

## 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	05APR2012 03:21:26
Data source version	SCIA-OL/5.02-W
Processing scope for products	23MAR2012 00:00:00 to 24MAR2012 00:00:00
Start time of first product within scope	22MAR2012 22:47:52
Stop time of last product within scope	24MAR2012 00:50:05
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__2PWDPA20120322_224752_000035163113_00030_52630_4110.N1</a>	22MAR2012 22:47:52	22MAR2012 23:46:28	0	GOOD
1	<a href="#">SCI_OL__2PWDPA20120323_002805_000035303113_00031_52631_4111.N1</a>	23MAR2012 00:28:05	23MAR2012 01:26:56	0	GOOD
2	<a href="#">SCI_OL__2PWDPA20120323_020818_000035163113_00032_52632_4112.N1</a>	23MAR2012 02:08:18	23MAR2012 03:06:55	0	GOOD
3	<a href="#">SCI_OL__2PWDPA20120323_034832_000035303113_00033_52633_4113.N1</a>	23MAR2012 03:48:32	23MAR2012 04:47:23	0	GOOD
4	<a href="#">SCI_OL__2PWDPA20120323_052846_000035163113_00034_52634_4114.N1</a>	23MAR2012 05:28:46	23MAR2012 06:27:22	0	GOOD

5	SCI_OL__2PWDPA20120323_070859_000035303113_00035_52635_4115.N1	23MAR2012 07:08:59	23MAR2012 08:07:50	0	GOOD
6	SCI_OL__2PWDPA20120323_084913_000035163113_00036_52636_4116.N1	23MAR2012 08:49:13	23MAR2012 09:47:49	0	GOOD
7	SCI_OL__2PWDPA20120323_102926_000035303113_00037_52637_4117.N1	23MAR2012 10:29:26	23MAR2012 11:28:17	0	GOOD
8	SCI_OL__2PWDPA20120323_120939_000035163113_00038_52638_4118.N1	23MAR2012 12:09:39	23MAR2012 13:08:16	0	GOOD
9	SCI_OL__2PWDPA20120323_134953_000035303113_00039_52639_4119.N1	23MAR2012 13:49:53	23MAR2012 14:48:43	0	GOOD
10	SCI_OL__2PWDPA20120323_153006_000035163113_00040_52640_4120.N1	23MAR2012 15:30:06	23MAR2012 16:28:43	0	GOOD
11	SCI_OL__2PWDPA20120323_171020_000035303113_00041_52641_4121.N1	23MAR2012 17:10:20	23MAR2012 18:09:11	0	GOOD
12	SCI_OL__2PWDPA20120323_185131_000034823113_00042_52642_4122.N1	23MAR2012 18:51:31	23MAR2012 19:49:33	0	GOOD
13	SCI_OL__2PWDPA20120323_203103_000034613113_00043_52643_4123.N1	23MAR2012 20:31:03	23MAR2012 21:28:45	0	GOOD
14	SCI_OL__2PWDPA20120323_221101_000035163113_00044_52644_4124.N1	23MAR2012 22:11:01	23MAR2012 23:09:37	0	GOOD
15	SCI_OL__2PWDPA20120323_235114_000035303113_00045_52645_4125.N1	23MAR2012 23:51:14	24MAR2012 00:50:05	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: 153140

Total number of cloud data DSRs with good quality flag (=0): 153140 (100.0 %)

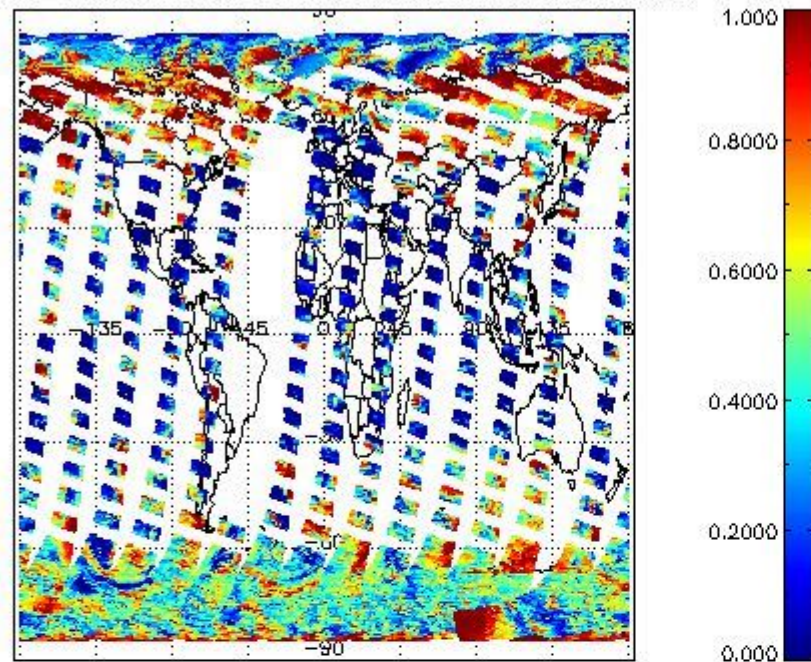
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	153140	0.0000	0.0000	0.0000	0.0000	0.0000	
INTEGR_TIME	153140	0.16511	0.12500	0.12500	0.25000	0.058352	s
CL_FRAC	153140	0.47360	0.45271	0.0000	1.0000	0.33227	
CL_FRAC_ERR	153140	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	153140	5.2835	4.0000	4.0000	8.0000	1.8673	
PMD_READ_CL[0]	153140	0.71025	0.0000	0.0000	8.0000	1.5743	-
PMD_READ_CL[1]	153140	1.1477	0.0000	0.0000	8.0000	2.4525	-
CL_TOP_HEIGHT	124142	3.3184	1.8160	0.0000	17.000	3.5356	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	124142	62.328	81.978	0.0000	101.00	41.060	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	153140	11100000	11100000	11100000	11100000	0.0000	
CLOUD_FLAGS	153140	11001011	11000100	11000000	11100000	3415.4	
AERO_ABSO_IND	153140	0.10498	0.0000	0.0000	7.7530	0.35481	
AERO_IND_DIAG	153140	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	153140	01010100	00000000	00000000	11000000	24394.	

#### Time and geolocation plots:

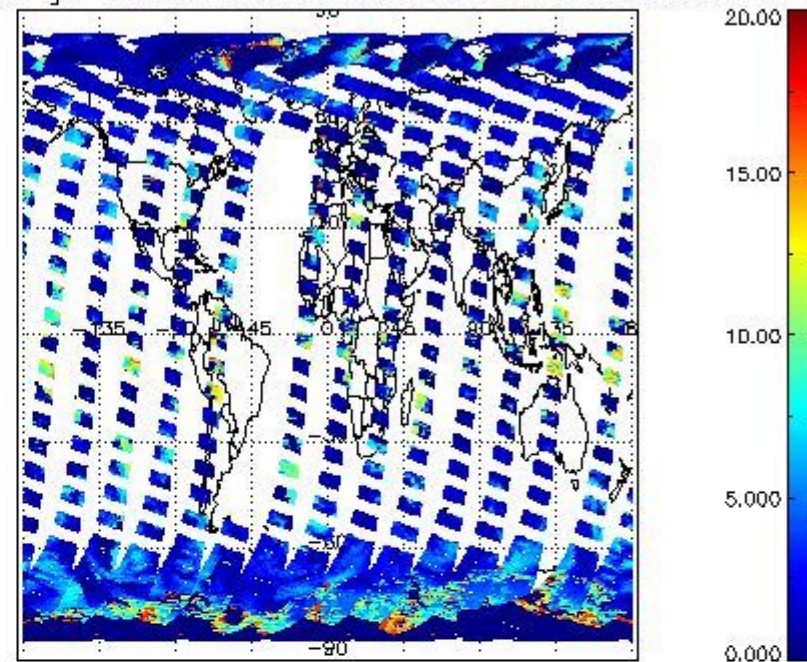
Plots are available for the following parameters:

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

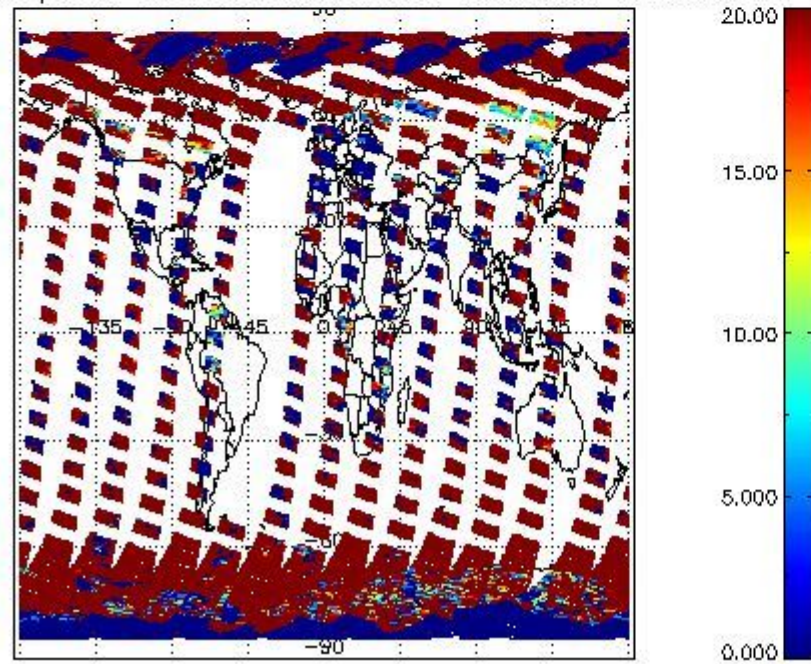
cL\_frac for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



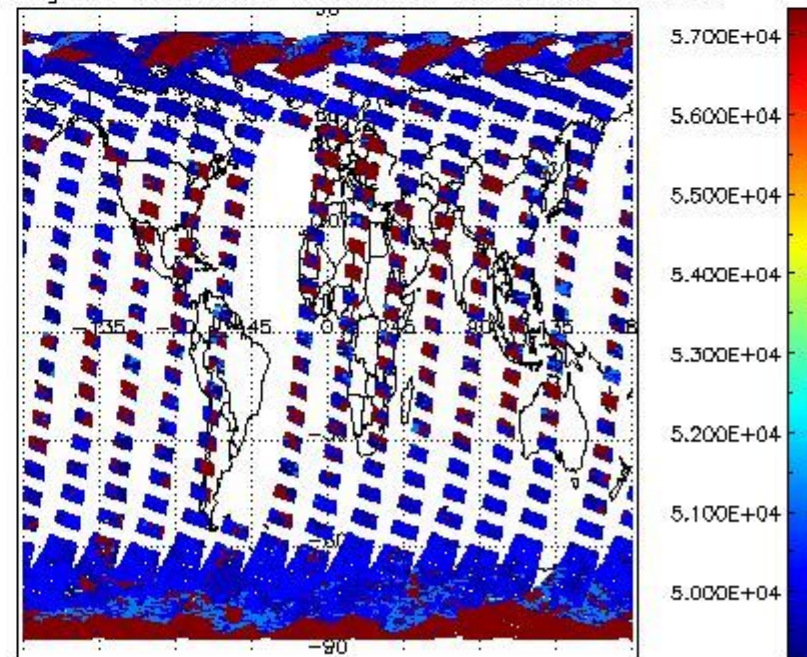
cL\_top\_height for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



cL\_opt\_depth for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



cloud\_flags for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



## 2.2.2 Nadir

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

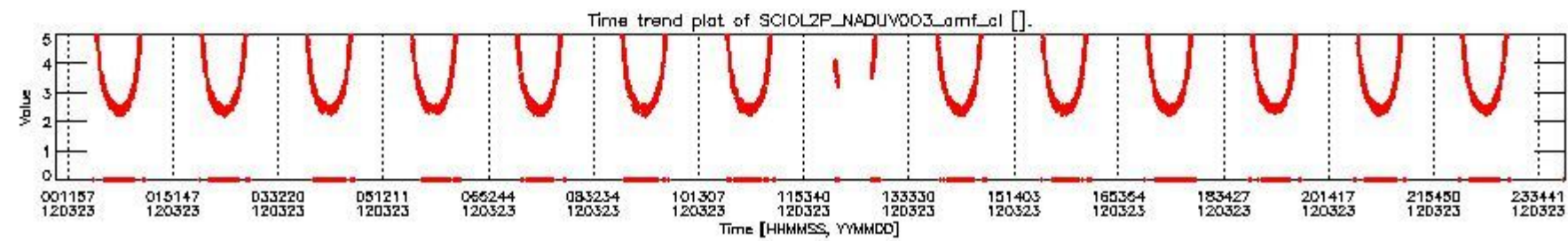
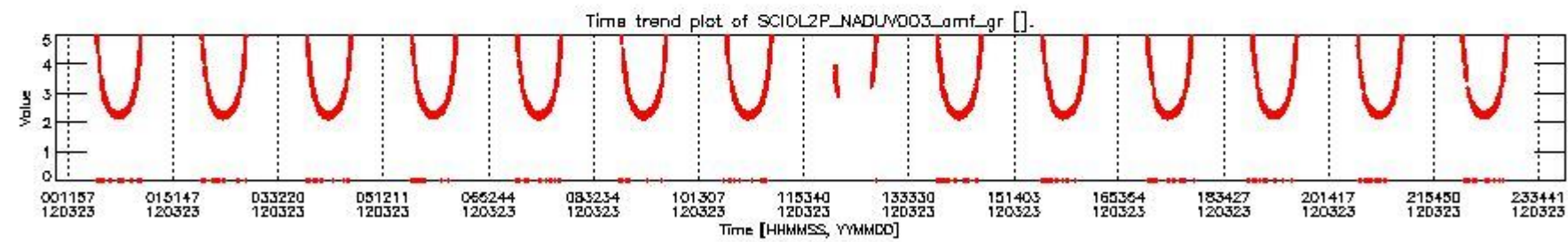
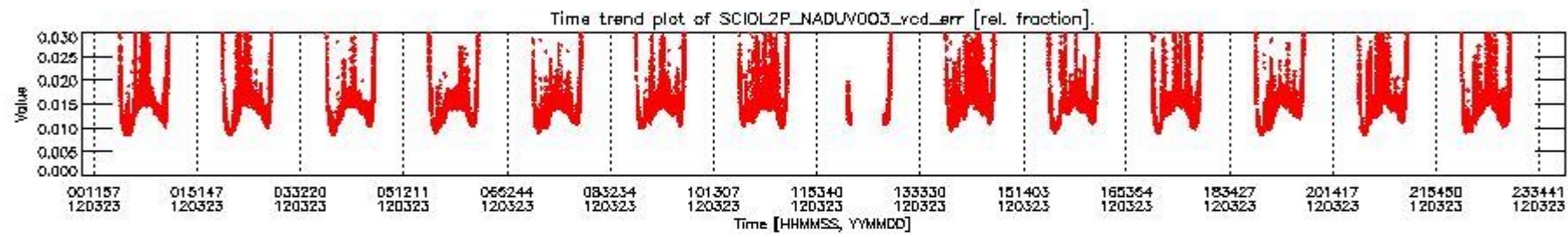
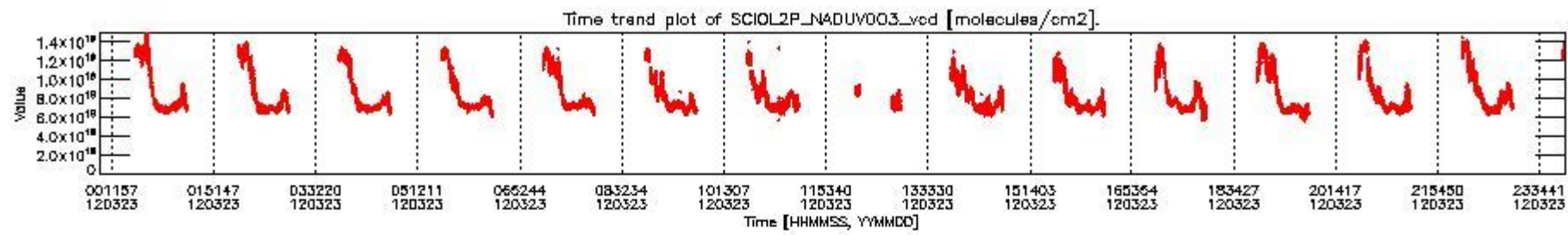
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

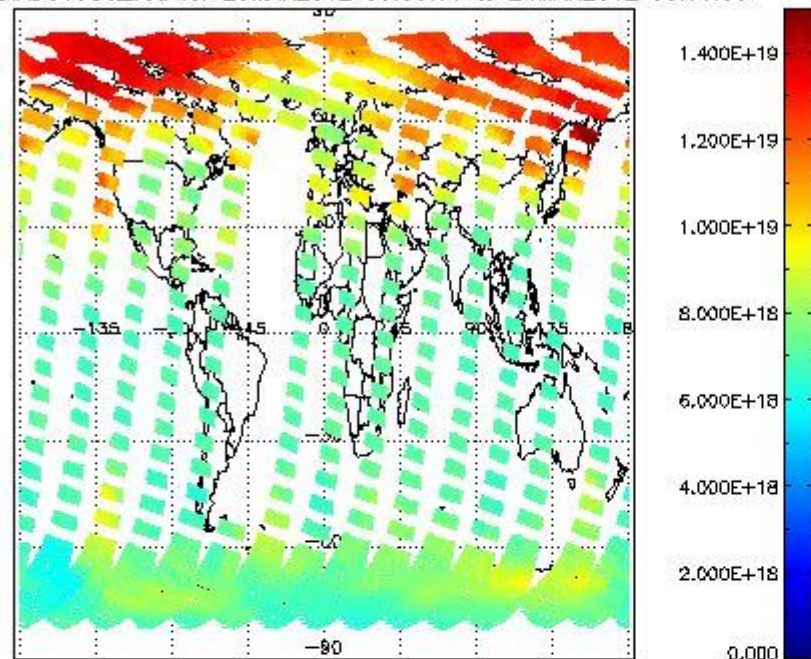
3	SCIOL2P_NADUV0O3_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl
8	SCIOL2P_NADUV3BRO_vcd
9	SCIOL2P_NADUV3BRO_vcd_err
10	SCIOL2P_NADUV3BRO_amf_gr
11	SCIOL2P_NADUV3BRO_amf_cl
12	SCIOL2P_NADUV5SO2_vcd
13	SCIOL2P_NADUV5SO2_vcd_err
14	SCIOL2P_NADUV5SO2_amf_gr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

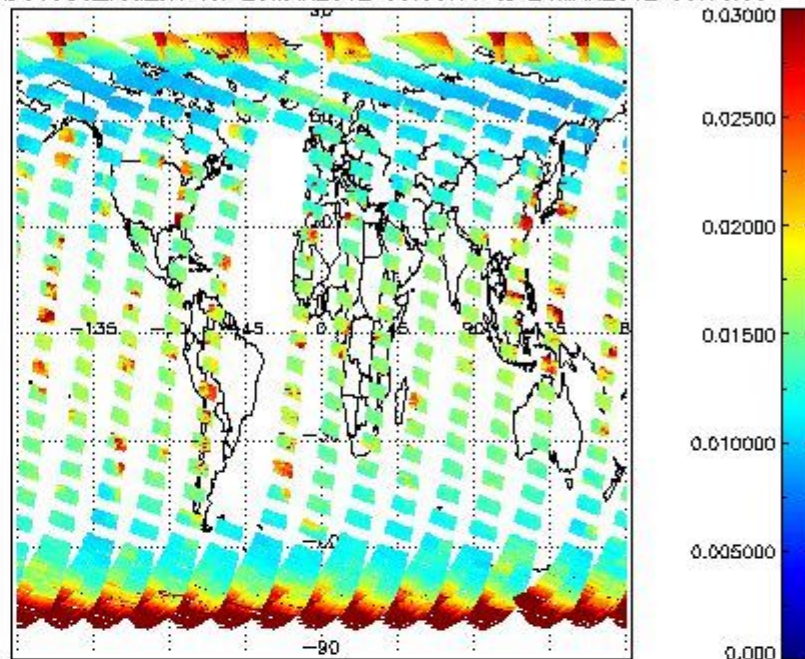
#### 2.2.2.1 O3 (UV0)



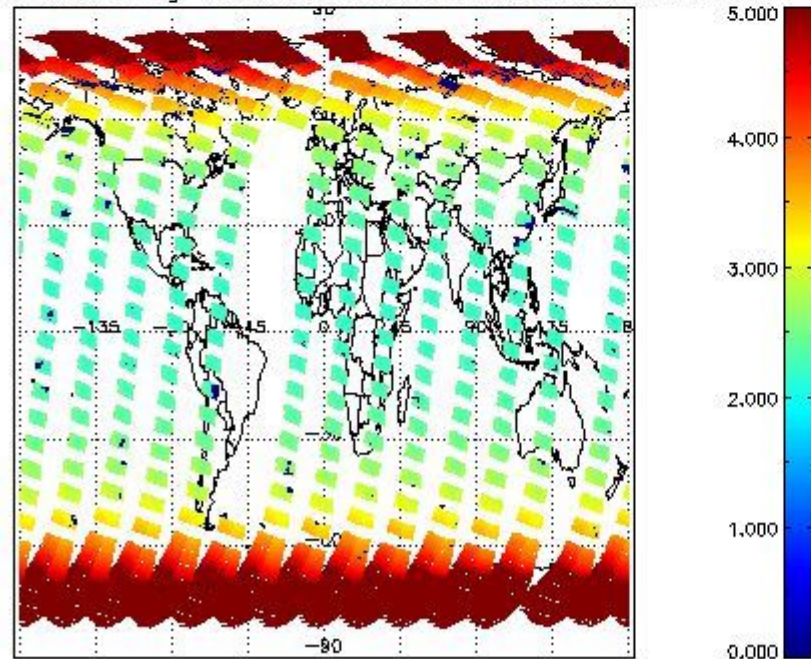
SCIOL2P\_NADUV003\_vcd for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



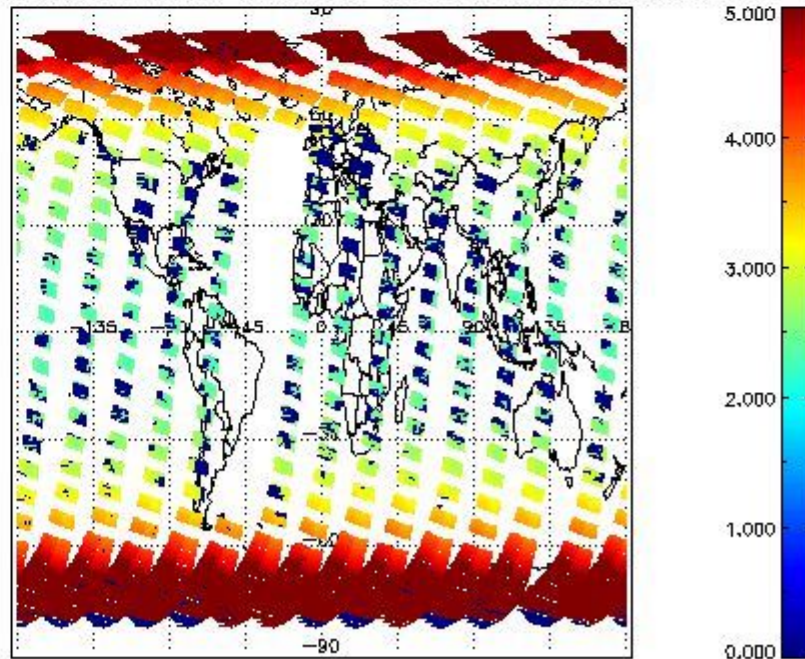
SCIOL2P\_NADUV003\_vcd\_err for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



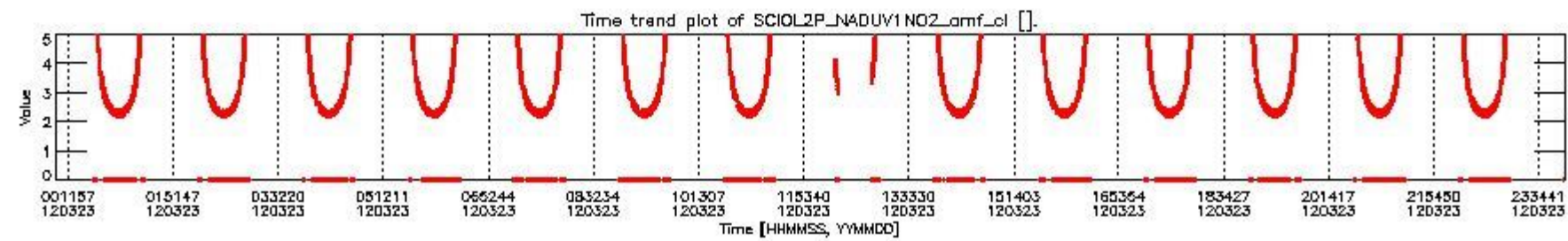
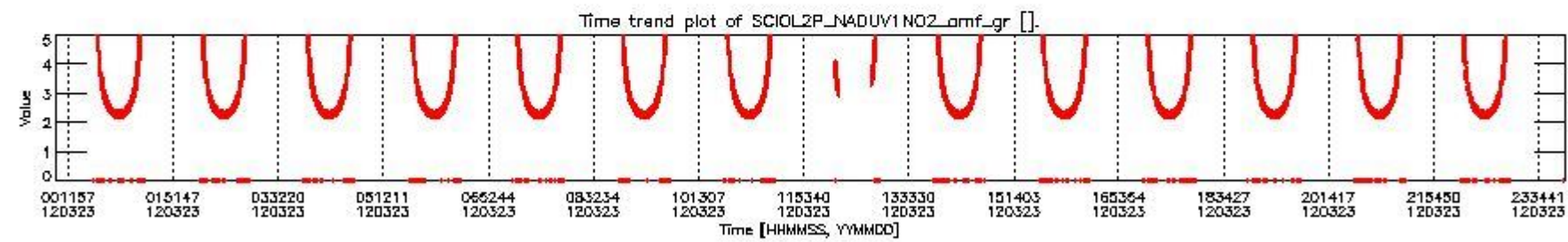
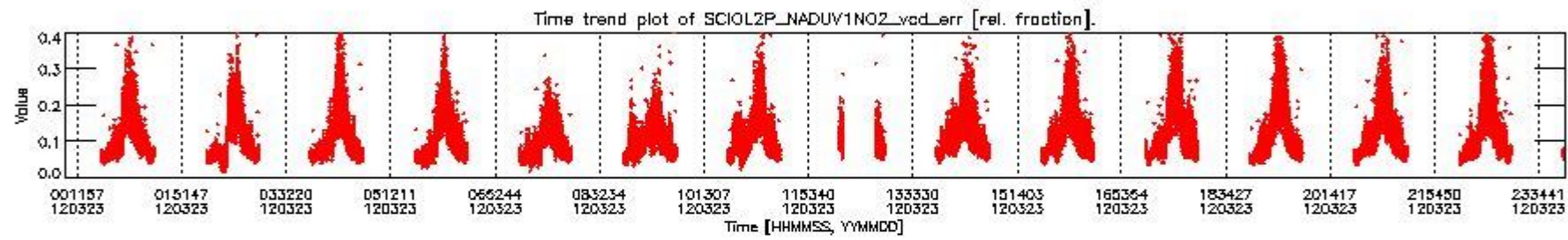
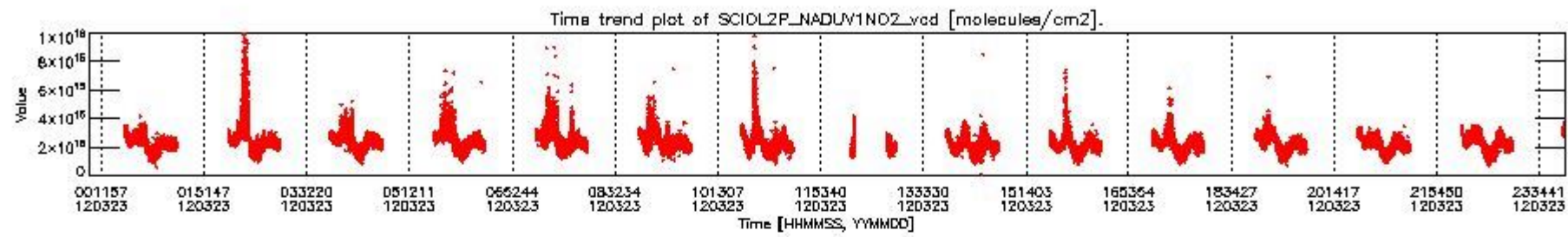
SCIOL2P\_NADUV003\_amf\_gr for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



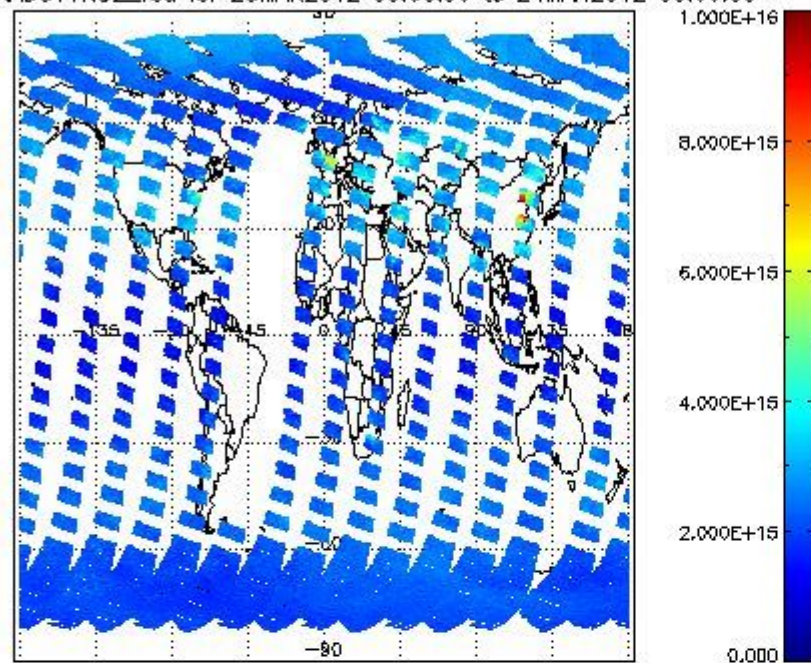
SCIOL2P\_NADUV003\_amf\_cl for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



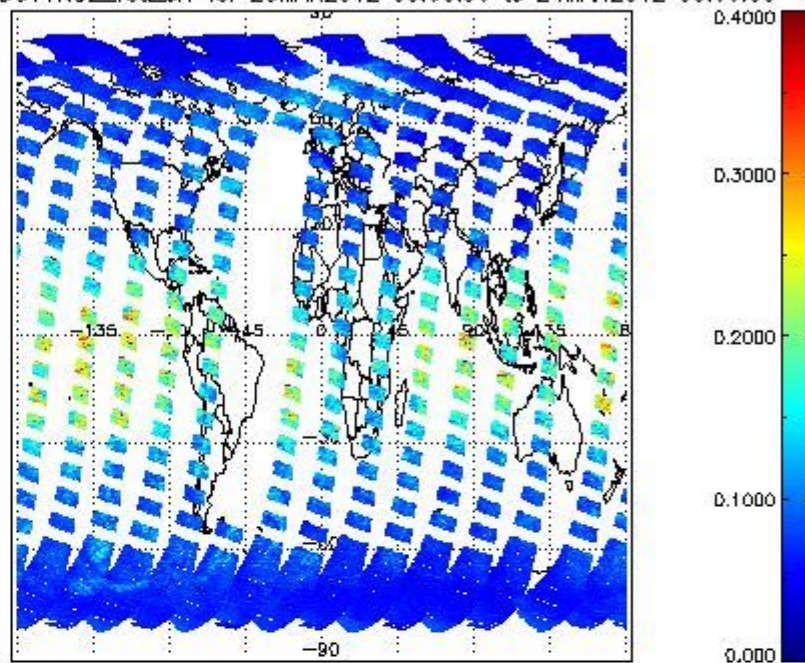
2.2.2.2 NO2 (UV1)



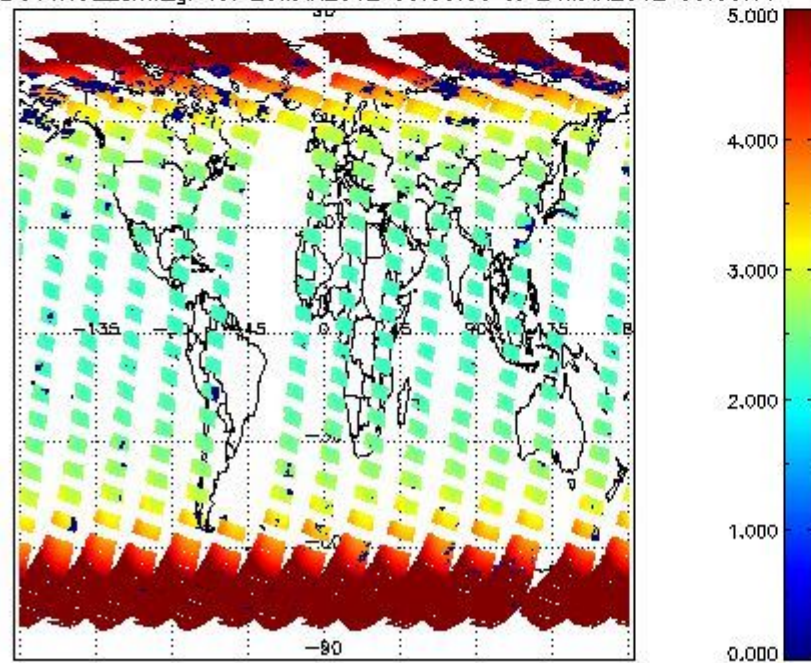
SCIOL2P\_NADUV1NO2\_vcd for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



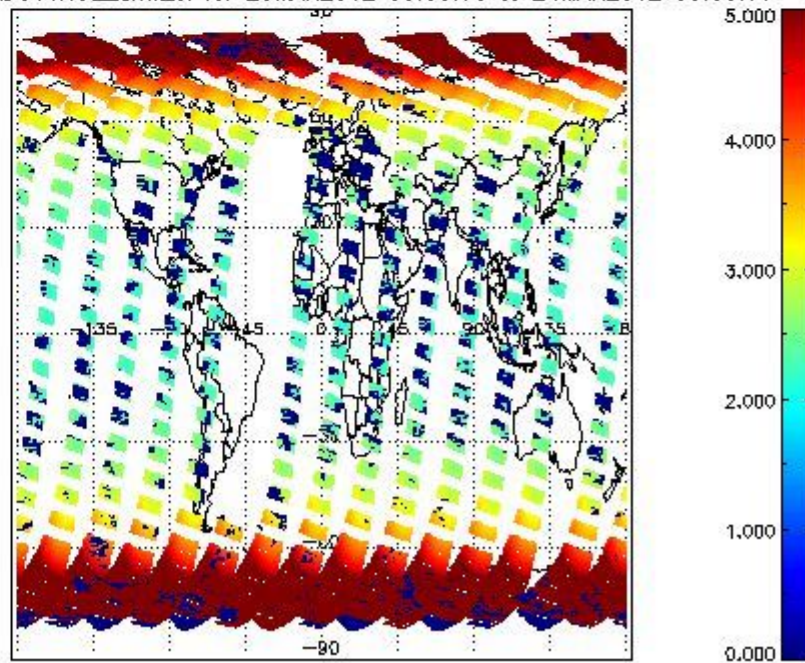
SCIOL2P\_NADUV1NO2\_vcd\_err for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

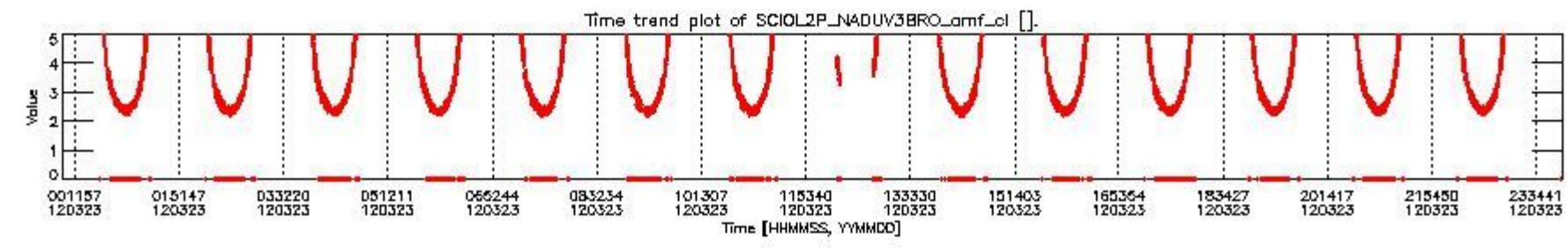
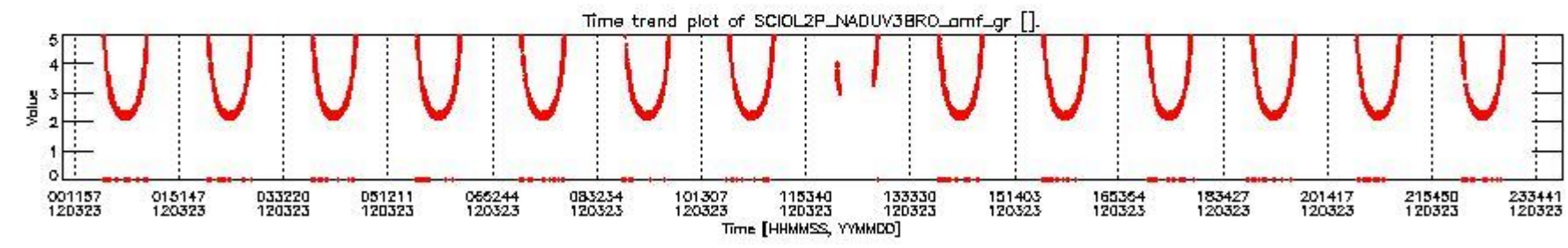
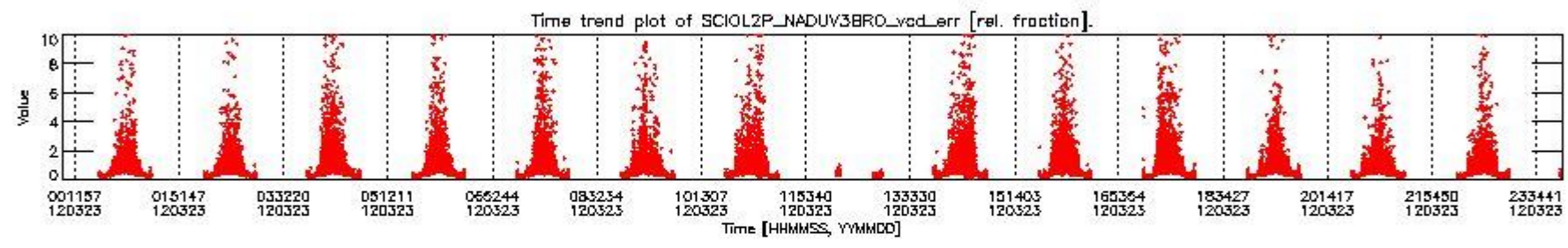
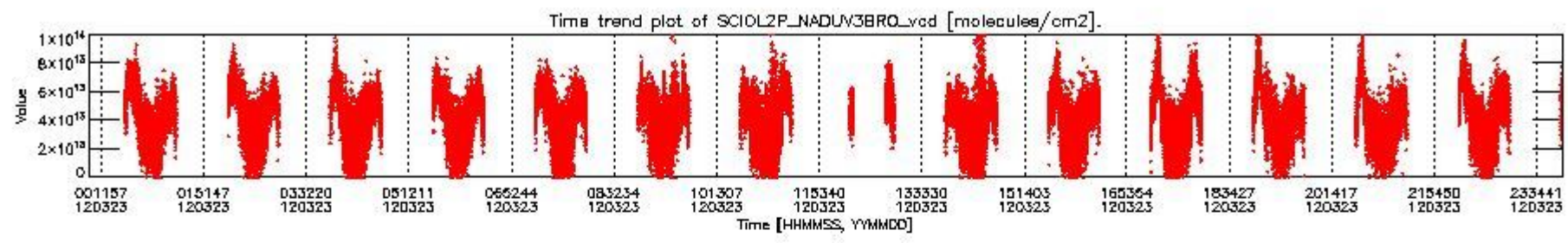


SCIOL2P\_NADUV1NO2\_amf\_cl for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

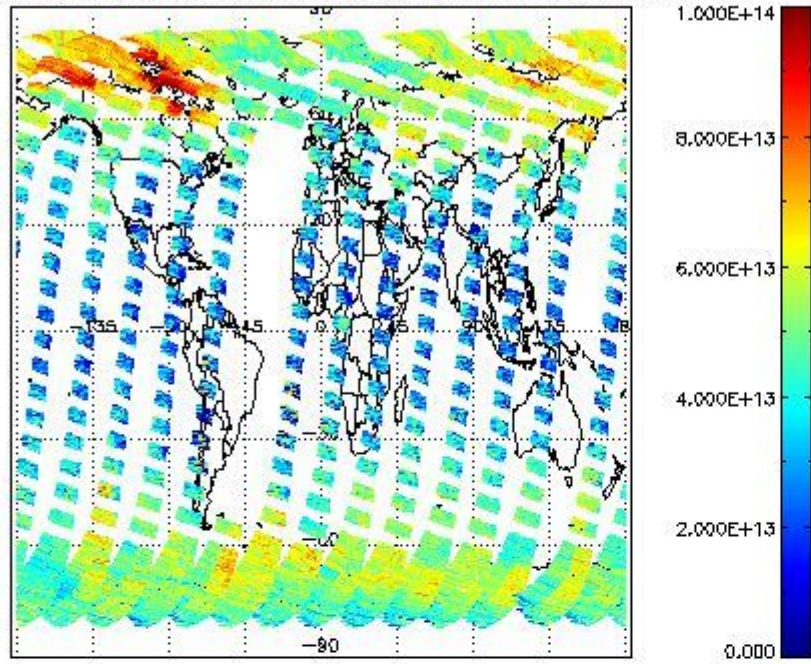


2.2.2.3 Bro (UV3)

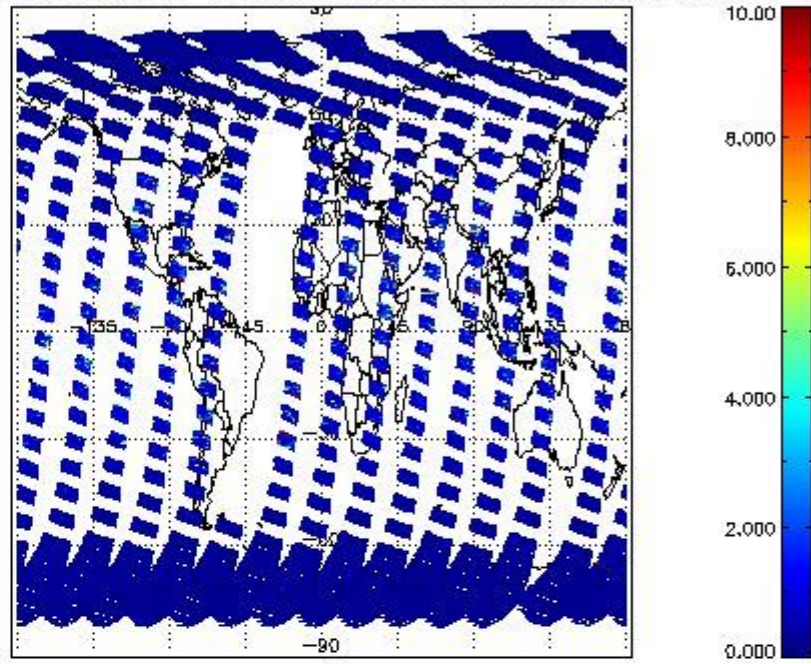




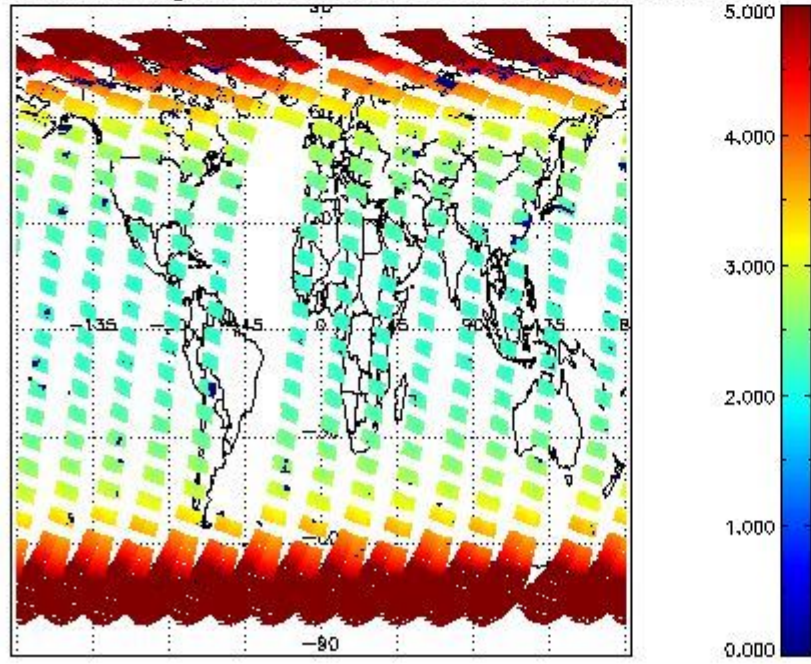
SCIOL2P\_NADUV3BRO\_vcd for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



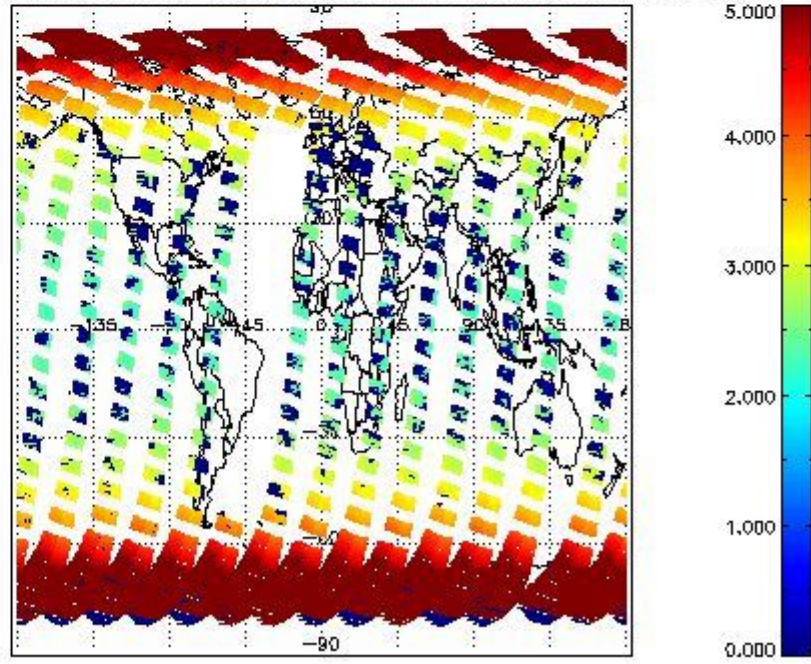
SCIOL2P\_NADUV3BRO\_vcd\_err for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



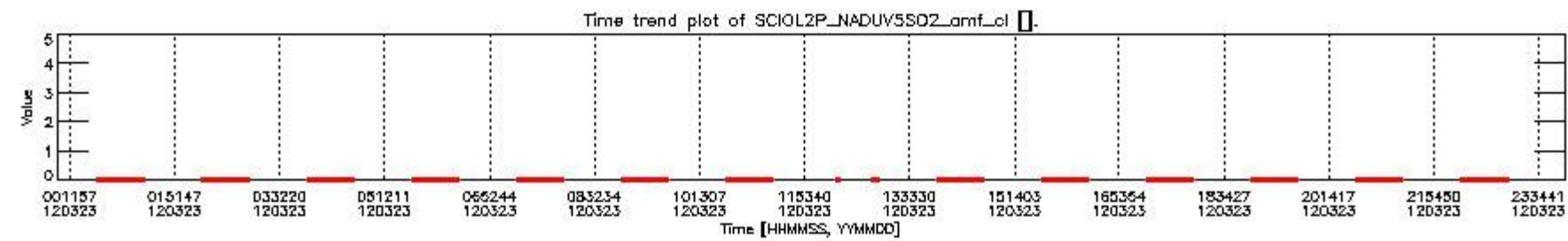
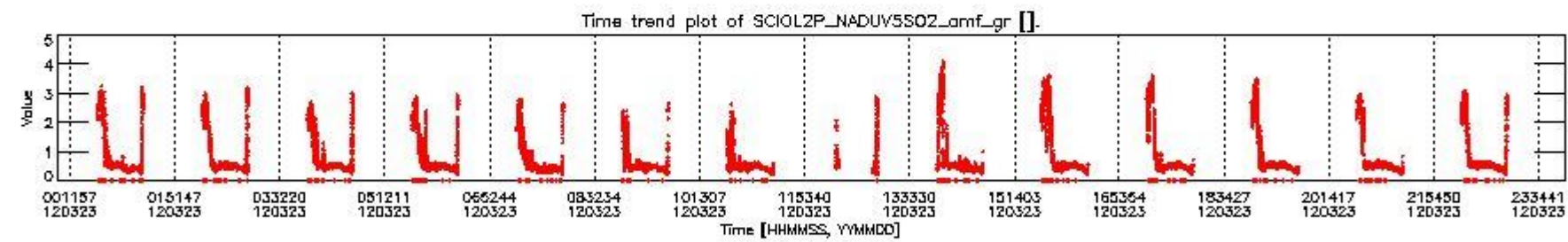
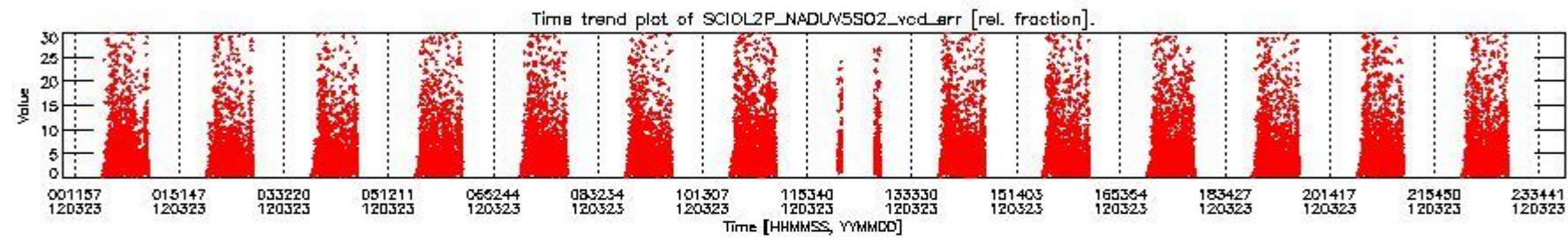
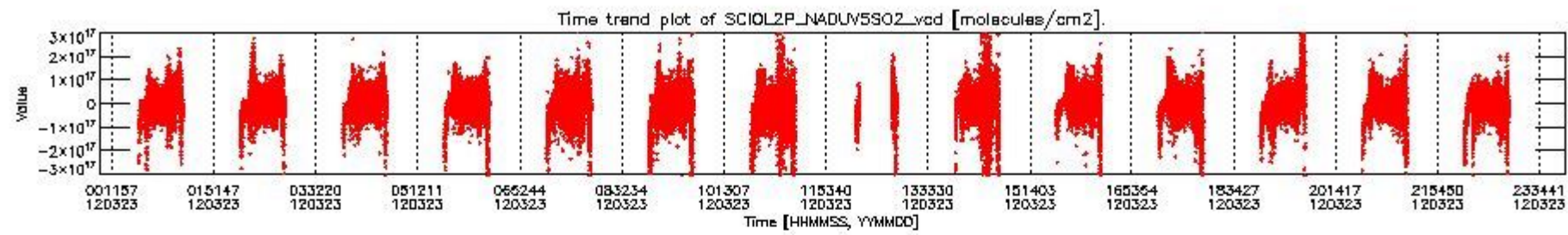
SCIOL2P\_NADUV3BRO\_amf\_gr for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



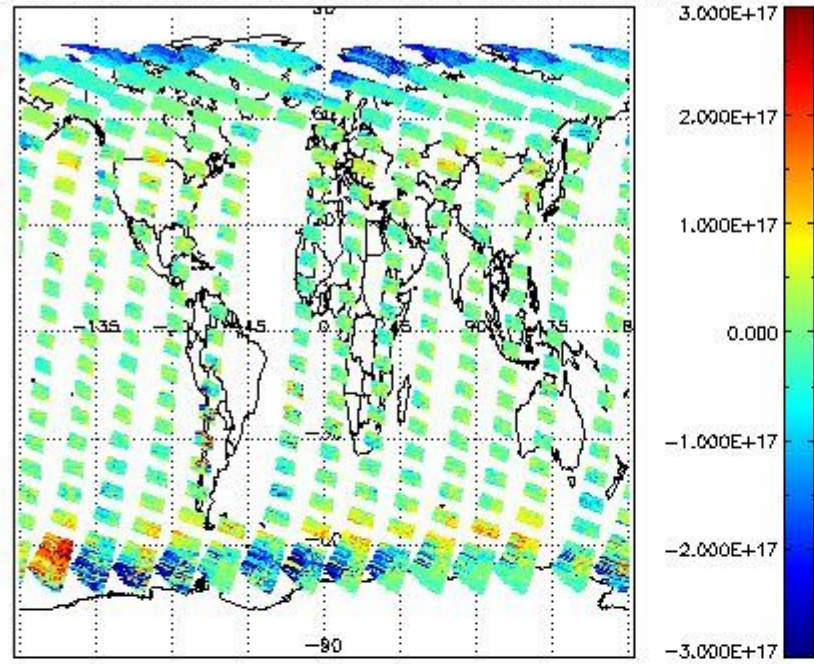
SCIOL2P\_NADUV3BRO\_amf\_cl for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



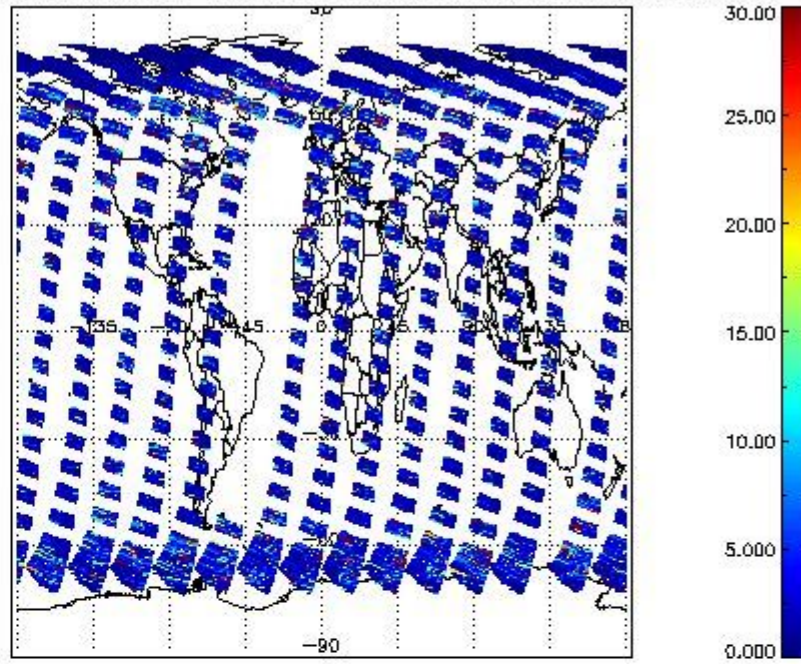
#### 2.2.2.4 SO2 (UV5)



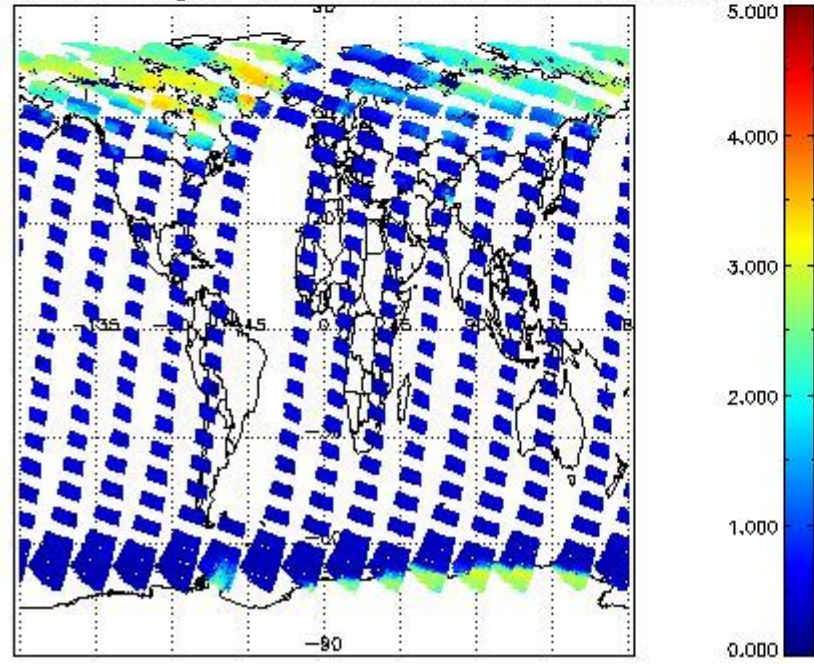
SCIOL2P\_NADUV5S02\_vcd for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



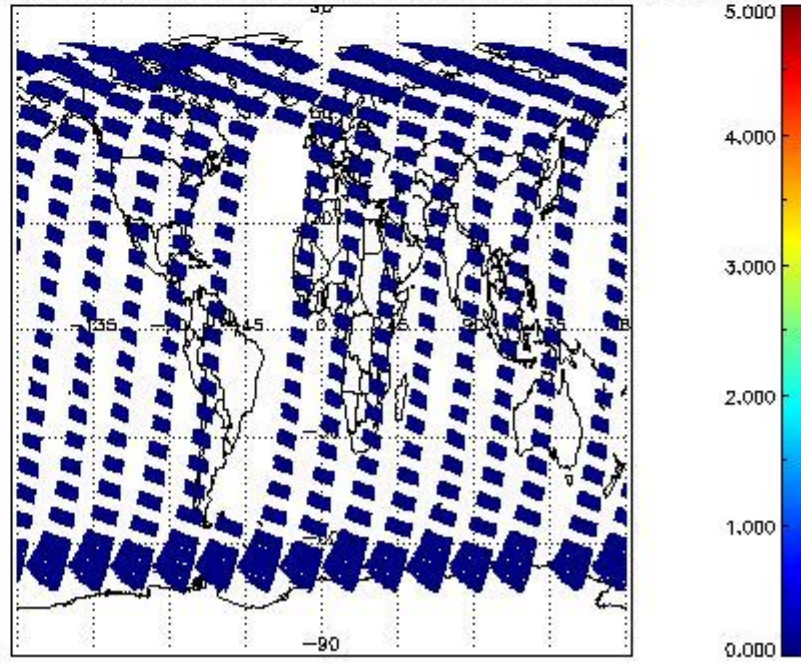
SCIOL2P\_NADUV5S02\_vcd\_err for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



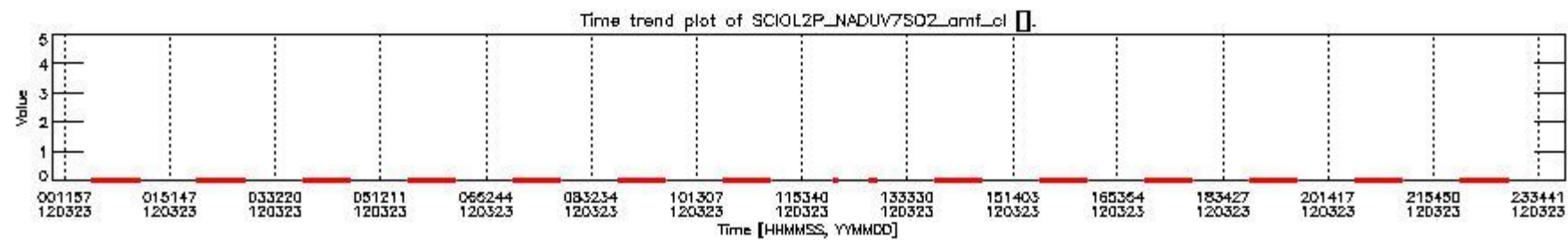
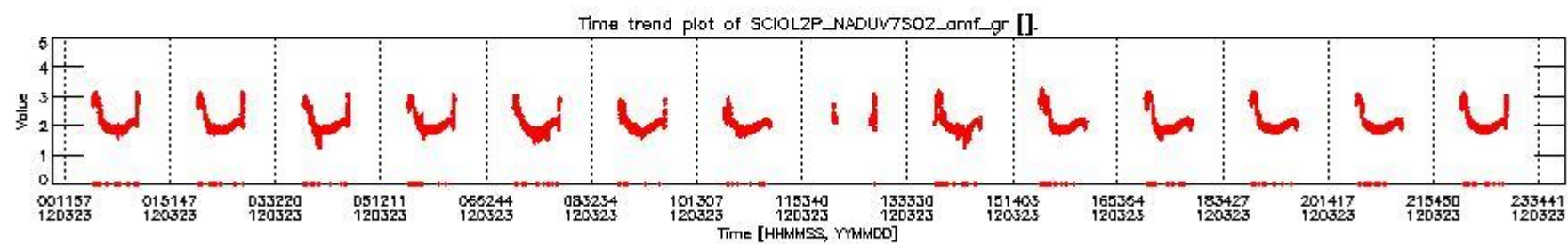
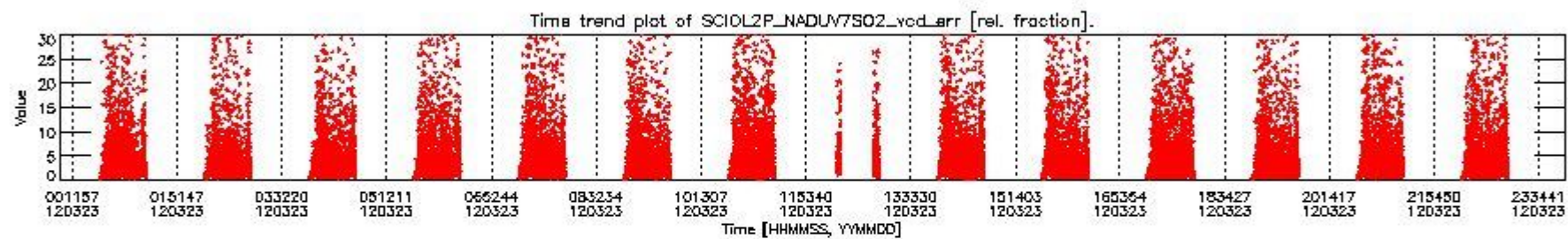
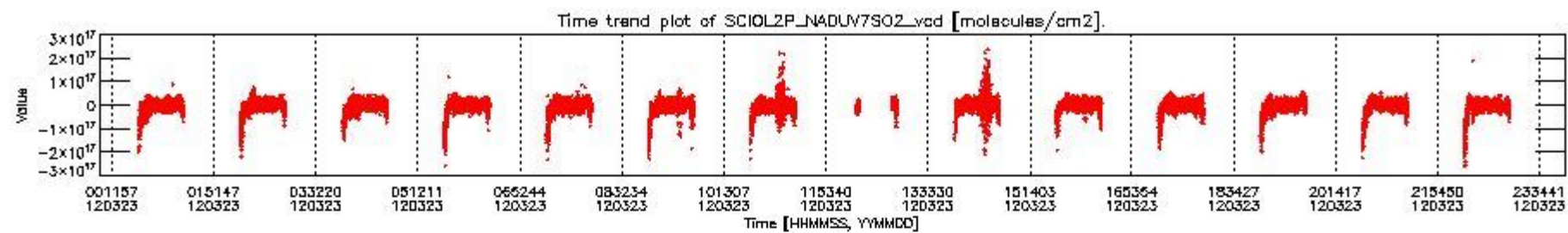
SCIOL2P\_NADUV5S02\_amf\_gr for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



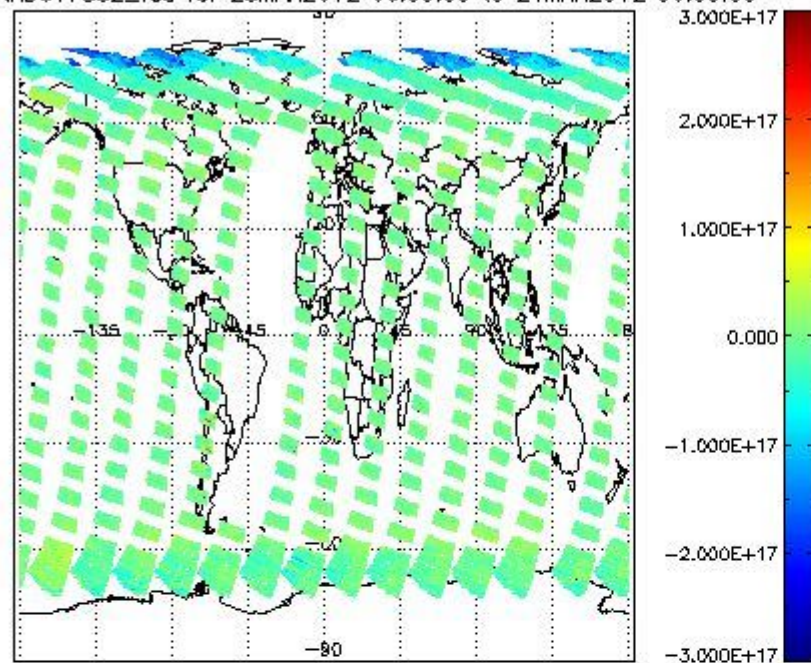
SCIOL2P\_NADUV5S02\_amf\_cl for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



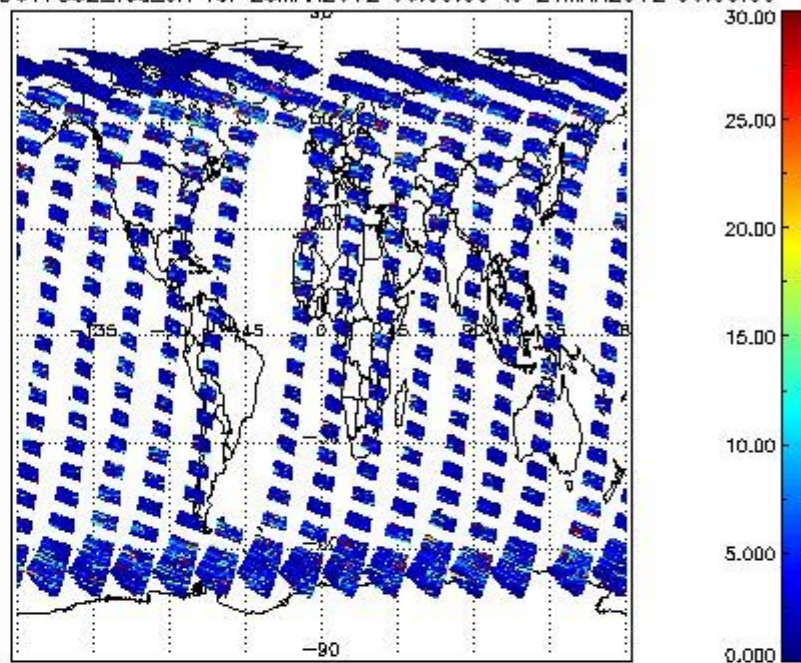
### 2.2.2.5 SO2 (UV7)



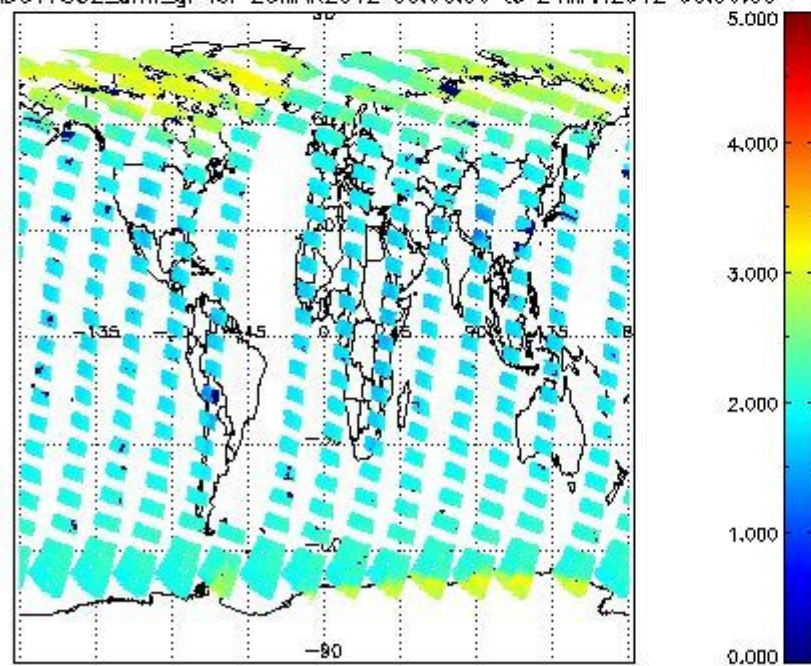
SCIOL2P\_NADUV7S02\_vcd for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



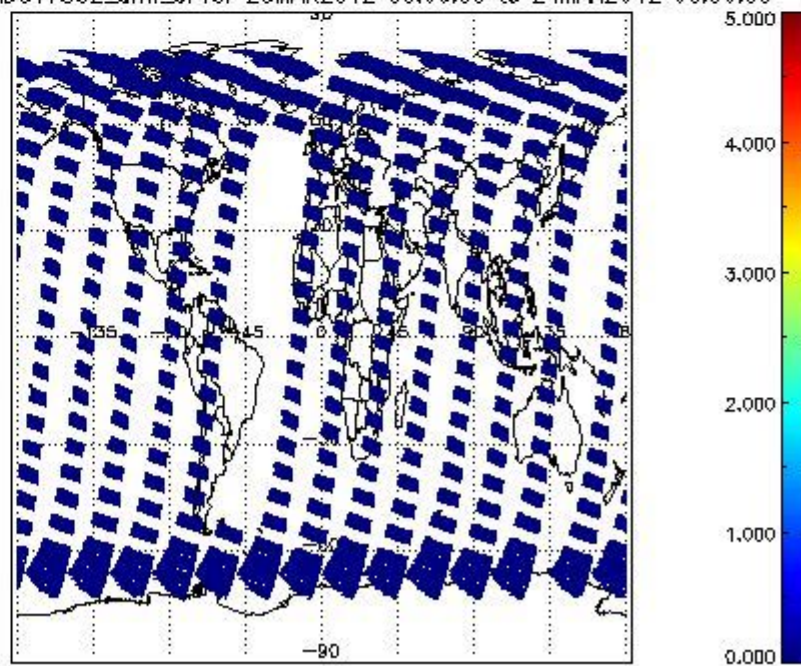
SCIOL2P\_NADUV7S02\_vcd\_err for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



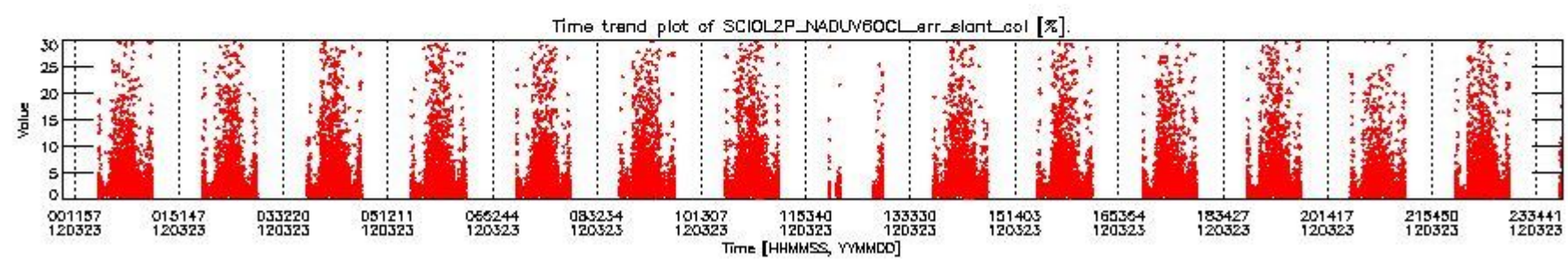
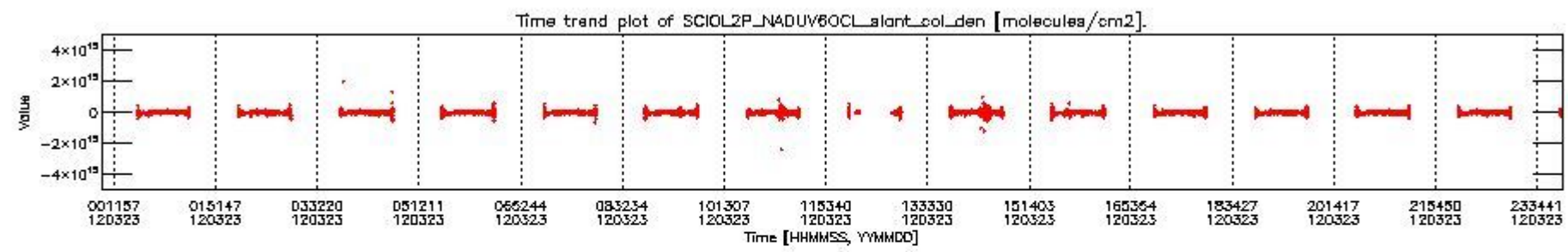
SCIOL2P\_NADUV7S02\_amf\_gr for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



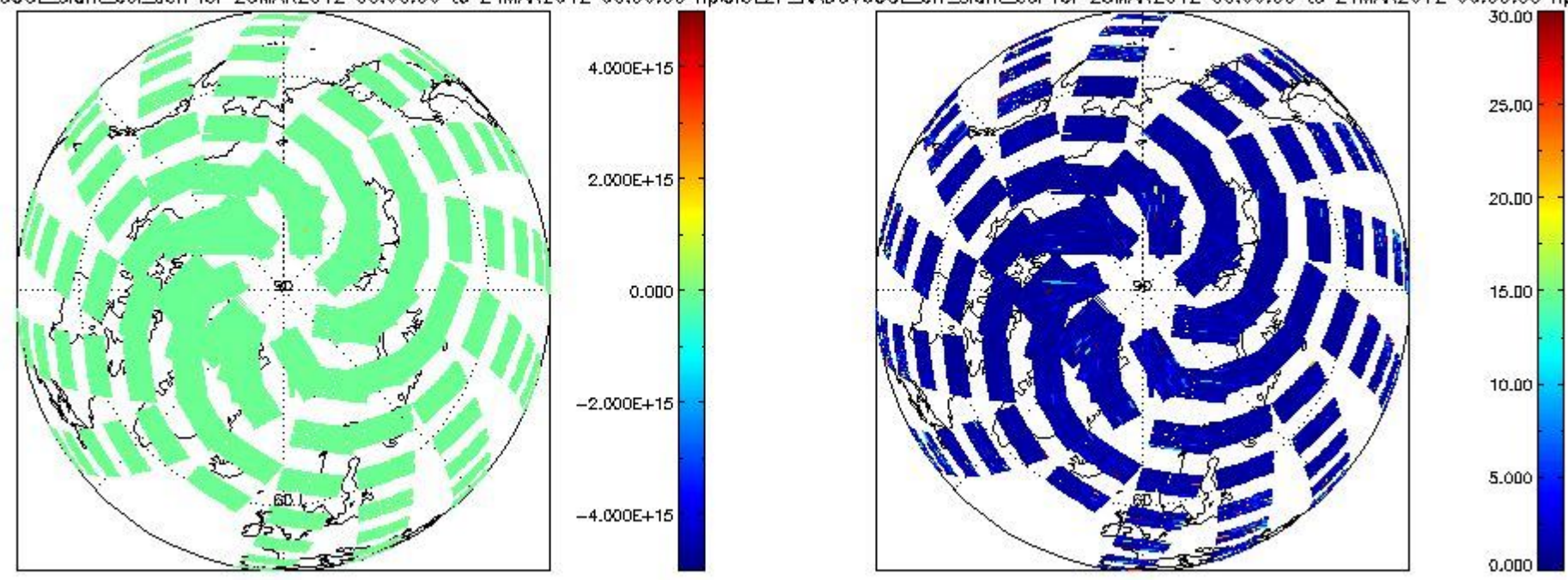
SCIOL2P\_NADUV7S02\_amf\_cl for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



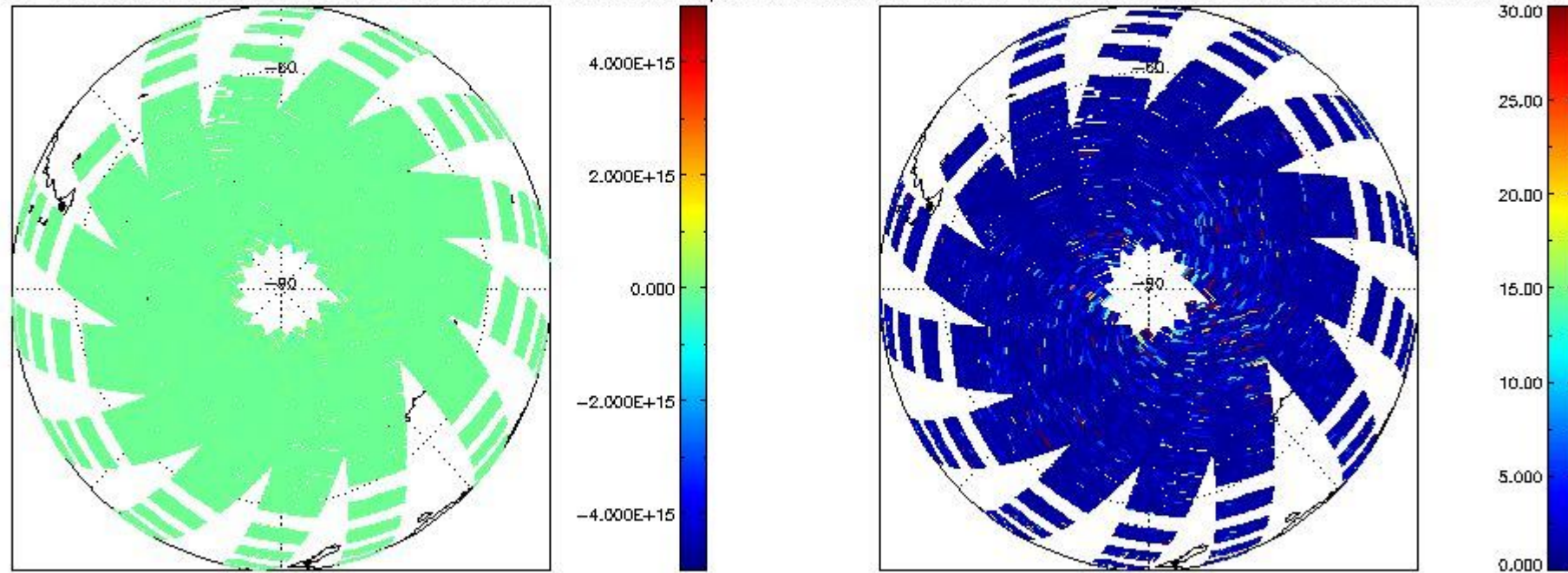
2.2.2.6 OCIO (UV6)



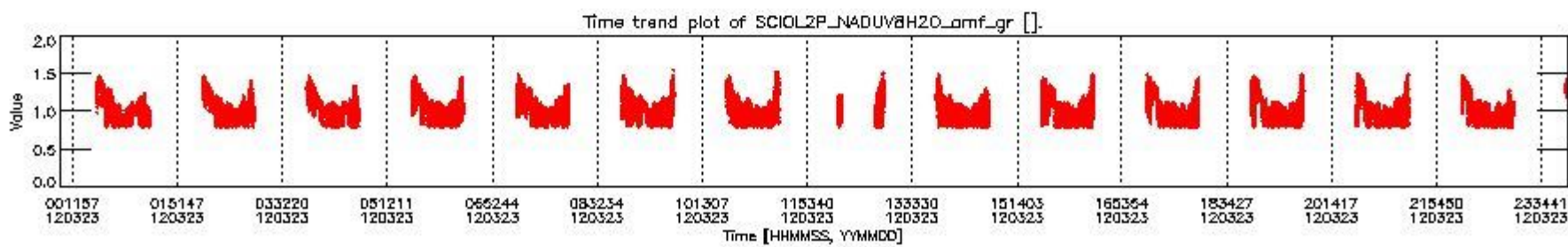
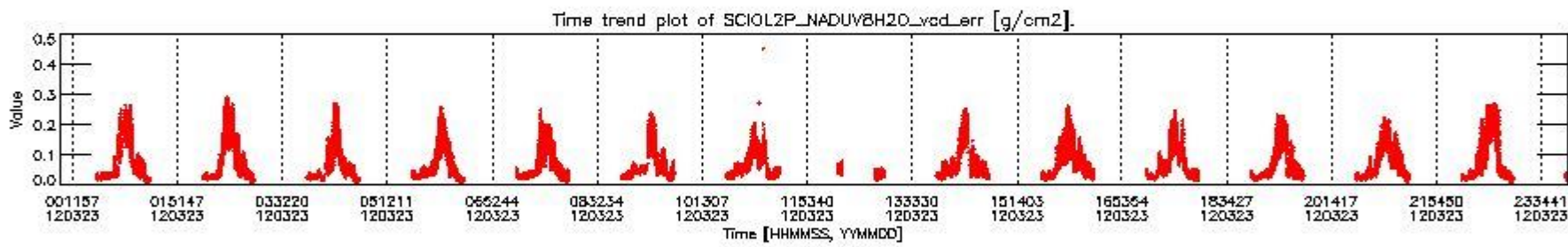
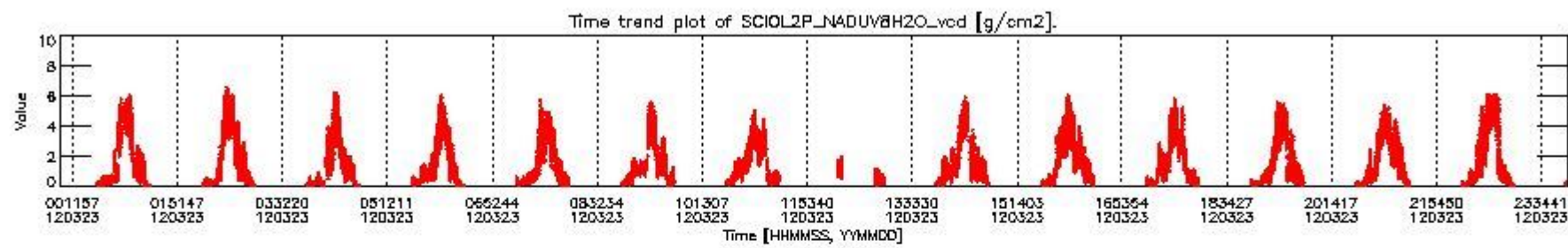
CIOL2P\_NADUV6OCL\_slant\_col\_den for 23MAR2012 00:00:00 to 24MAR2012 00:00:00 npCIOL2P\_NADUV6OCL\_err\_slant\_col for 23MAR2012 00:00:00 to 24MAR2012 00:00:00 np



CIOL2P\_NADUV6OCL\_slant\_colDen for 23MAR2012 00:00:00 to 24MAR2012 00:00:00 sp:CIOL2P\_NADUV6OCL\_err\_slant\_col for 23MAR2012 00:00:00 to 24MAR2012 00:00:00 sp

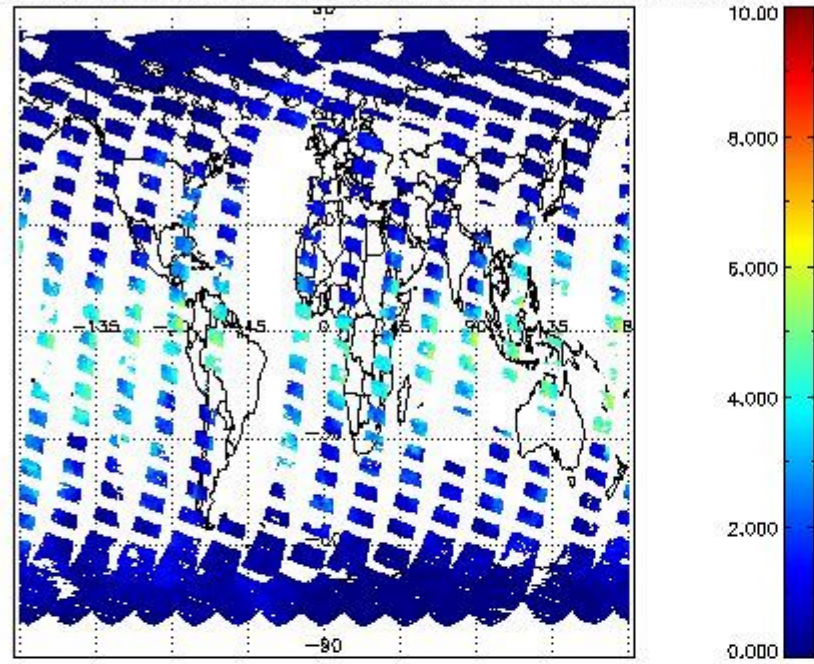


### 2.2.2.7 H2O (UV8)

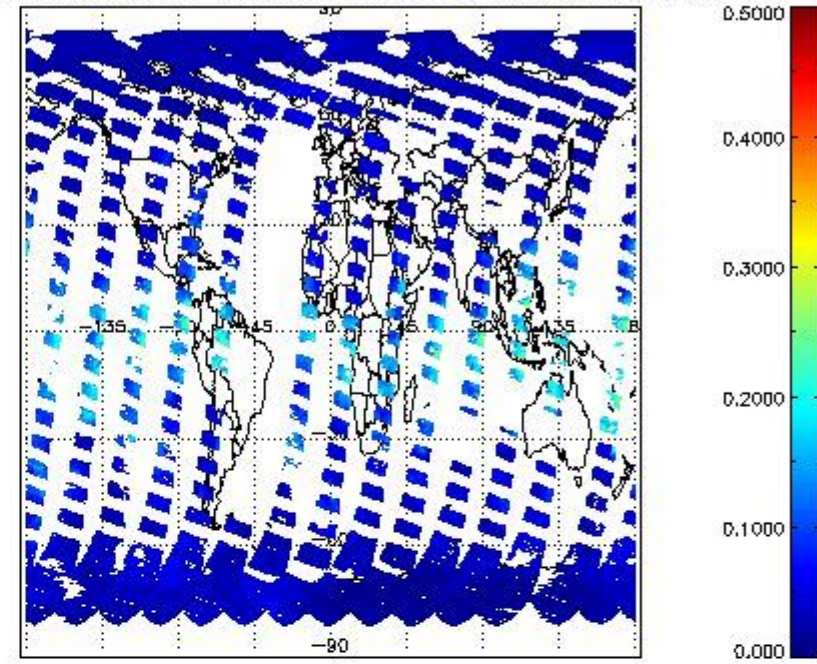




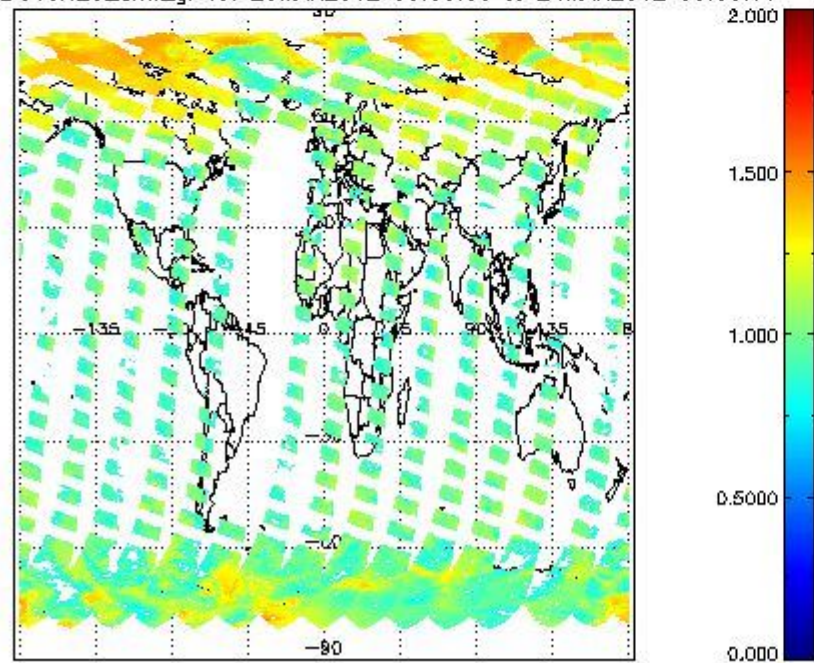
SCIOL2P\_NADUV8H2O\_vcd for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



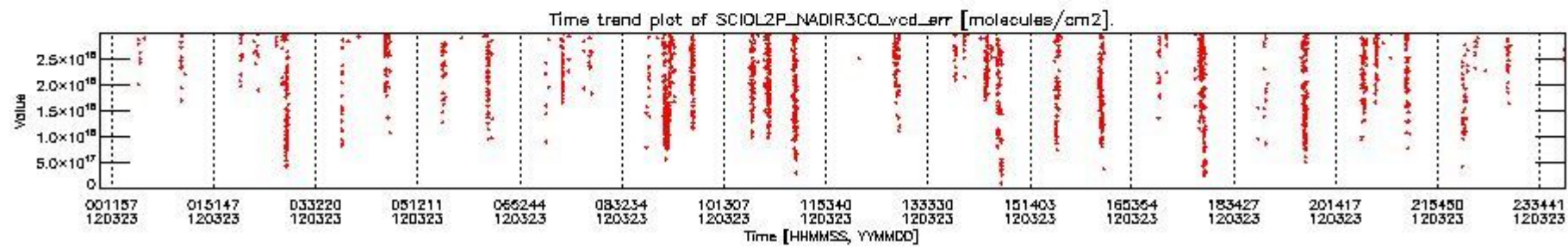
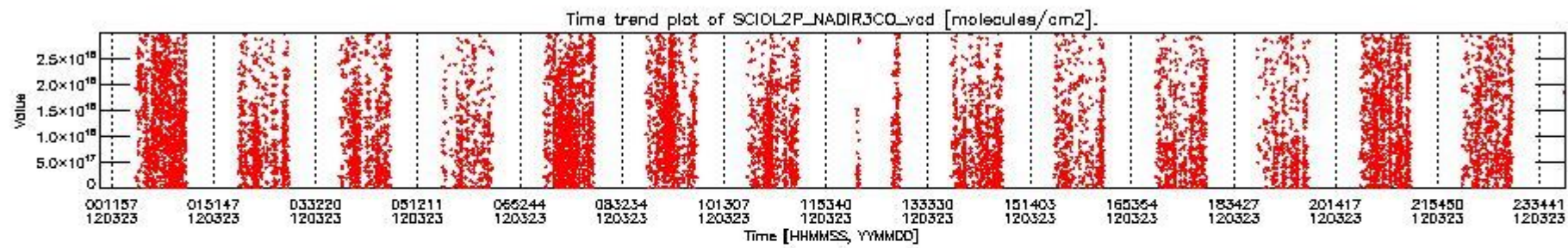
SCIOL2P\_NADUV8H2O\_vcd\_err for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



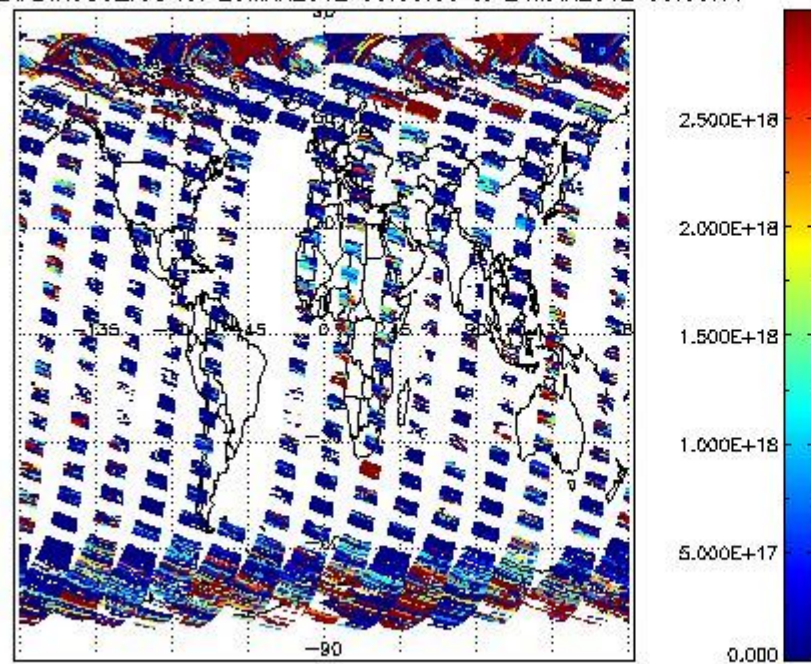
SCIOL2P\_NADUV8H2O\_arnf\_gr for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



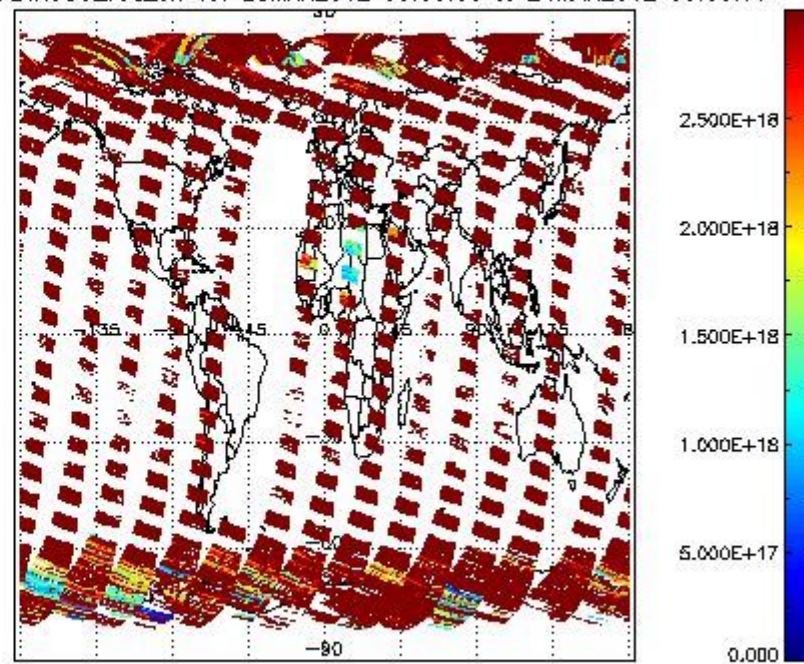
2.2.2.8 CO (IR3)



SCIDL2P\_NADIR3CO\_vcd for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



SCIDL2P\_NADIR3CO\_vcd\_err for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



### 2.2.3 Limb

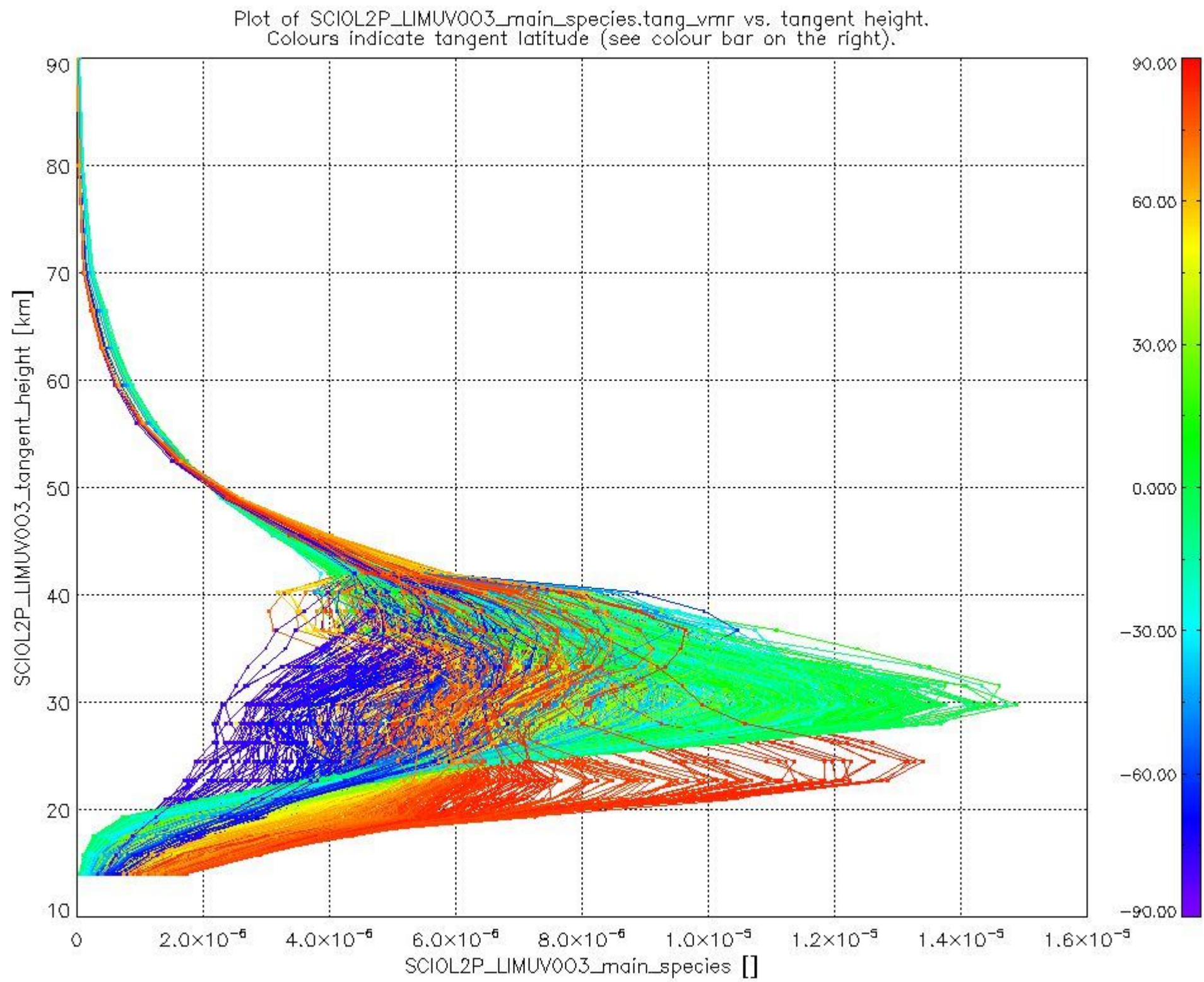
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIDL2P_LIMUV003_main_species
1	SCIDL2P_LIMUV1NO2_main_species
2	SCIDL2P_LIMUV3BRO_main_species

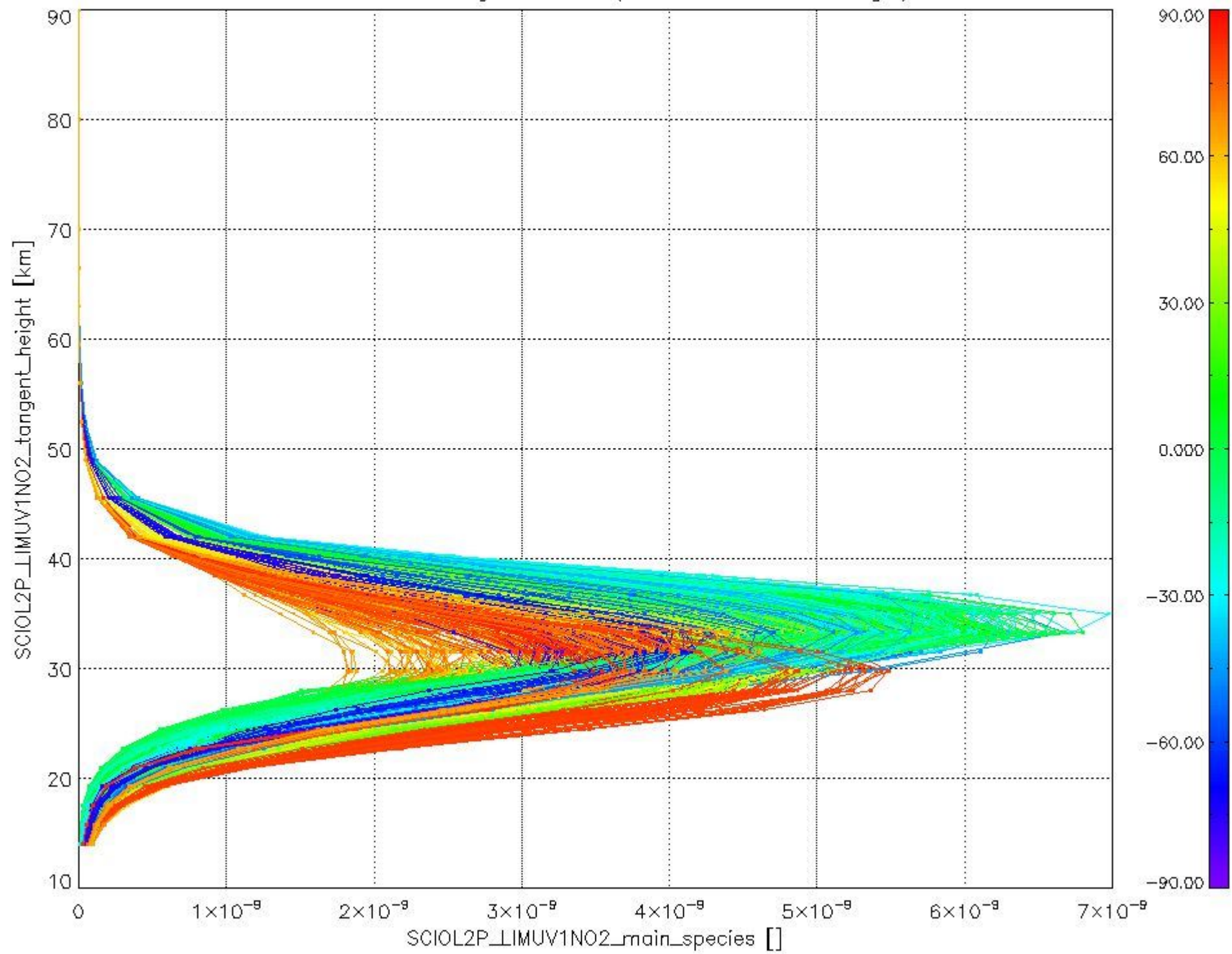
The following plots show for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

2.2.3.1 O3 (UV0)



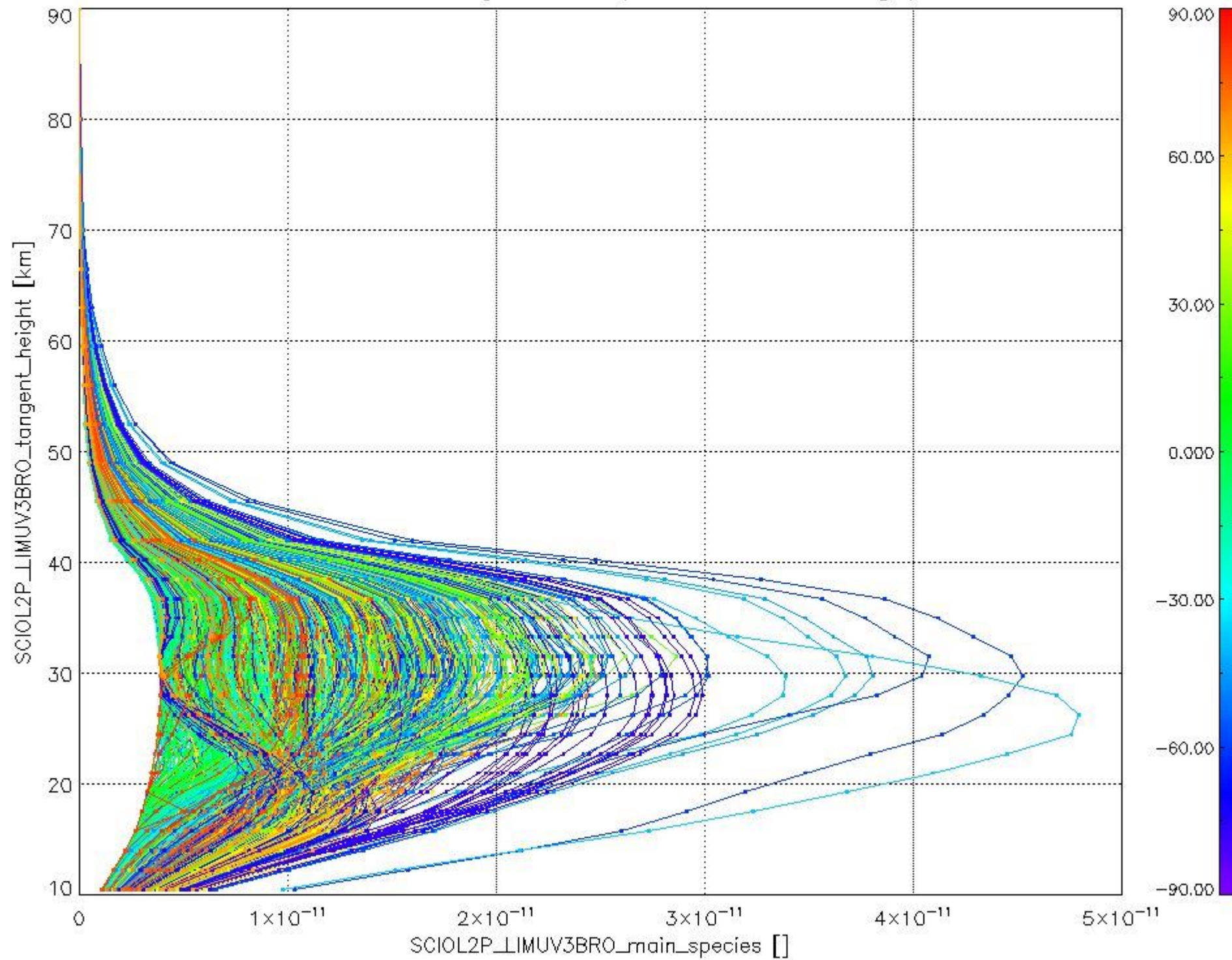
2.2.3.2 NO2 (UV1)

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



2.2.3.3 BrO (UV3)

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

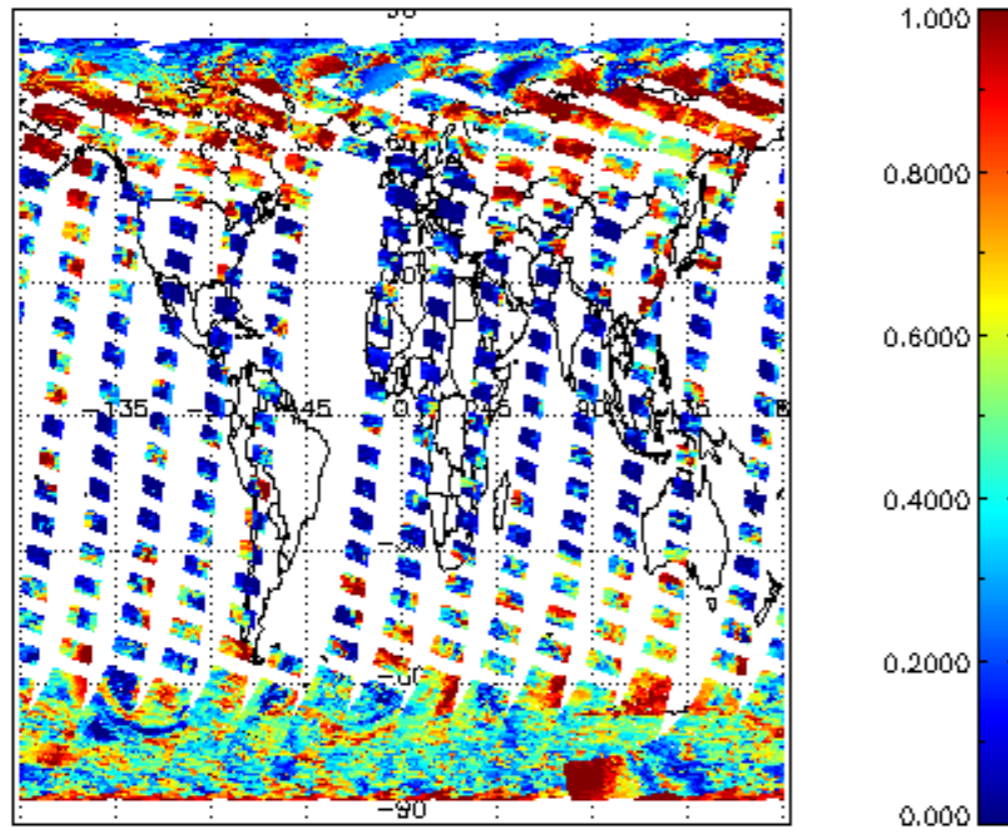


### 2.3 ADF monitoring

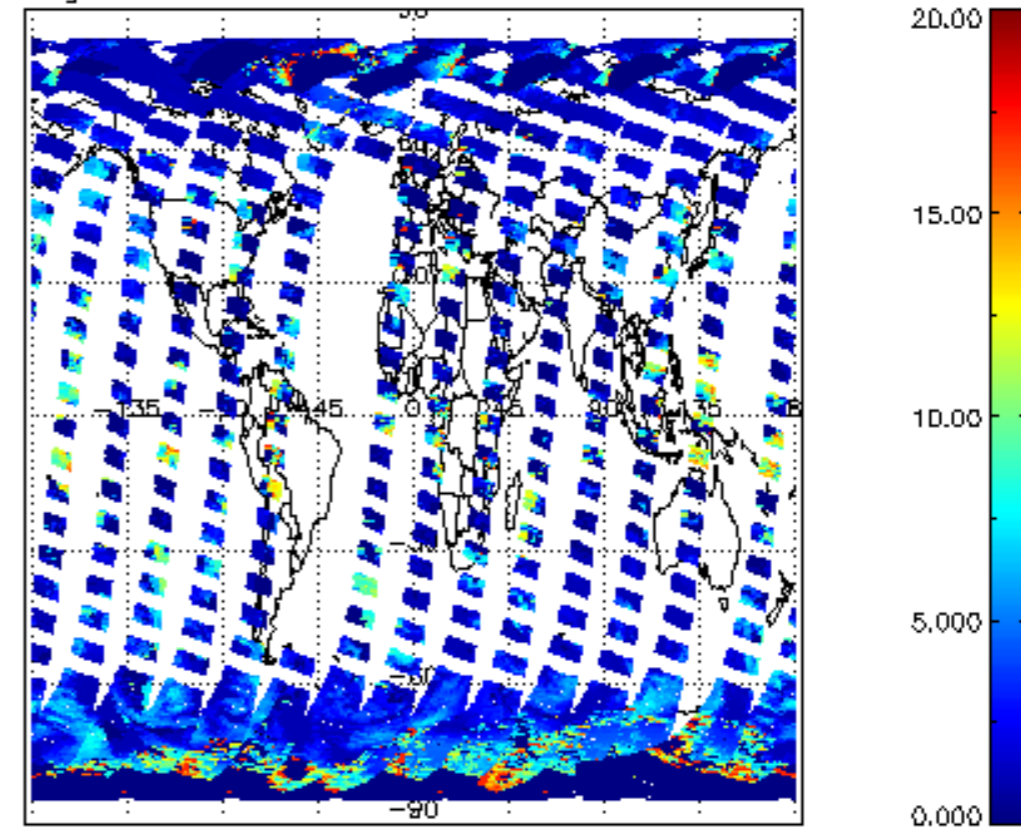
Number	ADF
	<b>IN_ (INITIALISATION_FILE)</b>
0	SCI_IN_AXNPDE20110201_120000_20020301_000000_20991231_235959
	<b>ECF (ECMWF_FILE)</b>
1	NOT USED
	<b>MF1 (M_FACTOR_FILE)</b>
2	SCI_MF1_AXVIEC20120327_132928_20120322_185253_20120324_185253
3	SCI_MF1_AXVIEC20120327_132955_20120323_181607_20120325_181607



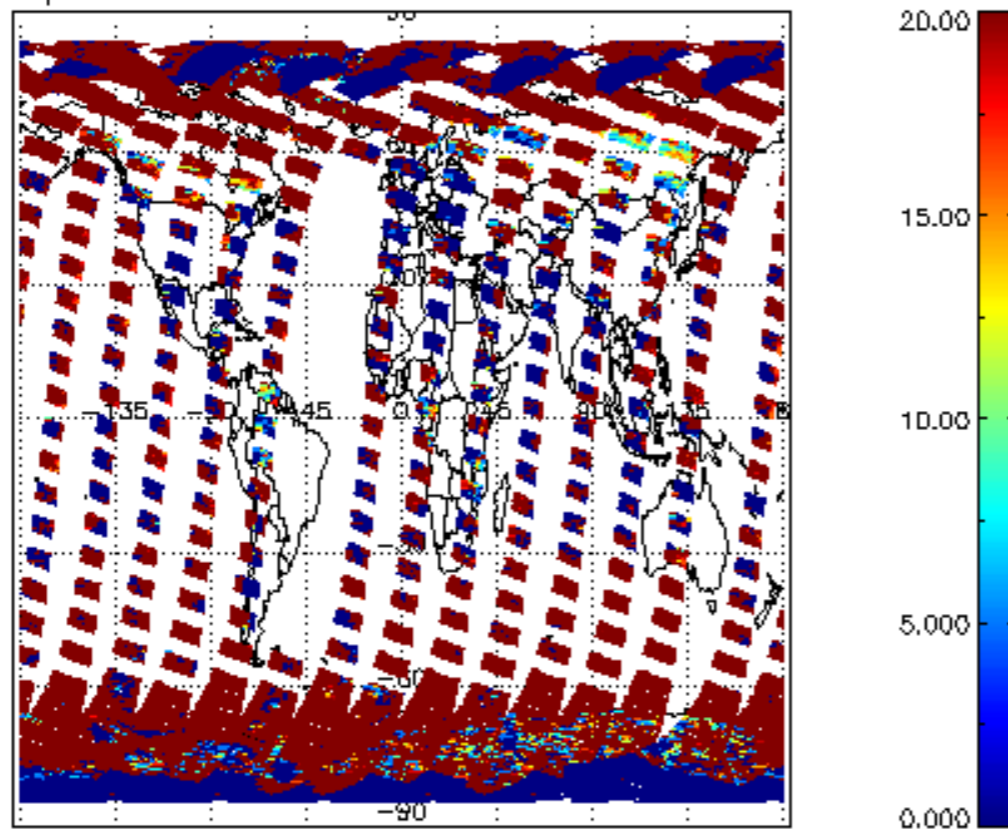
cL\_frac for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



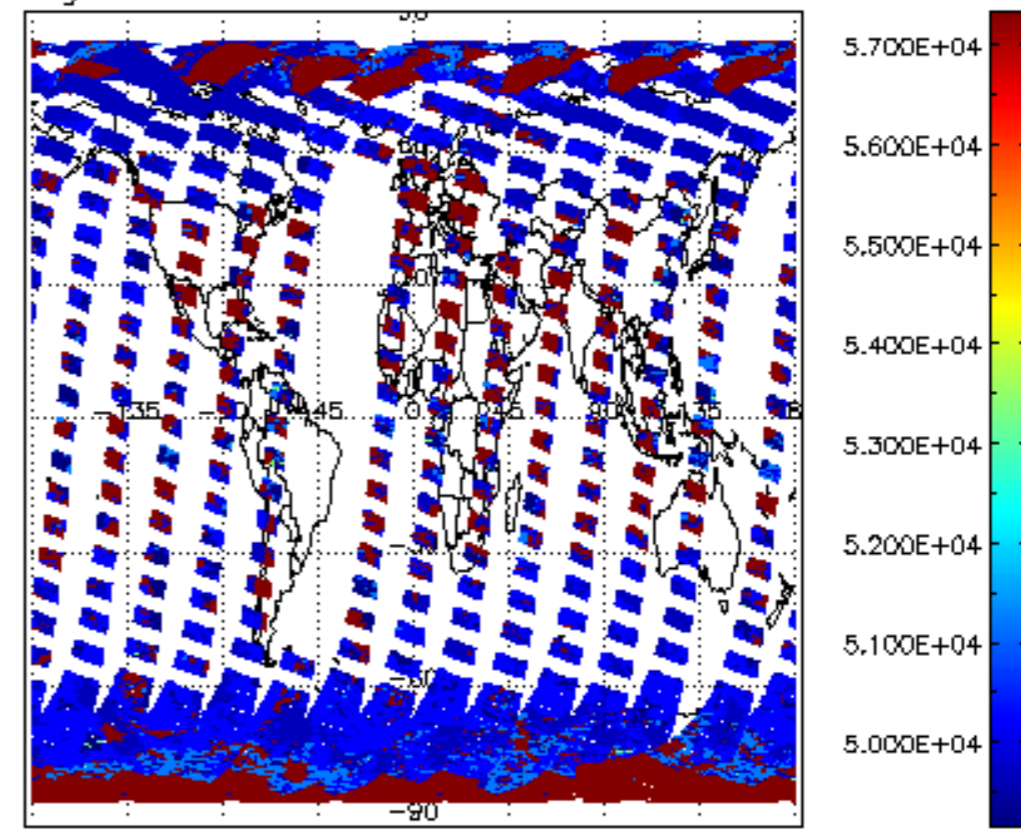
cL\_top\_height for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

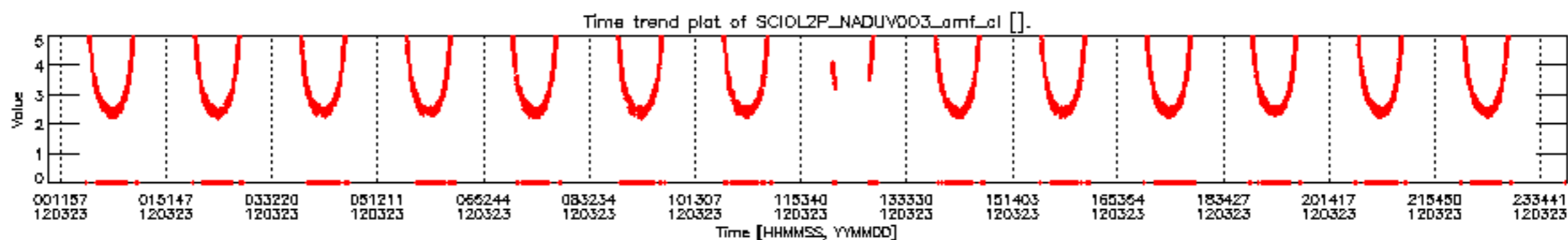
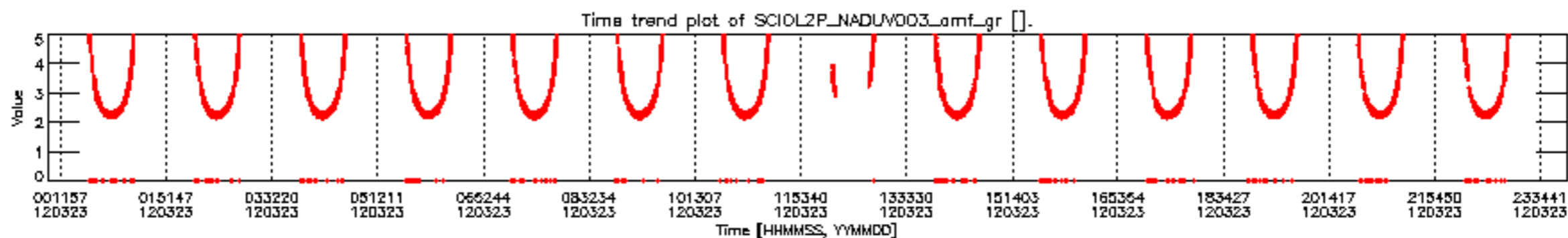
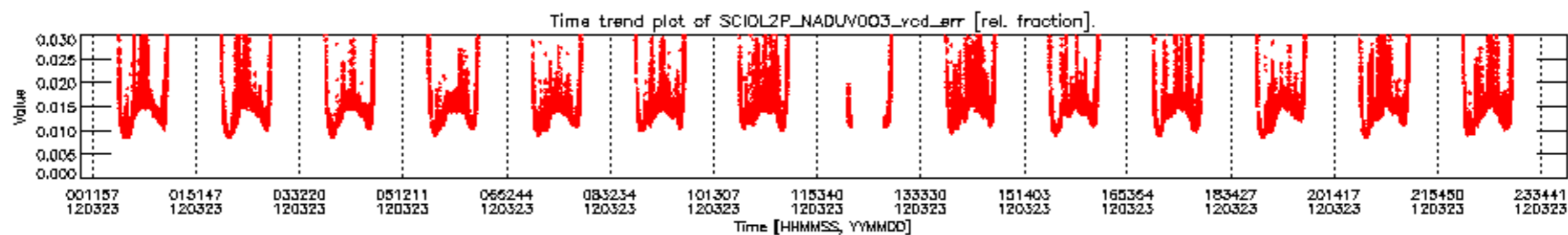
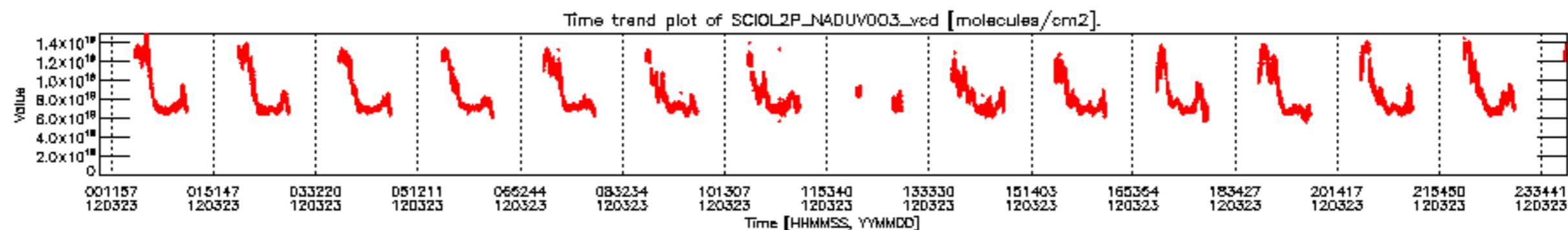


cL\_opt\_depth for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



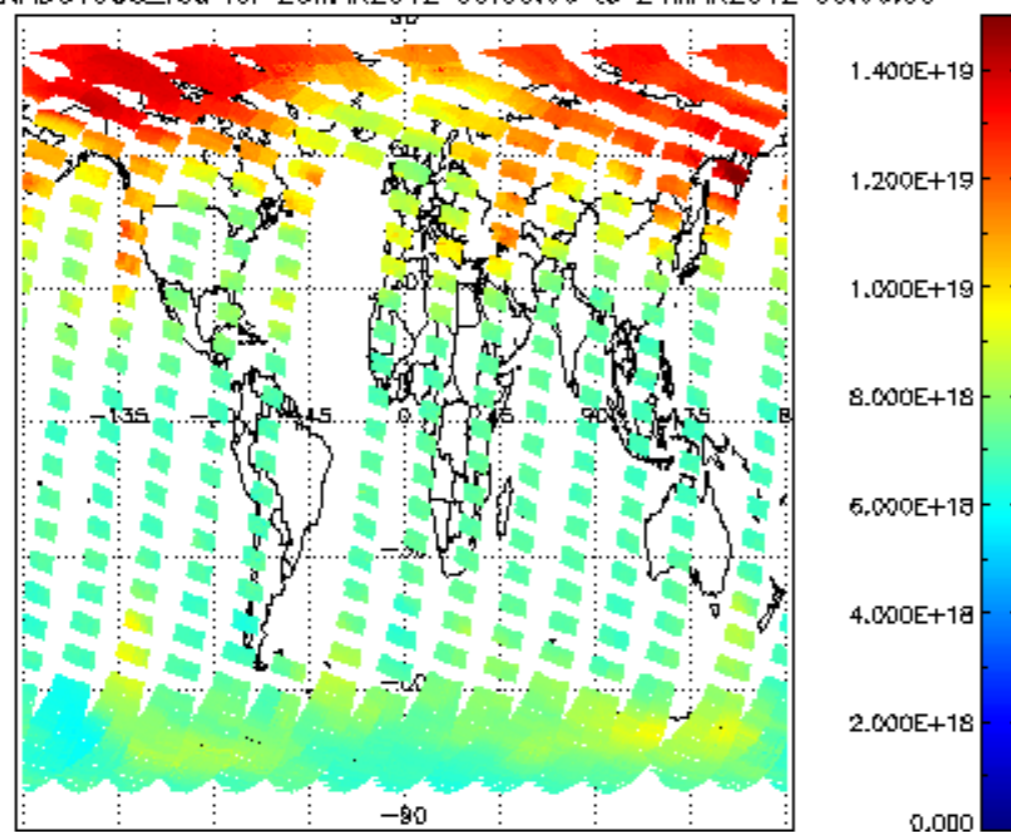
cloud\_flags for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



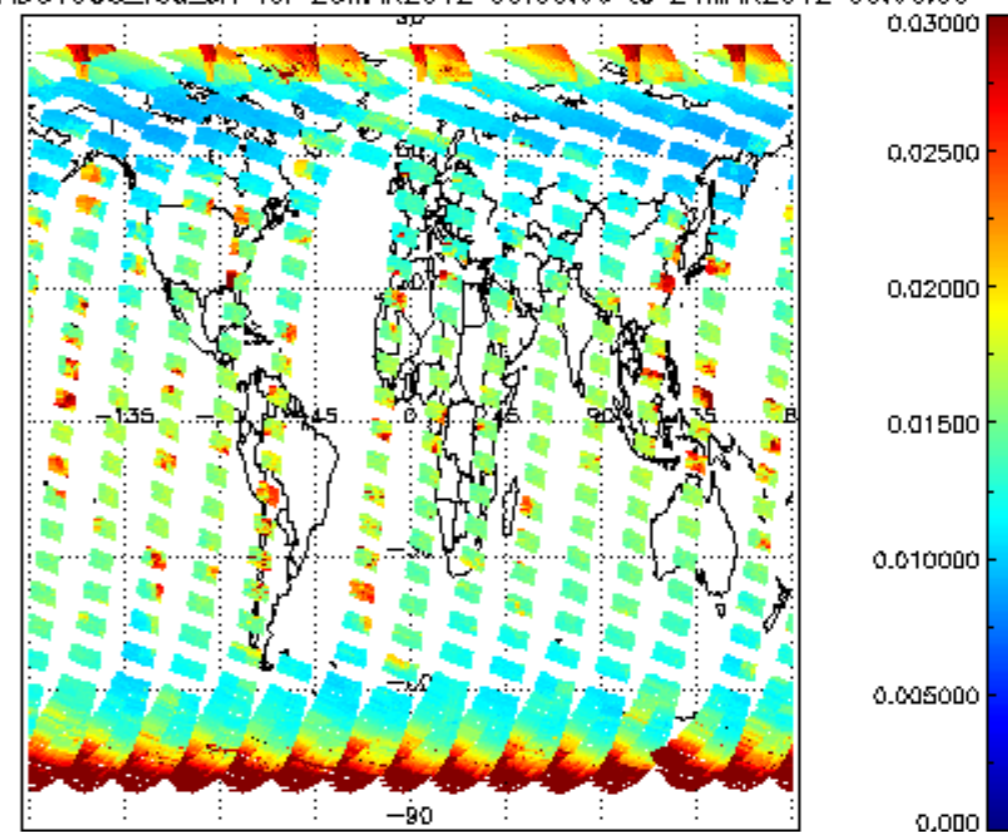




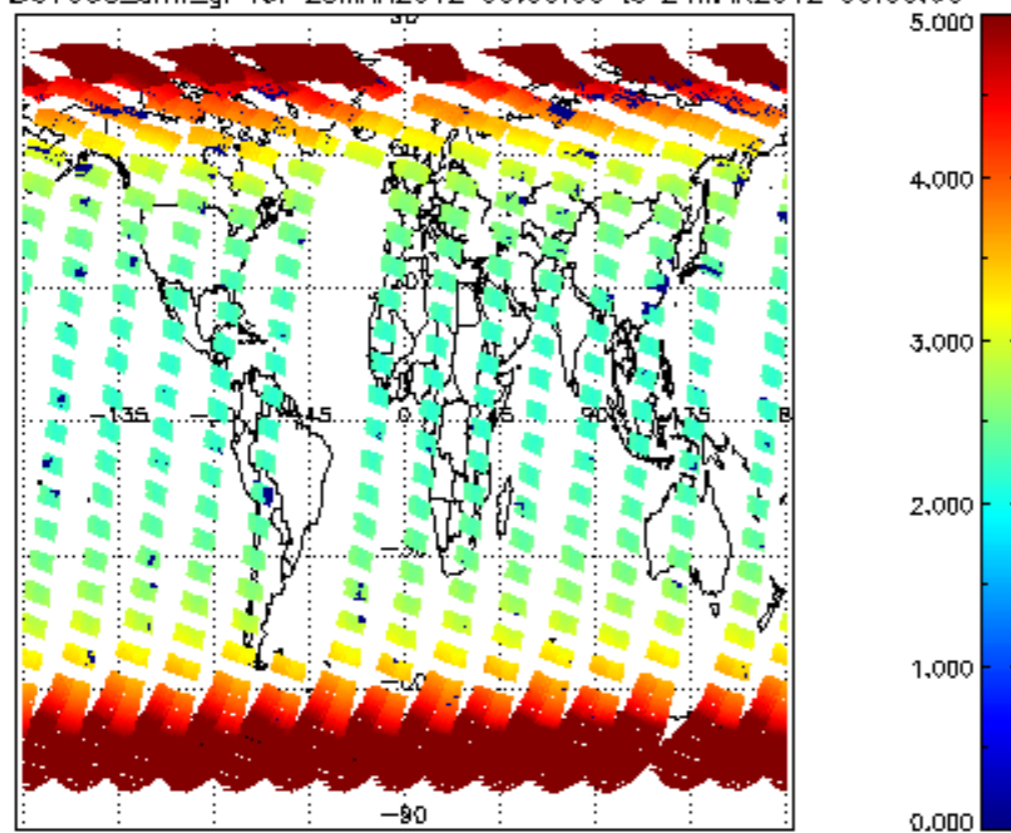
SCIOL2P\_NADUV003\_vcd for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



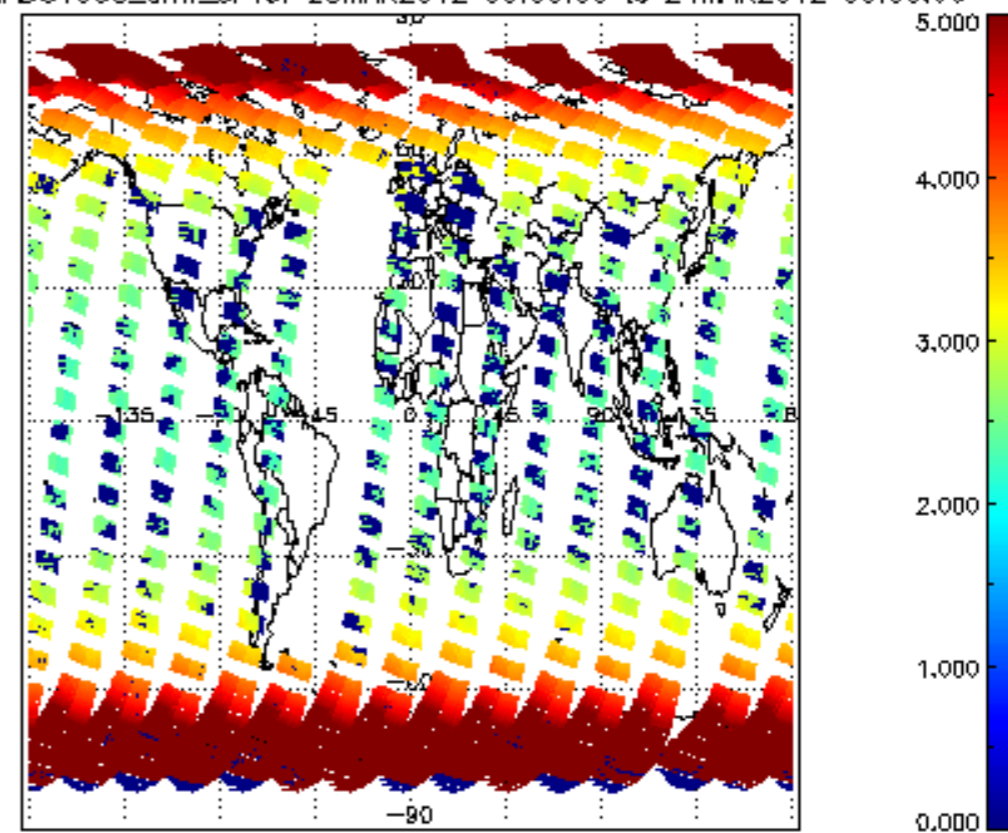
SCIOL2P\_NADUV003\_vcd\_err for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

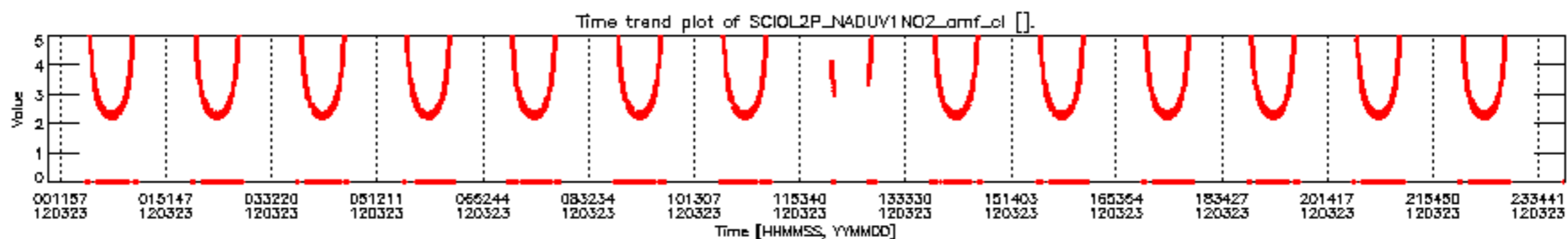
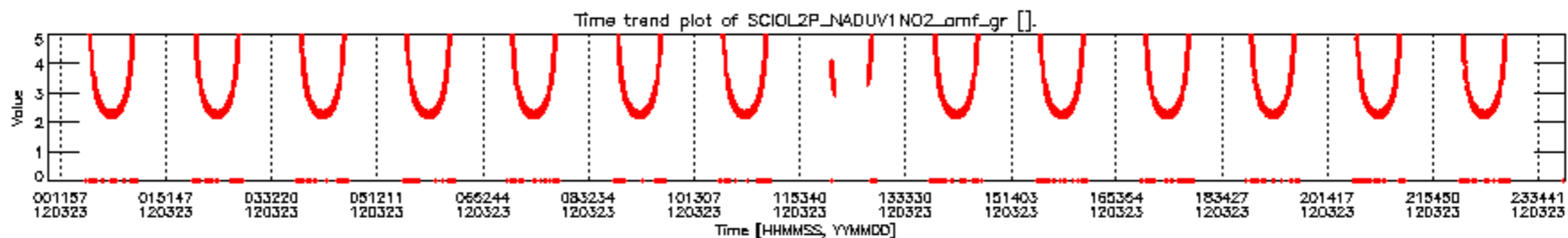
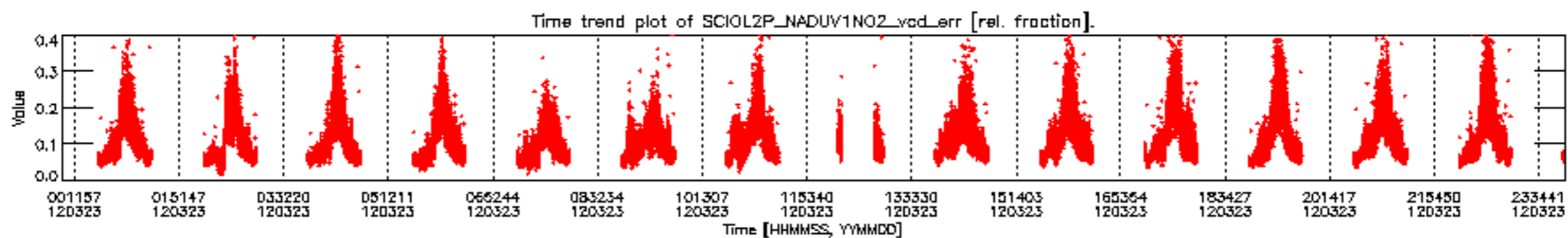
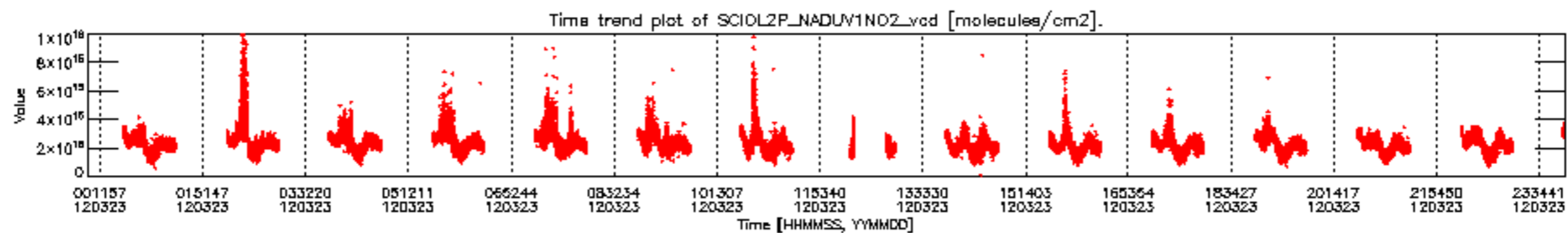


SCIOL2P\_NADUV003\_arnf\_gr for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

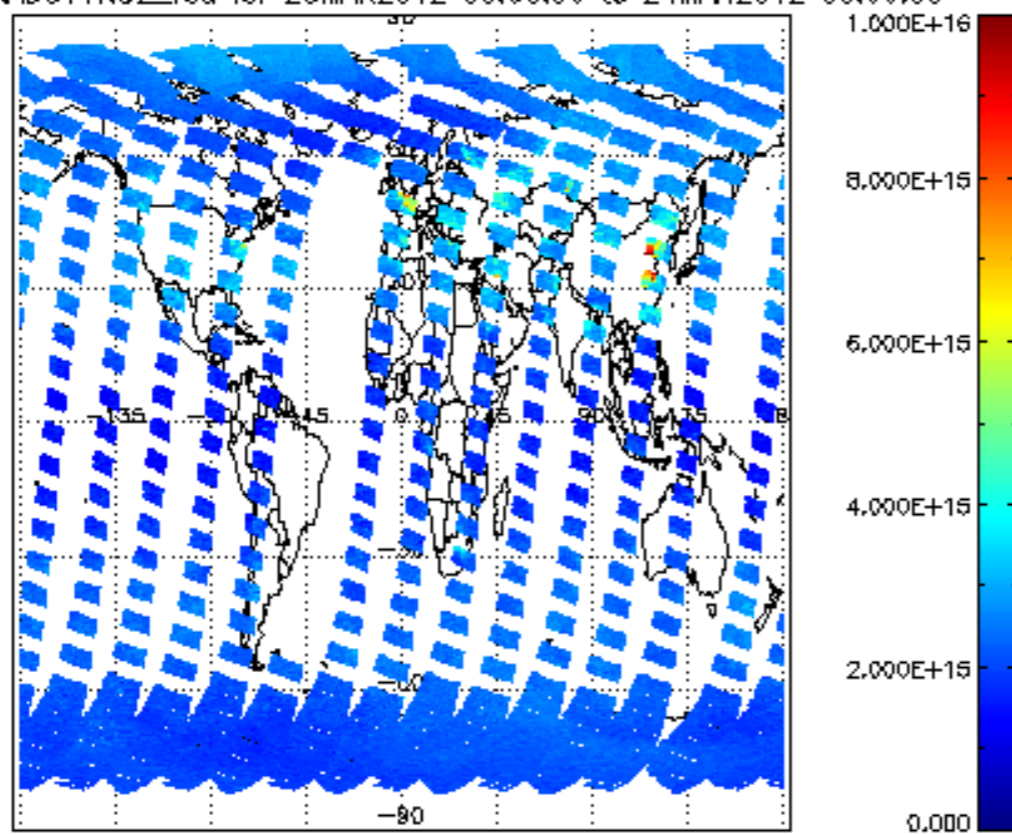


SCIOL2P\_NADUV003\_arnf\_cl for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

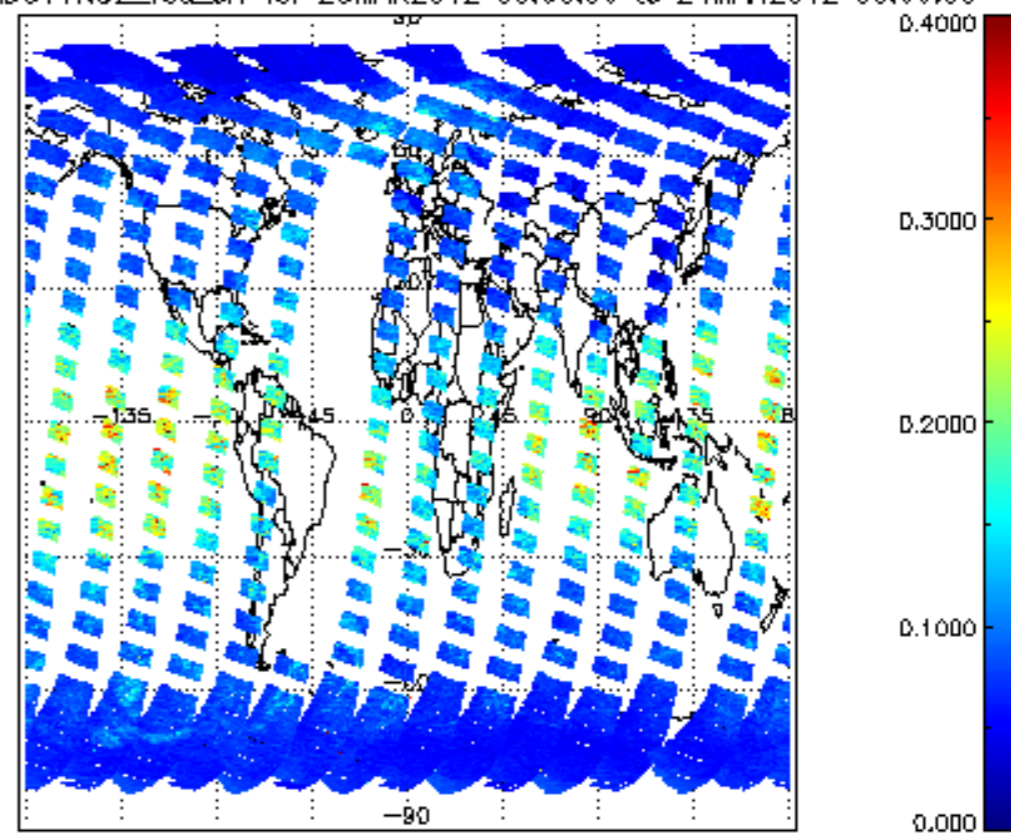




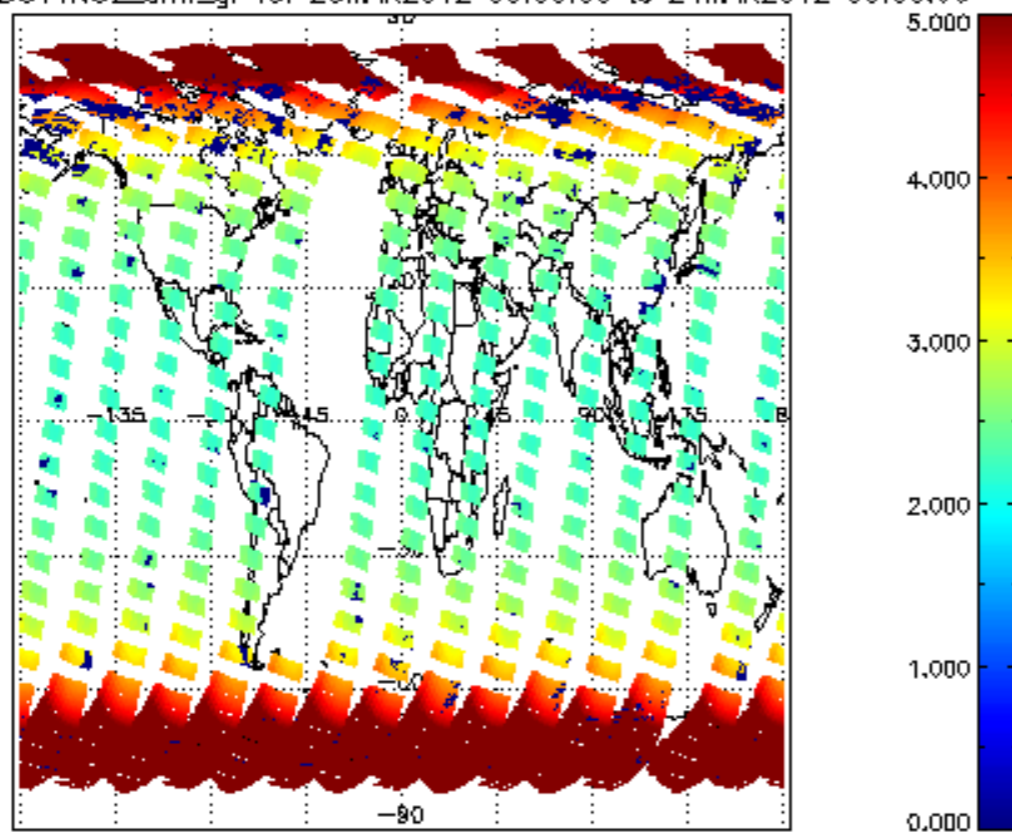
SCIOL2P\_NADUV1NO2\_vcd for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



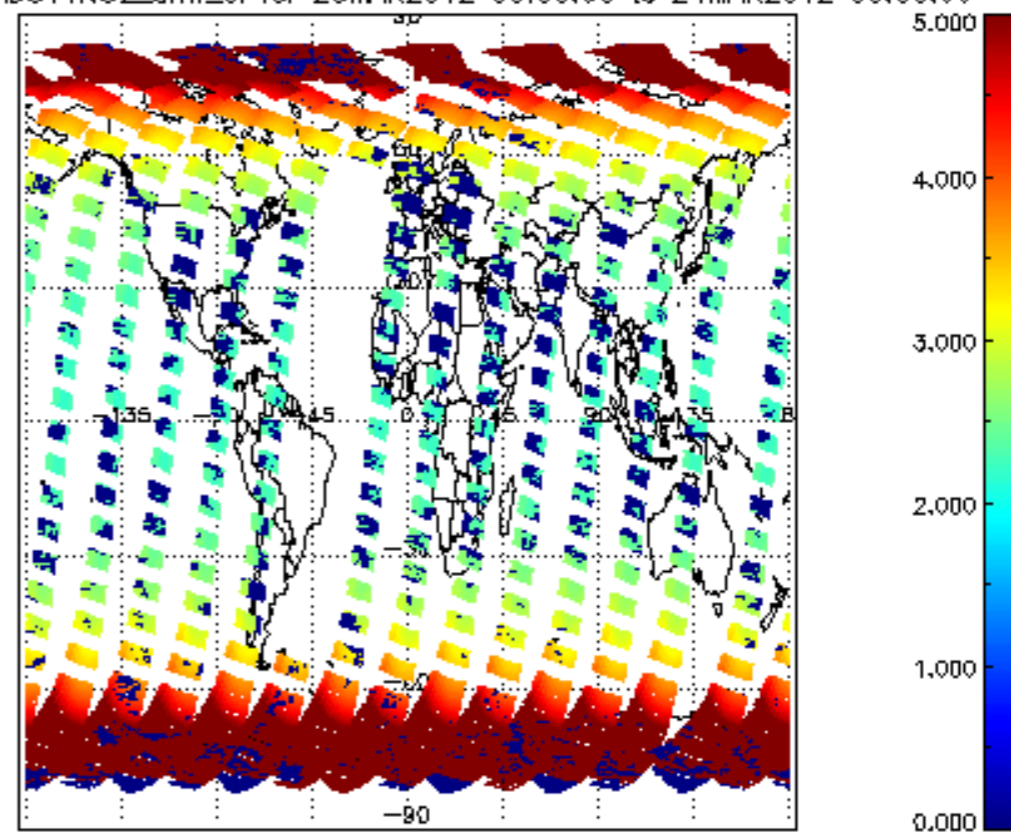
SCIOL2P\_NADUV1NO2\_vcd\_err for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

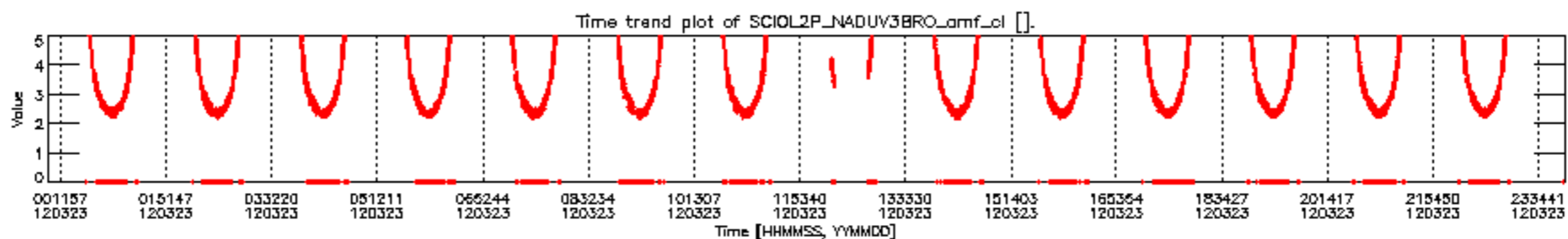
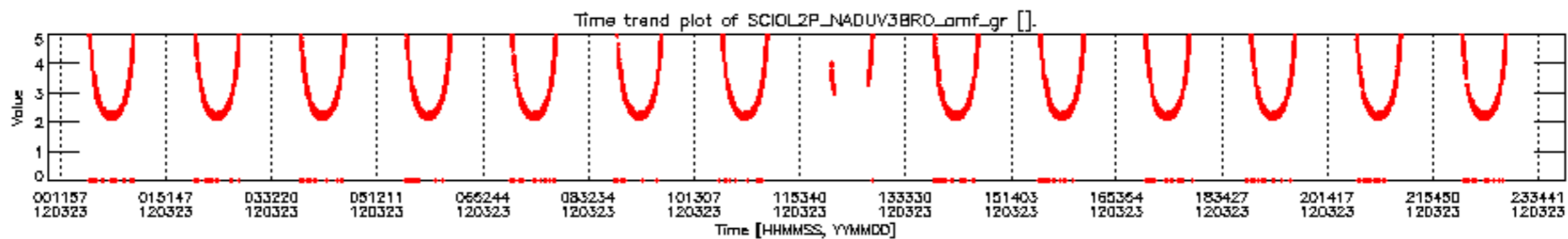
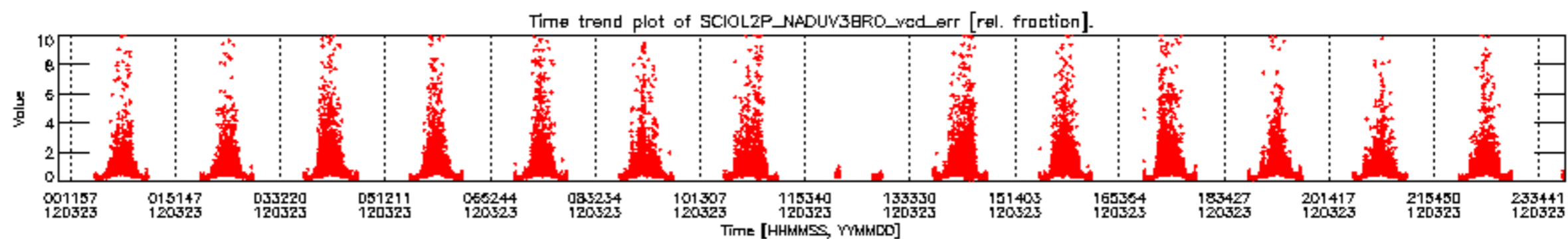
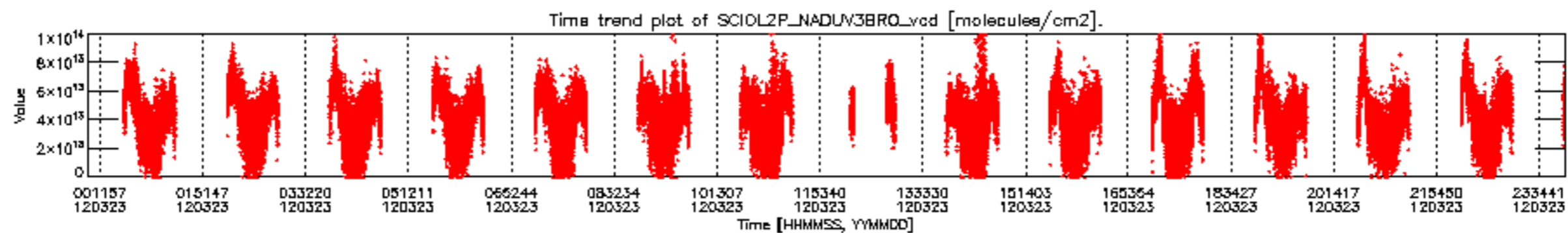


SCIOL2P\_NADUV1NO2\_amf\_gr for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

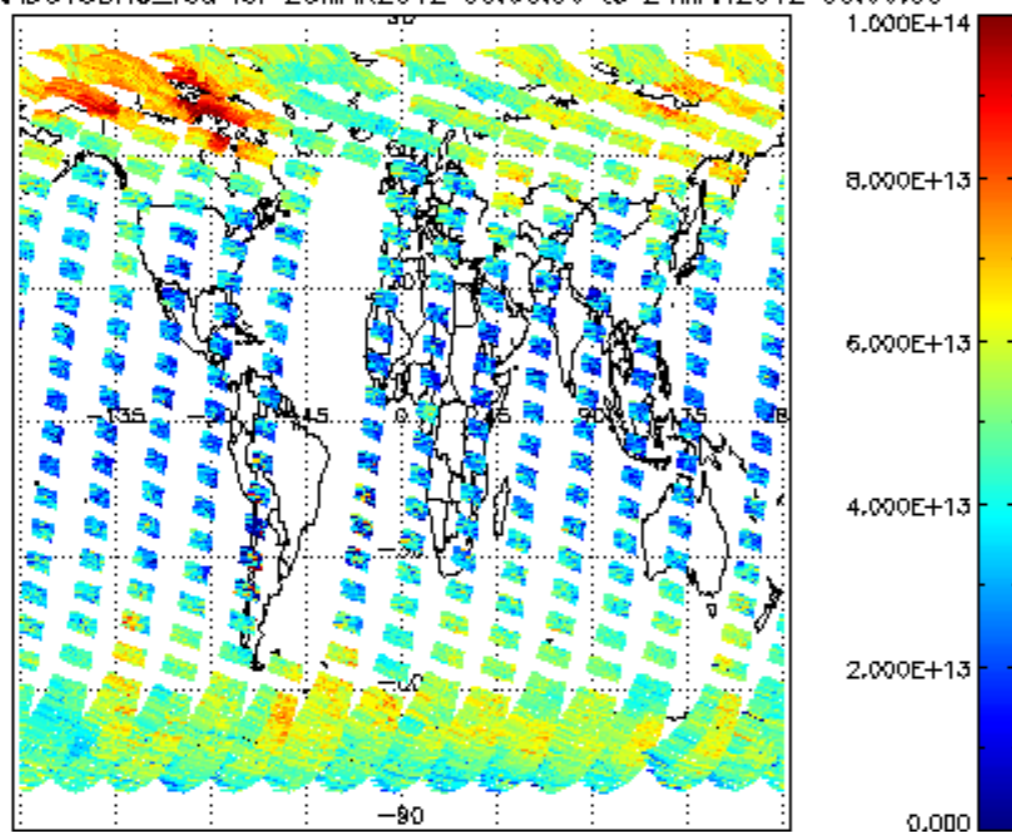


SCIOL2P\_NADUV1NO2\_amf\_cl for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

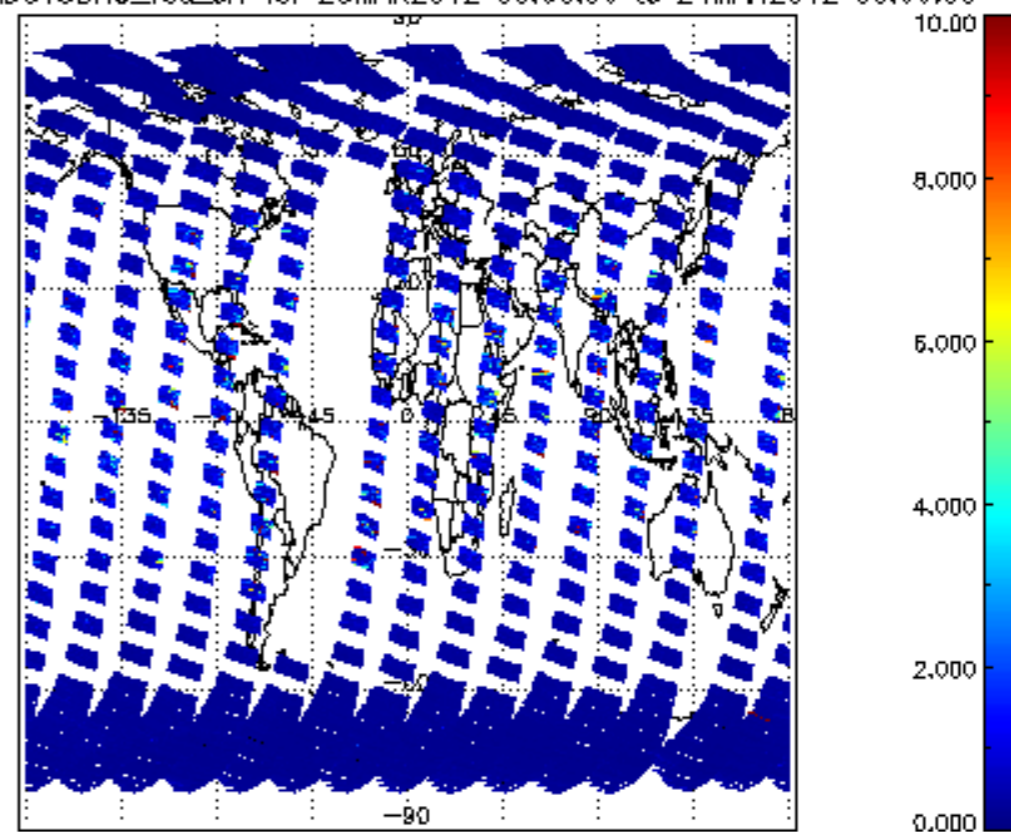




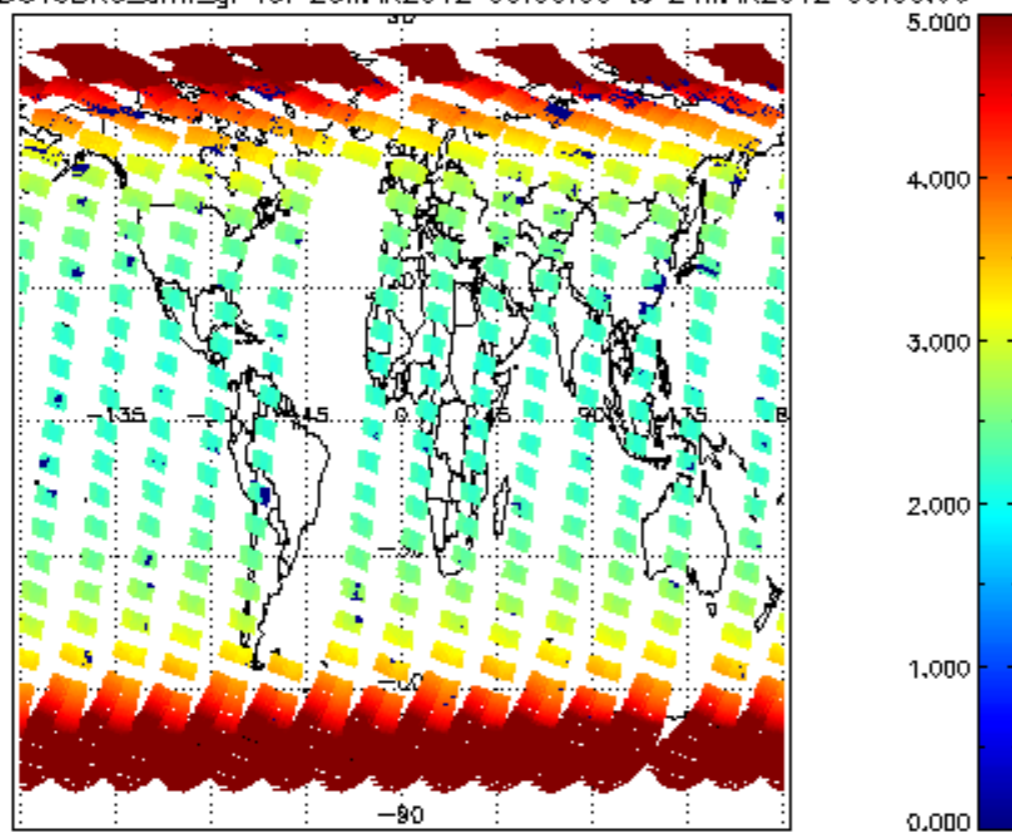
SCIOL2P\_NADUV3BRO\_vcd for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



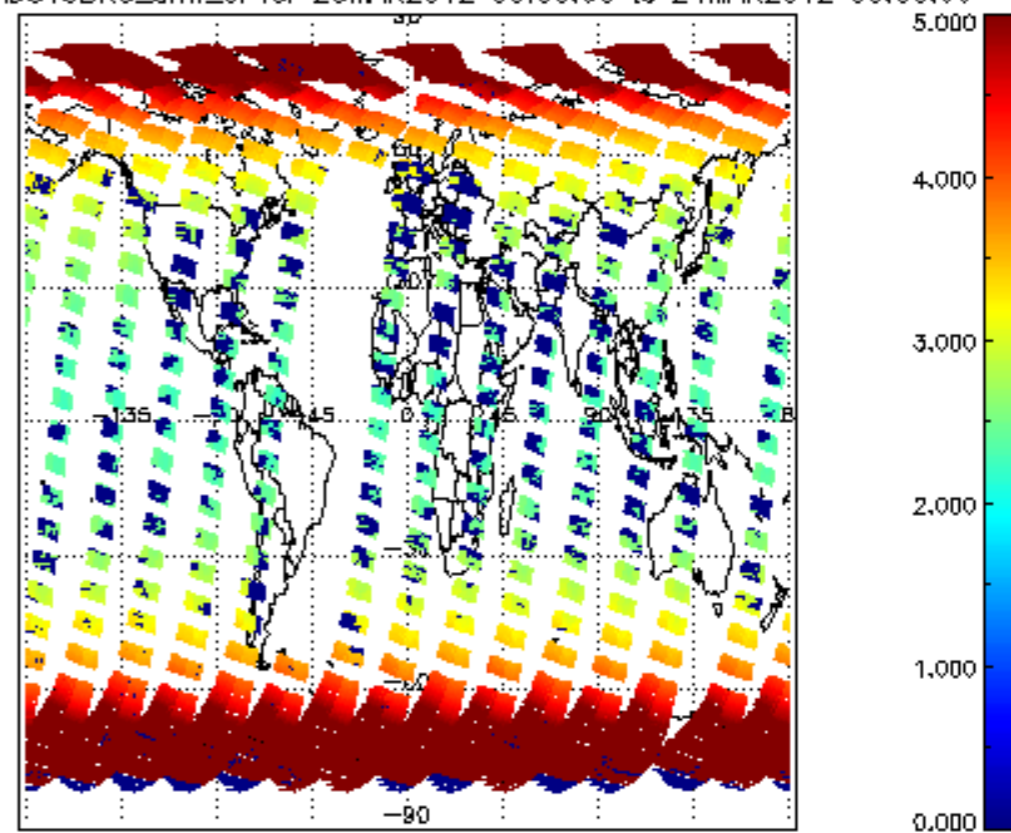
SCIOL2P\_NADUV3BRO\_vcd\_err for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

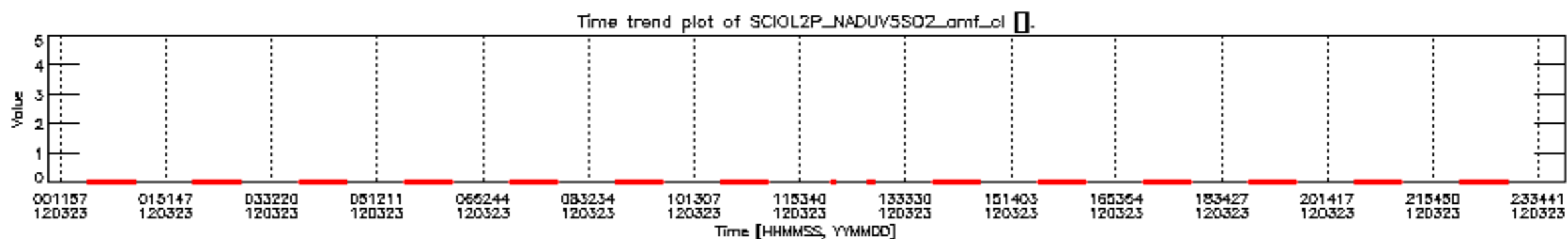
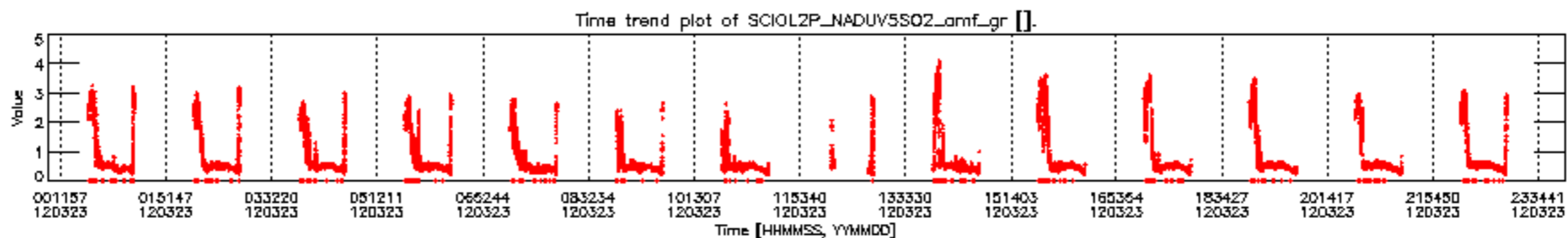
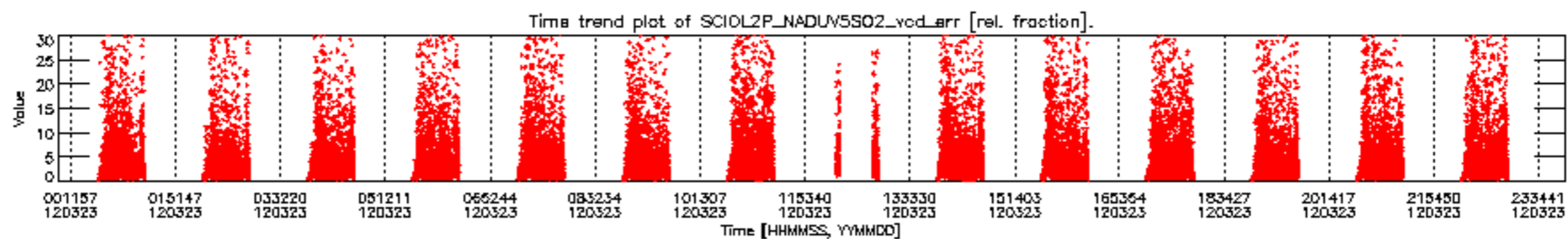
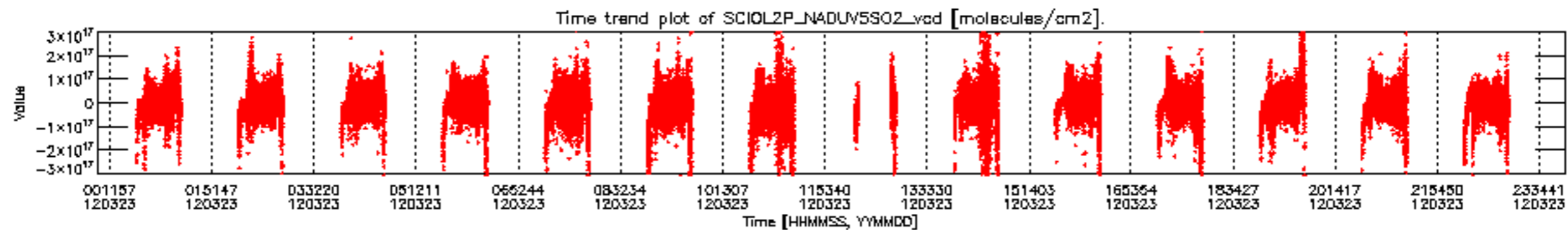


SCIOL2P\_NADUV3BRO\_amf\_gr for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

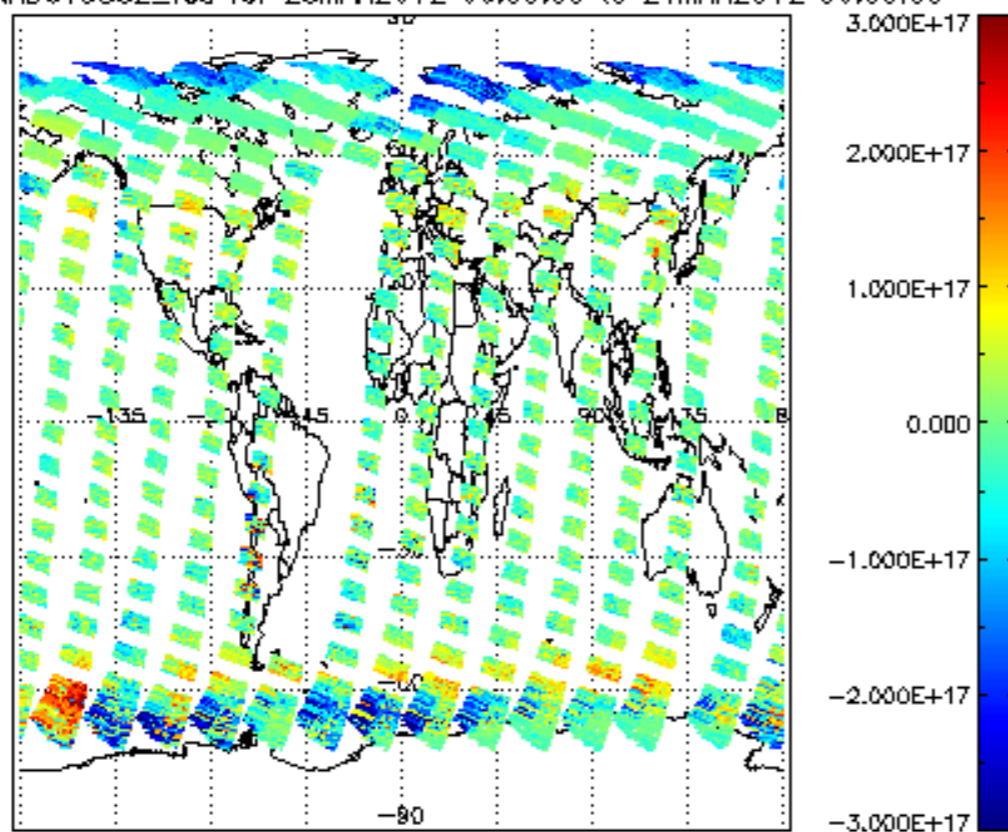


SCIOL2P\_NADUV3BRO\_amf\_cl for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

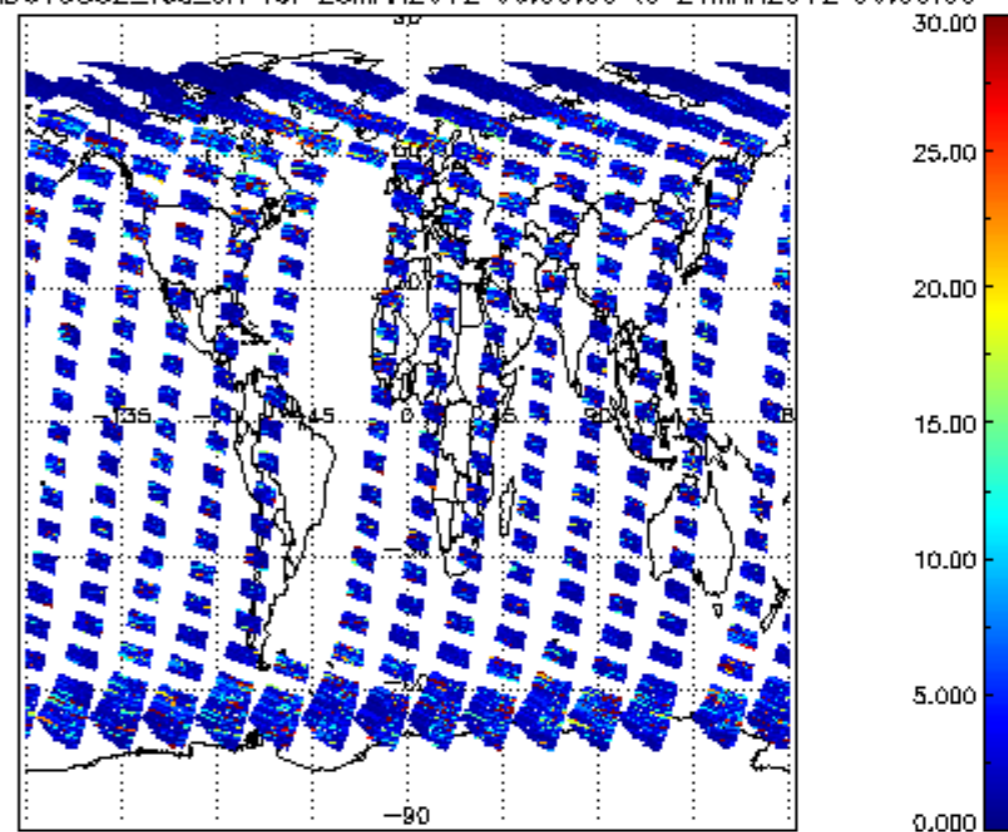




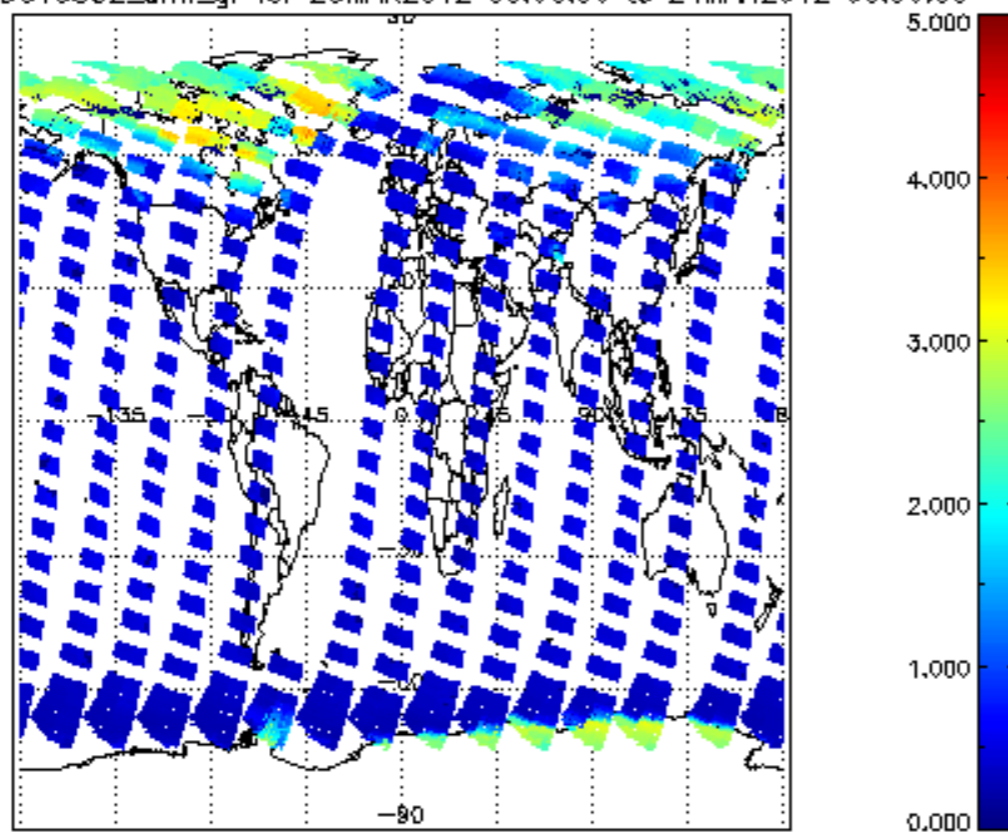
SCIOL2P\_NADUV5S02\_vcd for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



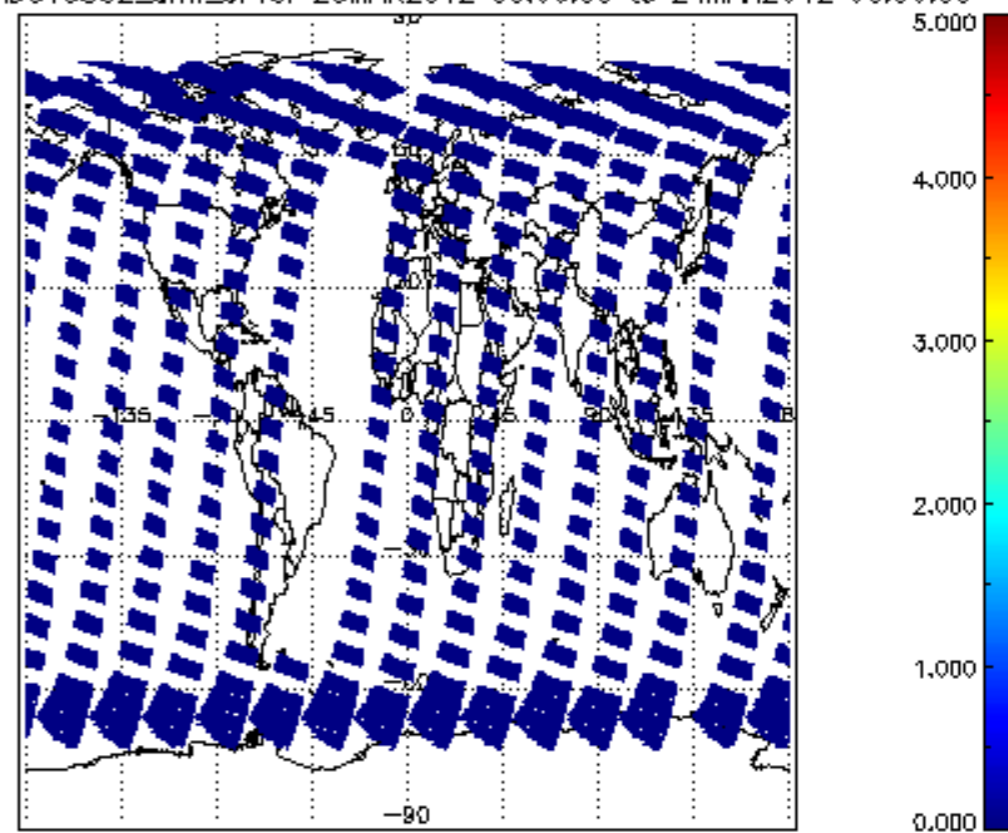
SCIOL2P\_NADUV5S02\_vcd\_err for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

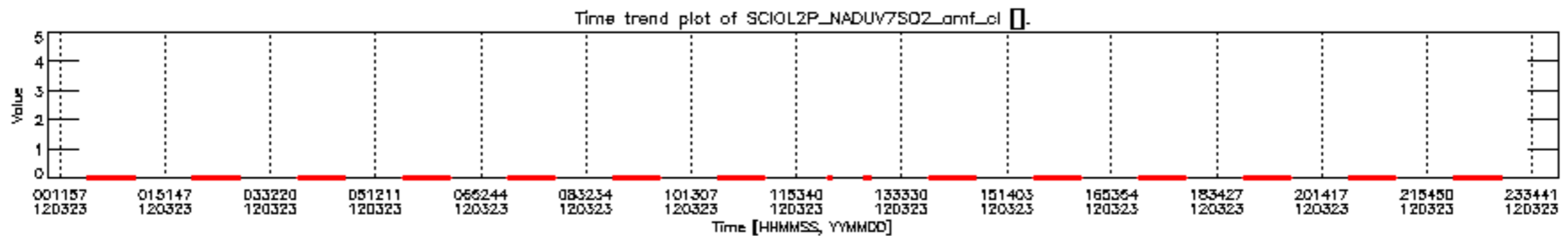
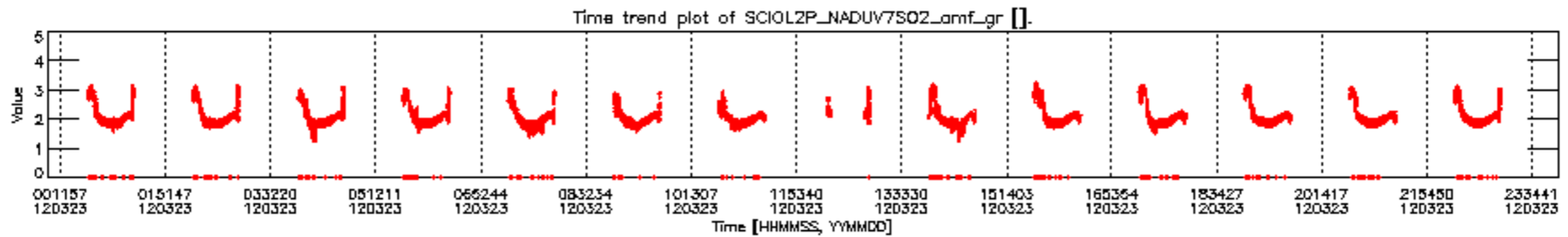
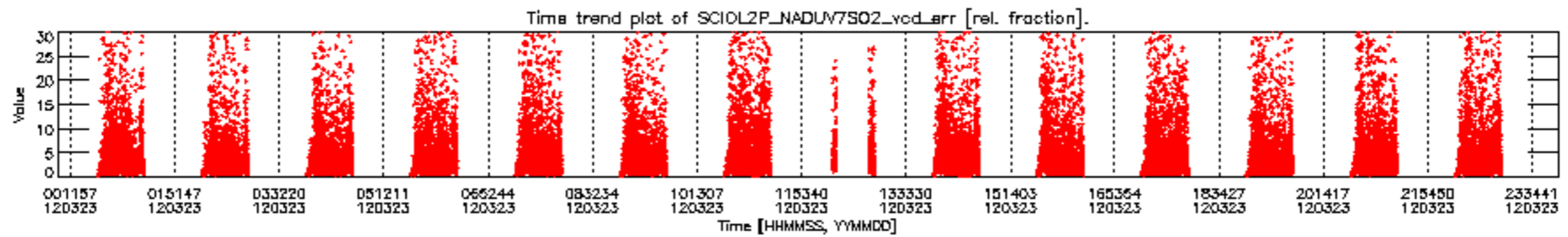
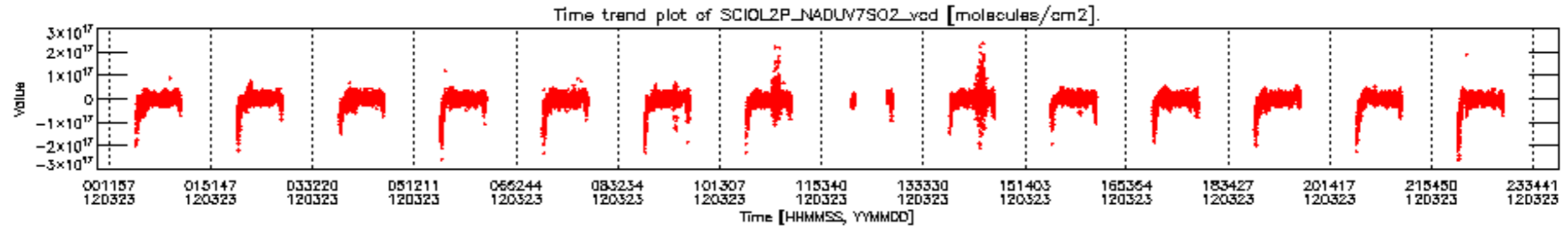


SCIOL2P\_NADUV5S02\_amf\_gr for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



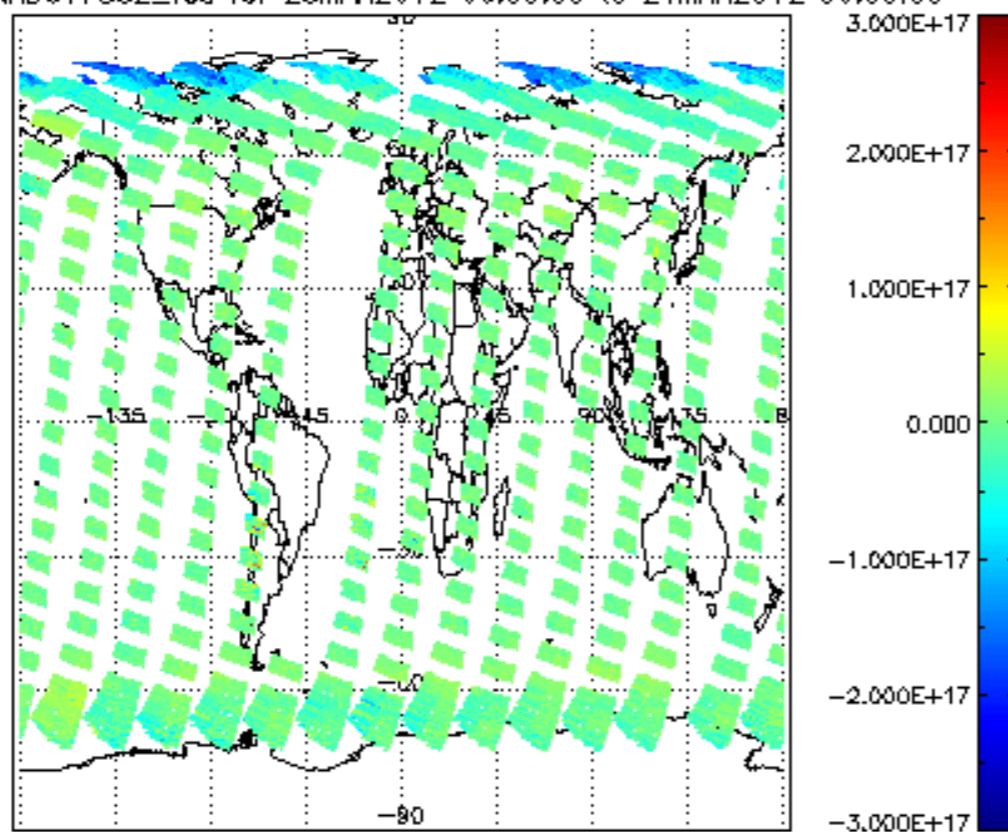
SCIOL2P\_NADUV5S02\_amf\_cl for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



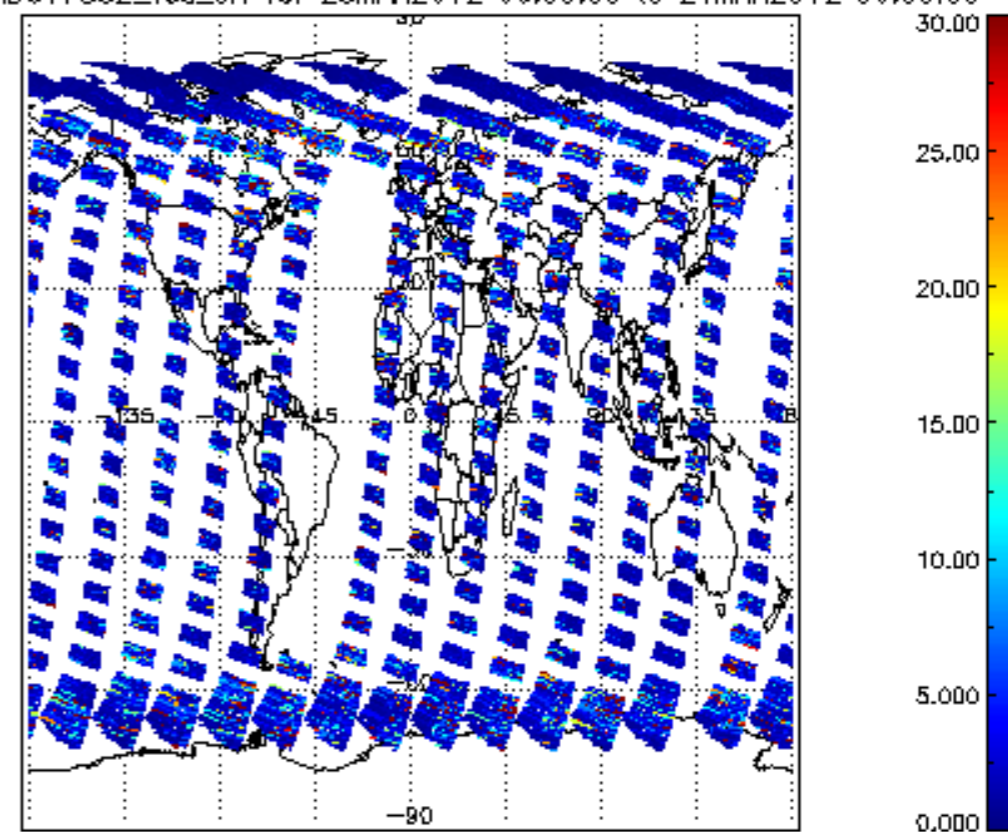




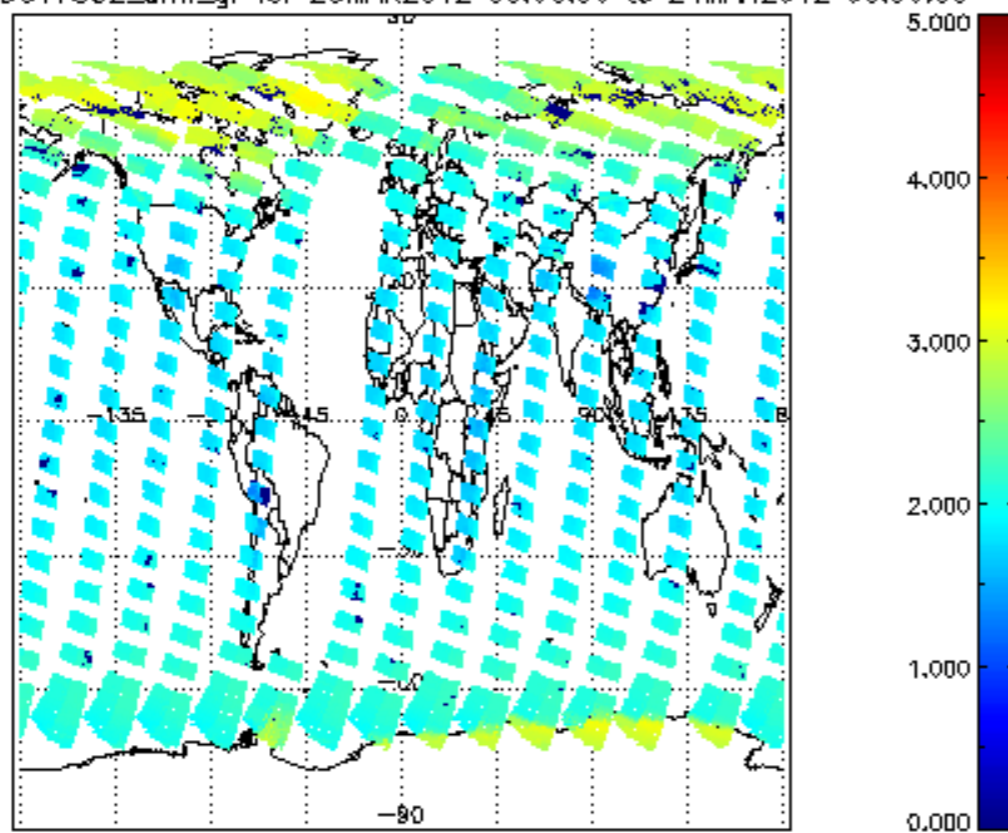
SCIOL2P\_NADUV7S02\_vcd for 23MAR2012 00:00:00 to 24MAR2012 00:00:00



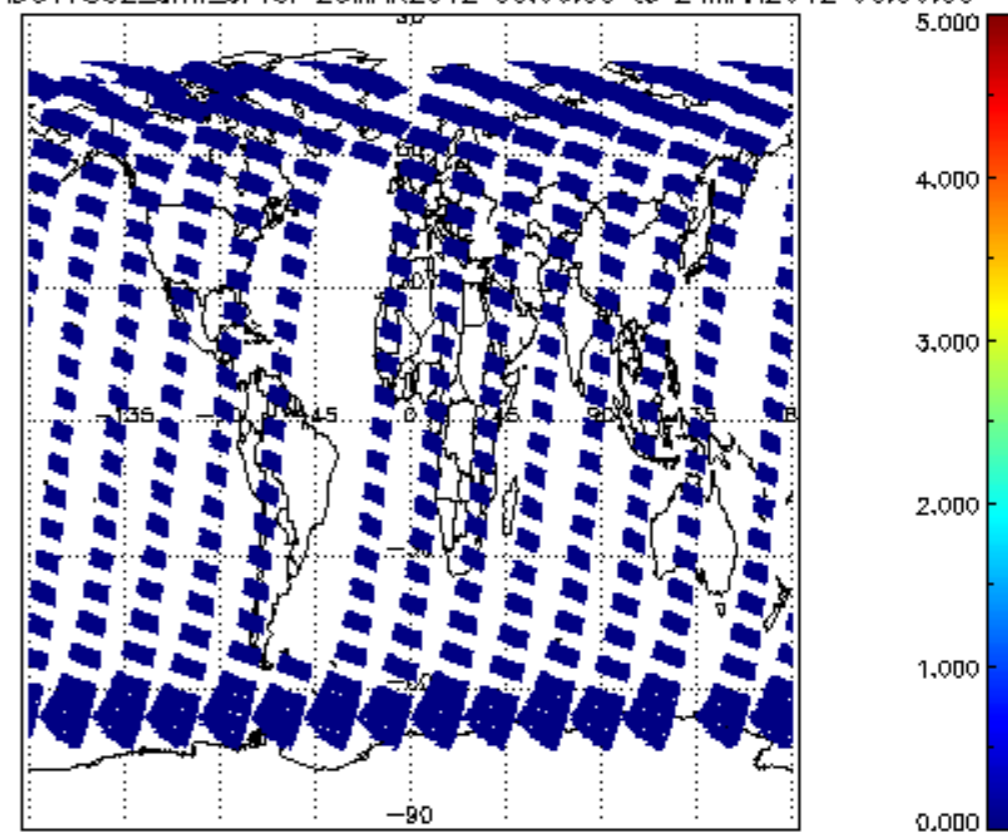
SCIOL2P\_NADUV7S02\_vcd\_err for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

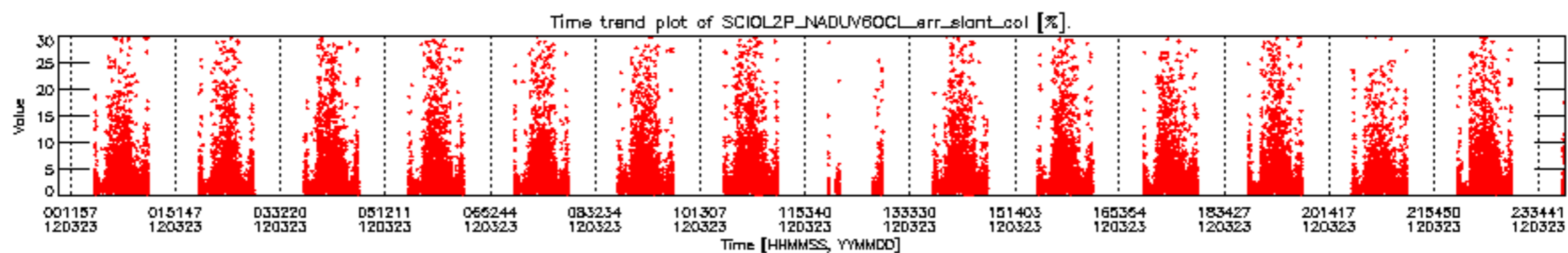
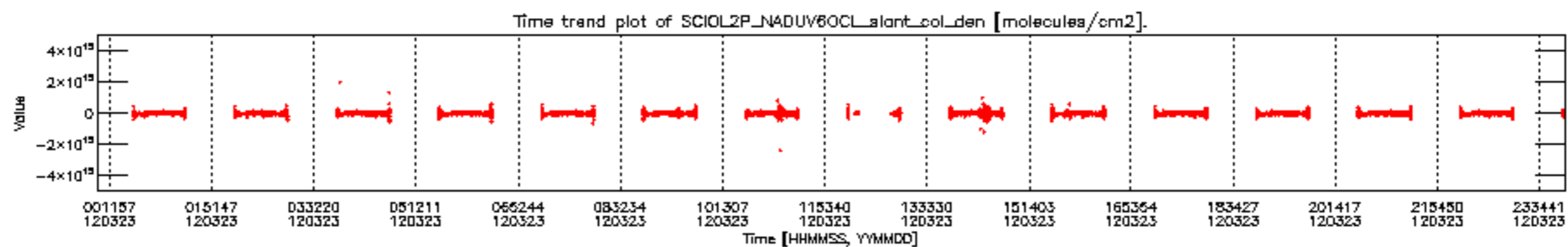


SCIOL2P\_NADUV7S02\_amf\_gr for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

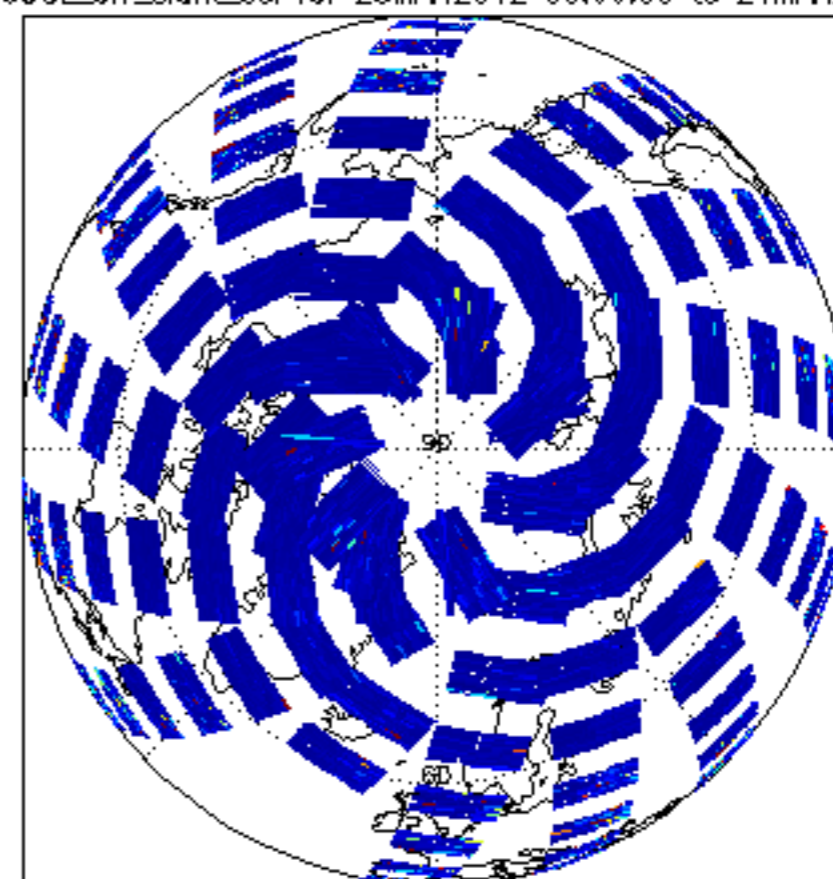
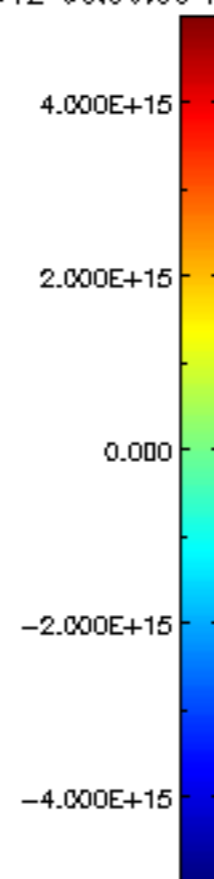
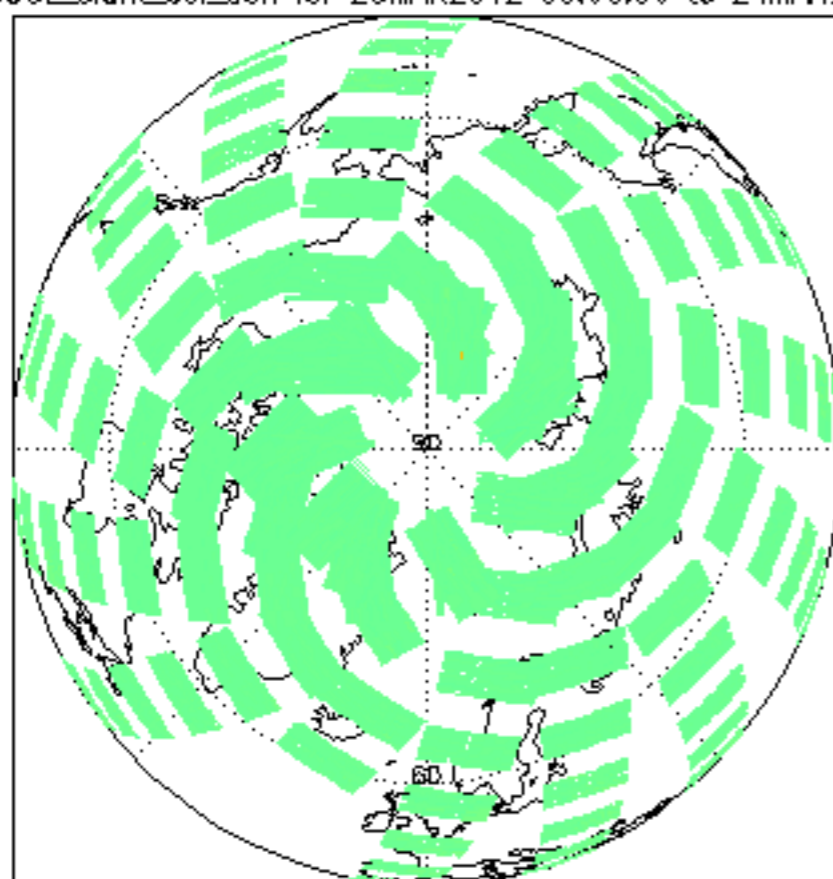


SCIOL2P\_NADUV7S02\_amf\_cl for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

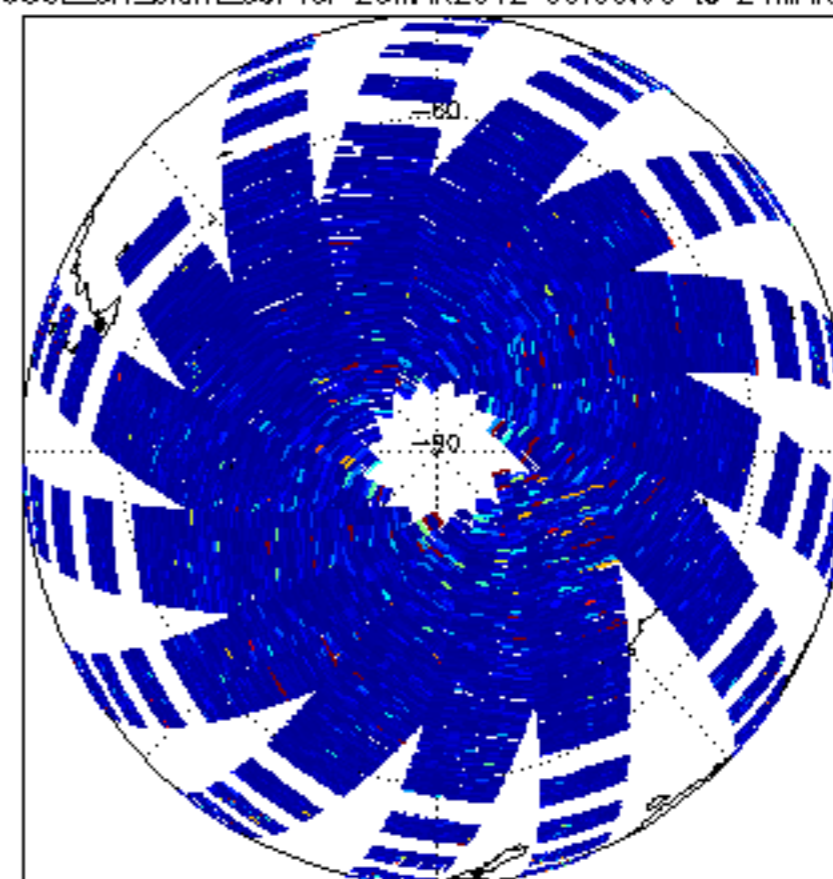
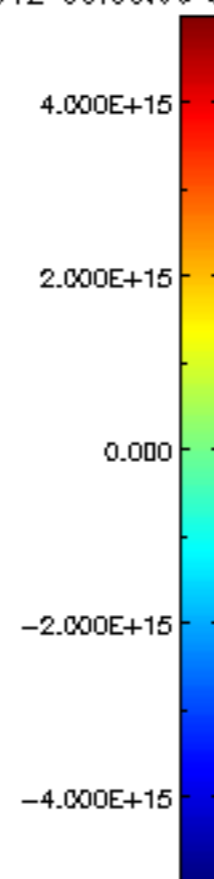
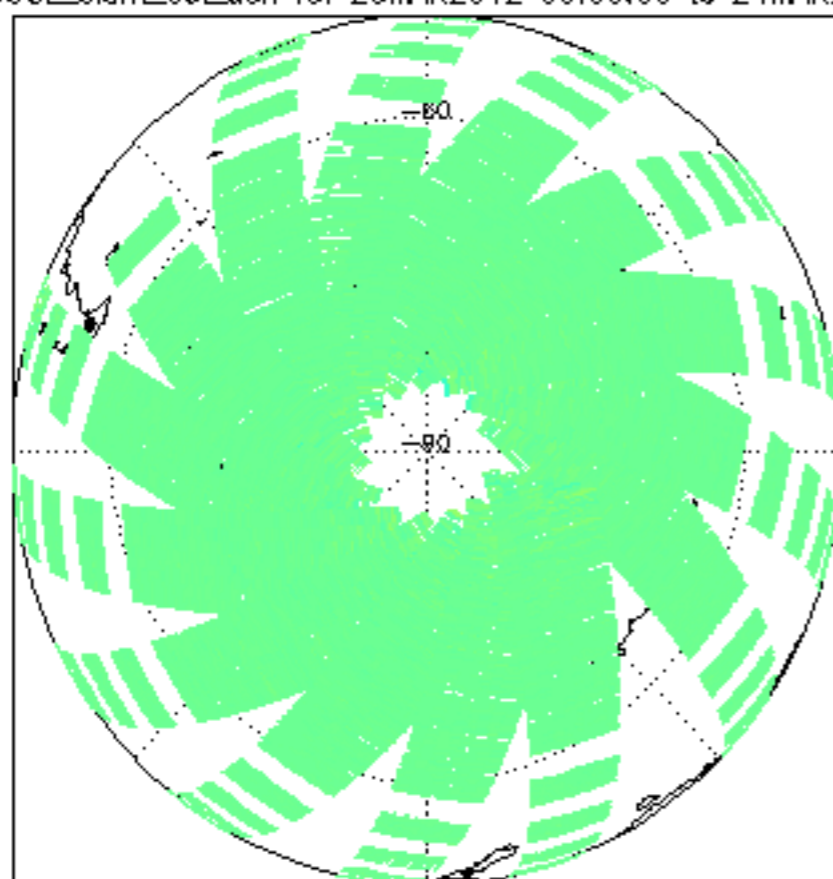




CIOL2P\_NADUV6OCL\_slant\_col\_den for 23MAR2012 00:00:00 to 24MAR2012 00:00:00 np; CIOL2P\_NADUV6OCL\_err\_slant\_col for 23MAR2012 00:00:00 to 24MAR2012 00:00:00 np

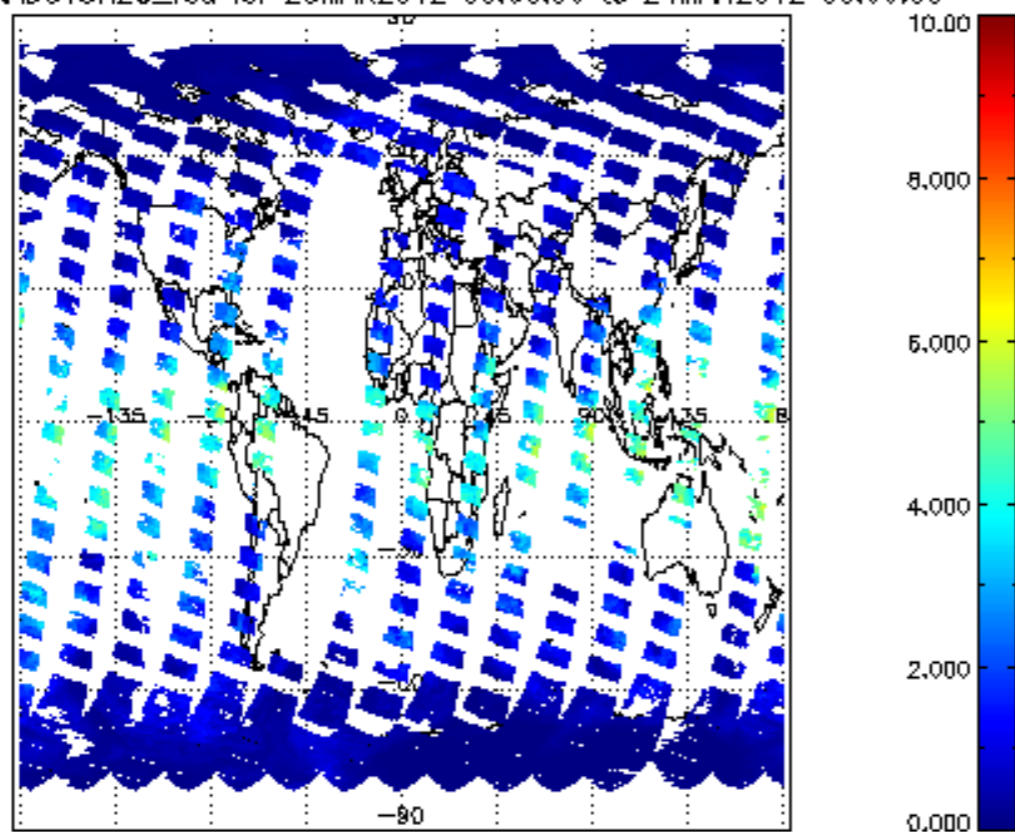


CIOL2P\_NADUV6OCL\_slant\_colDen for 23MAR2012 00:00:00 to 24MAR2012 00:00:00 sp; CIOL2P\_NADUV6OCL\_err\_slant\_col for 23MAR2012 00:00:00 to 24MAR2012 00:00:00 sp

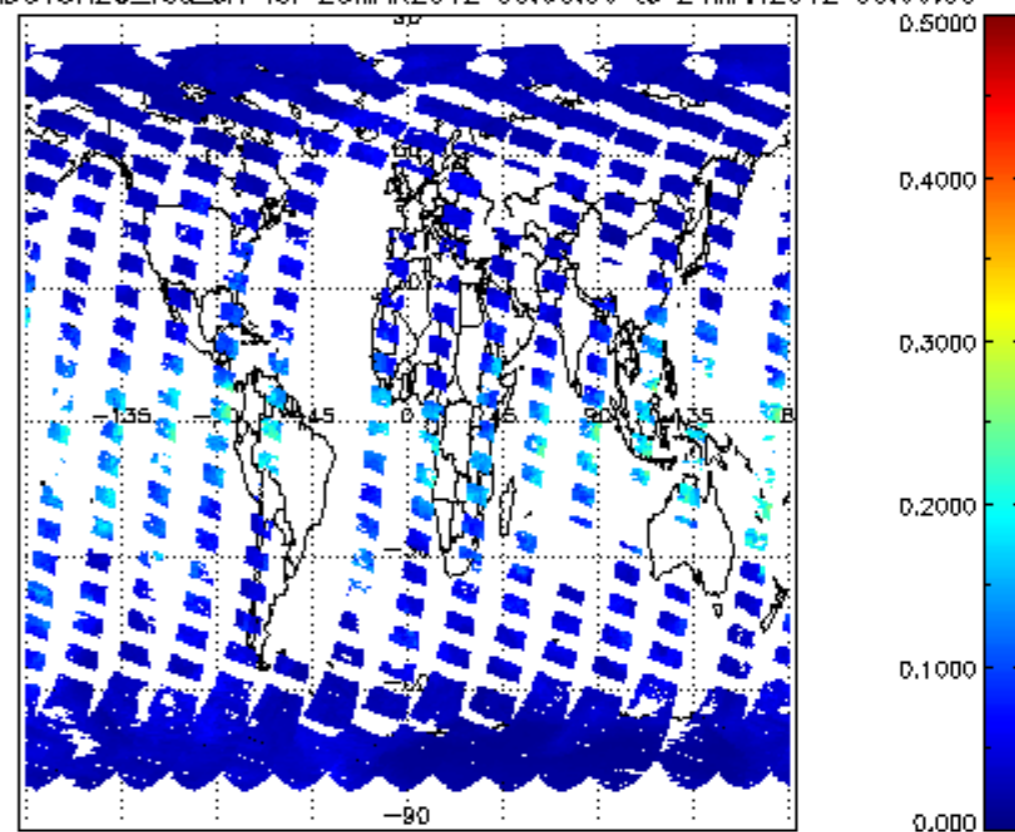




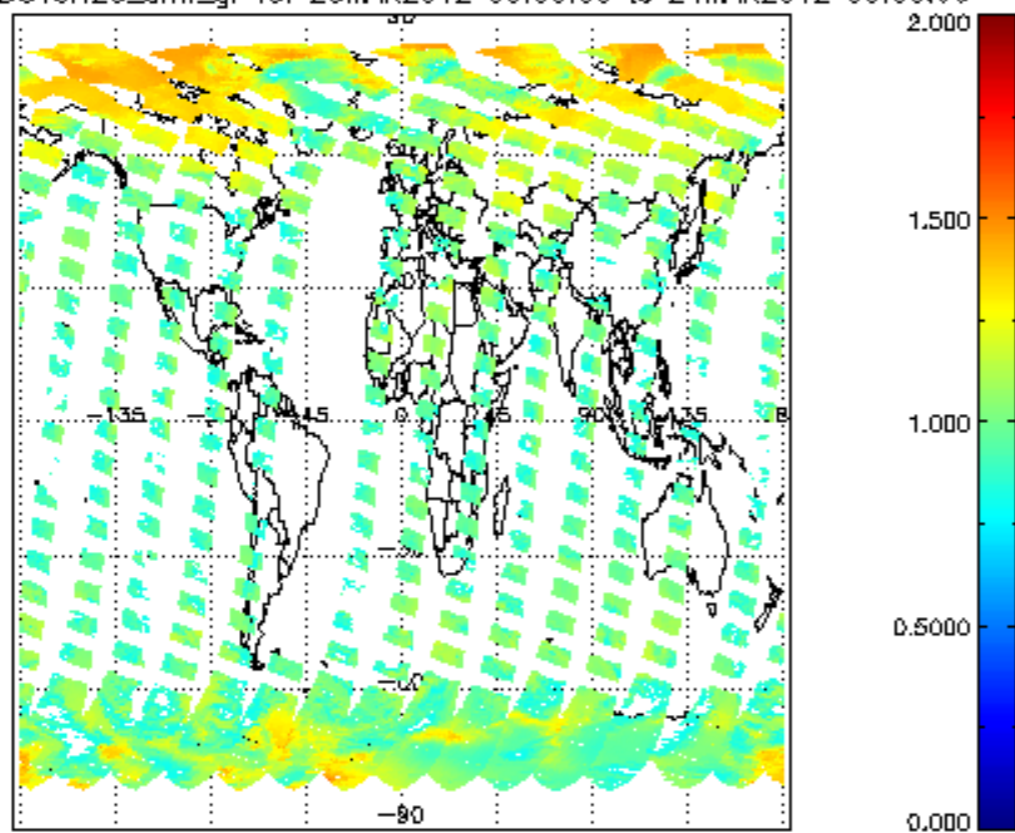
SCIOL2P\_NADUV8H20\_vcd for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

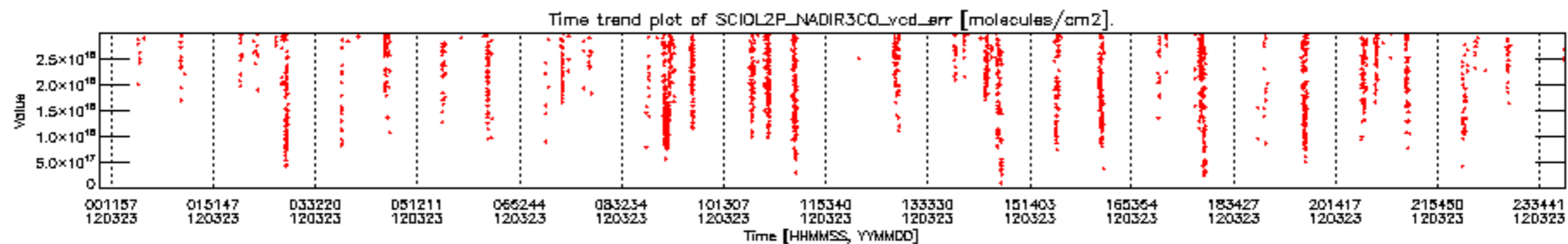
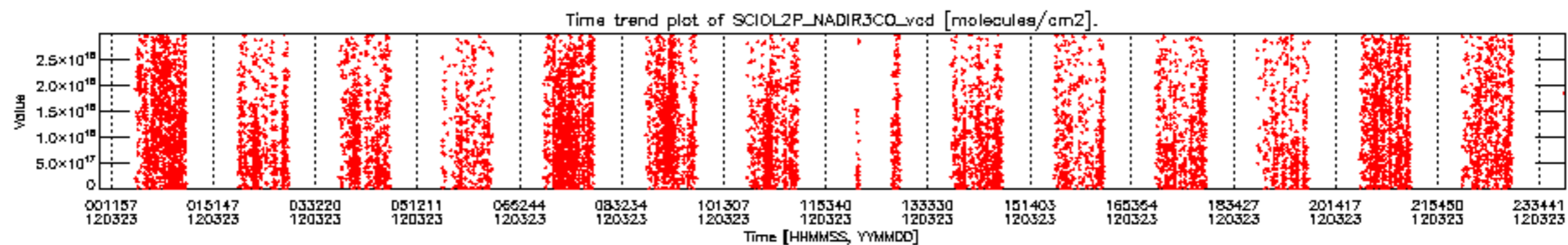


SCIOL2P\_NADUV8H20\_vcd\_err for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

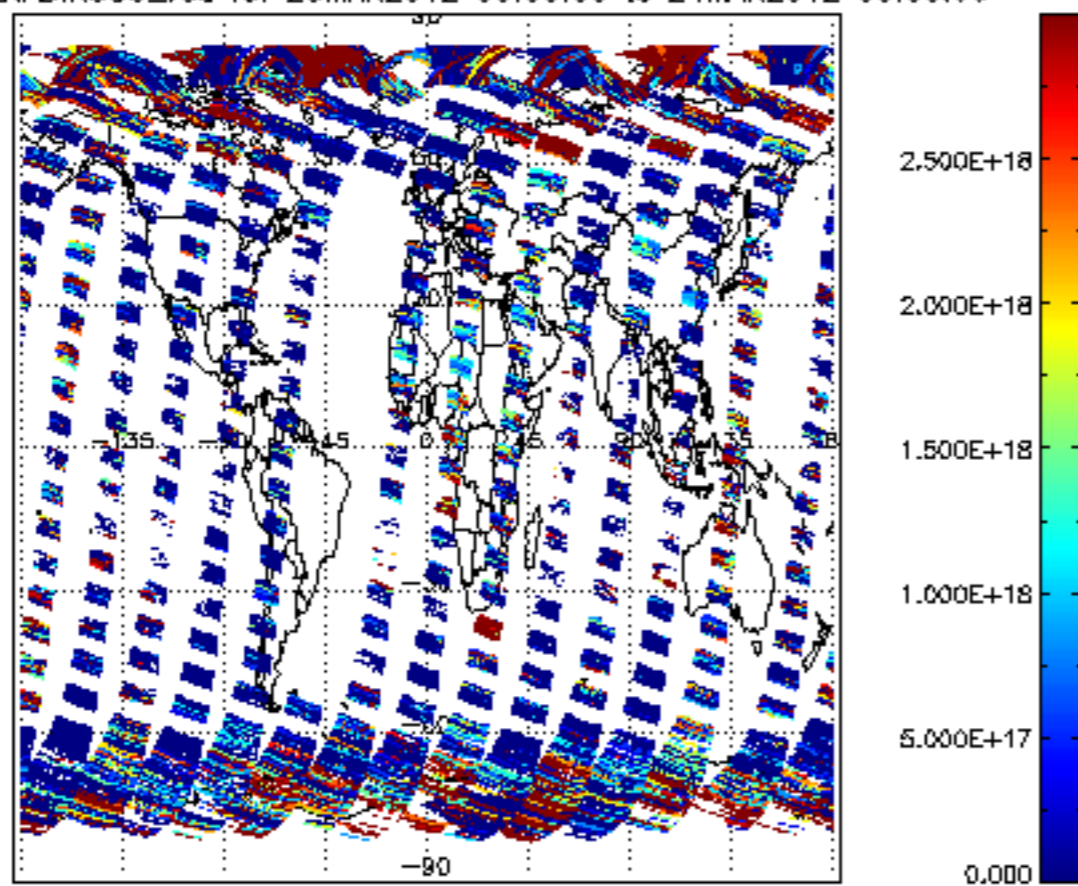


SCIOL2P\_NADUV8H20\_arnf\_gr for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

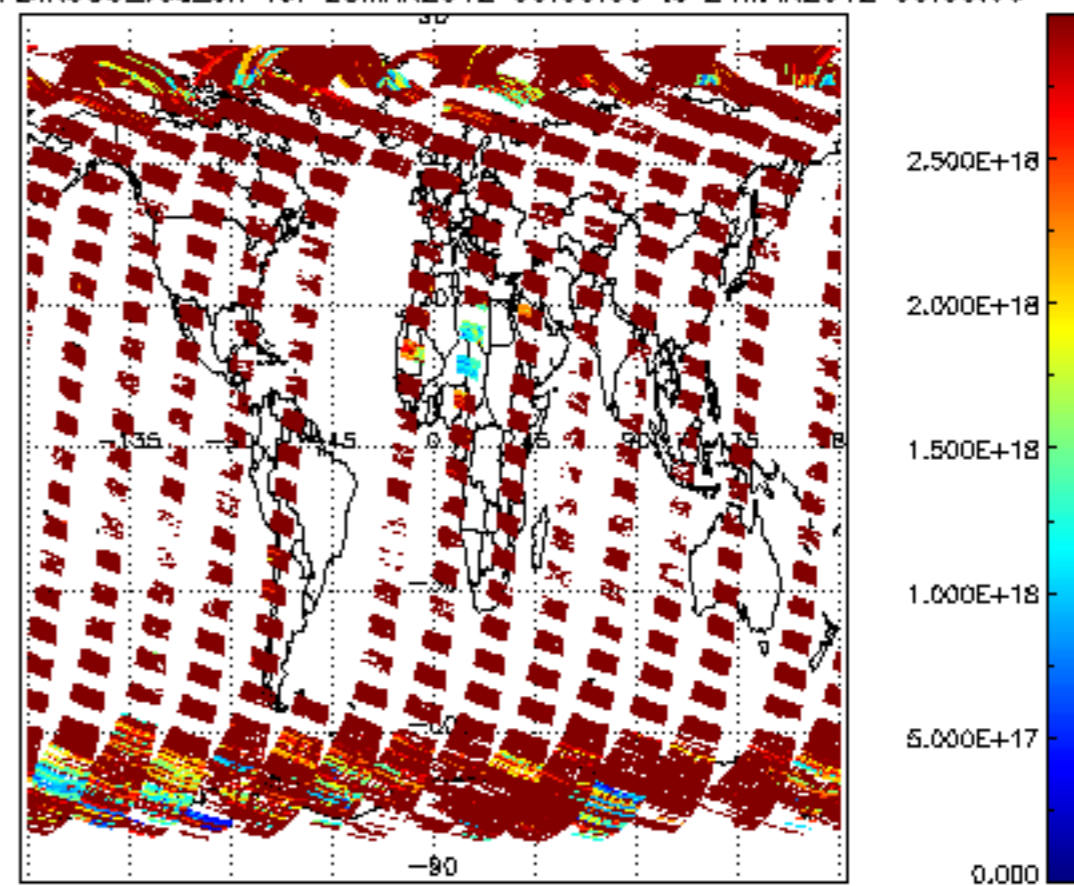




SCIOL2P\_NADIR3CO\_vcd for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

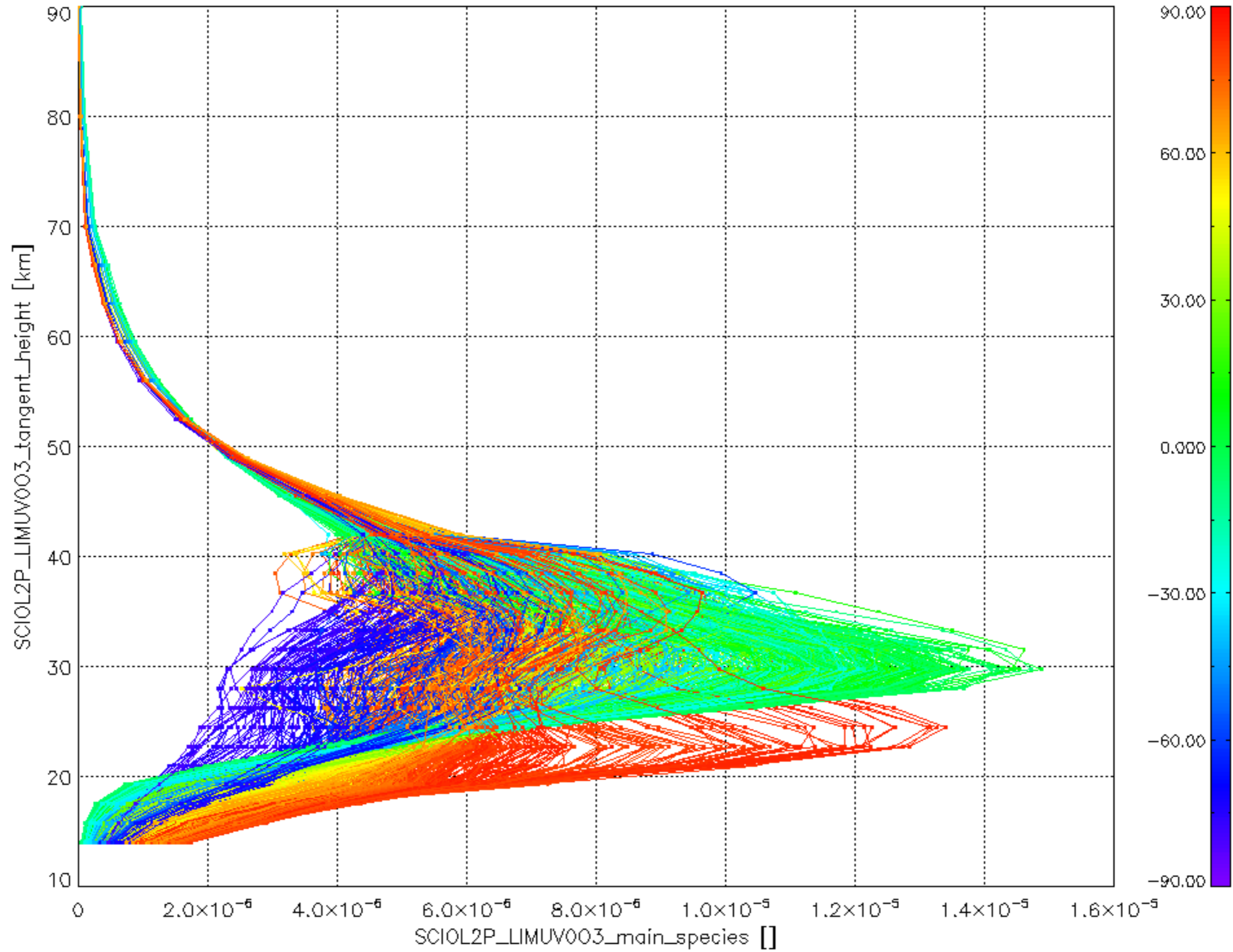


SCIOL2P\_NADIR3CO\_vcd\_err for 23MAR2012 00:00:00 to 24MAR2012 00:00:00

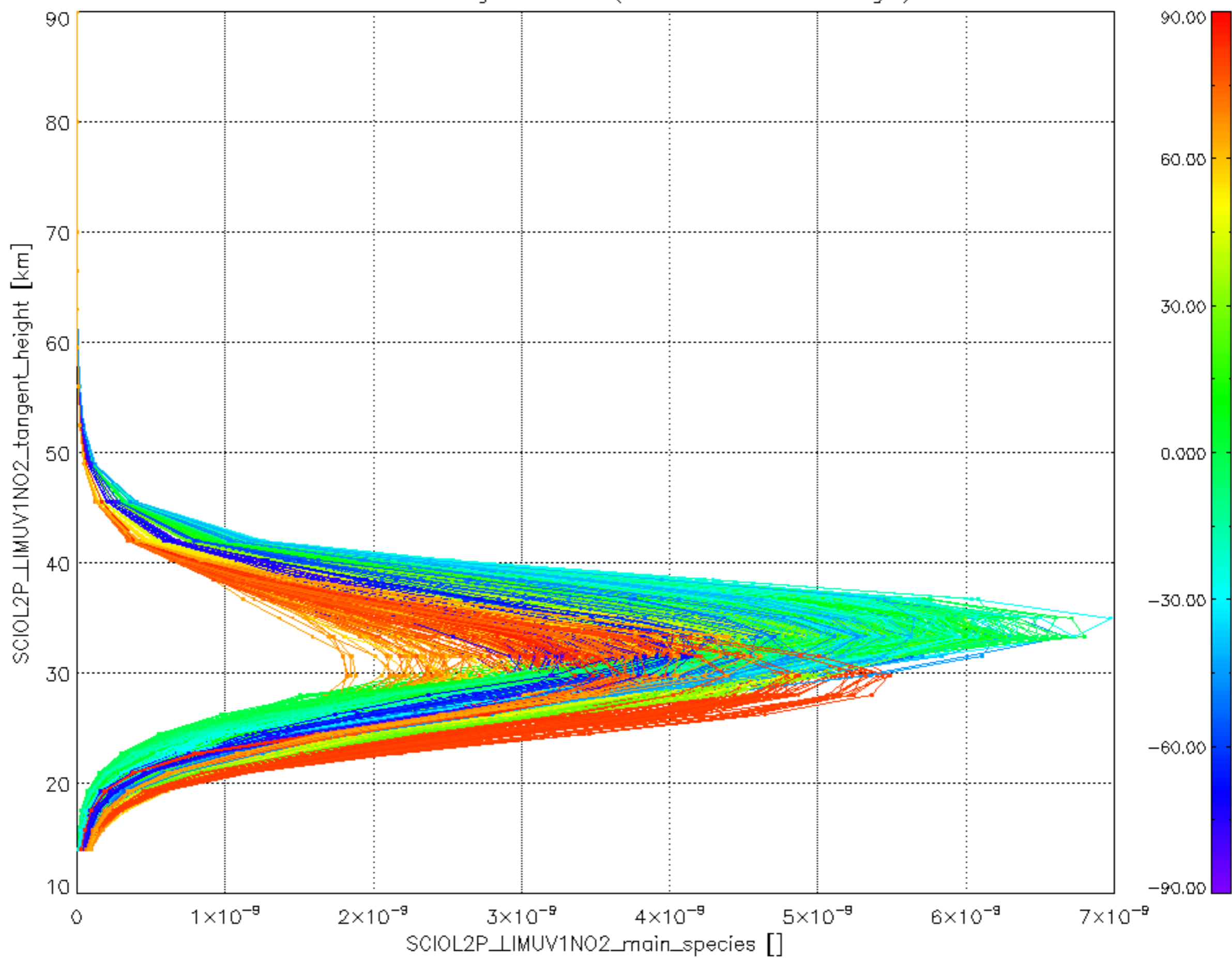




Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



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).

