

## 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	19JAN2012 03:23:00
Data source version	SCIA-OL/5.02-W
Processing scope for products	06JAN2012 00:00:00 to 07JAN2012 00:00:00
Start time of first product within scope	05JAN2012 23:18:33
Stop time of last product within scope	07JAN2012 01:21:05
Total number of level 2 products	16
Number of level 2 products with errors	0

### 2.1.2 Summary per product

The following table shows a summary for each product used in this report.

Products are linked to a corresponding server directory for view/download. Note: Link access may be restricted by security settings of your internet browser or firewall.

Products are checked for a minimum duration of 3500.0000 seconds and a maximum duration of 6000.0000 seconds. Products failing the duration test are highlighted in bold, and their stop time is highlighted in red.

#	Product name	Start time	Stop time	Prod err	Fit summary
0	<a href="#">SCI_OL__2PWDPA20120105_231833_000034993110_00217_51524_3018.N1</a>	05JAN2012 23:18:33	06JAN2012 00:16:52	0	GOOD
1	<a href="#">SCI_OL__2PWDPA20120106_005846_000034983110_00218_51525_3019.N1</a>	06JAN2012 00:58:46	06JAN2012 01:57:05	0	GOOD
2	<a href="#">SCI_OL__2PWDPA20120106_023900_000034973110_00219_51526_3020.N1</a>	06JAN2012 02:39:00	06JAN2012 03:37:18	0	GOOD
3	<a href="#">SCI_OL__2PWDPA20120106_041914_000034963110_00220_51527_3021.N1</a>	06JAN2012 04:19:14	06JAN2012 05:17:31	0	GOOD
4	<a href="#">SCI_OL__2PWDPA20120106_055927_000034953110_00221_51528_3023.N1</a>	06JAN2012 05:59:27	06JAN2012 06:57:43	0	GOOD

5	SCI_OL__2PWDP A20120106_073941_000034943110_00222_51529_3024.N1	06JAN2012 07:39:41	06JAN2012 08:37:56	0	GOOD
6	SCI_OL__2PWDP A20120106_091955_000034933110_00223_51530_3025.N1	06JAN2012 09:19:55	06JAN2012 10:18:09	0	GOOD
7	SCI_OL__2PWDP A20120106_110009_000035603110_00224_51531_3026.N1	06JAN2012 11:00:09	06JAN2012 11:59:30	0	GOOD
8	SCI_OL__2PWDP A20120106_124022_000035593110_00225_51532_3027.N1	06JAN2012 12:40:22	06JAN2012 13:39:42	0	GOOD
9	SCI_OL__2PWDP A20120106_142036_000035573110_00226_51533_3028.N1	06JAN2012 14:20:36	06JAN2012 15:19:54	0	GOOD
10	SCI_OL__2PWDP A20120106_160050_000035563110_00227_51534_3029.N1	06JAN2012 16:00:50	06JAN2012 17:00:06	0	GOOD
11	SCI_OL__2PWDP A20120106_174205_000034433110_00228_51535_3030.N1	06JAN2012 17:42:05	06JAN2012 18:39:29	0	GOOD
12	SCI_OL__2PWDP A20120106_192136_000035343110_00229_51536_3031.N1	06JAN2012 19:21:36	06JAN2012 20:20:30	0	GOOD
13	SCI_OL__2PWDP A20120106_210131_000035503110_00230_51537_3032.N1	06JAN2012 21:01:31	06JAN2012 22:00:42	0	GOOD
14	SCI_OL__2PWDP A20120106_224145_000035483110_00231_51538_3033.N1	06JAN2012 22:41:45	06JAN2012 23:40:54	0	GOOD
15	SCI_OL__2PWDP A20120107_002159_000035463110_00232_51539_3036.N1	07JAN2012 00:21:59	07JAN2012 01:21:05	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: 137817

Total number of cloud data DSRs with good quality flag (=0): 137817 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	137817	0.0000	0.0000	0.0000	0.0000	0.0000	
INTEGR_TIME	137817	0.17076	0.12500	0.12500	0.25000	0.060218	s
CL_FRAC	137817	0.39767	0.37295	0.0000	1.0000	0.30453	
CL_FRAC_ERR	137817	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	137817	5.4645	4.0000	4.0000	8.0000	1.9270	
PMD_READ_CL[0]	137817	0.46868	0.0000	0.0000	8.0000	1.4005	-
PMD_READ_CL[1]	137817	1.2367	0.0000	0.0000	8.0000	2.4363	-
CL_TOP_HEIGHT	110831	3.6812	2.9010	0.0000	17.000	3.4532	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	110831	55.406	49.797	0.0000	101.00	42.399	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	137817	11100000	11100000	11100000	11100000	0.0000	
CLOUD_FLAGS	137817	11001100	11000100	11000000	11100000	3537.0	
AERO_ABSO_IND	137817	0.082488	0.0000	0.0000	3.7766	0.26662	
AERO_IND_DIAG	137817	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	137817	01011001	00000000	00000000	11000000	24516.	

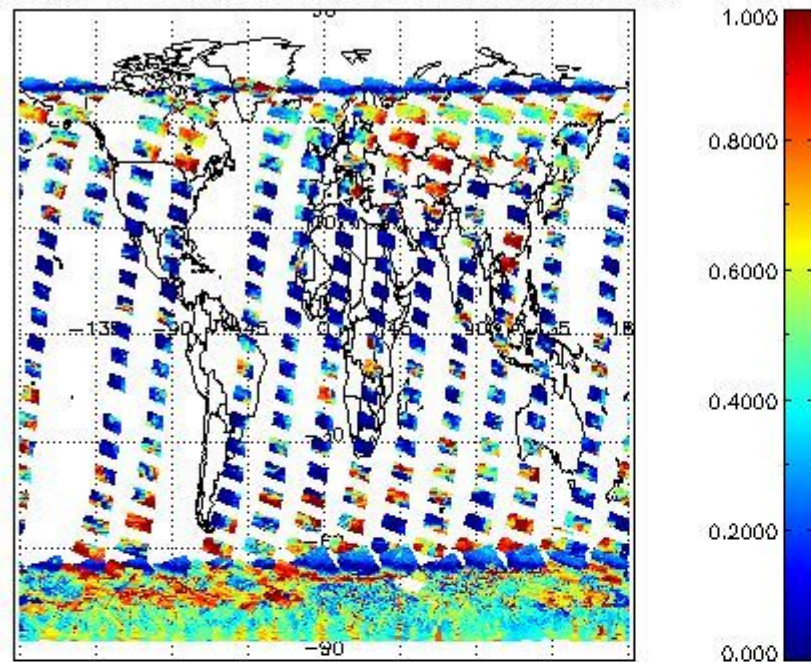
#### Time and geolocation plots:

Plots are available for the following parameters:

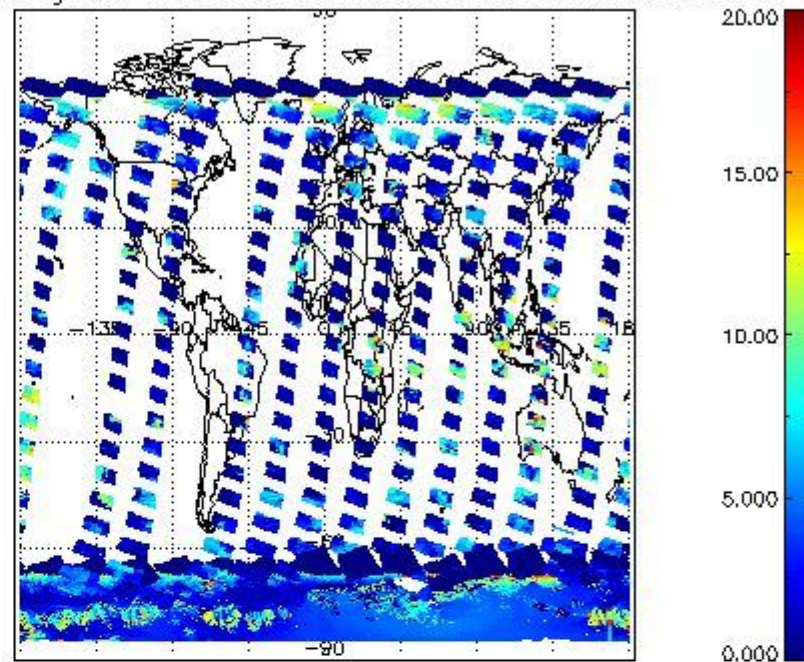
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



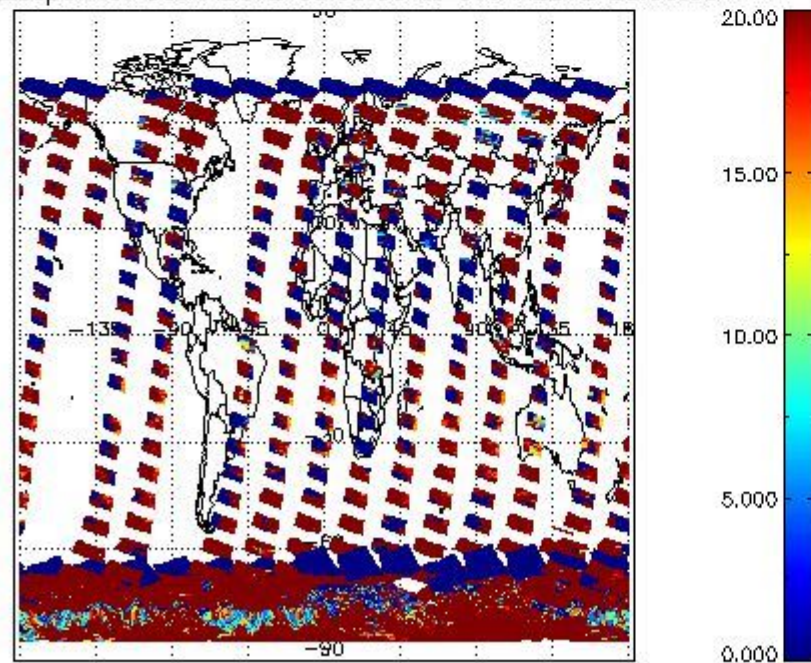
cL\_frac for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



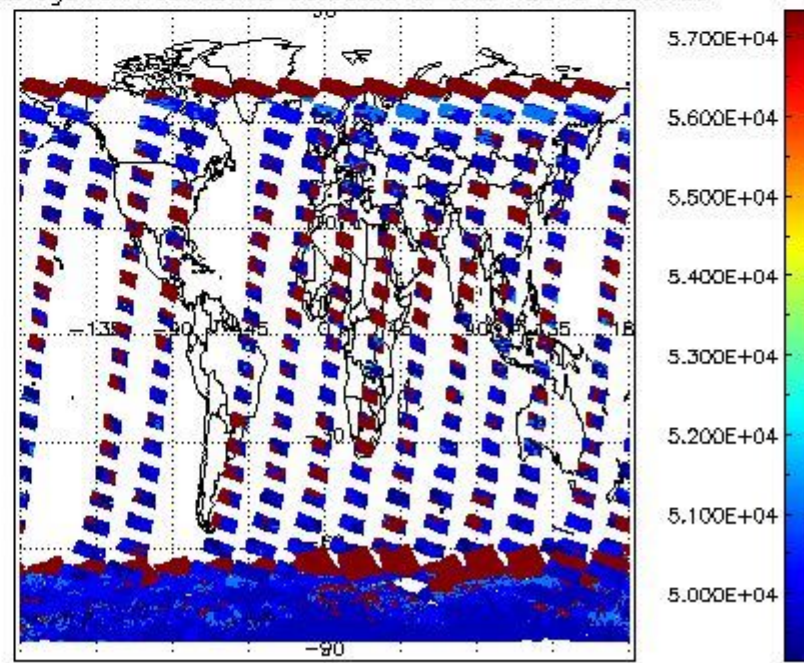
cL\_top\_height for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



cLopt\_depth for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



cloud\_flags for 06JAN2012 00:00:00 to 07JAN2012 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:

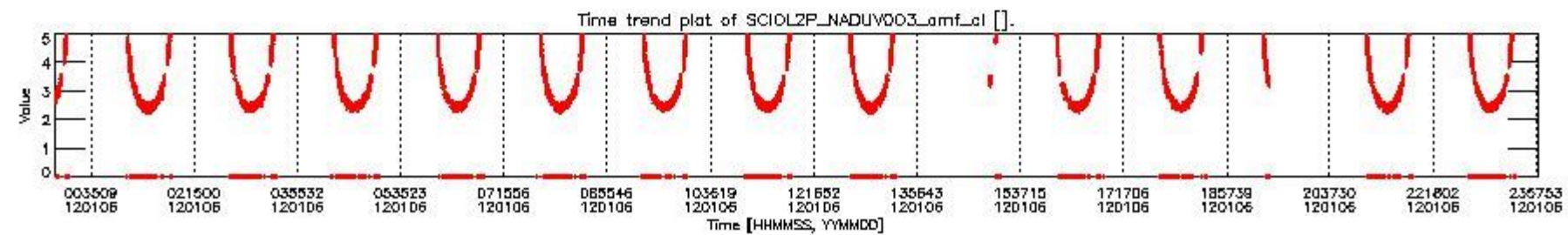
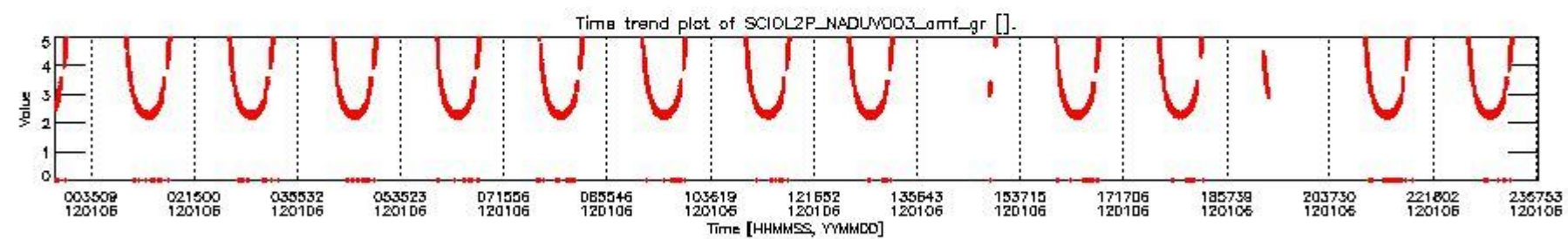
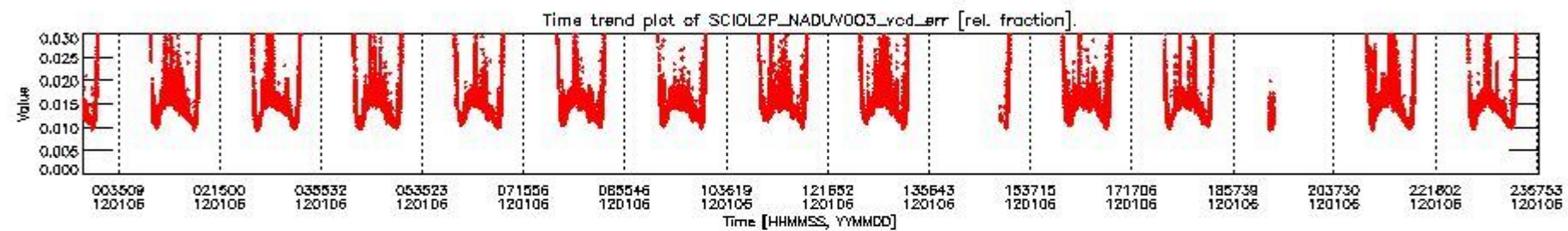
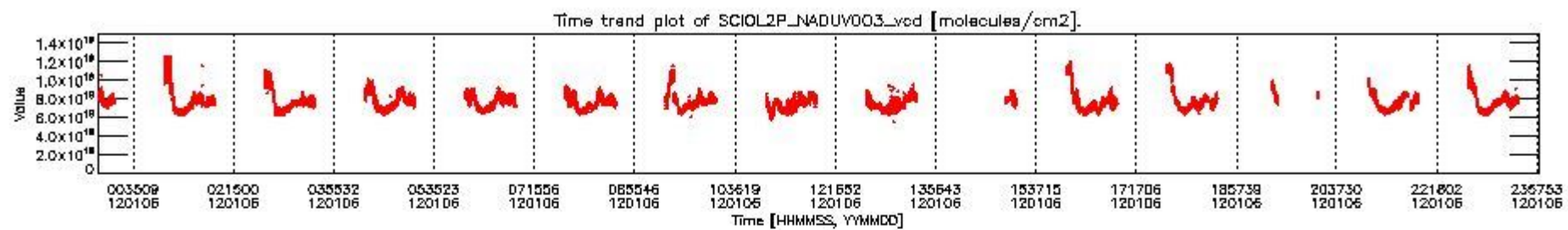
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

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.

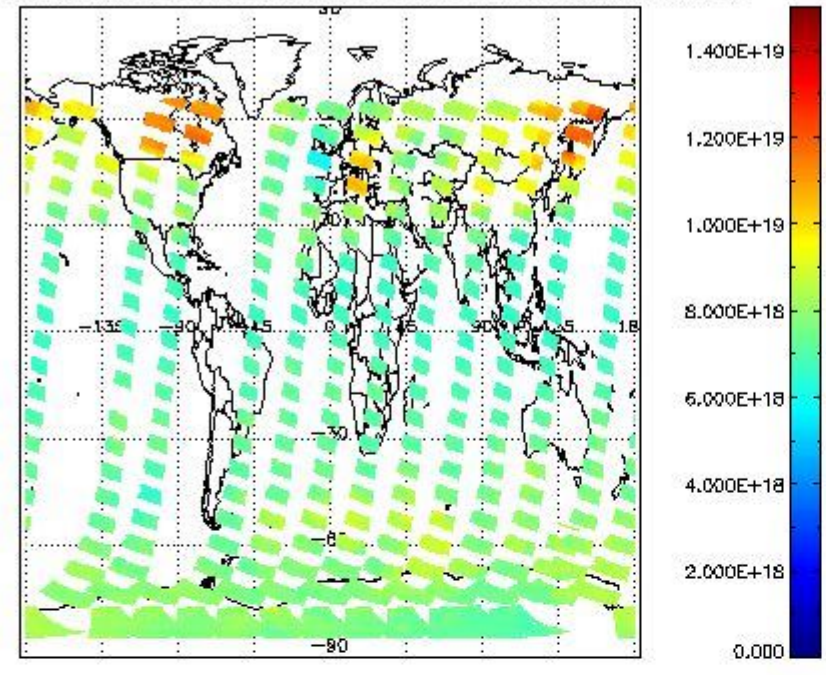
#### 2.2.2.1 O3 (UV0)



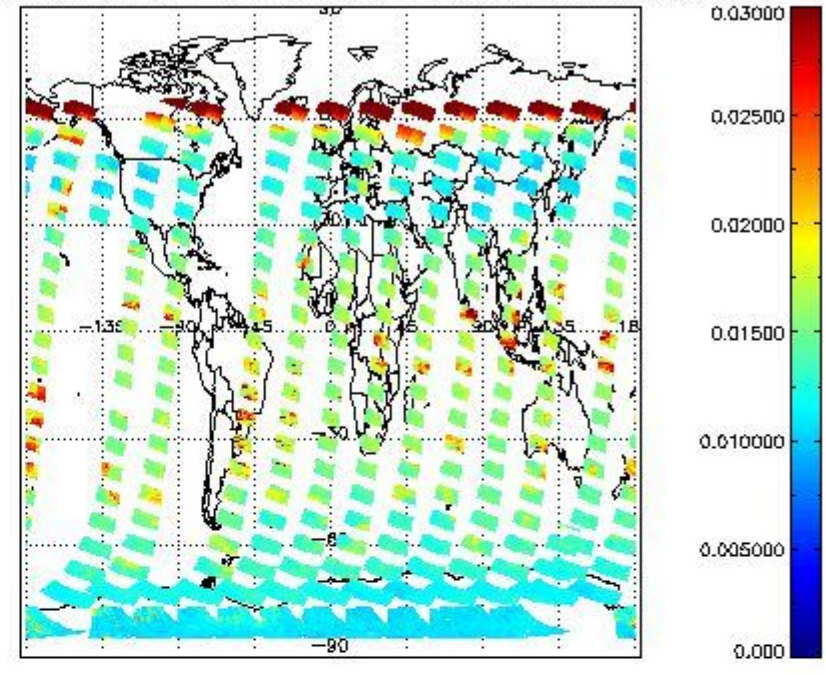




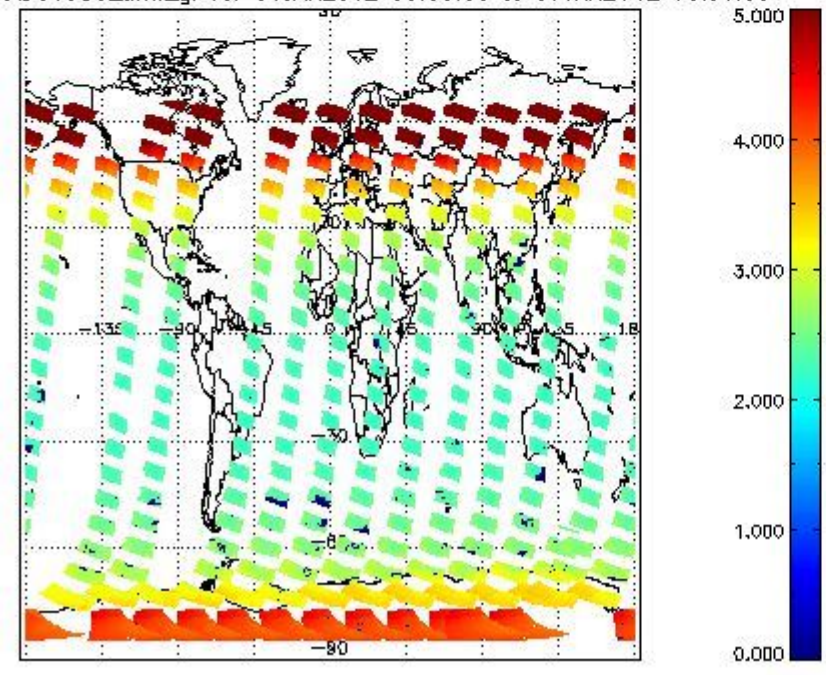
SCIOL2P\_NADUV003\_vcd for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



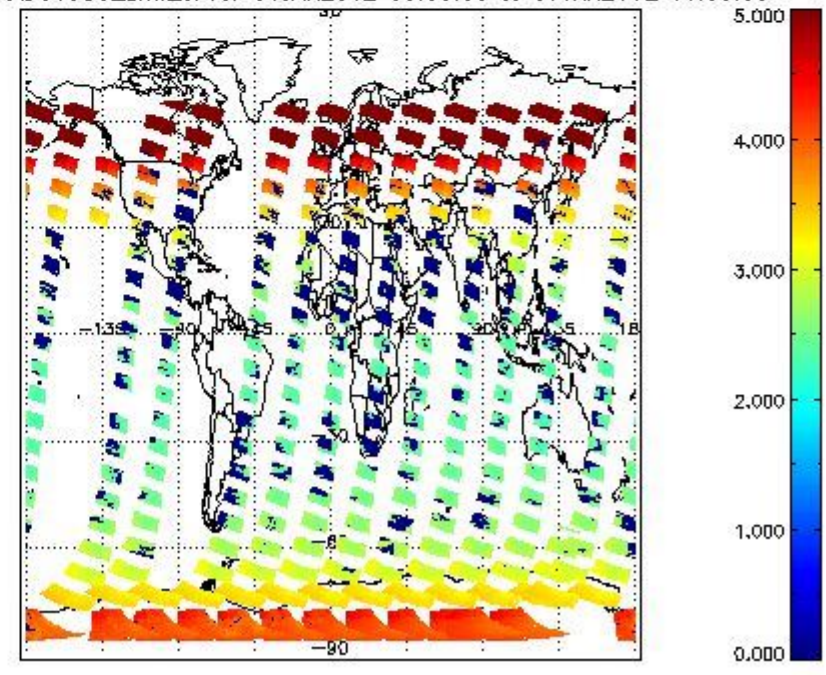
SCIOL2P\_NADUV003\_vcd\_err for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



SCIOL2P\_NADUV003\_amf\_gr for 06JAN2012 00:00:00 to 07JAN2012 00:00:00

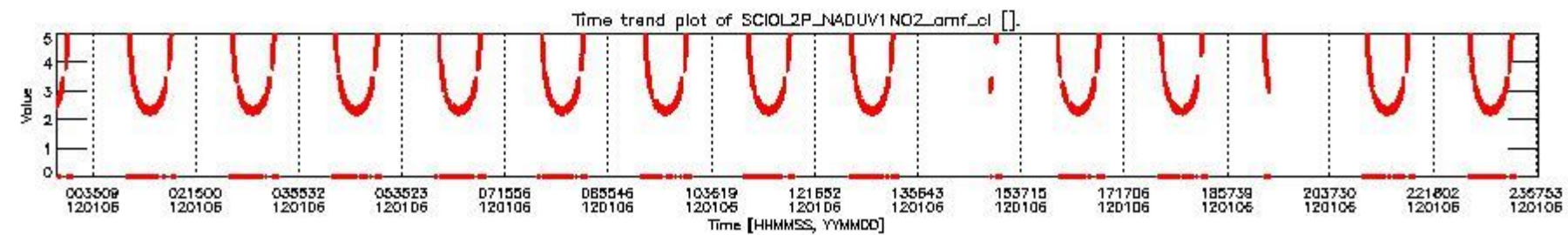
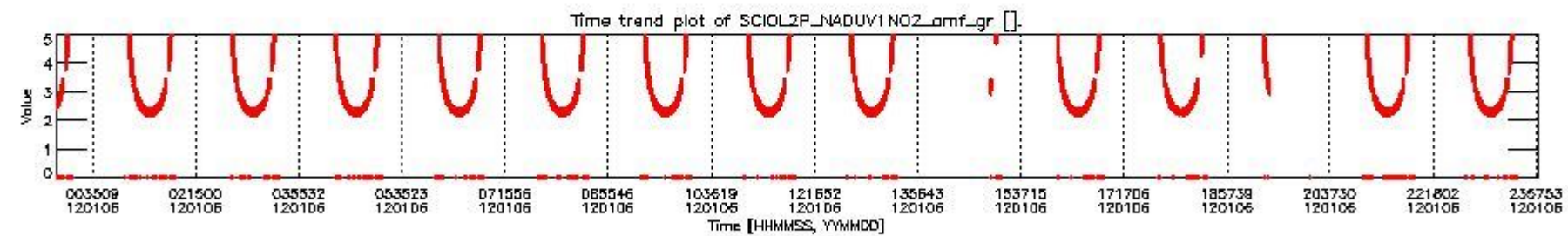
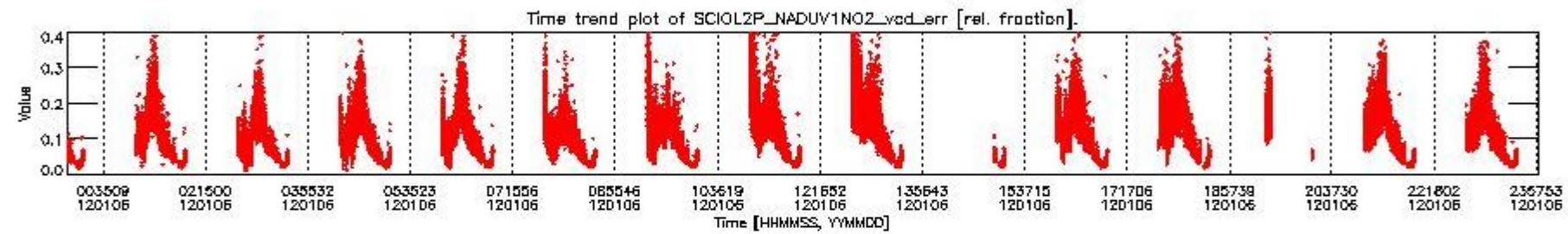
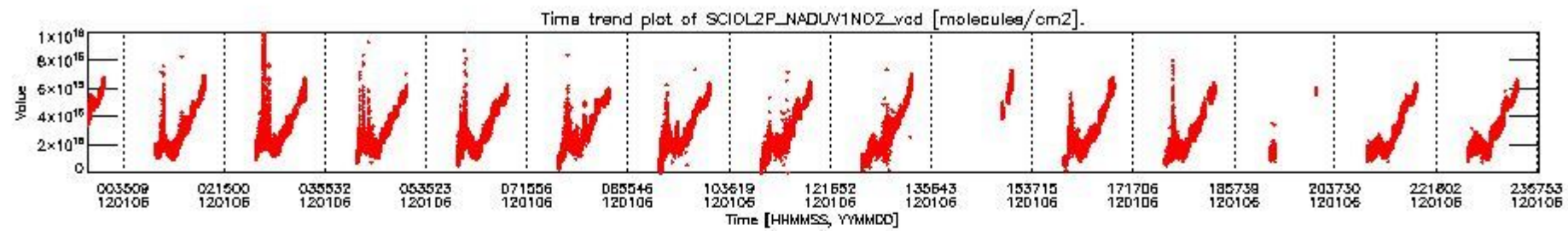


SCIOL2P\_NADUV003\_amf\_cl for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



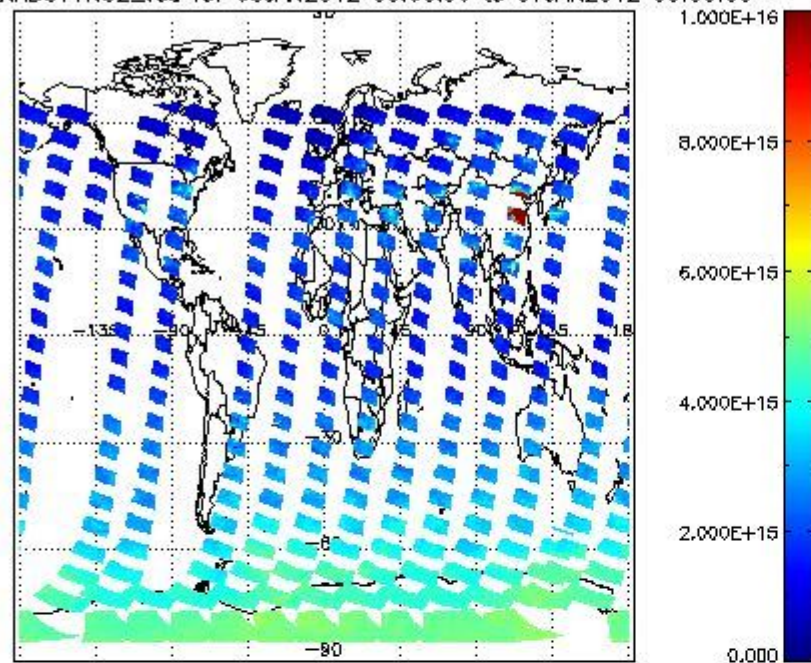
2.2.2.2 NO2 (UV1)



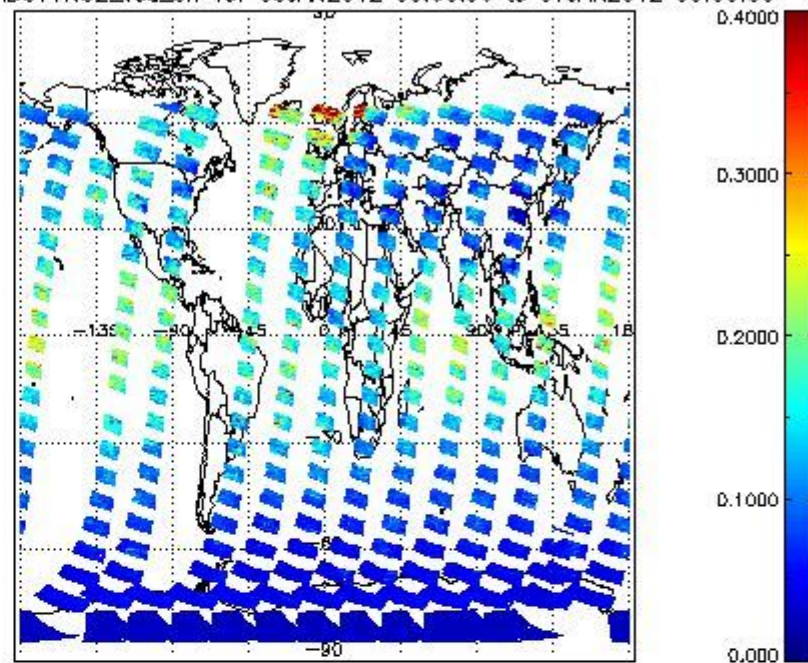




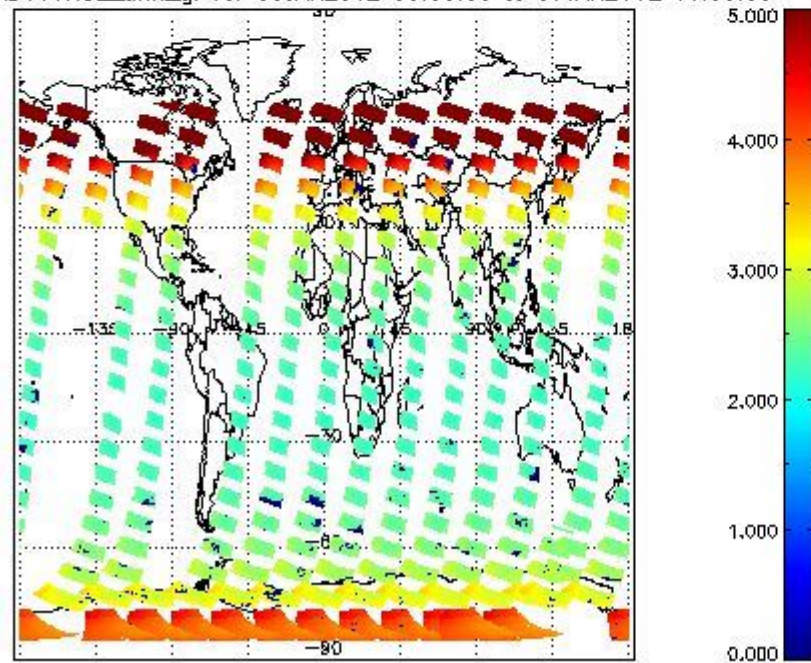
SCIOL2P\_NADUV1N02\_vcd for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



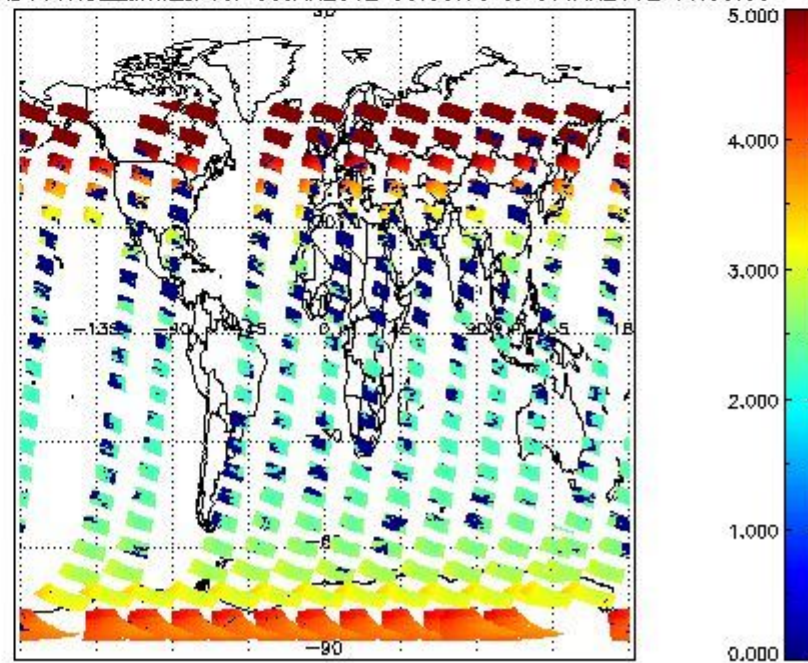
SCIOL2P\_NADUV1N02\_vcd\_err for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



SCIOL2P\_NADUV1N02\_amf\_gr for 06JAN2012 00:00:00 to 07JAN2012 00:00:00

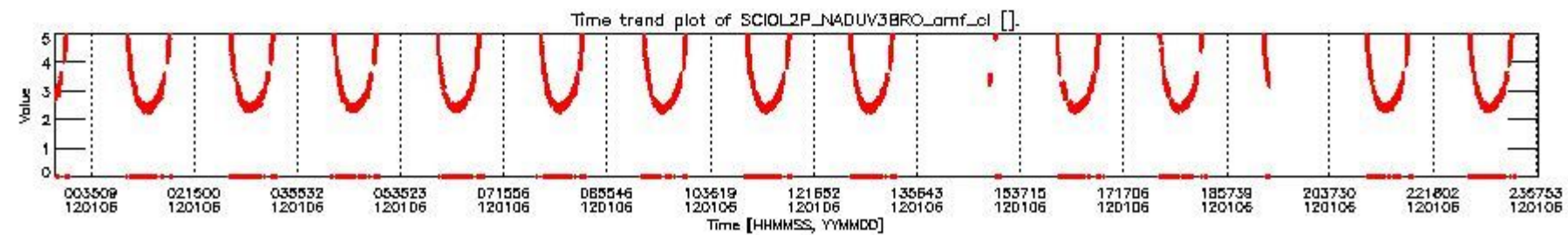
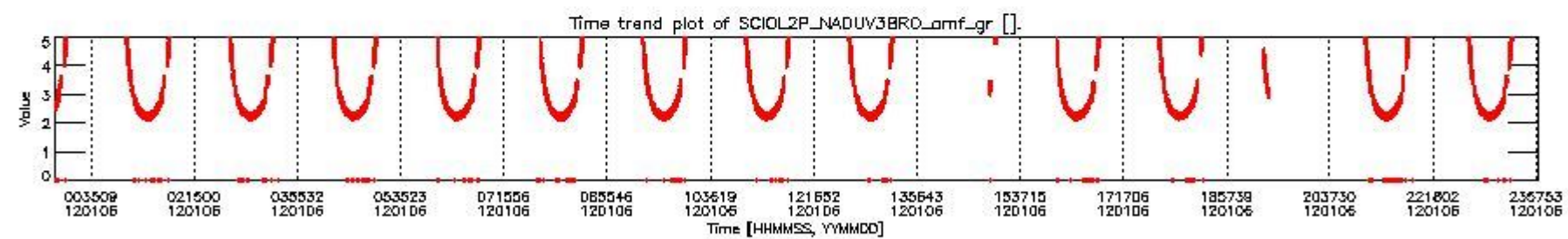
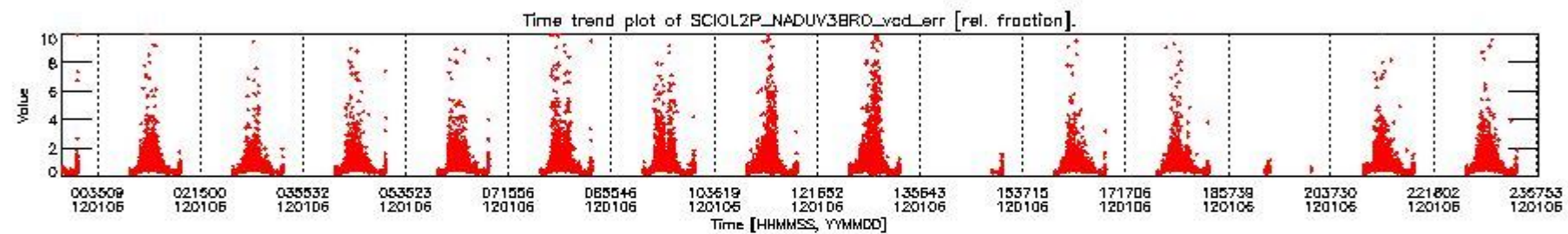
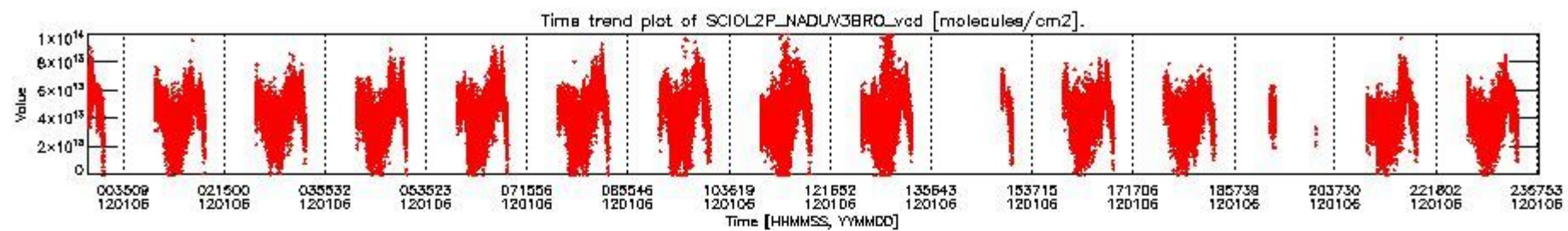


SCIOL2P\_NADUV1N02\_amf\_cl for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



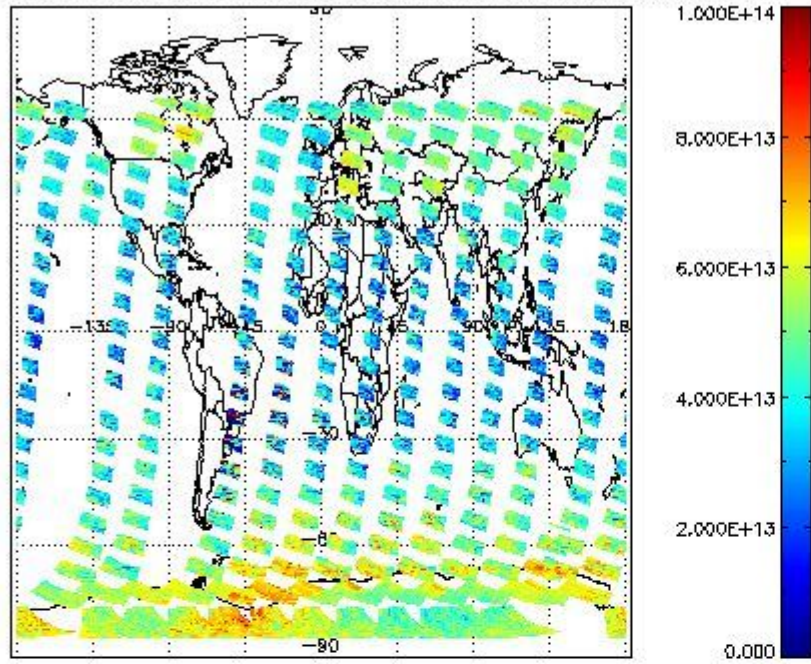
2.2.2.3 BrO (UV3)



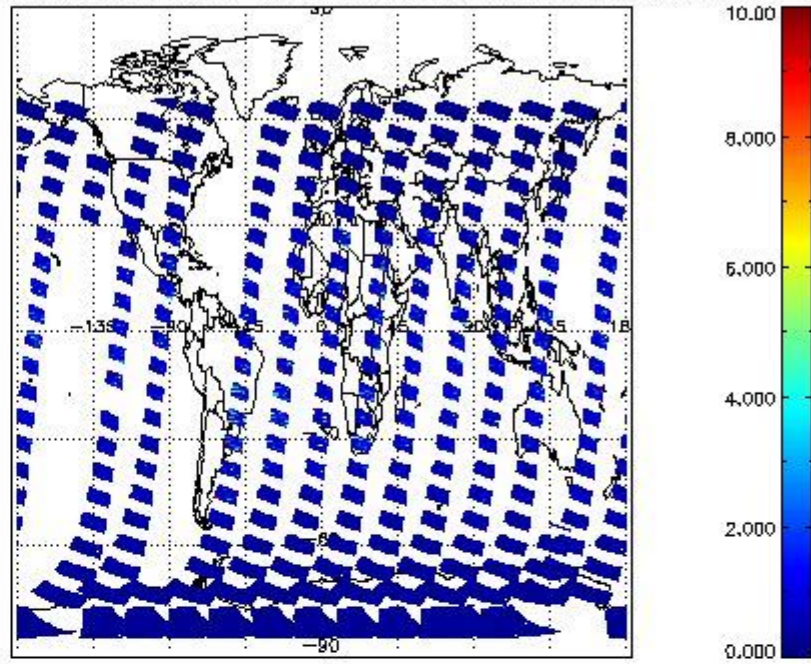




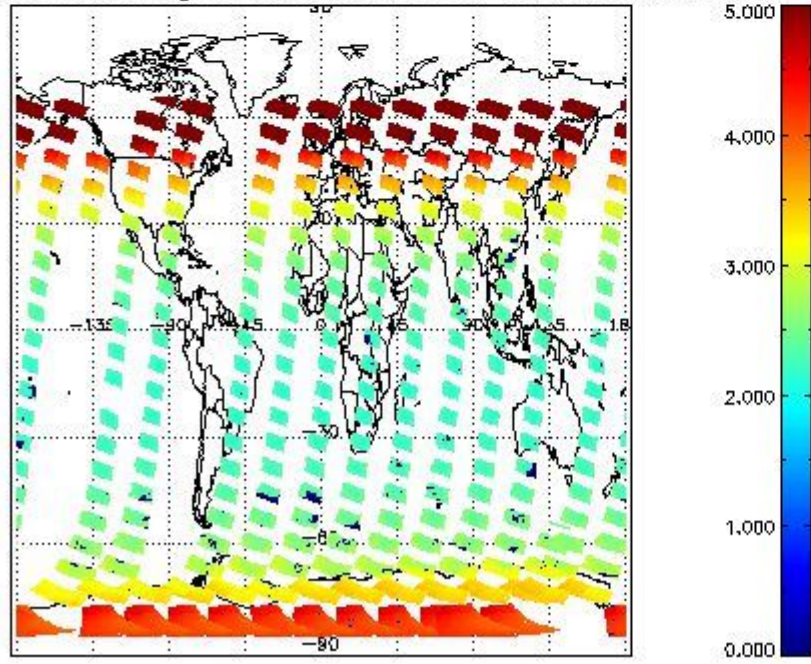
SCIOL2P\_NADUV3BRO\_vcd for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



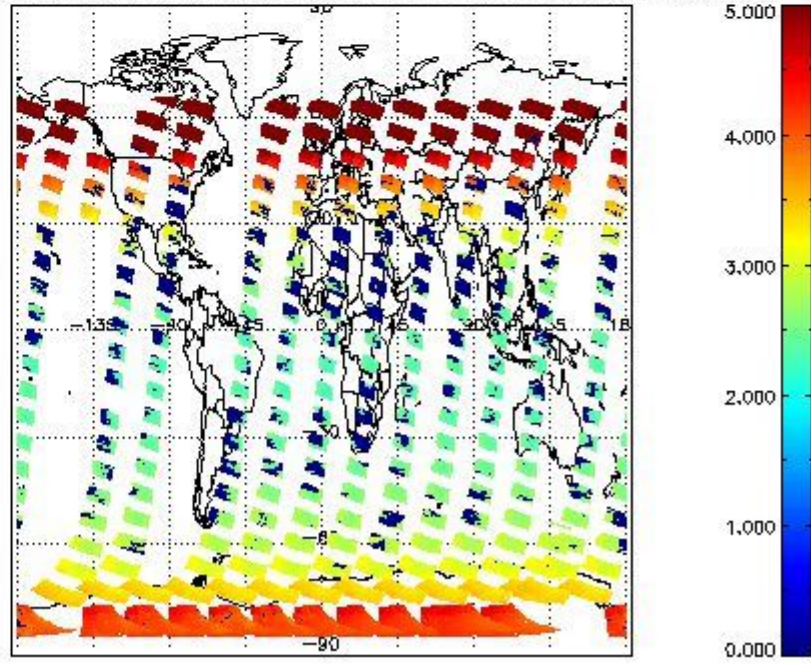
SCIOL2P\_NADUV3BRO\_vcd\_err for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



SCIOL2P\_NADUV3BRO\_amf\_gr for 06JAN2012 00:00:00 to 07JAN2012 00:00:00

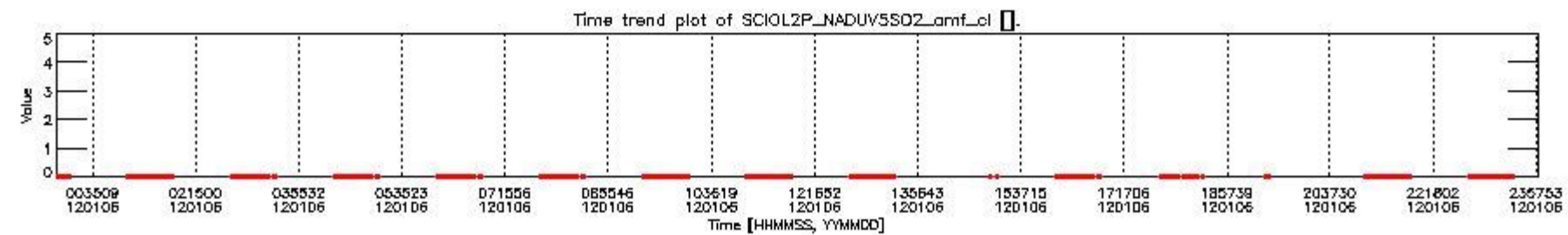
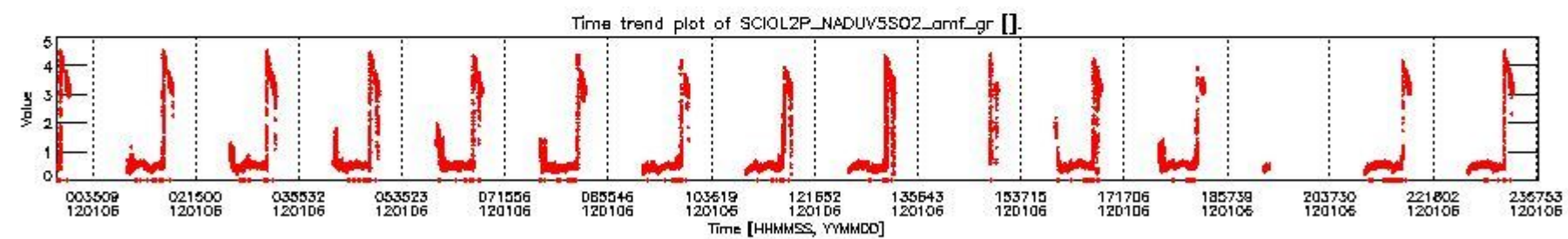
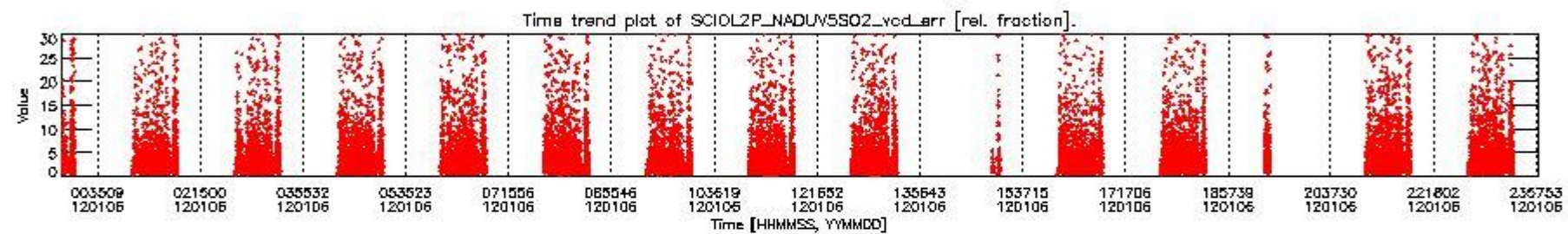
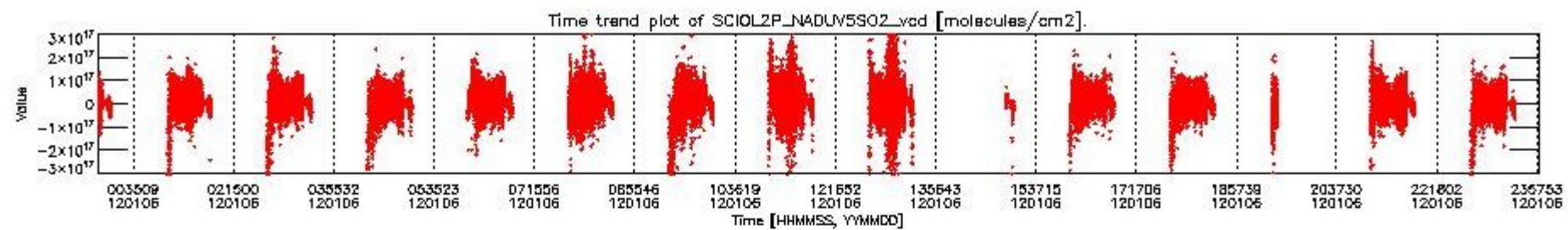


SCIOL2P\_NADUV3BRO\_amf\_cl for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



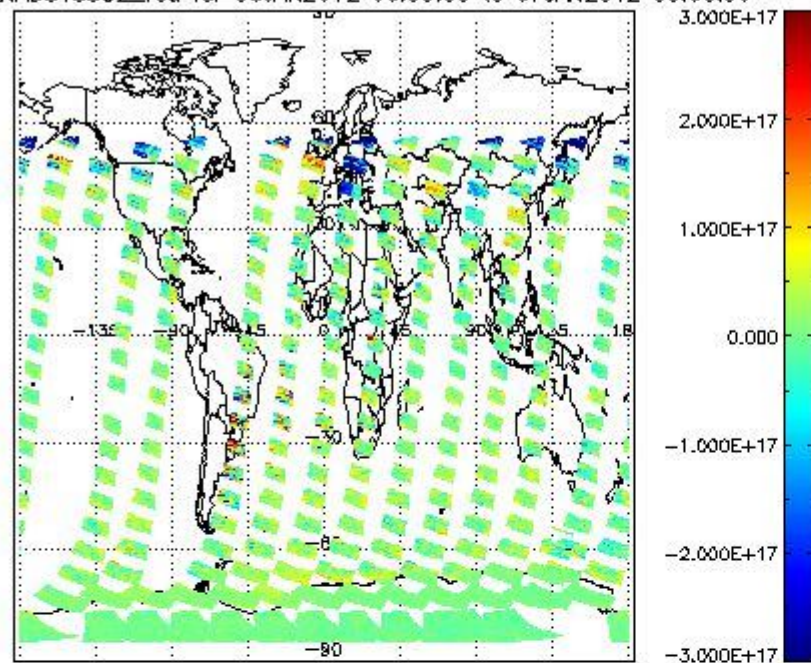
2.2.2.4 SO2 (UV5)



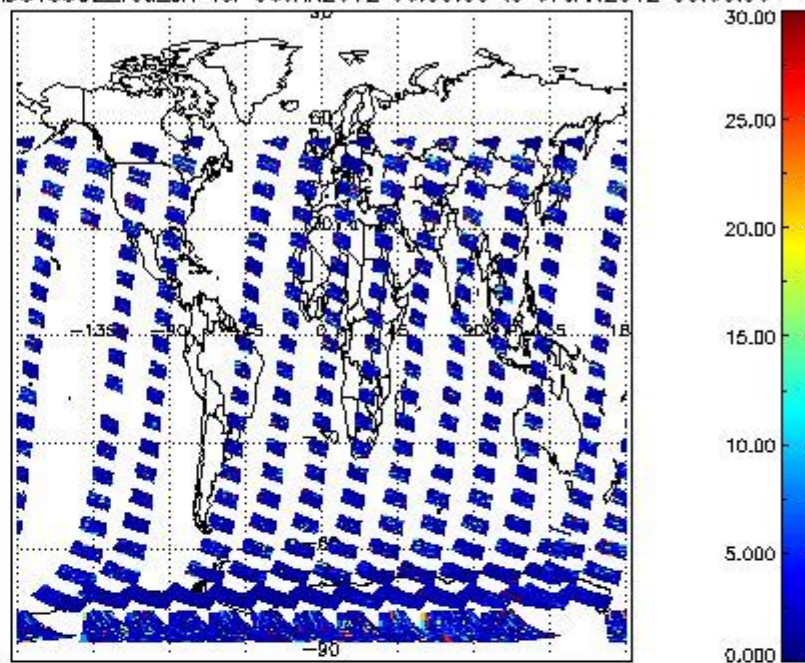




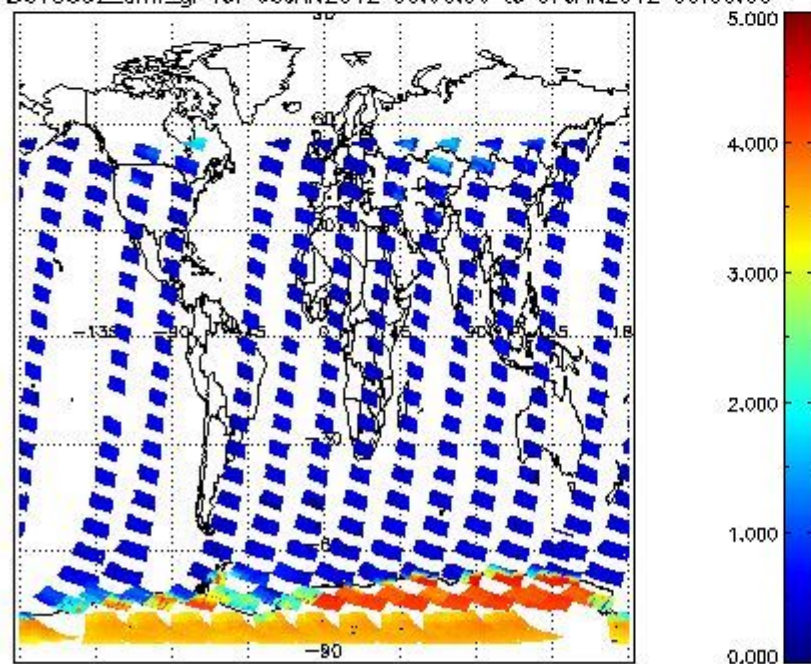
SCIOL2P\_NADUV5SO2\_vcd for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



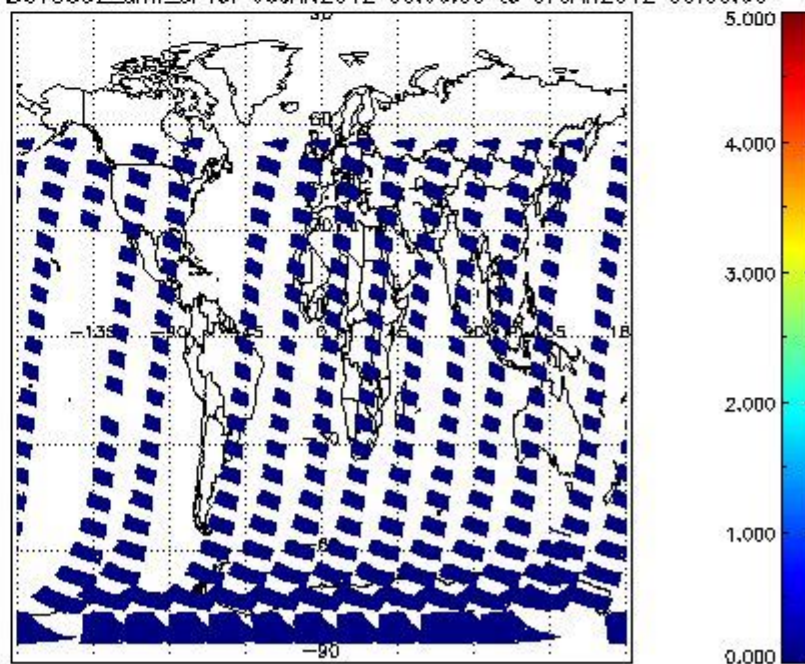
SCIOL2P\_NADUV5SO2\_vcd\_err for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



SCIOL2P\_NADUV5SO2\_amf\_gr for 06JAN2012 00:00:00 to 07JAN2012 00:00:00

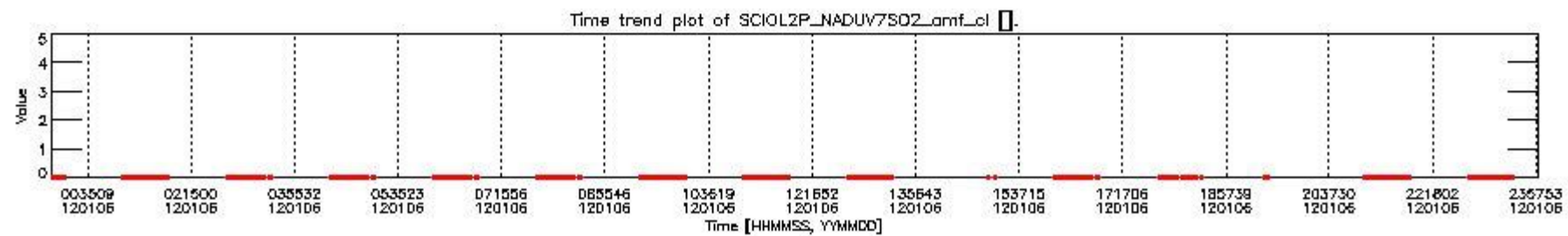
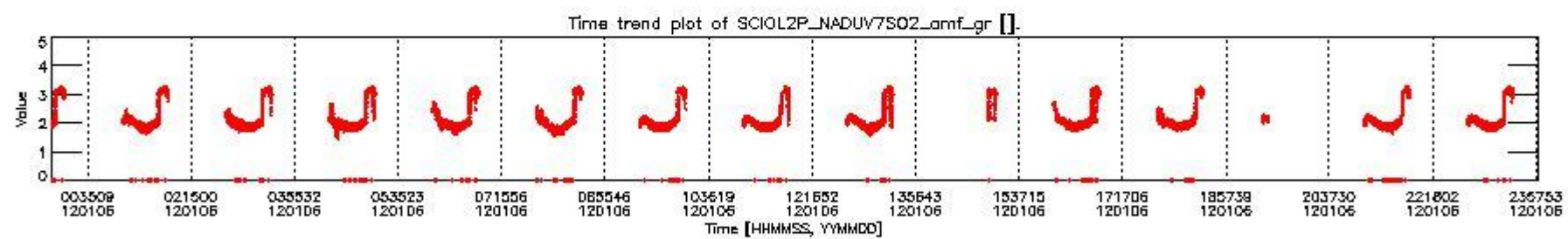
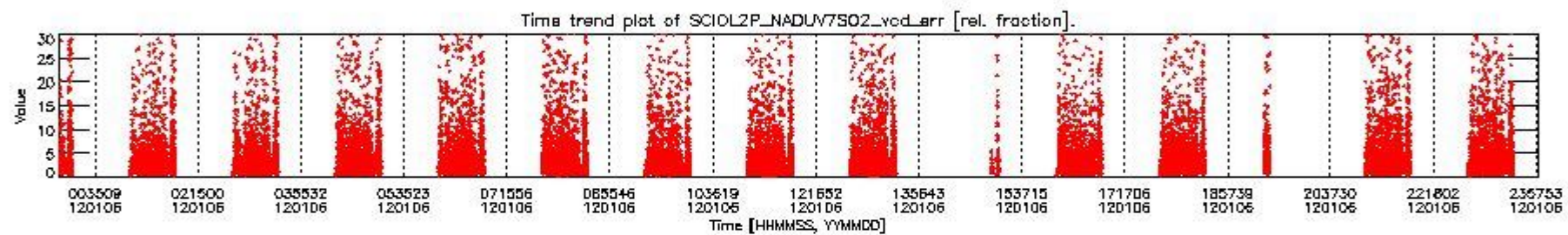
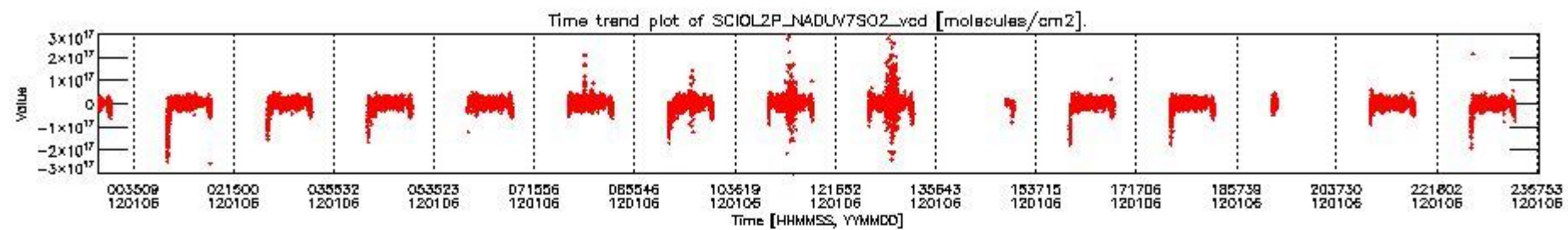


SCIOL2P\_NADUV5SO2\_amf\_cl for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



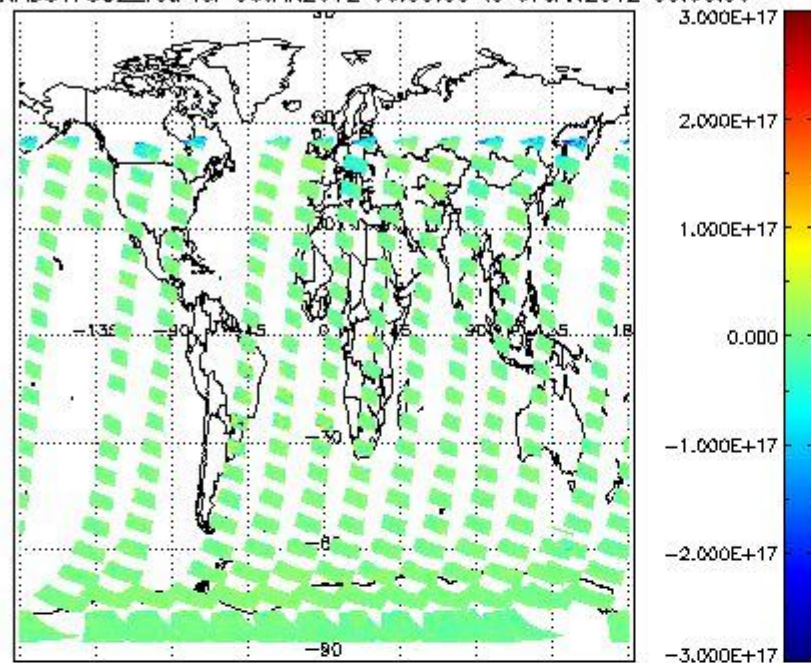
## 2.2.2.5 SO2 (UV7)



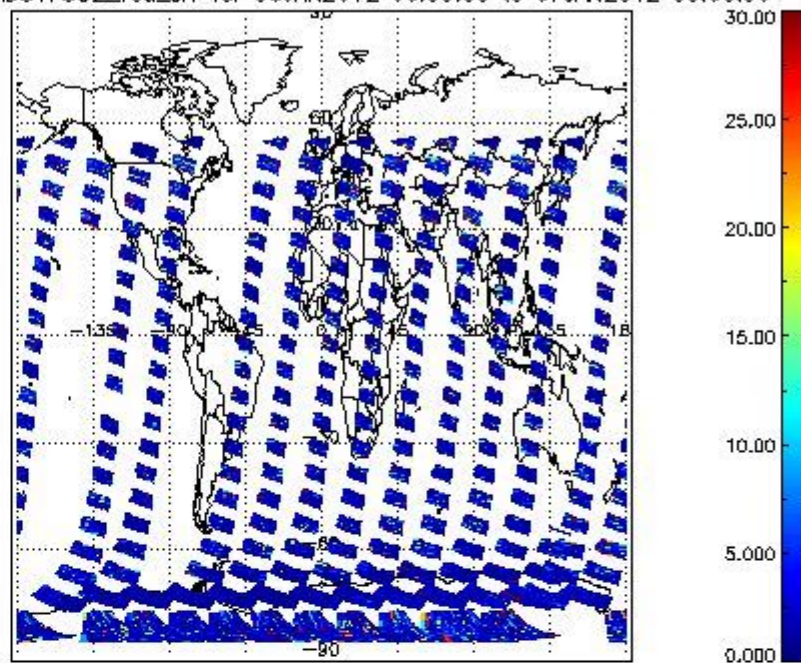




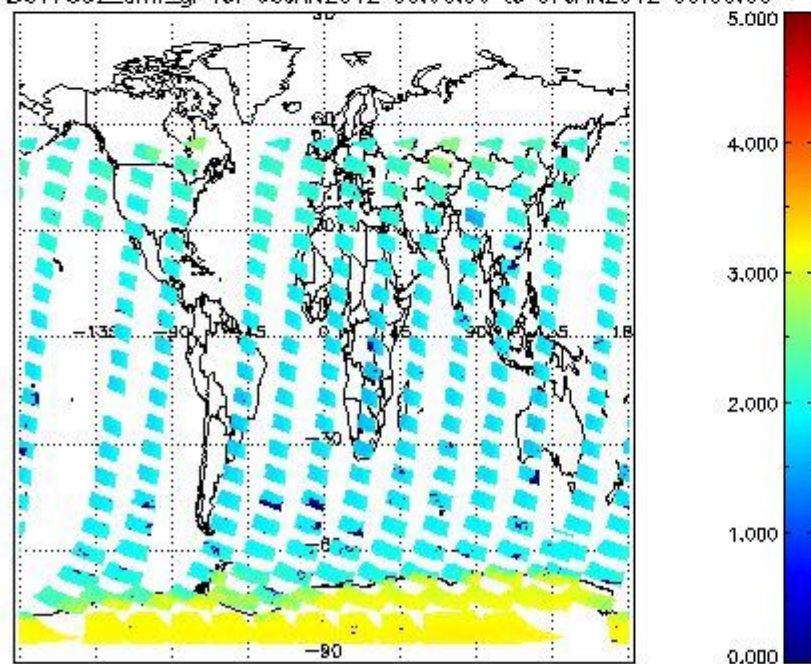
SCIOL2P\_NADUV7S02\_vcd for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



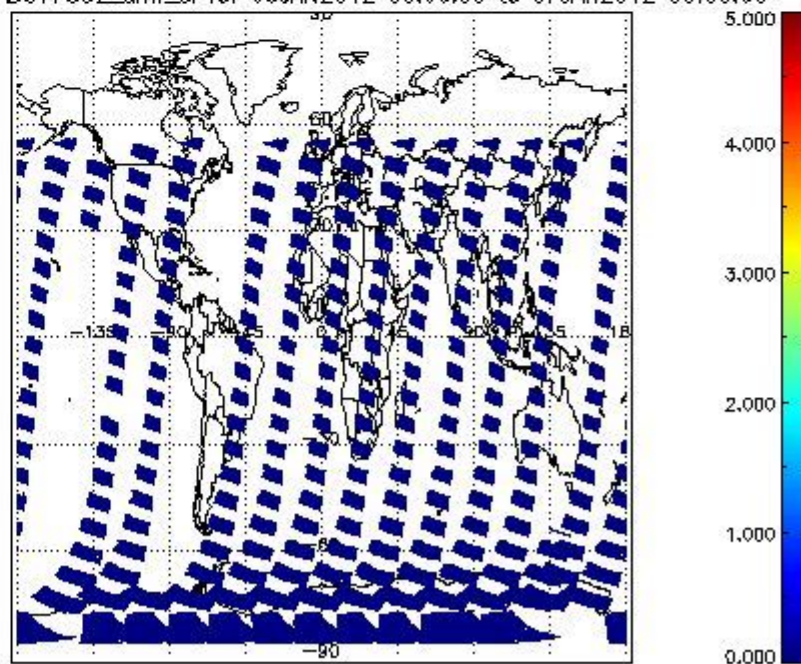
SCIOL2P\_NADUV7S02\_vcd\_err for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



SCIOL2P\_NADUV7S02\_amf\_gr for 06JAN2012 00:00:00 to 07JAN2012 00:00:00

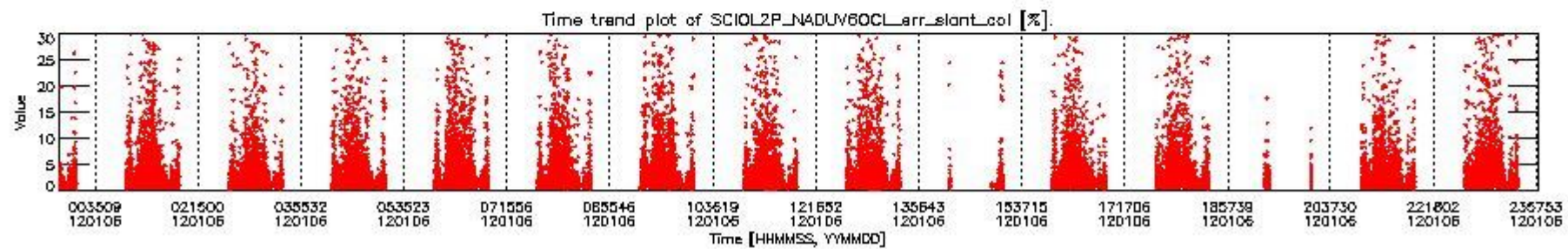
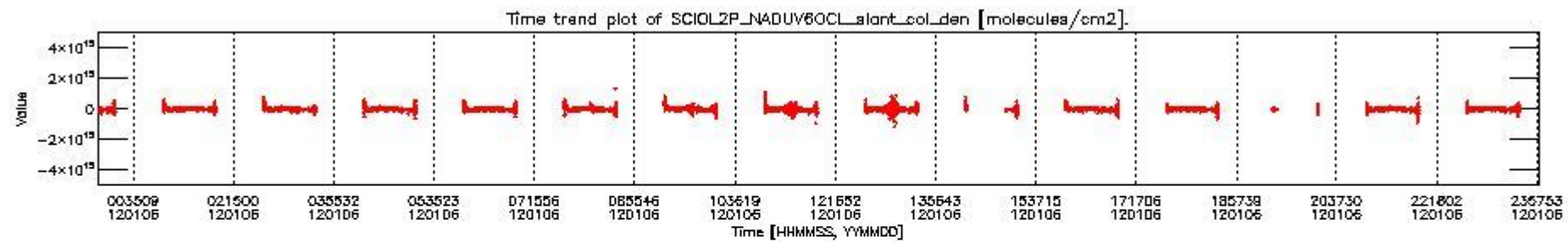


SCIOL2P\_NADUV7S02\_amf\_cl for 06JAN2012 00:00:00 to 07JAN2012 00:00:00

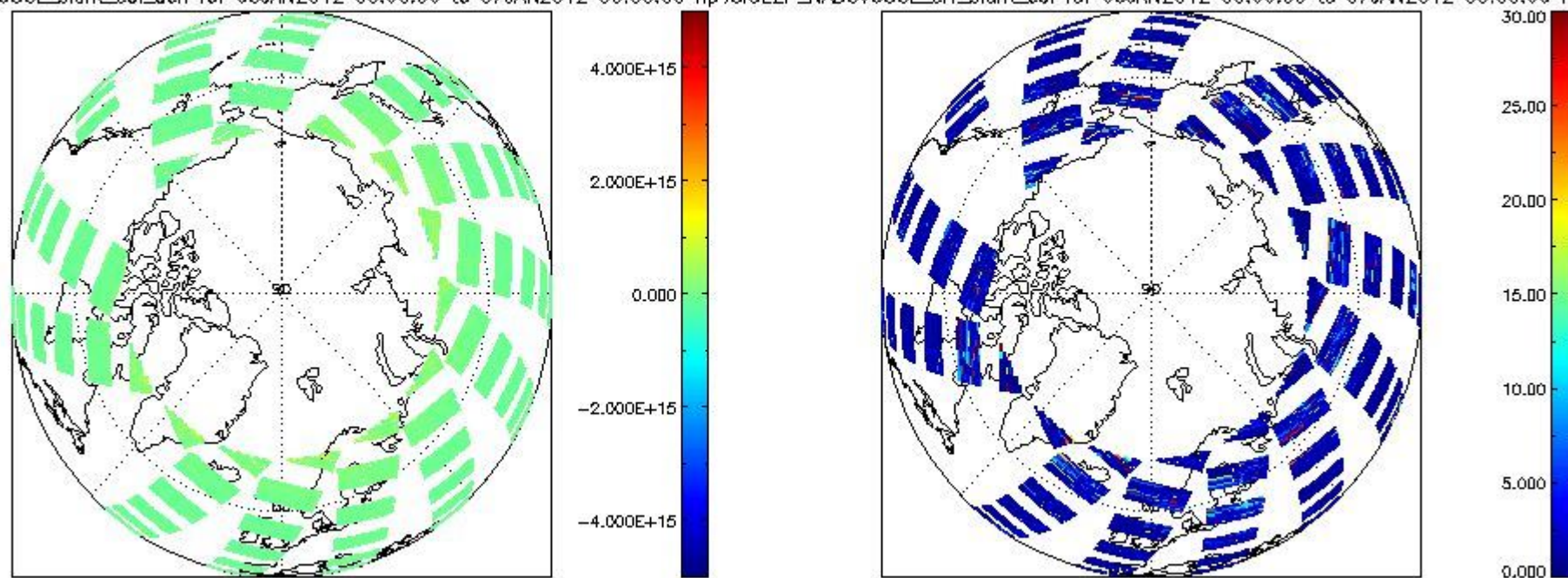


2.2.2.6 OCIO (UV6)



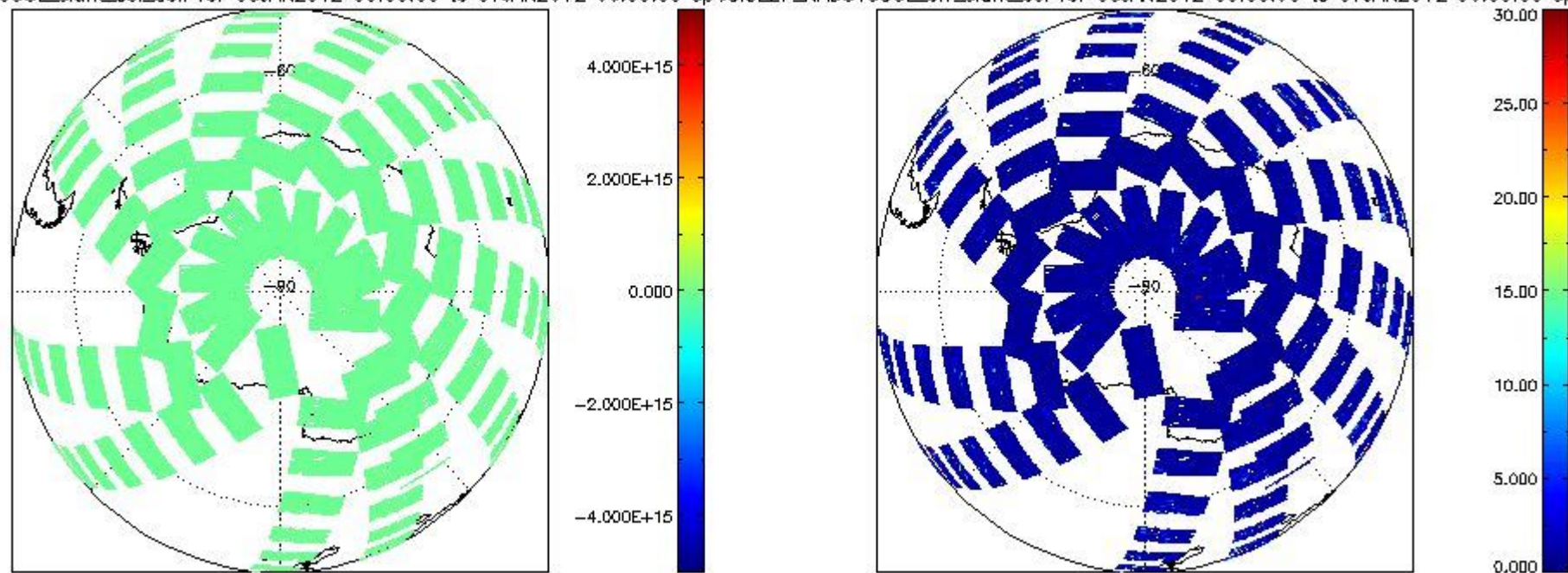


SCIOI2P\_NADUV60CL\_slant\_col\_den for 06JAN2012 00:00:00 to 07JAN2012 00:00:00 np; SCIOI2P\_NADUV60CL\_err\_slant\_col for 06JAN2012 00:00:00 to 07JAN2012 00:00:00 np

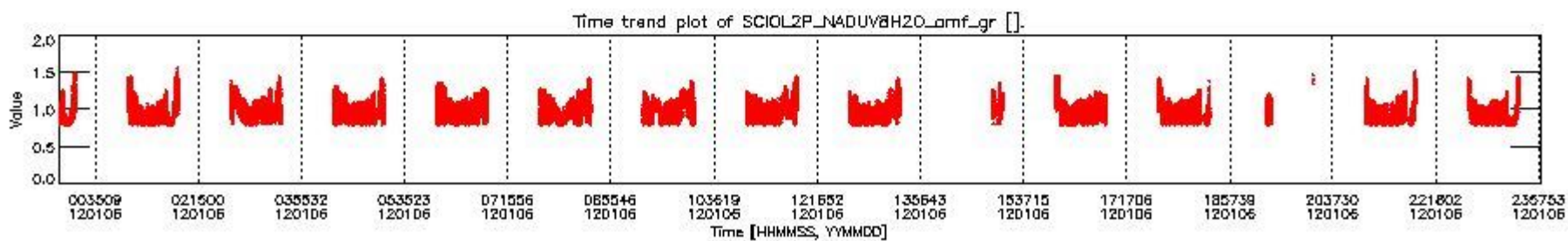
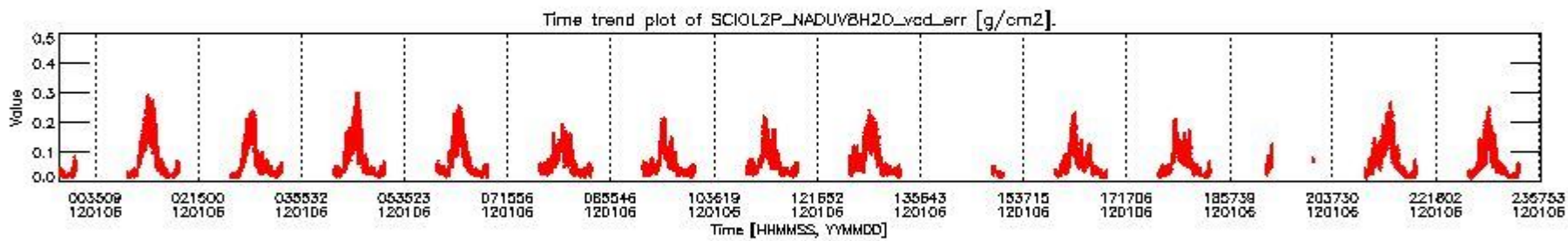
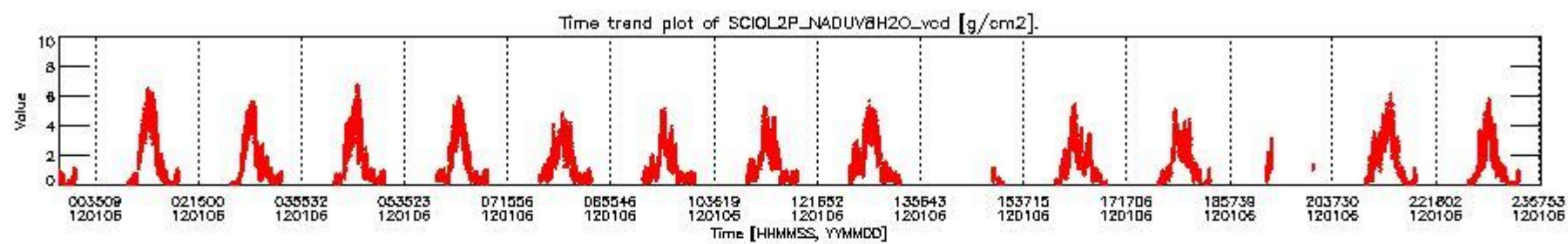




SCIOL2P\_NADUV6OCL\_slant\_col\_den for 06JAN2012 00:00:00 to 07JAN2012 00:00:00 sp SCIOL2P\_NADUV6OCL\_err\_slant\_col for 06JAN2012 00:00:00 to 07JAN2012 00:00:00 sp

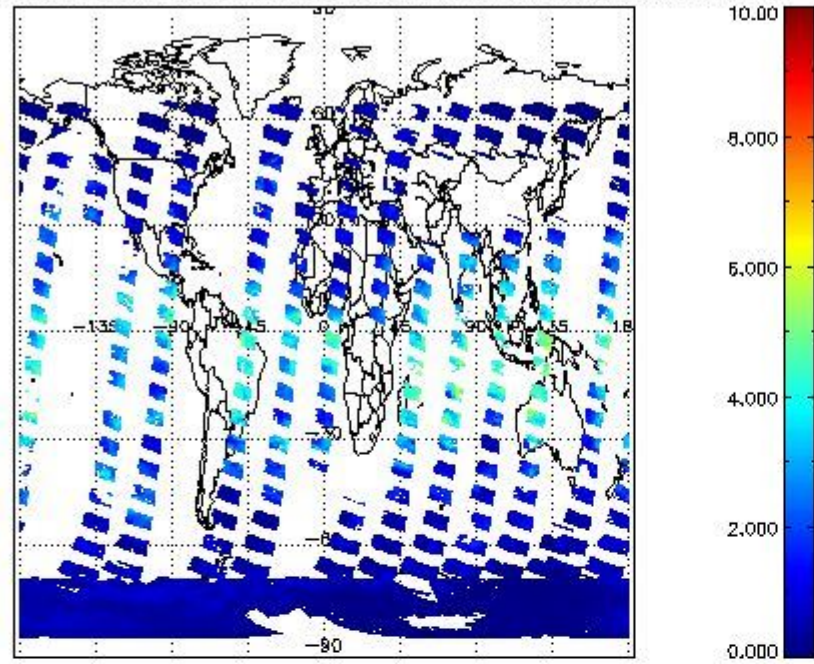


### 2.2.2.7 H2O (UV8)

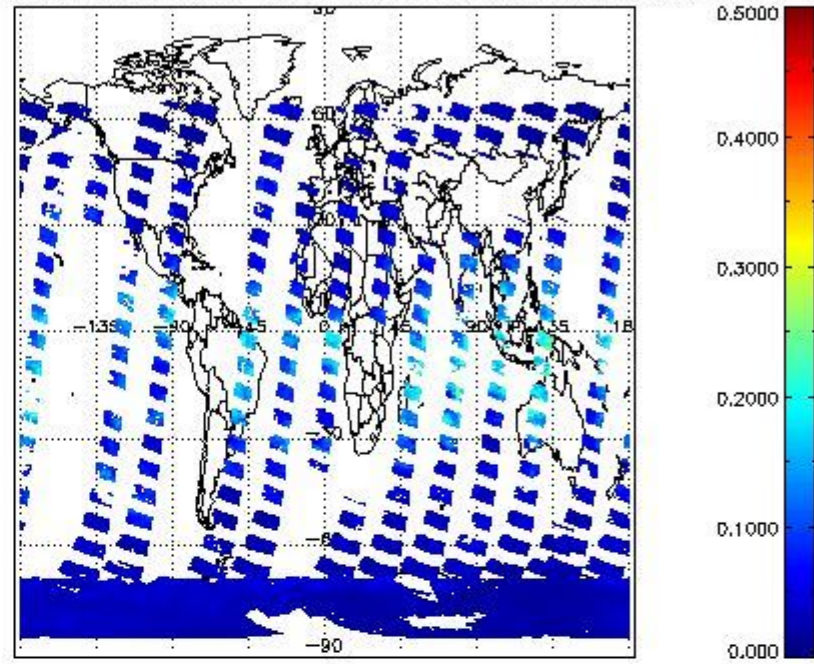




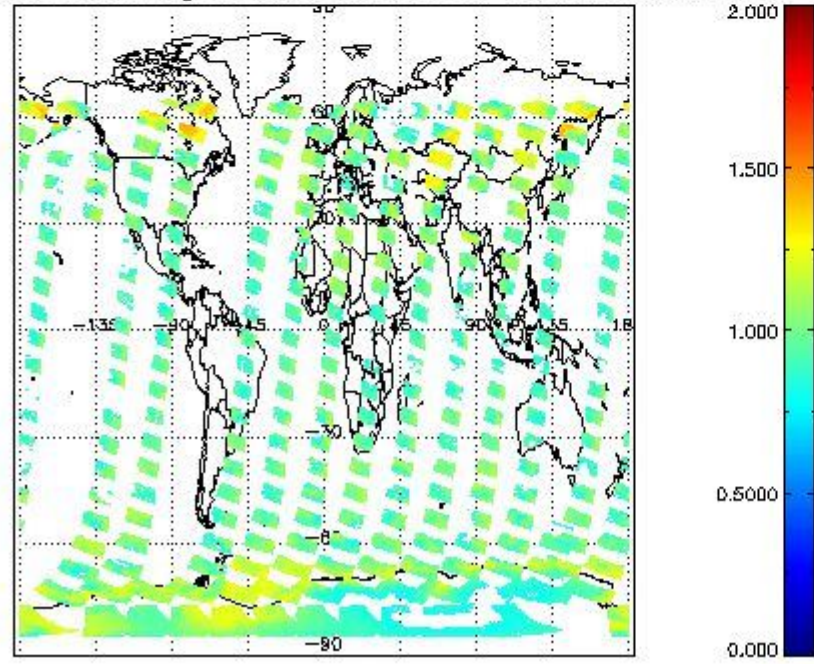
SCIOL2P\_NADUV8H20\_vcd for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



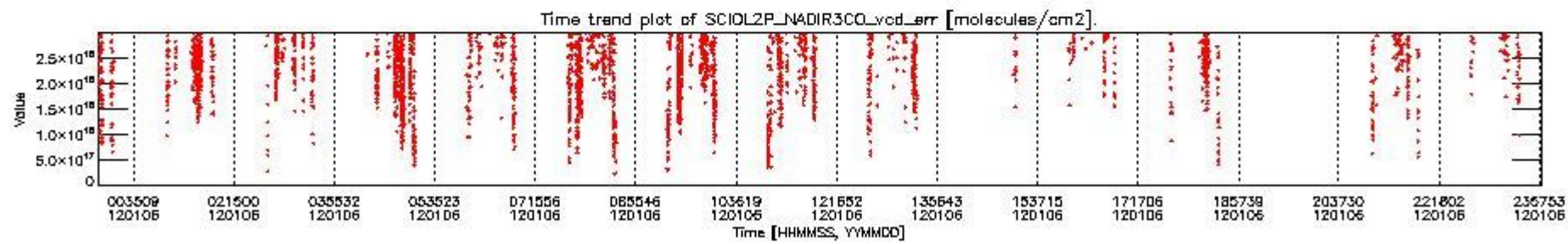
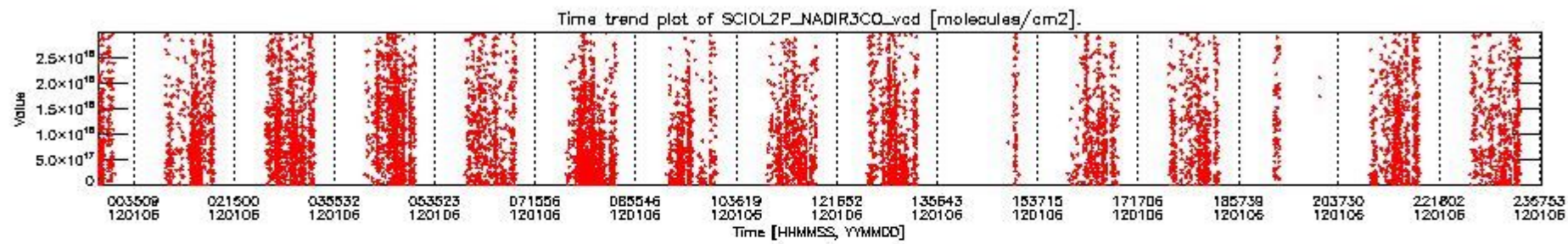
SCIOL2P\_NADUV8H20\_vcd\_err for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



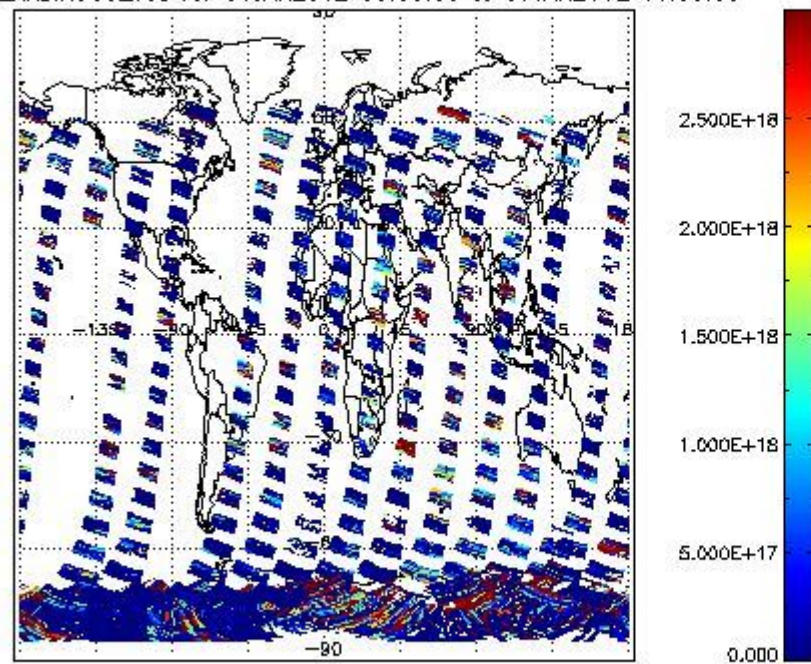
SCIOL2P\_NADUV8H20\_amf\_gr for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



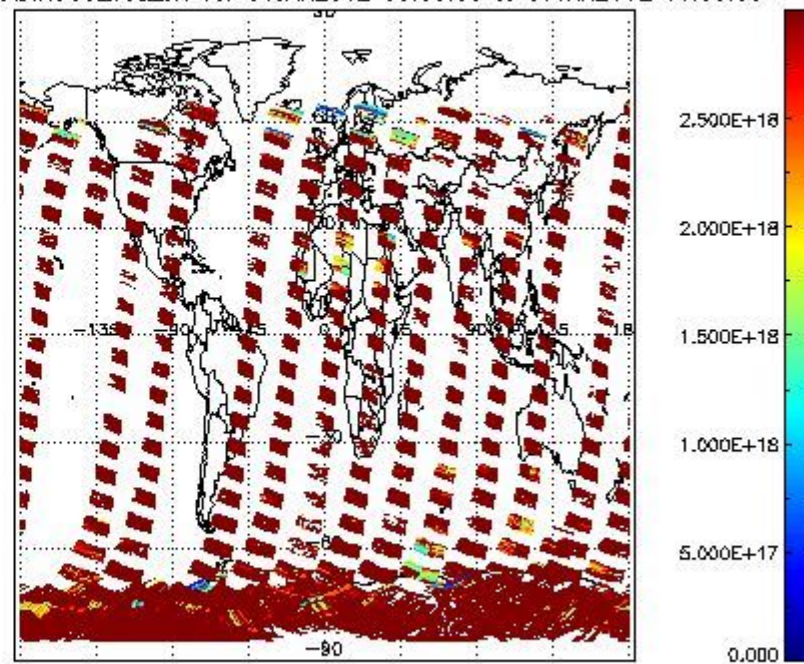




SCIDL2P\_NADIR3CO\_vcd for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



SCIDL2P\_NADIR3CO\_vcd\_err for 06JAN2012 00:00:00 to 07JAN2012 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.

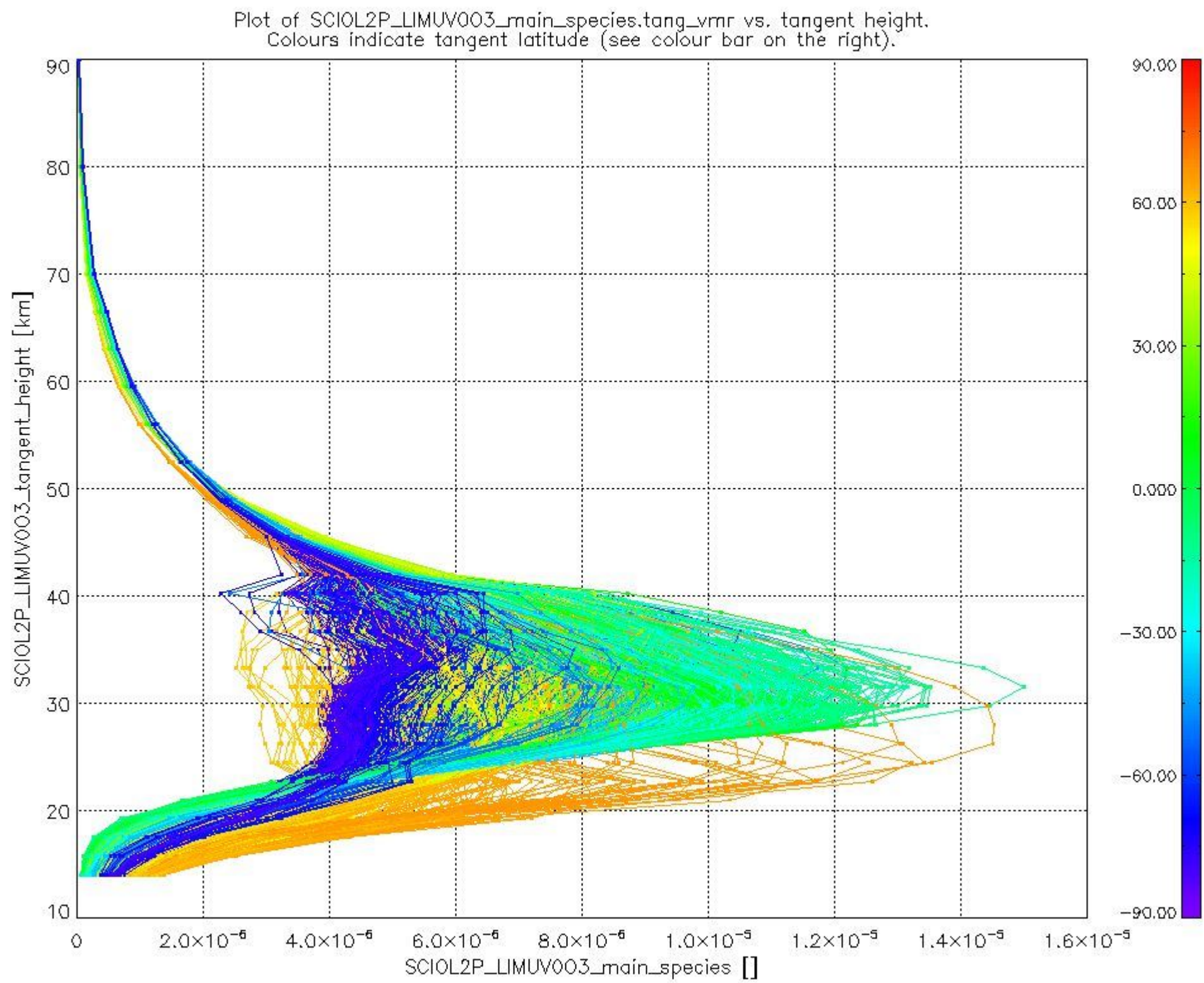
The following data items are currently included into this section:

Number	Data item ID
0	SCIDL2P_LIMUV003_main_species
1	SCIDL2P_LIMUV1NO2_main_species
2	SCIDL2P_LIMUV3BRO_main_species



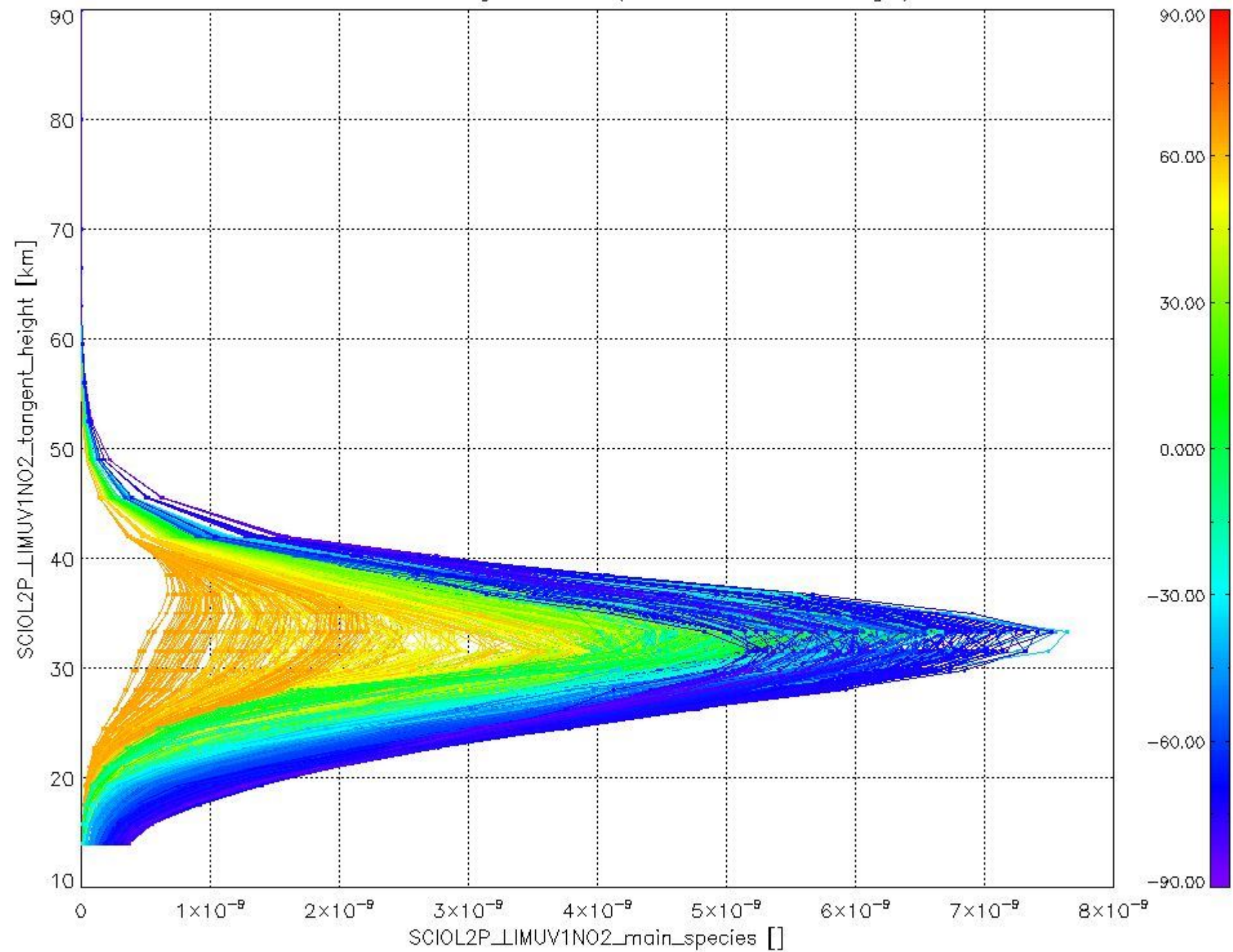
The following plots show for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

2.2.3.1 O3 (UV0)



2.2.3.2 NO2 (UV1)

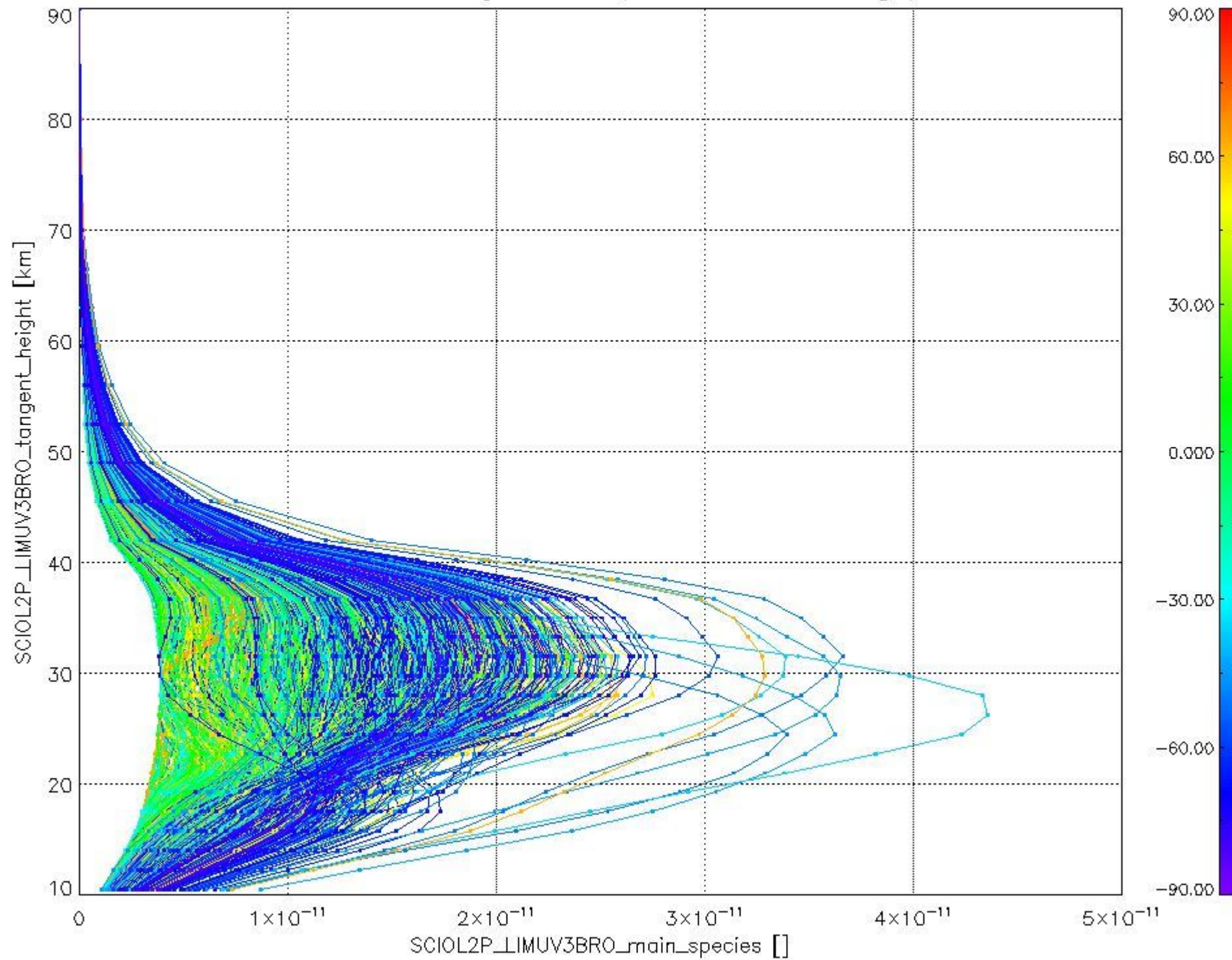
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



### 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).



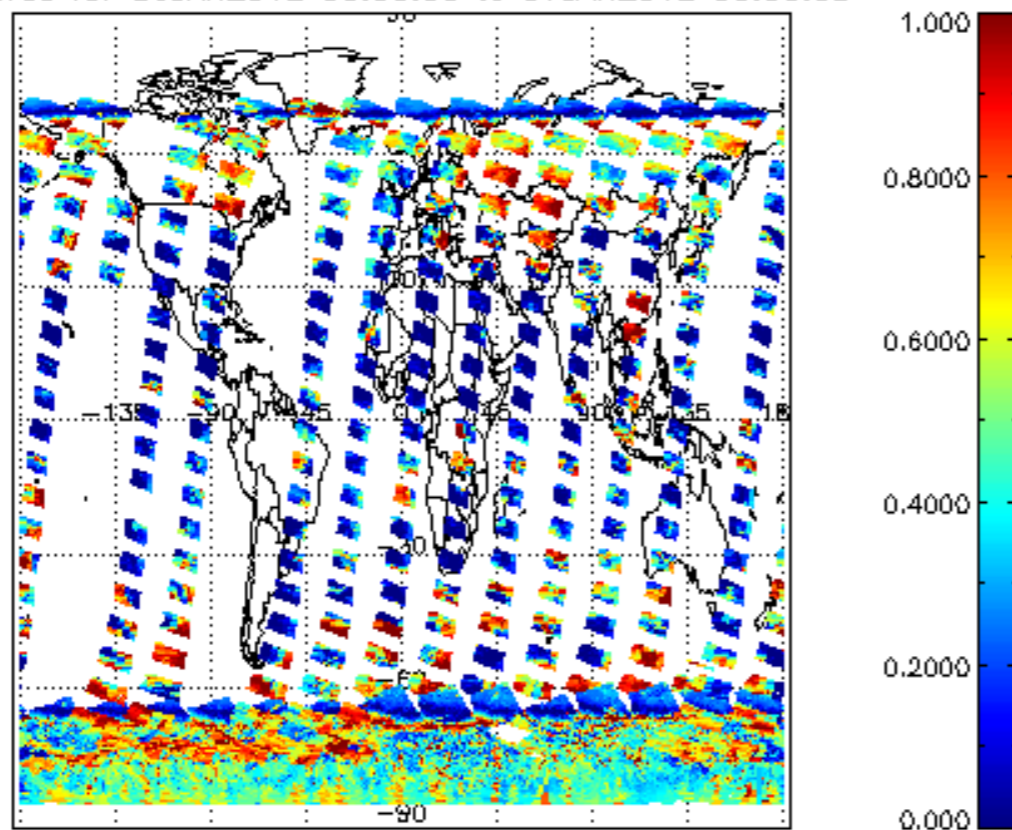
### 2.3 ADF monitoring

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_AXVIEC20120110_124609_20120105_191644_20120107_191644
3	SCI_MF1_AXVIEC20120110_124620_20120106_183959_20120108_183959

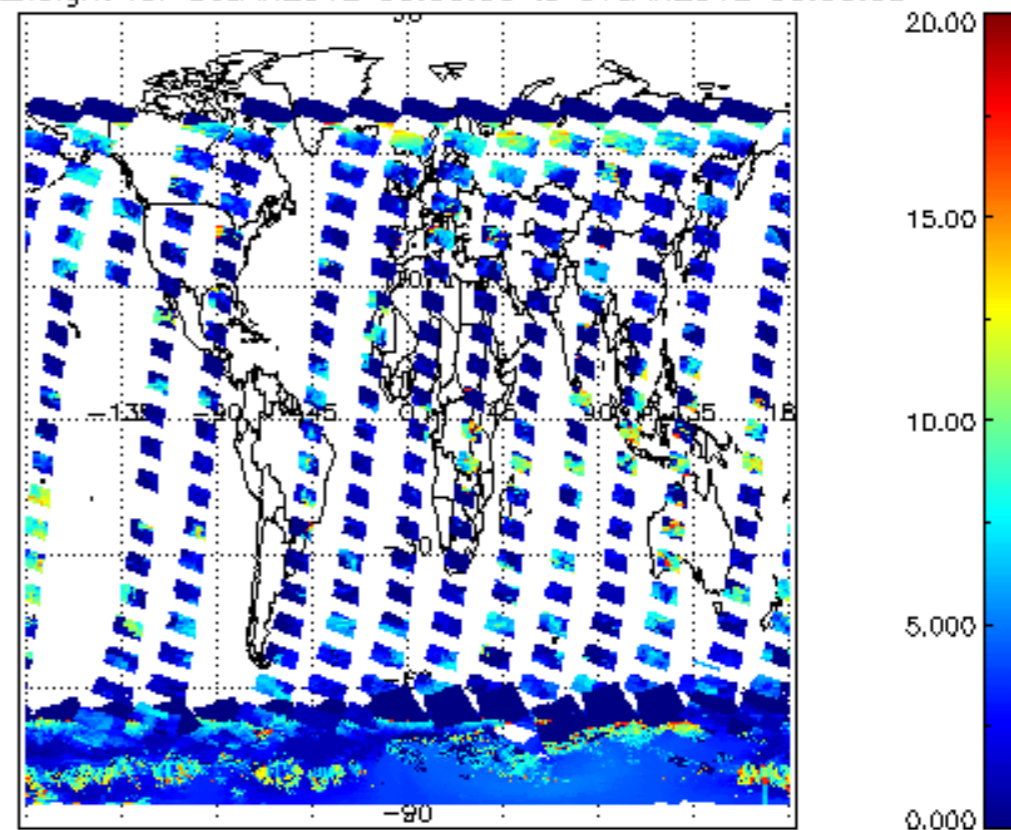




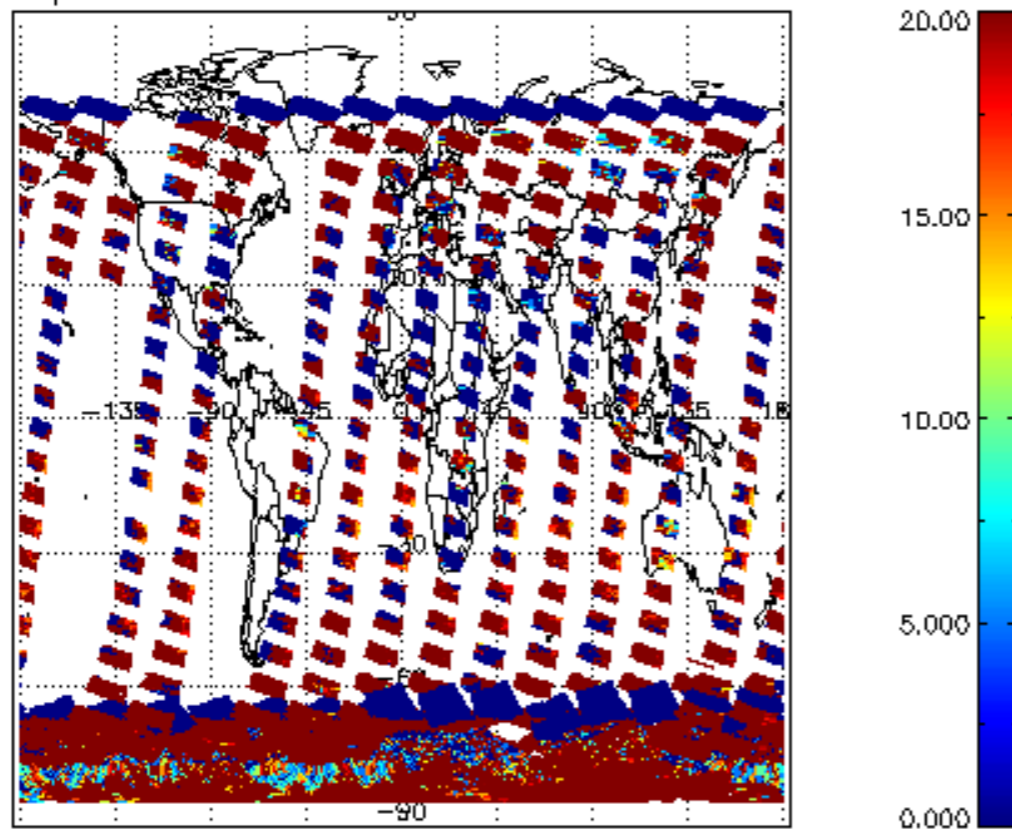
cL\_frac for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



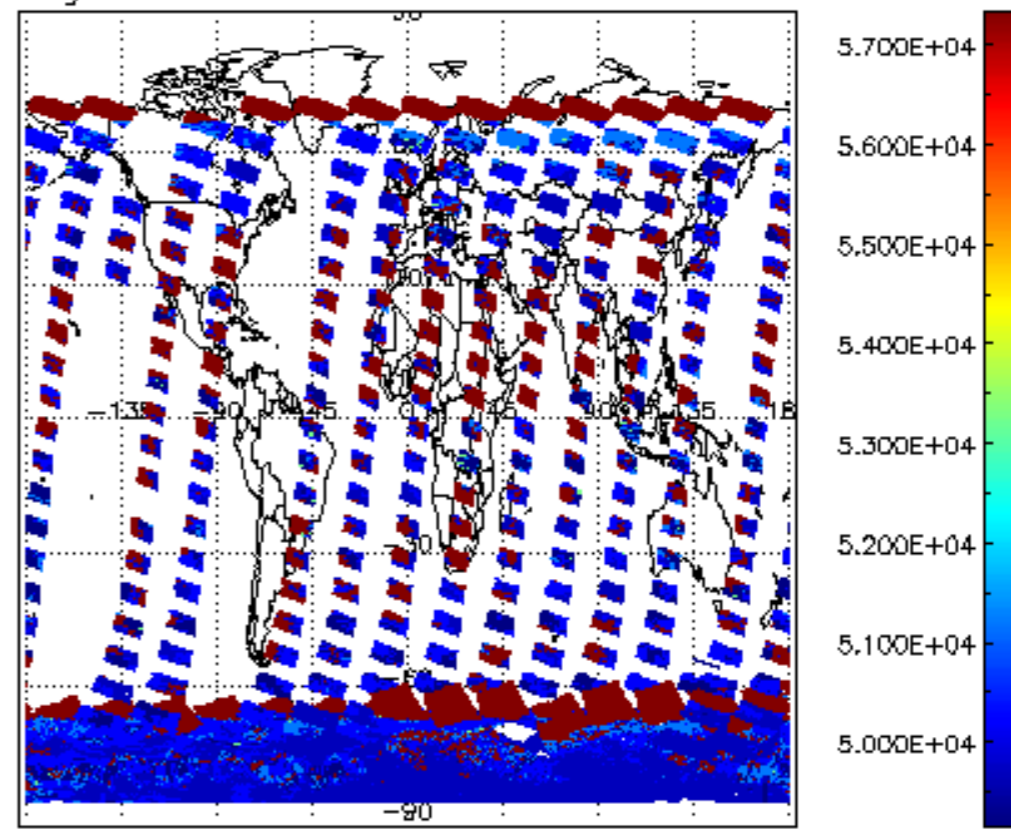
cL\_top\_height for 06JAN2012 00:00:00 to 07JAN2012 00:00:00

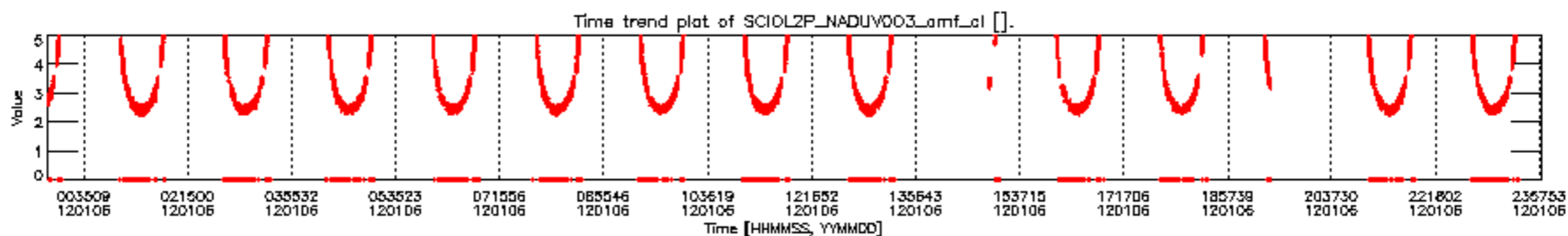
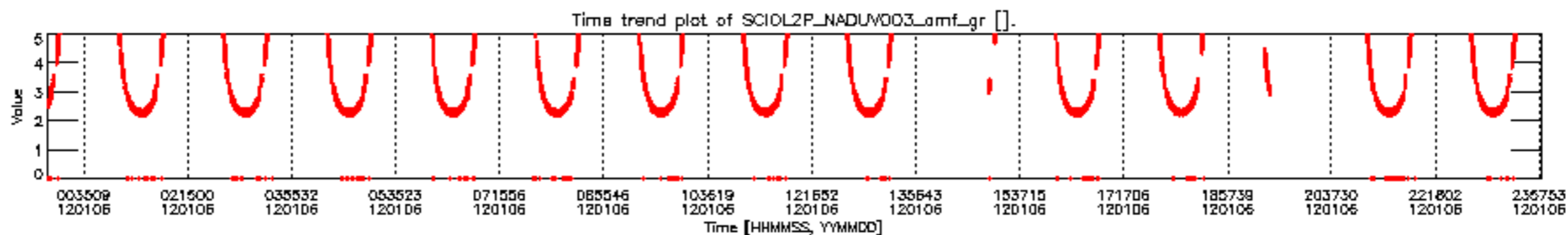
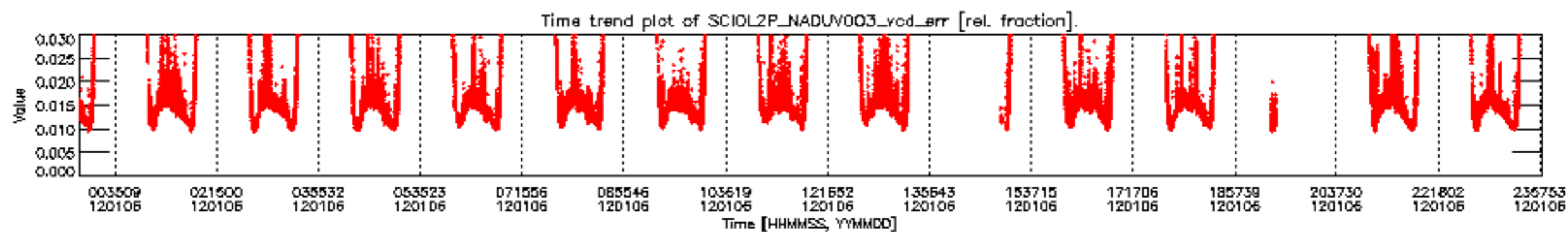
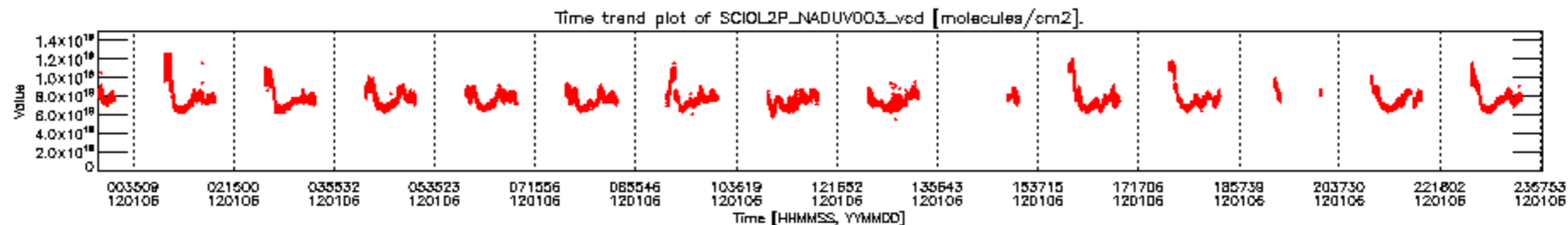


cLopt\_depth for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



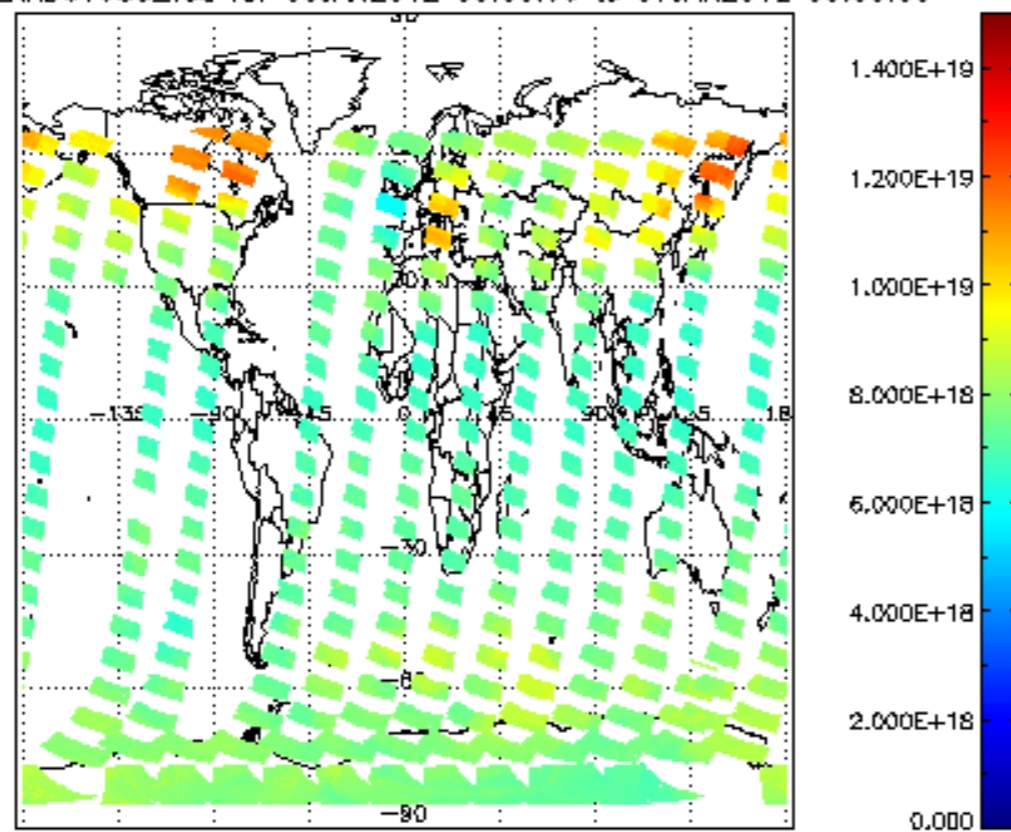
cloud\_flags for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



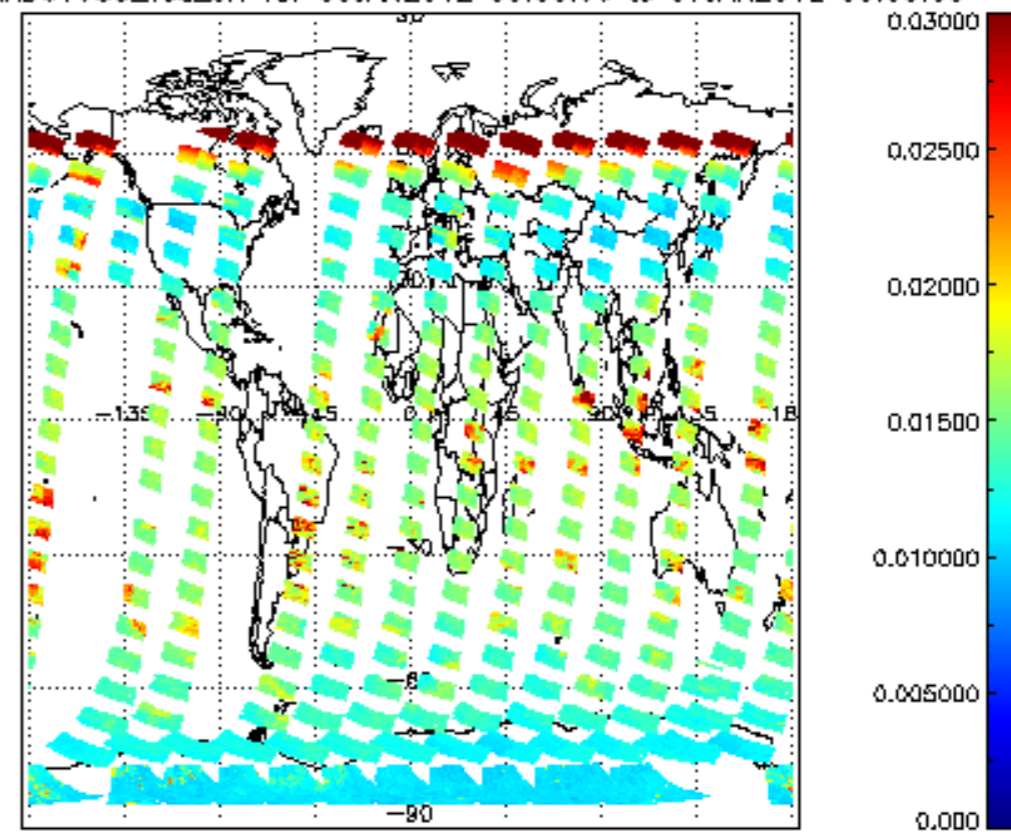




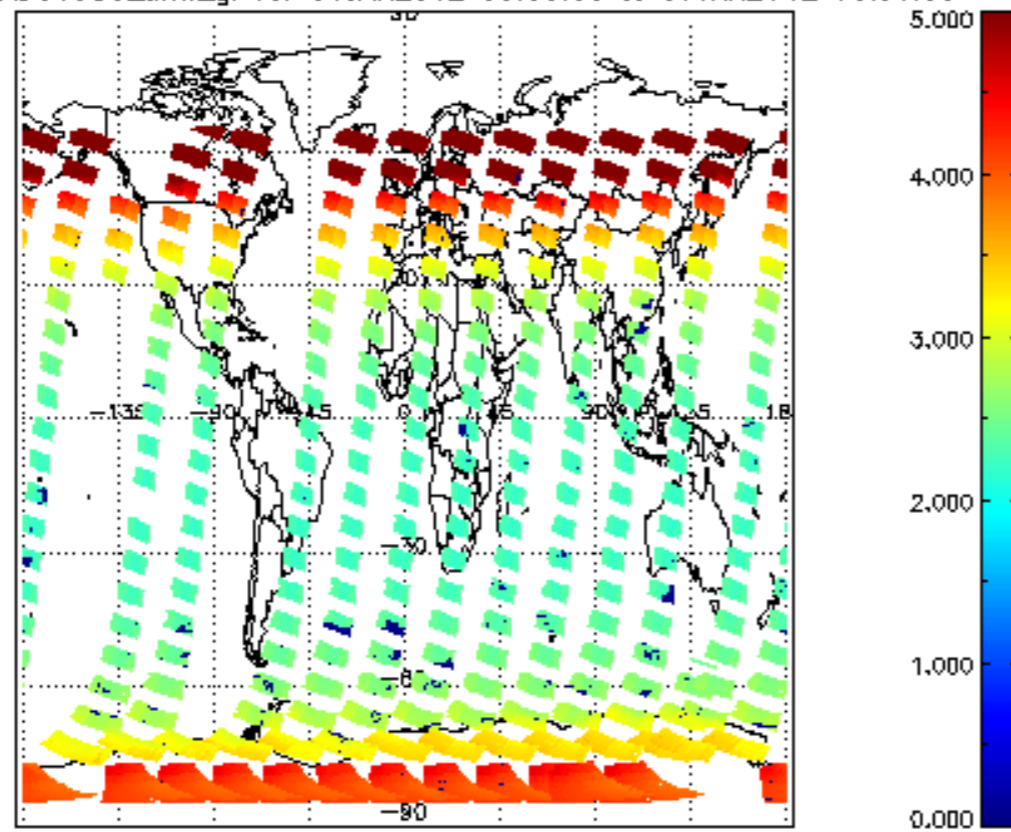
SCIOL2P\_NADUV003\_vcd for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



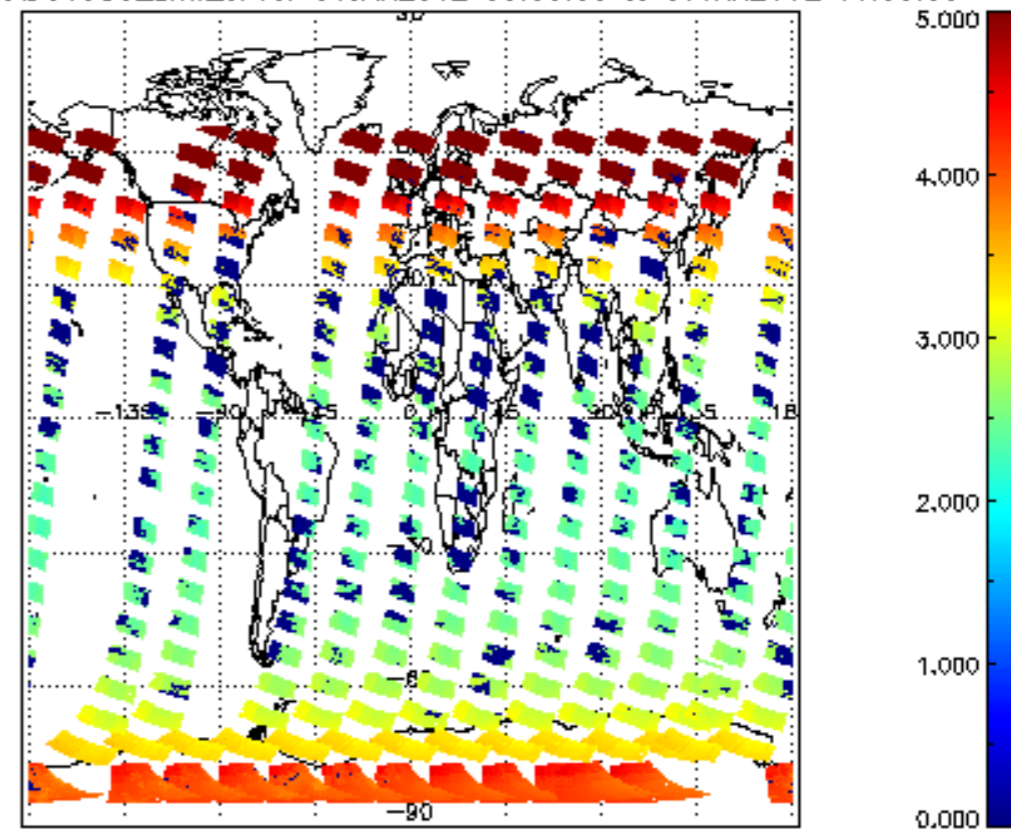
SCIOL2P\_NADUV003\_vcd\_err for 06JAN2012 00:00:00 to 07JAN2012 00:00:00

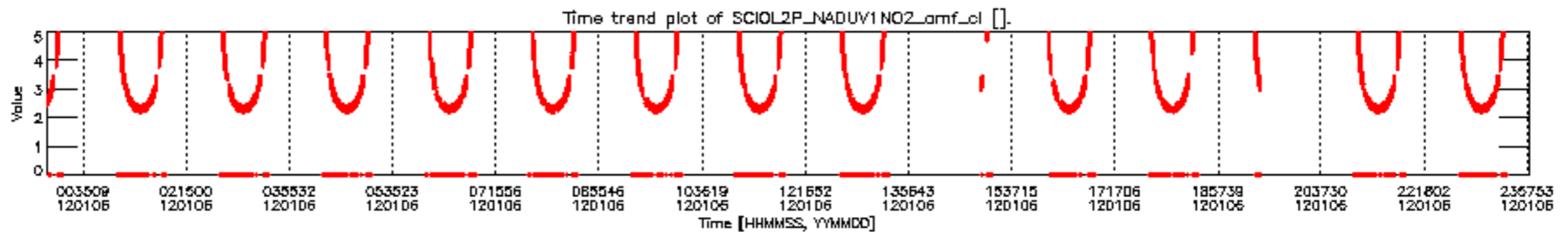
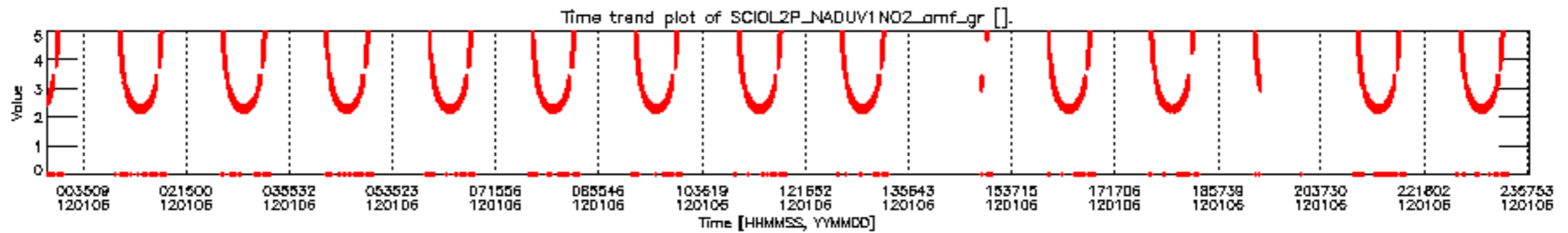
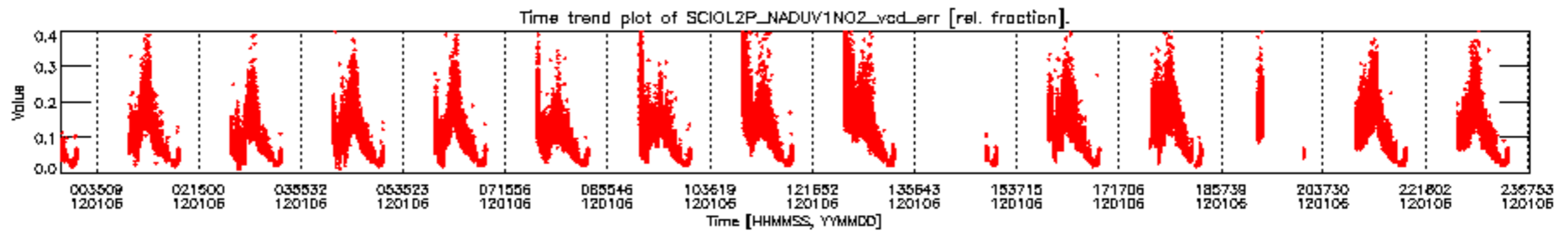
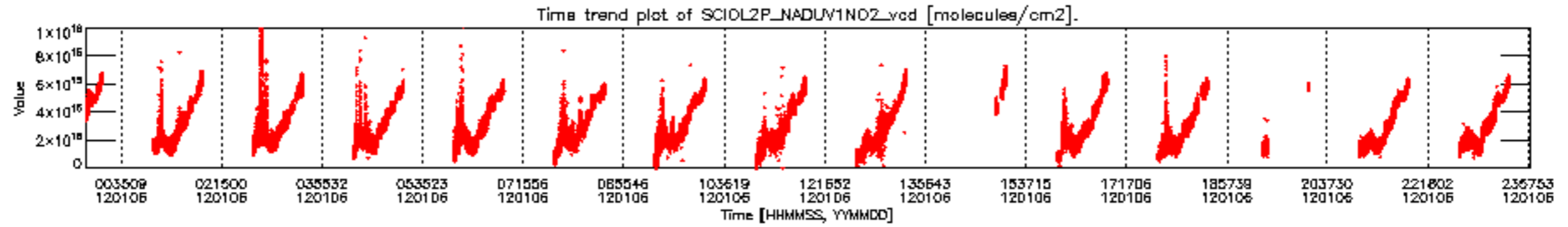


SCIOL2P\_NADUV003\_amf\_gr for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



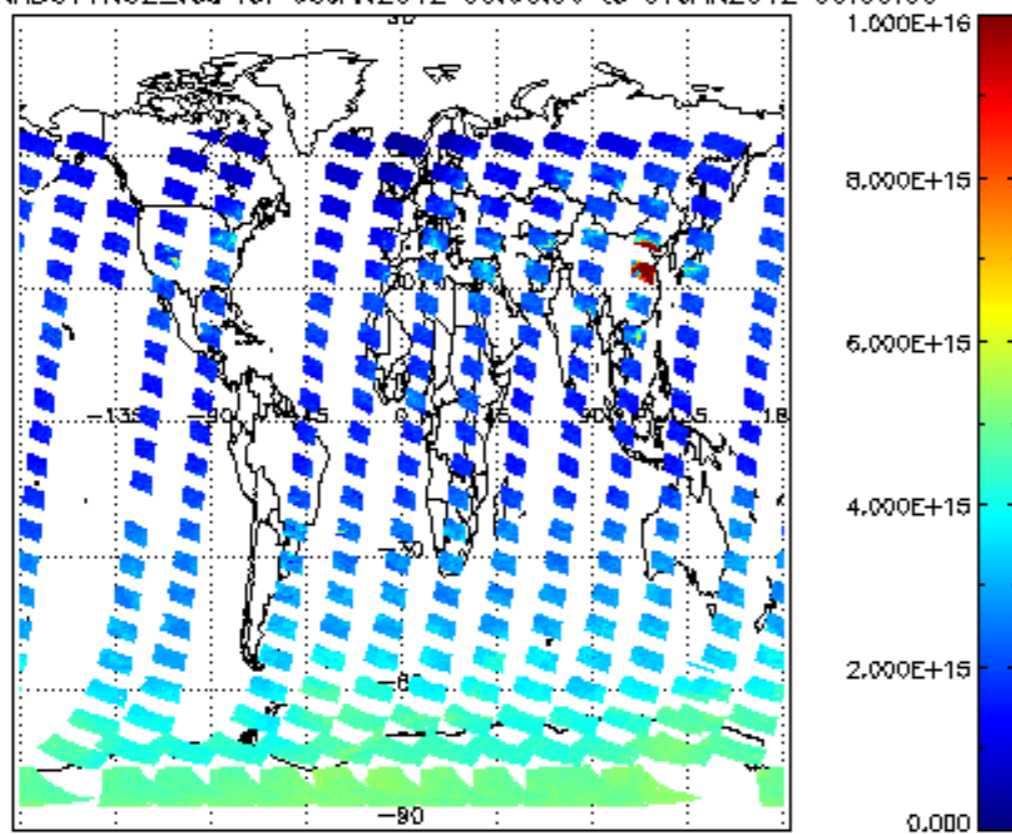
SCIOL2P\_NADUV003\_amf\_cl for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



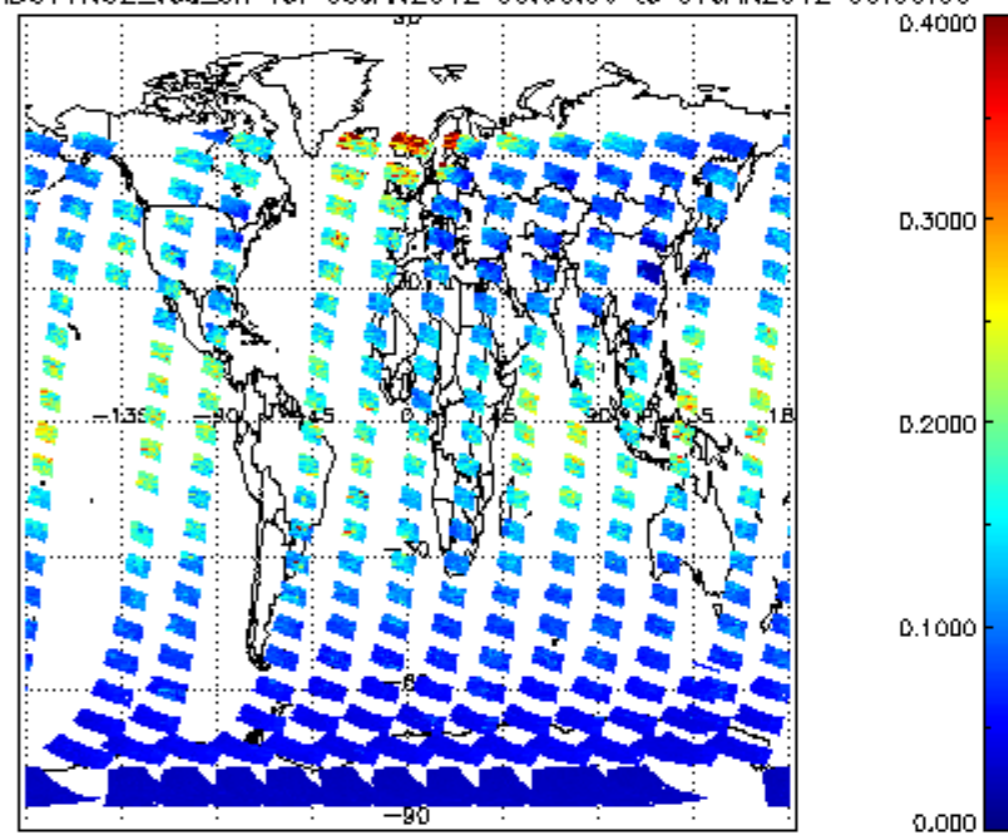




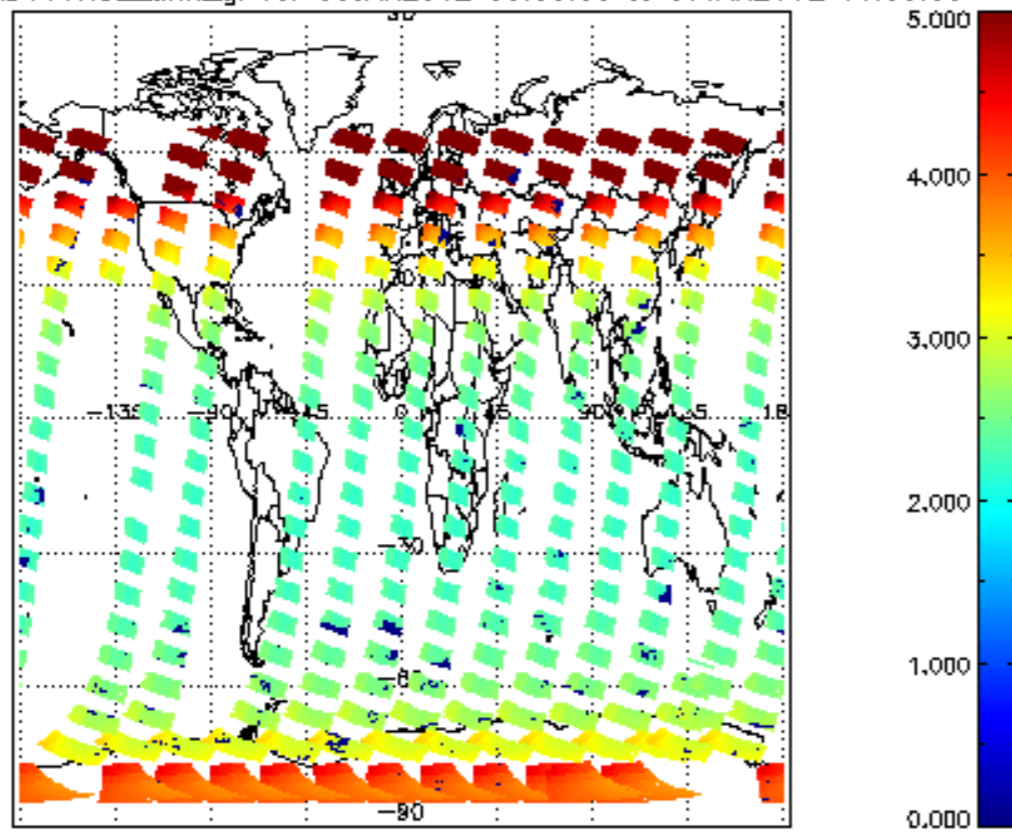
SCIOL2P\_NADUV1NO2\_vcd for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



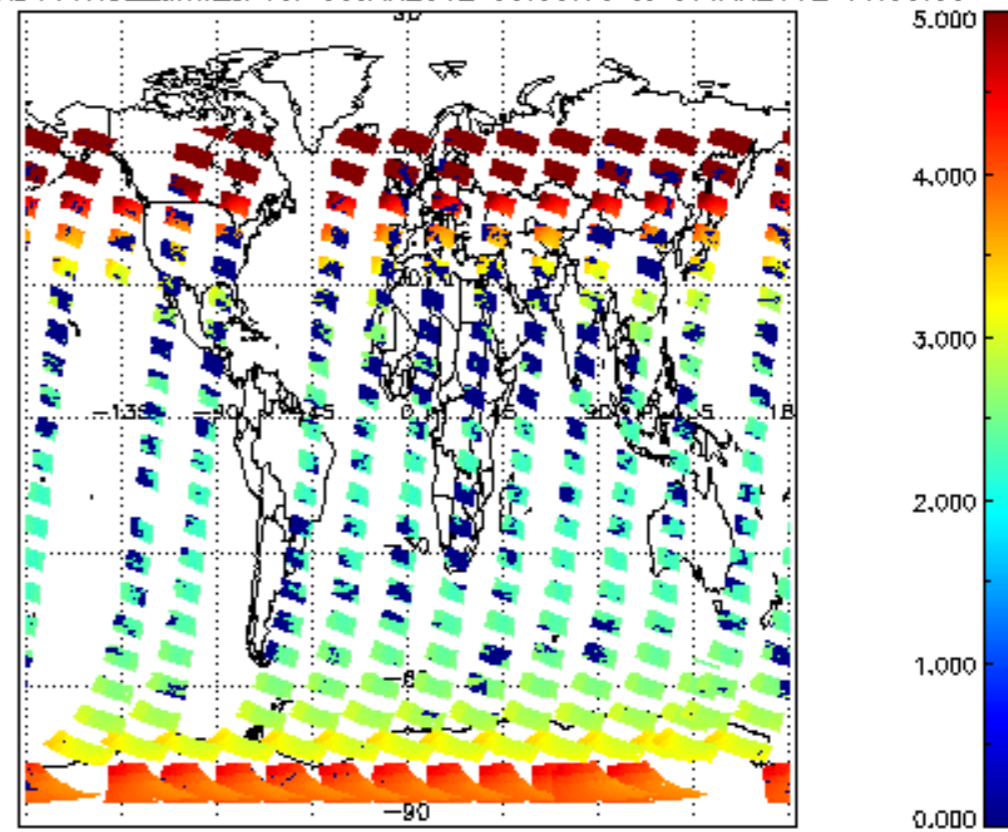
SCIOL2P\_NADUV1NO2\_vcd\_err for 06JAN2012 00:00:00 to 07JAN2012 00:00:00

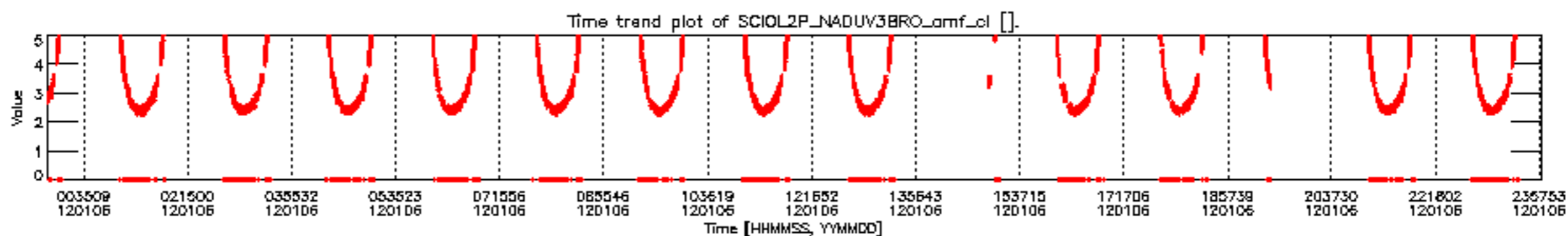
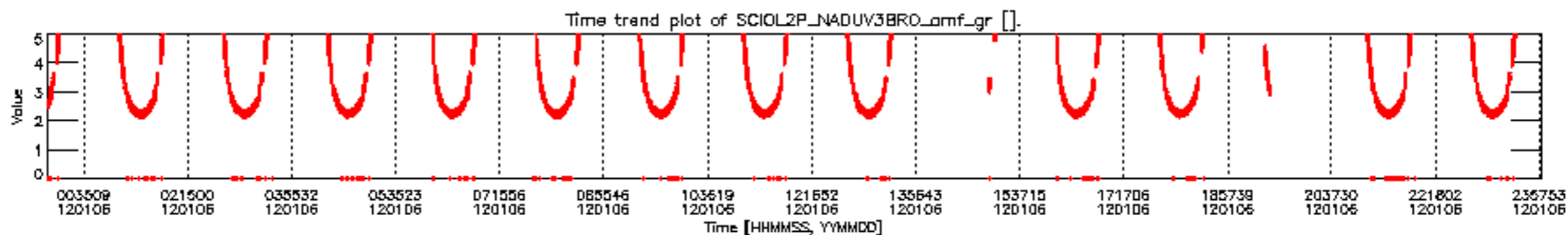
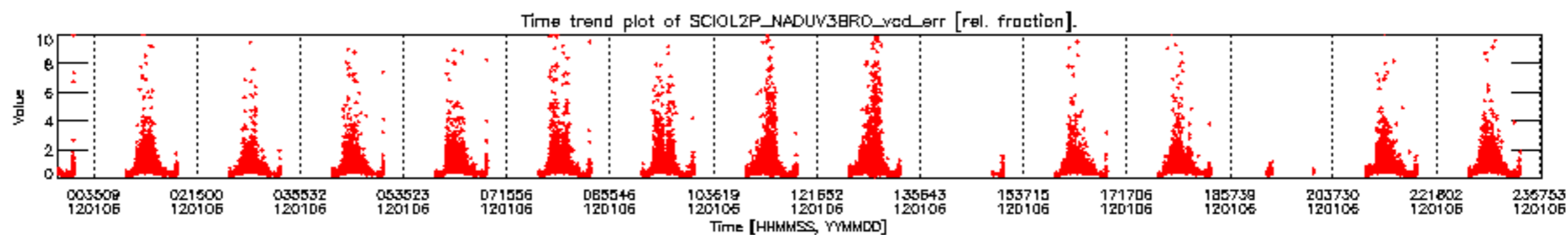
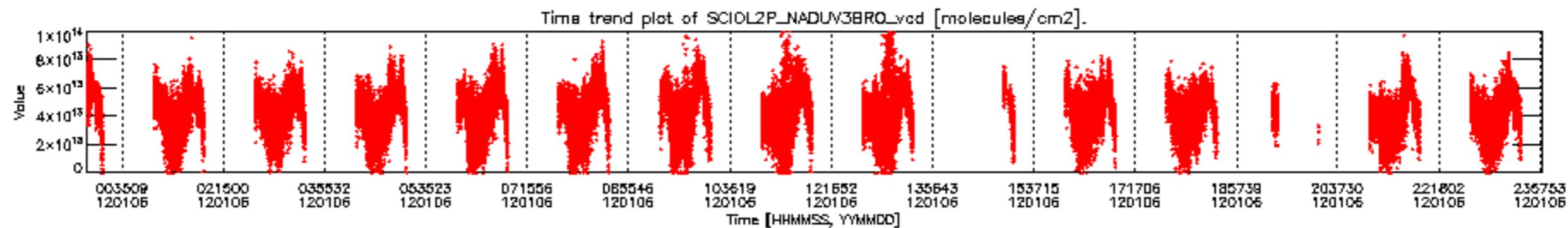


SCIOL2P\_NADUV1NO2\_amf\_gr for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



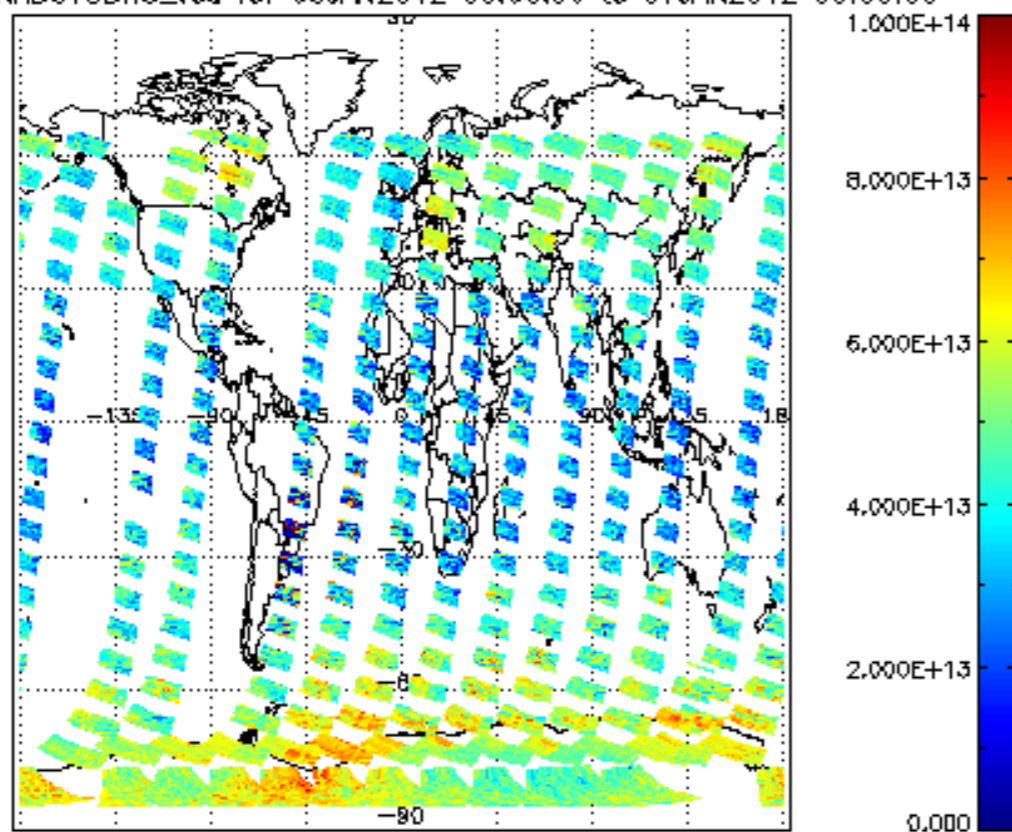
SCIOL2P\_NADUV1NO2\_amf\_cl for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



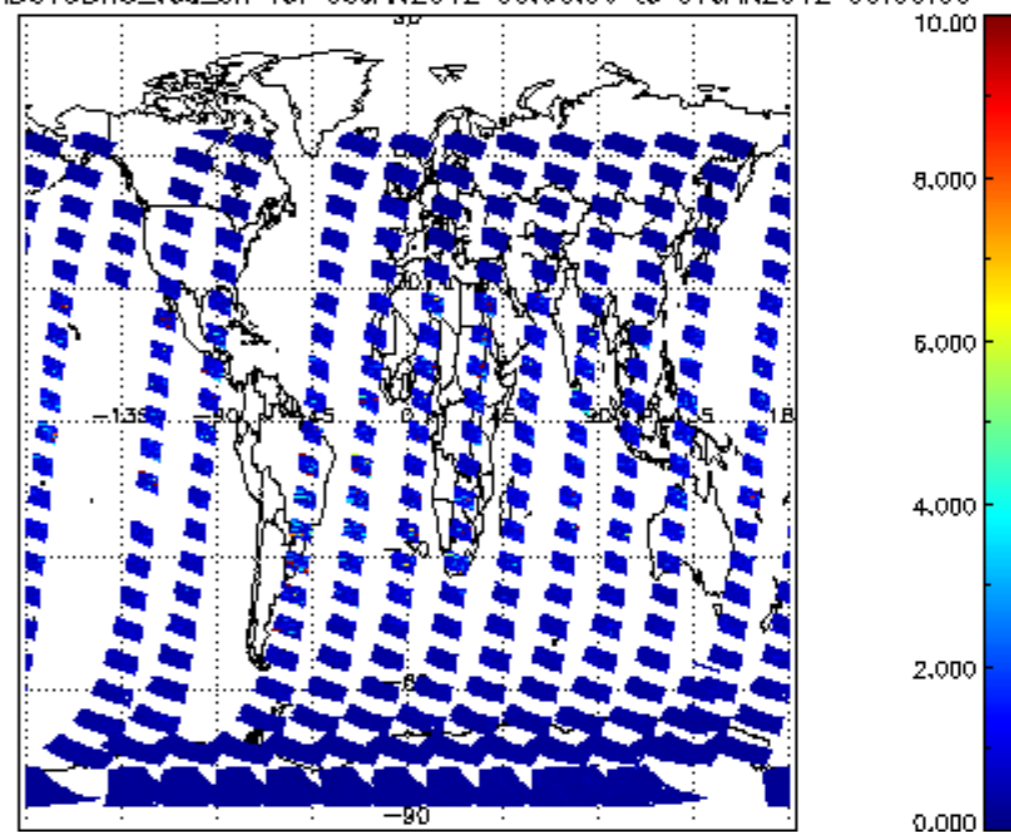




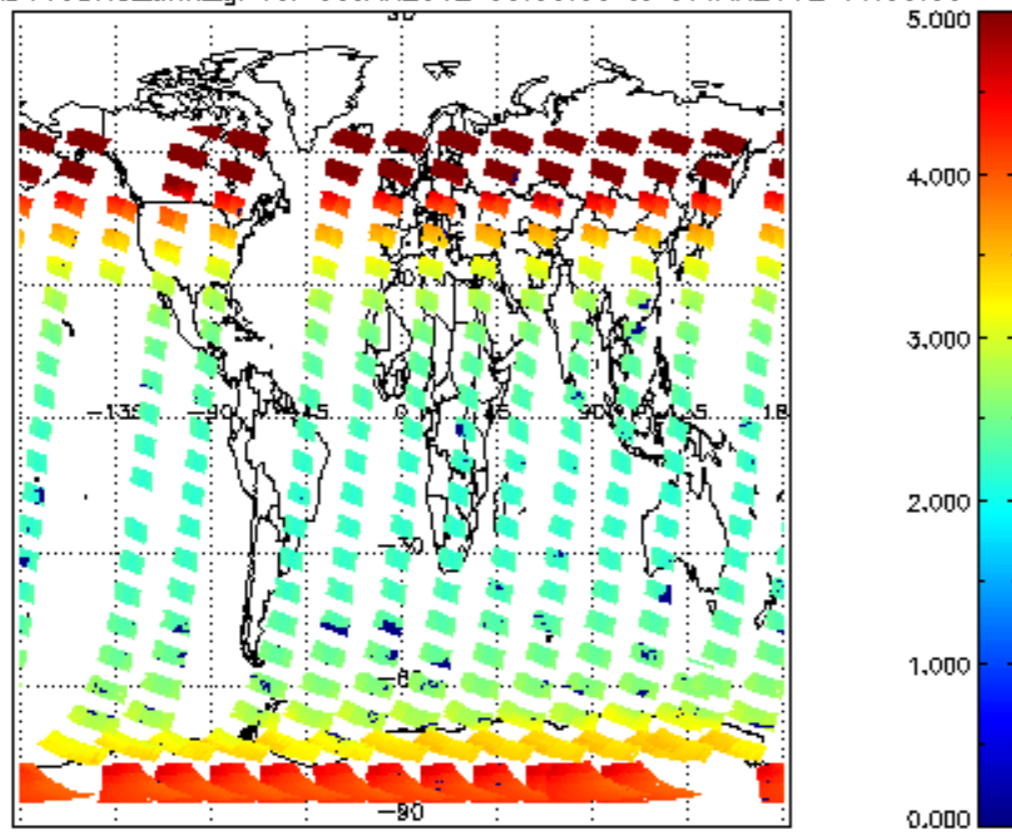
SCIOL2P\_NADUV3BRO\_vcd for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



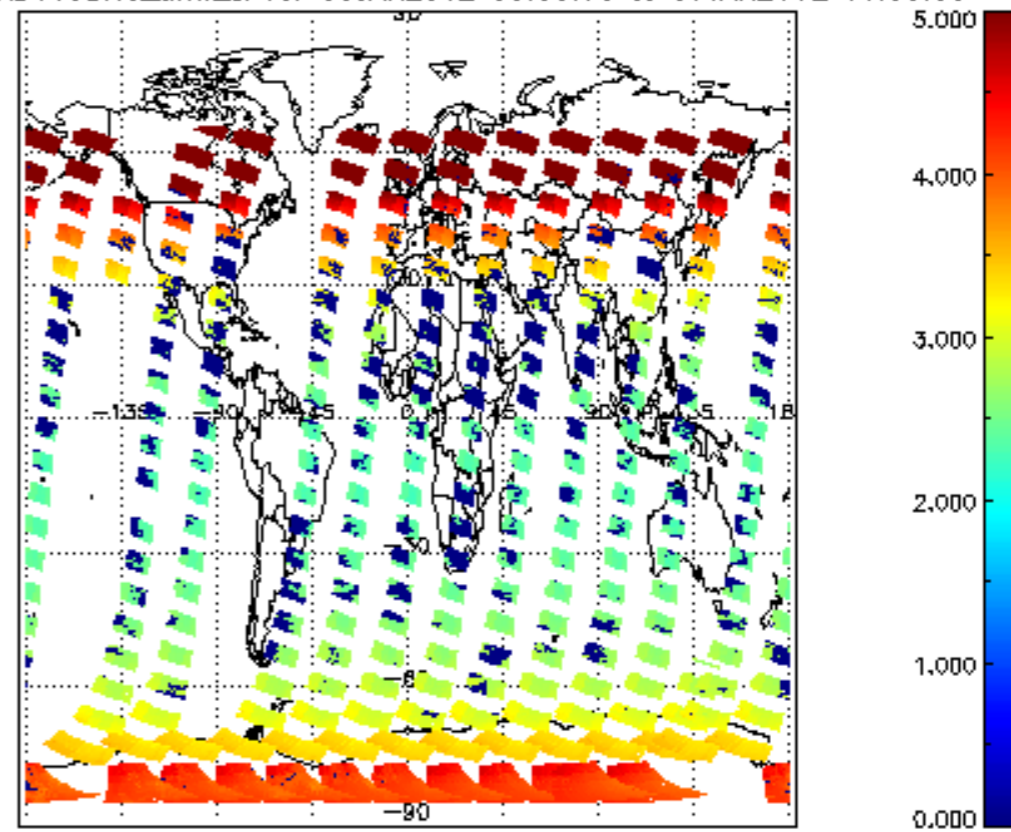
SCIOL2P\_NADUV3BRO\_vcd\_err for 06JAN2012 00:00:00 to 07JAN2012 00:00:00

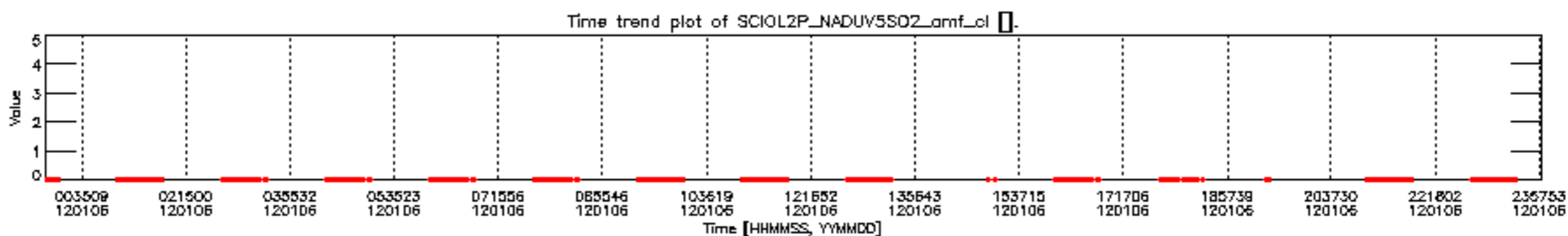
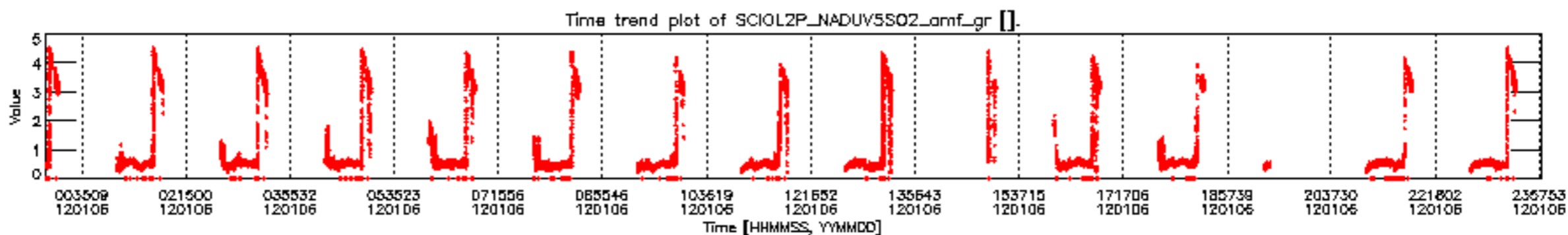
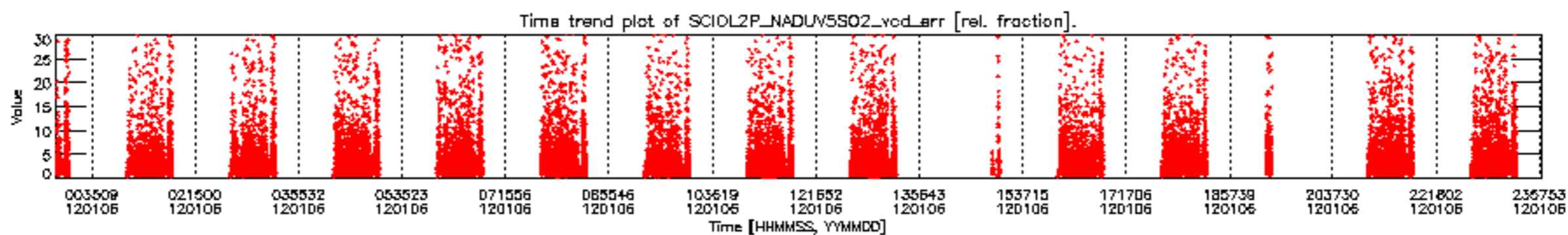
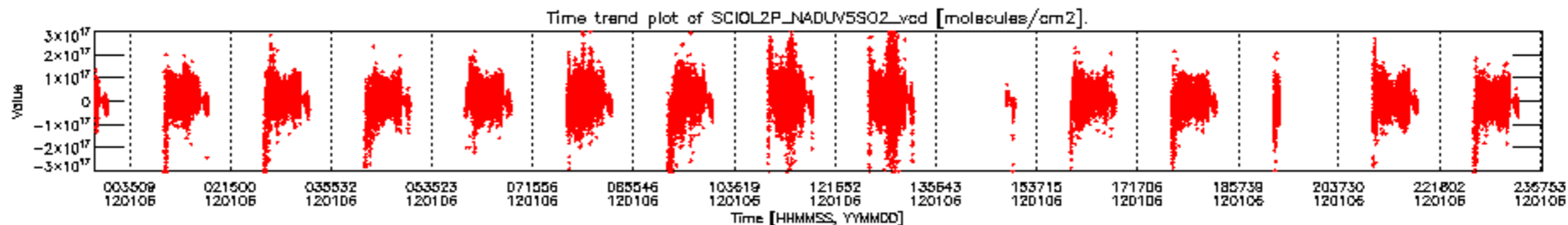


SCIOL2P\_NADUV3BRO\_amf\_gr for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



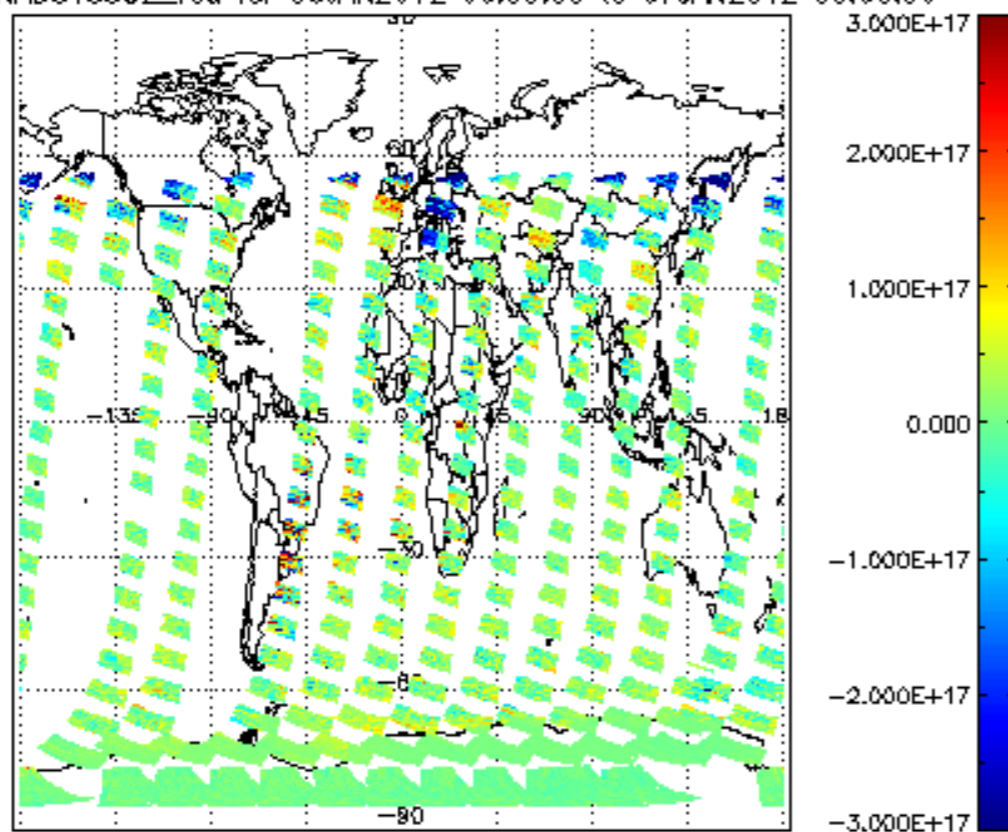
SCIOL2P\_NADUV3BRO\_amf\_cl for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



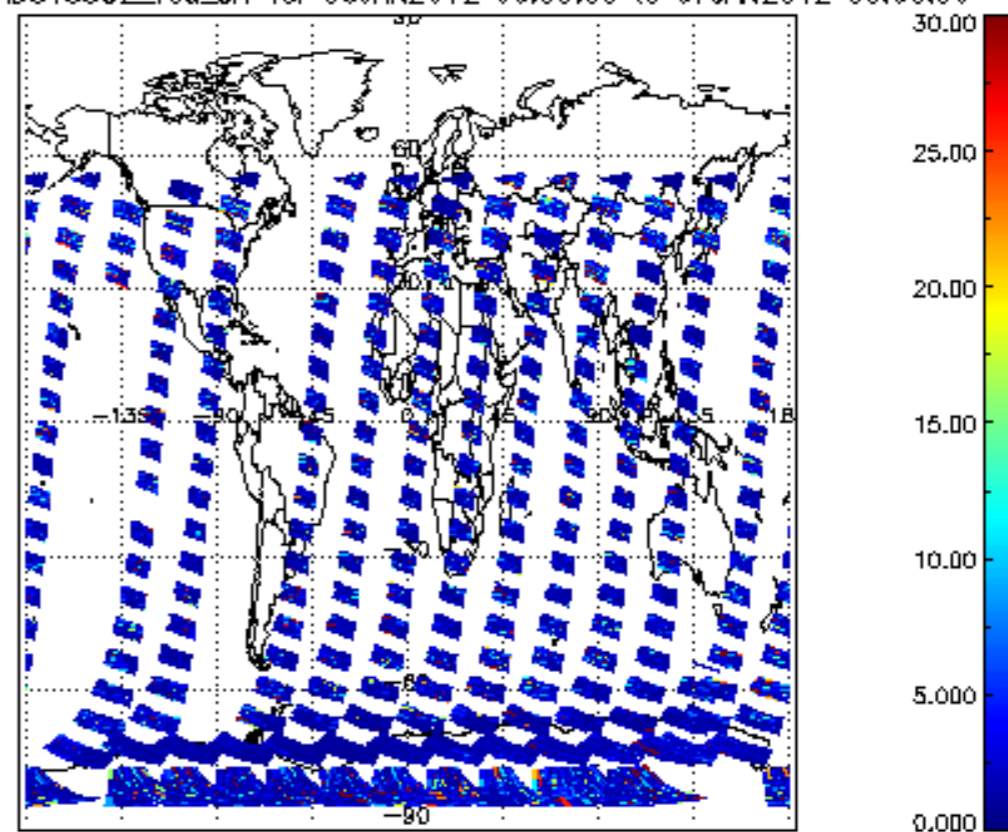




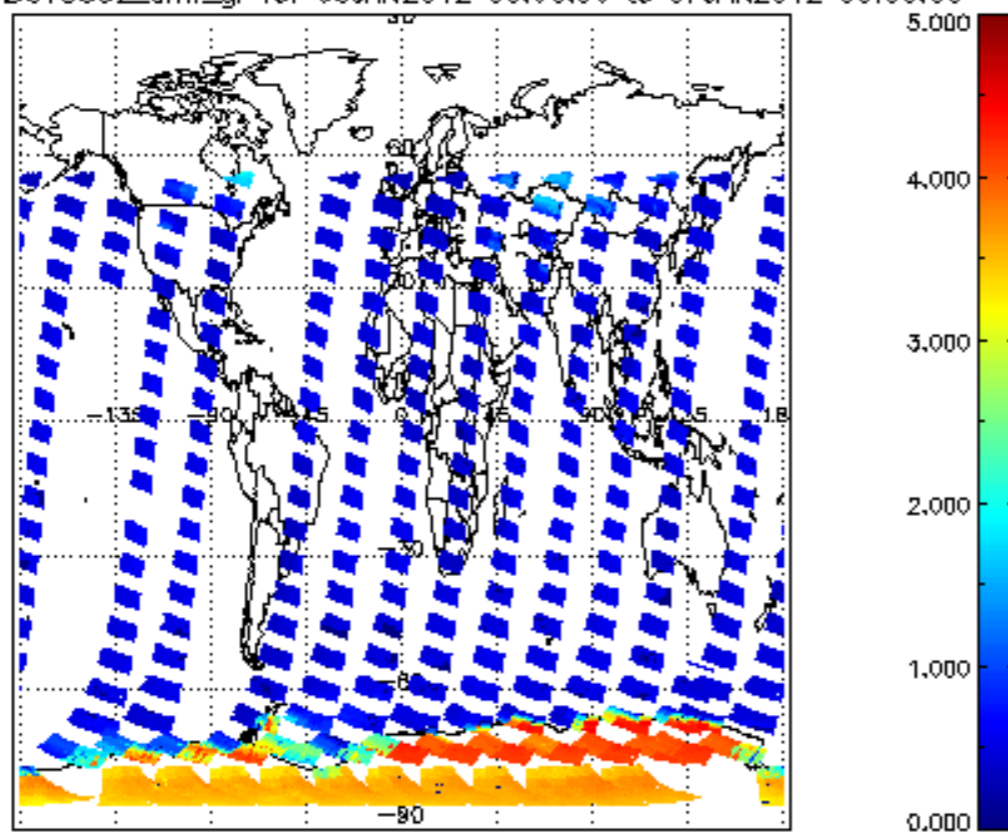
SCIOL2P\_NADUV5S02\_vcd for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



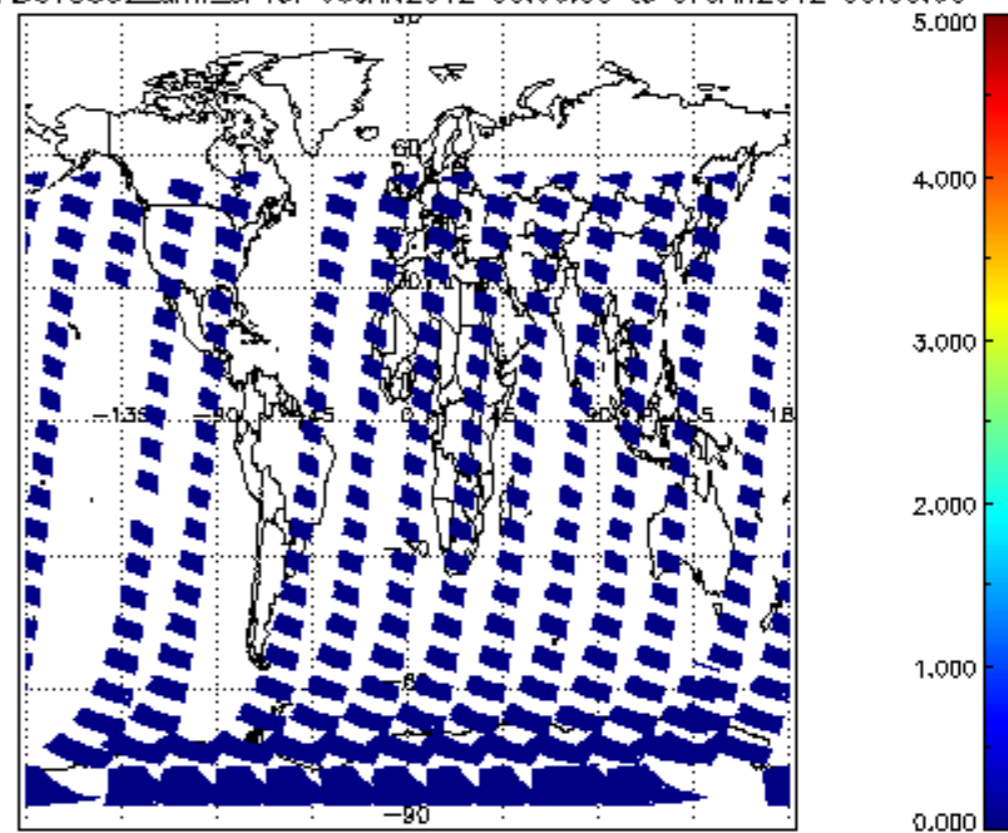
SCIOL2P\_NADUV5S02\_vcd\_err for 06JAN2012 00:00:00 to 07JAN2012 00:00:00

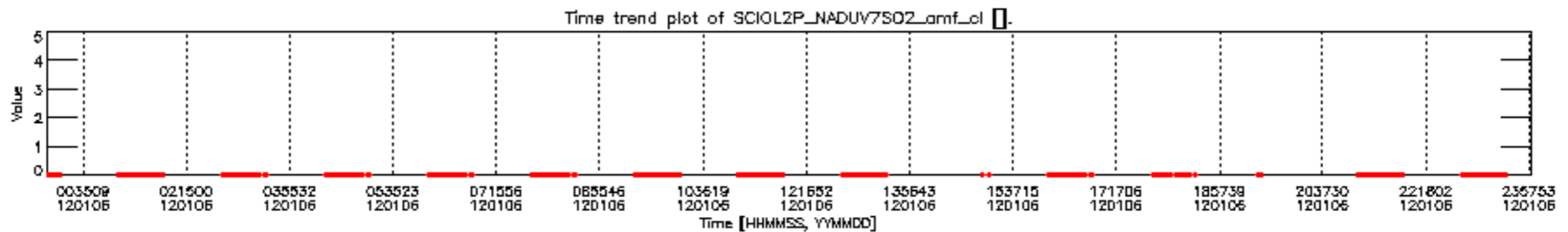
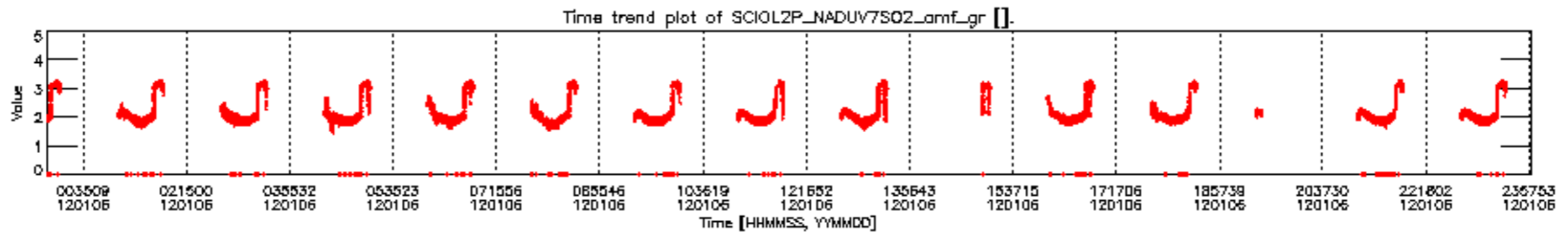
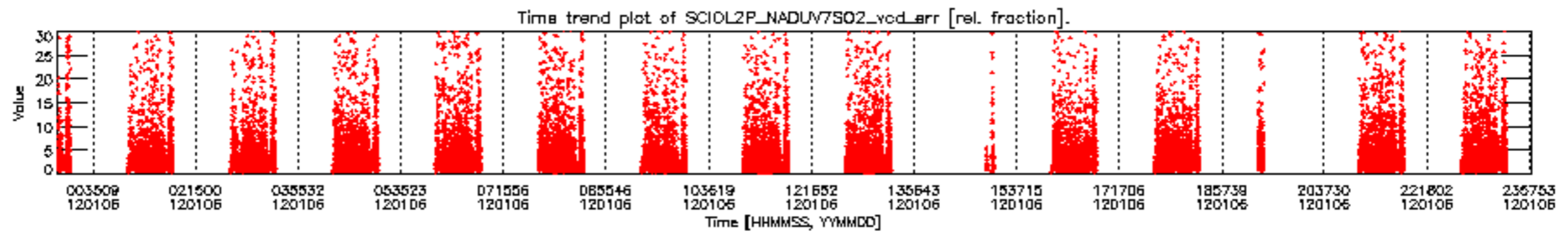
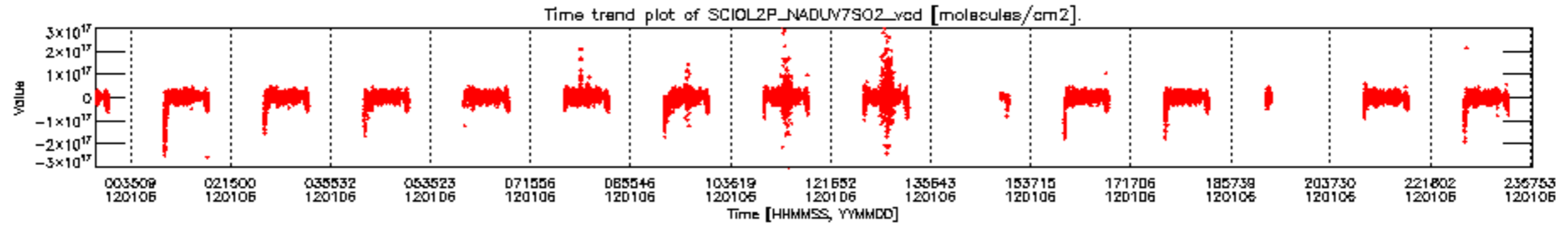


SCIOL2P\_NADUV5S02\_amf\_gr for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



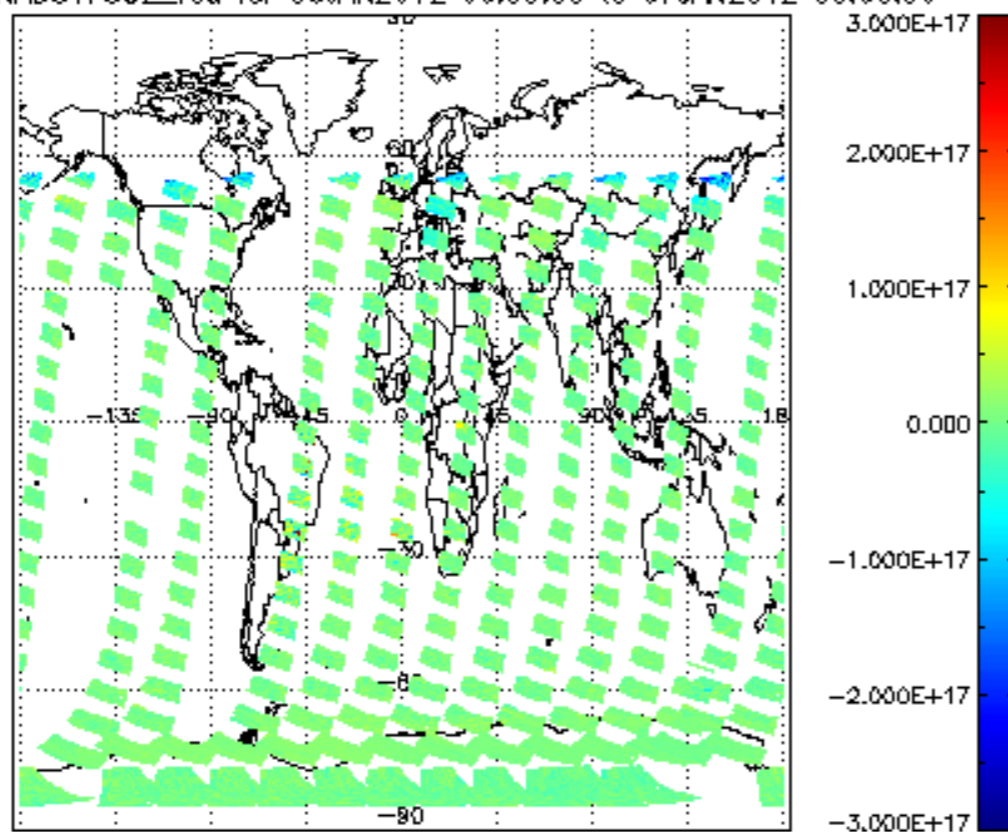
SCIOL2P\_NADUV5S02\_amf\_sl for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



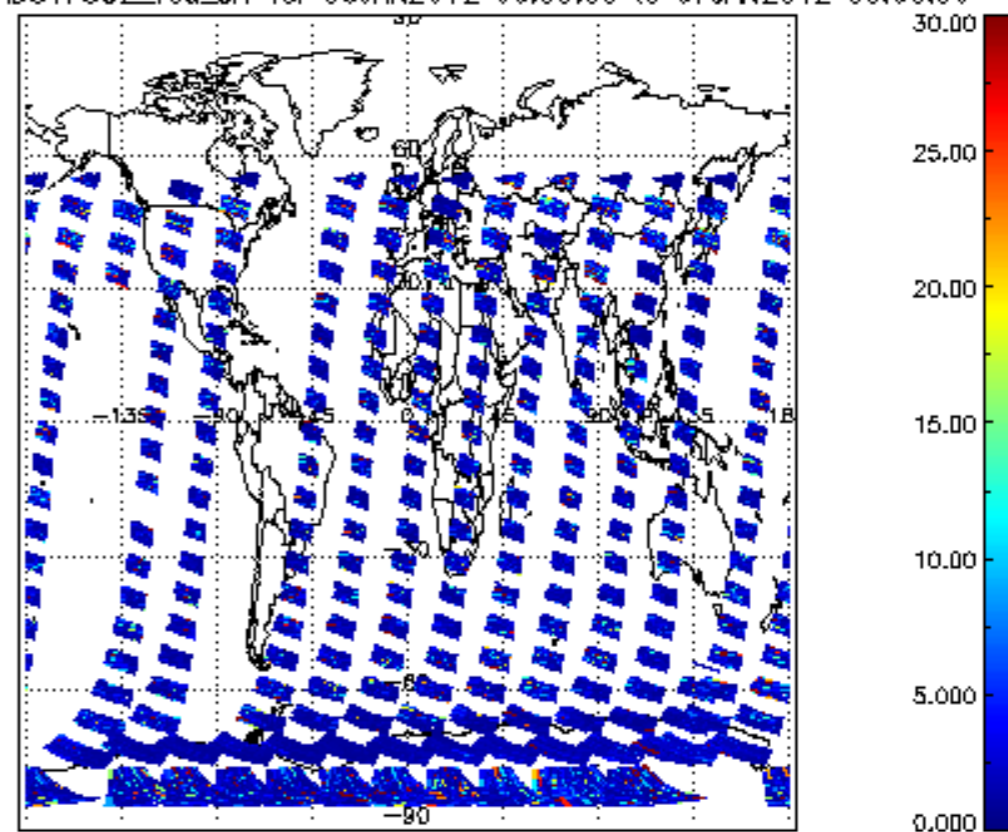




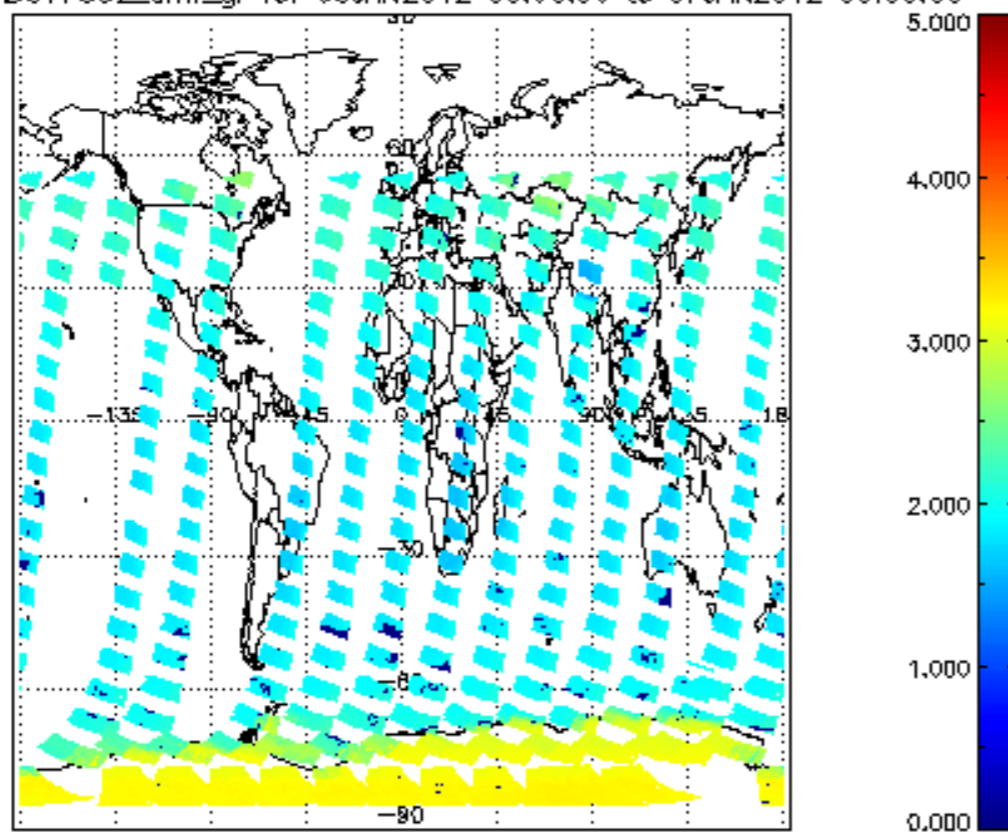
SCIOL2P\_NADUV7S02\_vcd for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



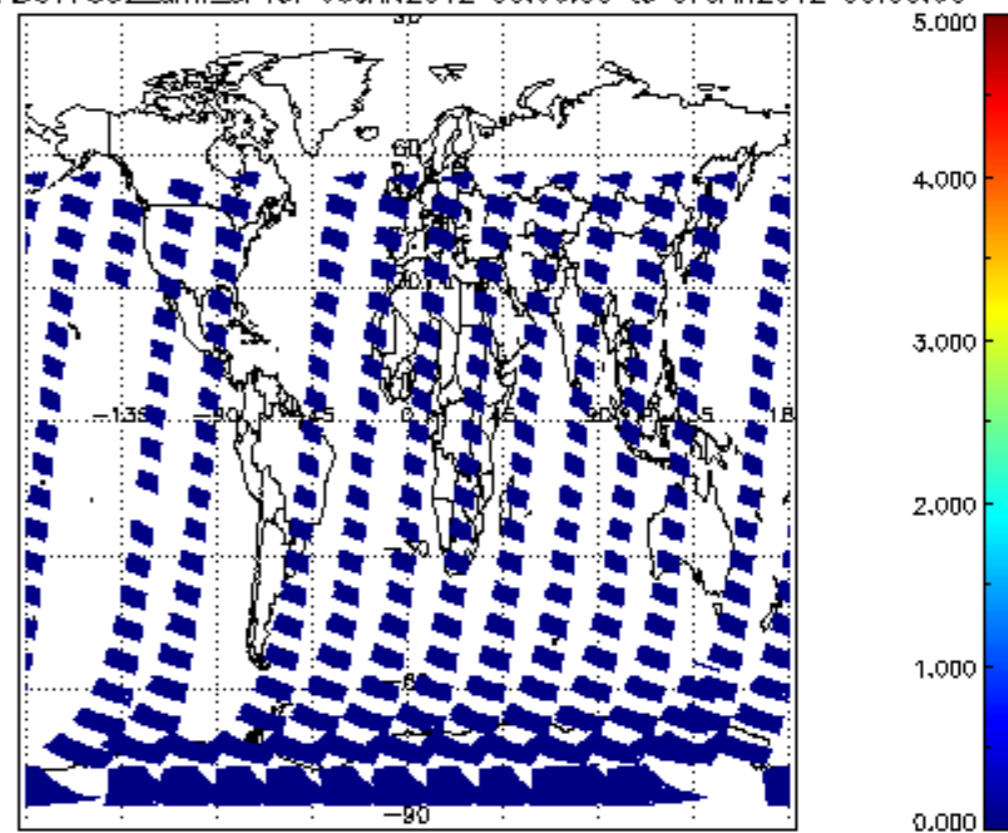
SCIOL2P\_NADUV7S02\_vcd\_err for 06JAN2012 00:00:00 to 07JAN2012 00:00:00

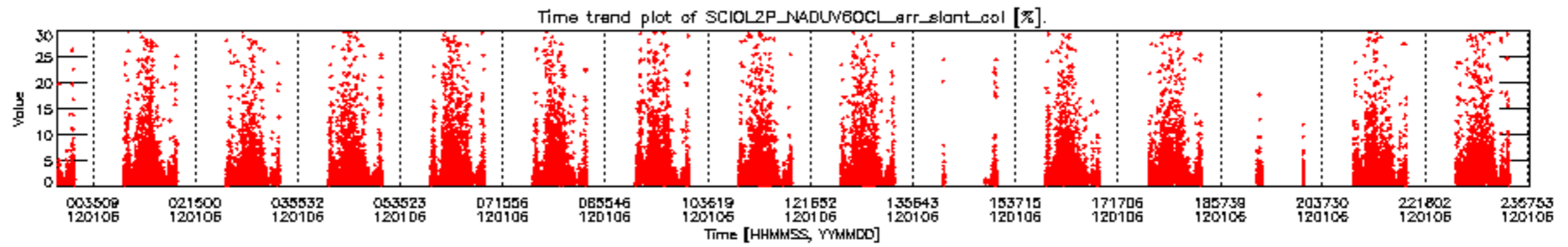
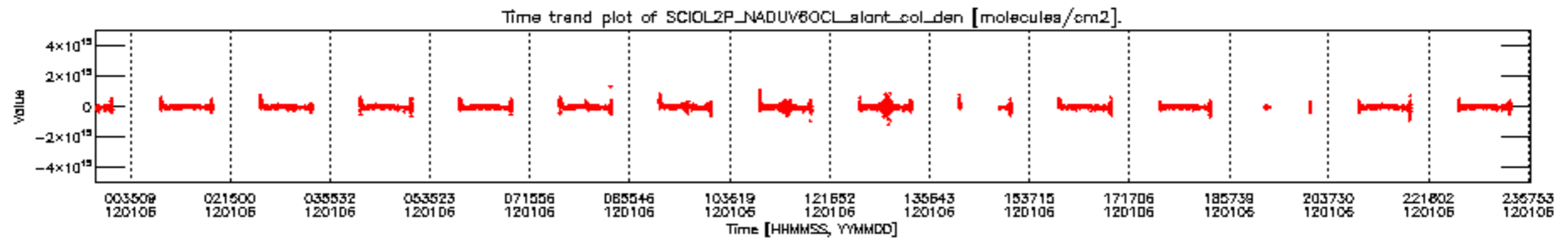


SCIOL2P\_NADUV7S02\_amf\_gr for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



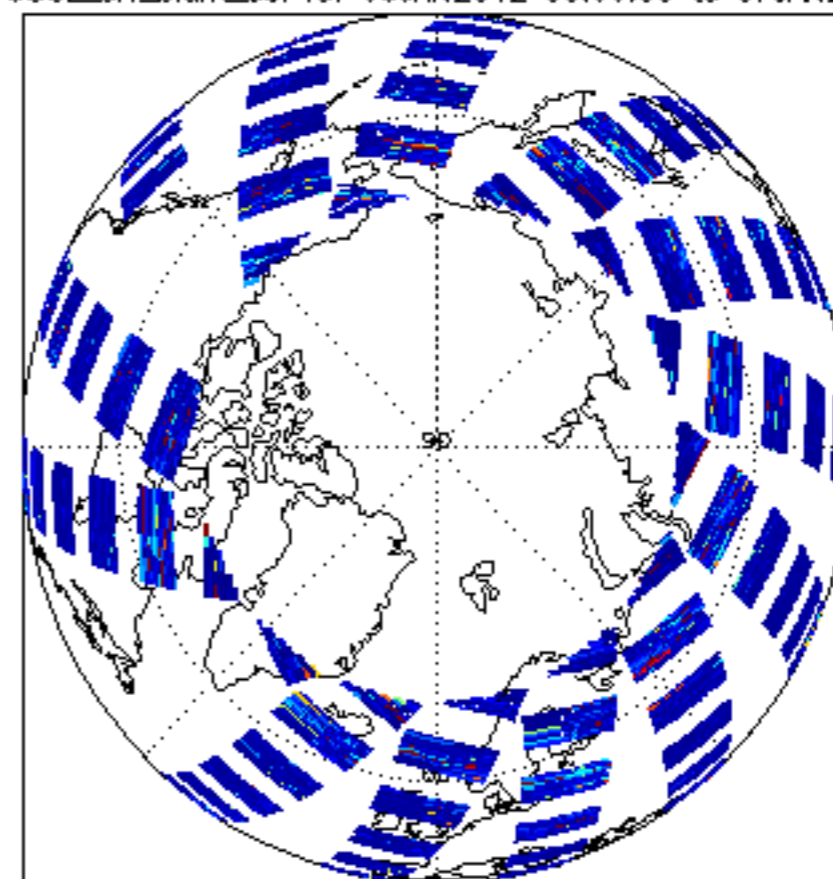
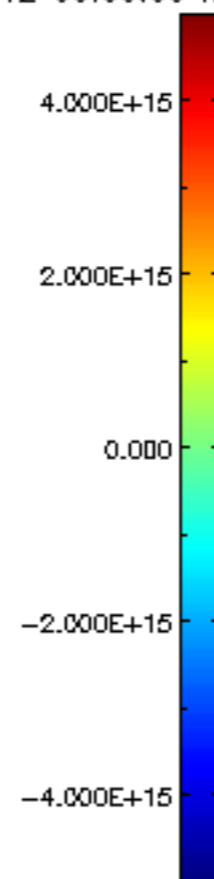
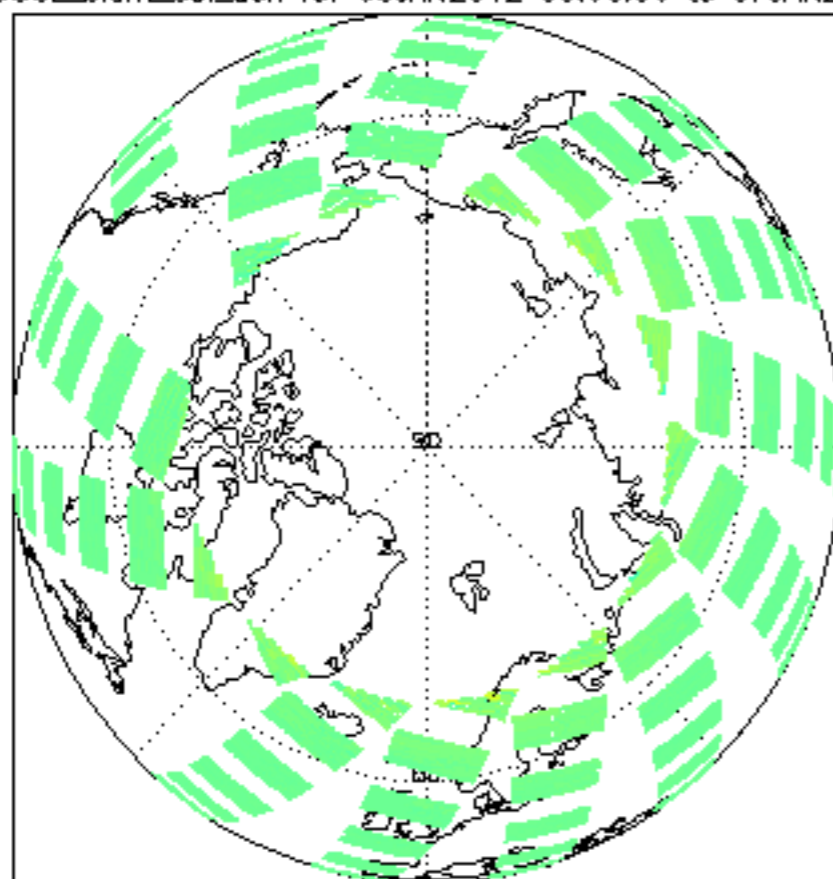
SCIOL2P\_NADUV7S02\_amf\_cl for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



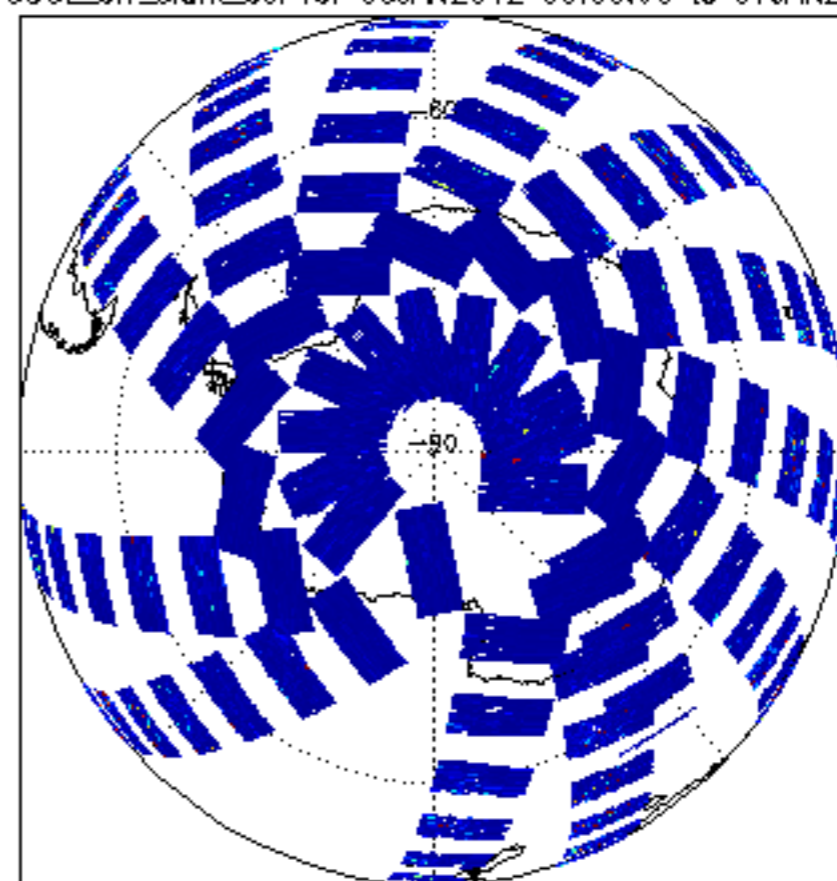
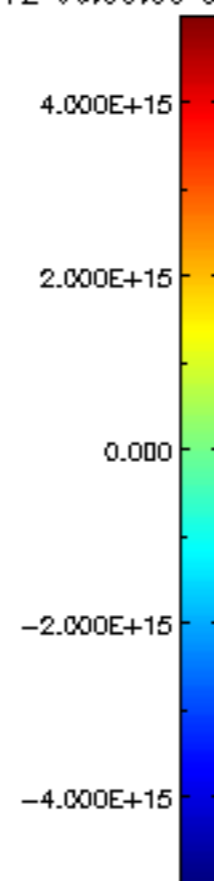
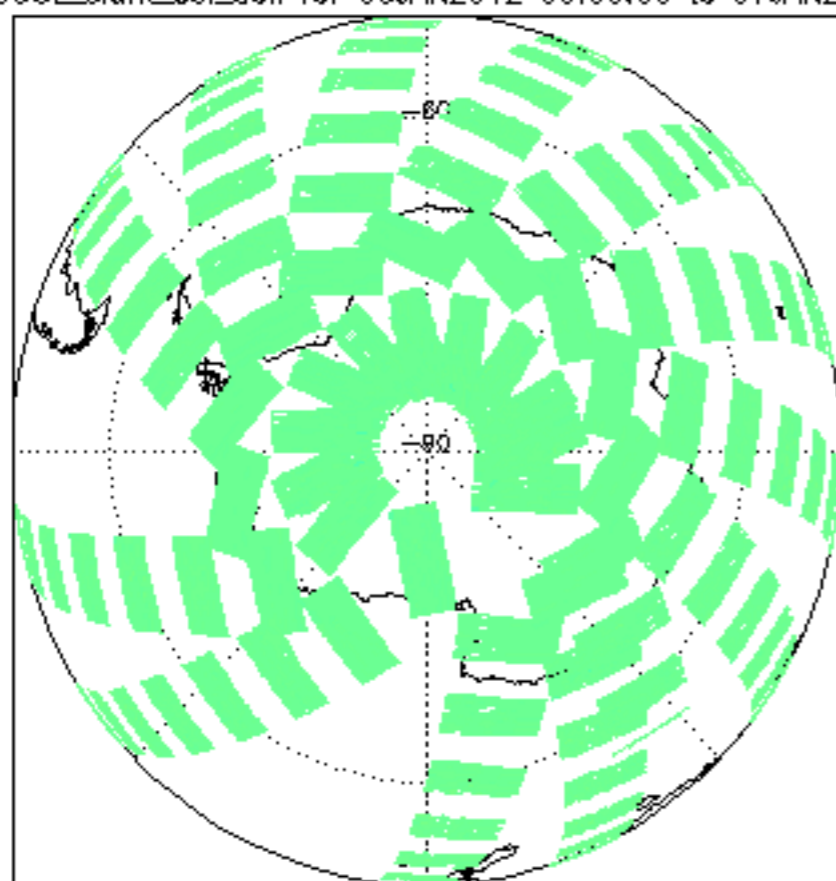




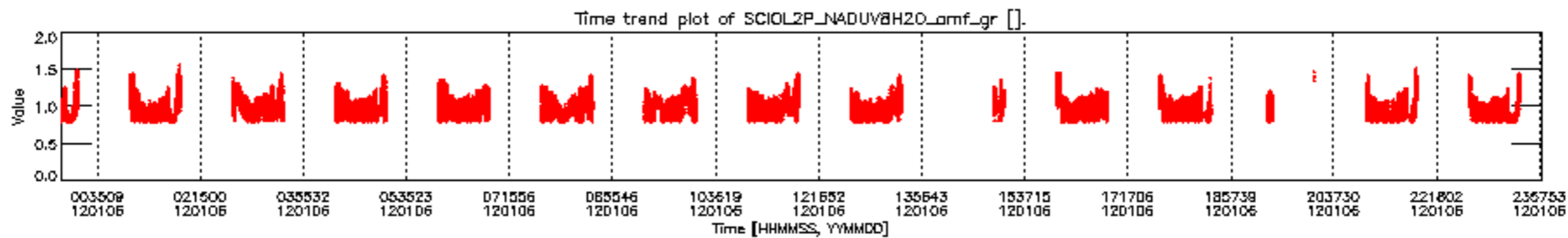
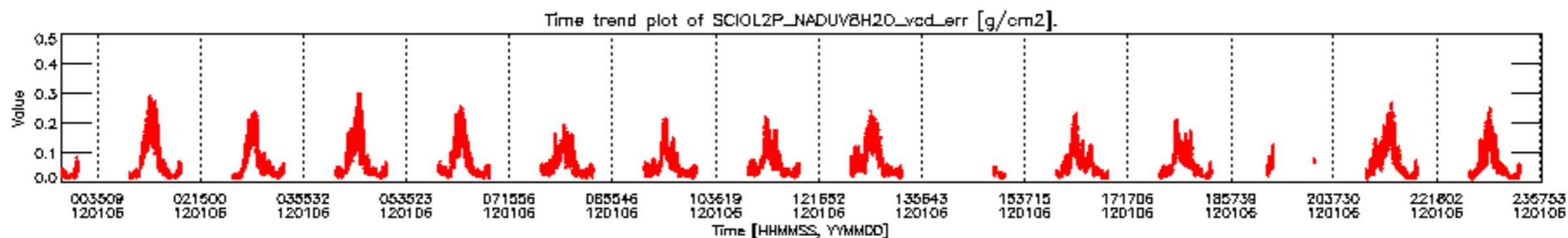
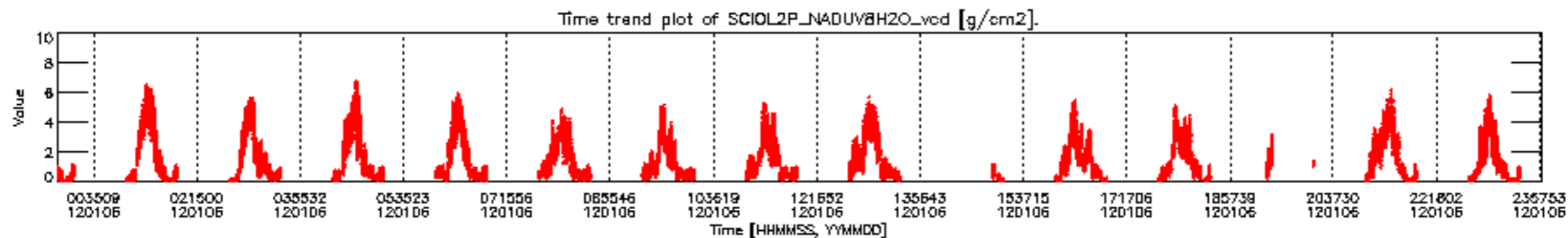
ICIOL2P\_NADUV60CL\_slant\_col\_den for 06JAN2012 00:00:00 to 07JAN2012 00:00:00 np;ICIOL2P\_NADUV60CL\_err\_slant\_col for 06JAN2012 00:00:00 to 07JAN2012 00:00:00 np



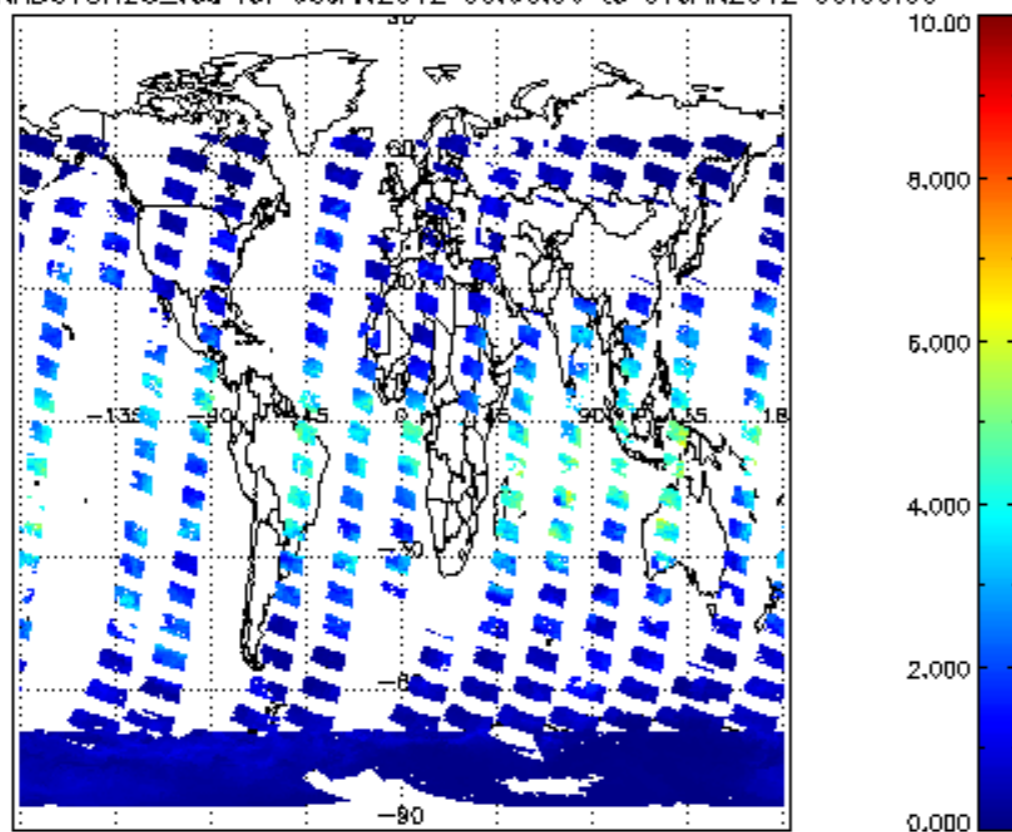
iCIOL2P\_NADUV6OCL\_slant\_col\_den for 06JAN2012 00:00:00 to 07JAN2012 00:00:00 sp iCIOL2P\_NADUV6OCL\_err\_slant\_col for 06JAN2012 00:00:00 to 07JAN2012 00:00:00 sp



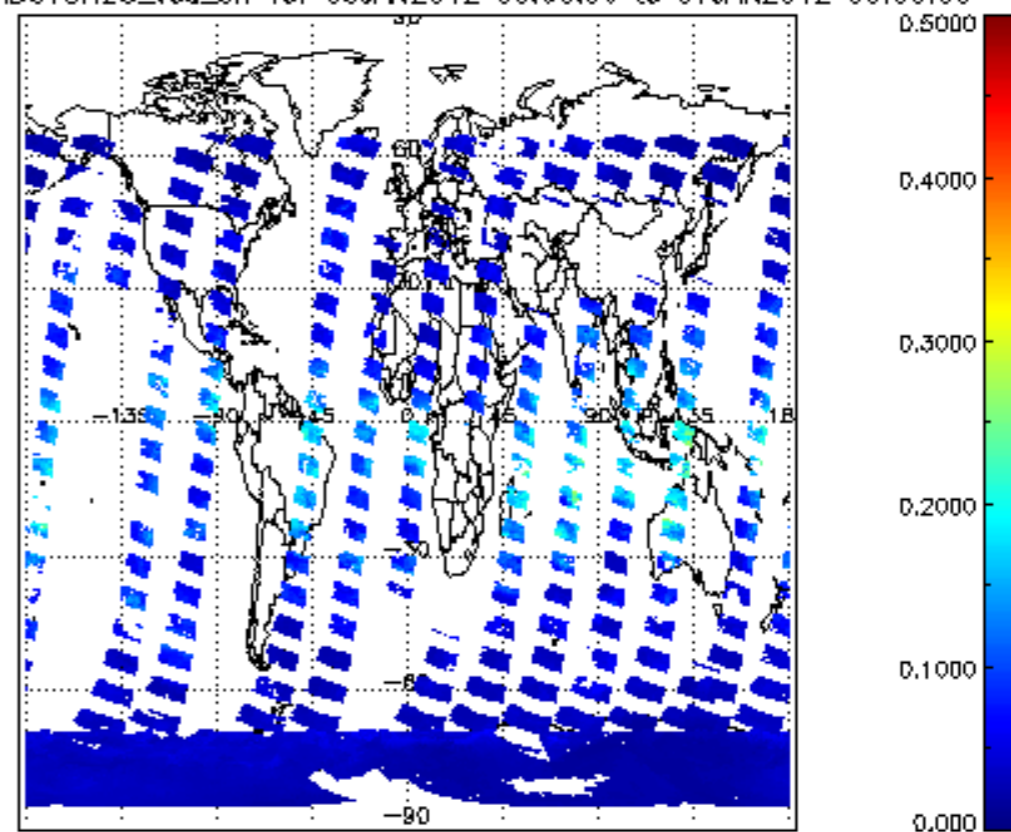




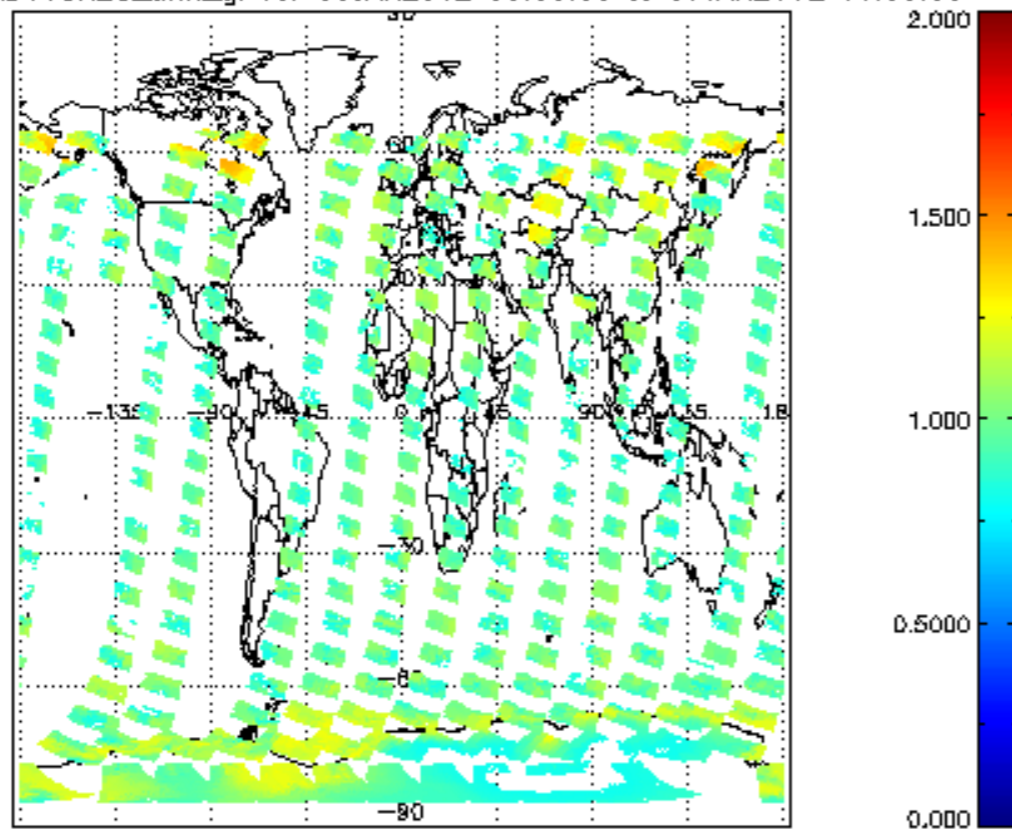
SCIOL2P\_NADUV8H20\_vcd for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



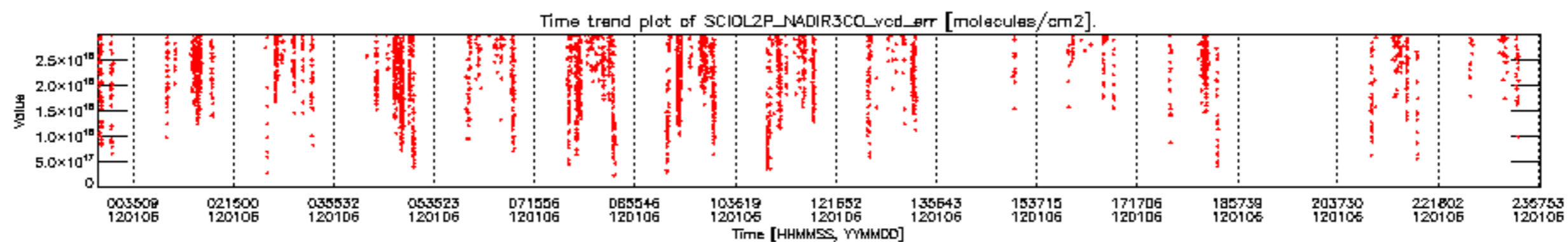
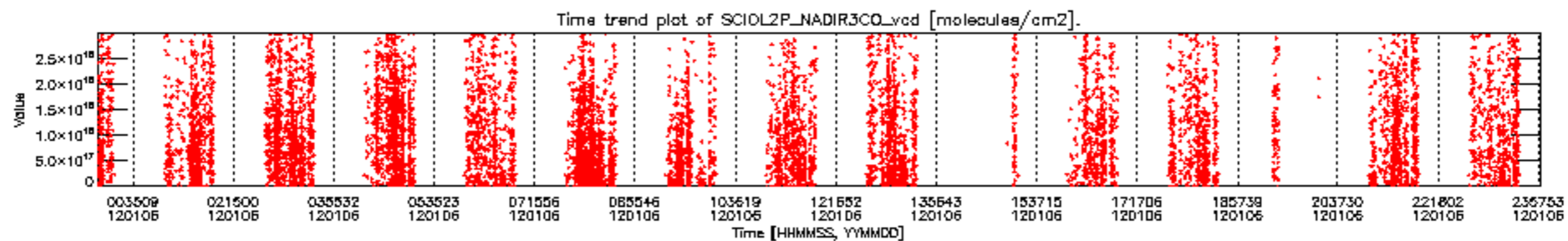
SCIOL2P\_NADUV8H20\_vcd\_err for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



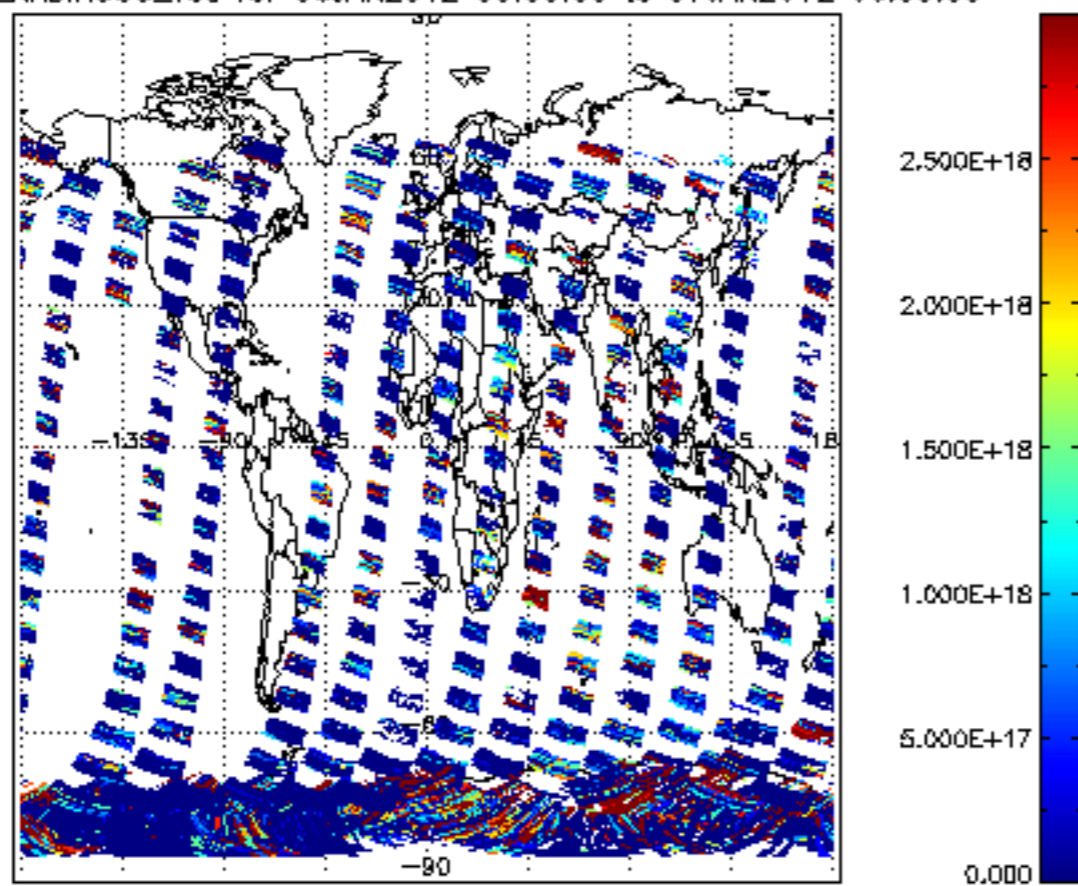
SCIOL2P\_NADUV8H20\_amf\_gr for 06JAN2012 00:00:00 to 07JAN2012 00:00:00



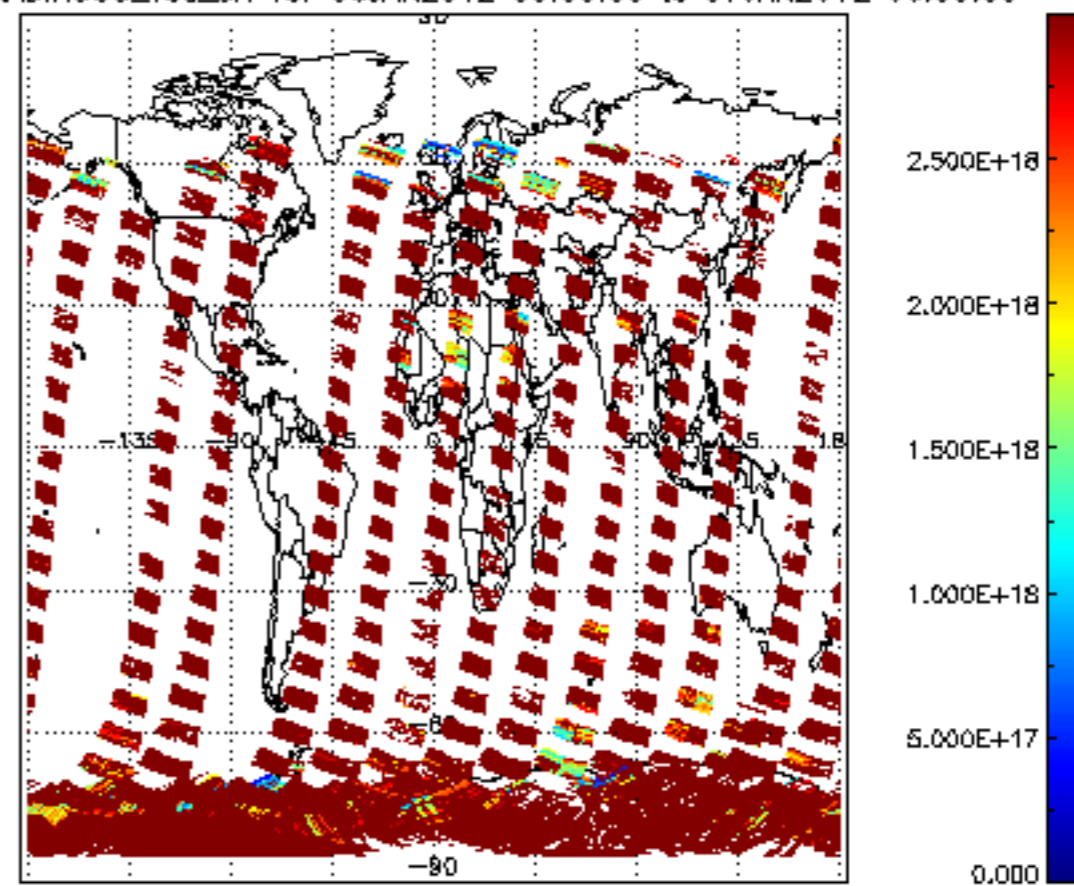




SCIOL2P\_NADIR3CO\_vcd for 06JAN2012 00:00:00 to 07JAN2012 00:00:00

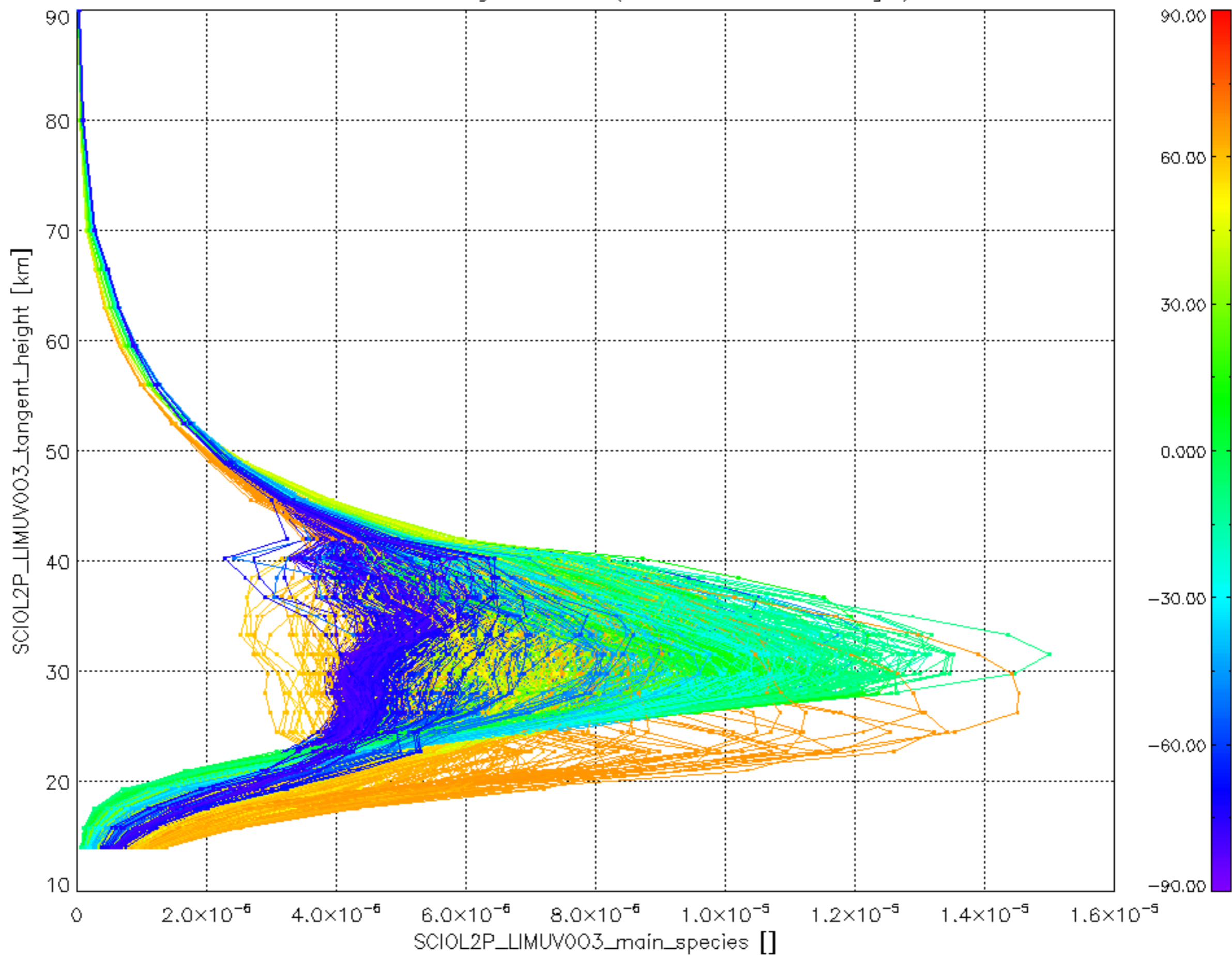


SCIOL2P\_NADIR3CO\_vcd\_err for 06JAN2012 00:00:00 to 07JAN2012 00:00:00

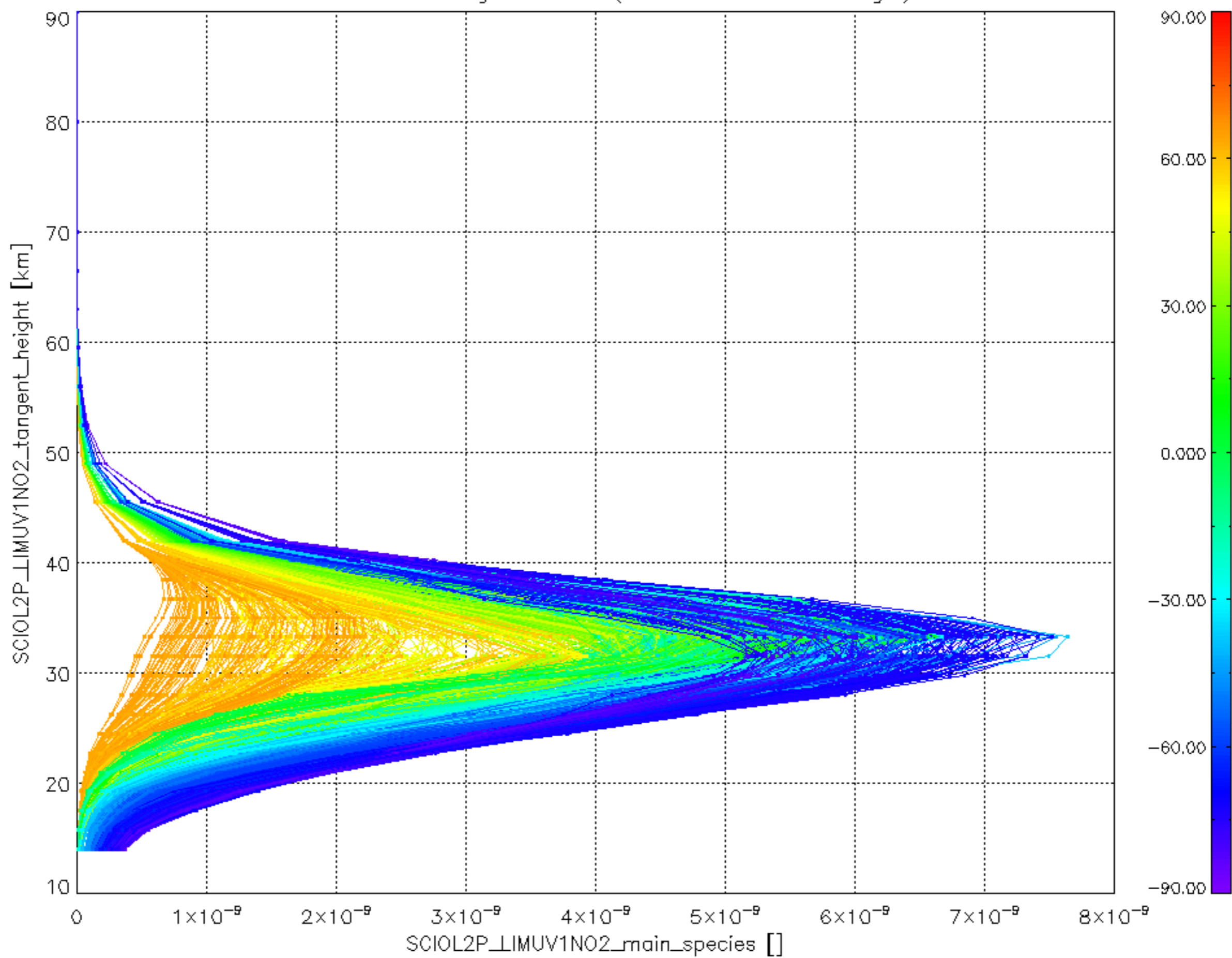




Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



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).

