

## 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	1.12 (24-06-2010)
Time of report generation	16JAN2011 05:18:42
Data source version	SCIA-OL/5.01-N
Processing scope for products	10JAN2011 00:00:00 to 11JAN2011 00:00:00
Start time of first product within scope	09JAN2011 23:50:06
Stop time of last product within scope	11JAN2011 00:13:03
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	<a href="#">SCI_OL__2PNDPA20110109_235006_000035843098_00202_46337_1184.N1</a>	09JAN2011 23:50:06	10JAN2011 00:49:50	0	GOOD
1	<a href="#">SCI_OL__2PNDPA20110110_013019_000080673098_00203_46338_1186.N1</a>	<b>10JAN2011 01:30:19</b>	<b>10JAN2011 03:44:47</b>	0	GOOD
2	<a href="#">SCI_OL__2PNDPA20110110_034559_000061323098_00205_46340_1187.N1</a>	<b>10JAN2011 03:45:59</b>	<b>10JAN2011 05:28:12</b>	0	GOOD
3	<a href="#">SCI_OL__2PNDPA20110110_052925_000059413098_00206_46341_1188.N1</a>	10JAN2011 05:29:25	10JAN2011 07:08:26	0	GOOD
4	<a href="#">SCI_OL__2PNDPA20110110_070924_000038693098_00207_46342_1189.N1</a>	10JAN2011 07:09:24	10JAN2011 08:13:53	0	GOOD

5	SCI_OL__2PNDPA20110110_081506_000059953098_00208_46343_1191.N1	10JAN2011 08:15:06	10JAN2011 09:55:01	0	GOOD
6	SCI_OL__2PNDPA20110110_095613_000000503098_00209_46344_1190.N1	10JAN2011 09:56:13	10JAN2011 09:57:04	0	GOOD
7	SCI_OL__2PNDPA20110110_095613_000058333098_00209_46344_1192.N1	10JAN2011 09:56:13	10JAN2011 11:33:27	0	GOOD
8	SCI_OL__2PNDPA20110110_113236_000061183098_00210_46345_1193.N1	10JAN2011 11:32:36	10JAN2011 13:14:35	0	GOOD
9	SCI_OL__2PNDPA20110110_131344_000034763098_00211_46346_1195.N1	10JAN2011 13:13:44	10JAN2011 14:11:40	0	GOOD
10	SCI_OL__2PNDPA20110110_145209_000035993098_00212_46347_1196.N1	10JAN2011 14:52:09	10JAN2011 15:52:09	0	GOOD
11	SCI_OL__2PNDPA20110110_163223_000035843098_00213_46348_1197.N1	10JAN2011 16:32:23	10JAN2011 17:32:08	0	GOOD
12	SCI_OL__2PNDPA20110110_181257_000035993098_00214_46349_1202.N1	10JAN2011 18:12:57	10JAN2011 19:12:57	0	GOOD
13	SCI_OL__2PNDPA20110110_195311_000035843098_00215_46350_1206.N1	10JAN2011 19:53:11	10JAN2011 20:52:56	0	GOOD
14	SCI_OL__2PNDPA20110110_205151_000060723098_00215_46350_1198.N1	10JAN2011 20:51:51	10JAN2011 22:33:04	0	GOOD
15	SCI_OL__2PNDPA20110110_231318_000035843098_00216_46351_1199.N1	10JAN2011 23:13:18	11JAN2011 00:13:03	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: 174964

Total number of cloud data DSRs with good quality flag (=0): 174964 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	174964	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	174964	0.16494	0.12500	0.12500	0.25000	0.058285	s
CL_FRAC	174964	0.41503	0.41131	0.0000	1.0000	0.28469	-
CL_FRAC_ERR	174964	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	174964	5.2780	4.0000	4.0000	8.0000	1.8651	
PMD_READ_CL[0]	174964	0.36266	0.0000	0.0000	8.0000	1.1882	-
PMD_READ_CL[1]	174964	1.0523	0.0000	0.0000	8.0000	2.3581	-
CL_TOP_HEIGHT	137054	3.6382	2.8930	0.0000	17.000	3.3192	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	137054	59.082	60.809	0.0000	101.00	40.631	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	174964	11100000	11100000	11100000	11100000	0.0000	flags
CLOUD_FLAGS	174964	11001100	11000100	11000000	11100000	3512.7	flags
AERO_ABSO_IND	174964	0.40666	0.0000	0.0000	9.7154	0.74756	
AERO_IND_DIAG	174964	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	174964	01010010	00000000	00000000	11000000	24318.	flags

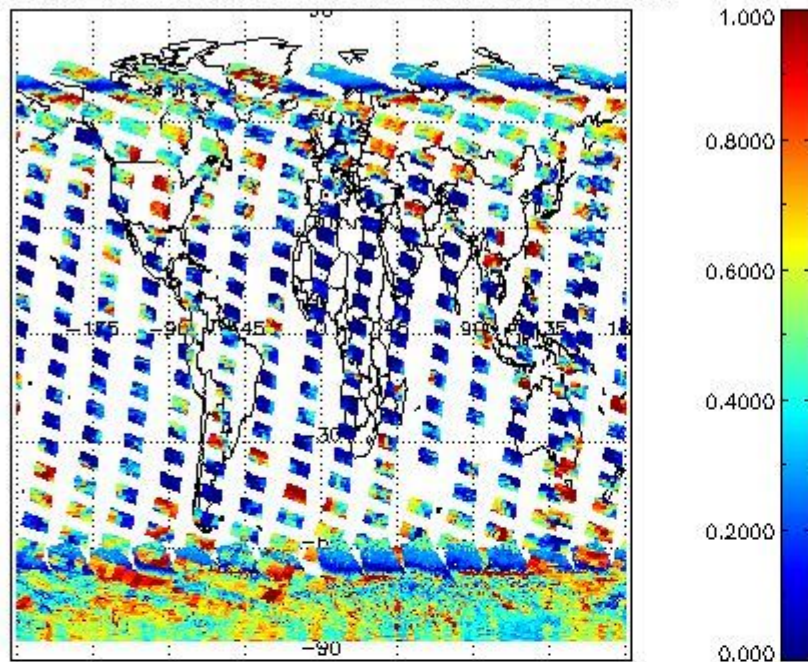
#### Time and geolocation plots:

Plots are available for the following parameters:

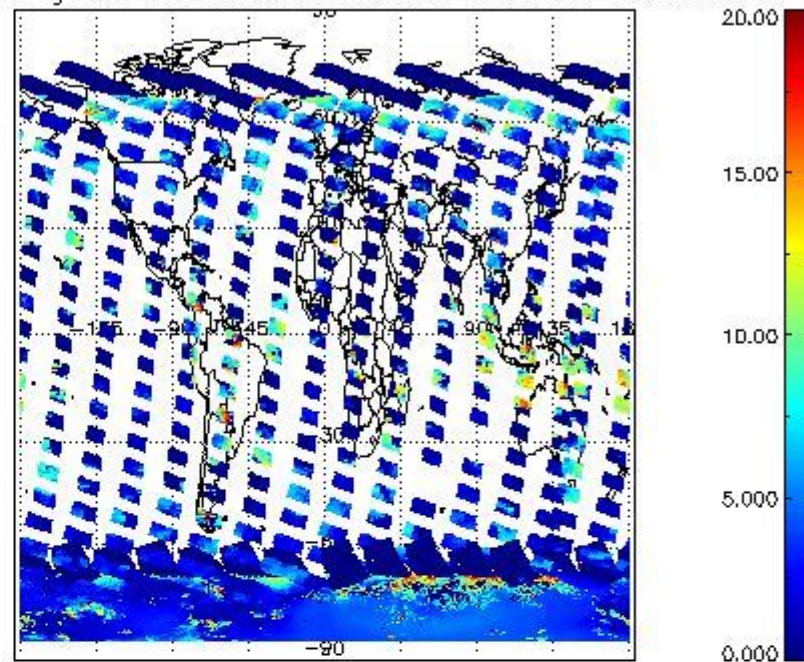
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



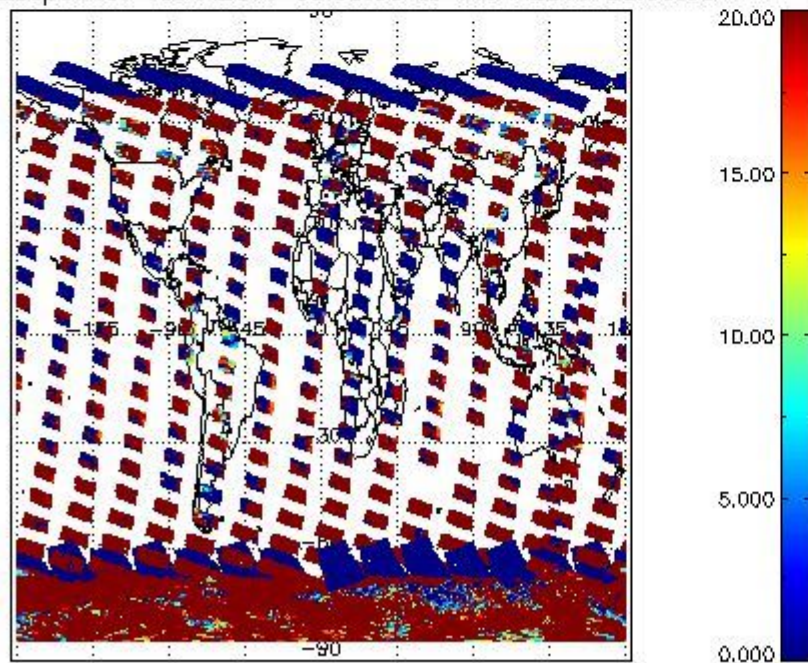
cL\_frac for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



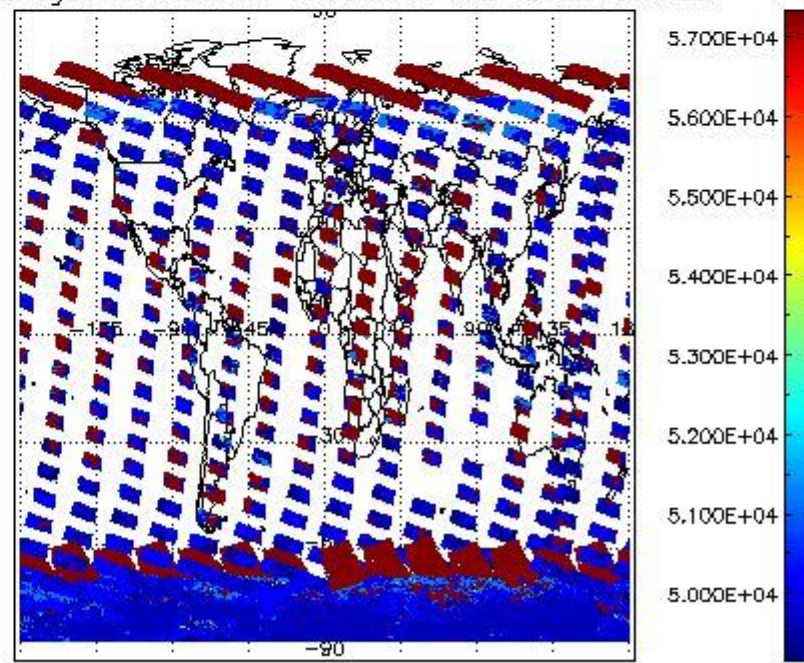
cL\_top\_height for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



cLopt\_depth for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



cloud\_flags for 10JAN2011 00:00:00 to 11JAN2011 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:

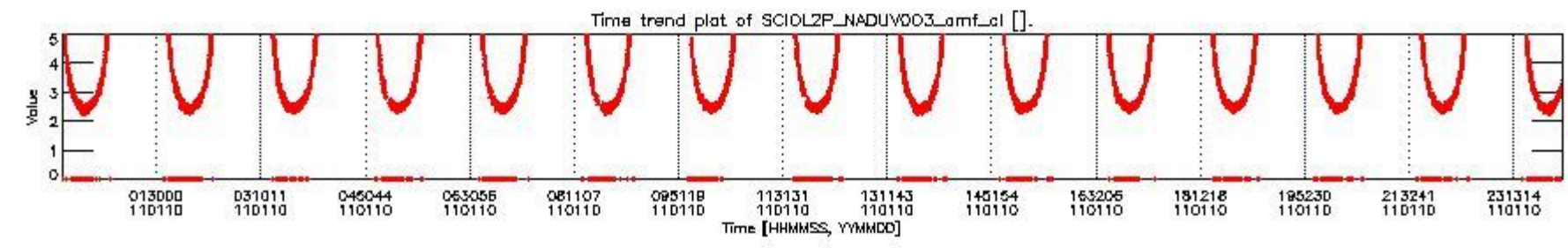
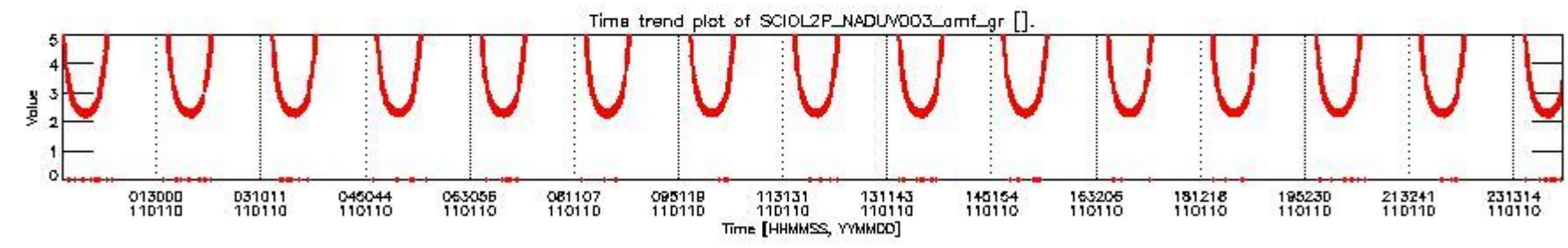
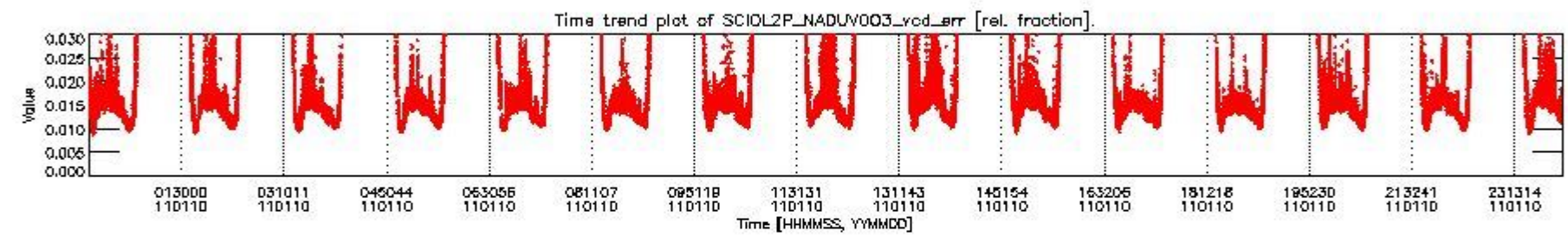
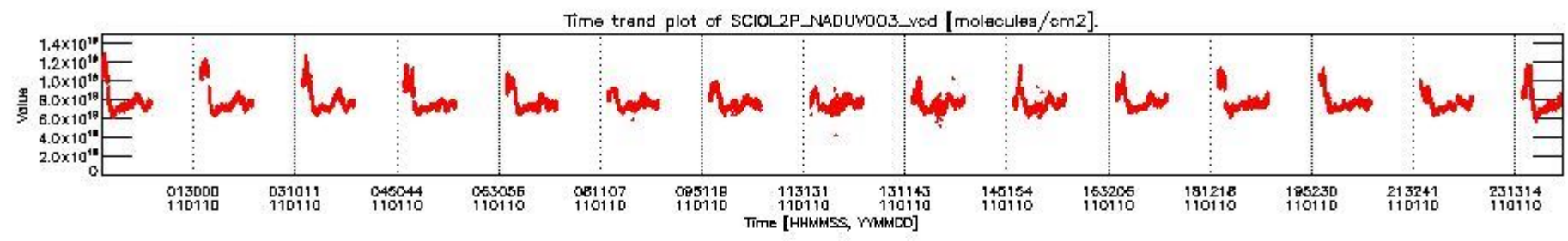
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

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.

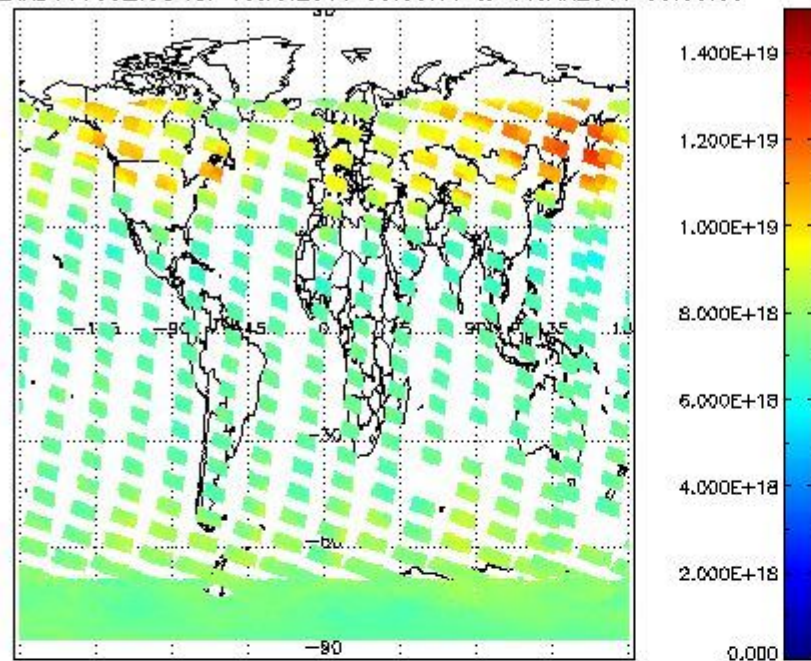
#### 2.2.2.1 O3 (UV0)



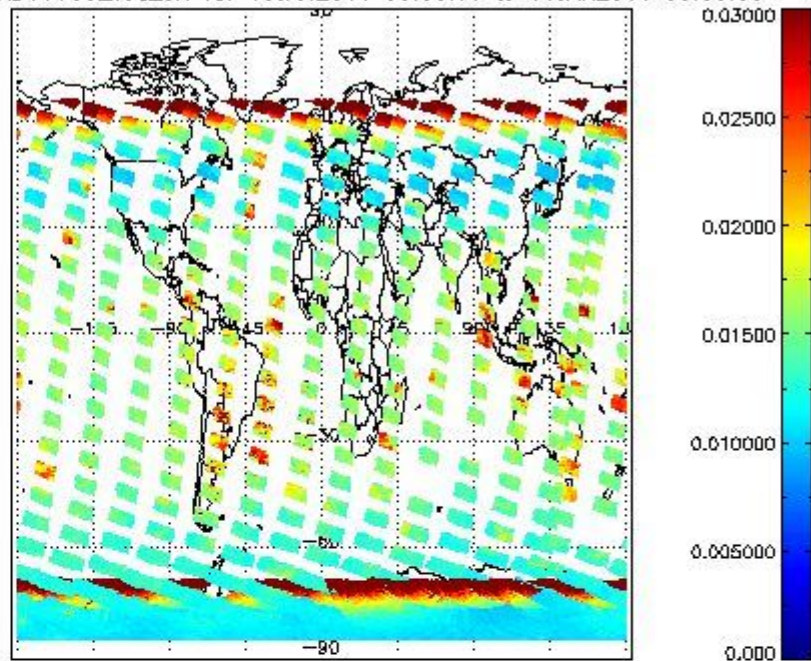




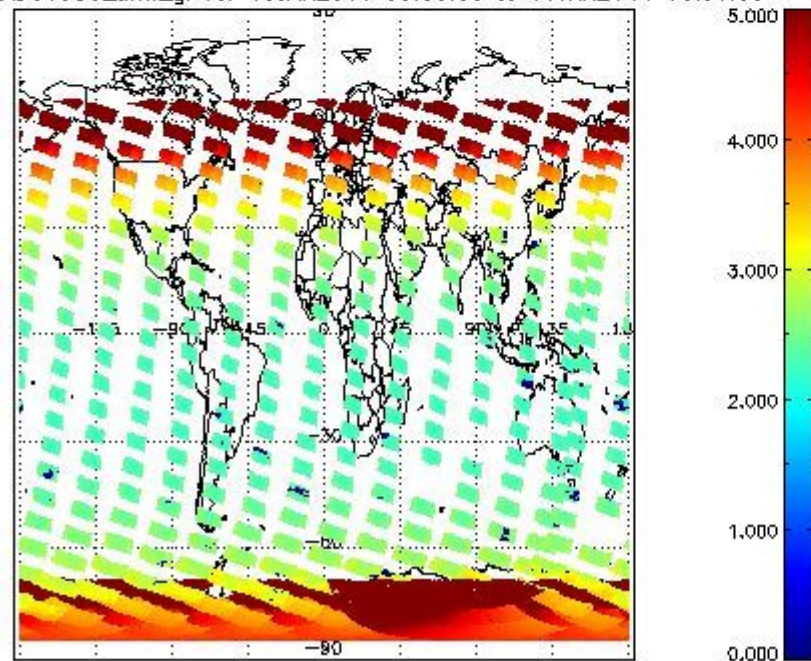
SCIOL2P\_NADUV003\_vcd for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



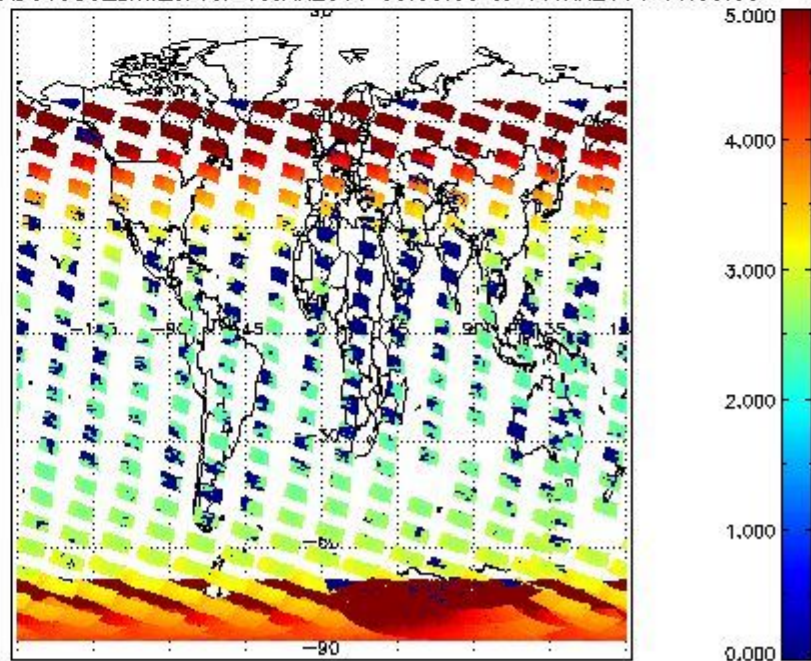
SCIOL2P\_NADUV003\_vcd\_err for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



SCIOL2P\_NADUV003\_amf\_gr for 10JAN2011 00:00:00 to 11JAN2011 00:00:00

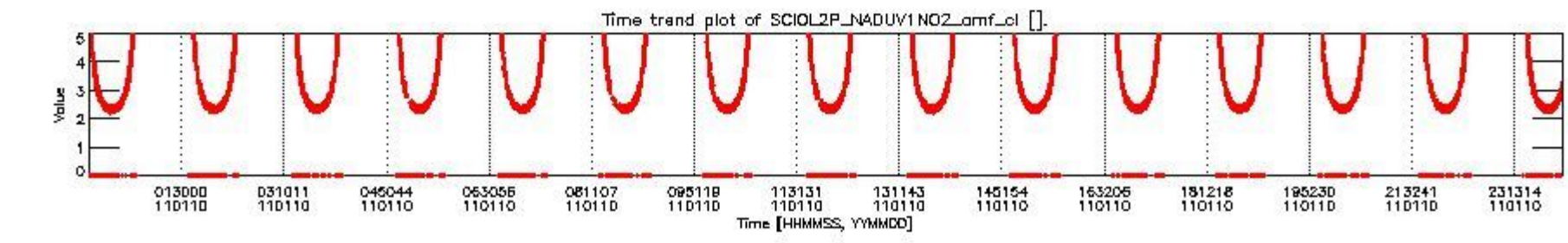
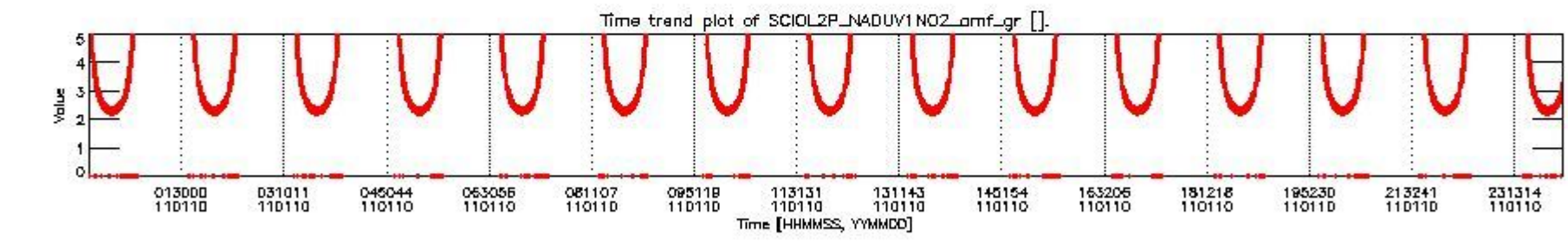
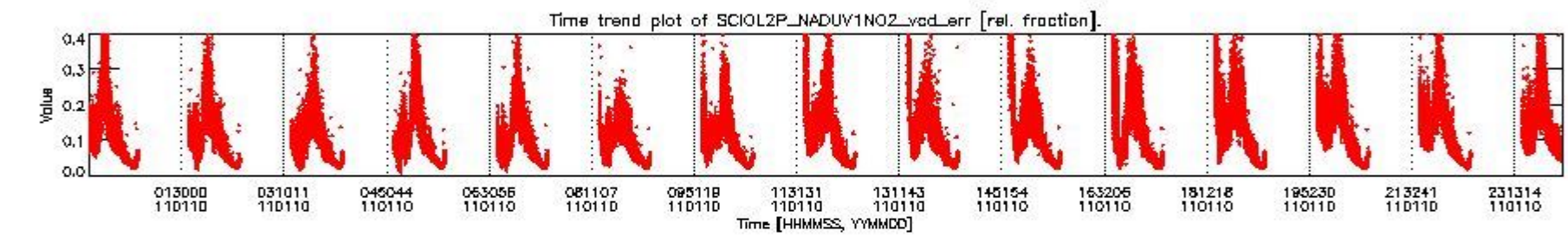
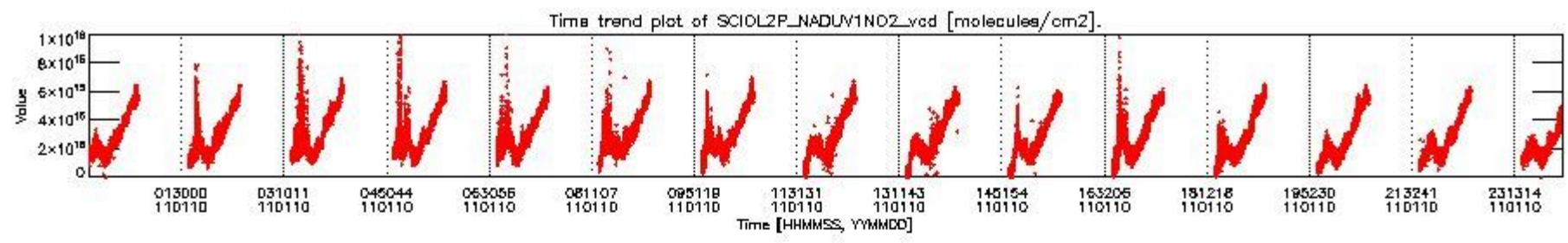


SCIOL2P\_NADUV003\_amf\_cl for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



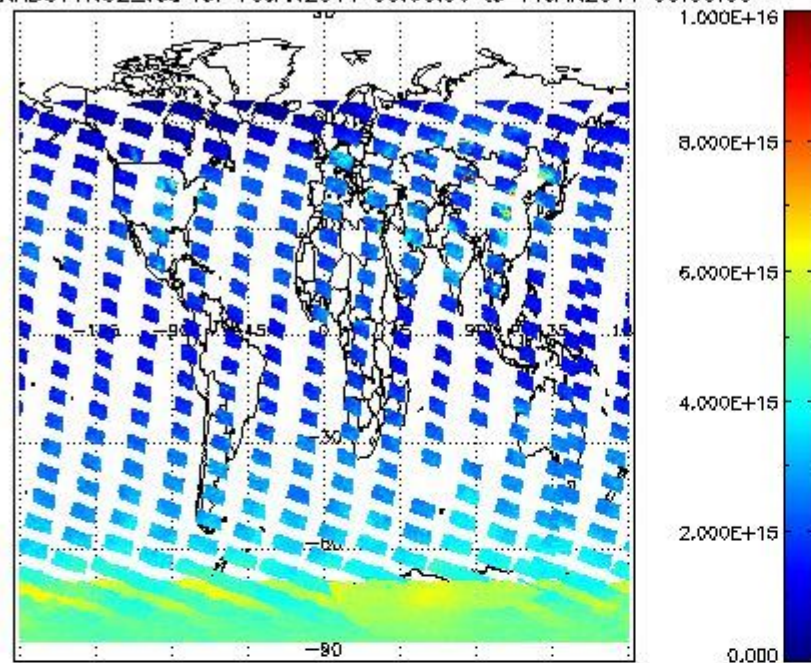
2.2.2.2 NO2 (UV1)



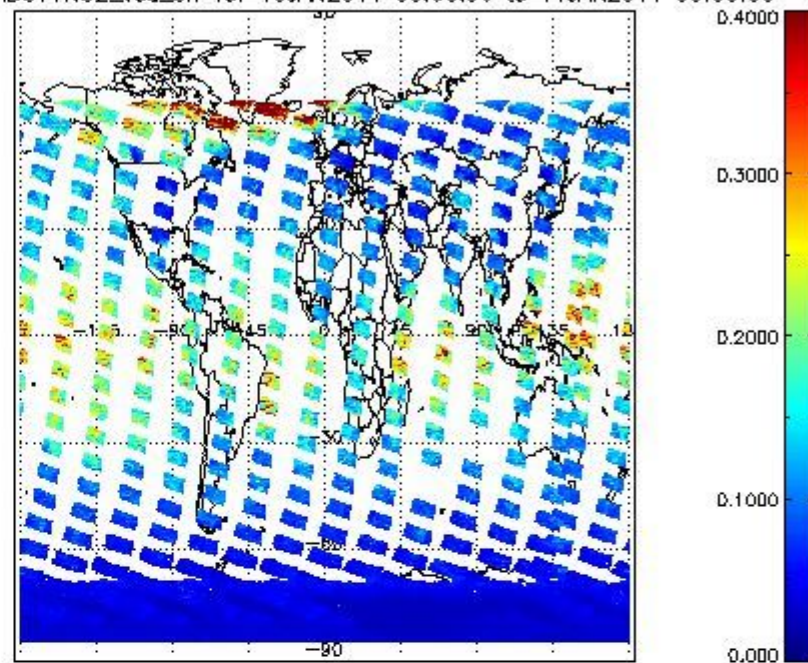




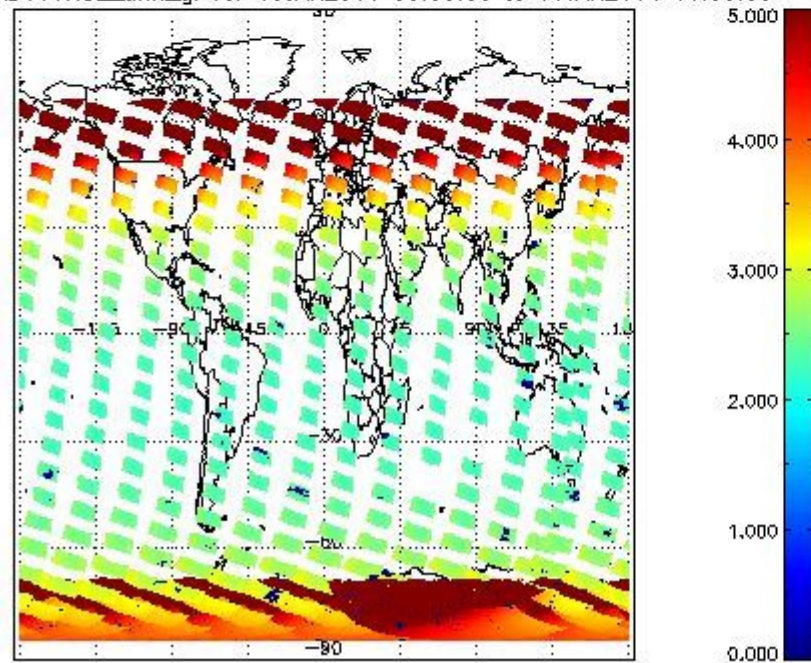
SCIOL2P\_NADUV1NO2\_vcd for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



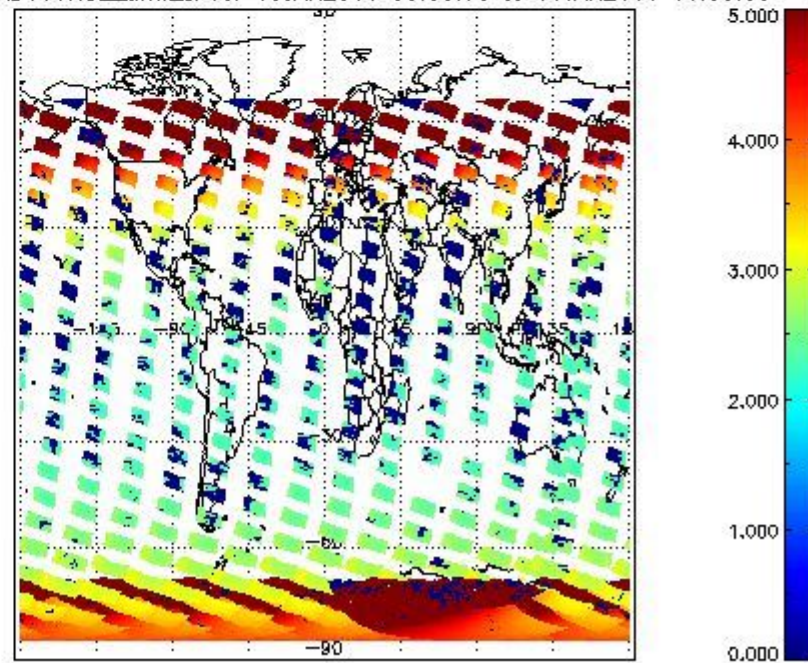
SCIOL2P\_NADUV1NO2\_vcd\_err for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 10JAN2011 00:00:00 to 11JAN2011 00:00:00

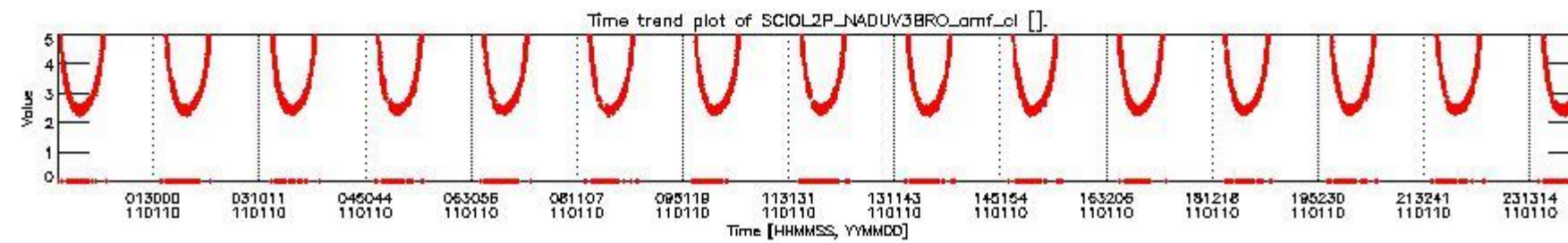
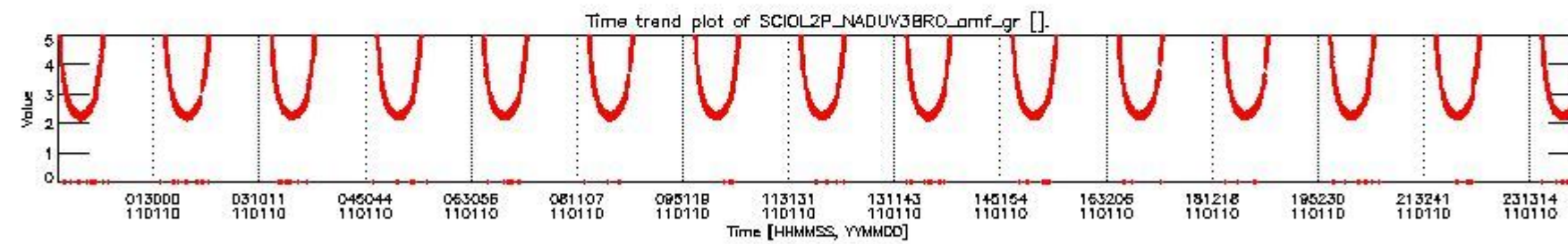
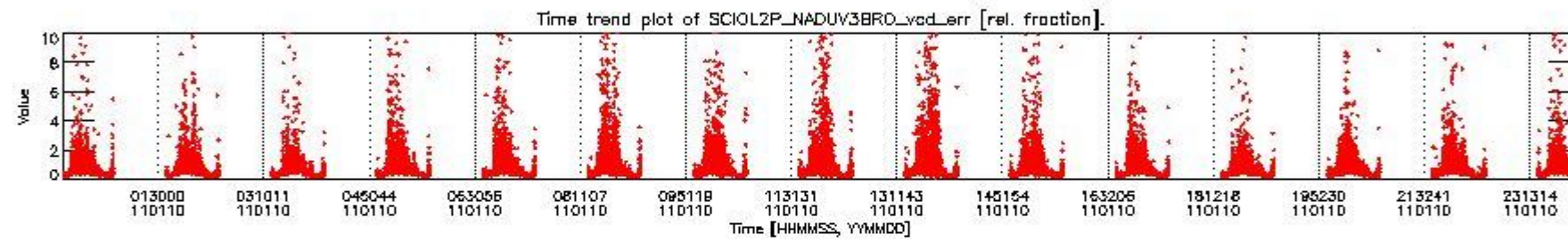
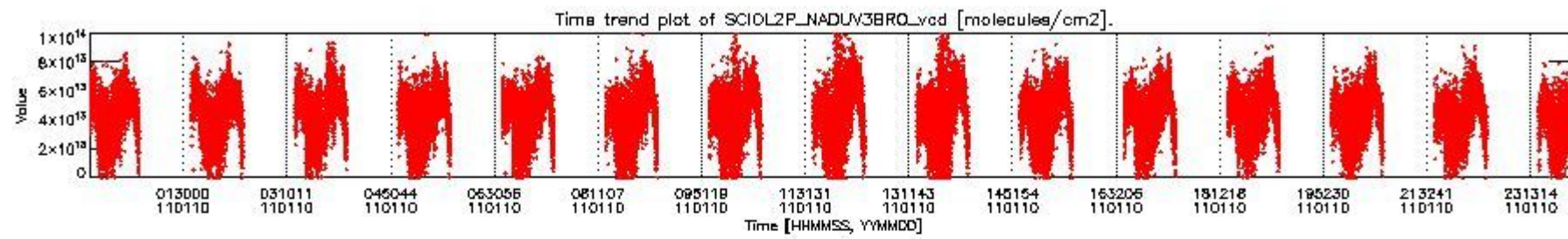


SCIOL2P\_NADUV1NO2\_amf\_cl for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



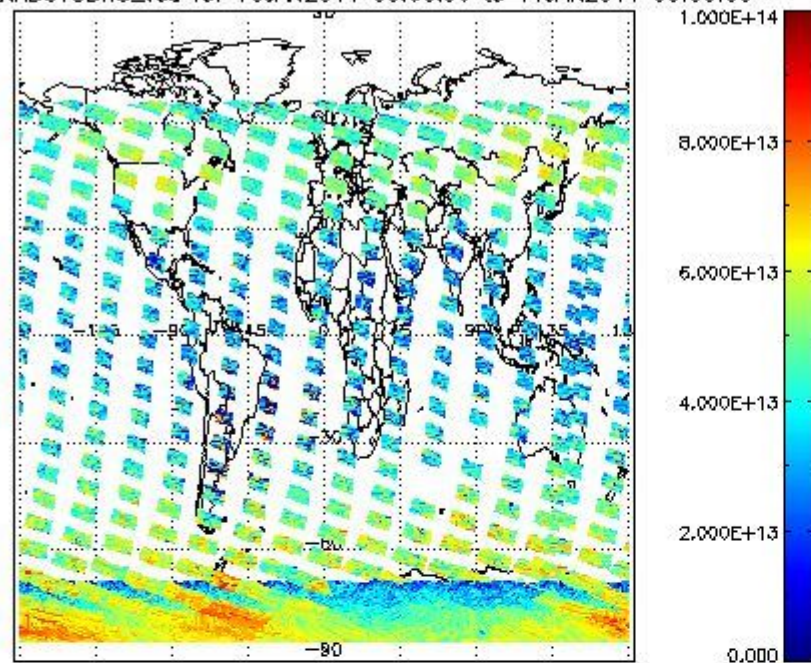
2.2.2.3 BrO (UV3)



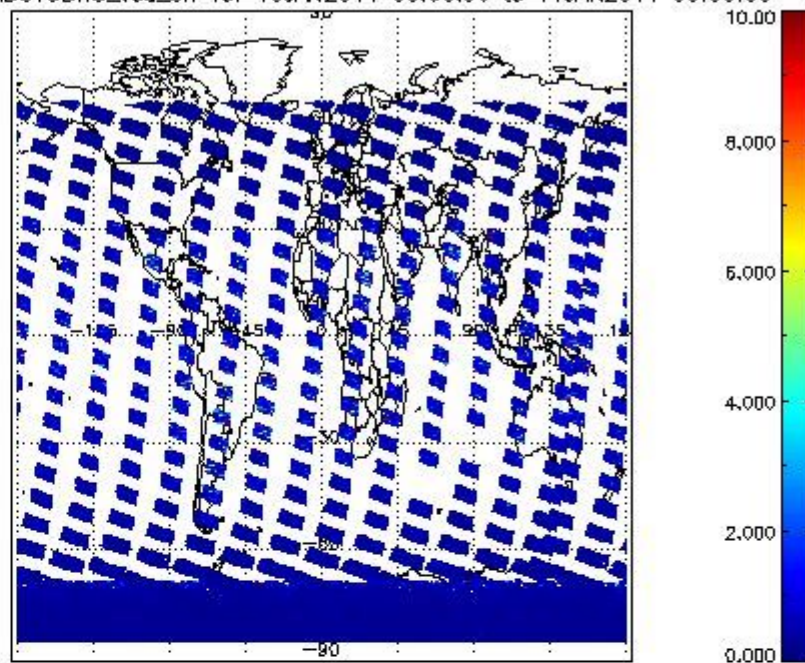




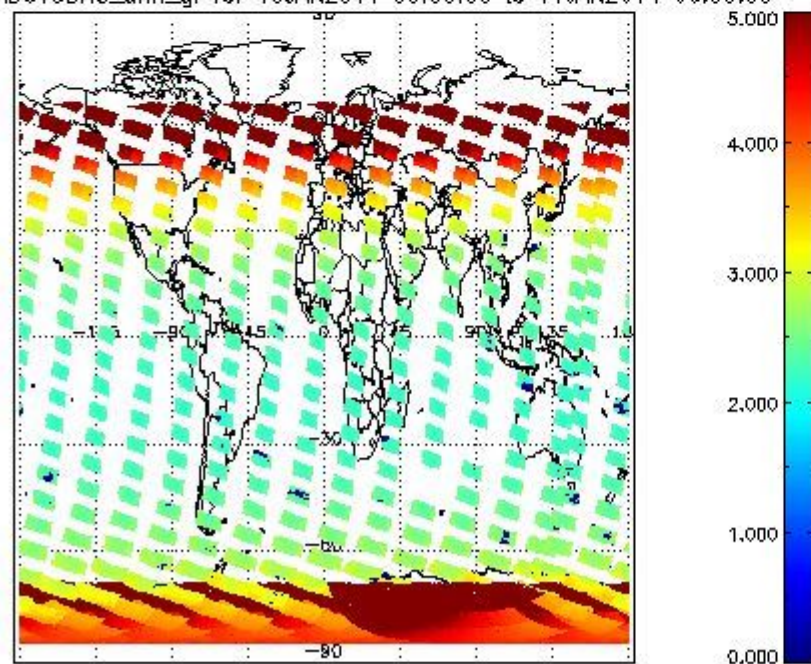
SCIOL2P\_NADUV3BRO\_vcd for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



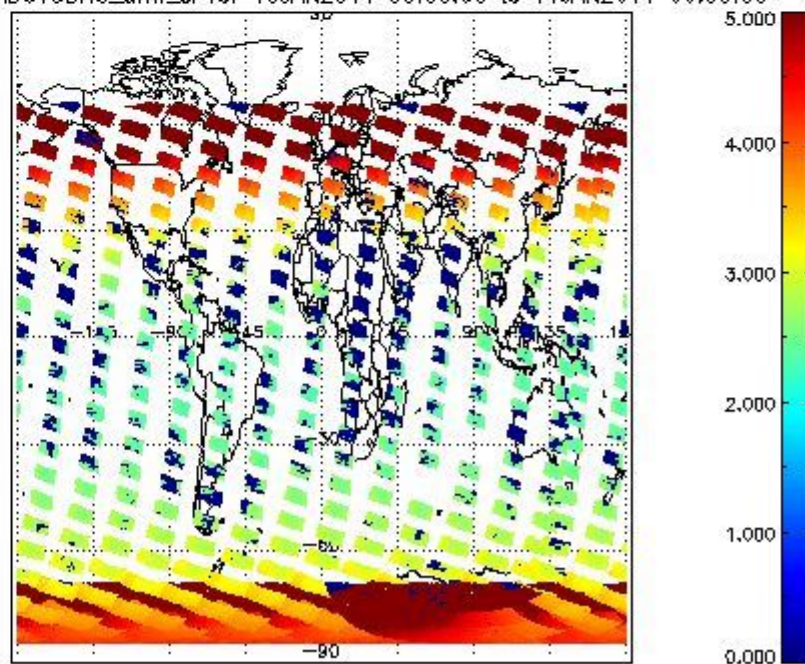
SCIOL2P\_NADUV3BRO\_vcd\_err for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



SCIOL2P\_NADUV3BRO\_amf\_gr for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



SCIOL2P\_NADUV3BRO\_amf\_cl for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



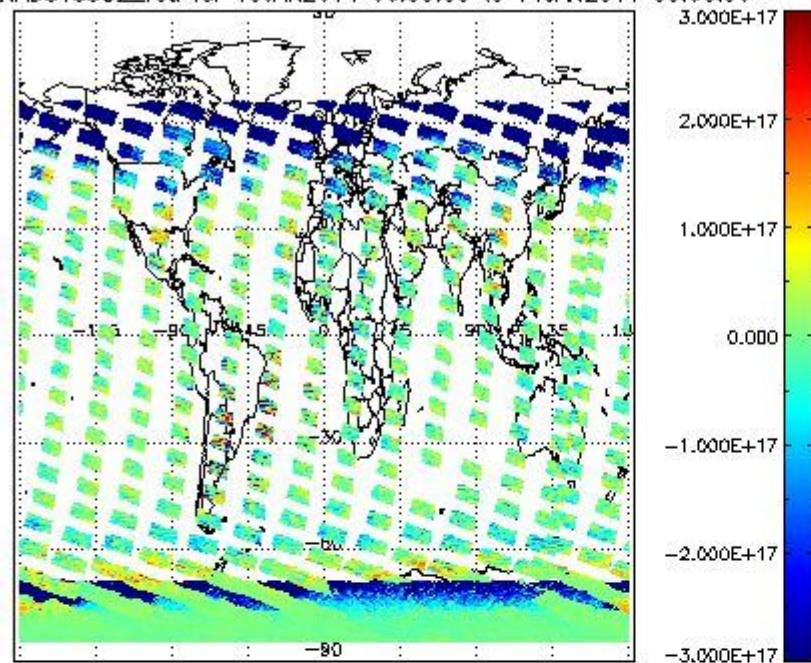
2.2.2.4 SO2 (UV5)



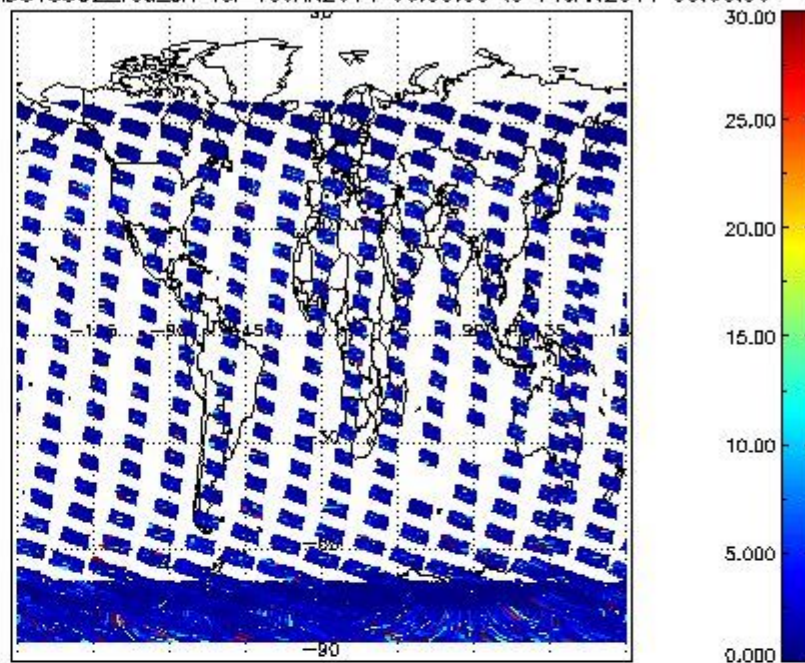




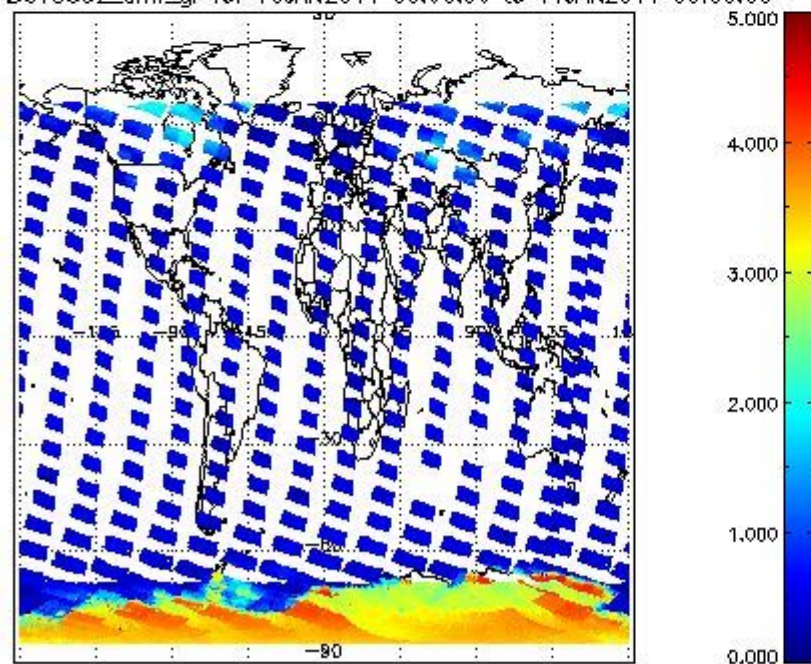
SCIOL2P\_NADUV5SO2\_vcd for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



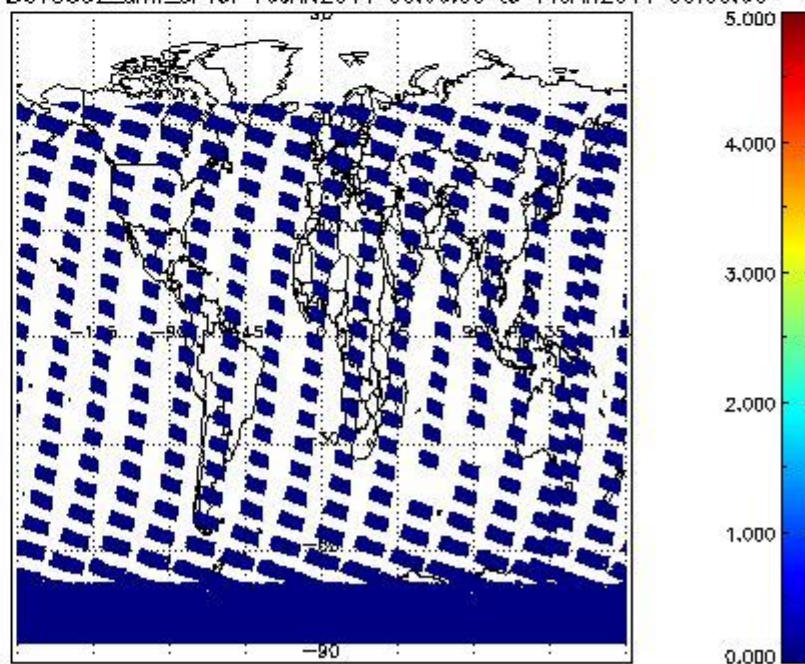
SCIOL2P\_NADUV5SO2\_vcd\_err for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



SCIOL2P\_NADUV5SO2\_amf\_gr for 10JAN2011 00:00:00 to 11JAN2011 00:00:00

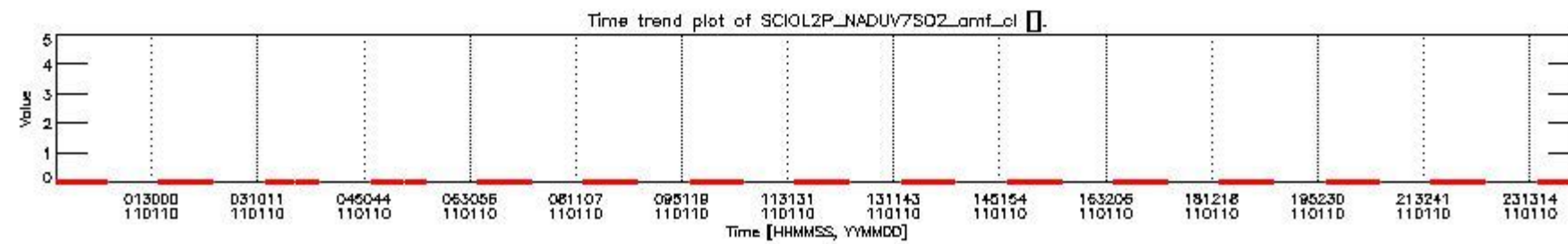
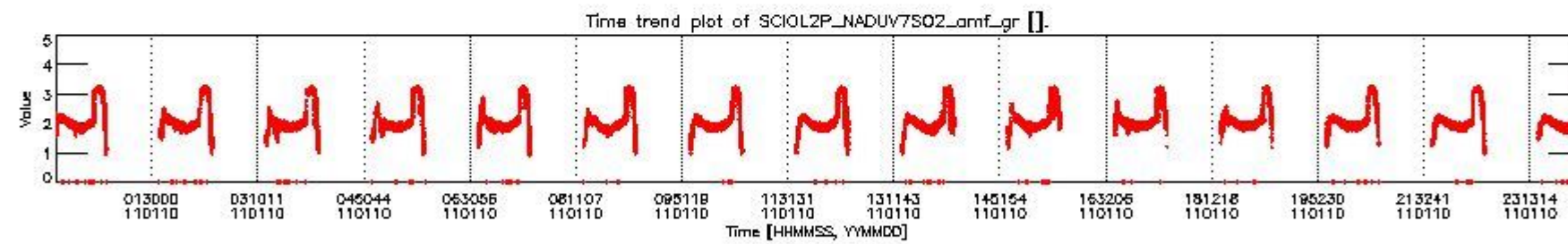
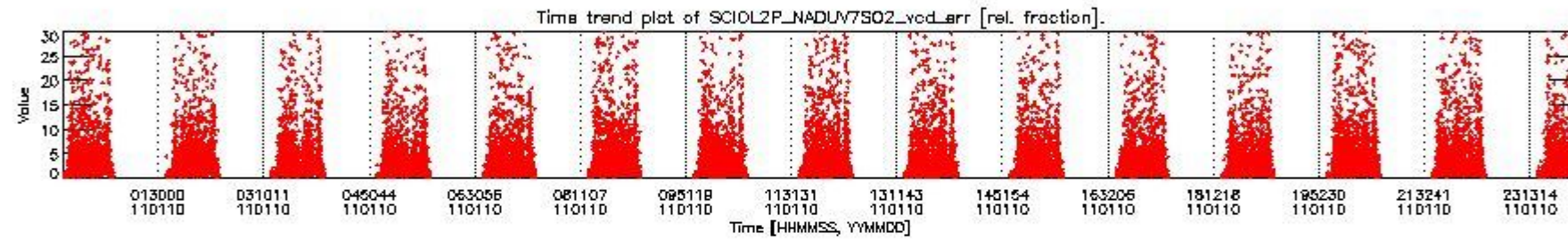
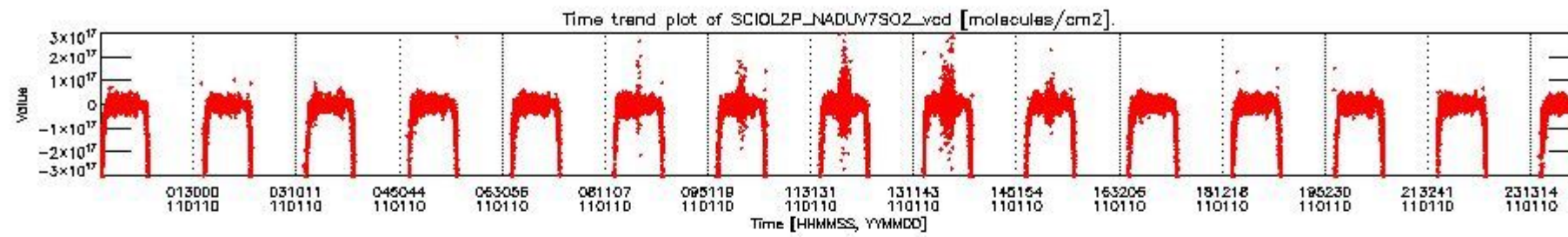


SCIOL2P\_NADUV5SO2\_amf\_cl for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



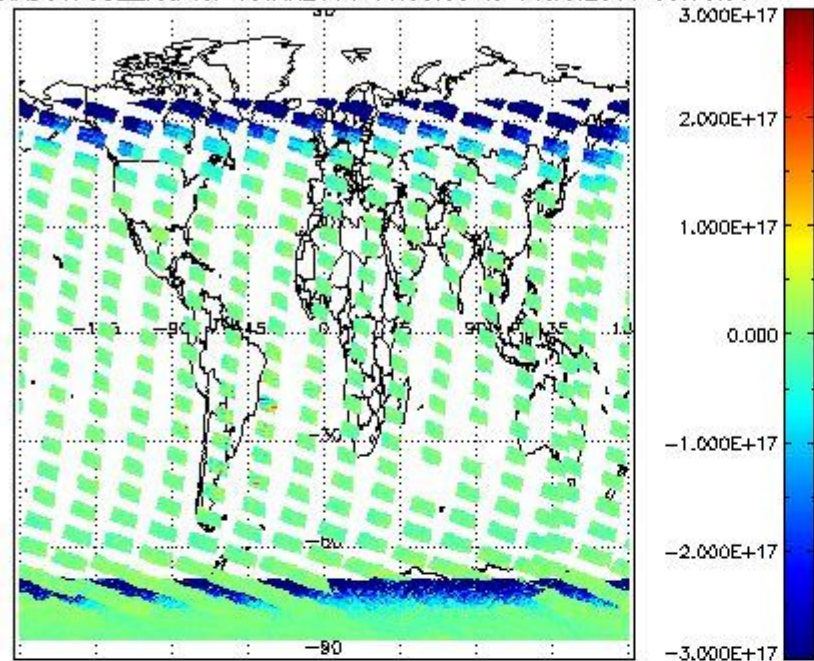
2.2.2.5 SO2 (UV7)



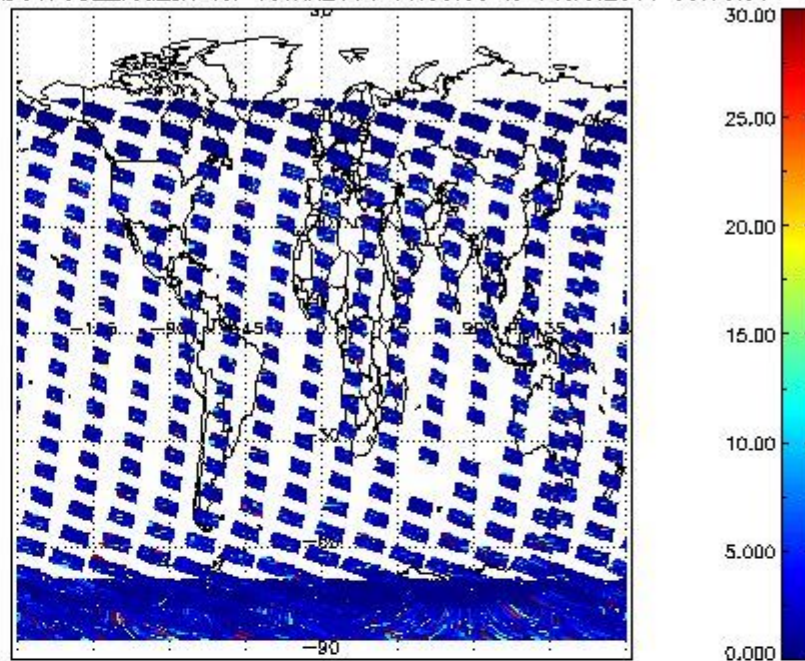




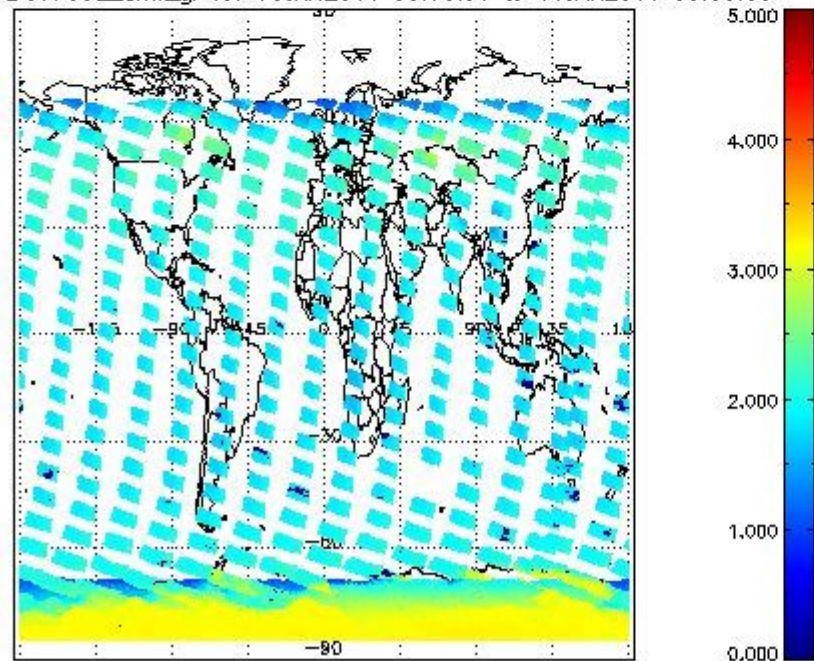
SCIOL2P\_NADUV7S02\_vcd for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



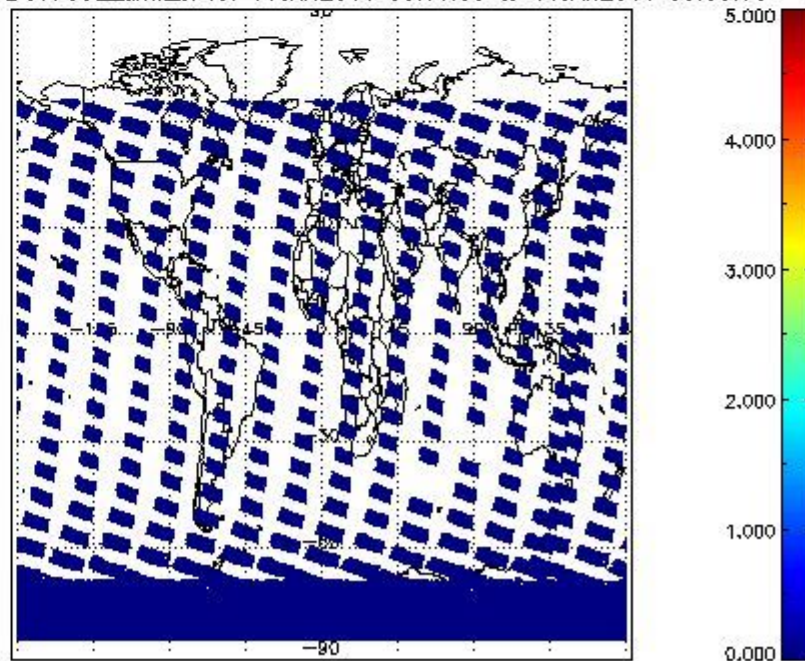
SCIOL2P\_NADUV7S02\_vcd\_err for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



SCIOL2P\_NADUV7S02\_amf\_gr for 10JAN2011 00:00:00 to 11JAN2011 00:00:00

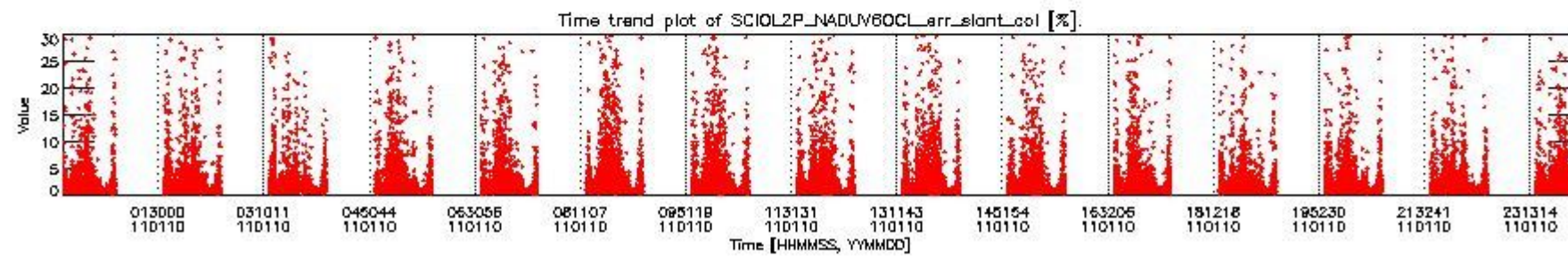
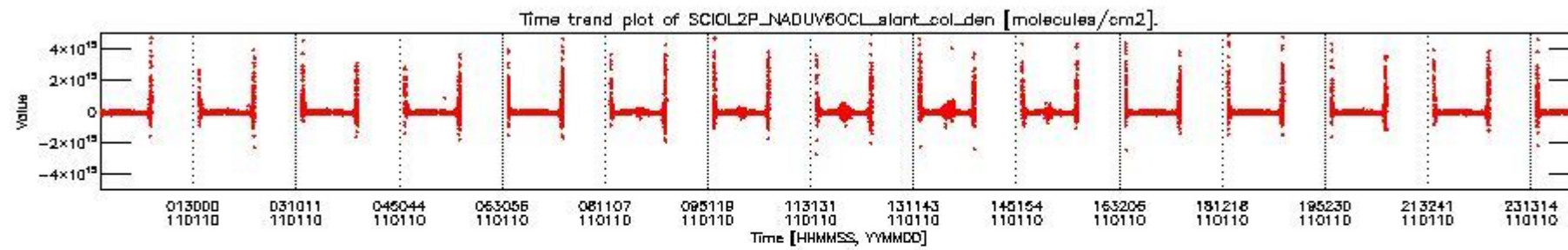


SCIOL2P\_NADUV7S02\_amf\_cl for 10JAN2011 00:00:00 to 11JAN2011 00:00:00

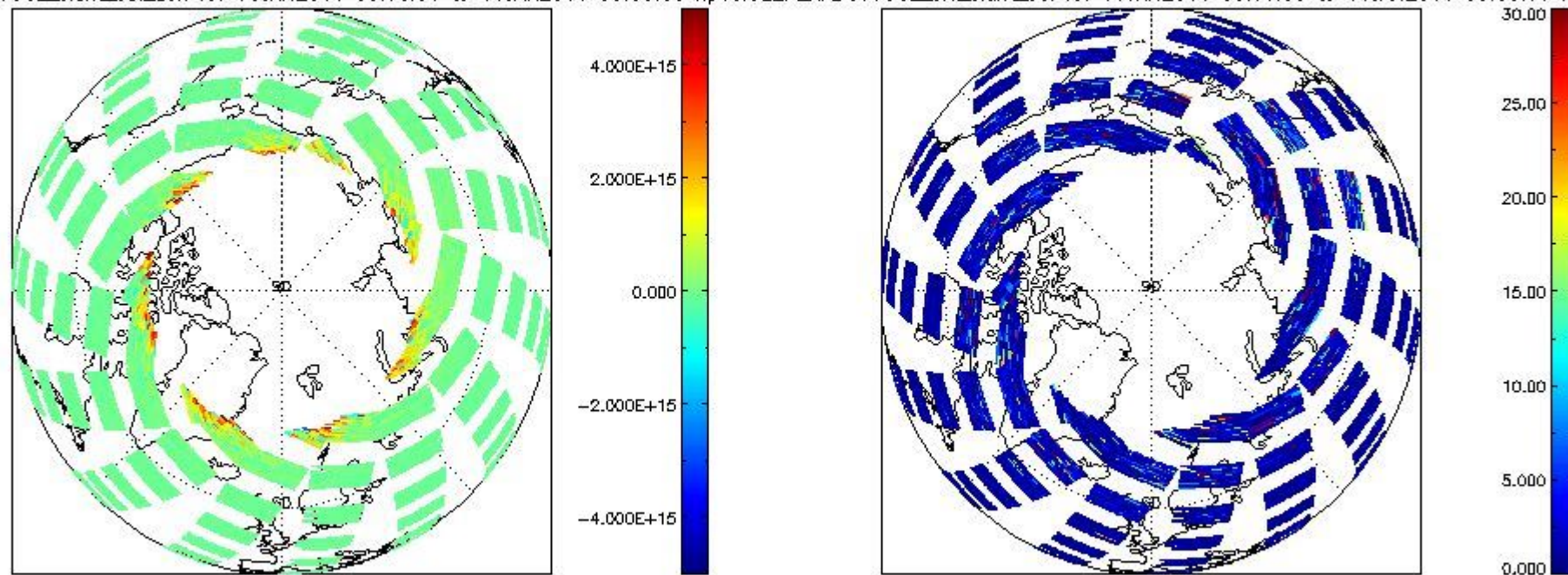


2.2.2.6 OCIO (UV6)



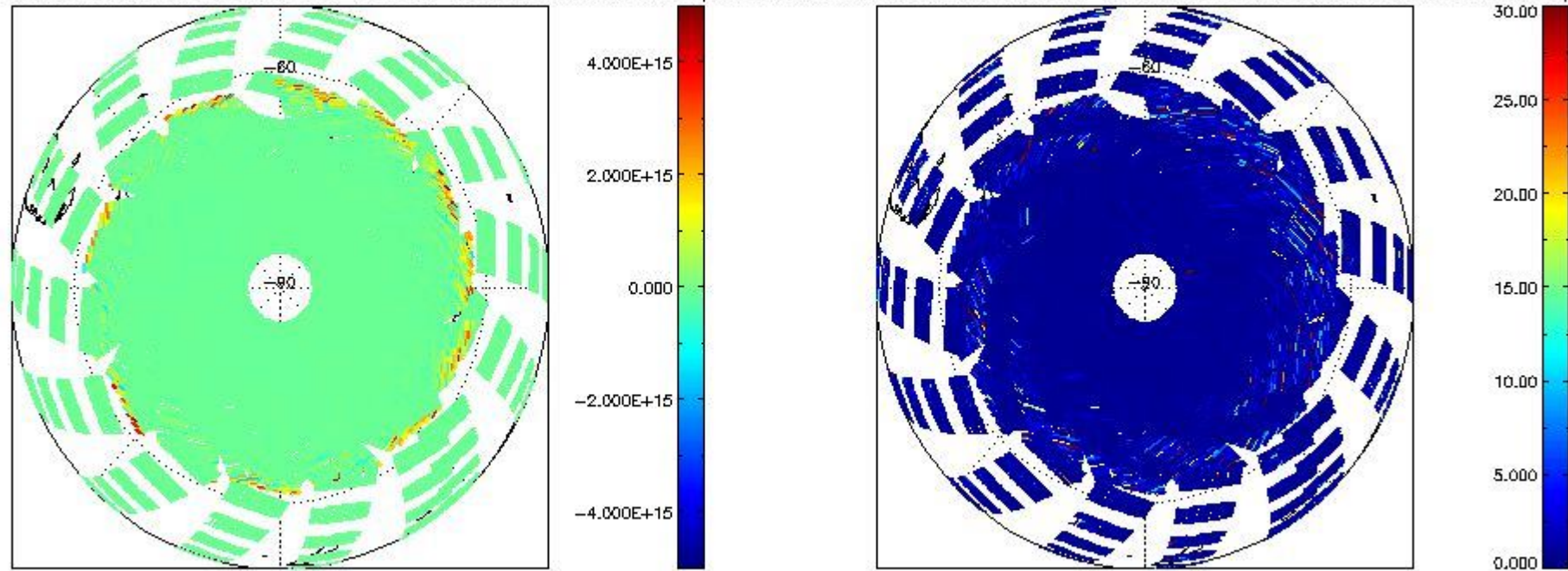


SCIOI2P\_NADUV6OCL\_slant\_col\_den for 10JAN2011 00:00:00 to 11JAN2011 00:00:00 np;SCIOI2P\_NADUV6OCL\_err\_slant\_col for 10JAN2011 00:00:00 to 11JAN2011 00:00:00 np

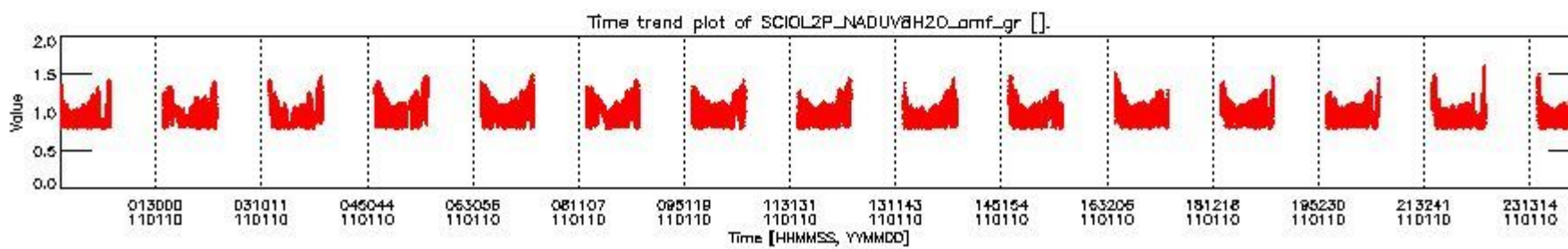
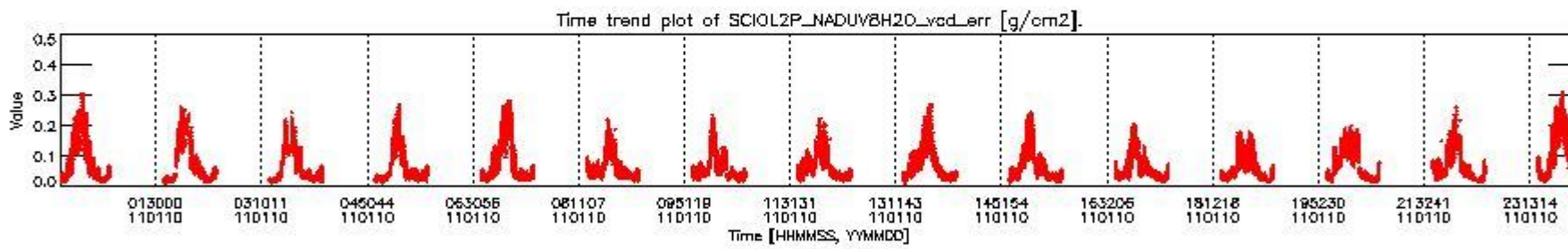
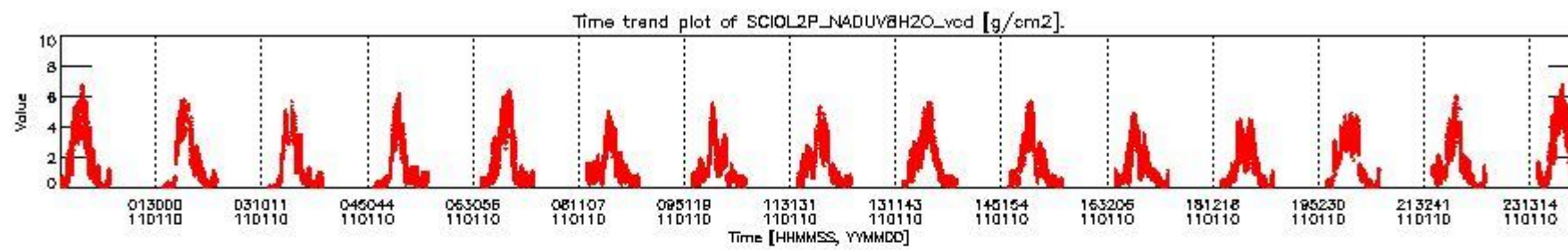




SCIOL2P\_NADUV60CL\_slant\_col\_den for 10JAN2011 00:00:00 to 11JAN2011 00:00:00 sp SCIOL2P\_NADUV60CL\_err\_slant\_col for 10JAN2011 00:00:00 to 11JAN2011 00:00:00 sp

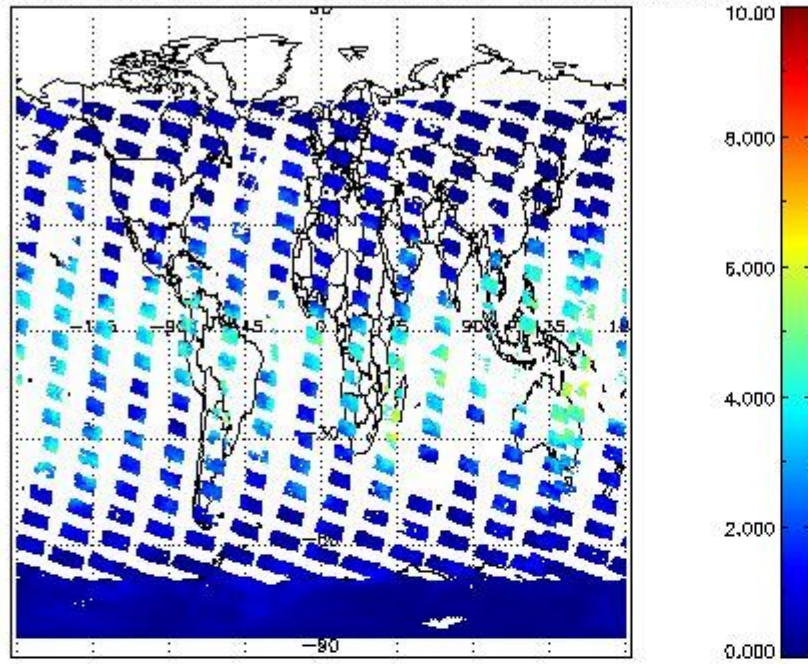


### 2.2.2.7 H2O (UV8)

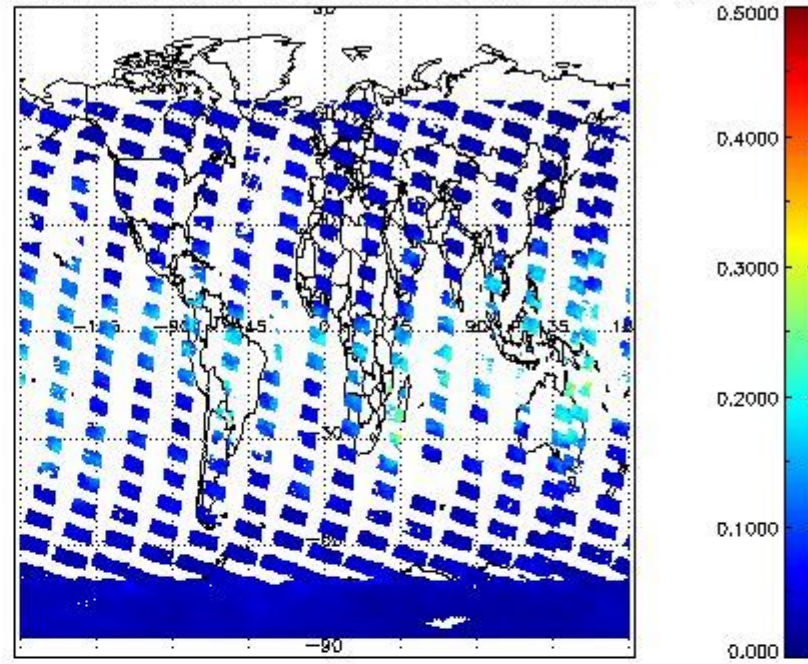




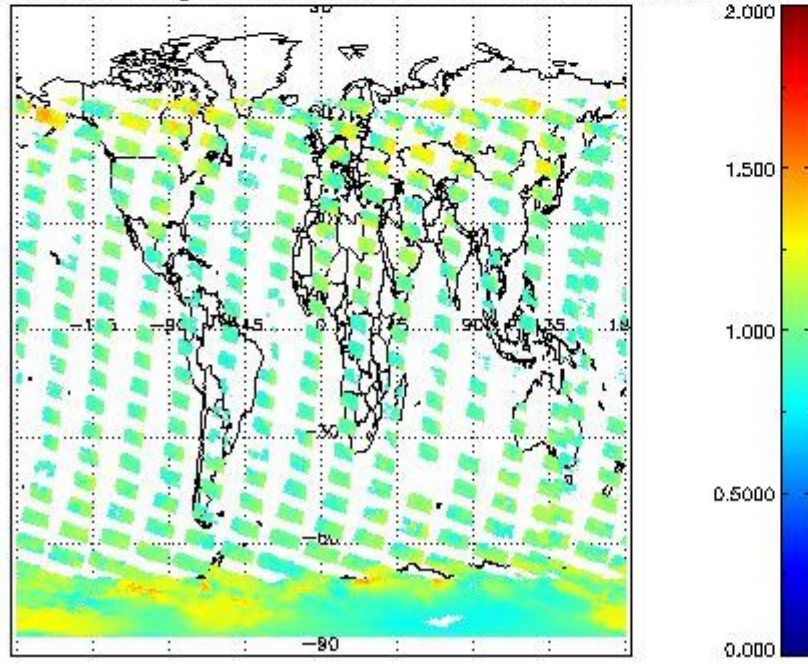
SCIOL2P\_NADUV8H20\_vcd for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



SCIOL2P\_NADUV8H20\_vcd\_err for 10JAN2011 00:00:00 to 11JAN2011 00:00:00

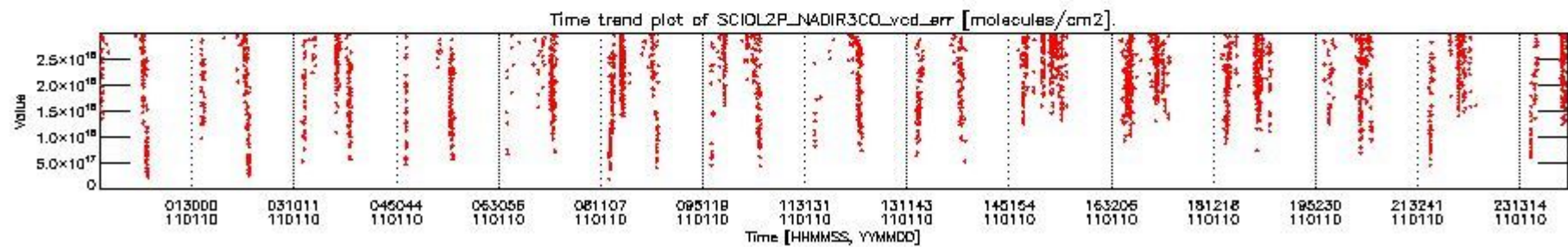
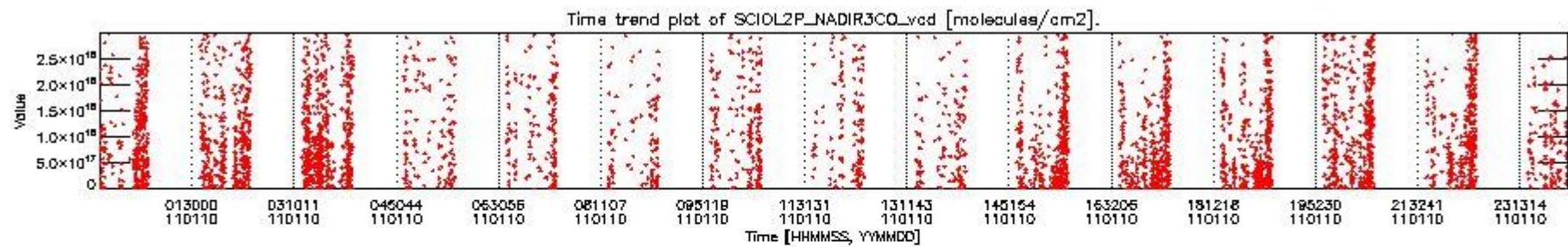


SCIOL2P\_NADUV8H20\_amf\_gr for 10JAN2011 00:00:00 to 11JAN2011 00:00:00

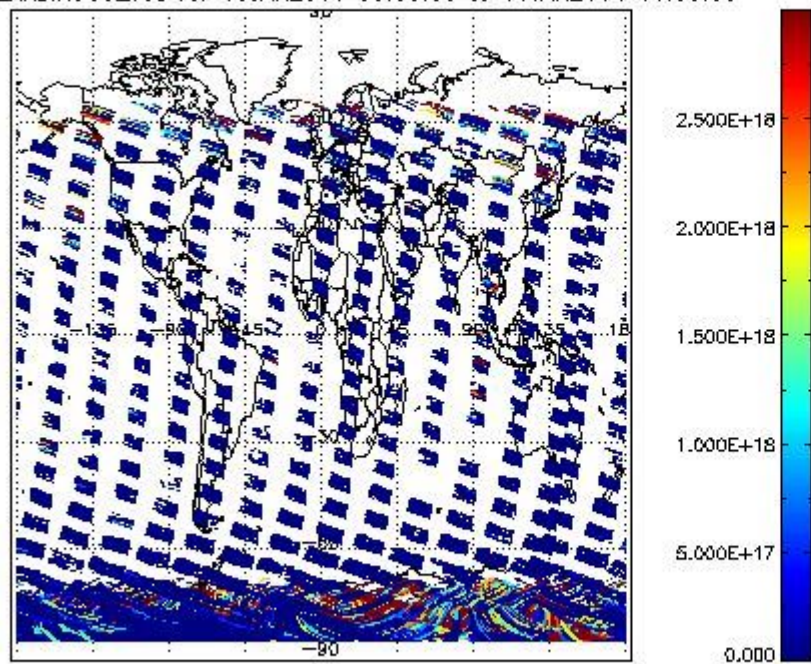


### 2.2.2.8 CO (IR3)

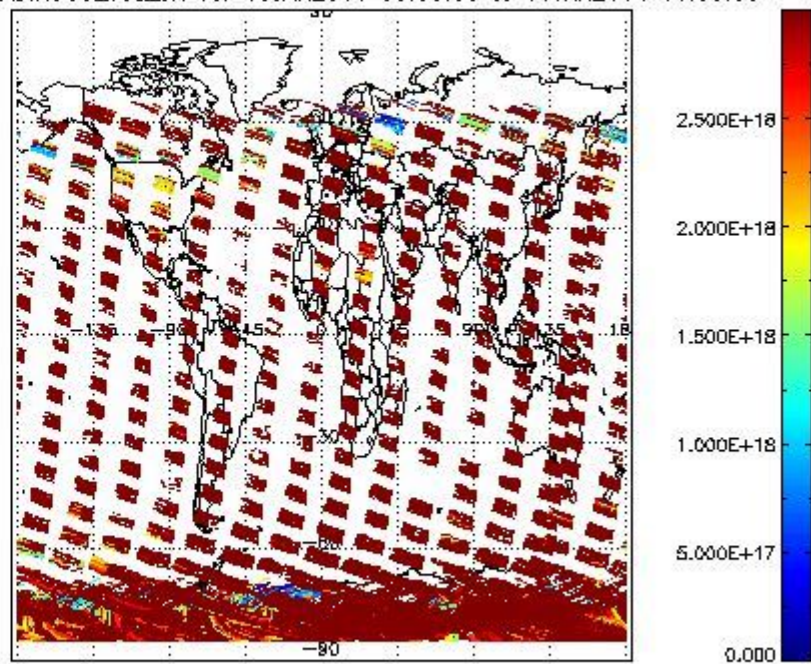




SCIDL2P\_NADIR3CO\_vcd for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



SCIDL2P\_NADIR3CO\_vcd\_err for 10JAN2011 00:00:00 to 11JAN2011 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.

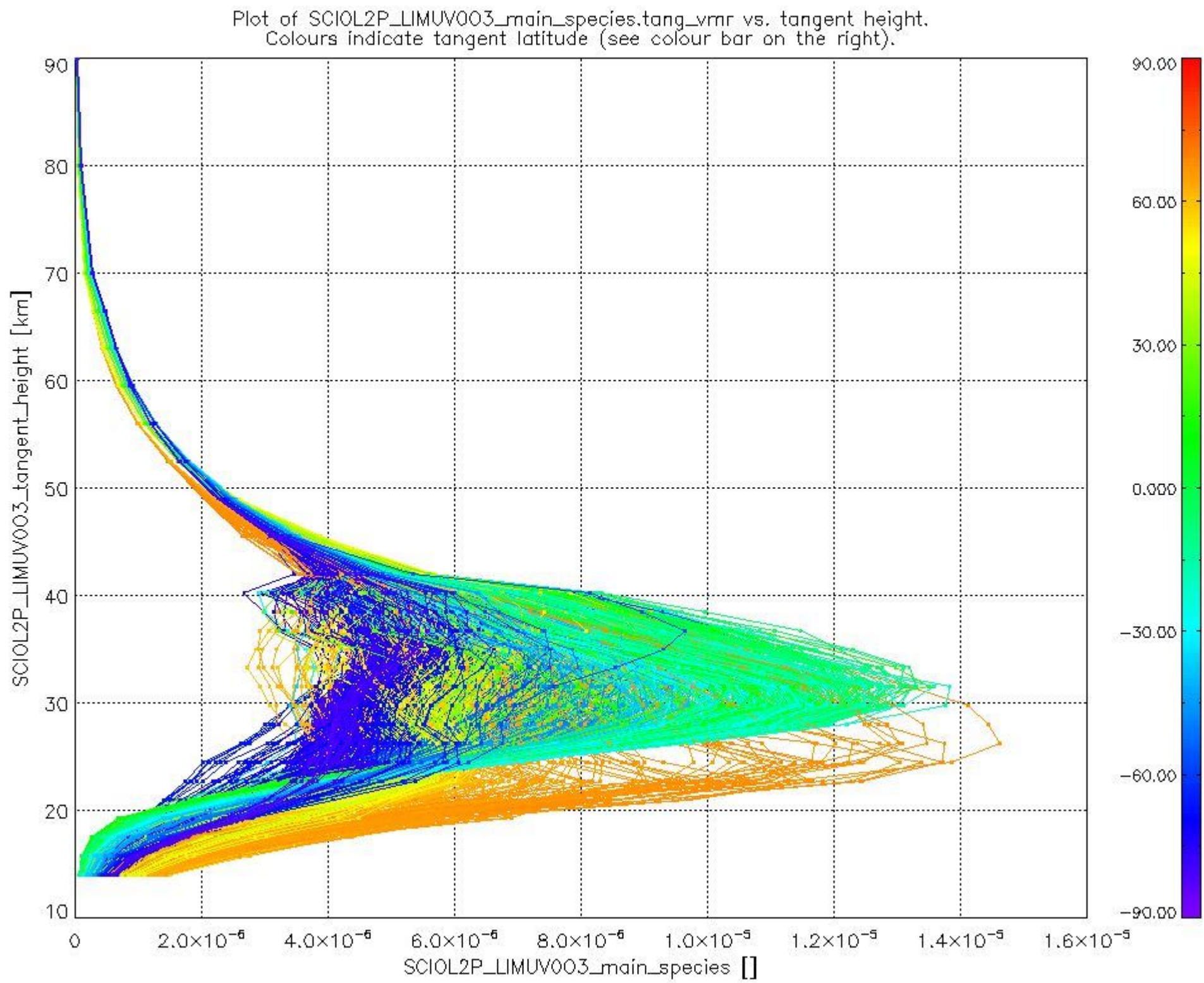
The following data items are currently included into this section:

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.

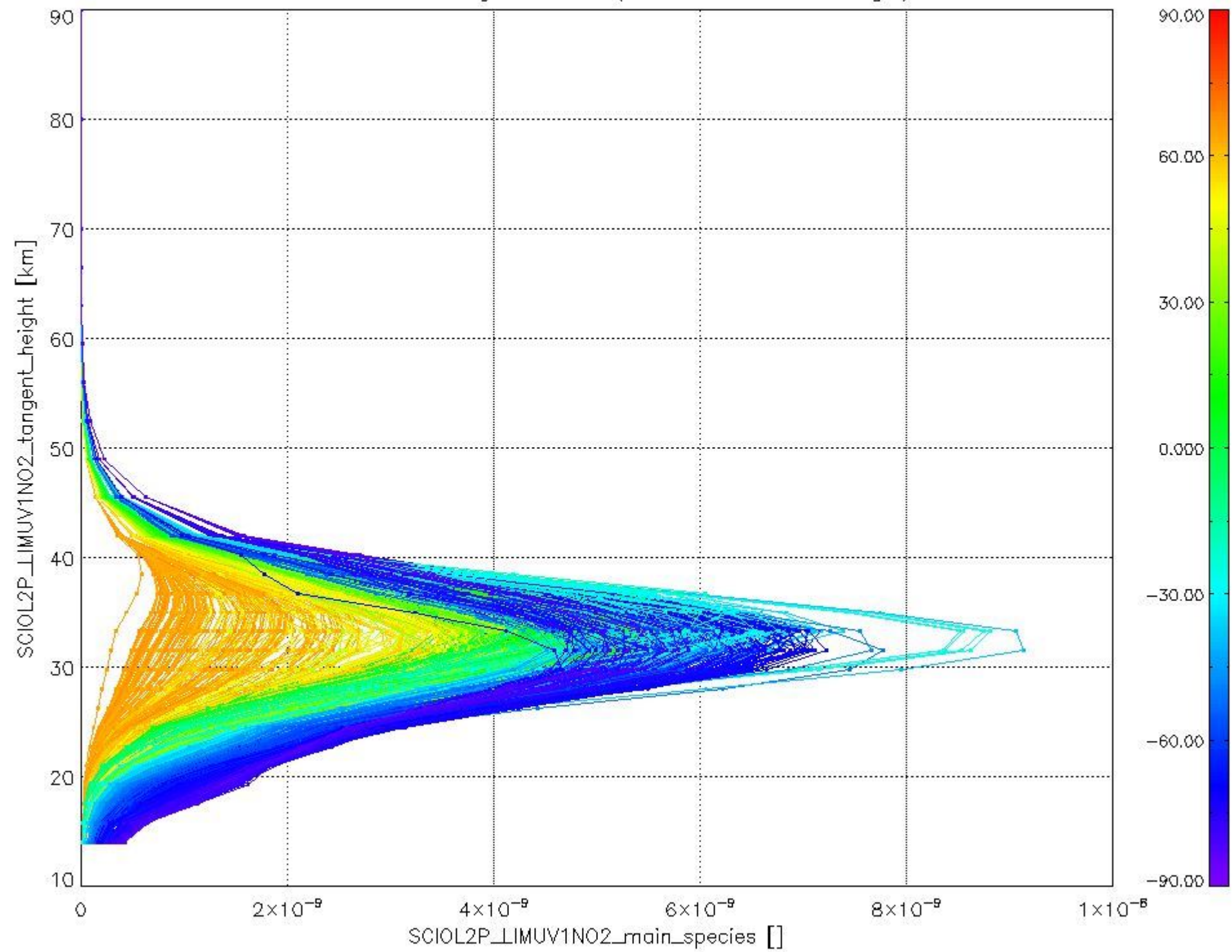
2.2.3.1 O3 (UV0)



2.2.3.2 NO2 (UV1)



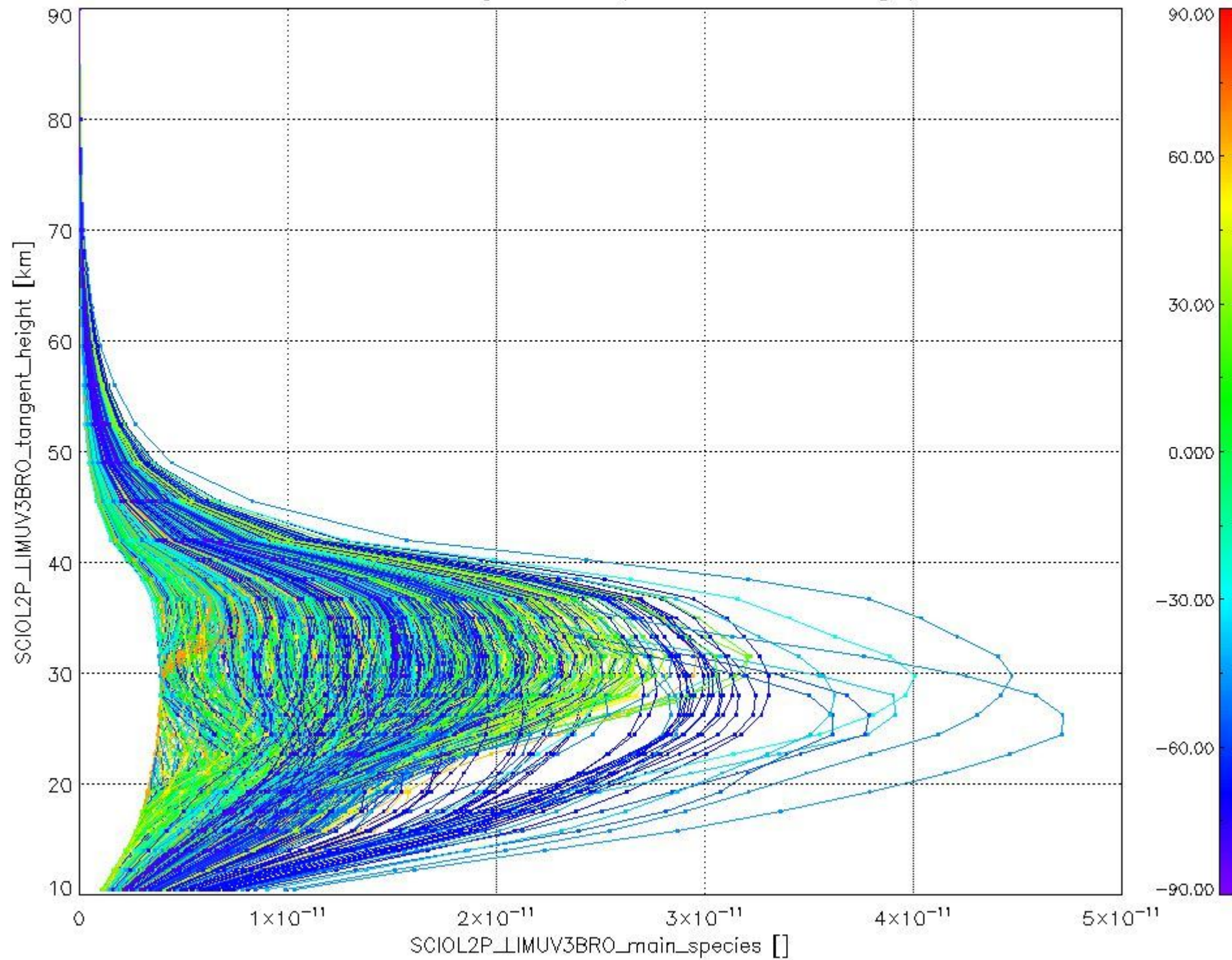
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



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

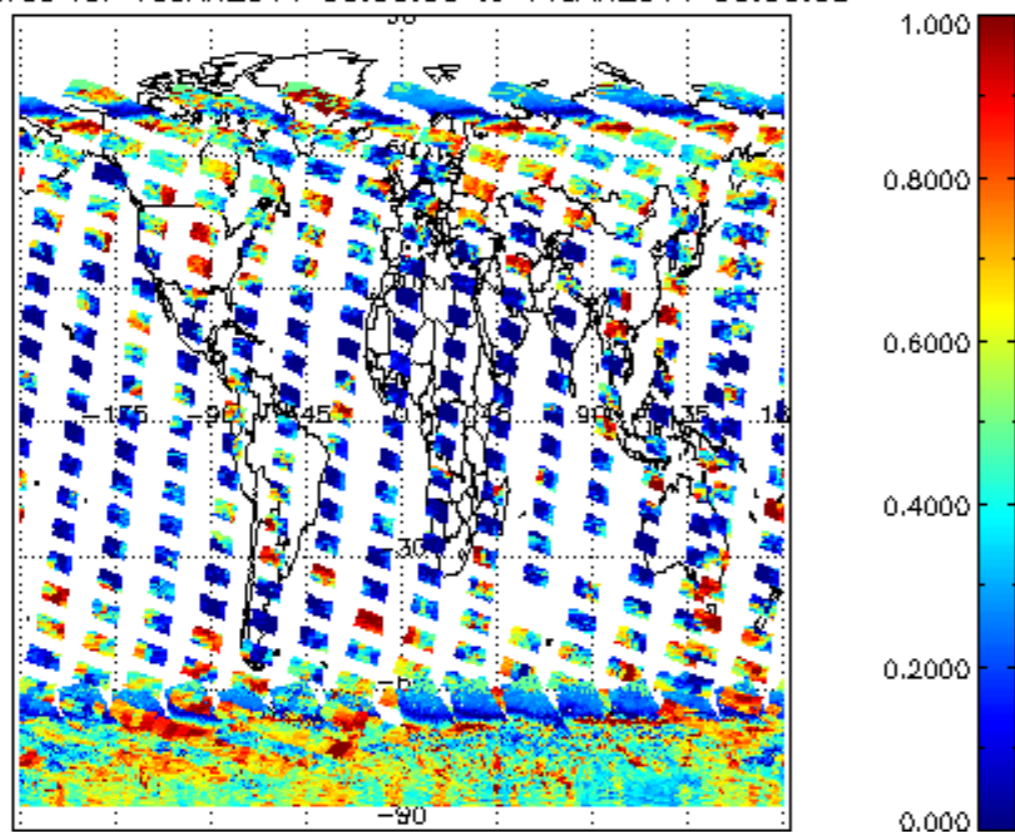
Number	ADF
	<b>IN_ (INITIALISATION_FILE)</b>
0	SCI_IN_AXNPDE20090615_120000_20090615_000000_20991231_235959
	<b>ECF (ECMWF_FILE)</b>
1	NOT USED
	<b>MF1 (M_FACTOR_FILE)</b>
2	SCI_MF1_AXVIEC20110104_121316_20110109_181527_20110111_181527
3	SCI_MF1_AXVIEC20110104_121325_20110110_191856_20110207_191856



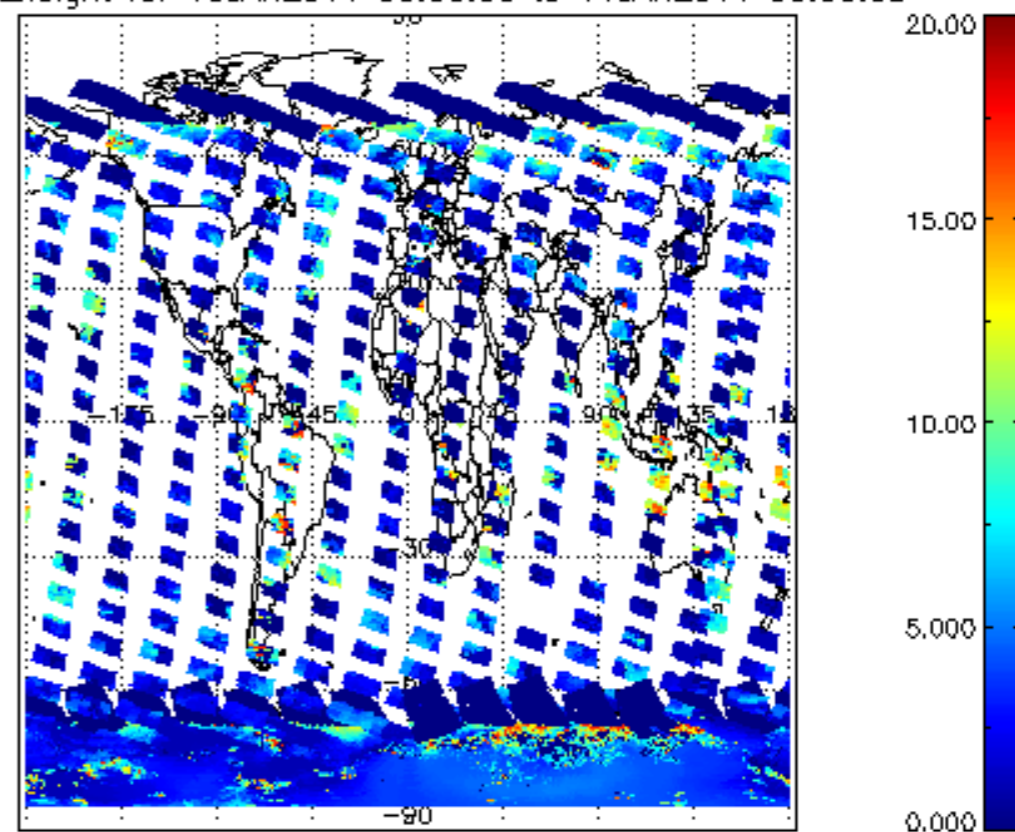




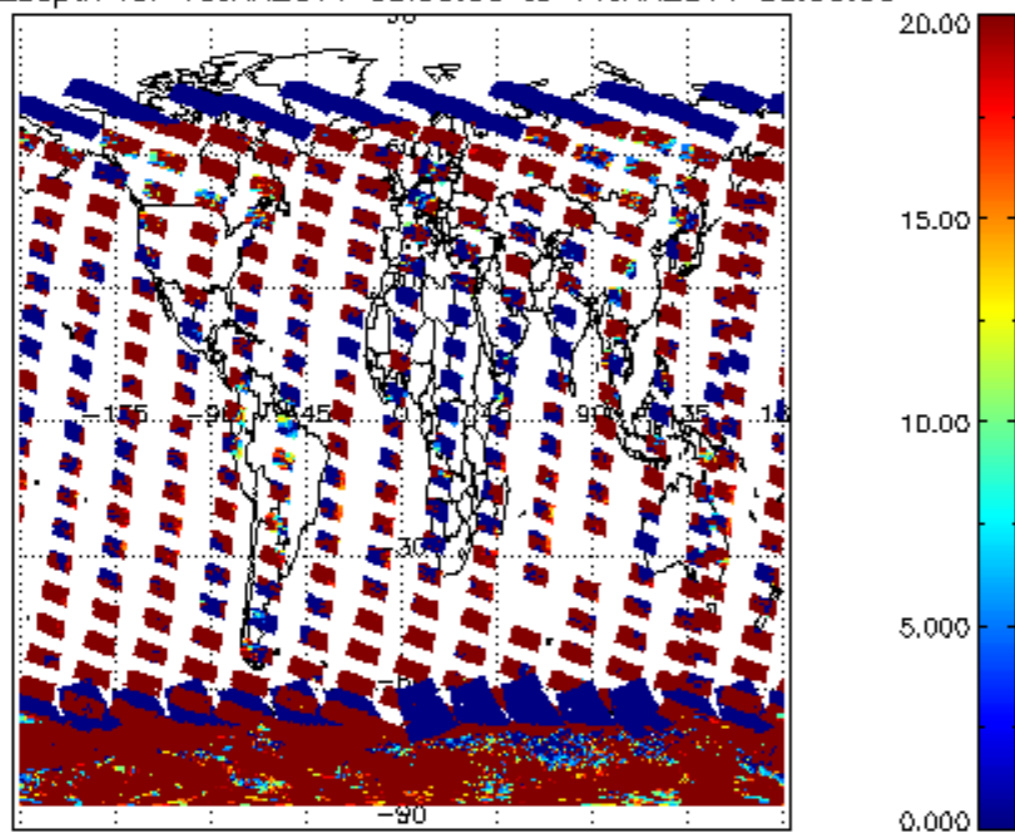
cL\_frac for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



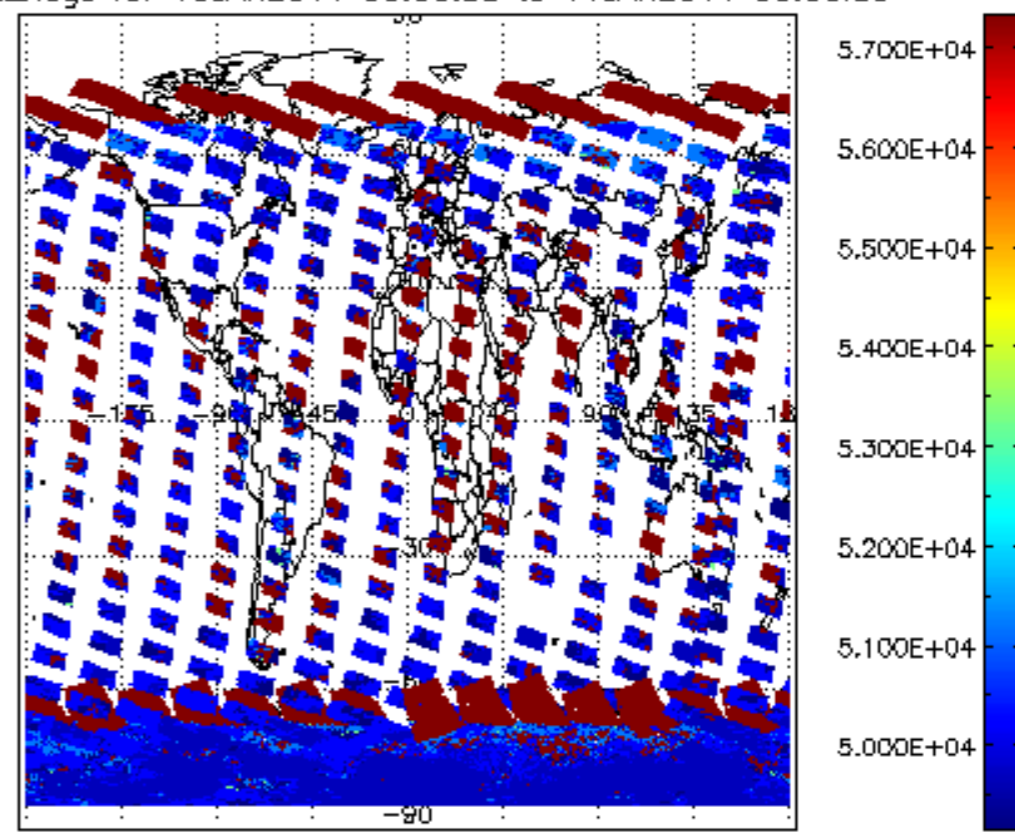
cL\_top\_height for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



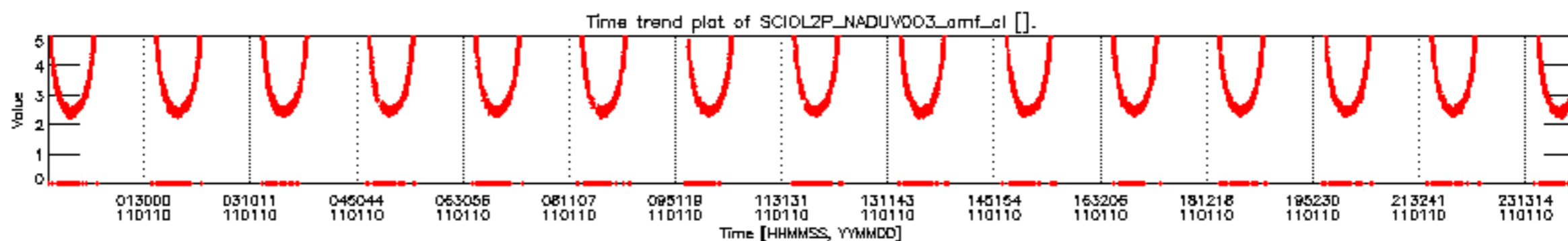
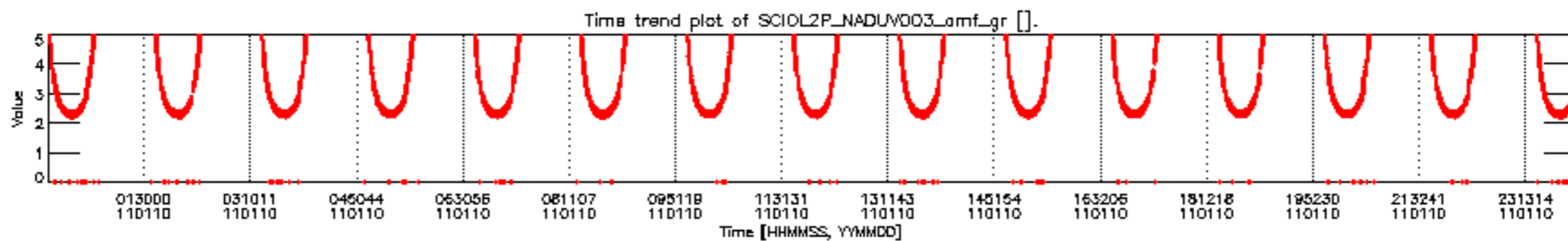
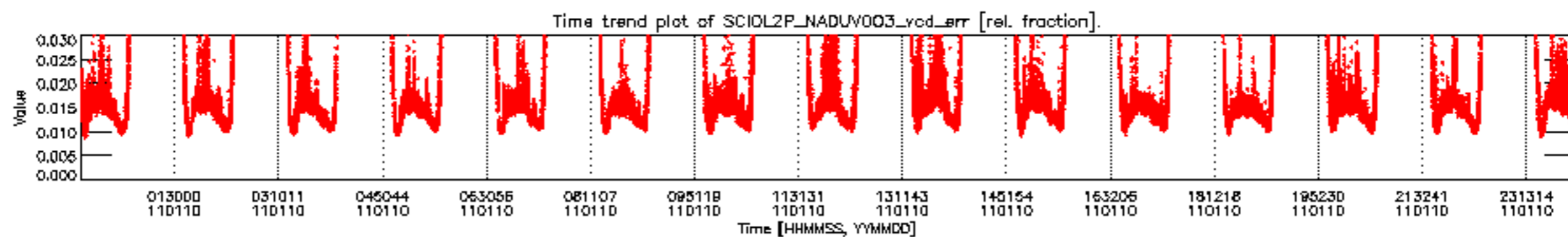
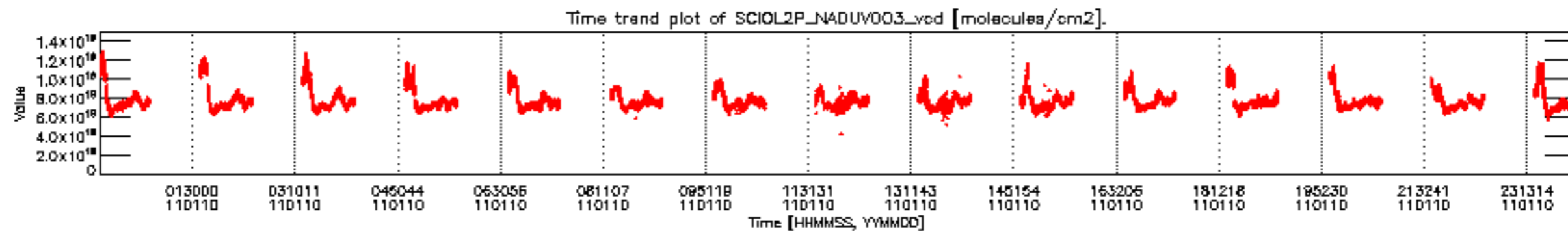
cLopt\_depth for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



cloud\_flags for 10JAN2011 00:00:00 to 11JAN2011 00:00:00

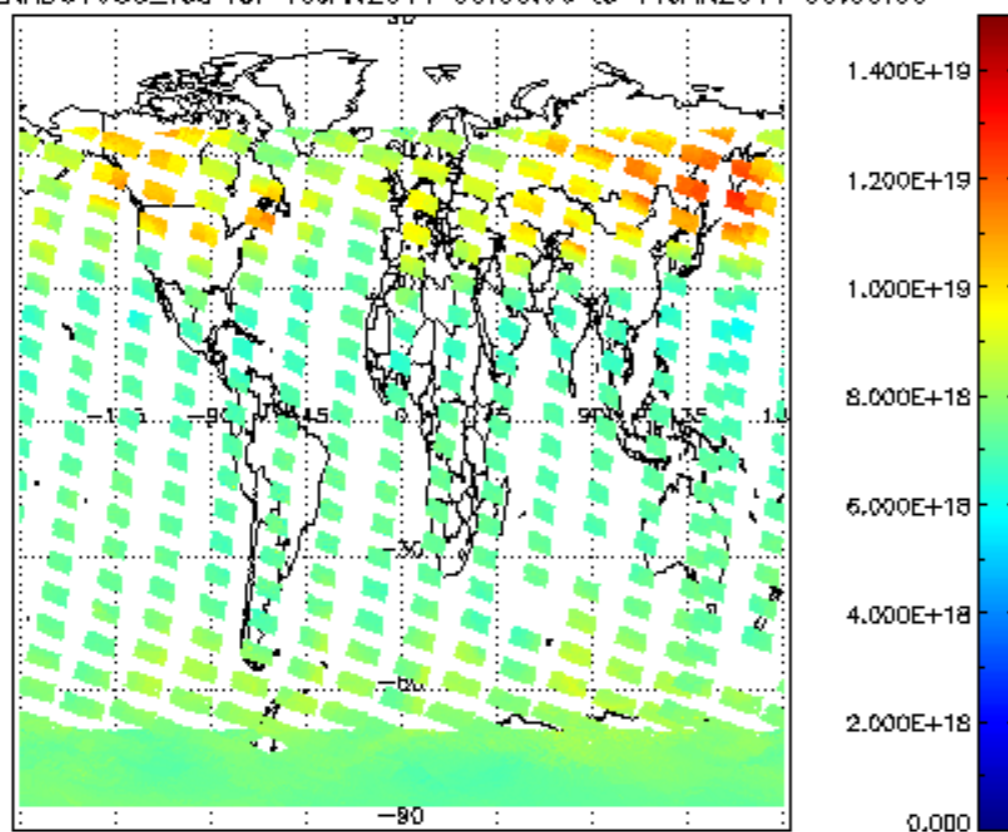




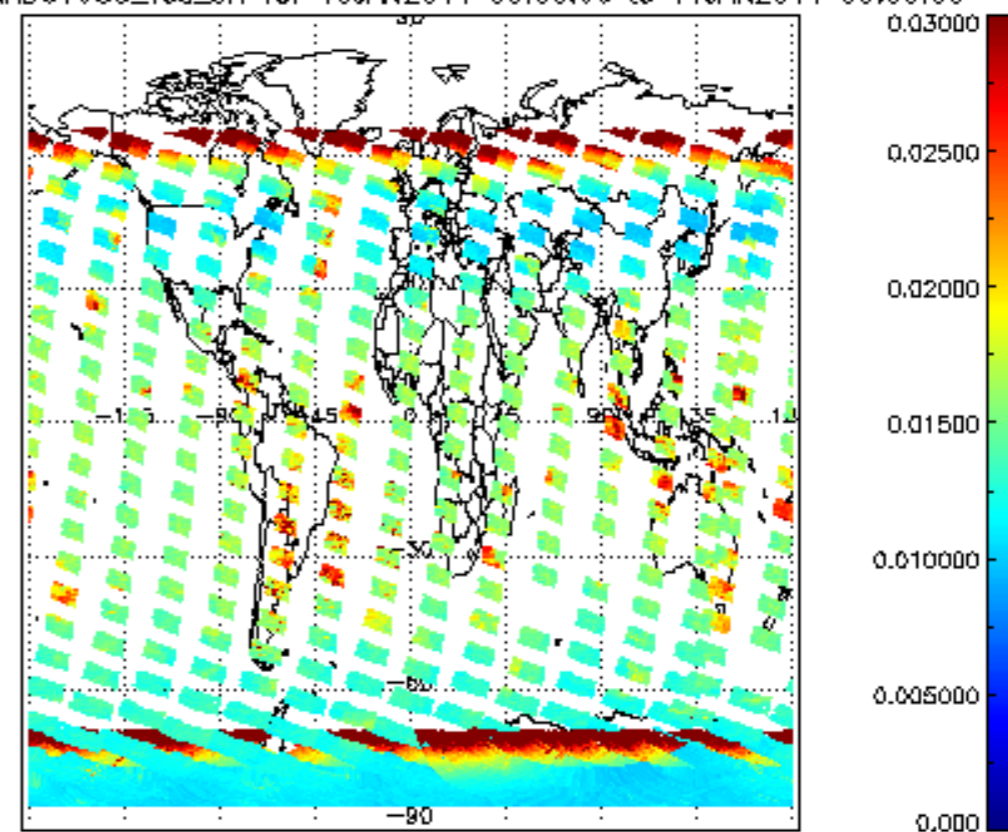




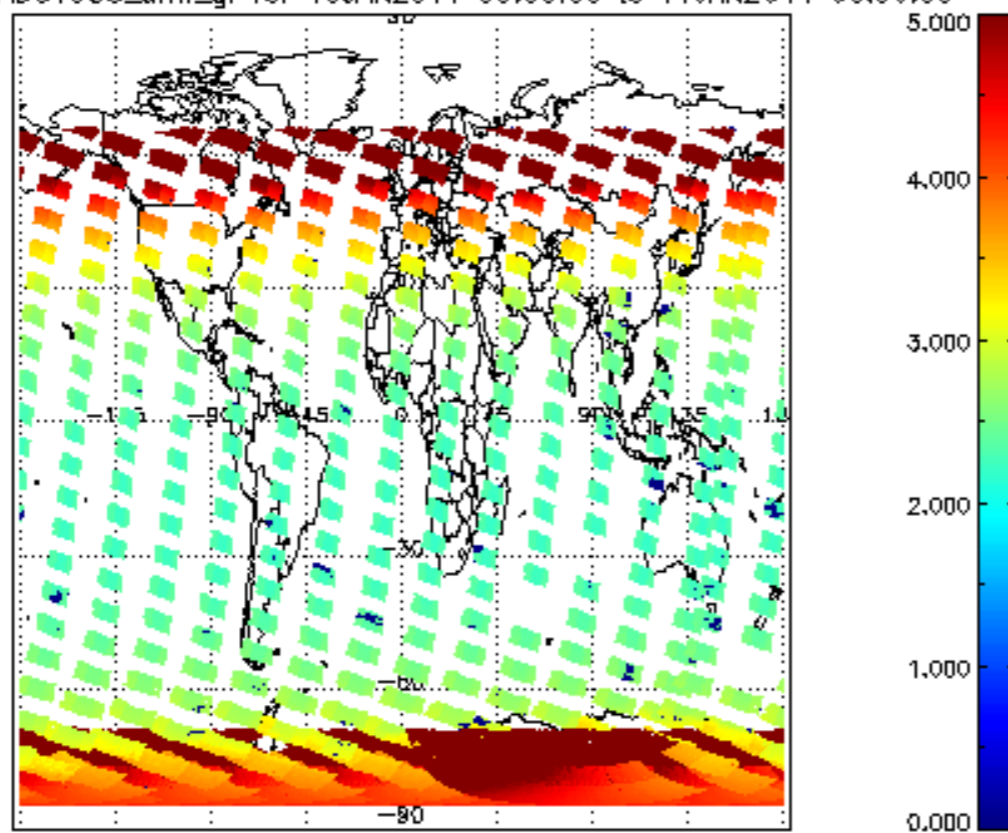
SCIOL2P\_NADUV003\_vcd for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



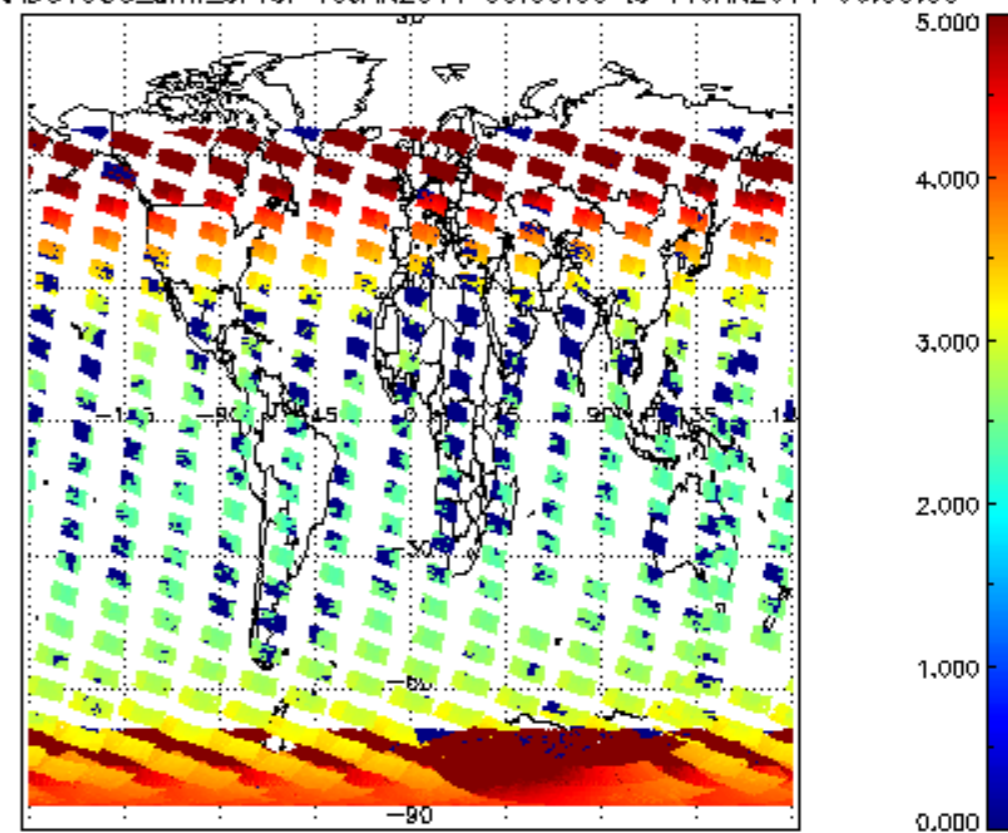
SCIOL2P\_NADUV003\_vcd\_err for 10JAN2011 00:00:00 to 11JAN2011 00:00:00

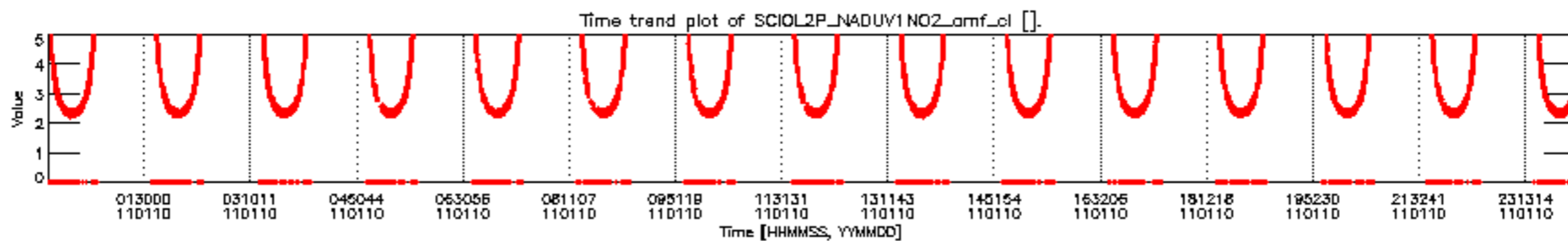
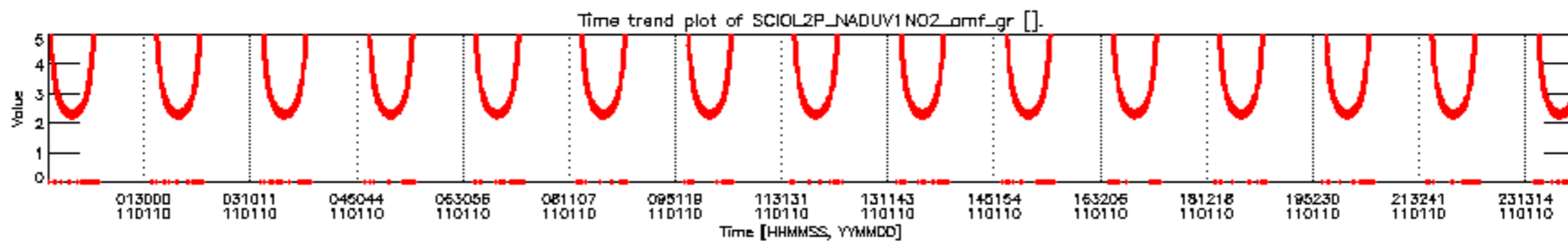
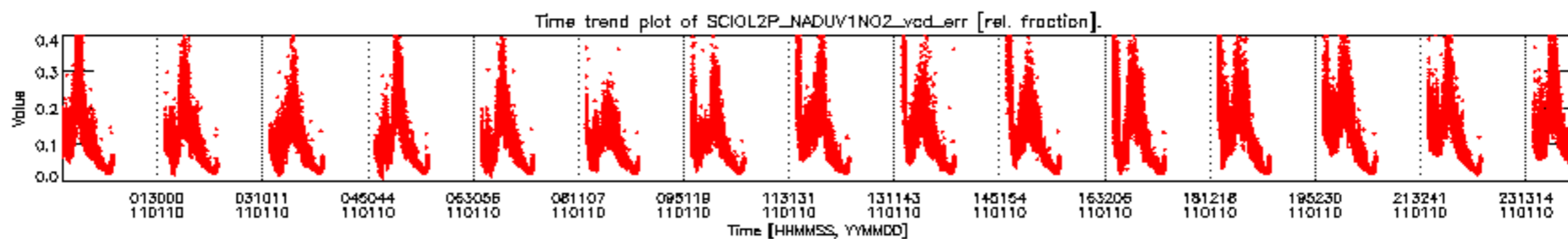
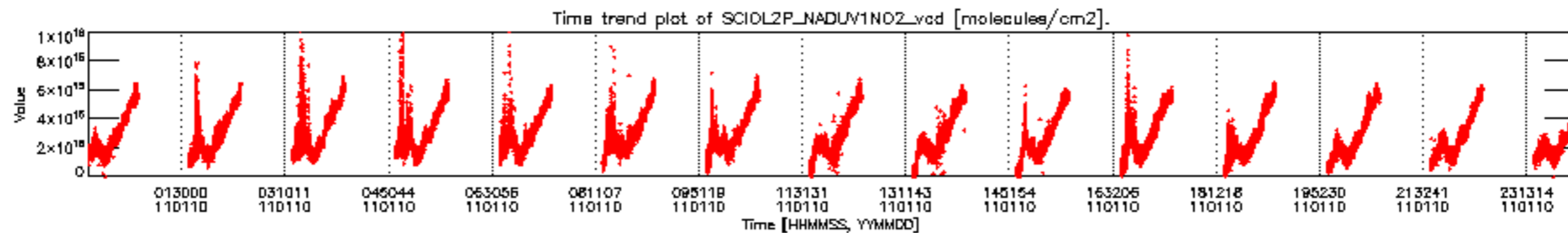


SCIOL2P\_NADUV003\_amf\_gr for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



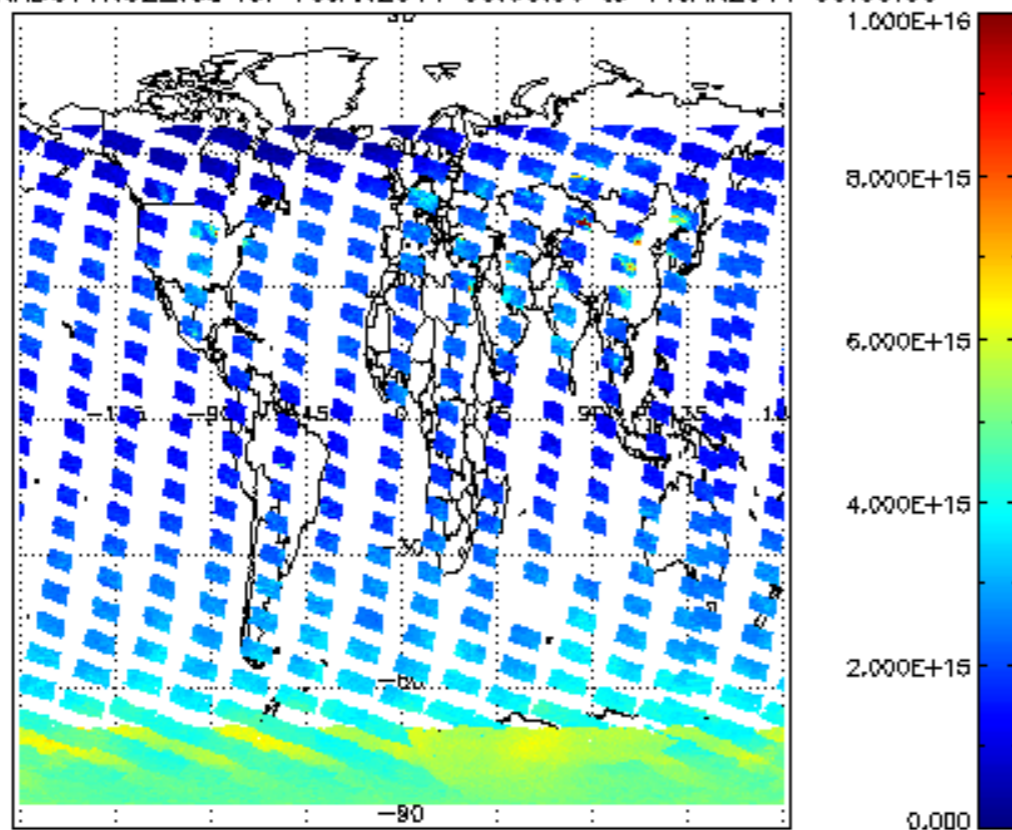
SCIOL2P\_NADUV003\_amf\_cl for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



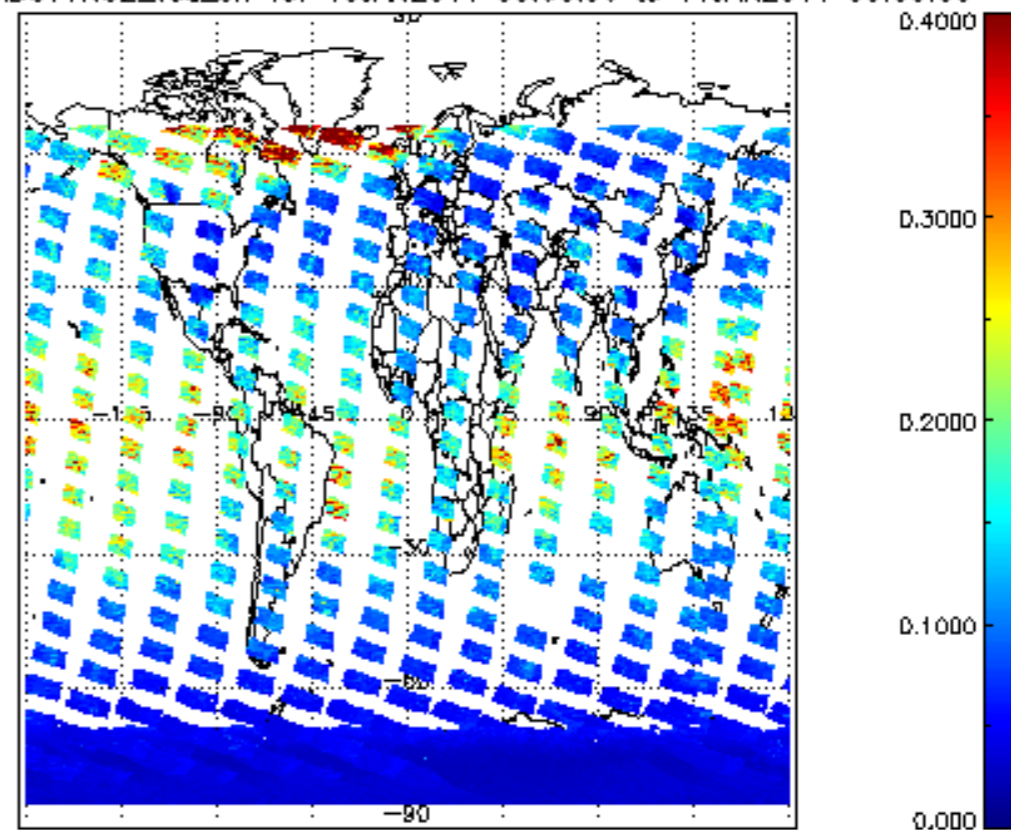




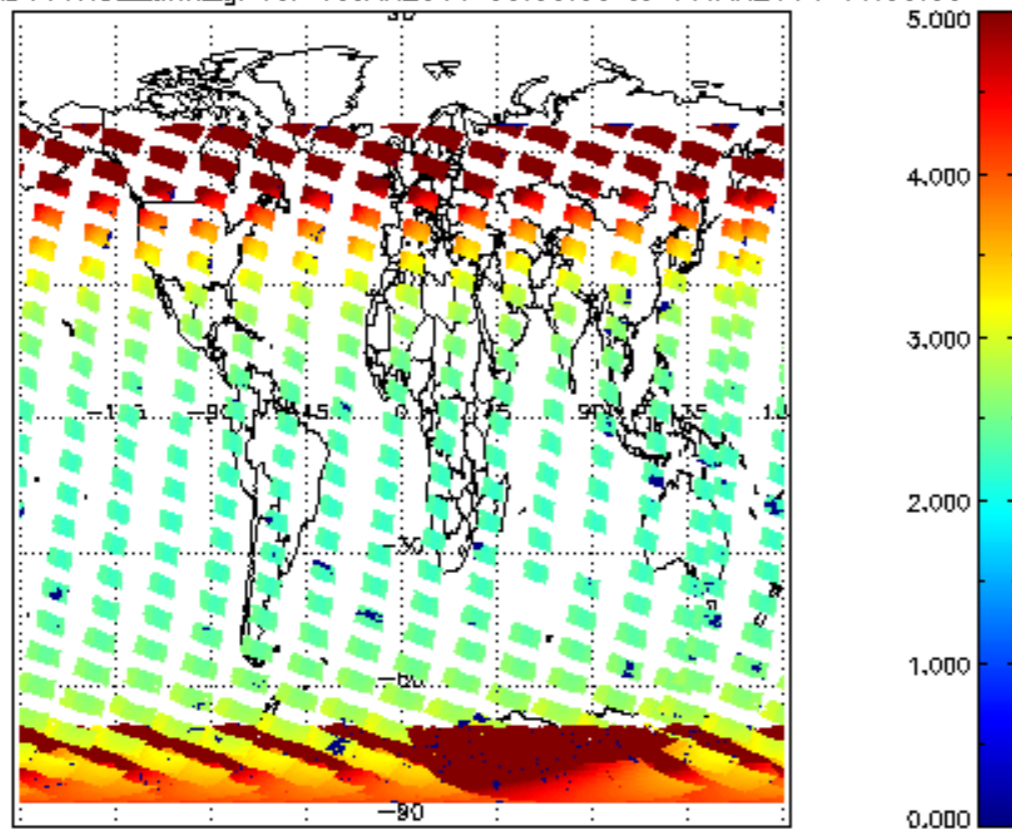
SCIOL2P\_NADUV1NO2\_vcd for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



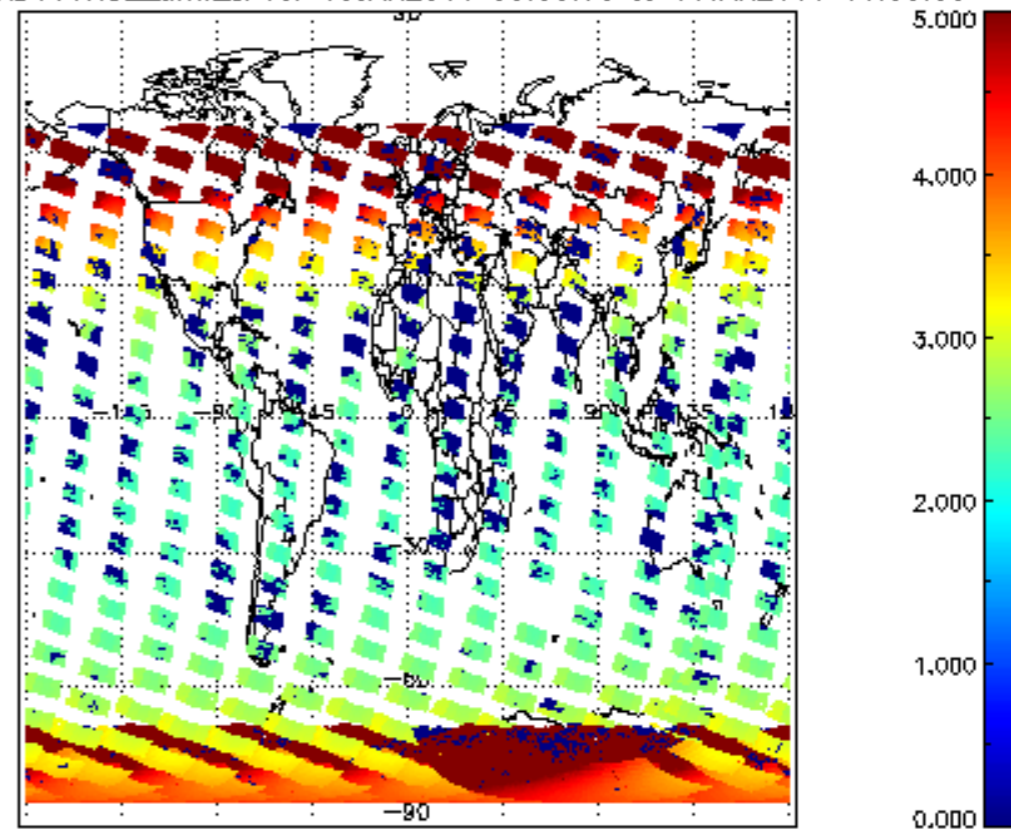
SCIOL2P\_NADUV1NO2\_vcd\_err for 10JAN2011 00:00:00 to 11JAN2011 00:00:00

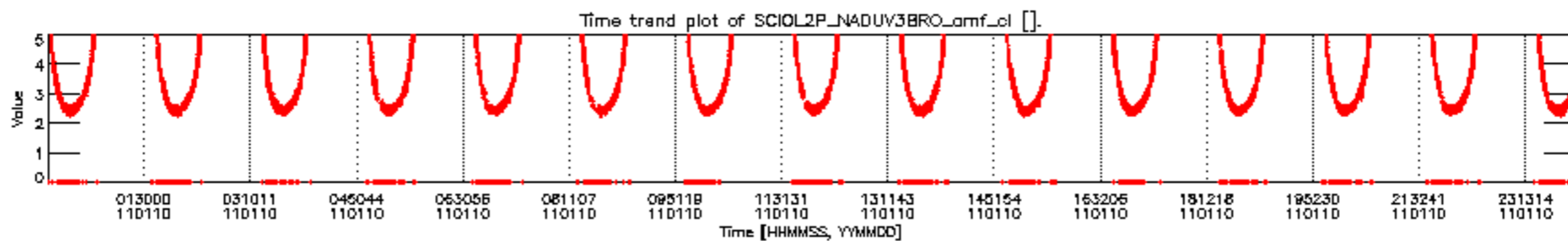
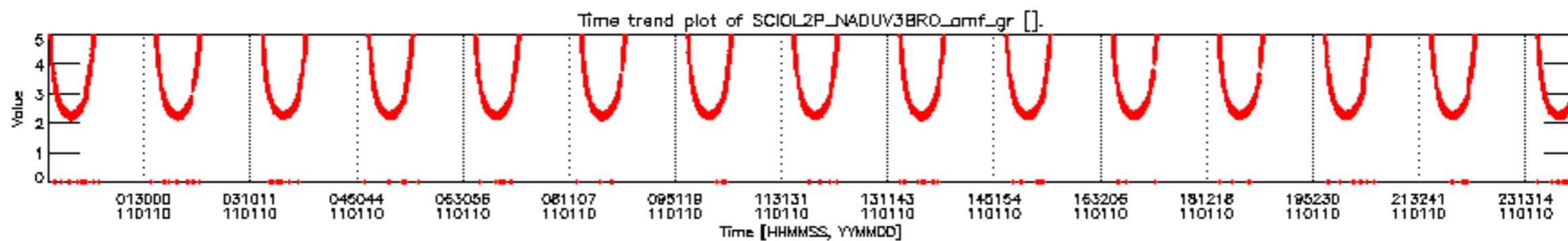
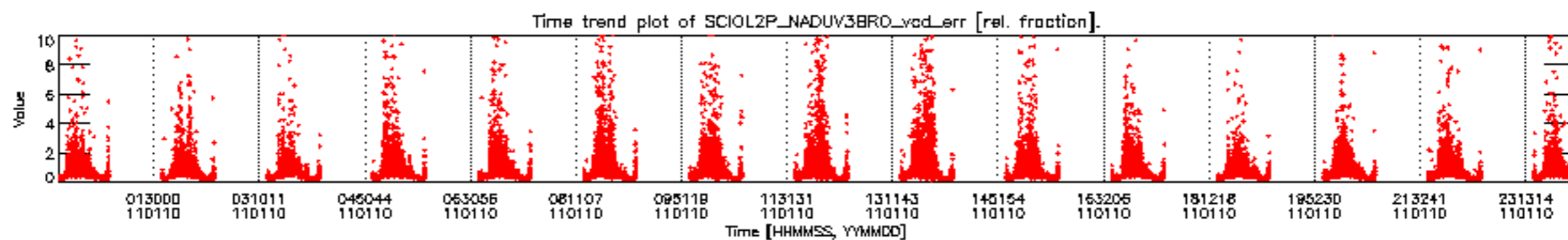
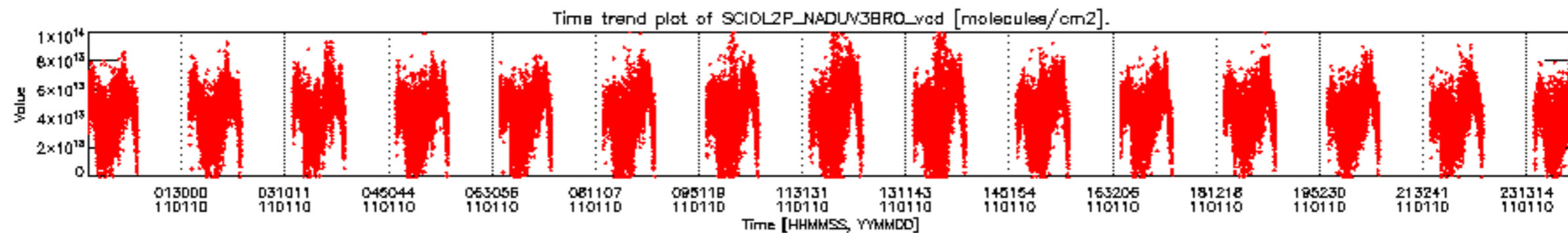


SCIOL2P\_NADUV1NO2\_amf\_gr for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



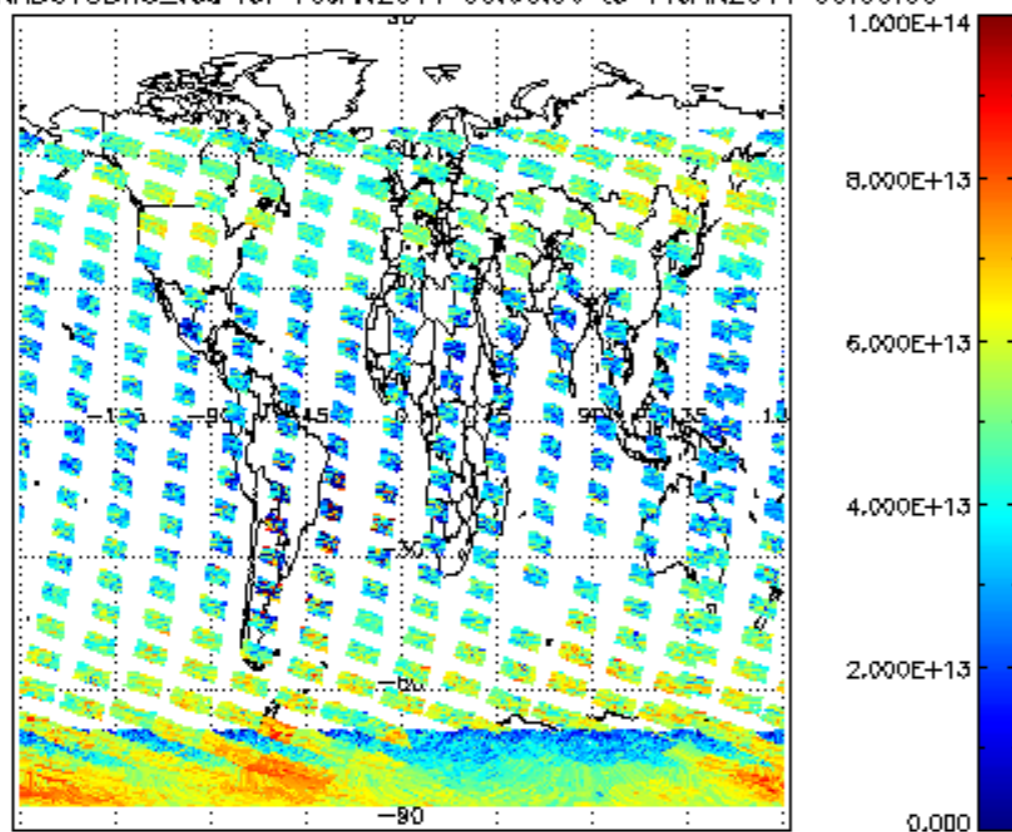
SCIOL2P\_NADUV1NO2\_amf\_cl for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



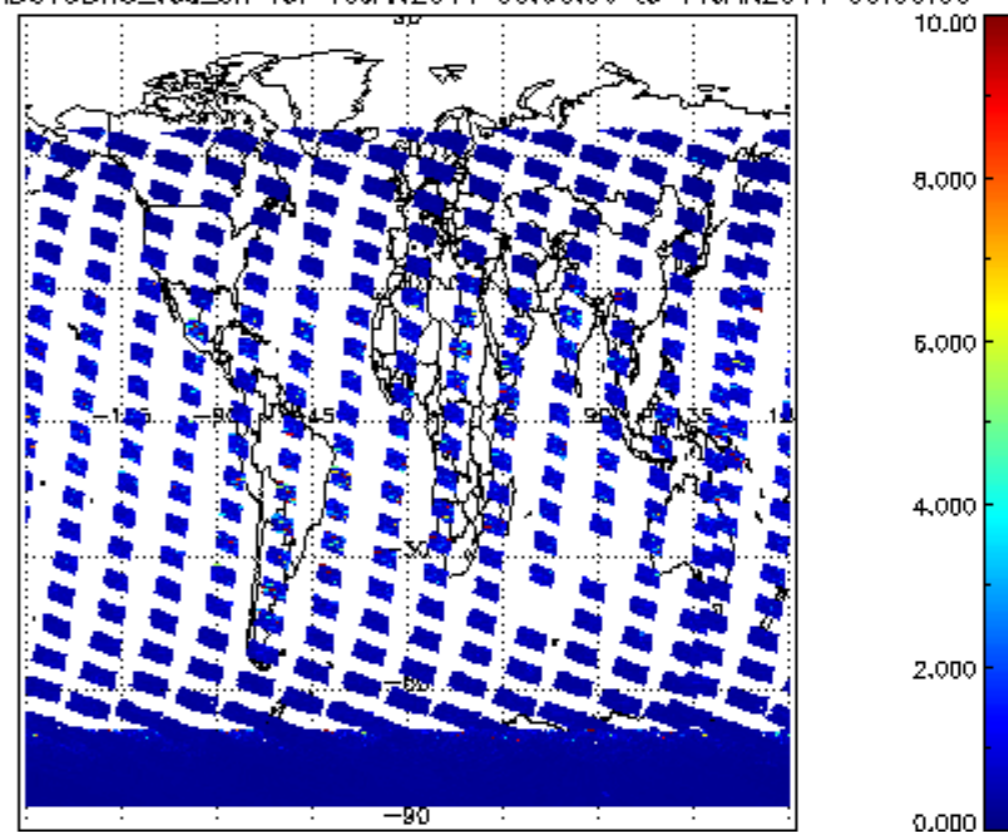




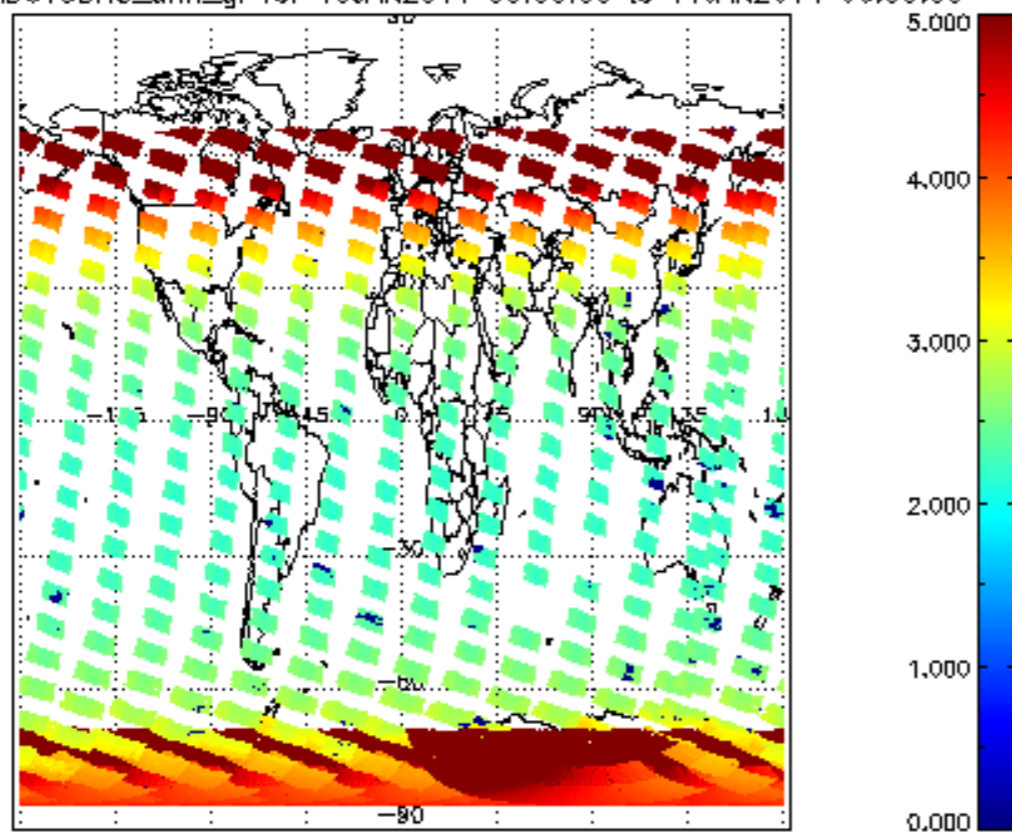
SCIOL2P\_NADUV3BRO\_vcd for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



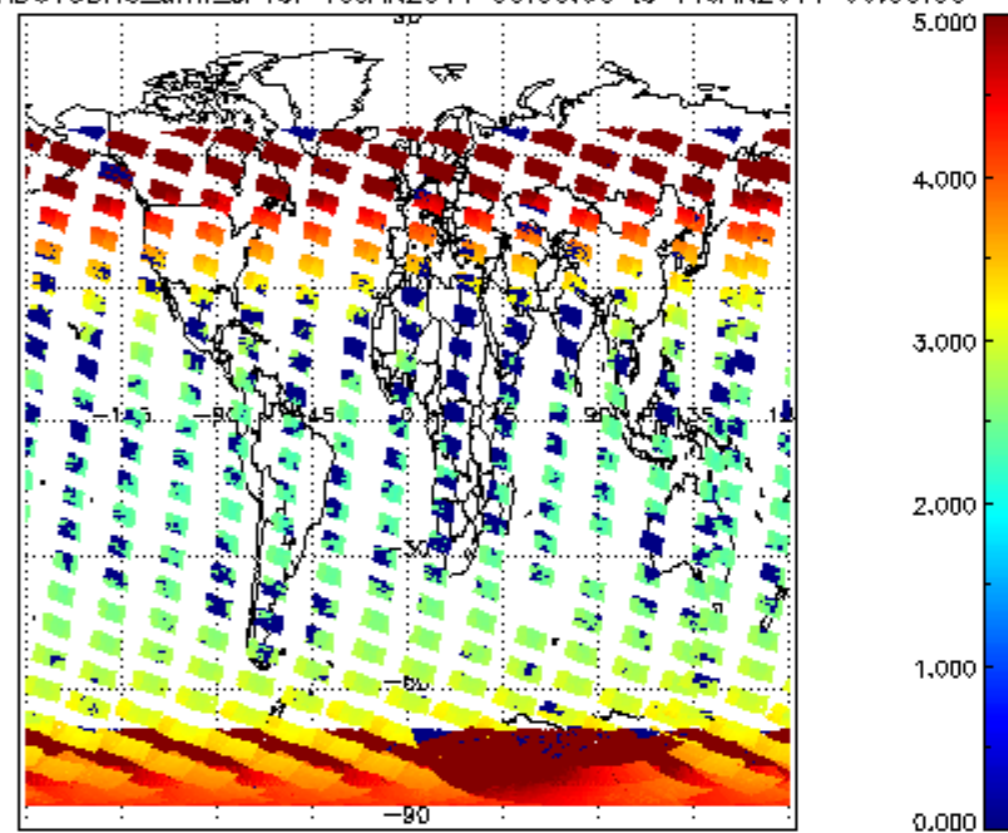
SCIOL2P\_NADUV3BRO\_vcd\_err for 10JAN2011 00:00:00 to 11JAN2011 00:00:00

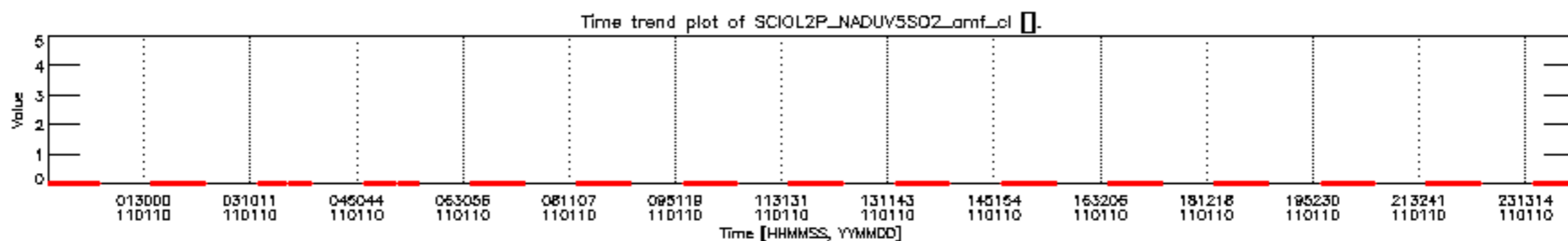
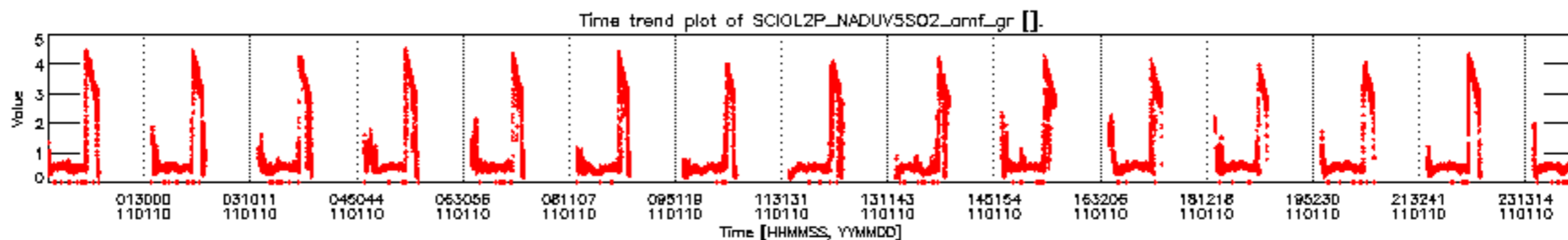
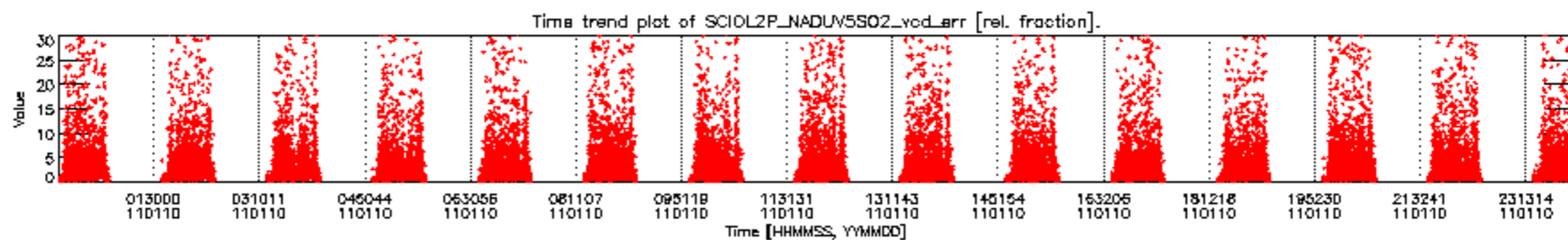
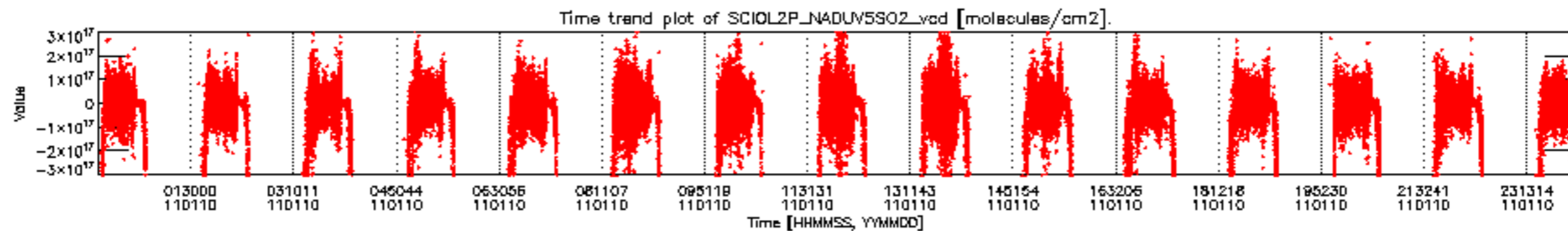


SCIOL2P\_NADUV3BRO\_amf\_gr for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



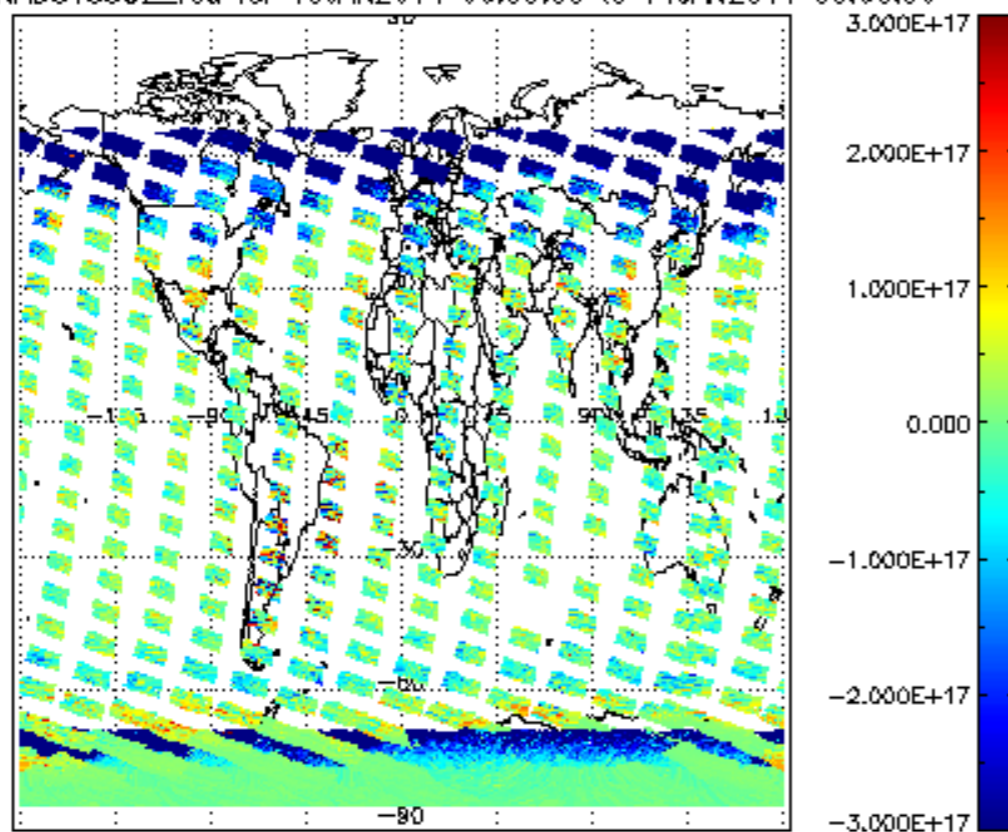
SCIOL2P\_NADUV3BRO\_amf\_cl for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



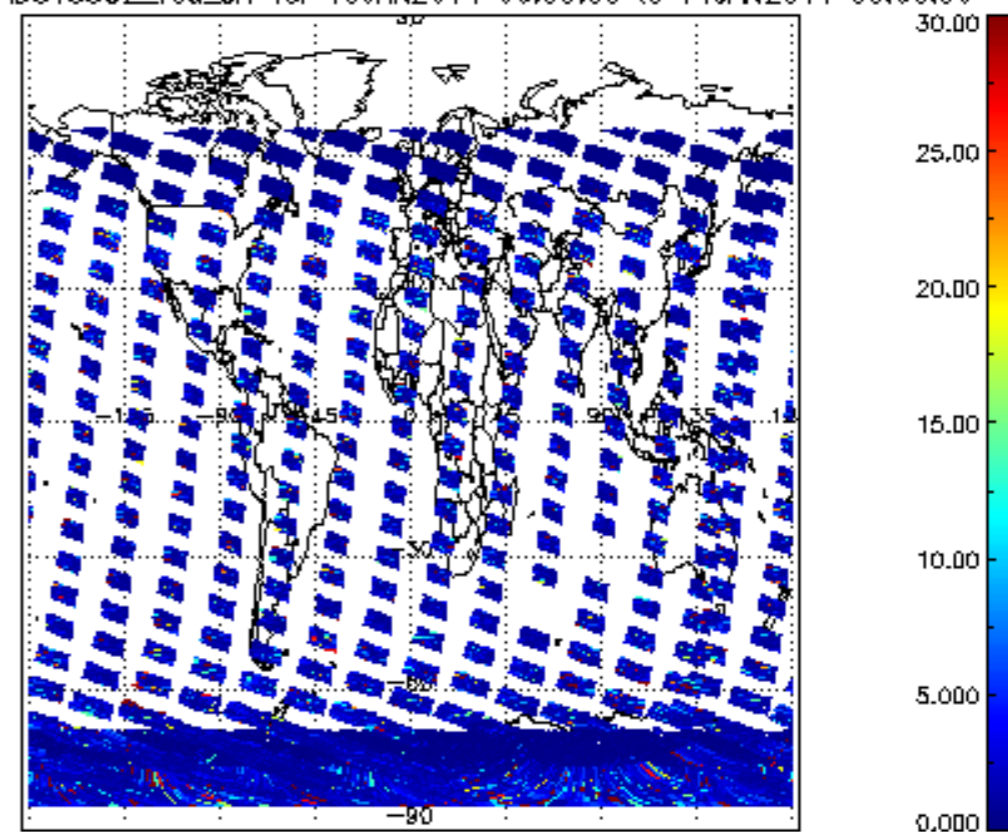




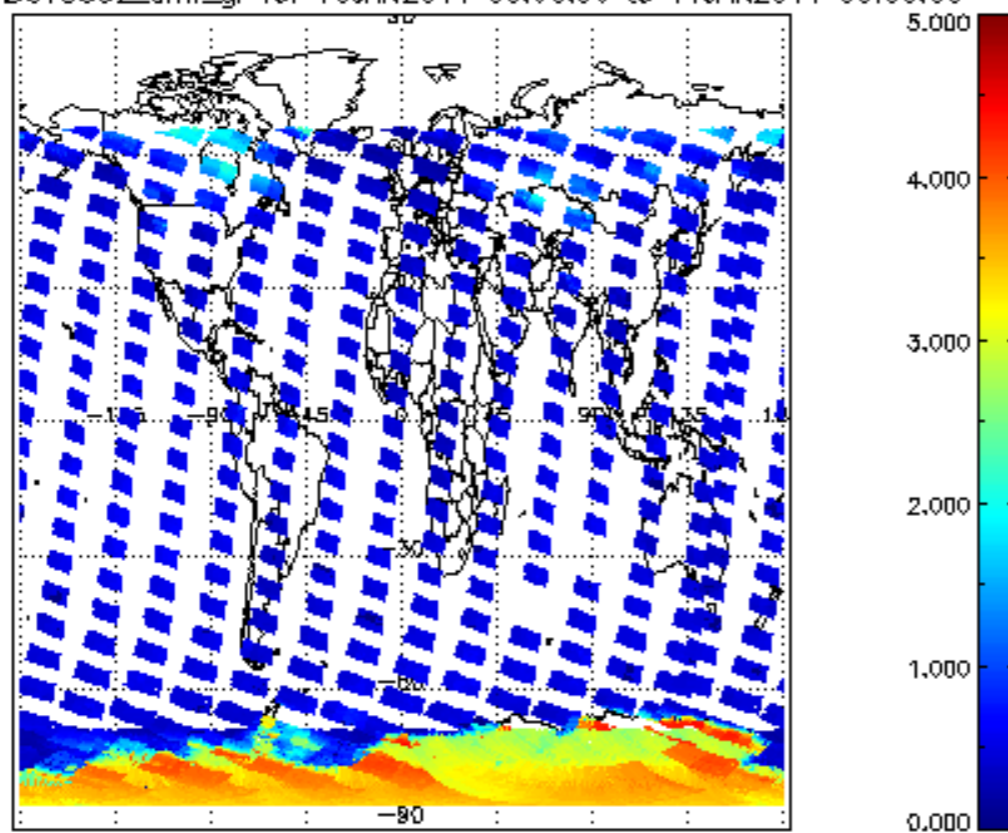
SCIOL2P\_NADUV5S02\_vcd for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



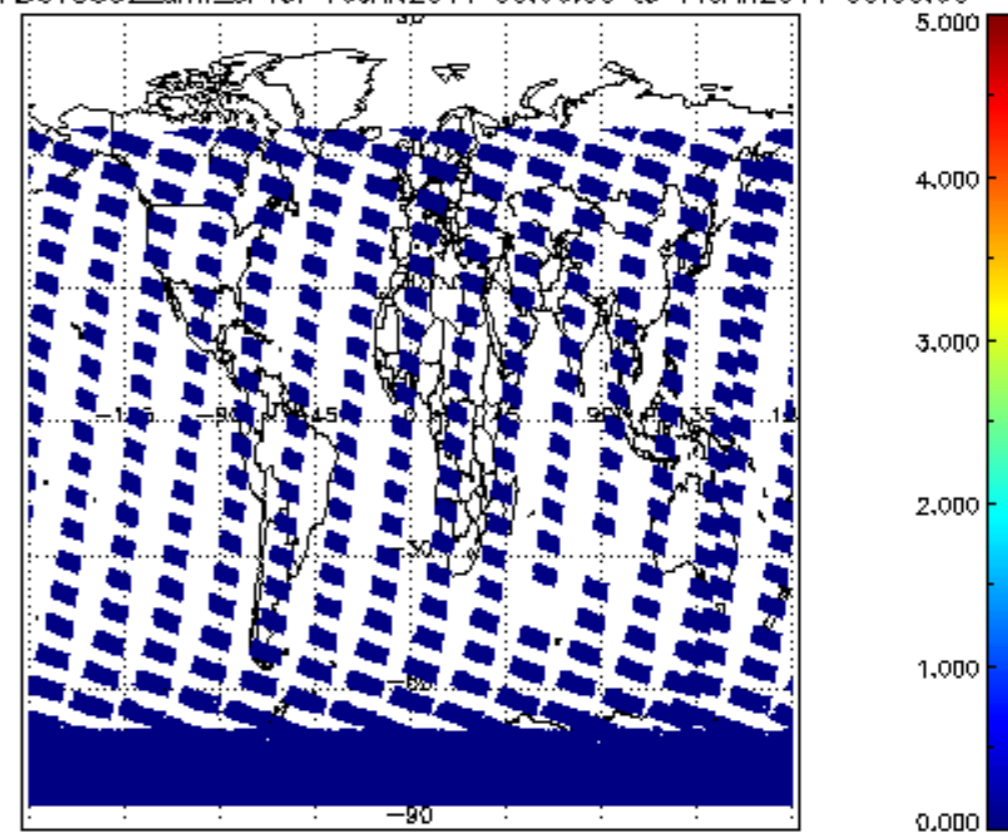
SCIOL2P\_NADUV5S02\_vcd\_err for 10JAN2011 00:00:00 to 11JAN2011 00:00:00

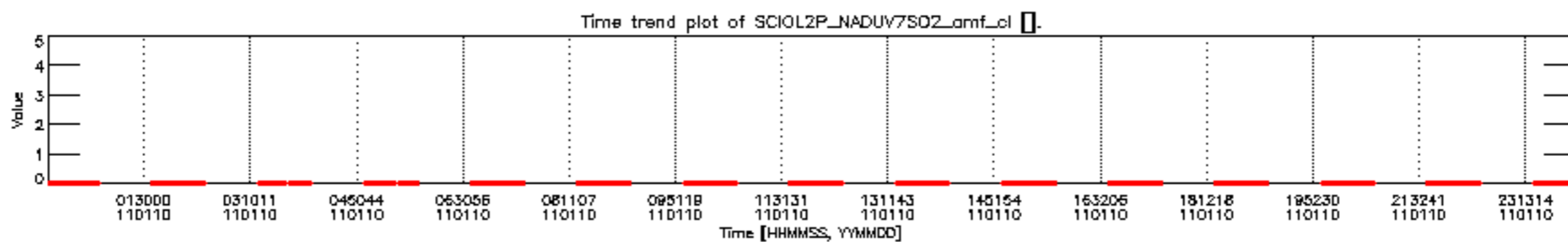
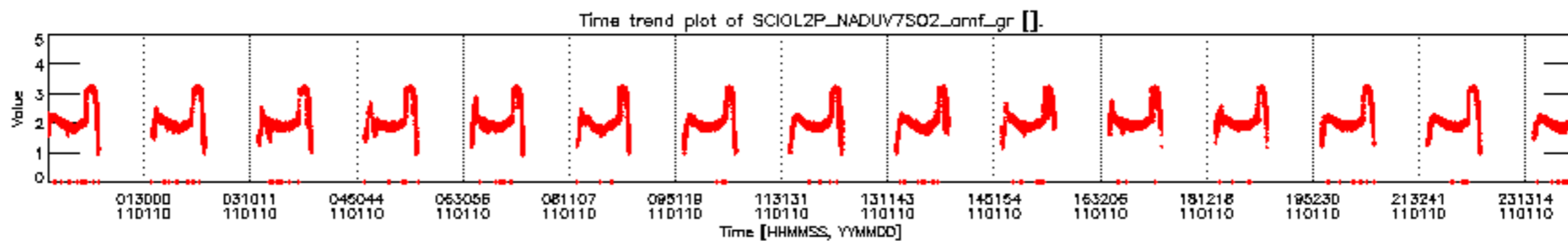
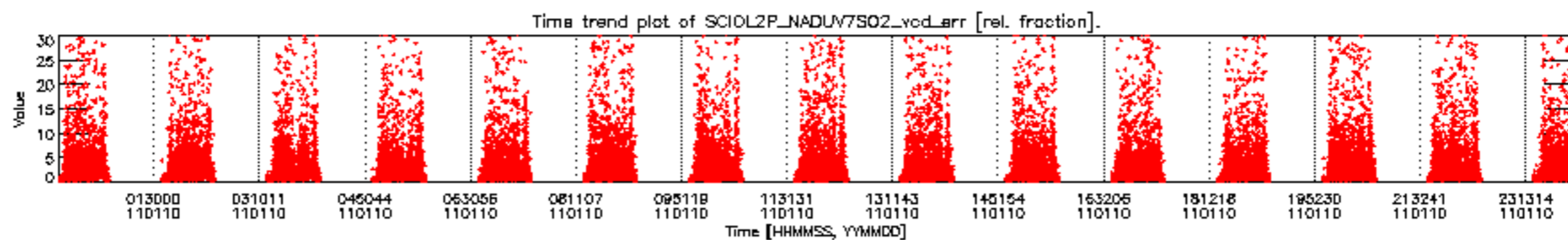
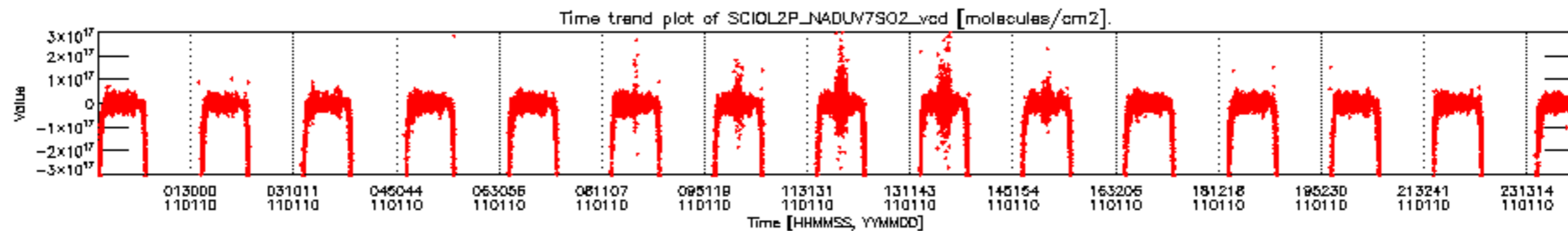


SCIOL2P\_NADUV5S02\_amf\_gr for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



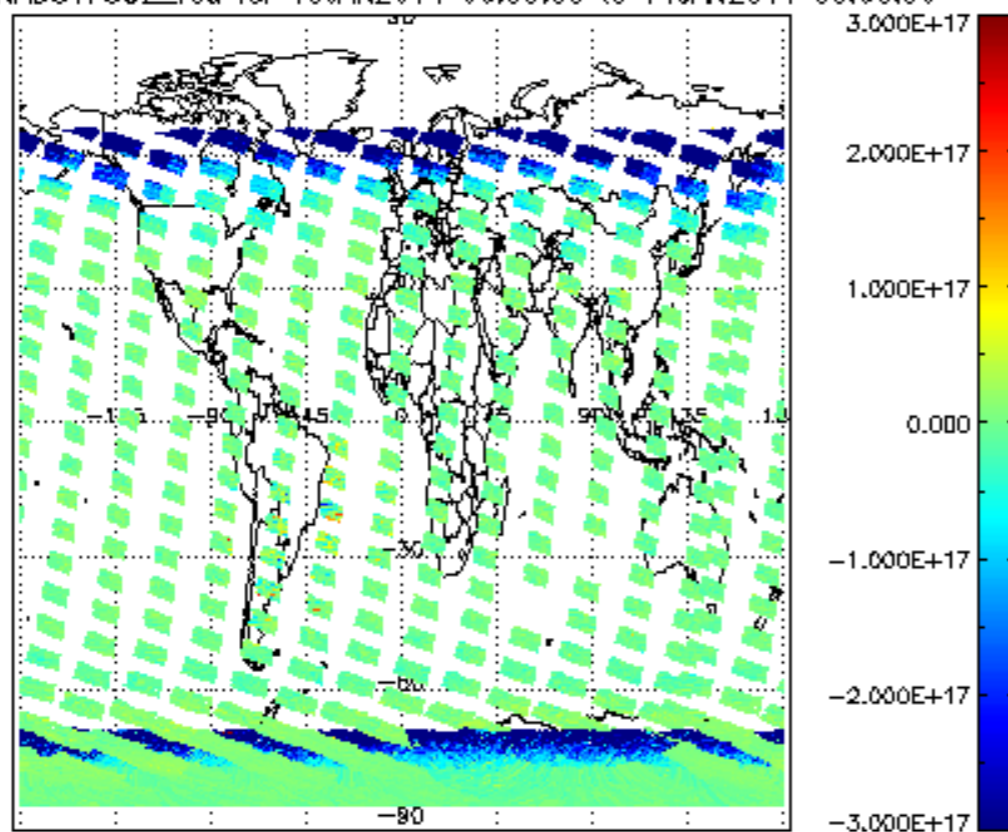
SCIOL2P\_NADUV5S02\_amf\_cl for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



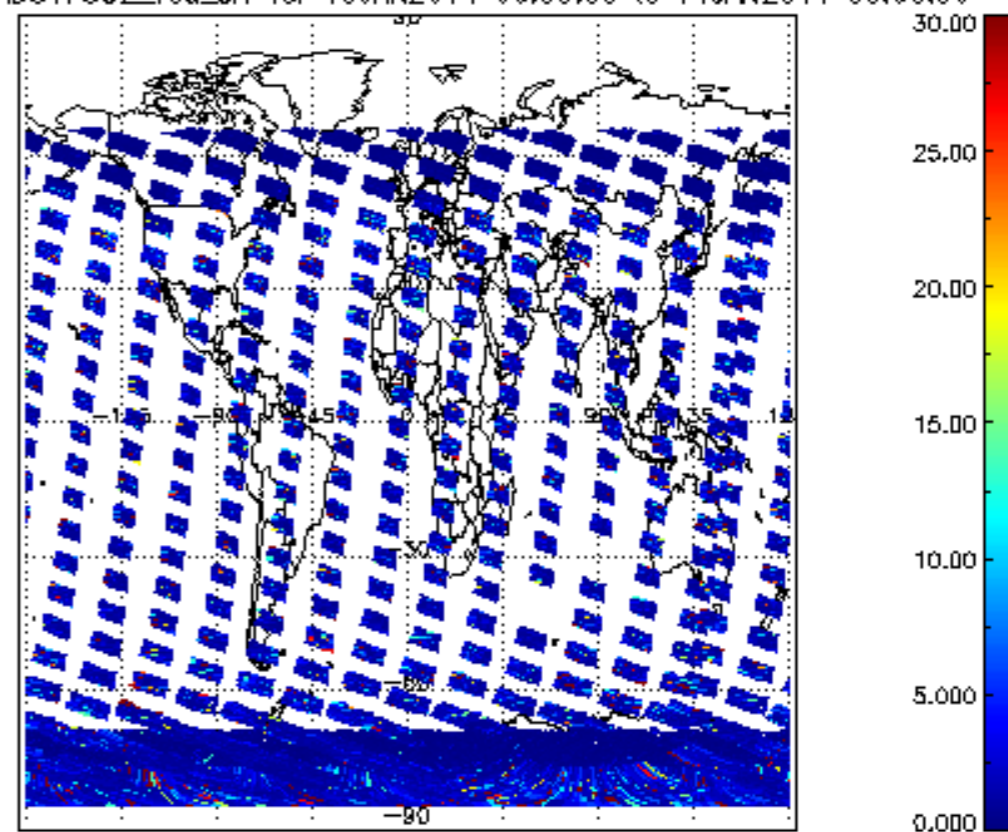




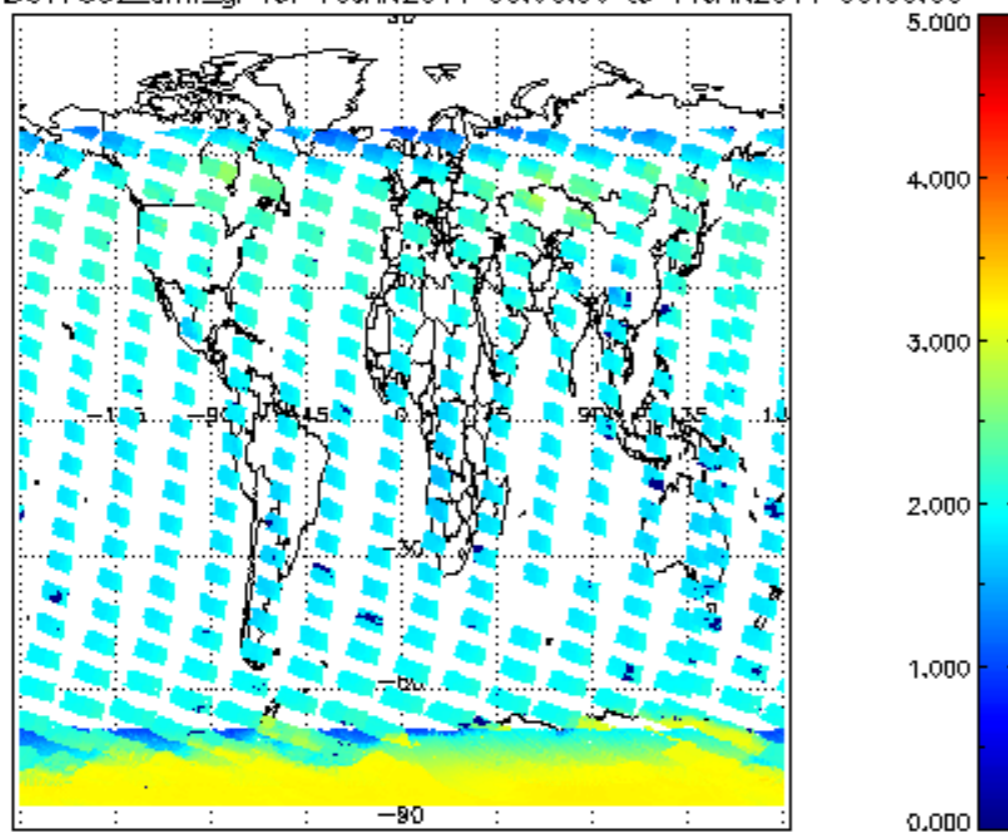
SCIOL2P\_NADUV7S02\_vcd for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



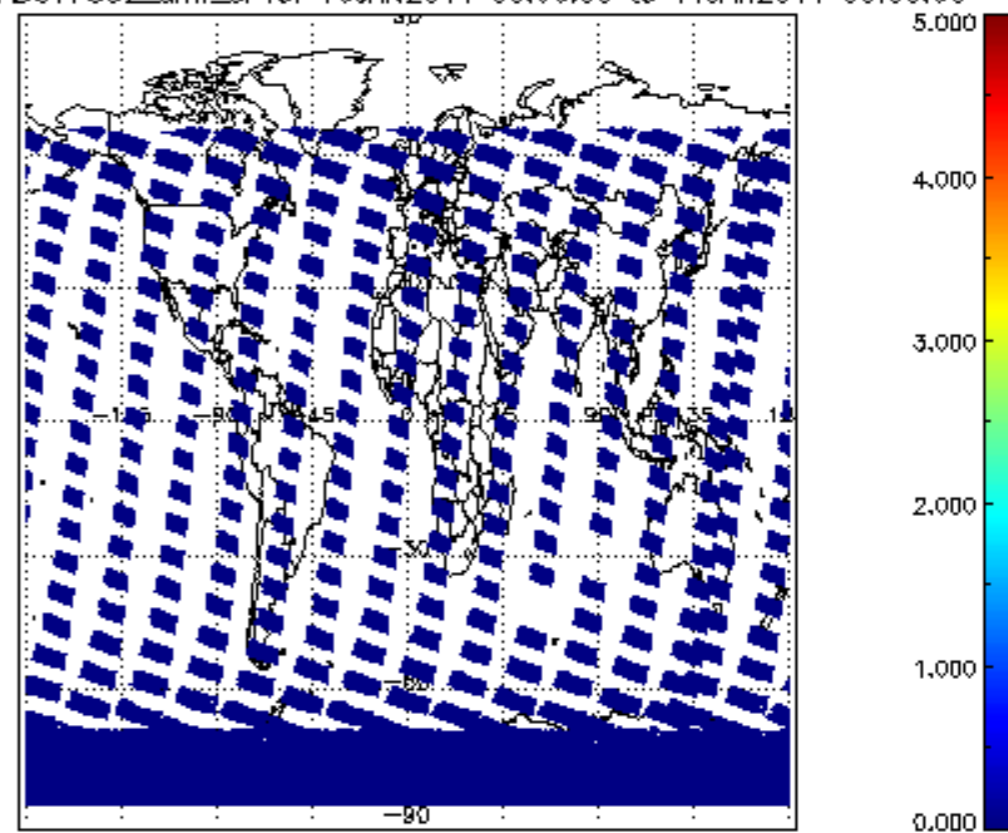
SCIOL2P\_NADUV7S02\_vcd\_err for 10JAN2011 00:00:00 to 11JAN2011 00:00:00

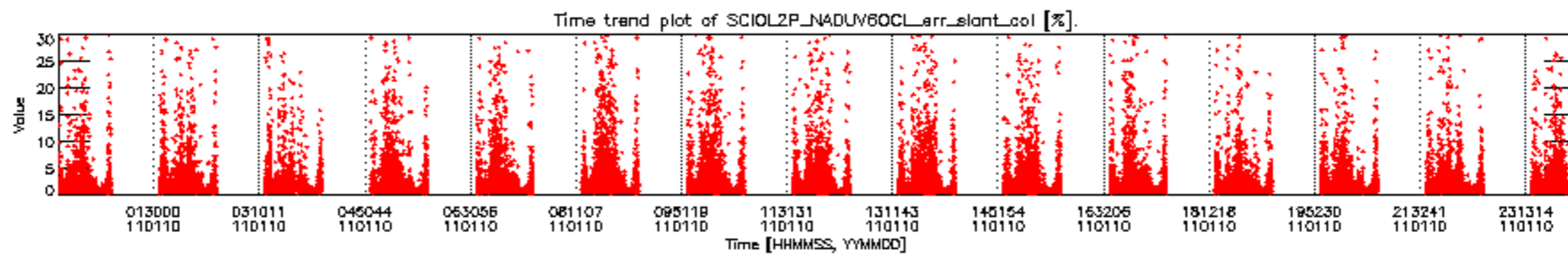
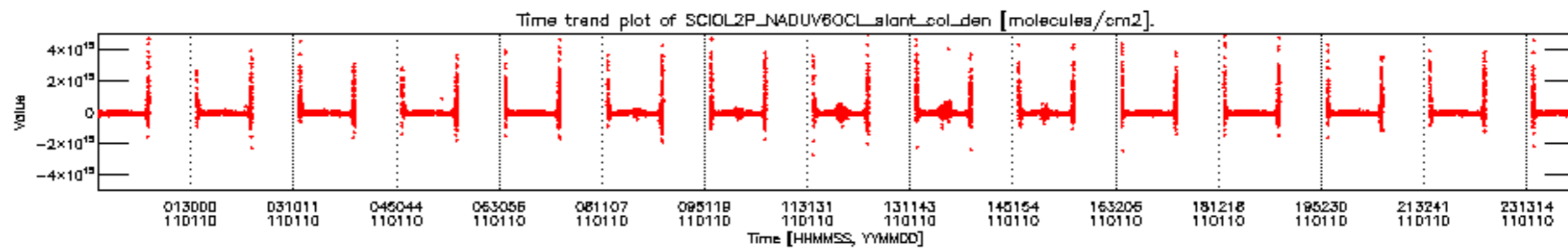


SCIOL2P\_NADUV7S02\_amf\_gr for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



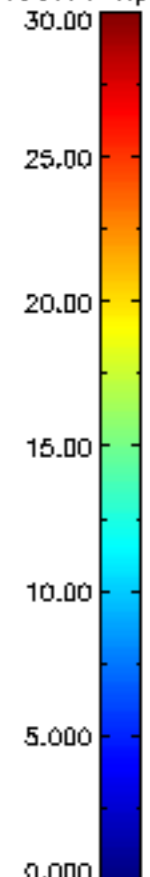
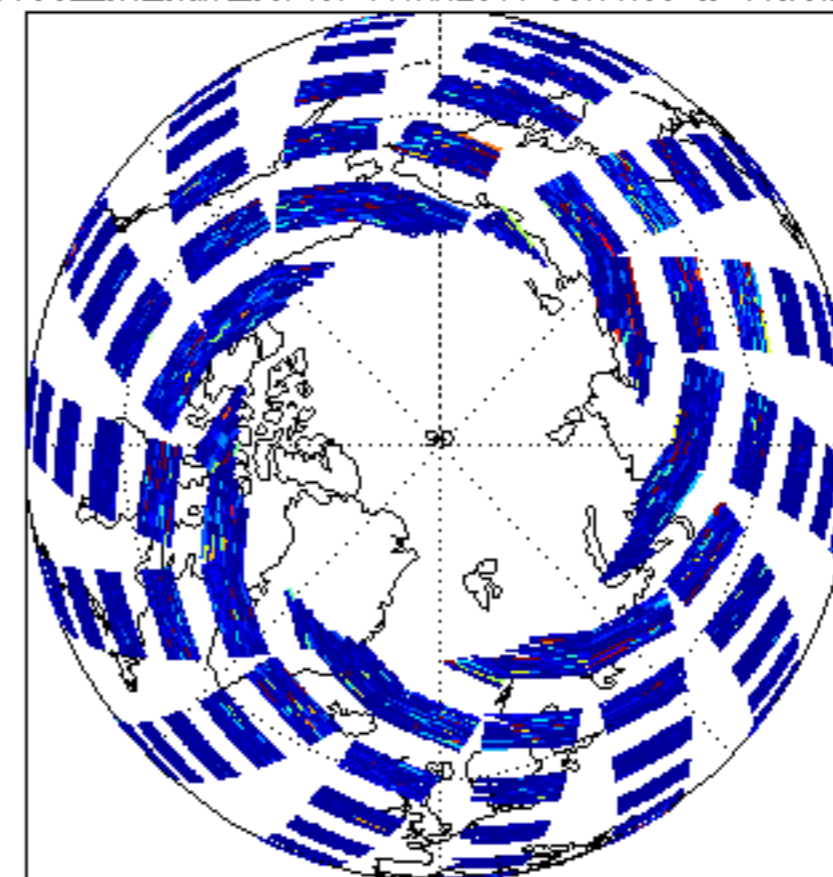
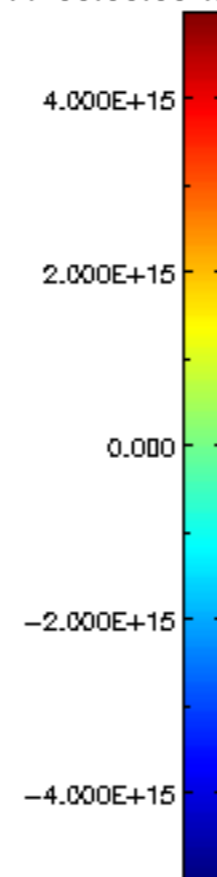
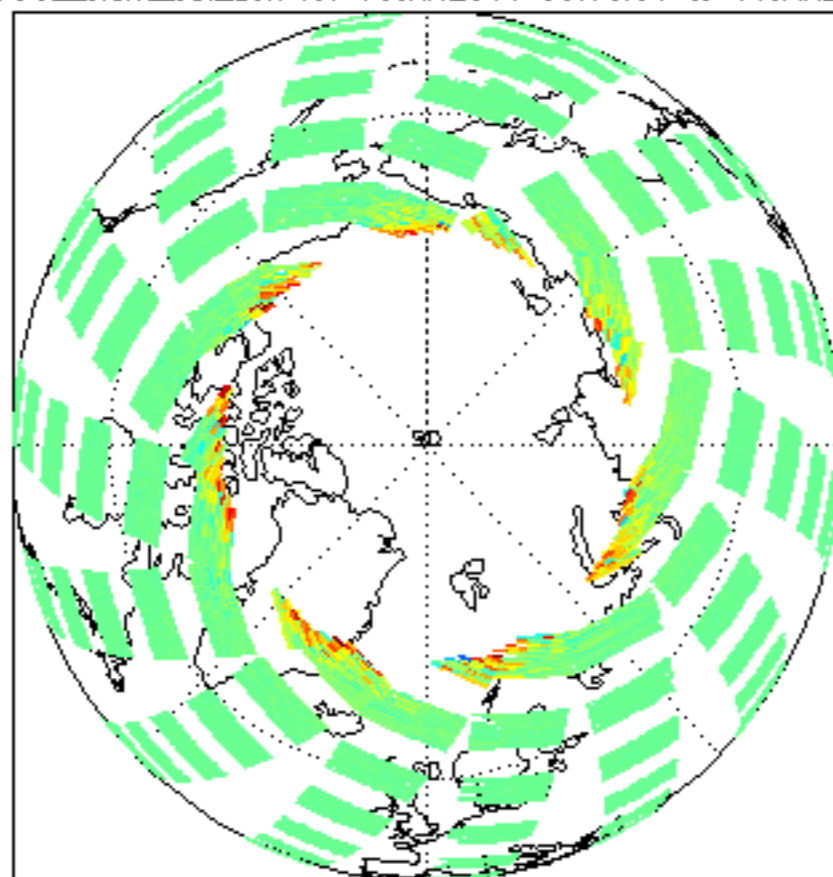
SCIOL2P\_NADUV7S02\_amf\_cl for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



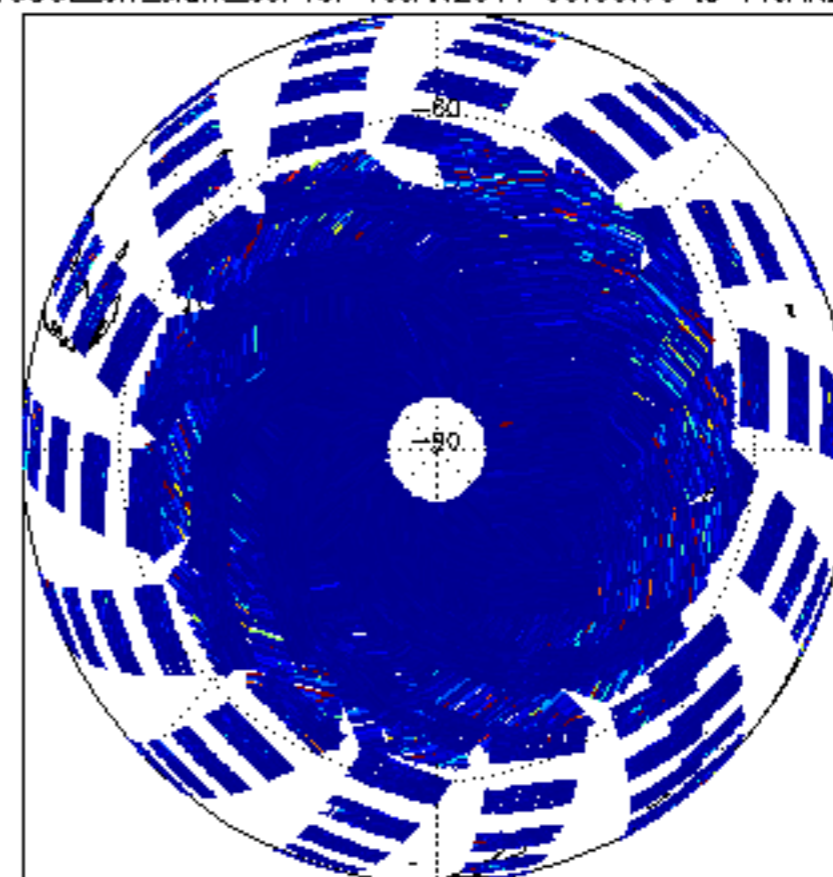
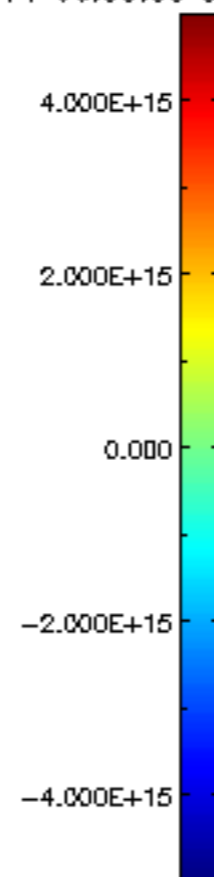
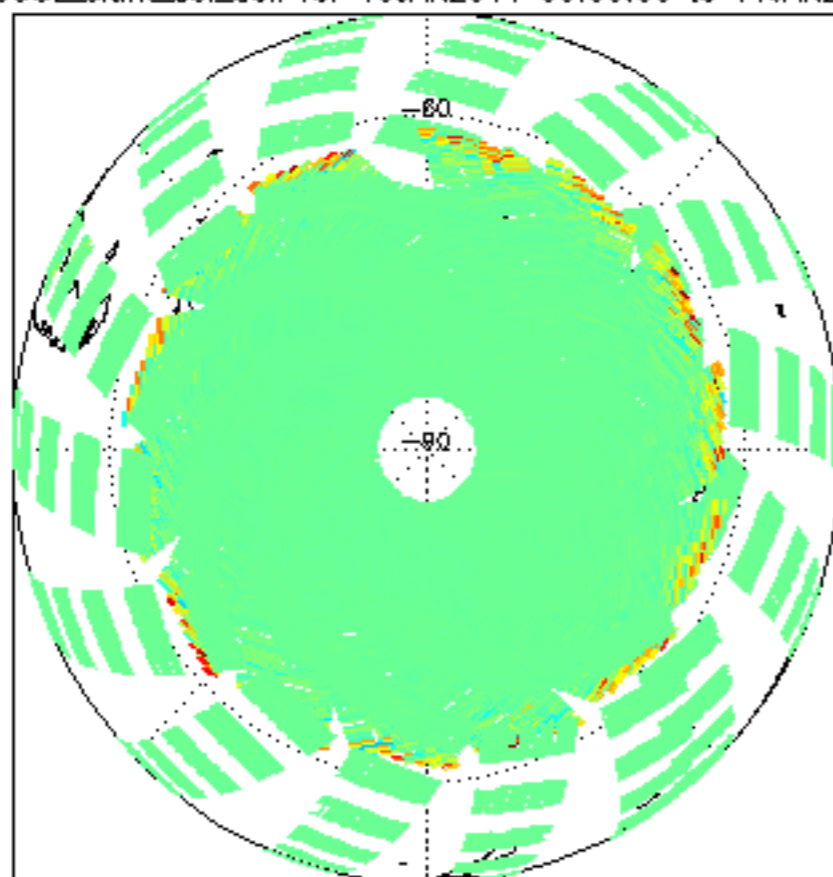




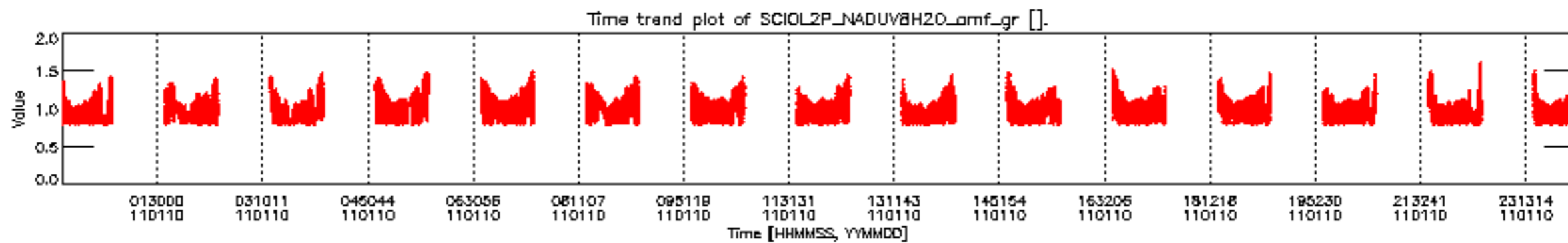
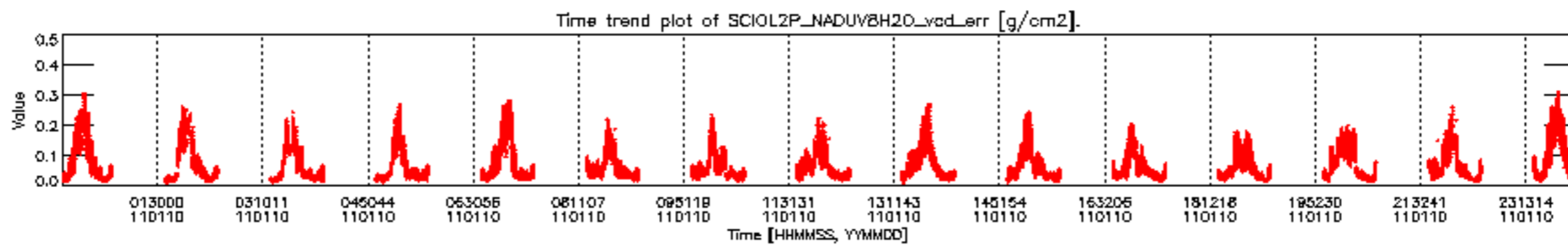
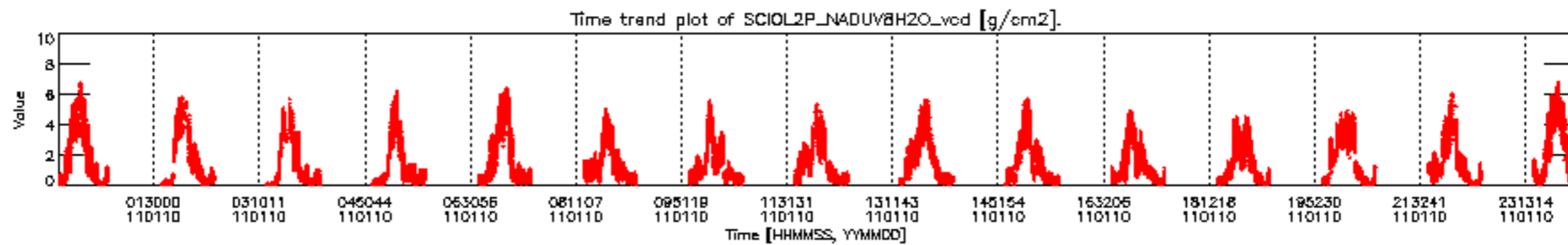
ICIOL2P\_NADUV60CL\_slant\_col\_den for 10JAN2011 00:00:00 to 11JAN2011 00:00:00 np;ICIOL2P\_NADUV60CL\_err\_slant\_col for 10JAN2011 00:00:00 to 11JAN2011 00:00:00 np



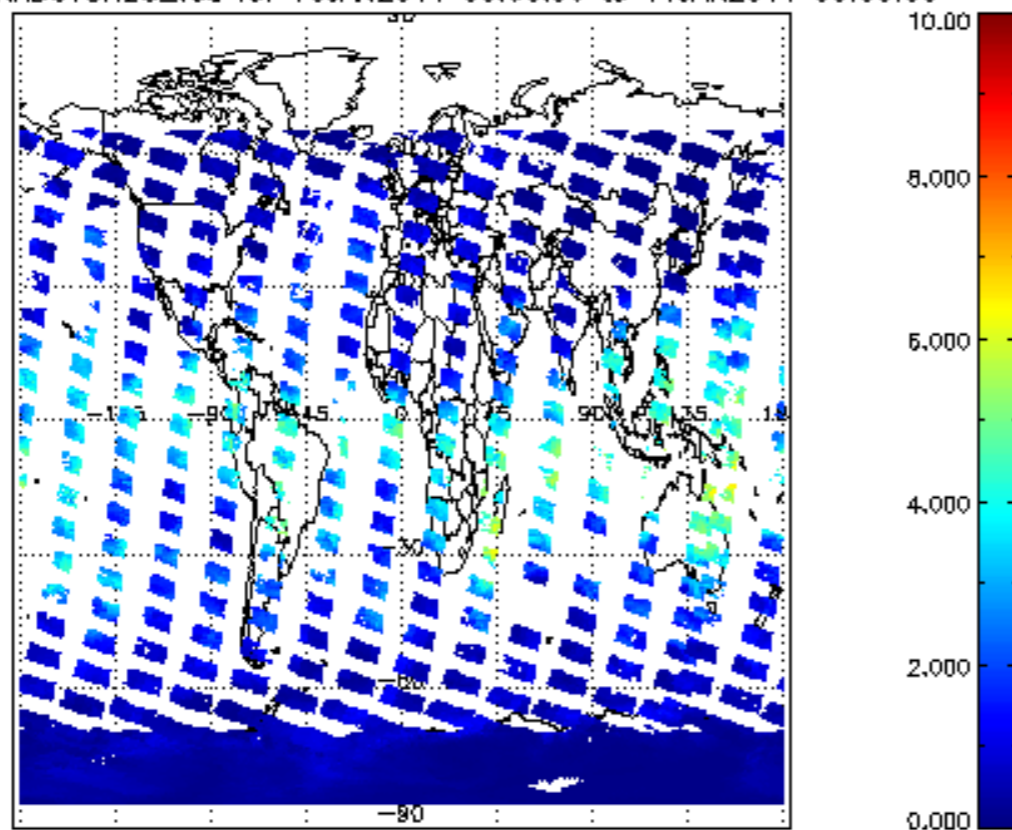
iCIOL2P\_NADUV6OCL\_slant\_col\_den for 10JAN2011 00:00:00 to 11JAN2011 00:00:00 sp iCIOL2P\_NADUV6OCL\_err\_slant\_col for 10JAN2011 00:00:00 to 11JAN2011 00:00:00 sp



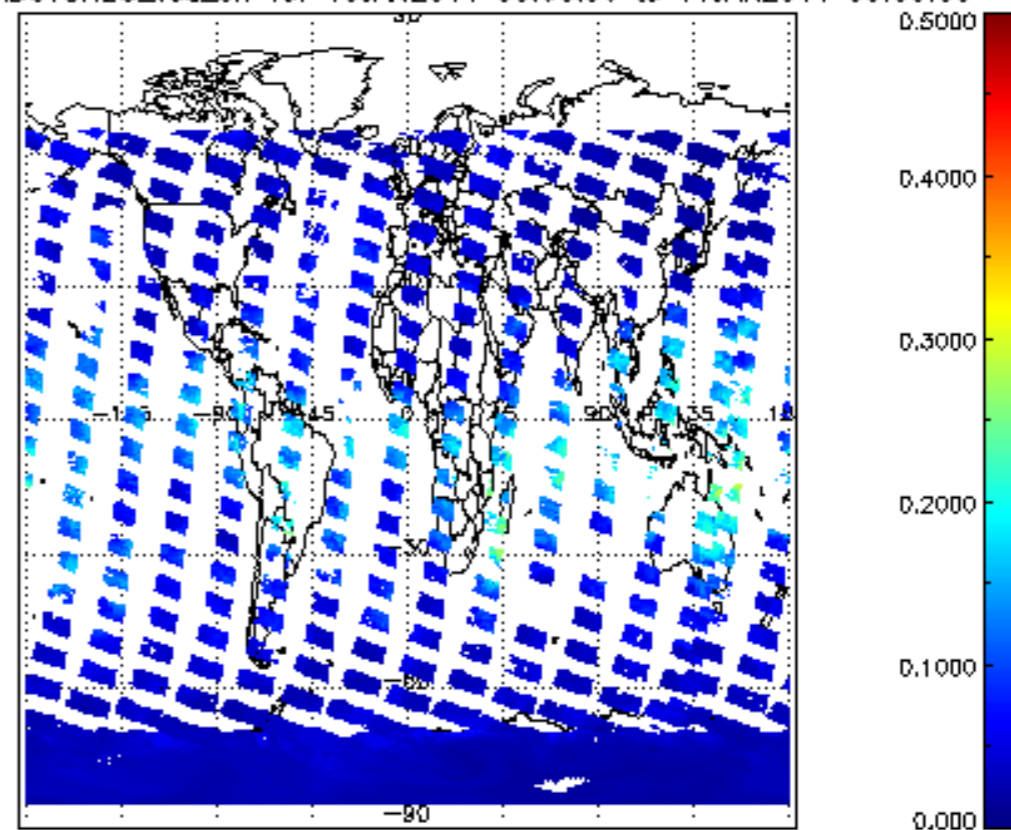




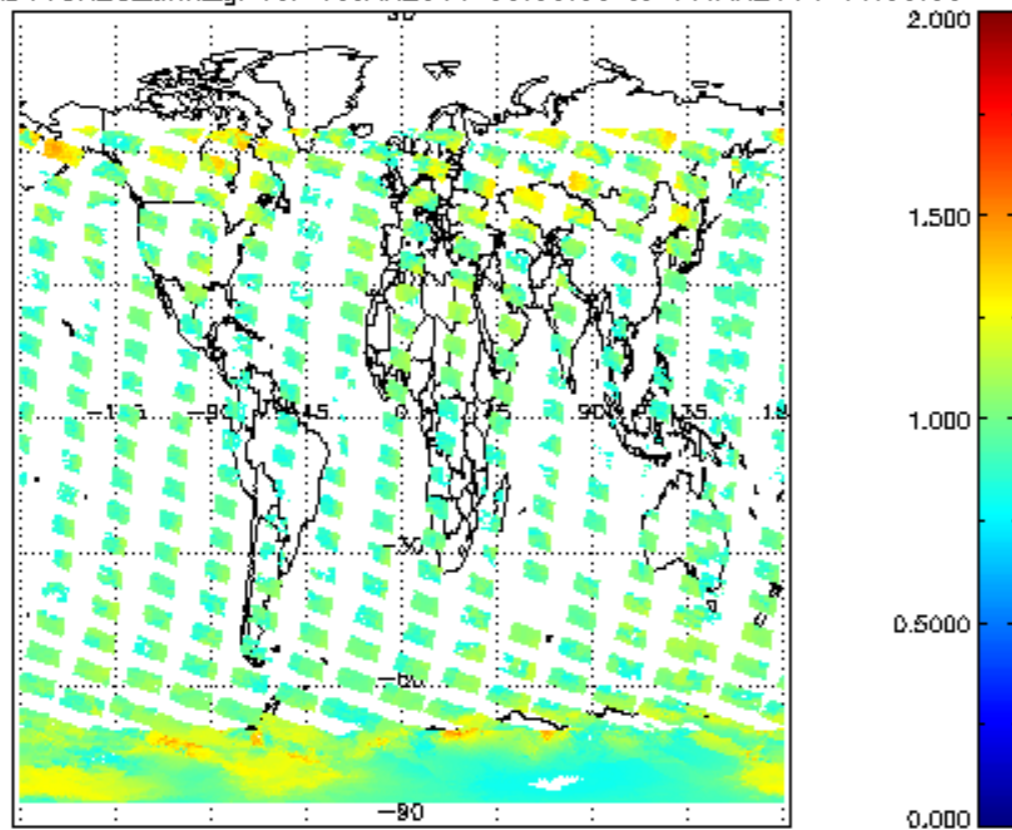
SCIOL2P\_NADUV8H20\_vcd for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



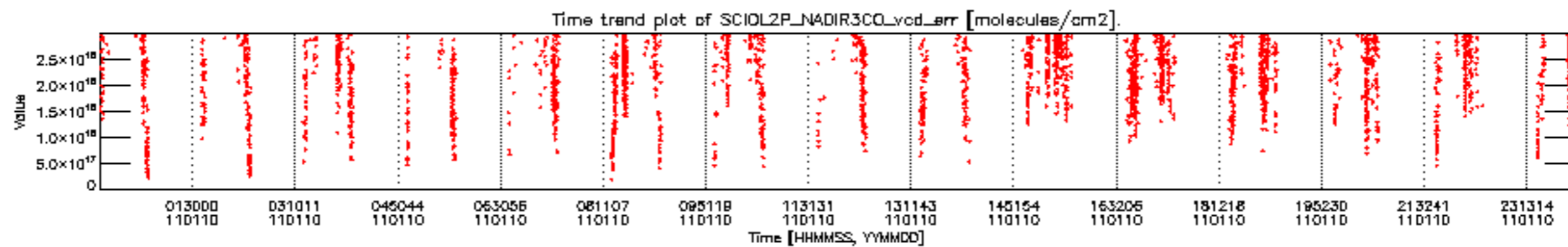
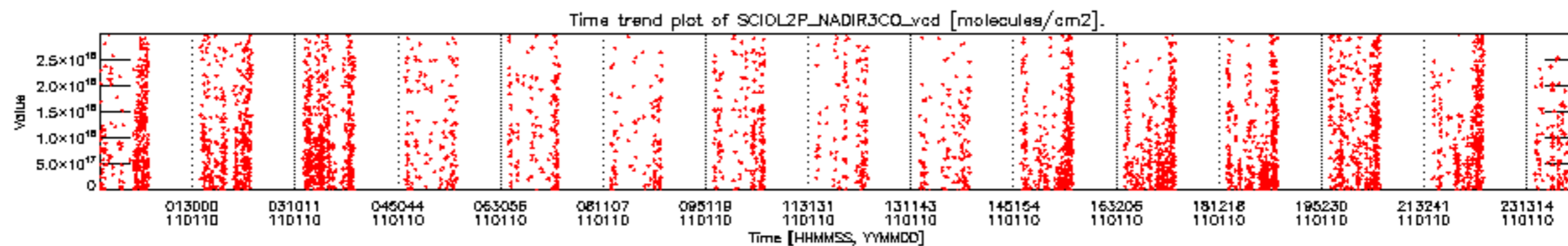
SCIOL2P\_NADUV8H20\_vcd\_err for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



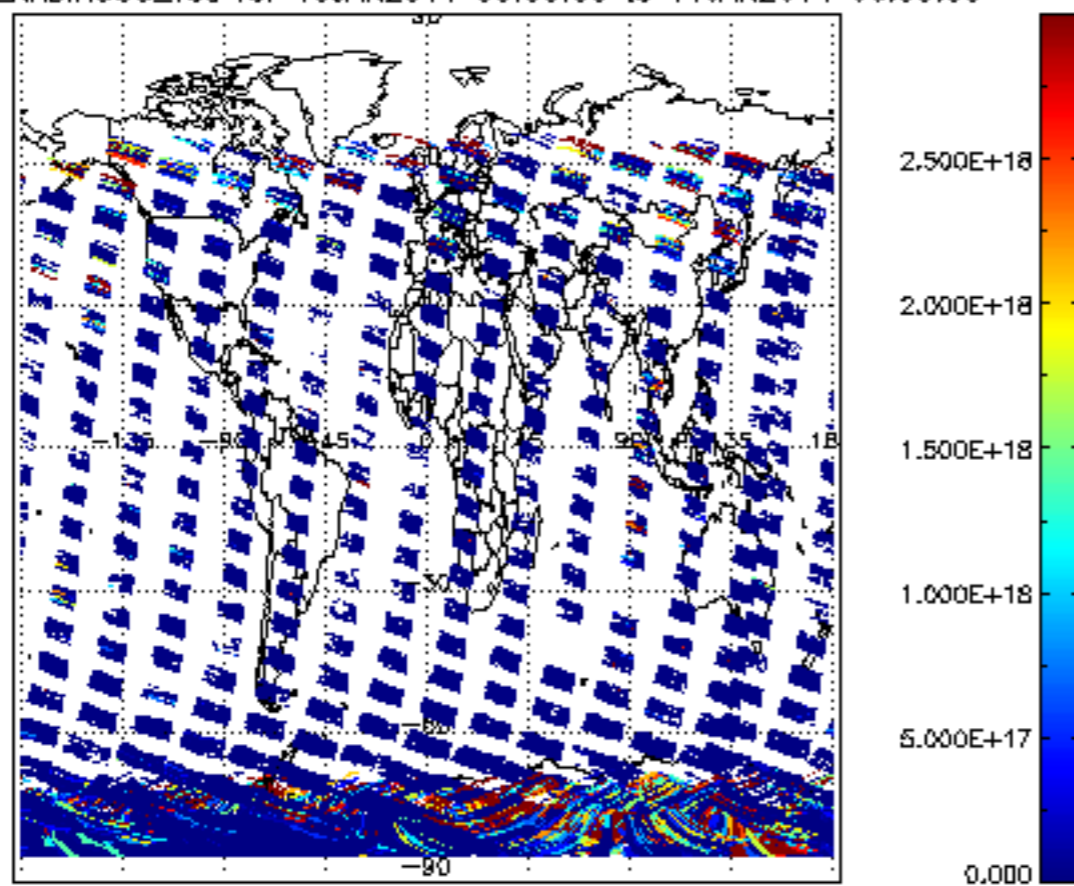
SCIOL2P\_NADUV8H20\_amf\_gr for 10JAN2011 00:00:00 to 11JAN2011 00:00:00



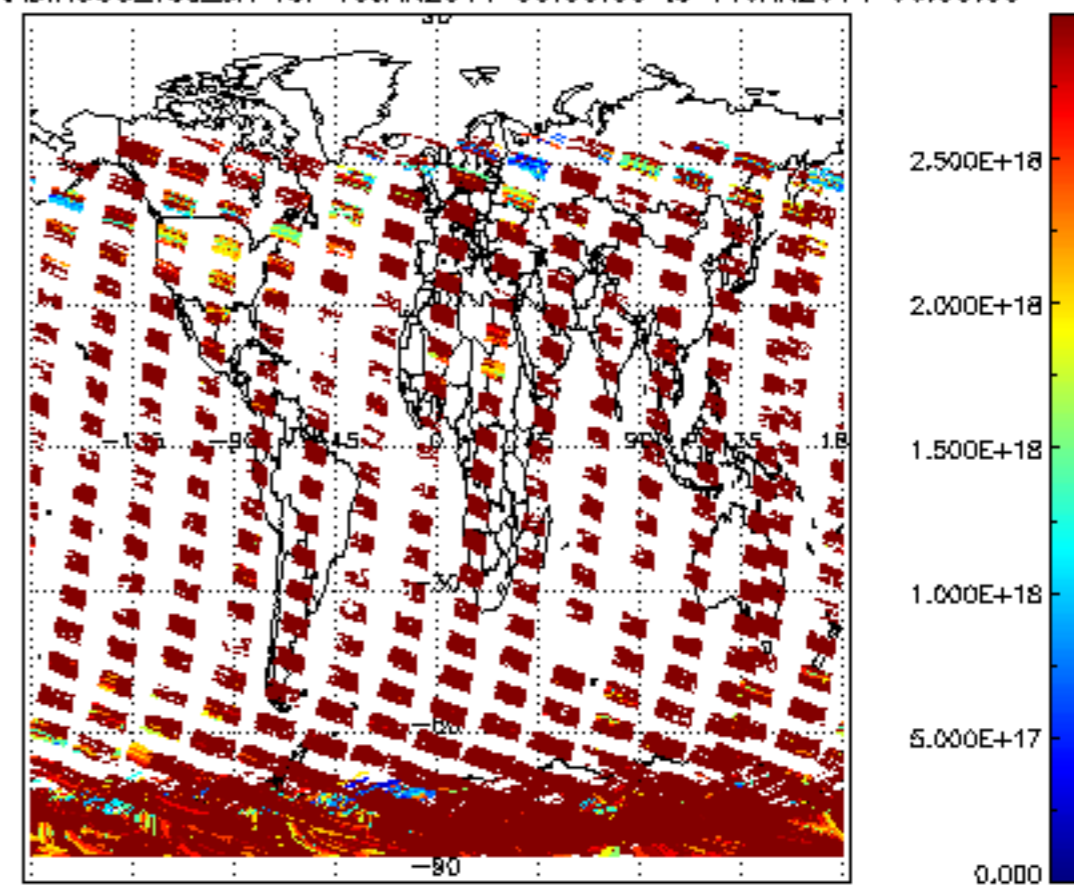




SCIOL2P\_NADIR3CO\_vcd for 10JAN2011 00:00:00 to 11JAN2011 00:00:00

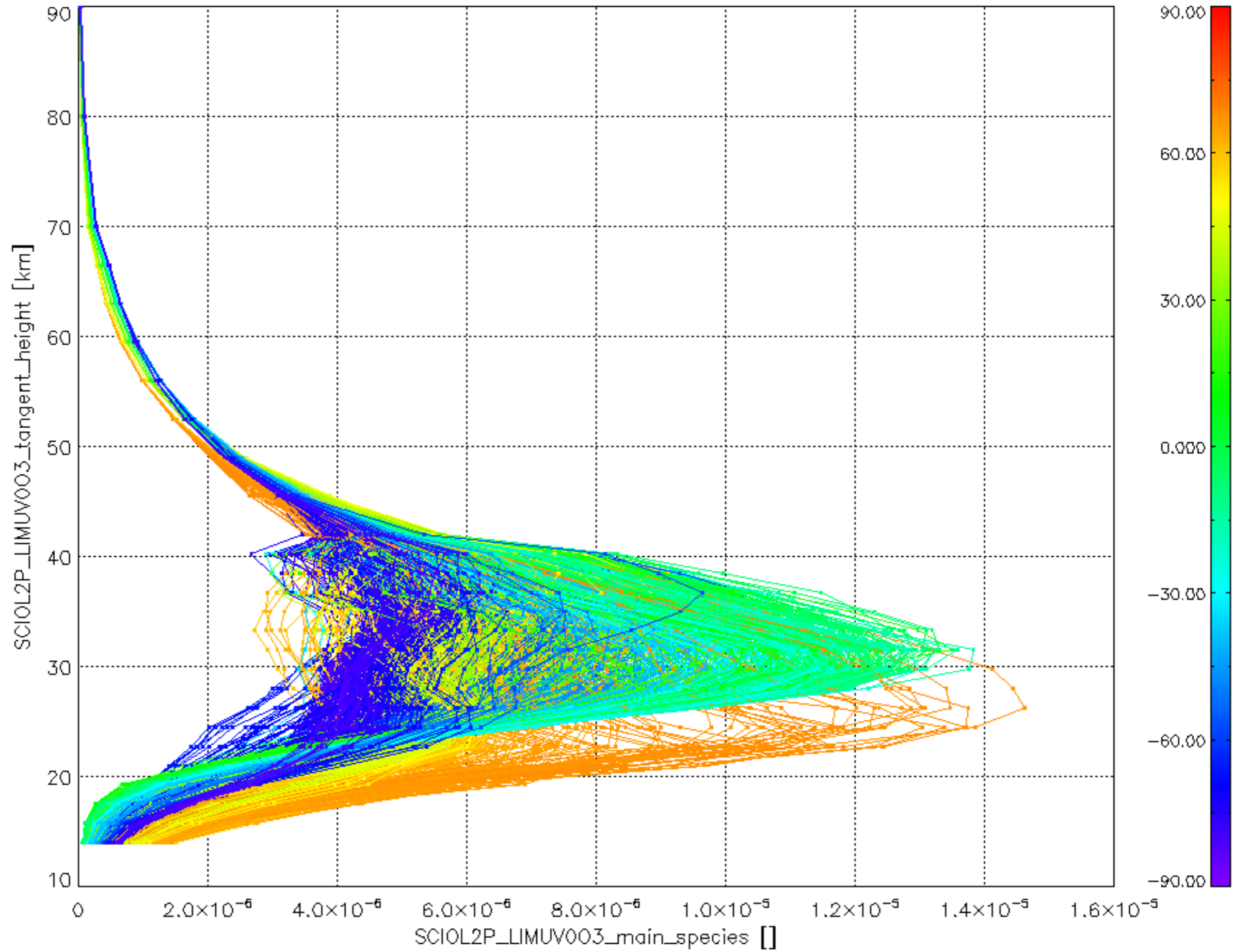


SCIOL2P\_NADIR3CO\_vcd\_err for 10JAN2011 00:00:00 to 11JAN2011 00:00:00

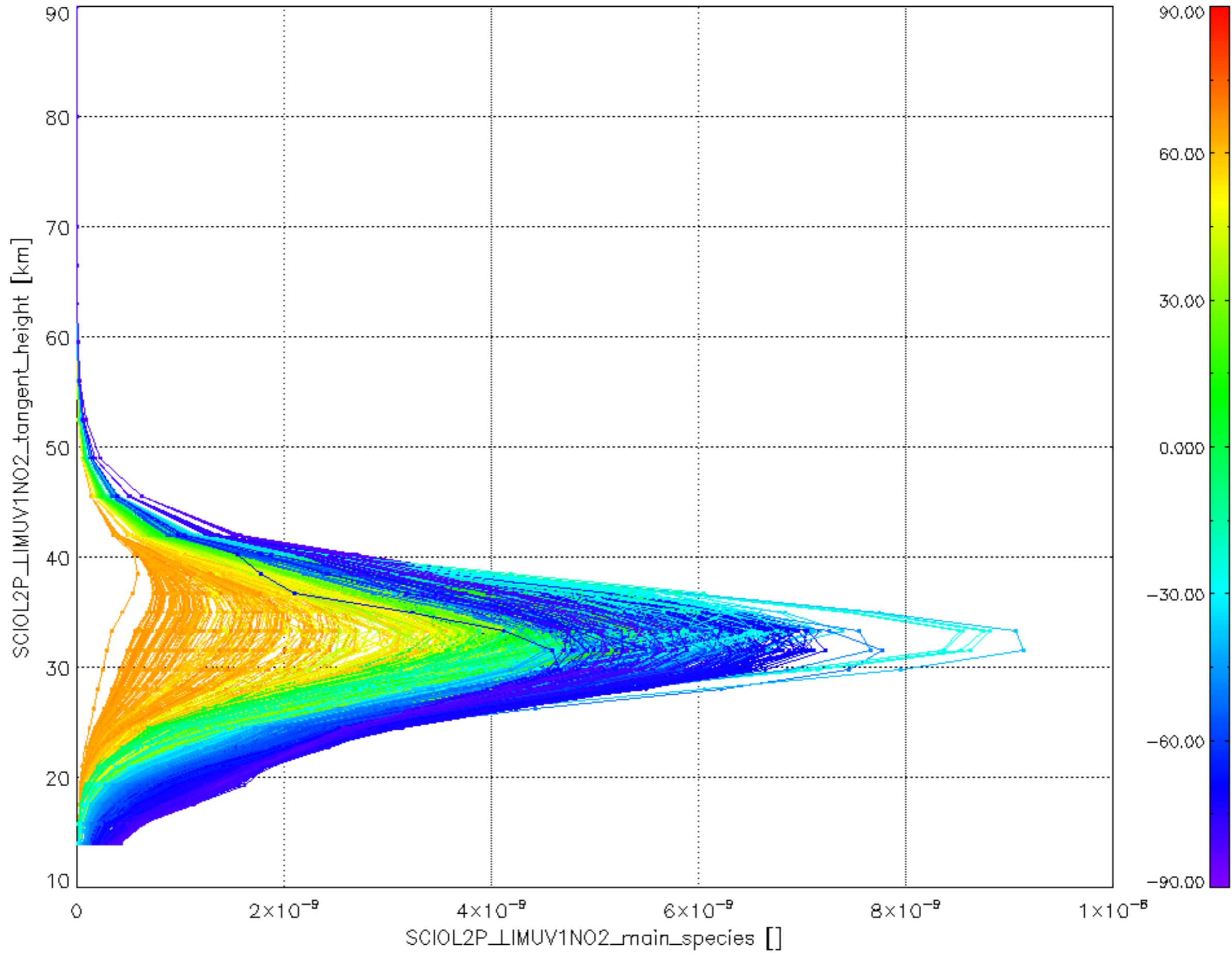




Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



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).

