

## 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	31JAN2012 03:25:00
Data source version	SCIA-OL/5.02-W
Processing scope for products	18JAN2012 00:00:00 to 19JAN2012 00:00:00
Start time of first product within scope	18JAN2012 00:18:00
Stop time of last product within scope	19JAN2012 00:39:47
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__2PWDP A20120118_001800_000035163110_00390_51697_3169.N1</a>	18JAN2012 00:18:00	18JAN2012 01:16:36	0	GOOD
1	<a href="#">SCI_OL__2PWDP A20120118_015814_000035303110_00391_51698_3170.N1</a>	18JAN2012 01:58:14	18JAN2012 02:57:04	0	GOOD
2	<a href="#">SCI_OL__2PWDP A20120118_033827_000035163110_00392_51699_3171.N1</a>	18JAN2012 03:38:27	18JAN2012 04:37:03	0	GOOD
3	<a href="#">SCI_OL__2PWDP A20120118_051841_000035303110_00393_51700_3172.N1</a>	18JAN2012 05:18:41	18JAN2012 06:17:31	0	GOOD
4	<a href="#">SCI_OL__2PWDP A20120118_065855_000035163110_00394_51701_3174.N1</a>	18JAN2012 06:58:55	18JAN2012 07:57:31	0	GOOD

5	SCI_OL__2PWDP	20120118_083908_000035303110_00395_51702_3176.N1	18JAN2012 08:39:08	18JAN2012 09:37:59	0	GOOD
6	SCI_OL__2PWDP	20120118_101922_000035163110_00396_51703_3178.N1	18JAN2012 10:19:22	18JAN2012 11:17:58	0	GOOD
7	SCI_OL__2PWDP	20120118_115935_000035303110_00397_51704_3180.N1	18JAN2012 11:59:35	18JAN2012 12:58:26	0	GOOD
8	SCI_OL__2PWDP	20120118_133949_000035163110_00398_51705_3182.N1	18JAN2012 13:39:49	18JAN2012 14:38:25	0	GOOD
9	SCI_OL__2PWDP	20120118_152003_000035303110_00399_51706_3184.N1	18JAN2012 15:20:03	18JAN2012 16:18:53	0	GOOD
10	SCI_OL__2PWDP	20120118_170016_000035163110_00400_51707_3187.N1	18JAN2012 17:00:16	18JAN2012 17:58:52	0	GOOD
11	SCI_OL__2PWDP	20120118_184135_000034703110_00401_51708_3189.N1	18JAN2012 18:41:35	18JAN2012 19:39:25	0	GOOD
12	SCI_OL__2PWDP	20120118_202103_000035163110_00402_51709_3191.N1	18JAN2012 20:21:03	18JAN2012 21:19:39	0	GOOD
13	SCI_OL__2PWDP	20120118_220057_000035303110_00403_51710_3195.N1	18JAN2012 22:00:57	18JAN2012 22:59:48	0	GOOD
14	SCI_OL__2PWDP	20120118_234111_000035163110_00404_51711_3193.N1	18JAN2012 23:41:11	19JAN2012 00:39:47	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: 161672

Total number of cloud data DSRs with good quality flag (=0): 161672 (100.0 %)

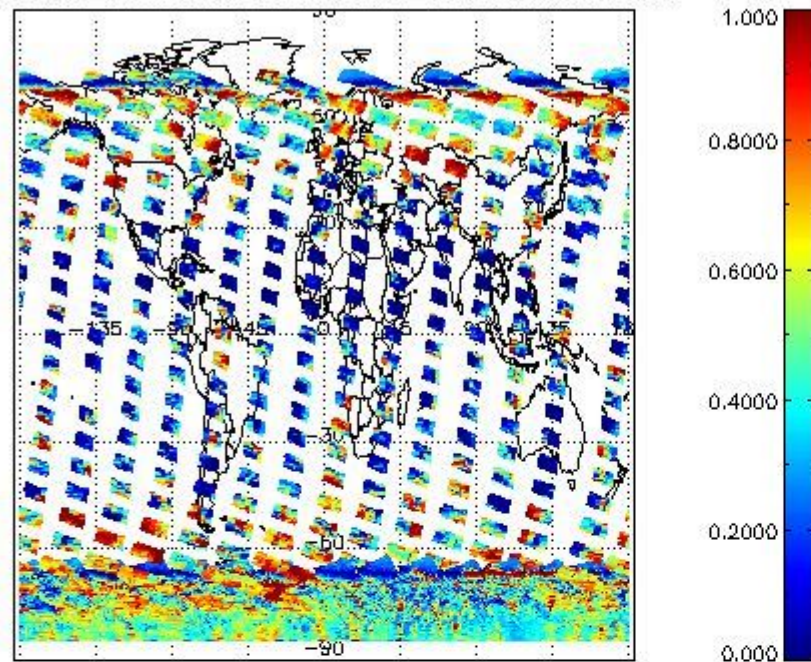
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	161672	0.0000	0.0000	0.0000	0.0000	0.0000	
INTEGR_TIME	161672	0.16557	0.12500	0.12500	0.25000	0.058526	s
CL_FRAC	161672	0.42176	0.40283	0.0000	1.0000	0.29582	
CL_FRAC_ERR	161672	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	161672	5.2982	4.0000	4.0000	8.0000	1.8728	
PMD_READ_CL[0]	161672	0.45250	0.0000	0.0000	8.0000	1.3250	-
PMD_READ_CL[1]	161672	1.0646	0.0000	0.0000	8.0000	2.3255	-
CL_TOP_HEIGHT	133076	3.9861	3.0998	0.0000	17.000	3.6854	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	133076	55.826	48.763	0.0000	101.00	40.898	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	161672	11100000	11100000	11100000	11100000	0.0000	
CLOUD_FLAGS	161672	11001011	11000100	11000000	11100000	3366.1	
AERO_ABSO_IND	161672	0.086847	0.0000	0.0000	7.2009	0.28133	
AERO_IND_DIAG	161672	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	161672	01010101	00000000	00000000	11000000	24422.	

#### Time and geolocation plots:

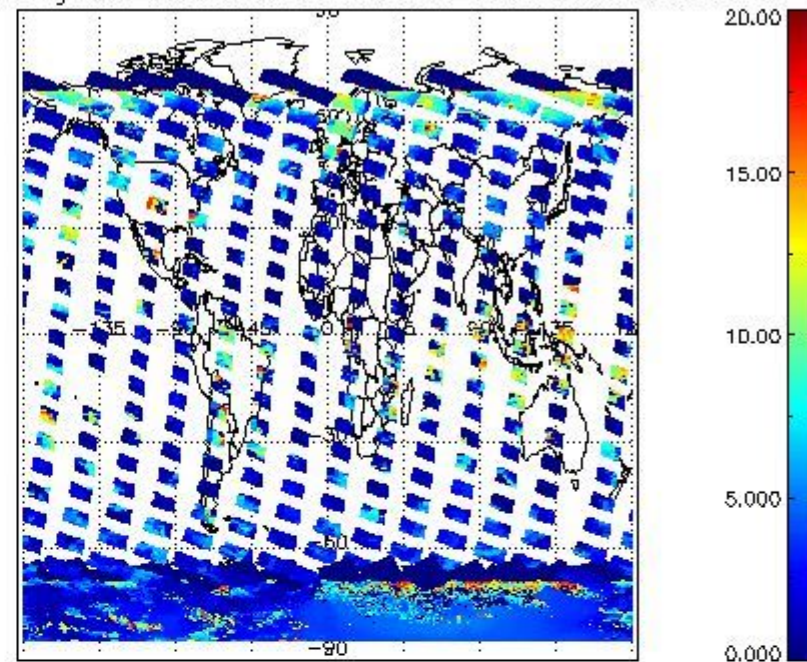
Plots are available for the following parameters:

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

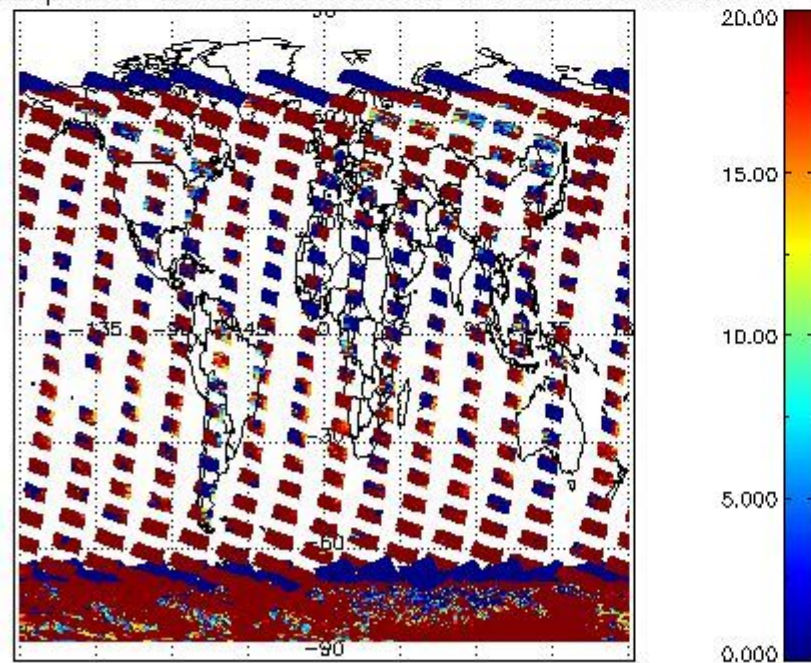
cL\_frac for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



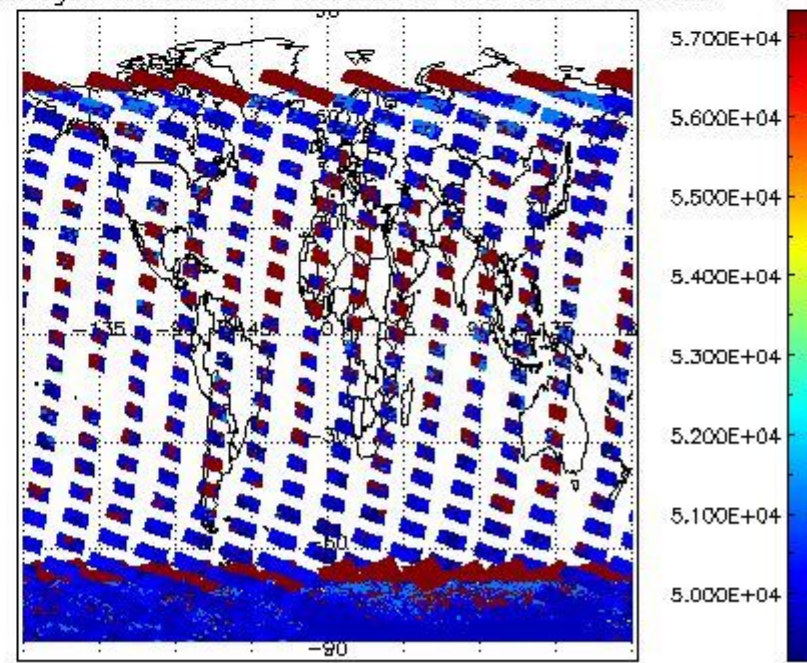
cL\_top\_height for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



cLopt\_depth for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



cloud\_flags for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



## 2.2.2 Nadir

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

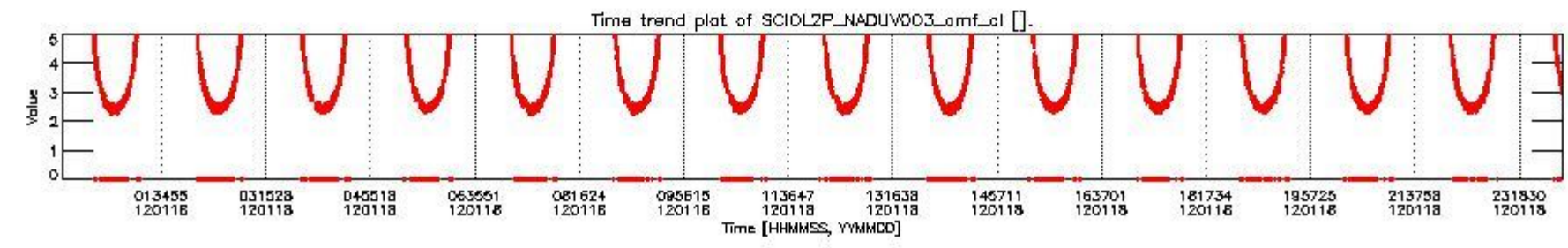
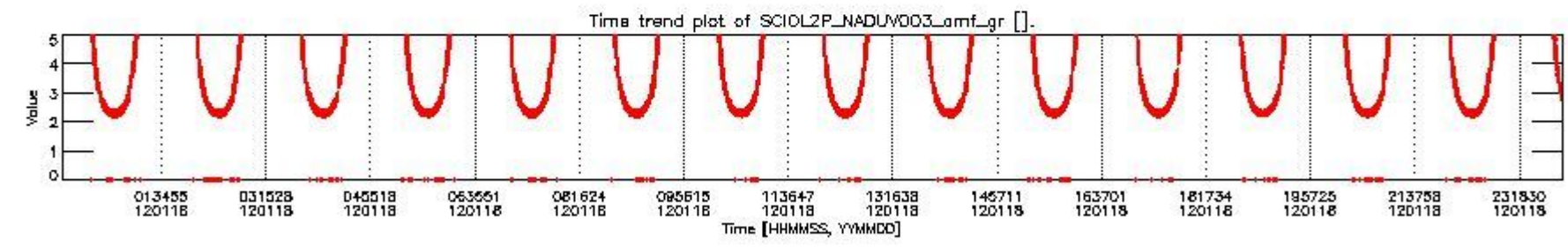
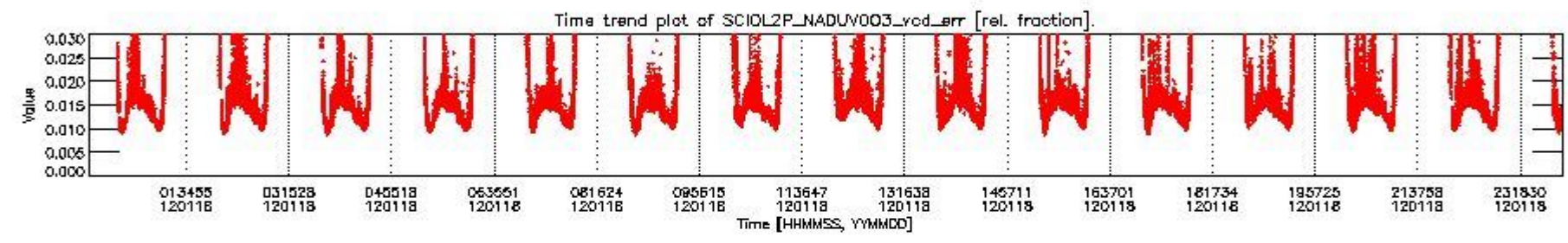
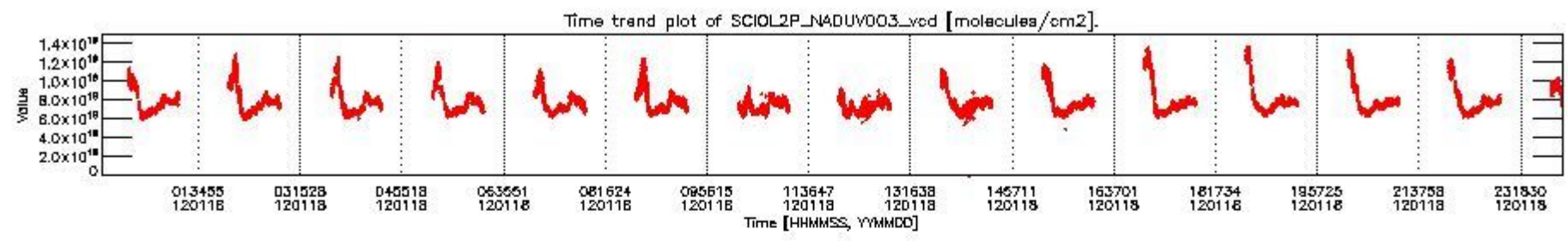
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

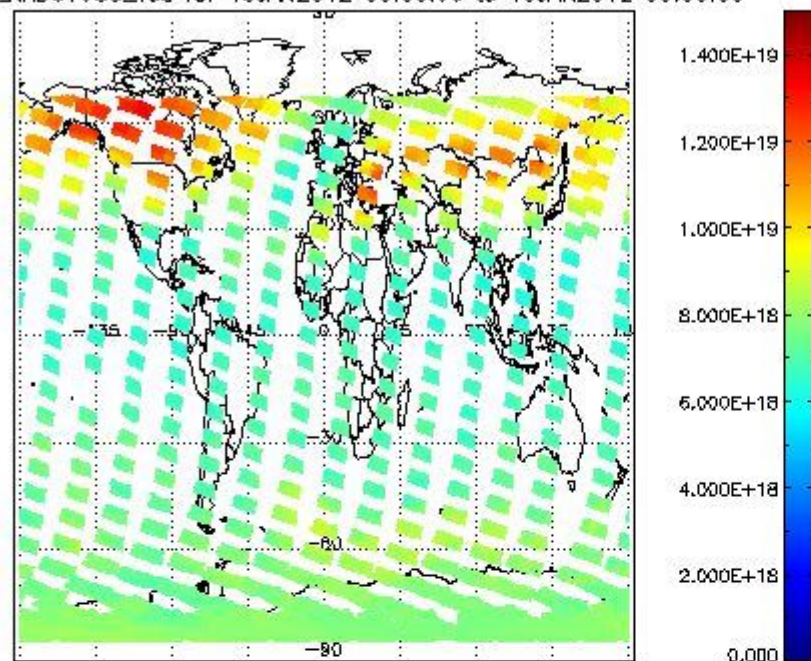
3	SCIOL2P_NADUV0O3_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl
8	SCIOL2P_NADUV3BRO_vcd
9	SCIOL2P_NADUV3BRO_vcd_err
10	SCIOL2P_NADUV3BRO_amf_gr
11	SCIOL2P_NADUV3BRO_amf_cl
12	SCIOL2P_NADUV5SO2_vcd
13	SCIOL2P_NADUV5SO2_vcd_err
14	SCIOL2P_NADUV5SO2_amf_gr
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.

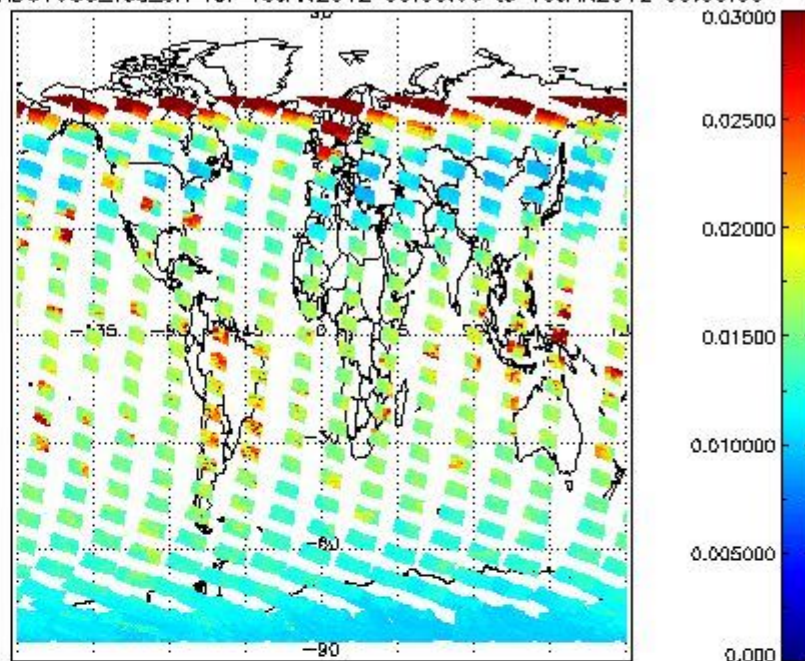
#### 2.2.2.1 O3 (UV0)



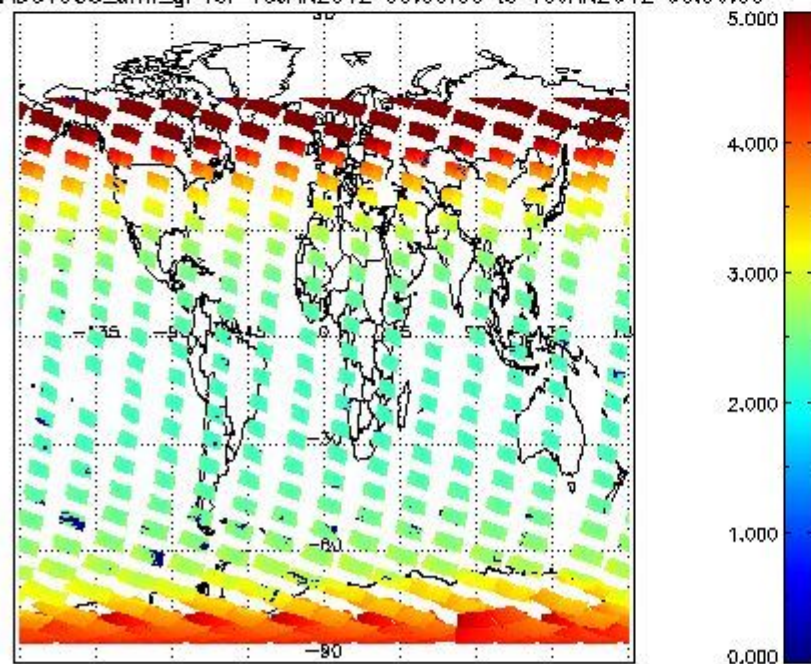
SCIOL2P\_NADUV003\_vcd for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



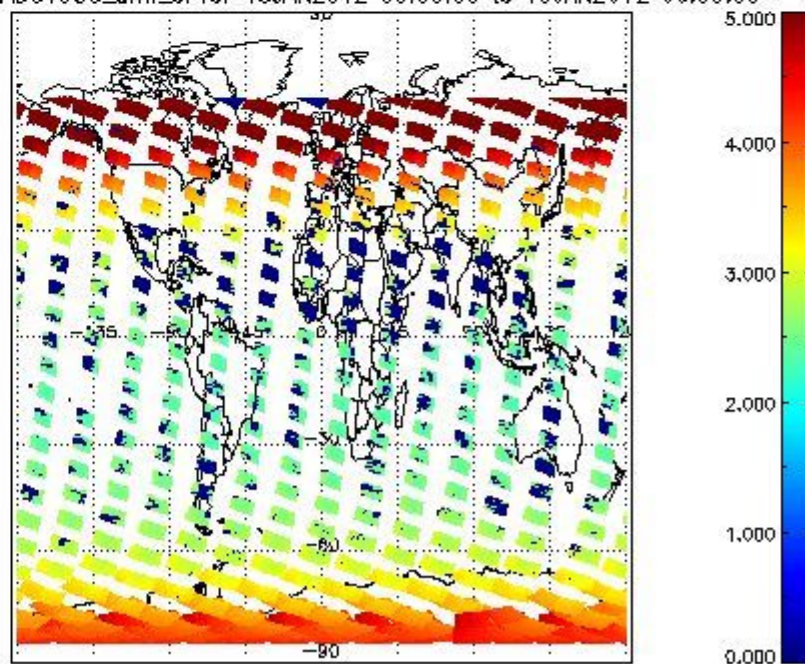
SCIOL2P\_NADUV003\_vcd\_err for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



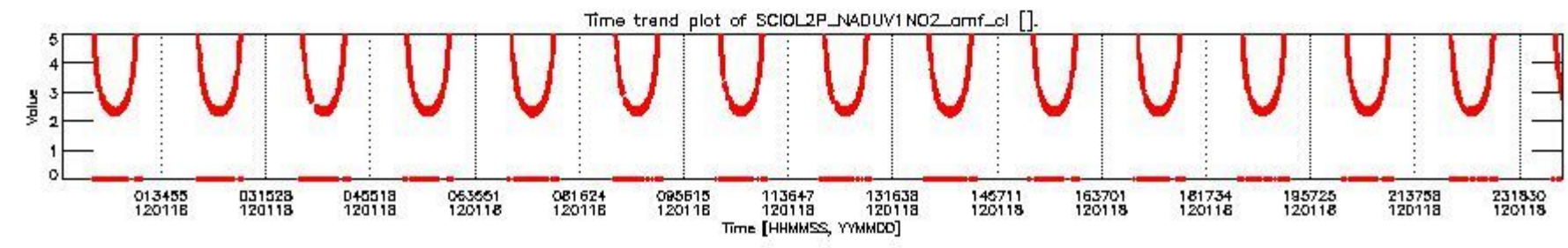
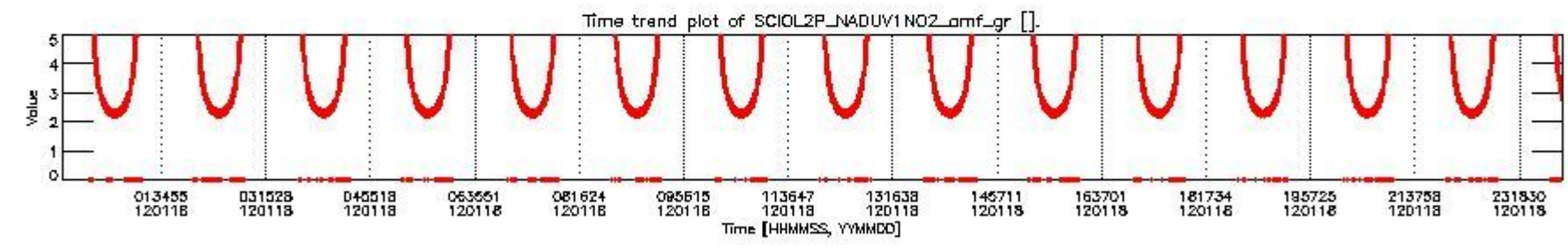
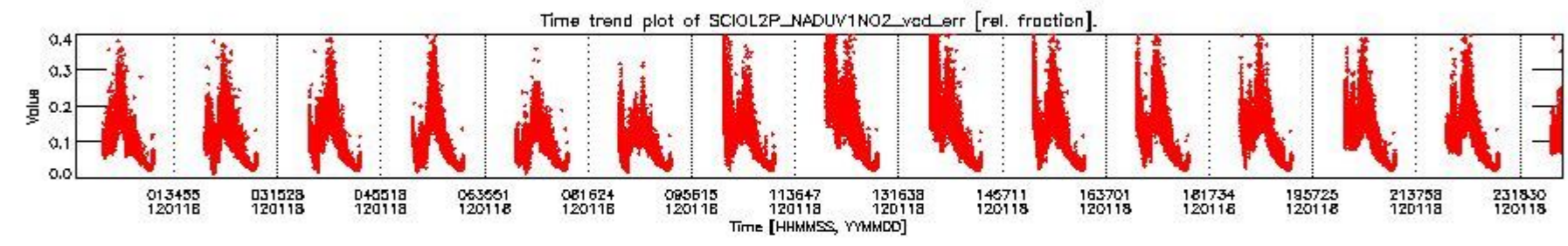
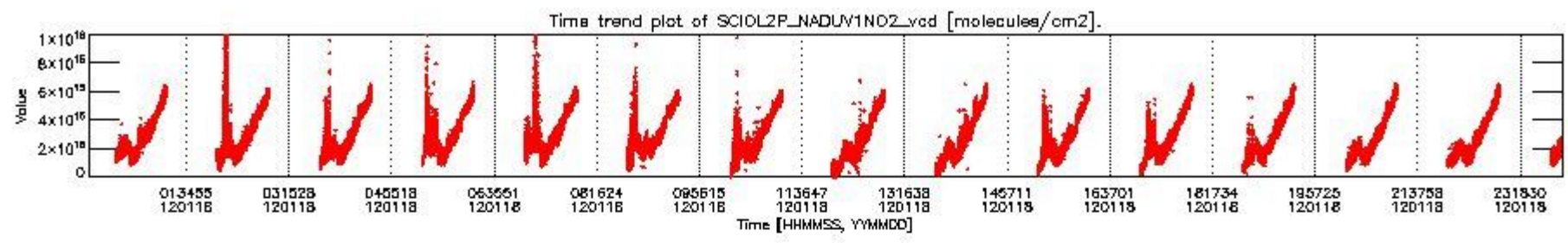
SCIOL2P\_NADUV003\_amf\_gr for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



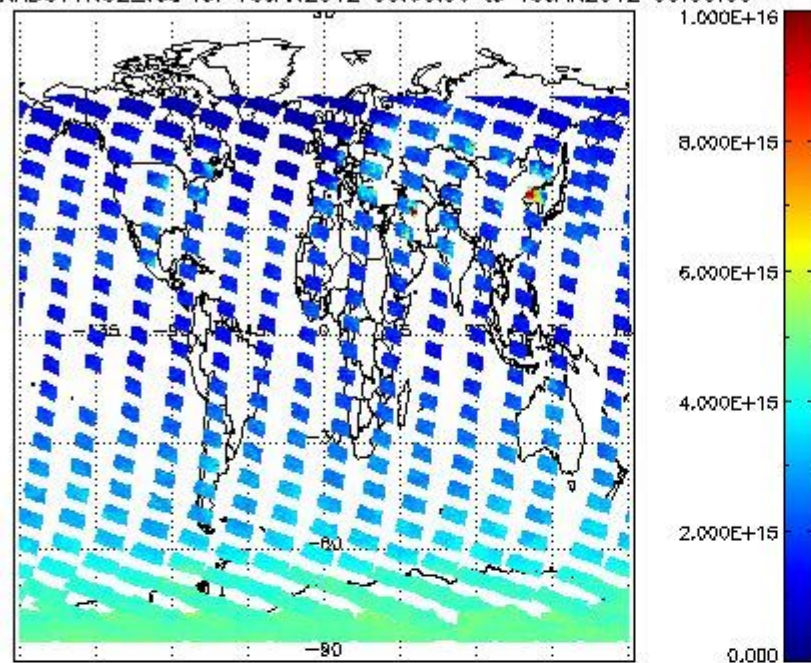
SCIOL2P\_NADUV003\_amf\_cl for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



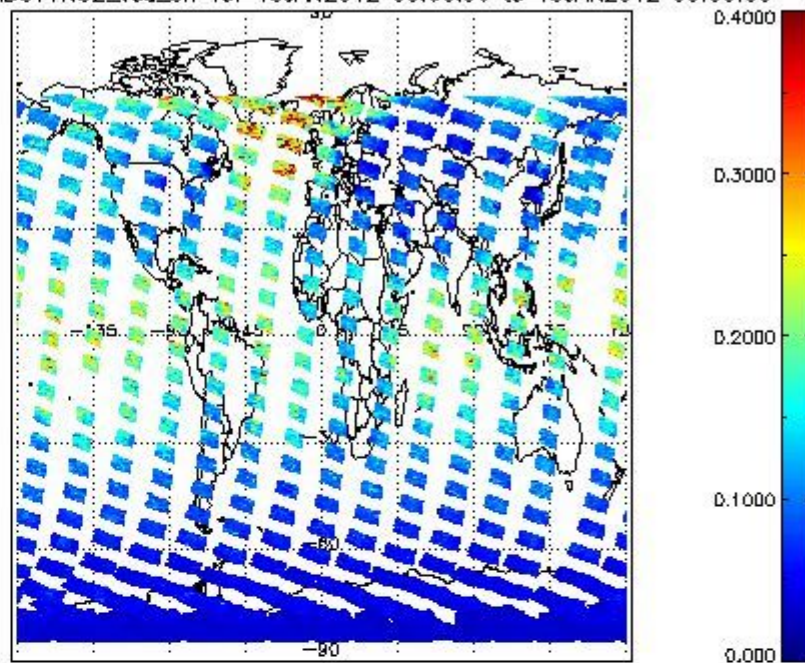
2.2.2.2 NO2 (UV1)



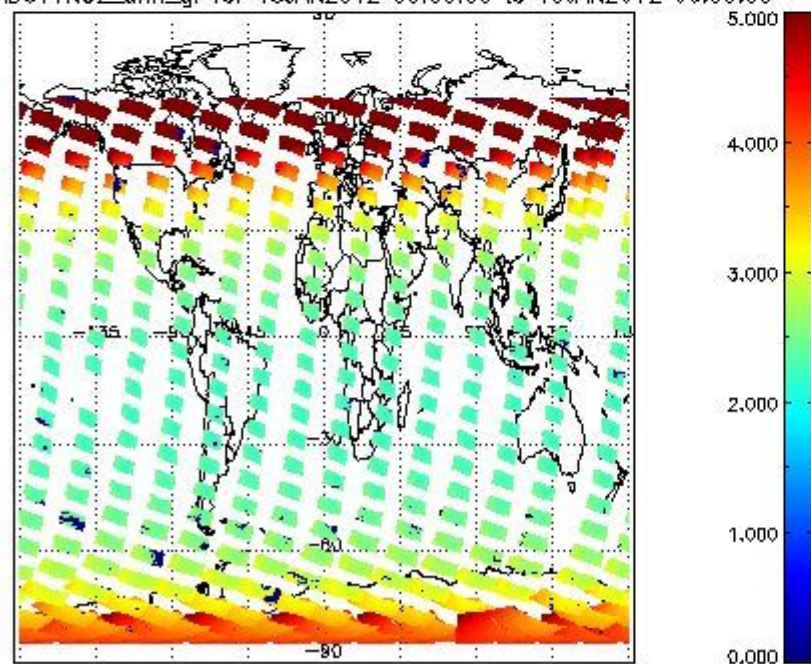
SCIOL2P\_NADUV1NO2\_vcd for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



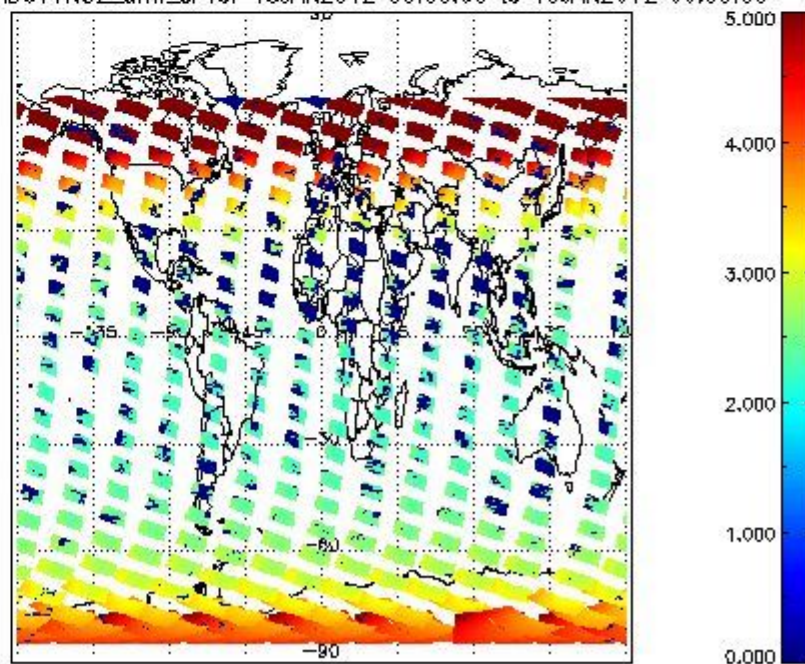
SCIOL2P\_NADUV1NO2\_vcd\_err for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

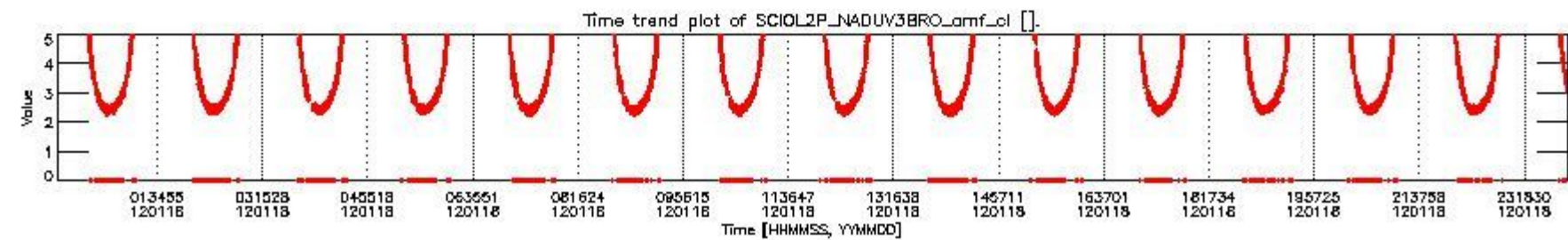
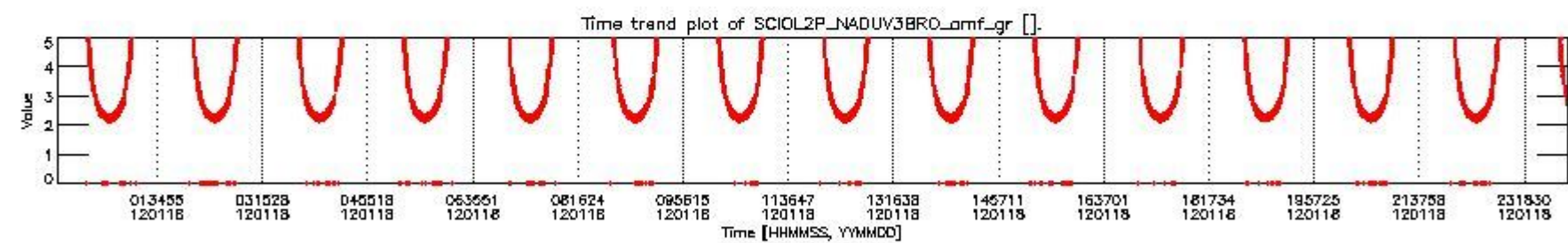
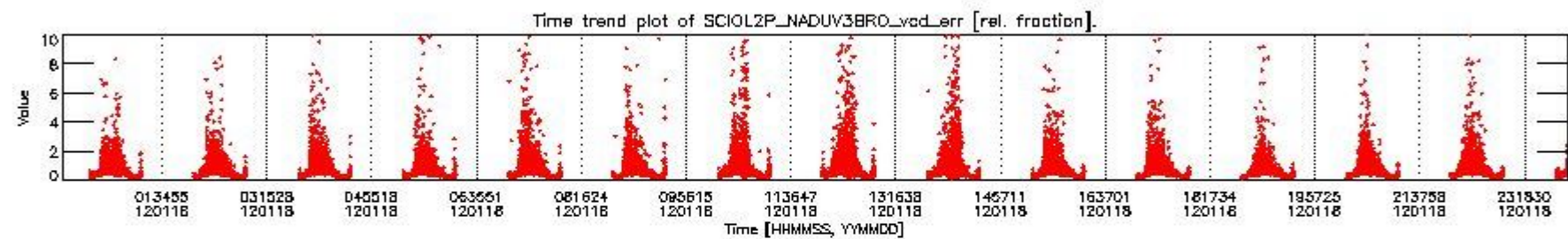
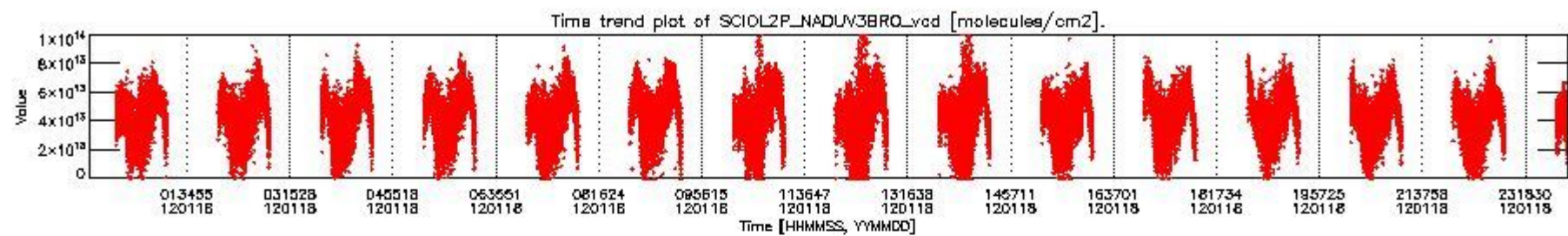


SCIOL2P\_NADUV1NO2\_amf\_cl for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

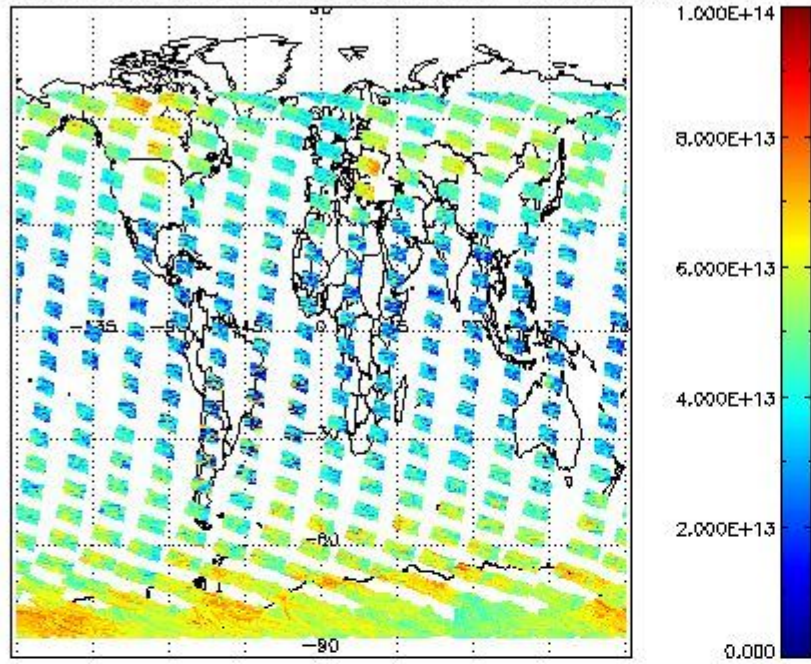


2.2.2.3 BrO (UV3)

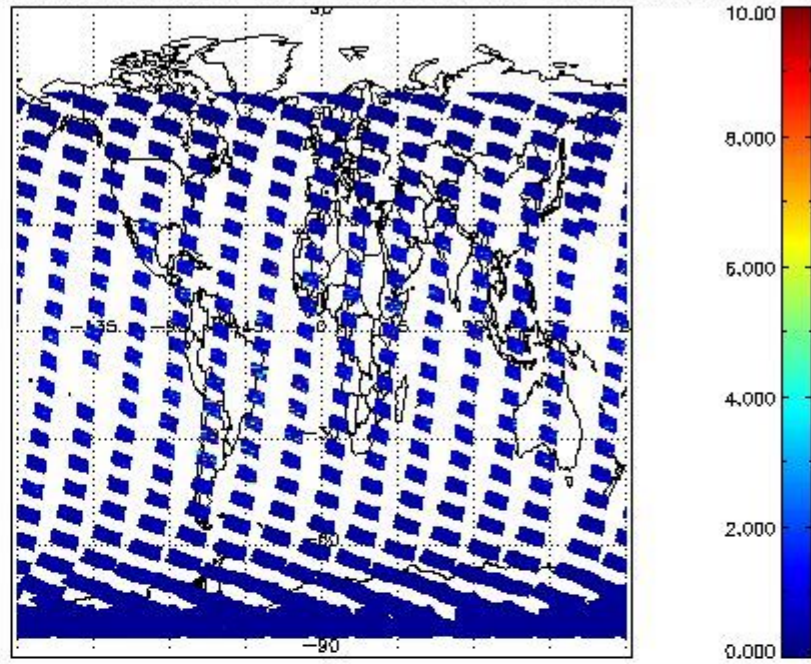




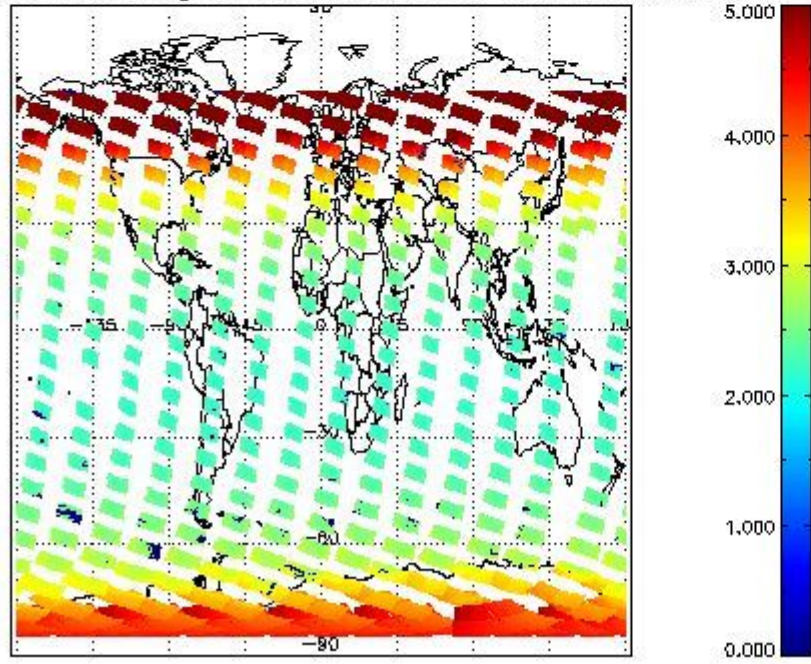
SCIOL2P\_NADUV3BRO\_vcd for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



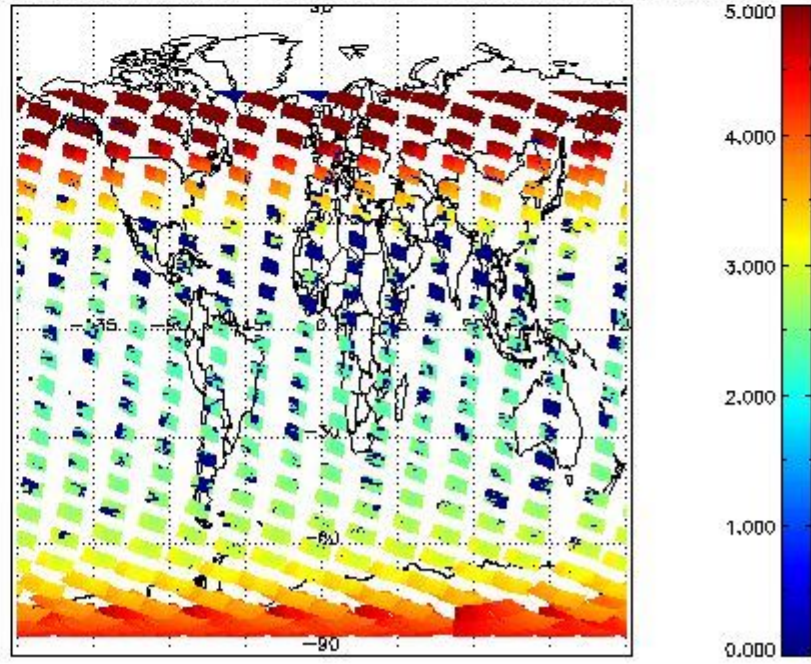
SCIOL2P\_NADUV3BRO\_vcd\_err for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



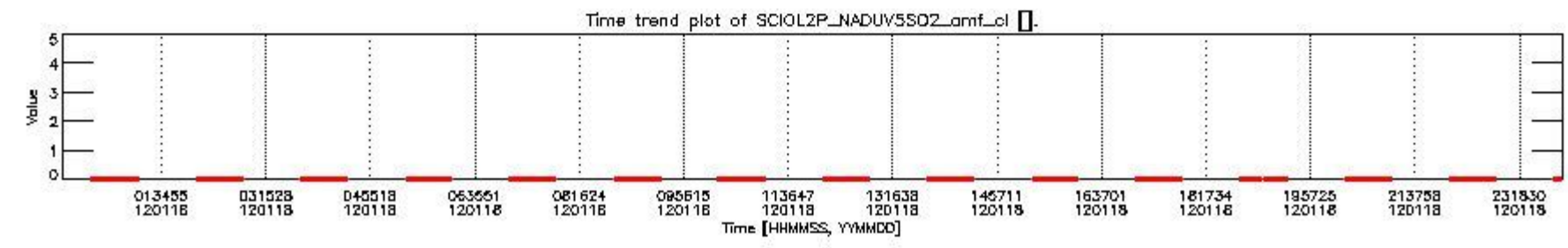
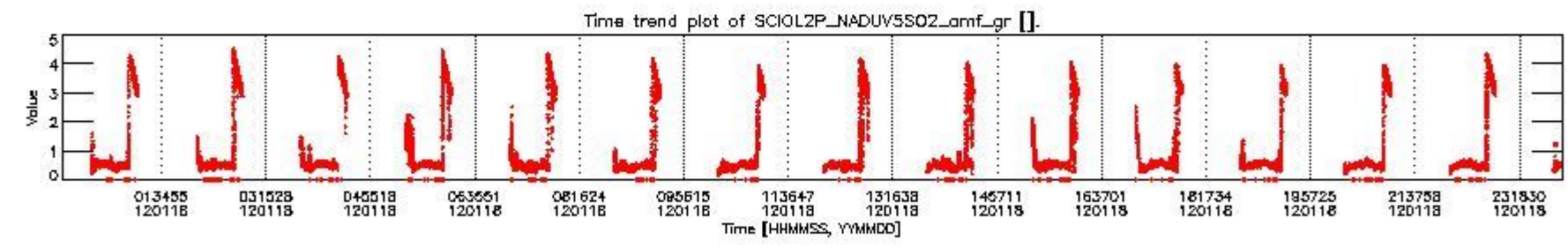
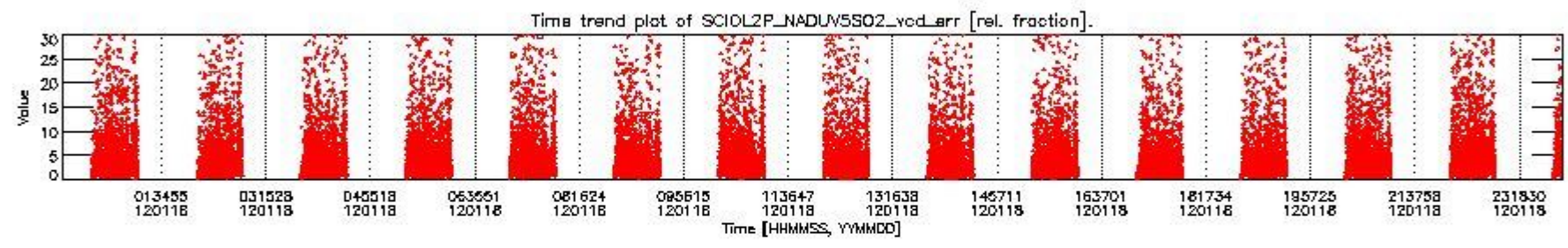
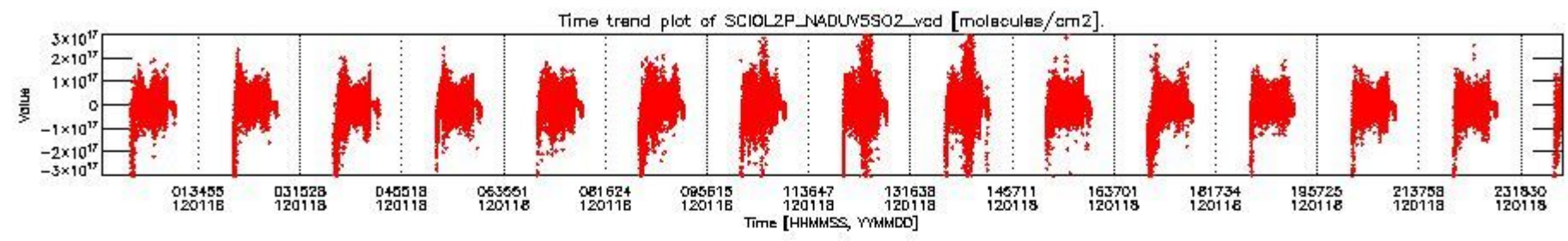
SCIOL2P\_NADUV3BRO\_amf\_gr for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



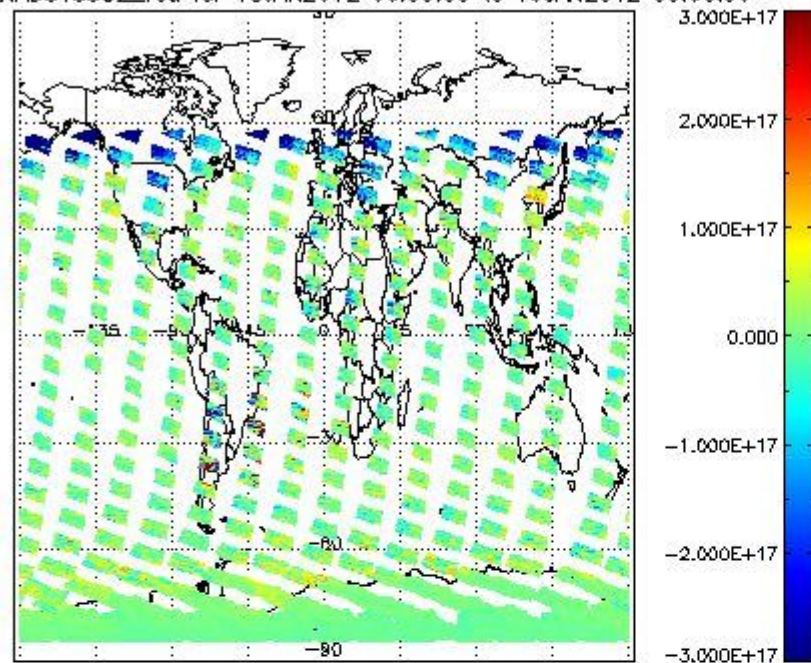
SCIOL2P\_NADUV3BRO\_amf\_cl for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



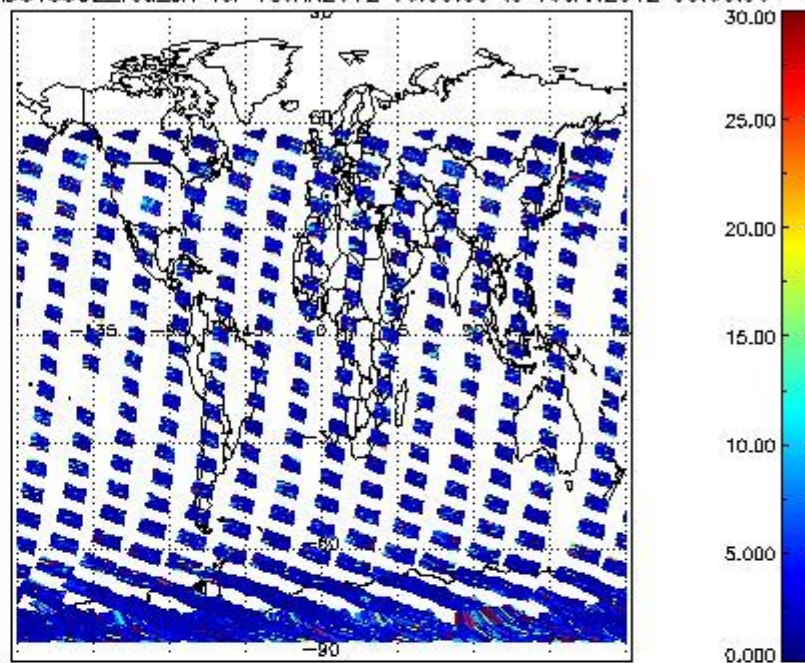
2.2.2.4 SO2 (UV5)



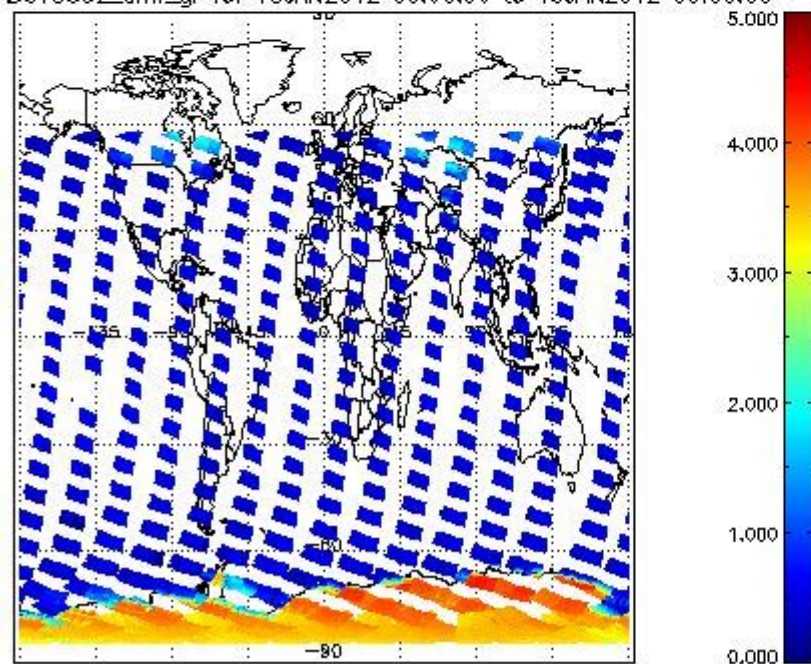
SCIOL2P\_NADUV5S02\_vcd for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



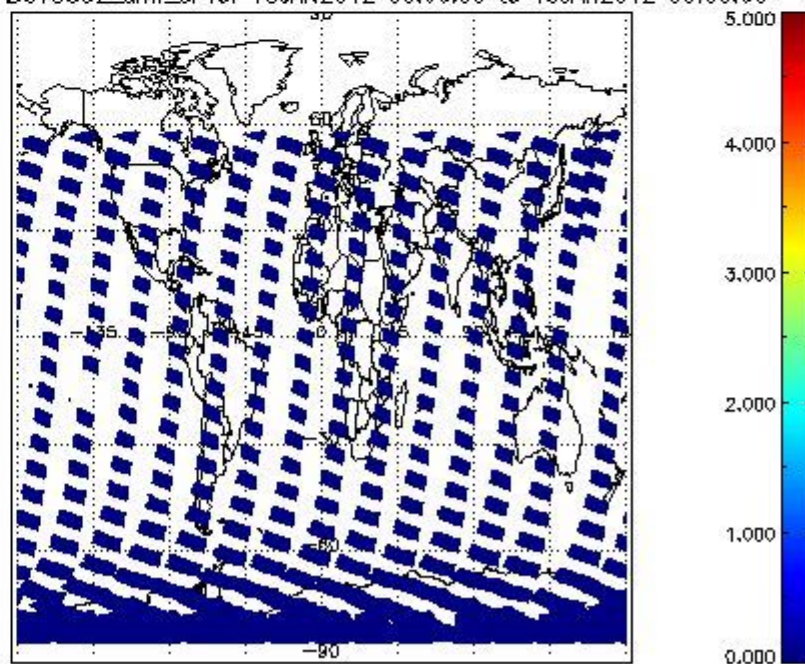
SCIOL2P\_NADUV5S02\_vcd\_err for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



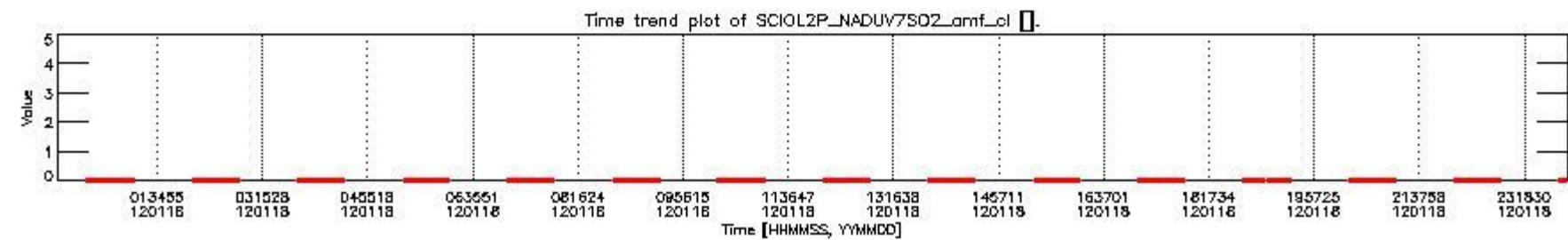
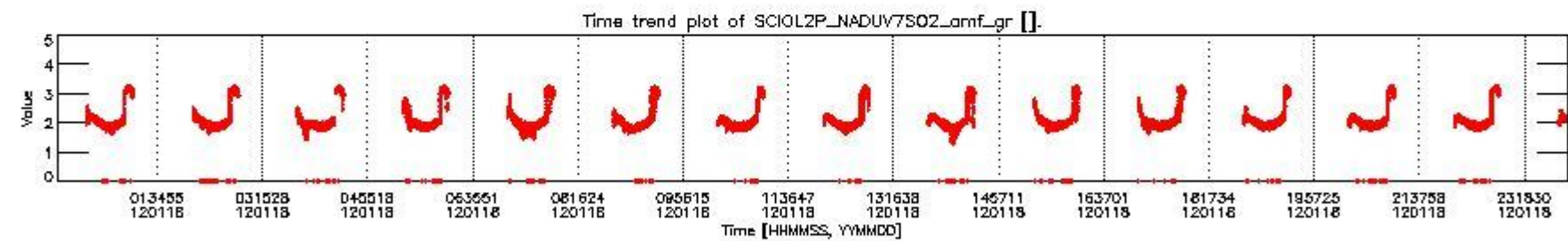
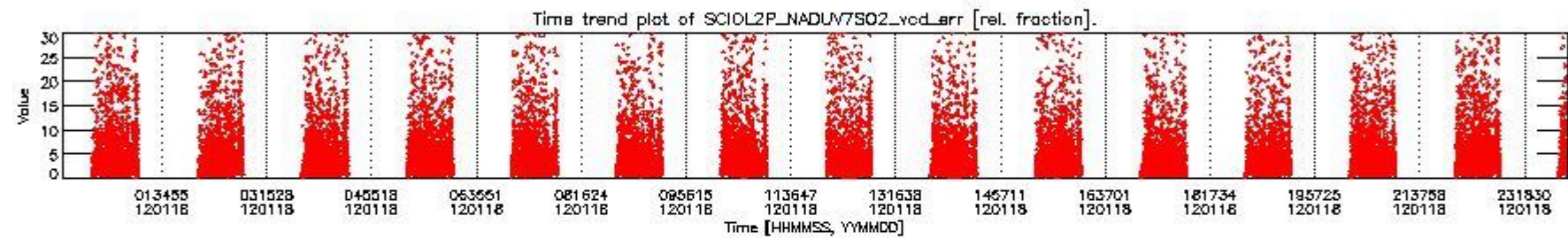
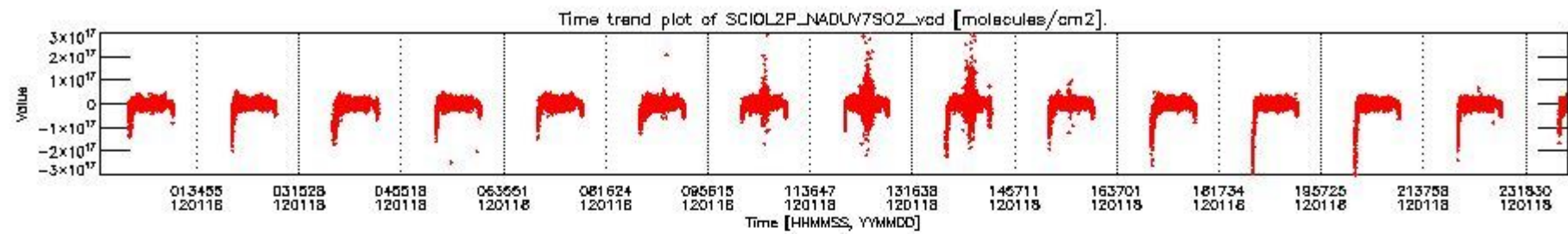
SCIOL2P\_NADUV5S02\_amf\_gr for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



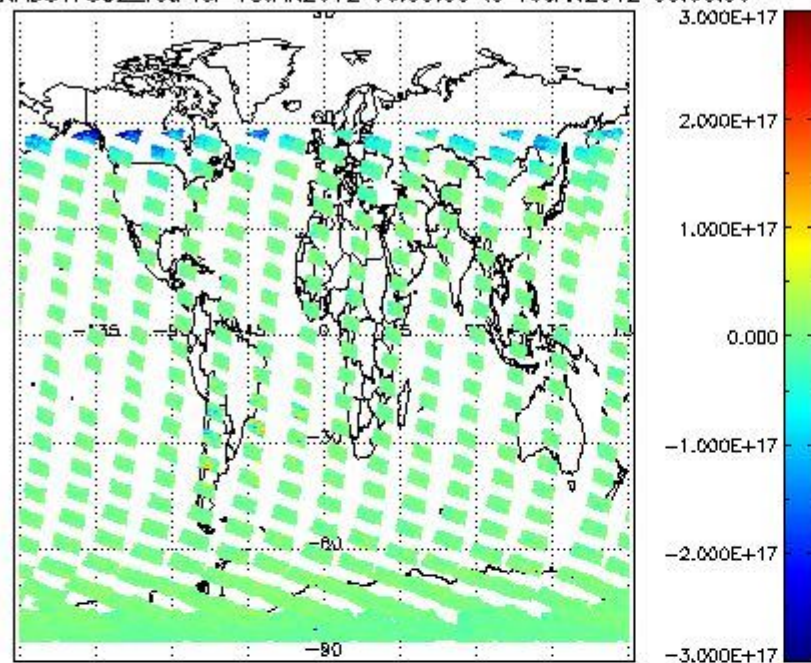
SCIOL2P\_NADUV5S02\_amf\_cl for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



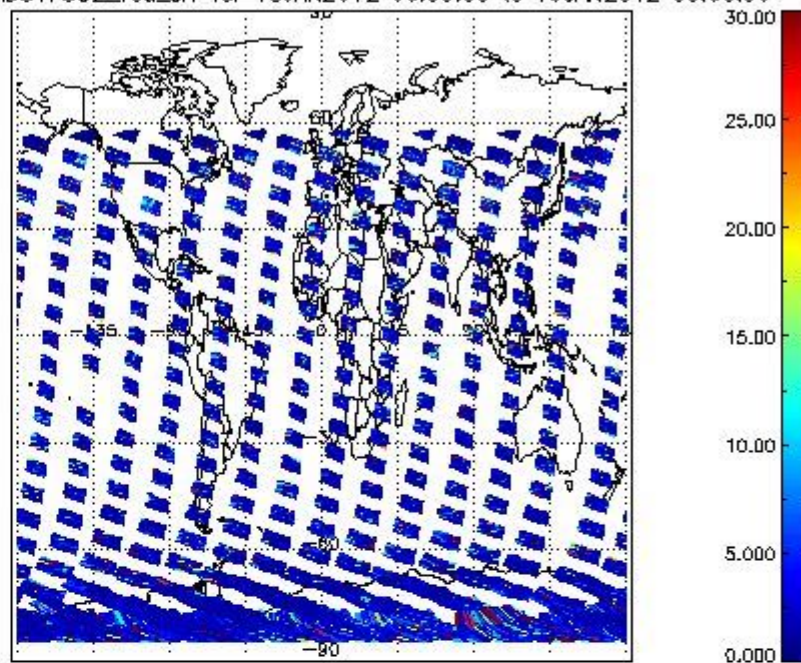
2.2.2.5 SO2 (UV7)



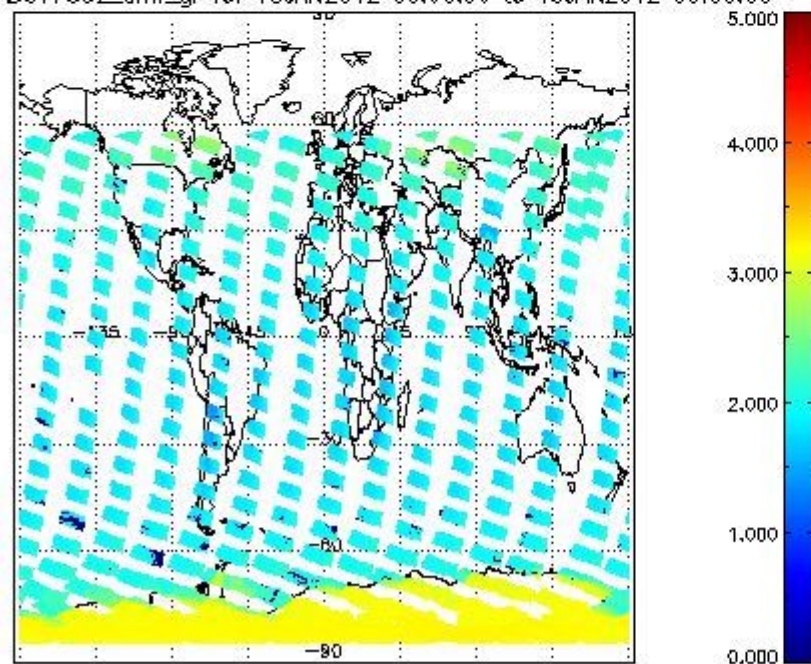
SCIOL2P\_NADUV7S02\_vcd for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



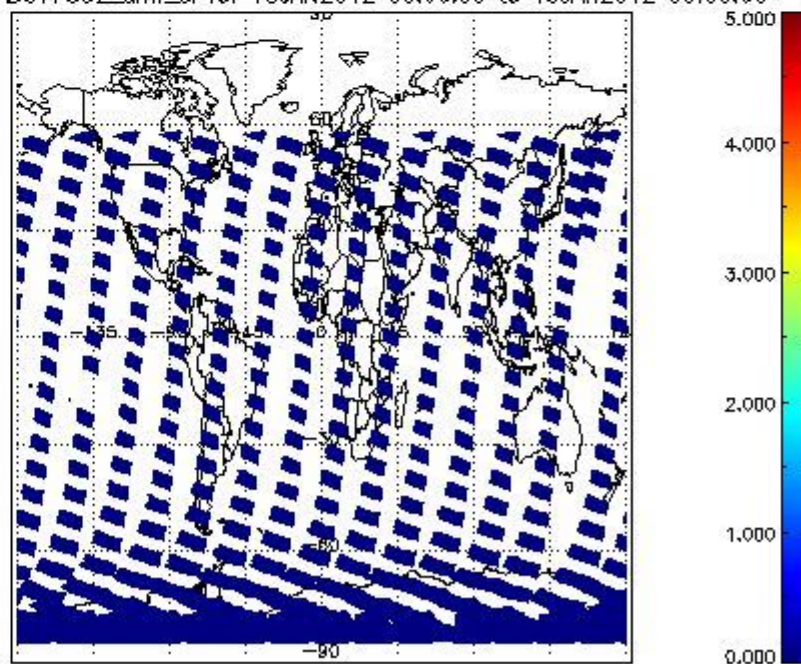
SCIOL2P\_NADUV7S02\_vcd\_err for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



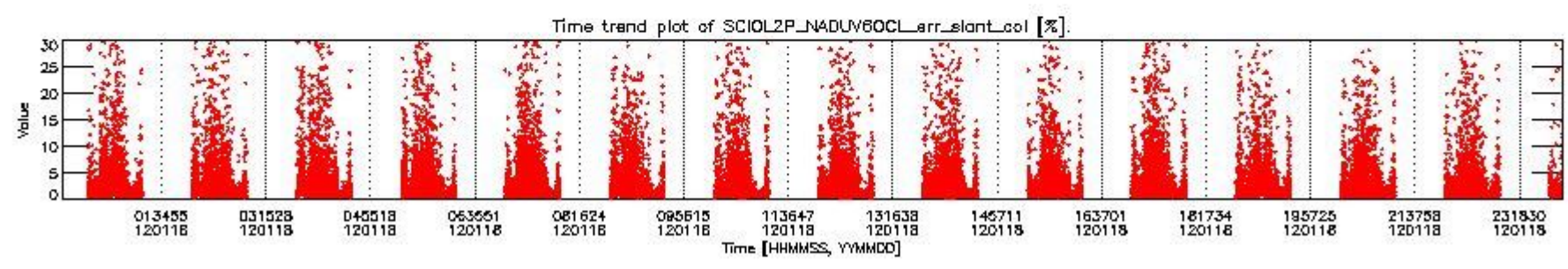
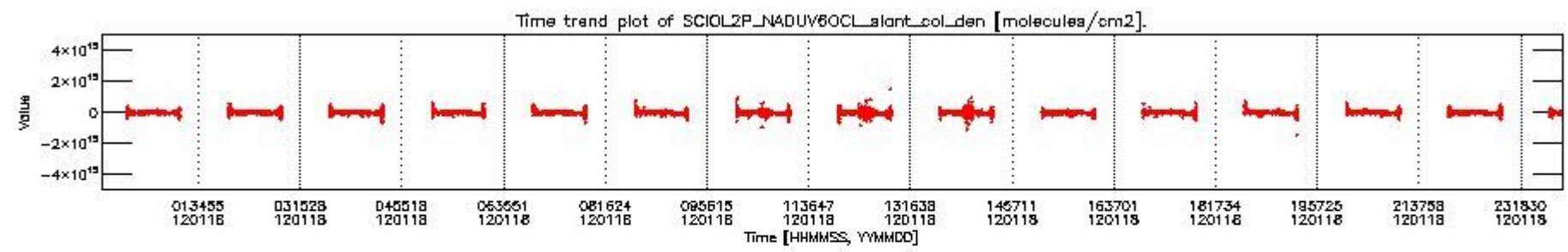
SCIOL2P\_NADUV7S02\_amf\_gr for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



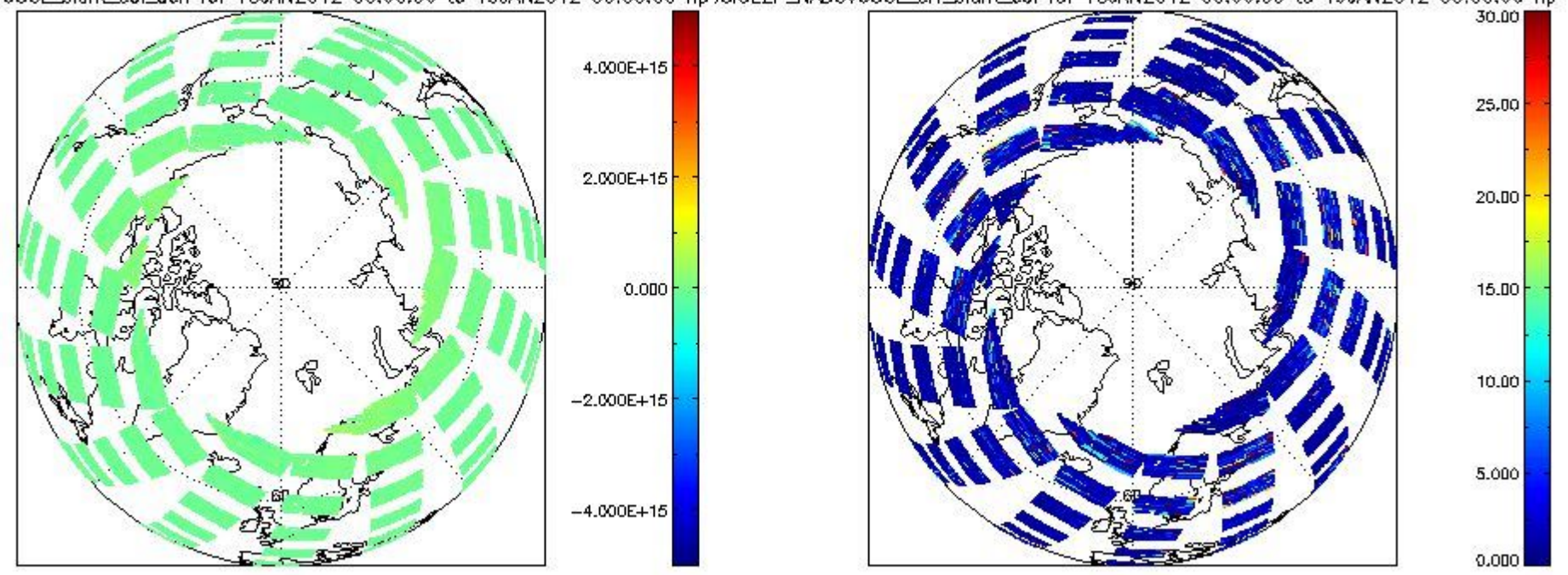
SCIOL2P\_NADUV7S02\_amf\_cl for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



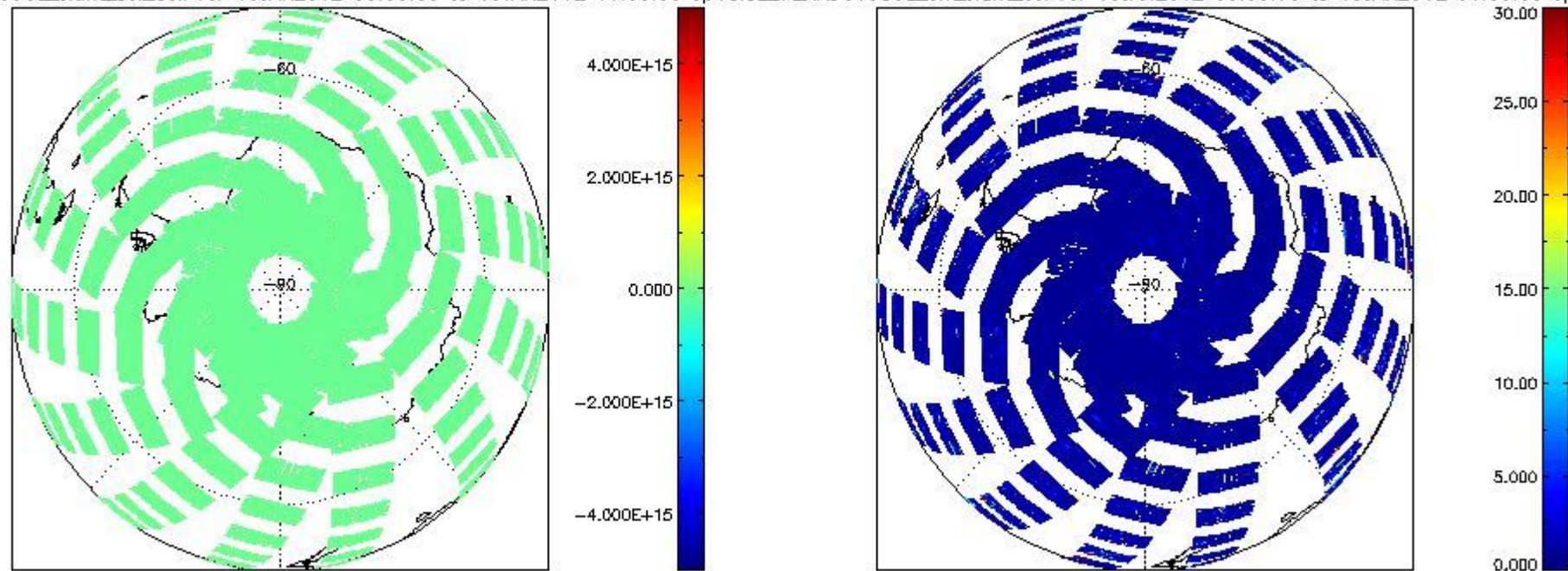
2.2.2.6 OCIO (UV6)



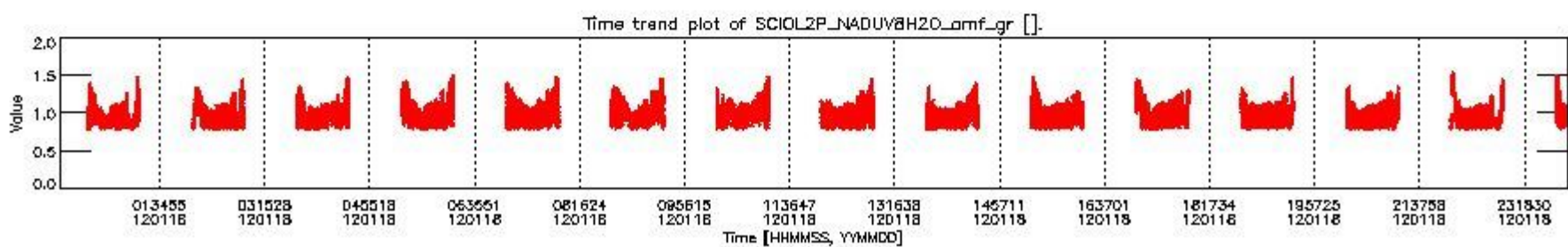
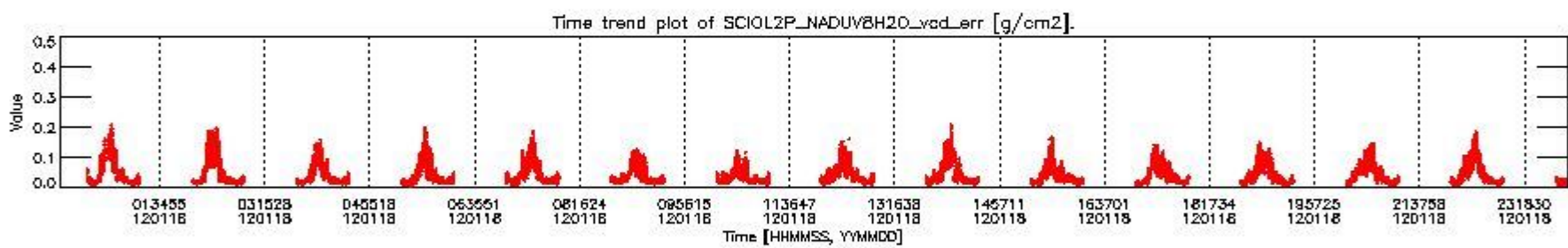
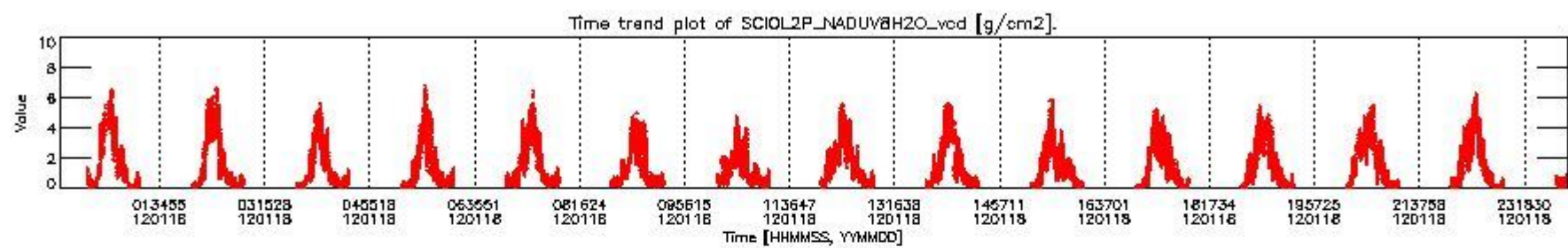
SCIOI2P\_NADUV60CL\_slant\_col\_den for 18JAN2012 00:00:00 to 19JAN2012 00:00:00 np; SCIOI2P\_NADUV60CL\_err\_slant\_col for 18JAN2012 00:00:00 to 19JAN2012 00:00:00 np



SCIOL2P\_NADUV6OCL\_slant\_col\_den for 18JAN2012 00:00:00 to 19JAN2012 00:00:00 sp SCIOL2P\_NADUV6OCL\_err\_slant\_col for 18JAN2012 00:00:00 to 19JAN2012 00:00:00 sp

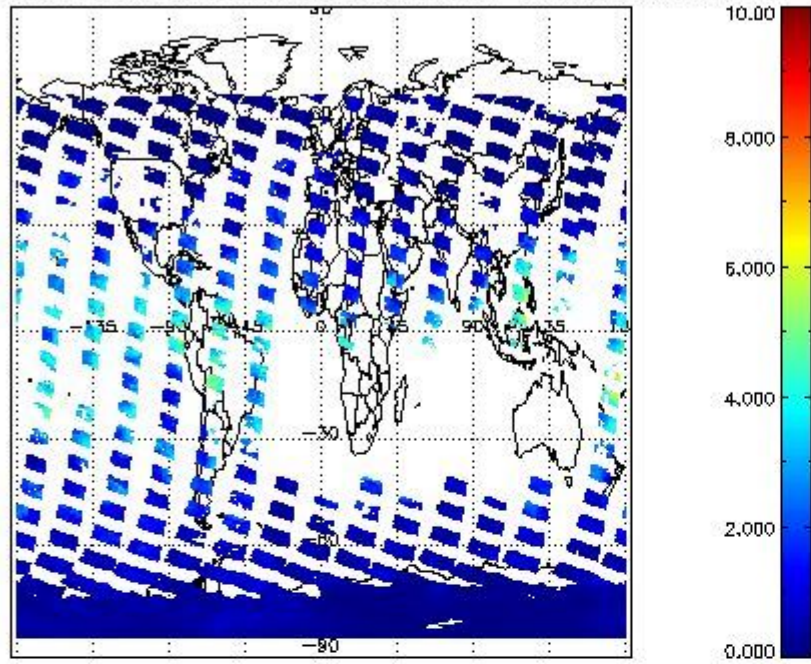


### 2.2.2.7 H<sub>2</sub>O (UV8)

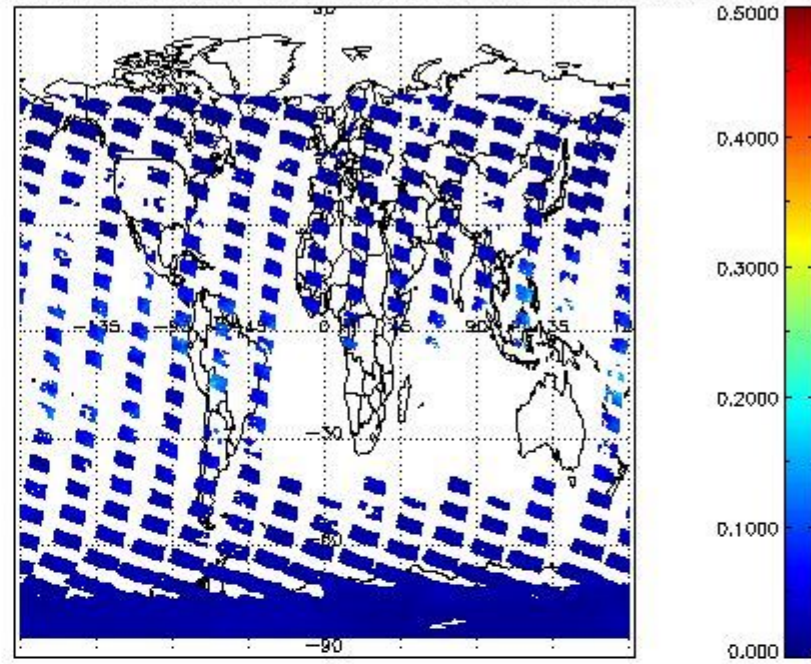




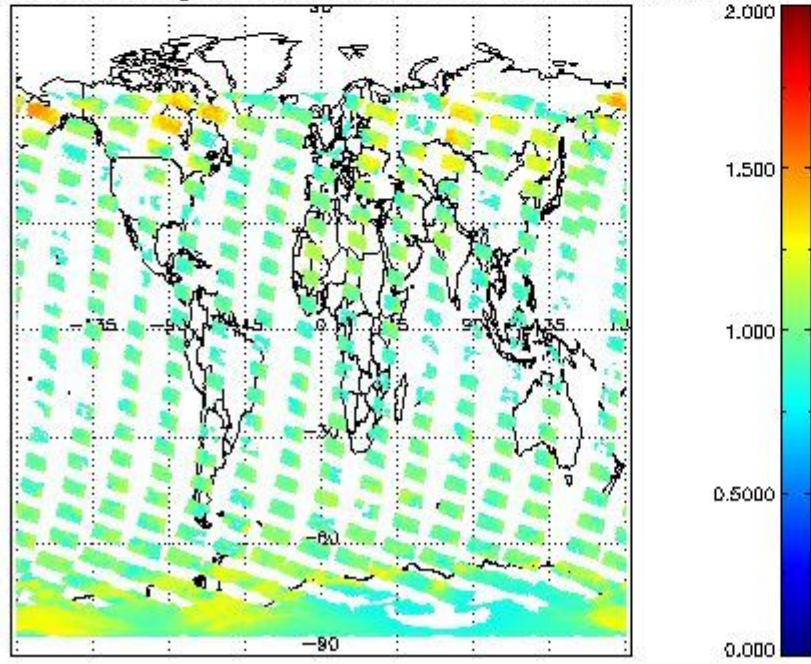
SCIOL2P\_NADUV8H20\_vcd for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



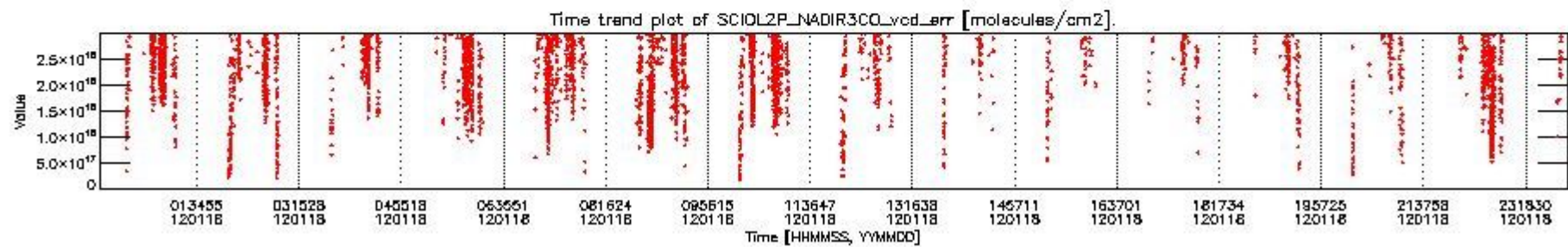
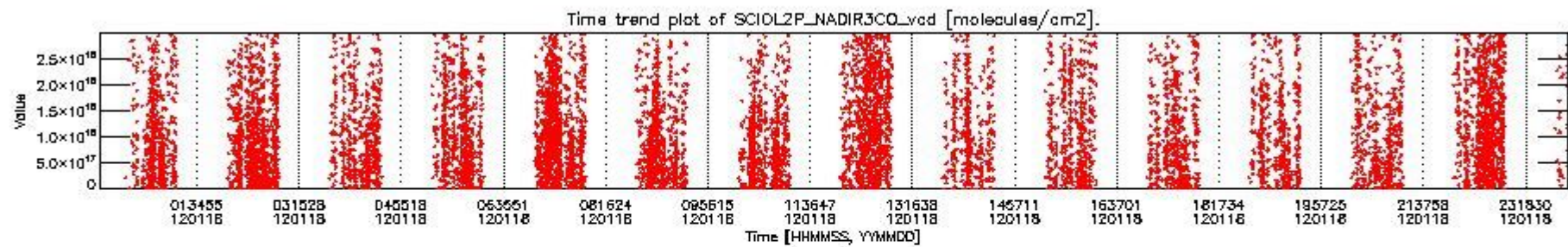
SCIOL2P\_NADUV8H20\_vcd\_err for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



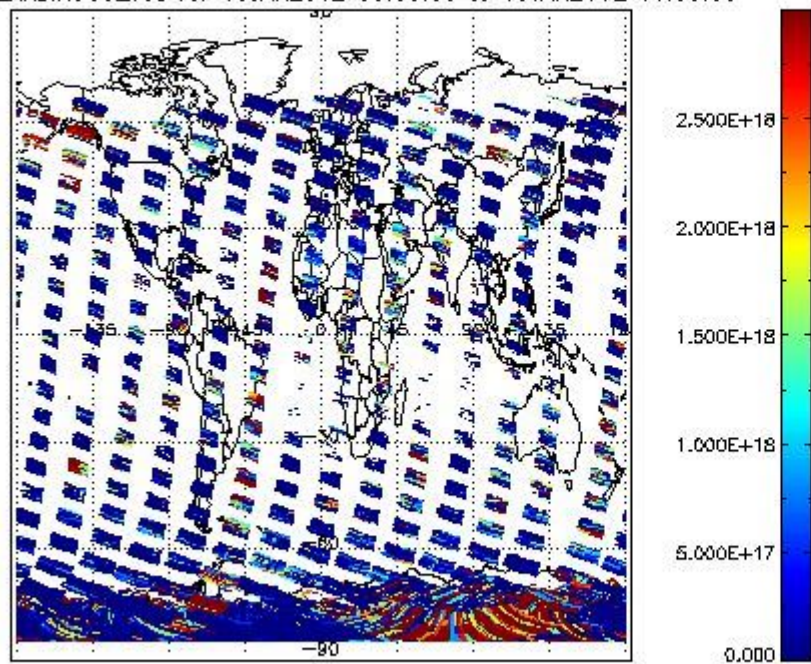
SCIOL2P\_NADUV8H20\_amf\_gr for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



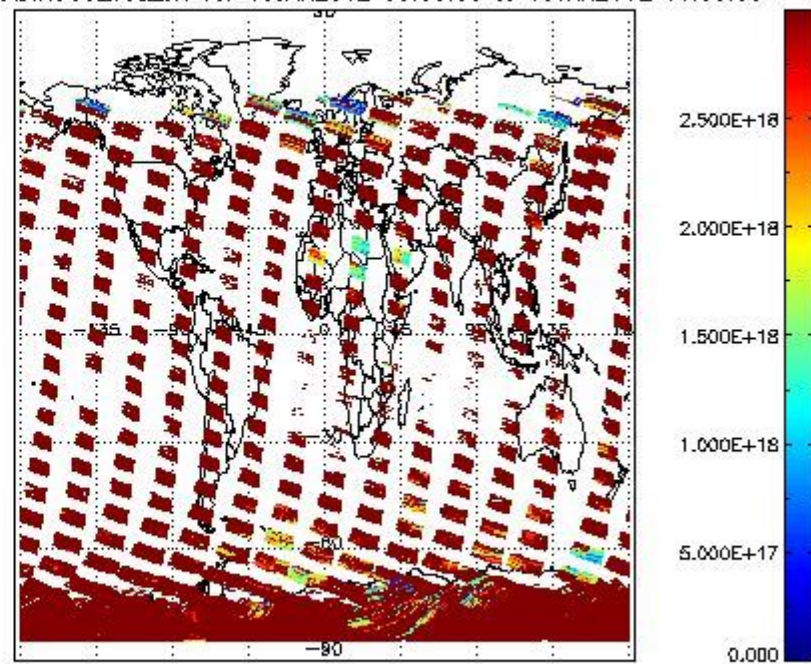
2.2.2.8 CO (IR3)



SCIDL2P\_NADIR3CO\_vcd for 16JAN2012 00:00:00 to 19JAN2012 00:00:00



SCIDL2P\_NADIR3CO\_vcd\_err for 16JAN2012 00:00:00 to 19JAN2012 00:00:00



### 2.2.3 Limb

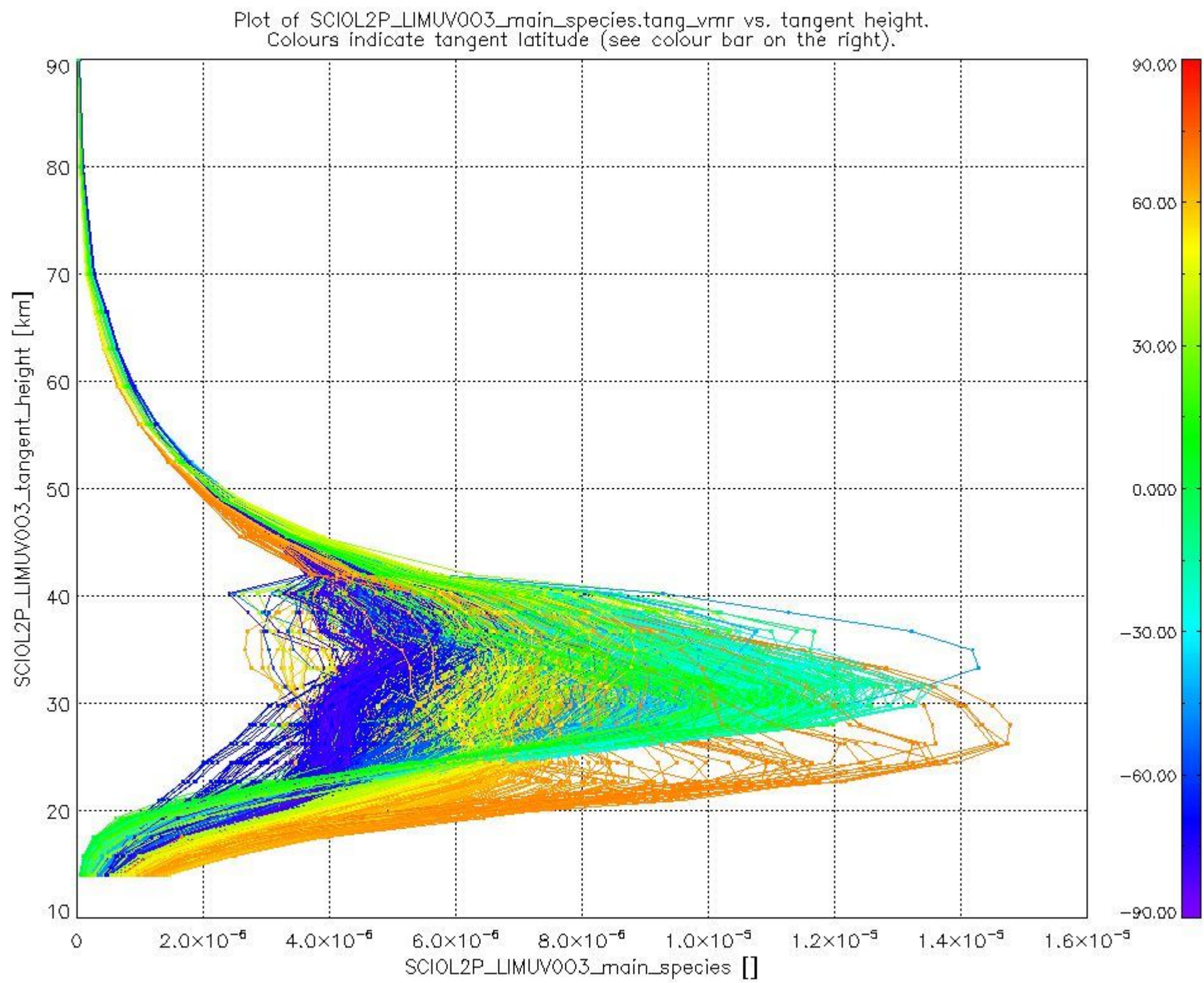
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

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

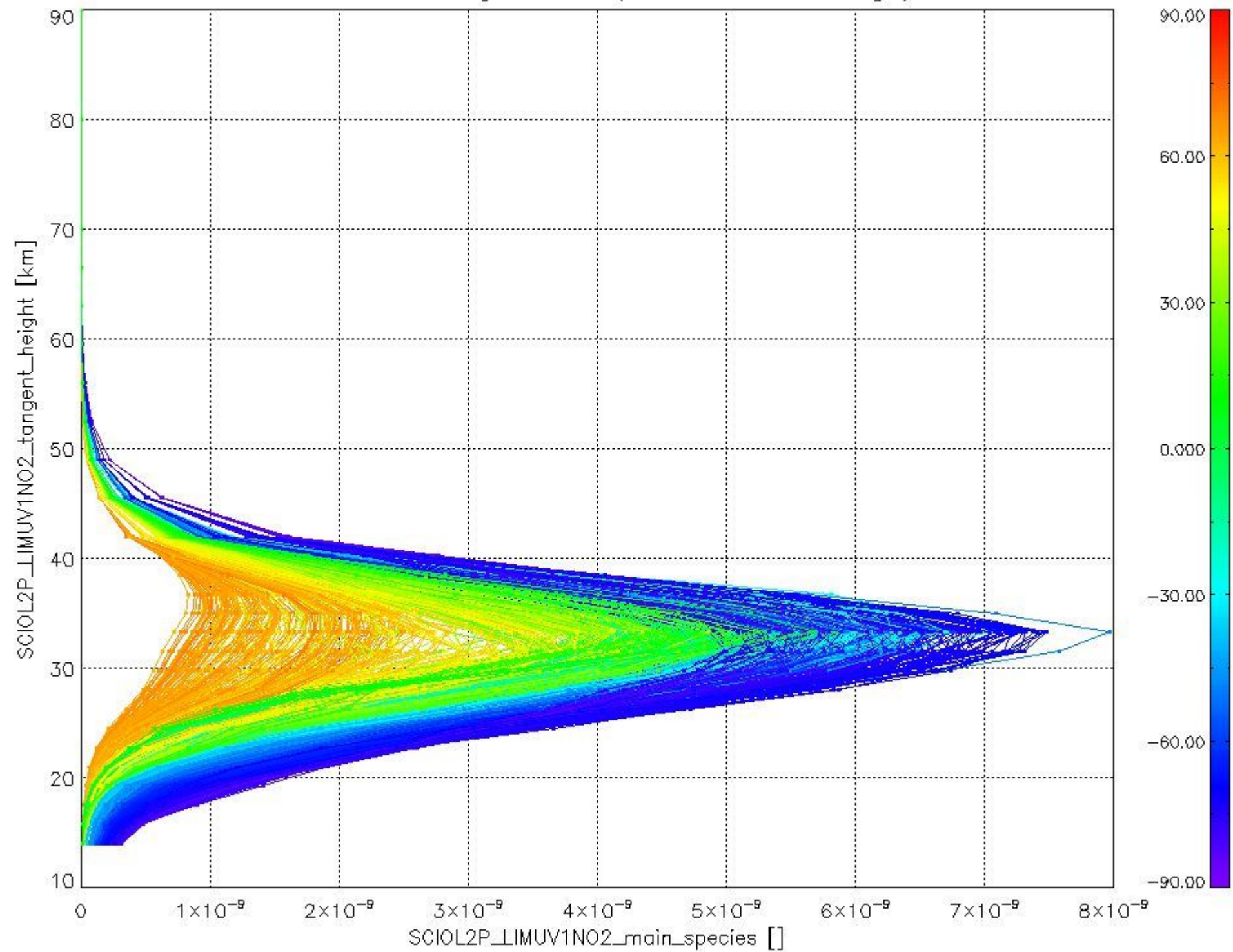
The following plots show for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

2.2.3.1 O3 (UV0)



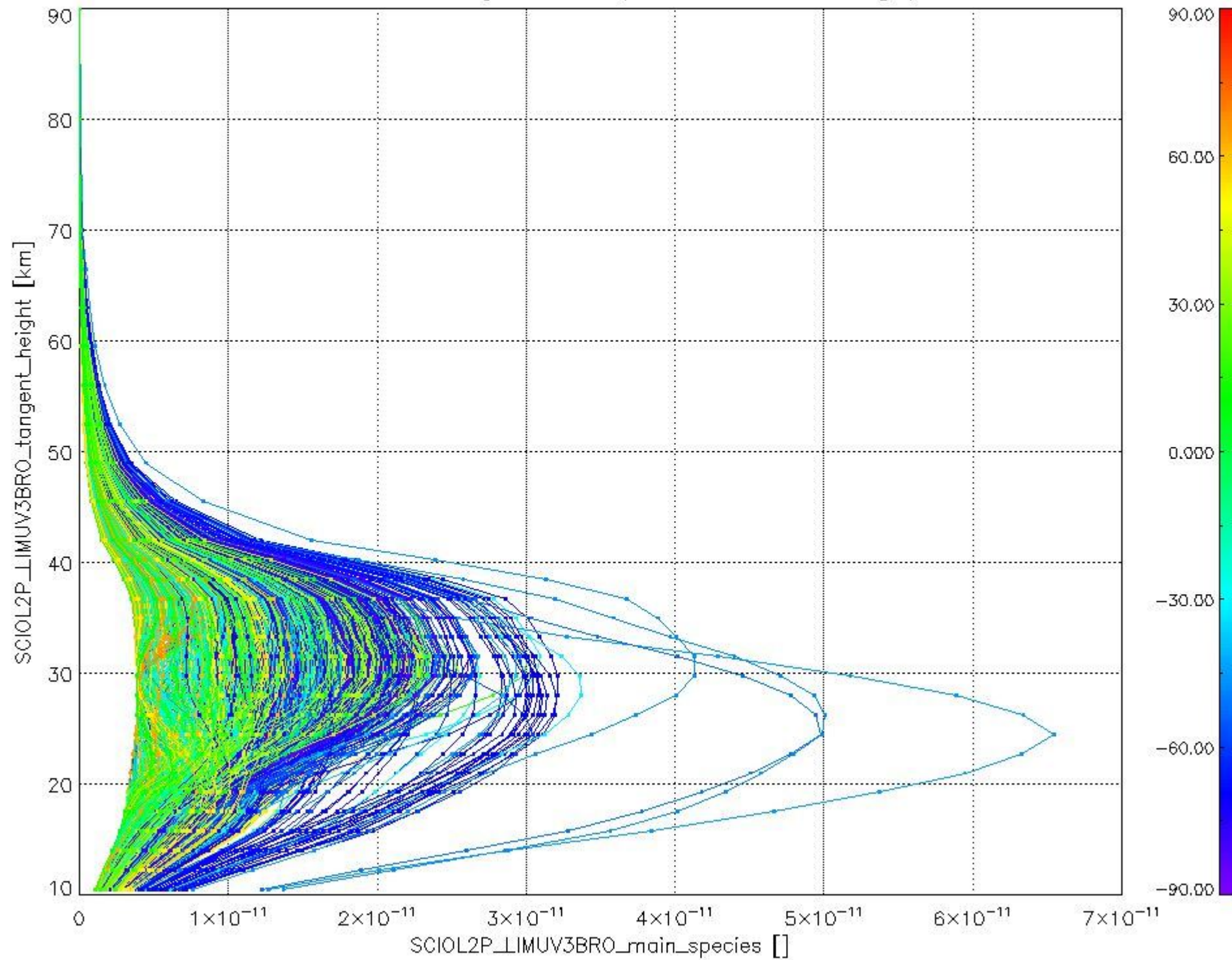
2.2.3.2 NO2 (UV1)

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).

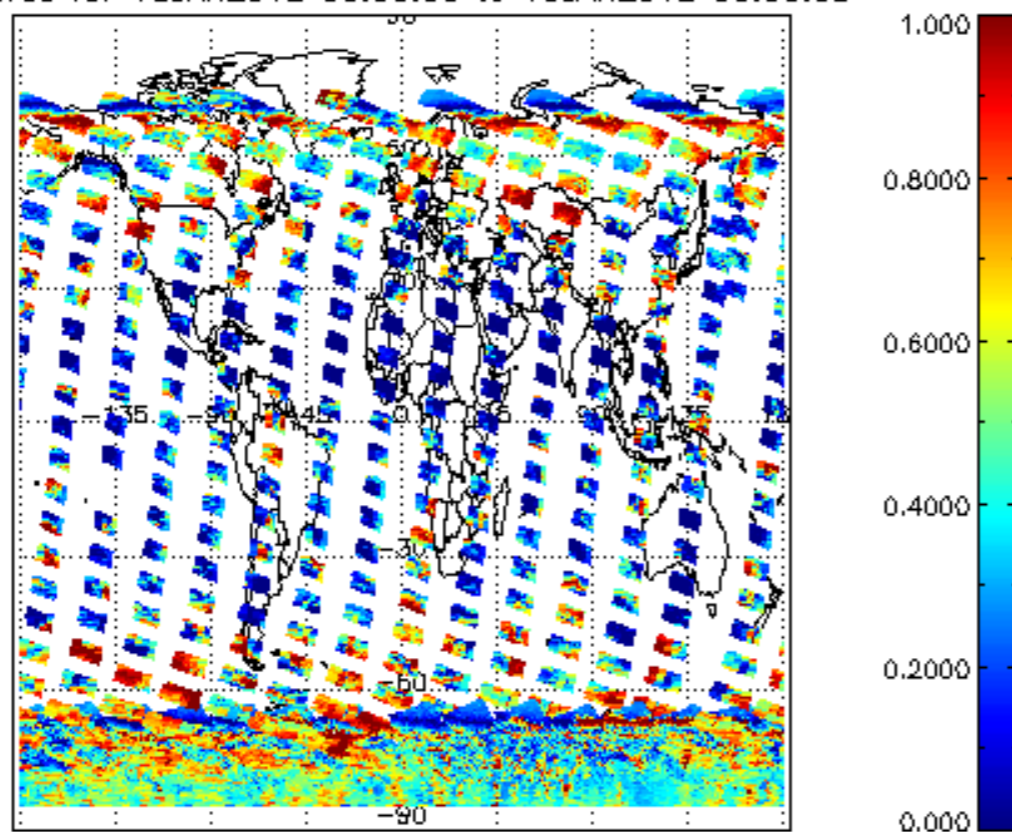


### 2.3 ADF monitoring

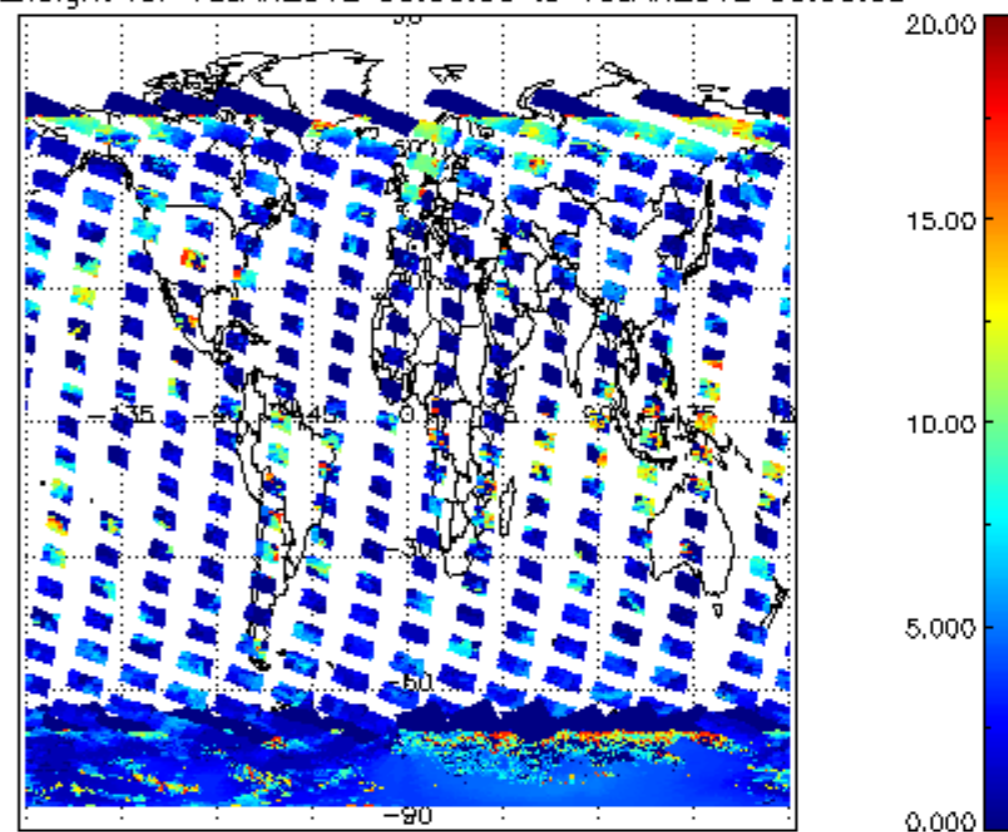
Number	ADF
	<b>IN_ (INITIALISATION_FILE)</b>
0	SCI_IN_AXNPDE20110201_120000_20020301_000000_20991231_235959
	<b>ECF (ECMWF_FILE)</b>
1	NOT USED
	<b>MF1 (M_FACTOR_FILE)</b>
2	SCI_MF1_AXVIEC20120117_140137_20120117_183634_20120119_183634
3	SCI_MF1_AXVIEC20120125_093933_20120117_183634_20120119_183634
4	SCI_MF1_AXVIEC20120125_094037_20120118_194003_20120120_194003



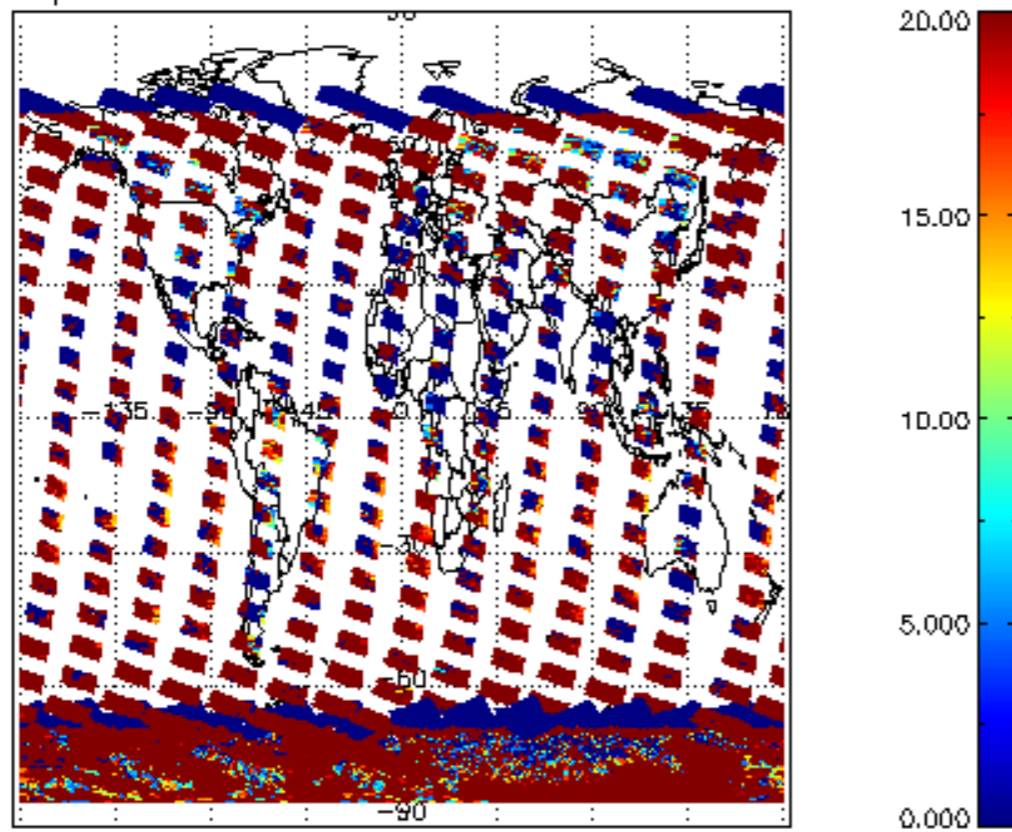
cL\_frac for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



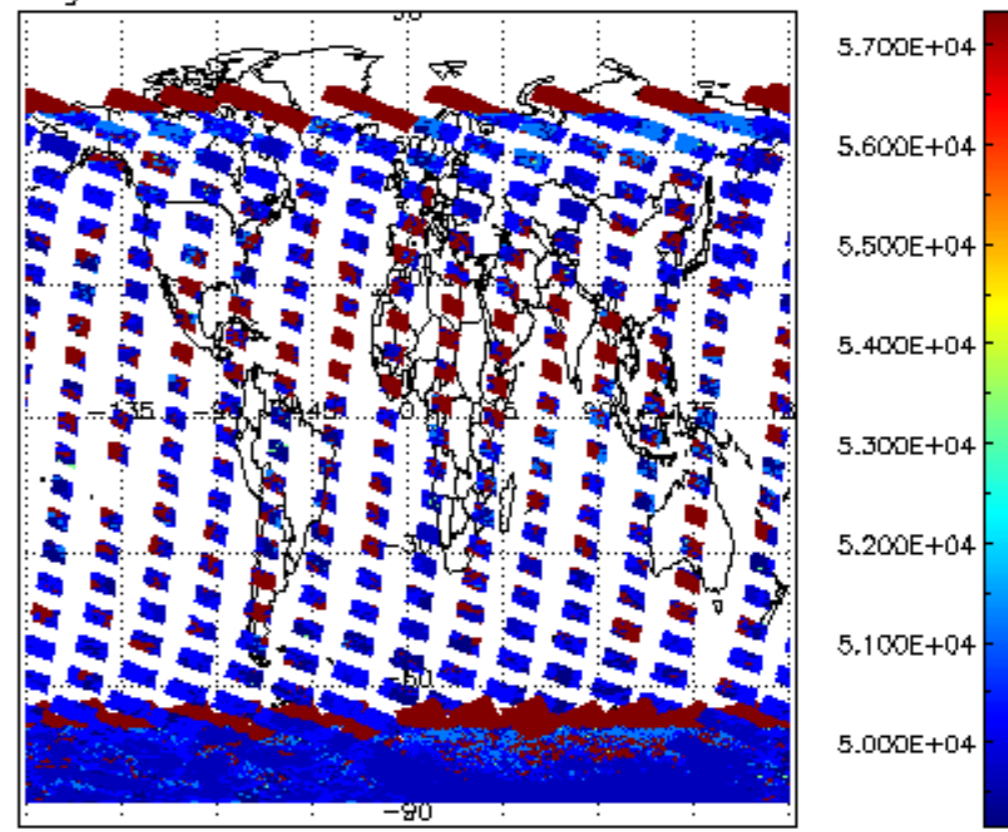
cL\_top\_height for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

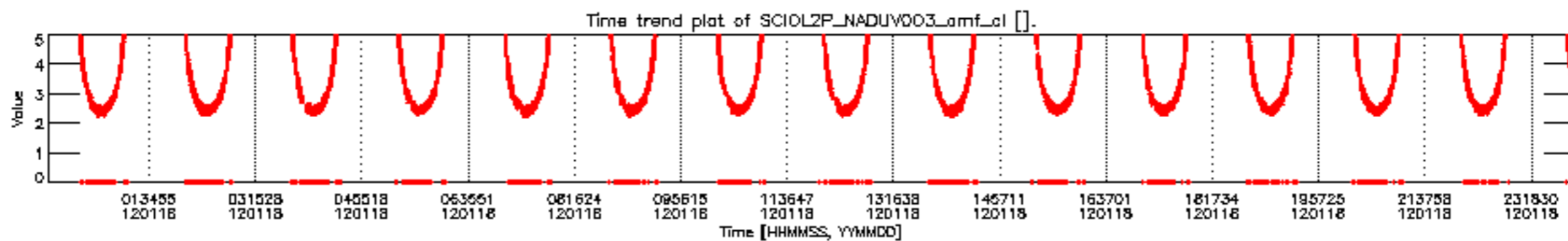
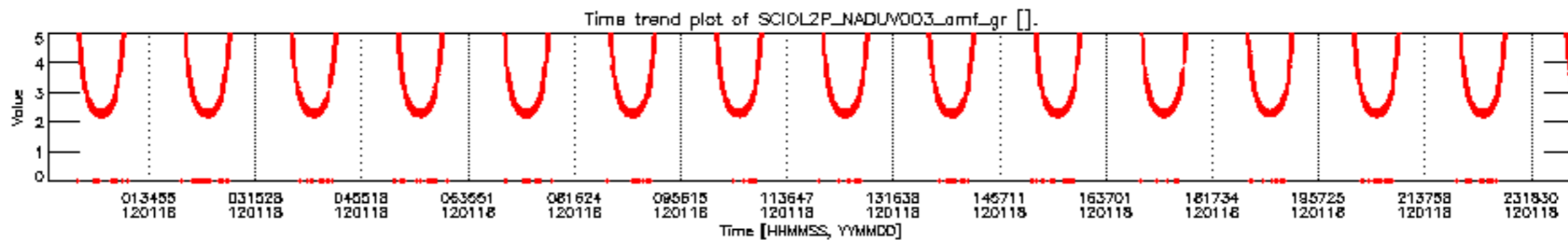
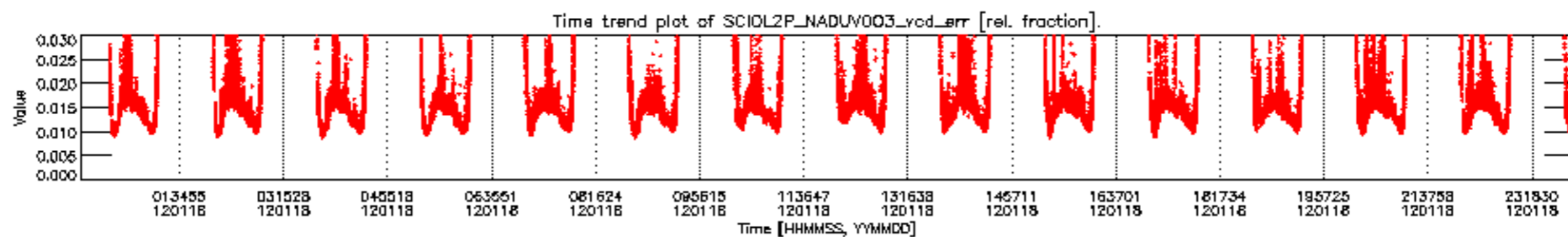
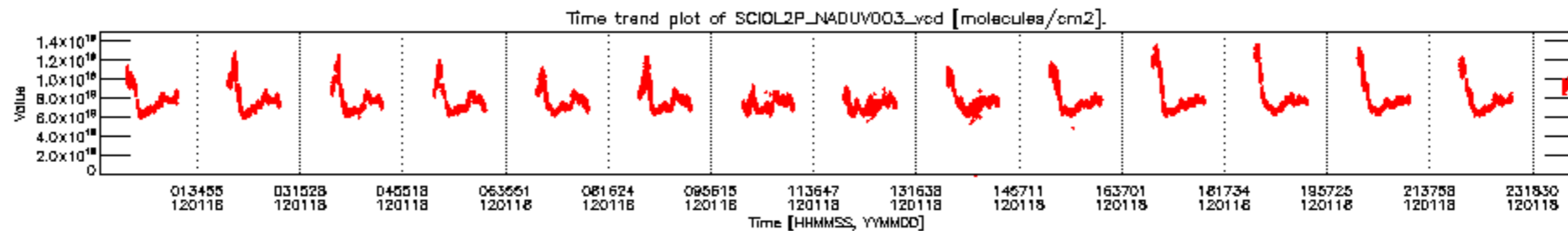


cLopt\_depth for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



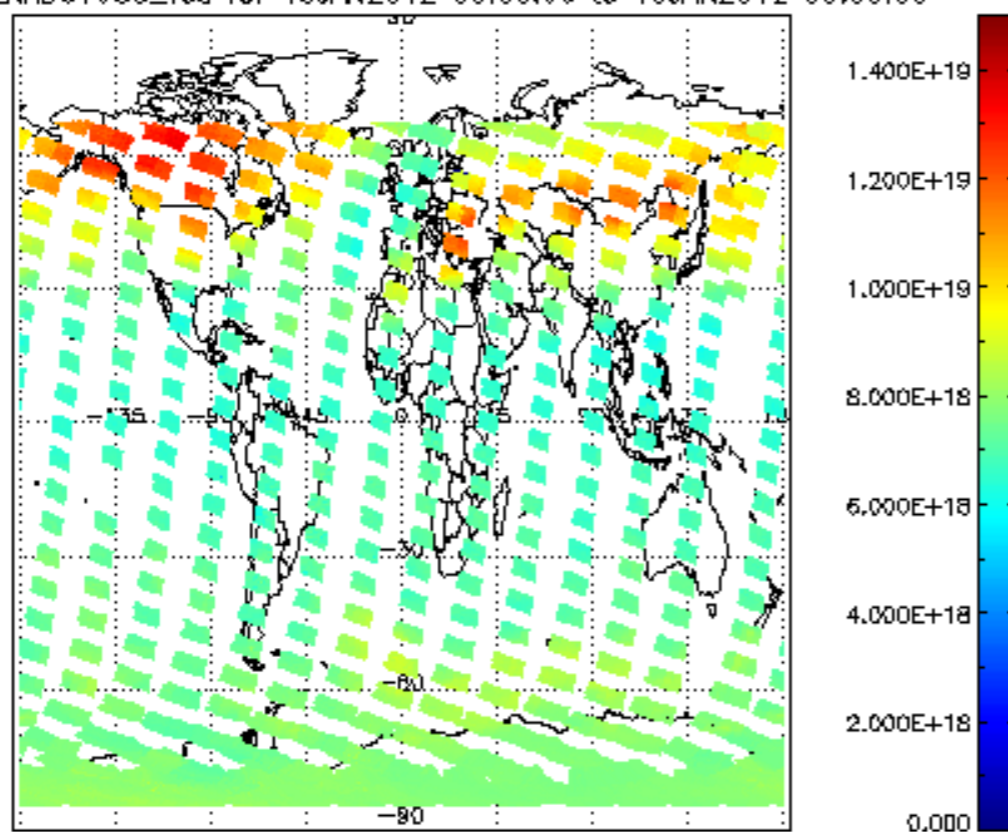
cloud\_flags for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



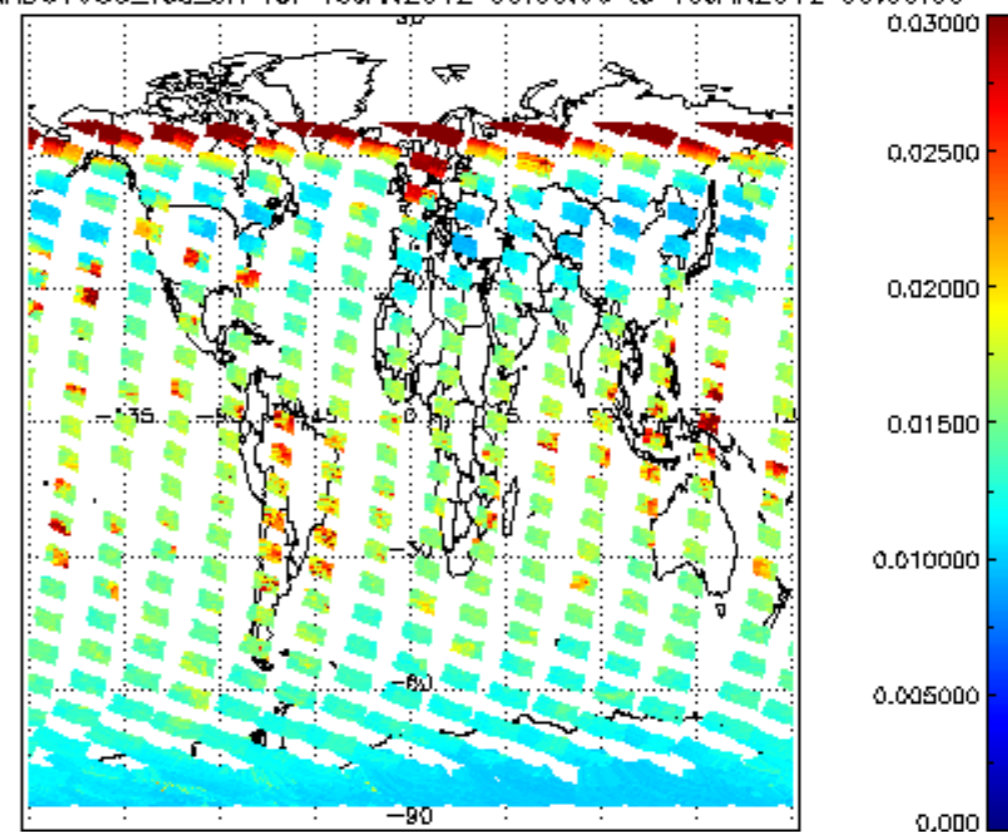




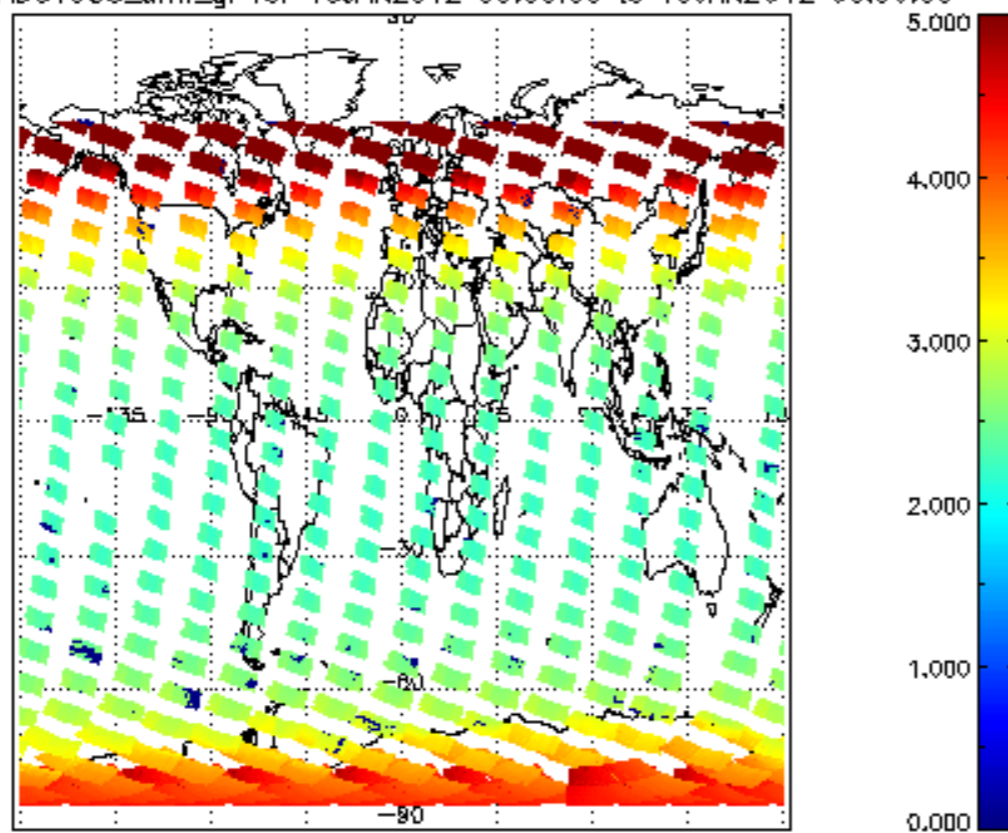
SCIOL2P\_NADUV003\_vcd for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



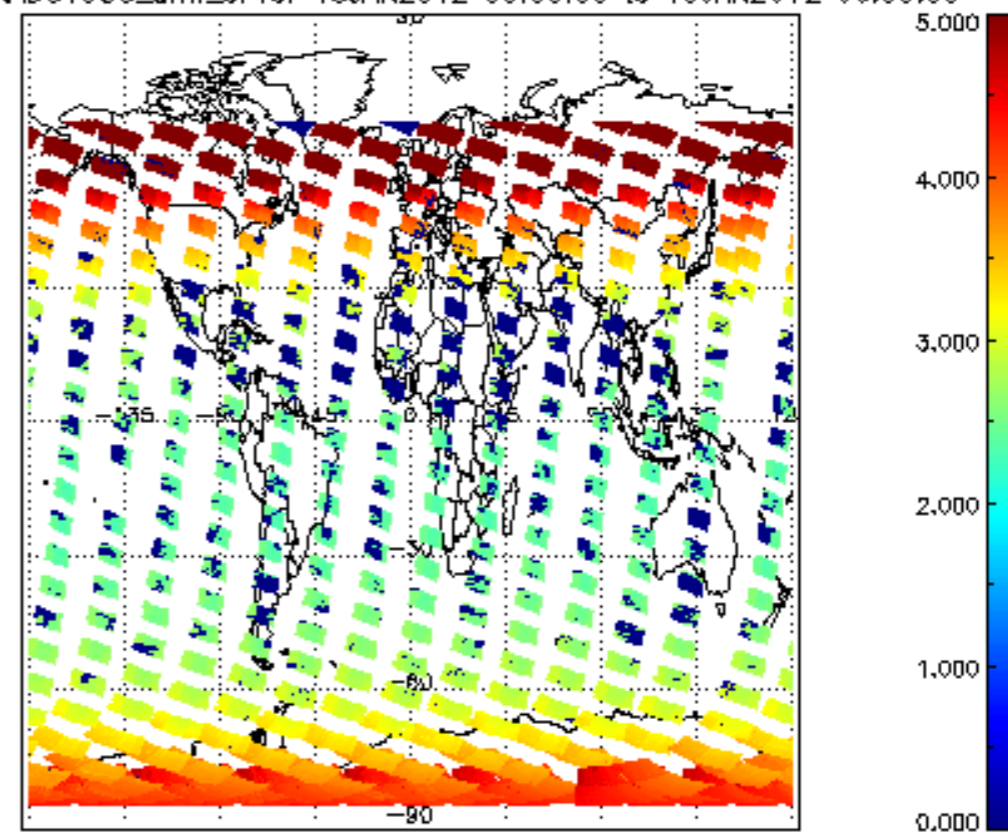
SCIOL2P\_NADUV003\_vcd\_err for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

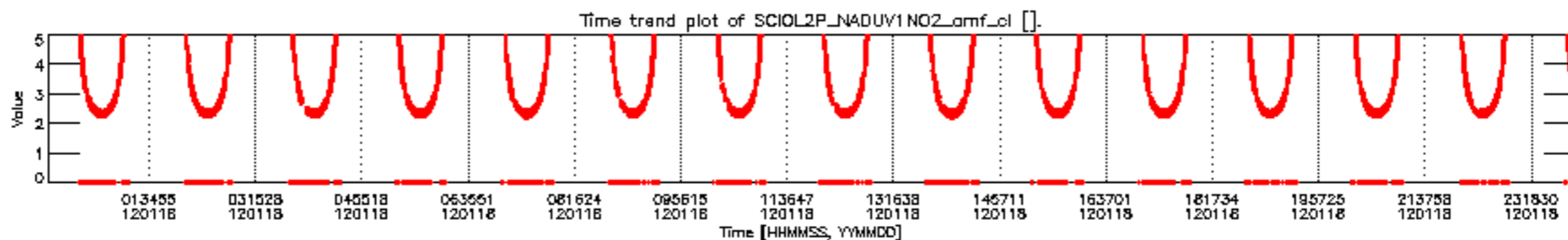
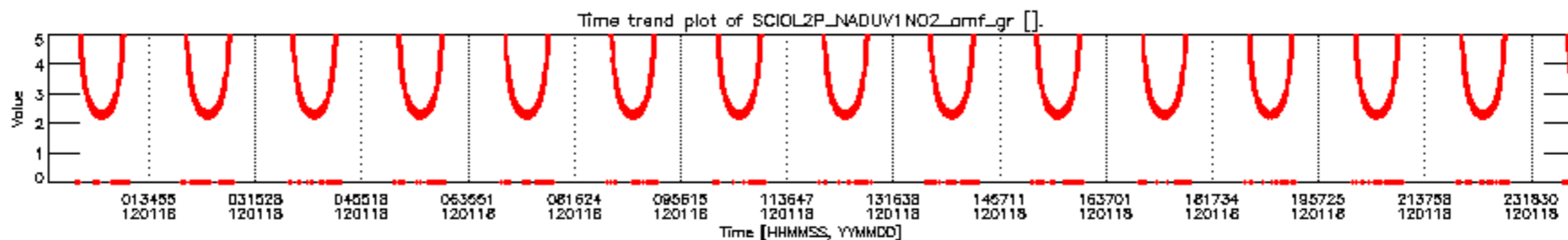
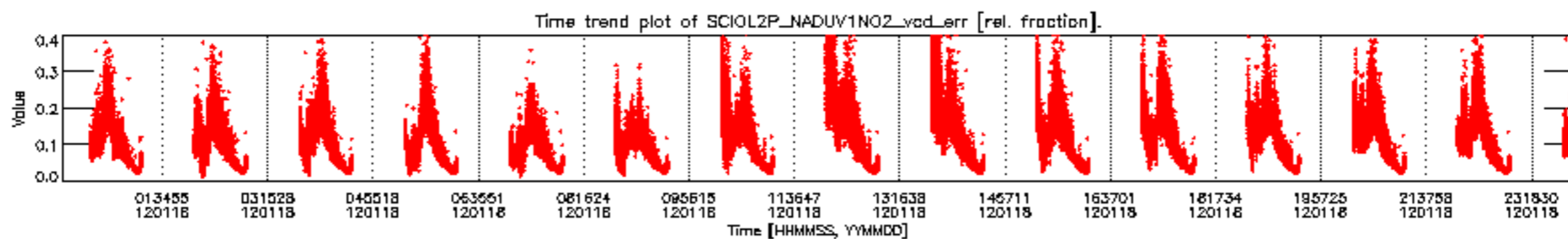
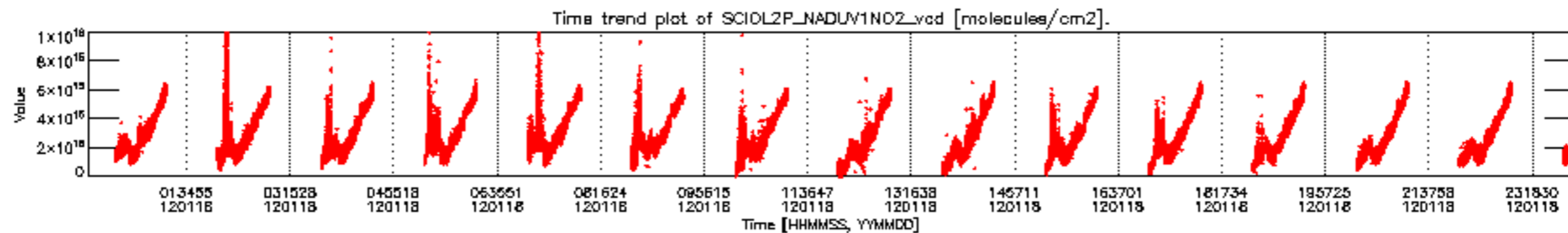


SCIOL2P\_NADUV003\_amf\_gr for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

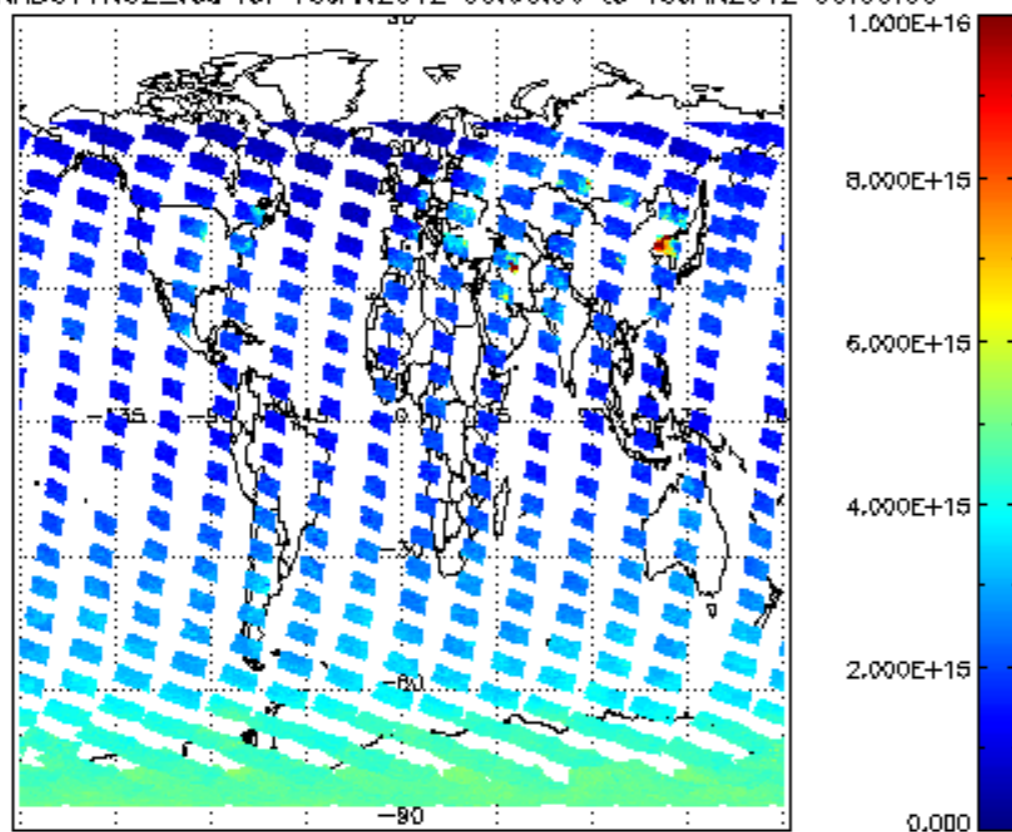


SCIOL2P\_NADUV003\_amf\_cl for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

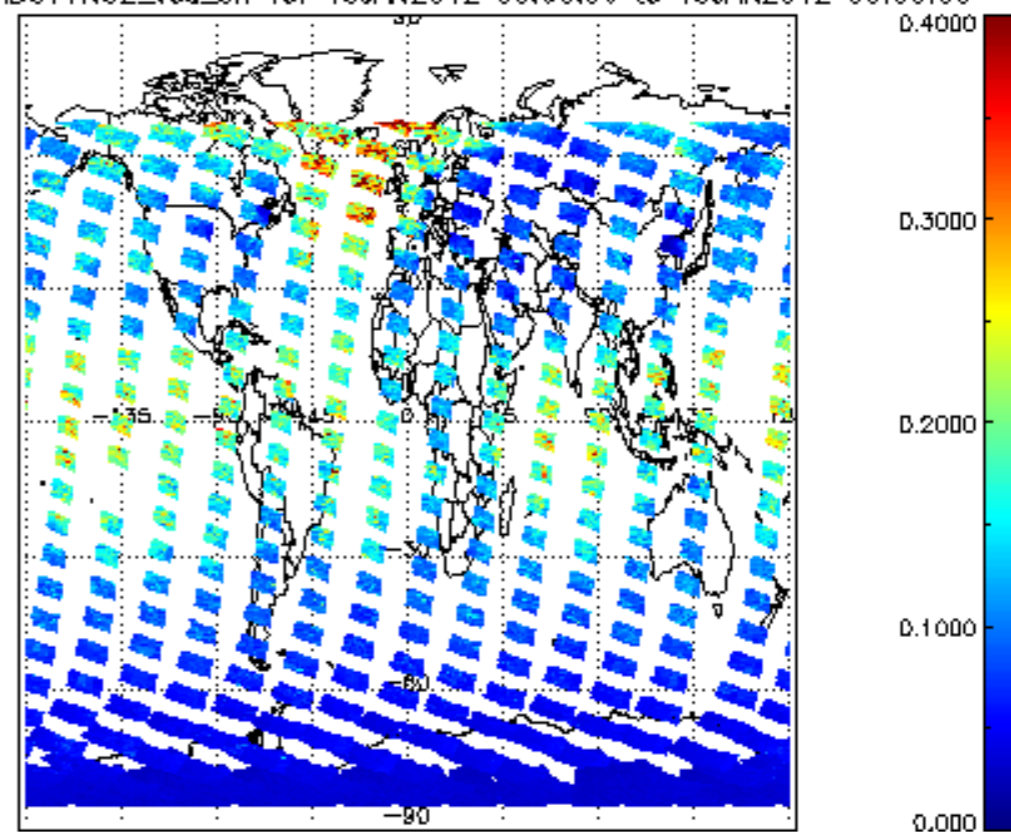




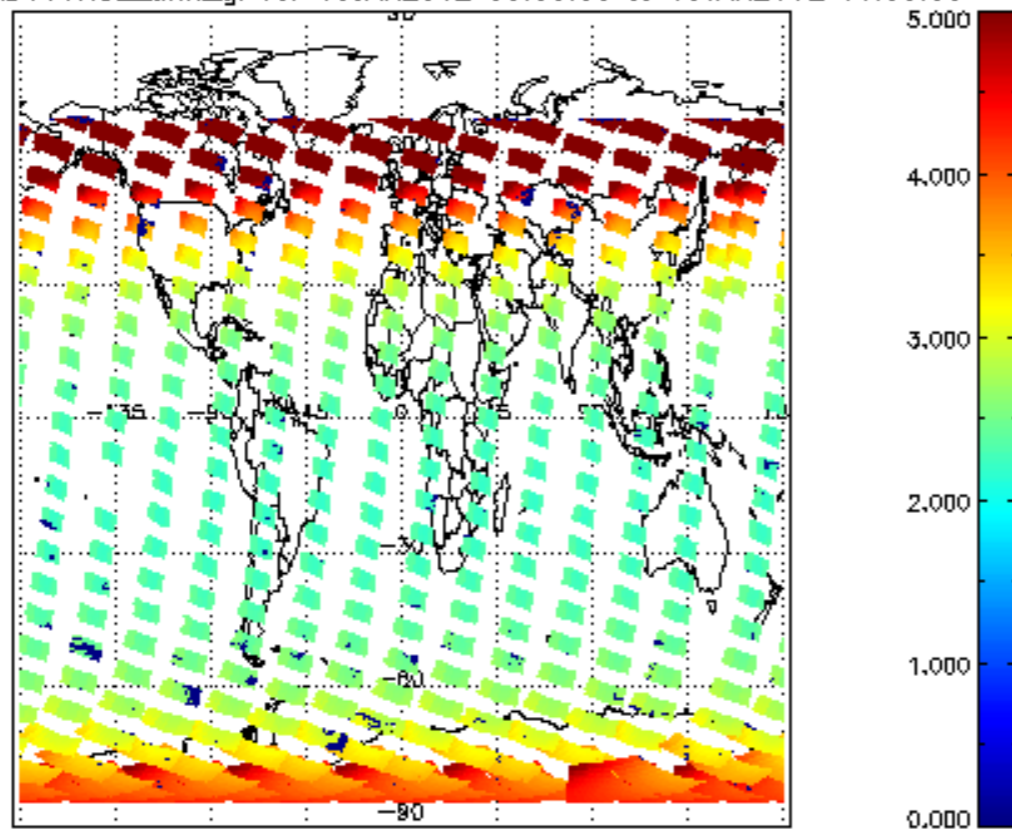
SCIOL2P\_NADUV1NO2\_vcd for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



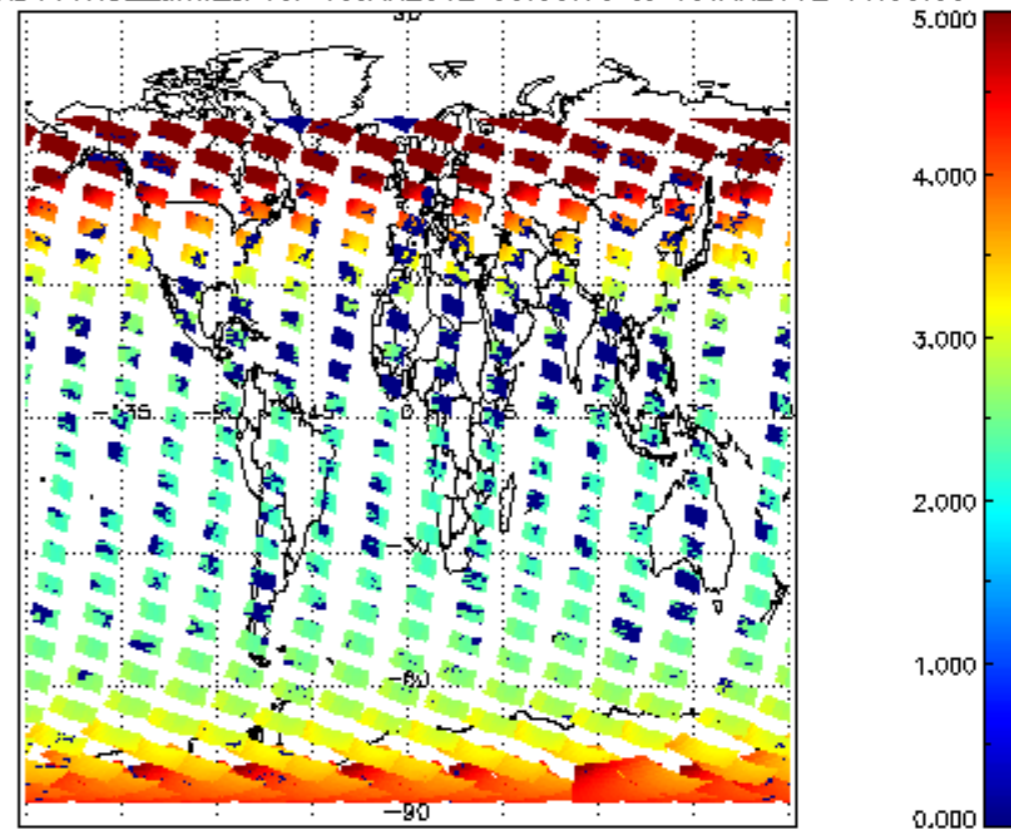
SCIOL2P\_NADUV1NO2\_vcd\_err for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

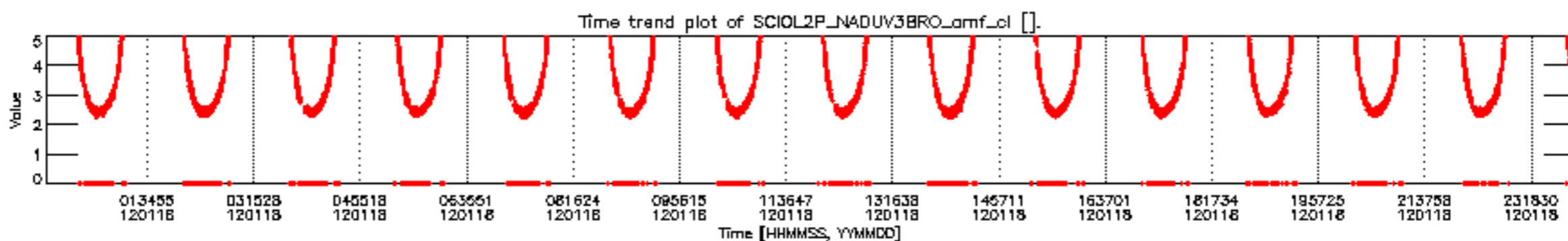
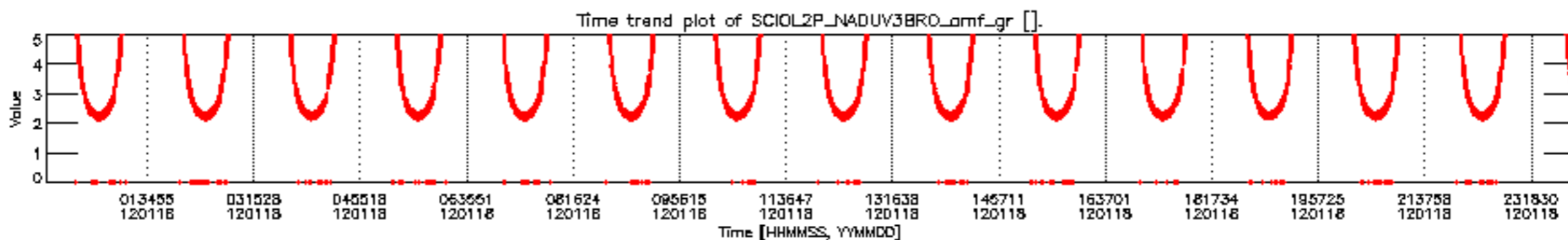
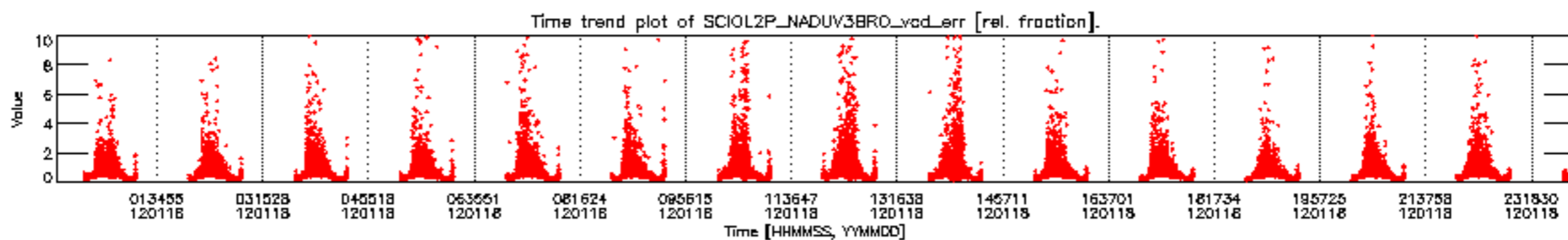
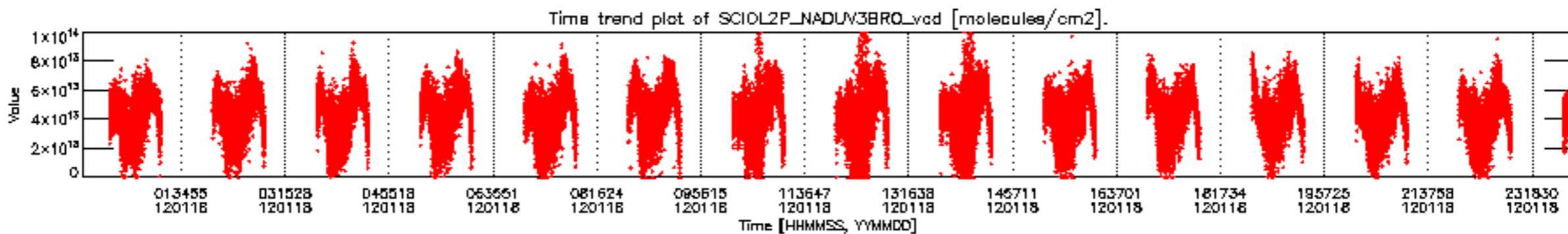


SCIOL2P\_NADUV1NO2\_amf\_gr for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

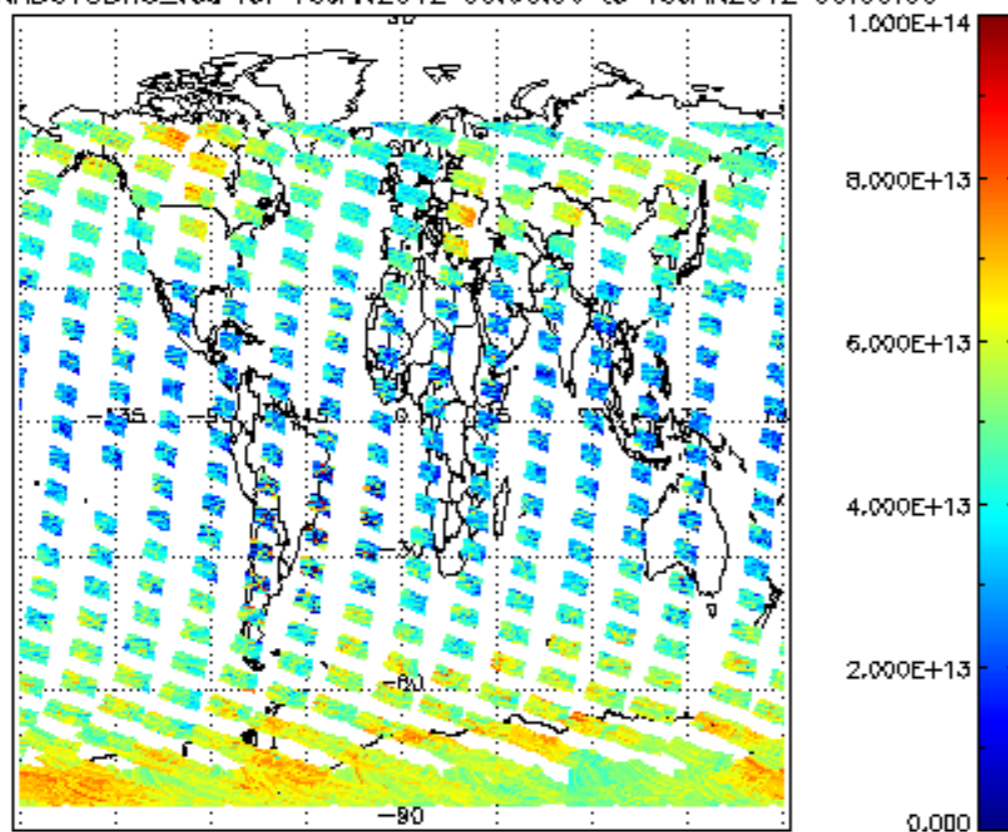


SCIOL2P\_NADUV1NO2\_amf\_cl for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

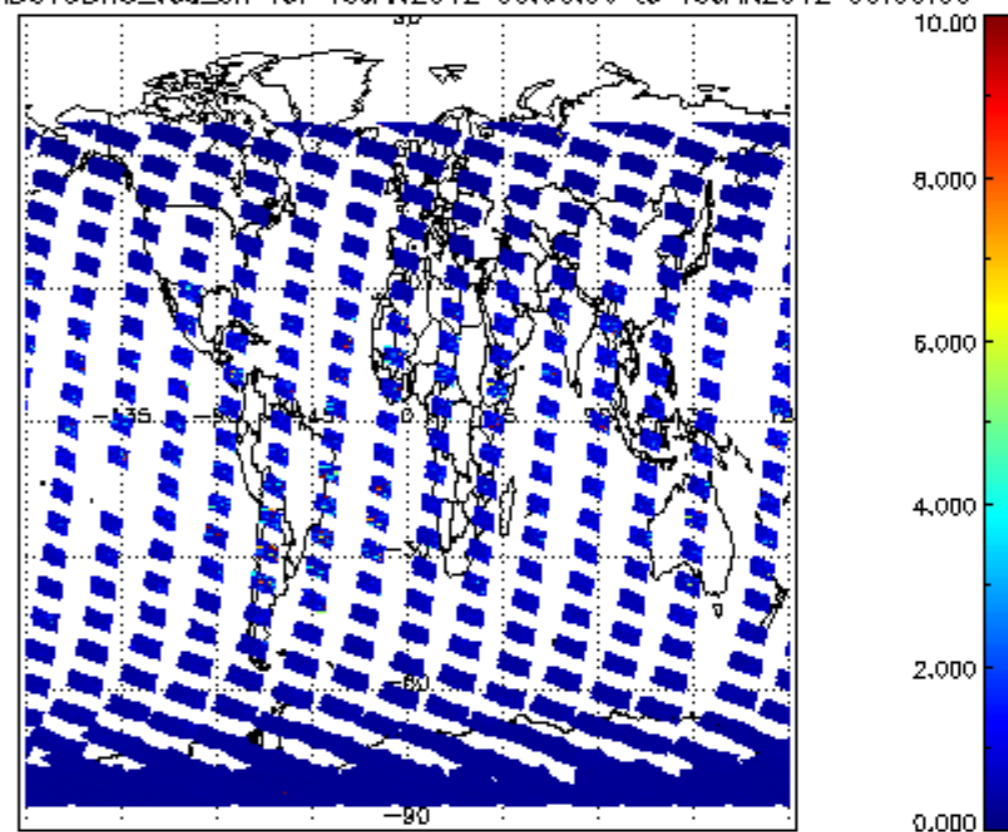




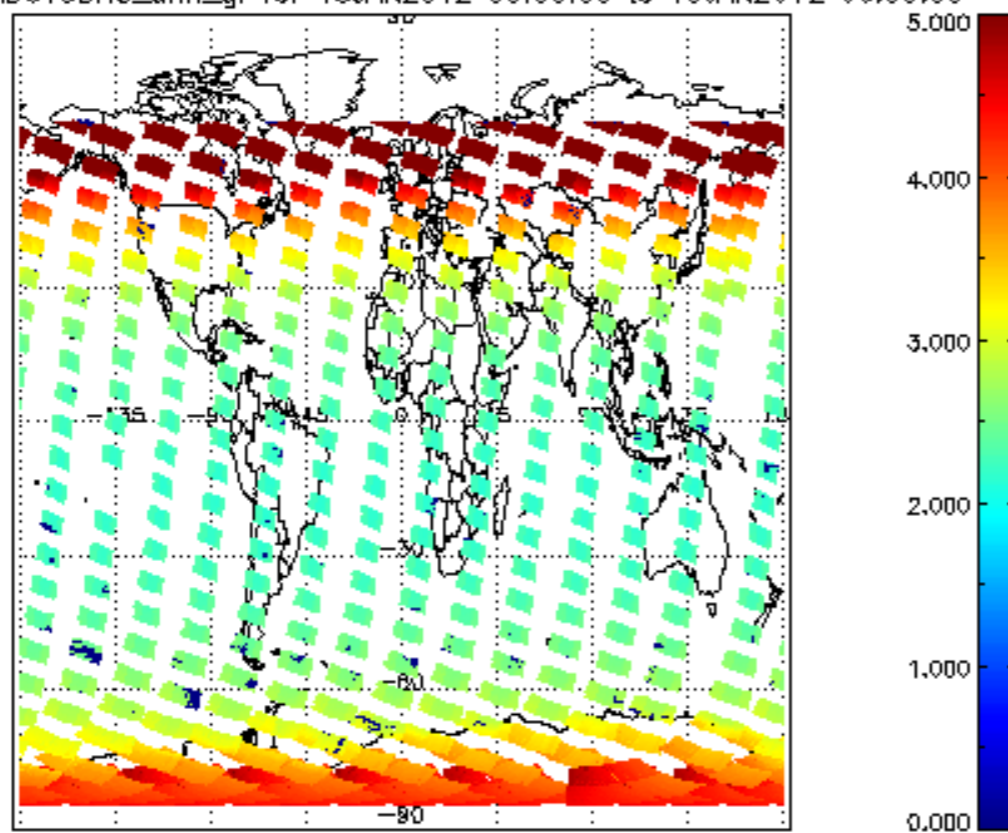
SCIOL2P\_NADUV3BRO\_vcd for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



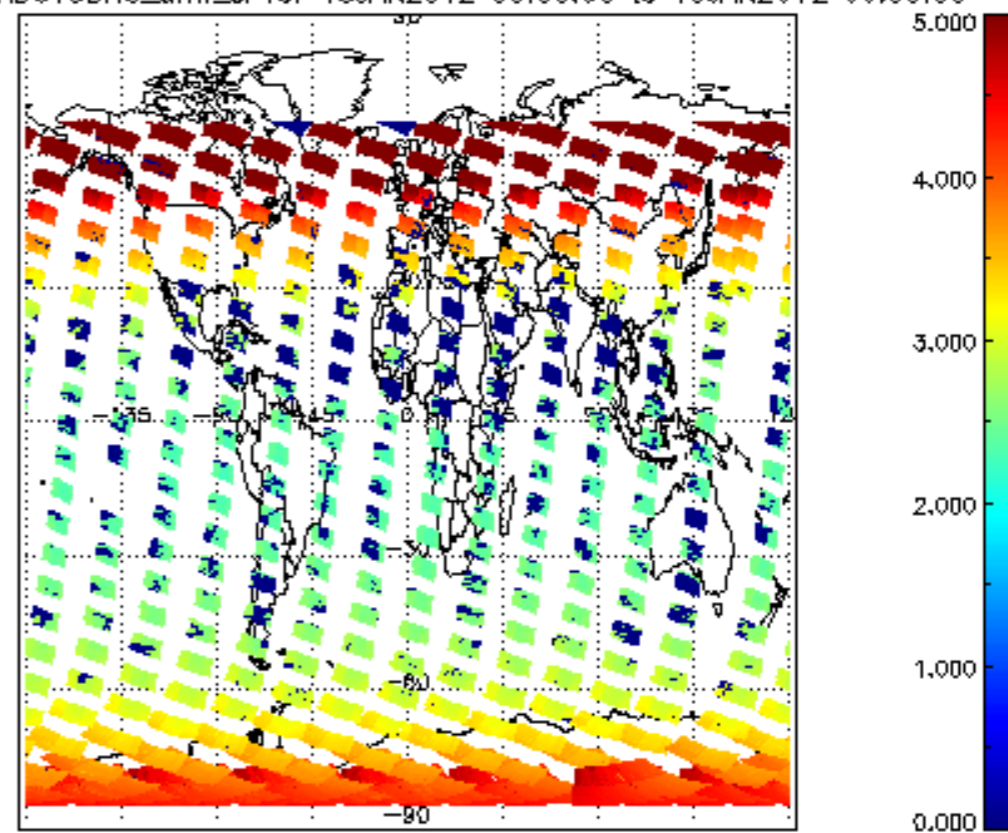
SCIOL2P\_NADUV3BRO\_vcd\_err for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

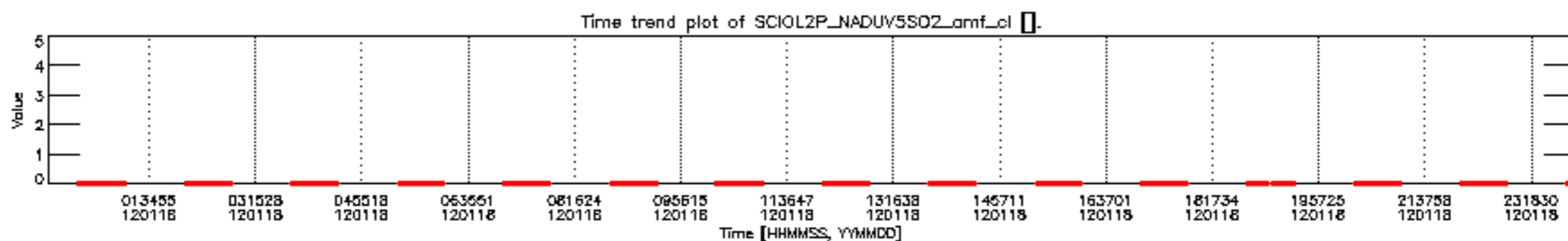
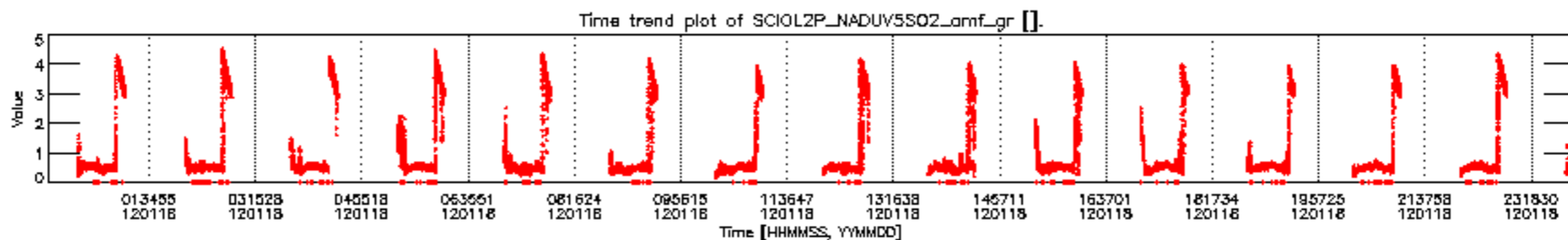
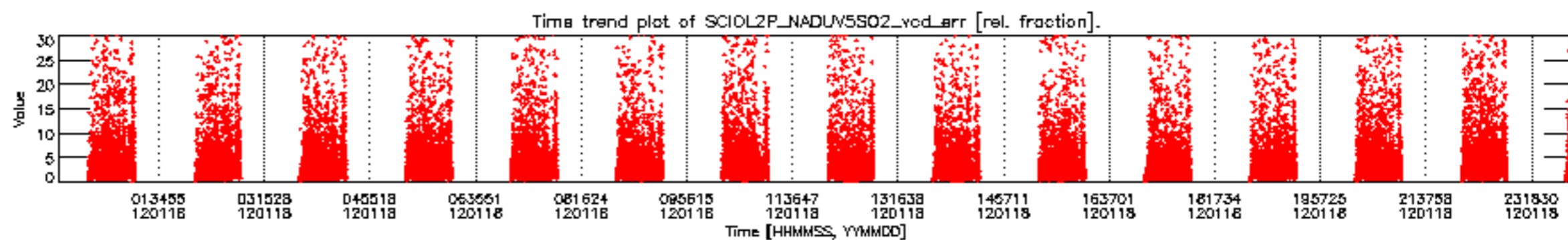
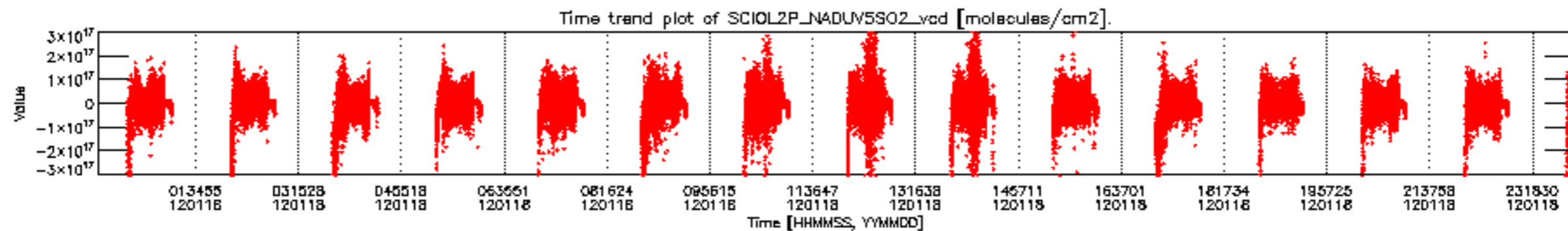


SCIOL2P\_NADUV3BRO\_amf\_gr for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

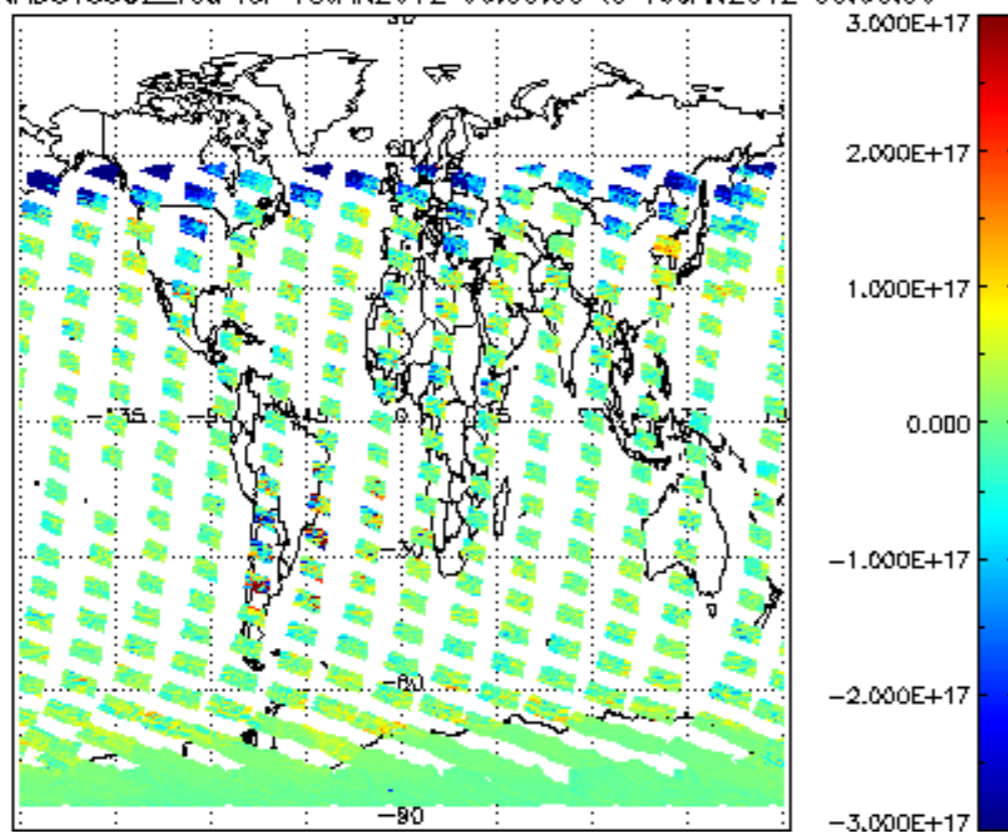


SCIOL2P\_NADUV3BRO\_amf\_cl for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

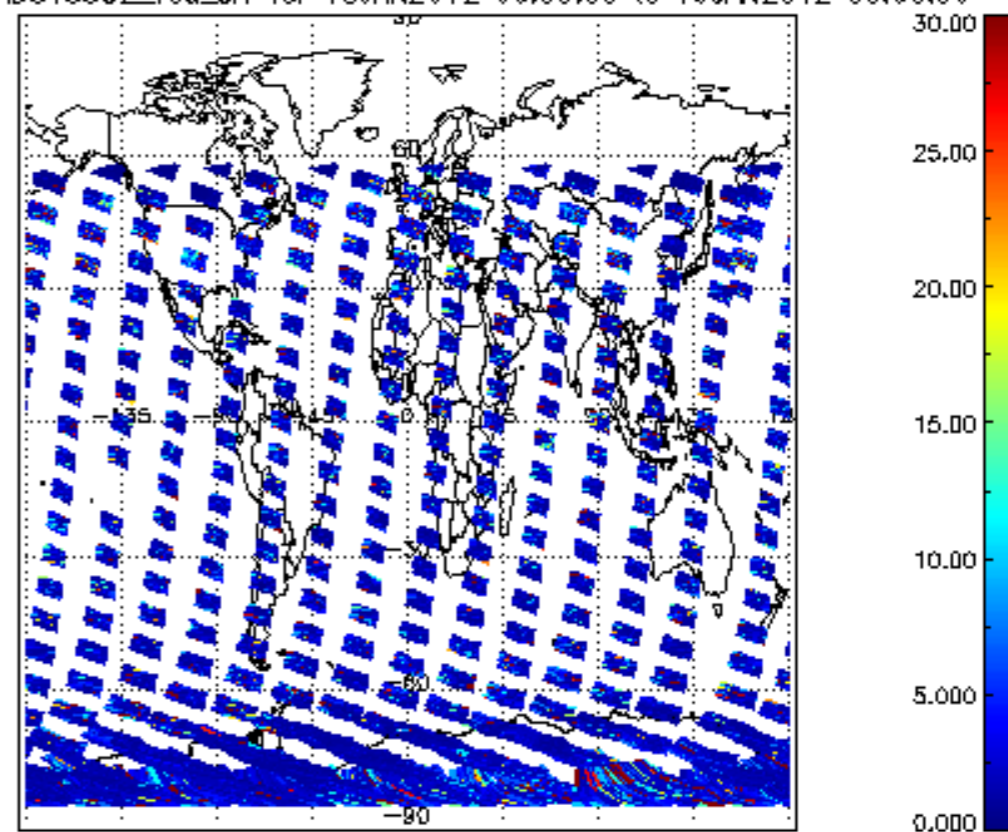




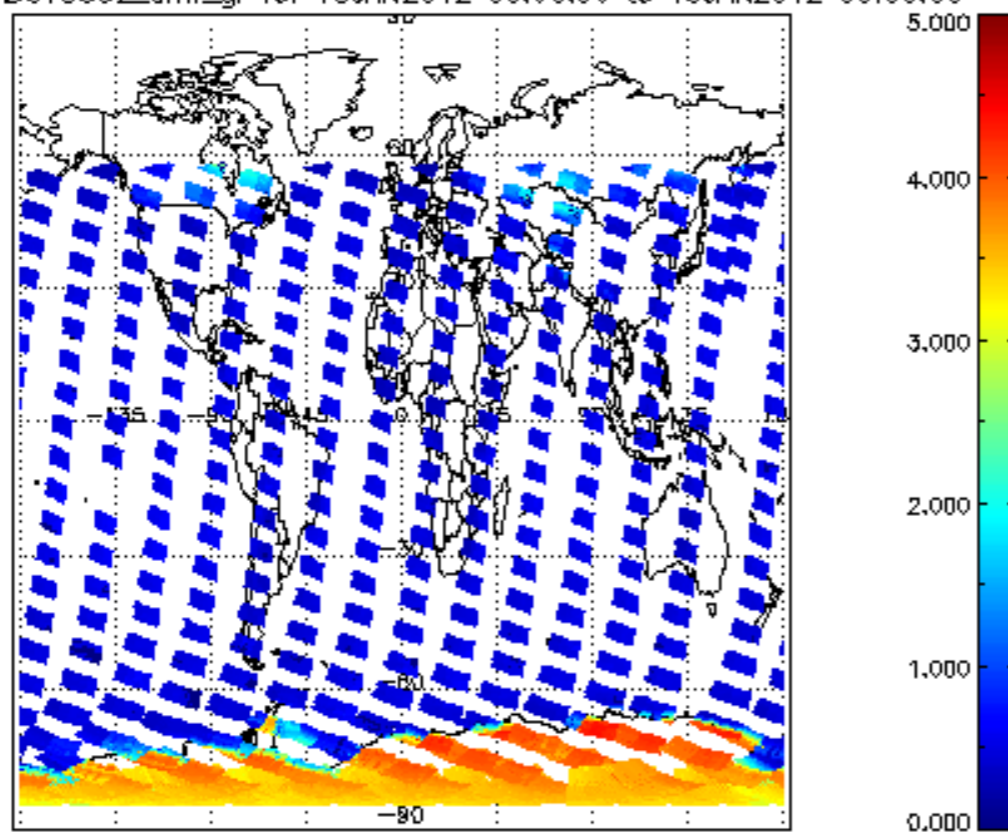
SCIOL2P\_NADUV5S02\_vcd for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



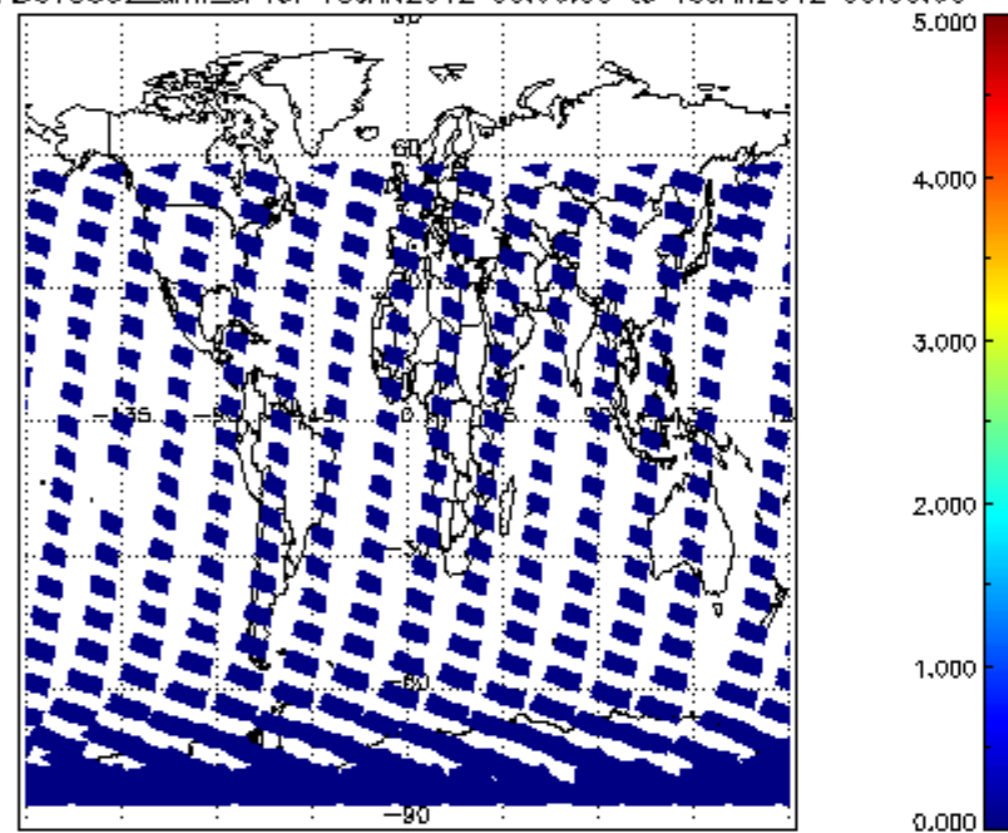
SCIOL2P\_NADUV5S02\_vcd\_err for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

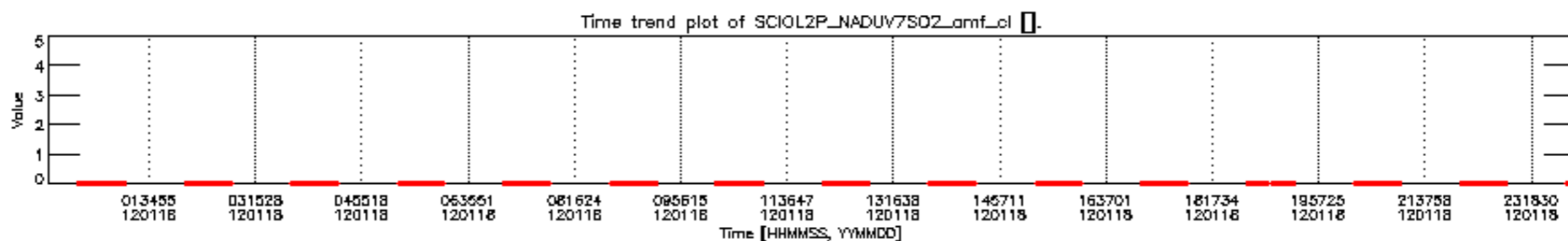
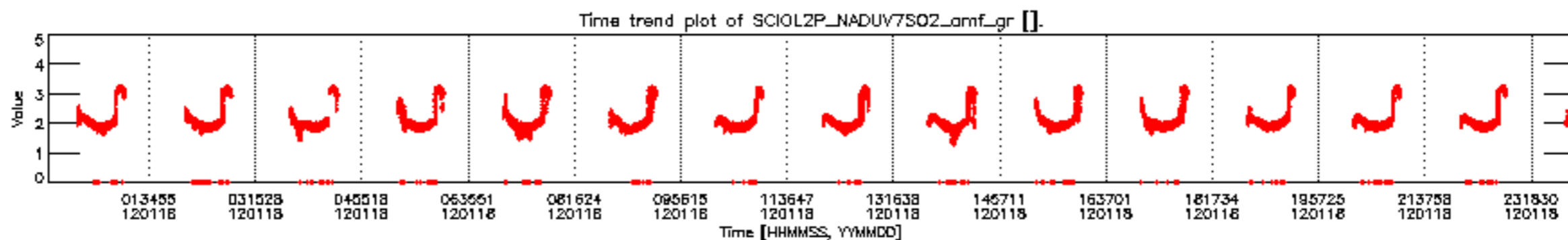
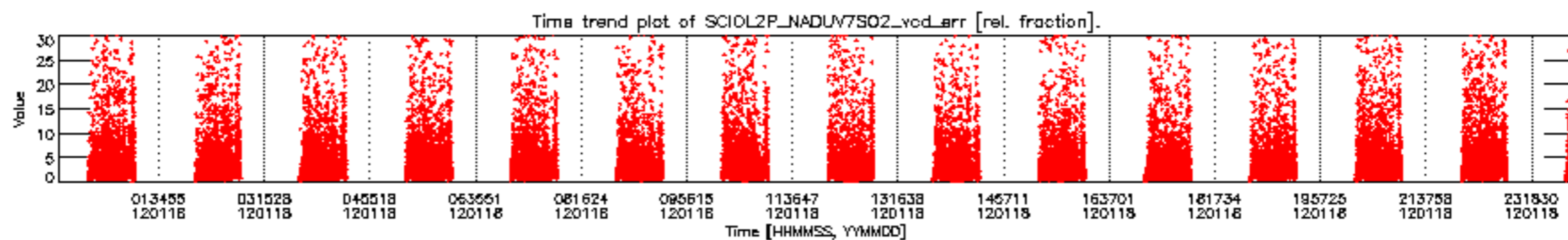
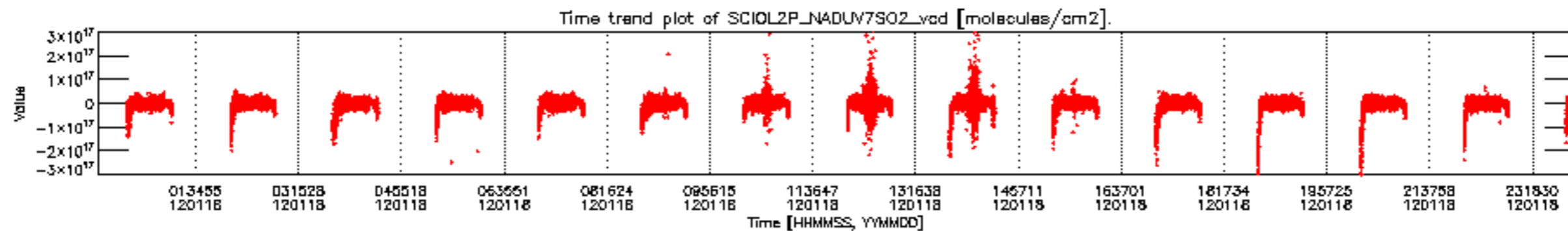


SCIOL2P\_NADUV5S02\_amf\_gr for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



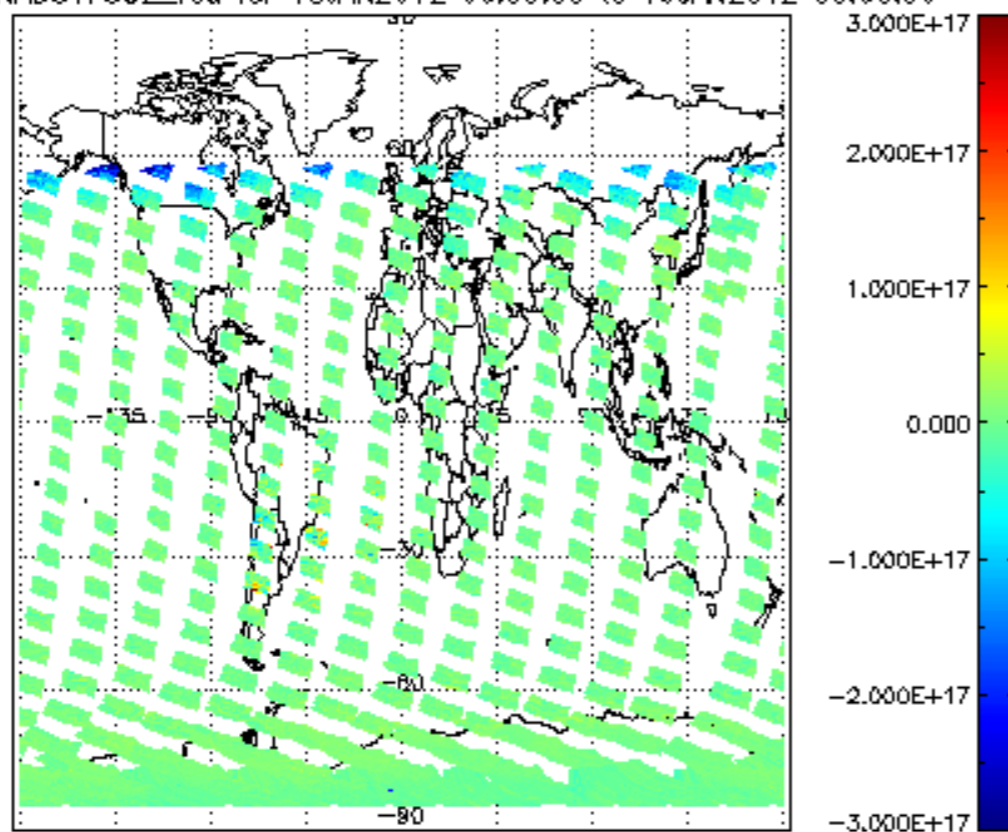
SCIOL2P\_NADUV5S02\_amf\_cl for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



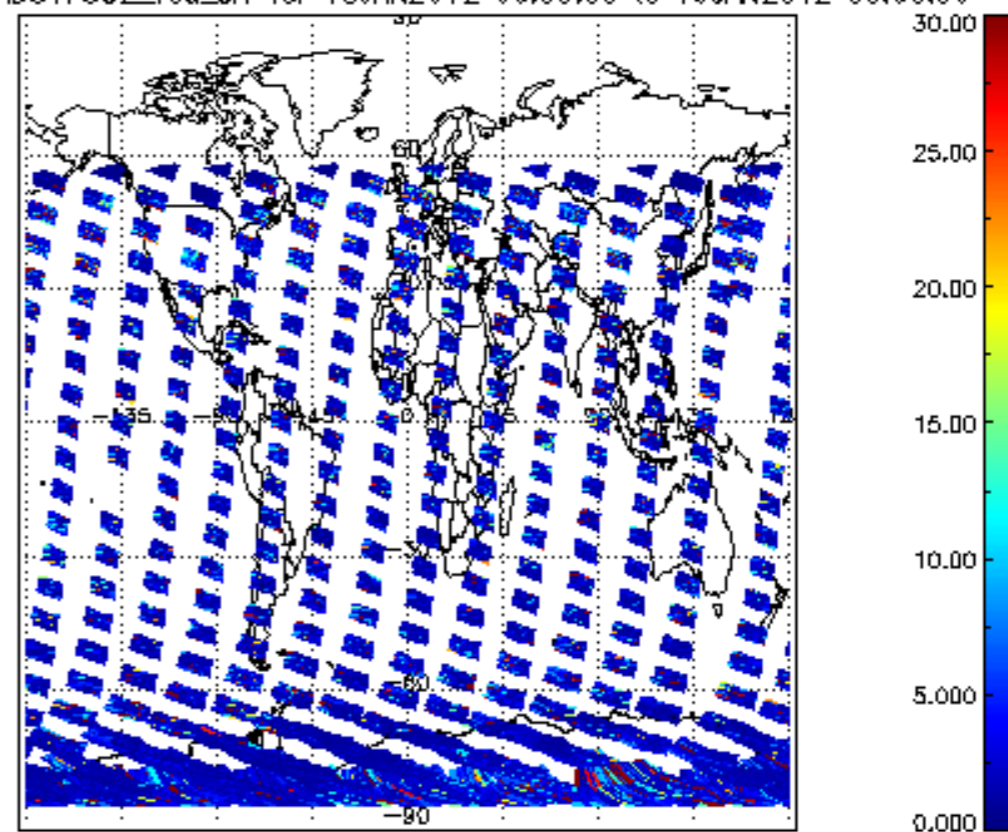




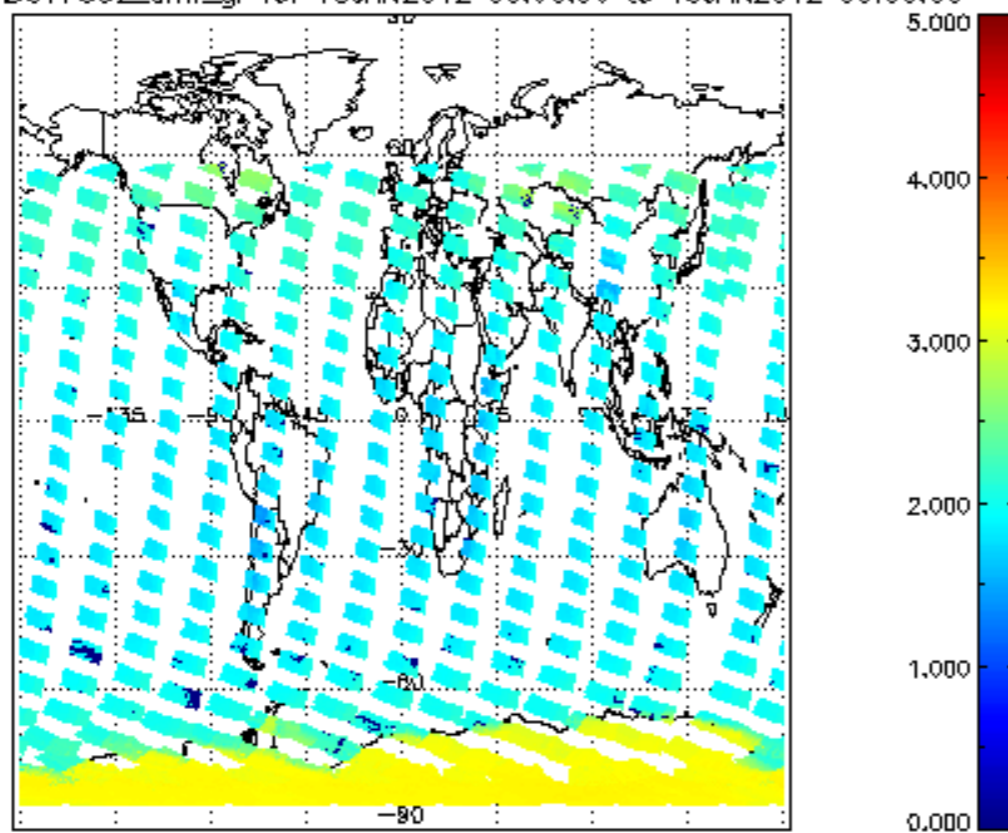
SCIOL2P\_NADUV7S02\_vcd for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



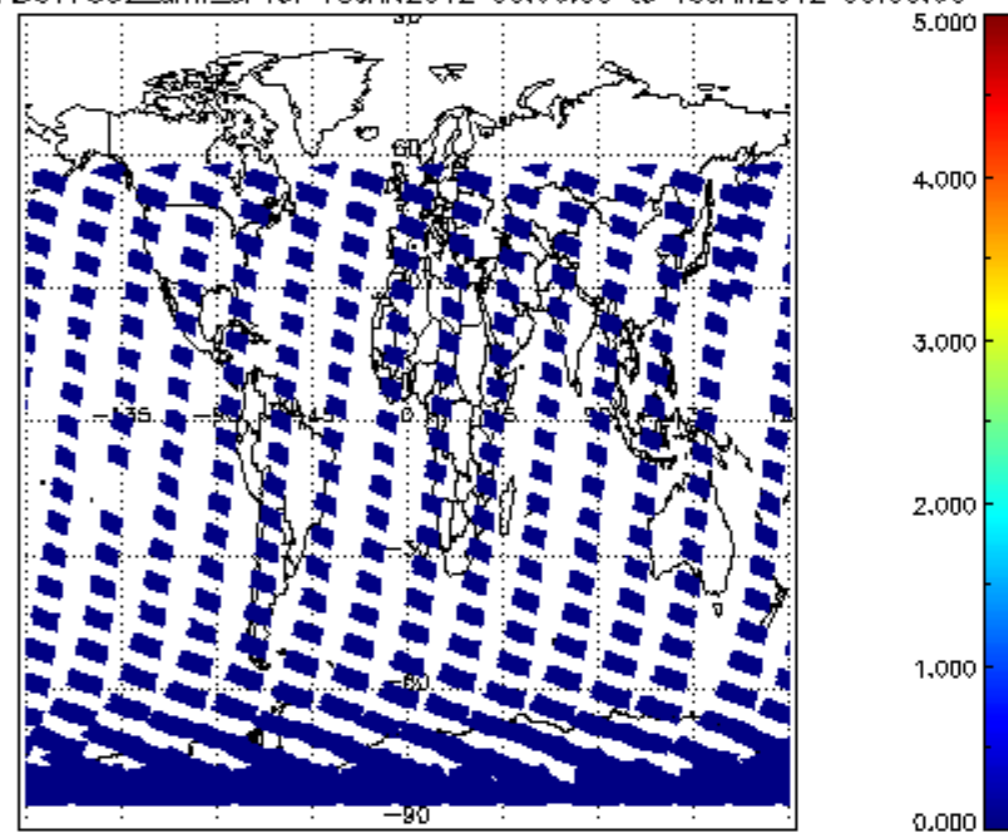
SCIOL2P\_NADUV7S02\_vcd\_err for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

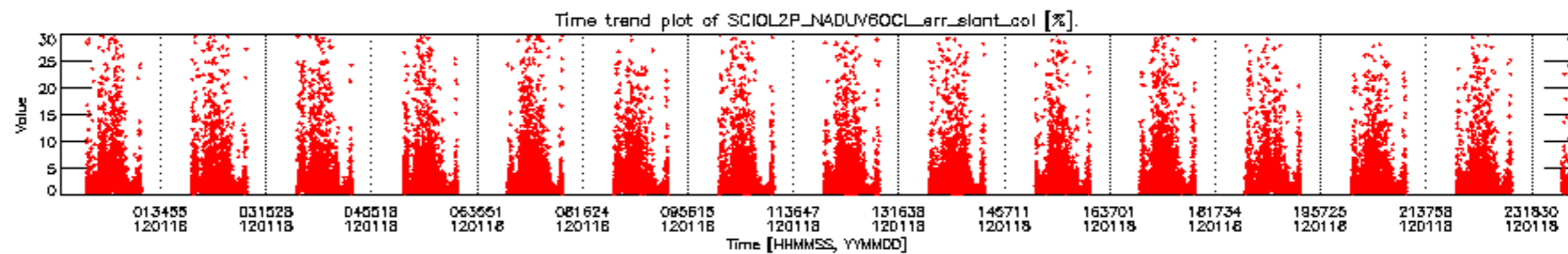
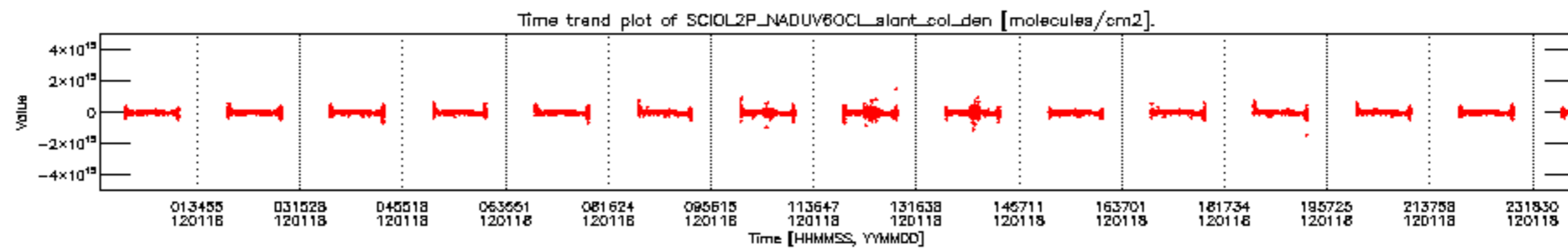


SCIOL2P\_NADUV7S02\_amf\_gr for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

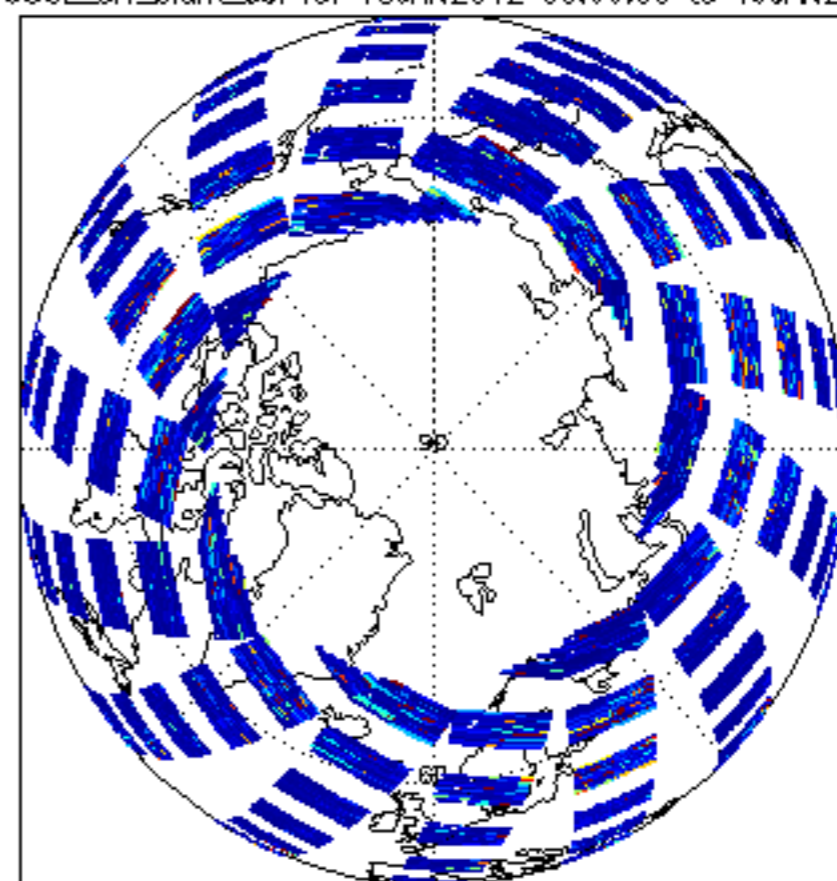
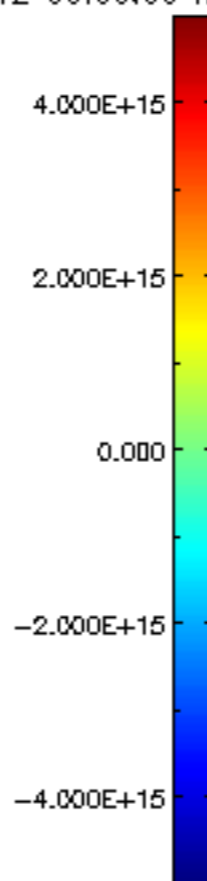
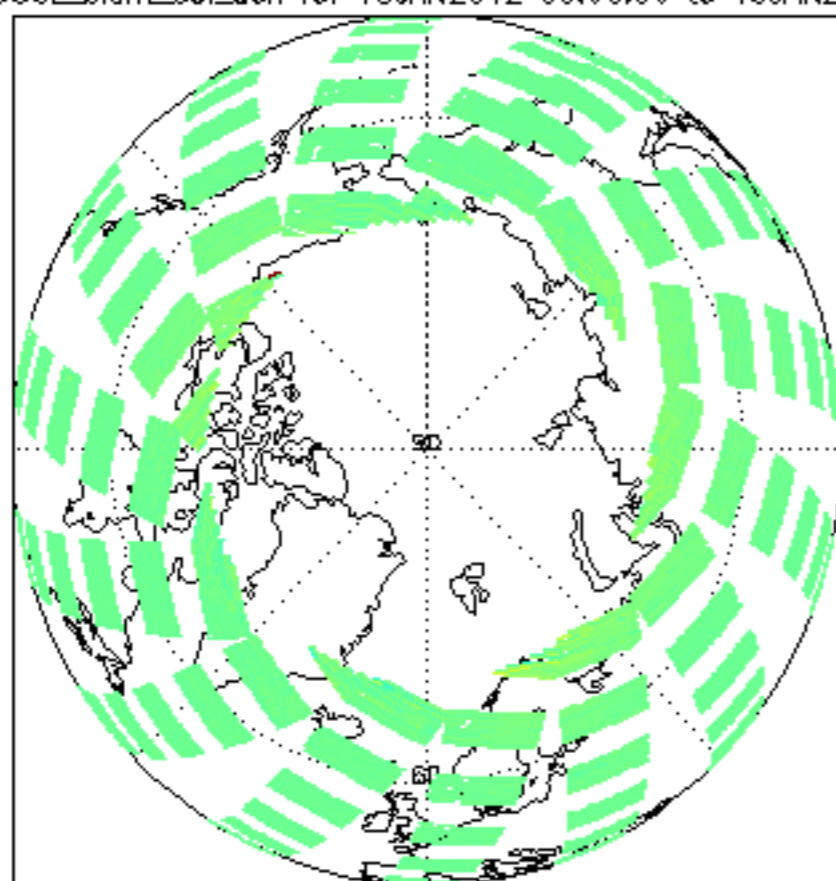


SCIOL2P\_NADUV7S02\_amf\_cl for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

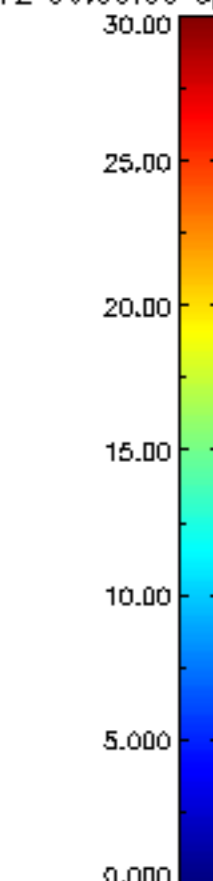
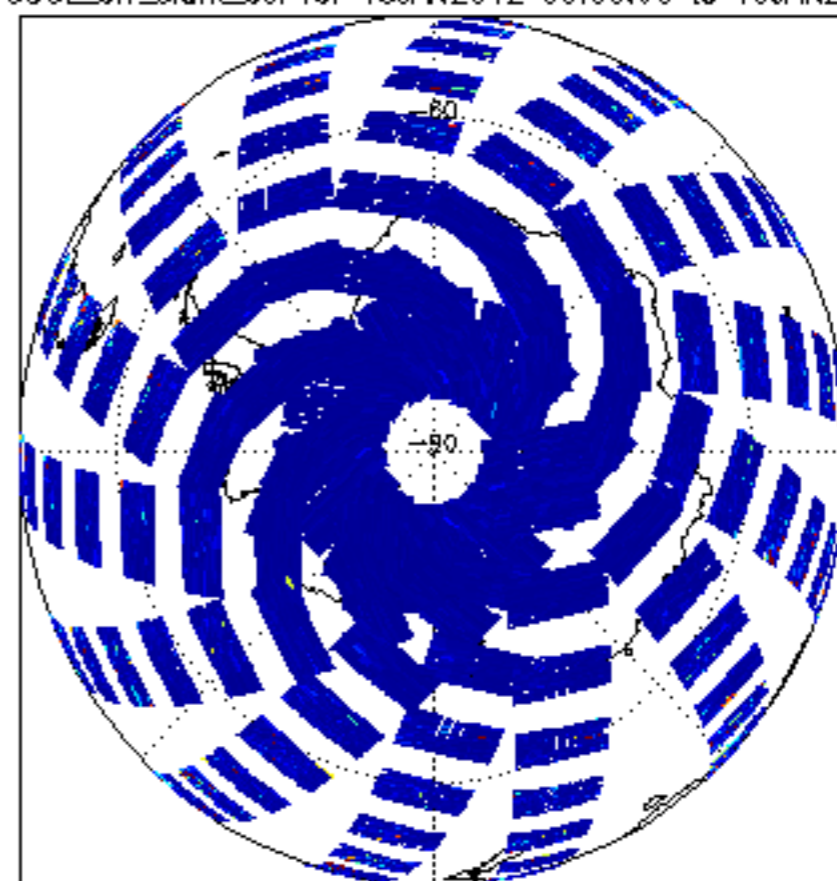
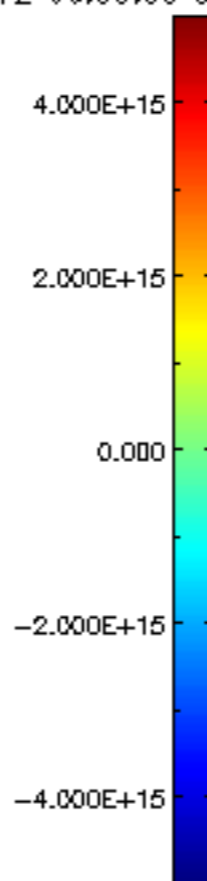
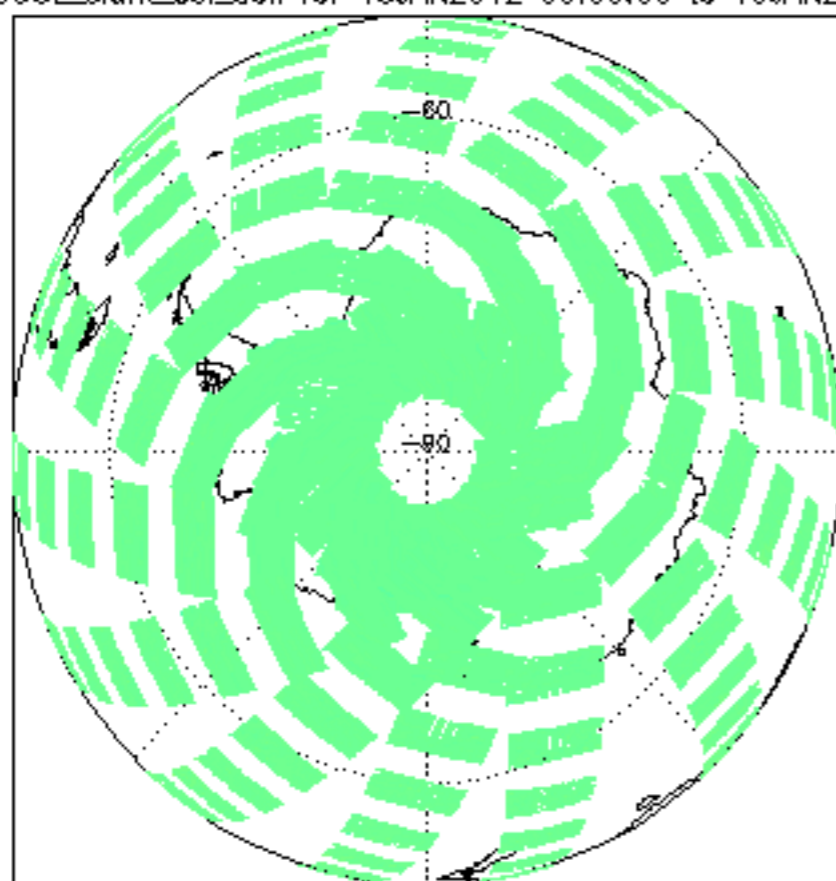


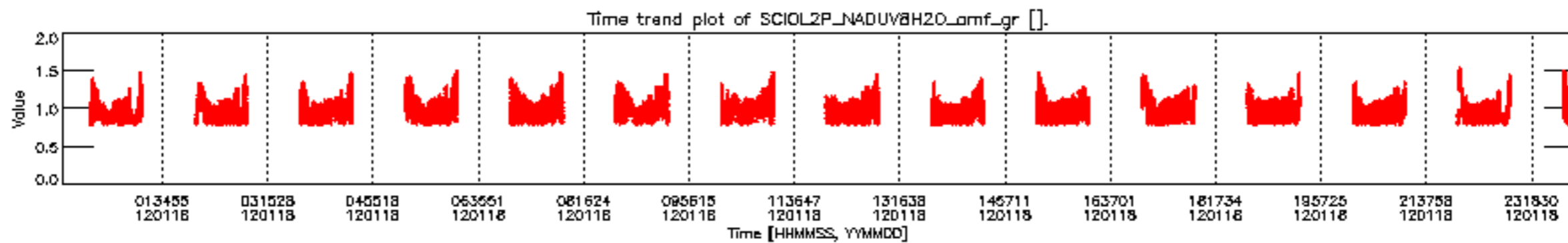
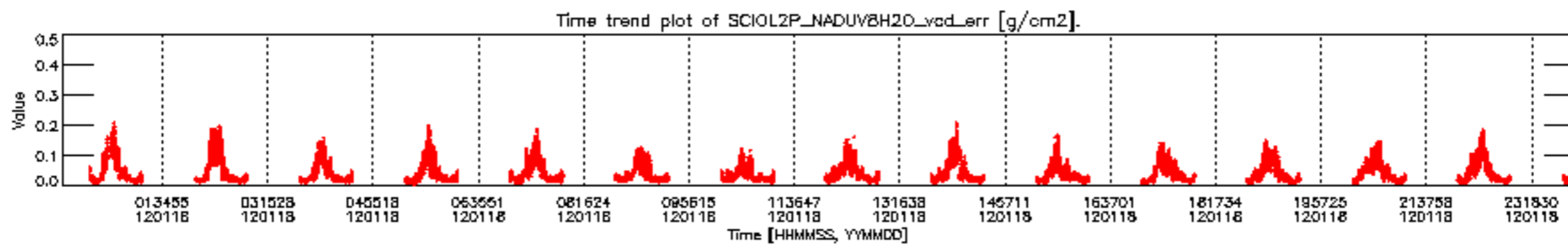
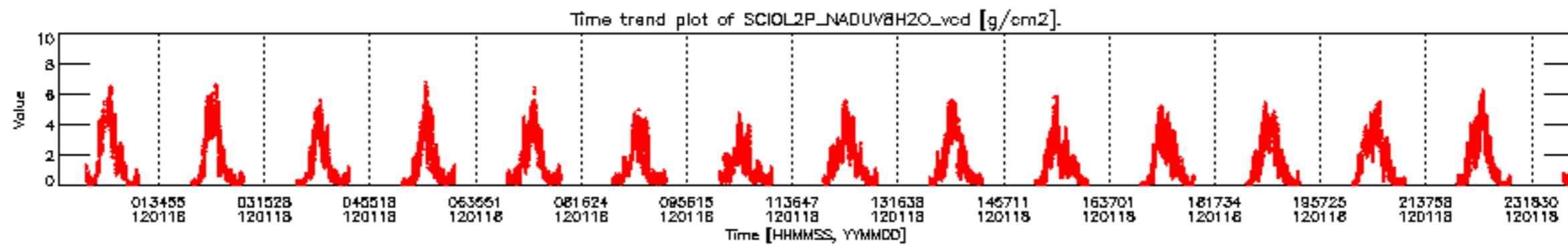


ICIOL2P\_NADUV60CL\_slant\_col\_den for 1BJAN2012 00:00:00 to 19JAN2012 00:00:00 np;ICIOL2P\_NADUV60CL\_err\_slant\_col for 1BJAN2012 00:00:00 to 19JAN2012 00:00:00 np

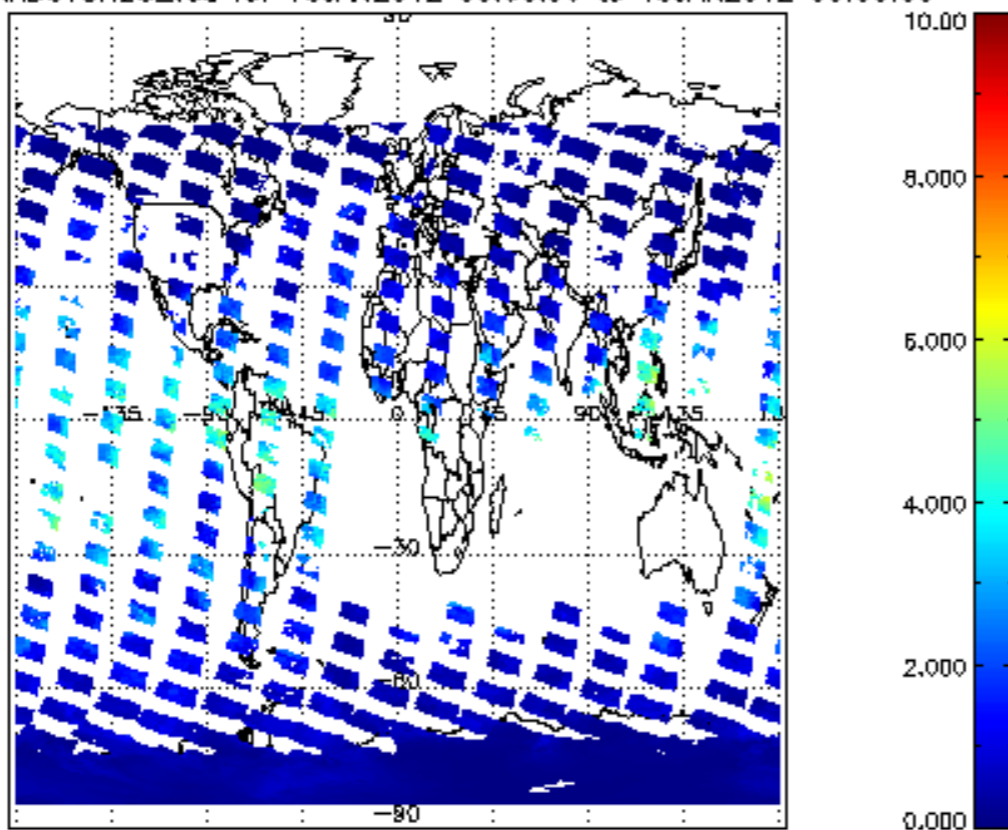


iCIOL2P\_NADUV6OCL\_slant\_col\_den for 18JAN2012 00:00:00 to 19JAN2012 00:00:00 sp iCIOL2P\_NADUV6OCL\_err\_slant\_col for 18JAN2012 00:00:00 to 19JAN2012 00:00:00 sp

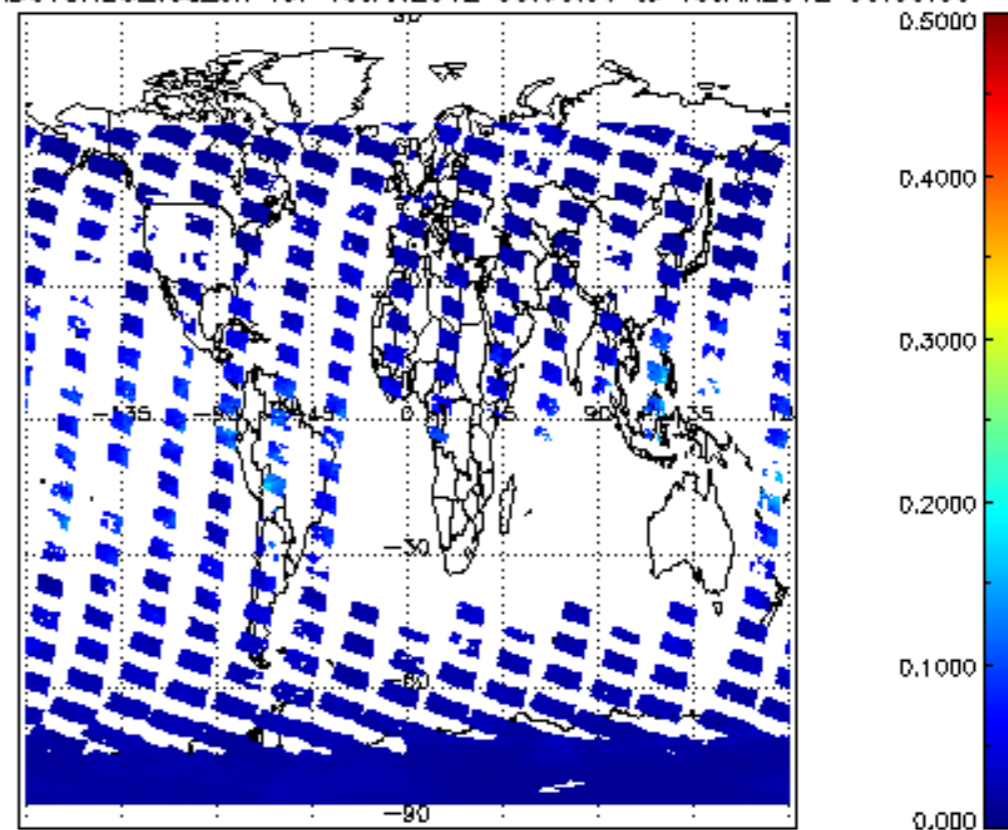




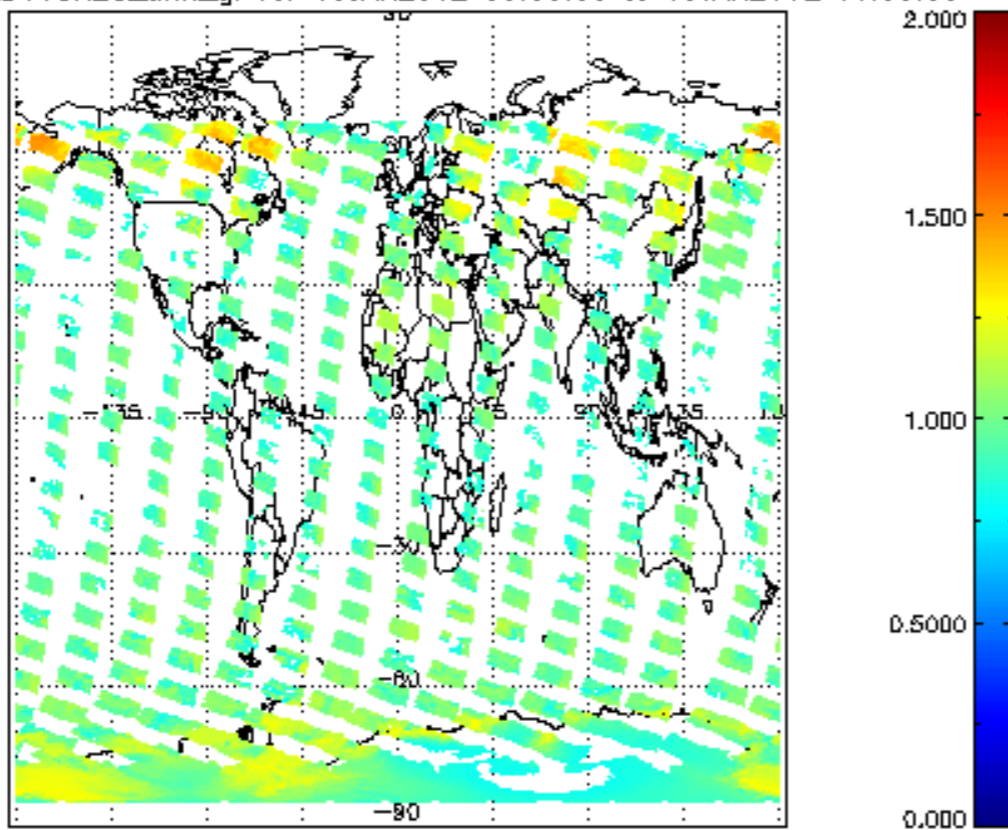
SCIOL2P\_NADUV8H20\_vcd for 18JAN2012 00:00:00 to 19JAN2012 00:00:00



SCIOL2P\_NADUV8H20\_vcd\_err for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

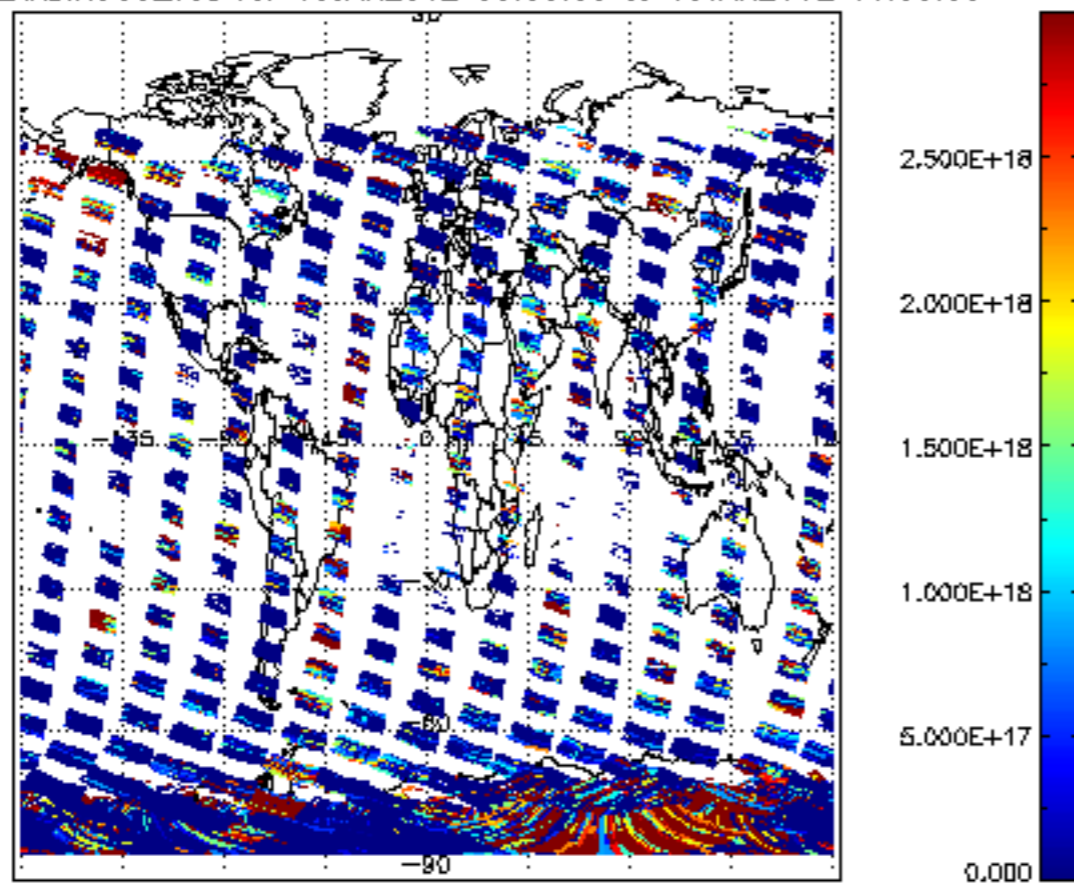


SCIOL2P\_NADUV8H20\_amf\_gr for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

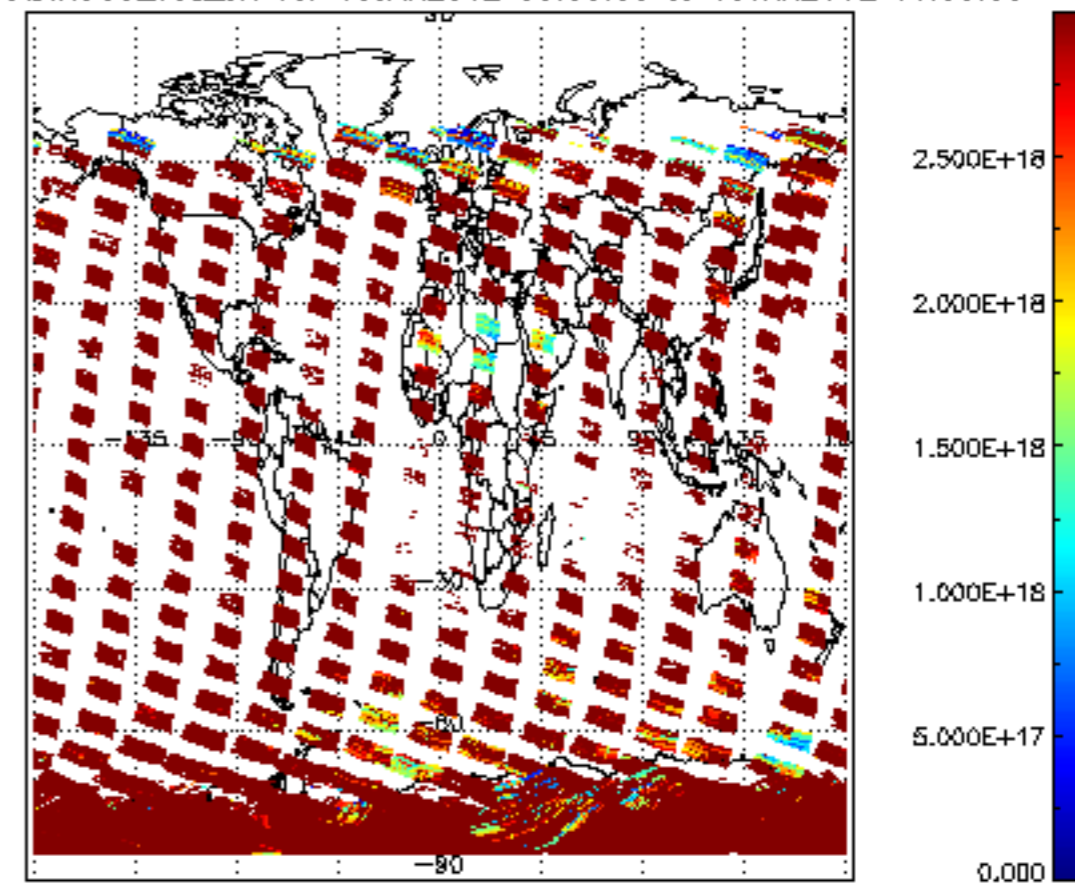




SCIOL2P\_NADIR3CO\_vcd for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

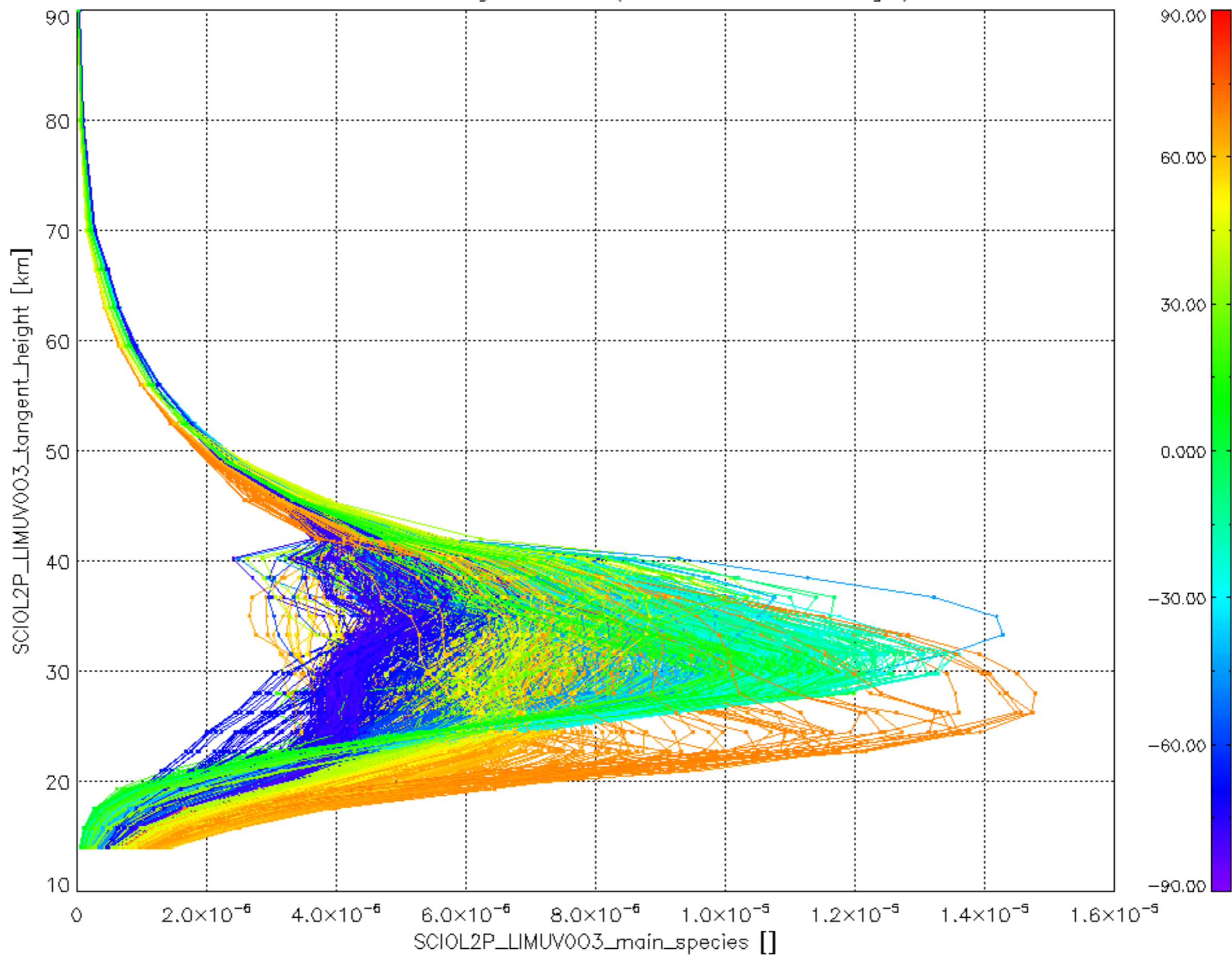


SCIOL2P\_NADIR3CO\_vcd\_err for 18JAN2012 00:00:00 to 19JAN2012 00:00:00

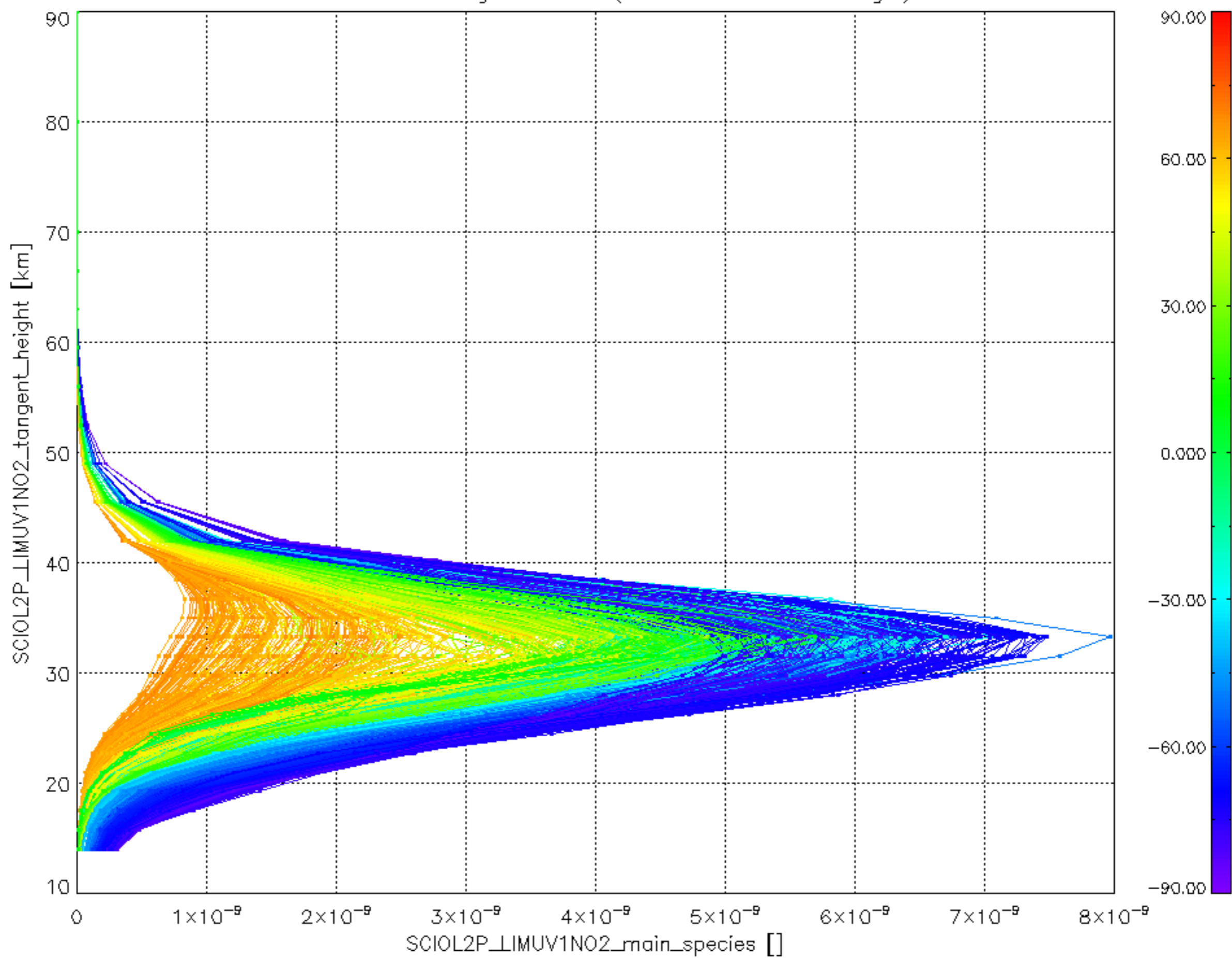




Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



Plot of SCIOL2P\_LIMUV1N02\_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).

