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# 2. SCIAMACHY Daily Report for Level 2 products



## 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 | 1.12 (24-06-2010) |
| Time of report generation | 17MAR2011 03:17:50 |
| Data source version | SCIA-OL/5.01-U |
| Processing scope for products | 27FEB2011 00:00:00 to 28FEB2011 00:00:00 |
| Start time of first product within scope | 26FEB2011 22:46:25 |
| Stop time of last product within scope | 28FEB2011 00:49:47 |
| Total number of level 2 products | 16 |
| 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__2PUDPA20110226_224625_000035843100_00030_47027_3514.N1 | 26FEB2011 22:46:25 | 26FEB2011 23:46:10 | 0 | GOOD |
| 1 | SCI_OL__2PUDPA20110227_002639_000035993100_00031_47028_3512.N1 | 27FEB2011 00:26:39 | 27FEB2011 01:26:38 | 0 | GOOD |
| 2 | SCI_OL__2PUDPA20110227_020652_000035843100_00032_47029_3515.N1 | 27FEB2011 02:06:52 | 27FEB2011 03:06:37 | 0 | GOOD |
| 3 | SCI_OL__2PUDPA20110227_034706_000035993100_00033_47030_3516.N1 | 27FEB2011 03:47:06 | 27FEB2011 04:47:05 | 0 | GOOD |
| 4 | SCI_OL__2PUDPA20110227_052719_000035843100_00034_47031_3517.N1 | 27FEB2011 05:27:19 | 27FEB2011 06:27:04 | 0 | GOOD |

| | | | | | |
|---|---|---|---|---|---|
| 5 | SCI_OL__2PUDPA20110227_070733_000035993100_00035_47032_3519.N1 | 27FEB2011 07:07:33 | 27FEB2011 08:07:32 | 0 | GOOD |
| 6 | SCI_OL__2PUDPA20110227_084747_000035843100_00036_47033_3520.N1 | 27FEB2011 08:47:47 | 27FEB2011 09:47:31 | 0 | GOOD |
| 7 | SCI_OL__2PUDPA20110227_102800_000035993100_00037_47034_3521.N1 | 27FEB2011 10:28:00 | 27FEB2011 11:27:59 | 0 | GOOD |
| 8 | SCI_OL__2PUDPA20110227_120813_000035843100_00038_47035_3522.N1 | 27FEB2011 12:08:13 | 27FEB2011 13:07:58 | 0 | GOOD |
| 9 | SCI_OL__2PUDPA20110227_134827_000035993100_00039_47036_3523.N1 | 27FEB2011 13:48:27 | 27FEB2011 14:48:26 | 0 | GOOD |
| 10 | SCI_OL__2PUDPA20110227_152841_000035843100_00040_47037_3524.N1 | 27FEB2011 15:28:41 | 27FEB2011 16:28:25 | 0 | GOOD |
| 11 | SCI_OL__2PUDPA20110227_170854_000035993100_00041_47038_3525.N1 | 27FEB2011 17:08:54 | 27FEB2011 18:08:53 | 0 | GOOD |
| 12 | SCI_OL__2PUDPA20110227_184928_000035843100_00042_47039_3526.N1 | 27FEB2011 18:49:28 | 27FEB2011 19:49:13 | 0 | GOOD |
| 13 | SCI_OL__2PUDPA20110227_202942_000035993100_00043_47040_3527.N1 | 27FEB2011 20:29:42 | 27FEB2011 21:29:41 | 0 | GOOD |
| 14 | SCI_OL__2PUDPA20110227_220935_000035843100_00044_47041_3528.N1 | 27FEB2011 22:09:35 | 27FEB2011 23:09:19 | 0 | GOOD |
| 15 | SCI_OL__2PUDPA20110227_234948_000035993100_00045_47042_3529.N1 | 27FEB2011 23:49:48 | 28FEB2011 00:49:47 | 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: 170820

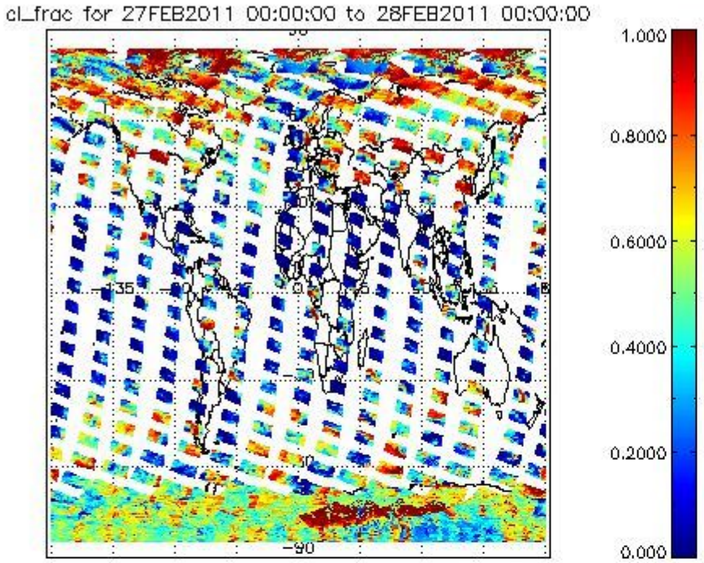
Total number of cloud data DSRs with good quality flag (=0): 170820 (100.0 %)

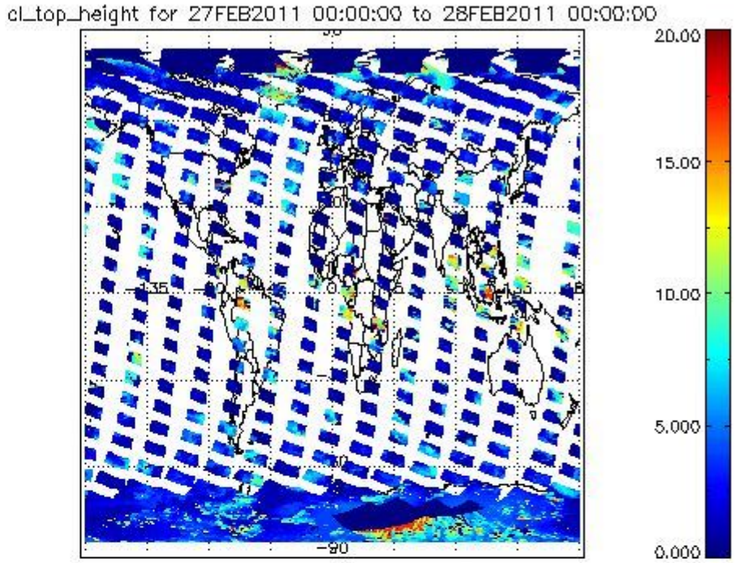
| Parameter | #valid | Mean | Median | Min | Max | Stddev | Unit |
|---|---|---|---|---|---|---|---|
| QUALITY_FLAG | 170820 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | flag |
| INTEGR_TIME | 170820 | 0.16362 | 0.12500 | 0.12500 | 0.25000 | 0.057759 | s |
| CL_FRAC | 170820 | 0.48684 | 0.49198 | 0.0000 | 1.0000 | 0.30845 | - |
| CL_FRAC_ERR | 170820 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | % |
| PMD_READ | 170820 | 5.2359 | 4.0000 | 4.0000 | 8.0000 | 1.8483 | |
| PMD_READ_CL[0] | 170820 | 0.51868 | 0.0000 | 0.0000 | 8.0000 | 1.2654 | - |
| PMD_READ_CL[1] | 170820 | 0.96334 | 0.0000 | 0.0000 | 8.0000 | 2.3104 | - |
| CL_TOP_HEIGHT | 132532 | 3.7005 | 2.4903 | 0.0000 | 17.000 | 3.6051 | km |
| CL_TOP_HEIGHT_ERR | 0 | --- | --- | --- | --- | --- | --- |
| CL_OPT_DEPTH | 132532 | 63.306 | 82.181 | 0.0000 | 101.00 | 40.402 | km |
| CL_OPT_DEPTH_ERR | 0 | --- | --- | --- | --- | --- | --- |
| CL_TYPE_FLAGS | 170820 | 11100000 | 11100000 | 11100000 | 11100000 | 0.0000 | flags |
| CLOUD_FLAGS | 170820 | 11001100 | 11000100 | 11000000 | 11100000 | 3471.0 | flags |
| AERO_ABSO_IND | 170820 | 0.45591 | 0.0000 | 0.0000 | 6.3307 | 0.77100 | |
| AERO_IND_DIAG | 170820 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| AERO_FLAGS | 170820 | 01010000 | 00000000 | 00000000 | 11000000 | 24241. | flags |

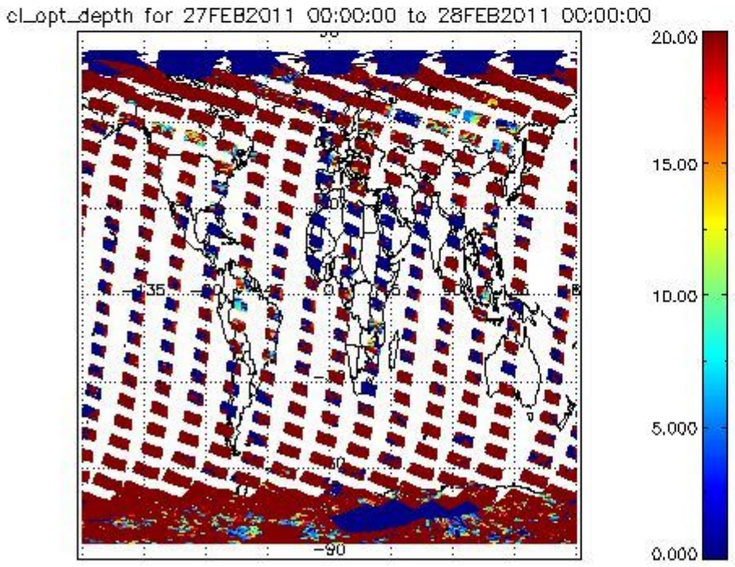
**Time and geolocation plots:**

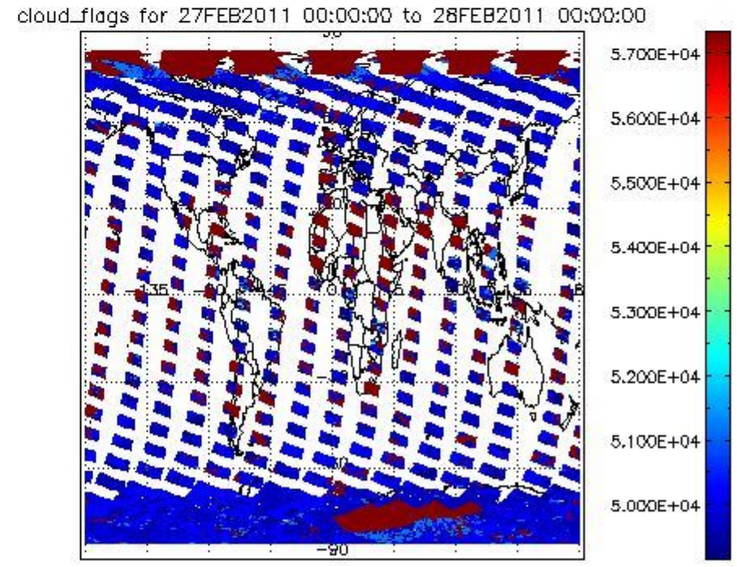
Plots are available for the following parameters:

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




### 2.2.2 Nadir

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

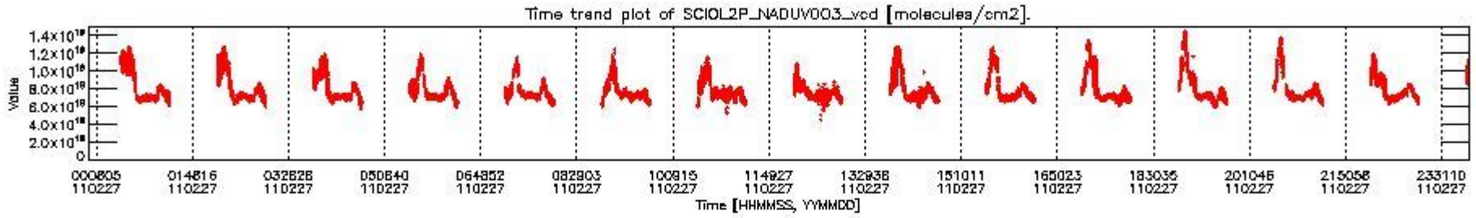
The following data items are currently included into this section:

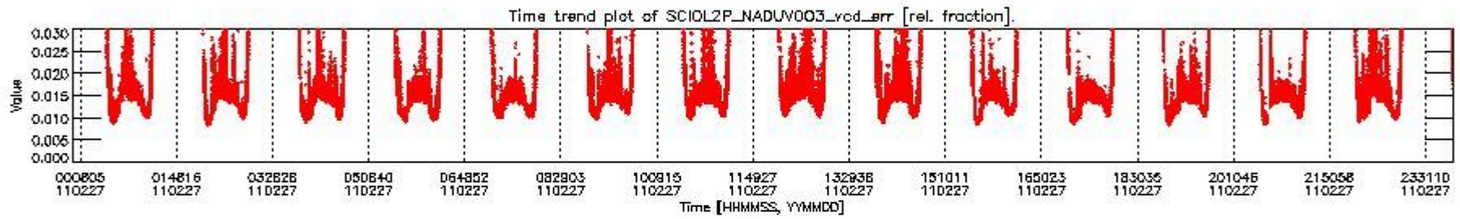
| Number | Data item ID |
|---|---|
| 0 | SCIOL2P_NADUV0O3_vcd |
| 1 | SCIOL2P_NADUV0O3_vcd_err |
| 2 | SCIOL2P_NADUV0O3_amf_gr |

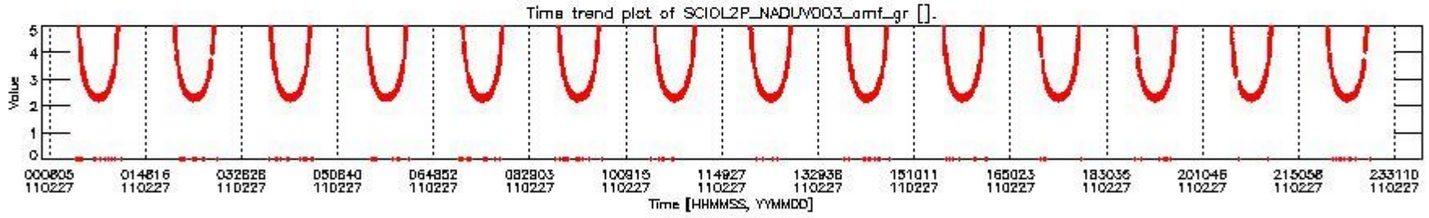
| | |
|---|---|
| 3 | SCIOL2P_NADUV0O3_amf_cl |
| 4 | SCIOL2P_NADUV1NO2_vcd |
| 5 | SCIOL2P_NADUV1NO2_vcd_err |
| 6 | SCIOL2P_NADUV1NO2_amf_gr |
| 7 | SCIOL2P_NADUV1NO2_amf_cl |
| 8 | SCIOL2P_NADUV3BRO_vcd |
| 9 | SCIOL2P_NADUV3BRO_vcd_err |
| 10 | SCIOL2P_NADUV3BRO_amf_gr |
| 11 | SCIOL2P_NADUV3BRO_amf_cl |
| 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 |

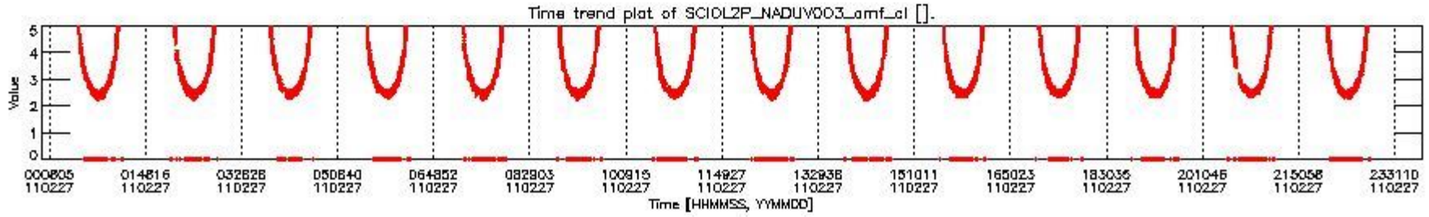
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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

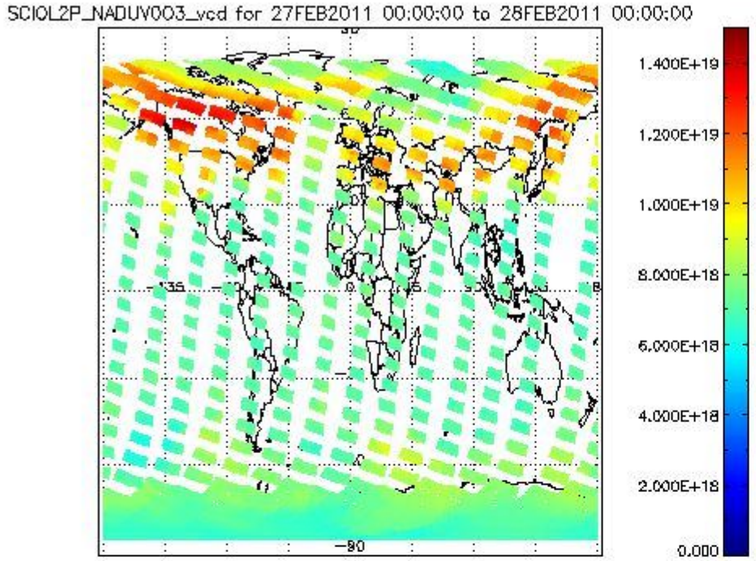
#### 2.2.2.1 O3 (UV0)

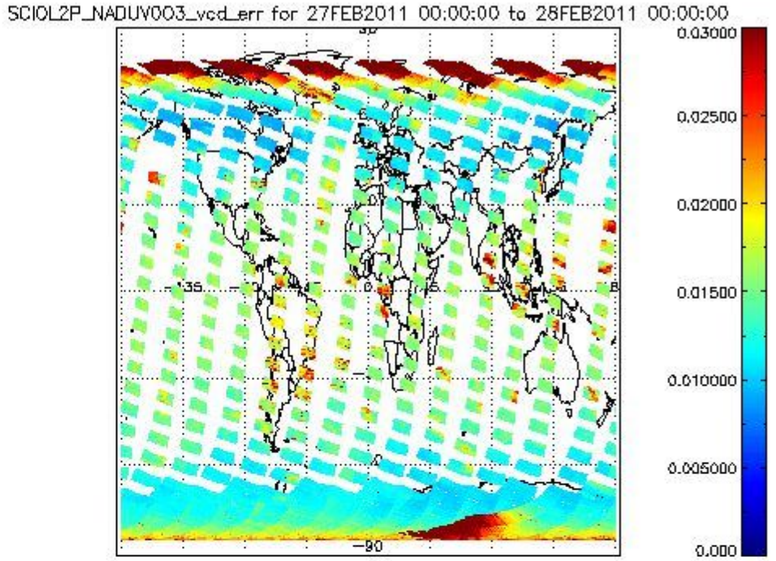

Time trend plot of SCIOL2P_NADUV003_vcd [molecules/cm2].
Value
1.4x10^16
1.2x10^16
1.0x10^16
8.0x10^15
6.0x10^15
4.0x10^15
2.0x10^15
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

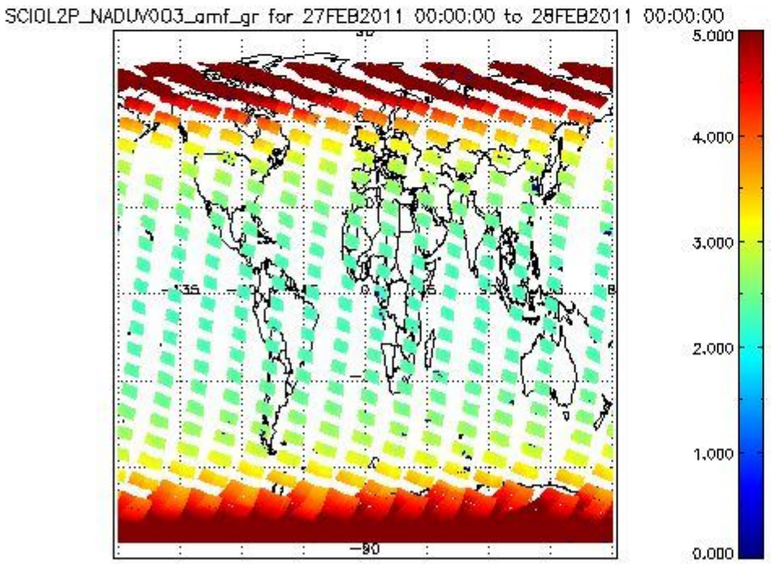

Time trend plot of SCIOL2P_NADUV003_vcd_err [rel. fraction].
Value
0.030
0.025
0.020
0.015
0.010
0.005
0.000
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

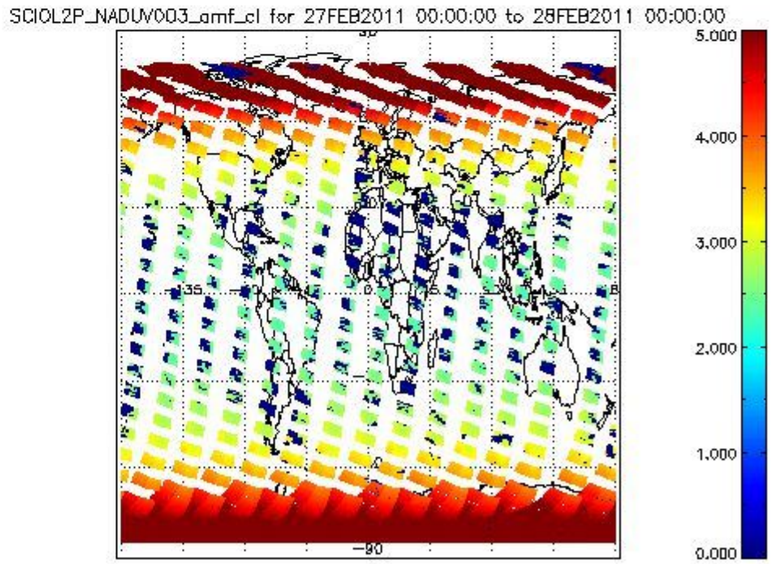

Time trend plot of SCIOL2P_NADUV003_amf_gr [].
Value
5
4
3
2
1
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]


Time trend plot of SCIOL2P_NADUV003_amf_cl [].
Value
5
4
3
2
1
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

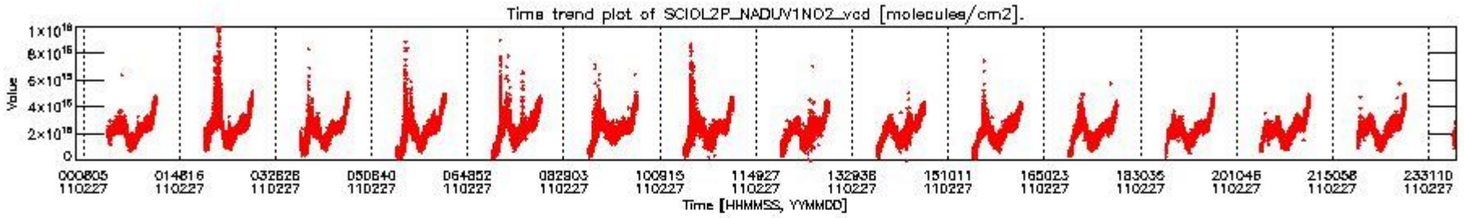

SCIOL2P_NADUV003_vcd for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
1.400E+19
1.200E+19
1.000E+19
8.000E+18
6.000E+18
4.000E+18
2.000E+18
0.000
35
0
45
90
-90

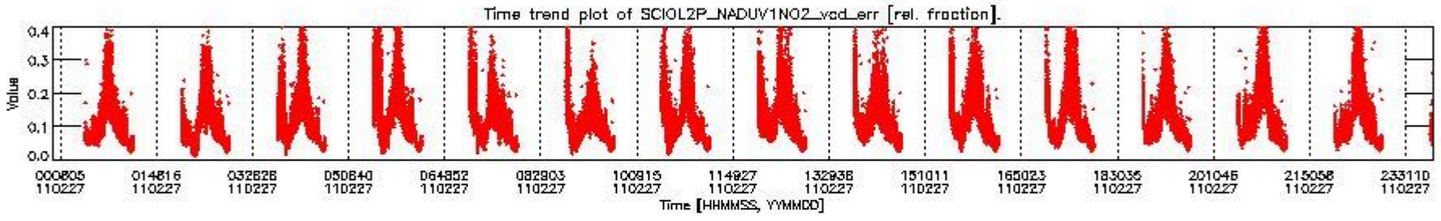

SCIOL2P_NADUV003_vcd_err for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
0.03000
0.02500
0.02000
0.01500
0.010000
0.005000
0.000
35
0
45
90
-90

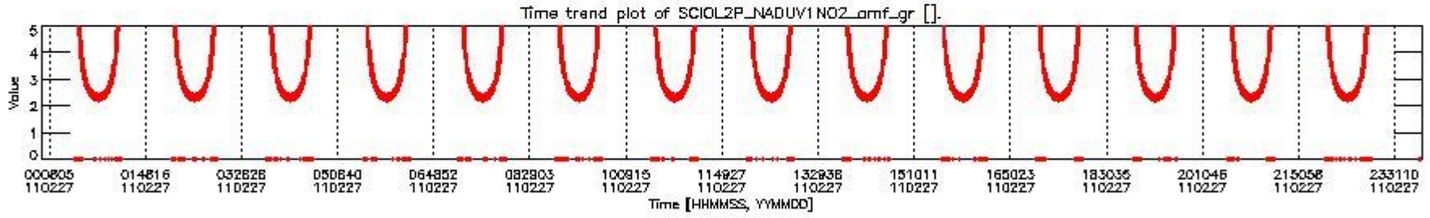

SCIOL2P_NADUV003_amf_gr for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
5.000
4.000
3.000
2.000
1.000
0.000
35
0
45
90
-90

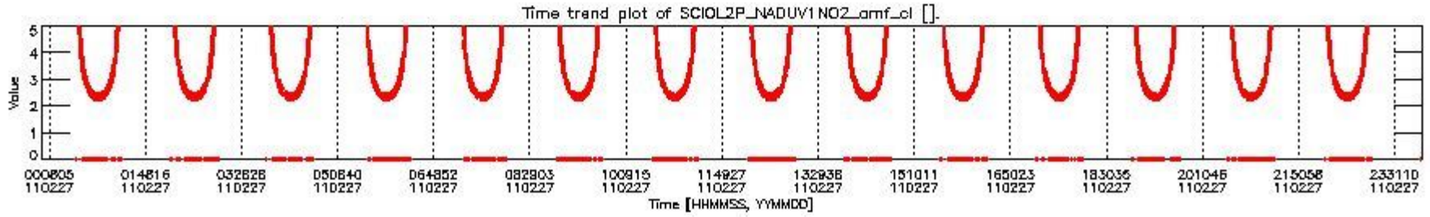

SCIOL2P_NADUV003_amf_cl for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
5.000
4.000
3.000
2.000
1.000
0.000
35
0
45
90
-90

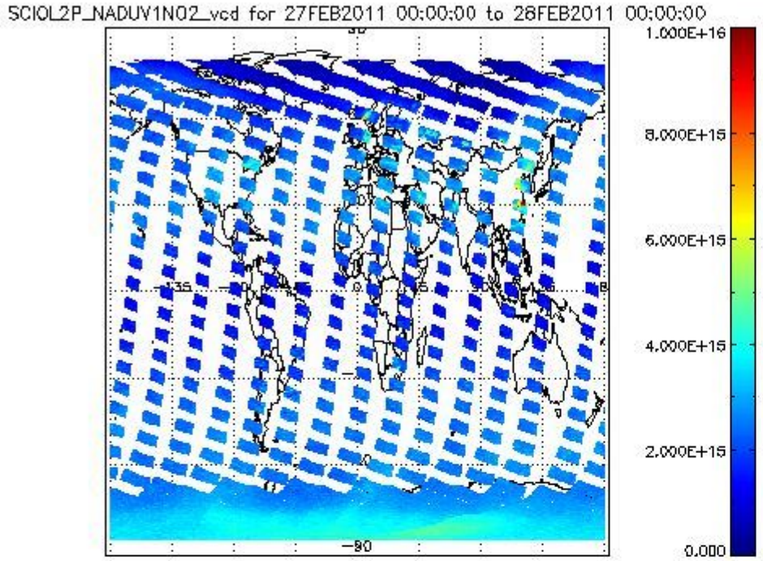
#### 2.2.2.2 NO2 (UV1)

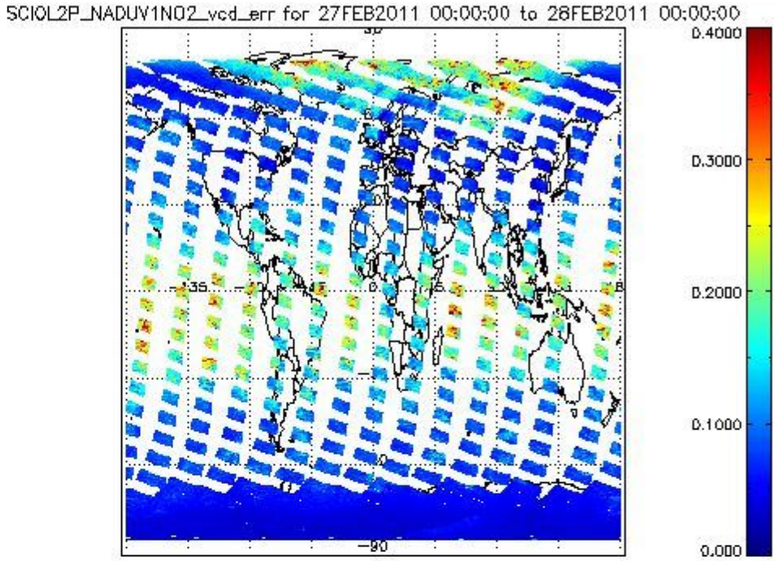

Time trend plot of SCIOL2P_NADUV1NO2_vcd [molecules/cm2].
Value
Time [HHMMSS, YYMMDD]

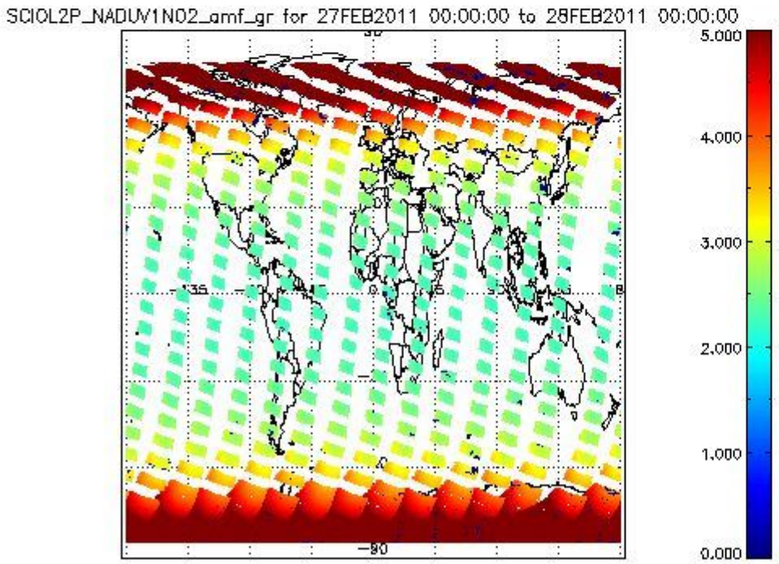

Time trend plot of SCIOL2P_NADUV1NO2_vcd_err [rel. fraction].
Value
Time [HHMMSS, YYMMDD]

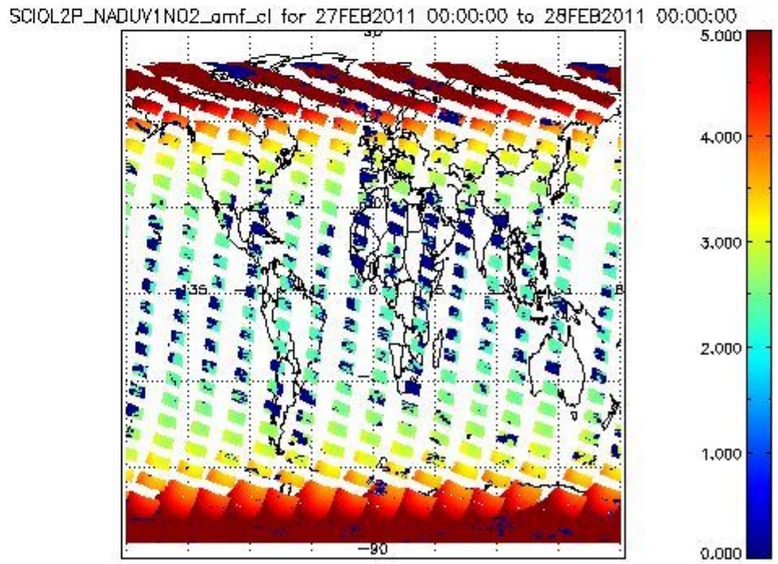

Time trend plot of SCIOL2P_NADUV1NO2_amf_gr [].
Value
Time [HHMMSS, YYMMDD]


Time trend plot of SCIOL2P_NADUV1NO2_amf_cl [].
Value
Time [HHMMSS, YYMMDD]

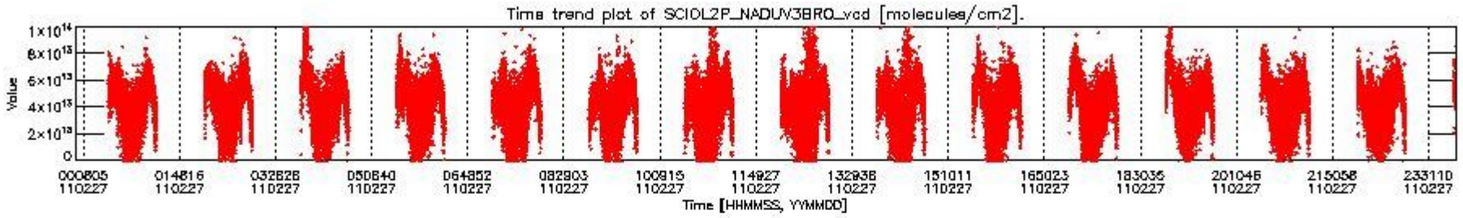

SCIOL2P_NADUV1NO2_vcd for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
1.000E+16
8.000E+15
6.000E+15
4.000E+15
2.000E+15
0.000
-90

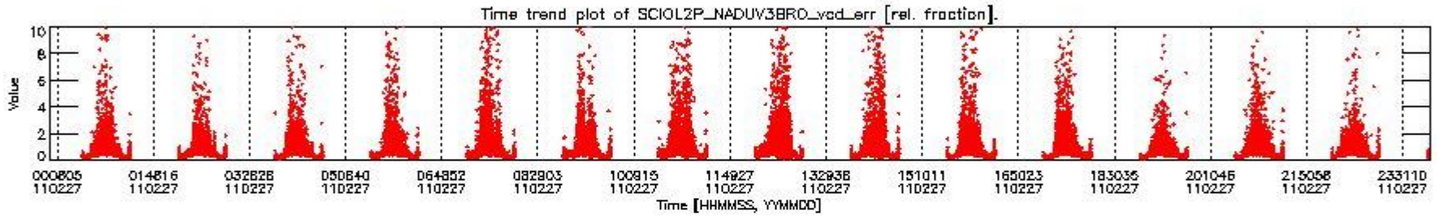

SCIOL2P_NADUV1NO2_vcd_err for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
0.4000
0.3000
0.2000
0.1000
0.000
-90

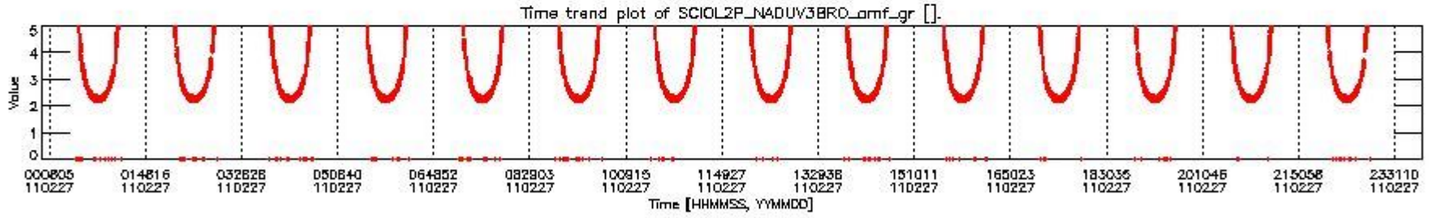

SCIOL2P_NADUV1NO2_amf_gr for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
5.000
4.000
3.000
2.000
1.000
0.000
-90

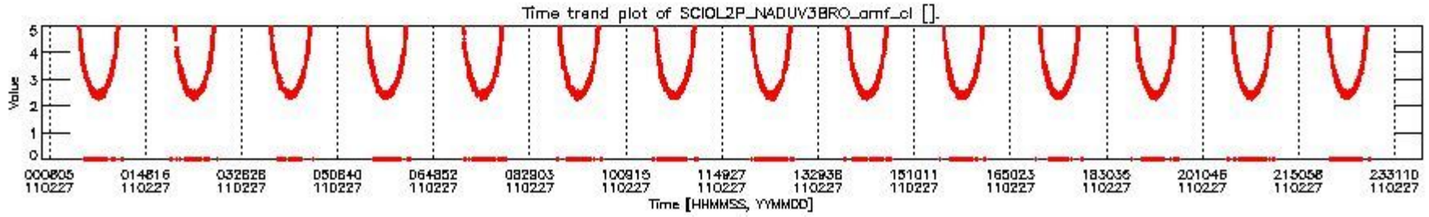

SCIOL2P_NADUV1NO2_amf_cl for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
5.000
4.000
3.000
2.000
1.000
0.000
-90

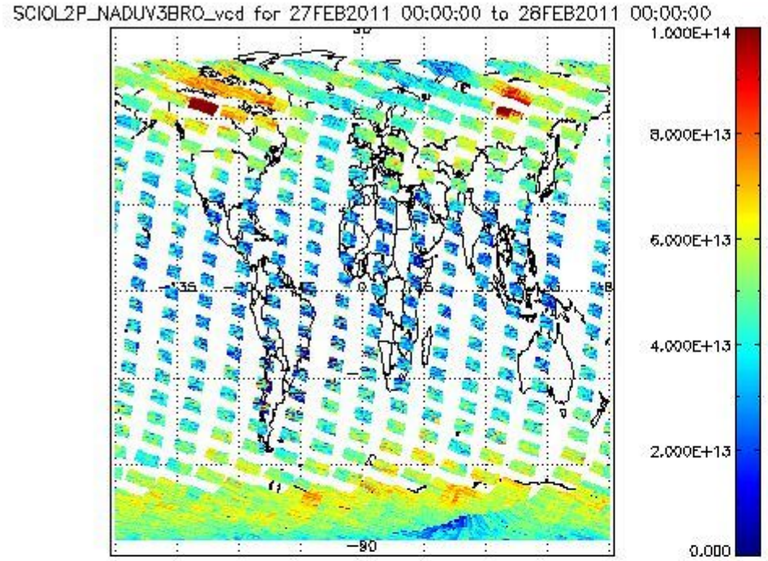
#### 2.2.2.3 BrO (UV3)

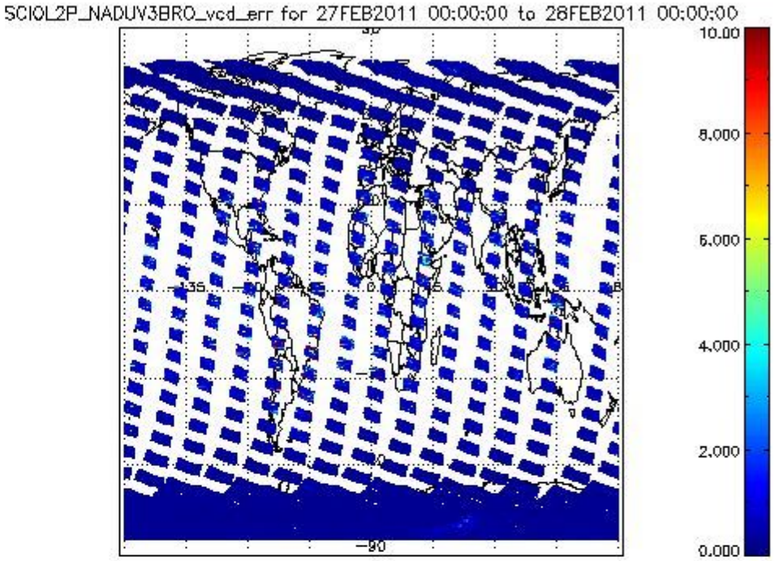

Time trend plot of SCIOL2P_NADUV3BRO_vcd [molecules/cm2].
Value
Time [HHMMSS, YYMMDD]

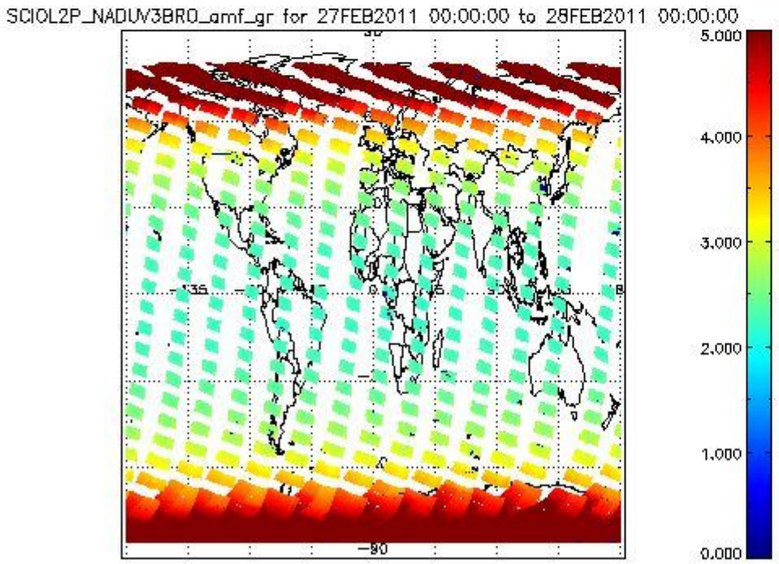

Time trend plot of SCIOL2P_NADUV3BRO_vcd_err [rel. fraction].
Value
Time [HHMMSS, YYMMDD]

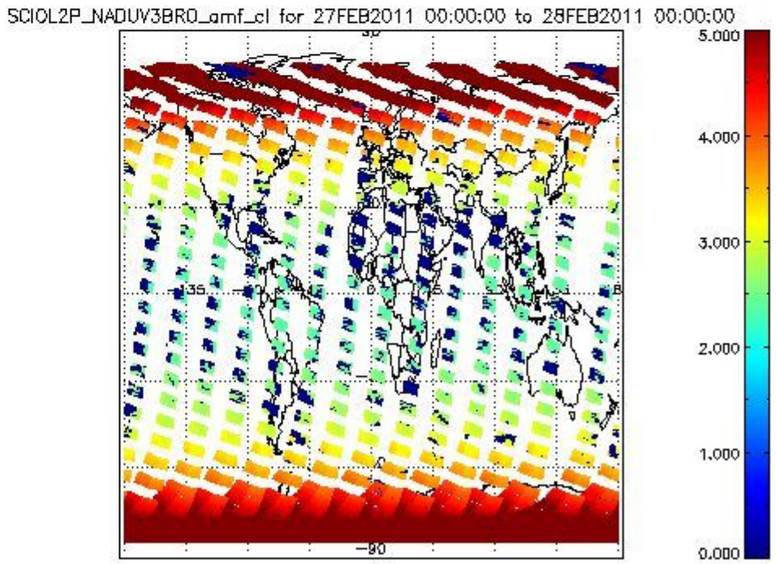

Time trend plot of SCIOL2P_NADUV3BRO_amf_gr [].
Value
Time [HHMMSS, YYMMDD]


Time trend plot of SCIOL2P_NADUV3BRO_amf_cl [].
Value
Time [HHMMSS, YYMMDD]

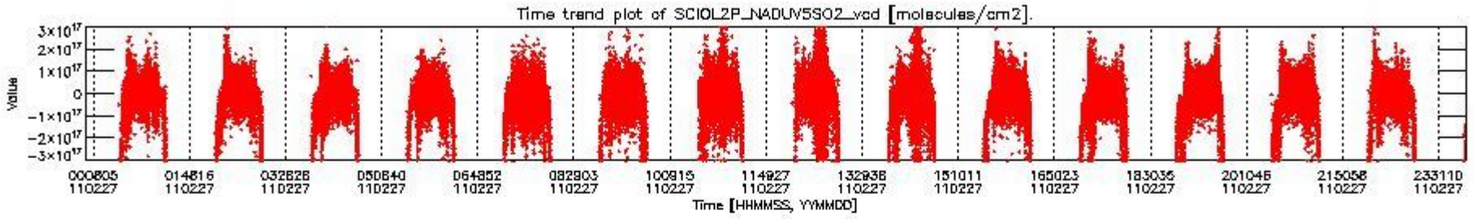

SCIOL2P_NADUV3BRO_vcd for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
1.000E+14
8.000E+13
6.000E+13
4.000E+13
2.000E+13
0.000
−80

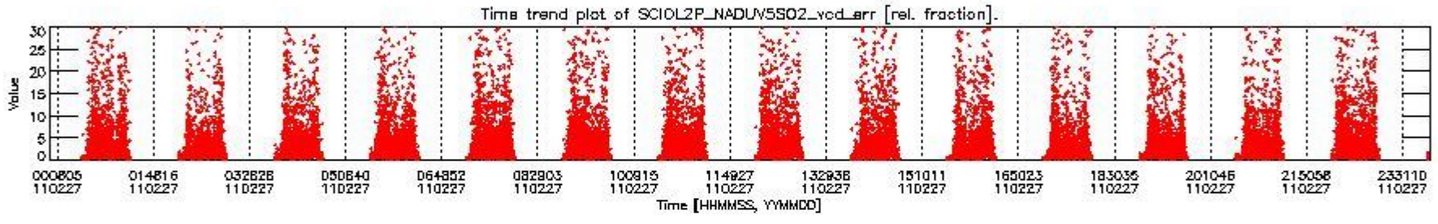

SCIOL2P_NADUV3BRO_vcd_err for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
10.00
8.000
6.000
4.000
2.000
0.000
−80

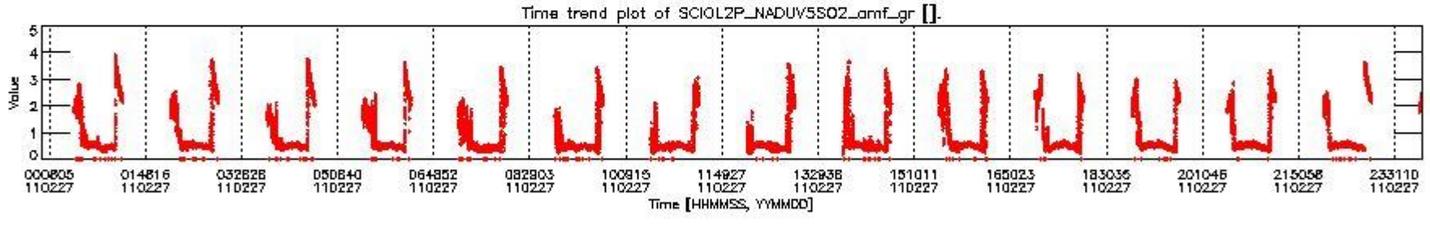

SCIOL2P_NADUV3BRO_amf_gr for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
5.000
4.000
3.000
2.000
1.000
0.000
−80

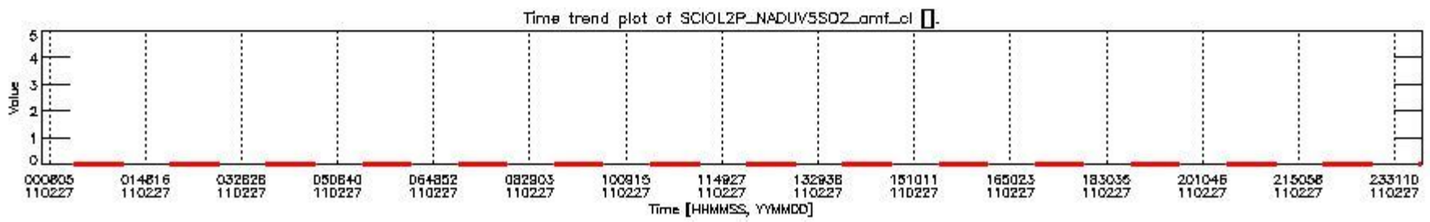

SCIOL2P_NADUV3BRO_amf_cl for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
5.000
4.000
3.000
2.000
1.000
0.000
−80

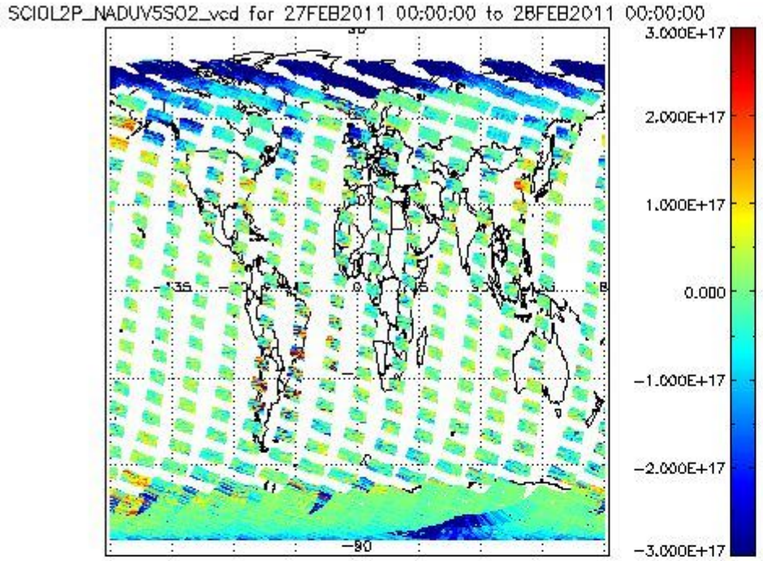
#### 2.2.2.4 SO2 (UV5)

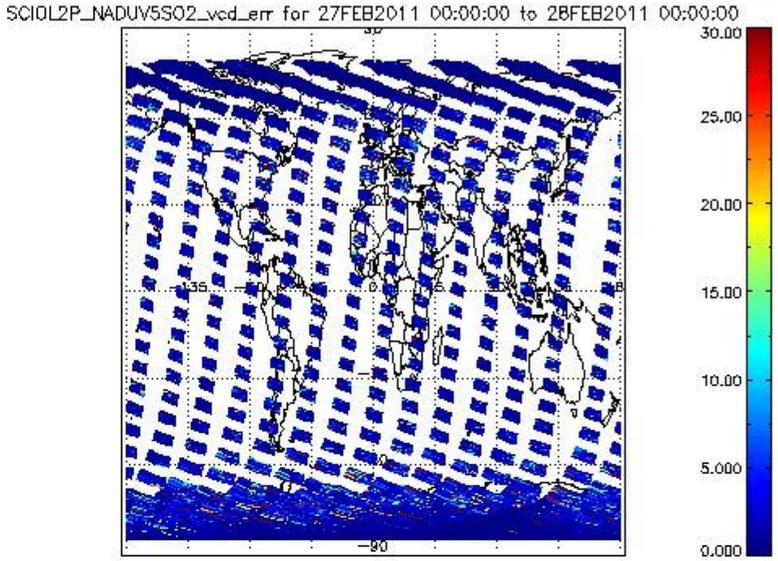

Time trend plot of SCIOL2P_NADUV5SO2_vcd [molecules/cm2].
Value
3x10^17
2x10^17
1x10^17
0
-1x10^17
-2x10^17
-3x10^17
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

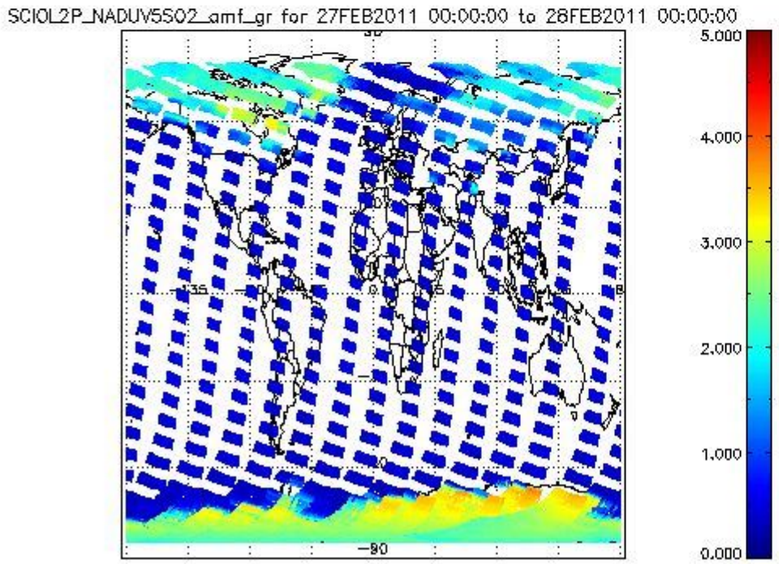

Time trend plot of SCIOL2P_NADUV5SO2_vcd_err [rel. fraction].
Value
30
25
20
15
10
5
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

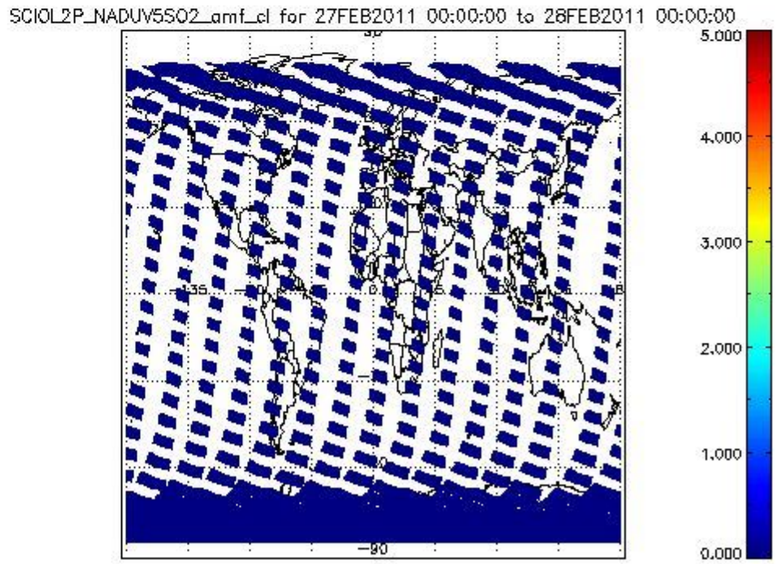

Time trend plot of SCIOL2P_NADUV5SO2_amf_gr [].
Value
5
4
3
2
1
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]


Time trend plot of SCIOL2P_NADUV5SO2_amf_cl [].
Value
5
4
3
2
1
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

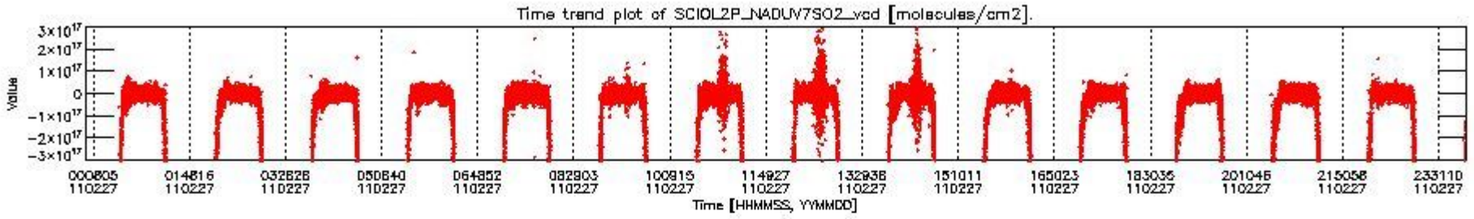

SCIOL2P_NADUV5SO2_vcd for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
3.000E+17
2.000E+17
1.000E+17
0.000
-1.000E+17
-2.000E+17
-3.000E+17
-90

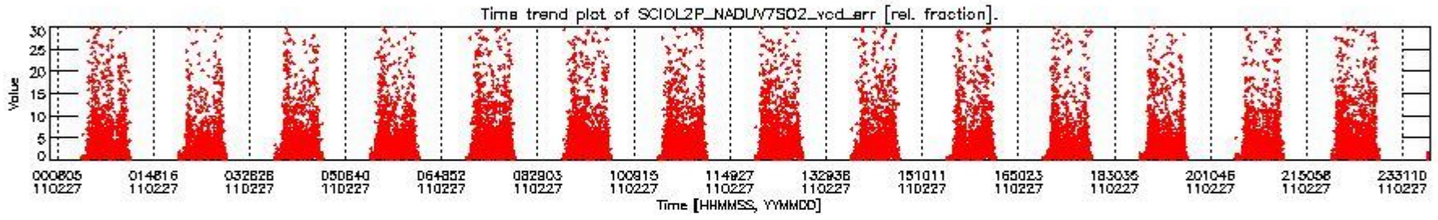

SCIOL2P_NADUV5SO2_vcd_err for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
30.00
25.00
20.00
15.00
10.00
5.000
0.000
-90

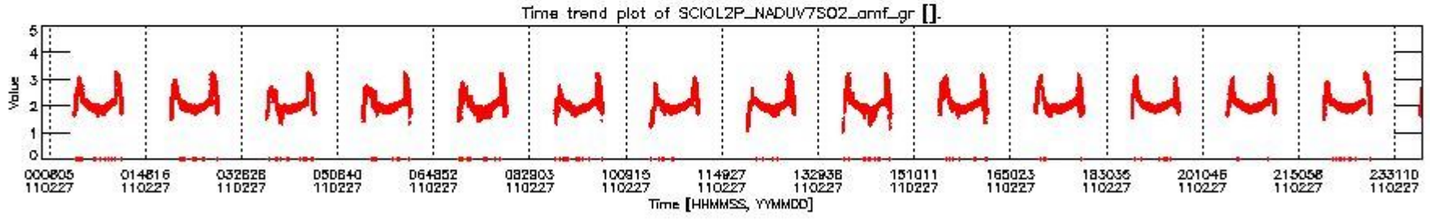

SCIOL2P_NADUV5SO2_amf_gr for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
5.000
4.000
3.000
2.000
1.000
0.000
-90

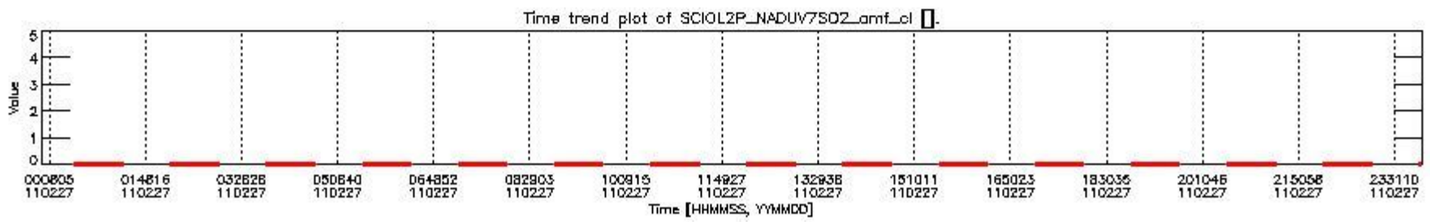

SCIOL2P_NADUV5SO2_amf_cl for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
5.000
4.000
3.000
2.000
1.000
0.000
-90

#### 2.2.2.5 SO2 (UV7)

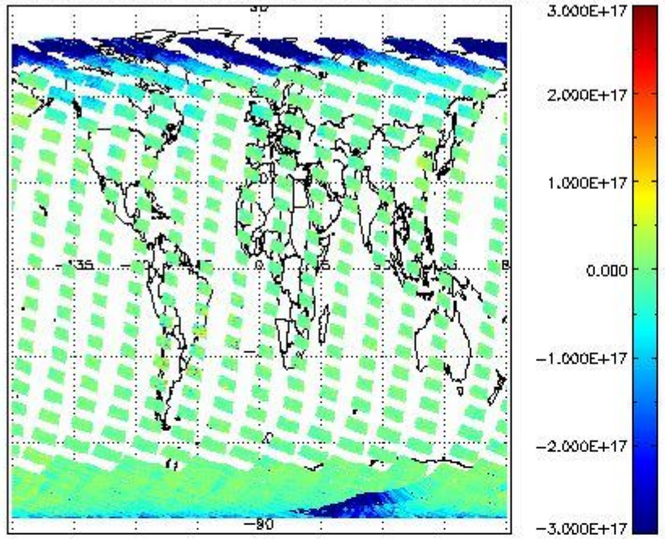

Time trend plot of SCIOL2P_NADUV7SO2_vcd [molecules/cm2].
Value
3x10^17
2x10^17
1x10^17
0
-1x10^17
-2x10^17
-3x10^17
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]


Time trend plot of SCIOL2P_NADUV7SO2_vcd_err [rel. fraction].
Value
30
25
20
15
10
5
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

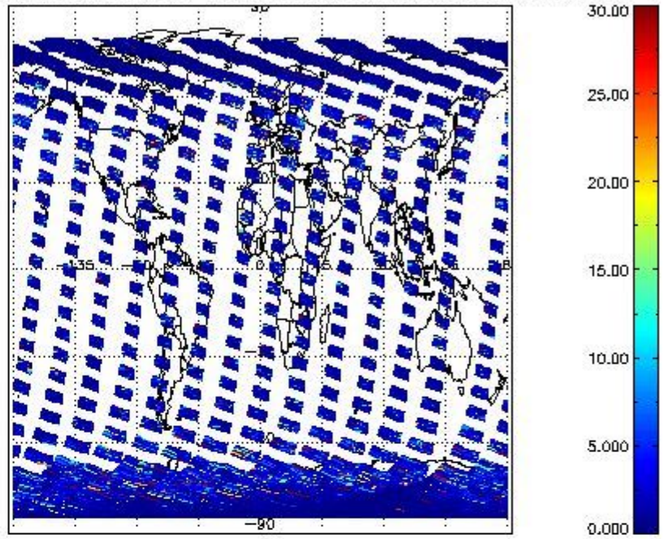

Time trend plot of SCIOL2P_NADUV7SO2_amf_gr [].
Value
5
4
3
2
1
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]


Time trend plot of SCIOL2P_NADUV7SO2_amf_cl [].
Value
5
4
3
2
1
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

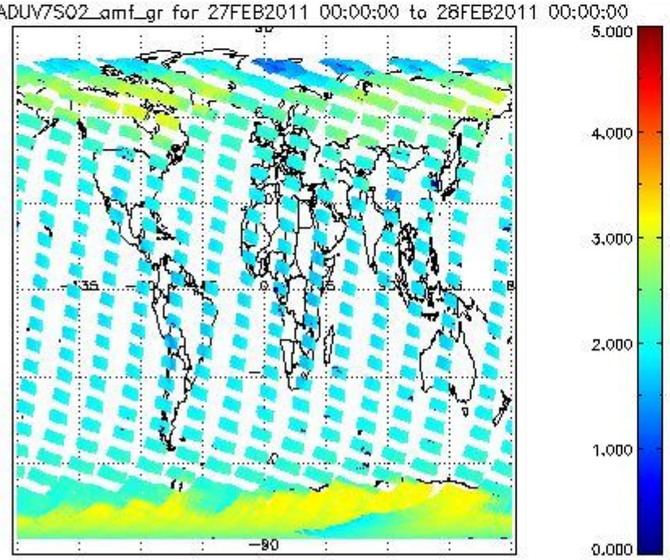
SCIOL2P_NADUV7SO2_vcd for 27FEB2011 00:00:00 to 28FEB2011 00:00:00



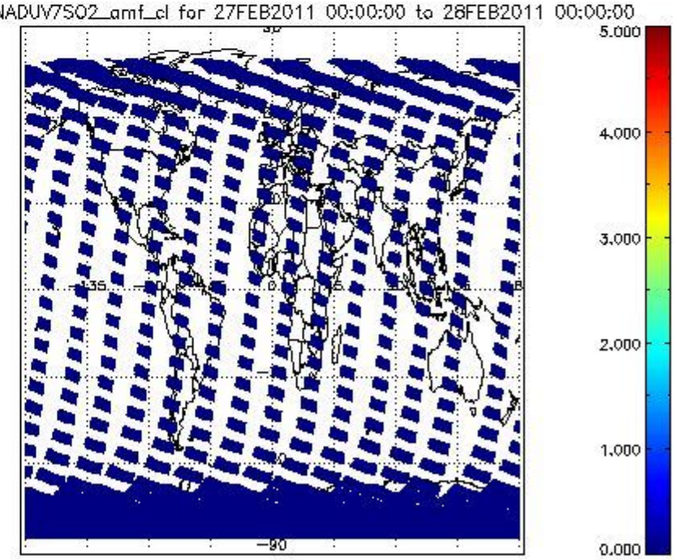

SCIOL2P_NADUV7SO2_vcd_err for 27FEB2011 00:00:00 to 28FEB2011 00:00:00



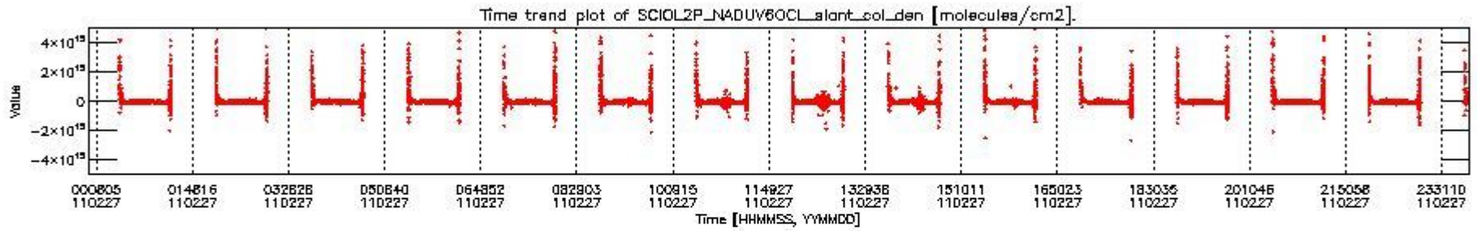

SCIOL2P_NADUV7SO2_amf_gr for 27FEB2011 00:00:00 to 28FEB2011 00:00:00

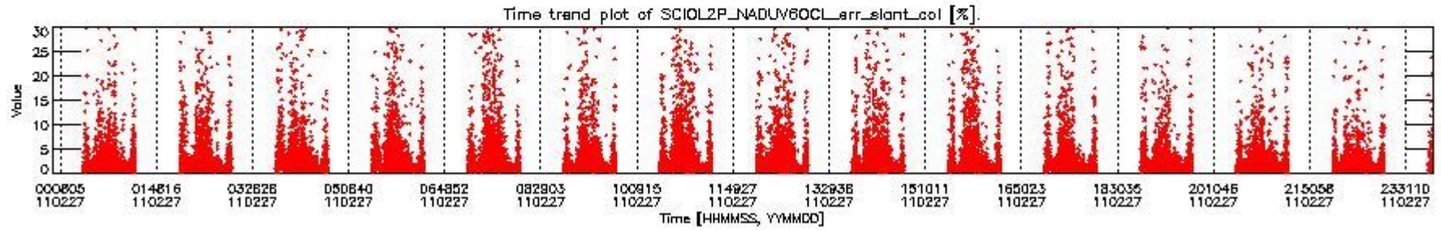


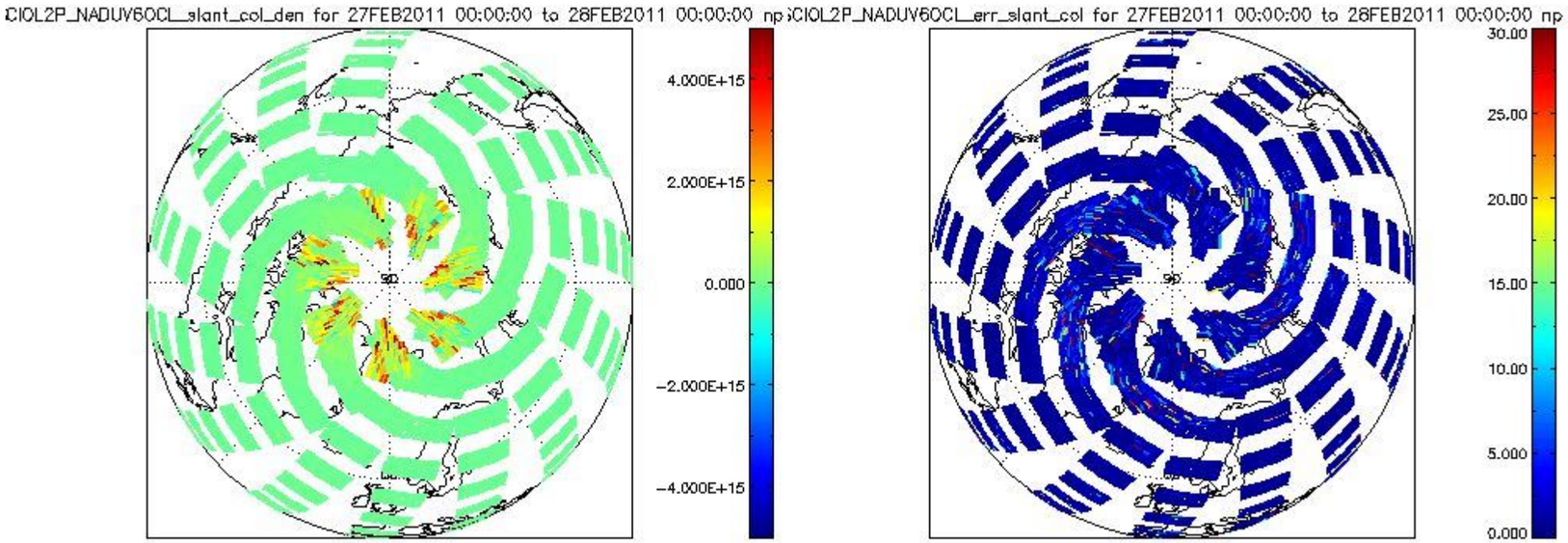

SCIOL2P_NADUV7SO2_amf_cl for 27FEB2011 00:00:00 to 28FEB2011 00:00:00



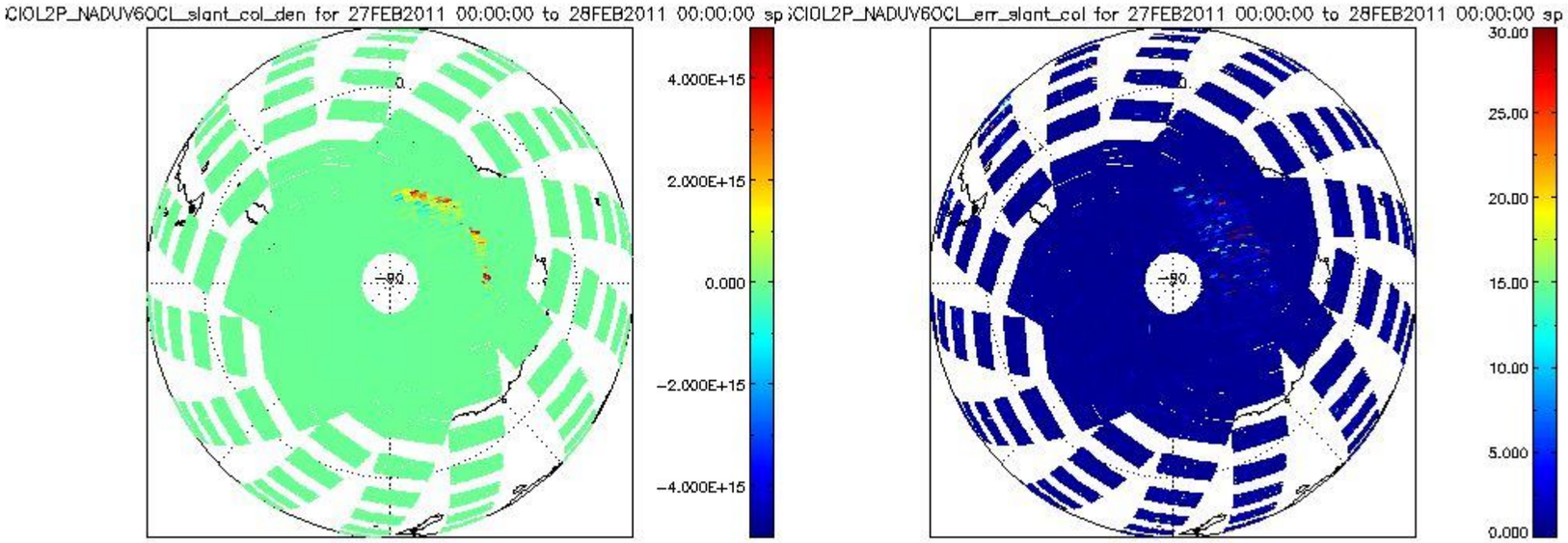

### 2.2.2.6 OClO (UV6)


Time trend plot of SCIOL2P_NADUV6OCL_slant_col_den [molecules/cm2].
Value
4×10^15
2×10^15
0
−2×10^15
−4×10^15
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

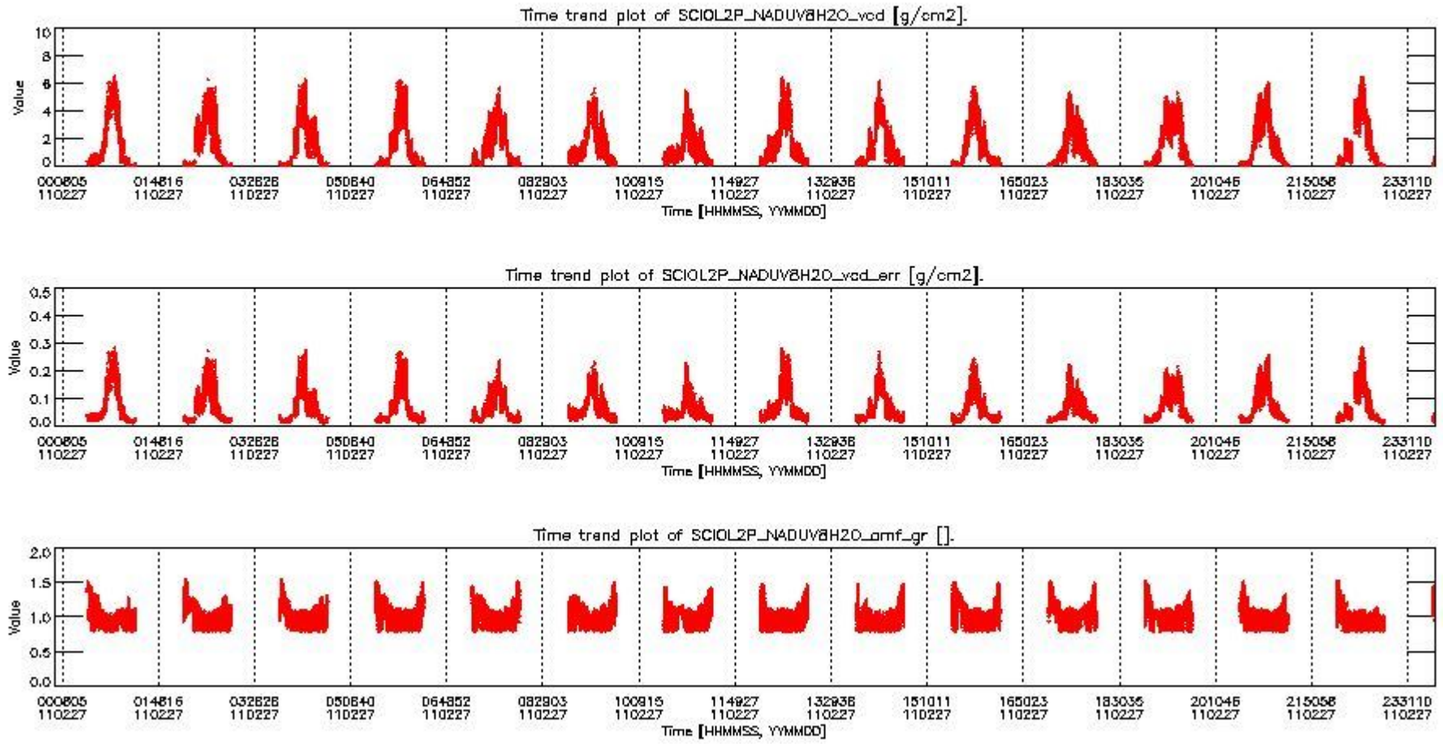

Time trend plot of SCIOL2P_NADUV6OCL_err_slant_col [%].
Value
30
25
20
15
10
5
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

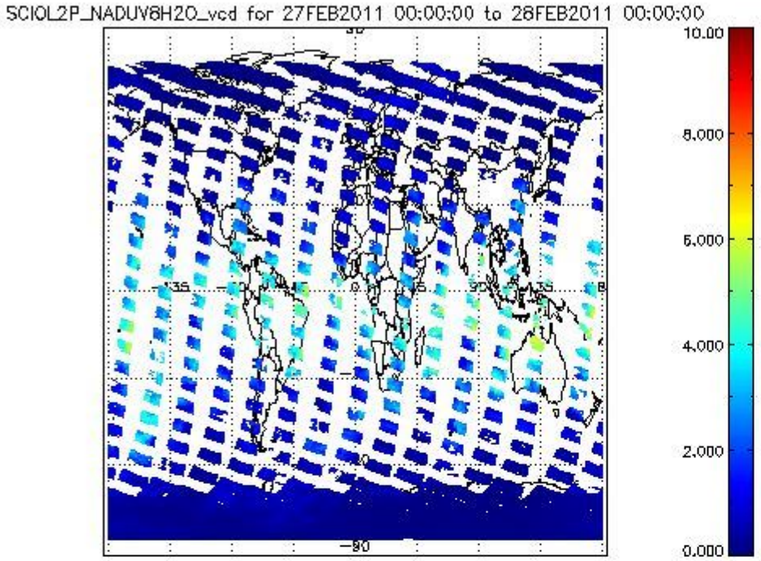

CIOL2P_NADUV6OCL_slant_col_den for 27FEB2011 00:00:00 to 28FEB2011 00:00:00 np
4.000E+15
2.000E+15
0.000
−2.000E+15
−4.000E+15
90

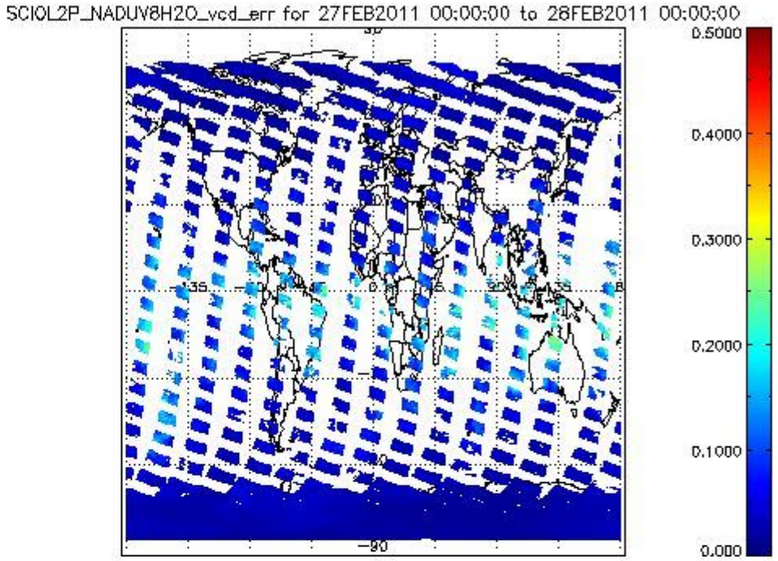

SCIOL2P_NADUV6OCL_err_slant_col for 27FEB2011 00:00:00 to 28FEB2011 00:00:00 np
30.00
25.00
20.00
15.00
10.00
5.000
0.000
90

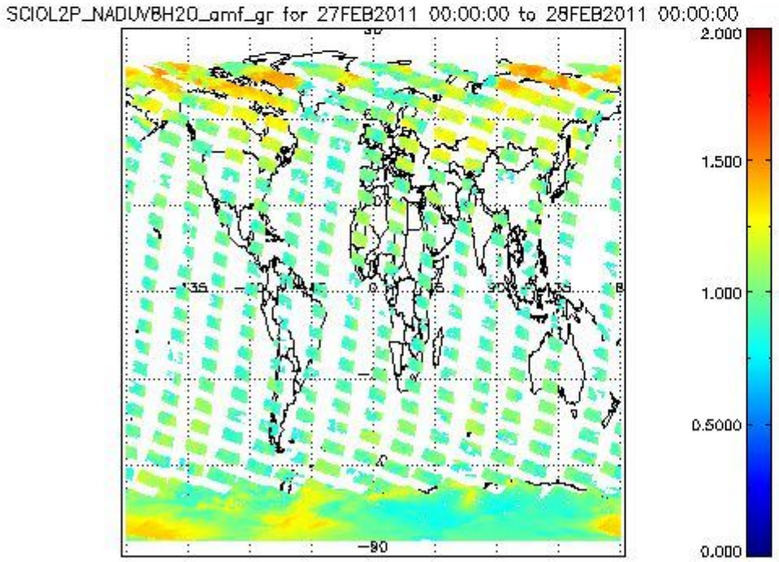

SCIOL2P_NADUV6OCL_slant_col_den for 27FEB2011 00:00:00 to 28FEB2011 00:00:00 sp
SCIOL2P_NADUV6OCL_err_slant_col for 27FEB2011 00:00:00 to 28FEB2011 00:00:00 sp
0
-90
4.000E+15
2.000E+15
0.000
-2.000E+15
-4.000E+15
30.00
25.00
20.00
15.00
10.00
5.000
0.000

### 2.2.2.7 H2O (UV8)

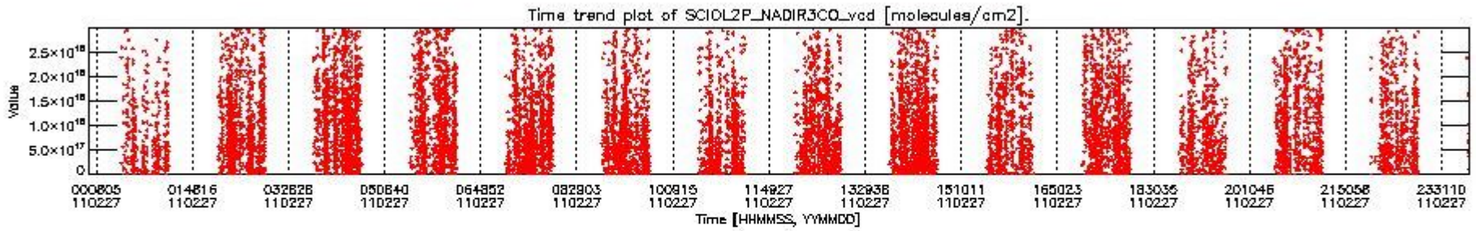

Time trend plot of SCIOL2P_NADUV8H2O_vcd [g/cm2].
Time trend plot of SCIOL2P_NADUV8H2O_vcd_err [g/cm2].
Time trend plot of SCIOL2P_NADUV8H2O_amf_gr [].
Value
Time [HHMMSS, YYMMDD]
000805 110227
014816 110227
032826 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132936 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227

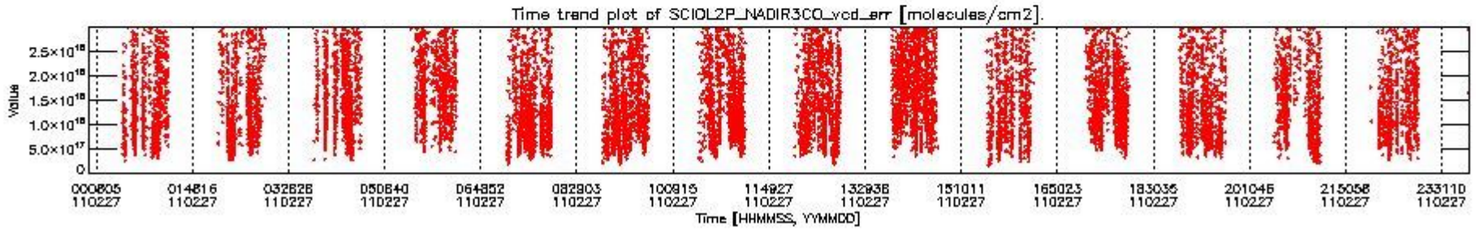

SCIOL2P_NADUV8H2O_vcd for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
10.00
8.000
6.000
4.000
2.000
0.000
−90

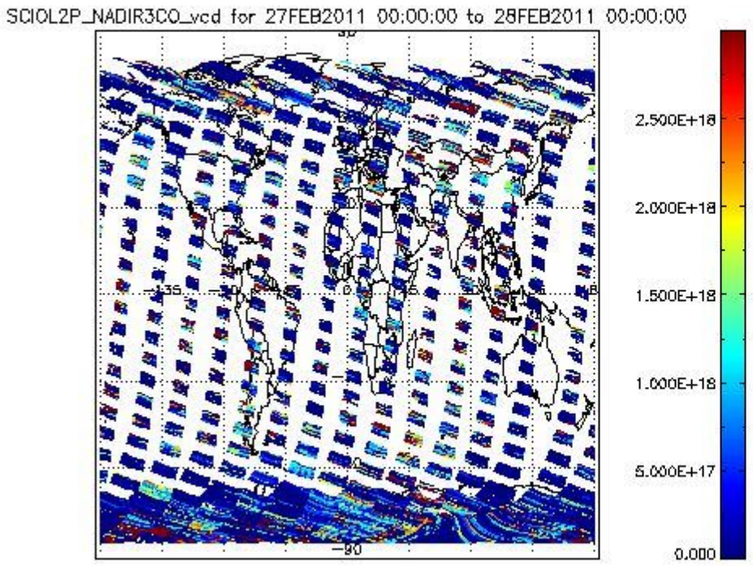

SCIOL2P_NADUV8H2O_vcd_err for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
0.5000
0.4000
0.3000
0.2000
0.1000
0.000
−90

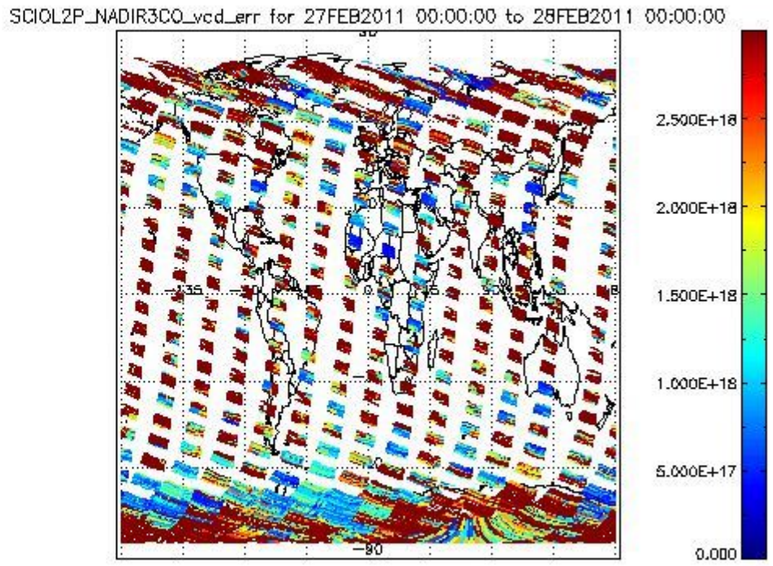

SCIOL2P_NADUV8H2O_amf_gr for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
2.000
1.500
1.000
0.5000
0.000
−90

### 2.2.2.8 CO (IR3)




### 2.2.3 Limb

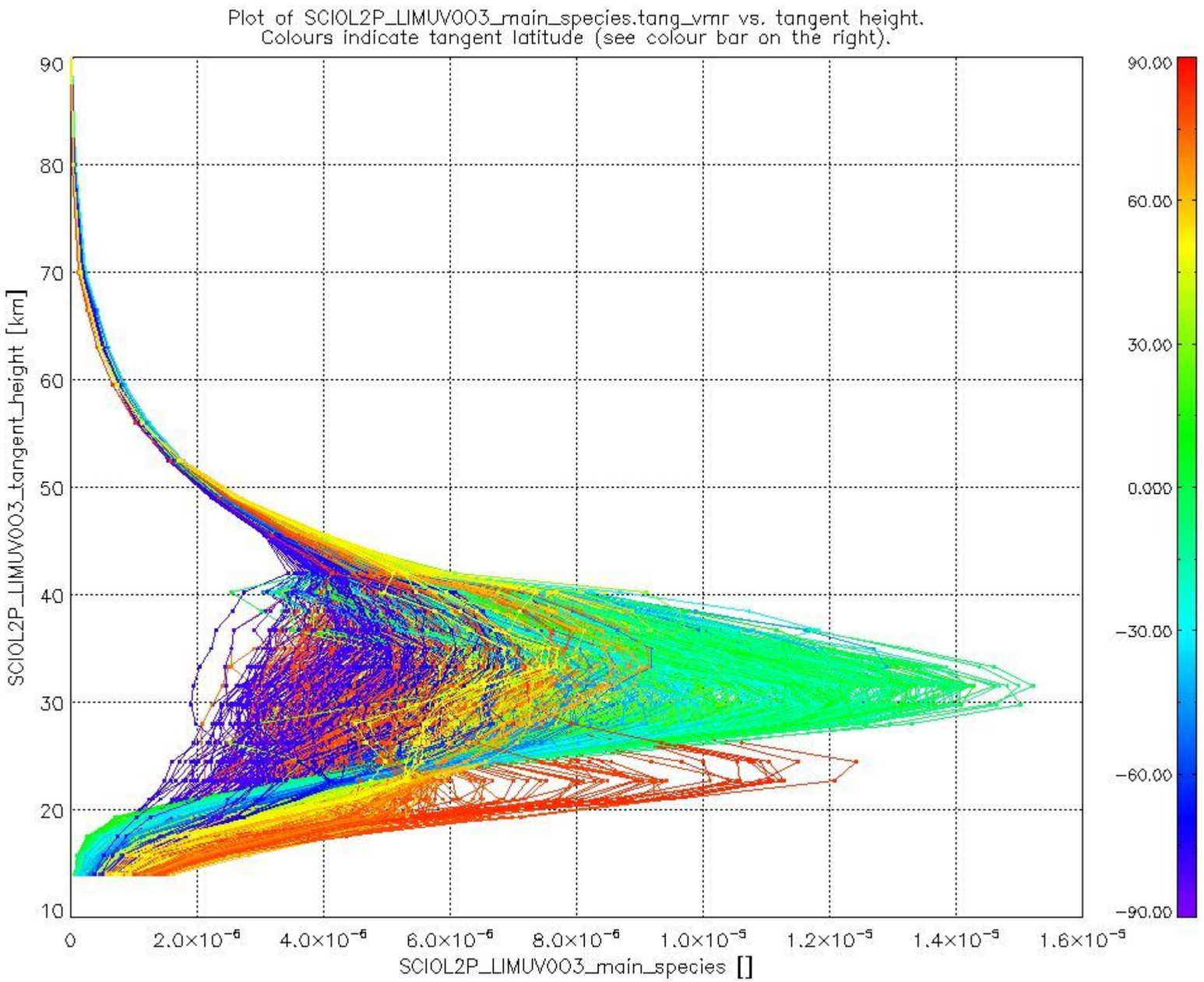
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

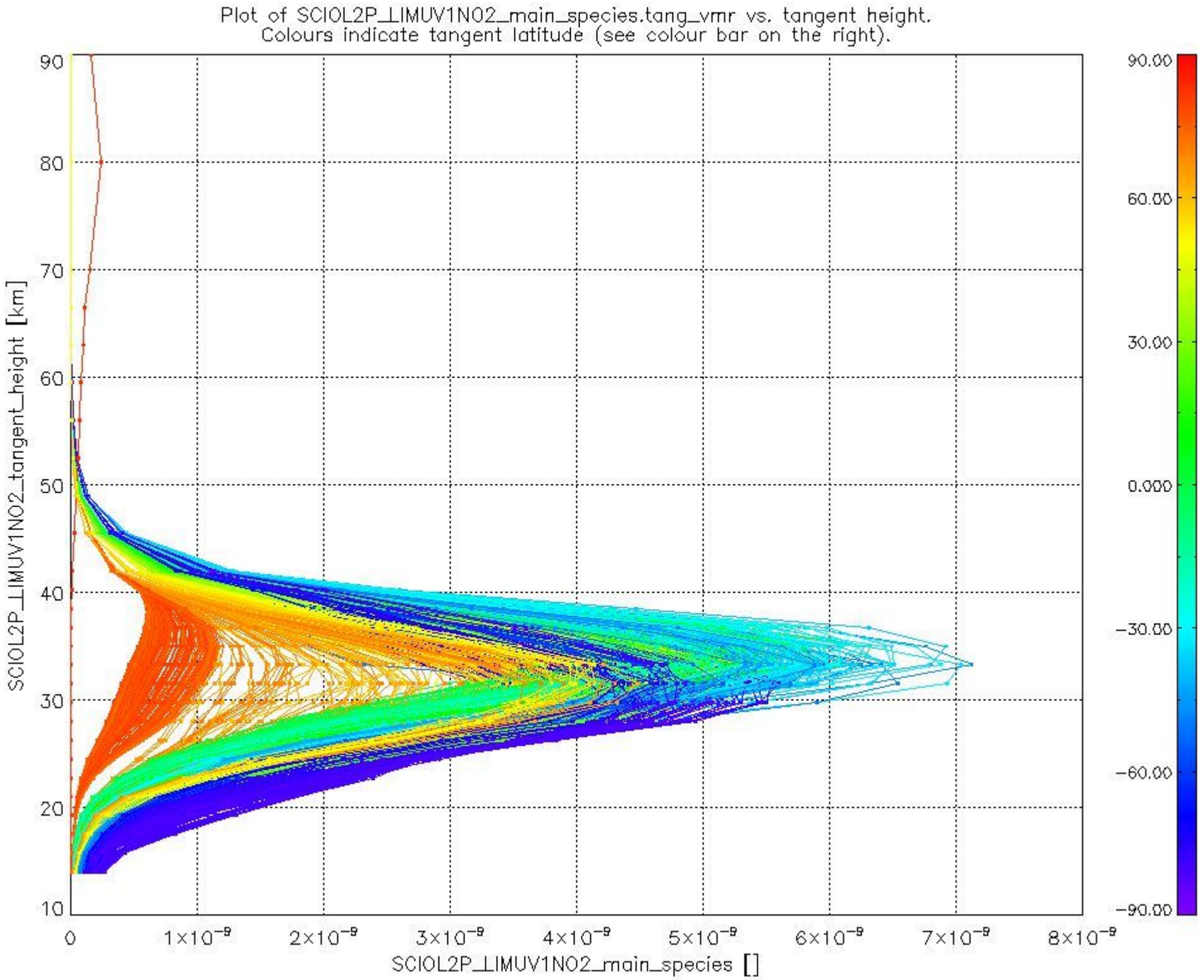
| Number | Data item ID |
|---|---|
| 0 | SCIOL2P_LIMUV0O3_main_species |
| 1 | SCIOL2P_LIMUV1NO2_main_species |
| 2 | SCIOL2P_LIMUV3BRO_main_species |

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

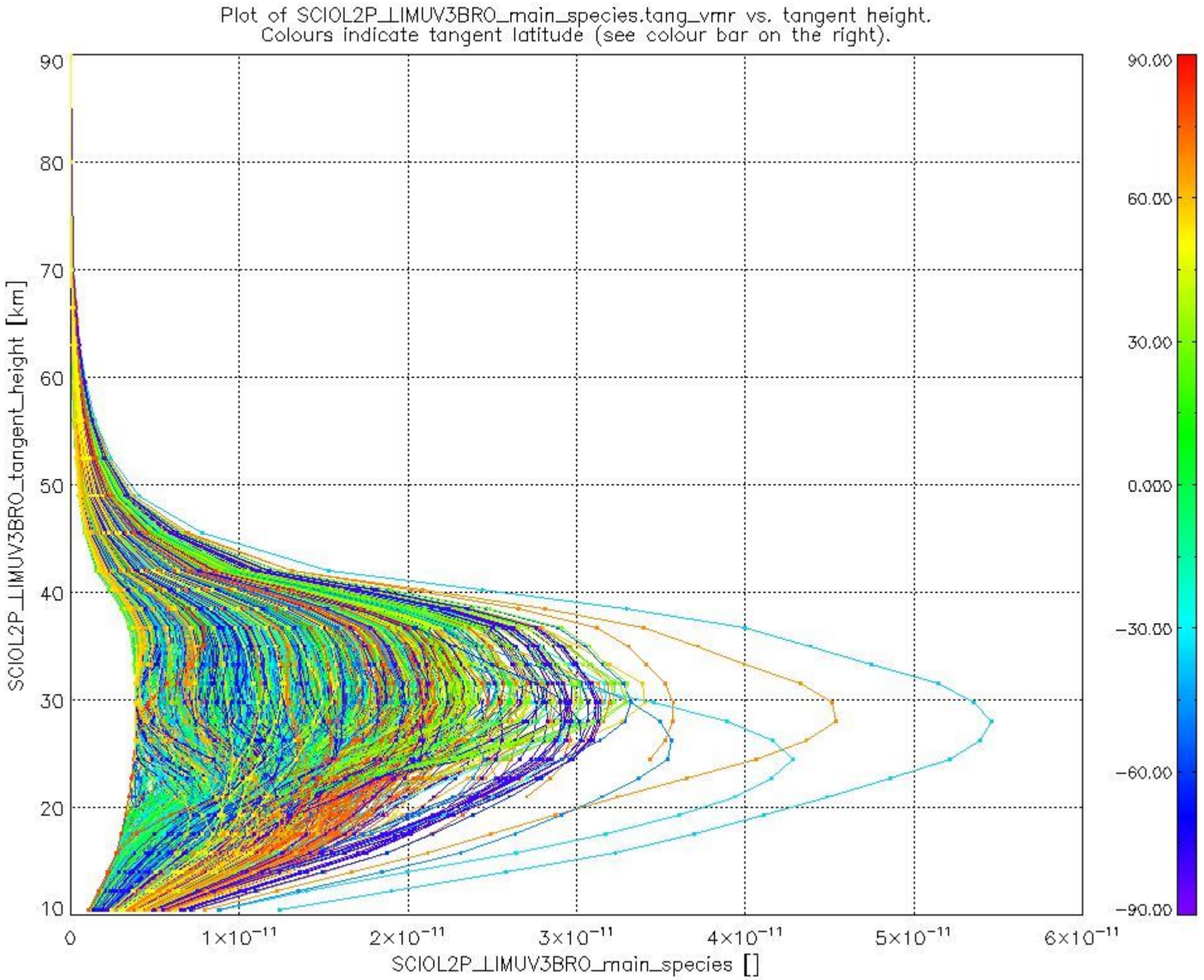
#### 2.2.3.1 O3 (UV0)




#### 2.2.3.2 NO2 (UV1)

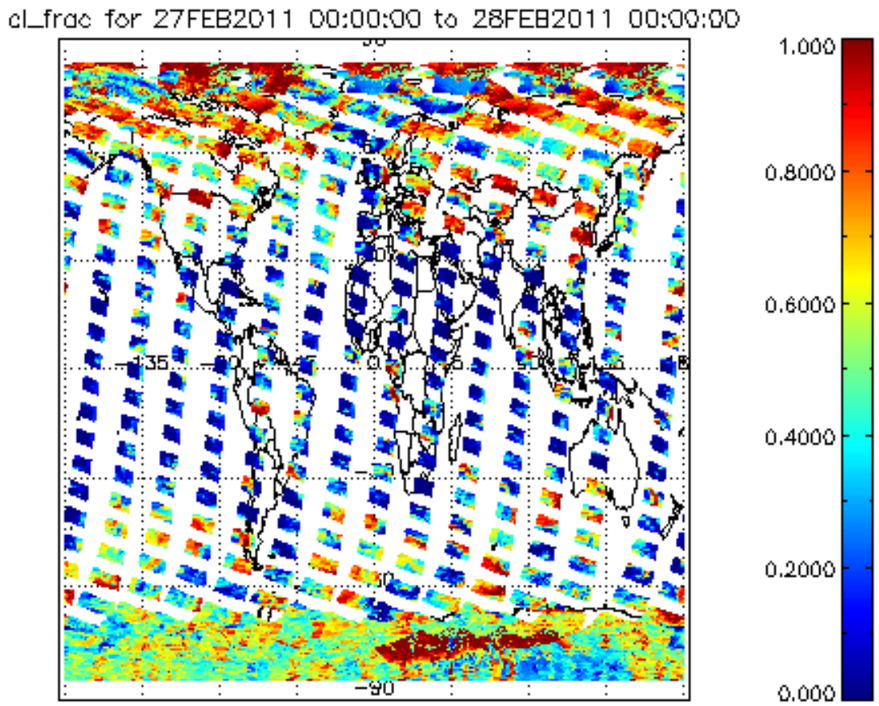

Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).
SCIOL2P_LIMUV1NO2_tangent_height [km]
90
80
70
60
50
40
30
20
10
0
1×10⁻⁹
2×10⁻⁹
3×10⁻⁹
4×10⁻⁹
5×10⁻⁹
6×10⁻⁹
7×10⁻⁹
8×10⁻⁹
SCIOL2P_LIMUV1NO2_main_species []
90.00
60.00
30.00
0.000
−30.00
−60.00
−90.00

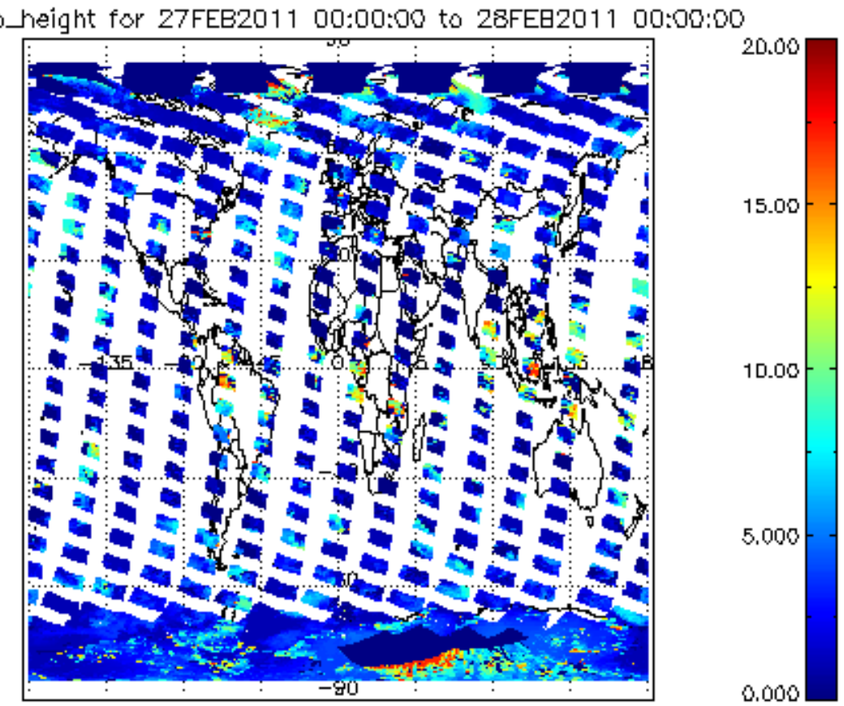
#### 2.2.3.3 BrO (UV3)

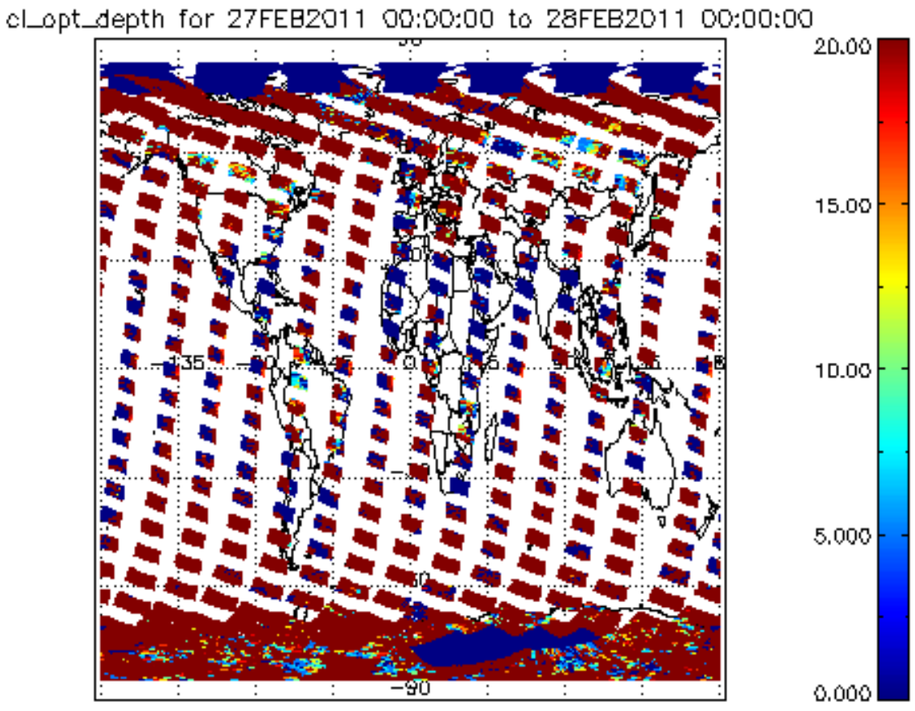


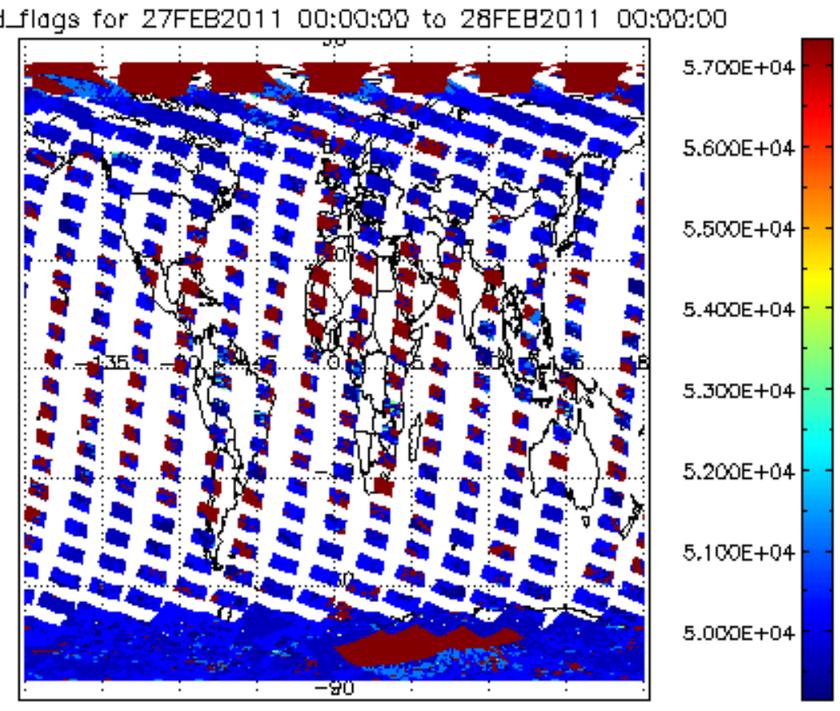

## 2.3 ADF monitoring

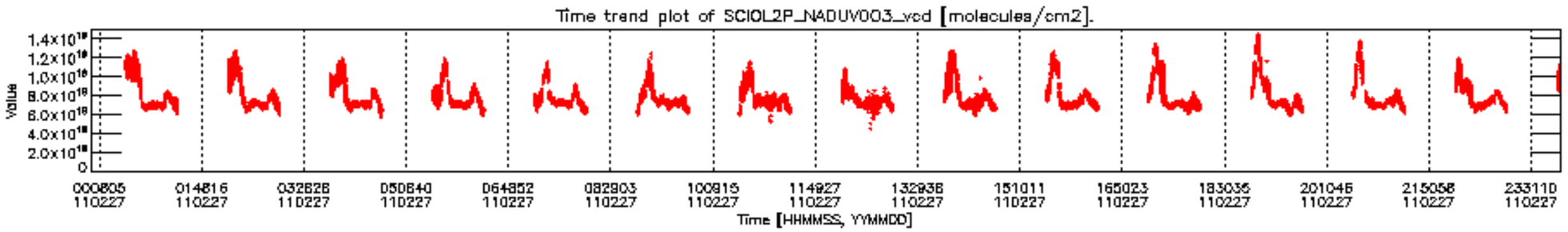
| Number | ADF |
|---|---|
| | **IN_ (INITIALISATION_FILE)** |
| 0 | SCI_IN__AXNPDE20090615_120000_20090615_000000_20991231_235959 |
| | **ECF (ECMWF_FILE)** |
| 1 | NOT USED |
| | **MF1 (M_FACTOR_FILE)** |
| **2** | **SCI_MF1_AXVIEC20110301_110450_20110226_185515_20110228_185515** |
| **3** | **SCI_MF1_AXVIEC20110301_110550_20110227_181830_20110301_181830** |

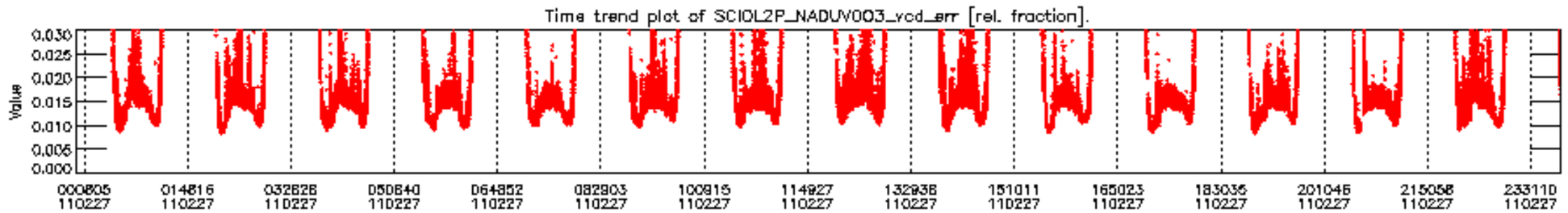

cl_frac for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
1.000
0.8000
0.6000
0.4000
0.2000
0.000
-90

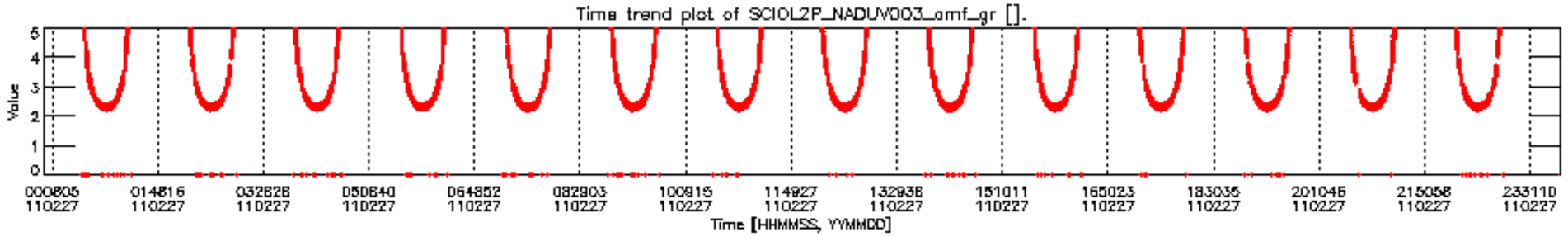

cl_top_height for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
20.00
15.00
10.00
5.000
0.000
-90

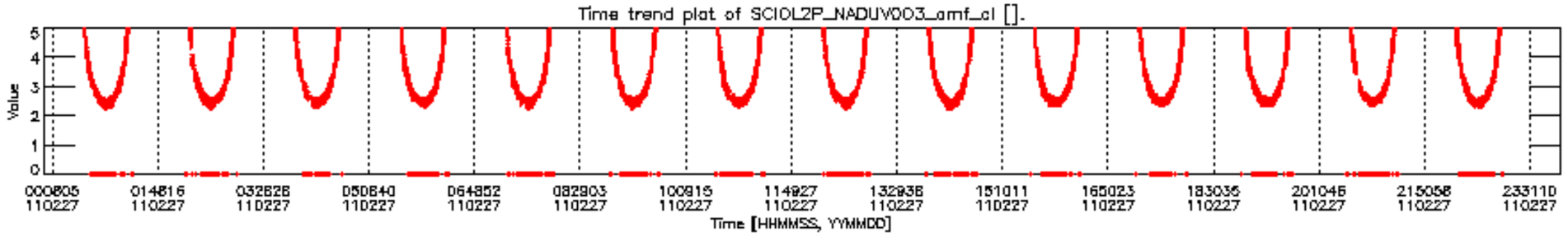

cl_opt_depth for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
20.00
15.00
10.00
5.000
0.000
-90


cloud_flags for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
5.700E+04
5.600E+04
5.500E+04
5.400E+04
5.300E+04
5.200E+04
5.100E+04
5.000E+04
-90

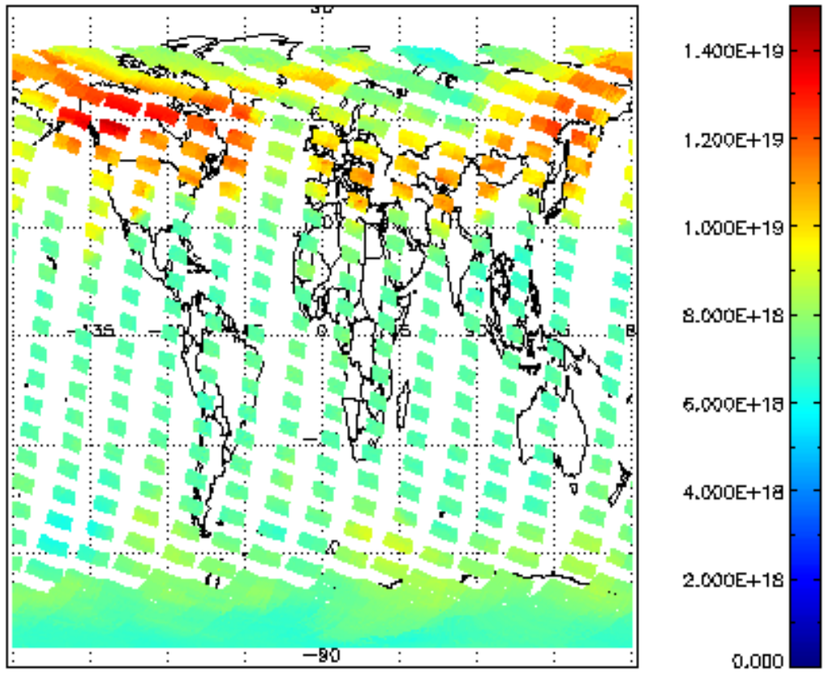

Time trend plot of SCIOL2P_NADUV003_vcd [molecules/cm2].
Value
1.4x10^16
1.2x10^16
1.0x10^16
8.0x10^15
6.0x10^15
4.0x10^15
2.0x10^15
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]


Time trend plot of SCIOL2P_NADUV003_vcd_err [rel. fraction].
Value
0.030
0.025
0.020
0.015
0.010
0.005
0.000
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

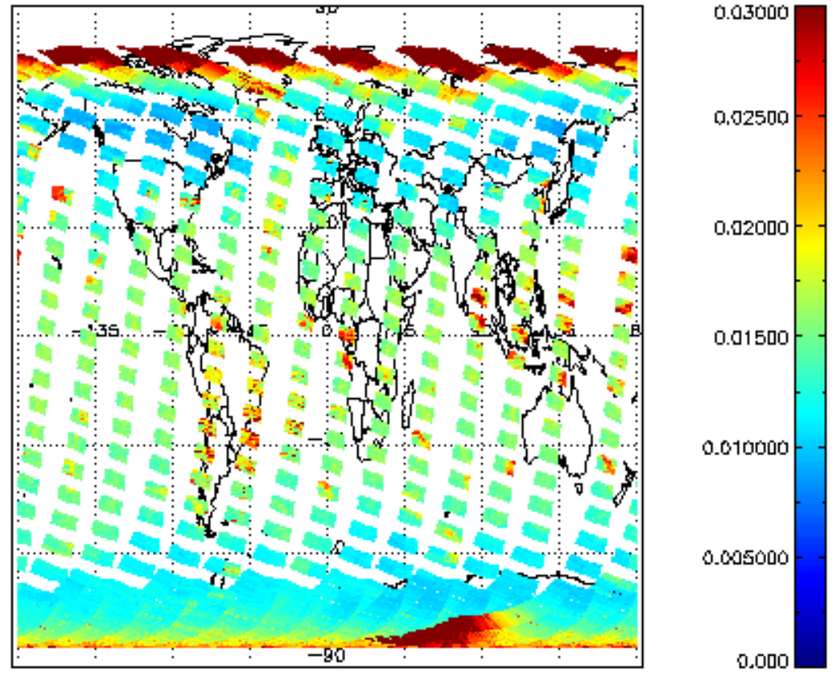

Time trend plot of SCIOL2P_NADUV003_amf_gr [].
Value
5
4
3
2
1
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]


Time trend plot of SCIOL2P_NADUV003_amf_cl [].
Value
5
4
3
2
1
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

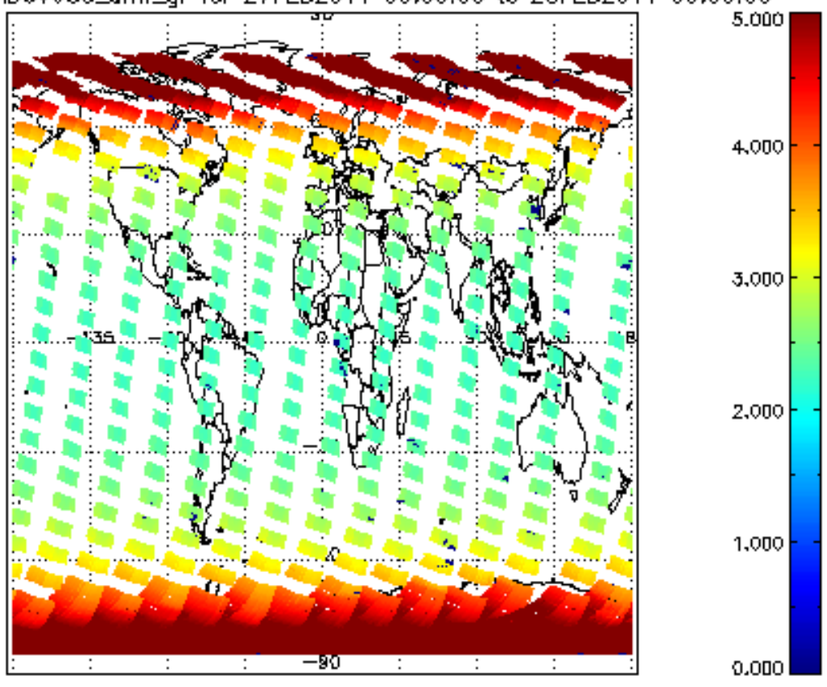
SCIOL2P_NADUV003_vcd for 27FEB2011 00:00:00 to 28FEB2011 00:00:00



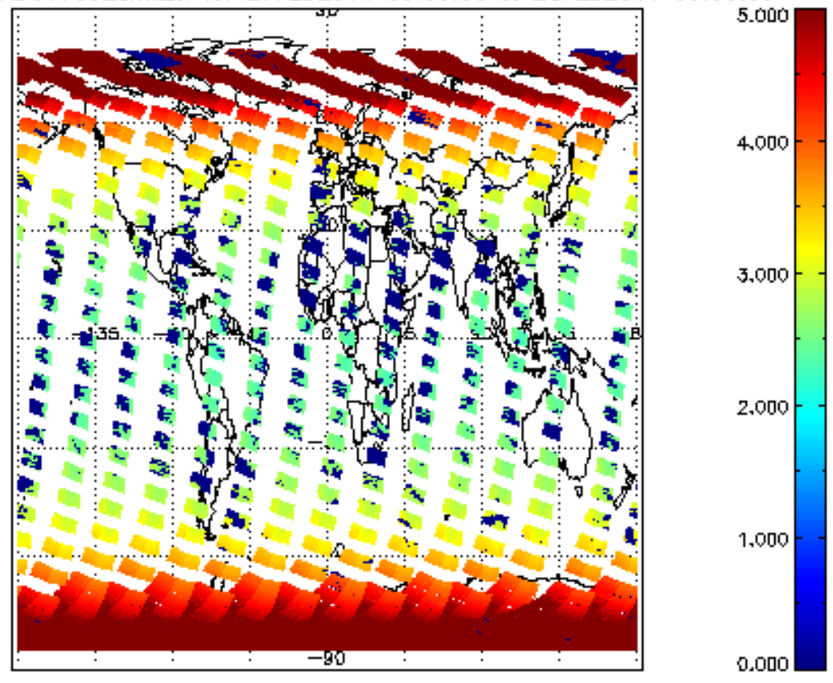

SCIOL2P_NADUV003_vcd_err for 27FEB2011 00:00:00 to 28FEB2011 00:00:00

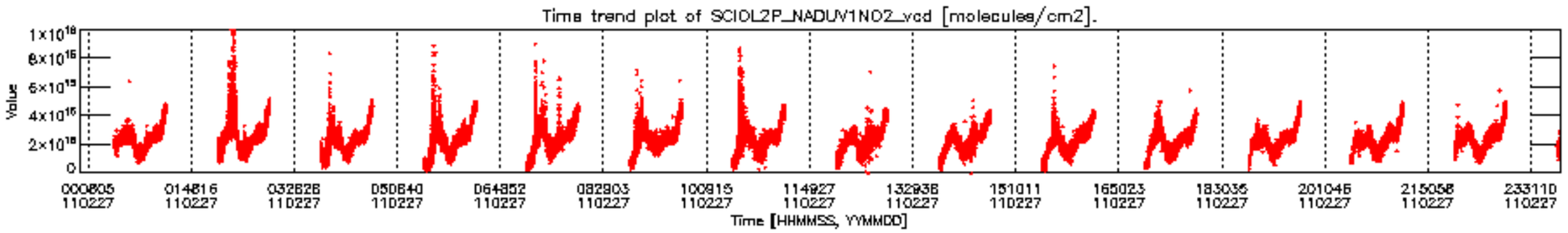


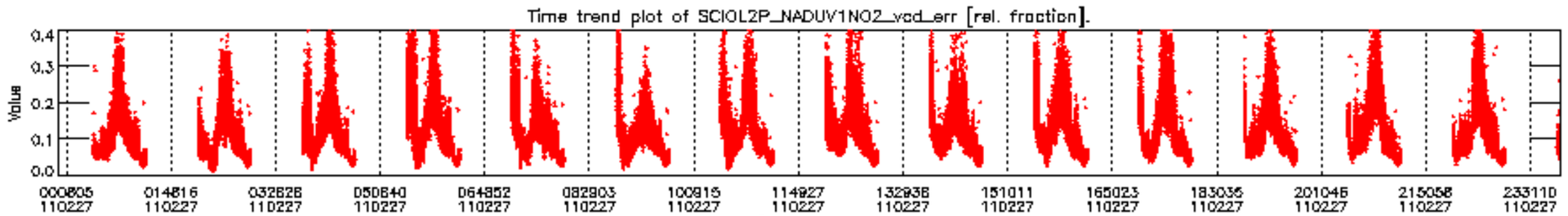

SCIOL2P_NADUV003_amf_gr for 27FEB2011 00:00:00 to 28FEB2011 00:00:00

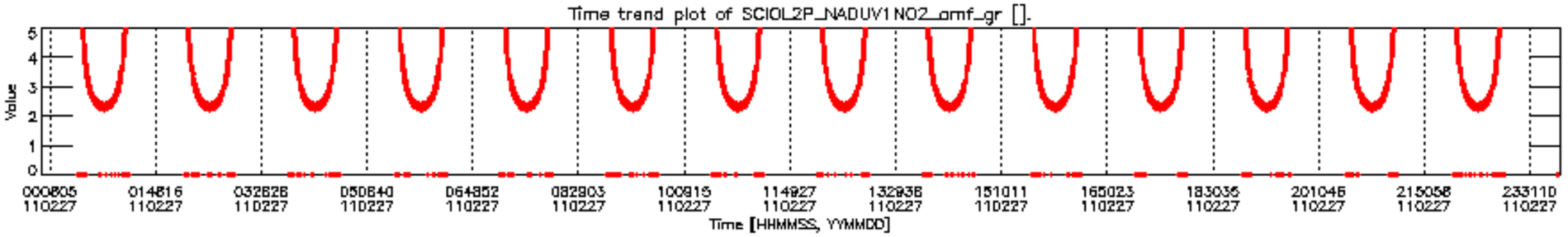


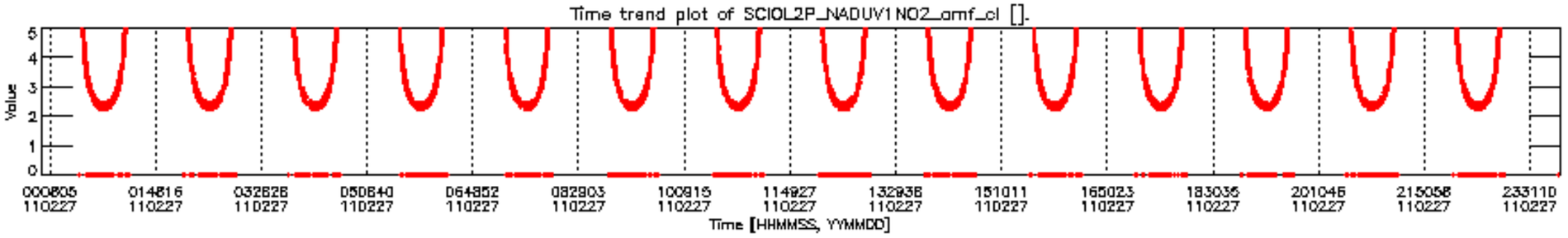

SCIOL2P_NADUV003_amf_cl for 27FEB2011 00:00:00 to 28FEB2011 00:00:00

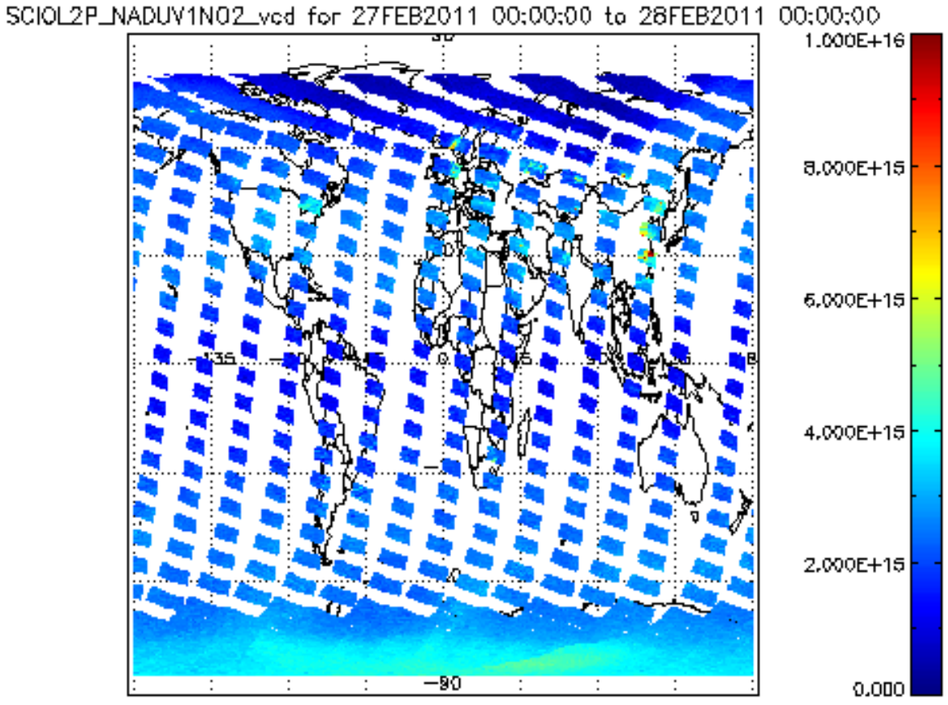


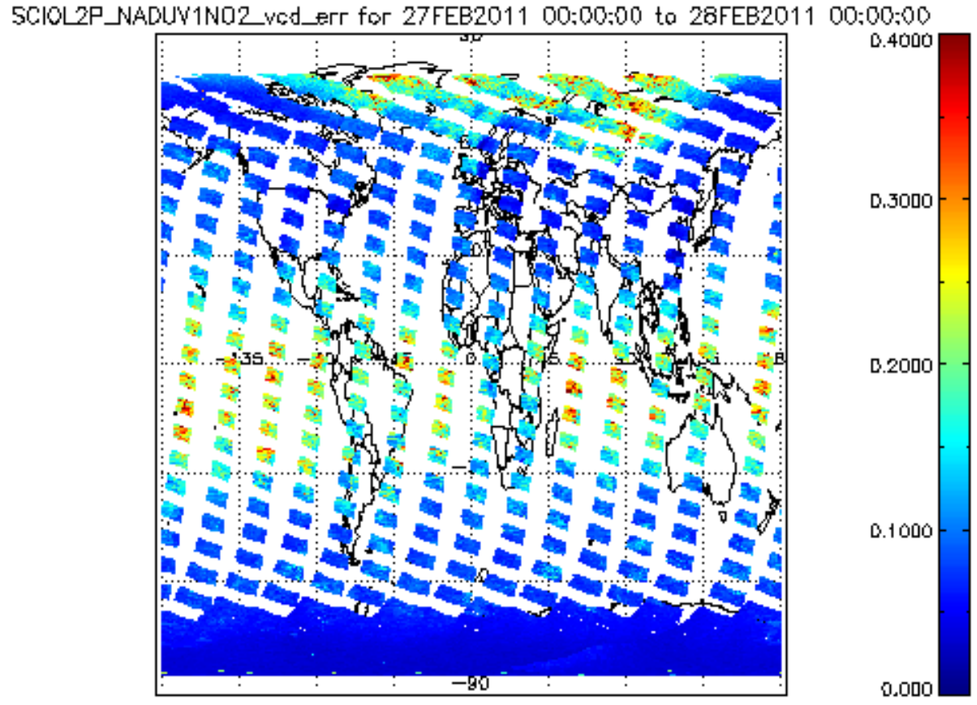

Time trend plot of SCIOL2P_NADUV1NO2_vcd [molecules/cm2].
Value
1x10^16
8x10^15
6x10^15
4x10^15
2x10^15
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

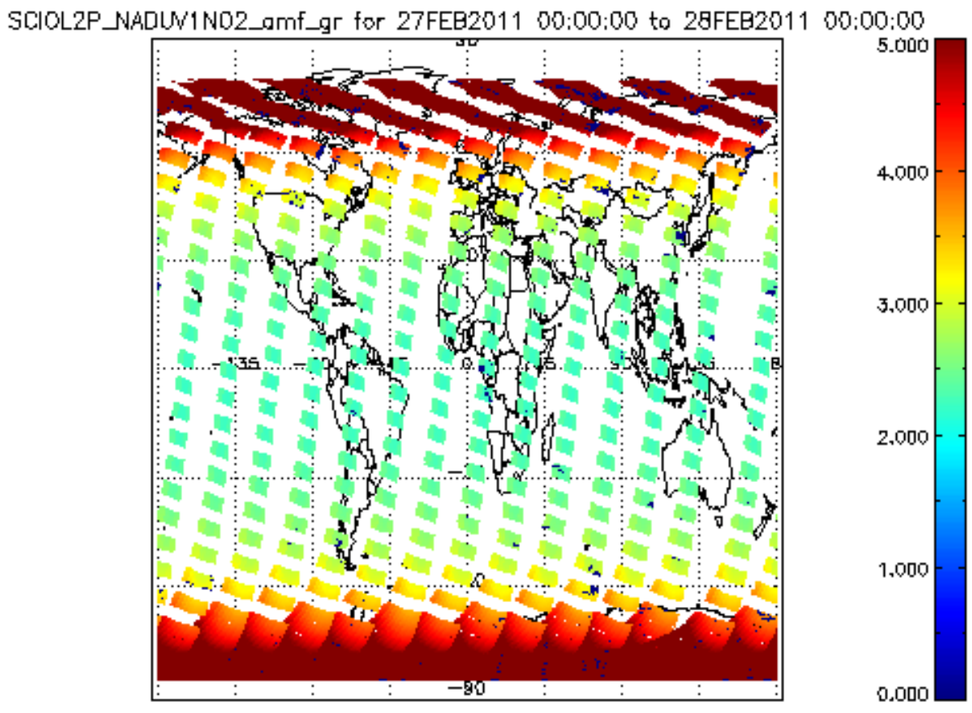

Time trend plot of SCIOL2P_NADUV1NO2_vcd_err [rel. fraction].
Value
0.4
0.3
0.2
0.1
0.0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

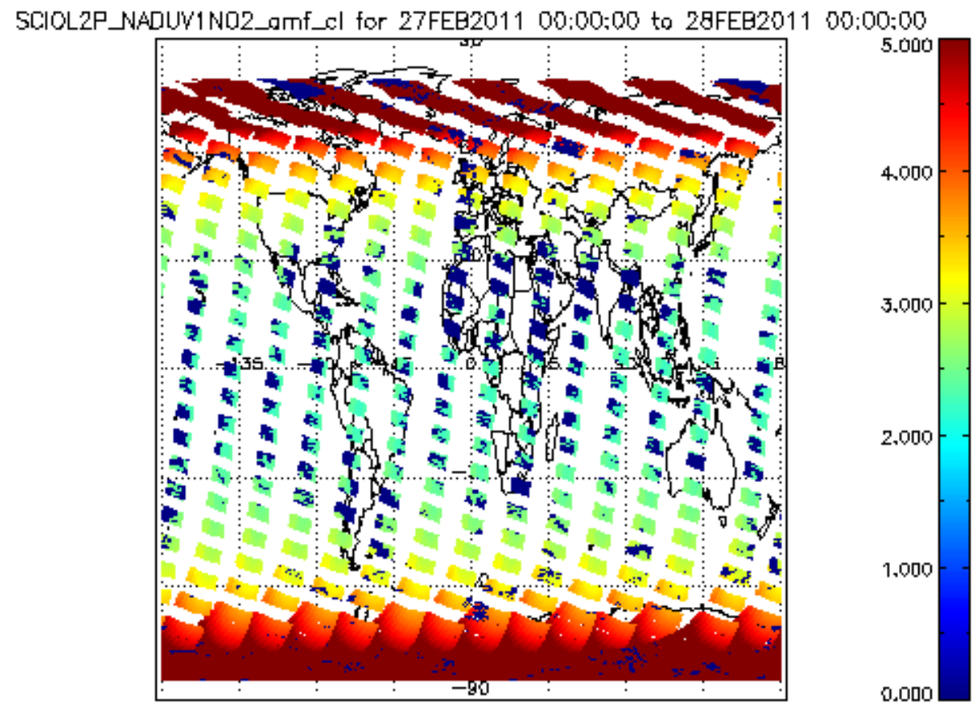

Time trend plot of SCIOL2P_NADUV1NO2_amf_gr [].
Value
5
4
3
2
1
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

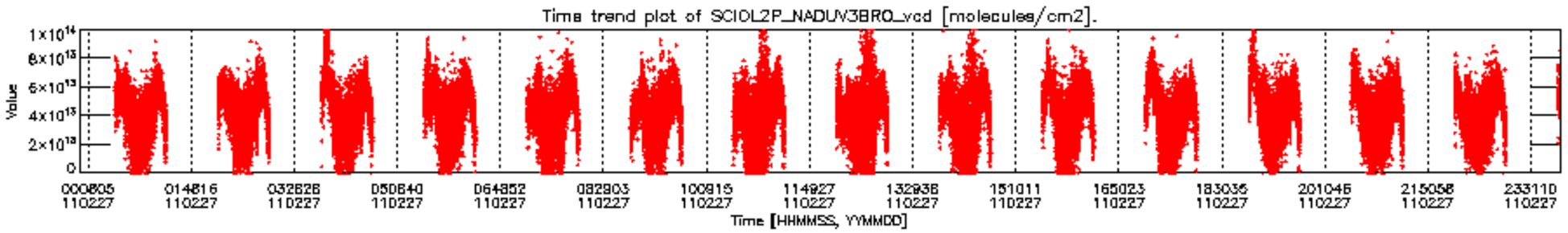

Time trend plot of SCIOL2P_NADUV1NO2_amf_cl [].
Value
5
4
3
2
1
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

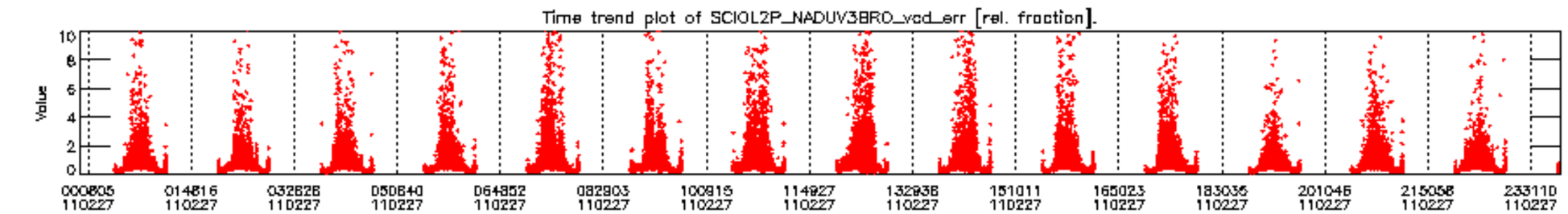

SCIOL2P_NADUV1NO2_vcd for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
1.000E+16
8.000E+15
6.000E+15
4.000E+15
2.000E+15
0.000
−90

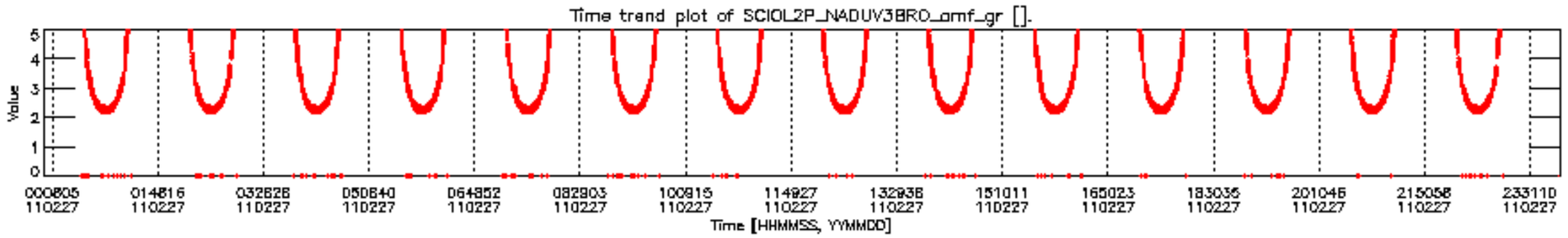

SCIOL2P_NADUV1NO2_vcd_err for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
0.4000
0.3000
0.2000
0.1000
0.000
−90

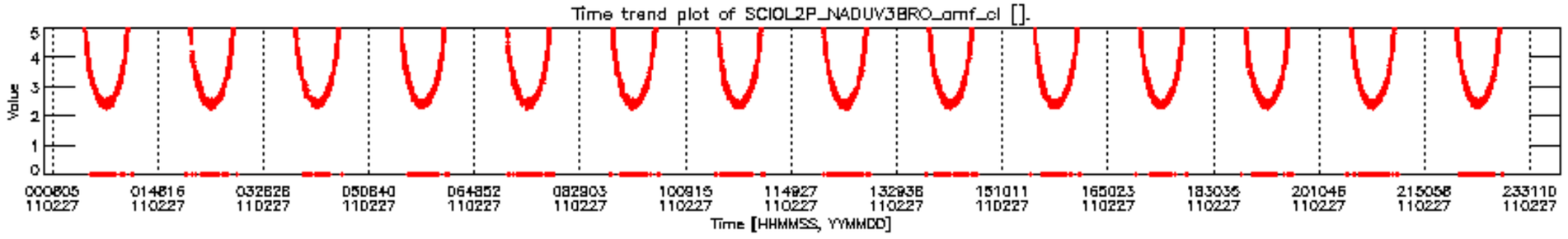

SCIOL2P_NADUV1NO2_amf_gr for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
5.000
4.000
3.000
2.000
1.000
0.000
−90


SCIOL2P_NADUV1NO2_amf_cl for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
5.000
4.000
3.000
2.000
1.000
0.000
−90

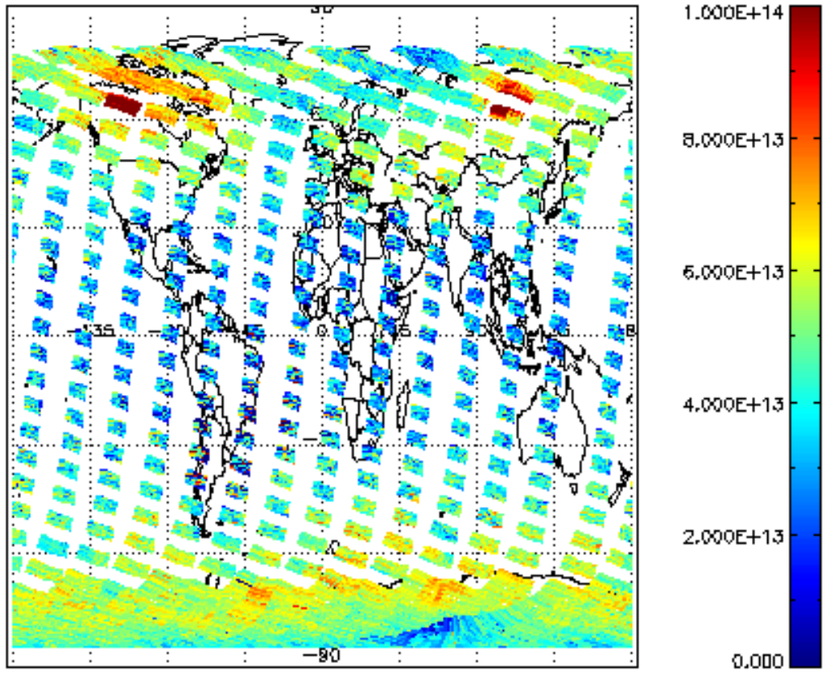

Time trend plot of SCIOL2P_NADUV3BRO_vcd [molecules/cm2].
Value
1x10^14
8x10^13
6x10^13
4x10^13
2x10^13
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]


Time trend plot of SCIOL2P_NADUV3BRO_vcd_err [rel. fraction].
Value
10
8
6
4
2
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

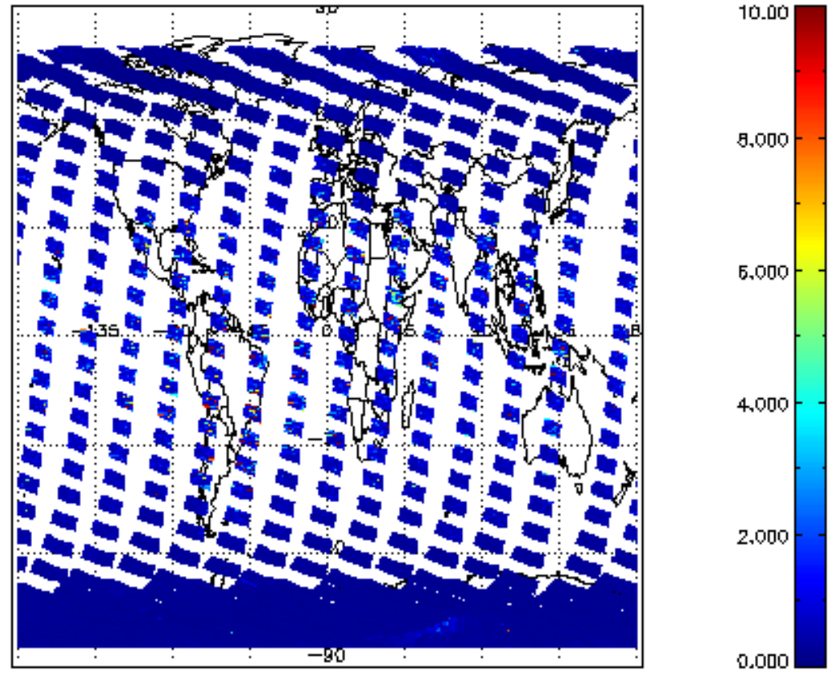

Time trend plot of SCIOL2P_NADUV3BRO_amf_gr [].
Value
5
4
3
2
1
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]


Time trend plot of SCIOL2P_NADUV3BRO_amf_cl [].
Value
5
4
3
2
1
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

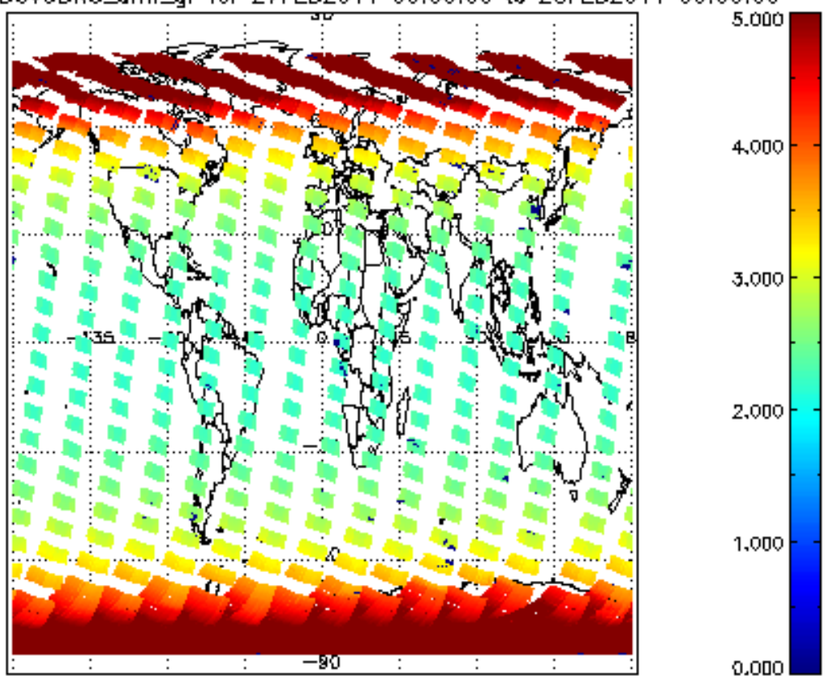
SCIOL2P_NADUV3BRO_vcd for 27FEB2011 00:00:00 to 28FEB2011 00:00:00



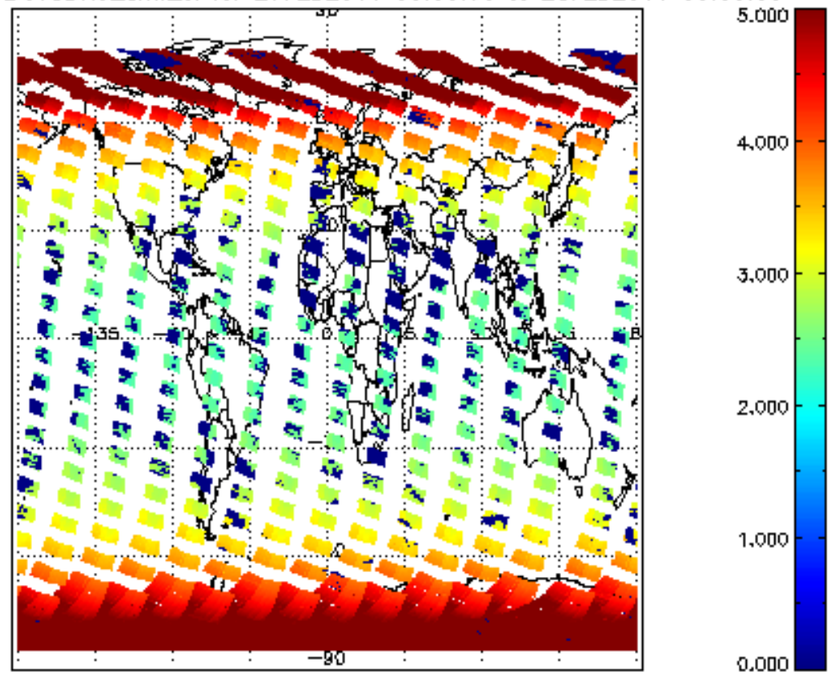

SCIOL2P_NADUV3BRO_vcd_err for 27FEB2011 00:00:00 to 28FEB2011 00:00:00

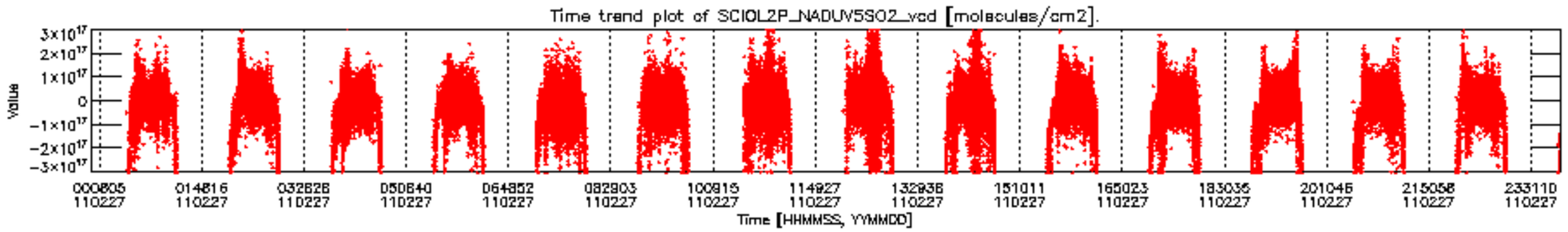


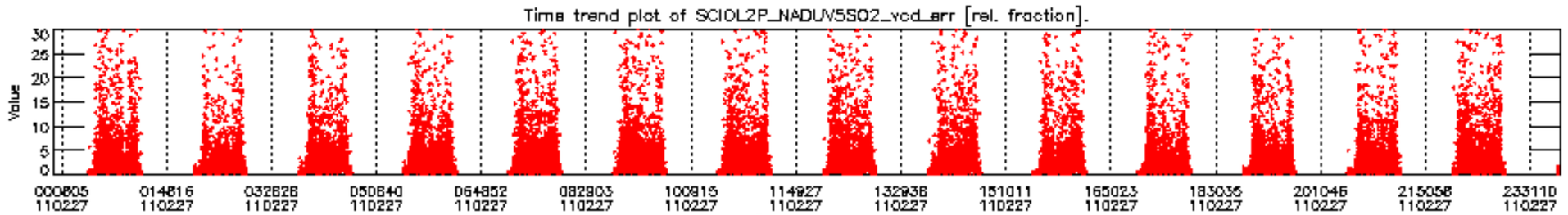

SCIOL2P_NADUV3BRO_amf_gr for 27FEB2011 00:00:00 to 28FEB2011 00:00:00

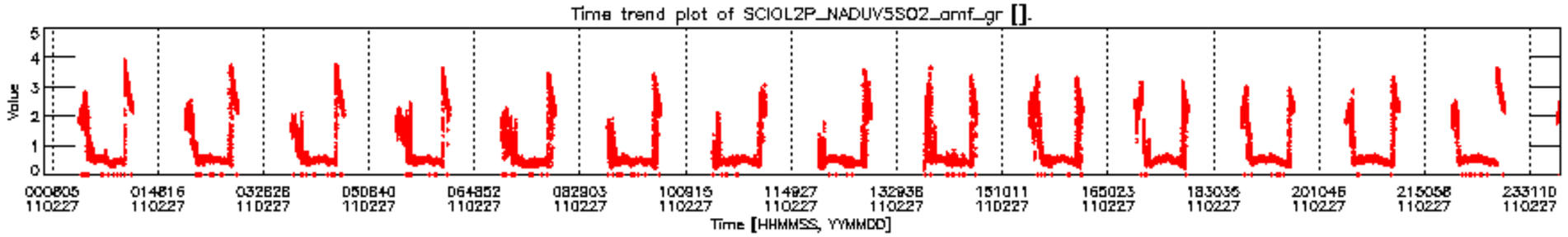


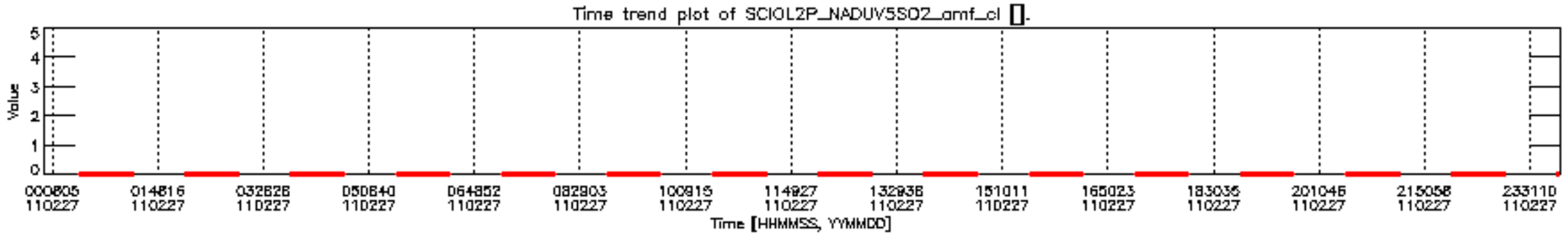

SCIOL2P_NADUV3BRO_amf_cl for 27FEB2011 00:00:00 to 28FEB2011 00:00:00

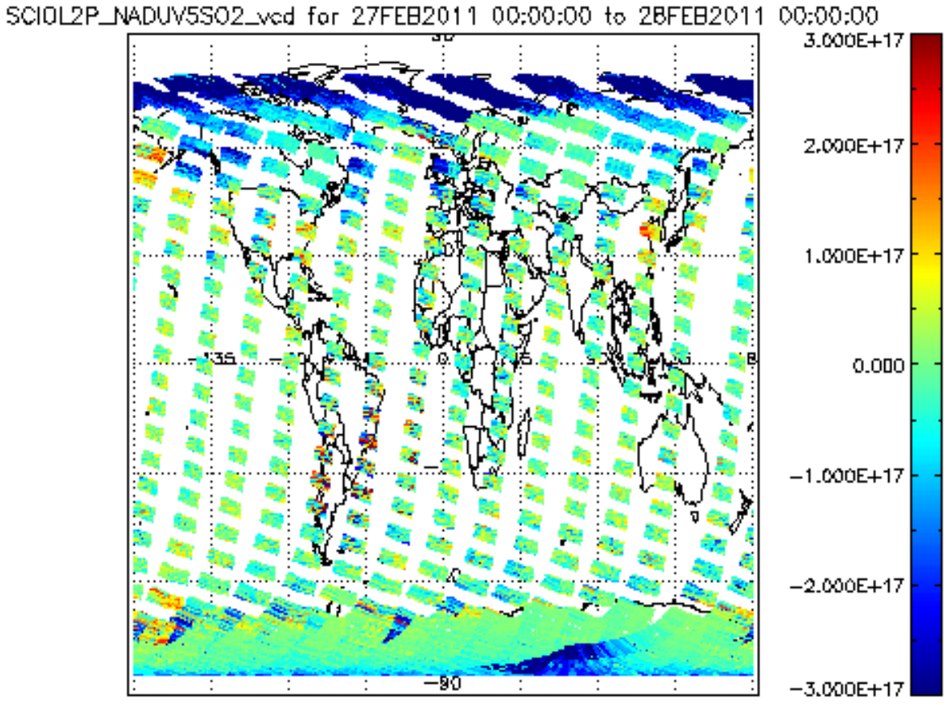


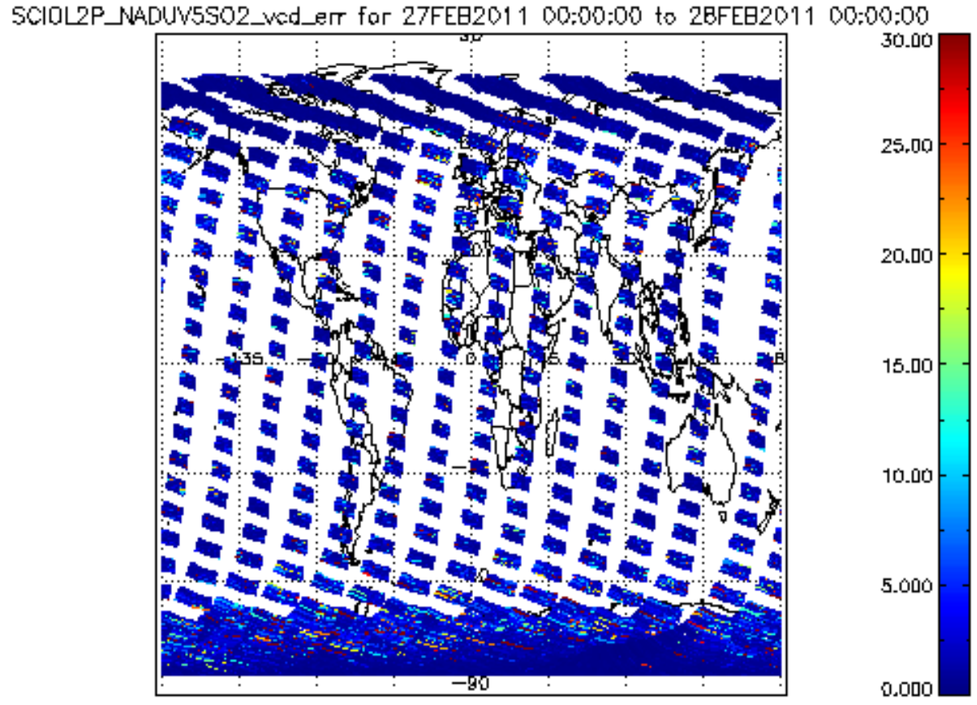

Time trend plot of SCIOL2P_NADUV5SO2_vcd [molecules/cm2].
Value
3x10^17
2x10^17
1x10^17
0
-1x10^17
-2x10^17
-3x10^17
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

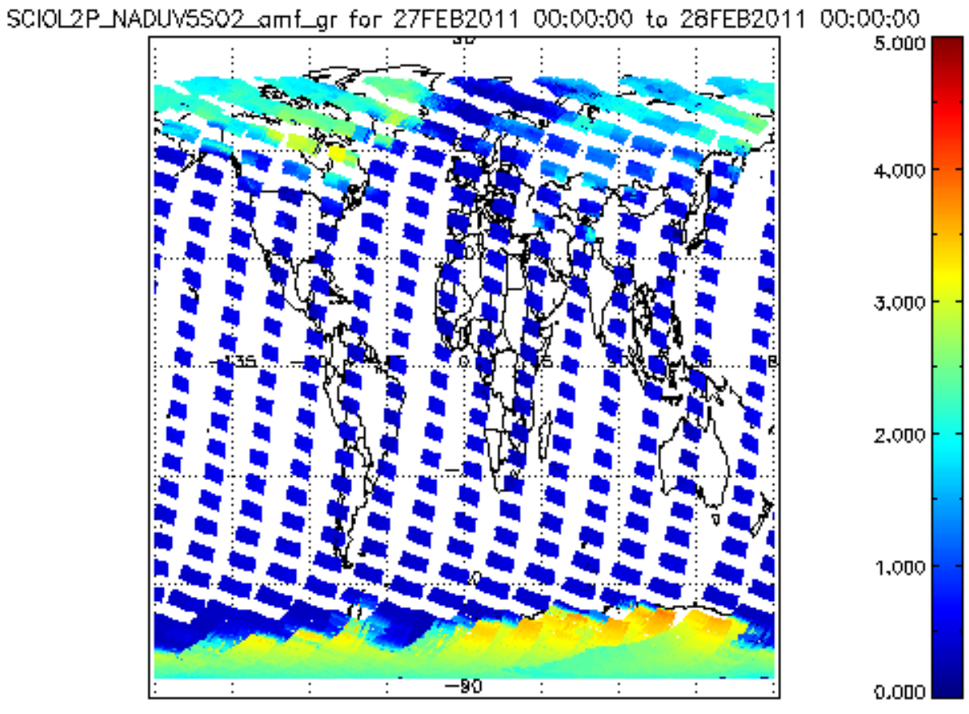

Time trend plot of SCIOL2P_NADUV5SO2_vcd_err [rel. fraction].
Value
30
25
20
15
10
5
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

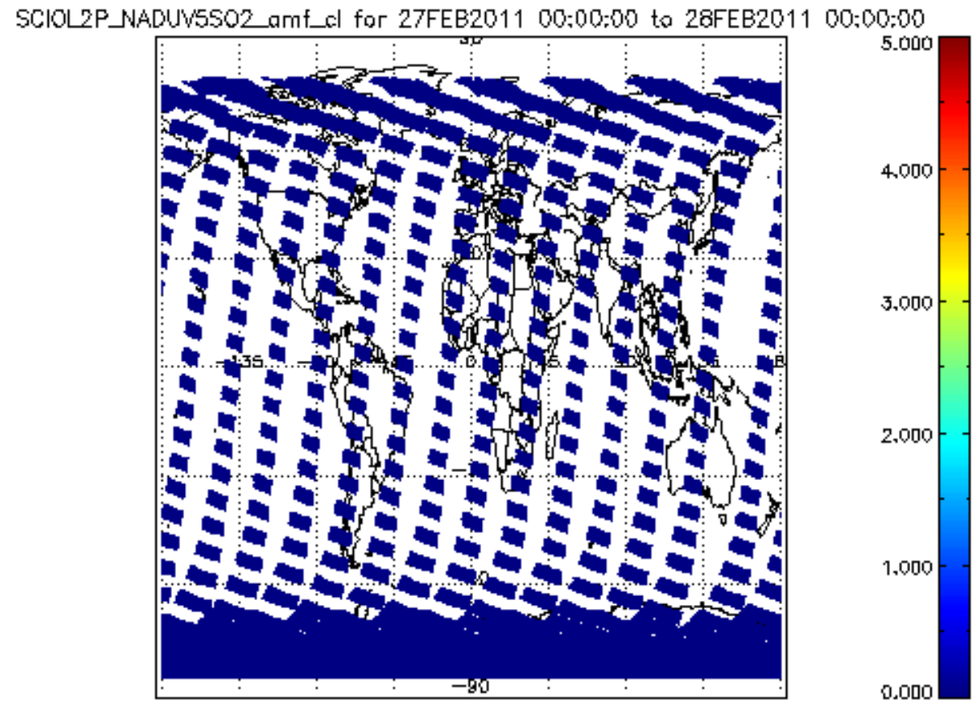

Time trend plot of SCIOL2P_NADUV5SO2_amf_gr [].
Value
5
4
3
2
1
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

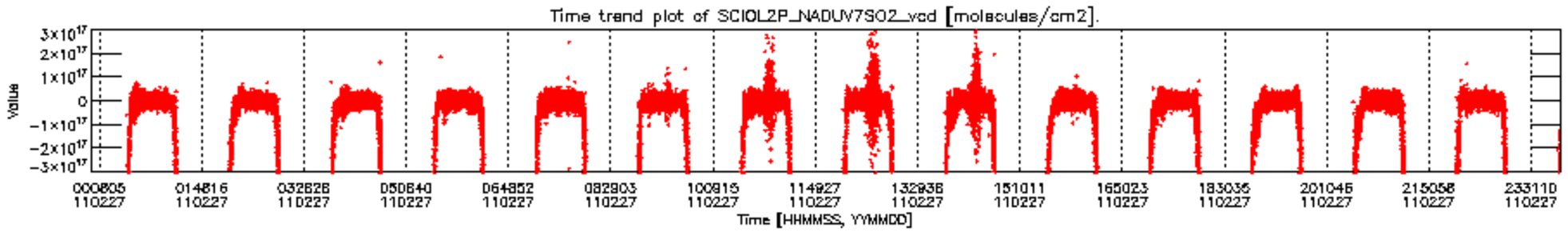

Time trend plot of SCIOL2P_NADUV5SO2_amf_cl [].
Value
5
4
3
2
1
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

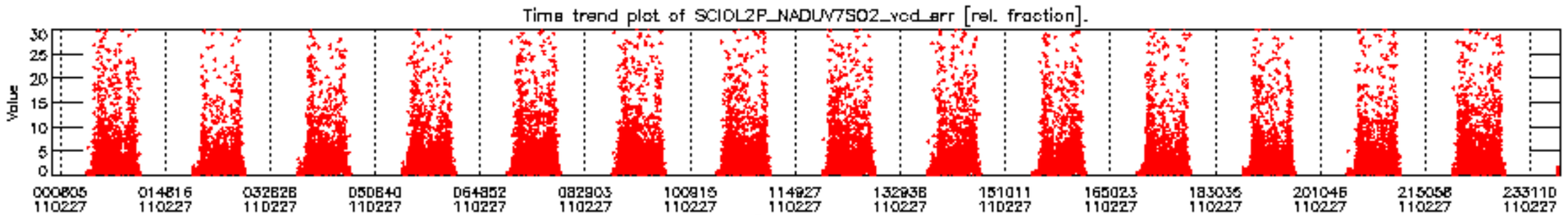

SCIOL2P_NADUV5SO2_vcd for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
3.000E+17
2.000E+17
1.000E+17
0.000
-1.000E+17
-2.000E+17
-3.000E+17
-90

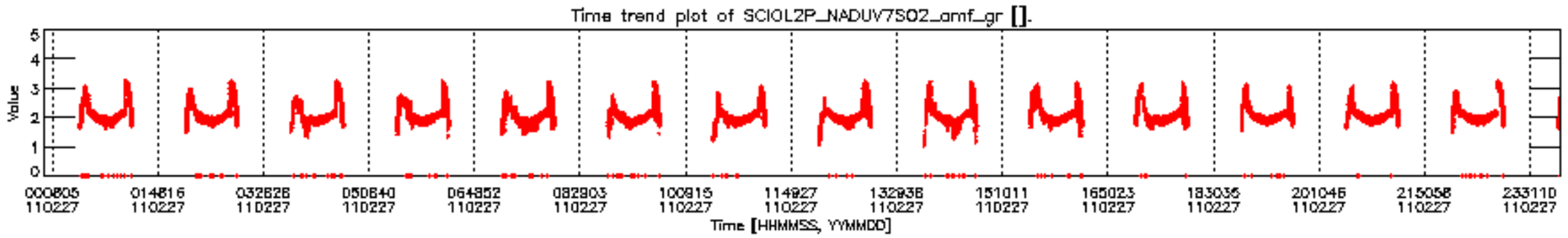

SCIOL2P_NADUV5SO2_vcd_err for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
30.00
25.00
20.00
15.00
10.00
5.000
0.000
-90

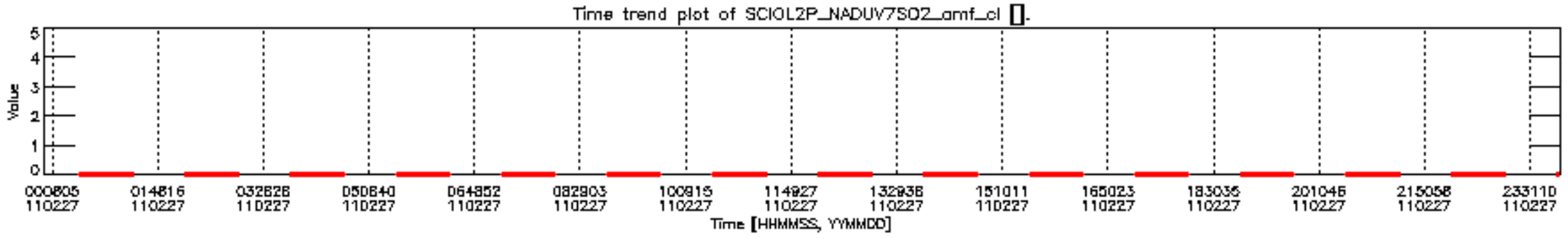

SCIOL2P_NADUV5SO2_amf_gr for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
5.000
4.000
3.000
2.000
1.000
0.000
-90

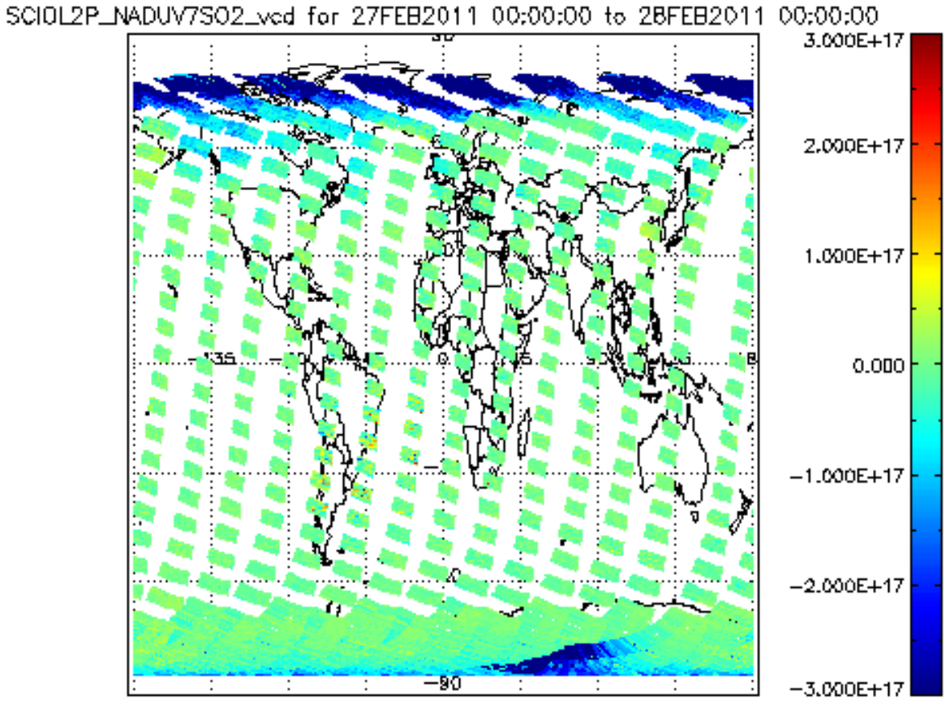

SCIOL2P_NADUV5SO2_amf_cl for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
5.000
4.000
3.000
2.000
1.000
0.000
-90

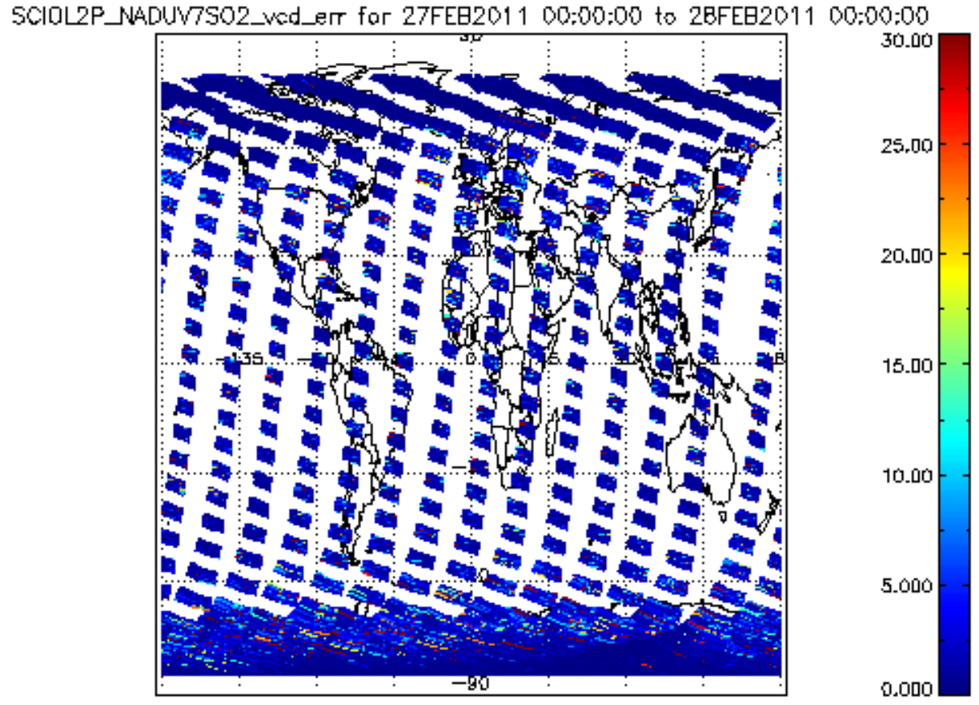

Time trend plot of SCIOL2P_NADUV7SO2_vcd [molecules/cm2].
Value
3x10^17
2x10^17
1x10^17
0
-1x10^17
-2x10^17
-3x10^17
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

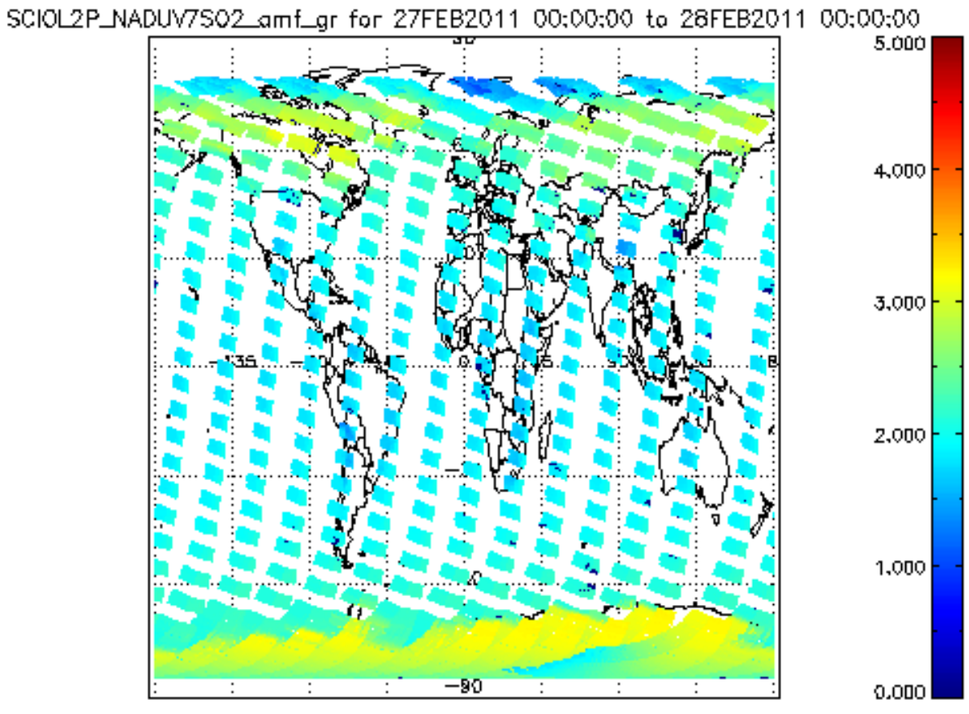

Time trend plot of SCIOL2P_NADUV7SO2_vcd_err [rel. fraction].
Value
30
25
20
15
10
5
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

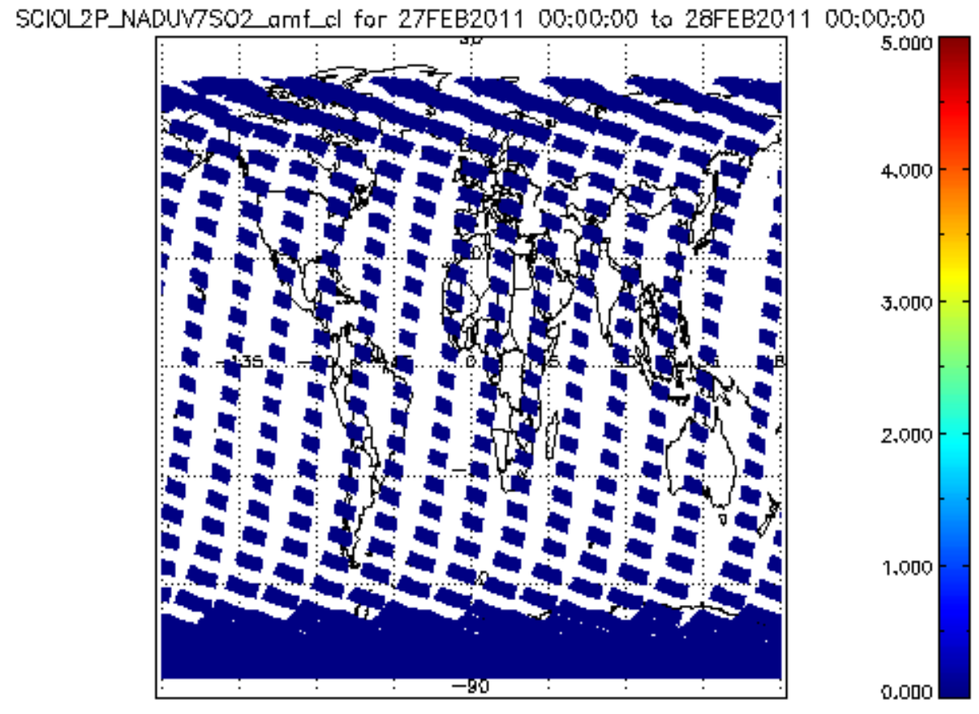

Time trend plot of SCIOL2P_NADUV7SO2_amf_gr [].
Value
5
4
3
2
1
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

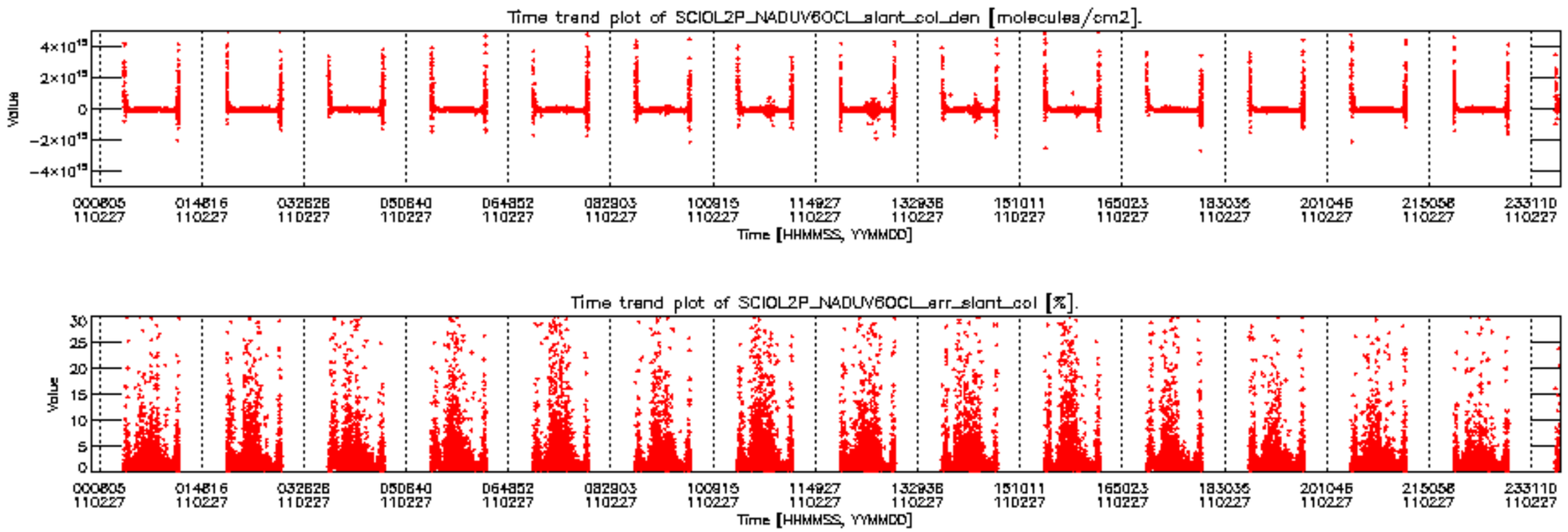

Time trend plot of SCIOL2P_NADUV7SO2_amf_cl [].
Value
5
4
3
2
1
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

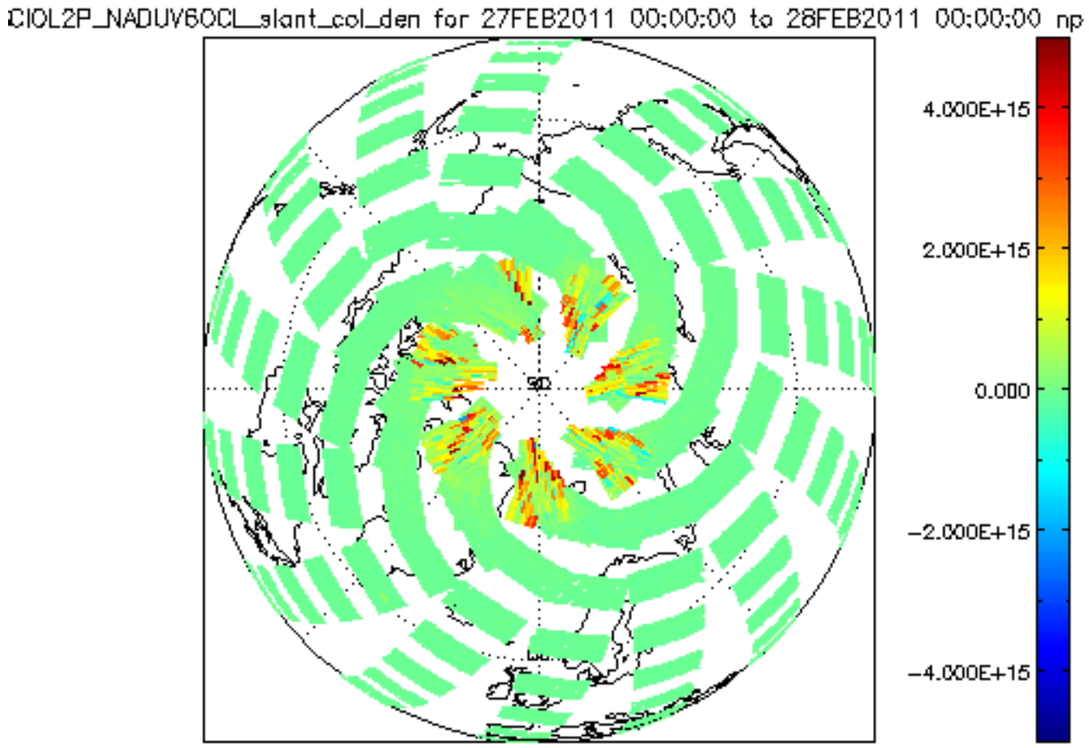

SCIOL2P_NADUV7SO2_vcd for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
3.000E+17
2.000E+17
1.000E+17
0.000
-1.000E+17
-2.000E+17
-3.000E+17
-90

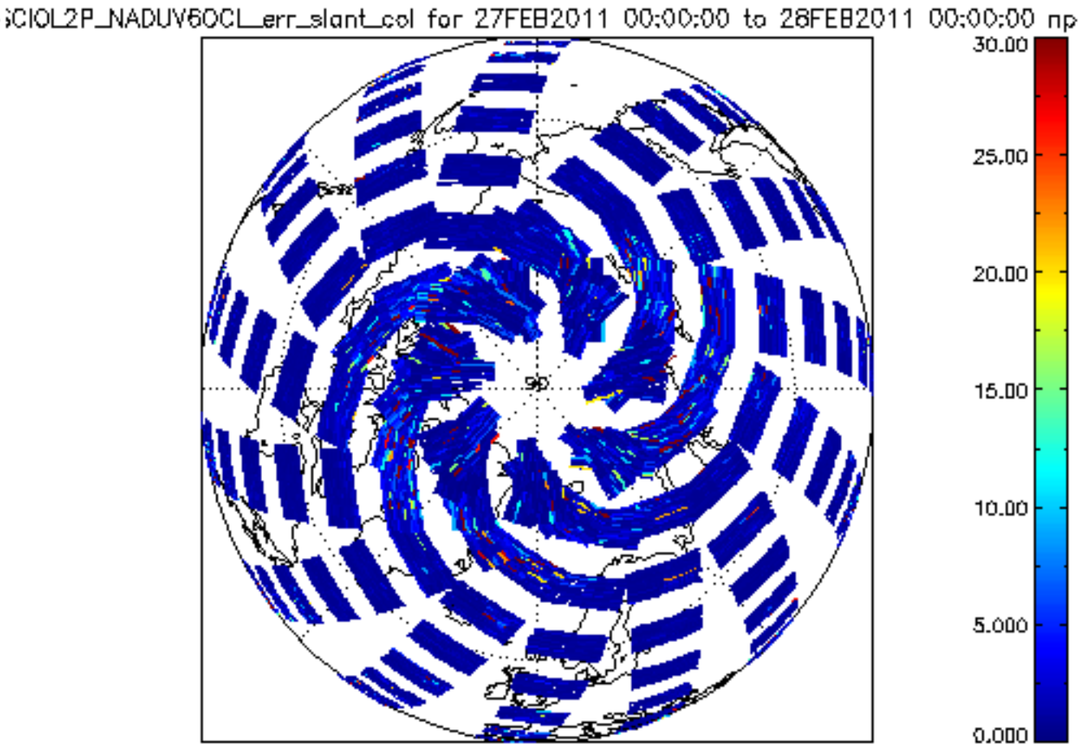

SCIOL2P_NADUV7SO2_vcd_err for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
30.00
25.00
20.00
15.00
10.00
5.000
0.000
-90

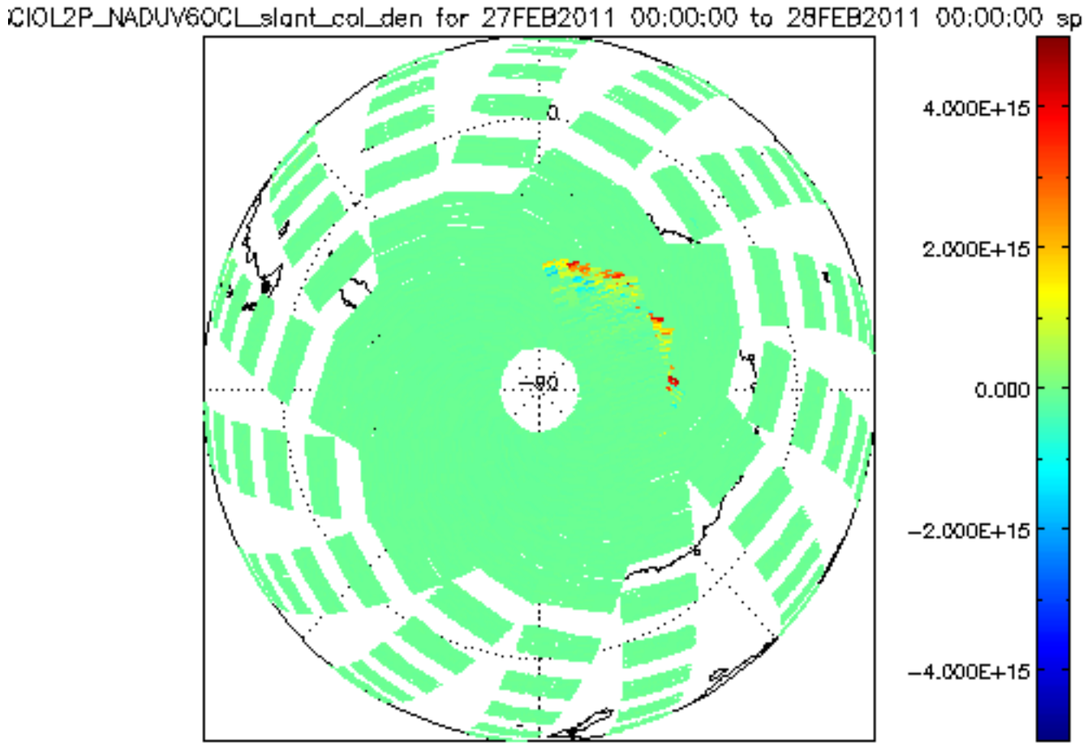

SCIOL2P_NADUV7SO2_amf_gr for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
5.000
4.000
3.000
2.000
1.000
0.000
-90

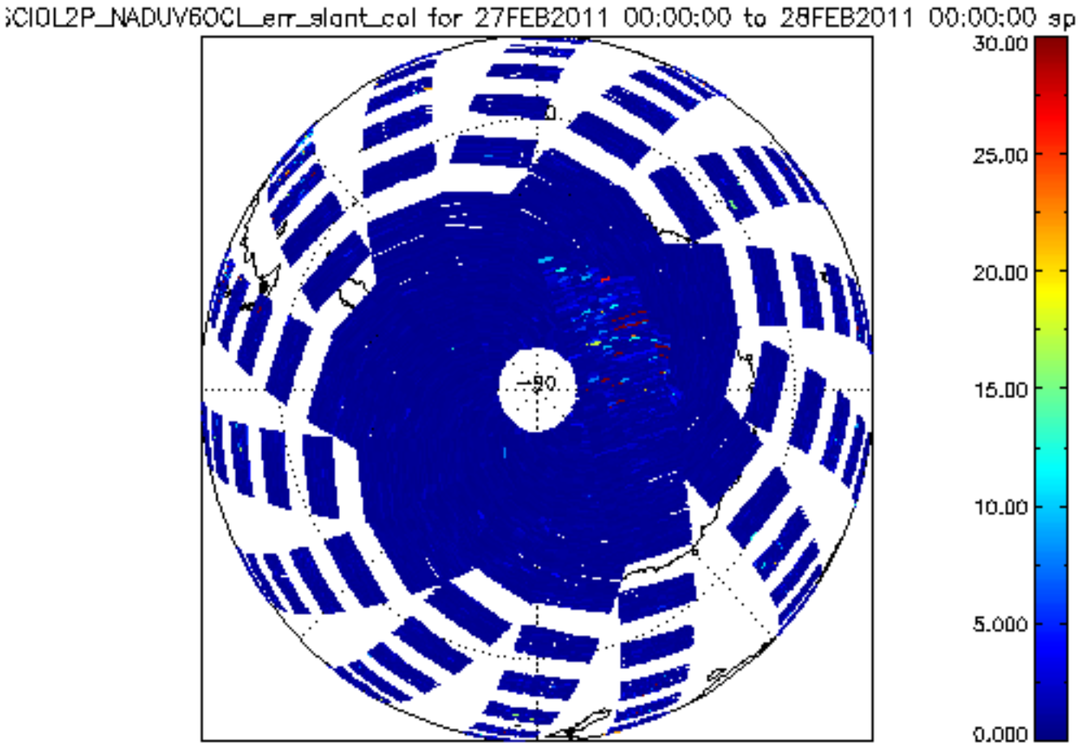

SCIOL2P_NADUV7SO2_amf_cl for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
5.000
4.000
3.000
2.000
1.000
0.000
-90

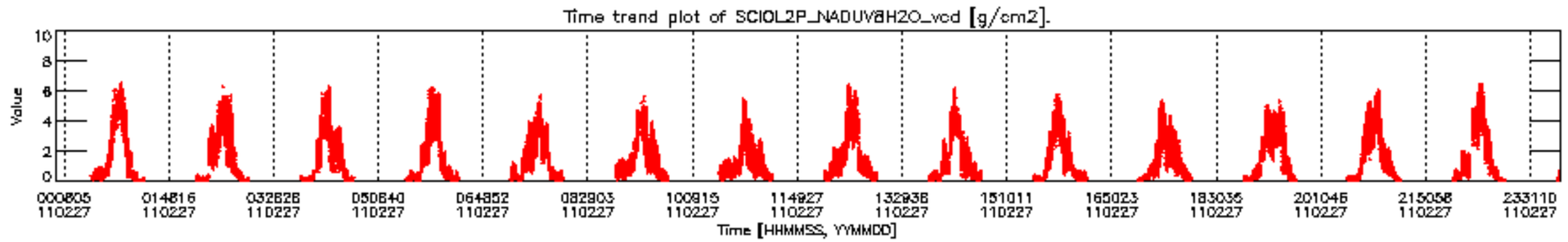

Time trend plot of SCIOL2P_NADUV6OCL_slant_col_den [molecules/cm2].
Value
4×10¹⁵
2×10¹⁵
0
−2×10¹⁵
−4×10¹⁵
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]
Time trend plot of SCIOL2P_NADUV6OCL_arr_slant_col [%].
Value
30
25
20
15
10
5
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

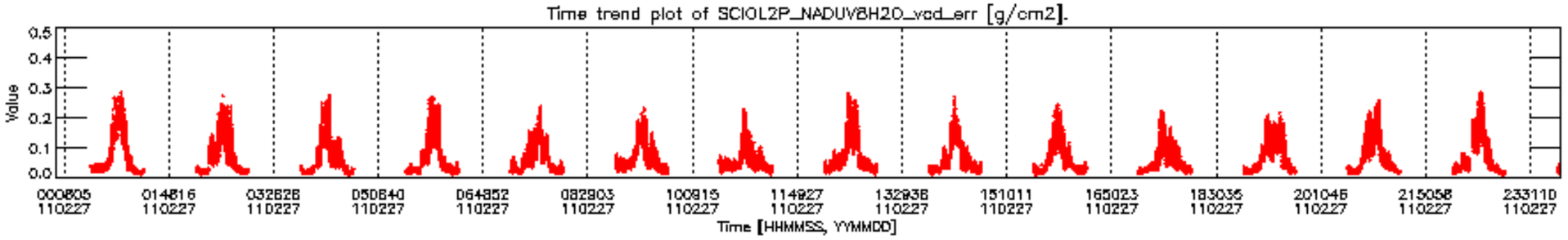

CIOL2P_NADUV6OCL_slant_col_den for 27FEB2011 00:00:00 to 28FEB2011 00:00:00 np
90
4.000E+15
2.000E+15
0.000
−2.000E+15
−4.000E+15

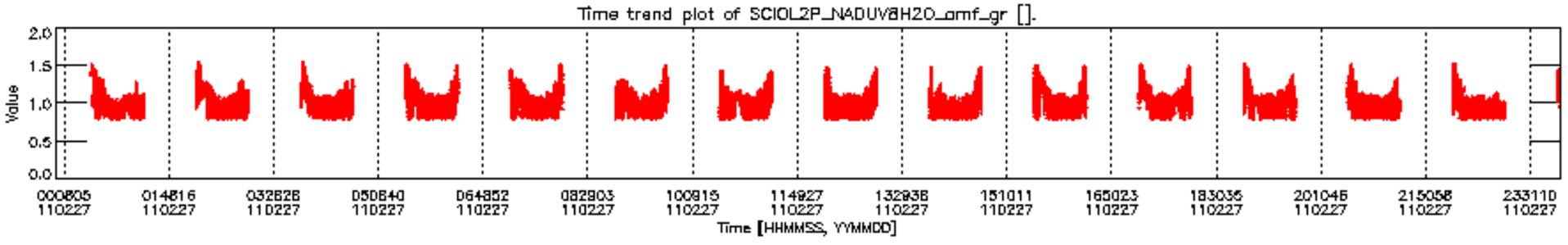

CIOL2P_NADUV6OCL_err_slant_col for 27FEB2011 00:00:00 to 28FEB2011 00:00:00 np
90
30.00
25.00
20.00
15.00
10.00
5.000
0.000


OMIOL2P_NADUV6OCL_slant_col_den for 27FEB2011 00:00:00 to 28FEB2011 00:00:00 sp
0
−90
4.000E+15
2.000E+15
0.000
−2.000E+15
−4.000E+15

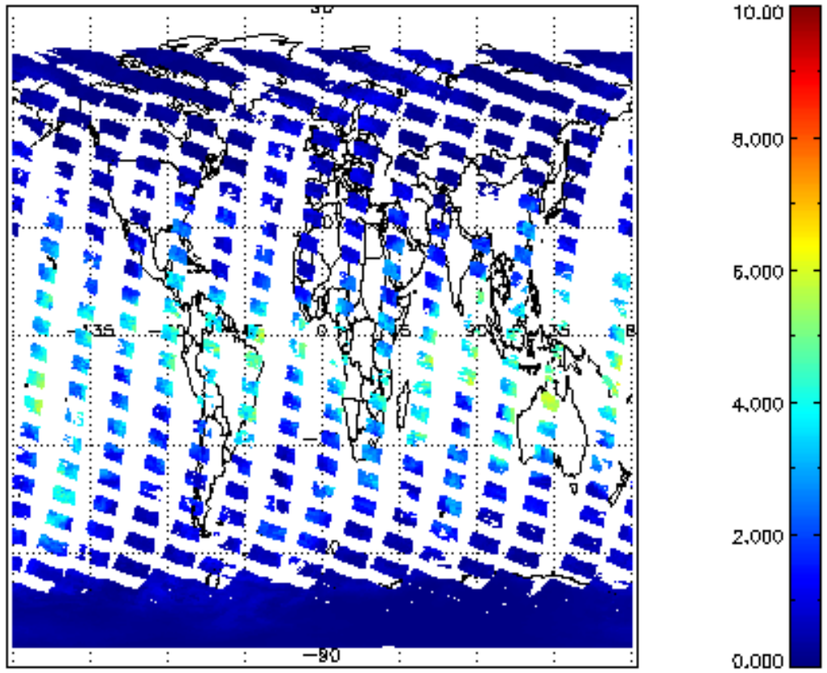

OMIOL2P_NADUV6OCL_err_slant_col for 27FEB2011 00:00:00 to 28FEB2011 00:00:00 sp
0
−90
30.00
25.00
20.00
15.00
10.00
5.000
0.000


Time trend plot of SCIOL2P_NADUVBH2O_vcd [g/cm2].
Value
10
8
6
4
2
0
000805 110227
014816 110227
032826 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132936 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

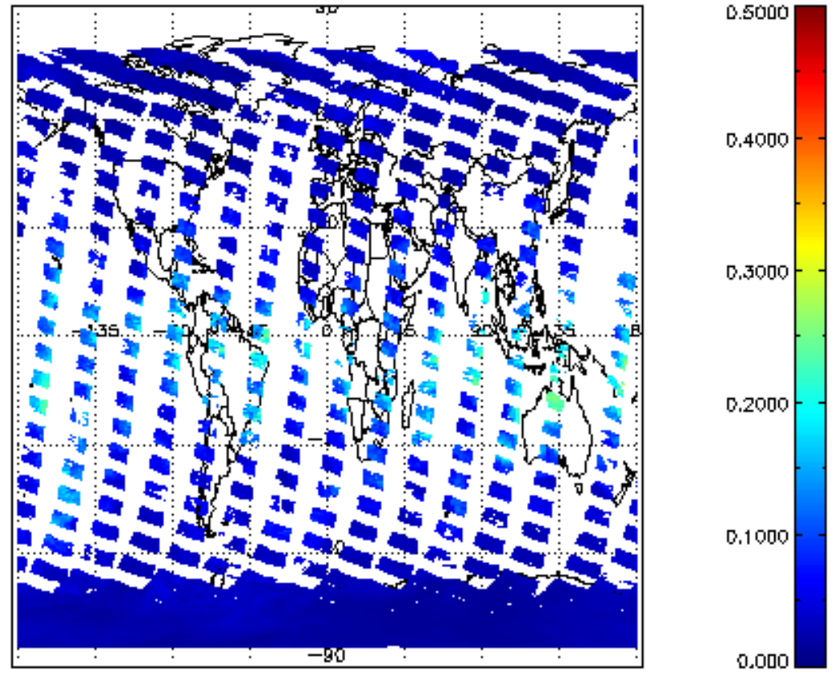

Time trend plot of SCIOL2P_NADUVBH2O_vcd_err [g/cm2].
Value
0.5
0.4
0.3
0.2
0.1
0.0
000805 110227
014816 110227
032826 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132936 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]


Time trend plot of SCIOL2P_NADUVBH2O_amf_gr [].
Value
2.0
1.5
1.0
0.5
0.0
000805 110227
014816 110227
032826 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132936 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

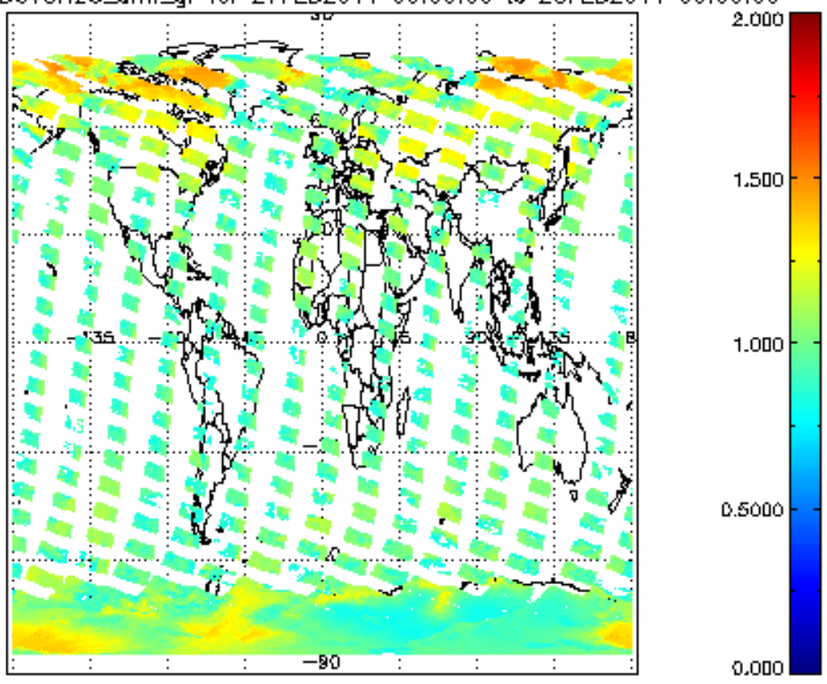
SCIOL2P_NADUV8H2O_vcd for 27FEB2011 00:00:00 to 28FEB2011 00:00:00

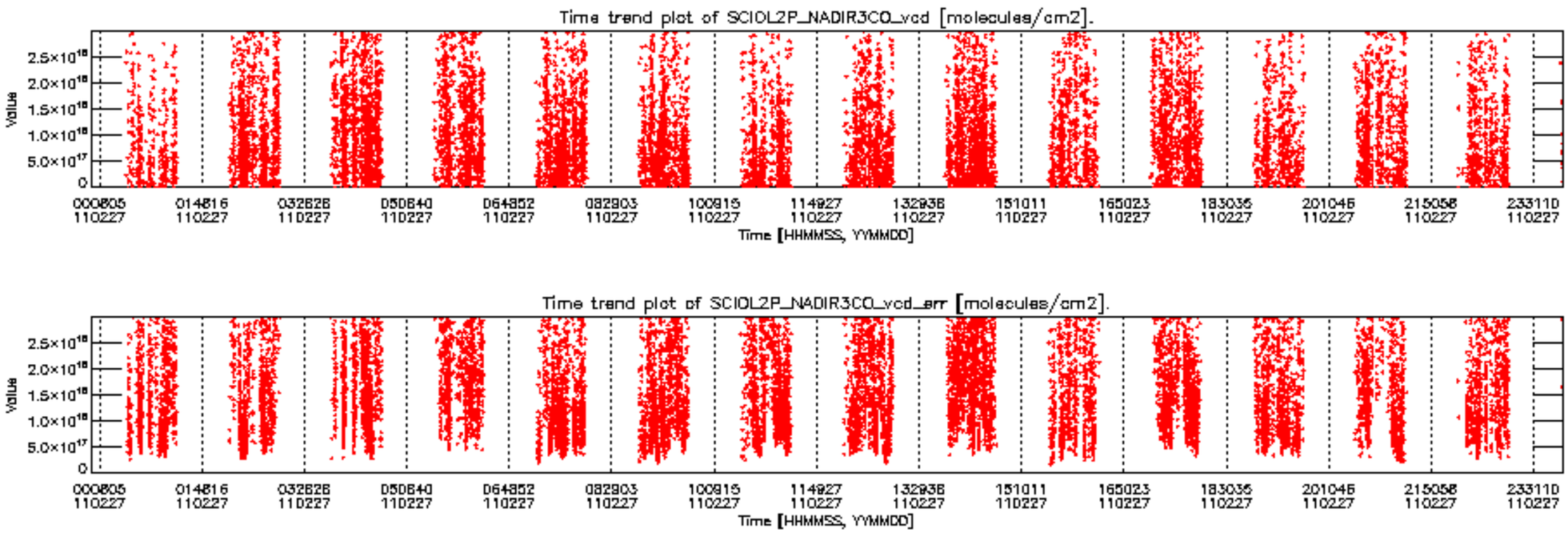


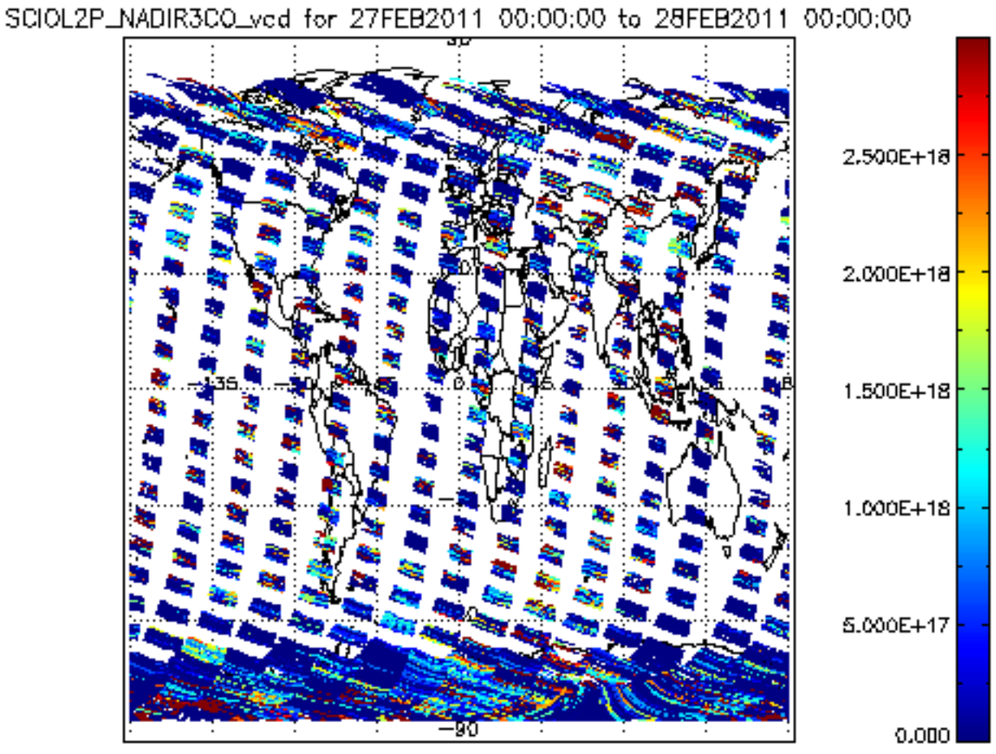

SCIOL2P_NADUV8H2O_vcd_err for 27FEB2011 00:00:00 to 28FEB2011 00:00:00

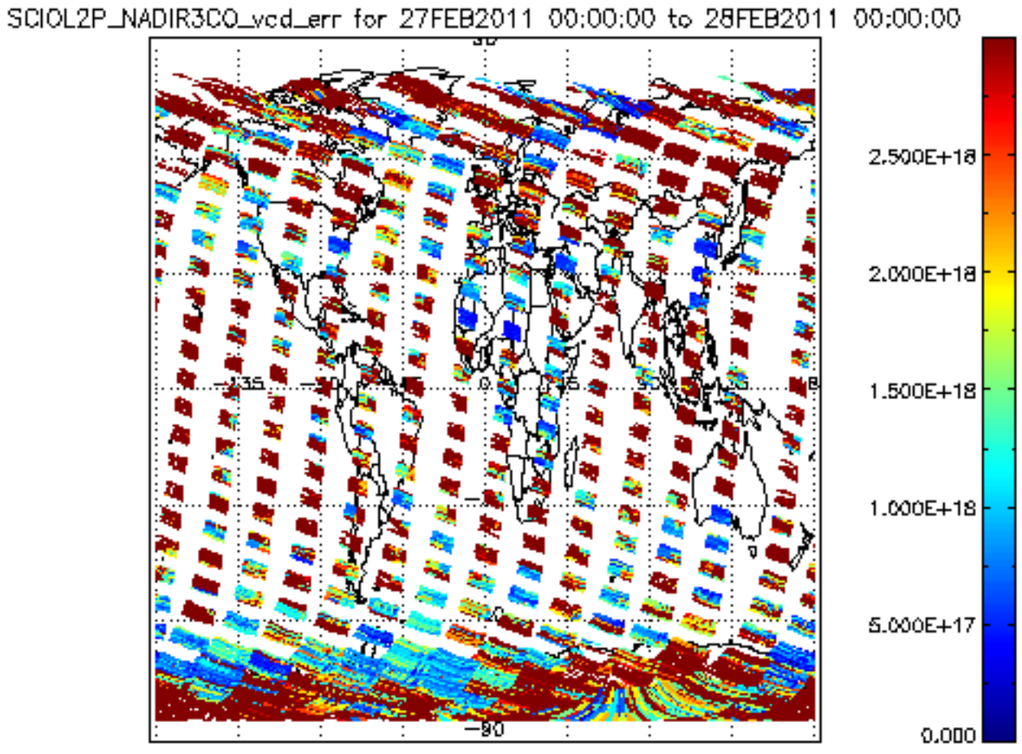



SCIOL2P_NADUV8H2O_amf_gr for 27FEB2011 00:00:00 to 28FEB2011 00:00:00

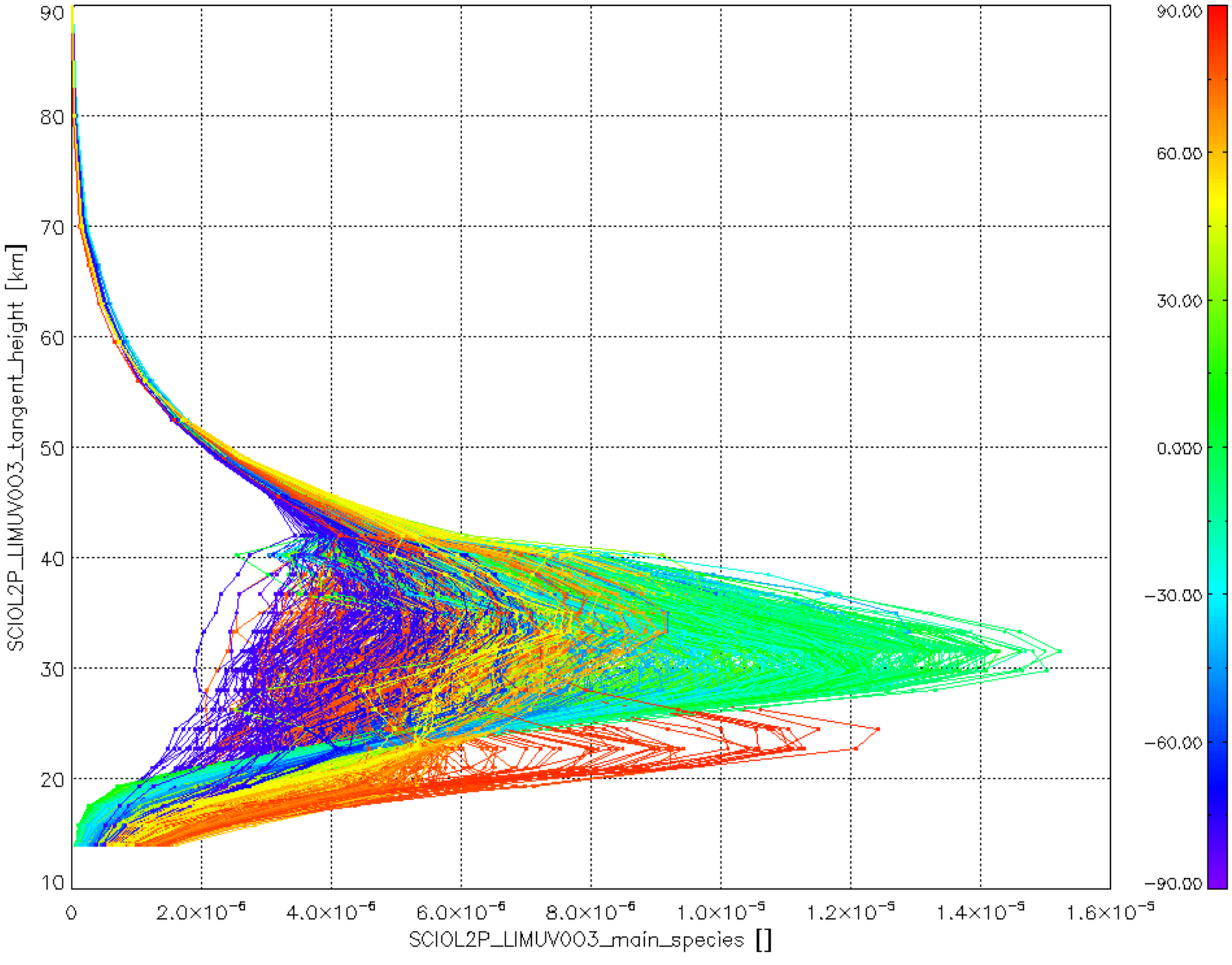


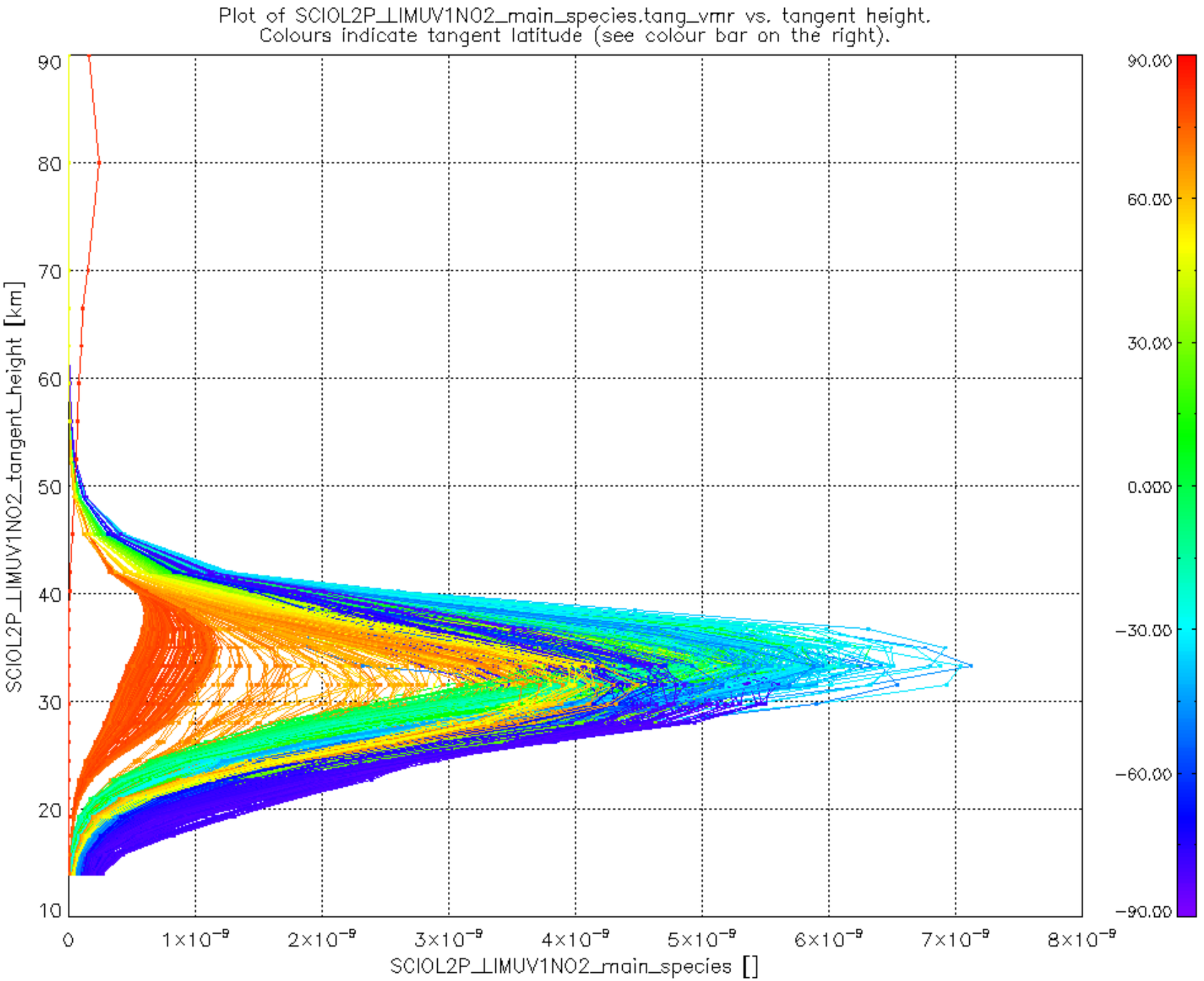

Time trend plot of SCIOL2P_NADIR3CO_vcd [molecules/cm2].
Value
2.5×10^18
2.0×10^18
1.5×10^18
1.0×10^18
5.0×10^17
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]
Time trend plot of SCIOL2P_NADIR3CO_vcd_err [molecules/cm2].
Value
2.5×10^18
2.0×10^18
1.5×10^18
1.0×10^18
5.0×10^17
0
000805 110227
014816 110227
032828 110227
050840 110227
064852 110227
082903 110227
100915 110227
114927 110227
132938 110227
151011 110227
165023 110227
183035 110227
201046 110227
215058 110227
233110 110227
Time [HHMMSS, YYMMDD]

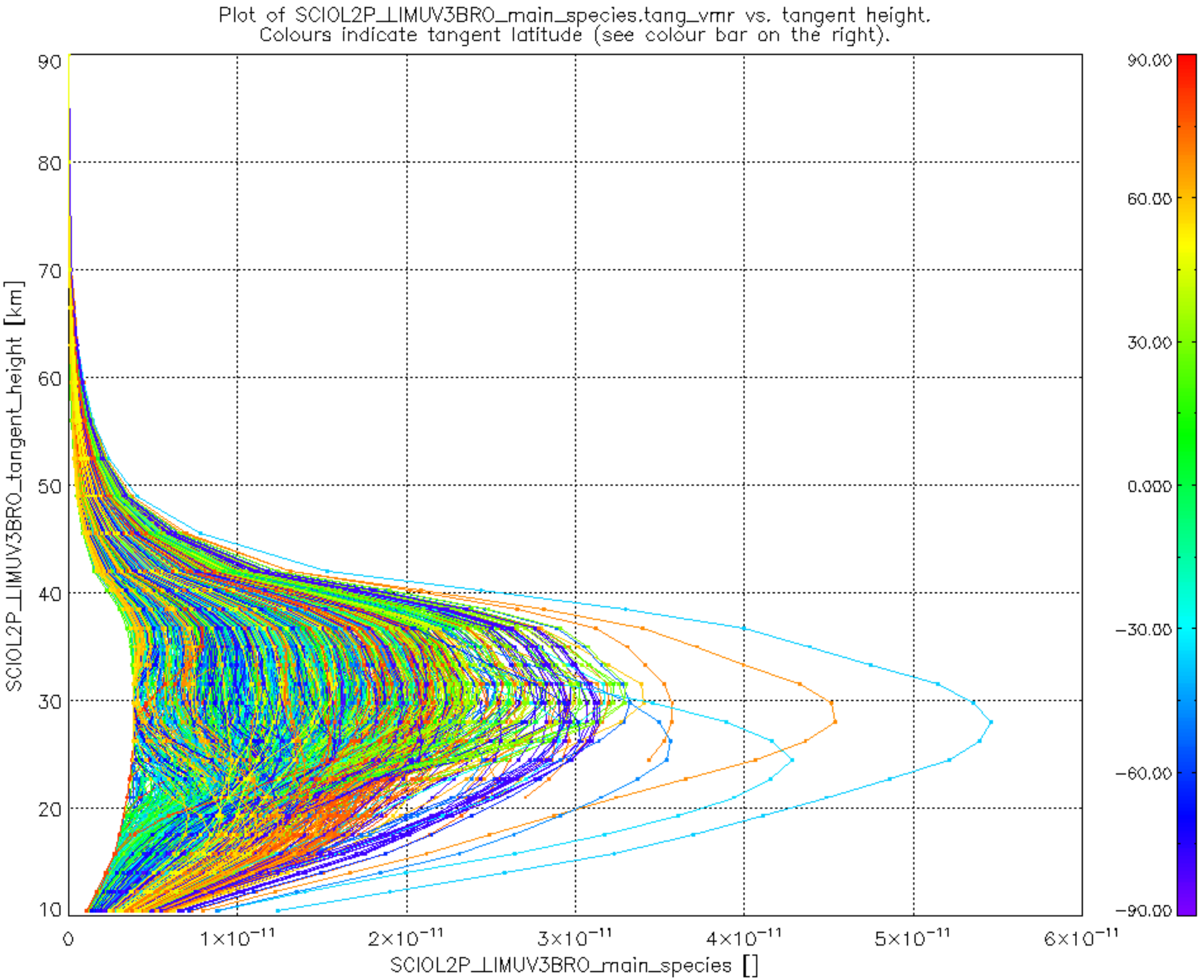

SCIOL2P_NADIR3CO_vcd for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
2.500E+18
2.000E+18
1.500E+18
1.000E+18
5.000E+17
0.000


SCIOL2P_NADIR3CO_vcd_err for 27FEB2011 00:00:00 to 28FEB2011 00:00:00
2.500E+18
2.000E+18
1.500E+18
1.000E+18
5.000E+17
0.000

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).
SCIOL2P_LIMUV1NO2_tangent_height [km]
90
80
70
60
50
40
30
20
10
0
1×10⁻⁹
2×10⁻⁹
3×10⁻⁹
4×10⁻⁹
5×10⁻⁹
6×10⁻⁹
7×10⁻⁹
8×10⁻⁹
SCIOL2P_LIMUV1NO2_main_species []
90.00
60.00
30.00
0.000
−30.00
−60.00
−90.00


Plot of SCIOL2P_LIMUV3BRO_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).
SCIOL2P_LIMUV3BRO_tangent_height [km]
90
80
70
60
50
40
30
20
10
0
1×10⁻¹¹
2×10⁻¹¹
3×10⁻¹¹
4×10⁻¹¹
5×10⁻¹¹
6×10⁻¹¹
SCIOL2P_LIMUV3BRO_main_species []
90.00
60.00
30.00
0.000
−30.00
−60.00
−90.00