

## 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	09FEB2012 03:15:09
Data source version	SCIA-OL/5.02-W
Processing scope for products	27JAN2012 00:00:00 to 28JAN2012 00:00:00
Start time of first product within scope	26JAN2012 23:47:13
Stop time of last product within scope	27JAN2012 19:08:55
Total number of level 2 products	12
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__2PWDPA20120126_234713_000035303111_00088_51826_3275.N1</a>	26JAN2012 23:47:13	27JAN2012 00:46:04	0	GOOD
1	<a href="#">SCI_OL__2PWDPA20120127_012726_000035163111_00089_51827_3272.N1</a>	27JAN2012 01:27:26	27JAN2012 02:26:03	0	GOOD
2	<a href="#">SCI_OL__2PWDPA20120127_030740_000035303111_00090_51828_3273.N1</a>	27JAN2012 03:07:40	27JAN2012 04:06:31	0	GOOD
3	<a href="#">SCI_OL__2PWDPA20120127_044754_000035163111_00091_51829_3274.N1</a>	27JAN2012 04:47:54	27JAN2012 05:46:30	0	GOOD
4	<a href="#">SCI_OL__2PWDPA20120127_062807_000035303111_00092_51830_3276.N1</a>	27JAN2012 06:28:07	27JAN2012 07:26:58	0	GOOD

5	SCI_OL__2PWDP A20120127_080821_000035163111_00093_51831_3277.N1	27JAN2012 08:08:21	27JAN2012 09:06:57	0	GOOD
6	SCI_OL__2PWDP A20120127_094834_000035303111_00094_51832_3278.N1	27JAN2012 09:48:34	27JAN2012 10:47:25	0	GOOD
7	SCI_OL__2PWDP A20120127_112848_000035163111_00095_51833_3280.N1	27JAN2012 11:28:48	27JAN2012 12:27:24	0	GOOD
8	SCI_OL__2PWDP A20120127_130901_000035303111_00096_51834_3281.N1	27JAN2012 13:09:01	27JAN2012 14:07:52	0	GOOD
9	SCI_OL__2PWDP A20120127_144915_000035163111_00097_51835_3282.N1	27JAN2012 14:49:15	27JAN2012 15:47:51	0	GOOD
10	SCI_OL__2PWDP A20120127_162928_000035303111_00098_51836_3283.N1	27JAN2012 16:29:28	27JAN2012 17:28:19	0	GOOD
11	SCI_OL__2PWDP A20120127_181048_000034863111_00099_51837_3284.N1	27JAN2012 18:10:48	27JAN2012 19:08:55	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: 130000

Total number of cloud data DSRs with good quality flag (=0): 130000 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	130000	0.0000	0.0000	0.0000	0.0000	0.0000	
INTEGR_TIME	130000	0.16500	0.12500	0.12500	0.25000	0.058310	s
CL_FRAC	130000	0.43974	0.42727	0.0000	1.0000	0.30377	
CL_FRAC_ERR	130000	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	130000	5.2800	4.0000	4.0000	8.0000	1.8659	
PMD_READ_CL[0]	130000	0.51242	0.0000	0.0000	8.0000	1.3955	-
PMD_READ_CL[1]	130000	1.1100	0.0000	0.0000	8.0000	2.4425	-
CL_TOP_HEIGHT	103080	3.9621	3.1420	0.0000	17.000	3.6483	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	103080	52.993	42.609	0.0000	101.00	40.814	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	130000	11100000	11100000	11100000	11100000	0.0000	
CLOUD_FLAGS	130000	11001100	11000100	11000000	11100000	3485.4	
AERO_ABSO_IND	130000	0.087769	0.0000	0.0000	3.7678	0.28813	
AERO_IND_DIAG	130000	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	130000	01010100	00000000	00000000	11000000	24411.	

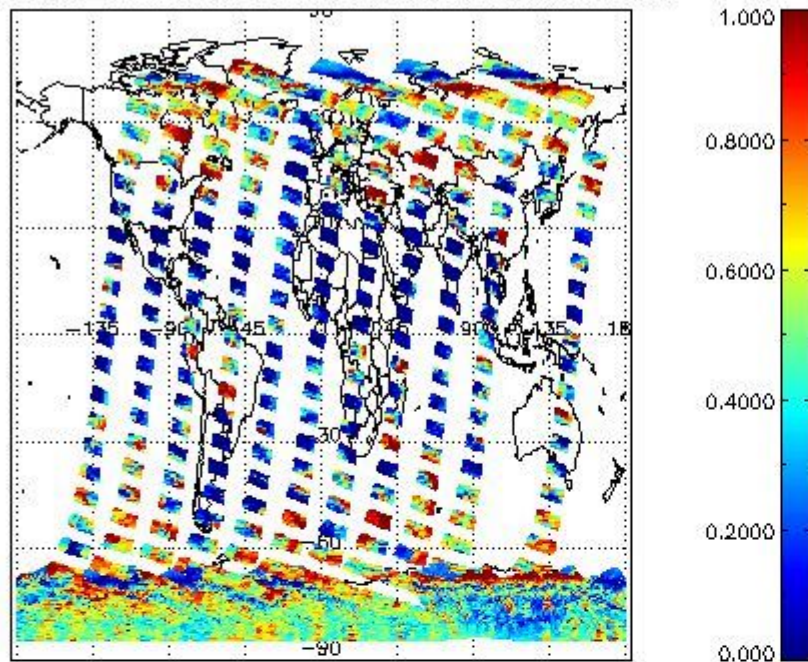
#### Time and geolocation plots:

Plots are available for the following parameters:

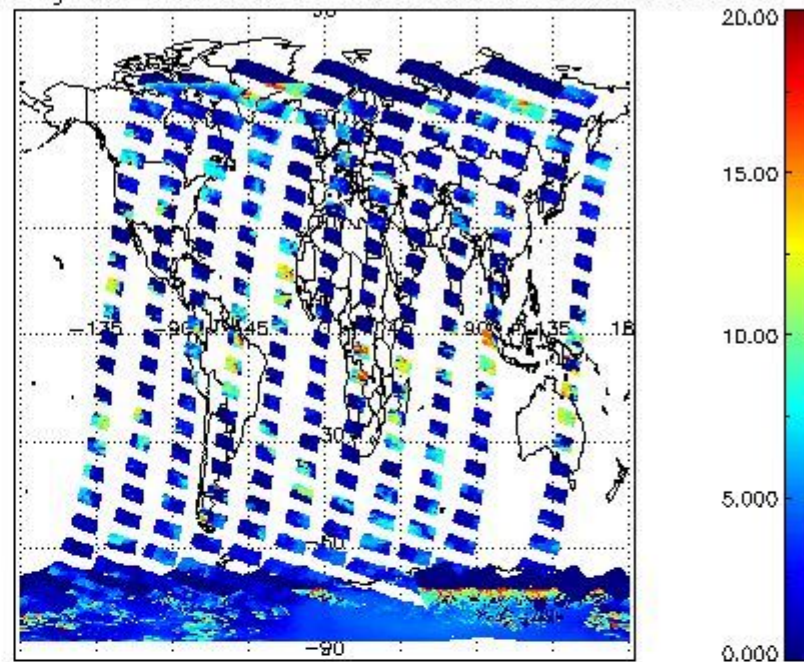
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



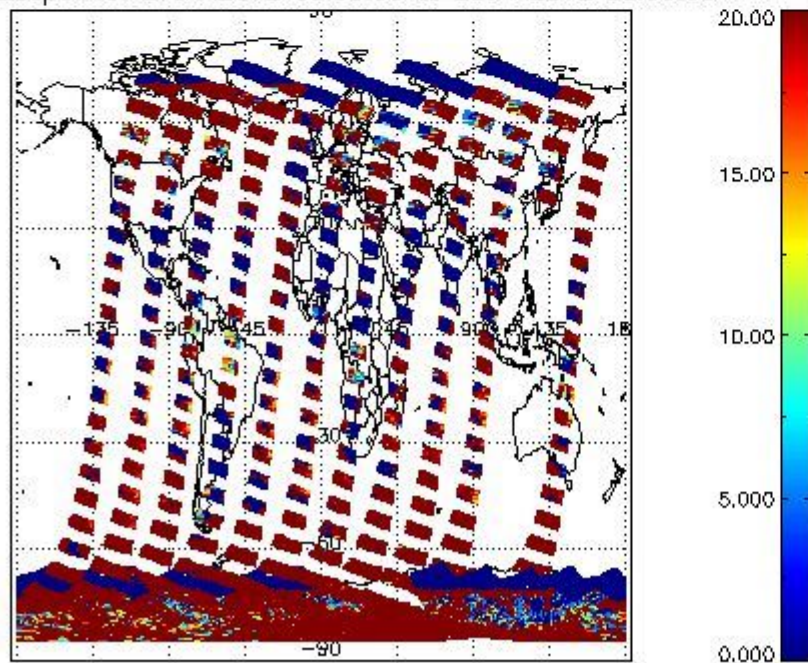
cL\_frac for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



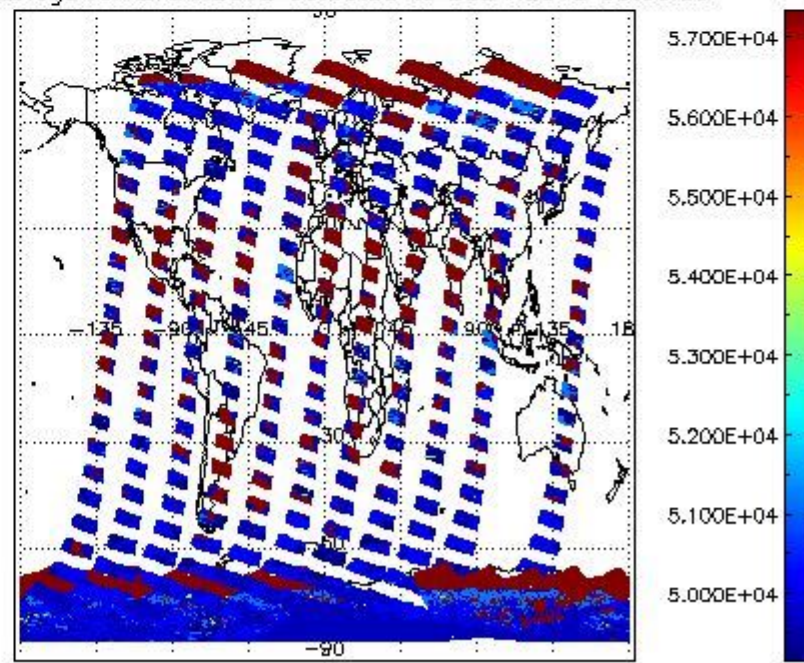
cL\_top\_height for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



cLopt\_depth for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



cloud\_flags for 27JAN2012 00:00:00 to 28JAN2012 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:

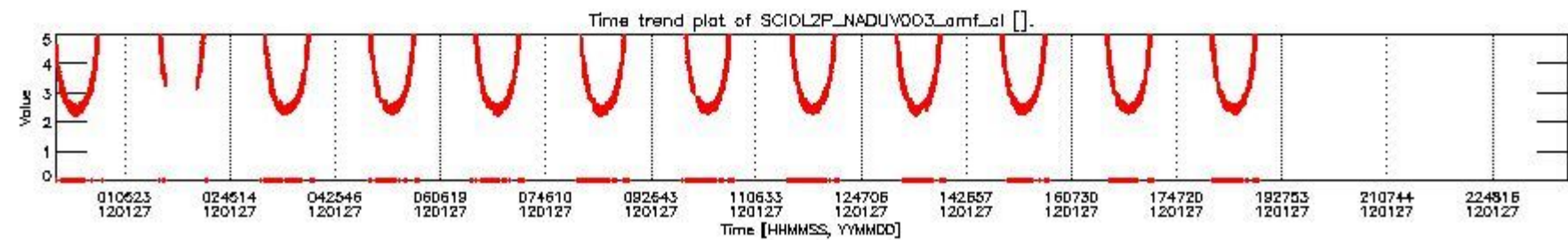
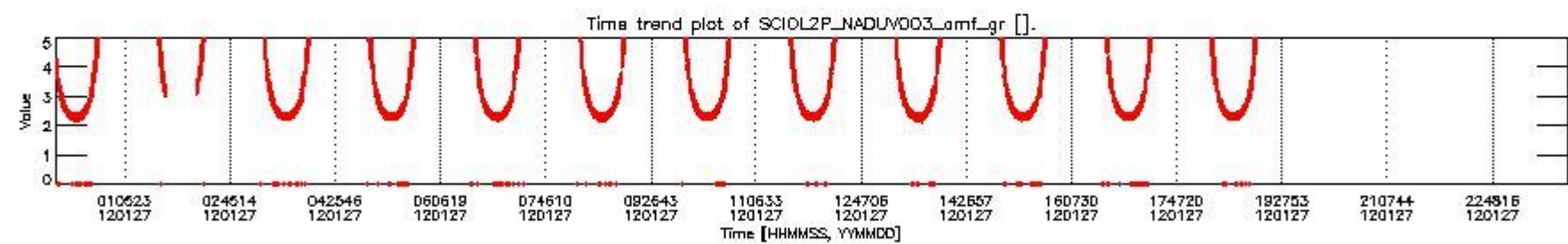
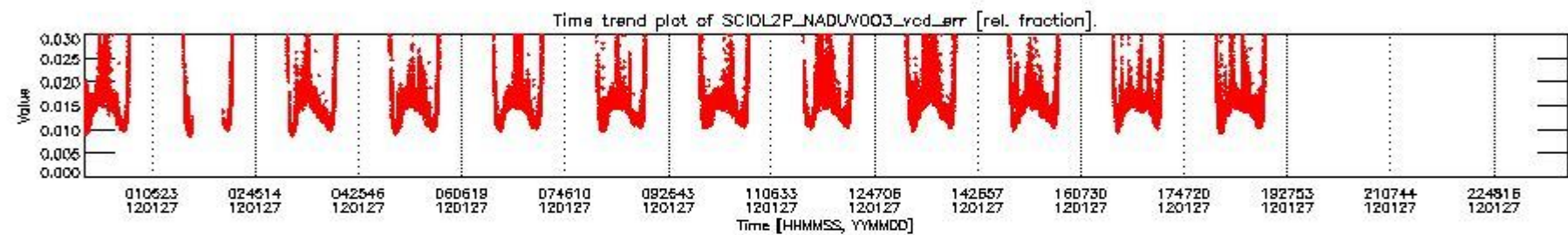
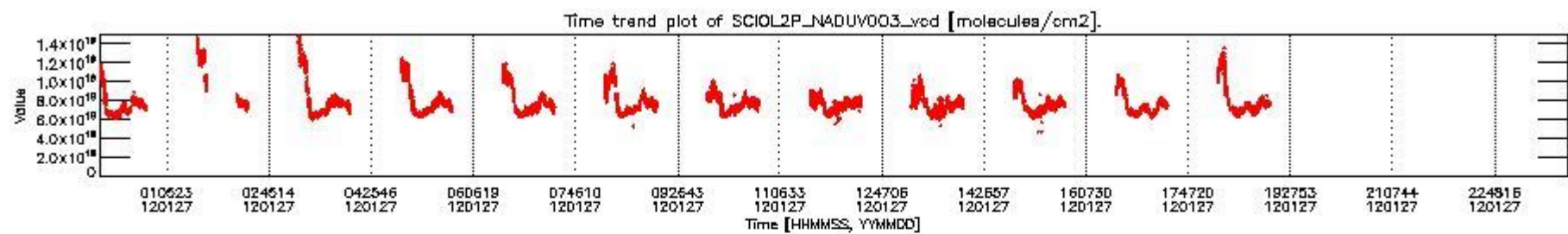
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

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.

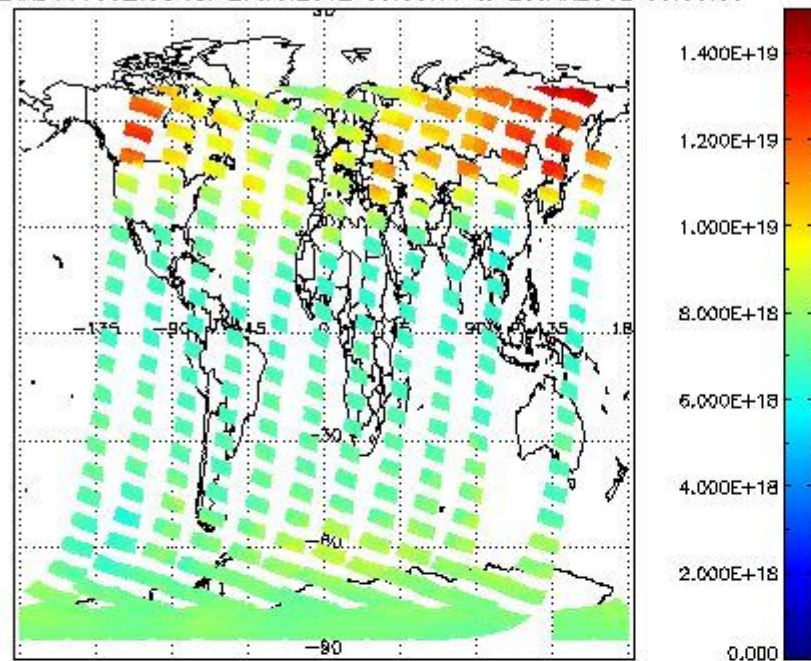
#### 2.2.2.1 O3 (UV0)



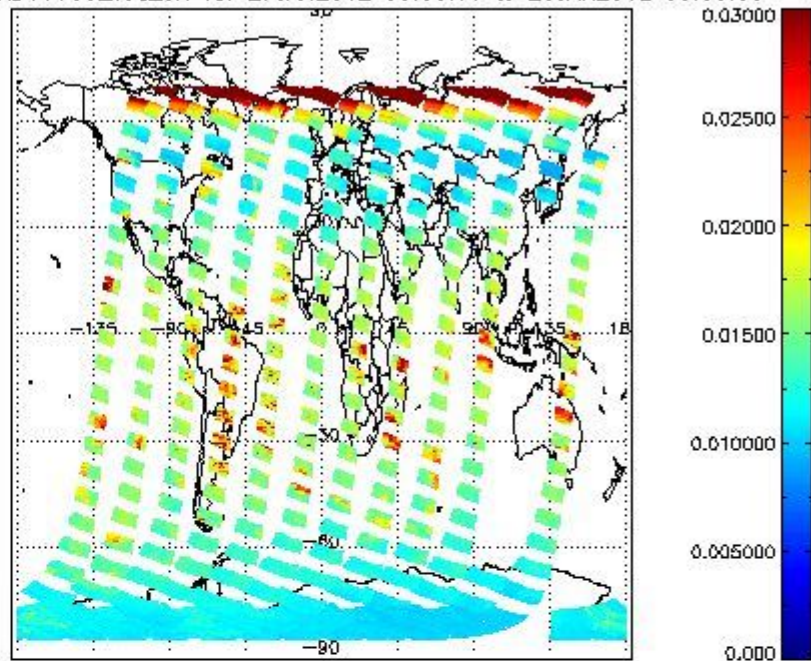




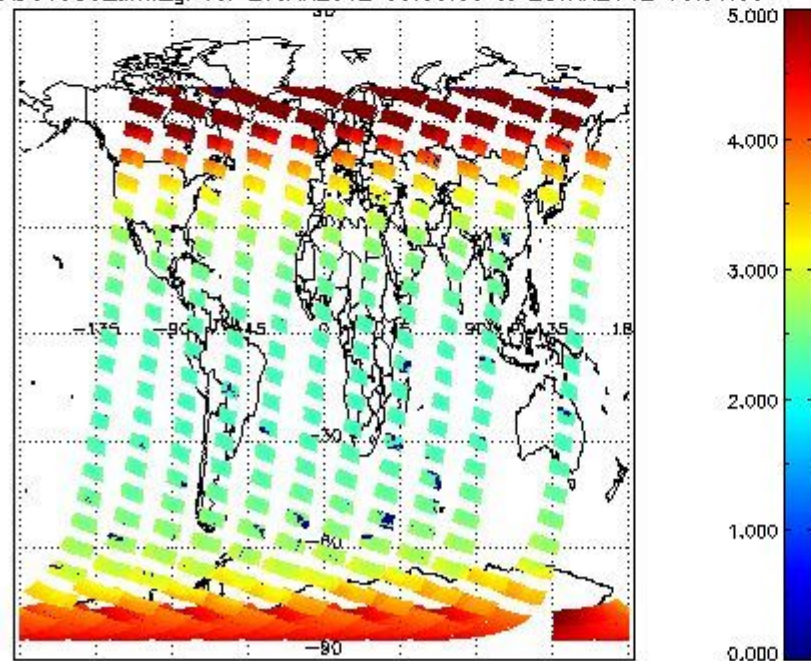
SCIOL2P\_NADUV003\_vcd for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



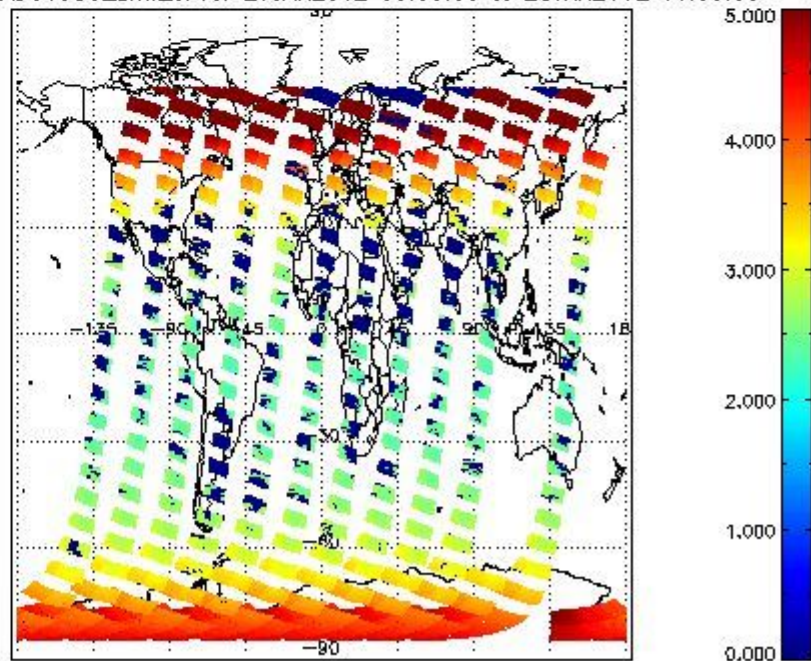
SCIOL2P\_NADUV003\_vcd\_err for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



SCIOL2P\_NADUV003\_amf\_gr for 27JAN2012 00:00:00 to 28JAN2012 00:00:00

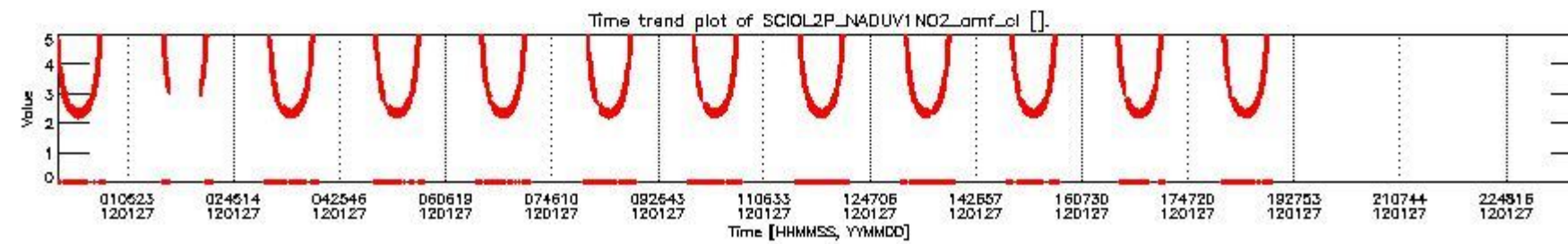
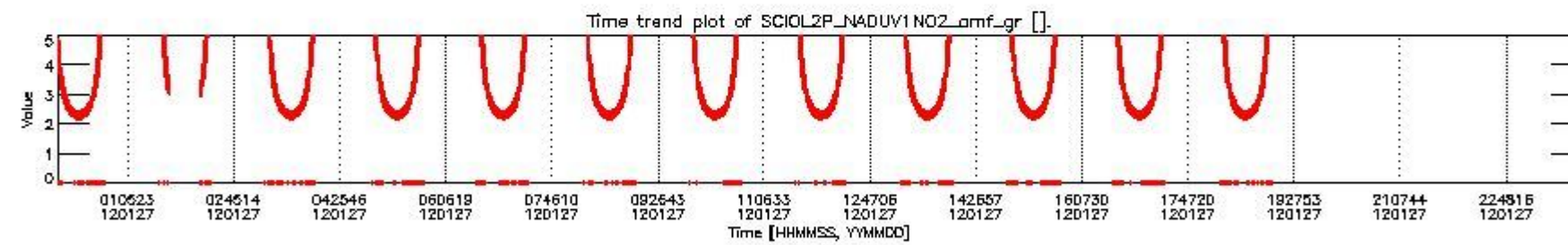
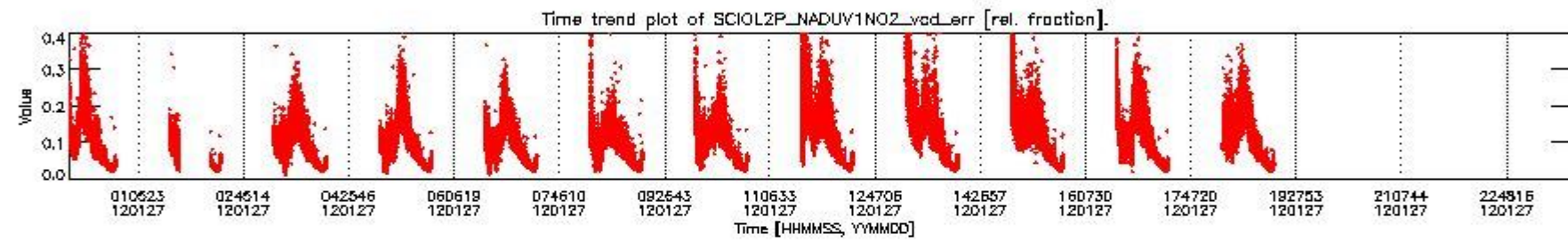
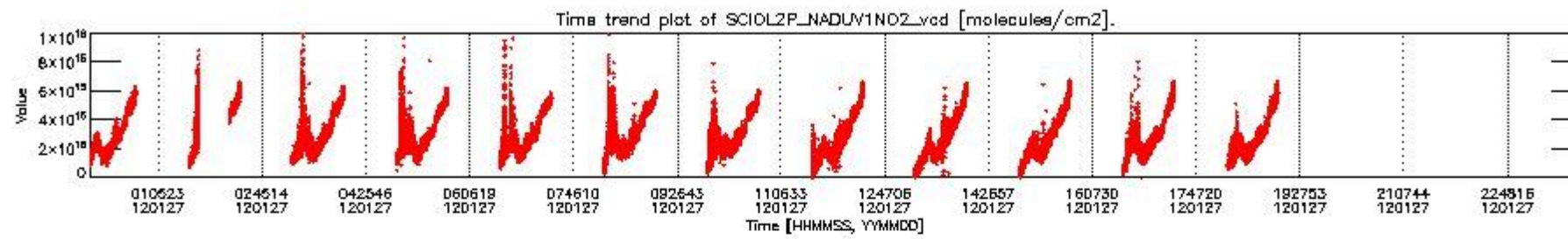


SCIOL2P\_NADUV003\_amf\_cl for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



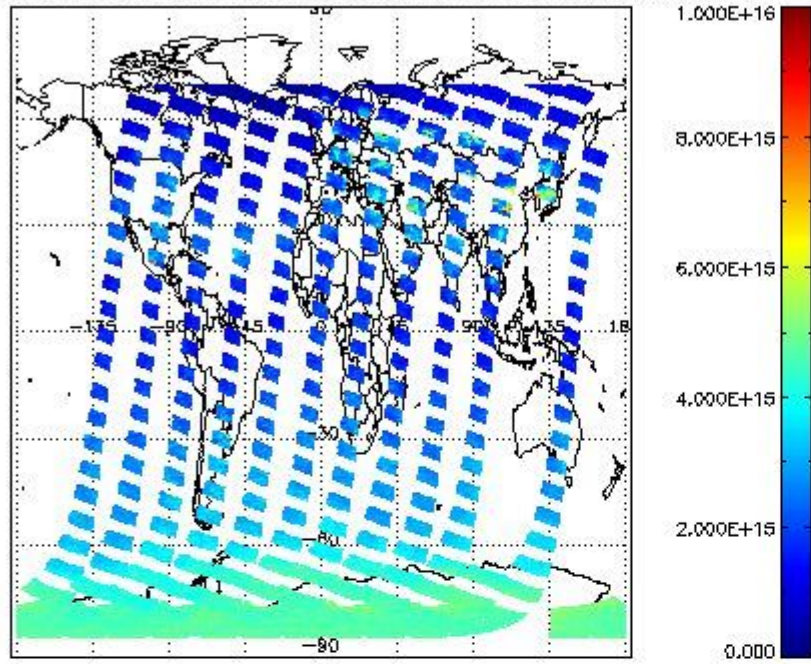
2.2.2.2 NO2 (UV1)



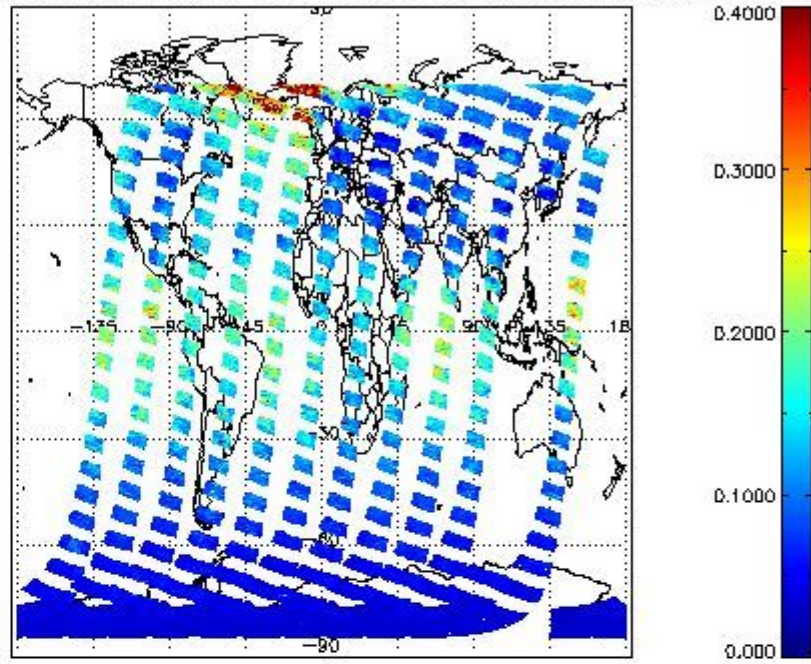




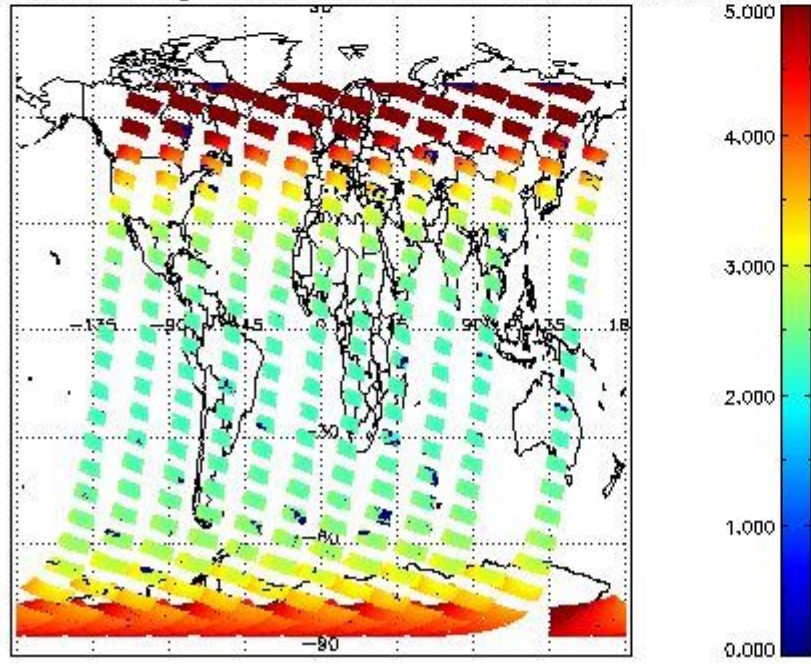
SCIOL2P\_NADUV1NO2\_vcd for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



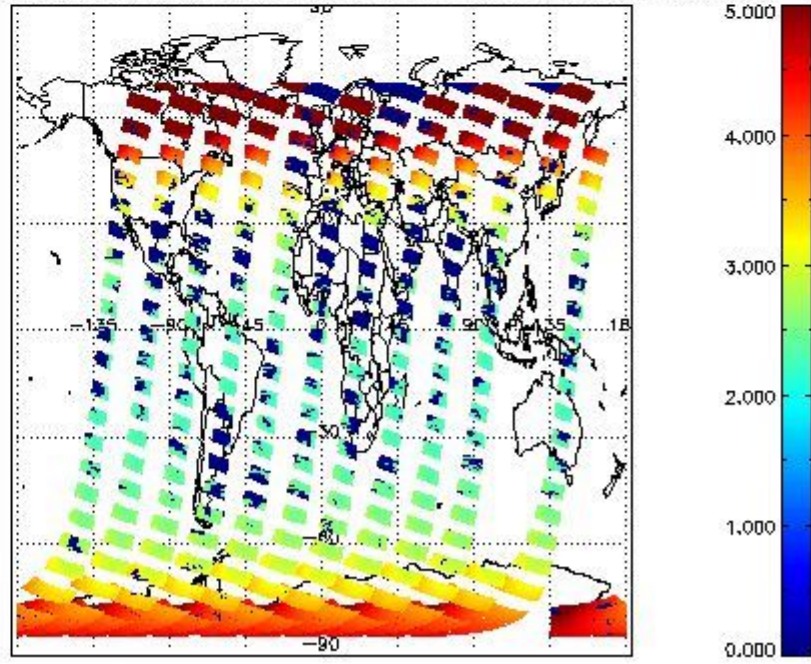
SCIOL2P\_NADUV1NO2\_vcd\_err for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 27JAN2012 00:00:00 to 28JAN2012 00:00:00

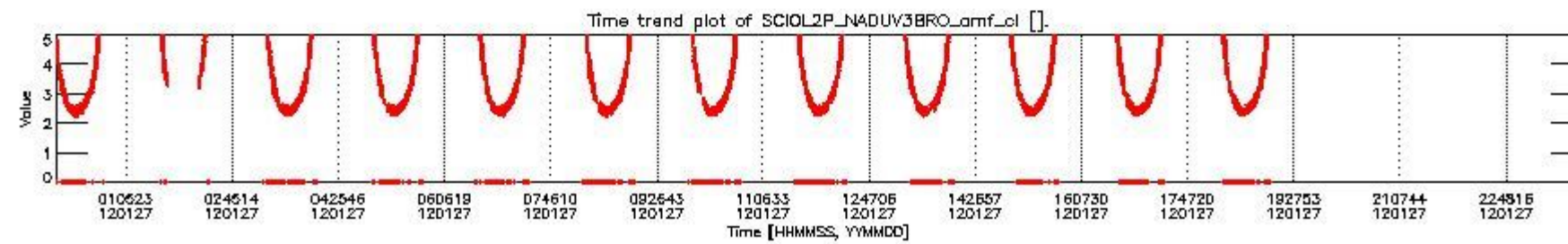
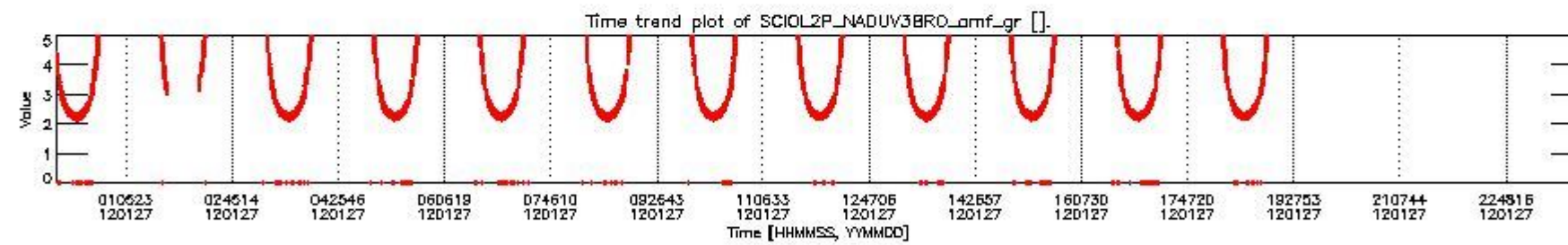
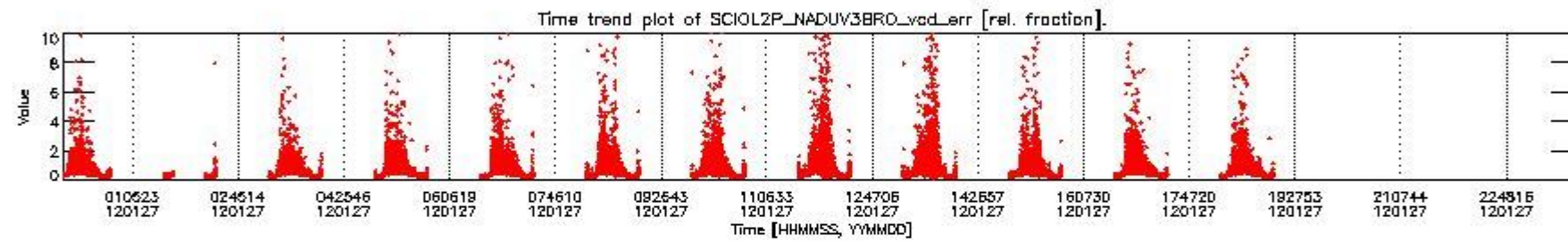
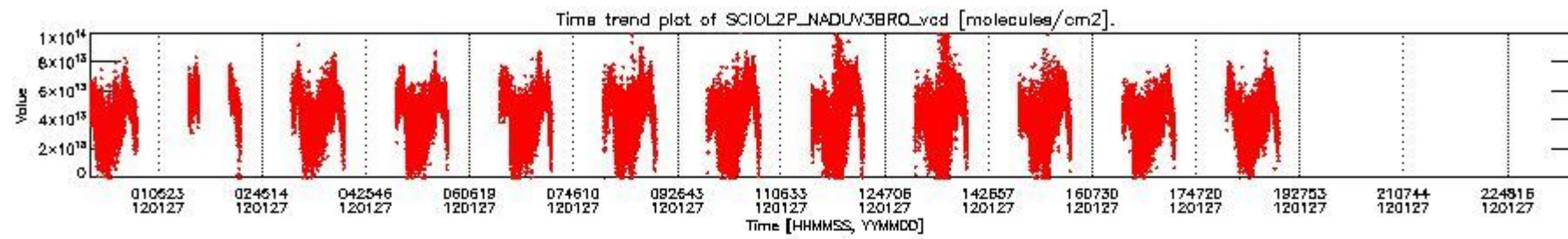


SCIOL2P\_NADUV1NO2\_amf\_cl for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



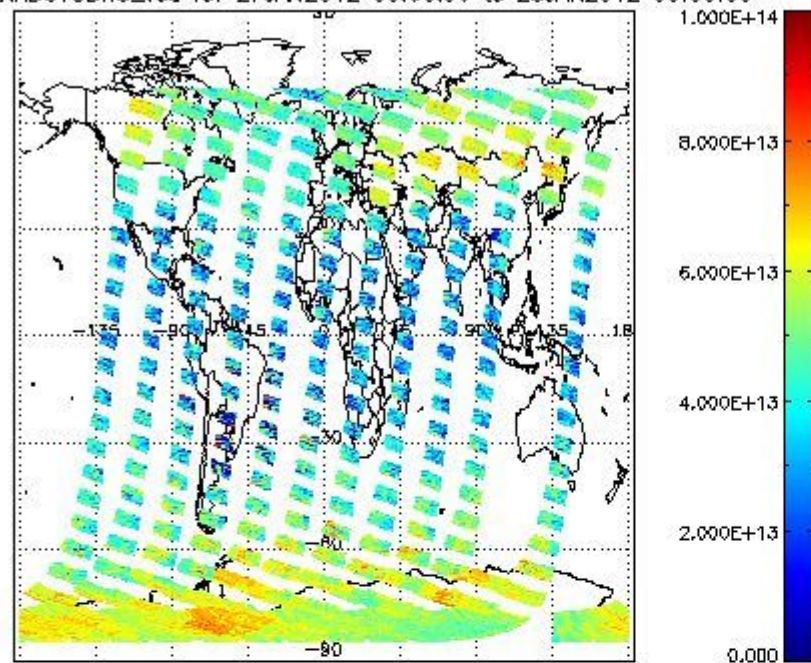
2.2.2.3 BrO (UV3)



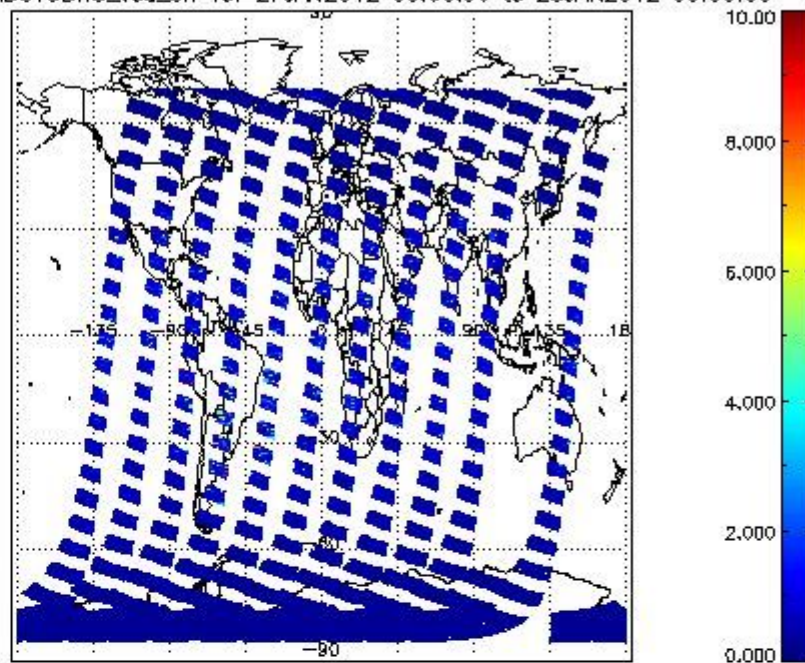




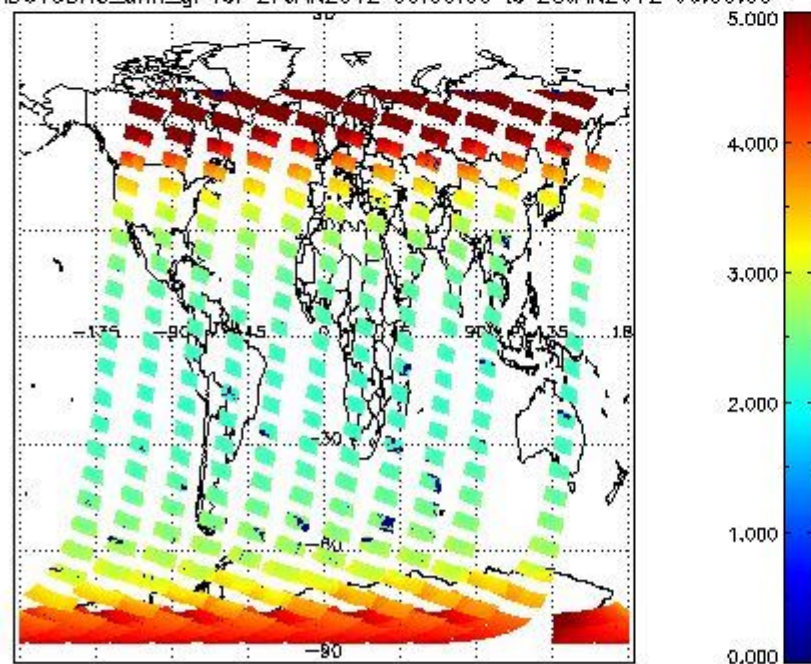
SCIOL2P\_NADUV3BRO\_vcd for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



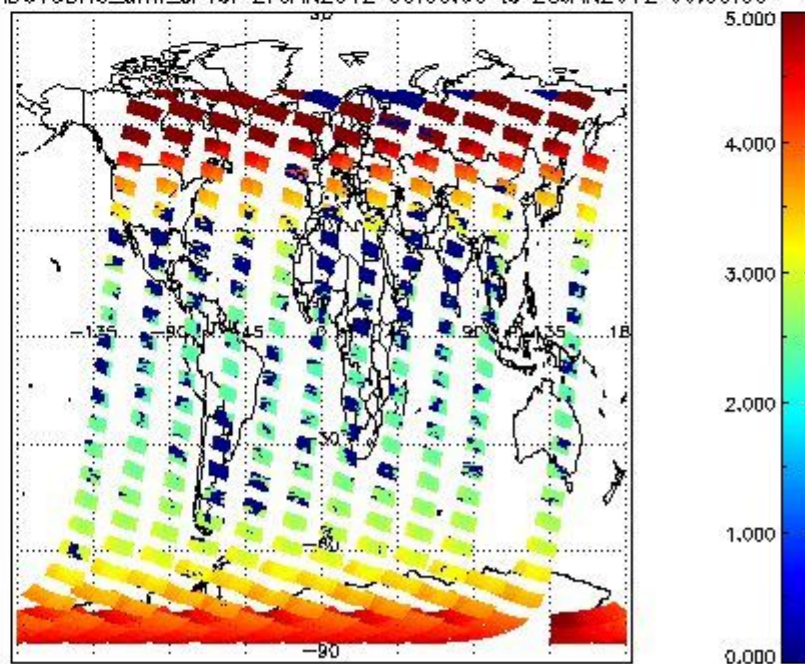
SCIOL2P\_NADUV3BRO\_vcd\_err for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



SCIOL2P\_NADUV3BRO\_amf\_gr for 27JAN2012 00:00:00 to 28JAN2012 00:00:00

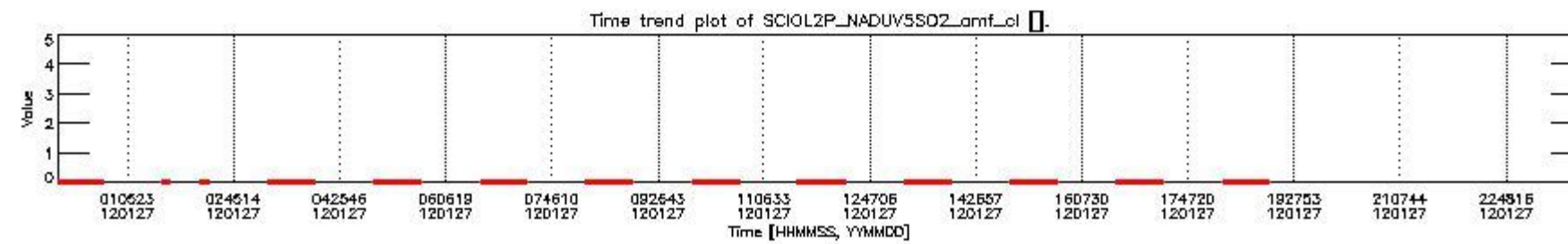
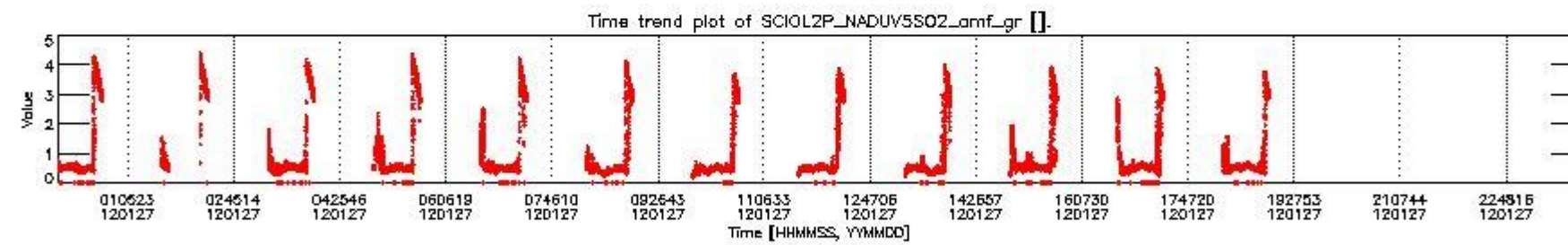
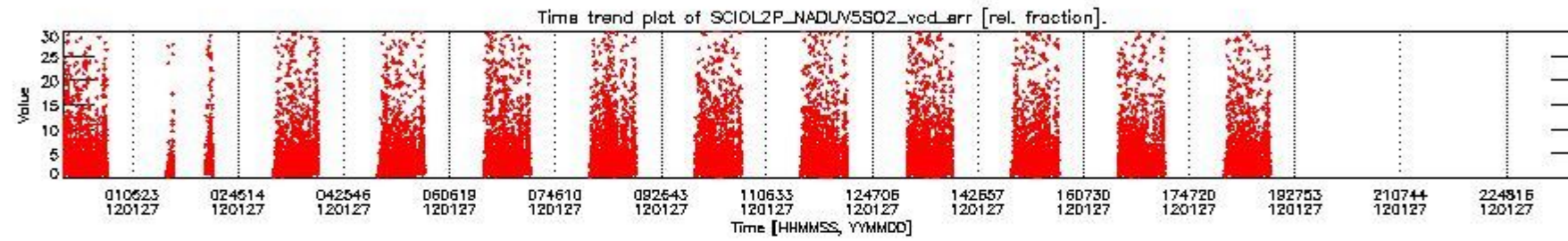
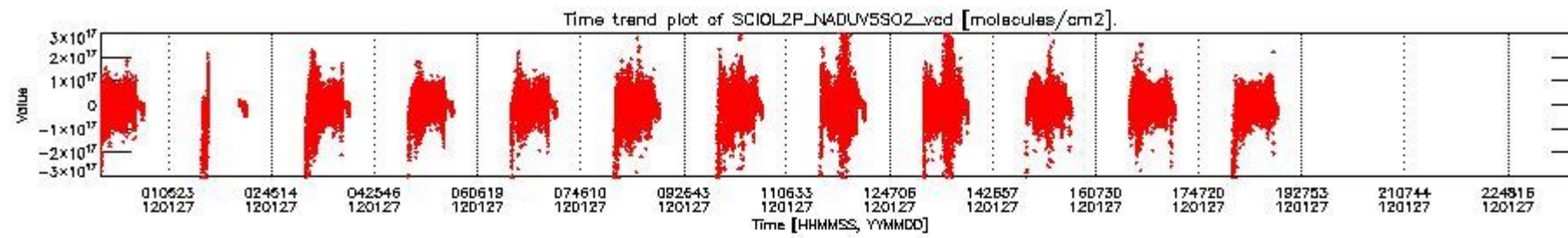


SCIOL2P\_NADUV3BRO\_amf\_cl for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



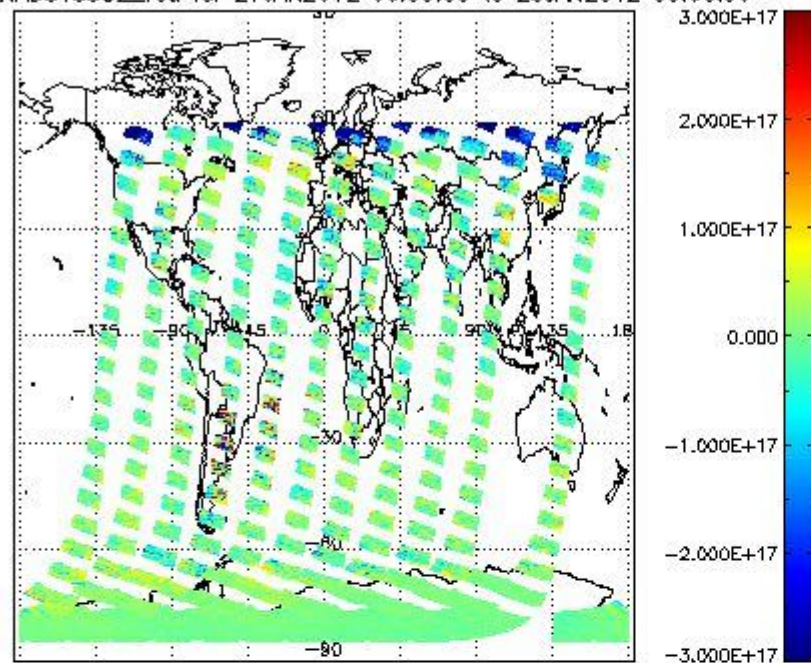
2.2.2.4 SO2 (UV5)



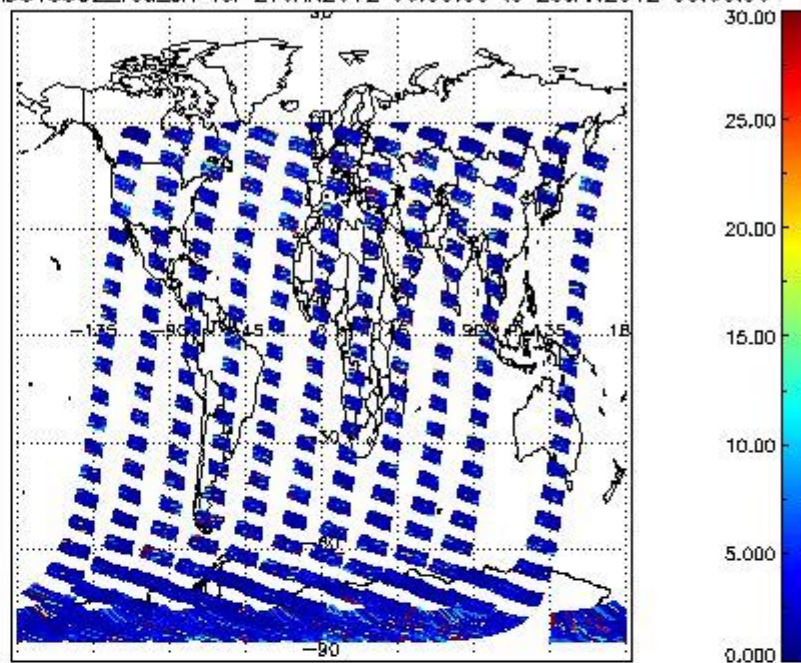




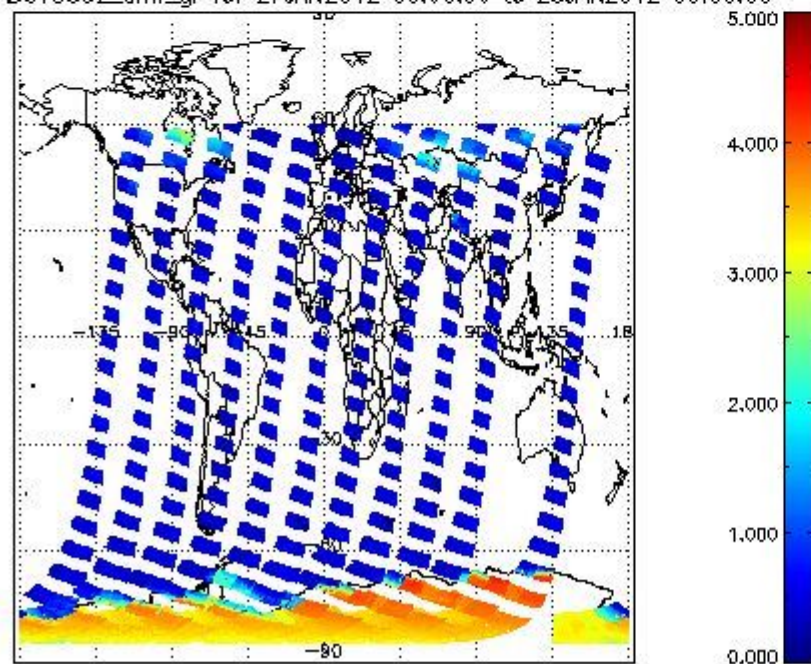
SCIOL2P\_NADUV5S02\_vcd for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



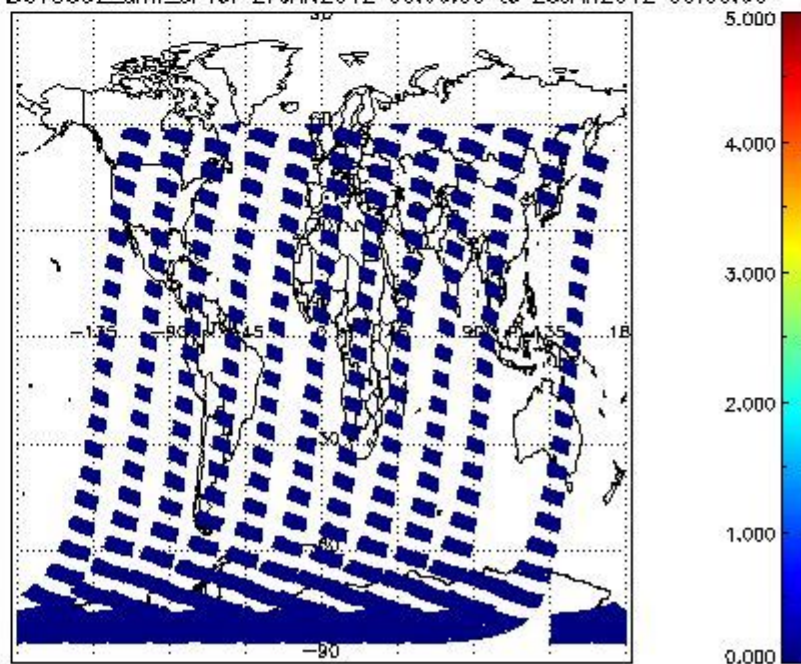
SCIOL2P\_NADUV5S02\_vcd\_err for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



SCIOL2P\_NADUV5S02\_amf\_gr for 27JAN2012 00:00:00 to 28JAN2012 00:00:00

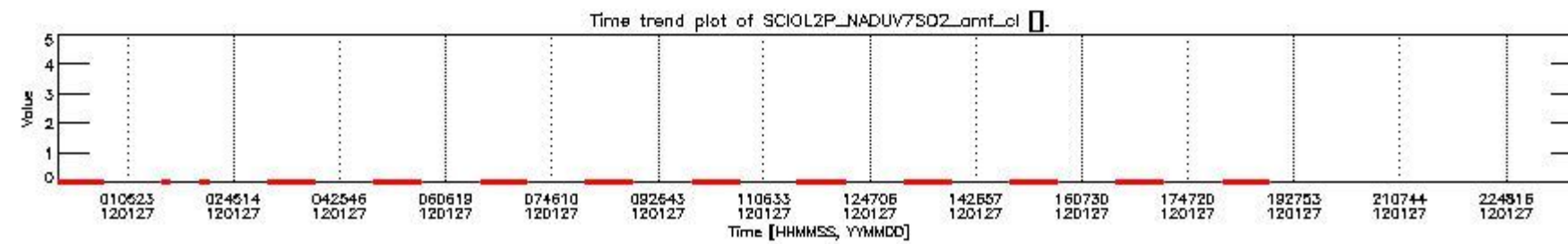
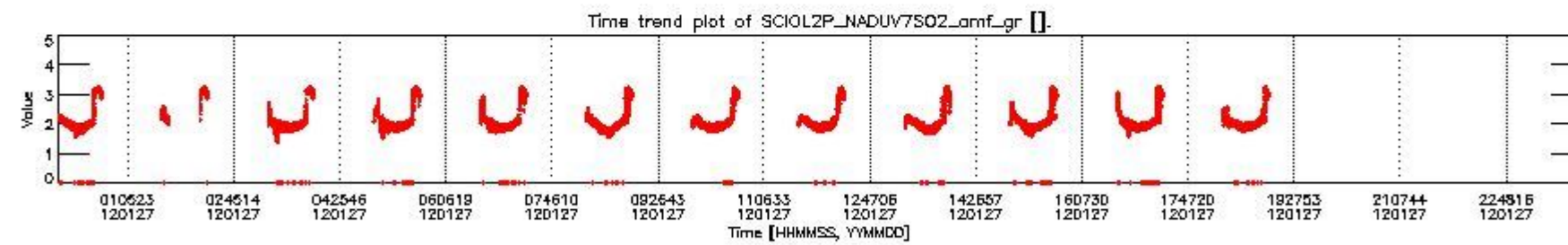
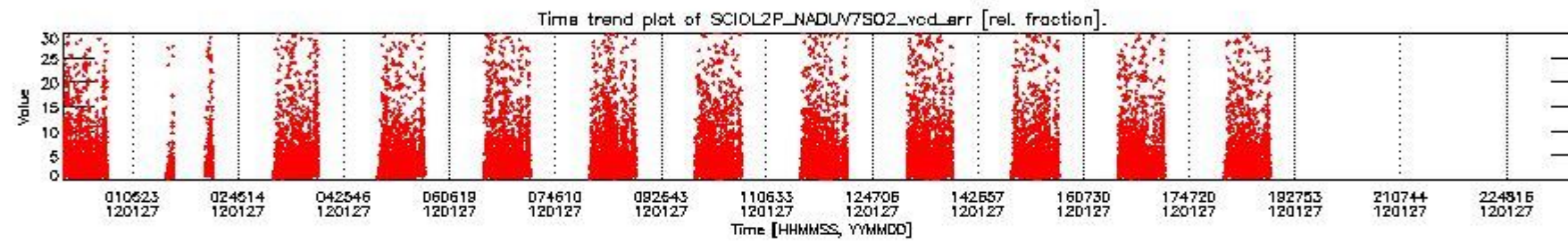
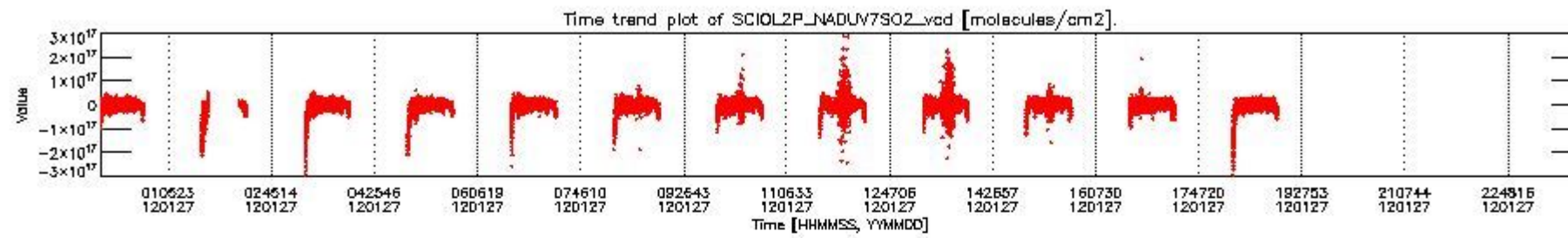


SCIOL2P\_NADUV5S02\_amf\_cl for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



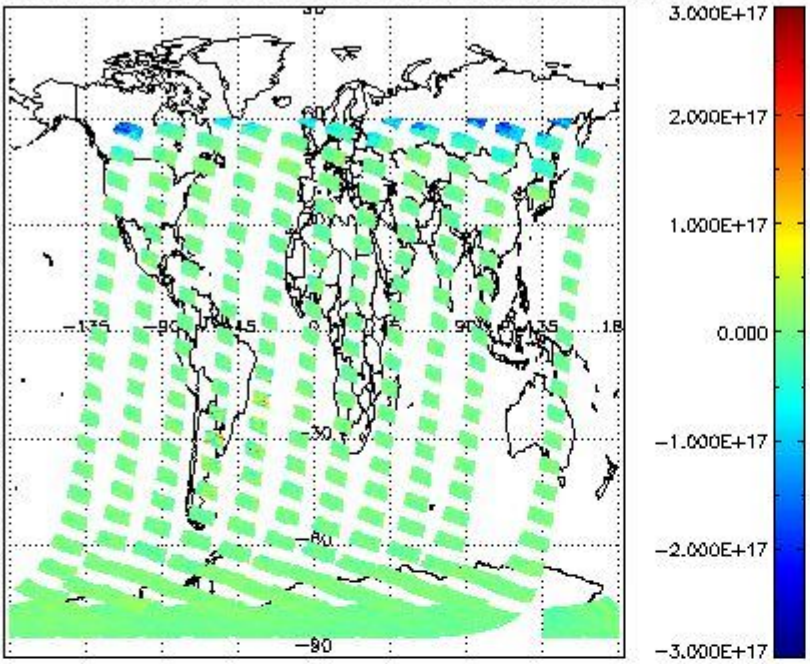
2.2.2.5 SO2 (UV7)



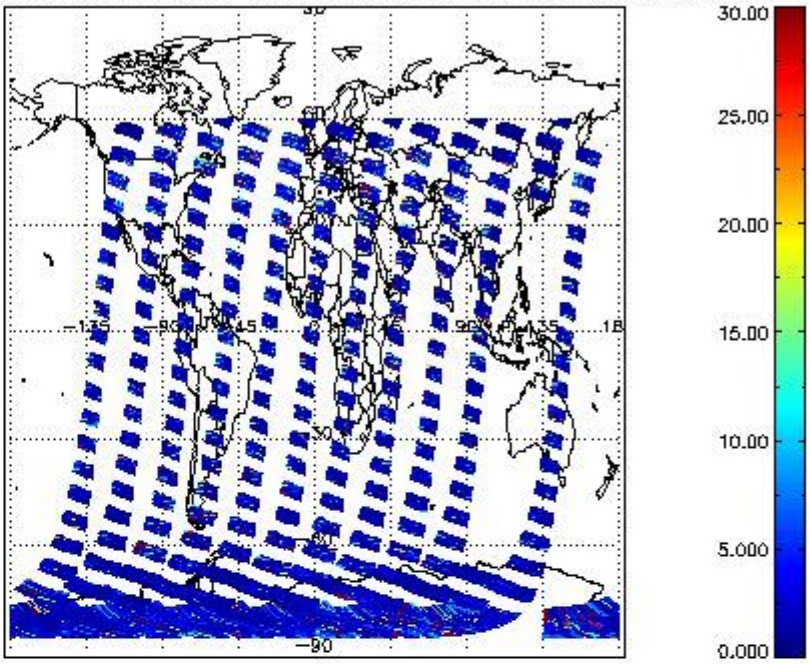




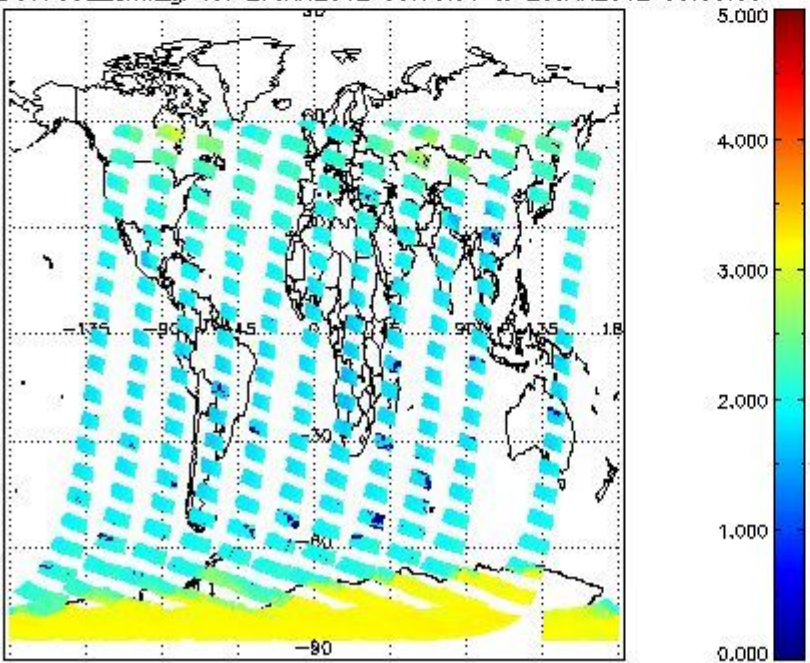
SCIOL2P\_NADUV7S02\_vcd for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



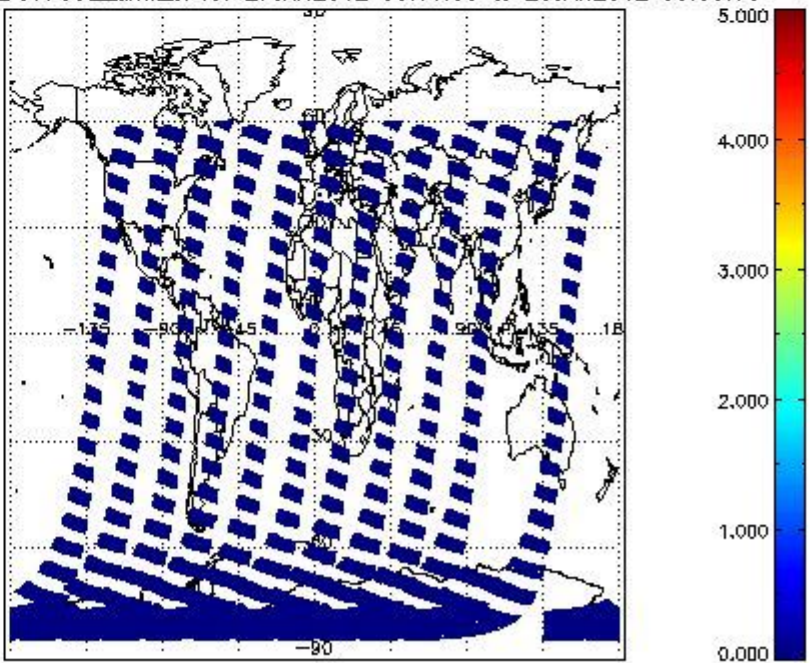
SCIOL2P\_NADUV7S02\_vcd\_err for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



SCIOL2P\_NADUV7S02\_amf\_gr for 27JAN2012 00:00:00 to 28JAN2012 00:00:00

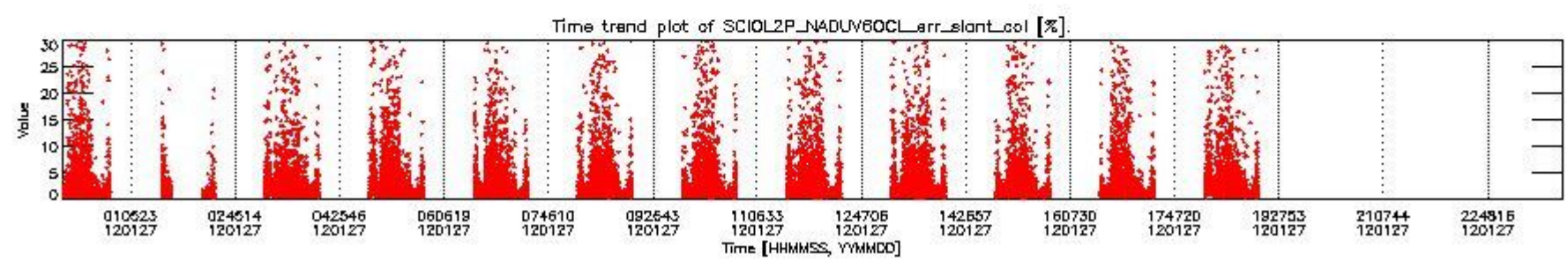
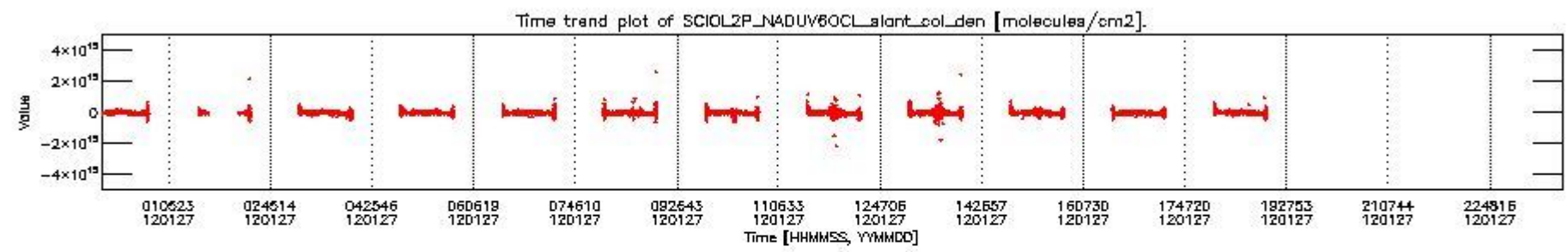


SCIOL2P\_NADUV7S02\_amf\_cl for 27JAN2012 00:00:00 to 28JAN2012 00:00:00

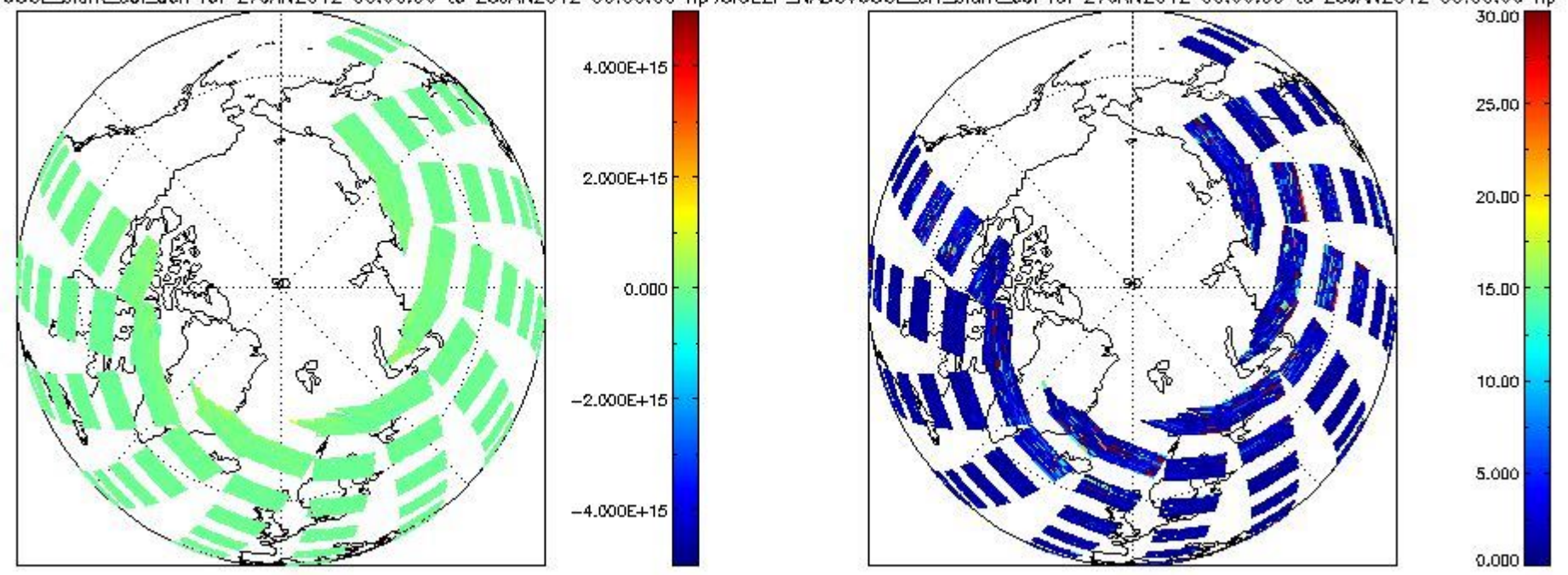


2.2.2.6 OCIO (UV6)



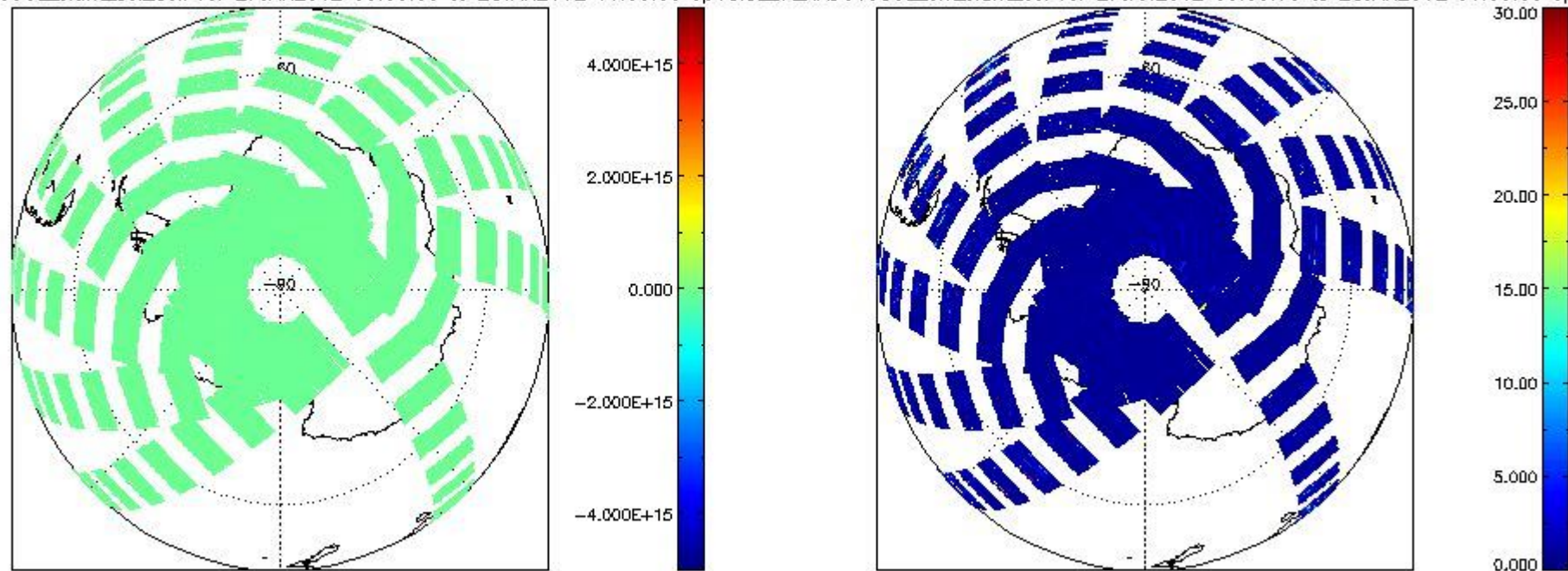


SCIOI2P\_NADUV60CL\_slant\_col\_den for 27JAN2012 00:00:00 to 28JAN2012 00:00:00 np; SCIOI2P\_NADUV60CL\_err\_slant\_col for 27JAN2012 00:00:00 to 28JAN2012 00:00:00 np

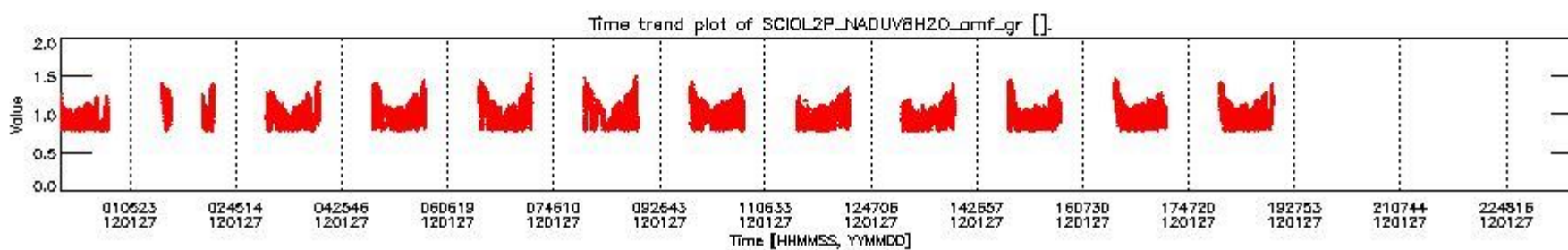
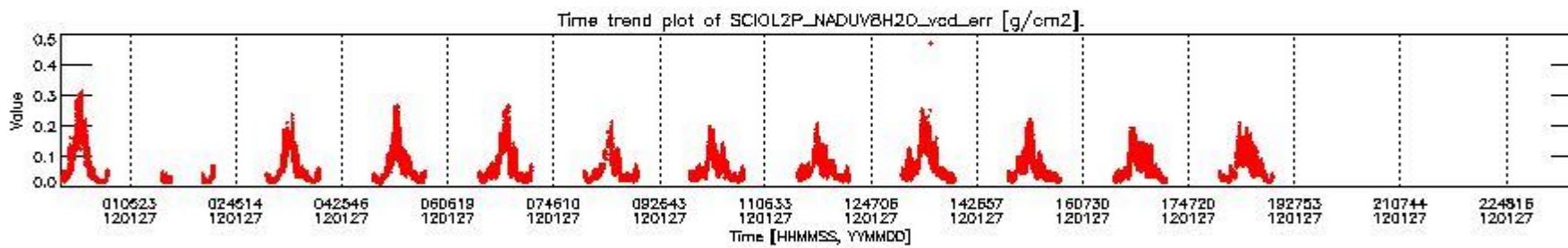
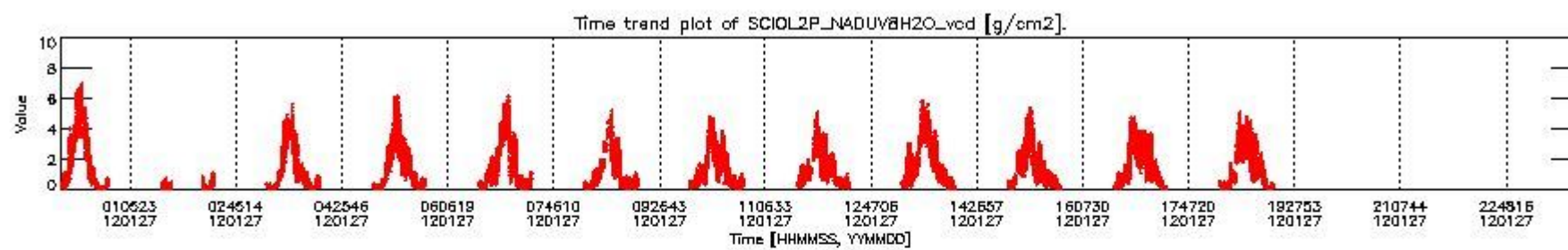




SCIOL2P\_NADUV6OCL\_slant\_col\_den for 27JAN2012 00:00:00 to 28JAN2012 00:00:00 sp SCIOL2P\_NADUV6OCL\_slant\_col\_err for 27JAN2012 00:00:00 to 28JAN2012 00:00:00 sp

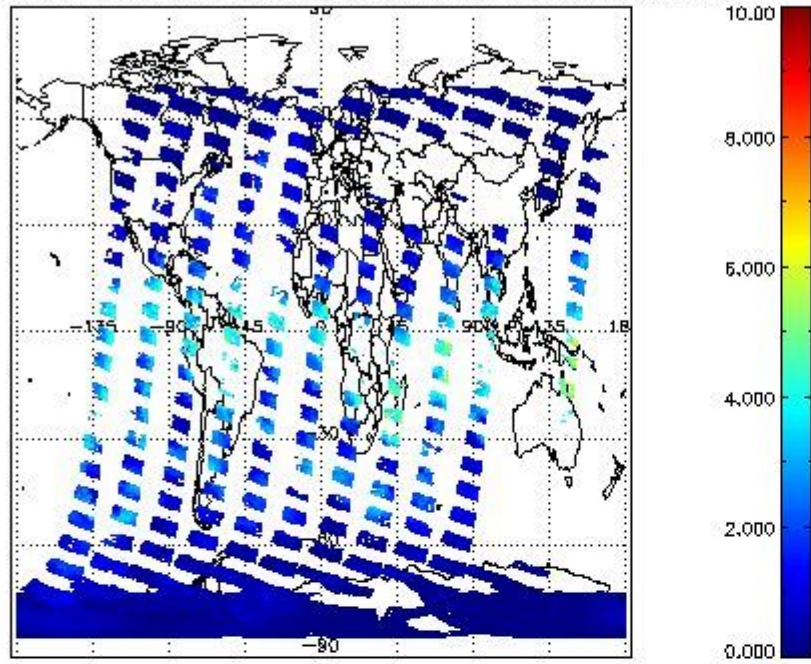


### 2.2.2.7 H<sub>2</sub>O (UV8)

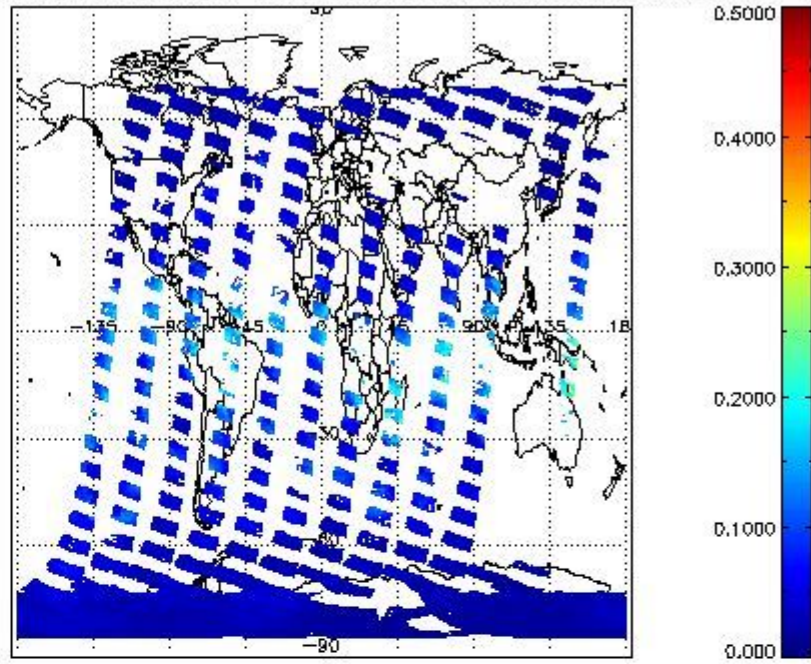




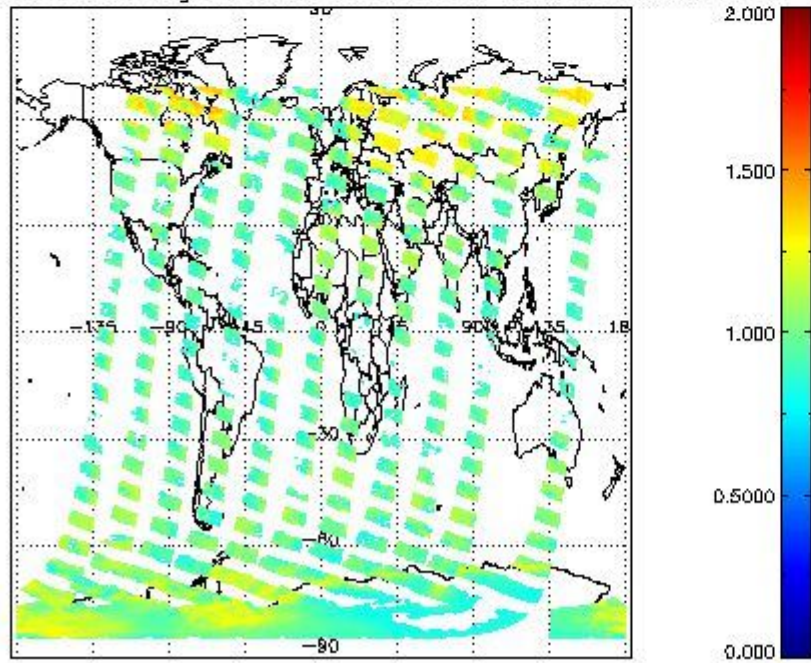
SCIOL2P\_NADUV8H20\_vcd for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



SCIOL2P\_NADUV8H20\_vcd\_err for 27JAN2012 00:00:00 to 28JAN2012 00:00:00

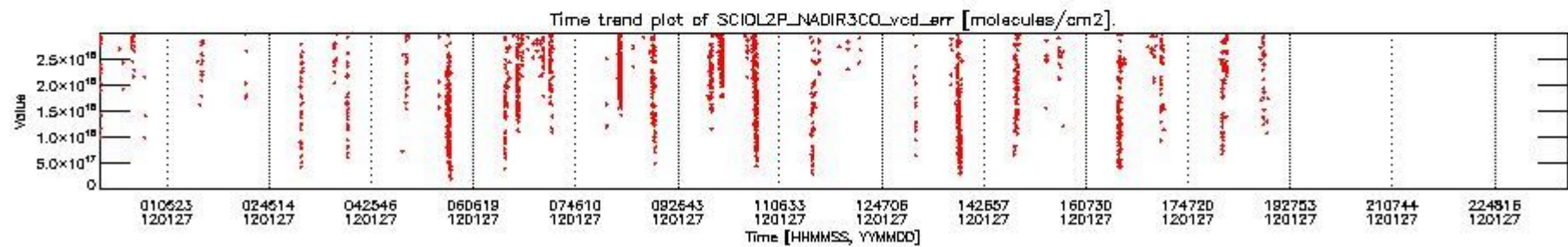
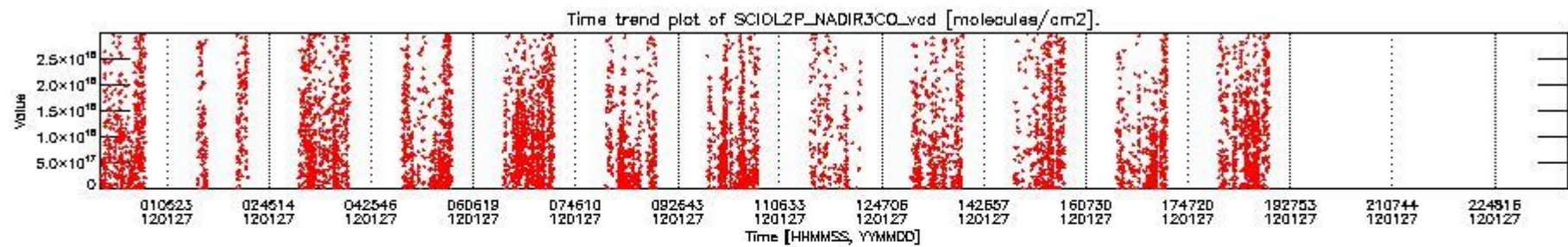


SCIOL2P\_NADUV8H20\_amf\_gr for 27JAN2012 00:00:00 to 28JAN2012 00:00:00

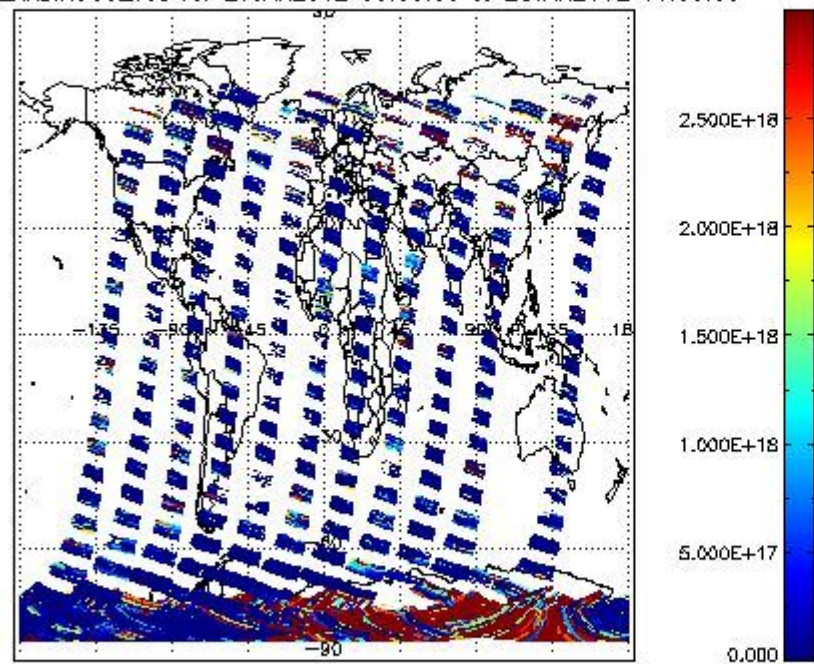


### 2.2.2.8 CO (IR3)

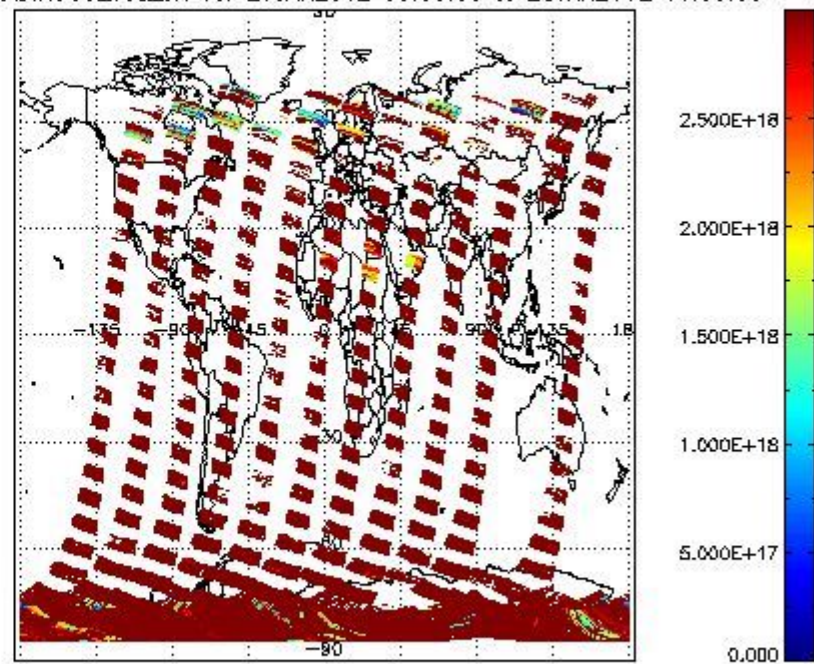




SCIDL2P\_NADIR3CO\_vcd for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



SCIDL2P\_NADIR3CO\_vcd\_err for 27JAN2012 00:00:00 to 28JAN2012 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.

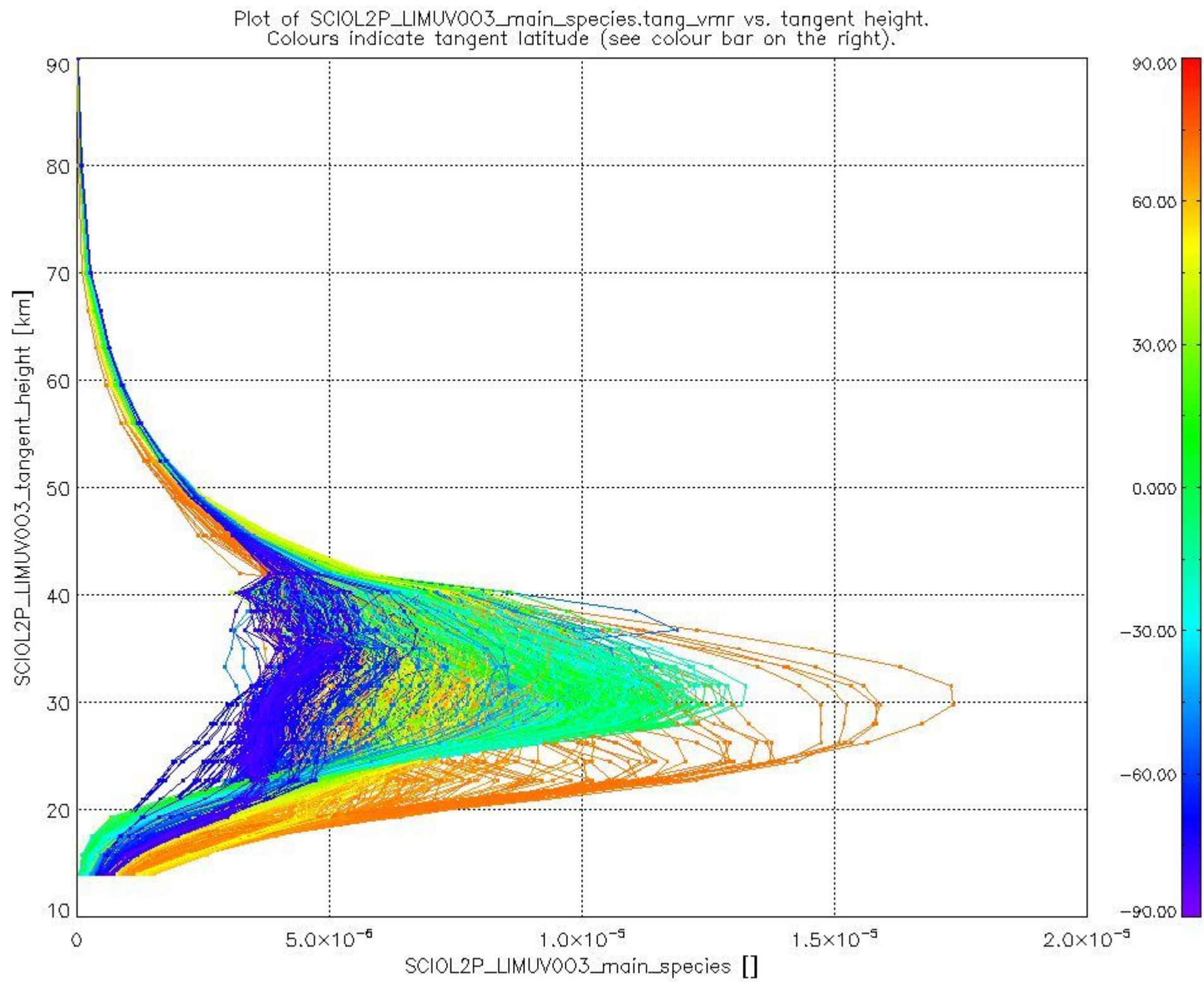
The following data items are currently included into this section:

Number	Data item ID
0	SCIDL2P_LIMUV003_main_species
1	SCIDL2P_LIMUV1NO2_main_species
2	SCIDL2P_LIMUV3BRO_main_species



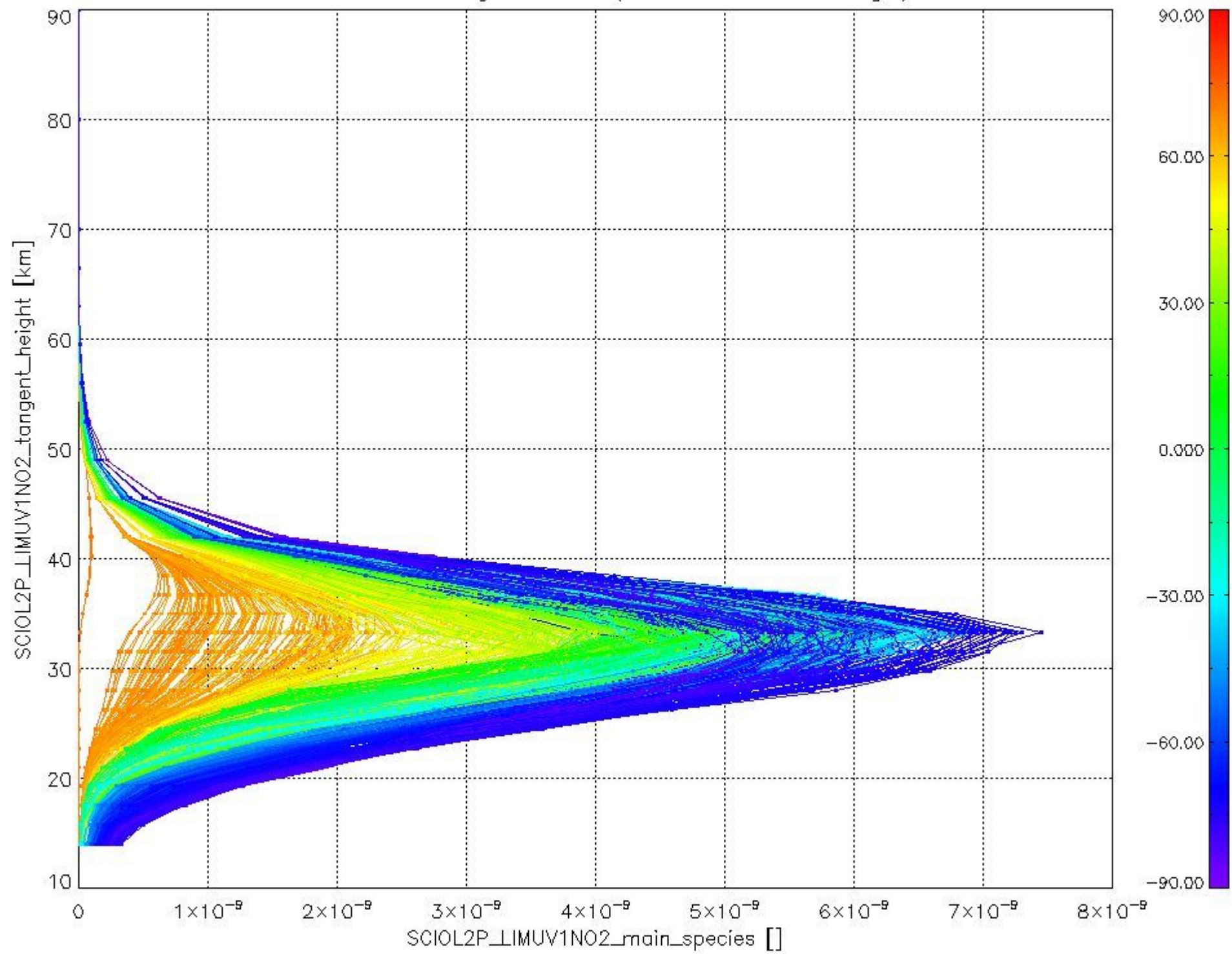
The following plots show for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

2.2.3.1 O3 (UV0)



2.2.3.2 NO2 (UV1)

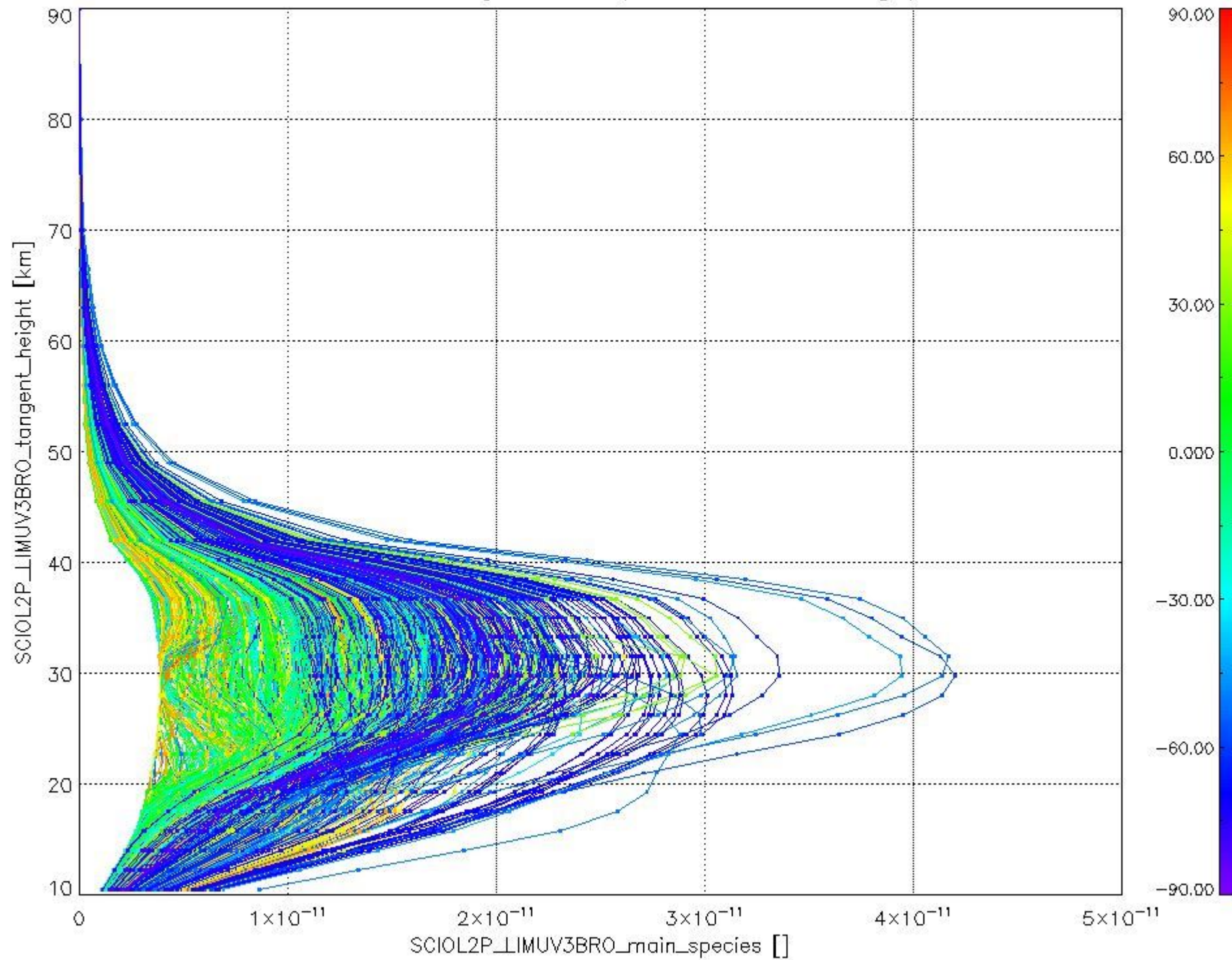
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



2.2.3.3 BrO (UV3)



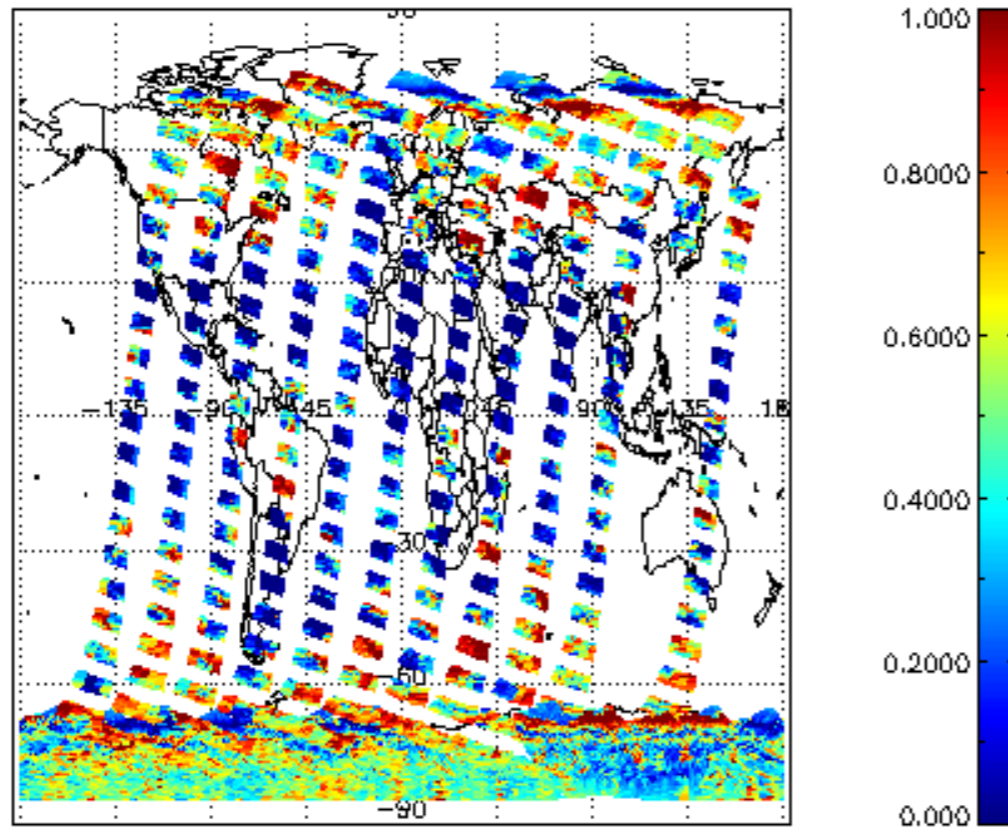
Plot of SCIOL2P\_LIMUV3BRO\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



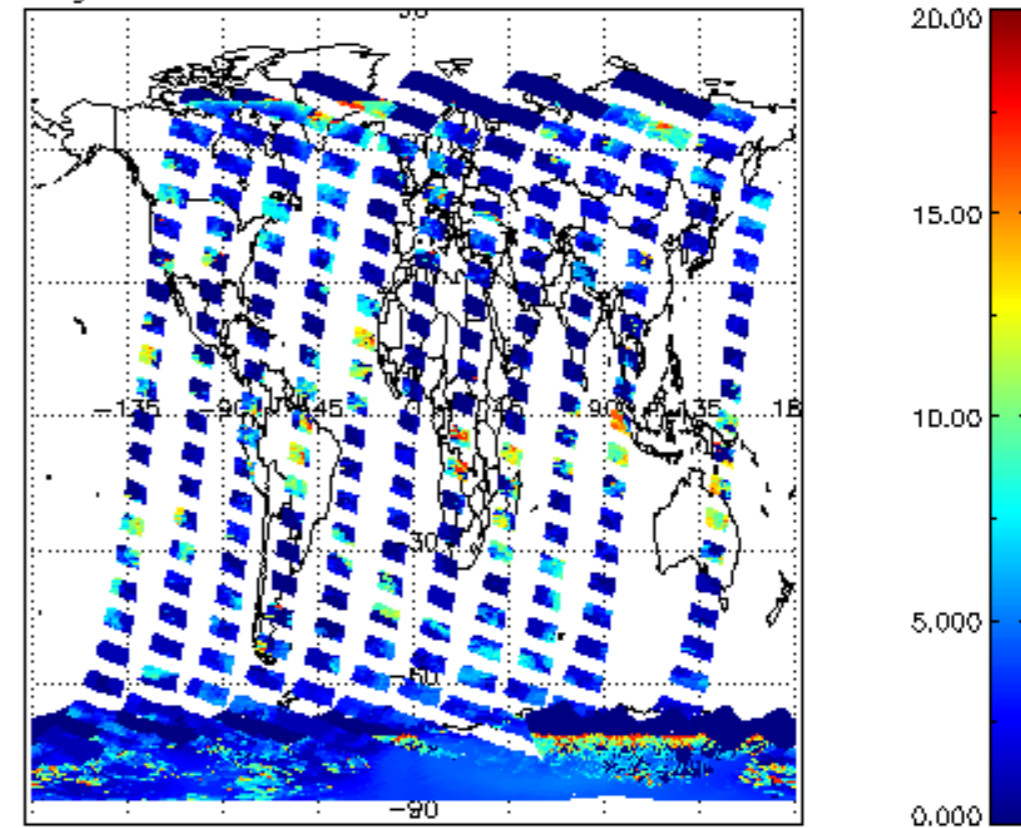
### 2.3 ADF monitoring

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_AXVIEC20120131_132639_20120126_180627_20120128_180627

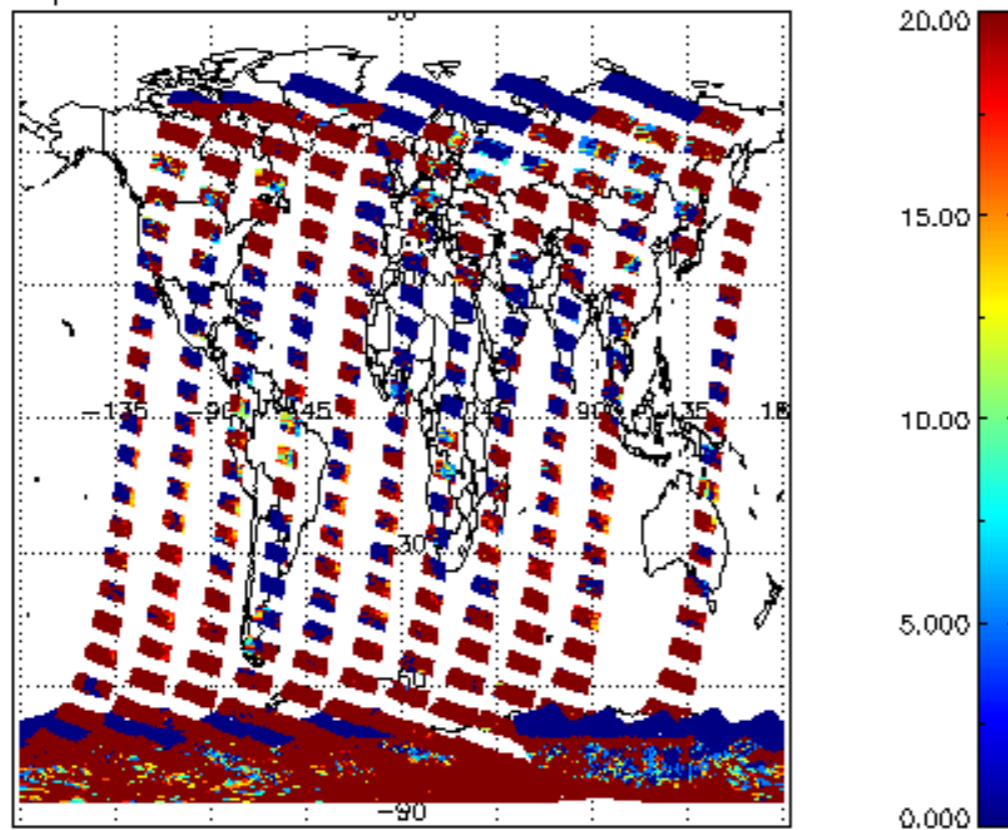
cL\_frac for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



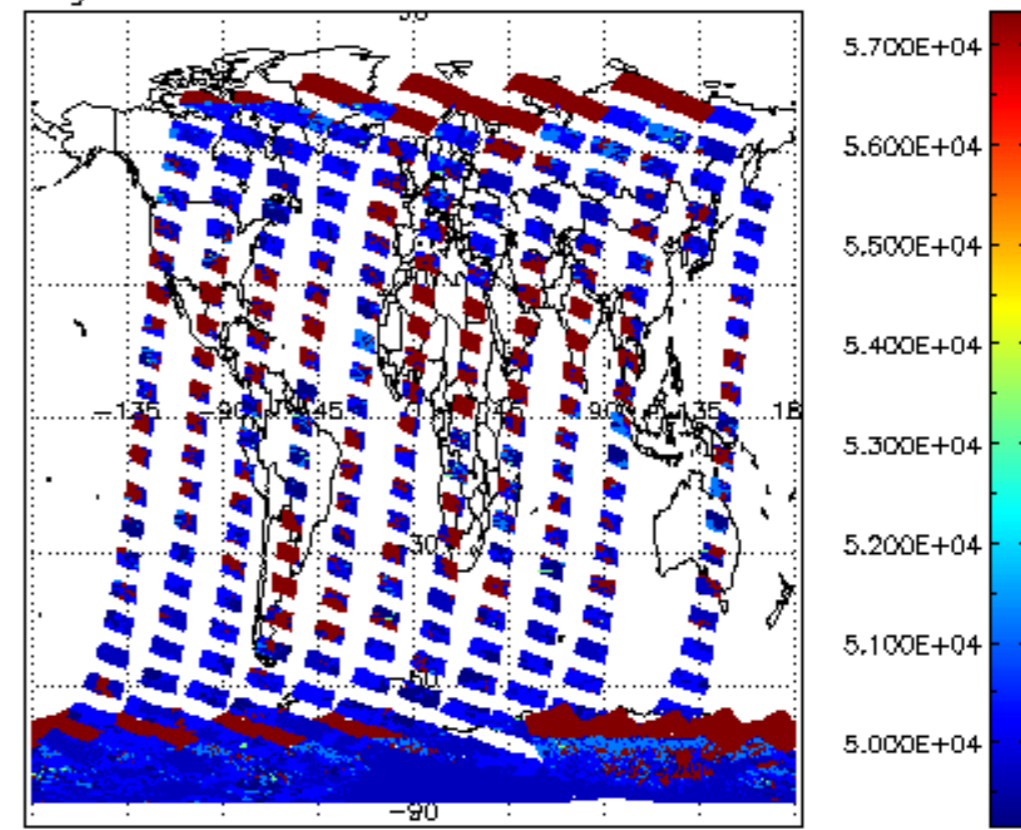
cL\_top\_height for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



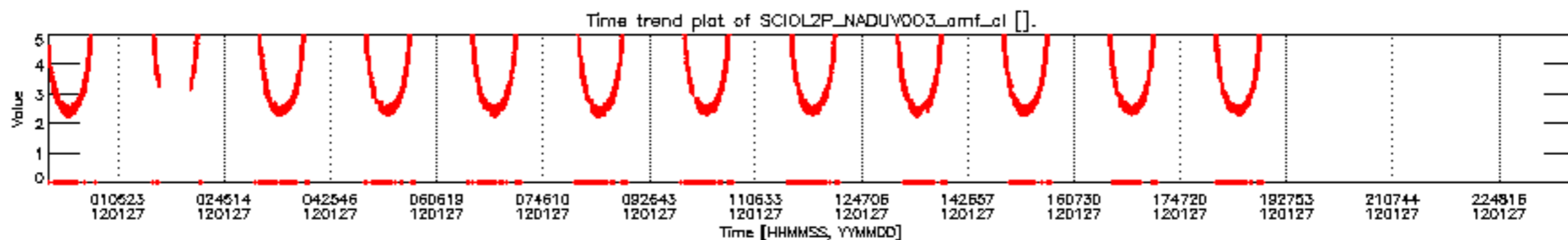
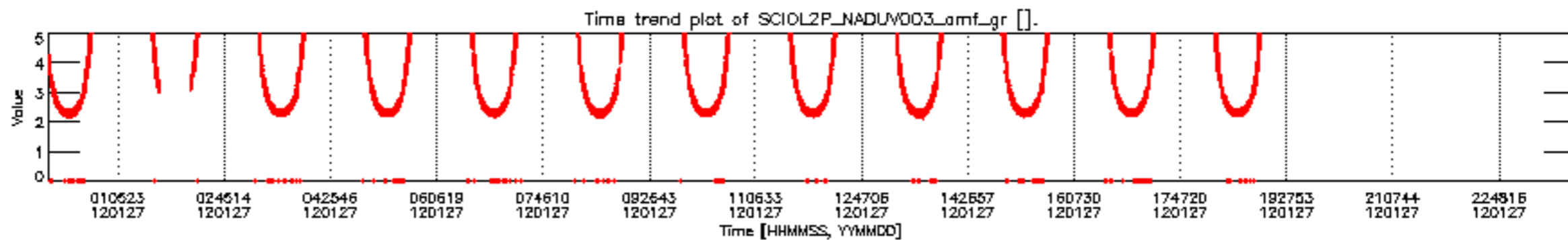
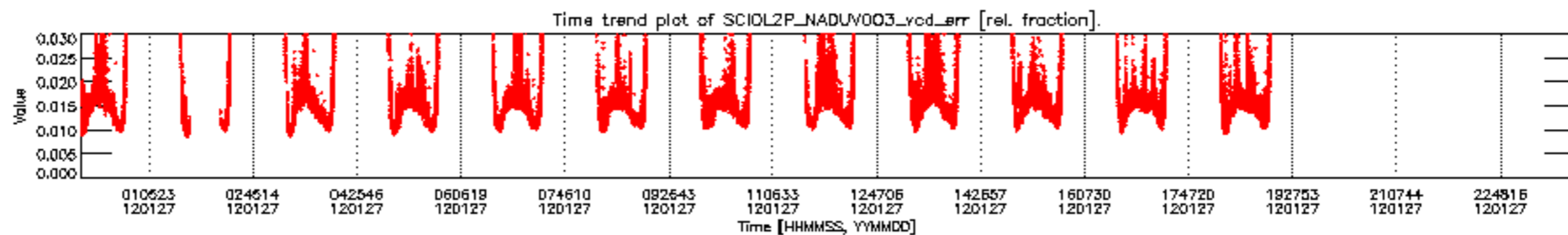
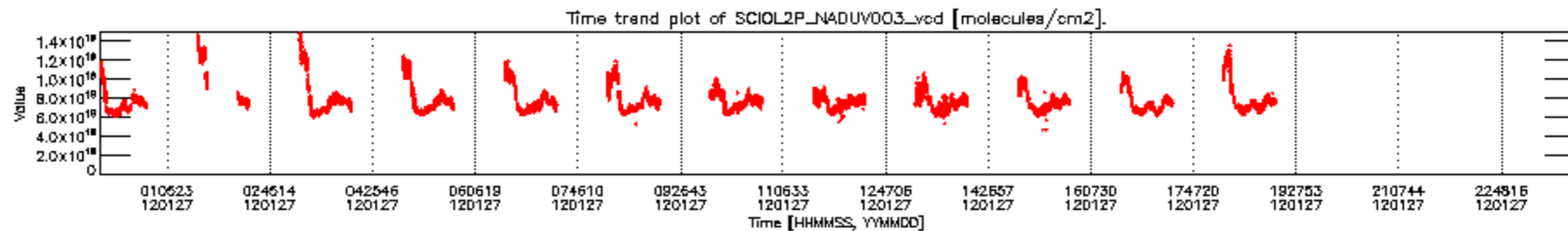
cLopt\_depth for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



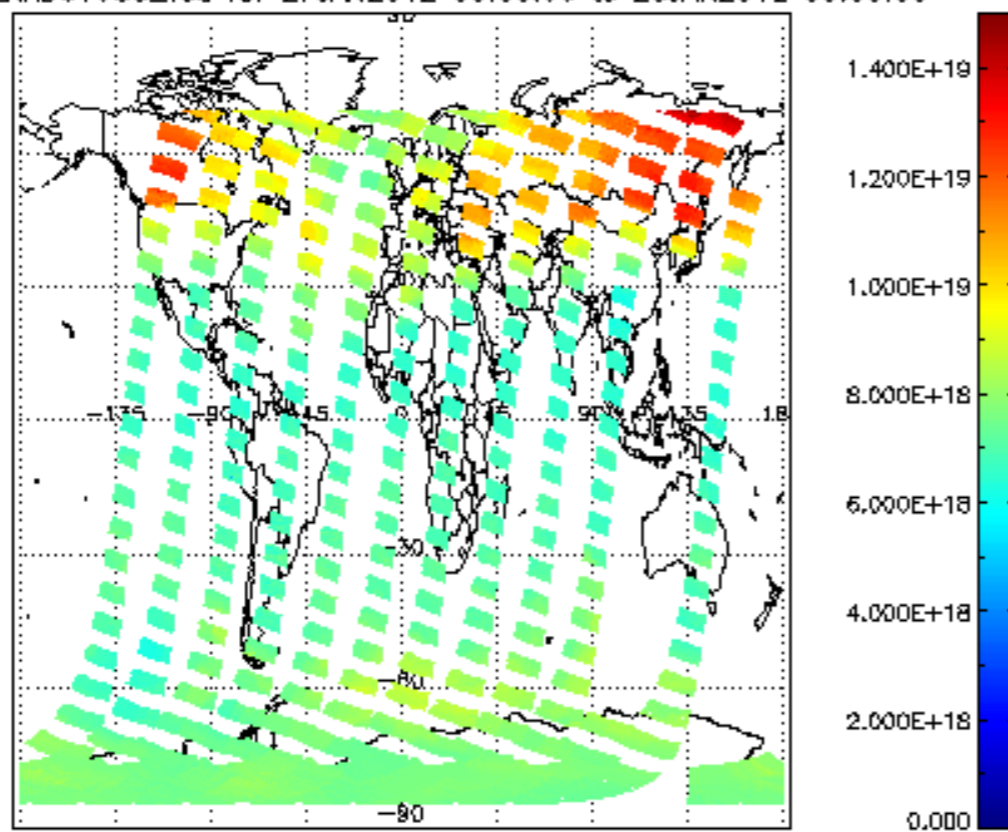
cloud\_flags for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



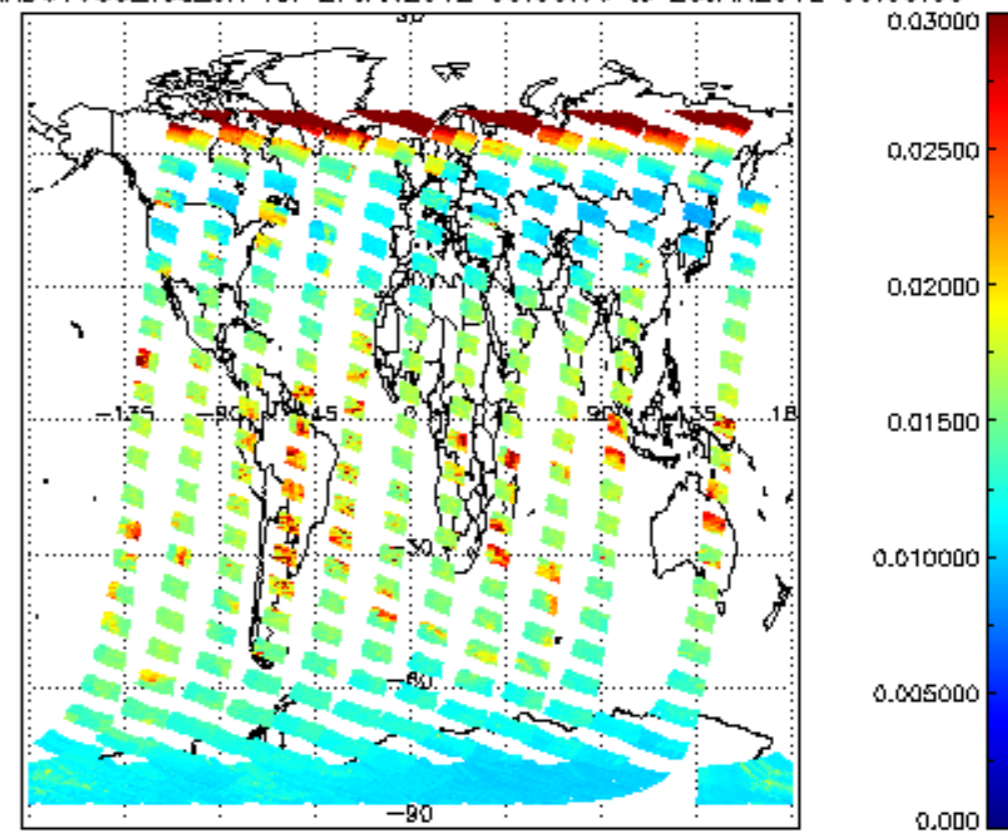




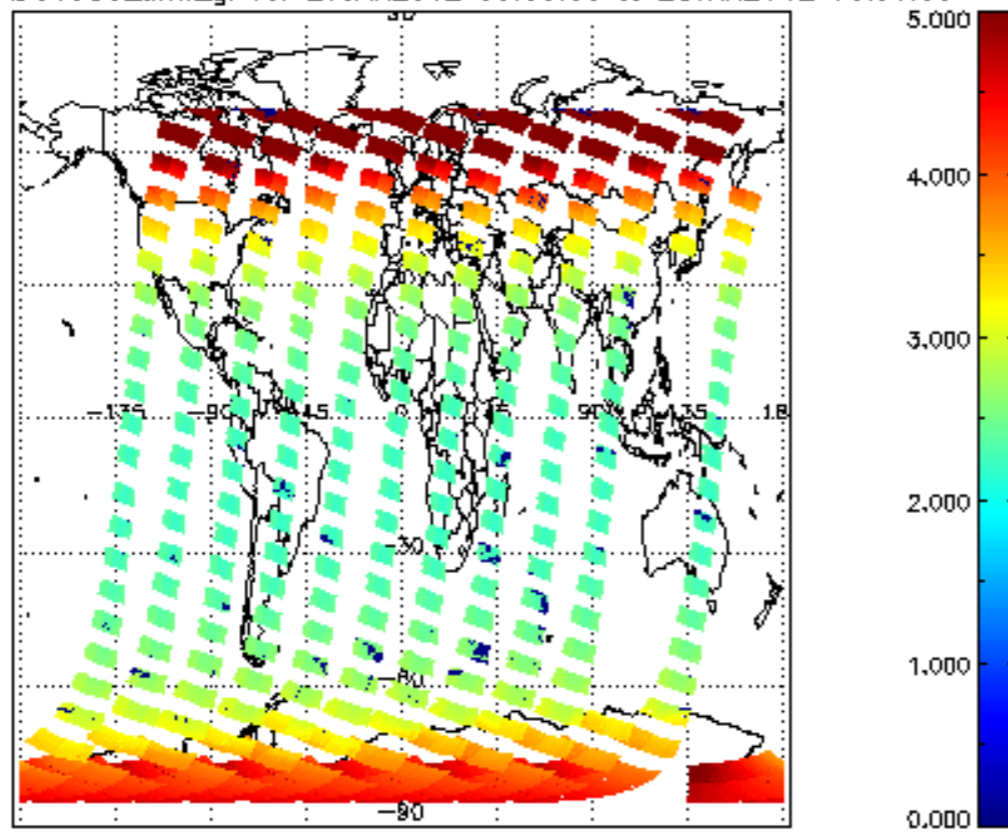
SCIOL2P\_NADUV003\_vcd for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



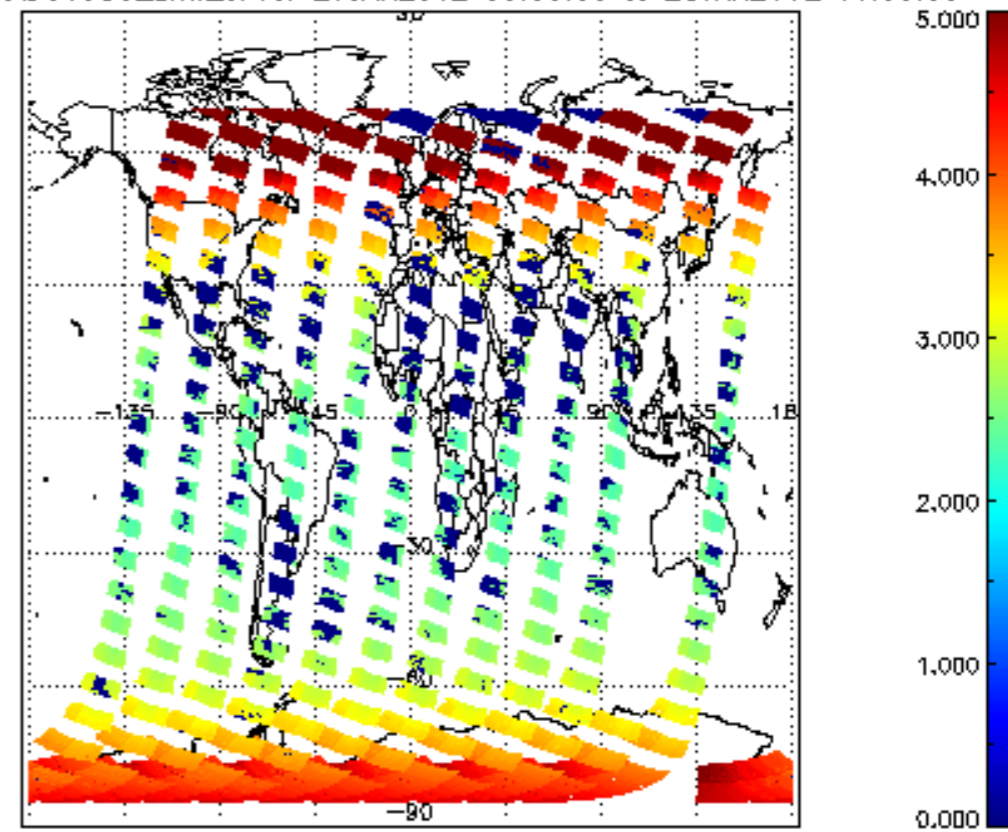
SCIOL2P\_NADUV003\_vcd\_err for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



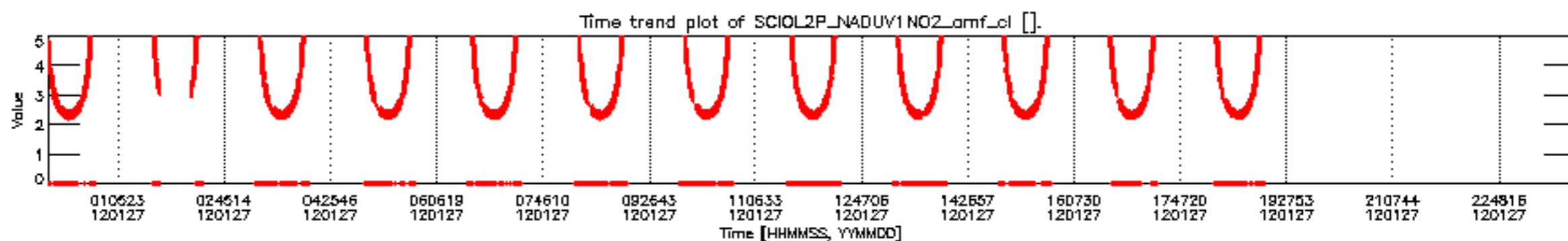
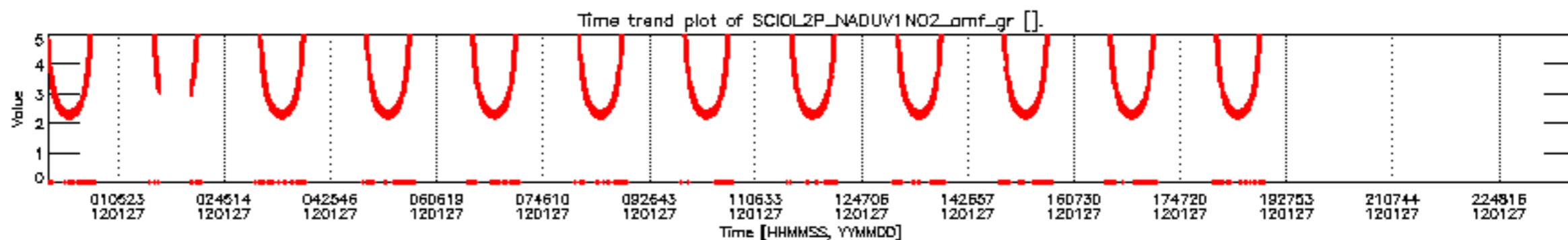
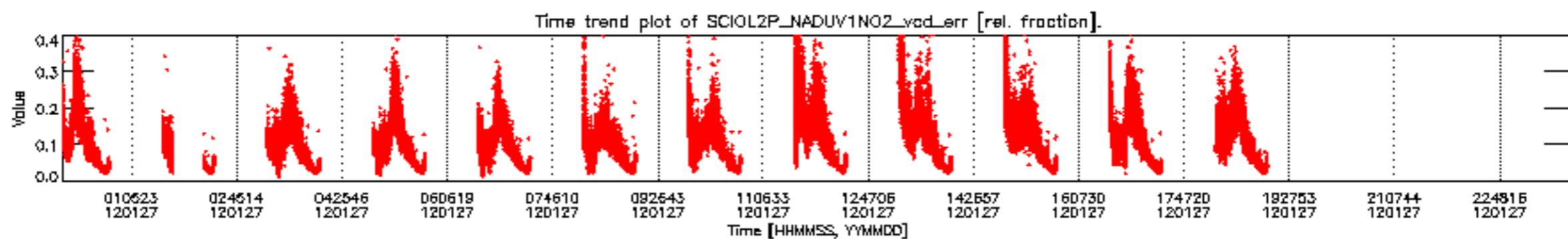
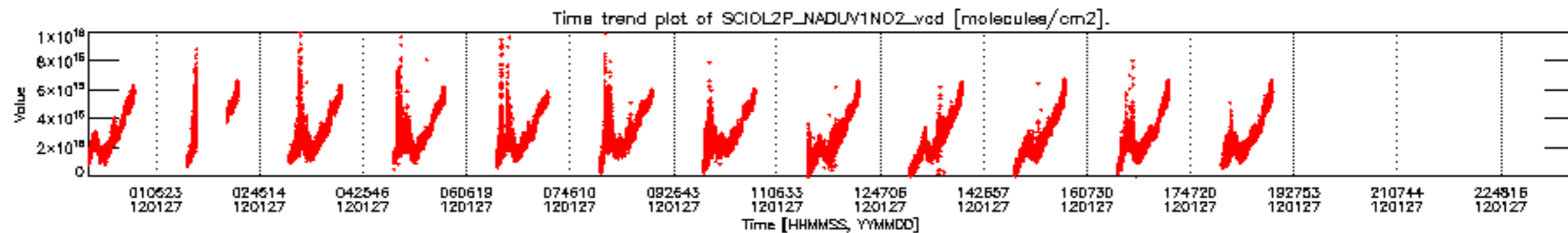
SCIOL2P\_NADUV003\_amf\_gr for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



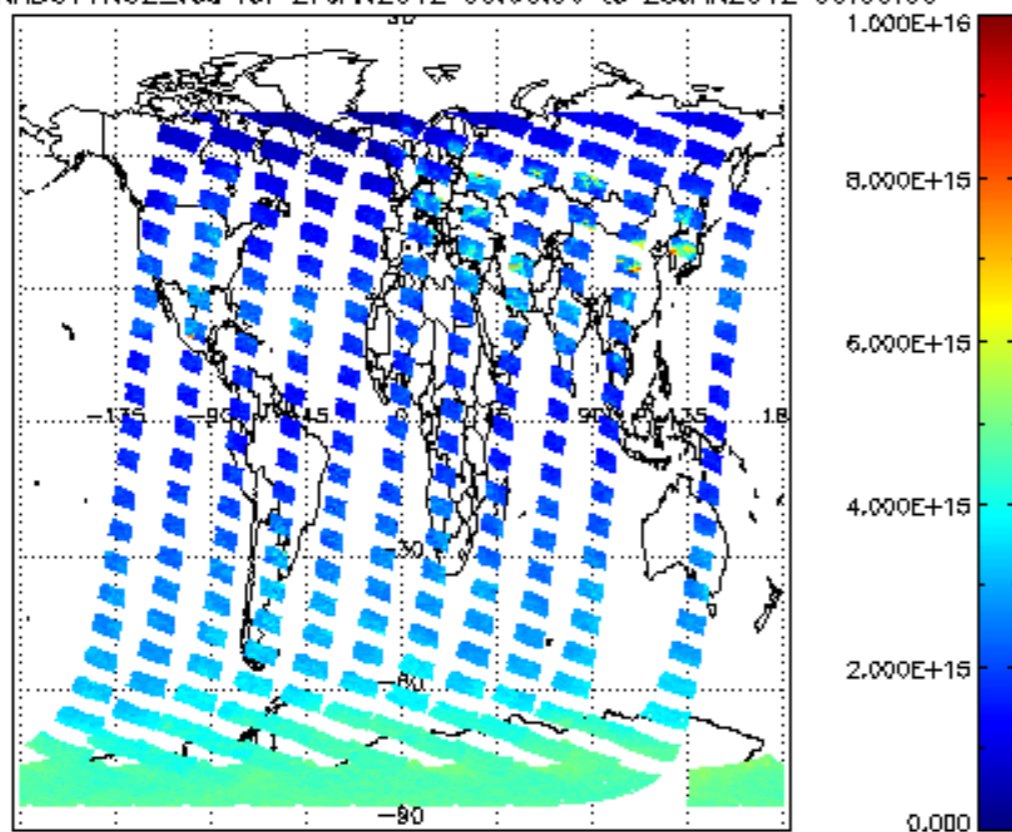
SCIOL2P\_NADUV003\_amf\_cl for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



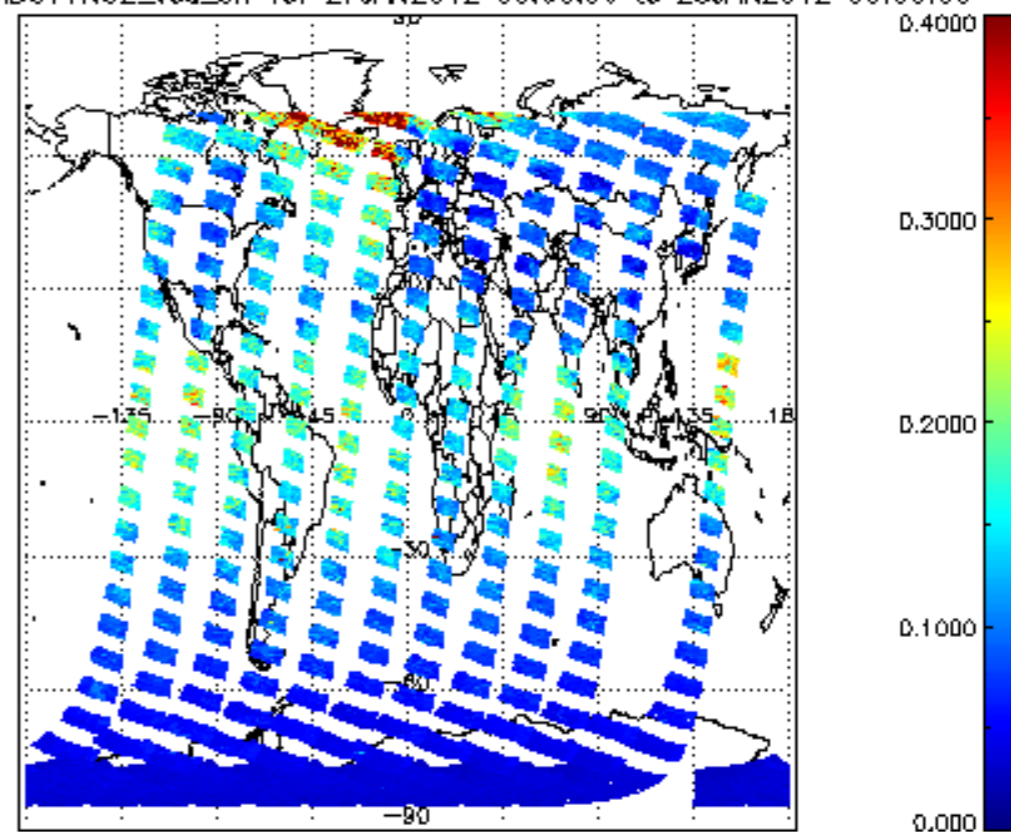




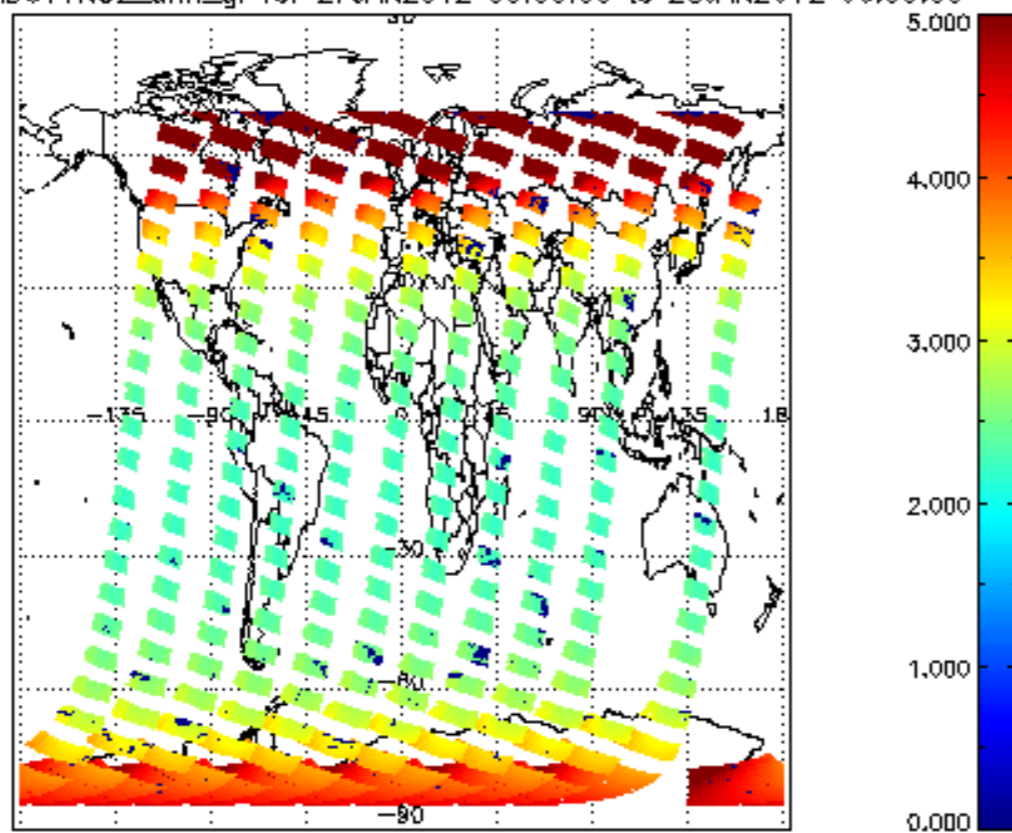
SCIOL2P\_NADUV1NO2\_vcd for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



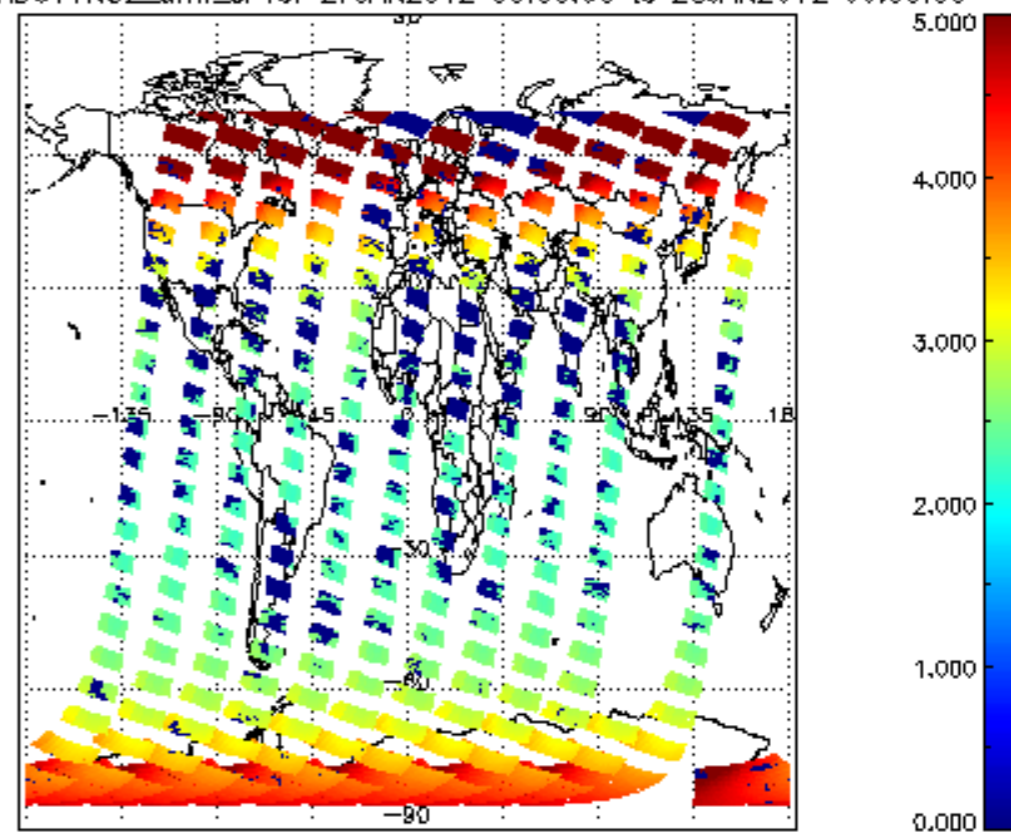
SCIOL2P\_NADUV1NO2\_vcd\_err for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



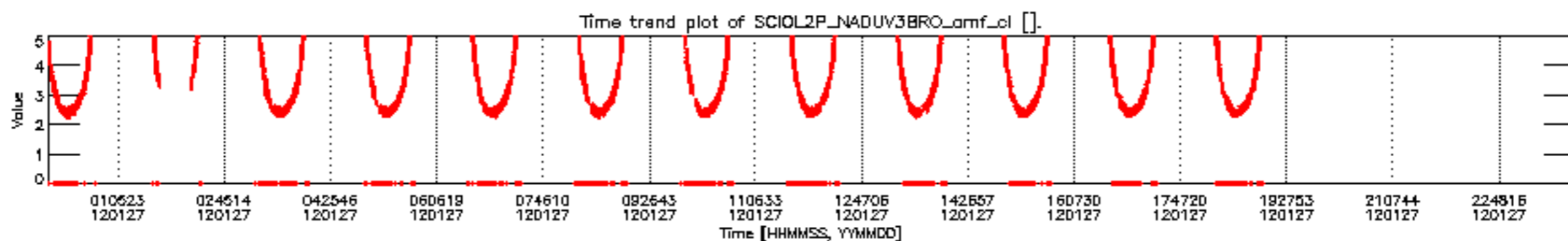
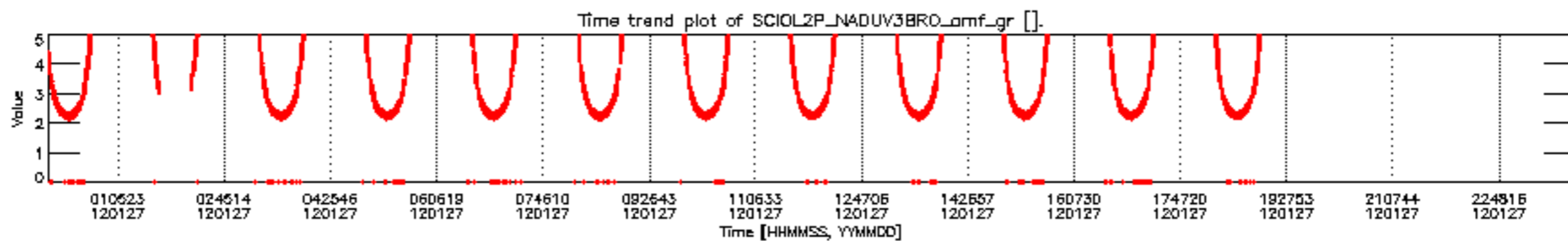
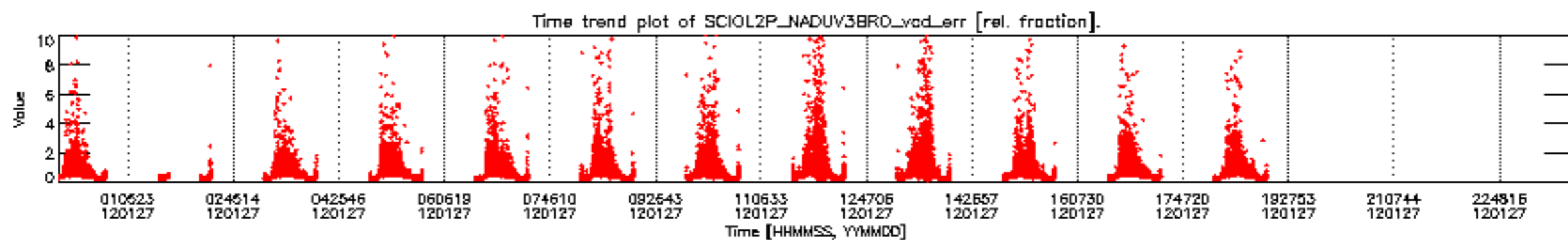
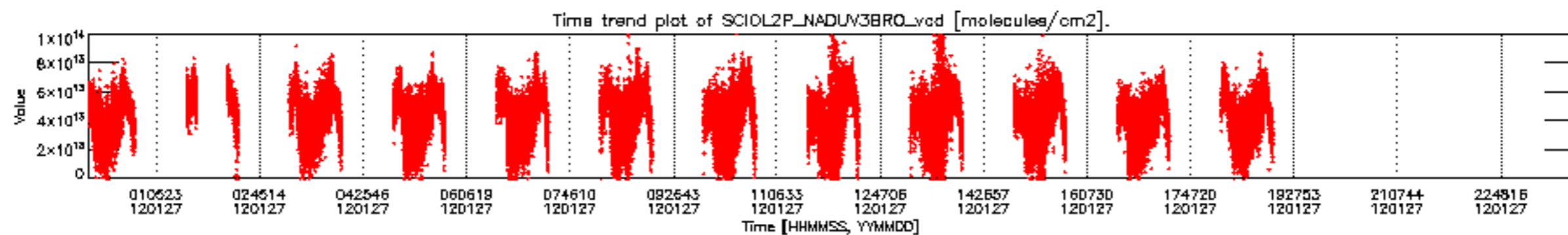
SCIOL2P\_NADUV1NO2\_amf\_gr for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



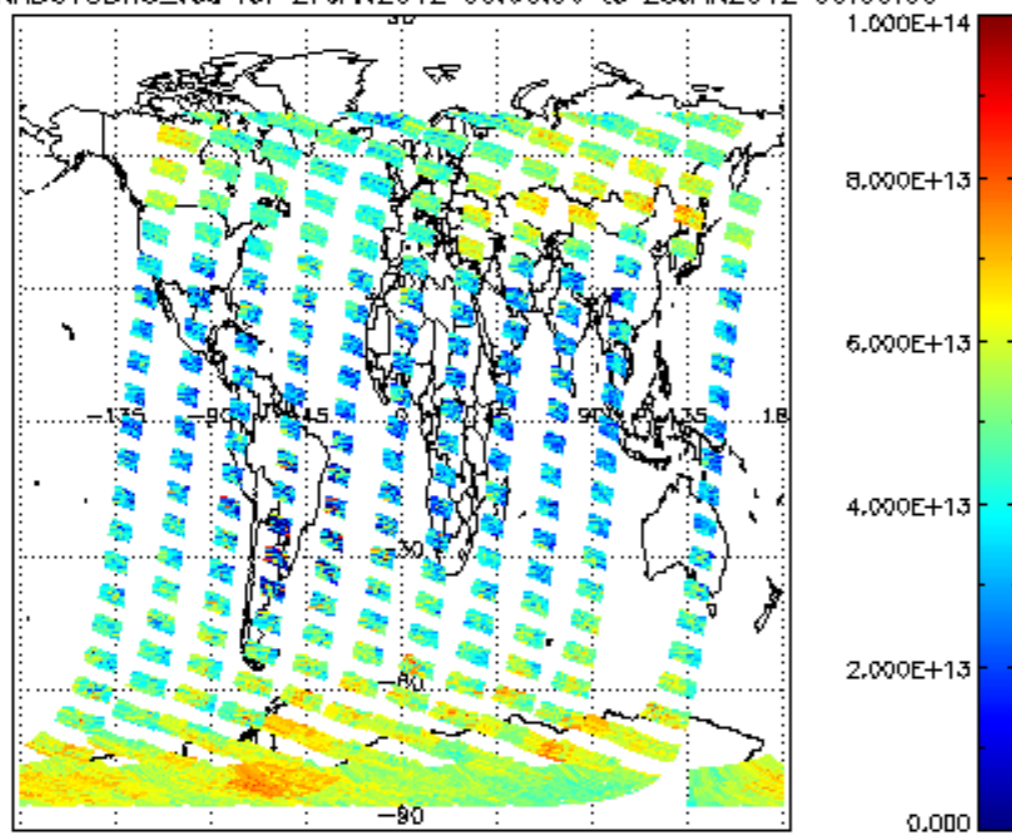
SCIOL2P\_NADUV1NO2\_amf\_cl for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



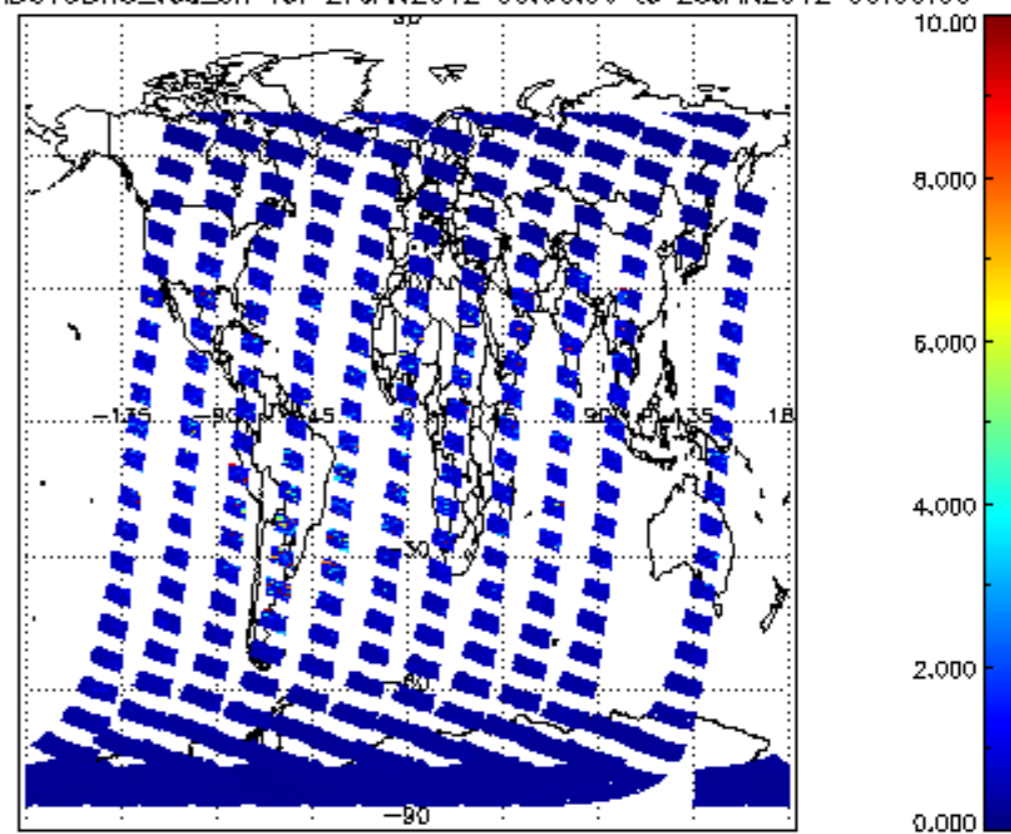




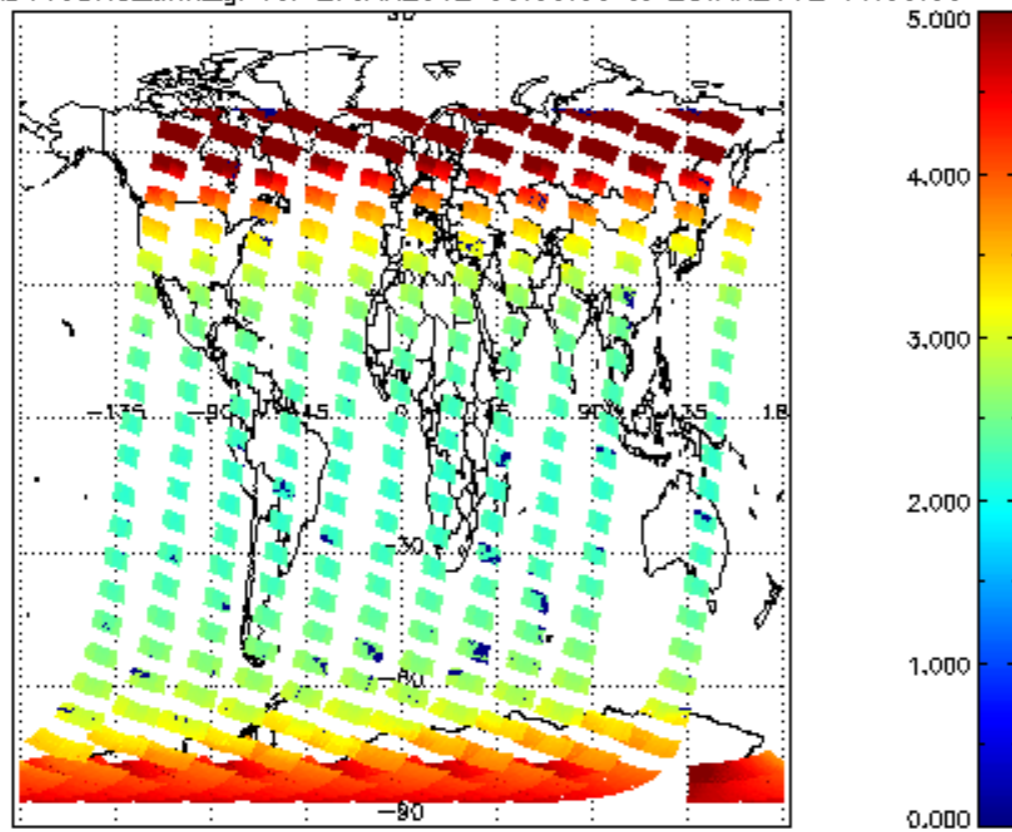
SCIOL2P\_NADUV3BRO\_vcd for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



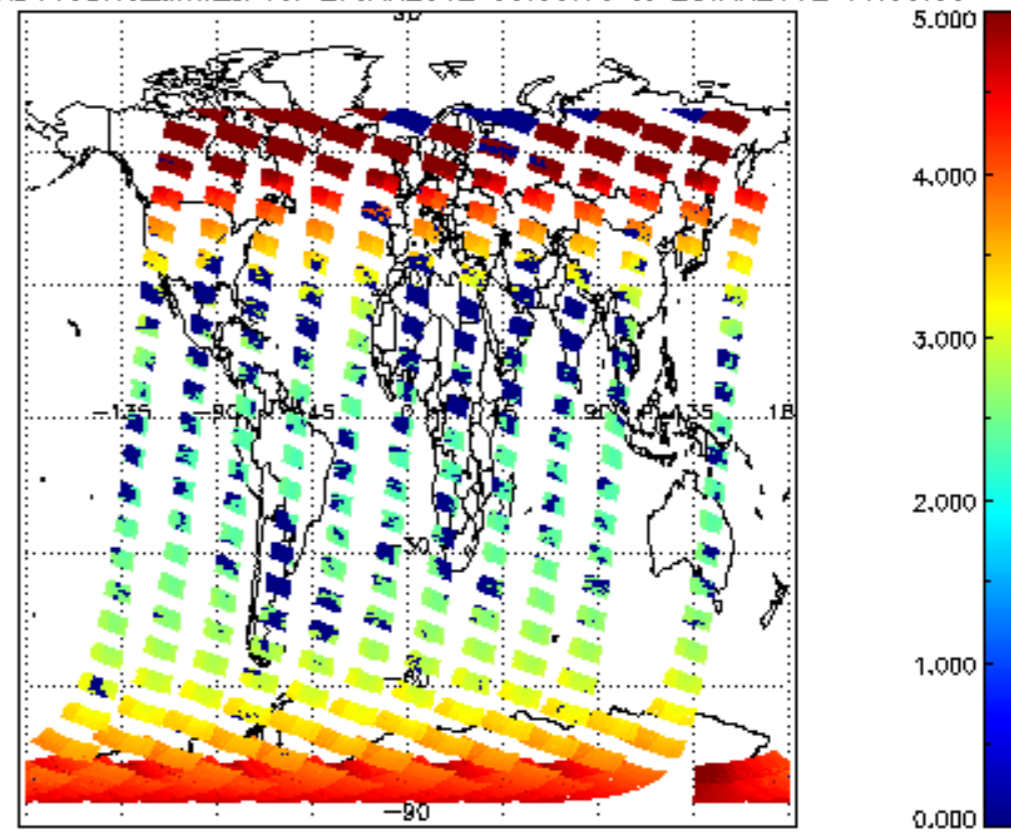
SCIOL2P\_NADUV3BRO\_vcd\_err for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



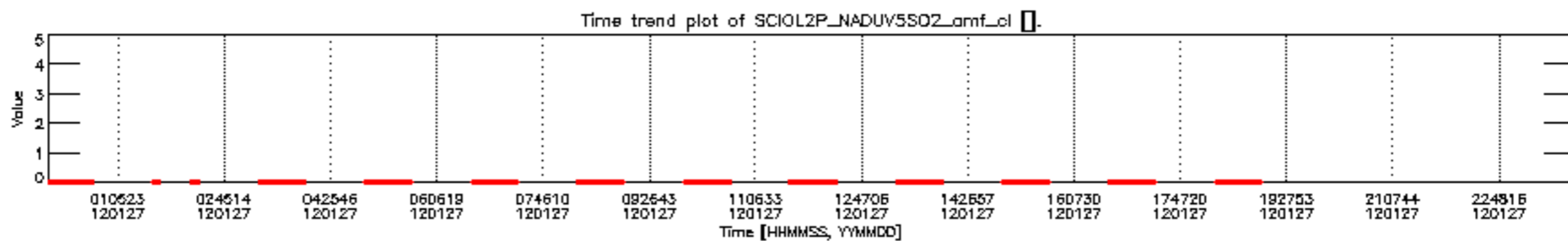
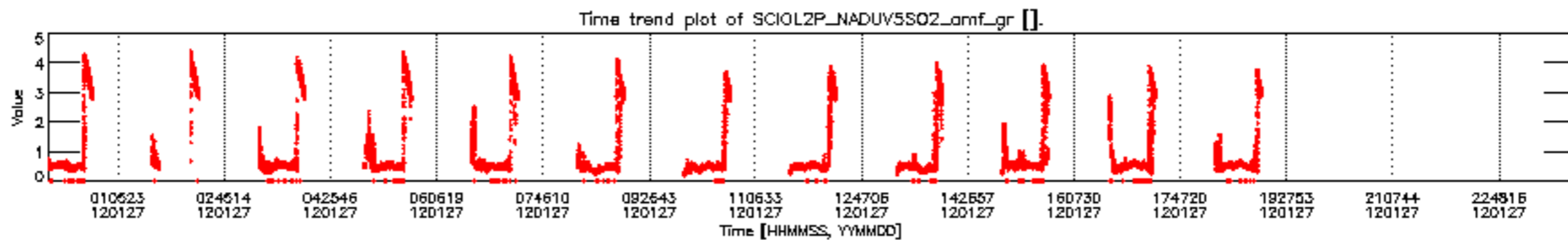
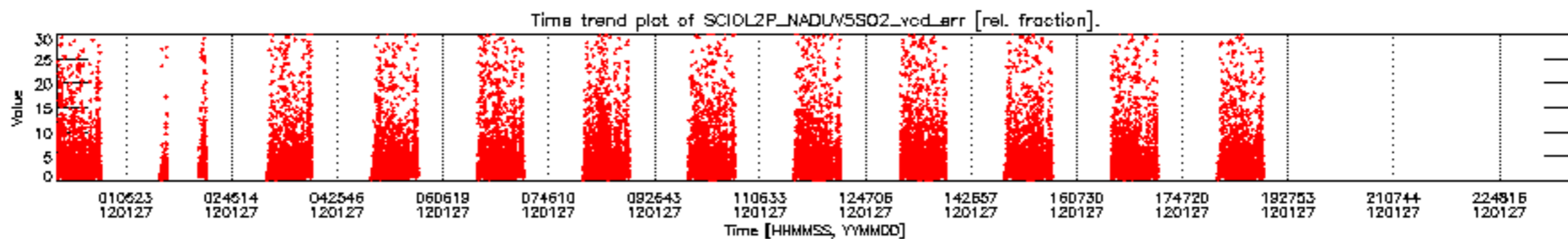
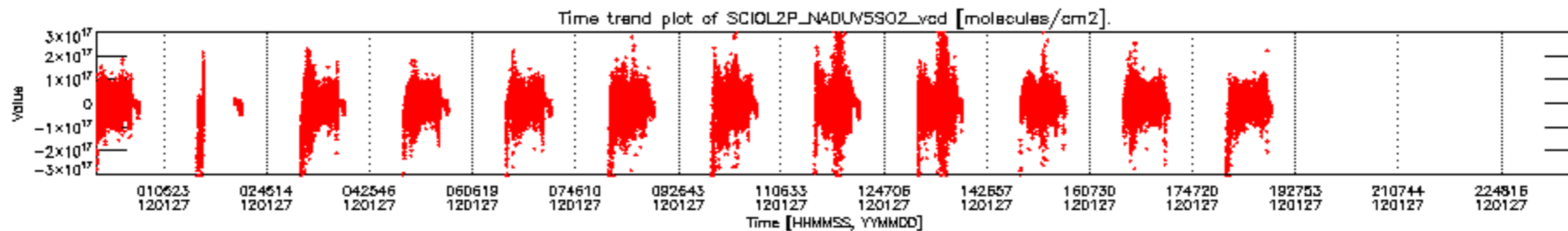
SCIOL2P\_NADUV3BRO\_amf\_gr for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



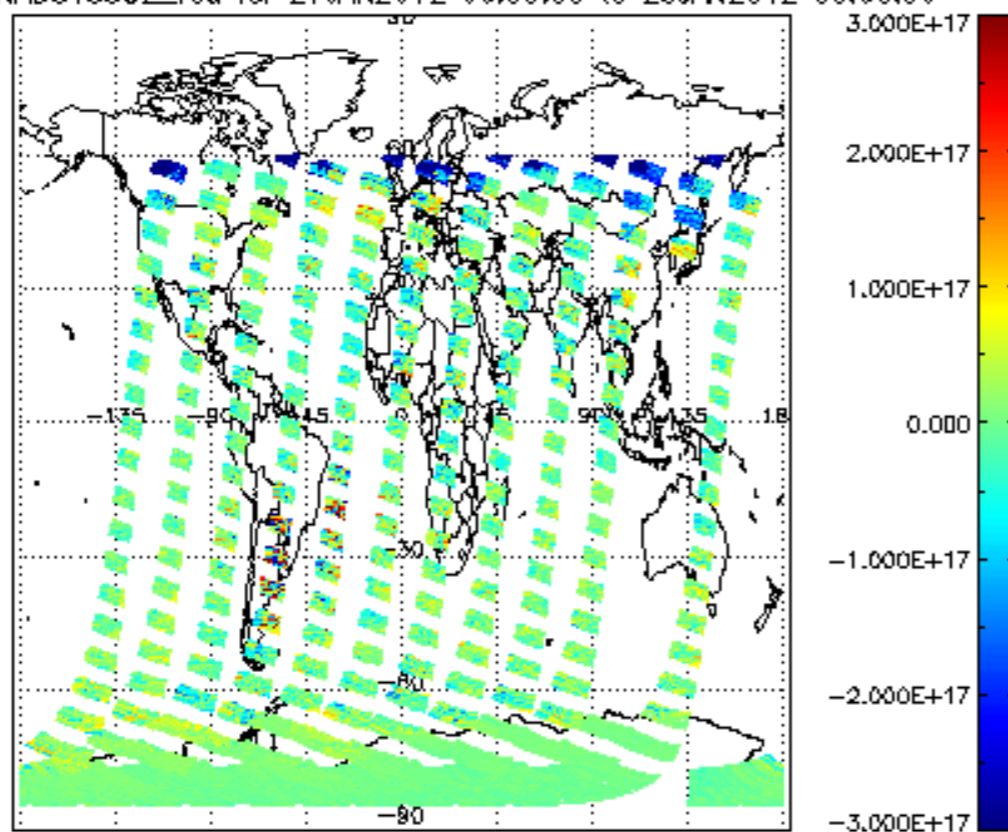
SCIOL2P\_NADUV3BRO\_amf\_cl for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



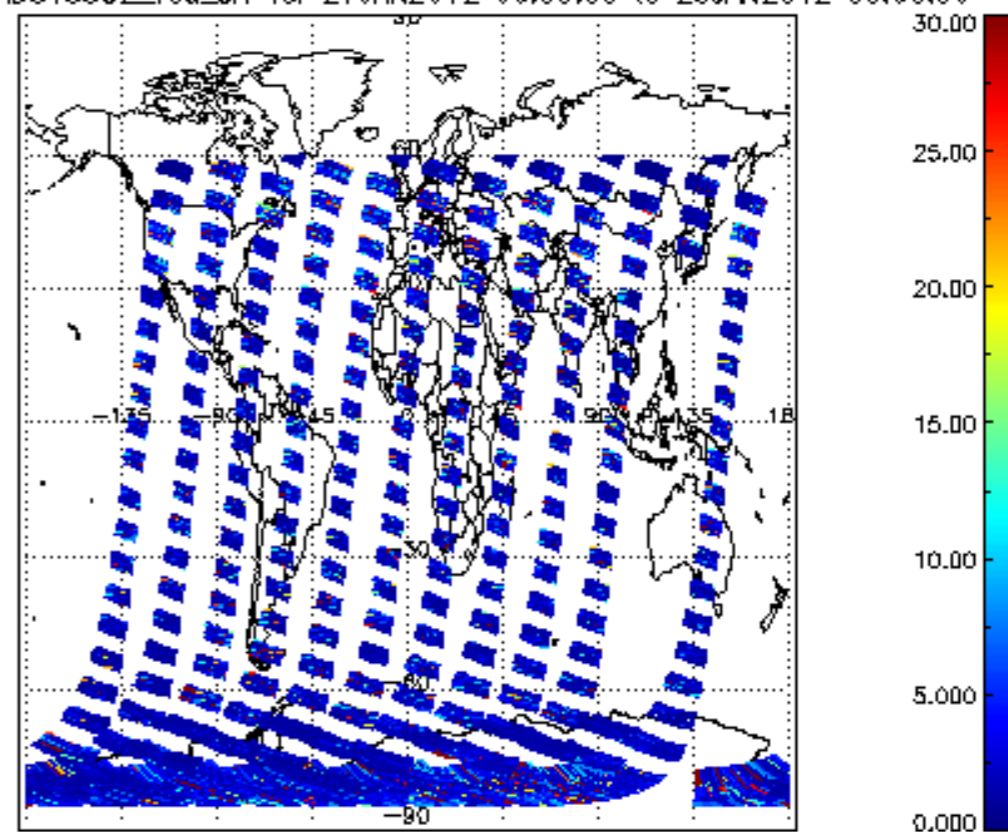




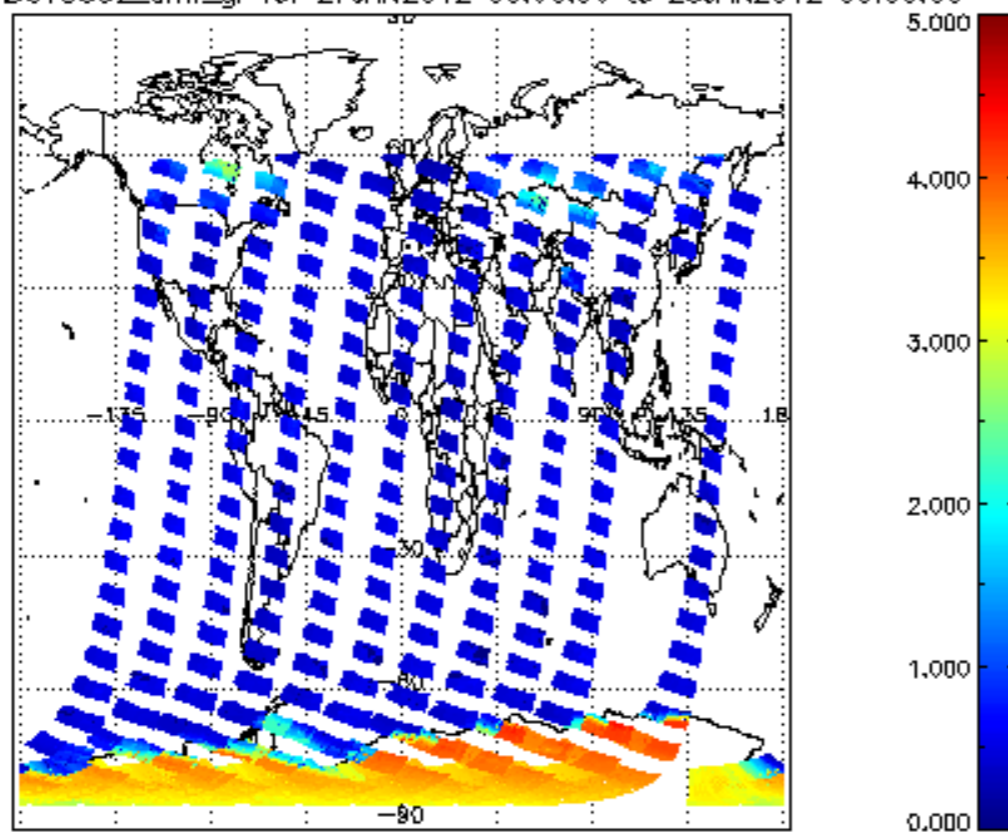
SCIOL2P\_NADUV5S02\_vcd for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



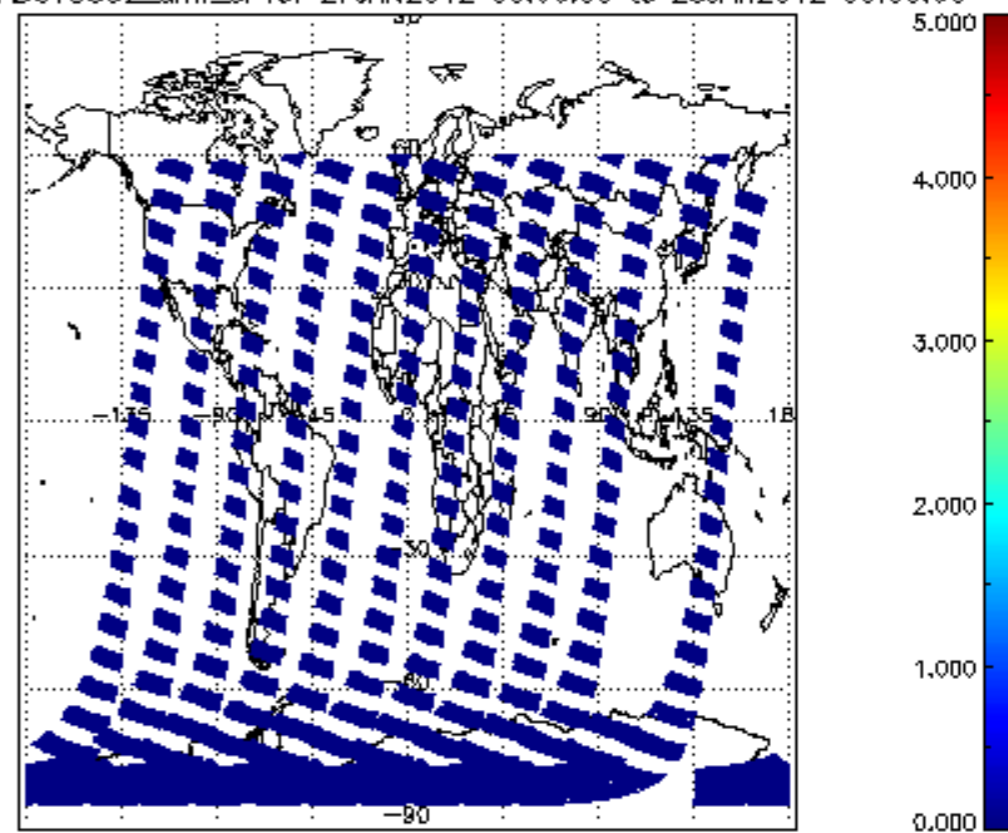
SCIOL2P\_NADUV5S02\_vcd\_err for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



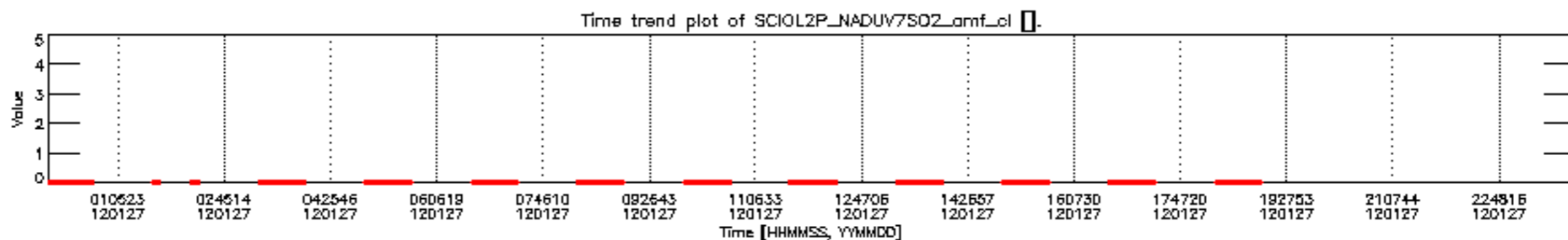
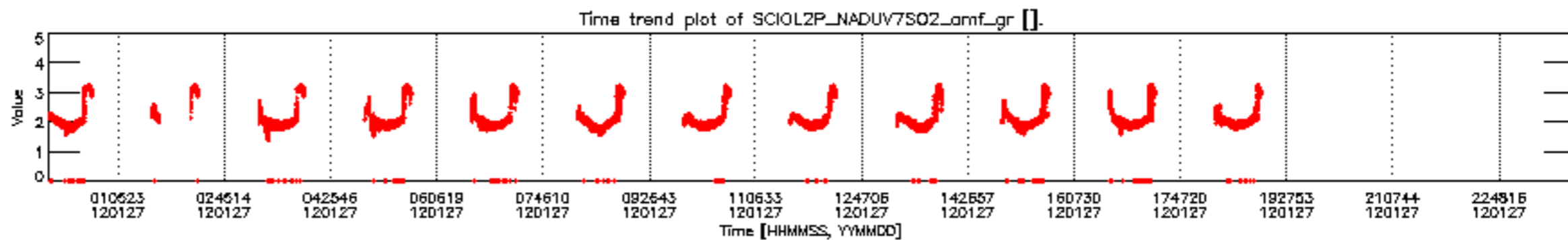
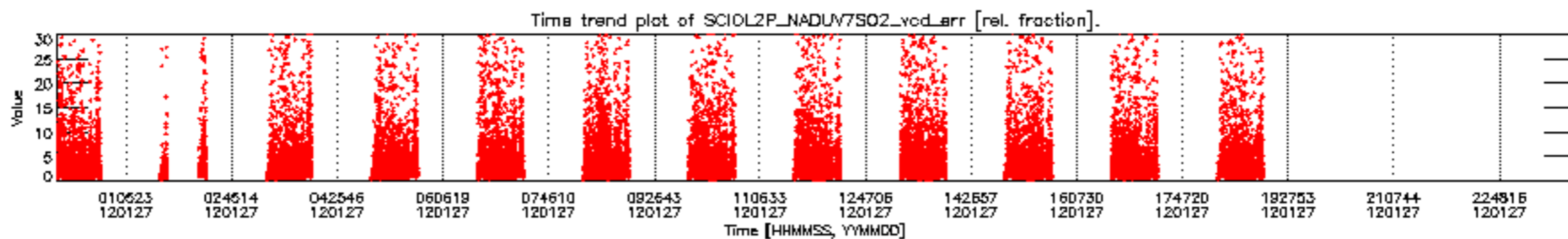
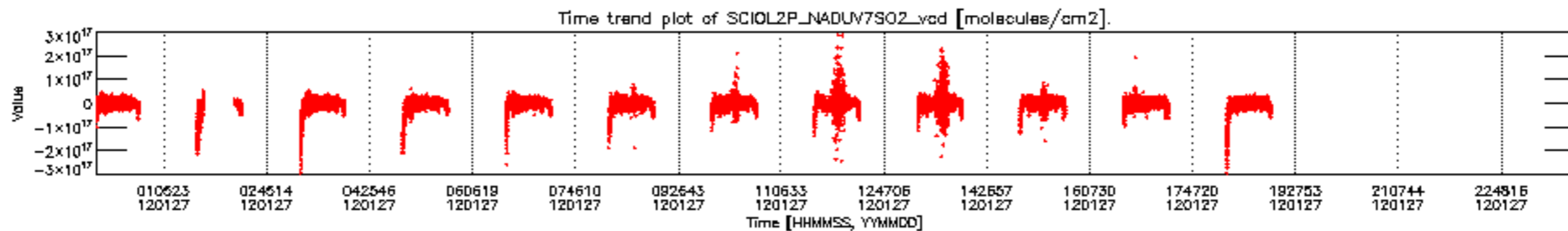
SCIOL2P\_NADUV5S02\_amf\_gr for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



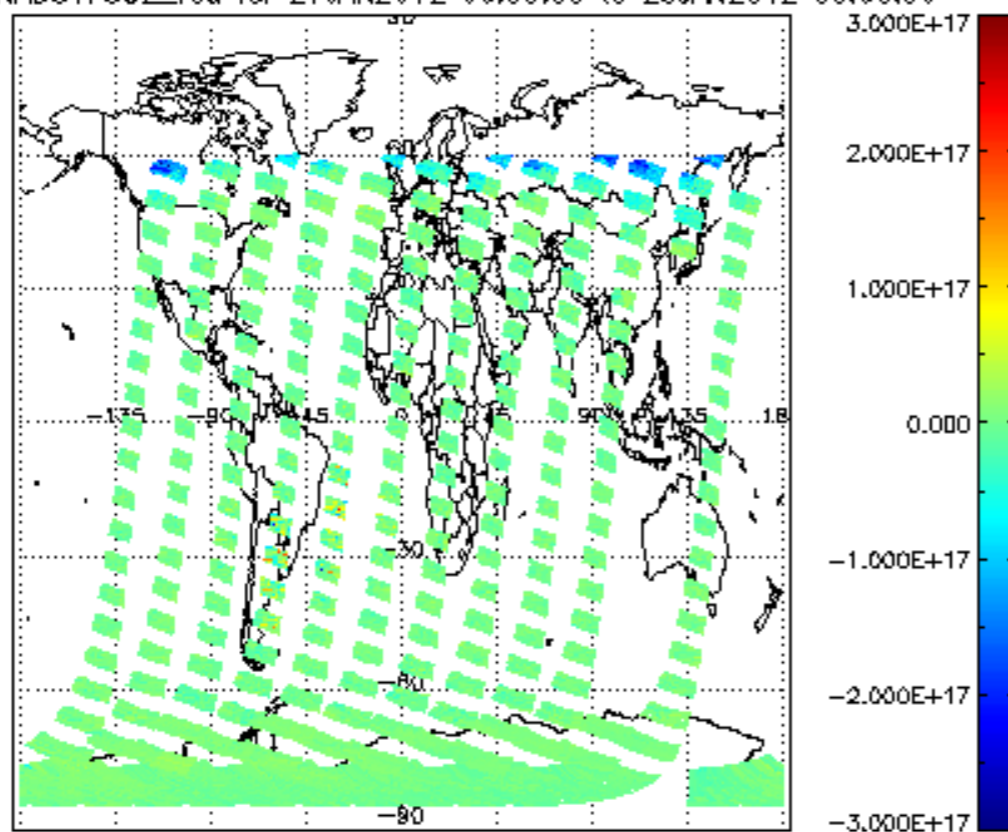
SCIOL2P\_NADUV5S02\_amf\_sl for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



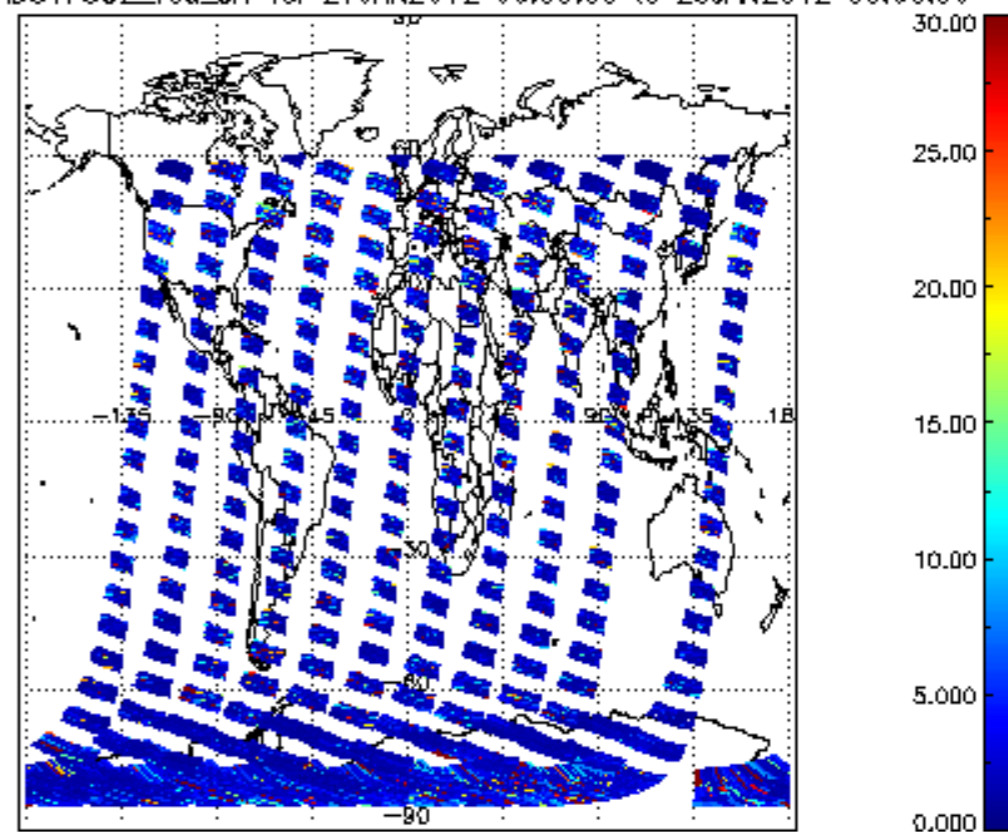




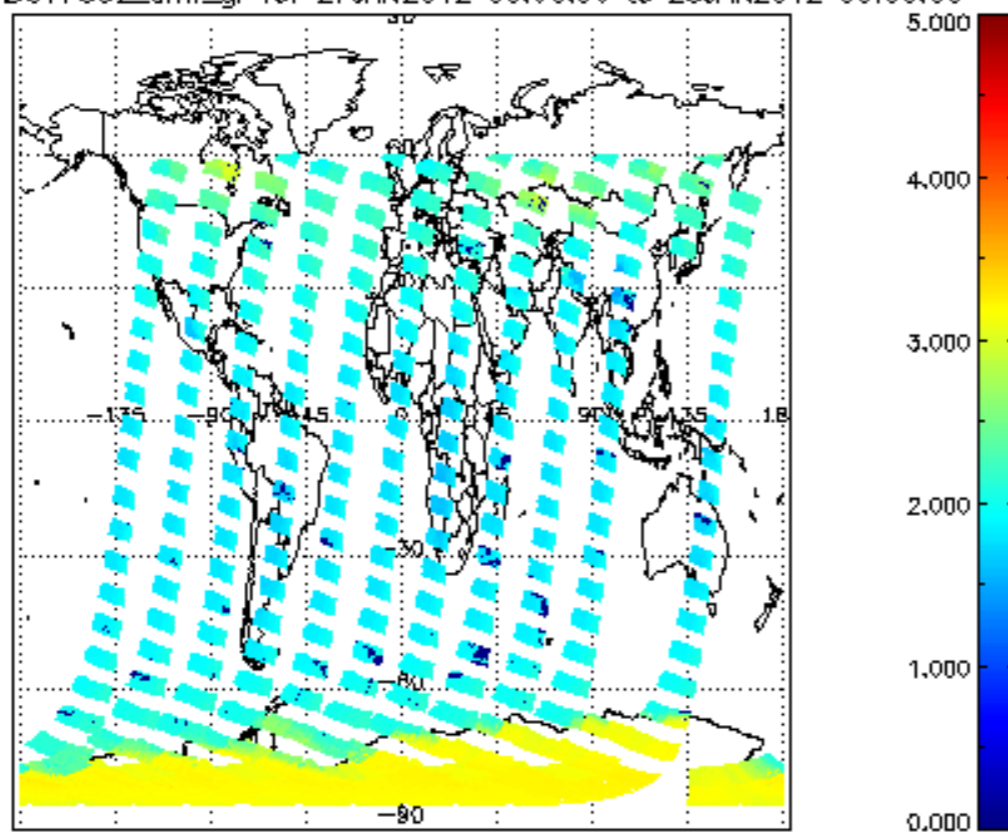
SCIOL2P\_NADUV7S02\_vcd for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



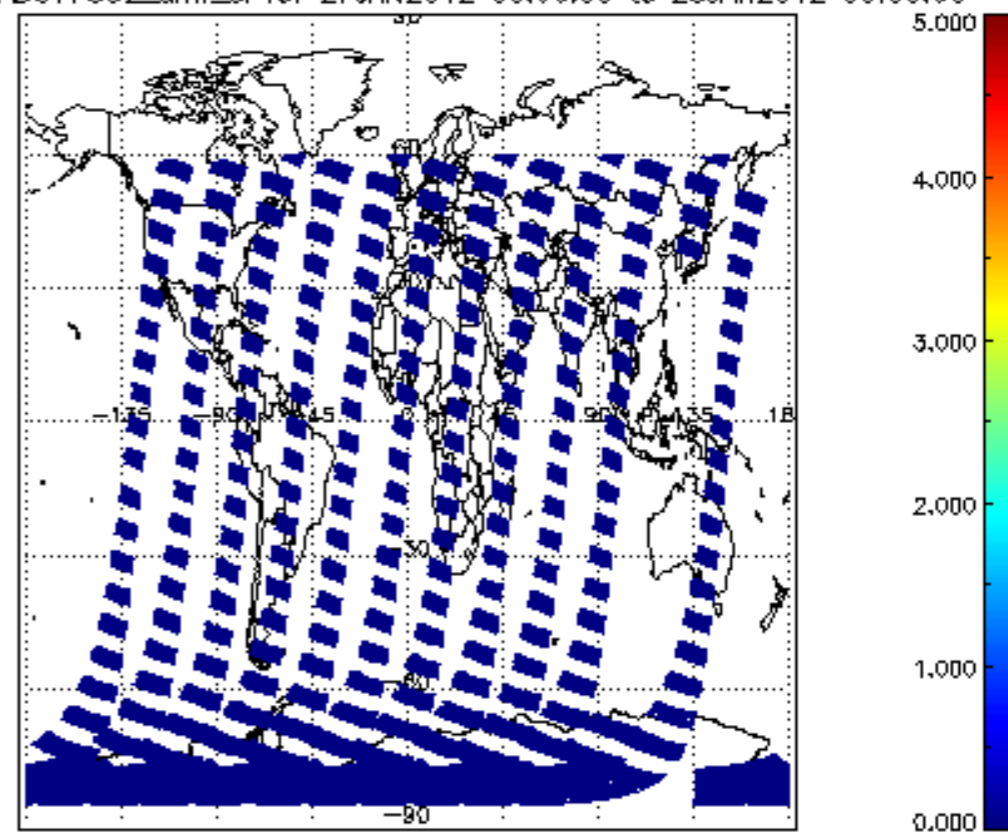
SCIOL2P\_NADUV7S02\_vcd\_err for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



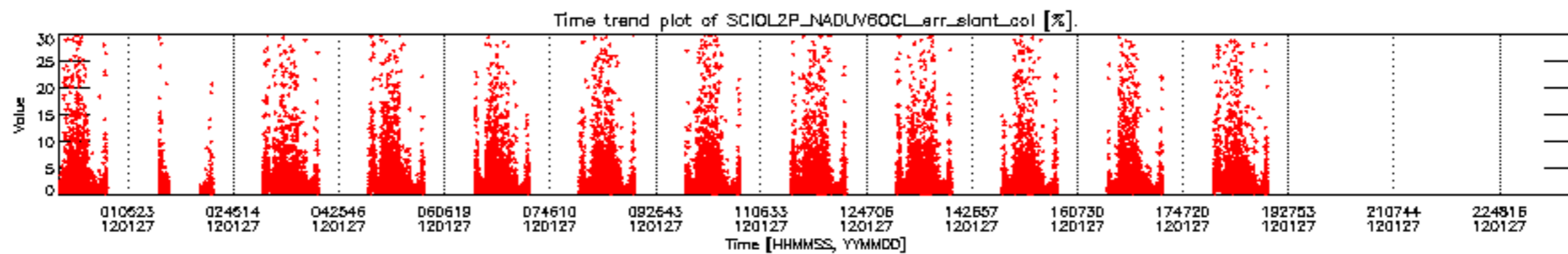
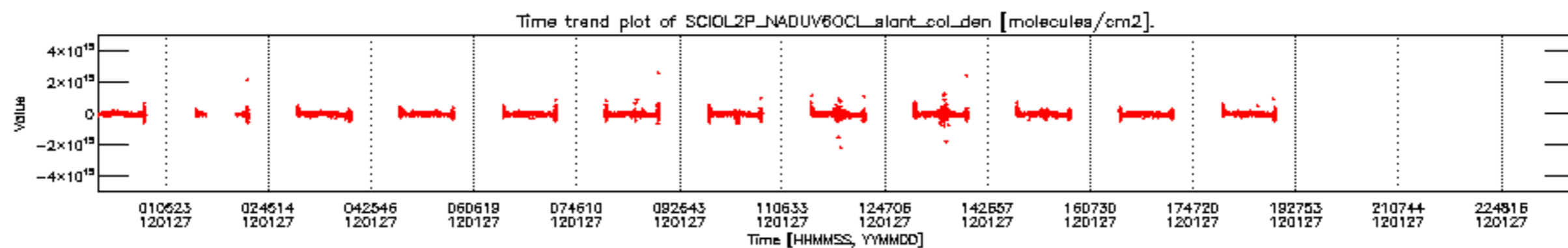
SCIOL2P\_NADUV7S02\_amf\_gr for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



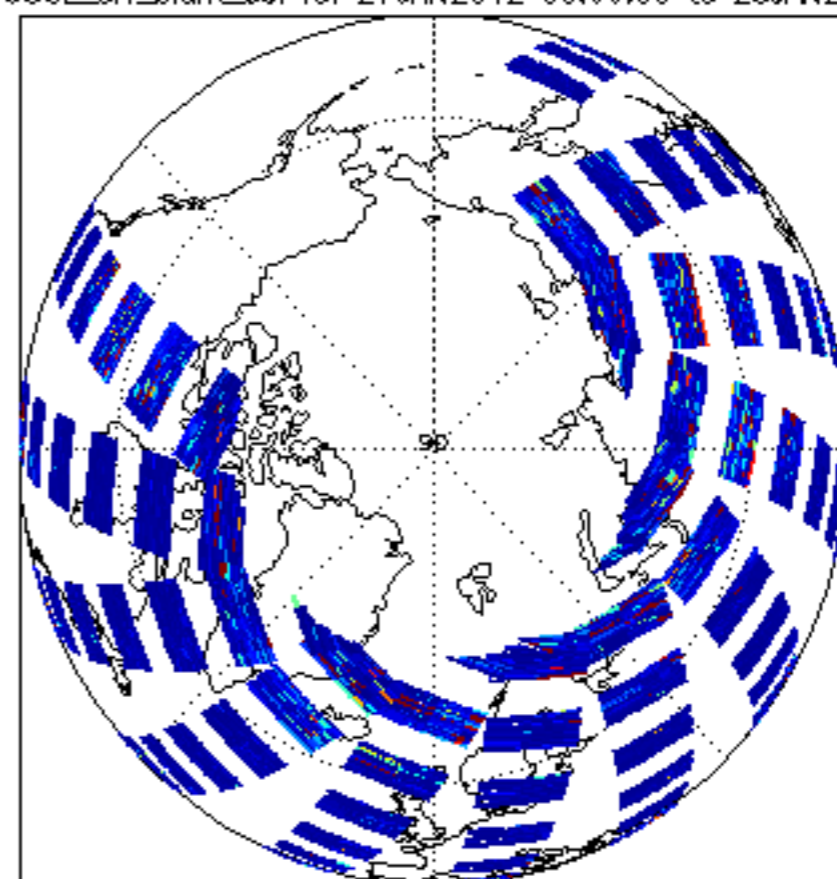
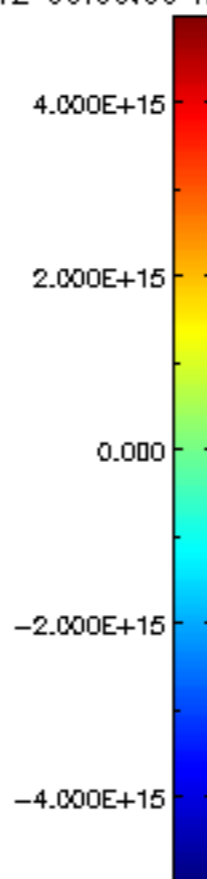
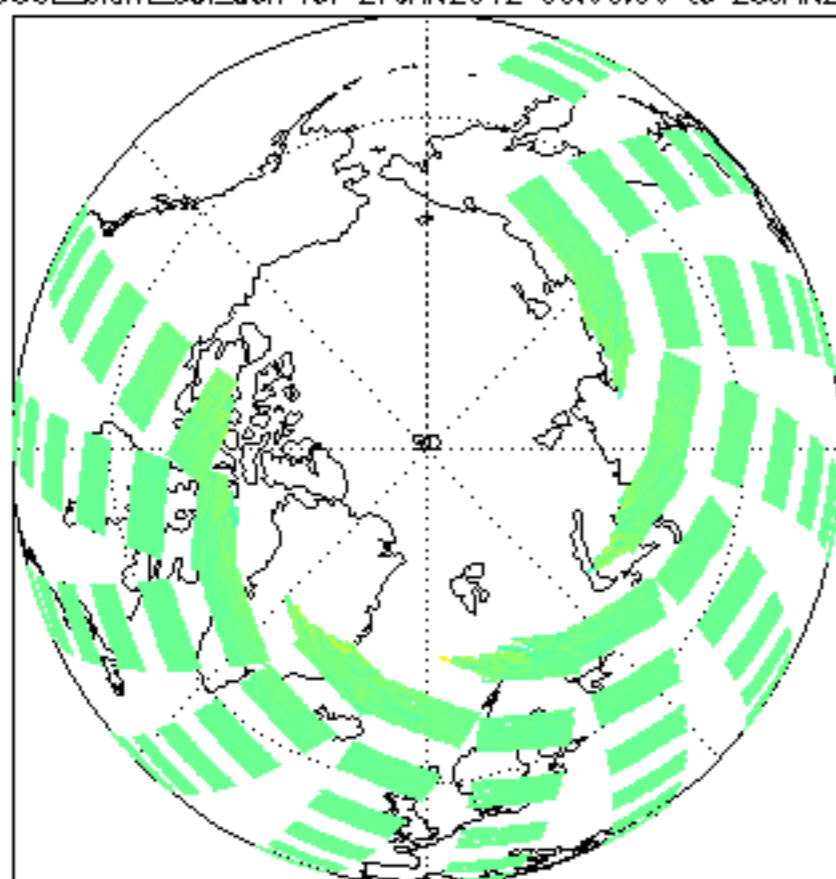
SCIOL2P\_NADUV7S02\_amf\_cl for 27JAN2012 00:00:00 to 28JAN2012 00:00:00





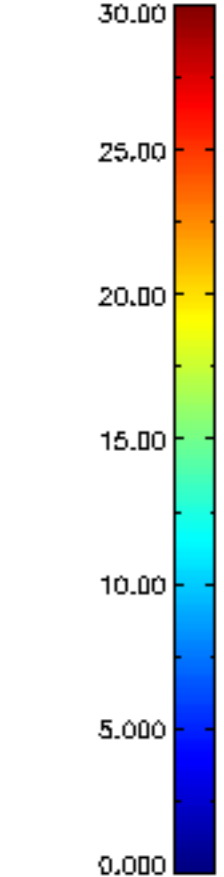
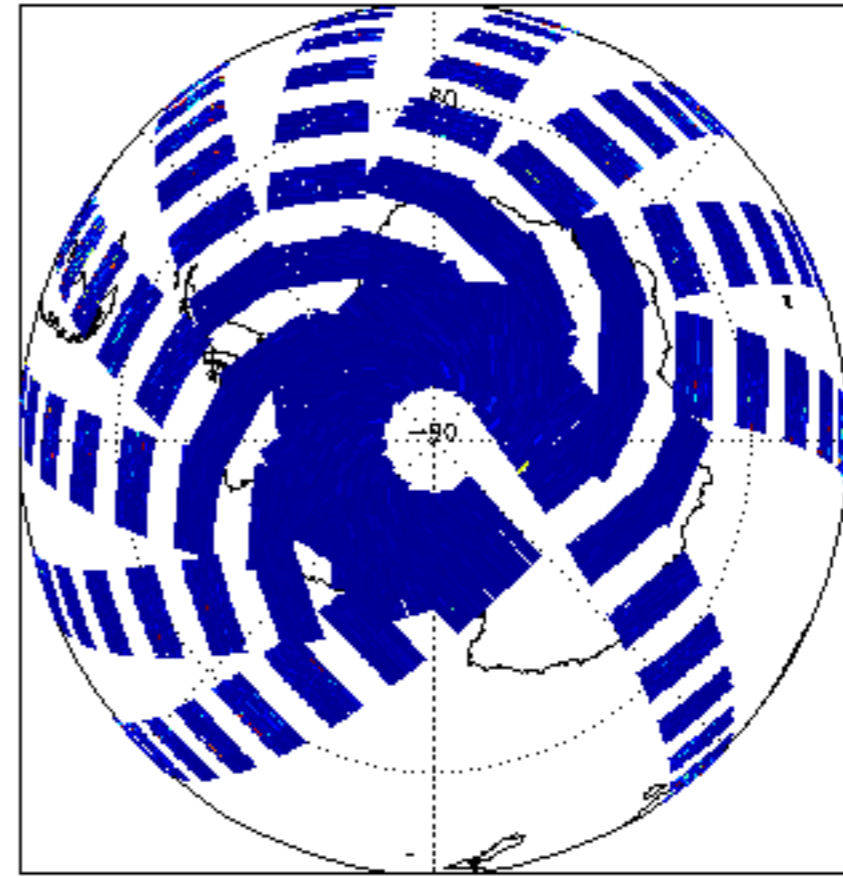
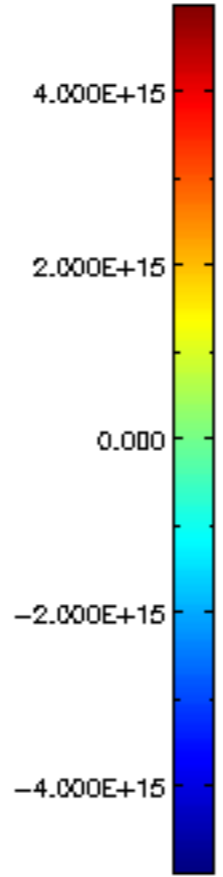
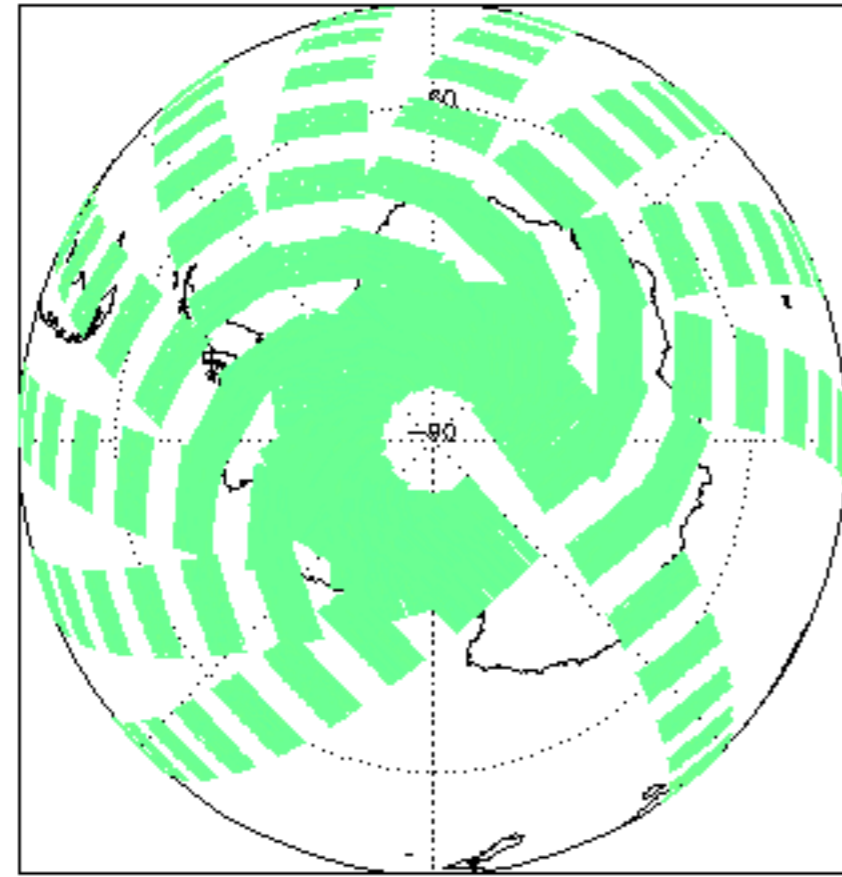


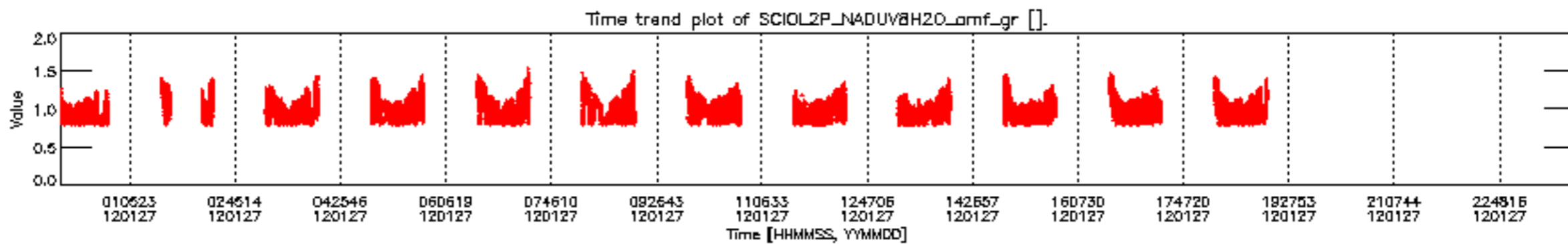
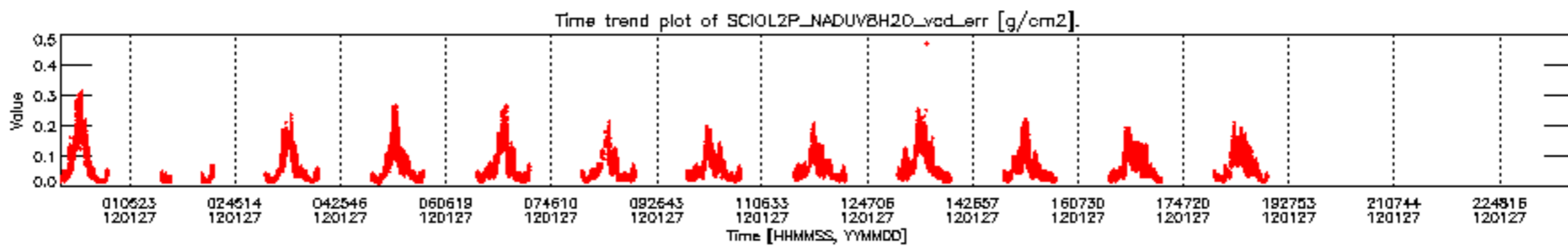
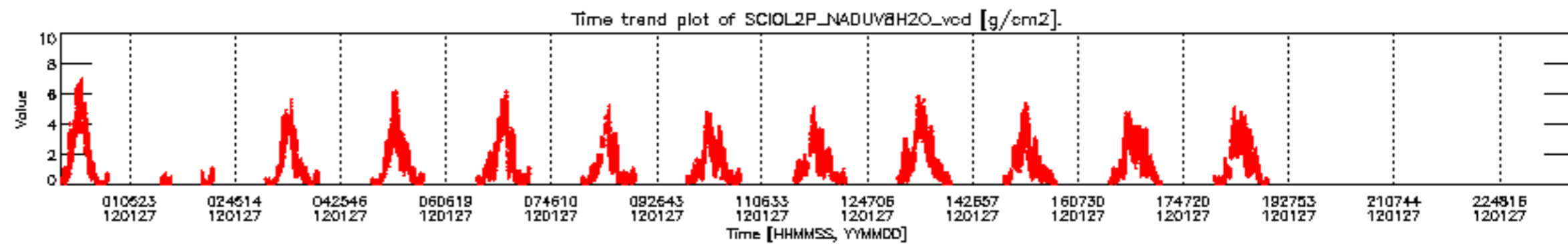
ICIOL2P\_NADUV60CL\_slant\_col\_den for 27JAN2012 00:00:00 to 28JAN2012 00:00:00 np;ICIOL2P\_NADUV60CL\_err\_slant\_col for 27JAN2012 00:00:00 to 28JAN2012 00:00:00 np





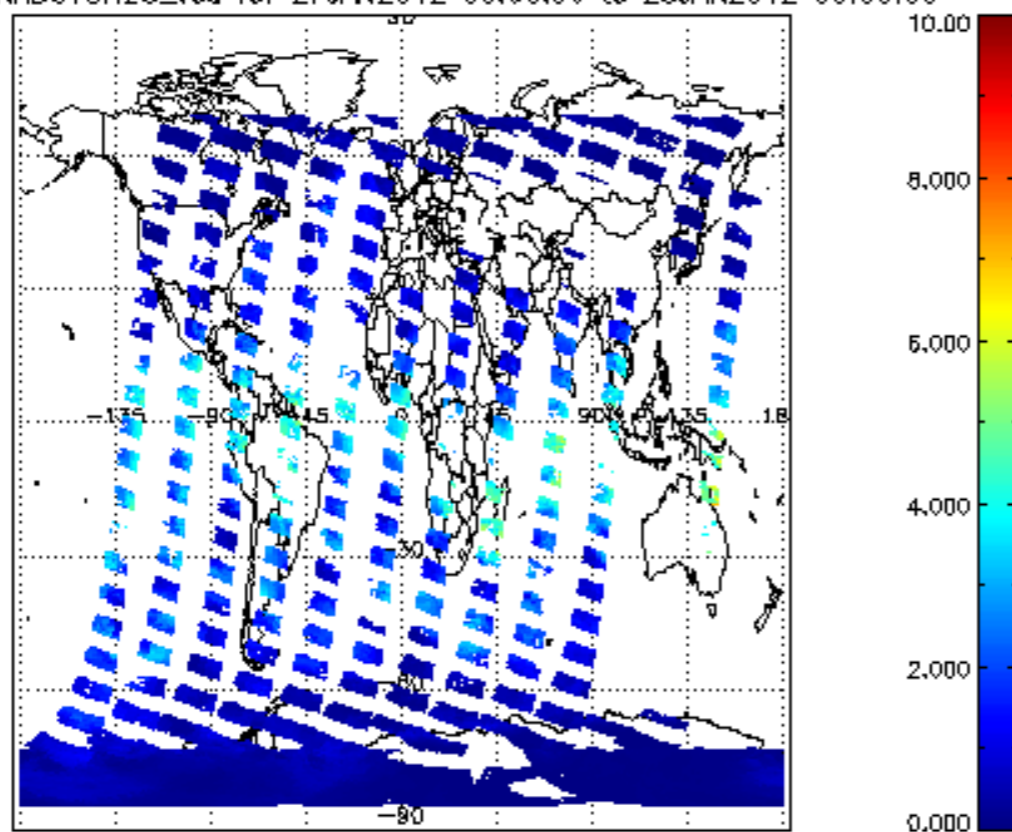
iCIOL2P\_NADUV6OCL\_slant\_col\_den for 27JAN2012 00:00:00 to 28JAN2012 00:00:00 sp iCIOL2P\_NADUV6OCL\_err\_slant\_col for 27JAN2012 00:00:00 to 28JAN2012 00:00:00 sp



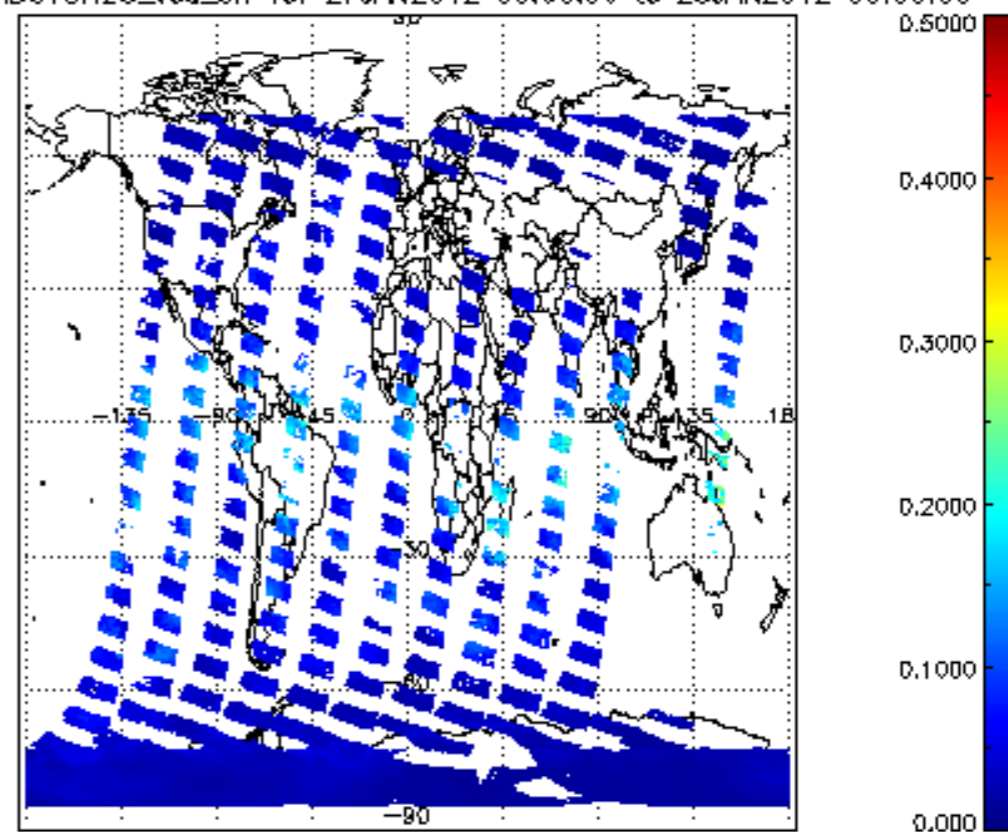




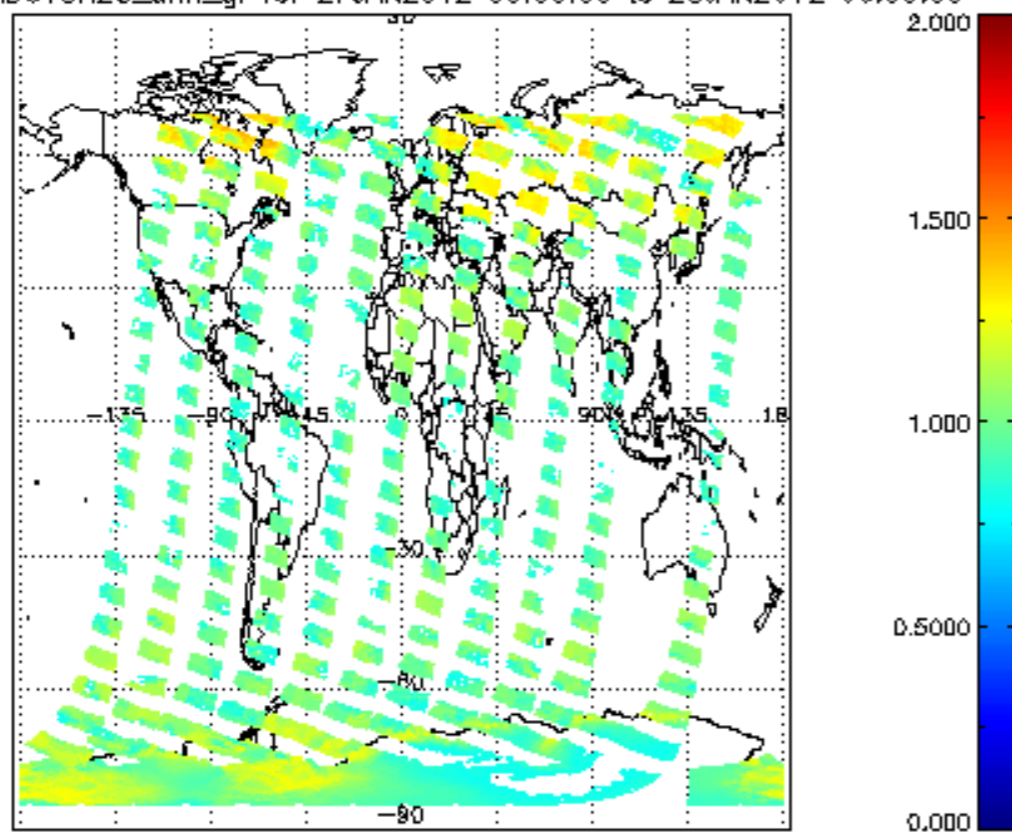
SCIOL2P\_NADUV8H20\_vcd for 27JAN2012 00:00:00 to 28JAN2012 00:00:00

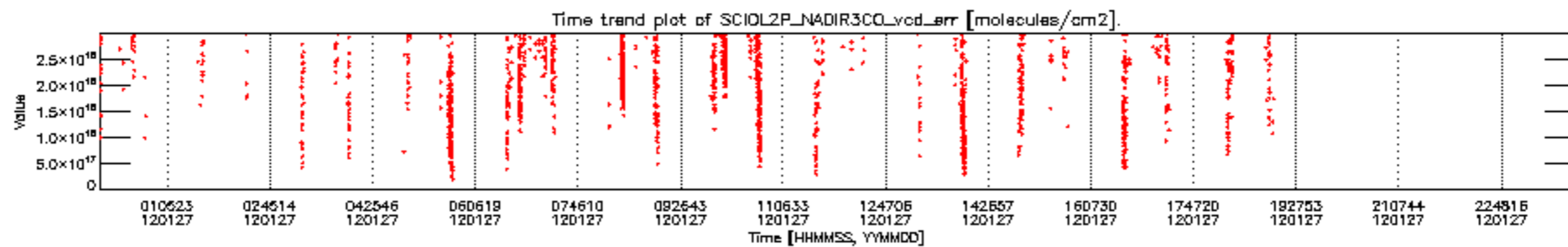
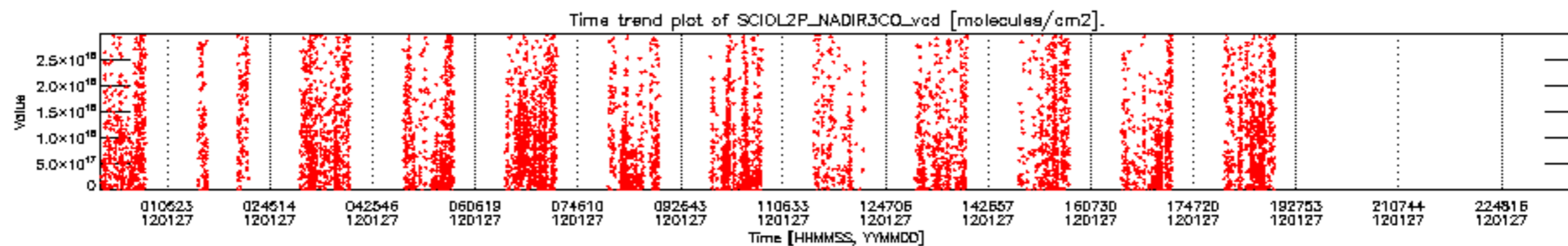


SCIOL2P\_NADUV8H20\_vcd\_err for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



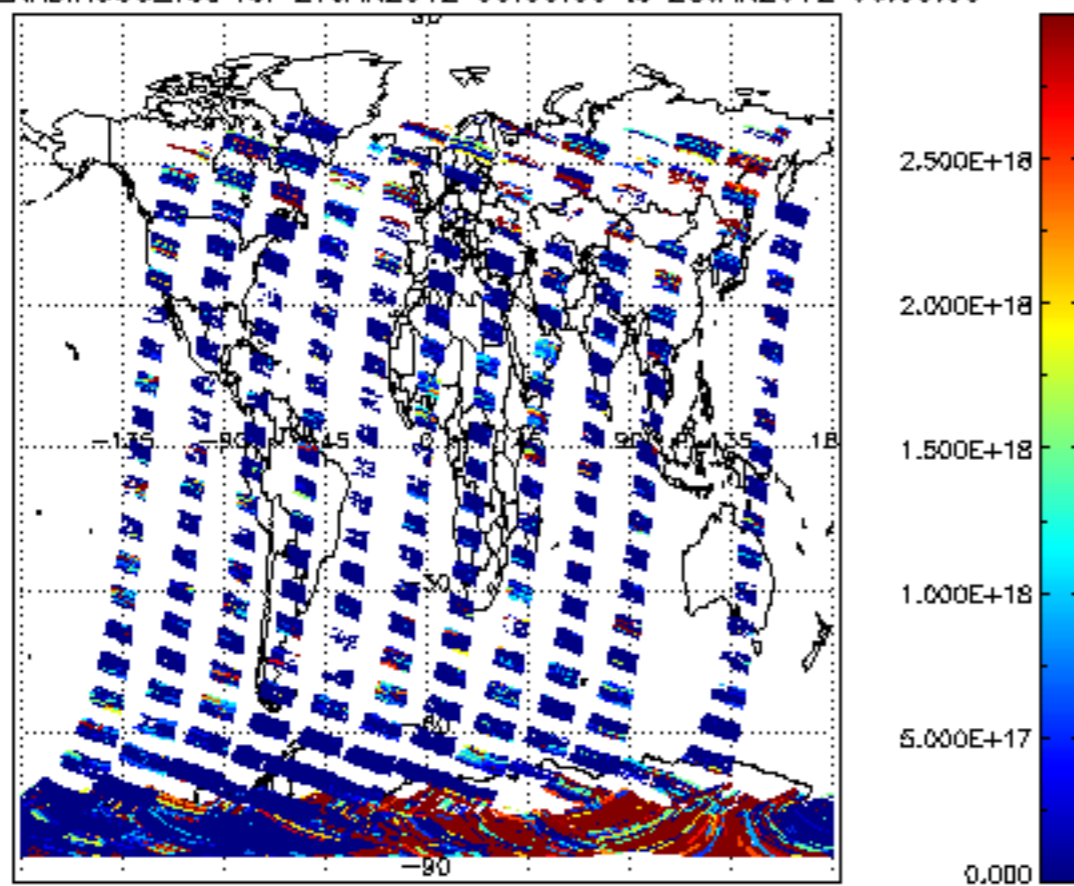
SCIOL2P\_NADUV8H20\_amf\_gr for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



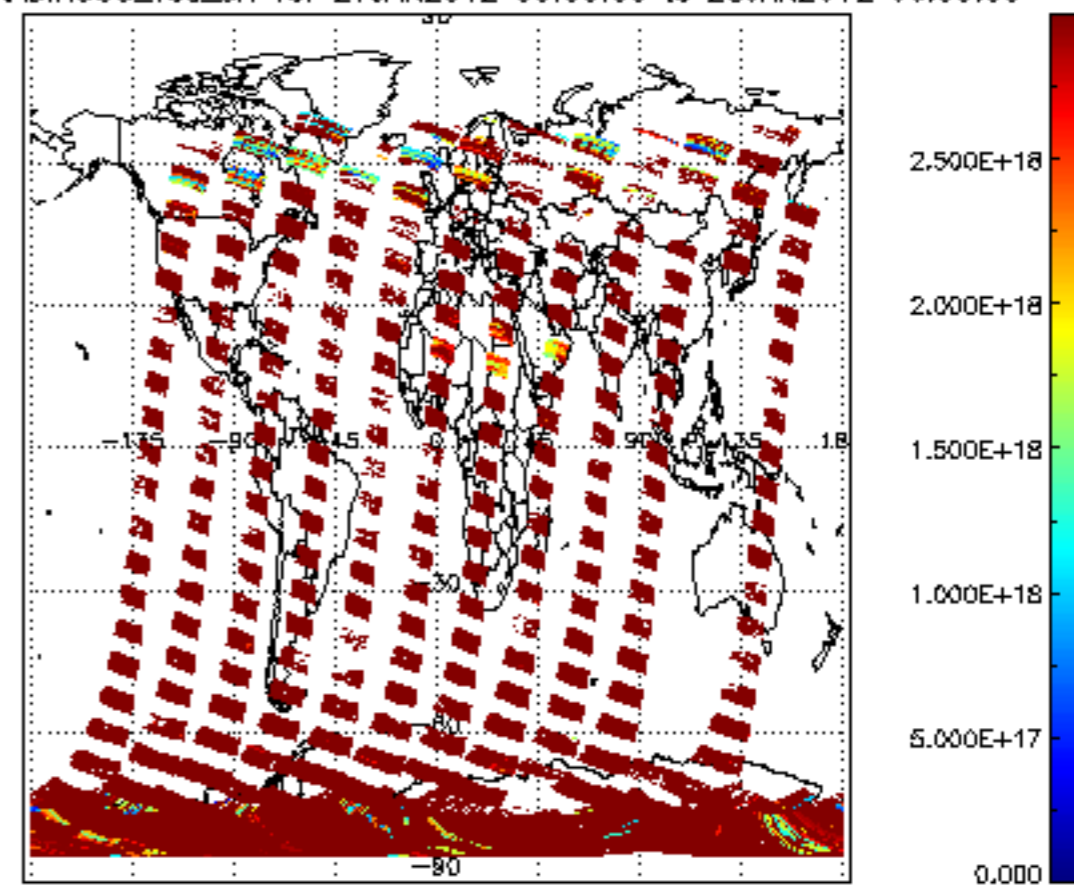




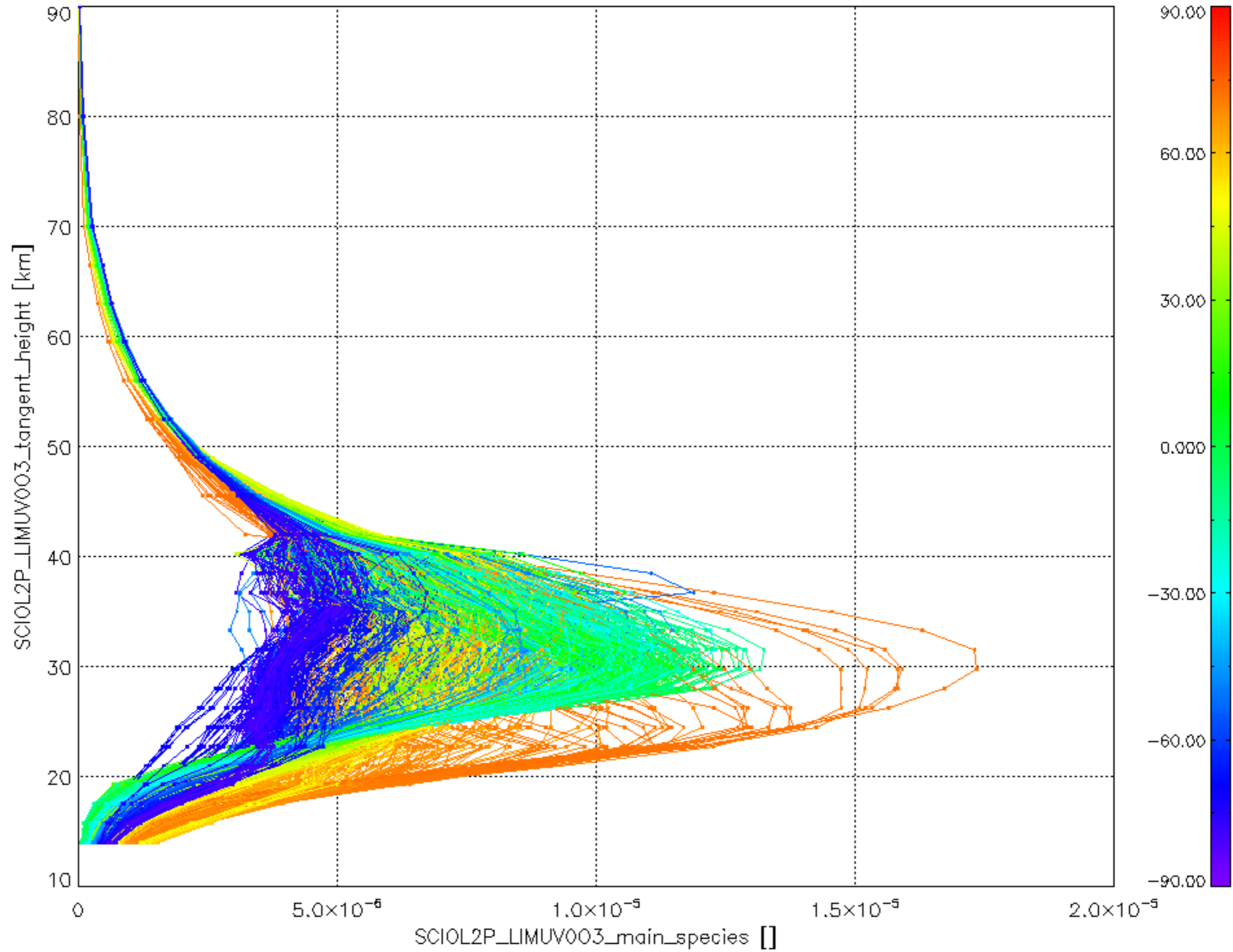
SCIOL2P\_NADIR3CO\_vcd for 27JAN2012 00:00:00 to 28JAN2012 00:00:00



SCIOL2P\_NADIR3CO\_vcd\_err for 27JAN2012 00:00:00 to 28JAN2012 00:00:00

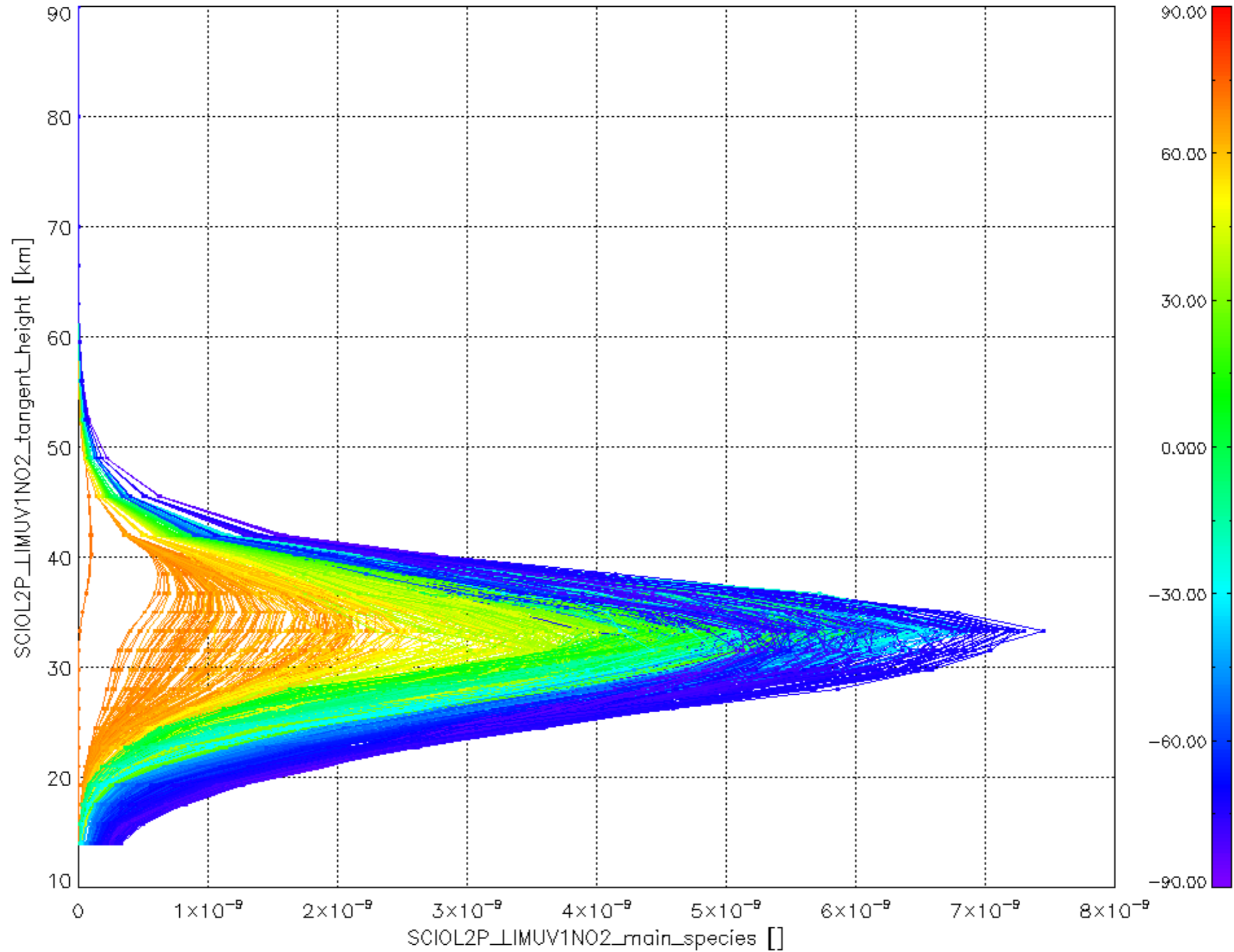


Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).





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).

