

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 | 30NOV2009 03:06:47 |
| Data source version | SCIA-OL/3.01-R |
| Processing scope for products | 12NOV2009 00:00:00 to 13NOV2009 00:00:00 |
| Start time of first product within scope | 12NOV2009 00:21:45 |
| Stop time of last product within scope | 13NOV2009 00:45:39 |
| 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__2PRDPA20091112_002145_000033252084_00131_40265_5282.N1 | 12NOV2009 00:21:45 | 12NOV2009 01:17:11 | 0 | GOOD |
| 1 | SCI_OL__2PRDPA20091112_020222_000033812084_00132_40266_5283.N1 | 12NOV2009 02:02:22 | 12NOV2009 02:58:43 | 0 | GOOD |
| 2 | SCI_OL__2PRDPA20091112_034258_000033252084_00133_40267_5284.N1 | 12NOV2009 03:42:58 | 12NOV2009 04:38:23 | 0 | GOOD |
| 3 | SCI_OL__2PRDPA20091112_052334_000033812084_00134_40268_5285.N1 | 12NOV2009 05:23:34 | 12NOV2009 06:19:56 | 0 | GOOD |
| 4 | SCI_OL__2PRDPA20091112_070411_000033252084_00135_40269_5286.N1 | 12NOV2009 07:04:11 | 12NOV2009 07:59:36 | 0 | GOOD |
| 5 | SCI_OL__2PRDPA20091112_084447_000033812084_00136_40270_5287.N1 | 12NOV2009 08:44:47 | 12NOV2009 09:41:08 | 0 | GOOD |
| 6 | SCI_OL__2PRDPA20091112_102523_000033252084_00137_40271_5288.N1 | 12NOV2009 10:25:23 | 12NOV2009 11:20:49 | 0 | GOOD |
| 7 | SCI_OL__2PRDPA20091112_120559_000033812084_00138_40272_5289.N1 | 12NOV2009 12:05:59 | 12NOV2009 13:02:21 | 0 | GOOD |
| 8 | SCI_OL__2PRDPA20091112_134635_000033252084_00139_40273_5290.N1 | 12NOV2009 13:46:35 | 12NOV2009 14:42:01 | 0 | GOOD |
| 9 | SCI_OL__2PRDPA20091112_152712_000033812084_00140_40274_5291.N1 | 12NOV2009 15:27:12 | 12NOV2009 16:23:33 | 0 | GOOD |
| 10 | SCI_OL__2PRDPA20091112_170748_000033252084_00141_40275_5292.N1 | 12NOV2009 17:07:48 | 12NOV2009 18:03:14 | 0 | GOOD |
| 11 | SCI_OL__2PRDPA20091112_184845_000033122084_00142_40276_5293.N1 | 12NOV2009 18:48:45 | 12NOV2009 19:43:58 | 0 | GOOD |
| 12 | SCI_OL__2PRDPA20091112_202921_000033252084_00143_40277_5294.N1 | 12NOV2009 20:29:21 | 12NOV2009 21:24:47 | 0 | GOOD |
| 13 | SCI_OL__2PRDPA20091112_220937_000033812084_00144_40278_5295.N1 | 12NOV2009 22:09:37 | 12NOV2009 23:05:58 | 0 | GOOD |
| 14 | SCI_OL__2PRDPA20091112_235013_000033252084_00145_40279_5296.N1 | 12NOV2009 23:50:13 | 13NOV2009 00:45:39 | 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: 147942

Total number of cloud data DSRs with good quality flag (=0): 147942 (100.0 %)

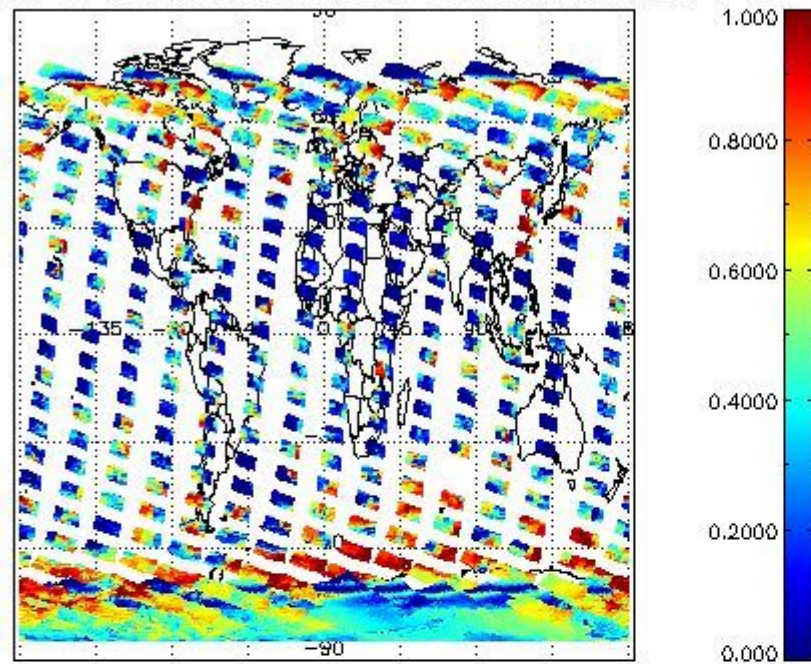
| Parameter | #valid | Mean | Median | Min | Max | Stddev | Unit |
|-------------------|--------|----------|----------|----------|----------|----------|-------|
| QUALITY_FLAG | 147942 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | flag |
| INTEGR_TIME | 147942 | 0.16938 | 0.12500 | 0.12500 | 0.25000 | 0.059815 | s |
| CL_FRAC | 147942 | 0.38966 | 0.38302 | 0.0000 | 1.0000 | 0.28230 | - |
| CL_FRAC_ERR | 147942 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | % |
| PMD_READ | 147942 | 5.4200 | 4.0000 | 4.0000 | 8.0000 | 1.9141 | |
| PMD_READ_CL[0] | 147942 | 0.20150 | 0.0000 | 0.0000 | 8.0000 | 0.99916 | - |
| PMD_READ_CL[1] | 147942 | 1.1292 | 0.0000 | 0.0000 | 8.0000 | 2.3621 | - |
| CL_TOP_HEIGHT | 126556 | 4.3885 | 3.3682 | 0.0000 | 17.000 | 4.2244 | km |
| CL_TOP_HEIGHT_ERR | 0 | --- | --- | --- | --- | --- | --- |
| CL_OPT_DEPTH | 126556 | 55.912 | 50.736 | 0.0000 | 101.00 | 41.039 | km |
| CL_OPT_DEPTH_ERR | 0 | --- | --- | --- | --- | --- | --- |
| CL_TYPE_FLAGS | 147942 | 11100000 | 11100000 | 11100000 | 11100000 | 0.0000 | flags |
| CLOUD_FLAGS | 147942 | 11001010 | 11000100 | 11000000 | 11100000 | 3326.4 | flags |
| AERO_ABSO_IND | 147942 | 4.0198 | 4.6406 | 0.0000 | 17.800 | 2.7767 | |
| AERO_IND_DIAG | 147942 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| AERO_FLAGS | 147942 | 01010110 | 00000000 | 00000000 | 11000000 | 24454. | flags |

Time and geolocation plots:

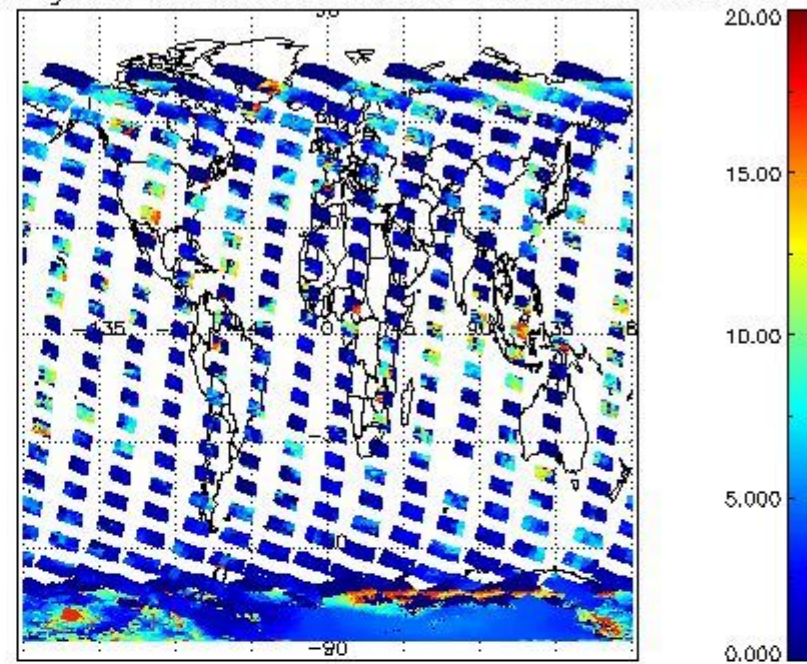
Plots are available for the following parameters:

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

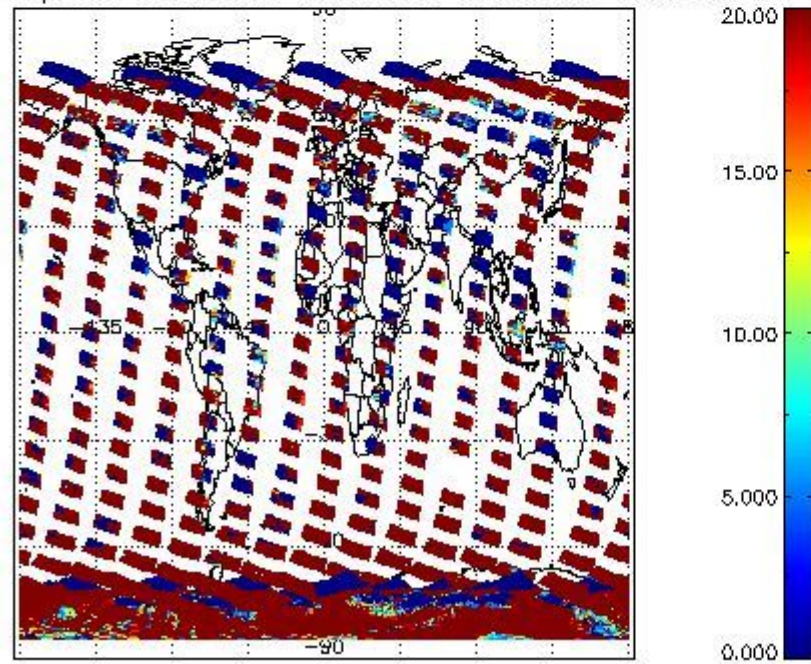
cLfrac for 12NOV2009 00:00:00 to 13NOV2009 00:00:00



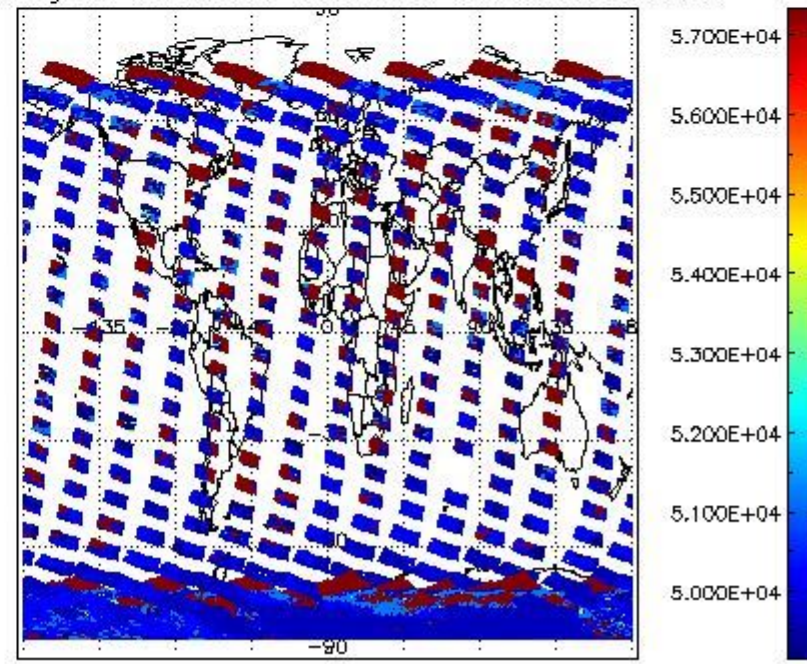
cL_top_height for 12NOV2009 00:00:00 to 13NOV2009 00:00:00



cLopt_depth for 12NOV2009 00:00:00 to 13NOV2009 00:00:00



cloud_flags for 12NOV2009 00:00:00 to 13NOV2009 00:00:00



2.2.2 Nadir

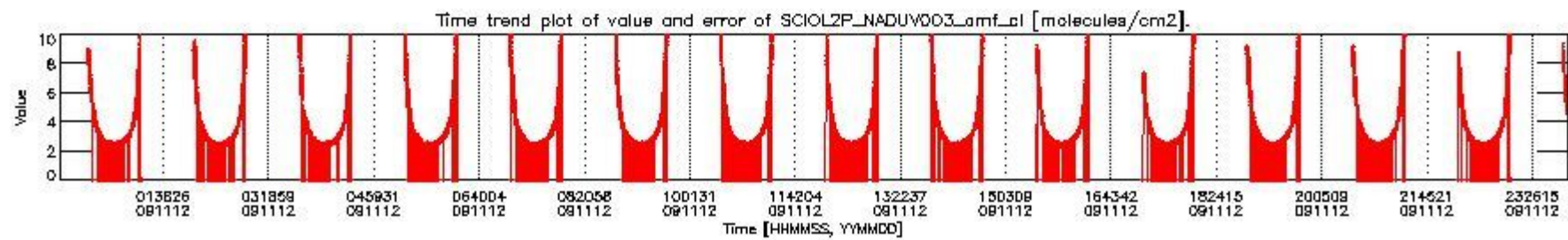
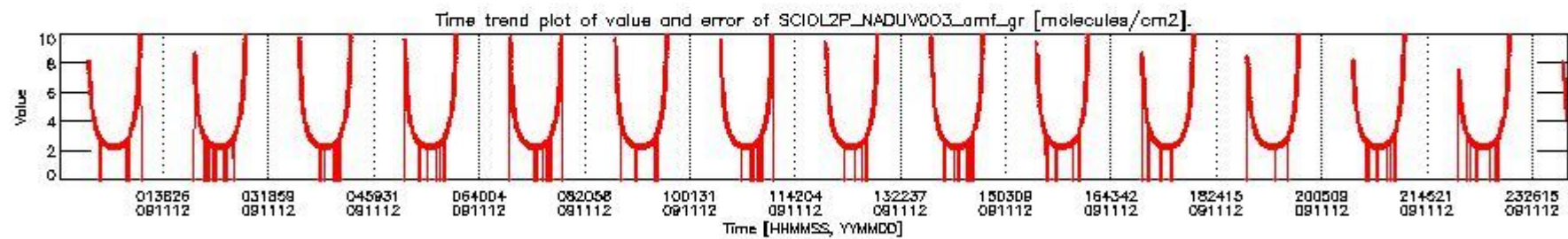
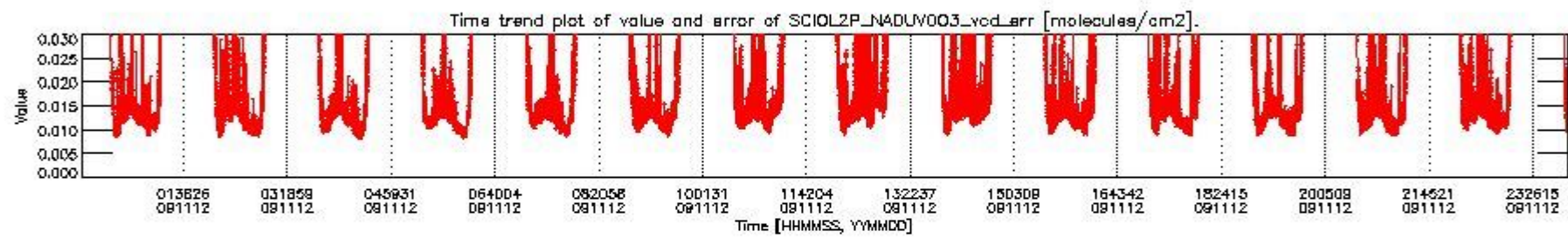
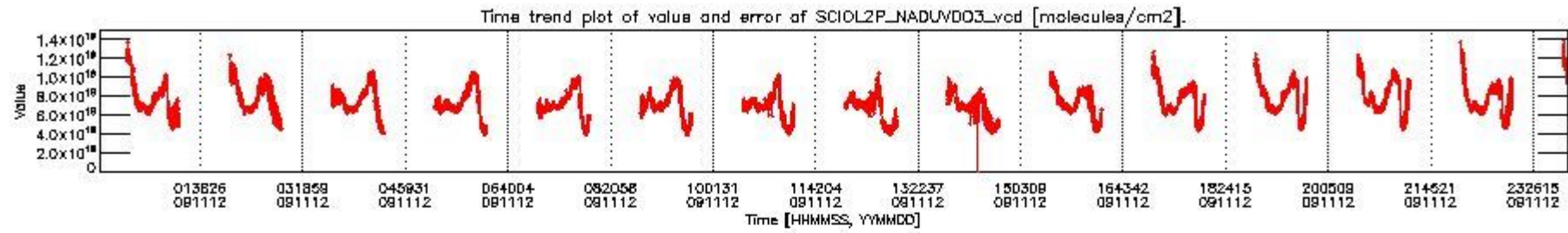
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

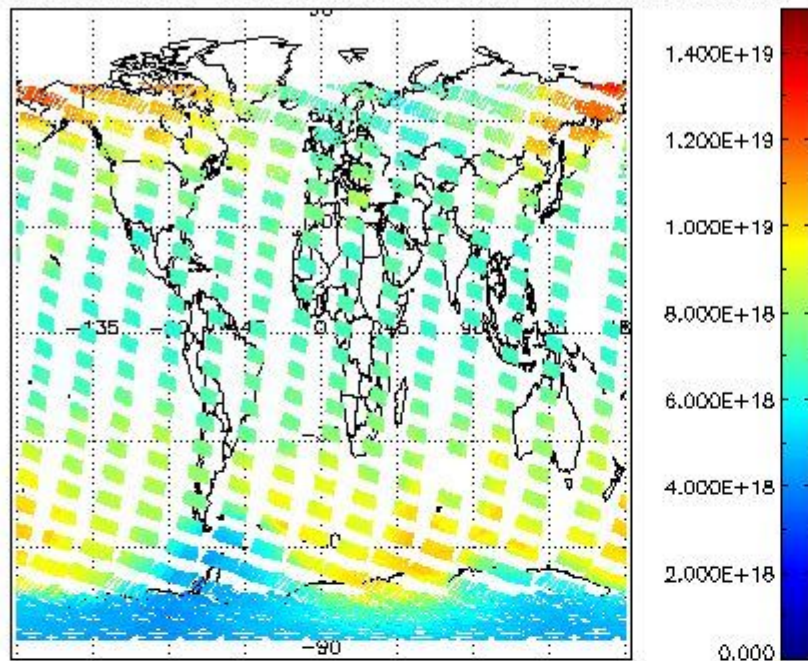
| Number | Data item ID |
|--------|--------------------------|
| 0 | SCIOL2P_NADUV003_vcd |
| 1 | SCIOL2P_NADUV003_vcd_err |
| 2 | SCIOL2P_NADUV003_amf_gr |

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

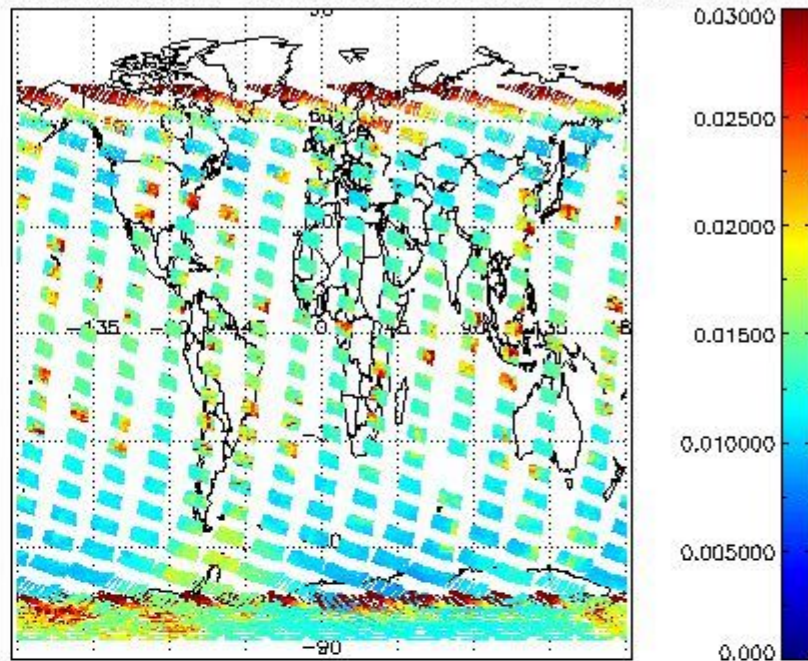
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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



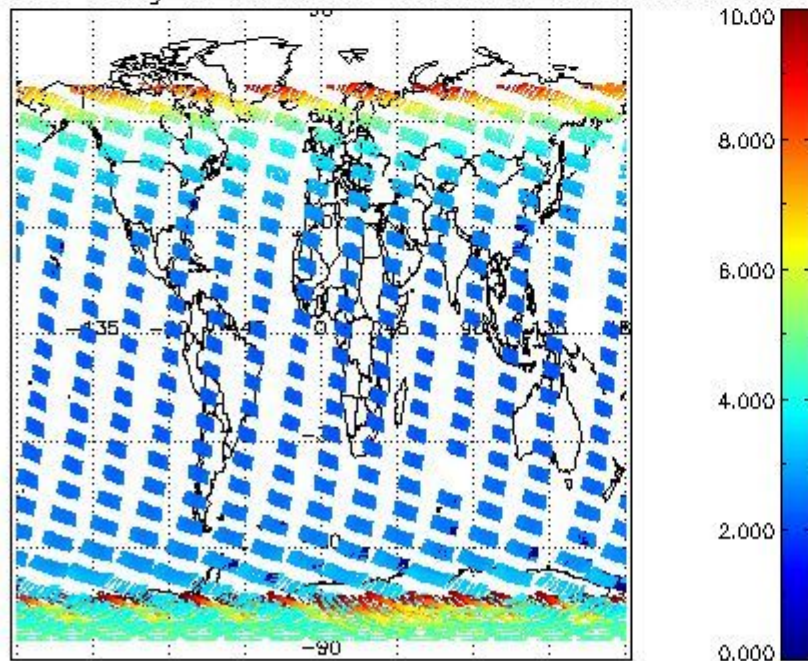
SCIOL2P_NADUV003_vcd for 12NOV2009 00:00:00 to 13NOV2009 00:00:00



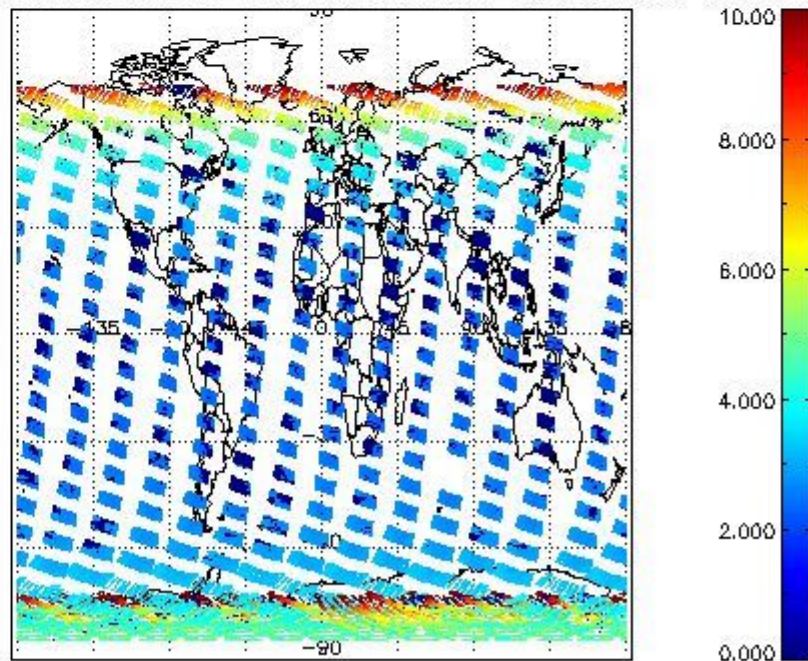
SCIOL2P_NADUV003_vcd_err for 12NOV2009 00:00:00 to 13NOV2009 00:00:00

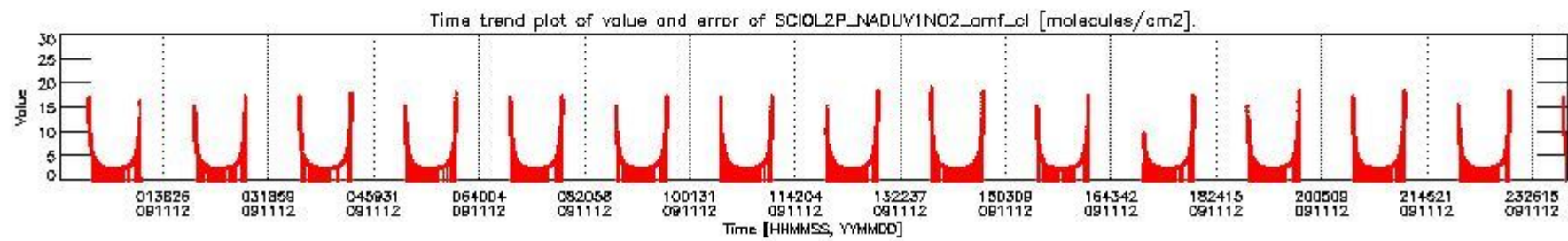
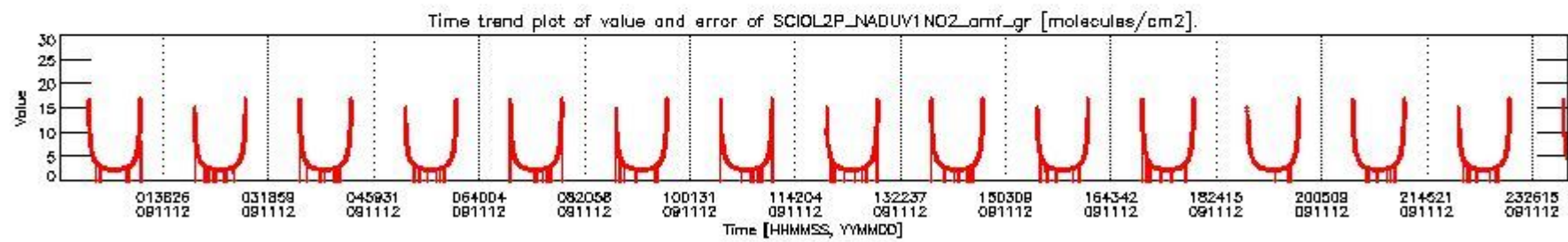
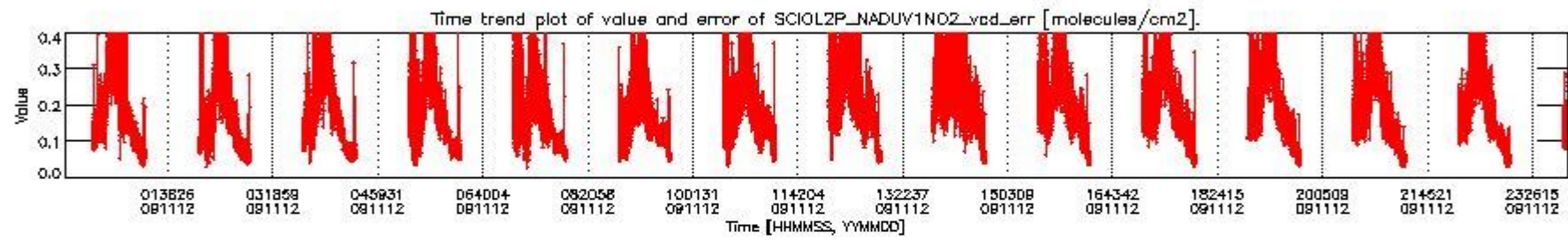
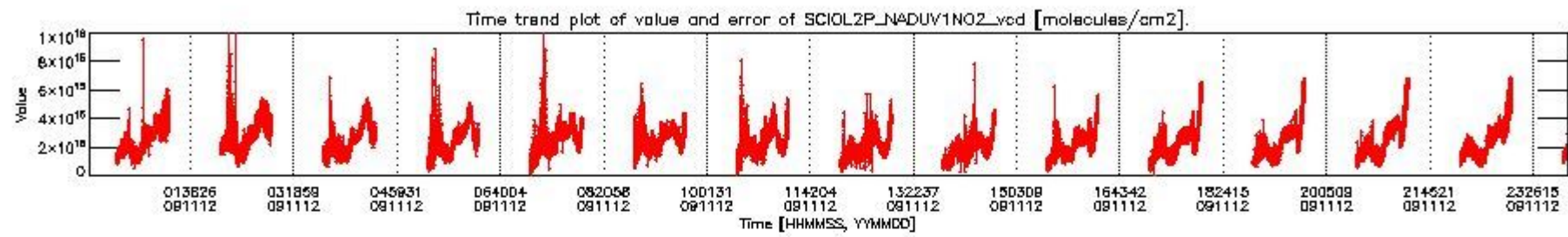


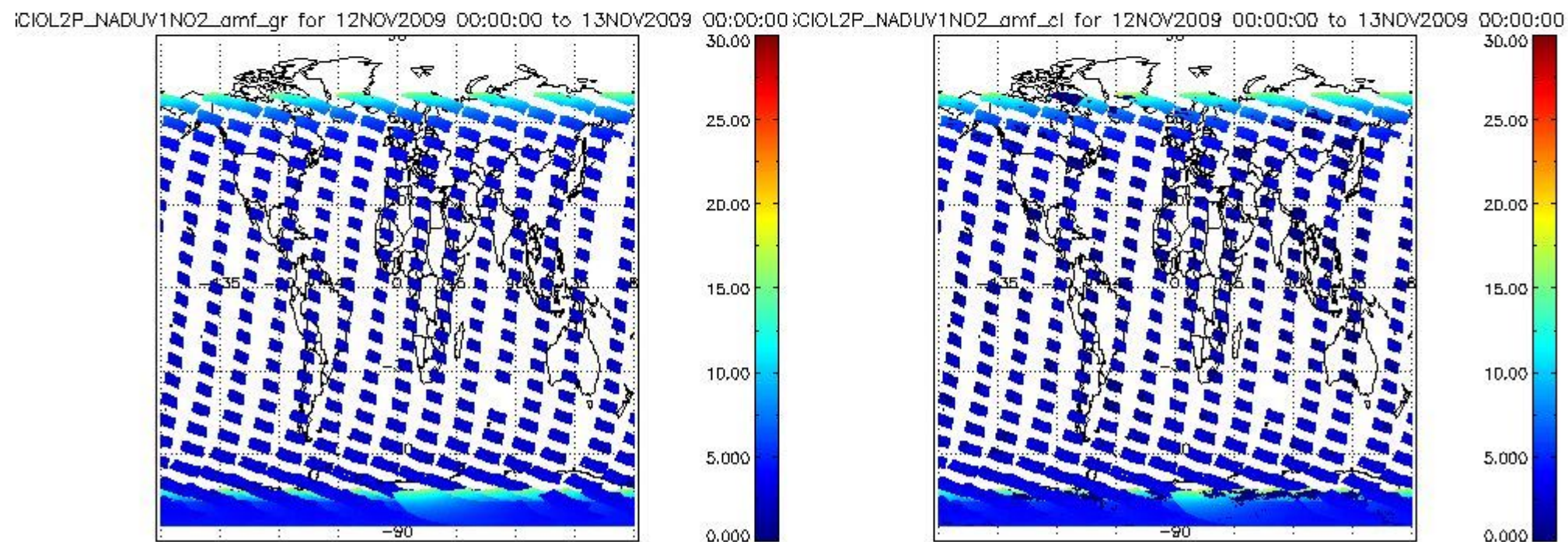
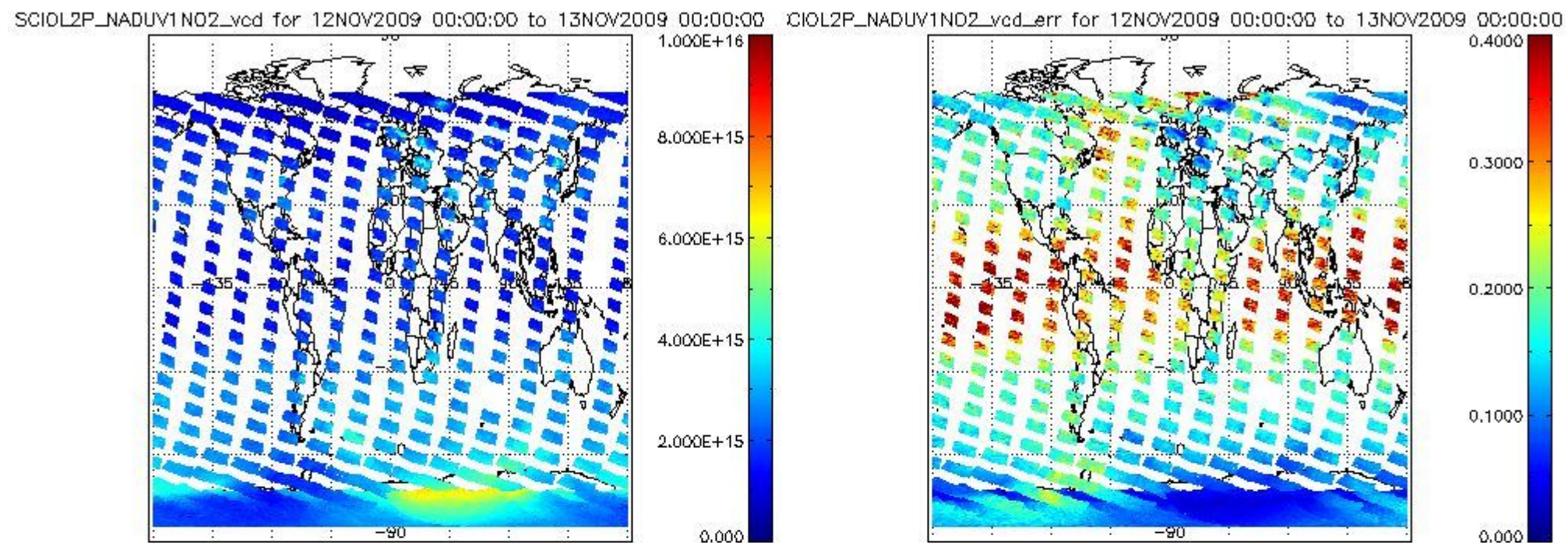
SCIOL2P_NADUV003_amf_gr for 12NOV2009 00:00:00 to 13NOV2009 00:00:00



SCIOL2P_NADUV003_amf_cl for 12NOV2009 00:00:00 to 13NOV2009 00:00:00







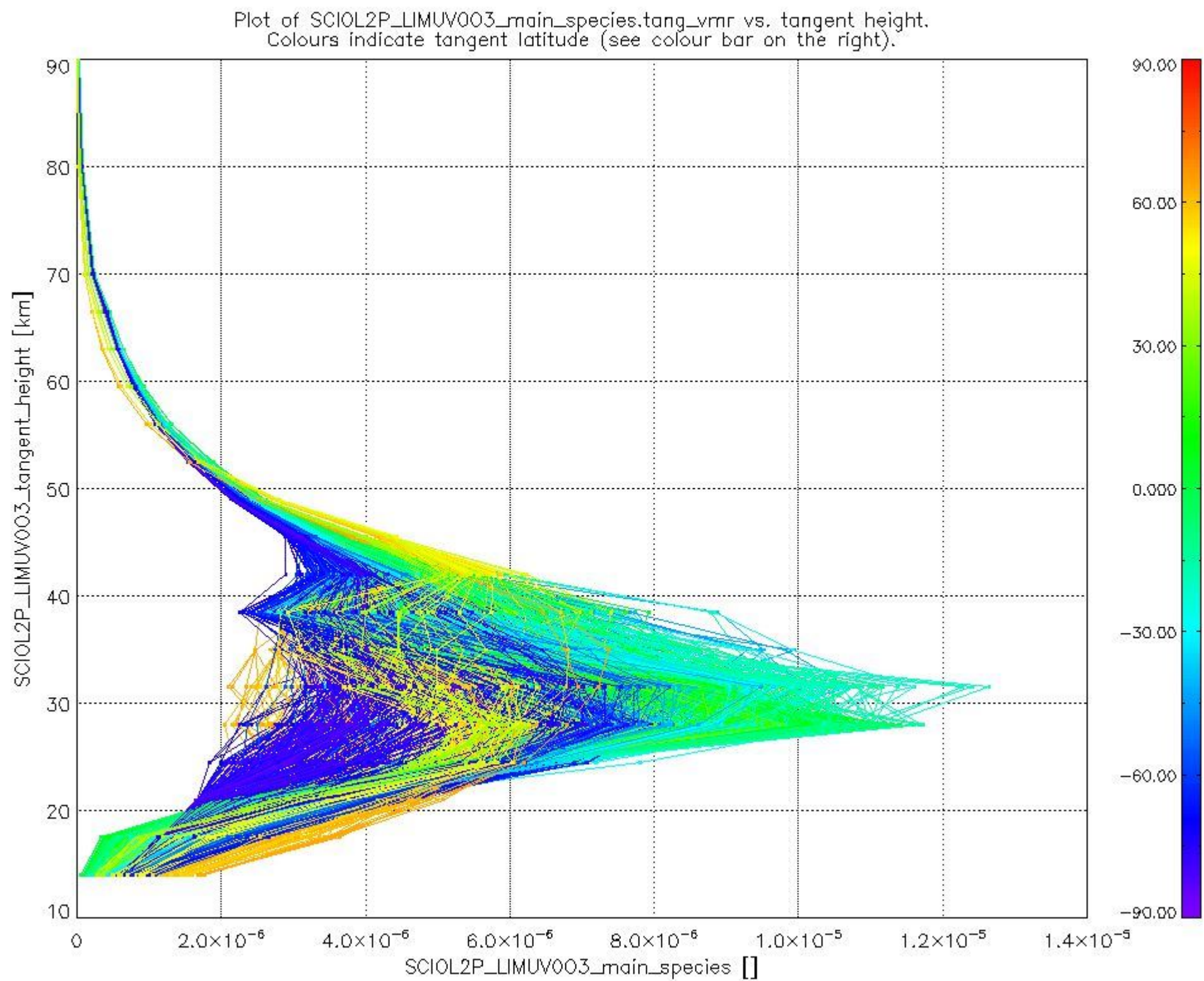
2.2.3 Limb

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

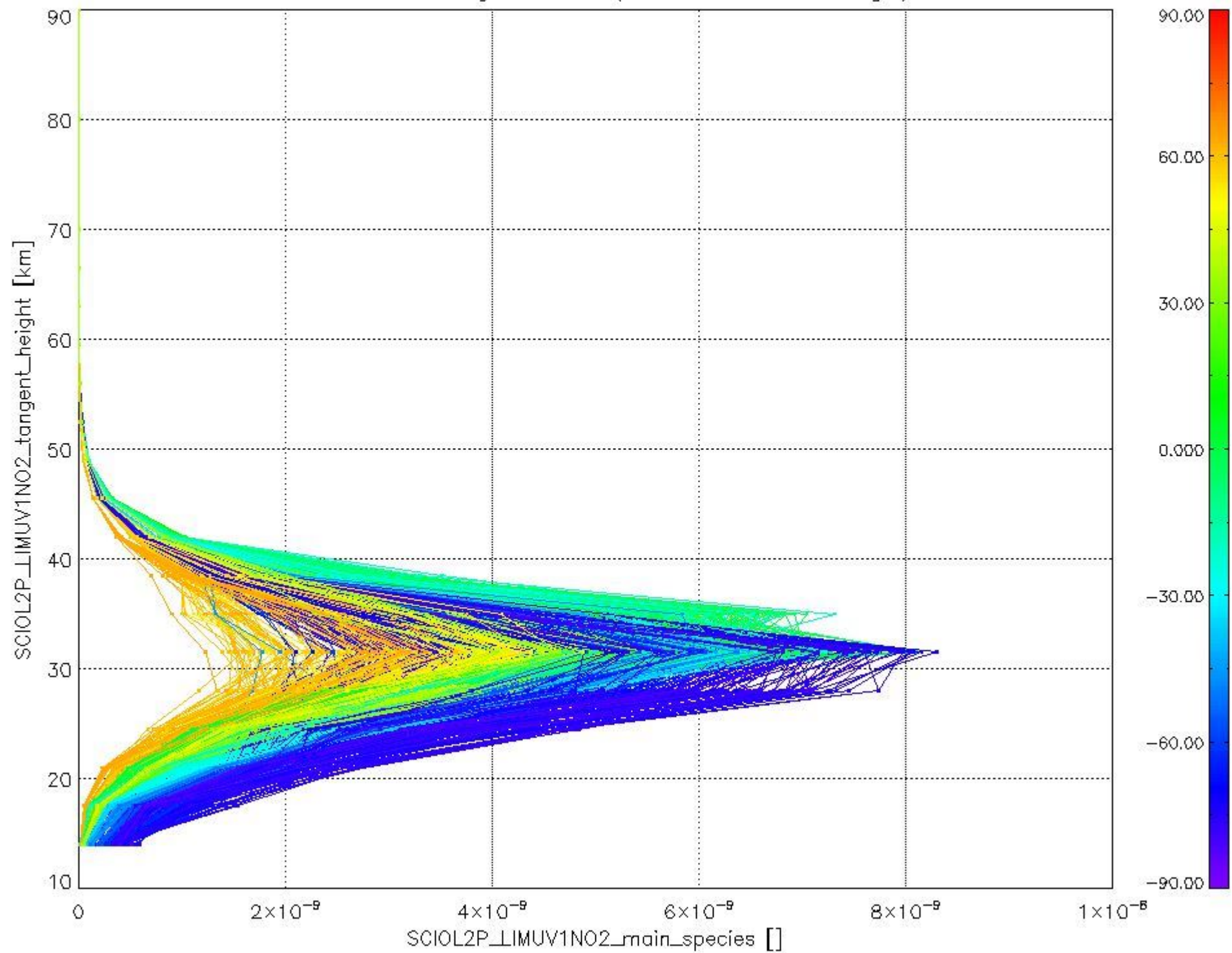
The following data items are currently included into this section:

| 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.



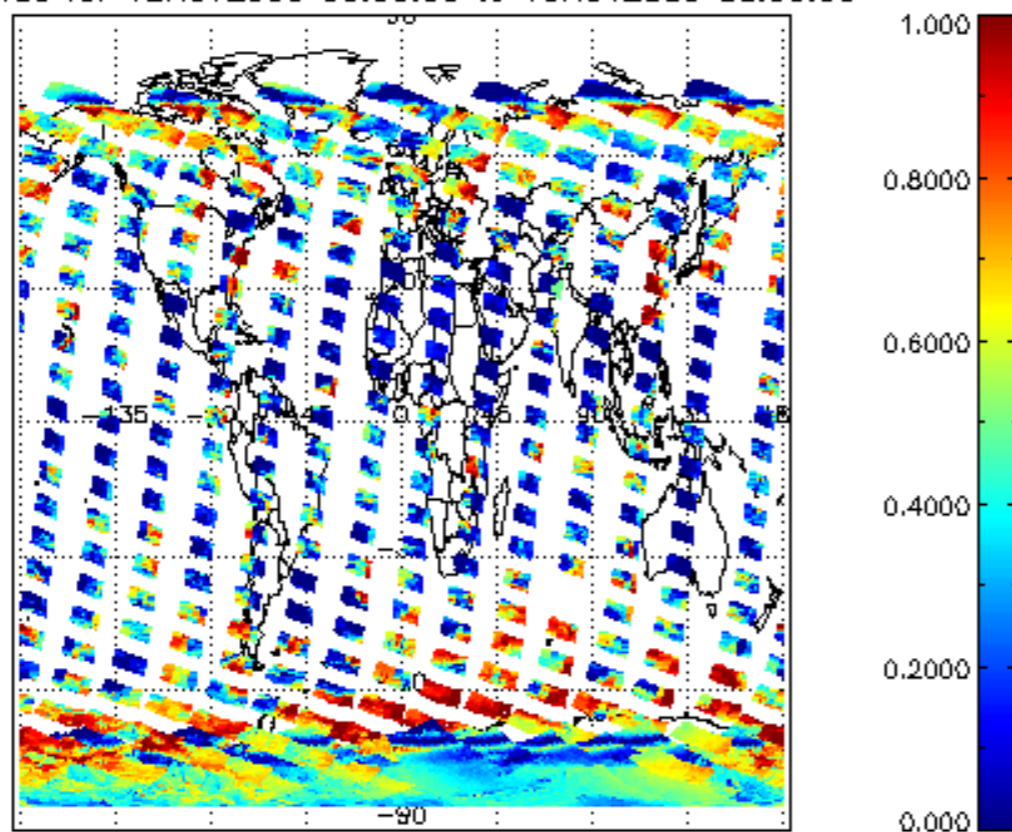
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



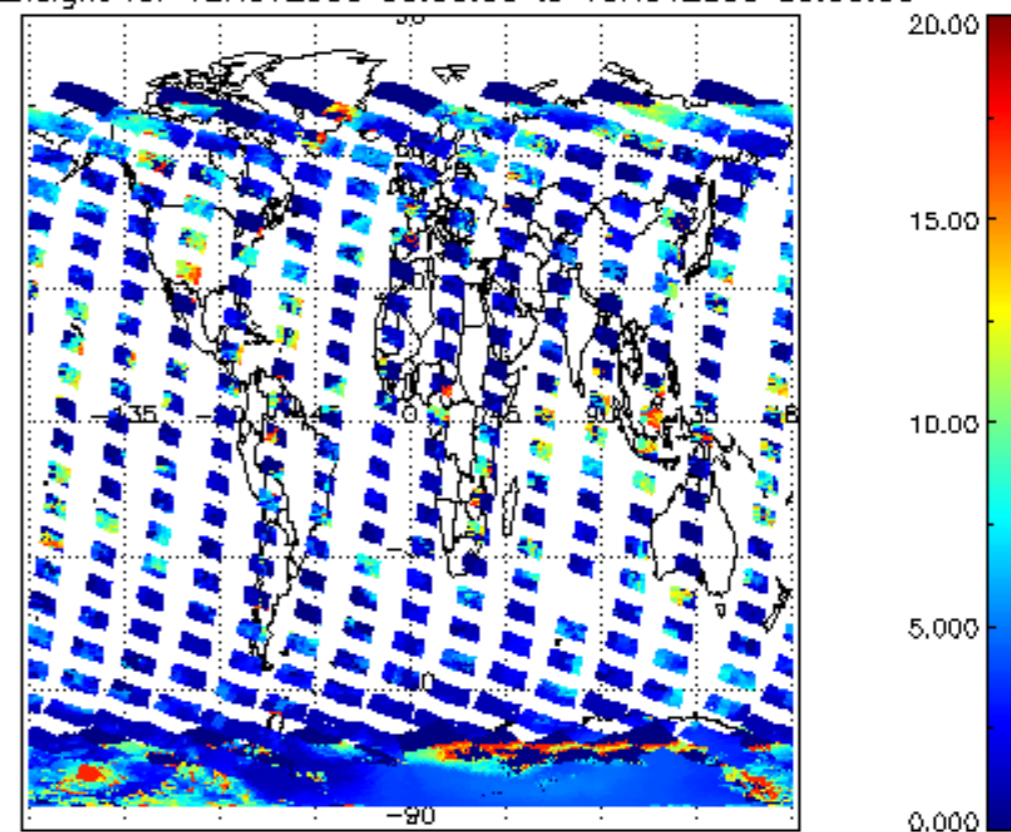
2.3 ADF monitoring

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

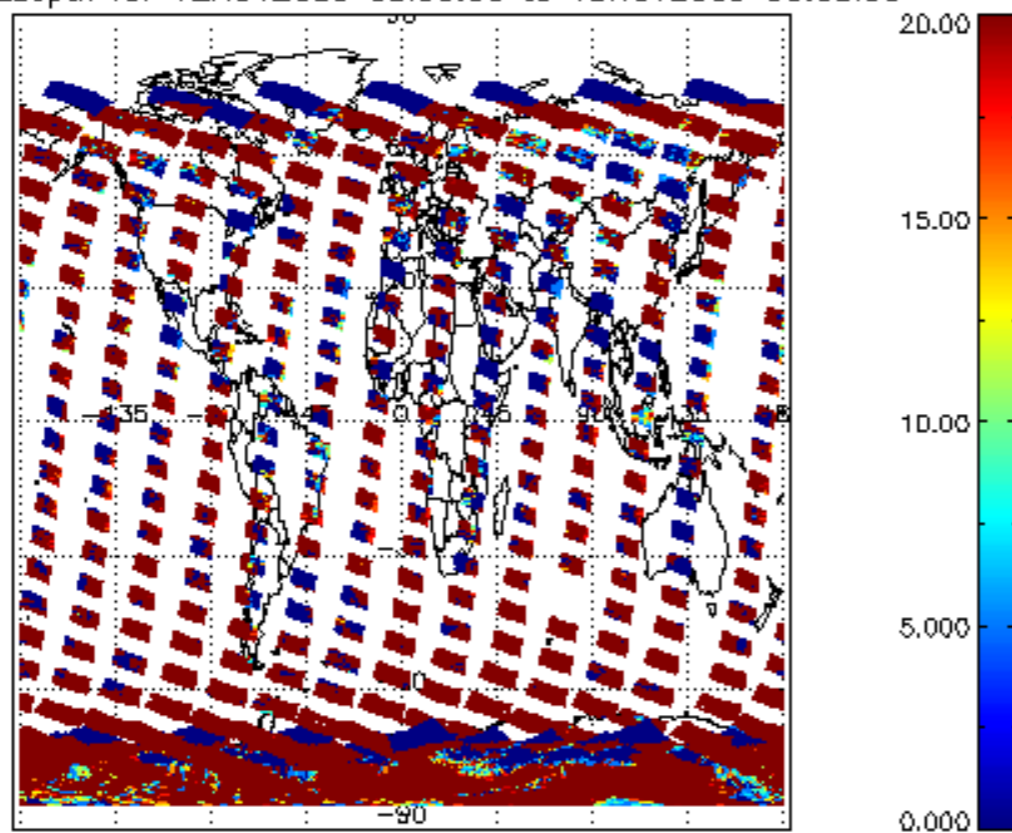
cLfrac for 12NOV2009 00:00:00 to 13NOV2009 00:00:00



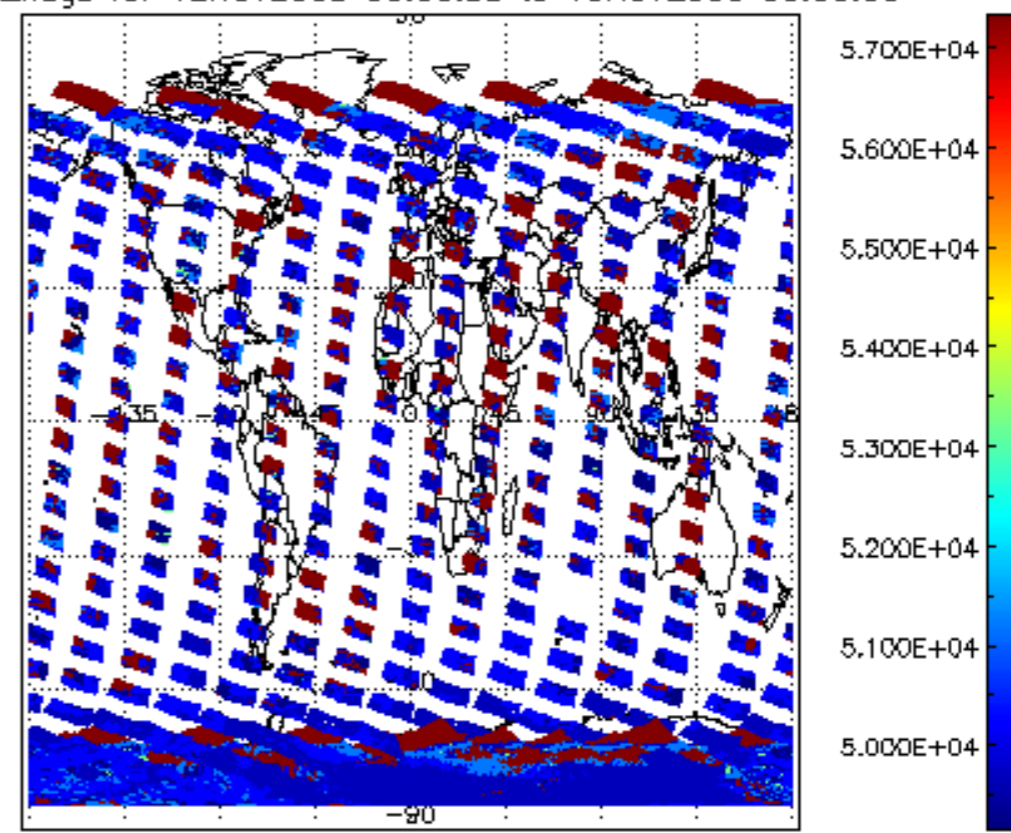
cL_top_height for 12NOV2009 00:00:00 to 13NOV2009 00:00:00

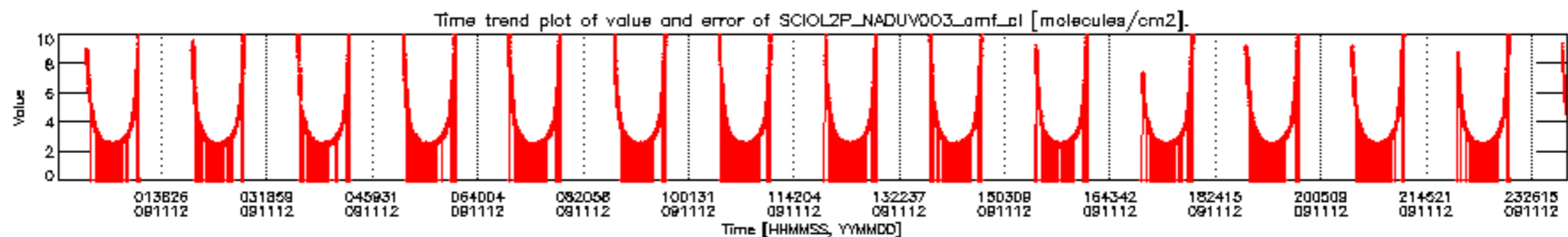
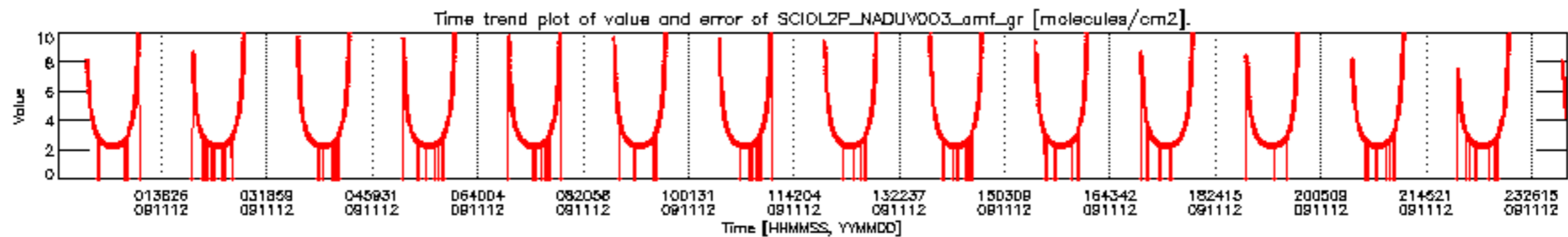
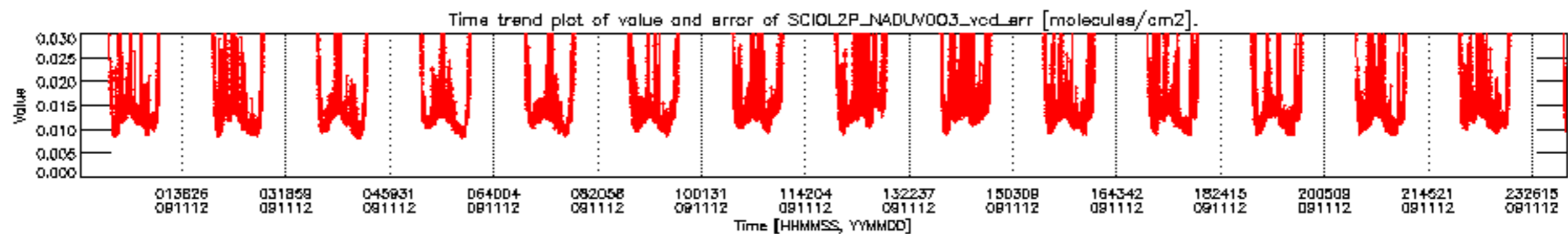
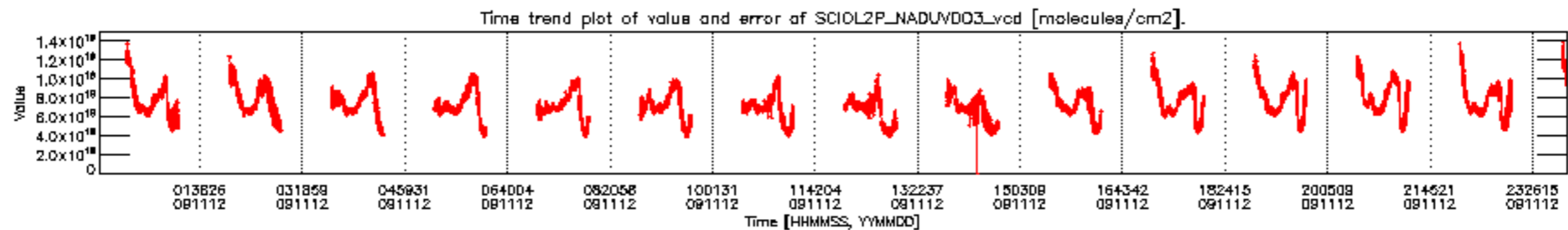


cL_opt_depth for 12NOV2009 00:00:00 to 13NOV2009 00:00:00

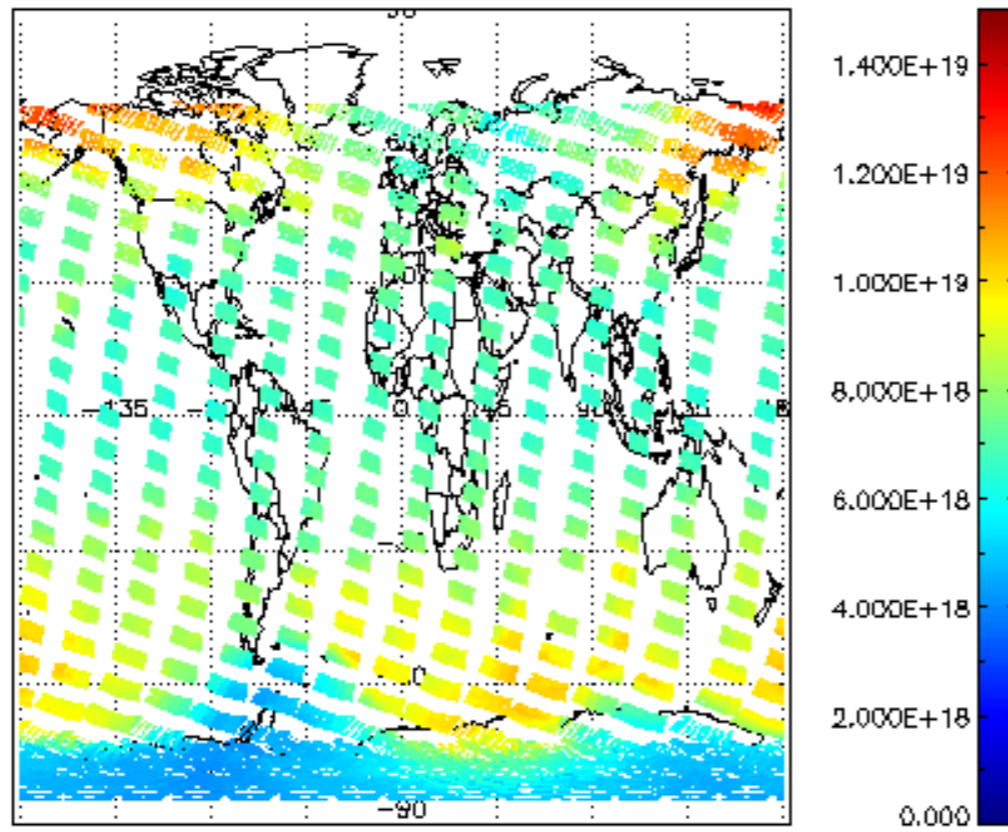


cloud_flags for 12NOV2009 00:00:00 to 13NOV2009 00:00:00

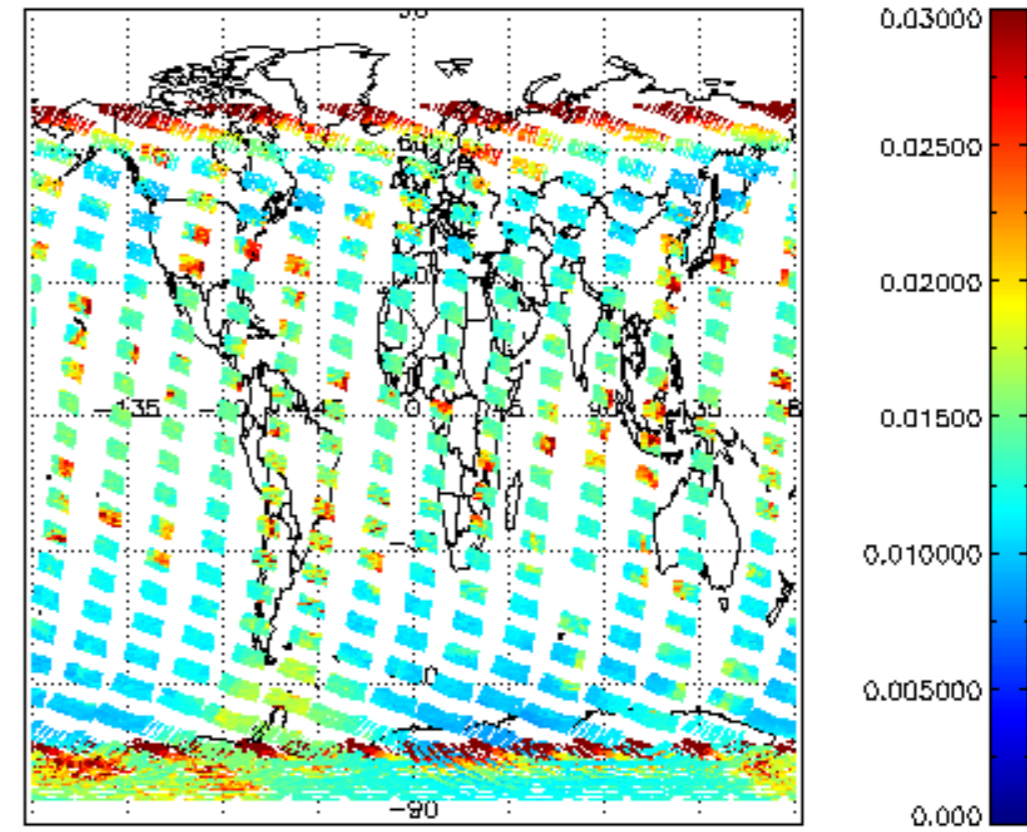




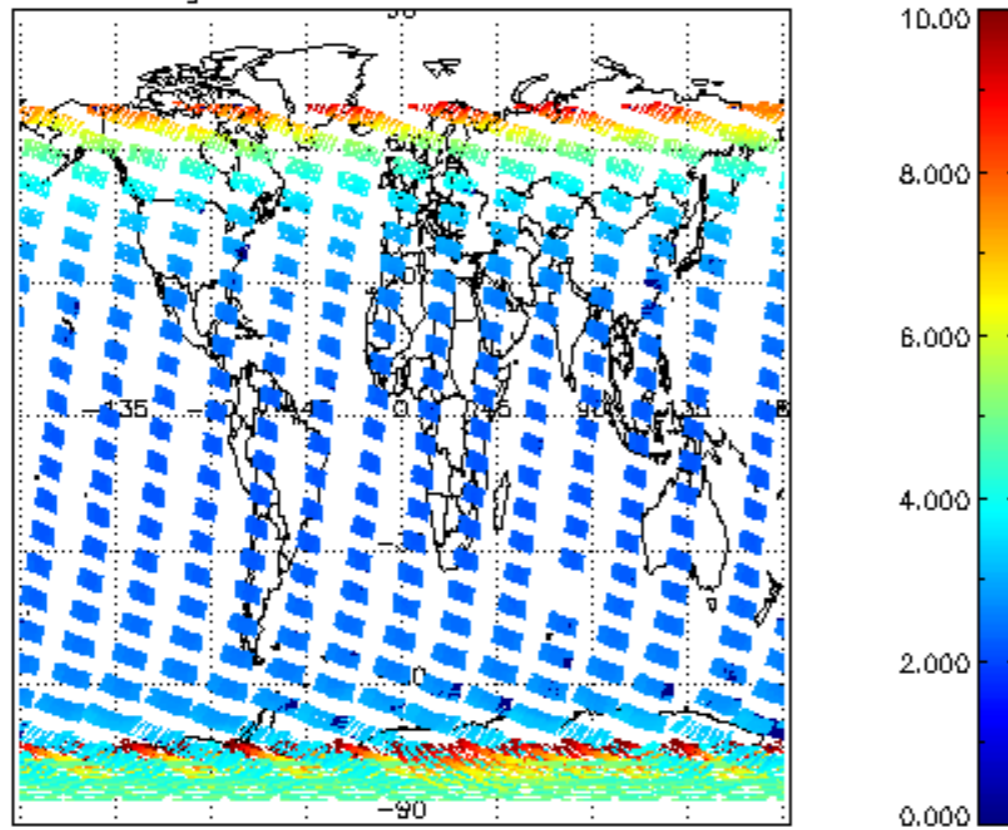
SCIOL2P_NADUV003_vcd for 12NOV2009 00:00:00 to 13NOV2009 00:00:00



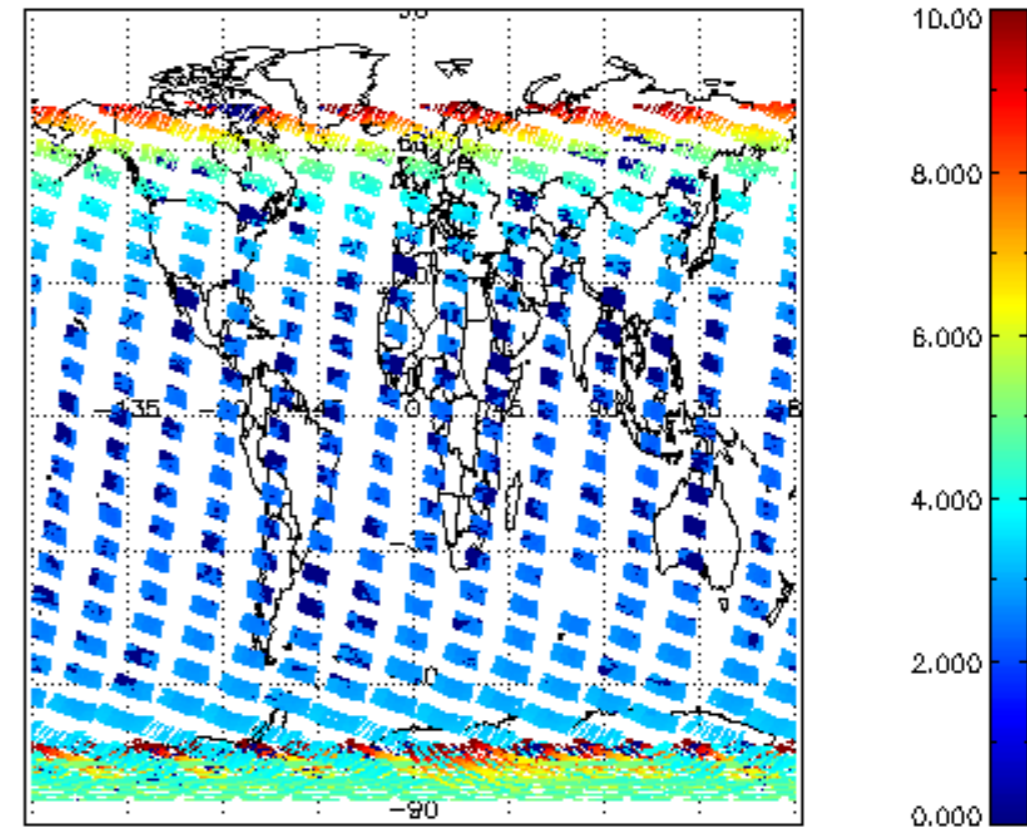
SCIOL2P_NADUV003_vcd_err for 12NOV2009 00:00:00 to 13NOV2009 00:00:00

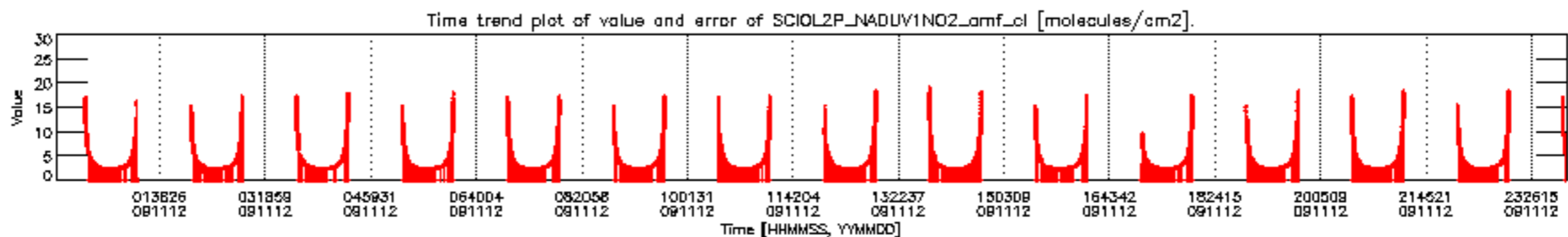
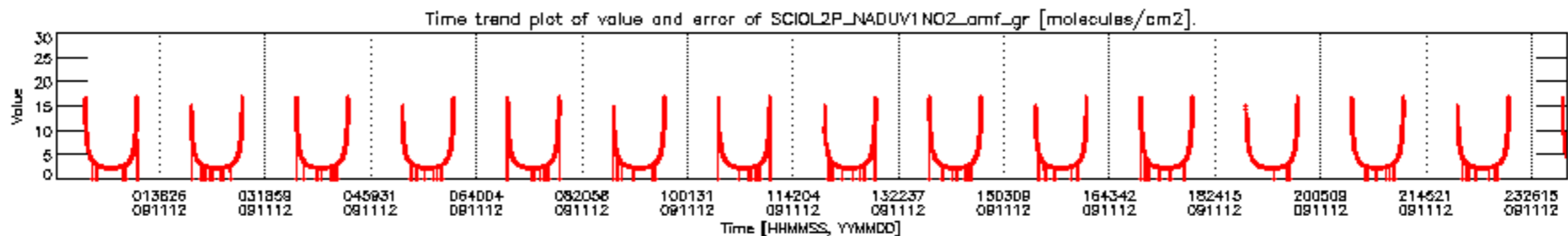
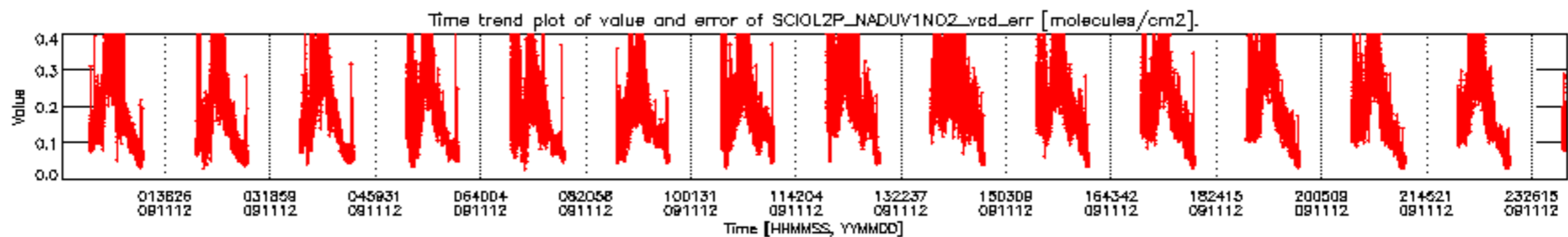
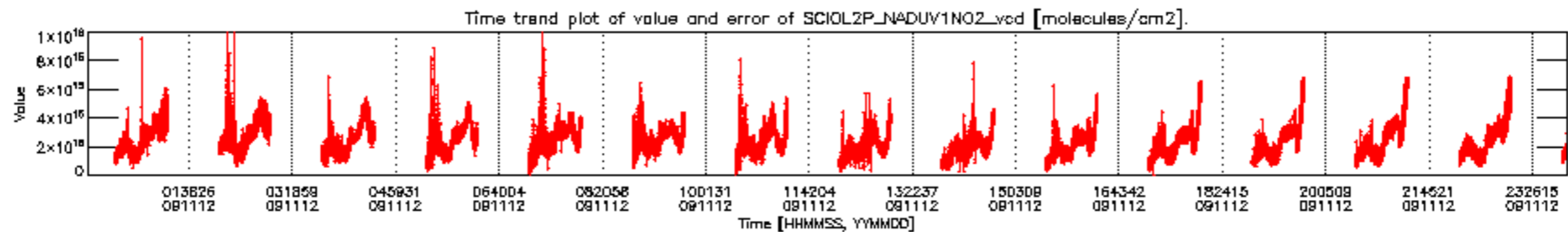


SCIOL2P_NADUV003_amf_gr for 12NOV2009 00:00:00 to 13NOV2009 00:00:00

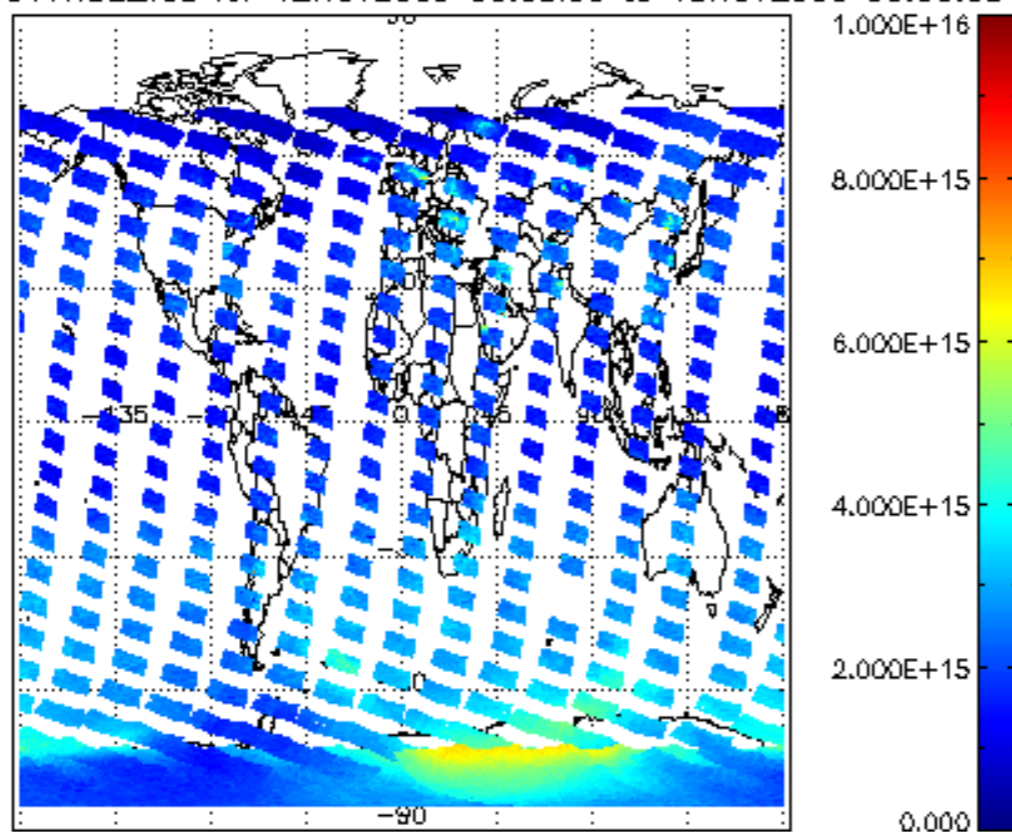


SCIOL2P_NADUV003_amf_cl for 12NOV2009 00:00:00 to 13NOV2009 00:00:00

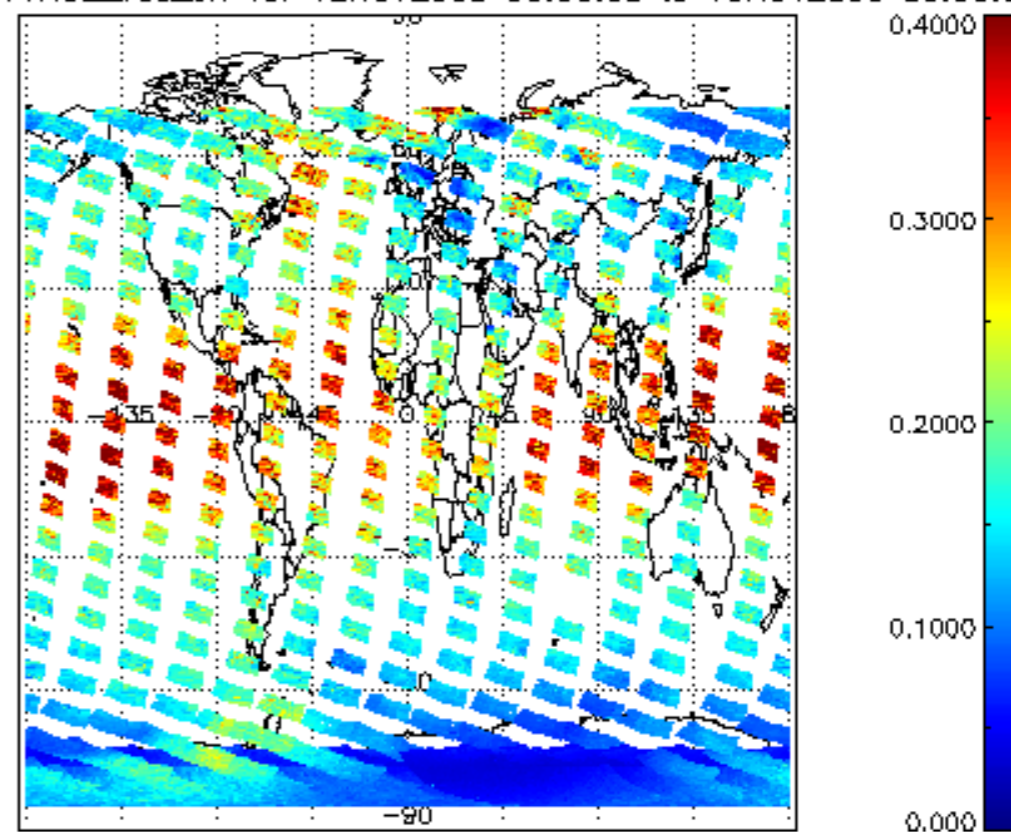




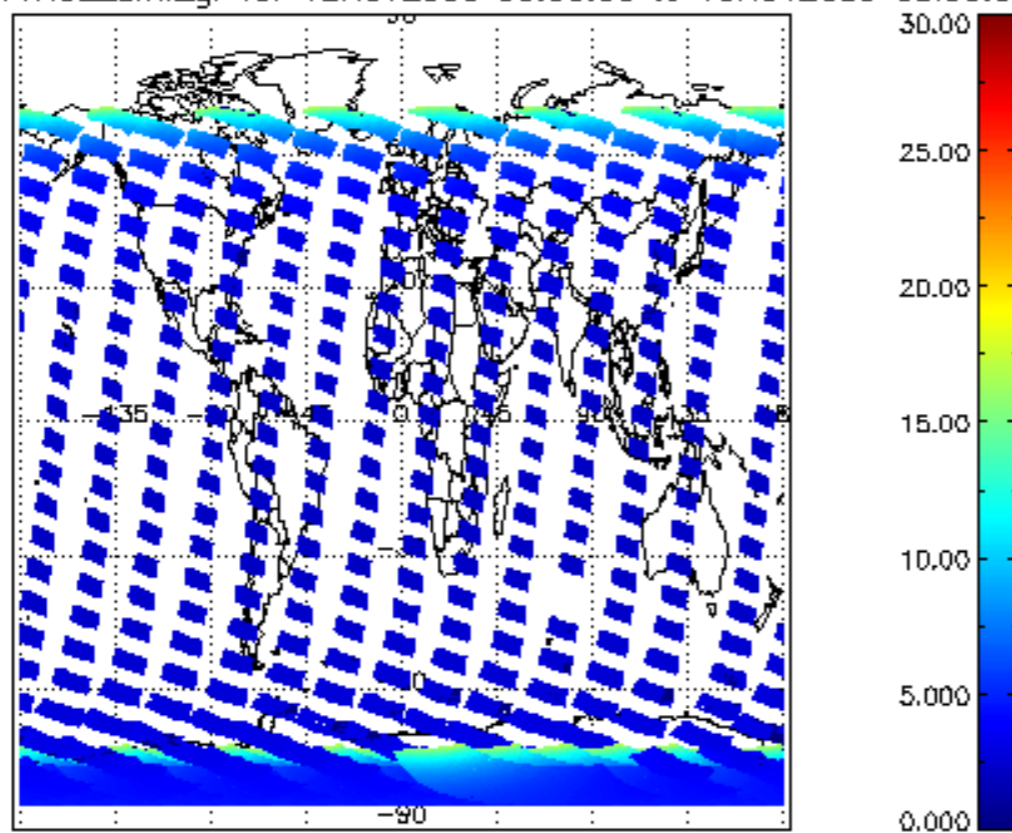
SCIOL2P_NADUV1NO2_vcd for 12NOV2009 00:00:00 to 13NOV2009 00:00:00



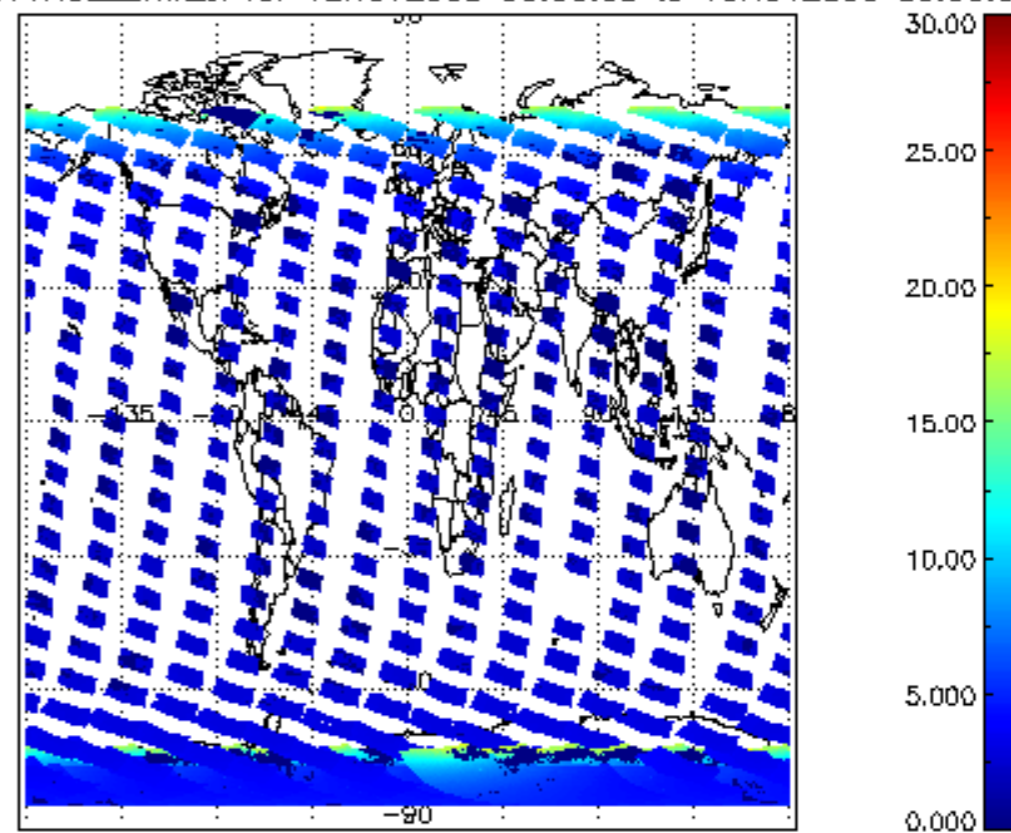
SCIOL2P_NADUV1NO2_vcd_err for 12NOV2009 00:00:00 to 13NOV2009 00:00:00



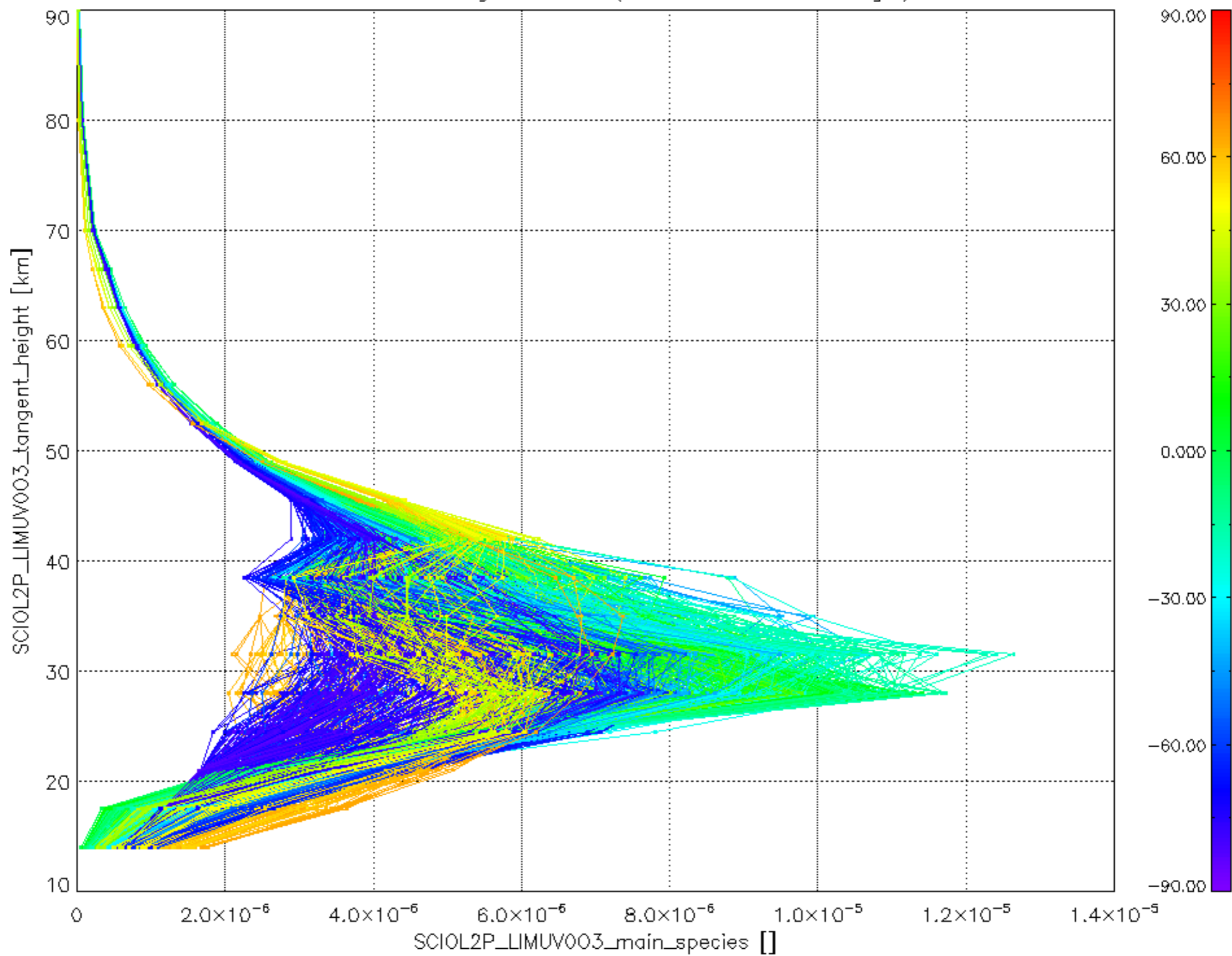
SCIOL2P_NADUV1NO2_amf_gr for 12NOV2009 00:00:00 to 13NOV2009 00:00:00



SCIOL2P_NADUV1NO2_amf_cl for 12NOV2009 00:00:00 to 13NOV2009 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_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
 Colours indicate tangent latitude (see colour bar on the right).

