

## 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	18OCT2011 05:12:36
Data source version	SCIA-OL/5.02-N
Processing scope for products	13OCT2011 00:00:00 to 14OCT2011 00:00:00
Start time of first product within scope	12OCT2011 23:30:24
Stop time of last product within scope	13OCT2011 23:52:23
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	<a href="#">SCI_OL__2PNDPA20111012_233024_000034683107_00288_50302_1172.N1</a>	12OCT2011 23:30:24	13OCT2011 00:28:12	0	GOOD
1	<a href="#">SCI_OL__2PNDPA20111013_011039_000034673107_00289_50303_1173.N1</a>	13OCT2011 01:10:39	13OCT2011 02:08:26	0	GOOD
2	<a href="#">SCI_OL__2PNDPA20111013_025053_000023683107_00290_50304_1174.N1</a>	13OCT2011 02:50:53	13OCT2011 03:30:21	0	GOOD
3	<a href="#">SCI_OL__2PNDPA20111013_033025_000060793107_00291_50305_1175.N1</a>	13OCT2011 03:30:25	13OCT2011 05:11:44	0	GOOD
4	<a href="#">SCI_OL__2PNDPA20111013_051148_000059963107_00292_50306_1176.N1</a>	13OCT2011 05:11:48	13OCT2011 06:51:45	0	GOOD

5	SCI_OL__2PNDPA20111013_065257_000039243107_00293_50307_1177.N1	13OCT2011 06:52:57	13OCT2011 07:58:21	0	GOOD
6	SCI_OL__2PNDPA20111013_075933_000061193107_00294_50308_1178.N1	13OCT2011 07:59:33	13OCT2011 09:41:32	0	GOOD
7	SCI_OL__2PNDPA20111013_094042_000001733107_00295_50309_1179.N1	13OCT2011 09:40:42	13OCT2011 09:43:35	0	GOOD
8	SCI_OL__2PNDPA20111013_111759_000060653107_00296_50310_1183.N1	13OCT2011 11:17:59	13OCT2011 12:59:04	0	GOOD
9	SCI_OL__2PNDPA20111013_143328_000060103107_00298_50312_1184.N1	13OCT2011 14:33:28	13OCT2011 16:13:39	0	GOOD
10	SCI_OL__2PNDPA20111013_161343_000034613107_00299_50313_1185.N1	13OCT2011 16:13:43	13OCT2011 17:11:25	0	GOOD
11	SCI_OL__2PNDPA20111013_175316_000034613107_00300_50314_1186.N1	13OCT2011 17:53:16	13OCT2011 18:50:58	0	GOOD
12	SCI_OL__2PNDPA20111013_193331_000034473107_00301_50315_1189.N1	13OCT2011 19:33:31	13OCT2011 20:30:58	0	GOOD
13	SCI_OL__2PNDPA20111013_211332_000034613107_00302_50316_1190.N1	13OCT2011 21:13:32	13OCT2011 22:11:14	0	GOOD
14	SCI_OL__2PNDPA20111013_225346_000035163107_00302_50316_1188.N1	13OCT2011 22:53:46	13OCT2011 23:52:23	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: 119340

Total number of cloud data DSRs with good quality flag (=0): 119340 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	119340	0.0000	0.0000	0.0000	0.0000	0.0000	
INTEGR_TIME	119340	0.16667	0.12500	0.12500	0.25000	0.058926	s
CL_FRAC	119340	0.43882	0.42778	0.0000	1.0000	0.31774	
CL_FRAC_ERR	119340	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	119340	5.3333	4.0000	4.0000	8.0000	1.8856	
PMD_READ_CL[0]	119340	0.50856	0.0000	0.0000	8.0000	1.2995	-
PMD_READ_CL[1]	119340	1.2794	0.0000	0.0000	8.0000	2.5759	-
CL_TOP_HEIGHT	96254	3.9267	2.6197	0.0000	17.000	3.9531	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	96254	59.186	63.039	0.0000	101.00	41.382	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	119340	11100000	11100000	11100000	11100000	0.0000	
CLOUD_FLAGS	119340	11001100	11000100	11000000	11100000	3478.1	
AERO_ABSO_IND	119340	0.15657	0.0000	0.0000	6.5193	0.38607	
AERO_IND_DIAG	119340	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	119340	01010110	00000000	00000000	11000000	24452.	

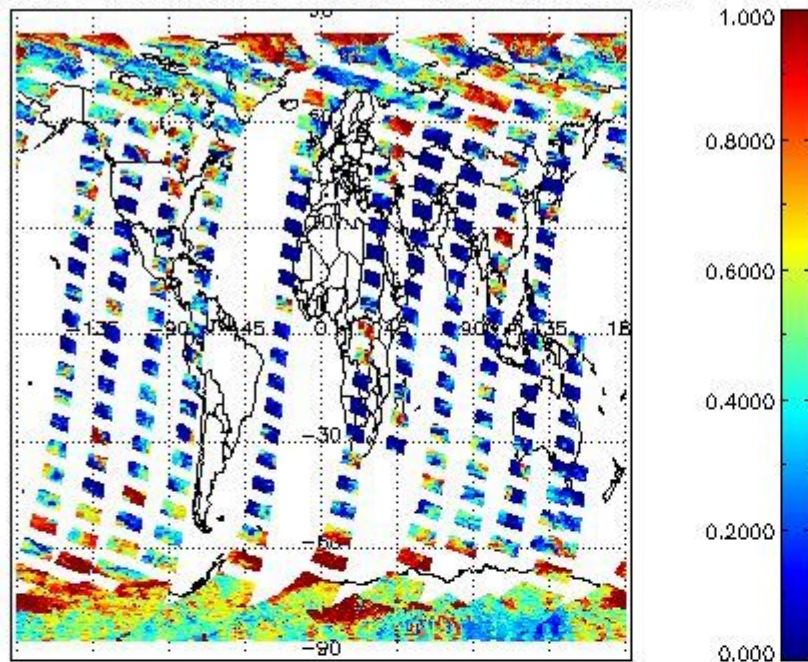
#### Time and geolocation plots:

Plots are available for the following parameters:

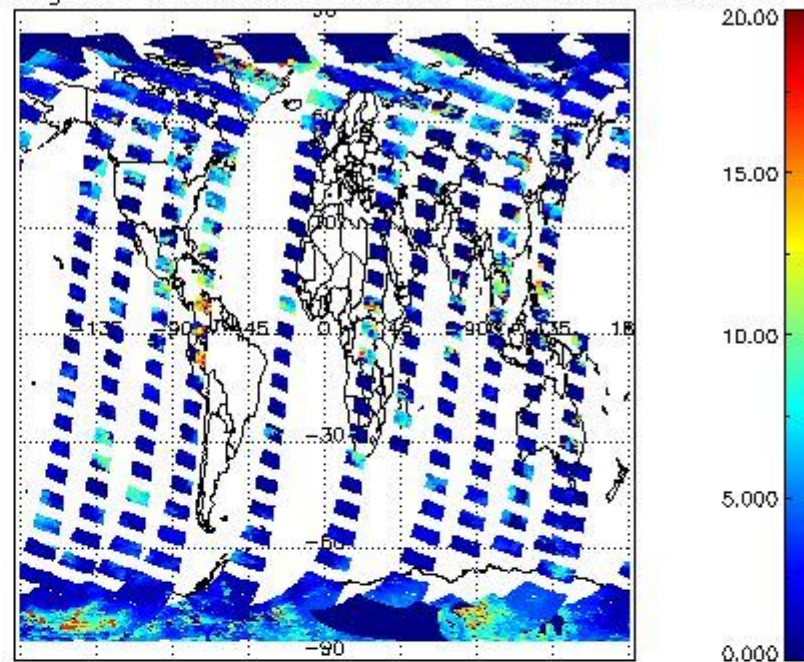
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



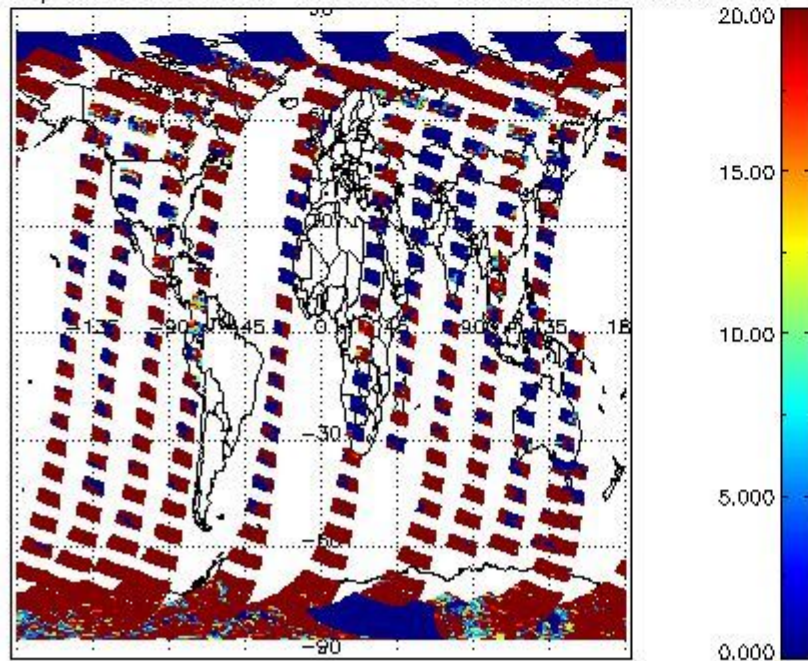
cLfrac for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



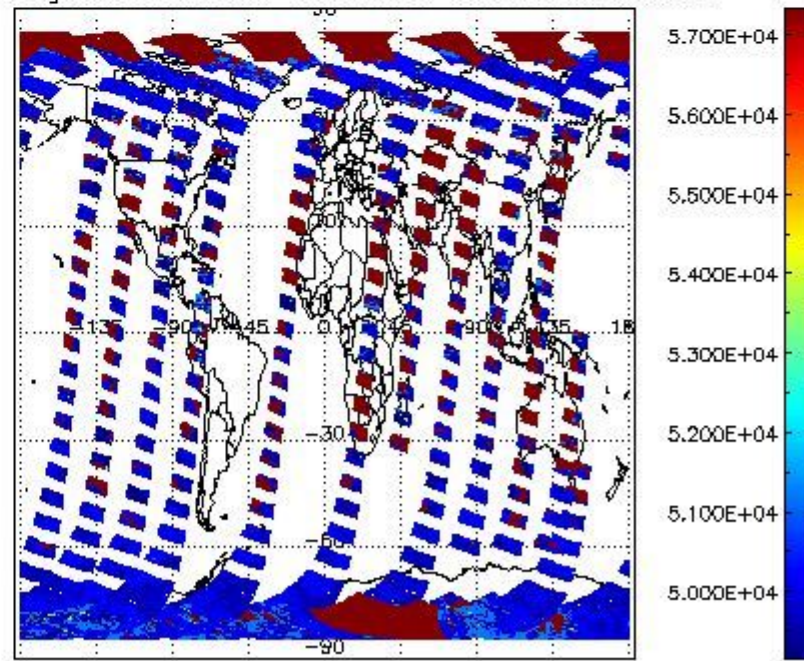
cL\_top\_height for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



cL\_opt\_depth for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



cloud\_flags for 13OCT2011 00:00:00 to 14OCT2011 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:

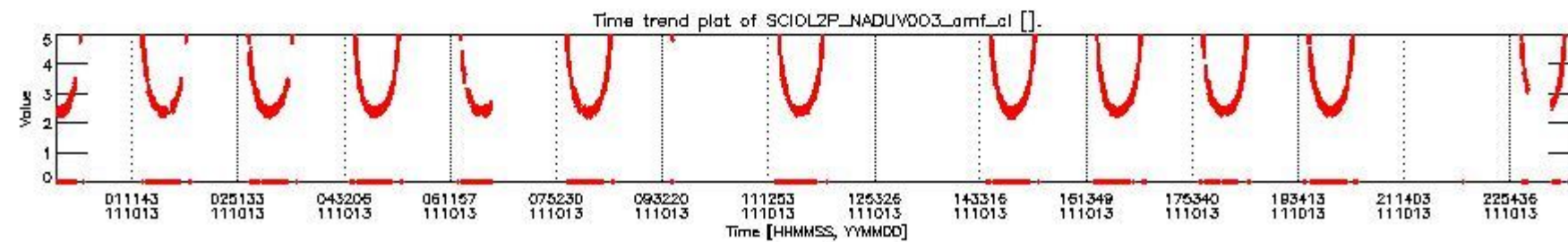
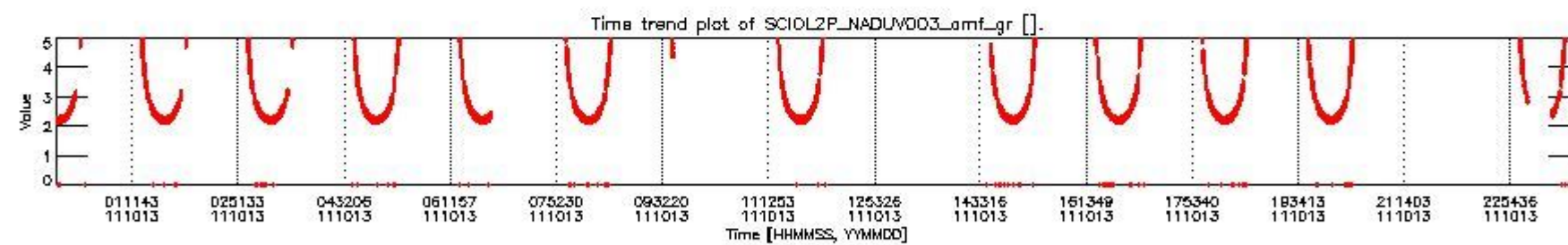
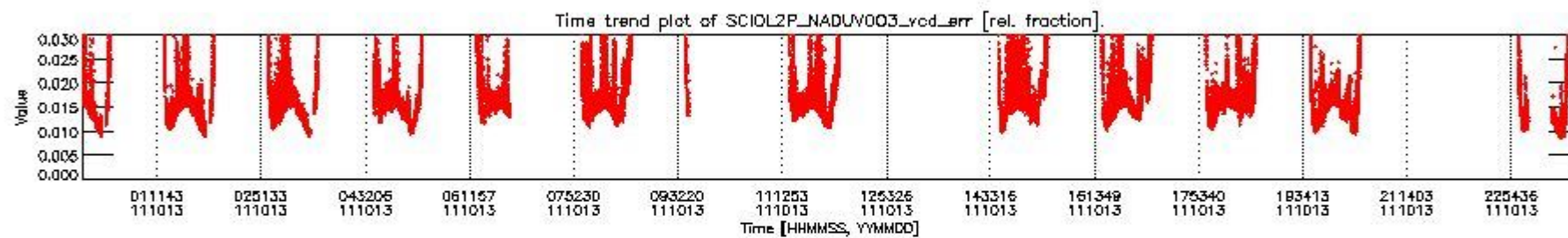
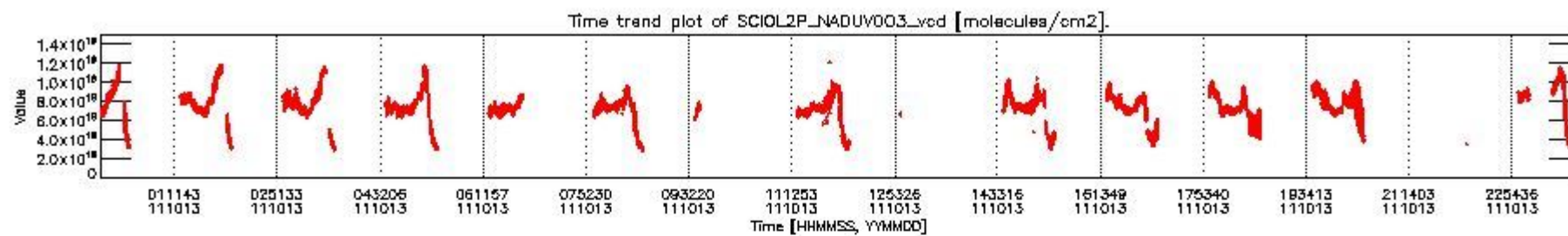
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

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.

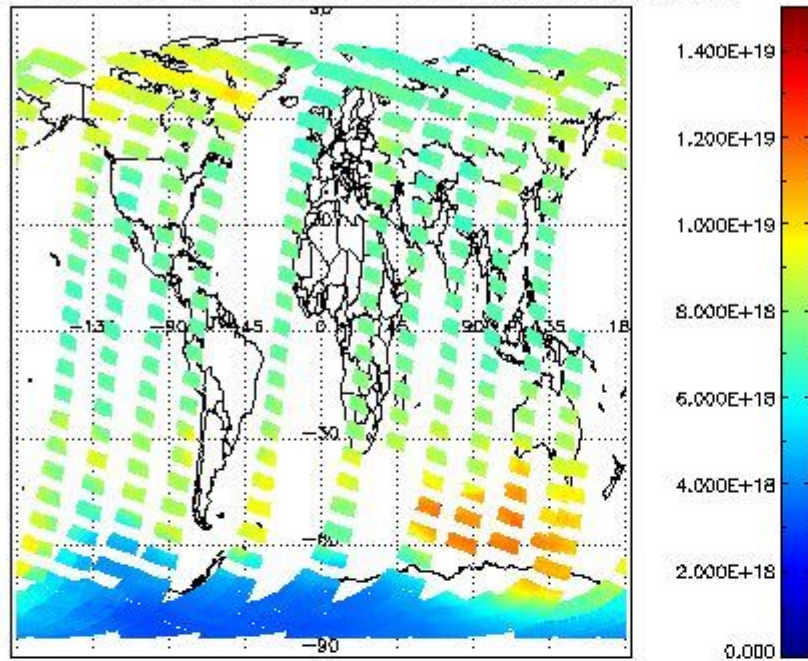
#### 2.2.2.1 O3 (UV0)



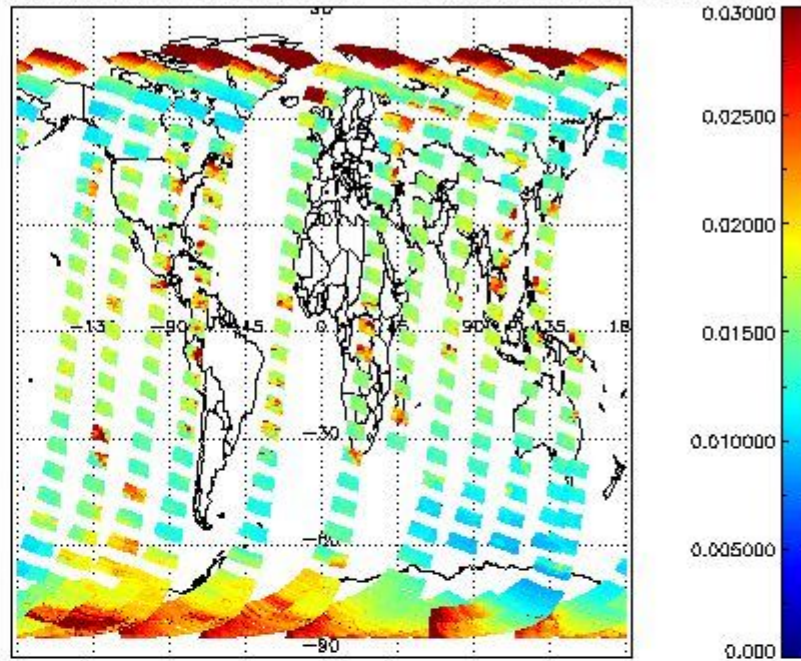




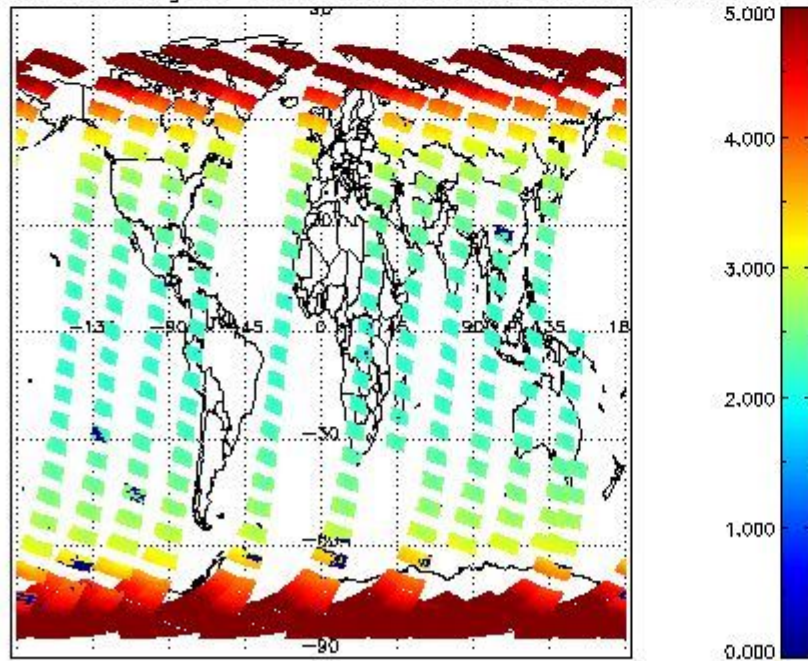
SCIOL2P\_NADUV003\_vcd for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



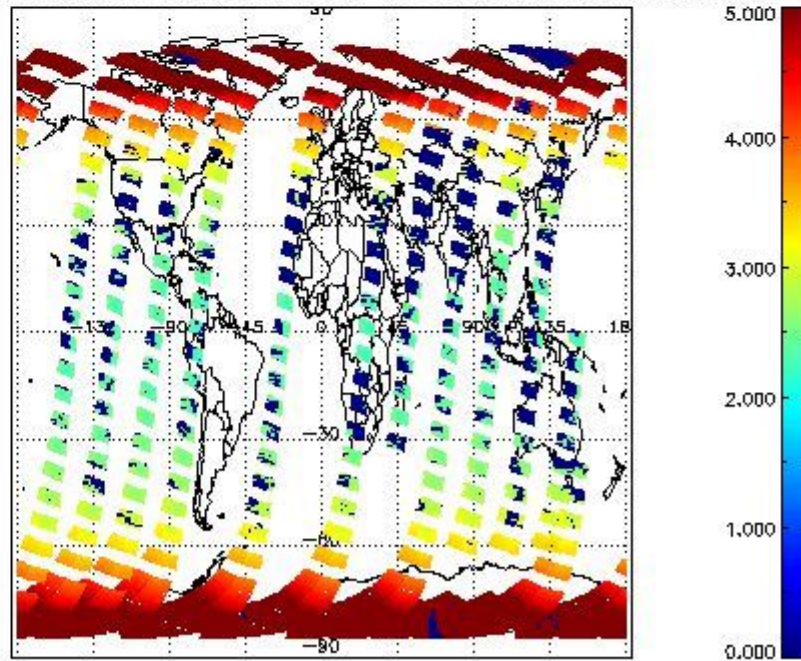
SCIOL2P\_NADUV003\_vcd\_err for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



SCIOL2P\_NADUV003\_amf\_gr for 13OCT2011 00:00:00 to 14OCT2011 00:00:00

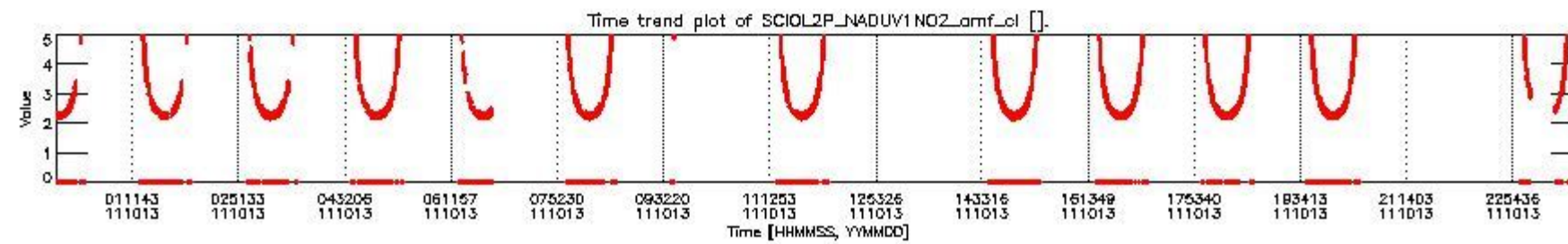
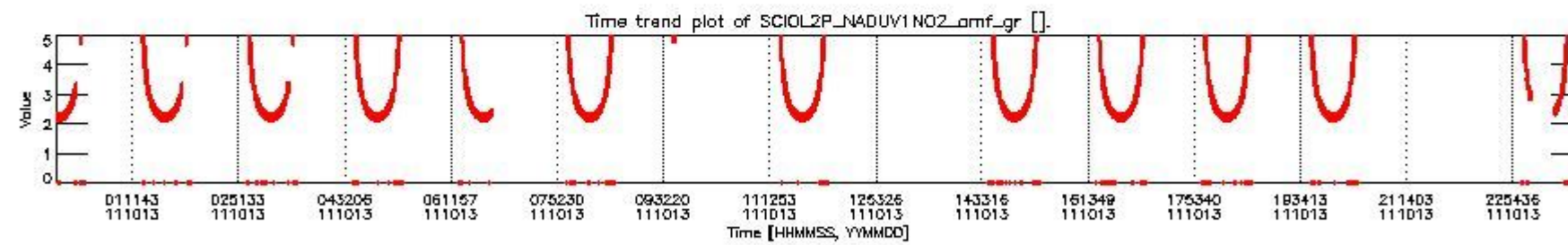
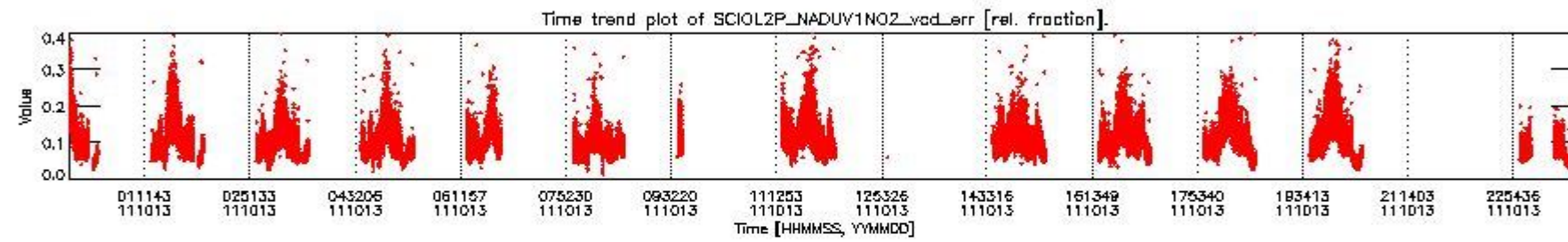
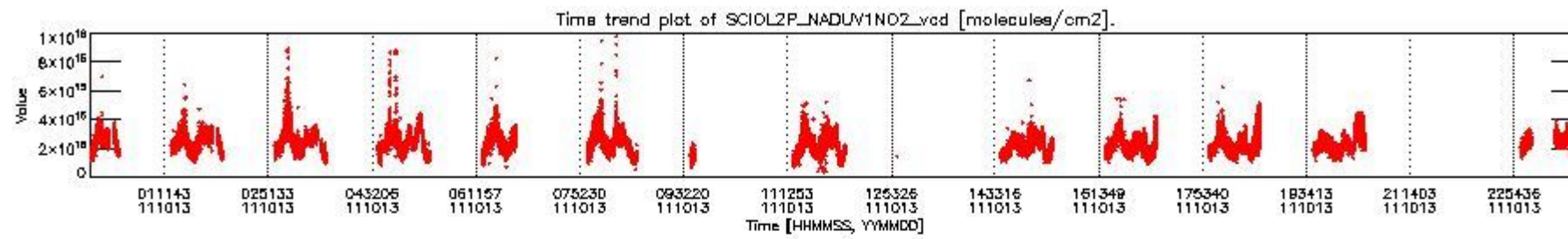


SCIOL2P\_NADUV003\_amf\_cl for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



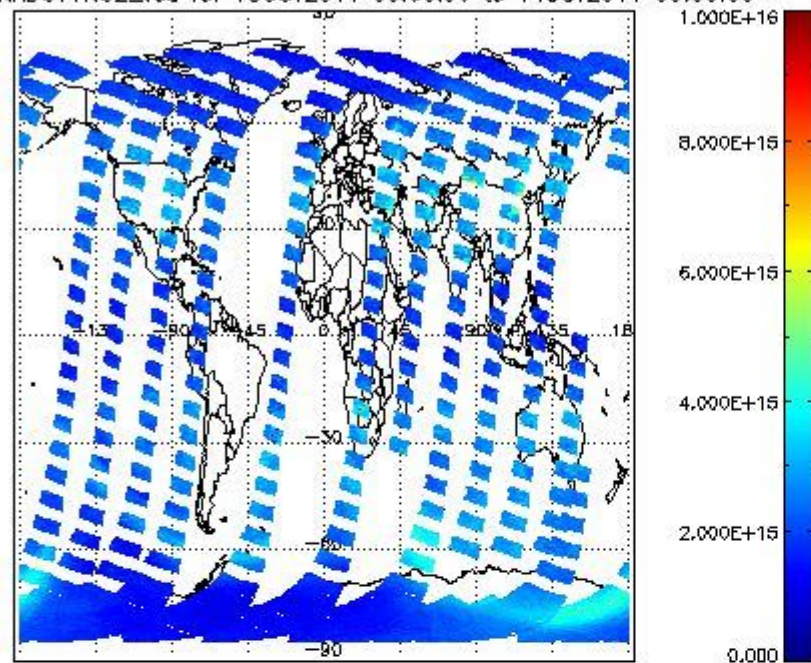
### 2.2.2.2 NO2 (UV1)



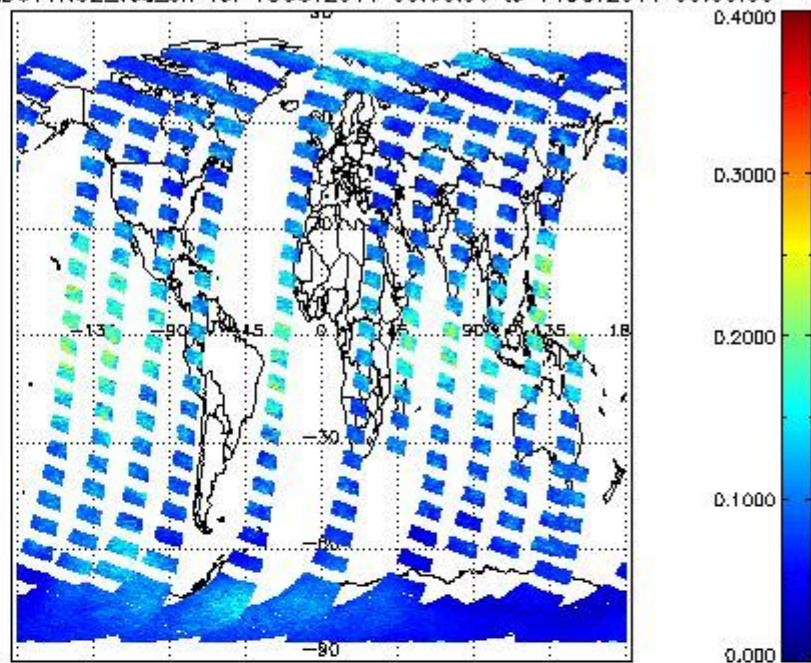




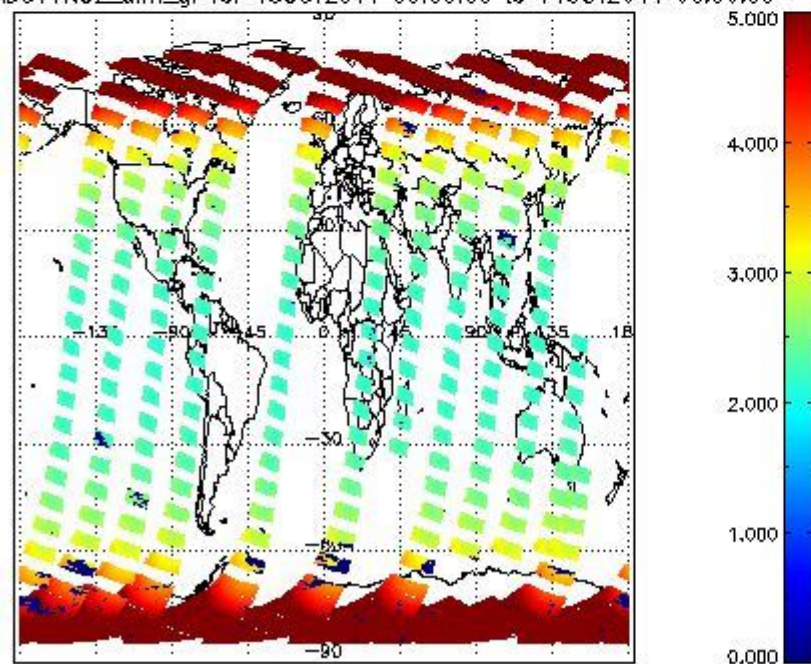
SCIOL2P\_NADUV1NO2\_vcd for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



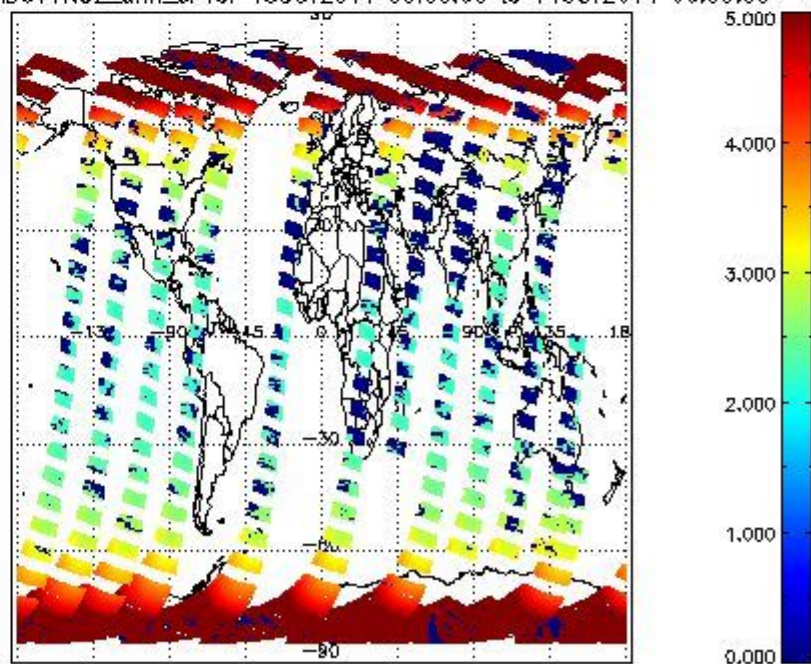
SCIOL2P\_NADUV1NO2\_vcd\_err for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 13OCT2011 00:00:00 to 14OCT2011 00:00:00

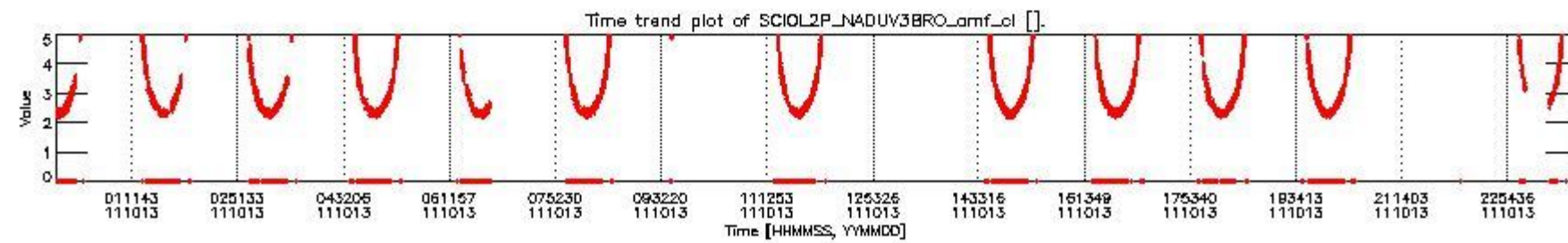
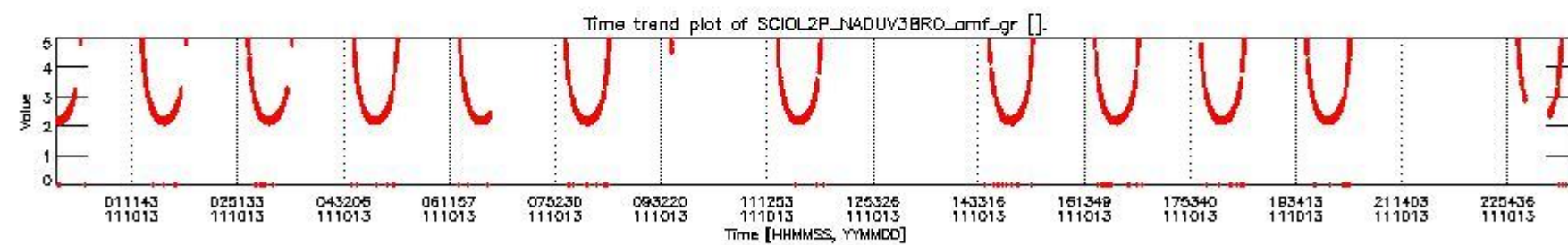
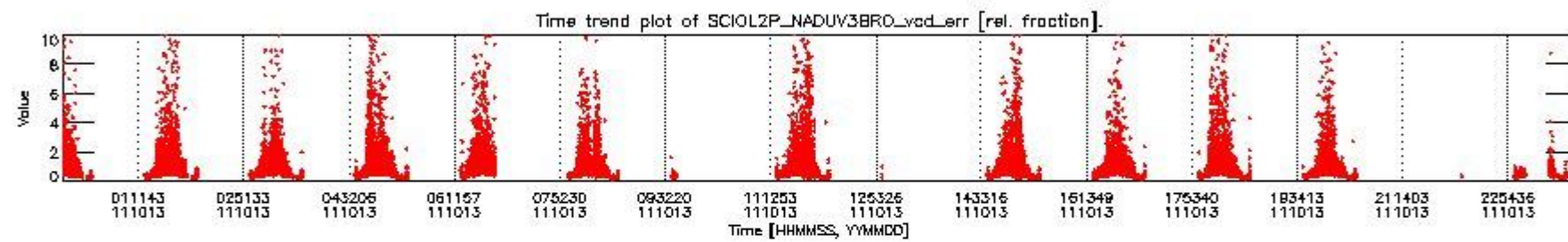
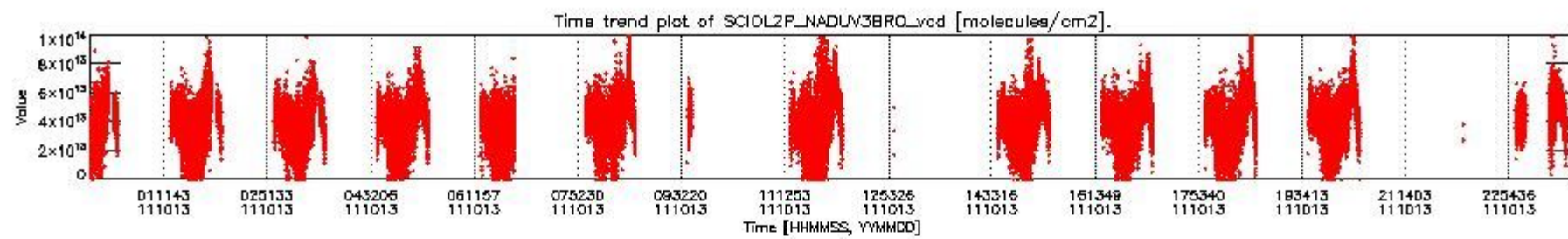


SCIOL2P\_NADUV1NO2\_amf\_cl for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



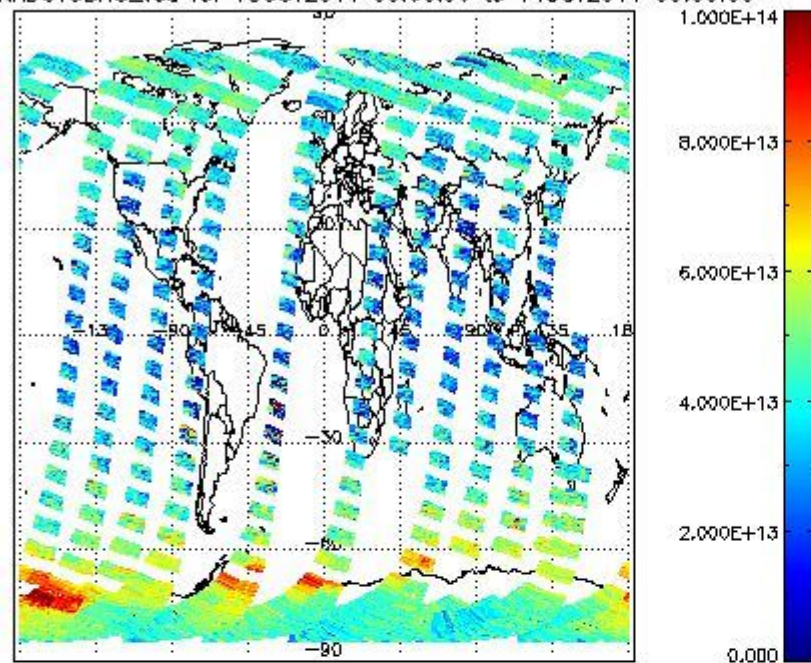
2.2.2.3 BrO (UV3)



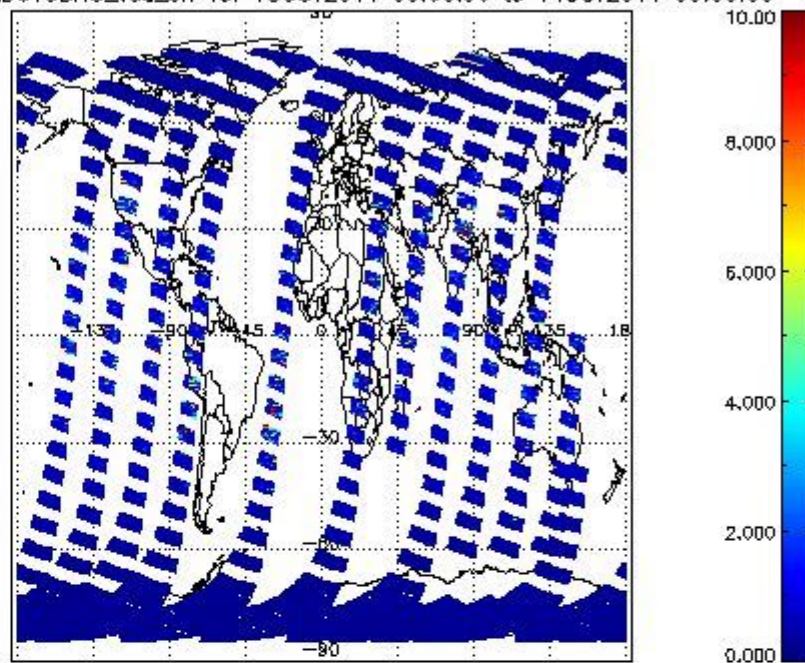




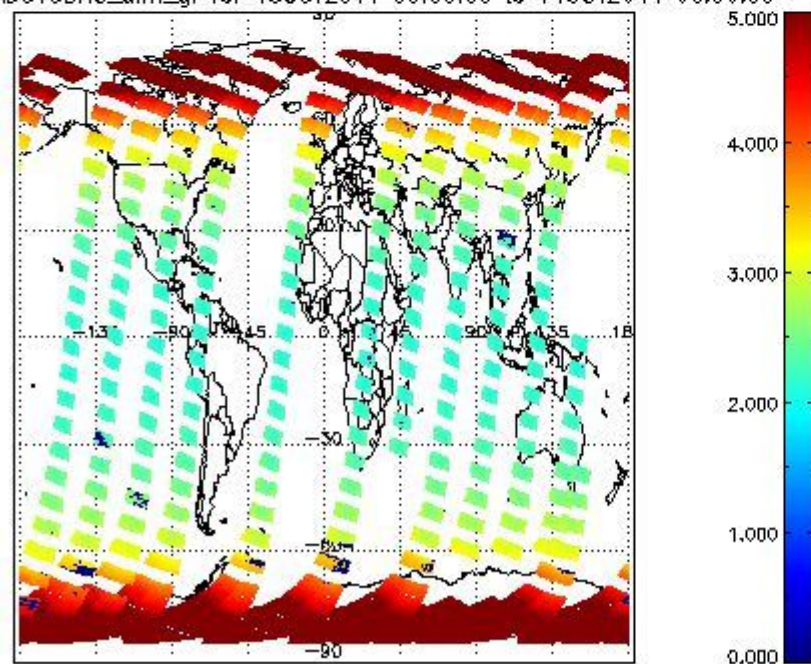
SCIOL2P\_NADUV3BRO\_vcd for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



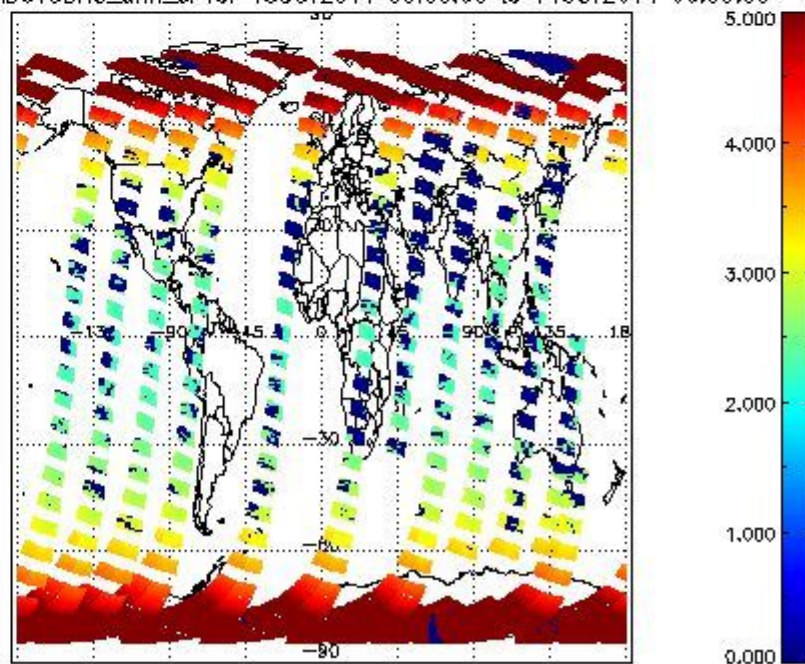
SCIOL2P\_NADUV3BRO\_vcd\_err for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



SCIOL2P\_NADUV3BRO\_amf\_gr for 13OCT2011 00:00:00 to 14OCT2011 00:00:00

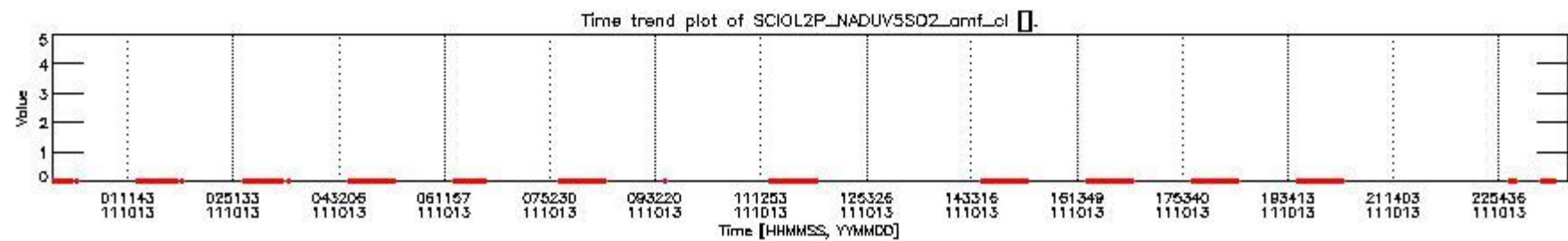
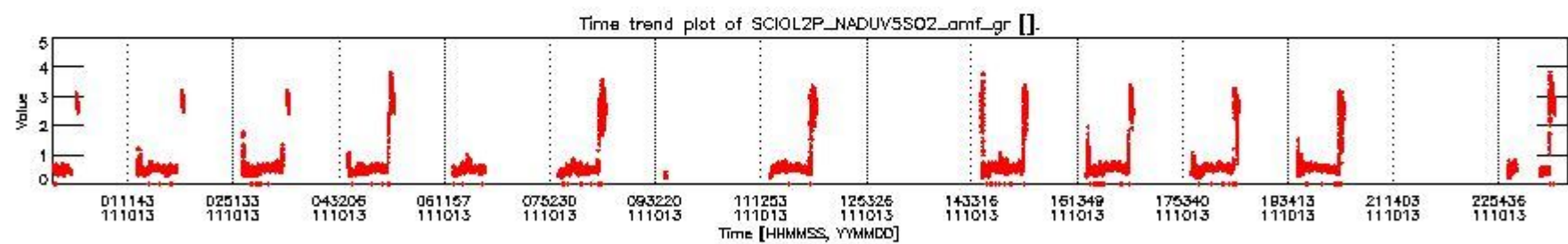
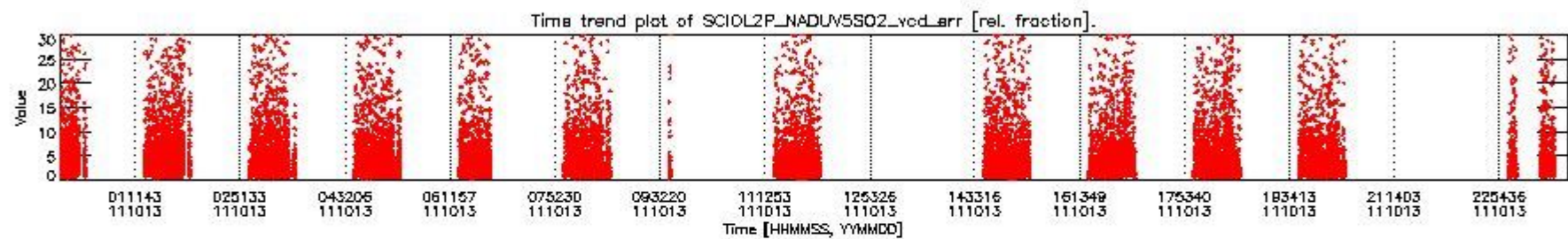
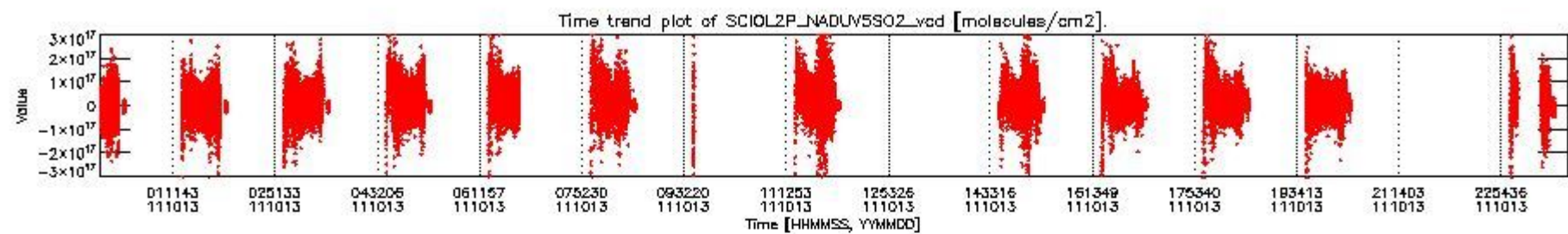


SCIOL2P\_NADUV3BRO\_amf\_cl for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



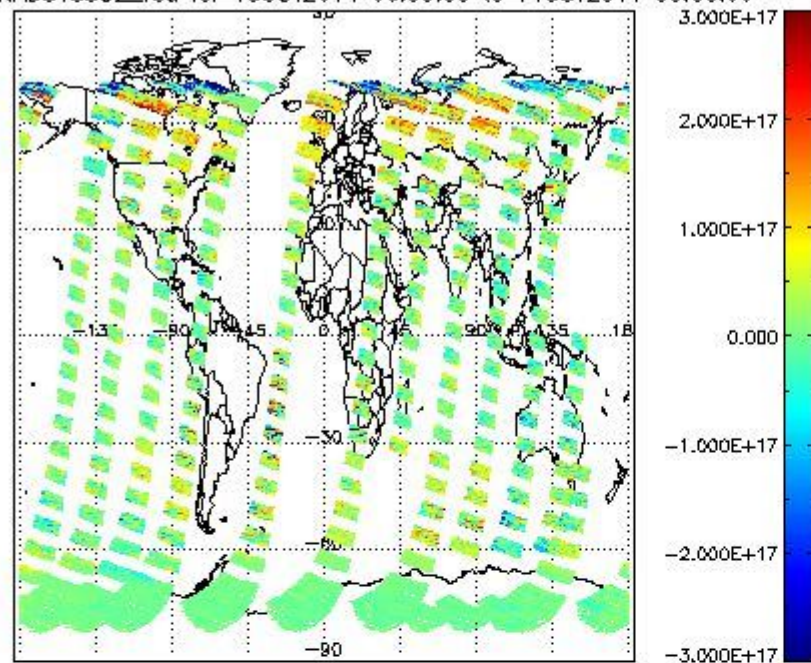
2.2.2.4 SO2 (UV5)



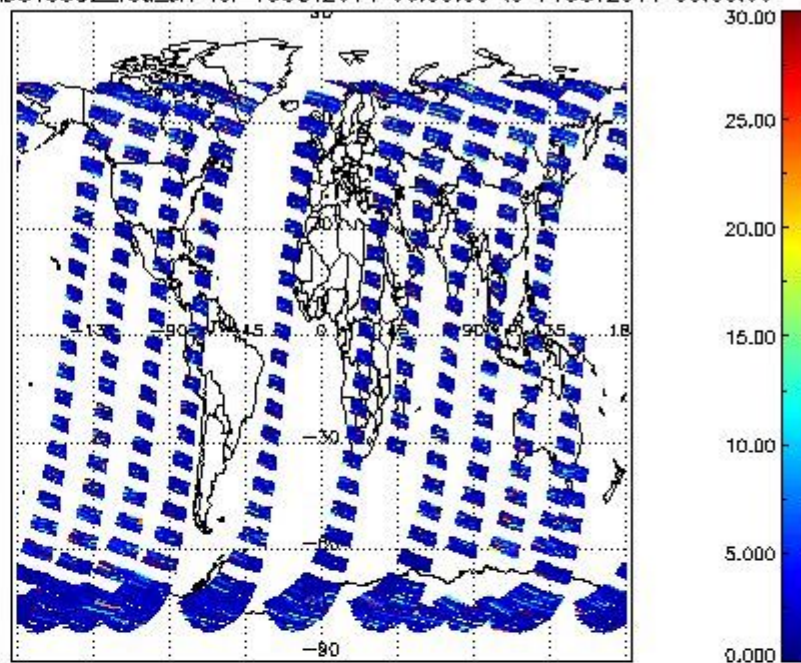




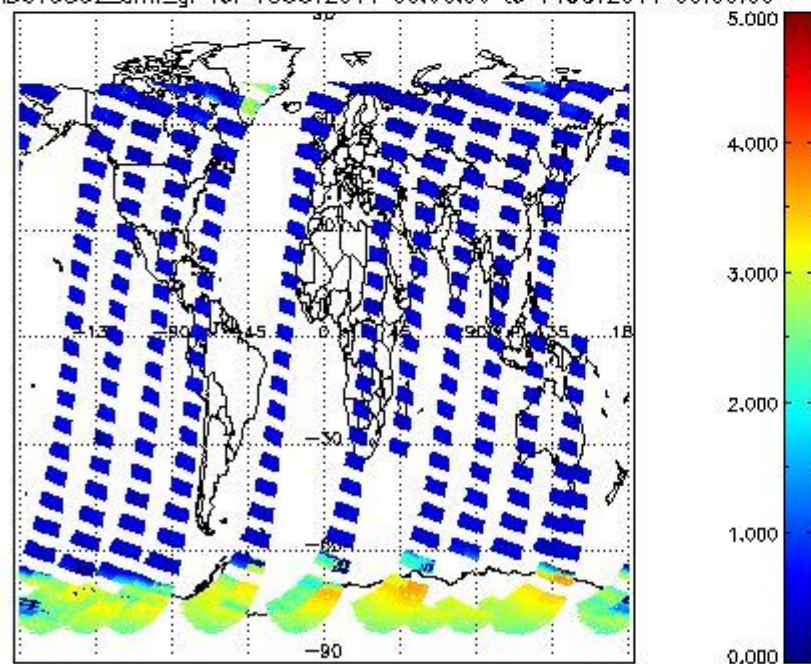
SCIOL2P\_NADUV5SO2\_vcd for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



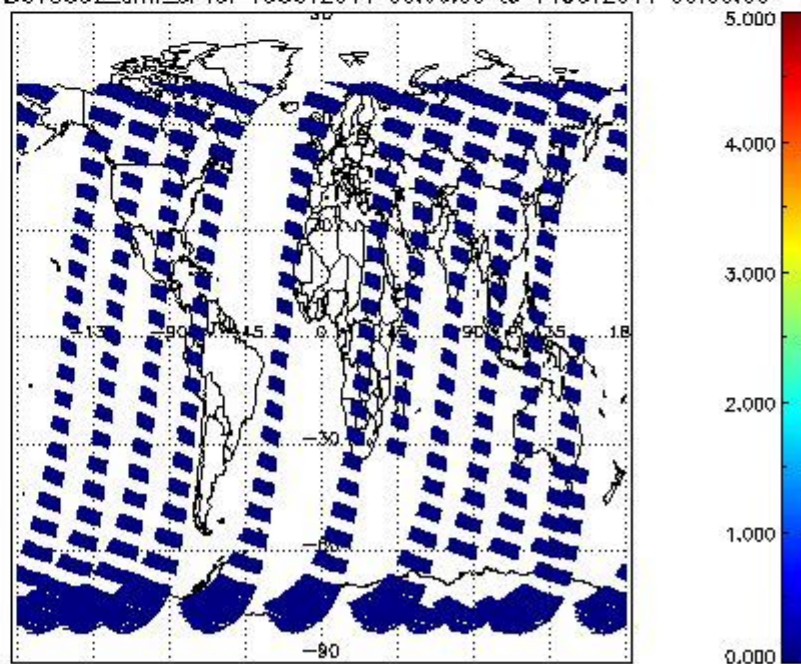
SCIOL2P\_NADUV5SO2\_vcd\_err for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



SCIOL2P\_NADUV5SO2\_amf\_gr for 13OCT2011 00:00:00 to 14OCT2011 00:00:00

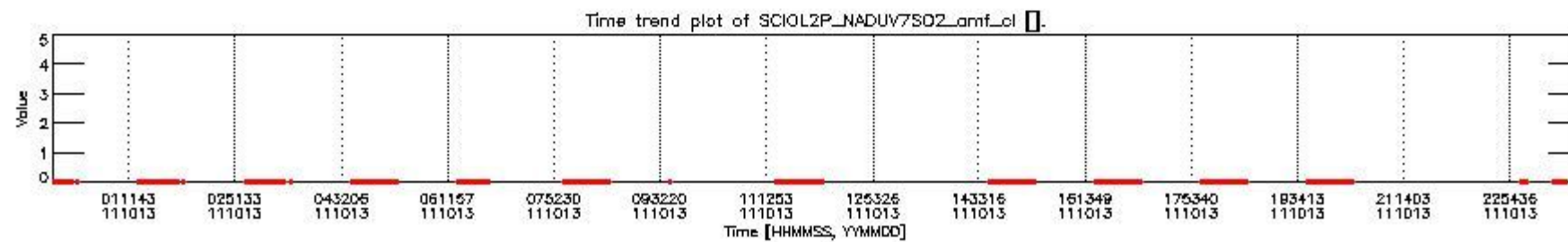
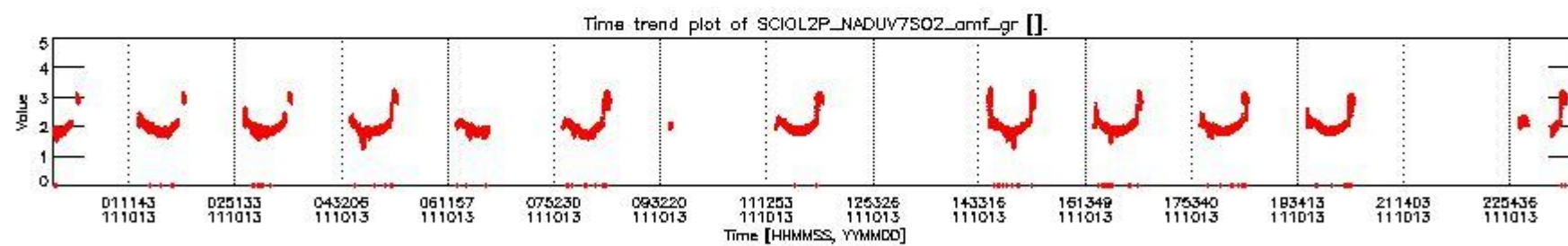
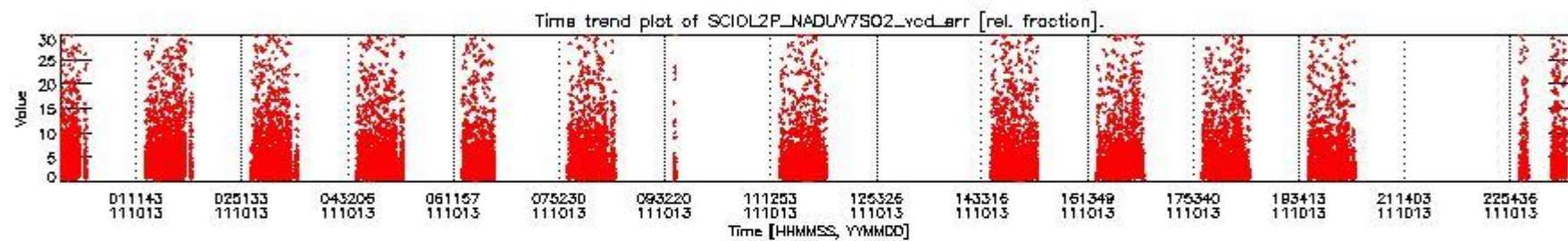
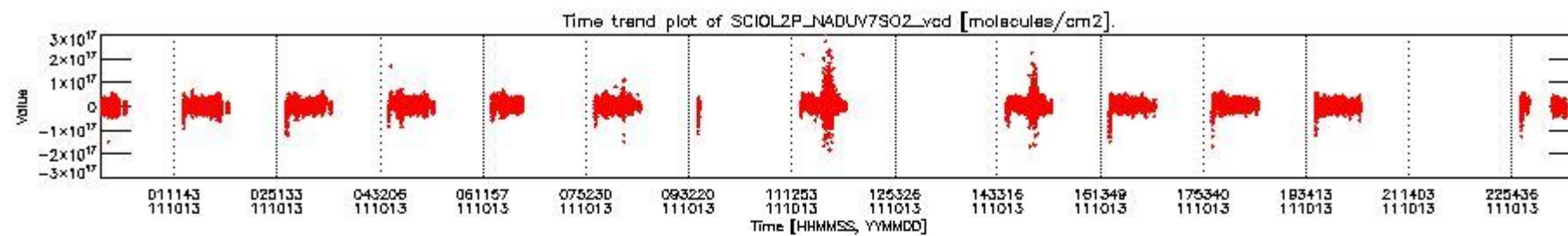


SCIOL2P\_NADUV5SO2\_amf\_cl for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



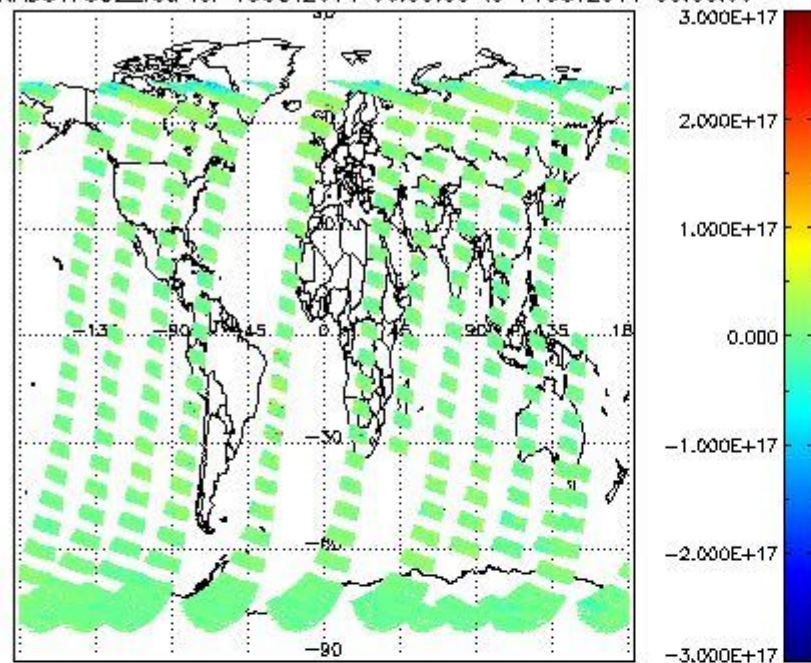
2.2.2.5 SO2 (UV7)



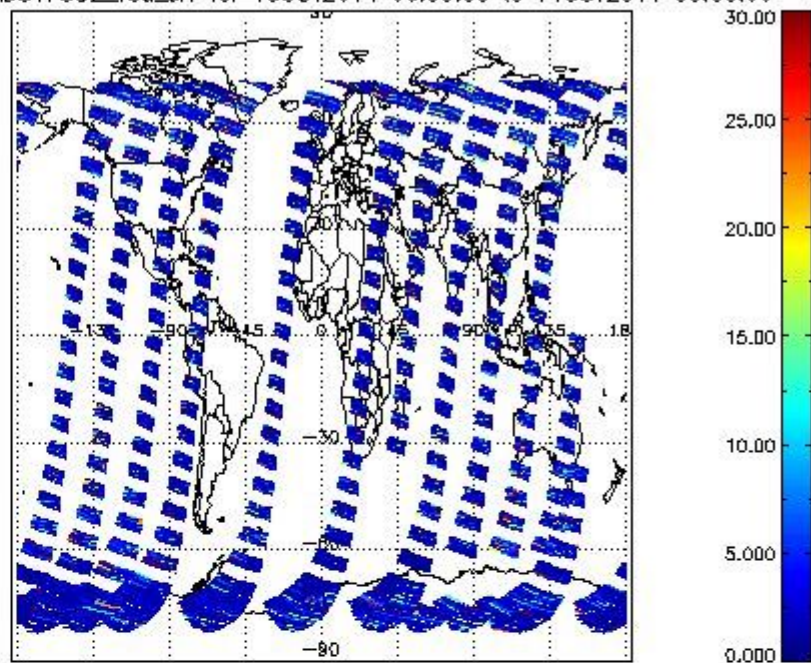




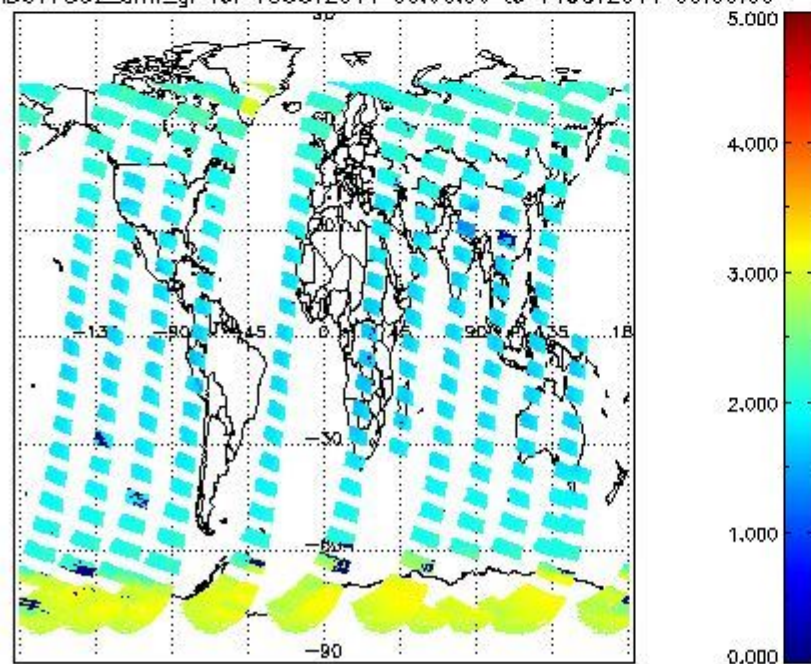
SCIOL2P\_NADUV7S02\_vcd for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



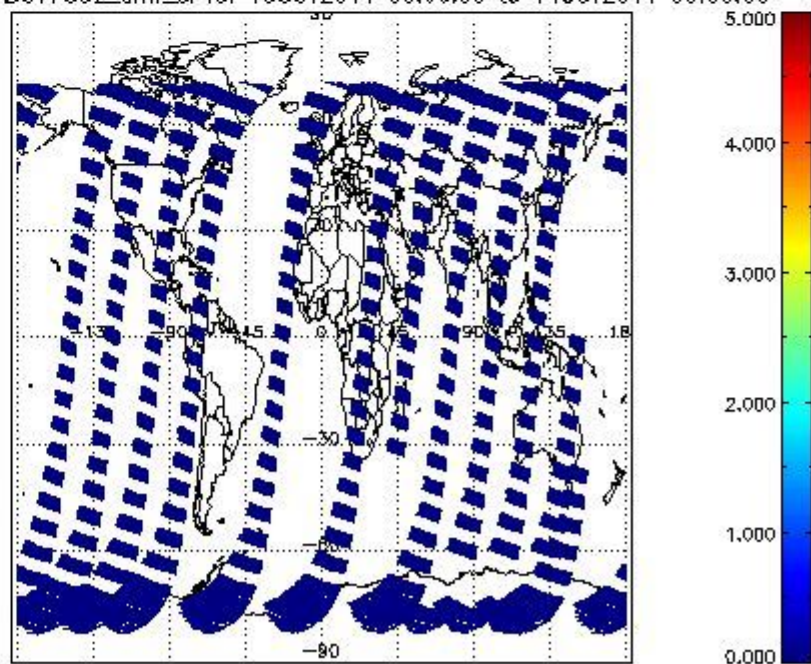
SCIOL2P\_NADUV7S02\_vcd\_err for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



SCIOL2P\_NADUV7S02\_amf\_gr for 13OCT2011 00:00:00 to 14OCT2011 00:00:00

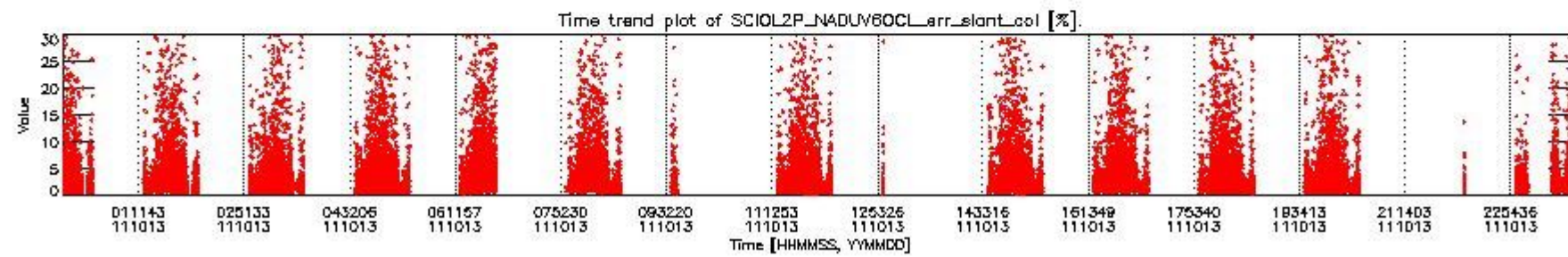
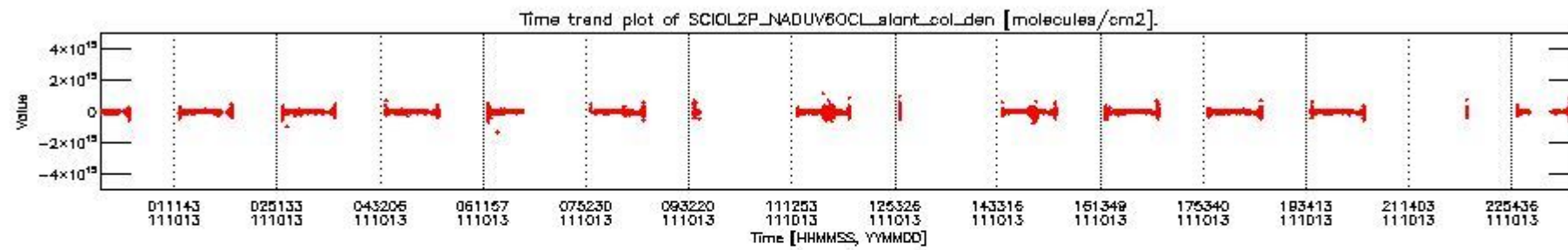


SCIOL2P\_NADUV7S02\_amf\_cl for 13OCT2011 00:00:00 to 14OCT2011 00:00:00

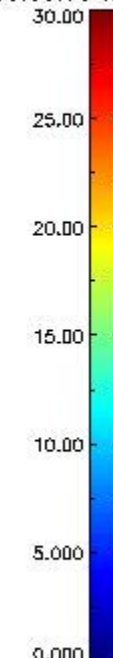
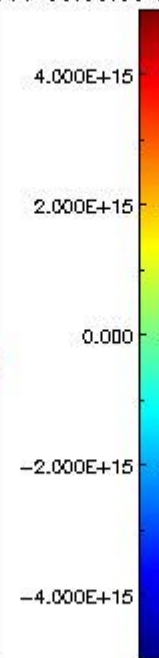
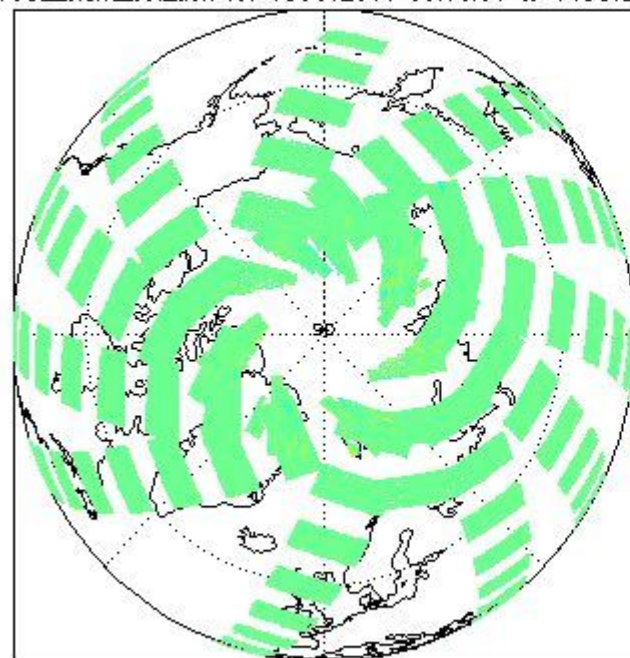


2.2.2.6 OCIO (UV6)



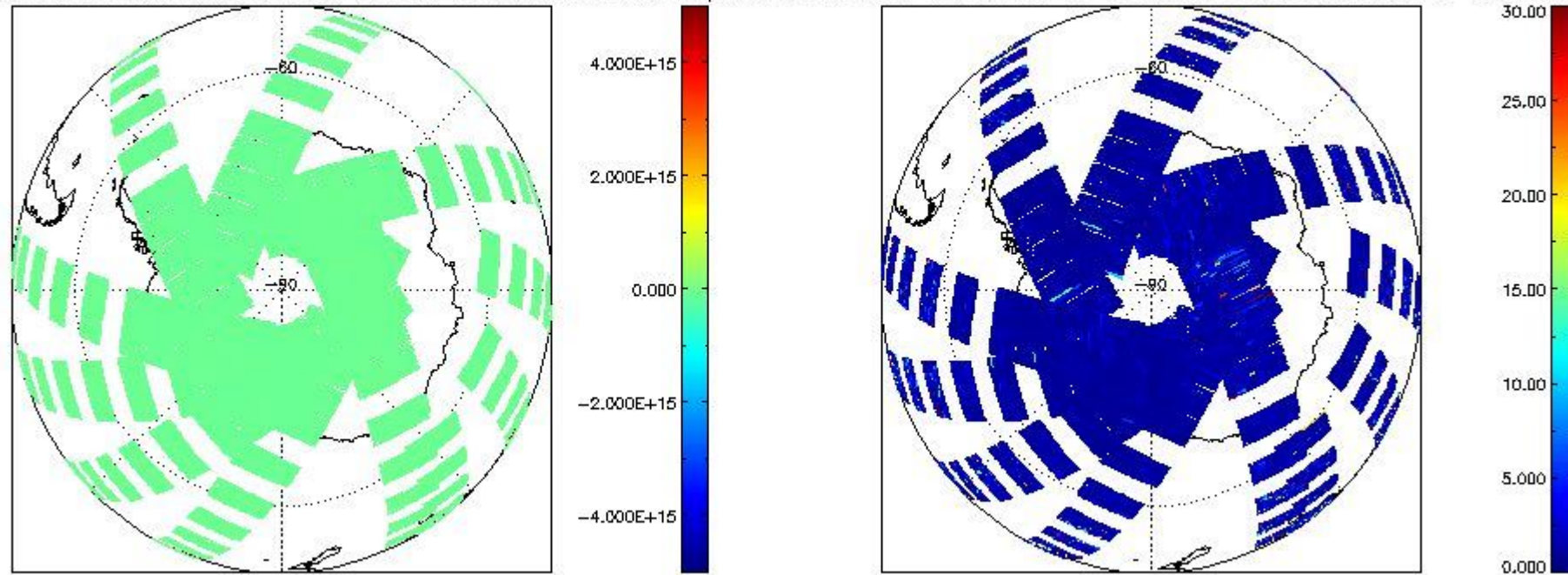


CIOL2P\_NADUV60CL\_slant\_col\_den for 13OCT2011 00:00:00 to 14OCT2011 00:00:00 np CIOL2P\_NADUV60CL\_err\_slant\_col for 13OCT2011 00:00:00 to 14OCT2011 00:00:00 np

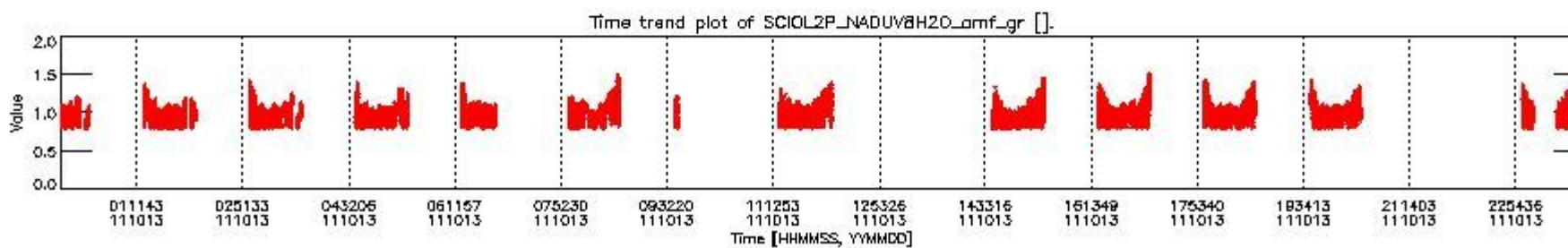
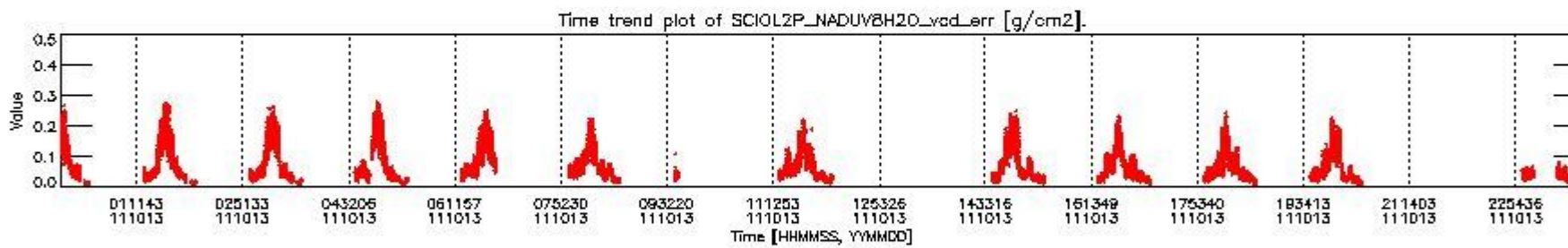
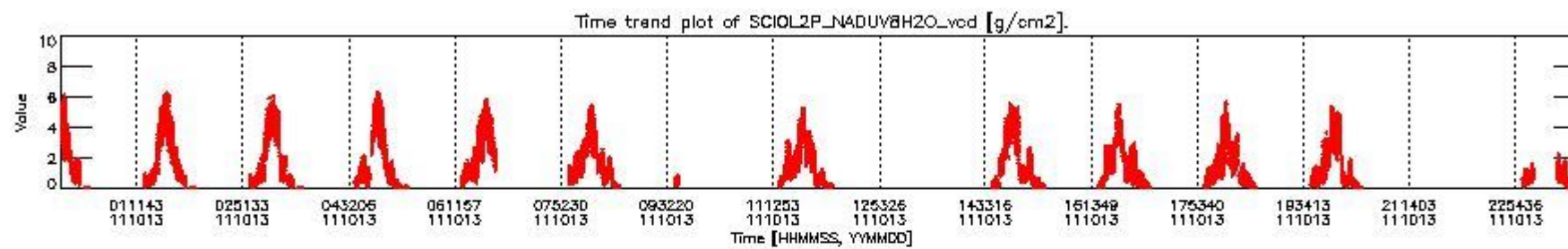




CIOL2P\_NADUV6OCL\_slant\_col\_den for 13OCT2011 00:00:00 to 14OCT2011 00:00:00 sp; CIOL2P\_NADUV6OCL\_err\_slant\_col for 13OCT2011 00:00:00 to 14OCT2011 00:00:00 sp

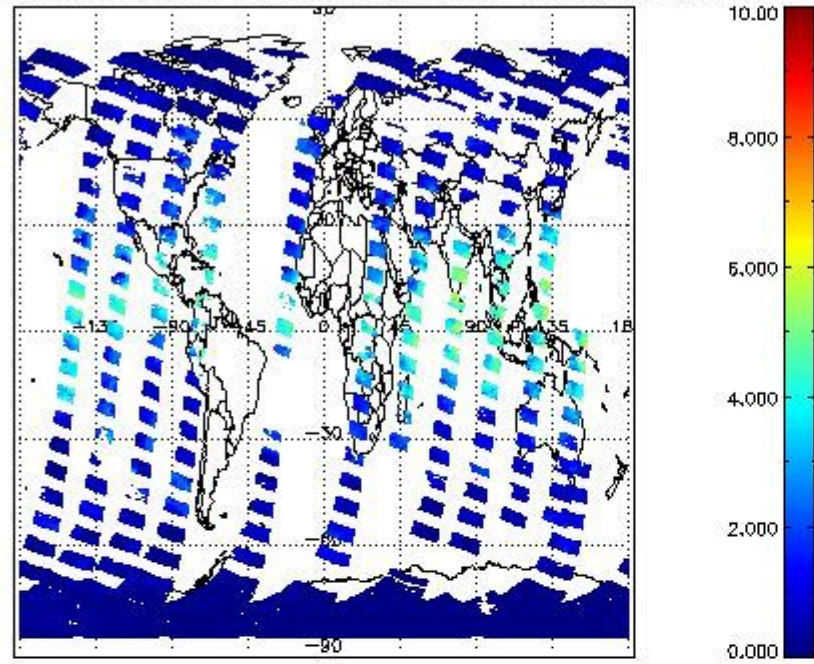


### 2.2.2.7 H2O (UV8)

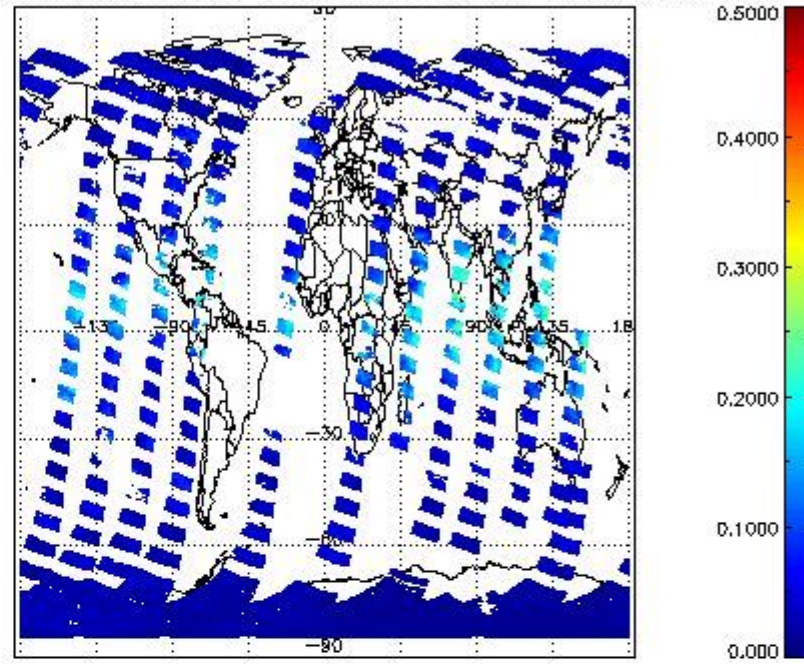




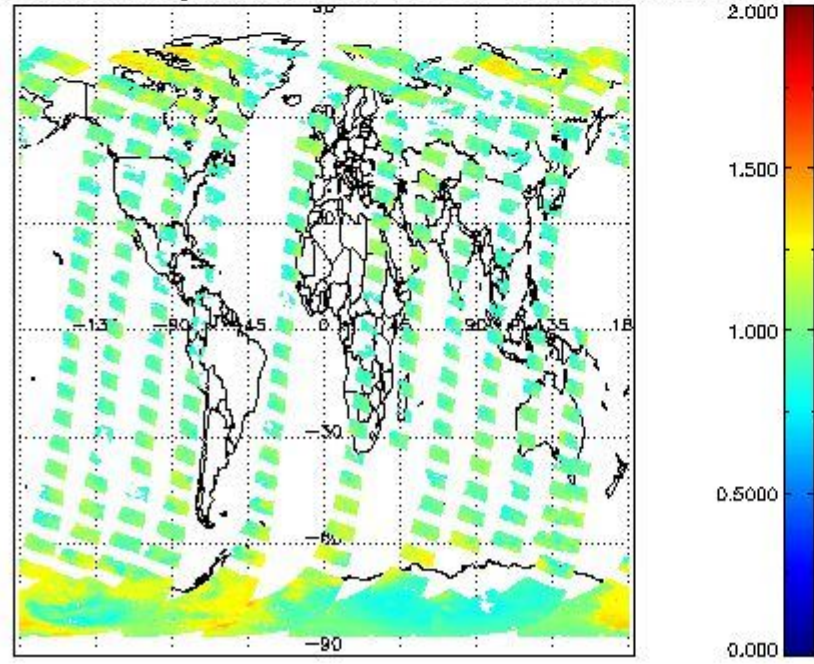
SCIOL2P\_NADUV8H20\_vcd for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



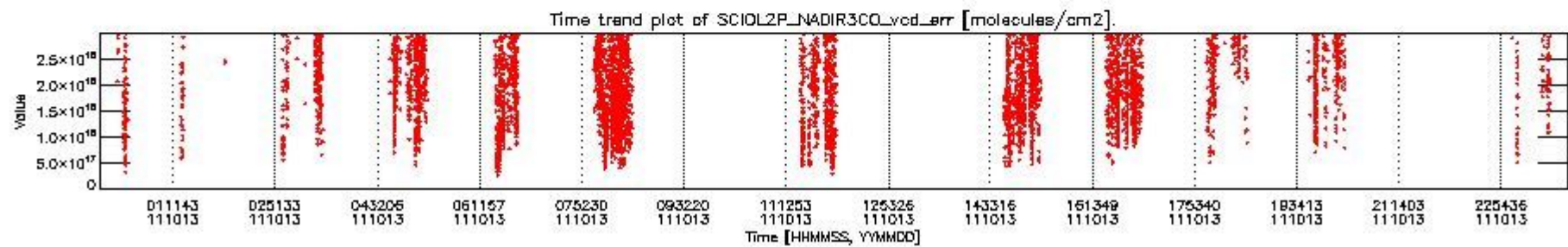
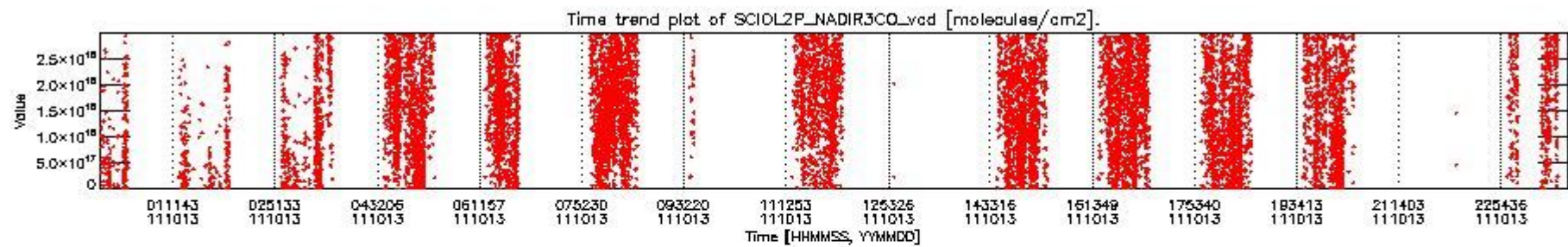
SCIOL2P\_NADUV8H20\_vcd\_err for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



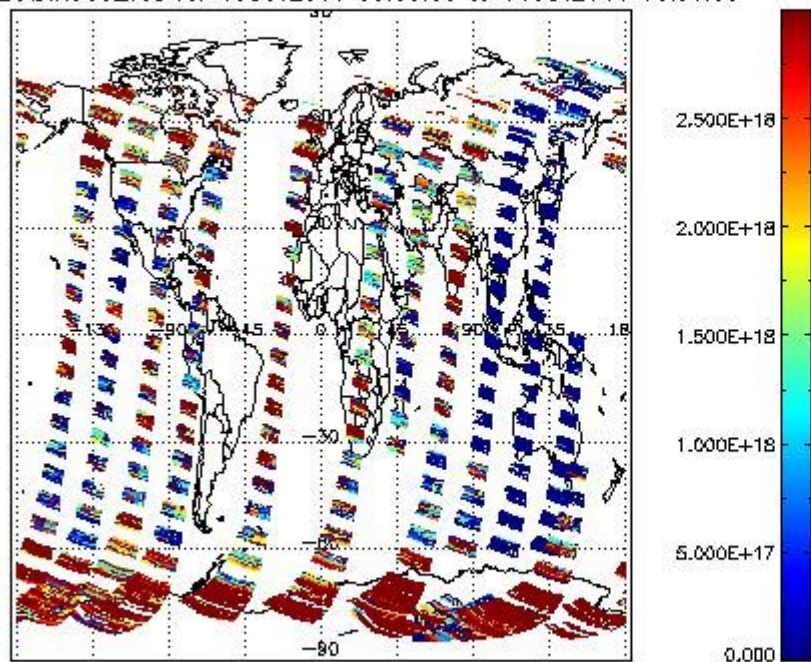
SCIOL2P\_NADUV8H20\_amf\_gr for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



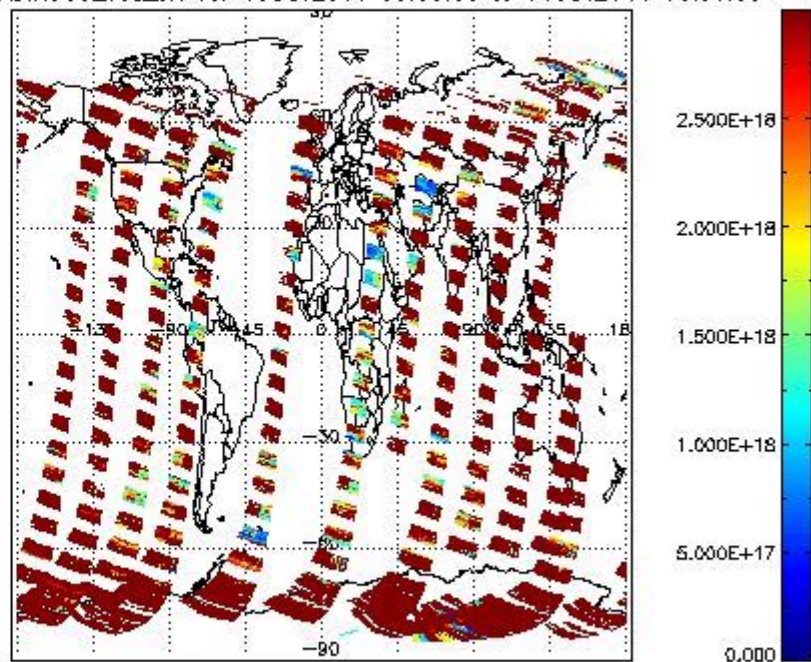




SCIDL2P\_NADIR3CO\_vcd for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



SCIDL2P\_NADIR3CO\_vcd\_err for 13OCT2011 00:00:00 to 14OCT2011 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.

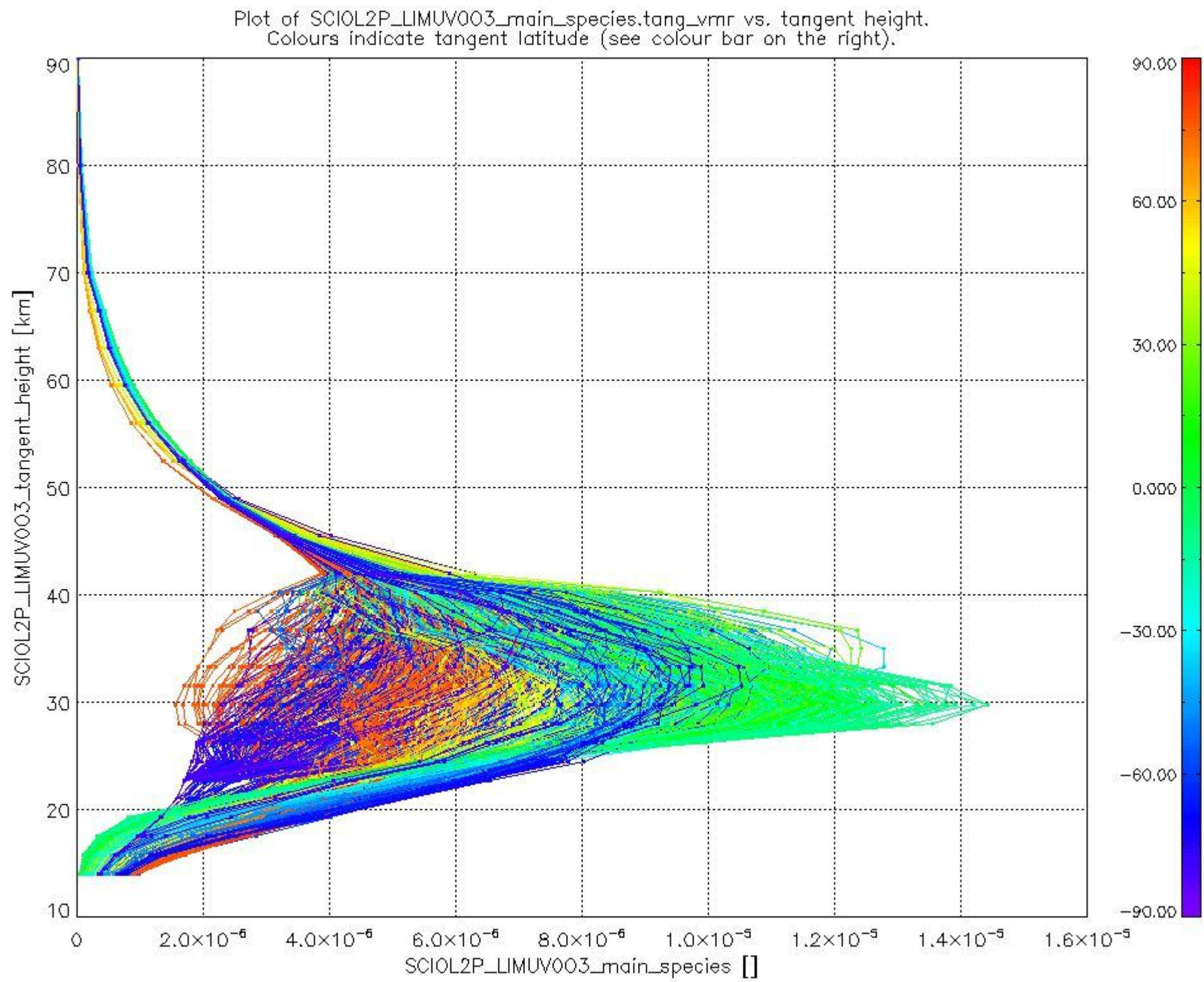
The following data items are currently included into this section:

Number	Data item ID
0	SCIDL2P_LIMUV003_main_species
1	SCIDL2P_LIMUV1NO2_main_species
2	SCIDL2P_LIMUV3BRO_main_species



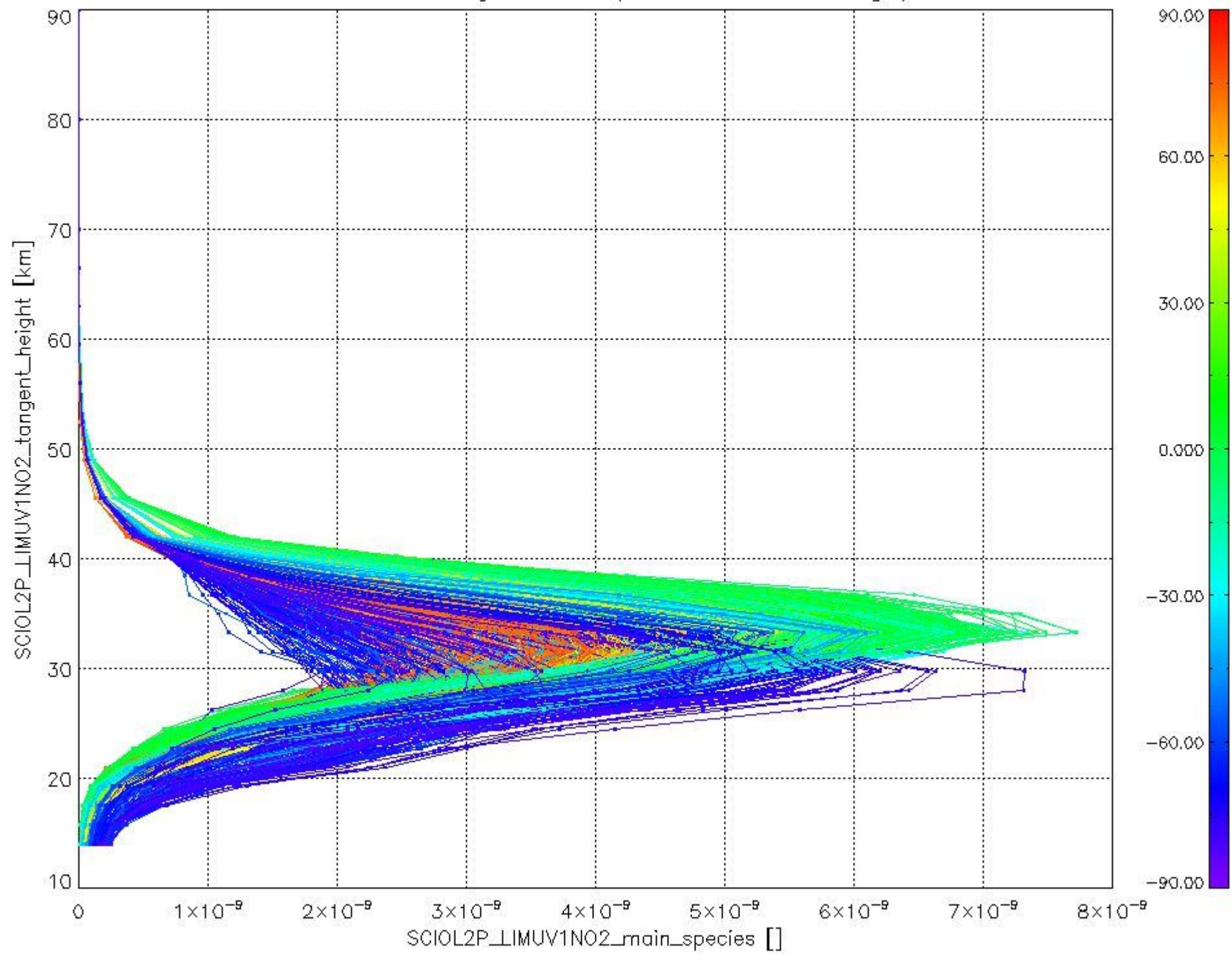
The following plots show for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

2.2.3.1 O3 (UV0)



2.2.3.2 NO2 (UV1)

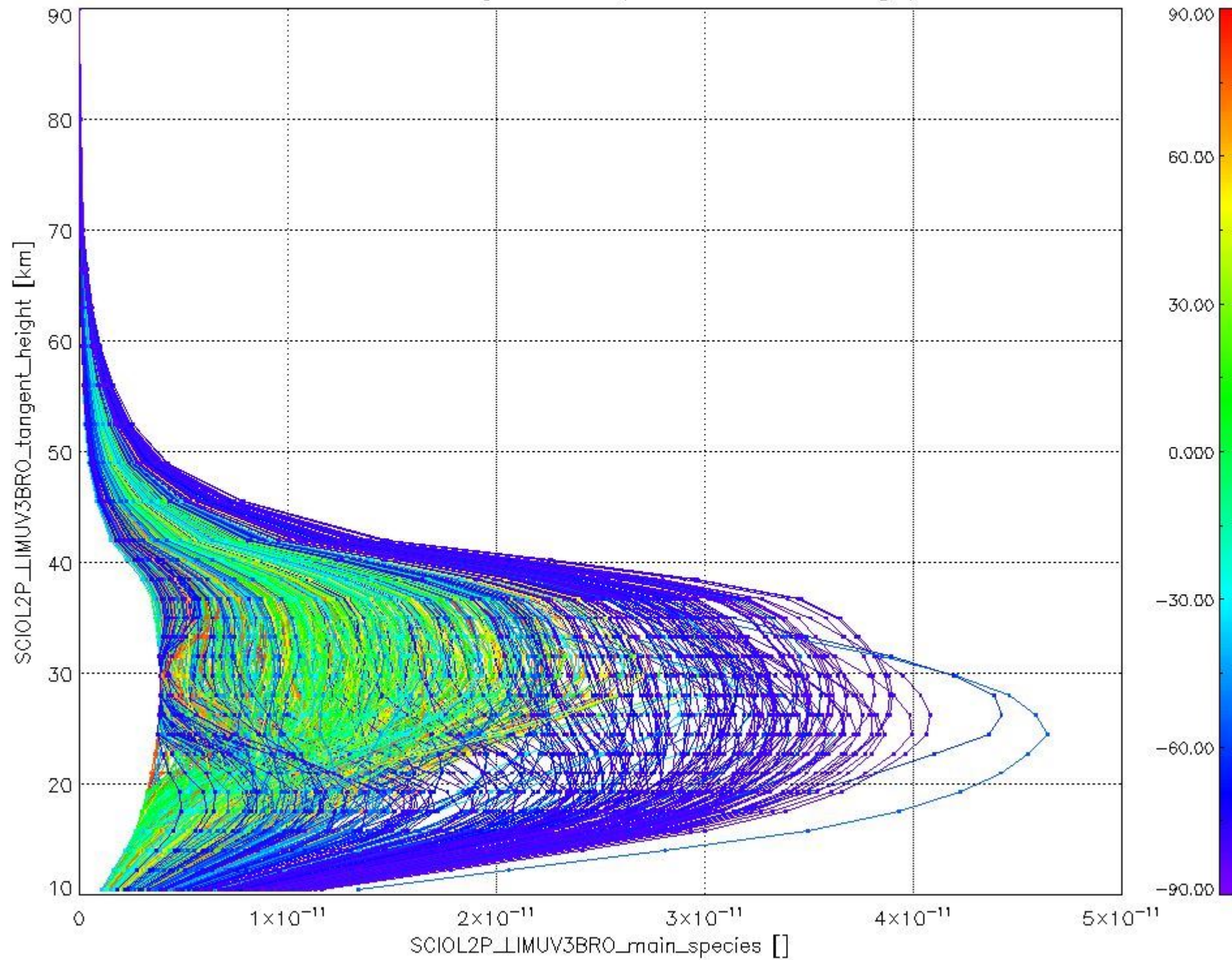
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



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).



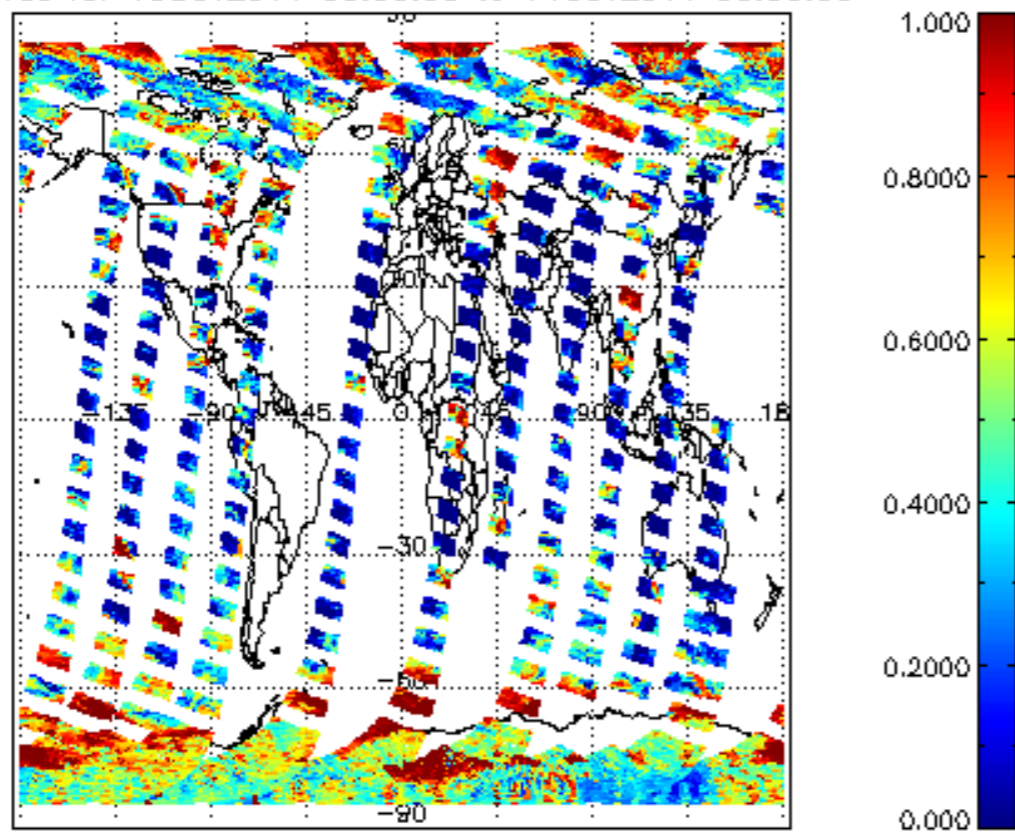
### 2.3 ADF monitoring

Number	ADF
	<b>IN_ (INITIALISATION_FILE)</b>
0	SCI_IN_AXNPDE20110201_120000_20020301_000000_20991231_235959
	<b>ECF (ECMWF_FILE)</b>
1	NOT USED
	<b>MF1 (M_FACTOR_FILE)</b>
2	SCI_MF1_AXVIEC20111011_110802_20111012_193358_20111014_193358
3	SCI_MF1_AXVIEC20111011_110907_20111013_185712_20111015_185712

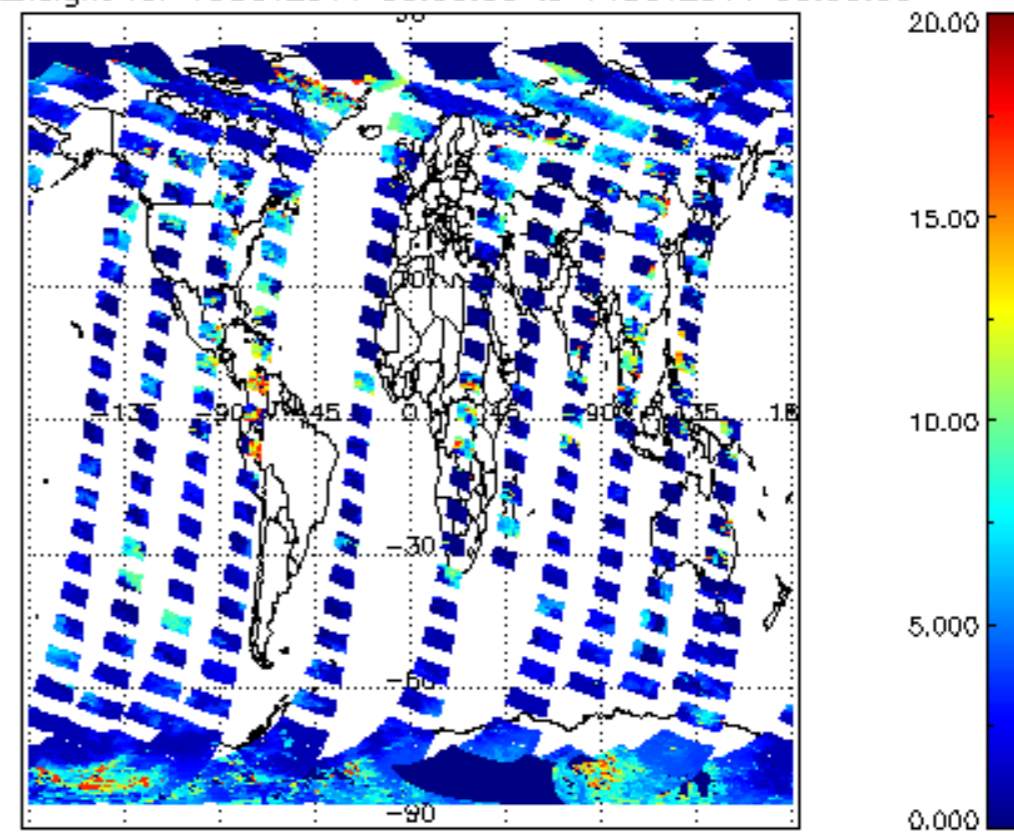




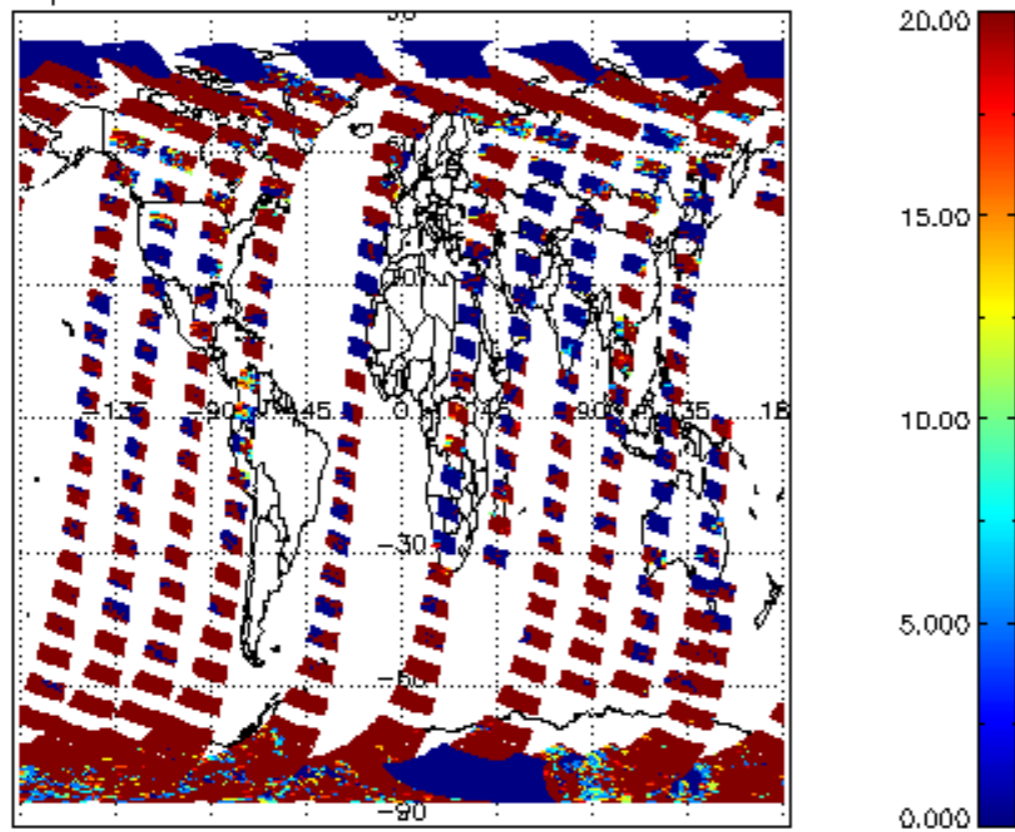
cl\_frac for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



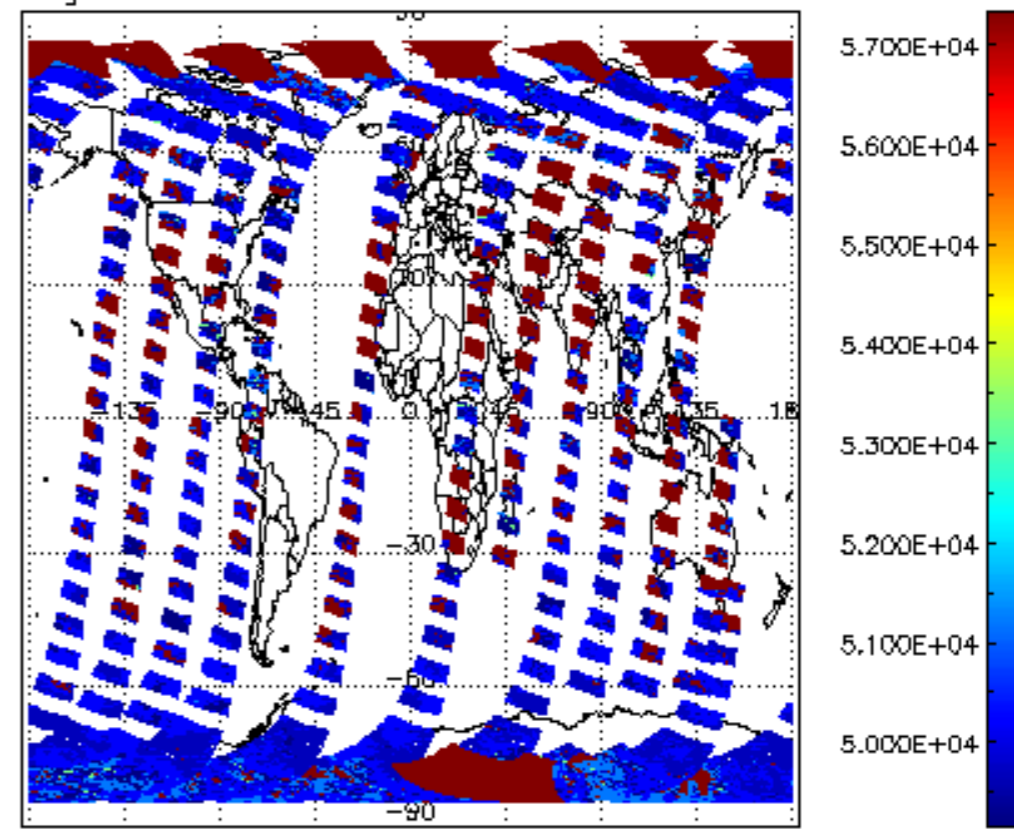
cl\_top\_height for 13OCT2011 00:00:00 to 14OCT2011 00:00:00

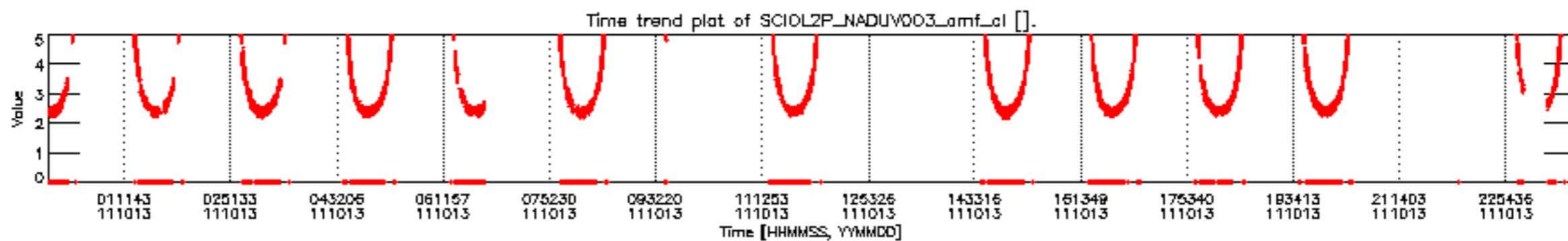
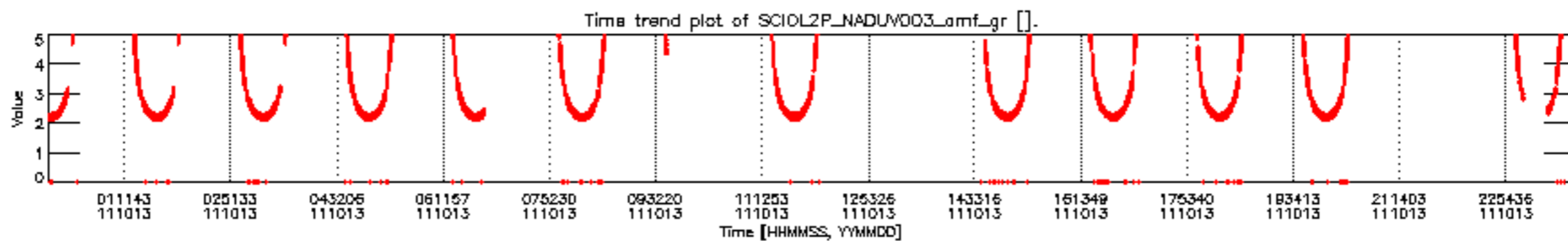
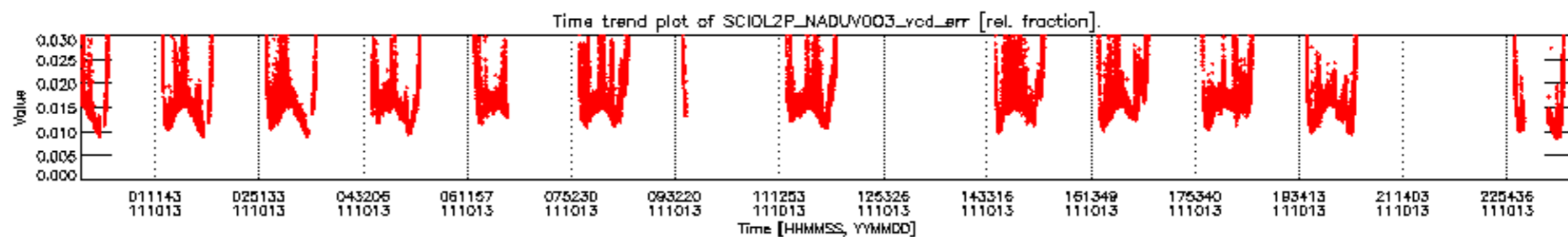
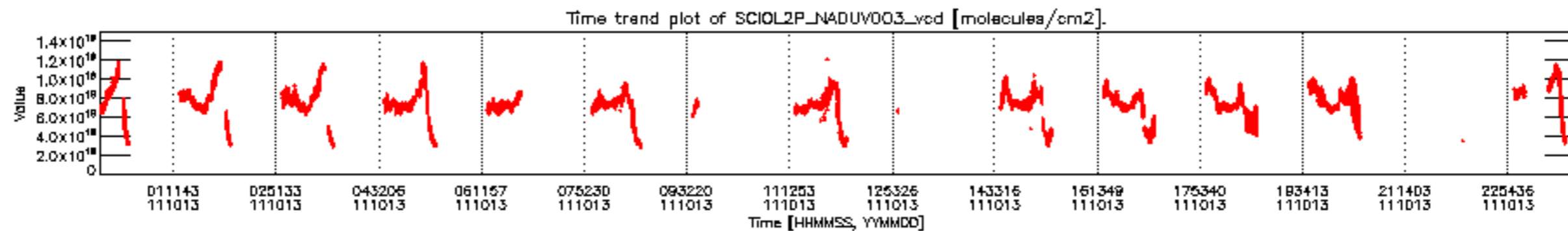


cl\_opt\_depth for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



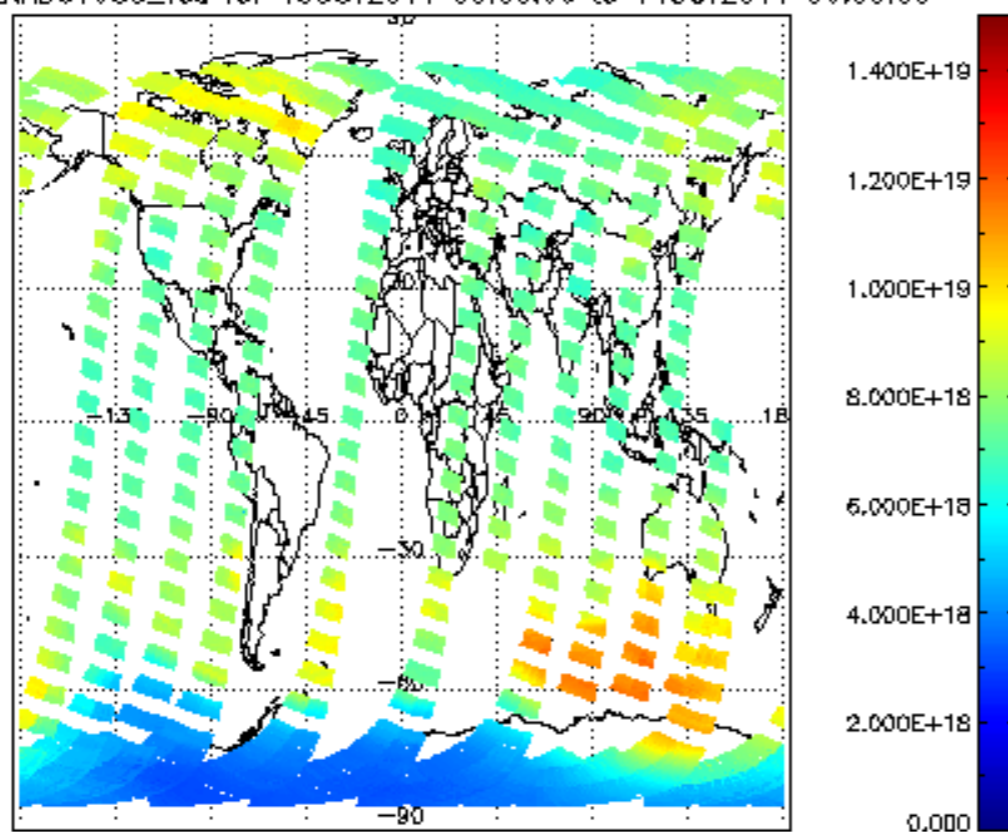
cloud\_flags for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



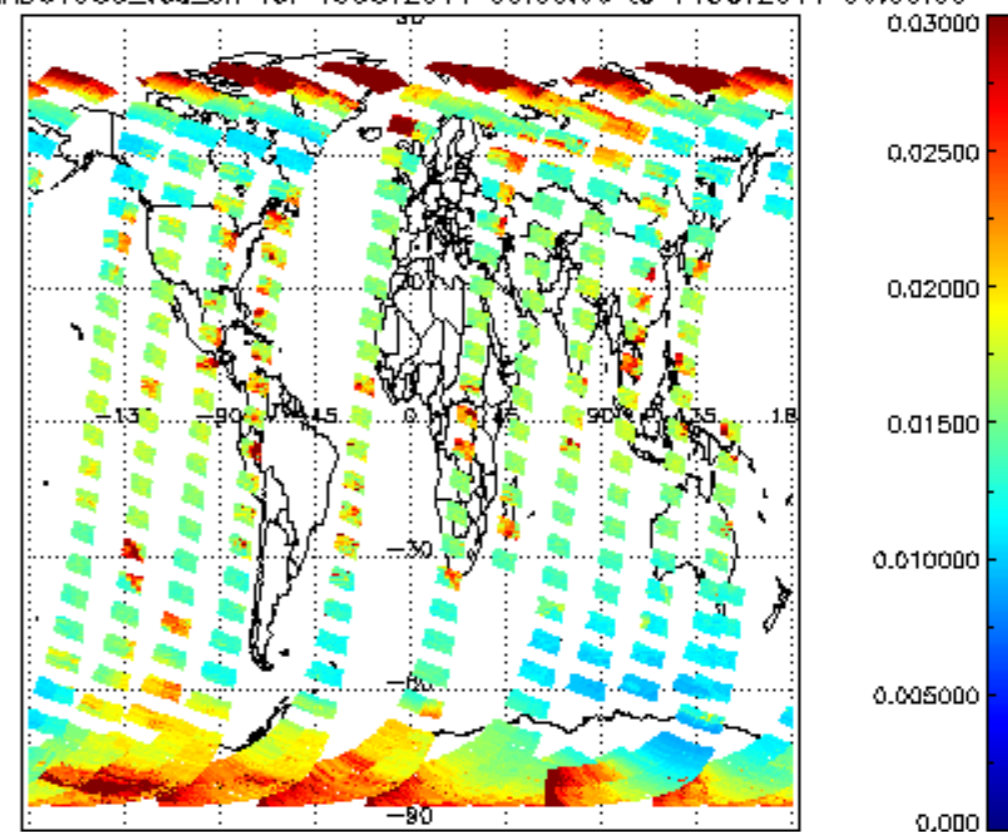




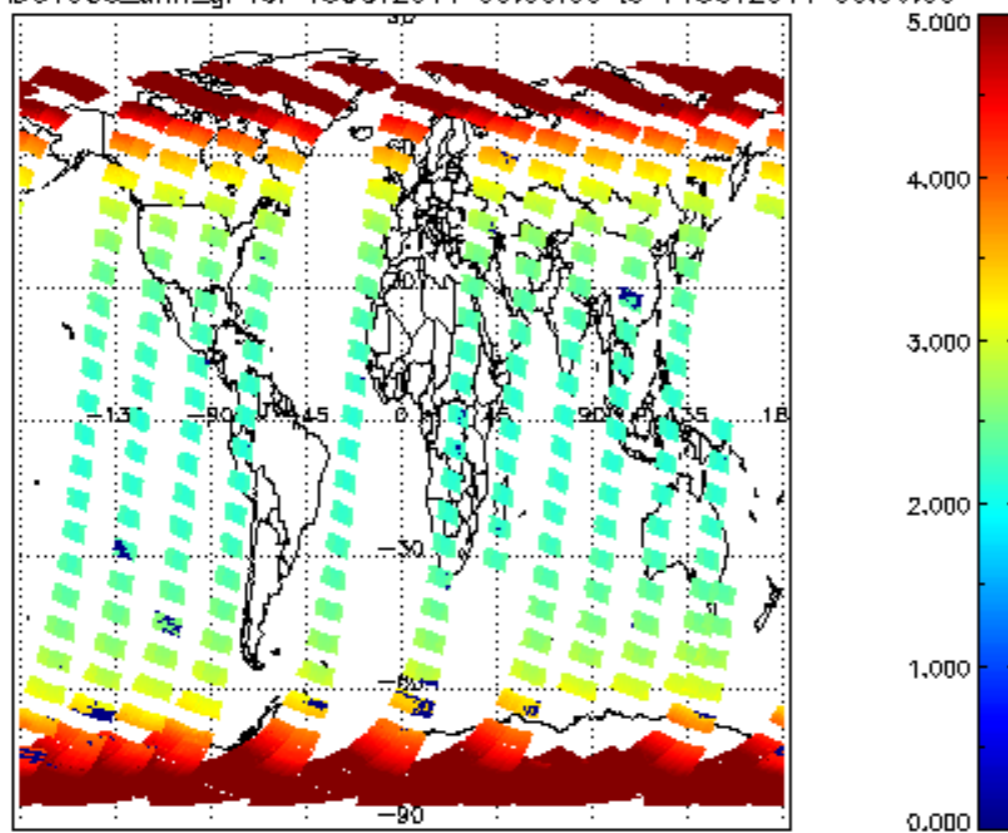
SCIOL2P\_NADUV003\_vcd for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



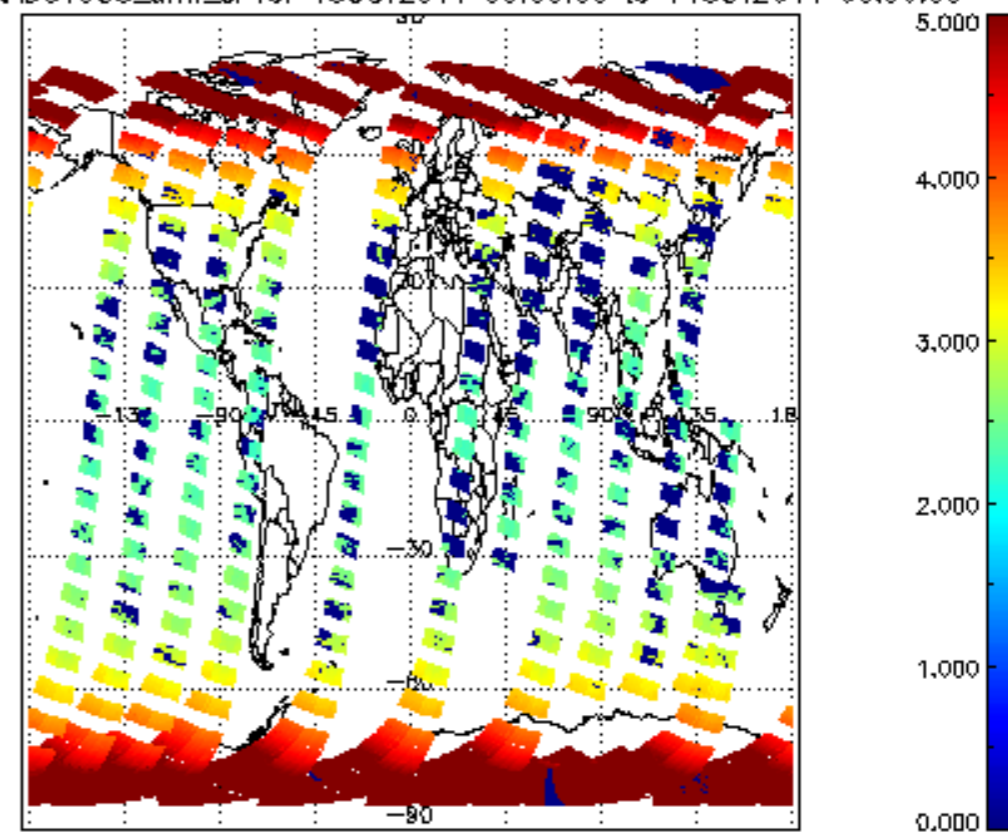
SCIOL2P\_NADUV003\_vcd\_err for 13OCT2011 00:00:00 to 14OCT2011 00:00:00

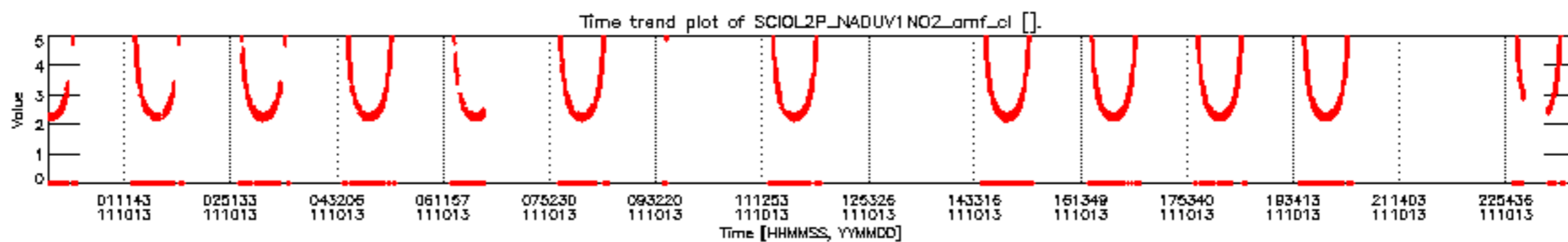
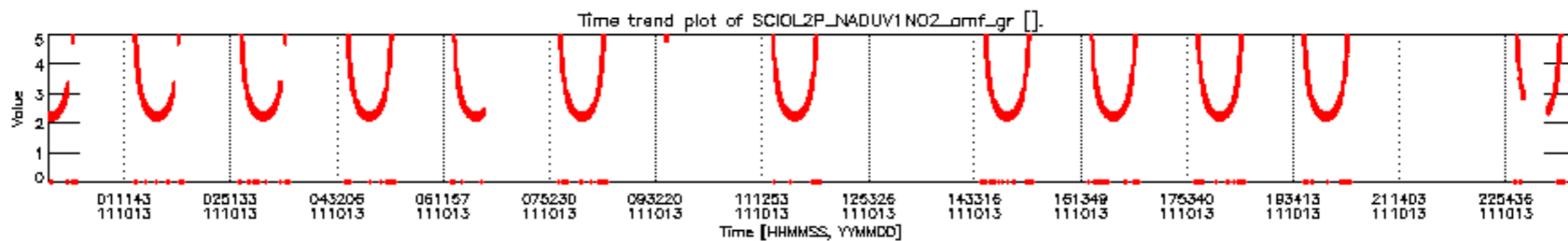
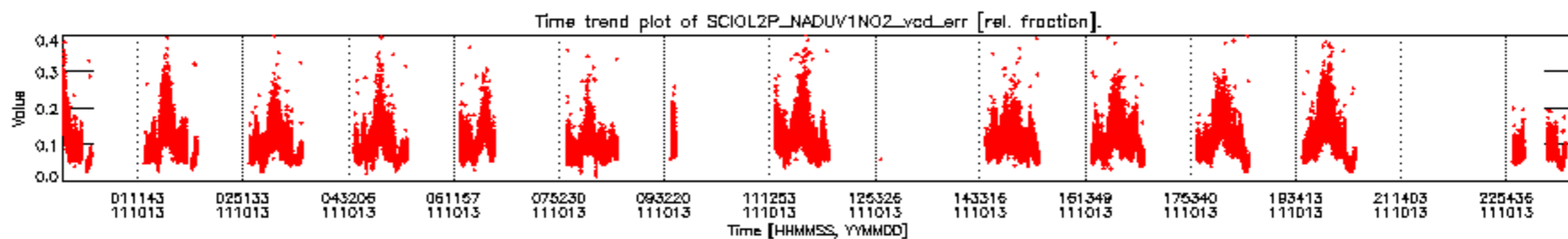
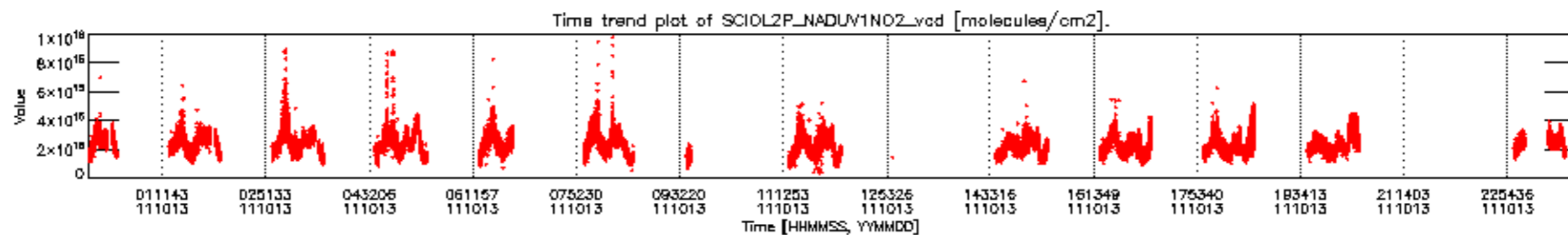


SCIOL2P\_NADUV003\_amf\_gr for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



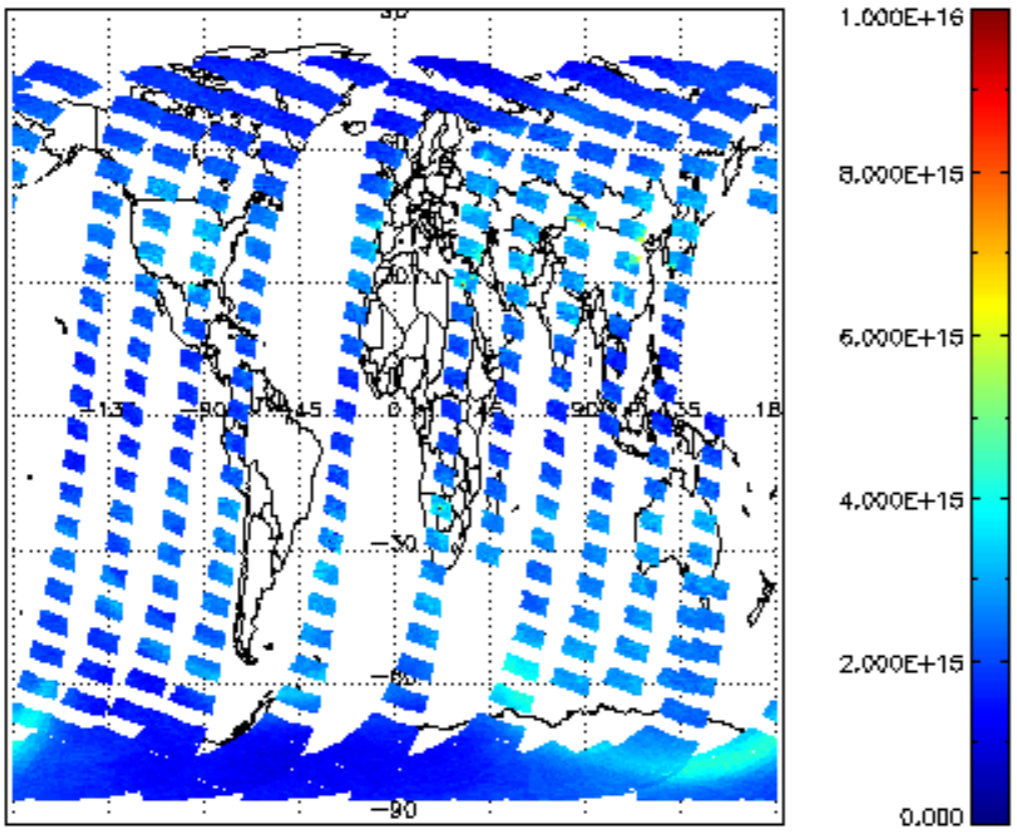
SCIOL2P\_NADUV003\_amf\_cl for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



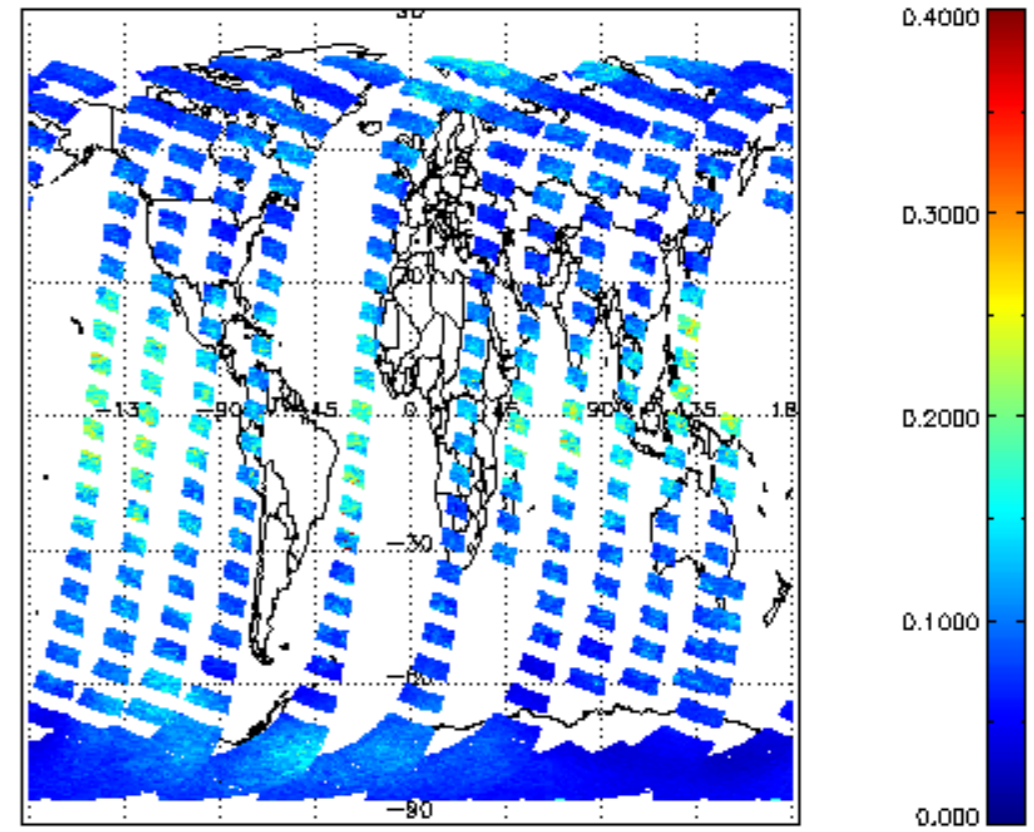




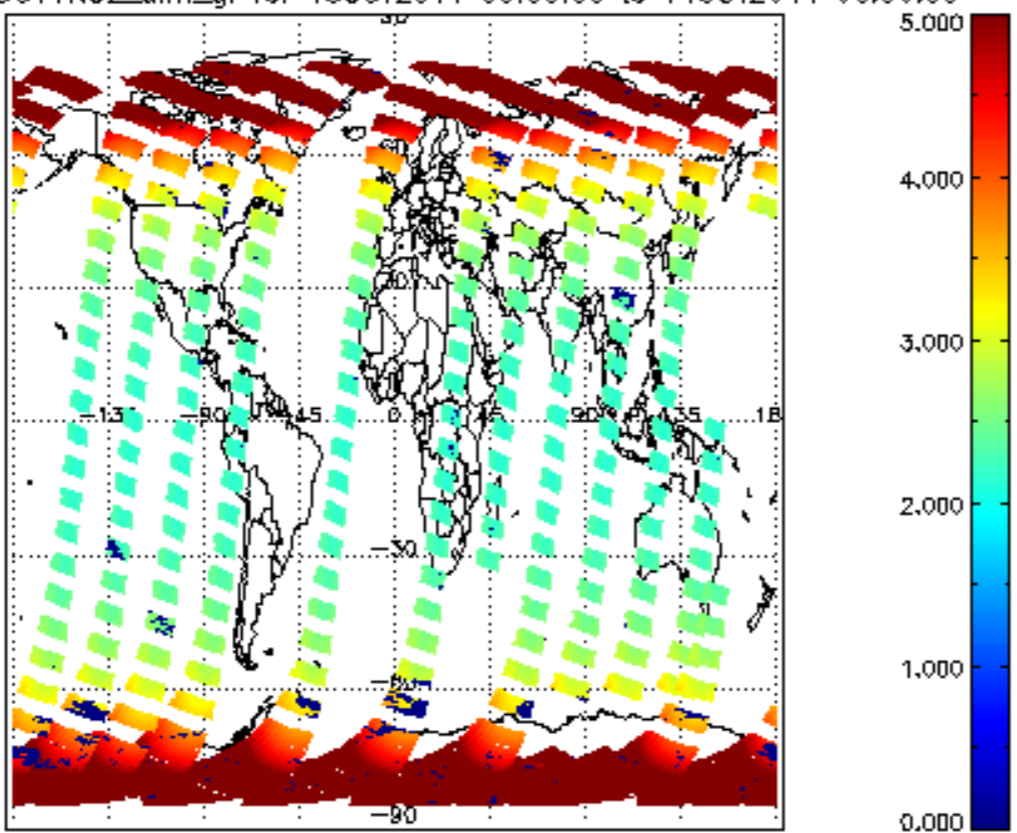
SCIOL2P\_NADUV1NO2\_vcd for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



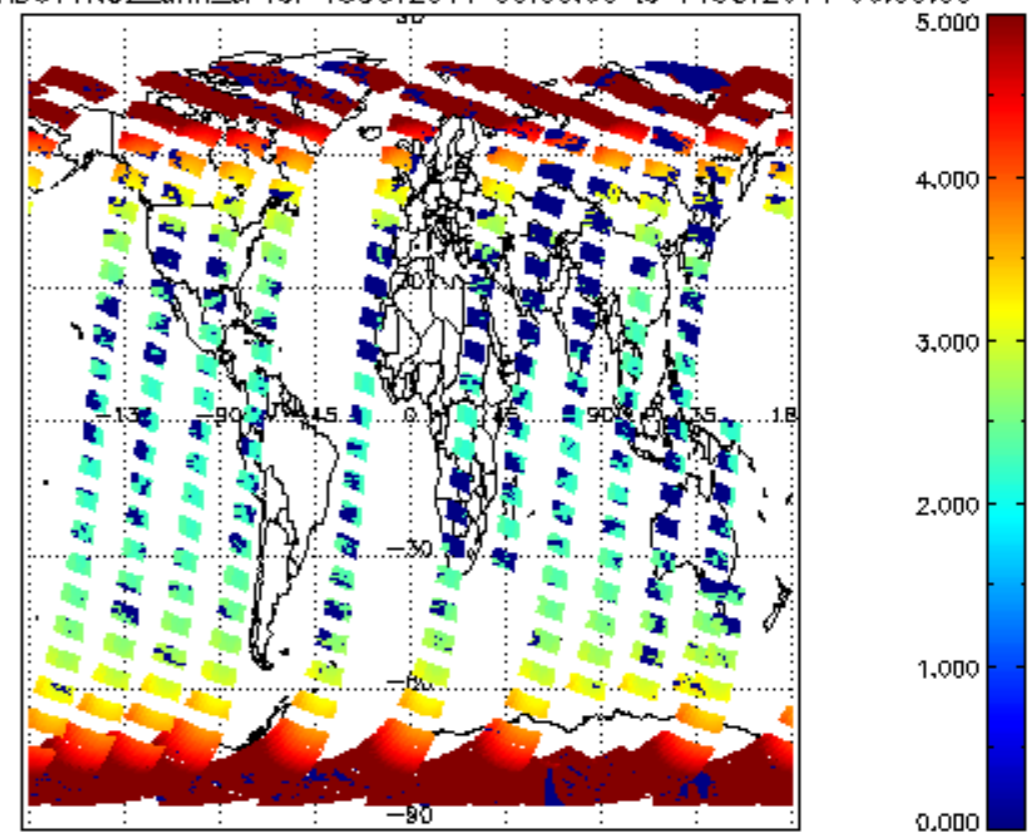
SCIOL2P\_NADUV1NO2\_vcd\_err for 13OCT2011 00:00:00 to 14OCT2011 00:00:00

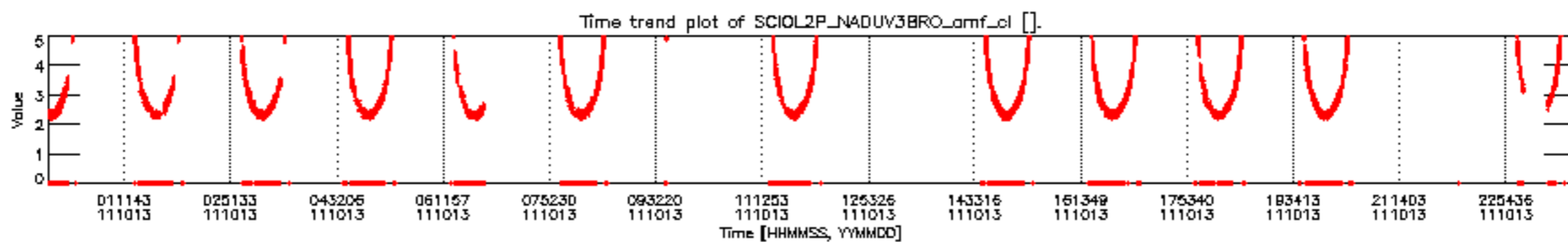
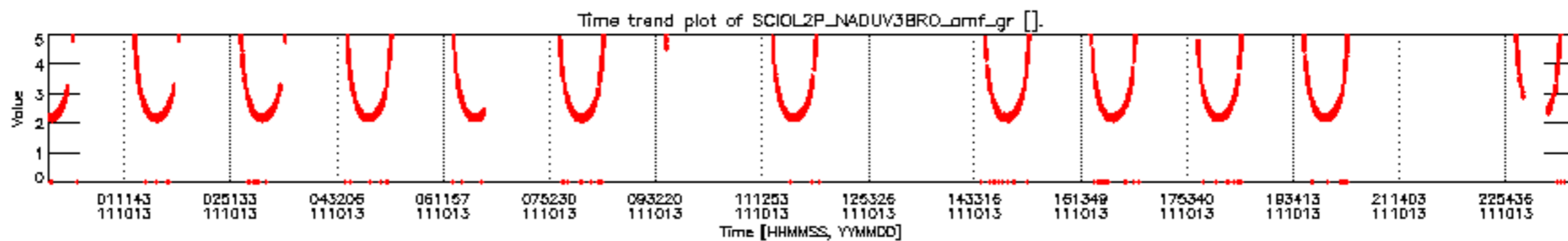
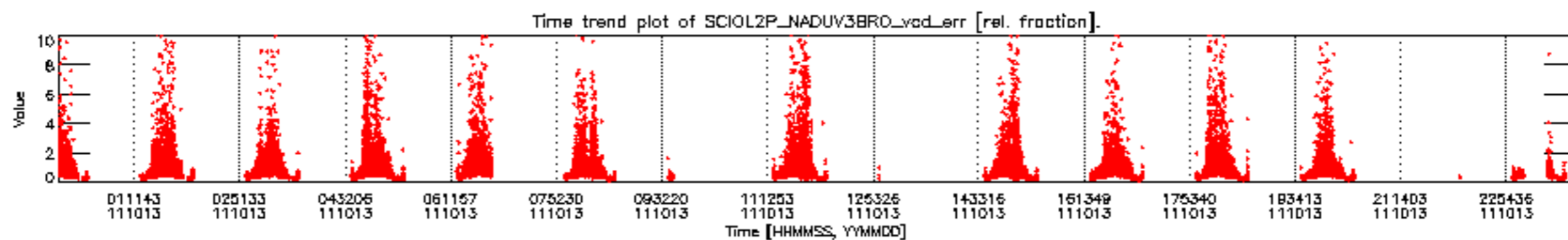
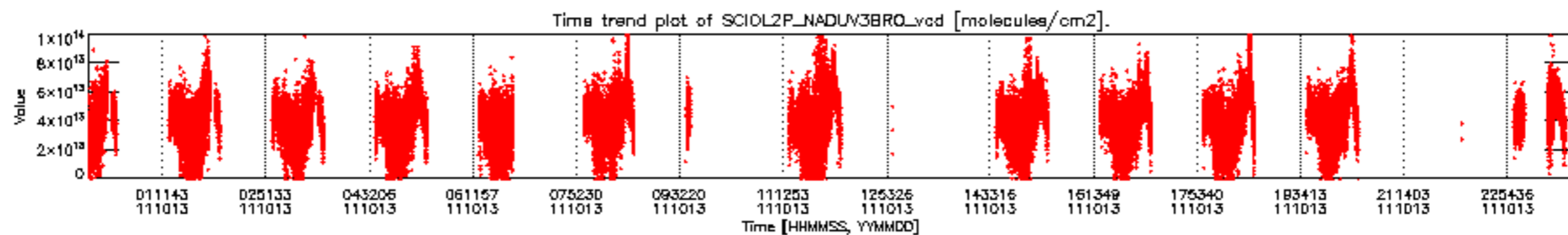


SCIOL2P\_NADUV1NO2\_amf\_gr for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



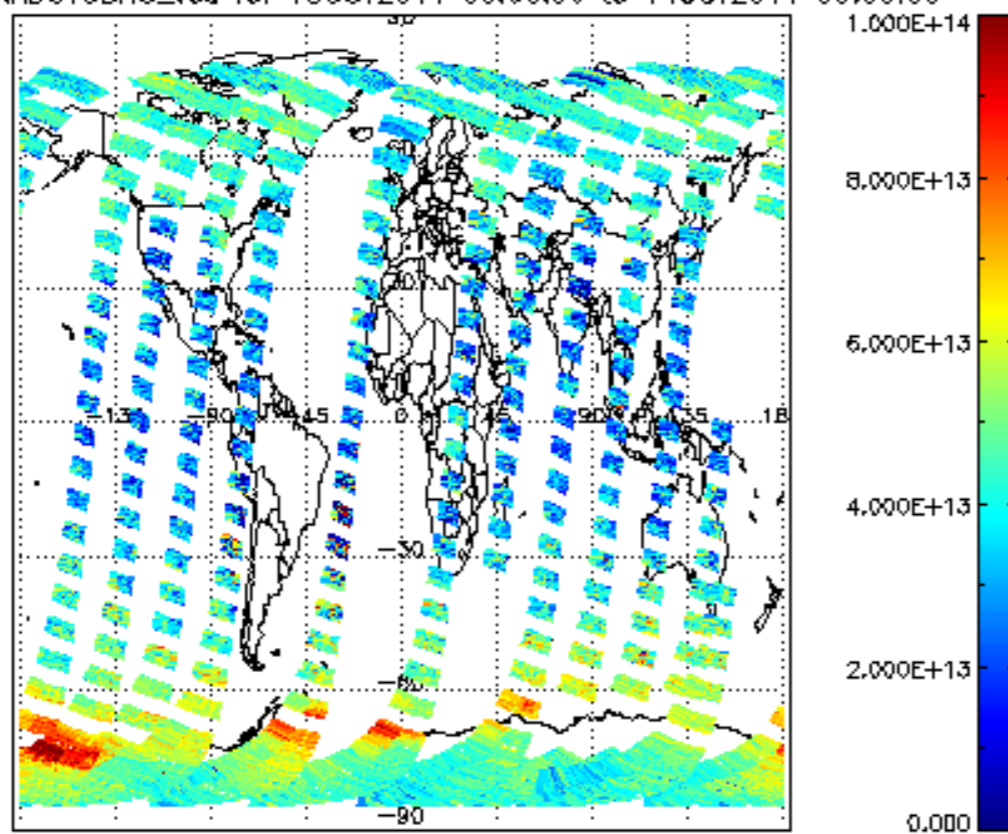
SCIOL2P\_NADUV1NO2\_amf\_cl for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



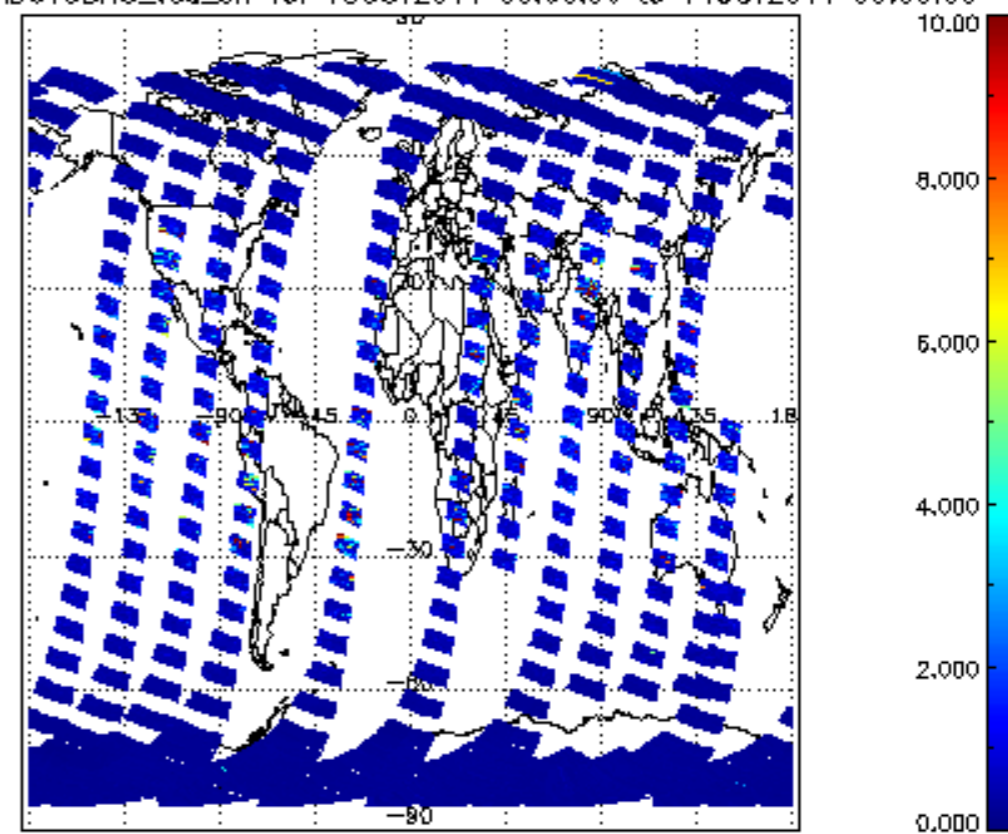




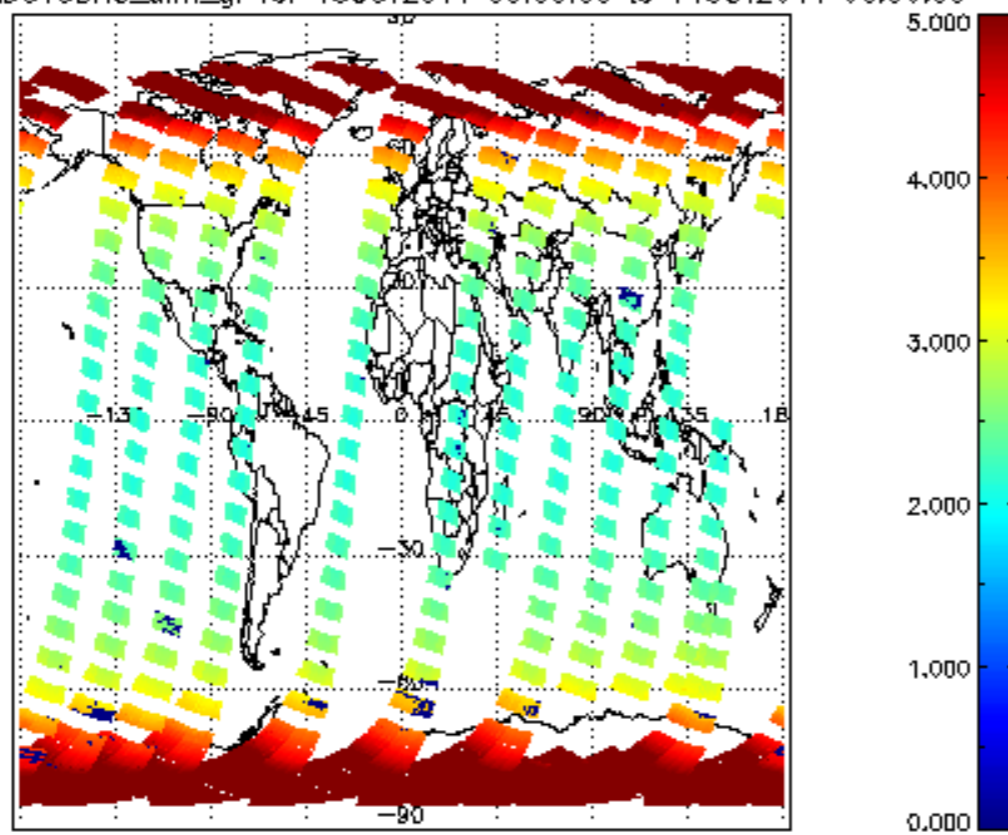
SCIOL2P\_NADUV3BRO\_vcd for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



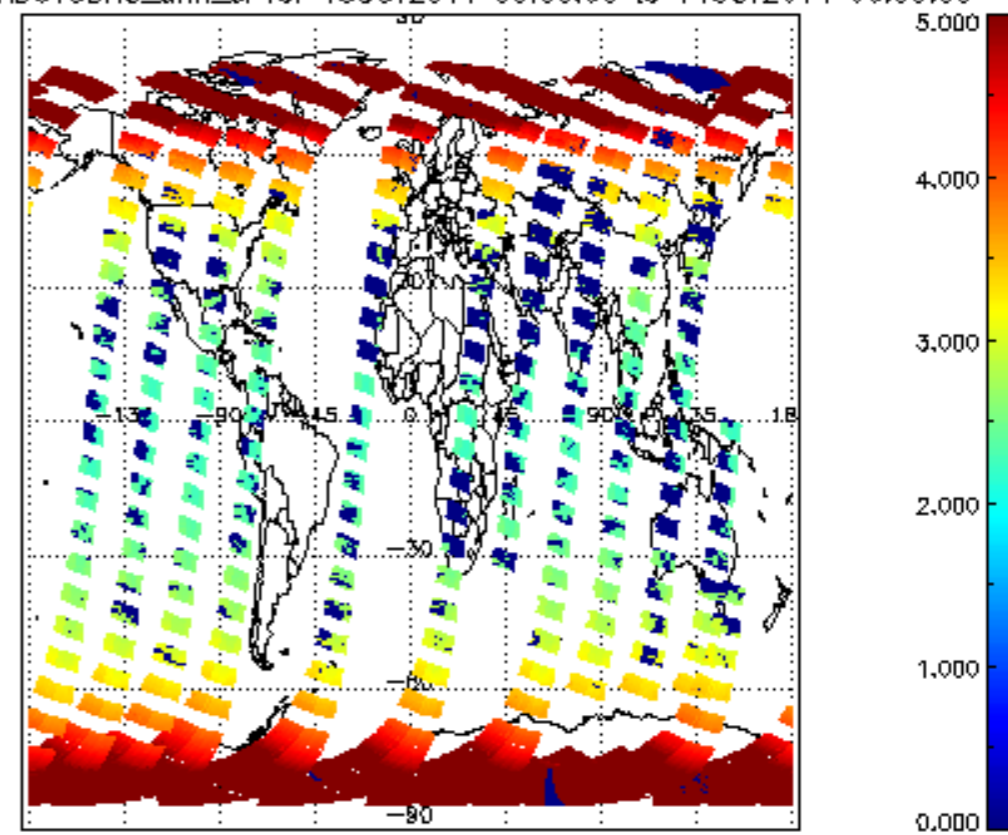
SCIOL2P\_NADUV3BRO\_vcd\_err for 13OCT2011 00:00:00 to 14OCT2011 00:00:00

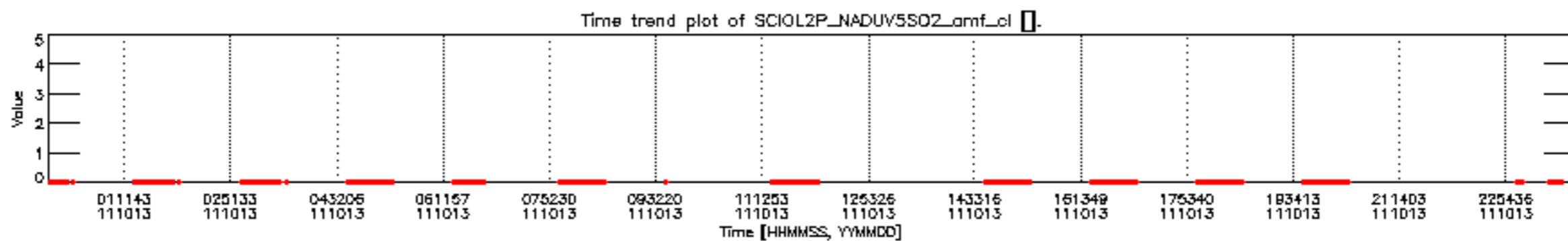
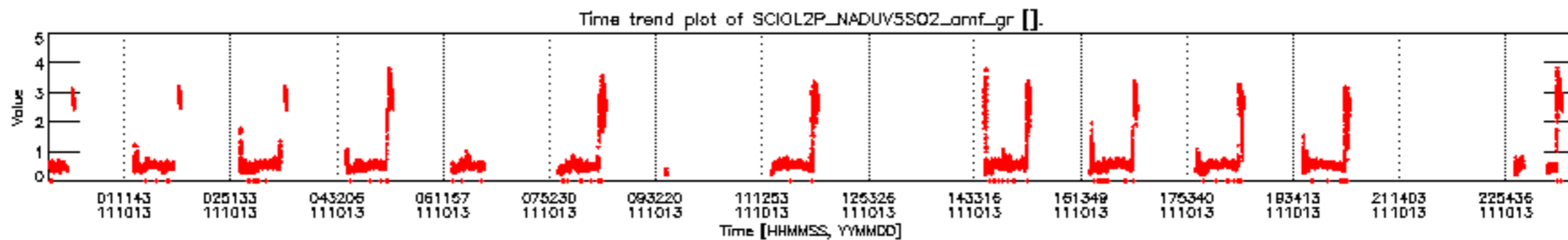
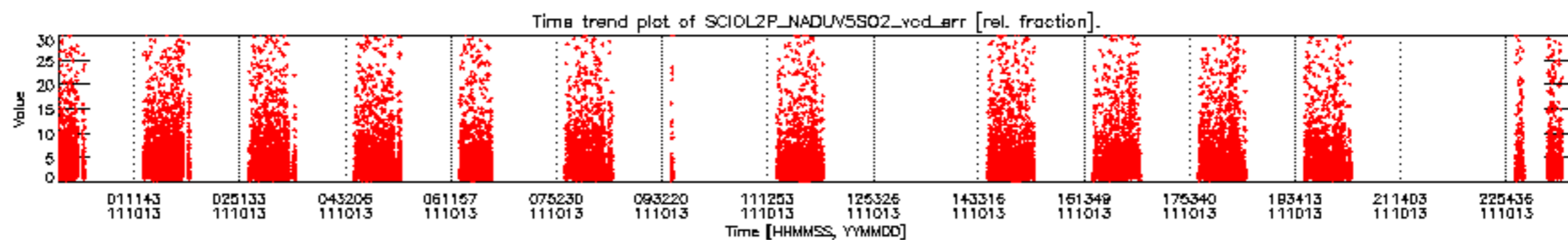
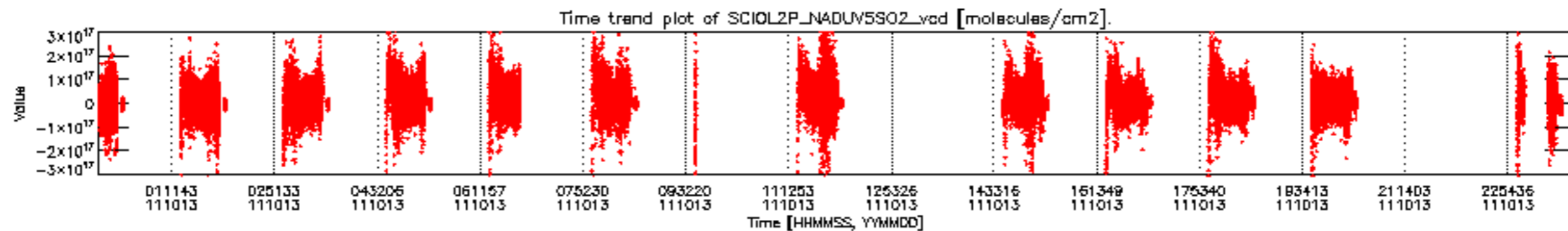


SCIOL2P\_NADUV3BRO\_amf\_gr for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



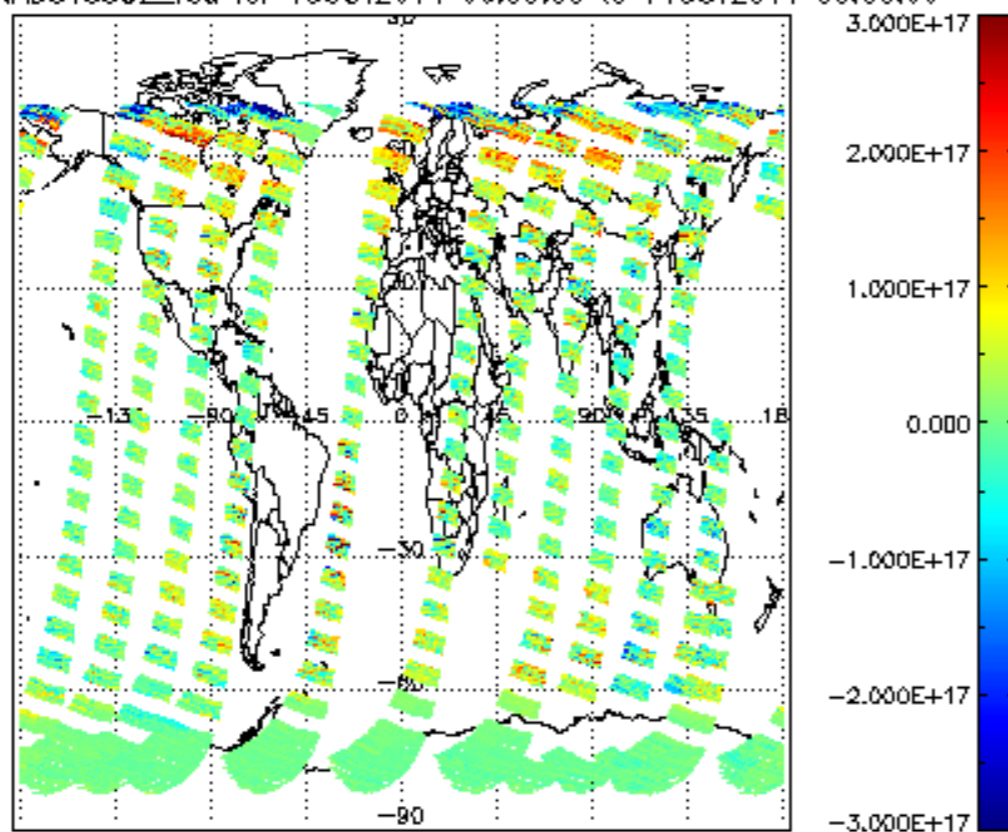
SCIOL2P\_NADUV3BRO\_amf\_cl for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



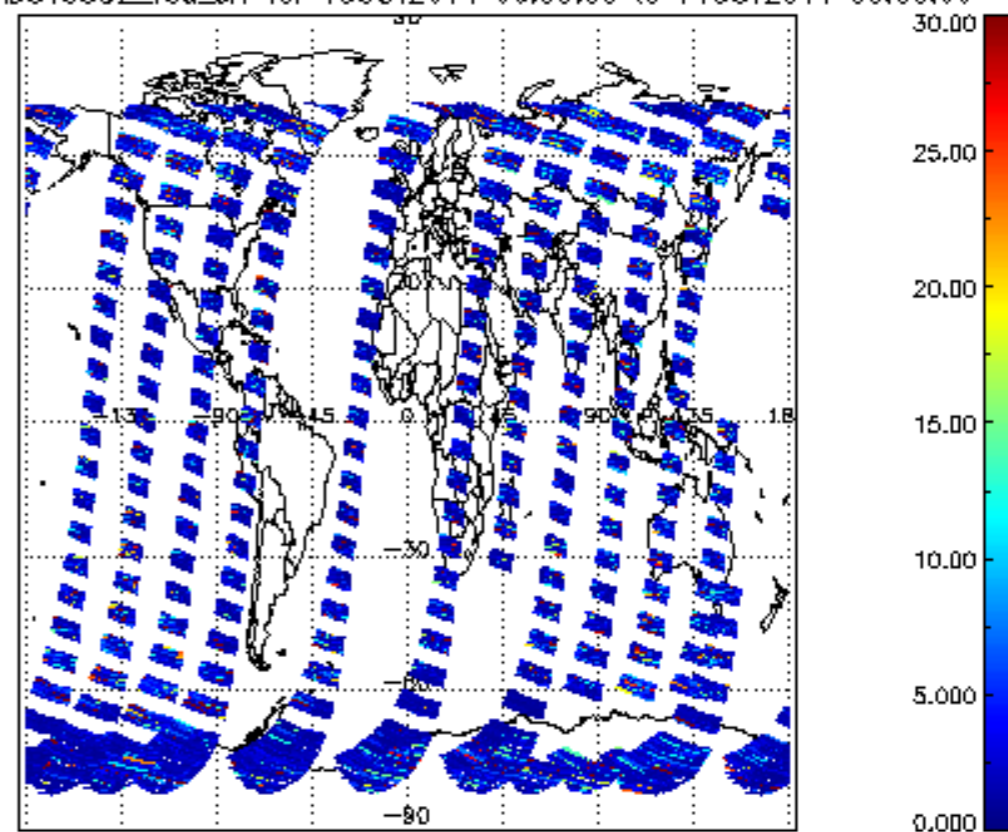




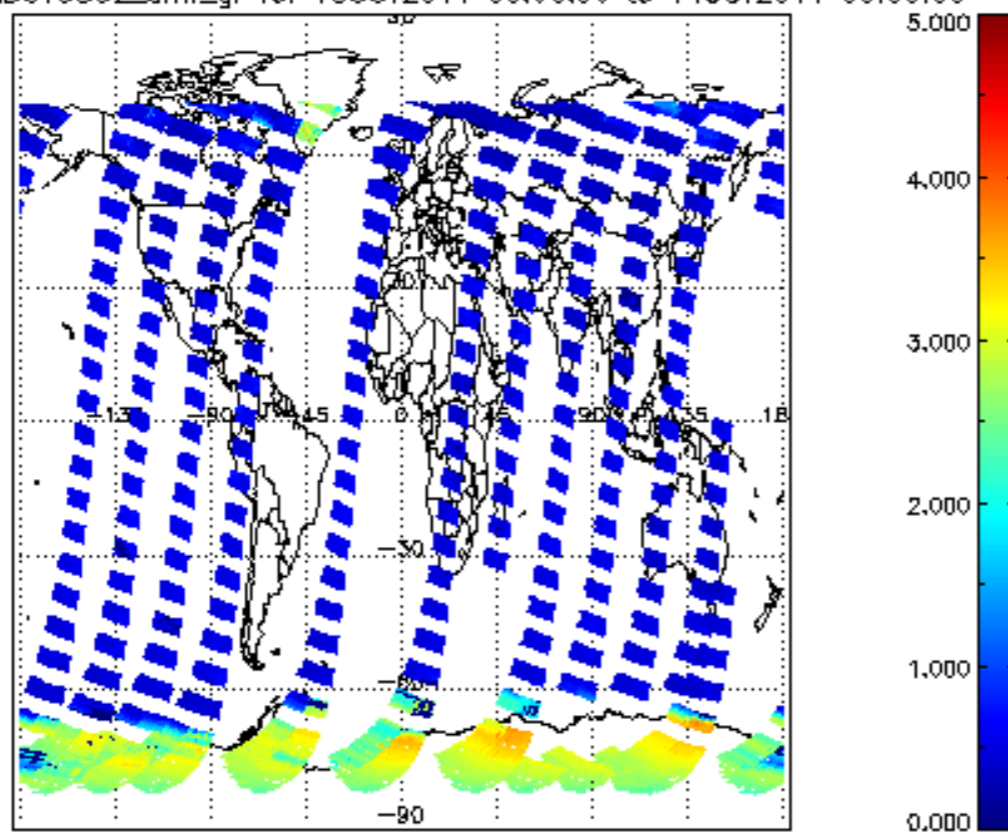
SCIOL2P\_NADUV5S02\_vcd for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



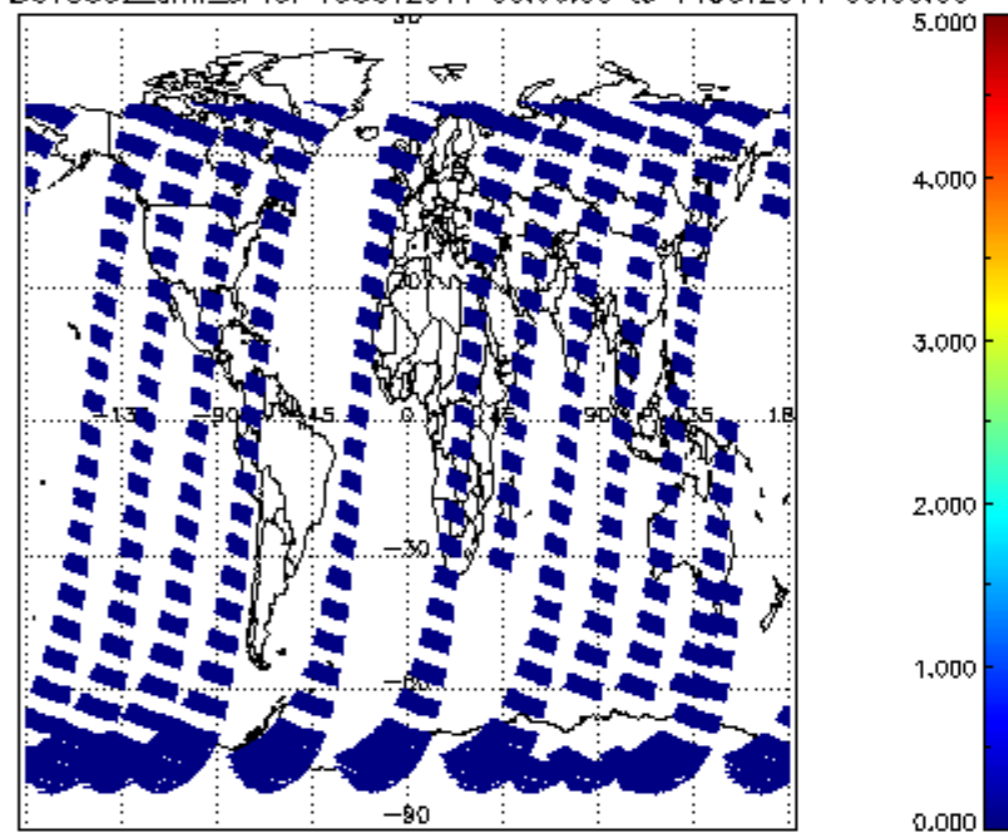
SCIOL2P\_NADUV5S02\_vcd\_err for 13OCT2011 00:00:00 to 14OCT2011 00:00:00

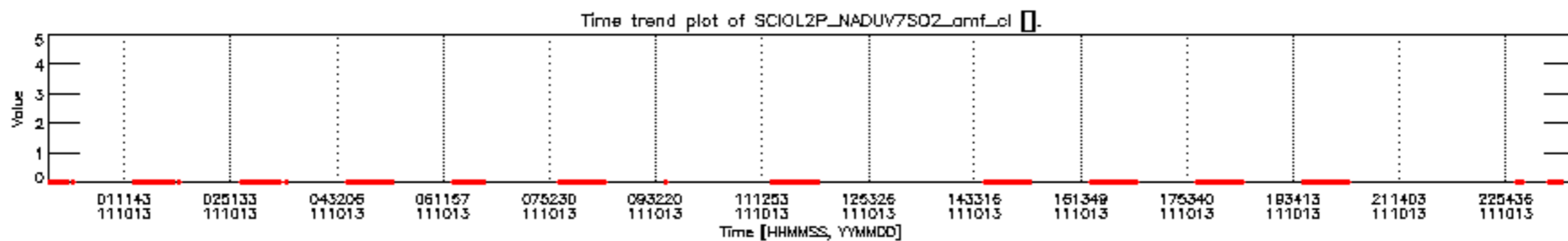
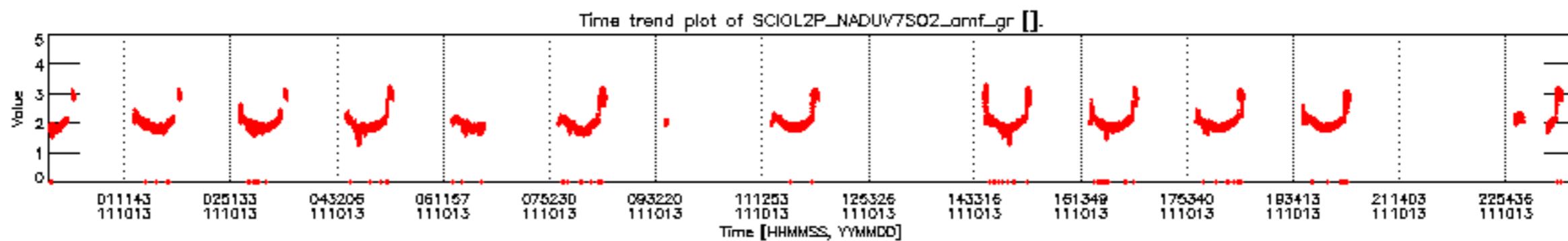
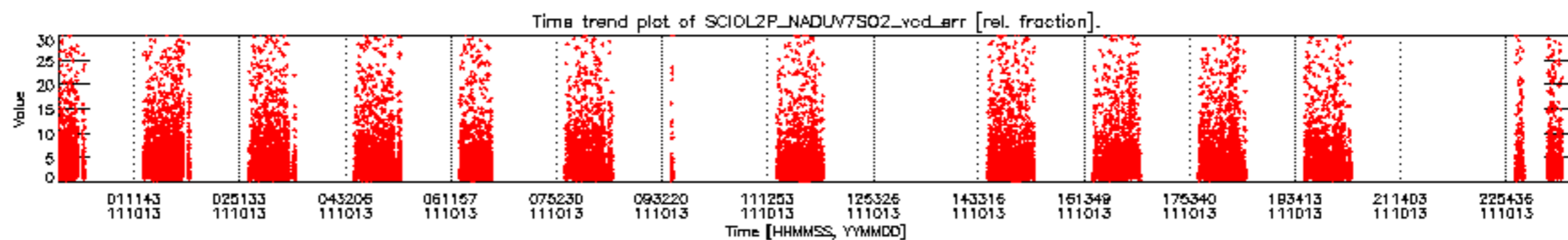
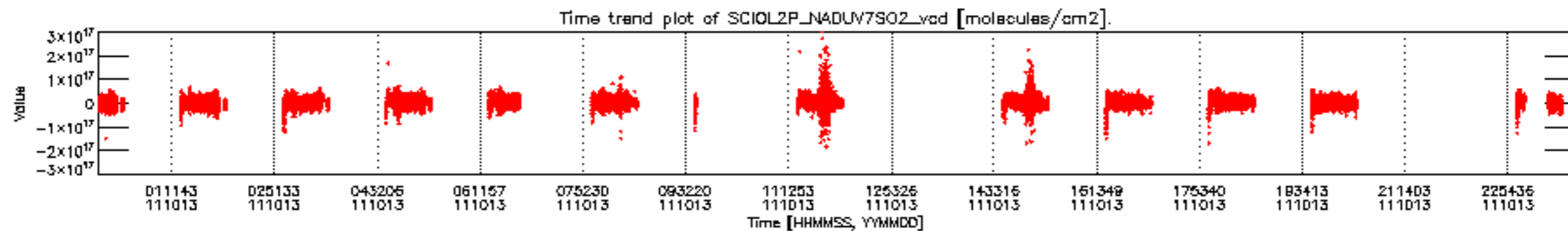


SCIOL2P\_NADUV5S02\_amf\_gr for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



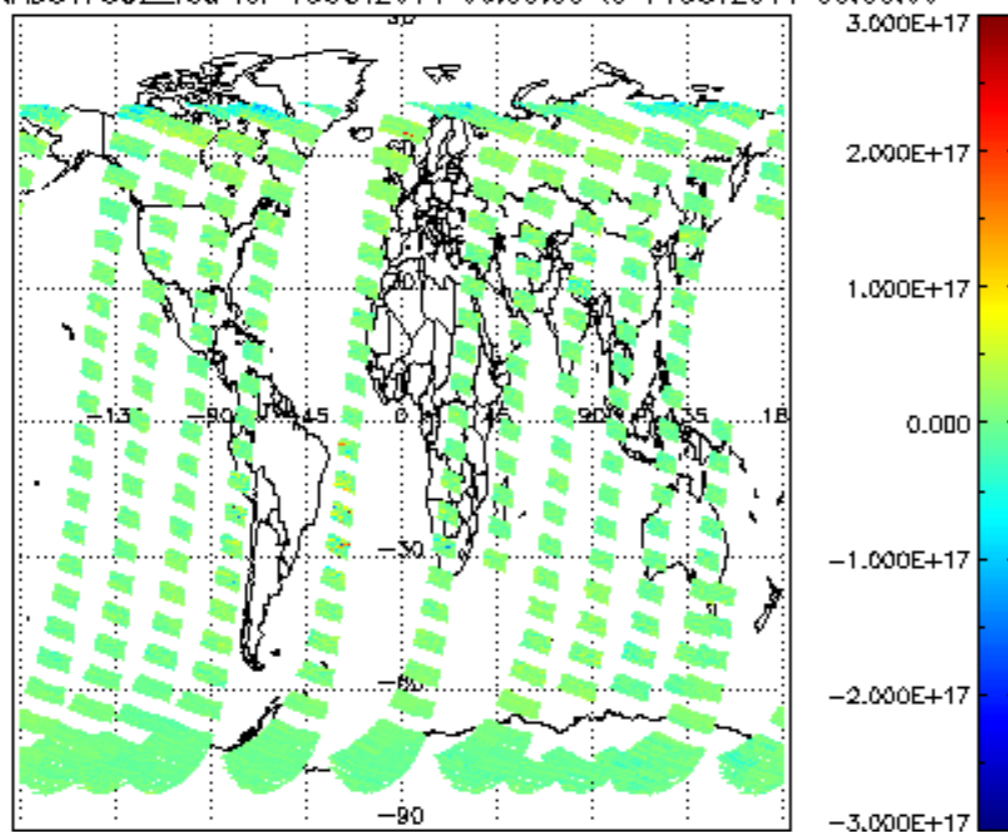
SCIOL2P\_NADUV5S02\_amf\_cl for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



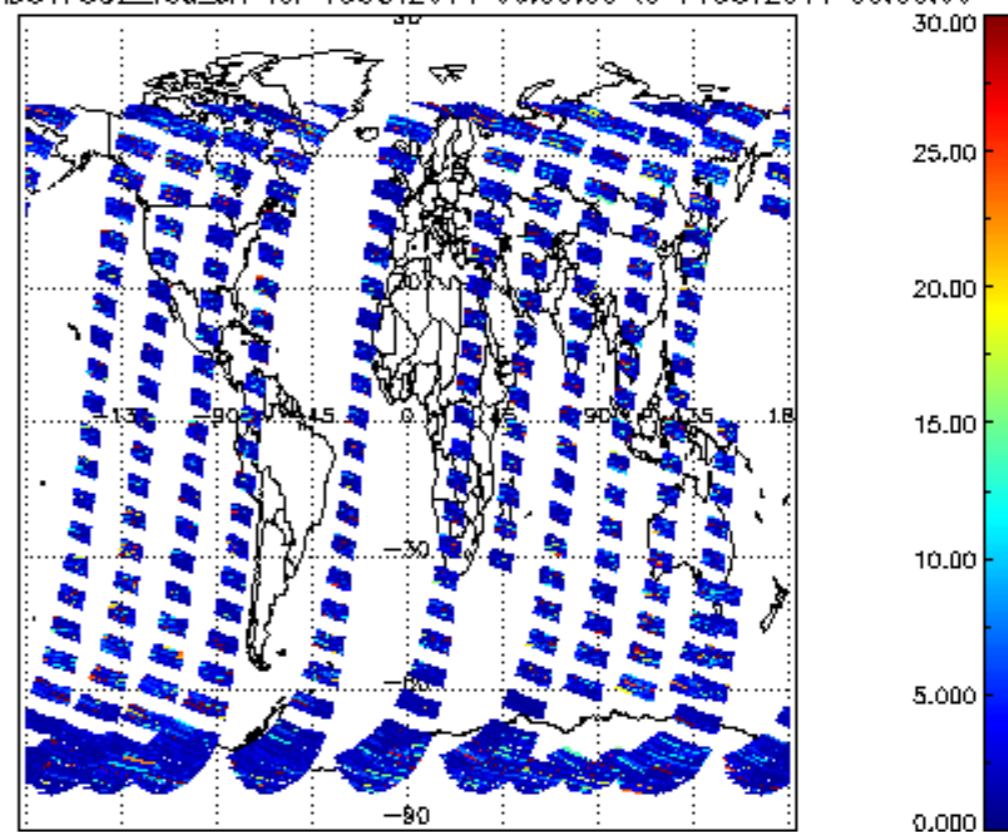




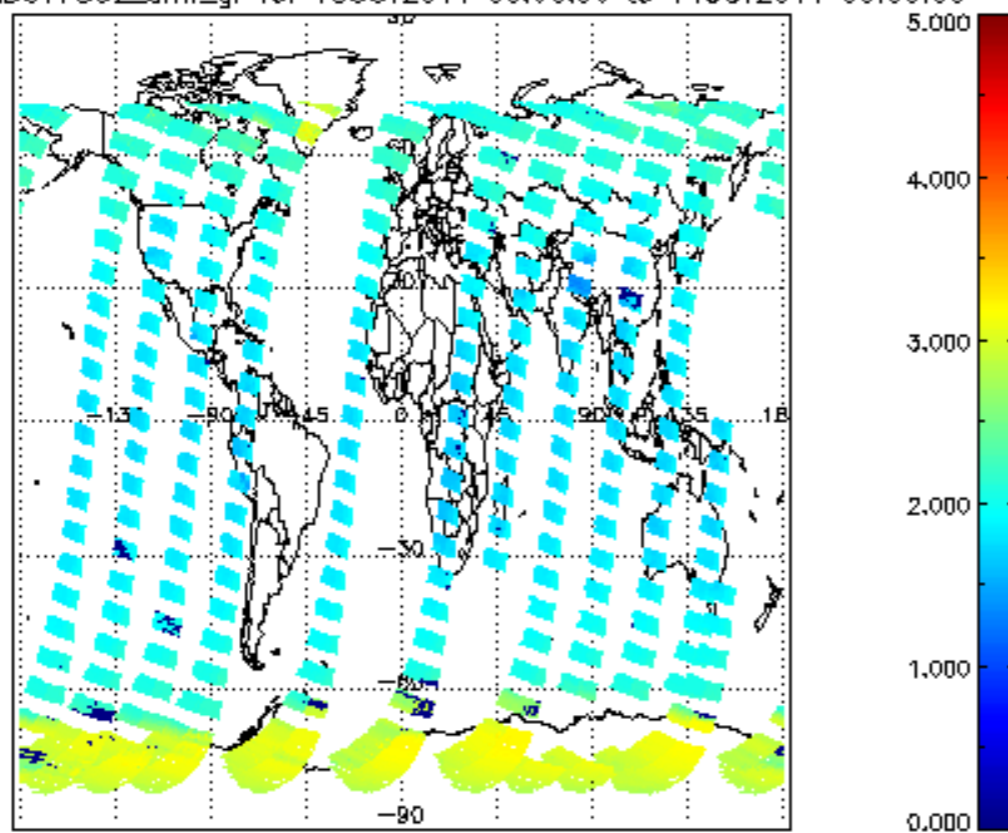
SCIOL2P\_NADUV7S02\_vcd for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



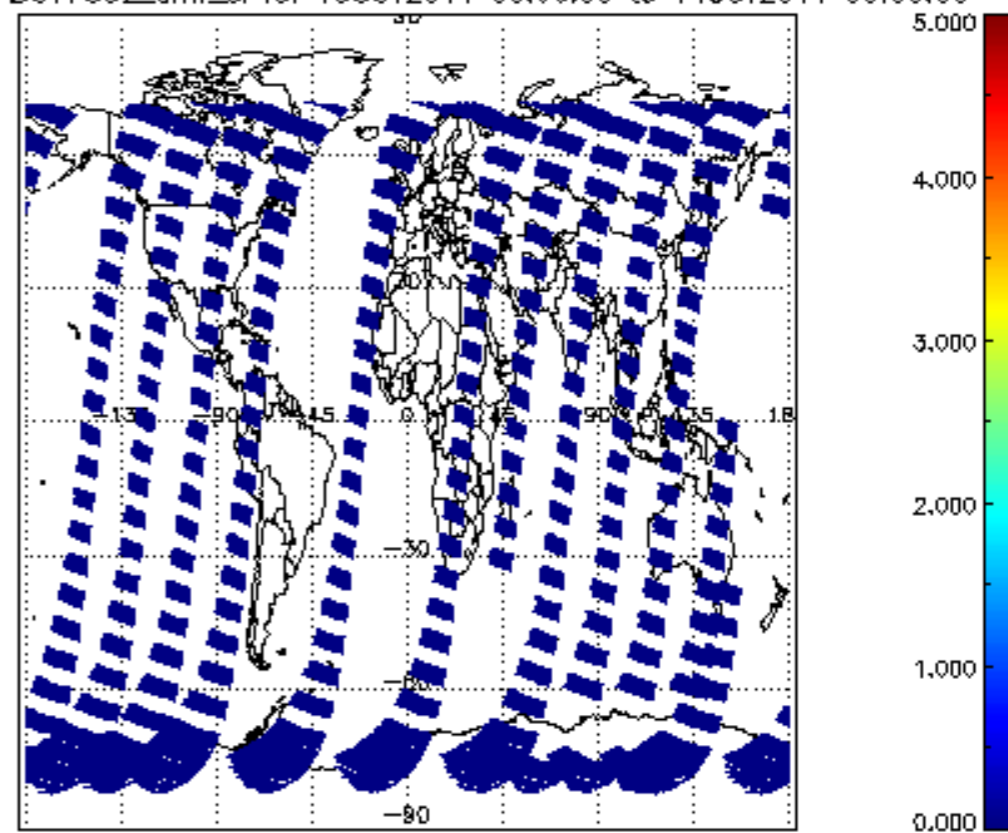
SCIOL2P\_NADUV7S02\_vcd\_err for 13OCT2011 00:00:00 to 14OCT2011 00:00:00

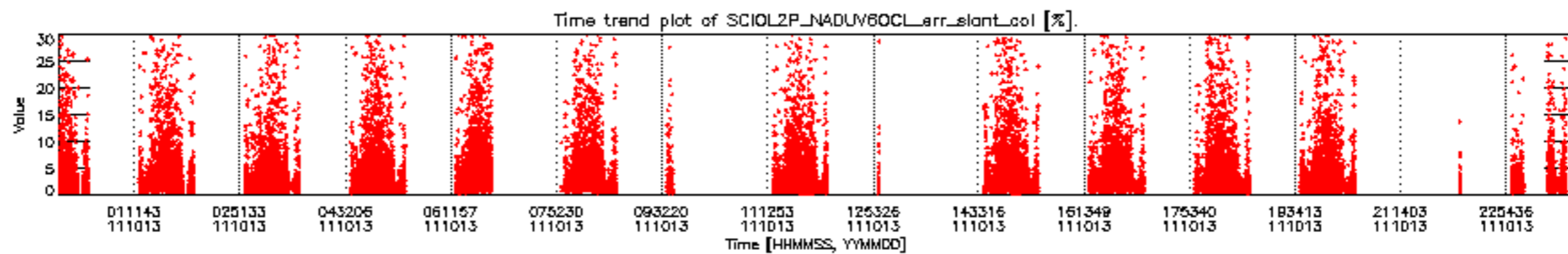
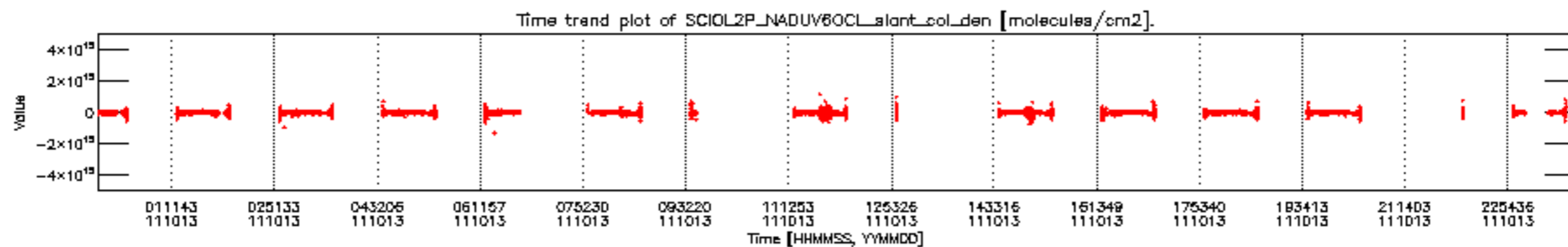


SCIOL2P\_NADUV7S02\_amf\_gr for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



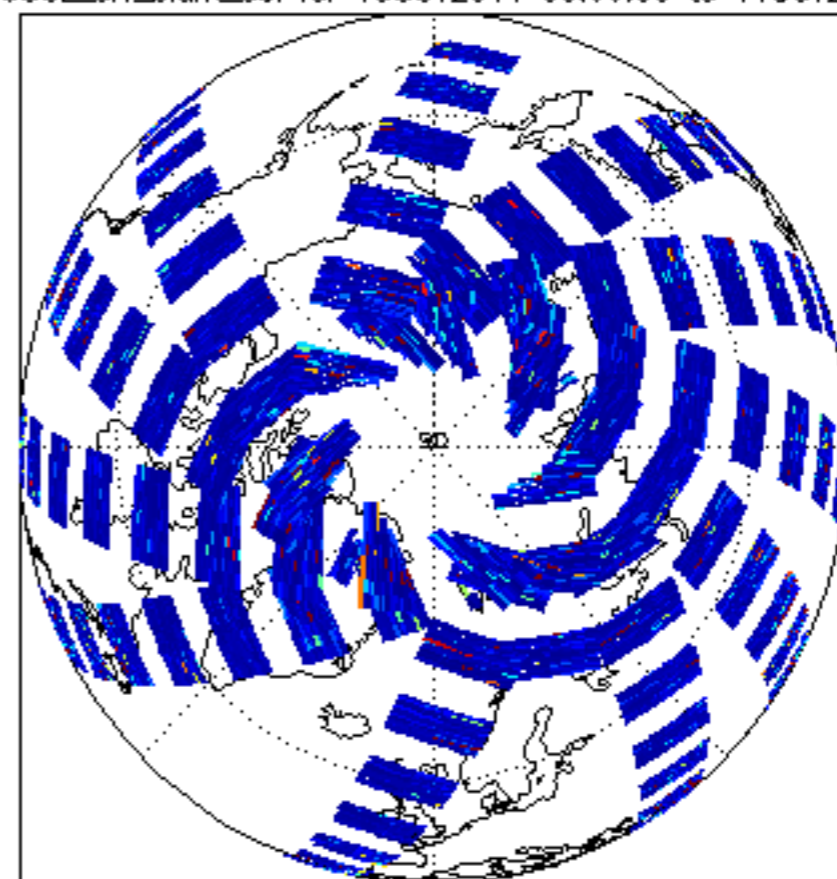
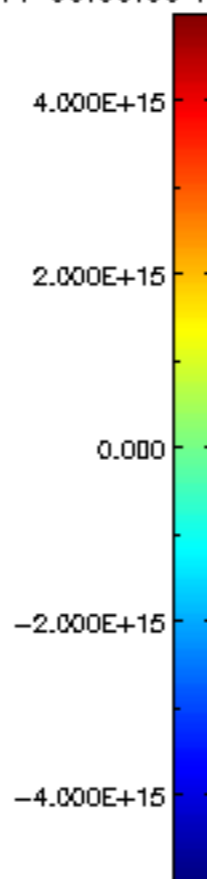
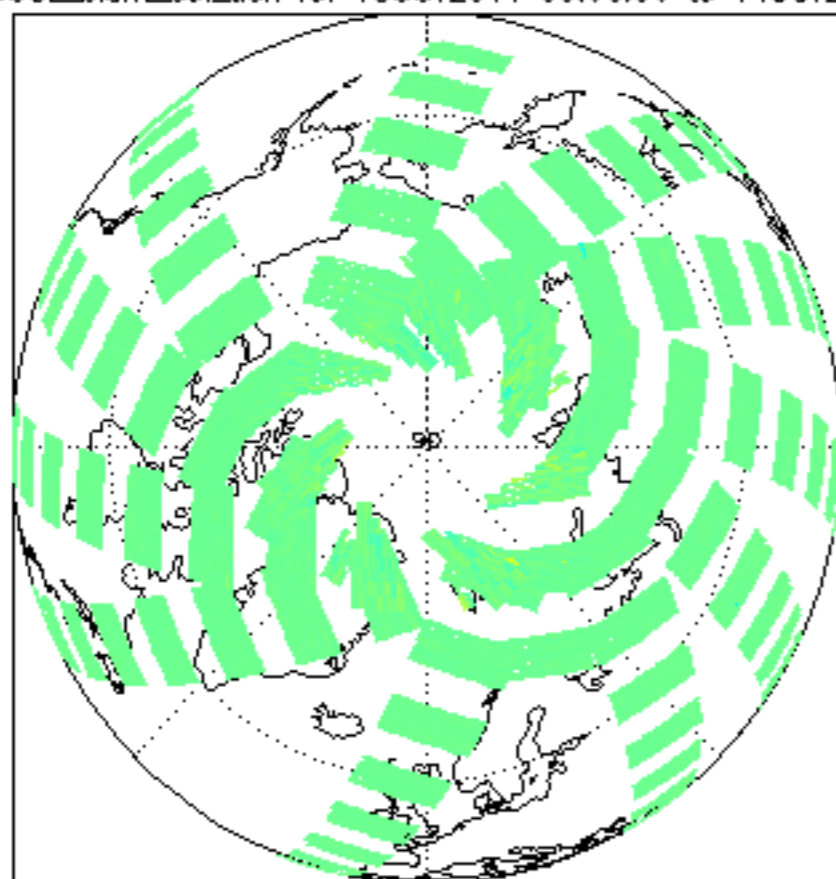
SCIOL2P\_NADUV7S02\_amf\_cl for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



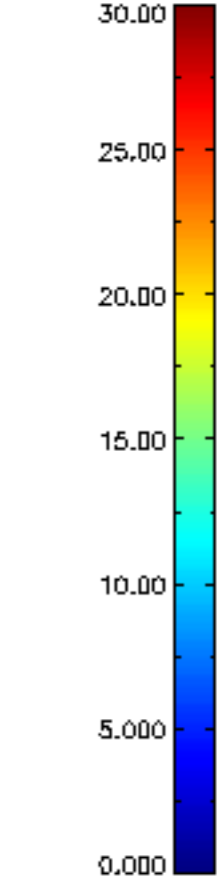
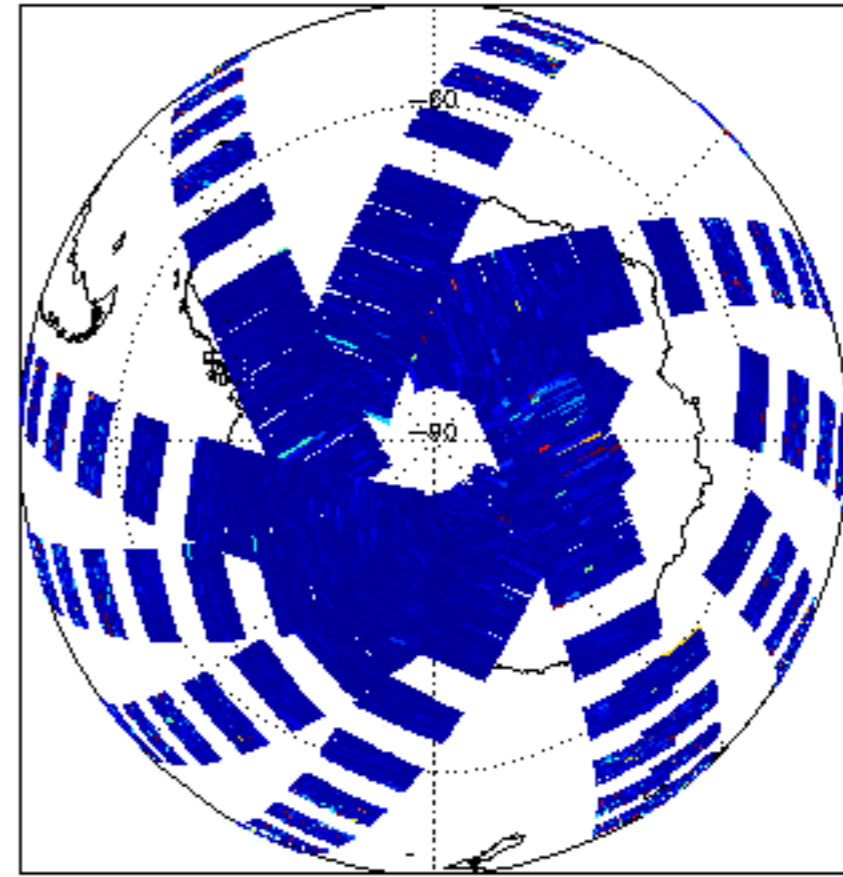
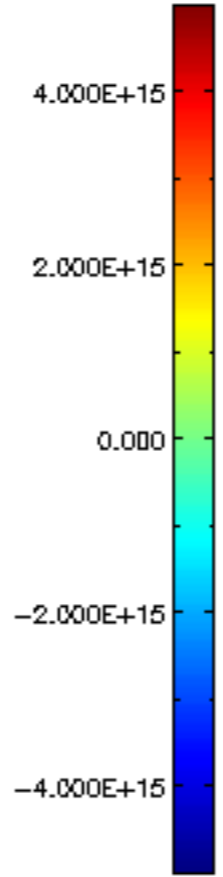
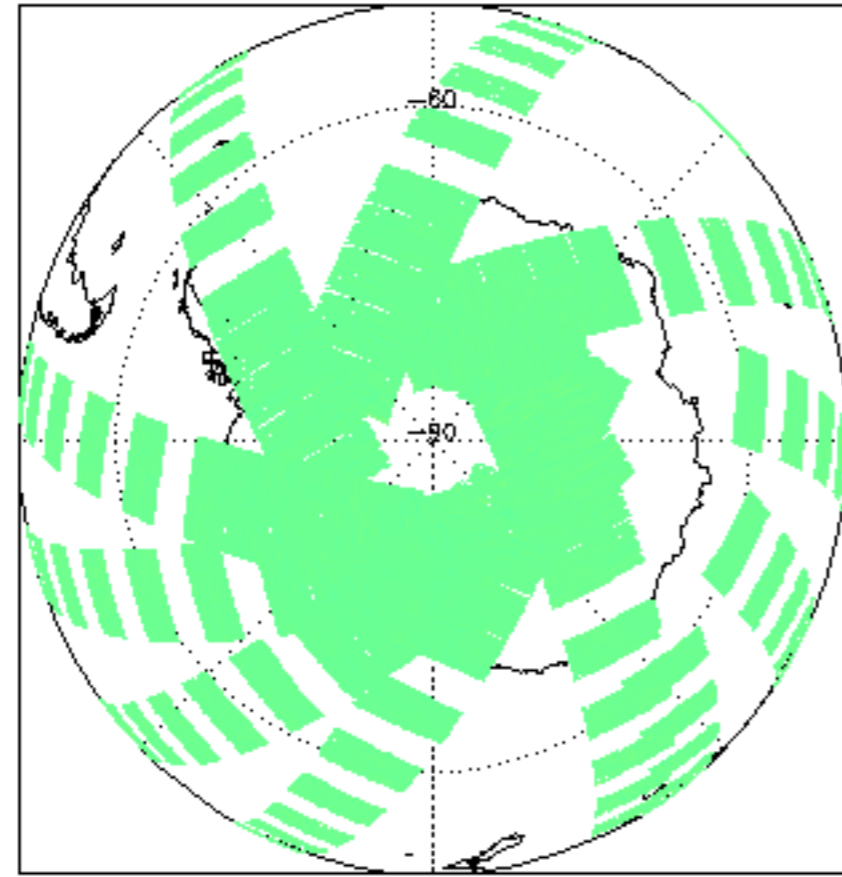




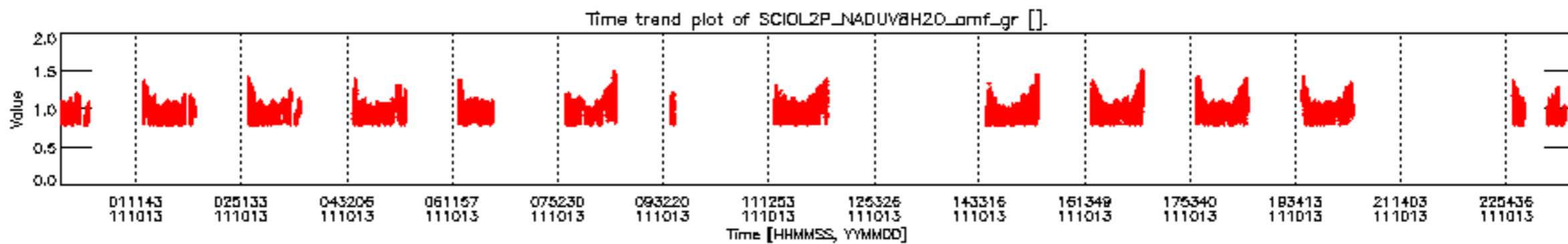
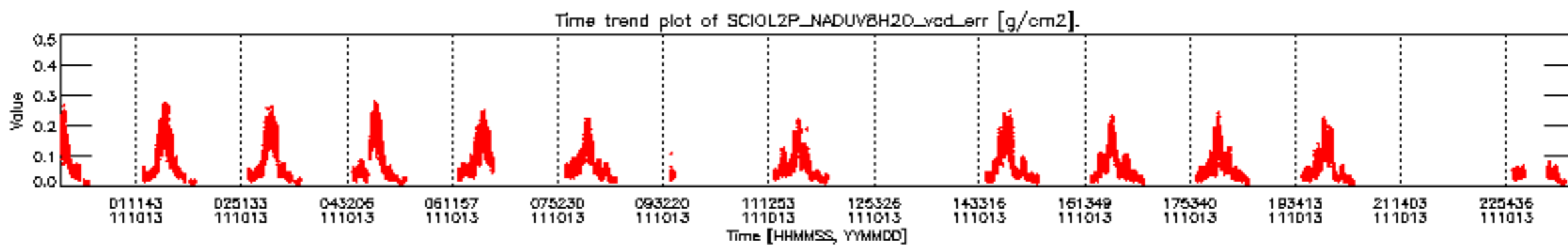
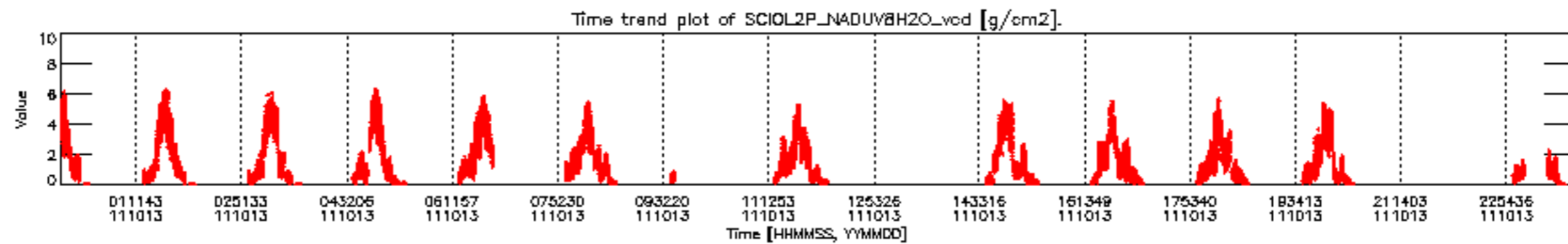
CIOL2P\_NADUV60CL\_slant\_col\_den for 13OCT2011 00:00:00 to 14OCT2011 00:00:00 np  
 CIOL2P\_NADUV60CL\_err\_slant\_col for 13OCT2011 00:00:00 to 14OCT2011 00:00:00 np



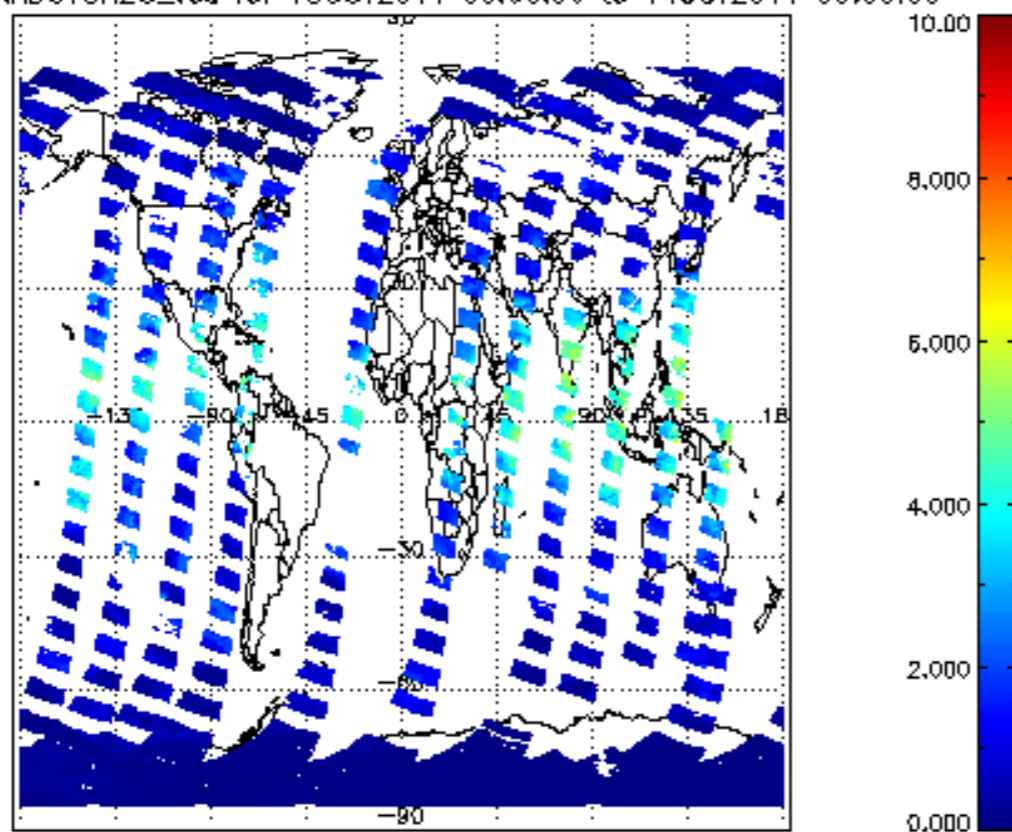
CIOL2P\_NADUV60CL\_slant\_col\_den for 13OCT2011 00:00:00 to 14OCT2011 00:00:00 sp; CIOL2P\_NADUV60CL\_err\_slant\_col for 13OCT2011 00:00:00 to 14OCT2011 00:00:00 sp



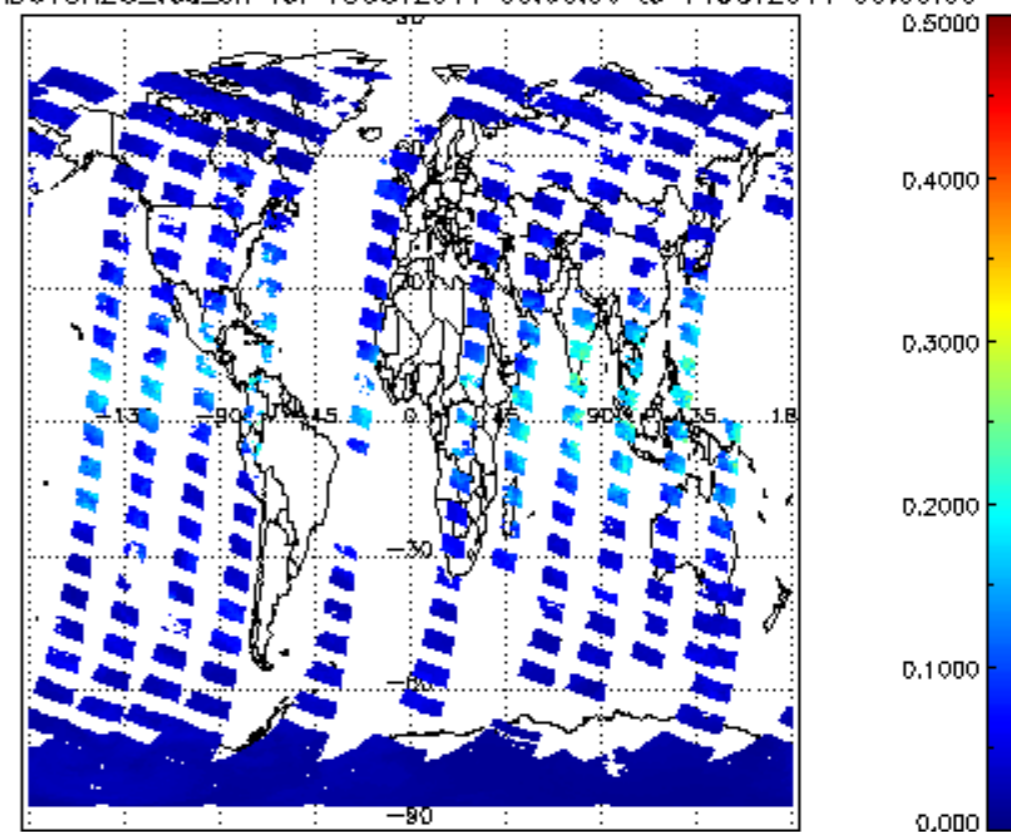




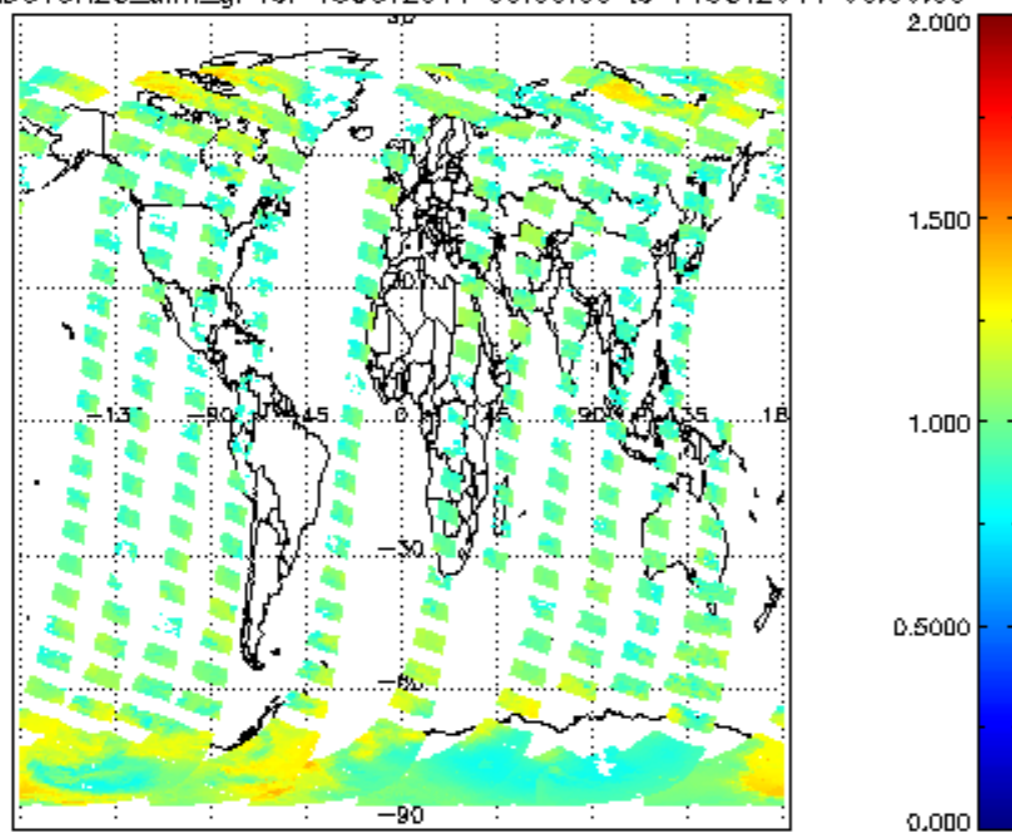
SCIOL2P\_NADUV8H20\_vcd for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



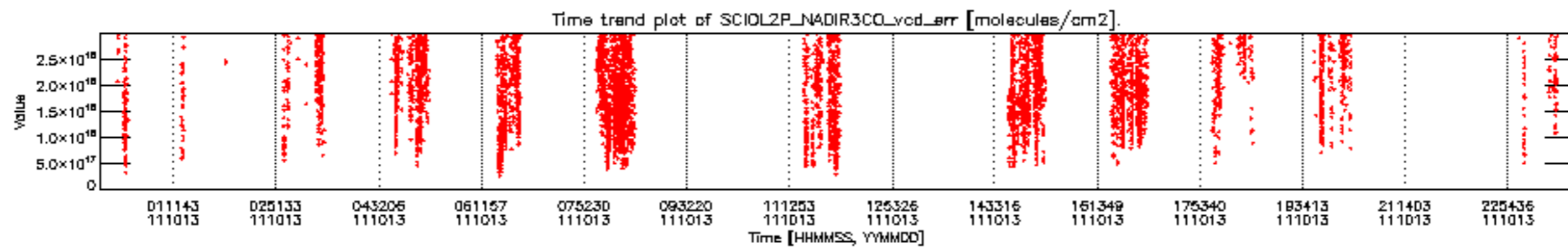
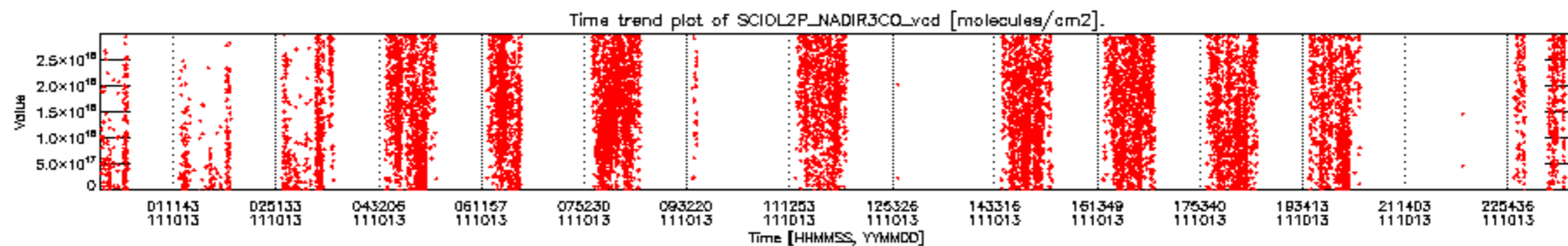
SCIOL2P\_NADUV8H20\_vcd\_err for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



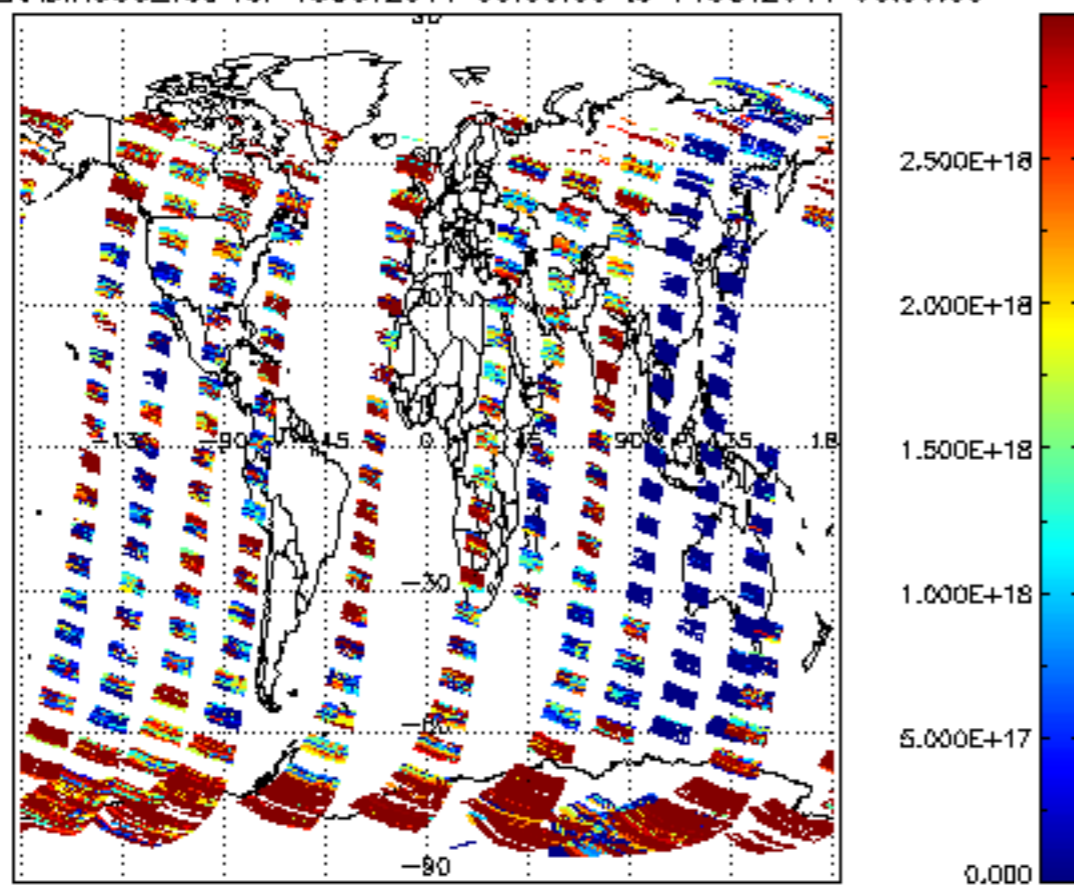
SCIOL2P\_NADUV8H20\_amf\_gr for 13OCT2011 00:00:00 to 14OCT2011 00:00:00



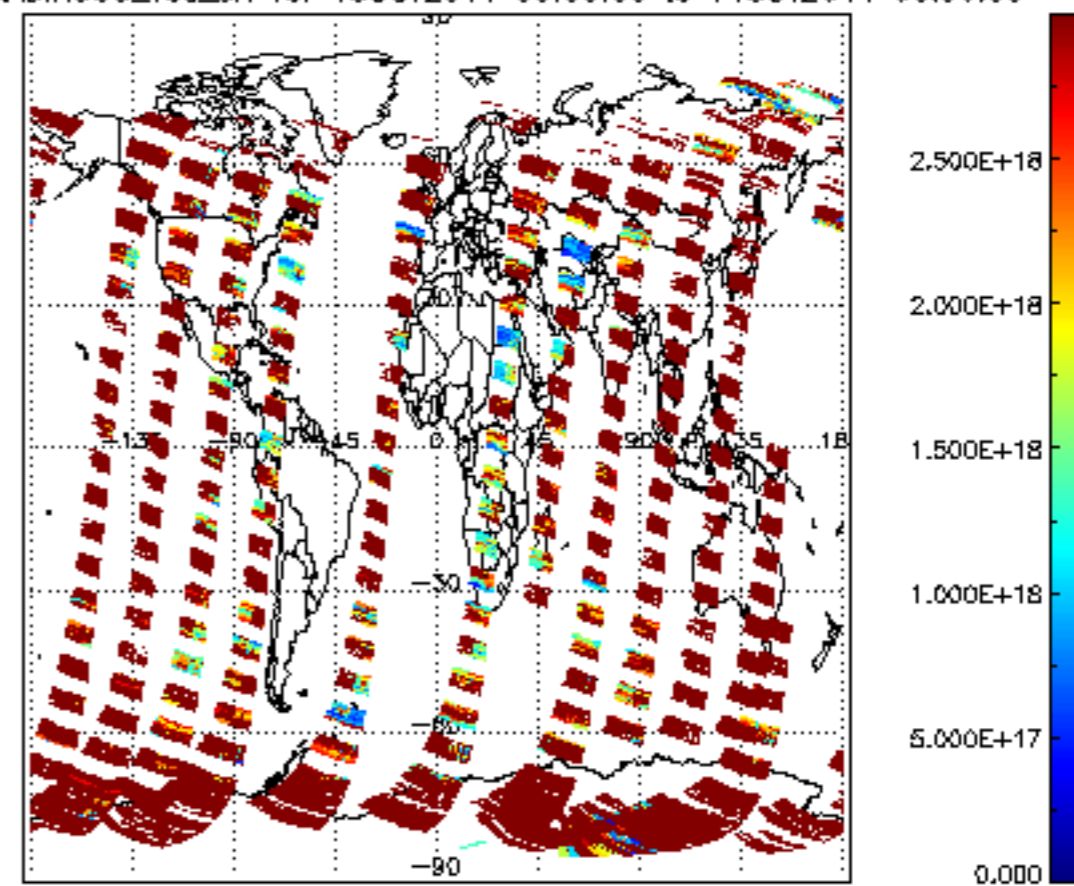




SCIOL2P\_NADIR3CO\_vcd for 13OCT2011 00:00:00 to 14OCT2011 00:00:00

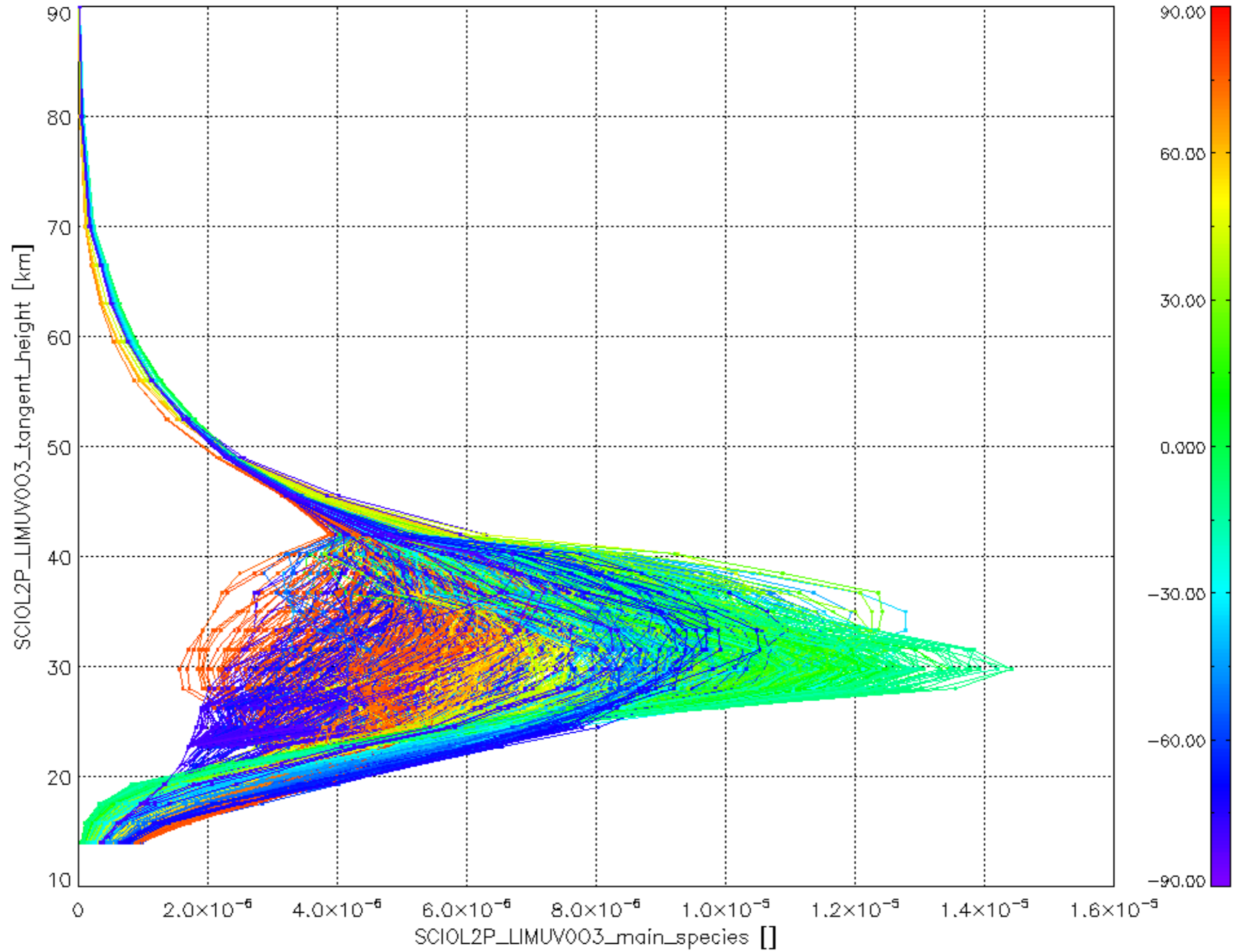


SCIOL2P\_NADIR3CO\_vcd\_err for 13OCT2011 00:00:00 to 14OCT2011 00:00:00

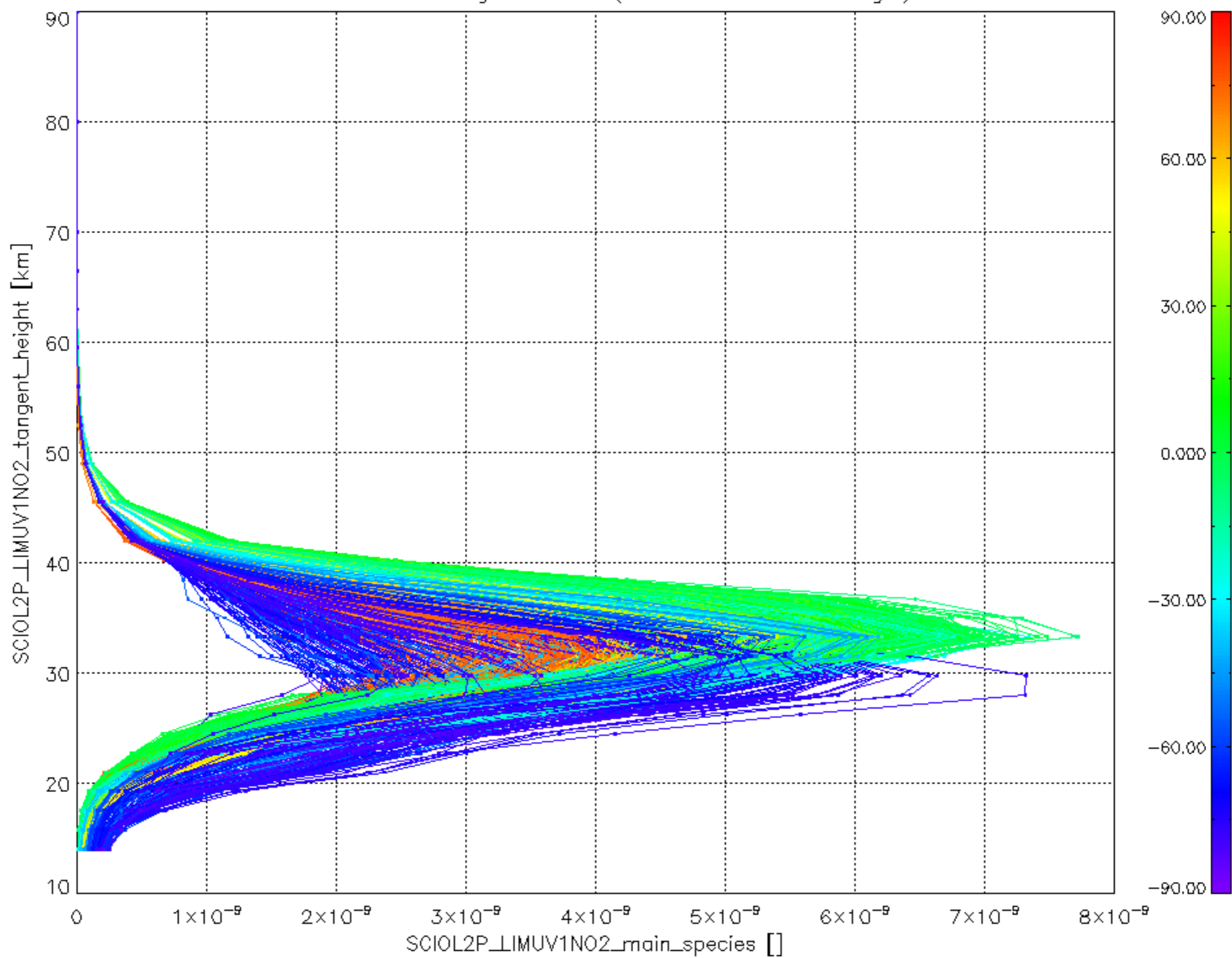




Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



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).

