

## 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	21FEB2012 03:19:49
Data source version	SCIA-OL/5.02-W
Processing scope for products	08FEB2012 00:00:00 to 09FEB2012 00:00:00
Start time of first product within scope	07FEB2012 23:05:58
Stop time of last product within scope	08FEB2012 23:27:43
Total number of level 2 products	14
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__2PWDPA20120207_230558_000035163111_00260_51998_3436.N1</a>	07FEB2012 23:05:58	08FEB2012 00:04:34	0	GOOD
1	<a href="#">SCI_OL__2PWDPA20120208_004612_000035303111_00261_51999_3437.N1</a>	08FEB2012 00:46:12	08FEB2012 01:45:02	0	GOOD
2	<a href="#">SCI_OL__2PWDPA20120208_022625_000035163111_00262_52000_3438.N1</a>	08FEB2012 02:26:25	08FEB2012 03:25:01	0	GOOD
3	<a href="#">SCI_OL__2PWDPA20120208_040639_000035303111_00263_52001_3439.N1</a>	08FEB2012 04:06:39	08FEB2012 05:05:29	0	GOOD
4	<a href="#">SCI_OL__2PWDPA20120208_054652_000035163111_00264_52002_3440.N1</a>	08FEB2012 05:46:52	08FEB2012 06:45:28	0	GOOD

5	SCI_OL__2PWDP	20120208_072706_000035303111_00265_52003_3441.N1	08FEB2012 07:27:06	08FEB2012 08:25:56	0	GOOD
6	SCI_OL__2PWDP	20120208_104733_000035303111_00267_52005_3442.N1	08FEB2012 10:47:33	08FEB2012 11:46:23	0	GOOD
7	SCI_OL__2PWDP	20120208_122746_000035163111_00268_52006_3443.N1	08FEB2012 12:27:46	08FEB2012 13:26:22	0	GOOD
8	SCI_OL__2PWDP	20120208_140800_000035303111_00269_52007_3446.N1	08FEB2012 14:08:00	08FEB2012 15:06:50	0	GOOD
9	SCI_OL__2PWDP	20120208_154813_000035163111_00270_52008_3445.N1	08FEB2012 15:48:13	08FEB2012 16:46:49	0	GOOD
10	SCI_OL__2PWDP	20120208_172934_000034723111_00271_52009_3447.N1	08FEB2012 17:29:34	08FEB2012 18:27:27	0	GOOD
11	SCI_OL__2PWDP	20120208_190901_000035163111_00272_52010_3448.N1	08FEB2012 19:09:01	08FEB2012 20:07:37	0	GOOD
12	SCI_OL__2PWDP	20120208_204854_000035303111_00273_52011_3453.N1	08FEB2012 20:48:54	08FEB2012 21:47:44	0	GOOD
13	SCI_OL__2PWDP	20120208_222907_000035163111_00274_52012_3444.N1	08FEB2012 22:29:07	08FEB2012 23:27:43	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: 141966

Total number of cloud data DSRs with good quality flag (=0): 141966 (100.0 %)

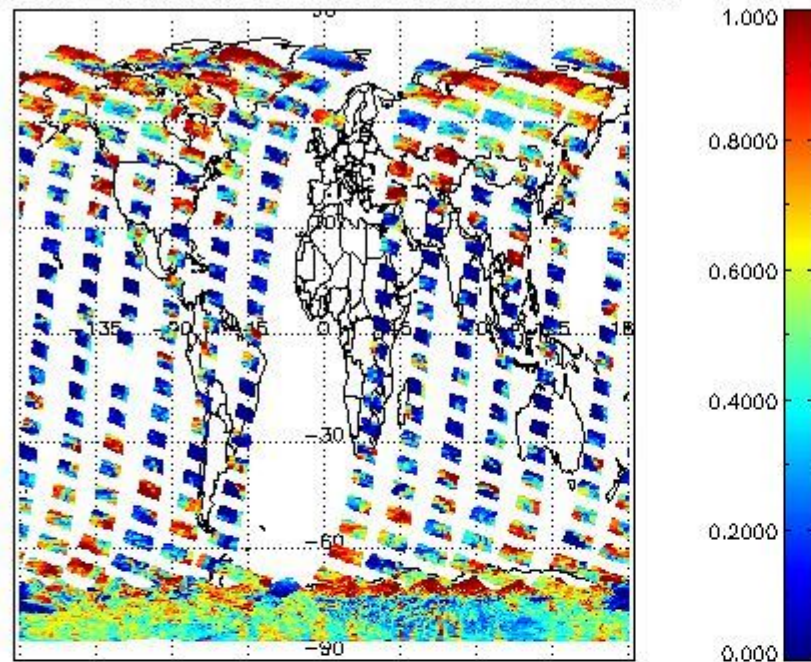
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	141966	0.0000	0.0000	0.0000	0.0000	0.0000	
INTEGR_TIME	141966	0.16438	0.12500	0.12500	0.25000	0.058065	s
CL_FRAC	141966	0.45680	0.44251	0.0000	1.0000	0.31039	
CL_FRAC_ERR	141966	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	141966	5.2600	4.0000	4.0000	8.0000	1.8581	
PMD_READ_CL[0]	141966	0.57468	0.0000	0.0000	8.0000	1.4399	-
PMD_READ_CL[1]	141966	1.0639	0.0000	0.0000	8.0000	2.3493	-
CL_TOP_HEIGHT	113531	3.8857	2.9657	0.0000	17.000	3.6682	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	113531	55.371	48.143	0.0000	101.00	40.369	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	141966	11100000	11100000	11100000	11100000	0.0000	
CLOUD_FLAGS	141966	11001011	11000100	11000000	11100000	3444.2	
AERO_ABSO_IND	141966	0.084060	0.0000	0.0000	12.387	0.29220	
AERO_IND_DIAG	141966	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	141966	01010011	00000000	00000000	11000000	24369.	

#### Time and geolocation plots:

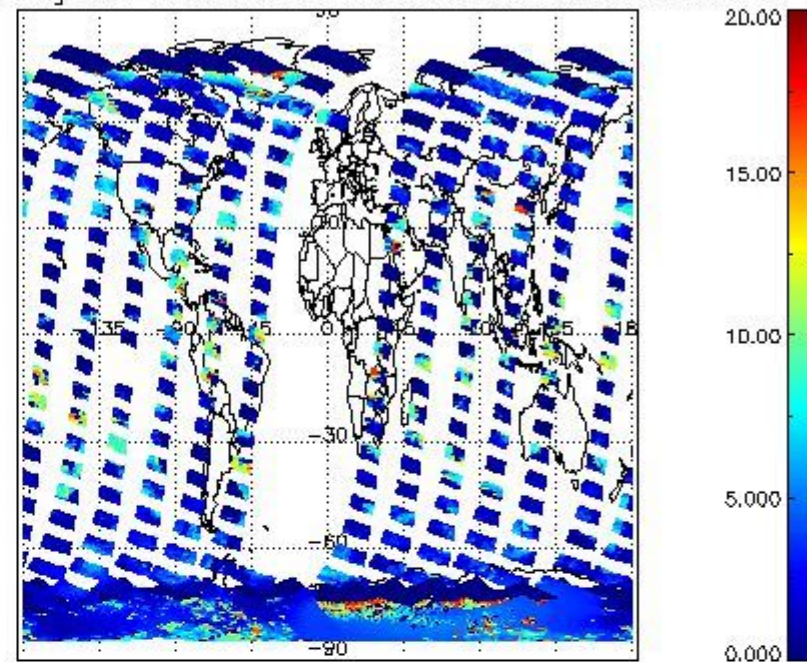
Plots are available for the following parameters:

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

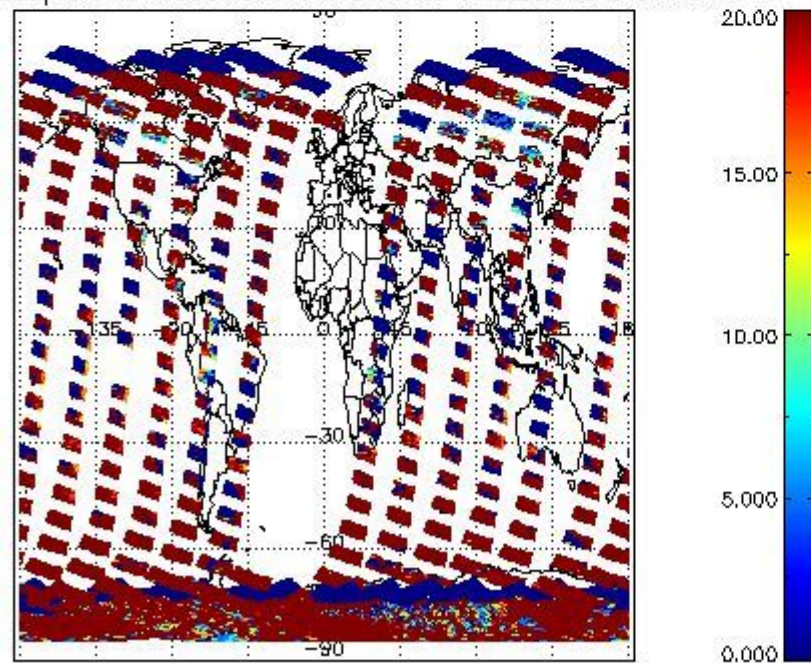
cL\_frac for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



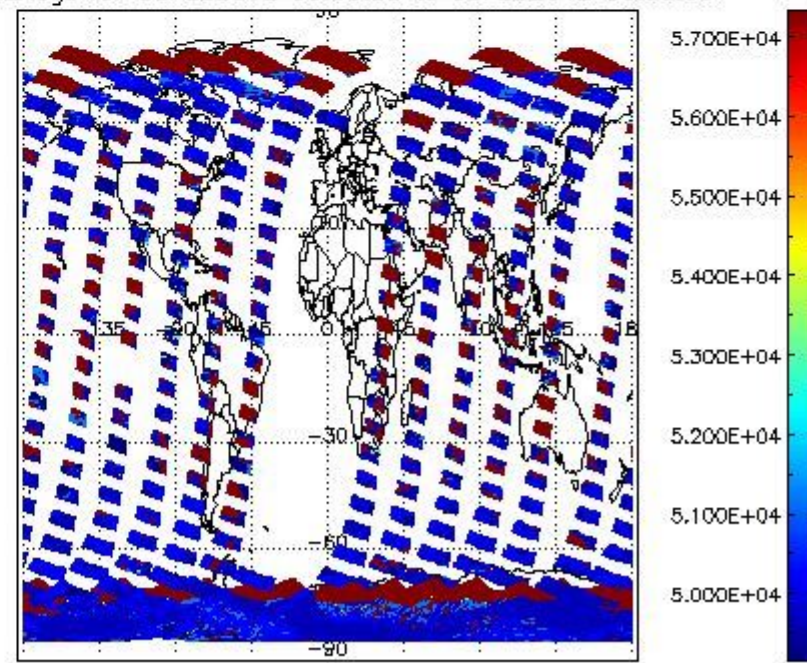
cL\_top\_height for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



cL\_opt\_depth for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



cloud\_flags for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



## 2.2.2 Nadir

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

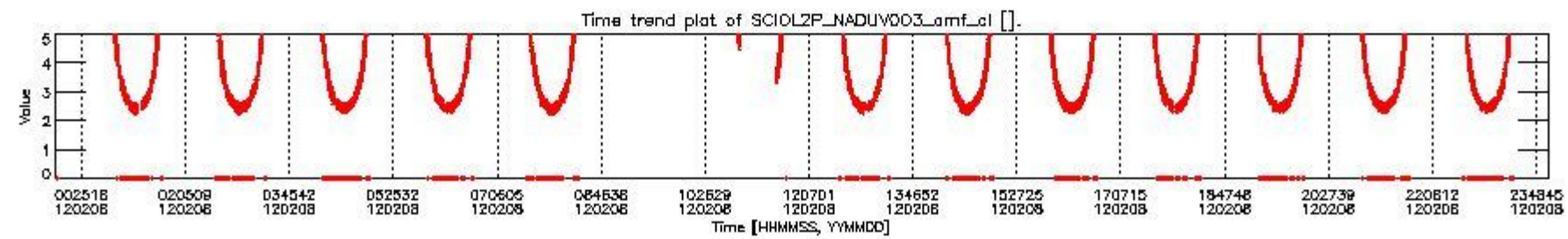
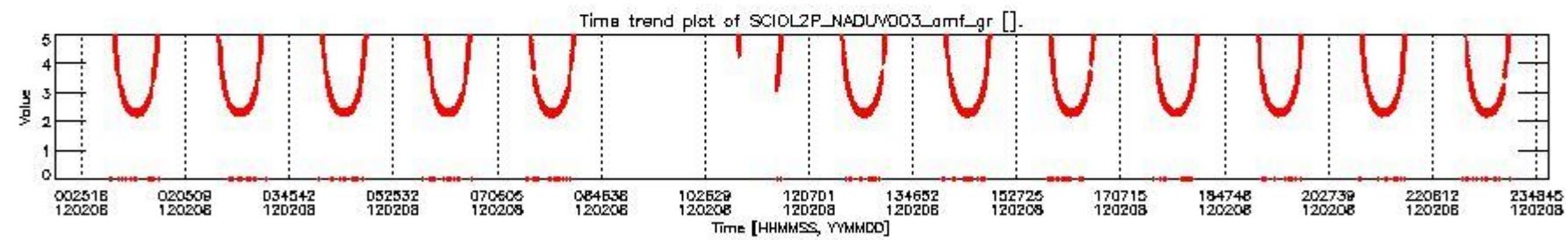
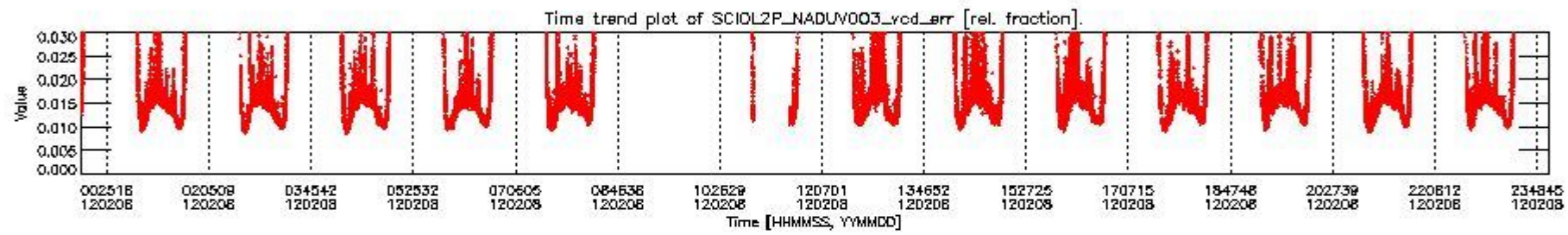
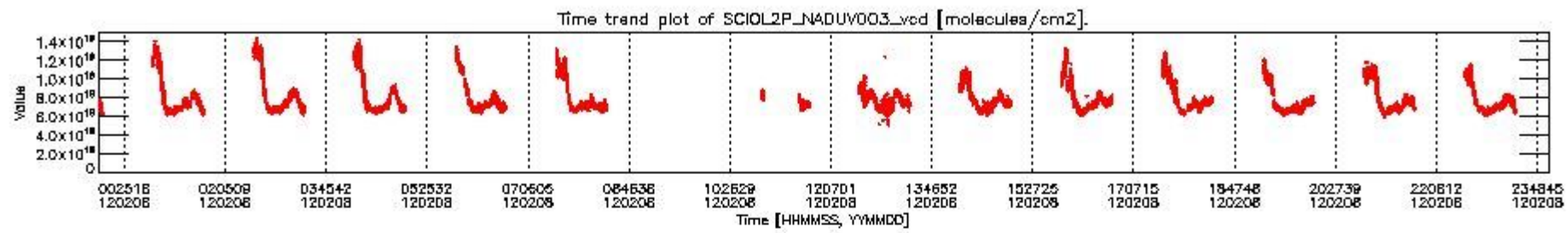
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

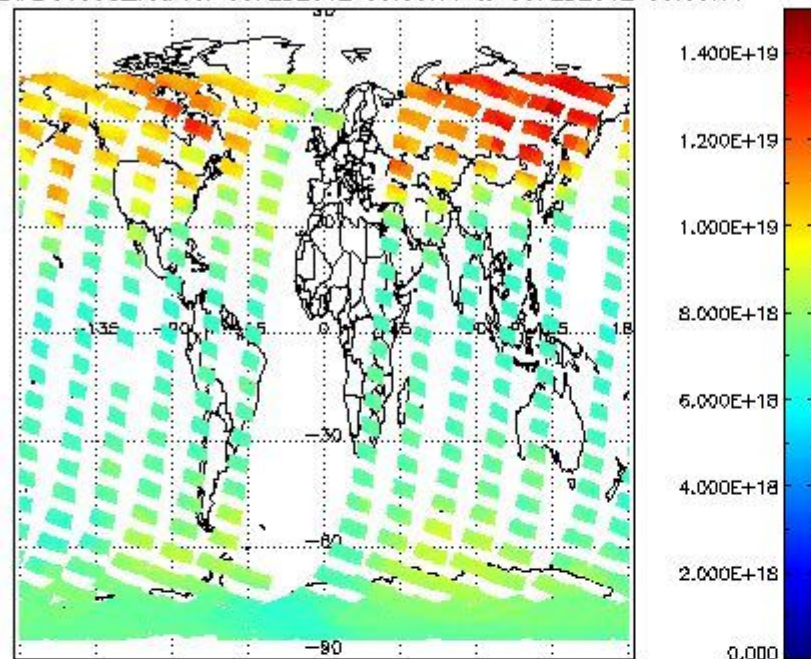
3	SCIOL2P_NADUV0O3_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl
8	SCIOL2P_NADUV3BRO_vcd
9	SCIOL2P_NADUV3BRO_vcd_err
10	SCIOL2P_NADUV3BRO_amf_gr
11	SCIOL2P_NADUV3BRO_amf_cl
12	SCIOL2P_NADUV5SO2_vcd
13	SCIOL2P_NADUV5SO2_vcd_err
14	SCIOL2P_NADUV5SO2_amf_gr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

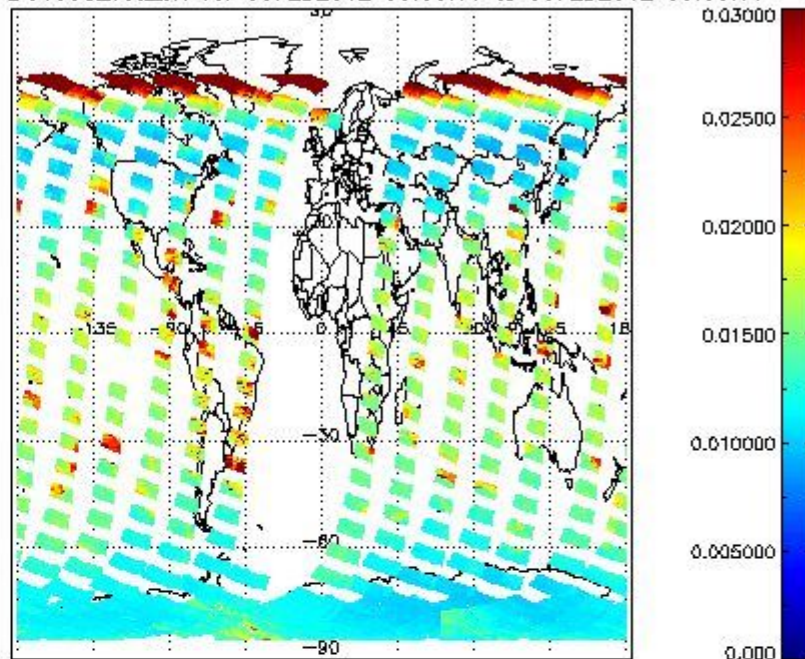
#### 2.2.2.1 O3 (UV0)



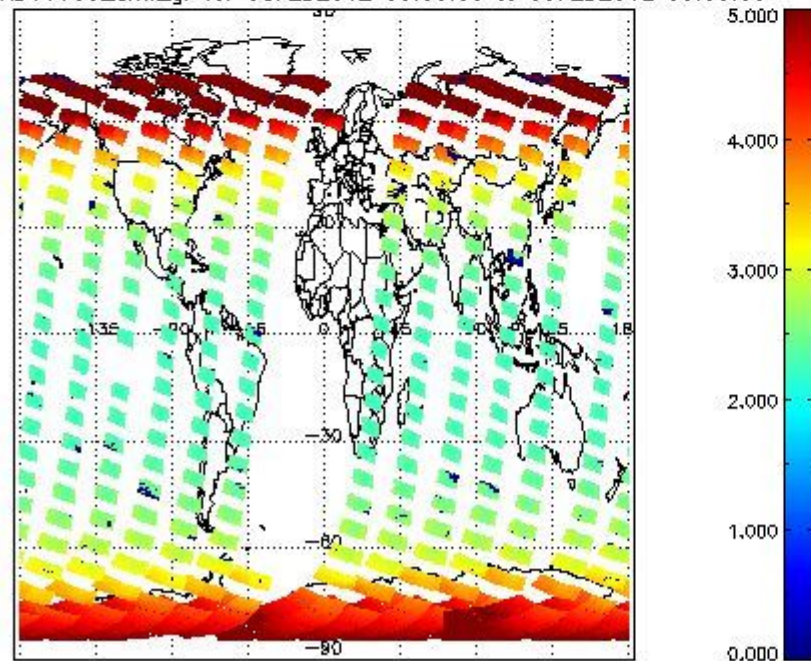
SCIOL2P\_NADUV003\_vcd for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



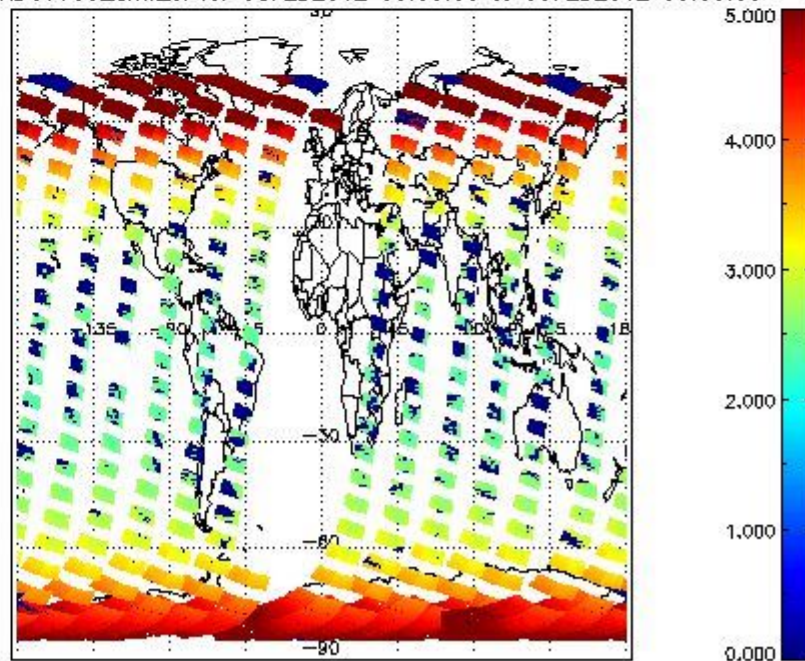
SCIOL2P\_NADUV003\_vcd\_err for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



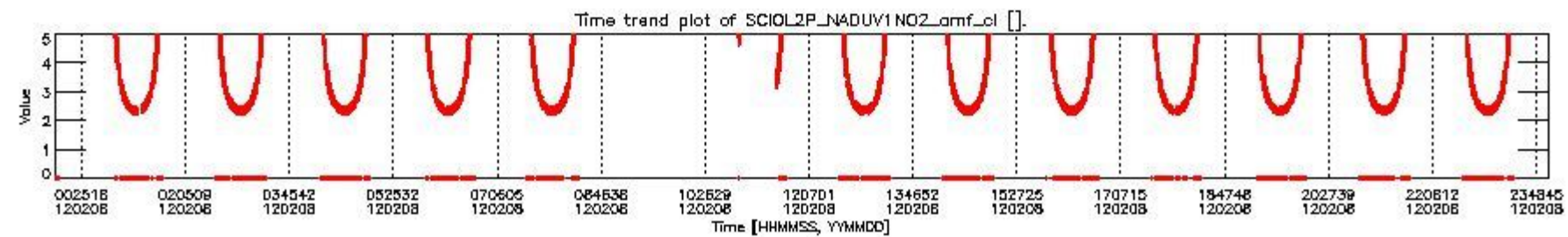
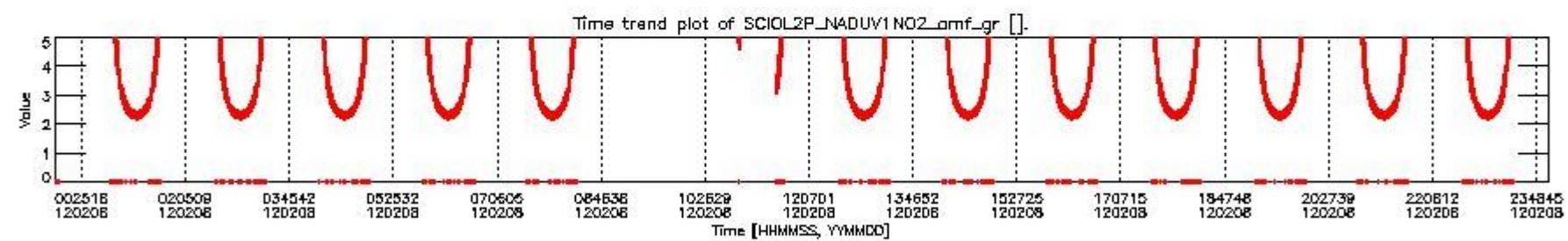
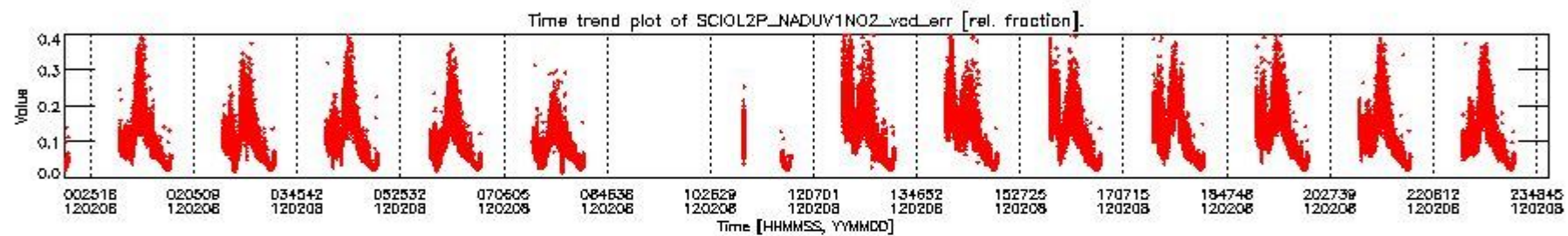
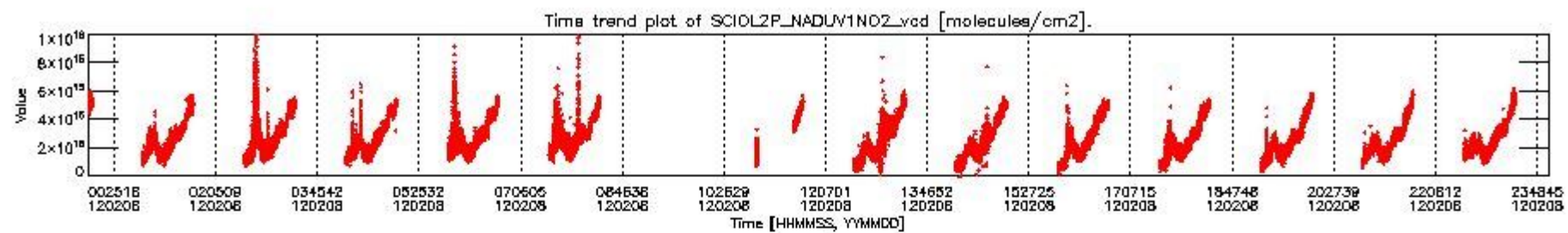
SCIOL2P\_NADUV003\_amf\_gr for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



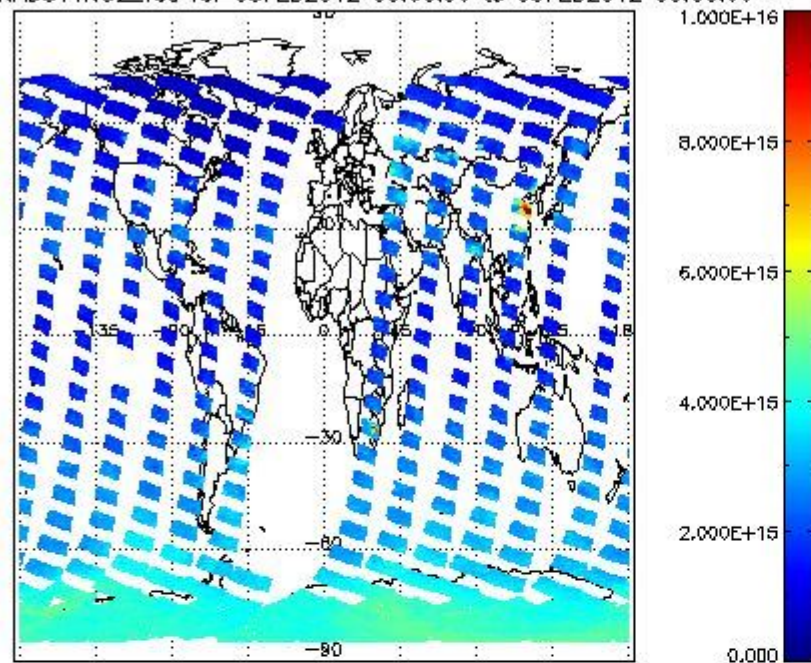
SCIOL2P\_NADUV003\_amf\_cl for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



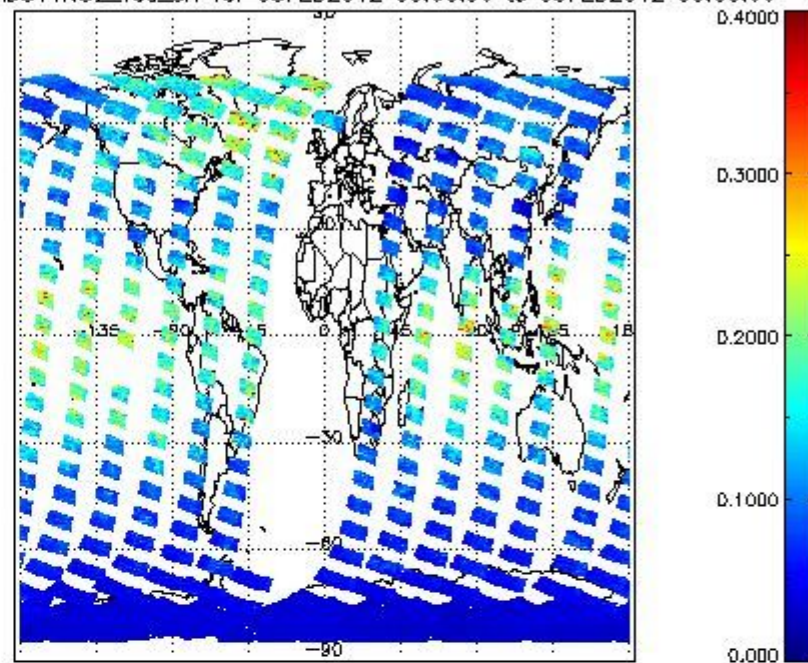
2.2.2.2 NO2 (UV1)



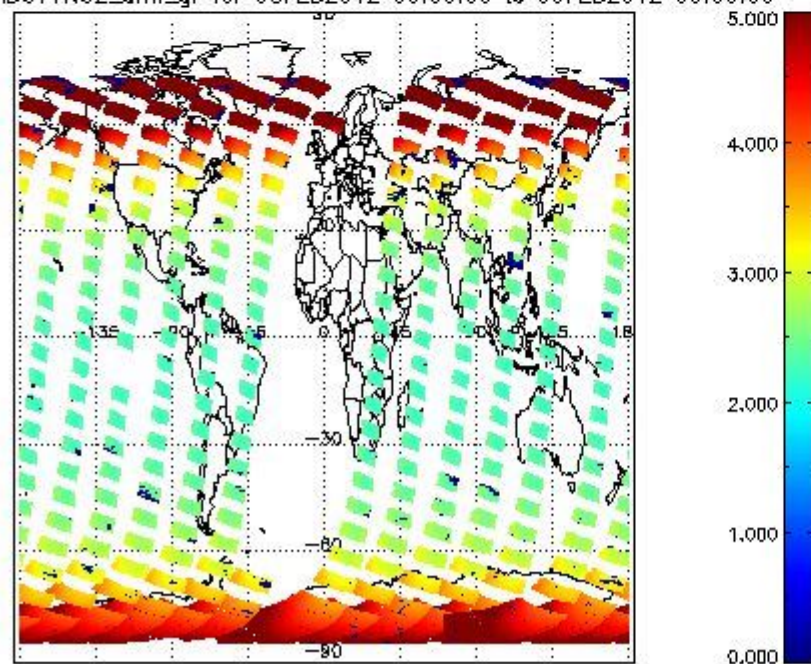
SCIOL2P\_NADUV1N02\_vcd for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



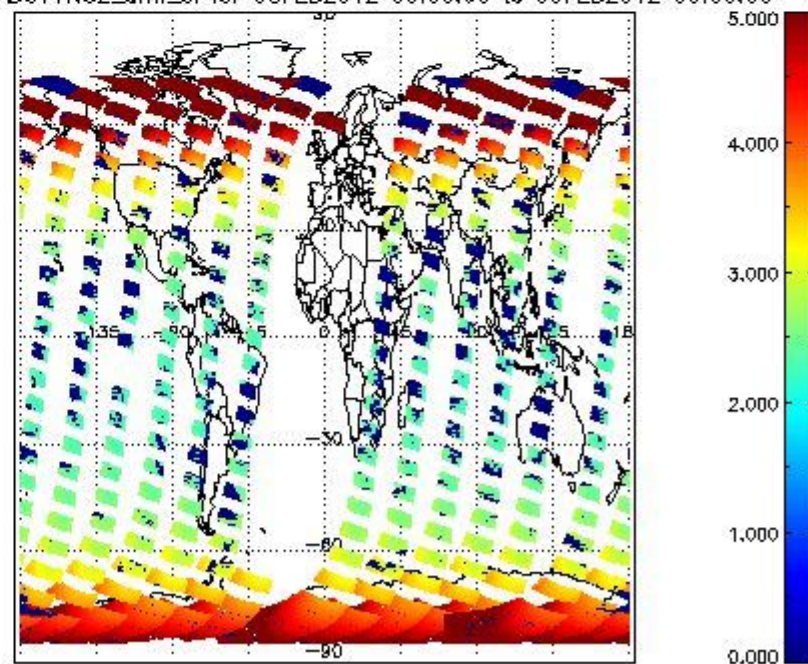
SCIOL2P\_NADUV1N02\_vcd\_err for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



SCIOL2P\_NADUV1N02\_amf\_gr for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

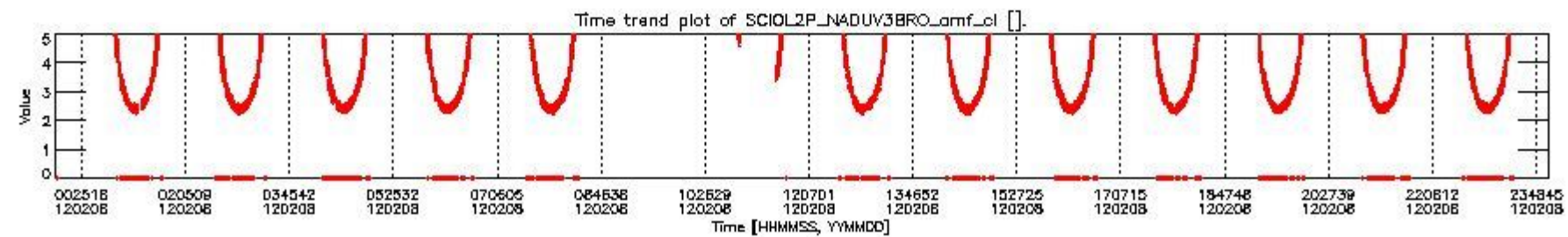
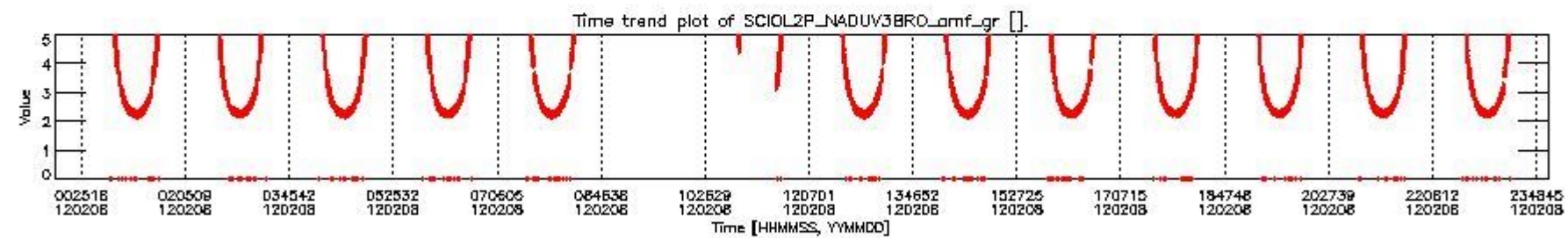
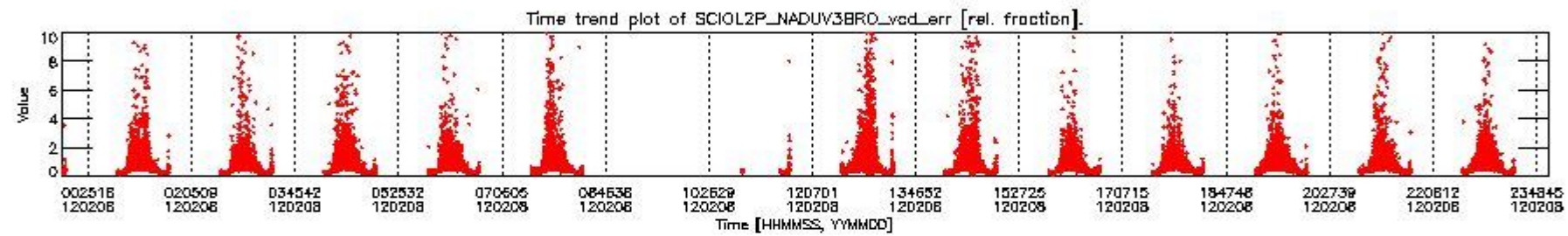
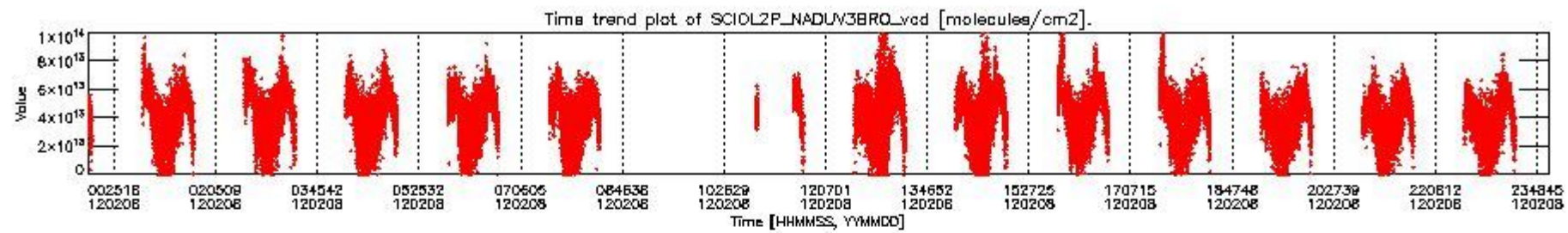


SCIOL2P\_NADUV1N02\_amf\_cl for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

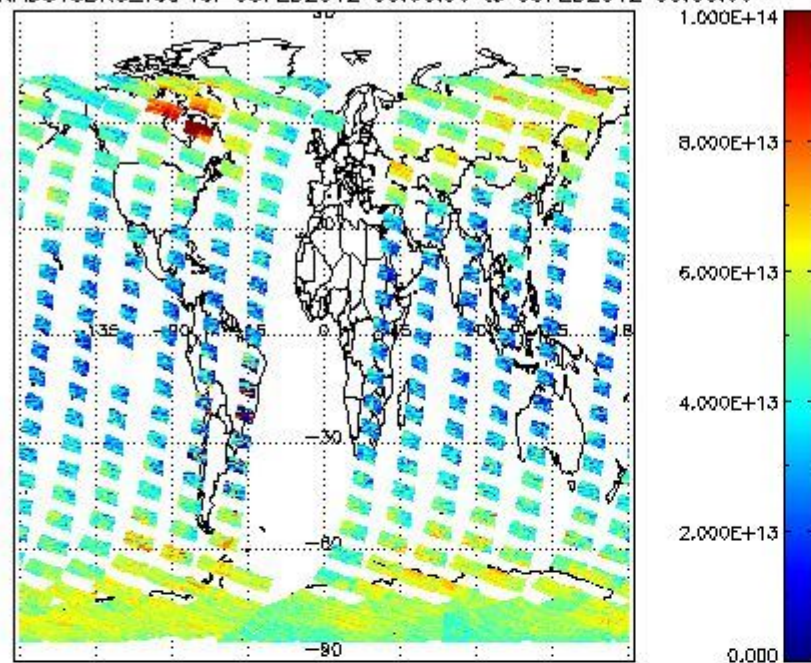


### 2.2.2.3 BrO (UV3)

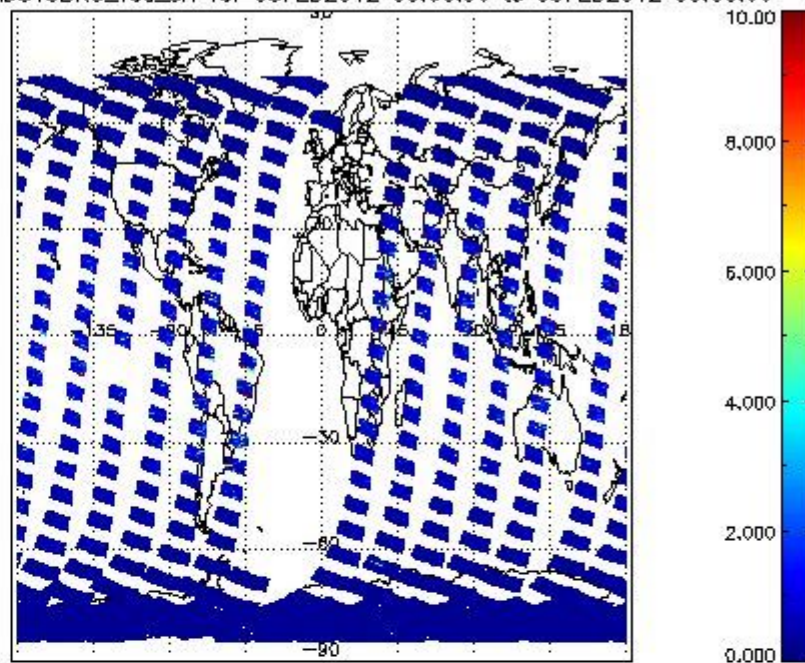




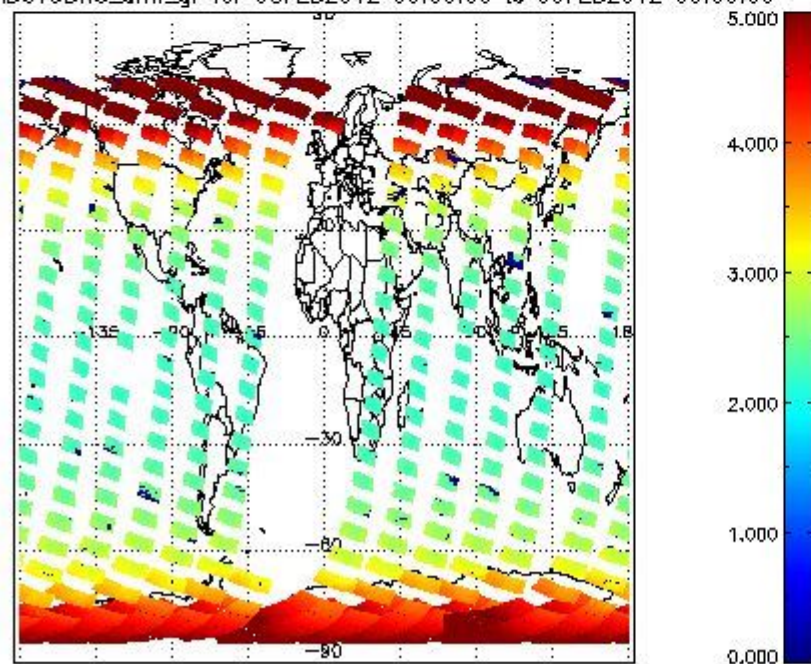
SCIOL2P\_NADUV3BRO\_vcd for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



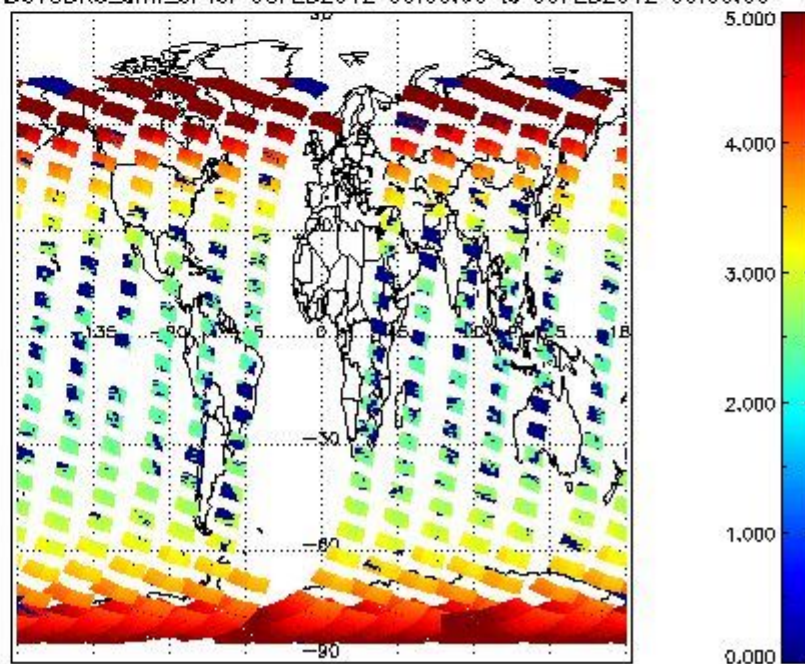
SCIOL2P\_NADUV3BRO\_vcd\_err for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



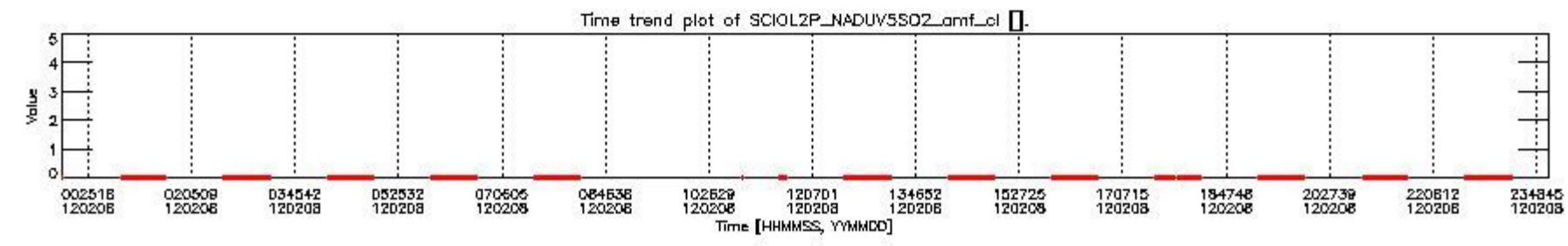
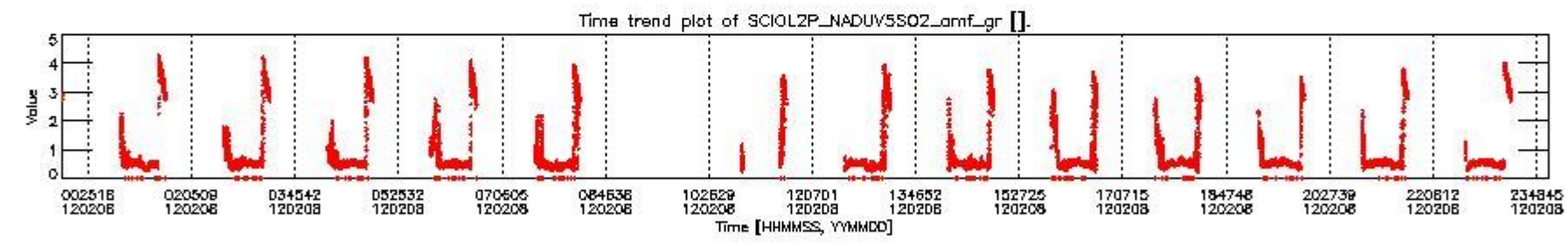
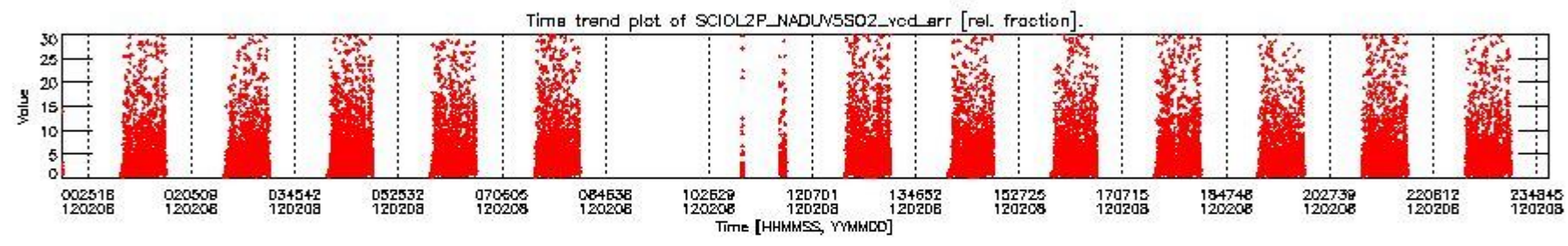
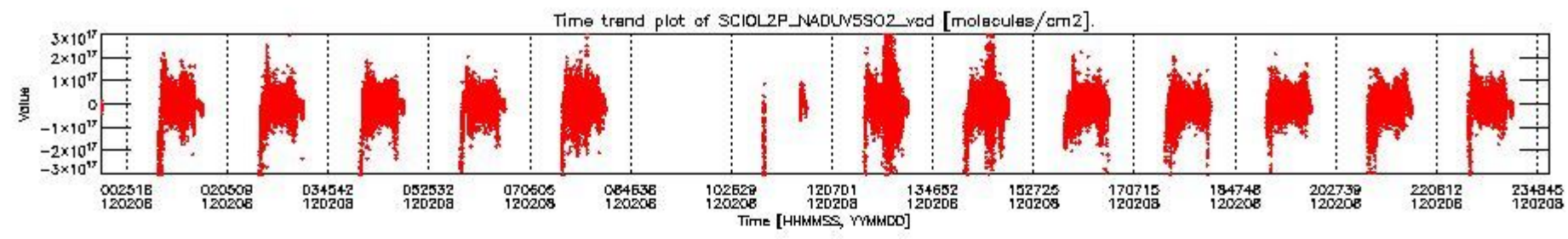
SCIOL2P\_NADUV3BRO\_amf\_gr for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



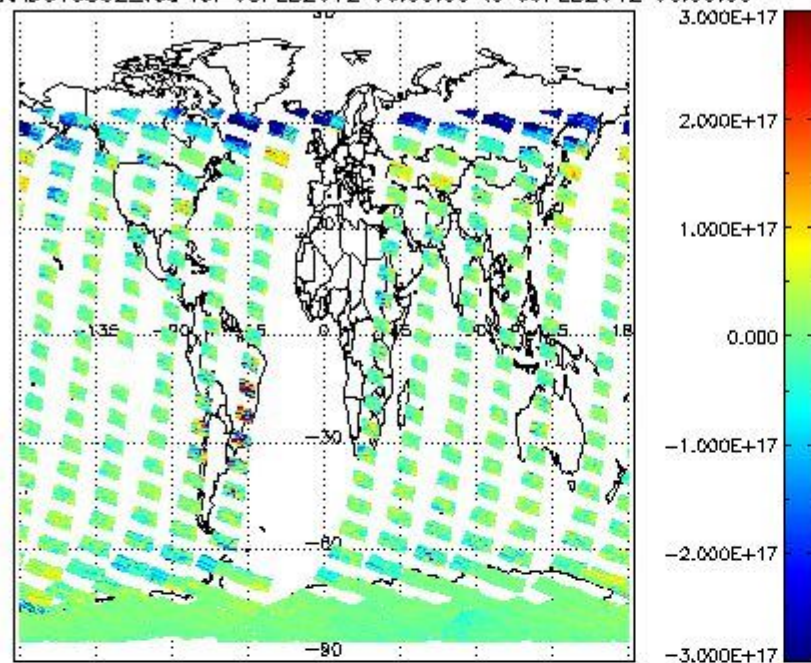
SCIOL2P\_NADUV3BRO\_amf\_cl for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



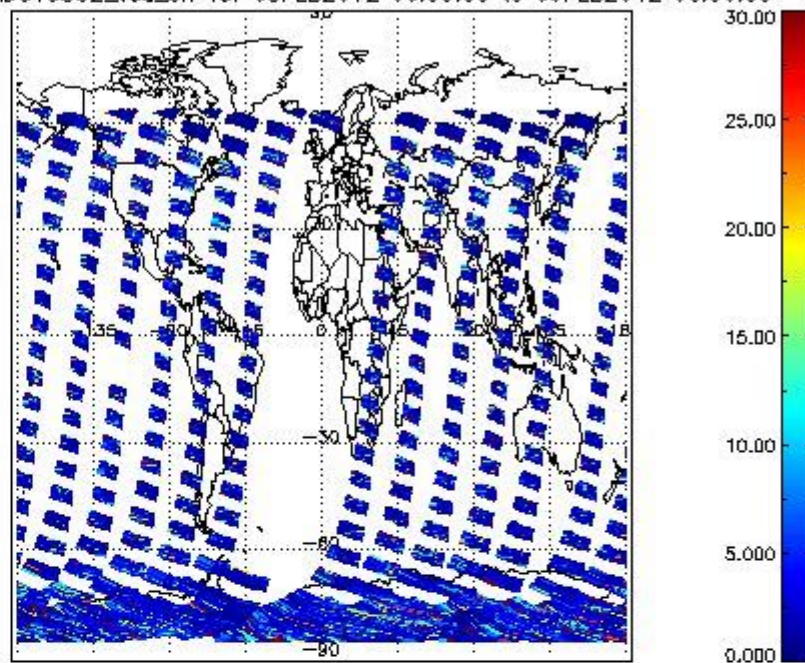
2.2.2.4 SO2 (UV5)



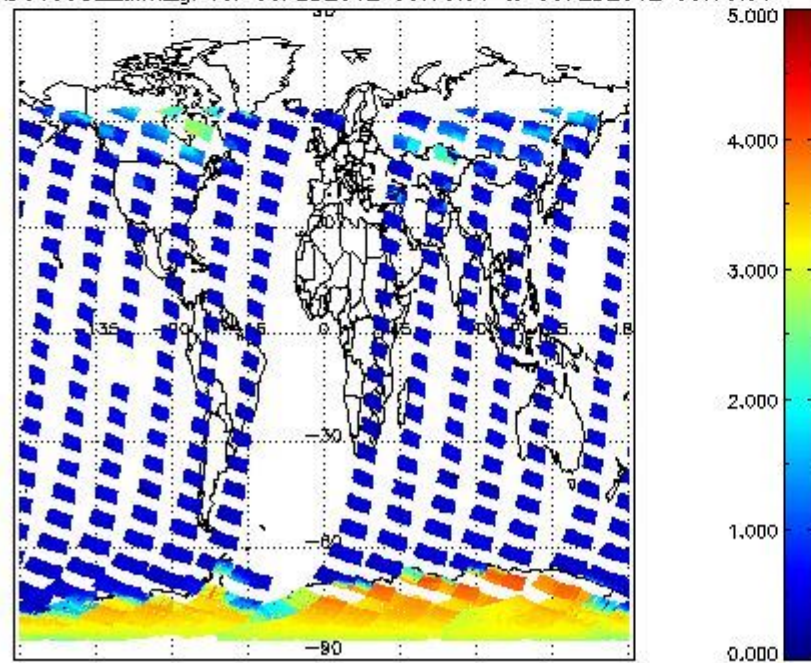
SCIOL2P\_NADUV5S02\_vcd for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



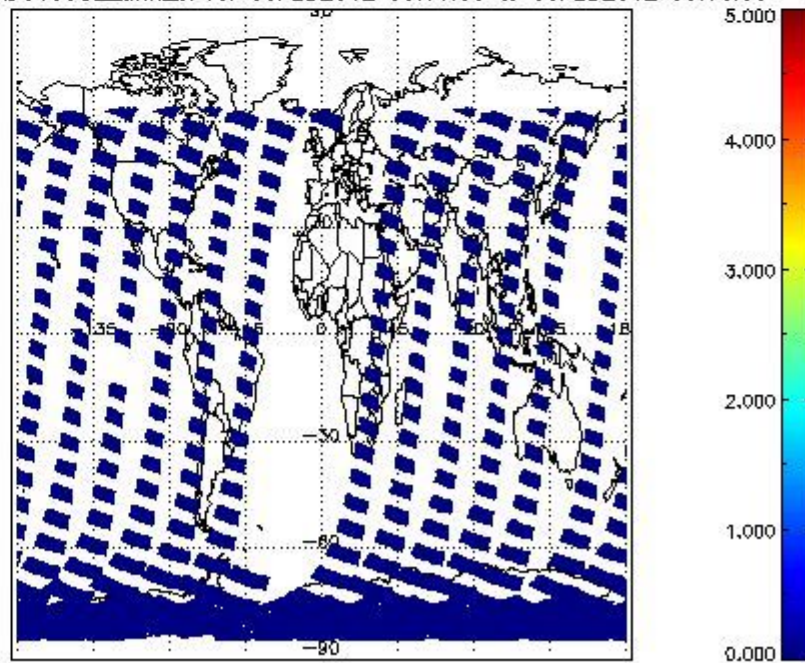
SCIOL2P\_NADUV5S02\_vcd\_err for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



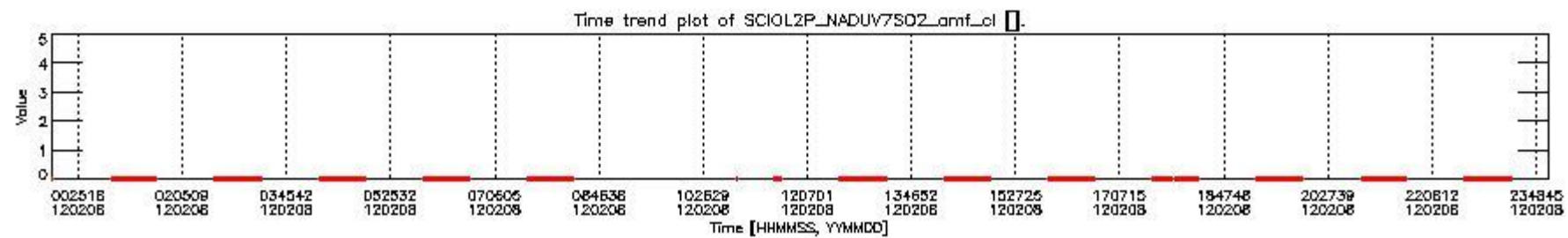
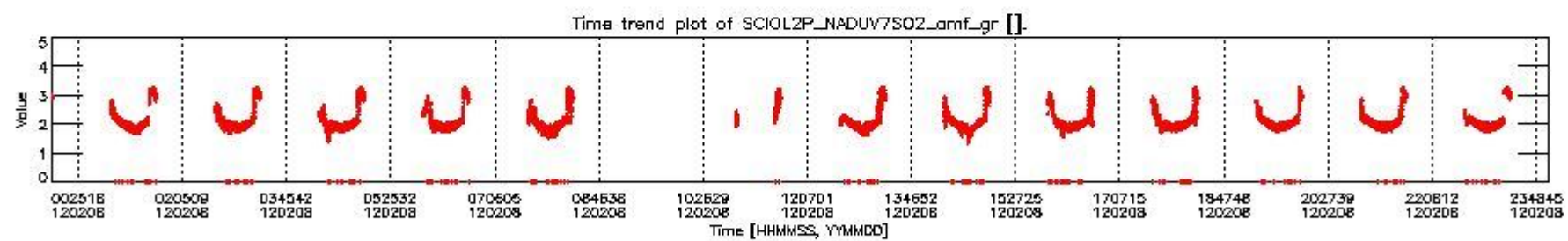
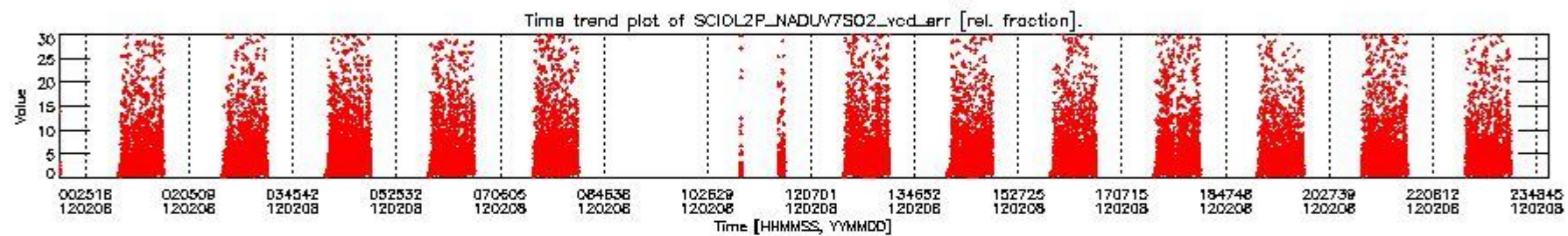
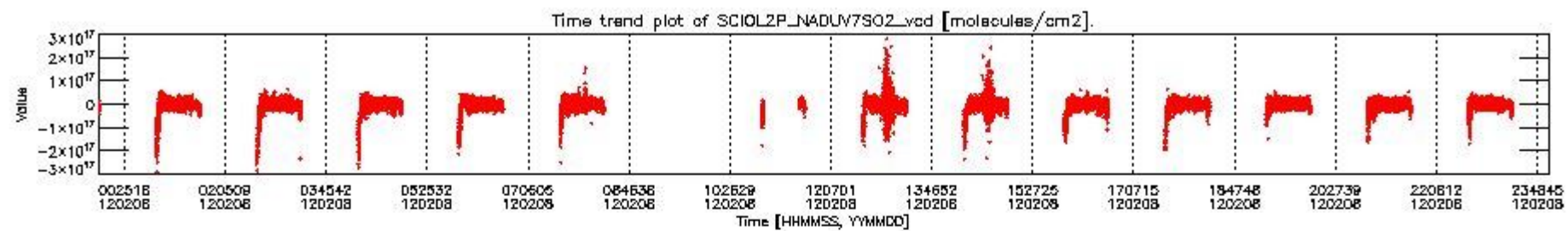
SCIOL2P\_NADUV5S02\_amf\_gr for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



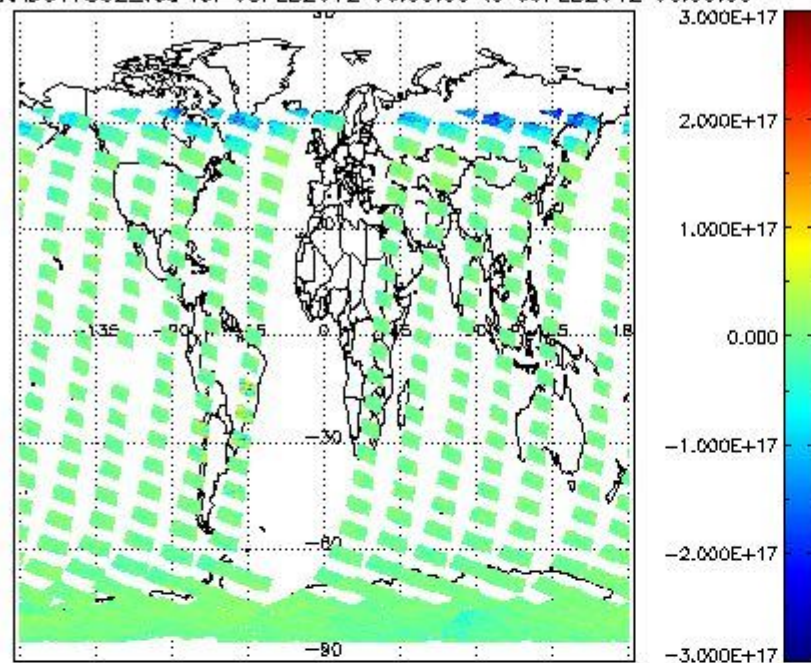
SCIOL2P\_NADUV5S02\_amf\_cl for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



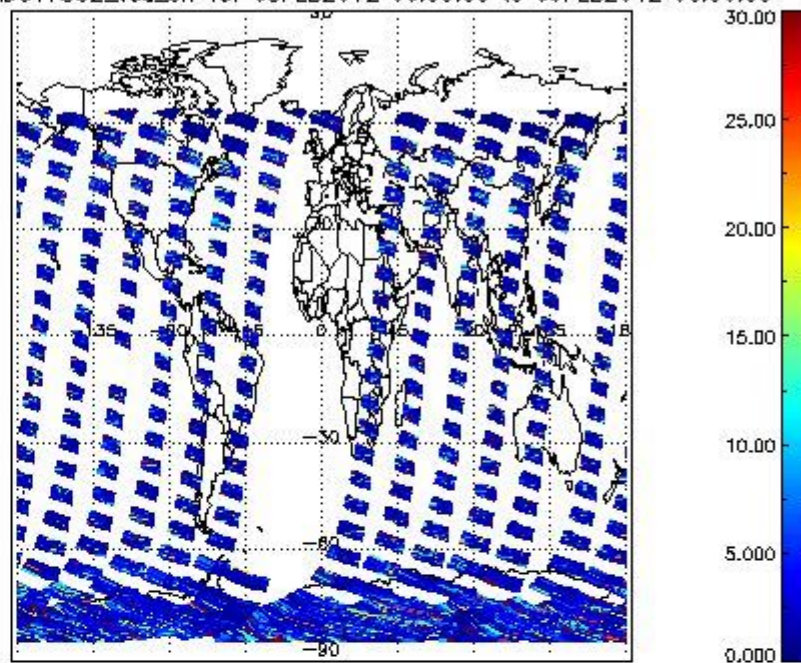
2.2.2.5 SO2 (UV7)



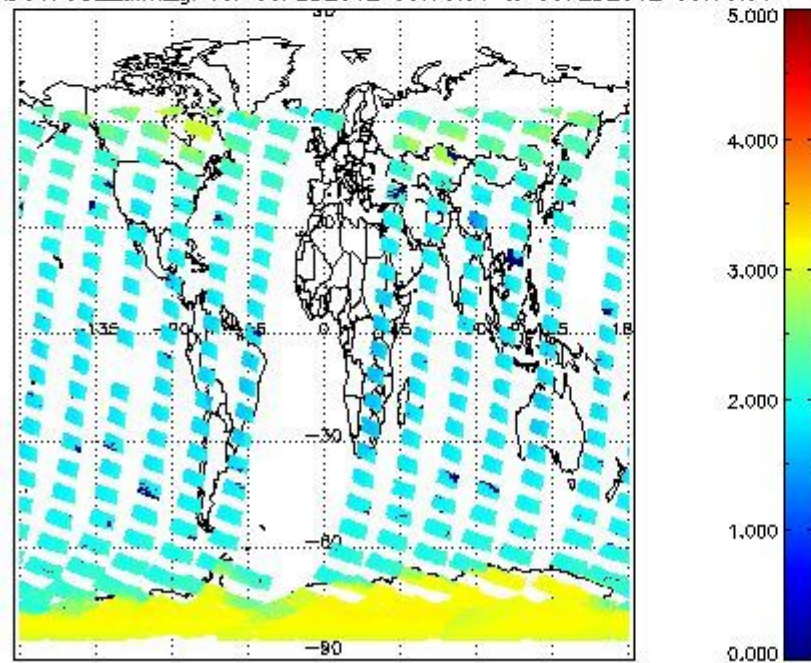
SCIOL2P\_NADUV7S02\_vcd for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



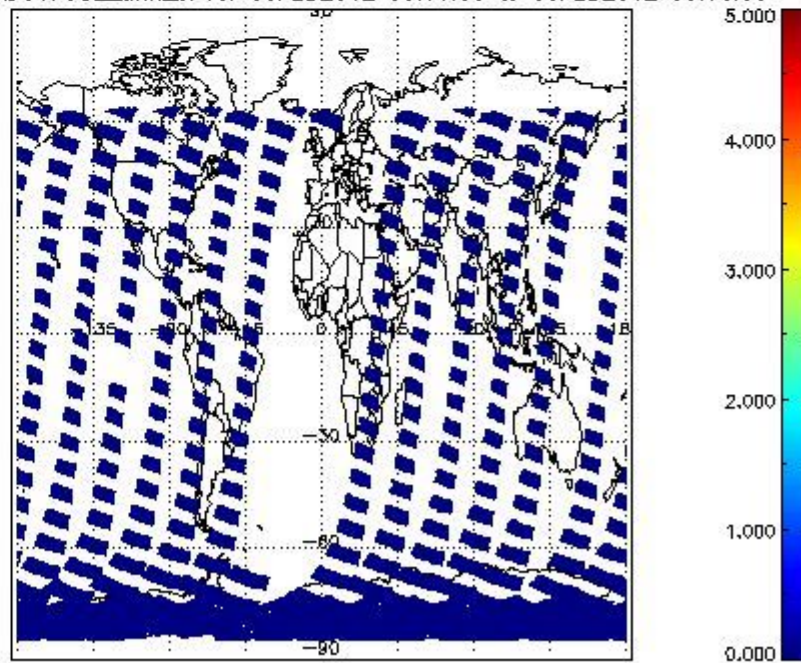
SCIOL2P\_NADUV7S02\_vcd\_err for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



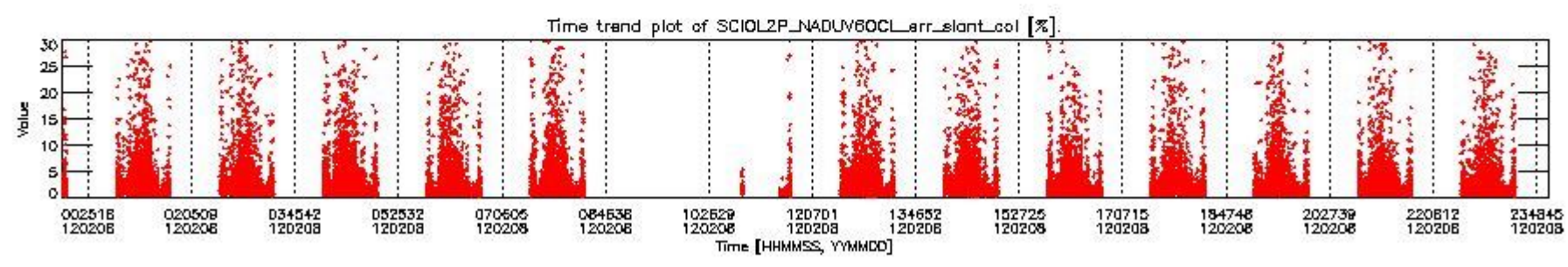
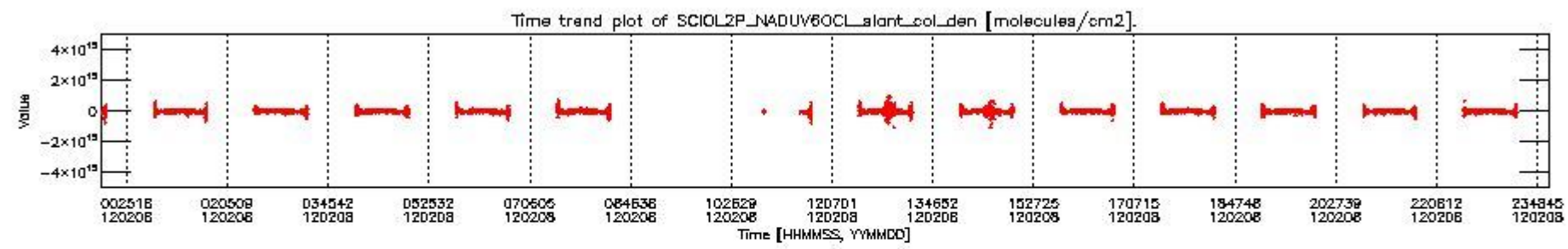
SCIOL2P\_NADUV7S02\_amf\_gr for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



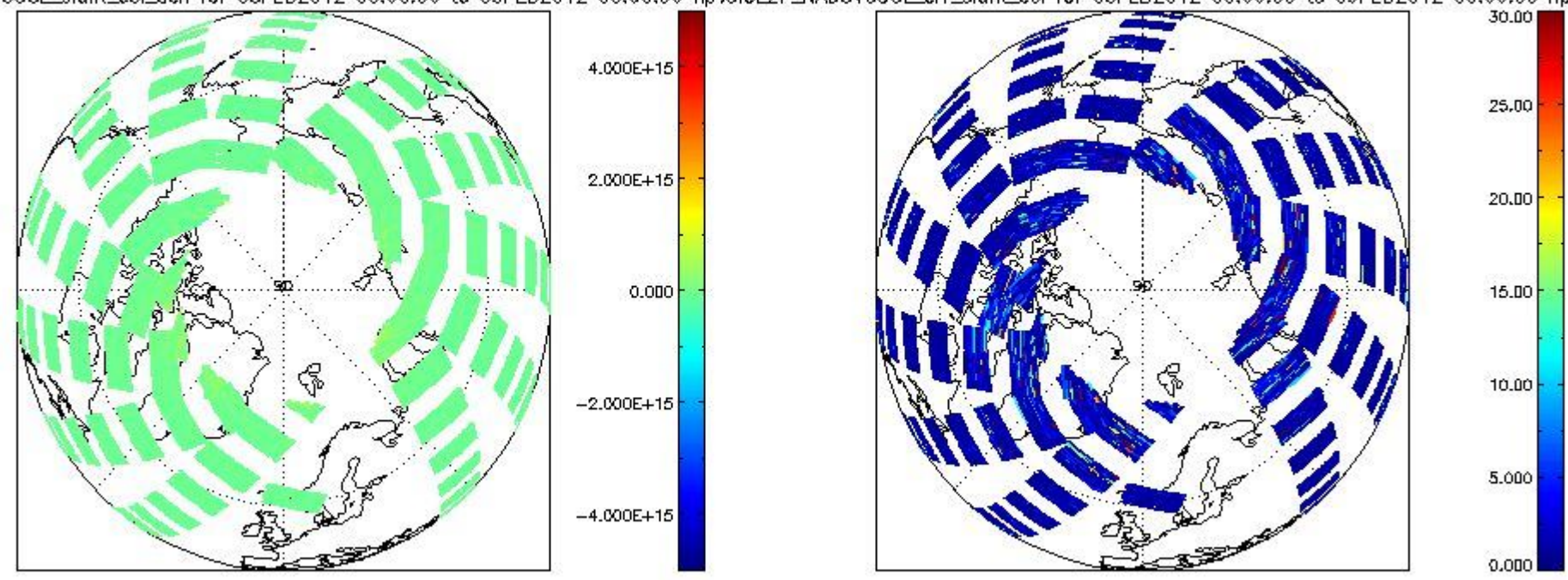
SCIOL2P\_NADUV7S02\_amf\_cl for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



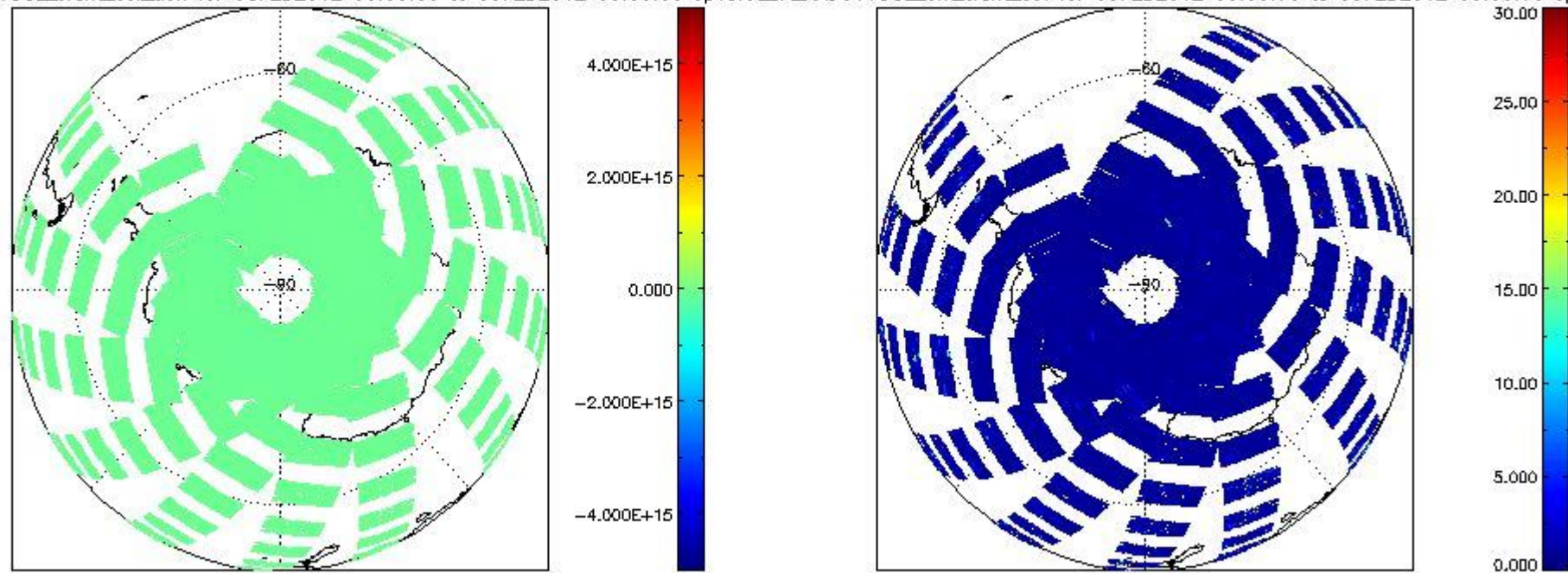
2.2.2.6 OCIO (UV6)



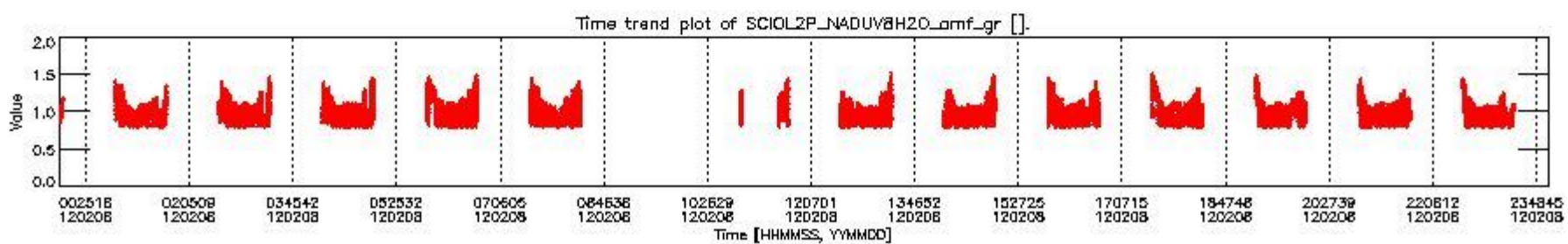
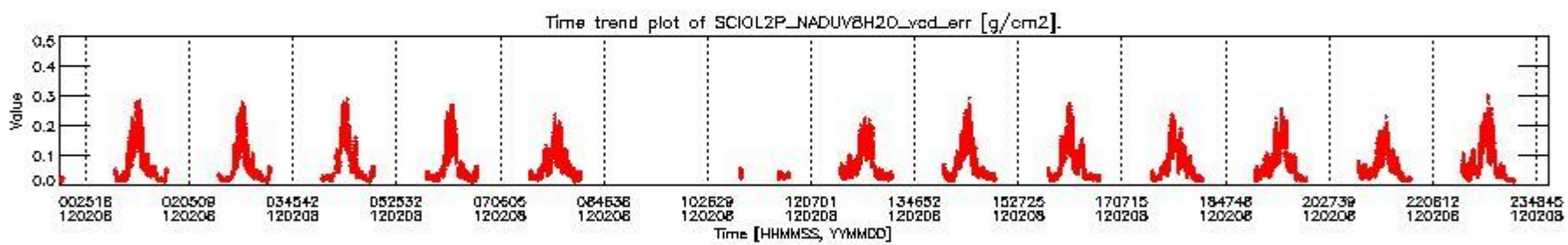
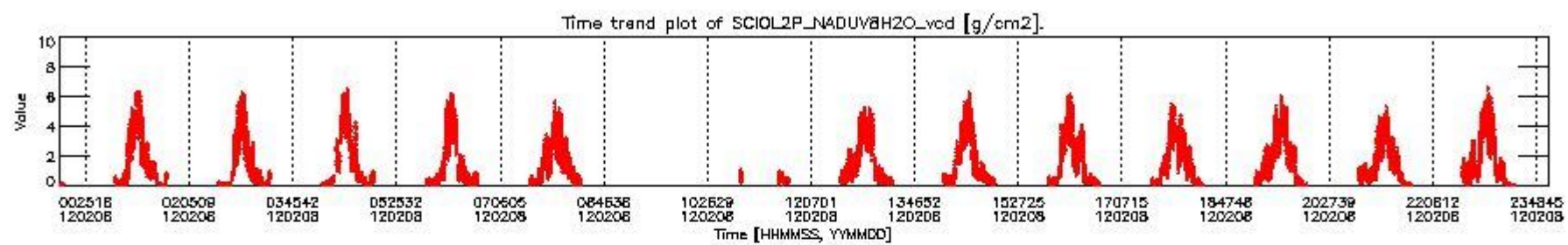
CIOL2P\_NADUV6OCLslant\_col\_den for 08FEB2012 00:00:00 to 09FEB2012 00:00:00 np; CIOL2P\_NADUV6OCLarr\_slant\_col for 08FEB2012 00:00:00 to 09FEB2012 00:00:00 np



CIOL2P\_NADUV6OCL\_slant\_col\_den for 08FEB2012 00:00:00 to 09FEB2012 00:00:00 sp; CIOL2P\_NADUV6OCL\_err\_slant\_col for 08FEB2012 00:00:00 to 09FEB2012 00:00:00 sp

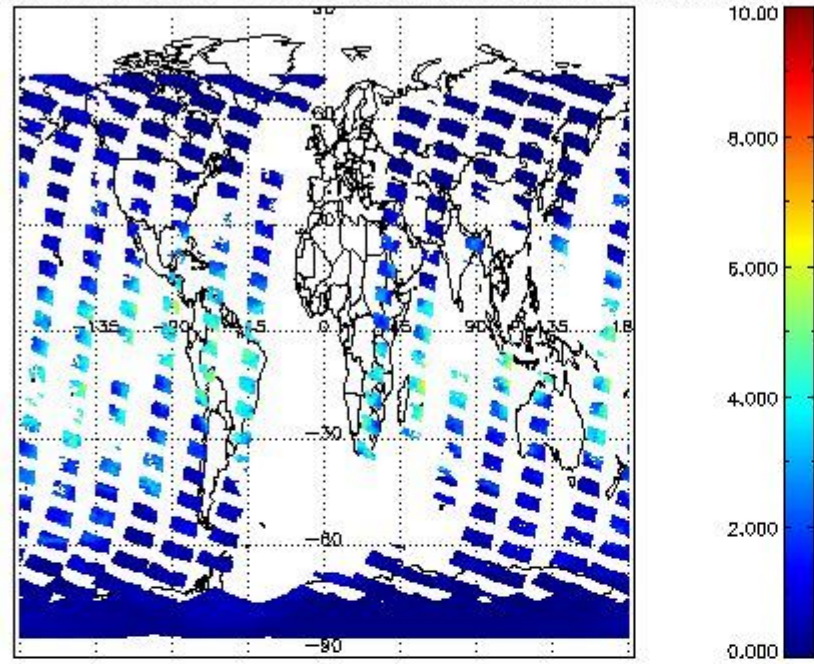


### 2.2.2.7 H<sub>2</sub>O (UV8)

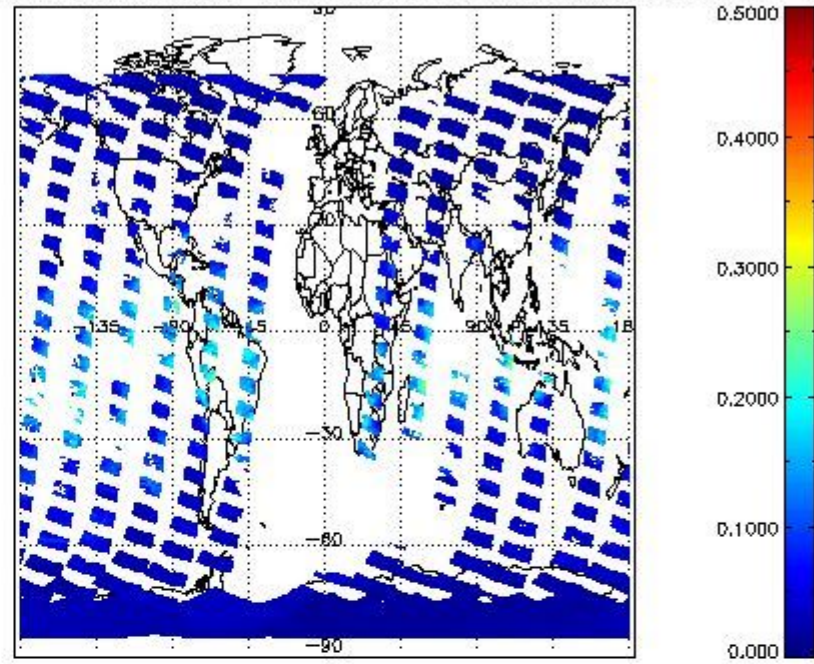




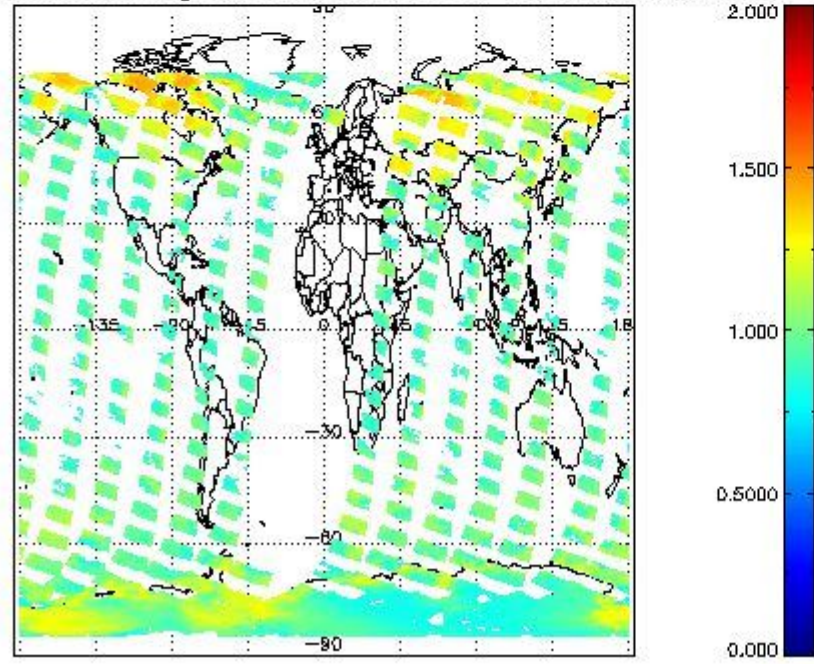
SCIOL2P\_NADUV8H2O\_vcd for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



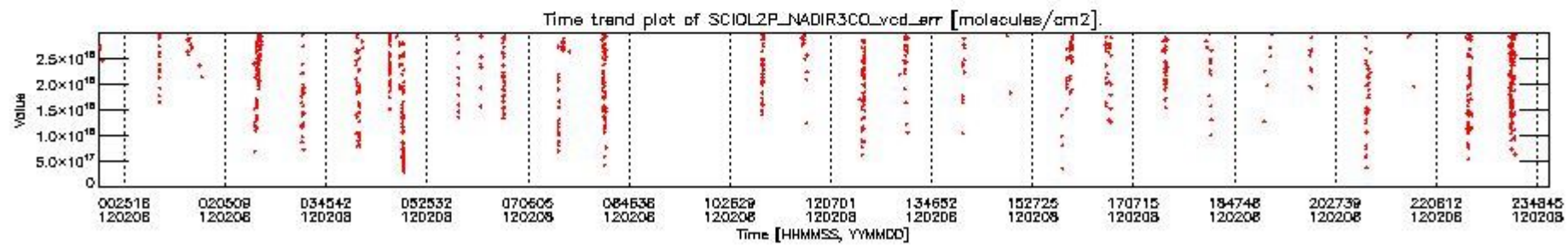
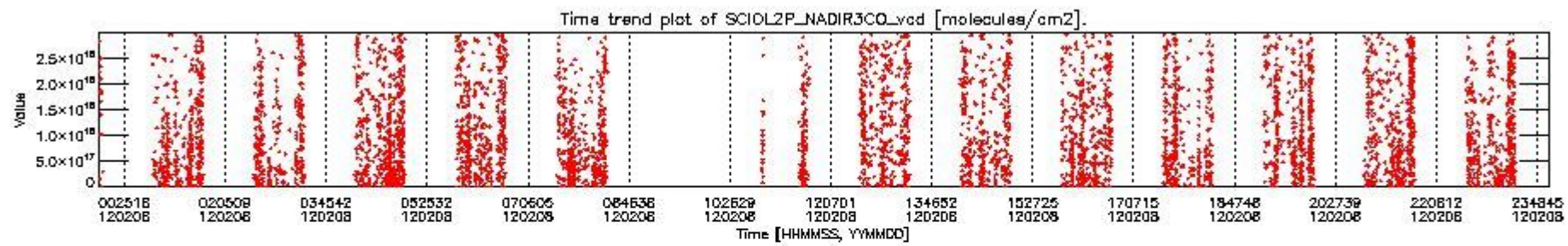
SCIOL2P\_NADUV8H2O\_vcd\_err for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



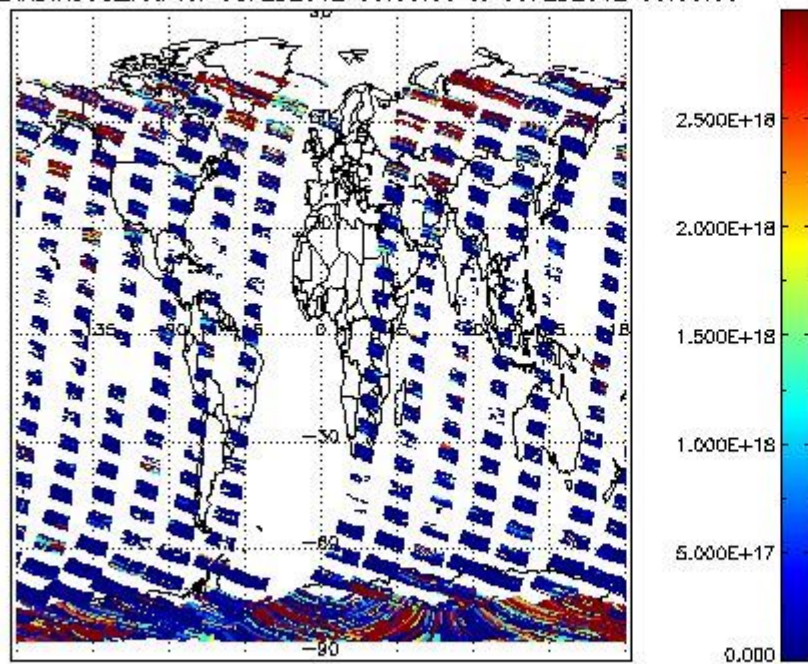
SCIOL2P\_NADUV8H2O\_amf\_gr for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



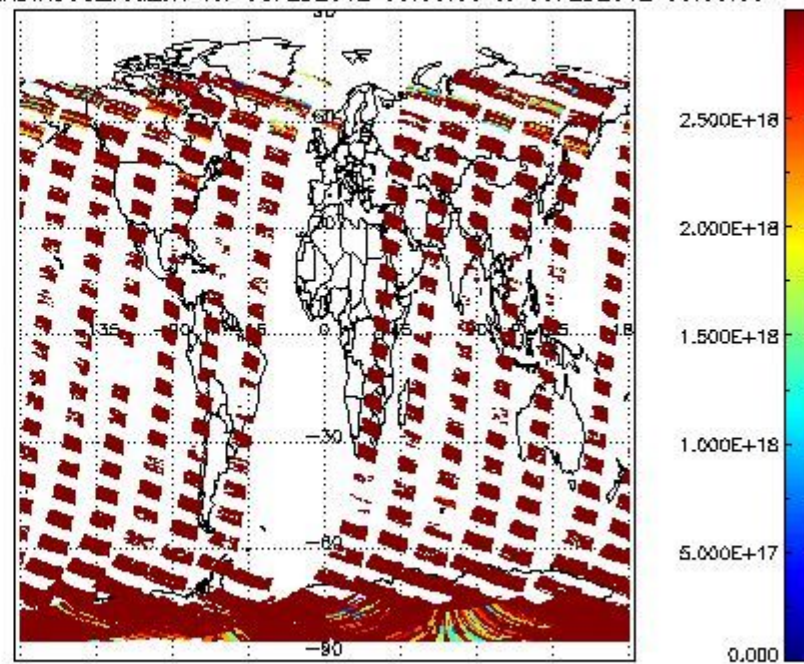
### 2.2.2.8 CO (IR3)



SCIDL2P\_NADIR3CO\_vcd for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



SCIDL2P\_NADIR3CO\_vcd\_err for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



### 2.2.3 Limb

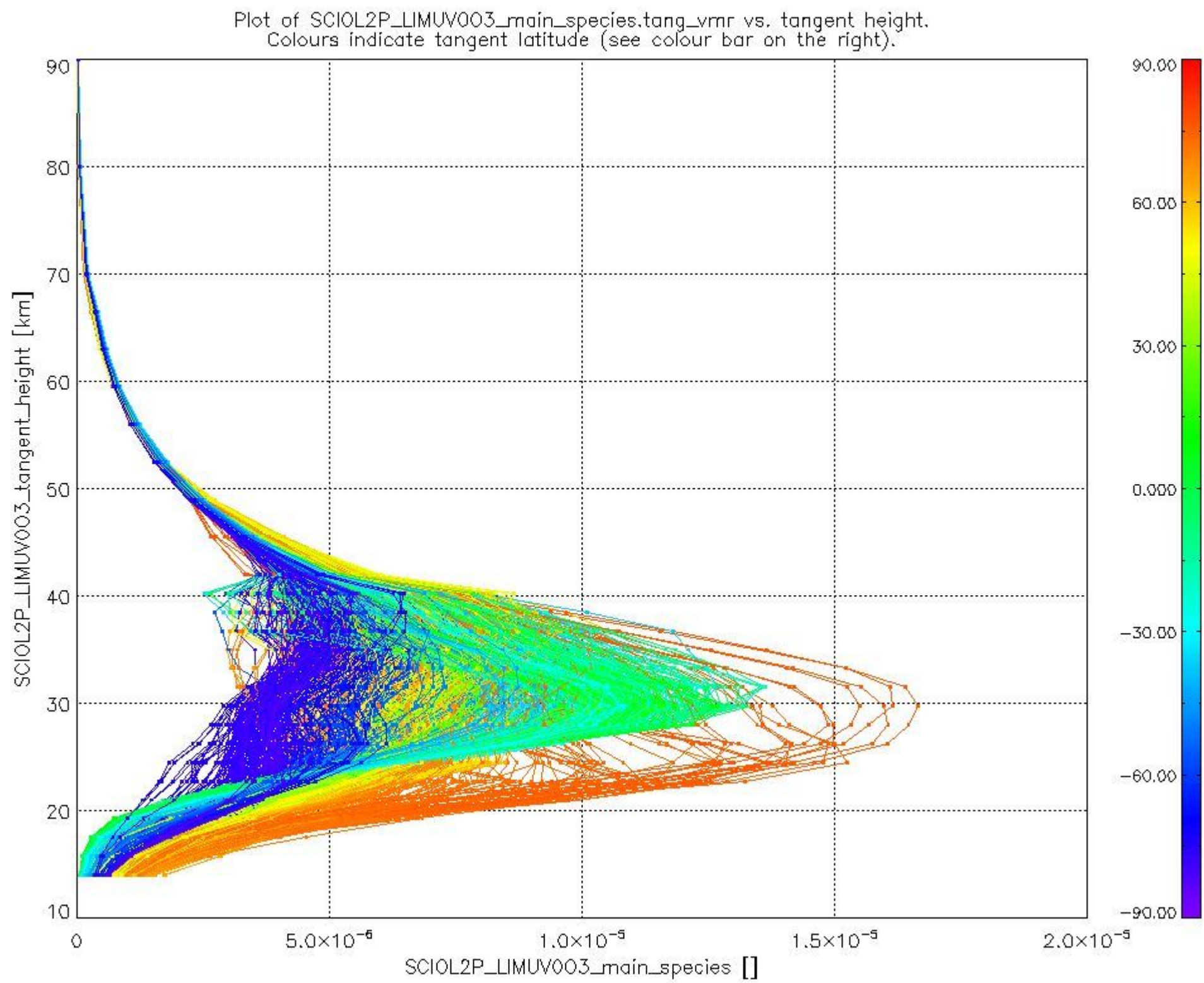
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

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

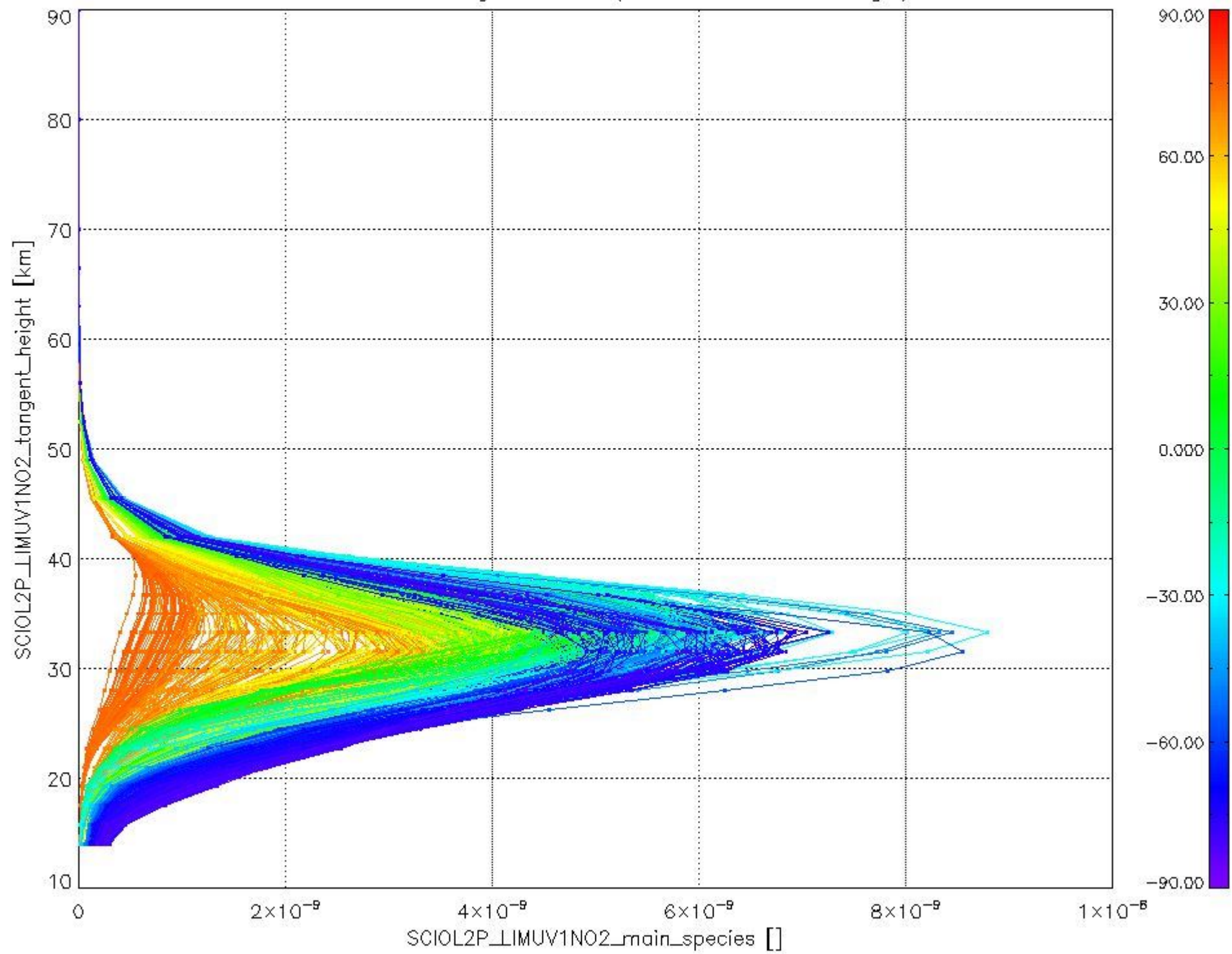
The following plots show for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

2.2.3.1 O3 (UV0)



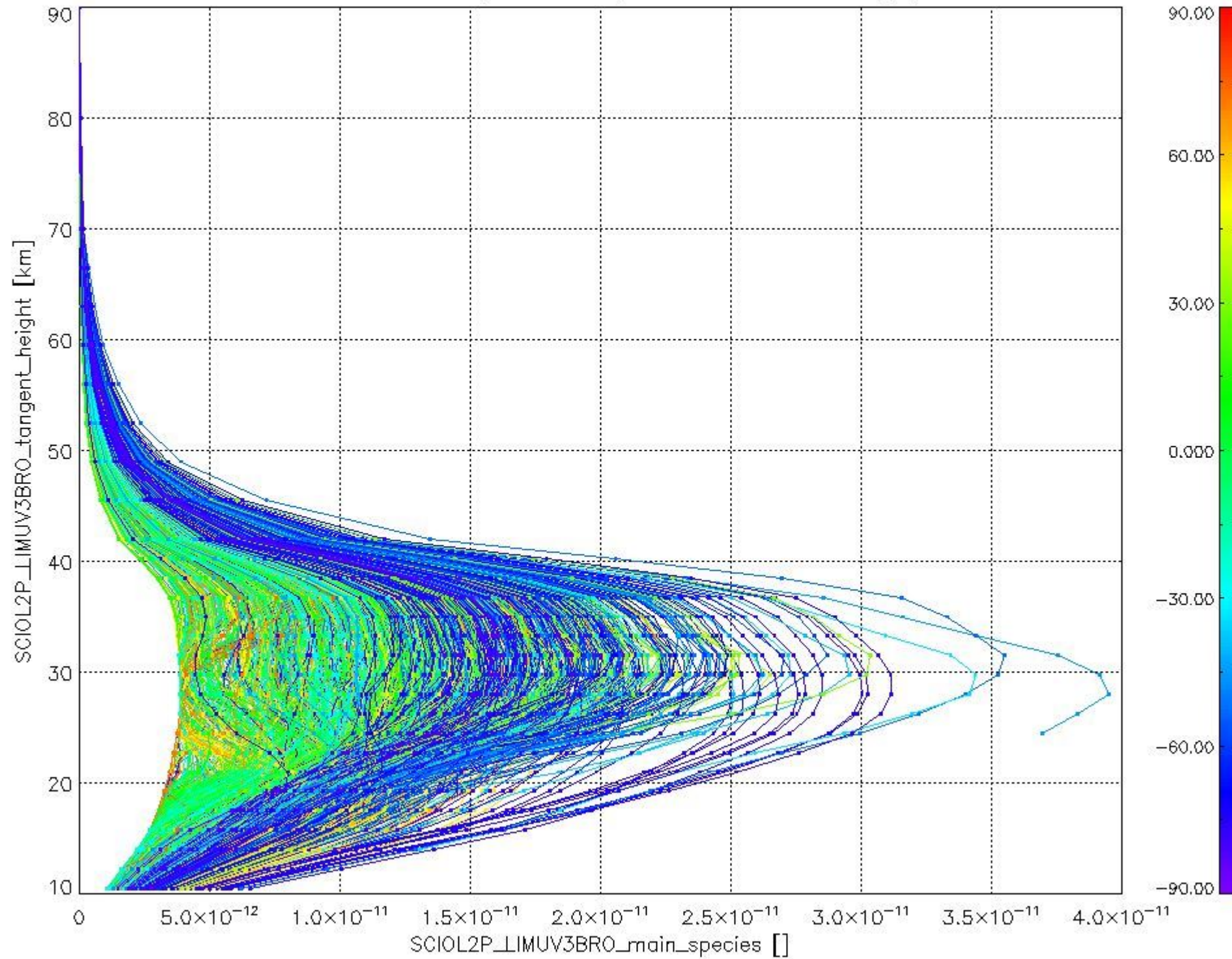
2.2.3.2 NO2 (UV1)

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).

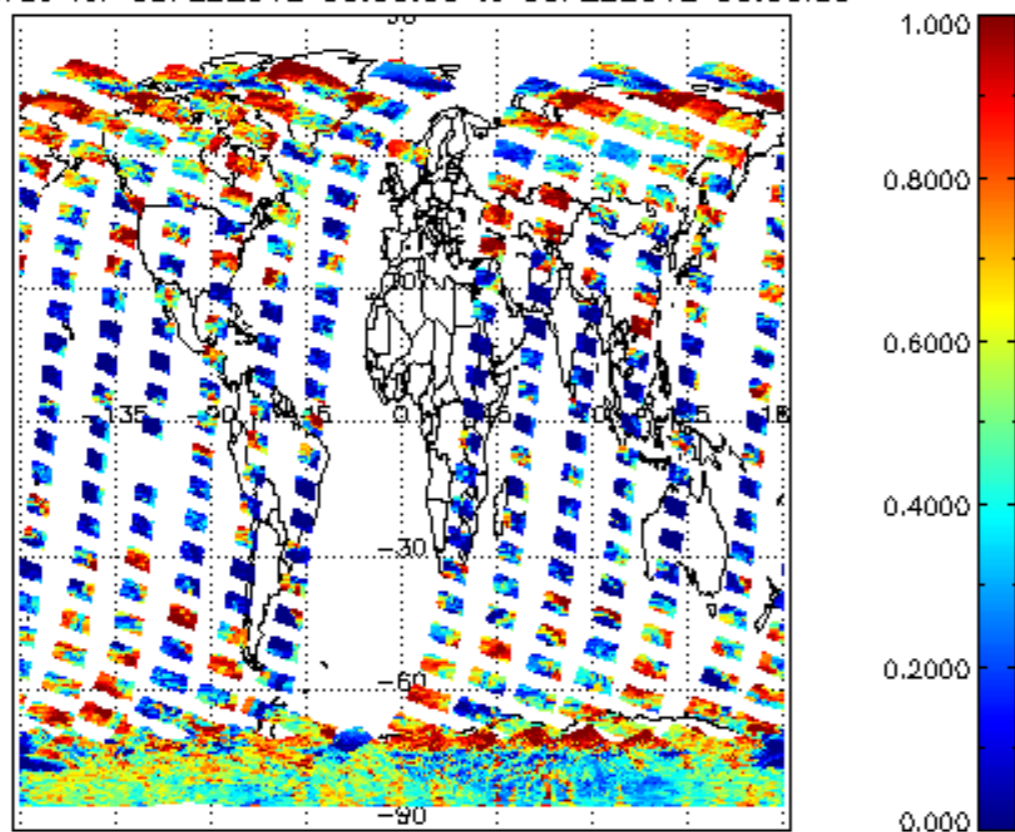


### 2.3 ADF monitoring

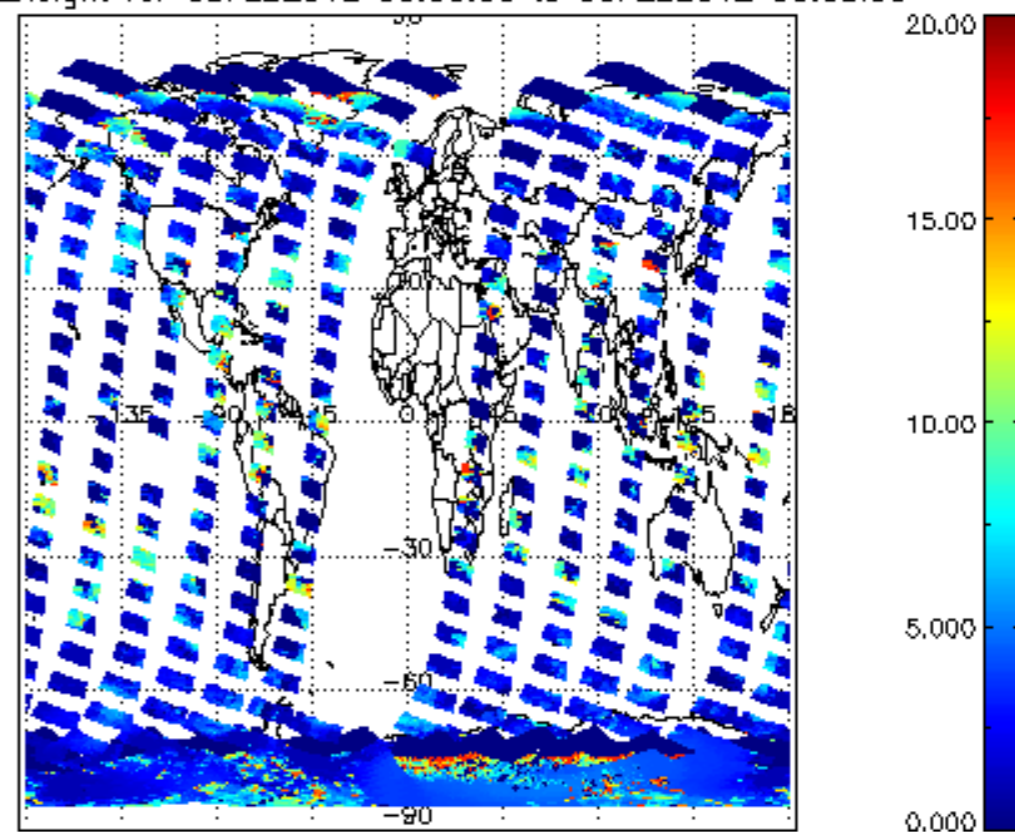
Number	ADF
	<b>IN_ (INITIALISATION_FILE)</b>
0	SCI_IN_AXNPDE20110201_120000_20020301_000000_20991231_235959
	<b>ECF (ECMWF_FILE)</b>
1	NOT USED
	<b>MF1 (M_FACTOR_FILE)</b>
2	SCI_MF1_AXVIEC20120214_141254_20120207_190631_20120209_190631
3	SCI_MF1_AXVIEC20120214_141416_20120208_182945_20120210_182945



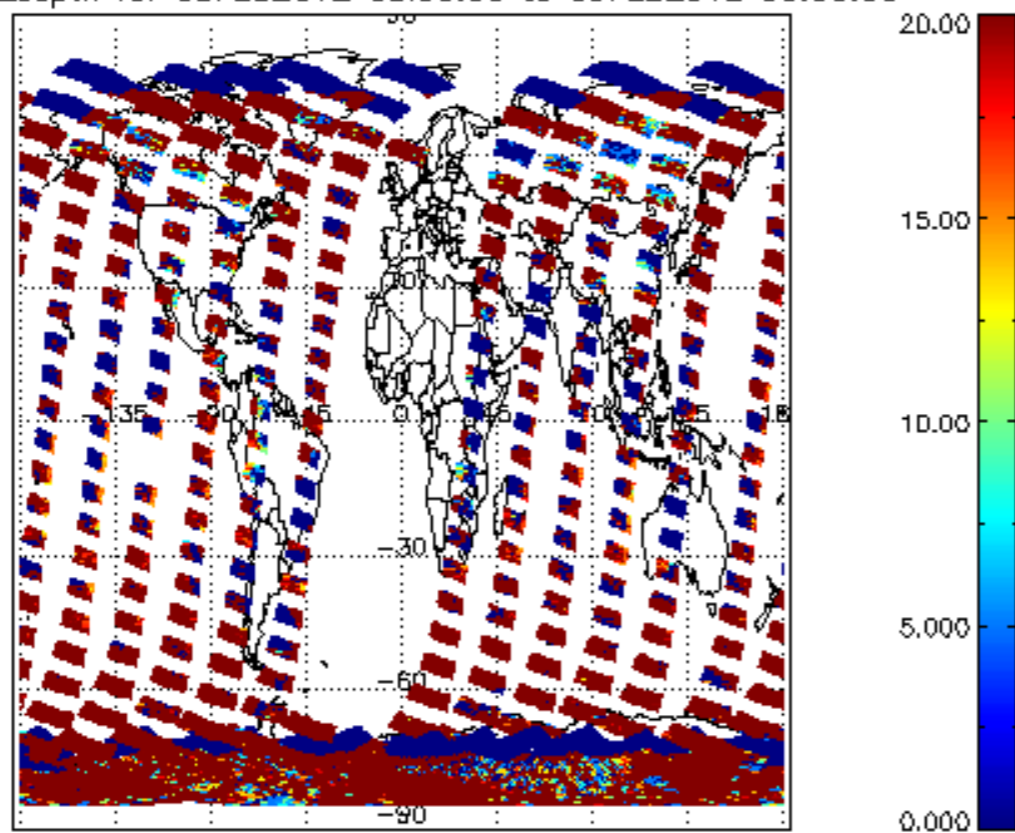
cl\_frac for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



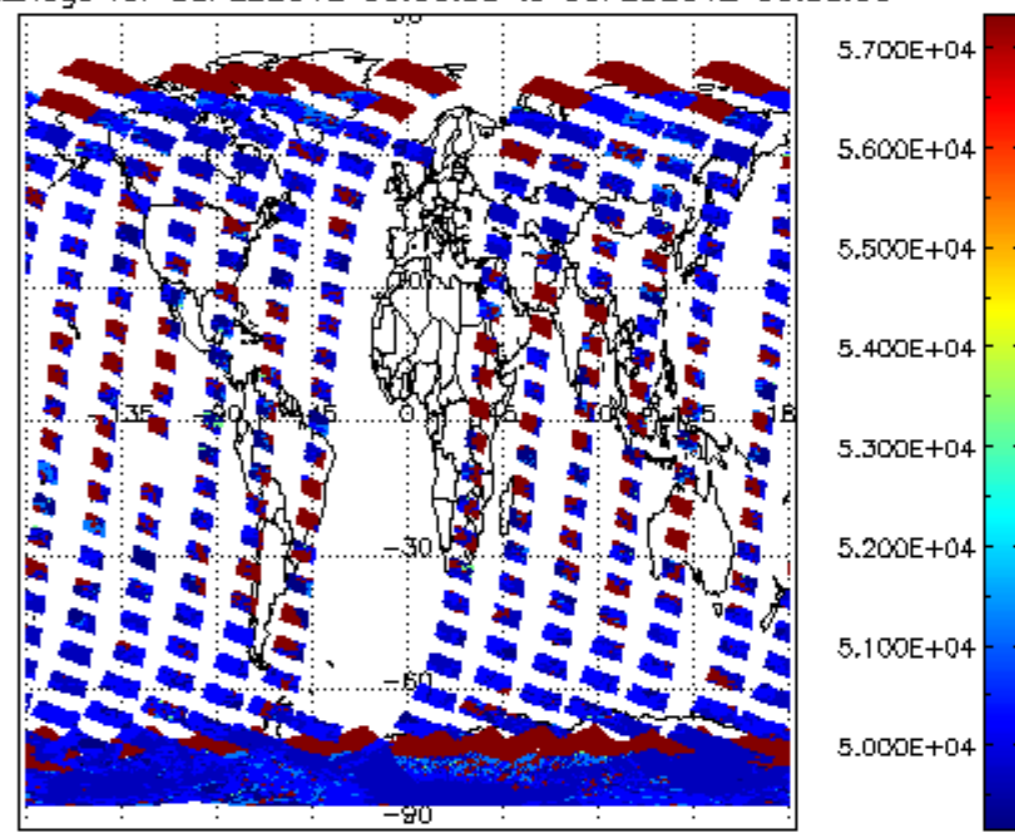
cl\_top\_height for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

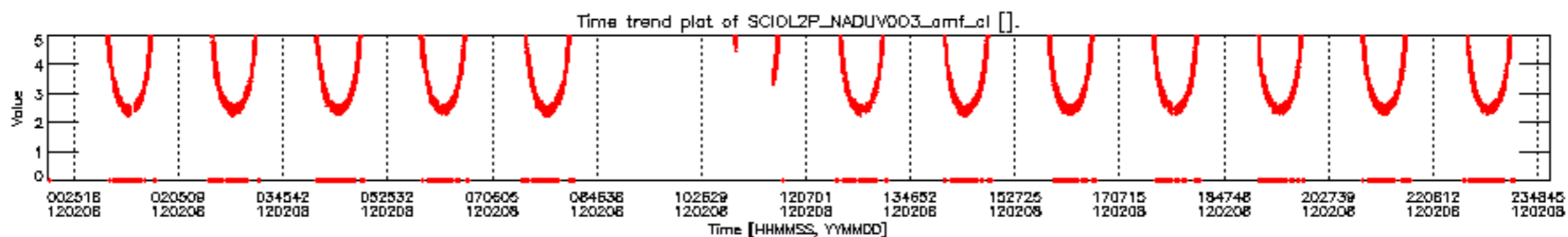
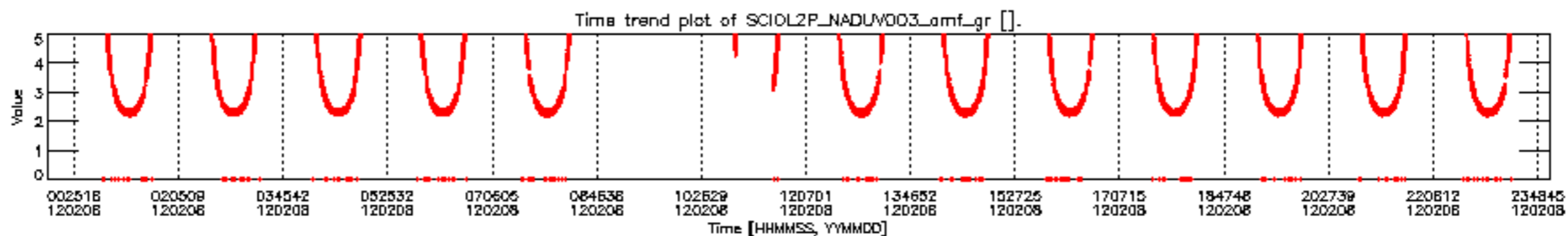
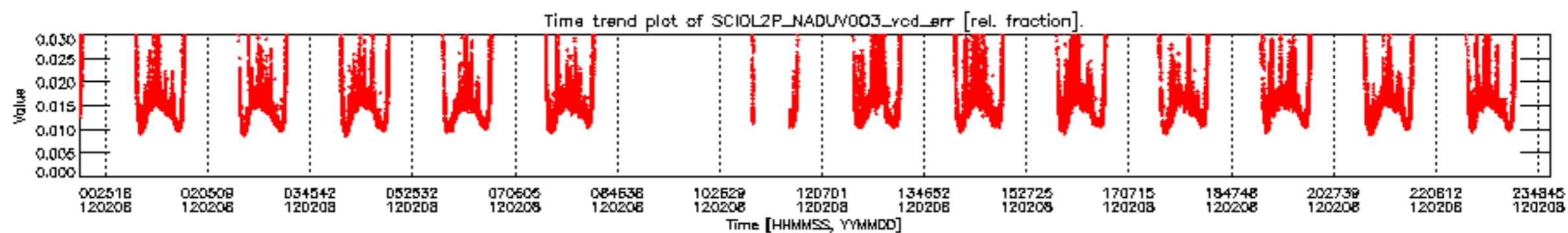
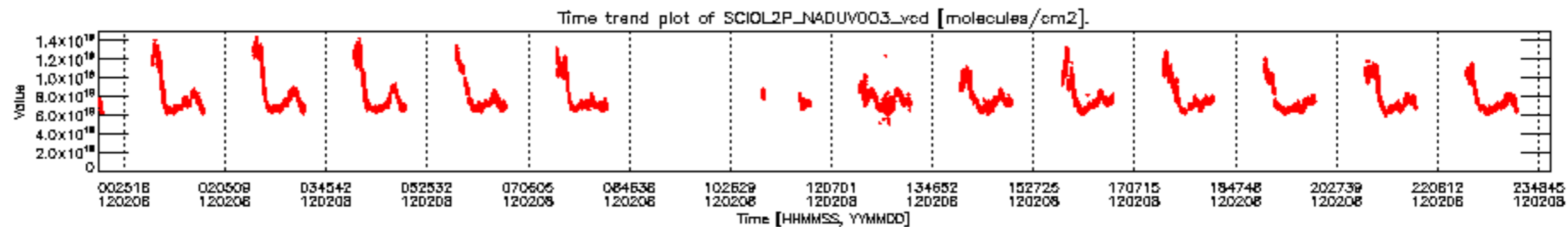


cl\_lopt\_depth for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



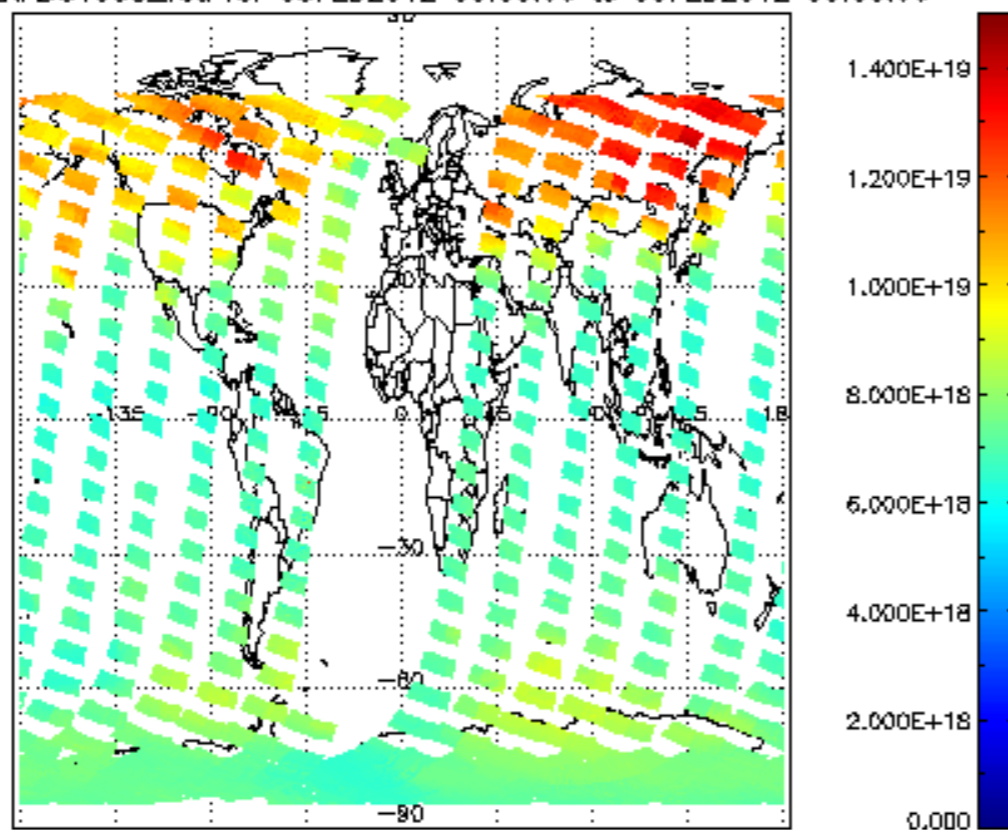
cloud\_flags for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



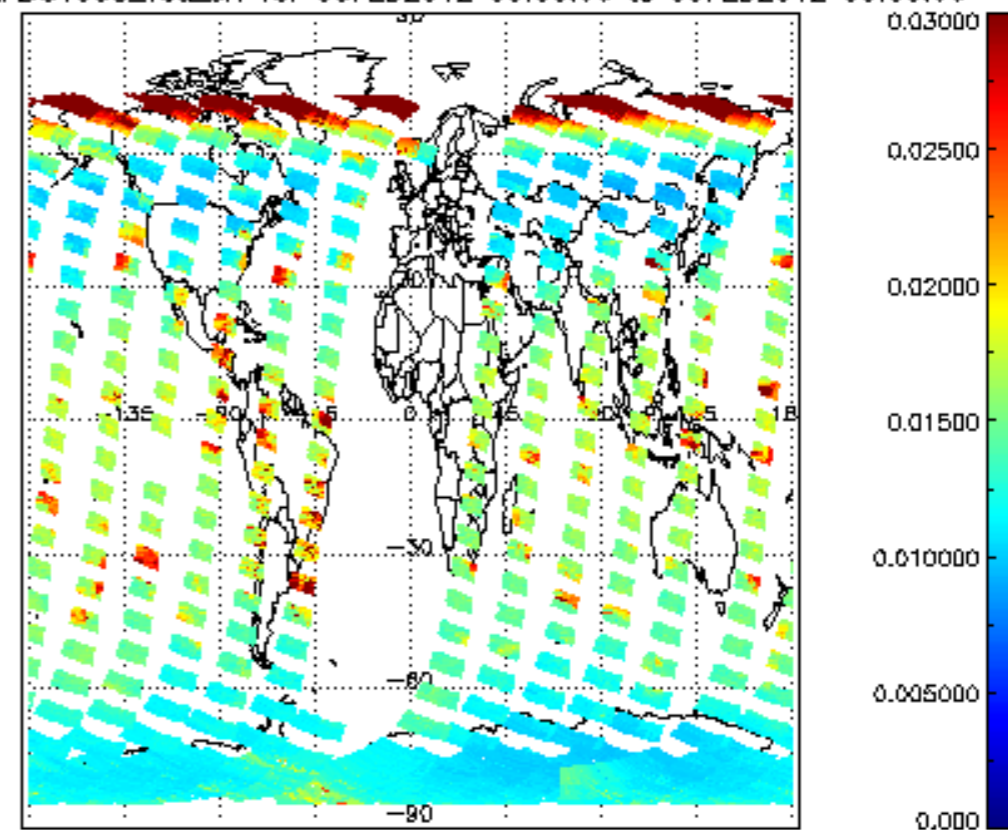




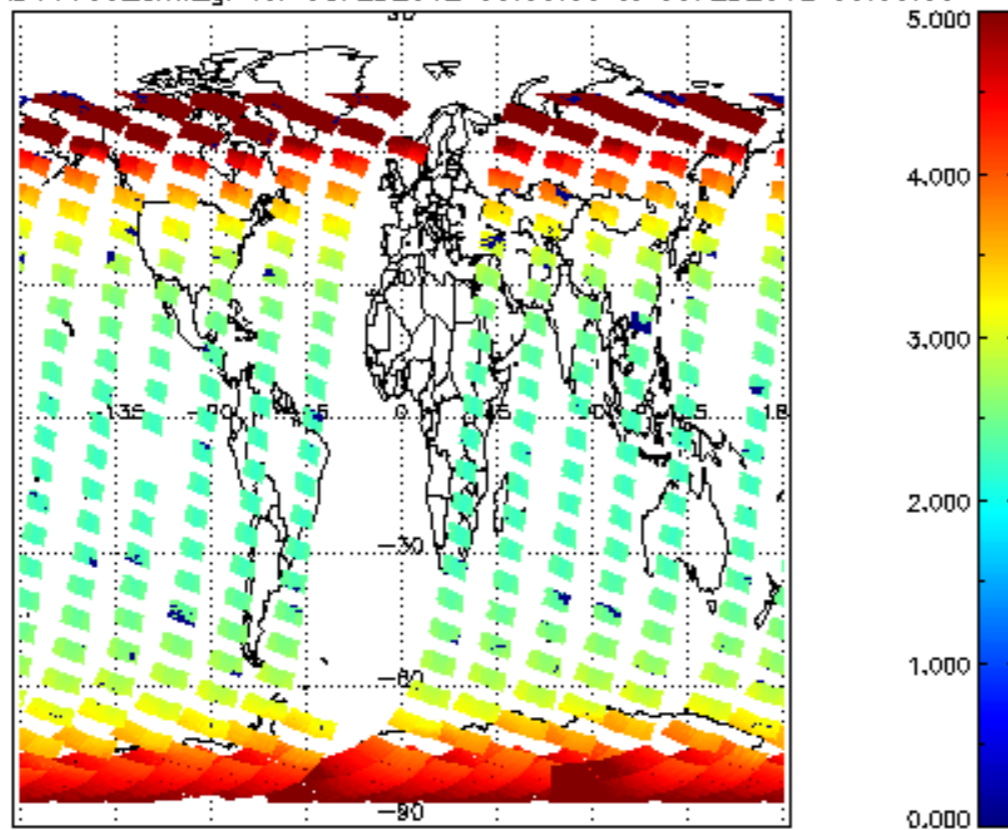
SCIOL2P\_NADUV003\_vcd for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



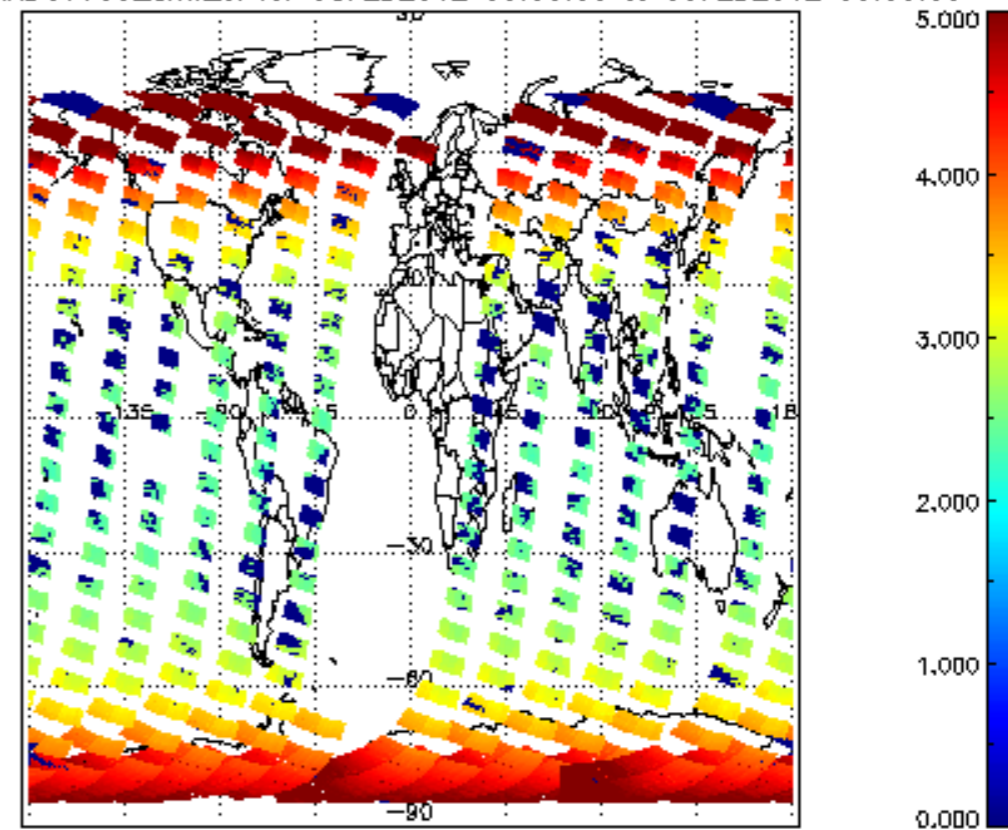
SCIOL2P\_NADUV003\_vcdLerr for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

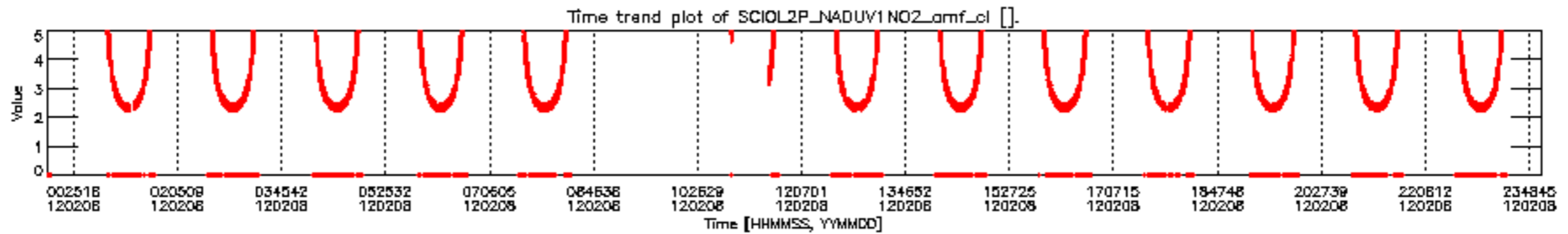
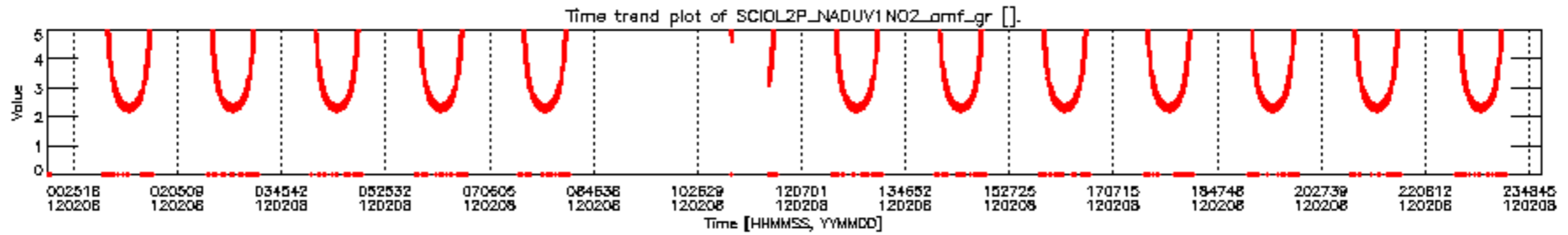
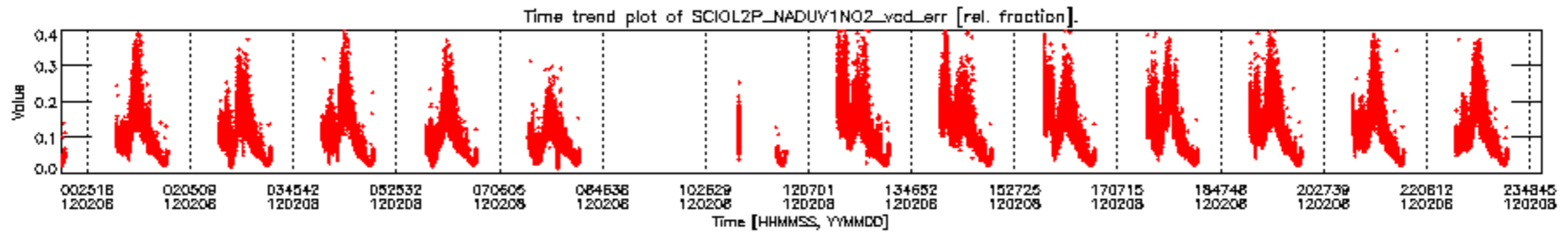
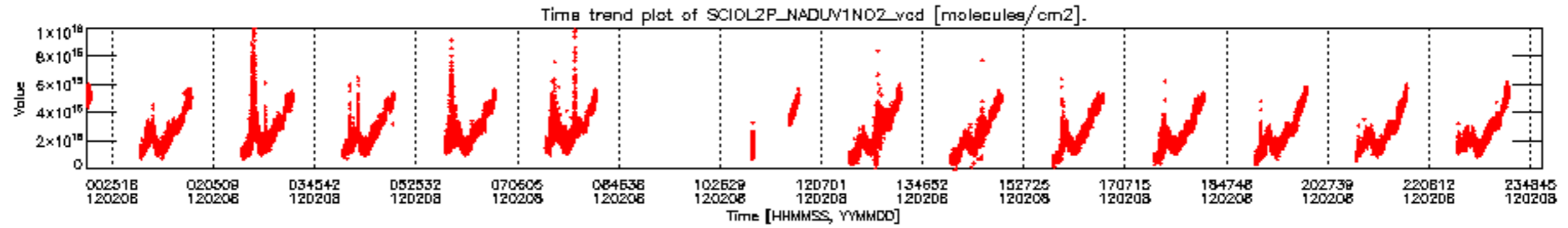


SCIOL2P\_NADUV003\_amf\_gr for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

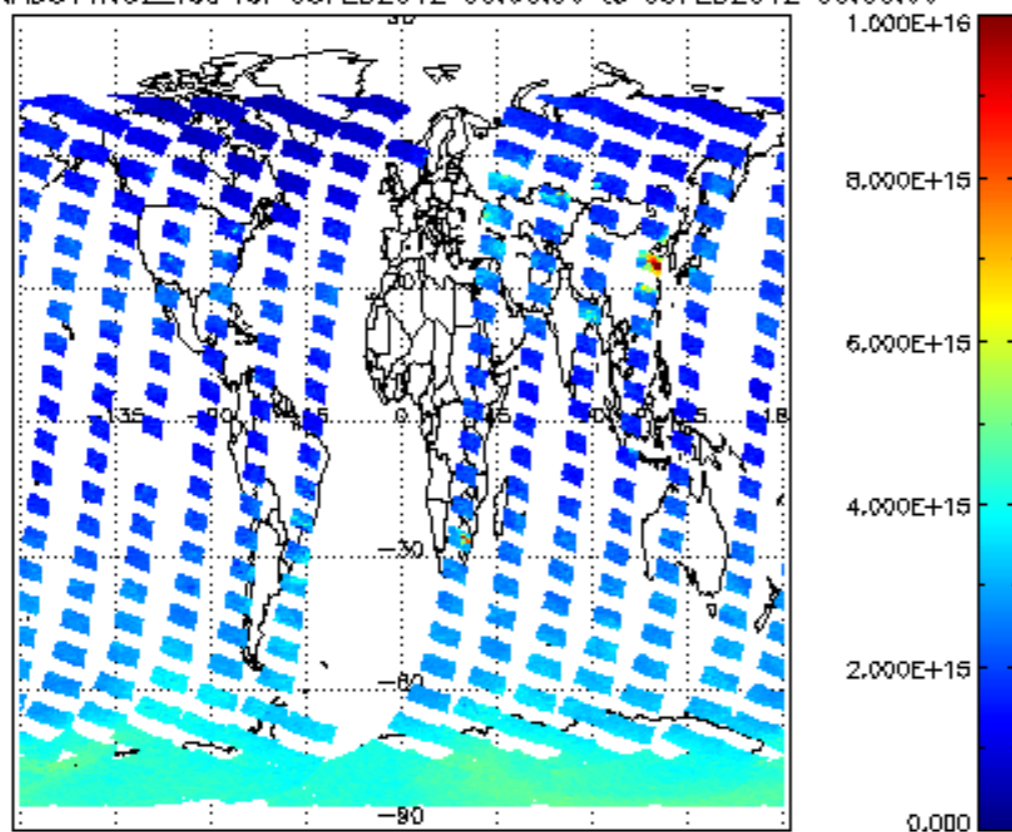


SCIOL2P\_NADUV003\_amf\_cl for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

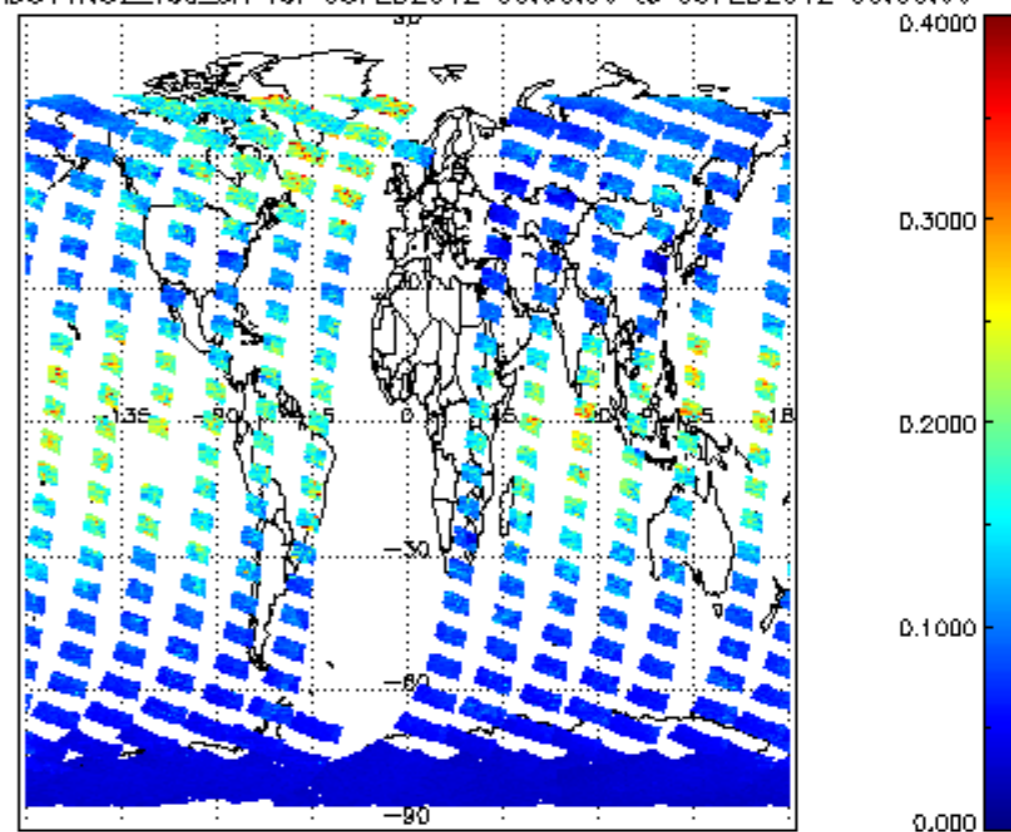




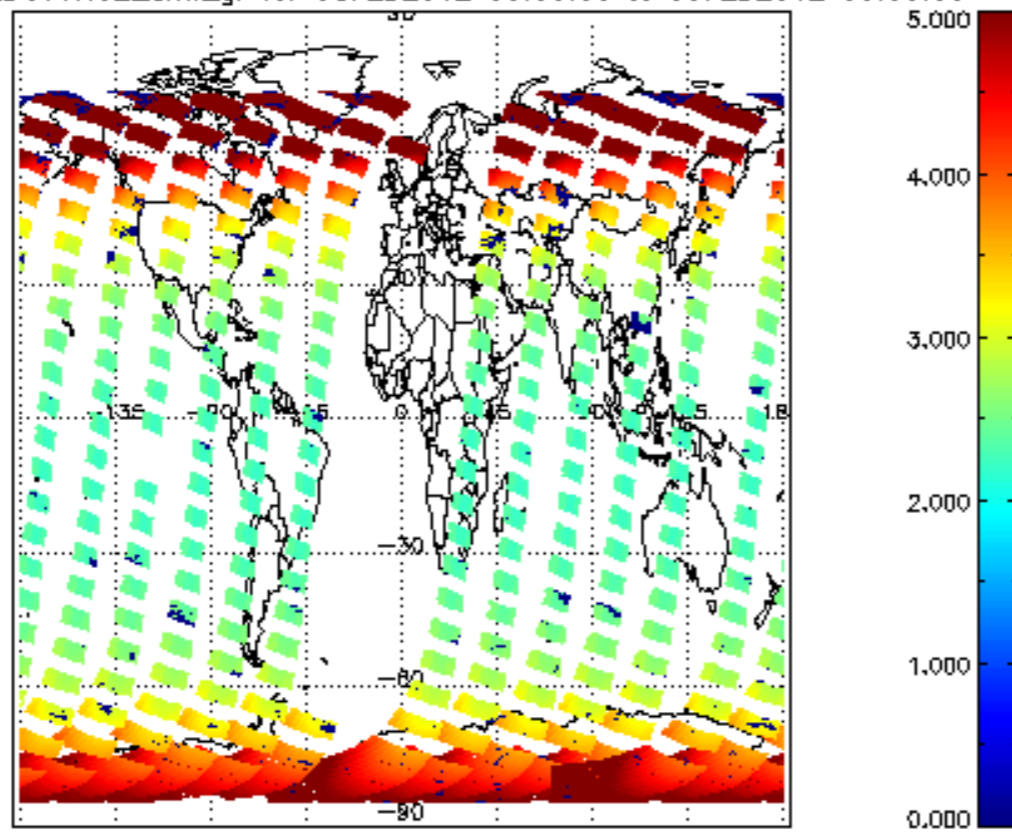
SCIOL2P\_NADUV1N02\_vcd for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



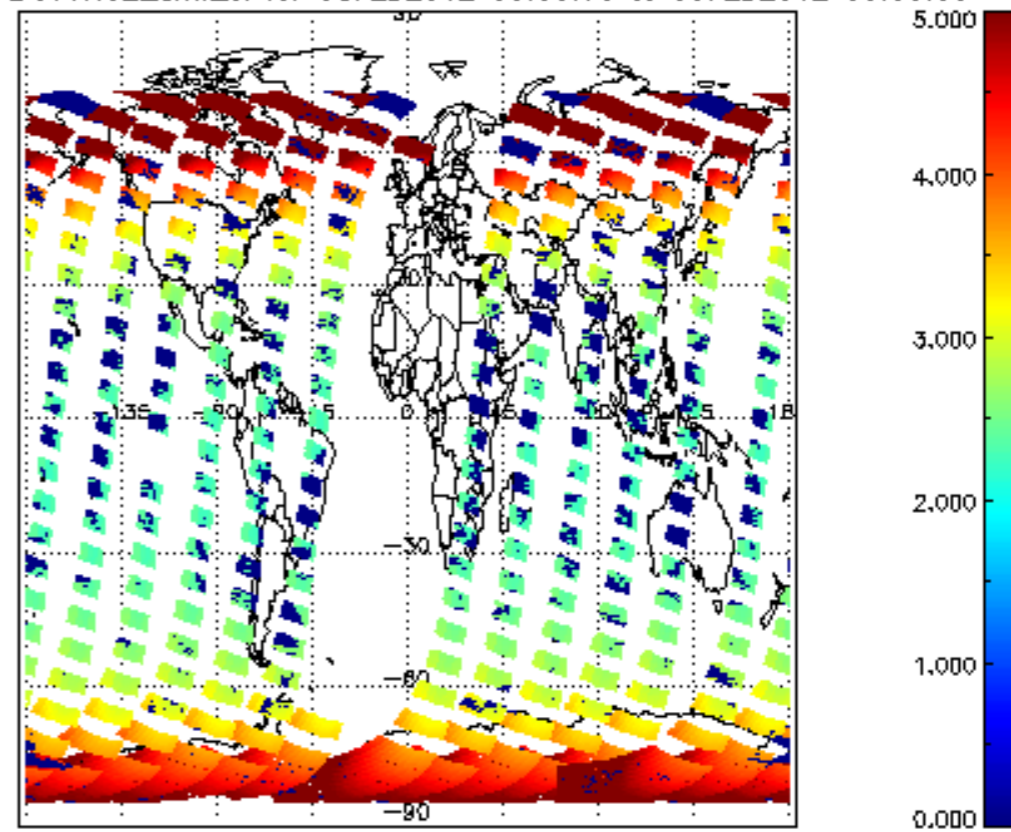
SCIOL2P\_NADUV1N02\_vcd\_err for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

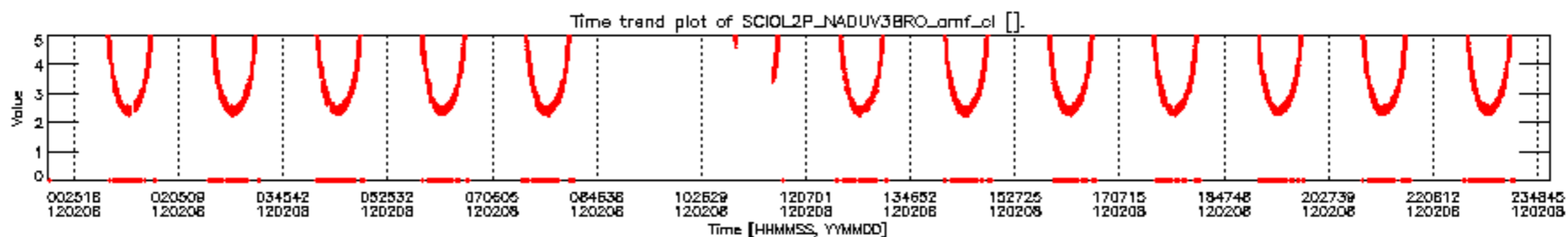
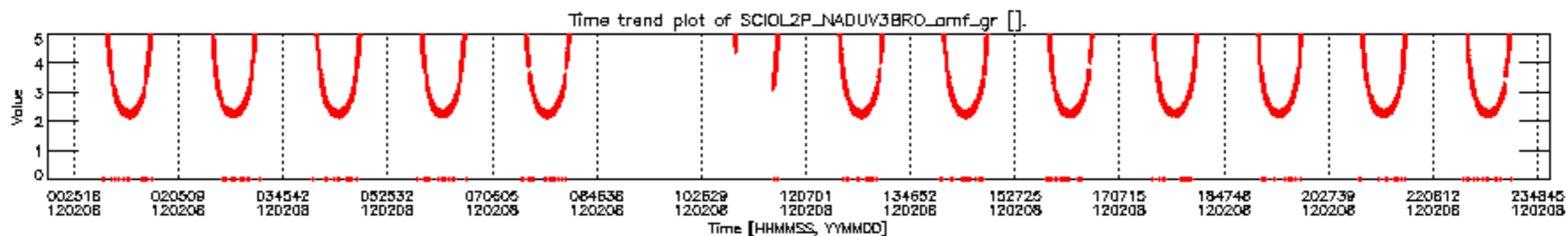
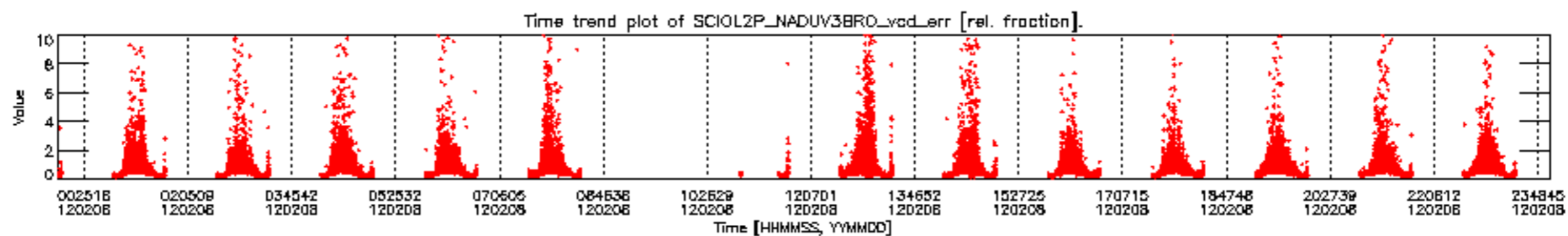
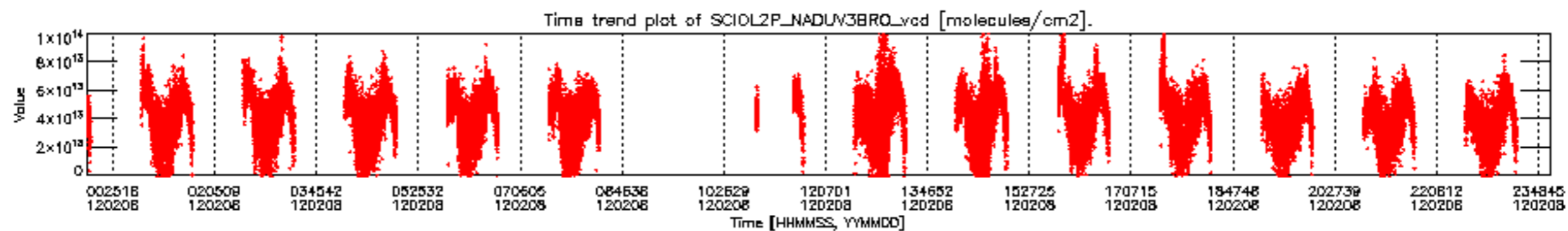


SCIOL2P\_NADUV1N02\_amf\_gr for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

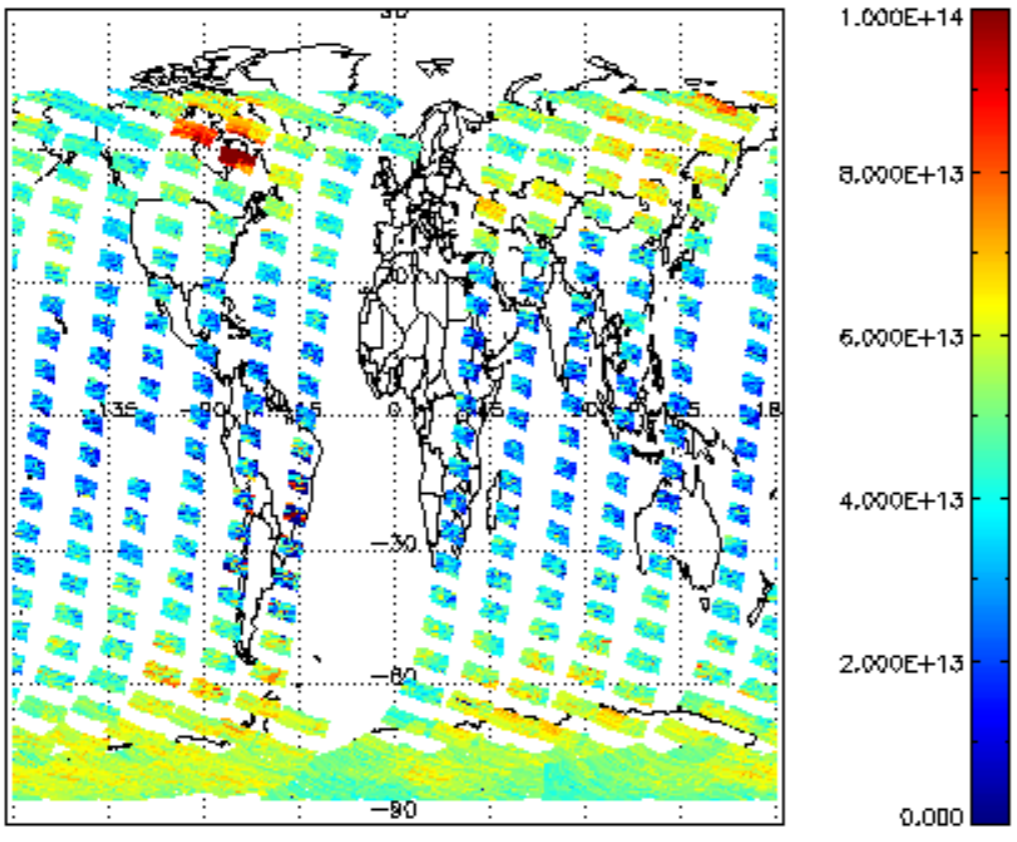


SCIOL2P\_NADUV1N02\_amf\_cl for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

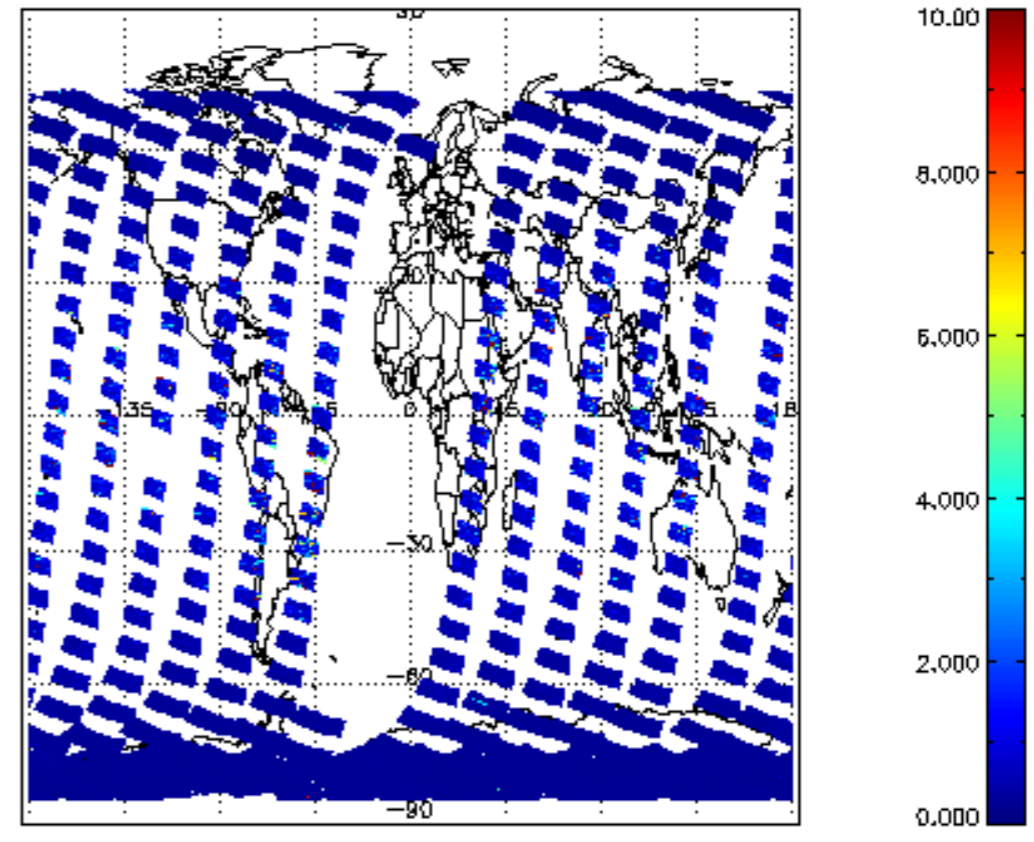




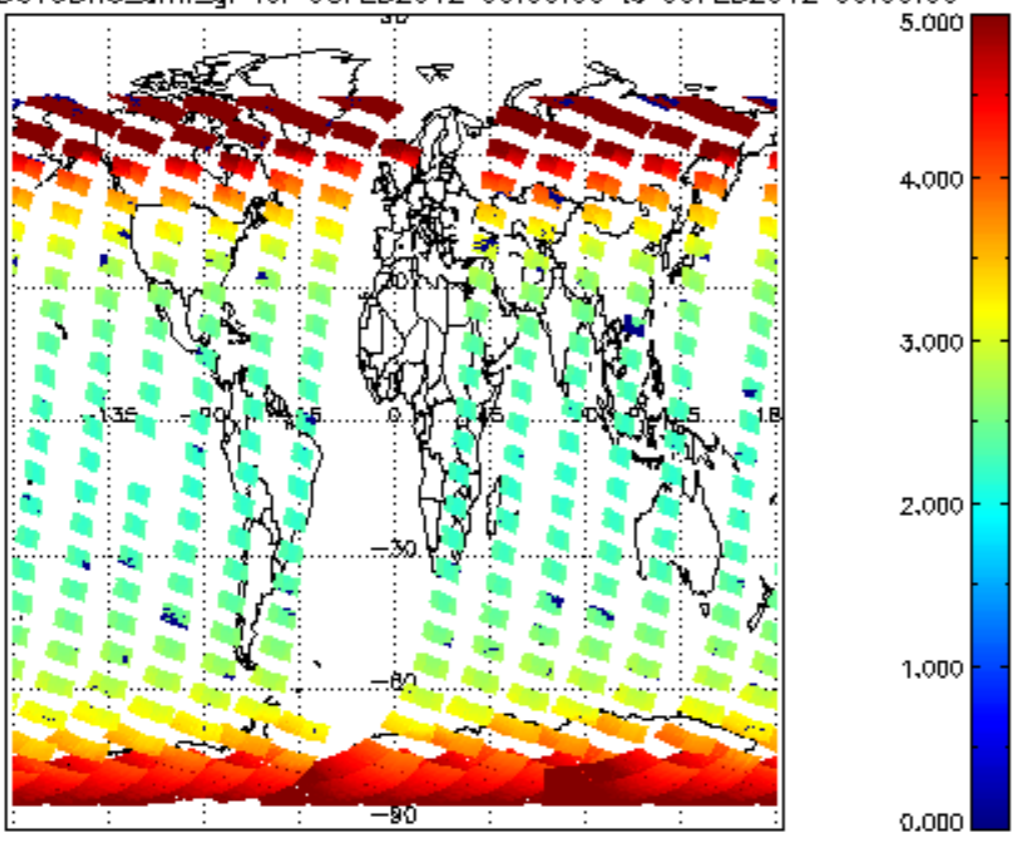
SCIOL2P\_NADUV3BRO\_vcd for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



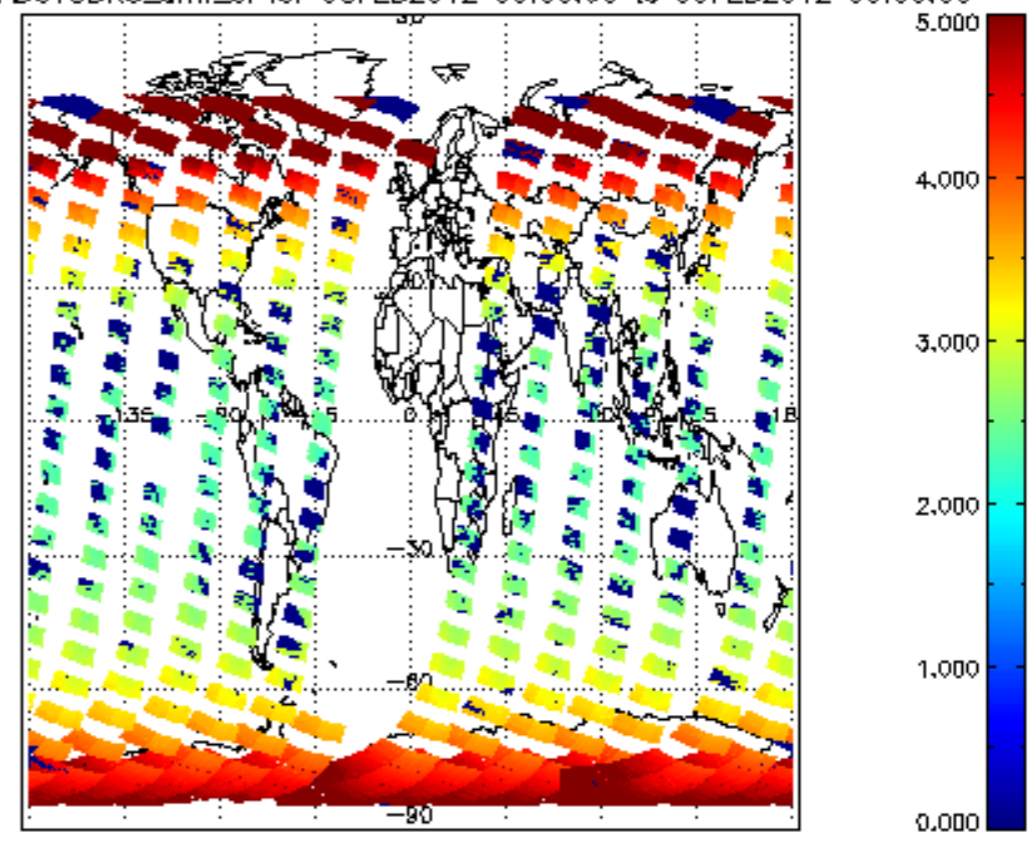
SCIOL2P\_NADUV3BRO\_vcd\_err for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

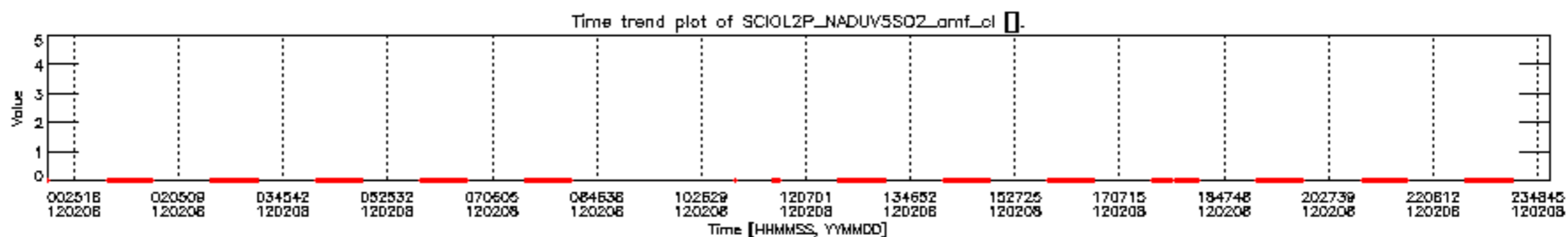
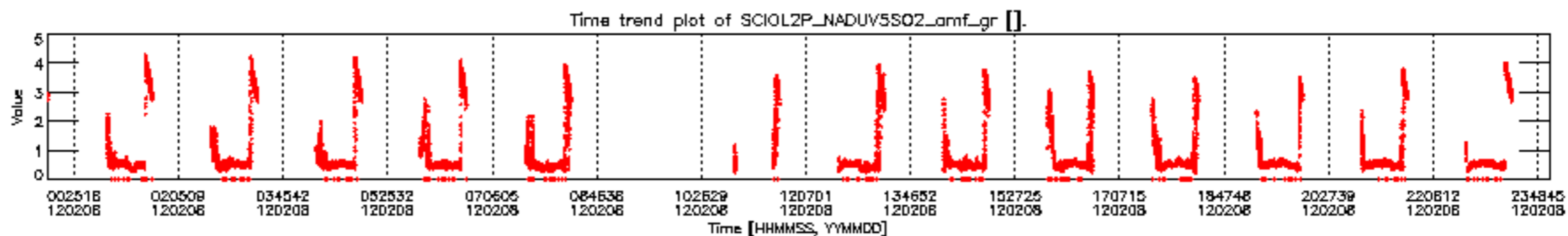
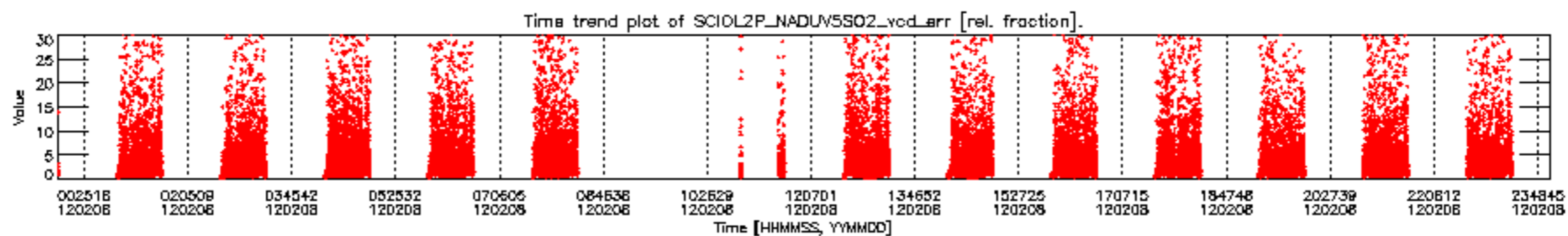
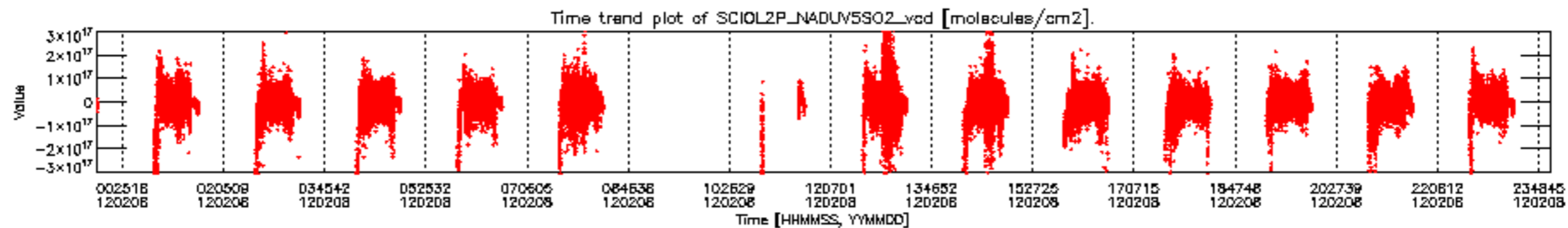


SCIOL2P\_NADUV3BRO\_amf\_gr for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

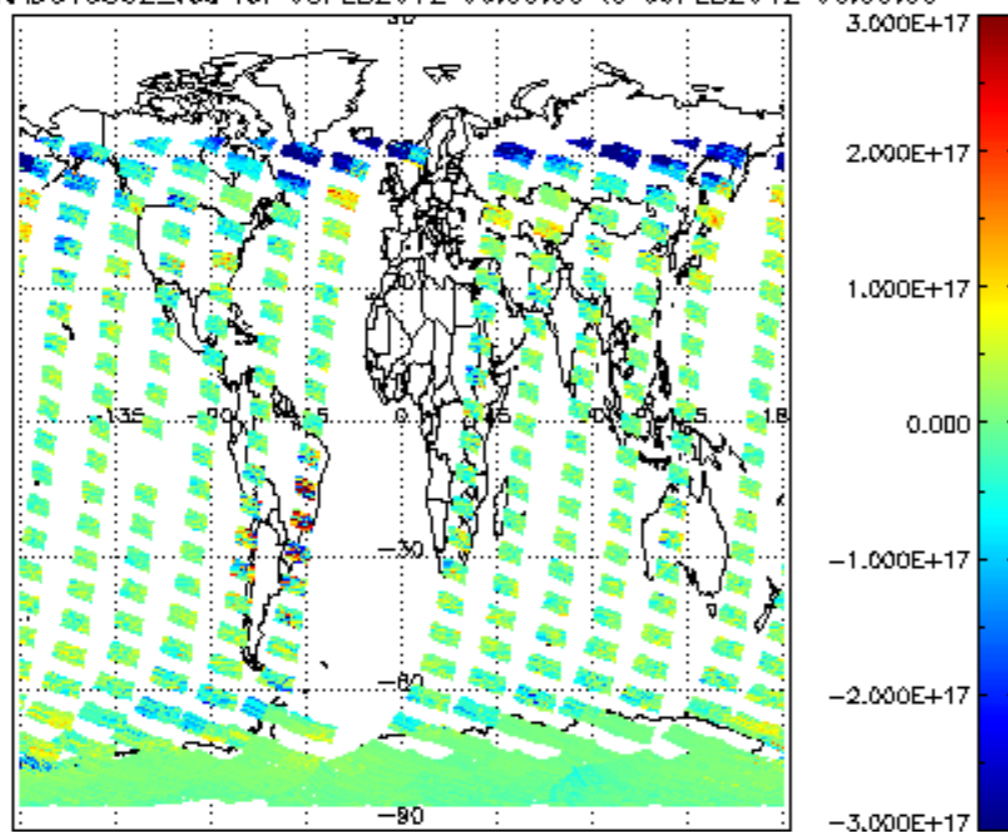


SCIOL2P\_NADUV3BRO\_amf\_cl for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

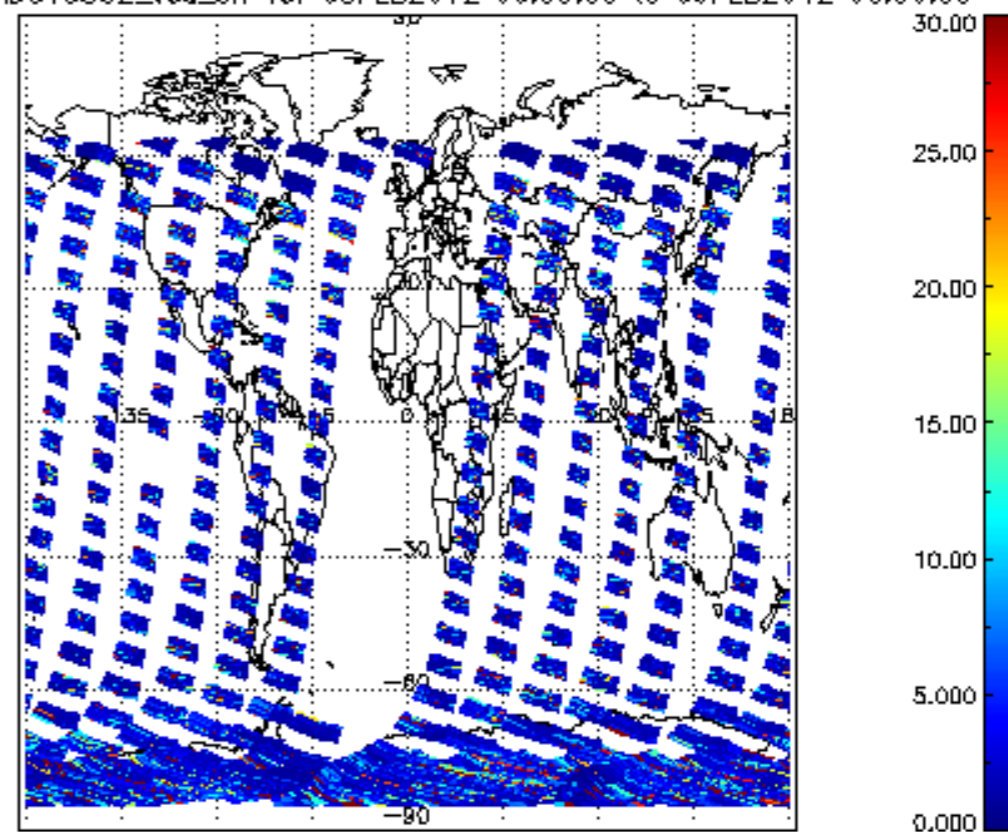




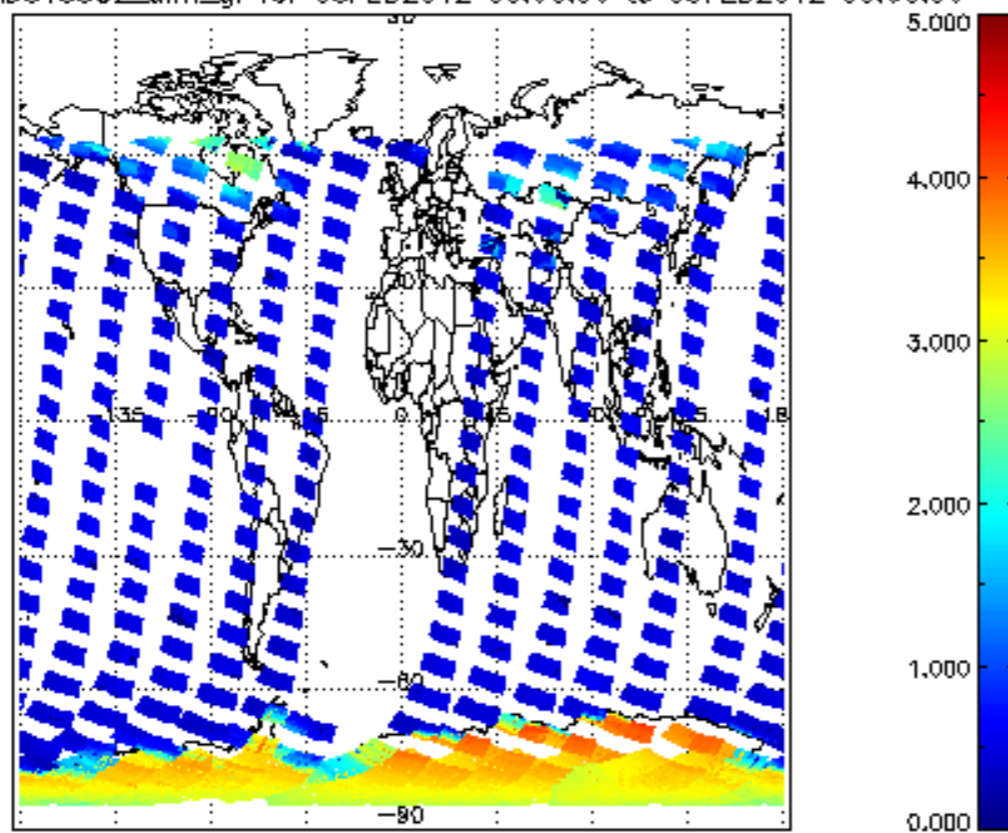
SCIOL2P\_NADUV5S02\_vcd for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



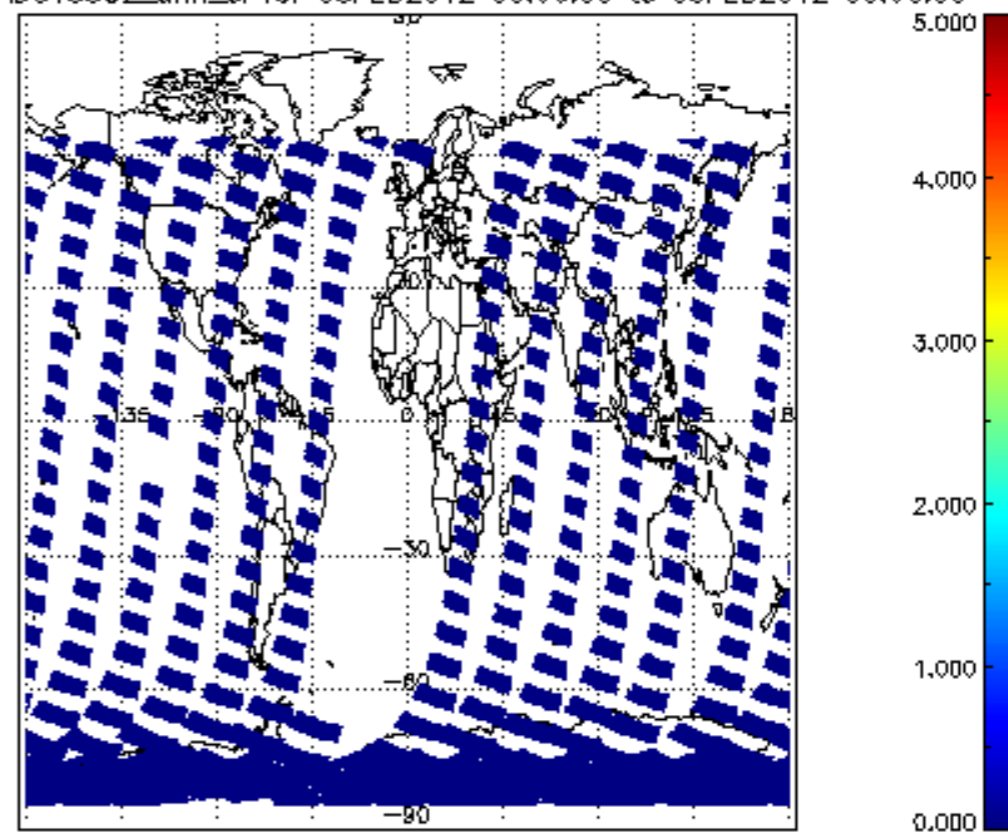
SCIOL2P\_NADUV5S02\_vcd\_err for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

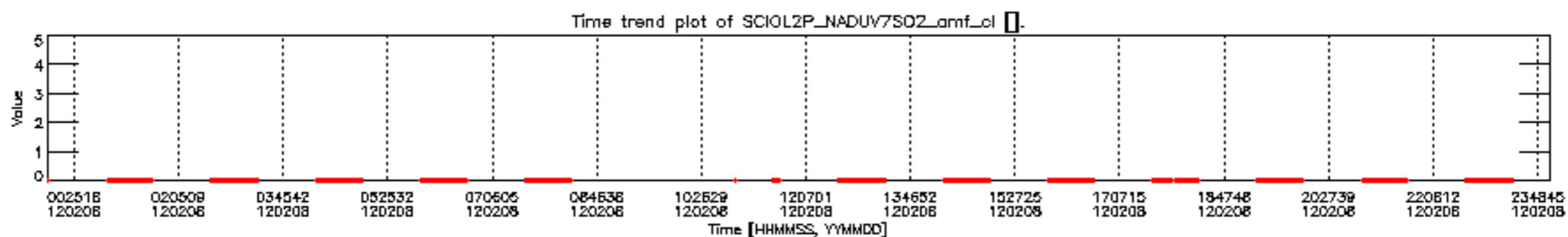
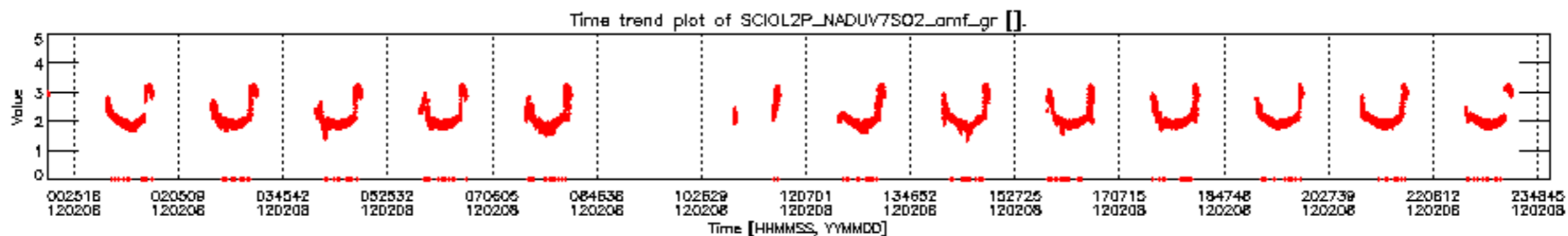
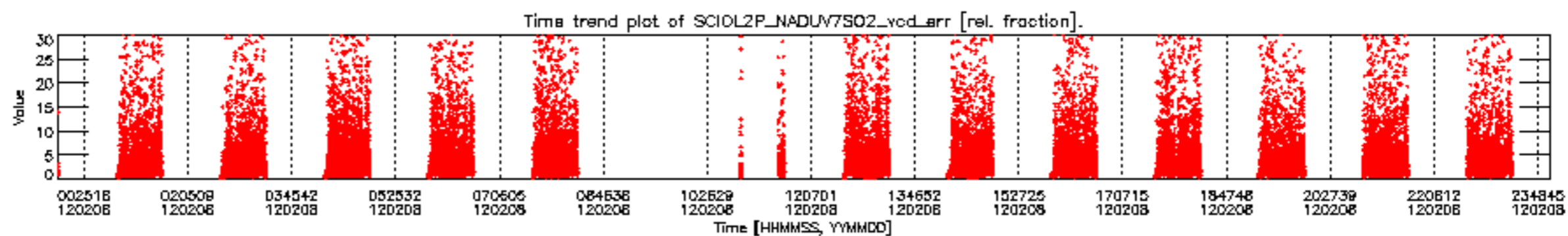
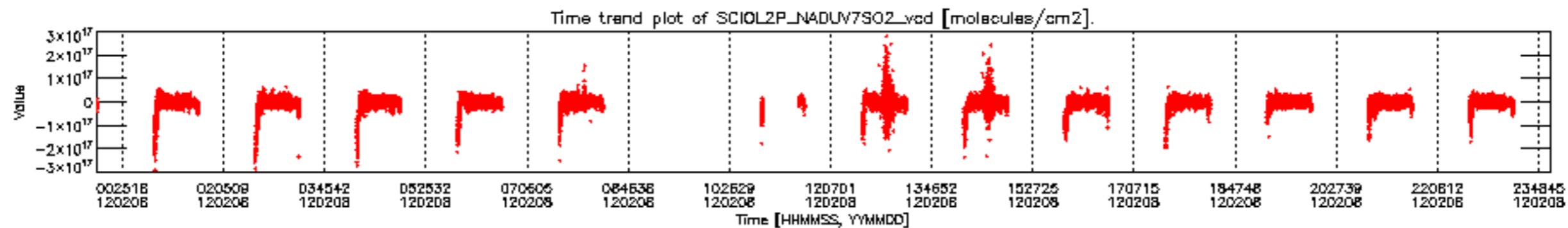


SCIOL2P\_NADUV5S02\_amf\_gr for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



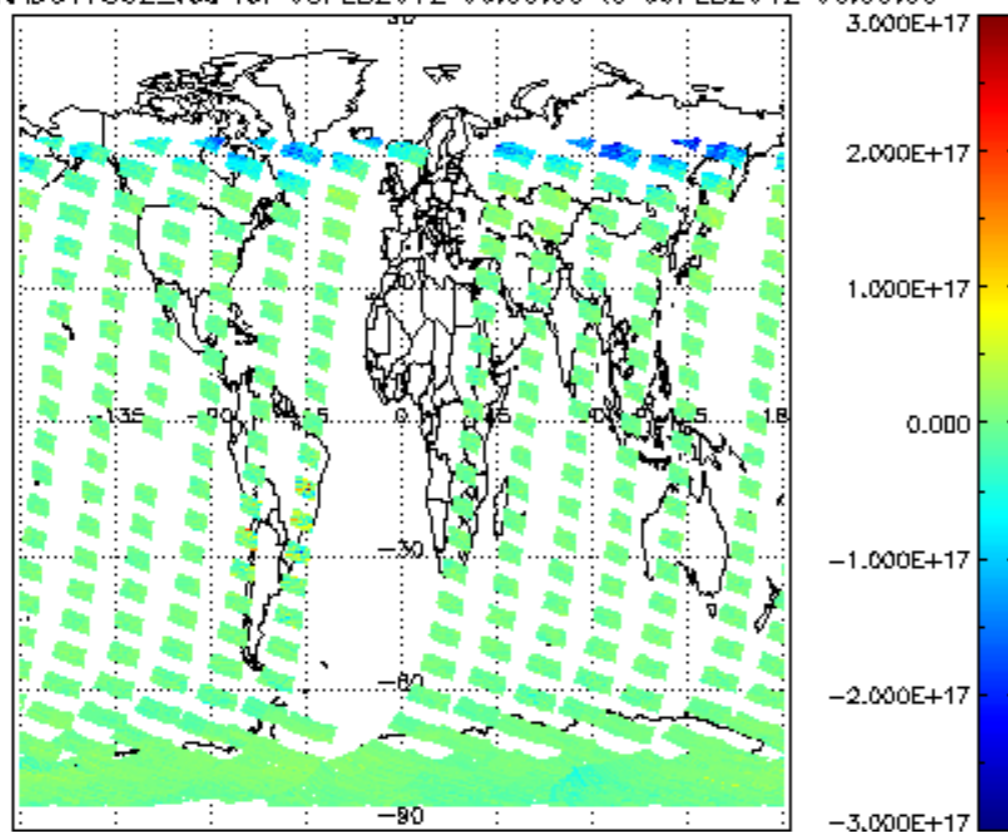
SCIOL2P\_NADUV5S02\_amf\_cl for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



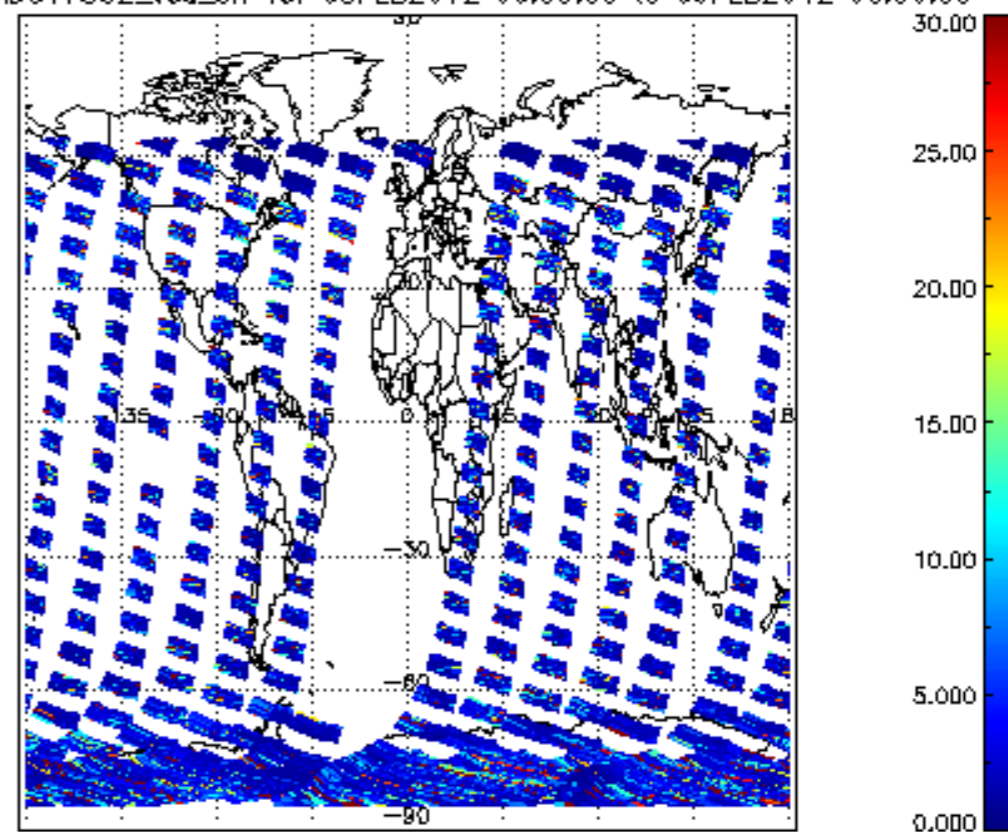




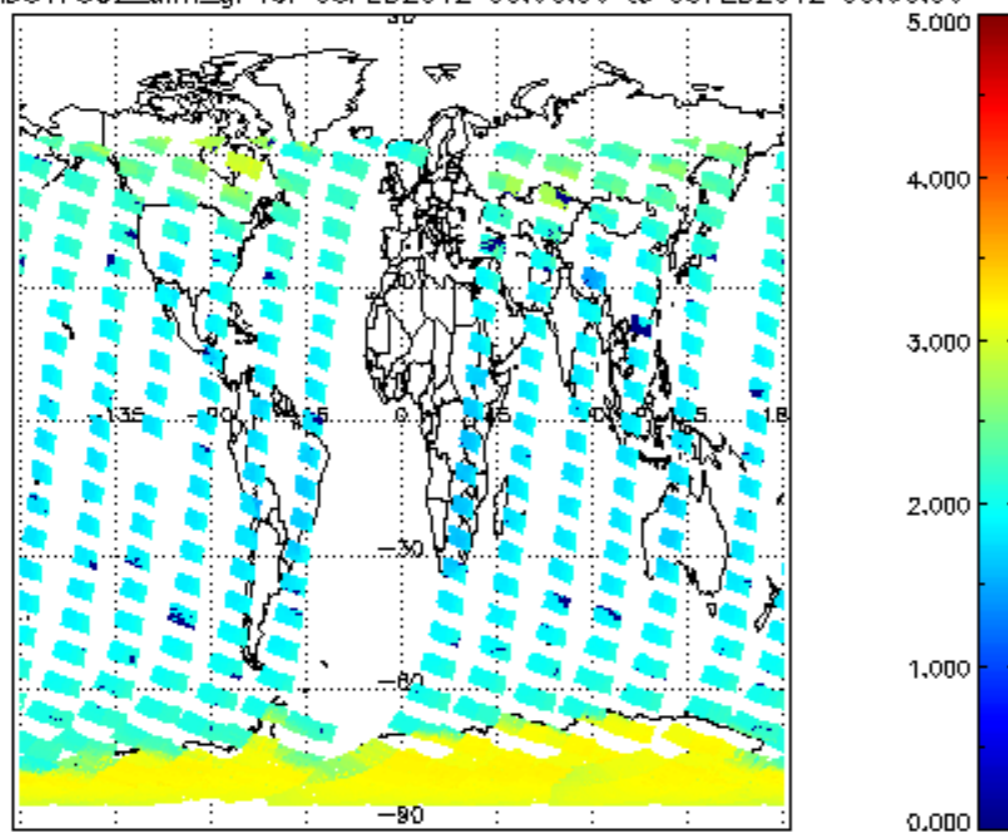
SCIOL2P\_NADUV7S02\_vcd for 08FEB2012 00:00:00 to 09FEB2012 00:00:00



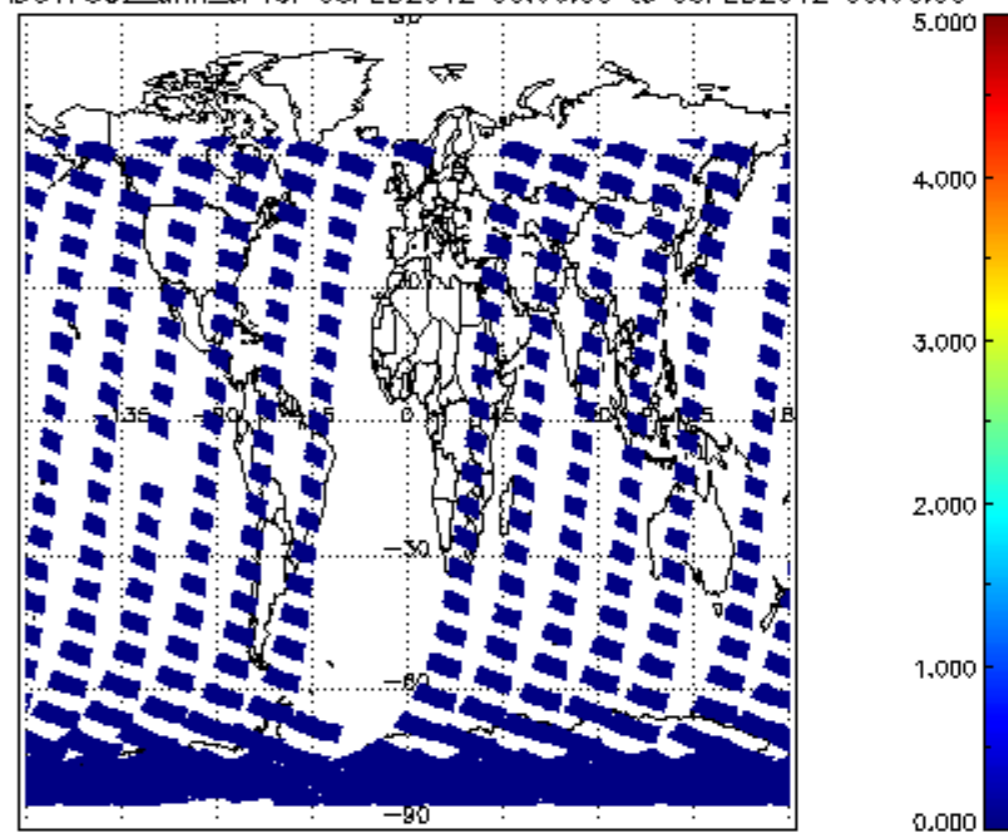
SCIOL2P\_NADUV7S02\_vcd\_err for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

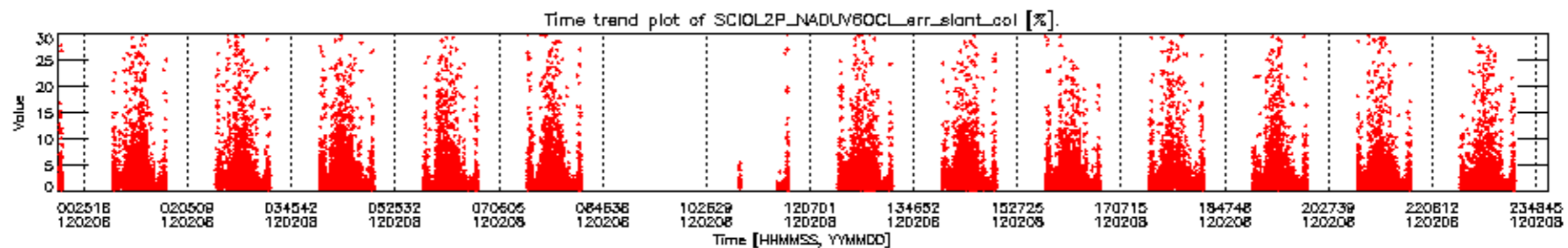
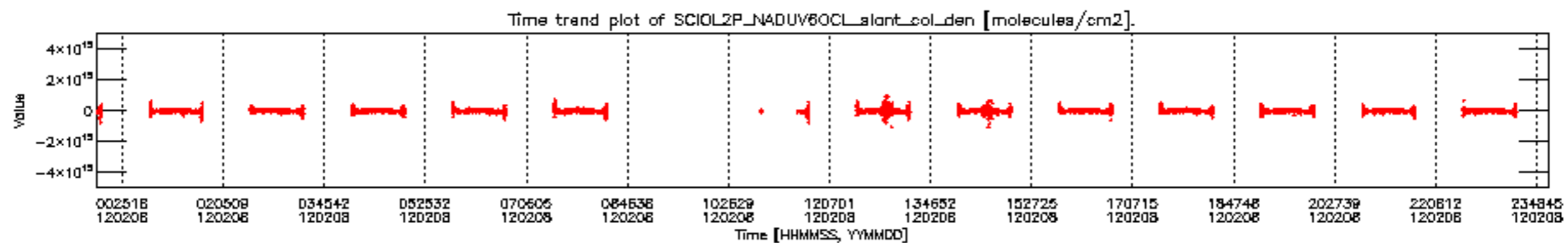


SCIOL2P\_NADUV7S02\_amf\_gr for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

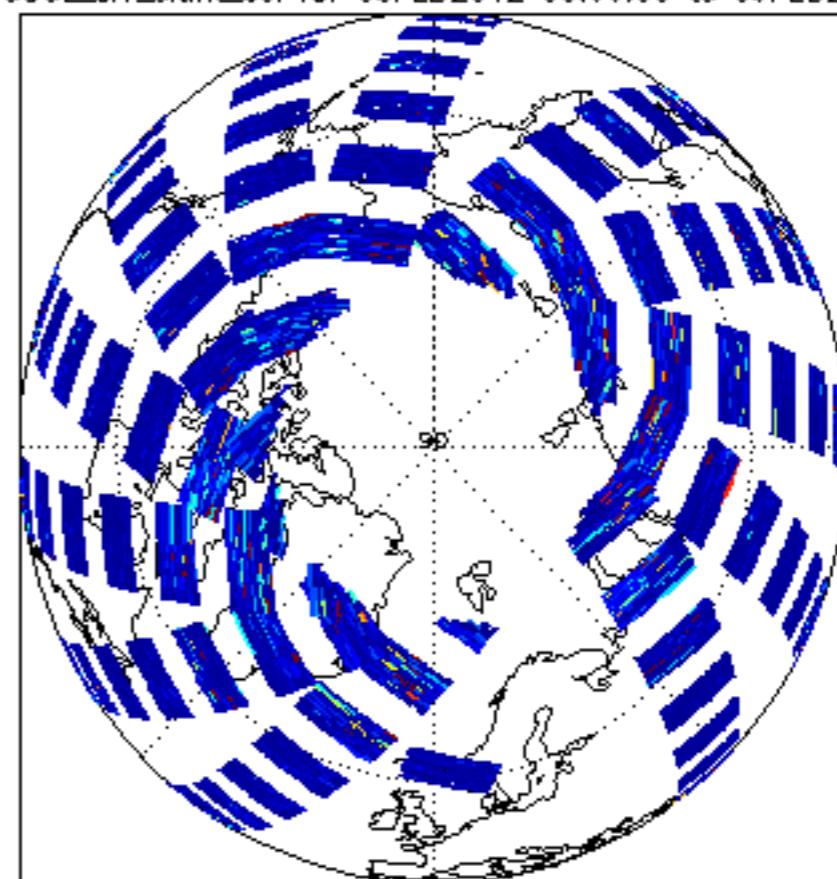
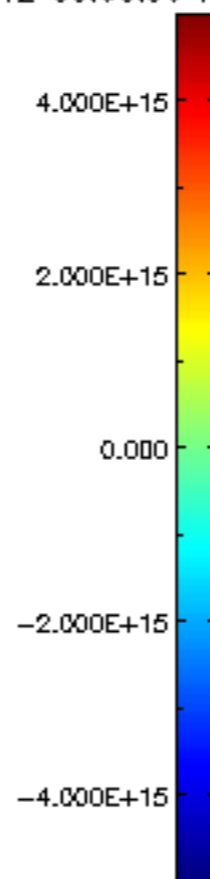
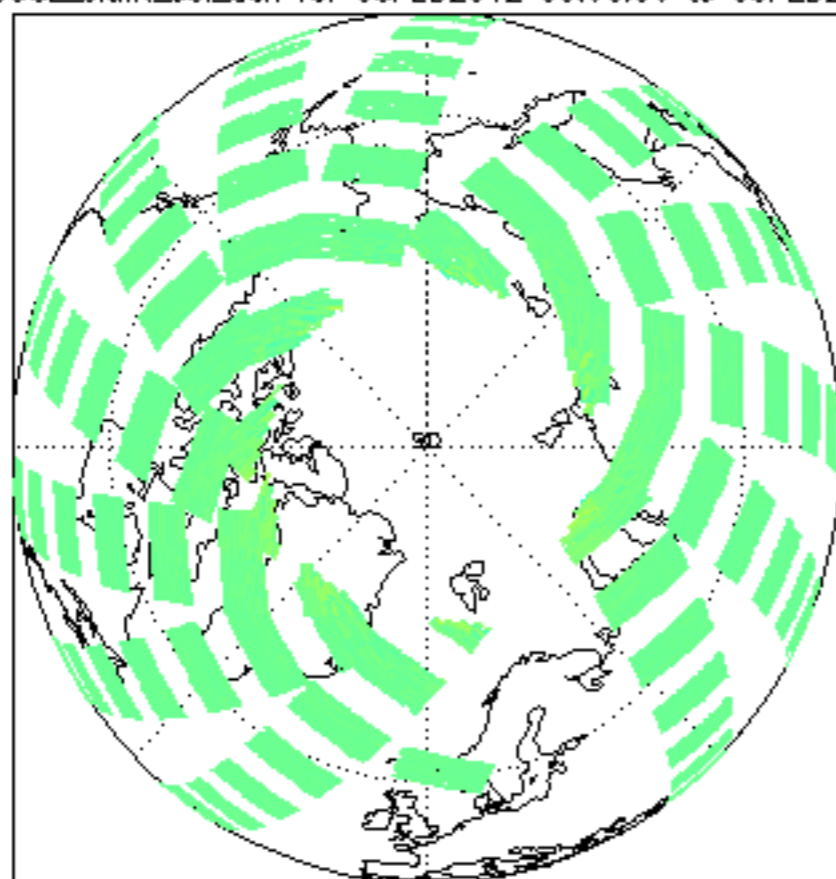


SCIOL2P\_NADUV7S02\_amf\_cl for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

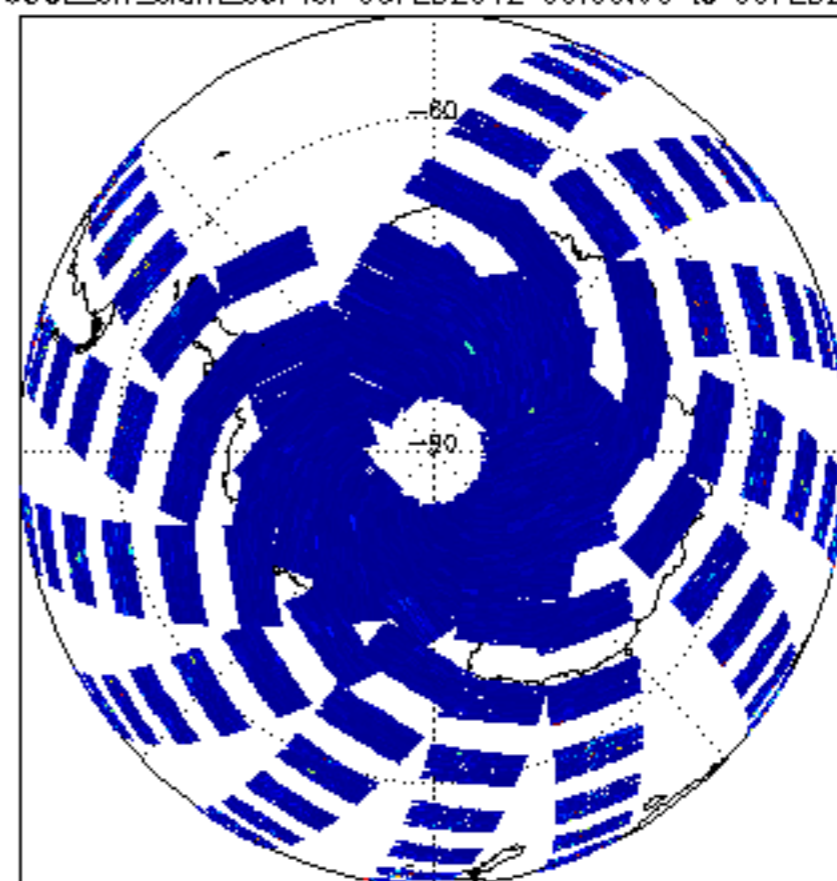
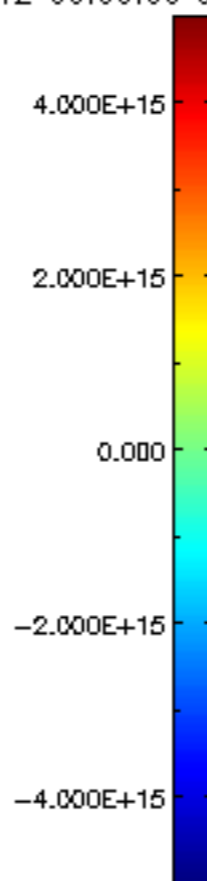
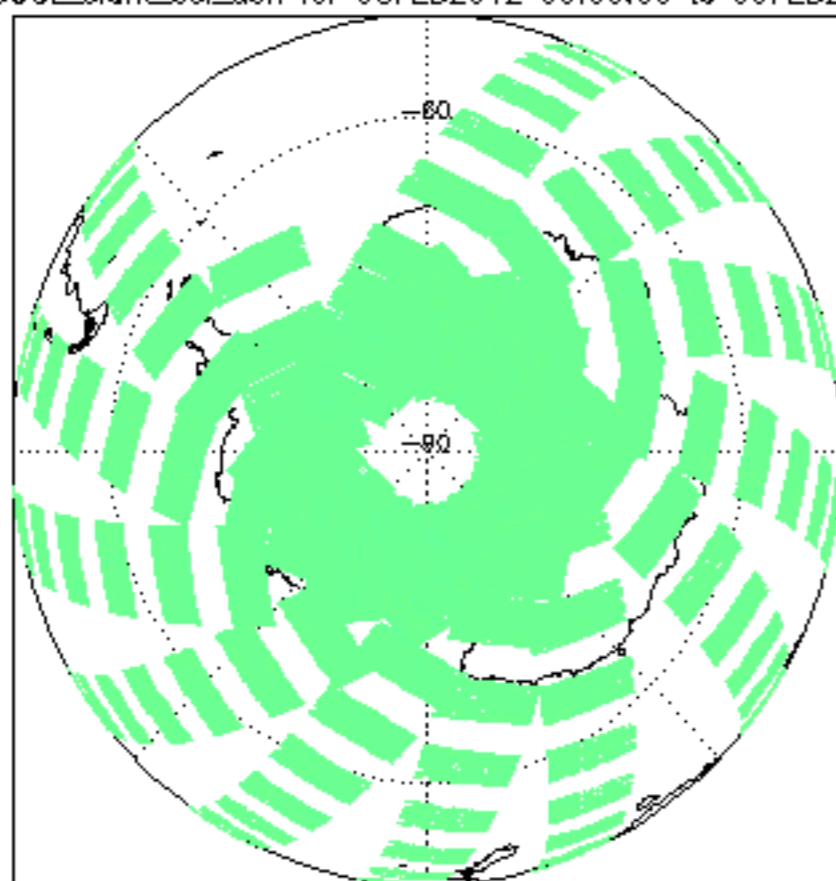


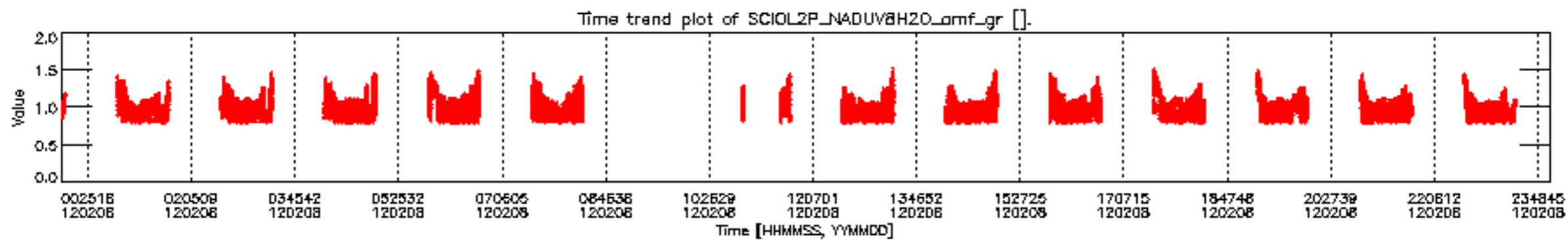
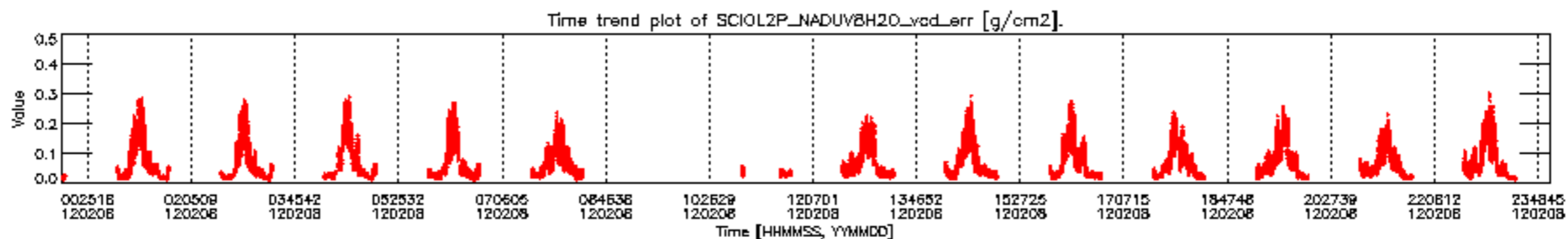
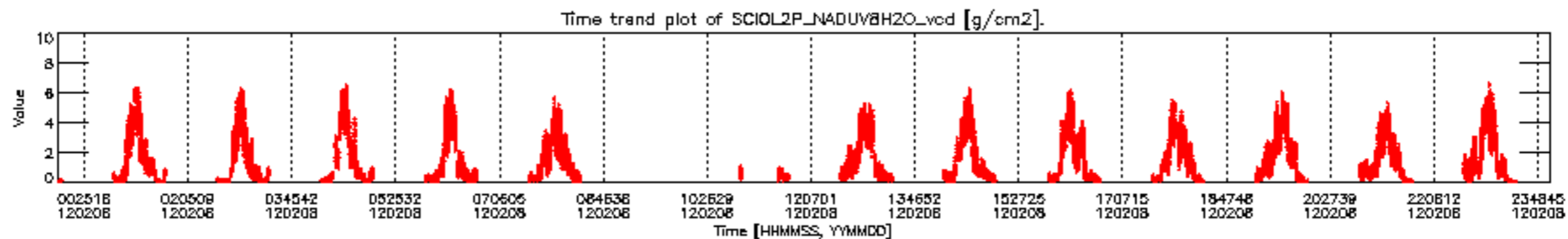


CIOL2P\_NADUV6OCL\_slant\_col\_den for 08FEB2012 00:00:00 to 09FEB2012 00:00:00 np; CIOL2P\_NADUV6OCL\_err\_slant\_col for 08FEB2012 00:00:00 to 09FEB2012 00:00:00 np

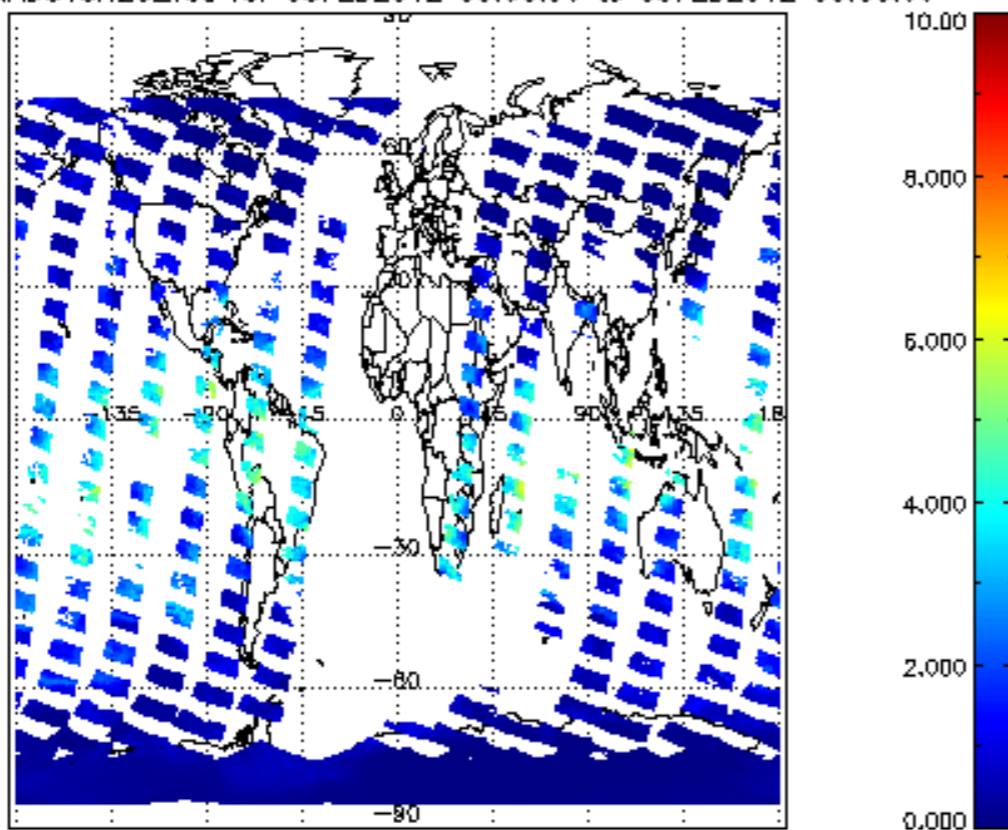


CIOL2P\_NADUV6OCL\_slant\_col\_den for 08FEB2012 00:00:00 to 09FEB2012 00:00:00 sp; CIOL2P\_NADUV6OCL\_err\_slant\_col for 08FEB2012 00:00:00 to 09FEB2012 00:00:00 sp

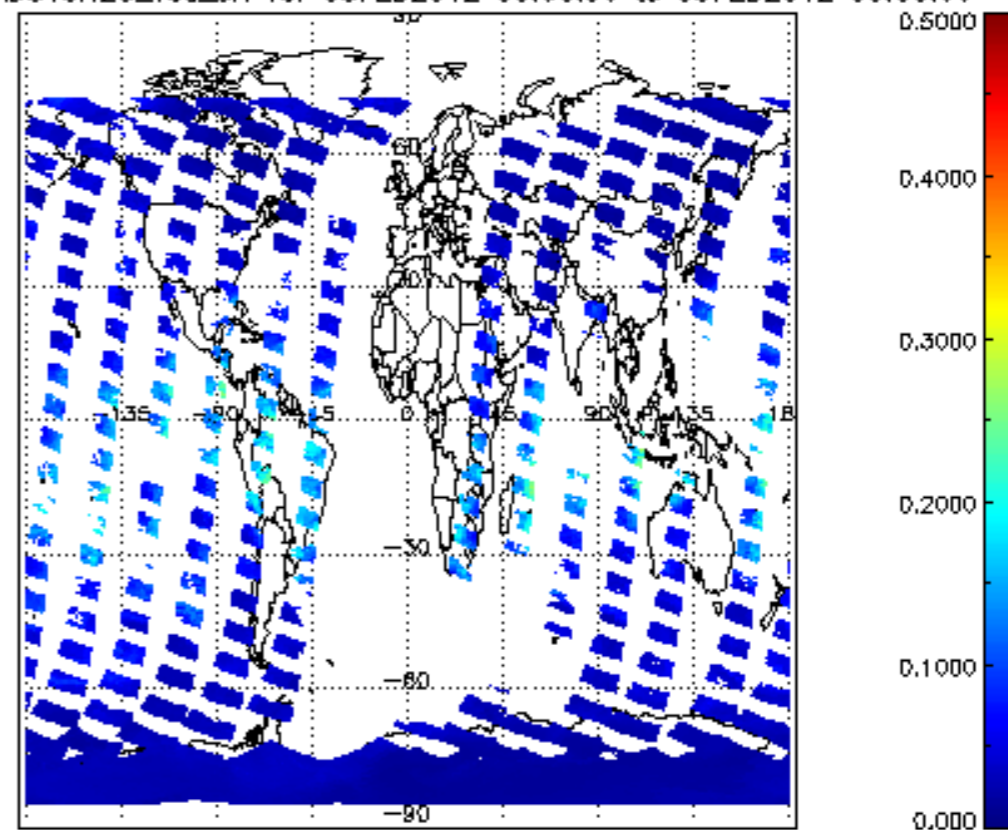




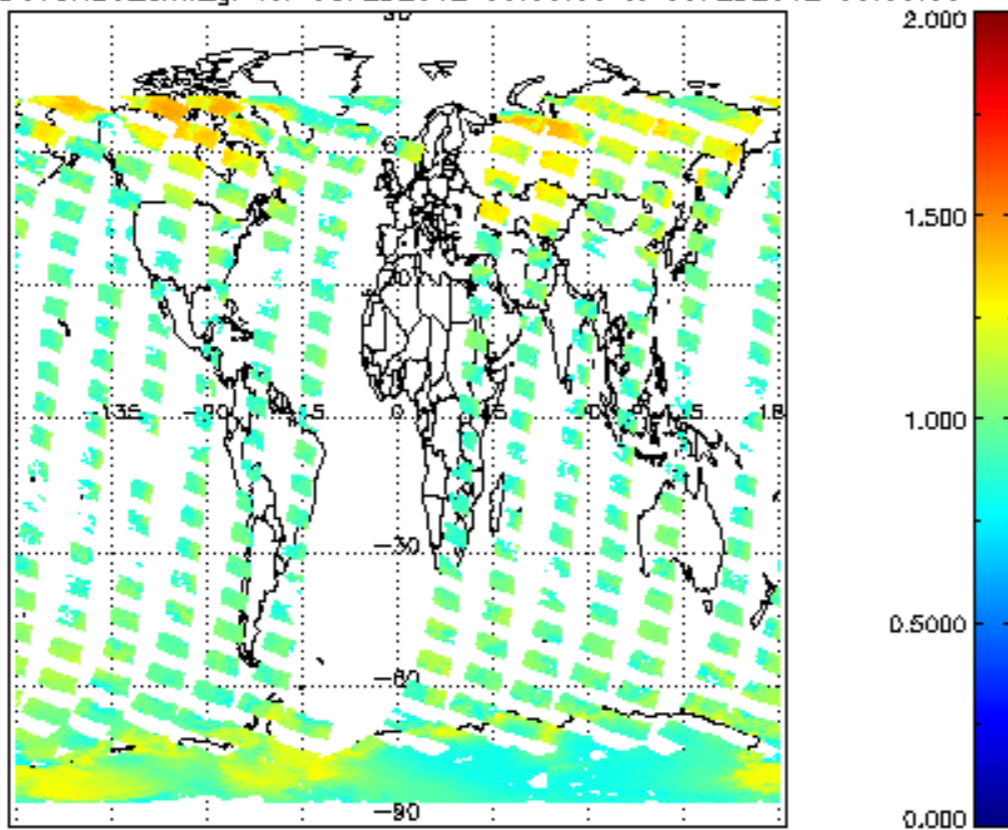
SCIOL2P\_NADUV8H2O\_vcd for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

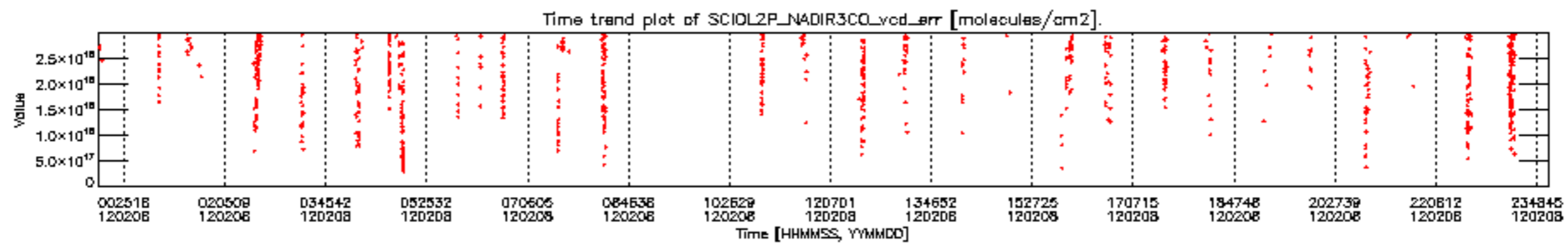
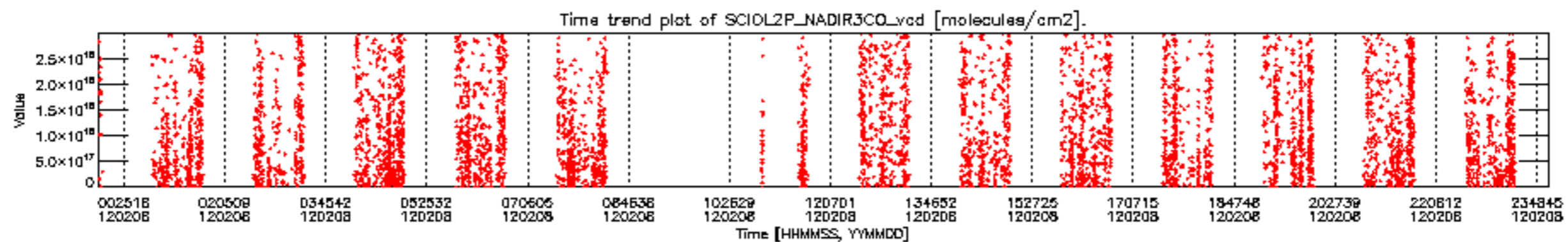


SCIOL2P\_NADUV8H2O\_vcd\_err for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

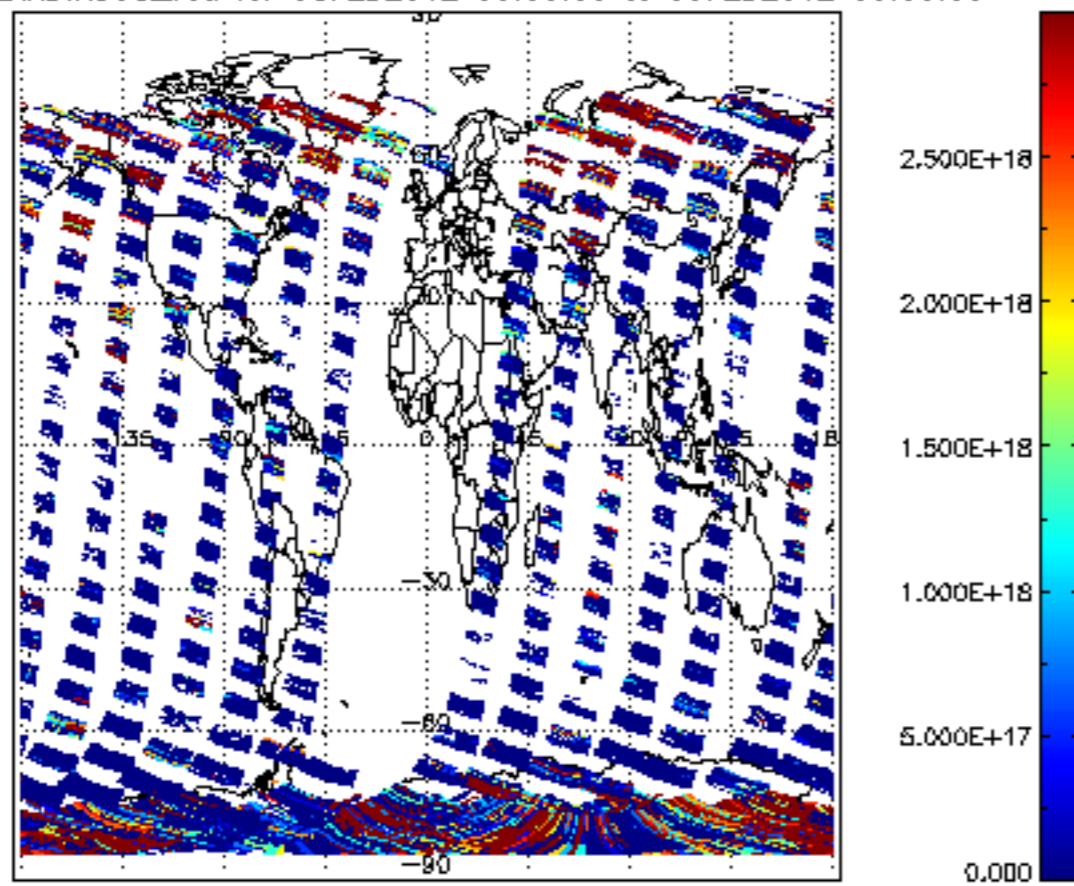


SCIOL2P\_NADUV8H2O\_amf\_gr for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

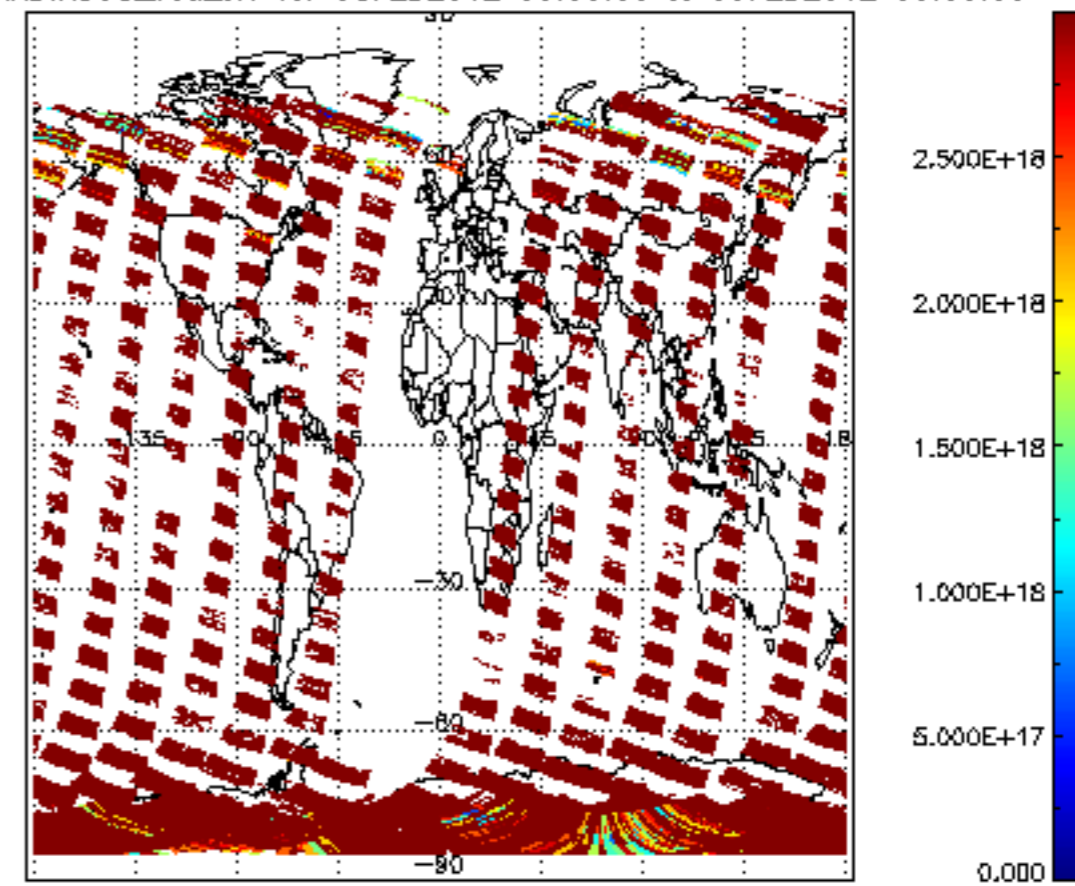




SCIOL2P\_NADIR3CO\_vcd for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

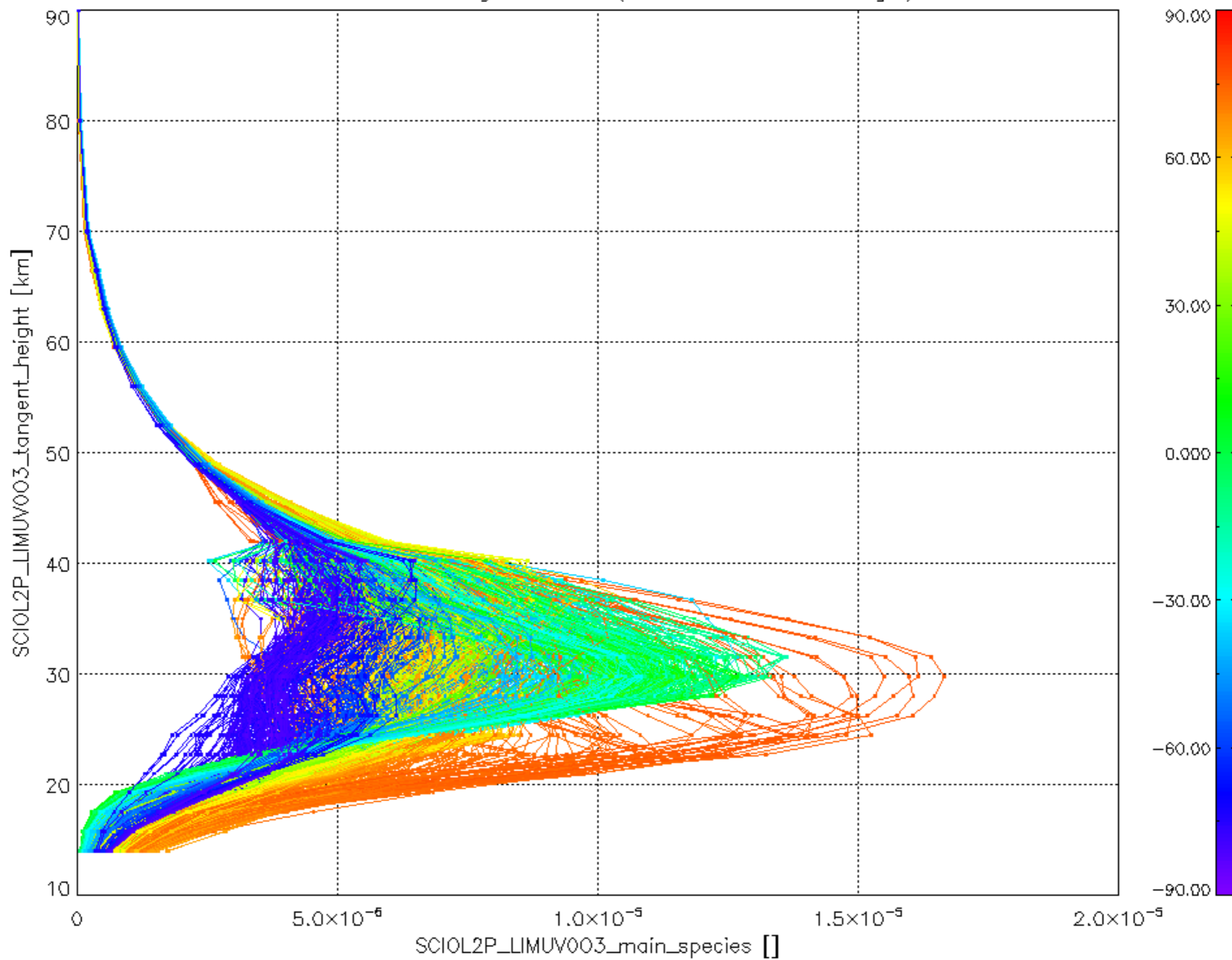


SCIOL2P\_NADIR3CO\_vcd\_err for 08FEB2012 00:00:00 to 09FEB2012 00:00:00

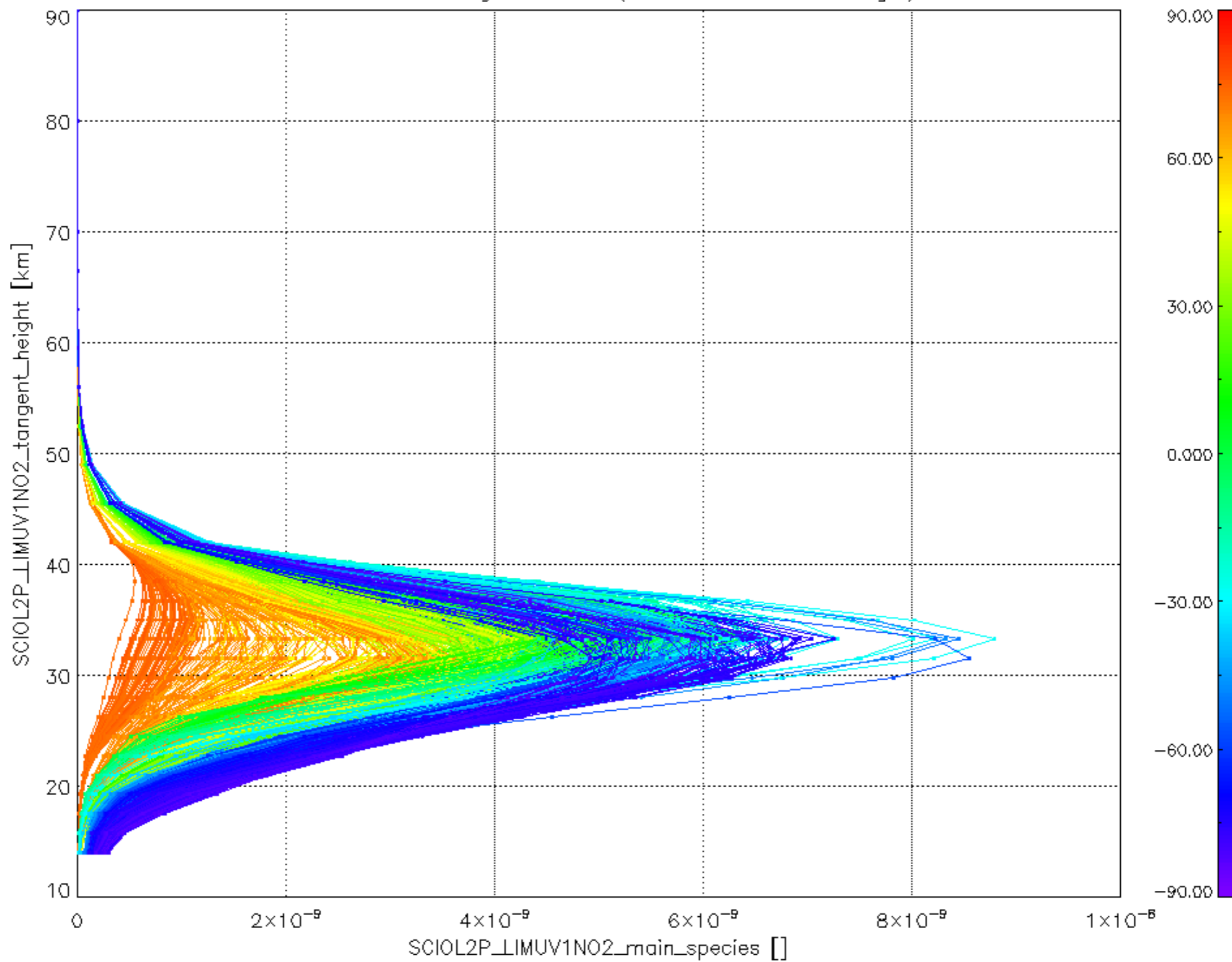




Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



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).

