

## 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	12MAR2012 03:22:02
Data source version	SCIA-OL/5.02-W
Processing scope for products	01MAR2012 00:00:00 to 02MAR2012 00:00:00
Start time of first product within scope	01MAR2012 07:18:00
Stop time of last product within scope	02MAR2012 00:58:51
Total number of level 2 products	11
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__2PWDPA20120301_071800_000035163112_00150_52319_3799.N1</a>	01MAR2012 07:18:00	01MAR2012 08:16:36	0	GOOD
1	<a href="#">SCI_OL__2PWDPA20120301_085813_000035303112_00151_52320_3800.N1</a>	01MAR2012 08:58:13	01MAR2012 09:57:04	0	GOOD
2	<a href="#">SCI_OL__2PWDPA20120301_103827_000035163112_00152_52321_3801.N1</a>	01MAR2012 10:38:27	01MAR2012 11:37:03	0	GOOD
3	<a href="#">SCI_OL__2PWDPA20120301_121840_000035303112_00153_52322_3802.N1</a>	01MAR2012 12:18:40	01MAR2012 13:17:31	0	GOOD
4	<a href="#">SCI_OL__2PWDPA20120301_135853_000035163112_00154_52323_3803.N1</a>	01MAR2012 13:58:53	01MAR2012 14:57:30	0	GOOD

5	SCI_OL__2PWDP20120301_153907_000035303112_00155_52324_3804.N1	01MAR2012 15:39:07	01MAR2012 16:37:57	0	GOOD
6	SCI_OL__2PWDP20120301_172025_000034853112_00156_52325_3806.N1	01MAR2012 17:20:25	01MAR2012 18:18:31	0	GOOD
7	SCI_OL__2PWDP20120301_185953_000035303112_00157_52326_3805.N1	01MAR2012 18:59:53	01MAR2012 19:58:44	0	GOOD
8	SCI_OL__2PWDP20120301_203948_000035163112_00158_52327_3817.N1	01MAR2012 20:39:48	01MAR2012 21:38:24	0	GOOD
9	SCI_OL__2PWDP20120301_222001_000035303112_00159_52328_3815.N1	01MAR2012 22:20:01	01MAR2012 23:18:51	0	GOOD
10	SCI_OL__2PWDP20120302_000014_000035163112_00160_52329_3814.N1	02MAR2012 00:00:14	02MAR2012 00:58:51	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: 102440

Total number of cloud data DSRs with good quality flag (=0): 102440 (100.0 %)

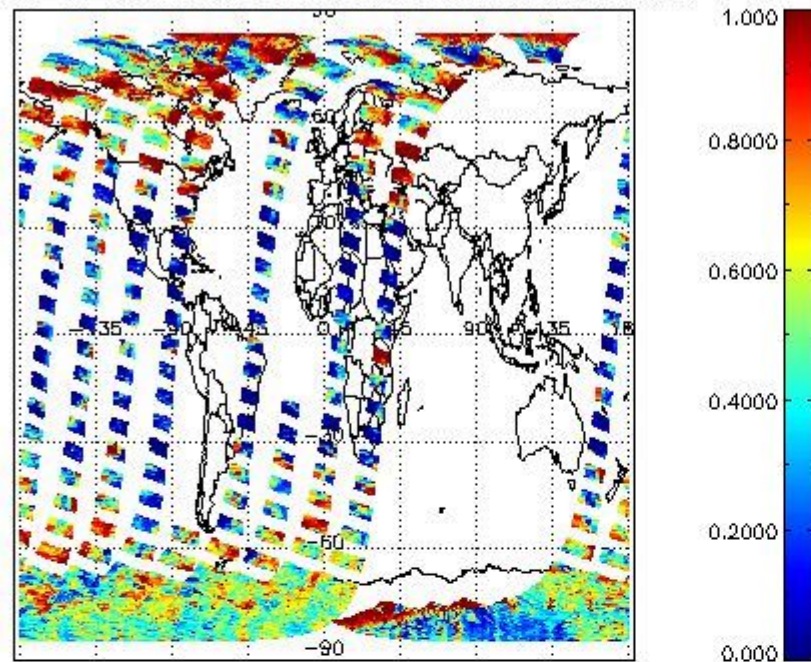
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	102440	0.0000	0.0000	0.0000	0.0000	0.0000	
INTEGR_TIME	102440	0.16371	0.12500	0.12500	0.25000	0.057794	s
CL_FRAC	102440	0.47930	0.47122	0.0000	1.0000	0.31875	
CL_FRAC_ERR	102440	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	102440	5.2386	4.0000	4.0000	8.0000	1.8494	
PMD_READ_CL[0]	102440	0.61795	0.0000	0.0000	8.0000	1.4447	-
PMD_READ_CL[1]	102440	1.0263	0.0000	0.0000	8.0000	2.3288	-
CL_TOP_HEIGHT	82738	3.6399	2.2780	0.0000	17.000	3.7711	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	82738	60.214	61.689	0.0000	101.00	39.990	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	102440	11100000	11100000	11100000	11100000	0.0000	
CLOUD_FLAGS	102440	11001011	11000100	11000000	11100000	3362.8	
AERO_ABSO_IND	102440	0.075274	0.0000	0.0000	8.7761	0.27509	
AERO_IND_DIAG	102440	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	102440	01010010	00000000	00000000	11000000	24333.	

#### Time and geolocation plots:

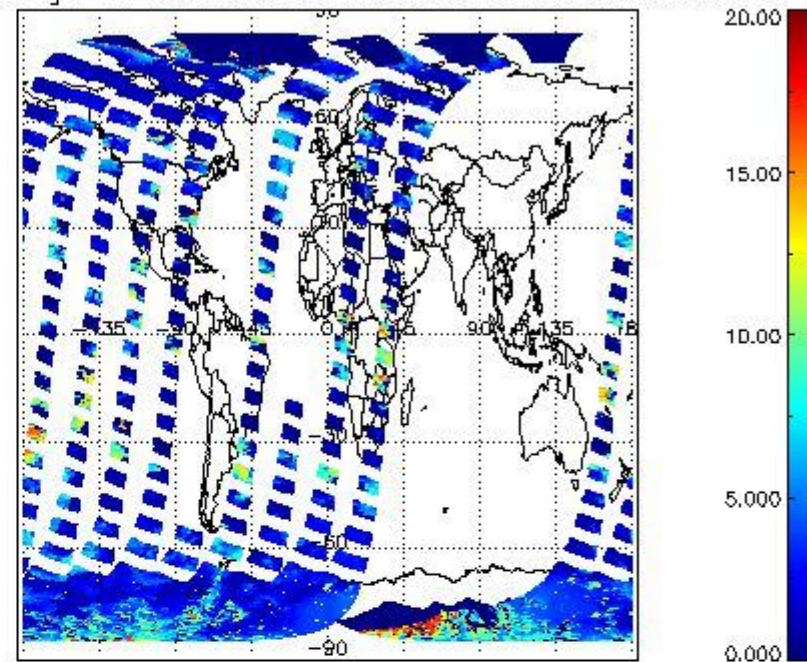
Plots are available for the following parameters:

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

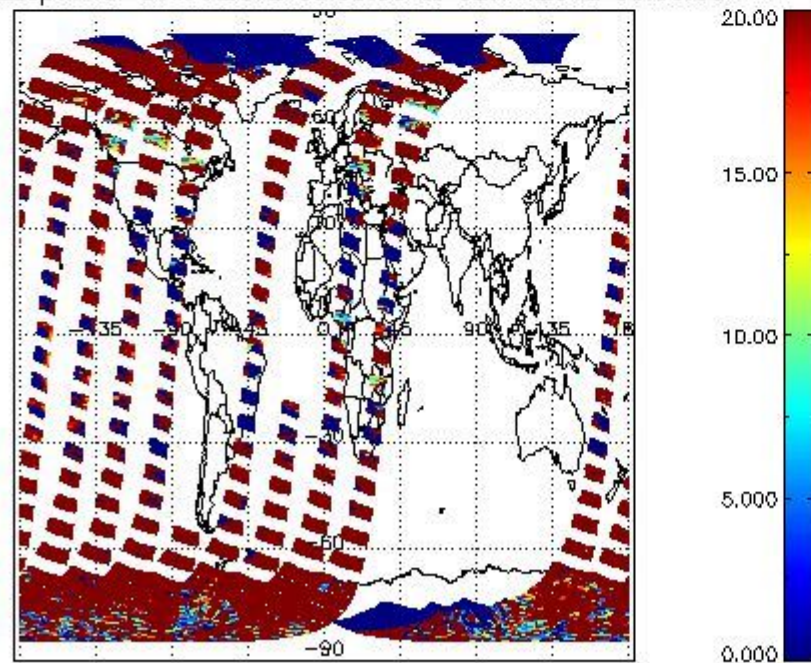
cL\_frac for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



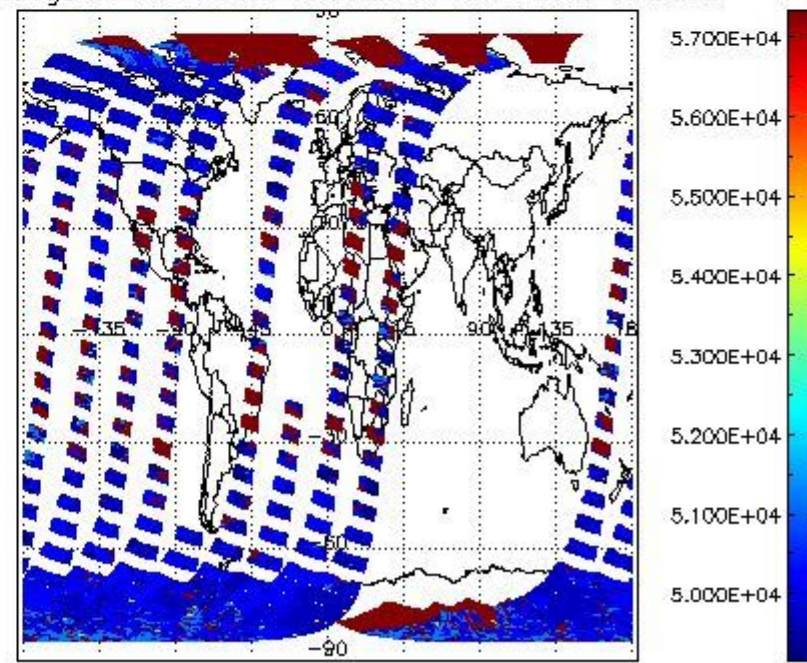
cL\_top\_height for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



cL\_opt\_depth for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



cloud\_flags for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



## 2.2.2 Nadir

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

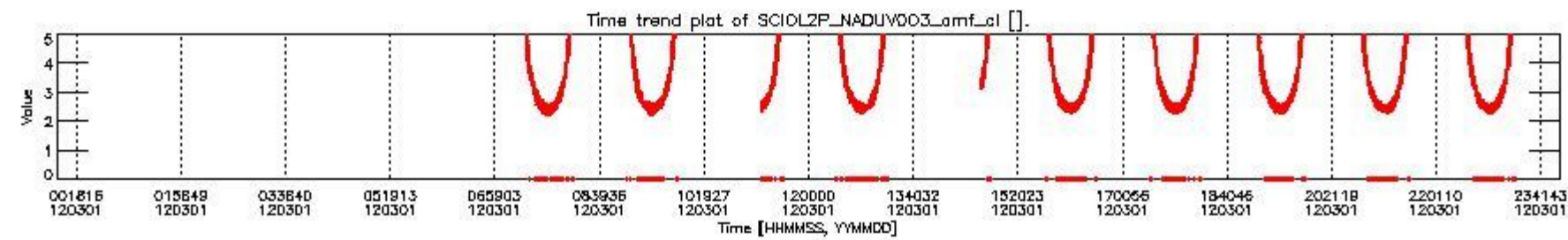
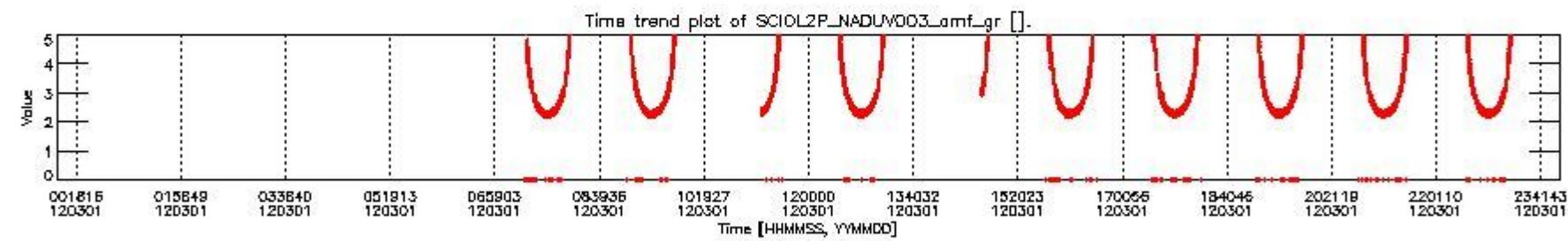
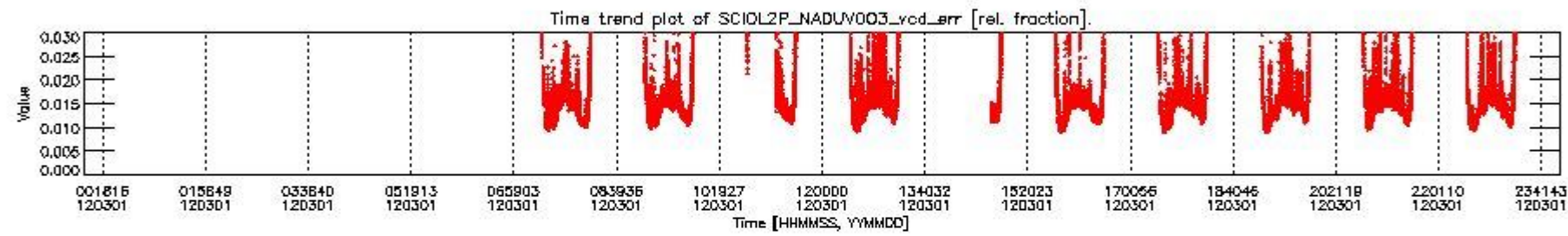
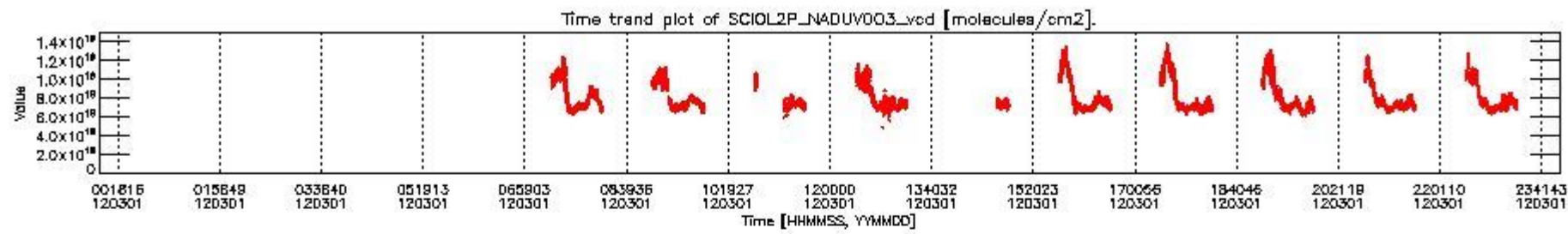
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

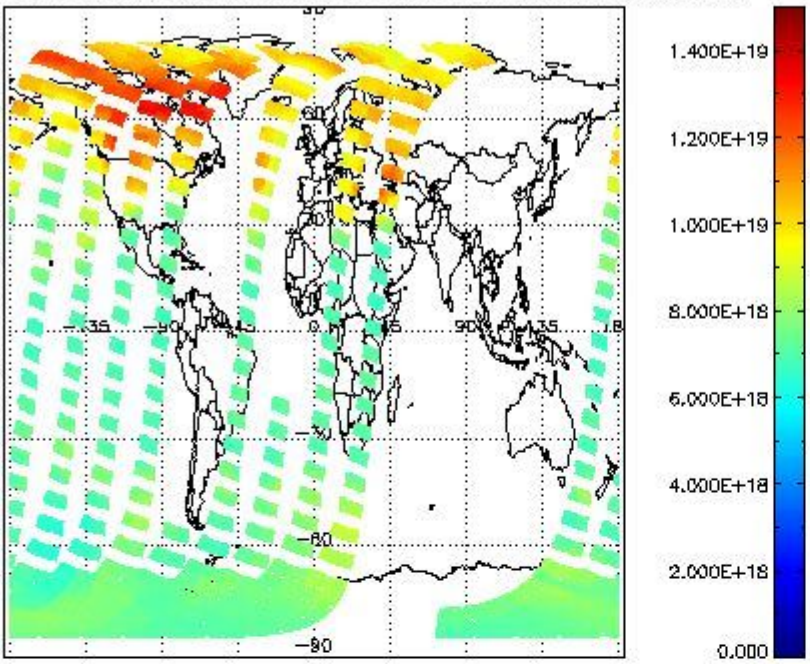
3	SCIOL2P_NADUV0O3_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl
8	SCIOL2P_NADUV3BRO_vcd
9	SCIOL2P_NADUV3BRO_vcd_err
10	SCIOL2P_NADUV3BRO_amf_gr
11	SCIOL2P_NADUV3BRO_amf_cl
12	SCIOL2P_NADUV5SO2_vcd
13	SCIOL2P_NADUV5SO2_vcd_err
14	SCIOL2P_NADUV5SO2_amf_gr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

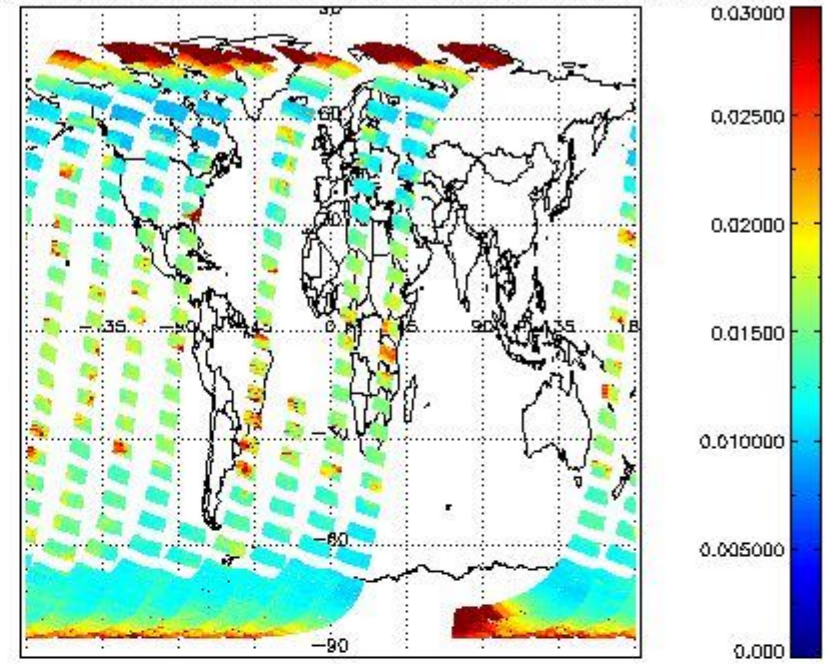
#### [2.2.2.1 O3 \(UV0\)](#)



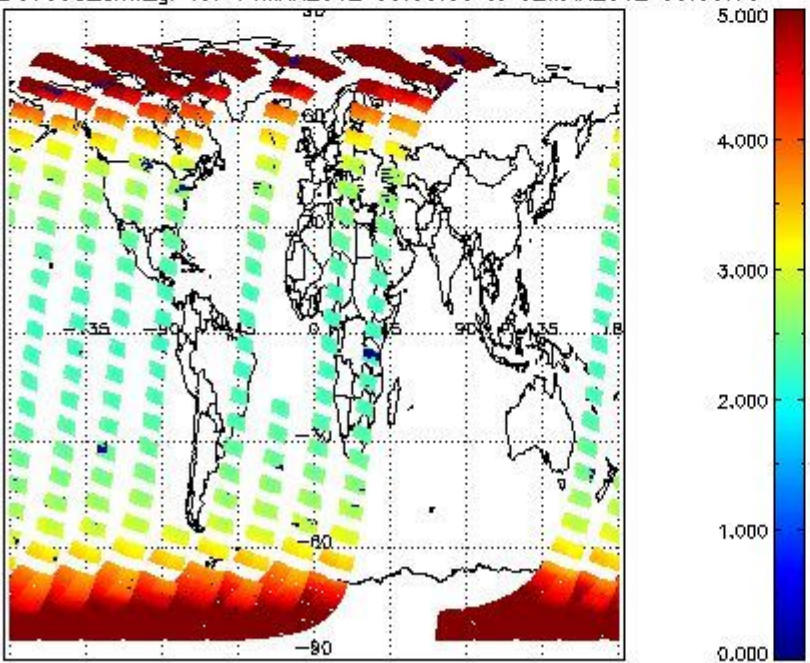
SCIOL2P\_NADUV003\_vcd for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



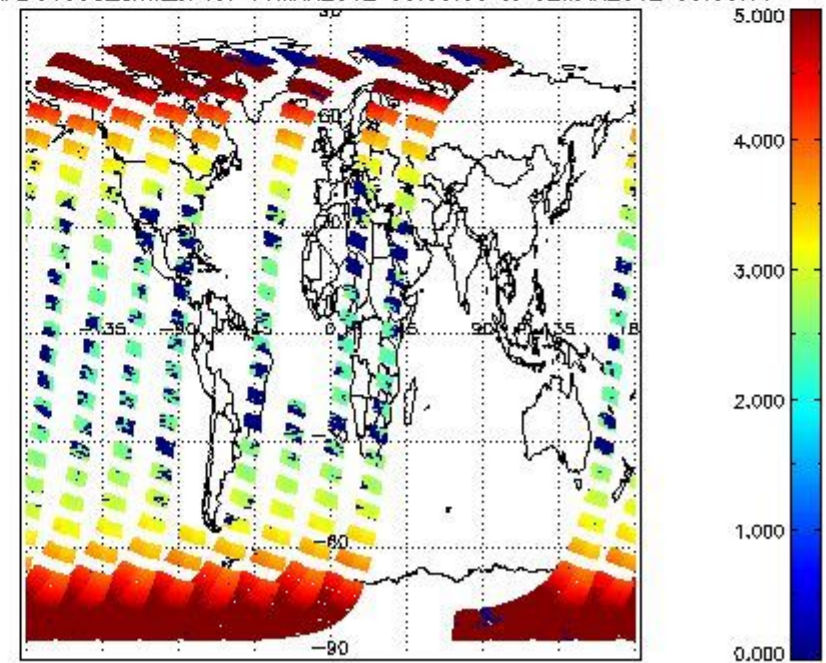
SCIOL2P\_NADUV003\_vcd\_err for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



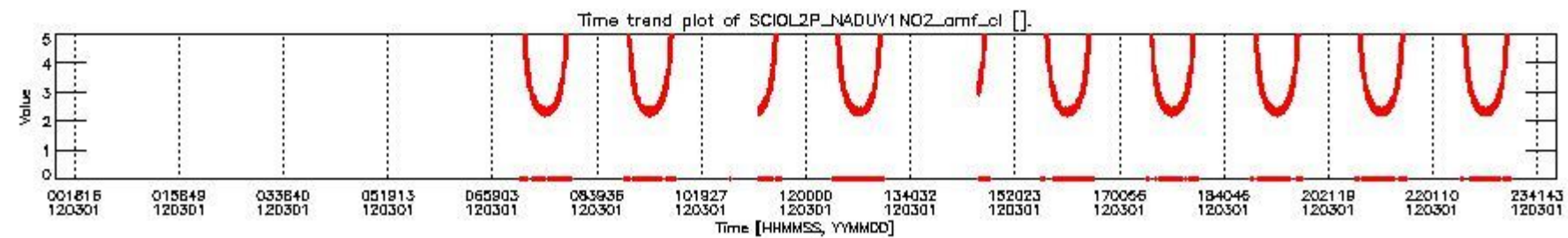
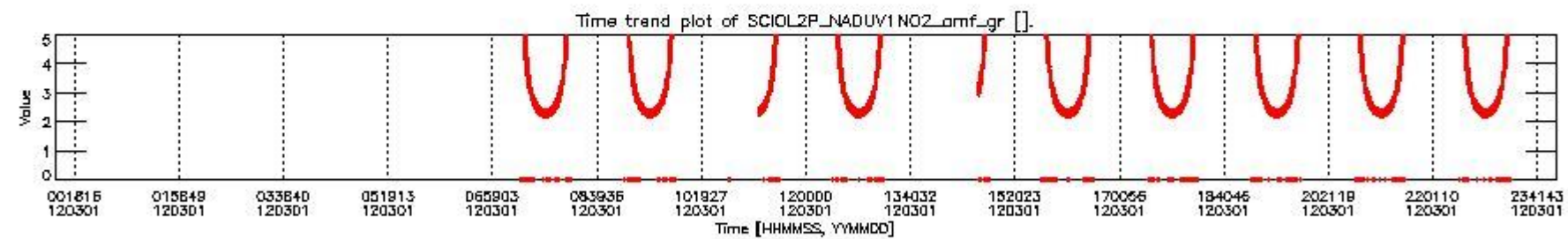
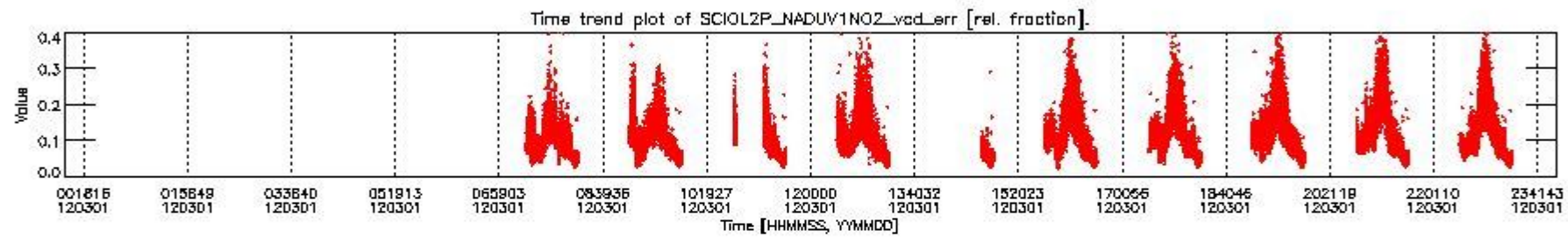
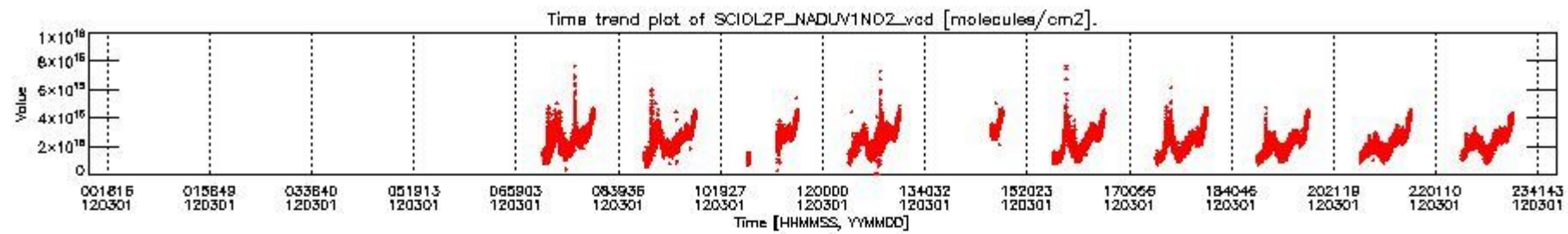
SCIOL2P\_NADUV003\_amf\_gr for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



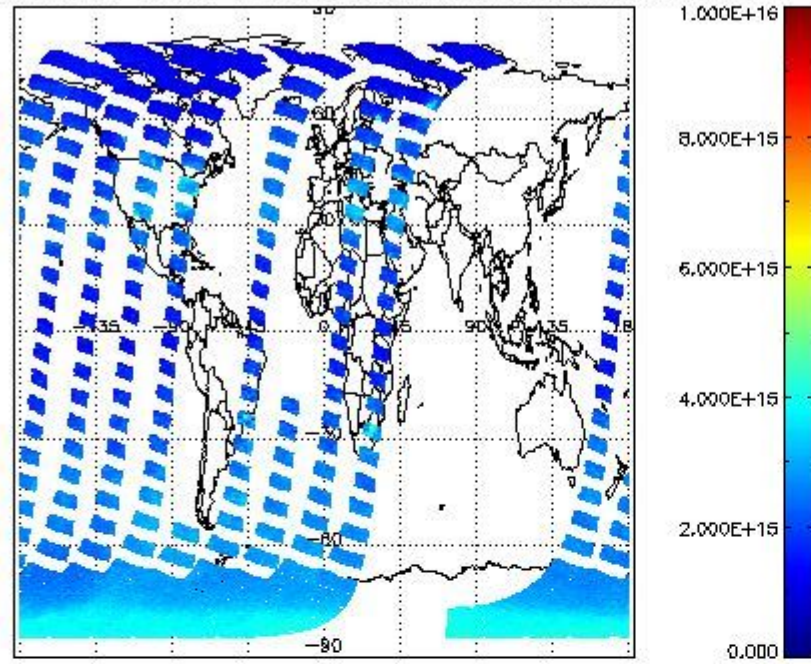
SCIOL2P\_NADUV003\_amf\_cl for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



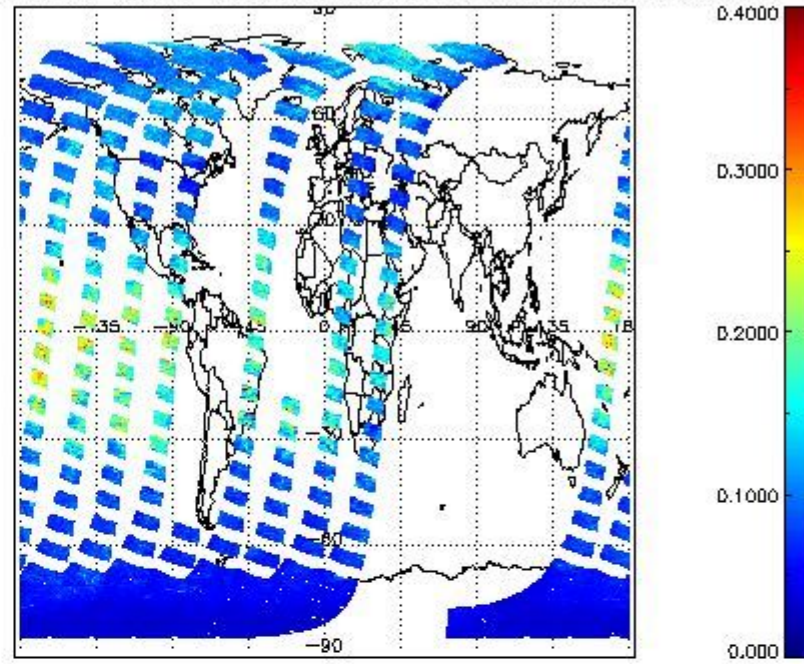
2.2.2.2 NO2 (UV1)



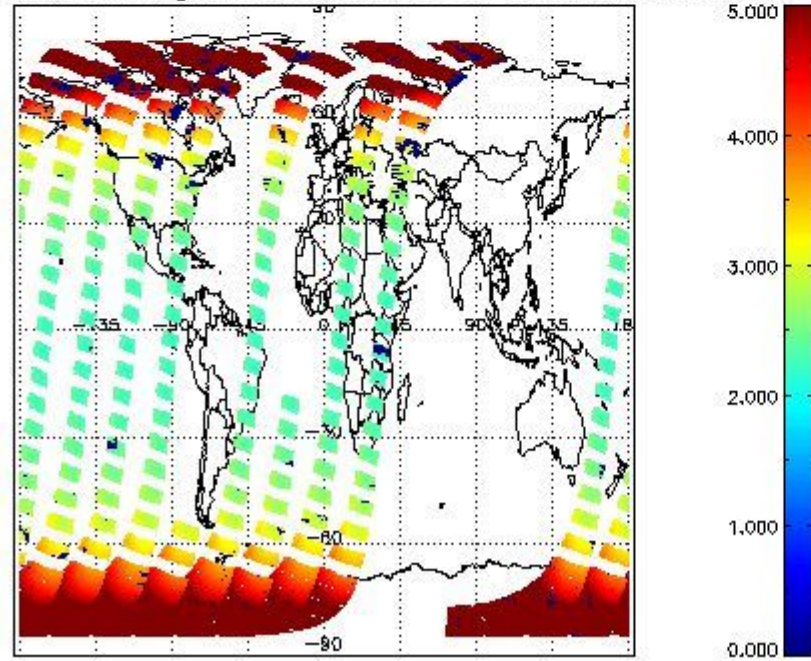
SCIOL2P\_NADUV1NO2\_vcd for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



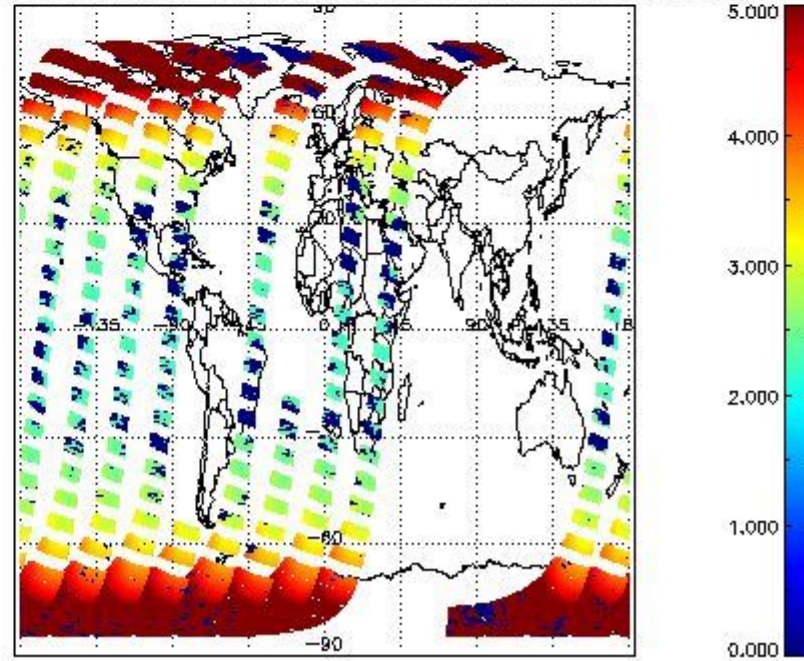
SCIOL2P\_NADUV1NO2\_vcd\_err for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

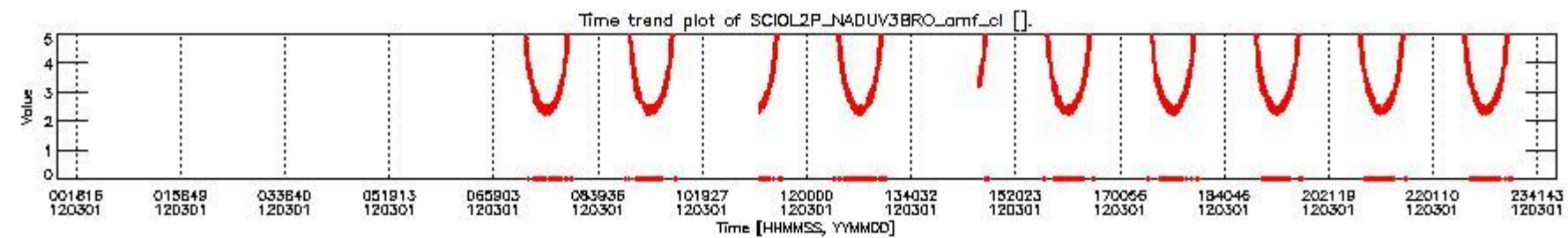
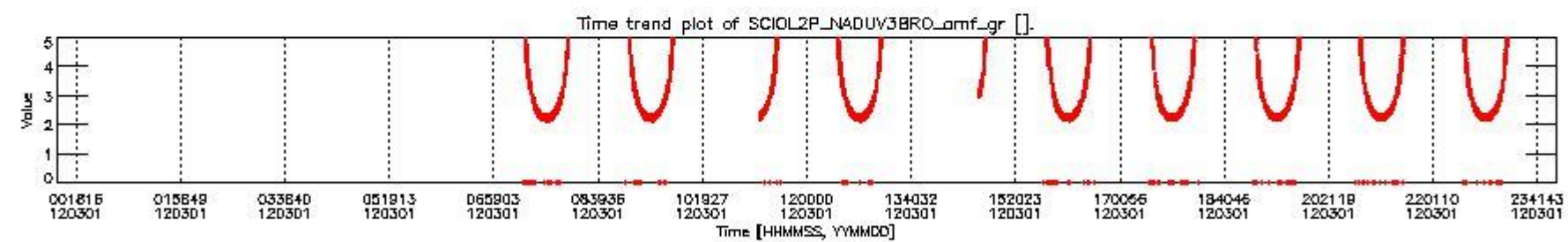
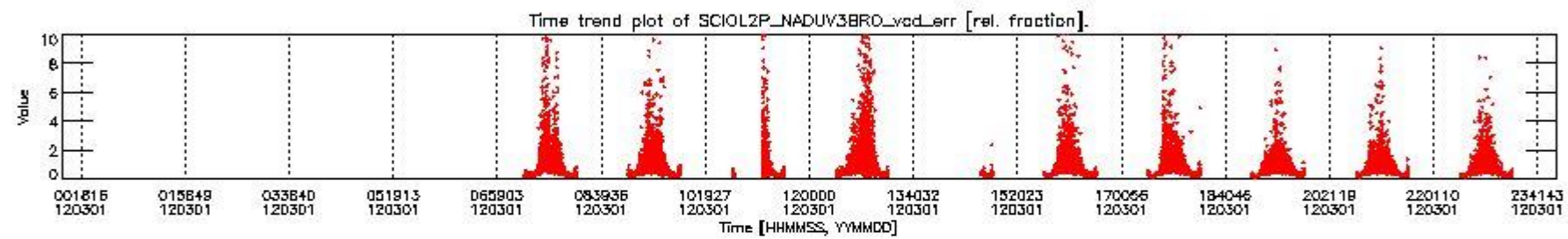
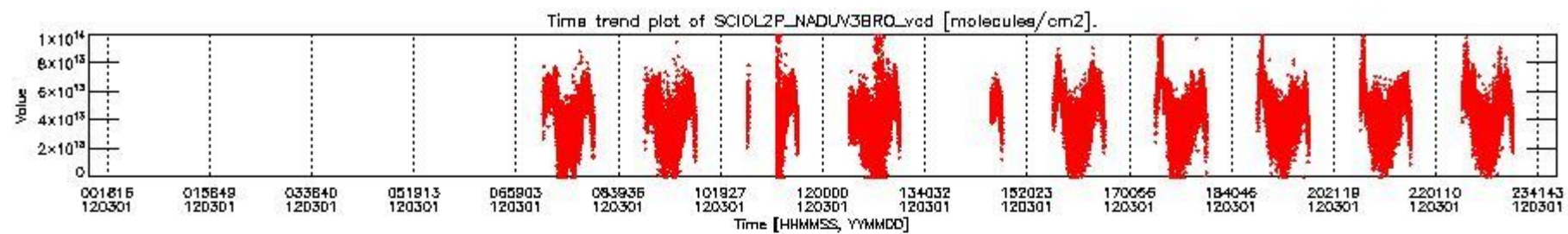


SCIOL2P\_NADUV1NO2\_amf\_cl for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

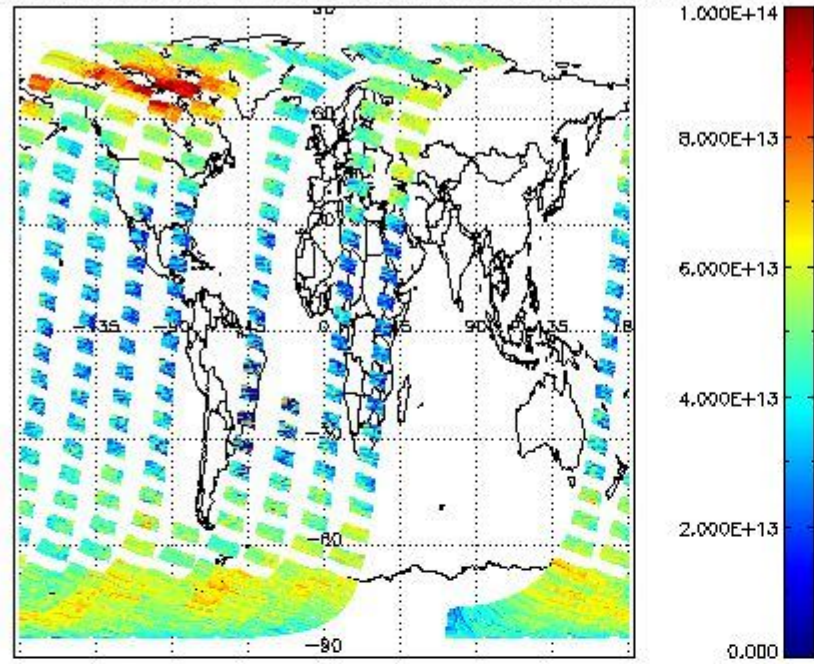


2.2.2.3 BrO (UV3)

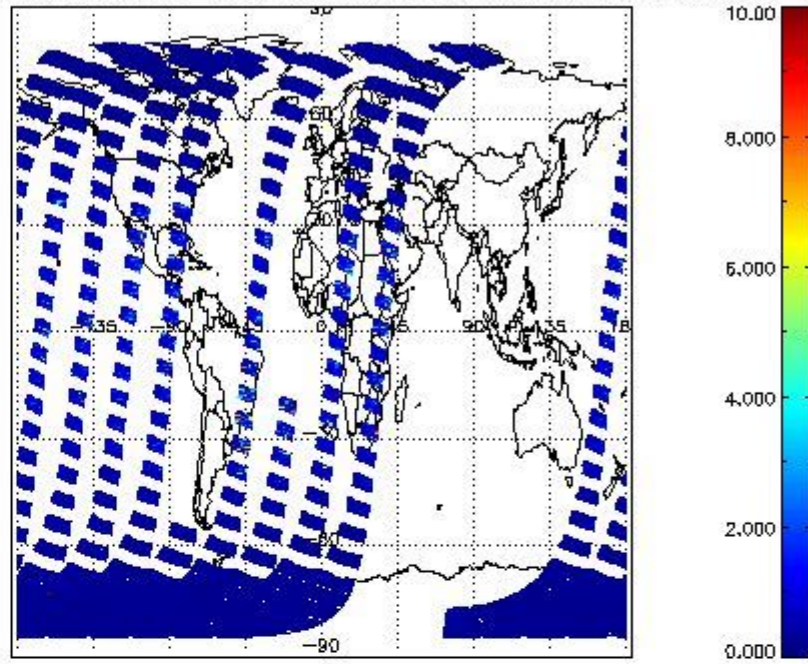




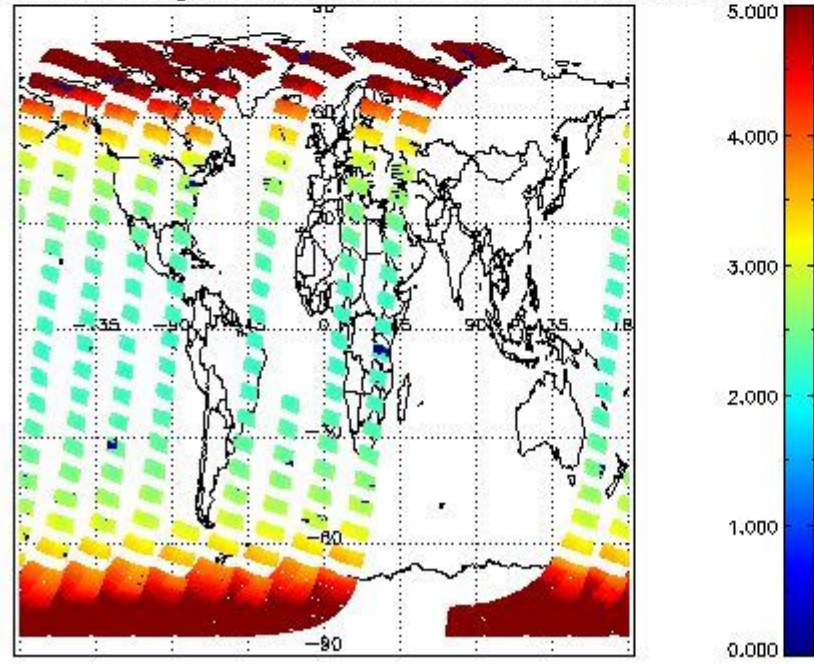
SCIOL2P\_NADUV3BRO\_vcd for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



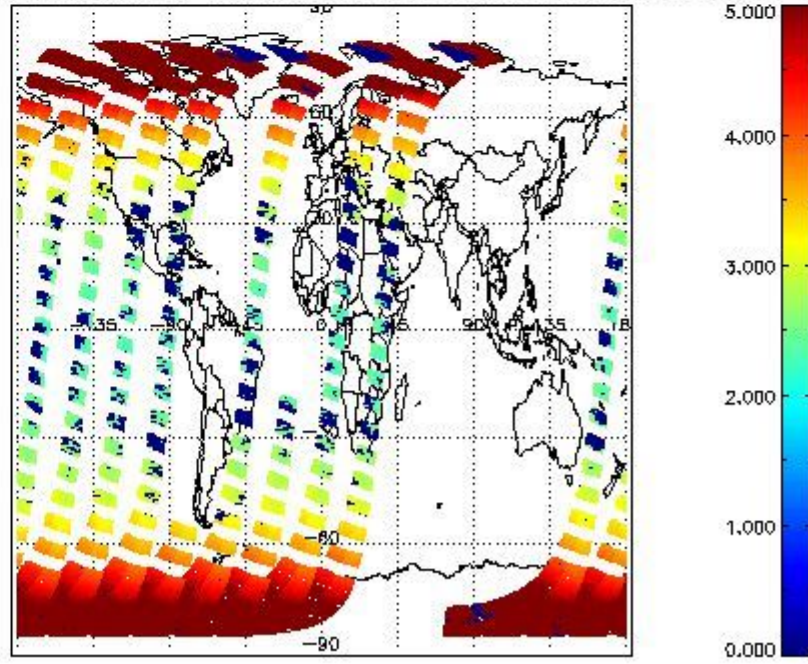
SCIOL2P\_NADUV3BRO\_vcd\_err for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



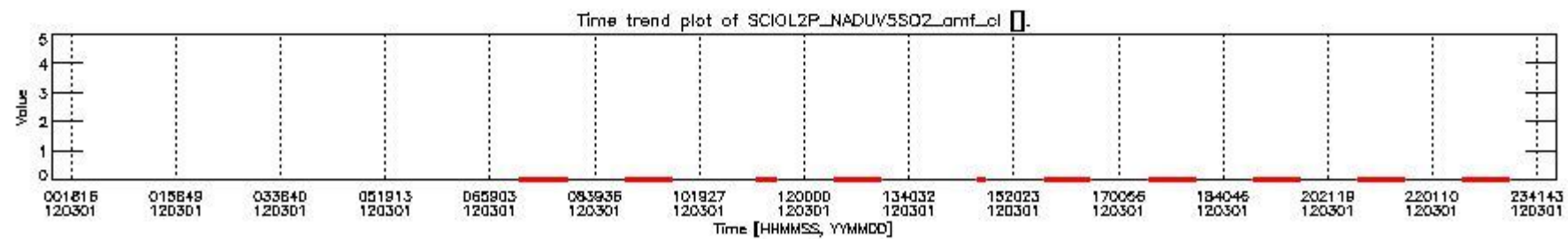
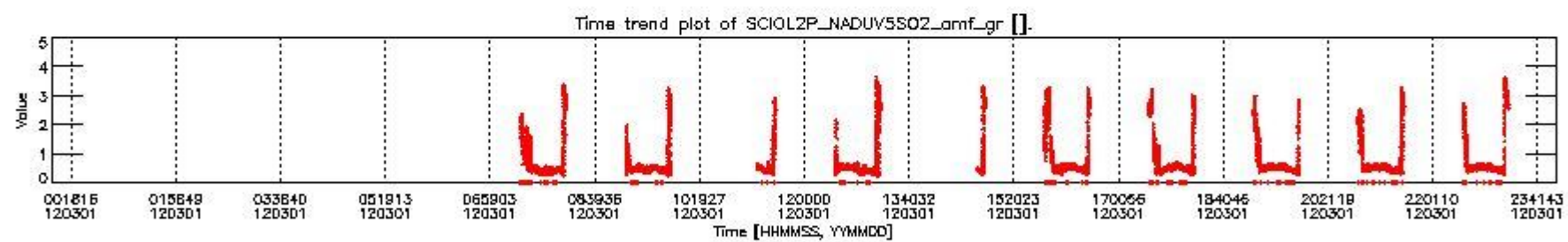
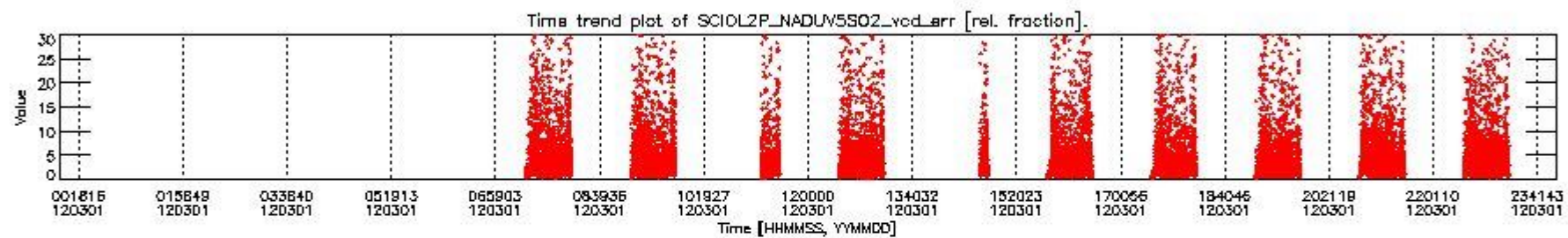
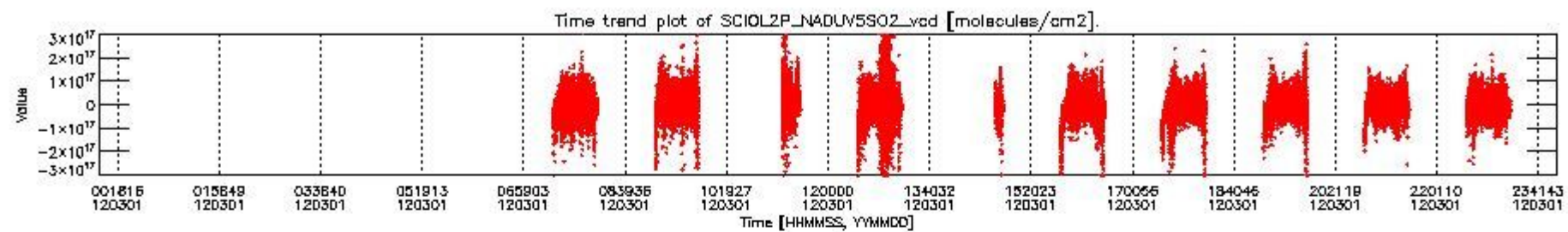
SCIOL2P\_NADUV3BRO\_amf\_gr for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



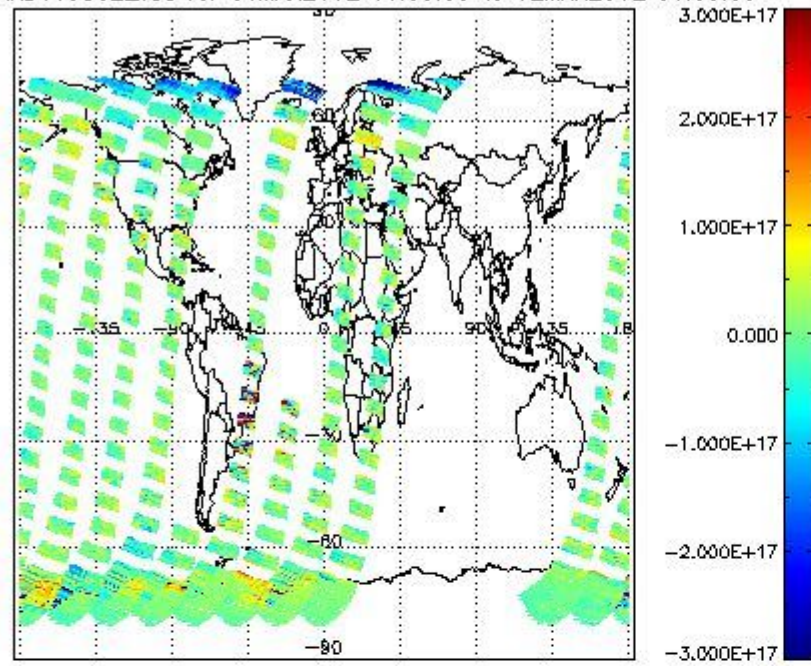
SCIOL2P\_NADUV3BRO\_amf\_cl for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



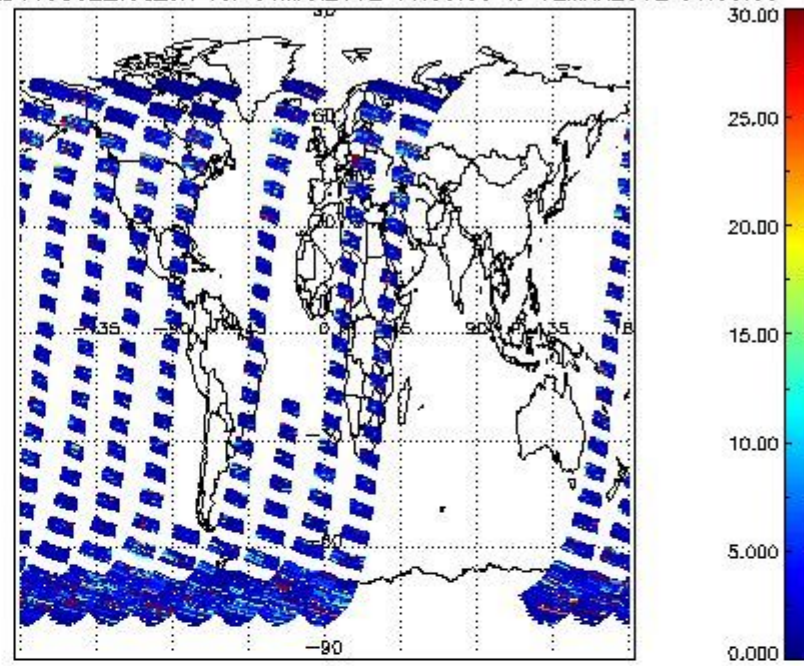
2.2.2.4 SO2 (UV5)



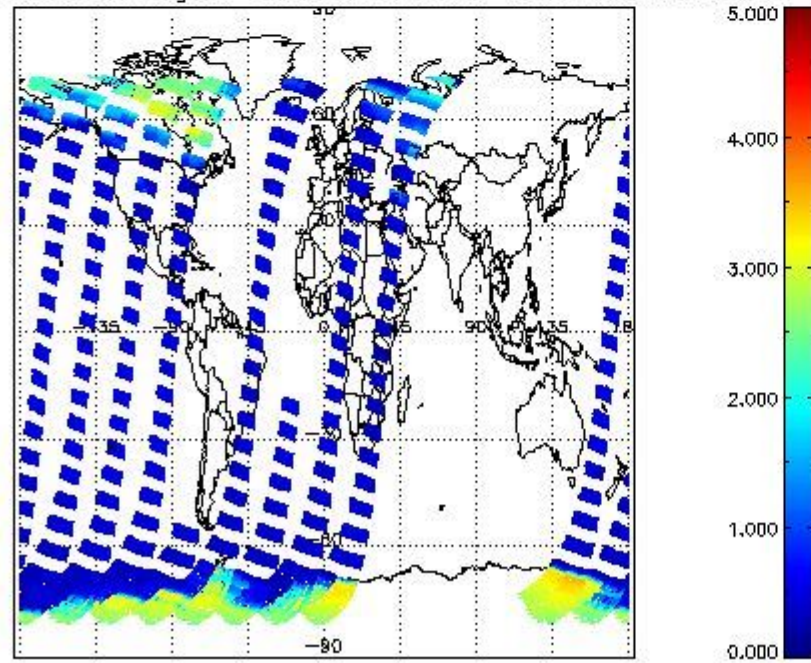
SCIOL2P\_NADUV5SO2\_vcd for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



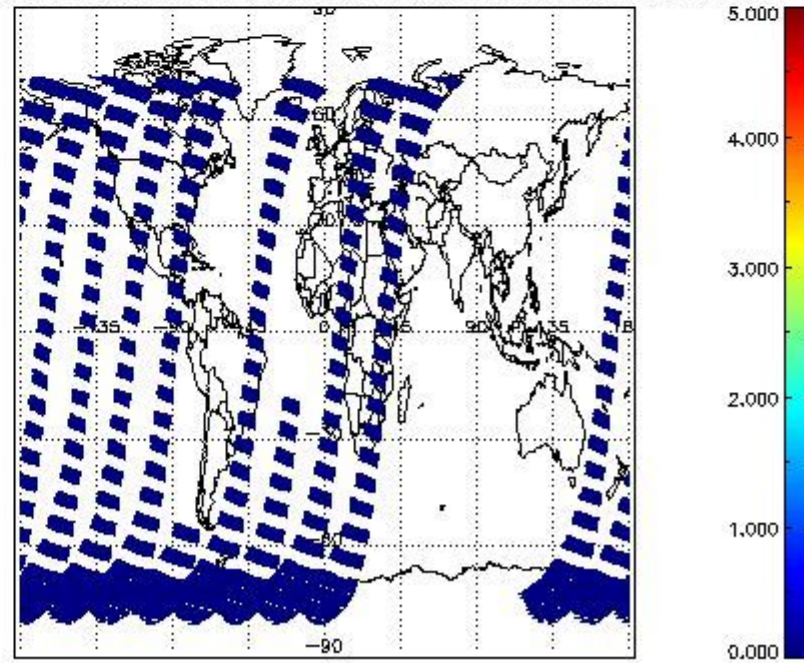
SCIOL2P\_NADUV5SO2\_vcd\_err for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



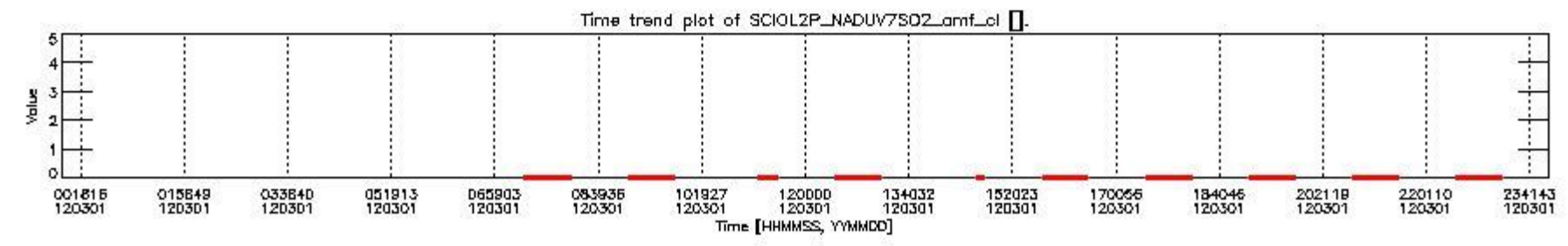
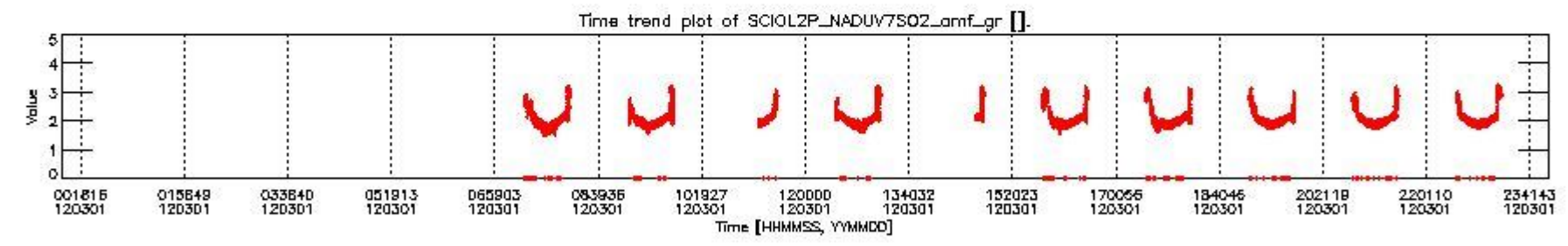
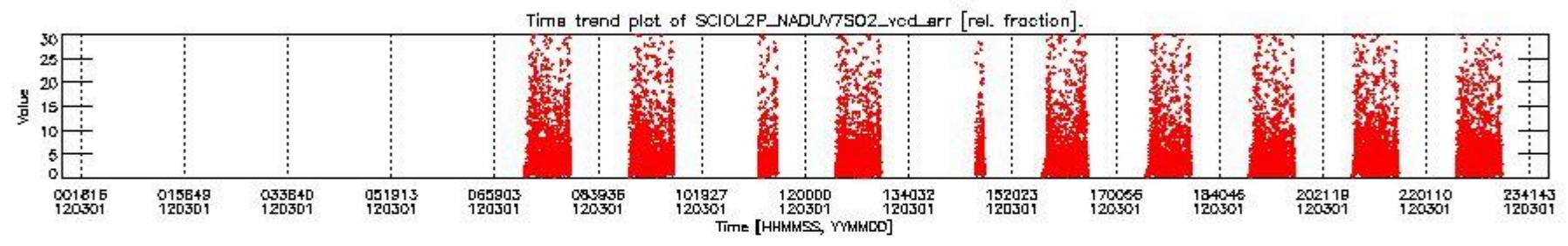
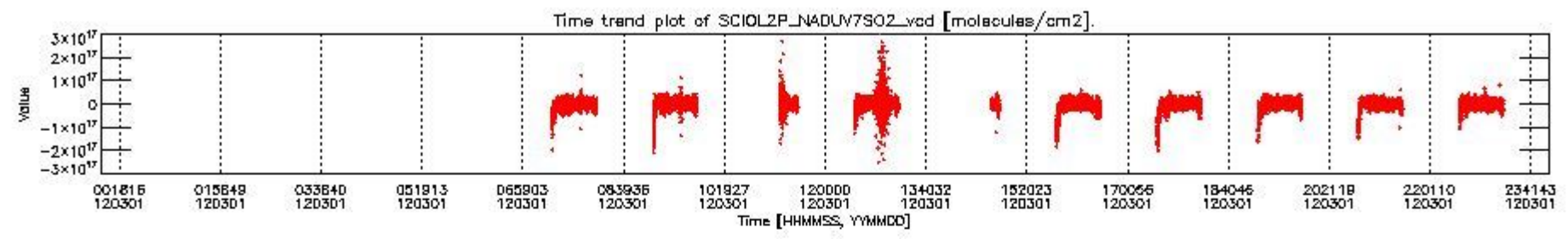
SCIOL2P\_NADUV5SO2\_amf\_gr for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



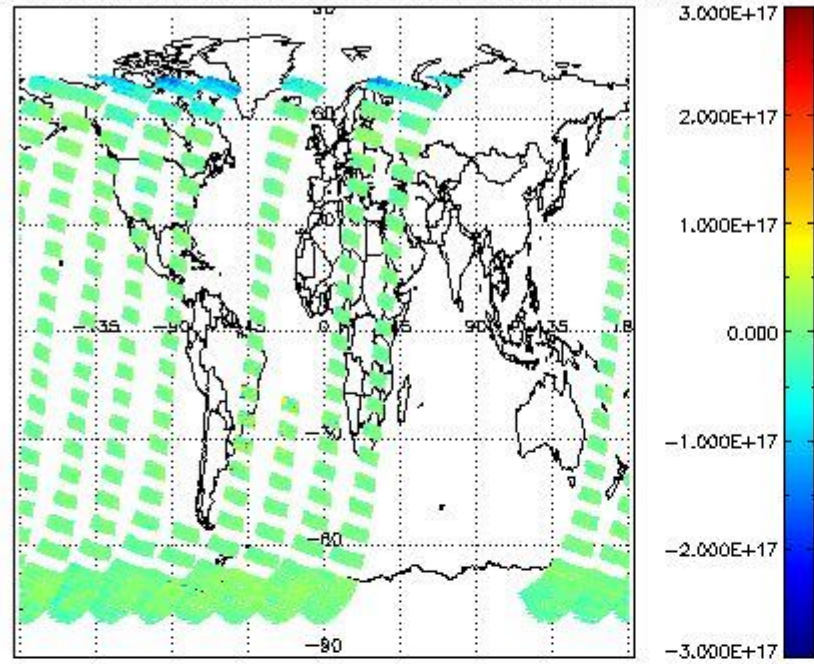
SCIOL2P\_NADUV5SO2\_amf\_cl for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



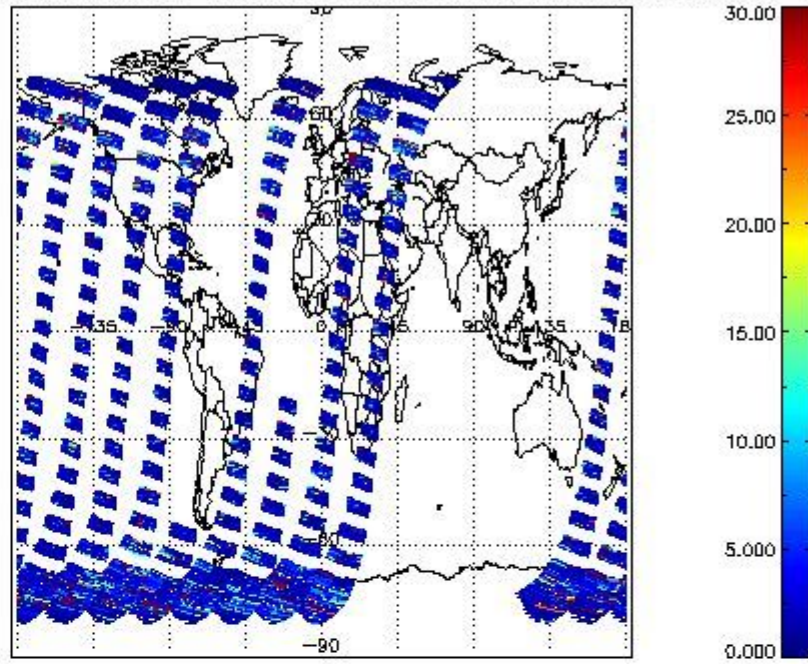
## 2.2.2.5 SO2 (UV7)



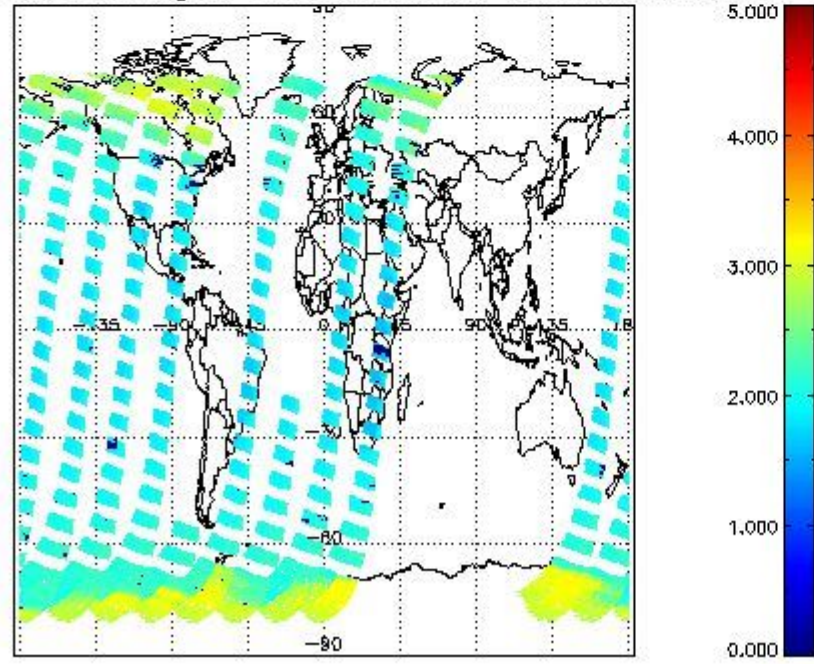
SCIOL2P\_NADUV7S02\_vcd for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



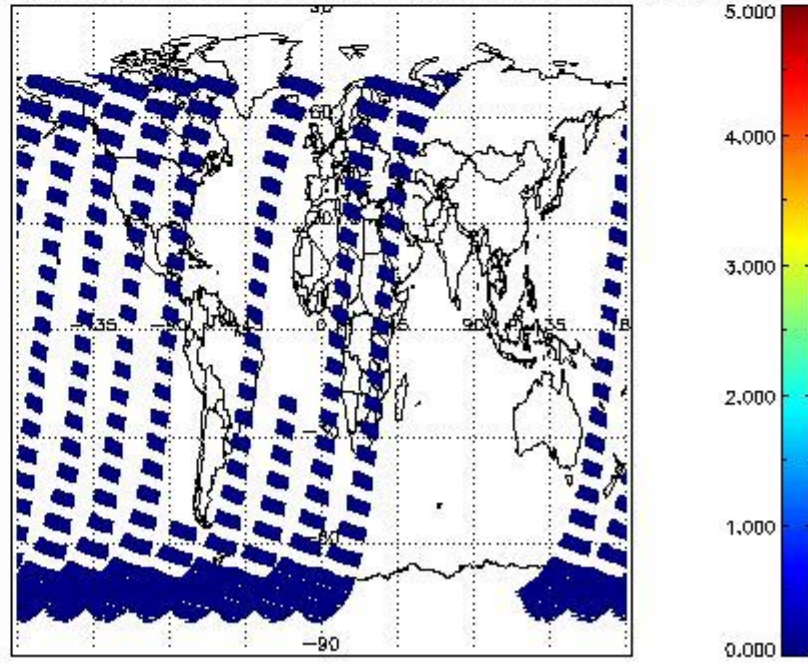
SCIOL2P\_NADUV7S02\_vcd\_err for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



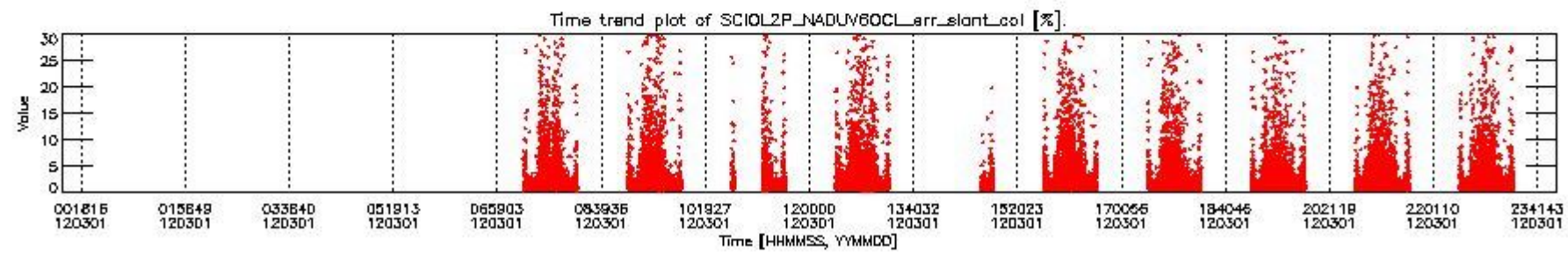
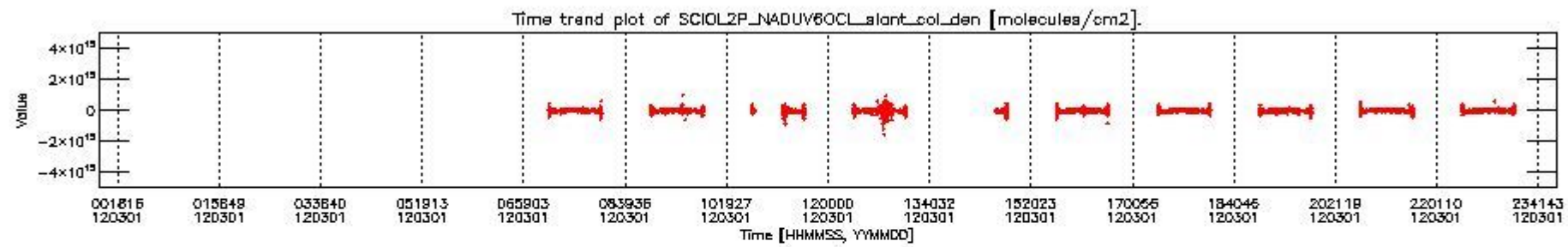
SCIOL2P\_NADUV7S02\_amf\_gr for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



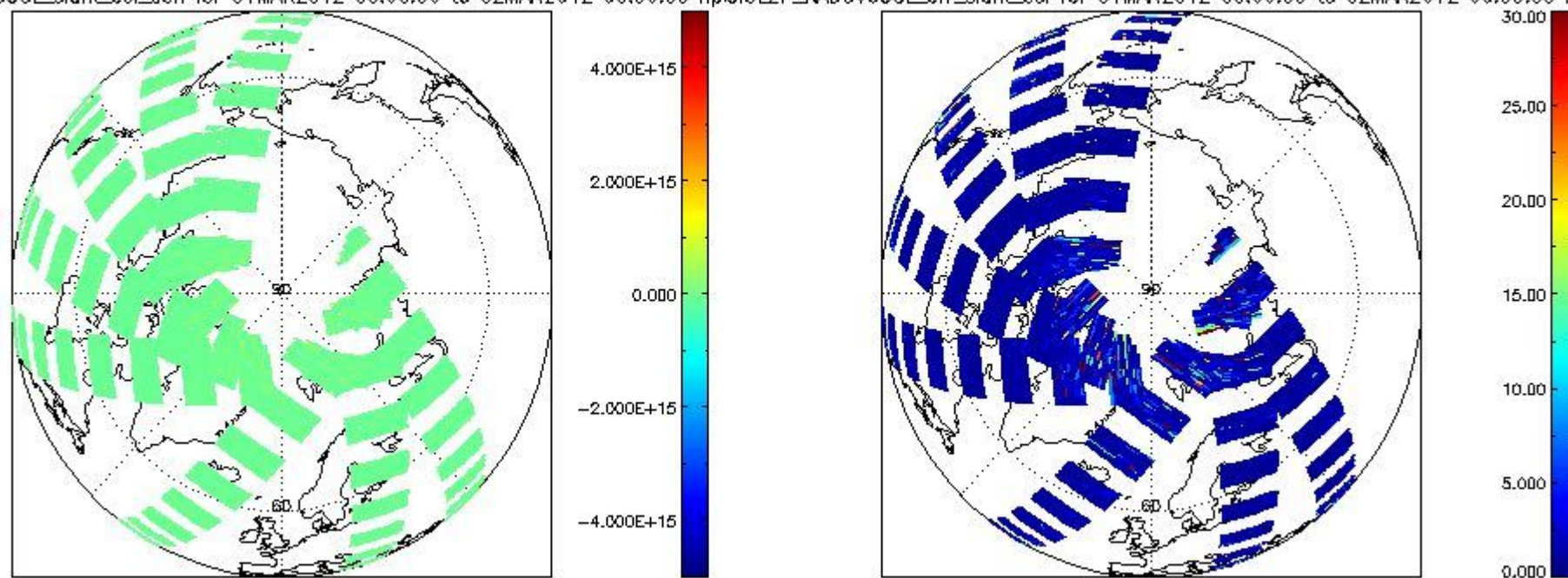
SCIOL2P\_NADUV7S02\_amf\_cl for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



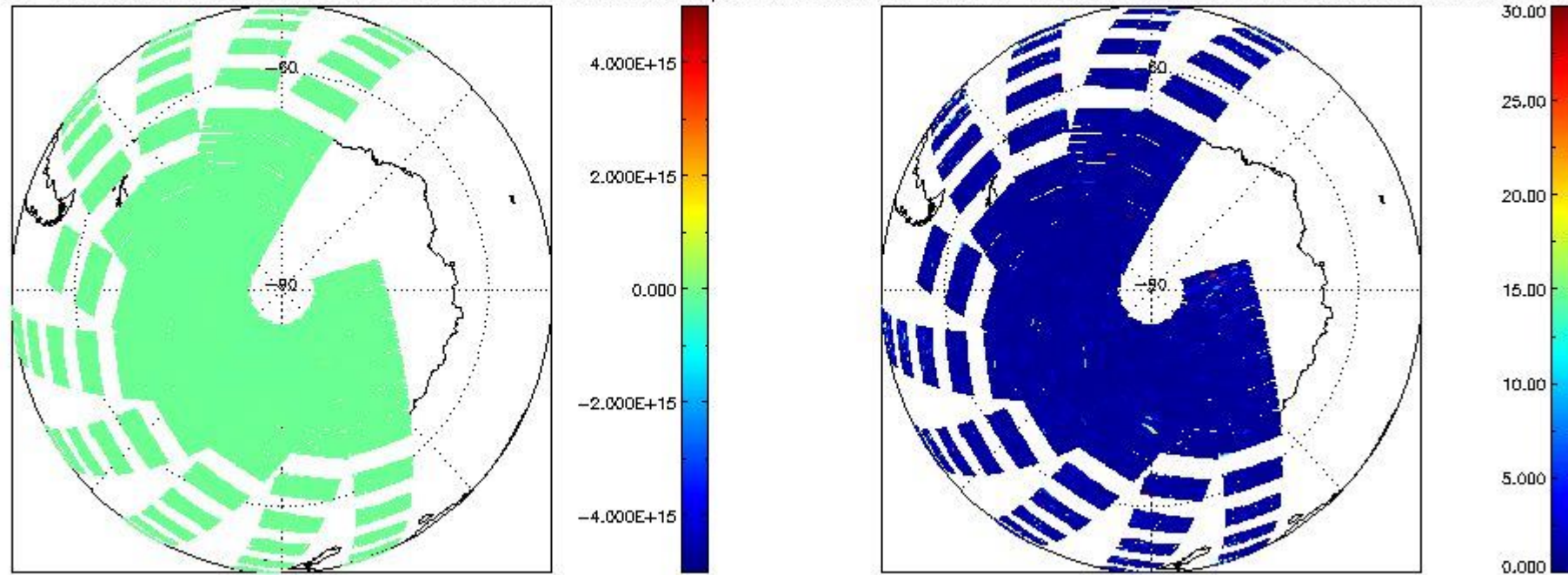
## 2.2.2.6 OCIO (UV6)



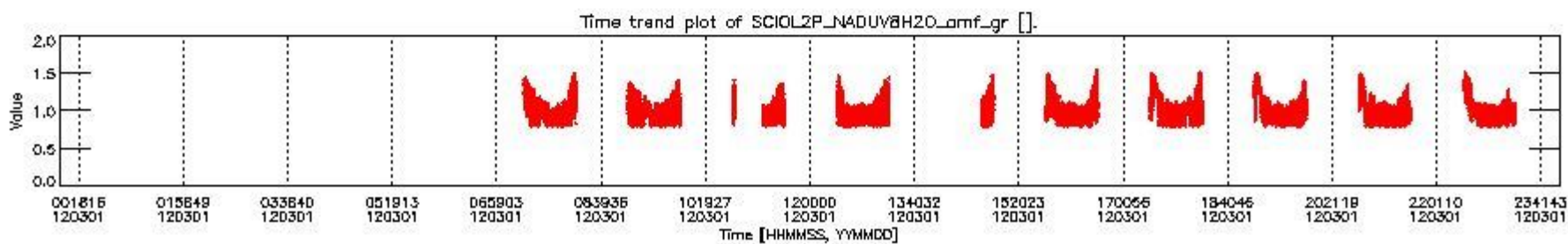
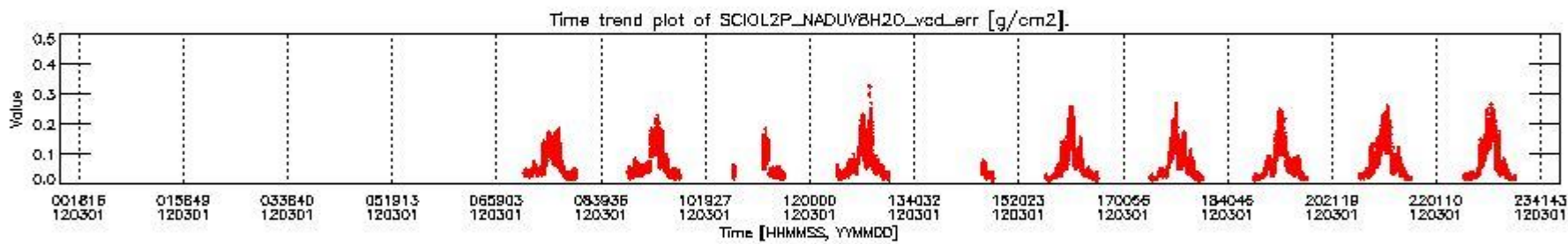
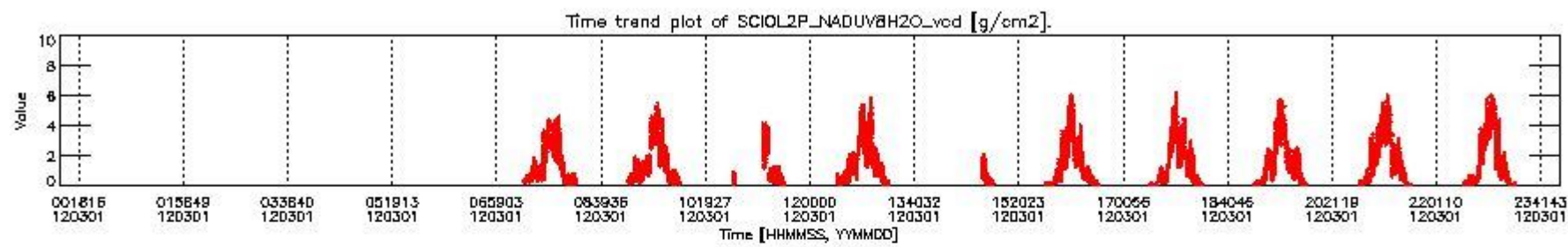
CIOL2P\_NADUV6OCLslant\_col\_den for 01MAR2012 00:00:00 to 02MAR2012 00:00:00 npCIOL2P\_NADUV6OCLerr\_slant\_col for 01MAR2012 00:00:00 to 02MAR2012 00:00:00 np



CIOL2P\_NADUV6OCL\_slant\_coLden for 01MAR2012 00:00:00 to 02MAR2012 00:00:00 sp:CIOL2P\_NADUV6OCL\_err\_slant\_col for 01MAR2012 00:00:00 to 02MAR2012 00:00:00 sp

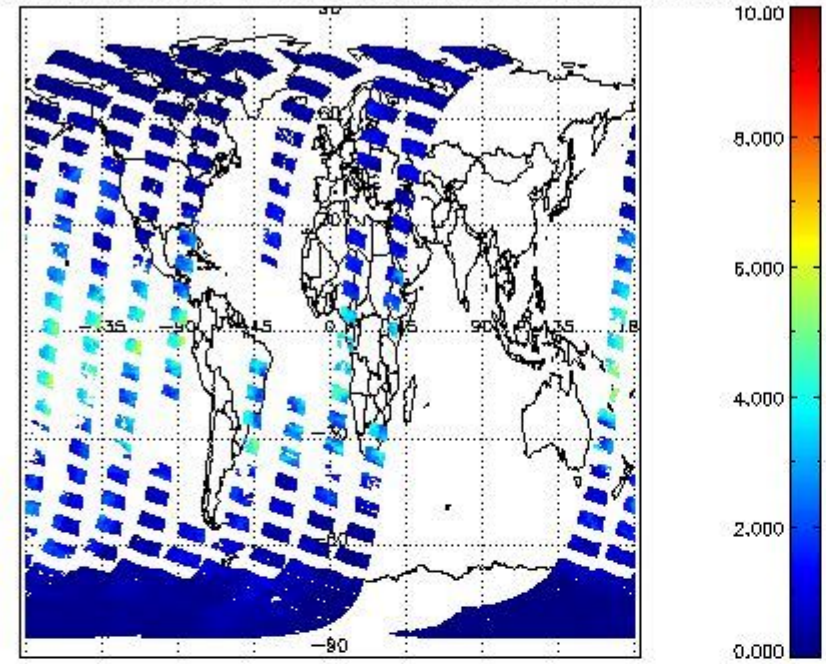


### 2.2.2.7 H<sub>2</sub>O (UV8)

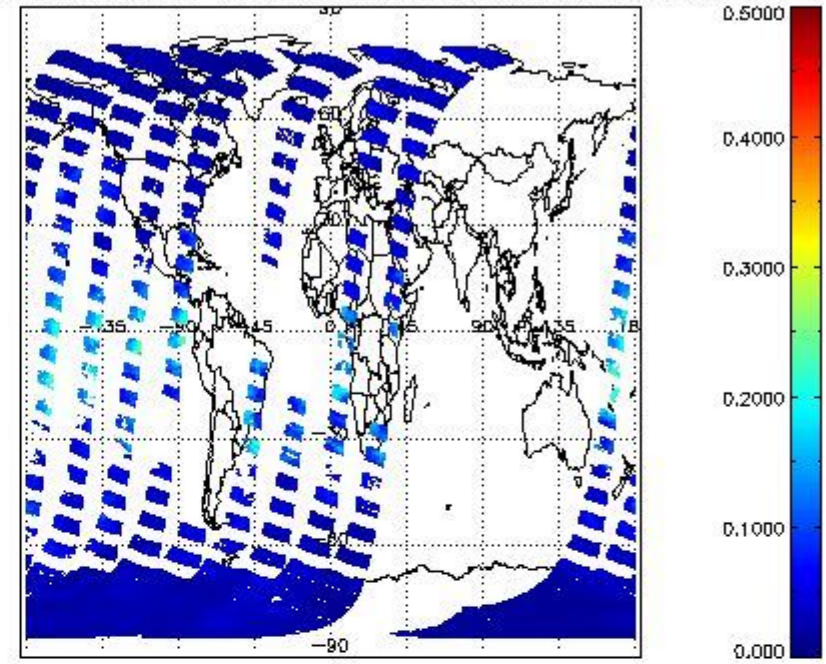




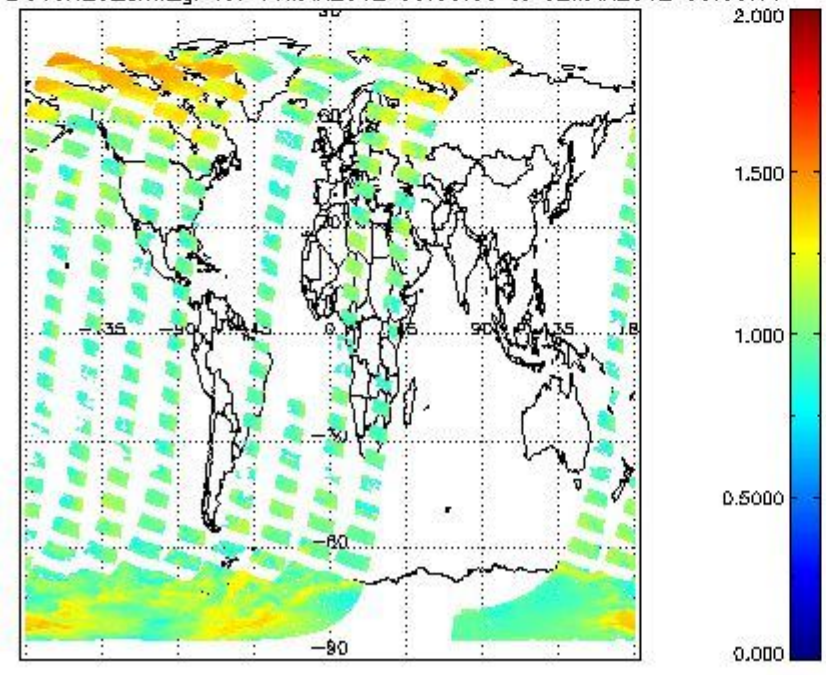
SCIOL2P\_NADUV8H2O\_vcd for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



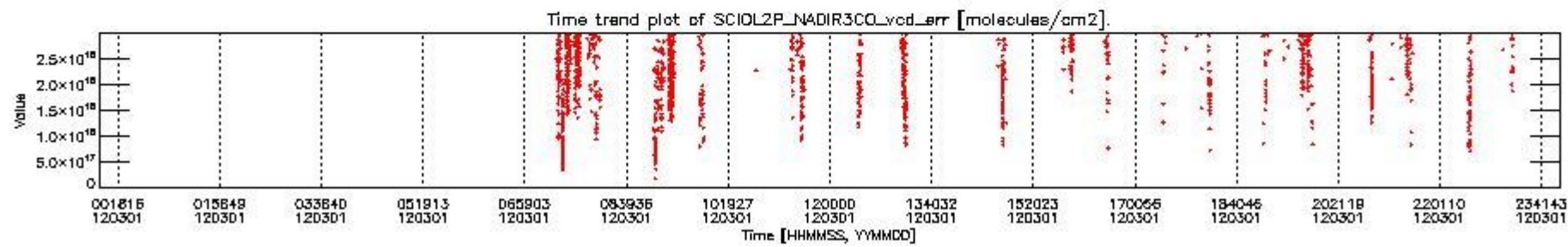
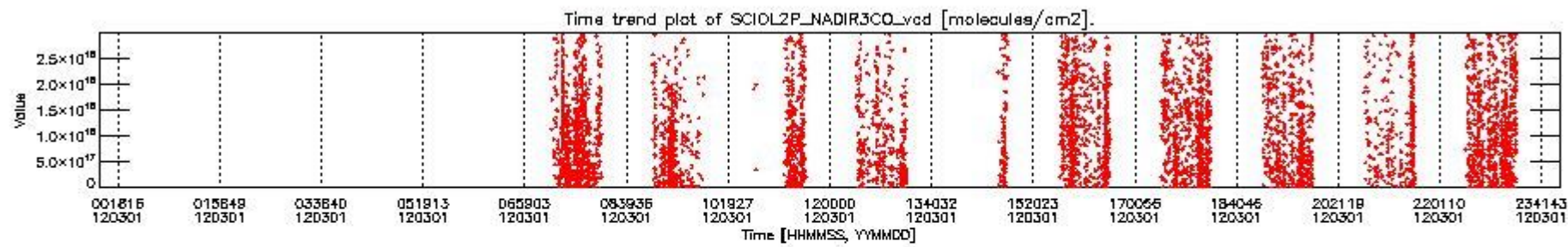
SCIOL2P\_NADUV8H2O\_vcd\_err for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



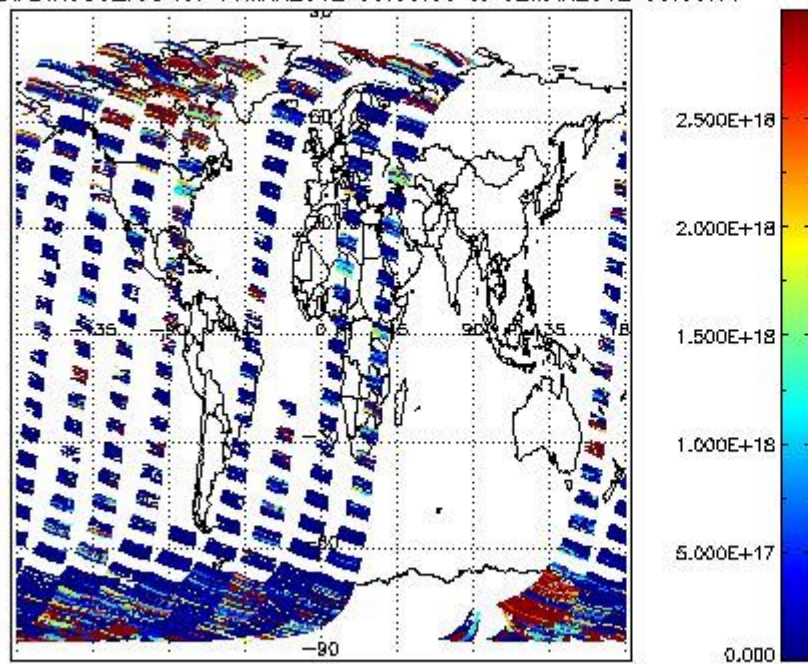
SCIOL2P\_NADUV8H2O\_arnf\_gr for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



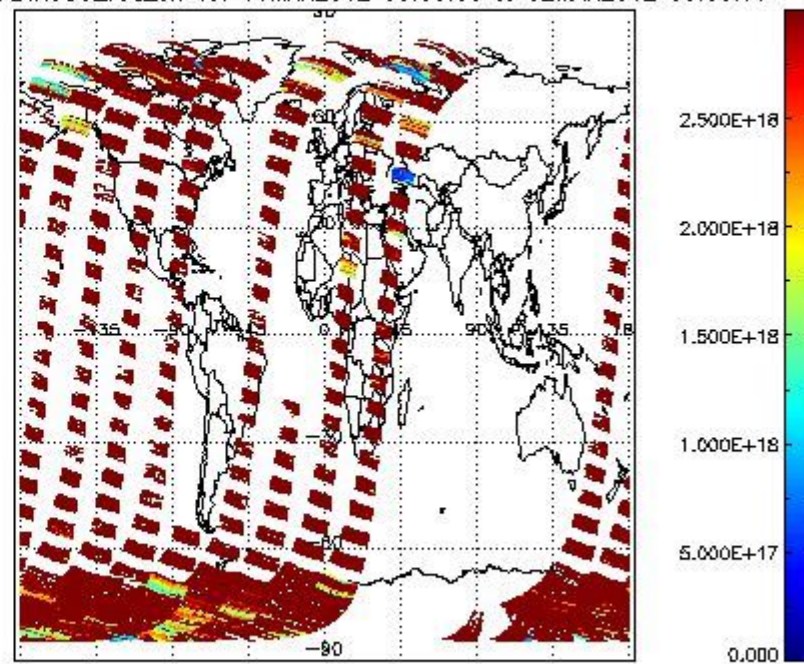
2.2.2.8 CO (IR3)



SCIDL2P\_NADIR3CO\_vcd for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



SCIDL2P\_NADIR3CO\_vcd\_err for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



### 2.2.3 Limb

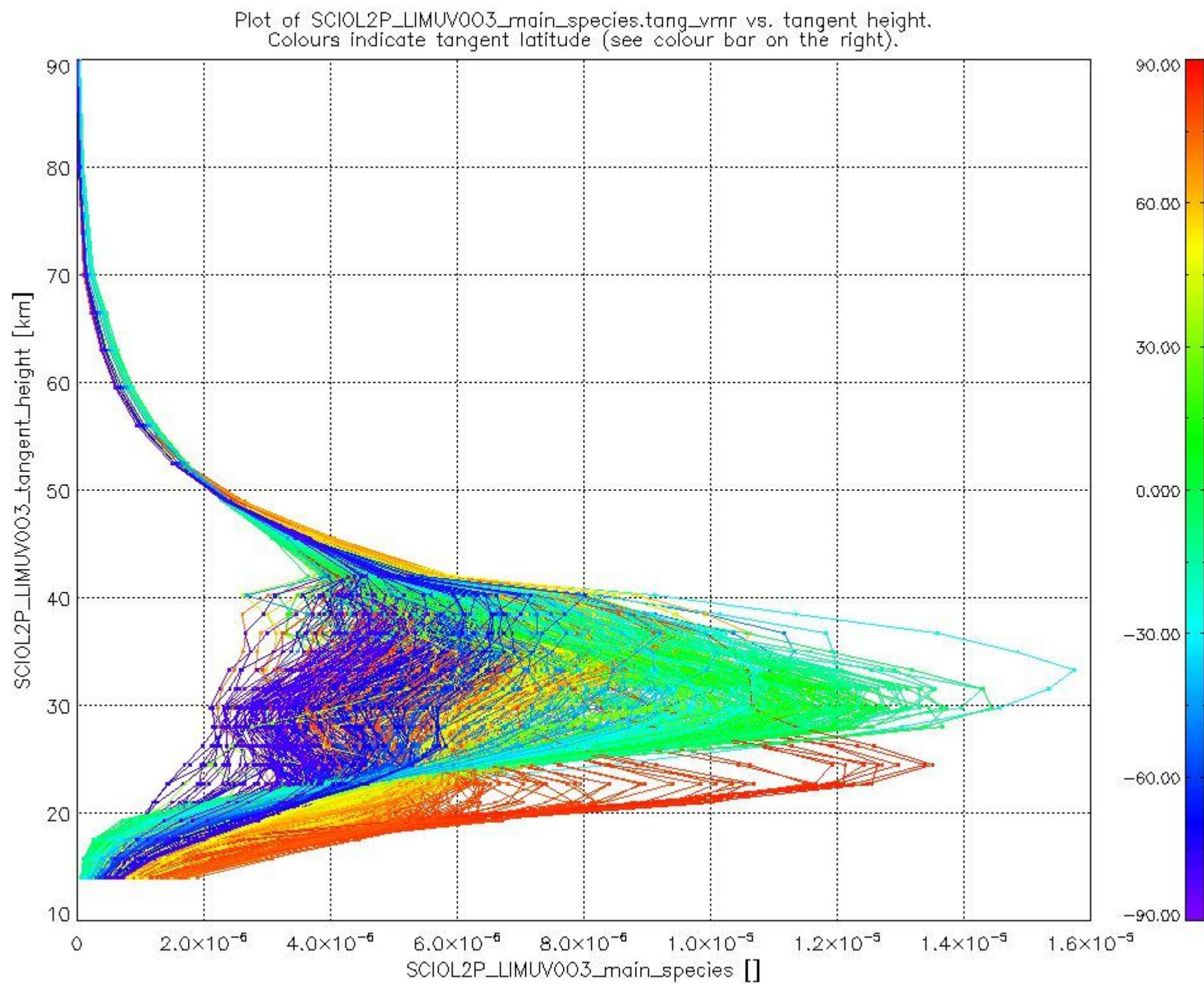
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

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

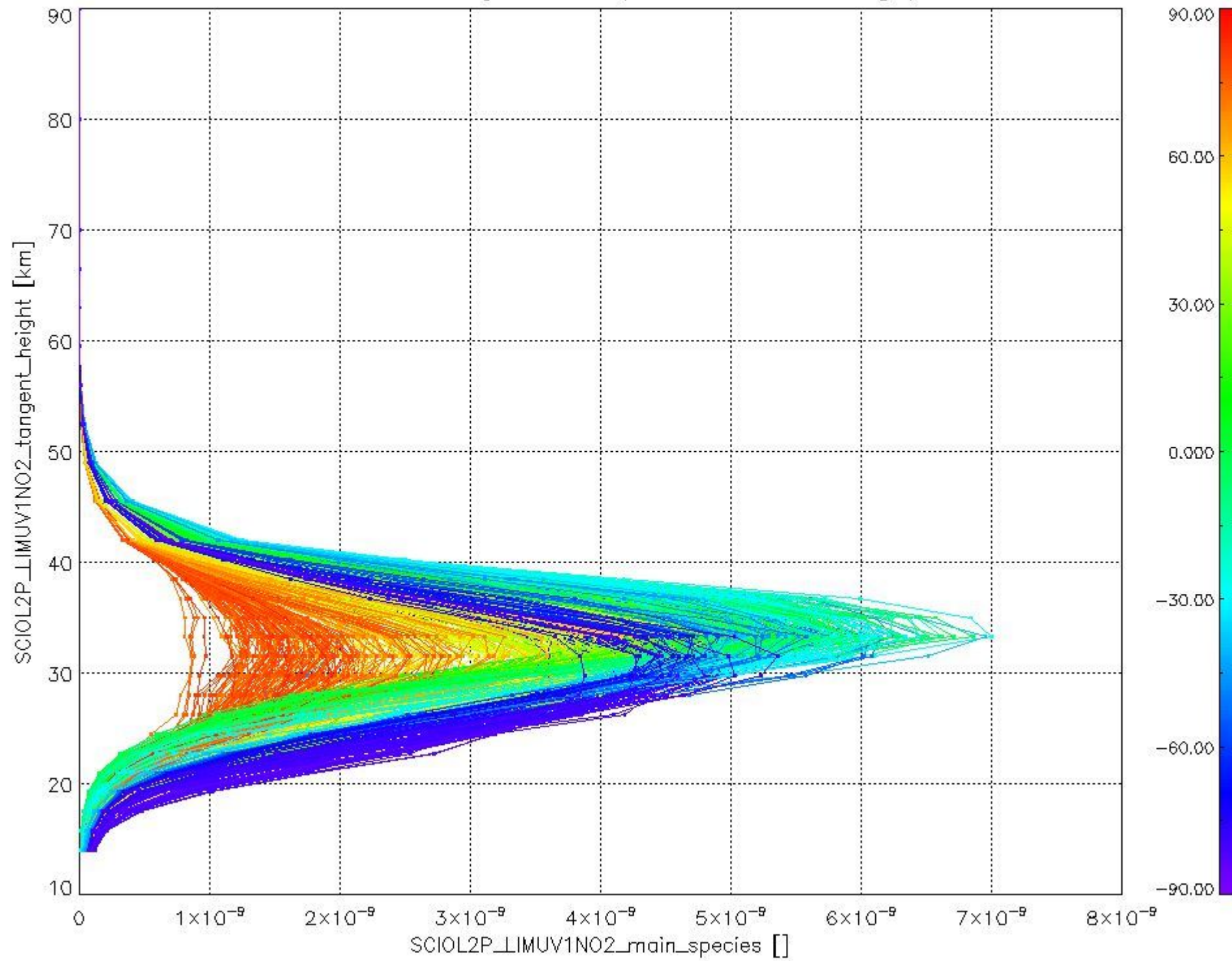
The following plots show for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

### 2.2.3.1 O3 (UV0)



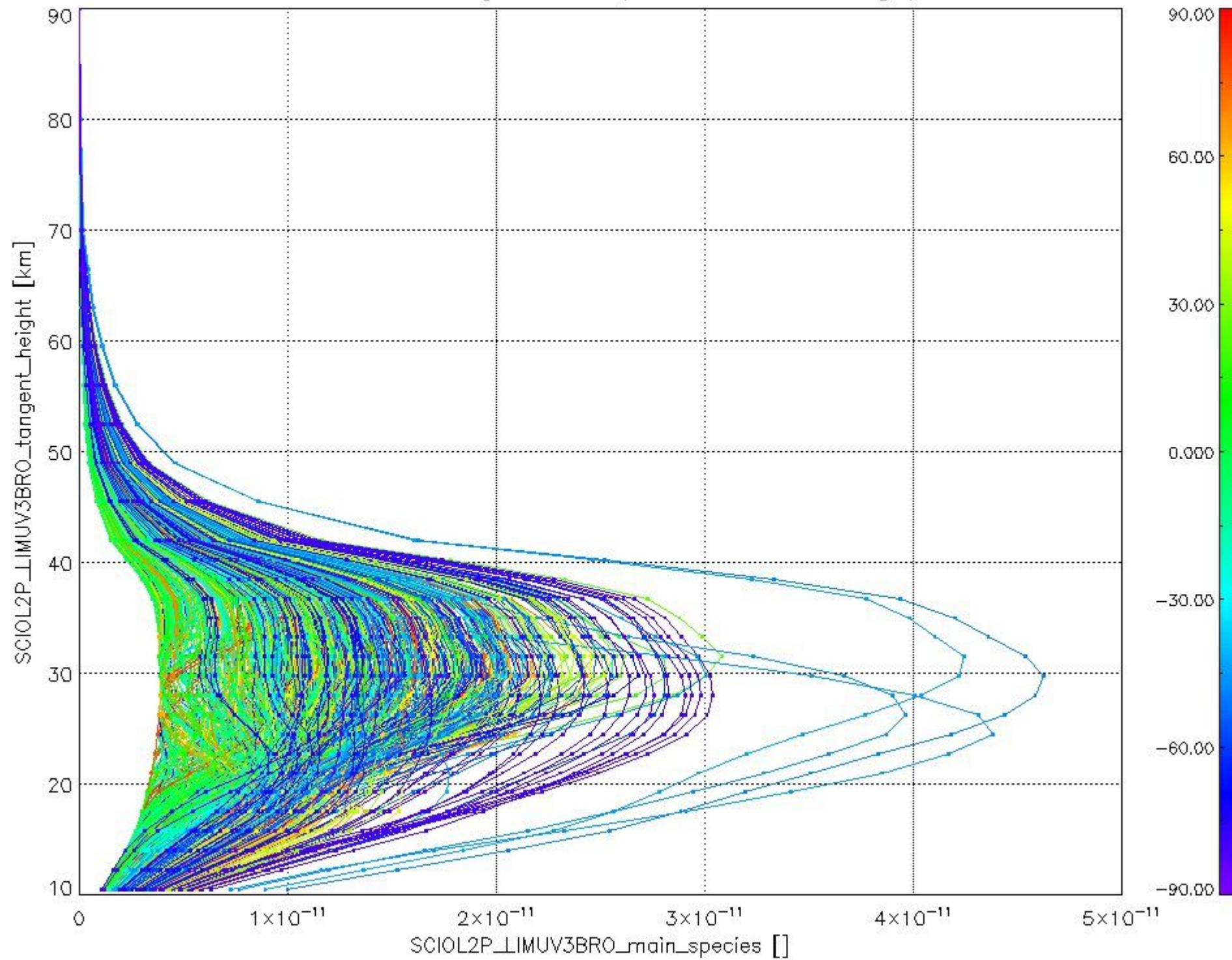
### 2.2.3.2 NO2 (UV1)

Plot of SCIO2P\_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).

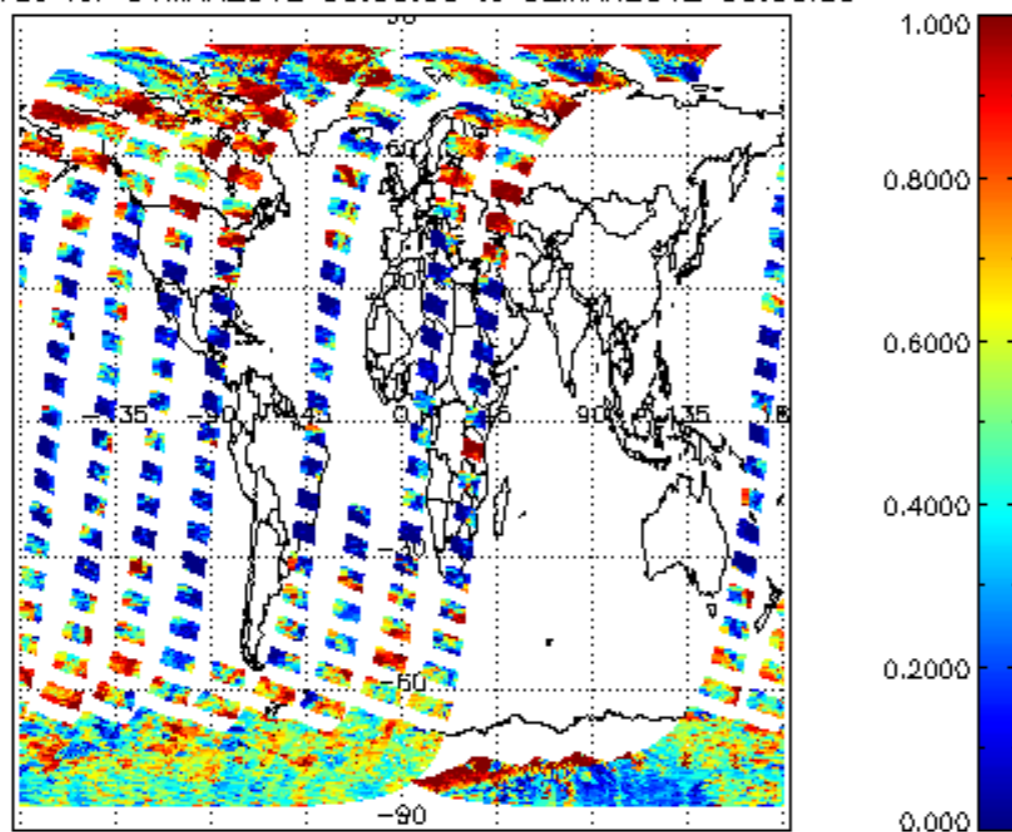


### 2.3 ADF monitoring

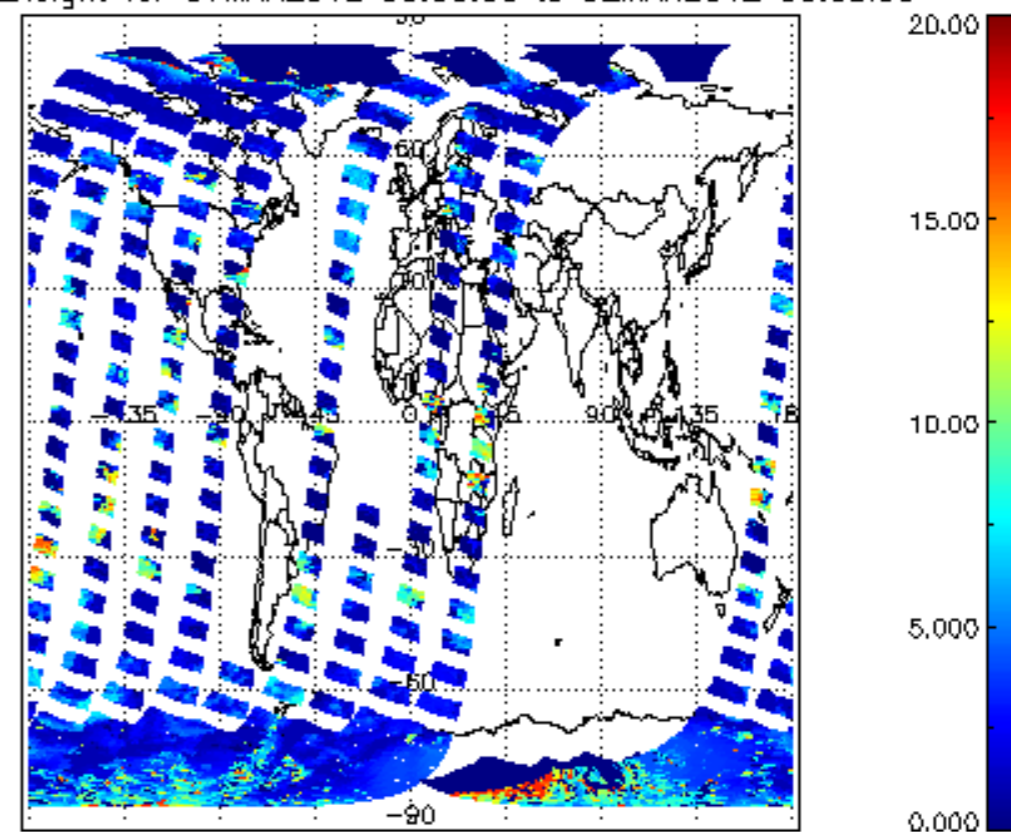
Number	ADF
	<b>IN_ (INITIALISATION_FILE)</b>
0	SCI_IN_AXNPDE20110201_120000_20020301_000000_20991231_235959
	<b>ECF (ECMWF_FILE)</b>
1	NOT USED
	<b>MF1 (M_FACTOR_FILE)</b>
2	SCI_MF1_AXVIEC20120306_134353_20120229_185942_20120302_185942
3	SCI_MF1_AXVIEC20120306_134500_20120301_182256_20120303_182256



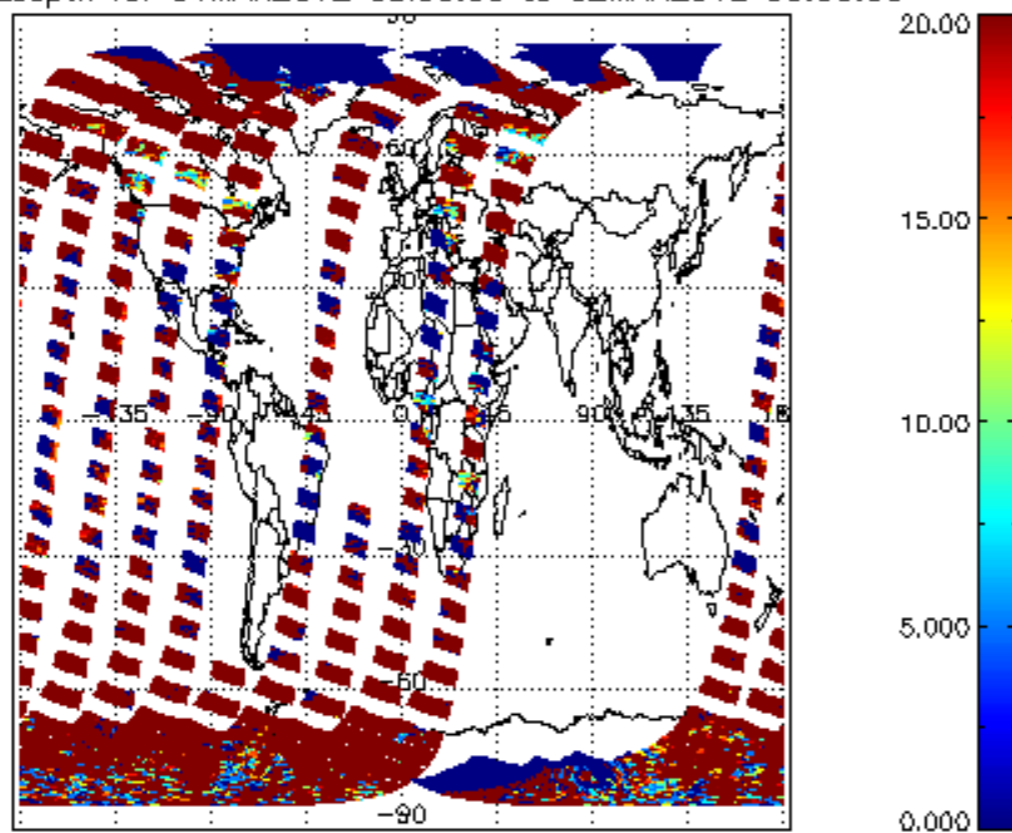
cL\_frac for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



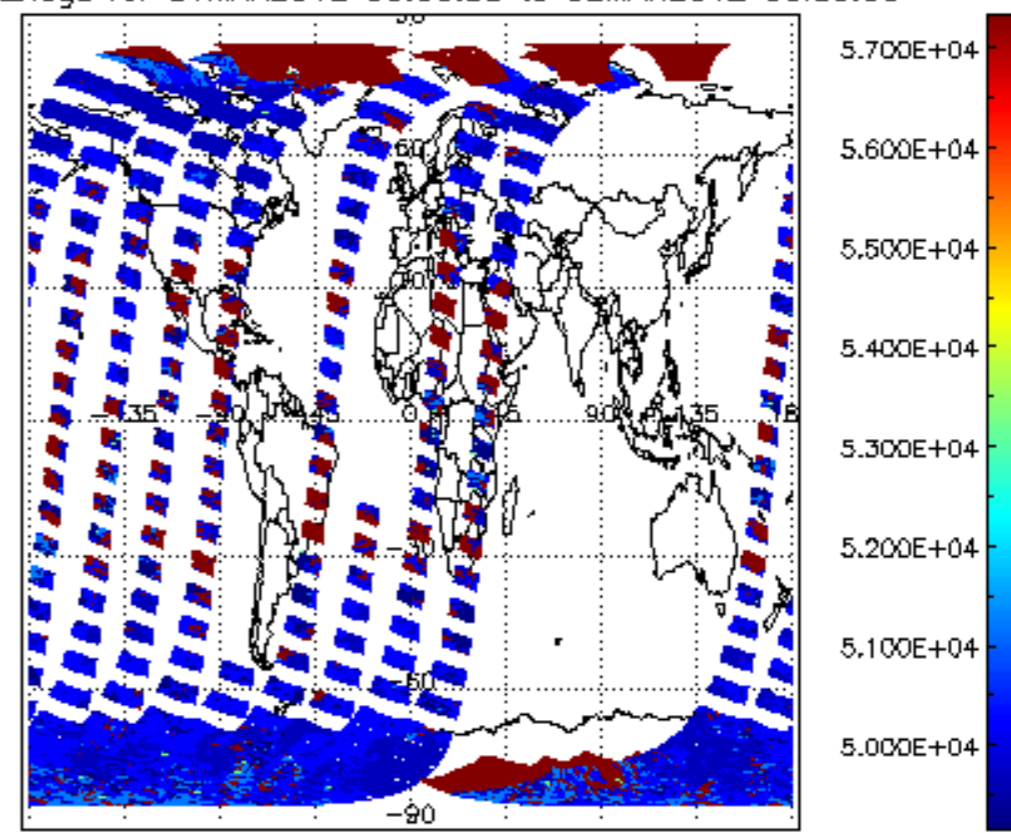
cL\_top\_height for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

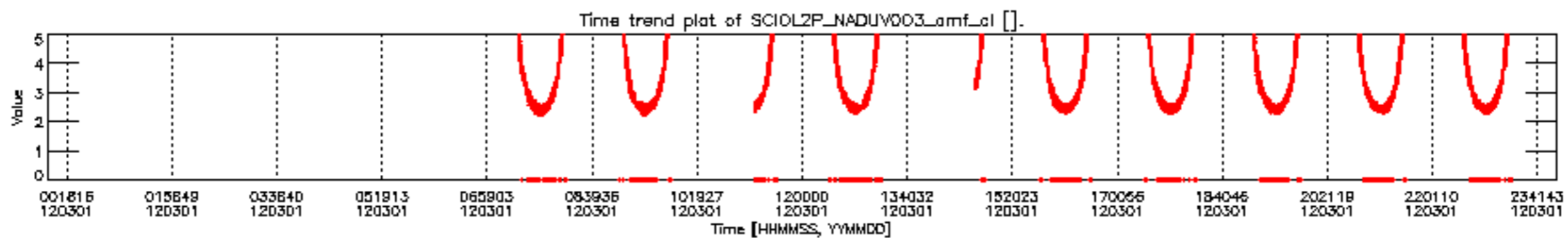
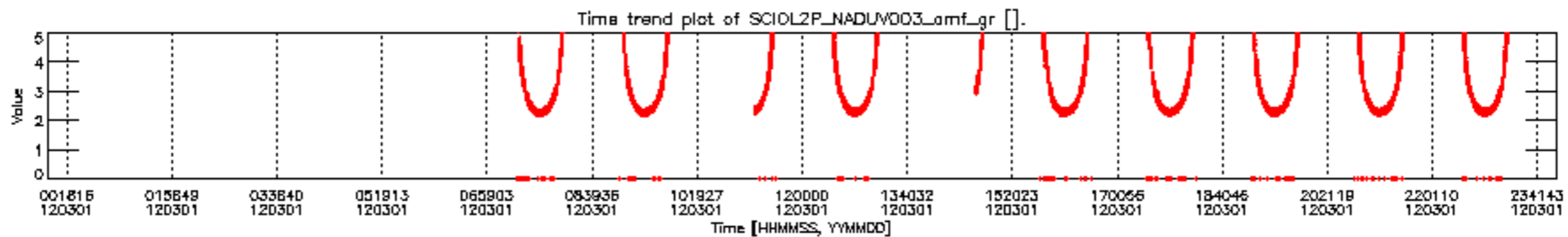
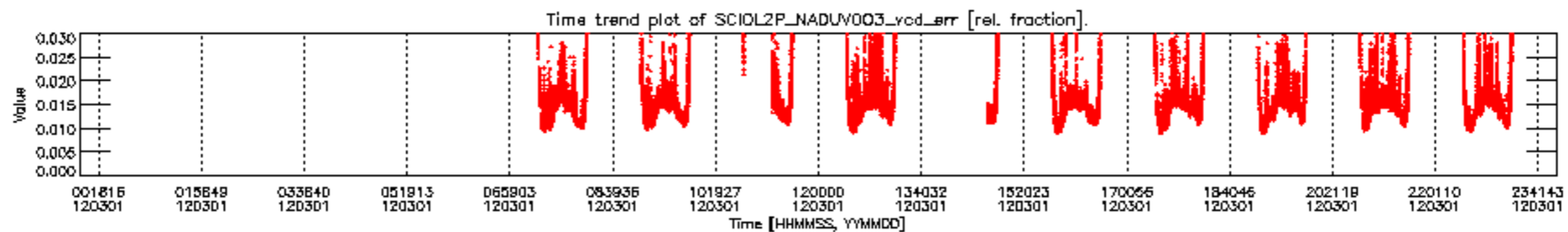
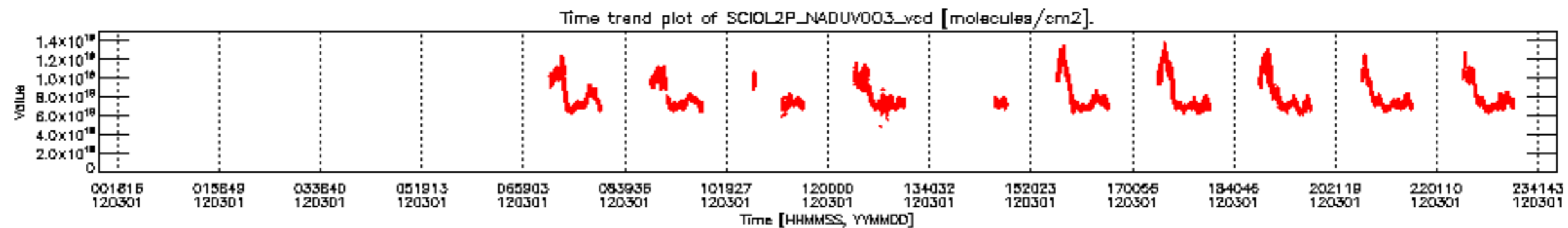


cL\_opt\_depth for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



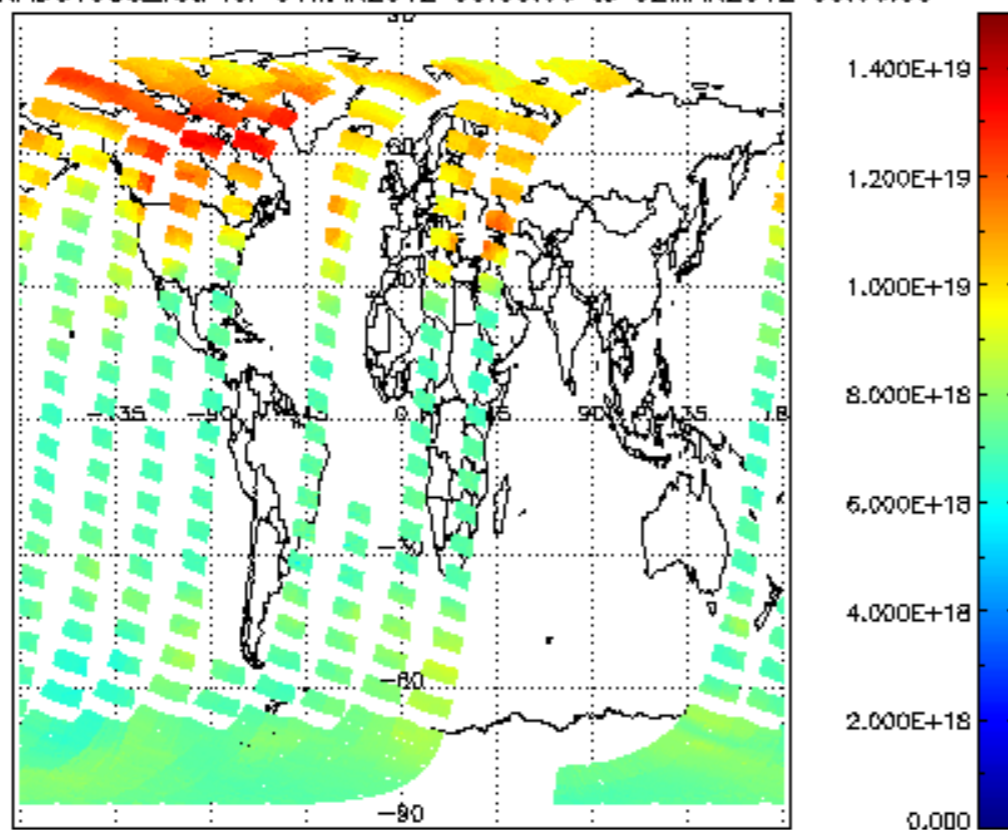
cloud\_flags for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



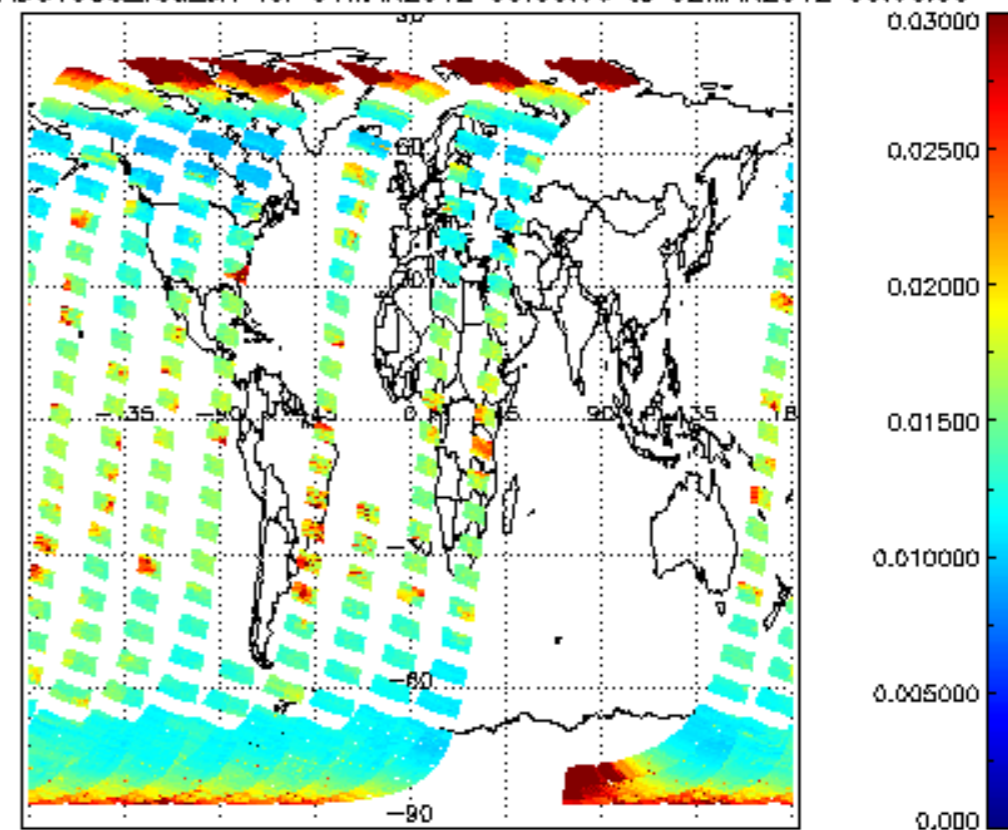




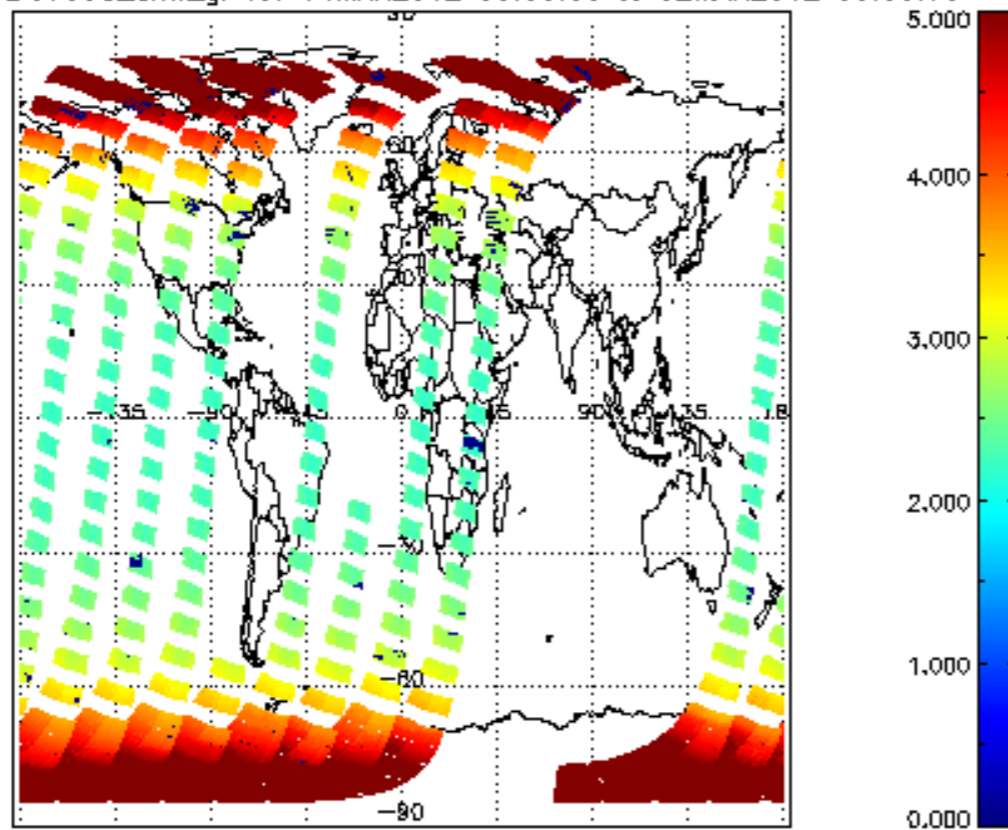
SCIOL2P\_NADUV003\_vcd for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



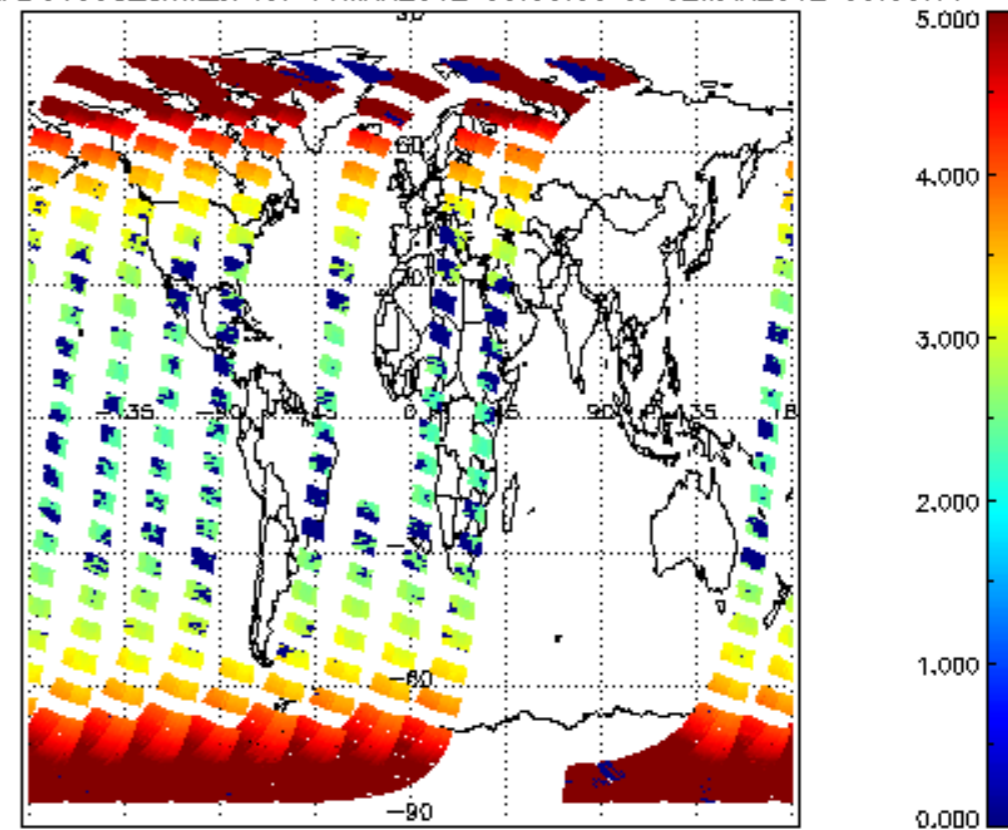
SCIOL2P\_NADUV003\_vcd\_err for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

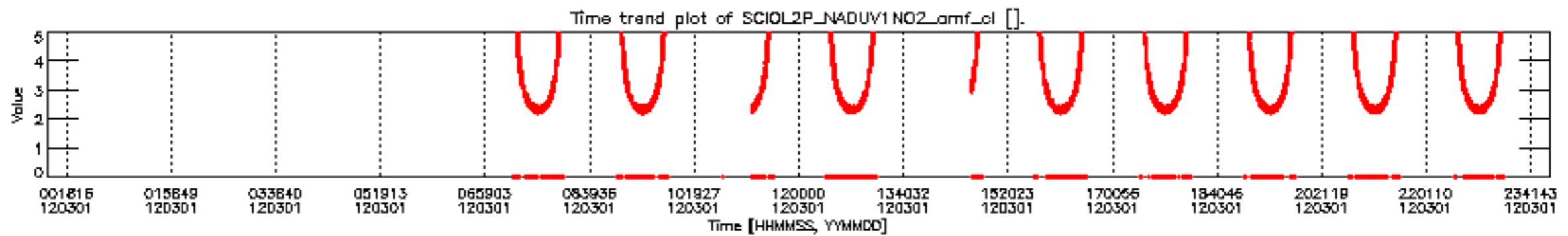
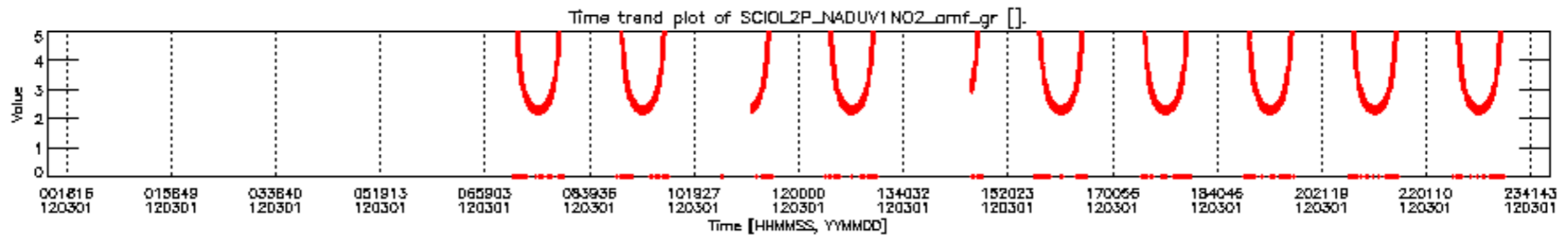
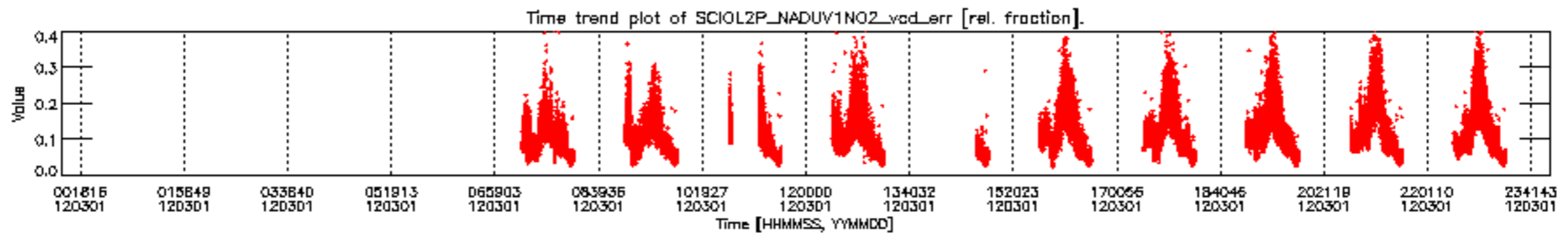
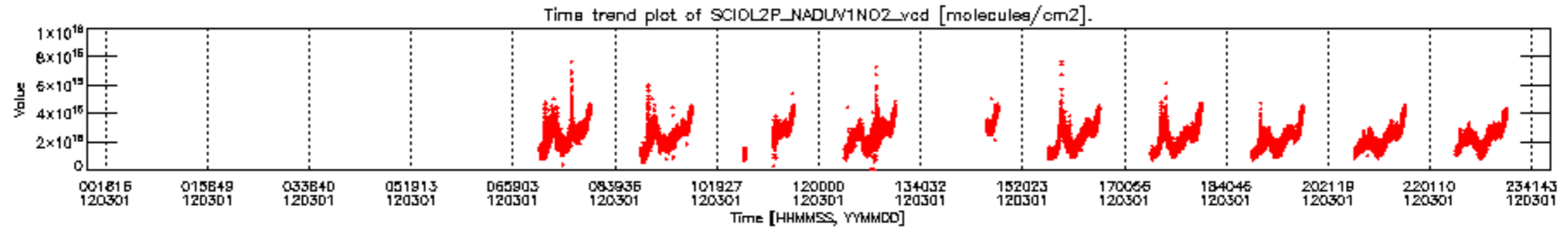


SCIOL2P\_NADUV003\_amf\_gr for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

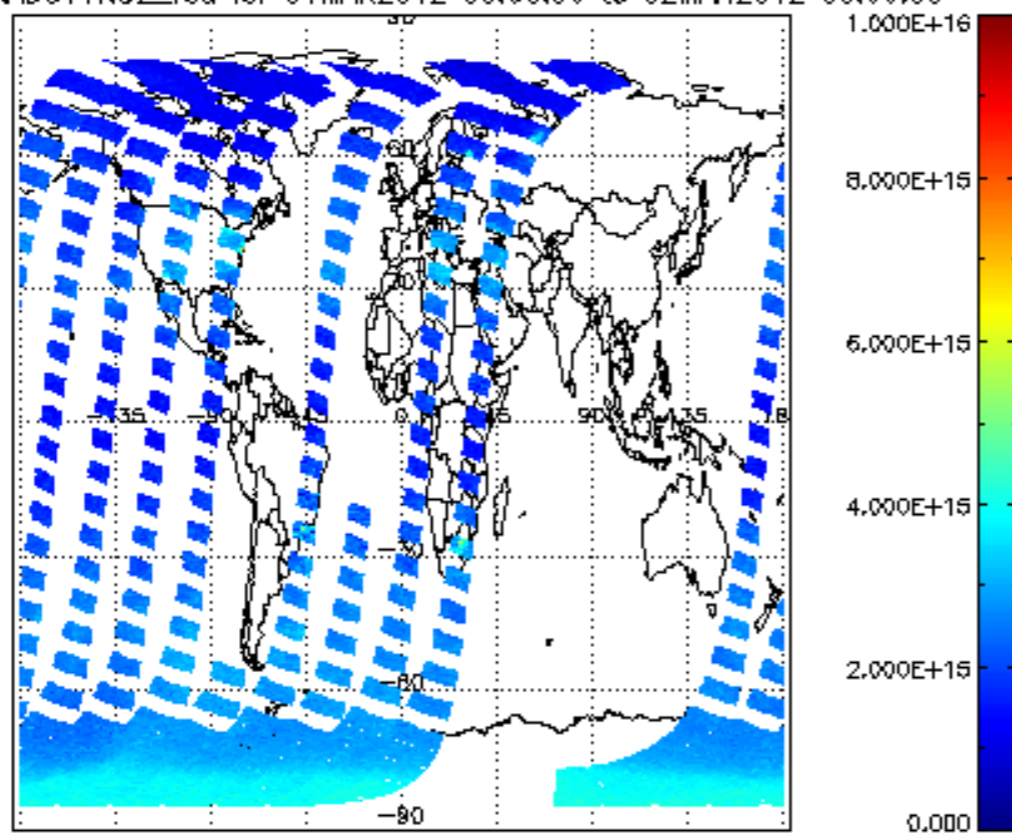


SCIOL2P\_NADUV003\_amf\_cl for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

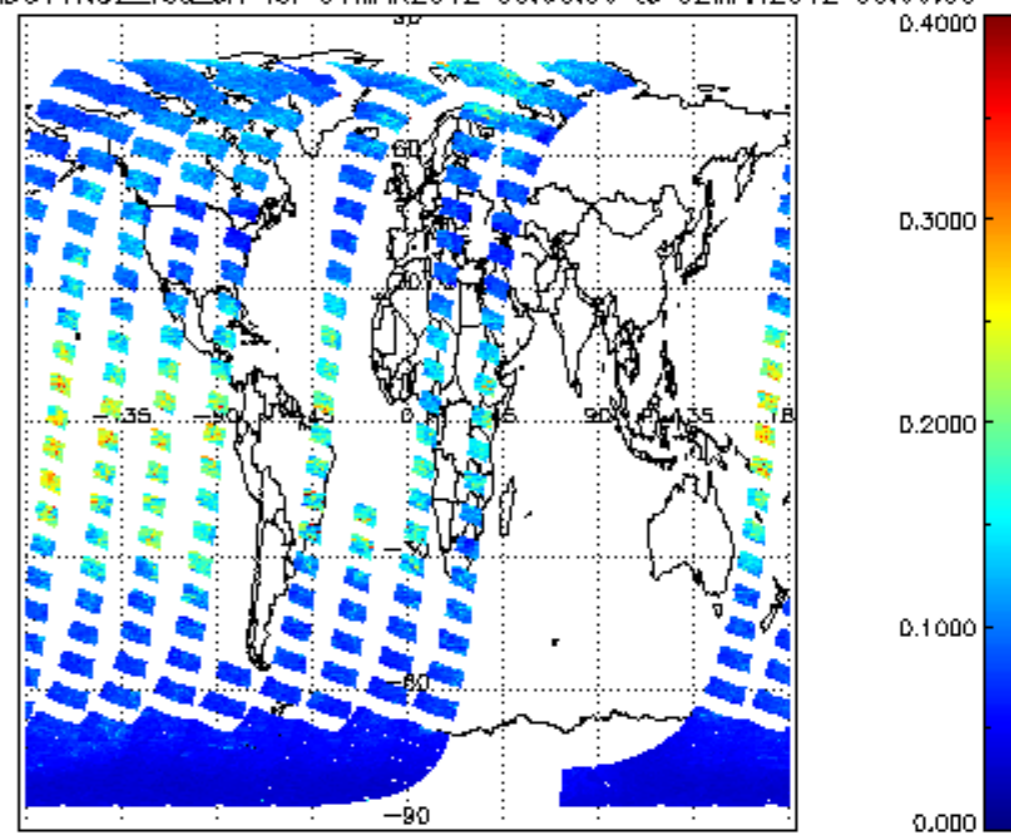




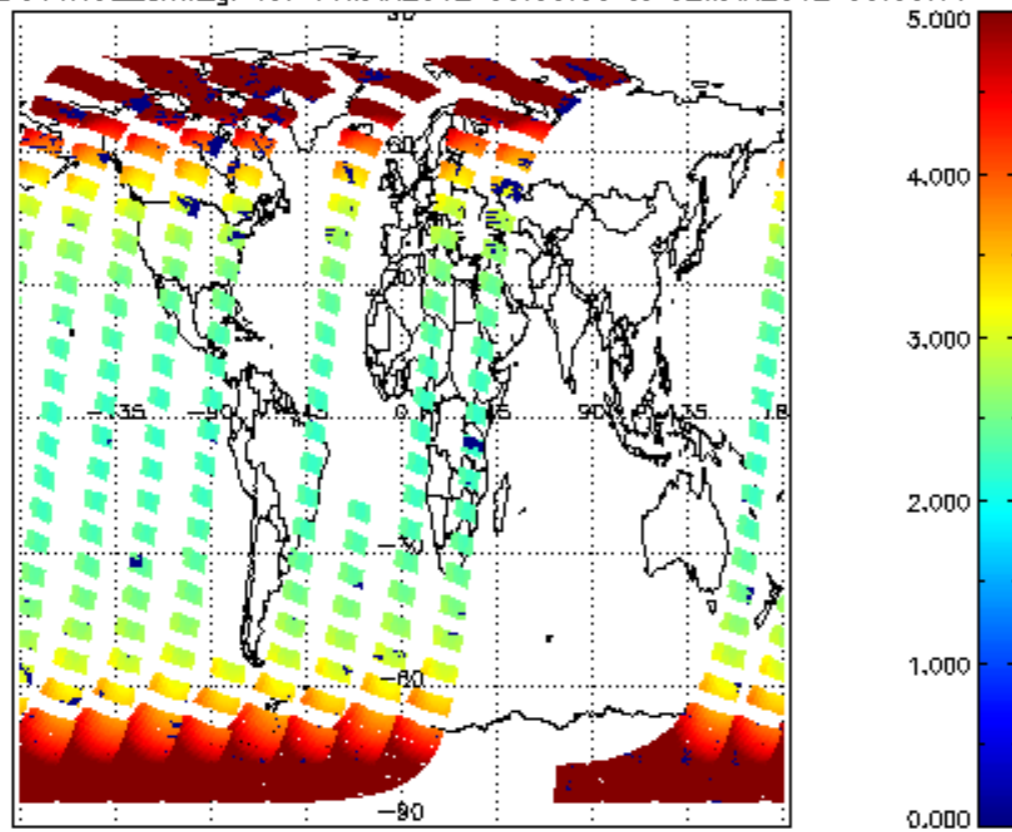
SCIOL2P\_NADUV1NO2\_vcd for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



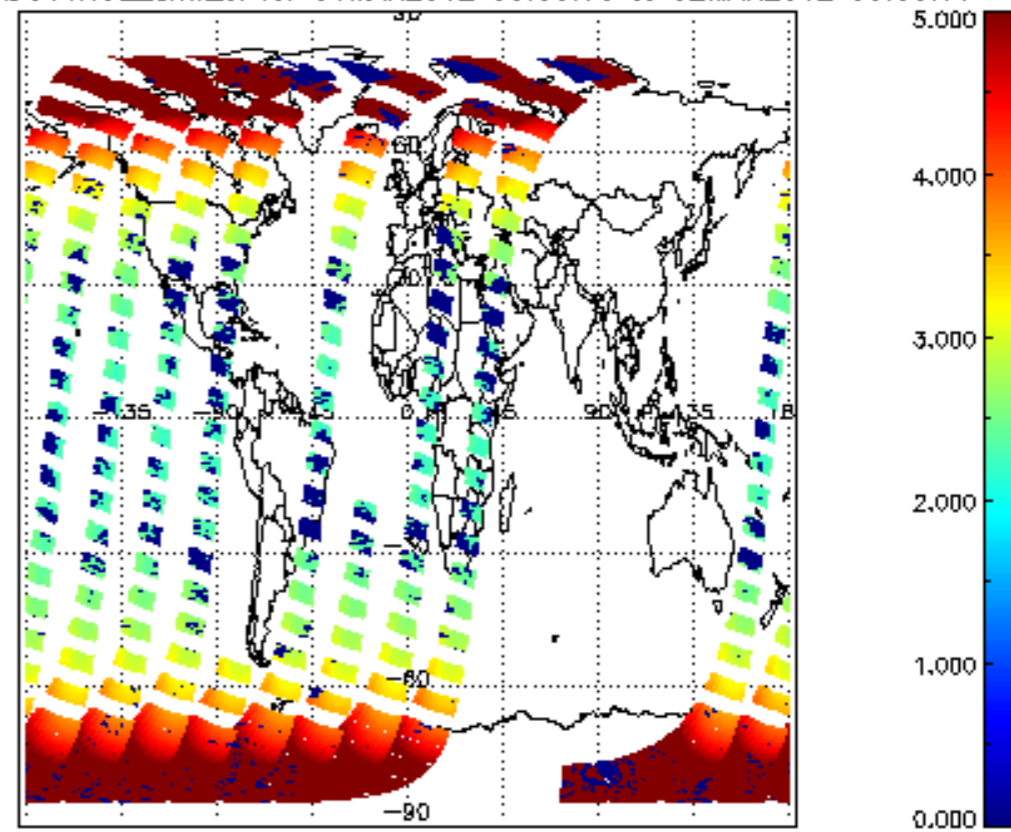
SCIOL2P\_NADUV1NO2\_vcdLerr for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

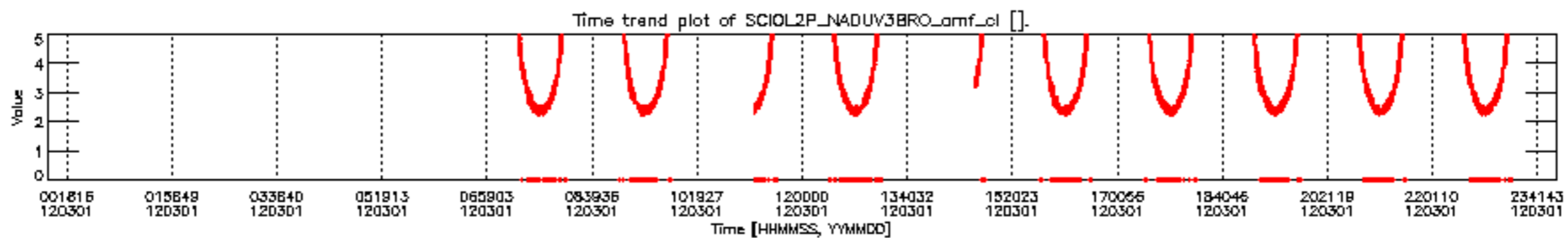
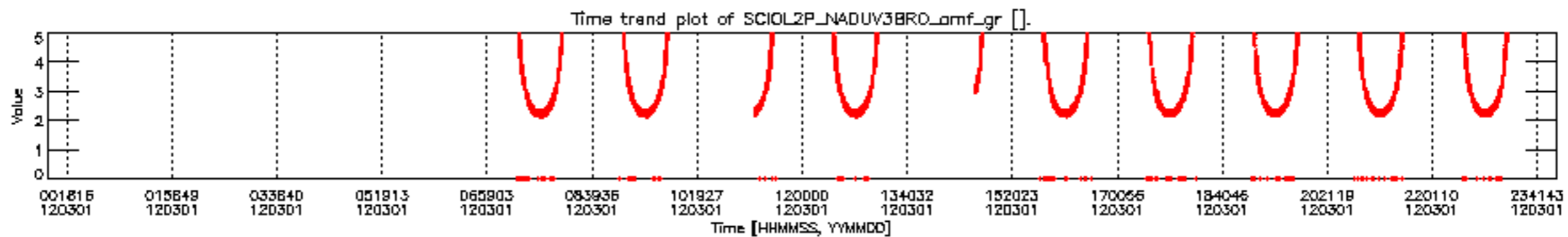
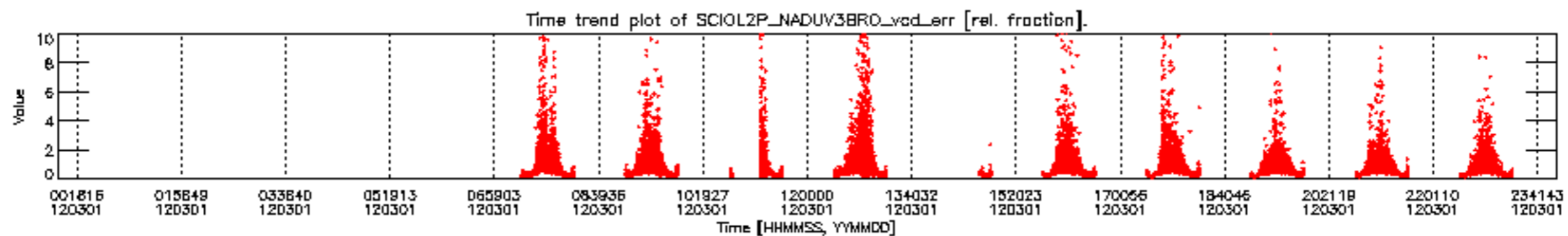
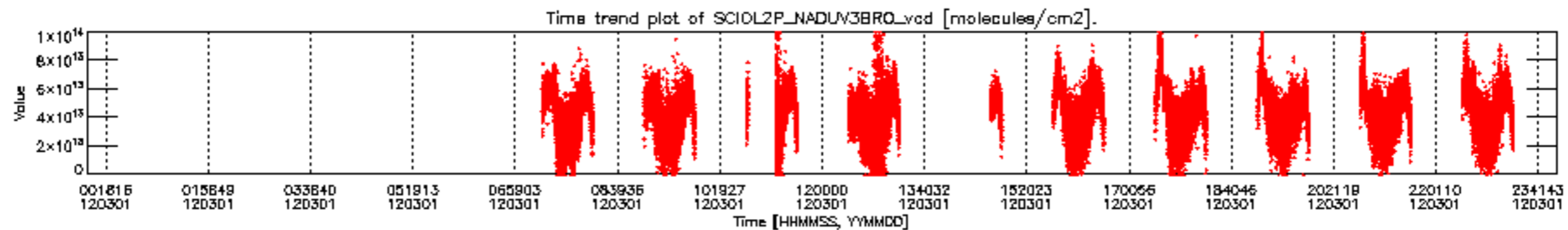


SCIOL2P\_NADUV1NO2\_amf\_gr for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

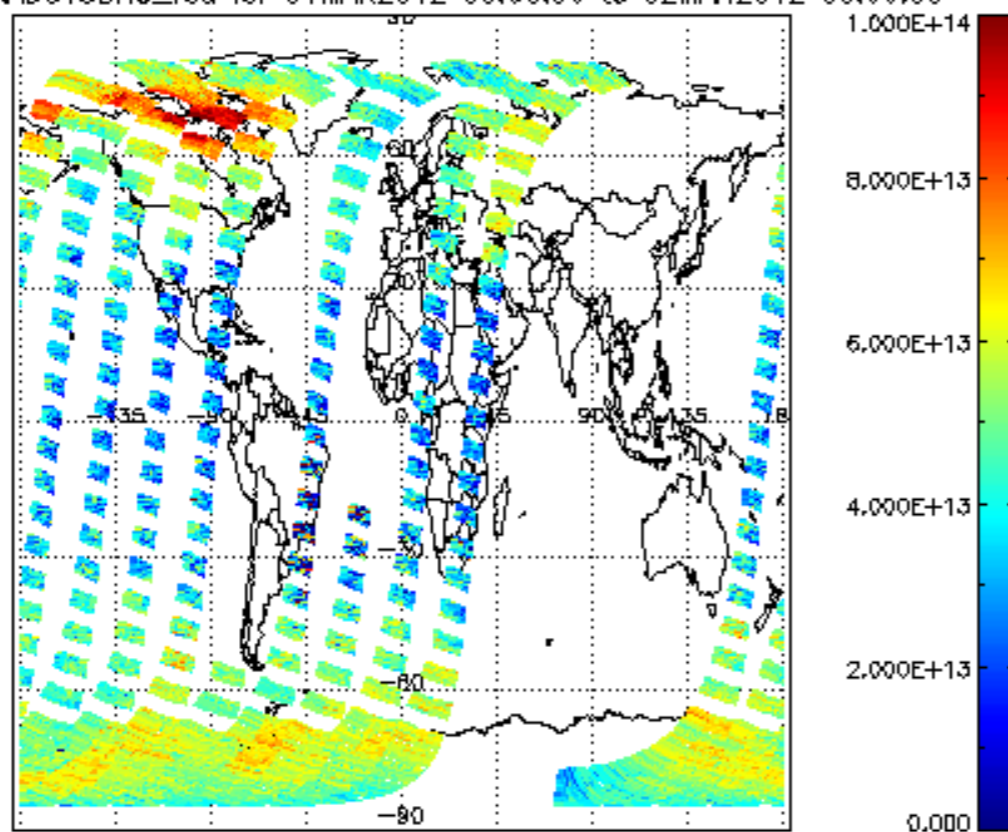


SCIOL2P\_NADUV1NO2\_amf\_cl for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

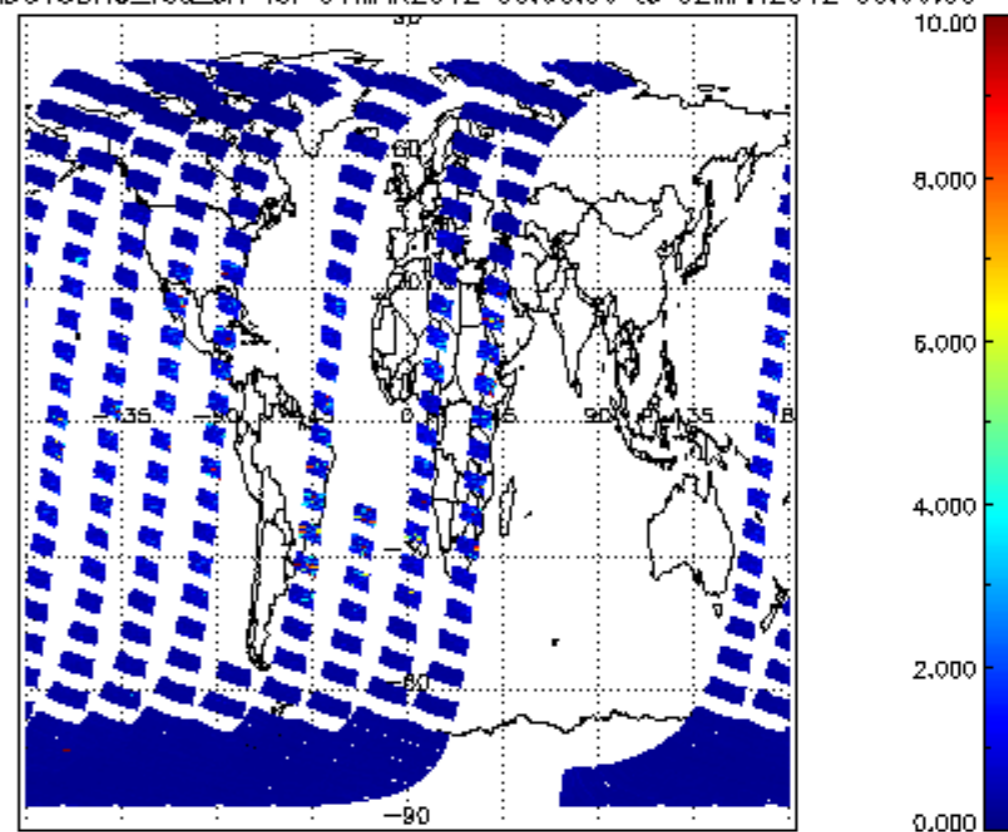




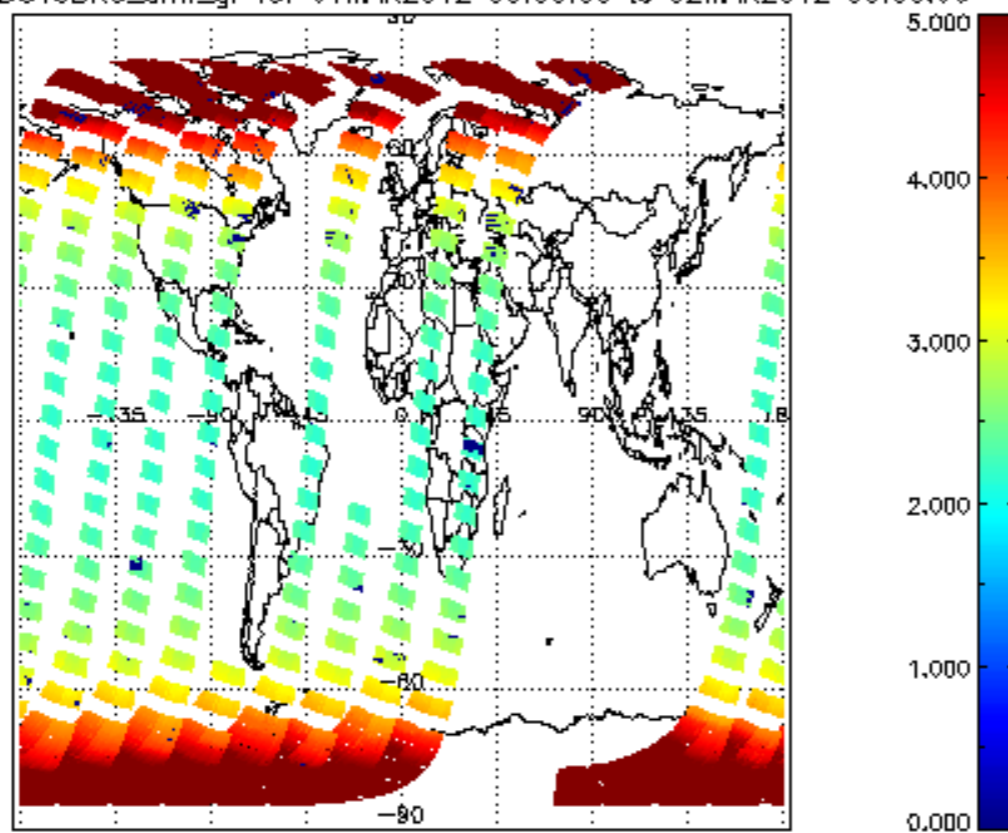
SCIOL2P\_NADUV3BRO\_vcd for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



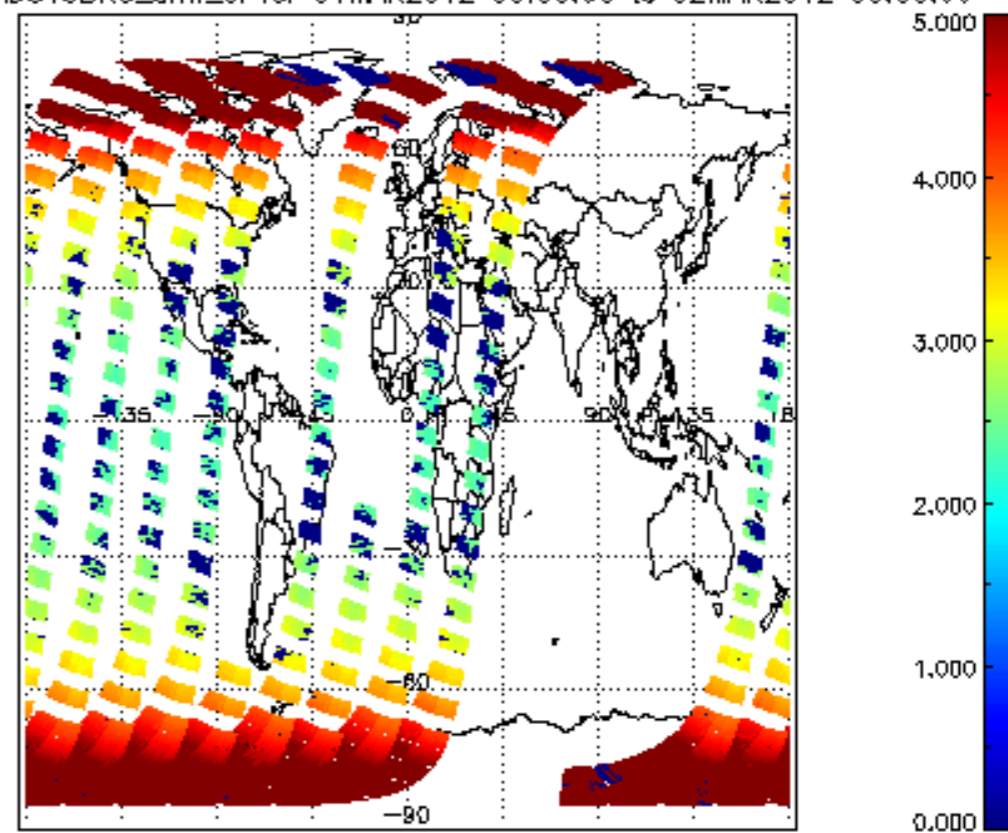
SCIOL2P\_NADUV3BRO\_vcd\_Lerr for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

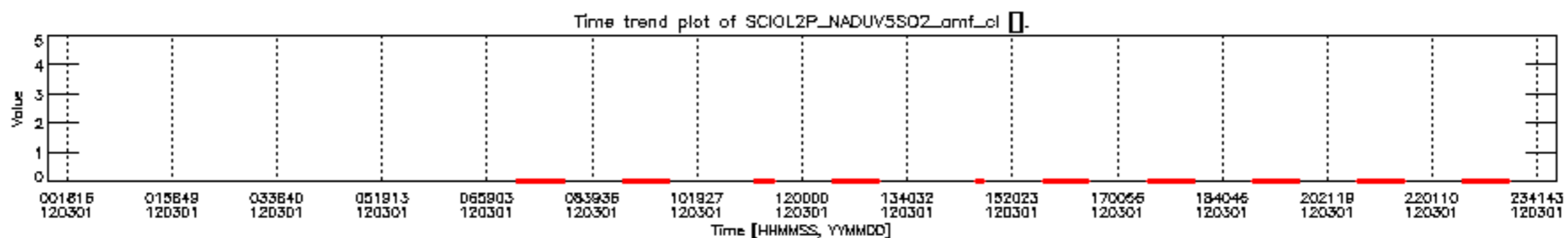
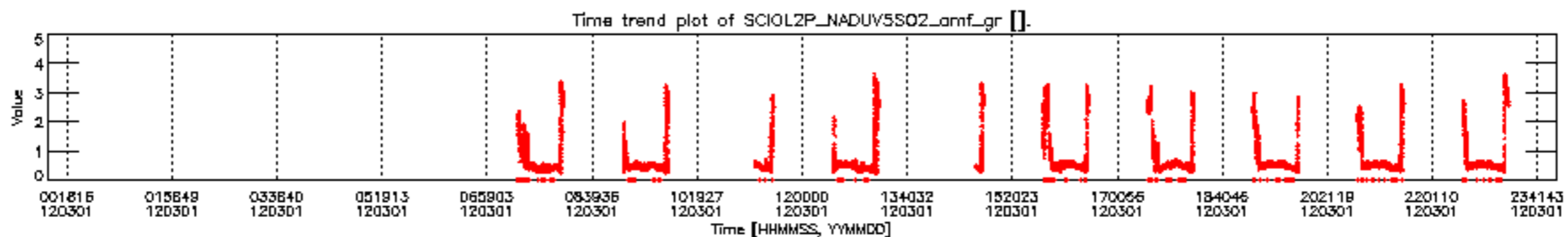
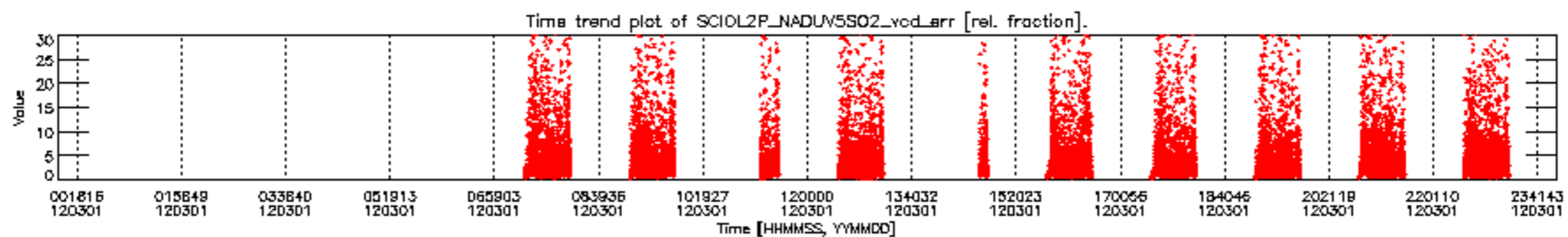
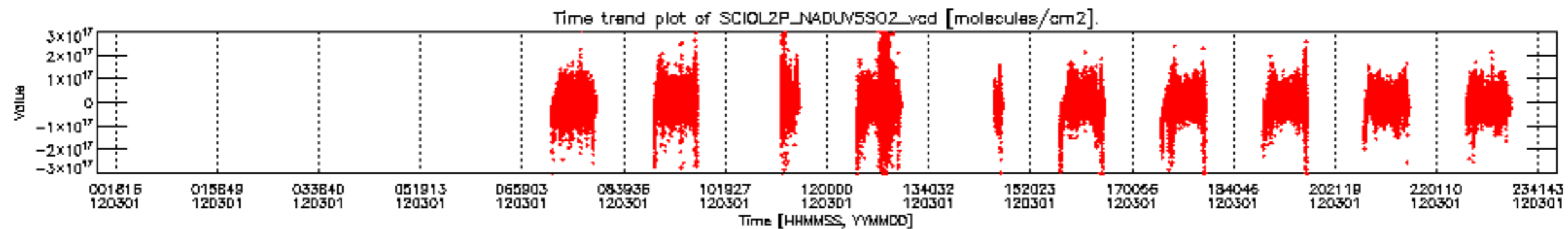


SCIOL2P\_NADUV3BRO\_arnf\_gr for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

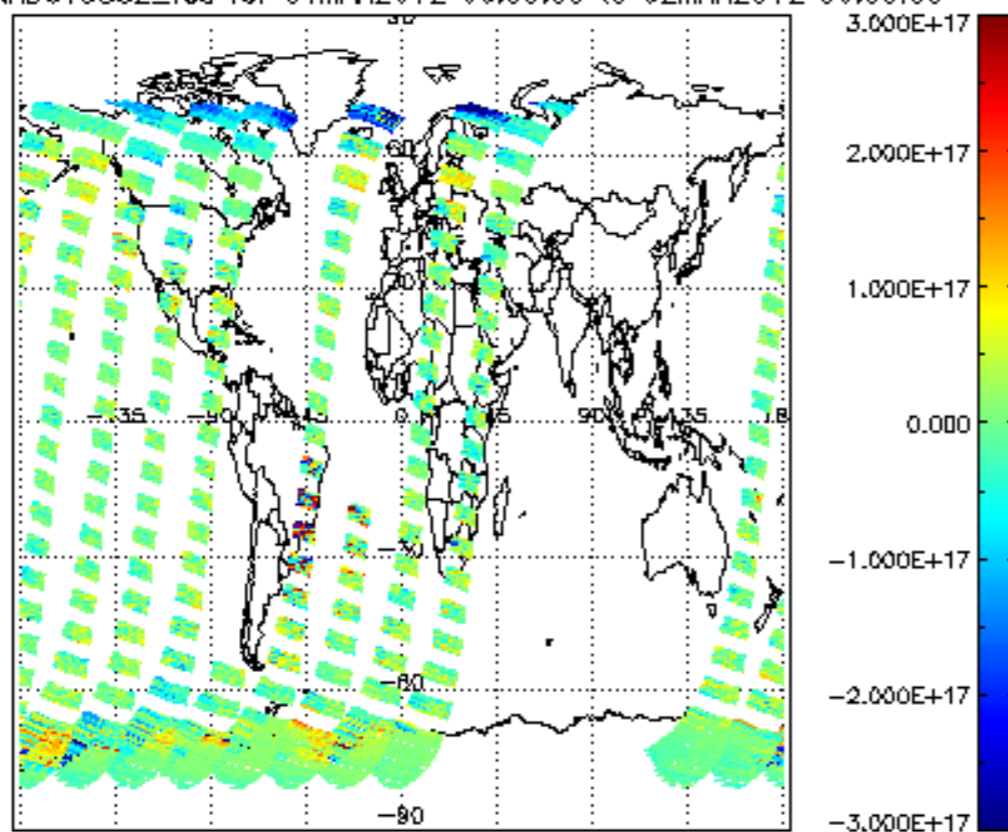


SCIOL2P\_NADUV3BRO\_arnf\_cl for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

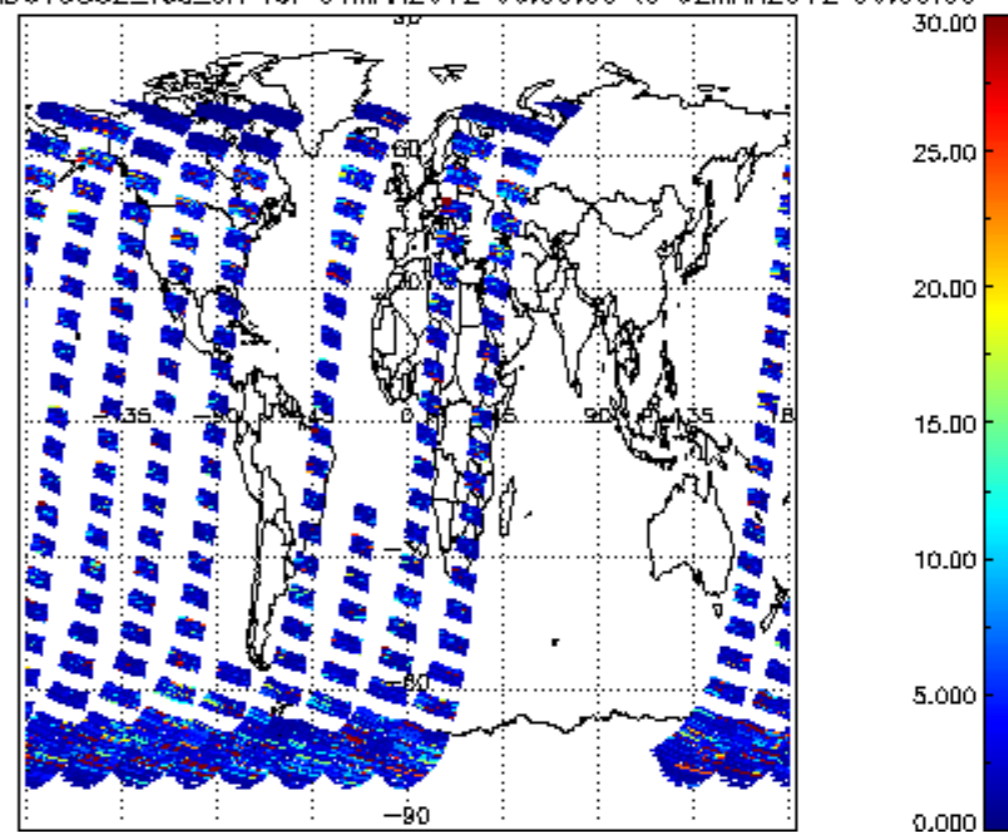




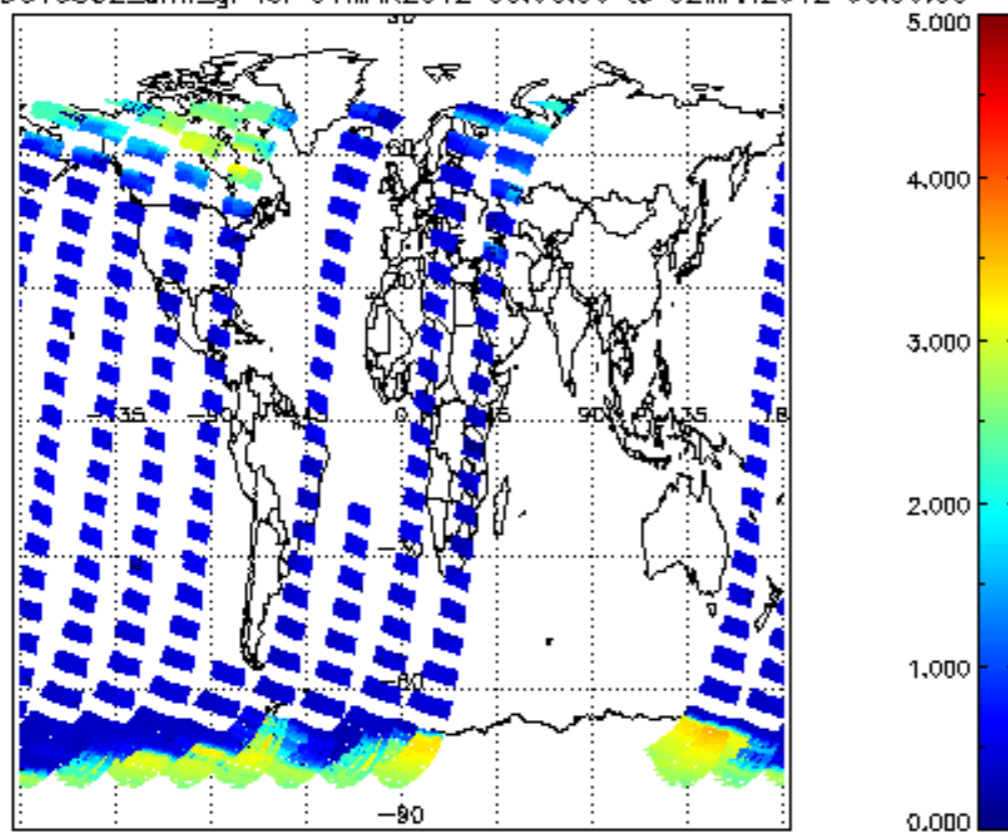
SCIOL2P\_NADUV5S02\_vcd for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



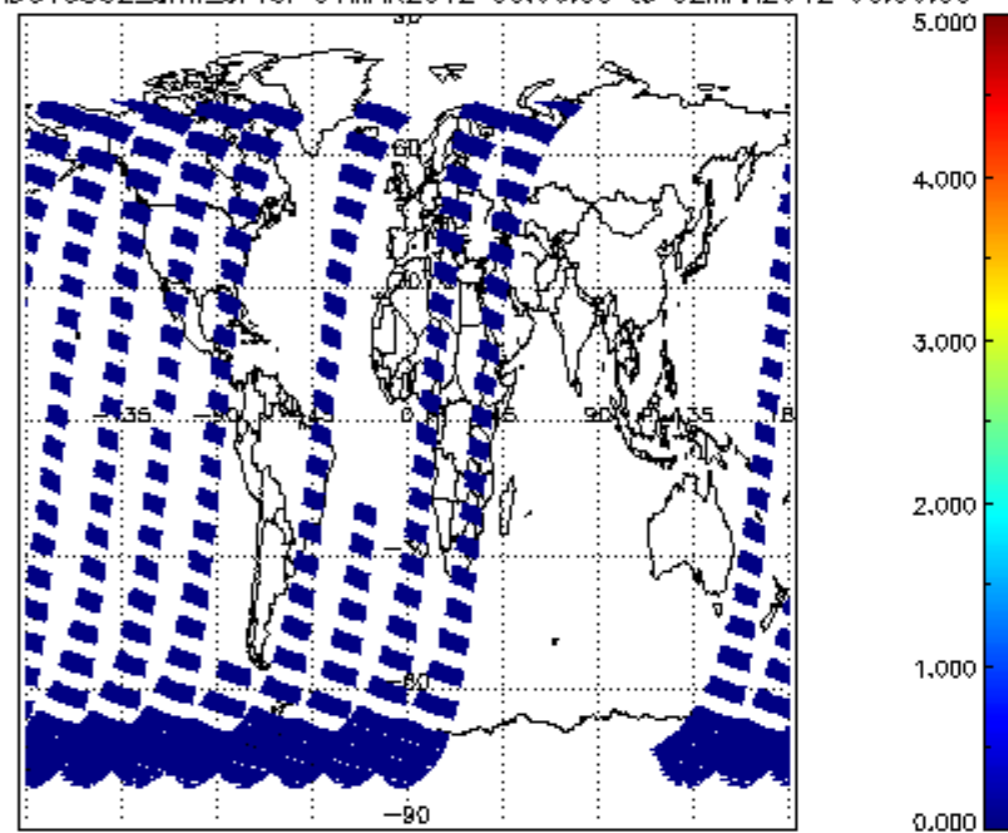
SCIOL2P\_NADUV5S02\_vcd\_err for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

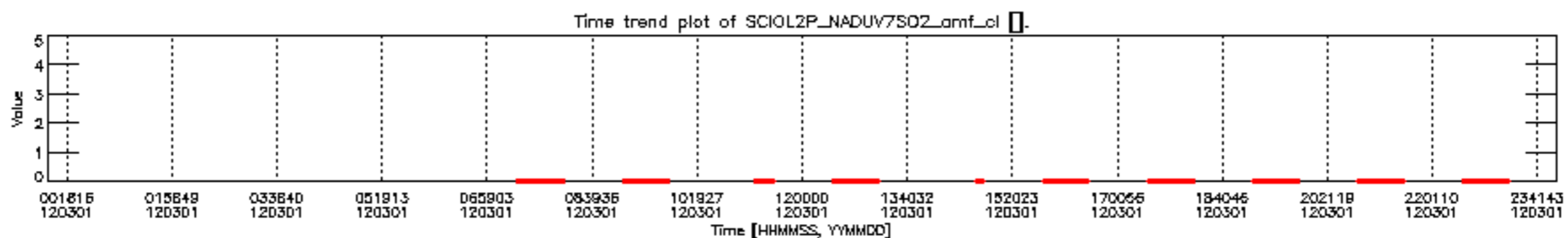
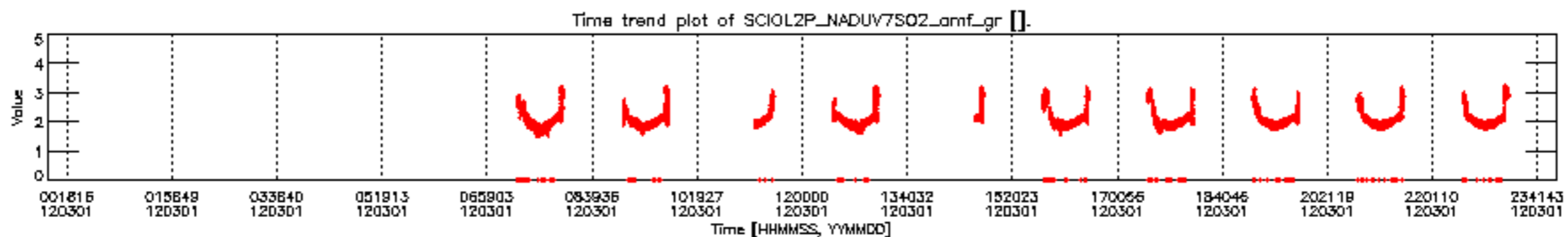
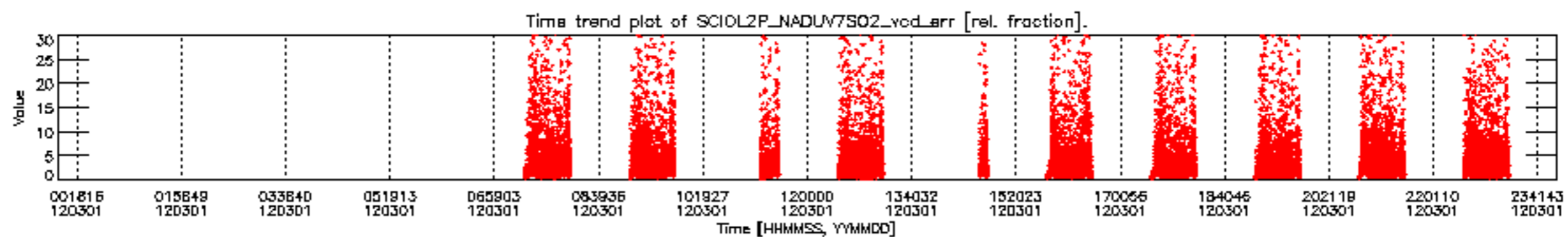
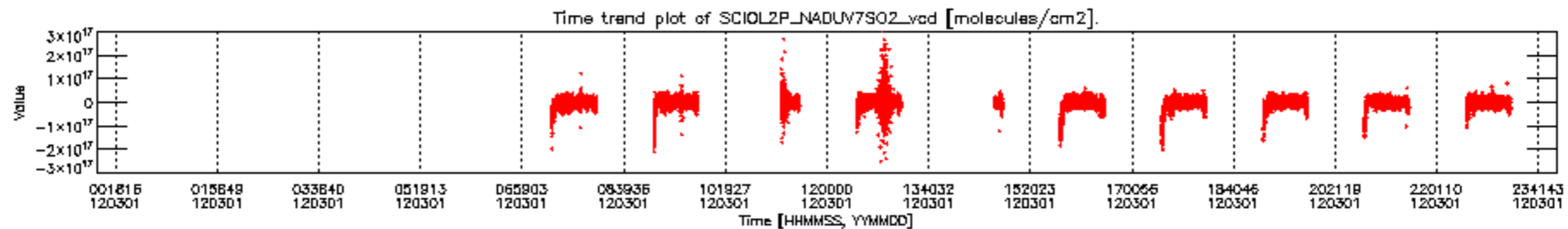


SCIOL2P\_NADUV5S02\_amf\_gr for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



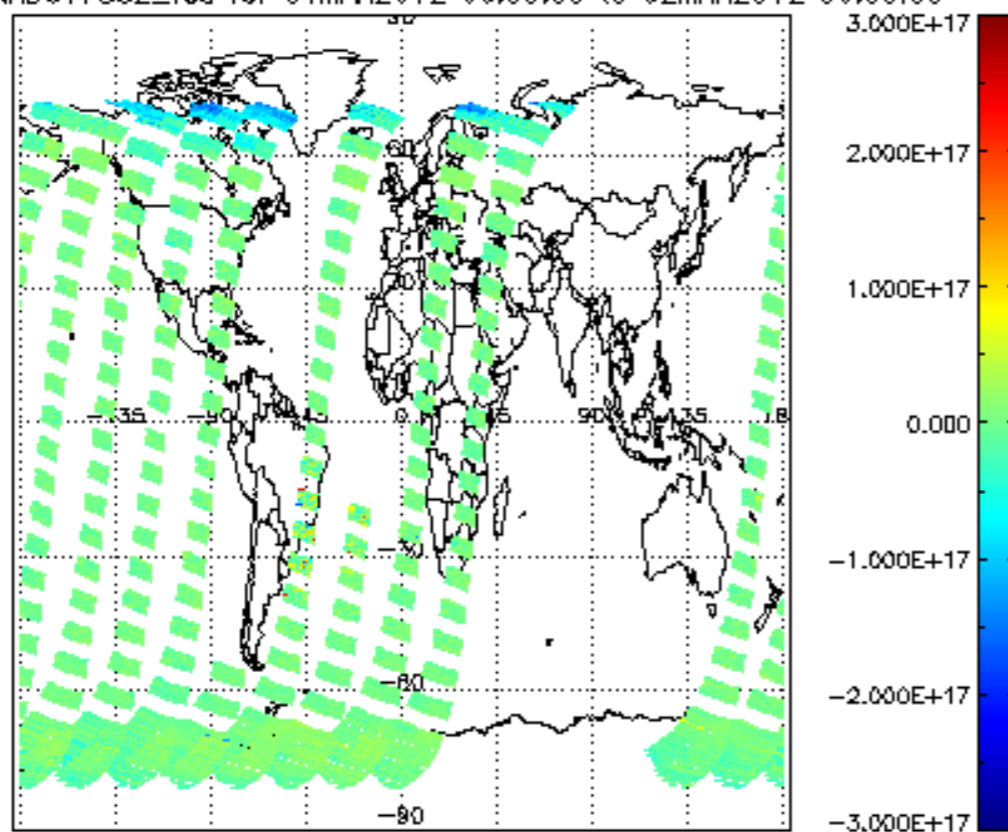
SCIOL2P\_NADUV5S02\_amf\_cl for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



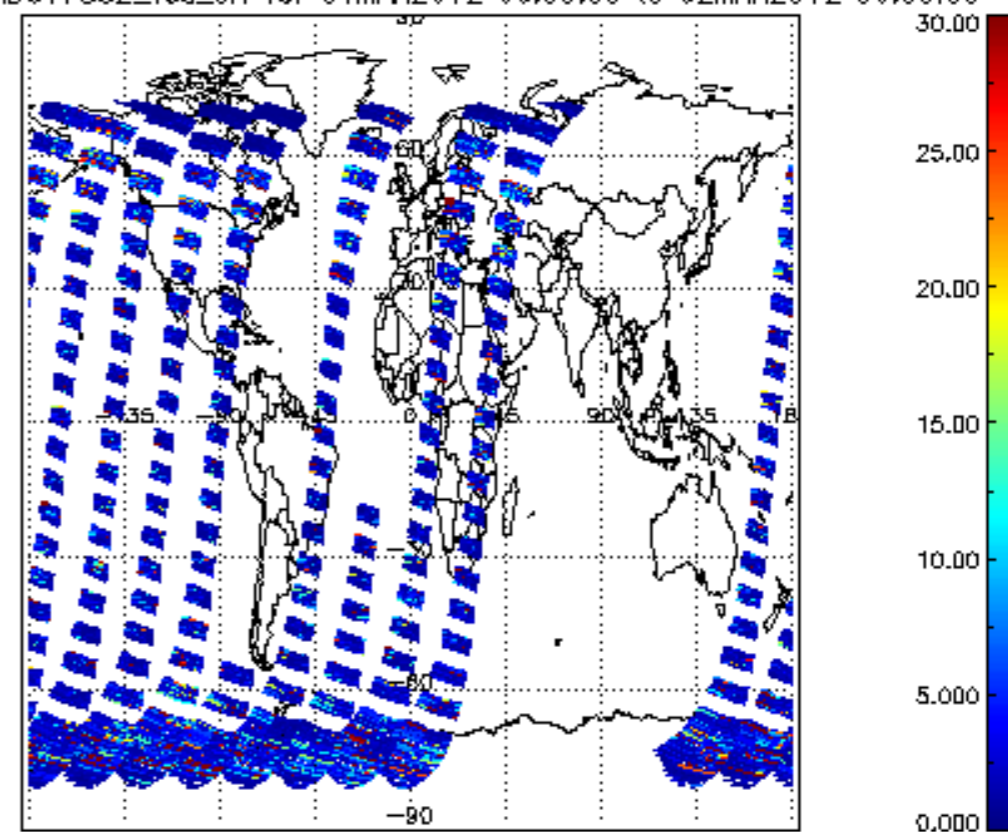




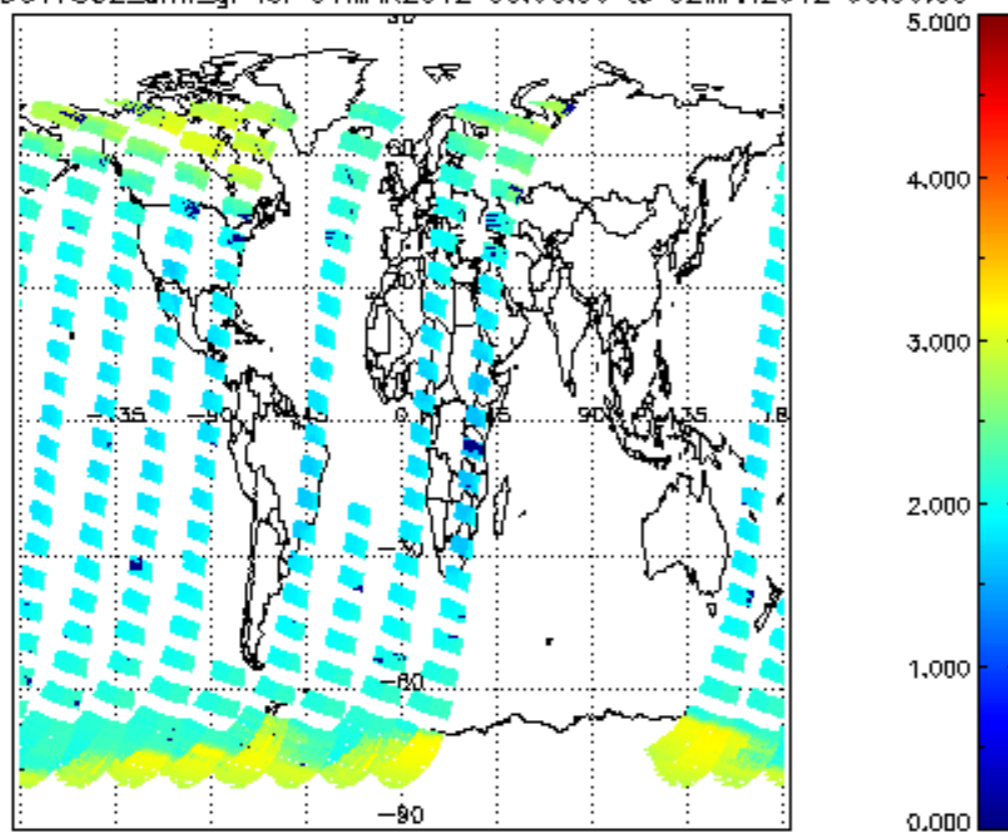
SCIOL2P\_NADUV7S02\_vcd for 01MAR2012 00:00:00 to 02MAR2012 00:00:00



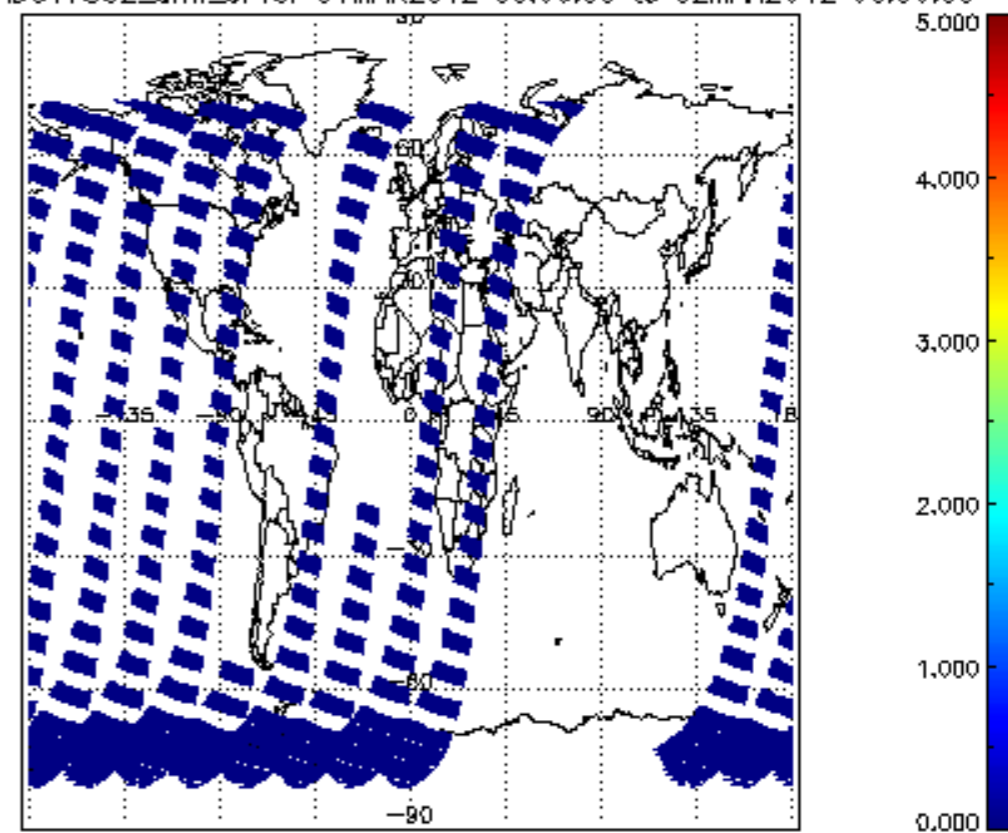
SCIOL2P\_NADUV7S02\_vcd\_err for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

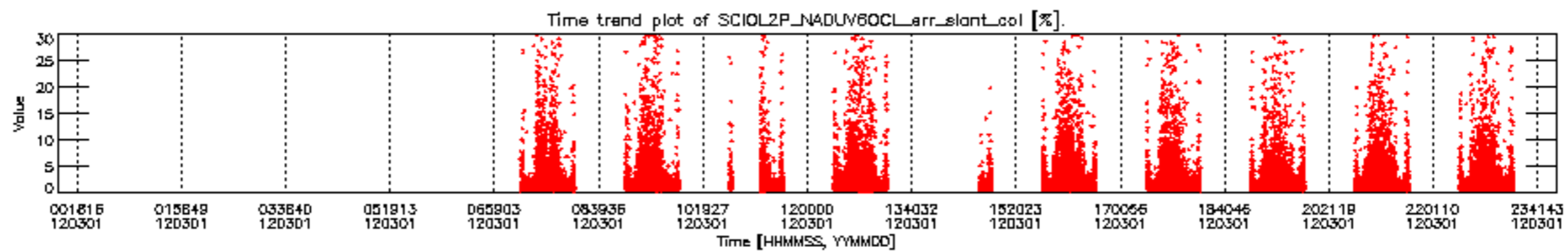
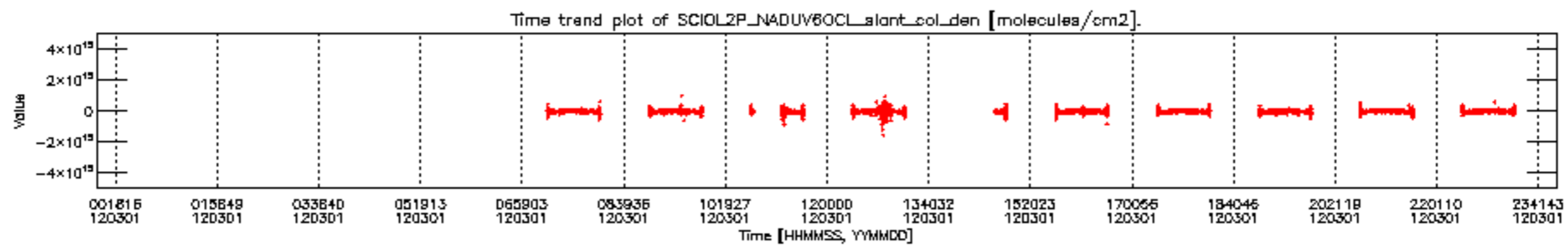


SCIOL2P\_NADUV7S02\_amf\_gr for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

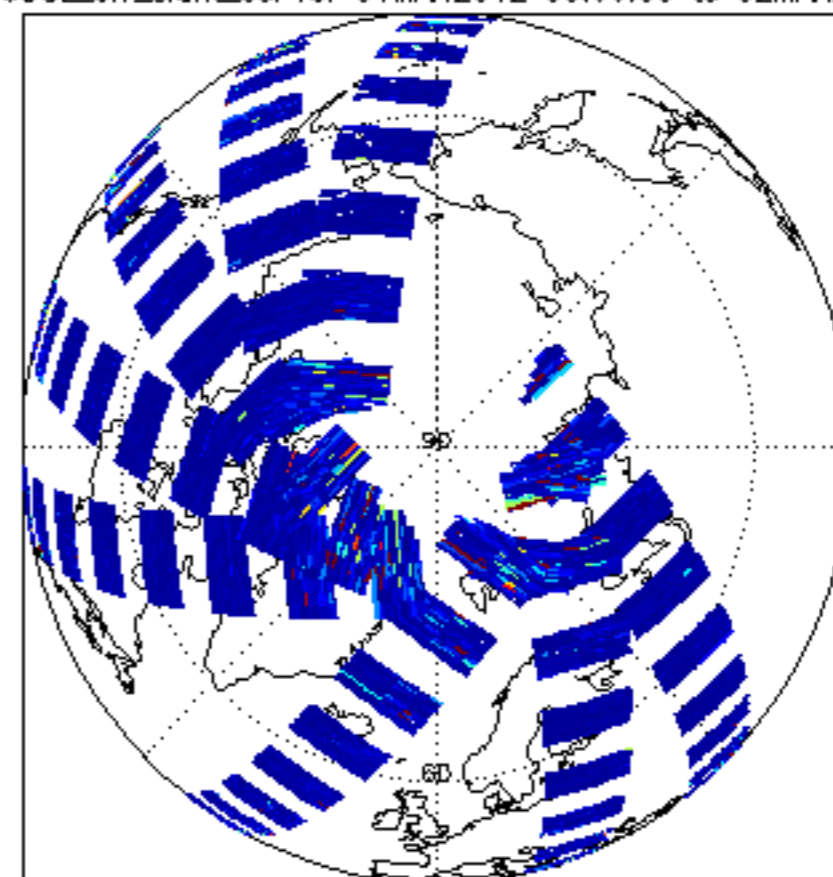
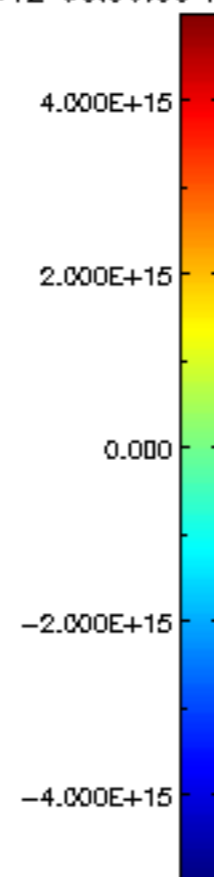
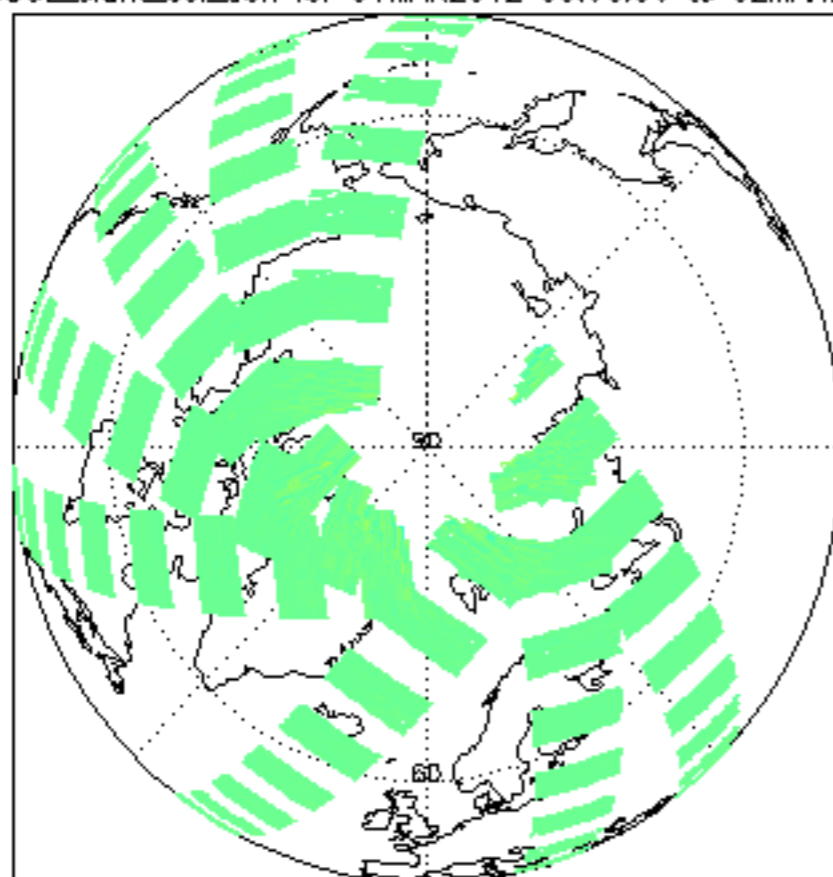


SCIOL2P\_NADUV7S02\_amf\_cl for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

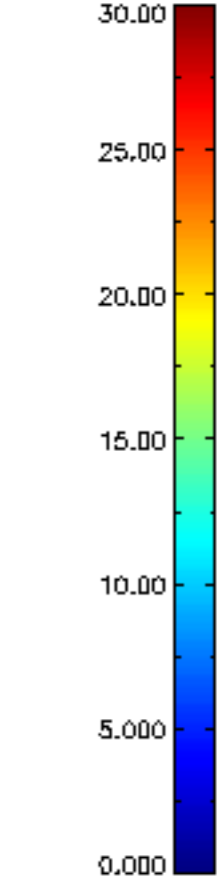
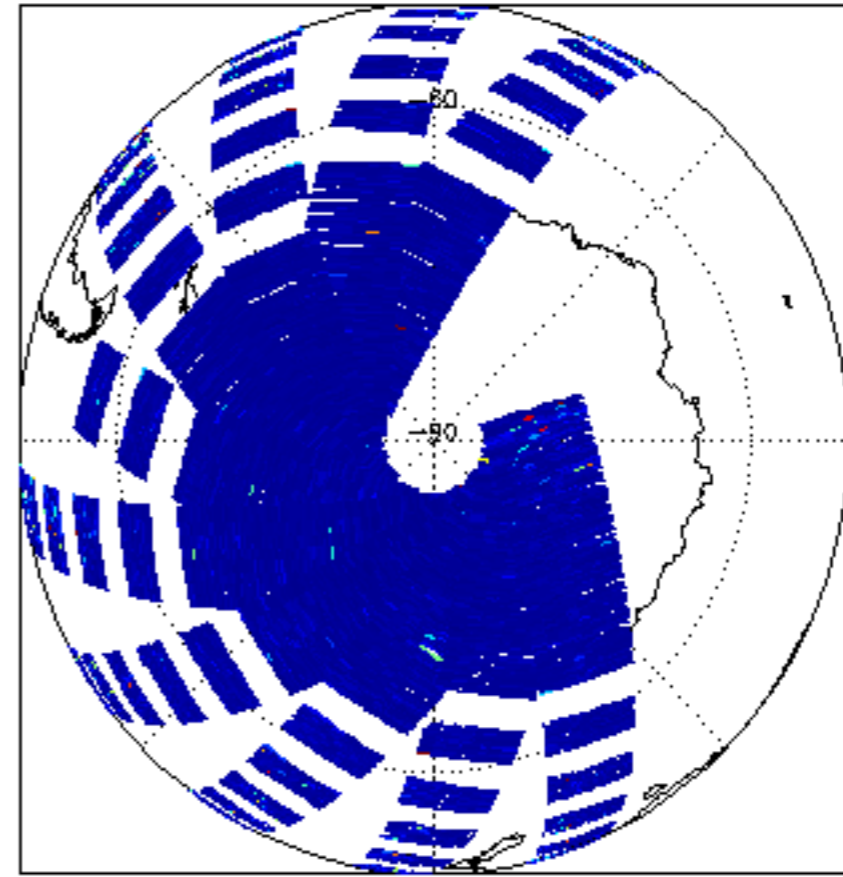
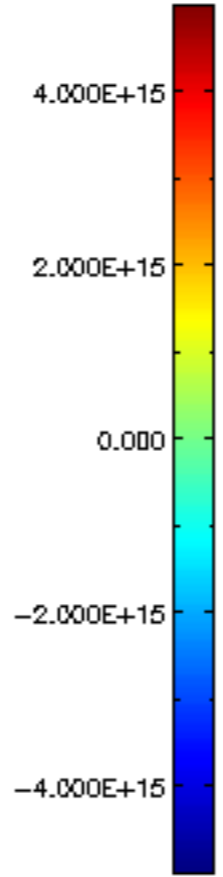
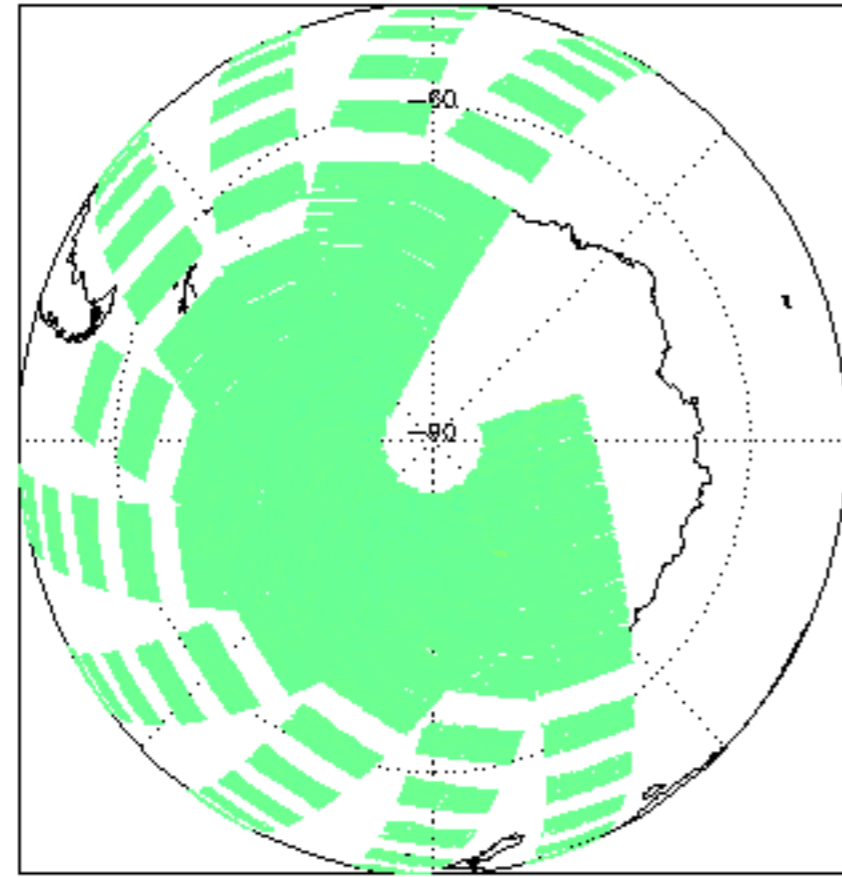




CIOL2P\_NADUV6OCL\_slant\_col\_den for 01MAR2012 00:00:00 to 02MAR2012 00:00:00 np; CIOL2P\_NADUV6OCL\_err\_slant\_col for 01MAR2012 00:00:00 to 02MAR2012 00:00:00 np

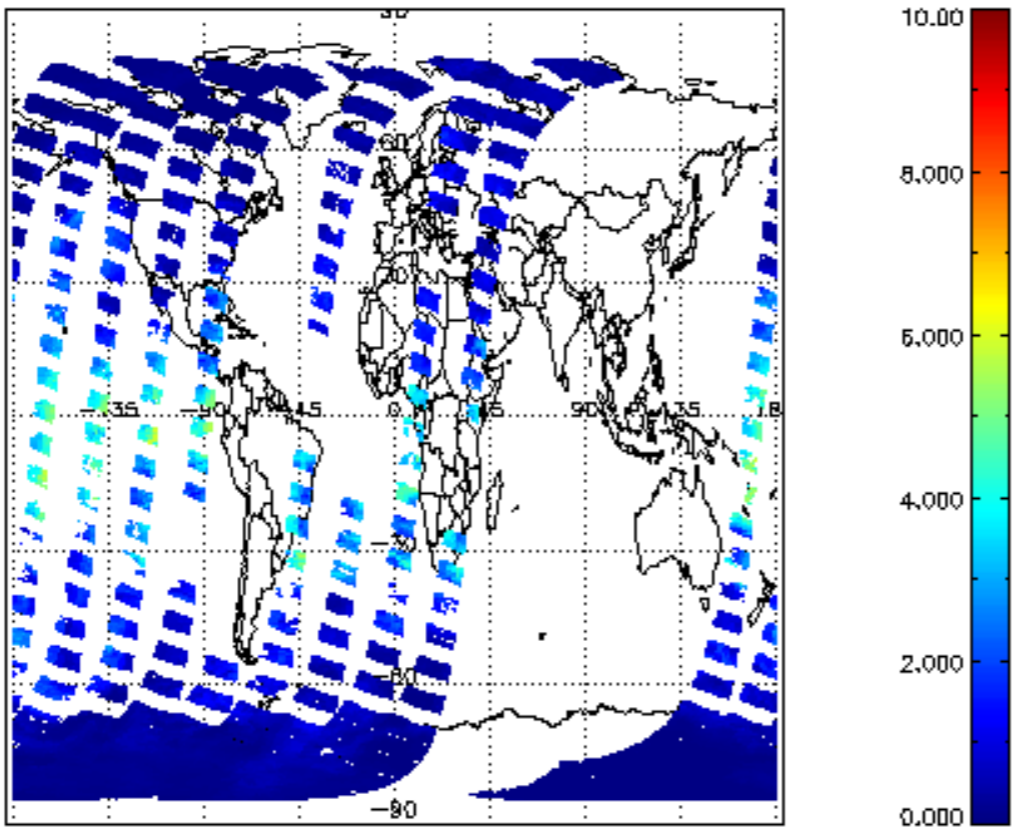


CIOL2P\_NADUV6OCL\_slant\_col\_den for 01MAR2012 00:00:00 to 02MAR2012 00:00:00 sp; CIOL2P\_NADUV6OCL\_err\_slant\_col for 01MAR2012 00:00:00 to 02MAR2012 00:00:00 sp

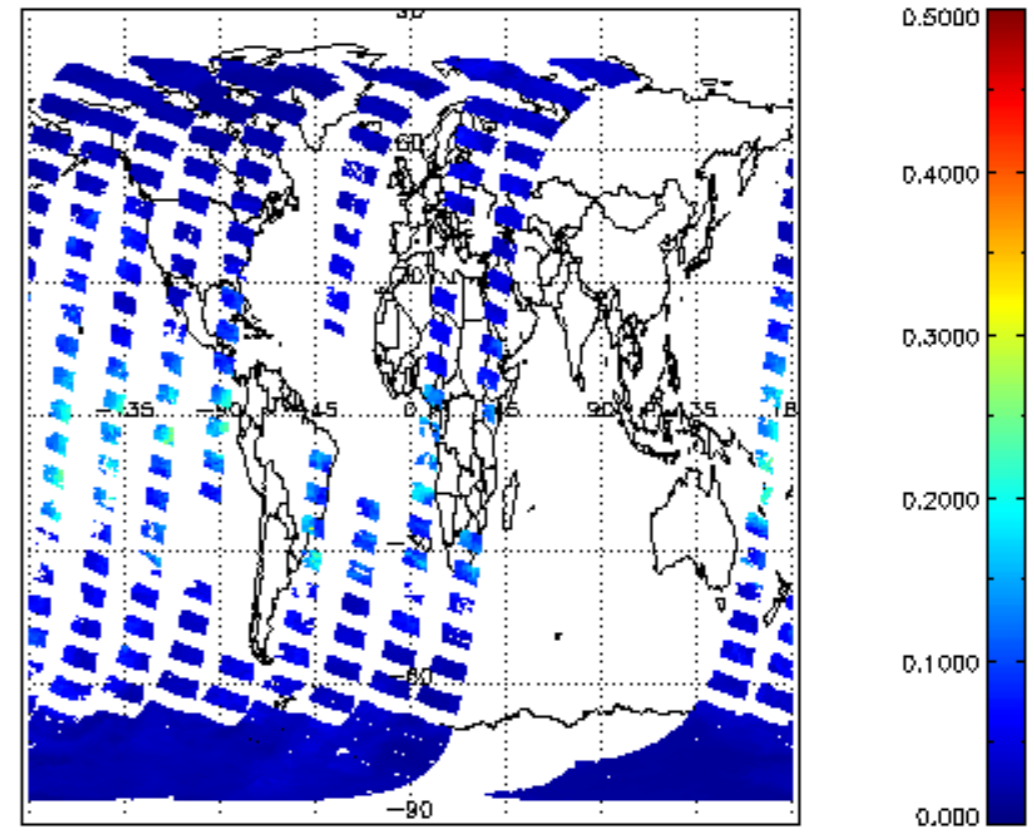




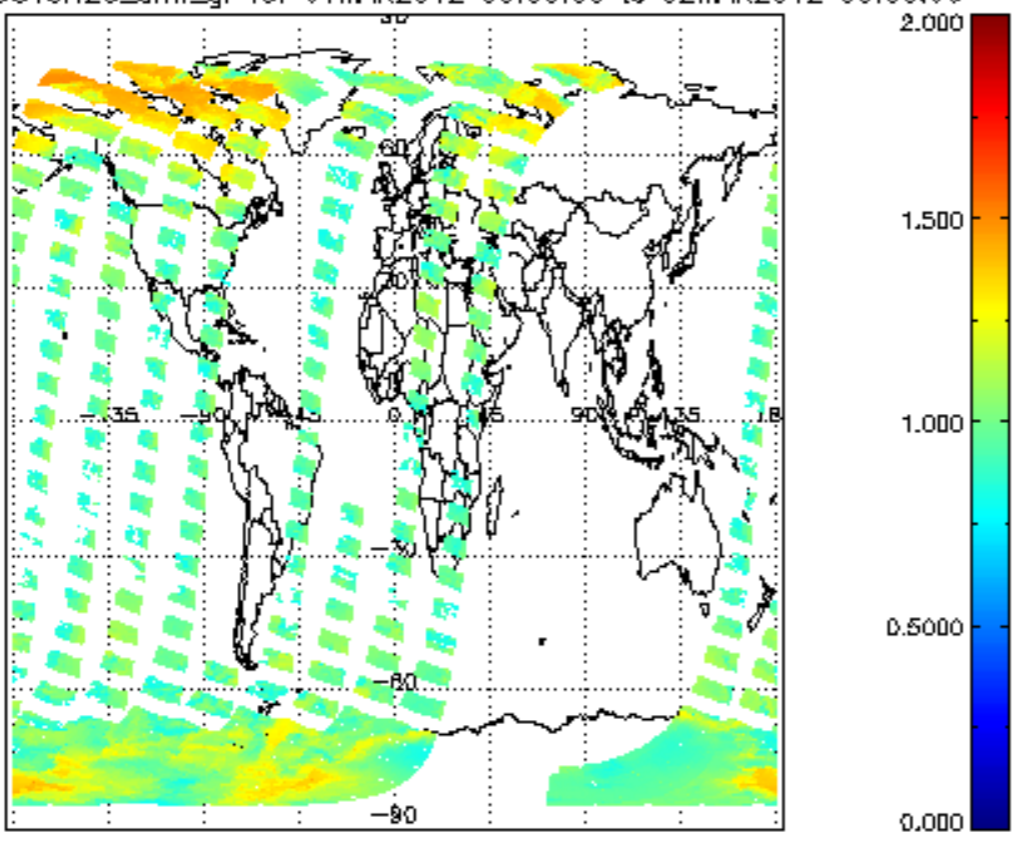
SCIOL2P\_NADUV8H2O\_vcd for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

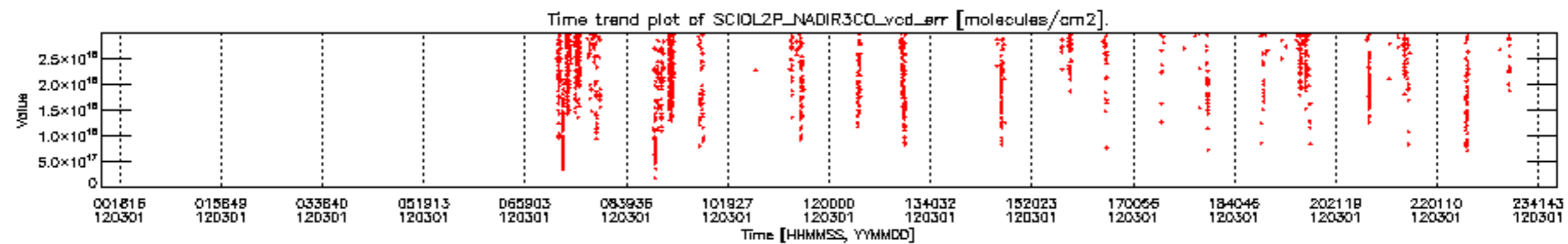
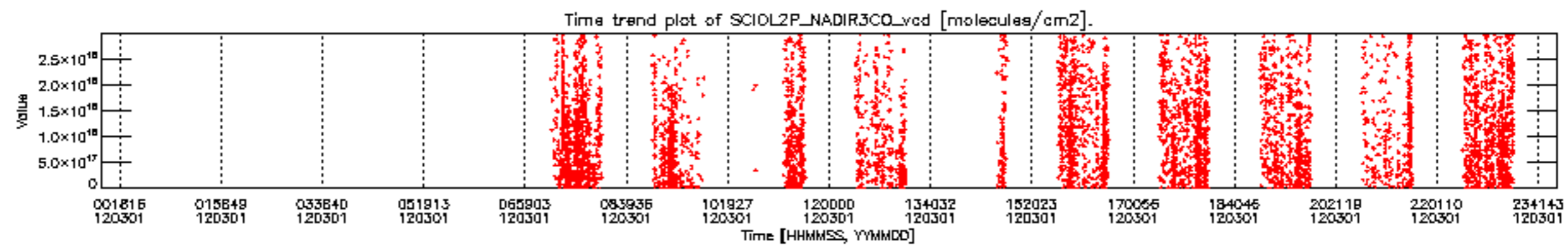


SCIOL2P\_NADUV8H2O\_vcd\_err for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

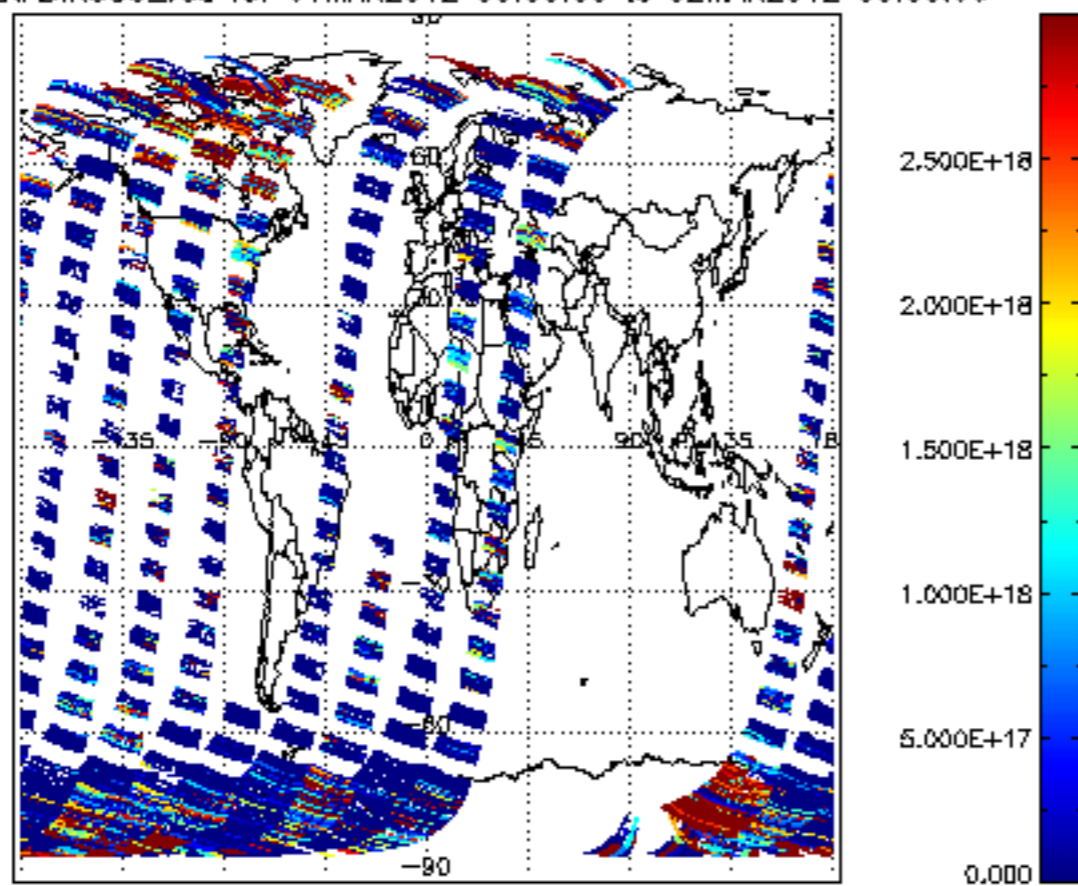


SCIOL2P\_NADUV8H2O\_arnf\_gr for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

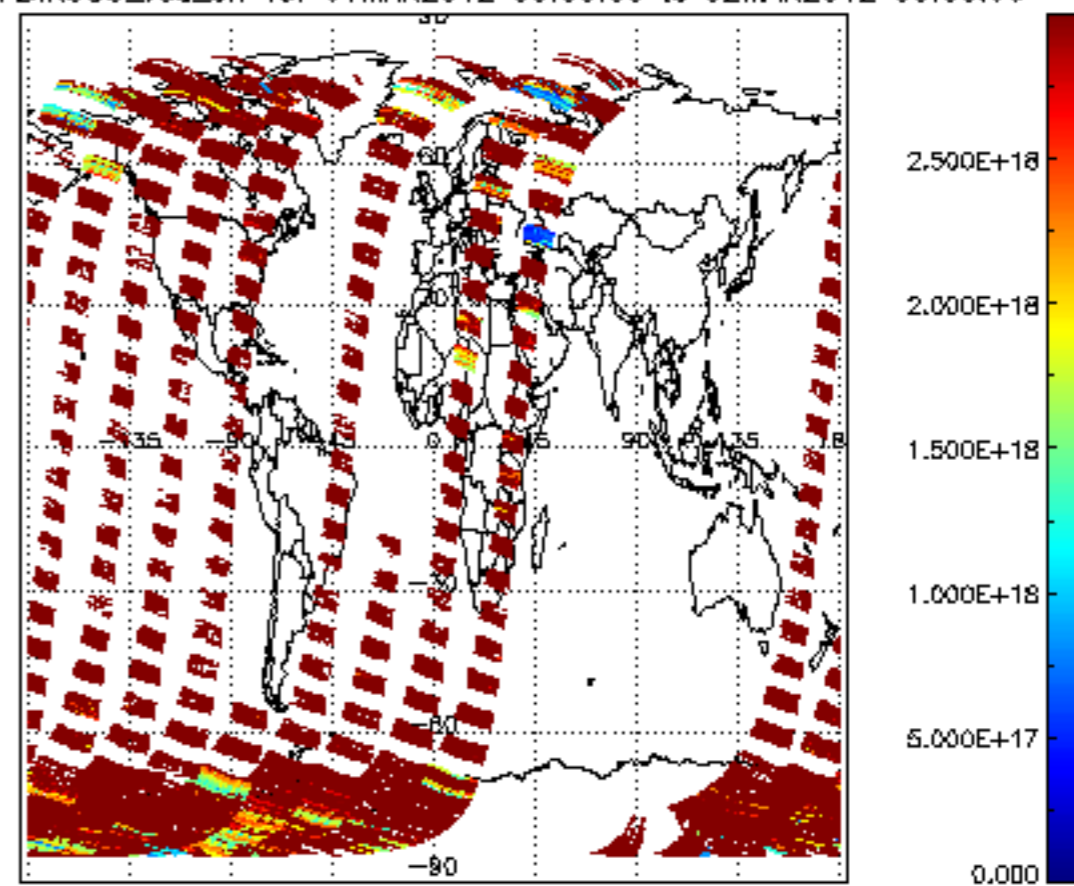




SCIOL2P\_NADIR3CO\_vcd for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

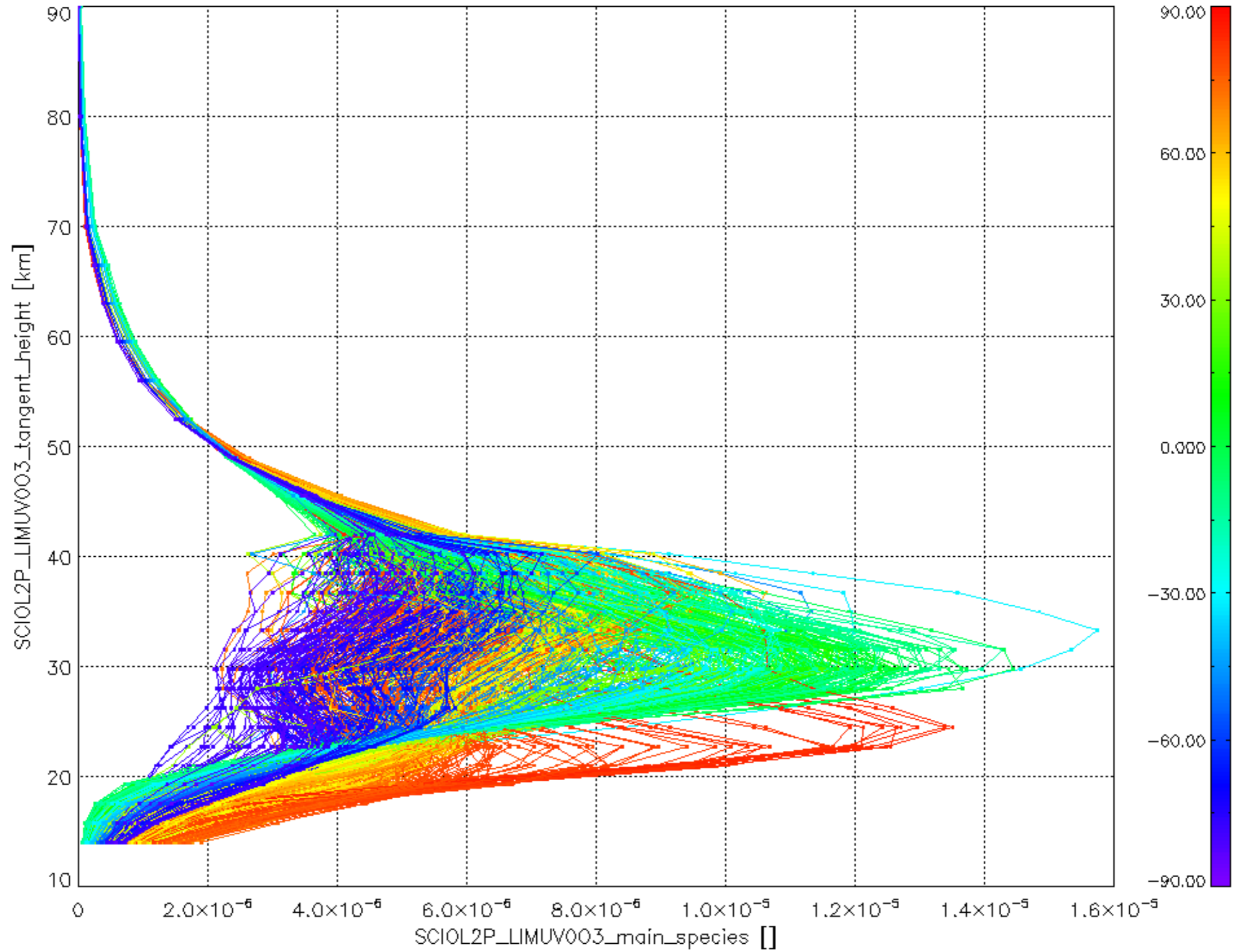


SCIOL2P\_NADIR3CO\_vcd\_err for 01MAR2012 00:00:00 to 02MAR2012 00:00:00

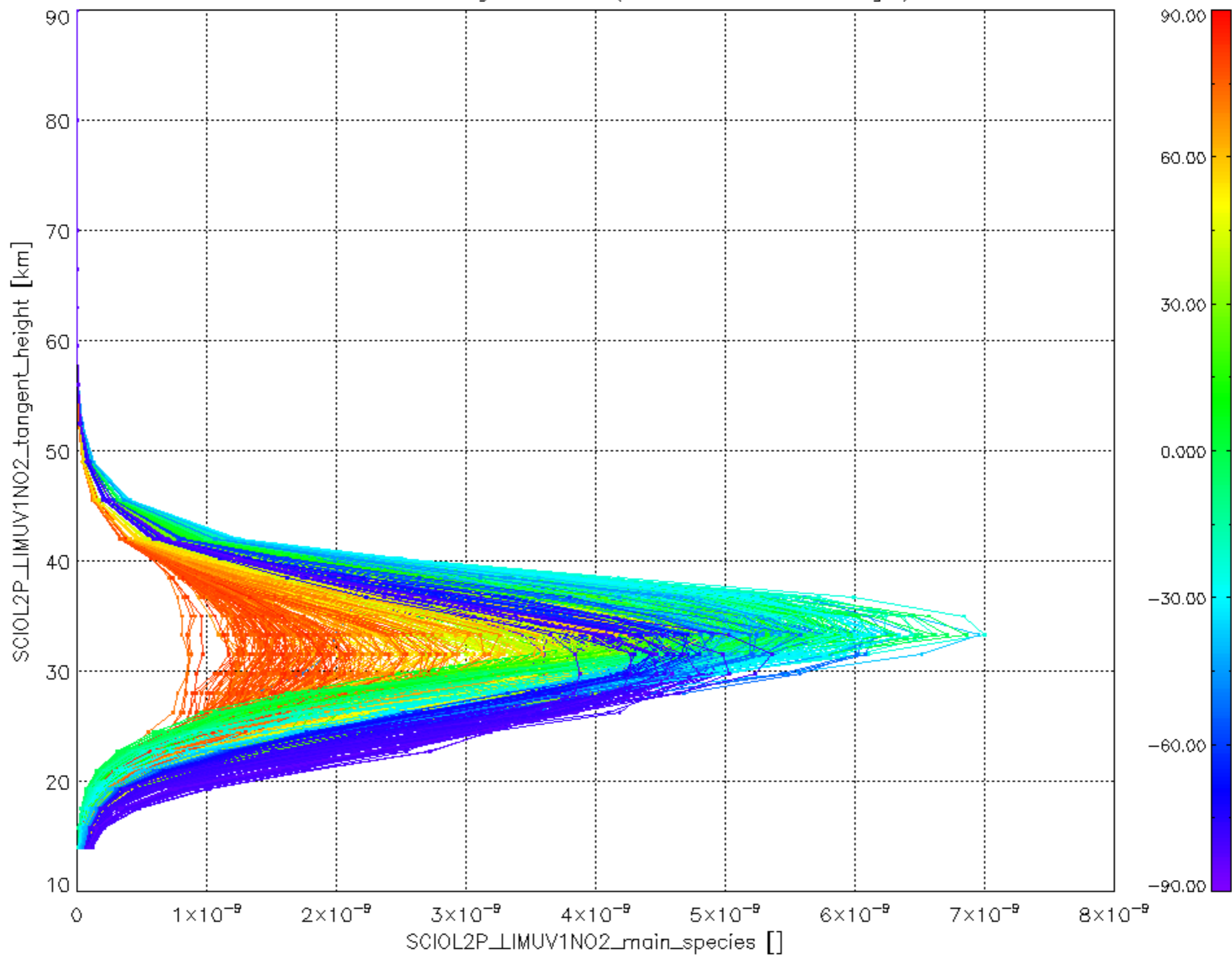




Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



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).

