

## 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	11APR2012 03:26:16
Data source version	SCIA-OL/5.02-W
Processing scope for products	29MAR2012 00:00:00 to 30MAR2012 00:00:00
Start time of first product within scope	29MAR2012 00:07:26
Stop time of last product within scope	30MAR2012 00:29:01
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 A20120329_000726_000035303113_00117_52717_4199.N1</a>	29MAR2012 00:07:26	29MAR2012 01:06:17	0	GOOD
1	<a href="#">SCI_OL__2PWDP A20120329_015327_000031453113_00118_52718_4200.N1</a>	<b>29MAR2012 01:53:27</b>	<b>29MAR2012 02:45:53</b>	0	GOOD
2	<a href="#">SCI_OL__2PWDP A20120329_033245_000032133113_00119_52719_4201.N1</a>	<b>29MAR2012 03:32:45</b>	<b>29MAR2012 04:26:19</b>	0	GOOD
3	<a href="#">SCI_OL__2PWDP A20120329_051354_000031453113_00120_52720_4202.N1</a>	<b>29MAR2012 05:13:54</b>	<b>29MAR2012 06:06:20</b>	0	GOOD
4	<a href="#">SCI_OL__2PWDP A20120329_065312_000032133113_00121_52721_4203.N1</a>	<b>29MAR2012 06:53:12</b>	<b>29MAR2012 07:46:46</b>	0	GOOD

5	SCI_OL__2PWDP	A20120329_083422_000031453113_00122_52722_4204.N1	29MAR2012 08:34:22	29MAR2012 09:26:47	0	GOOD
6	SCI_OL__2PWDP	A20120329_101339_000032133113_00123_52723_4205.N1	29MAR2012 10:13:39	29MAR2012 11:07:13	0	GOOD
7	SCI_OL__2PWDP	A20120329_115448_000031453113_00124_52724_4206.N1	29MAR2012 11:54:48	29MAR2012 12:47:14	0	GOOD
8	SCI_OL__2PWDP	A20120329_133406_000032133113_00125_52725_4207.N1	29MAR2012 13:34:06	29MAR2012 14:27:40	0	GOOD
9	SCI_OL__2PWDP	A20120329_151515_000031453113_00126_52726_4208.N1	29MAR2012 15:15:15	29MAR2012 16:07:41	0	GOOD
10	SCI_OL__2PWDP	A20120329_165433_000032133113_00127_52727_4209.N1	29MAR2012 16:54:33	29MAR2012 17:48:07	0	GOOD
11	SCI_OL__2PWDP	A20120329_183557_000031453113_00128_52728_4210.N1	29MAR2012 18:35:57	29MAR2012 19:28:22	0	GOOD
12	SCI_OL__2PWDP	A20120329_201515_000032133113_00129_52729_4211.N1	29MAR2012 20:15:15	29MAR2012 21:08:49	0	GOOD
13	SCI_OL__2PWDP	A20120329_215610_000031453113_00130_52730_4212.N1	29MAR2012 21:56:10	29MAR2012 22:48:35	0	GOOD
14	SCI_OL__2PWDP	A20120329_233527_000032133113_00131_52731_4213.N1	29MAR2012 23:35:27	30MAR2012 00:29:01	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: 159900

Total number of cloud data DSRs with good quality flag (=0): 159900 (100.0 %)

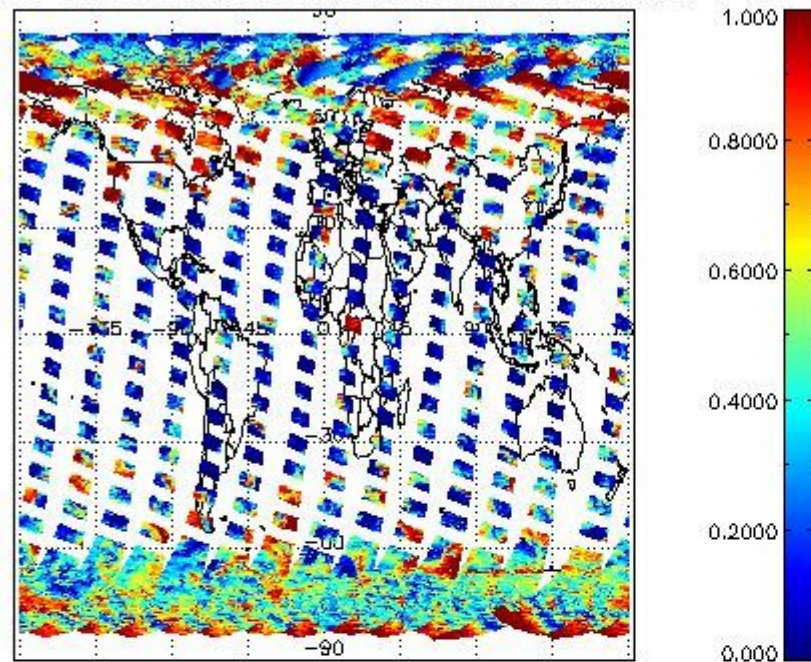
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	159900	0.0000	0.0000	0.0000	0.0000	0.0000	
INTEGR_TIME	159900	0.16748	0.12500	0.12500	0.25000	0.059207	s
CL_FRAC	159900	0.45376	0.41792	0.0000	1.0000	0.33692	
CL_FRAC_ERR	159900	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	159900	5.3593	4.0000	4.0000	8.0000	1.8946	
PMD_READ_CL[0]	159900	0.68945	0.0000	0.0000	8.0000	1.5714	-
PMD_READ_CL[1]	159900	1.2483	0.0000	0.0000	8.0000	2.5148	-
CL_TOP_HEIGHT	130121	3.2562	1.6321	0.0000	17.000	3.6423	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	130121	64.164	100.00	0.0000	101.00	41.381	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	159900	11100000	11100000	11100000	11100000	0.0000	
CLOUD_FLAGS	159900	11001011	11000100	11000000	11100000	3448.6	
AERO_ABSO_IND	159900	0.082634	0.0000	0.0000	11.836	0.28258	
AERO_IND_DIAG	159900	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	159900	01010110	00000000	00000000	11000000	24466.	

#### Time and geolocation plots:

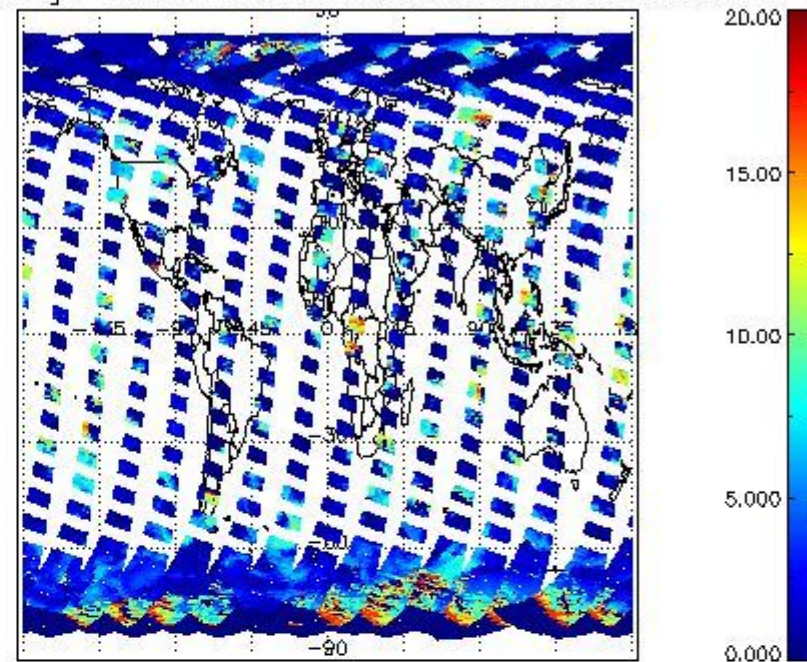
Plots are available for the following parameters:

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

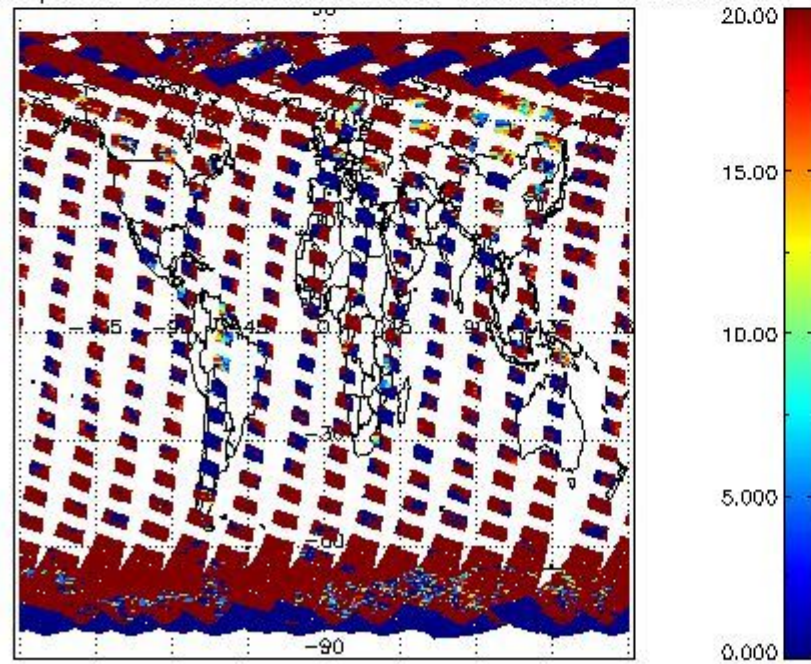
cL\_frac for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



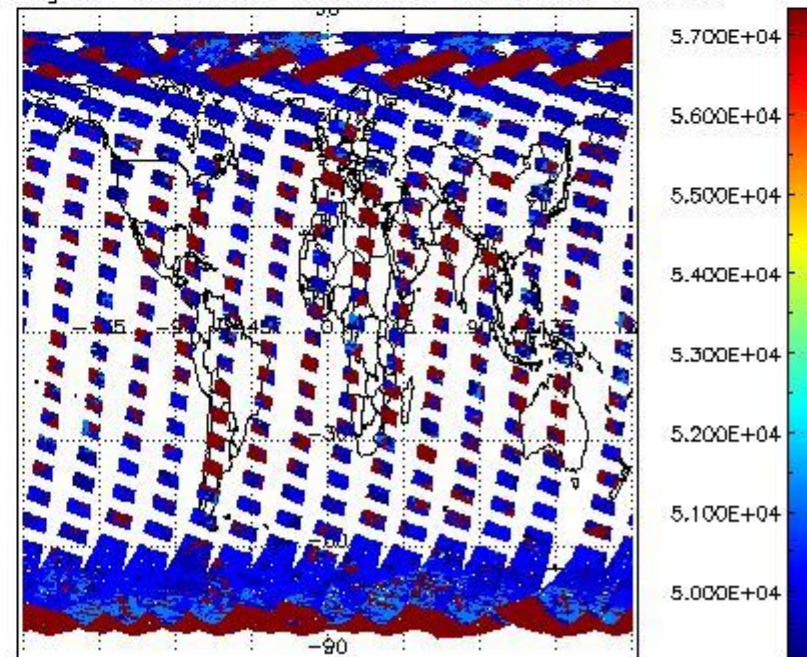
cL\_top\_height for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



cL\_opt\_depth for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



cloud\_flags for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



## 2.2.2 Nadir

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

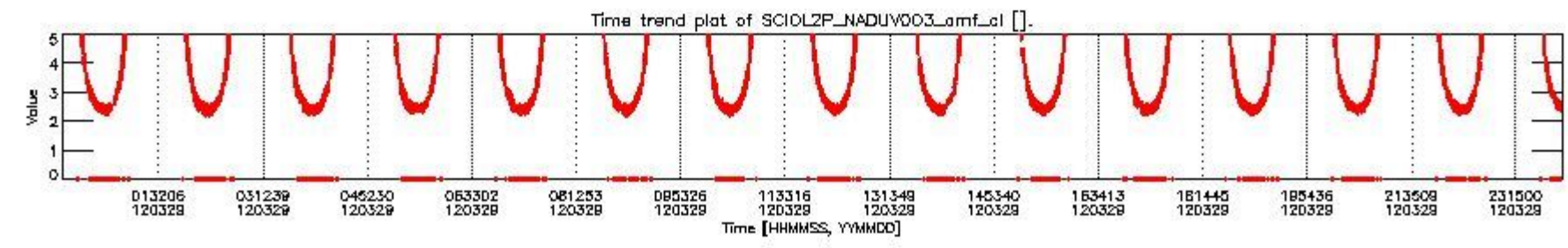
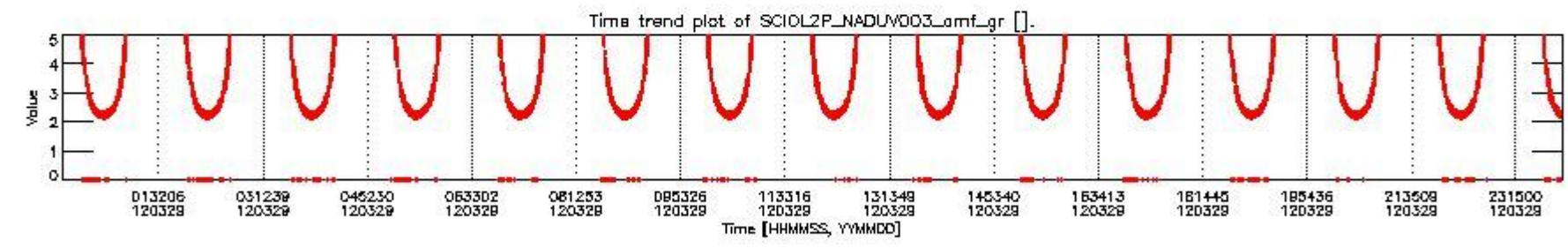
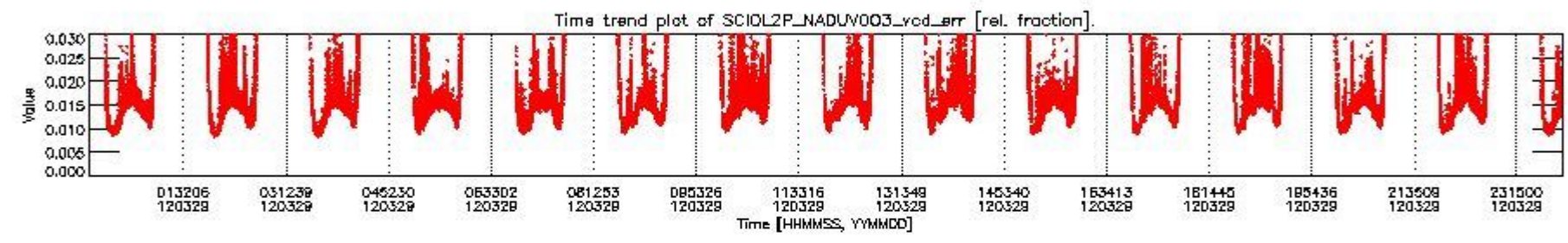
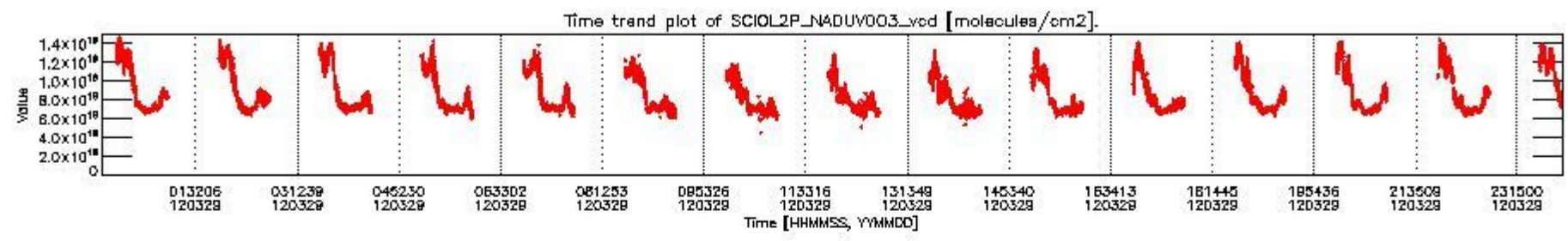
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

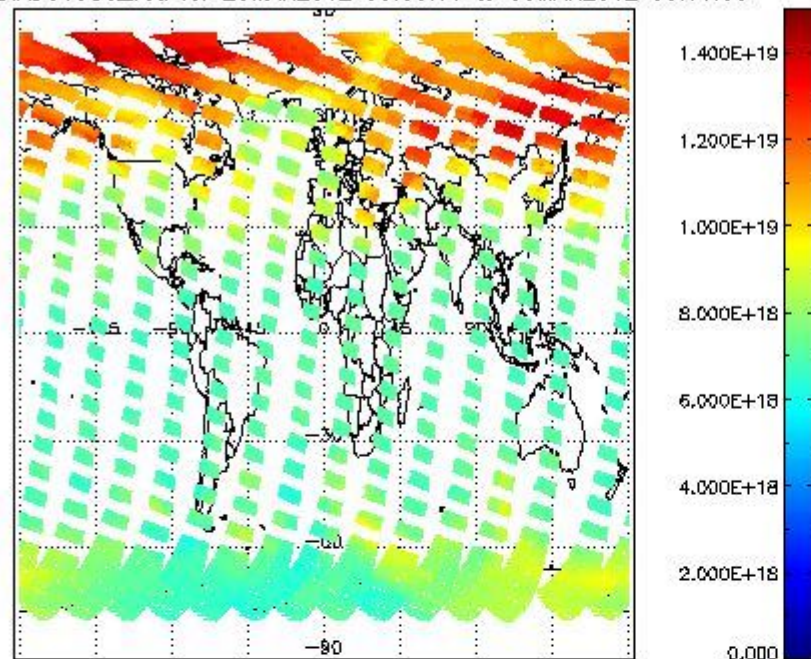
3	SCIOL2P_NADUV0O3_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl
8	SCIOL2P_NADUV3BRO_vcd
9	SCIOL2P_NADUV3BRO_vcd_err
10	SCIOL2P_NADUV3BRO_amf_gr
11	SCIOL2P_NADUV3BRO_amf_cl
12	SCIOL2P_NADUV5SO2_vcd
13	SCIOL2P_NADUV5SO2_vcd_err
14	SCIOL2P_NADUV5SO2_amf_gr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

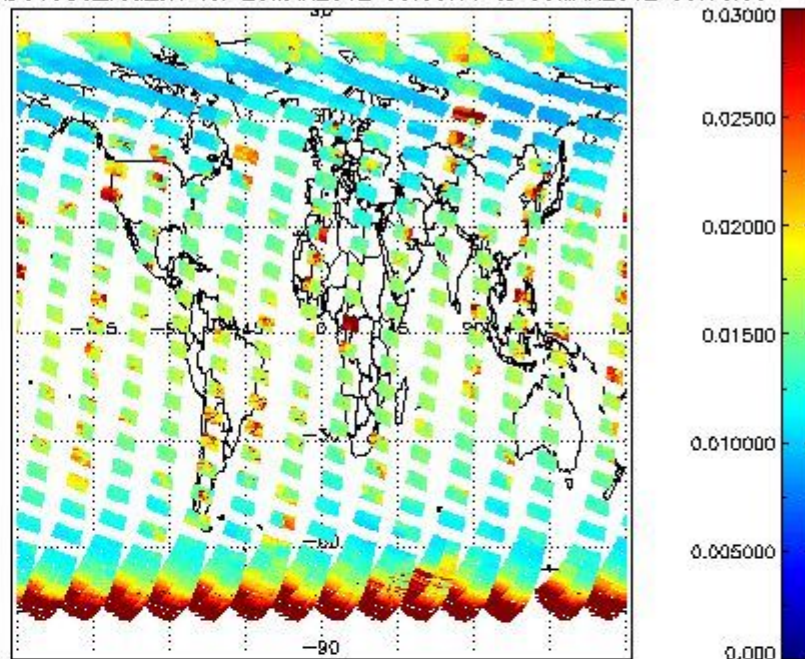
#### 2.2.2.1 O3 (UV0)



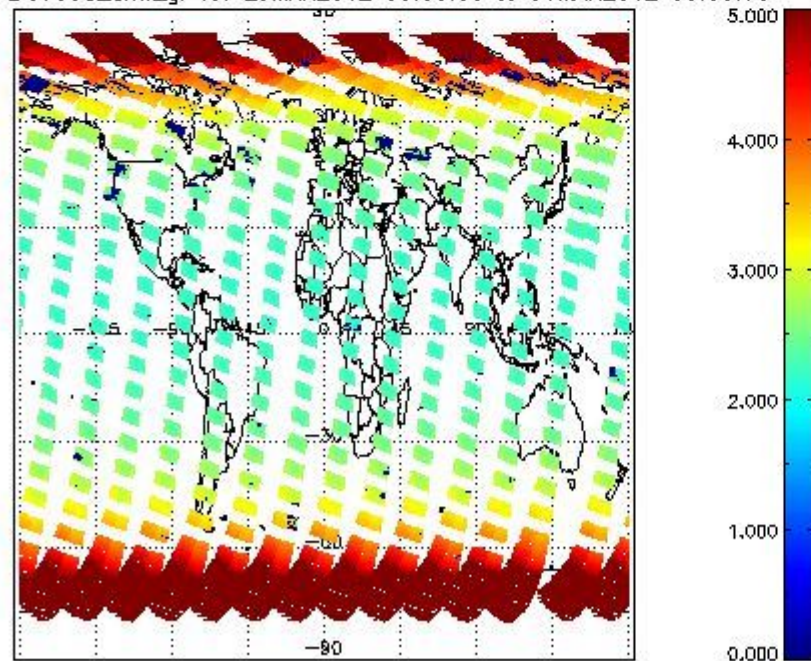
SCIOL2P\_NADUV003\_vcd for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



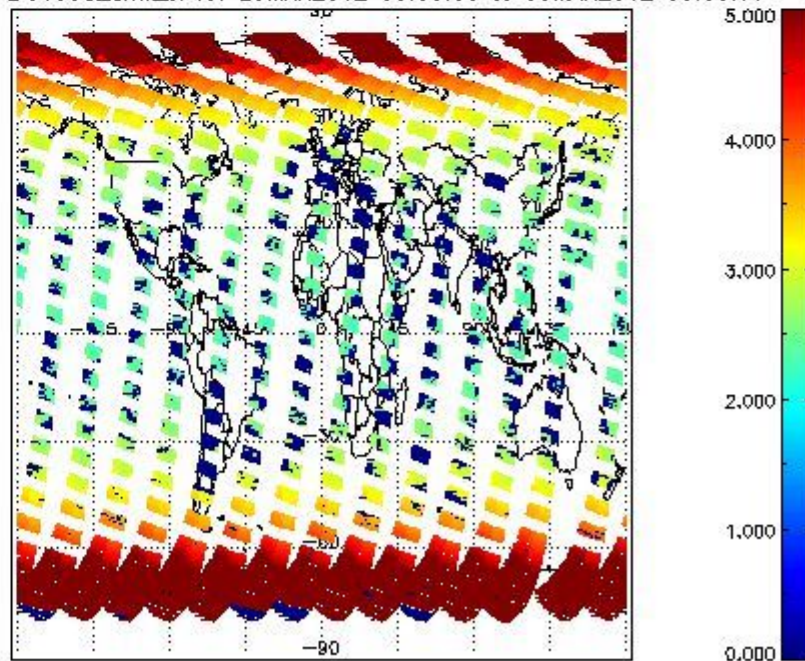
SCIOL2P\_NADUV003\_vcd\_err for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



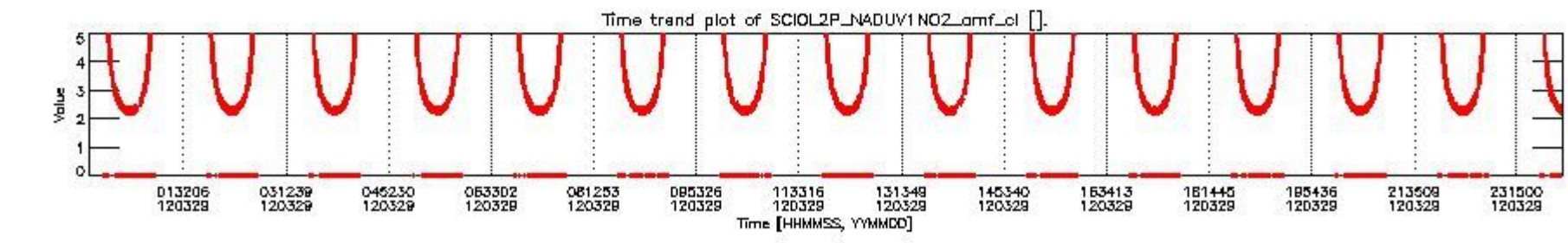
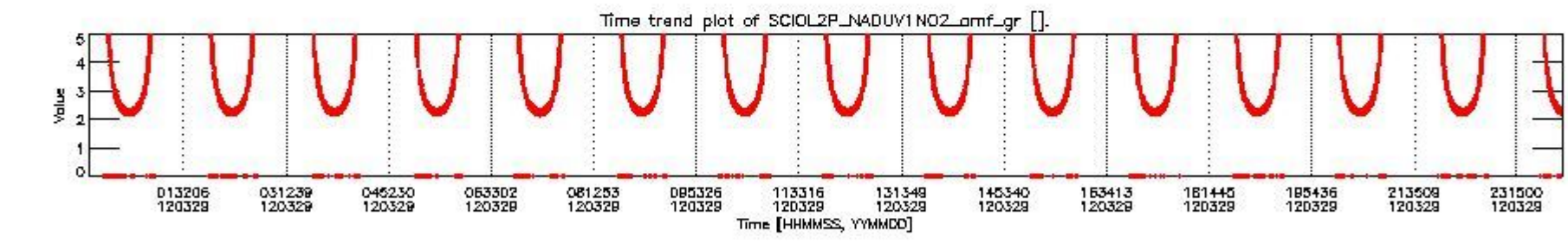
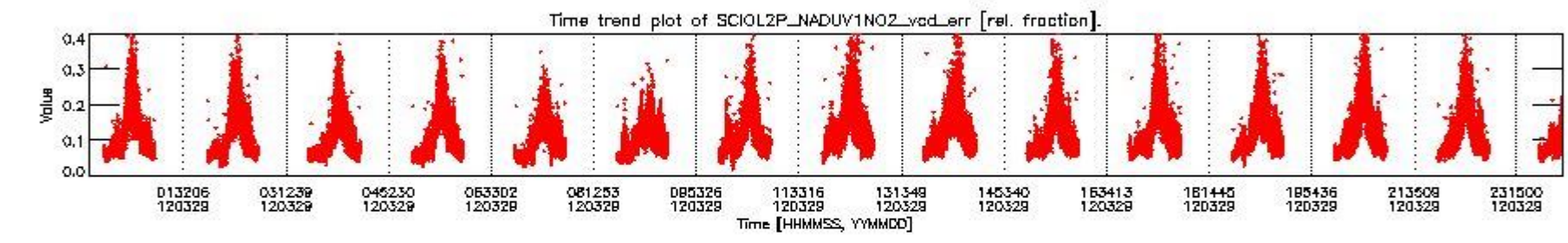
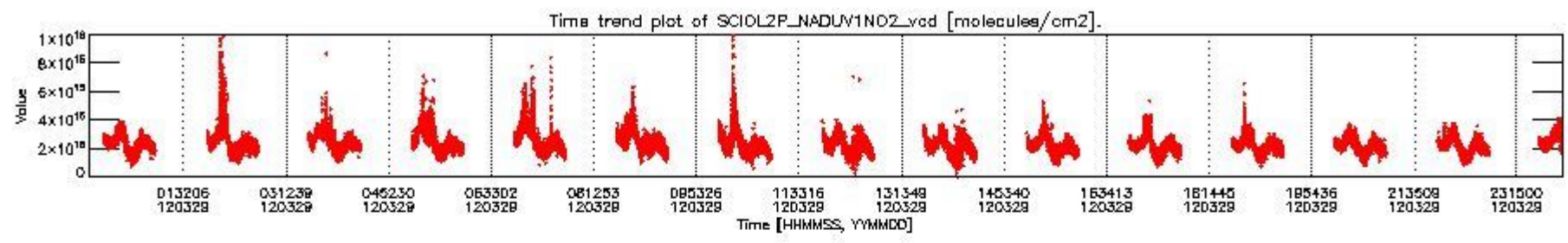
SCIOL2P\_NADUV003\_amf\_gr for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



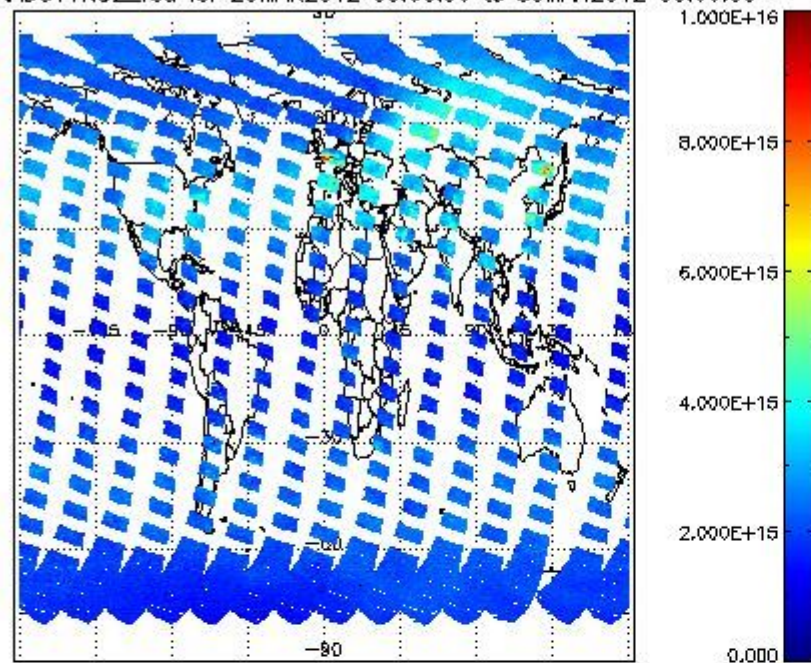
SCIOL2P\_NADUV003\_amf\_cl for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



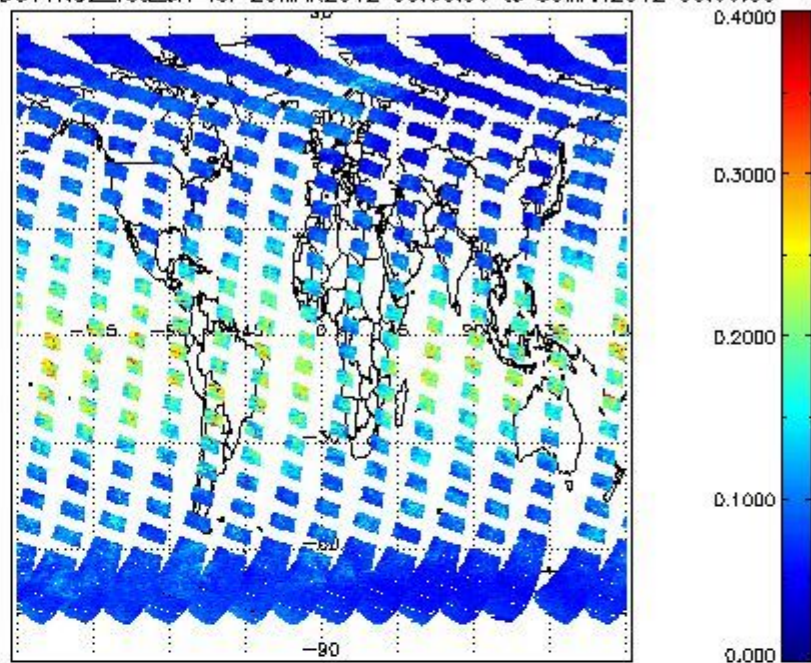
2.2.2.2 NO2 (UV1)



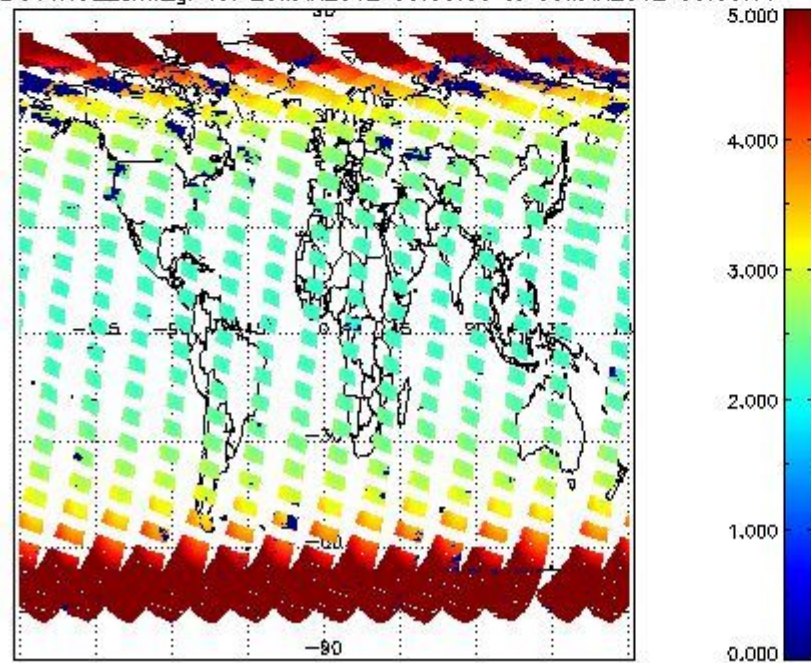
SCIOL2P\_NADUV1NO2\_vcd for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



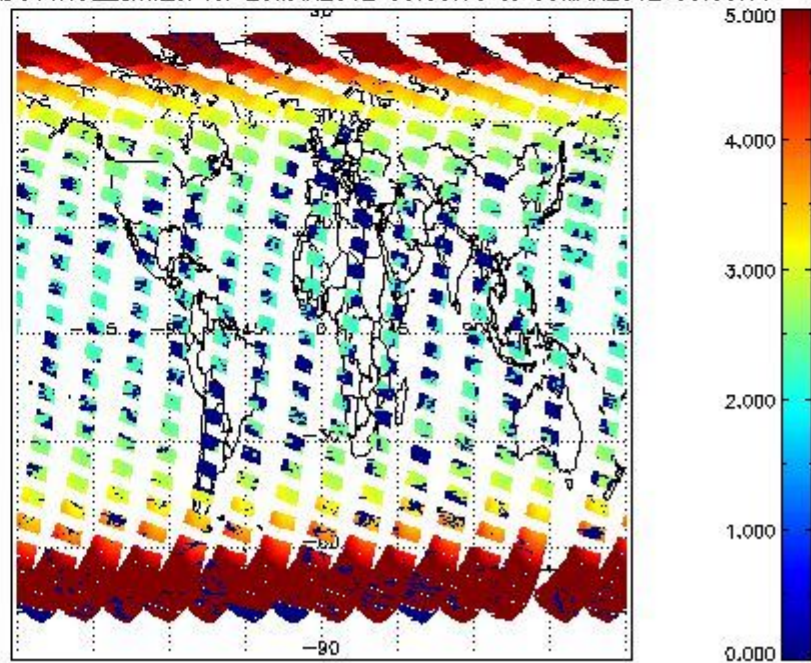
SCIOL2P\_NADUV1NO2\_vcd\_err for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

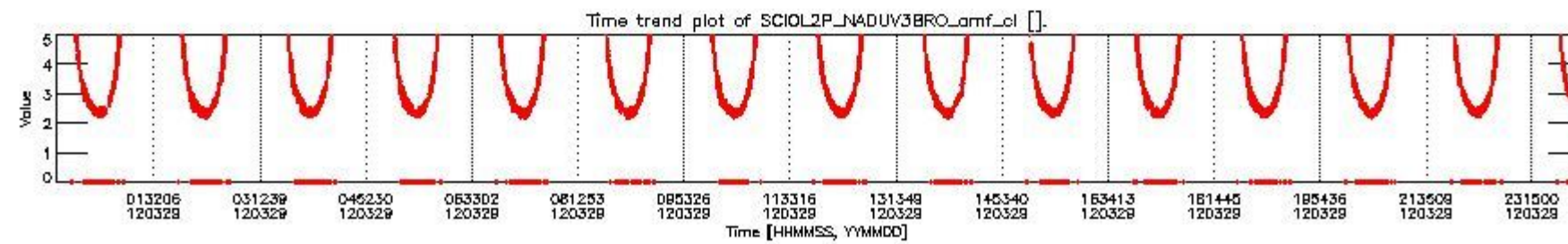
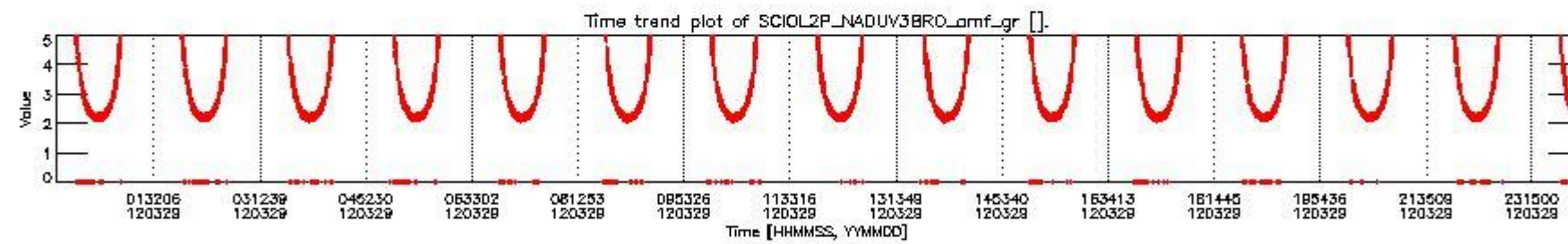
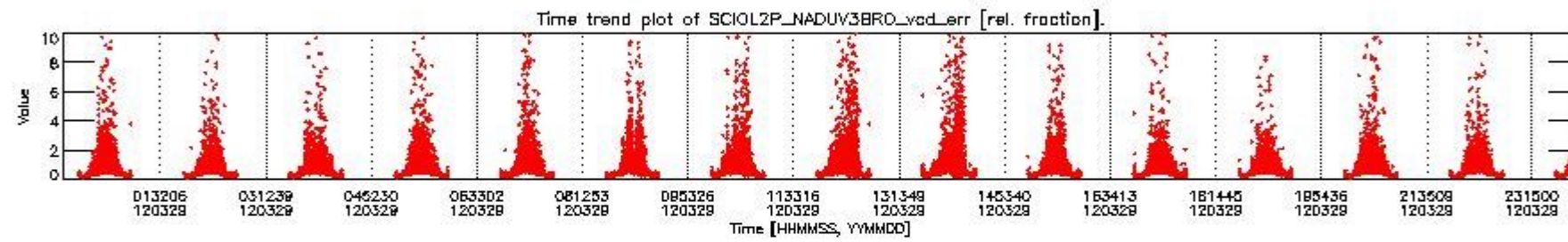
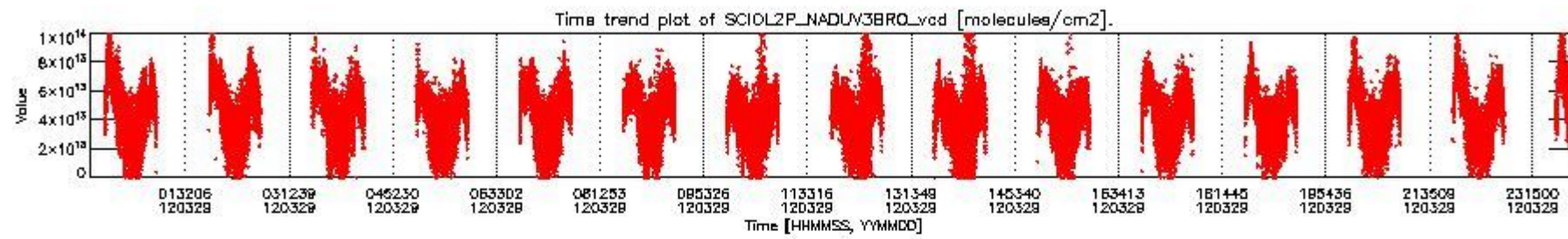


SCIOL2P\_NADUV1NO2\_amf\_cl for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

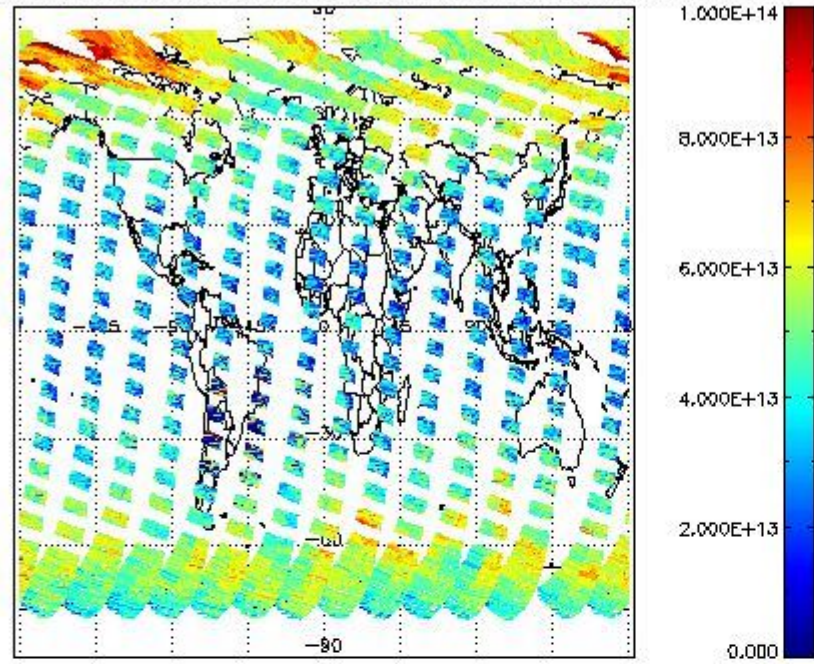


2.2.2.3 BrO (UV3)

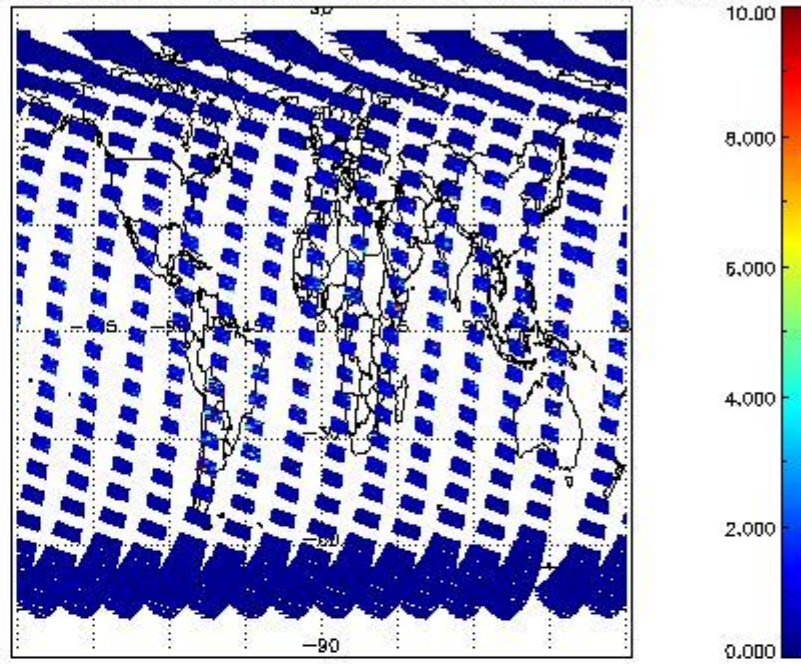




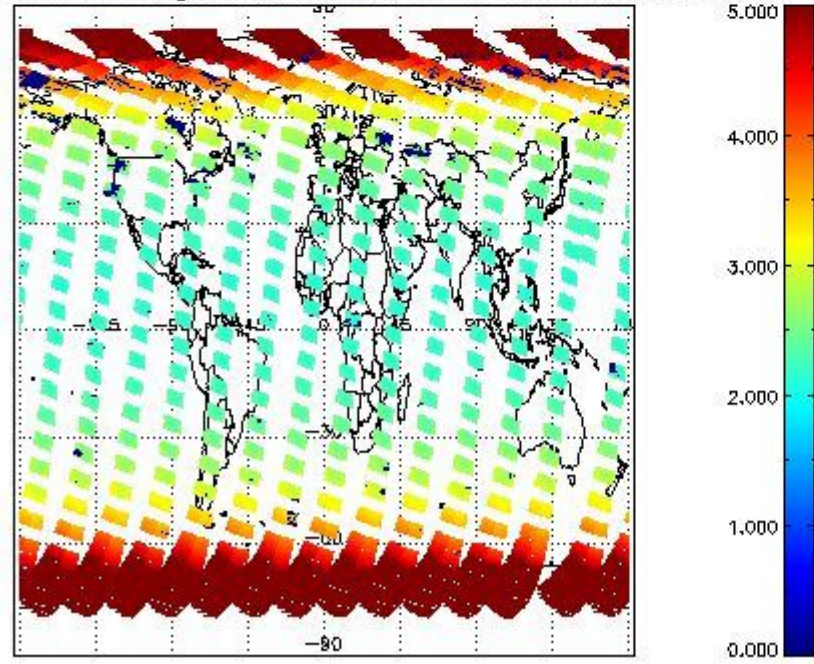
SCIOL2P\_NADUV3BRO\_vcd for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



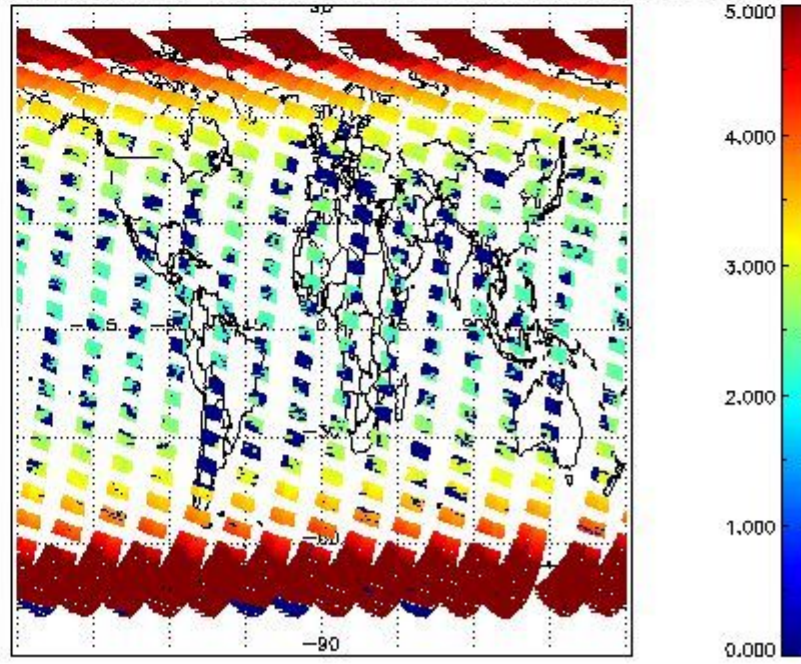
SCIOL2P\_NADUV3BRO\_vcd\_err for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



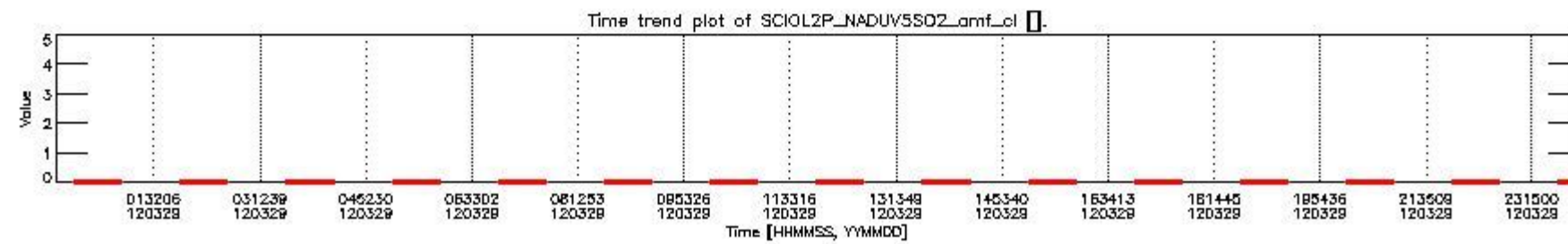
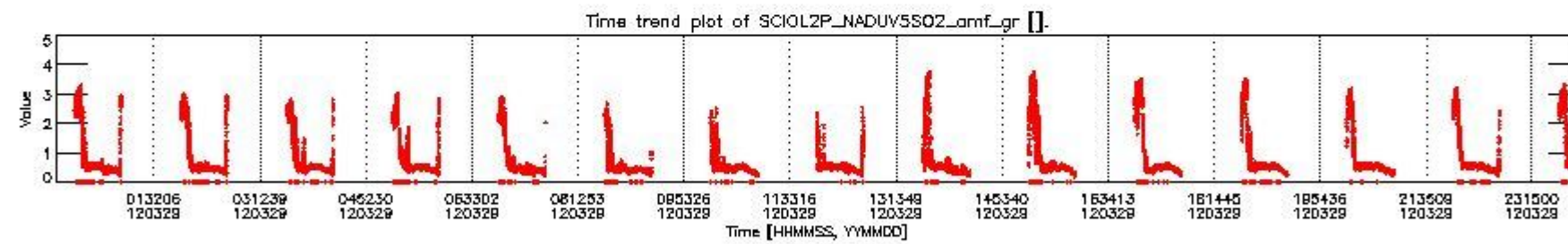
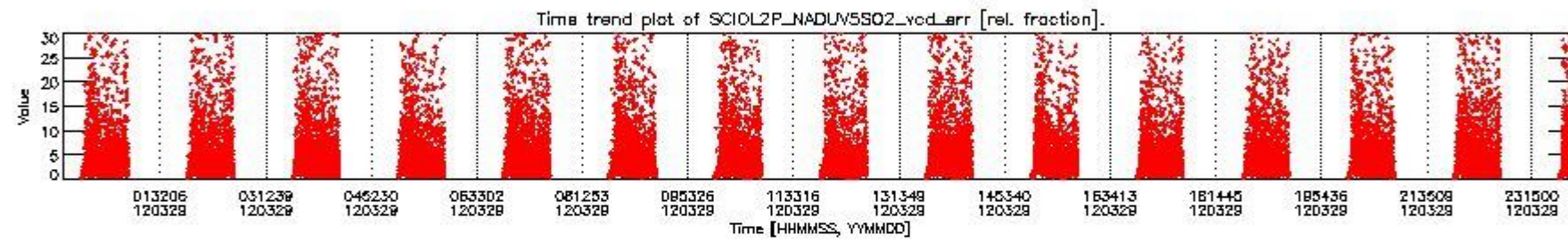
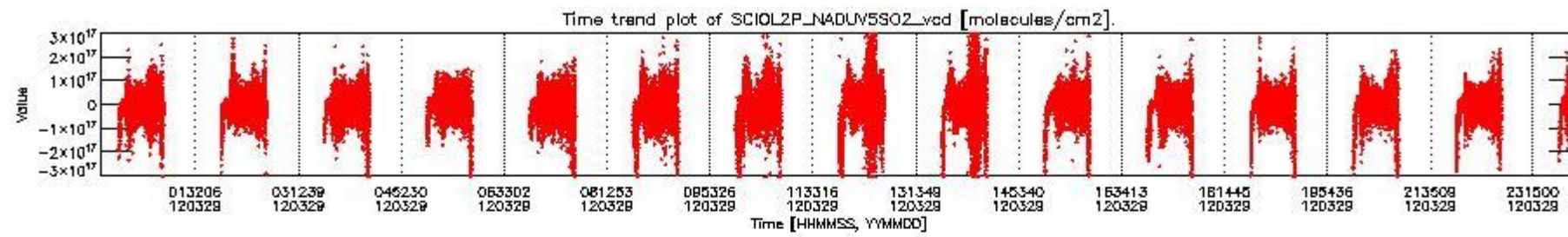
SCIOL2P\_NADUV3BRO\_amf\_gr for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



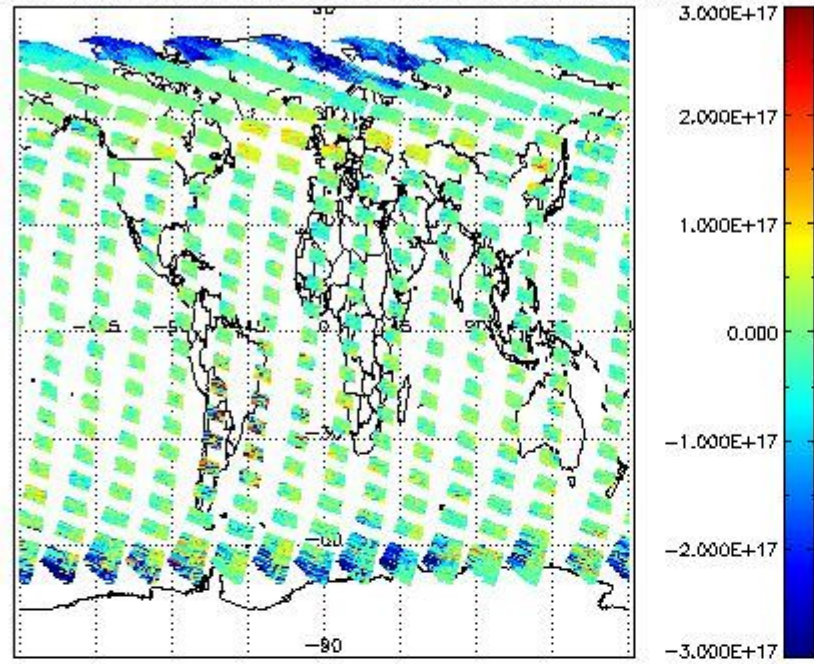
SCIOL2P\_NADUV3BRO\_amf\_cl for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



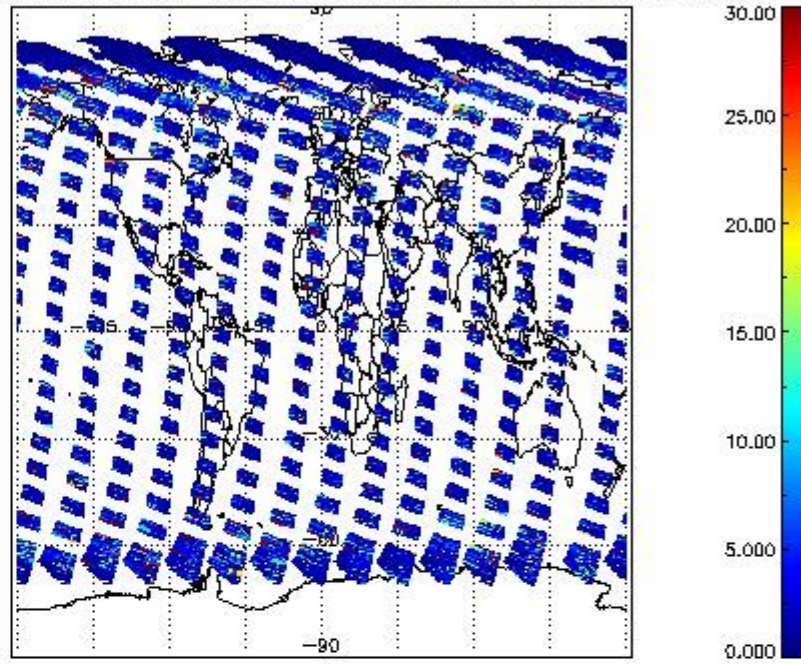
#### 2.2.2.4 SO2 (UV5)



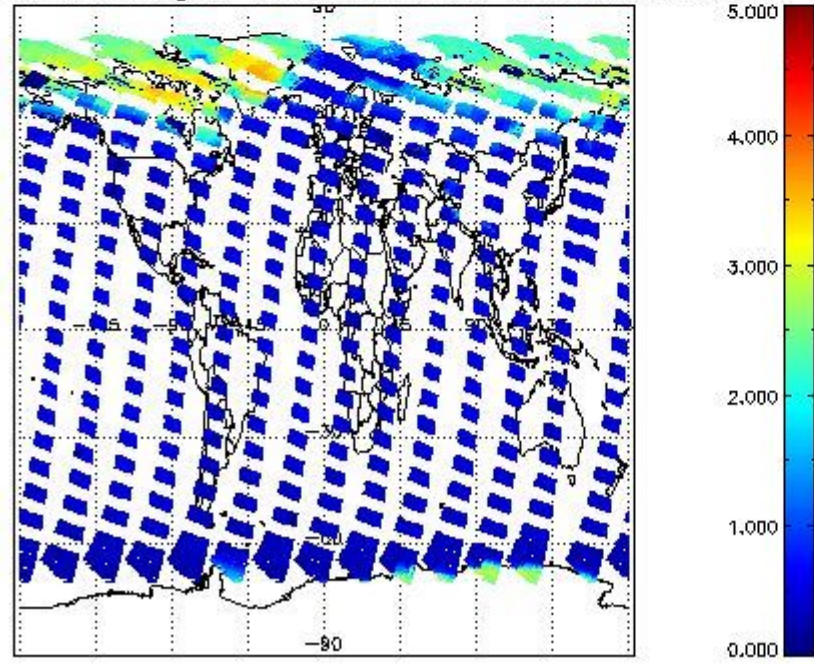
SCIOL2P\_NADUV5SO2\_vcd for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



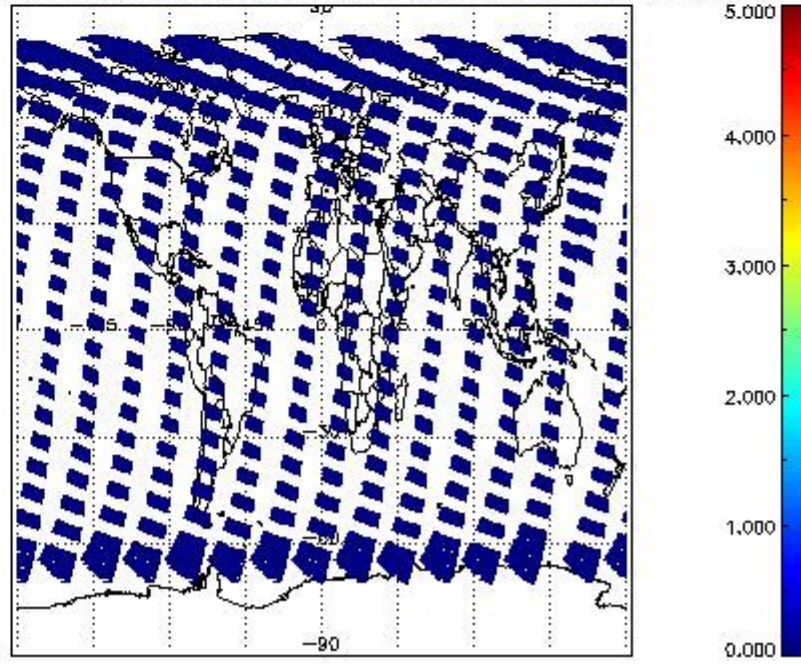
SCIOL2P\_NADUV5SO2\_vcd\_err for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



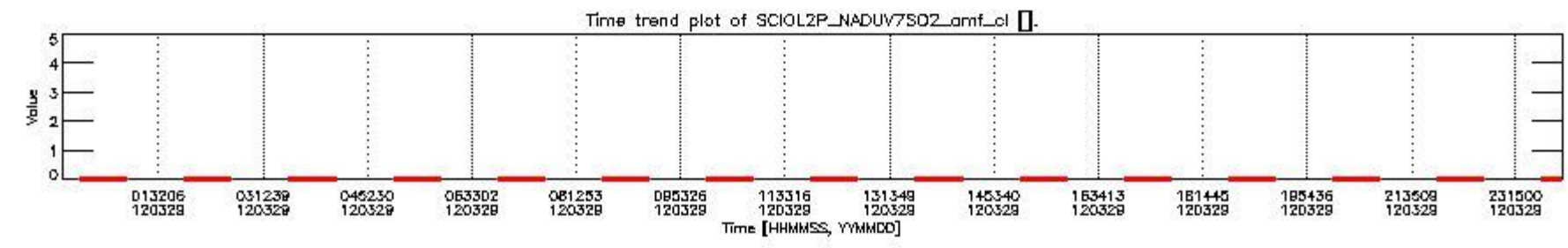
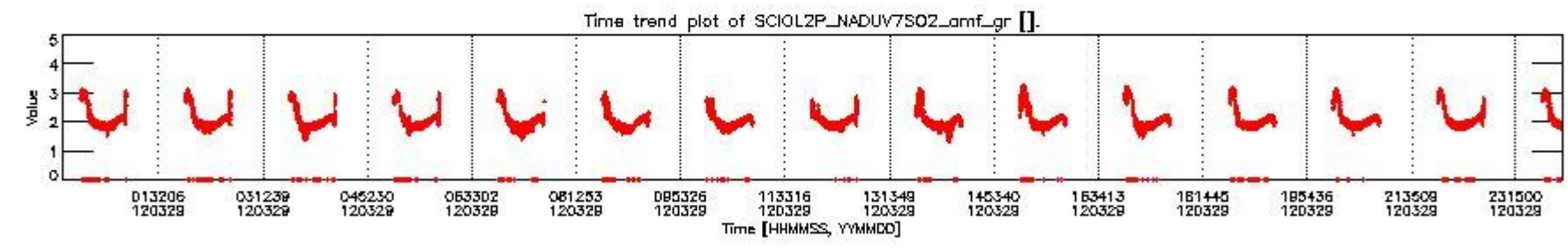
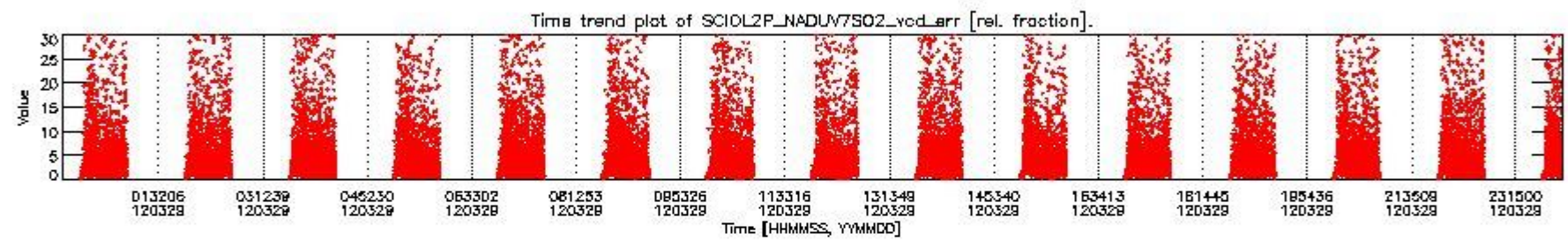
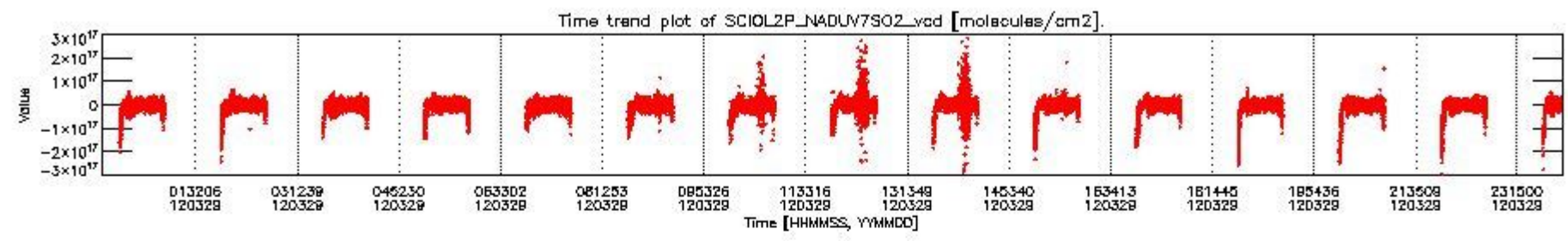
SCIOL2P\_NADUV5SO2\_amf\_gr for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



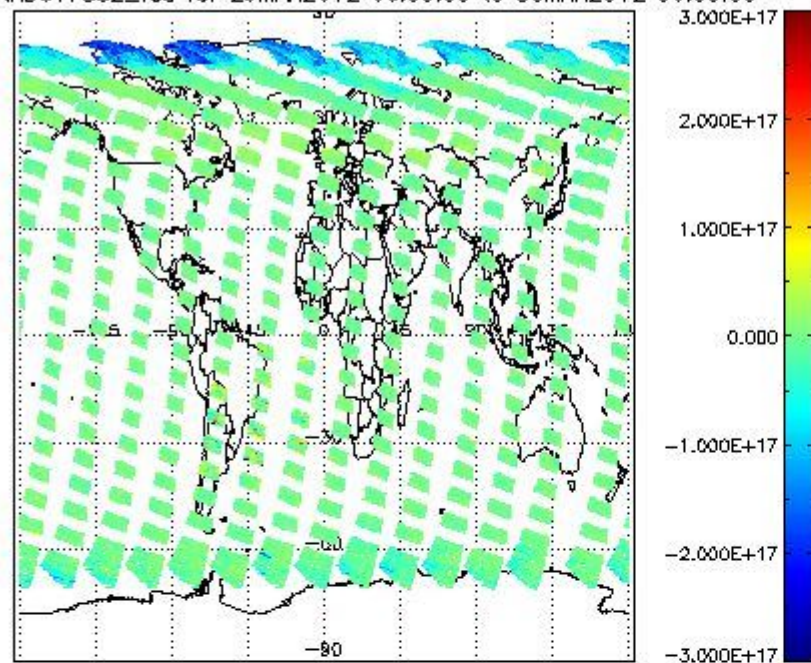
SCIOL2P\_NADUV5SO2\_amf\_cl for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



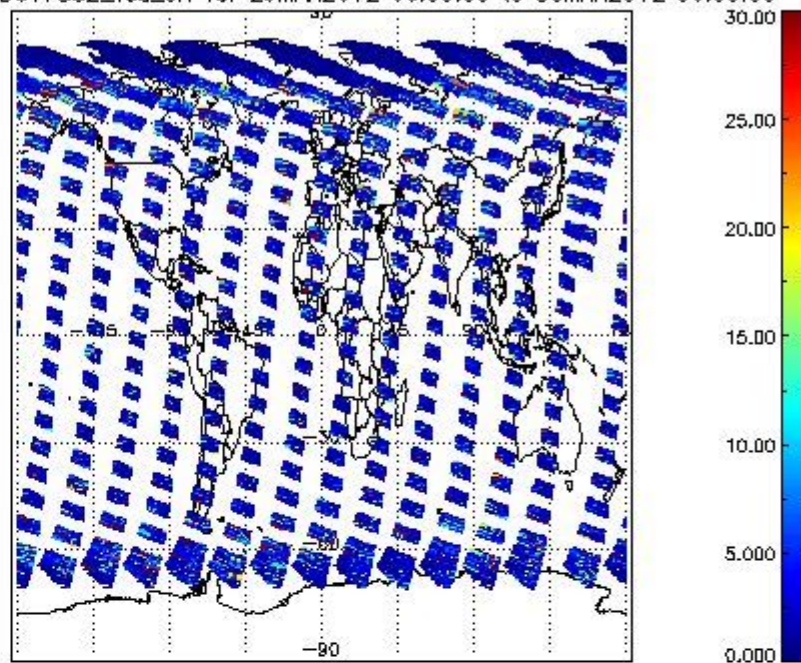
### 2.2.2.5 SO2 (UV7)



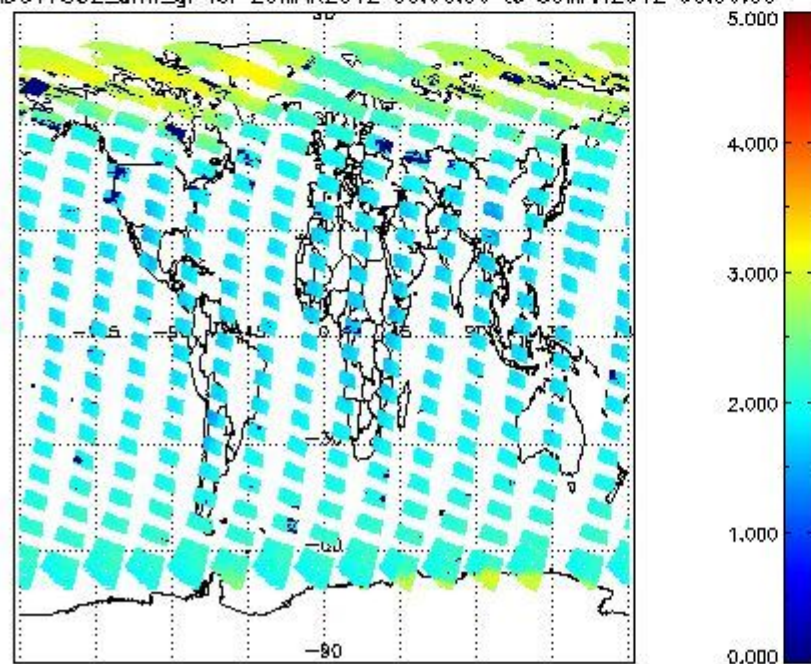
SCIOL2P\_NADUV7S02\_vcd for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



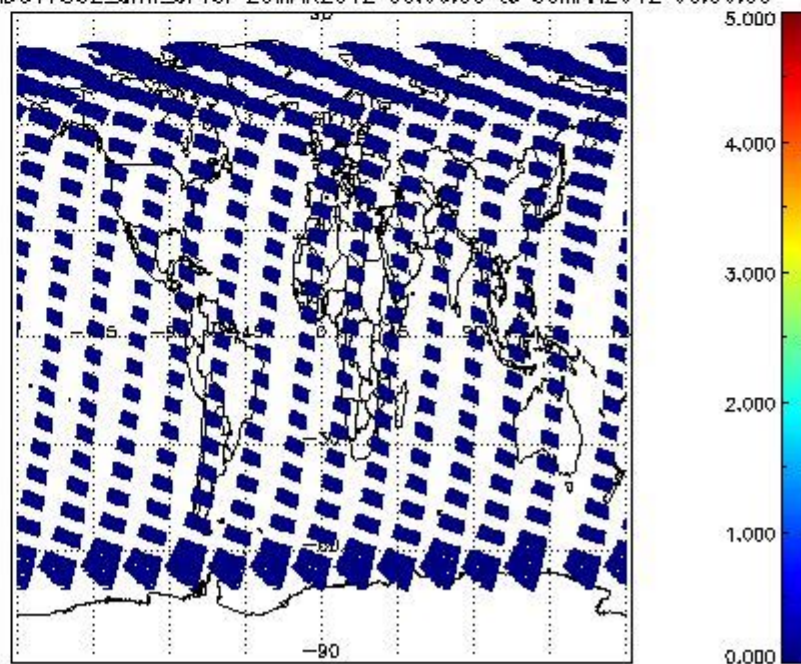
SCIOL2P\_NADUV7S02\_vcd\_err for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



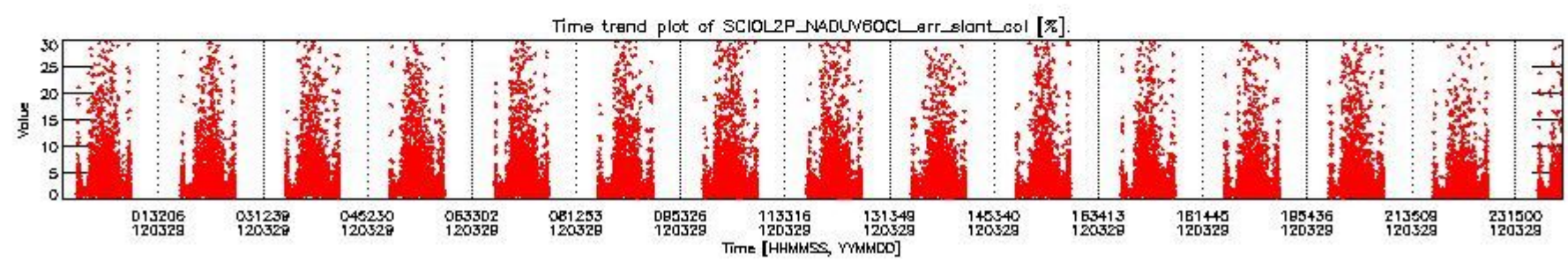
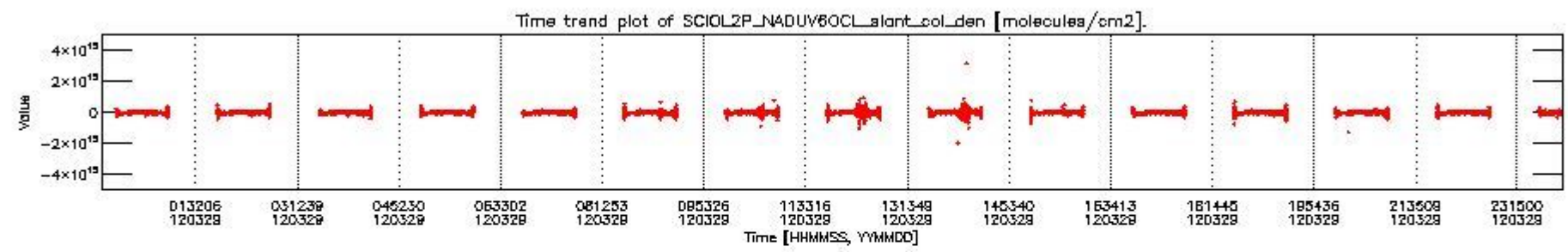
SCIOL2P\_NADUV7S02\_amf\_gr for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



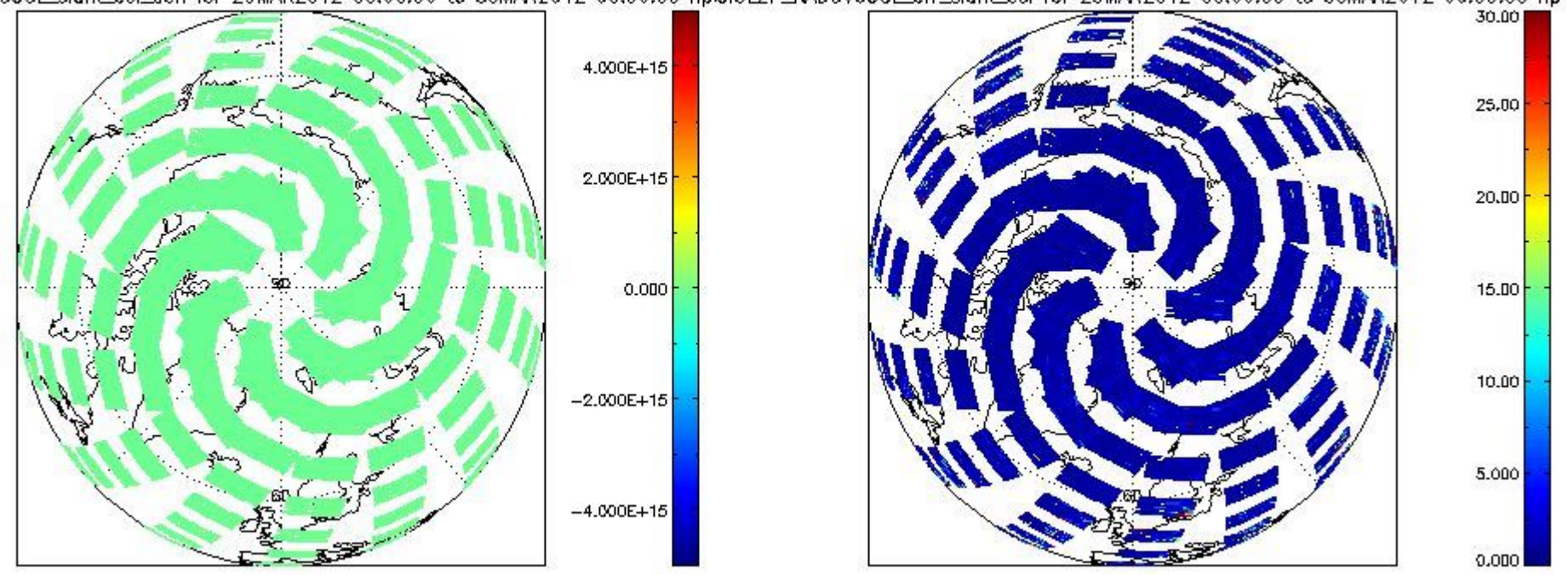
SCIOL2P\_NADUV7S02\_amf\_cl for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



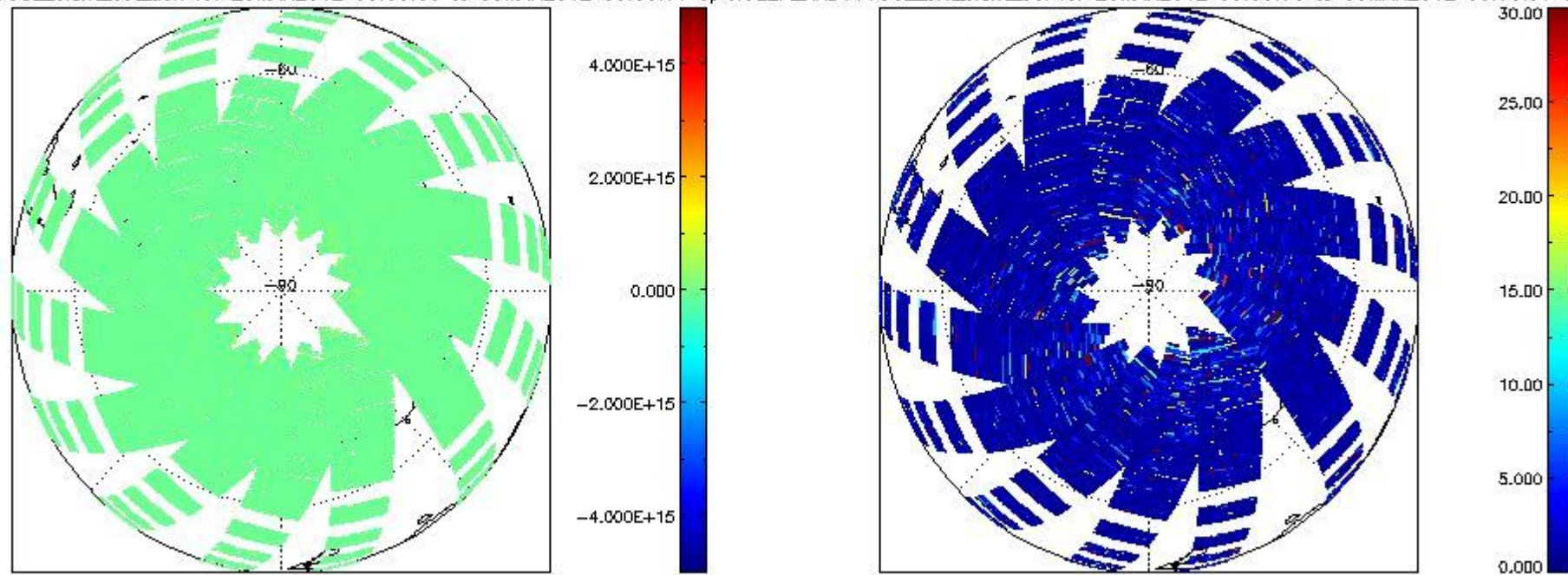
2.2.2.6 OCIO (UV6)



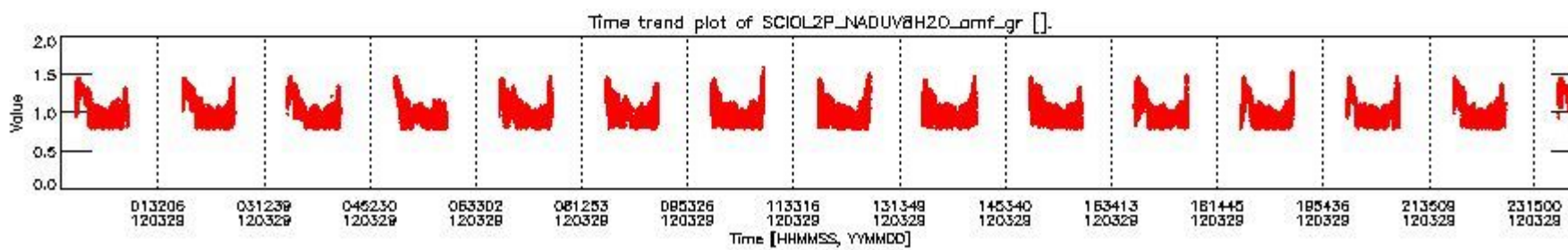
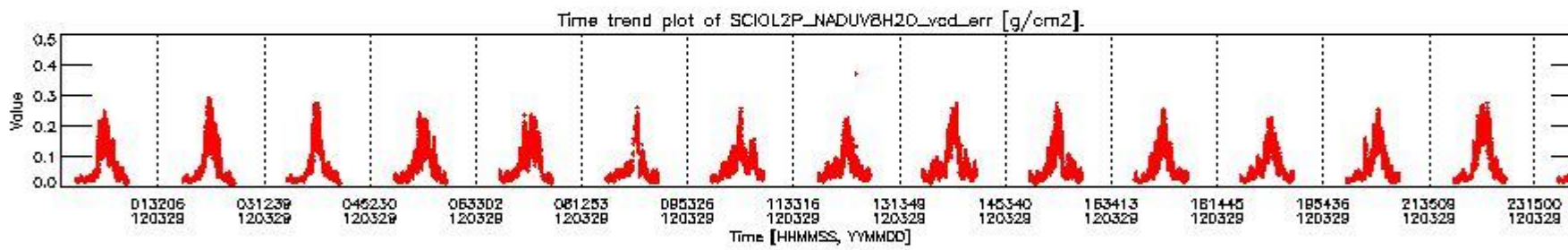
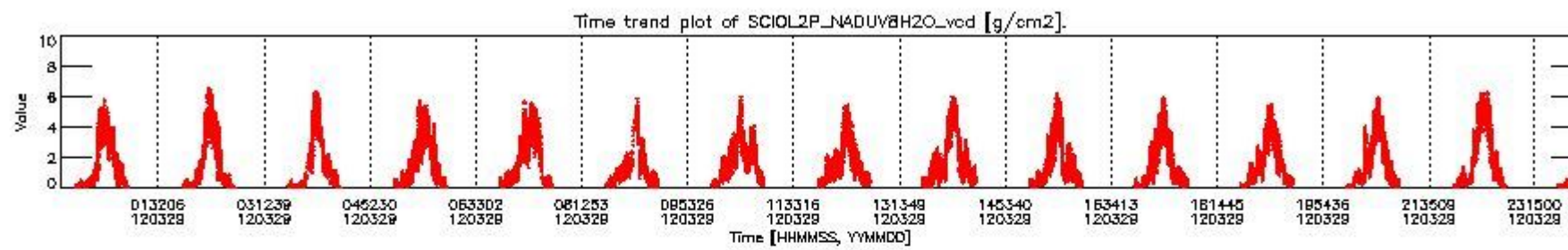
CIOL2P\_NADUV6OCL\_slant\_col\_den for 29MAR2012 00:00:00 to 30MAR2012 00:00:00 npCIOL2P\_NADUV6OCL\_err\_slant\_col for 29MAR2012 00:00:00 to 30MAR2012 00:00:00 np



CIOL2P\_NADUV6OCL\_slant\_colDen for 29MAR2012 00:00:00 to 30MAR2012 00:00:00 spCIOL2P\_NADUV6OCL\_err\_slant\_col for 29MAR2012 00:00:00 to 30MAR2012 00:00:00 sp

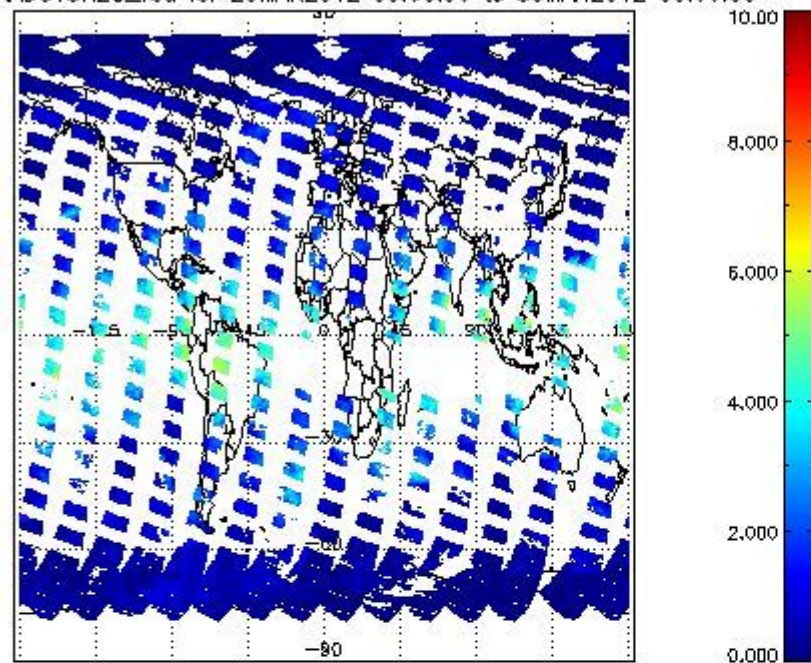


### 2.2.2.7 H2O (UV8)

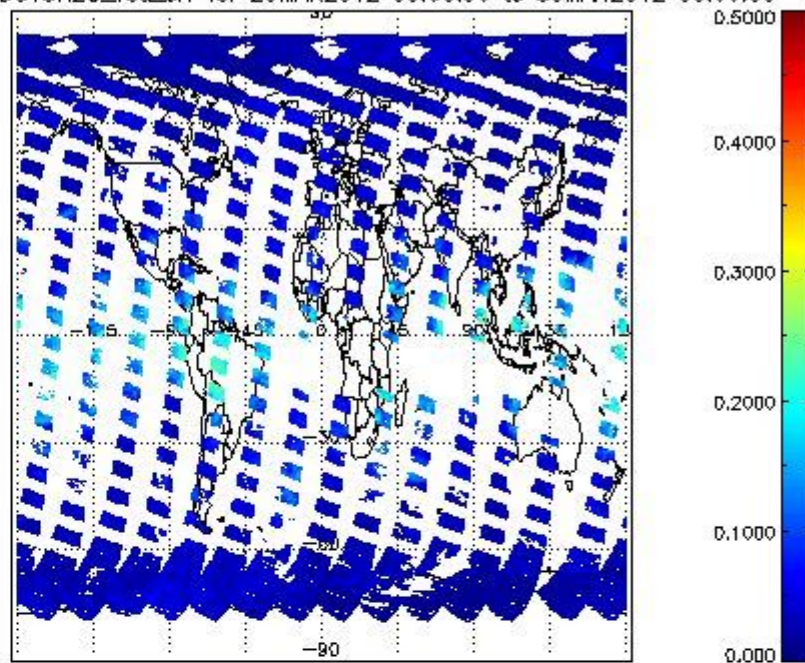




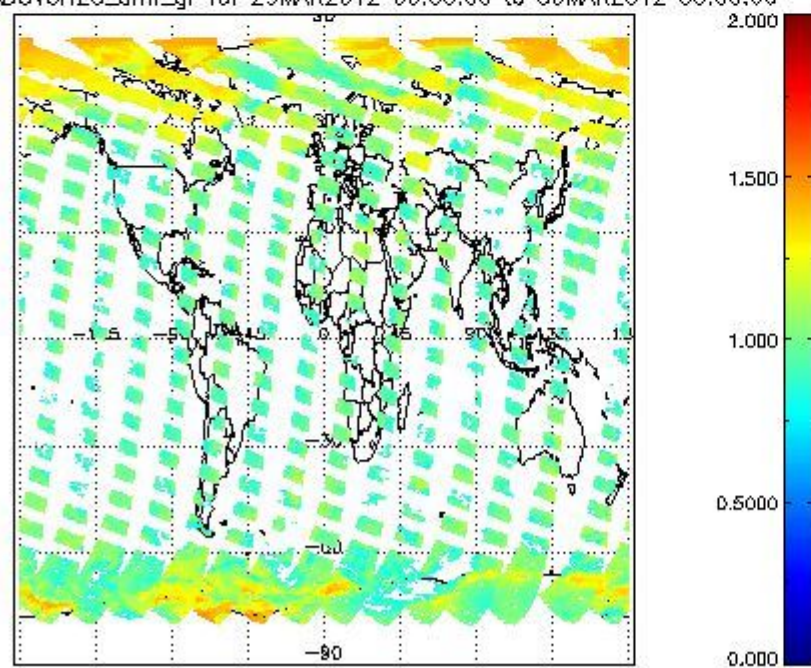
SCIOL2P\_NADUV8H2O\_vcd for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

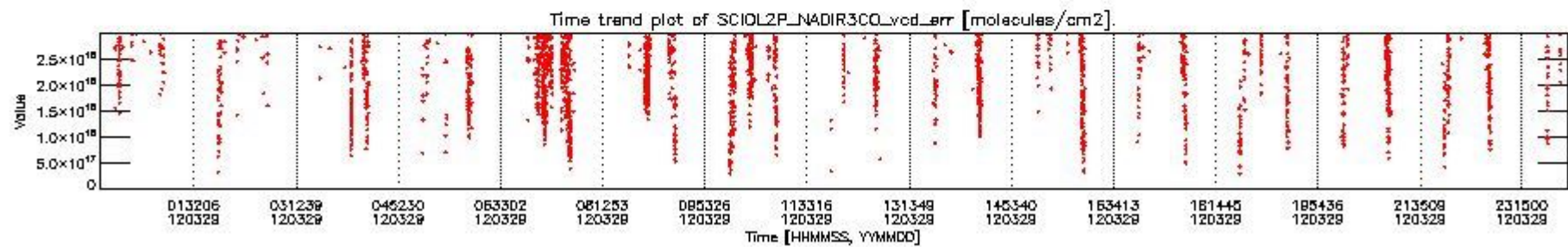
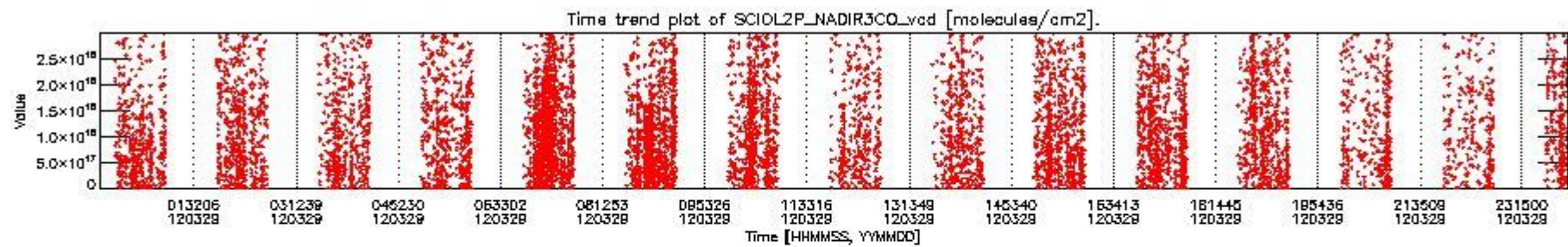


SCIOL2P\_NADUV8H2O\_vcd\_err for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

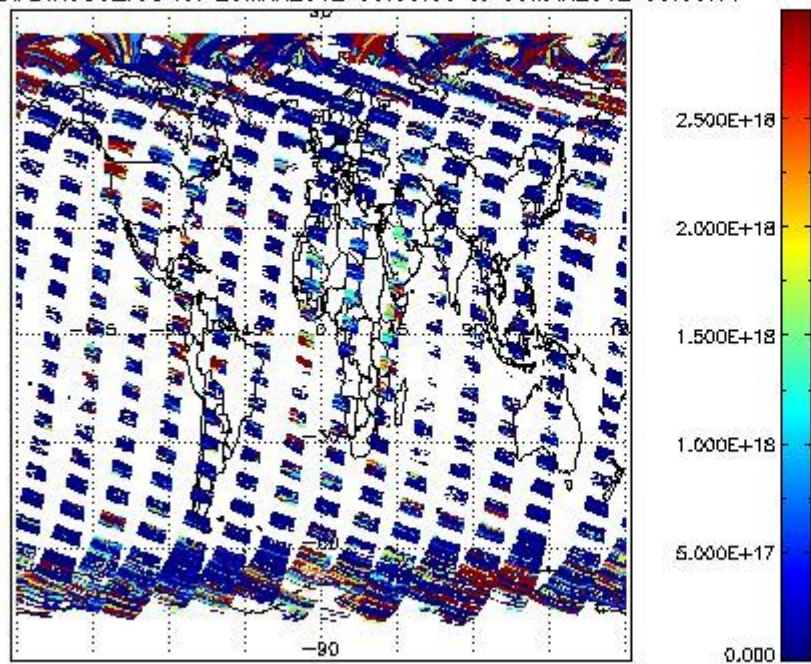


SCIOL2P\_NADUV8H2O\_arnf\_gr for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

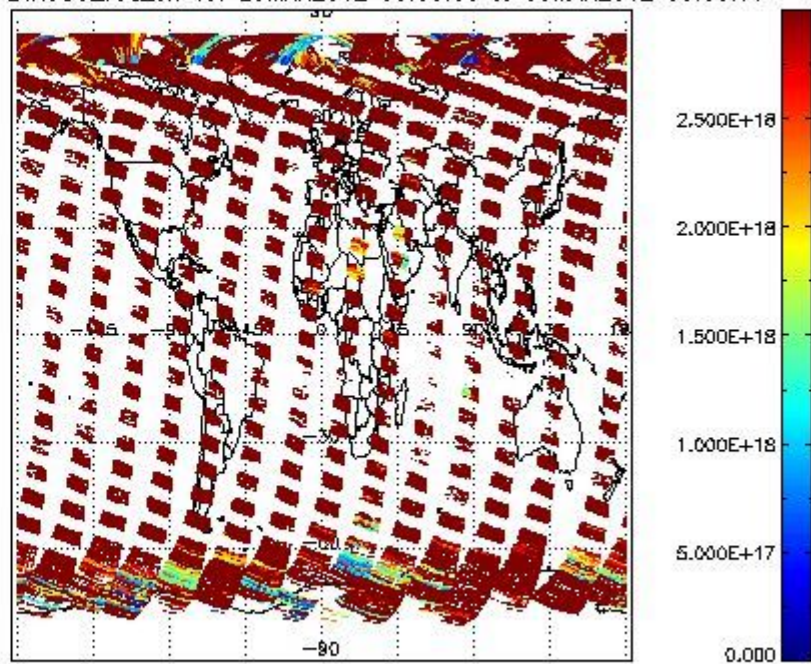




SCIDL2P\_NADIR3CO\_vcd for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



SCIDL2P\_NADIR3CO\_vcd\_err for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



### 2.2.3 Limb

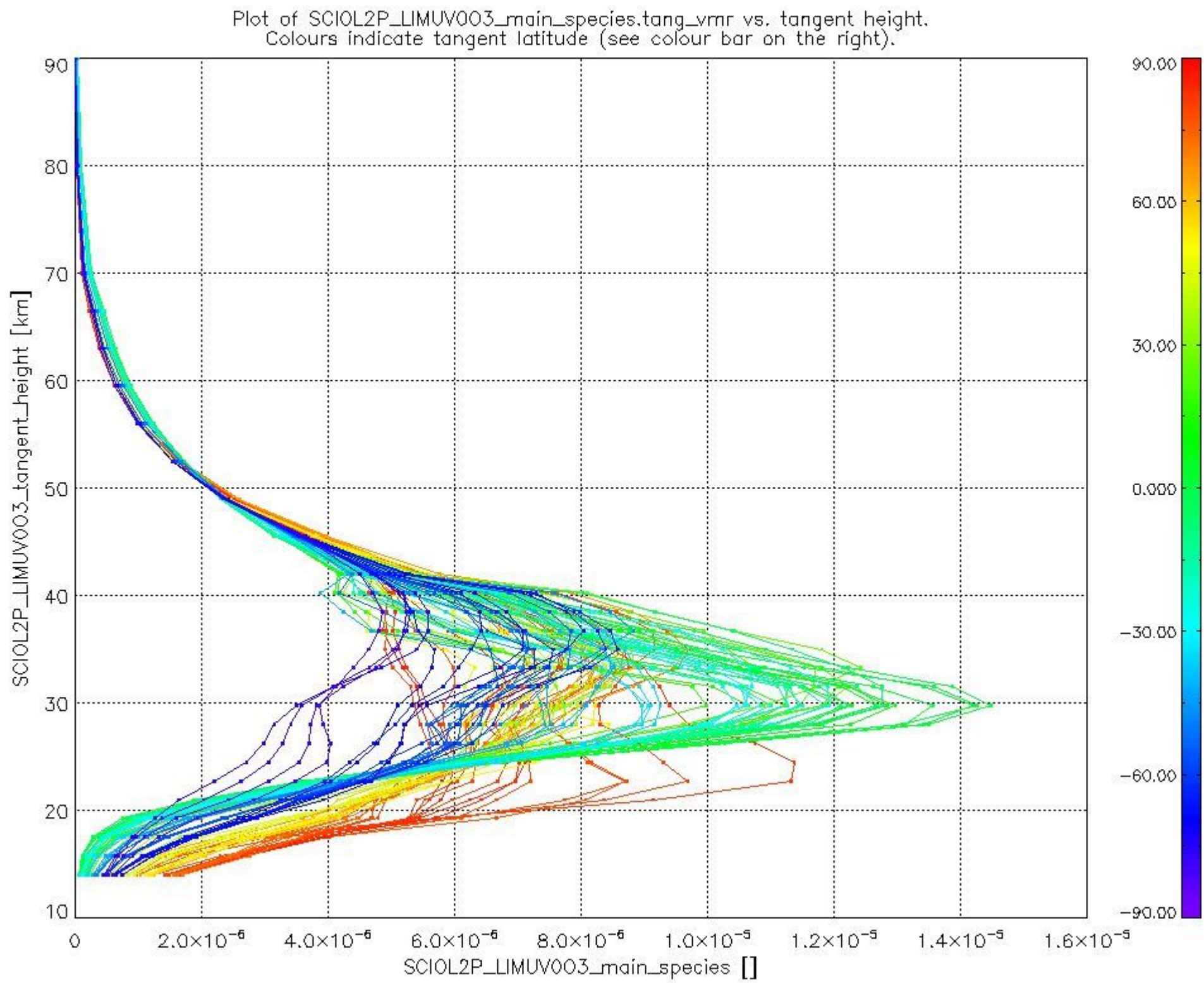
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

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

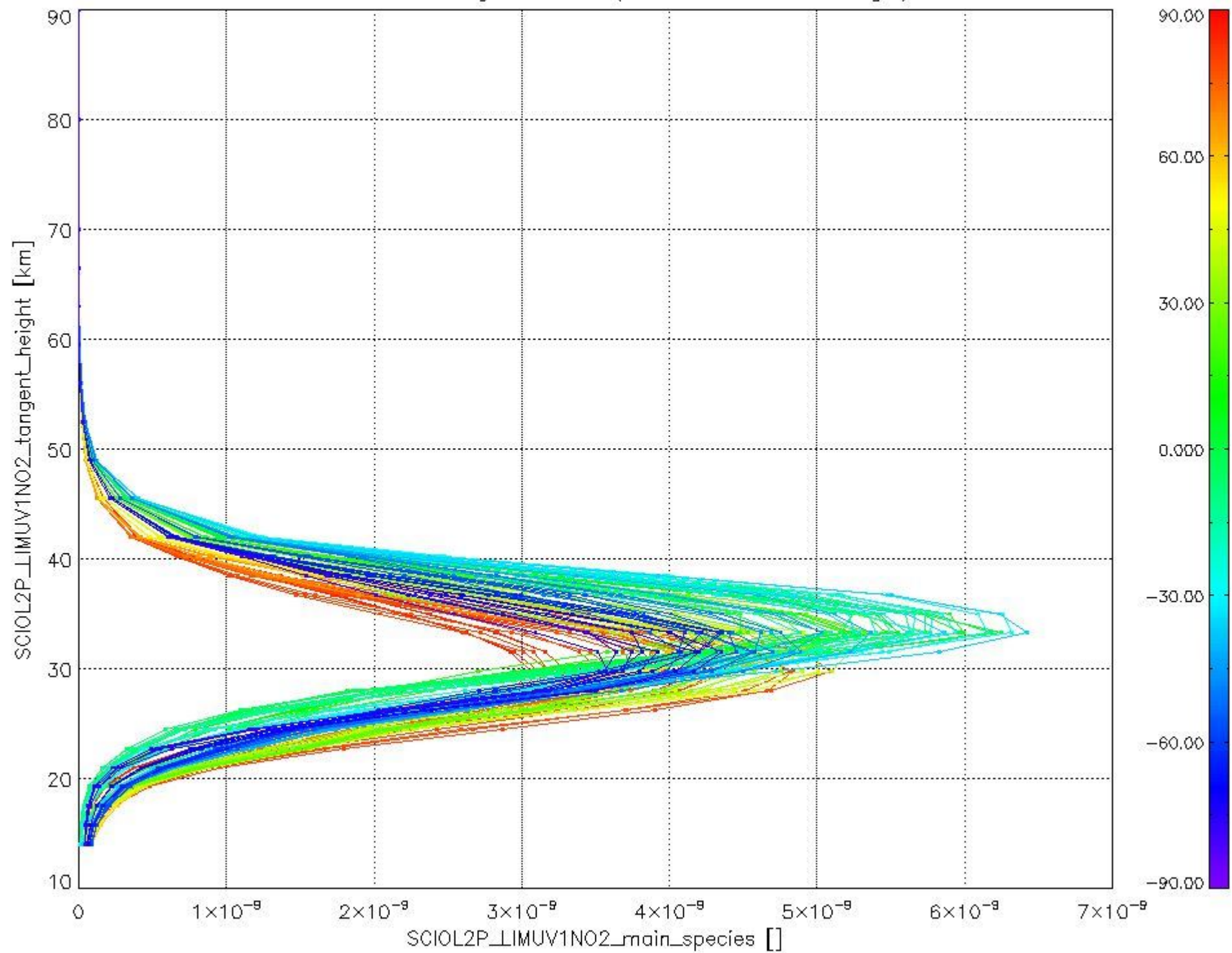
The following plots show for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

2.2.3.1 O3 (UV0)



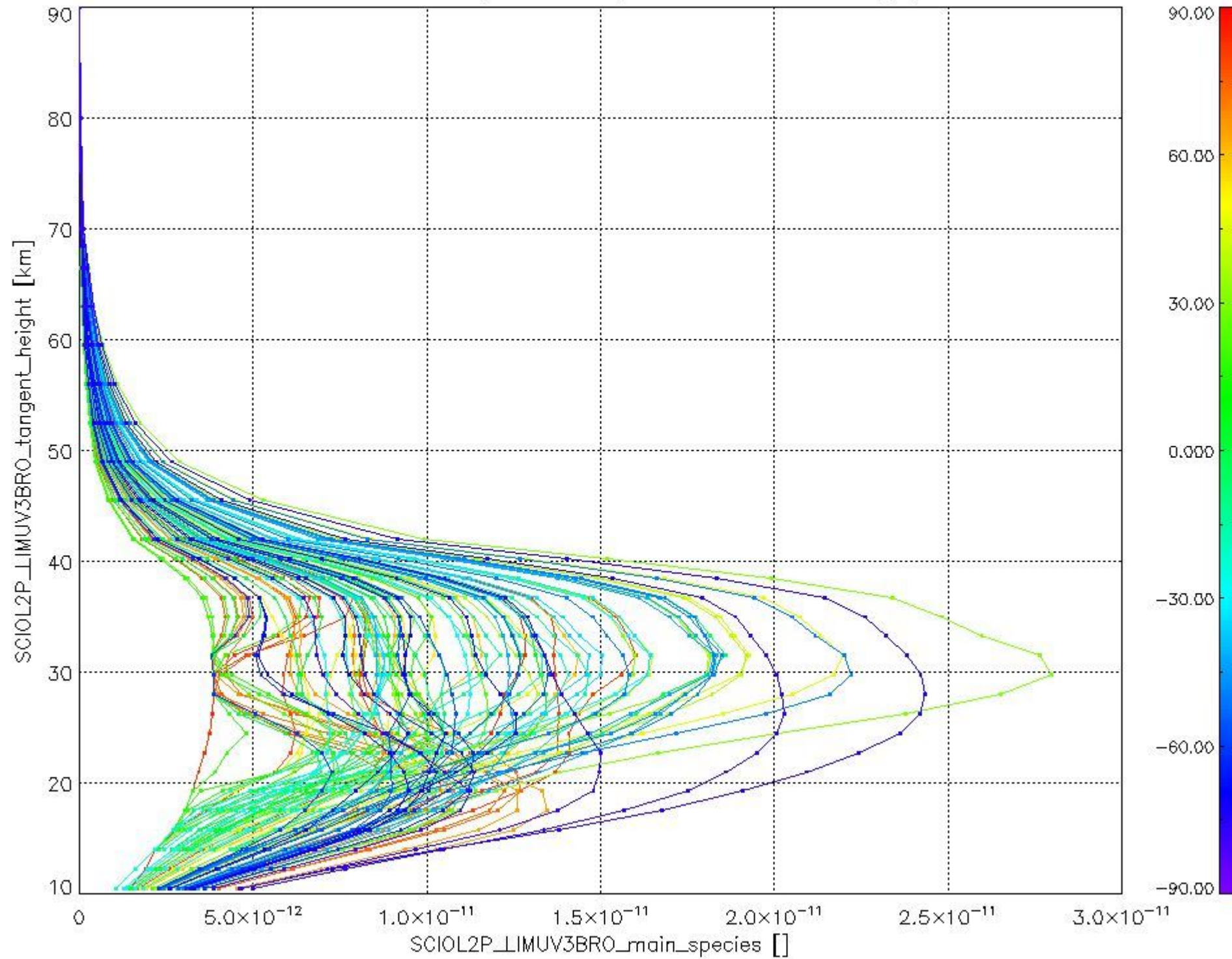
2.2.3.2 NO2 (UV1)

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).

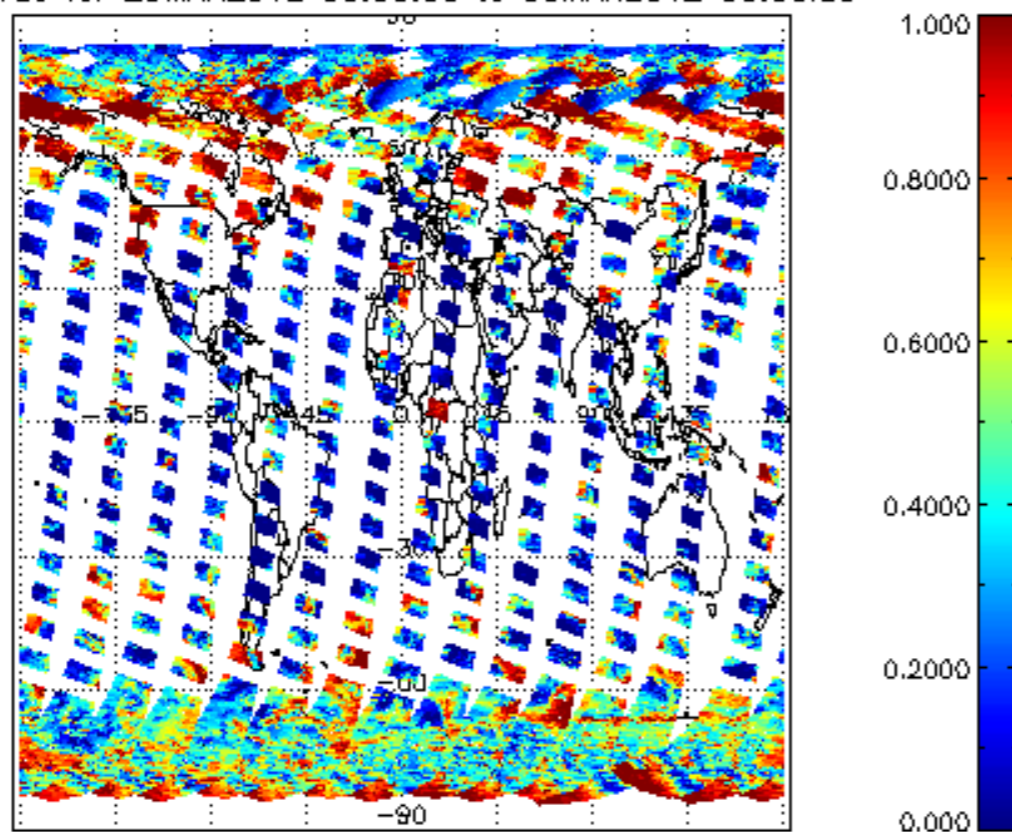


### 2.3 ADF monitoring

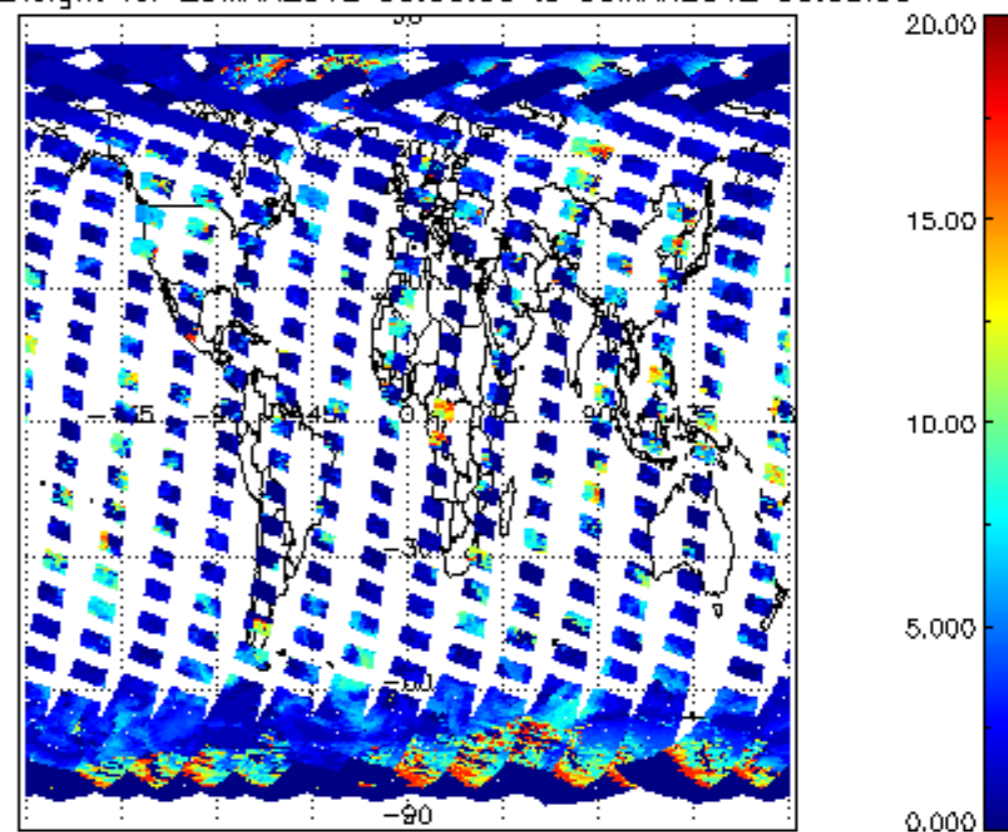
Number	ADF
	<b>IN_ (INITIALISATION_FILE)</b>
0	SCI_IN_AXNPDE20110201_120000_20020301_000000_20991231_235959
	<b>ECF (ECMWF_FILE)</b>
1	NOT USED
	<b>MF1 (M_FACTOR_FILE)</b>
2	SCI_MF1_AXVIEC20120327_133053_20120328_183248_20120330_183248
3	SCI_MF1_AXVIEC20120327_133111_20120329_193616_20120331_193616



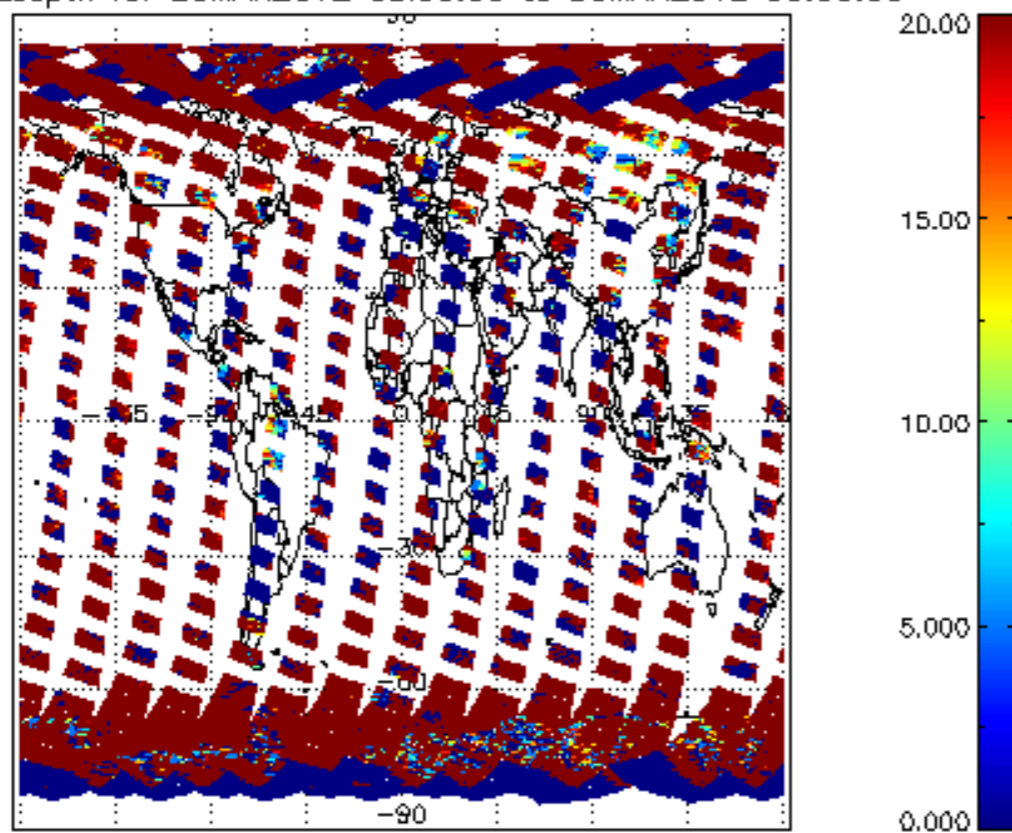
cL\_frac for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



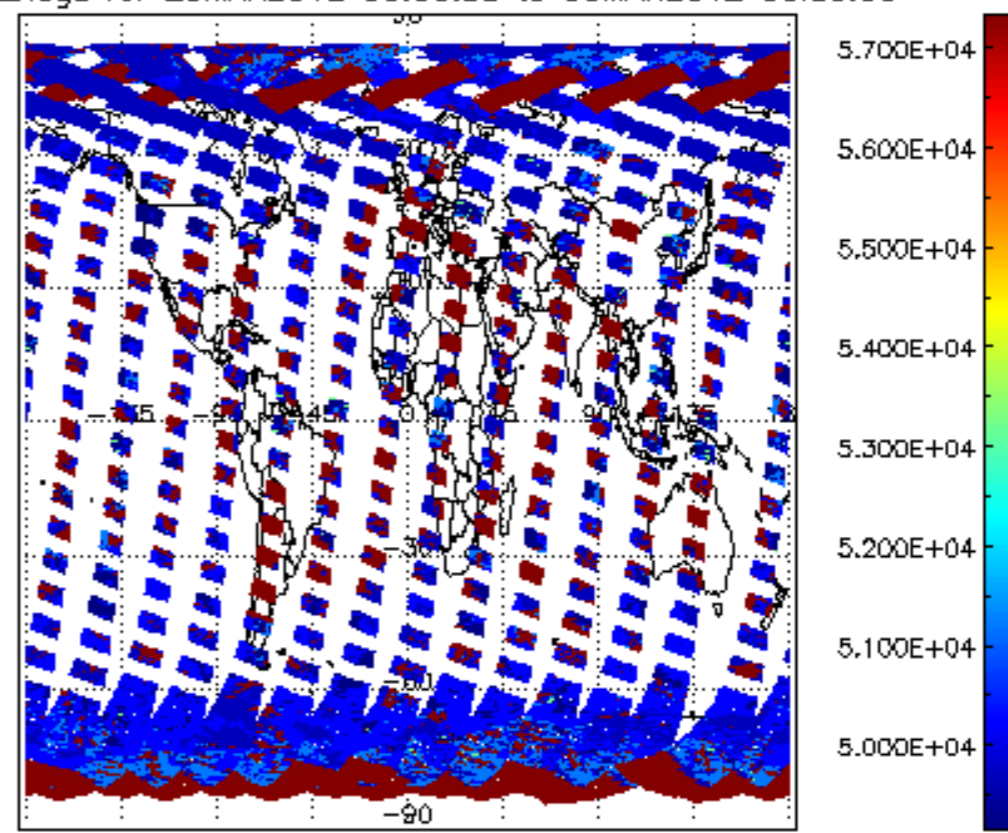
cL\_top\_height for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

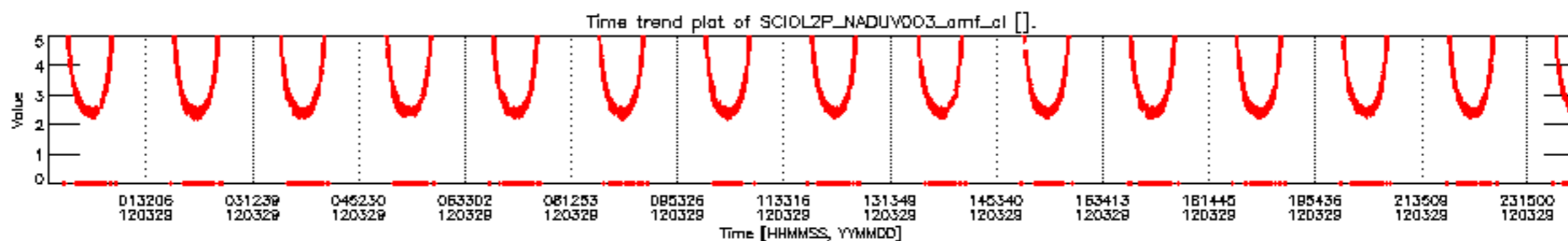
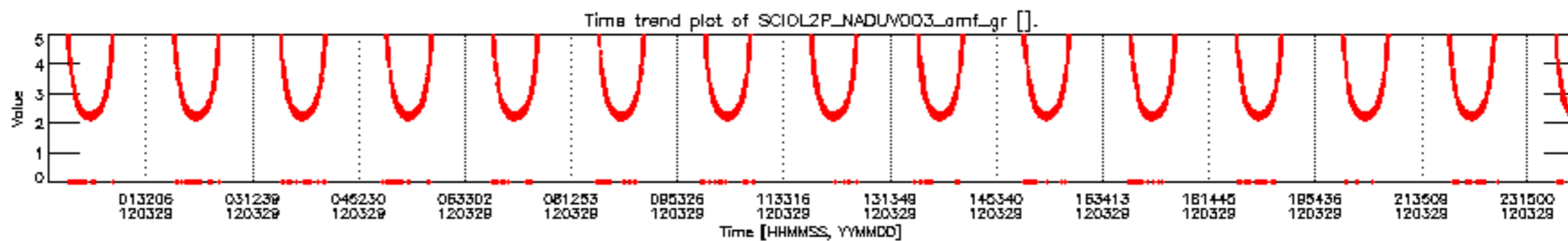
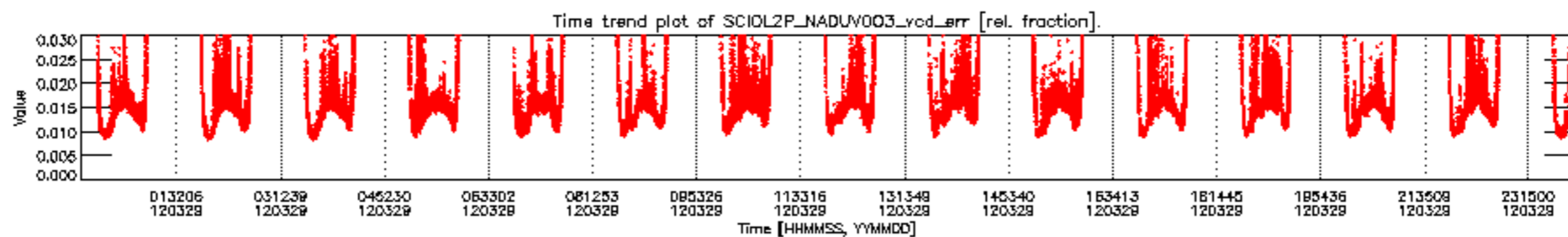
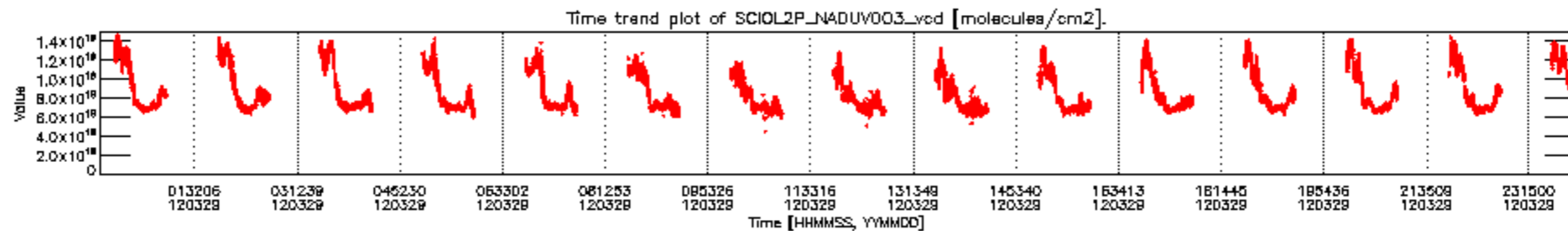


cL\_opt\_depth for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



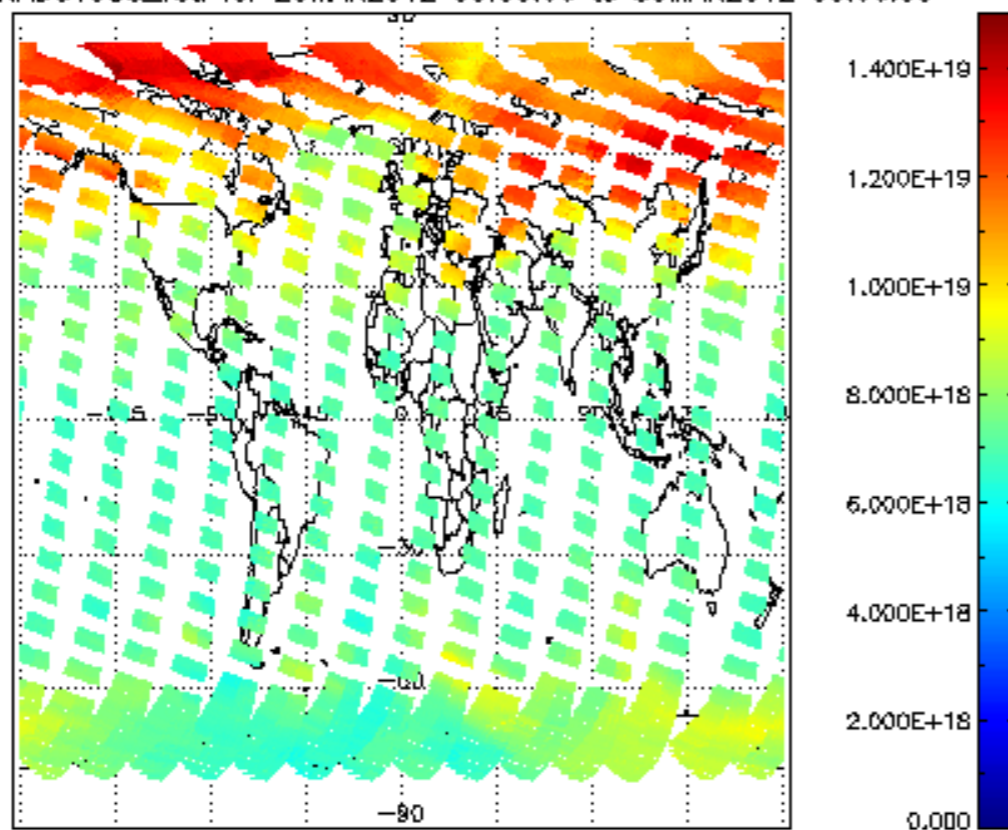
cloud\_flags for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



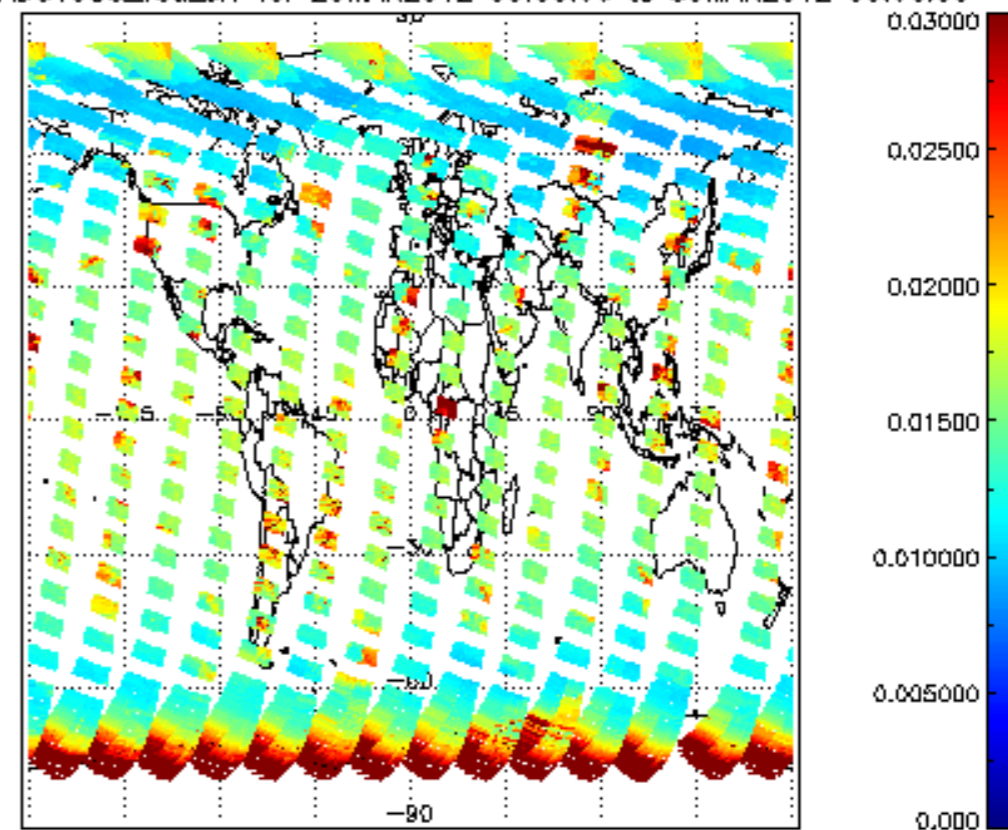




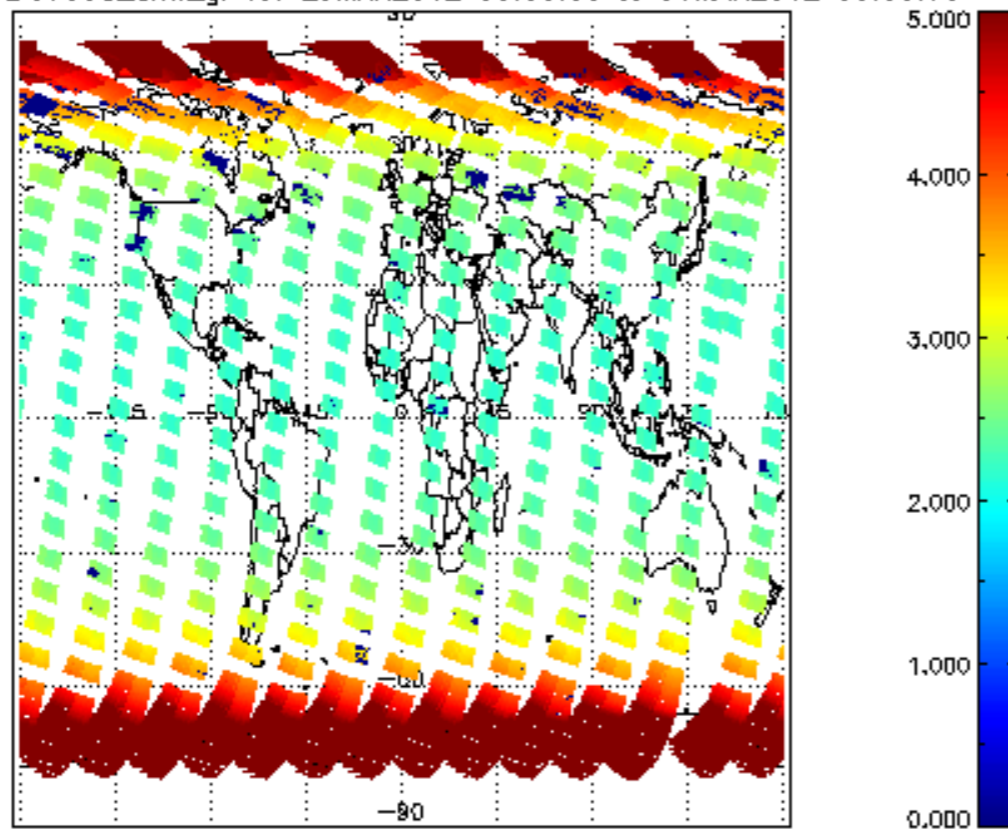
SCIOL2P\_NADUV003\_vcd for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



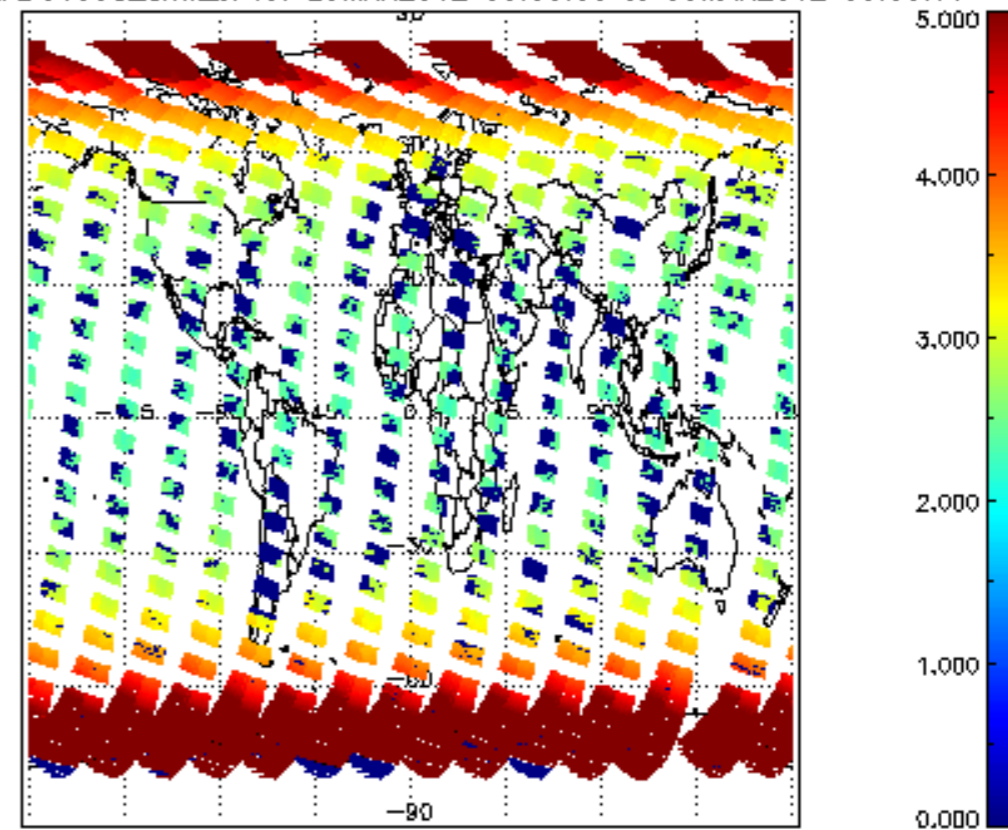
SCIOL2P\_NADUV003\_vcd\_err for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

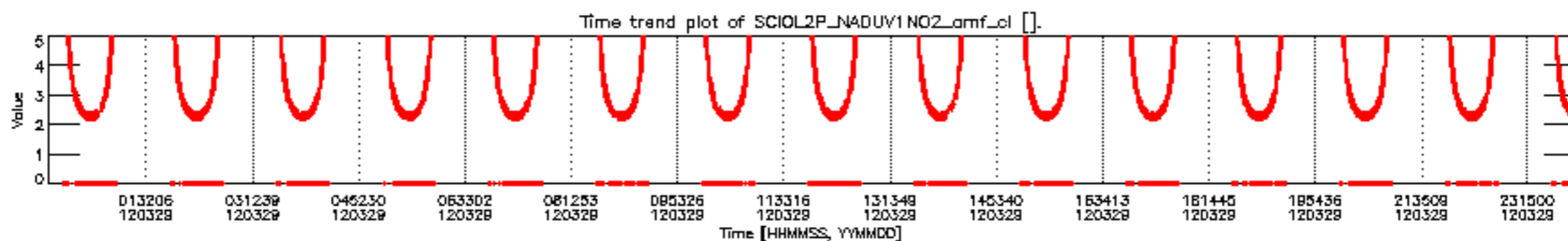
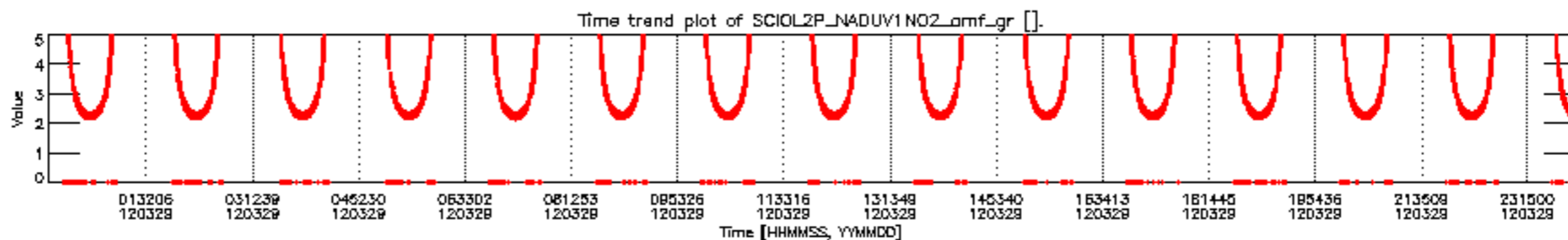
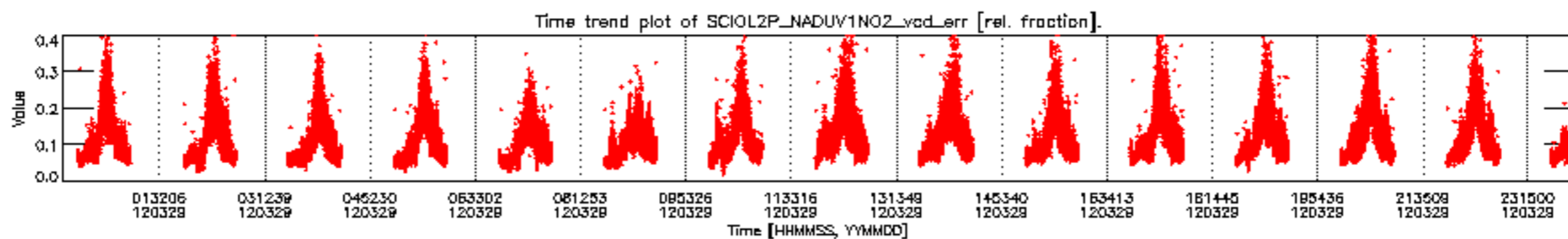
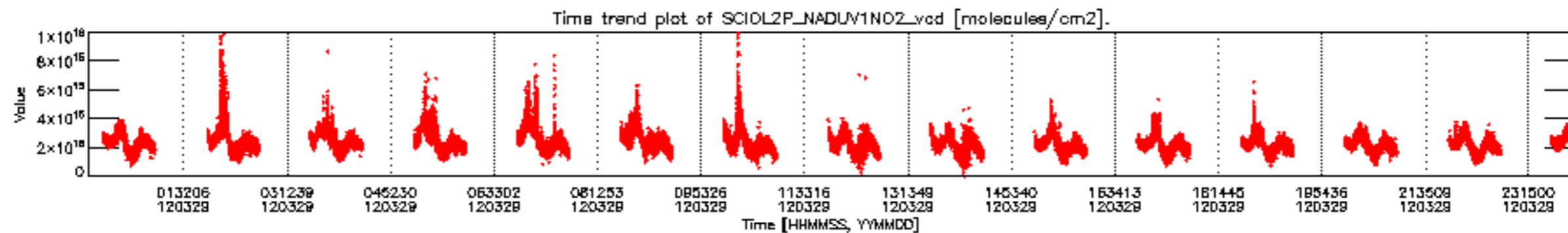


SCIOL2P\_NADUV003\_amf\_gr for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

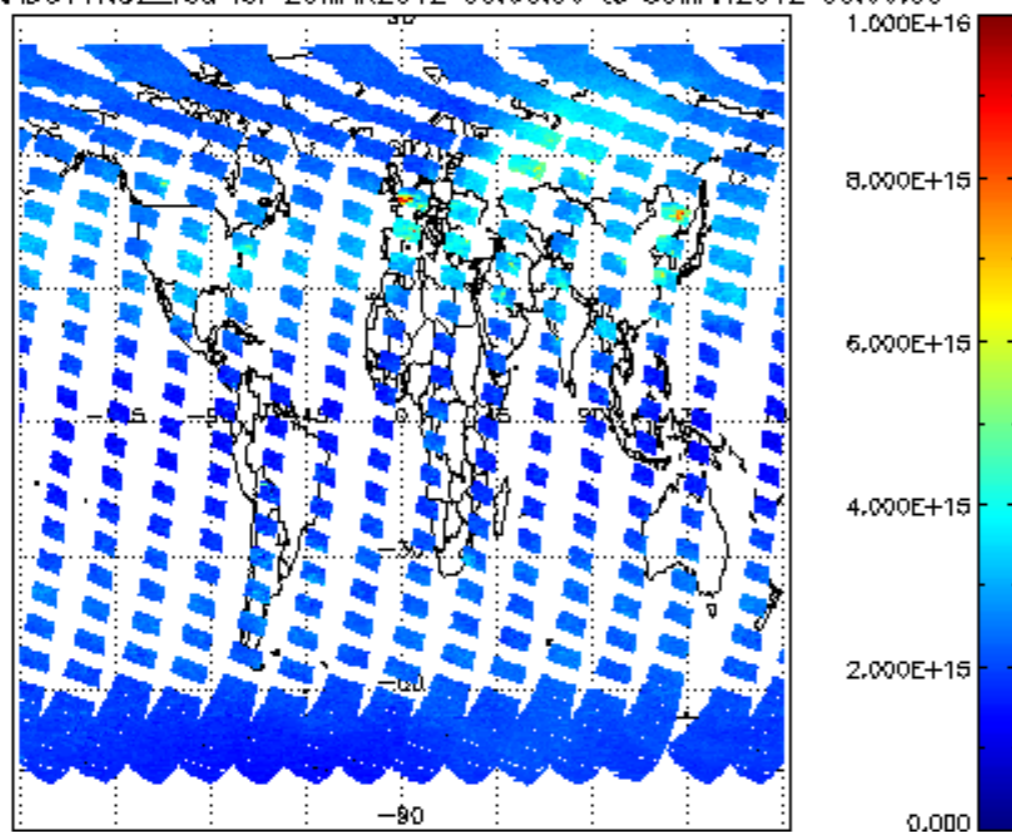


SCIOL2P\_NADUV003\_amf\_cl for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

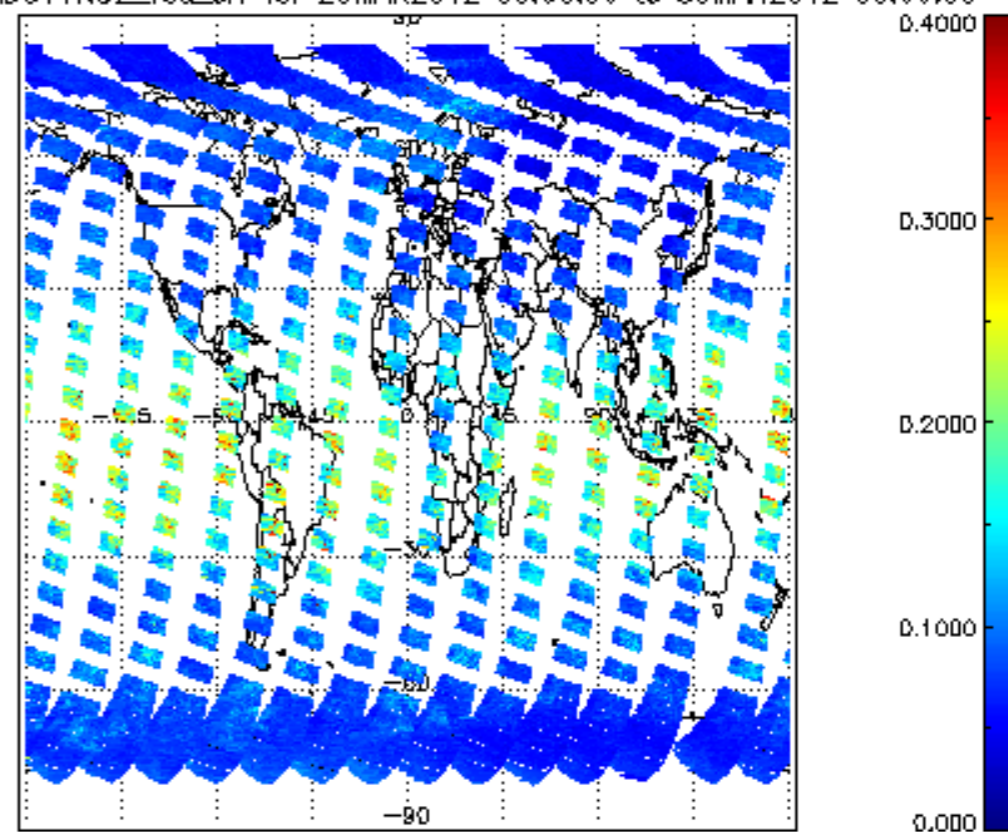




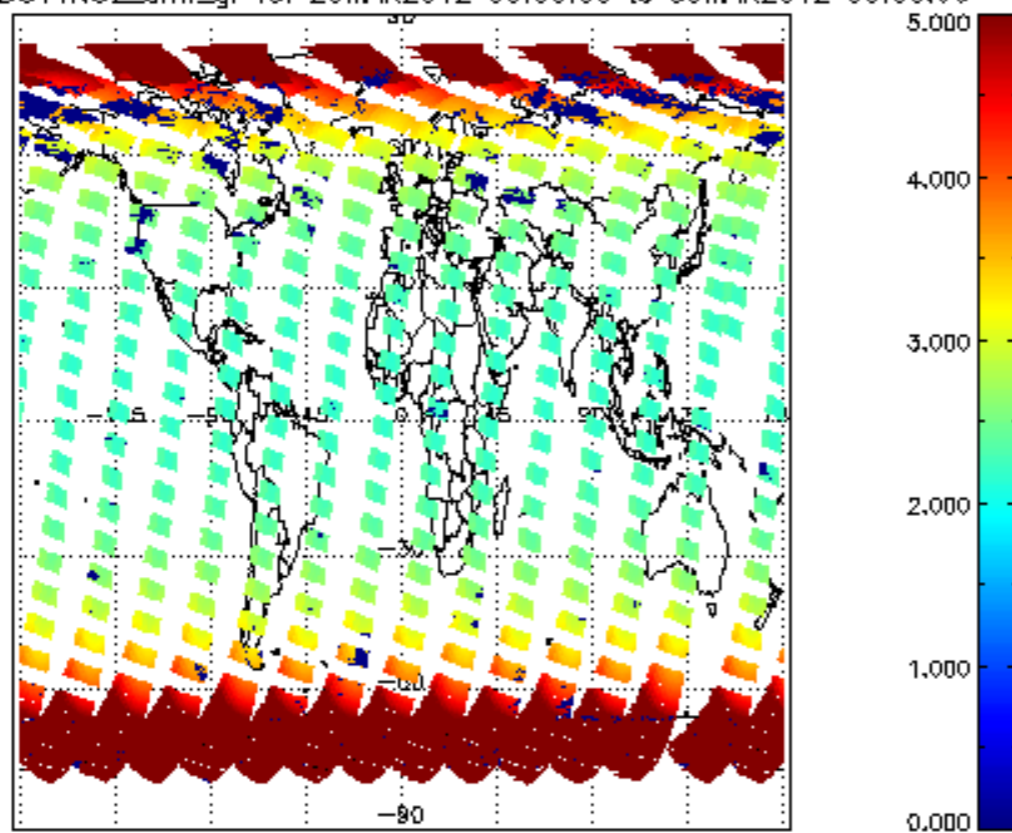
SCIOL2P\_NADUV1NO2\_vcd for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



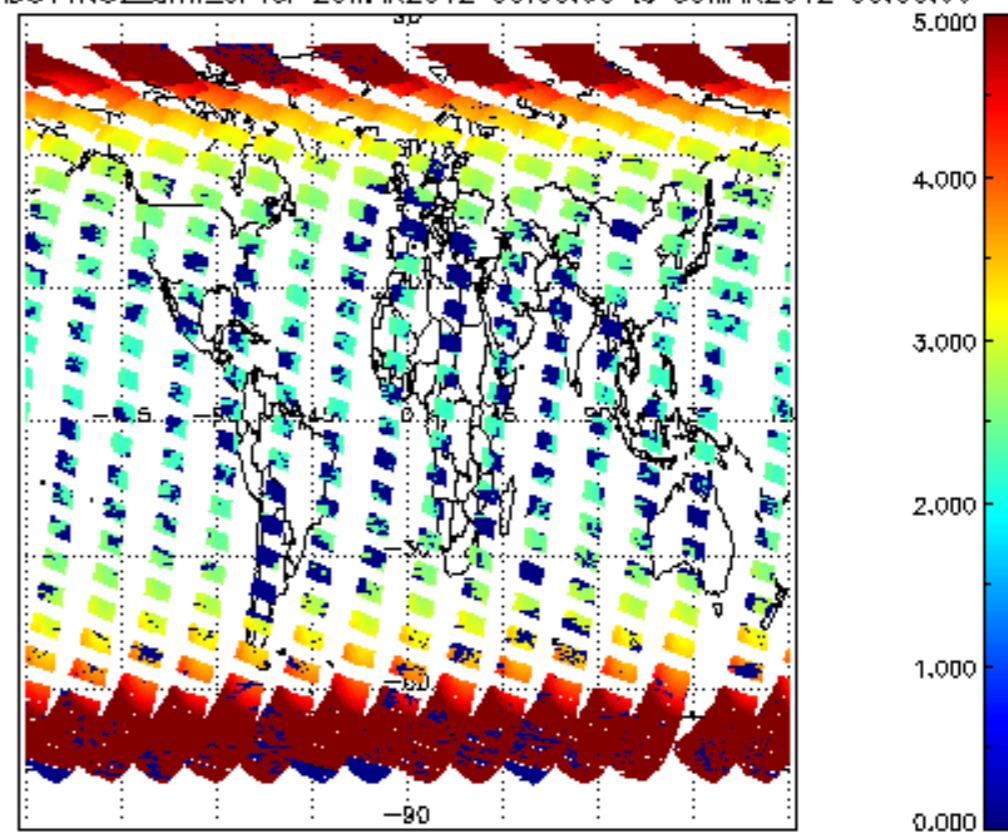
SCIOL2P\_NADUV1NO2\_vcd\_Lerr for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

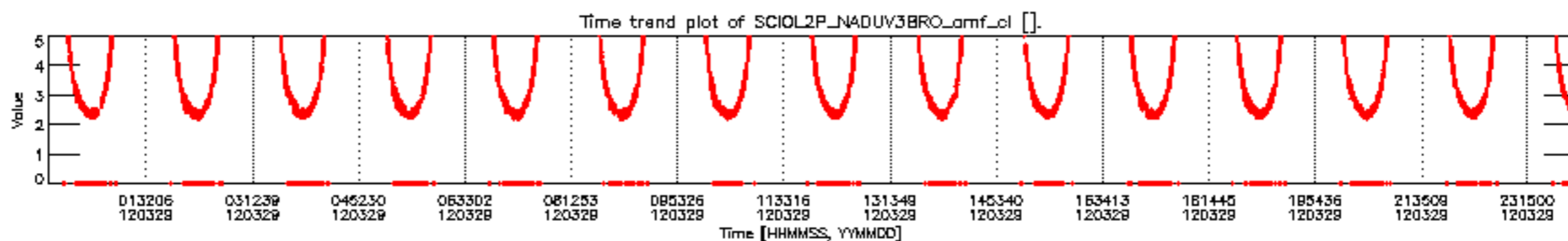
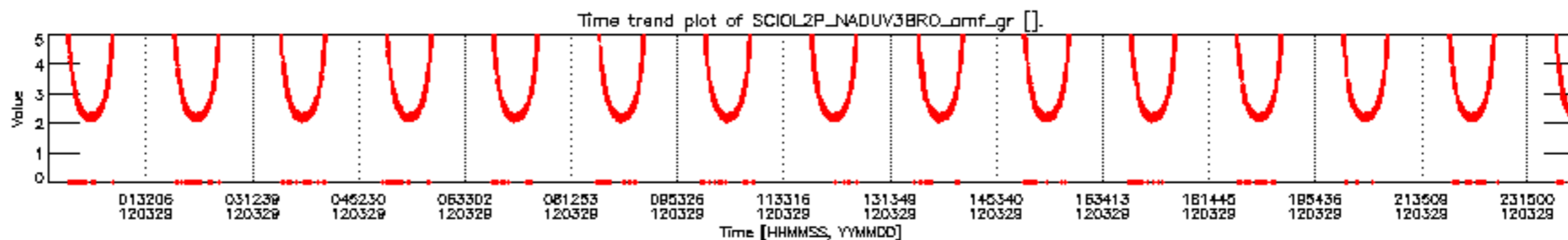
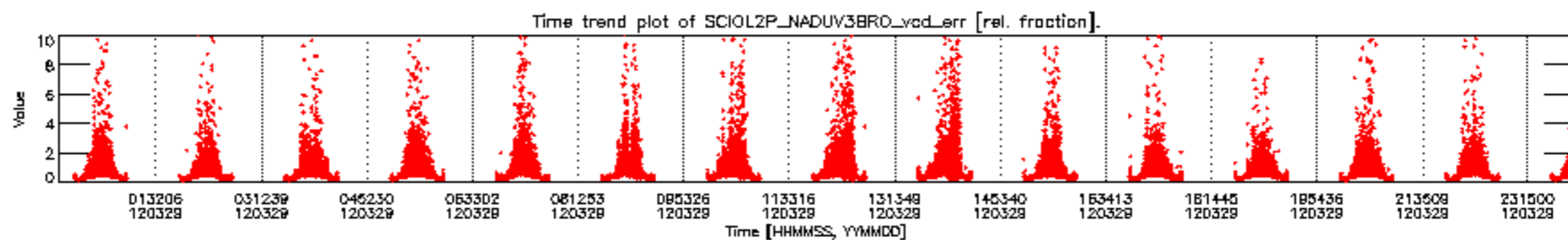
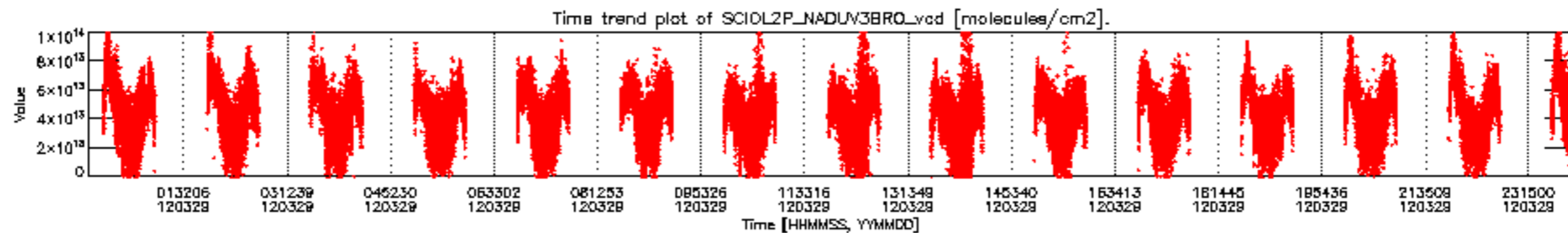


SCIOL2P\_NADUV1NO2\_amf\_gr for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

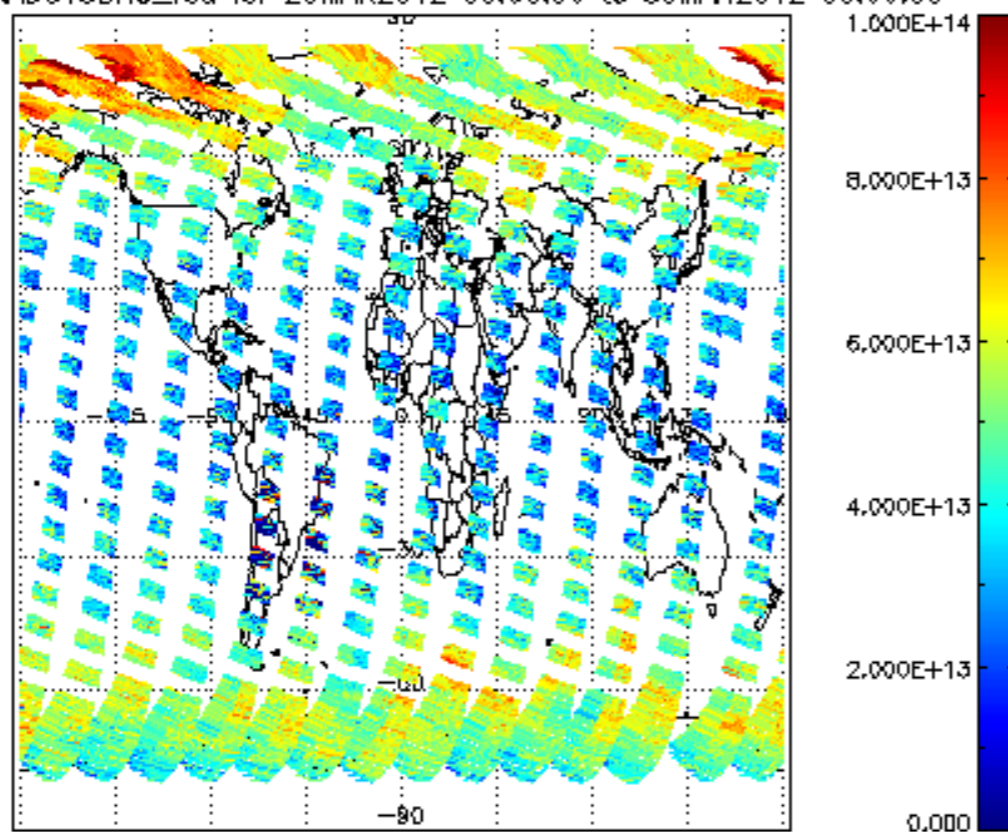


SCIOL2P\_NADUV1NO2\_amf\_cl for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

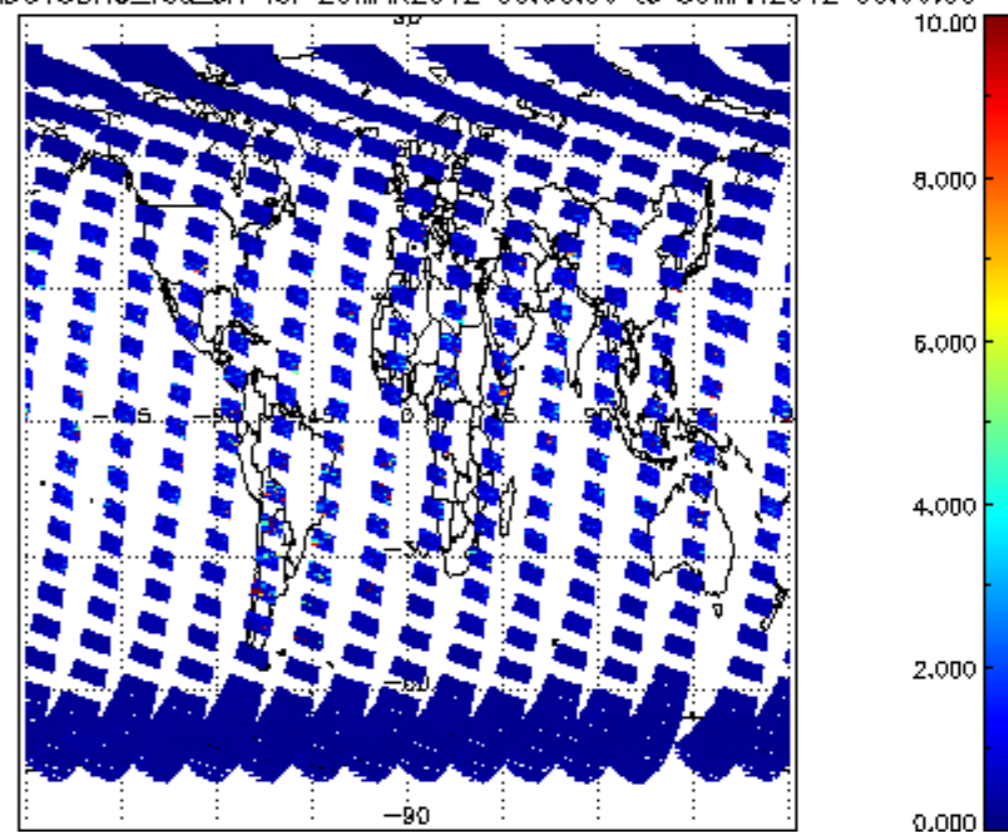




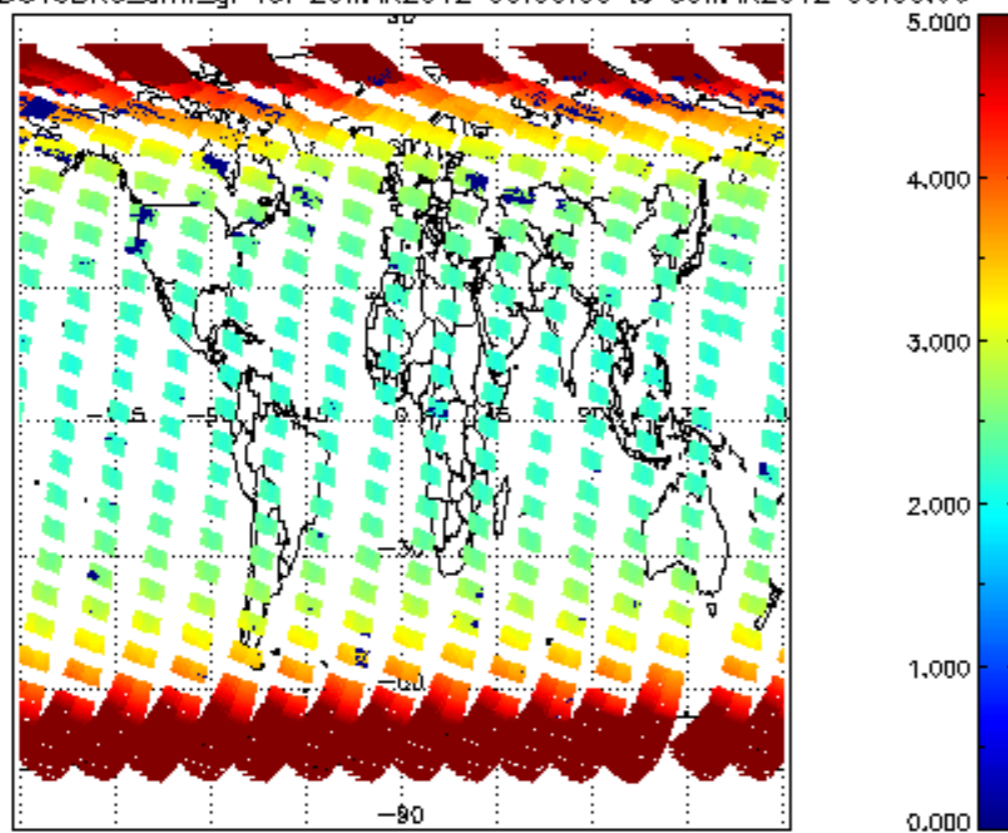
SCIOL2P\_NADUV3BRO\_vcd for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



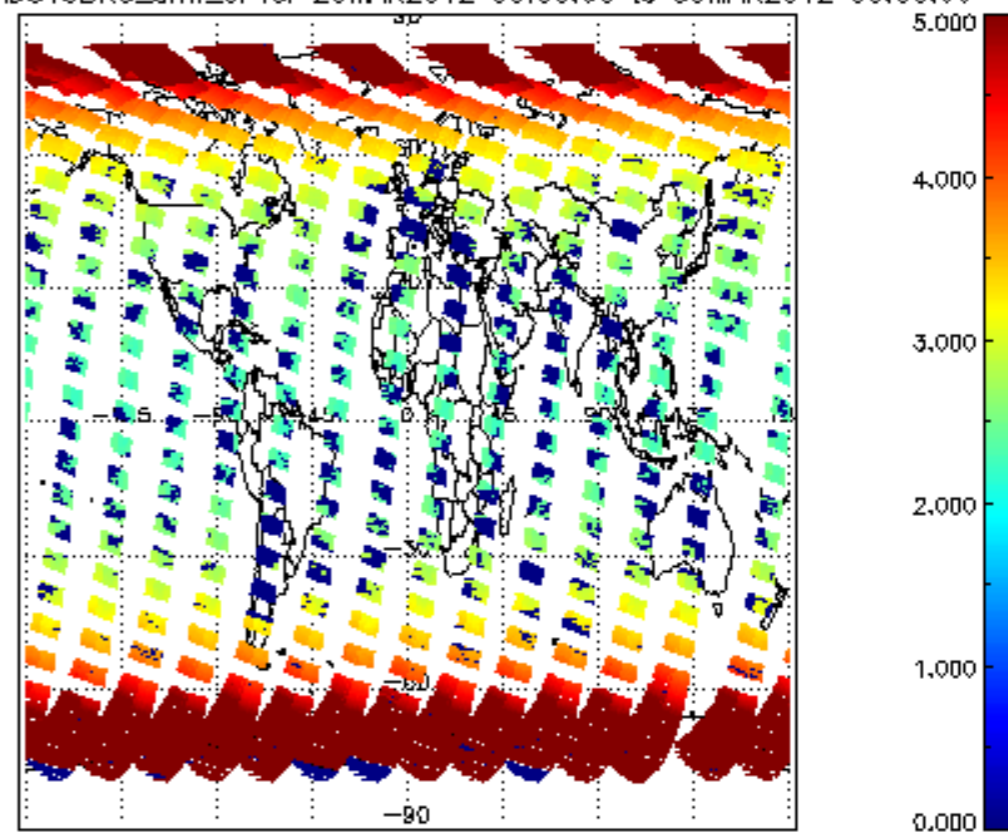
SCIOL2P\_NADUV3BRO\_vcd\_err for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

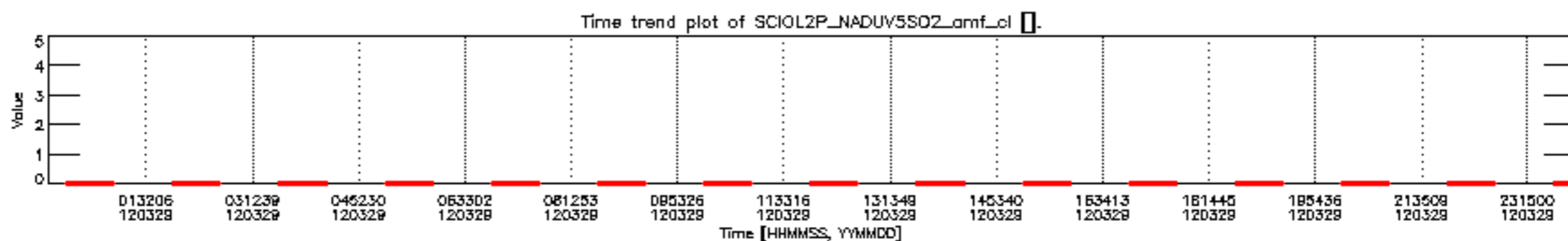
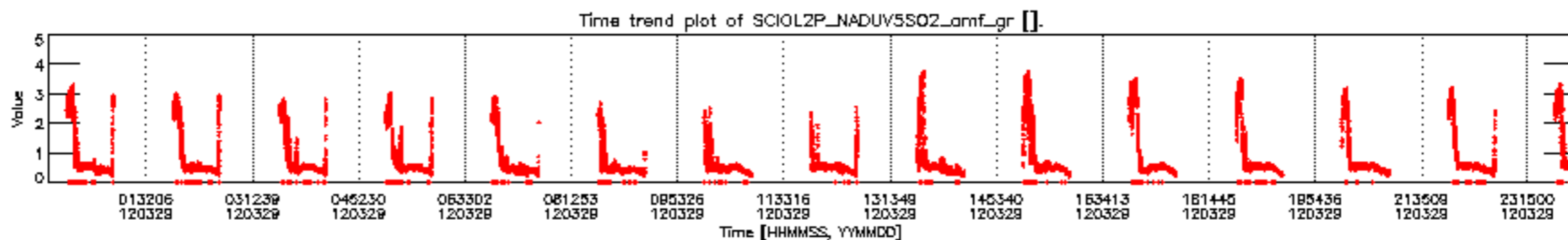
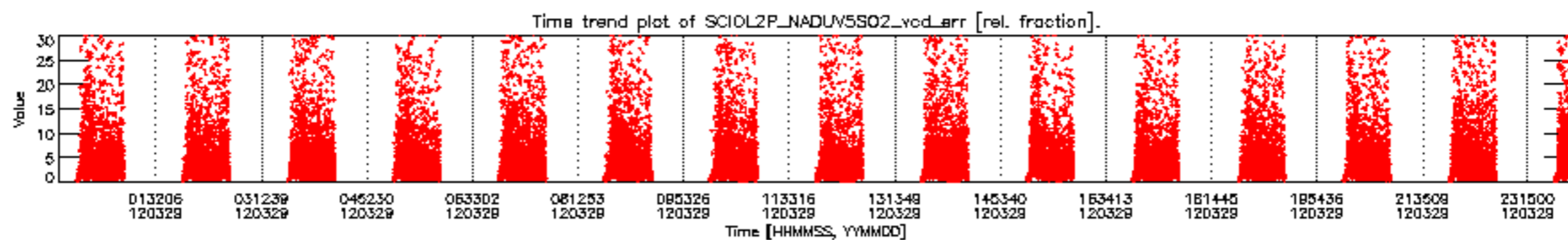
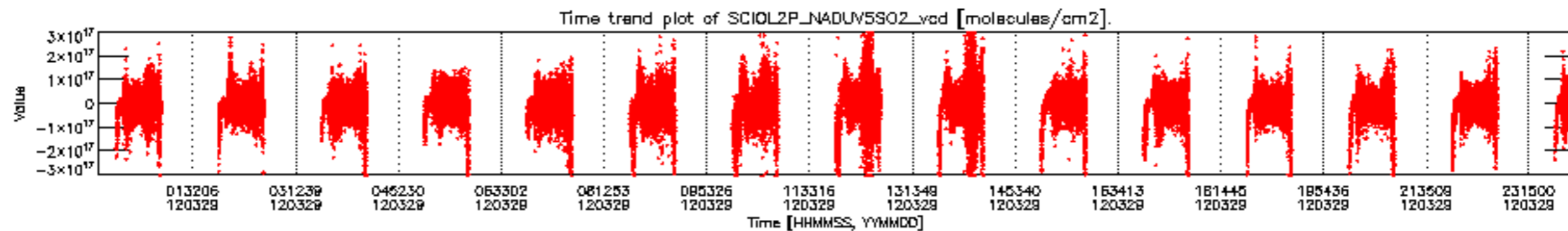


SCIOL2P\_NADUV3BRO\_amf\_gr for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

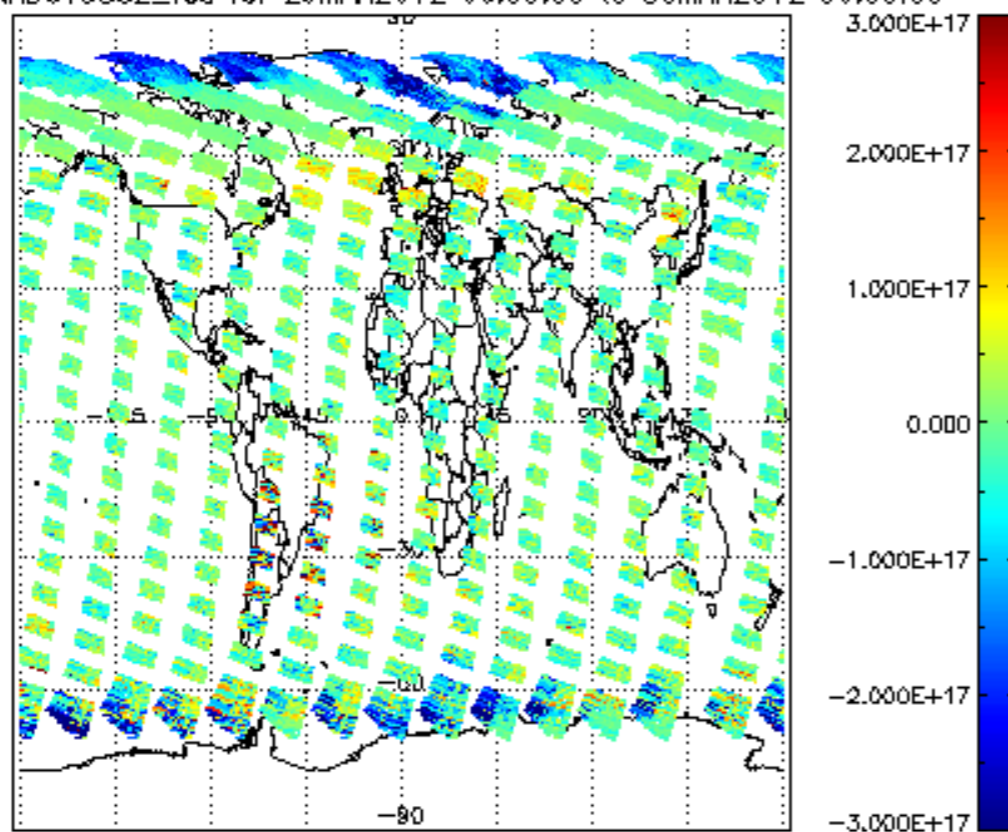


SCIOL2P\_NADUV3BRO\_amf\_cl for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

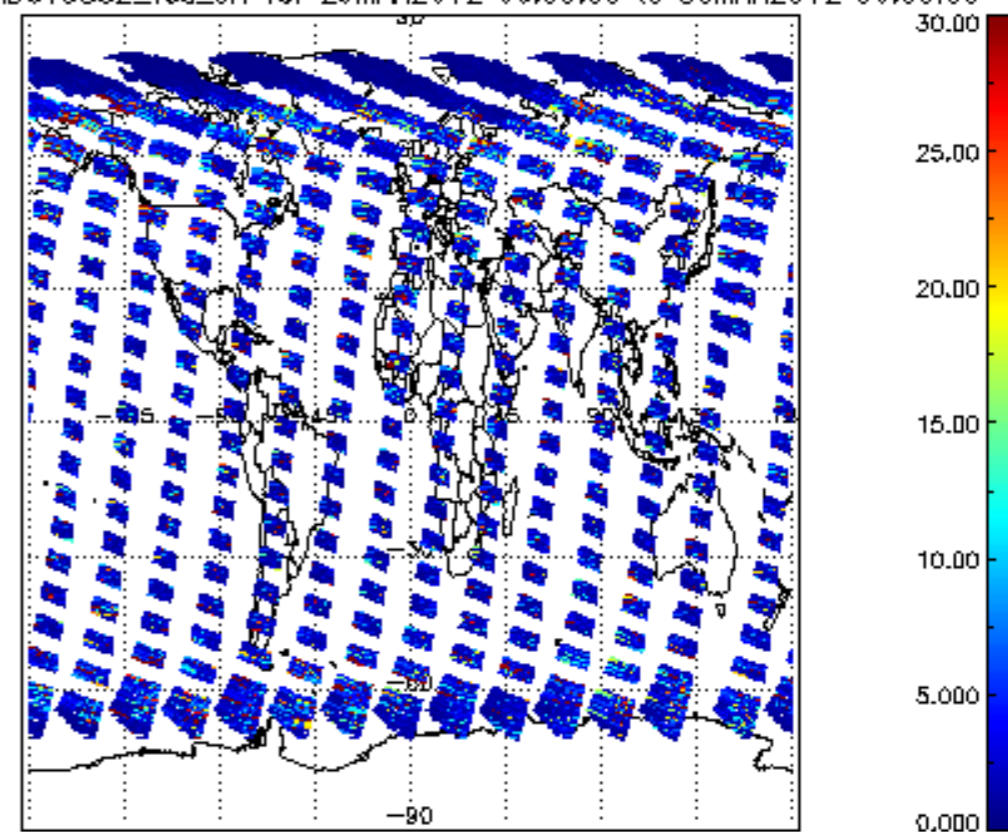




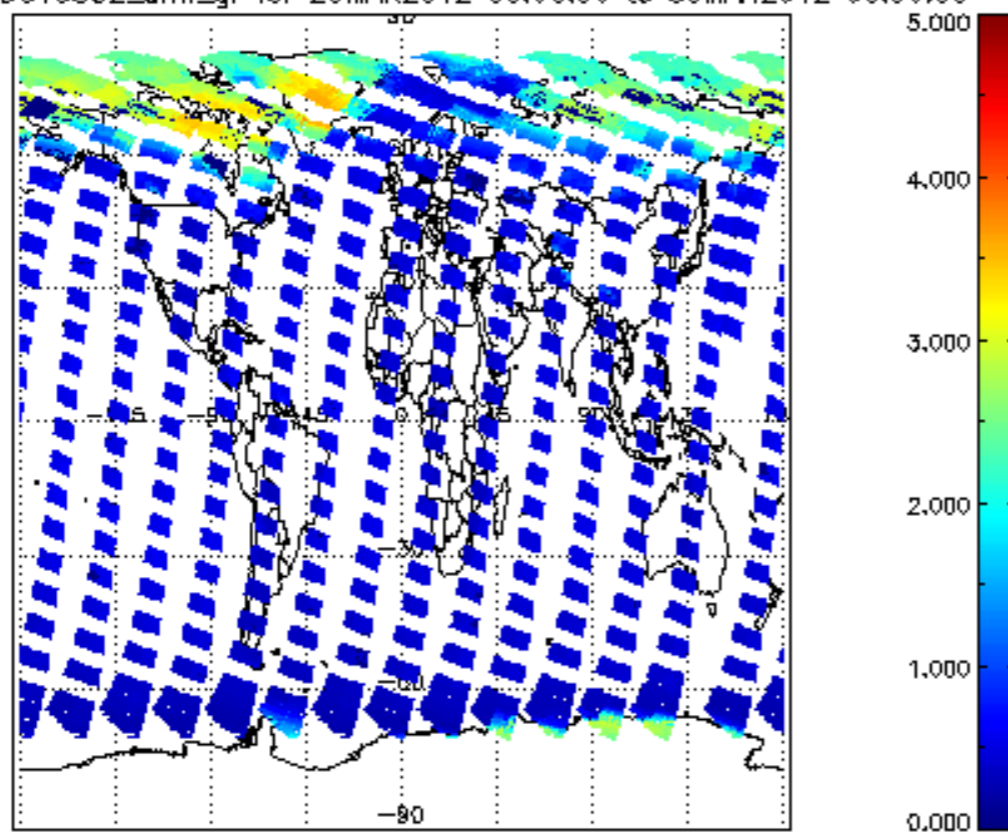
SCIOL2P\_NADUV5S02\_vcd for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



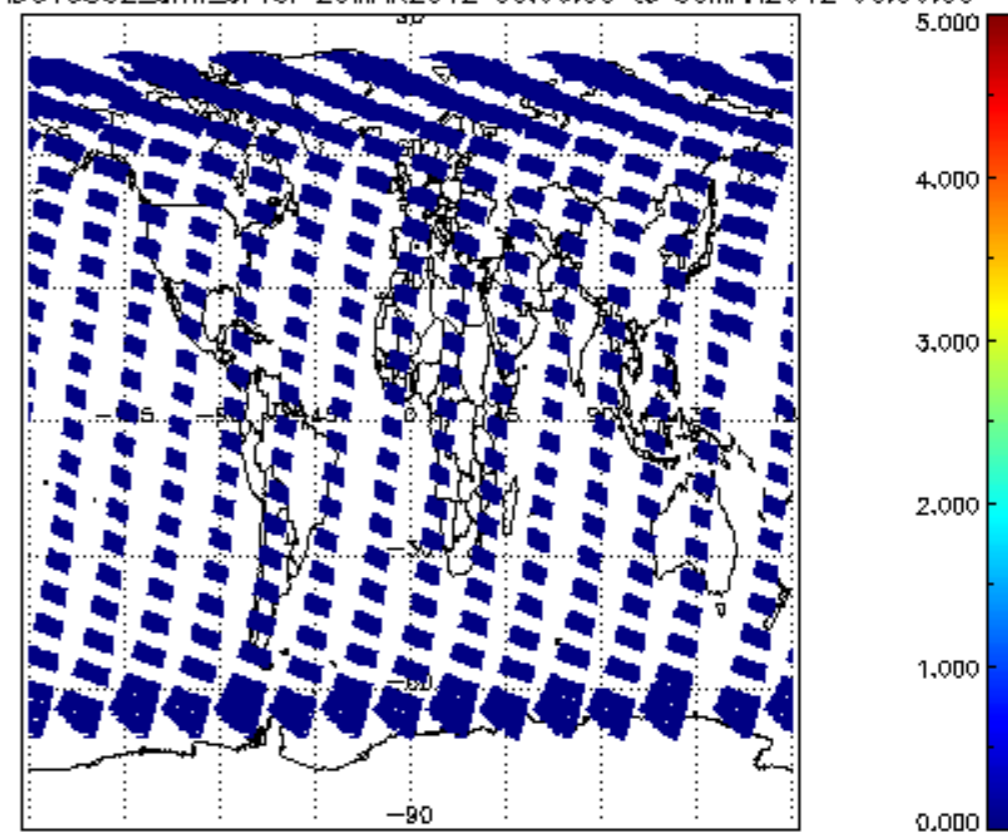
SCIOL2P\_NADUV5S02\_vcd\_err for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

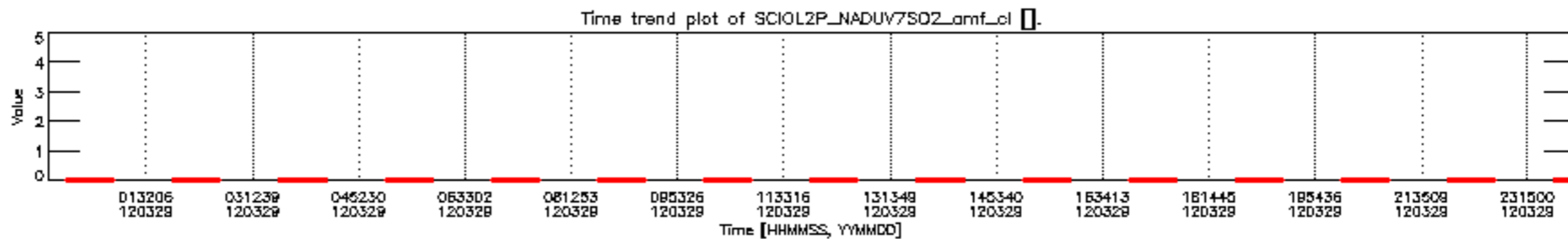
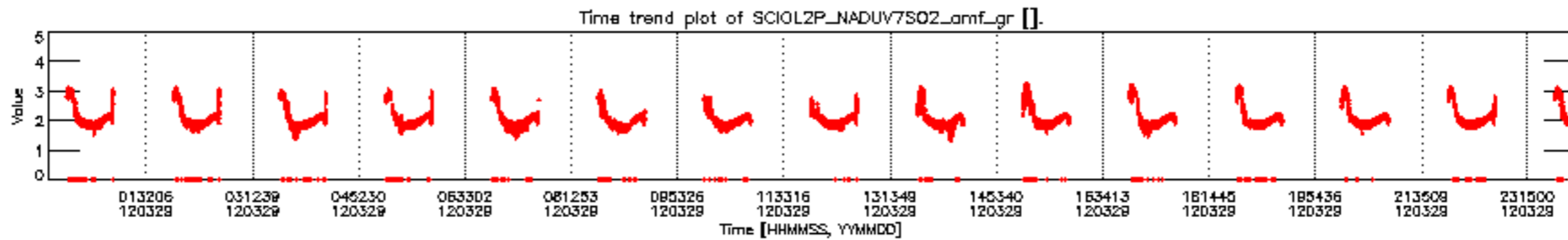
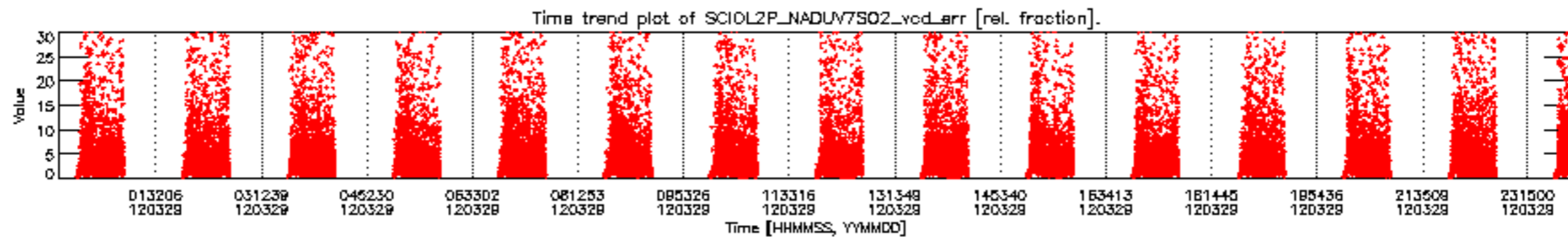
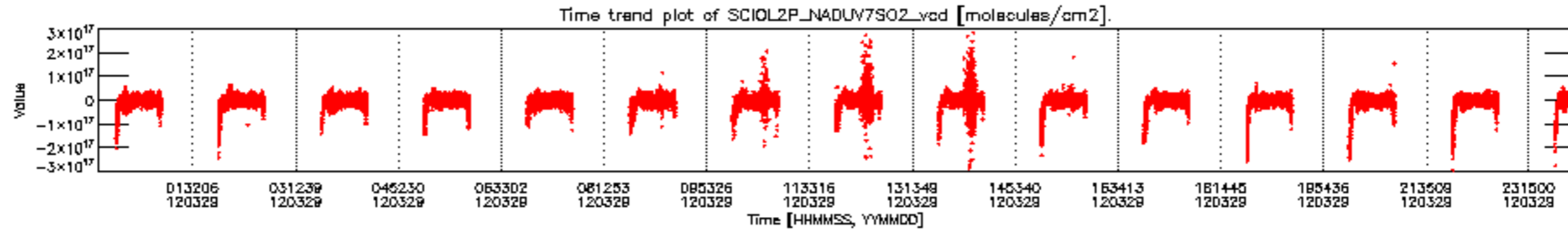


SCIOL2P\_NADUV5S02\_amf\_gr for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



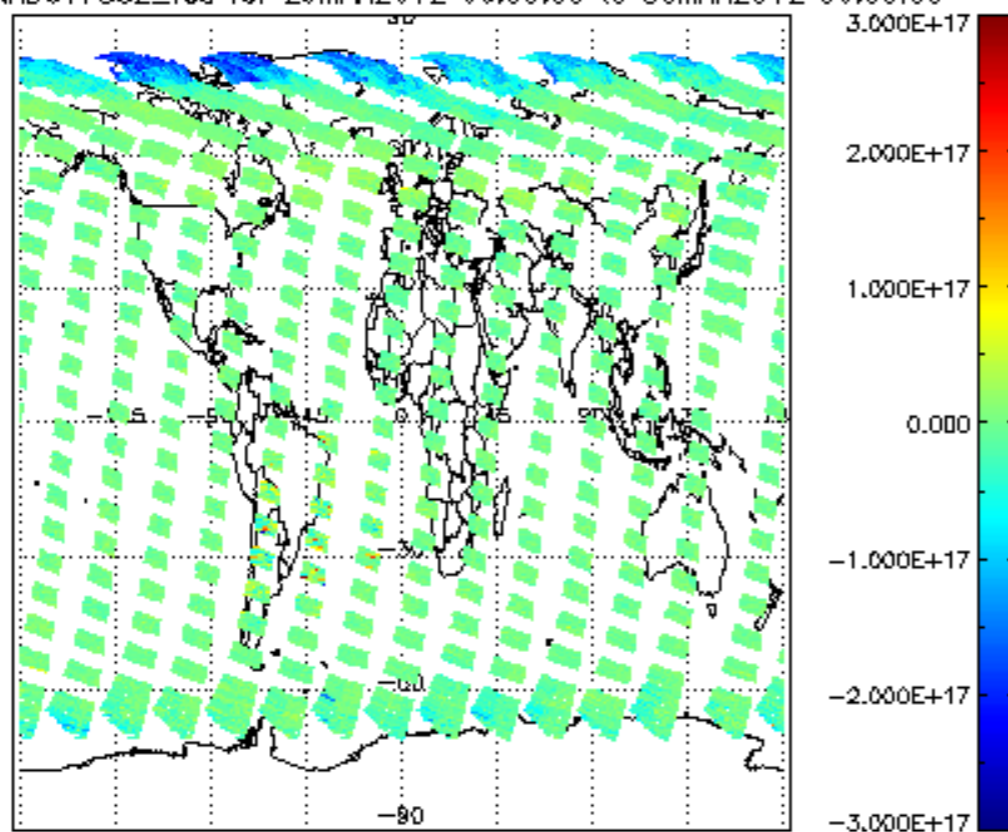
SCIOL2P\_NADUV5S02\_amf\_cl for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



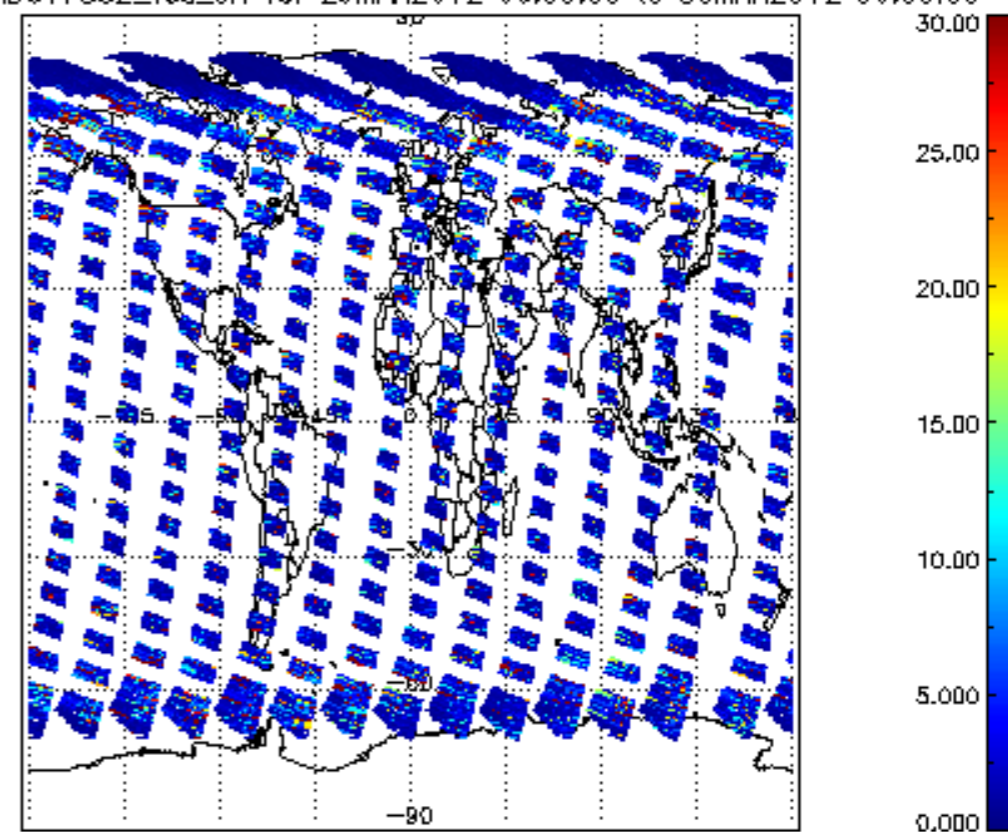




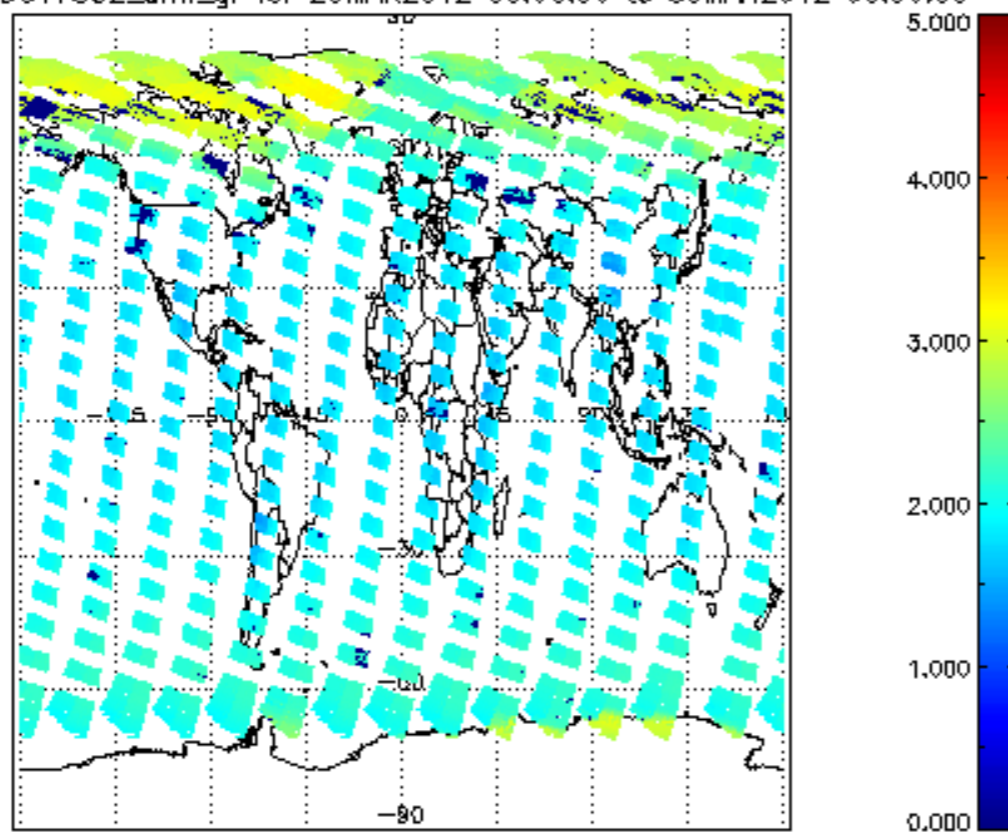
SCIOL2P\_NADUV7S02\_vcd for 29MAR2012 00:00:00 to 30MAR2012 00:00:00



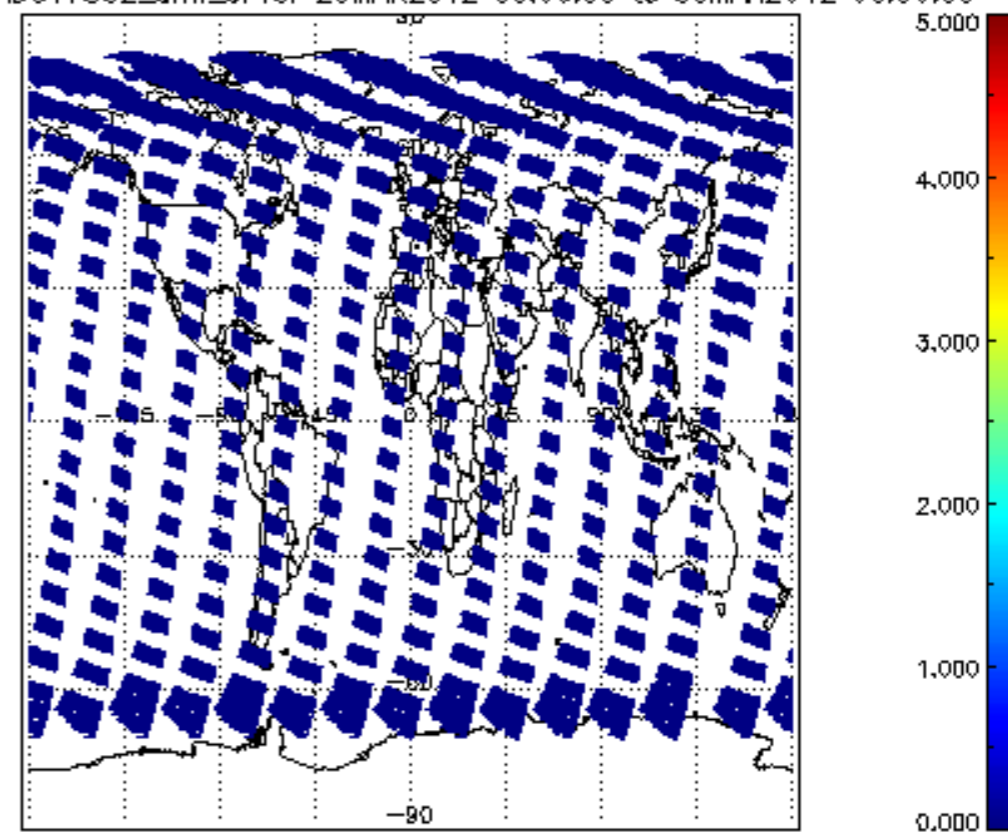
SCIOL2P\_NADUV7S02\_vcd\_err for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

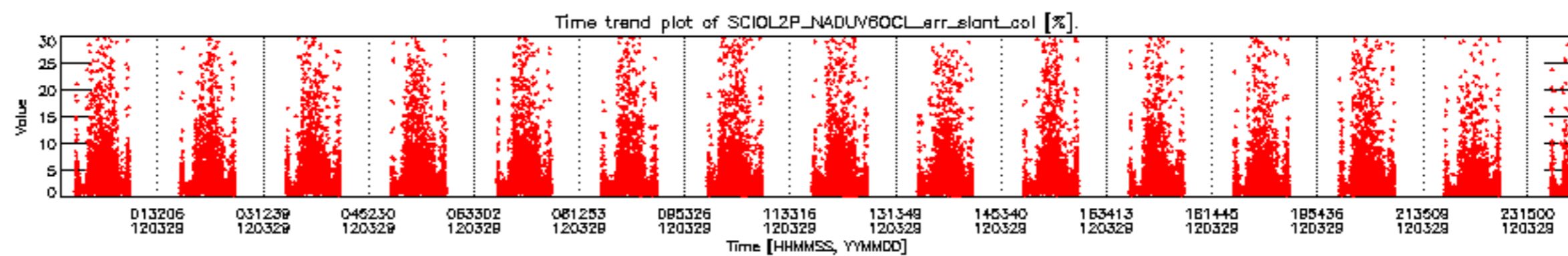
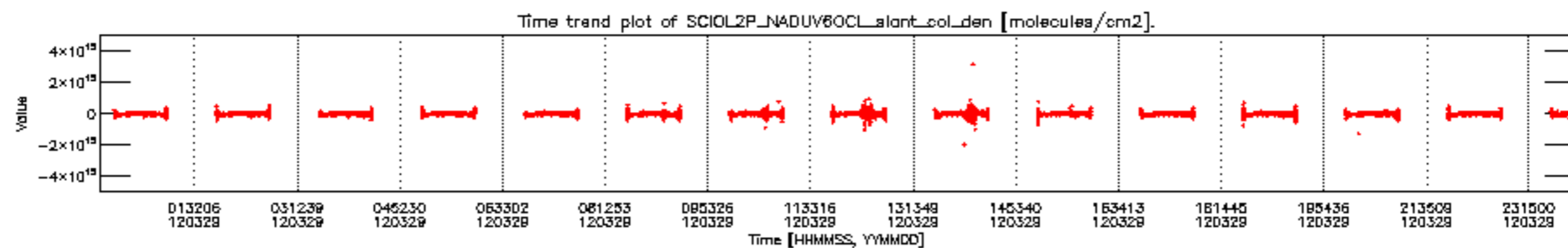


SCIOL2P\_NADUV7S02\_amf\_gr for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

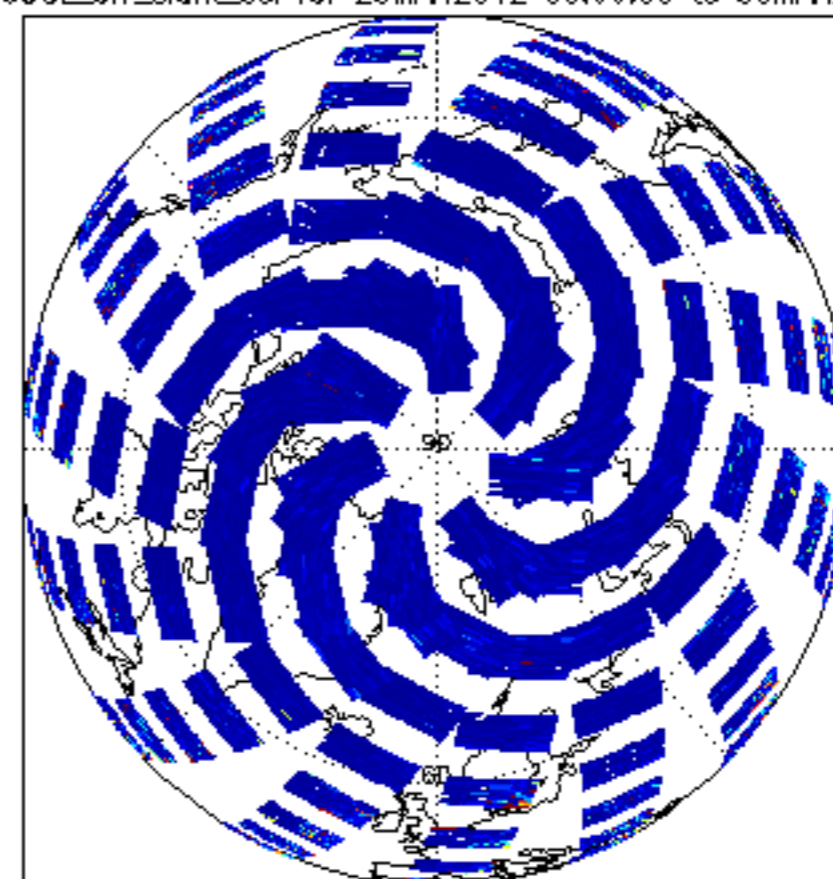
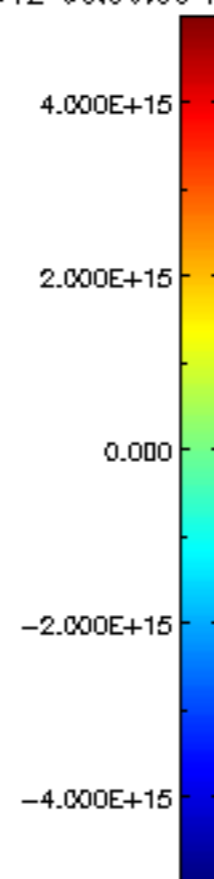
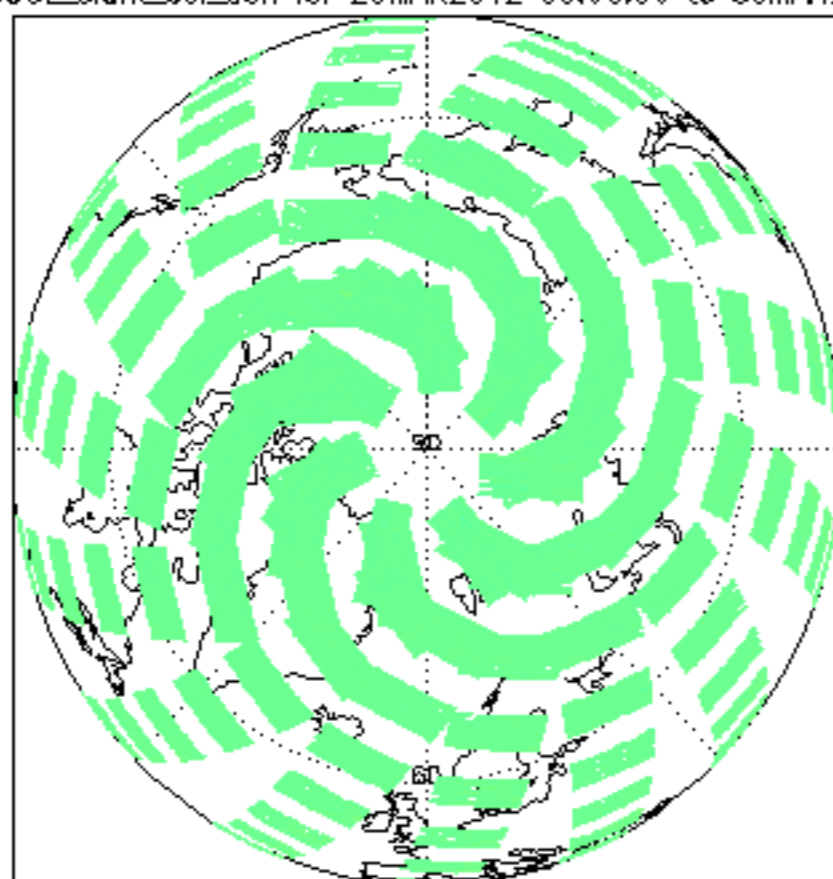


SCIOL2P\_NADUV7S02\_amf\_cl for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

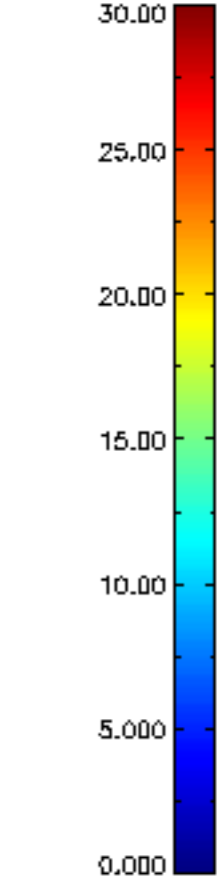
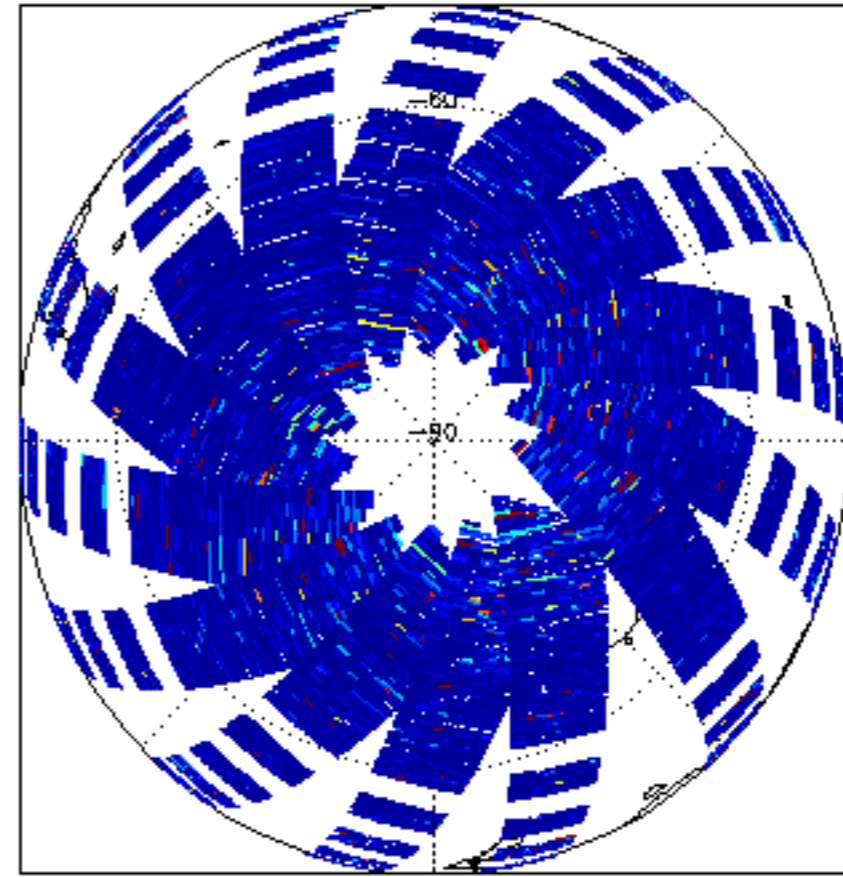
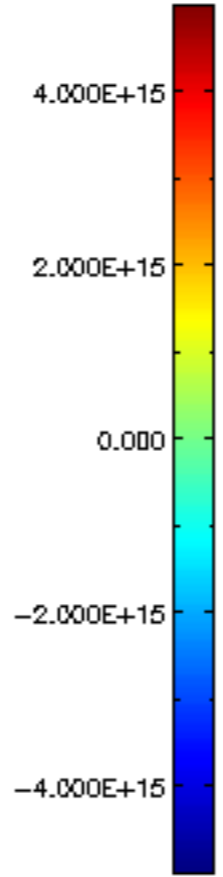
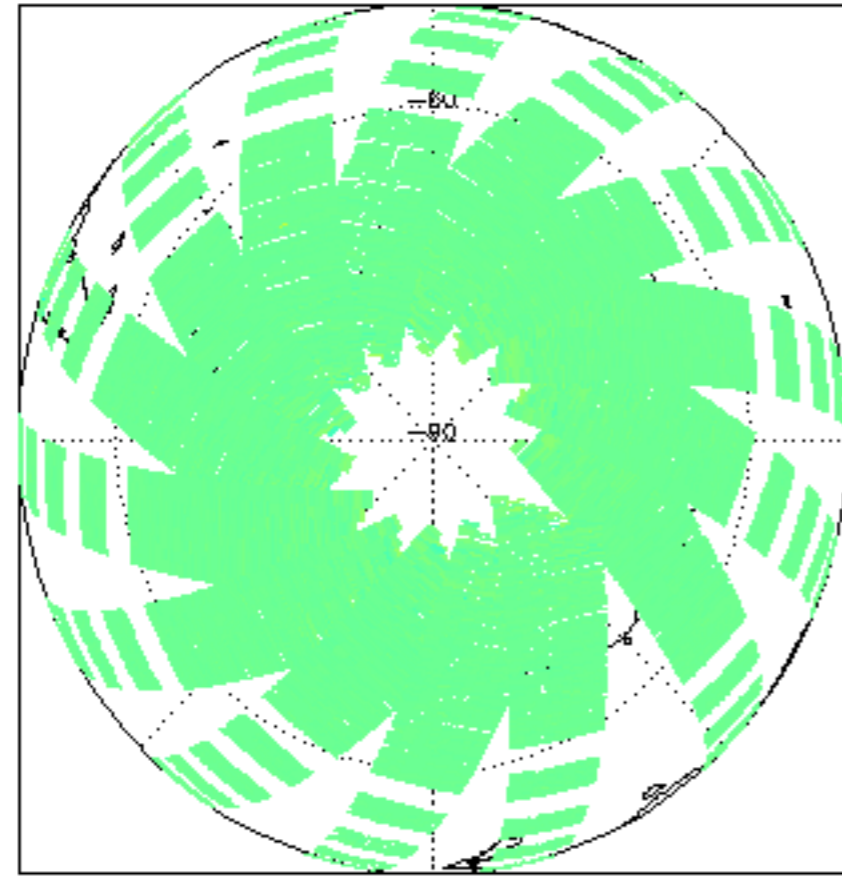


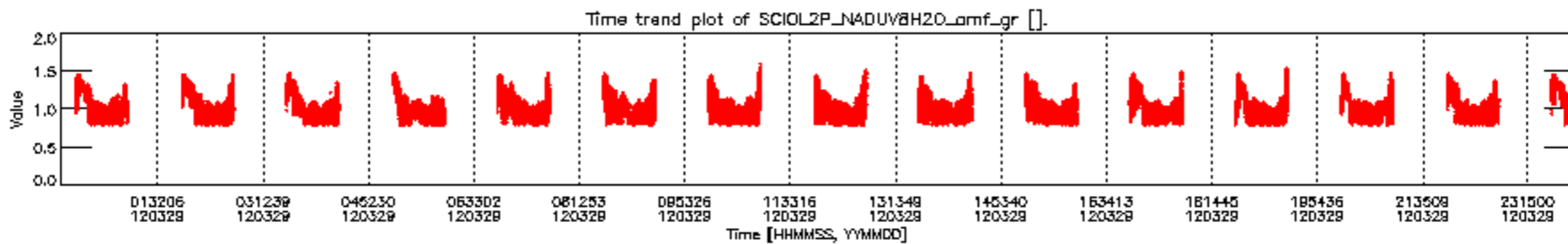
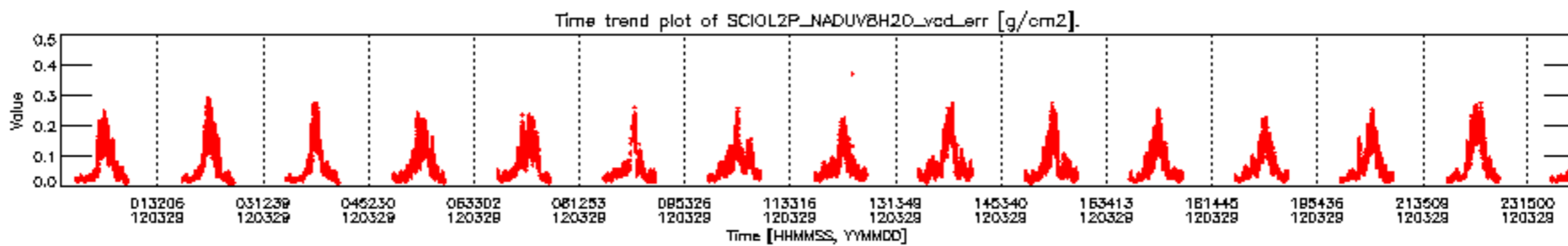
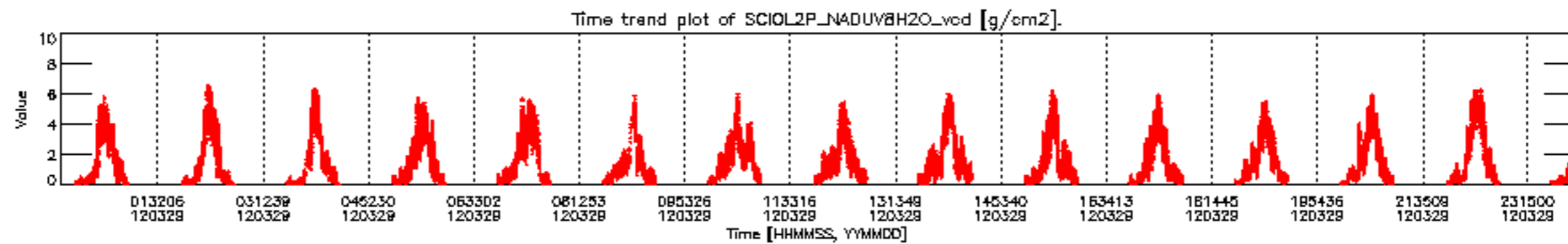


CIOL2P\_NADUV6OCL\_slant\_col\_den for 29MAR2012 00:00:00 to 30MAR2012 00:00:00 np; CIOL2P\_NADUV6OCL\_err\_slant\_col for 29MAR2012 00:00:00 to 30MAR2012 00:00:00 np

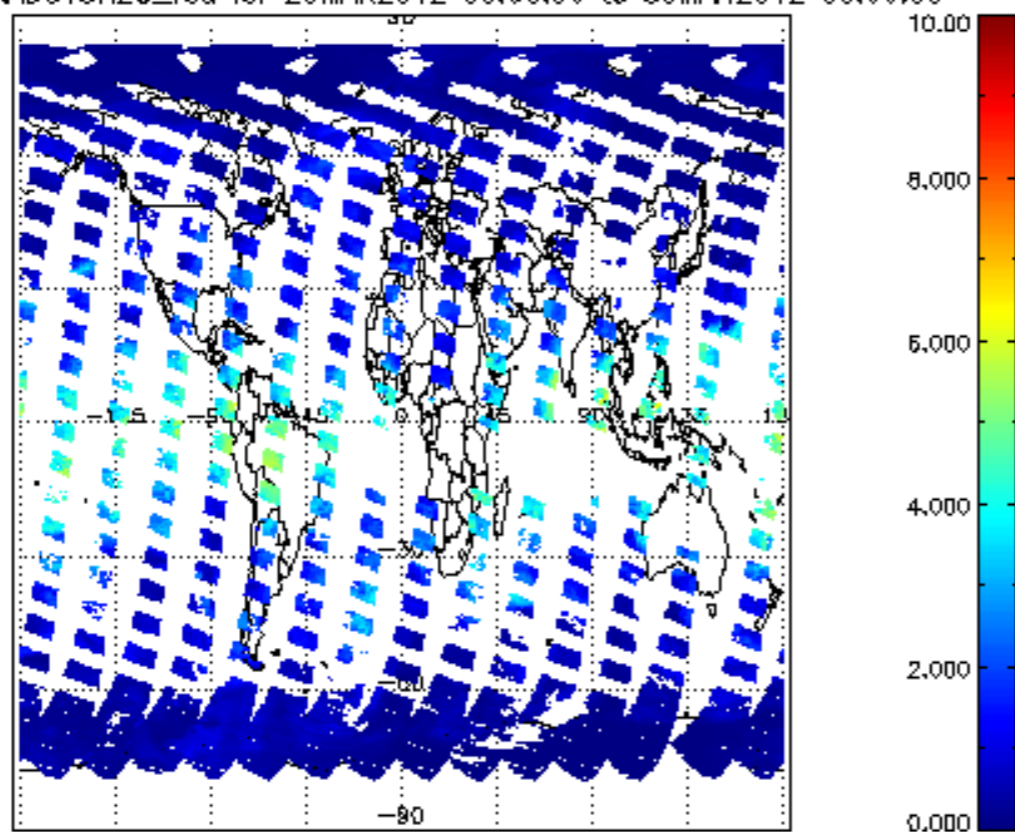


CIOL2P\_NADUV6OCL\_slant\_coLden for 29MAR2012 00:00:00 to 30MAR2012 00:00:00 sp; CIOL2P\_NADUV6OCL\_err\_slant\_col for 29MAR2012 00:00:00 to 30MAR2012 00:00:00 sp

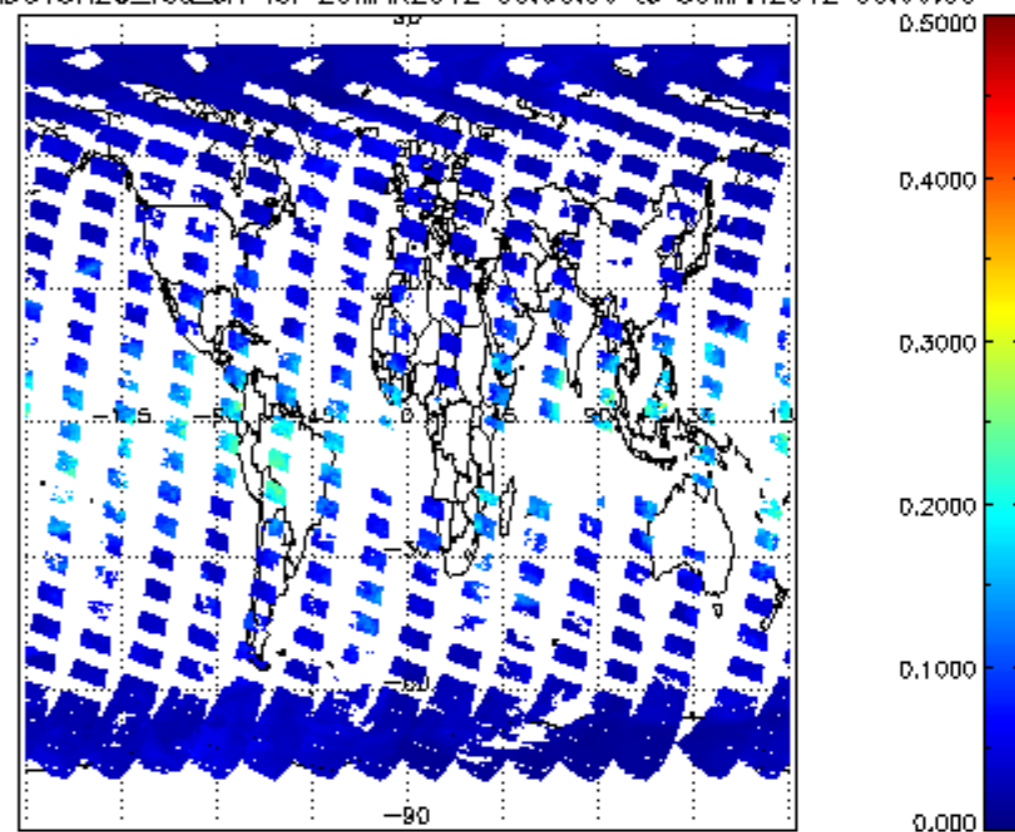




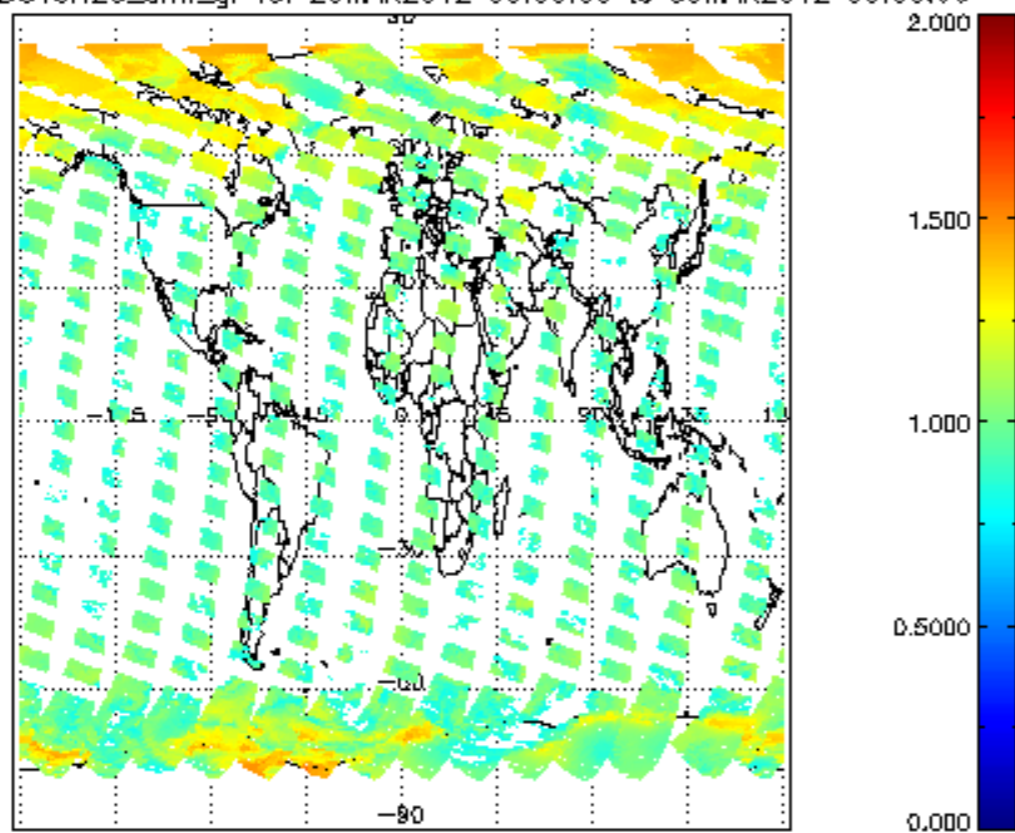
SCIOL2P\_NADUV8H20\_vcd for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

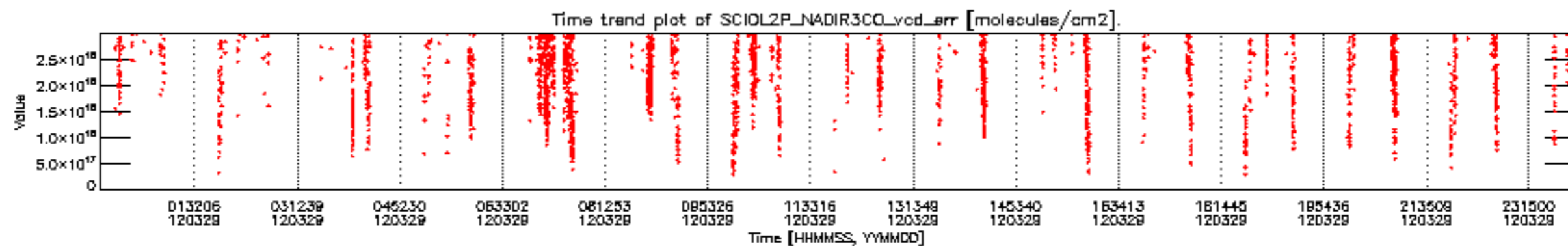
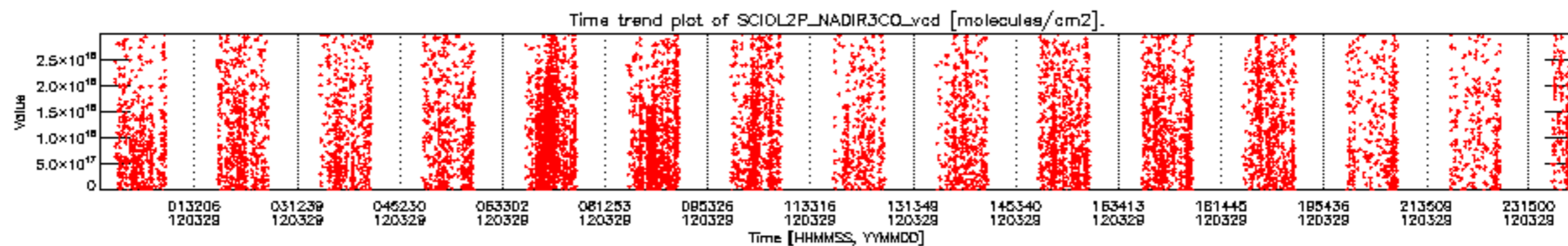


SCIOL2P\_NADUV8H20\_vcd\_err for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

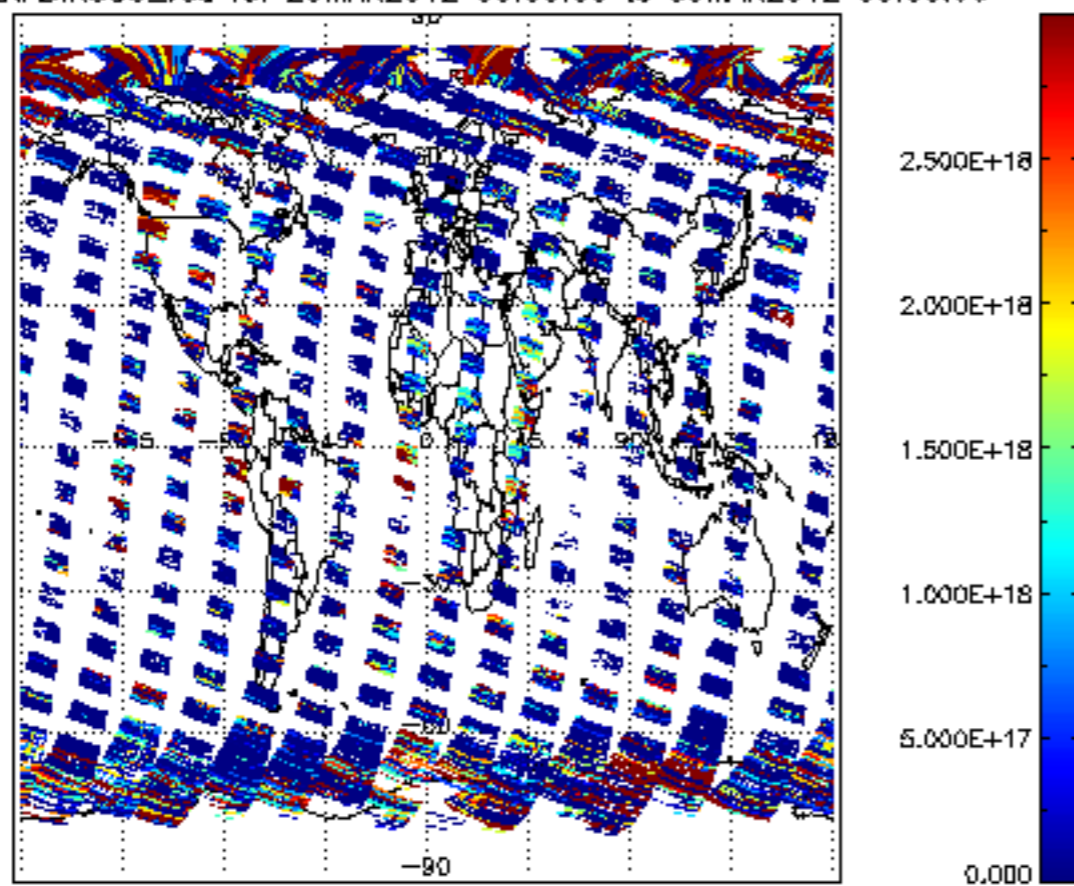


SCIOL2P\_NADUV8H20\_arnf\_gr for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

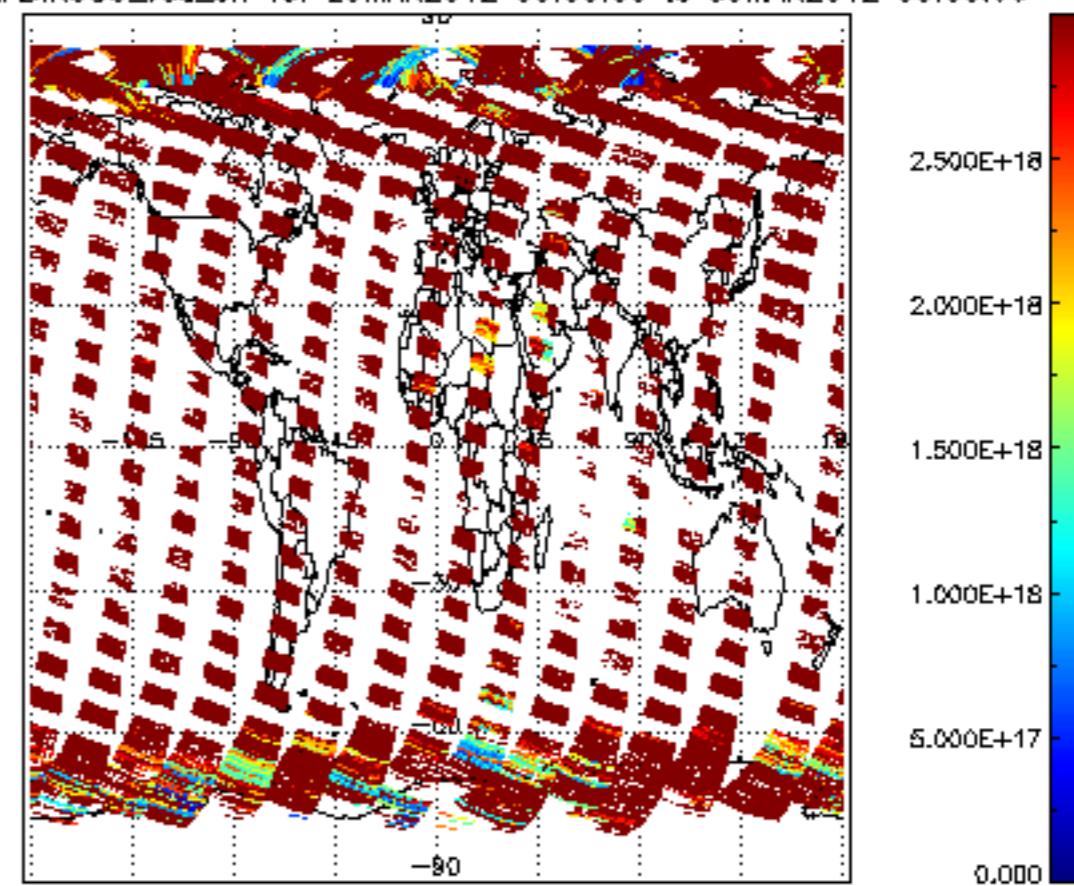




SCIOL2P\_NADIR3CO\_vcd for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

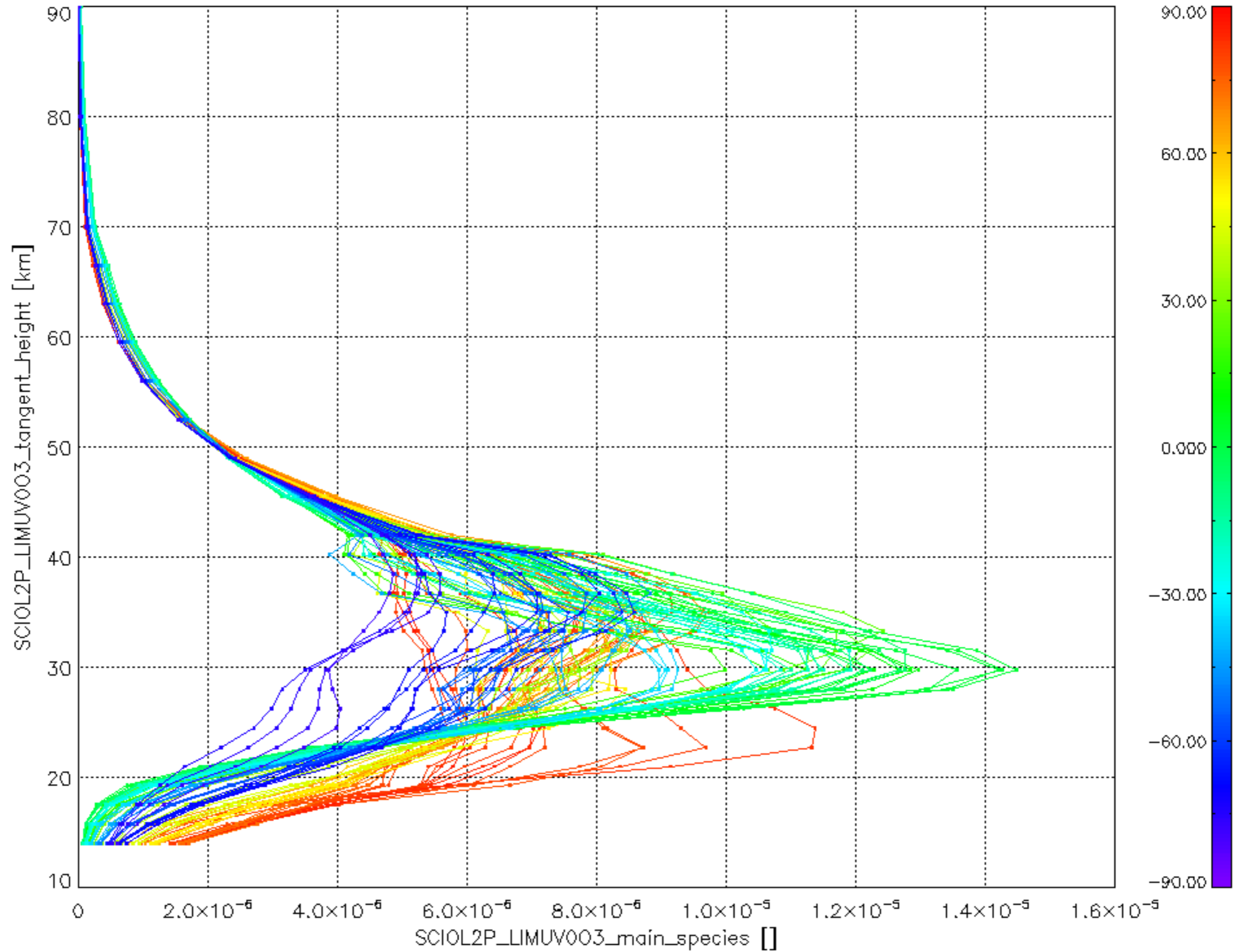


SCIOL2P\_NADIR3CO\_vcd\_err for 29MAR2012 00:00:00 to 30MAR2012 00:00:00

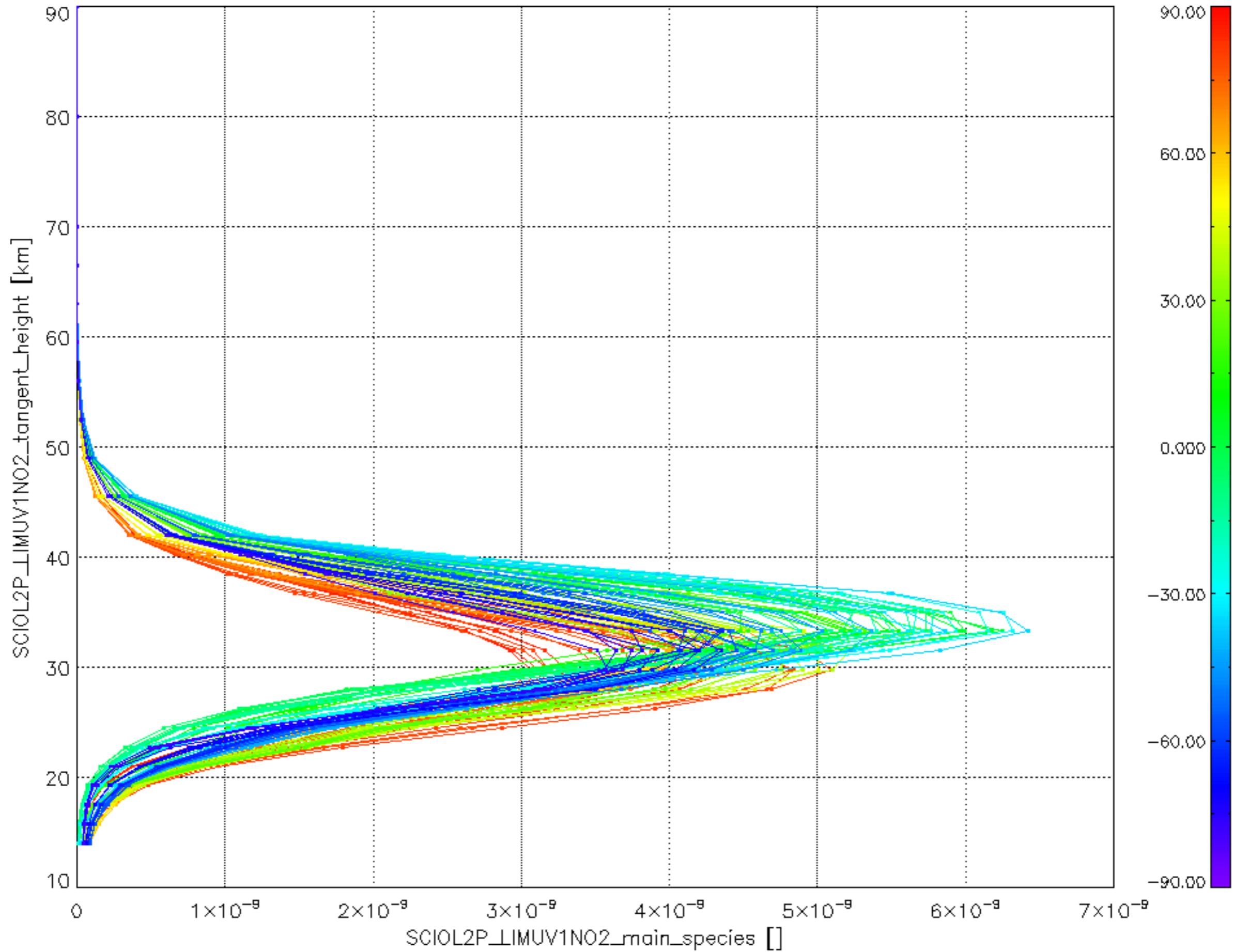




Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



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).

