

## 2. SCIAMACHY Daily Report for Level 2 products

### [2.1. General Info](#)

### [2.2 Product Quality Indicators](#)

- [2.2.1 Cloud parameters](#)
- [2.2.2 Nadir](#)
  - [2.2.2.1 O3 \(UV0\)](#)
  - [2.2.2.2 NO2 \(UV1\)](#)
  - [2.2.2.3 BrO \(UV3\)](#)
  - [2.2.2.4 SO2 \(UV5\)](#)
  - [2.2.2.5 SO2 \(UV7\)](#)
  - [2.2.2.6 OCIO \(UV6\)](#)
  - [2.2.2.7 H2O \(UV8\)](#)
  - [2.2.2.8 CO \(IR3\)](#)
- [2.2.3 Limb](#)
  - [2.2.3.1 O3 \(UV0\)](#)
  - [2.2.3.2 NO2 \(UV1\)](#)
  - [2.2.3.3 BrO \(UV3\)](#)

### [2.3 ADF monitoring](#)

## 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	02JUL2011 04:53:18
Data source version	SCIA-OL/5.01-N
Processing scope for products	26JUN2011 00:00:00 to 27JUN2011 00:00:00
Start time of first product within scope	25JUN2011 23:16:28
Stop time of last product within scope	27JUN2011 01:18:48
Total number of level 2 products	17
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__2PNDPA20110625_231628_000035163104_00015_48736_3853.N1</a>	25JUN2011 23:16:28	26JUN2011 00:15:04	0	GOOD
1	<a href="#">SCI_OL__2PNDPA20110626_005642_000035303104_00016_48737_3854.N1</a>	26JUN2011 00:56:42	26JUN2011 01:55:33	0	GOOD
2	<a href="#">SCI_OL__2PNDPA20110626_023656_000029823104_00017_48738_3858.N1</a>	<b>26JUN2011 02:36:56</b>	<b>26JUN2011 03:26:38</b>	0	GOOD
3	<a href="#">SCI_OL__2PNDPA20110626_032736_000060243104_00018_48739_3860.N1</a>	<b>26JUN2011 03:27:36</b>	<b>26JUN2011 05:08:01</b>	0	GOOD
4	<a href="#">SCI_OL__2PNDPA20110626_050804_000059413104_00019_48740_3878.N1</a>	26JUN2011 05:08:04	26JUN2011 06:47:06	0	GOOD

5	SCI_OL__2PNDPA20110626_064913_000039923104_00020_48741_3861.N1	26JUN2011 06:49:13	26JUN2011 07:55:45	0	GOOD
6	SCI_OL__2PNDPA20110626_075643_000060103104_00021_48742_3862.N1	26JUN2011 07:56:43	26JUN2011 09:36:53	0	GOOD
7	SCI_OL__2PNDPA20110626_093657_000059563104_00022_48743_3864.N1	26JUN2011 09:36:57	26JUN2011 11:16:13	0	GOOD
8	SCI_OL__2PNDPA20110626_111616_000059413104_00023_48744_3863.N1	26JUN2011 11:16:16	26JUN2011 12:55:18	0	GOOD
9	SCI_OL__2PNDPA20110626_125522_000058873104_00024_48745_3865.N1	26JUN2011 12:55:22	26JUN2011 14:33:29	0	GOOD
10	SCI_OL__2PNDPA20110626_143333_000057643104_00025_48746_3866.N1	26JUN2011 14:33:33	26JUN2011 16:09:38	0	GOOD
11	SCI_OL__2PNDPA20110626_160941_000058963104_00026_48747_3867.N1	26JUN2011 16:09:41	26JUN2011 17:47:58	0	GOOD
12	SCI_OL__2PNDPA20110626_174802_000058193104_00027_48748_3868.N1	26JUN2011 17:48:02	26JUN2011 19:25:01	0	GOOD
13	SCI_OL__2PNDPA20110626_192505_000061383104_00028_48749_3869.N1	26JUN2011 19:25:05	26JUN2011 21:07:23	0	GOOD
14	SCI_OL__2PNDPA20110626_210727_000030533104_00029_48750_3879.N1	26JUN2011 21:07:27	26JUN2011 21:58:21	0	GOOD
15	SCI_OL__2PNDPA20110626_223944_000035163104_00029_48750_3872.N1	26JUN2011 22:39:44	26JUN2011 23:38:20	0	GOOD
16	SCI_OL__2PNDPA20110627_001958_000035303104_00030_48751_3873.N1	27JUN2011 00:19:58	27JUN2011 01:18:48	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: 170050

Total number of cloud data DSRs with good quality flag (=0): 170050 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	170050	0.0000	0.0000	0.0000	0.0000	0.0000	
INTEGR_TIME	170050	0.16400	0.12500	0.12500	0.25000	0.057912	s
CL_FRAC	170050	0.29520	0.24970	0.0000	1.0000	0.26604	
CL_FRAC_ERR	170050	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	170050	5.2479	4.0000	4.0000	8.0000	1.8532	
PMD_READ_CL[0]	170050	0.20687	0.0000	0.0000	8.0000	1.0072	-
PMD_READ_CL[1]	170050	1.5099	0.0000	0.0000	8.0000	2.5215	-
CL_TOP_HEIGHT	128847	3.0934	1.1934	0.0000	17.000	3.5608	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	128847	59.478	87.337	0.0000	101.00	44.282	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	170050	11100000	11100000	11100000	11100000	0.0000	
CLOUD_FLAGS	170050	11001111	11000100	11000000	11100000	3709.7	
AERO_ABSO_IND	170050	0.17205	0.0000	0.0000	14.662	0.42440	
AERO_IND_DIAG	170050	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	170050	01010001	00000000	00000000	11000000	24275.	

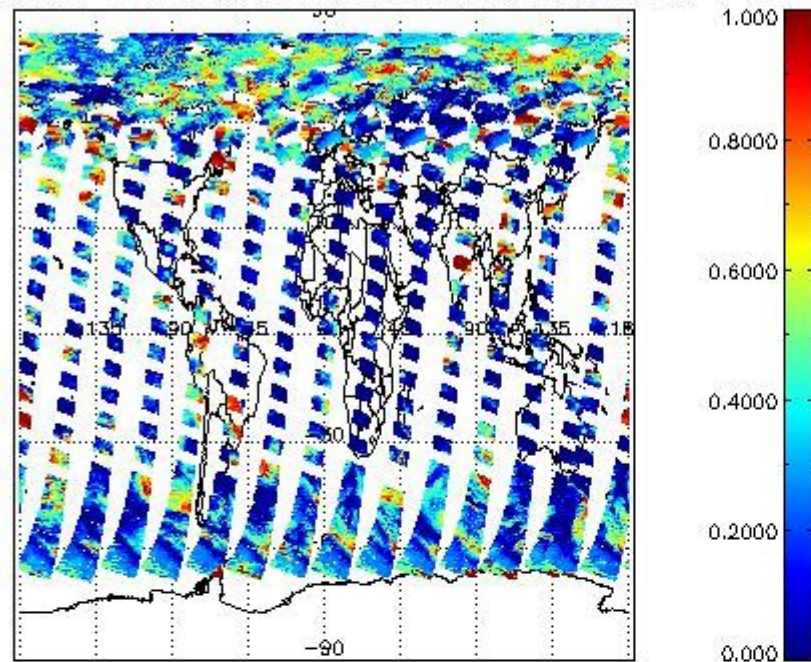
#### Time and geolocation plots:

Plots are available for the following parameters:

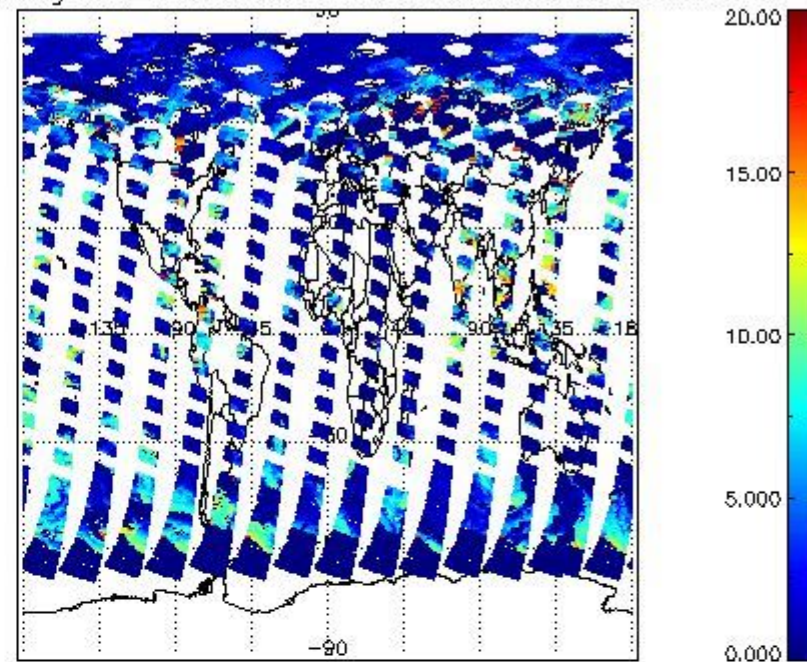
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



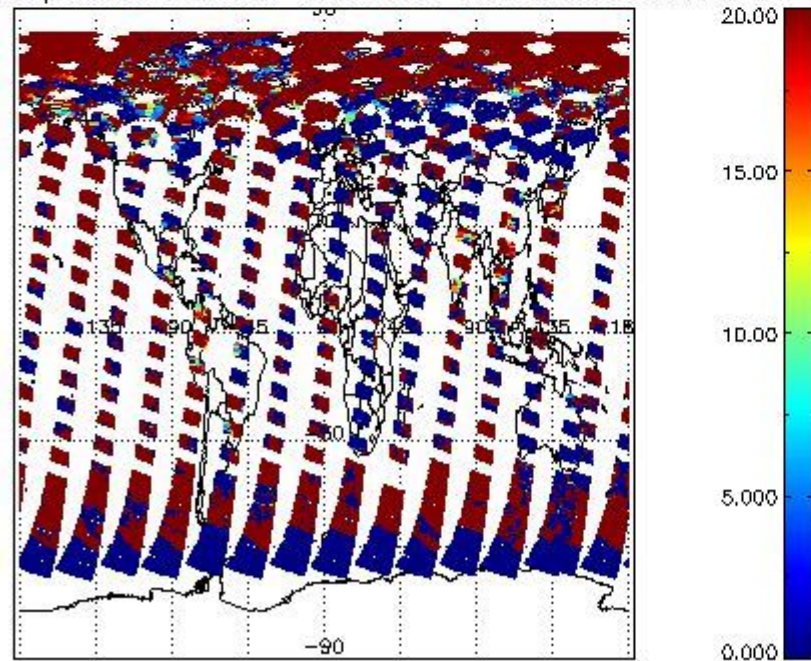
cL\_frac for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



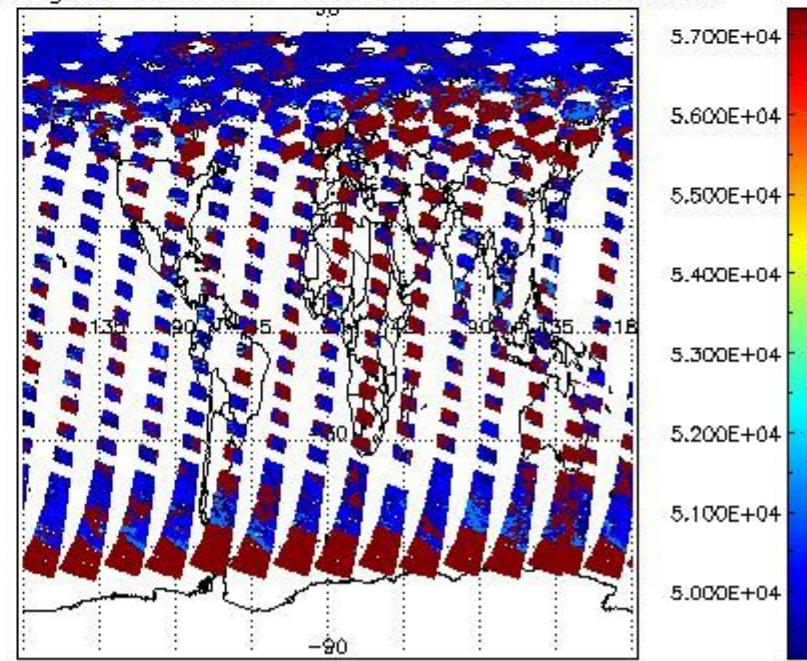
cL\_top\_height for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



cL\_opt\_depth for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



cloud\_flags for 26JUN2011 00:00:00 to 27JUN2011 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:

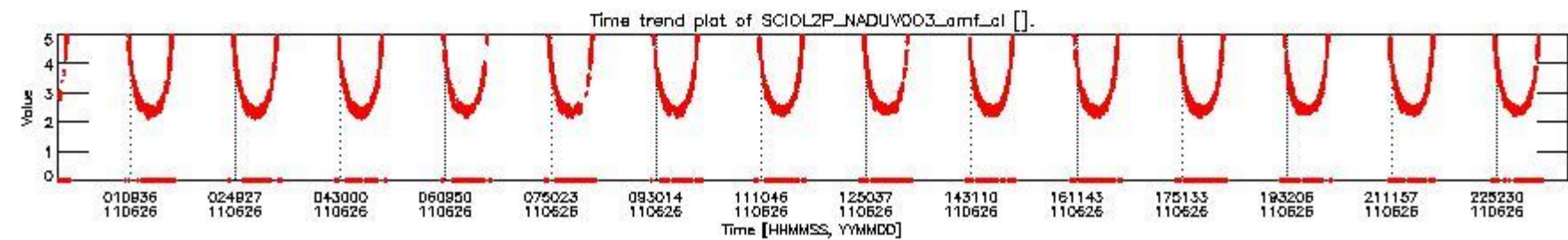
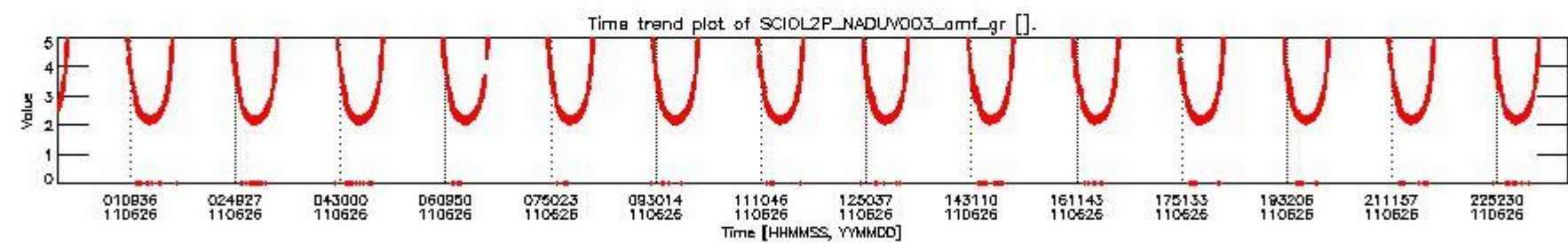
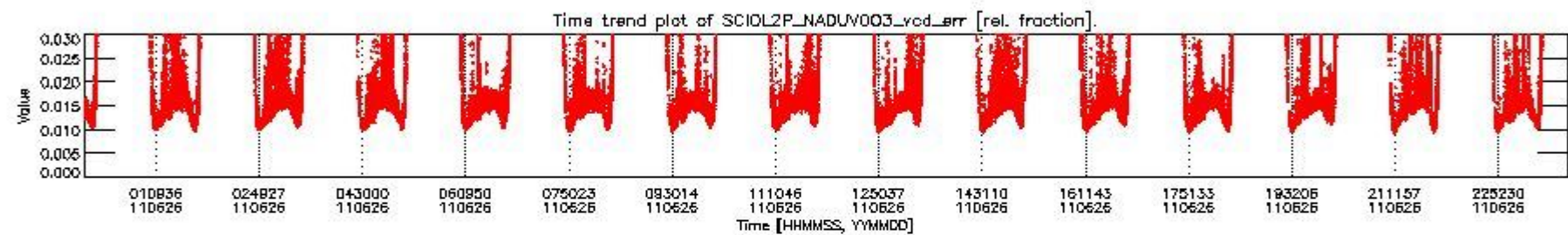
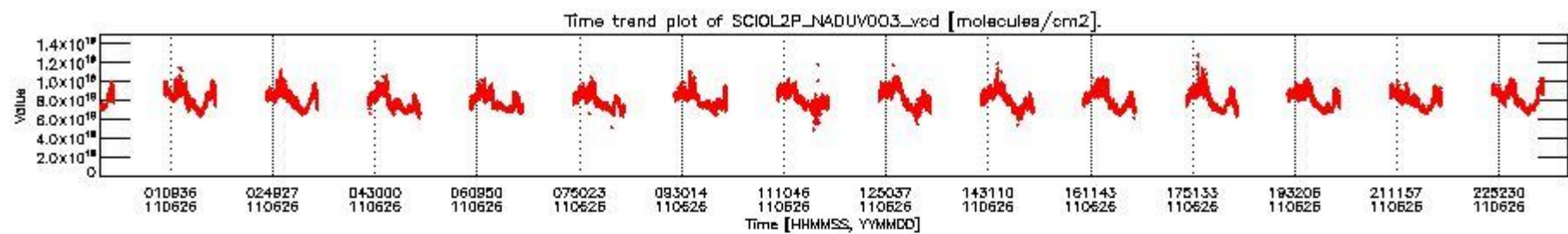
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

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.

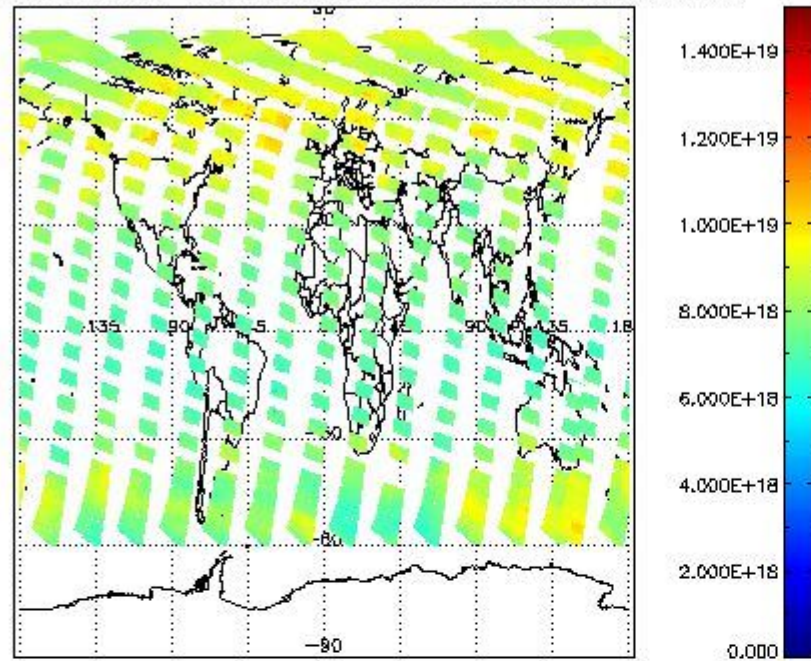
#### 2.2.2.1 O3 (UV0)



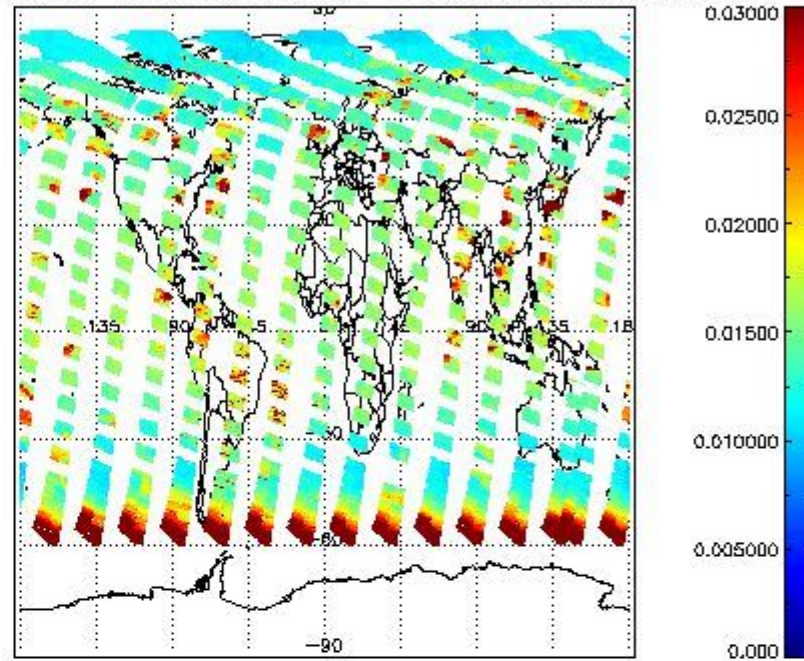




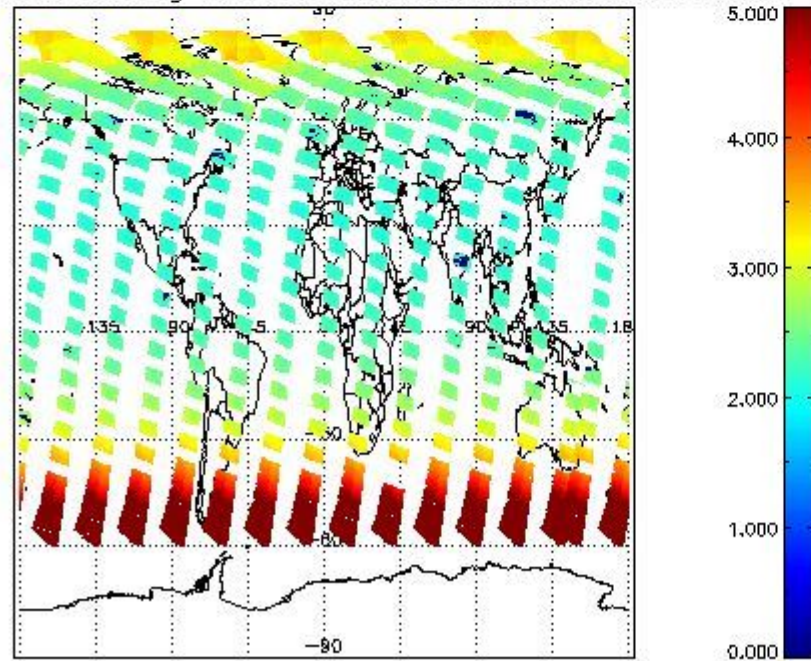
SCIOL2P\_NADUV003\_vcd for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



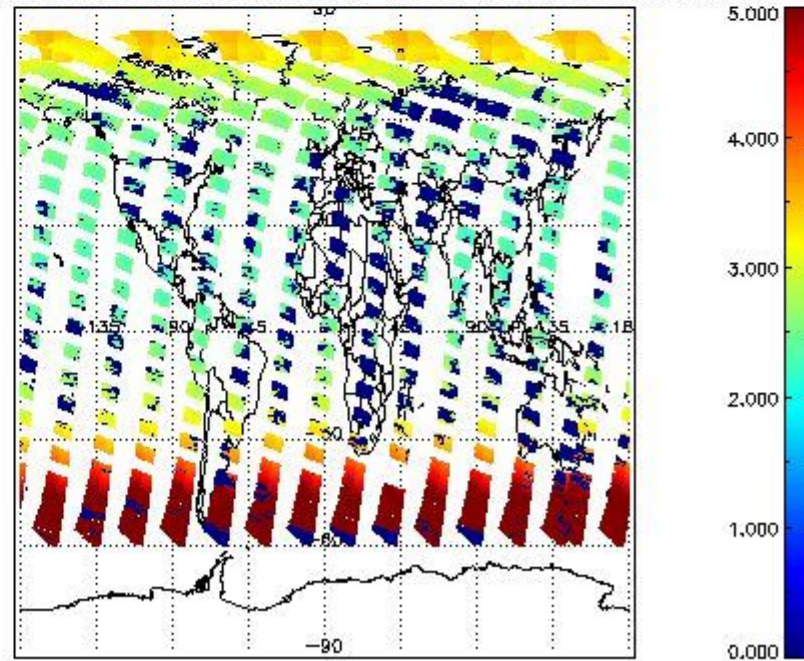
SCIOL2P\_NADUV003\_vcd\_err for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



SCIOL2P\_NADUV003\_amf\_gr for 26JUN2011 00:00:00 to 27JUN2011 00:00:00

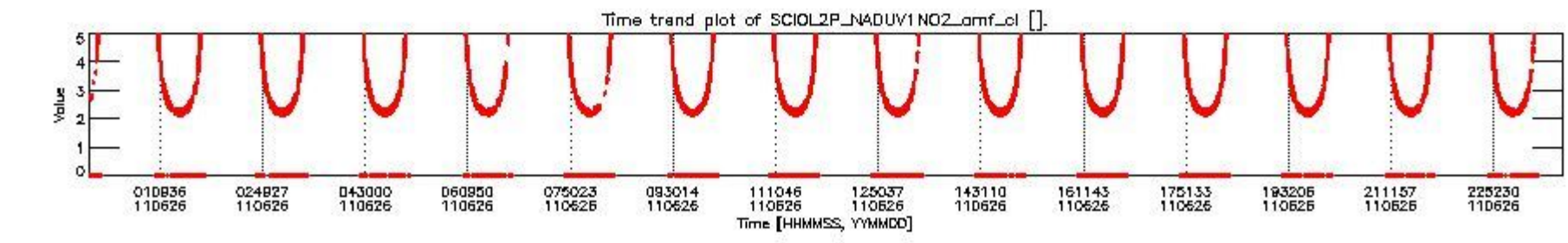
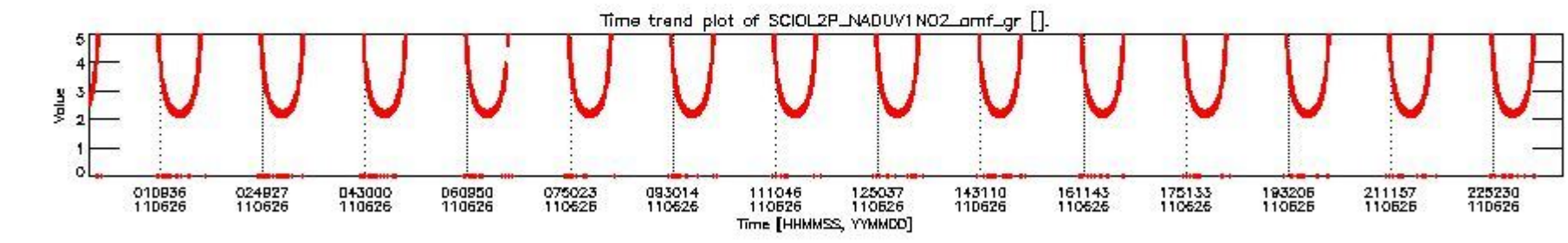
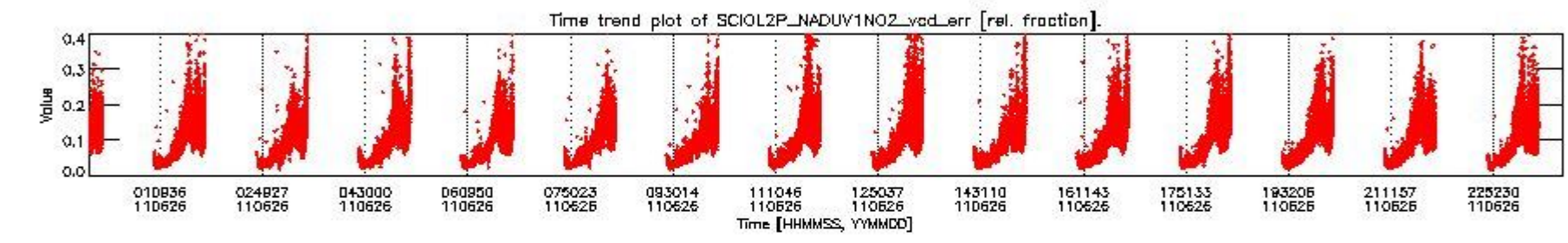
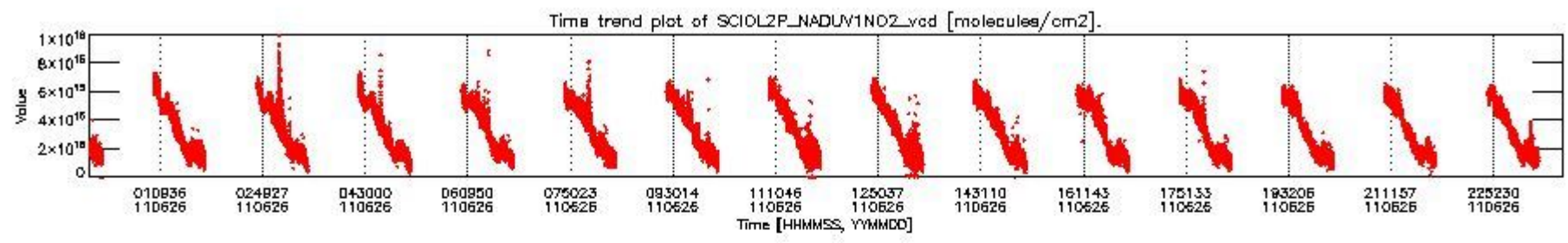


SCIOL2P\_NADUV003\_amf\_cl for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



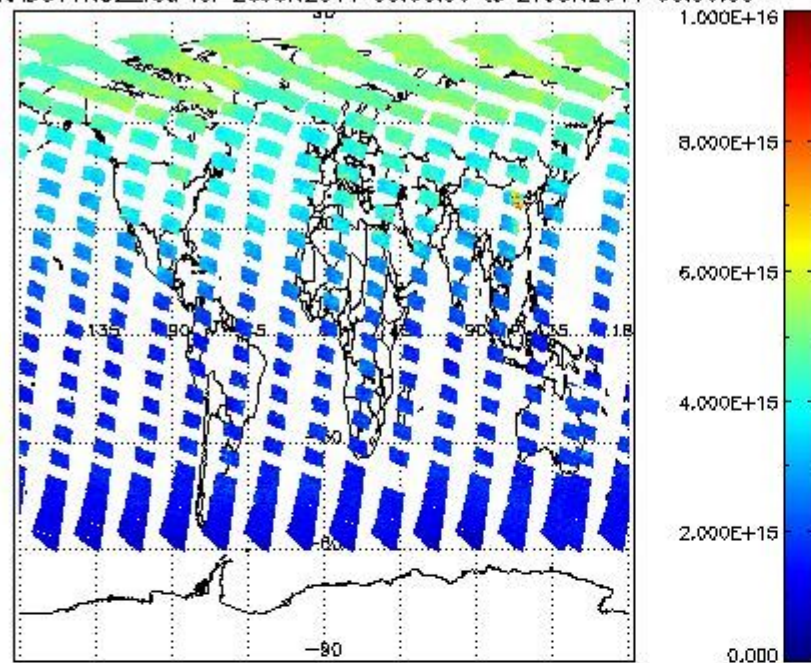
2.2.2.2 NO2 (UV1)



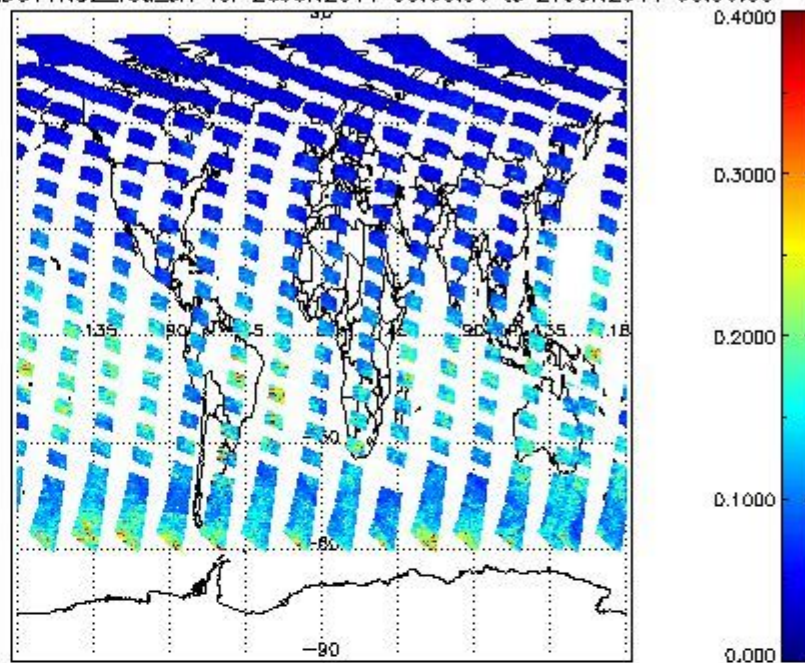




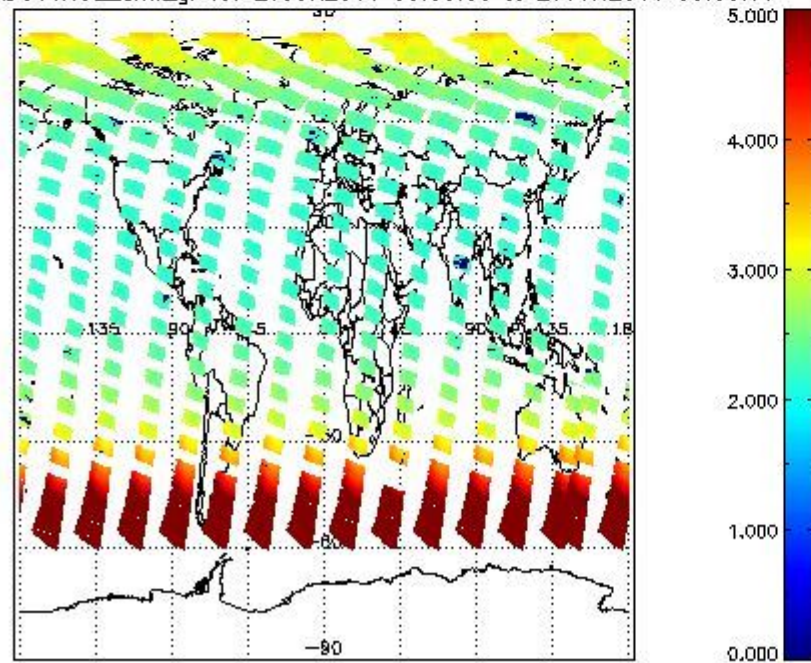
SCIOL2P\_NADUV1NO2\_vcd for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



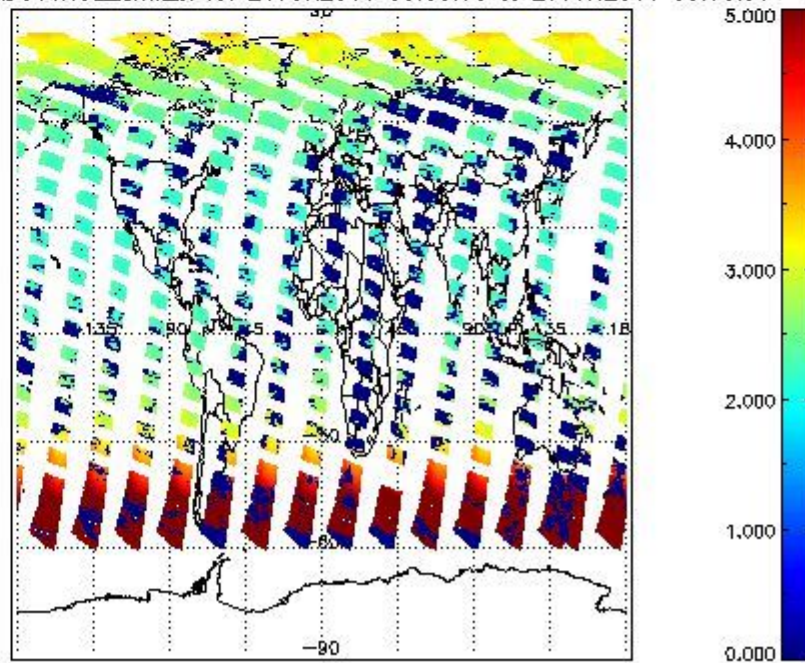
SCIOL2P\_NADUV1NO2\_vcd\_err for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 26JUN2011 00:00:00 to 27JUN2011 00:00:00

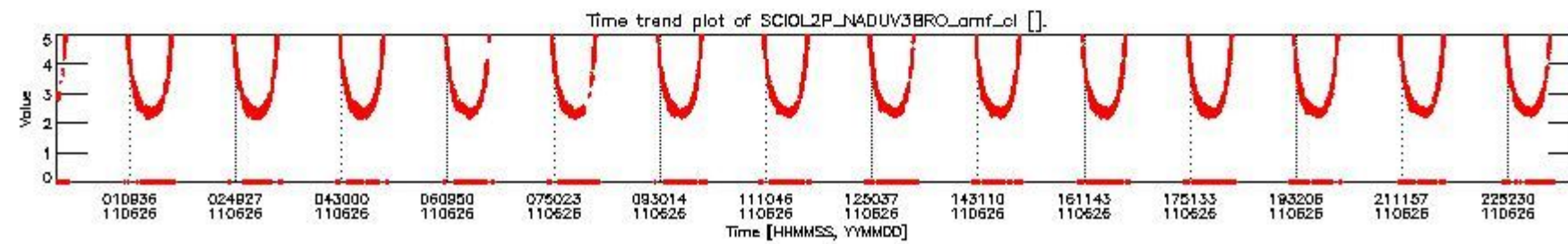
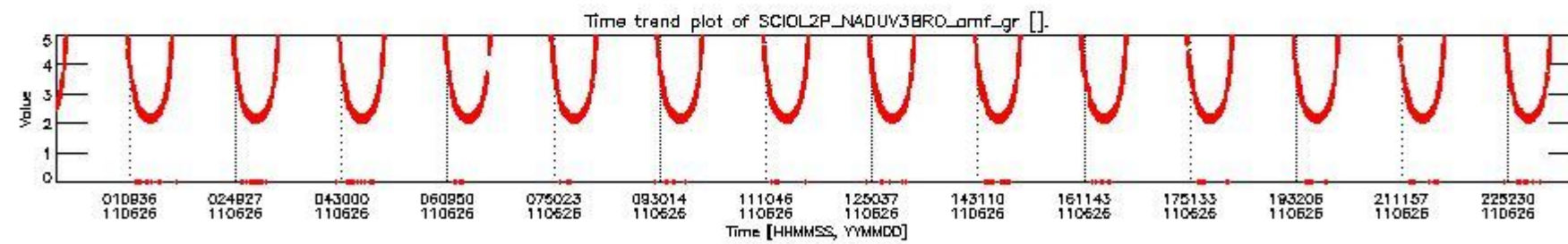
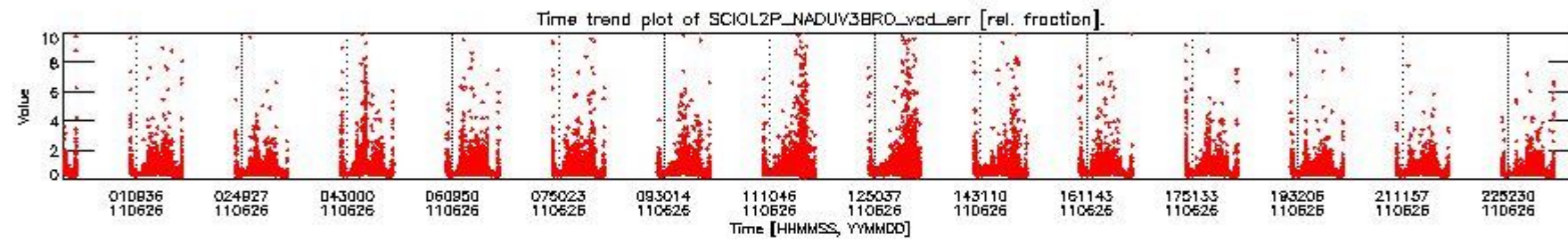
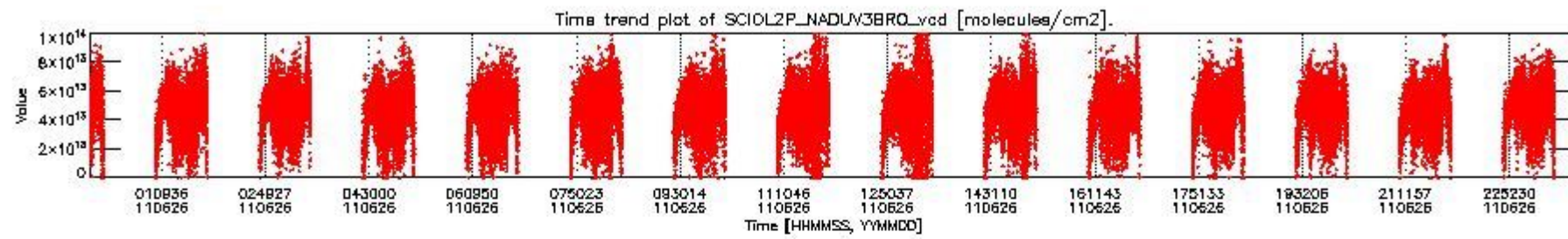


SCIOL2P\_NADUV1NO2\_amf\_cl for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



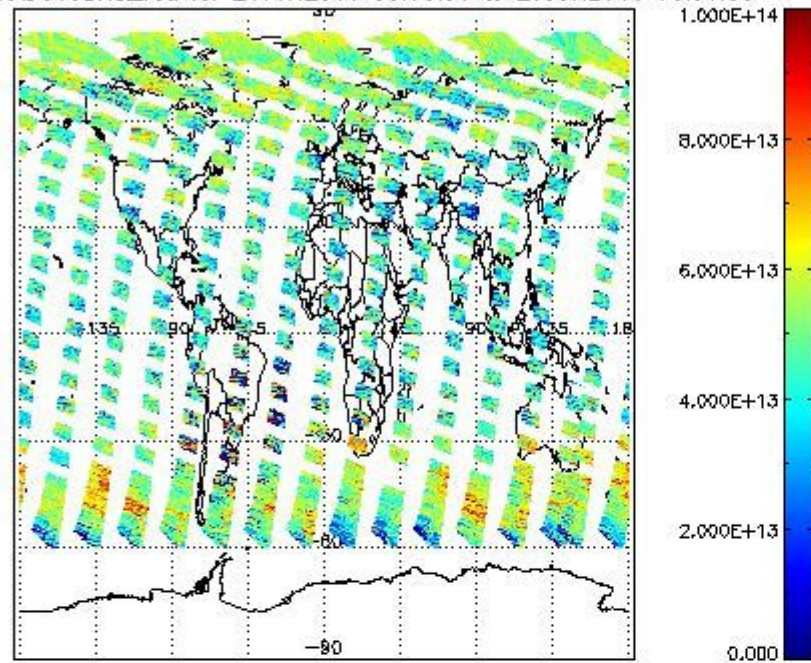
2.2.2.3 BrO (UV3)



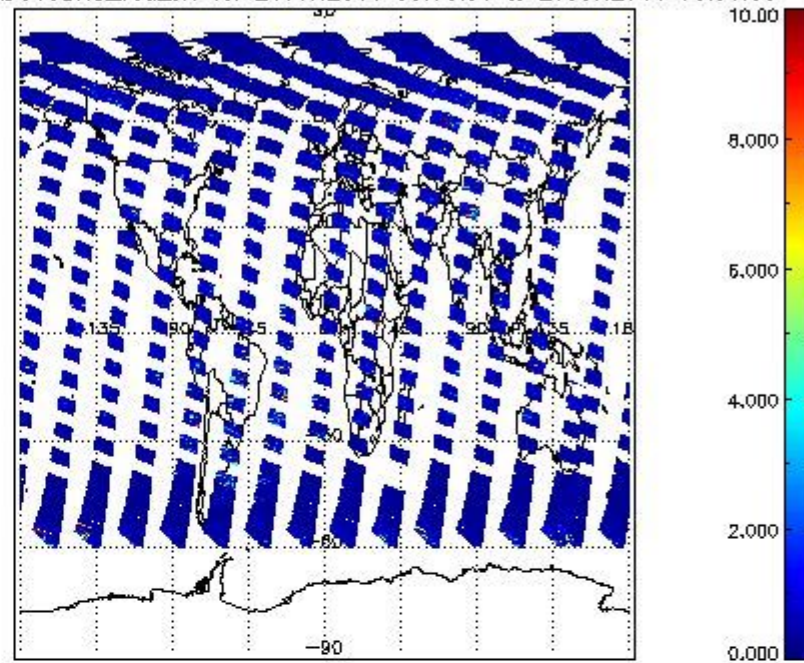




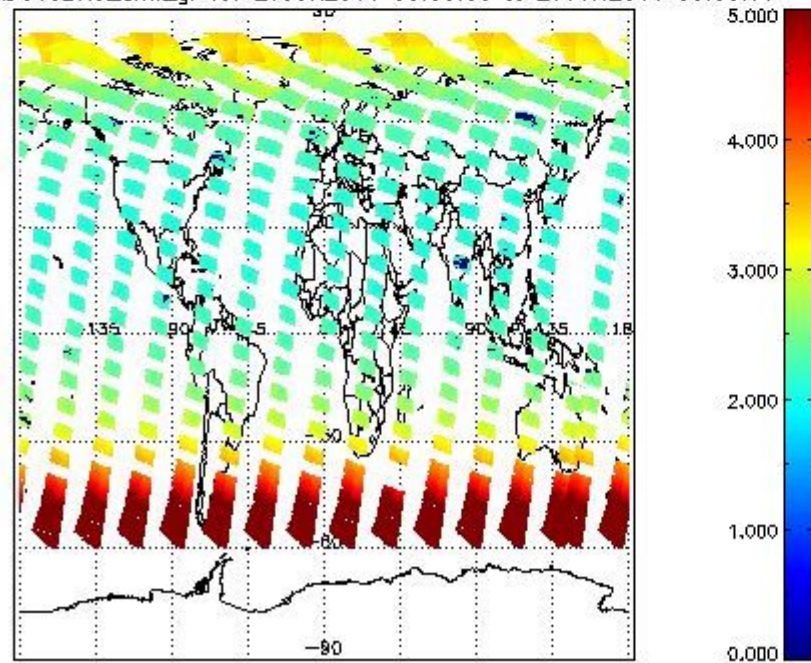
SCIOL2P\_NADUV3BRO\_vcd for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



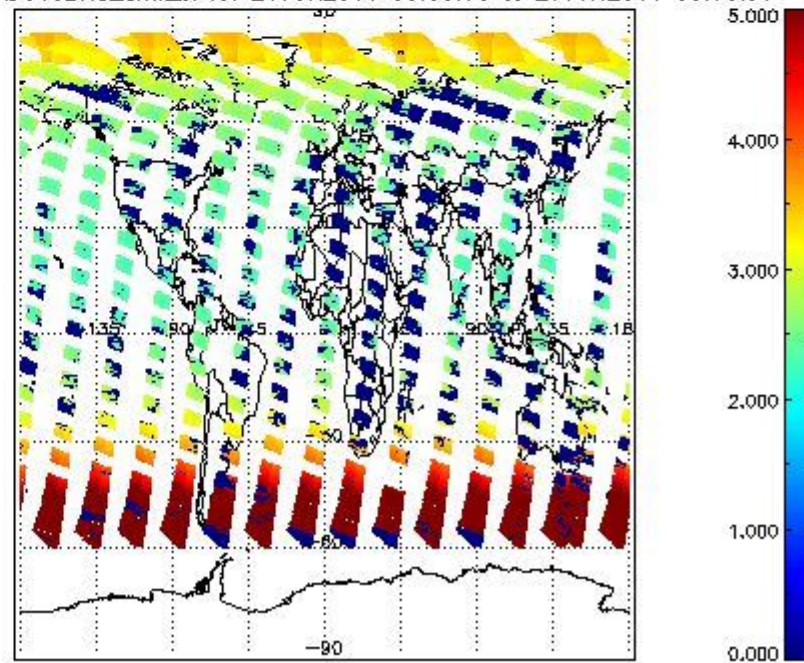
SCIOL2P\_NADUV3BRO\_vcd\_err for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



SCIOL2P\_NADUV3BRO\_amf\_gr for 26JUN2011 00:00:00 to 27JUN2011 00:00:00

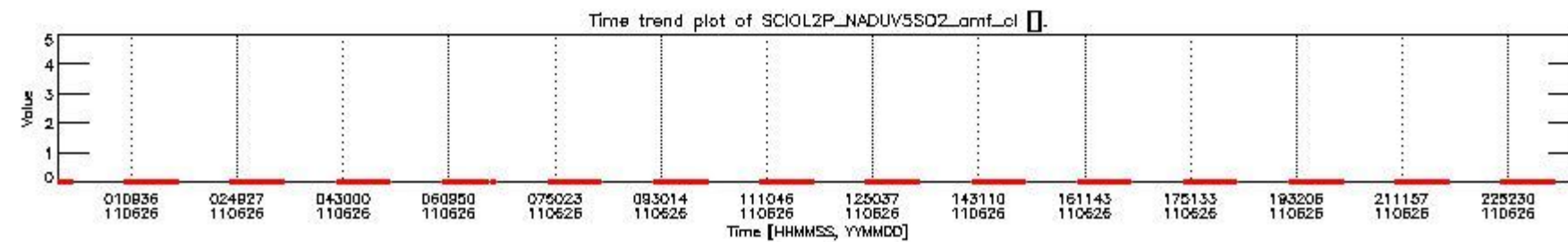
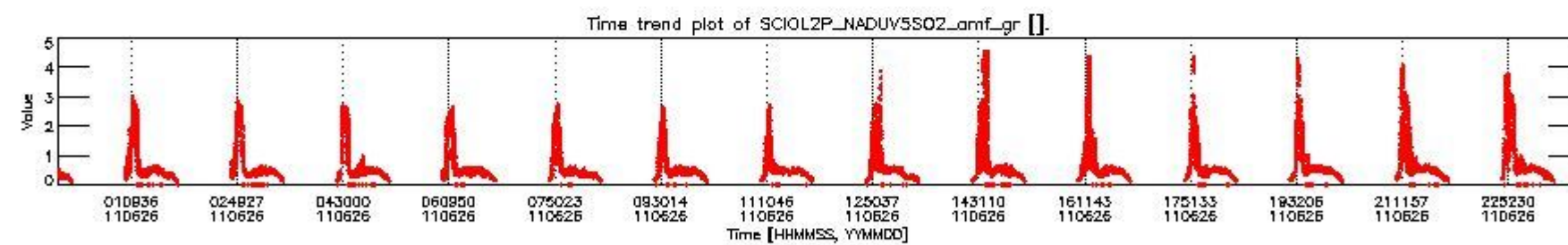
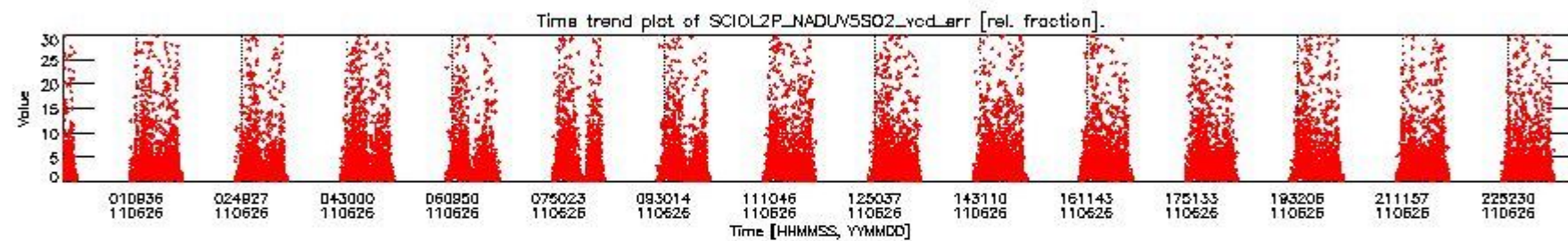
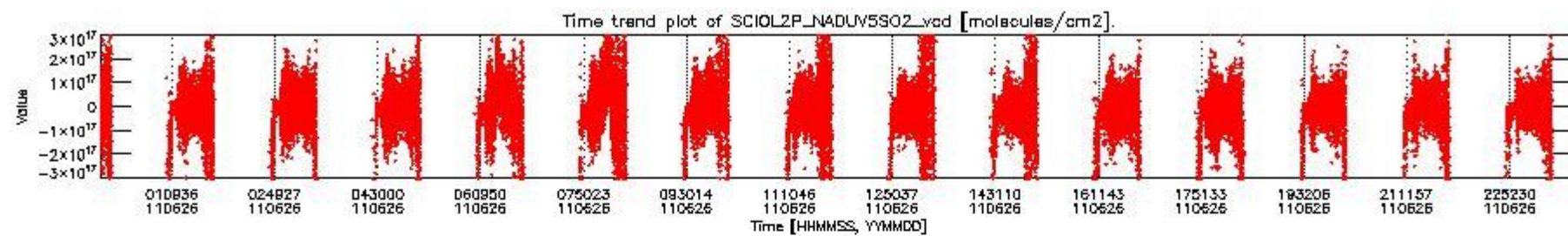


SCIOL2P\_NADUV3BRO\_amf\_cl for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



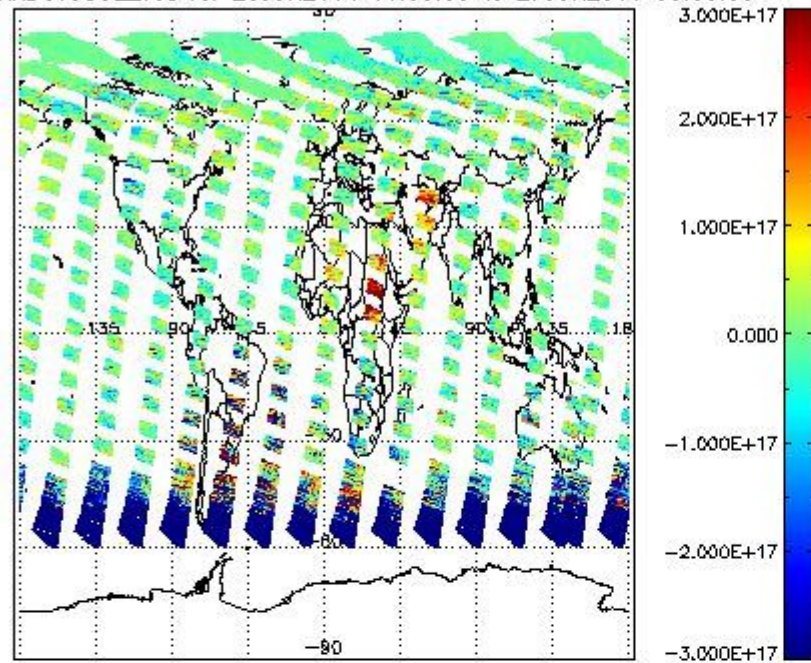
#### 2.2.2.4 SO2 (UV5)



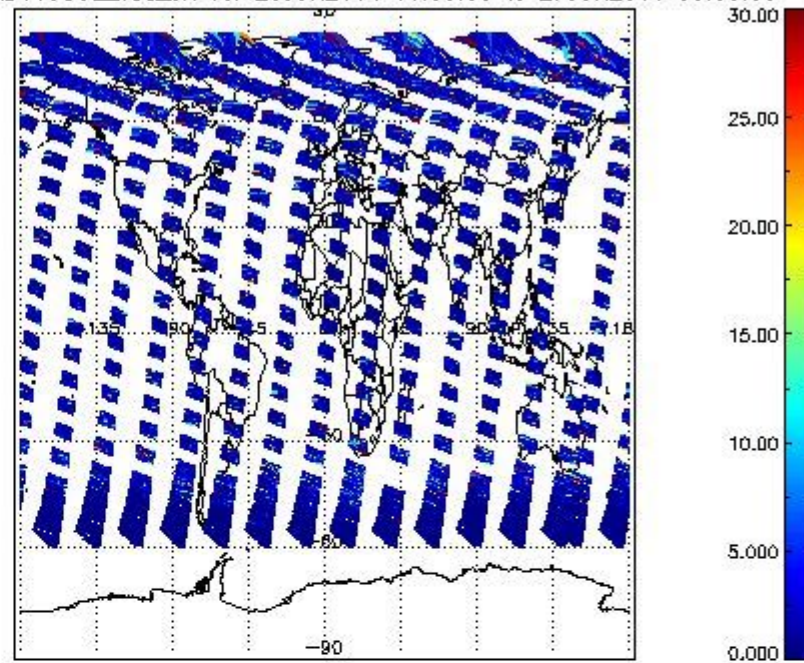




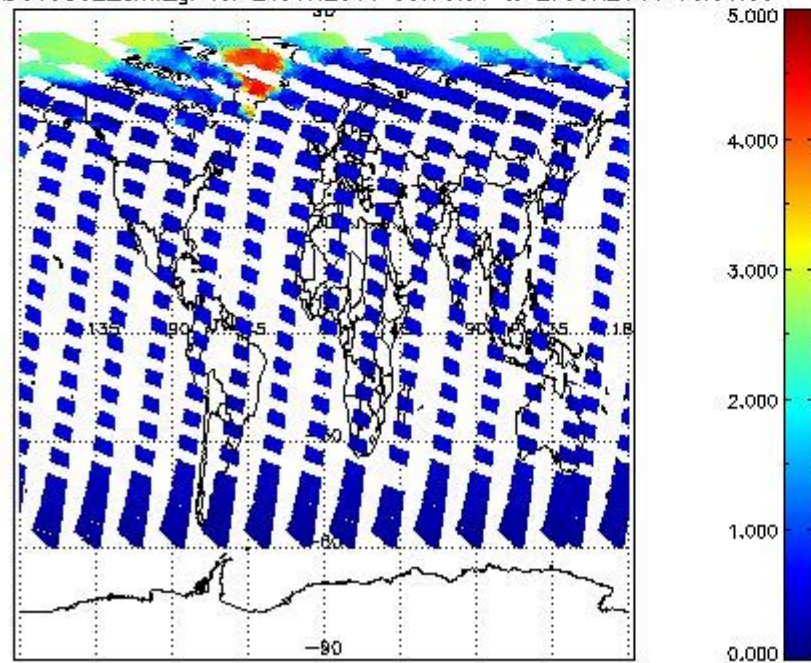
SCIOL2P\_NADUV5S02\_vcd for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



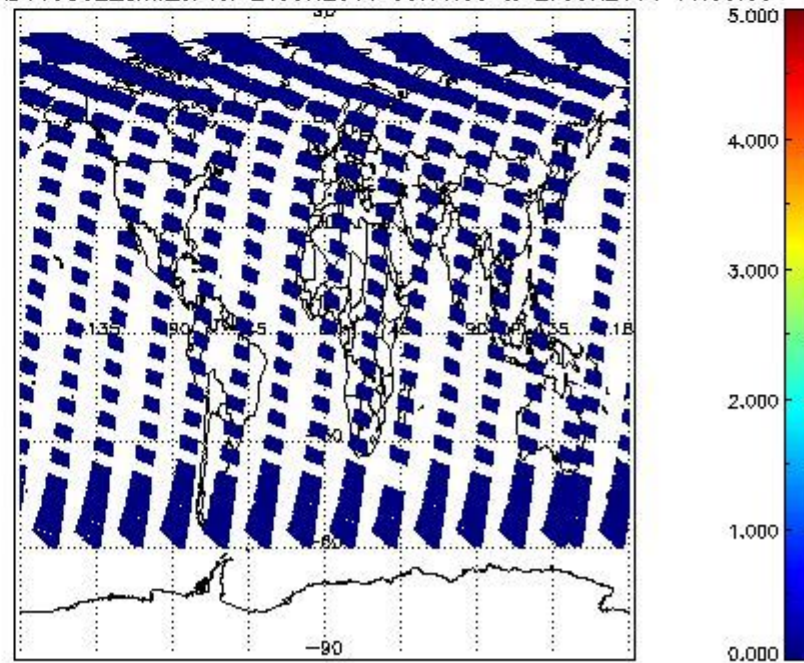
SCIOL2P\_NADUV5S02\_vcd\_err for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



SCIOL2P\_NADUV5S02\_amf\_gr for 26JUN2011 00:00:00 to 27JUN2011 00:00:00

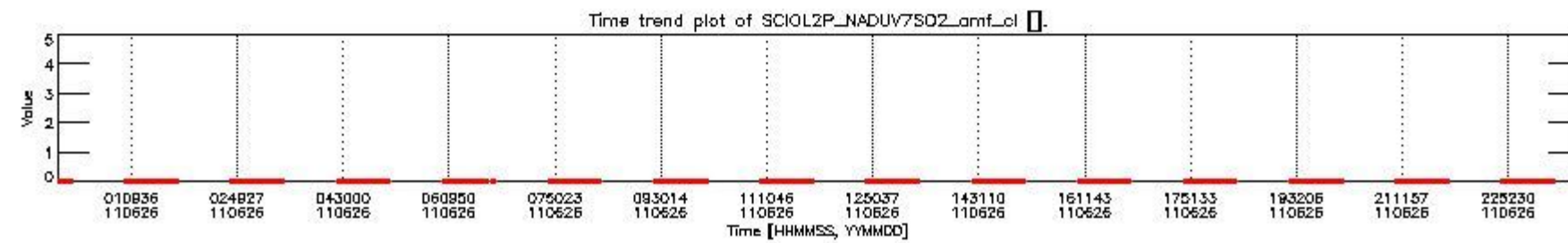
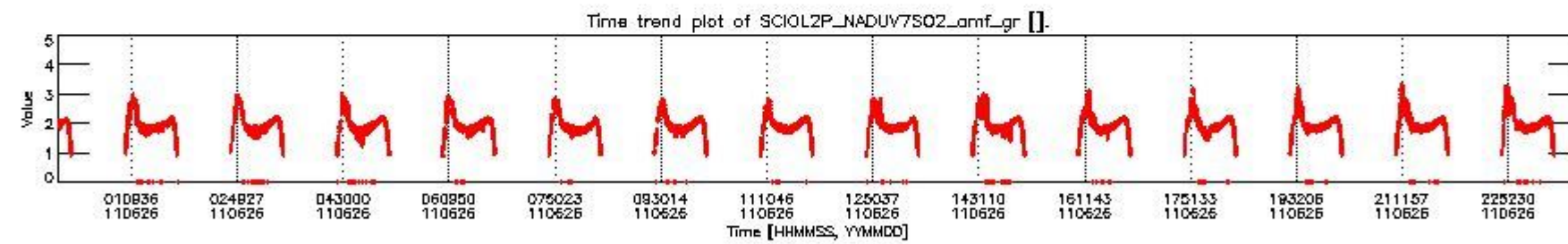
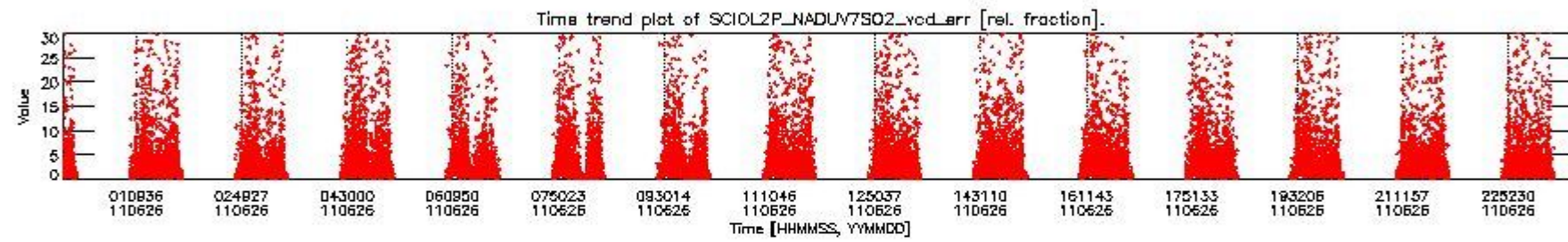
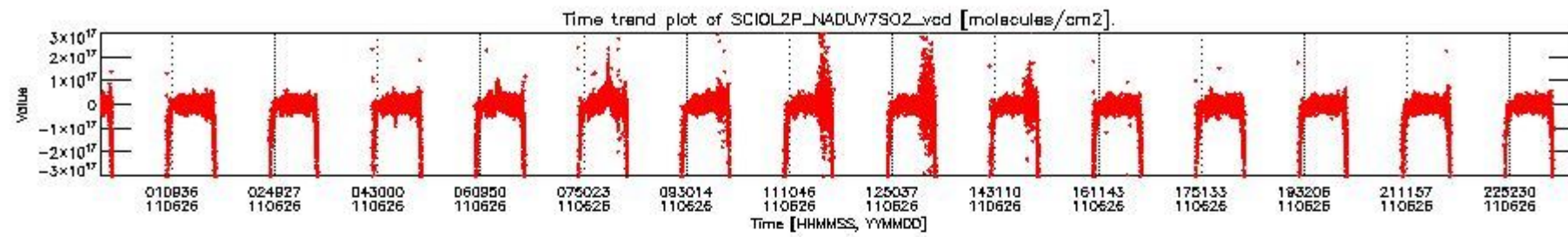


SCIOL2P\_NADUV5S02\_amf\_cl for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



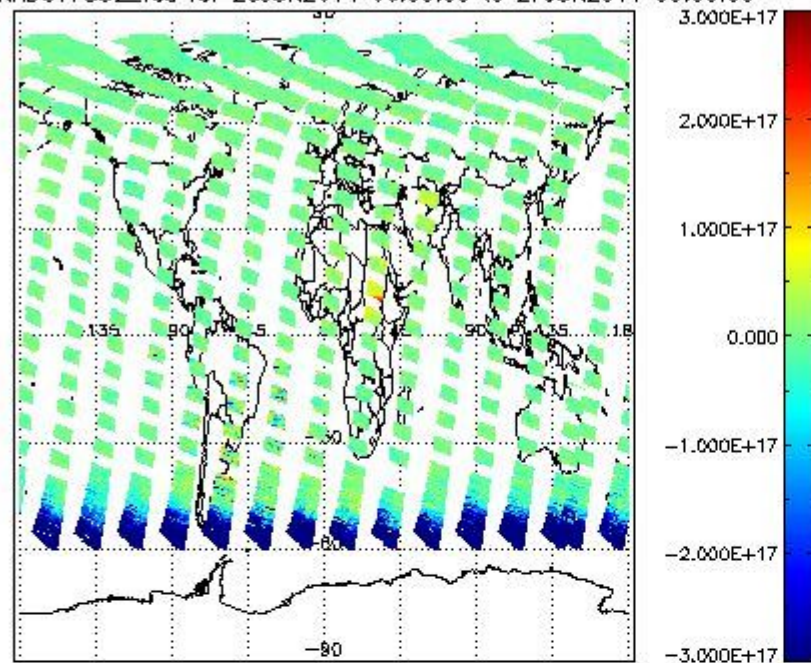
### 2.2.2.5 SO2 (UV7)



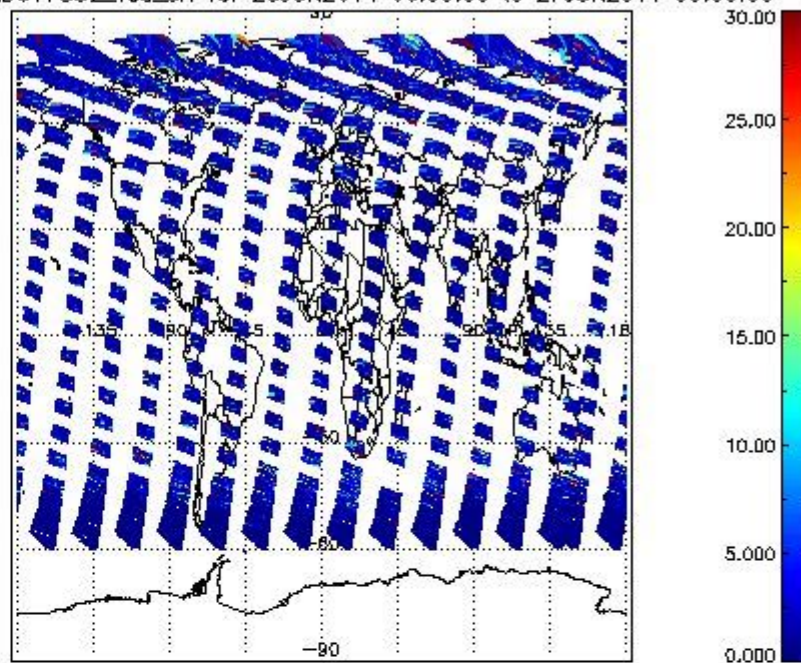




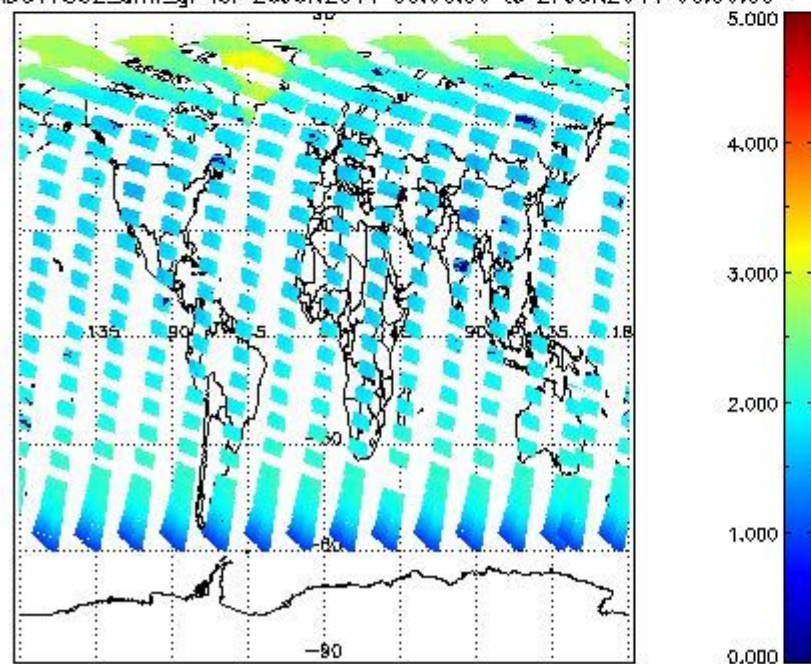
SCIOL2P\_NADUV7S02\_vcd for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



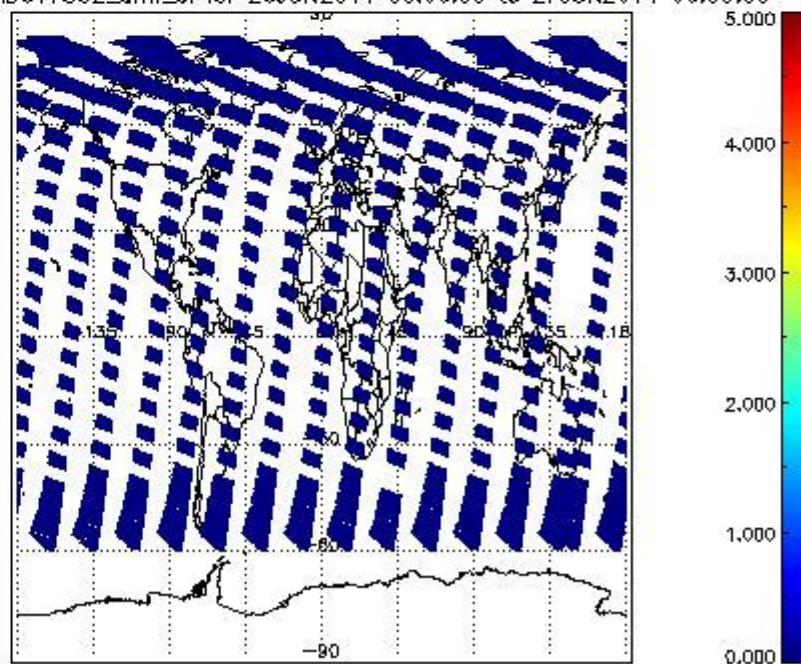
SCIOL2P\_NADUV7S02\_vcd\_err for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



SCIOL2P\_NADUV7S02\_amf\_gr for 26JUN2011 00:00:00 to 27JUN2011 00:00:00

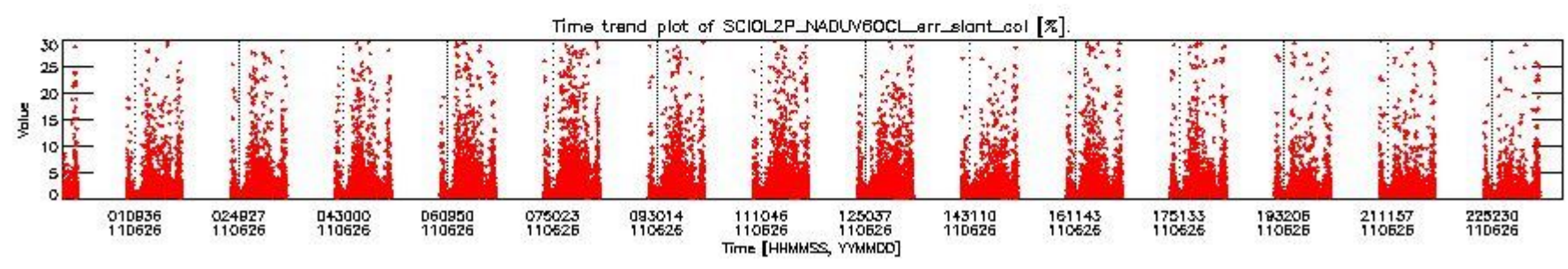
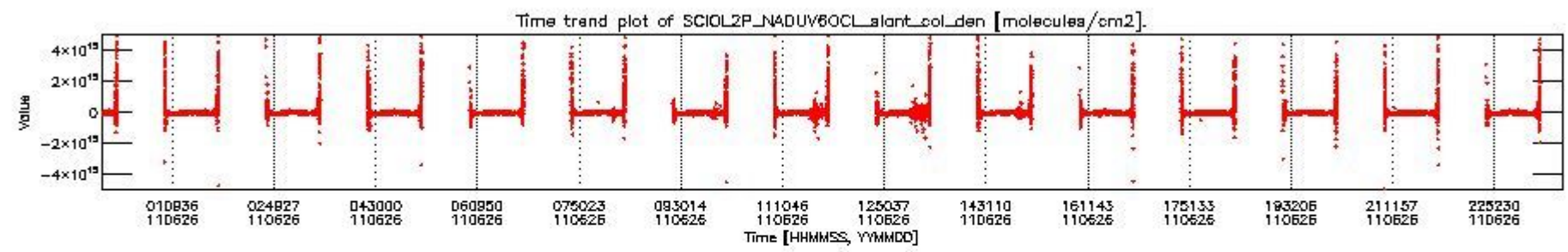


SCIOL2P\_NADUV7S02\_amf\_cl for 26JUN2011 00:00:00 to 27JUN2011 00:00:00

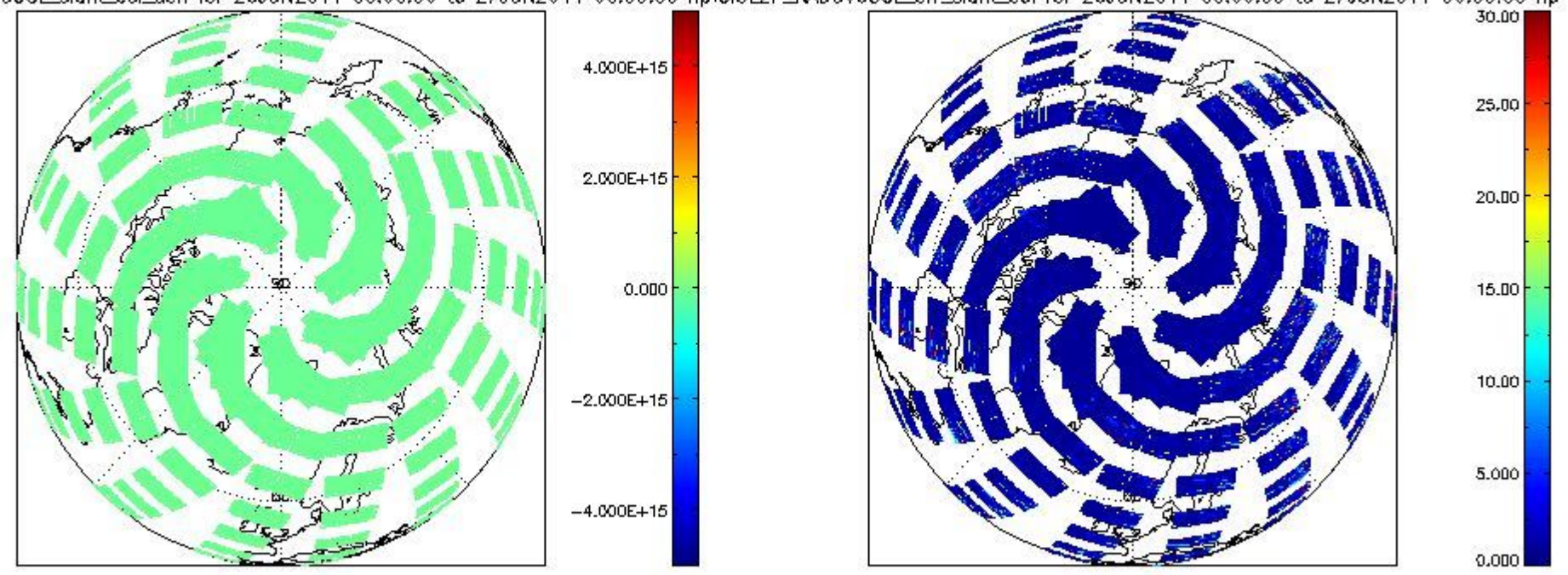


2.2.2.6 OCIO (UV6)



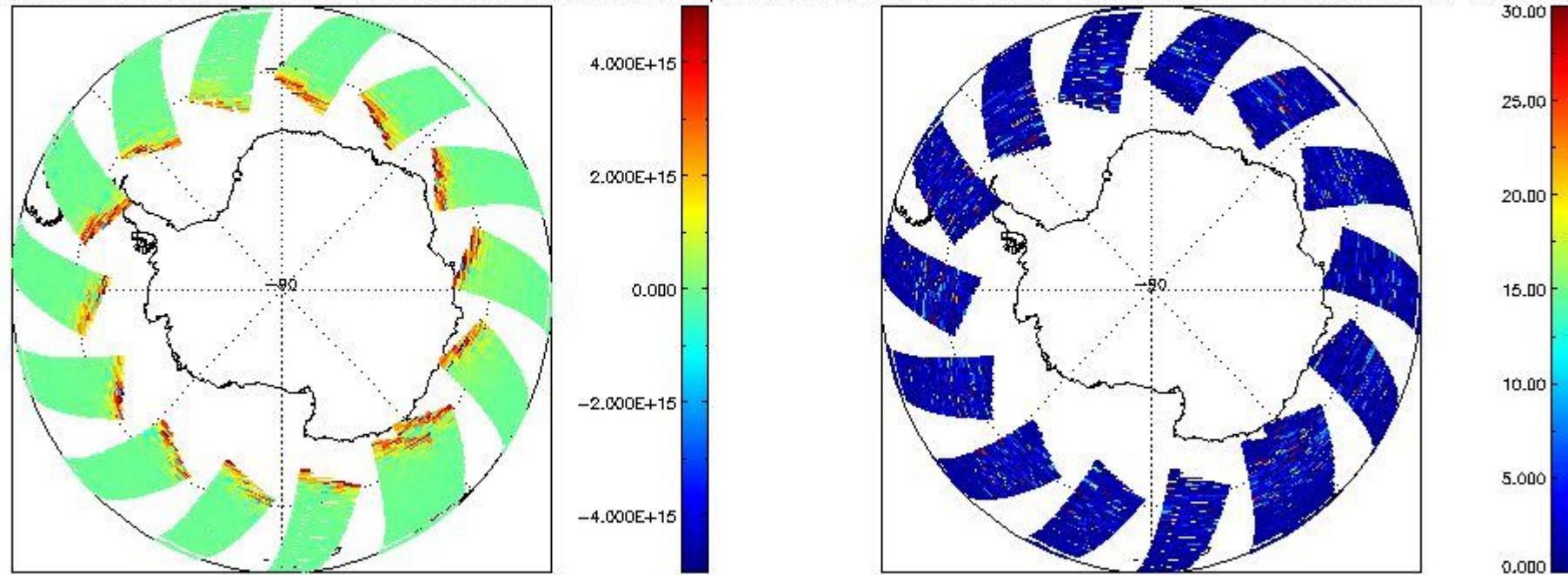


CIOL2P\_NADUV60CLslant\_col\_den for 26JUN2011 00:00:00 to 27JUN2011 00:00:00 np; CIOL2P\_NADUV60CLerr\_slant\_col for 26JUN2011 00:00:00 to 27JUN2011 00:00:00 np

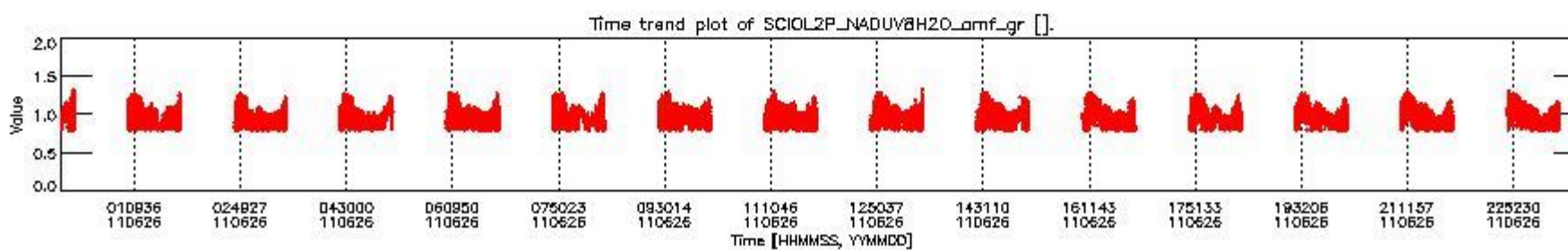
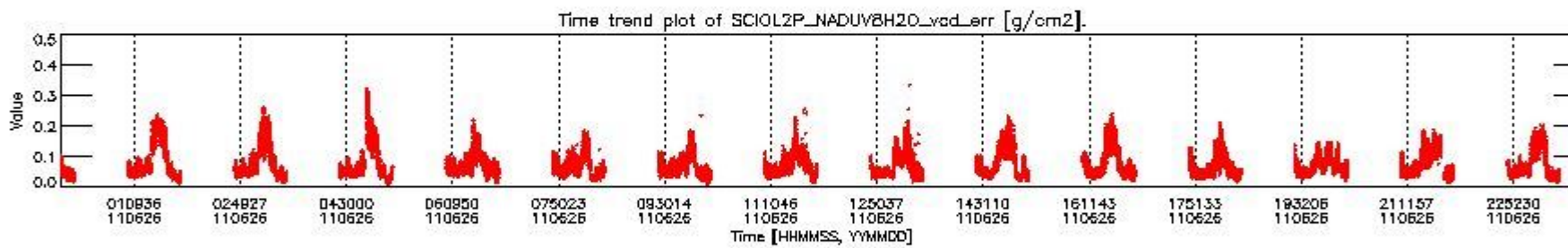
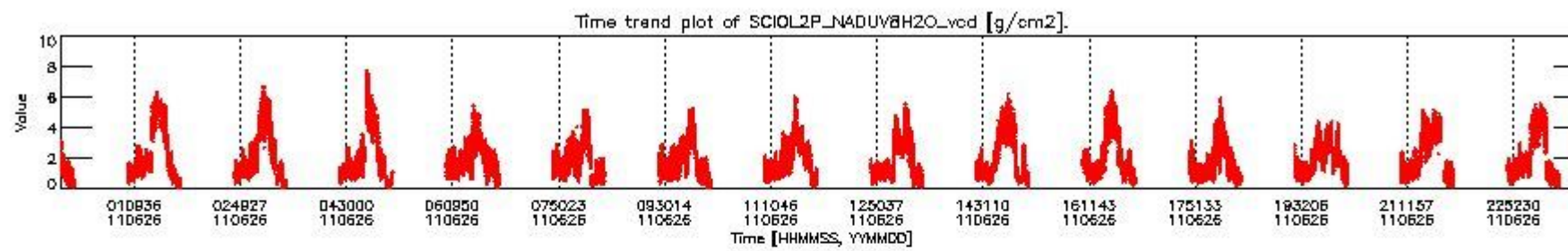




CIOL2P\_NADUV60CL\_slant\_col\_den for 26JUN2011 00:00:00 to 27JUN2011 00:00:00 sp | CIOL2P\_NADUV60CL\_err\_slant\_col for 26JUN2011 00:00:00 to 27JUN2011 00:00:00 sp

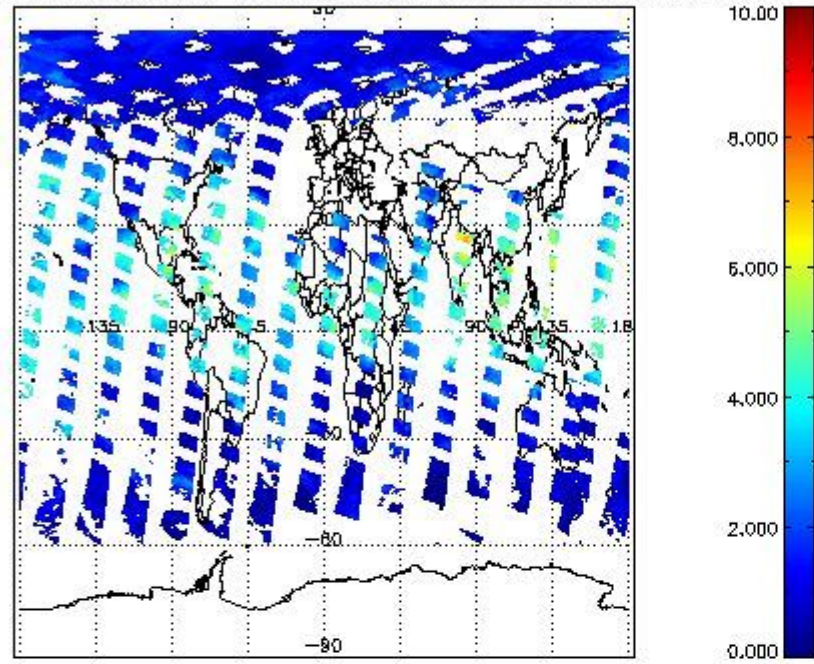


### 2.2.2.7 H2O (UV8)

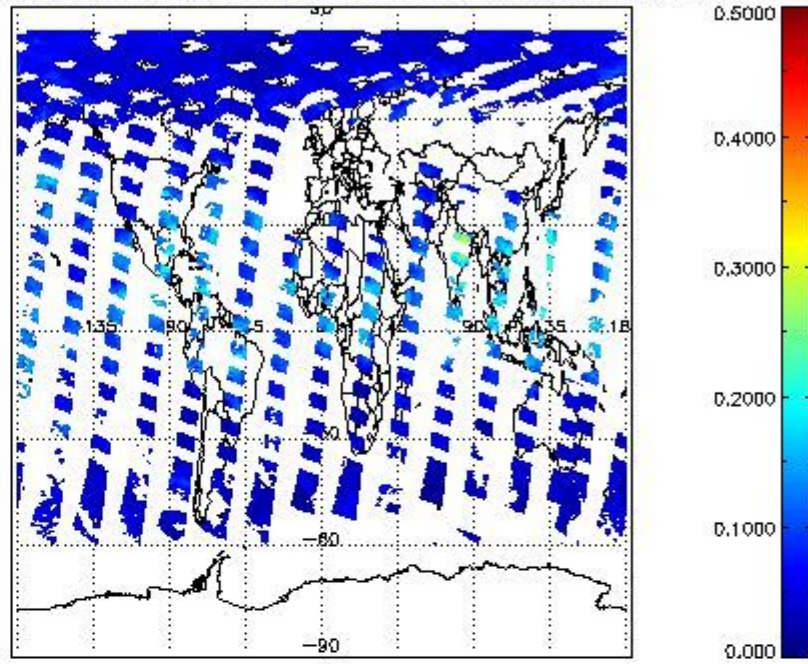




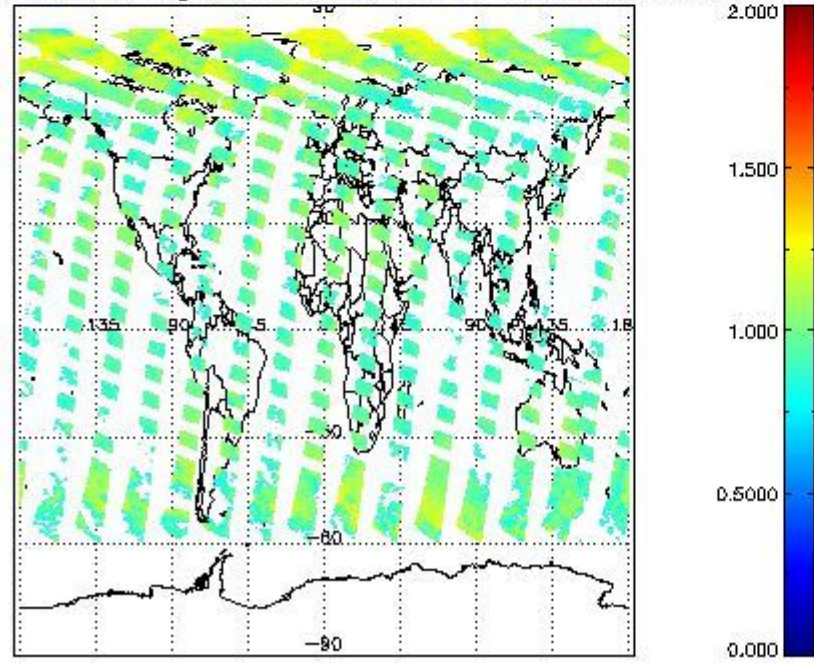
SCIOL2P\_NADUV8H2O\_vcd for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



SCIOL2P\_NADUV8H2O\_vcd\_err for 26JUN2011 00:00:00 to 27JUN2011 00:00:00

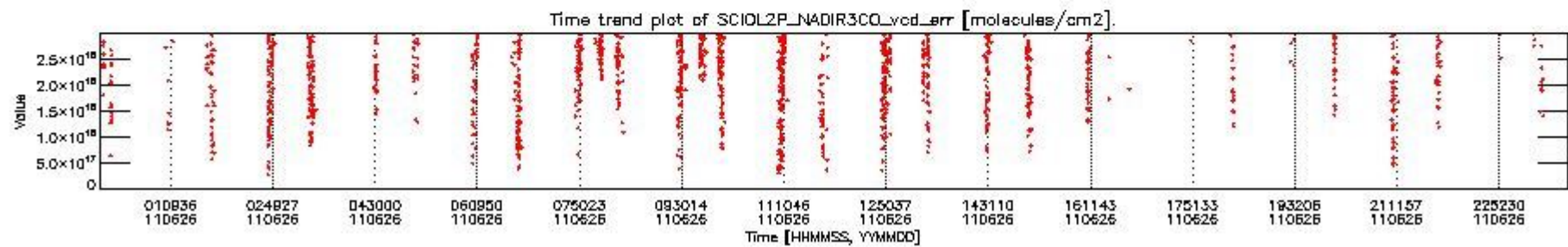
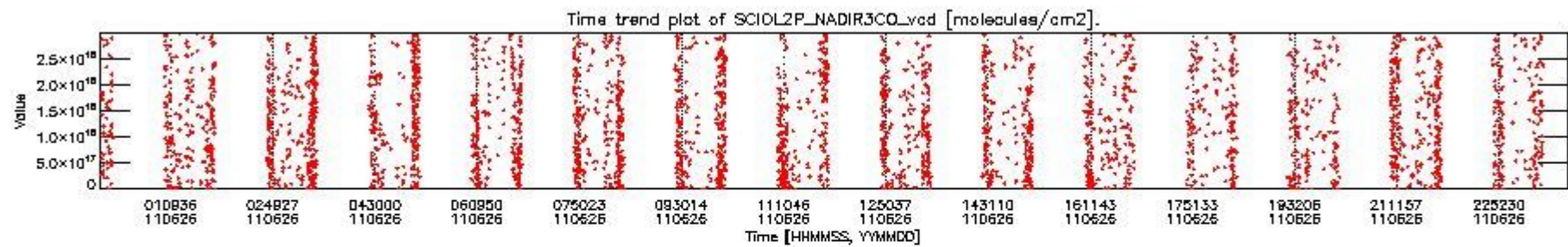


SCIOL2P\_NADUV8H2O\_arnf\_gr for 26JUN2011 00:00:00 to 27JUN2011 00:00:00

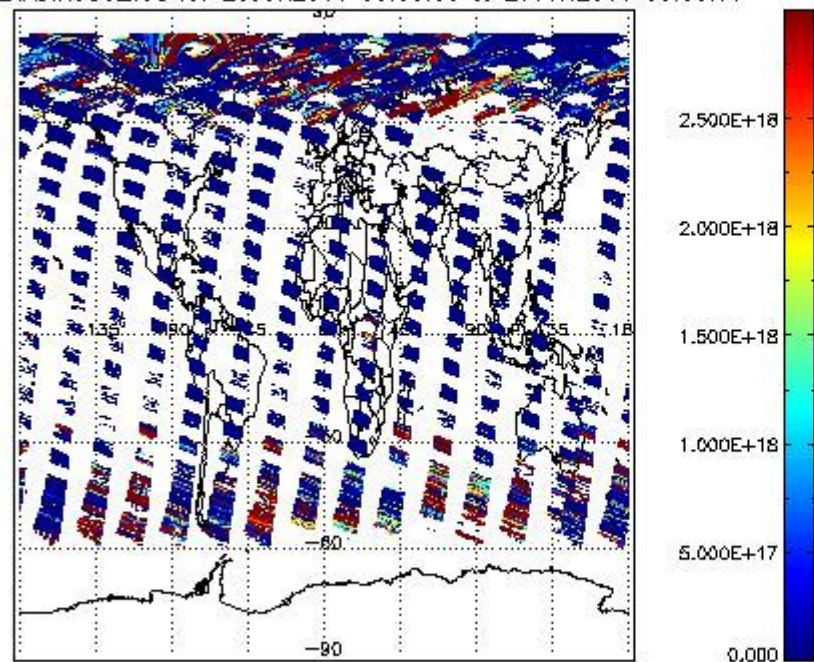


### 2.2.2.8 CO (IR3)

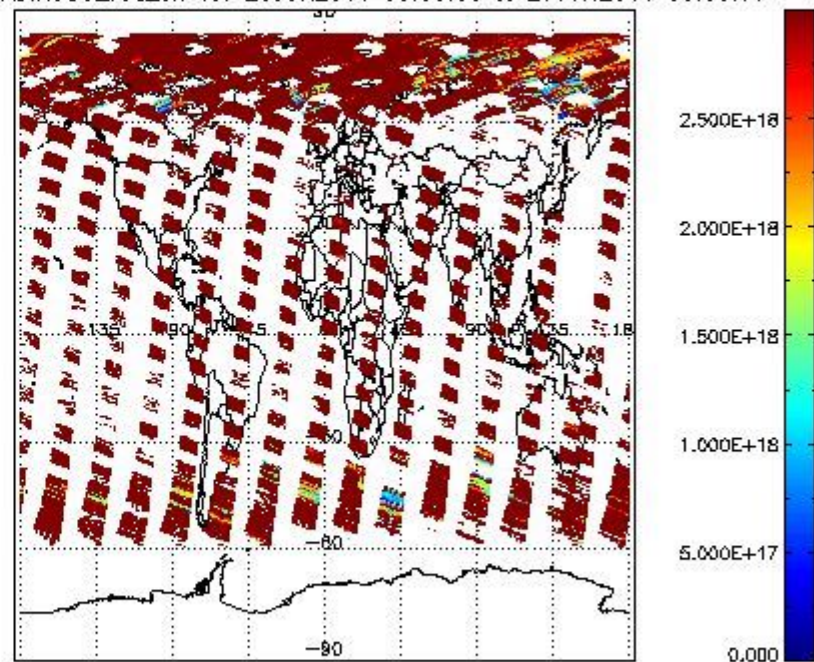




SCIDL2P\_NADIR3CO\_vcd for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



SCIDL2P\_NADIR3CO\_vcd\_err for 26JUN2011 00:00:00 to 27JUN2011 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.

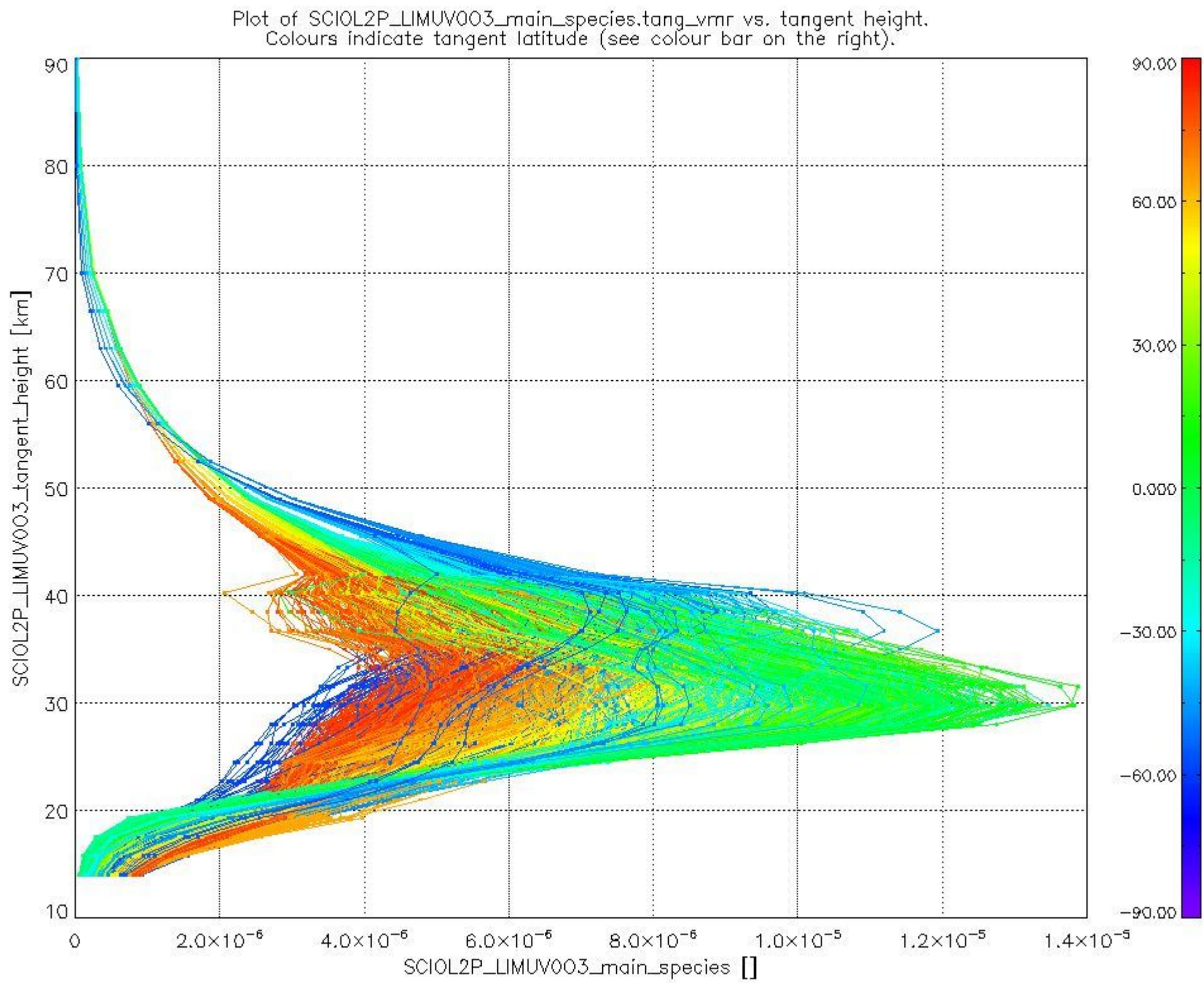
The following data items are currently included into this section:

Number	Data item ID
0	SCIDL2P_LIMUV003_main_species
1	SCIDL2P_LIMUV1NO2_main_species
2	SCIDL2P_LIMUV3BRO_main_species



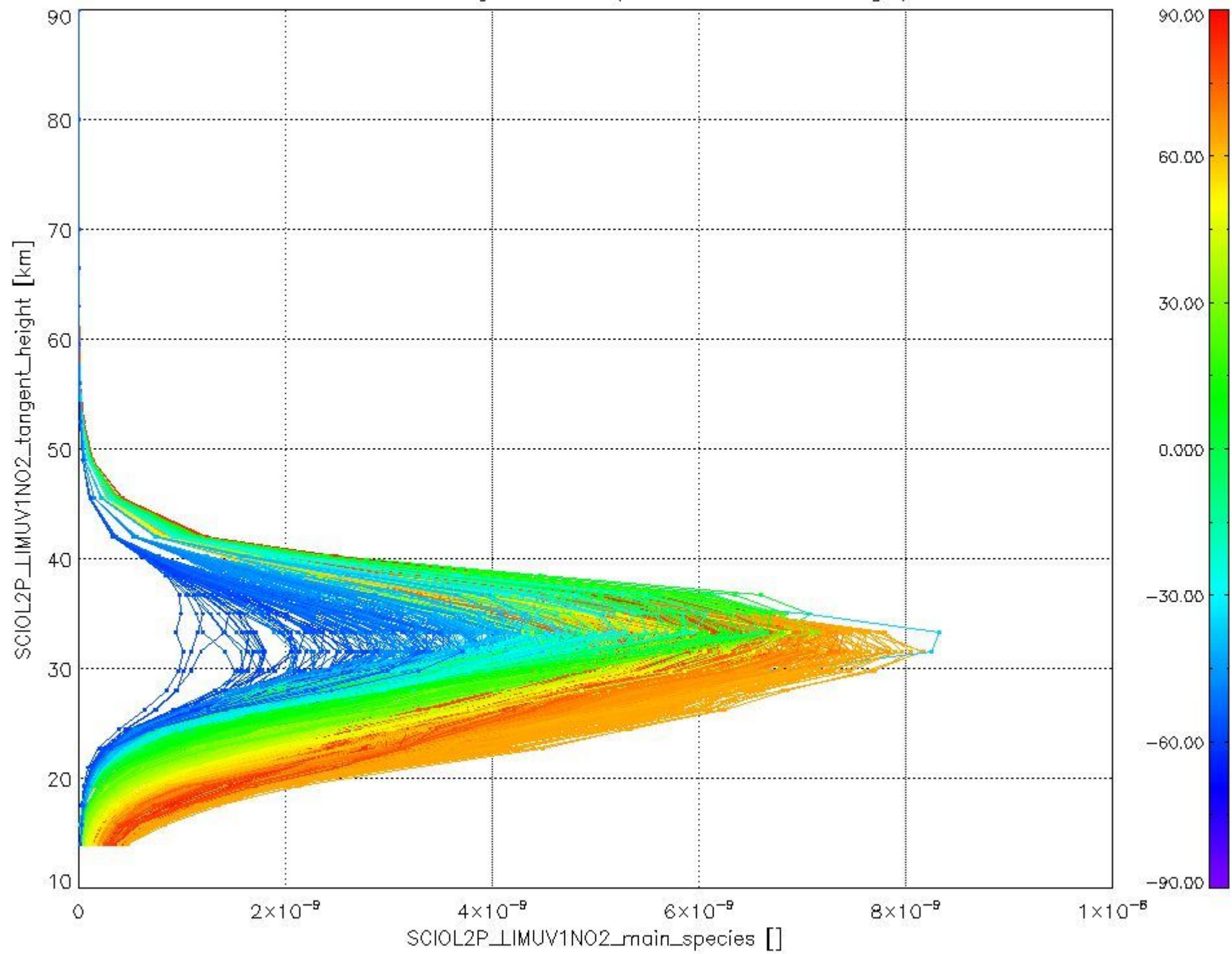
The following plots show for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

2.2.3.1 O3 (UV0)



2.2.3.2 NO2 (UV1)

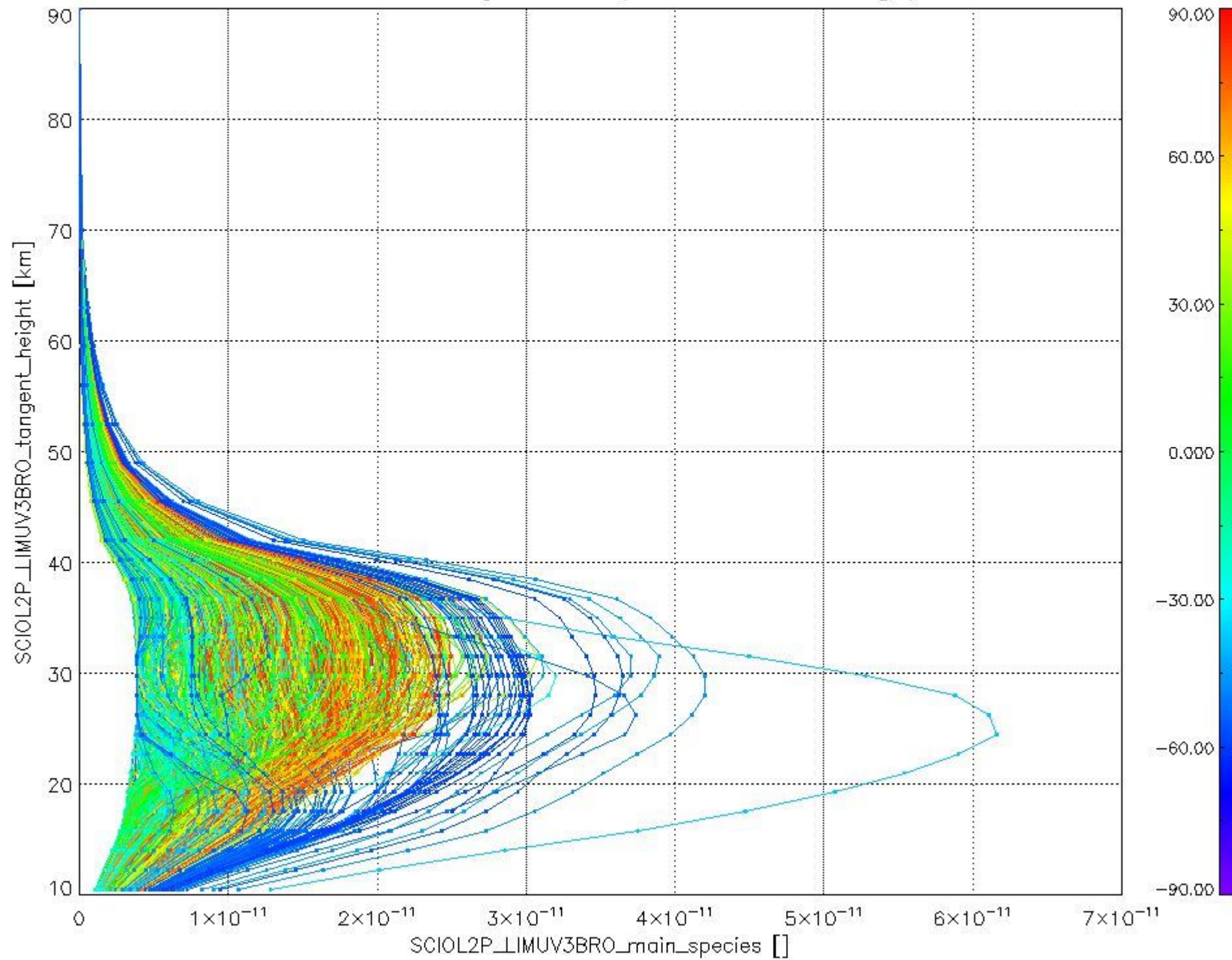
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



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).



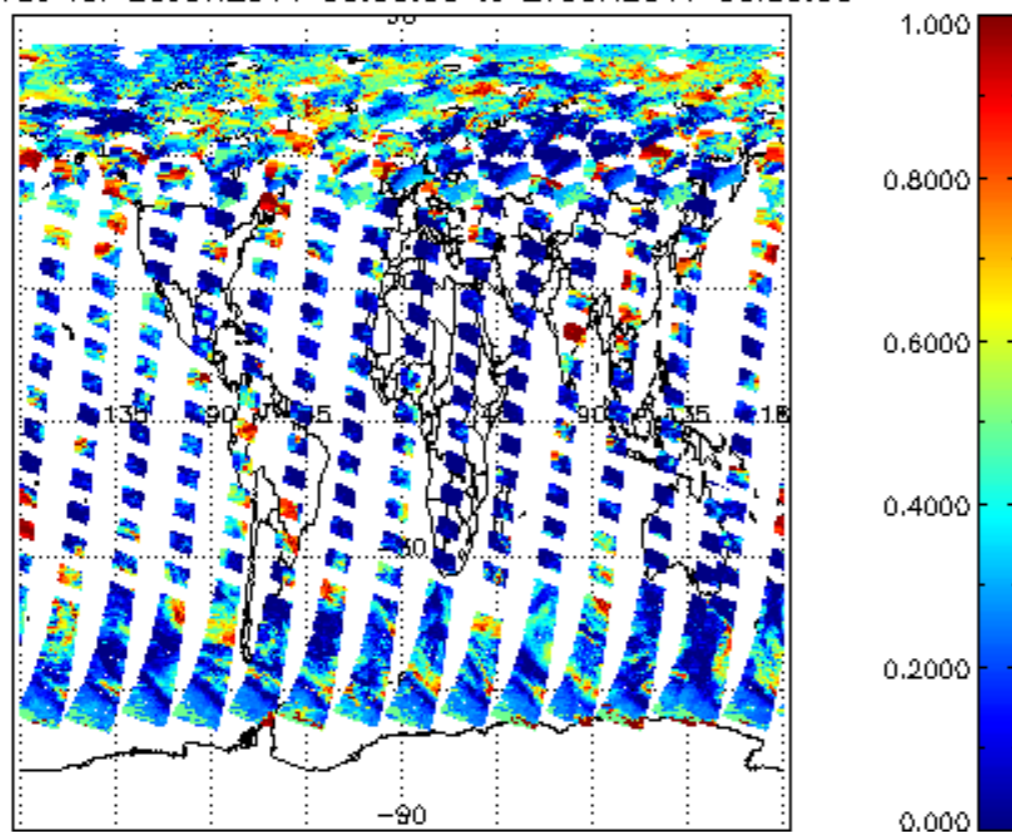
### 2.3 ADF monitoring

Number	ADF
	<b>IN_ (INITIALISATION_FILE)</b>
0	SCI_IN_AXNPDE20090615_120000_20090615_000000_20991231_235959
	<b>ECF (ECMWF_FILE)</b>
1	NOT USED
	<b>MF1 (M_FACTOR_FILE)</b>
2	SCI_MF1_AXVIEC20110621_111224_20110625_193117_20110627_193117
3	SCI_MF1_AXVIEC20110621_111330_20110626_185431_20110628_185431

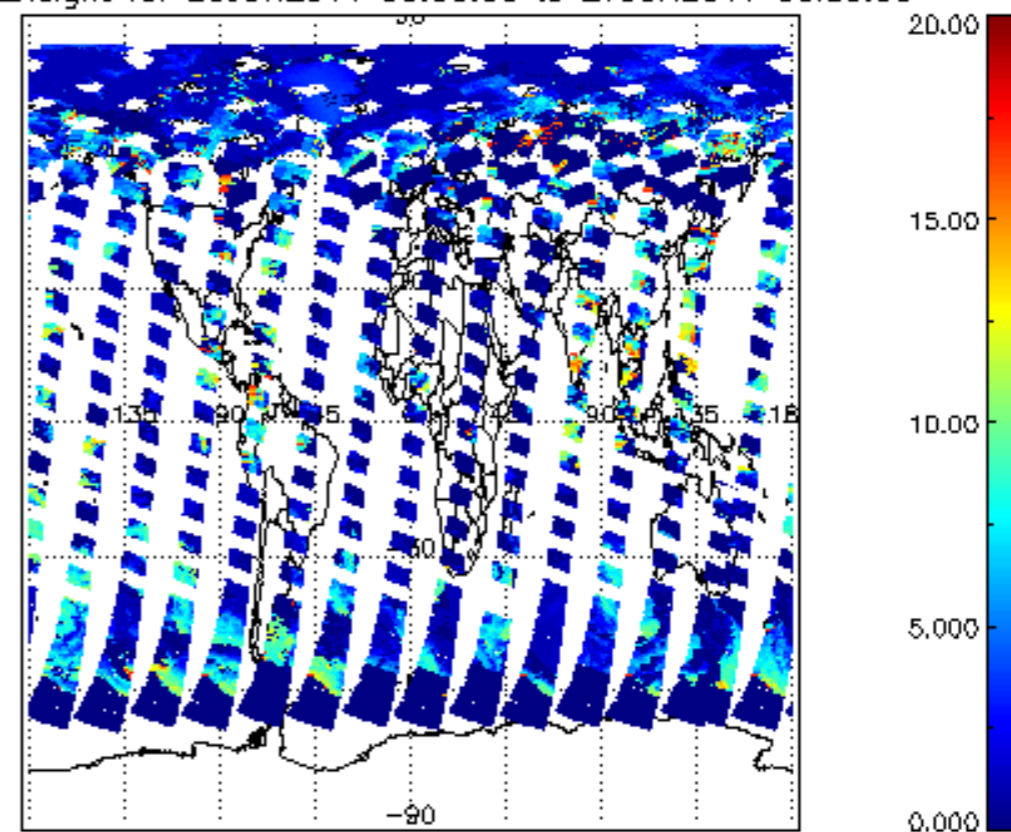




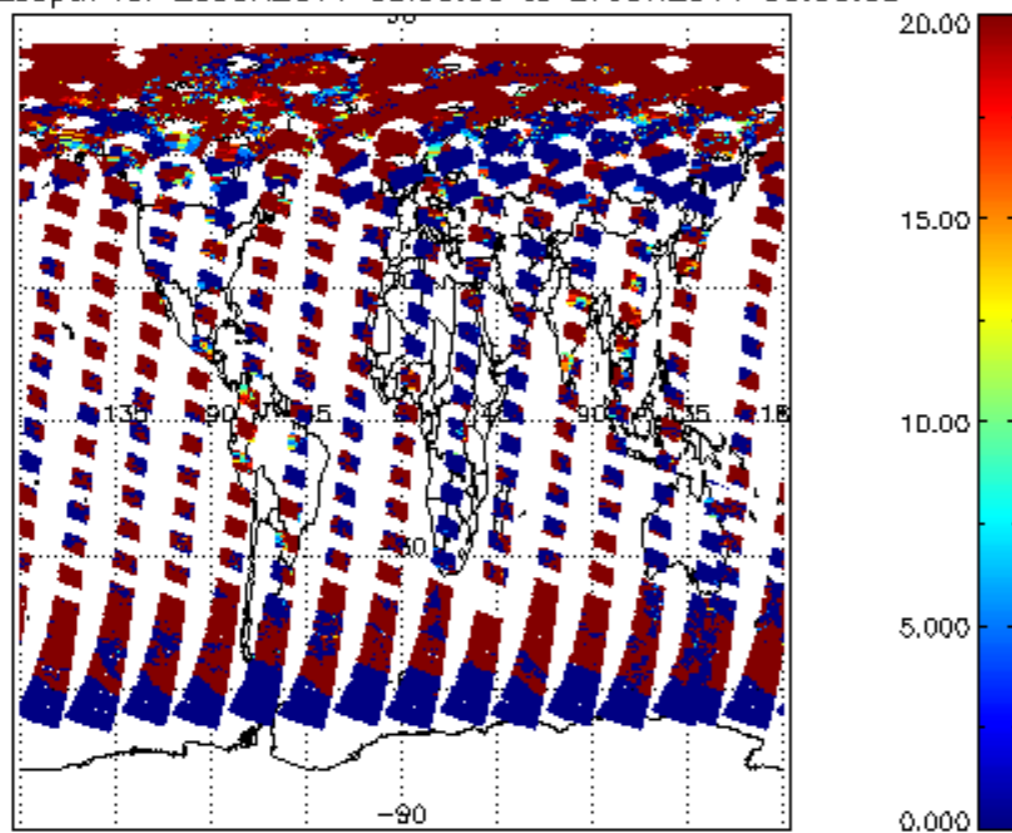
cl\_frac for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



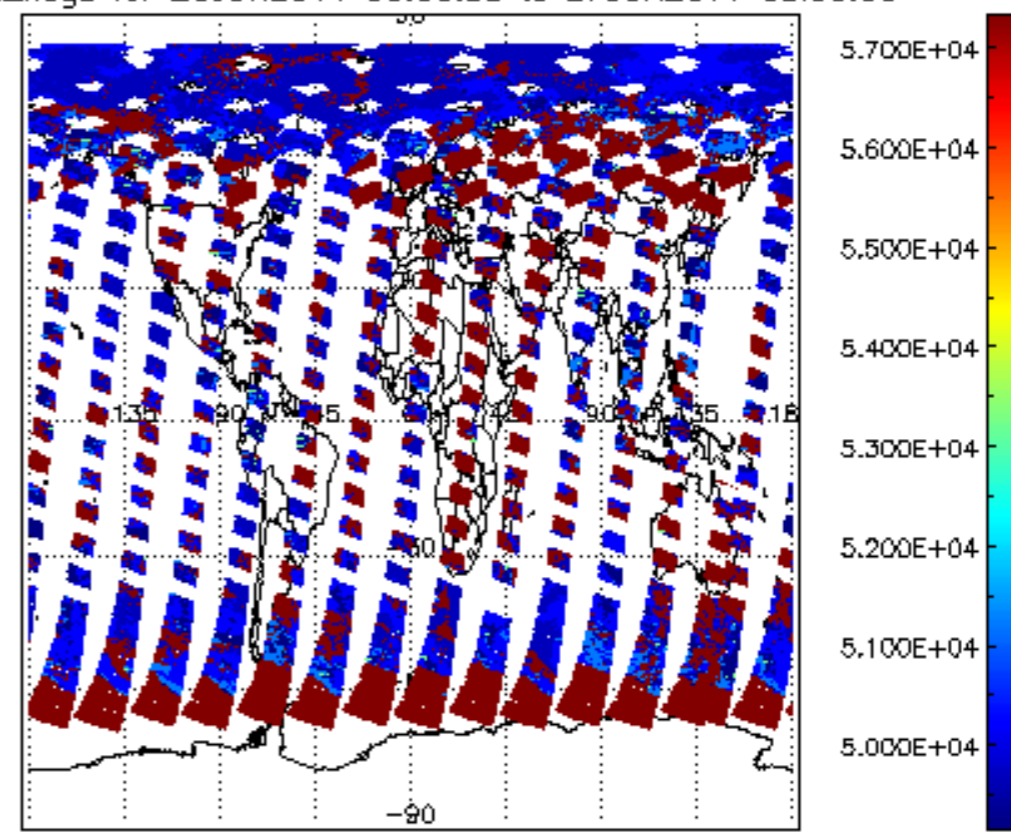
cl\_top\_height for 26JUN2011 00:00:00 to 27JUN2011 00:00:00

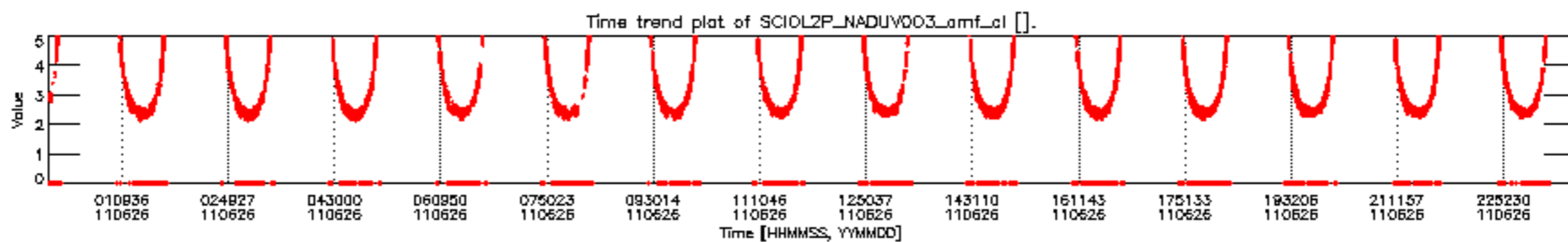
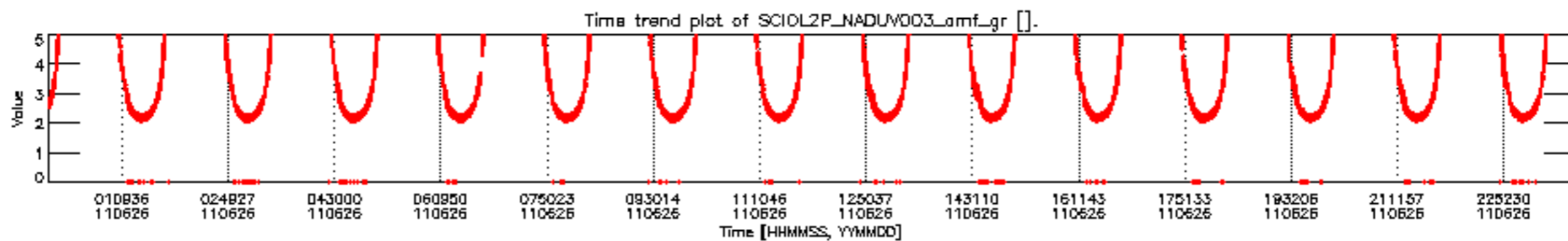
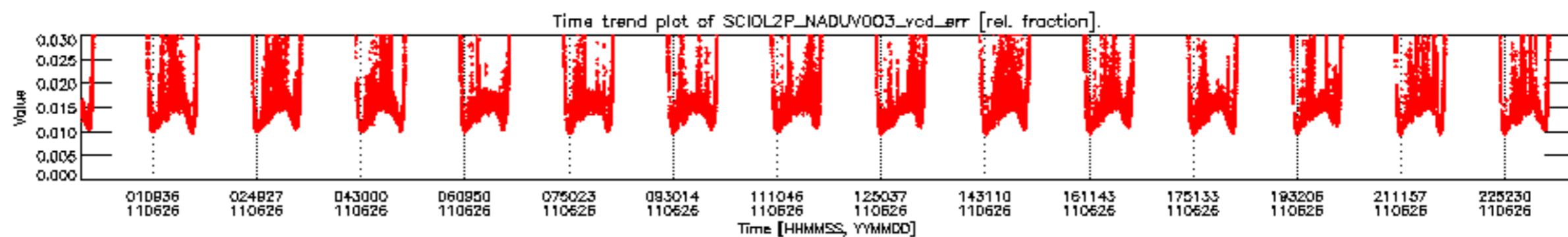
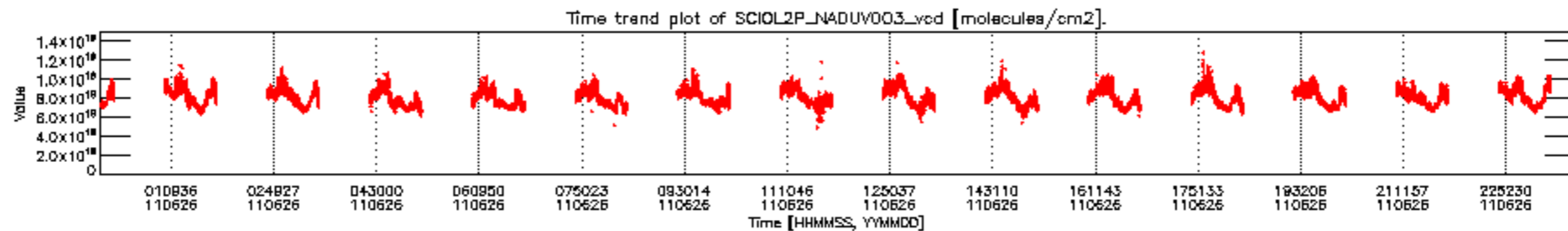


cl\_opt\_depth for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



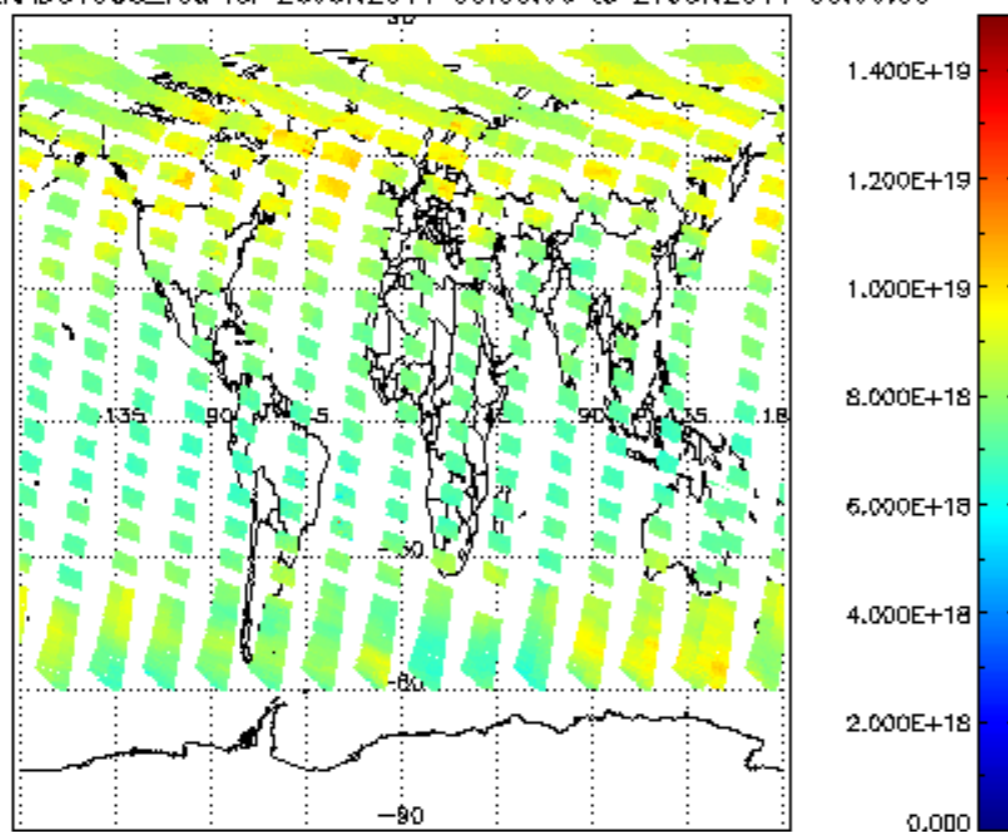
cloud\_flags for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



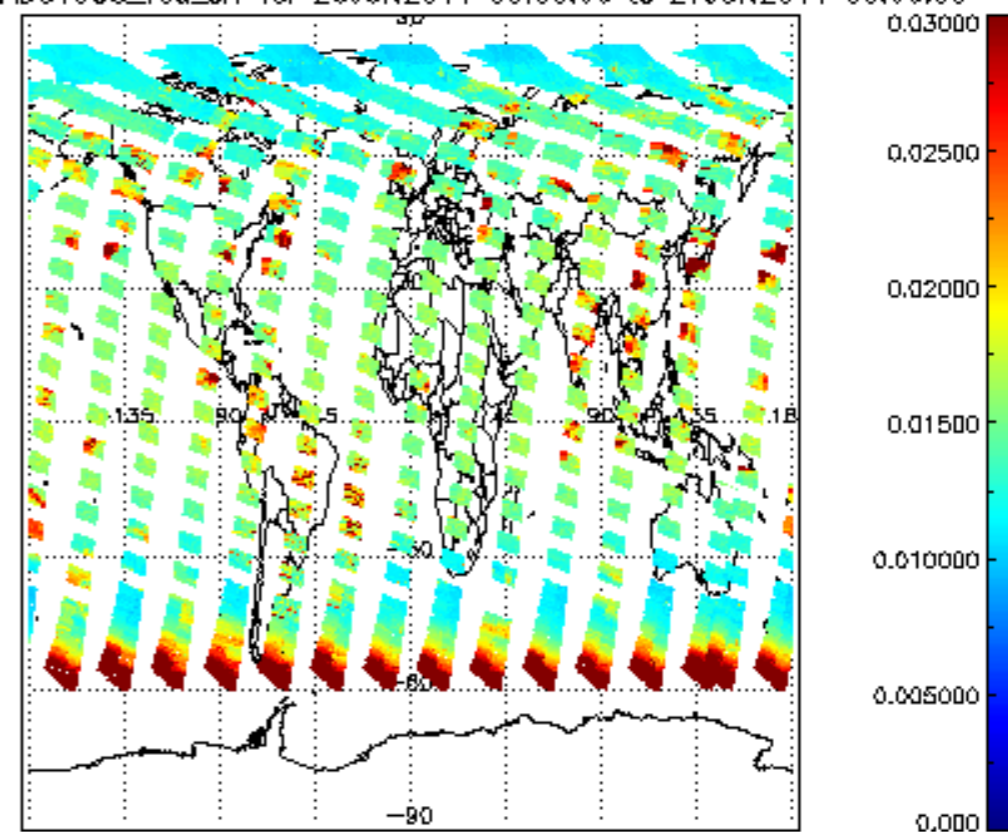




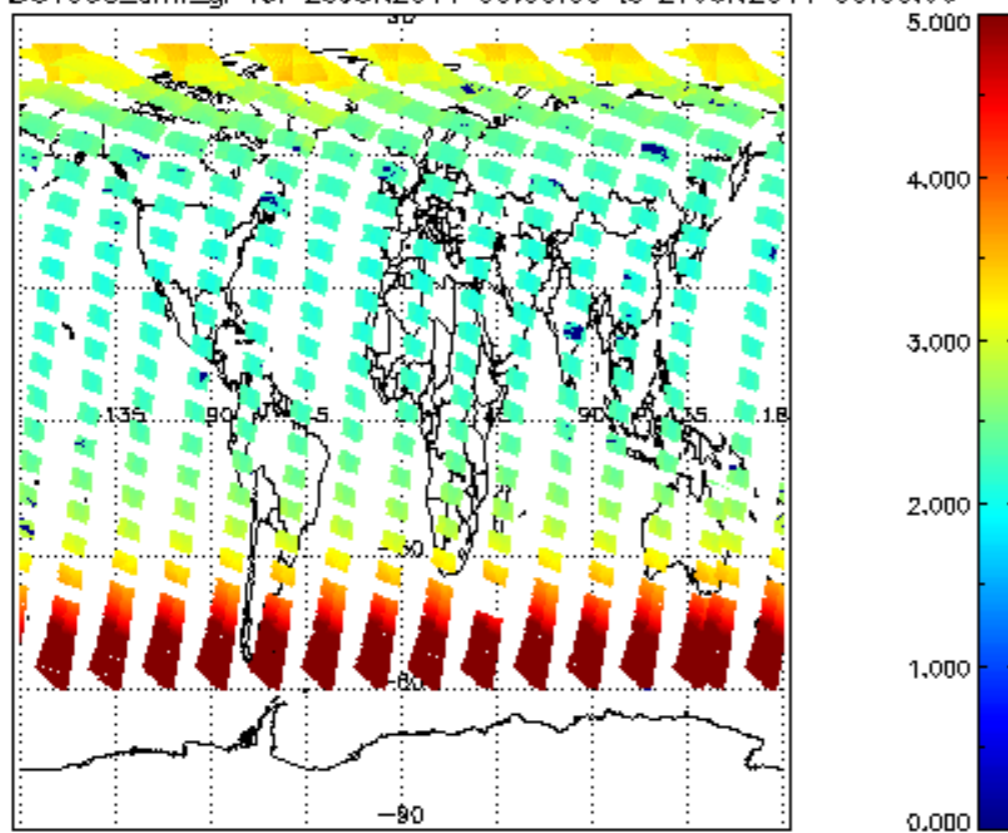
SCIOL2P\_NADUV003\_vcd for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



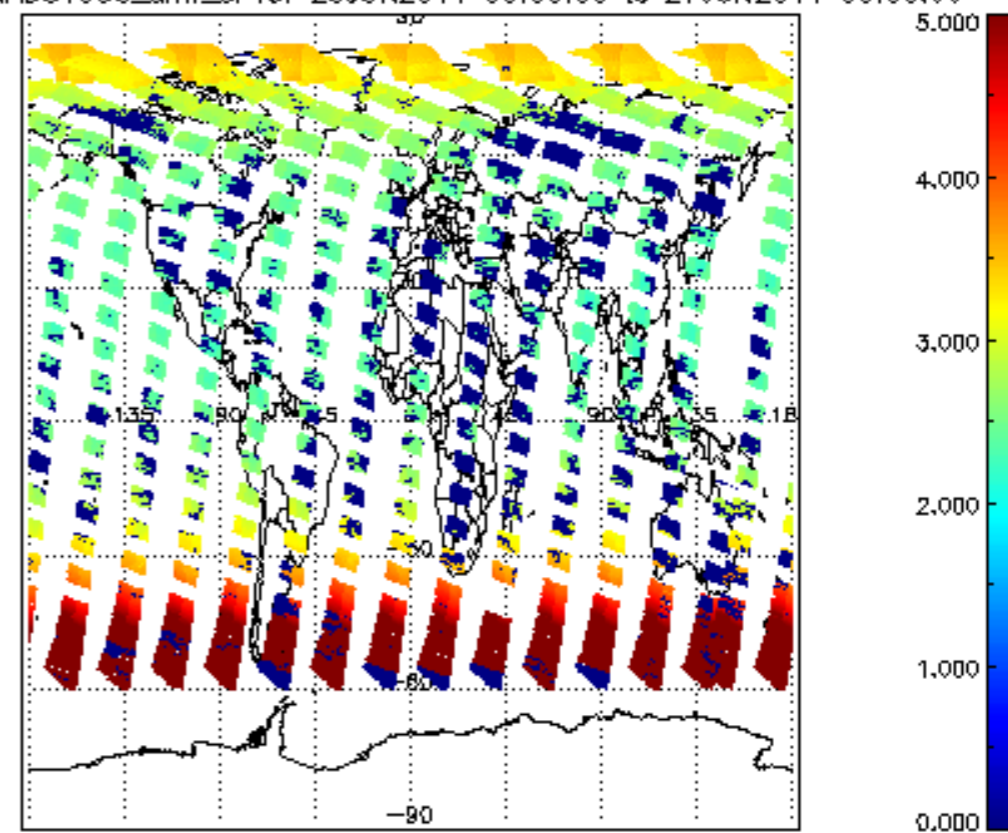
SCIOL2P\_NADUV003\_vcd\_err for 26JUN2011 00:00:00 to 27JUN2011 00:00:00

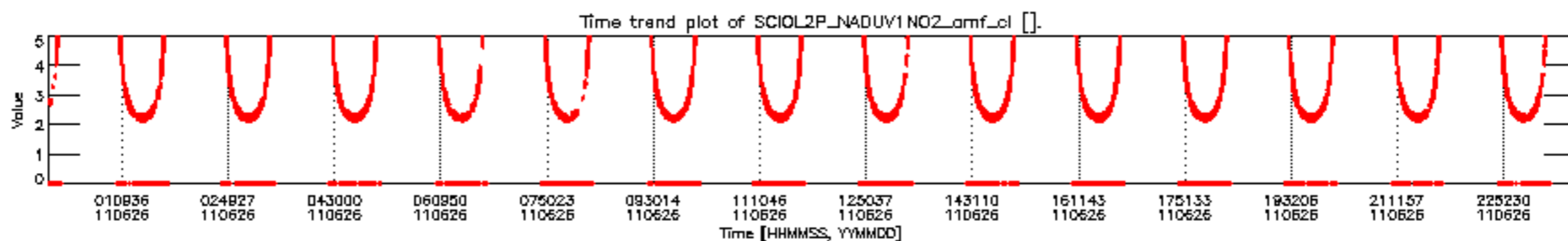
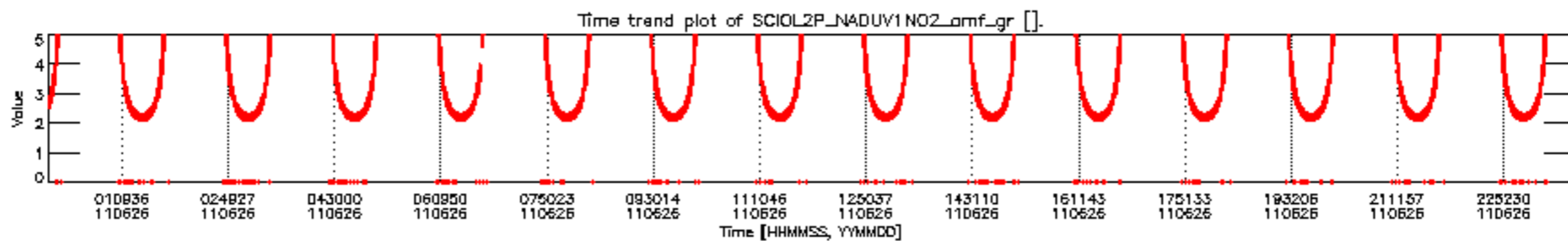
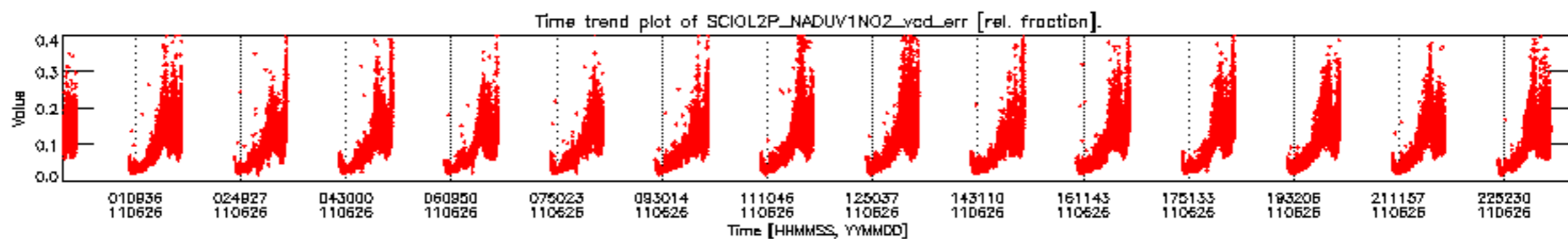
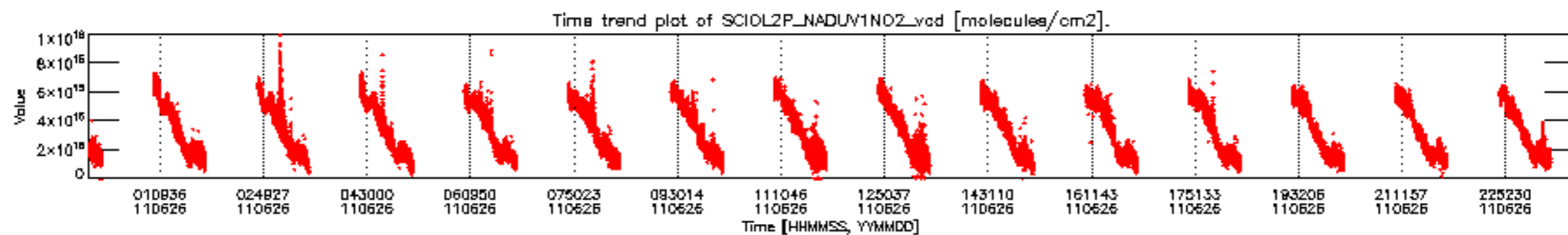


SCIOL2P\_NADUV003\_amf\_gr for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



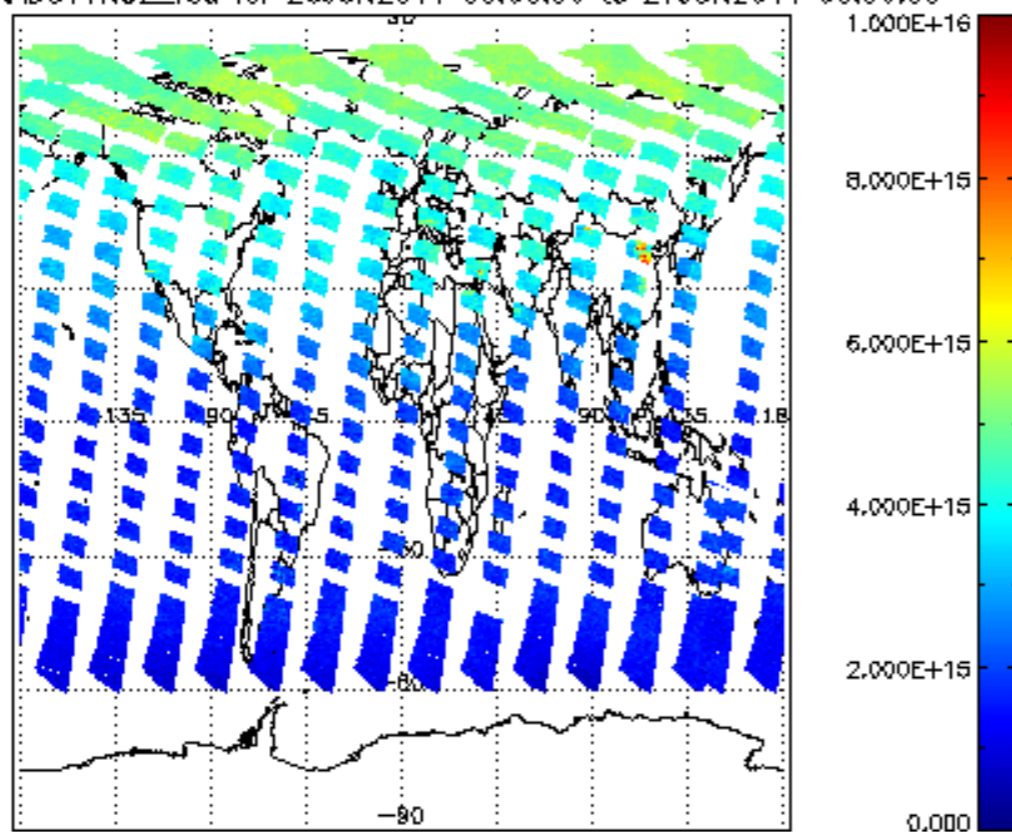
SCIOL2P\_NADUV003\_amf\_cl for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



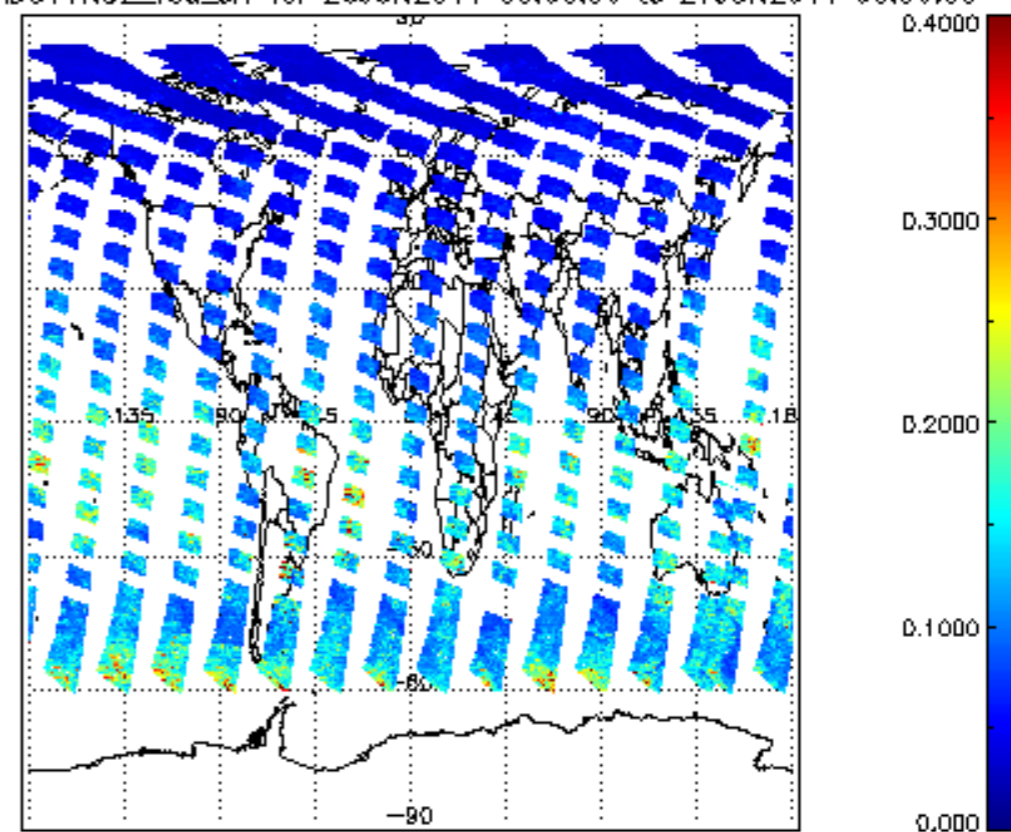




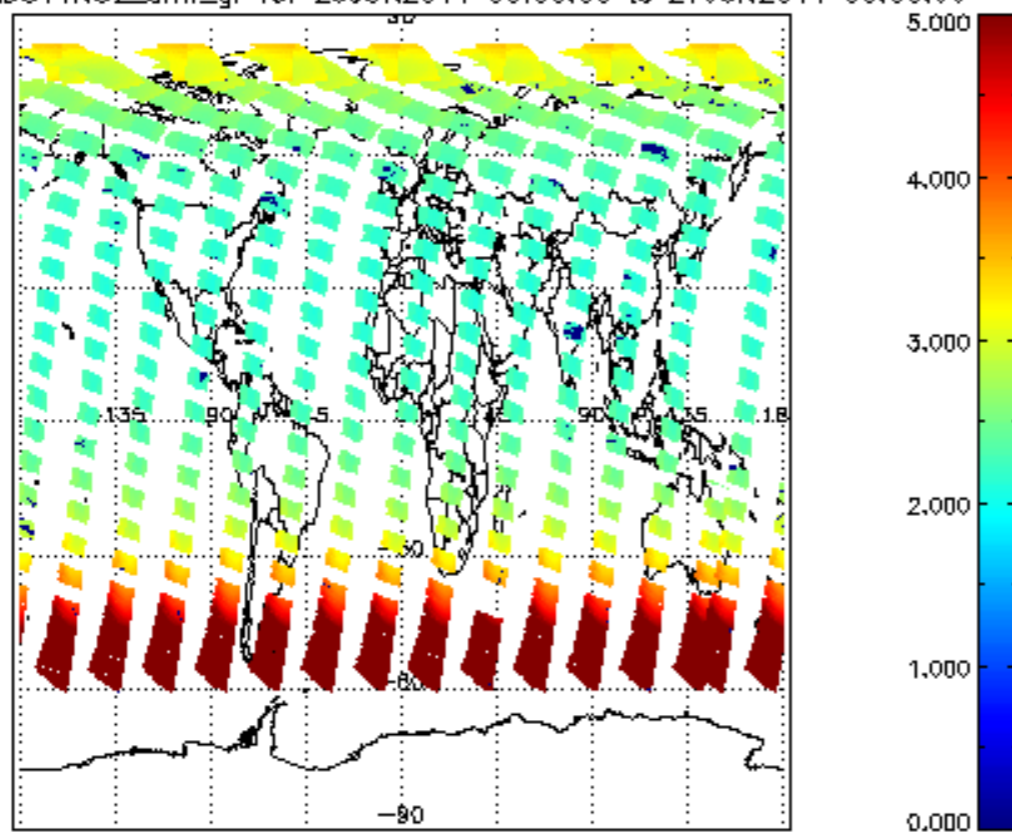
SCIOL2P\_NADUV1NO2\_vcd for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



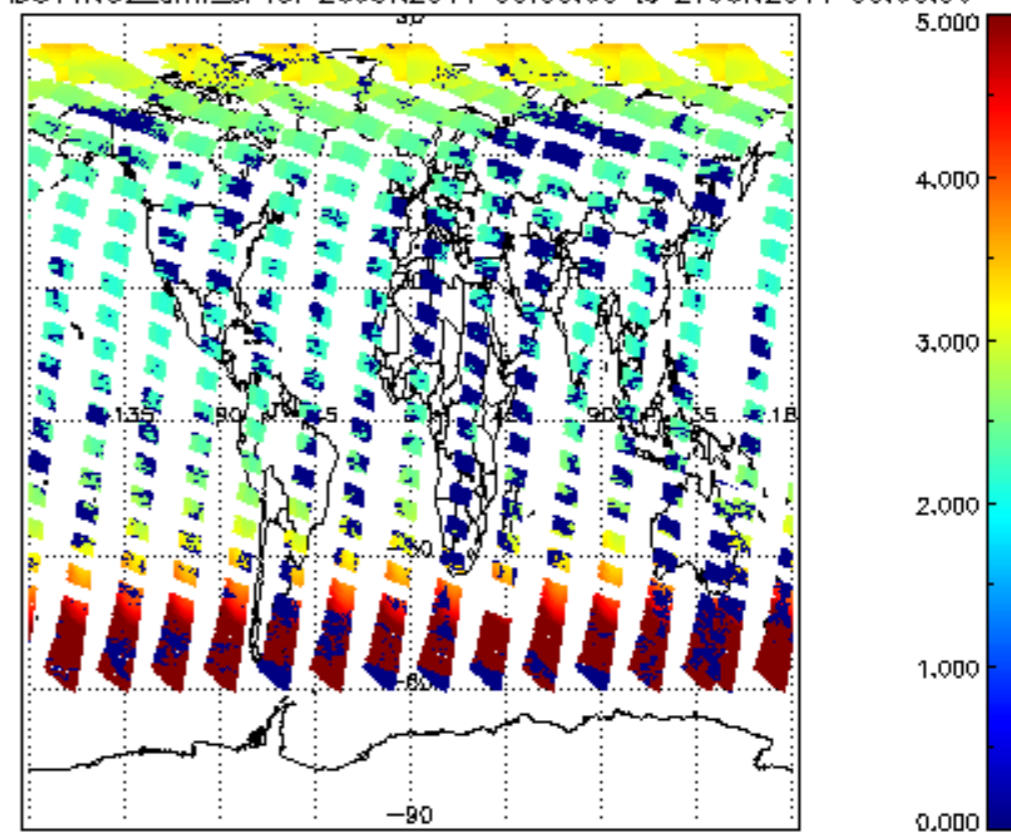
SCIOL2P\_NADUV1NO2\_vcd\_err for 26JUN2011 00:00:00 to 27JUN2011 00:00:00

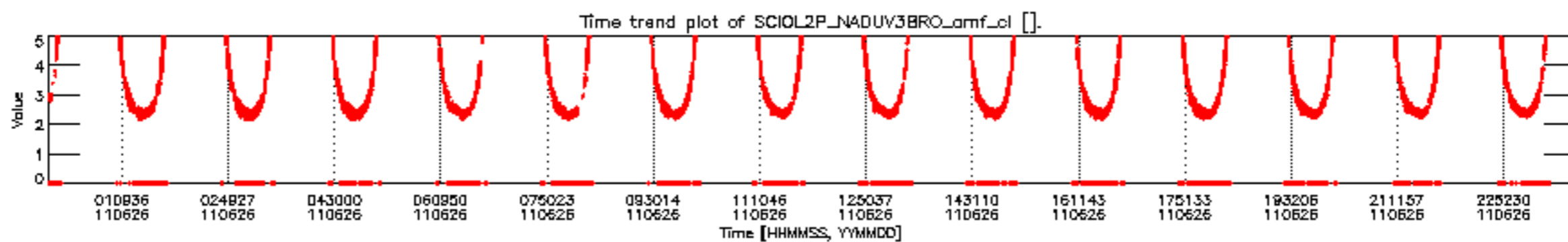
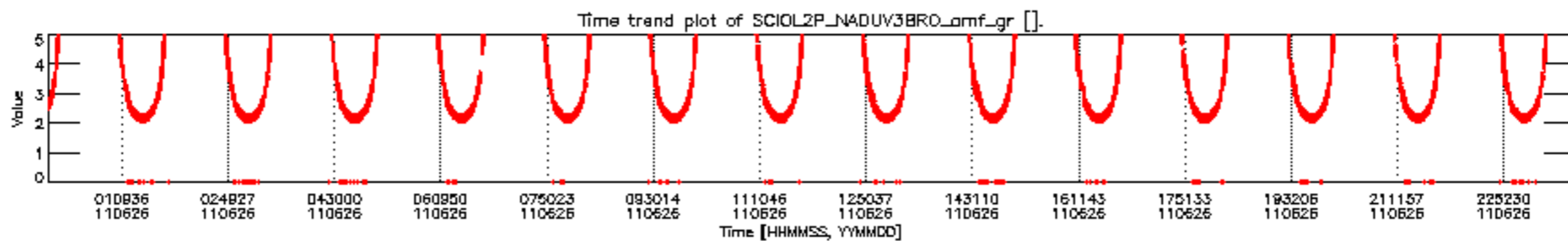
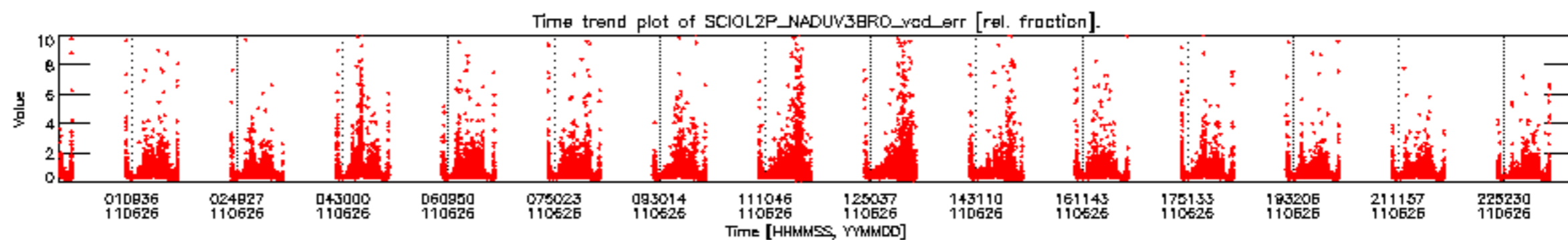
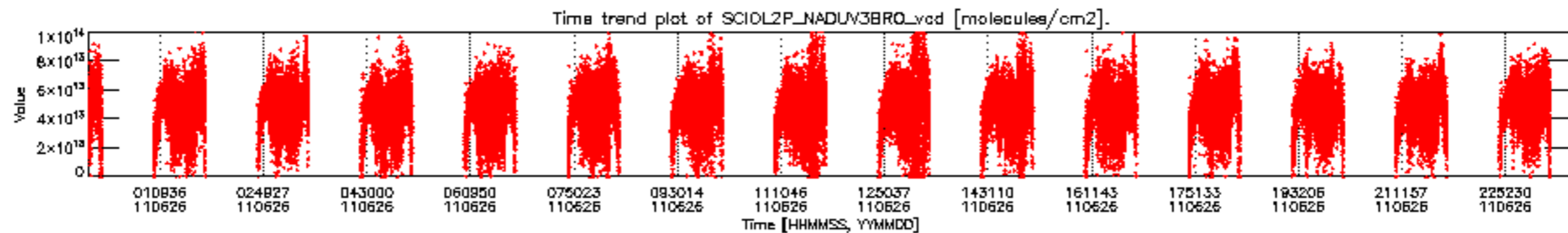


SCIOL2P\_NADUV1NO2\_amf\_gr for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



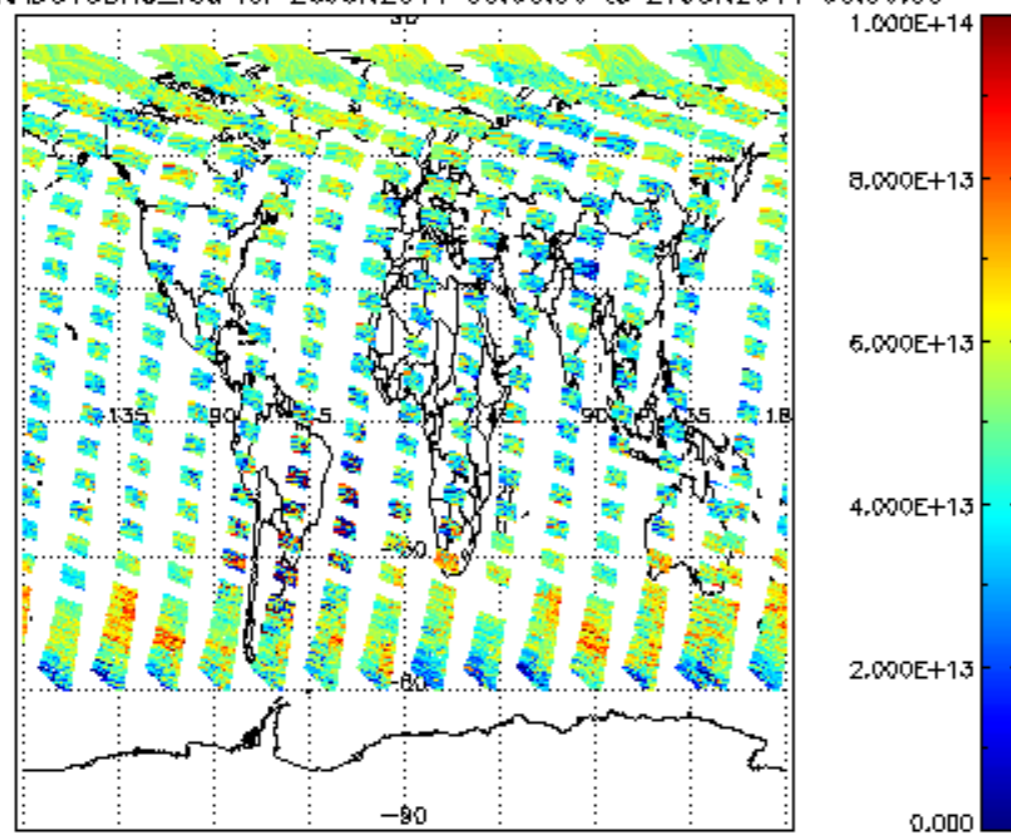
SCIOL2P\_NADUV1NO2\_amf\_sl for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



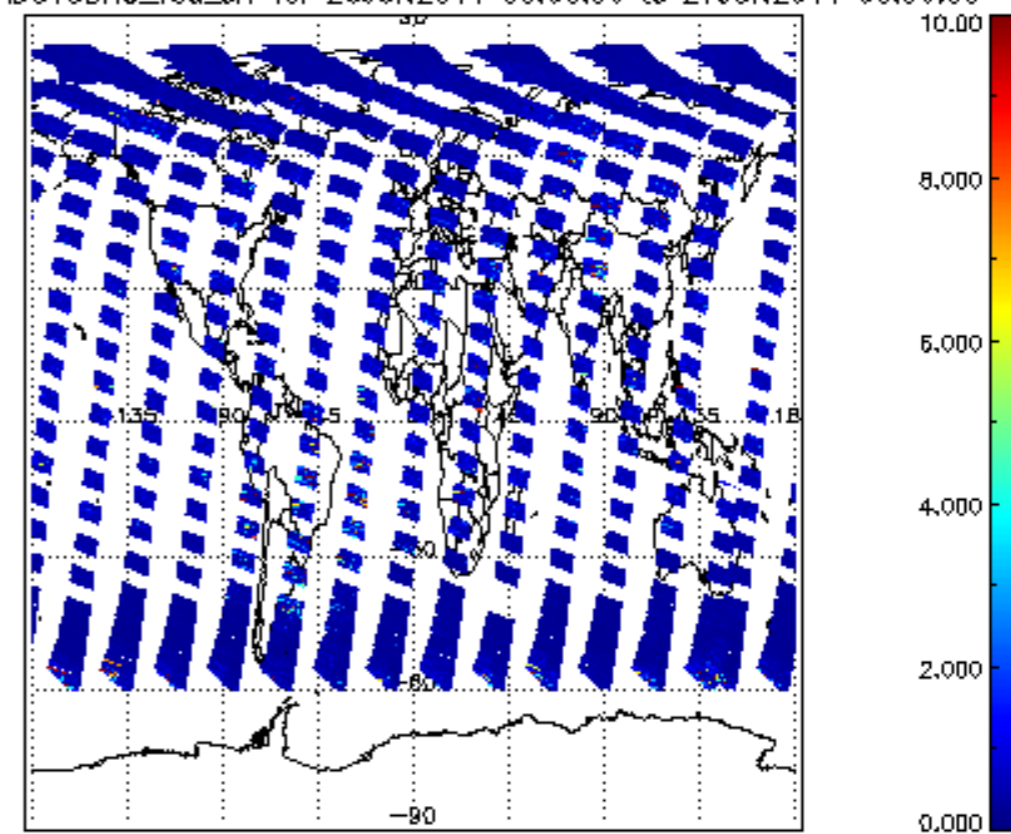




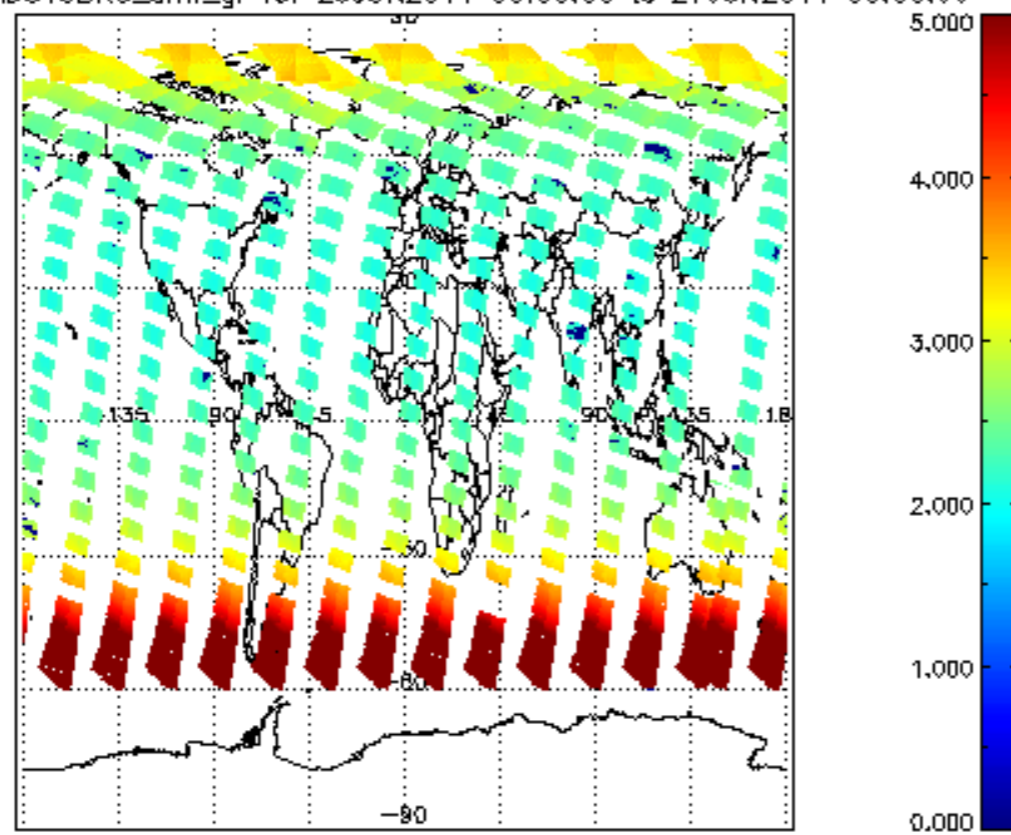
SCIOL2P\_NADUV3BRO\_vcd for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



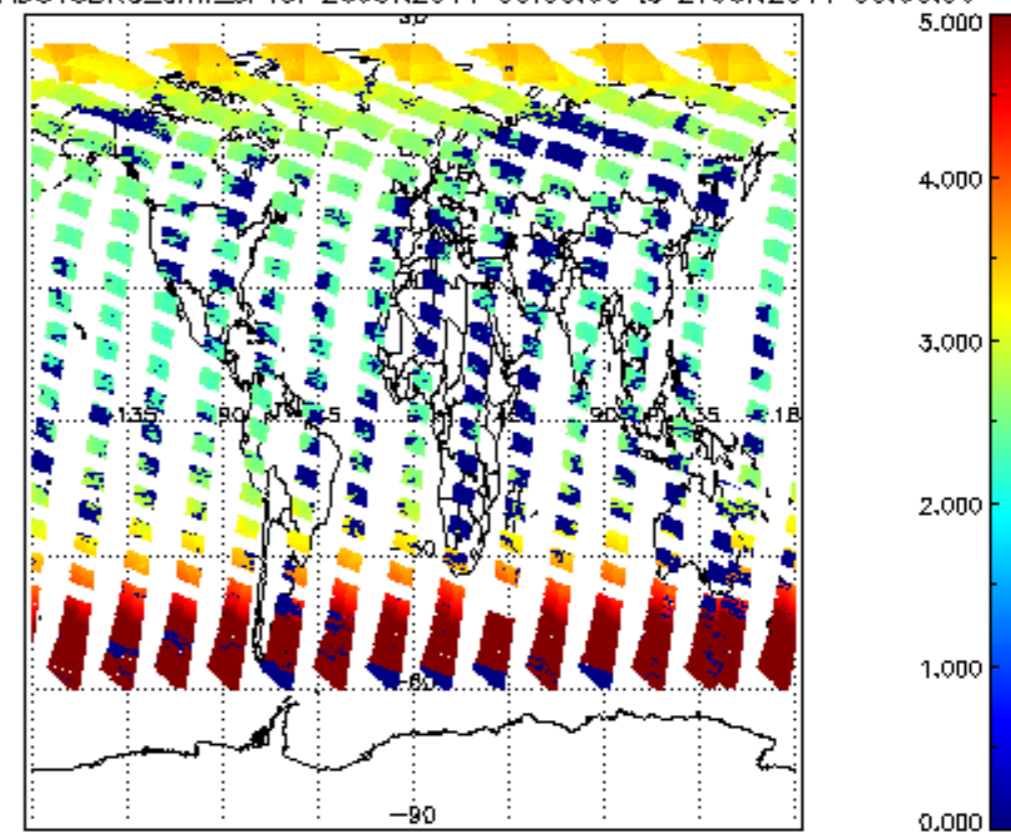
SCIOL2P\_NADUV3BRO\_vcd\_err for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



SCIOL2P\_NADUV3BRO\_amf\_gr for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



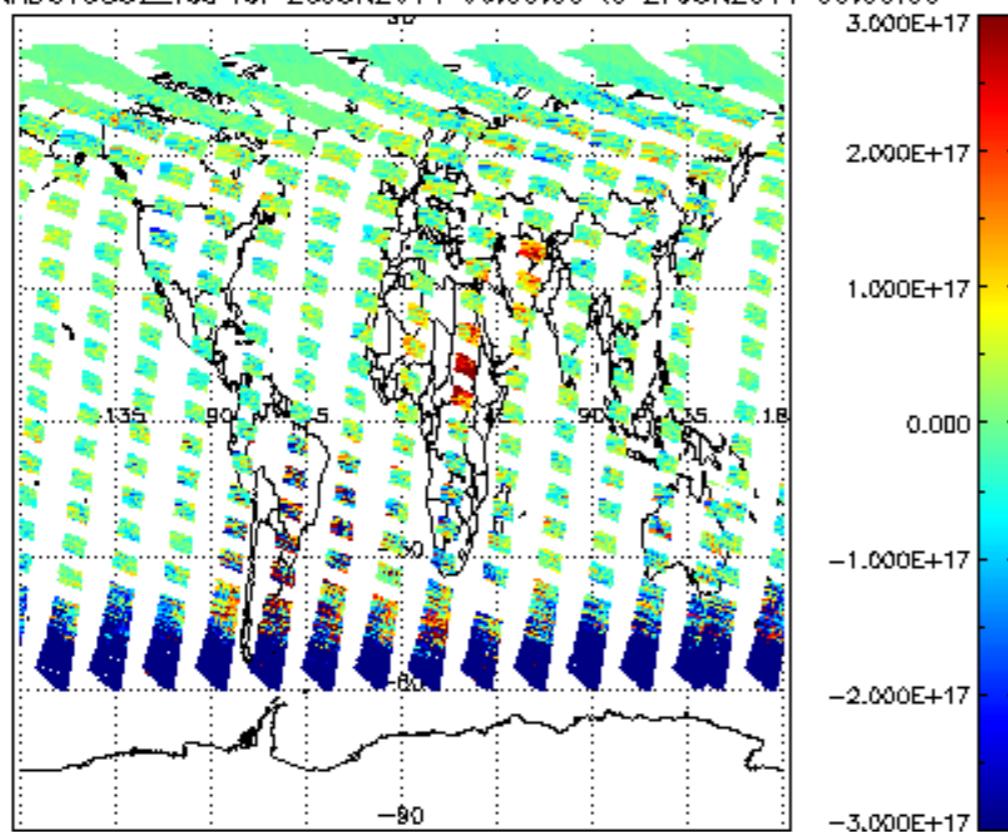
SCIOL2P\_NADUV3BRO\_amf\_cl for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



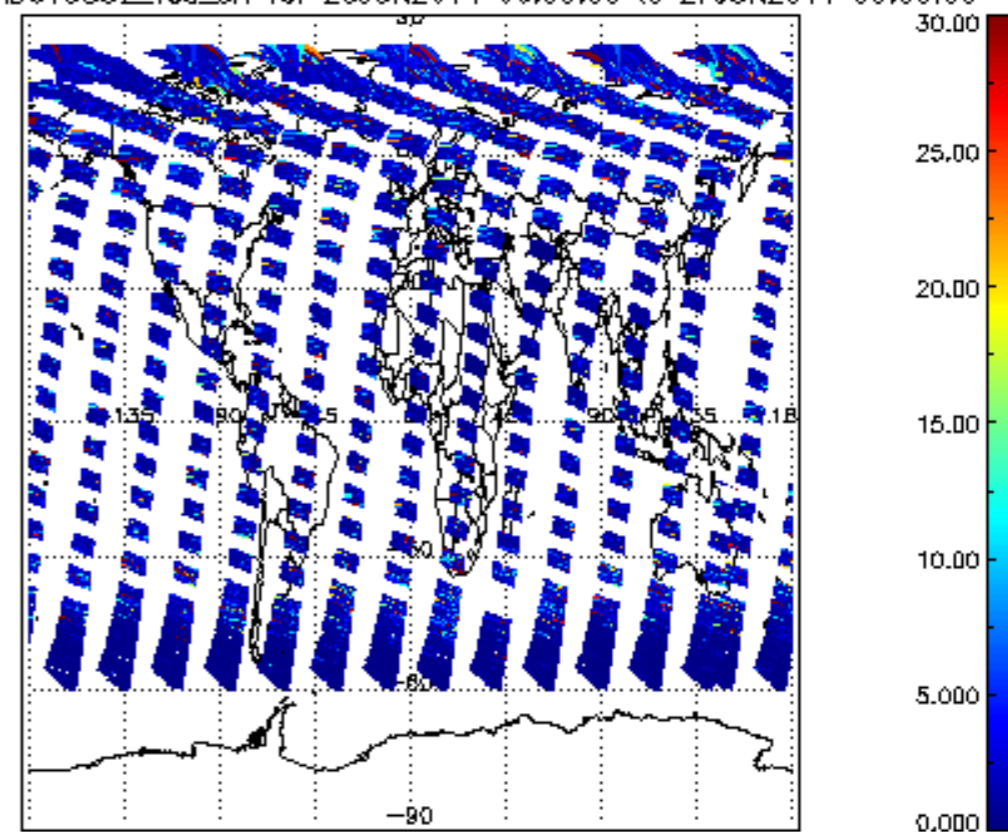




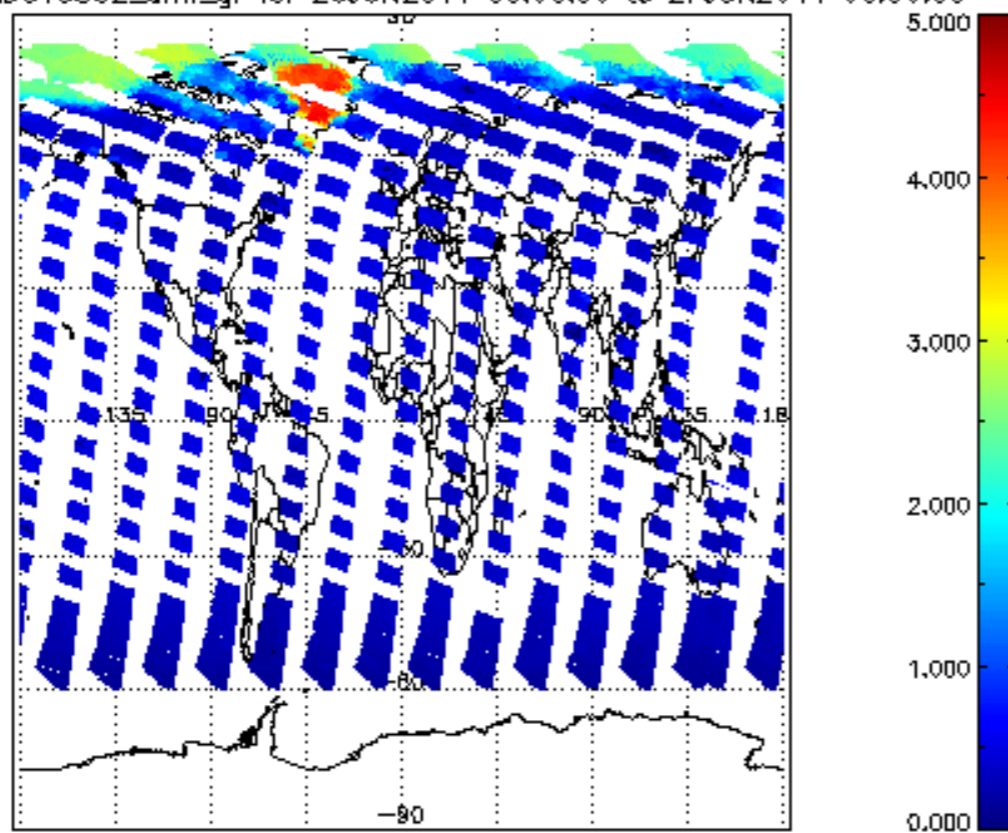
SCIOL2P\_NADUV5S02\_vcd for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



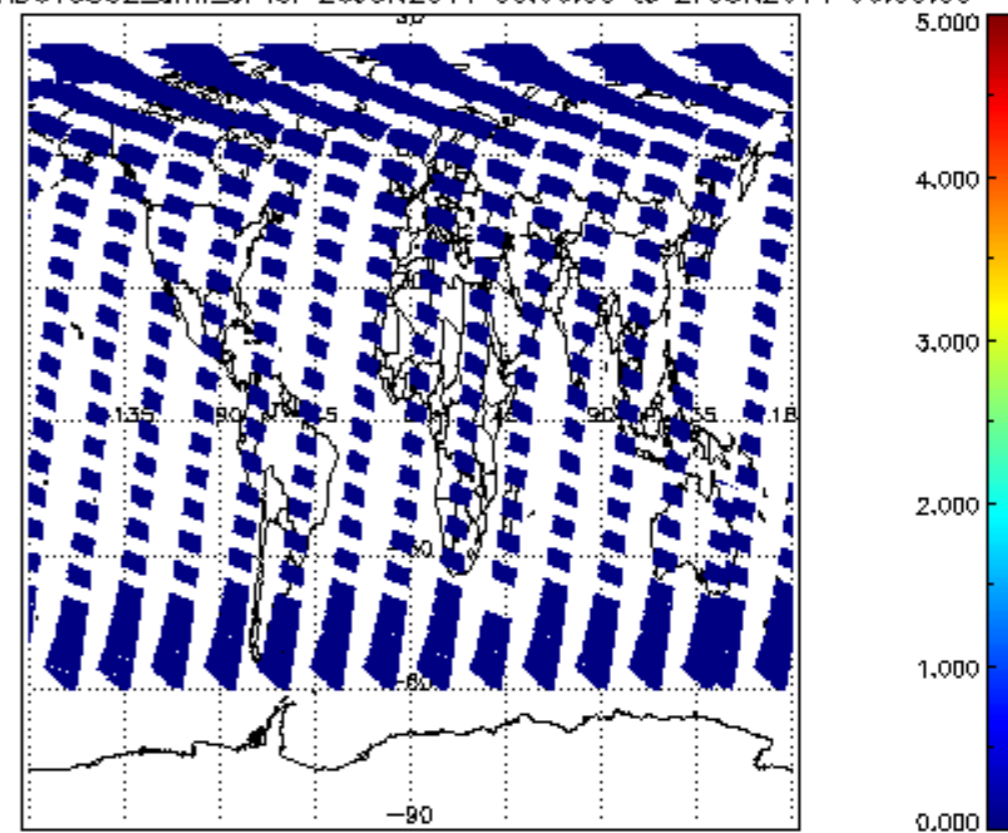
SCIOL2P\_NADUV5S02\_vcd\_err for 26JUN2011 00:00:00 to 27JUN2011 00:00:00

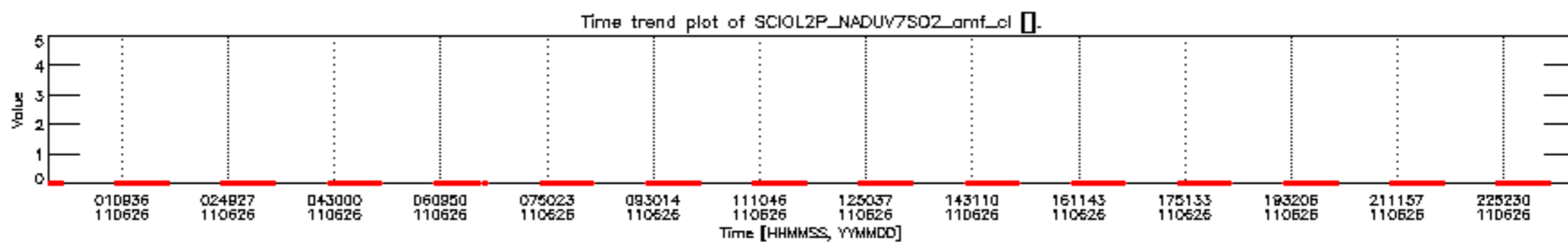
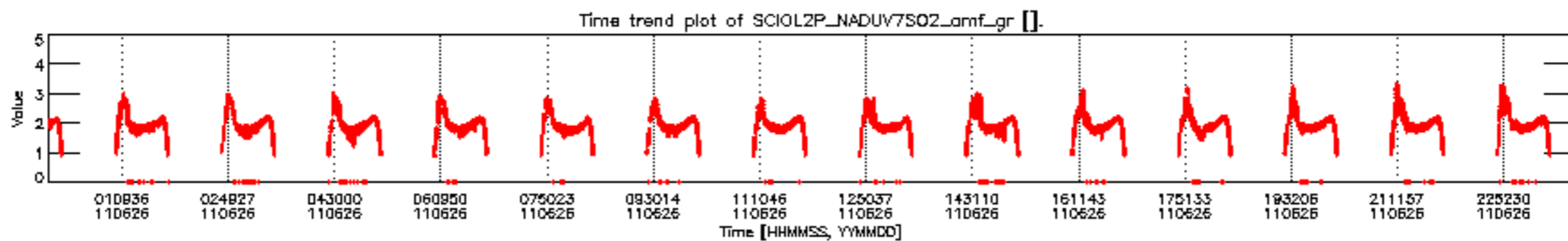
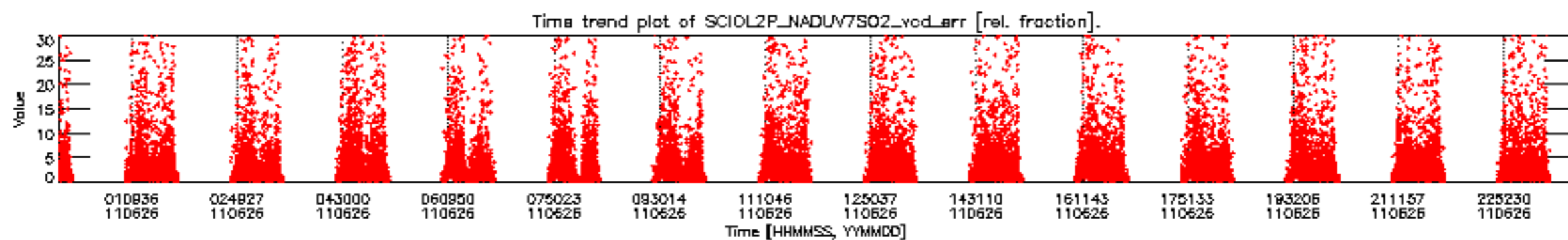
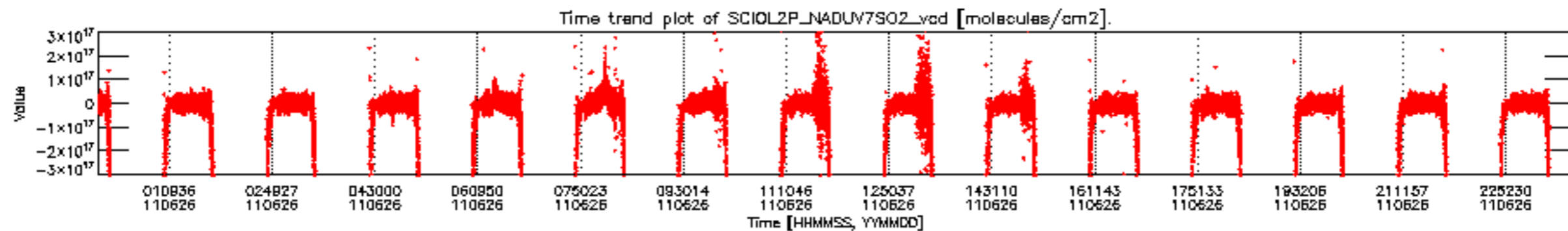


SCIOL2P\_NADUV5S02\_amf\_gr for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



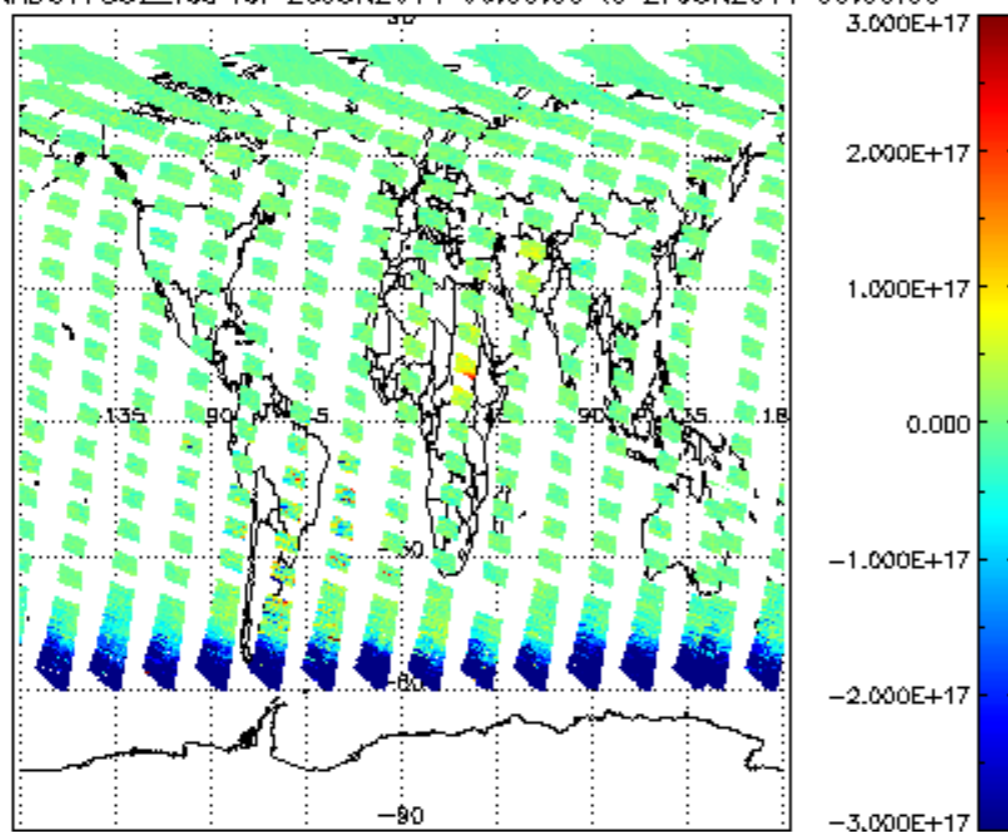
SCIOL2P\_NADUV5S02\_amf\_cl for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



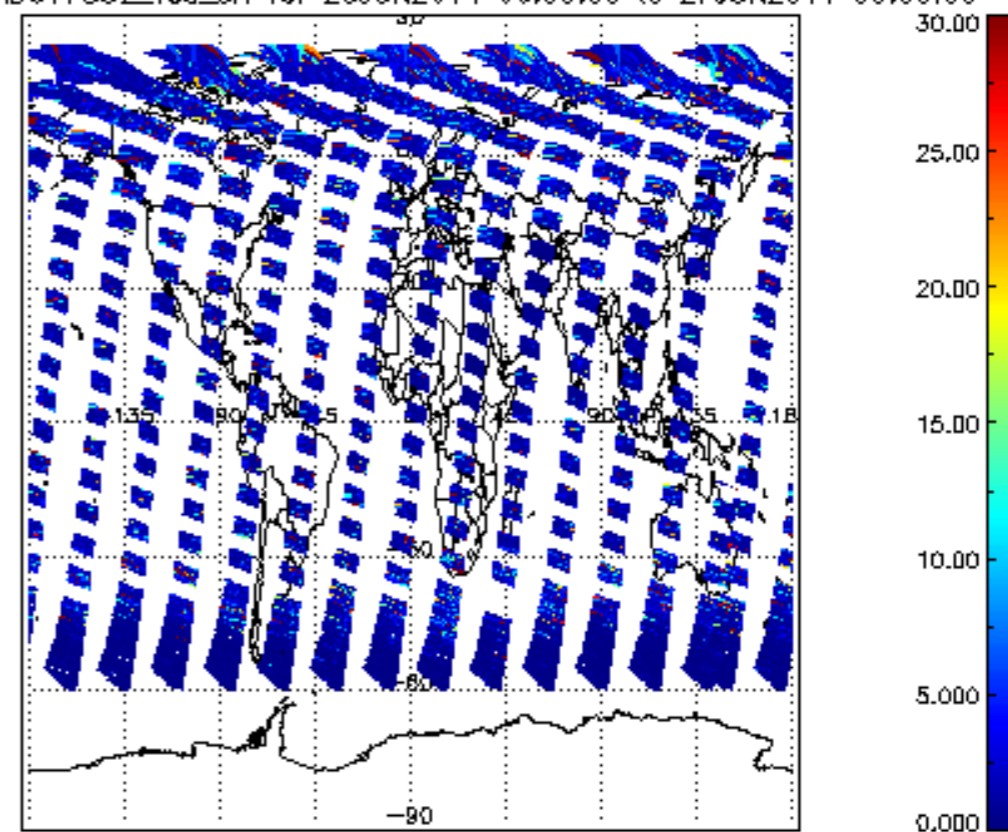




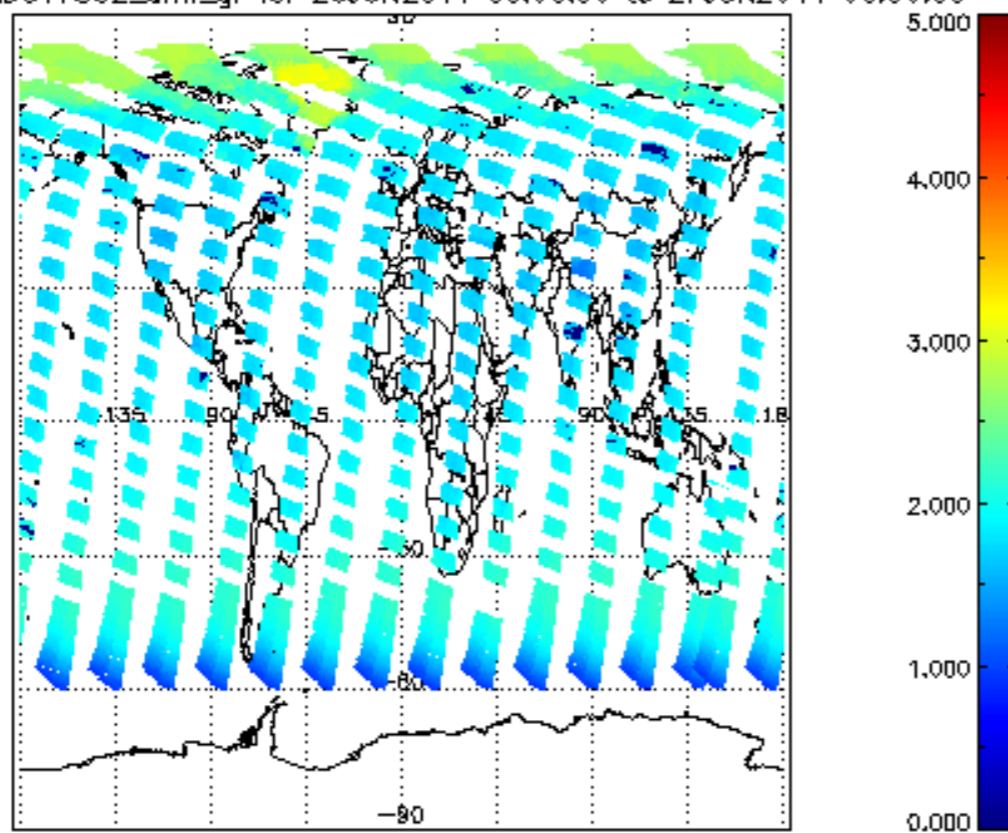
SCIOL2P\_NADUV7S02\_vcd for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



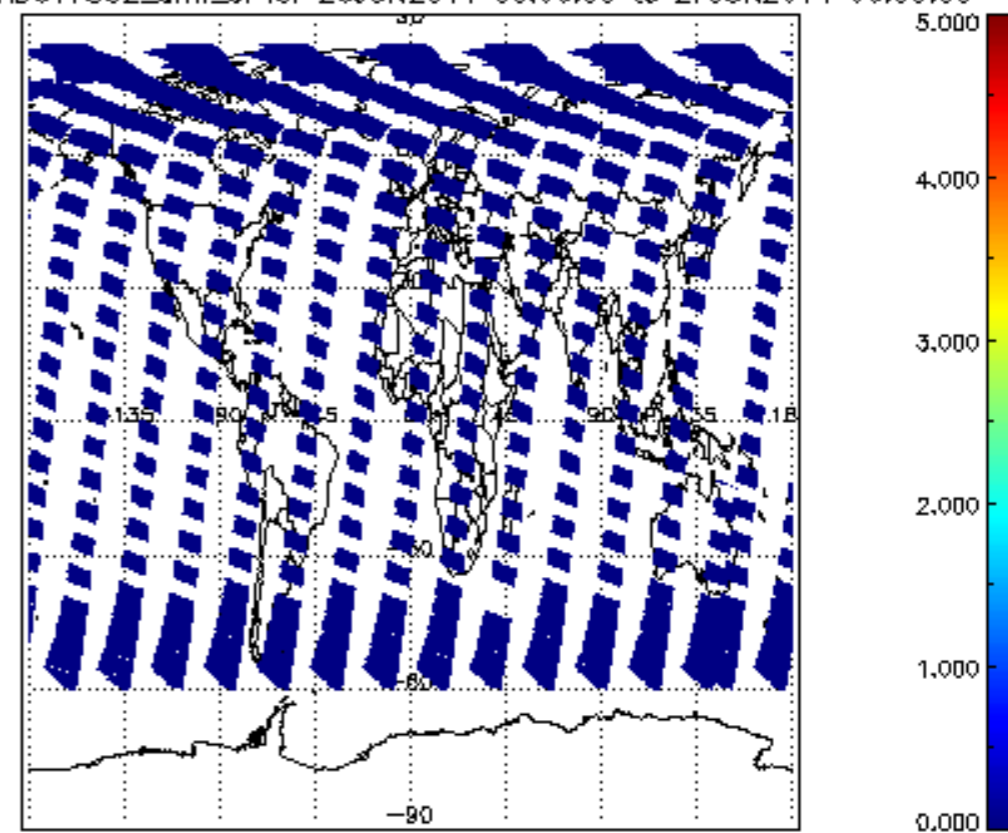
SCIOL2P\_NADUV7S02\_vcd\_err for 26JUN2011 00:00:00 to 27JUN2011 00:00:00

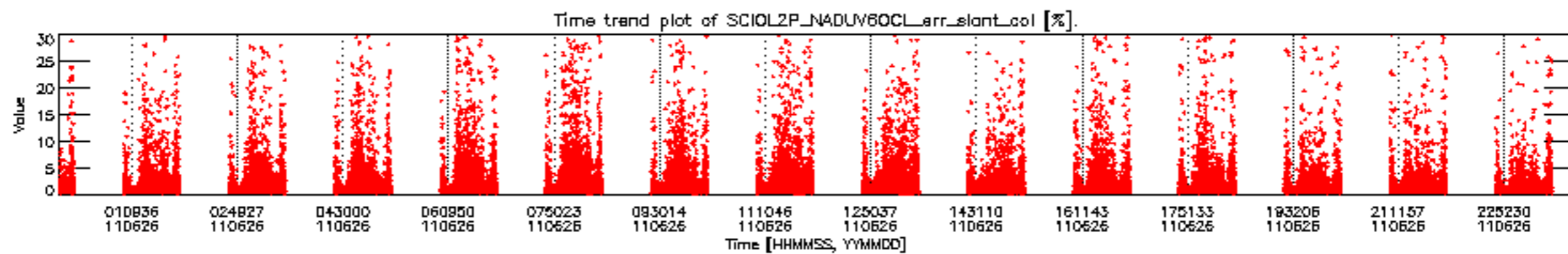
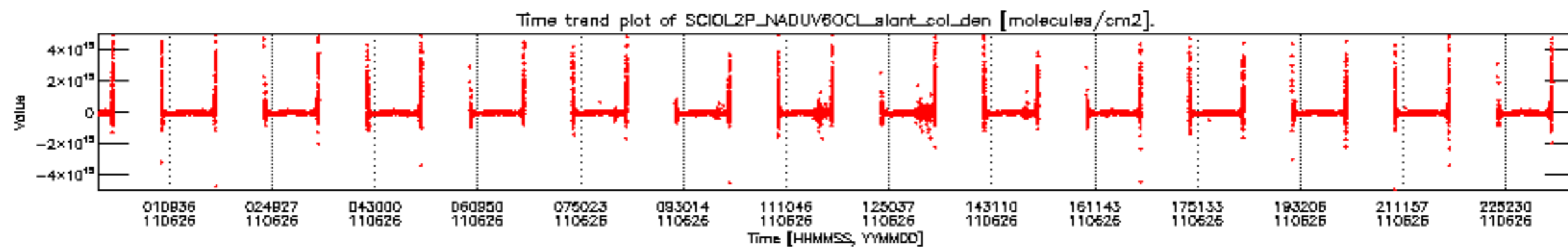


SCIOL2P\_NADUV7S02\_amf\_gr for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



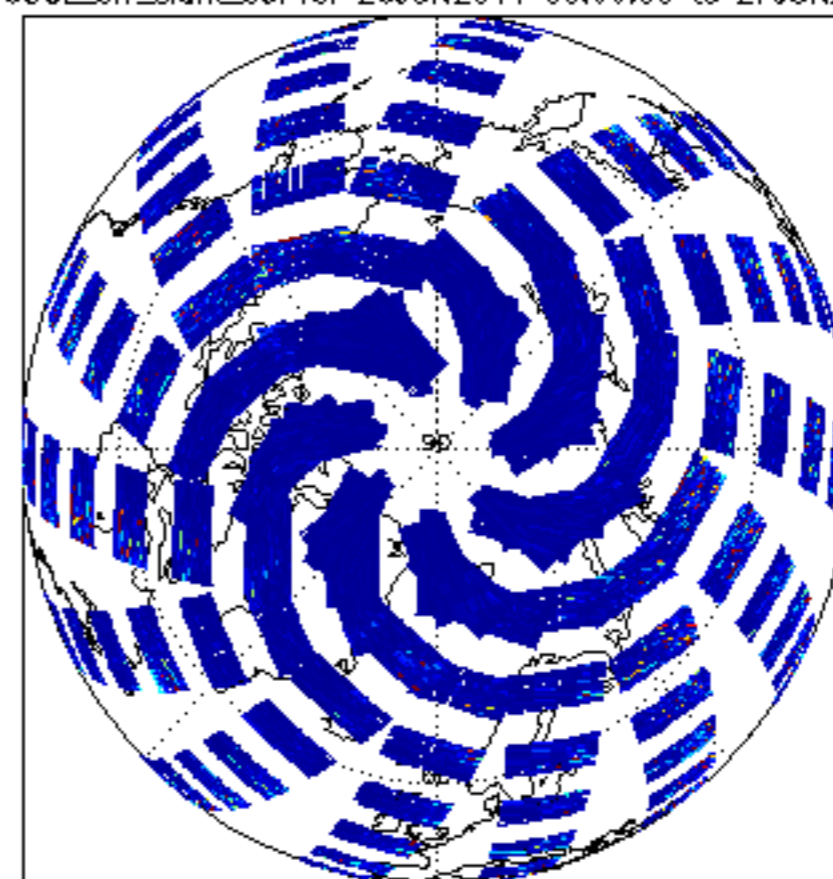
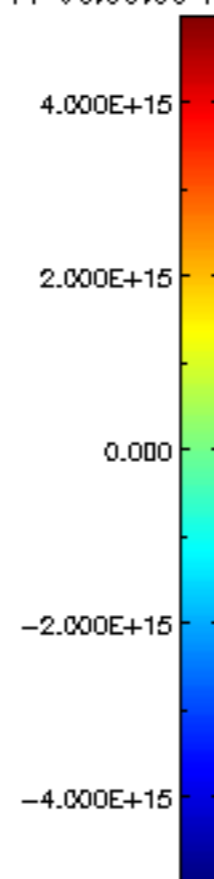
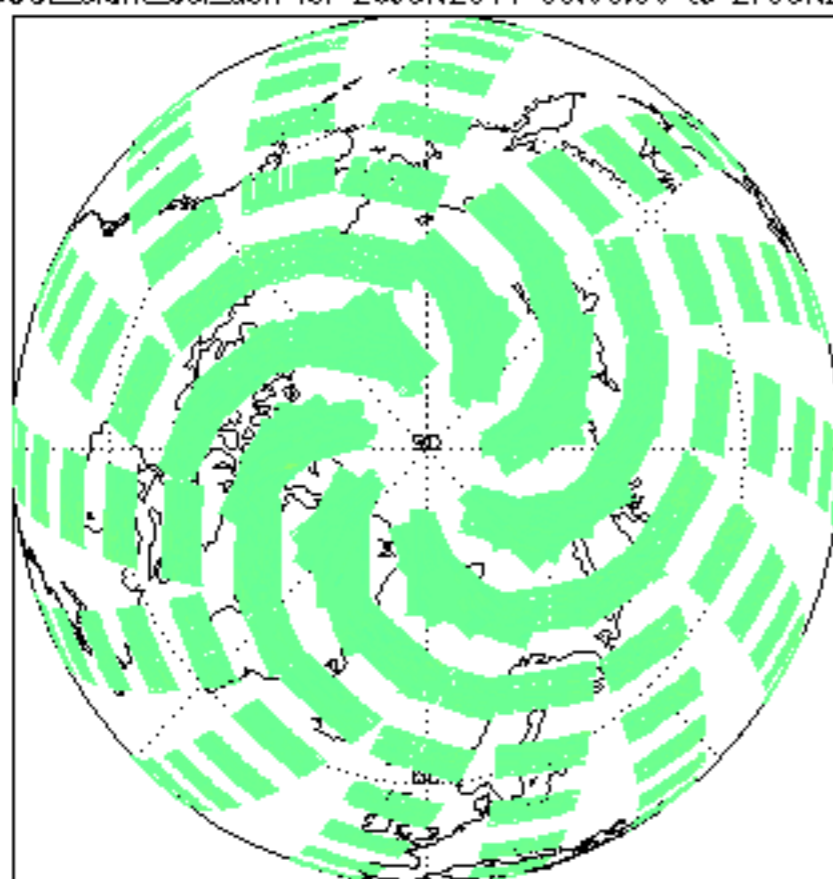
SCIOL2P\_NADUV7S02\_amf\_cl for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



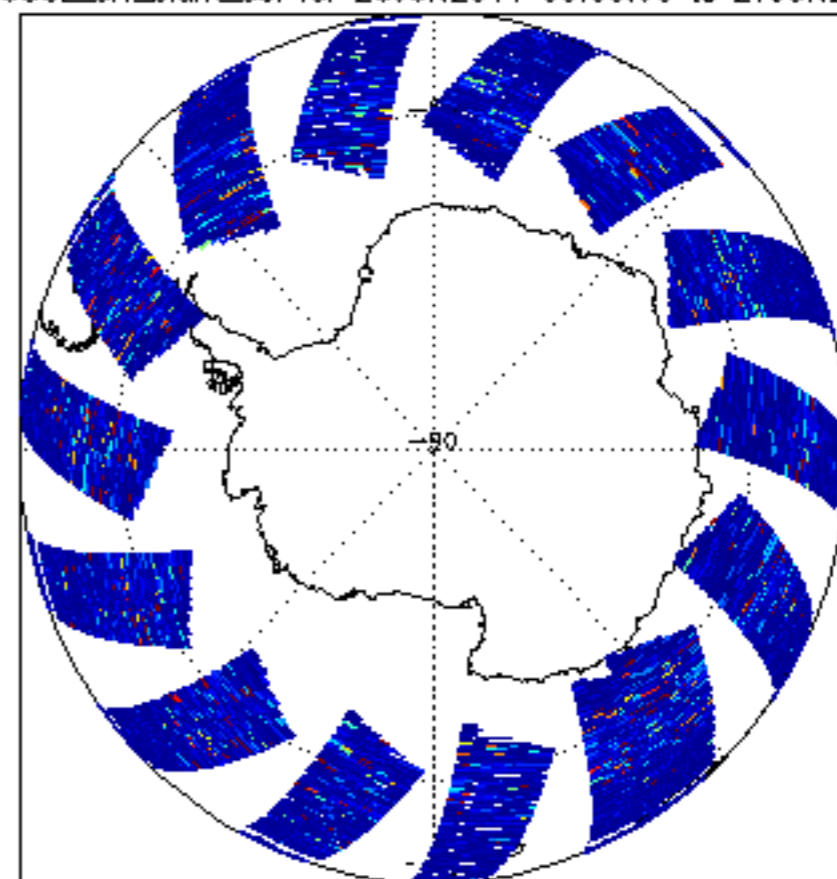
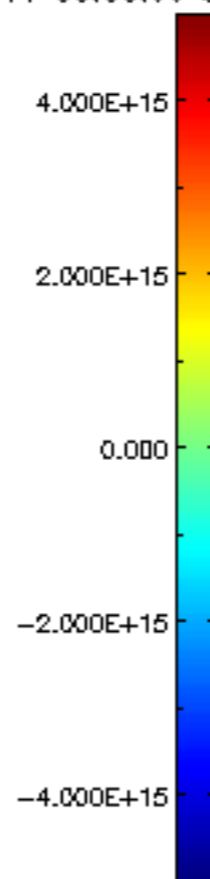
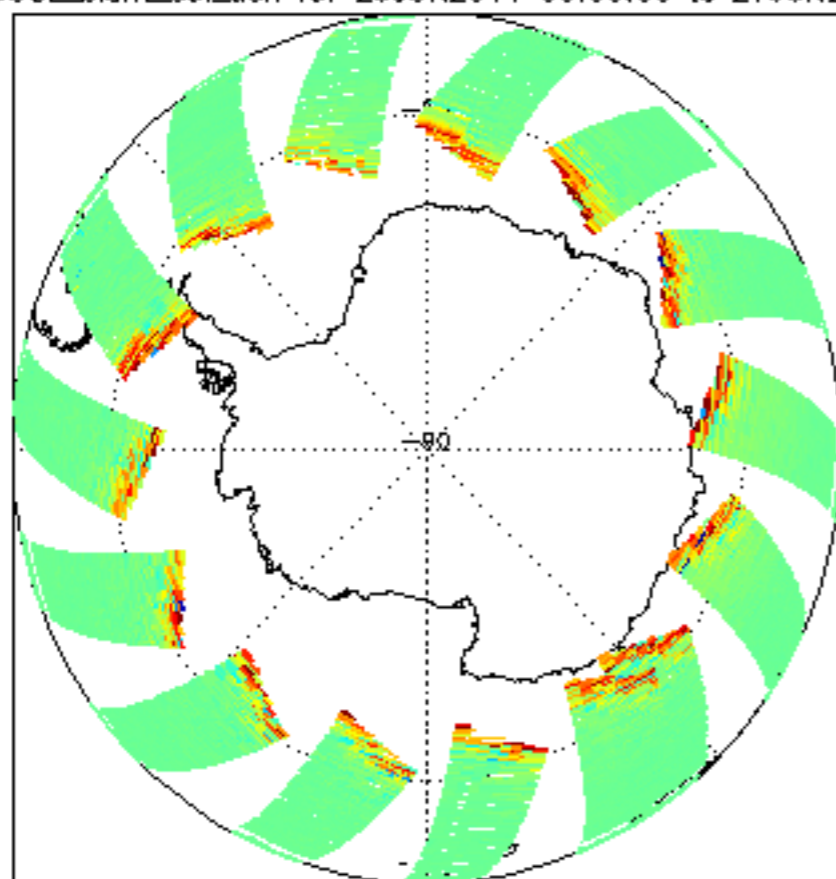




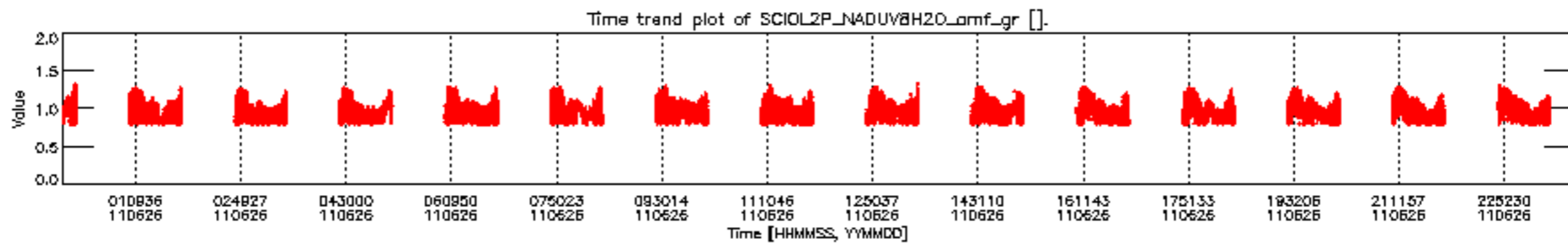
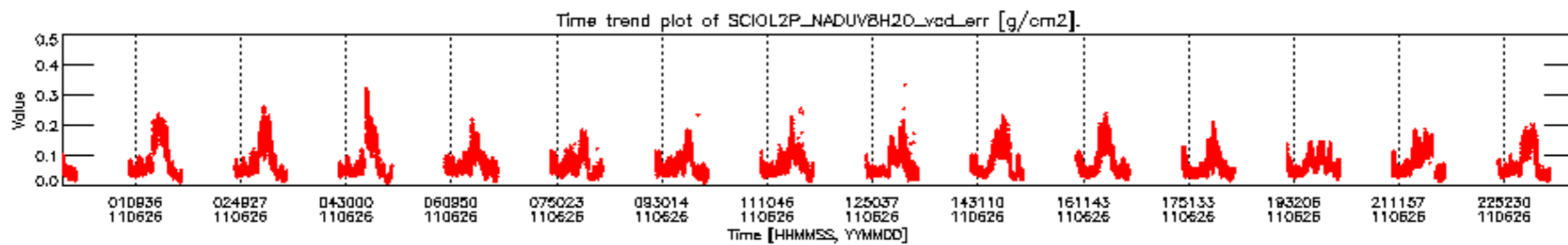
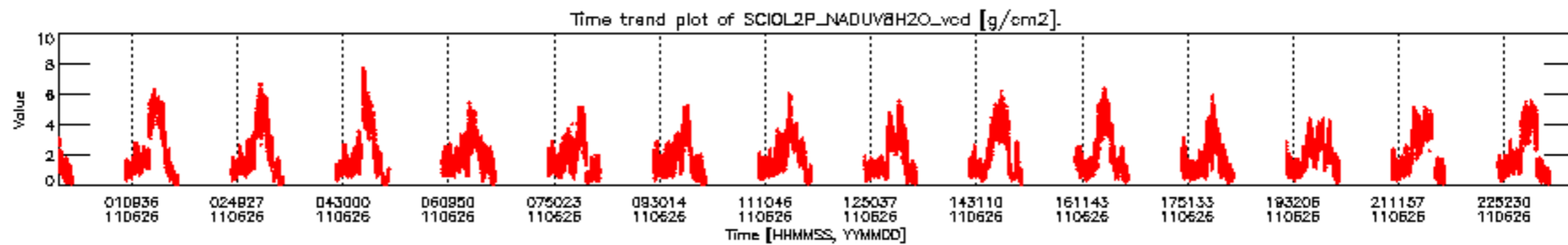
CIOL2P\_NADUV60CL\_slant\_col\_den for 26JUN2011 00:00:00 to 27JUN2011 00:00:00 np iCIOL2P\_NADUV60CL\_err\_slant\_col for 26JUN2011 00:00:00 to 27JUN2011 00:00:00 np



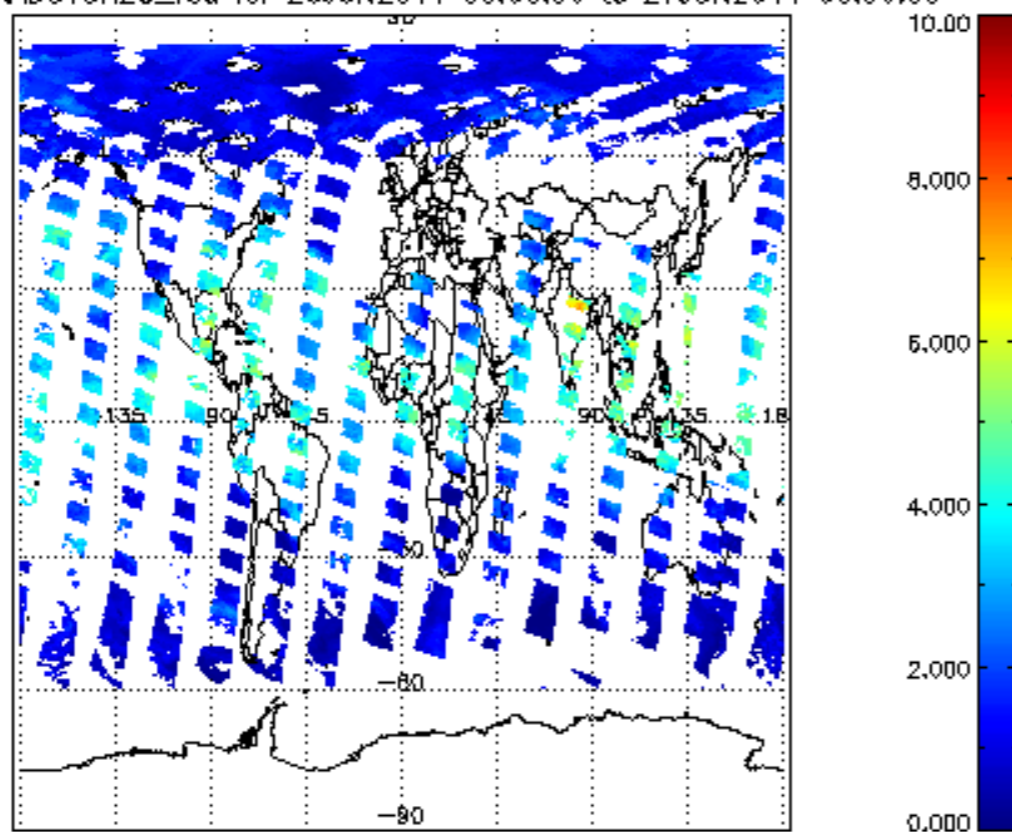
CIOL2P\_NADUV60CL\_slant\_col\_den for 26JUN2011 00:00:00 to 27JUN2011 00:00:00 sp iCIOL2P\_NADUV60CL\_err\_slant\_col for 26JUN2011 00:00:00 to 27JUN2011 00:00:00 sp



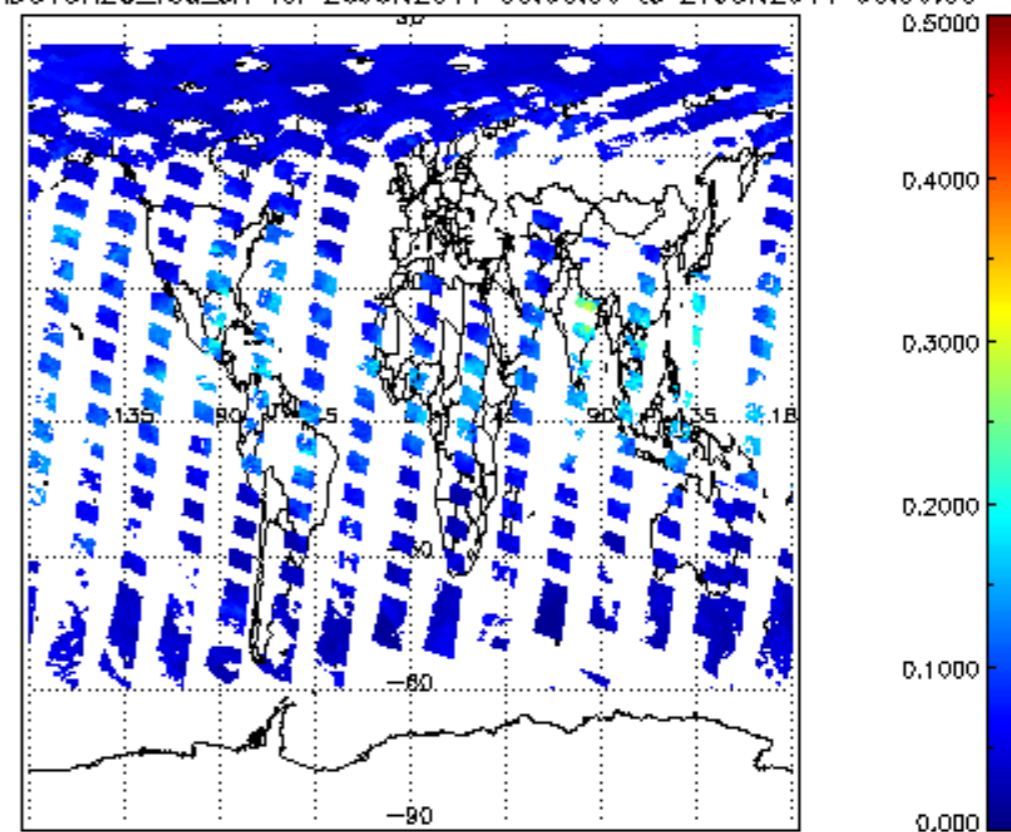




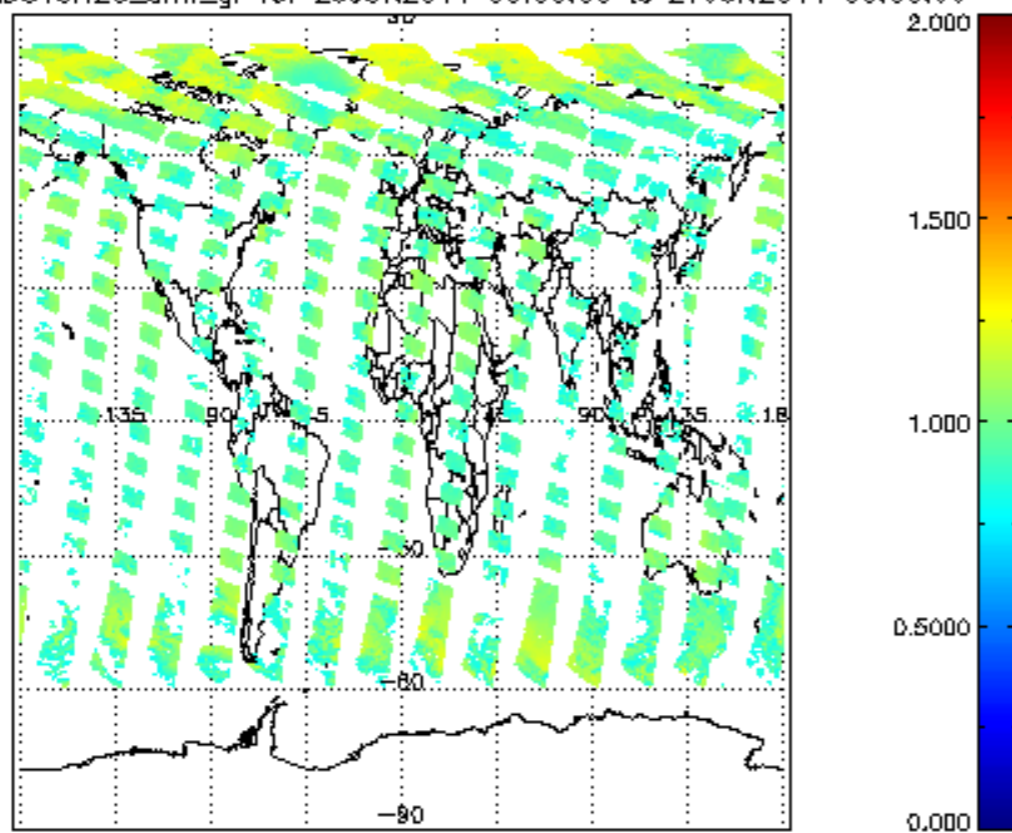
SCIOL2P\_NADUV8H2O\_vcd for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



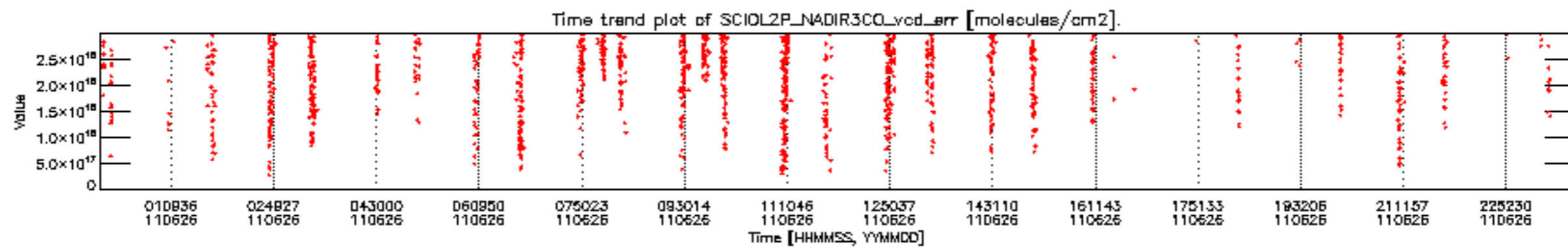
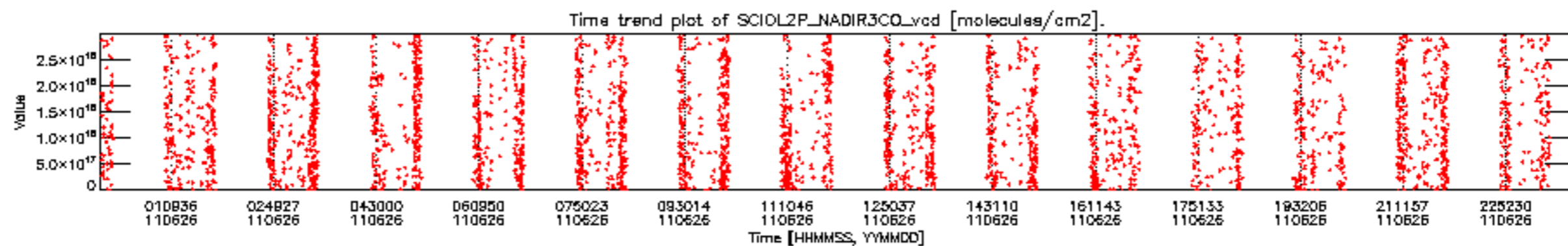
SCIOL2P\_NADUV8H2O\_vcd\_err for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



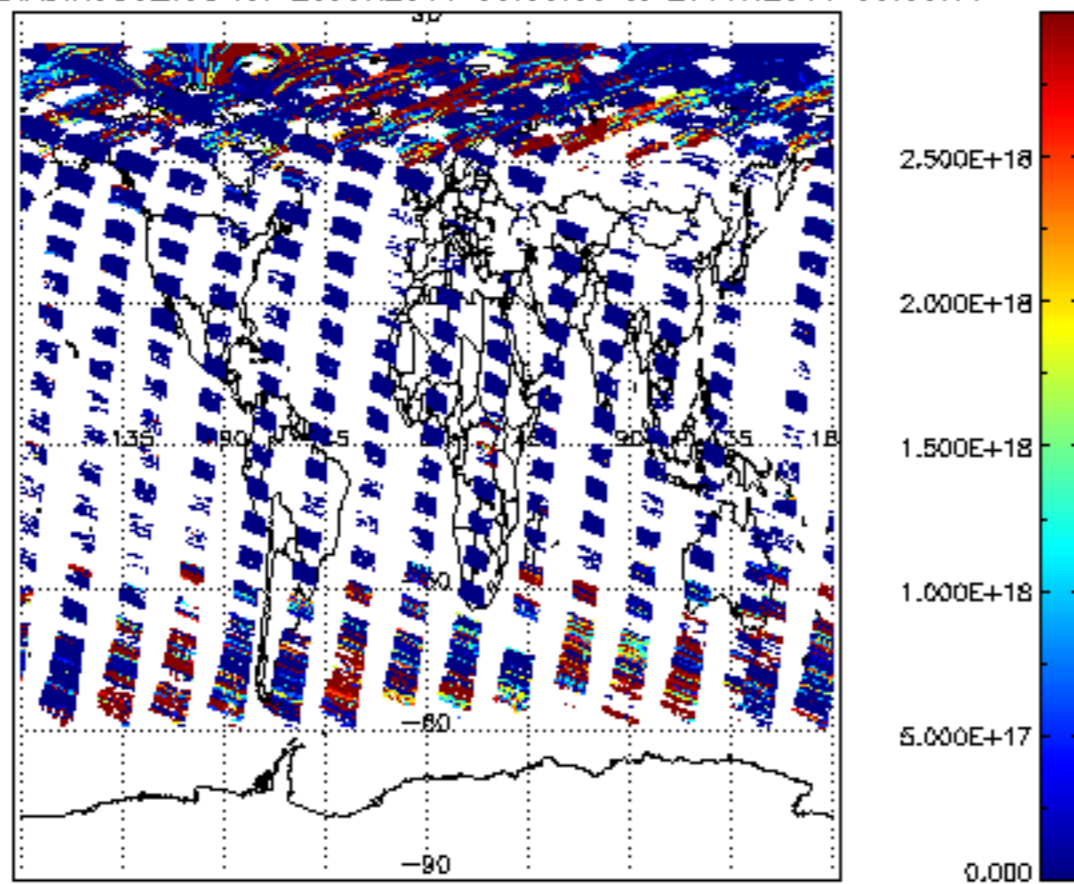
SCIOL2P\_NADUV8H2O\_amf\_gr for 26JUN2011 00:00:00 to 27JUN2011 00:00:00



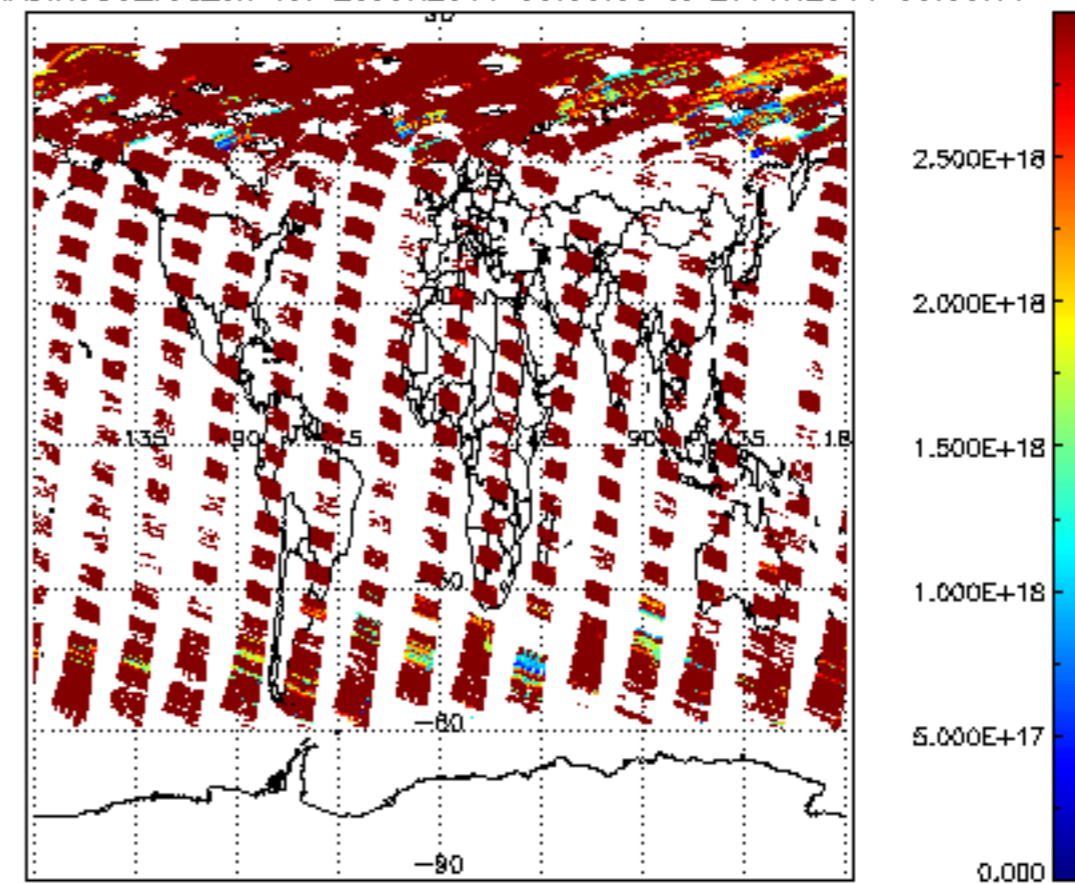




SCIOL2P\_NADIR3CO\_vcd for 26JUN2011 00:00:00 to 27JUN2011 00:00:00

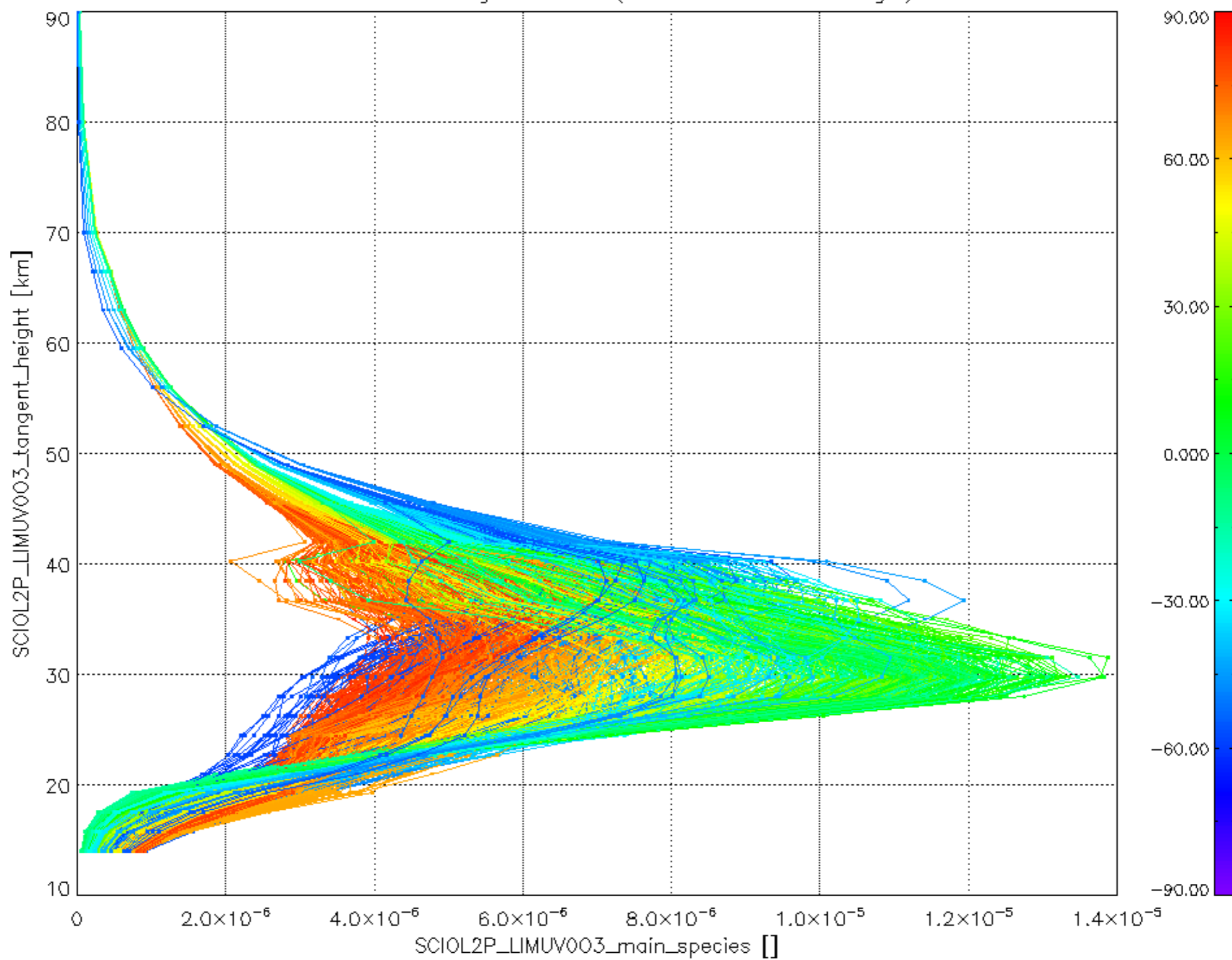


SCIOL2P\_NADIR3CO\_vcd\_err for 26JUN2011 00:00:00 to 27JUN2011 00:00:00

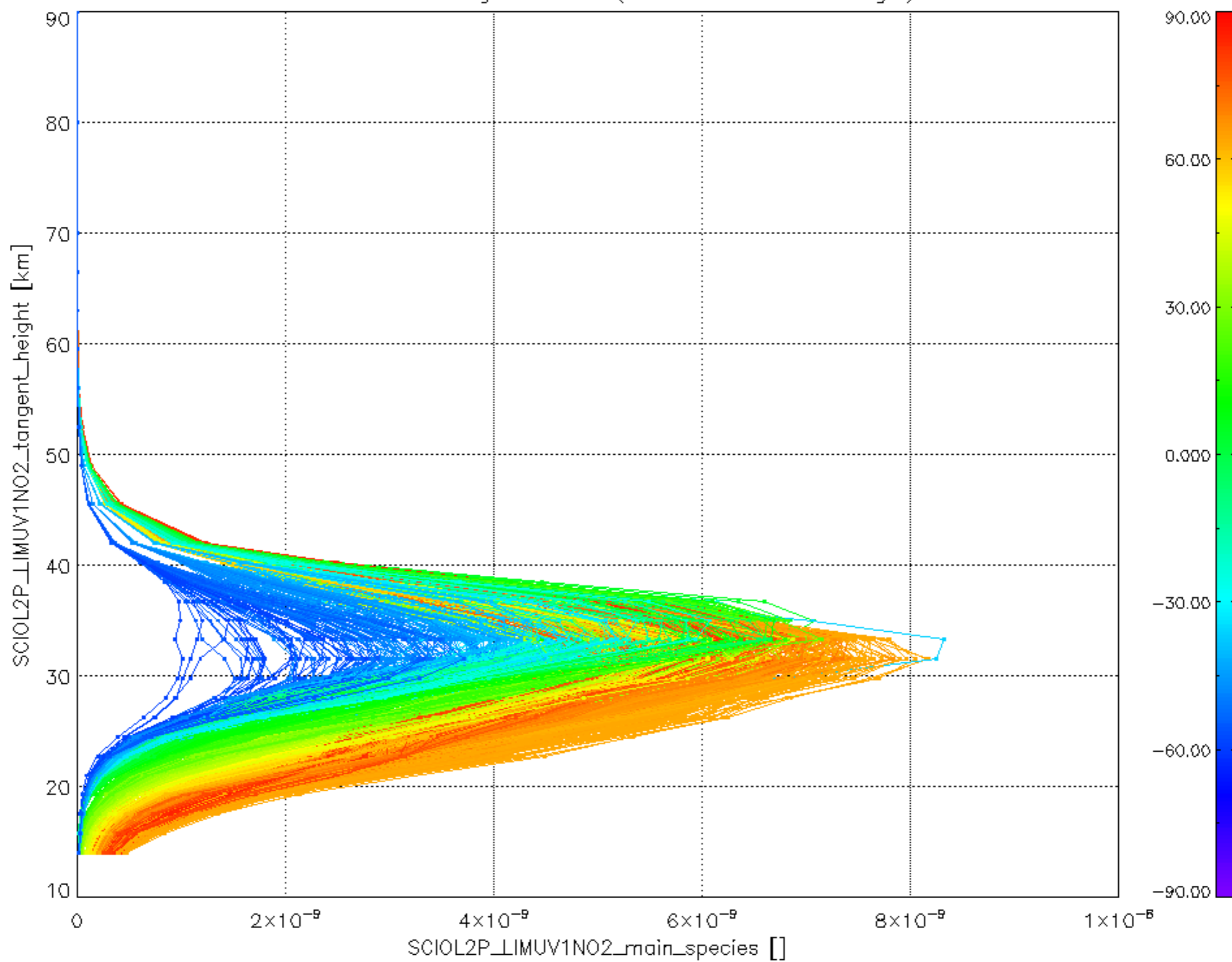




Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



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).

