

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 | 1.13 (28-02-2011) |
| Time of report generation | 04AUG2011 03:26:22 |
| Data source version | SCIA-OL/5.01-U |
| Processing scope for products | 22JUL2011 00:00:00 to 23JUL2011 00:00:00 |
| Start time of first product within scope | 22JUL2011 00:04:16 |
| Stop time of last product within scope | 23JUL2011 00:26:11 |
| 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.

Products are checked for a minimum duration of 3500.0000 seconds and a maximum duration of 6000.0000 seconds. Products failing the duration test are highlighted in bold, and their stop time is highlighted in red.

| # | Product name | Start time | Stop time | Prod err | Fit summary |
|---|--------------------------------------------------------------------------------|--------------------|--------------------|----------|-------------|
| 0 | SCI_OL__2PUDPA20110722_000416_000035163104_00390_49111_5631.N1 | 22JUL2011 00:04:16 | 22JUL2011 01:02:52 | 0 | GOOD |
| 1 | SCI_OL__2PUDPA20110722_014430_000035303104_00391_49112_5632.N1 | 22JUL2011 01:44:30 | 22JUL2011 02:43:21 | 0 | GOOD |
| 2 | SCI_OL__2PUDPA20110722_032444_000035163104_00392_49113_5635.N1 | 22JUL2011 03:24:44 | 22JUL2011 04:23:20 | 0 | GOOD |
| 3 | SCI_OL__2PUDPA20110722_050459_000035303104_00393_49114_5636.N1 | 22JUL2011 05:04:59 | 22JUL2011 06:03:49 | 0 | GOOD |
| 4 | SCI_OL__2PUDPA20110722_064513_000035163104_00394_49115_5637.N1 | 22JUL2011 06:45:13 | 22JUL2011 07:43:49 | 0 | GOOD |

| | | | | | |
|----|----------------------------------------------------------------|--------------------|--------------------|---|------|
| 5 | SCI_OL__2PUDPA20110722_082527_000035303104_00395_49116_5638.N1 | 22JUL2011 08:25:27 | 22JUL2011 09:24:18 | 0 | GOOD |
| 6 | SCI_OL__2PUDPA20110722_100541_000035163104_00396_49117_5639.N1 | 22JUL2011 10:05:41 | 22JUL2011 11:04:17 | 0 | GOOD |
| 7 | SCI_OL__2PUDPA20110722_114555_000035303104_00397_49118_5641.N1 | 22JUL2011 11:45:55 | 22JUL2011 12:44:46 | 0 | GOOD |
| 8 | SCI_OL__2PUDPA20110722_132609_000035163104_00398_49119_5642.N1 | 22JUL2011 13:26:09 | 22JUL2011 14:24:46 | 0 | GOOD |
| 9 | SCI_OL__2PUDPA20110722_150624_000035303104_00399_49120_5640.N1 | 22JUL2011 15:06:24 | 22JUL2011 16:05:14 | 0 | GOOD |
| 10 | SCI_OL__2PUDPA20110722_164638_000035163104_00400_49121_5643.N1 | 22JUL2011 16:46:38 | 22JUL2011 17:45:14 | 0 | GOOD |
| 11 | SCI_OL__2PUDPA20110722_182703_000035303104_00401_49122_5644.N1 | 22JUL2011 18:27:03 | 22JUL2011 19:25:53 | 0 | GOOD |
| 12 | SCI_OL__2PUDPA20110722_200717_000035163104_00402_49123_5645.N1 | 22JUL2011 20:07:17 | 22JUL2011 21:05:53 | 0 | GOOD |
| 13 | SCI_OL__2PUDPA20110722_214721_000035303104_00403_49124_5646.N1 | 22JUL2011 21:47:21 | 22JUL2011 22:46:11 | 0 | GOOD |
| 14 | SCI_OL__2PUDPA20110722_232735_000035163104_00404_49125_5647.N1 | 22JUL2011 23:27:35 | 23JUL2011 00:26:11 | 0 | GOOD |

2.2 Product Quality Indicators

2.2.1 Cloud parameters

This section 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: 171119

Total number of cloud data DSRs with good quality flag (=0): 171119 (100.0 %)

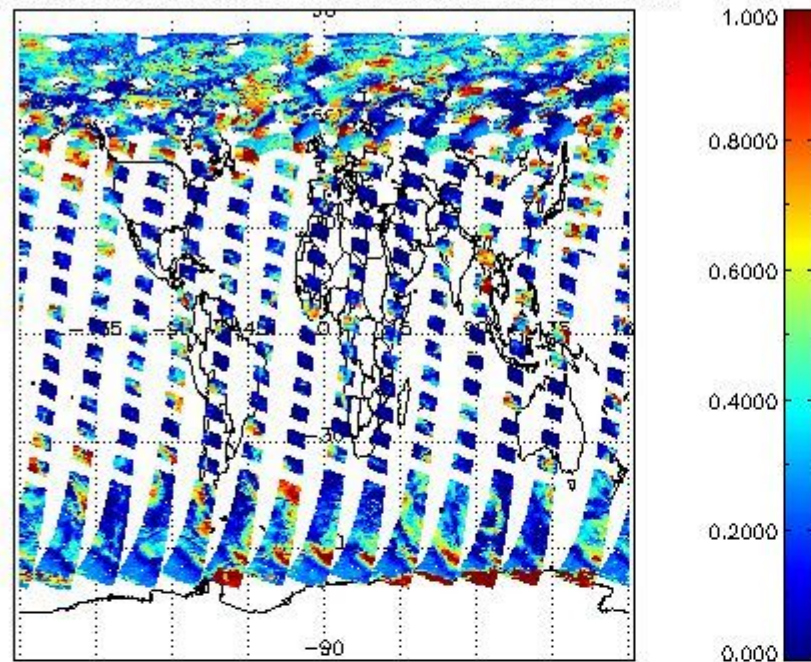
| Parameter | #valid | Mean | Median | Min | Max | Stddev | Unit |
|-------------------|--------|----------|----------|----------|----------|----------|------|
| QUALITY_FLAG | 171119 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| INTEGR_TIME | 171119 | 0.16491 | 0.12500 | 0.12500 | 0.25000 | 0.058276 | s |
| CL_FRAC | 171119 | 0.30628 | 0.25754 | 0.0000 | 1.0000 | 0.27060 | |
| CL_FRAC_ERR | 171119 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | % |
| PMD_READ | 171119 | 5.2772 | 4.0000 | 4.0000 | 8.0000 | 1.8648 | |
| PMD_READ_CL[0] | 171119 | 0.25073 | 0.0000 | 0.0000 | 8.0000 | 1.0488 | - |
| PMD_READ_CL[1] | 171119 | 1.4315 | 0.0000 | 0.0000 | 8.0000 | 2.4962 | - |
| CL_TOP_HEIGHT | 129519 | 3.2683 | 1.3688 | 0.0000 | 17.000 | 3.6882 | km |
| CL_TOP_HEIGHT_ERR | 0 | --- | --- | --- | --- | --- | --- |
| CL_OPT_DEPTH | 129519 | 61.374 | 100.00 | 0.0000 | 101.00 | 43.708 | km |
| CL_OPT_DEPTH_ERR | 0 | --- | --- | --- | --- | --- | --- |
| CL_TYPE_FLAGS | 171119 | 11100000 | 11100000 | 11100000 | 11100000 | 0.0000 | |
| CLOUD_FLAGS | 171119 | 11001110 | 11000100 | 11000000 | 11100000 | 3684.8 | |
| AERO_ABSO_IND | 171119 | 0.21884 | 0.0000 | 0.0000 | 6.1552 | 0.49480 | |
| AERO_IND_DIAG | 171119 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| AERO_FLAGS | 171119 | 01010010 | 00000000 | 00000000 | 11000000 | 24327. | |

Time and geolocation plots:

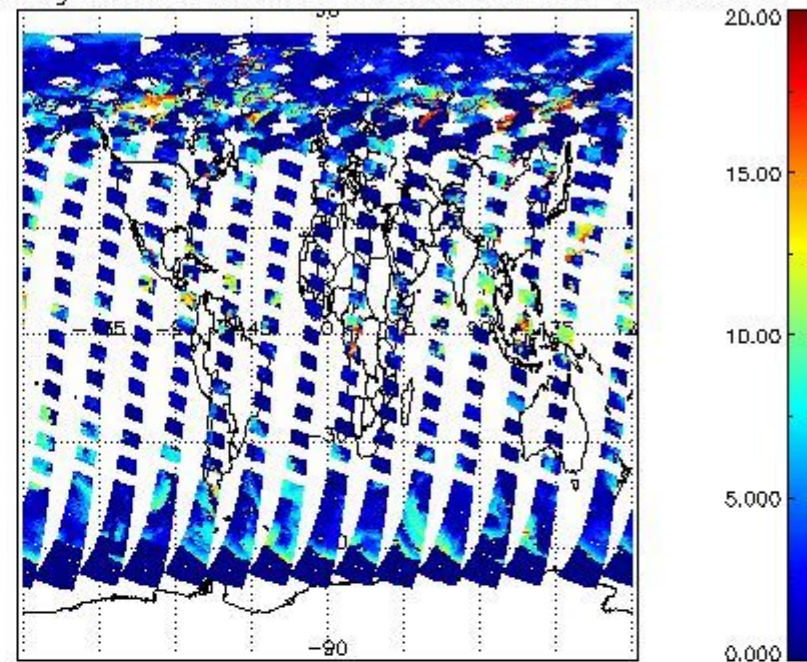
Plots are available for the following parameters:

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

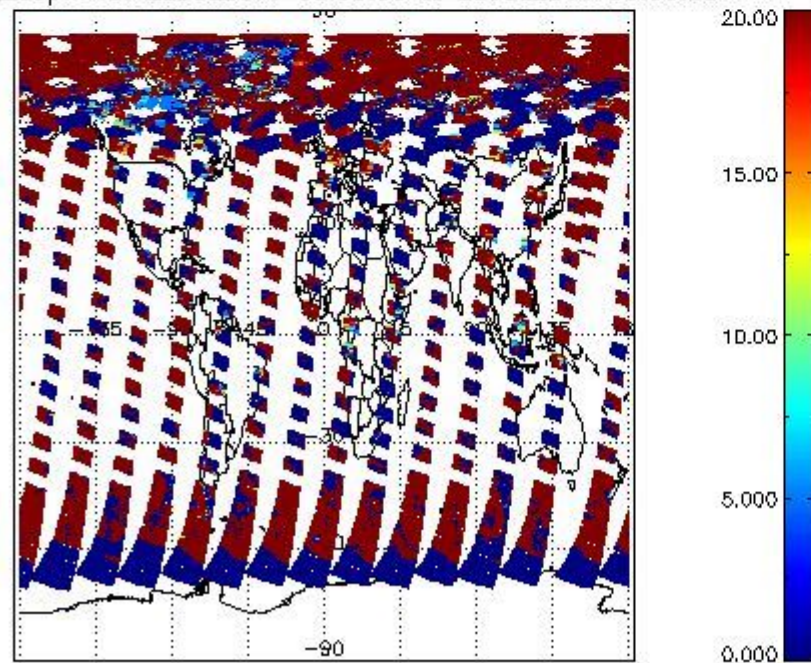
cL_frac for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



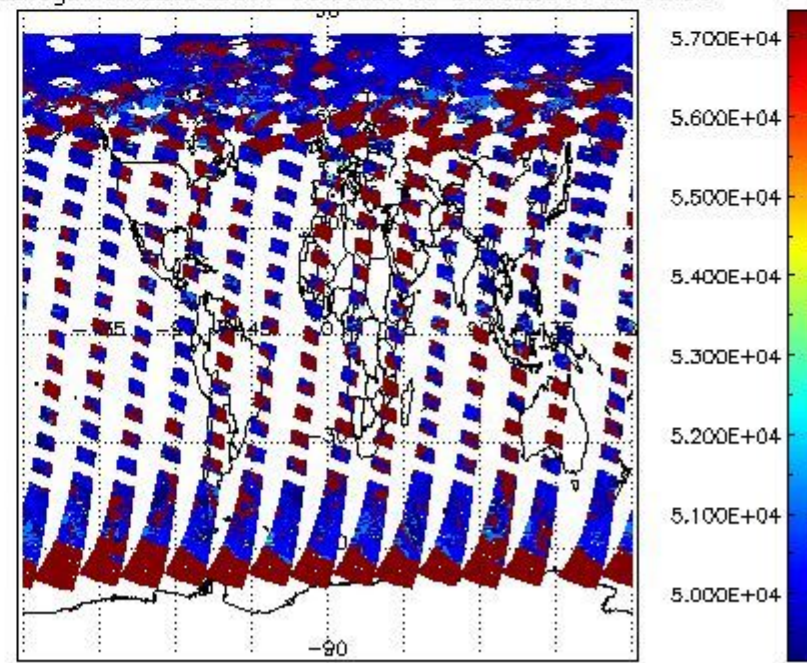
cL_top_height for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



cL_opt_depth for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



cloud_flags for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



2.2.2 Nadir

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

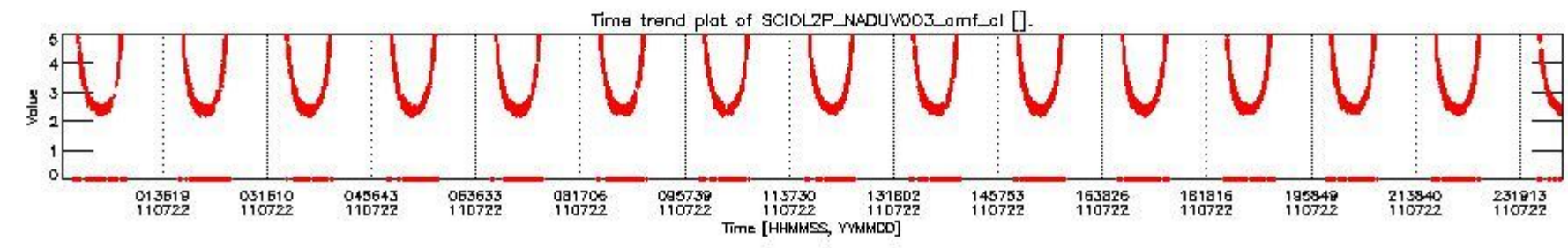
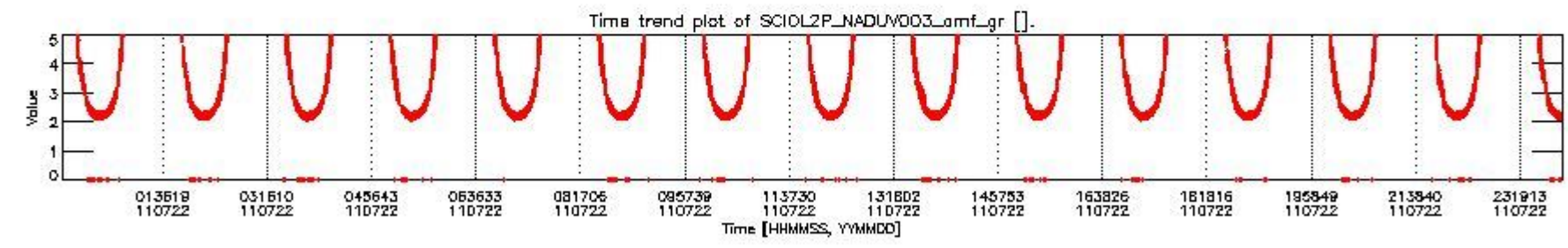
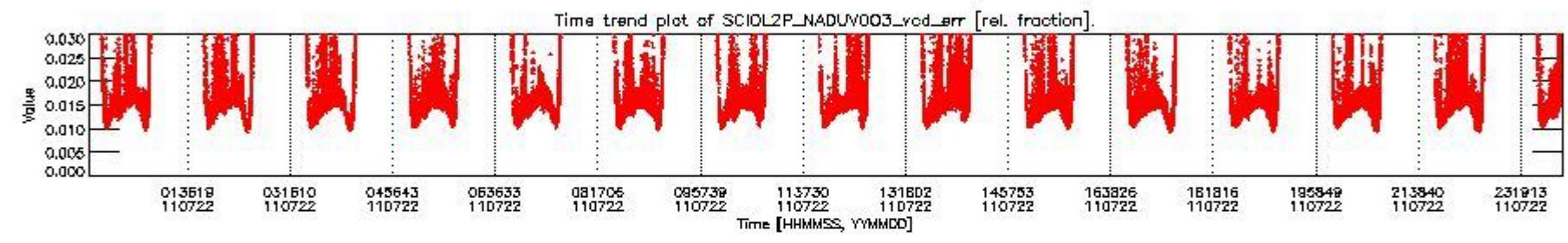
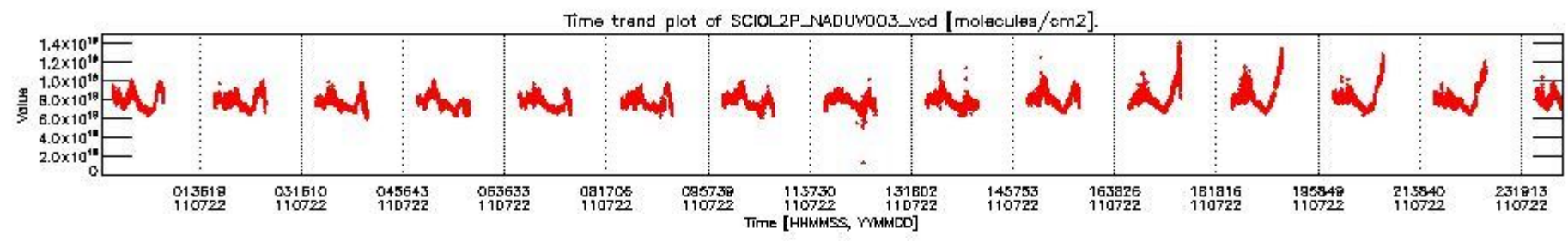
The following data items are currently included into this section:

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

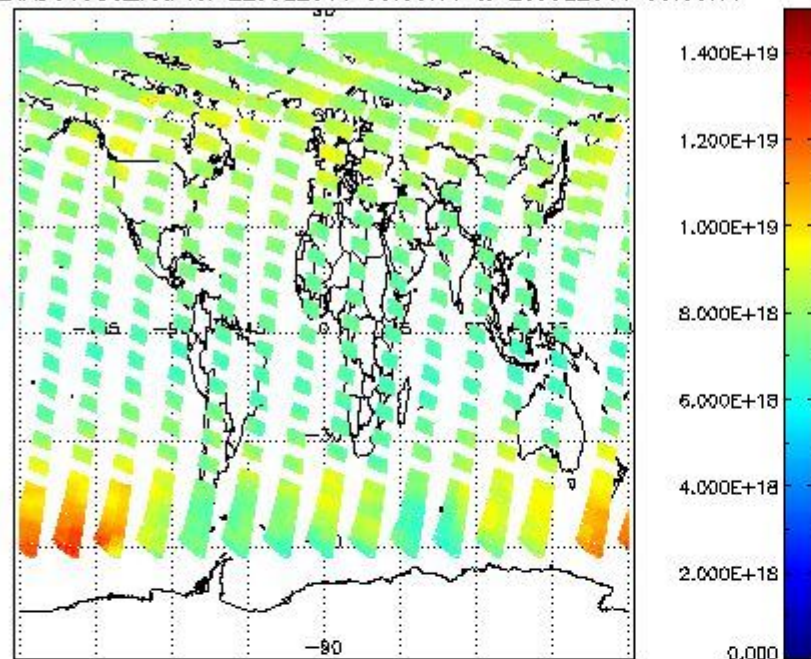
| | |
|----|---------------------------------|
| 3 | SCIOL2P_NADUV0O3_amf_cl |
| 4 | SCIOL2P_NADUV1NO2_vcd |
| 5 | SCIOL2P_NADUV1NO2_vcd_err |
| 6 | SCIOL2P_NADUV1NO2_amf_gr |
| 7 | SCIOL2P_NADUV1NO2_amf_cl |
| 8 | SCIOL2P_NADUV3BRO_vcd |
| 9 | SCIOL2P_NADUV3BRO_vcd_err |
| 10 | SCIOL2P_NADUV3BRO_amf_gr |
| 11 | SCIOL2P_NADUV3BRO_amf_cl |
| 12 | SCIOL2P_NADUV5SO2_vcd |
| 13 | SCIOL2P_NADUV5SO2_vcd_err |
| 14 | SCIOL2P_NADUV5SO2_amf_gr |
| 15 | SCIOL2P_NADUV5SO2_amf_cl |
| 16 | SCIOL2P_NADUV7SO2_vcd |
| 17 | SCIOL2P_NADUV7SO2_vcd_err |
| 18 | SCIOL2P_NADUV7SO2_amf_gr |
| 19 | SCIOL2P_NADUV7SO2_amf_cl |
| 20 | SCIOL2P_NADUV6OCL_slant_col_den |
| 21 | SCIOL2P_NADUV6OCL_err_slant_col |
| 22 | SCIOL2P_NADUV8H2O_vcd |
| 23 | SCIOL2P_NADUV8H2O_vcd_err |
| 24 | SCIOL2P_NADUV8H2O_amf_gr |
| 25 | SCIOL2P_NADIR3CO_vcd |
| 26 | SCIOL2P_NADIR3CO_vcd_err |

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.

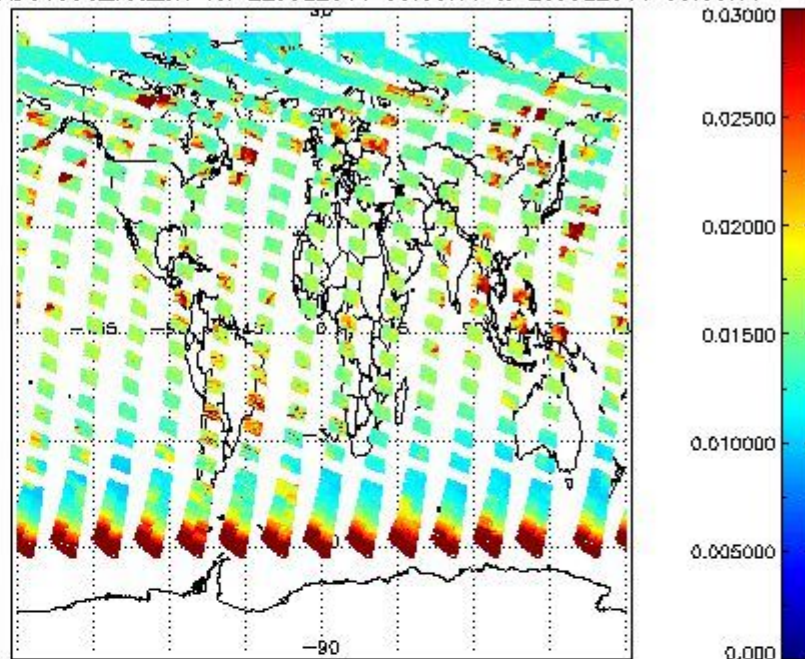
2.2.2.1 O3 (UV0)



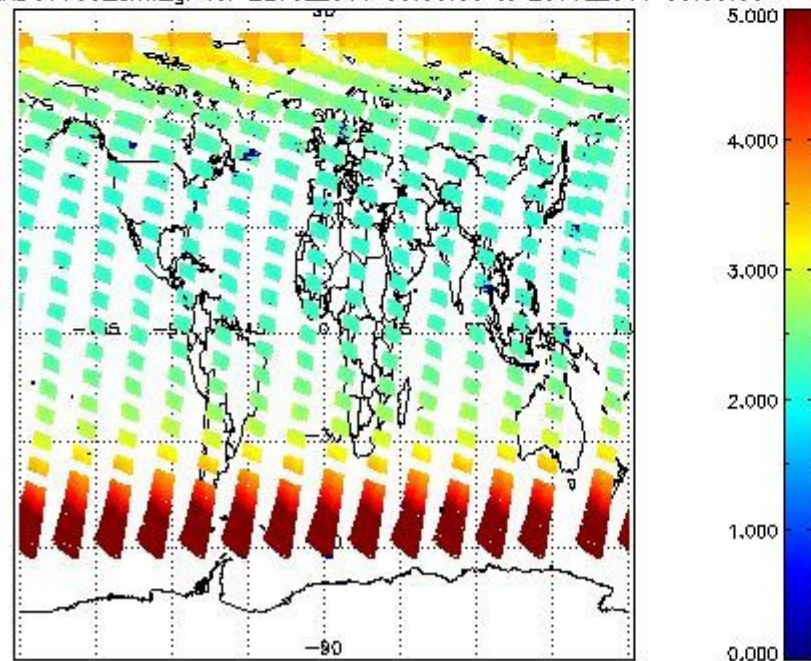
SCIOL2P_NADUV003_vcd for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



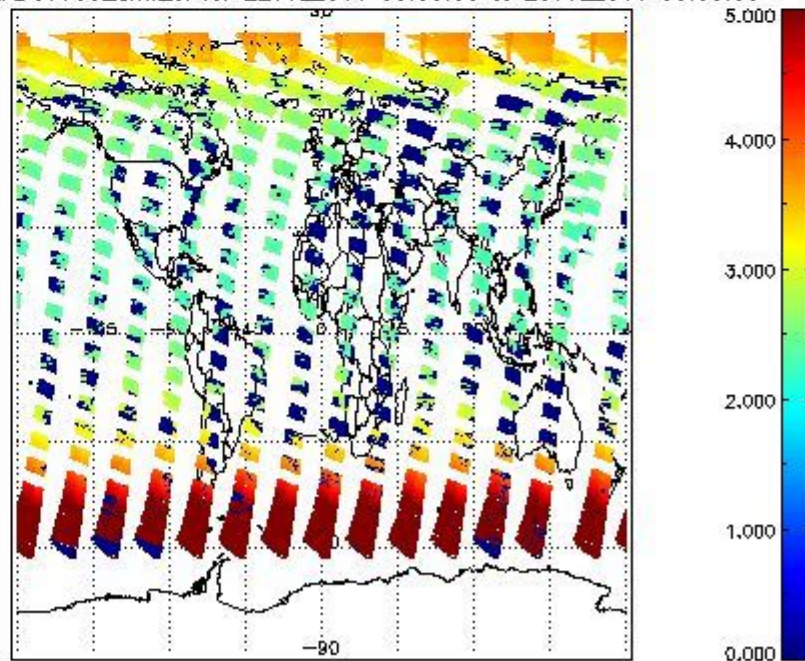
SCIOL2P_NADUV003_vcd_err for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



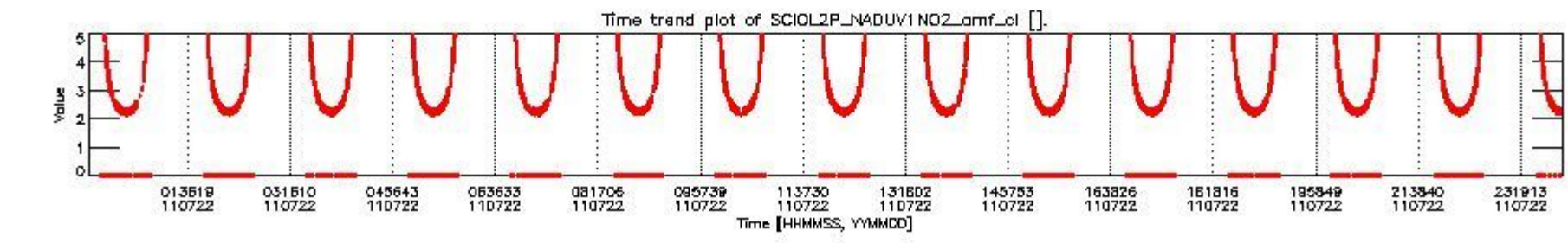
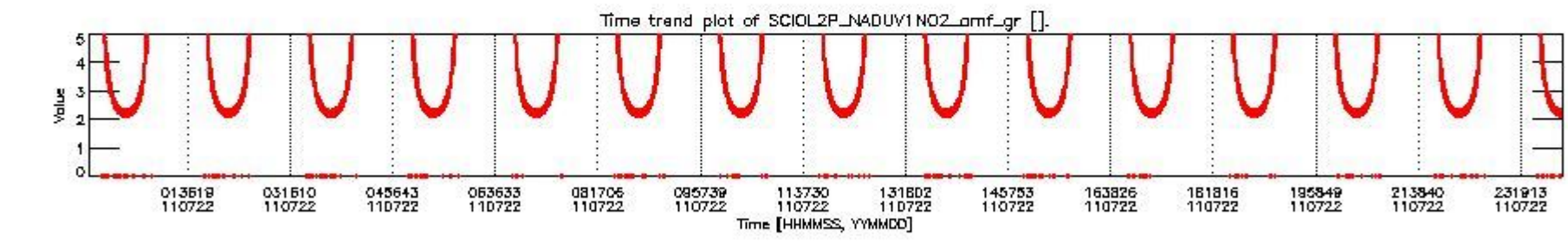
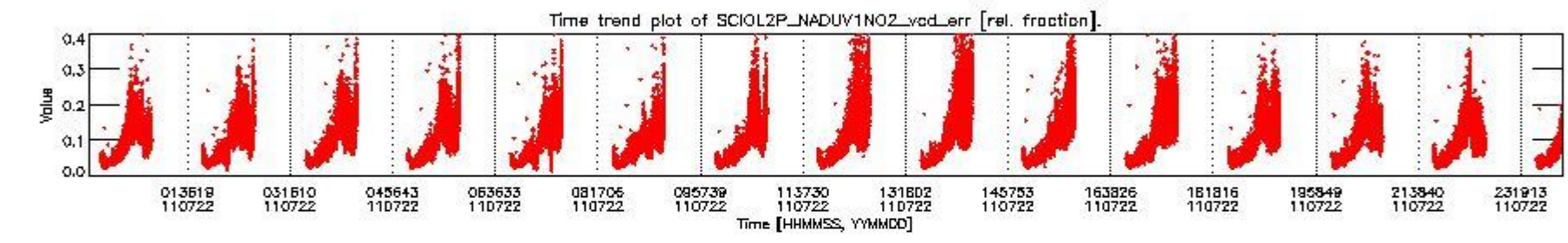
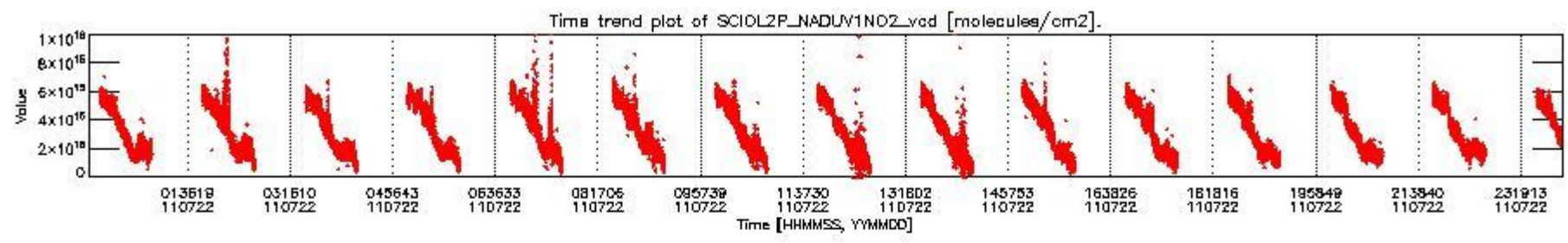
SCIOL2P_NADUV003_amf_gr for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

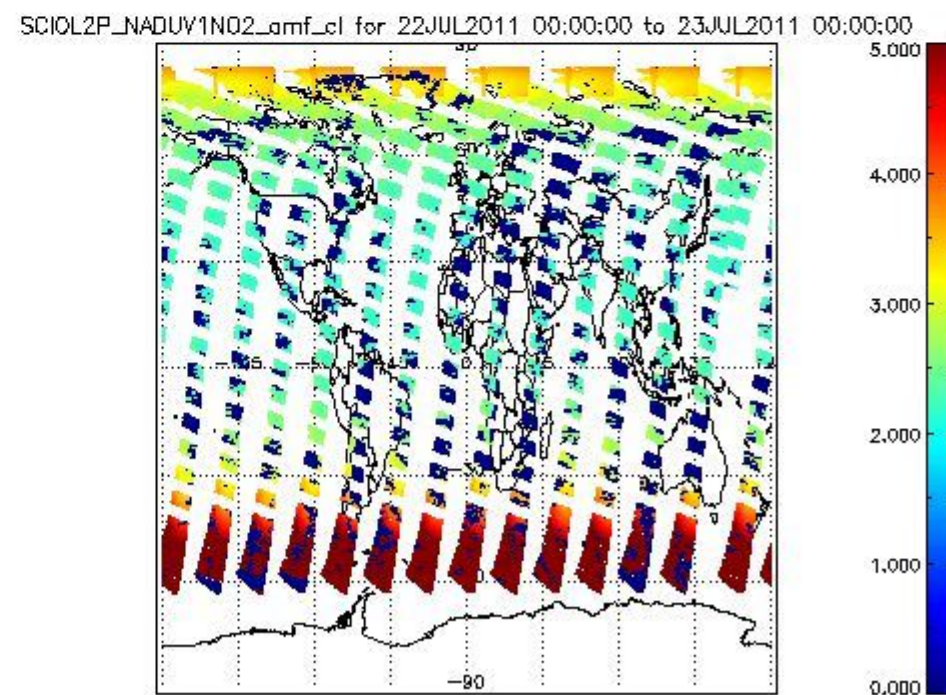
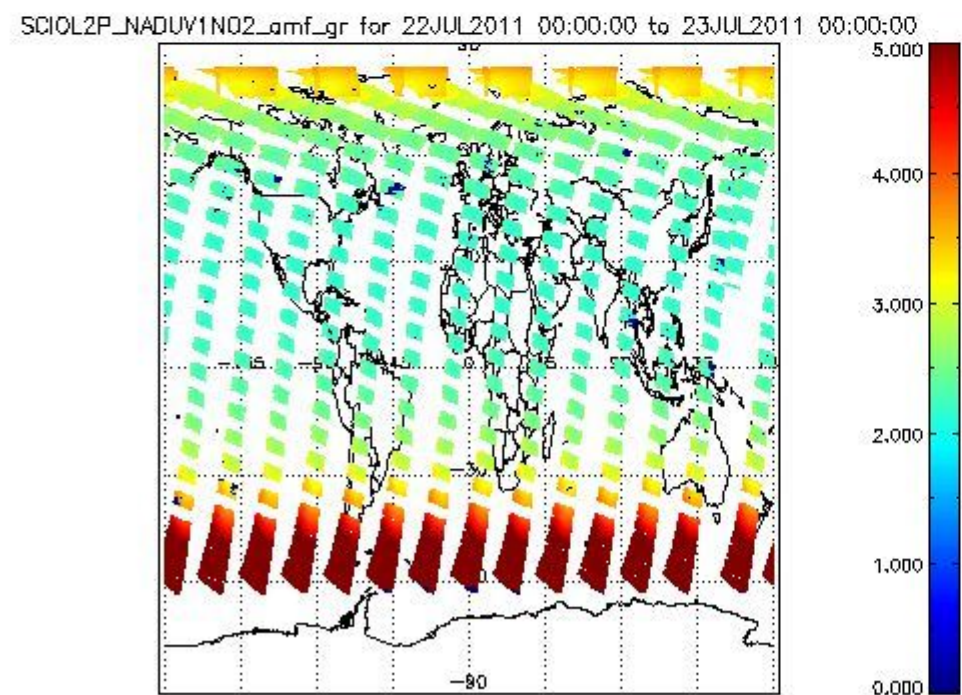
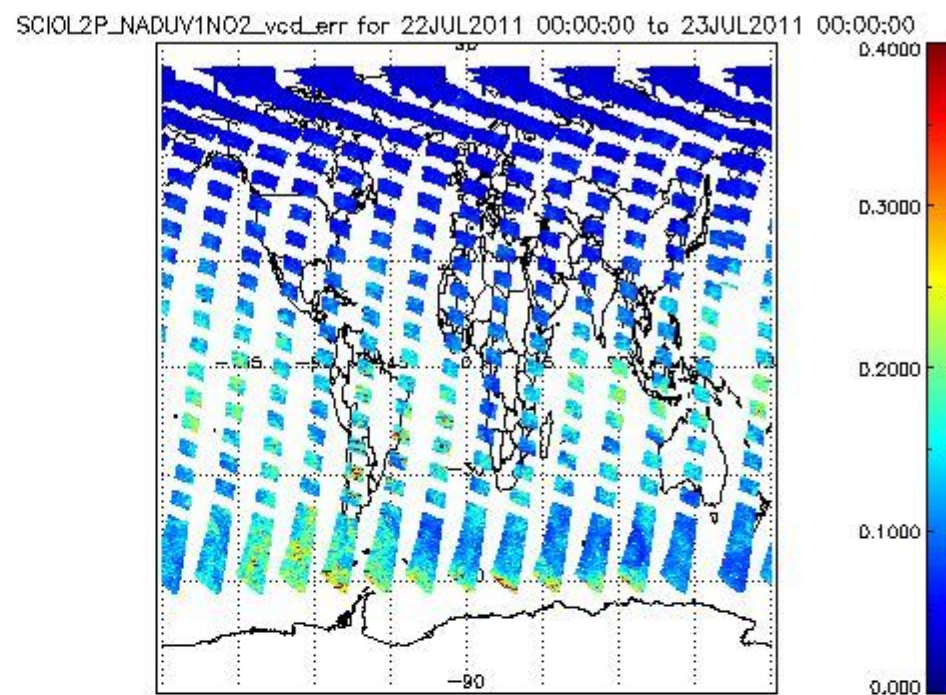
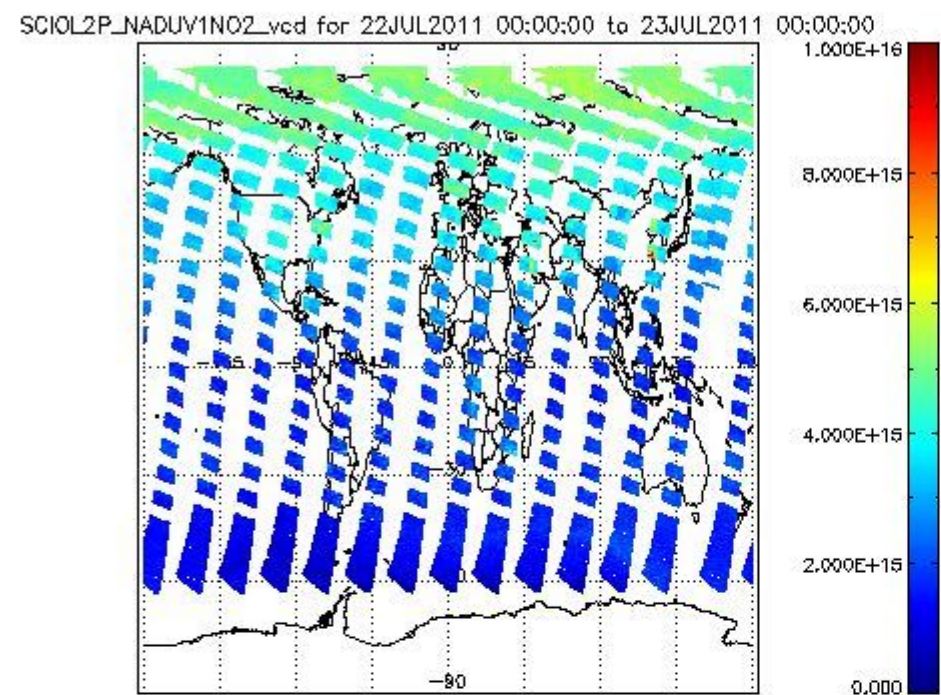


SCIOL2P_NADUV003_amf_cl for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

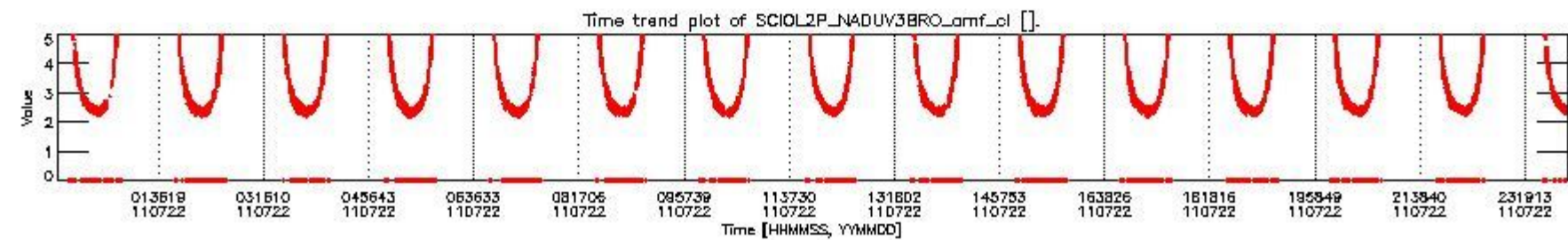
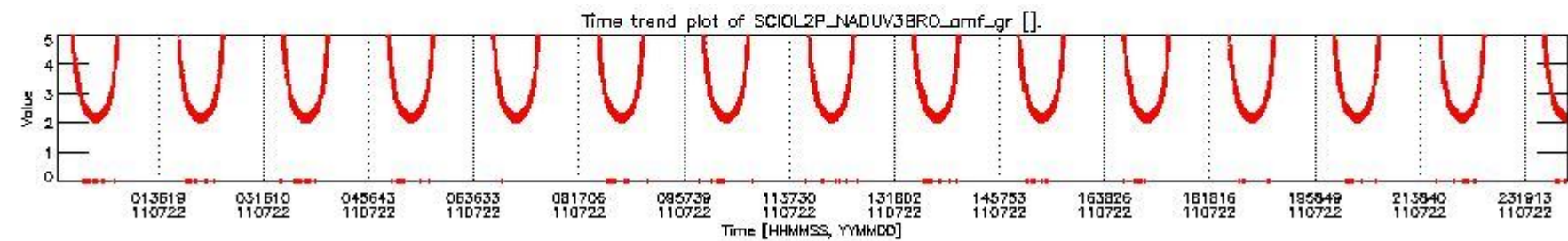
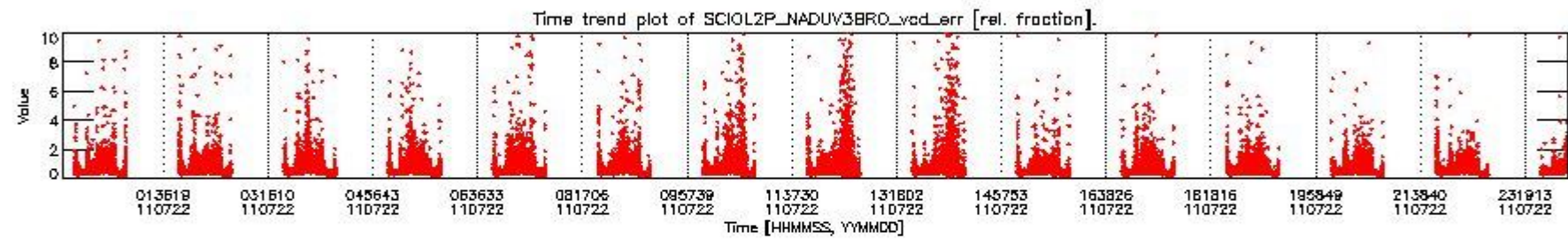
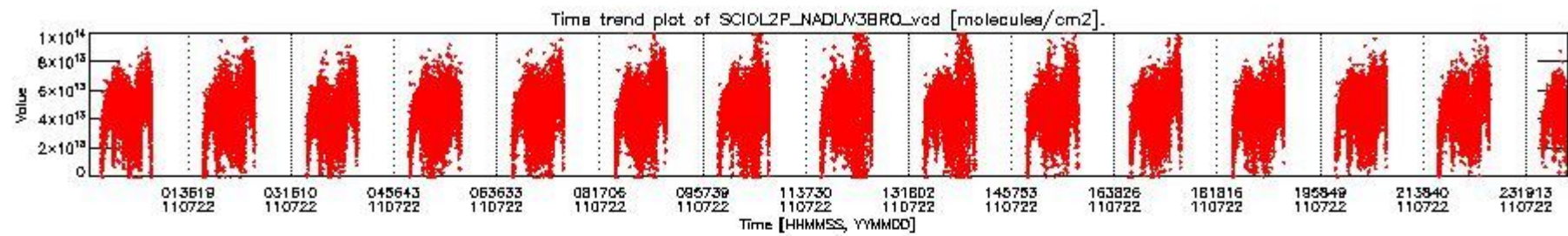


2.2.2.2 NO2 (UV1)

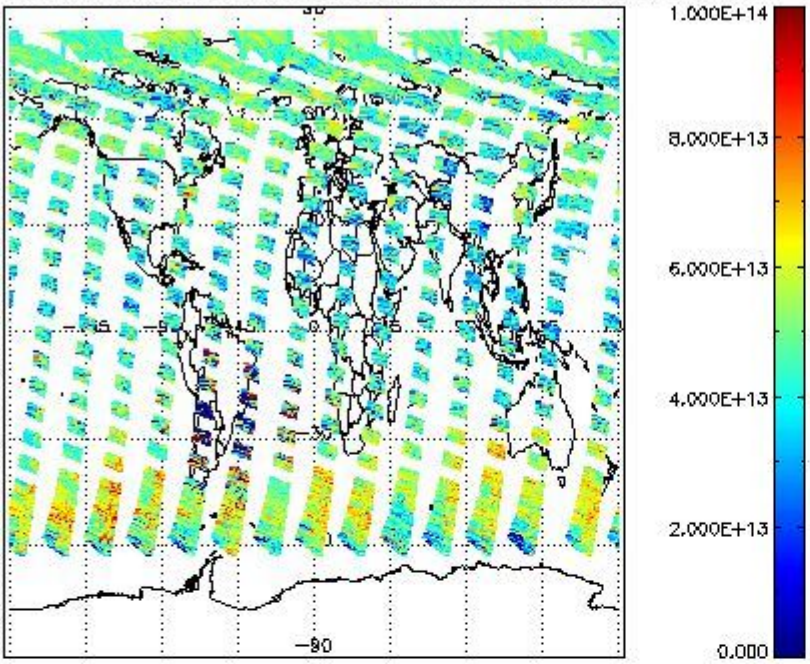




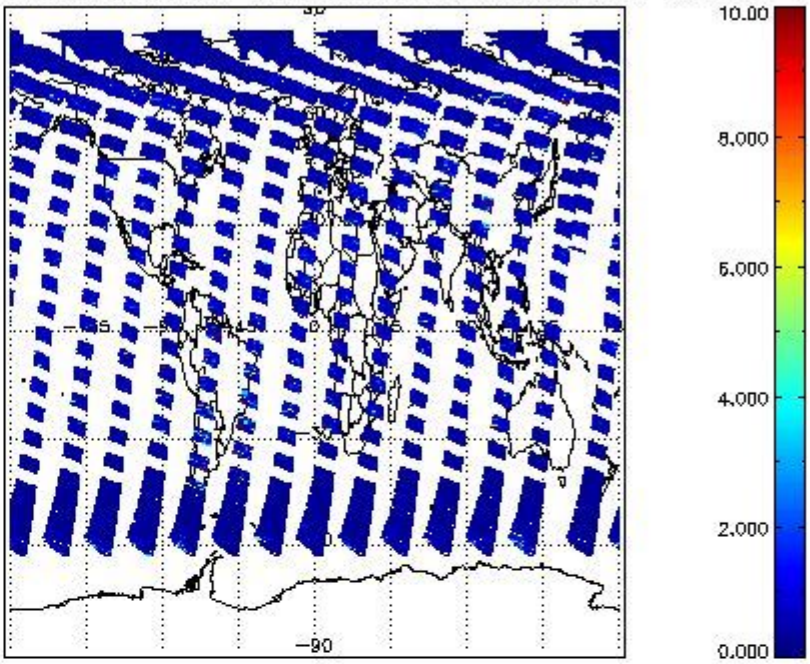
2.2.2.3 BrO (UV3)



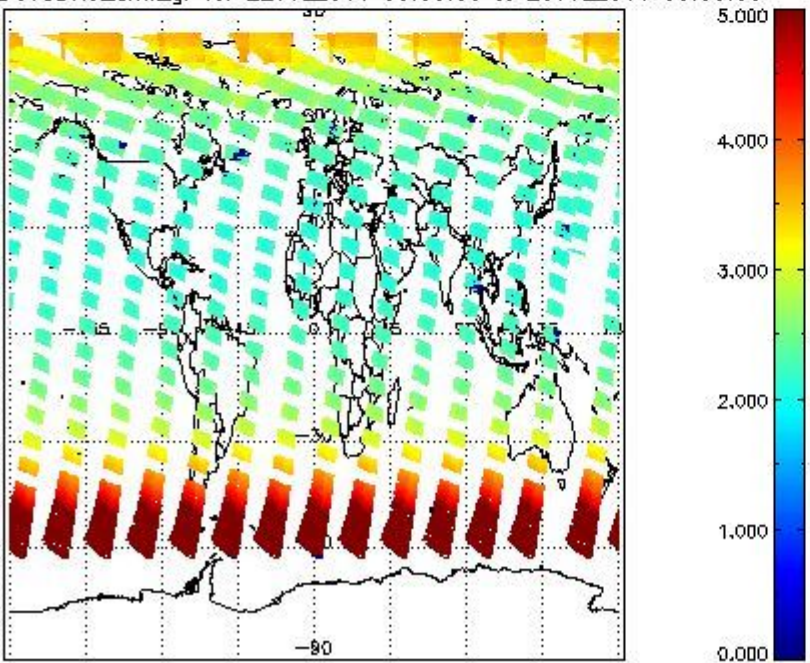
SCIOL2P_NADUV3BRO_vcd for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



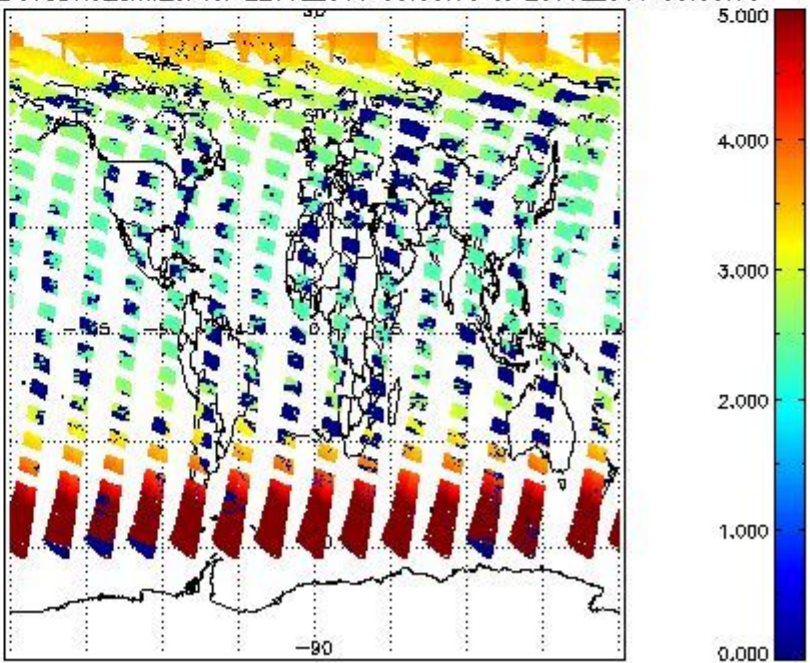
SCIOL2P_NADUV3BRO_vcd_err for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



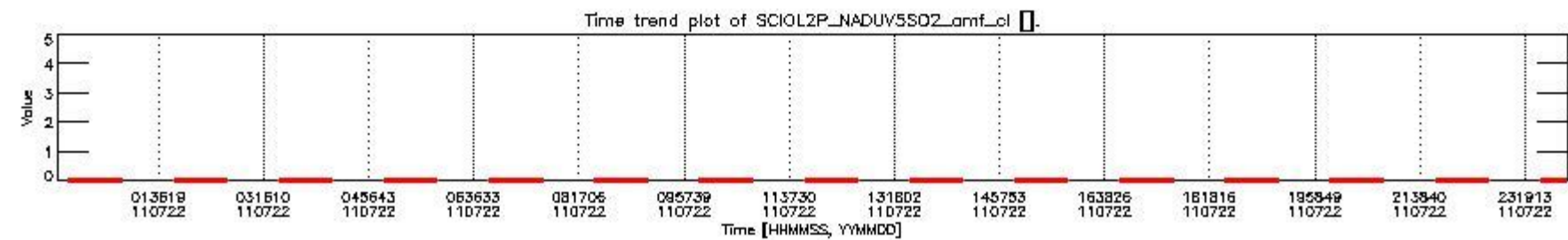
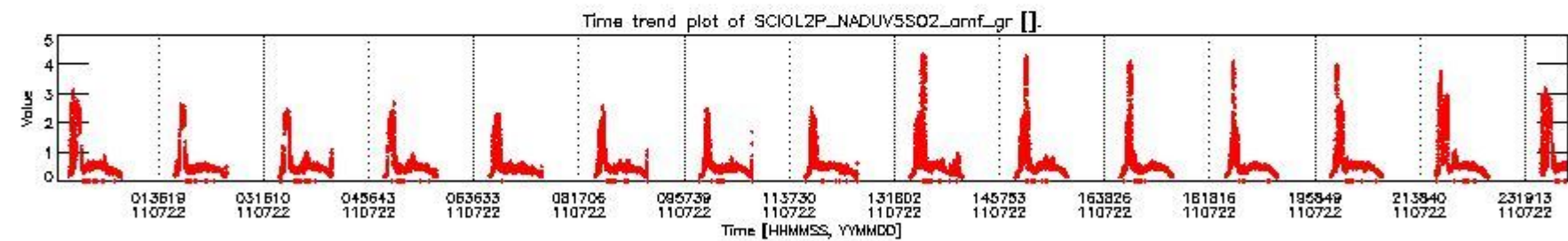
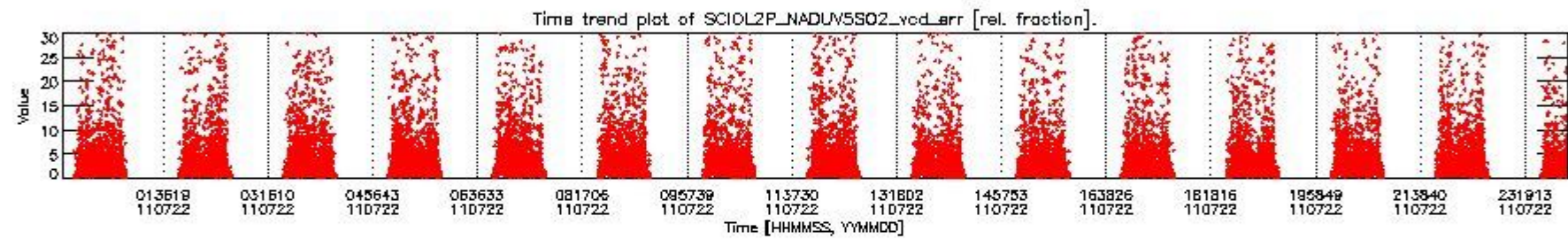
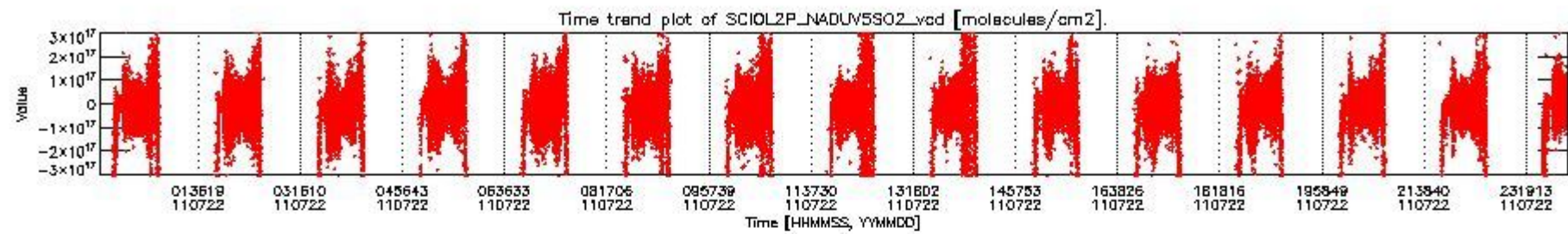
SCIOL2P_NADUV3BRO_amf_gr for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



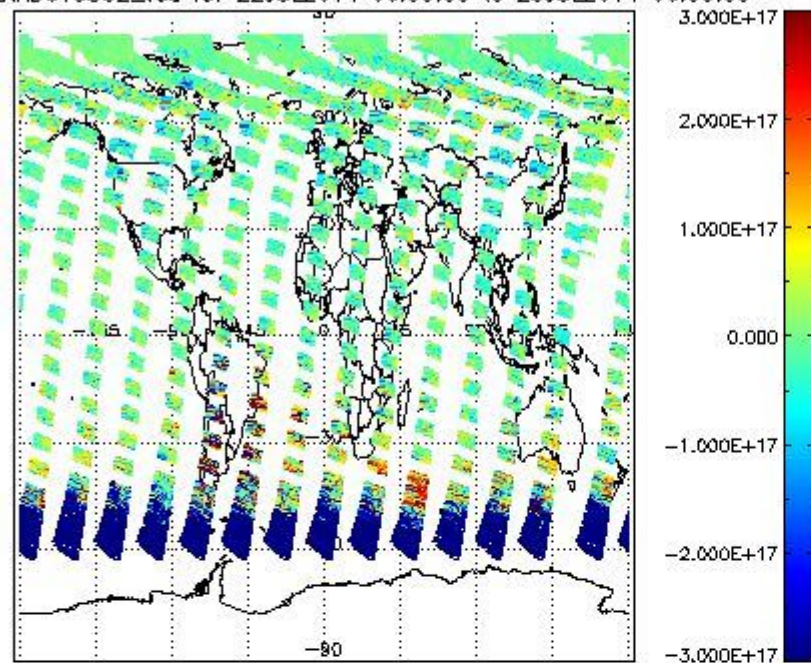
SCIOL2P_NADUV3BRO_amf_cl for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



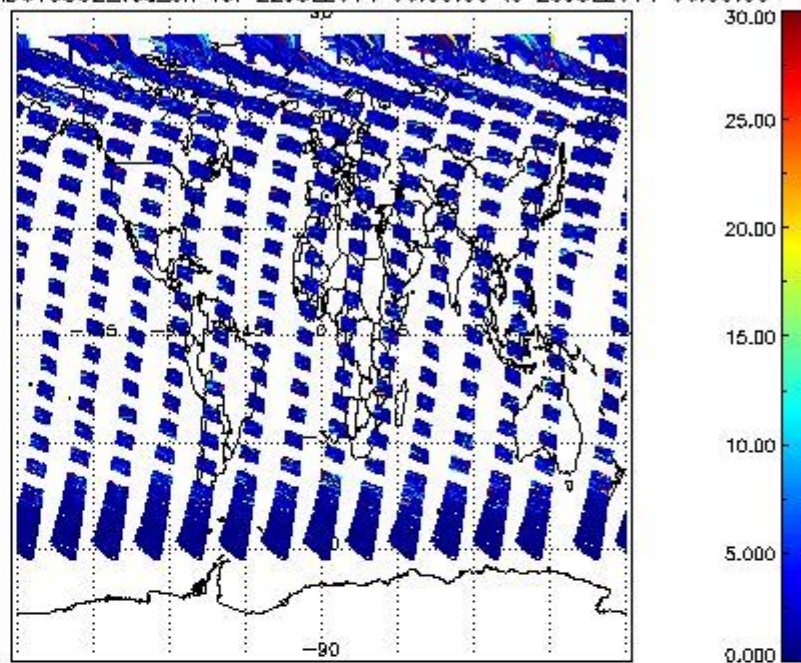
2.2.2.4 SO2 (UV5)



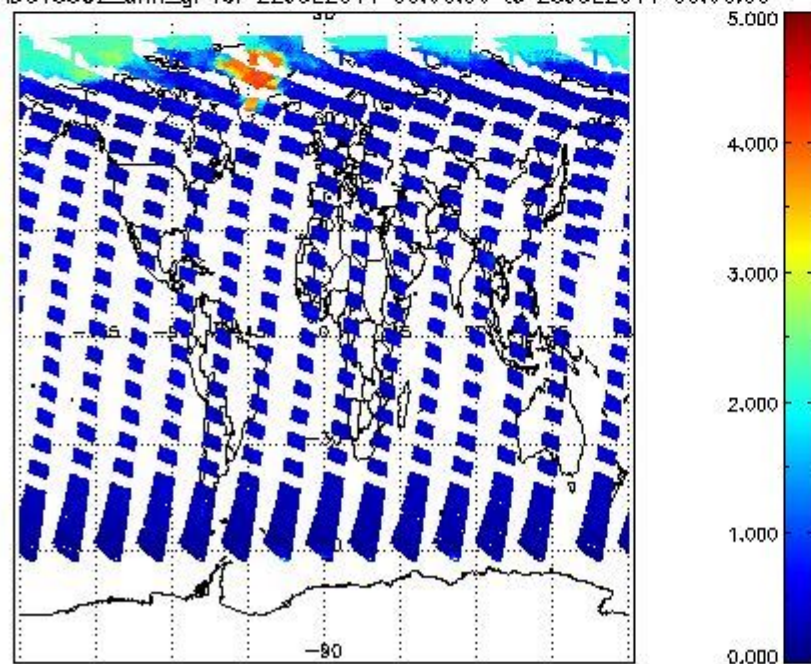
SCIOL2P_NADUV5S02_vcd for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



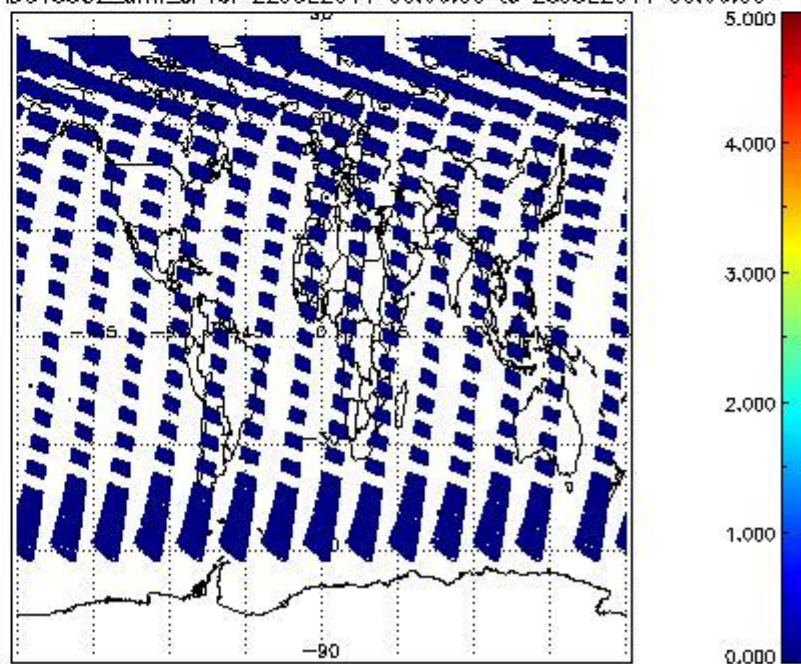
SCIOL2P_NADUV5S02_vcd_err for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



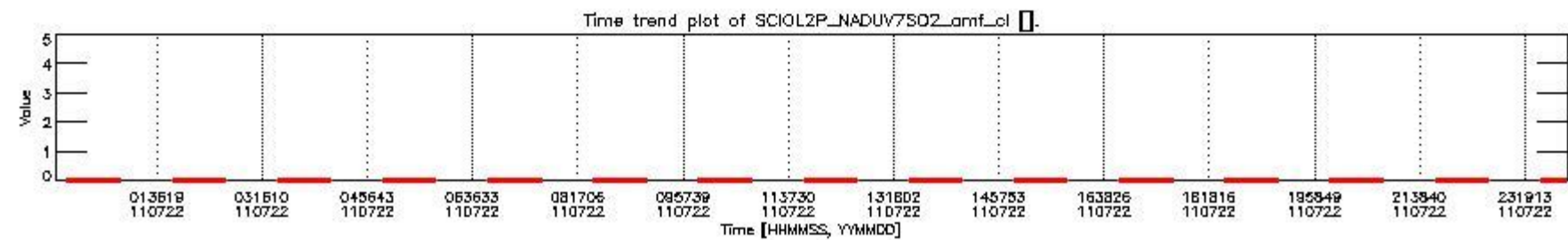
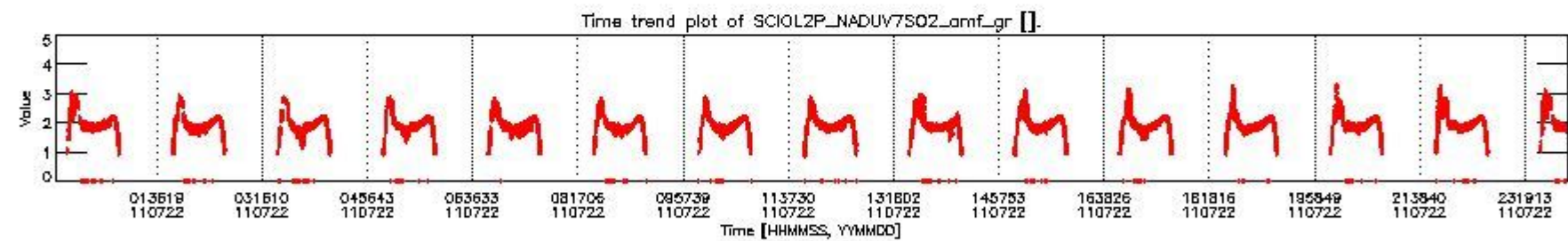
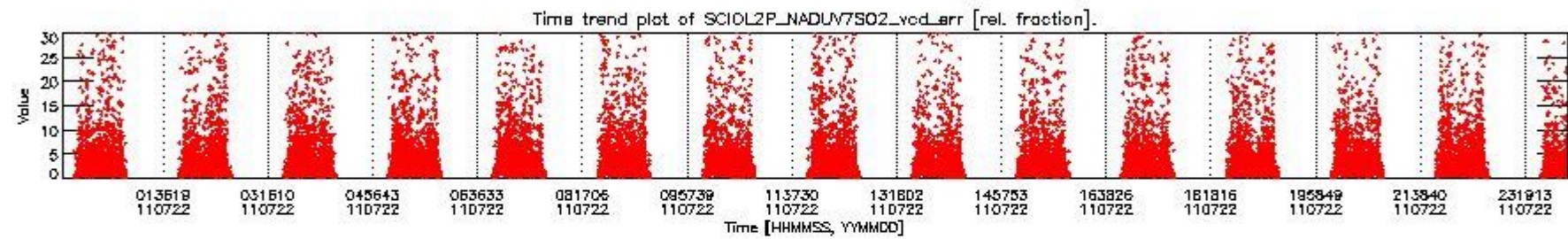
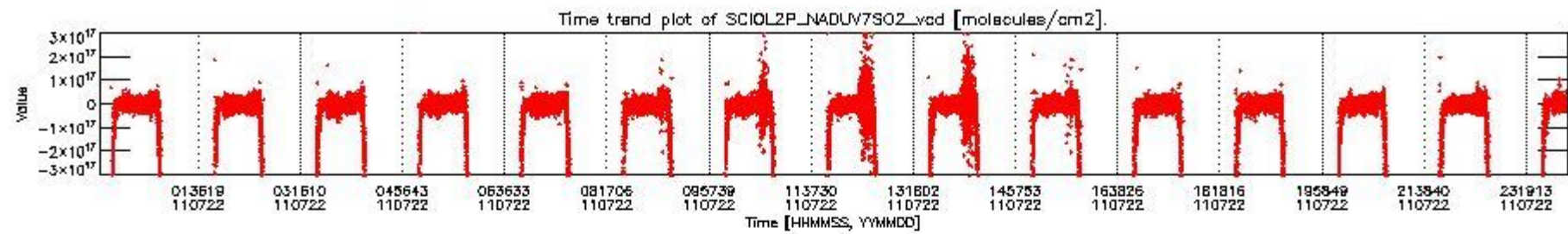
SCIOL2P_NADUV5S02_amf_gr for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



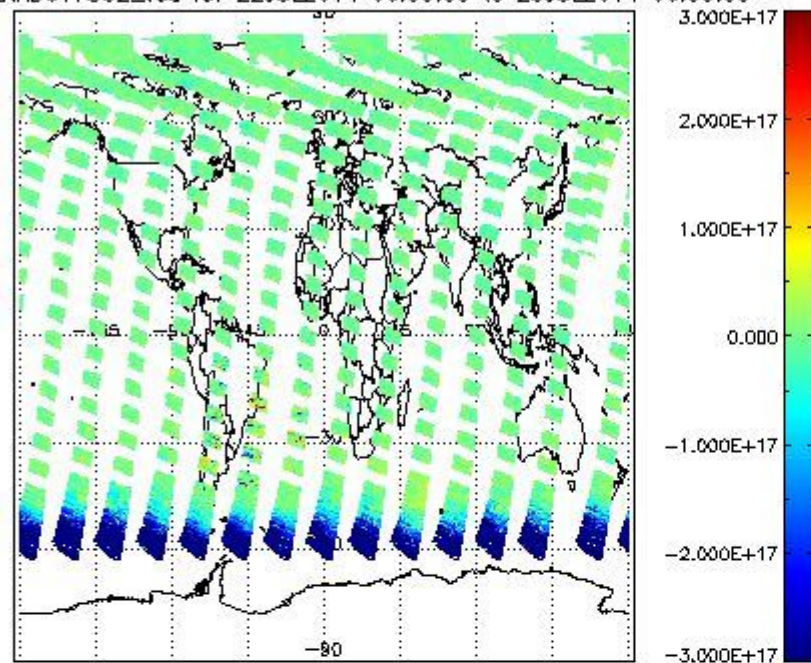
SCIOL2P_NADUV5S02_amf_cl for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



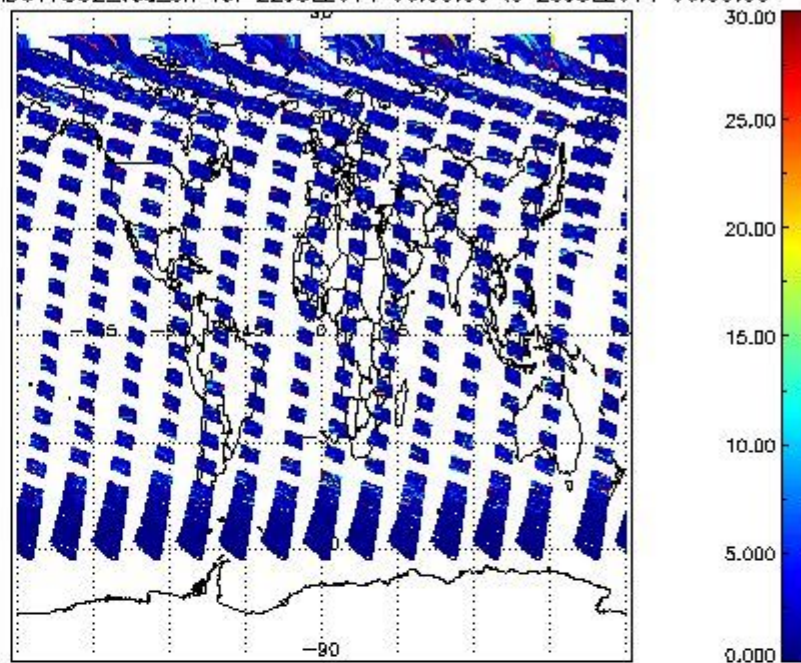
2.2.2.5 SO2 (UV7)



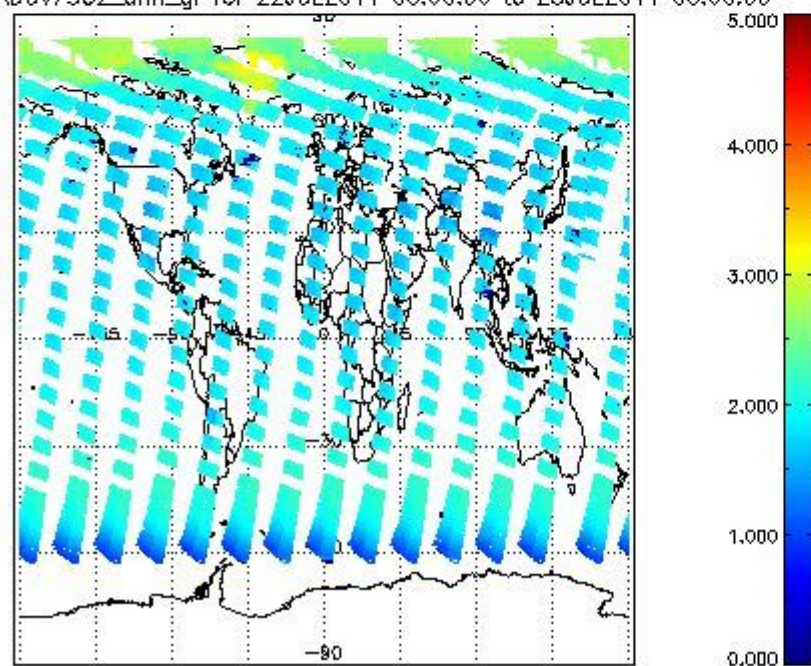
SCIOL2P_NADUV7S02_vcd for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



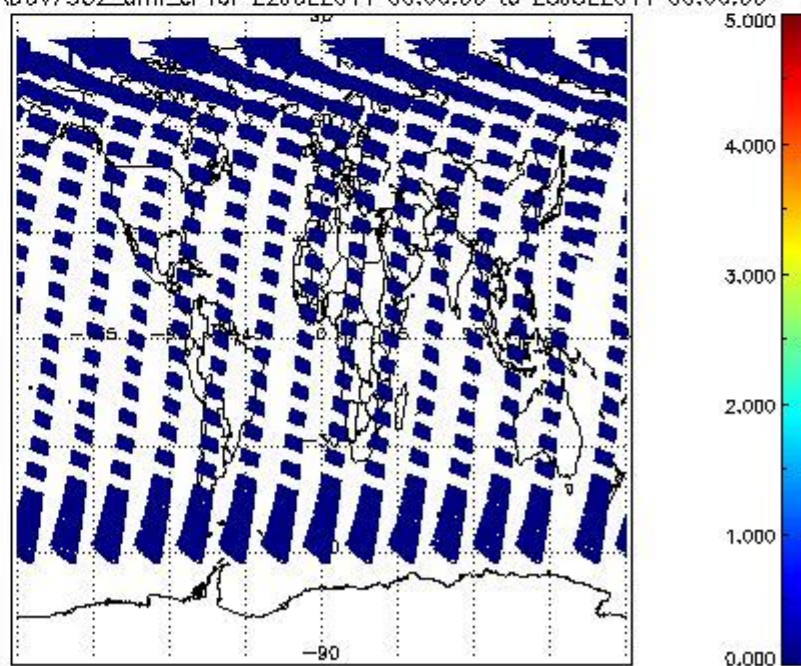
SCIOL2P_NADUV7S02_vcd_err for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



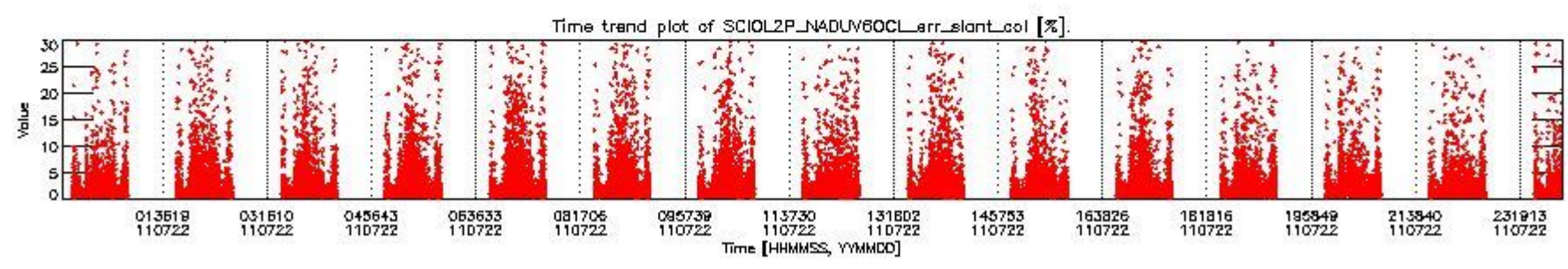
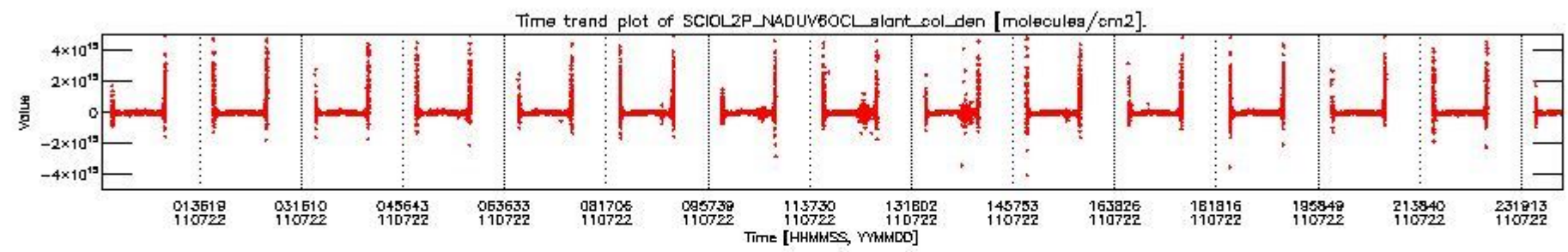
SCIOL2P_NADUV7S02_amf_gr for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



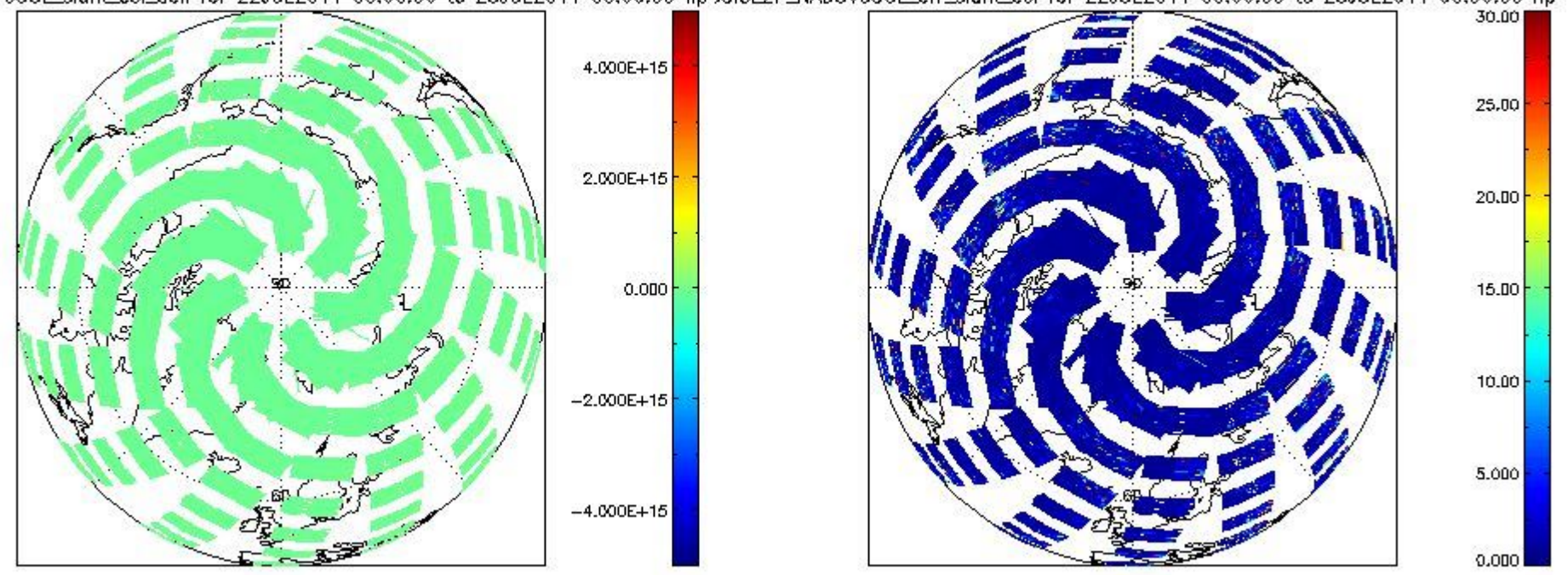
SCIOL2P_NADUV7S02_amf_cl for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



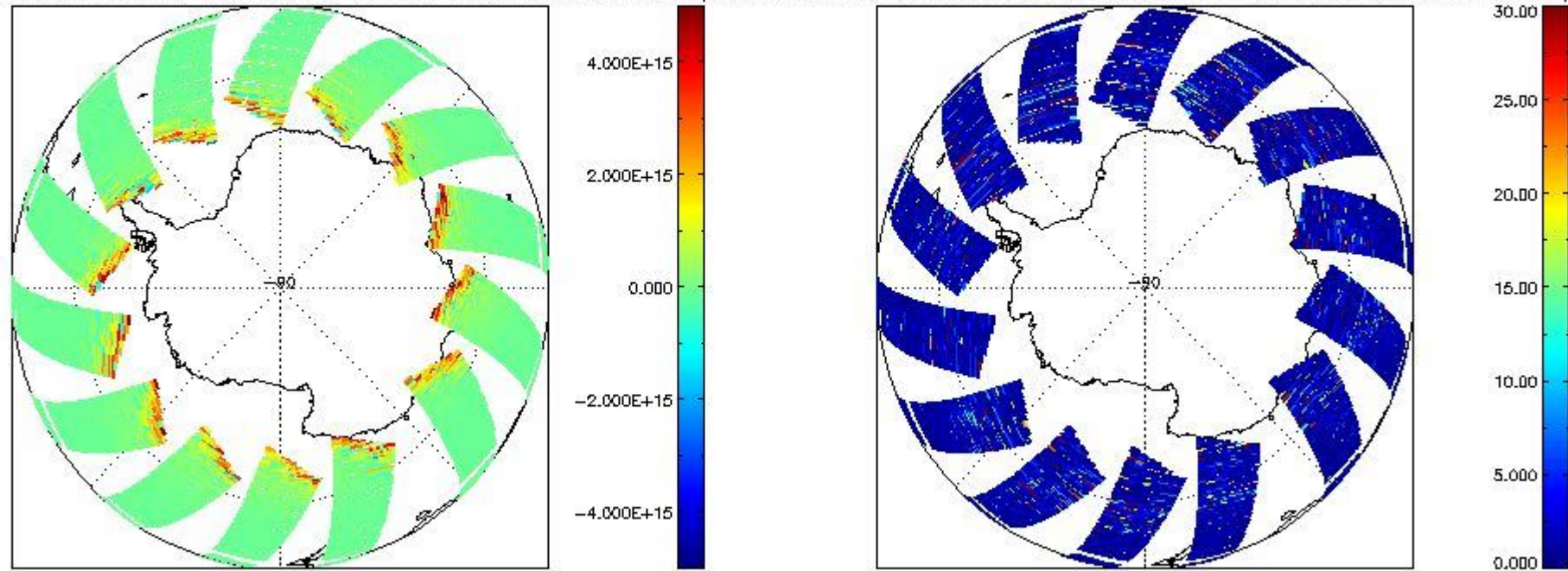
2.2.2.6 OCIO (UV6)



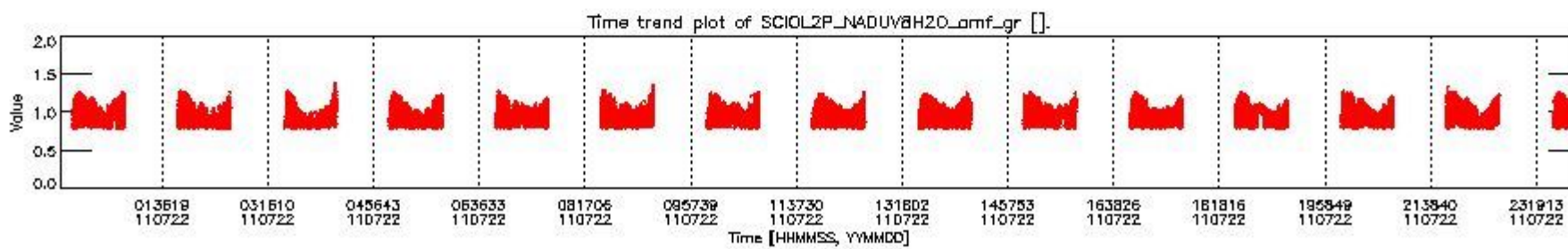
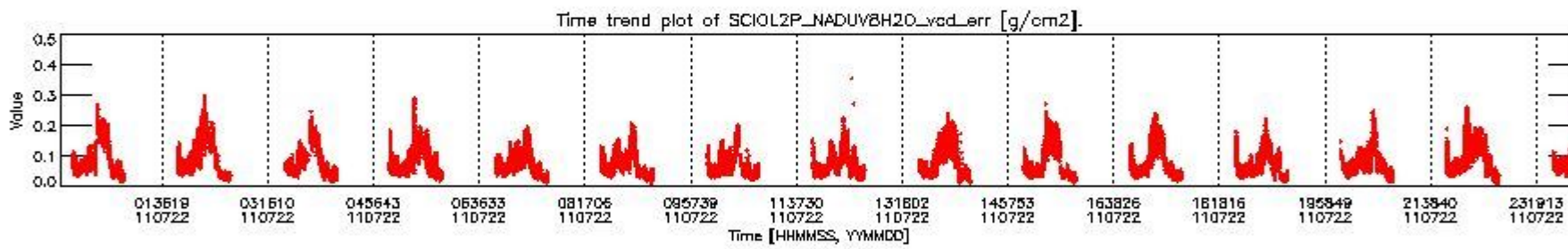
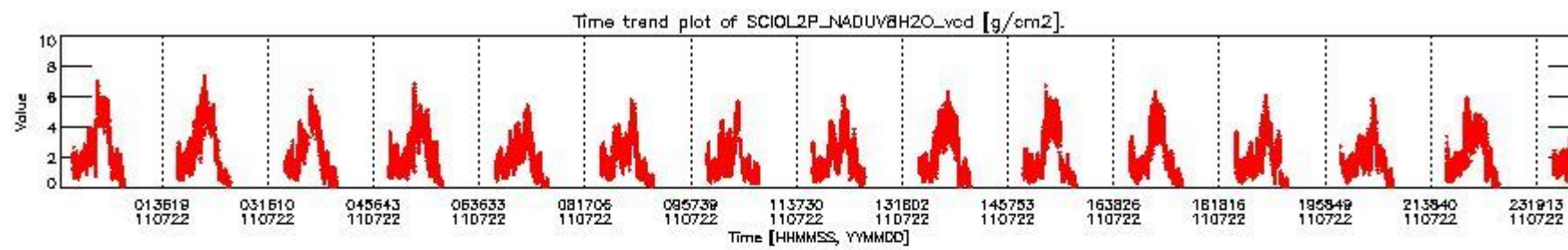
SCIOI2P_NADUV6OCLslant_col_den for 22JUL2011 00:00:00 to 23JUL2011 00:00:00 np SCIOI2P_NADUV6OCLarr_slant_col for 22JUL2011 00:00:00 to 23JUL2011 00:00:00 np



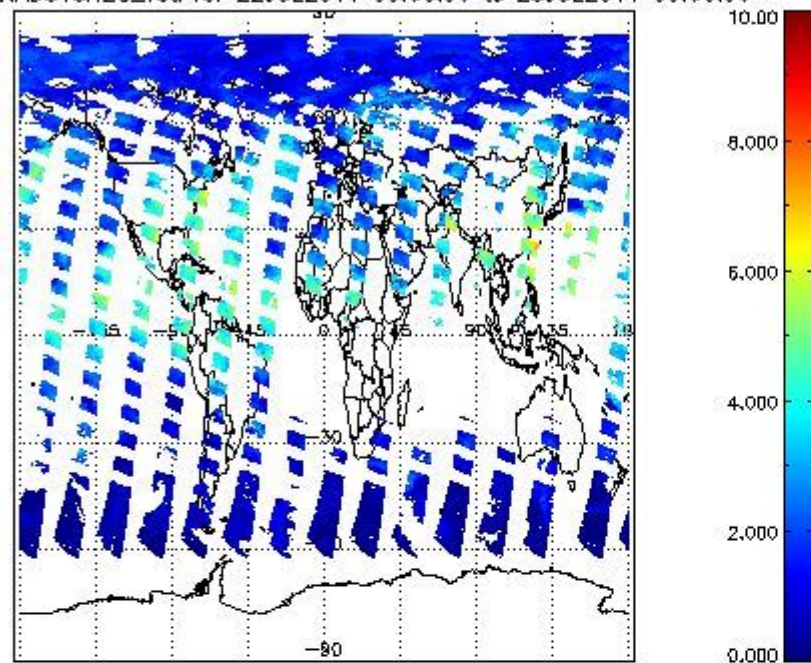
SCIOL2P_NADUV6OCL_slant_col_den for 22JUL2011 00:00:00 to 23JUL2011 00:00:00 sp SCIOL2P_NADUV6OCL_err_slant_col for 22JUL2011 00:00:00 to 23JUL2011 00:00:00 sp



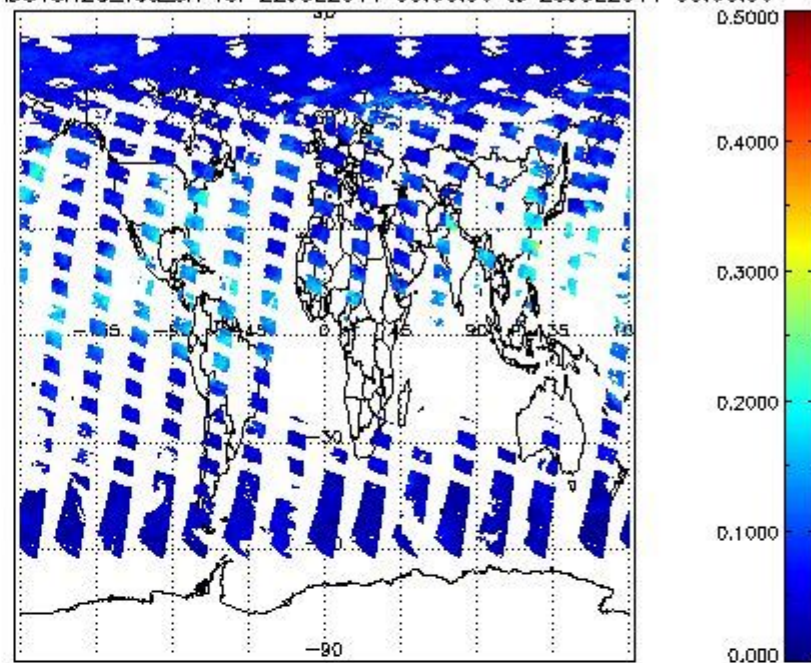
2.2.2.7 H2O (UV8)



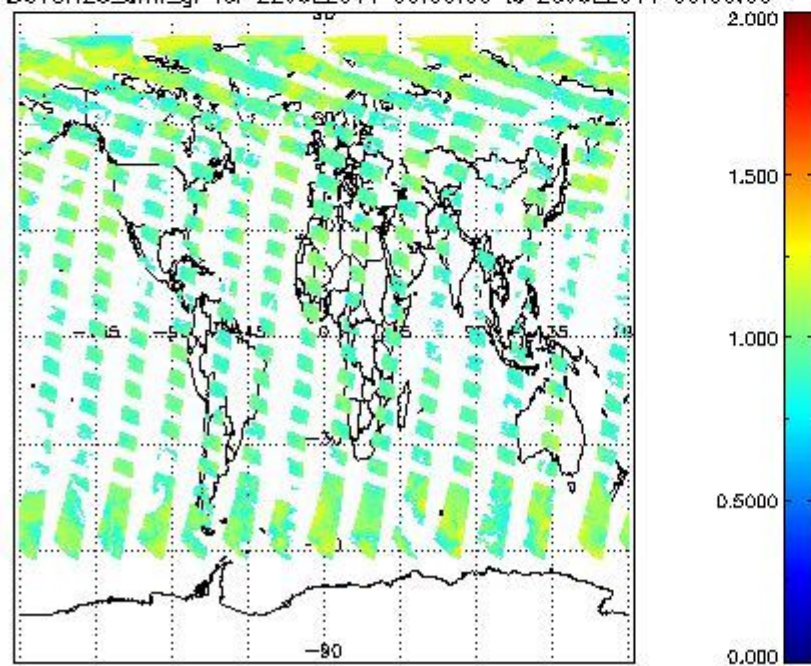
SCIOL2P_NADUV8H20_vcd for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

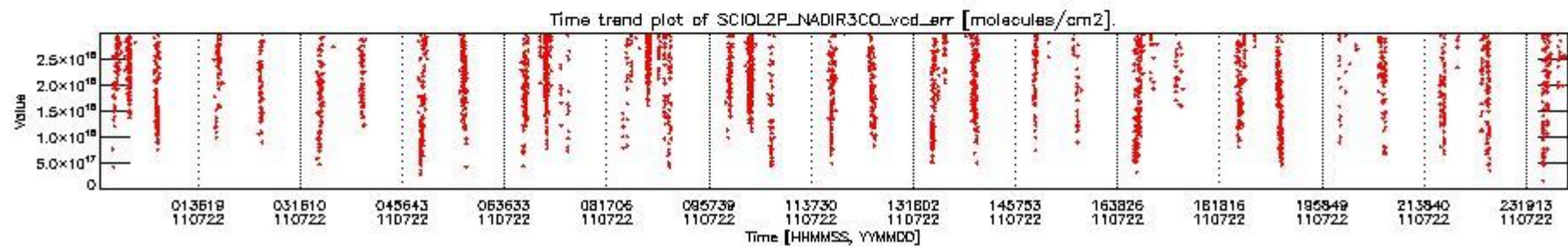
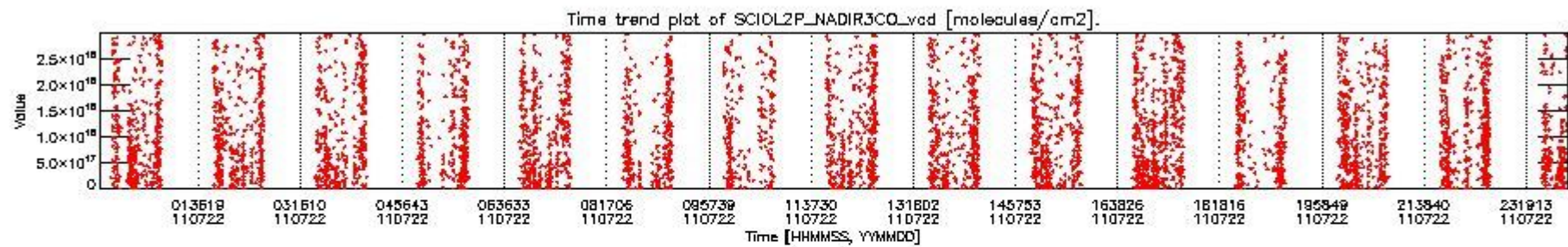


SCIOL2P_NADUV8H20_vcd_err for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

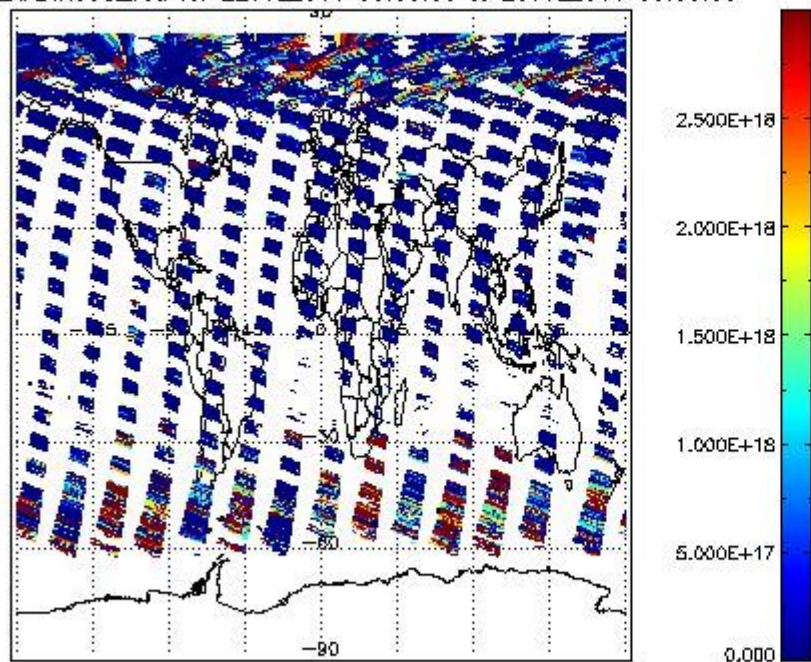


SCIOL2P_NADUV8H20_amf_gr for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

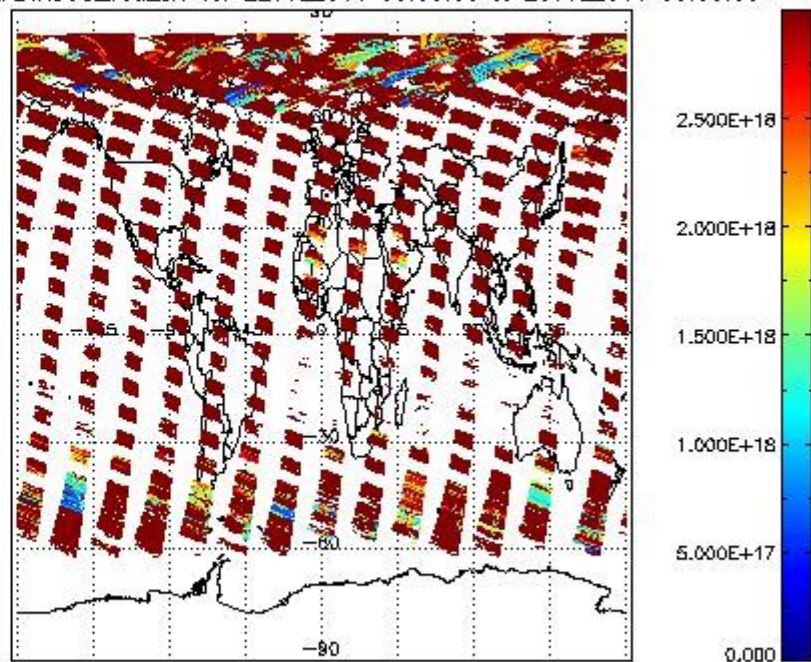




SCIO2P_NADIR3CO_vcd for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



SCIO2P_NADIR3CO_vcd_err for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



2.2.3 Limb

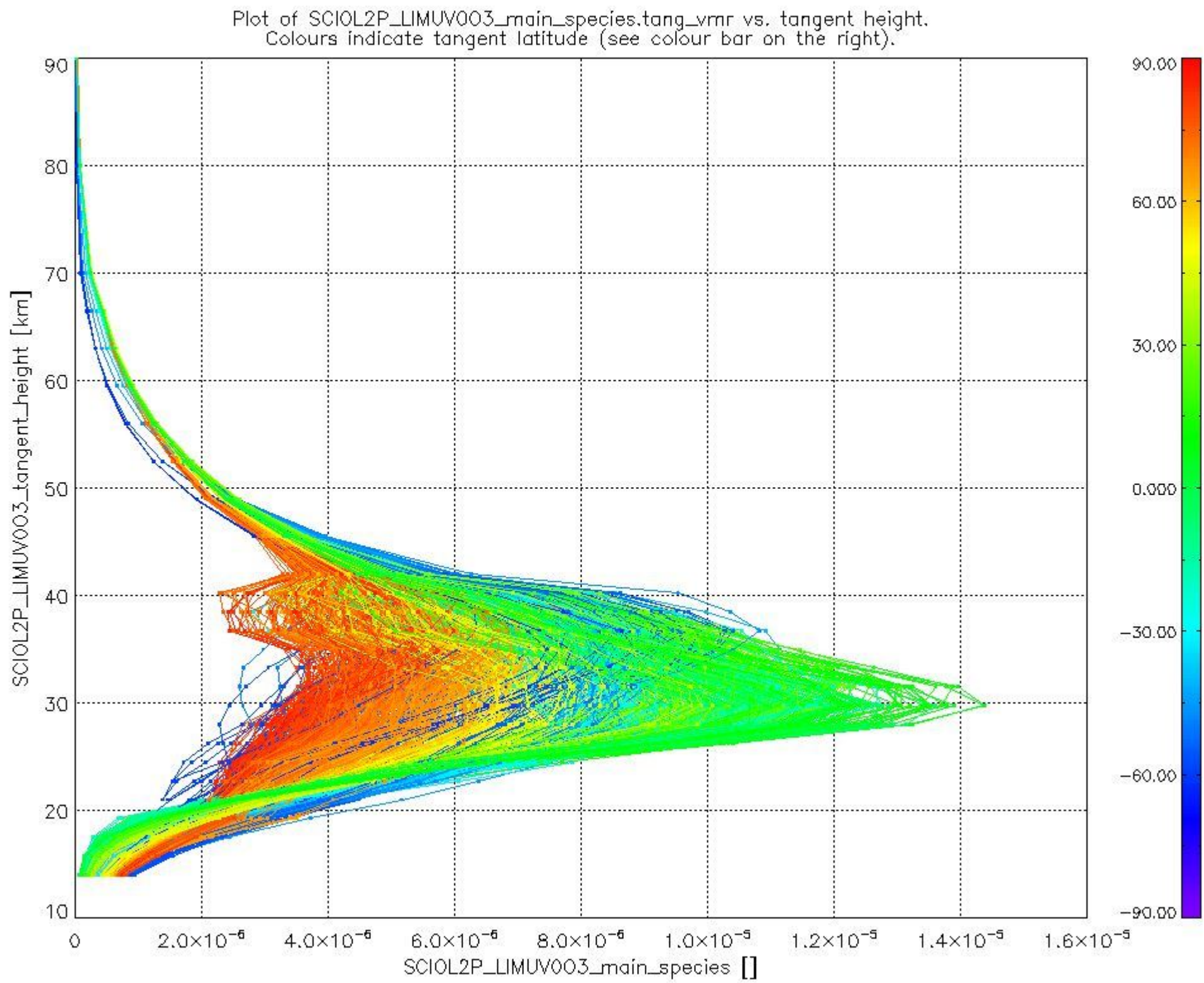
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

| Number | Data item ID |
|--------|-------------------------------|
| 0 | SCIO2P_LIMUV003_main_species |
| 1 | SCIO2P_LIMUV1NO2_main_species |
| 2 | SCIO2P_LIMUV3BRO_main_species |

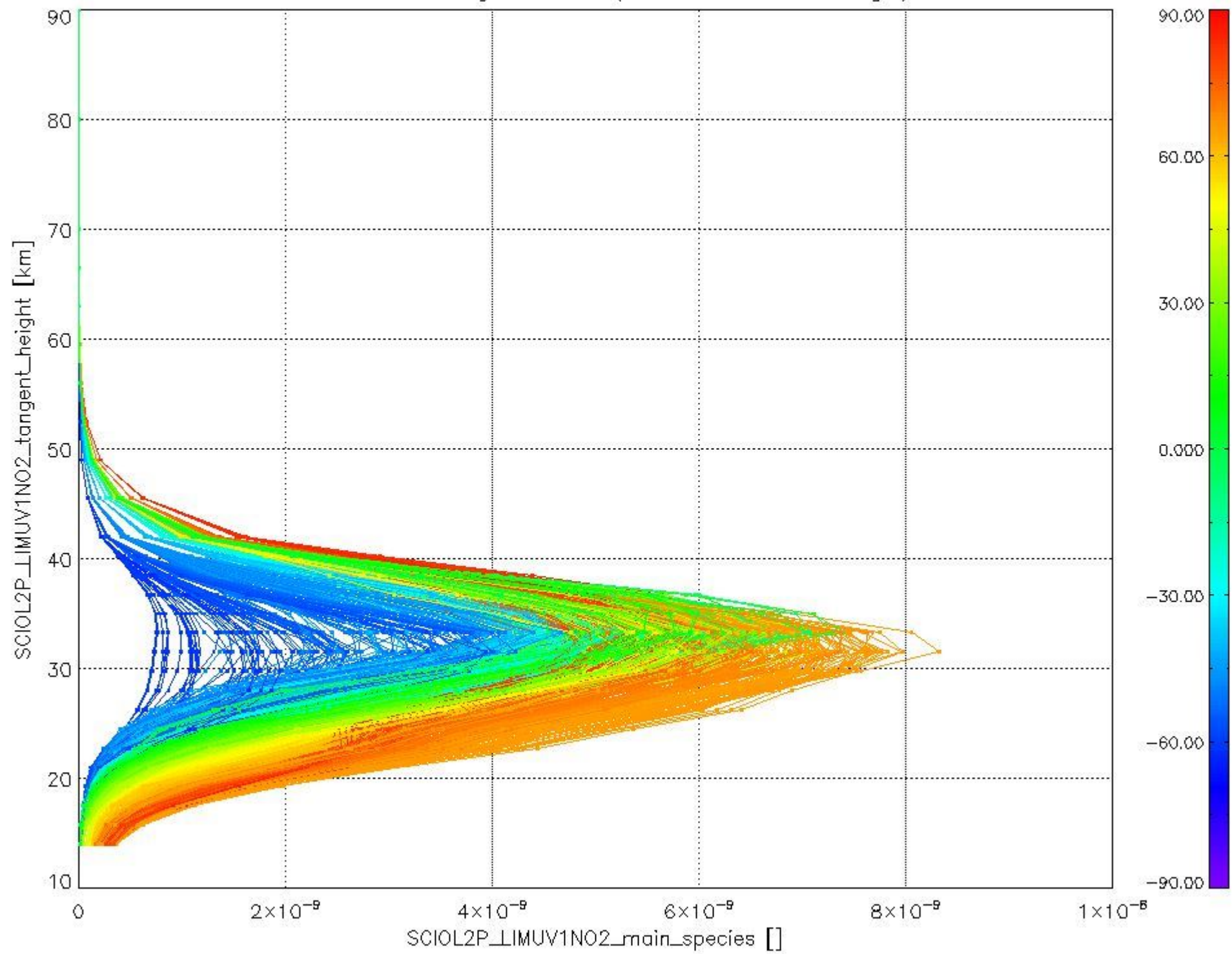
The following plots show for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

2.2.3.1 O3 (UV0)



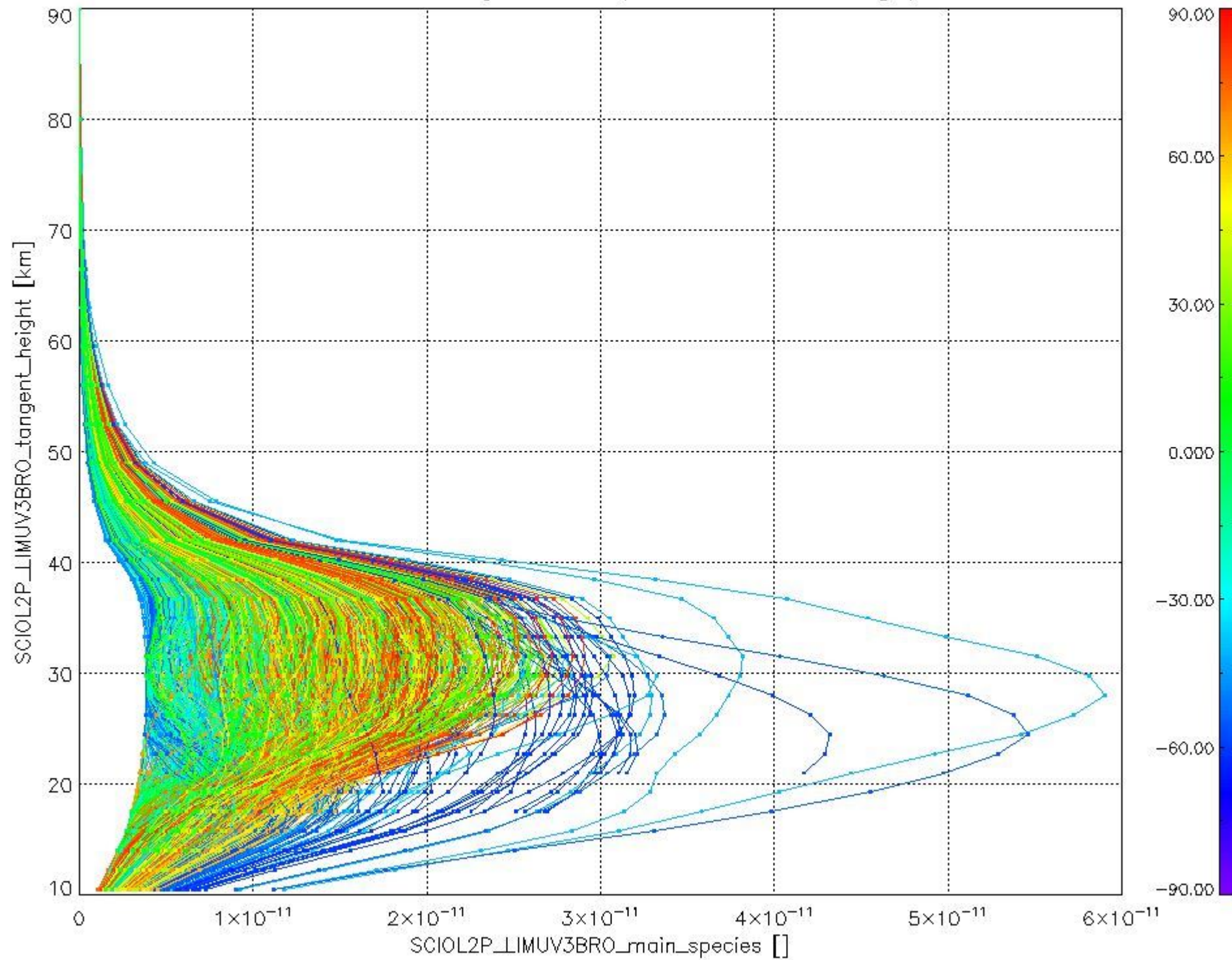
2.2.3.2 NO2 (UV1)

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



2.2.3.3 BrO (UV3)

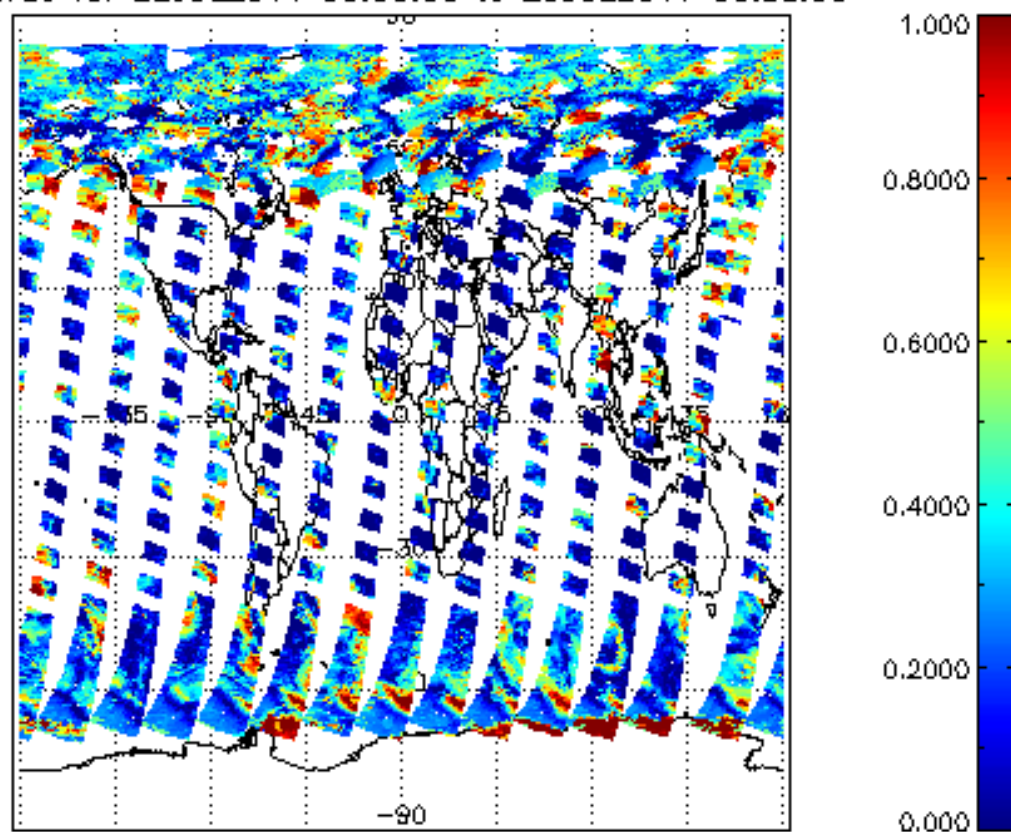
Plot of SCIOL2P_LIMUV3BRO_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



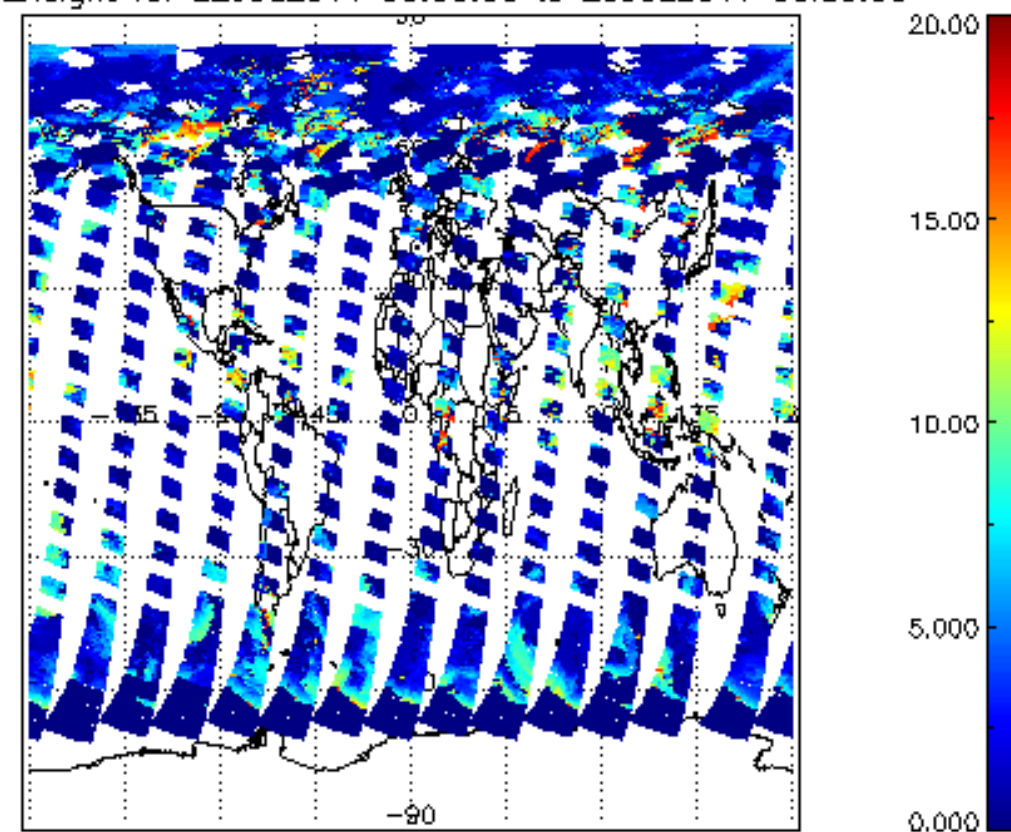
2.3 ADF monitoring

| Number | ADF |
|--------|---------------------------------------------------------------|
| | IN_ (INITIALISATION_FILE) |
| 0 | SCI_IN_AXNPDE20090615_120000_20090615_000000_20991231_235959 |
| | ECF (ECMWF_FILE) |
| 1 | NOT USED |
| | MF1 (M_FACTOR_FILE) |
| 2 | SCI_MF1_AXVIEC20110726_110240_20110721_183740_20110723_183740 |
| 3 | SCI_MF1_AXVIEC20110726_110344_20110722_194108_20110724_194108 |

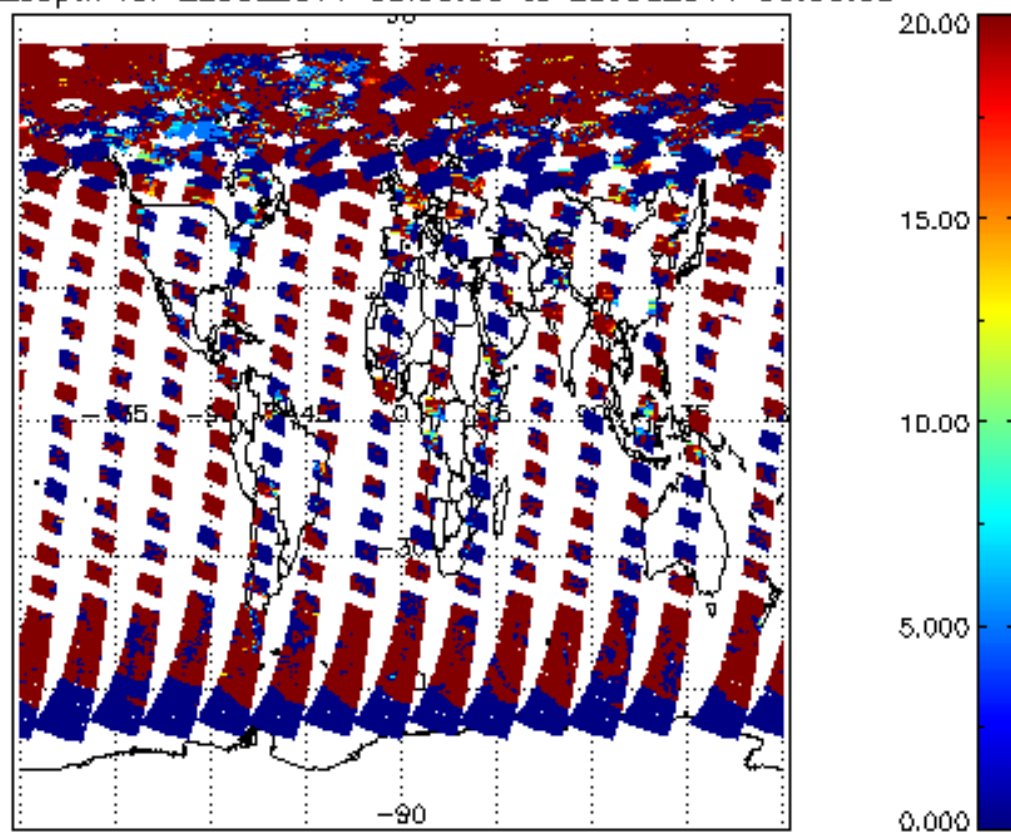
cl_frac for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



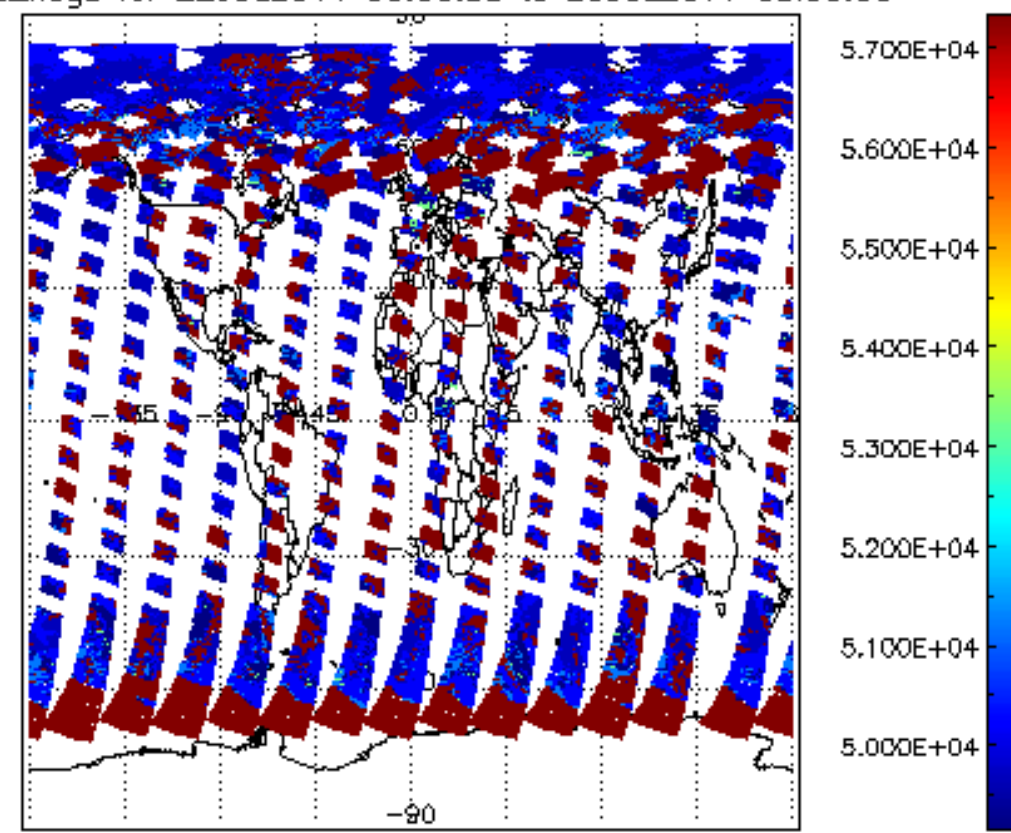
cl_top_height for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

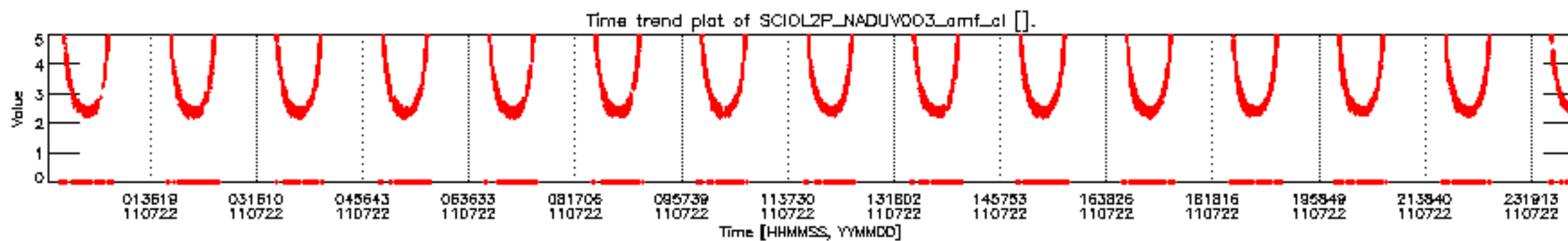
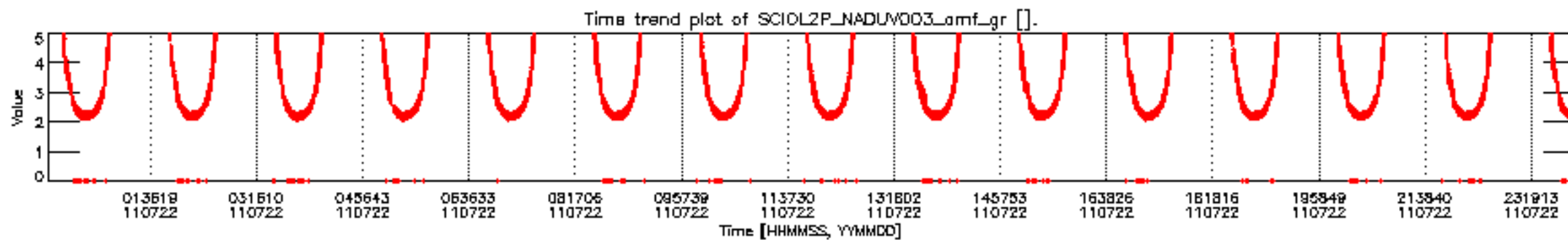
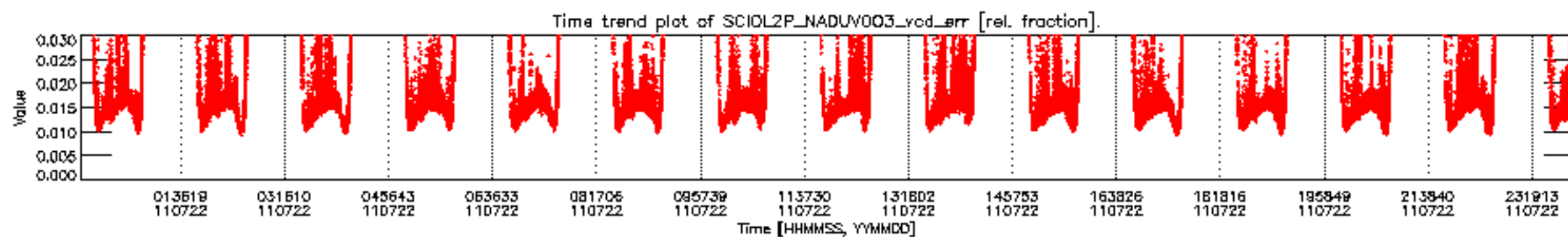
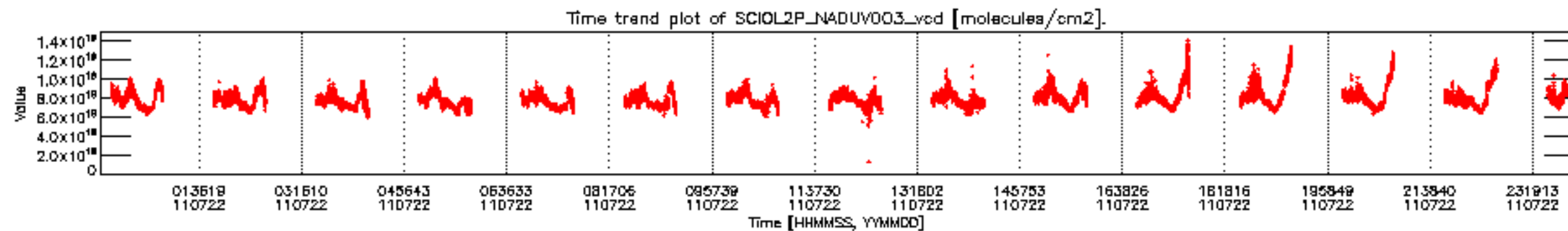


cl_opt_depth for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

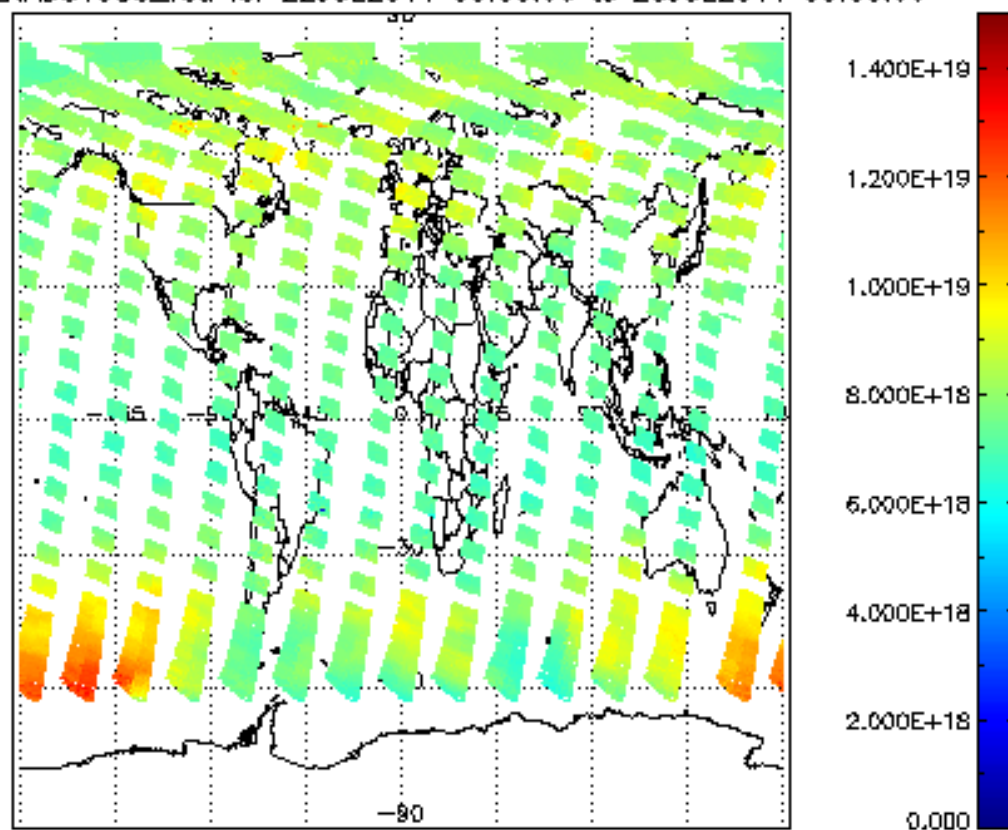


cloud_flags for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

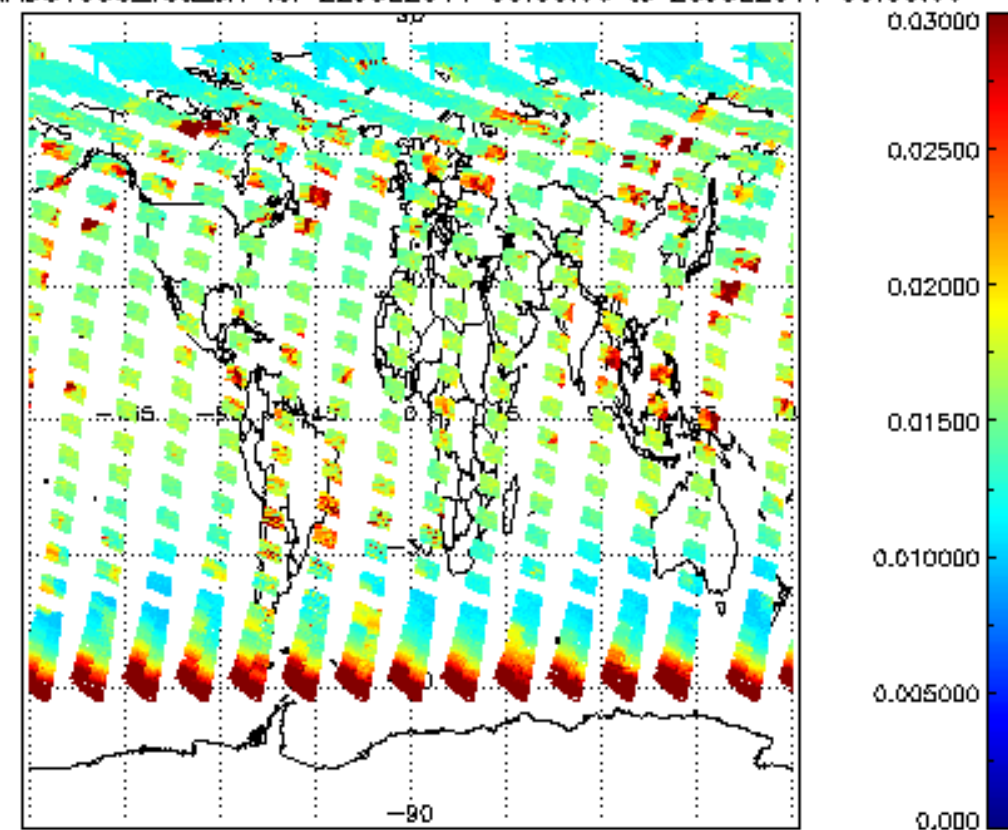




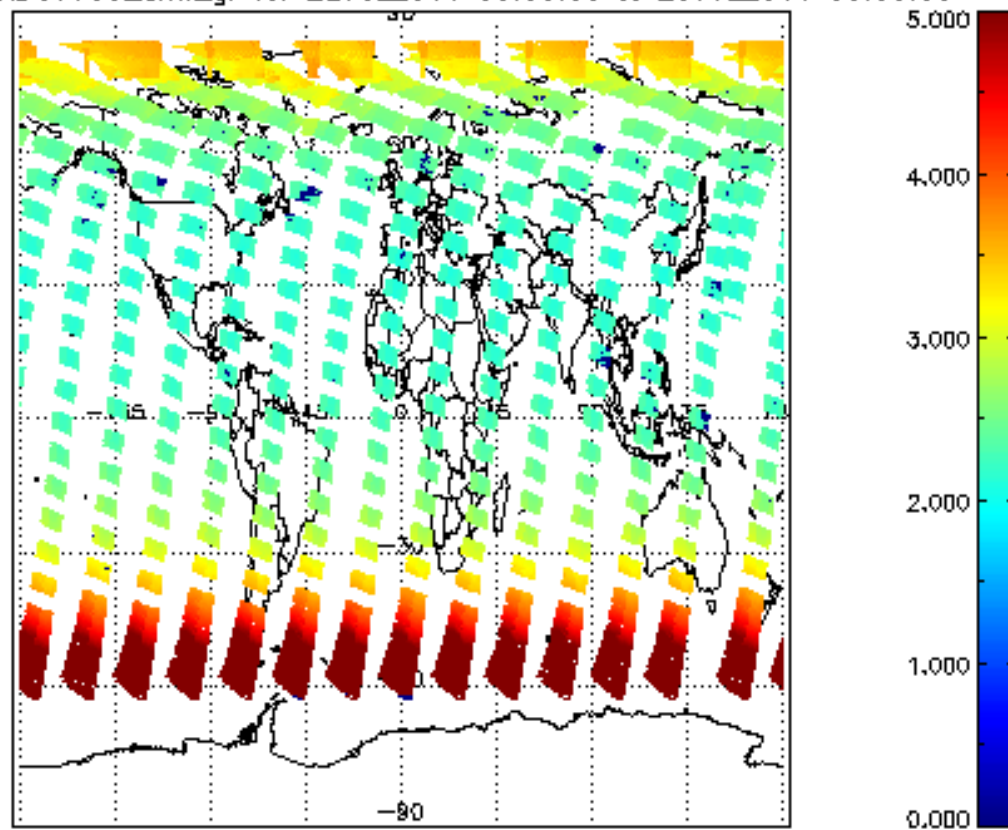
SCIOL2P_NADUV003_vcd for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



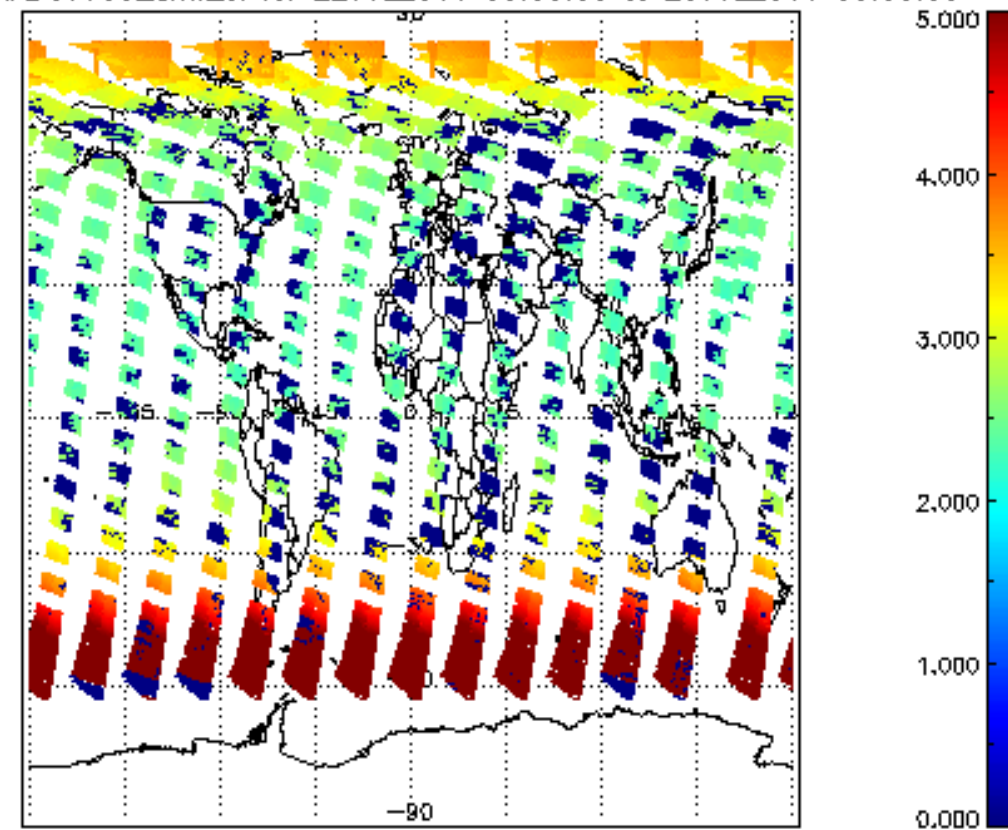
SCIOL2P_NADUV003_vcd_err for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

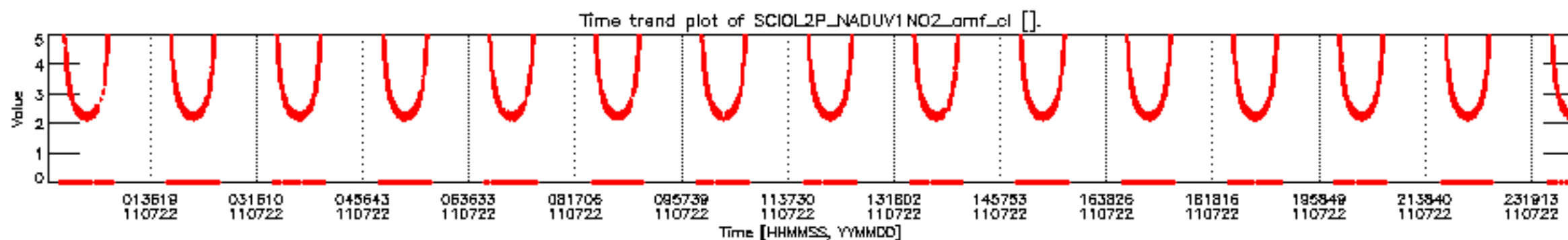
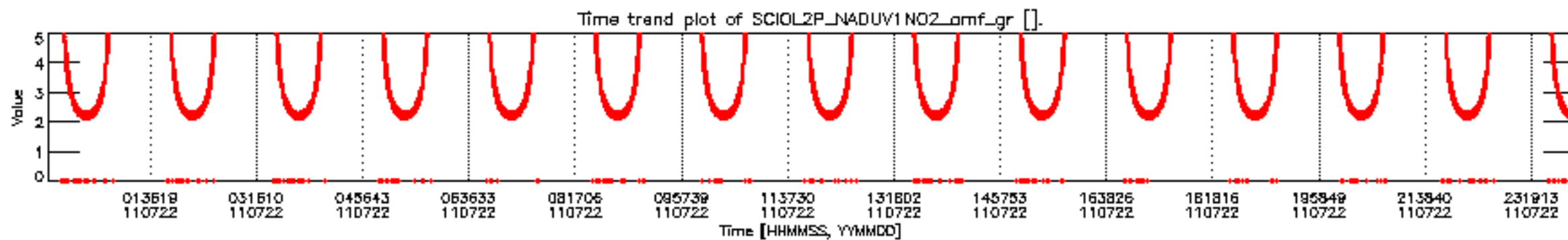
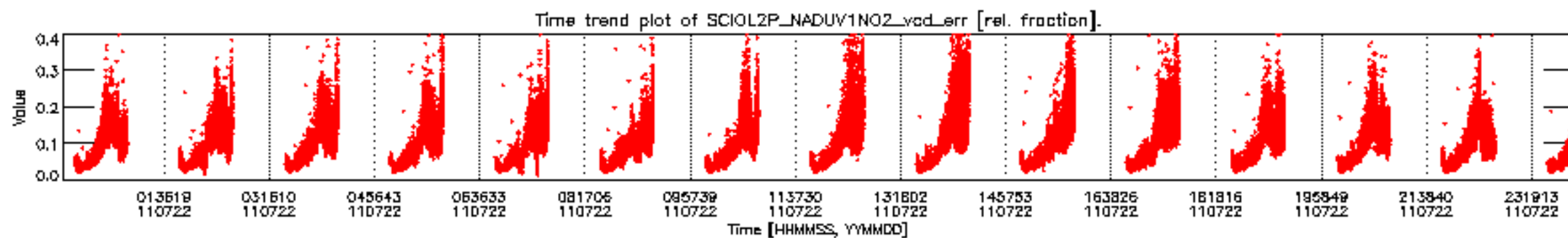
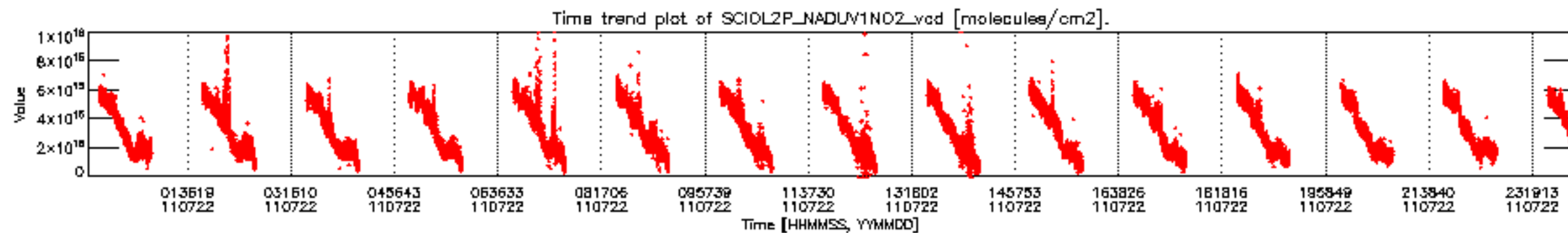


SCIOL2P_NADUV003_amf_gr for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

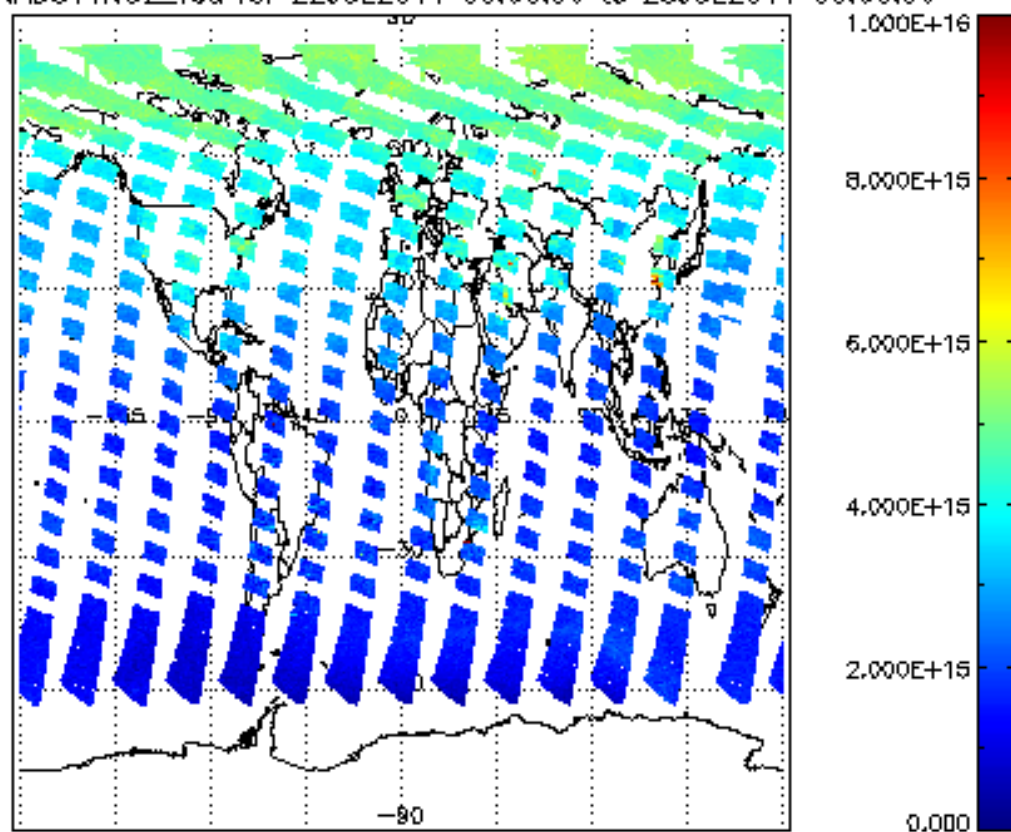


SCIOL2P_NADUV003_amf_cl for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

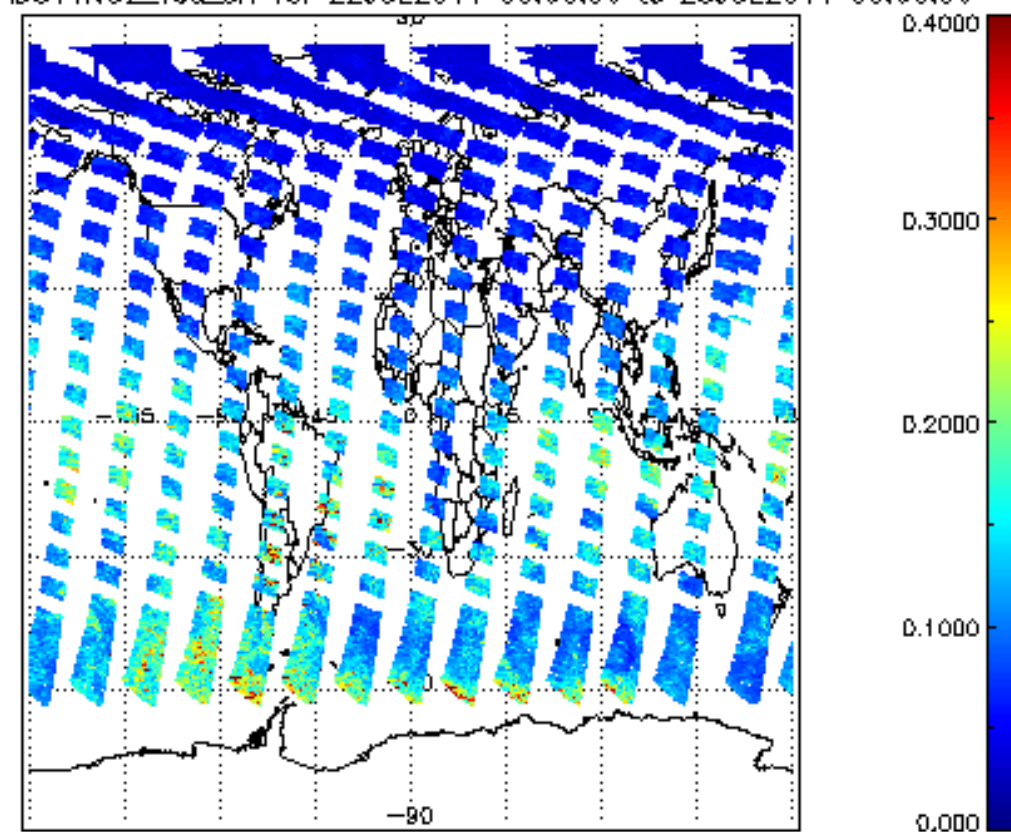




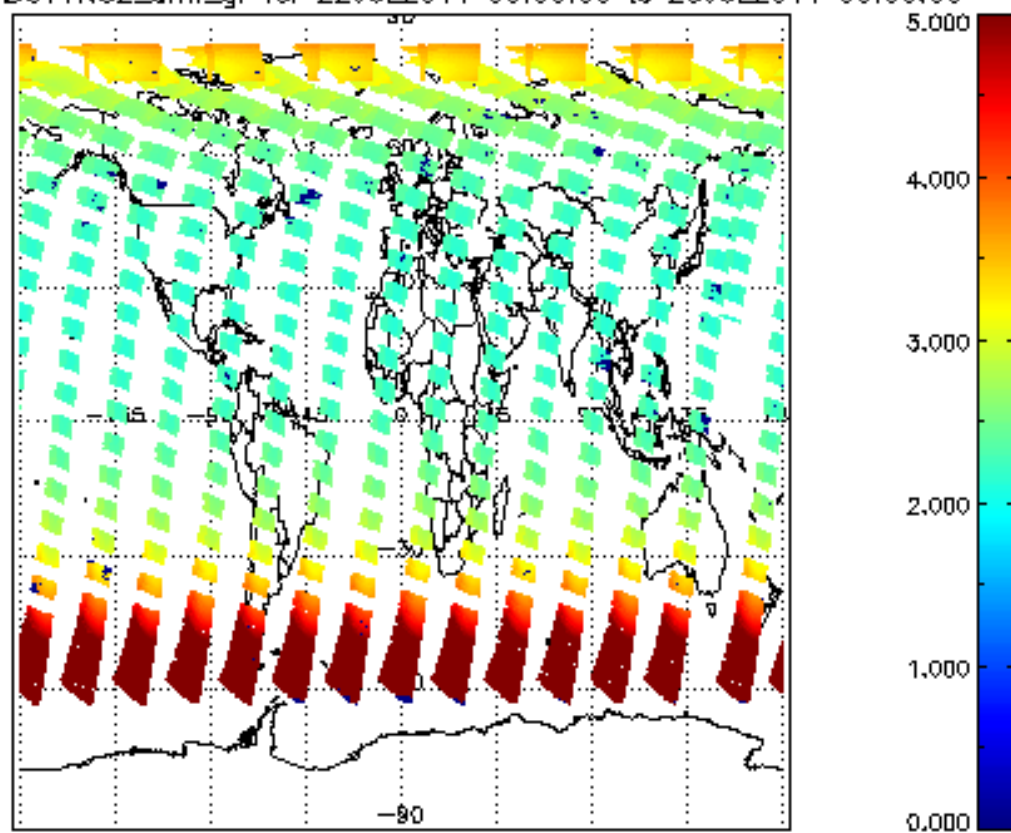
SCIOL2P_NADUV1NO2_vcd for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



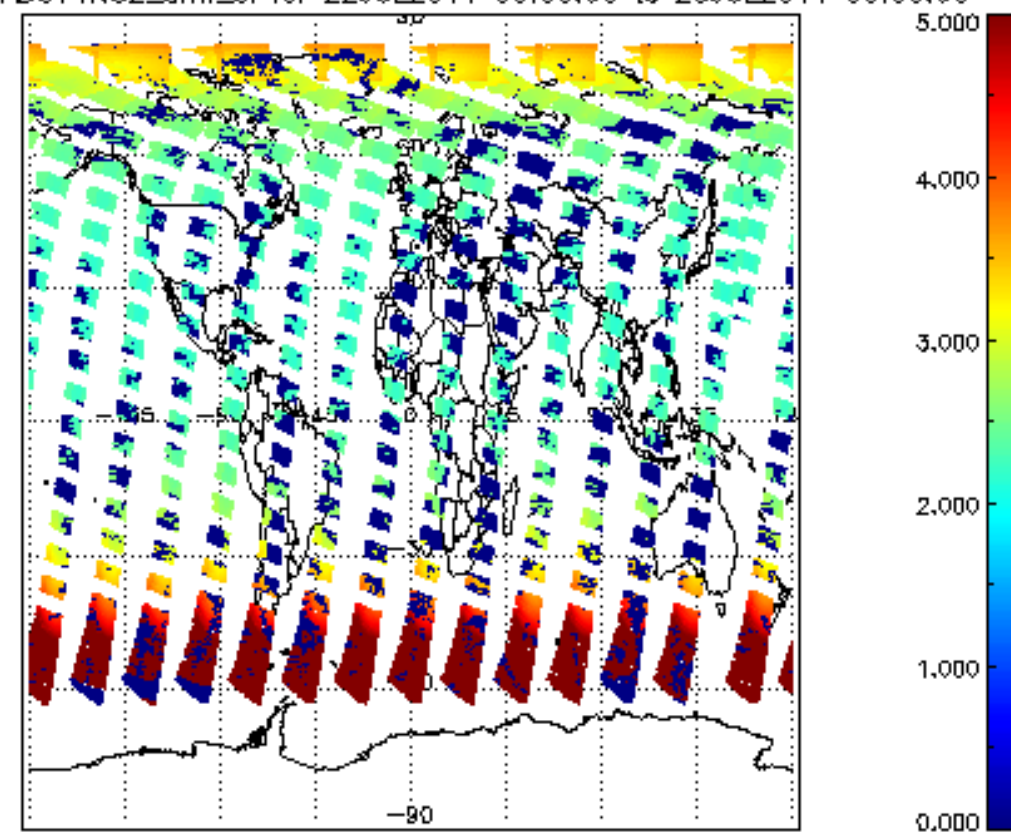
SCIOL2P_NADUV1NO2_vcd_err for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

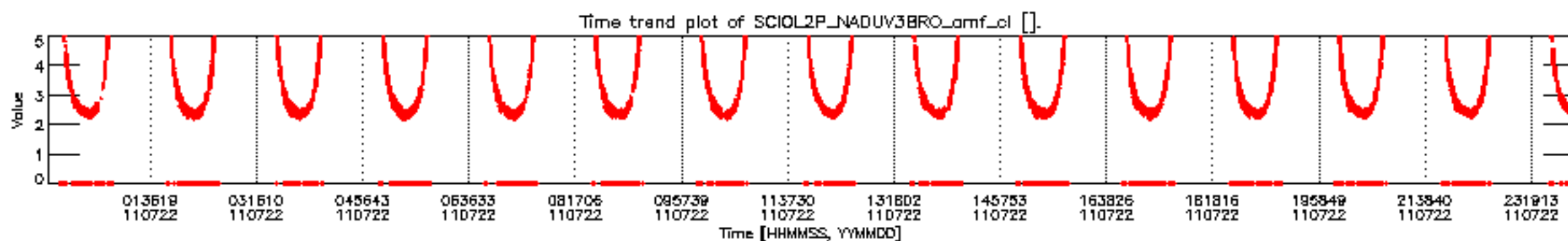
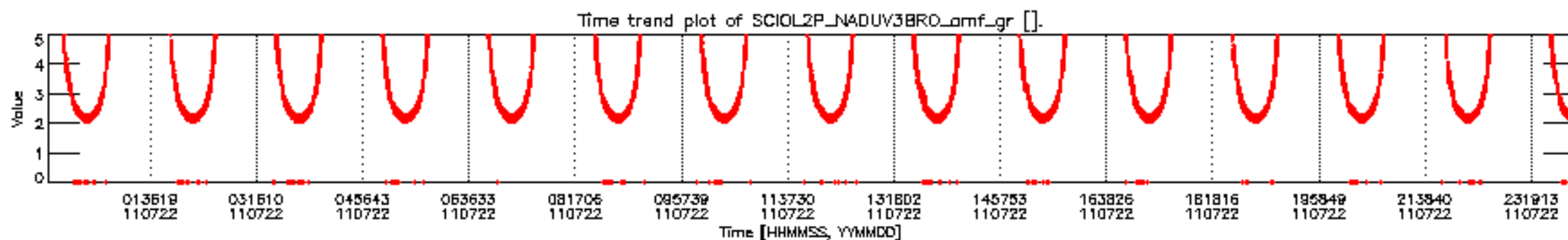
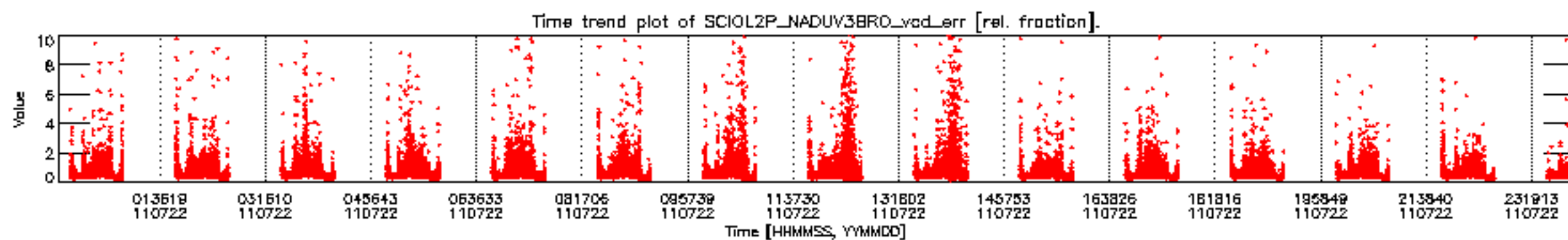
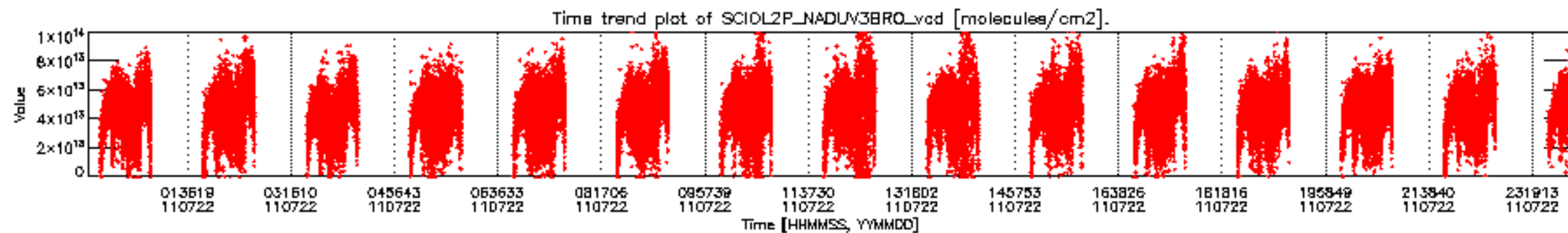


SCIOL2P_NADUV1NO2_amf_gr for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

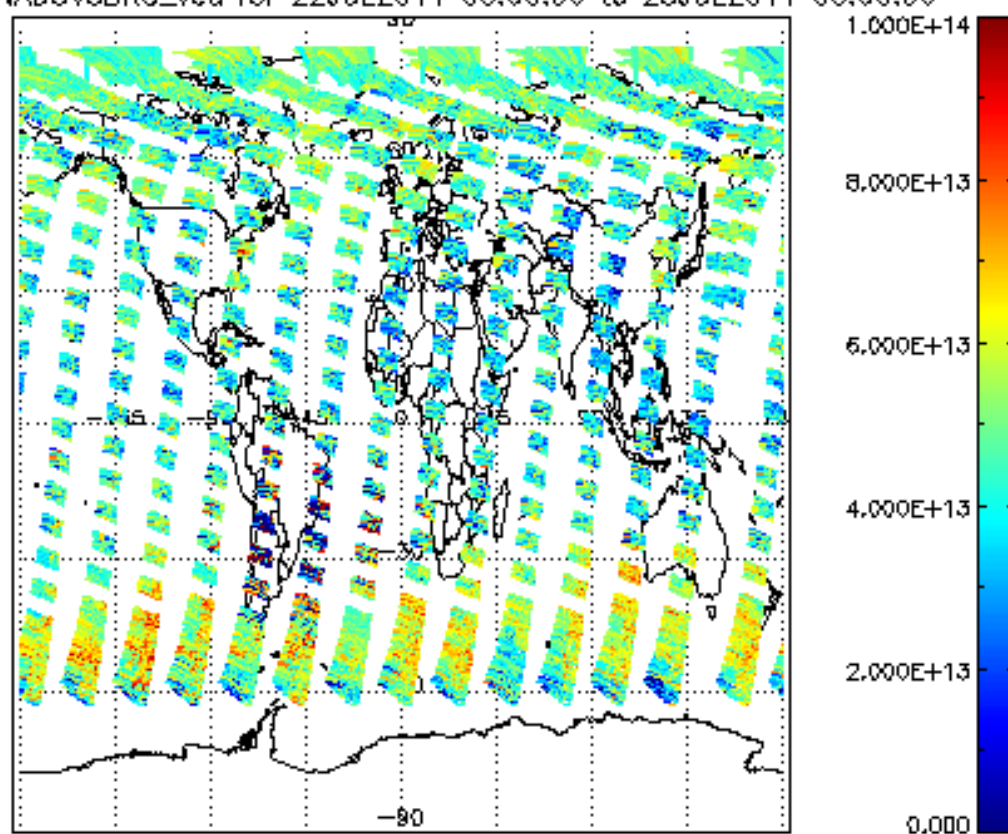


SCIOL2P_NADUV1NO2_amf_cl for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

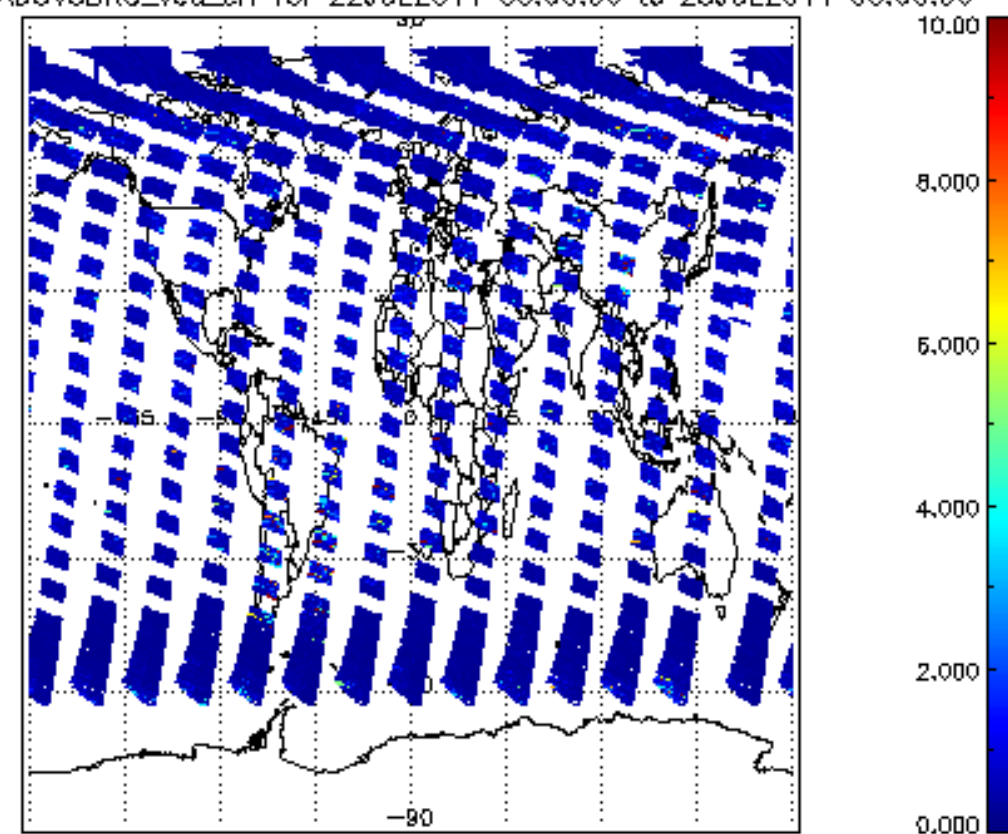




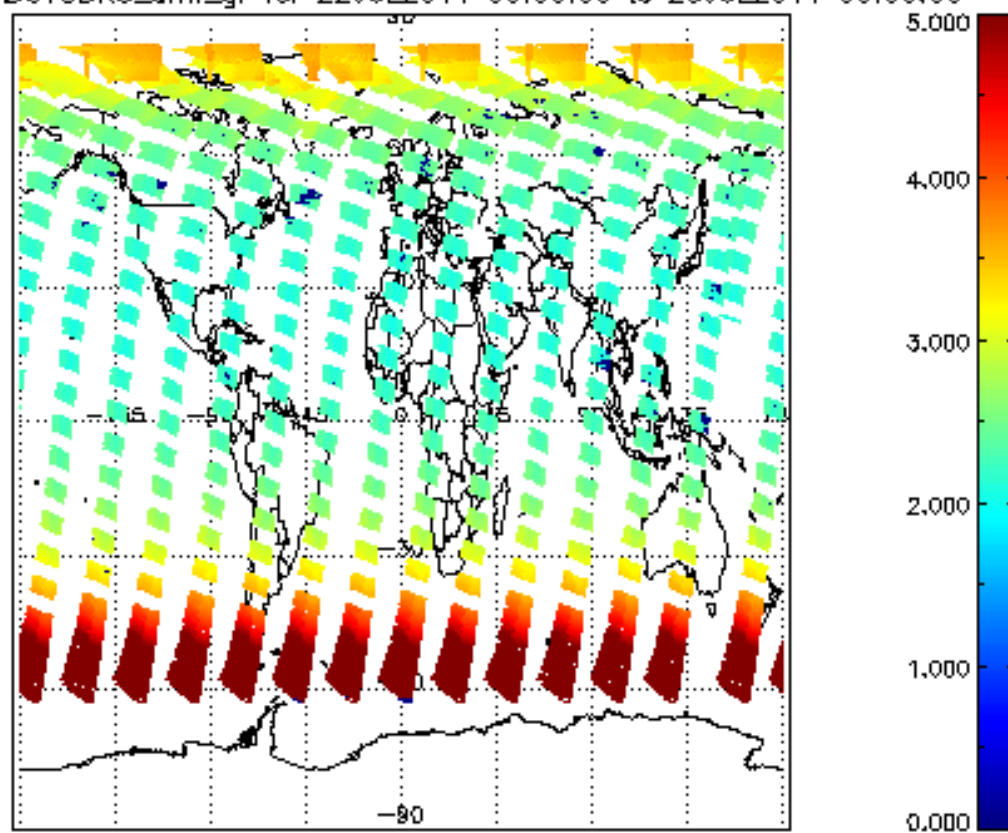
SCIOL2P_NADUV3BRO_vcd for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



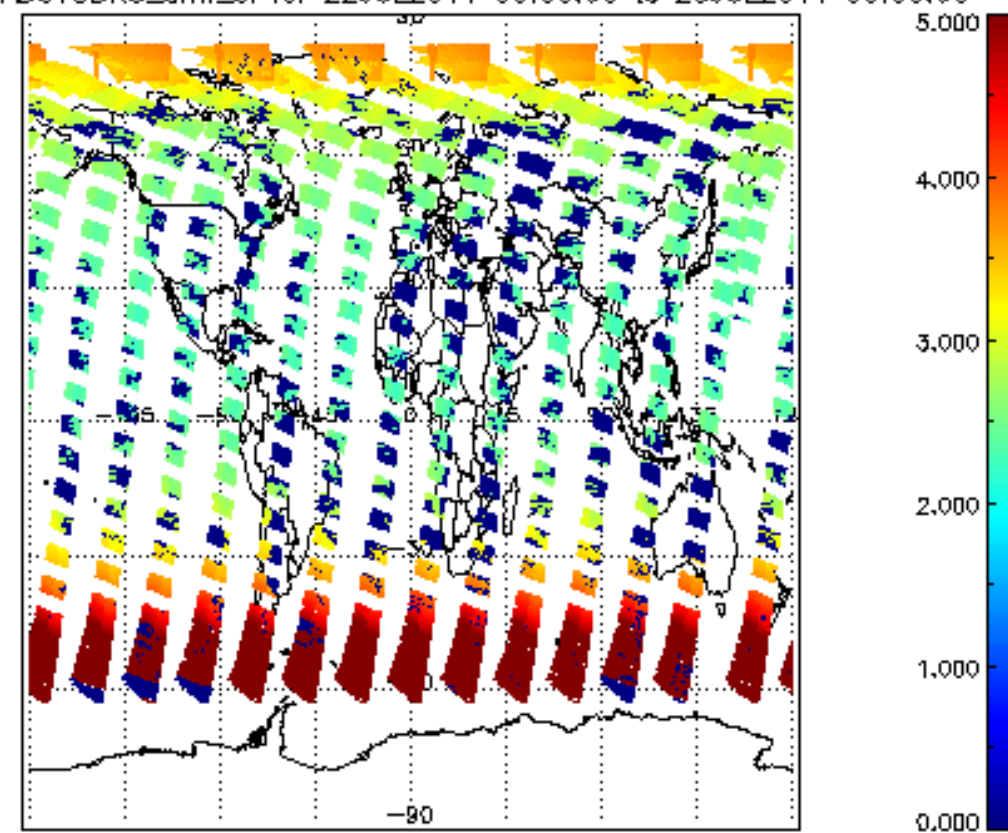
SCIOL2P_NADUV3BRO_vcd_err for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

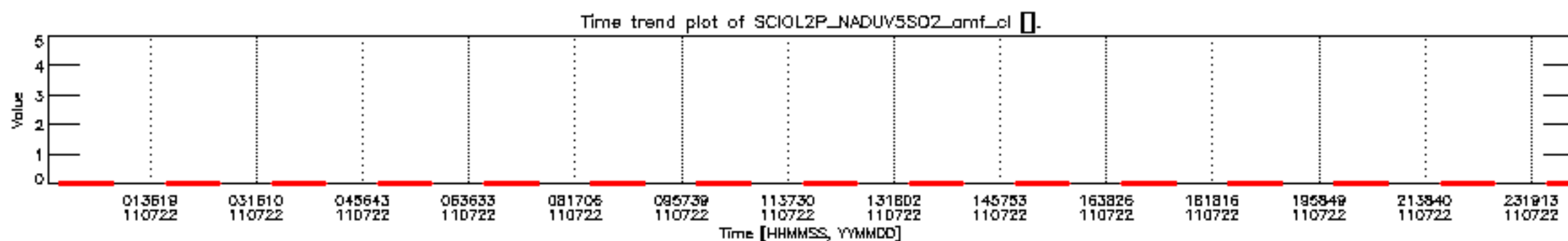
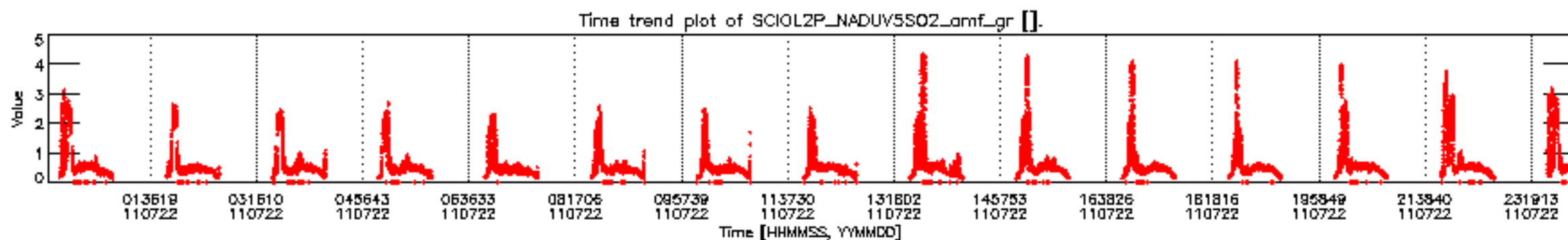
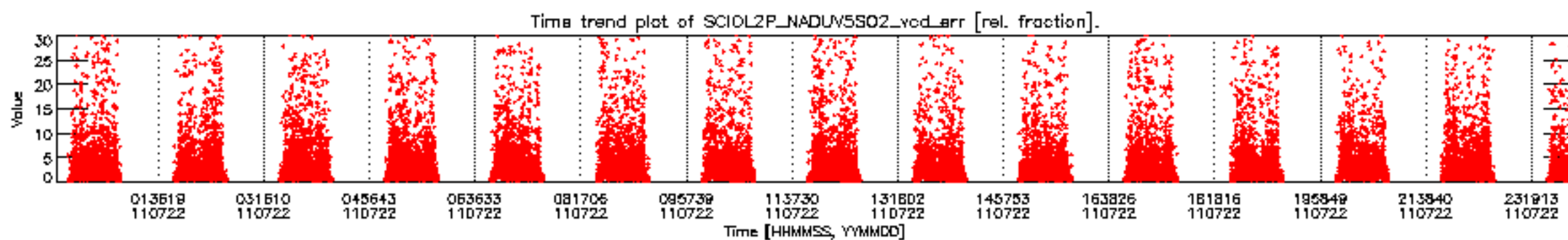
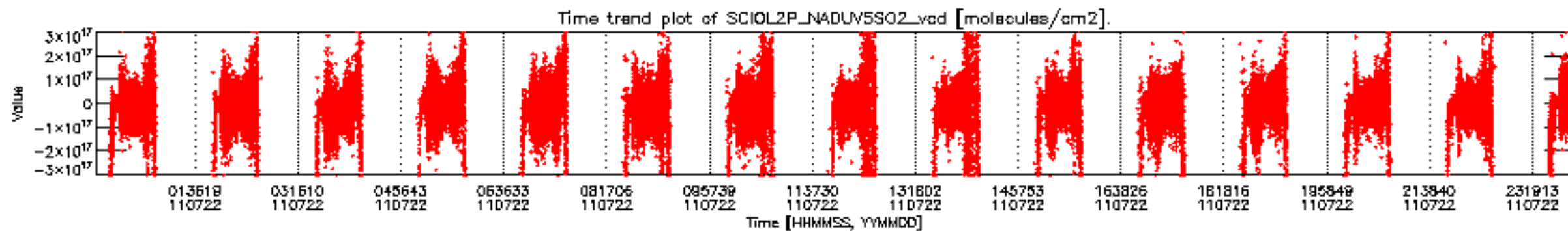


SCIOL2P_NADUV3BRO_arnf_gr for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

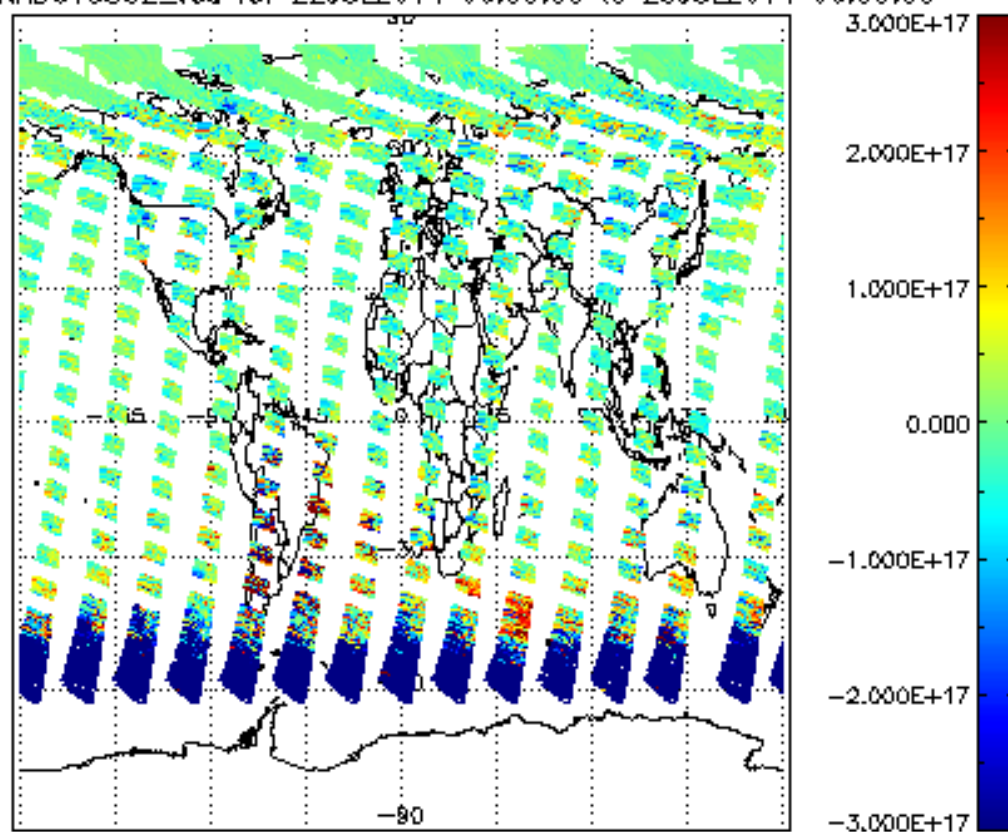


SCIOL2P_NADUV3BRO_arnf_cl for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

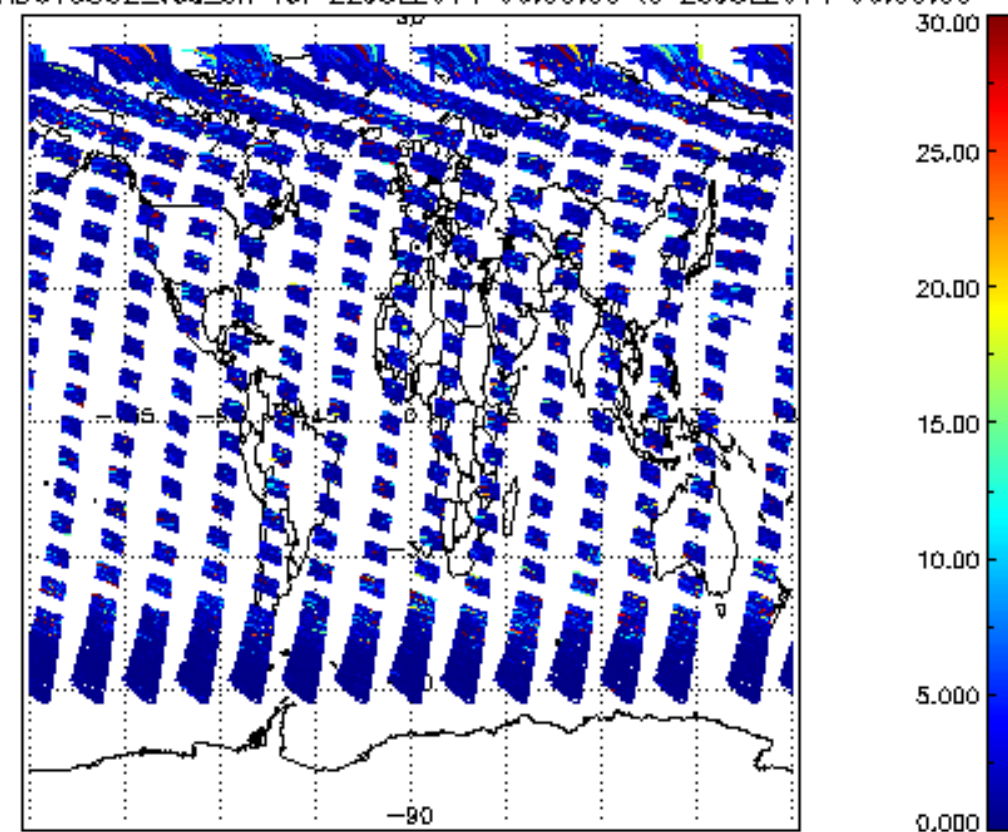




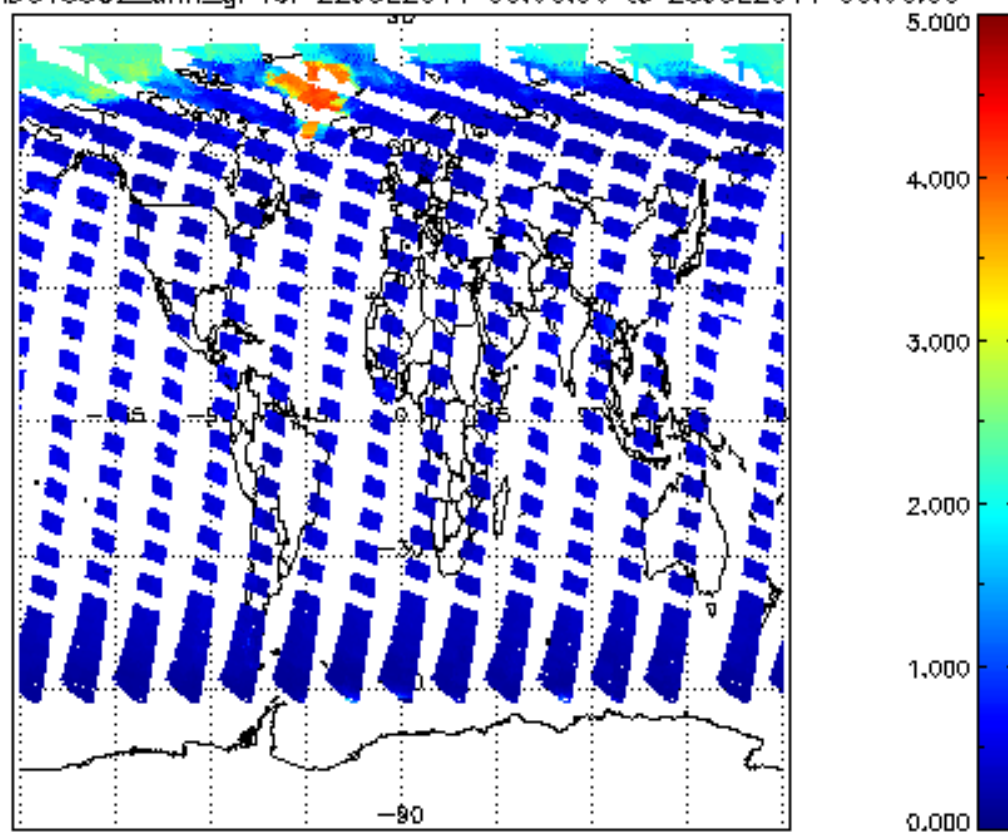
SCIOL2P_NADUV5S02_vcd for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



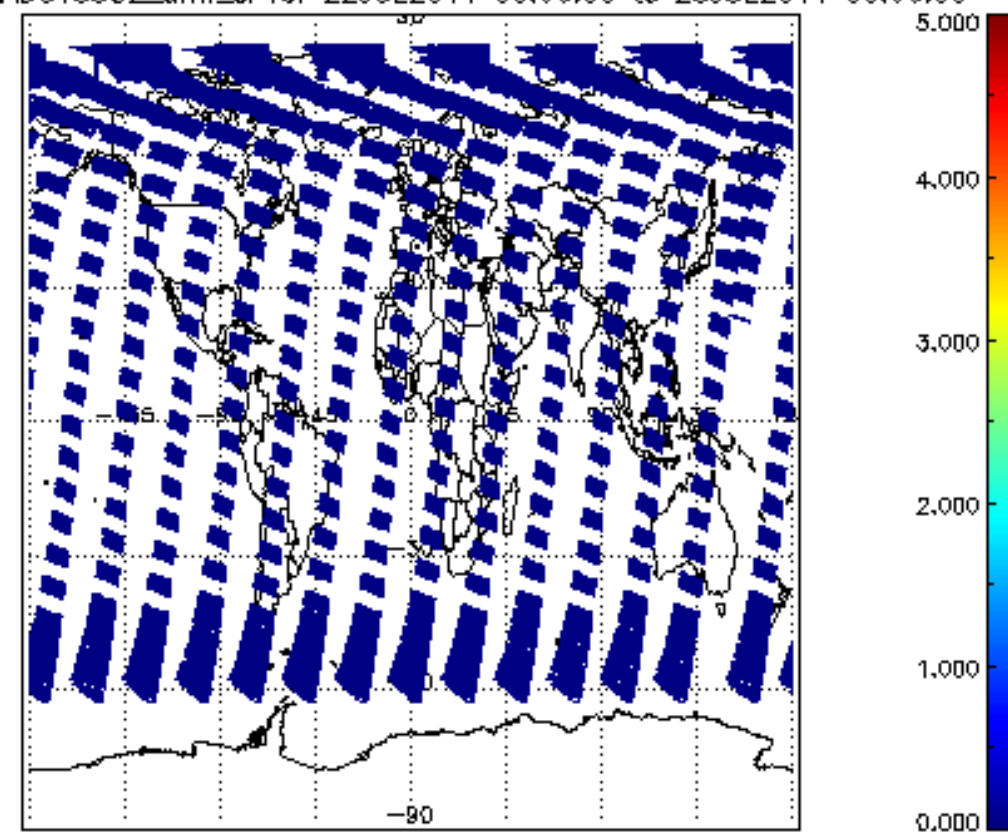
SCIOL2P_NADUV5S02_vcd_err for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

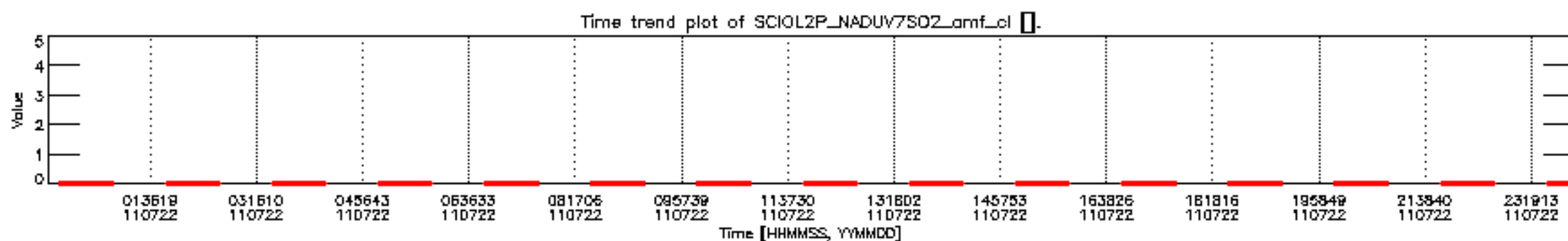
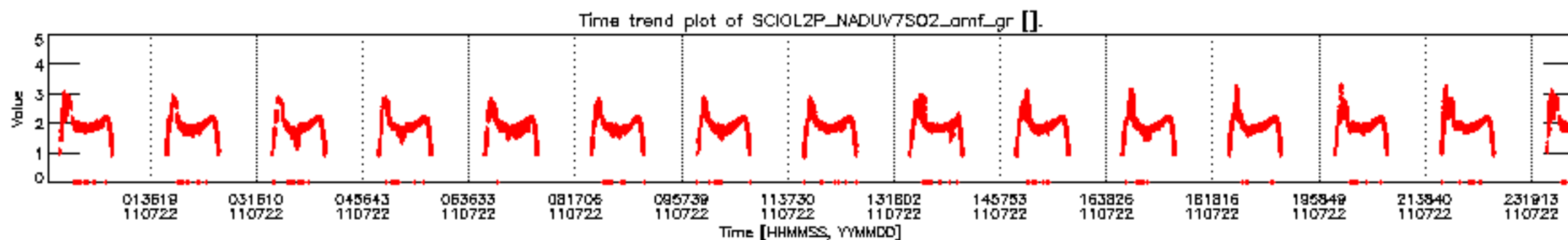
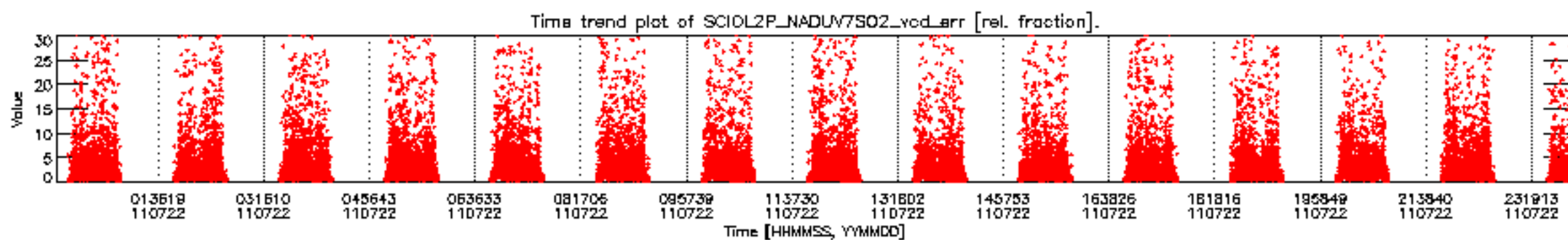
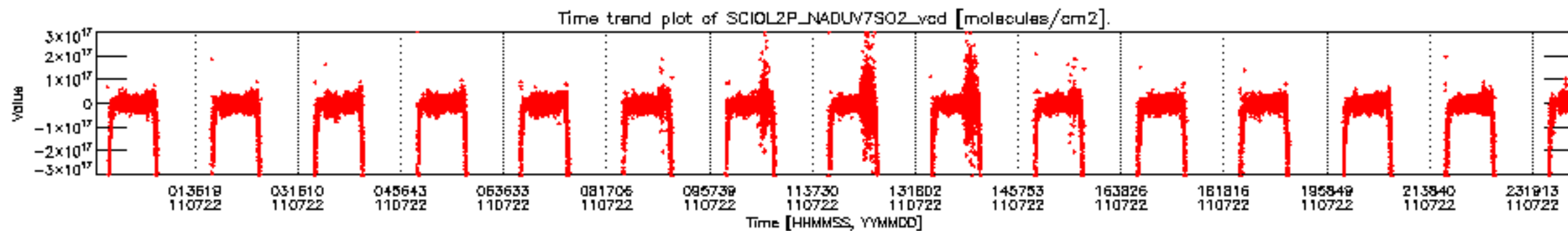


SCIOL2P_NADUV5S02_amf_gr for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

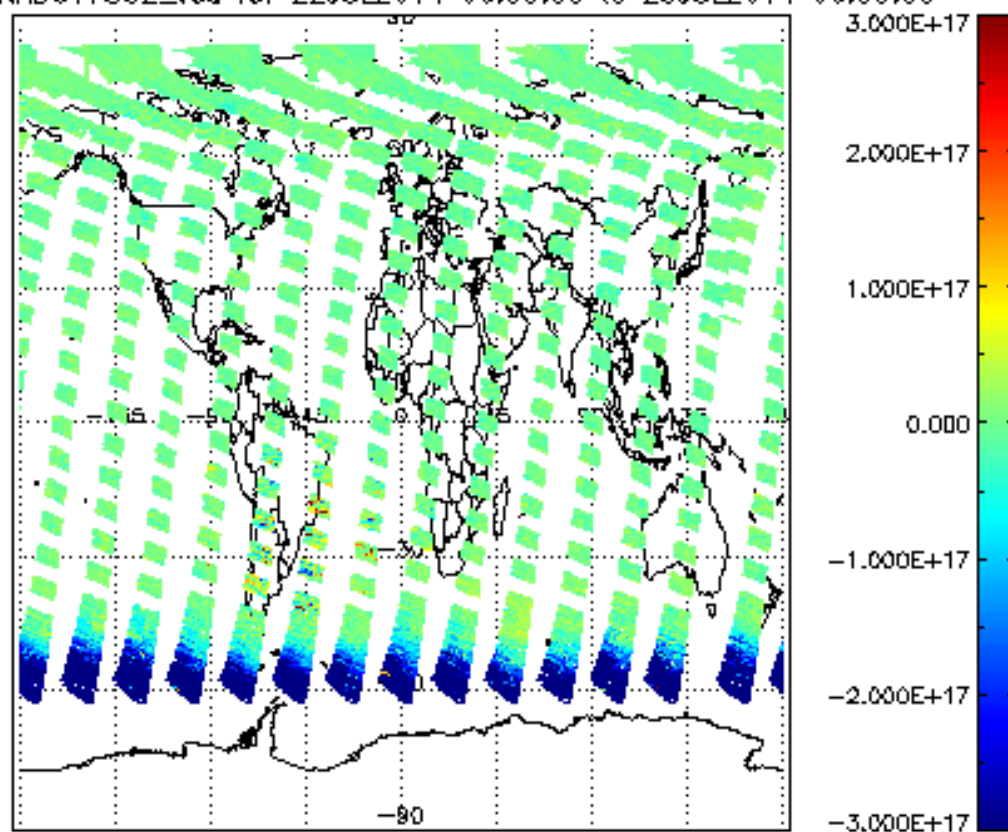


SCIOL2P_NADUV5S02_amf_cl for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

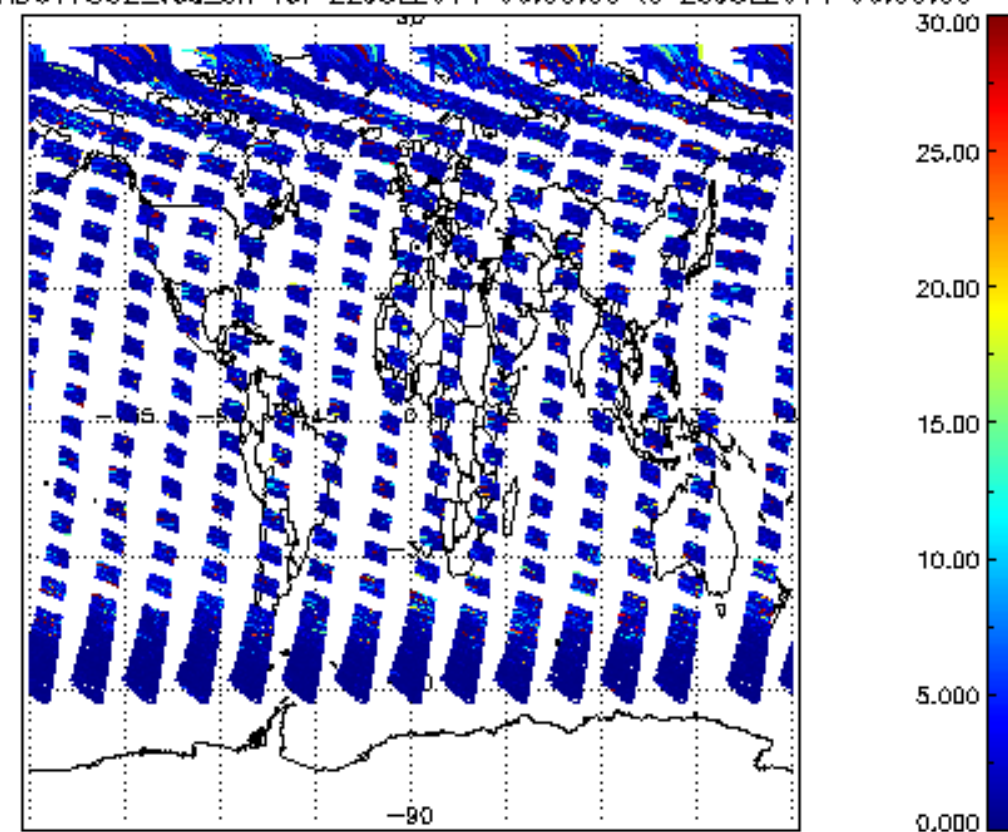




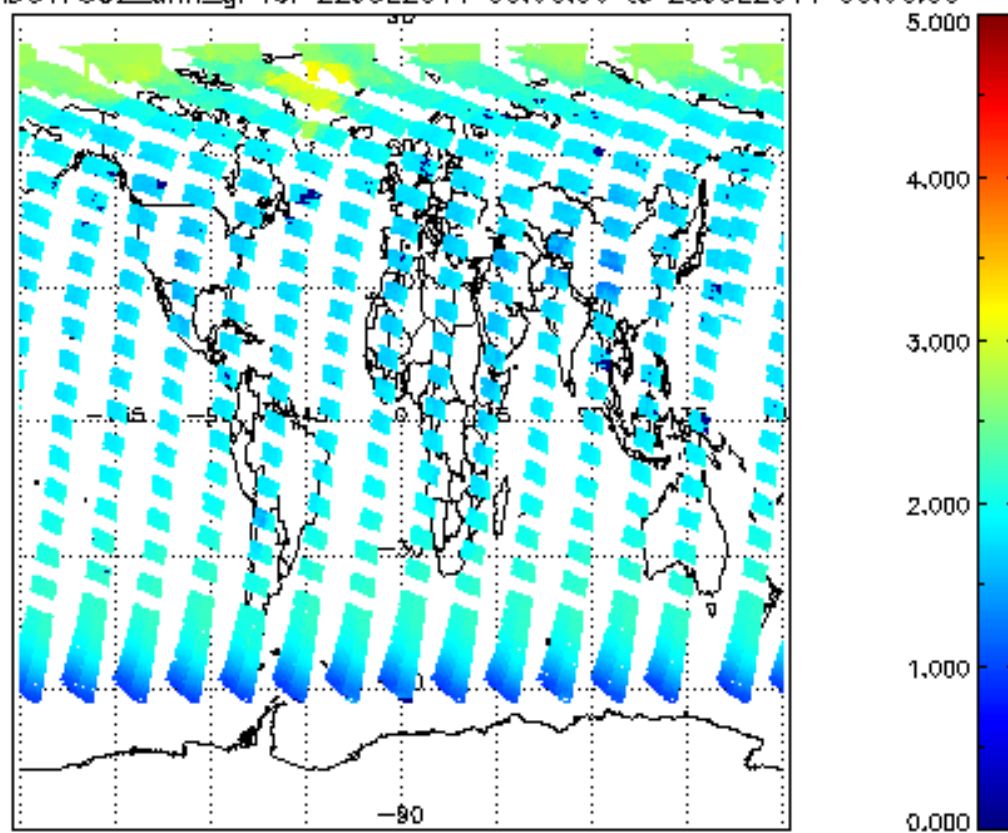
SCIOL2P_NADUV7S02_vcd for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



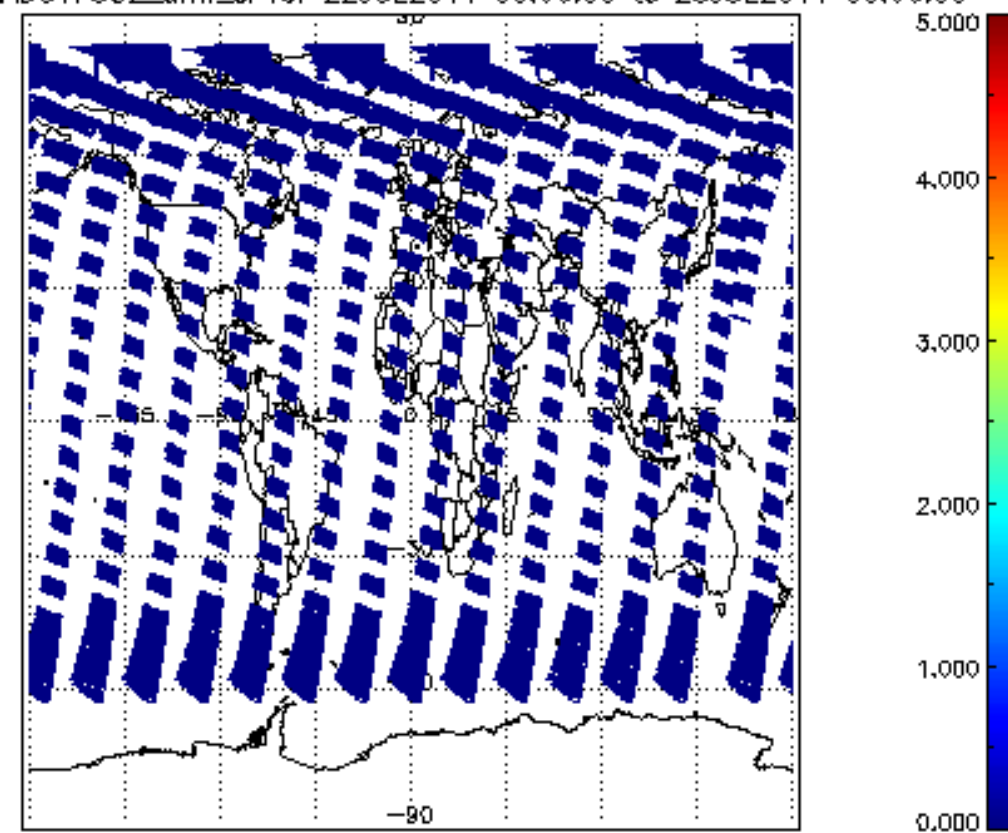
SCIOL2P_NADUV7S02_vcd_err for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

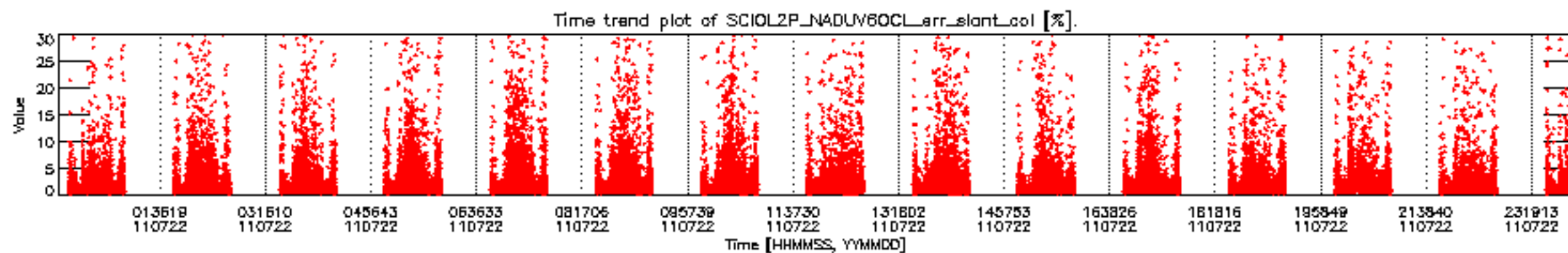
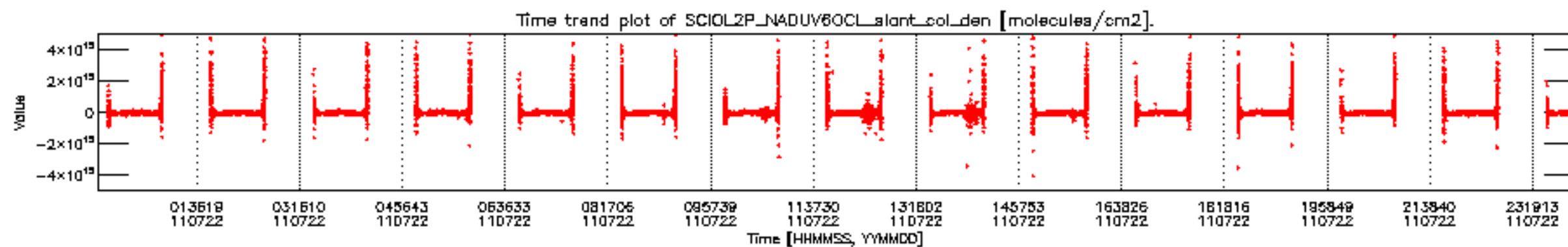


SCIOL2P_NADUV7S02_amf_gr for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

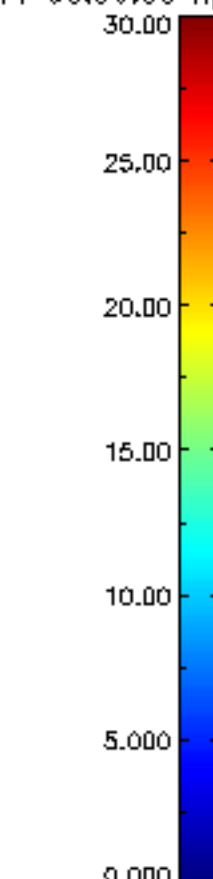
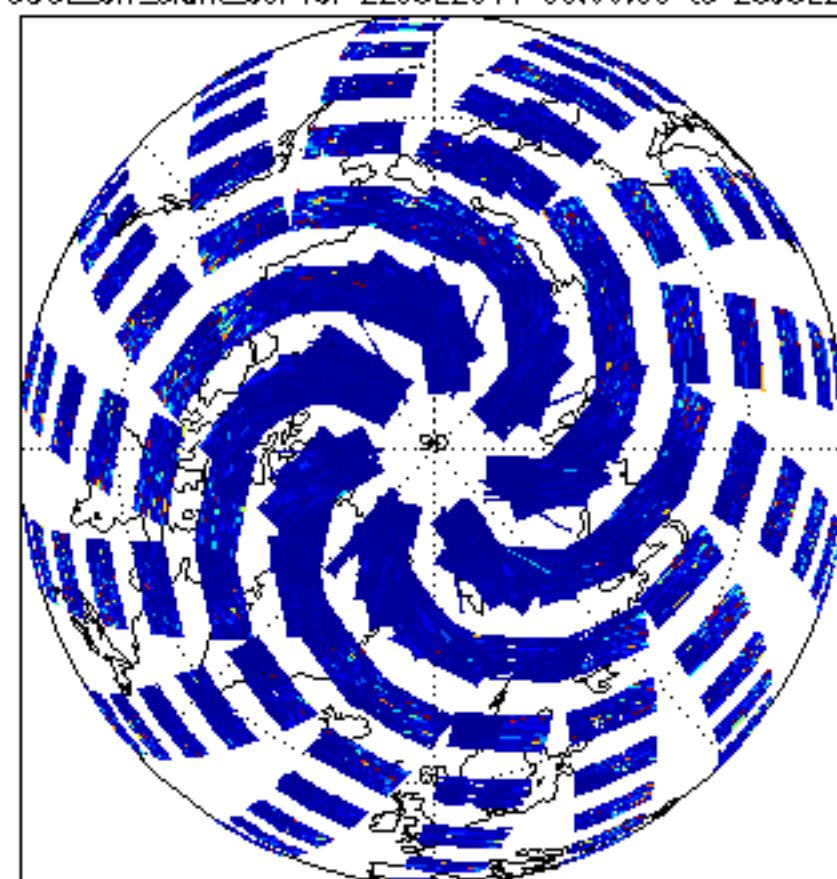
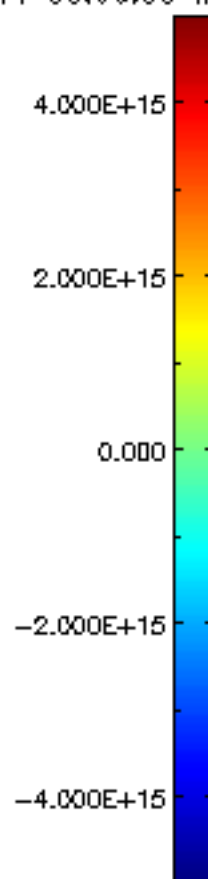
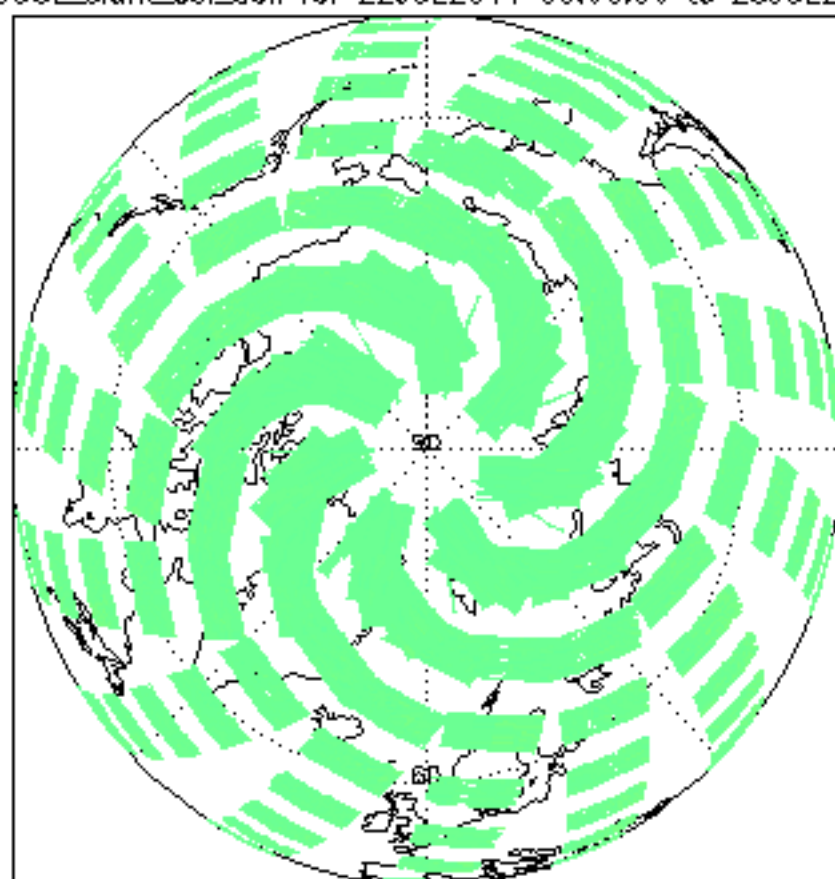


SCIOL2P_NADUV7S02_amf_cl for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

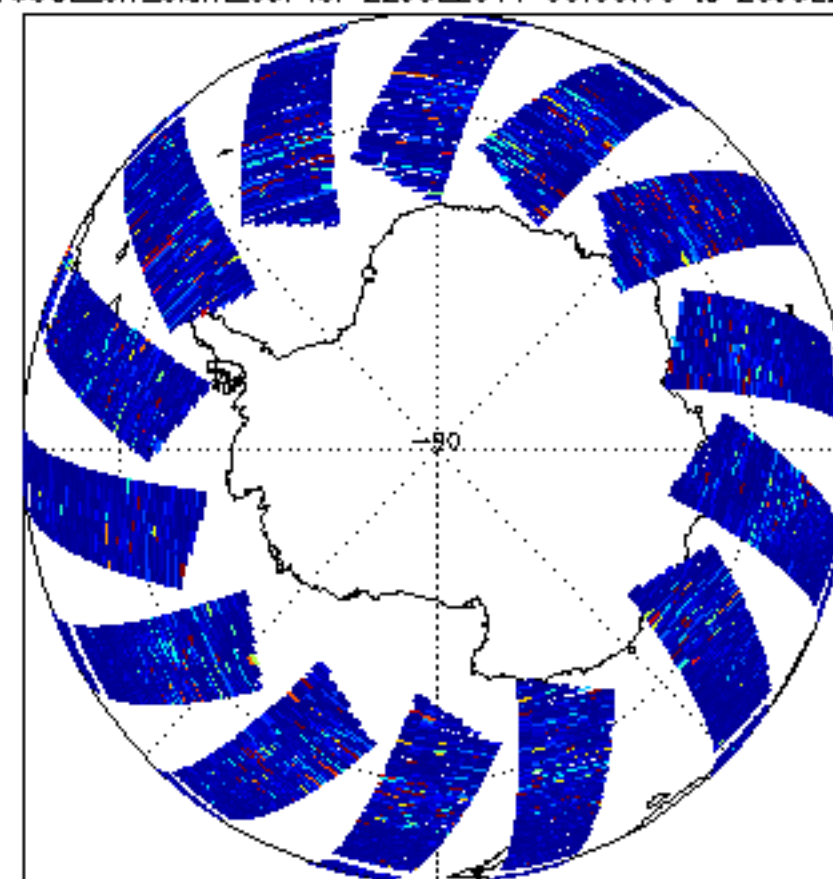
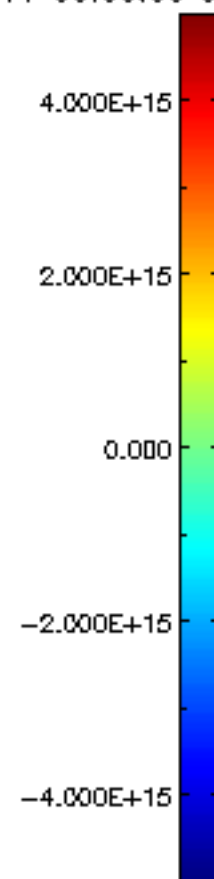
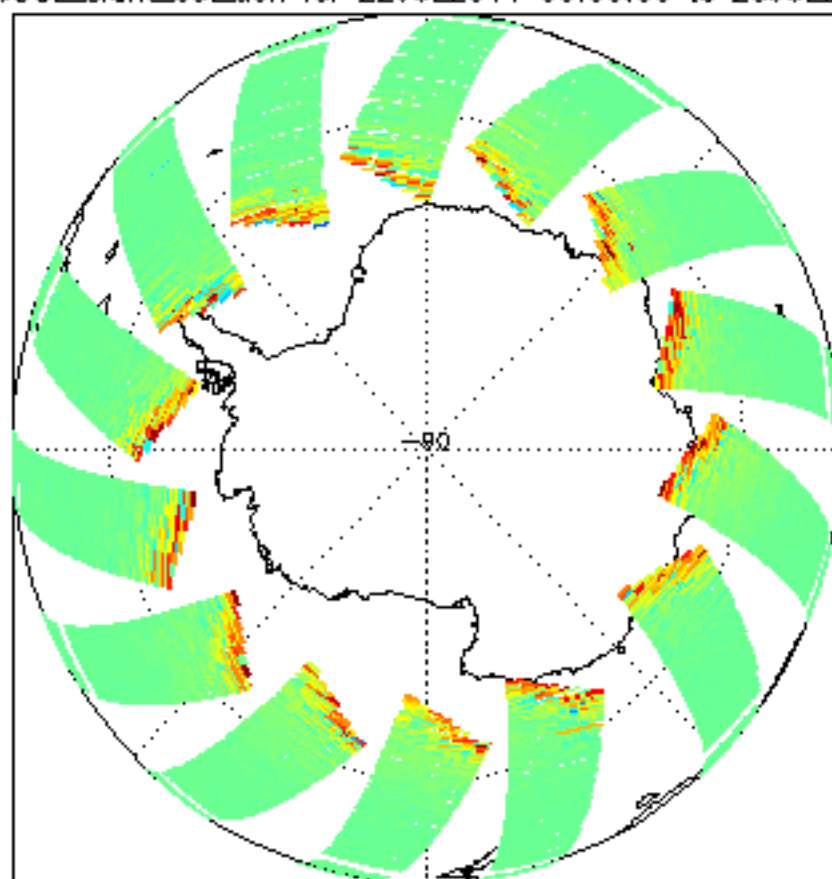




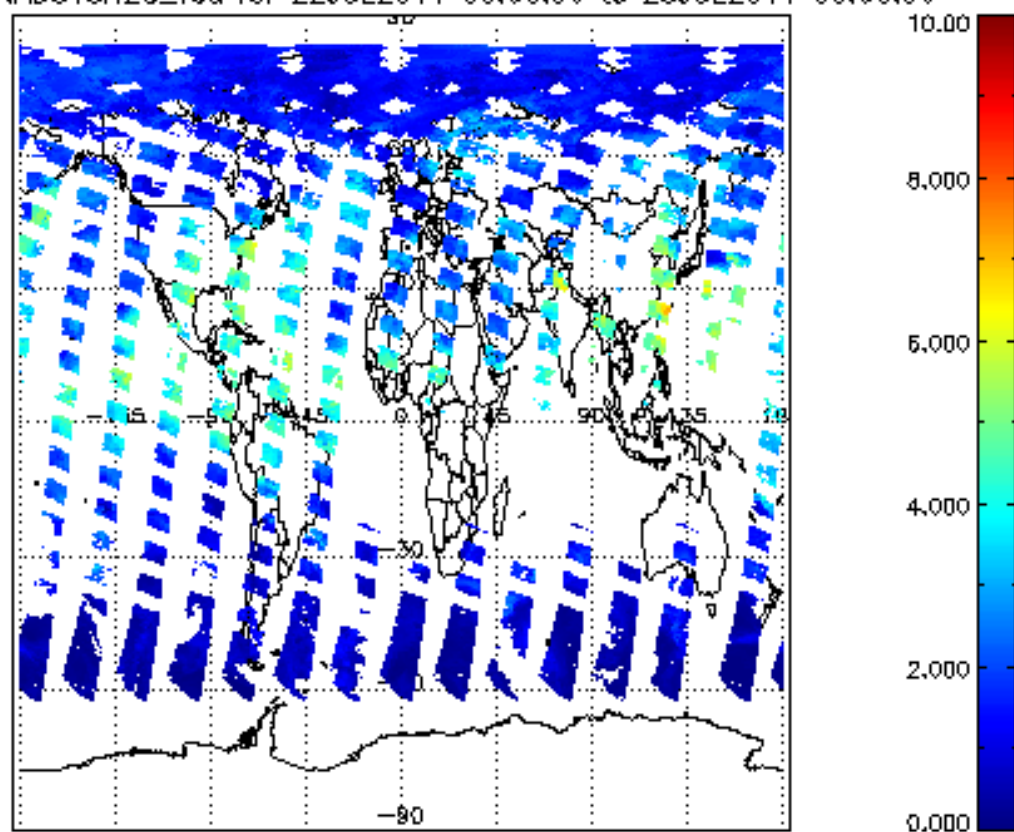
iCIOL2P_NADUV6OCL_slant_col_den for 22JUL2011 00:00:00 to 23JUL2011 00:00:00 np 3iCIOL2P_NADUV6OCL_err_slant_col for 22JUL2011 00:00:00 to 23JUL2011 00:00:00 np



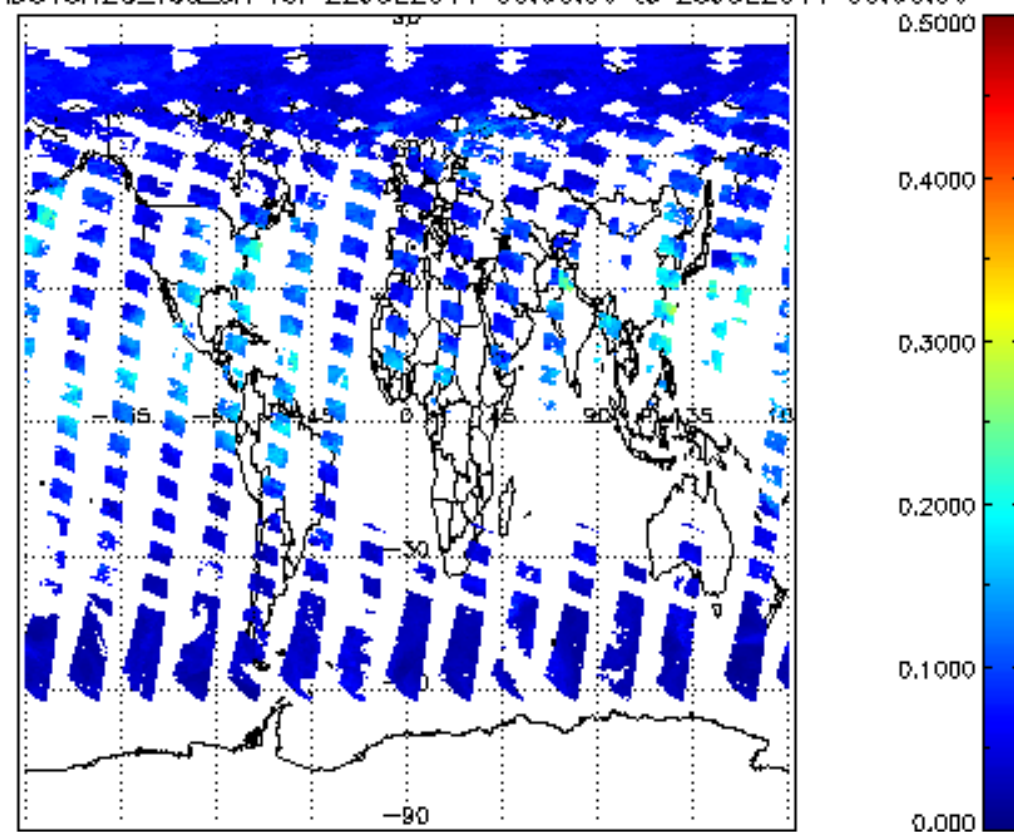
iCIOL2P_NADUV6OCL_slant_coLden for 22JUL2011 00:00:00 to 23JUL2011 00:00:00 sp }iCIOL2P_NADUV6OCL_em_slant_col for 22JUL2011 00:00:00 to 23JUL2011 00:00:00 sp



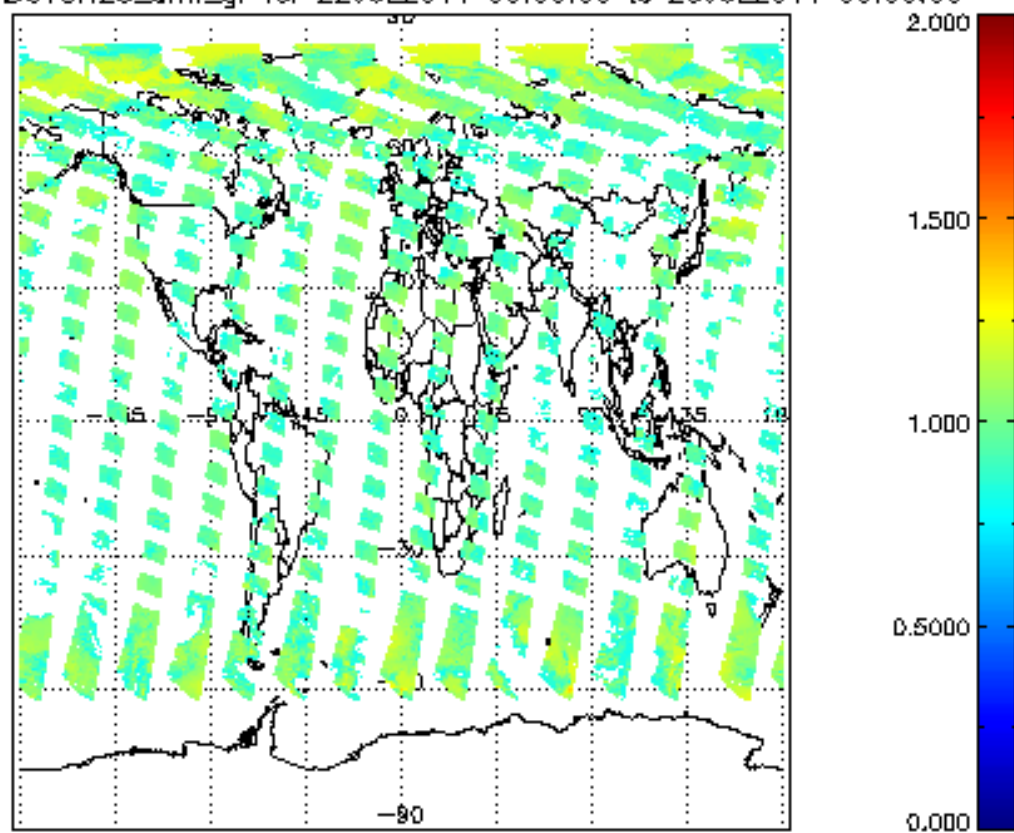
SCIOL2P_NADUV8H20_vcd for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

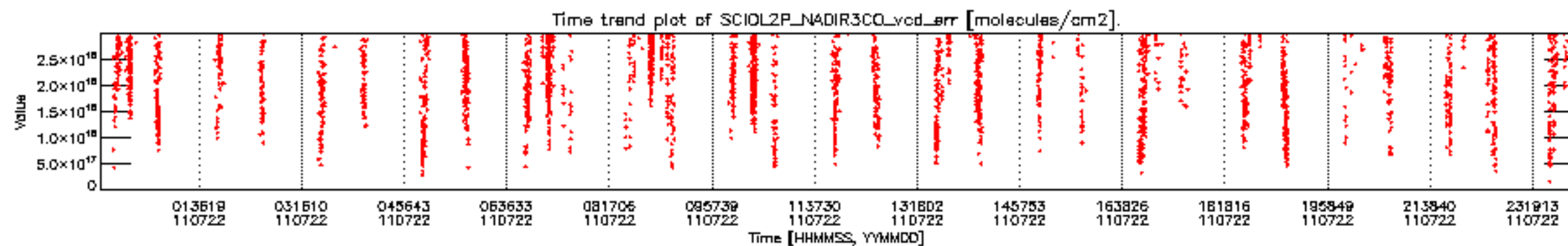
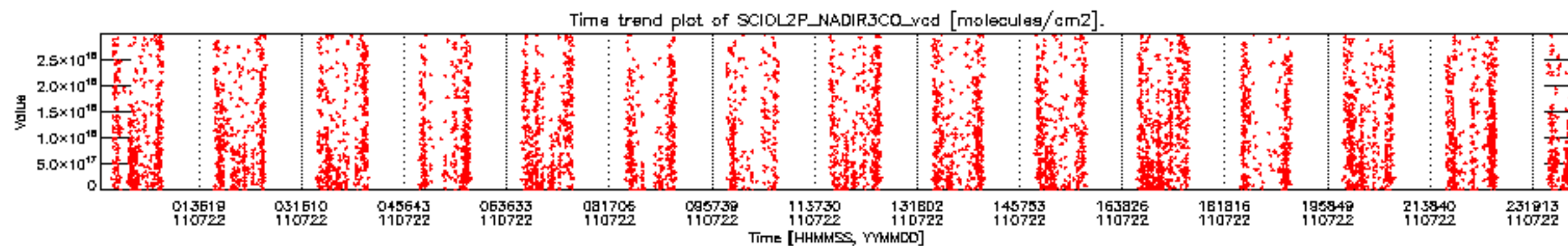


SCIOL2P_NADUV8H20_vcd_err for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

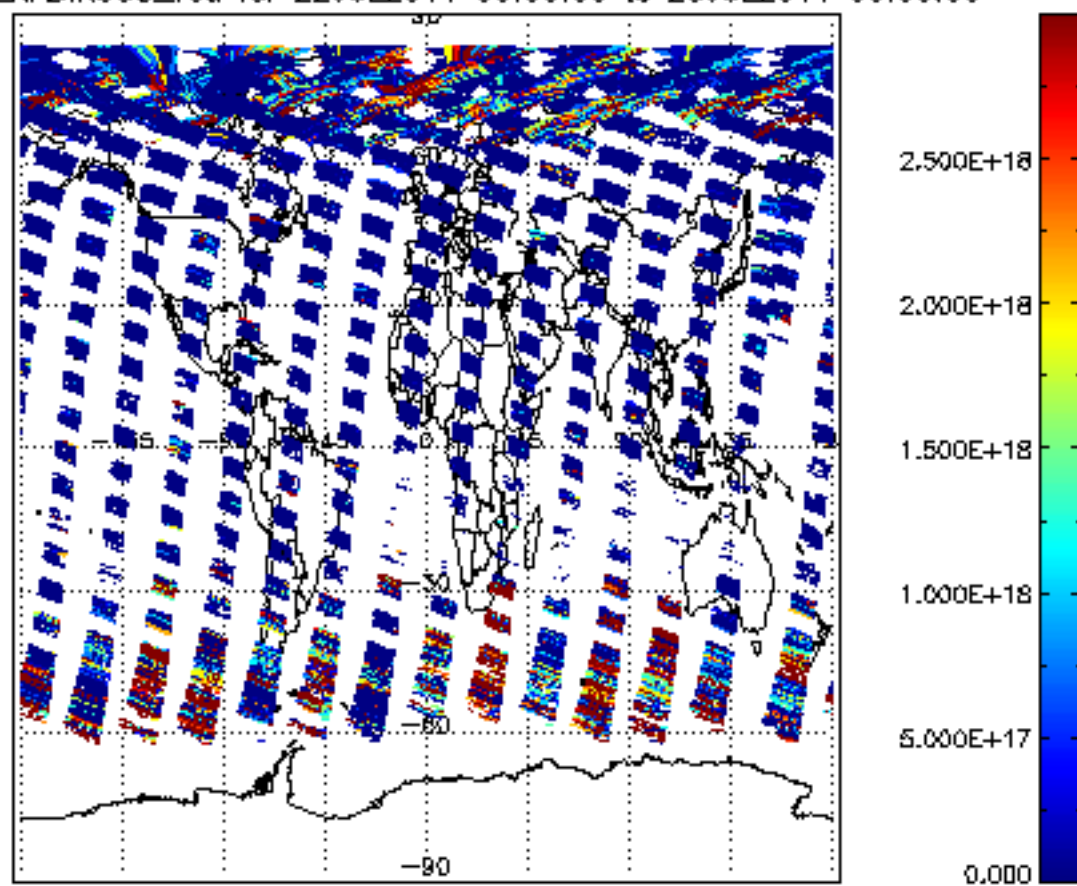


SCIOL2P_NADUV8H20_amf_gr for 22JUL2011 00:00:00 to 23JUL2011 00:00:00

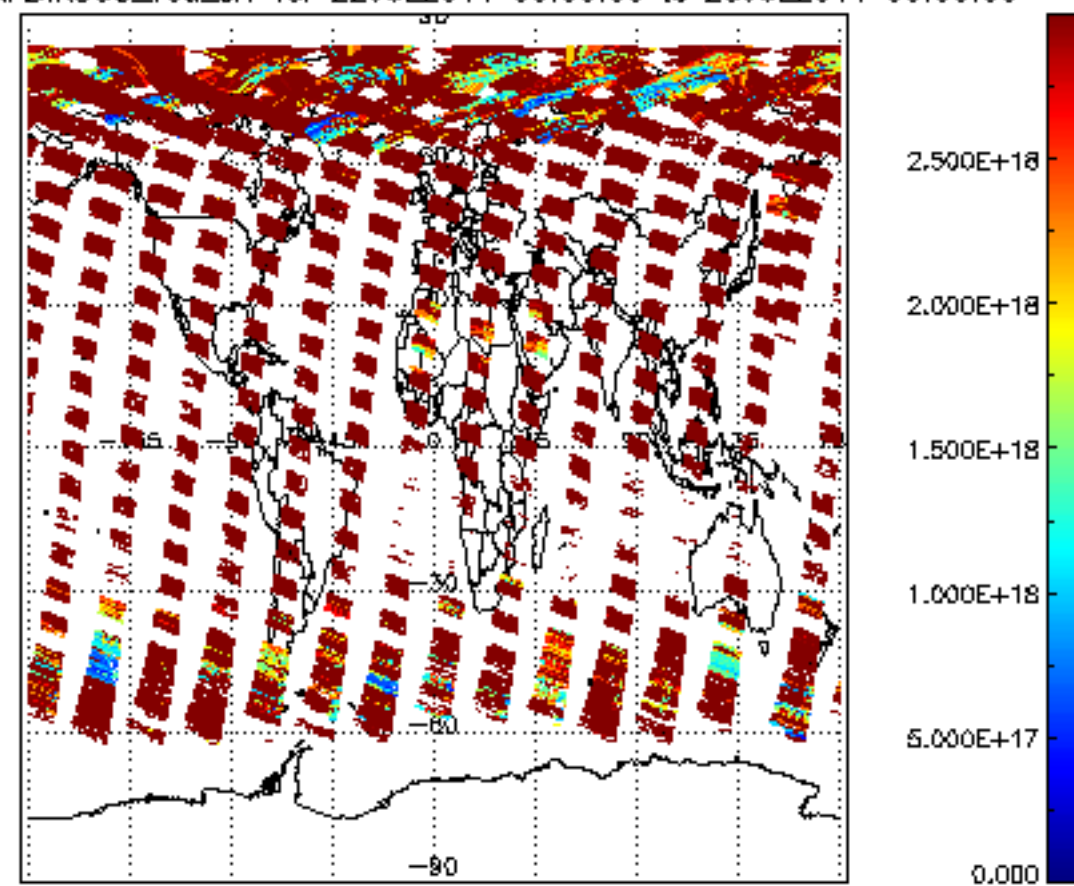




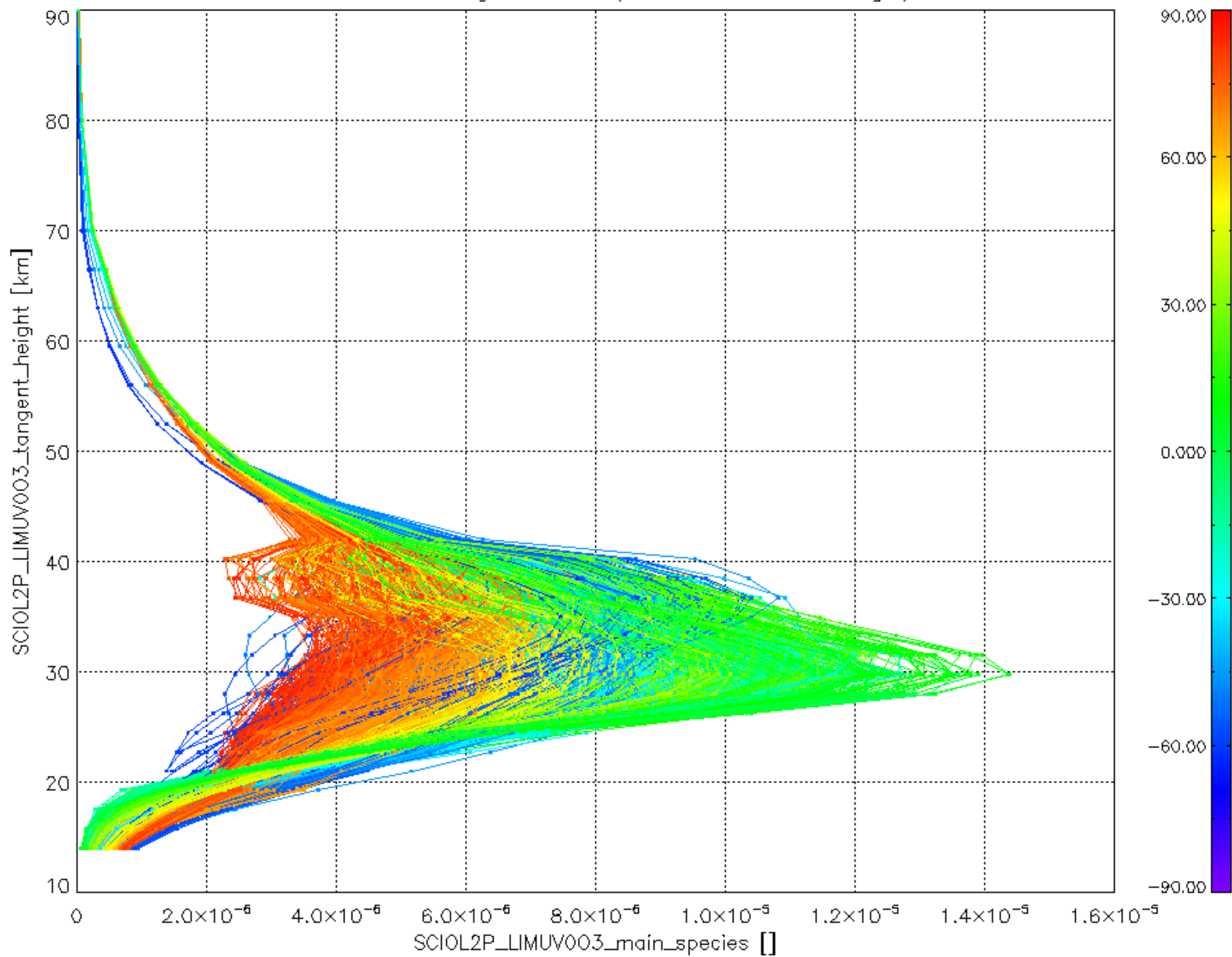
SCIOL2P_NADIR3CO_vcd for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



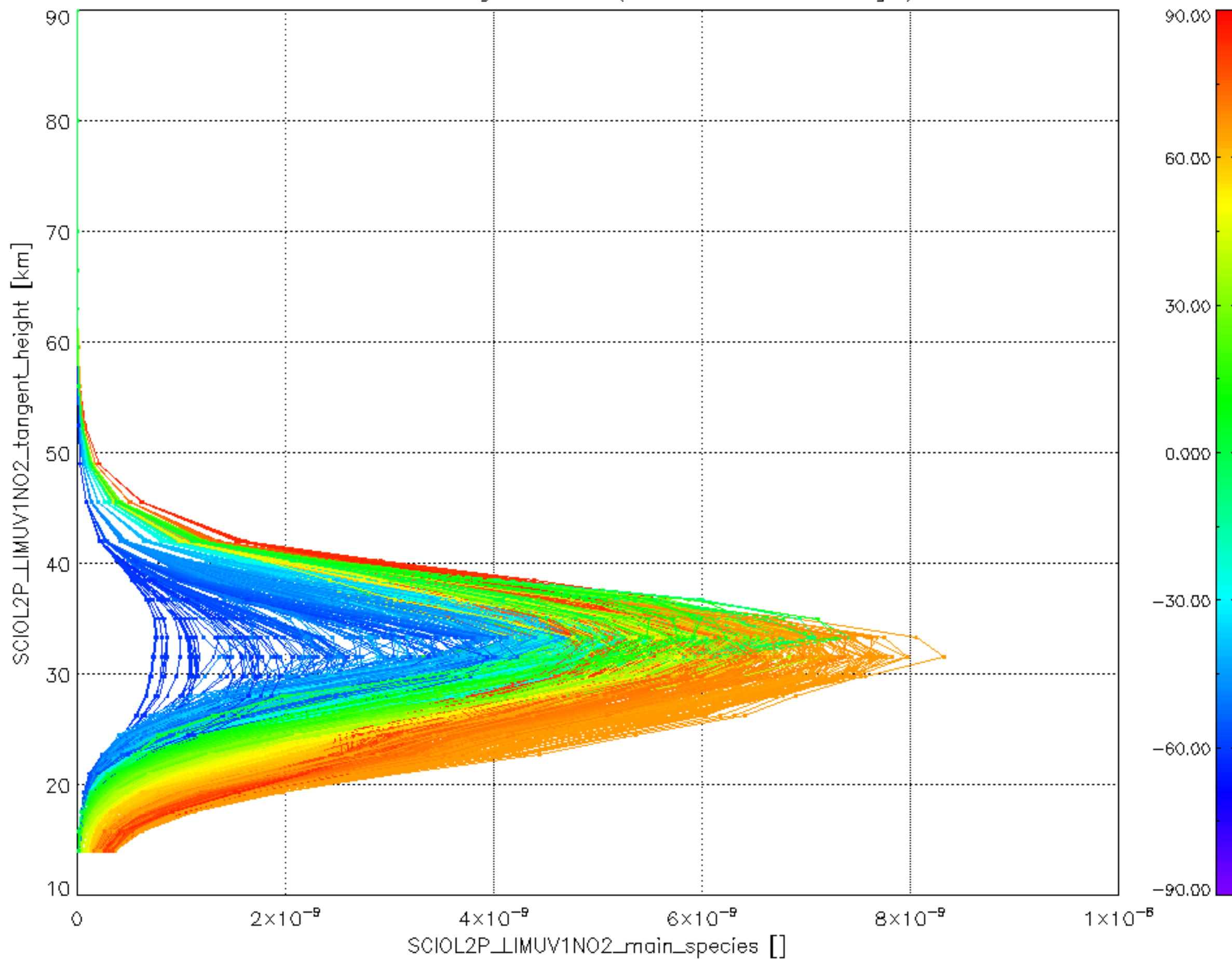
SCIOL2P_NADIR3CO_vcd_err for 22JUL2011 00:00:00 to 23JUL2011 00:00:00



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).



Plot of SCIOL2P_LIMUV3BRO_main_species.tang_vmr vs. tangent height.
 Colours indicate tangent latitude (see colour bar on the right).

