

2. SCIAMACHY Daily Report for level 2 products

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2.1 General Info

This report contains a daily analysis on parameters extracted from SCIAMACHY level 2 data (The SCI_OL__2P product).

2.1.1 Report summary

The table below shows general characteristics of the data that are included into this report.

| Item | Value |
|------------------------------------------|------------------------------------------|
| Report version | 1.6 (28-07-2008) |
| Time of report generation | 12AUG2008 08:37:57 |
| Data source version | SCIA-OL/3.01-R |
| Processing scope for products | 03APR2004 00:00:00 to 04APR2004 00:00:00 |
| Start time of first product within scope | 03APR2004 00:11:31 |
| Stop time of last product within scope | 03APR2004 22:54:46 |
| Total number of level 2 products | 14 |
| Number of level 2 products with errors | 0 |

2.1.2 Summary per product

The following table shows a summary for each product used in this report.

Products are linked to a corresponding server directory for view/download. Note: Link access may be restricted by security settings of your internet browser or firewall.

| # | Product name | Start time | Stop time | Prod err | Fit summary |
|----|--------------------------------------------------------------------------------|--------------------|--------------------|----------|-------------|
| 0 | SCI_OL__2PRDPA20040403_001131_000030982025_00360_10935_7244.N1 | 03APR2004 00:11:31 | 03APR2004 01:03:09 | 0 | GOOD |
| 1 | SCI_OL__2PRDPA20040403_015206_000030982025_00361_10936_7322.N1 | 03APR2004 01:52:06 | 03APR2004 02:43:45 | 0 | GOOD |
| 2 | SCI_OL__2PRDPA20040403_033242_000030982025_00362_10937_7475.N1 | 03APR2004 03:32:42 | 03APR2004 04:24:20 | 0 | GOOD |
| 3 | SCI_OL__2PRDPA20040403_051317_000030982025_00363_10938_7294.N1 | 03APR2004 05:13:17 | 03APR2004 06:04:56 | 0 | GOOD |
| 4 | SCI_OL__2PRDPA20040403_065353_000030982025_00364_10939_7329.N1 | 03APR2004 06:53:53 | 03APR2004 07:45:31 | 0 | GOOD |
| 5 | SCI_OL__2PRDPA20040403_083428_000030982025_00365_10940_7249.N1 | 03APR2004 08:34:28 | 03APR2004 09:26:07 | 0 | GOOD |
| 6 | SCI_OL__2PRDPA20040403_101504_000030982025_00366_10941_7586.N1 | 03APR2004 10:15:04 | 03APR2004 11:06:42 | 0 | GOOD |
| 7 | SCI_OL__2PRDPA20040403_115539_000033942025_00367_10942_7373.N1 | 03APR2004 11:55:39 | 03APR2004 12:52:14 | 0 | GOOD |
| 8 | SCI_OL__2PRDPA20040403_133615_000033842025_00368_10943_7454.N1 | 03APR2004 13:36:15 | 03APR2004 14:32:39 | 0 | GOOD |
| 9 | SCI_OL__2PRDPA20040403_151650_000033752025_00369_10944_7478.N1 | 03APR2004 15:16:50 | 03APR2004 16:13:05 | 0 | GOOD |
| 10 | SCI_OL__2PRDPA20040403_165726_000033652025_00370_10945_7222.N1 | 03APR2004 16:57:26 | 03APR2004 17:53:31 | 0 | GOOD |
| 11 | SCI_OL__2PRDPA20040403_183811_000033722025_00371_10946_7598.N1 | 03APR2004 18:38:11 | 03APR2004 19:34:23 | 0 | GOOD |
| 12 | SCI_OL__2PRDPA20040403_201858_000033232025_00372_10947_7533.N1 | 03APR2004 20:18:58 | 03APR2004 21:14:21 | 0 | GOOD |
| 13 | SCI_OL__2PRDPA20040403_215912_000033342025_00373_10948_7316.N1 | 03APR2004 21:59:12 | 03APR2004 22:54:46 | 0 | GOOD |

2.2 Product Quality Indicators

2.2.1 Cloud parameters

This is a new section that shows information about the cloud parameters estimation, in particular cloud fractions and cloud top height. IMPORTANT NOTE: The contents and layout of this section are still being validated. Please use with caution.

General statistics:

Total number of cloud data DSRs: 100520

Total number of cloud data DSRs with good quality flag (=0): 100520 (100.0 %)

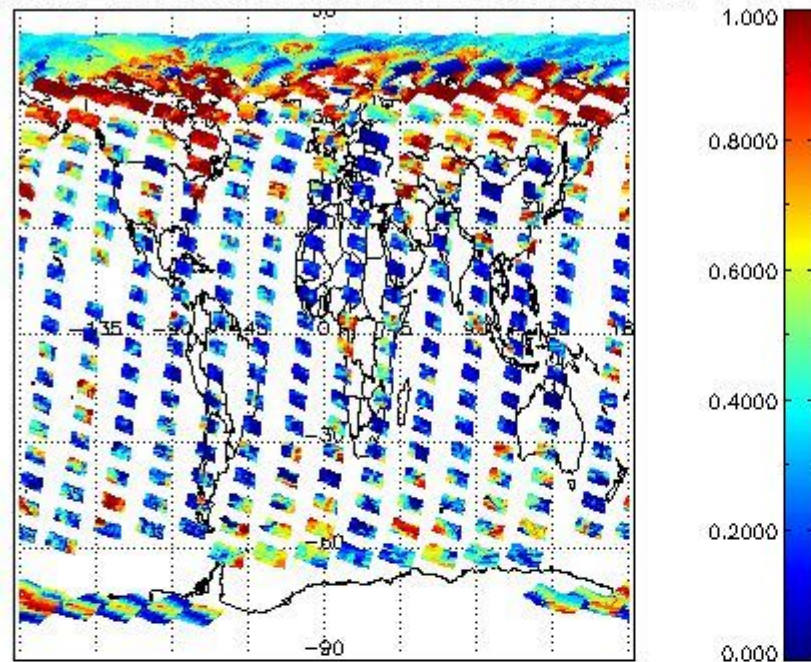
| Parameter | #valid | Mean | Median | Min | Max | Stddev | Unit |
|-------------------|--------|----------|----------|----------|----------|----------|-------------------------------------------------------------------------------------------------------------|
| QUALITY_FLAG | 100520 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | flag |
| INTEGR_TIME | 100520 | 0.21414 | 0.25000 | 0.12500 | 0.50000 | 0.080497 | s |
| CL_FRAC | 100520 | 0.43774 | 0.39762 | 0.0000 | 1.0000 | 0.32415 | - |
| CL_FRAC_ERR | 100520 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | rel. fraction |
| PMD_READ | 100520 | 6.8524 | 8.0000 | 4.0000 | 16.000 | 2.5759 | |
| PMD_READ_CL[0] | 100520 | 0.59877 | 0.0000 | 0.0000 | 16.000 | 1.6917 | - |
| PMD_READ_CL[1] | 100520 | 0.74101 | 0.0000 | 0.0000 | 16.000 | 2.0557 | - |
| CL_TOP_HEIGHT | 91090 | 3.4702 | 1.6350 | 0.0000 | 17.000 | 3.7601 | km |
| CL_TOP_HEIGHT_ERR | 0 | --- | --- | --- | --- | --- | --- |
| CL_OPT_DEPTH | 91090 | 53.202 | 39.754 | 0.0000 | 101.00 | 39.919 | km |
| CL_OPT_DEPTH_ERR | 0 | --- | --- | --- | --- | --- | --- |
| CL_TYPE_FLAGS | 100520 | 11100000 | 11100000 | 11100000 | 11100000 | 0.0000 | flags. Bit definition = 0: low or high cloud; 1: ice or water cloud; 2: thick or thin cloud; 3-15: not used |
| CLOUD_FLAGS | 100520 | 11000111 | 11000010 | 11000000 | 11100000 | 2753.9 | flags |
| AERO_ABSO_IND | 100520 | 0.84266 | 0.82457 | -4.0398 | 10.651 | 1.1768 | |
| AERO_IND_DIAG | 100520 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| AERO_FLAGS | 100520 | 01110100 | 11000000 | 00000000 | 11000000 | 23994. | flags |

Time and geolocation plots:

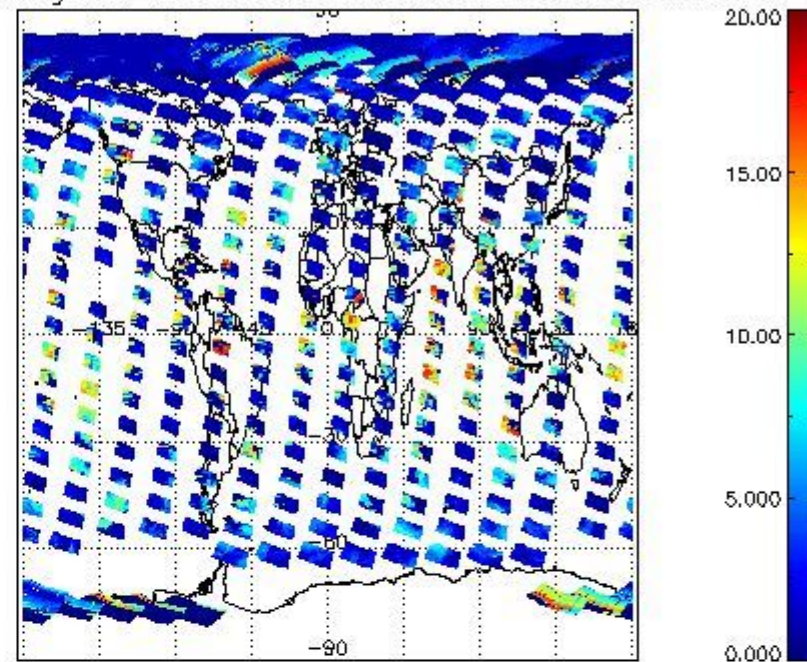
Plots are available for the following parameters:

| Number | Data item ID |
|--------|---------------|
| 0 | cl_frac |
| 1 | cl_top_height |
| 2 | cl_opt_depth |
| 3 | cloud_flags |

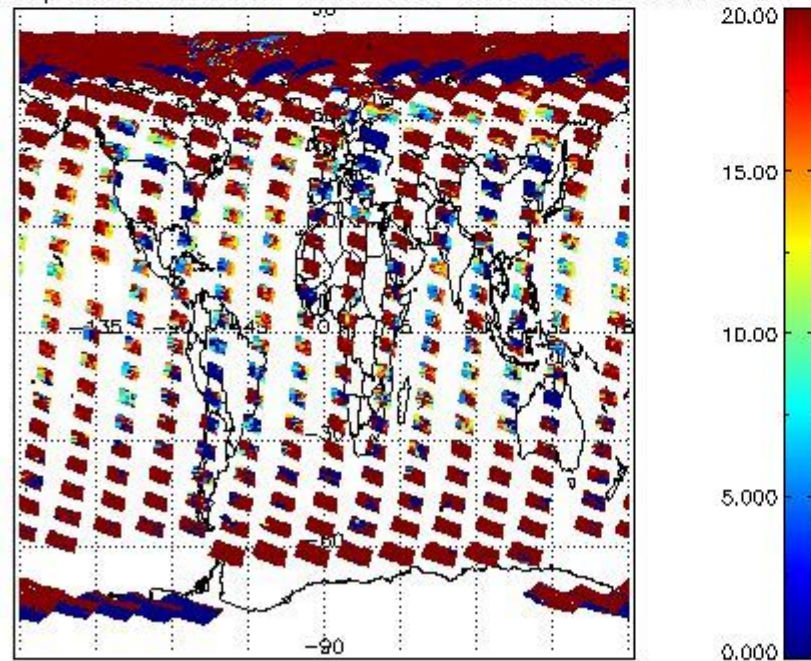
cL_frac for 03APR2004 00:00:00 to 04APR2004 00:00:00



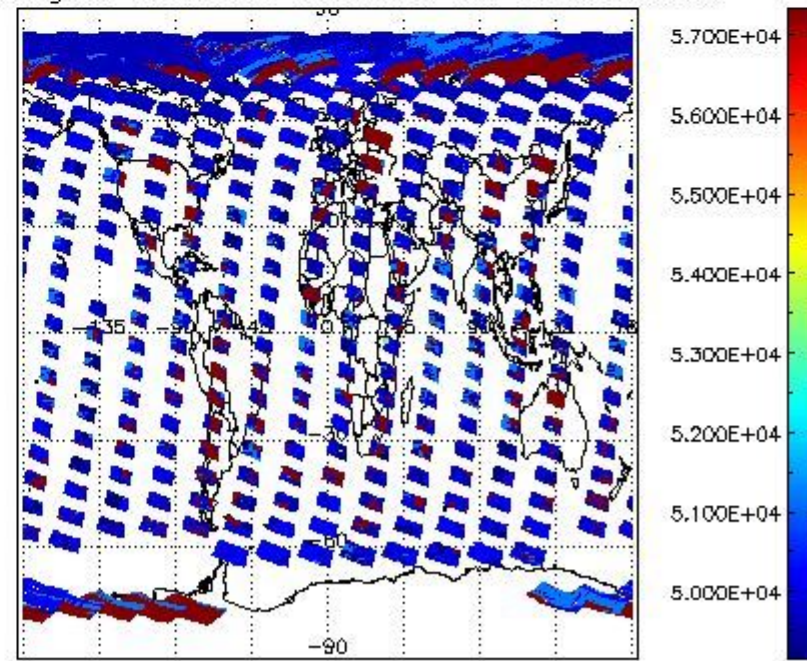
cL_top_height for 03APR2004 00:00:00 to 04APR2004 00:00:00



cL_opt_depth for 03APR2004 00:00:00 to 04APR2004 00:00:00



cloud_flags for 03APR2004 00:00:00 to 04APR2004 00:00:00



2.2.2 Nadir

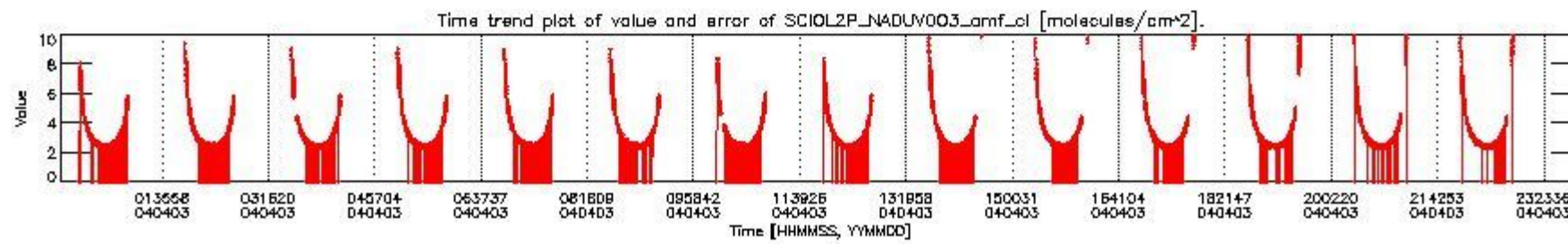
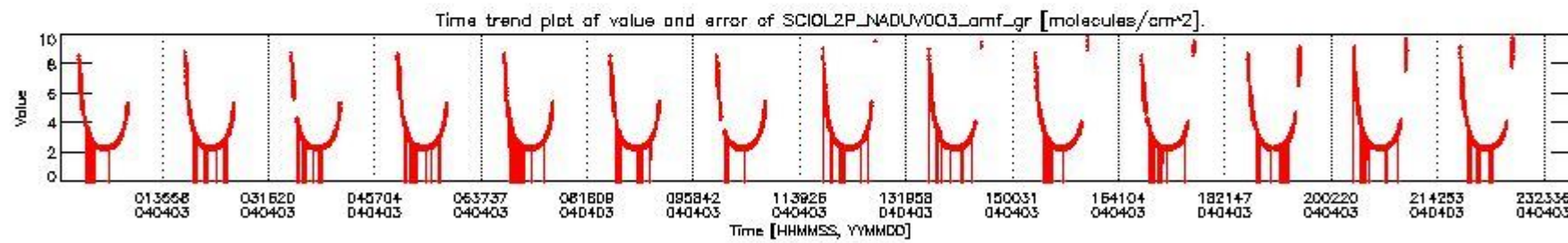
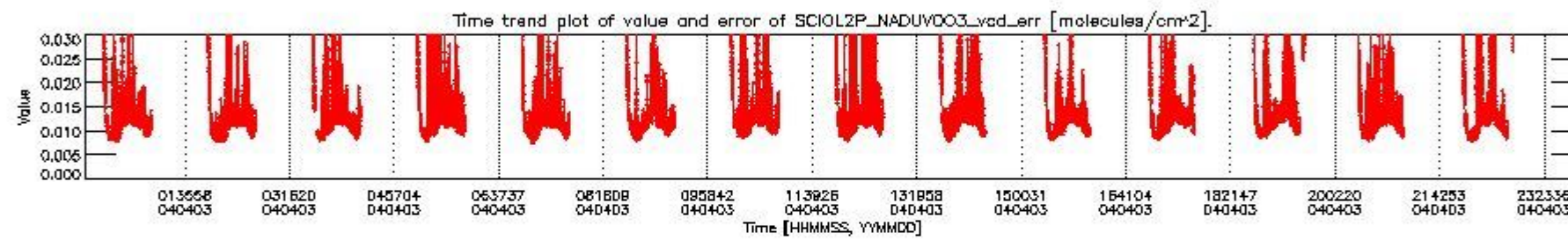
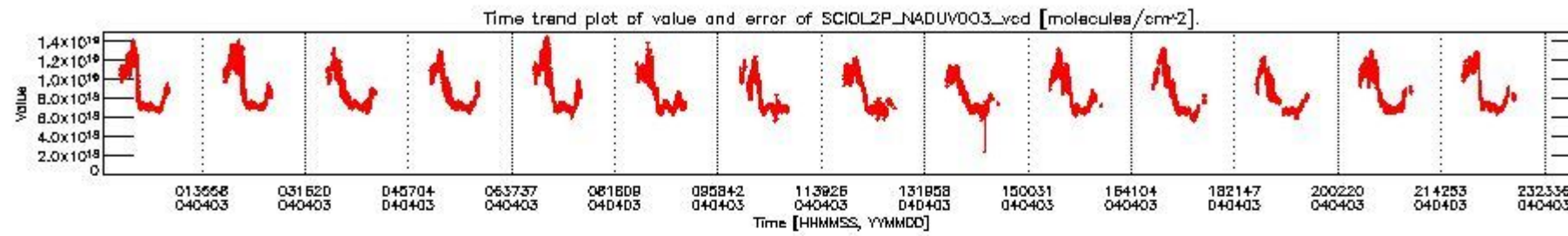
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

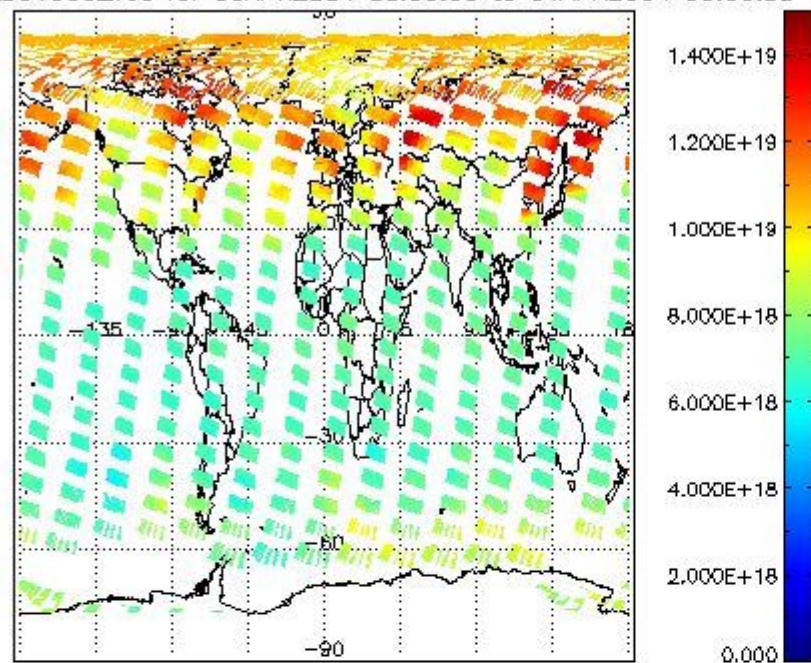
| Number | Data item ID |
|--------|--------------------------|
| 0 | SCIOL2P_NADUV003_vcd |
| 1 | SCIOL2P_NADUV003_vcd_err |
| 2 | SCIOL2P_NADUV003_amf_gr |

| | |
|---|---------------------------|
| 3 | SCIOL2P_NADUV003_amf_cl |
| 4 | SCIOL2P_NADUV1NO2_vcd |
| 5 | SCIOL2P_NADUV1NO2_vcd_err |
| 6 | SCIOL2P_NADUV1NO2_amf_gr |
| 7 | SCIOL2P_NADUV1NO2_amf_cl |

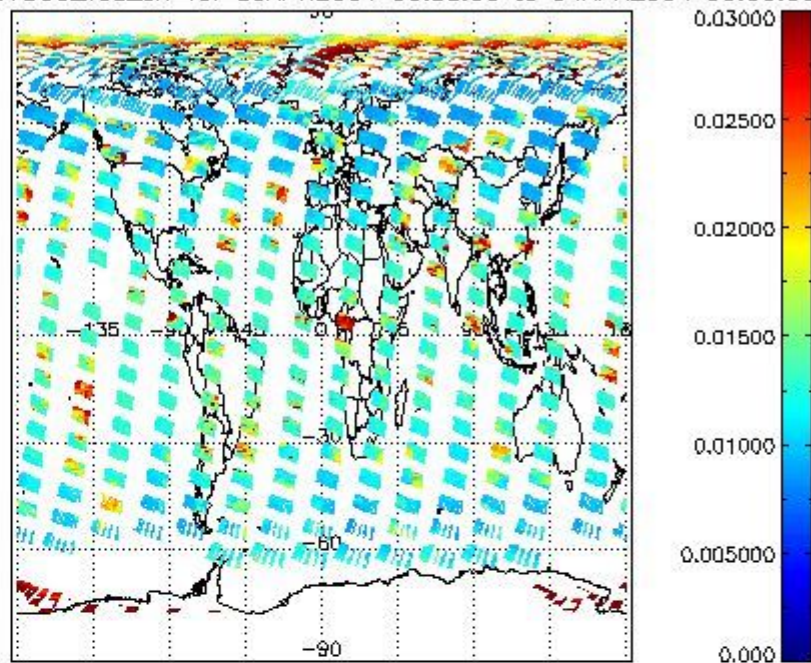
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the MPH.



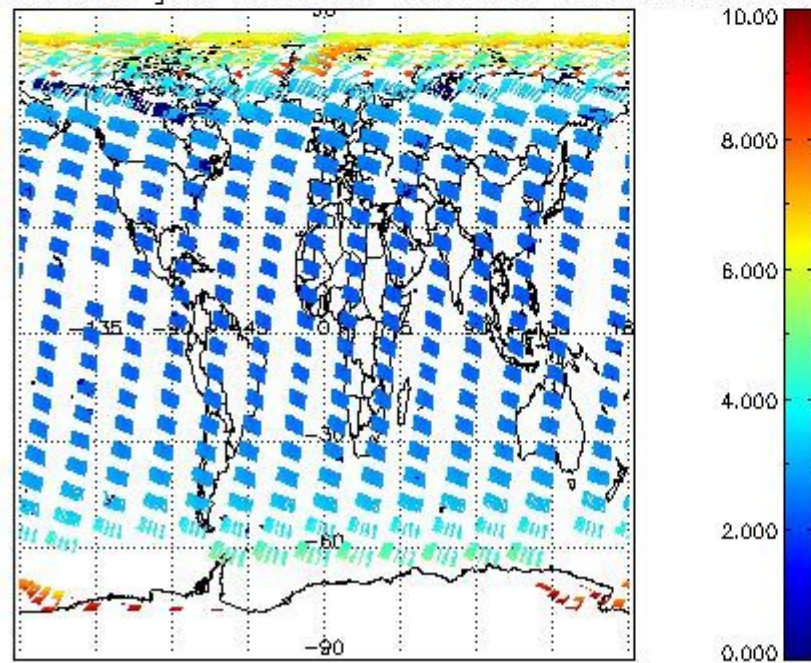
SCIOL2P_NADUV003_vcd for 03APR2004 00:00:00 to 04APR2004 00:00:00



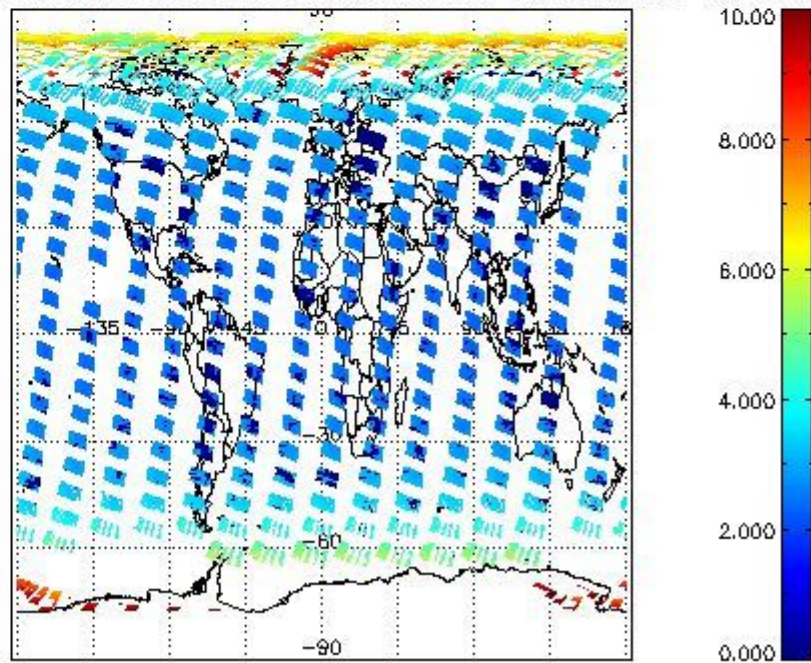
SCIOL2P_NADUV003_vcd_err for 03APR2004 00:00:00 to 04APR2004 00:00:00

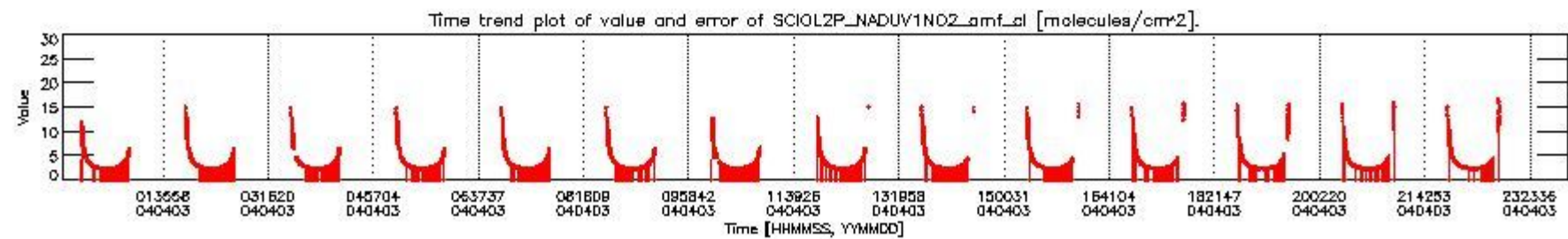
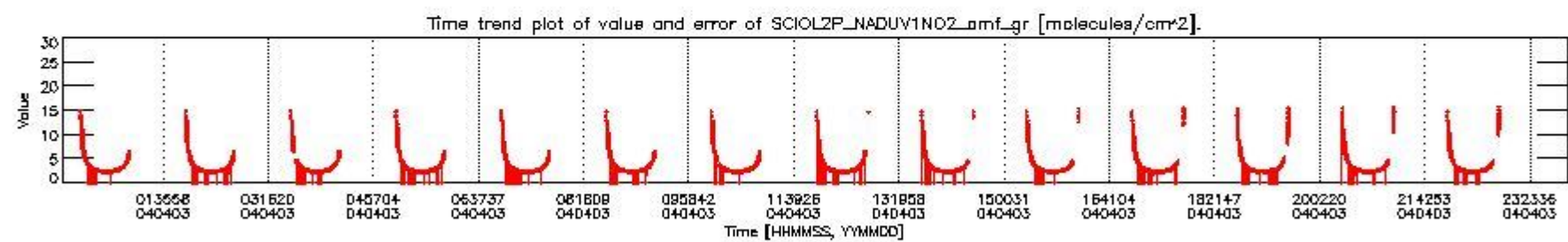
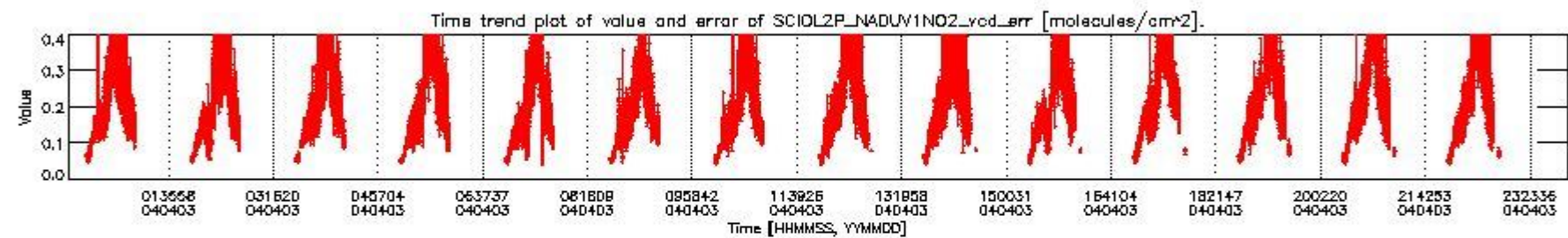
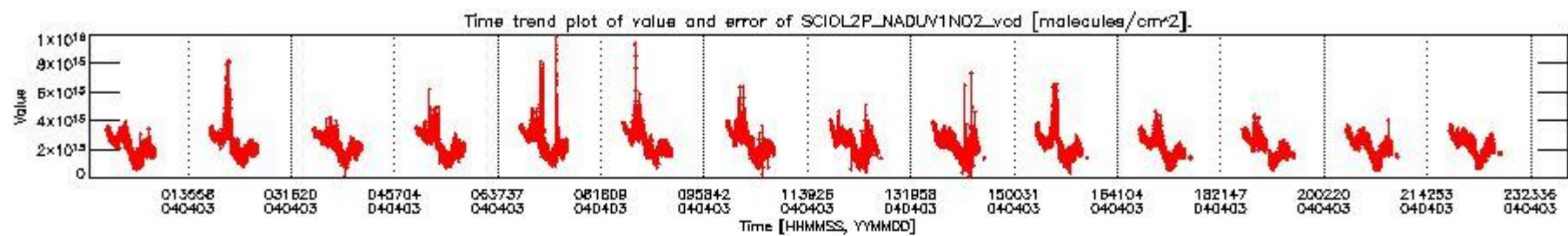


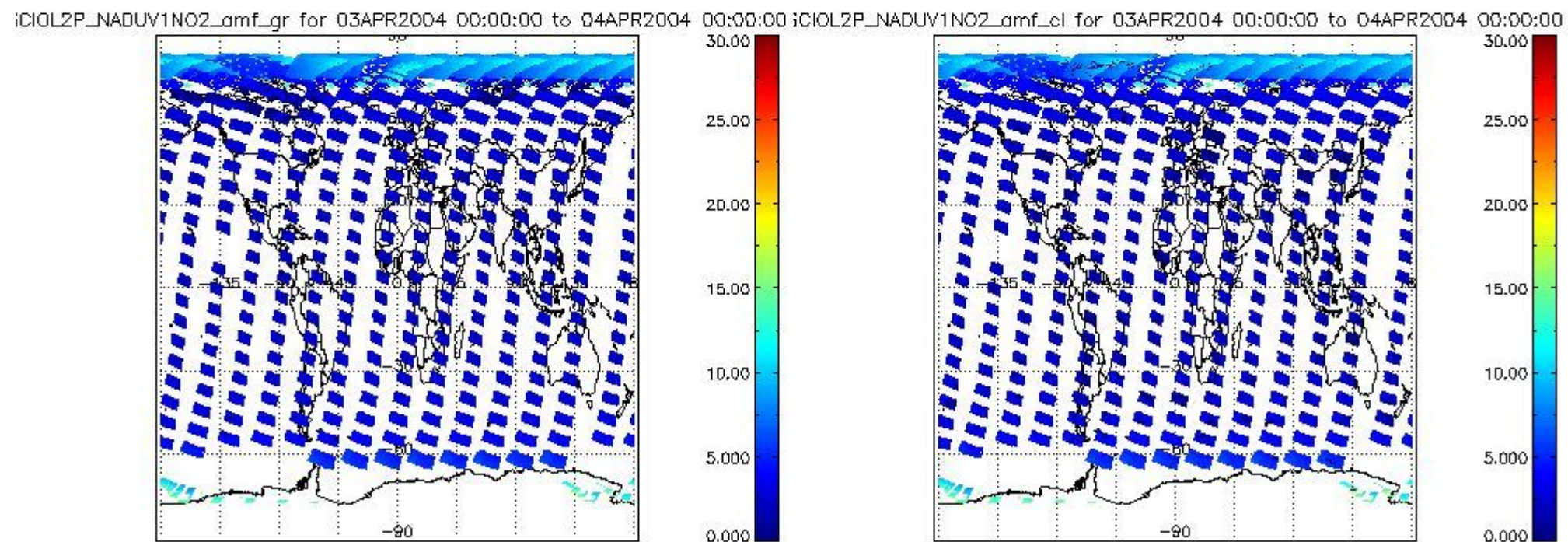
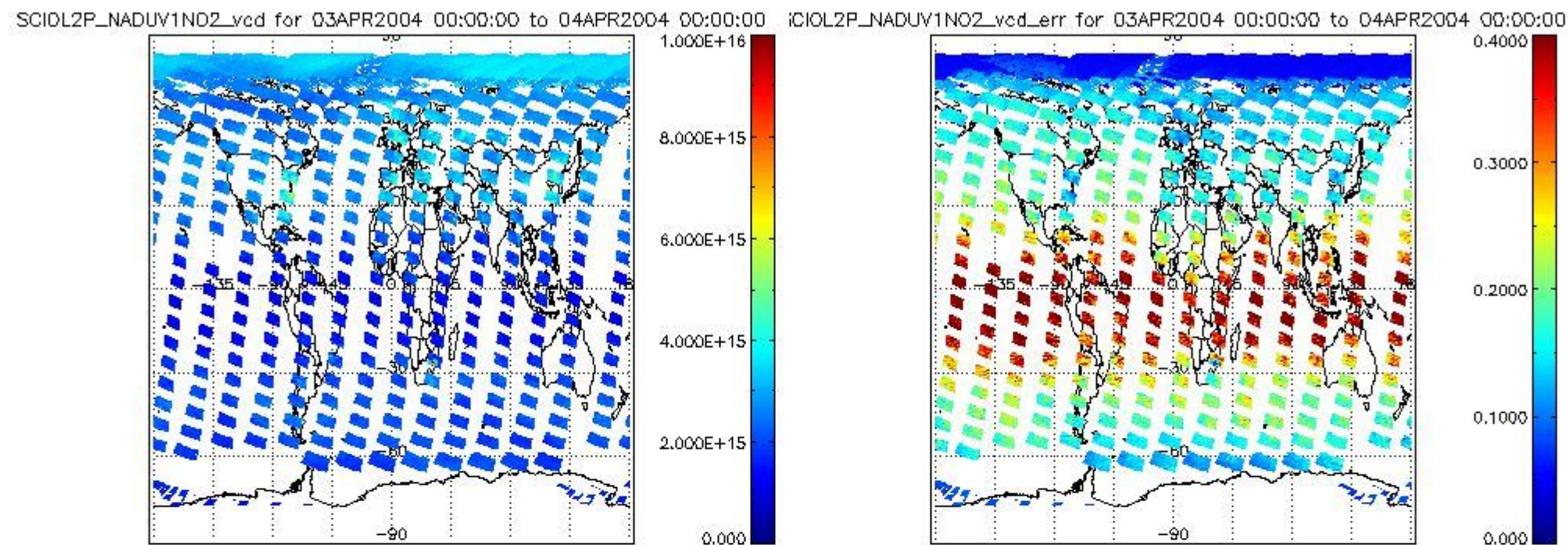
SCIOL2P_NADUV003_amf_gr for 03APR2004 00:00:00 to 04APR2004 00:00:00



SCIOL2P_NADUV003_amf_cl for 03APR2004 00:00:00 to 04APR2004 00:00:00







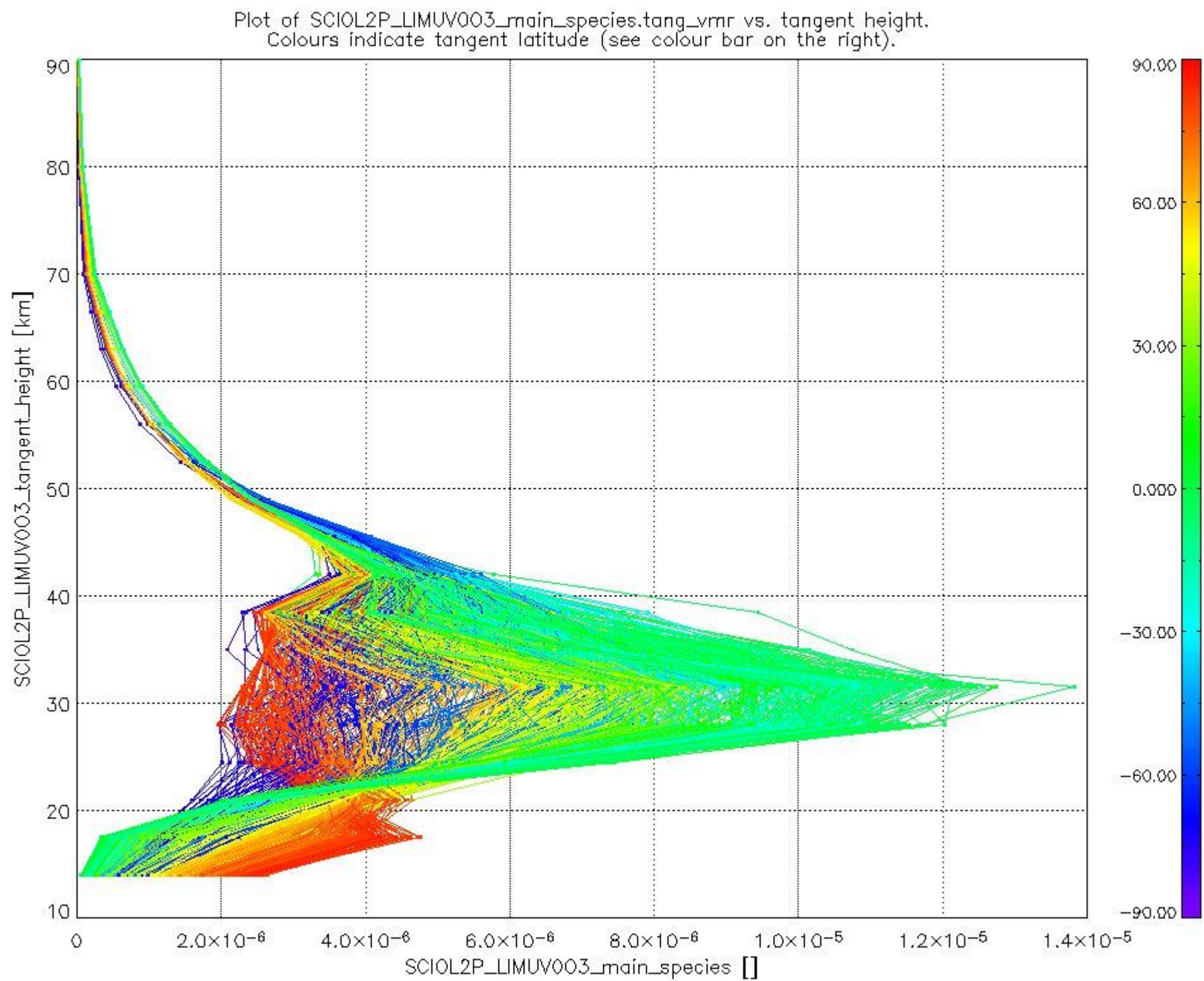
2.2.3 Limb

This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

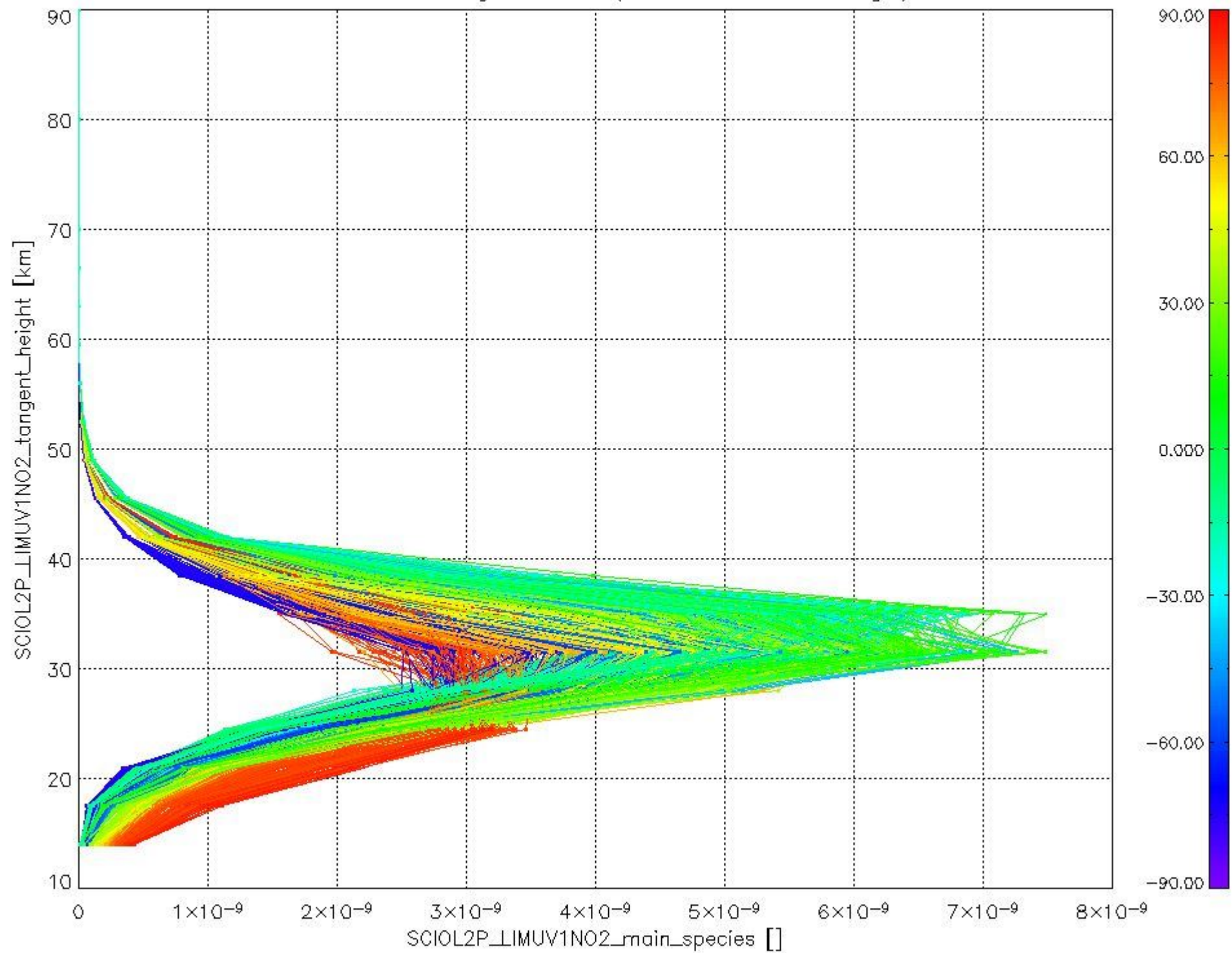
The following data items are currently included into this section:

| Number | Data item ID |
|--------|-------------------------------|
| 0 | SCIOL2PLIMUV003_main_species |
| 1 | SCIOL2PLIMUV1NO2_main_species |

The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.



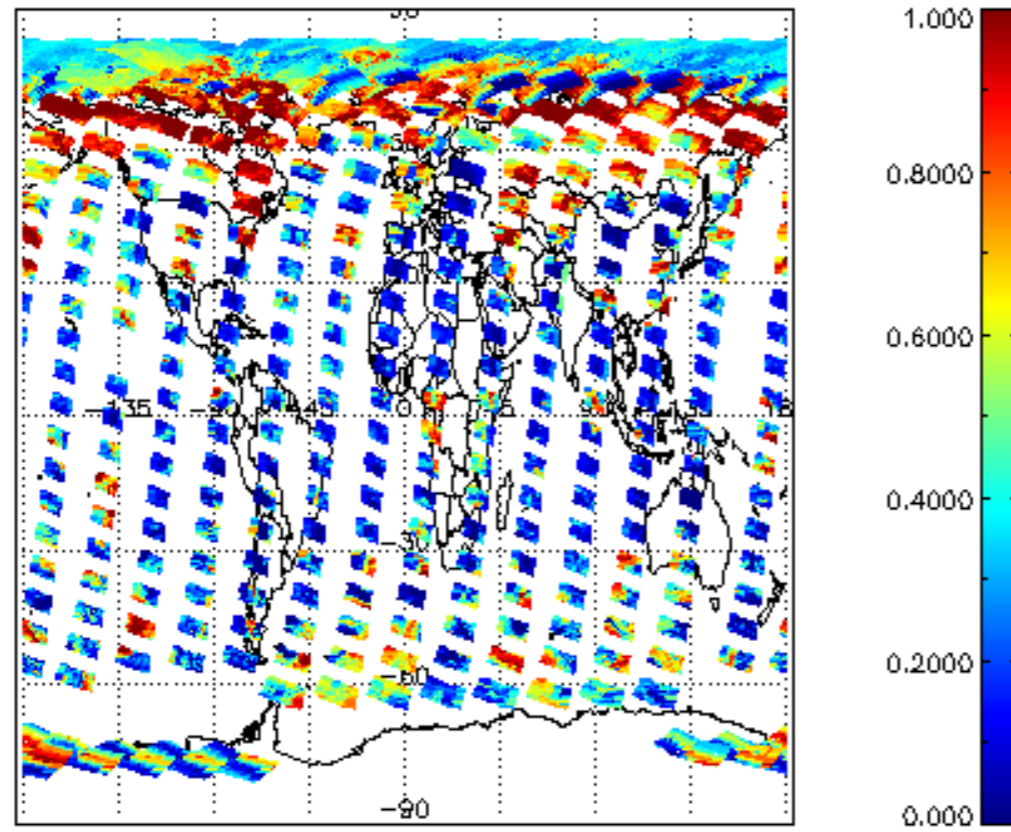
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



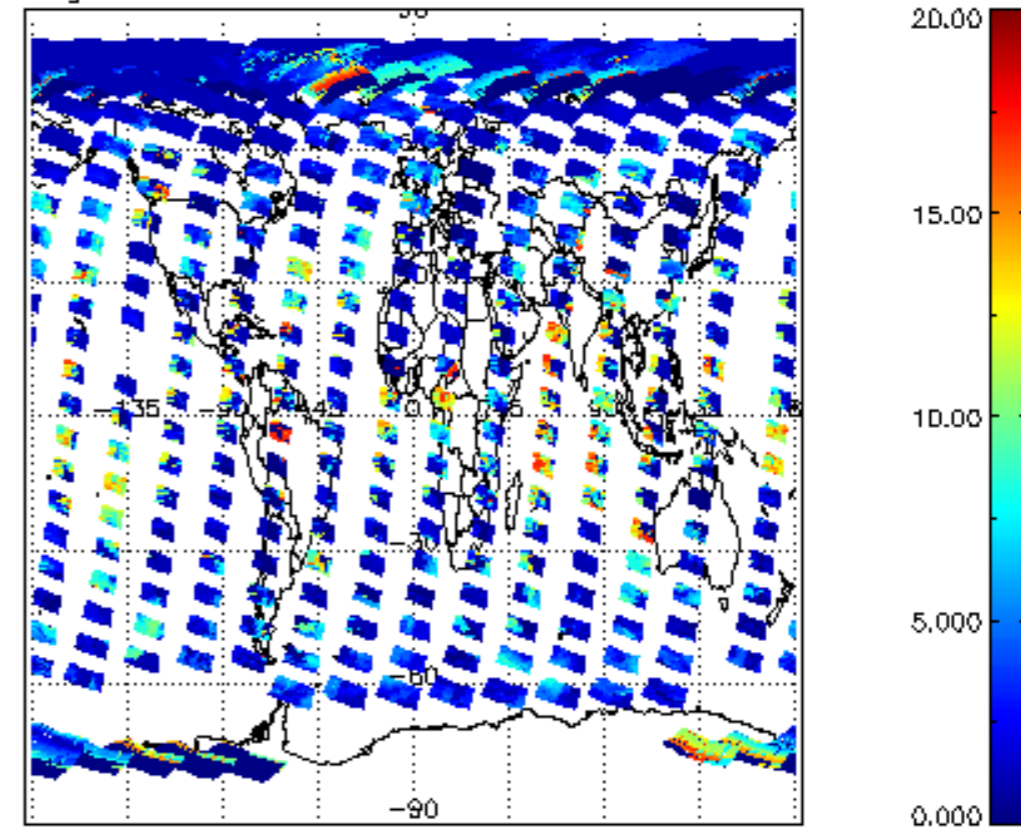
2.3 ADF monitoring

| Number | ADF |
|--------|---------------------------------------------------------------|
| | IN_ (INITIALISATION_FILE) |
| 0 | SCI_IN__AXNPDE20070629_092400_20070720_000000_20991231_235959 |
| | ECF (ECMWF_FILE) |
| 1 | NOT USED |

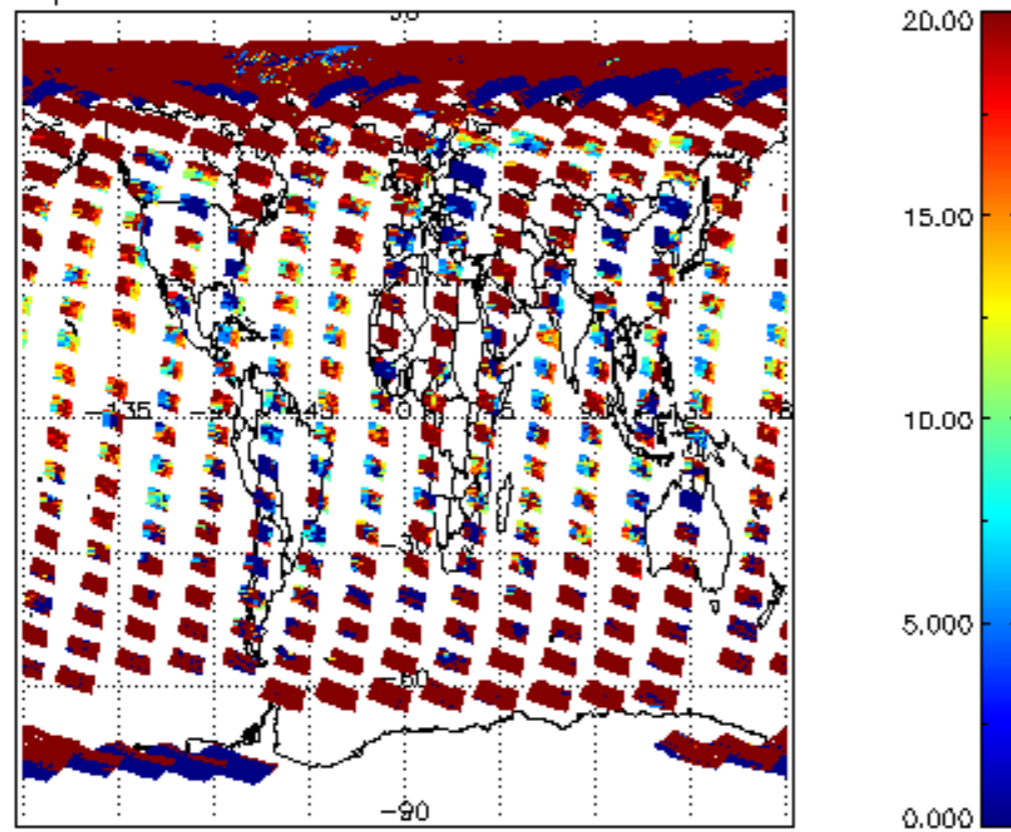
cl_frac for 03APR2004 00:00:00 to 04APR2004 00:00:00



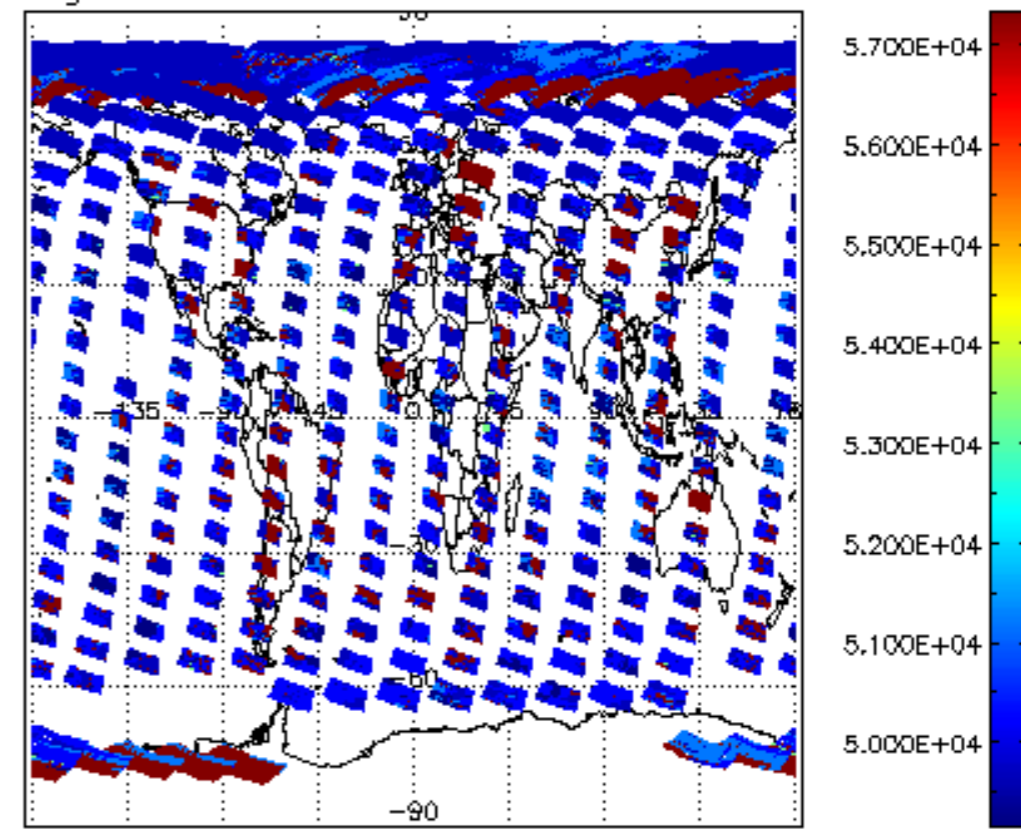
cl_top_height for 03APR2004 00:00:00 to 04APR2004 00:00:00

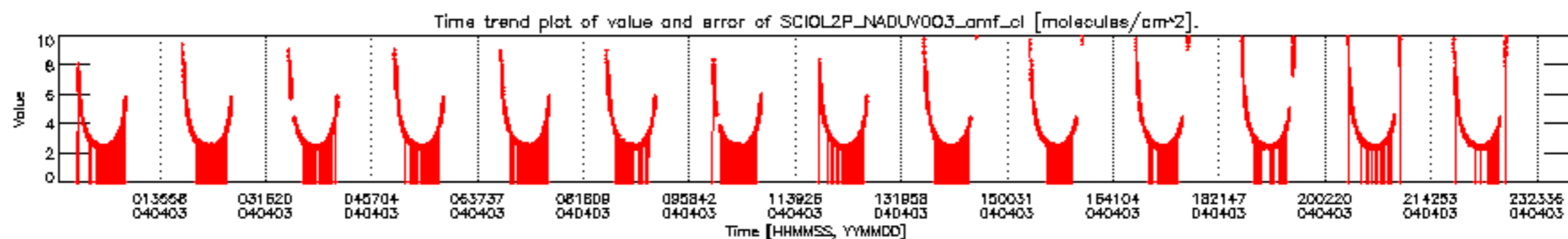
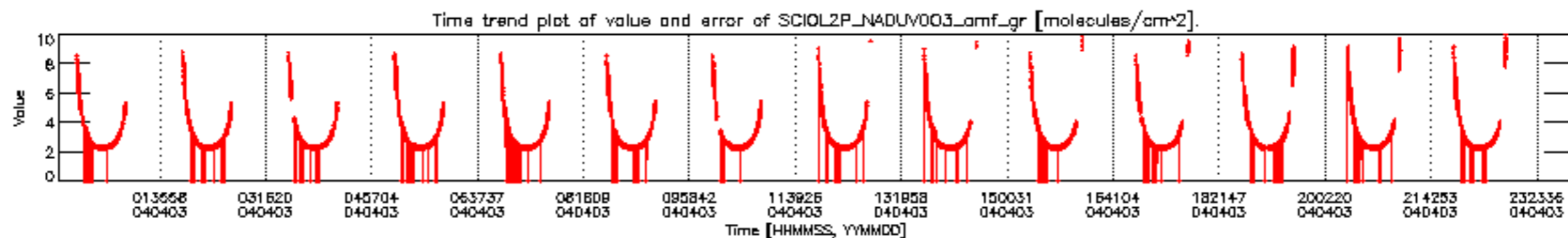
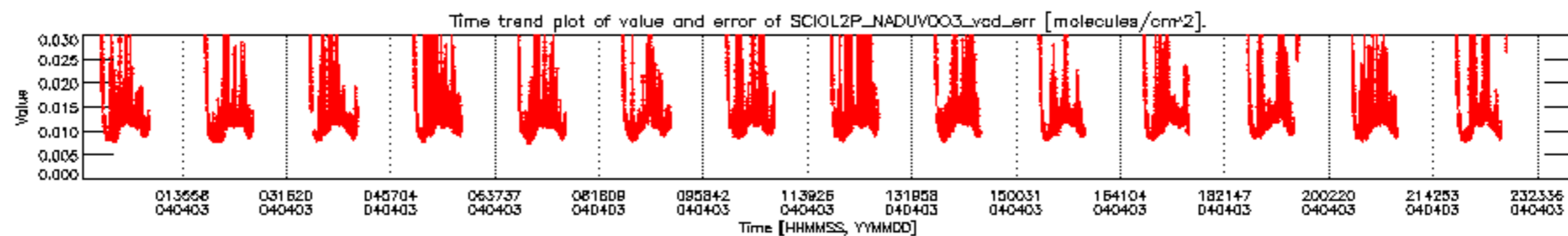
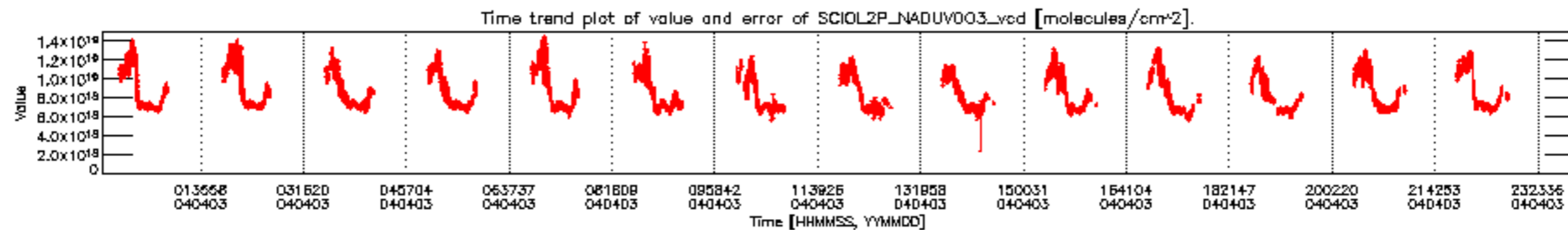


cl_opt_depth for 03APR2004 00:00:00 to 04APR2004 00:00:00

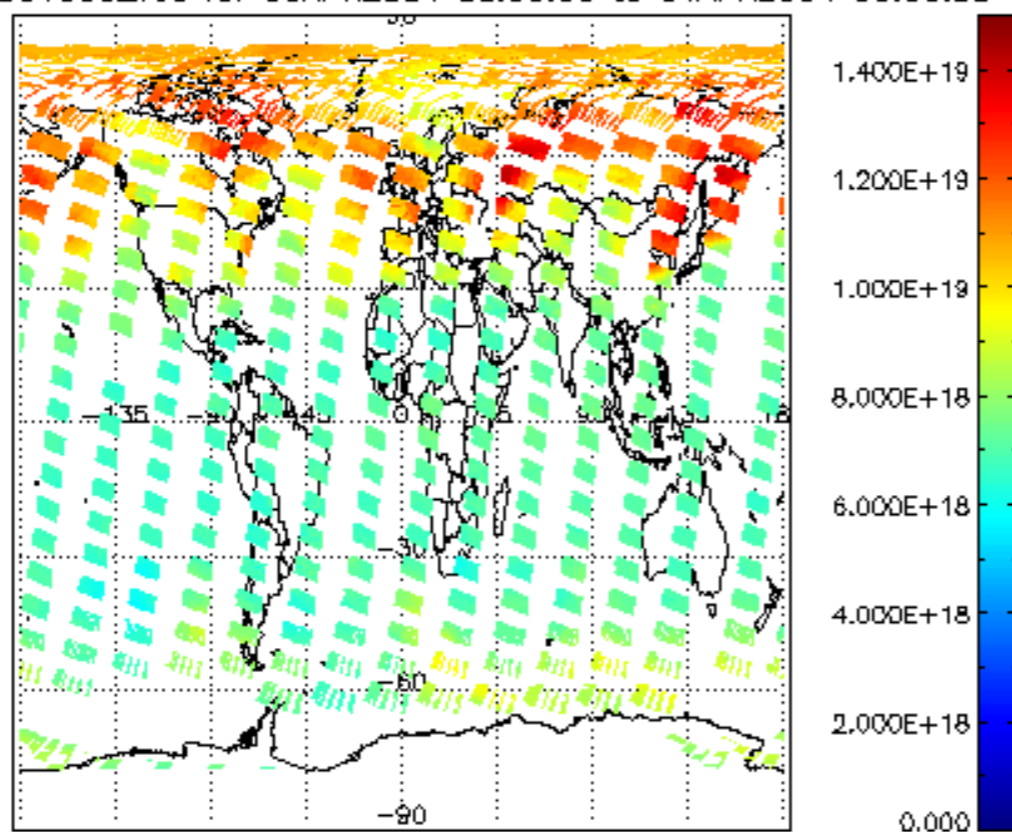


cloud_flags for 03APR2004 00:00:00 to 04APR2004 00:00:00

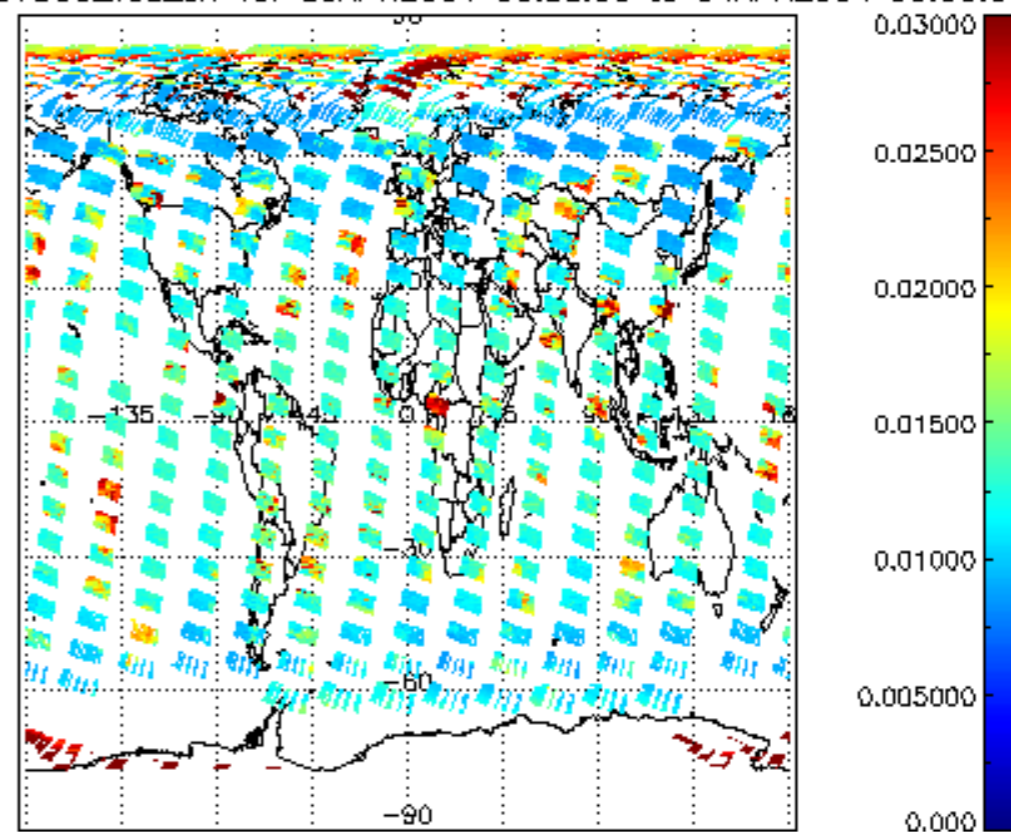




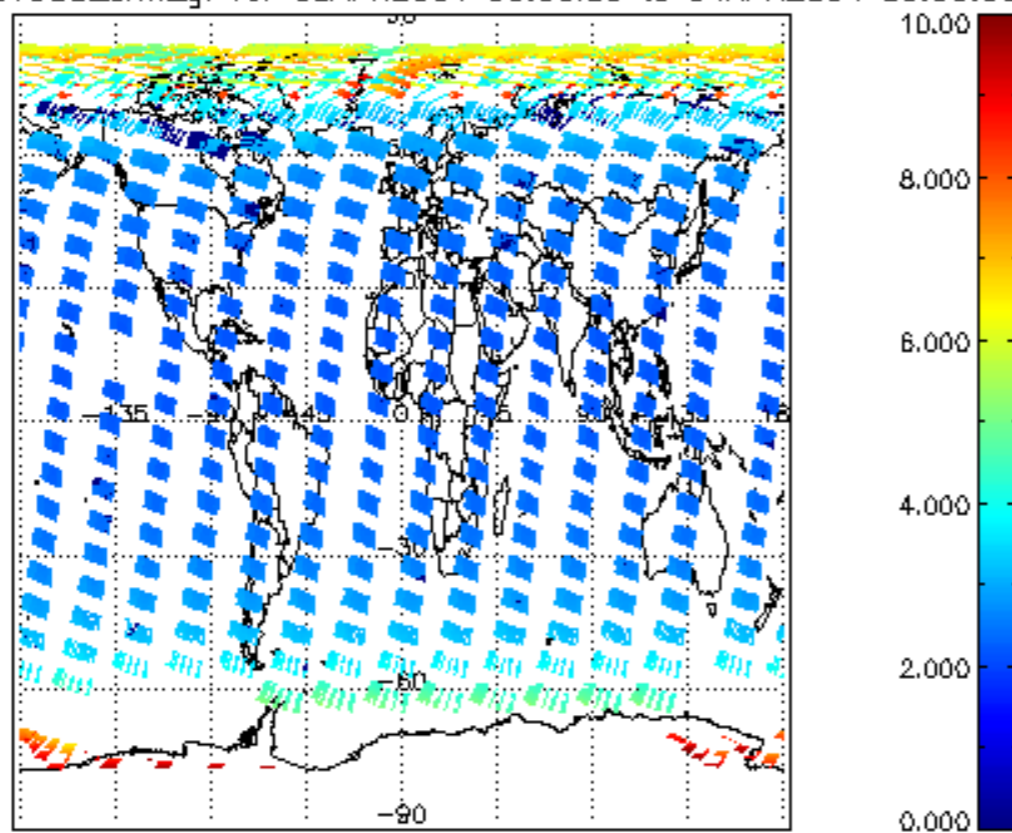
SCIOL2P_NADUV003_vcd for 03APR2004 00:00:00 to 04APR2004 00:00:00



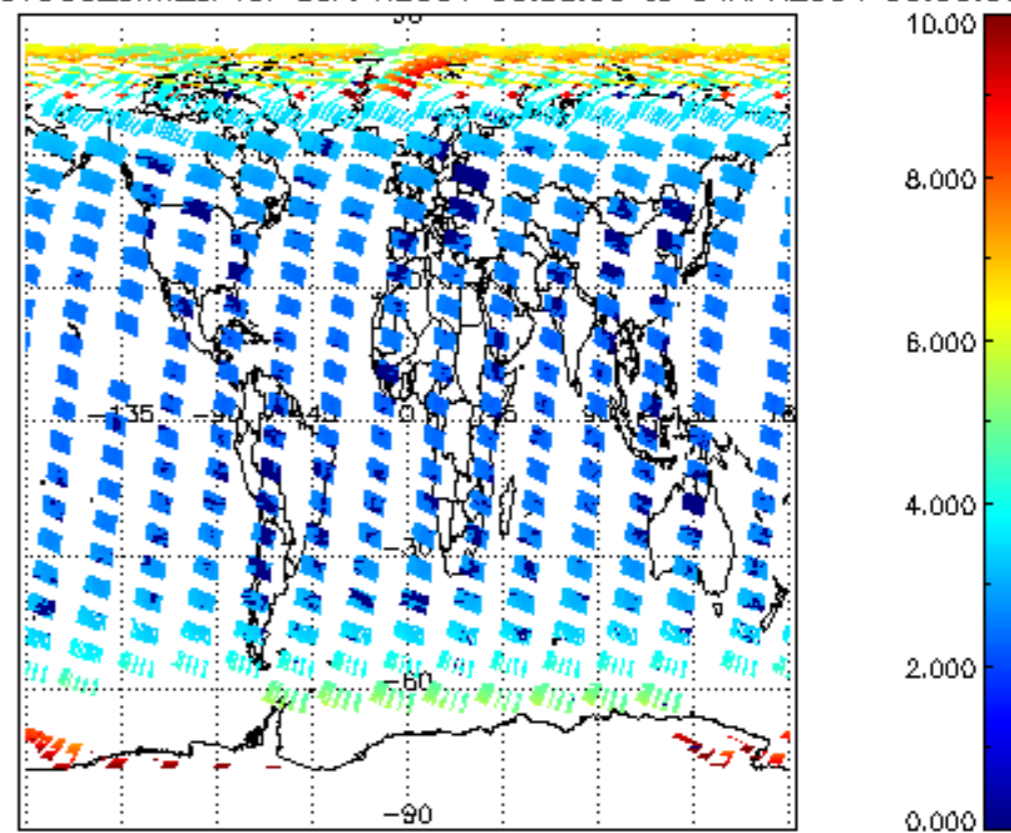
SCIOL2P_NADUV003_vcd_err for 03APR2004 00:00:00 to 04APR2004 00:00:00

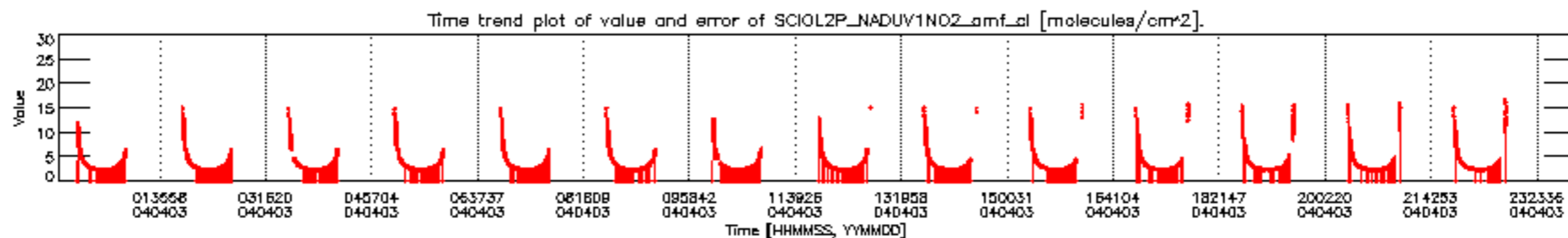
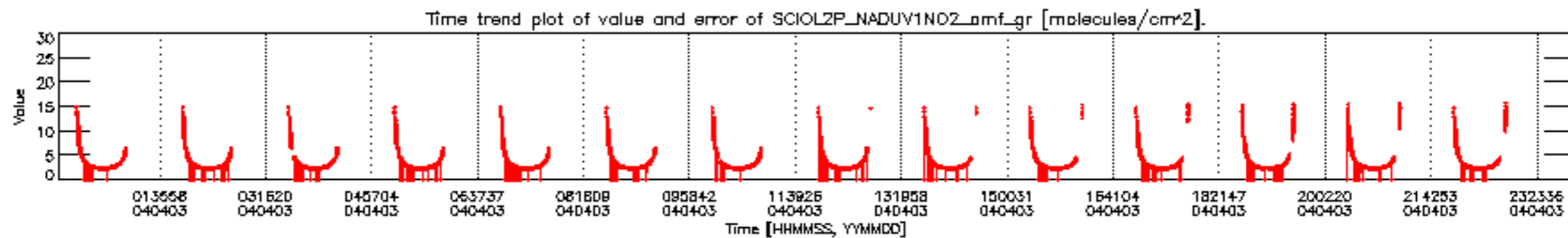
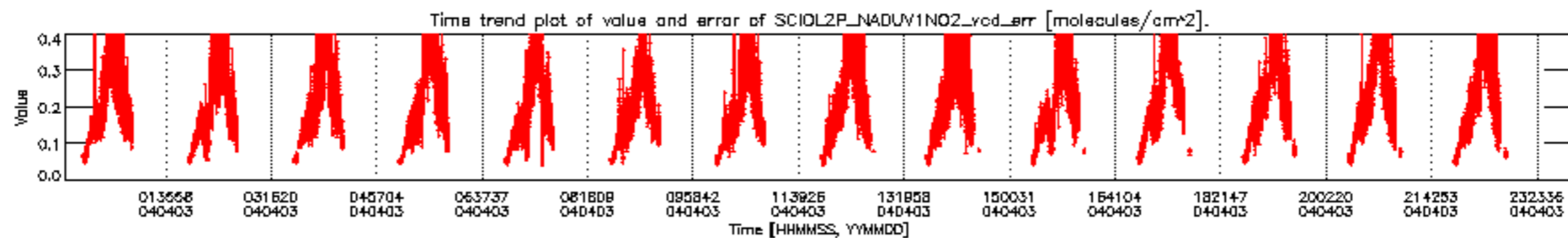
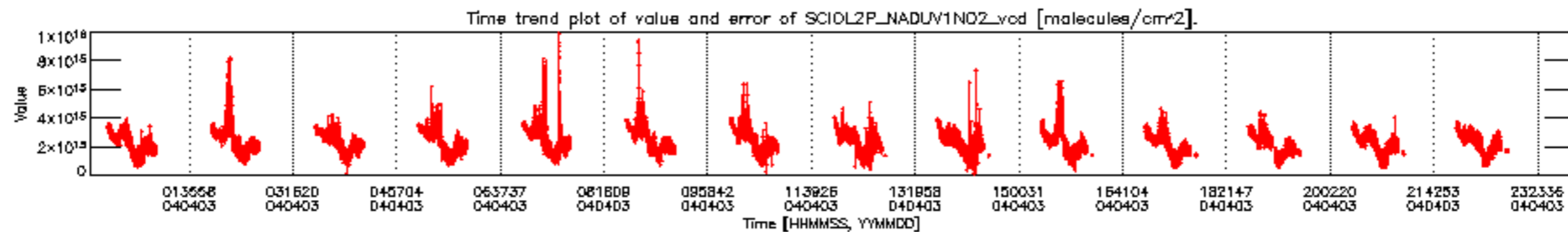


SCIOL2P_NADUV003_amf_gr for 03APR2004 00:00:00 to 04APR2004 00:00:00

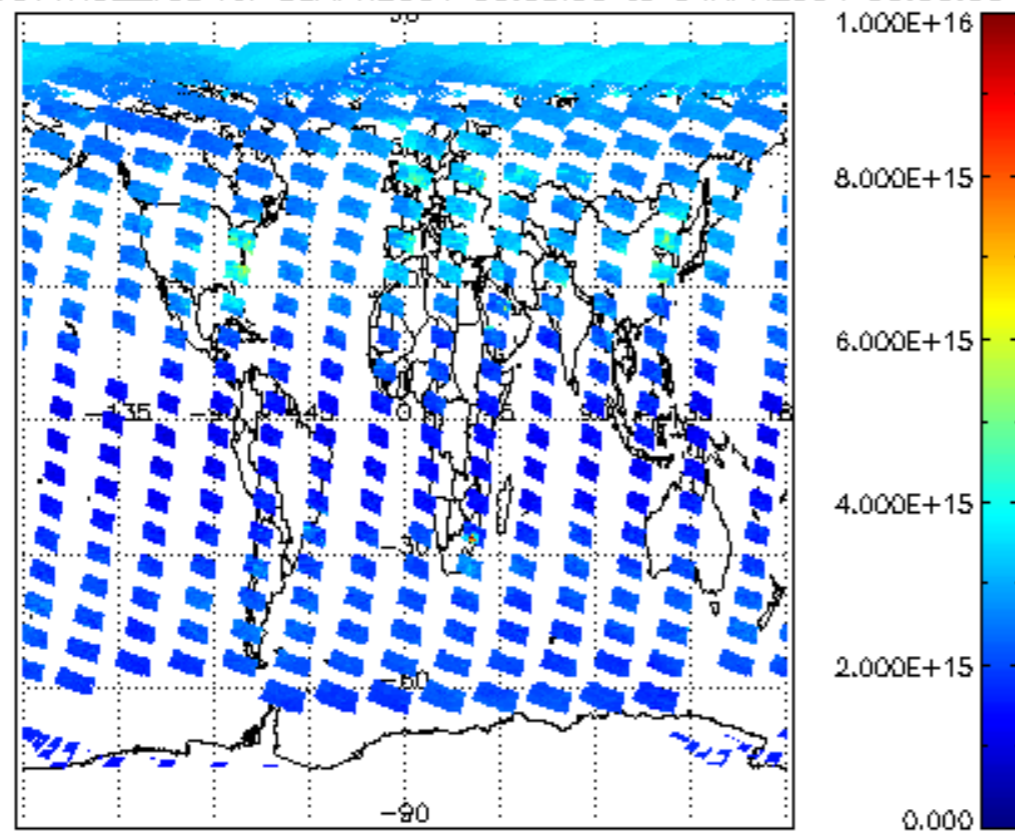


SCIOL2P_NADUV003_amf_cl for 03APR2004 00:00:00 to 04APR2004 00:00:00

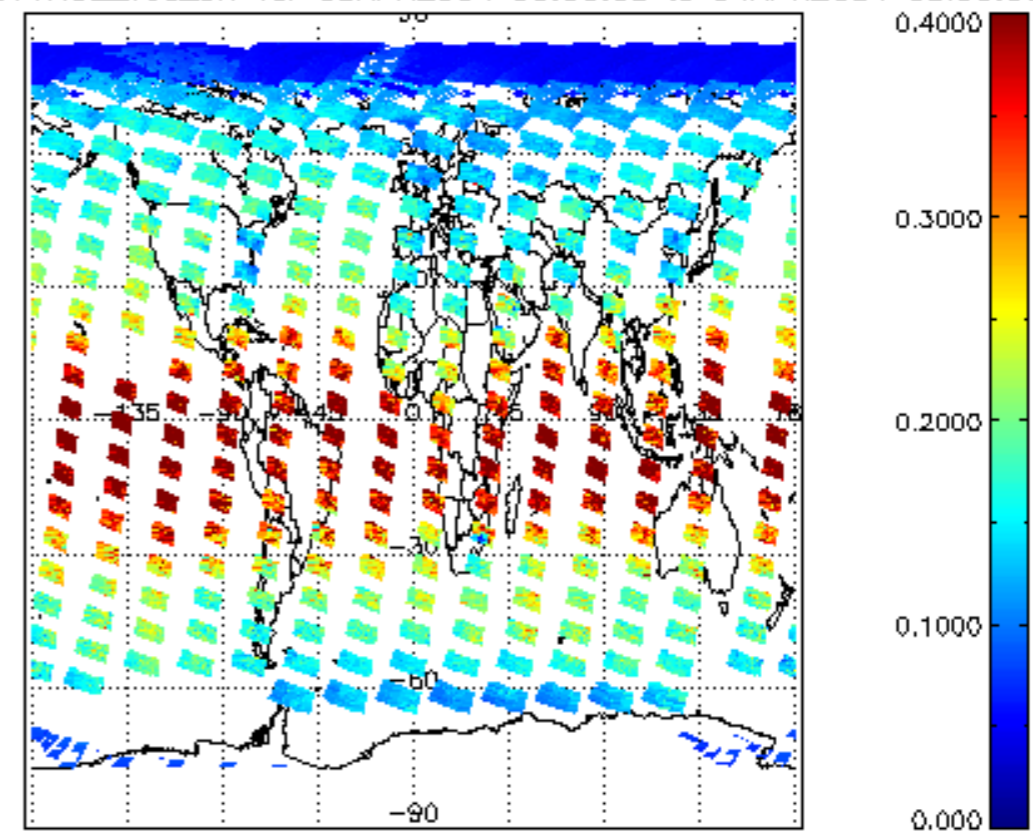




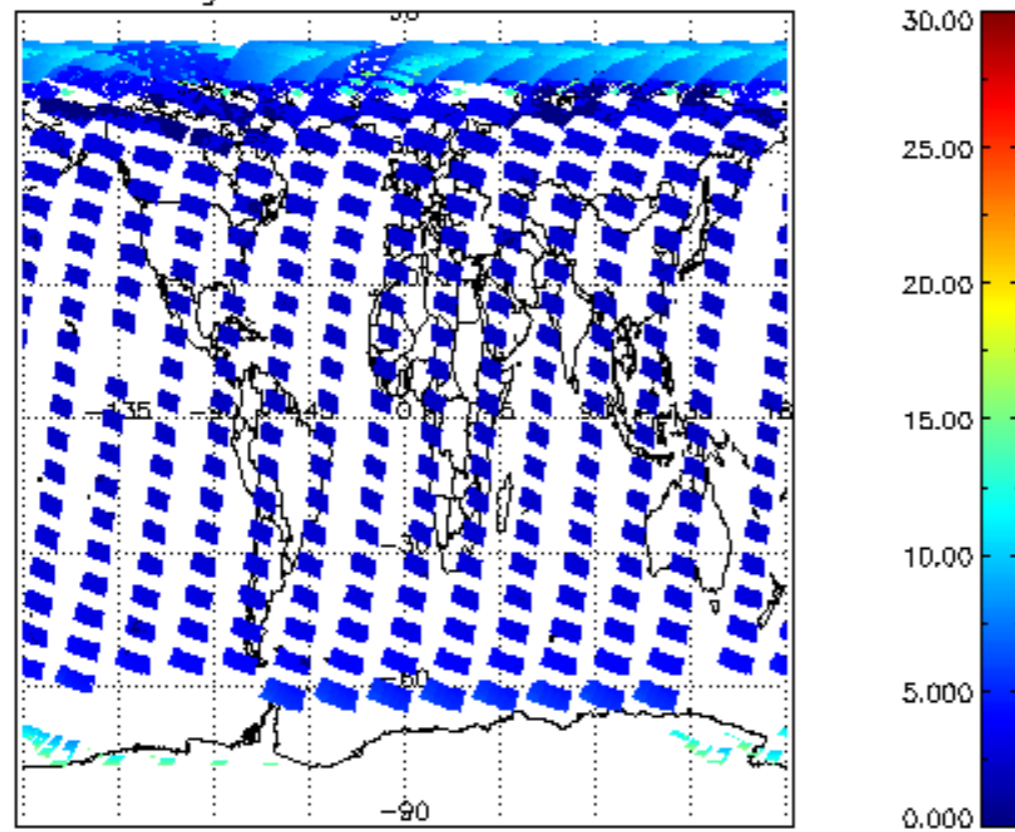
SCIOL2P_NADUV1NO2_vcd for 03APR2004 00:00:00 to 04APR2004 00:00:00



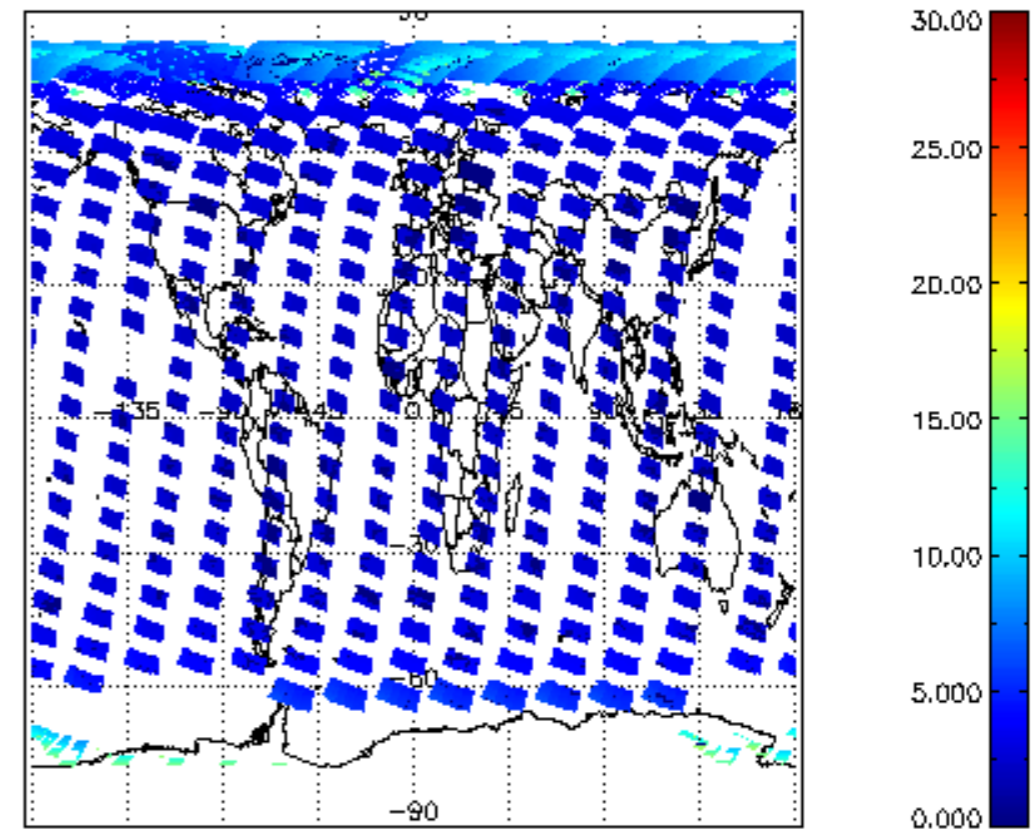
iCIOL2P_NADUV1NO2_vcd_err for 03APR2004 00:00:00 to 04APR2004 00:00:00



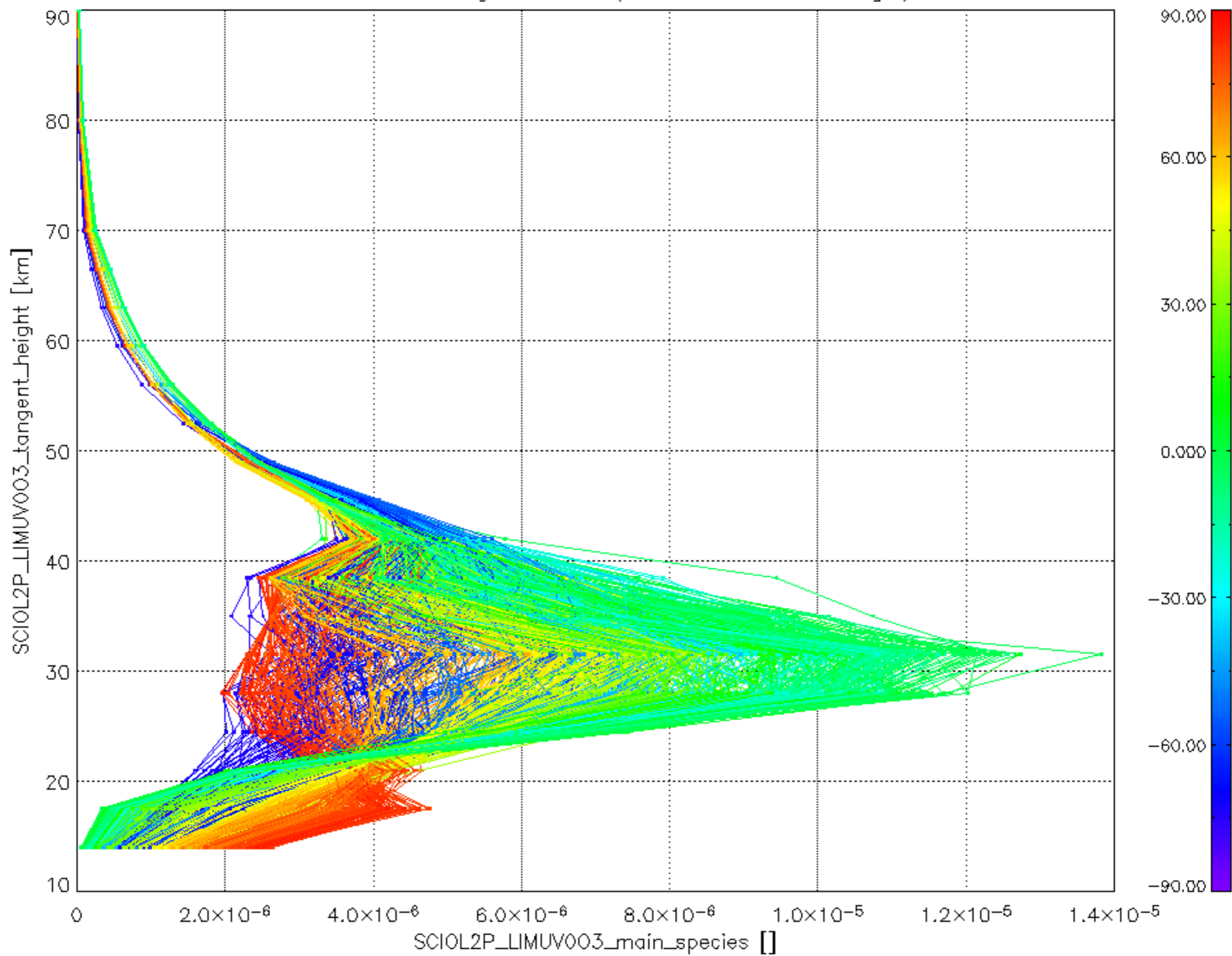
iCIOL2P_NADUV1NO2_amf_gr for 03APR2004 00:00:00 to 04APR2004 00:00:00



iCIOL2P_NADUV1NO2_amf_cl for 03APR2004 00:00:00 to 04APR2004 00:00:00



Plot of SCIOL2P_LIMUV003_main_species.tang_vmr vs. tangent height.
 Colours indicate tangent latitude (see colour bar on the right).



Plot of SCIOL2P_LIMUV1N02_main_species.tang_vmr vs. tangent height.
 Colours indicate tangent latitude (see colour bar on the right).

