

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 | 23JUL2009 06:04:18 |
| Data source version | SCIA-OL/3.01-R |
| Processing scope for products | 05JUL2009 00:00:00 to 06JUL2009 00:00:00 |
| Start time of first product within scope | 04JUL2009 23:55:02 |
| Stop time of last product within scope | 06JUL2009 00:19:11 |
| Total number of level 2 products | 15 |
| 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__2PRDPA20090704_235502_000033152080_00274_38404_3240.N1 | 04JUL2009 23:55:02 | 05JUL2009 00:50:18 | 0 | GOOD |
| 1 | SCI_OL__2PRDPA20090705_013538_000033132080_00275_38405_3241.N1 | 05JUL2009 01:35:38 | 05JUL2009 02:30:52 | 0 | GOOD |
| 2 | SCI_OL__2PRDPA20090705_031614_000033102080_00276_38406_3242.N1 | 05JUL2009 03:16:14 | 05JUL2009 04:11:25 | 0 | GOOD |
| 3 | SCI_OL__2PRDPA20090705_045650_000033082080_00277_38407_3243.N1 | 05JUL2009 04:56:50 | 05JUL2009 05:51:59 | 0 | GOOD |
| 4 | SCI_OL__2PRDPA20090705_063727_000033052080_00278_38408_3245.N1 | 05JUL2009 06:37:27 | 05JUL2009 07:32:32 | 0 | GOOD |
| 5 | SCI_OL__2PRDPA20090705_081803_000033032080_00279_38409_3247.N1 | 05JUL2009 08:18:03 | 05JUL2009 09:13:06 | 0 | GOOD |
| 6 | SCI_OL__2PRDPA20090705_095838_000033122080_00280_38410_3246.N1 | 05JUL2009 09:58:38 | 05JUL2009 10:53:51 | 0 | GOOD |
| 7 | SCI_OL__2PRDPA20090705_113914_000032972080_00281_38411_3244.N1 | 05JUL2009 11:39:14 | 05JUL2009 12:34:12 | 0 | GOOD |
| 8 | SCI_OL__2PRDPA20090705_131950_000032942080_00282_38412_3248.N1 | 05JUL2009 13:19:50 | 05JUL2009 14:14:45 | 0 | GOOD |
| 9 | SCI_OL__2PRDPA20090705_150026_000033602080_00283_38413_3249.N1 | 05JUL2009 15:00:26 | 05JUL2009 15:56:27 | 0 | GOOD |
| 10 | SCI_OL__2PRDPA20090705_164102_000033572080_00284_38414_3250.N1 | 05JUL2009 16:41:02 | 05JUL2009 17:37:00 | 0 | GOOD |
| 11 | SCI_OL__2PRDPA20090705_182127_000033152080_00285_38415_3251.N1 | 05JUL2009 18:21:27 | 05JUL2009 19:16:43 | 0 | GOOD |
| 12 | SCI_OL__2PRDPA20090705_200135_000033412080_00286_38416_3252.N1 | 05JUL2009 20:01:35 | 05JUL2009 20:57:16 | 0 | GOOD |
| 13 | SCI_OL__2PRDPA20090705_214250_000033482080_00287_38417_3253.N1 | 05JUL2009 21:42:50 | 05JUL2009 22:38:39 | 0 | GOOD |
| 14 | SCI_OL__2PRDPA20090705_232326_000033442080_00288_38418_3254.N1 | 05JUL2009 23:23:26 | 06JUL2009 00:19:11 | 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: 143553

Total number of cloud data DSRs with good quality flag (=0): 143553 (100.0 %)

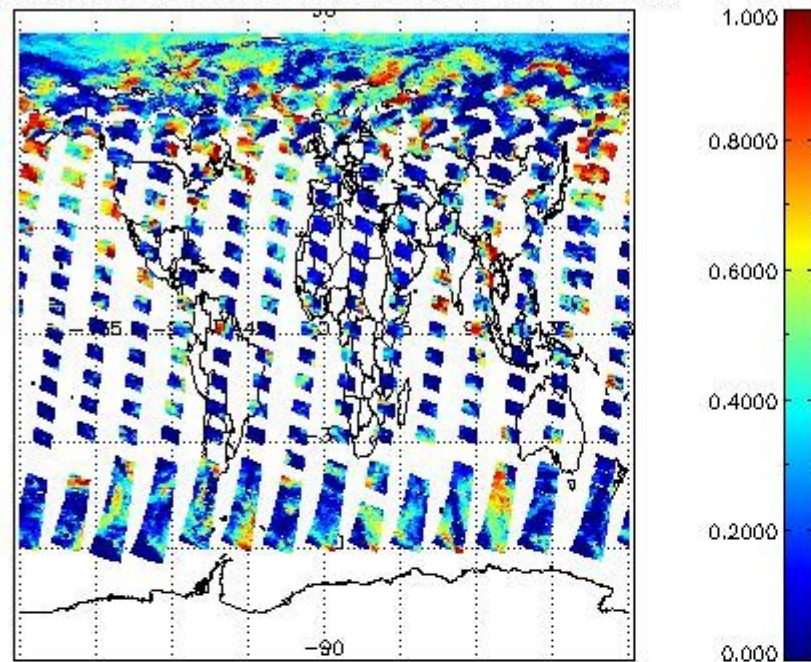
| Parameter | #valid | Mean | Median | Min | Max | Stddev | Unit |
|-------------------|--------|----------|----------|----------|----------|----------|-------|
| QUALITY_FLAG | 143553 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | flag |
| INTEGR_TIME | 143553 | 0.17662 | 0.12500 | 0.12500 | 0.25000 | 0.061546 | s |
| CL_FRAC | 143553 | 0.28092 | 0.21773 | 0.0000 | 1.0000 | 0.27206 | - |
| CL_FRAC_ERR | 143553 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | % |
| PMD_READ | 143553 | 5.6518 | 4.0000 | 4.0000 | 8.0000 | 1.9695 | |
| PMD_READ_CL[0] | 143553 | 0.18686 | 0.0000 | 0.0000 | 8.0000 | 1.0160 | - |
| PMD_READ_CL[1] | 143553 | 1.8286 | 0.0000 | 0.0000 | 8.0000 | 2.6300 | - |
| CL_TOP_HEIGHT | 125480 | 3.2211 | 1.1040 | 0.0000 | 17.000 | 3.8991 | km |
| CL_TOP_HEIGHT_ERR | 0 | --- | --- | --- | --- | --- | --- |
| CL_OPT_DEPTH | 125480 | 56.313 | 61.737 | 0.0000 | 101.00 | 44.999 | km |
| CL_OPT_DEPTH_ERR | 0 | --- | --- | --- | --- | --- | --- |
| CL_TYPE_FLAGS | 143553 | 11100000 | 11100000 | 11100000 | 11100000 | 0.0000 | flags |
| CLOUD_FLAGS | 143553 | 11001101 | 11000100 | 11000000 | 11100000 | 3604.0 | flags |
| AERO_ABSO_IND | 143553 | 4.0872 | 4.8122 | -0.89441 | 22.819 | 2.7399 | |
| AERO_IND_DIAG | 143553 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| AERO_FLAGS | 143553 | 01011111 | 00000000 | 00000000 | 11000000 | 24575. | flags |

Time and geolocation plots:

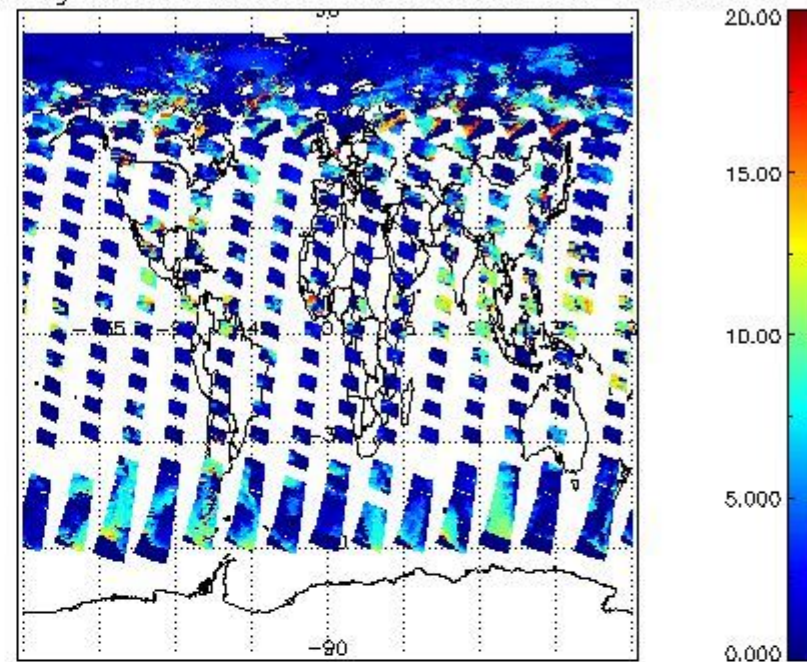
Plots are available for the following parameters:

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

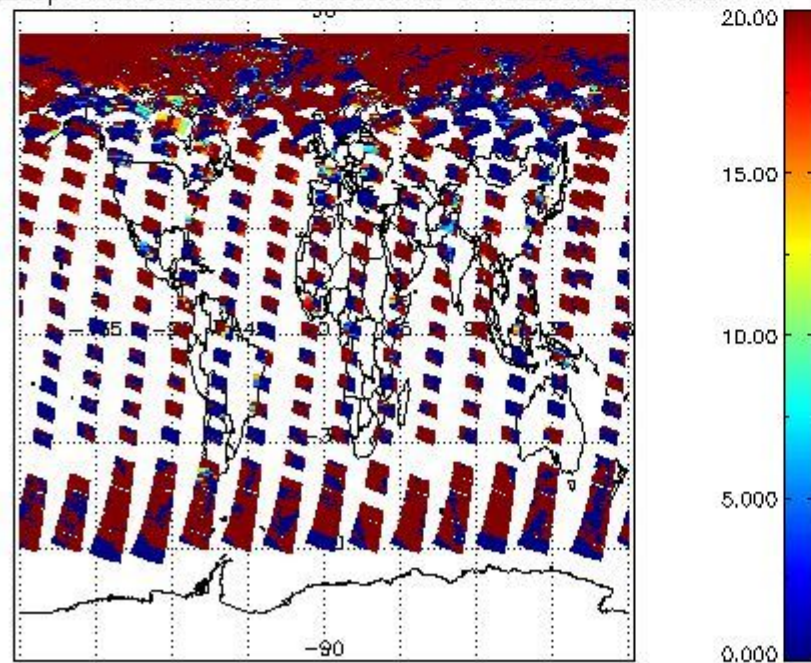
cL_frac for 05JUL2009 00:00:00 to 06JUL2009 00:00:00



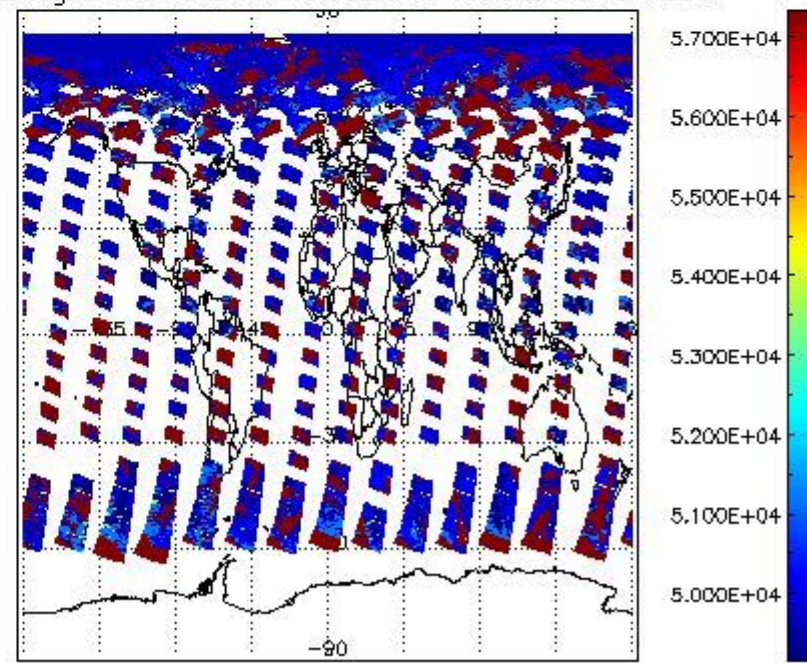
cL_top_height for 05JUL2009 00:00:00 to 06JUL2009 00:00:00



cL_opt_depth for 05JUL2009 00:00:00 to 06JUL2009 00:00:00



cloud_flags for 05JUL2009 00:00:00 to 06JUL2009 00:00:00



2.2.2 Nadir

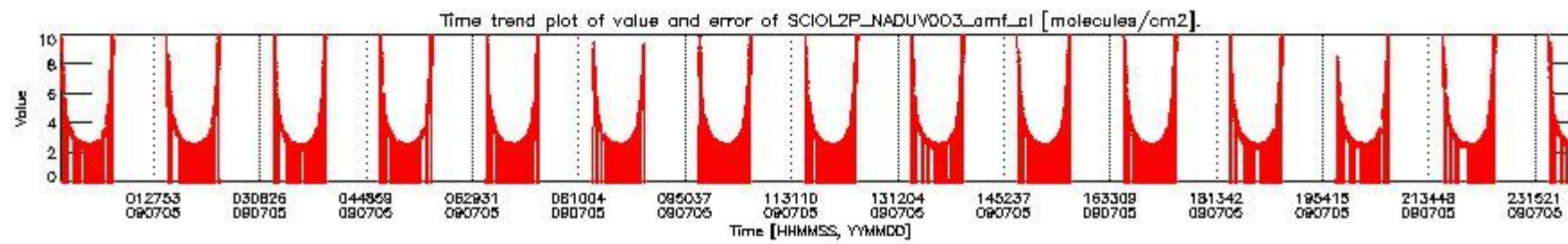
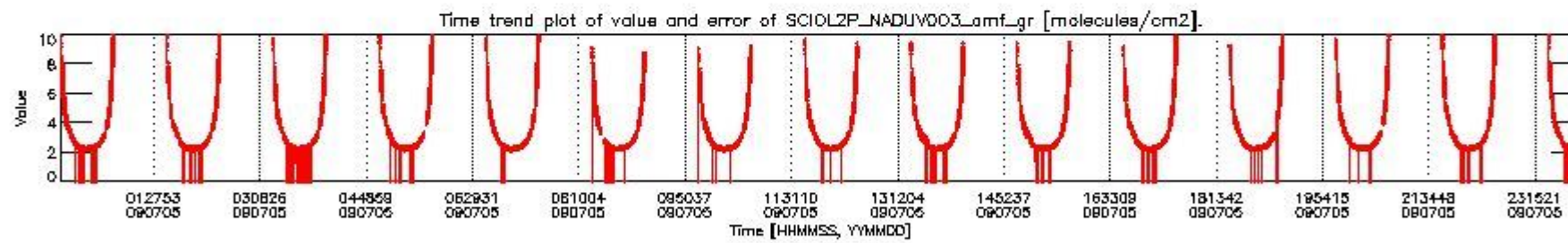
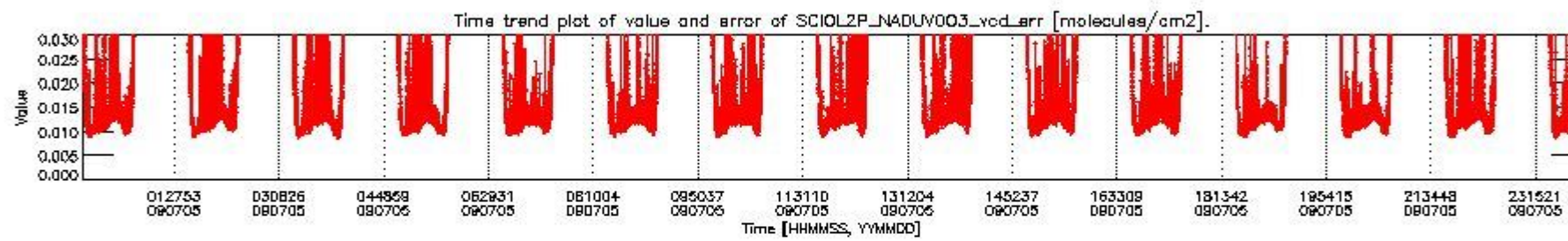
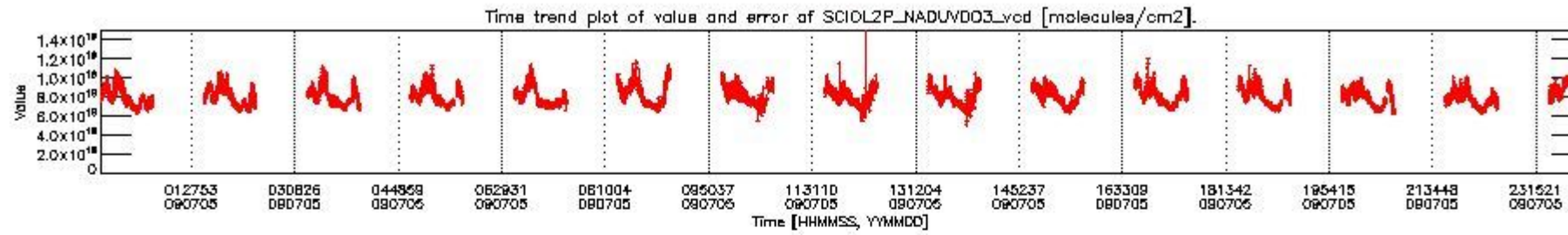
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

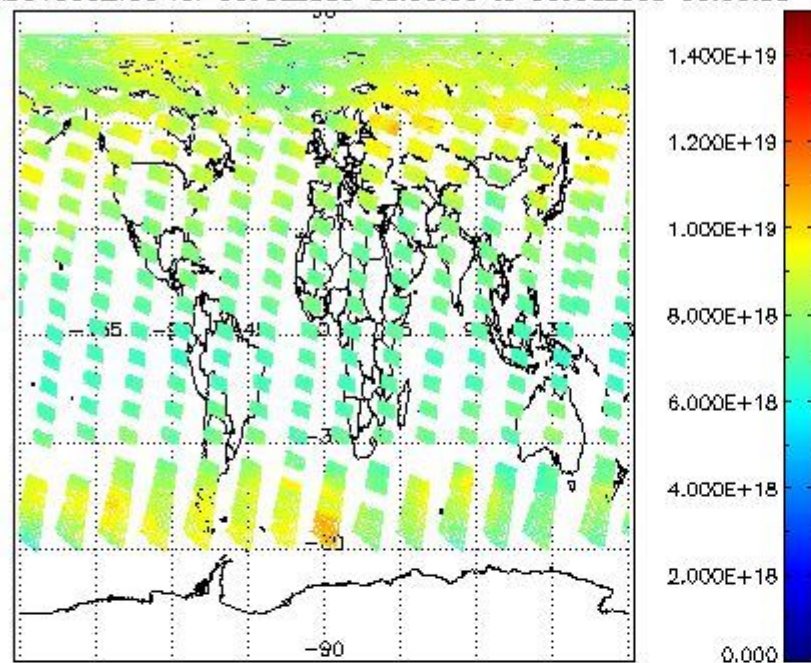
| Number | Data item ID |
|--------|--------------------------|
| 0 | SCIOL2P_NADUV003_vcd |
| 1 | SCIOL2P_NADUV003_vcd_err |
| 2 | SCIOL2P_NADUV003_amf_gr |

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

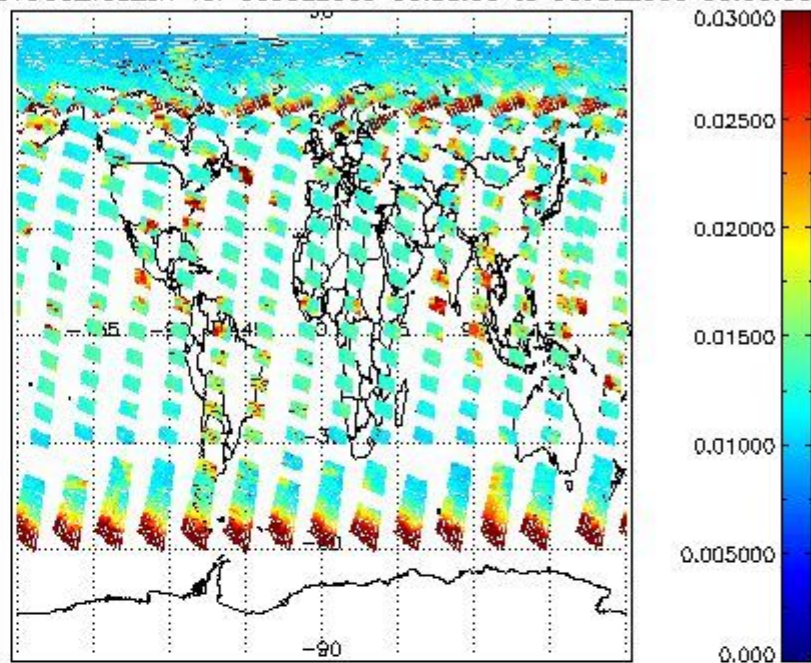
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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



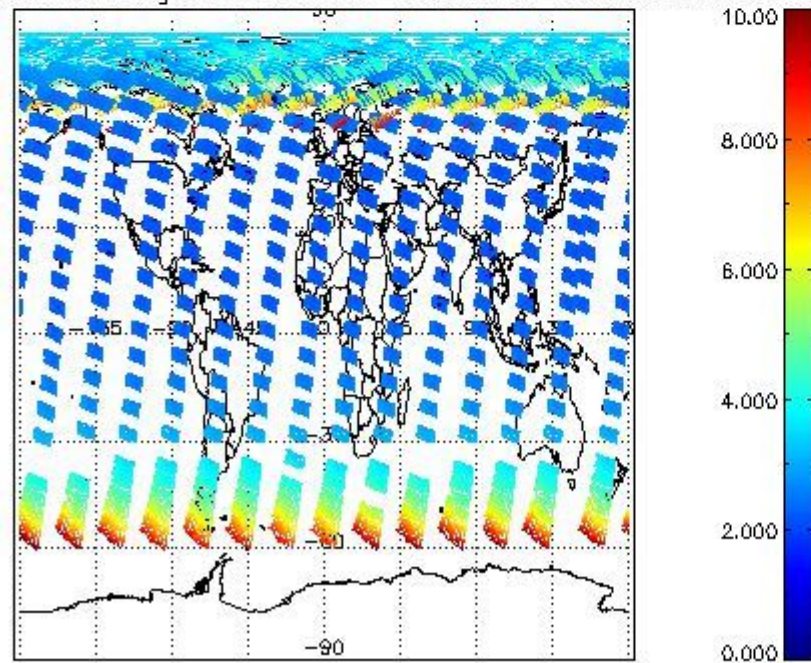
SCIOL2P_NADUV003_vcd for 05JUL2009 00:00:00 to 06JUL2009 00:00:00



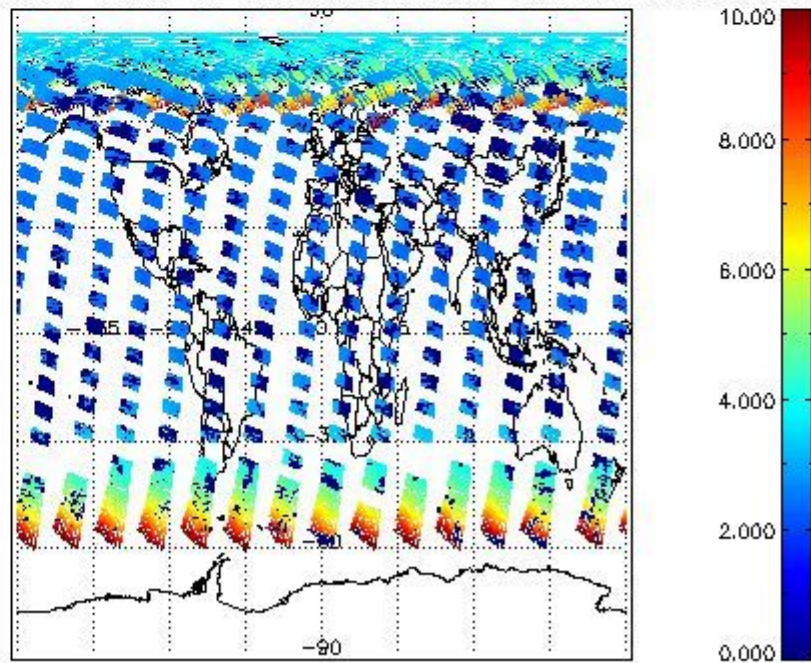
SCIOL2P_NADUV003_vcd_err for 05JUL2009 00:00:00 to 06JUL2009 00:00:00

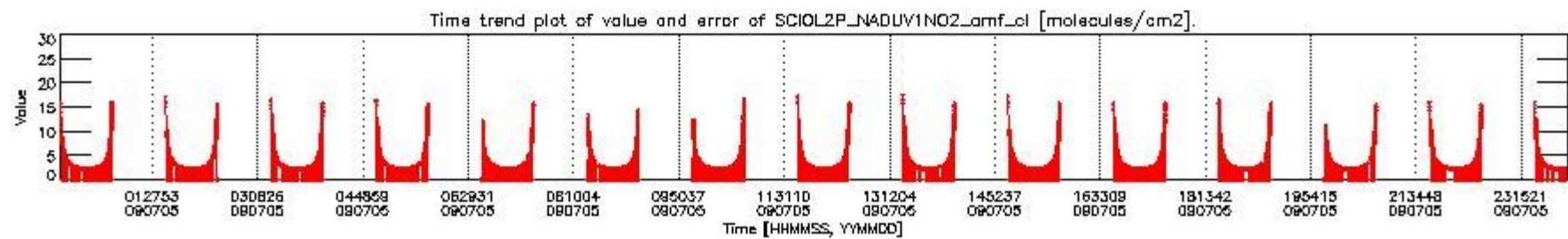
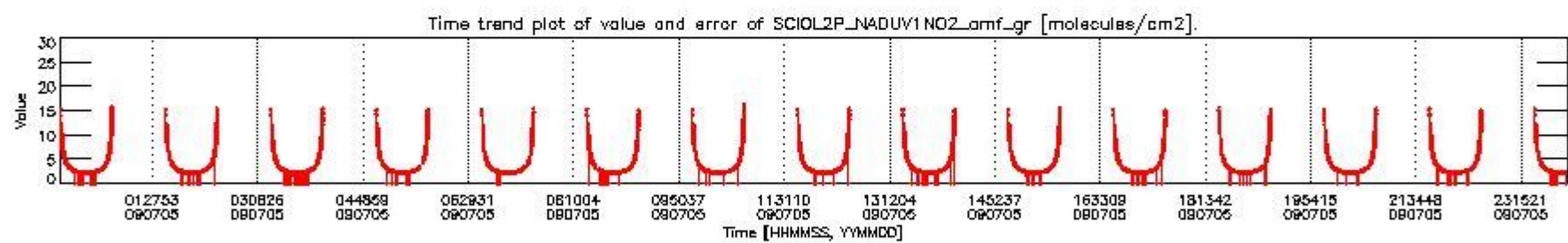
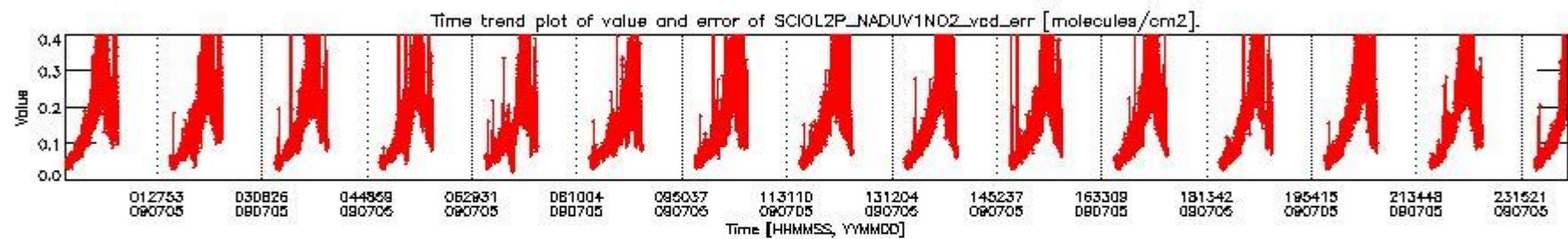
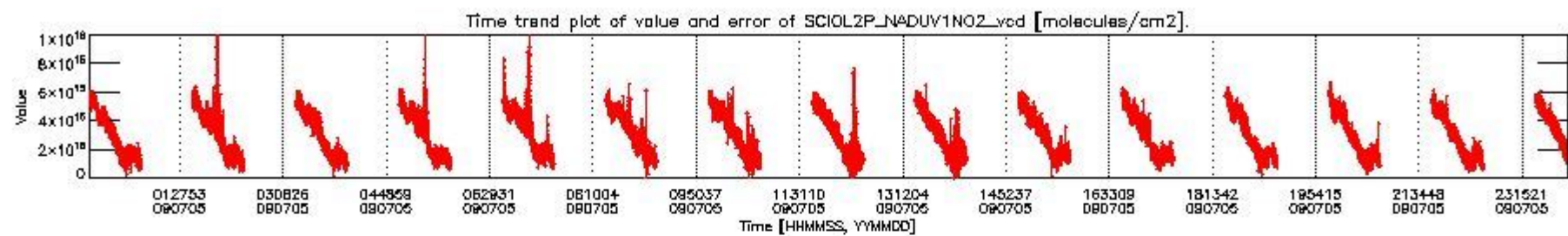


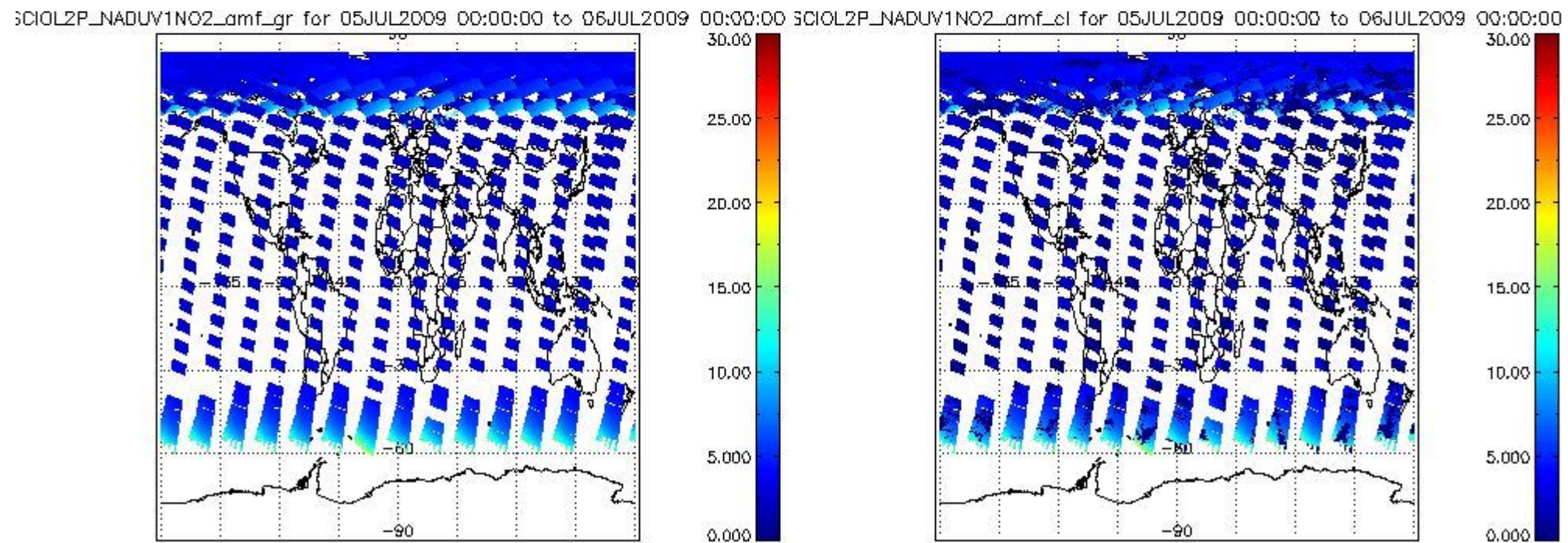
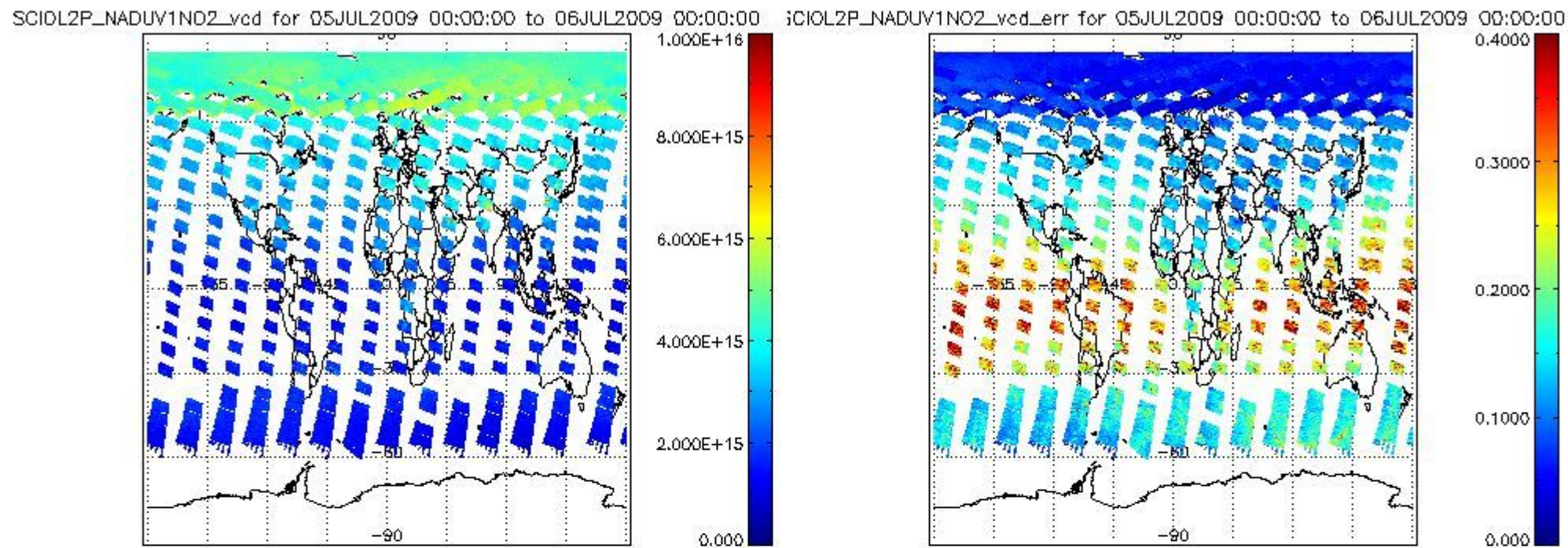
SCIOL2P_NADUV003_amf_gr for 05JUL2009 00:00:00 to 06JUL2009 00:00:00



SCIOL2P_NADUV003_amf_cl for 05JUL2009 00:00:00 to 06JUL2009 00:00:00







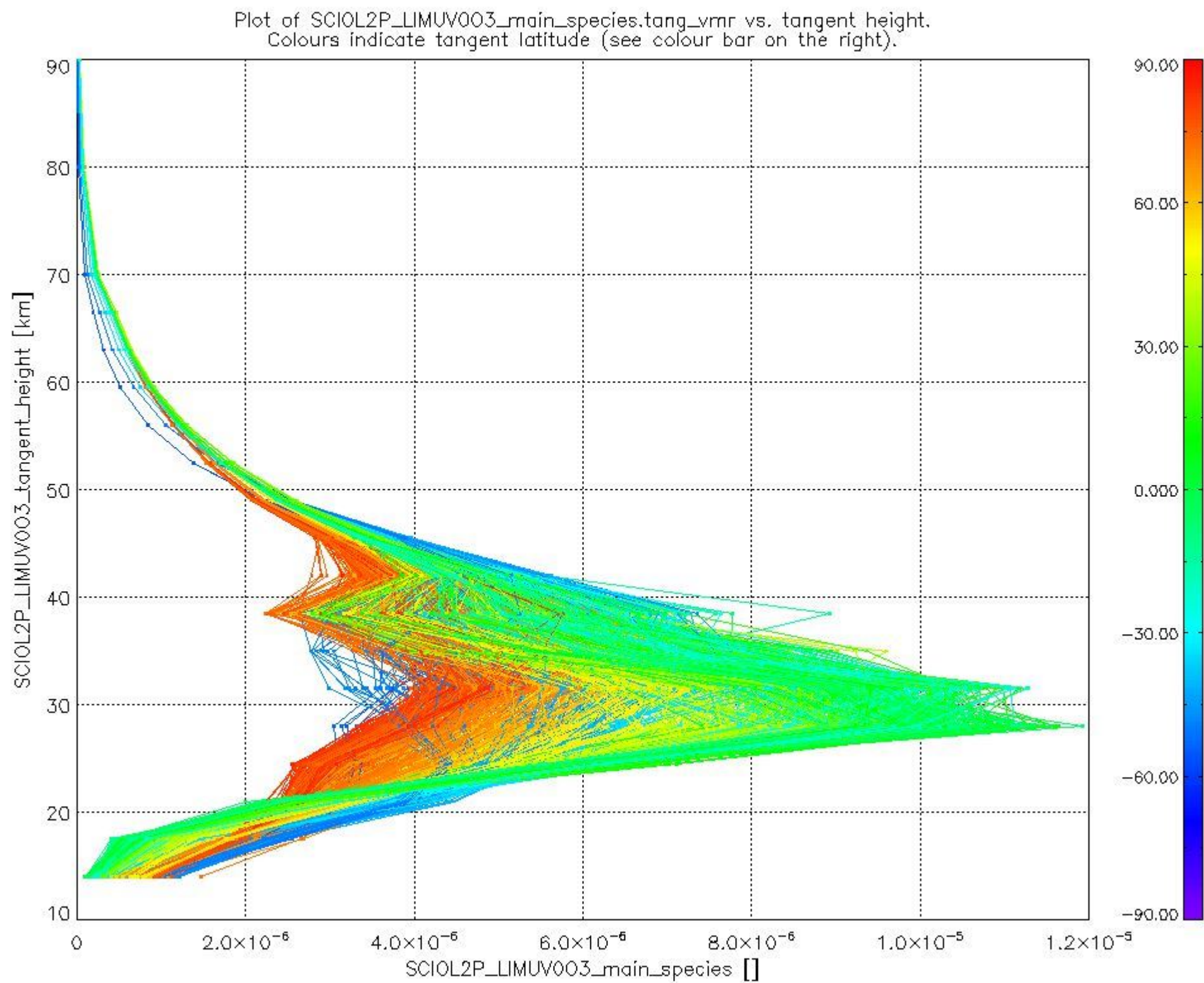
2.2.3 Limb

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

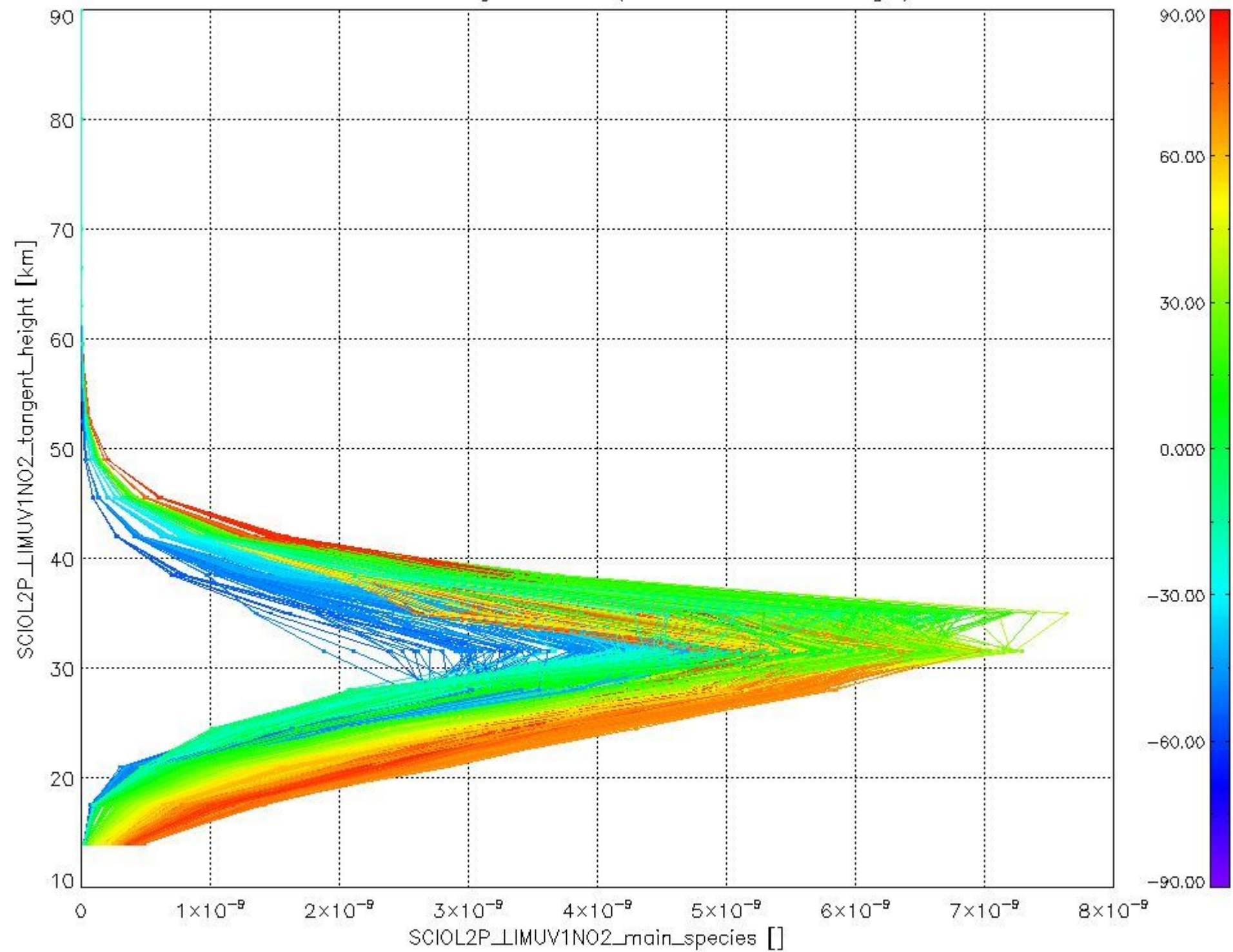
The following data items are currently included into this section:

| 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.



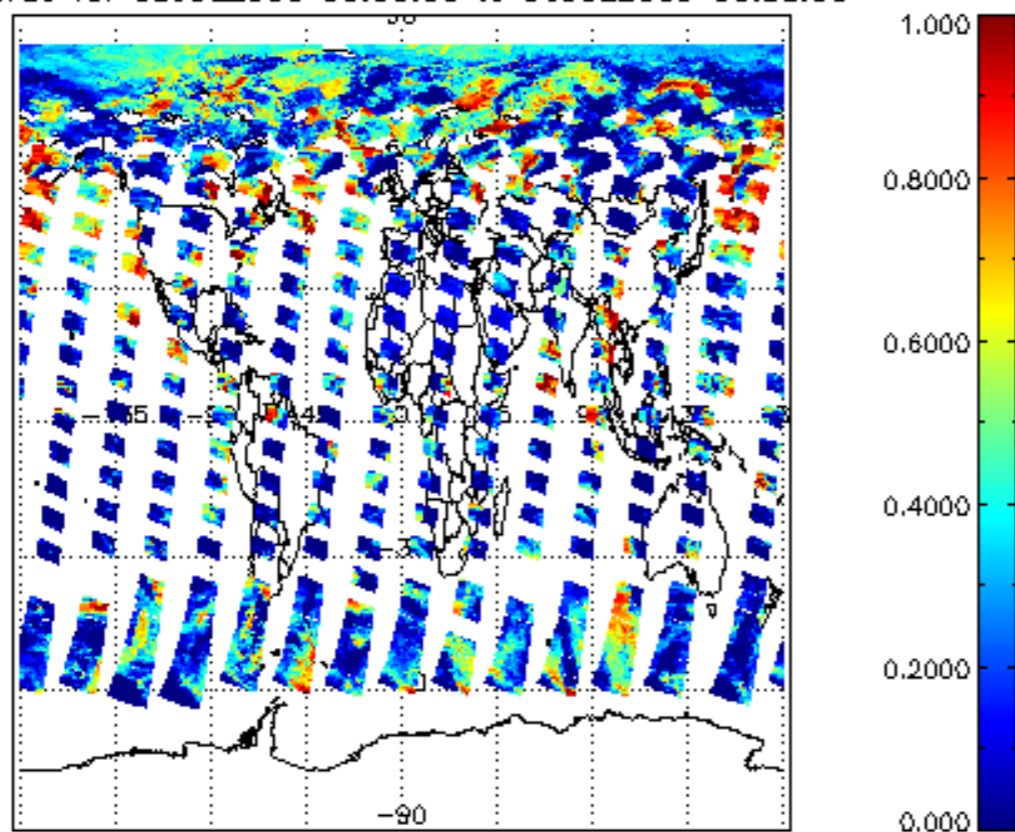
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



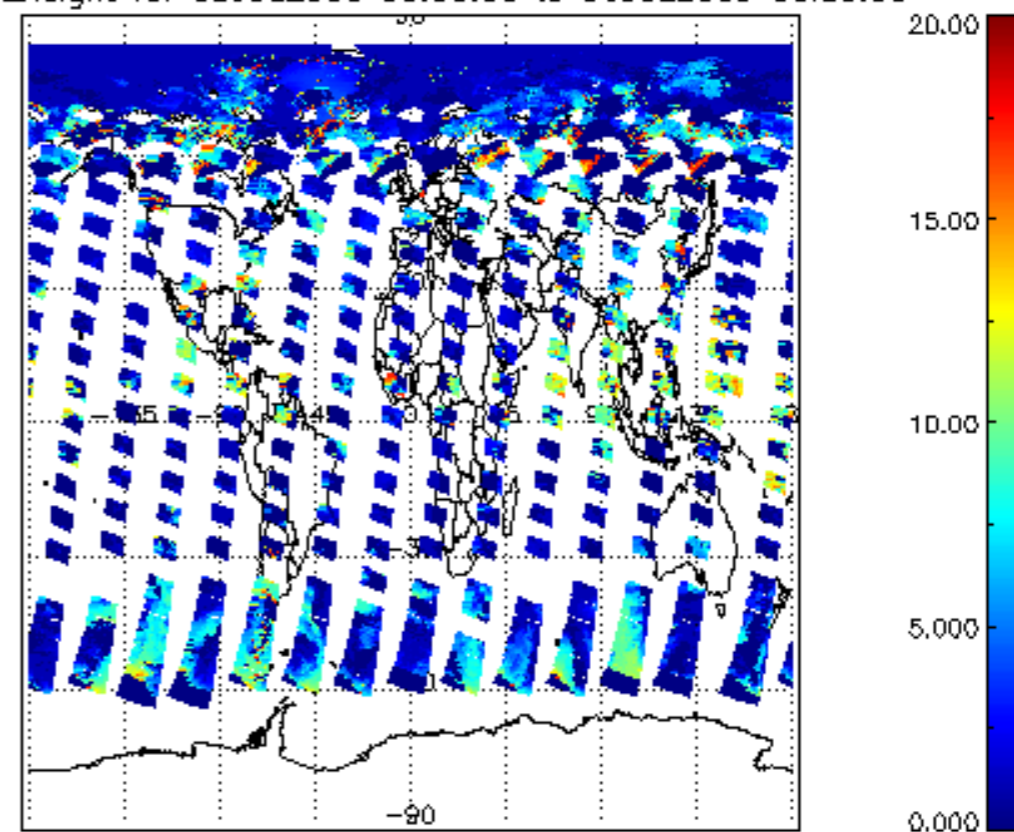
2.3 ADF monitoring

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

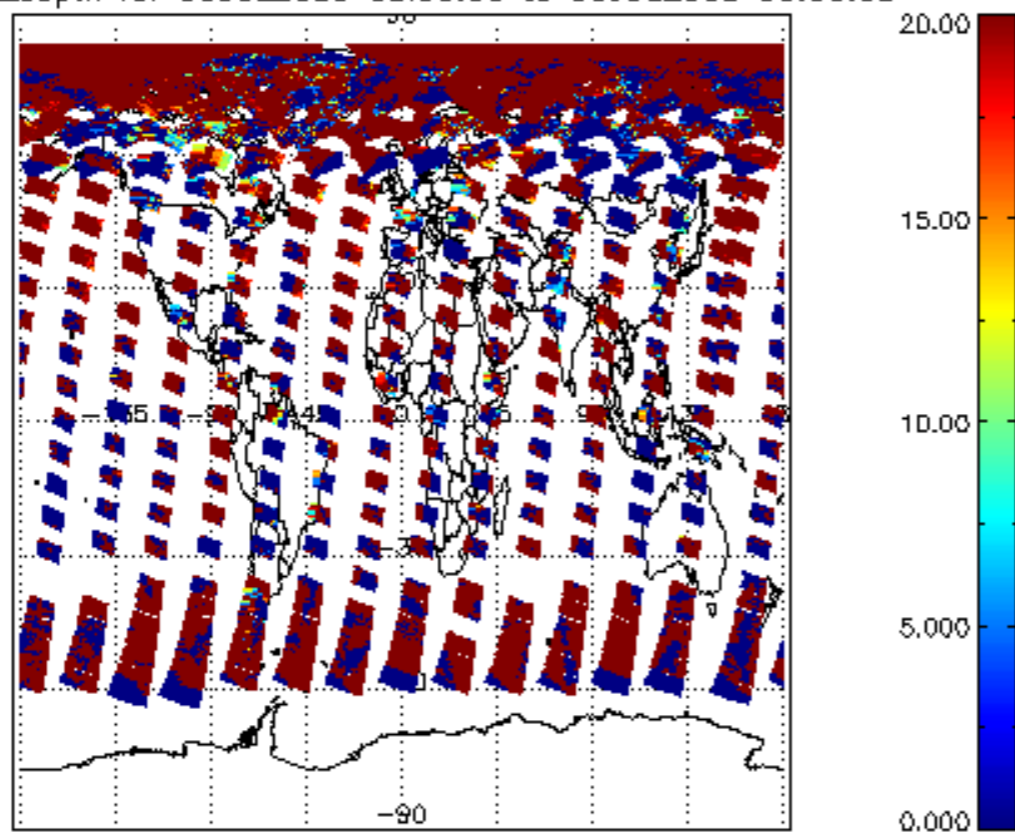
cl_frac for 05JUL2009 00:00:00 to 06JUL2009 00:00:00



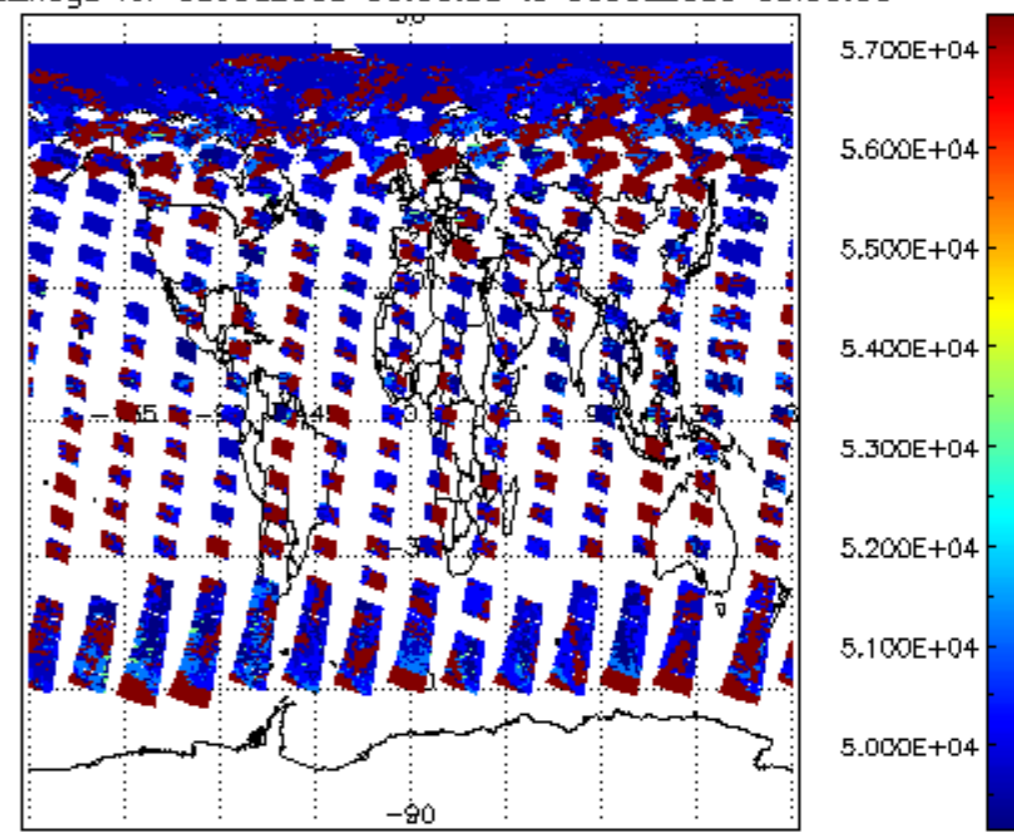
cl_top_height for 05JUL2009 00:00:00 to 06JUL2009 00:00:00

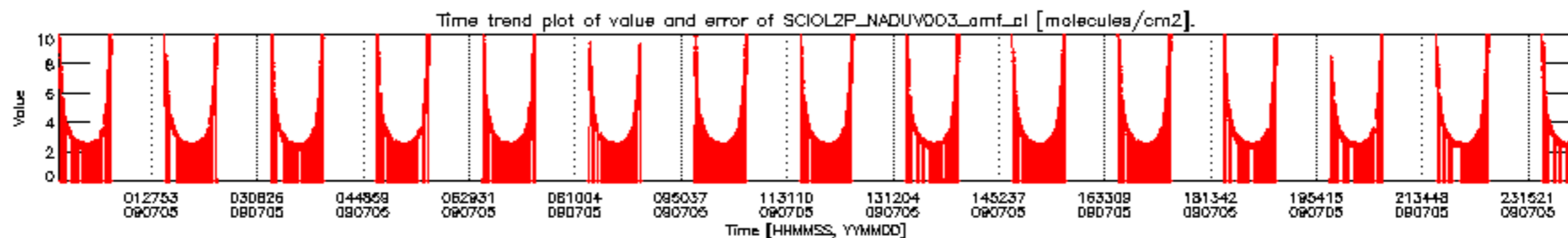
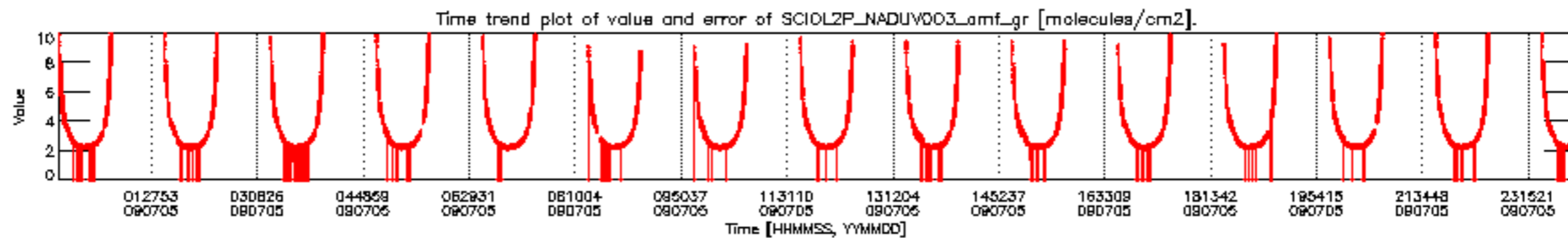
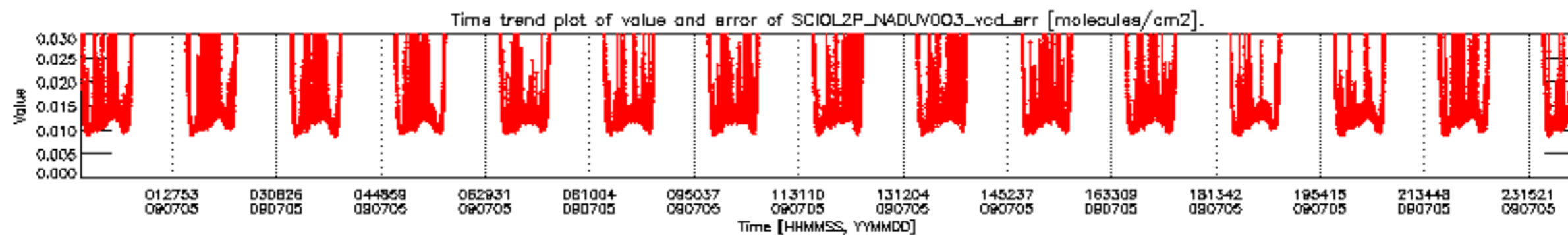
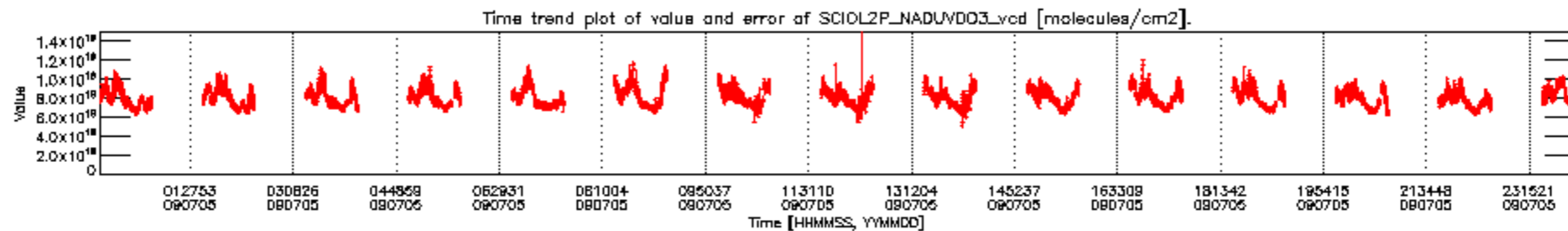


cl_lopt_depth for 05JUL2009 00:00:00 to 06JUL2009 00:00:00

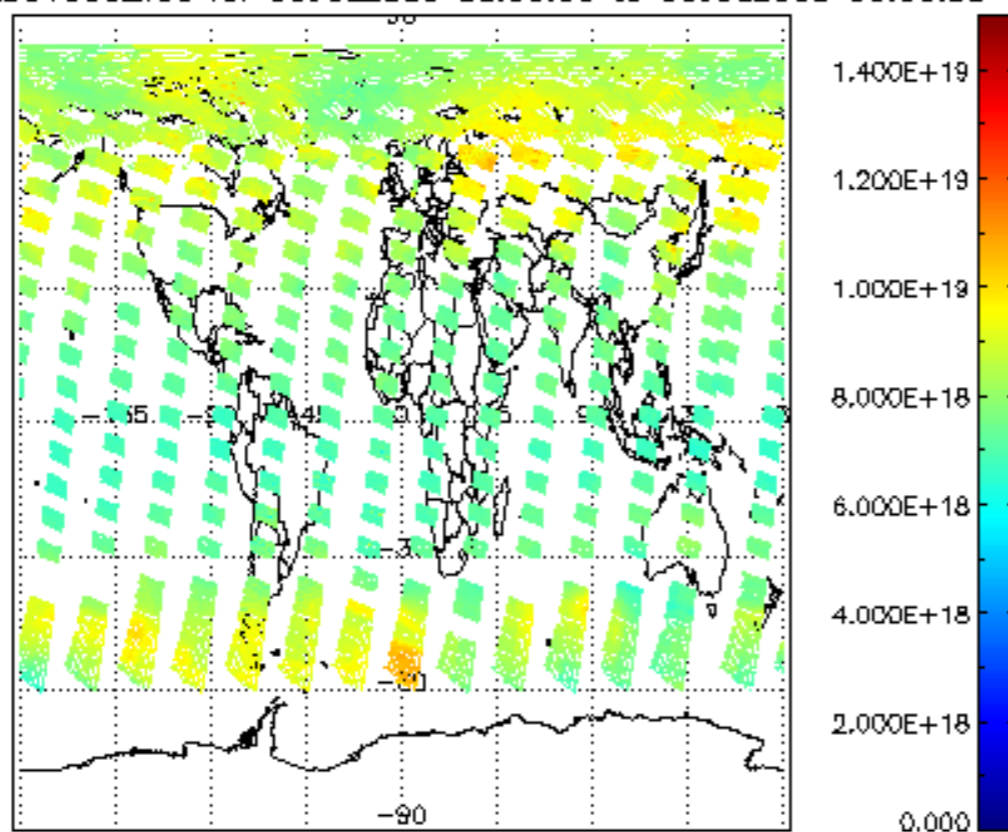


cloud_flags for 05JUL2009 00:00:00 to 06JUL2009 00:00:00

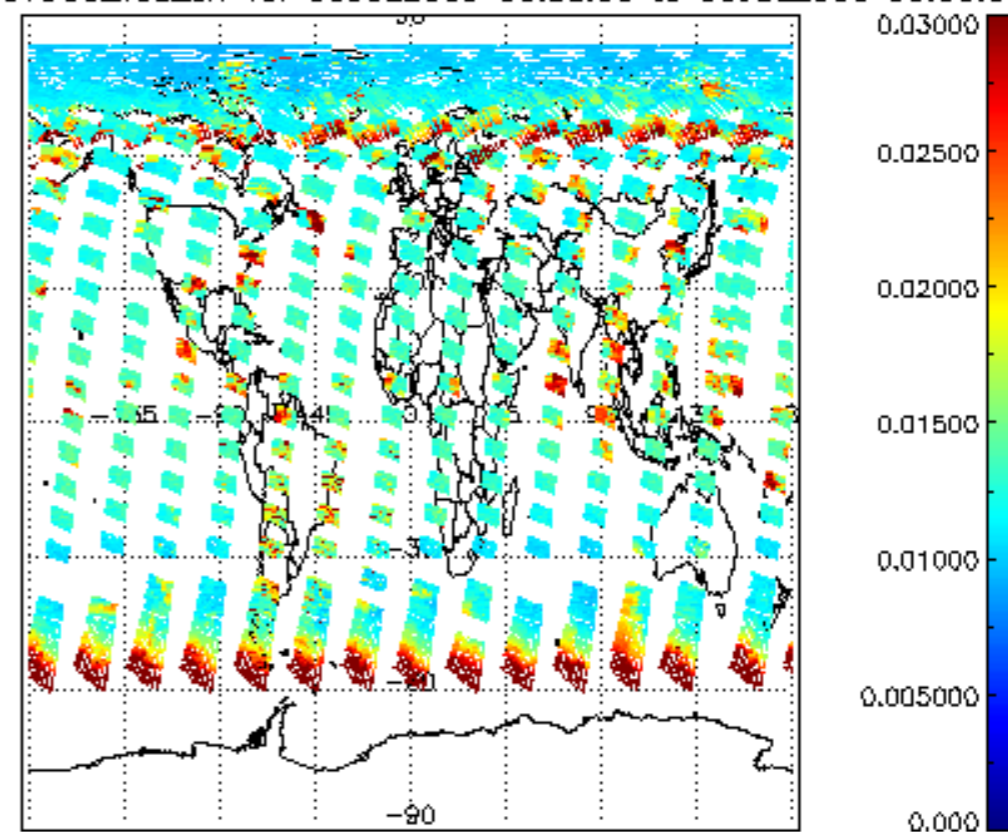




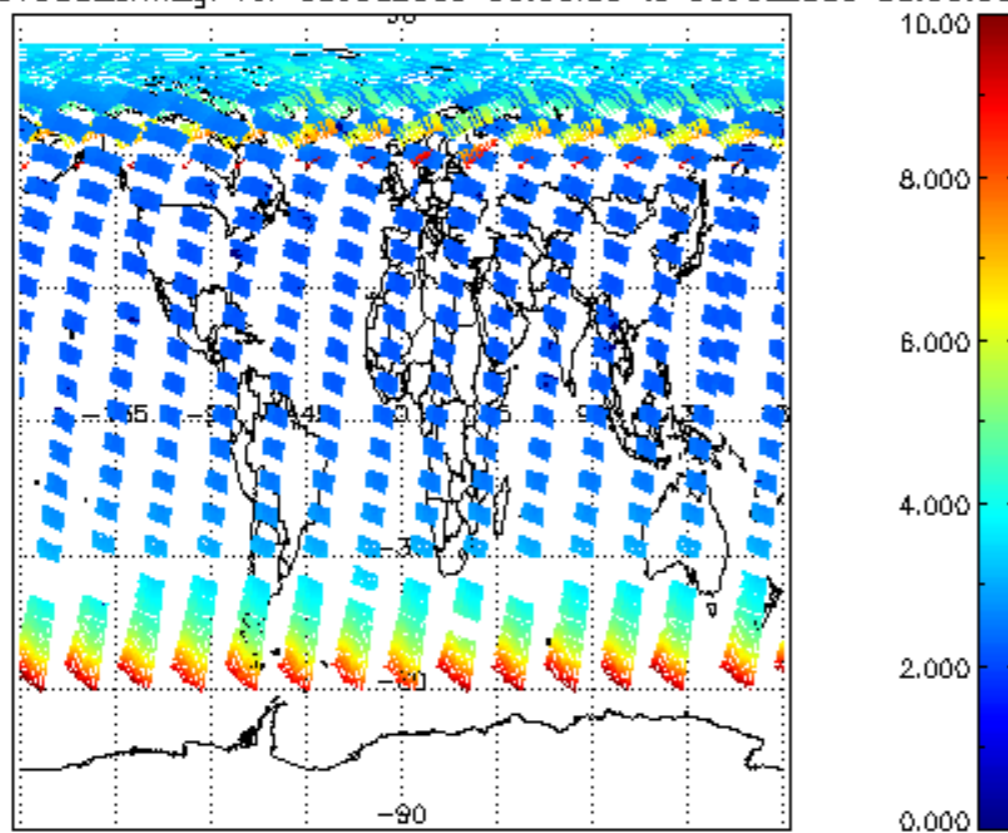
SCIOL2P_NADUV003_vcd for 05JUL2009 00:00:00 to 06JUL2009 00:00:00



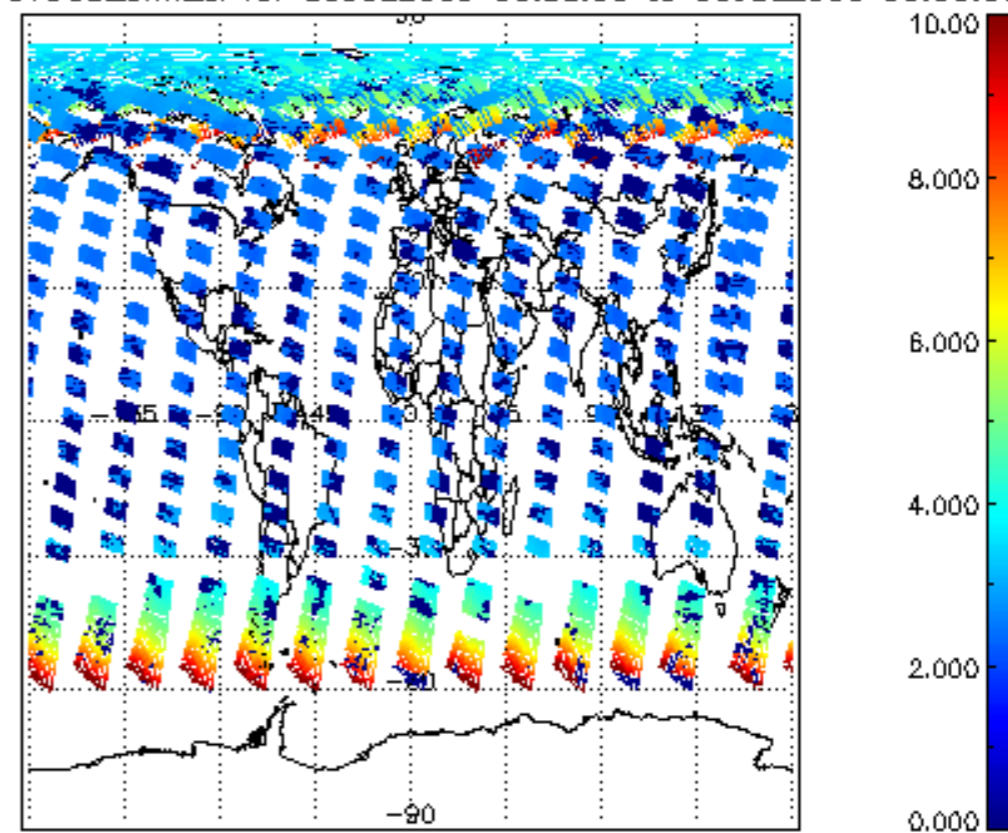
SCIOL2P_NADUV003_vcd_err for 05JUL2009 00:00:00 to 06JUL2009 00:00:00

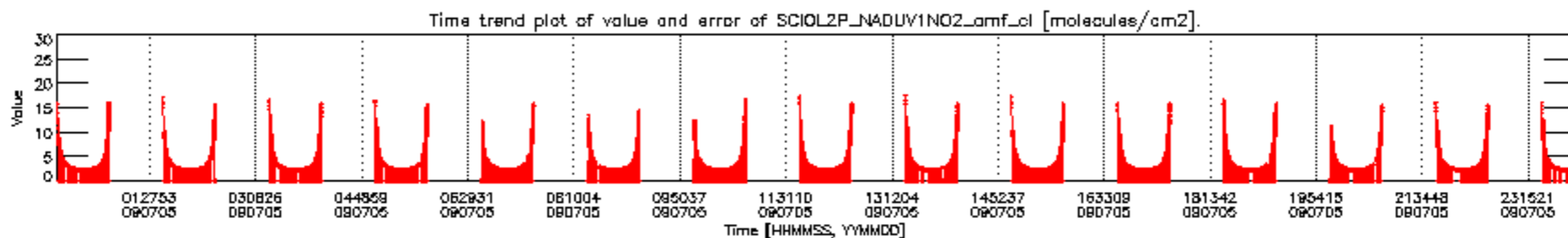
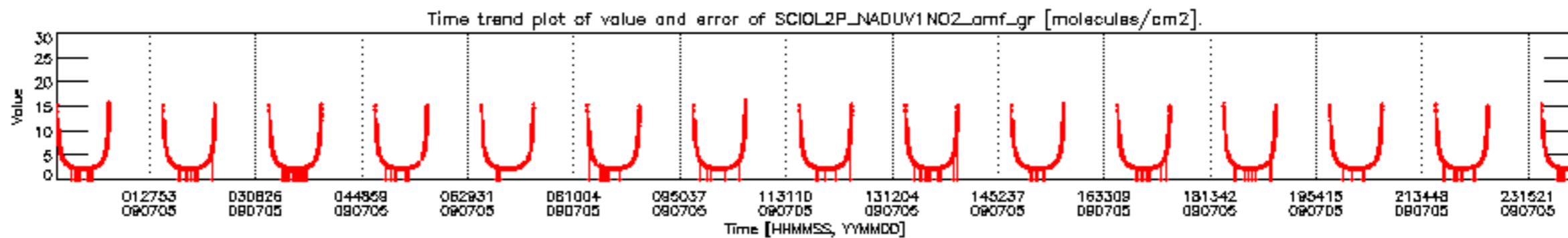
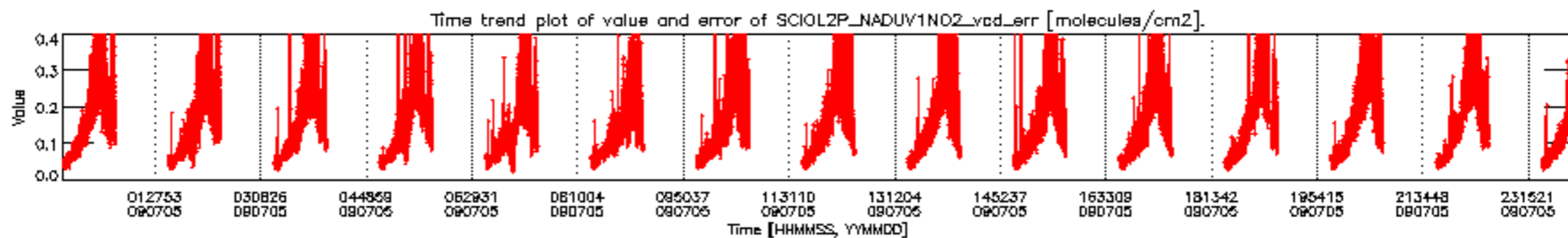
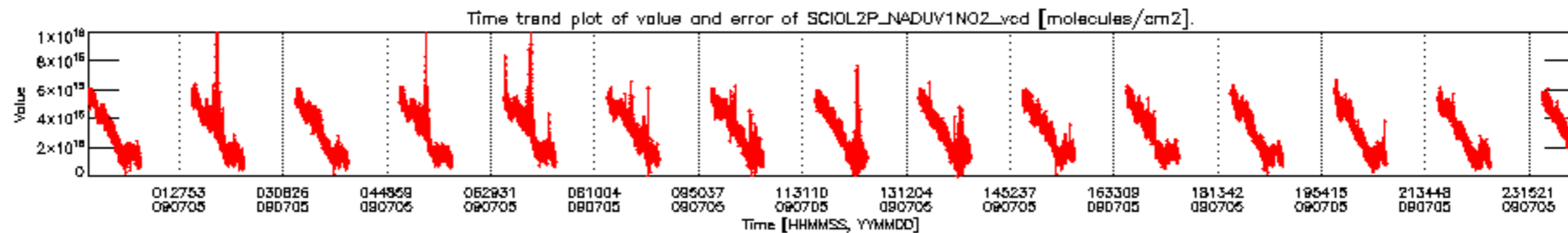


SCIOL2P_NADUV003_amf_gr for 05JUL2009 00:00:00 to 06JUL2009 00:00:00

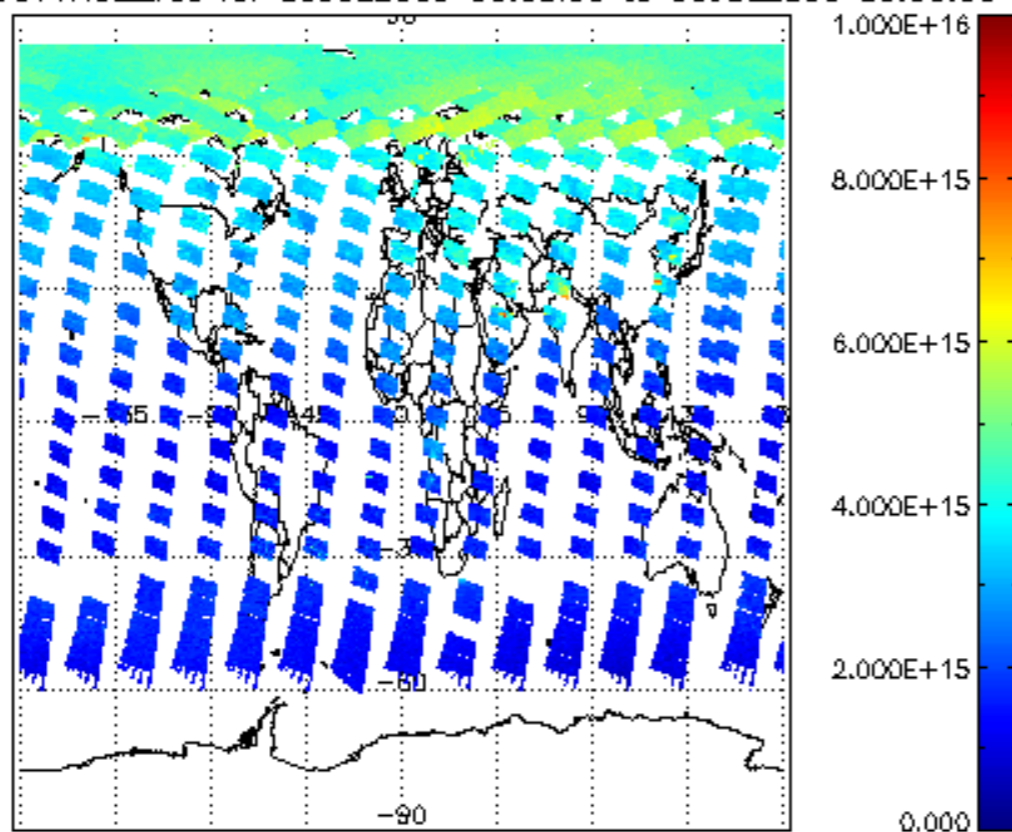


SCIOL2P_NADUV003_amf_cl for 05JUL2009 00:00:00 to 06JUL2009 00:00:00

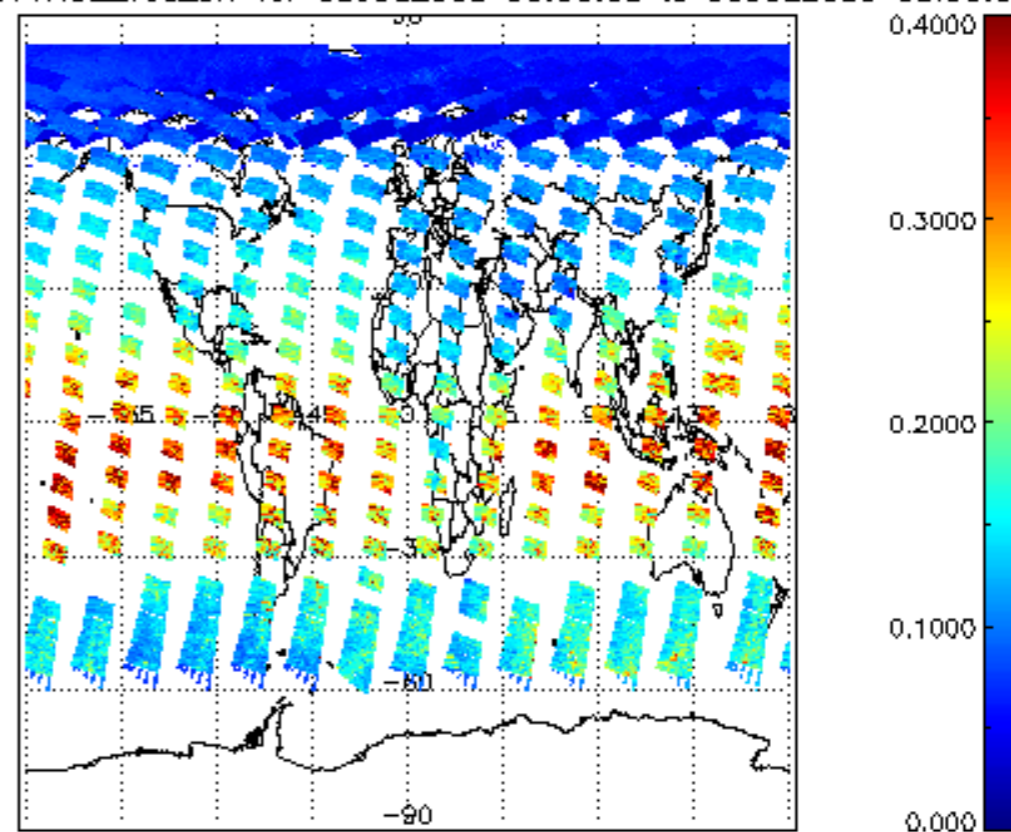




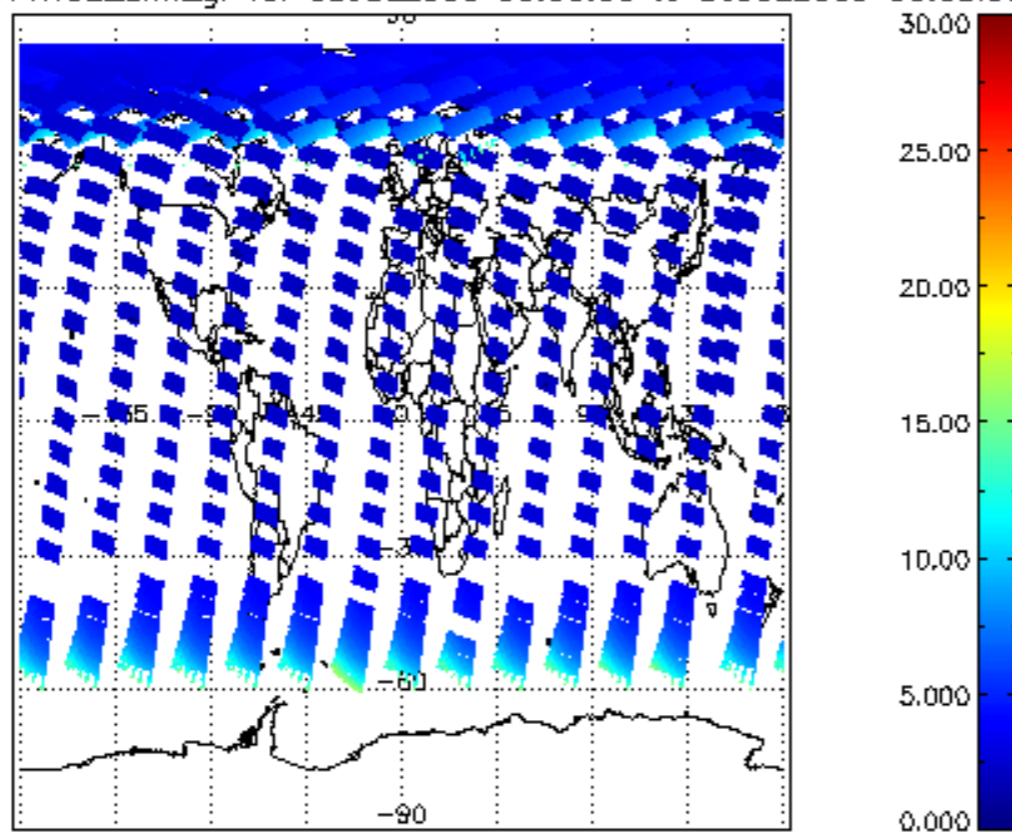
SCIOL2P_NADUV1NO2_vcd for 05JUL2009 00:00:00 to 06JUL2009 00:00:00



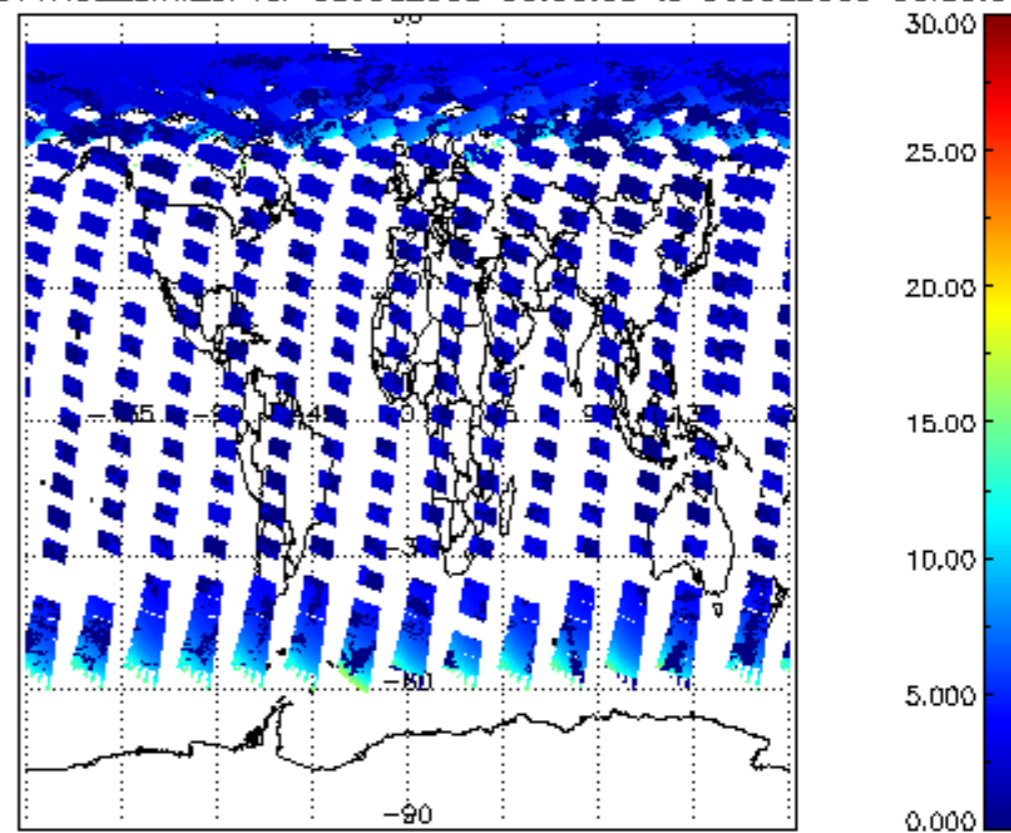
SCIOL2P_NADUV1NO2_vcd_err for 05JUL2009 00:00:00 to 06JUL2009 00:00:00



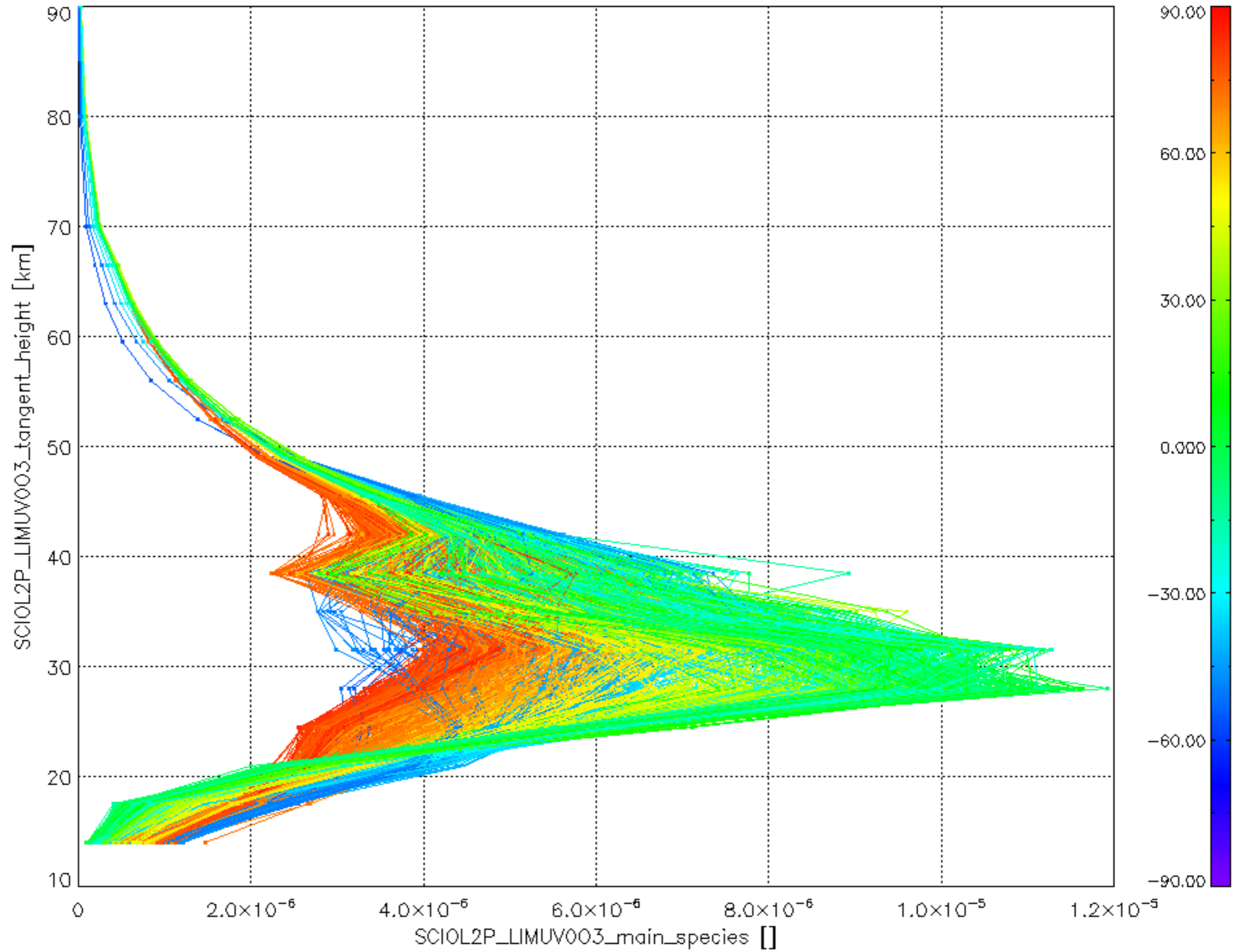
SCIOL2P_NADUV1NO2_amf_gr for 05JUL2009 00:00:00 to 06JUL2009 00:00:00



SCIOL2P_NADUV1NO2_amf_cl for 05JUL2009 00:00:00 to 06JUL2009 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).

