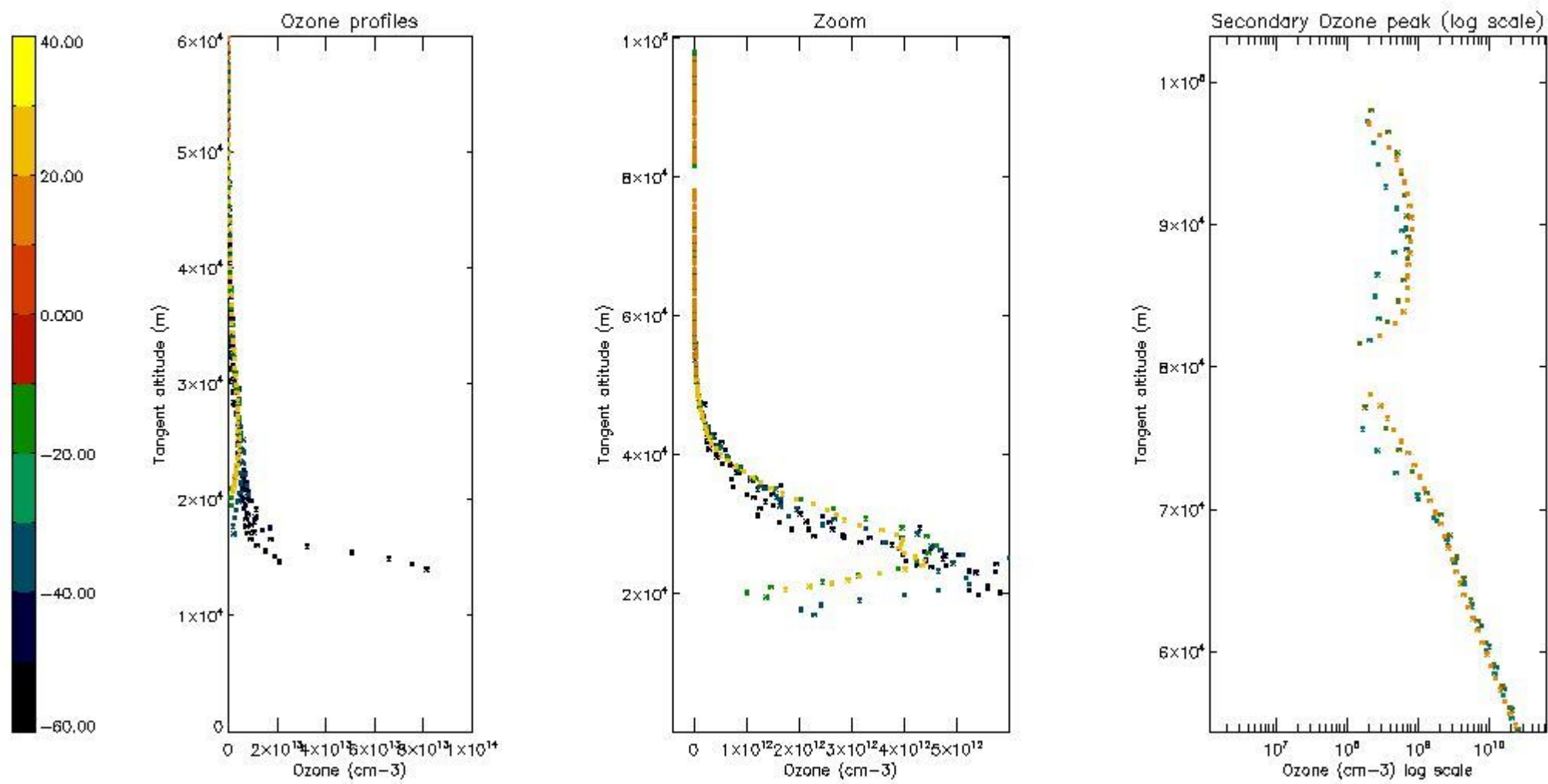
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



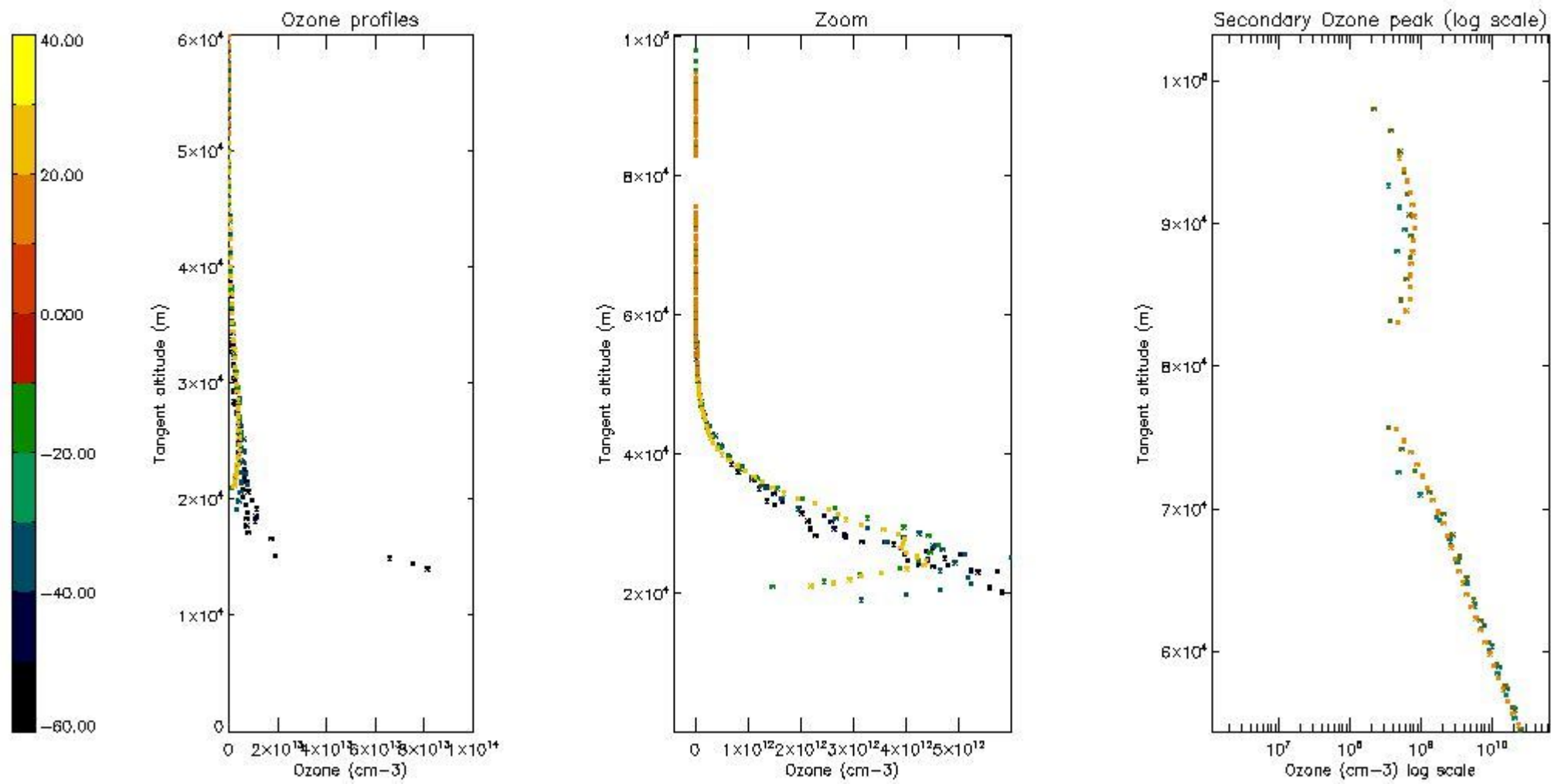
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



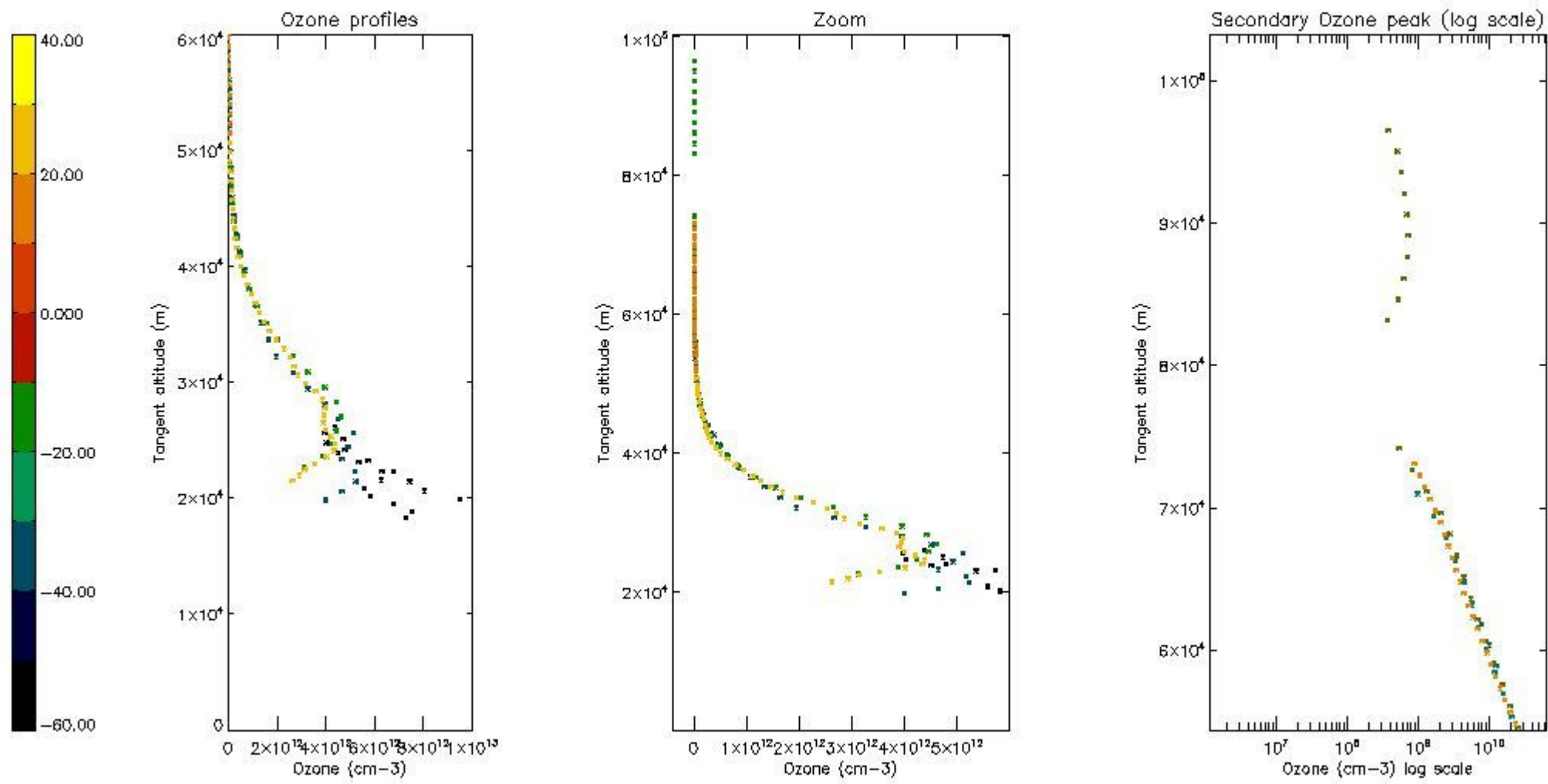
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



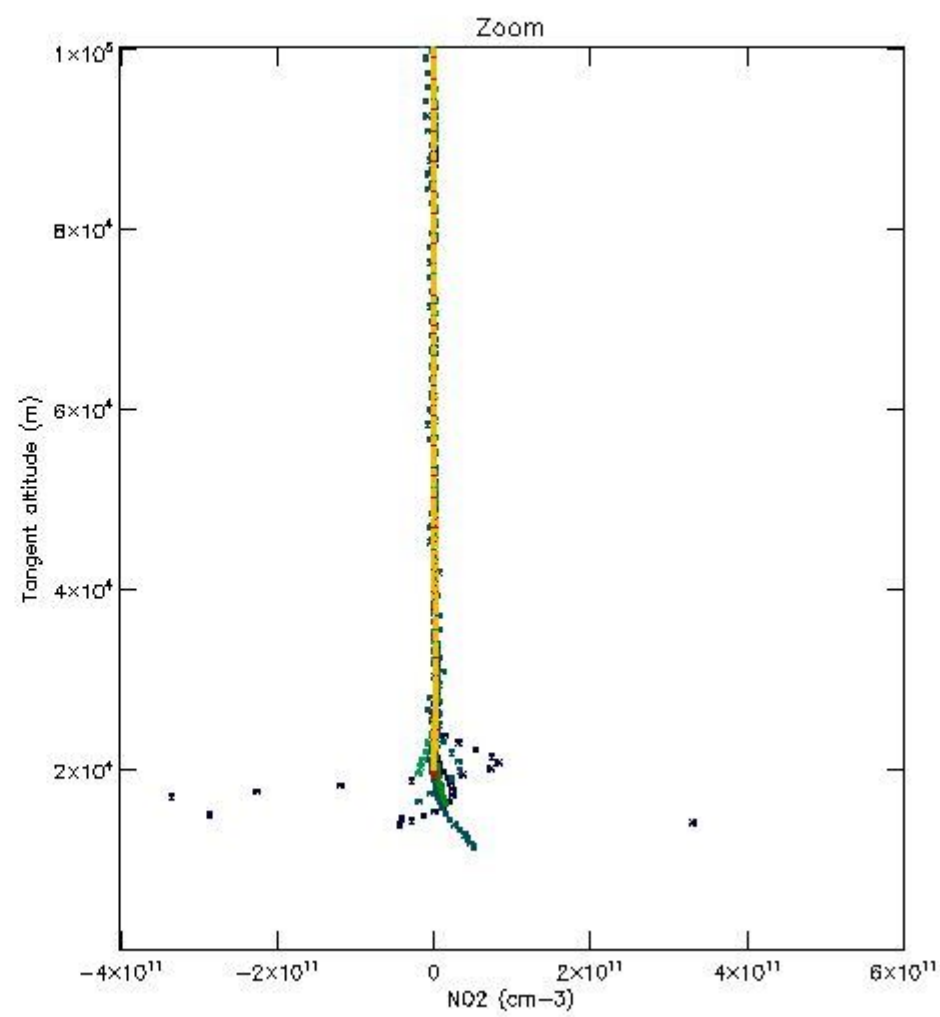
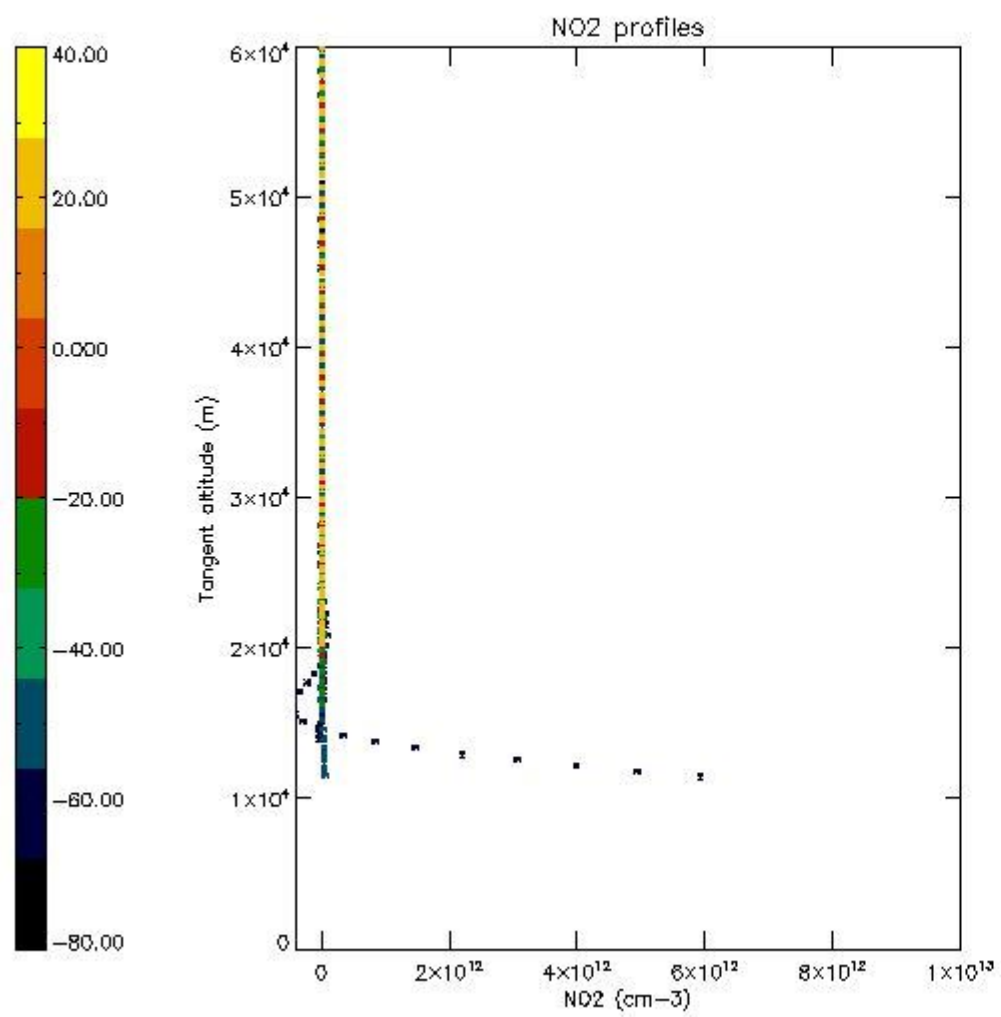
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



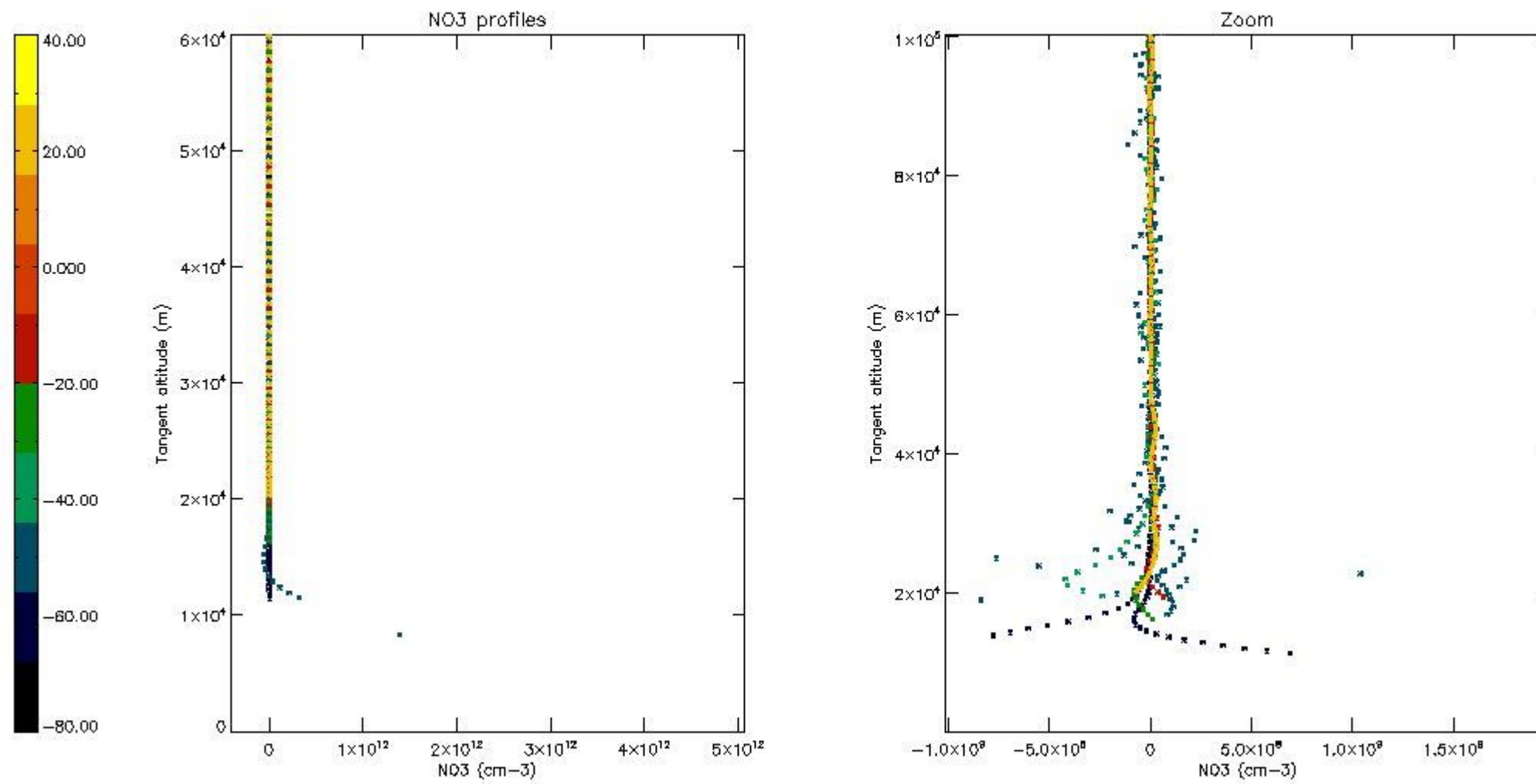
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

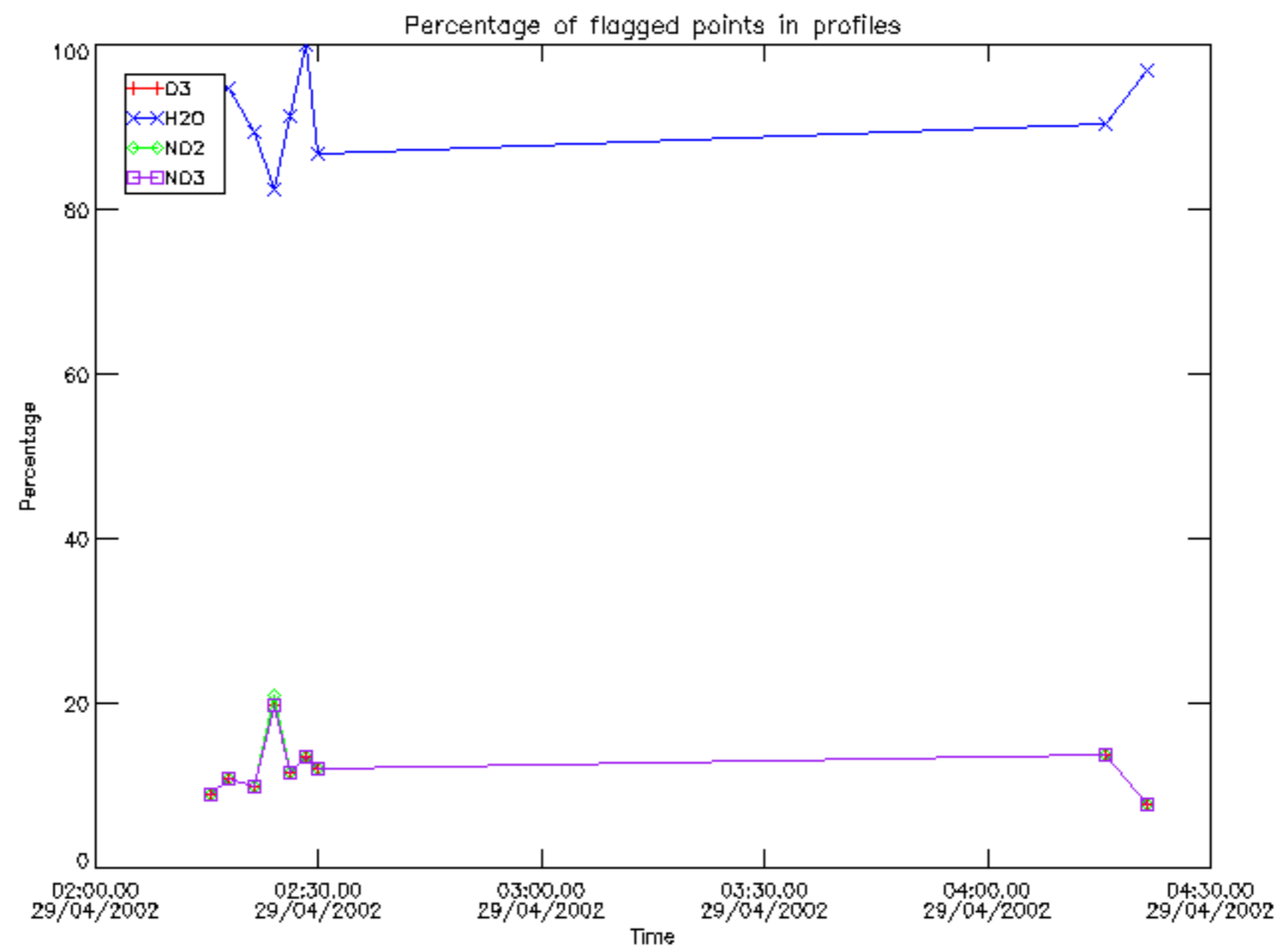
The colorbar represents the latitude.



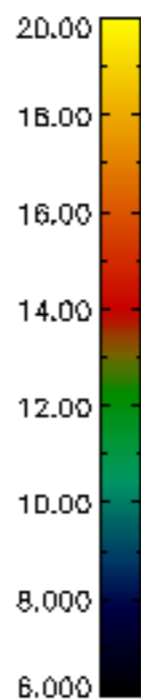
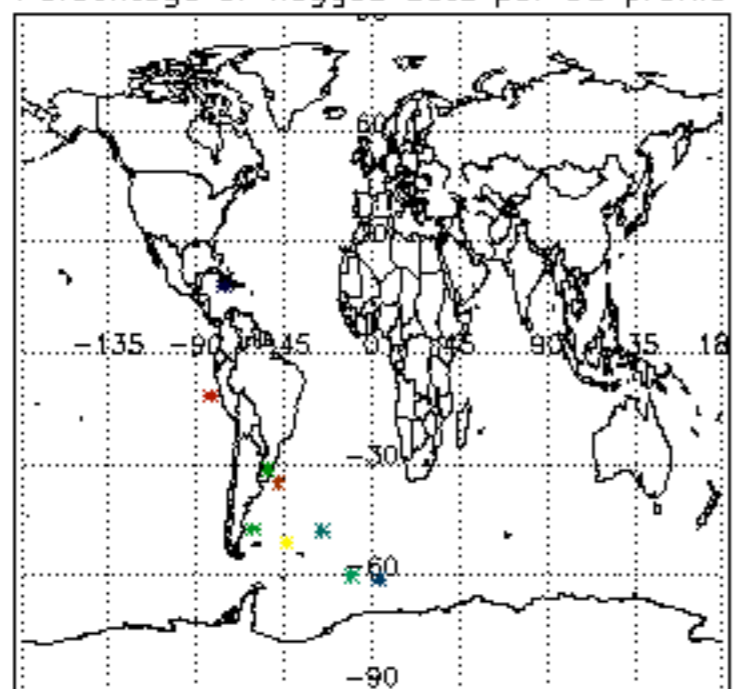
6. Auxiliary Data Files used for the production reported in section 2

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

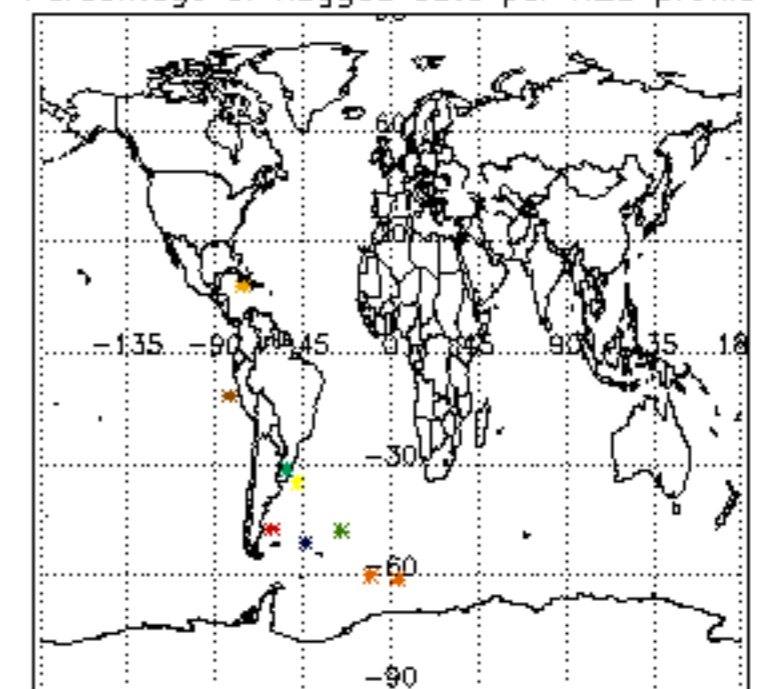
| Type | Auxiliary Filename | Used since product | Used since product date |
|---------------------------|---|--------------------|-------------------------|
| INST_PHYS_CHARACTERISTICS | GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000 | 1 | 29-APR-2002 01:57:21 |
| LEVEL-2_PROC_CONFIG | GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000 | 1 | 29-APR-2002 01:57:21 |
| CROSS_SECTIONS_FILE | GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000 | 1 | 29-APR-2002 01:57:21 |



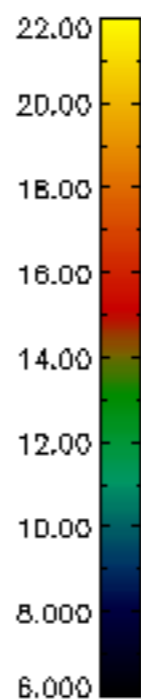
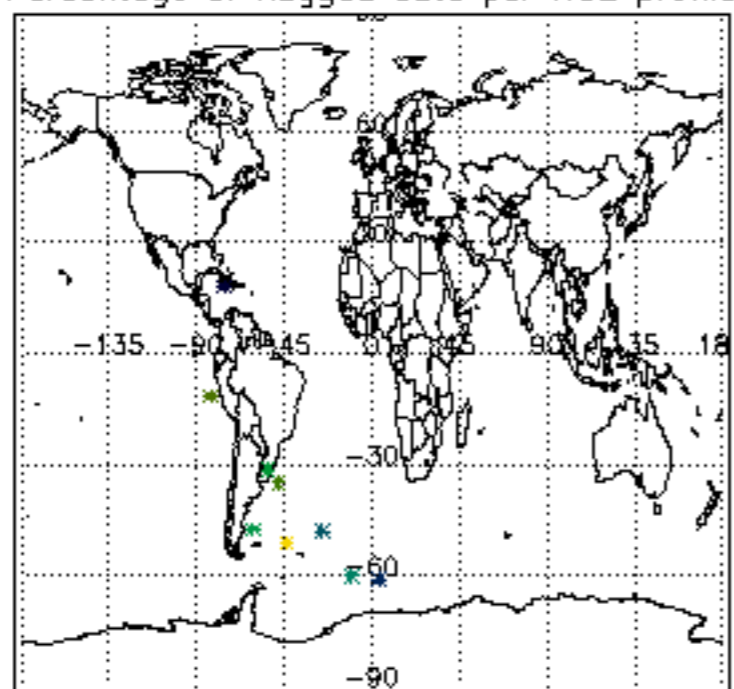
Percentage of flagged data per D3 profile



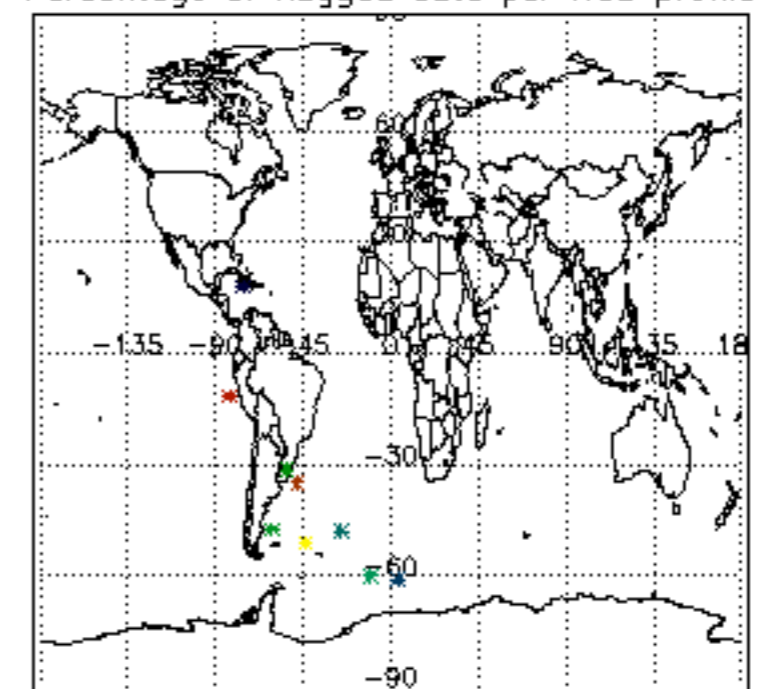
Percentage of flagged data per H2O profile

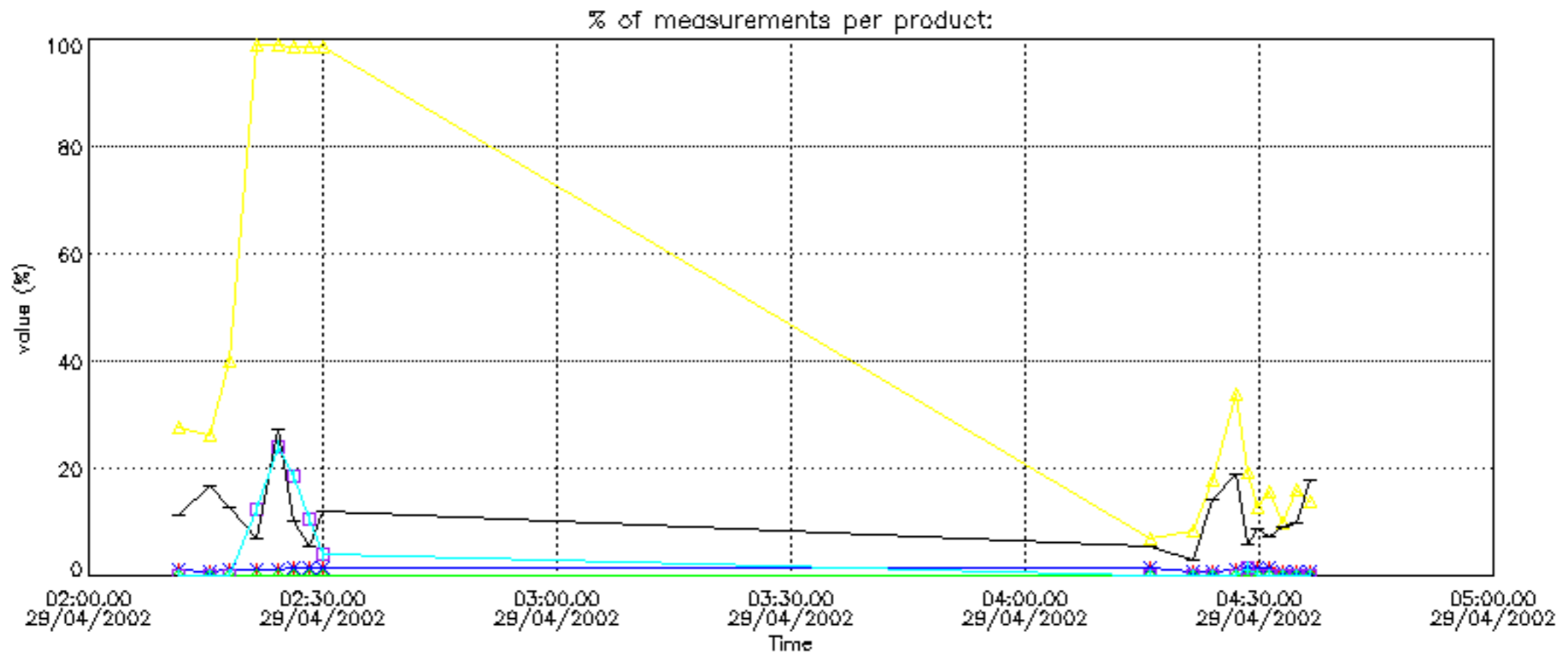


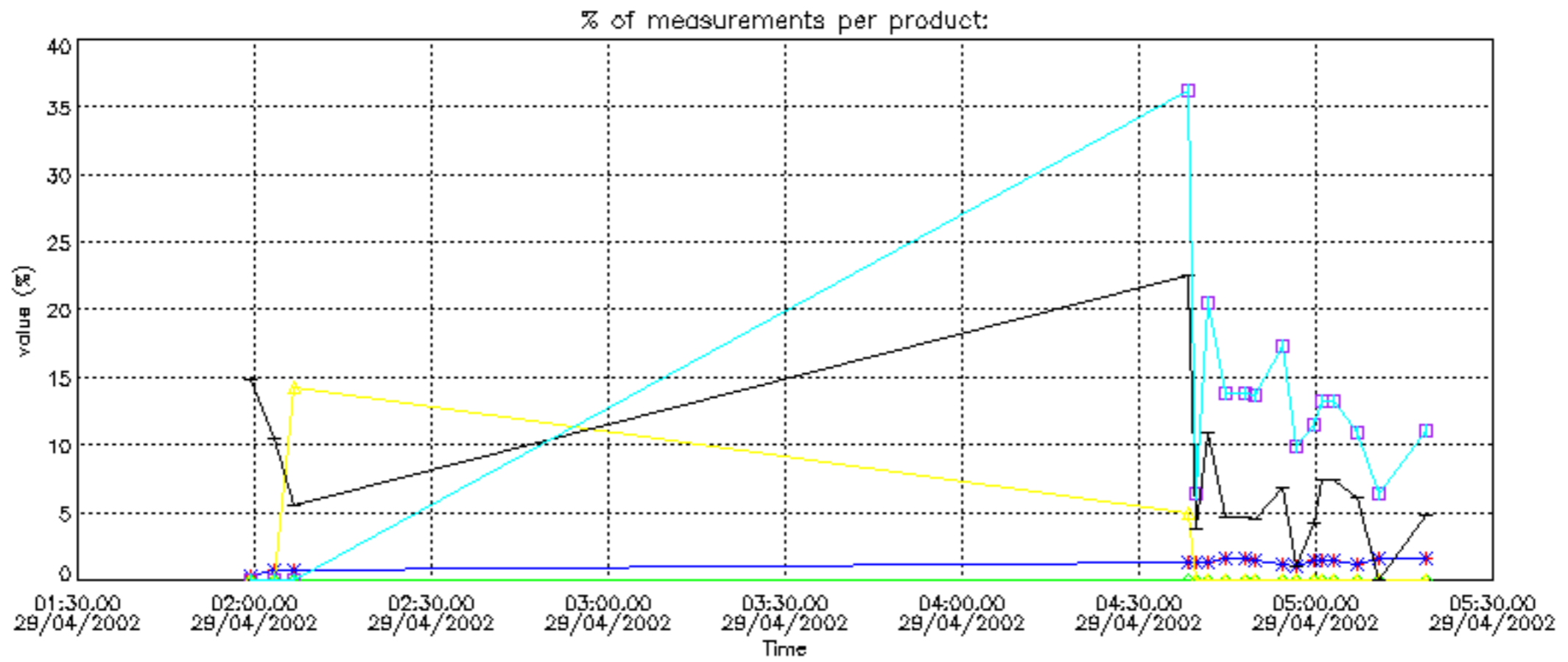
Percentage of flagged data per NO2 profile



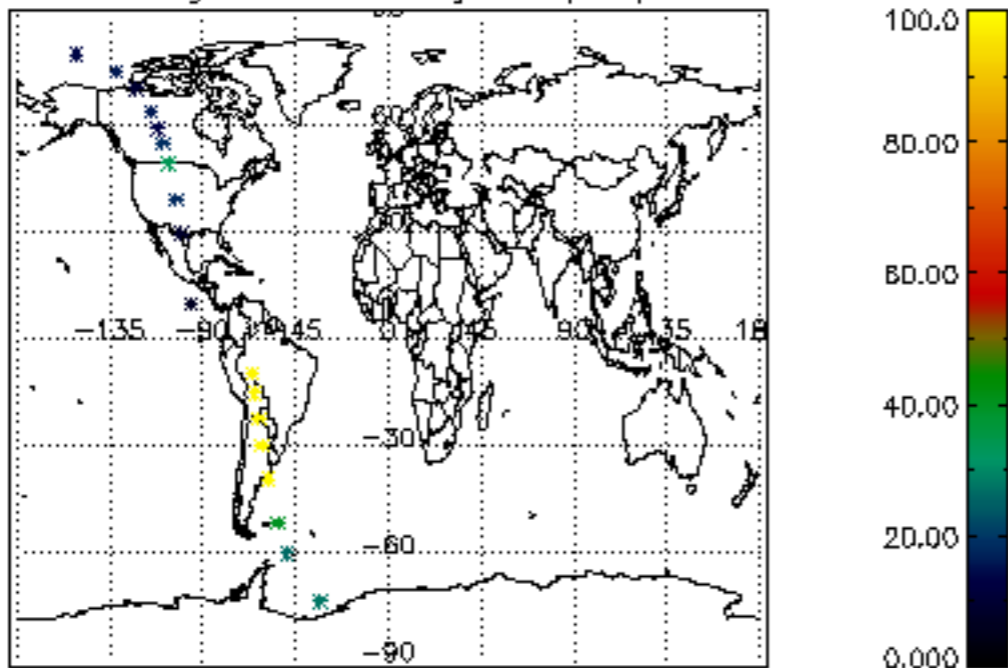
Percentage of flagged data per NO3 profile



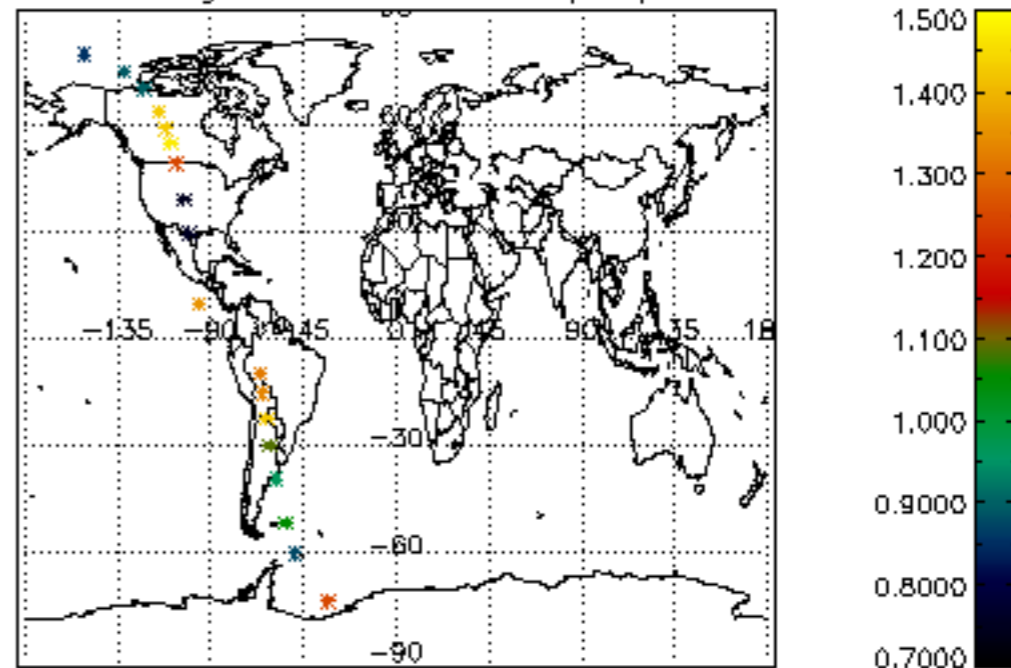




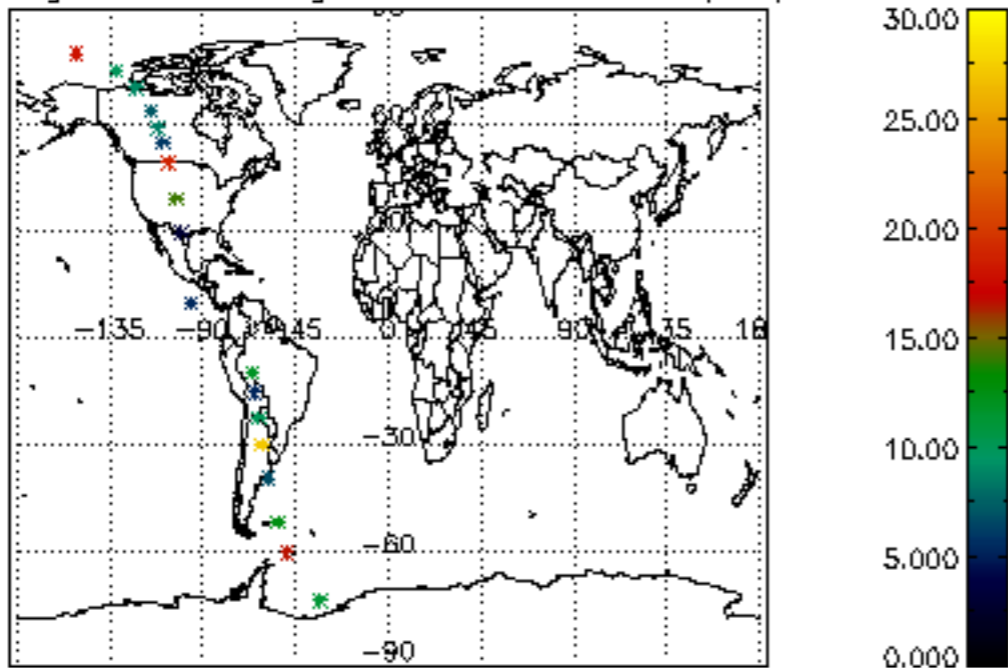
Percentage of cosmic ray hits per profile



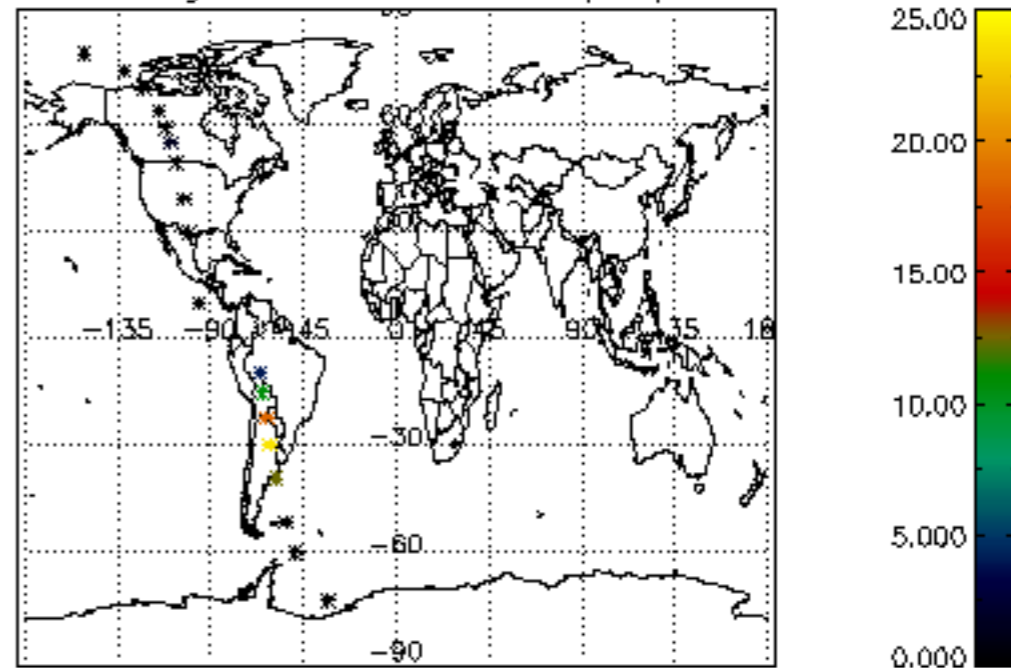
Percentage of datation errors per profile



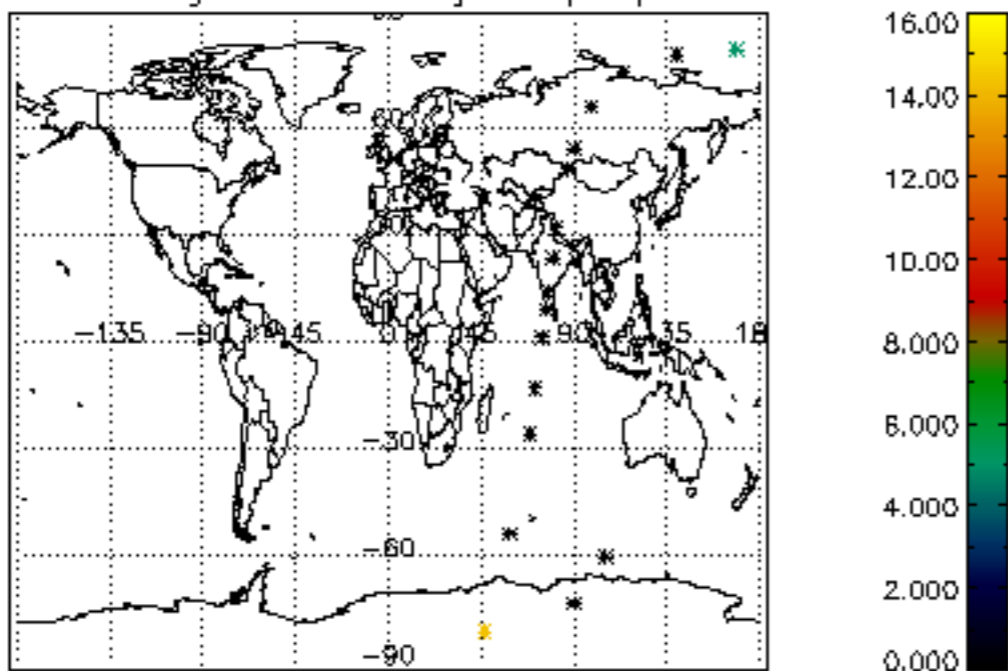
Percentage of star falling outside central band per profile



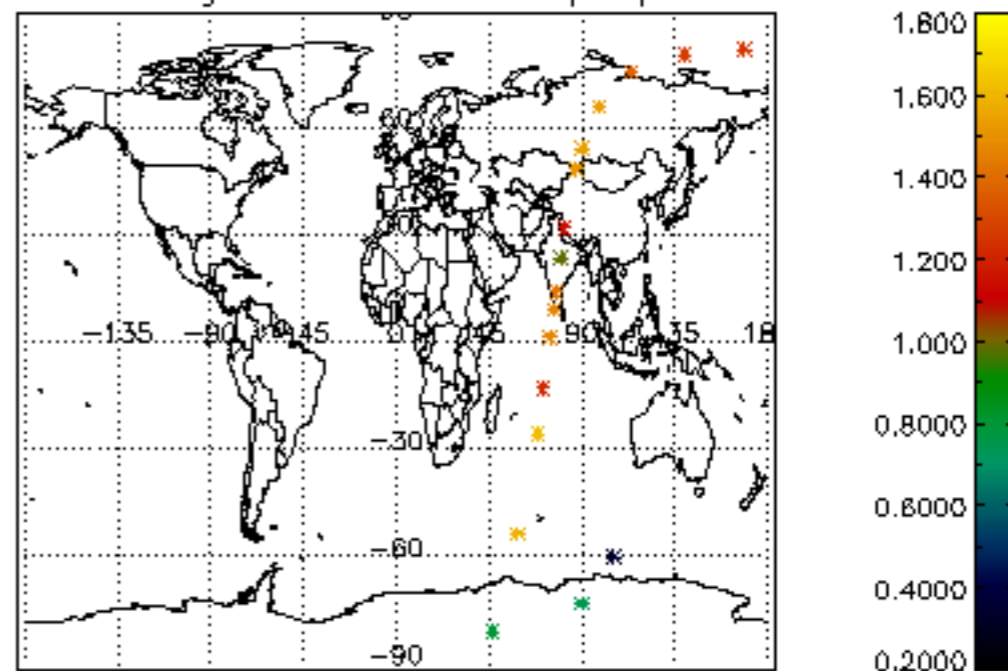
Percentage of saturation errors per profile



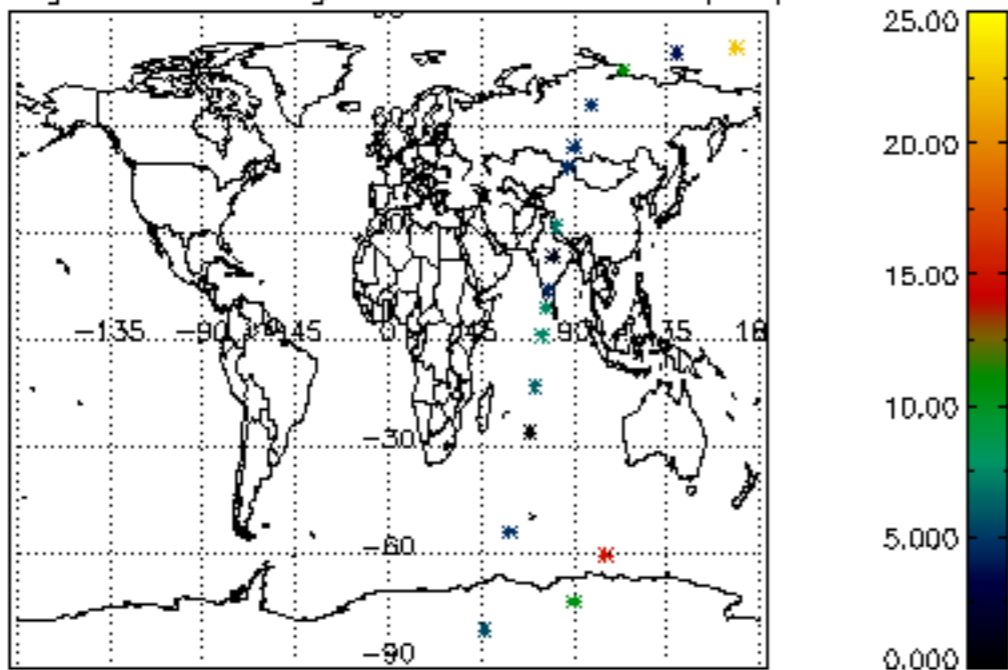
Percentage of cosmic ray hits per profile



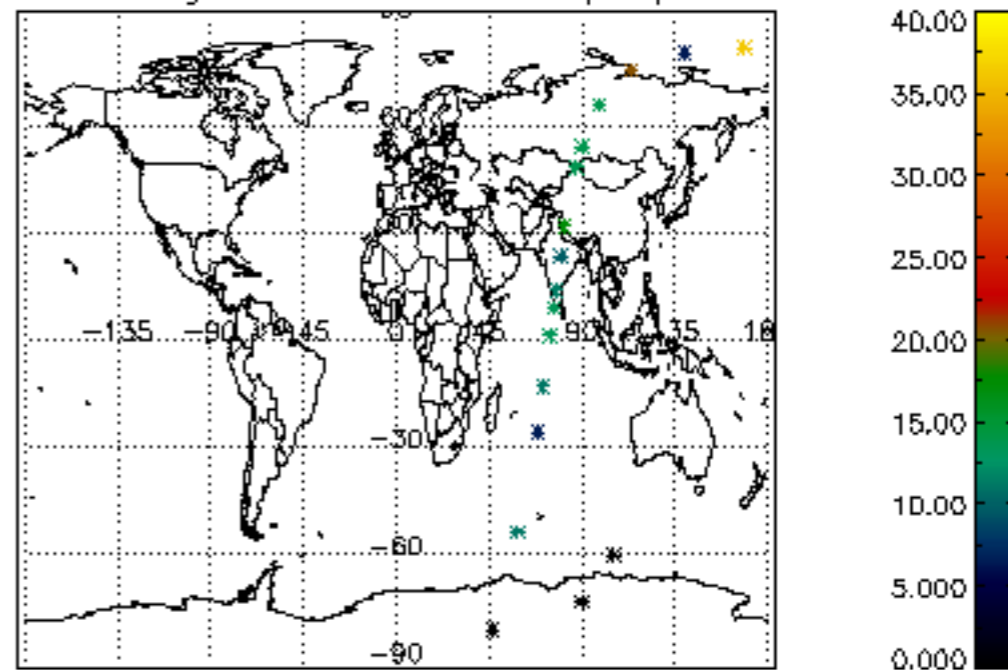
Percentage of datation errors per profile

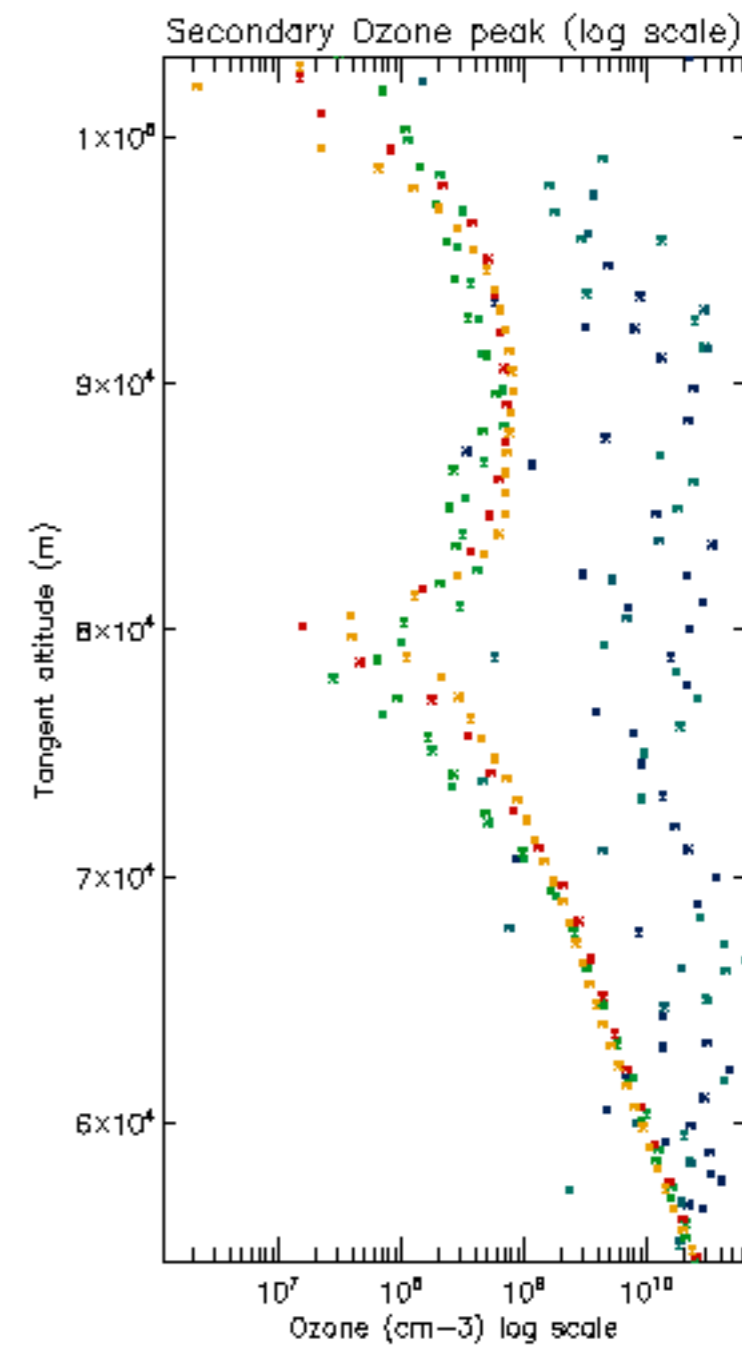
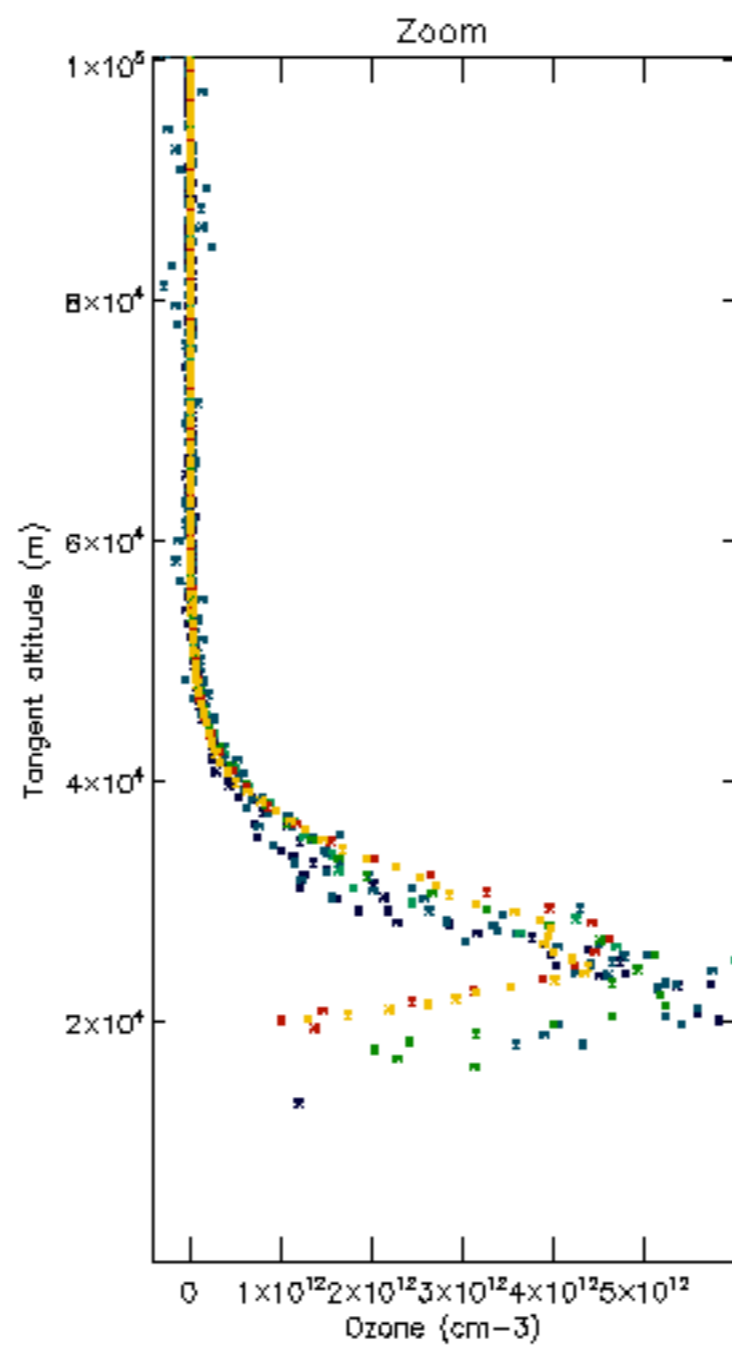
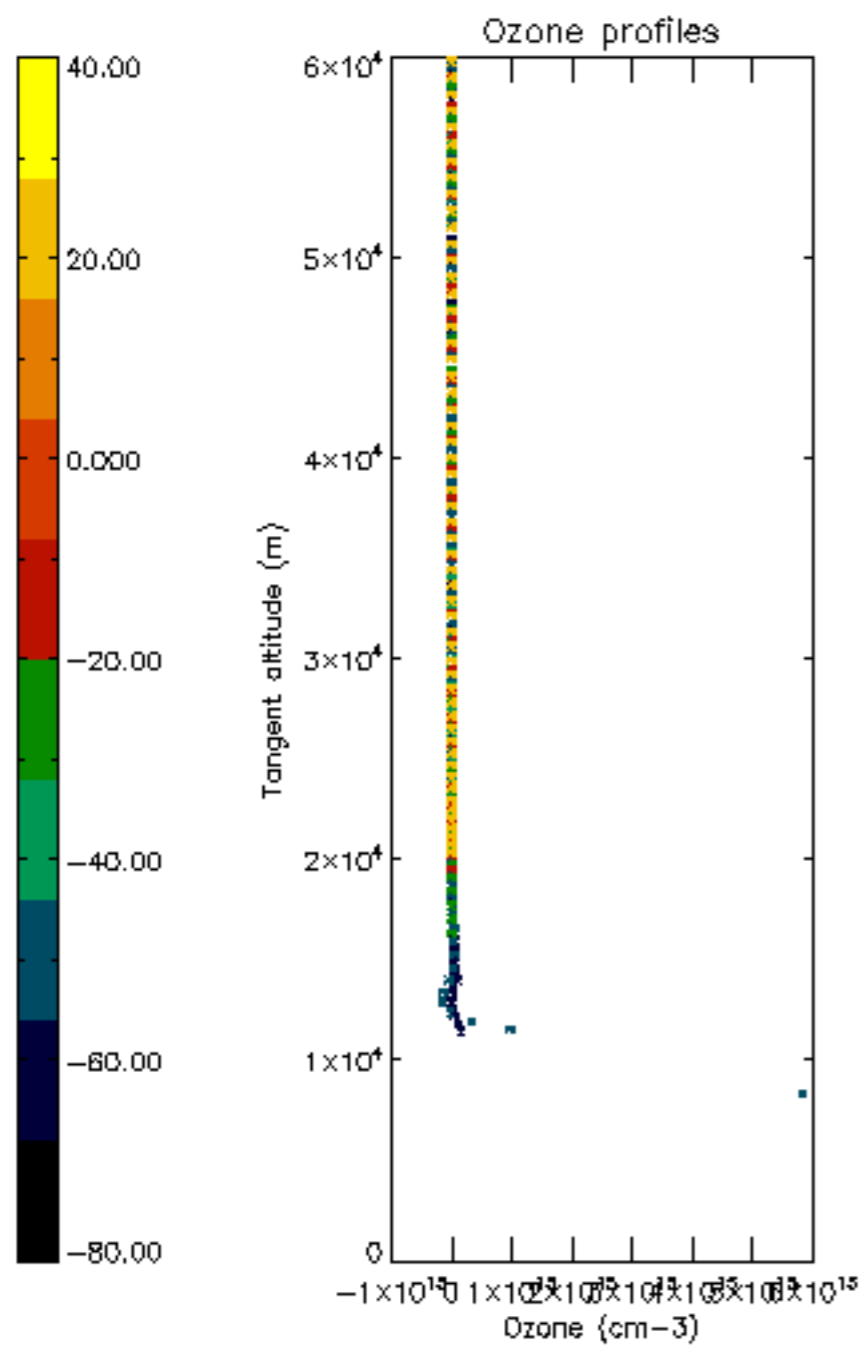


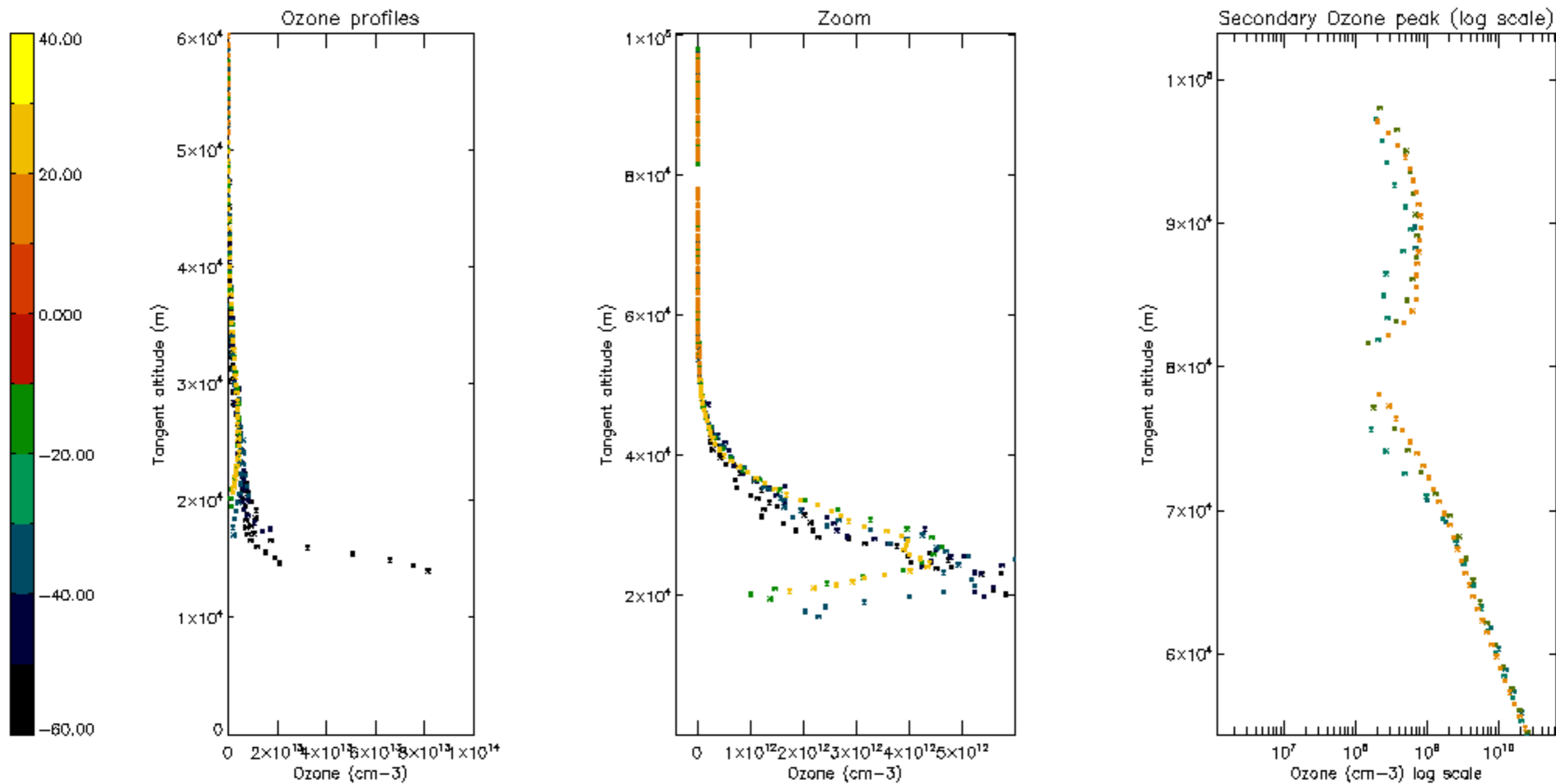
Percentage of star falling outside central band per profile

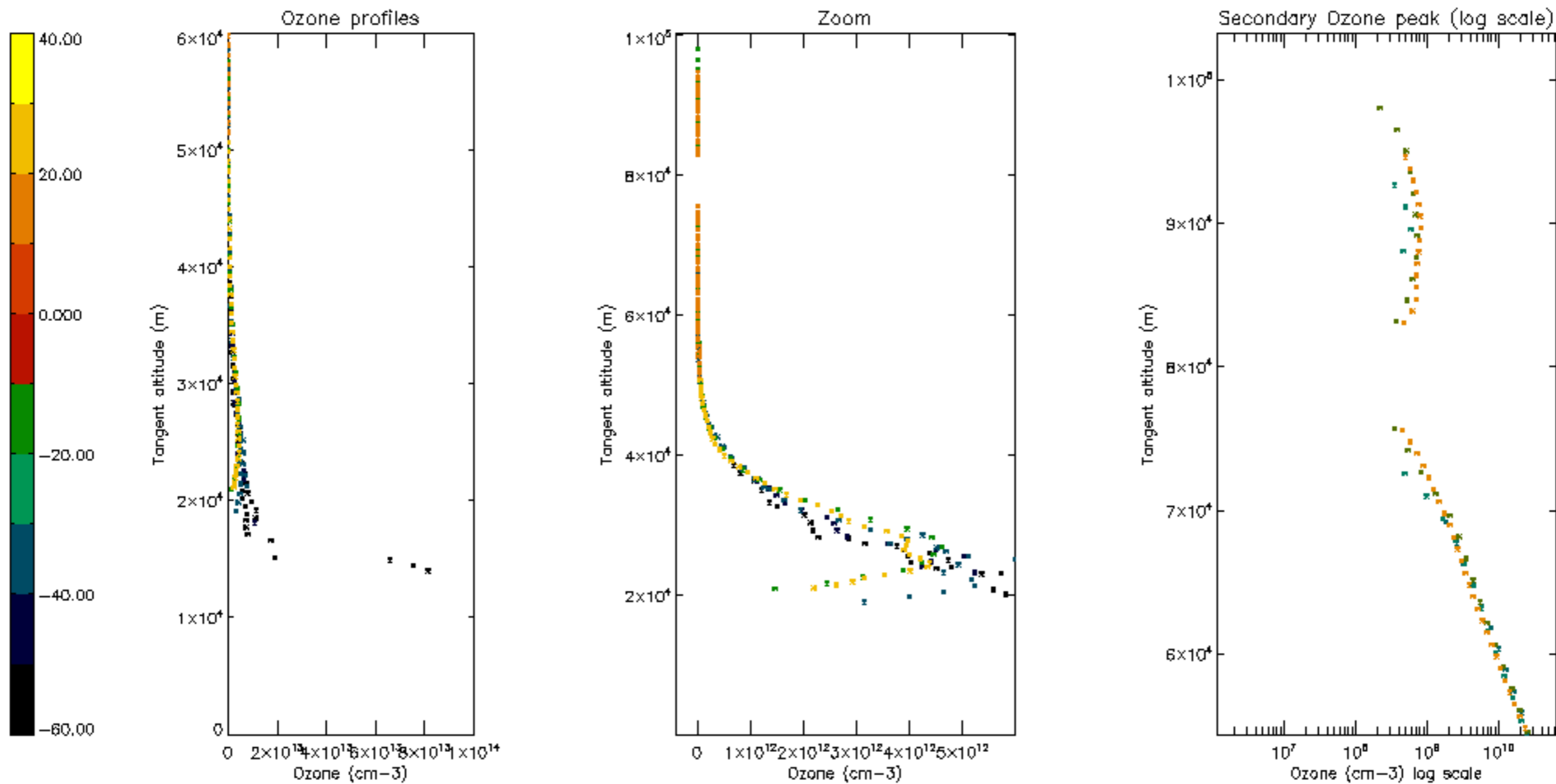


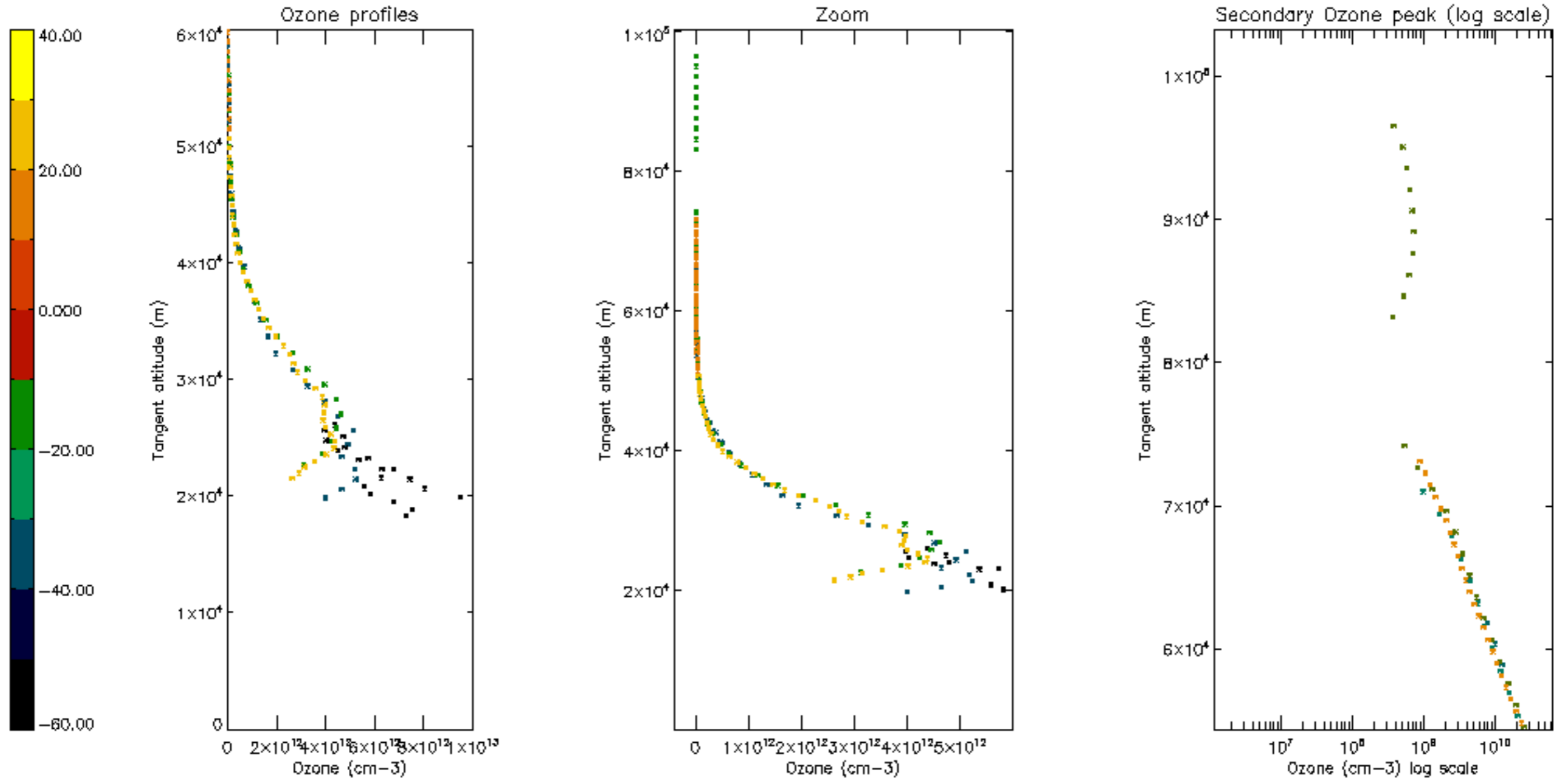
Percentage of saturation errors per profile

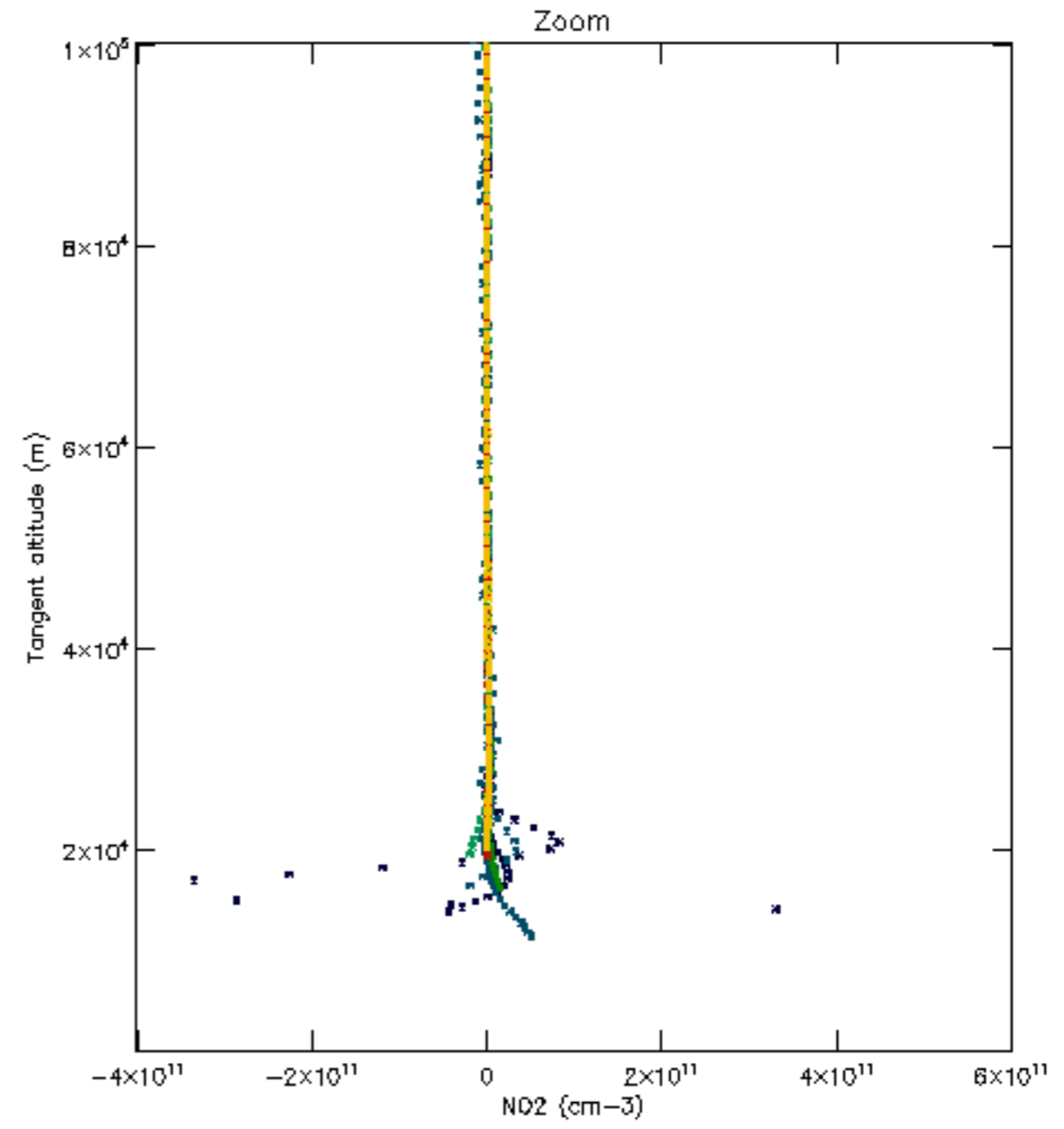
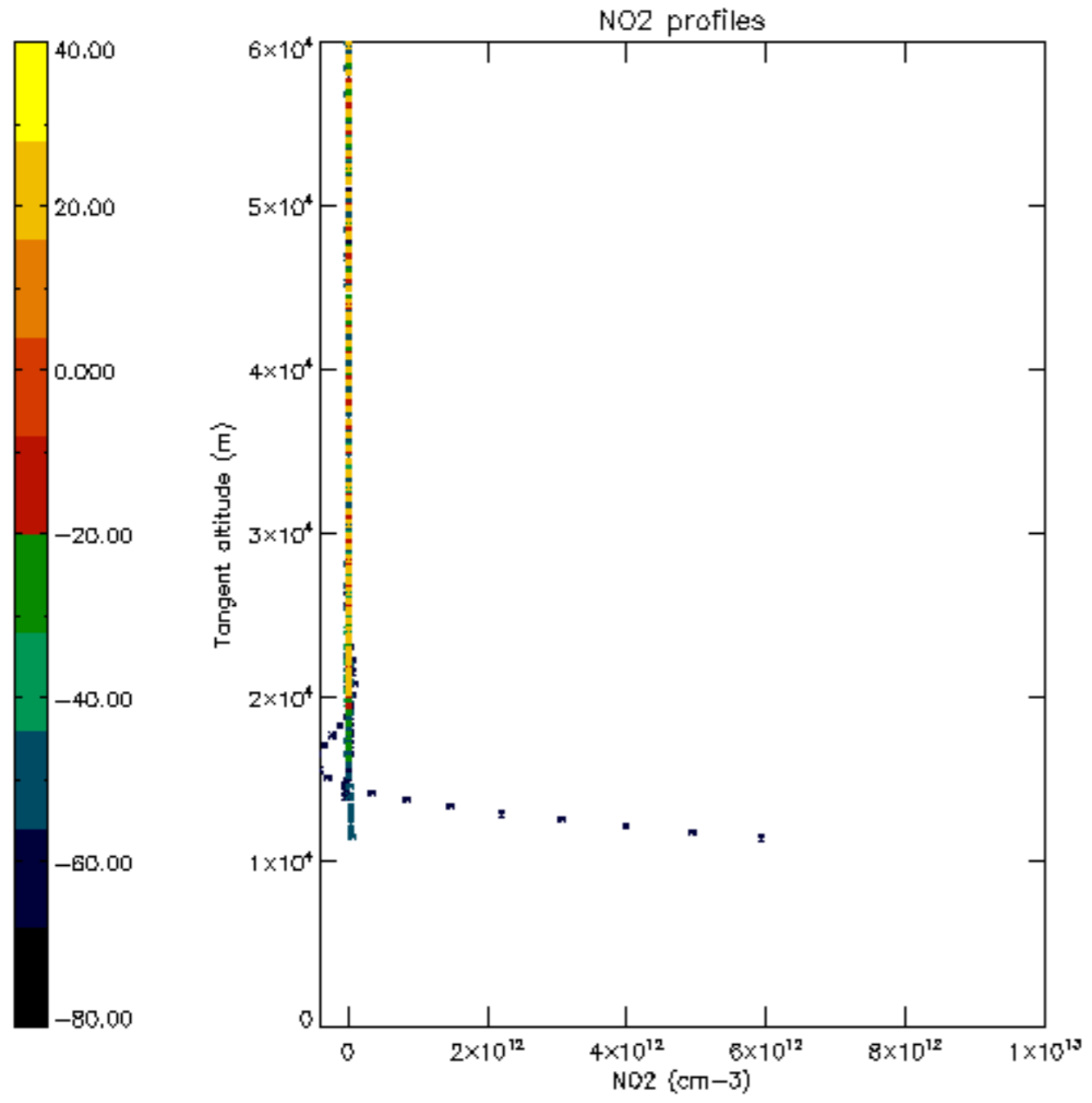


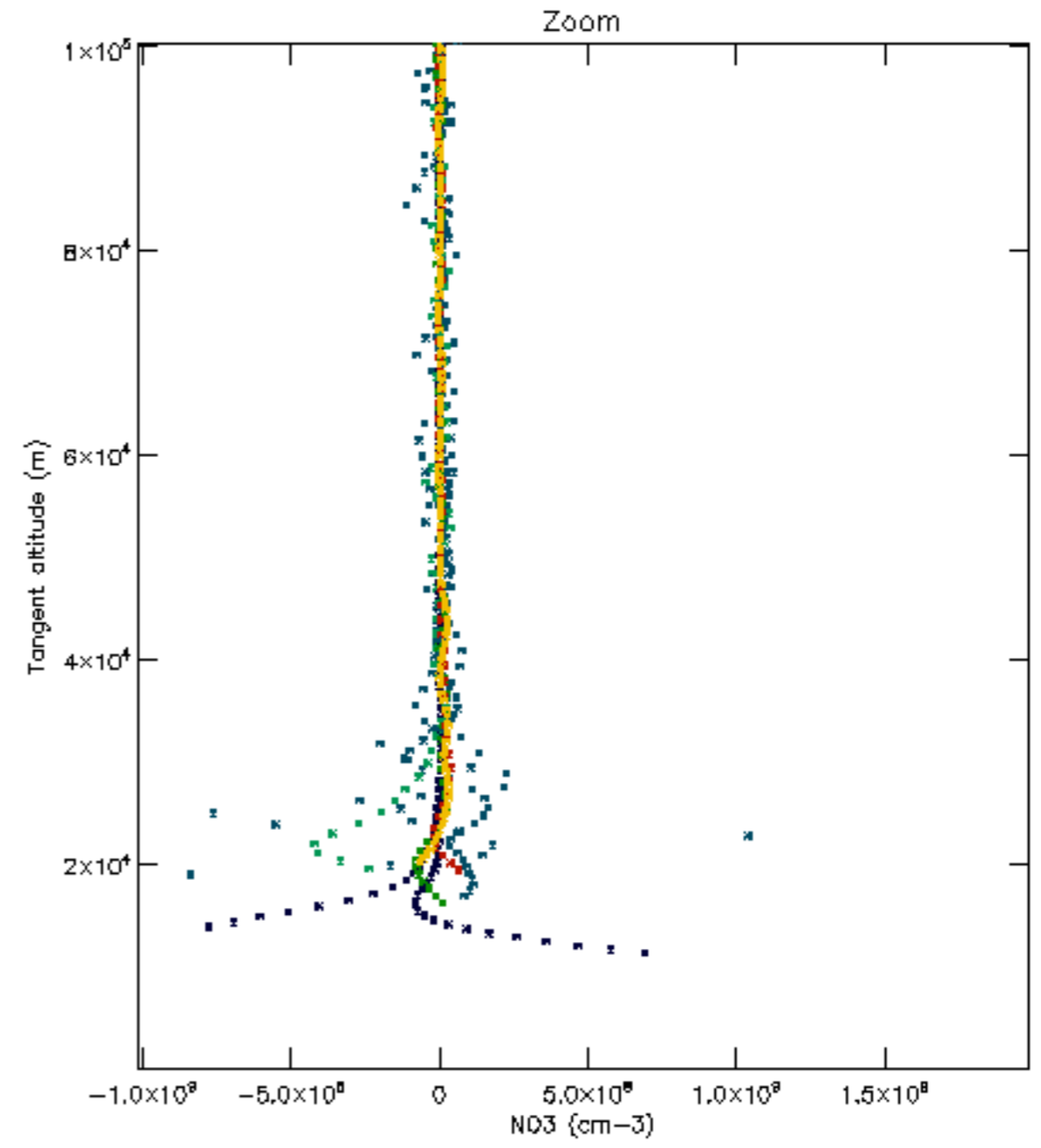
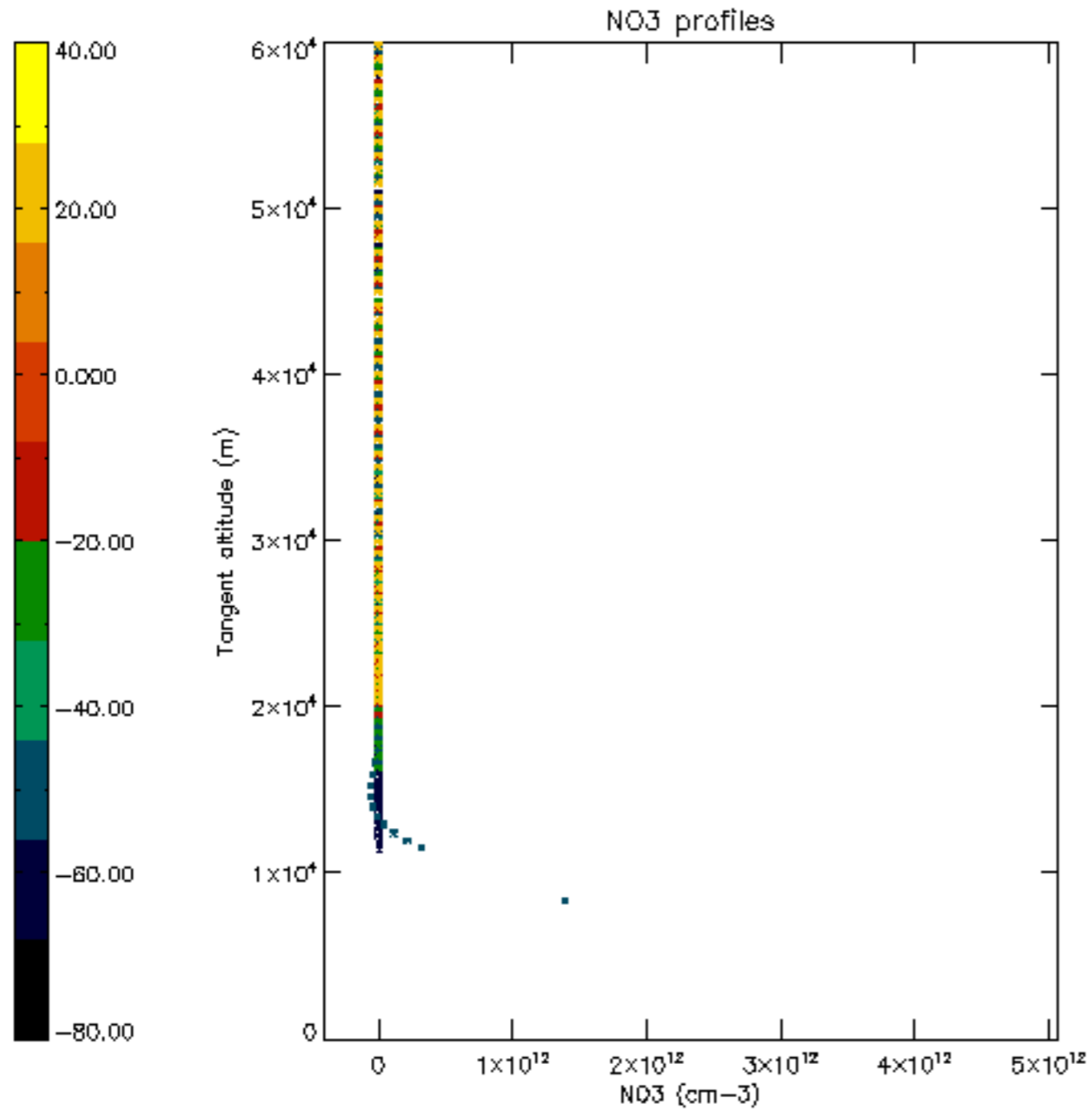


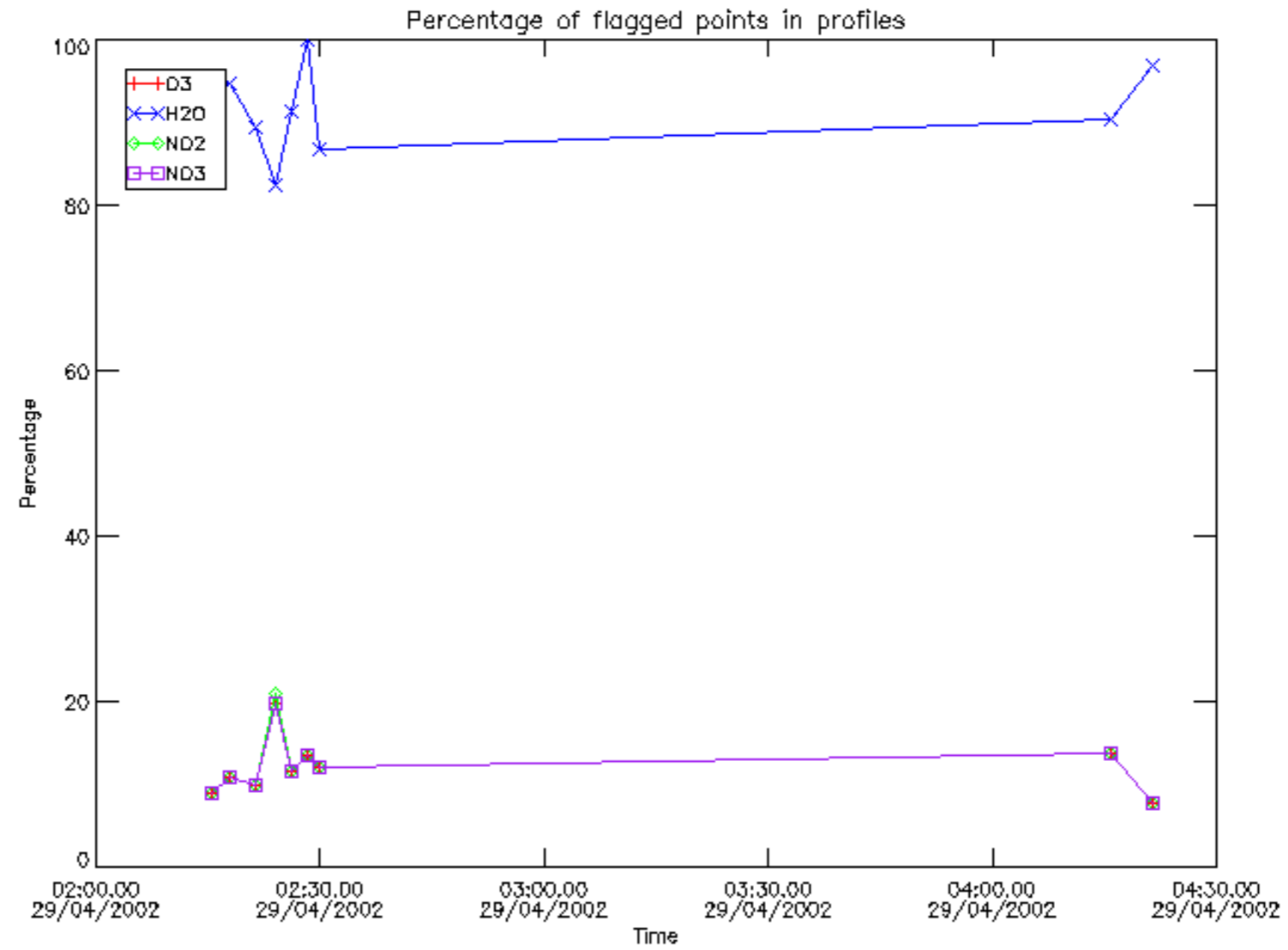




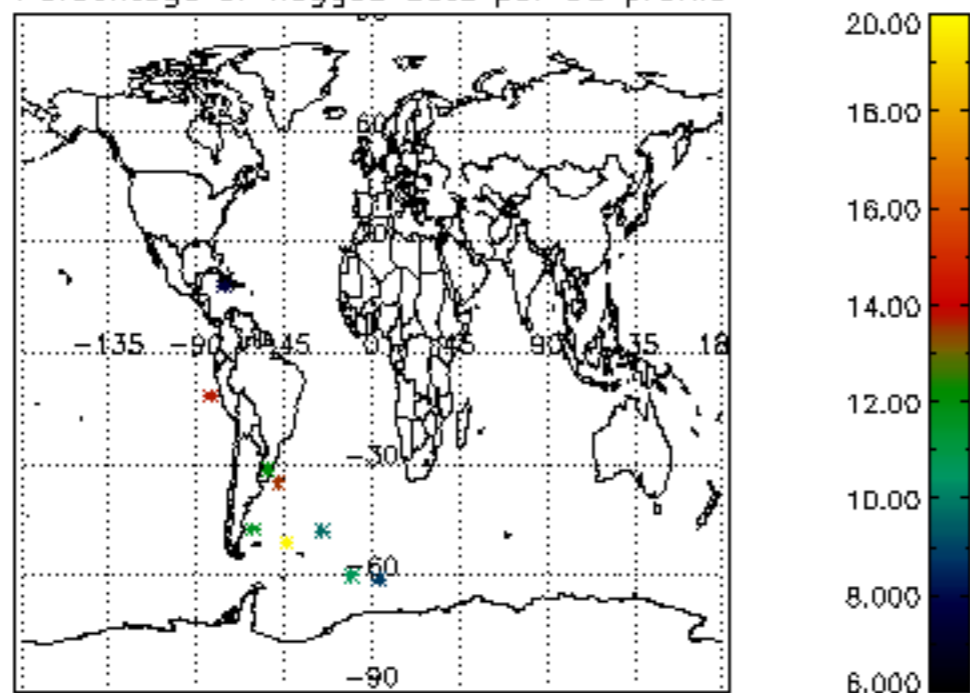




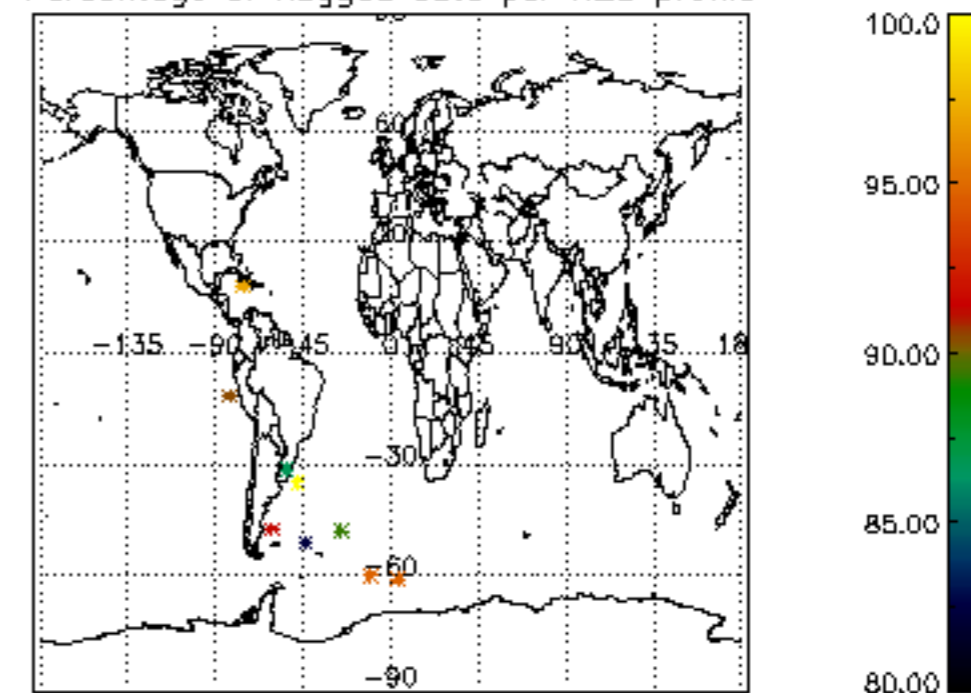




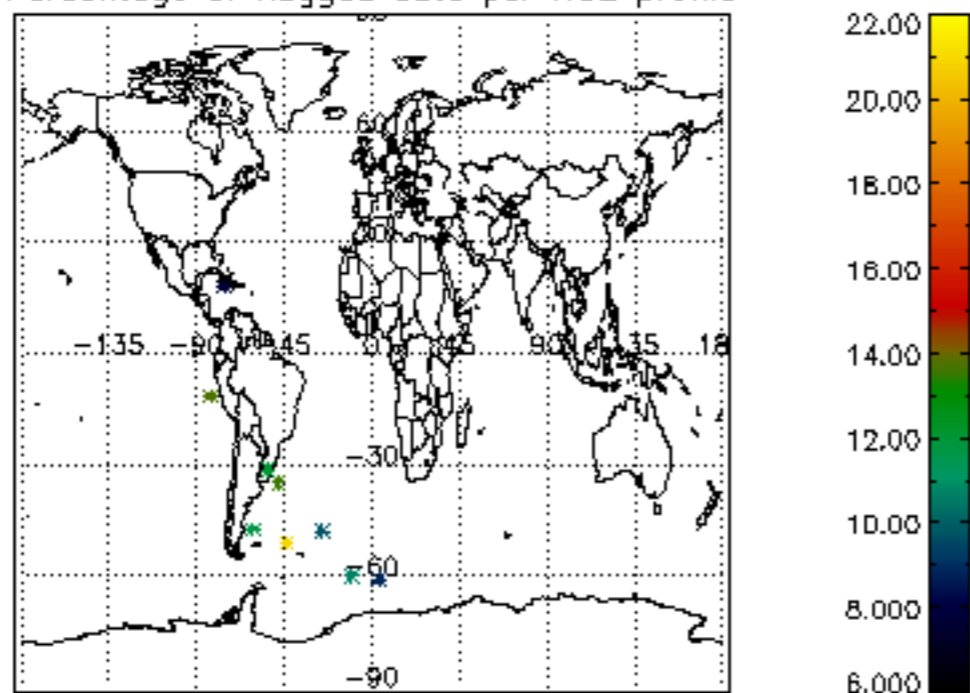
Percentage of flagged data per D3 profile



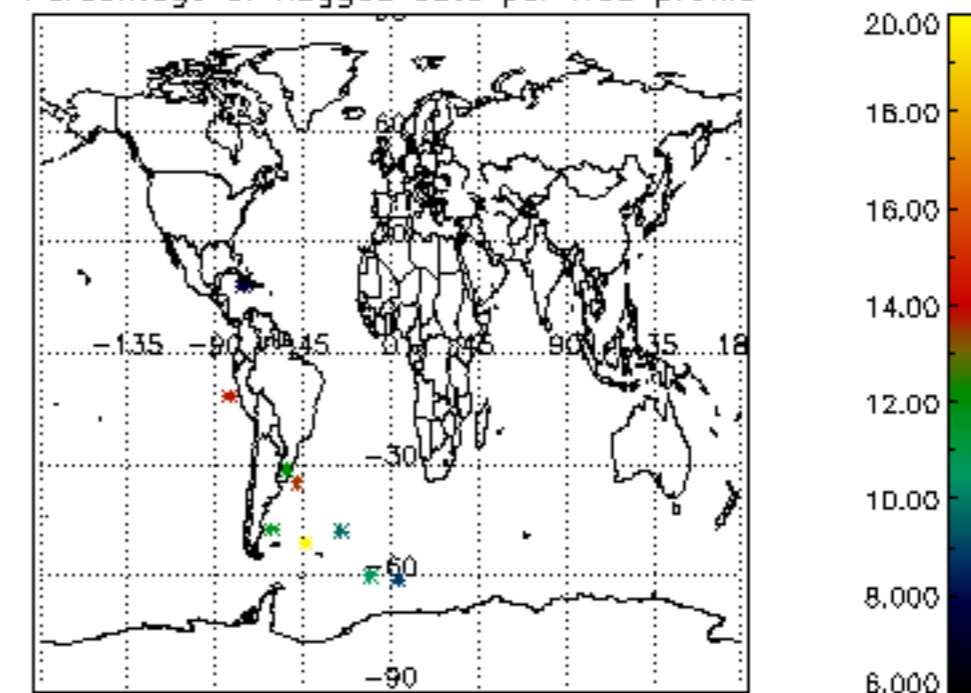
Percentage of flagged data per H2O profile

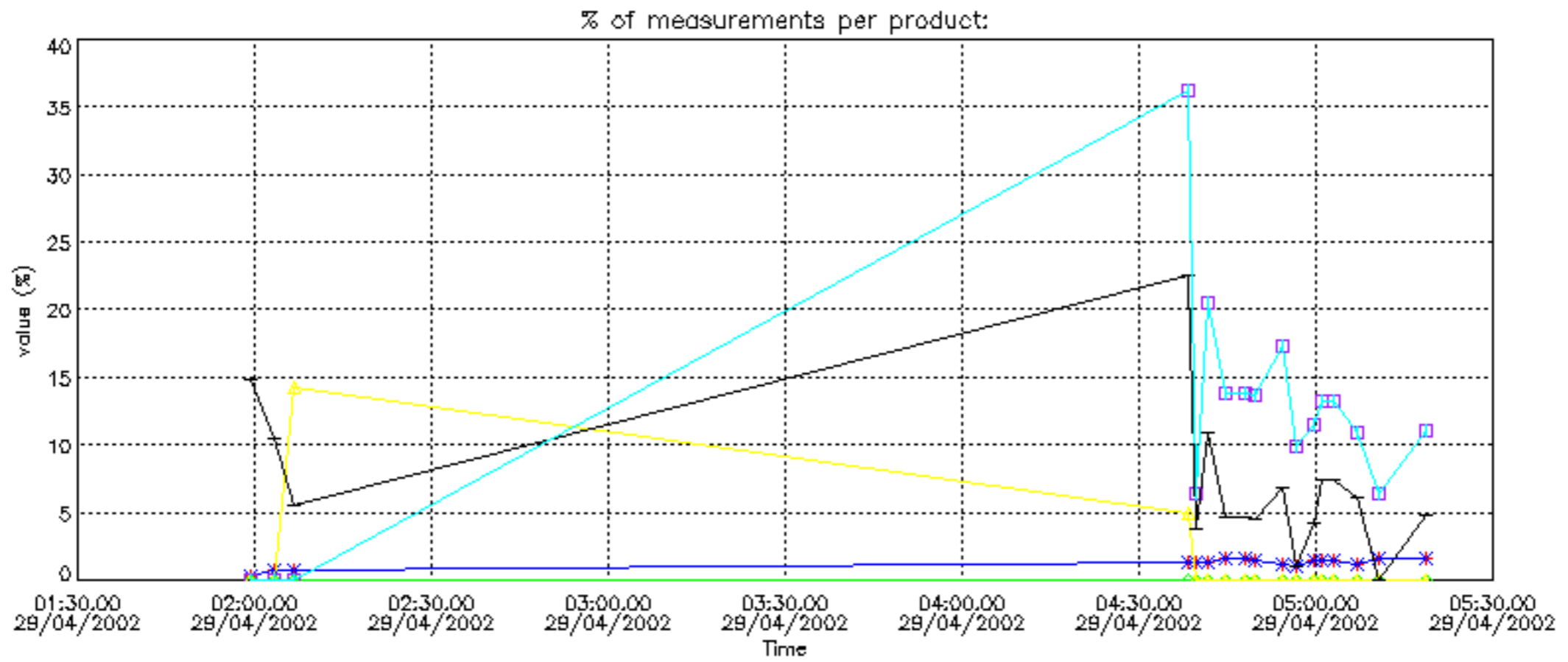


Percentage of flagged data per NO2 profile

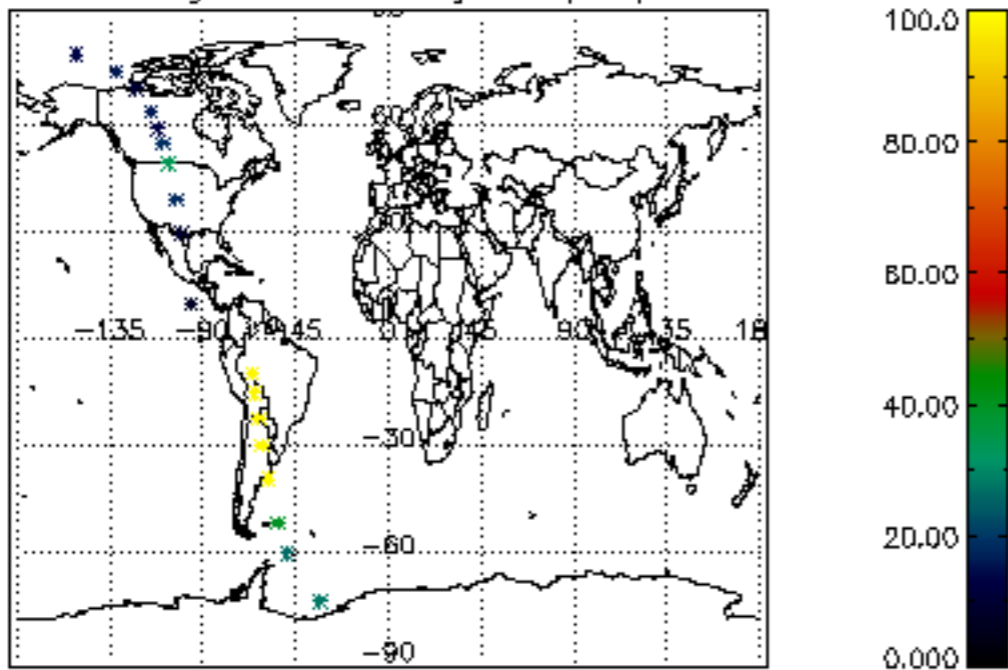


Percentage of flagged data per NO3 profile

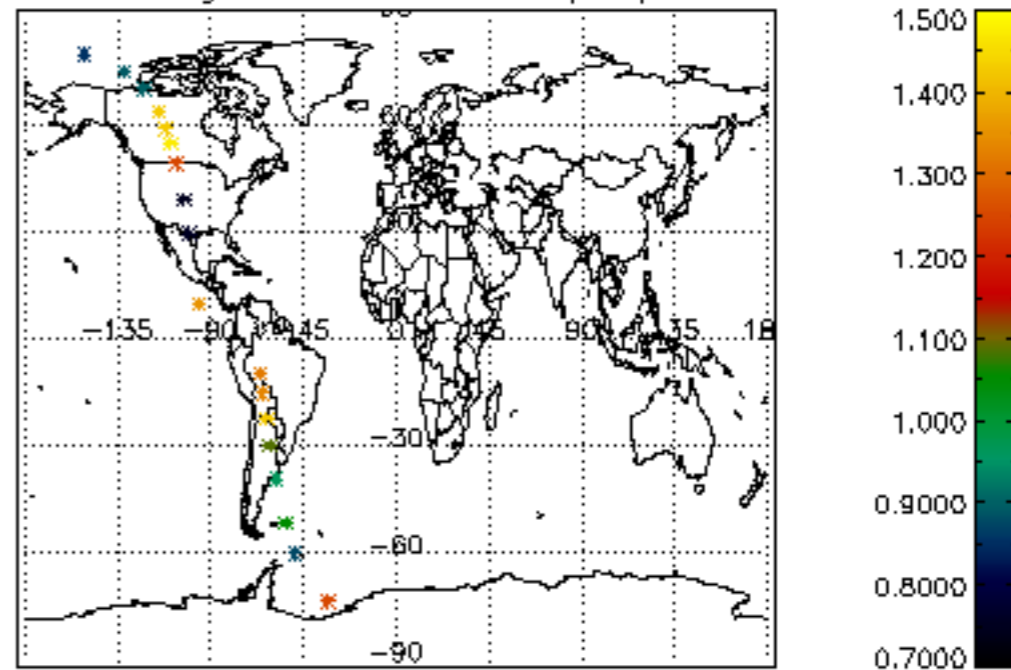




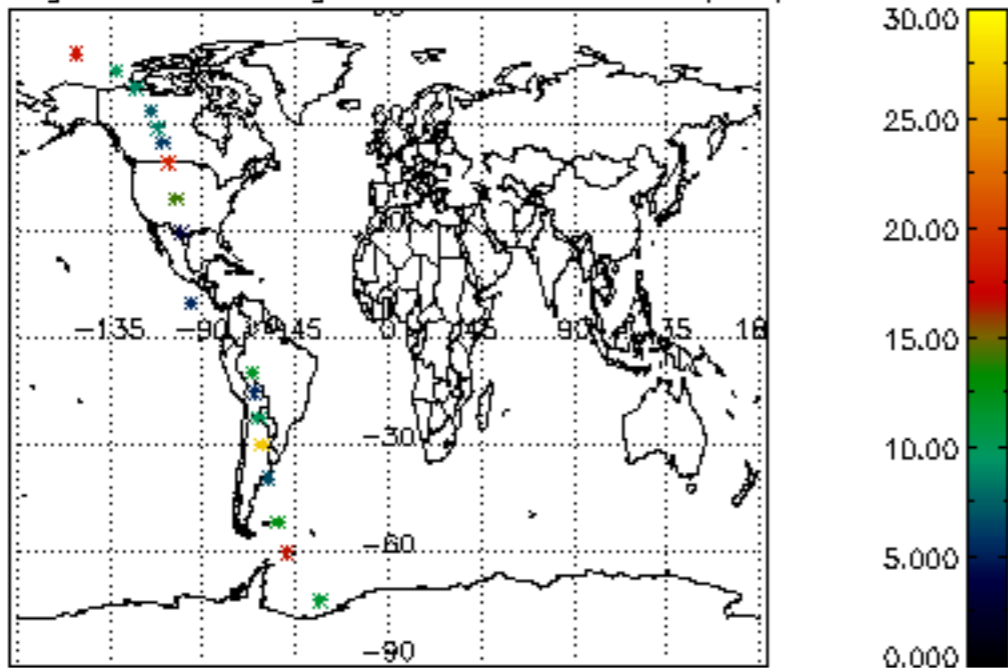
Percentage of cosmic ray hits per profile



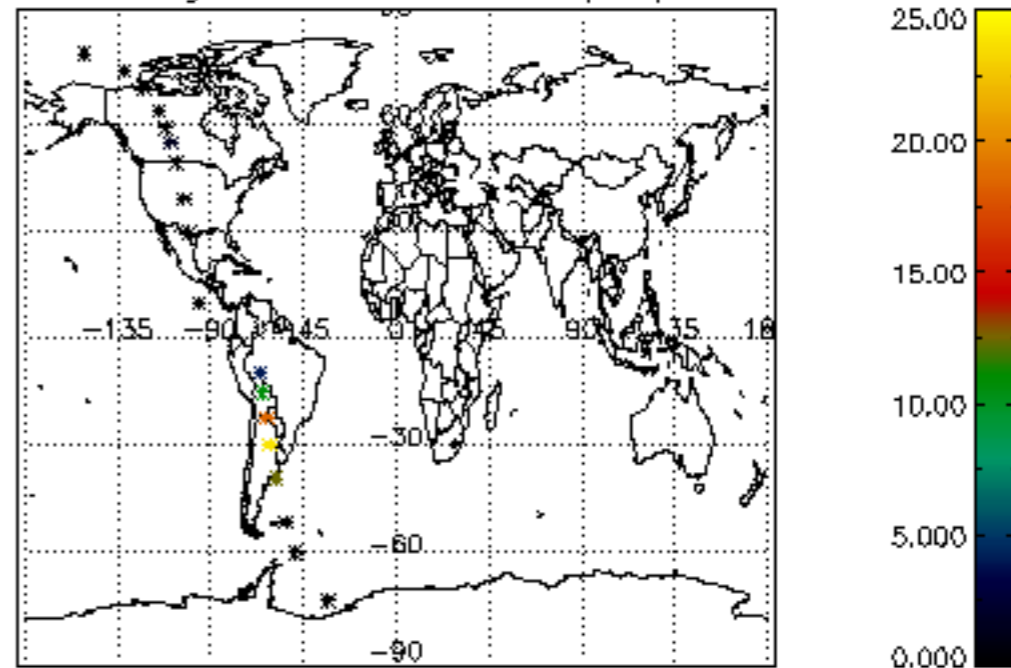
Percentage of datation errors per profile



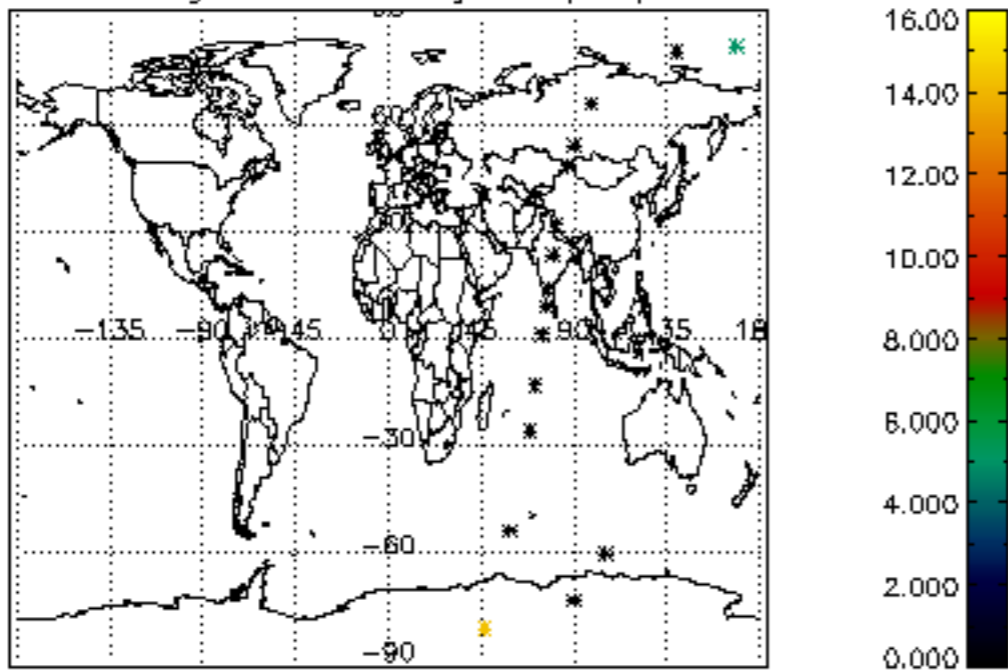
Percentage of star falling outside central band per profile



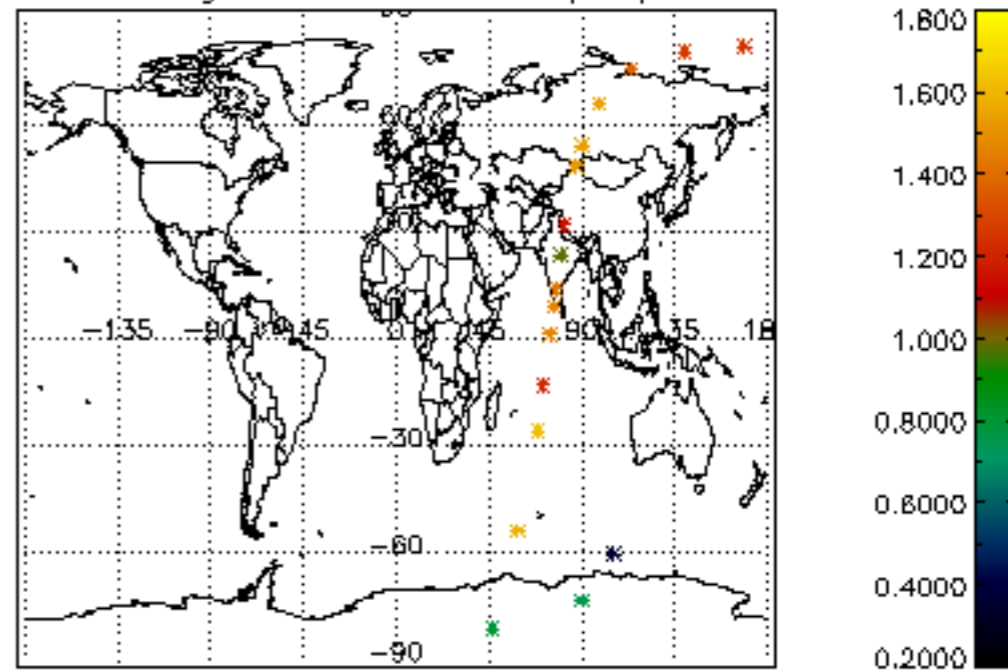
Percentage of saturation errors per profile



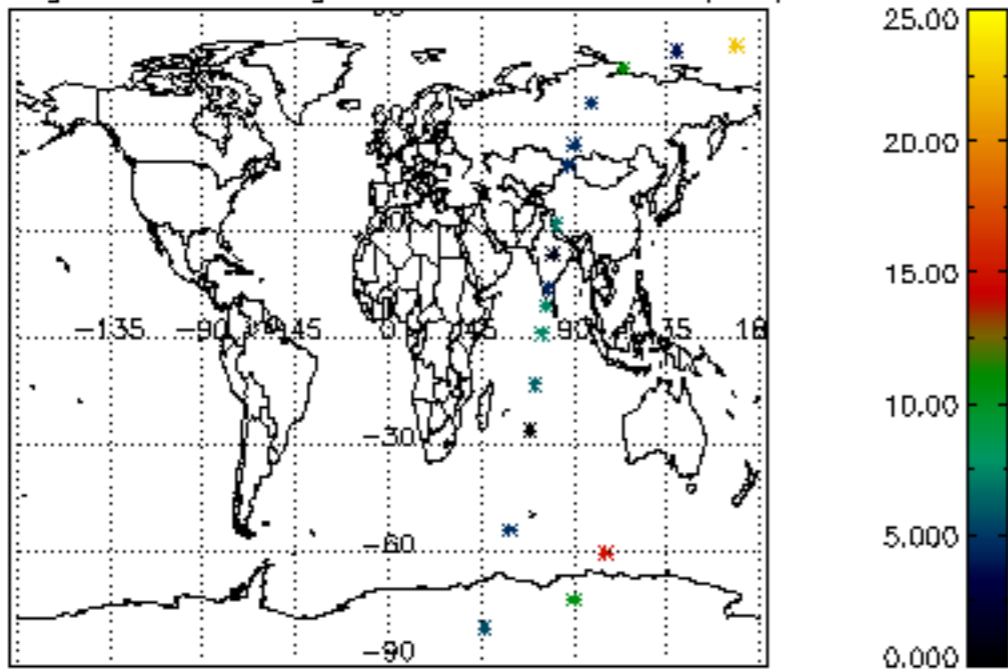
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

