

## 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	20MAY2011 05:09:12
Data source version	SCIA-OL/5.01-N
Processing scope for products	14MAY2011 00:00:00 to 15MAY2011 00:00:00
Start time of first product within scope	13MAY2011 22:53:55
Stop time of last product within scope	15MAY2011 00:55:50
Total number of level 2 products	17
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__2PNDPA20110513_225355_000035313102_00259_48118_3129.N1</a>	13MAY2011 22:53:55	13MAY2011 23:52:47	0	GOOD
1	<a href="#">SCI_OL__2PNDPA20110514_003409_000035263102_00260_48119_3130.N1</a>	14MAY2011 00:34:09	14MAY2011 01:32:55	0	GOOD
2	<a href="#">SCI_OL__2PNDPA20110514_021423_000028593102_00261_48120_3131.N1</a>	<b>14MAY2011 02:14:23</b>	<b>14MAY2011 03:02:02</b>	0	GOOD
3	<a href="#">SCI_OL__2PNDPA20110514_030206_000061323102_00262_48121_3132.N1</a>	<b>14MAY2011 03:02:06</b>	<b>14MAY2011 04:44:19</b>	0	GOOD
4	<a href="#">SCI_OL__2PNDPA20110514_044516_000059563102_00263_48122_3133.N1</a>	14MAY2011 04:45:16	14MAY2011 06:24:32	0	GOOD

5	SCI_OL__2PNDPA20110514_062530_000039923102_00264_48123_3134.N1	14MAY2011 06:25:30	14MAY2011 07:32:02	0	GOOD
6	SCI_OL__2PNDPA20110514_073206_000060103102_00265_48124_3135.N1	14MAY2011 07:32:06	14MAY2011 09:12:16	0	GOOD
7	SCI_OL__2PNDPA20110514_091314_000058873102_00266_48125_3136.N1	14MAY2011 09:13:14	14MAY2011 10:51:21	0	GOOD
8	SCI_OL__2PNDPA20110514_105233_000058873102_00267_48126_3139.N1	14MAY2011 10:52:33	14MAY2011 12:30:41	0	GOOD
9	SCI_OL__2PNDPA20110514_123044_000058873102_00268_48127_3138.N1	14MAY2011 12:30:44	14MAY2011 14:08:51	0	GOOD
10	SCI_OL__2PNDPA20110514_140949_000058333102_00269_48128_3142.N1	14MAY2011 14:09:49	14MAY2011 15:47:02	0	GOOD
11	SCI_OL__2PNDPA20110514_154706_000057423102_00270_48129_3141.N1	14MAY2011 15:47:06	14MAY2011 17:22:48	0	GOOD
12	SCI_OL__2PNDPA20110514_172252_000059733102_00271_48130_3140.N1	14MAY2011 17:22:52	14MAY2011 19:02:26	0	GOOD
13	SCI_OL__2PNDPA20110514_190135_000060003102_00272_48131_3144.N1	14MAY2011 19:01:35	14MAY2011 20:41:36	0	GOOD
14	SCI_OL__2PNDPA20110514_204139_000032363102_00273_48132_3137.N1	14MAY2011 20:41:39	14MAY2011 21:35:36	0	GOOD
15	SCI_OL__2PNDPA20110514_221708_000035153102_00273_48132_3143.N1	14MAY2011 22:17:08	14MAY2011 23:15:43	0	GOOD
16	SCI_OL__2PNDPA20110514_235721_000035093102_00274_48133_3148.N1	14MAY2011 23:57:21	15MAY2011 00:55:50	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: 144300

Total number of cloud data DSRs with good quality flag (=0): 144300 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	144300	0.0000	0.0000	0.0000	0.0000	0.0000	
INTEGR_TIME	144300	0.16892	0.12500	0.12500	0.25000	0.059674	s
CL_FRAC	144300	0.39389	0.34203	0.0000	1.0000	0.32250	
CL_FRAC_ERR	144300	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	144300	5.4054	4.0000	4.0000	8.0000	1.9096	
PMD_READ_CL[0]	144300	0.48867	0.0000	0.0000	8.0000	1.4494	-
PMD_READ_CL[1]	144300	1.4504	0.0000	0.0000	8.0000	2.6692	-
CL_TOP_HEIGHT	107998	2.6940	1.1200	0.0000	17.000	3.2864	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	107998	60.958	80.580	0.0000	101.00	42.650	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	144300	11100000	11100000	11100000	11100000	0.0000	
CLOUD_FLAGS	144300	11001110	11000100	11000000	11100000	3714.6	
AERO_ABSO_IND	144300	0.22042	0.0000	0.0000	5.5780	0.50806	
AERO_IND_DIAG	144300	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	144300	01010111	00000000	00000000	11000000	24470.	

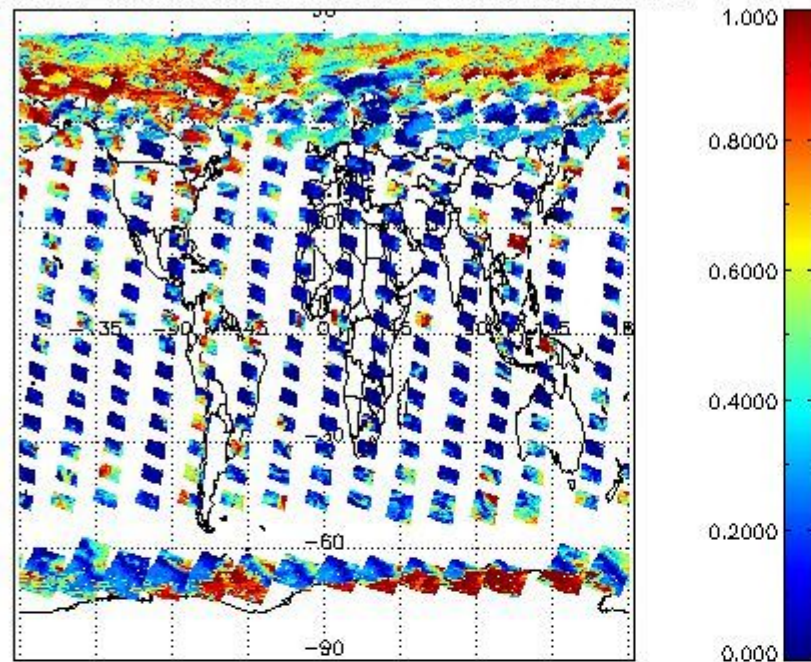
#### Time and geolocation plots:

Plots are available for the following parameters:

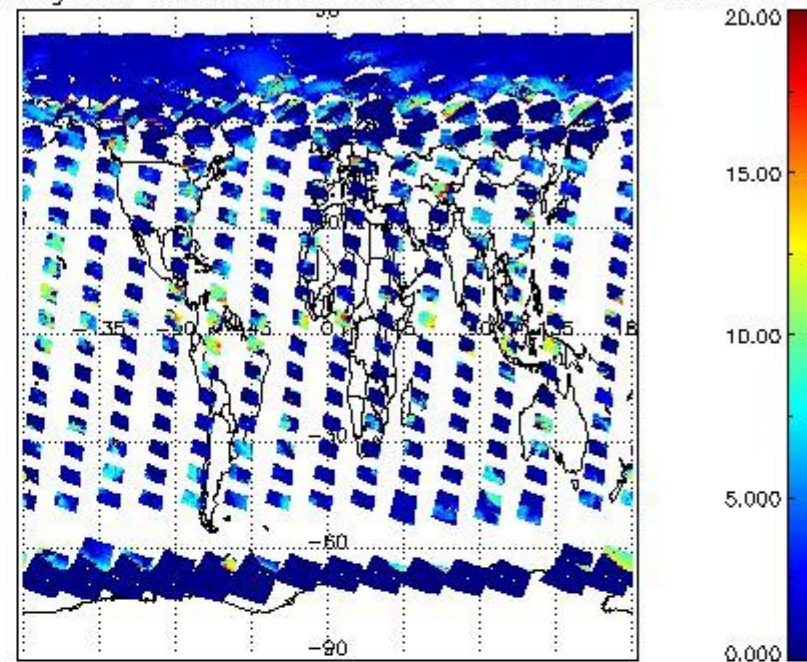
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



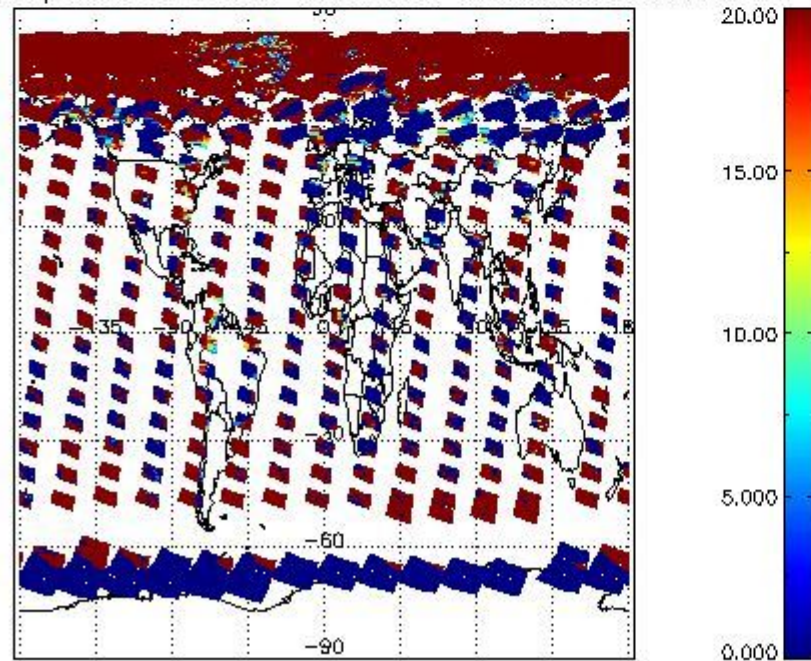
cL\_frac for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



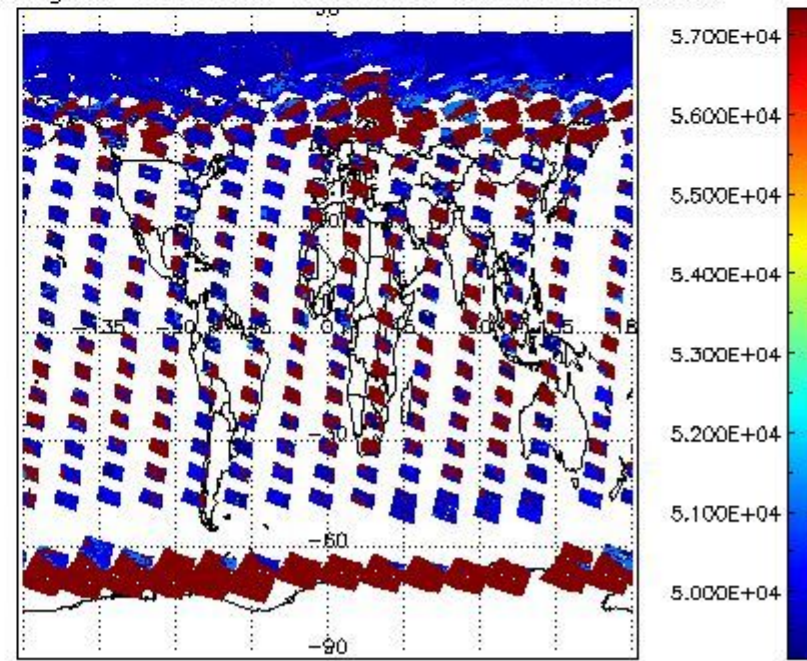
cL\_top\_height for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



cL\_opt\_depth for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



cloud\_flags for 14MAY2011 00:00:00 to 15MAY2011 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:

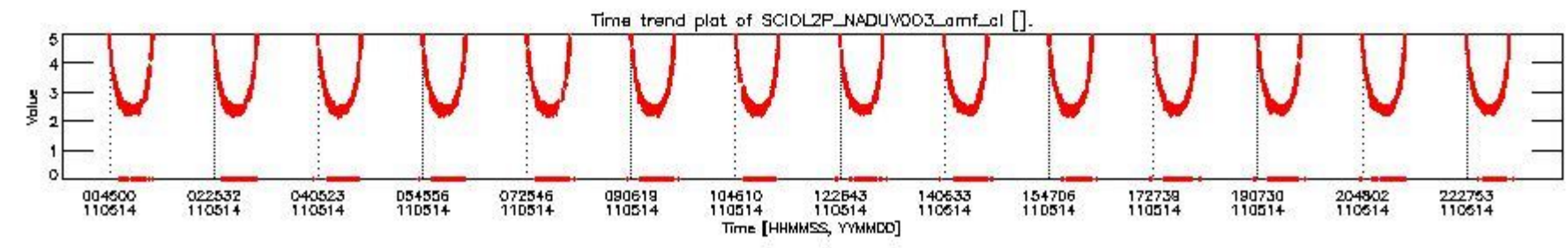
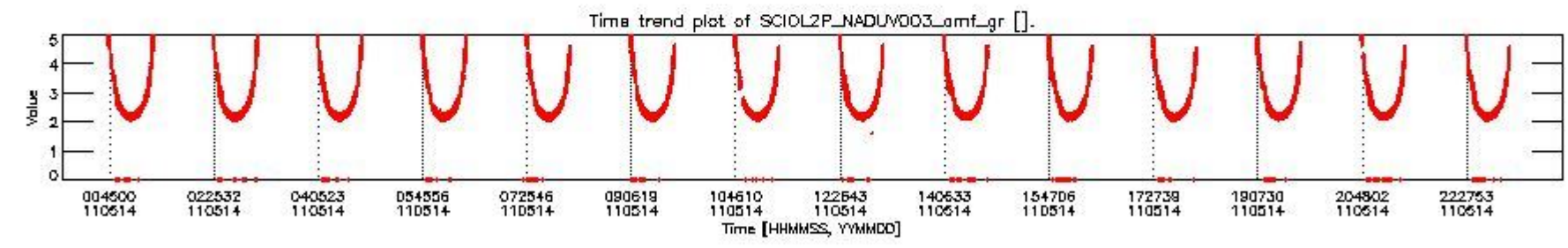
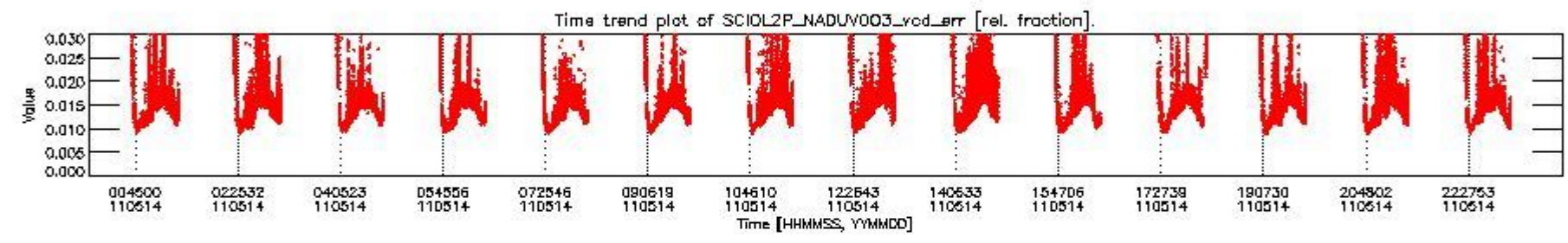
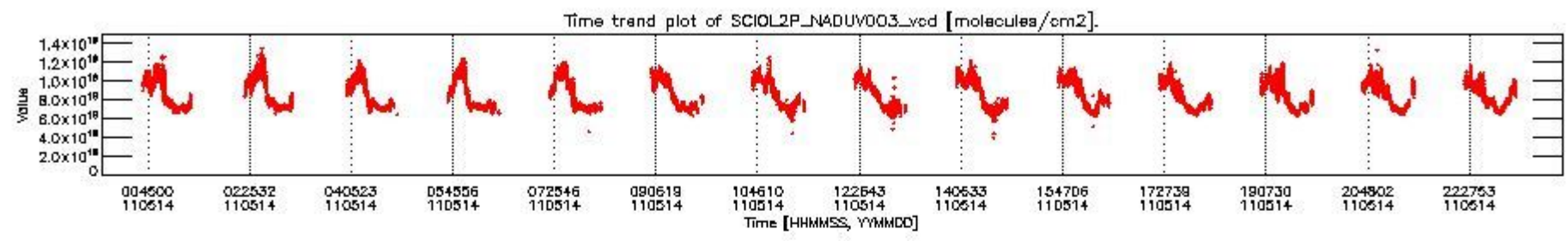
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

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.

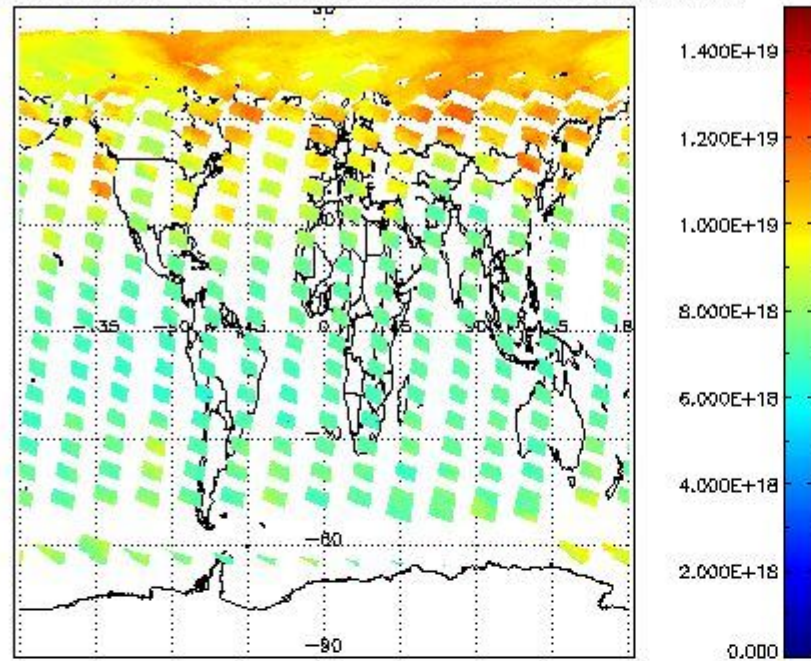
#### [2.2.2.1 O3 \(UV0\)](#)



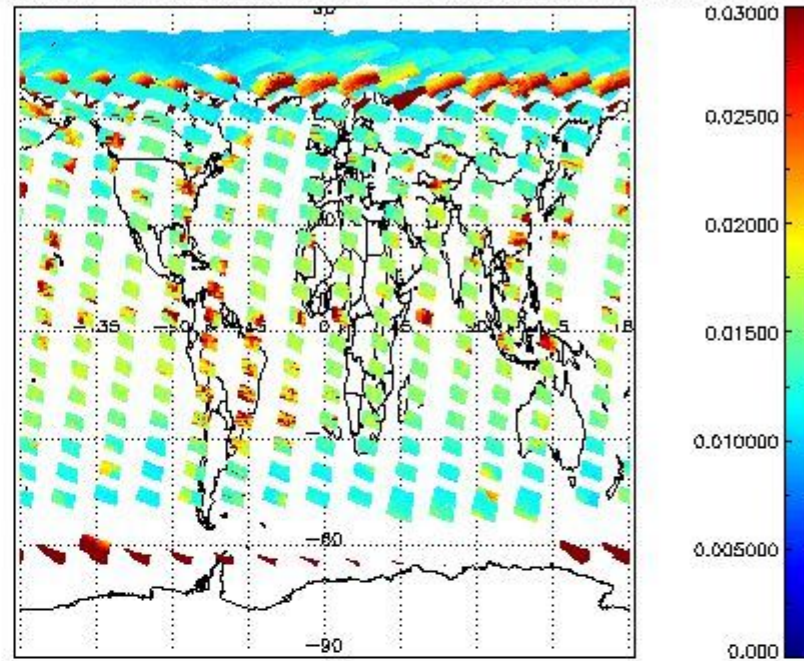




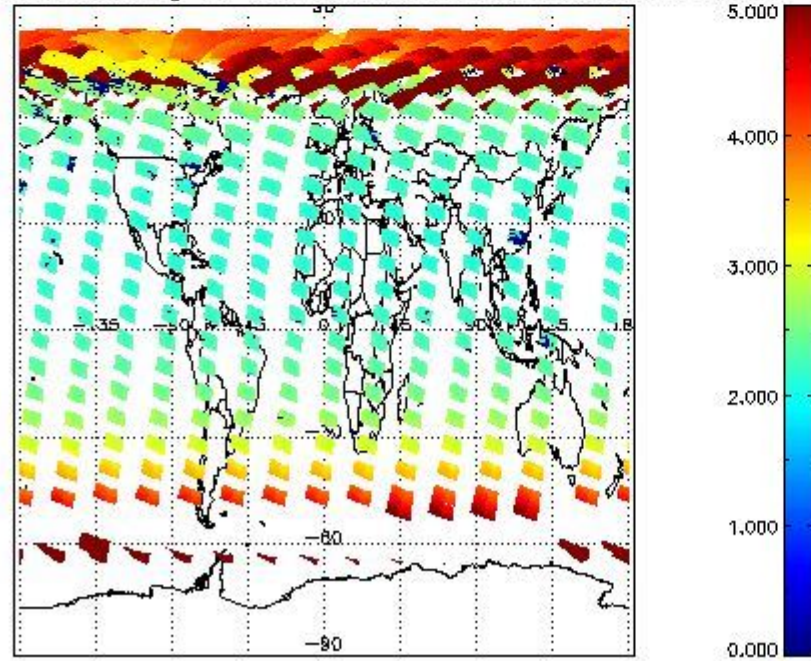
SCIOL2P\_NADUV003\_vcd for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



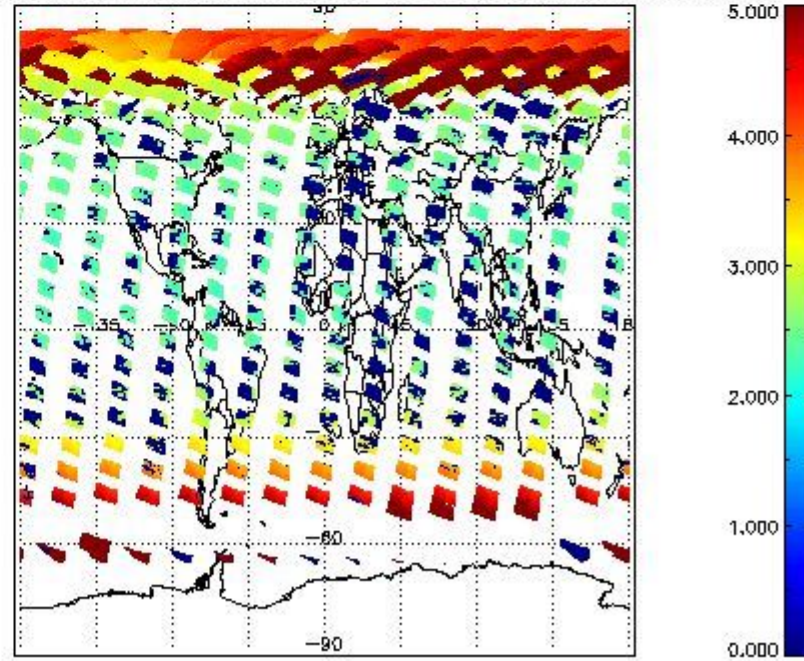
SCIOL2P\_NADUV003\_vcd\_err for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



SCIOL2P\_NADUV003\_amf\_gr for 14MAY2011 00:00:00 to 15MAY2011 00:00:00

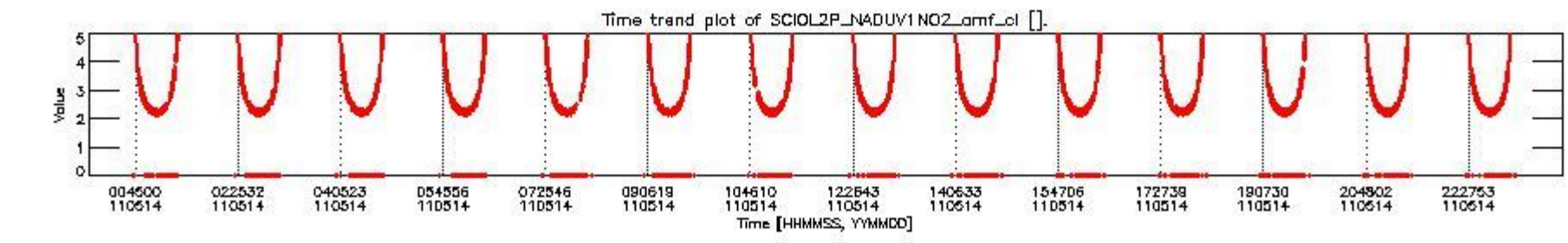
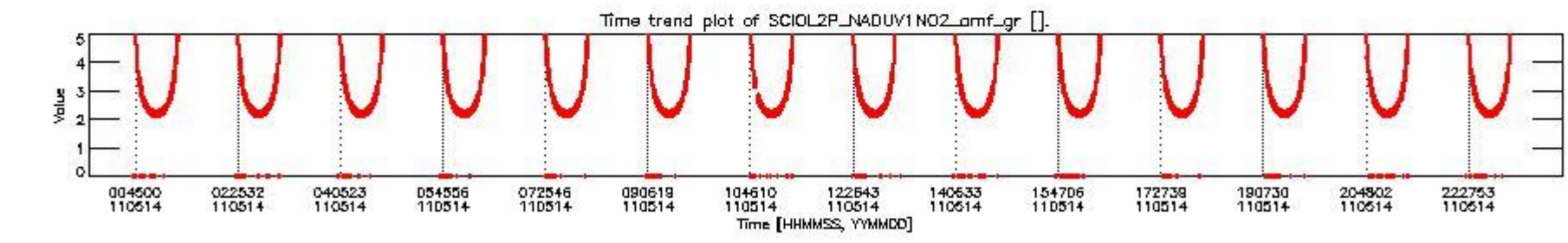
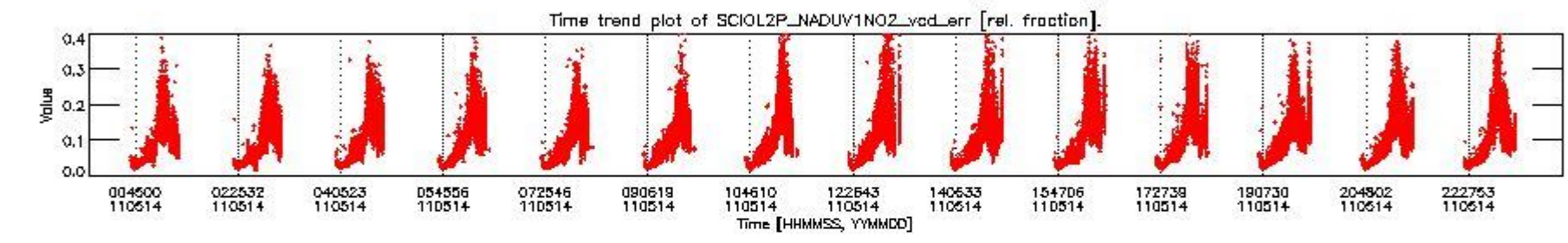
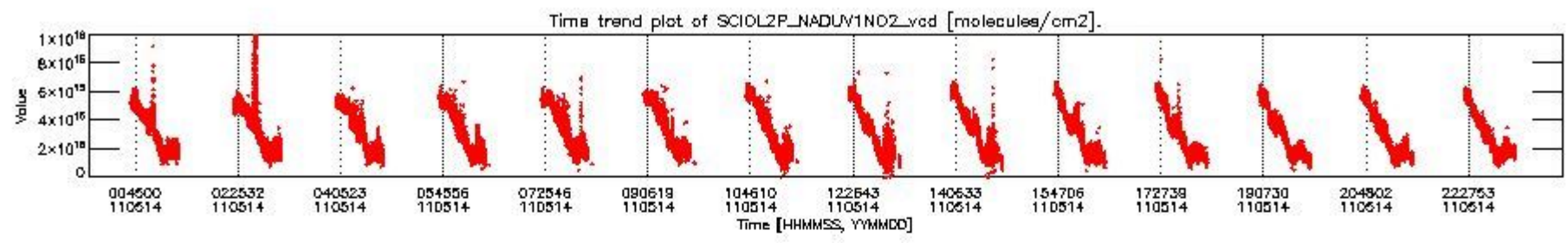


SCIOL2P\_NADUV003\_amf\_cl for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



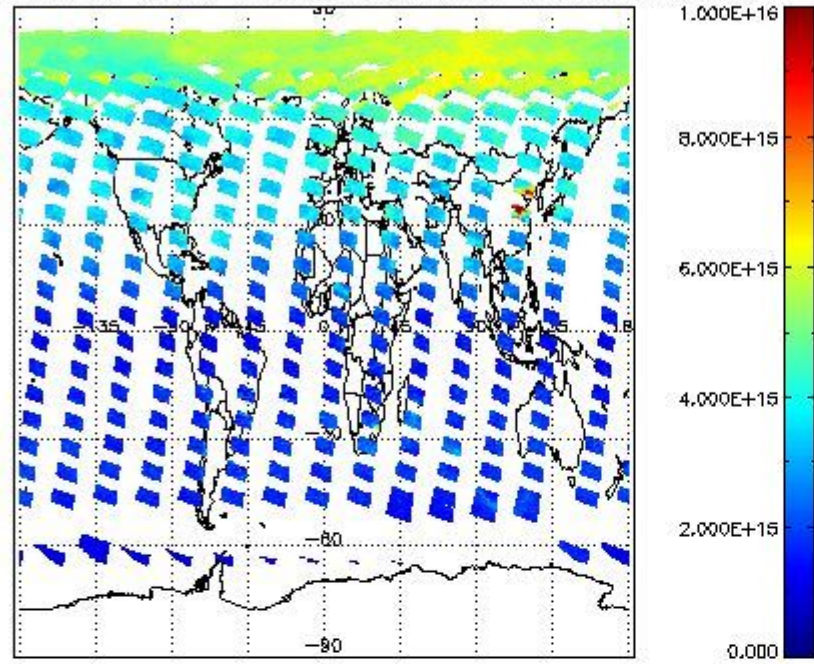
2.2.2.2 NO2 (UV1)



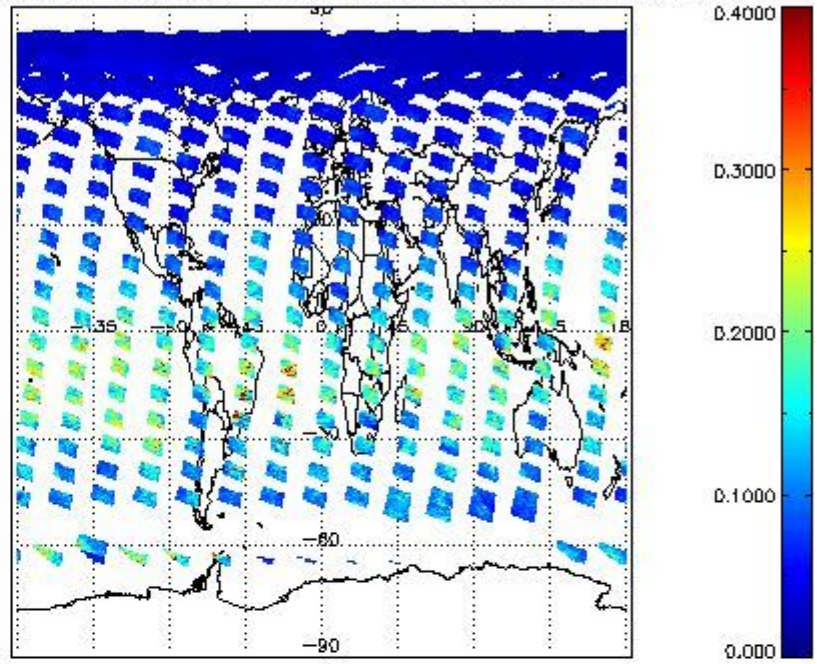




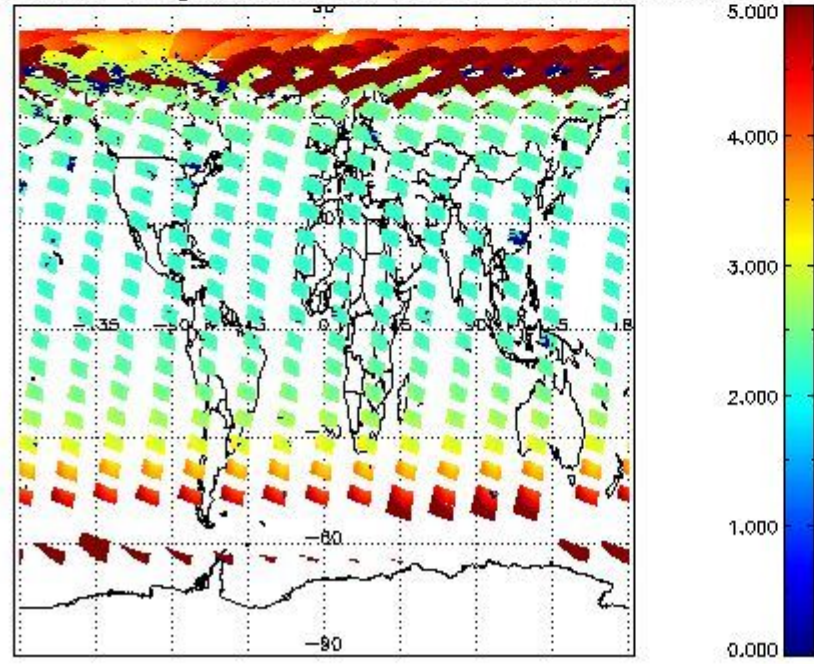
SCIOL2P\_NADUV1NO2\_vcd for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



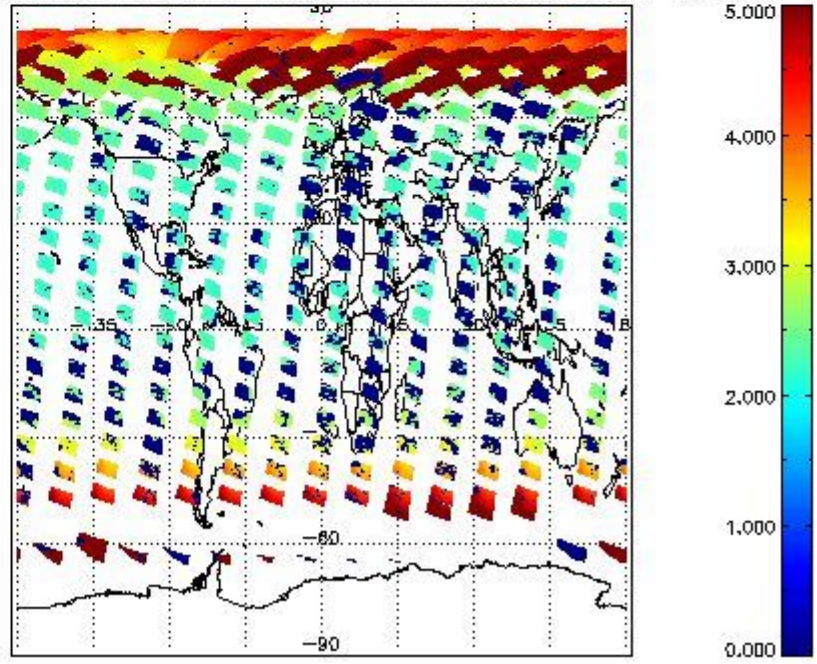
SCIOL2P\_NADUV1NO2\_vcd\_err for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 14MAY2011 00:00:00 to 15MAY2011 00:00:00

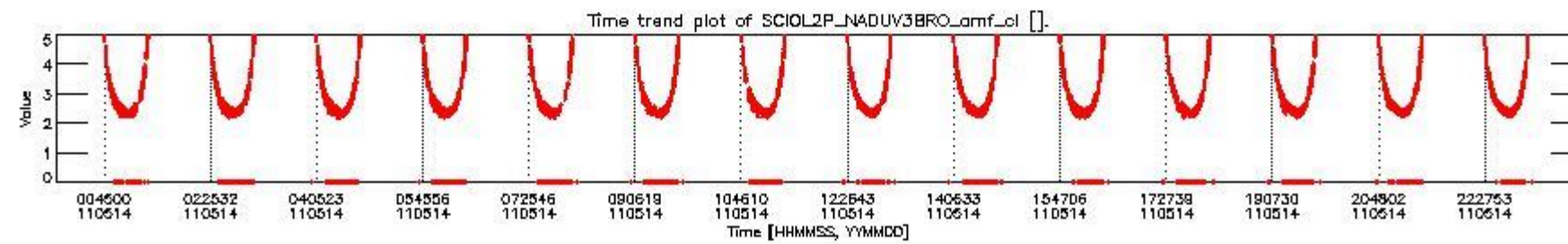
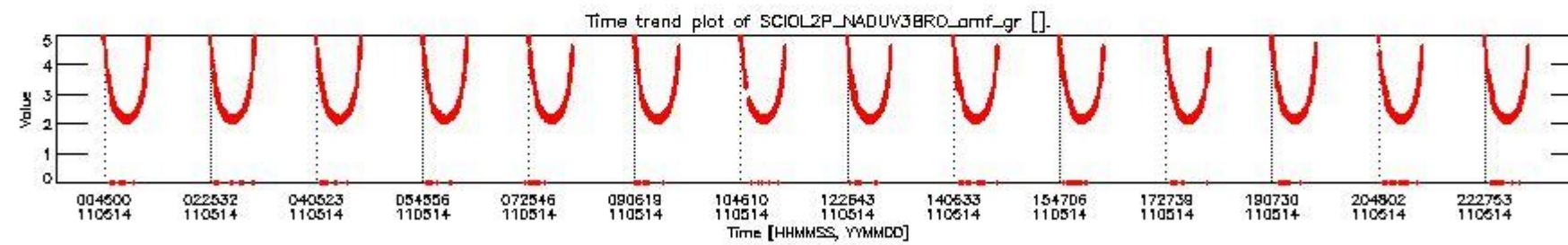
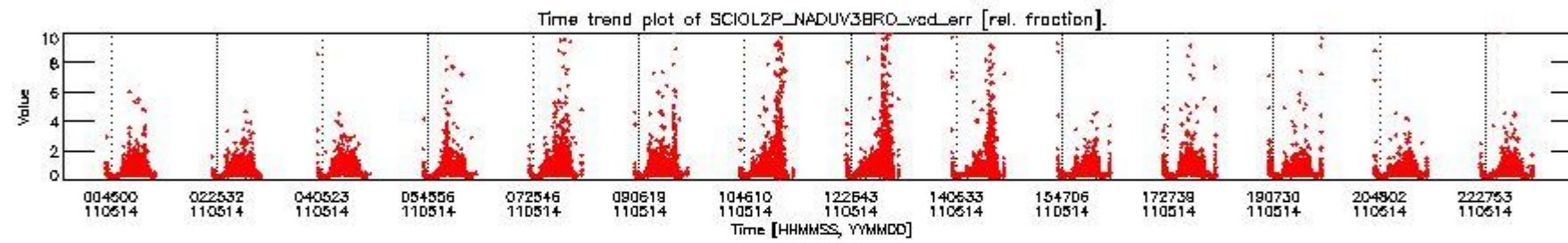
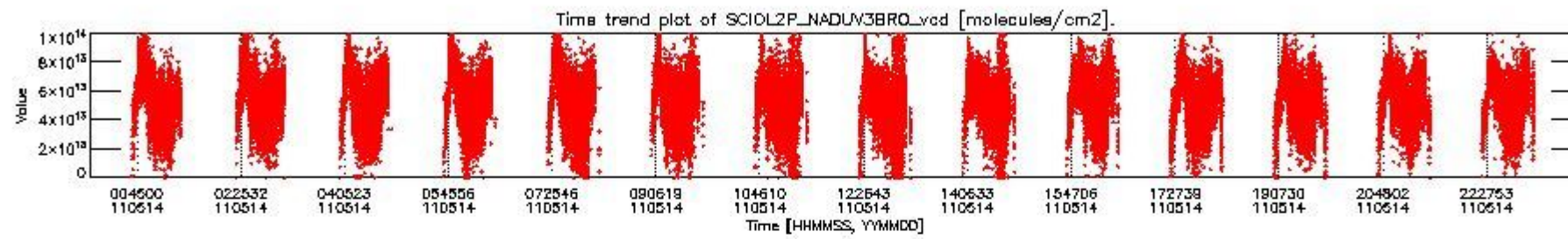


SCIOL2P\_NADUV1NO2\_amf\_cl for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



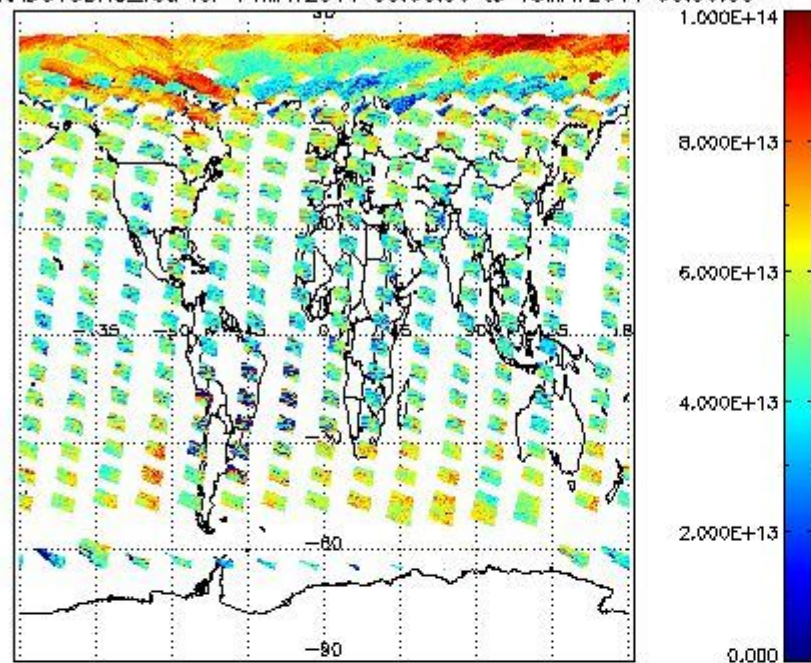
2.2.2.3 BrO (UV3)



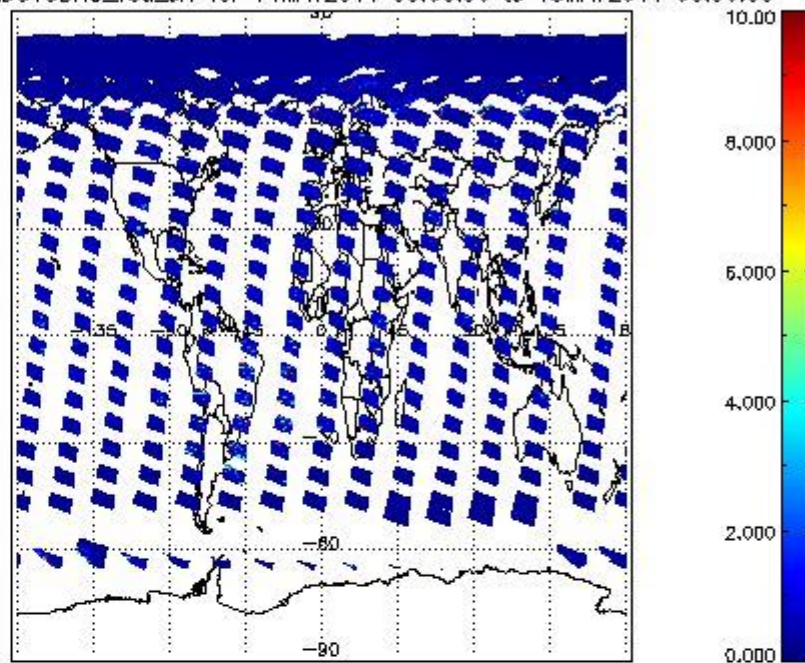




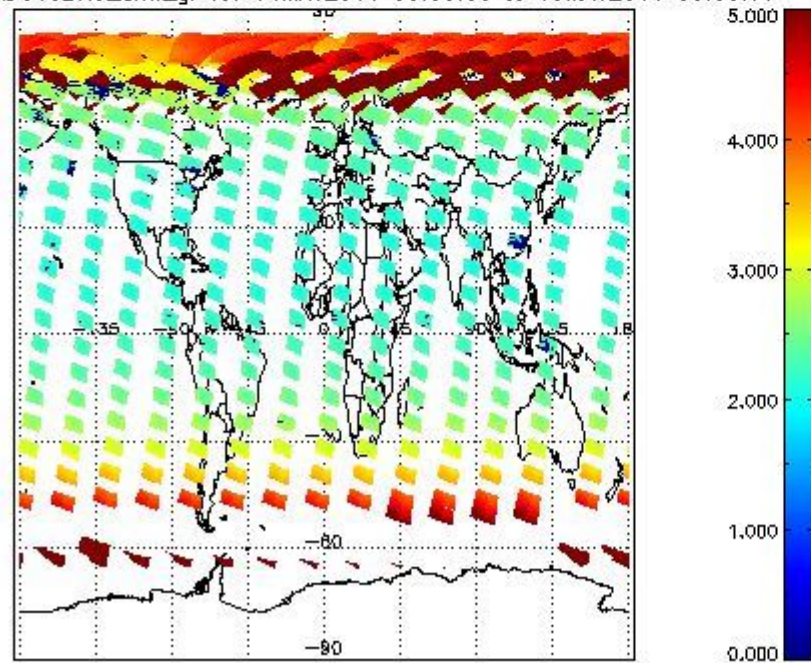
SCIOL2P\_NADUV3BRO\_vcd for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



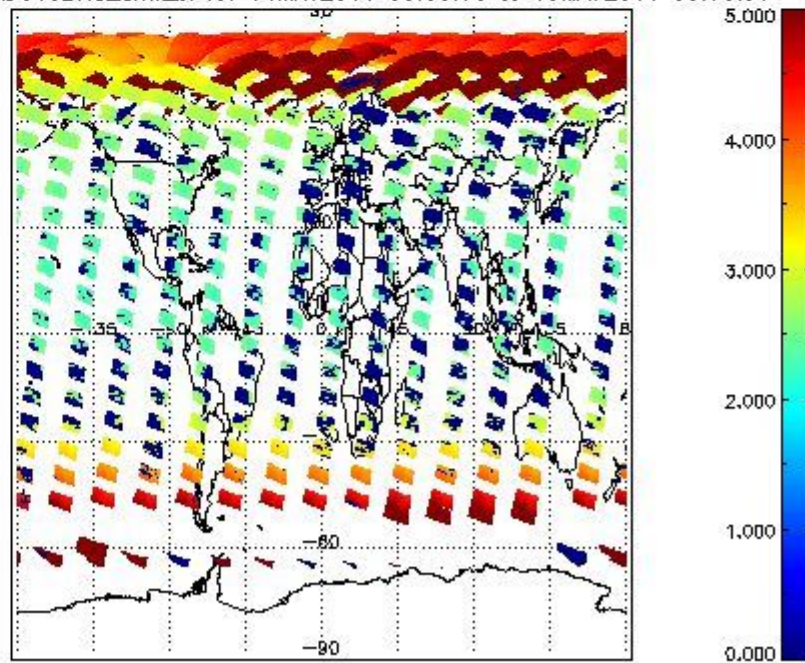
SCIOL2P\_NADUV3BRO\_vcd\_err for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



SCIOL2P\_NADUV3BRO\_amf\_gr for 14MAY2011 00:00:00 to 15MAY2011 00:00:00

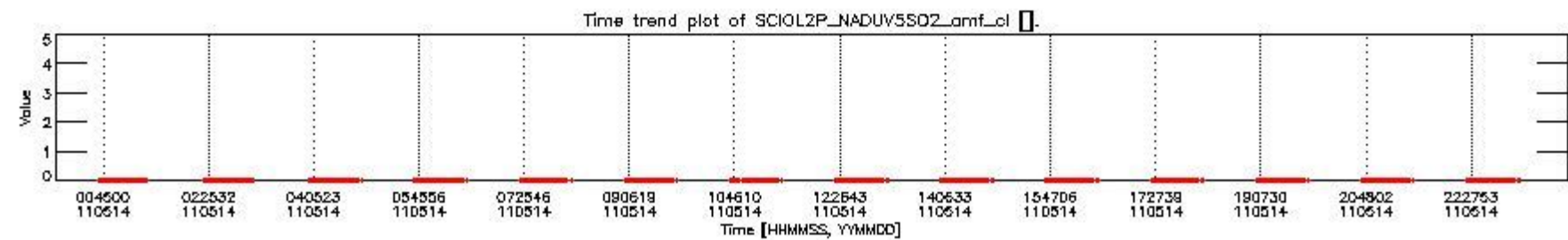
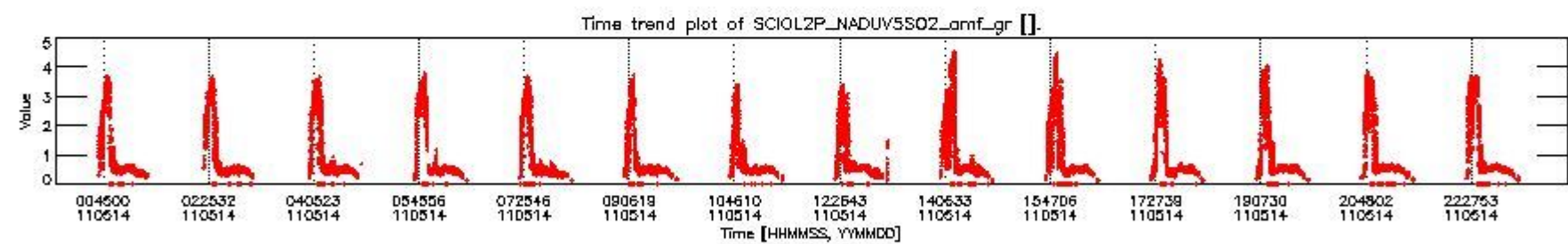
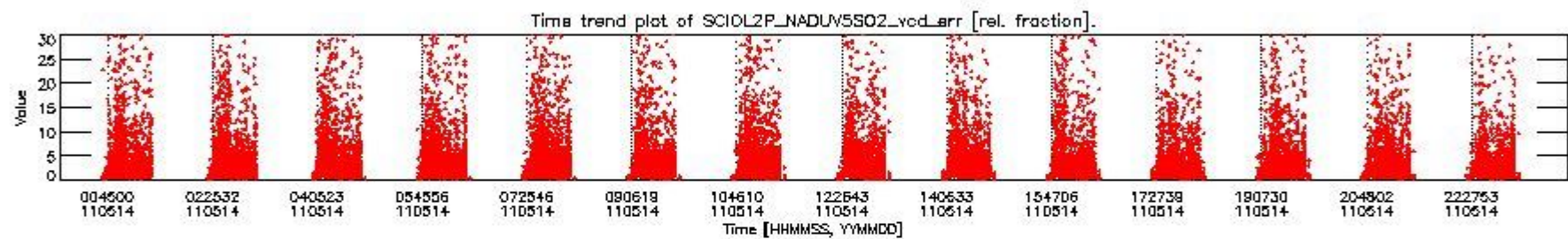
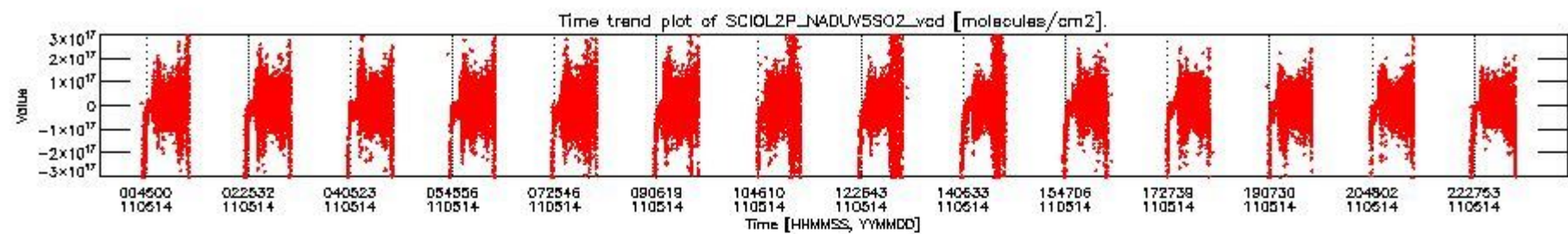


SCIOL2P\_NADUV3BRO\_amf\_cl for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



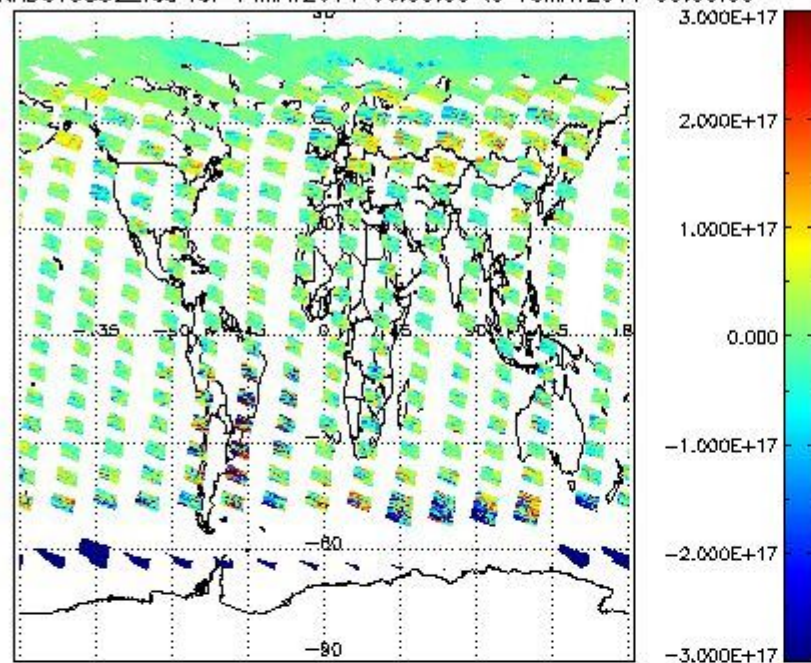
2.2.2.4 SO2 (UV5)



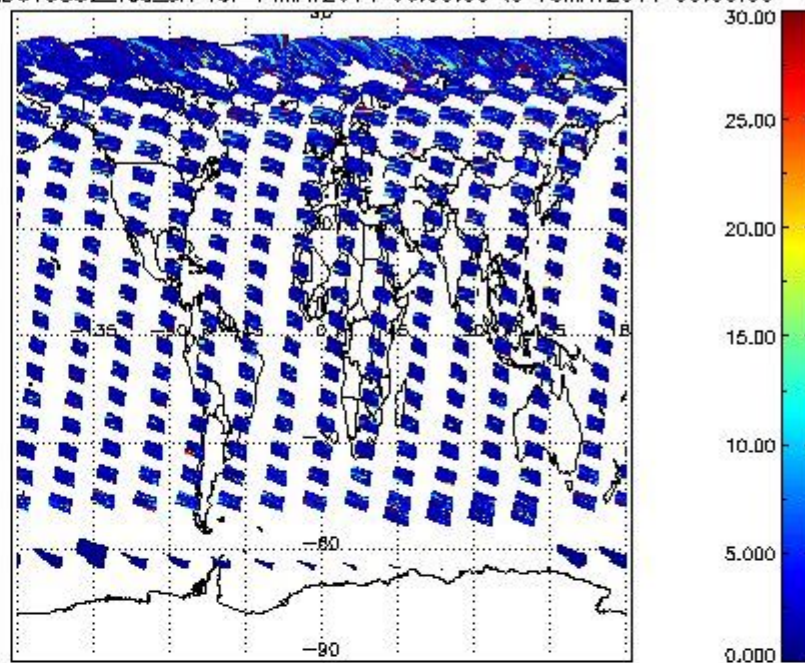




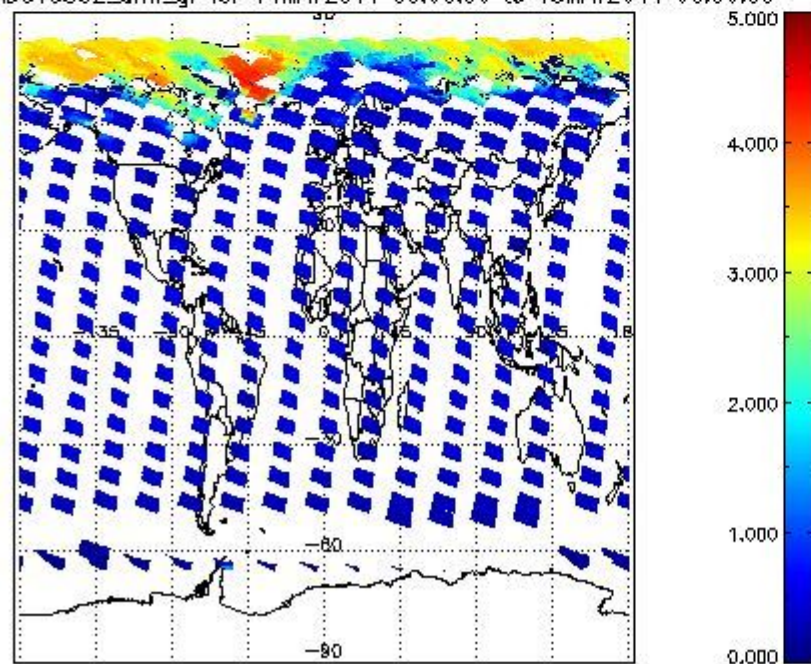
SCIOL2P\_NADUV5S02\_vcd for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



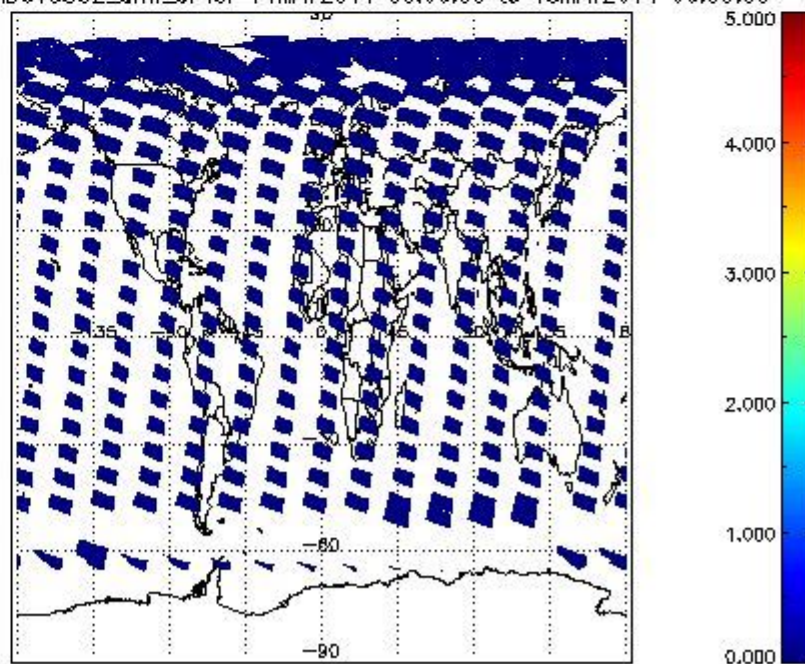
SCIOL2P\_NADUV5S02\_vcd\_err for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



SCIOL2P\_NADUV5S02\_amf\_gr for 14MAY2011 00:00:00 to 15MAY2011 00:00:00

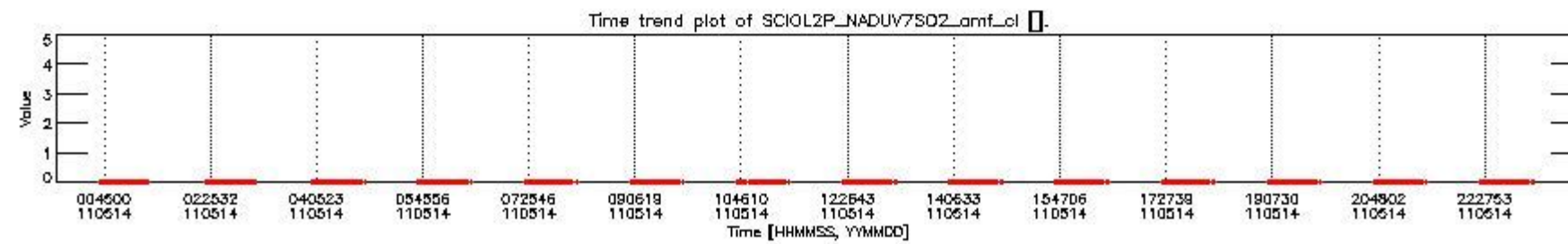
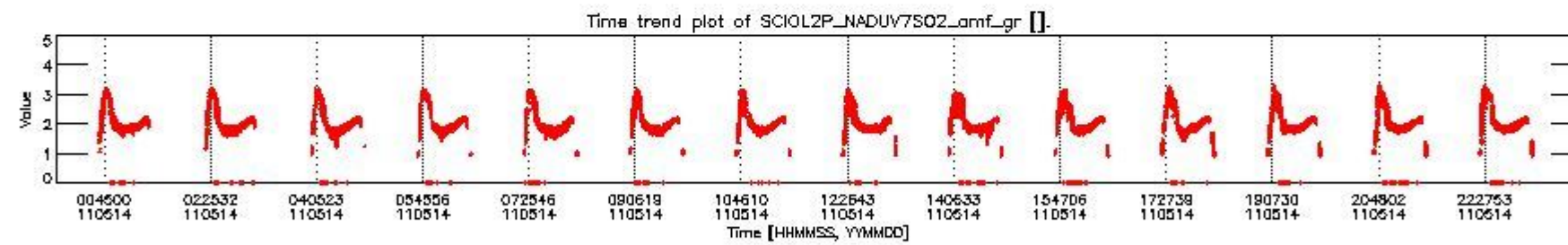
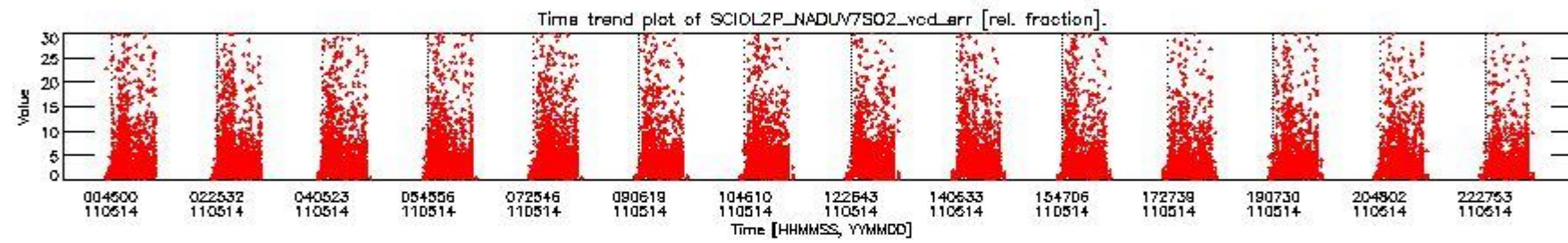
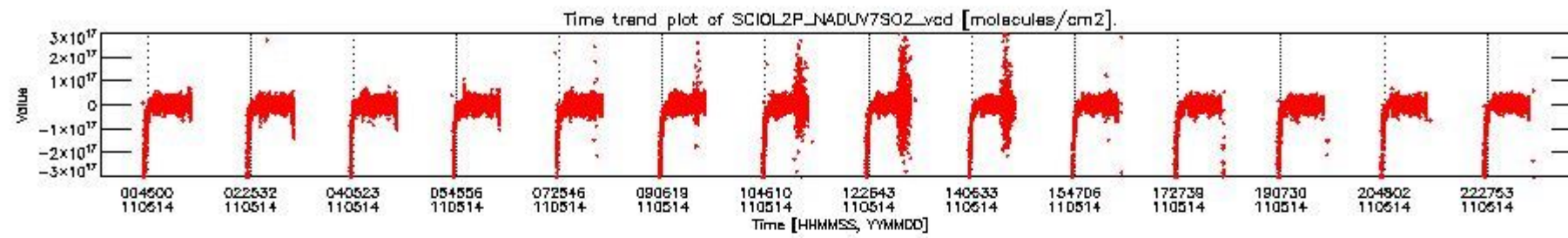


SCIOL2P\_NADUV5S02\_amf\_cl for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



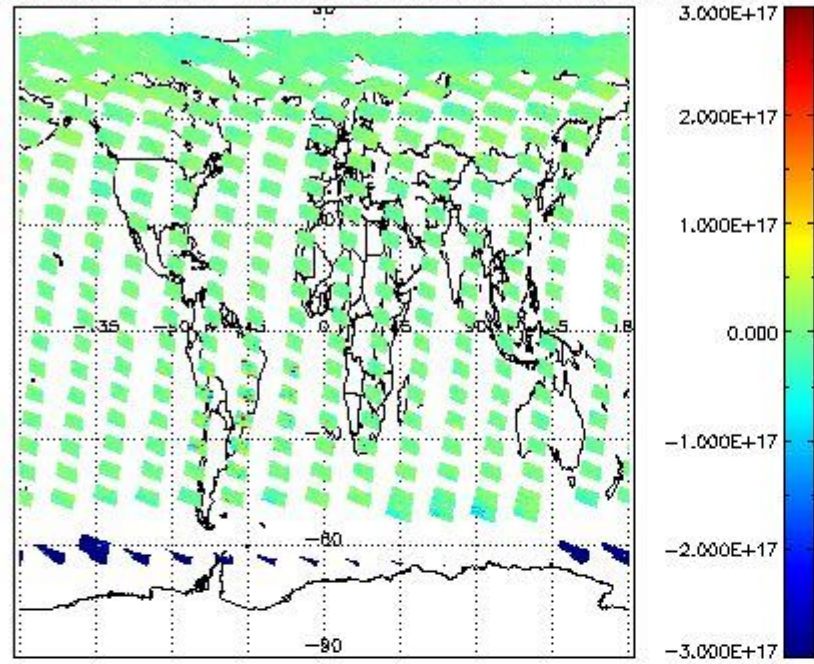
2.2.2.5 SO2 (UV7)



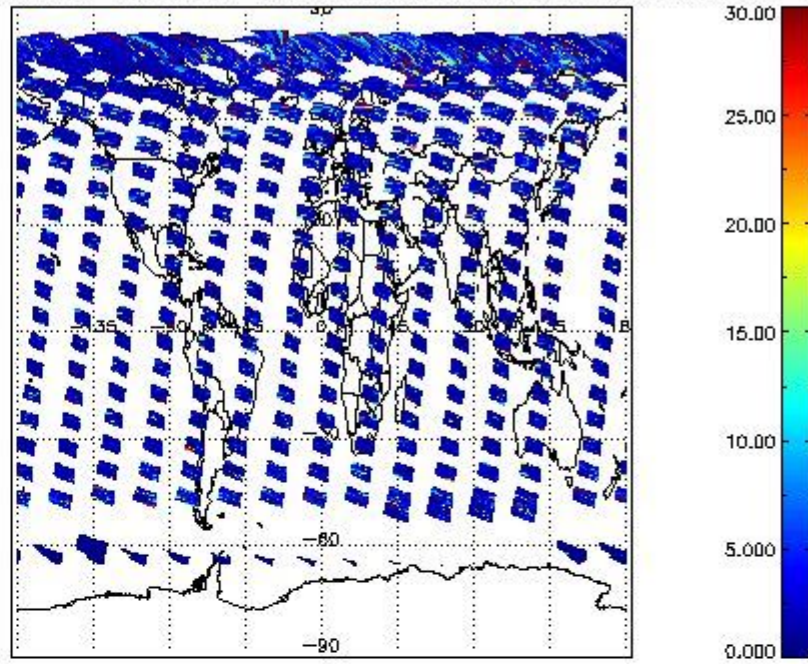




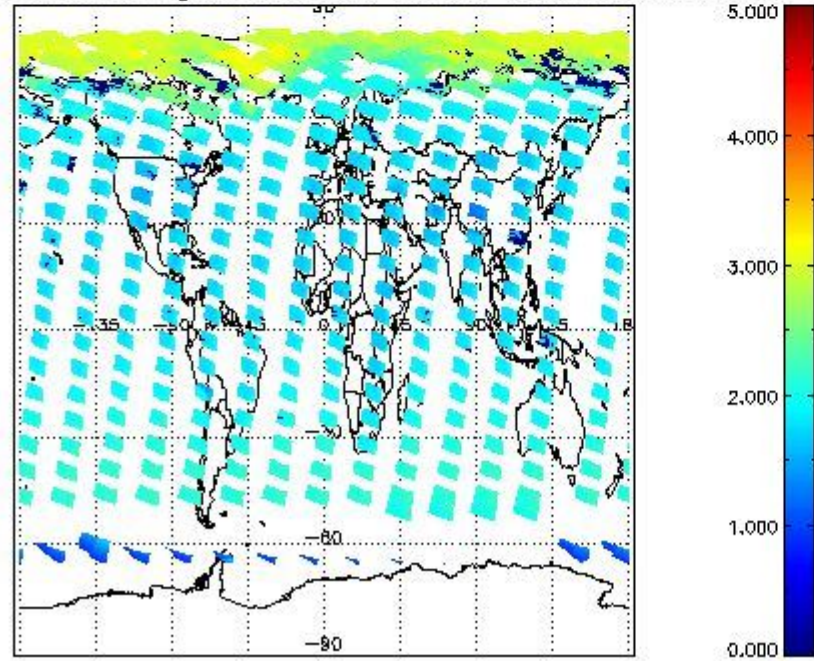
SCIOL2P\_NADUV7S02\_vcd for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



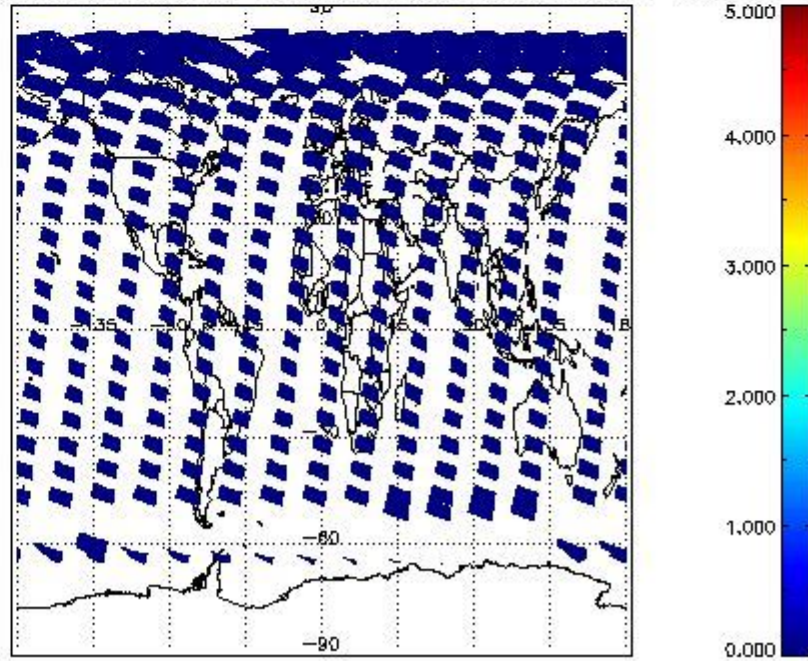
SCIOL2P\_NADUV7S02\_vcd\_err for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



SCIOL2P\_NADUV7S02\_amf\_gr for 14MAY2011 00:00:00 to 15MAY2011 00:00:00

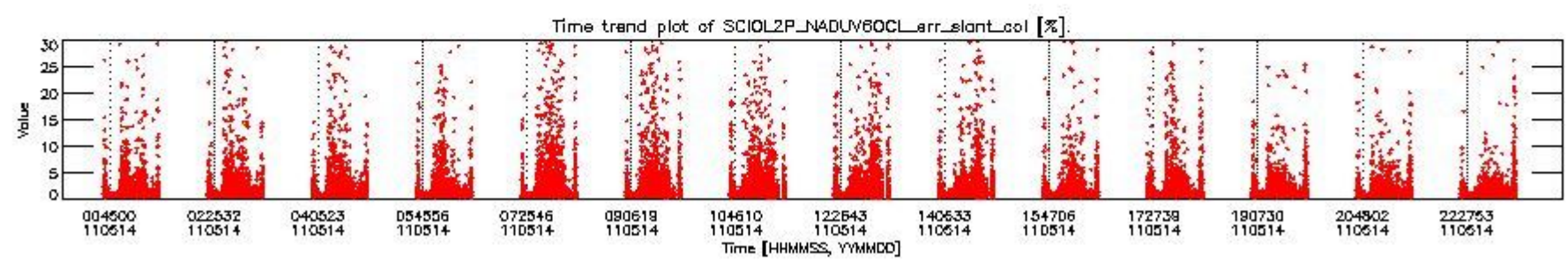
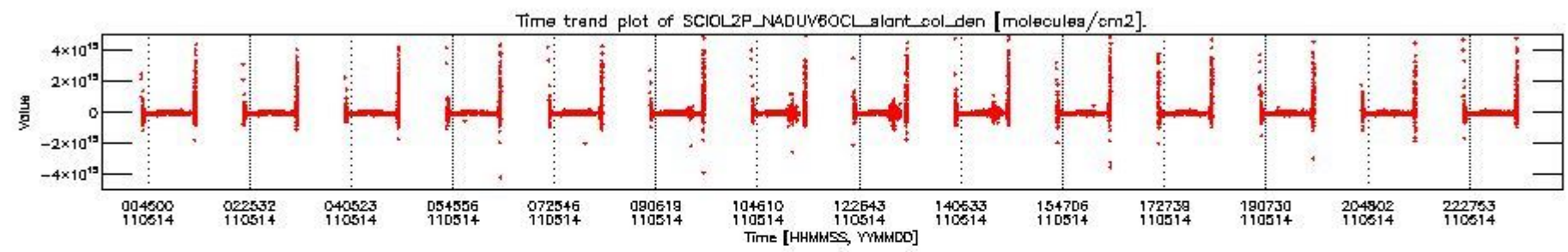


SCIOL2P\_NADUV7S02\_amf\_cl for 14MAY2011 00:00:00 to 15MAY2011 00:00:00

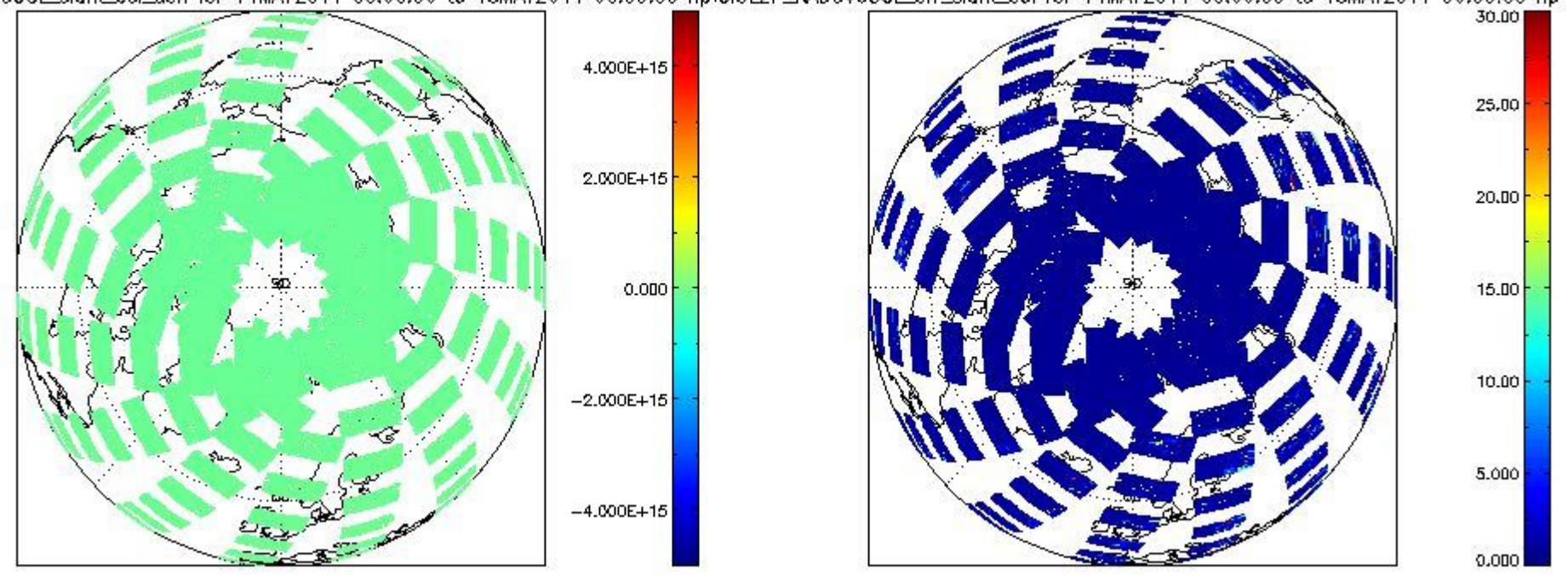


### 2.2.2.6 OCIO (UV6)



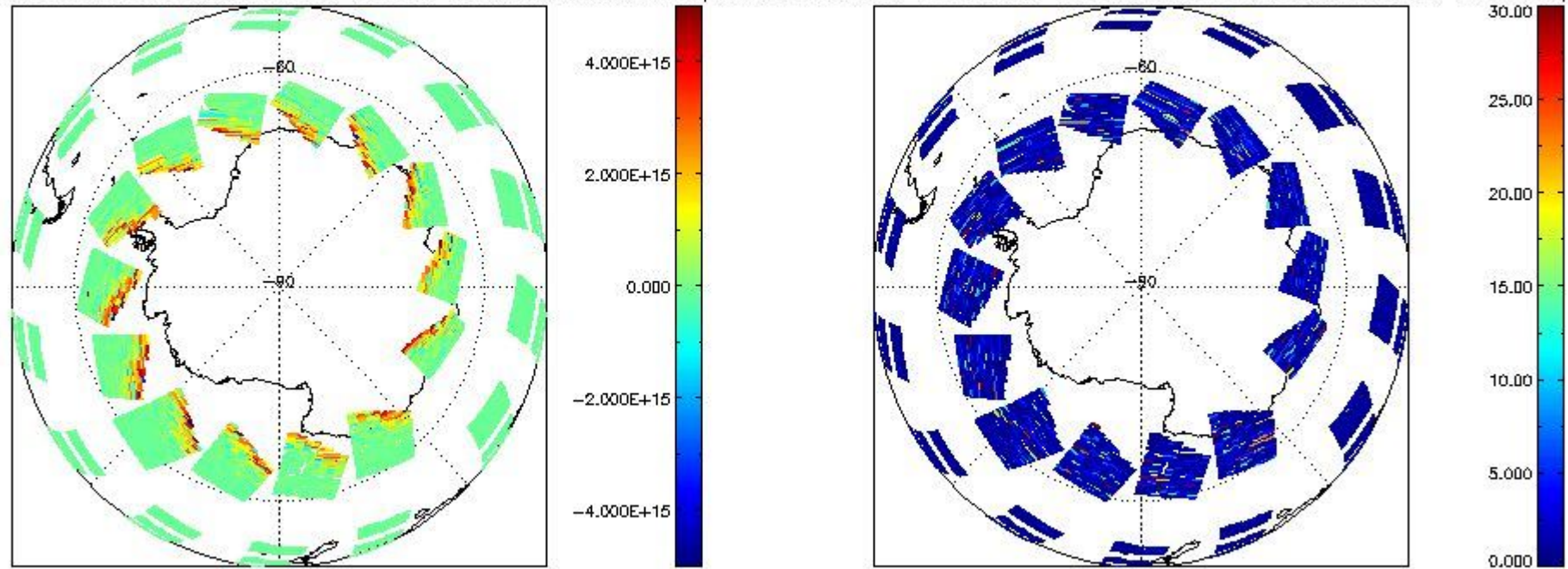


CIOL2P\_NADUV6OCLslant\_col\_den for 14MAY2011 00:00:00 to 15MAY2011 00:00:00 np; CIOL2P\_NADUV6OCLerr\_slant\_col for 14MAY2011 00:00:00 to 15MAY2011 00:00:00 np

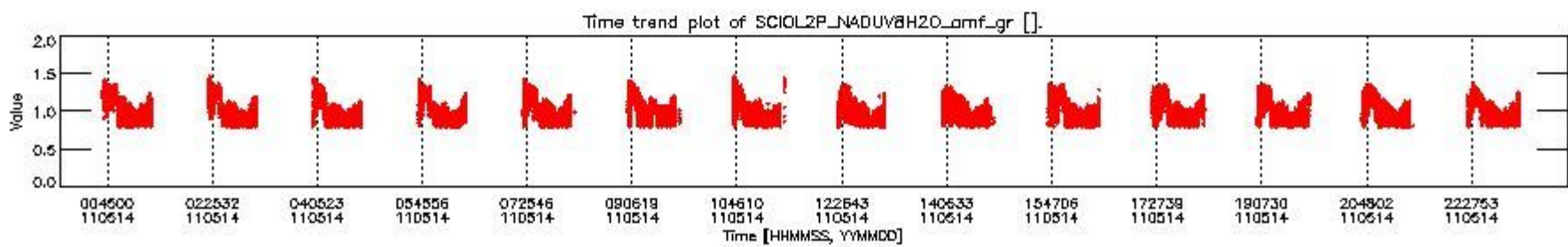
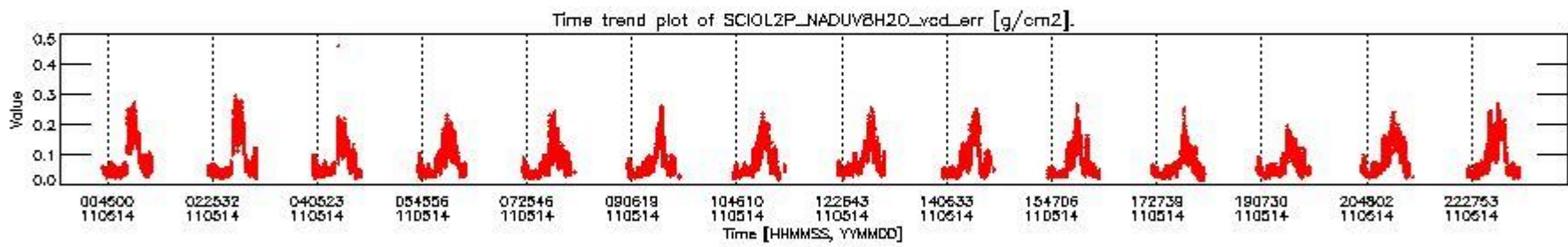
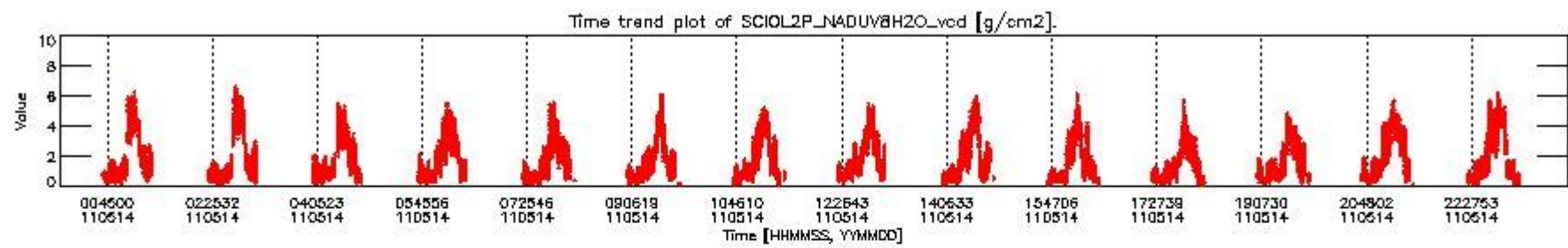




CIOL2P\_NADUV60CL\_slant\_col\_den for 14MAY2011 00:00:00 to 15MAY2011 00:00:00 sp | CIOL2P\_NADUV60CL\_err\_slant\_col for 14MAY2011 00:00:00 to 15MAY2011 00:00:00 sp

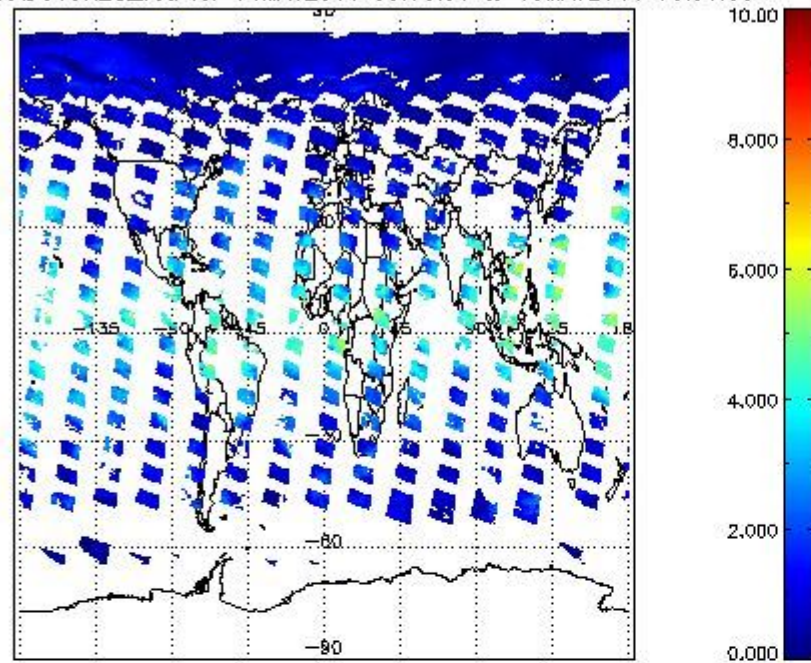


### 2.2.2.7 H2O (UV8)

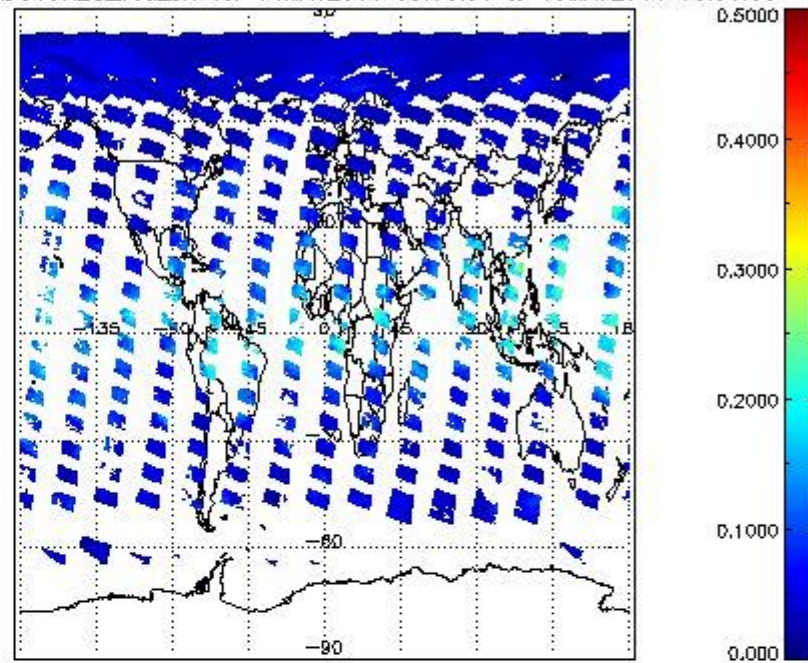




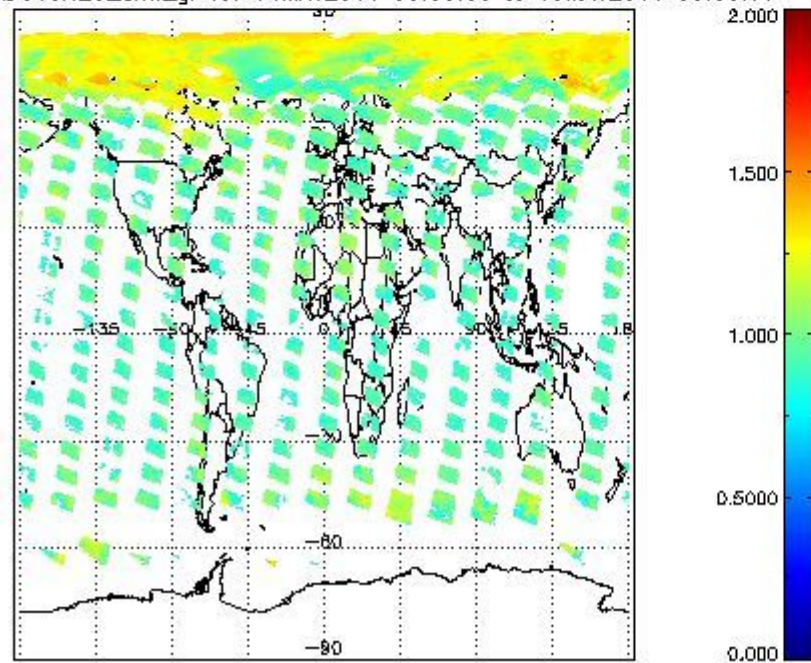
SCIOL2P\_NADUV8H2O\_vcd for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



SCIOL2P\_NADUV8H2O\_vcd\_err for 14MAY2011 00:00:00 to 15MAY2011 00:00:00

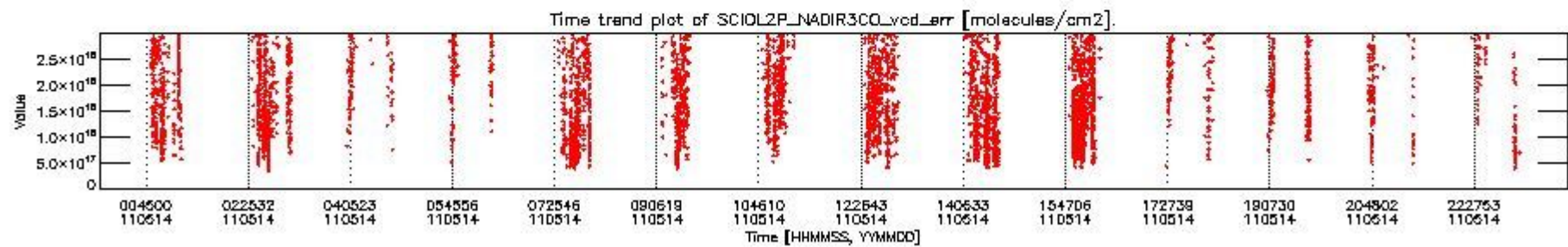
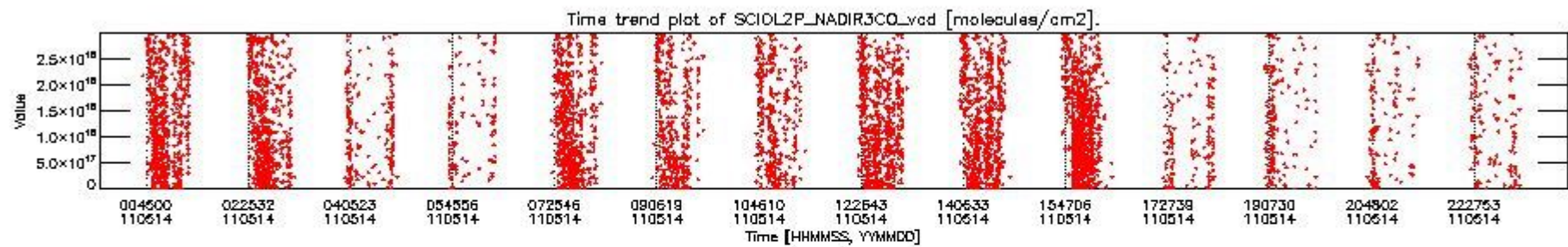


SCIOL2P\_NADUV8H2O\_arnf\_gr for 14MAY2011 00:00:00 to 15MAY2011 00:00:00

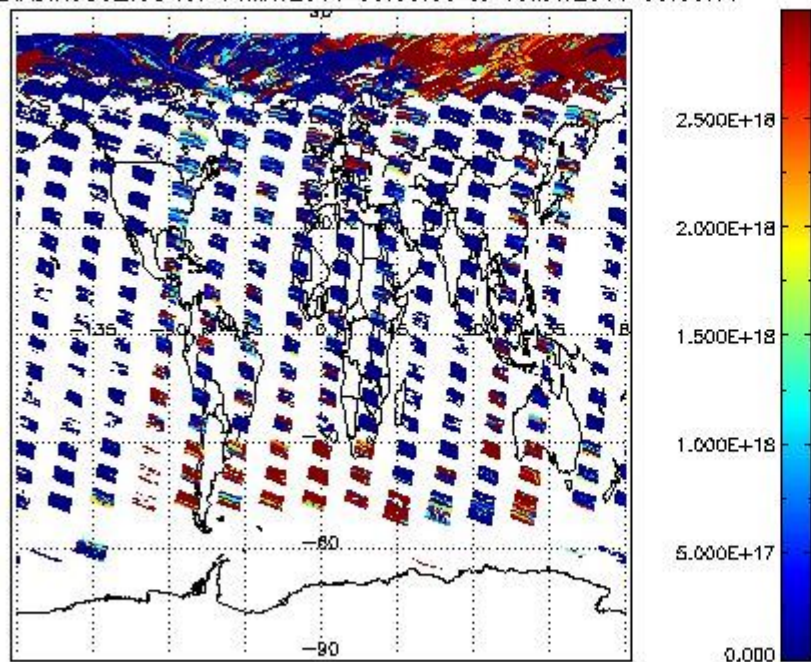


2.2.2.8 CO (IR3)

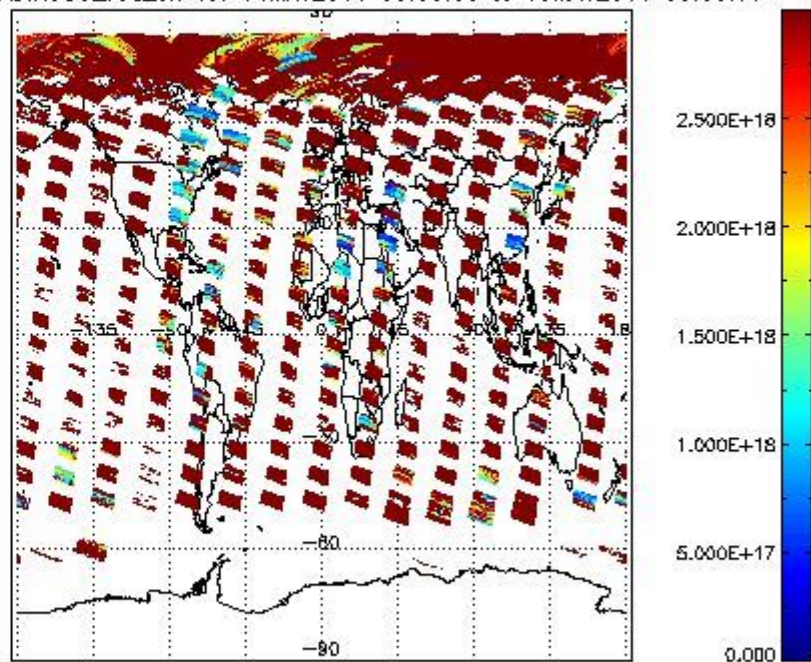




SCIDL2P\_NADIR3CO\_vcd for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



SCIDL2P\_NADIR3CO\_vcd\_err for 14MAY2011 00:00:00 to 15MAY2011 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.

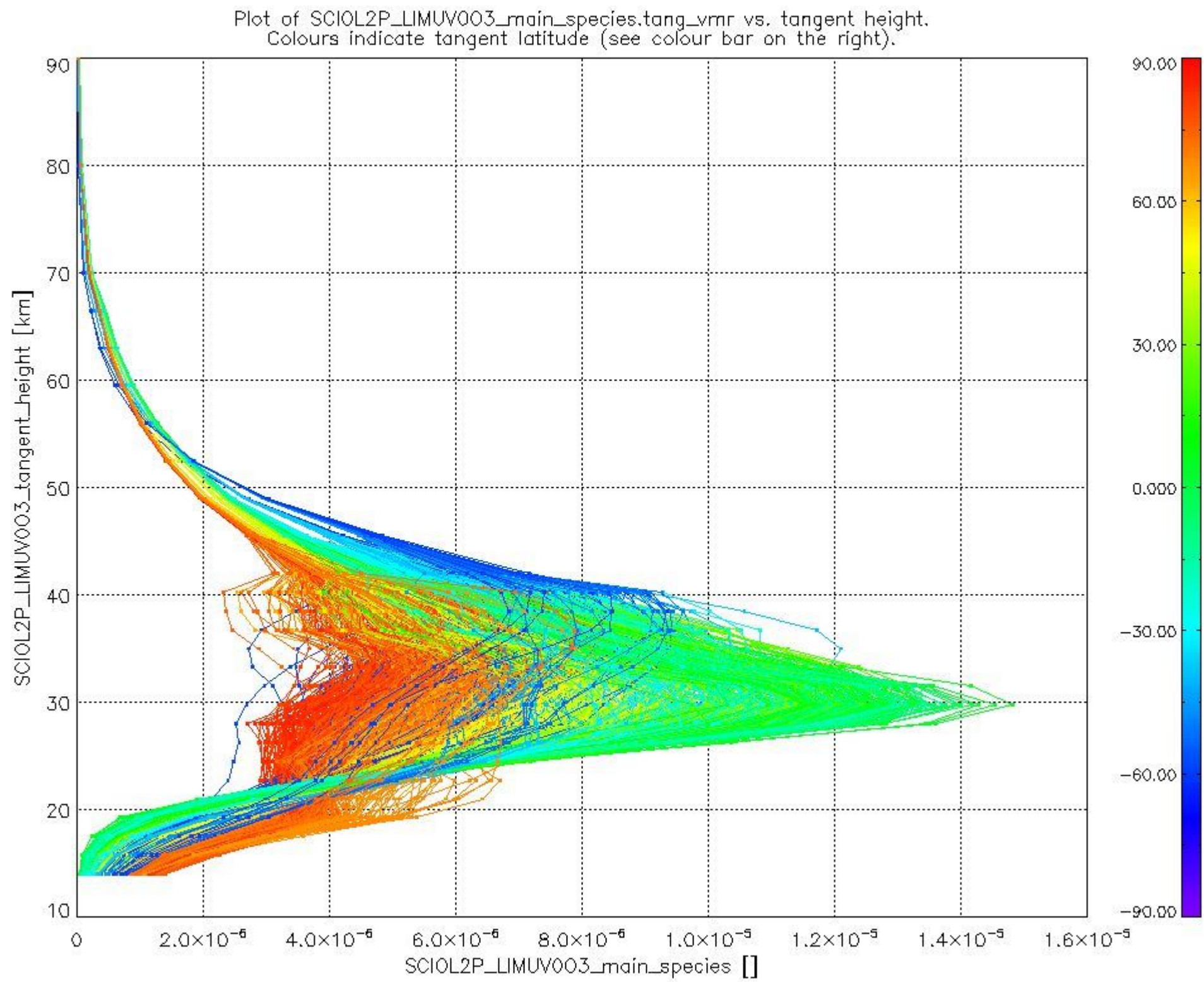
The following data items are currently included into this section:

Number	Data item ID
0	SCIDL2P_LIMUV003_main_species
1	SCIDL2P_LIMUV1NO2_main_species
2	SCIDL2P_LIMUV3BRO_main_species



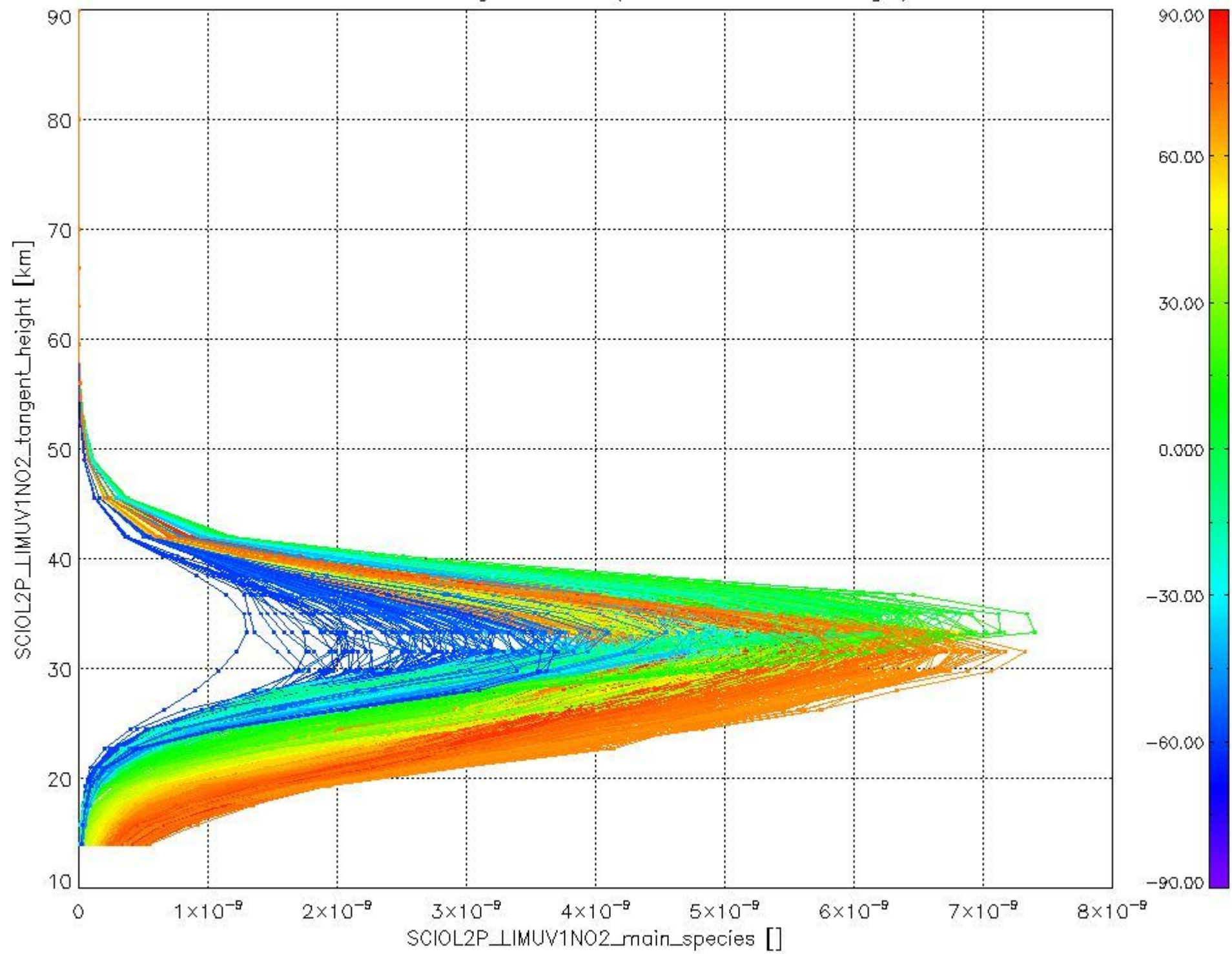
The following plots show for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

2.2.3.1 O3 (UV0)



2.2.3.2 NO2 (UV1)

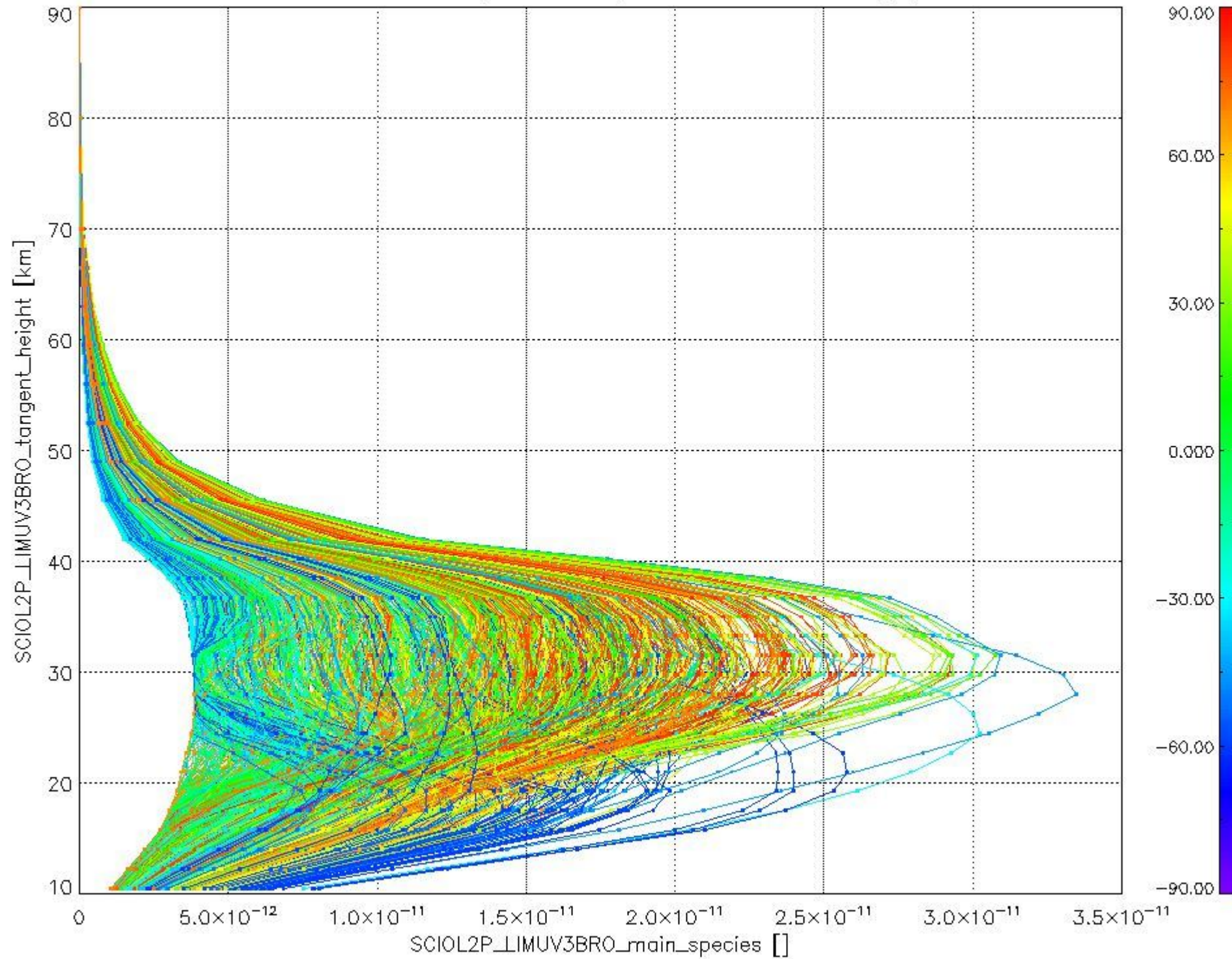
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



### 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).



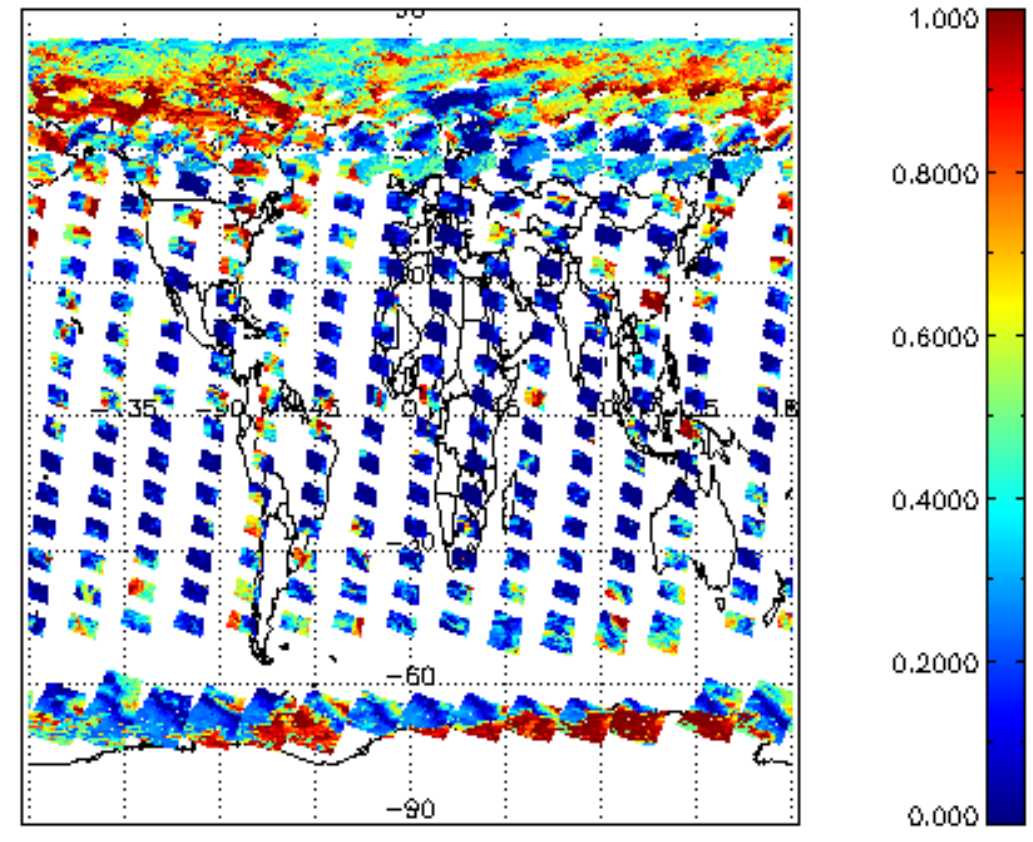
### 2.3 ADF monitoring

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_AXVIEC20110510_111126_20110513_190809_20110515_190809
3	SCI_MF1_AXVIEC20110510_111229_20110514_183124_20110516_183124

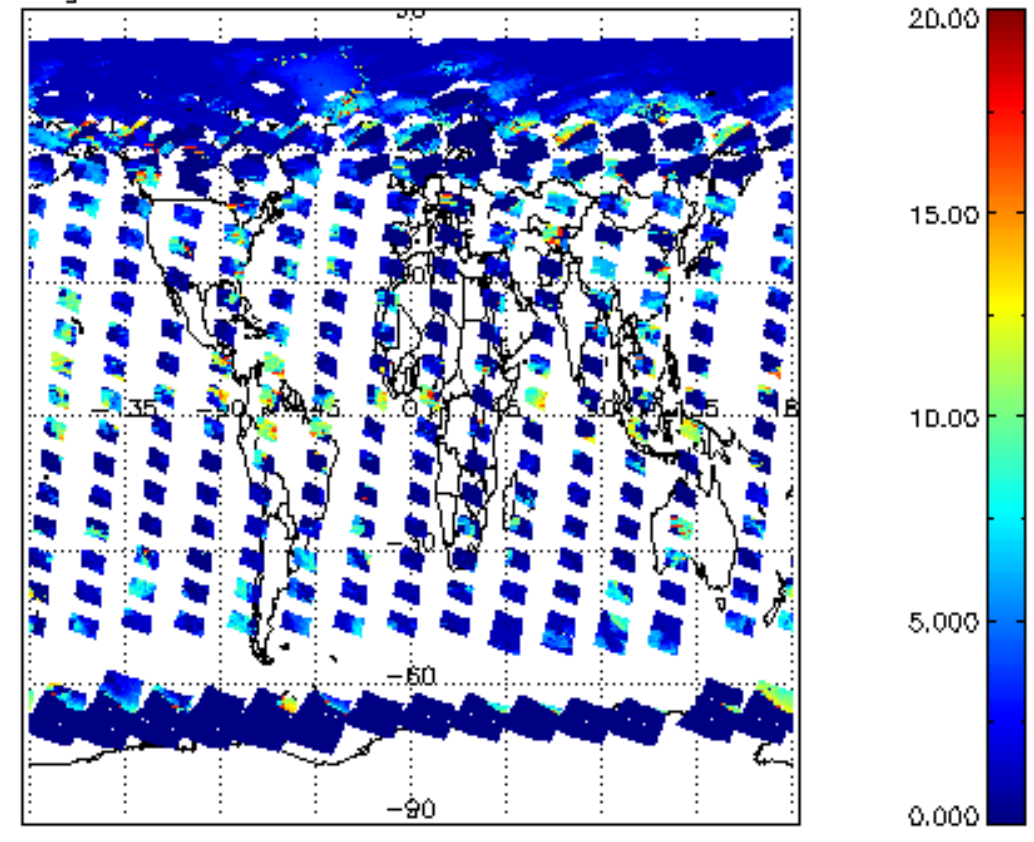




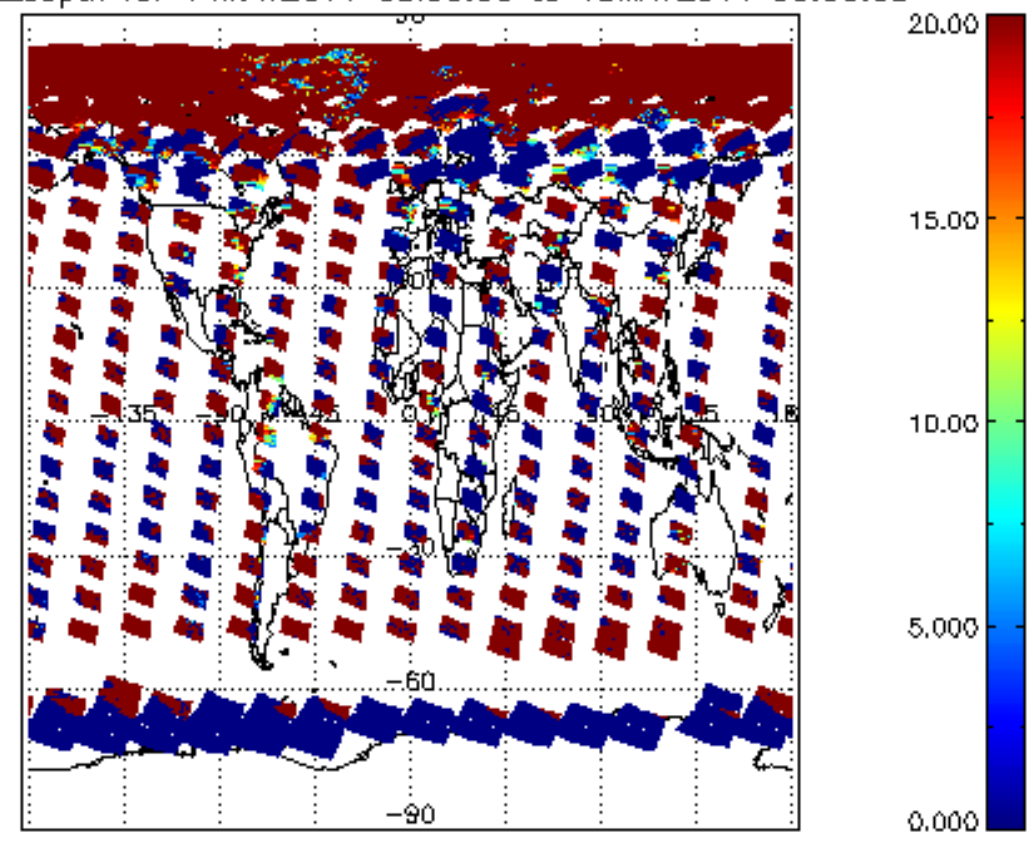
cl\_frac for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



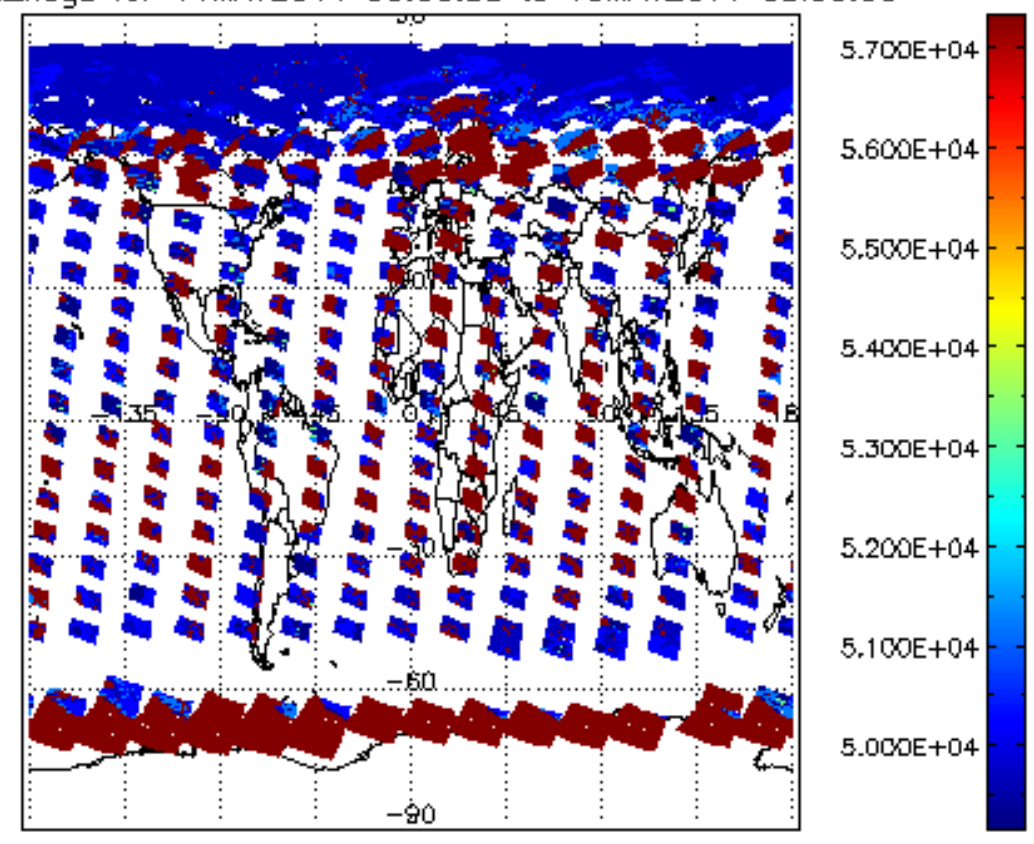
cl\_top\_height for 14MAY2011 00:00:00 to 15MAY2011 00:00:00

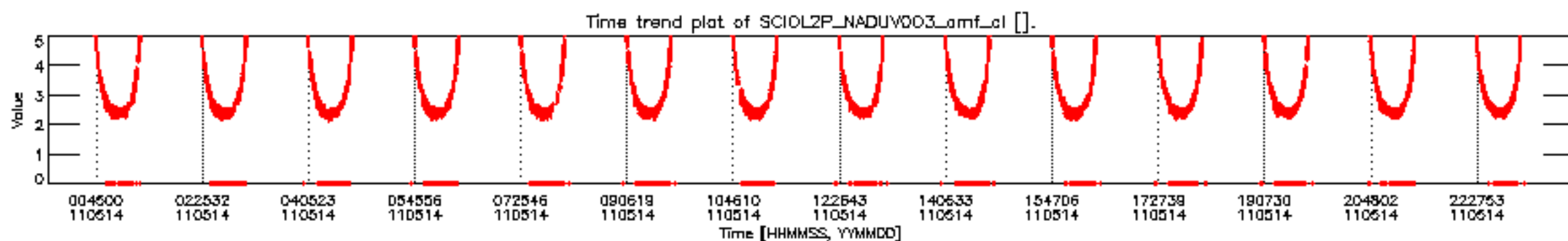
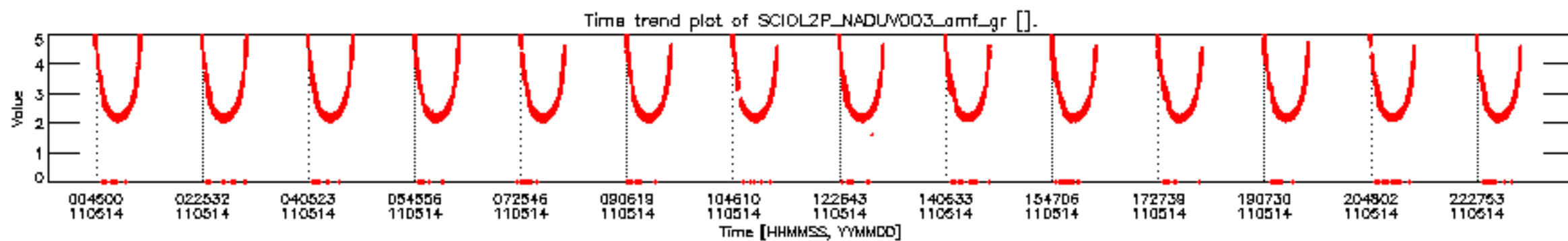
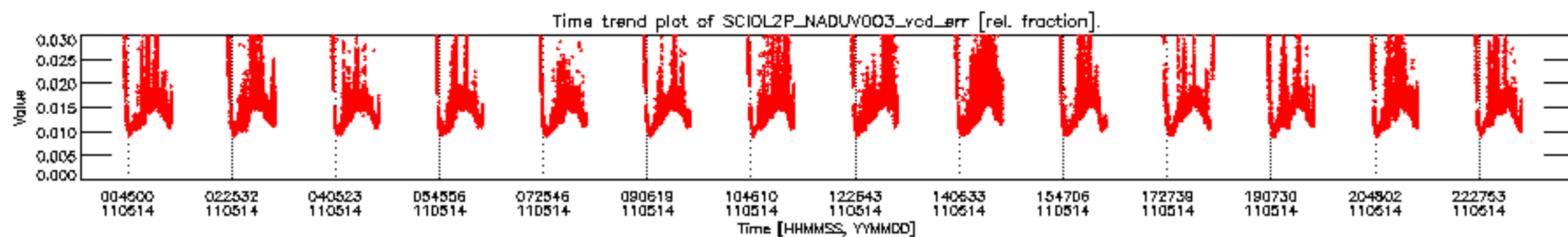
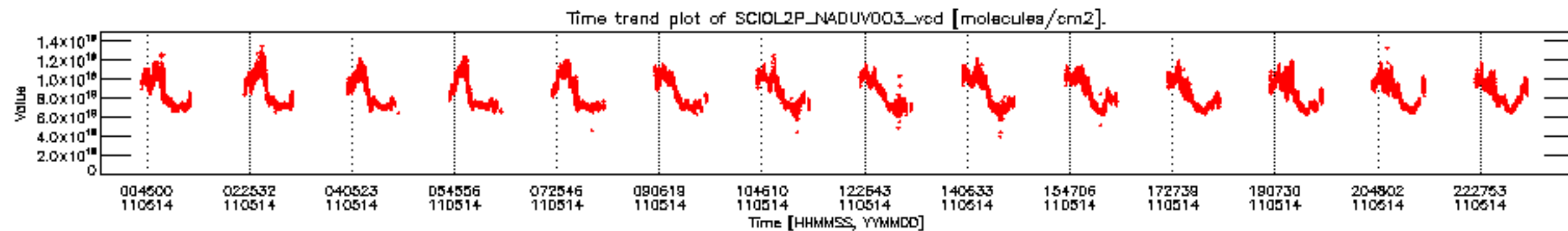


cl\_opt\_depth for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



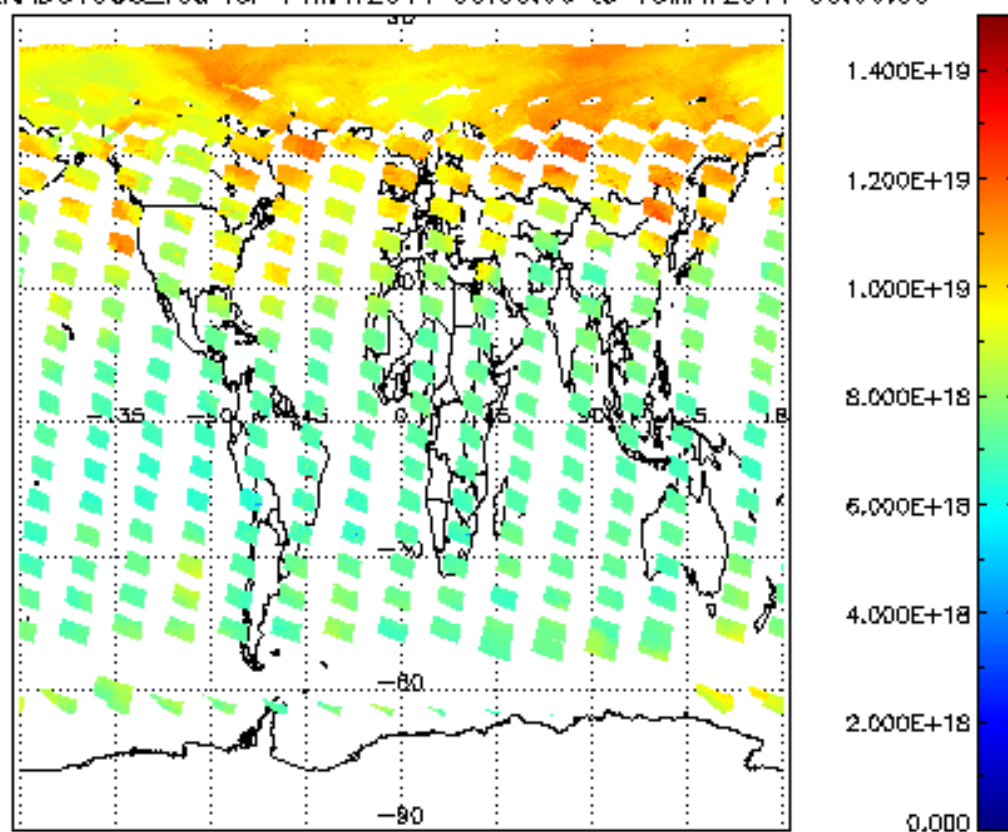
cloud\_flags for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



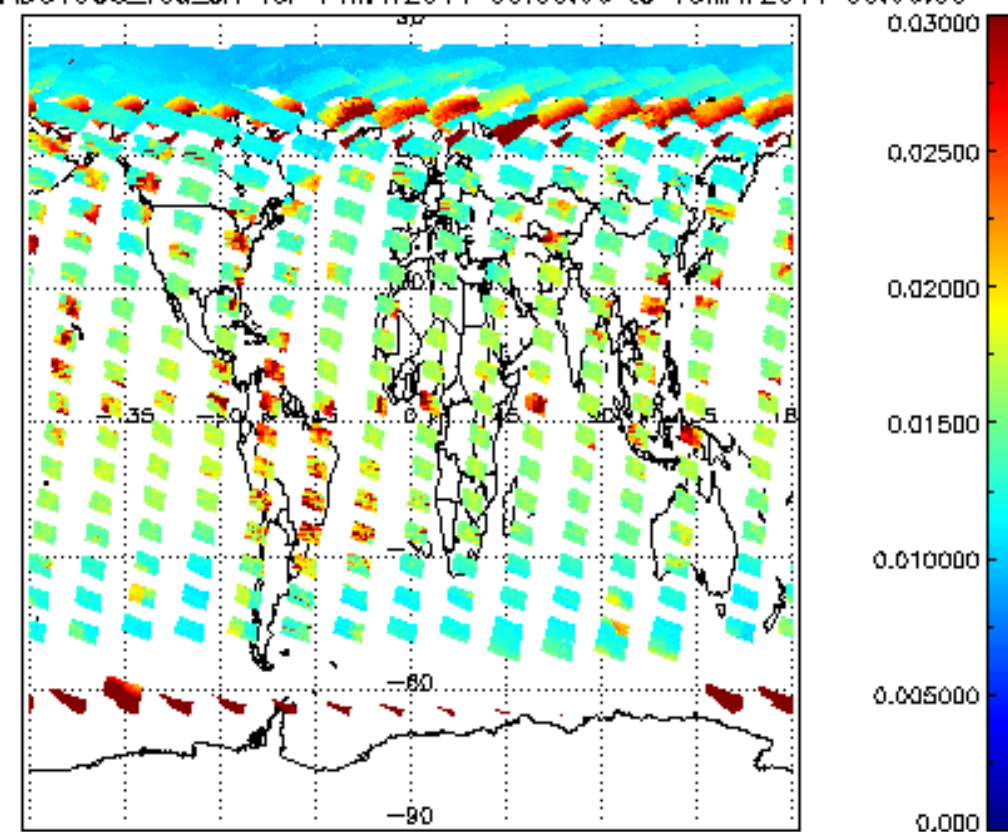




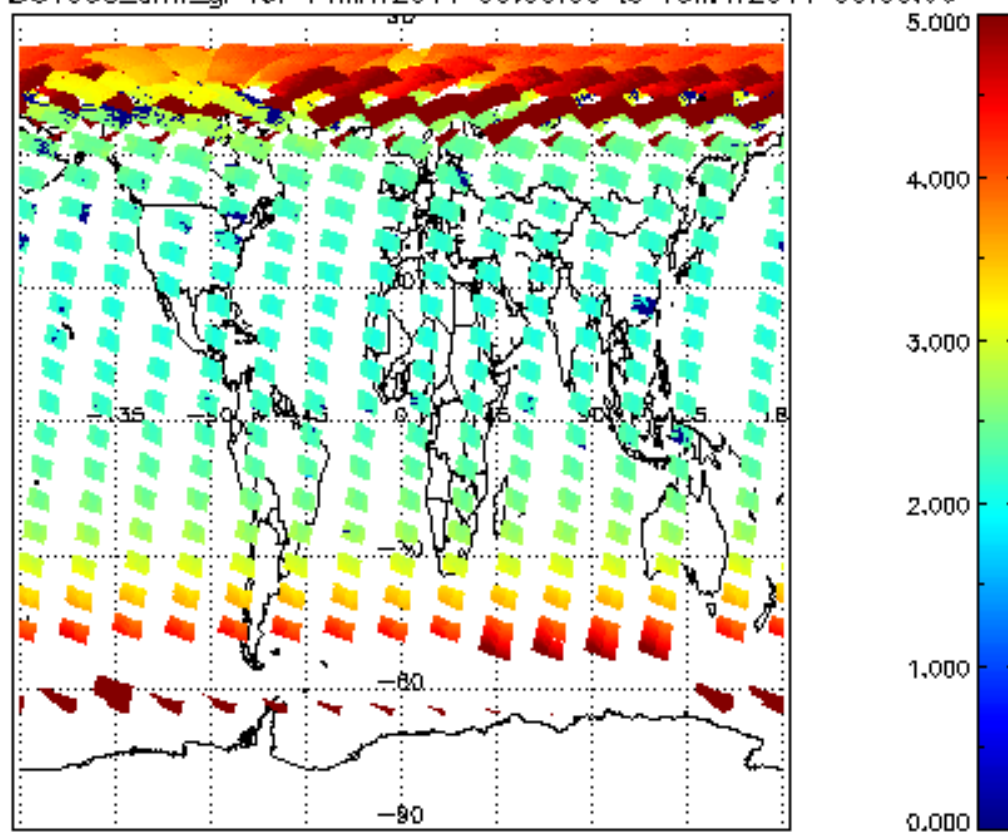
SCIOL2P\_NADUV003\_vcd for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



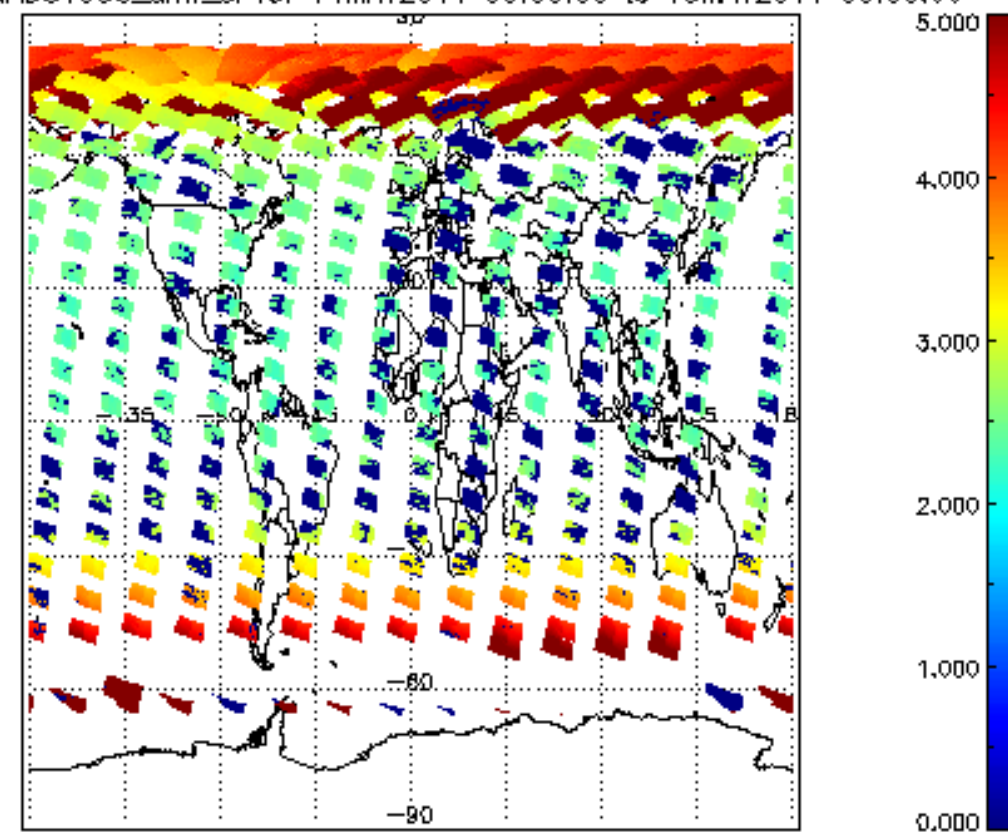
SCIOL2P\_NADUV003\_vcd\_err for 14MAY2011 00:00:00 to 15MAY2011 00:00:00

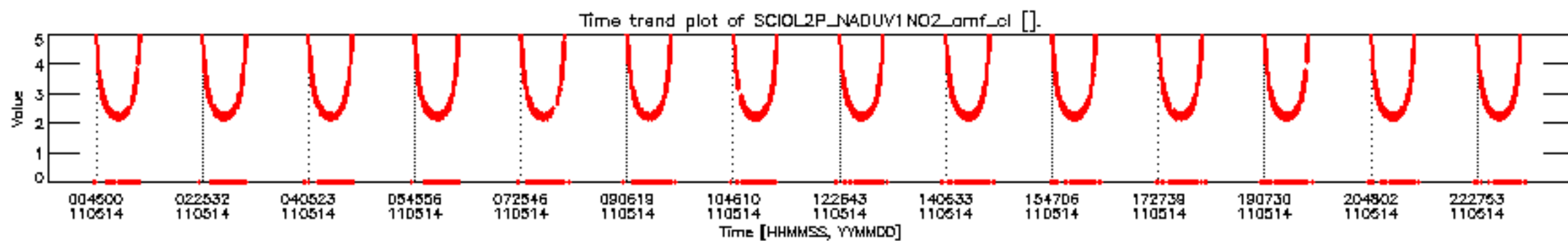
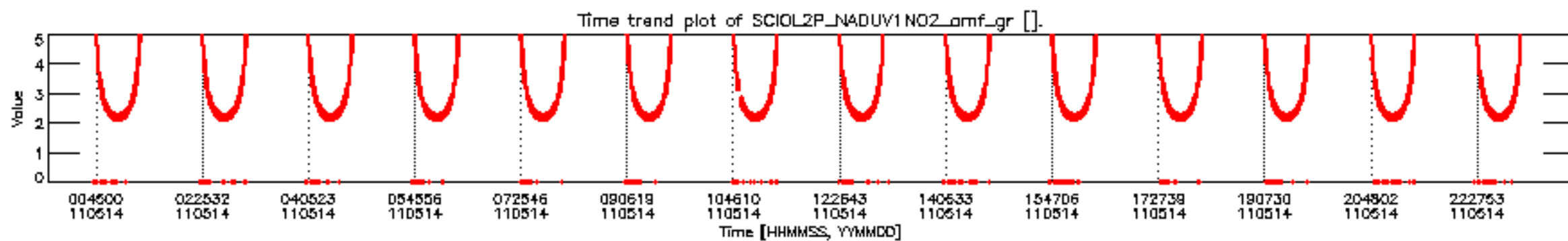
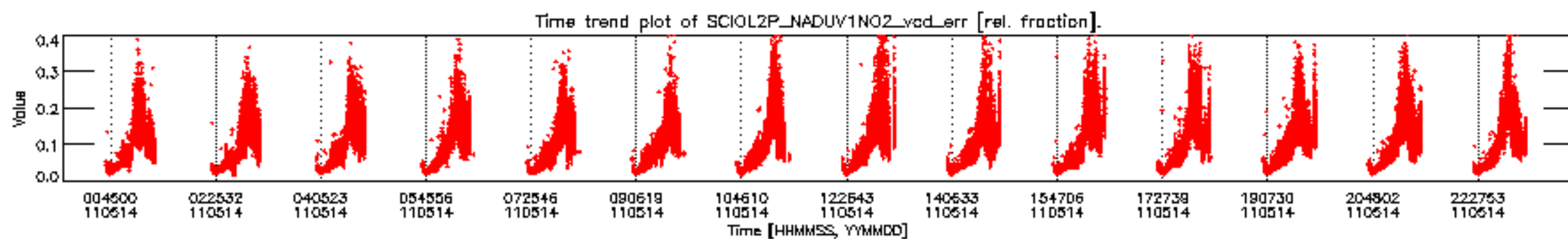
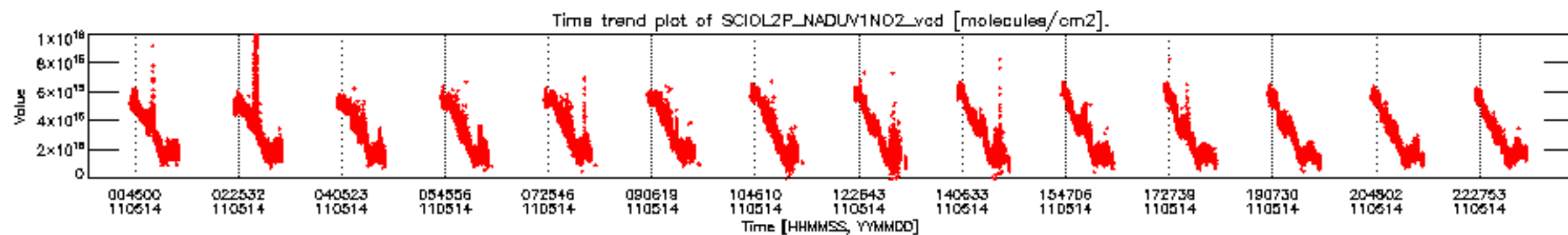


SCIOL2P\_NADUV003\_amf\_gr for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



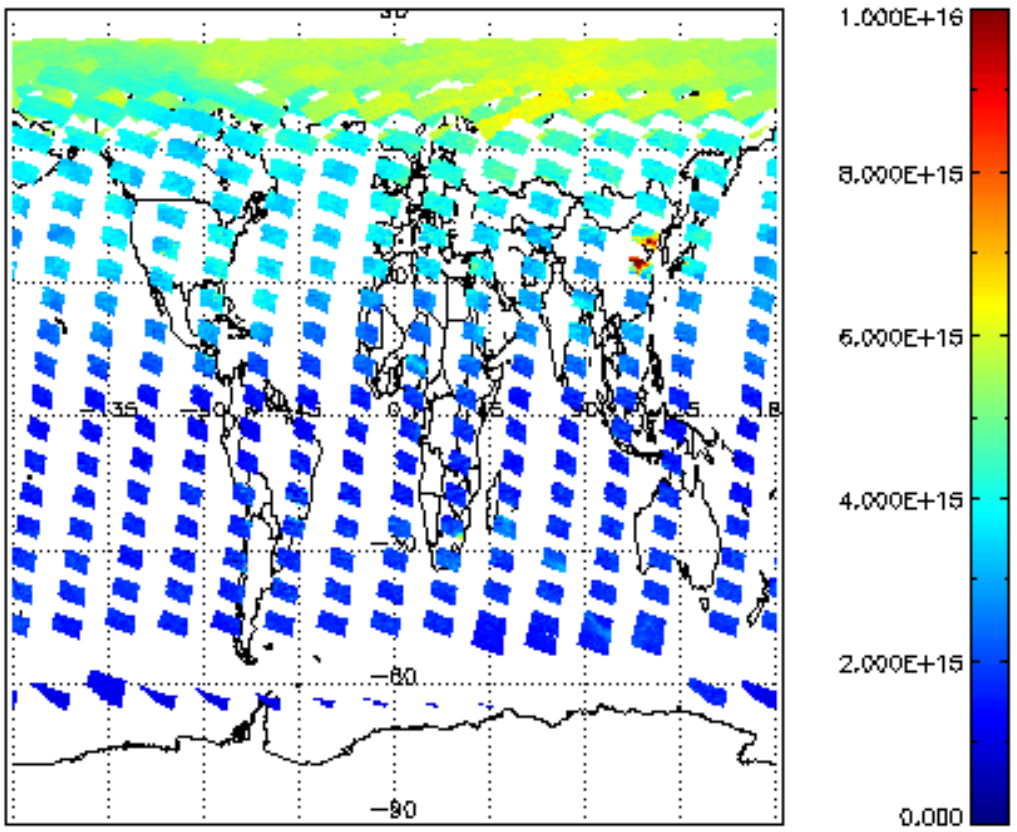
SCIOL2P\_NADUV003\_amf\_cl for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



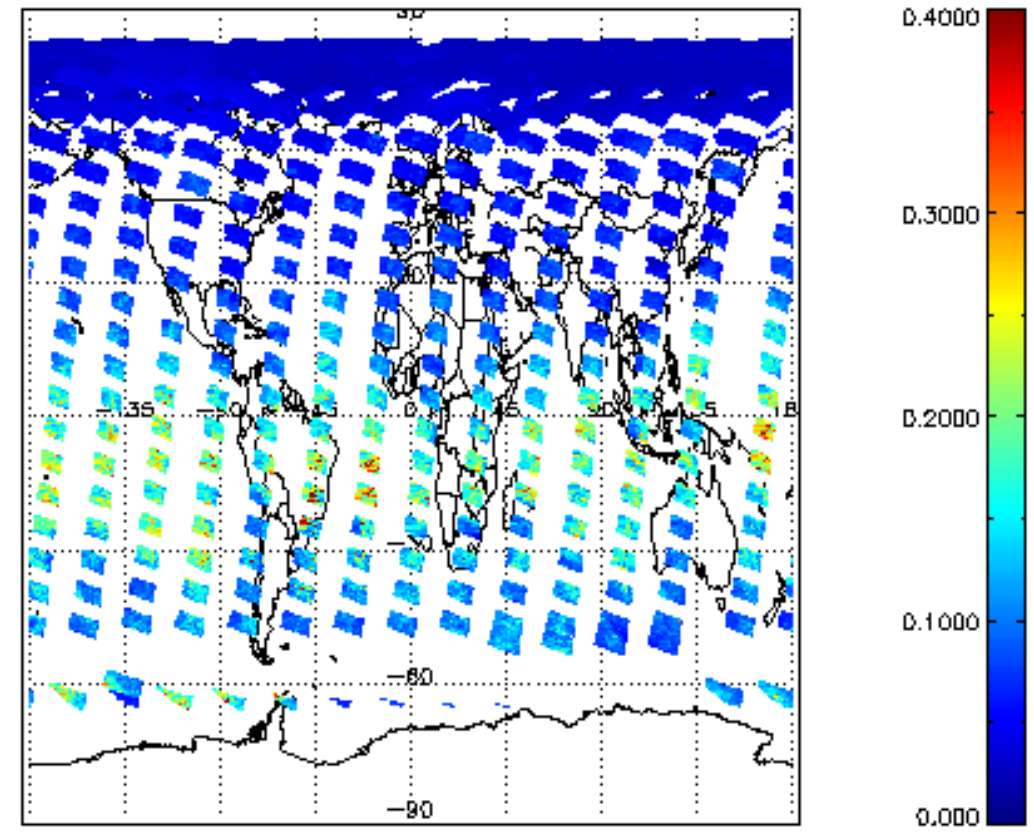




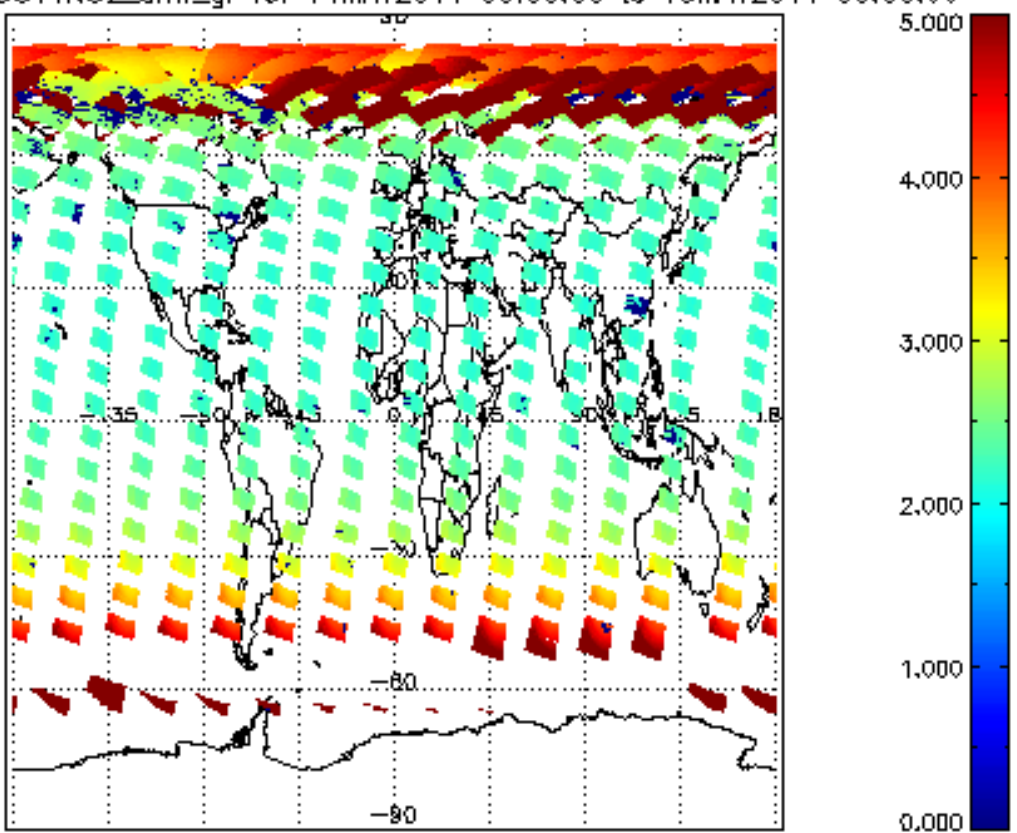
SCIOL2P\_NADUV1NO2\_vcd for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



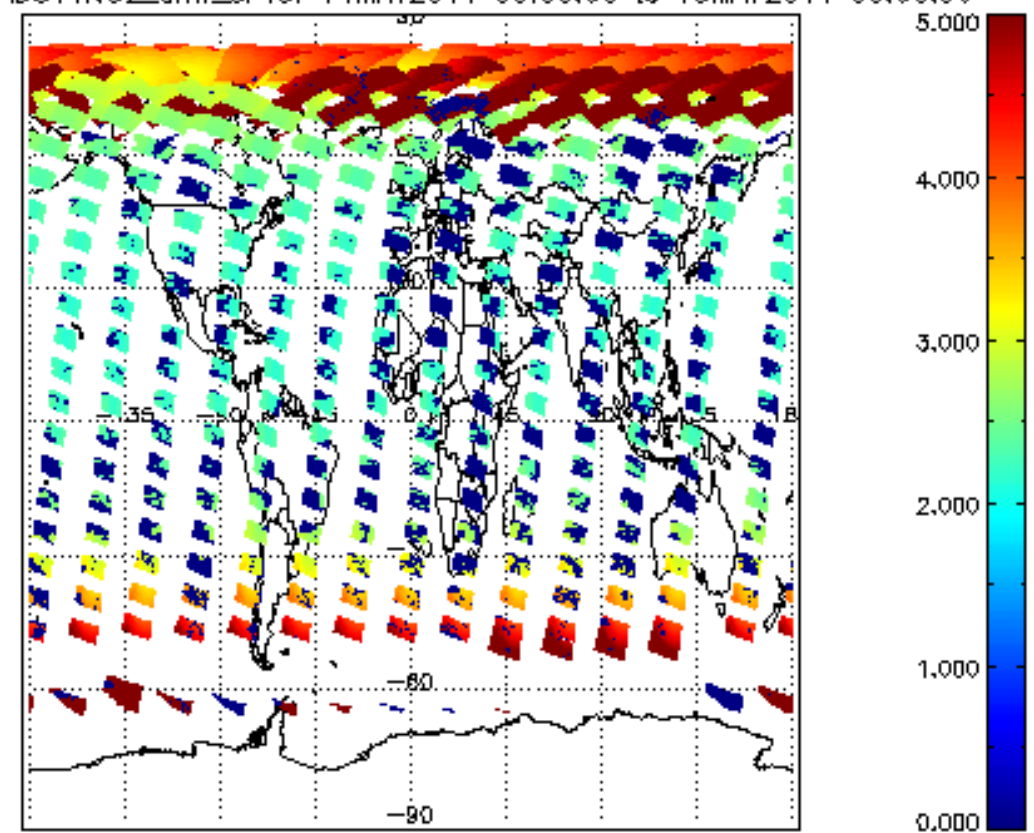
SCIOL2P\_NADUV1NO2\_vcd\_err for 14MAY2011 00:00:00 to 15MAY2011 00:00:00

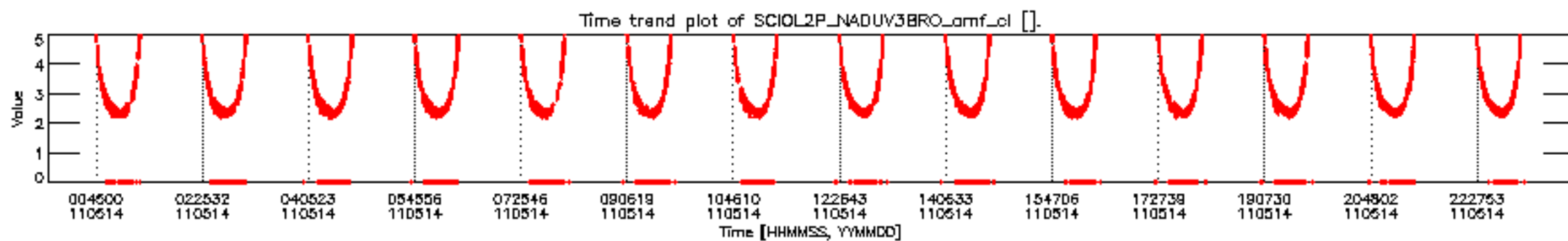
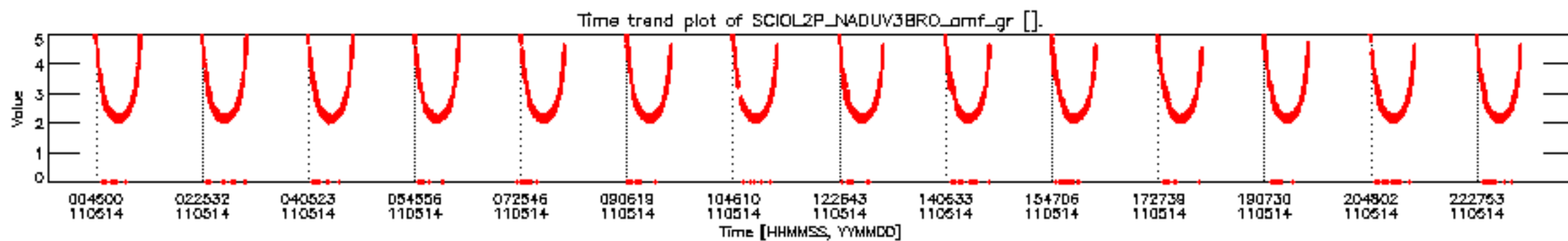
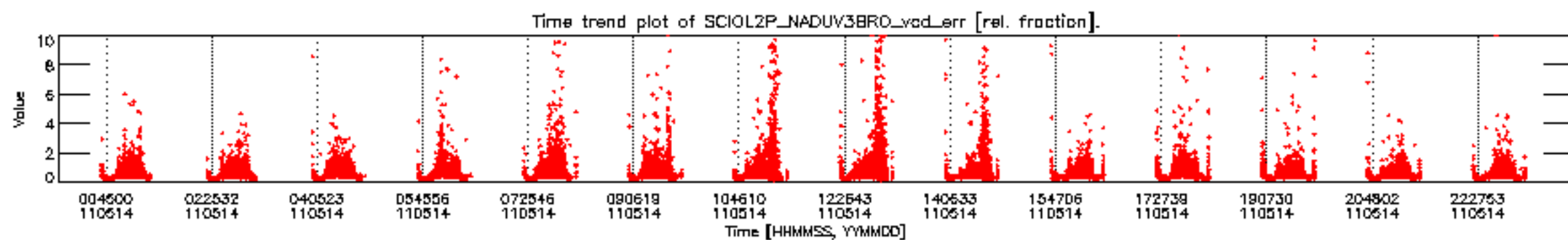
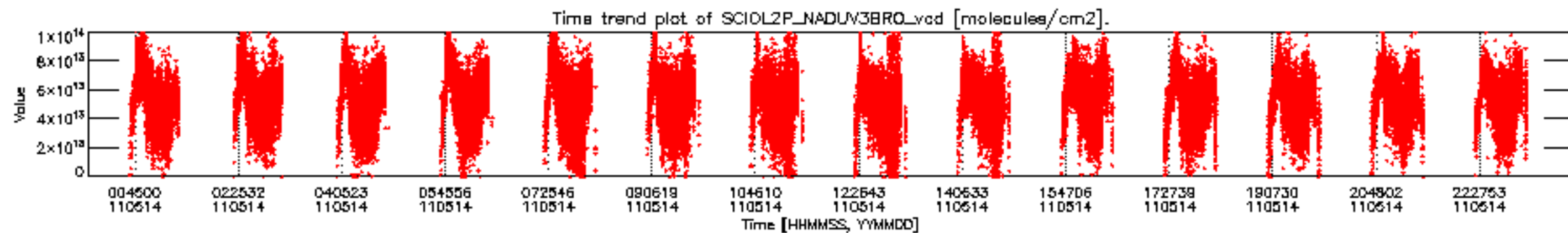


SCIOL2P\_NADUV1NO2\_amf\_gr for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



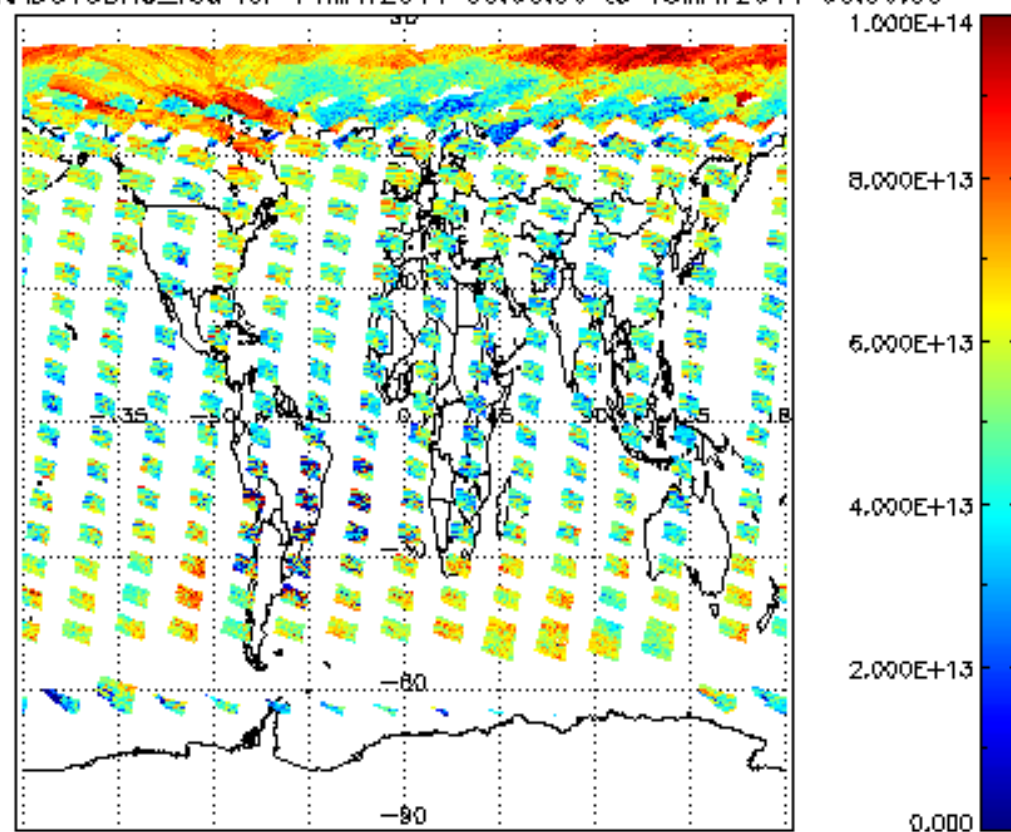
SCIOL2P\_NADUV1NO2\_amf\_cl for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



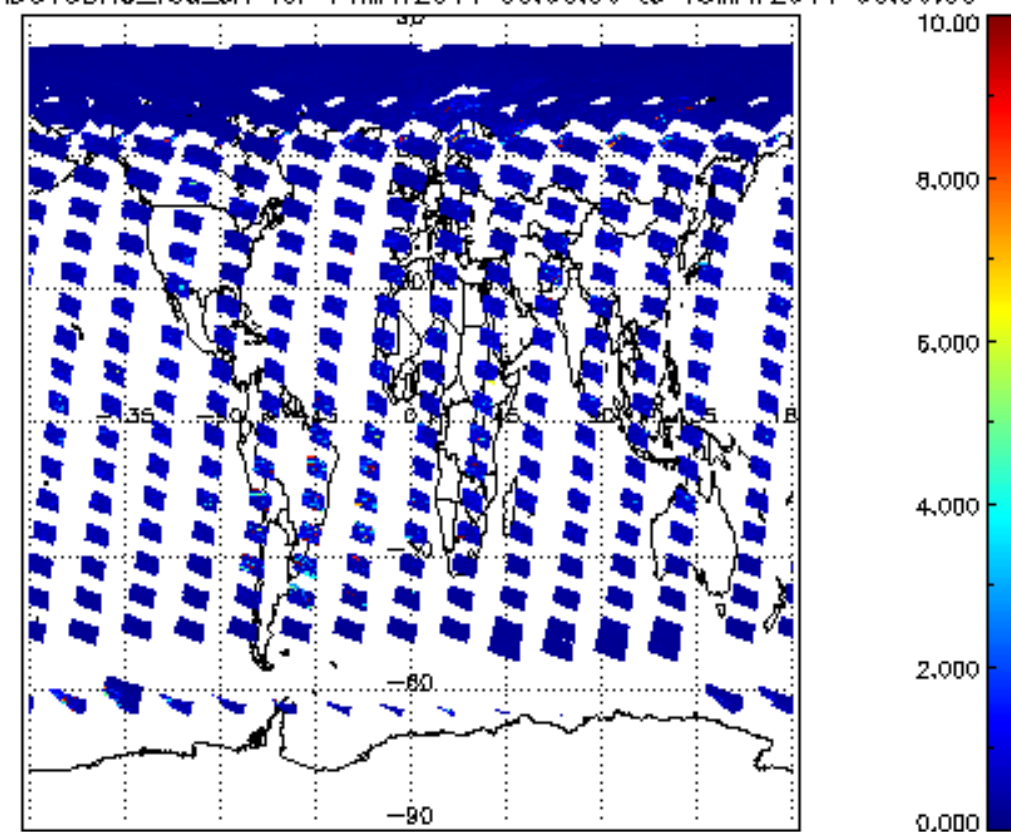




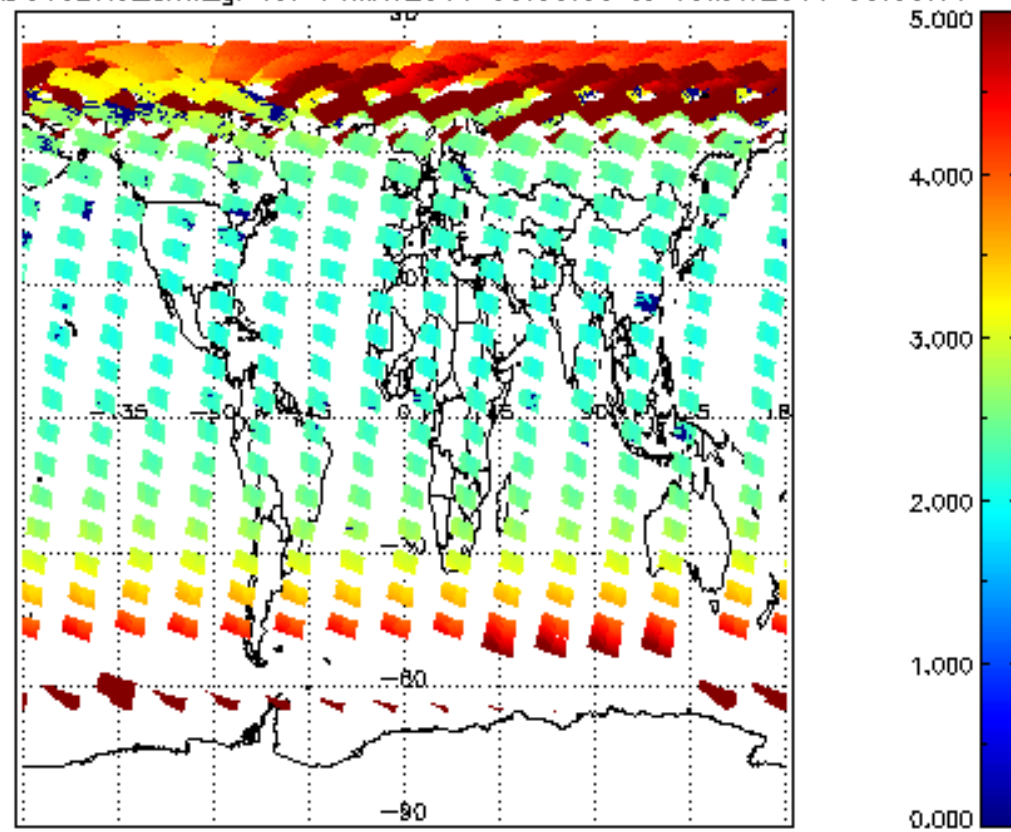
SCIOL2P\_NADUV3BRO\_vcd for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



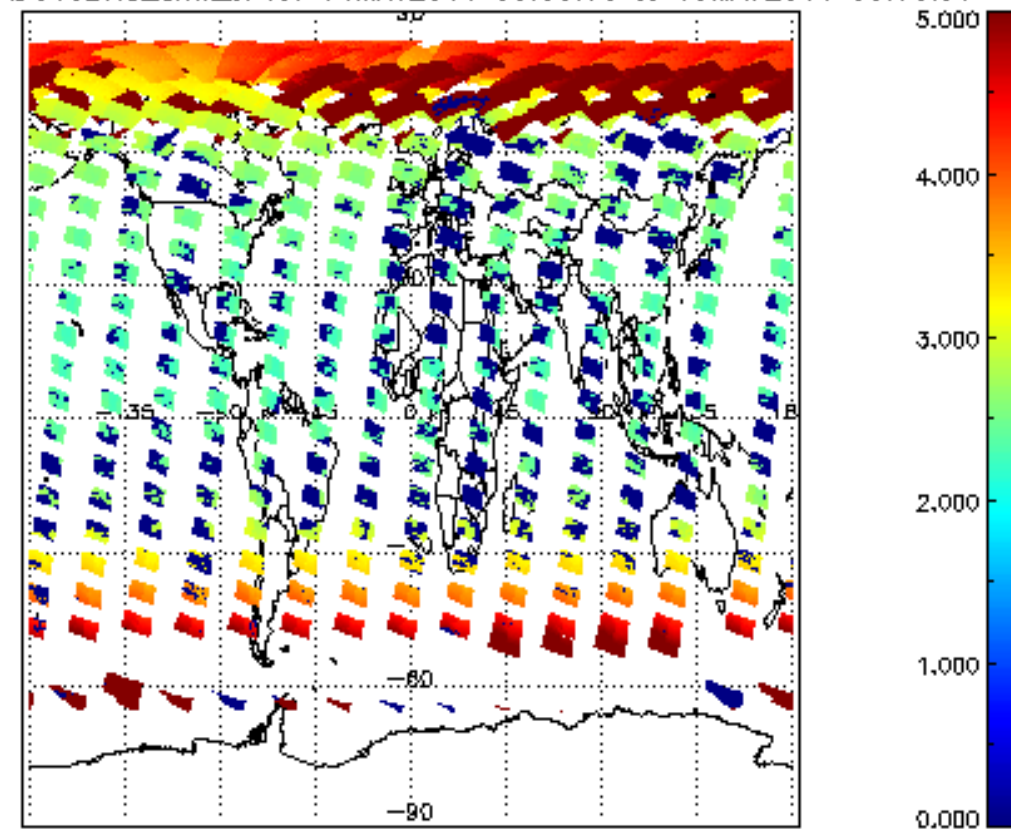
SCIOL2P\_NADUV3BRO\_vcd\_err for 14MAY2011 00:00:00 to 15MAY2011 00:00:00

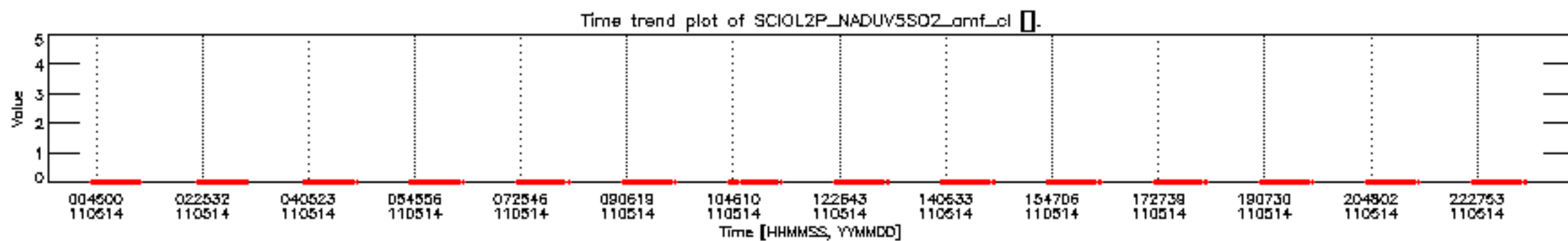
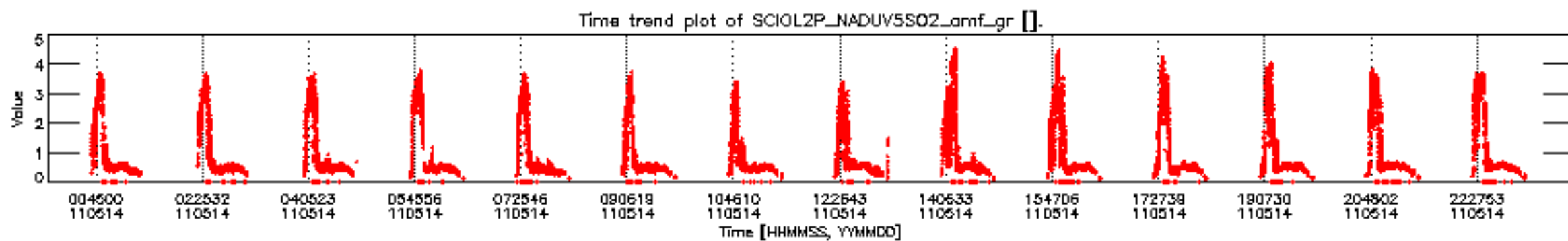
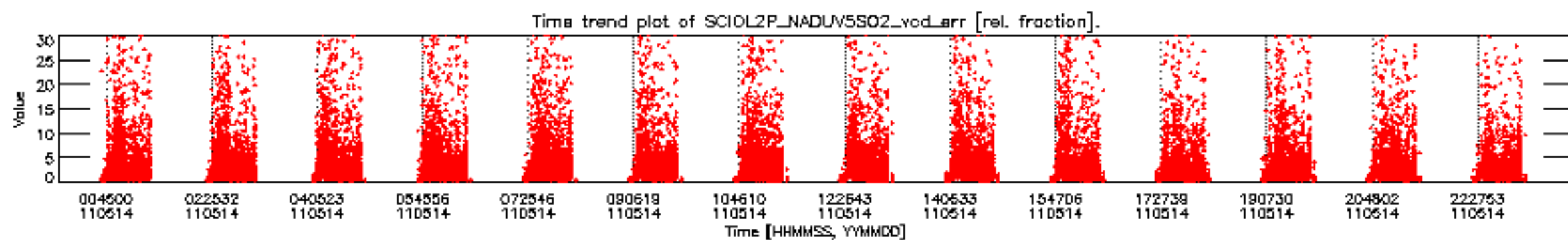
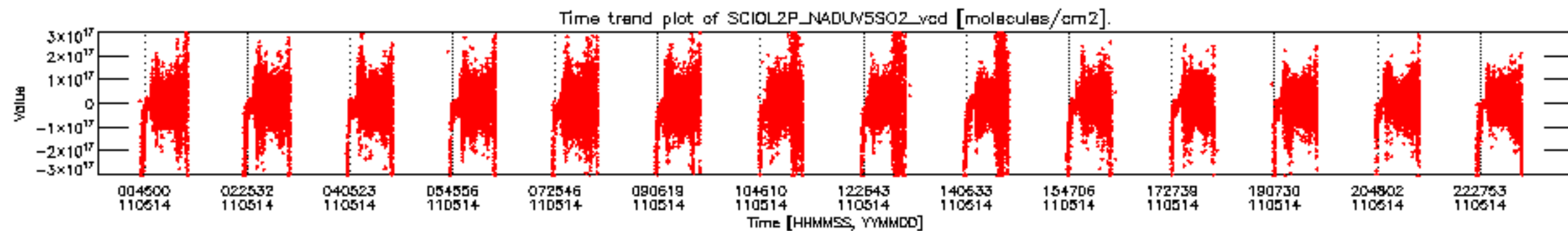


SCIOL2P\_NADUV3BRO\_amf\_gr for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



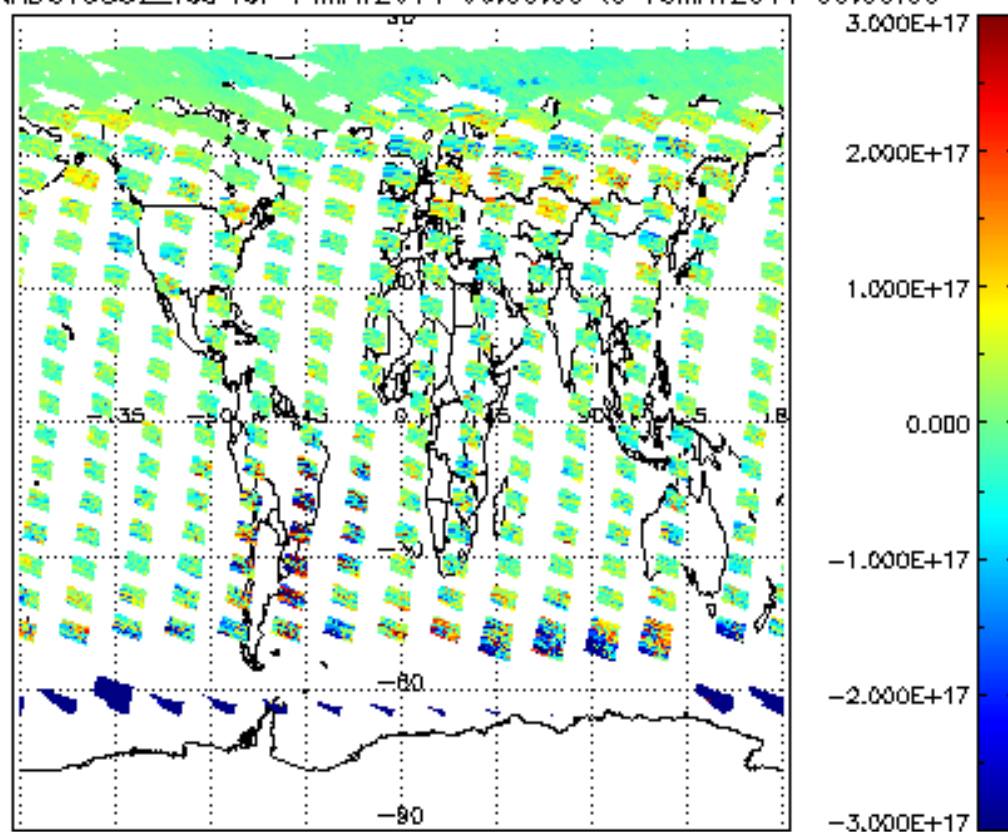
SCIOL2P\_NADUV3BRO\_amf\_sl for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



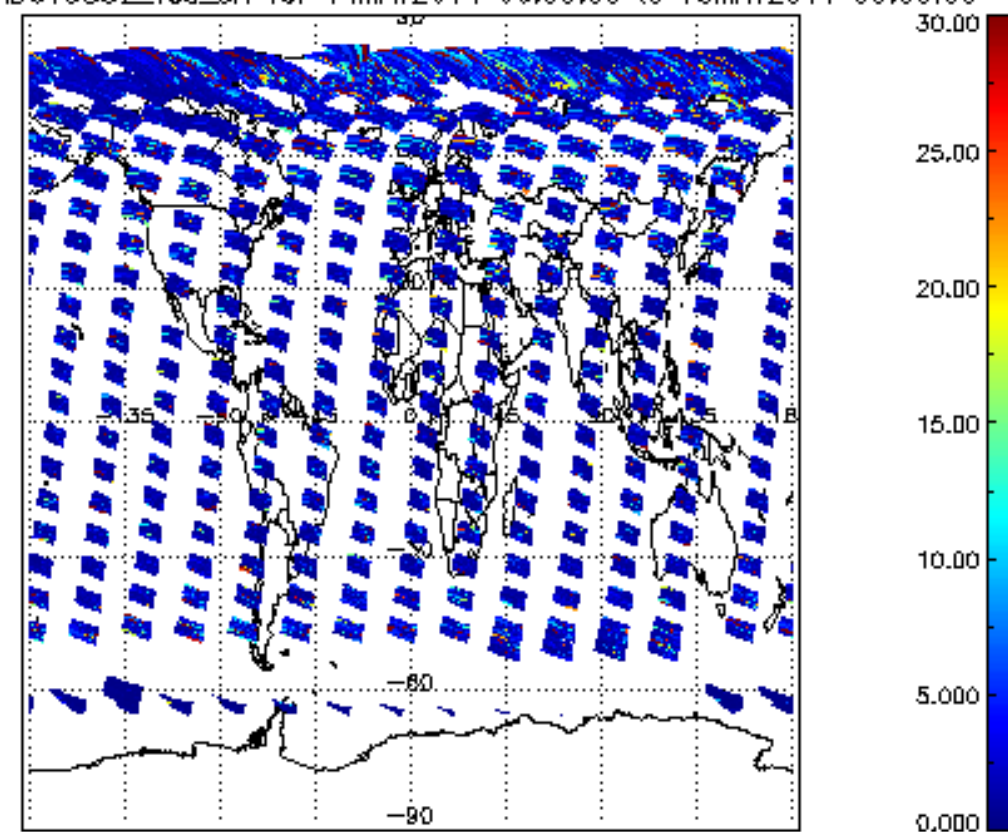




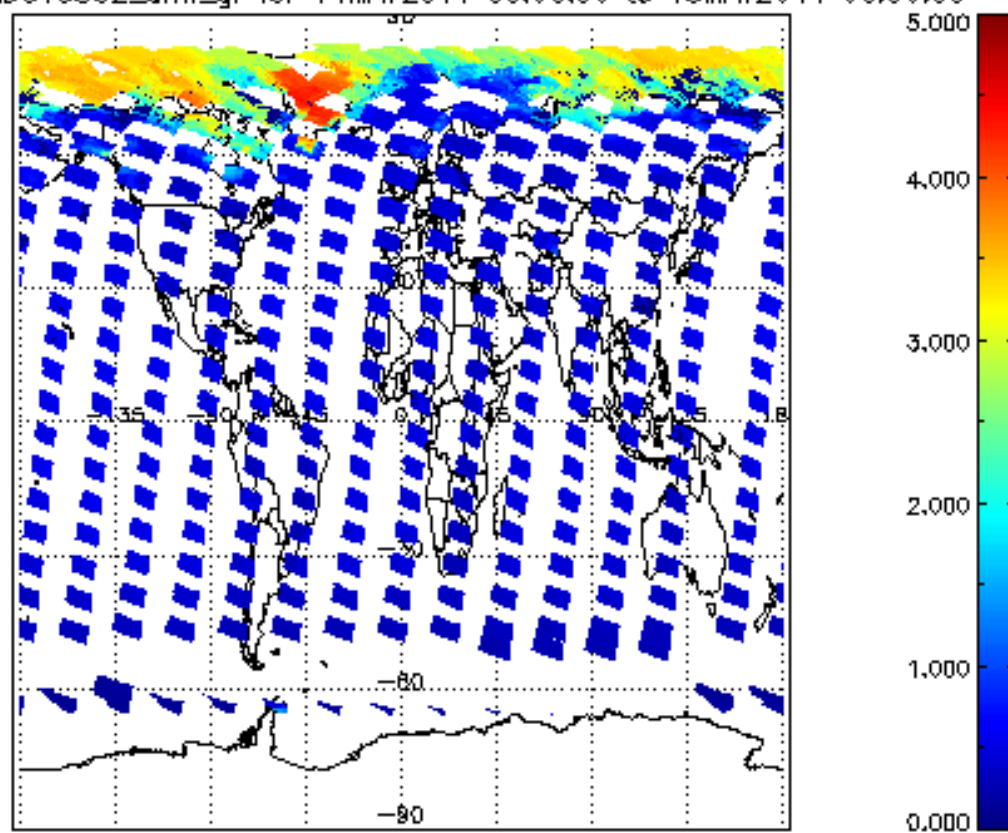
SCIOL2P\_NADUV5S02\_vcd for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



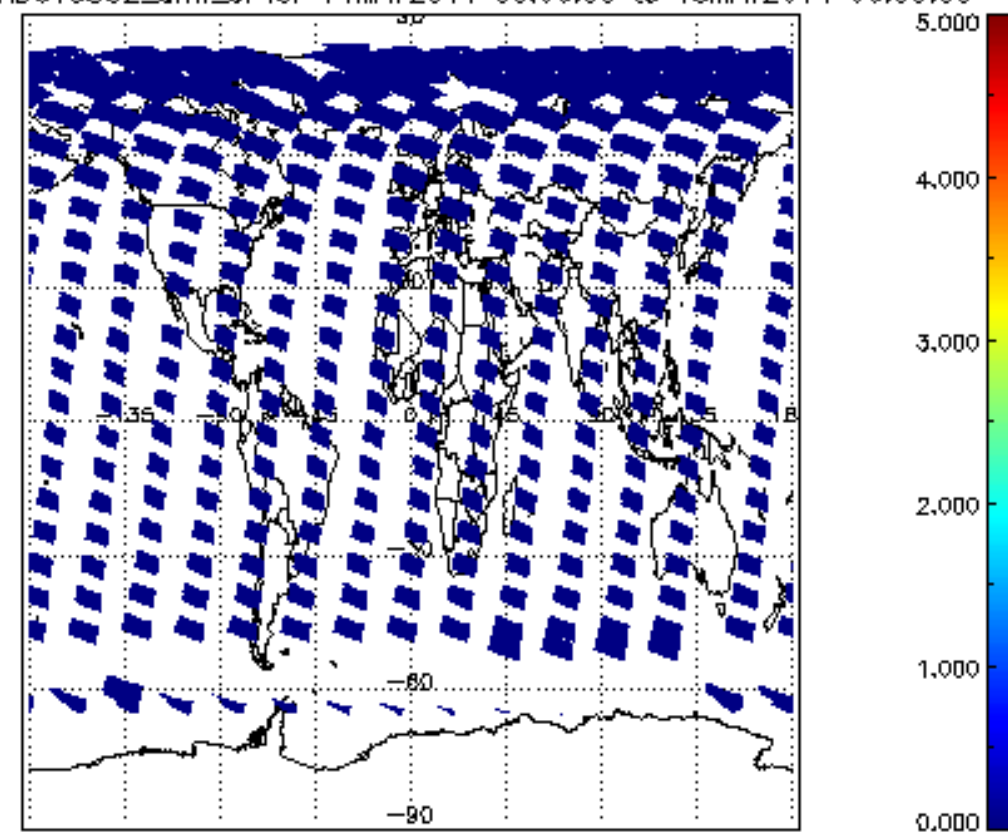
SCIOL2P\_NADUV5S02\_vcd\_err for 14MAY2011 00:00:00 to 15MAY2011 00:00:00

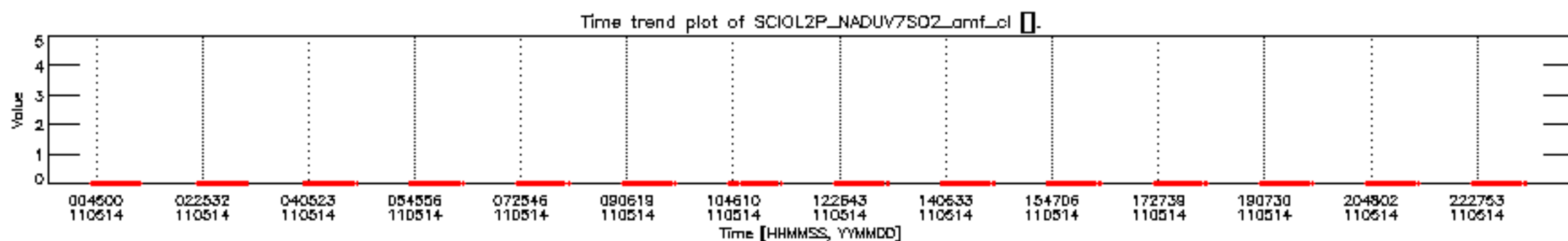
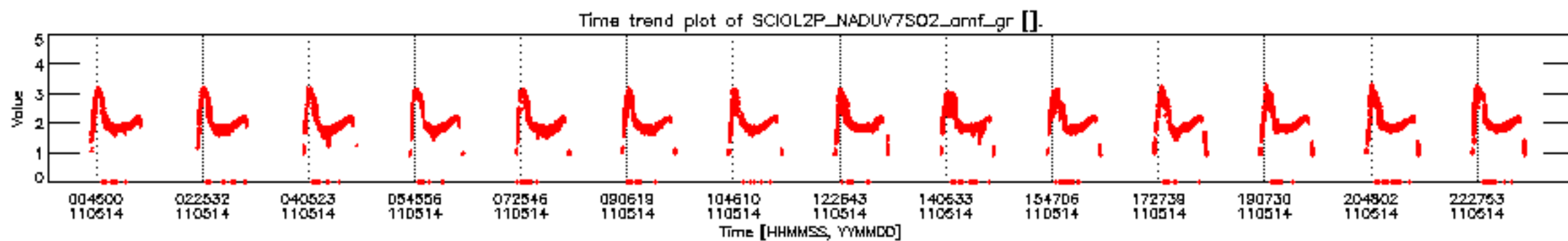
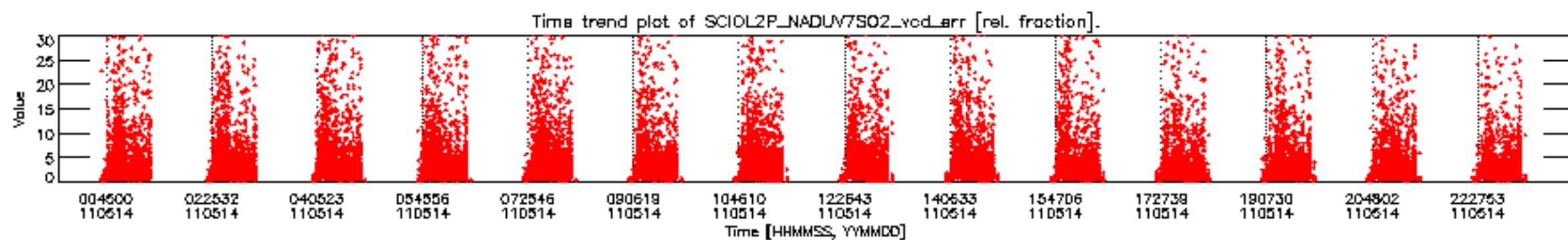
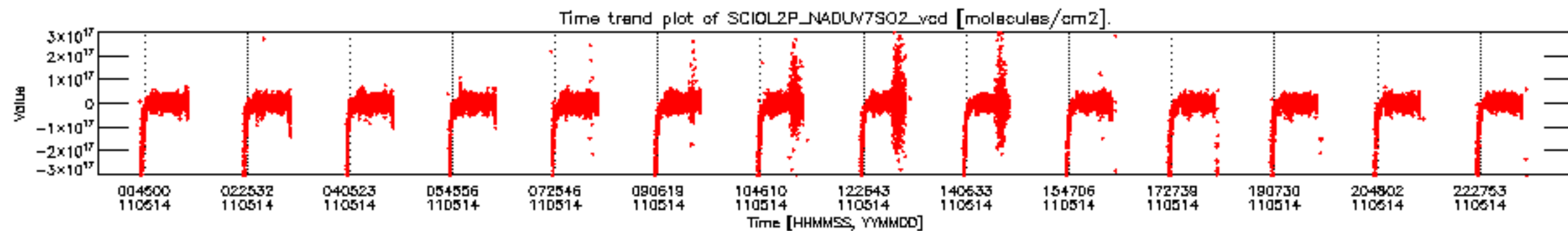


SCIOL2P\_NADUV5S02\_amf\_gr for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



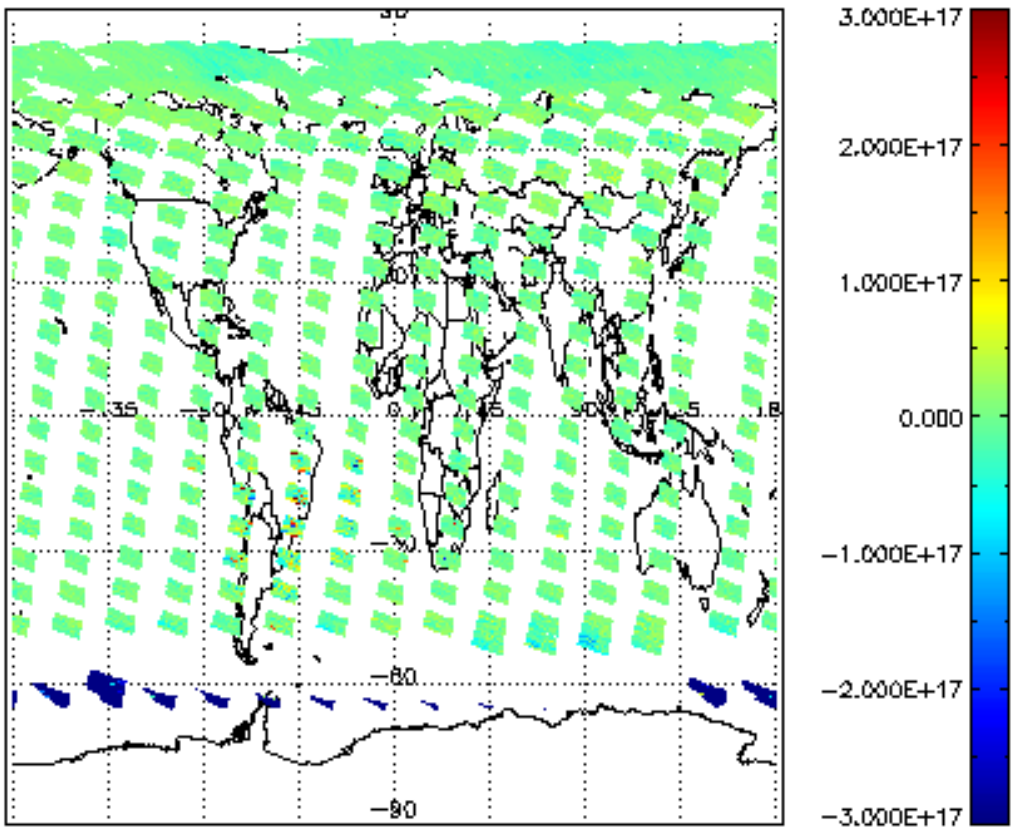
SCIOL2P\_NADUV5S02\_amf\_cl for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



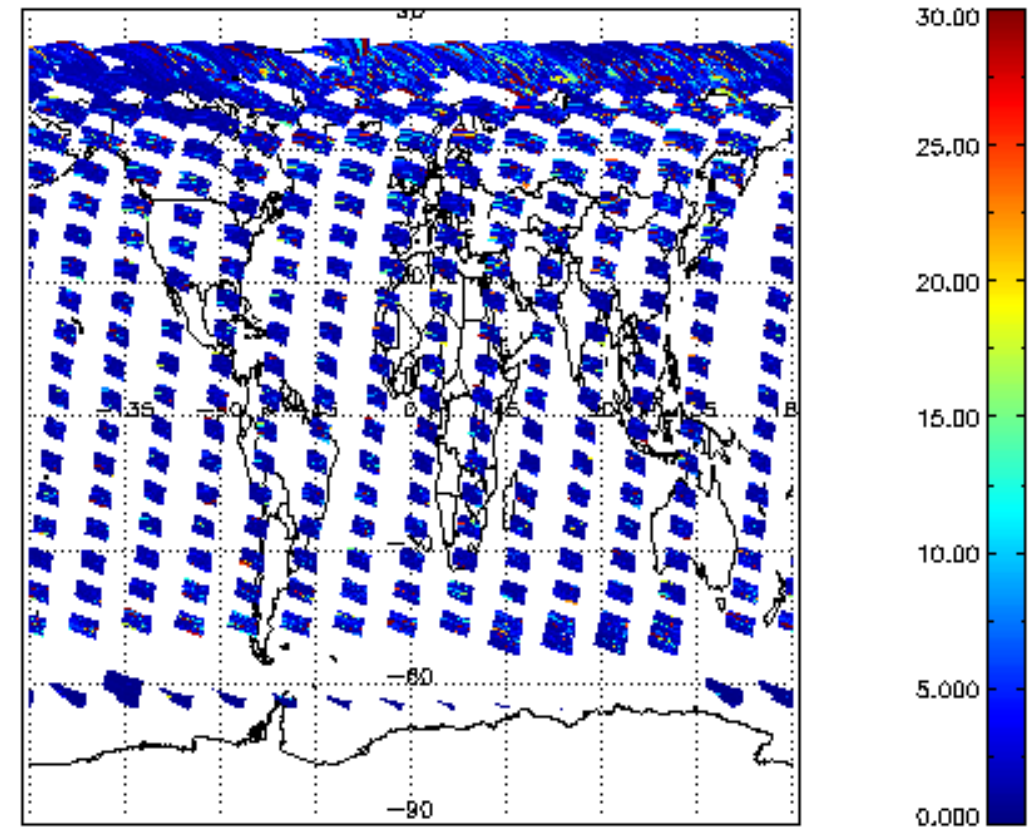




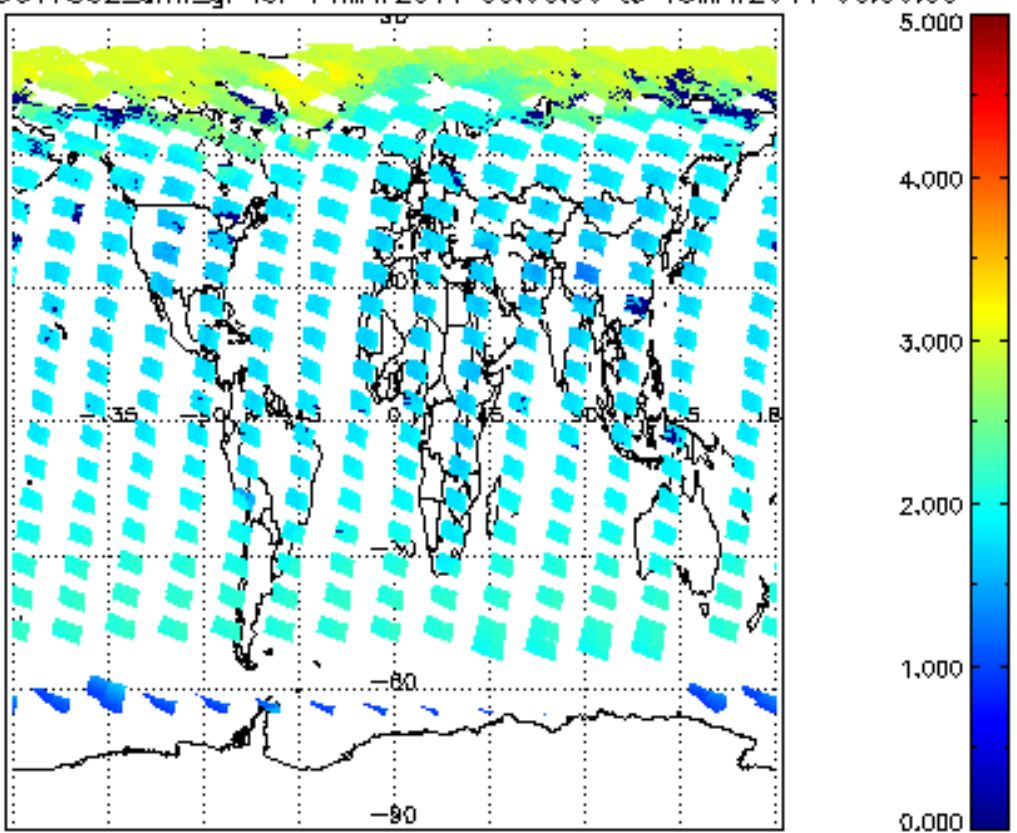
SCIOL2P\_NADUV7S02\_vcd for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



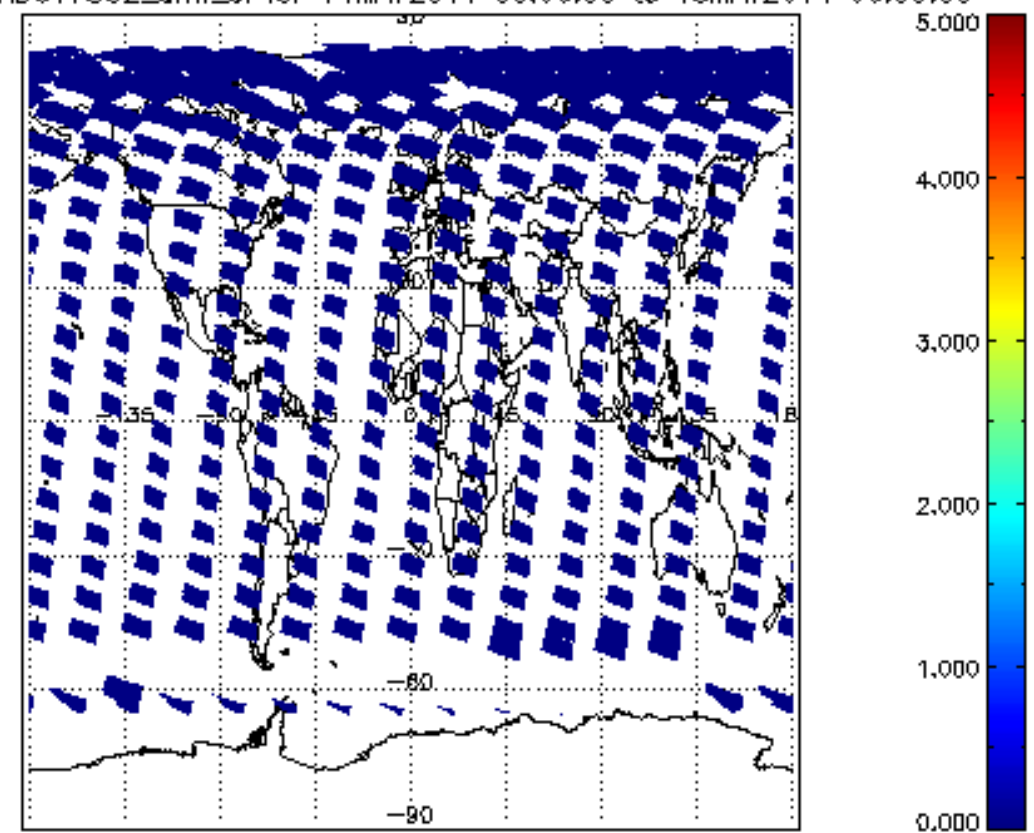
SCIOL2P\_NADUV7S02\_vcd\_err for 14MAY2011 00:00:00 to 15MAY2011 00:00:00

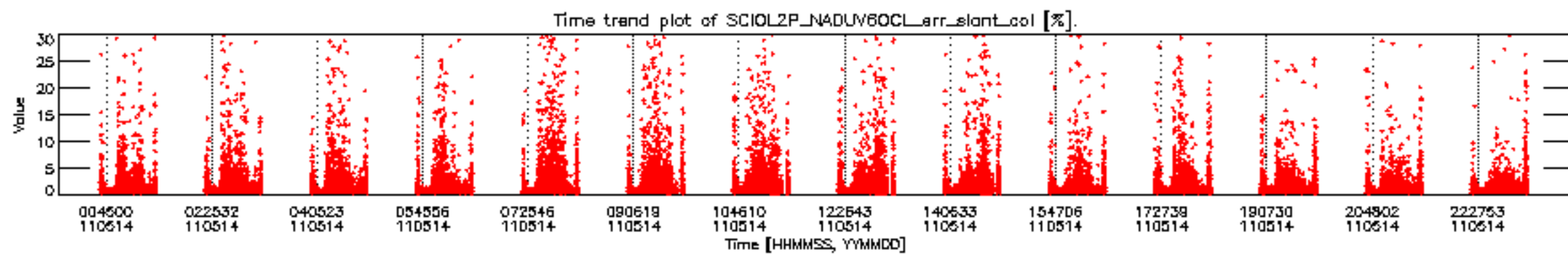
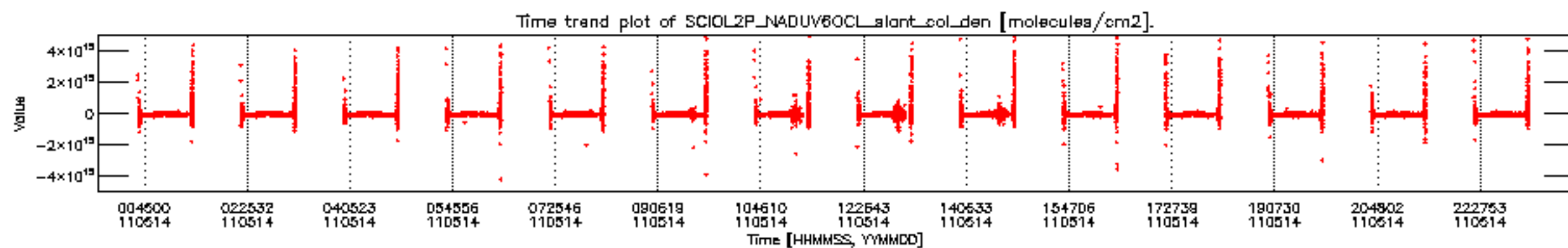


SCIOL2P\_NADUV7S02\_amf\_gr for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



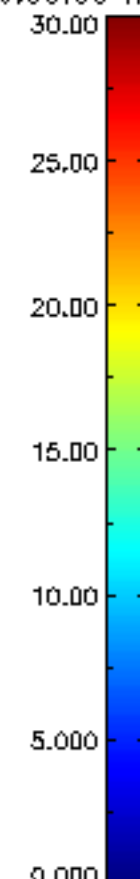
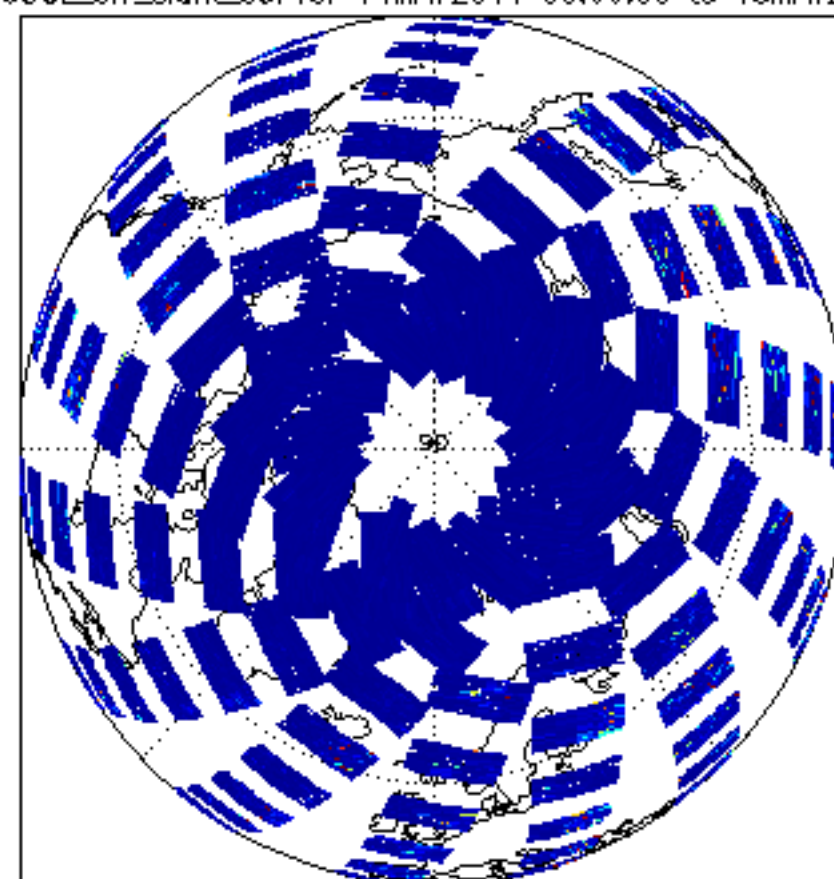
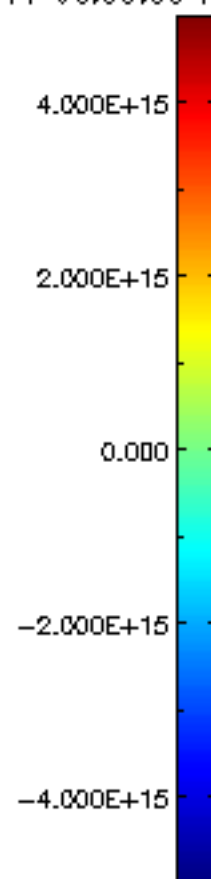
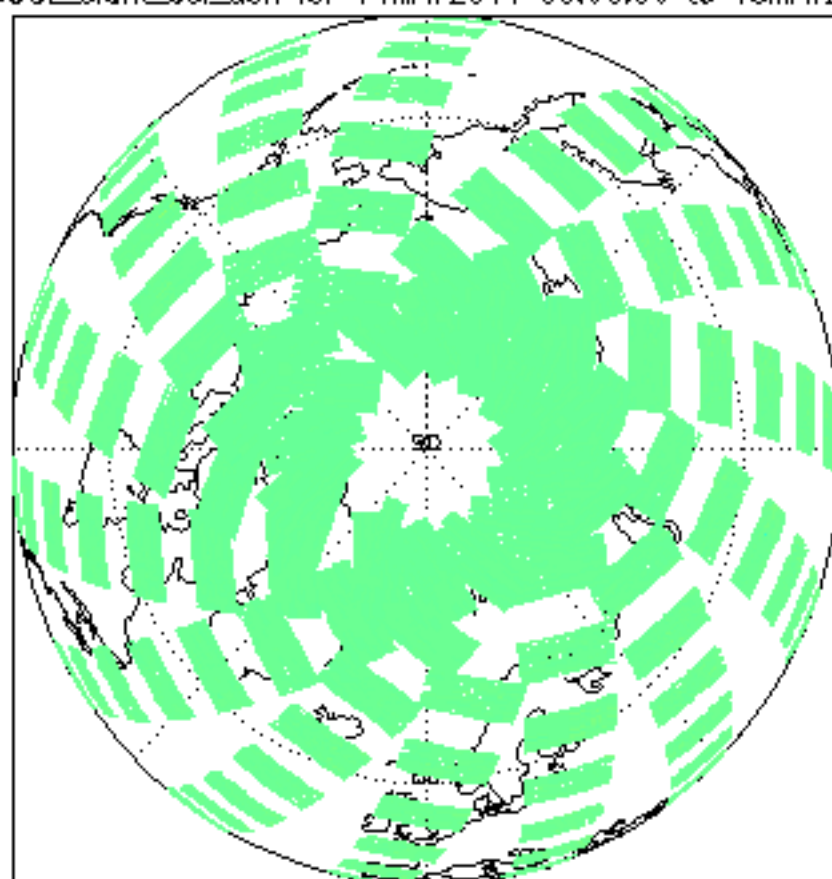
SCIOL2P\_NADUV7S02\_amf\_cl for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



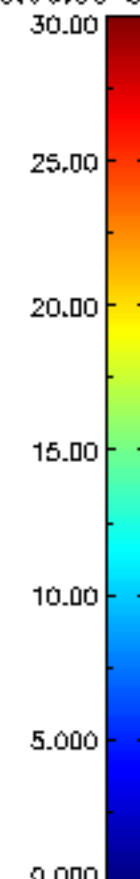
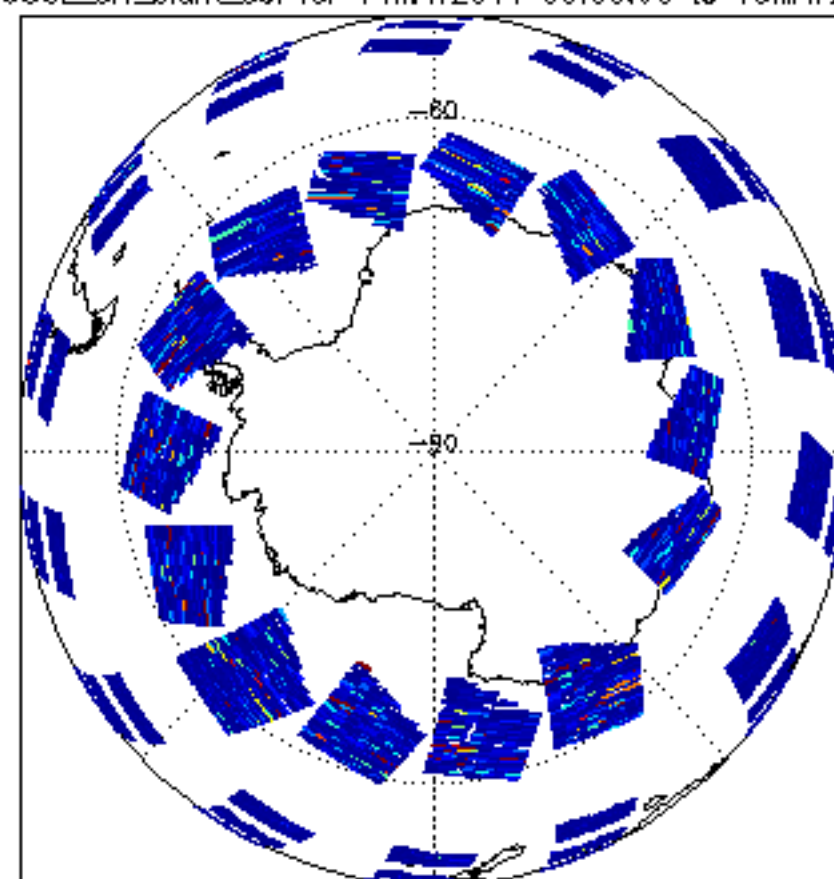
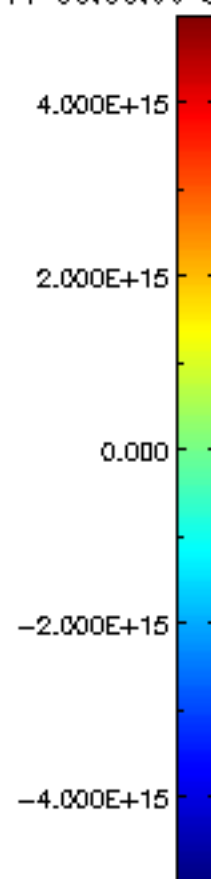
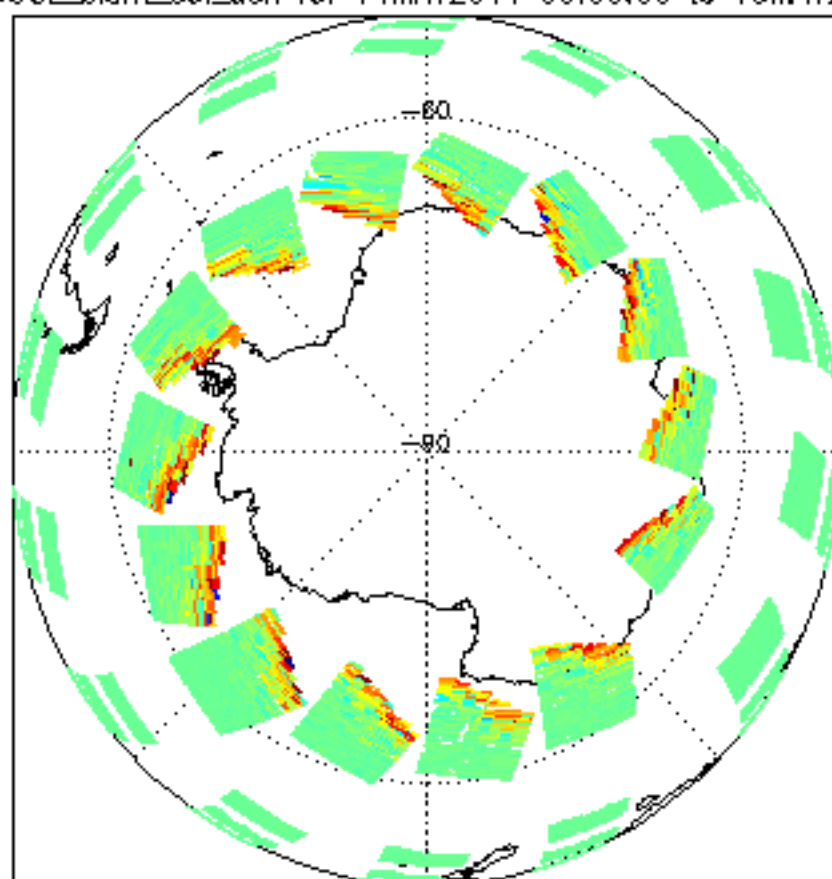




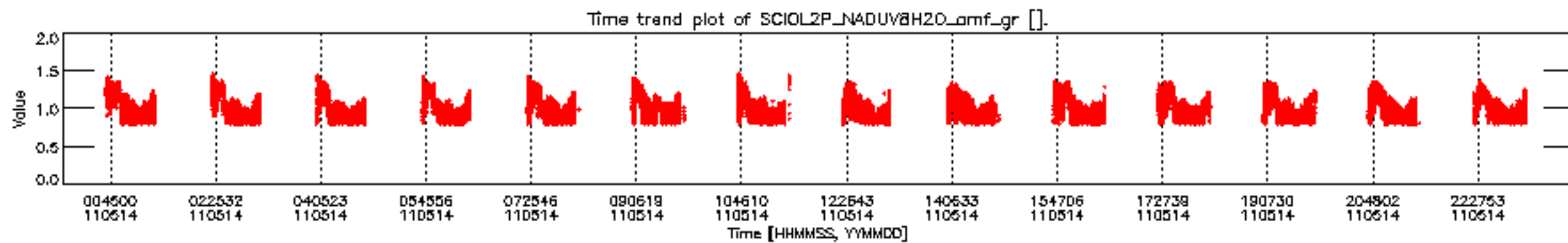
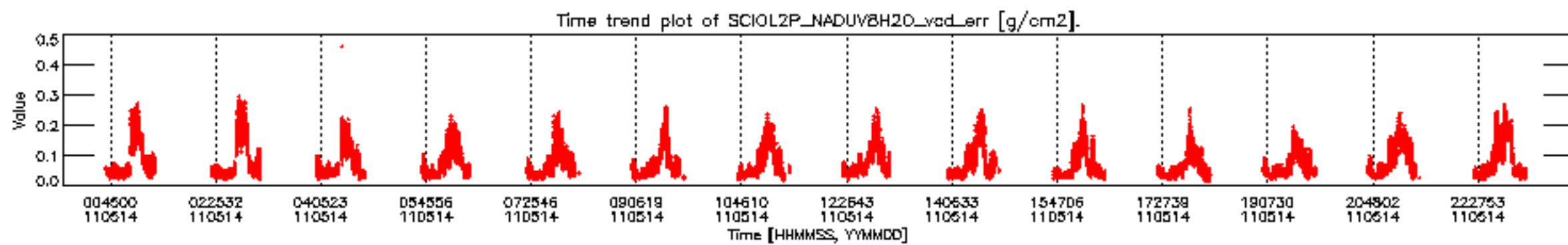
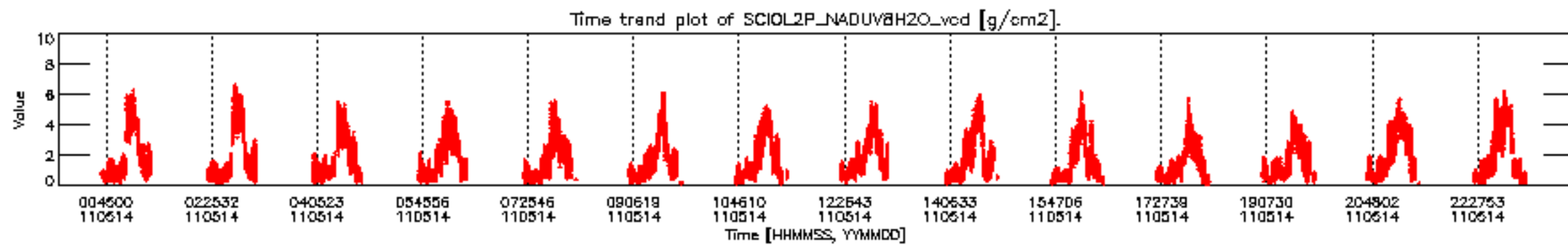
CIOL2P\_NADUV6OCL\_slant\_col\_den for 14MAY2011 00:00:00 to 15MAY2011 00:00:00 np iCIOL2P\_NADUV6OCL\_err\_slant\_col for 14MAY2011 00:00:00 to 15MAY2011 00:00:00 np



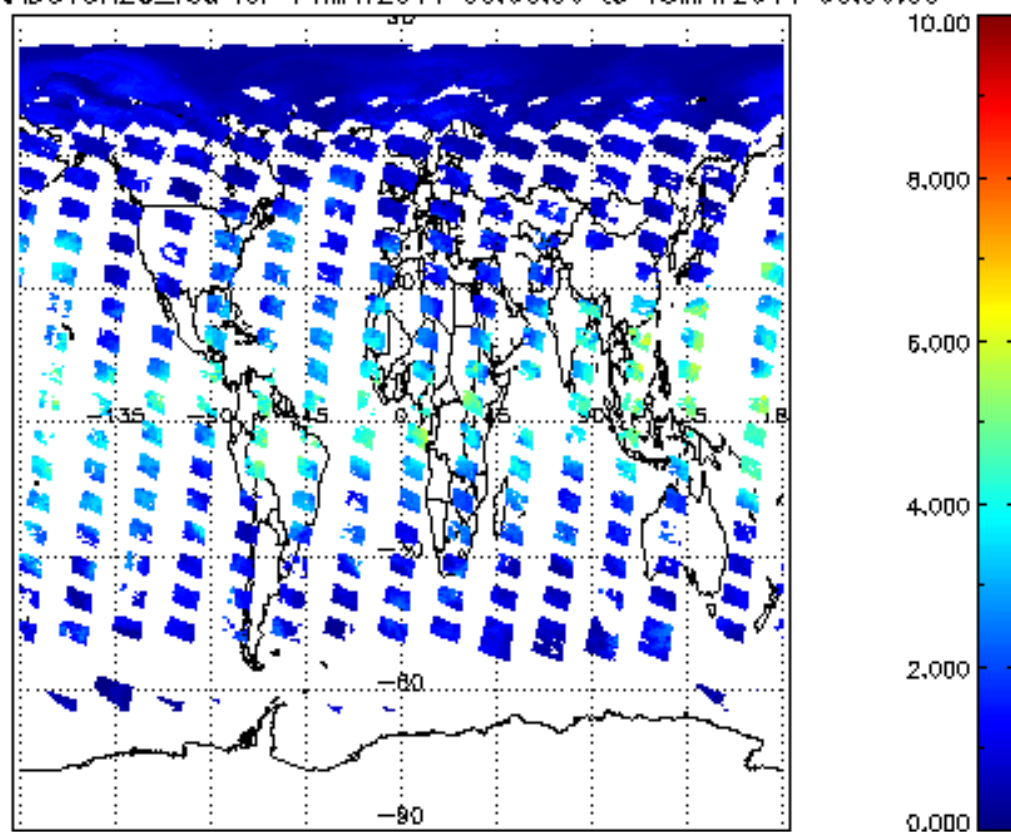
CIOL2P\_NADUV60CL\_slant\_col\_den for 14MAY2011 00:00:00 to 15MAY2011 00:00:00 sp iCIOL2P\_NADUV60CL\_err\_slant\_col for 14MAY2011 00:00:00 to 15MAY2011 00:00:00 sp



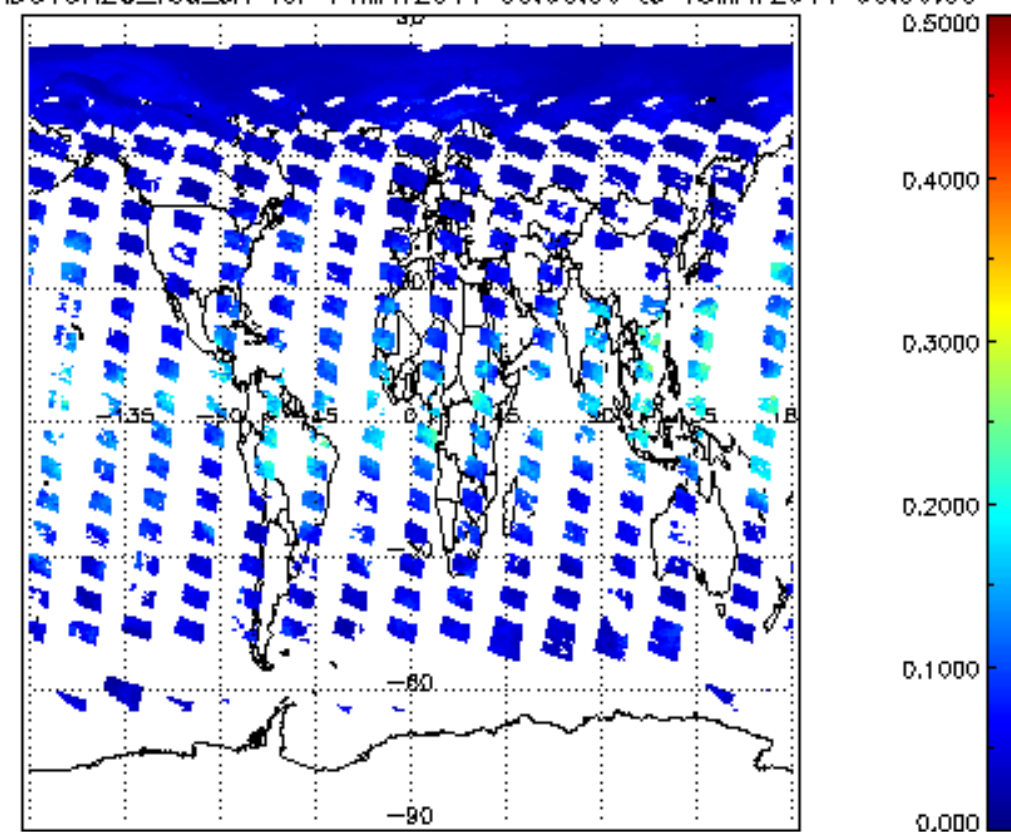




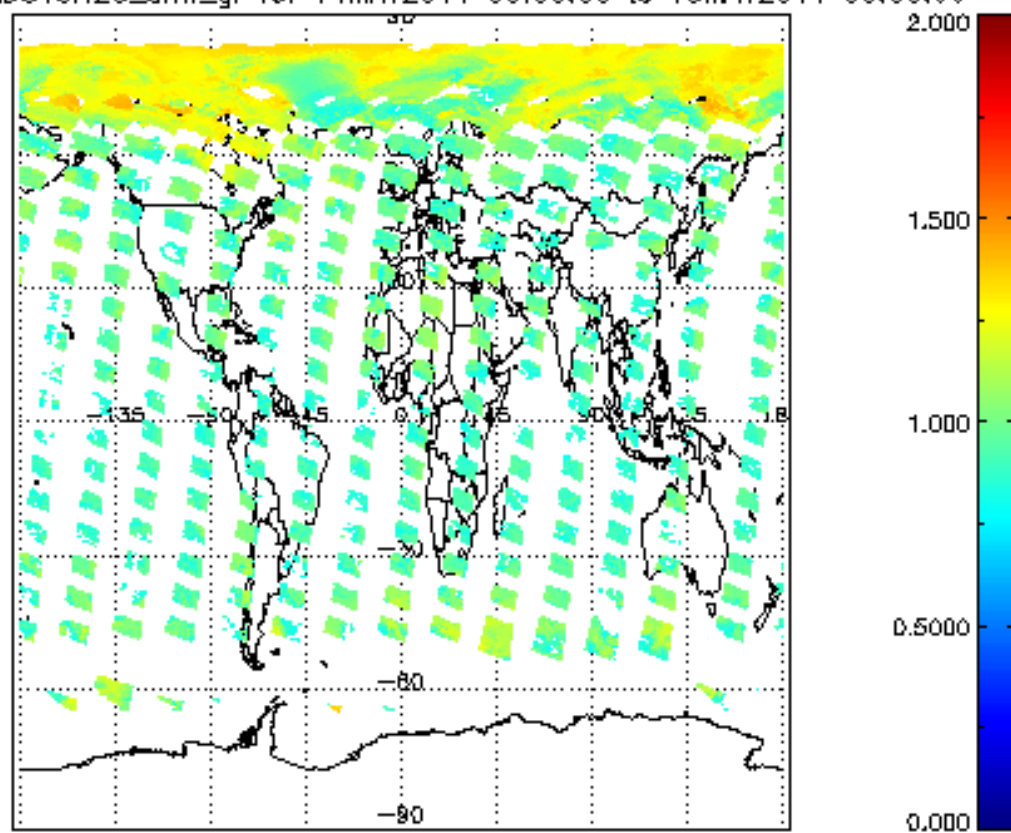
SCIOL2P\_NADUV8H2O\_vcd for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



SCIOL2P\_NADUV8H2O\_vcd\_err for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



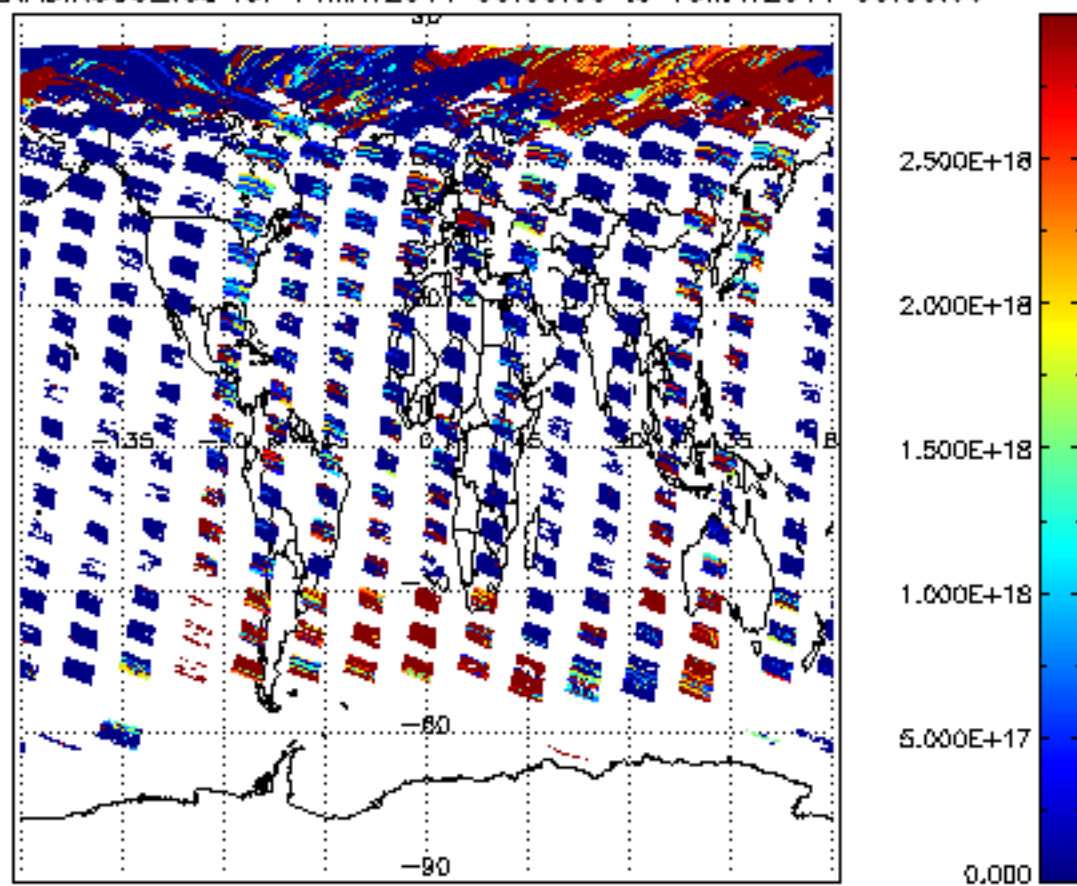
SCIOL2P\_NADUV8H2O\_amf\_gr for 14MAY2011 00:00:00 to 15MAY2011 00:00:00



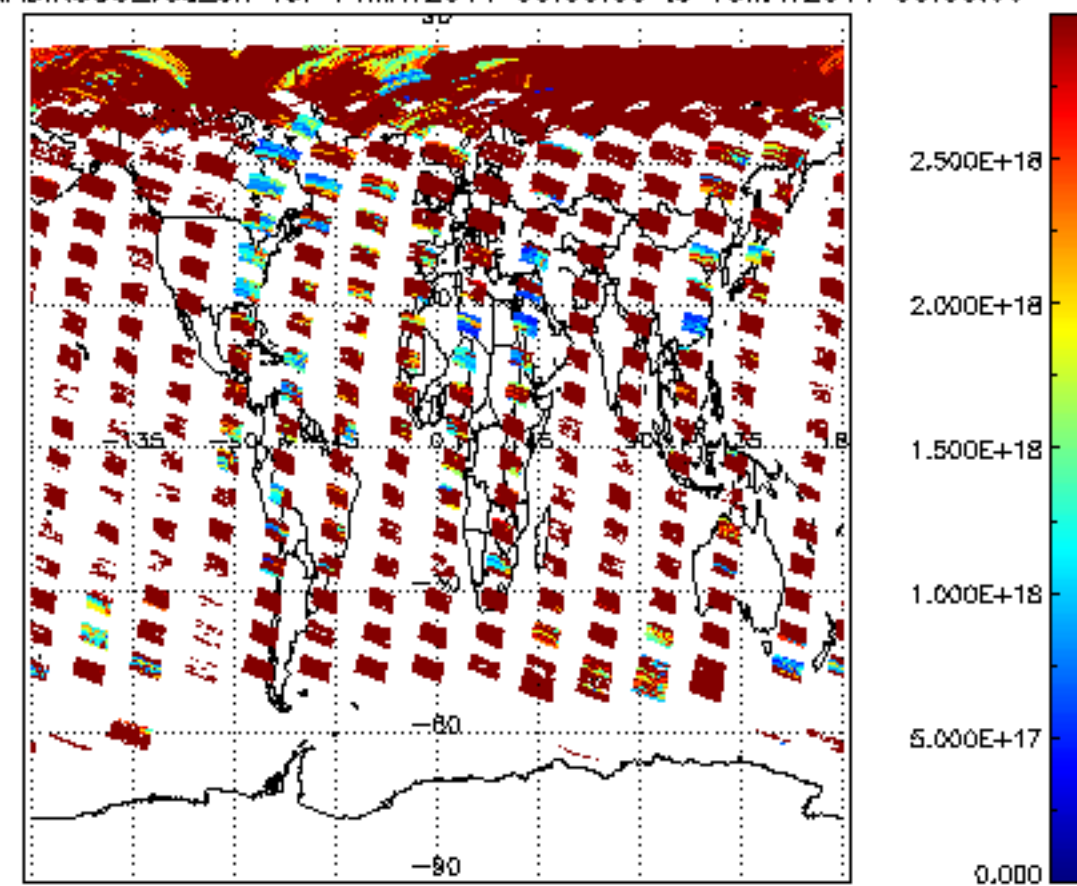




SCIOL2P\_NADIR3CO\_vcd for 14MAY2011 00:00:00 to 15MAY2011 00:00:00

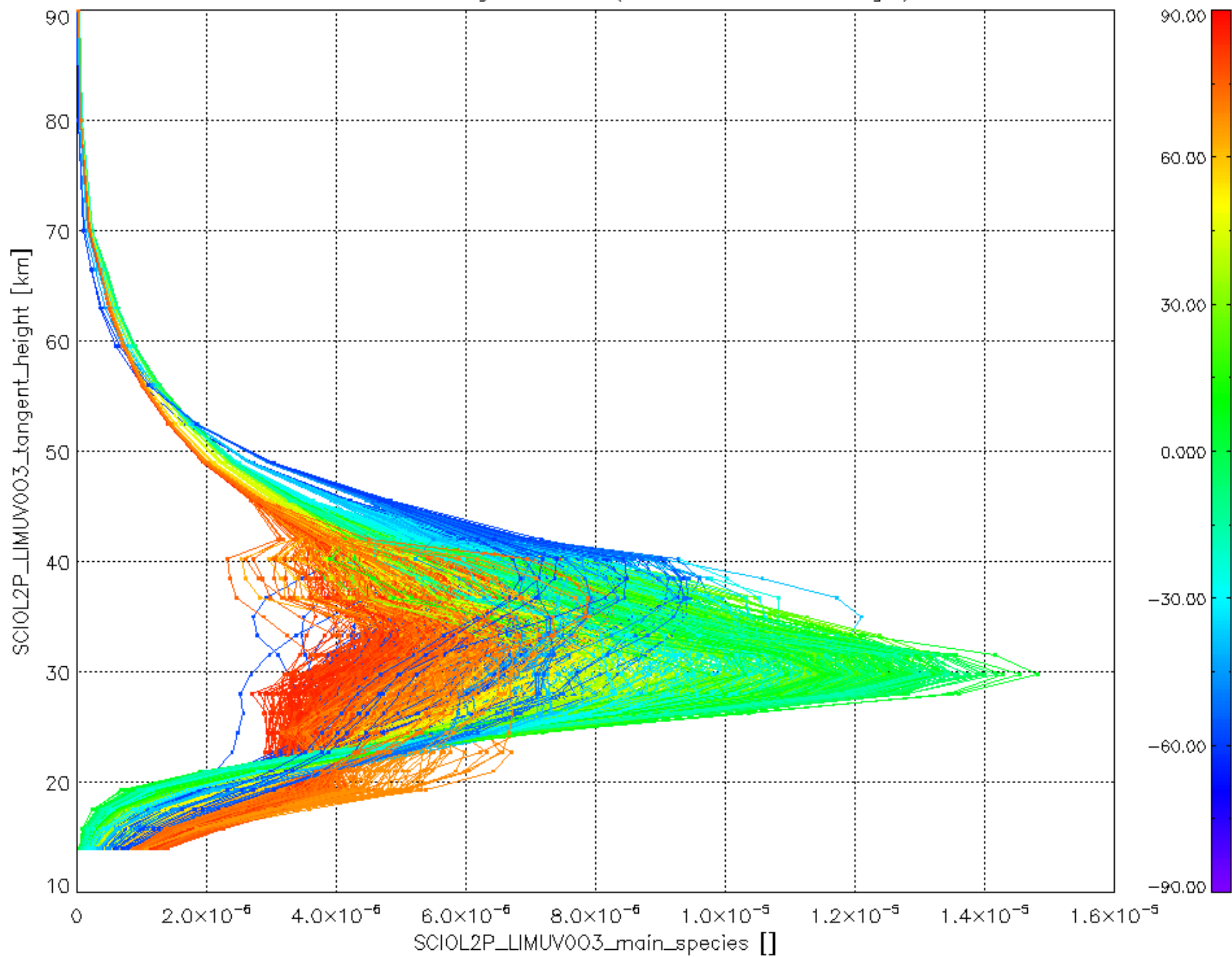


SCIOL2P\_NADIR3CO\_vcd\_err for 14MAY2011 00:00:00 to 15MAY2011 00:00:00

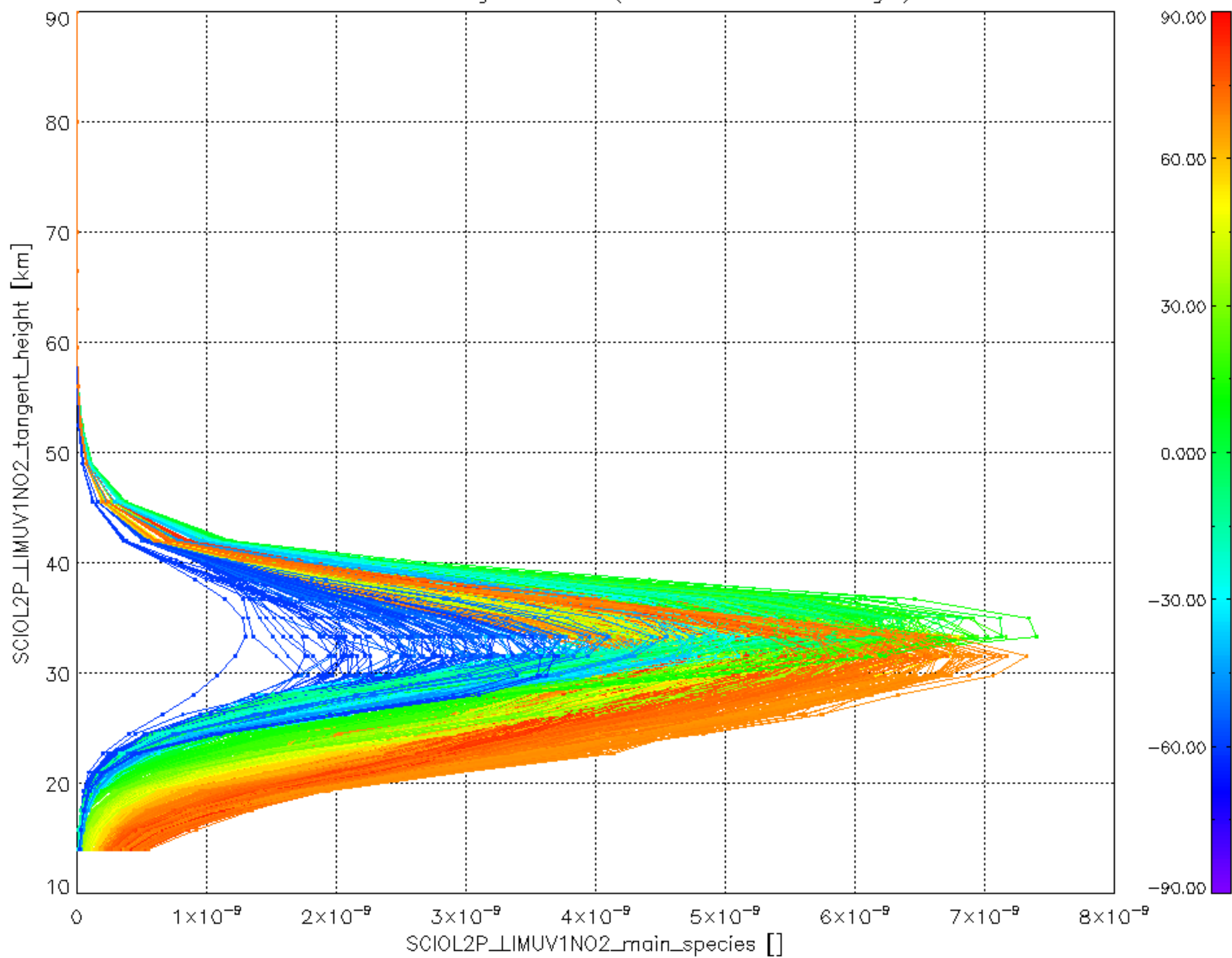




Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



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).

