

## 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	31MAY2011 05:15:43
Data source version	SCIA-OL/5.01-N
Processing scope for products	25MAY2011 00:00:00 to 26MAY2011 00:00:00
Start time of first product within scope	24MAY2011 22:50:07
Stop time of last product within scope	26MAY2011 00:52:24
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__2PNDPA20110524_225007_000035163102_00417_48276_3327.N1</a>	24MAY2011 22:50:07	24MAY2011 23:48:44	0	GOOD
1	<a href="#">SCI_OL__2PNDPA20110525_003021_000035303102_00418_48277_3333.N1</a>	25MAY2011 00:30:21	25MAY2011 01:29:12	0	GOOD
2	<a href="#">SCI_OL__2PNDPA20110525_021035_000029133102_00419_48278_3334.N1</a>	<b>25MAY2011 02:10:35</b>	<b>25MAY2011 02:59:08</b>	0	GOOD
3	<a href="#">SCI_OL__2PNDPA20110525_025912_000060243102_00420_48279_3335.N1</a>	<b>25MAY2011 02:59:12</b>	<b>25MAY2011 04:39:36</b>	0	GOOD
4	<a href="#">SCI_OL__2PNDPA20110525_043940_000059953102_00421_48280_3337.N1</a>	25MAY2011 04:39:40	25MAY2011 06:19:36	0	GOOD

5	SCI_OL__2PNDPA20110525_062142_000039383102_00422_48281_3336.N1	25MAY2011 06:21:42	25MAY2011 07:27:20	0	GOOD
6	SCI_OL__2PNDPA20110525_072818_000060643102_00423_48282_3338.N1	25MAY2011 07:28:18	25MAY2011 09:09:22	0	GOOD
7	SCI_OL__2PNDPA20110525_090926_000059553102_00424_48283_3339.N1	25MAY2011 09:09:26	25MAY2011 10:48:42	0	GOOD
8	SCI_OL__2PNDPA20110525_104845_000060103102_00425_48284_3340.N1	25MAY2011 10:48:45	25MAY2011 12:28:56	0	GOOD
9	SCI_OL__2PNDPA20110525_122859_000058873102_00426_48285_3341.N1	25MAY2011 12:28:59	25MAY2011 14:07:07	0	GOOD
10	SCI_OL__2PNDPA20110525_140710_000058183102_00427_48286_3342.N1	25MAY2011 14:07:10	25MAY2011 15:44:09	0	GOOD
11	SCI_OL__2PNDPA20110525_154521_000056513102_00428_48287_3343.N1	25MAY2011 15:45:21	25MAY2011 17:19:32	0	GOOD
12	SCI_OL__2PNDPA20110525_172044_000058193102_00429_48288_3344.N1	25MAY2011 17:20:44	25MAY2011 18:57:43	0	GOOD
13	SCI_OL__2PNDPA20110525_185747_000060693102_00430_48289_3346.N1	25MAY2011 18:57:47	25MAY2011 20:38:57	0	GOOD
14	SCI_OL__2PNDPA20110525_203900_000031763102_00431_48290_3354.N1	25MAY2011 20:39:00	25MAY2011 21:31:57	0	GOOD
15	SCI_OL__2PNDPA20110525_221320_000035163102_00431_48290_3357.N1	25MAY2011 22:13:20	25MAY2011 23:11:56	0	GOOD
16	SCI_OL__2PNDPA20110525_235334_000035303103_00001_48291_3353.N1	25MAY2011 23:53:34	26MAY2011 00:52:24	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: 164580

Total number of cloud data DSRs with good quality flag (=0): 164580 (100.0 %)

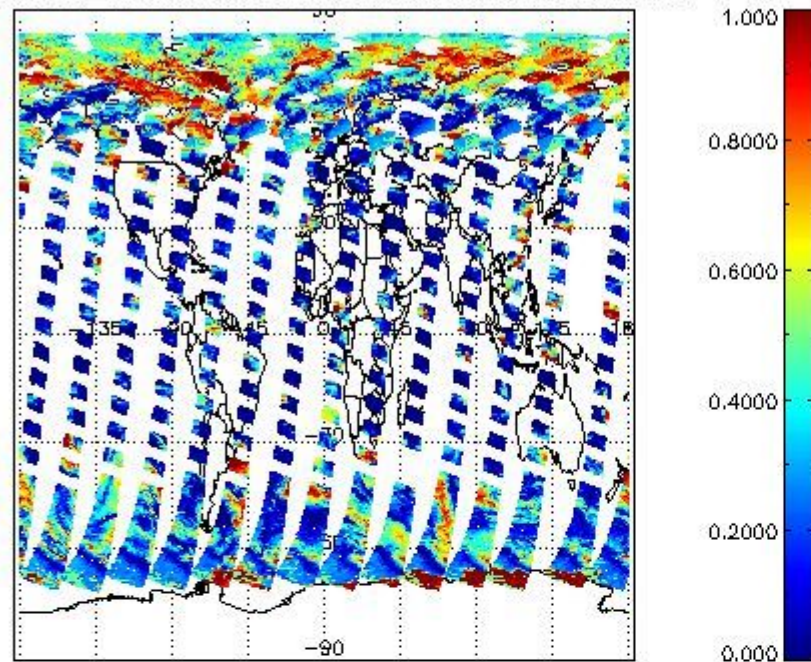
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	164580	0.0000	0.0000	0.0000	0.0000	0.0000	
INTEGR_TIME	164580	0.16509	0.12500	0.12500	0.25000	0.058343	s
CL_FRAC	164580	0.35485	0.29063	0.0000	1.0000	0.30313	
CL_FRAC_ERR	164580	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	164580	5.2828	4.0000	4.0000	8.0000	1.8670	
PMD_READ_CL[0]	164580	0.35768	0.0000	0.0000	8.0000	1.2567	-
PMD_READ_CL[1]	164580	1.4028	0.0000	0.0000	8.0000	2.5619	-
CL_TOP_HEIGHT	127287	3.0630	1.1540	0.0000	17.000	3.5003	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	127287	65.690	100.00	0.0000	101.00	42.632	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	164580	11100000	11100000	11100000	11100000	0.0000	
CLOUD_FLAGS	164580	11001101	11000100	11000000	11100000	3660.4	
AERO_ABSO_IND	164580	0.18900	0.0000	0.0000	15.421	0.48470	
AERO_IND_DIAG	164580	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	164580	01010010	00000000	00000000	11000000	24321.	

#### Time and geolocation plots:

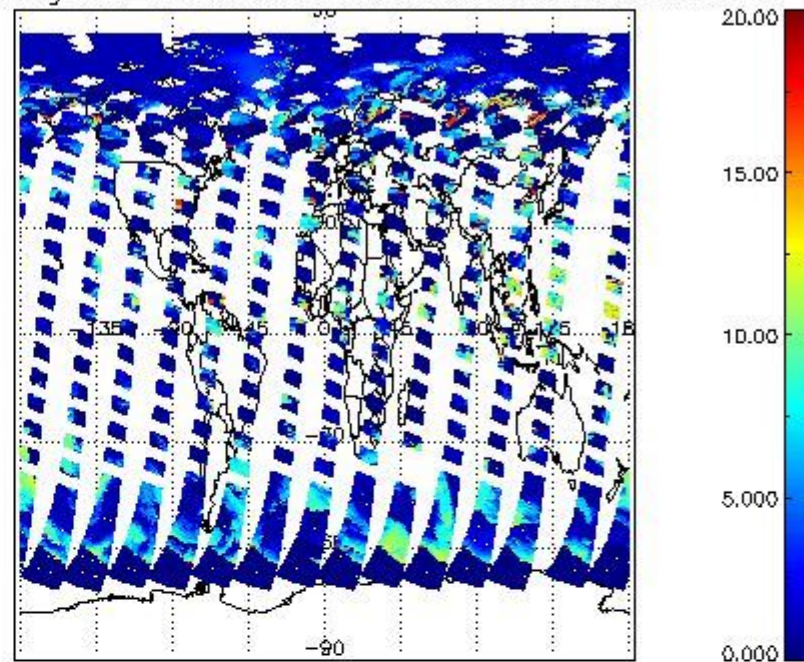
Plots are available for the following parameters:

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

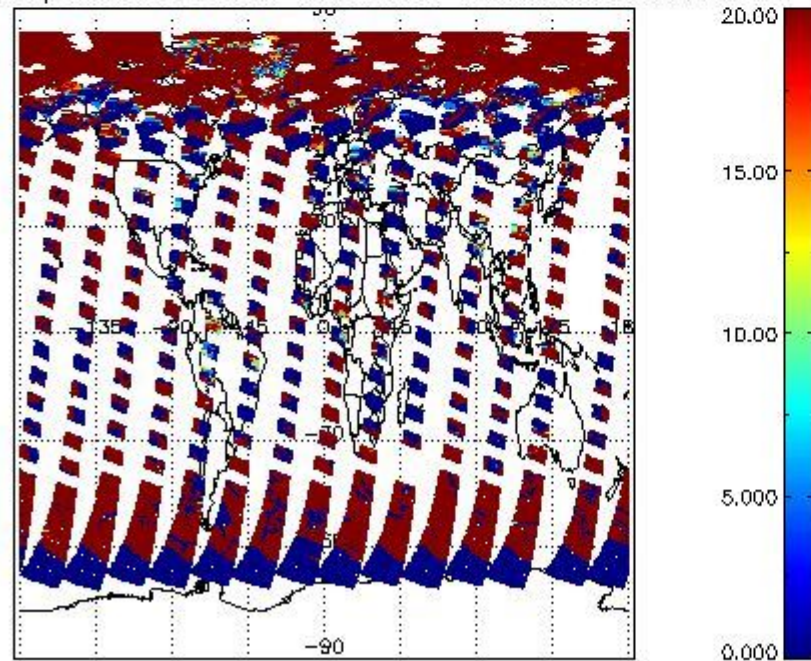
cL\_frac for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



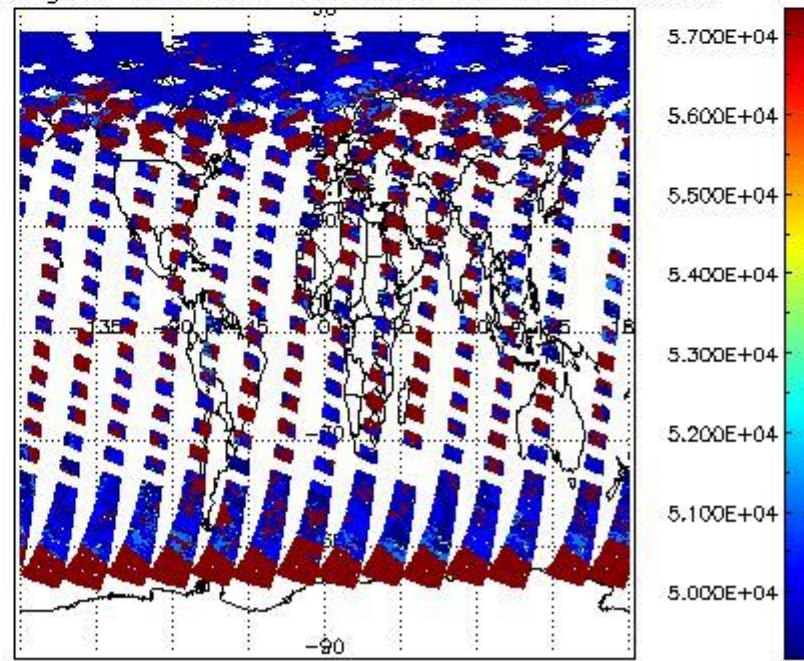
cL\_top\_height for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



cL\_opt\_depth for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



cloud\_flags for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



## 2.2.2 Nadir

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

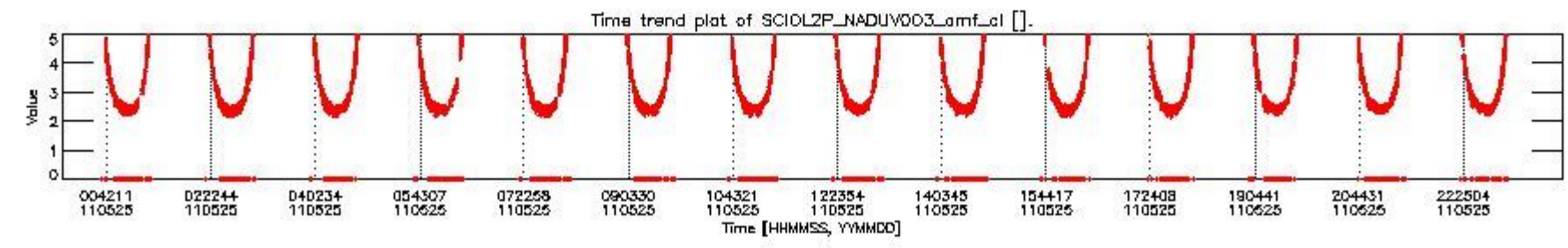
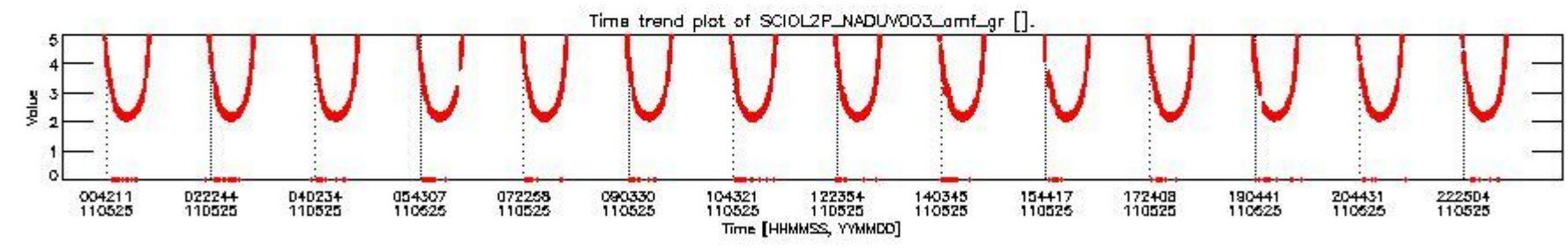
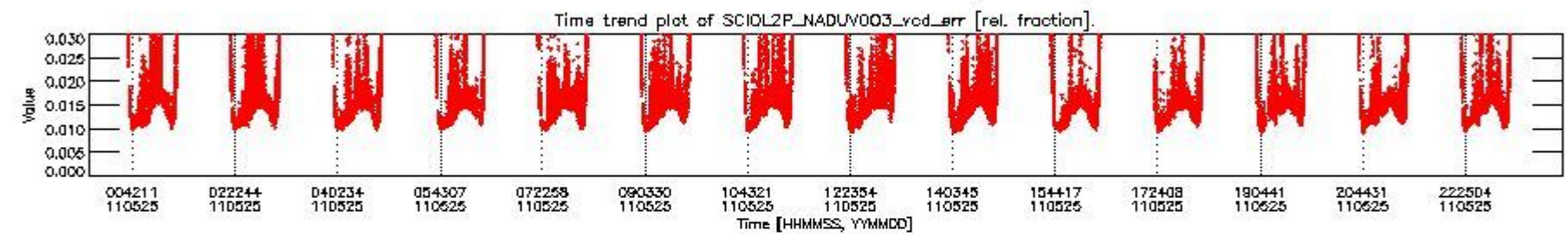
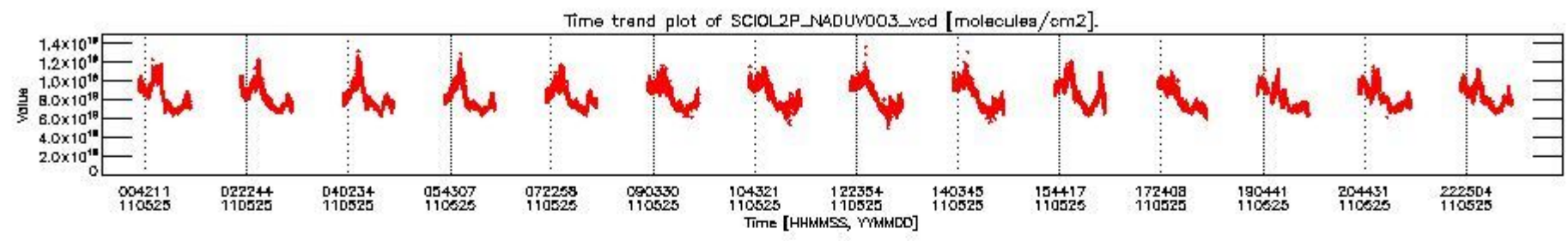
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

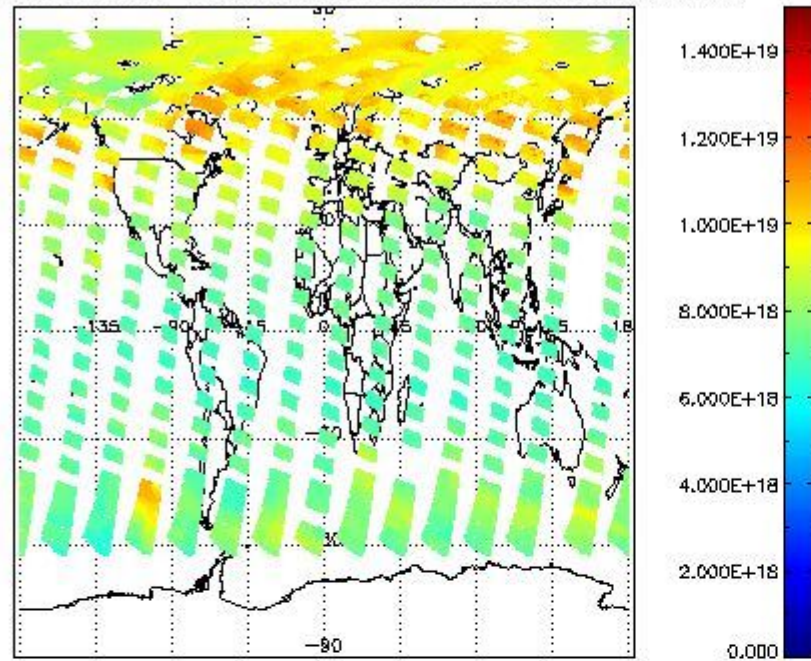
3	SCIOL2P_NADUV0O3_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl
8	SCIOL2P_NADUV3BRO_vcd
9	SCIOL2P_NADUV3BRO_vcd_err
10	SCIOL2P_NADUV3BRO_amf_gr
11	SCIOL2P_NADUV3BRO_amf_cl
12	SCIOL2P_NADUV5SO2_vcd
13	SCIOL2P_NADUV5SO2_vcd_err
14	SCIOL2P_NADUV5SO2_amf_gr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

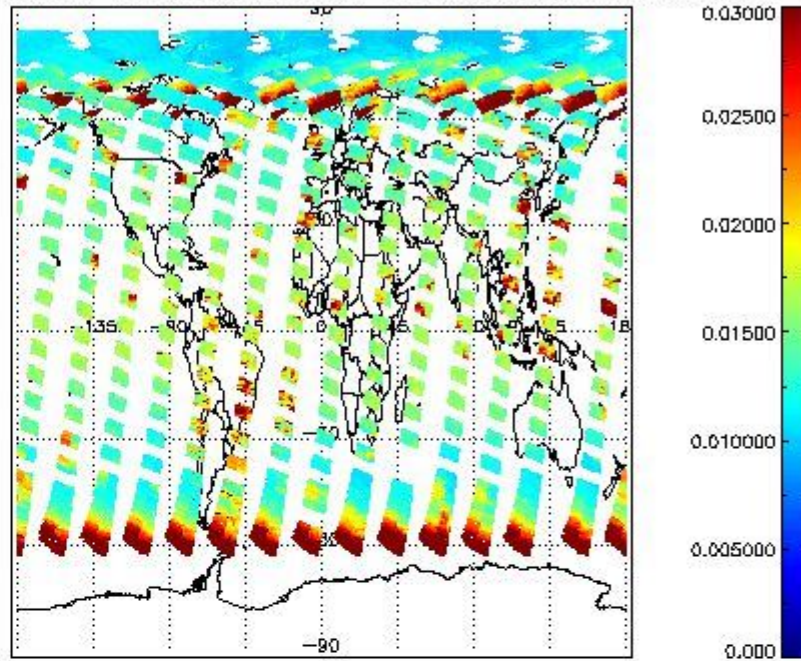
#### 2.2.2.1 O3 (UV0)



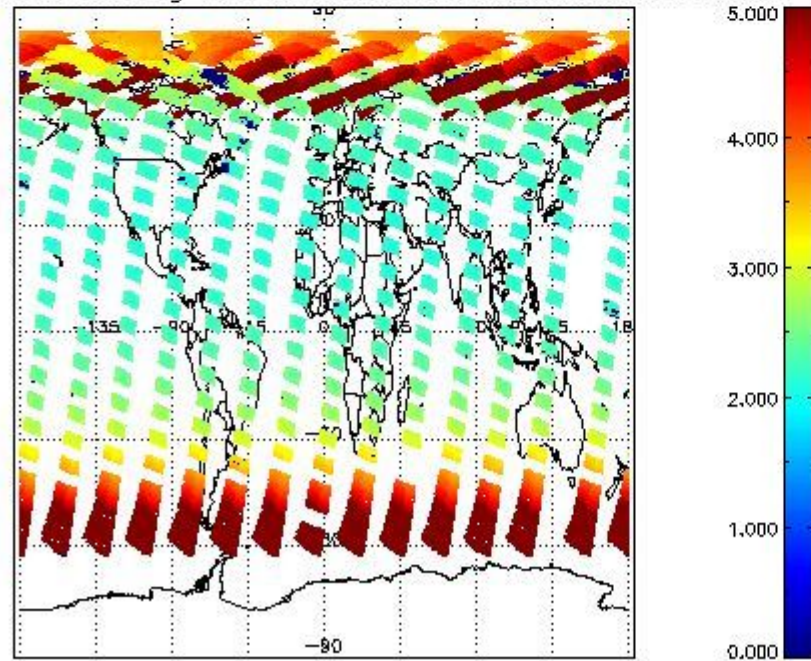
SCIOL2P\_NADUV003\_vcd for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



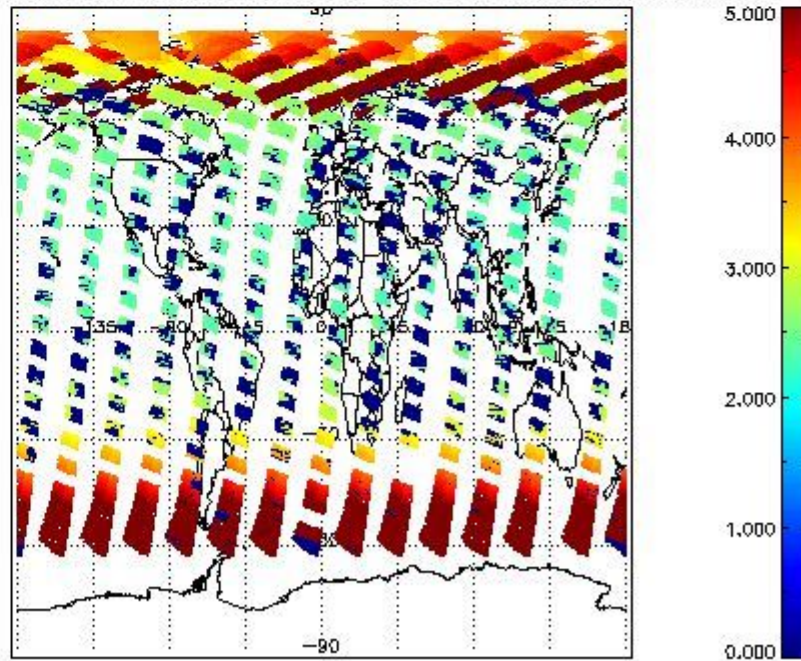
SCIOL2P\_NADUV003\_vcd\_err for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



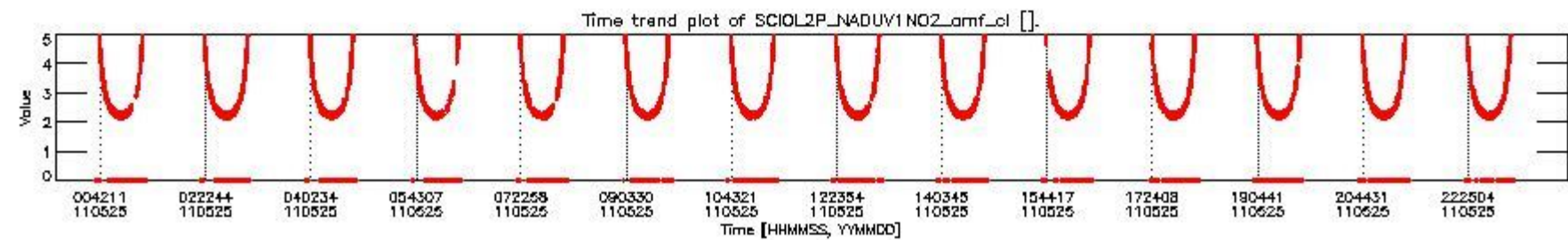
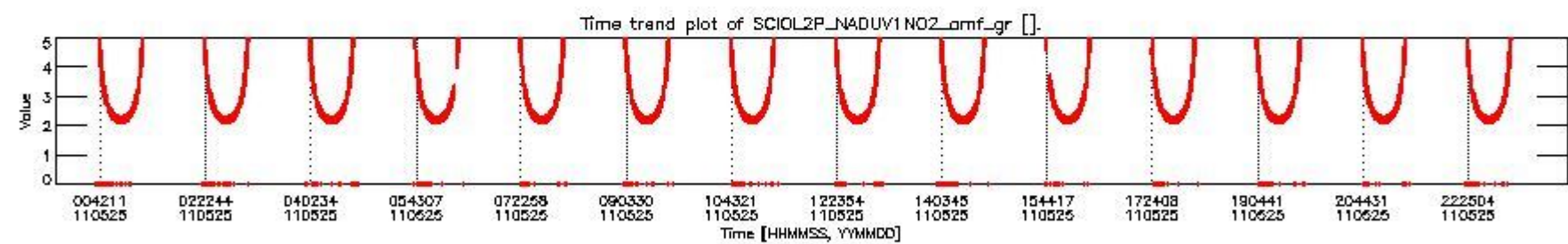
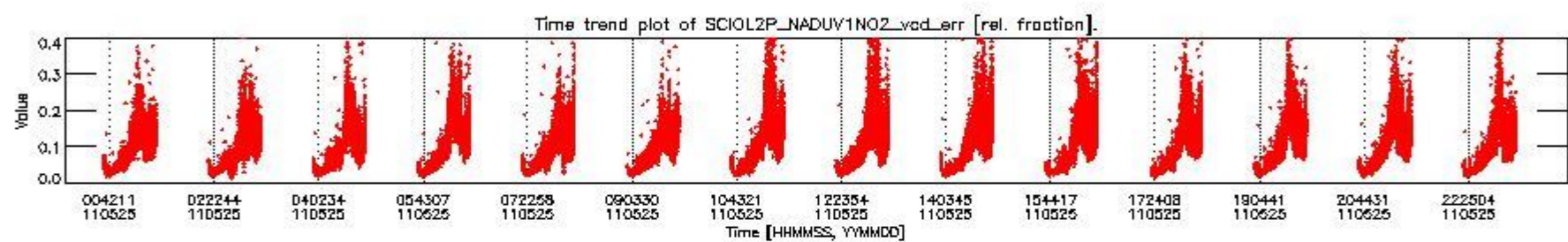
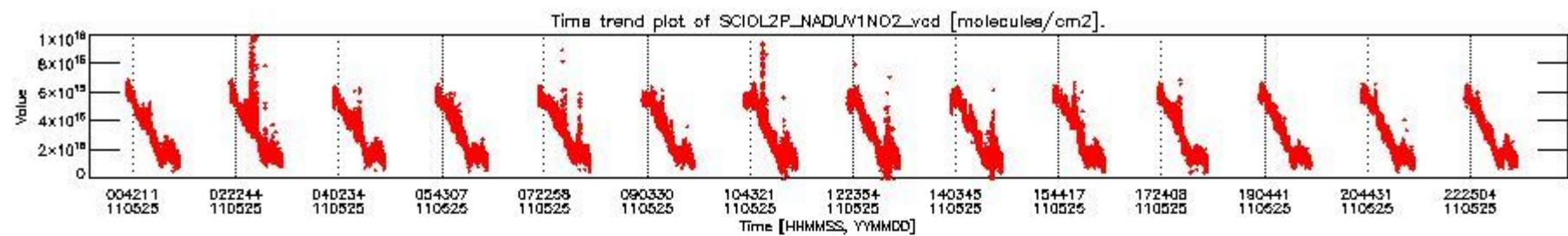
SCIOL2P\_NADUV003\_amf\_gr for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



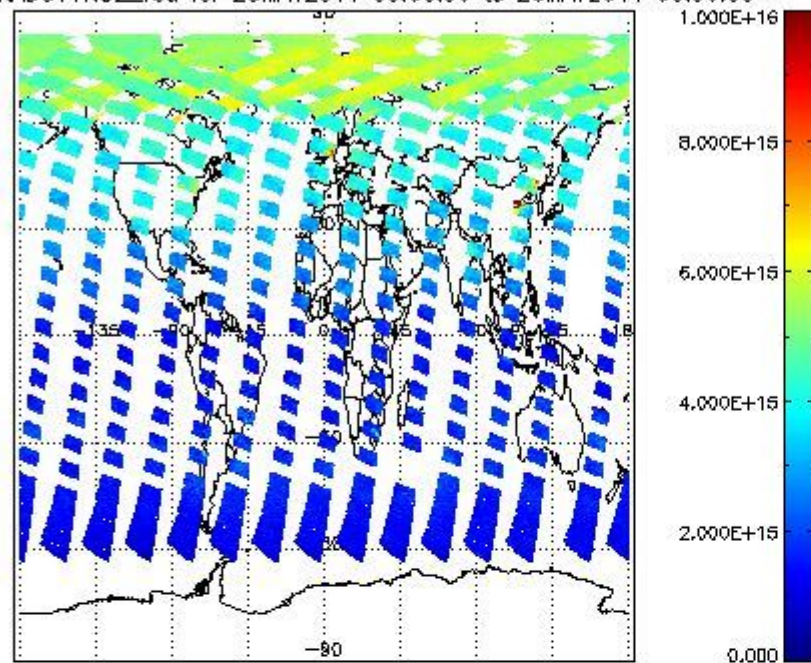
SCIOL2P\_NADUV003\_amf\_cl for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



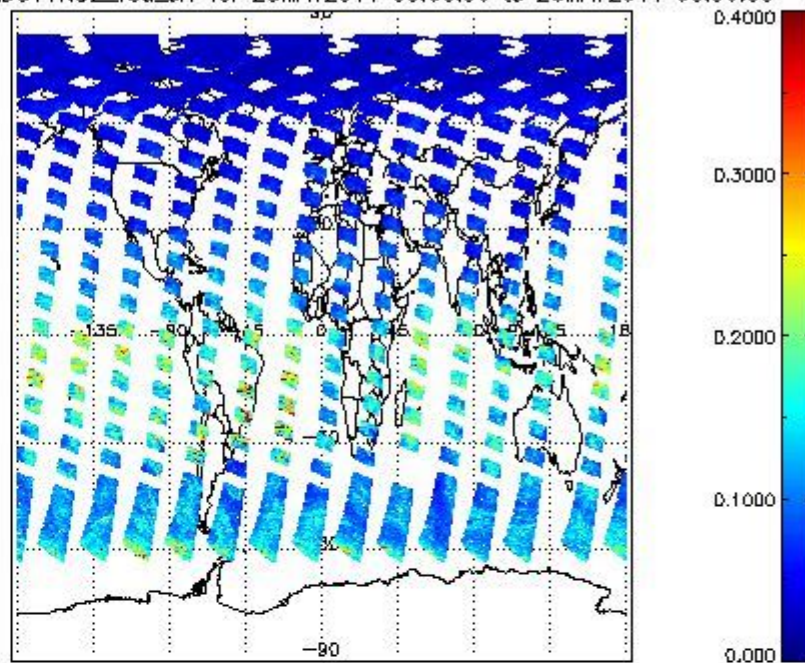
### 2.2.2.2 NO2 (UV1)



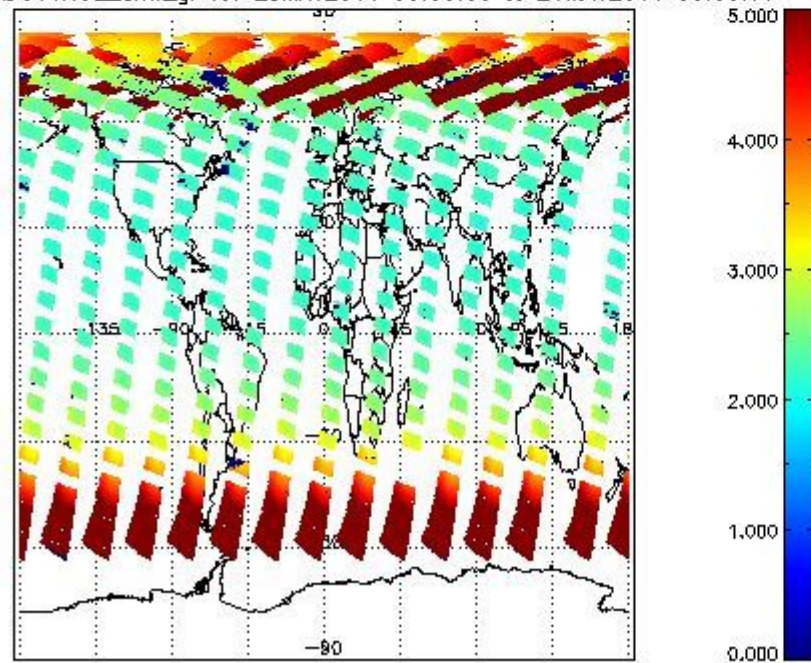
SCIOL2P\_NADUV1NO2\_vcd for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



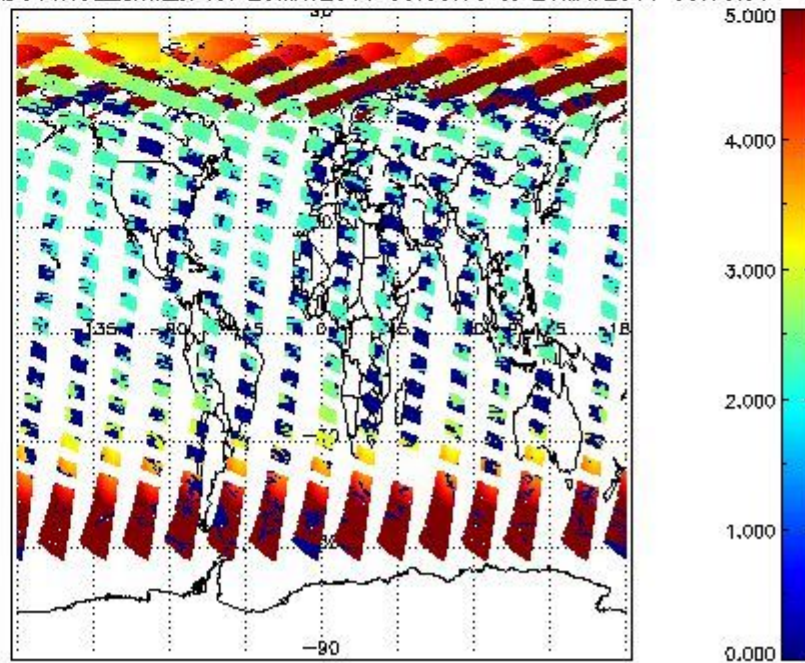
SCIOL2P\_NADUV1NO2\_vcd\_err for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

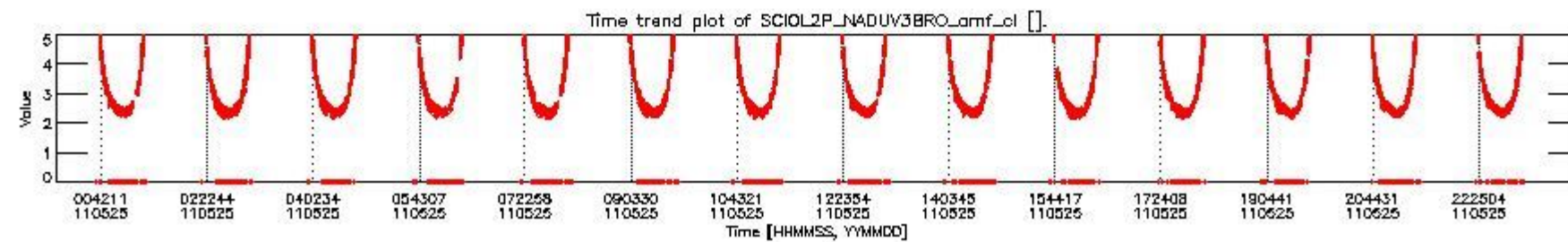
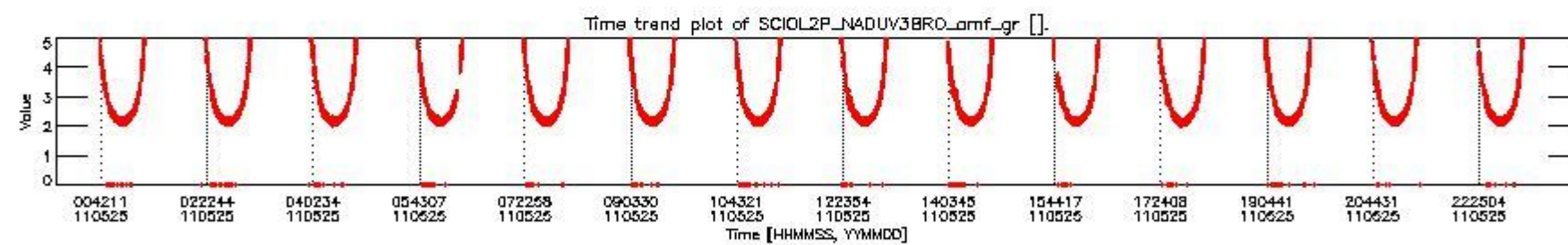
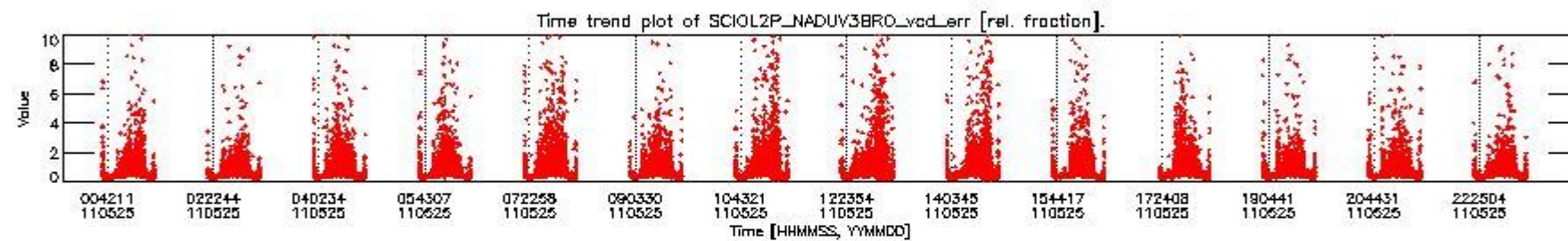
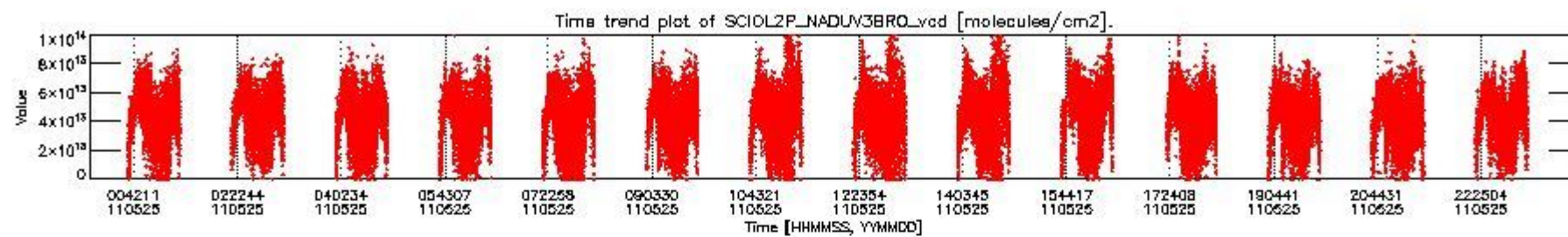


SCIOL2P\_NADUV1NO2\_amf\_cl for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

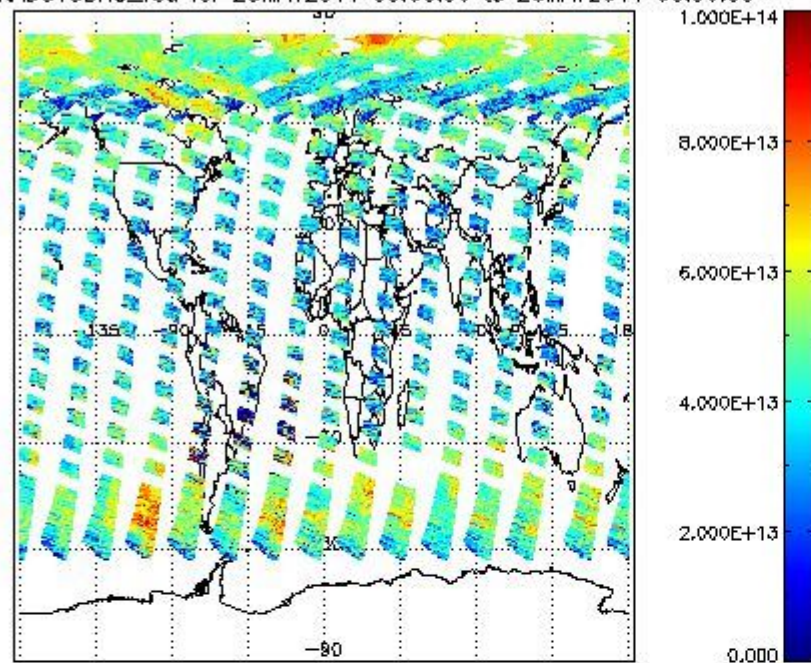


2.2.2.3 BrO (UV3)

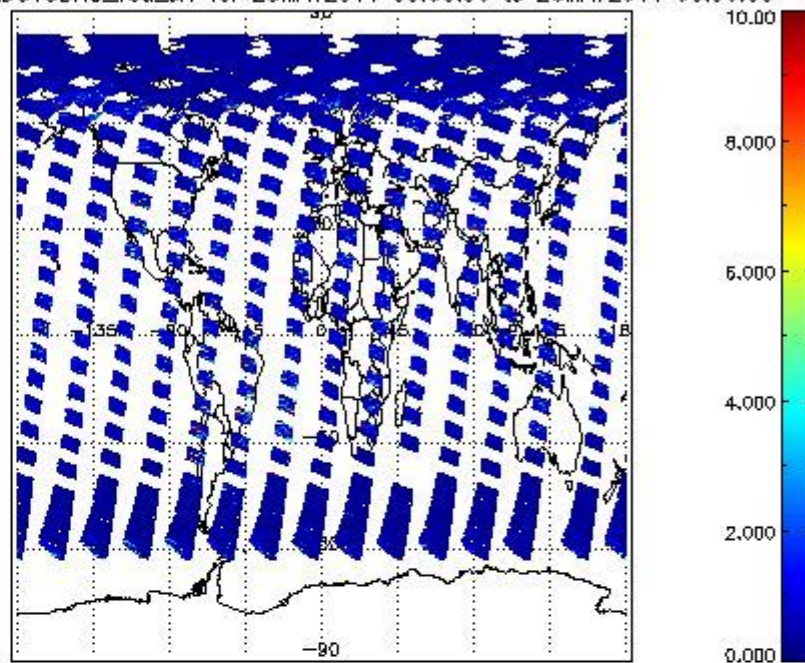




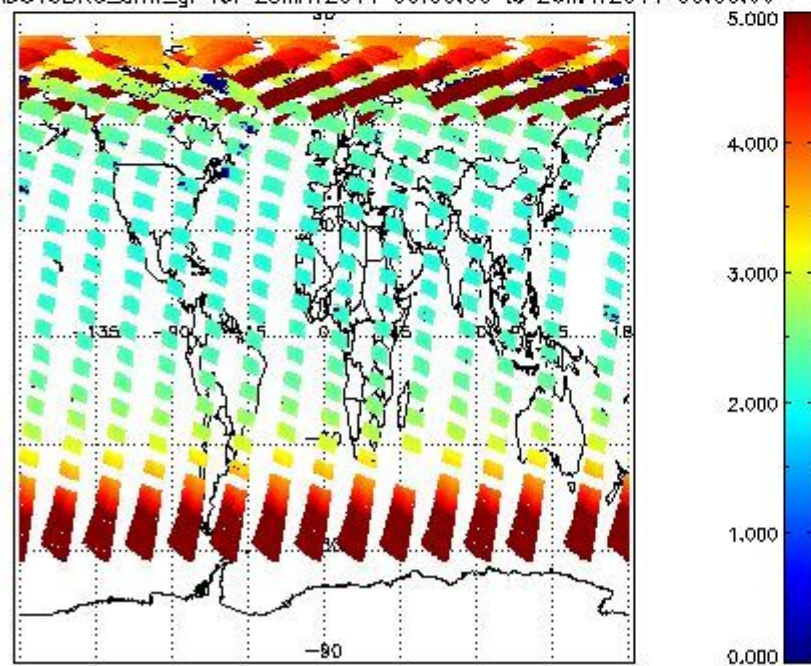
SCIOL2P\_NADUV3BRO\_vcd for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



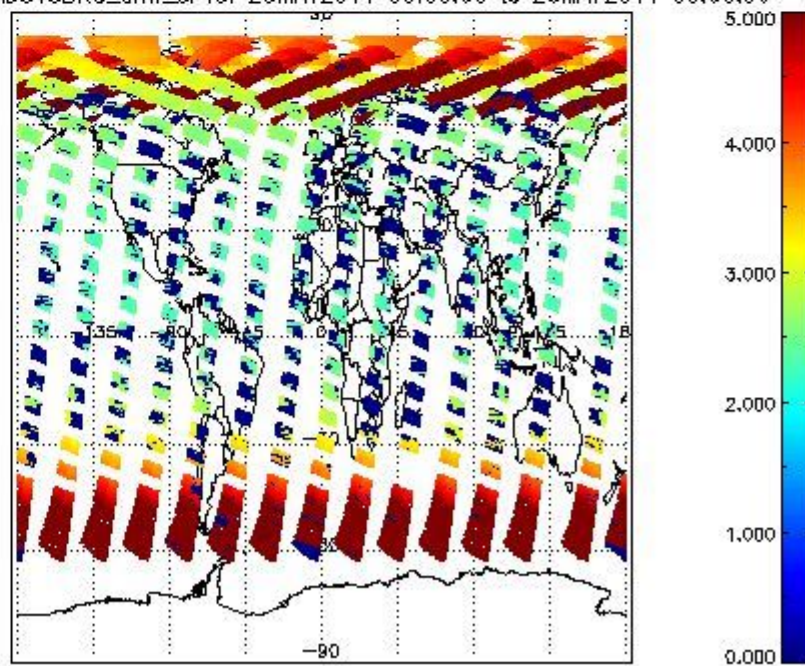
SCIOL2P\_NADUV3BRO\_vcd\_err for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



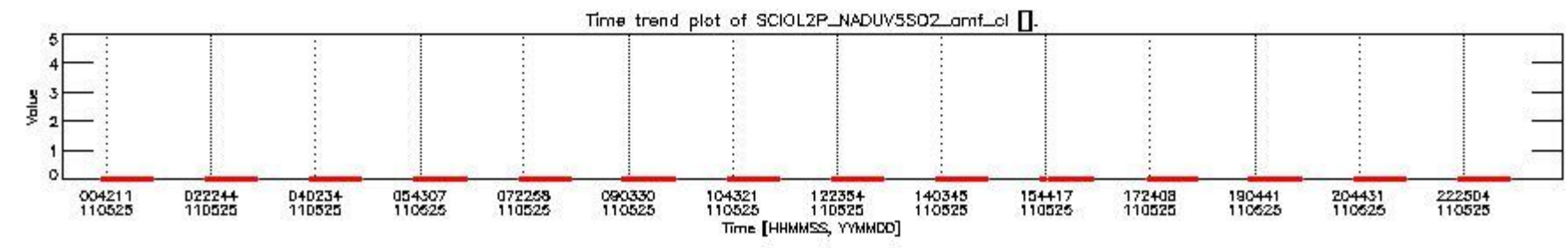
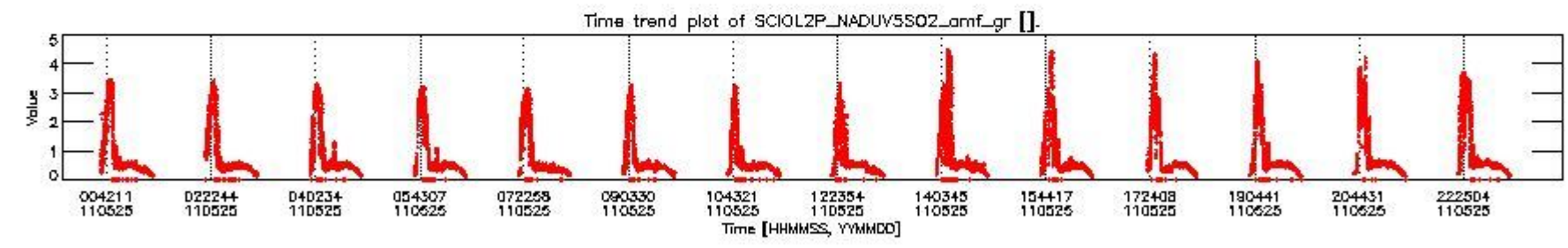
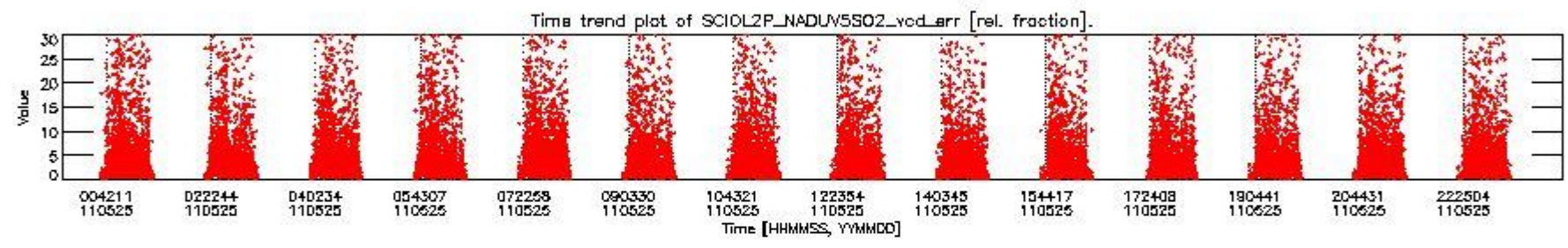
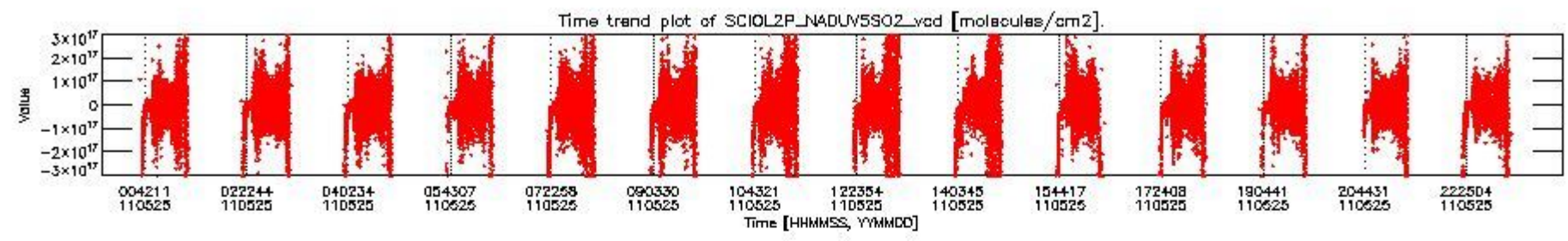
SCIOL2P\_NADUV3BRO\_amf\_gr for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



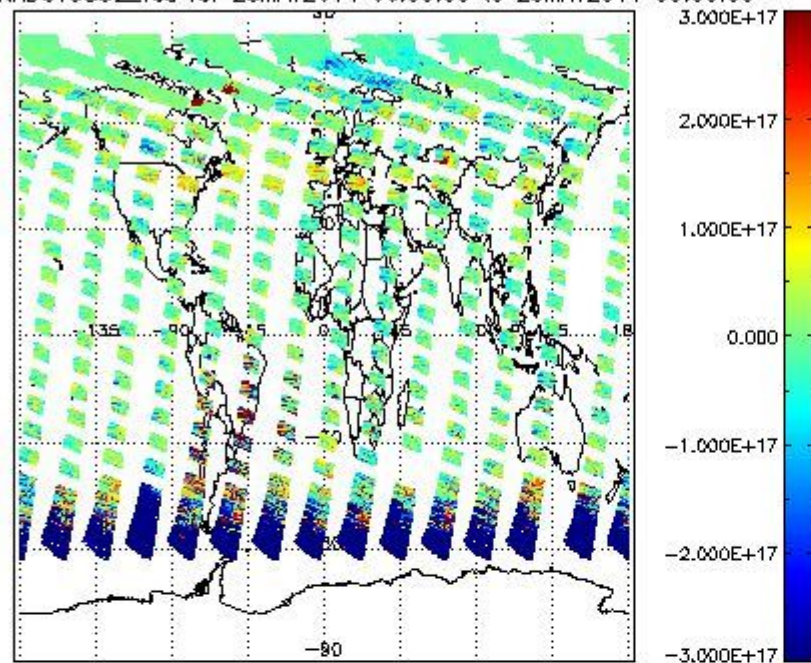
SCIOL2P\_NADUV3BRO\_amf\_cl for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



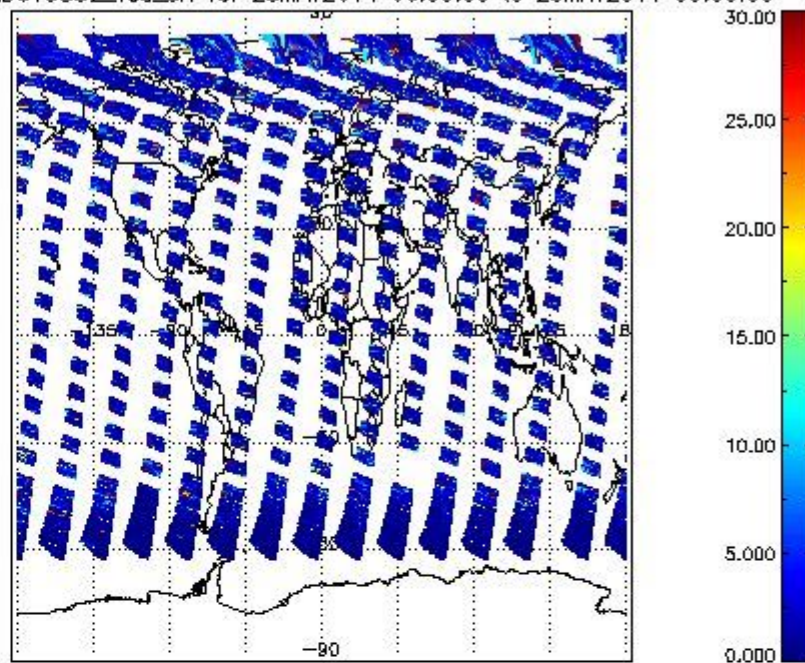
2.2.2.4 SO2 (UV5)



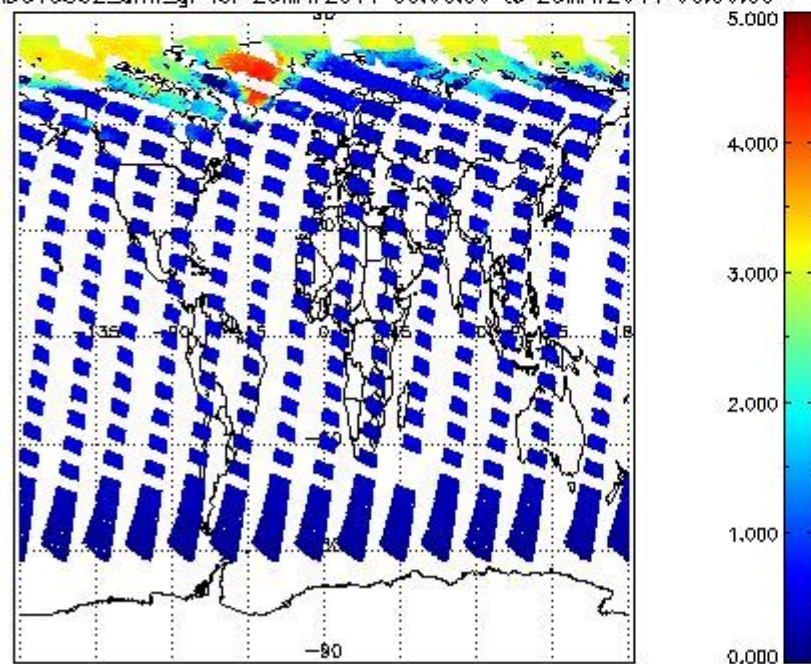
SCIOL2P\_NADUV5S02\_vcd for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



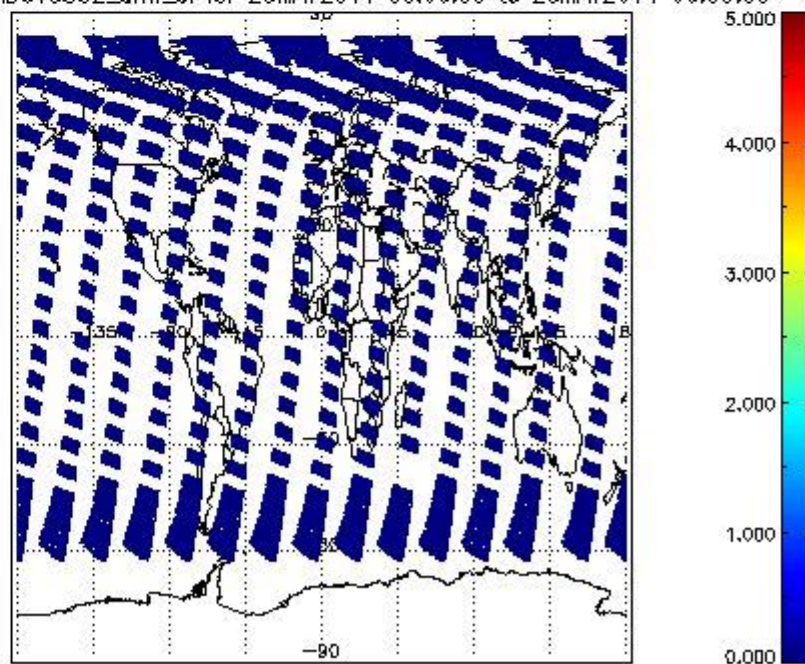
SCIOL2P\_NADUV5S02\_vcd\_err for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



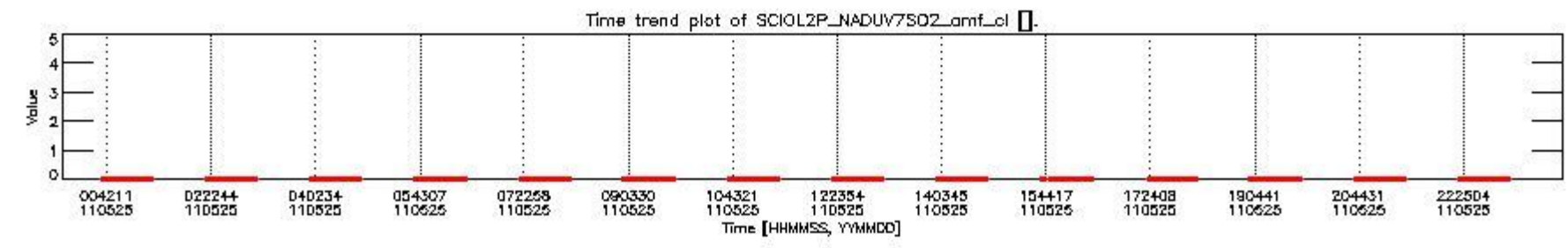
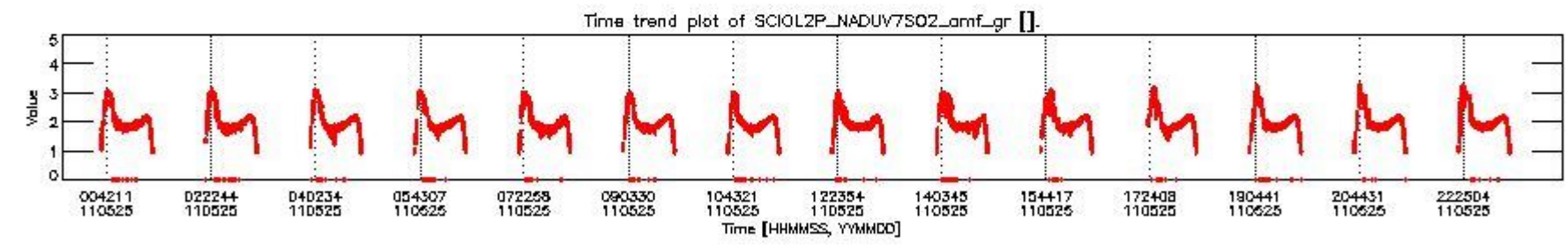
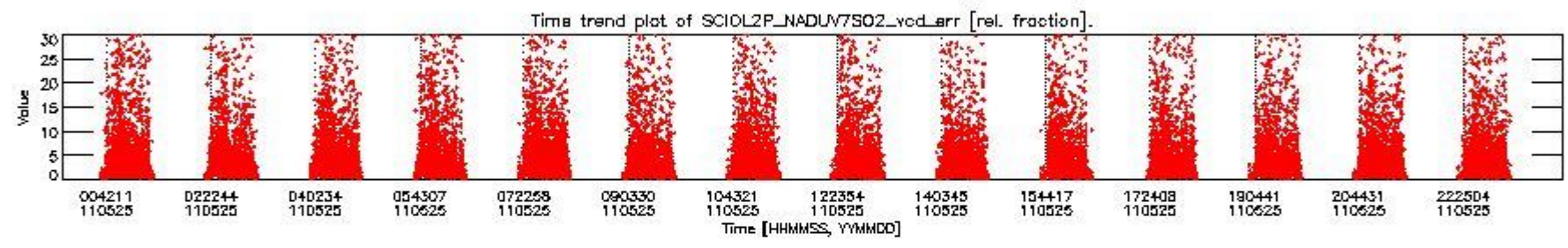
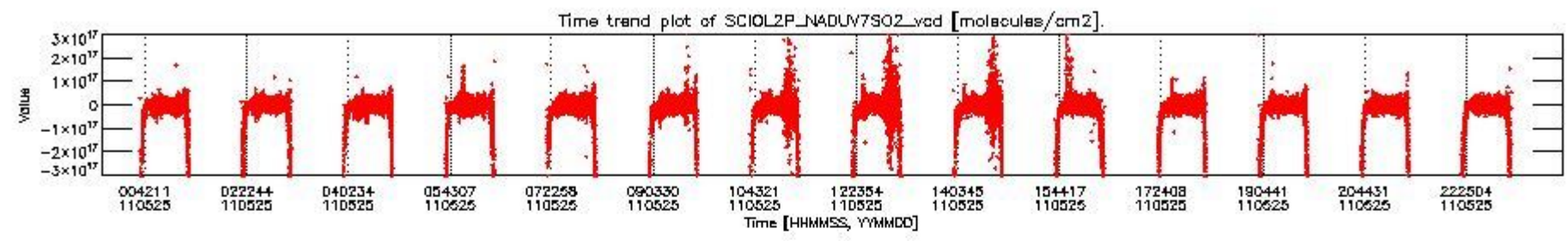
SCIOL2P\_NADUV5S02\_amf\_gr for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



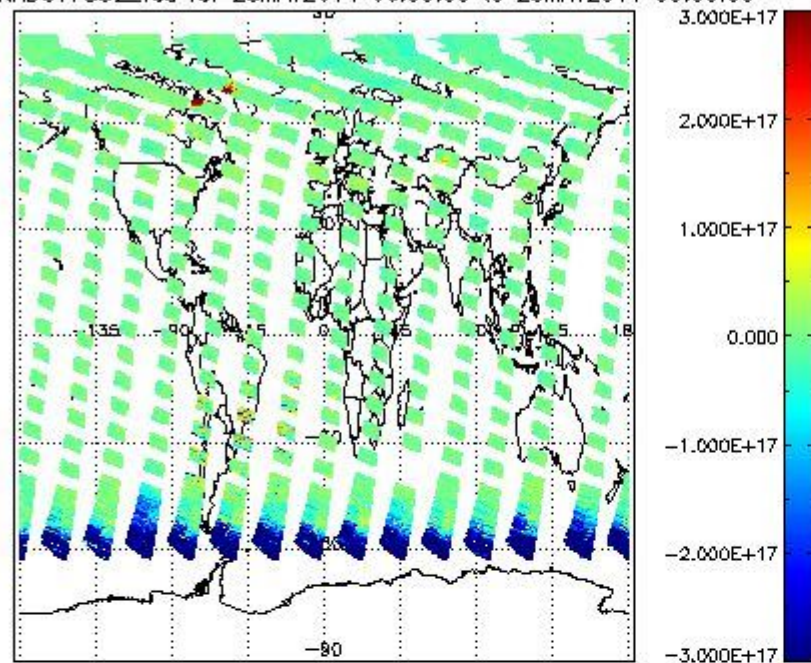
SCIOL2P\_NADUV5S02\_amf\_cl for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



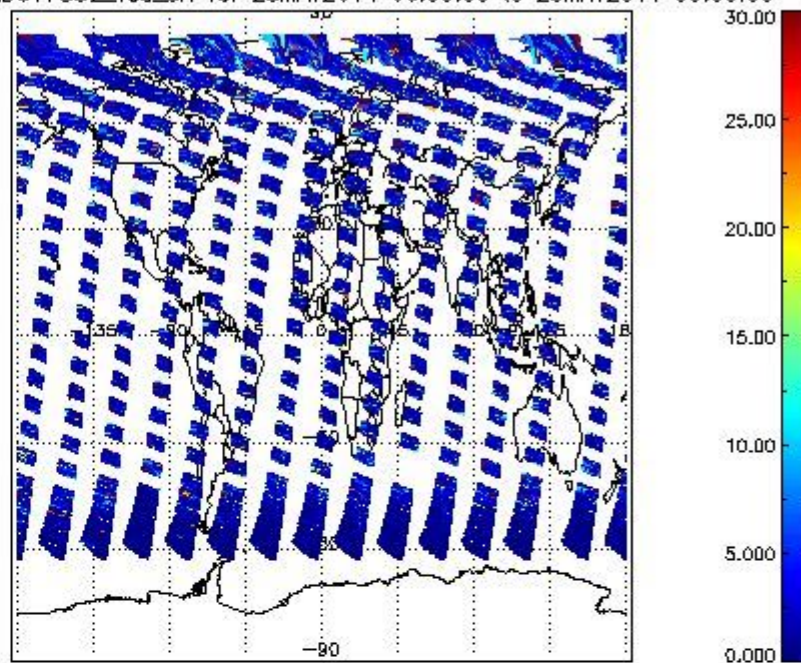
2.2.2.5 SO2 (UV7)



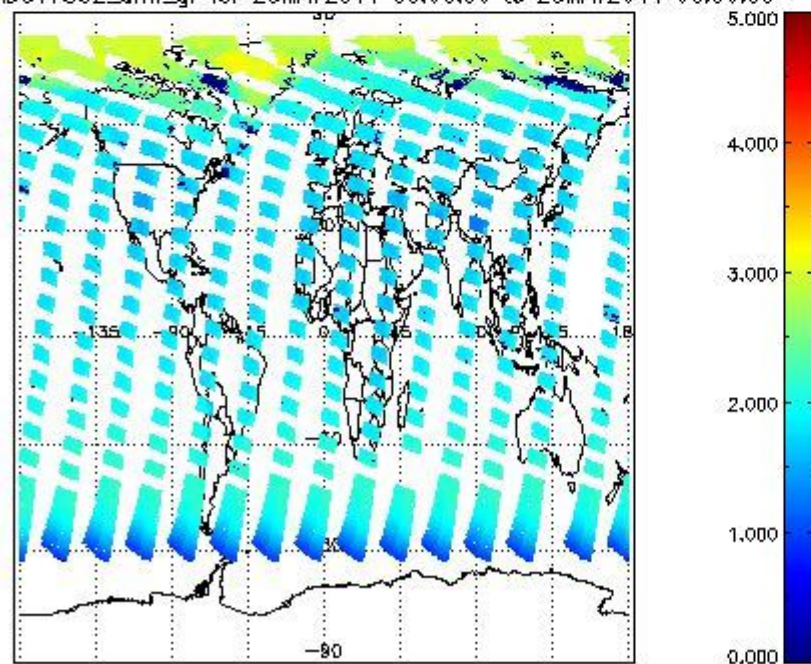
SCIOL2P\_NADUV7S02\_vcd for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



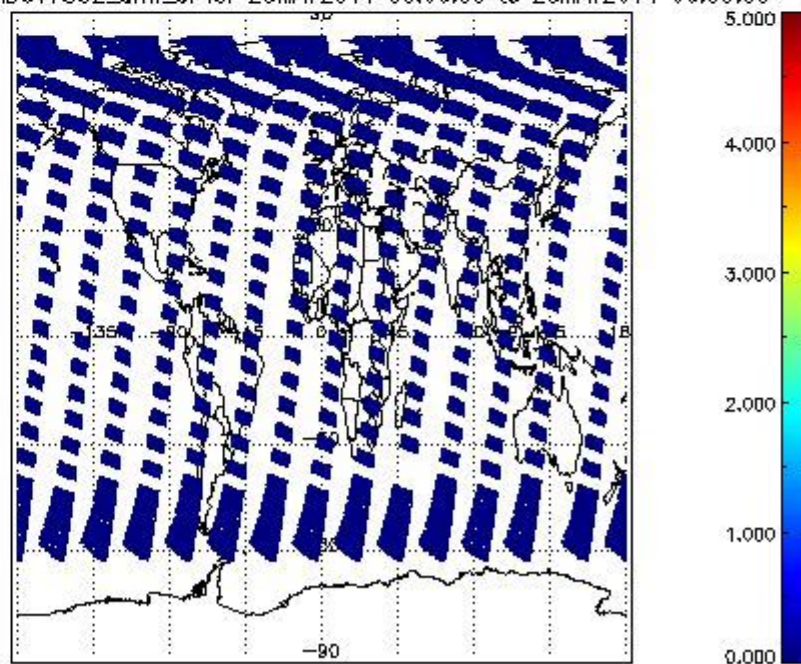
SCIOL2P\_NADUV7S02\_vcd\_err for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



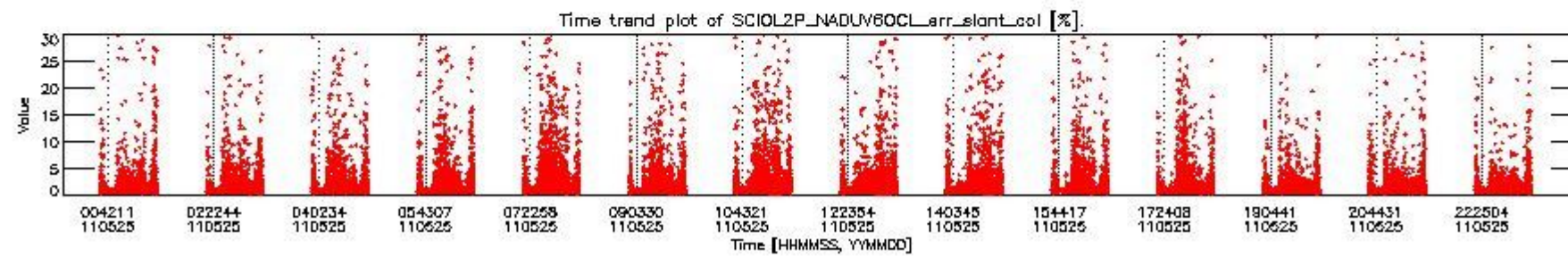
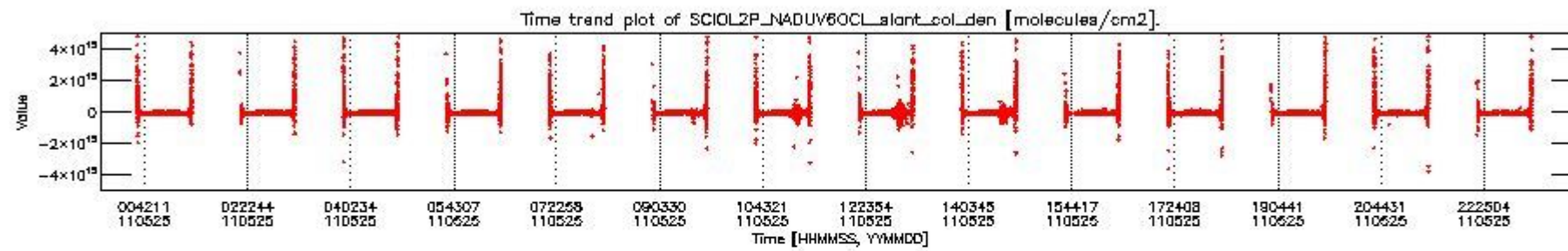
SCIOL2P\_NADUV7S02\_amf\_gr for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



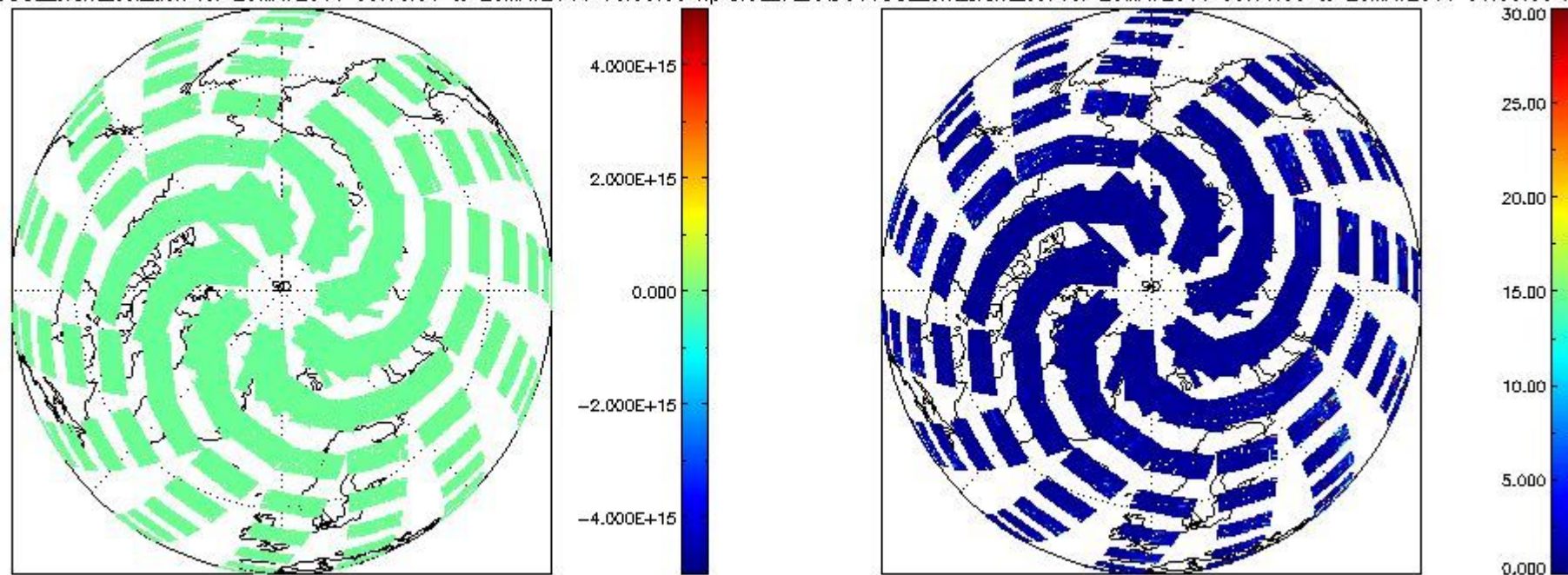
SCIOL2P\_NADUV7S02\_amf\_cl for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



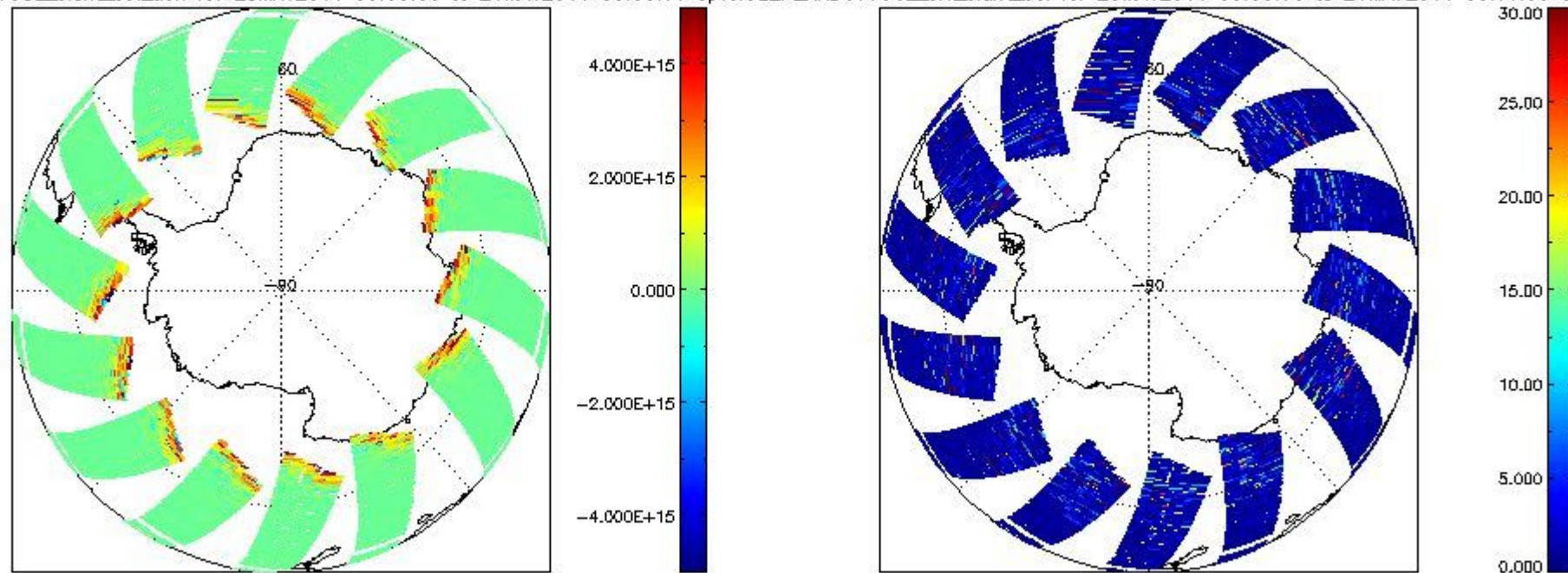
2.2.2.6 OCIO (UV6)



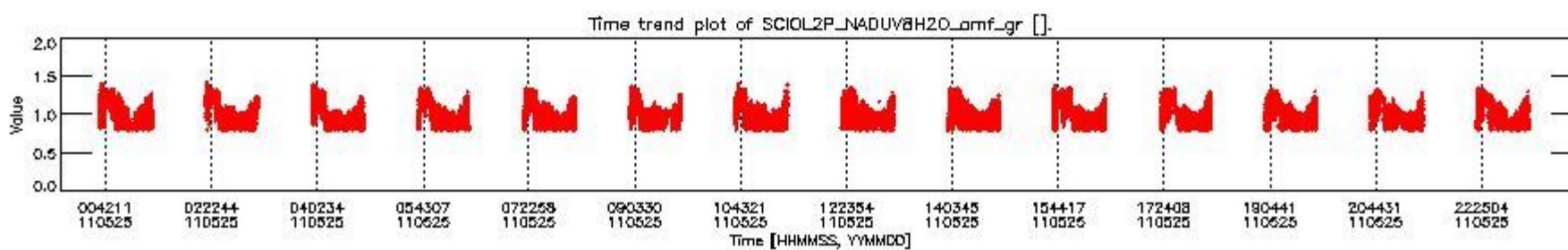
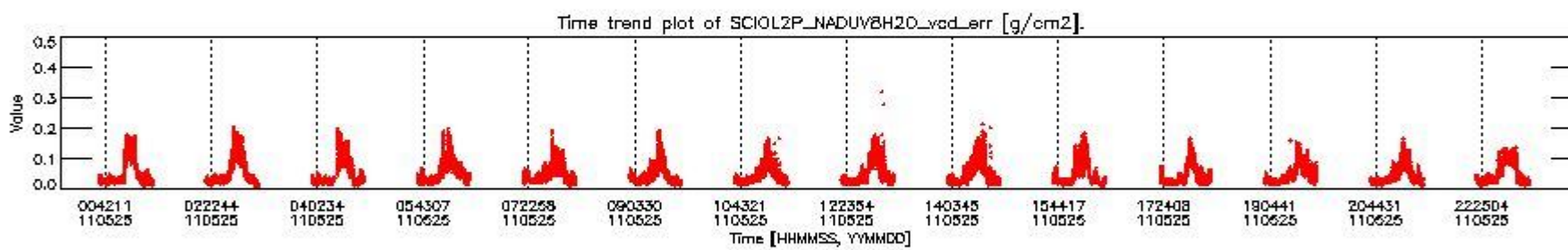
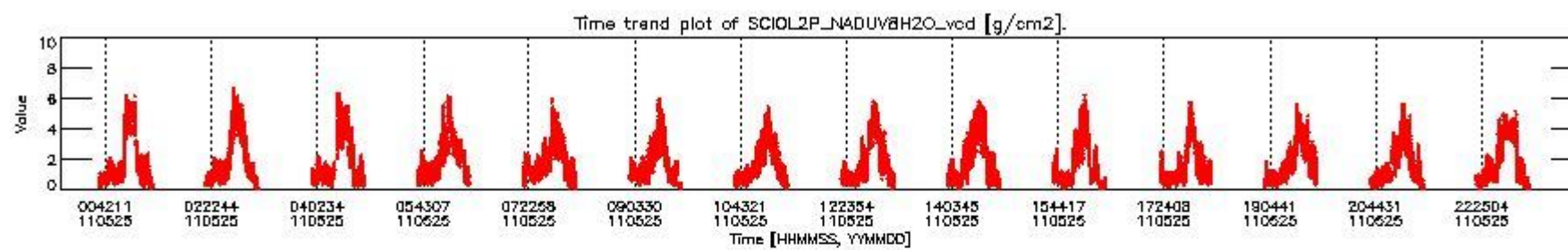
CIOL2P\_NADUV60CLslant\_col\_den for 25MAY2011 00:00:00 to 26MAY2011 00:00:00 np CIOL2P\_NADUV60CLerr\_slant\_col for 25MAY2011 00:00:00 to 26MAY2011 00:00:00 np



CIOL2P\_NADUV6OCL\_slant\_col\_den for 25MAY2011 00:00:00 to 26MAY2011 00:00:00 sp | CIOL2P\_NADUV6OCL\_err\_slant\_col for 25MAY2011 00:00:00 to 26MAY2011 00:00:00 sp

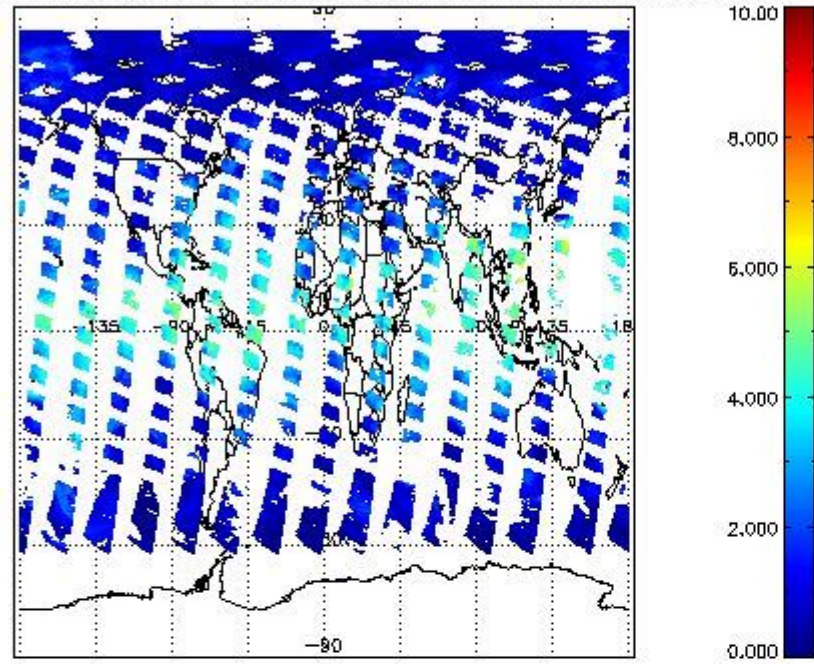


### 2.2.2.7 H2O (UV8)

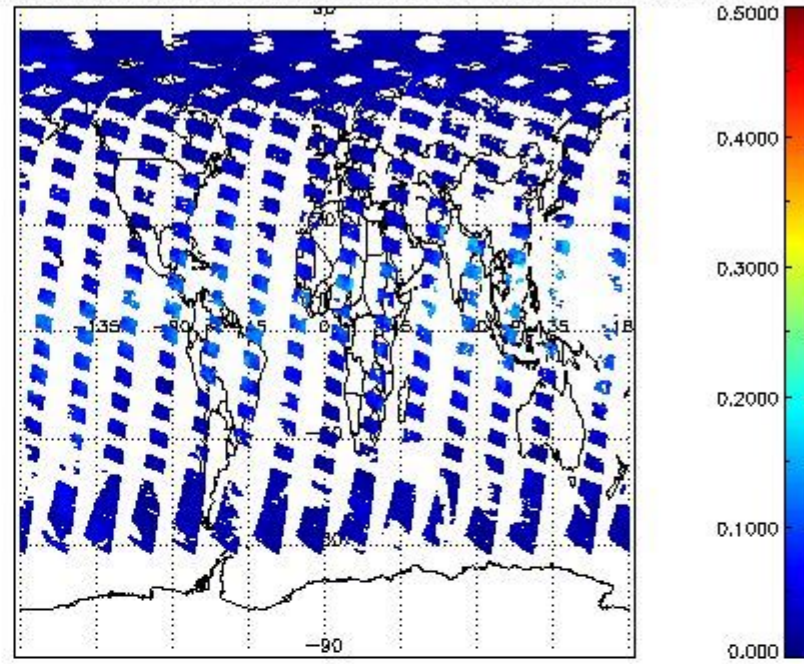




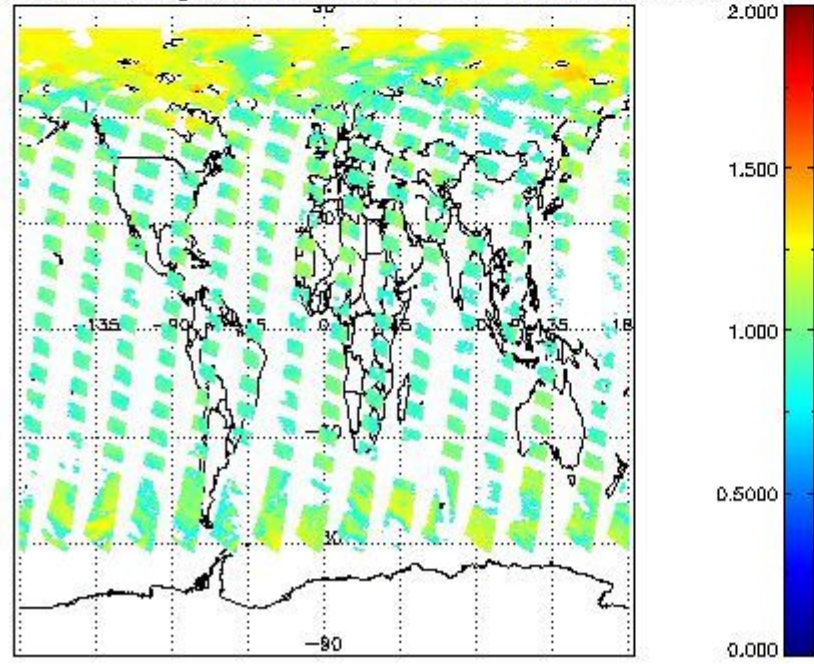
SCIOL2P\_NADUV8H2O\_vcd for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



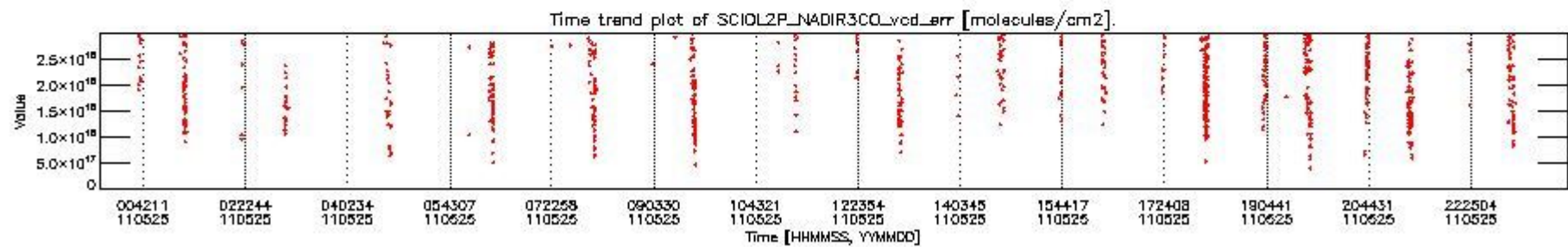
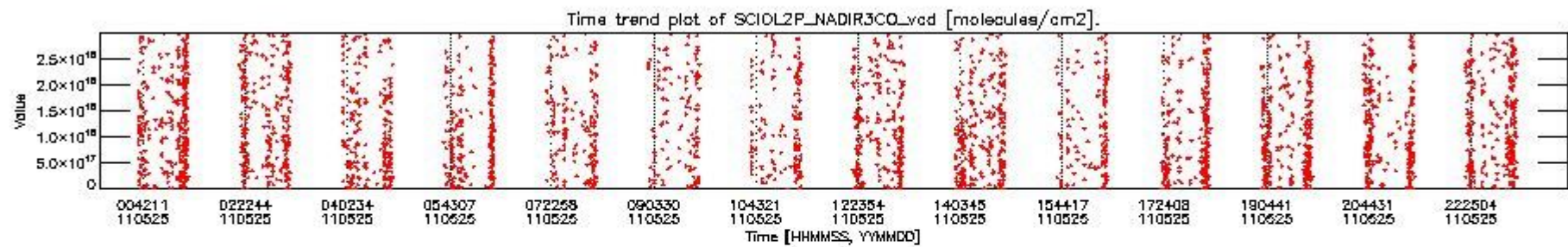
SCIOL2P\_NADUV8H2O\_vcd\_err for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



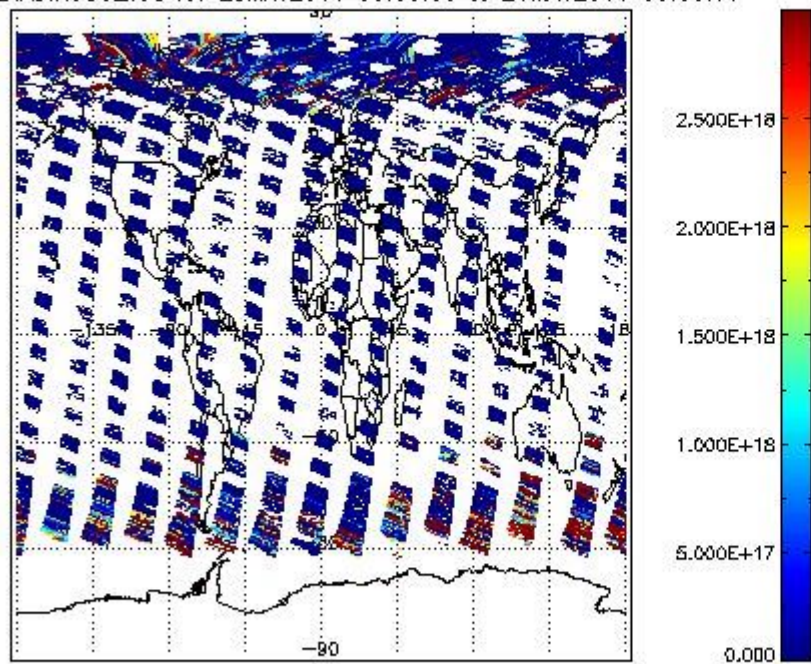
SCIOL2P\_NADUV8H2O\_arnf\_gr for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



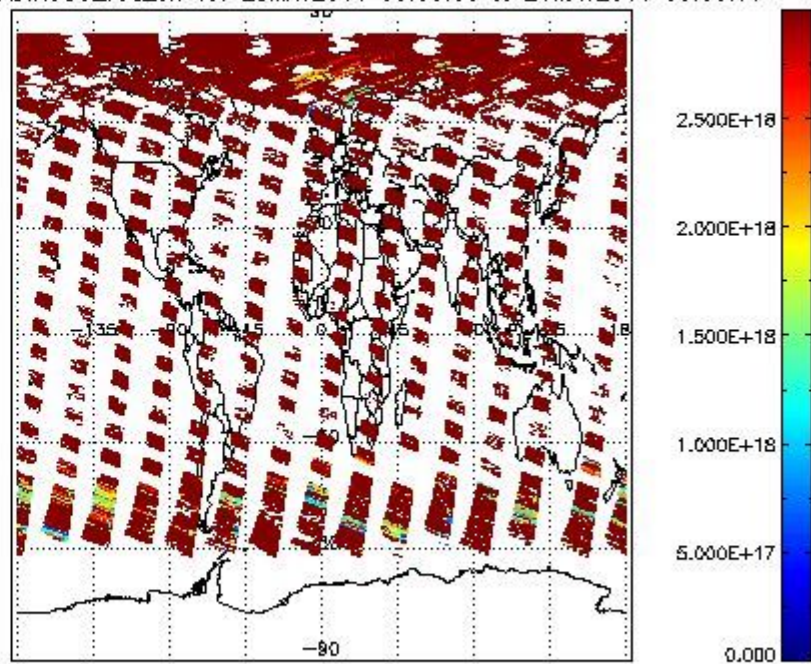
### 2.2.2.8 CO (IR3)



SCIOL2P\_NADIR3CO\_vcd for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



SCIOL2P\_NADIR3CO\_vcd\_err for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



### 2.2.3 Limb

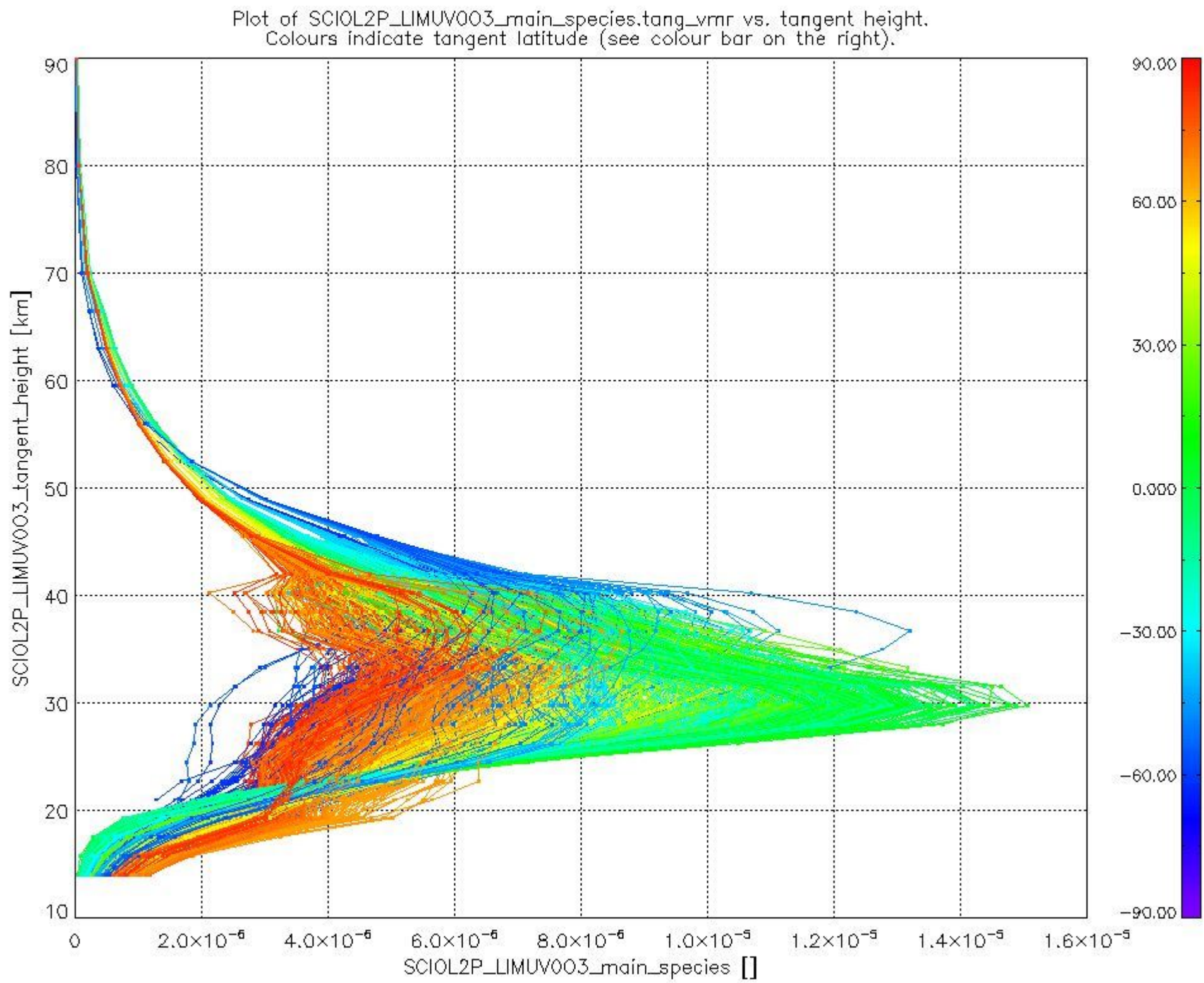
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_LIMUV003_main_species
1	SCIOL2P_LIMUV1NO2_main_species
2	SCIOL2P_LIMUV3BRO_main_species

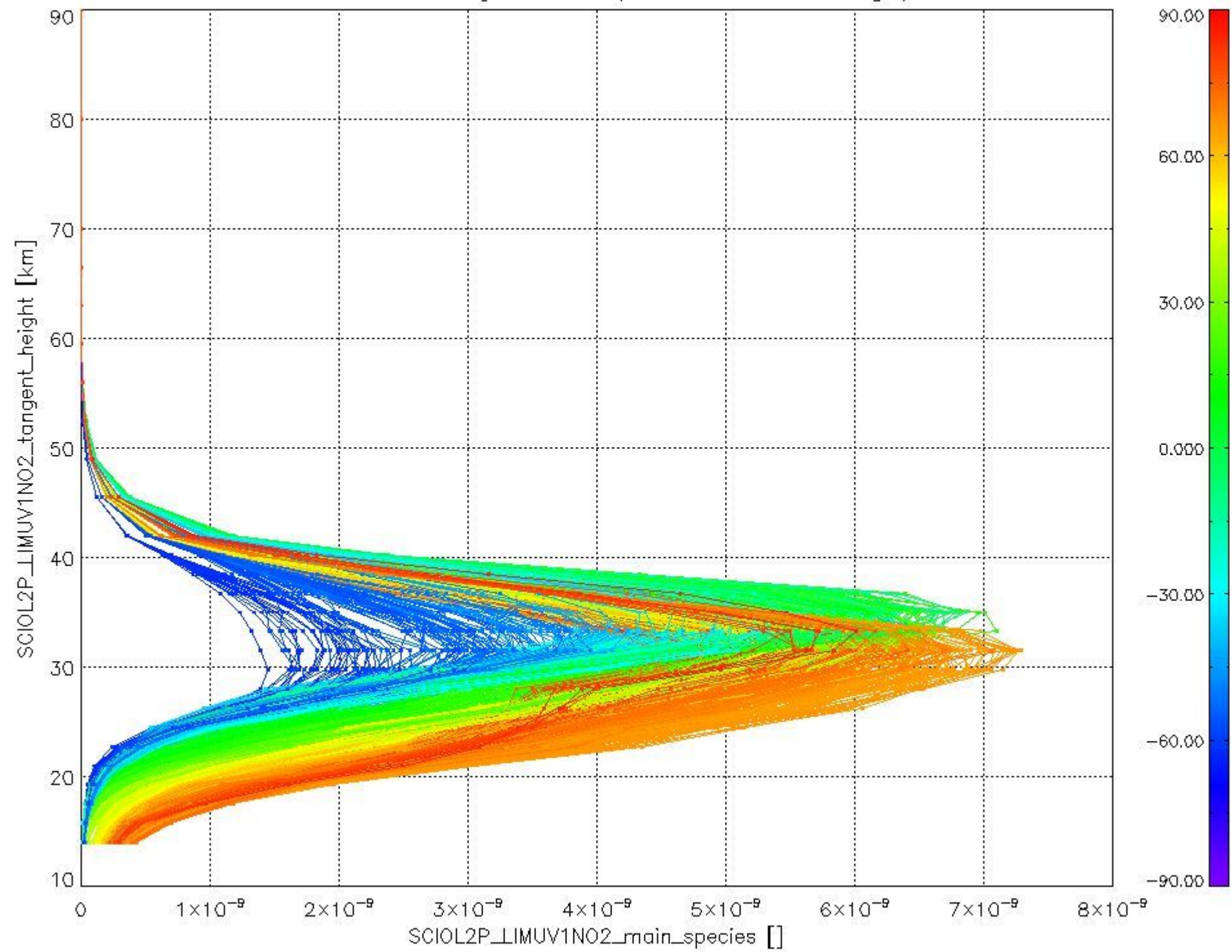
The following plots show for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

2.2.3.1 O3 (UV0)



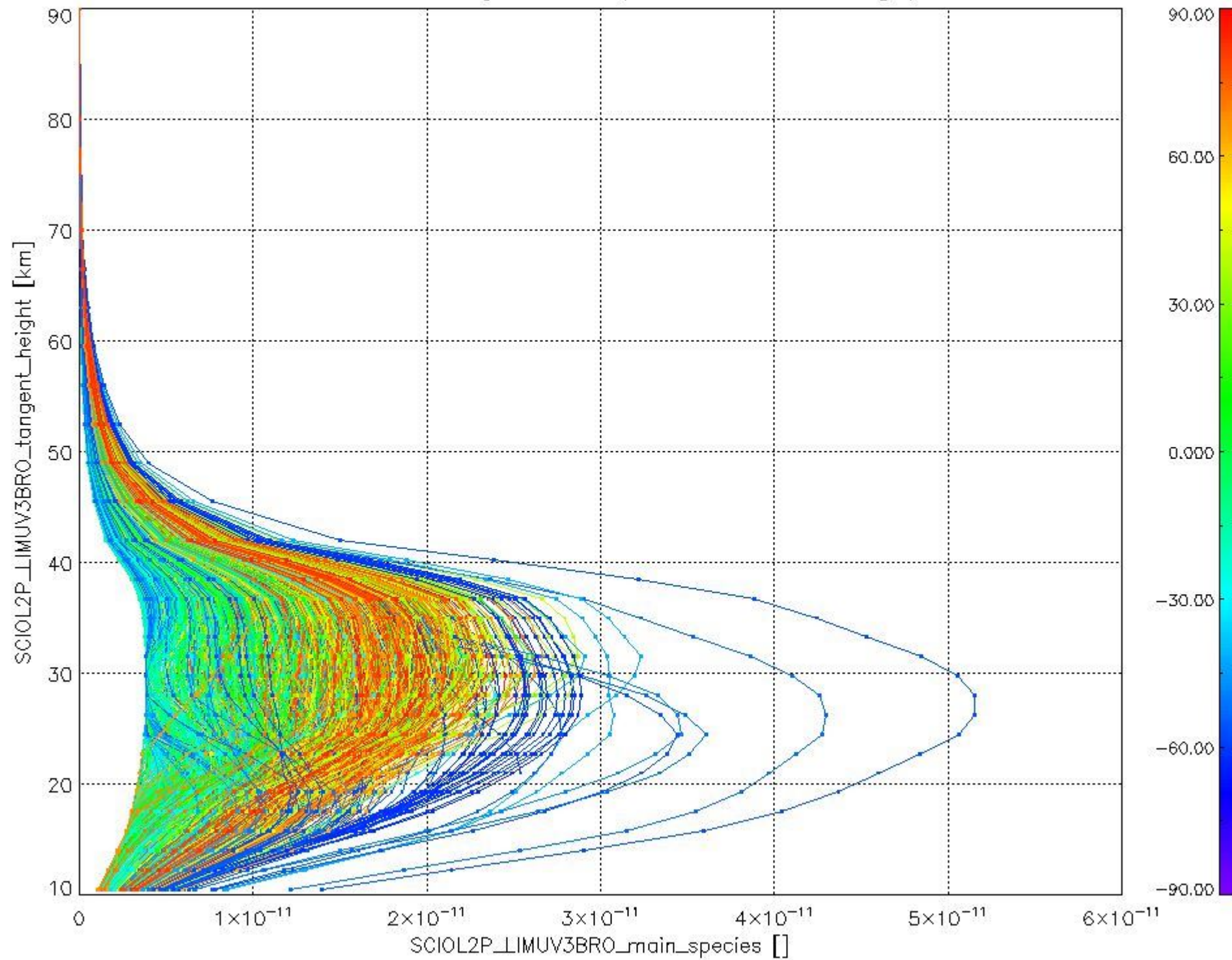
2.2.3.2 NO2 (UV1)

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).

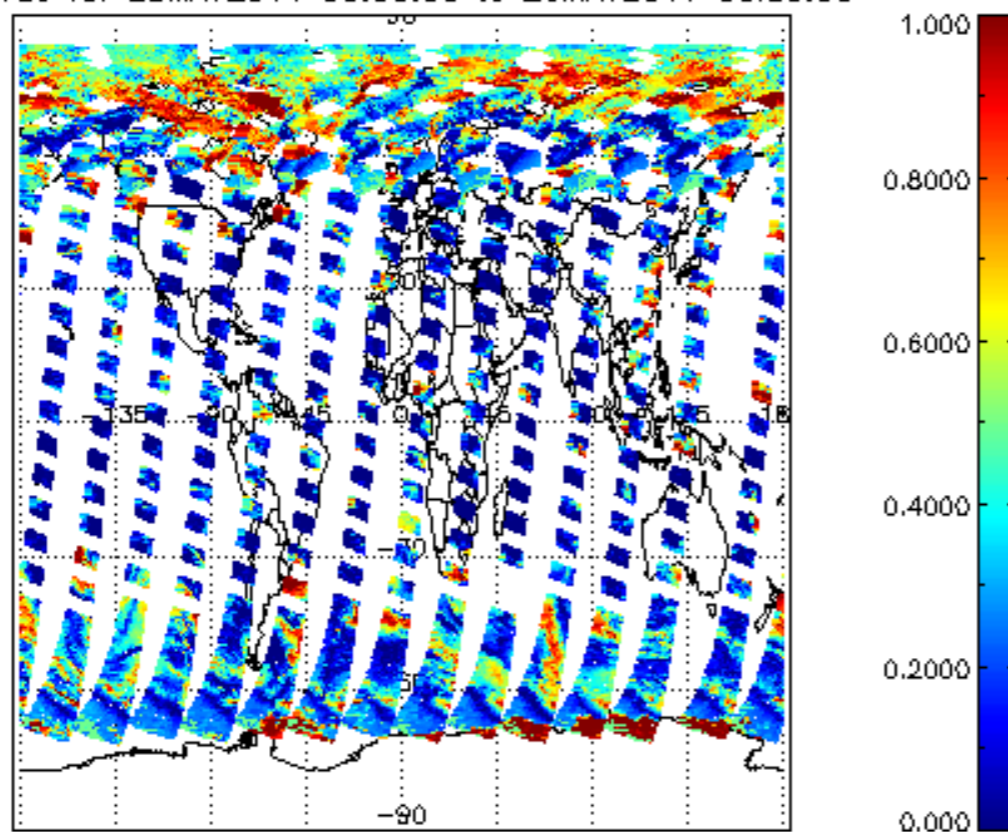


### 2.3 ADF monitoring

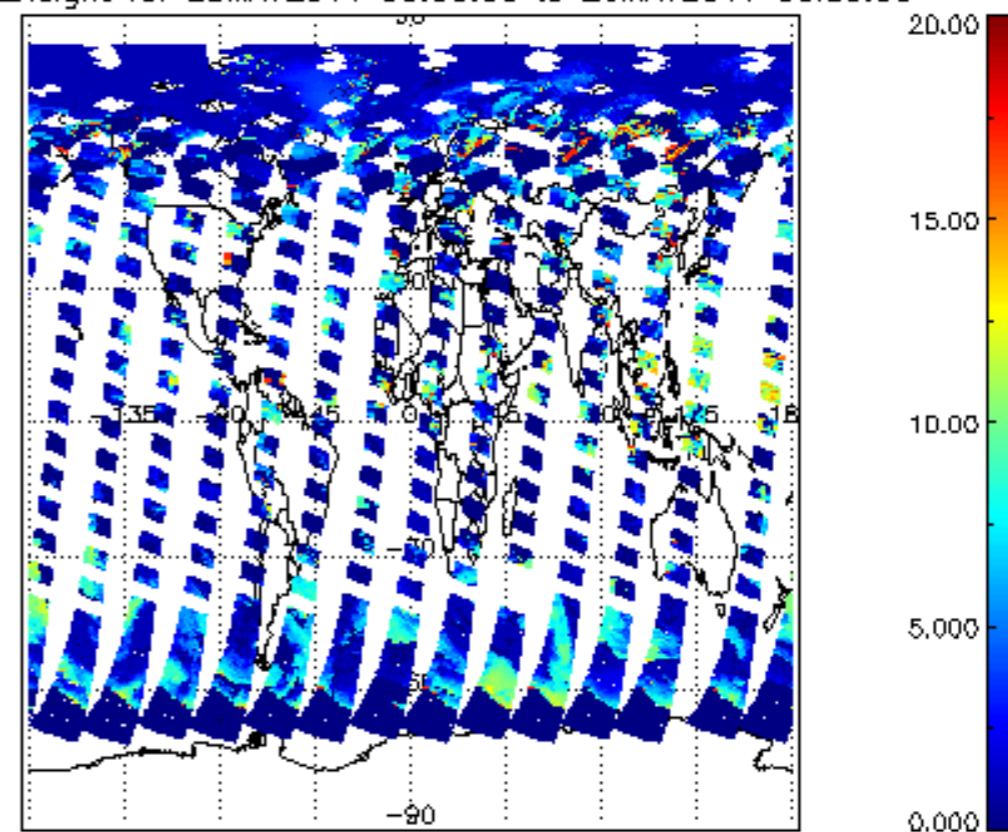
Number	ADF
	<b>IN_ (INITIALISATION_FILE)</b>
0	SCI_IN_AXNPDE20090615_120000_20090615_000000_20991231_235959
	<b>ECF (ECMWF_FILE)</b>
1	NOT USED
	<b>MF1 (M_FACTOR_FILE)</b>
2	SCI_MF1_AXVIEC20110524_110243_20110524_190445_20110526_190445
3	SCI_MF1_AXVIEC20110524_110258_20110525_182759_20110527_182759



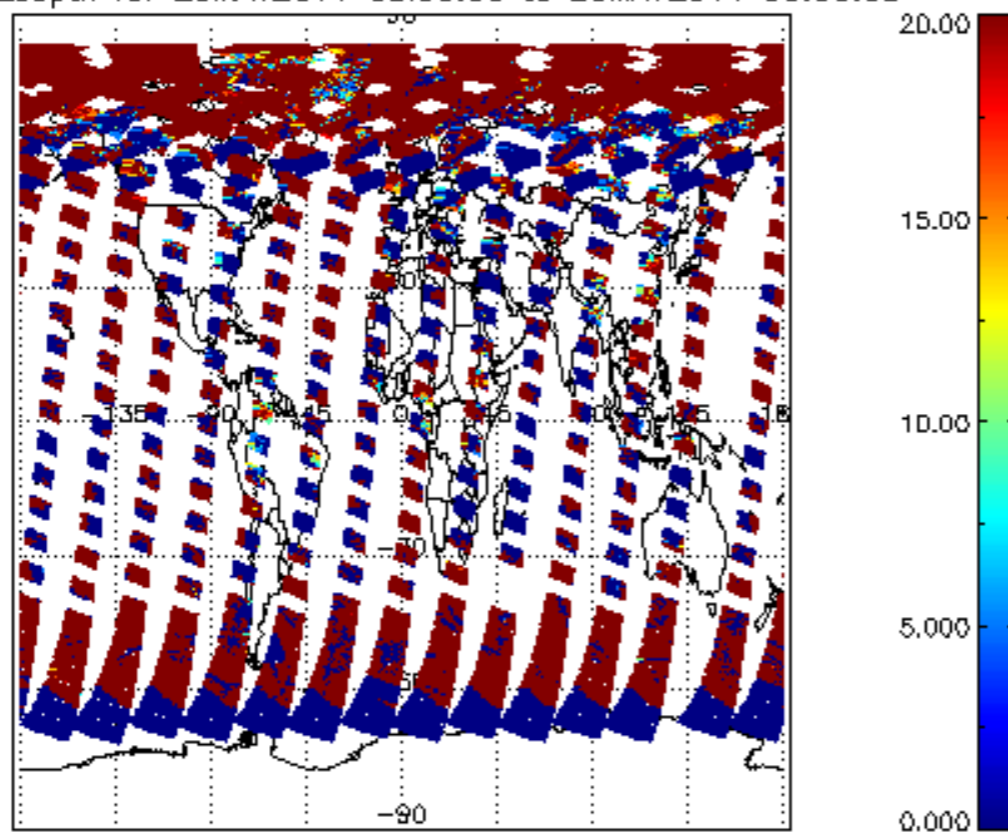
cl\_frac for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



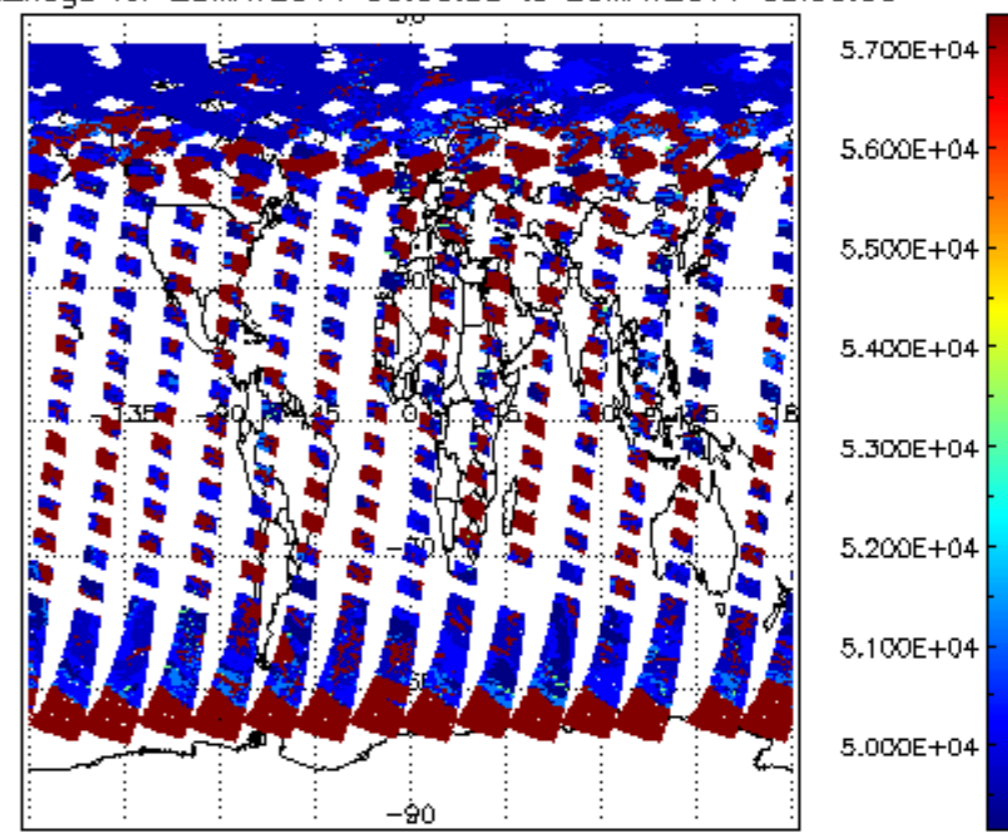
cl\_top\_height for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

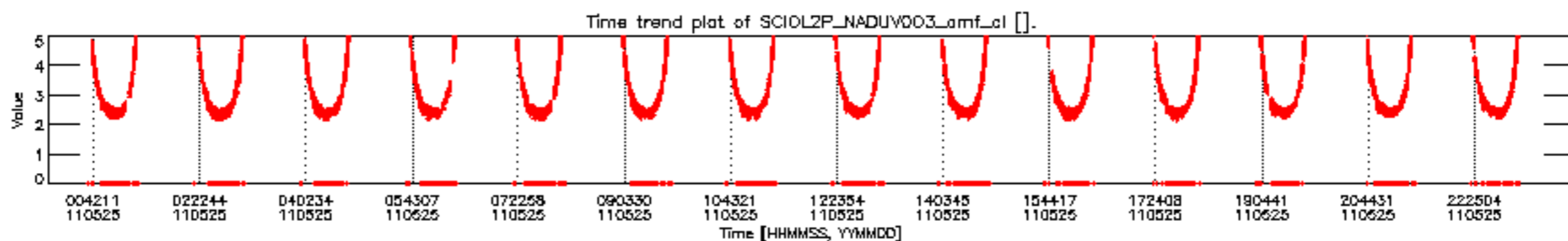
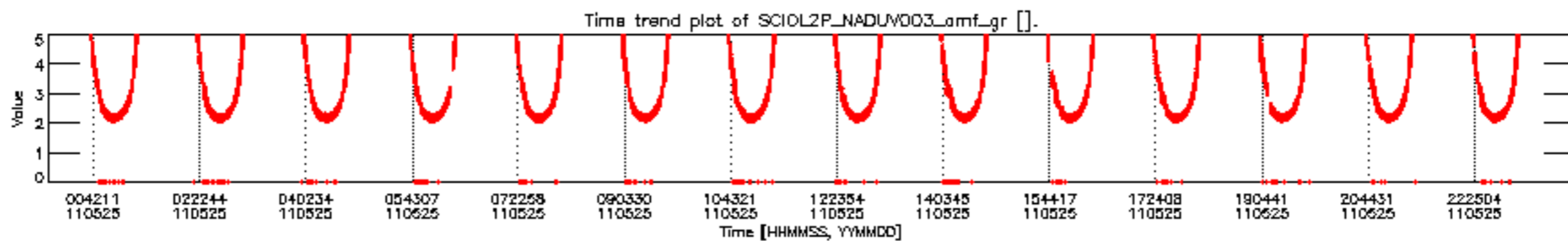
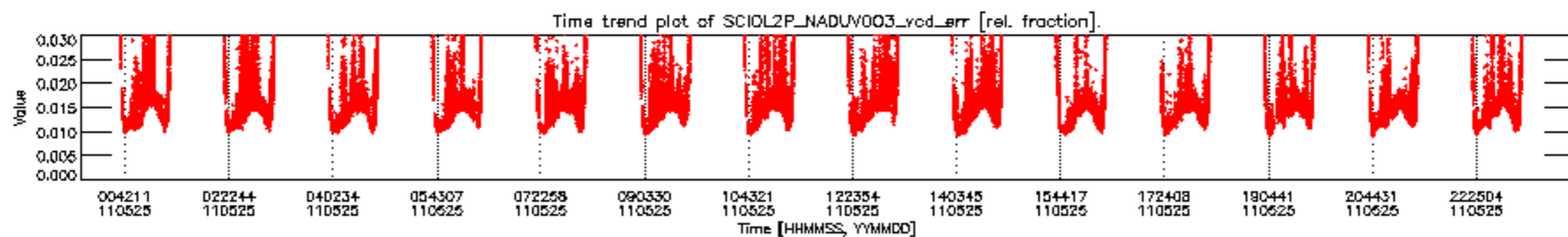
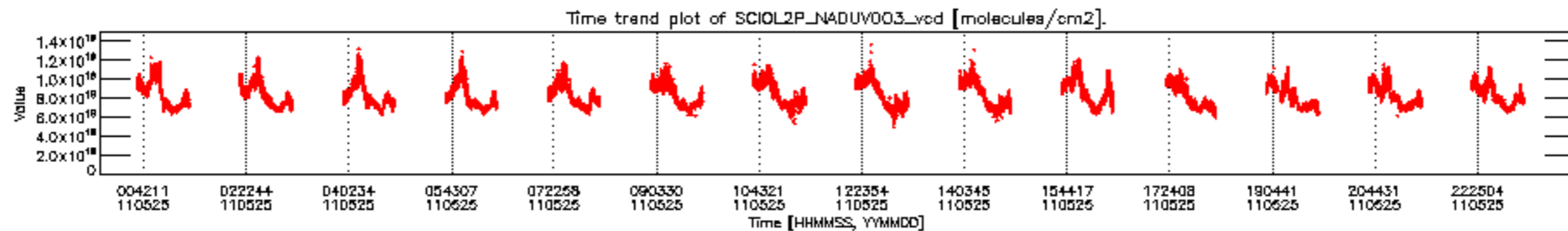


cl\_opt\_depth for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



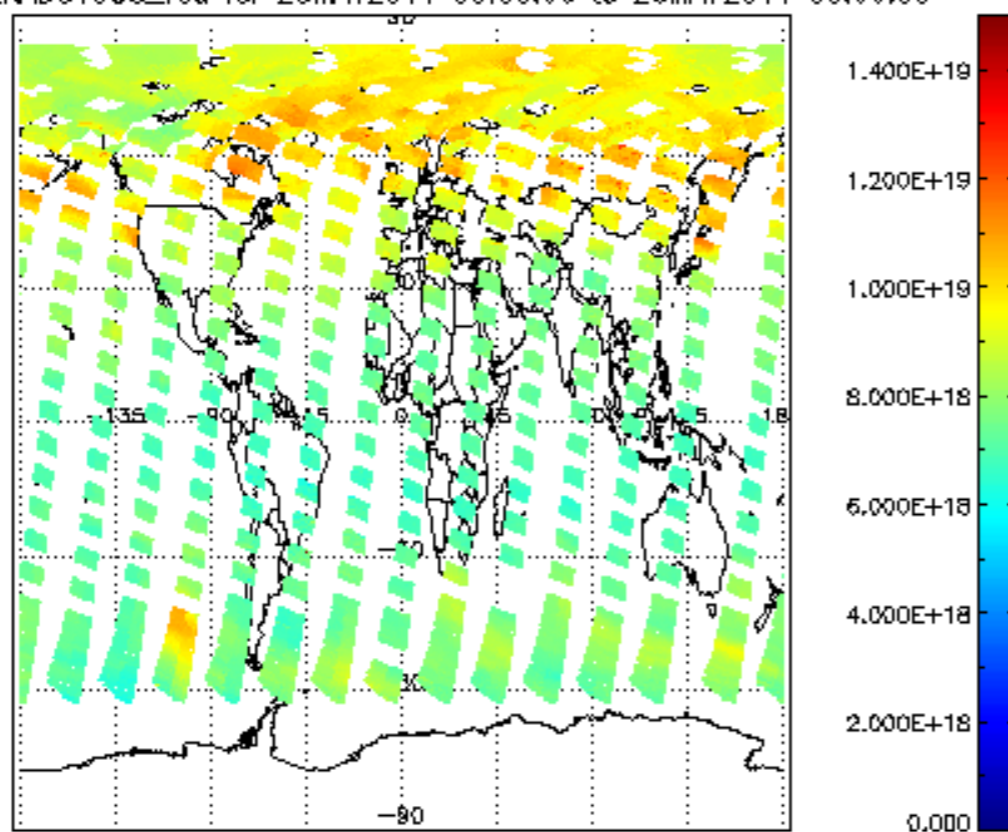
cloud\_flags for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



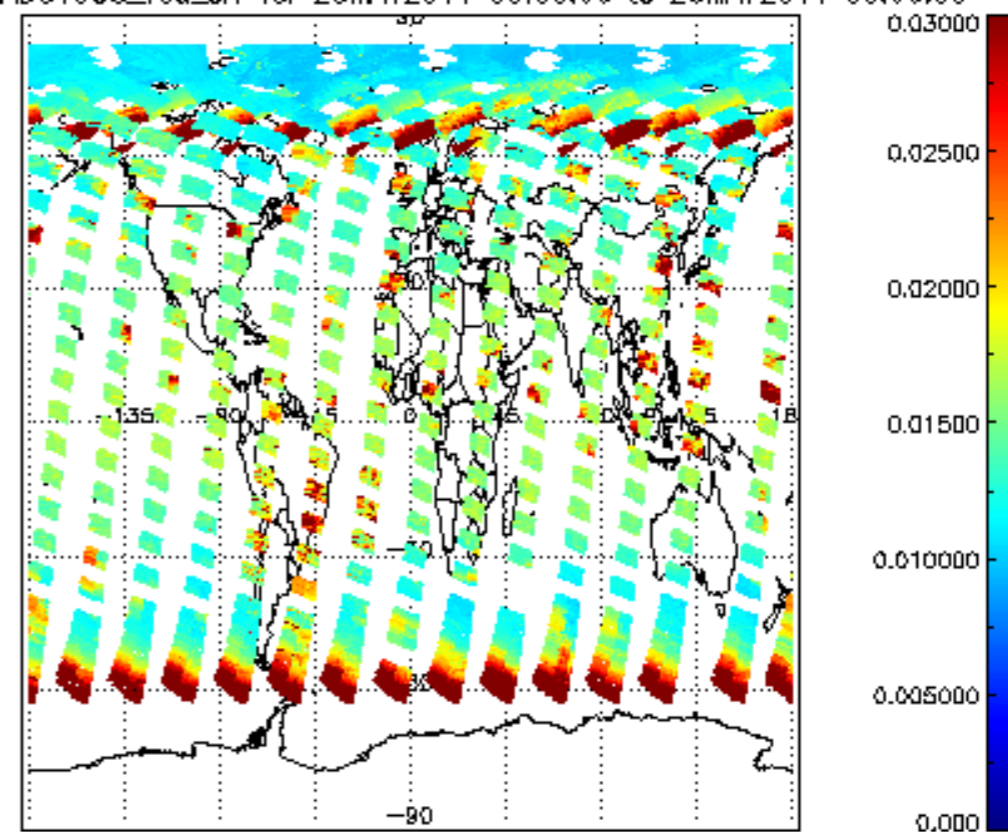




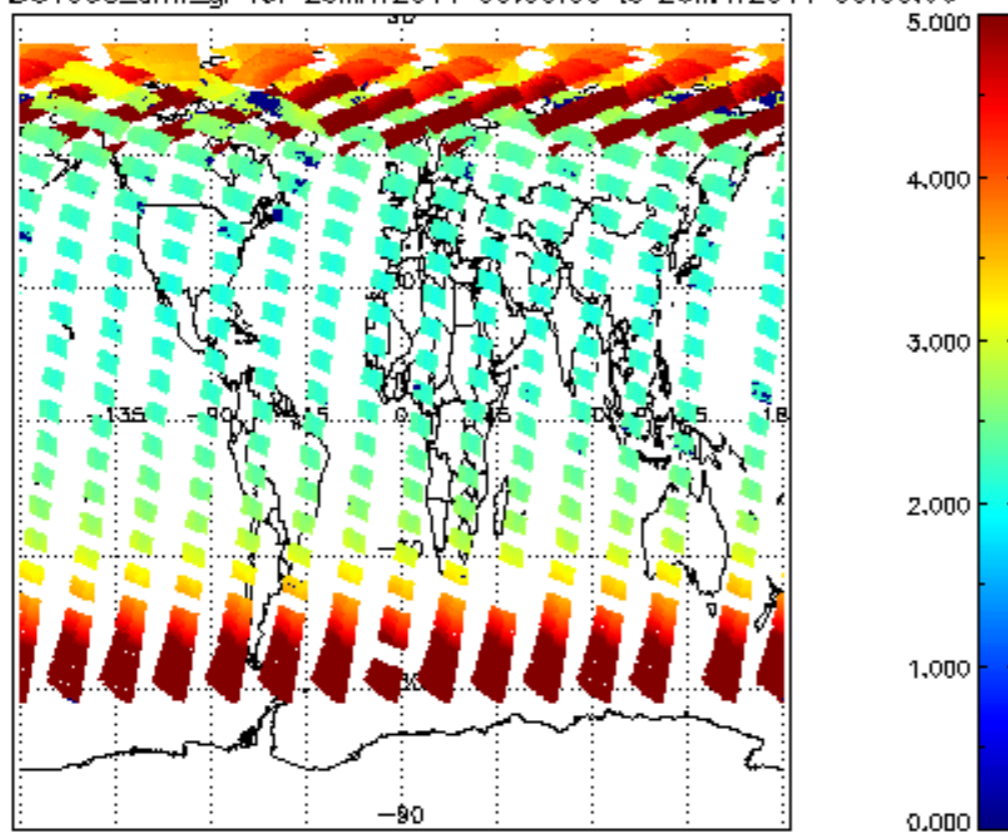
SCIOL2P\_NADUV003\_vcd for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



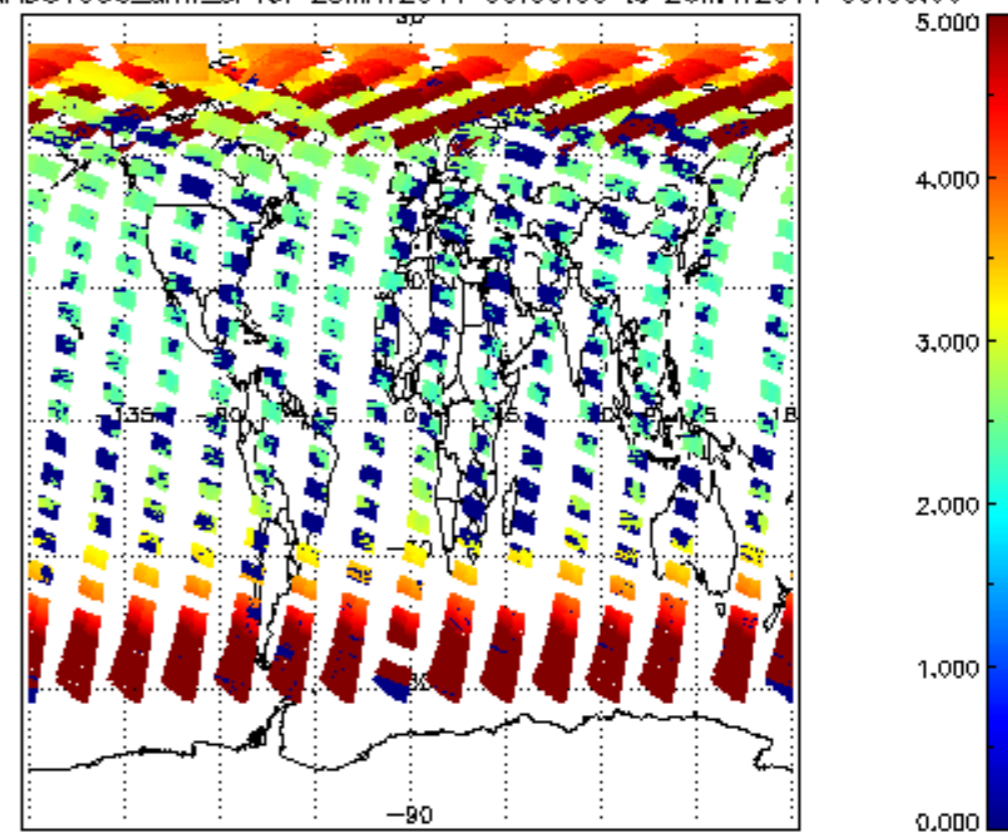
SCIOL2P\_NADUV003\_vcd\_err for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

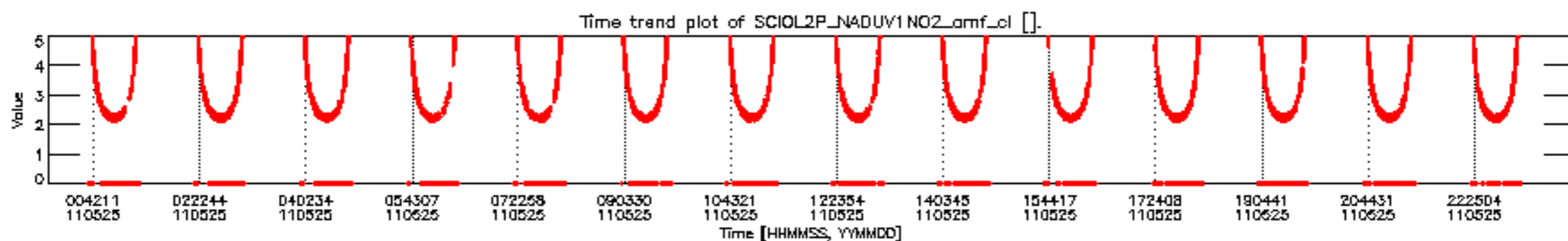
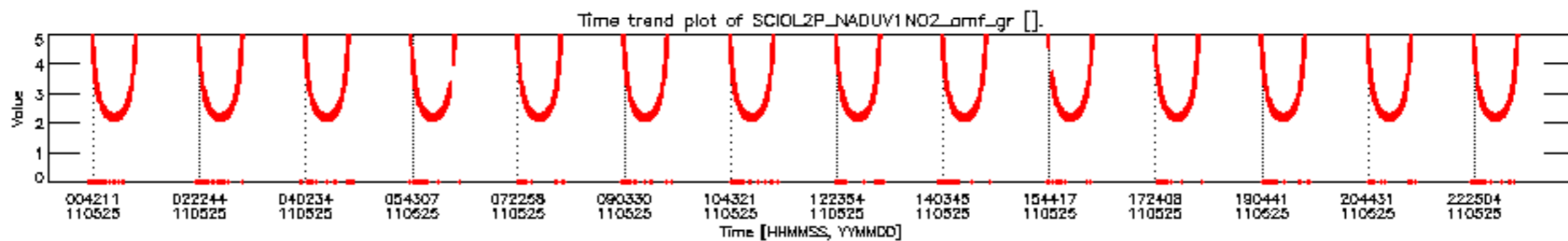
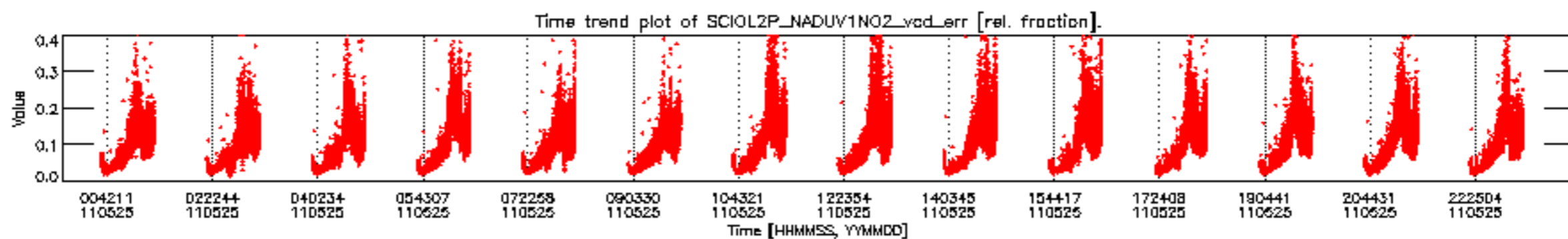
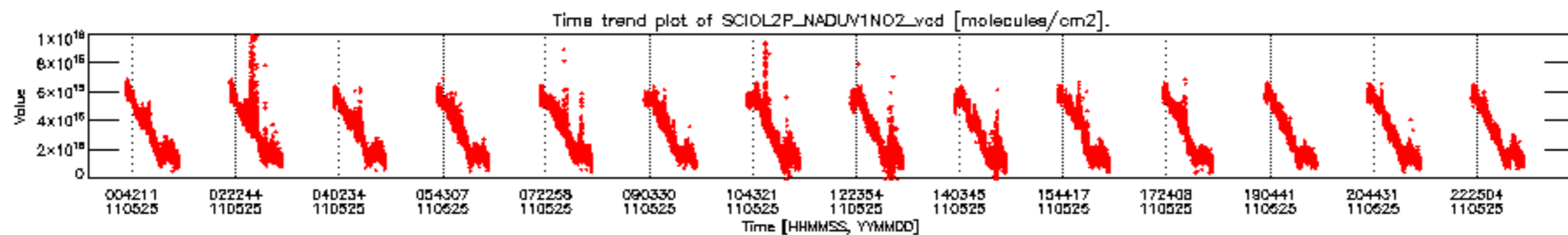


SCIOL2P\_NADUV003\_amf\_gr for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

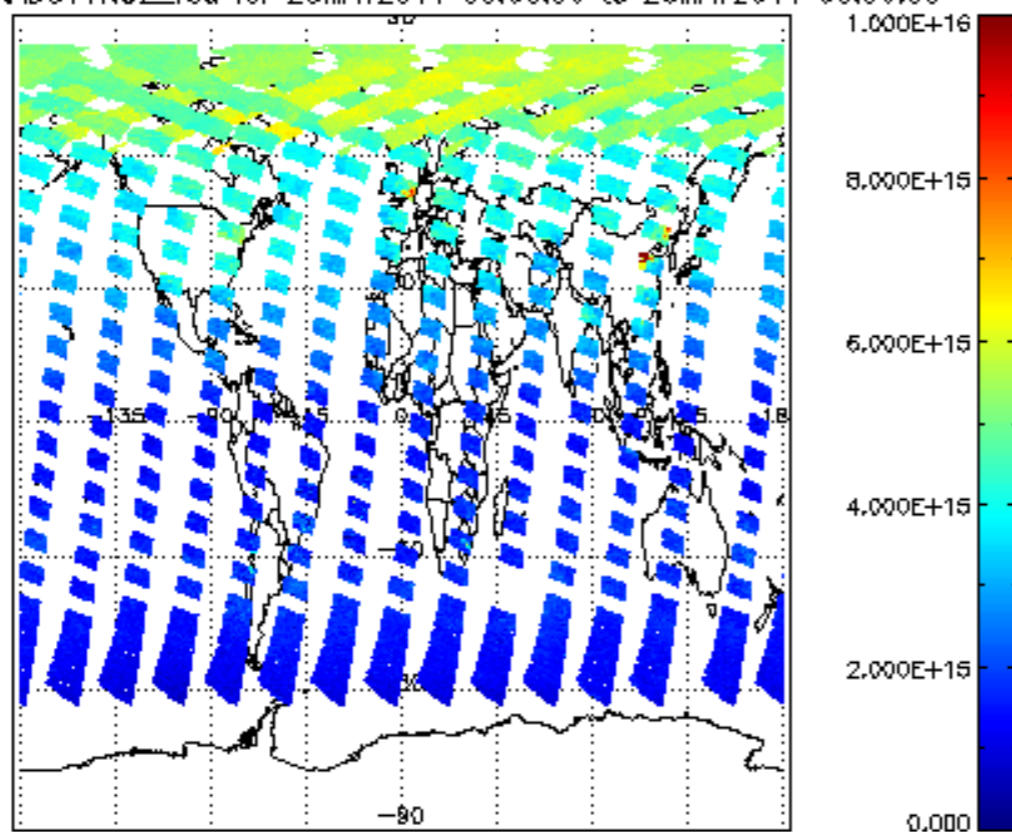


SCIOL2P\_NADUV003\_amf\_cl for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

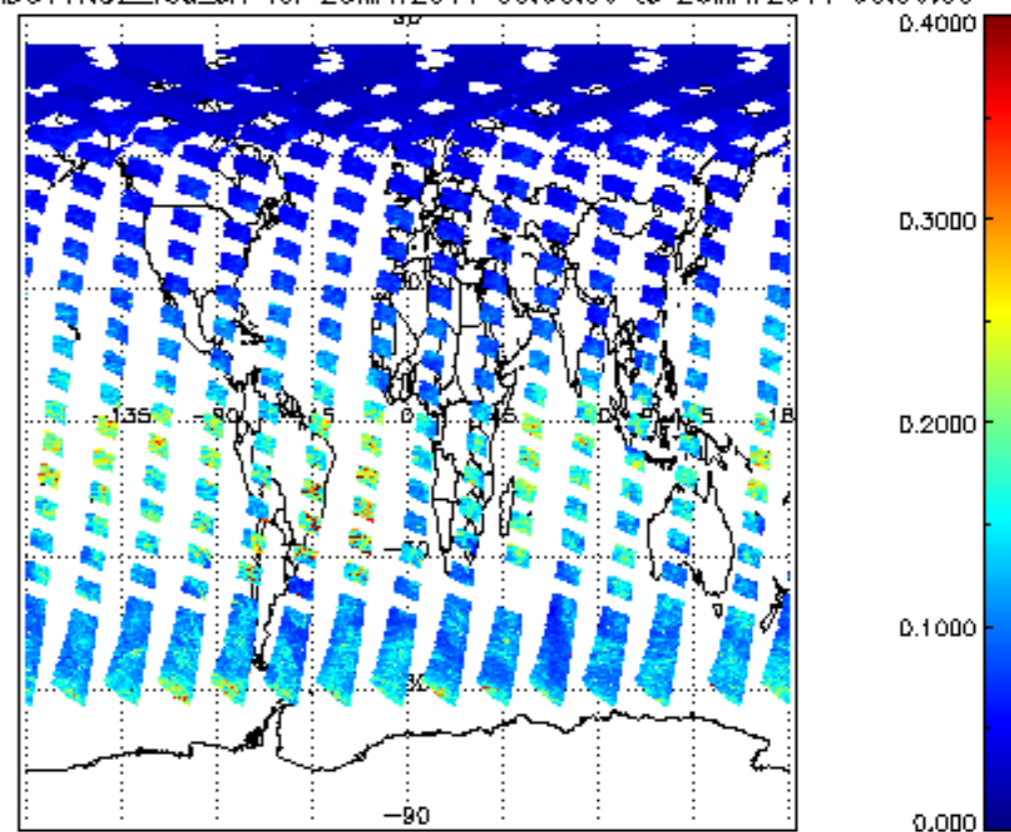




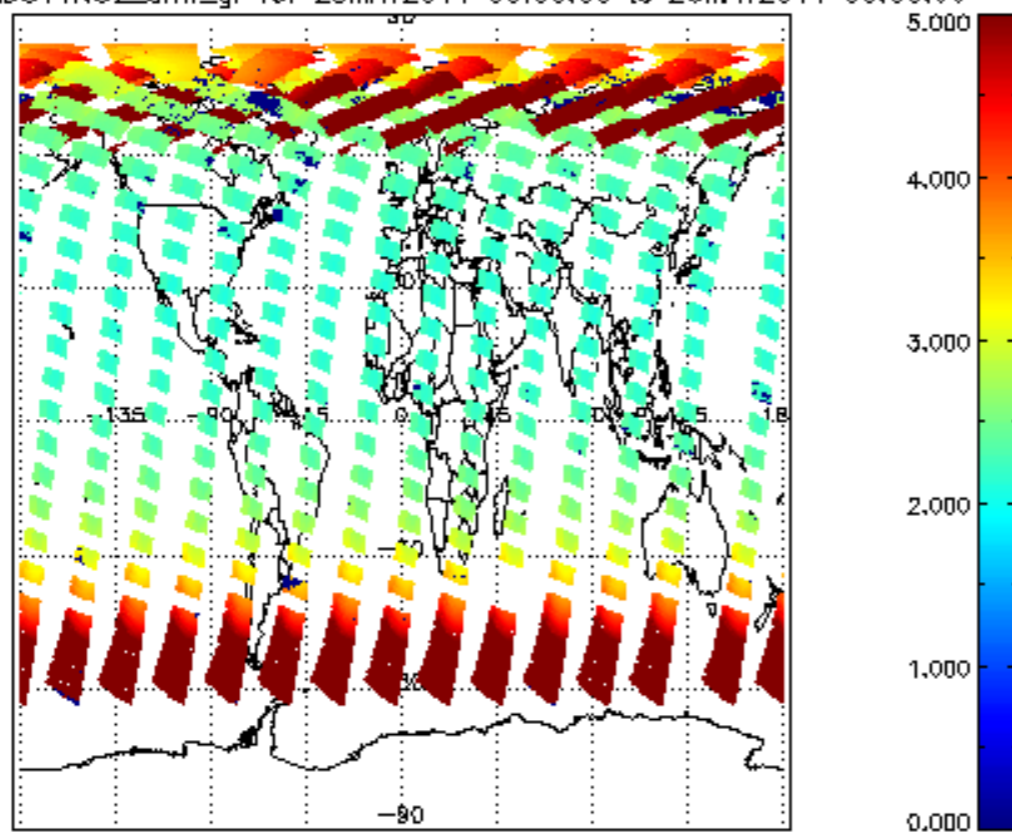
SCIOL2P\_NADUV1NO2\_vcd for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



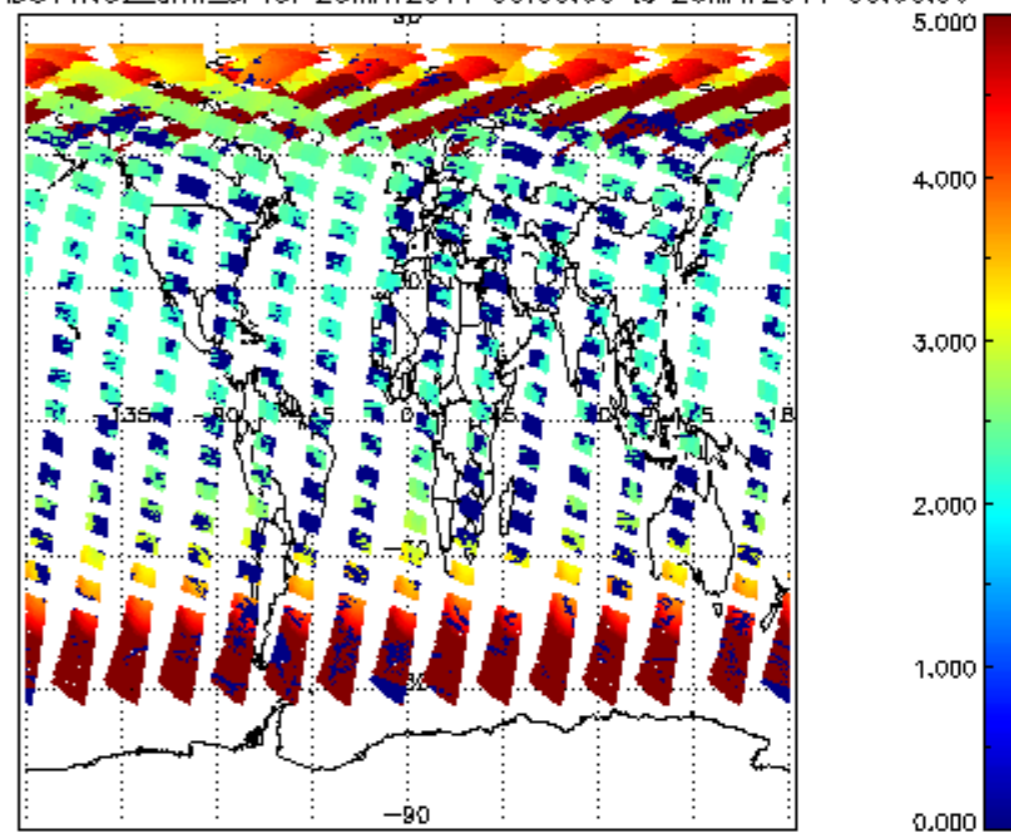
SCIOL2P\_NADUV1NO2\_vcd\_err for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

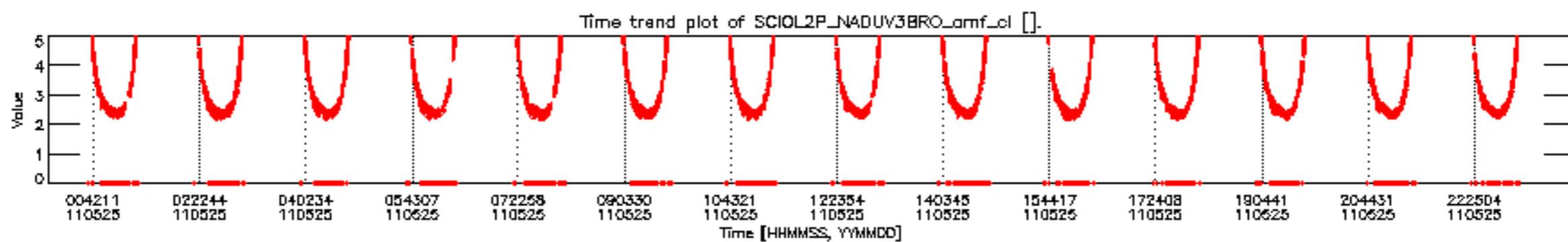
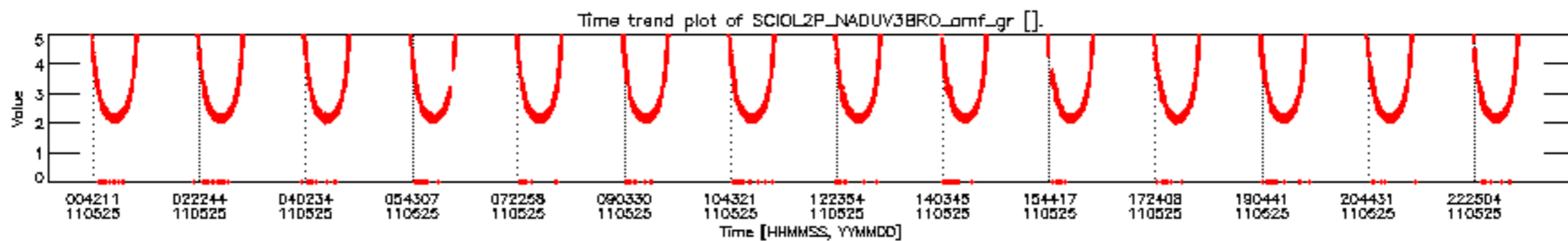
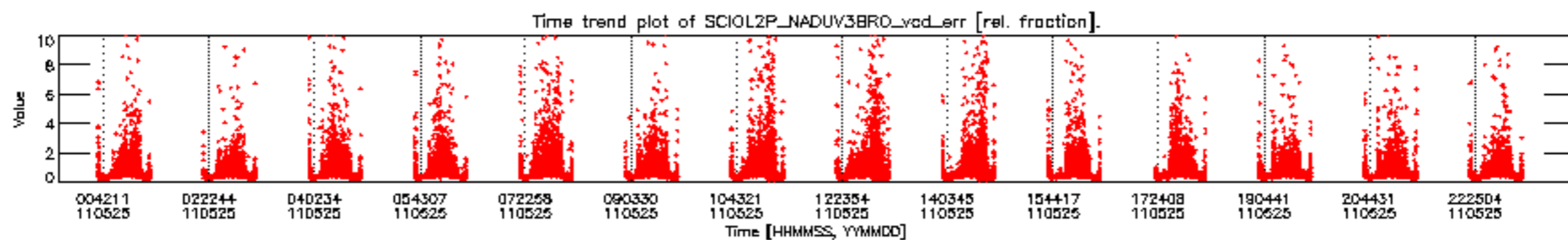
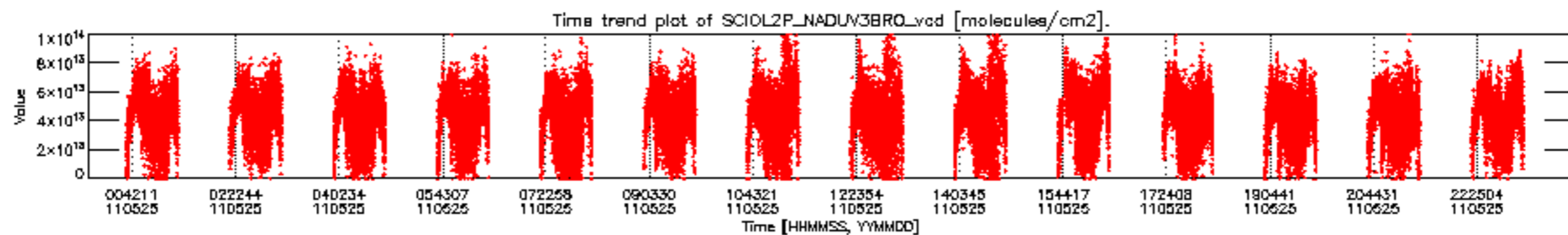


SCIOL2P\_NADUV1NO2\_amf\_gr for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

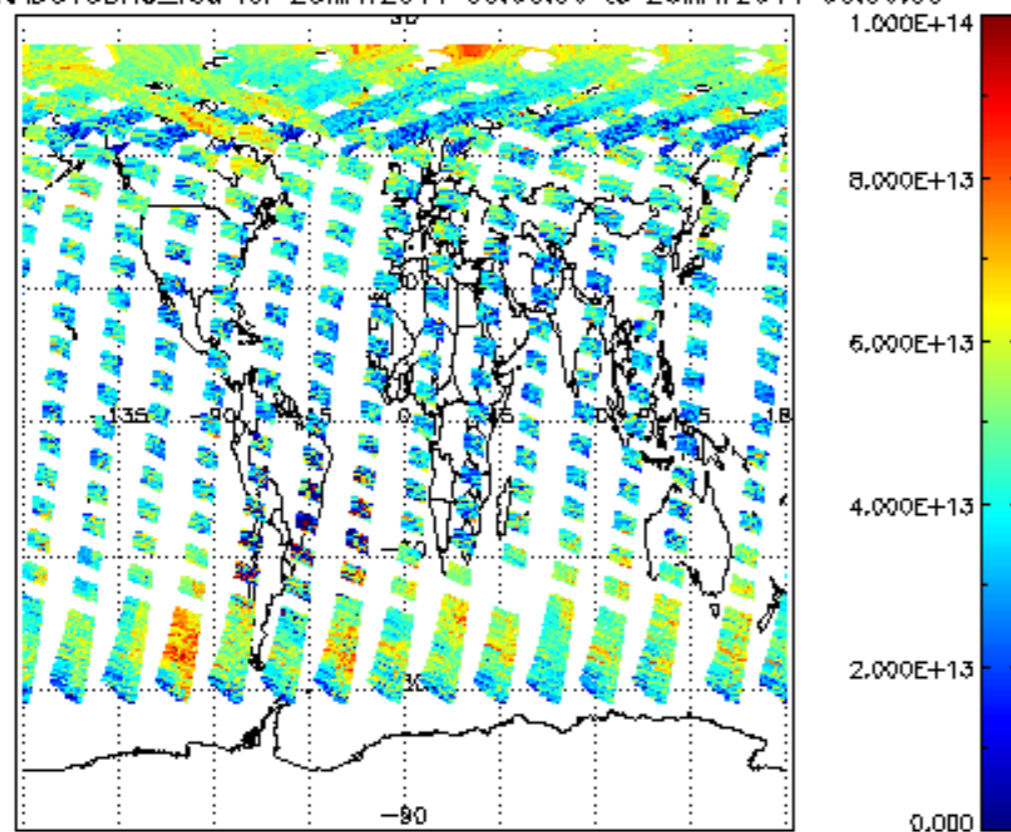


SCIOL2P\_NADUV1NO2\_amf\_sl for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

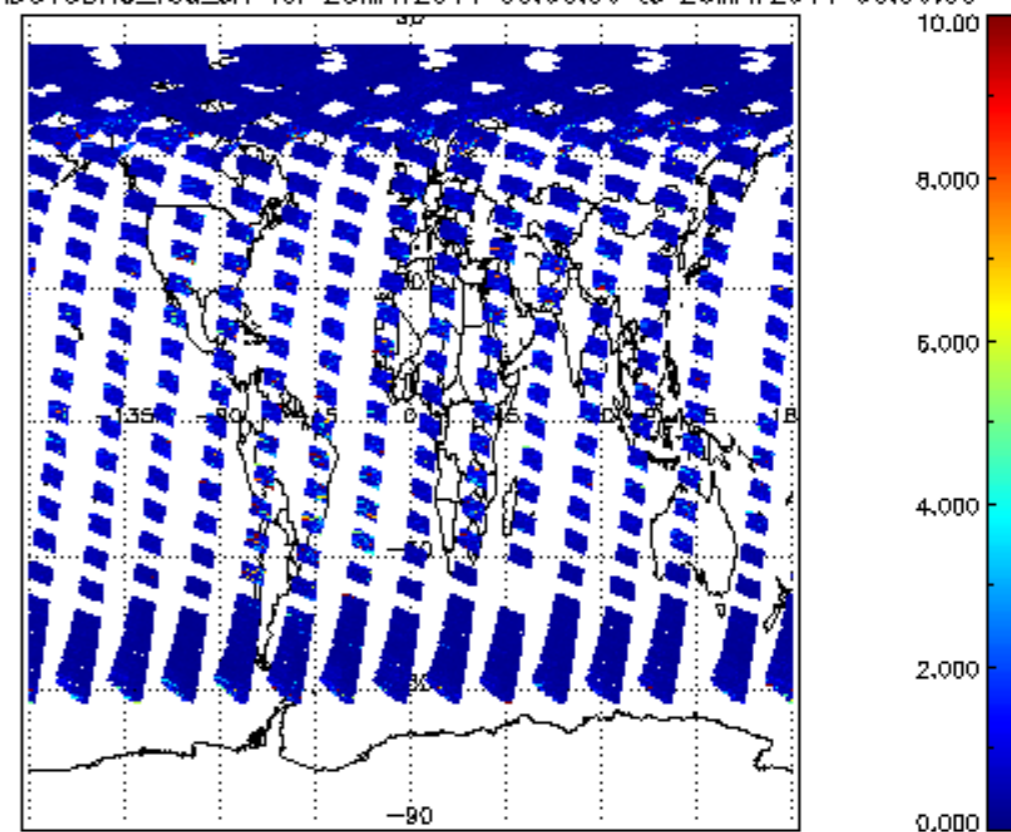




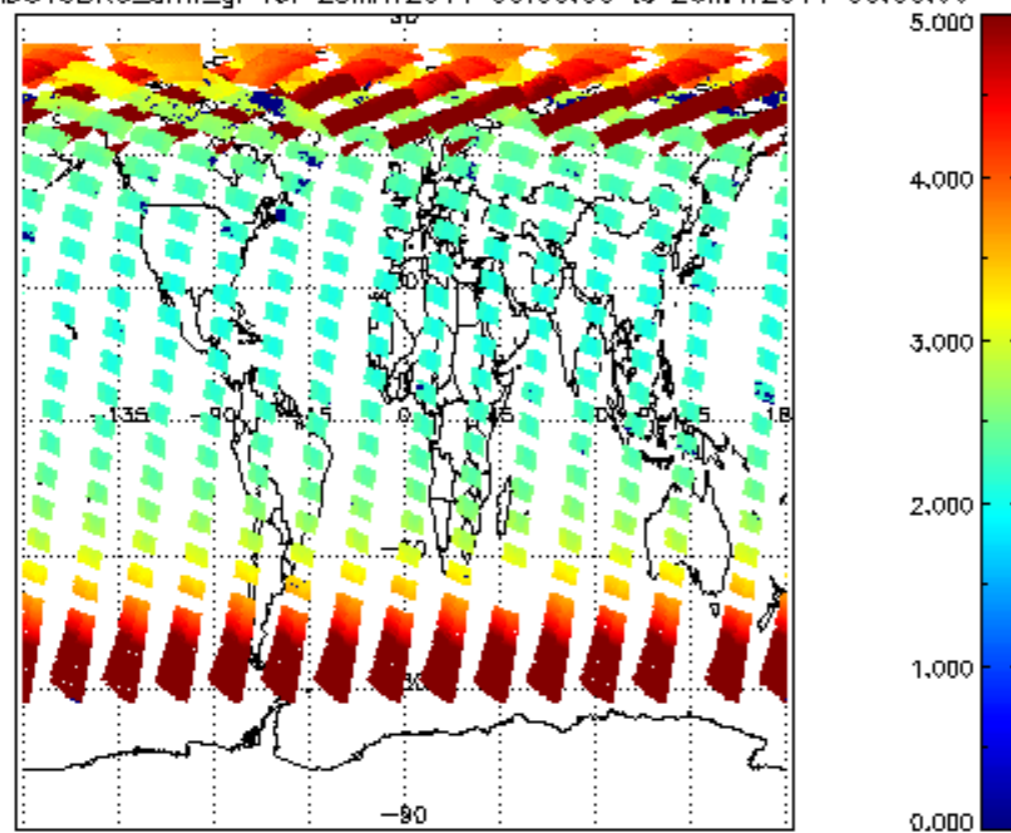
SCIOL2P\_NADUV3BRO\_vcd for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



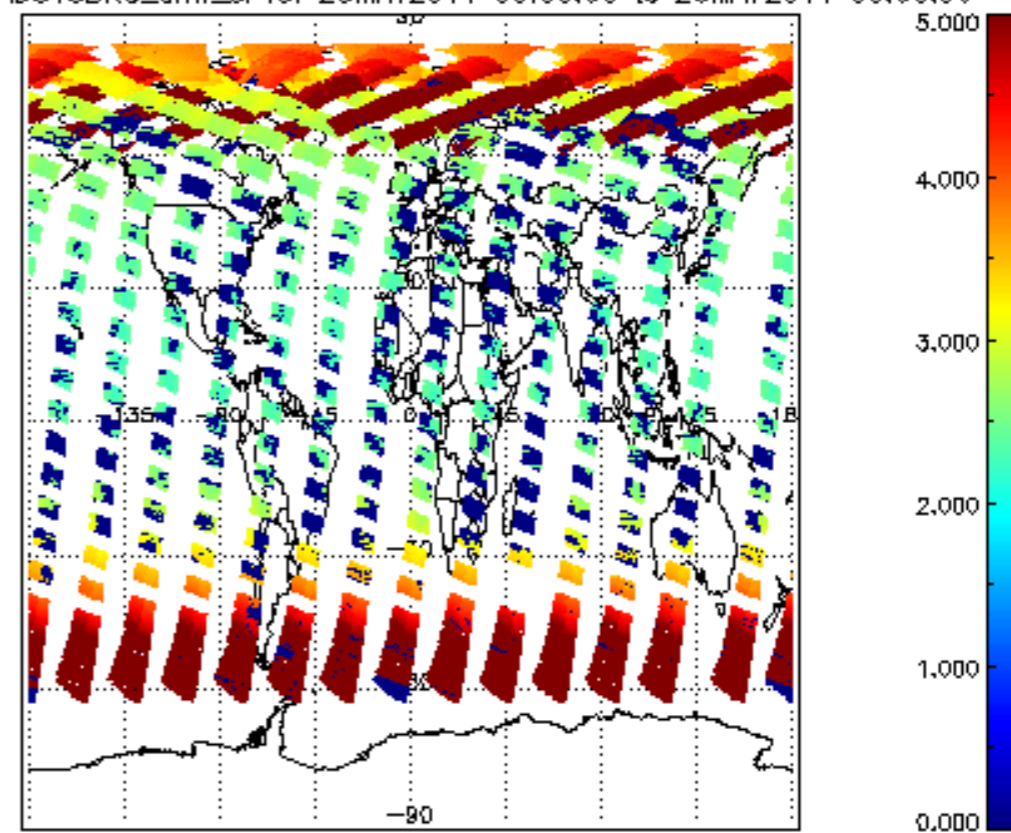
SCIOL2P\_NADUV3BRO\_vcd\_err for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

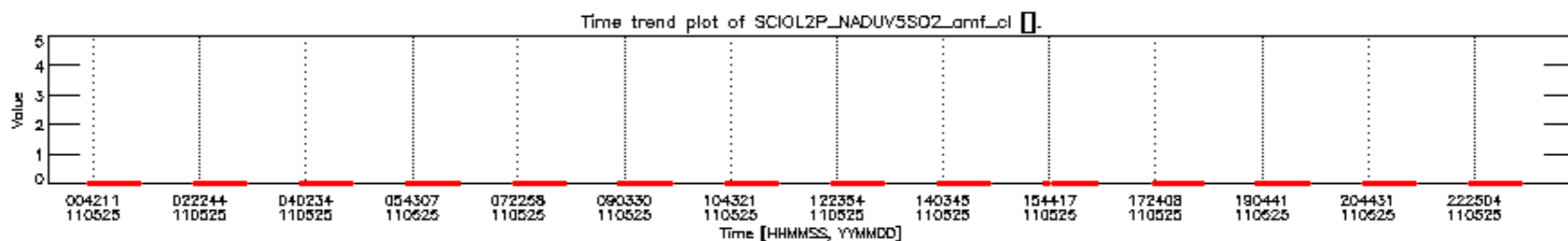
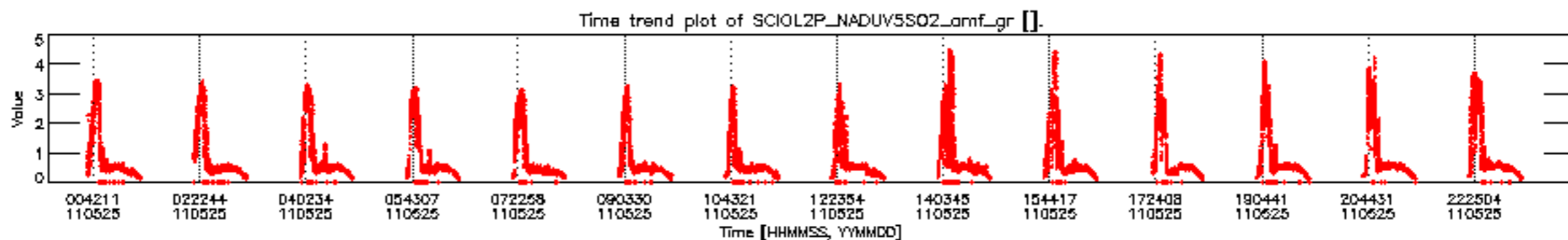
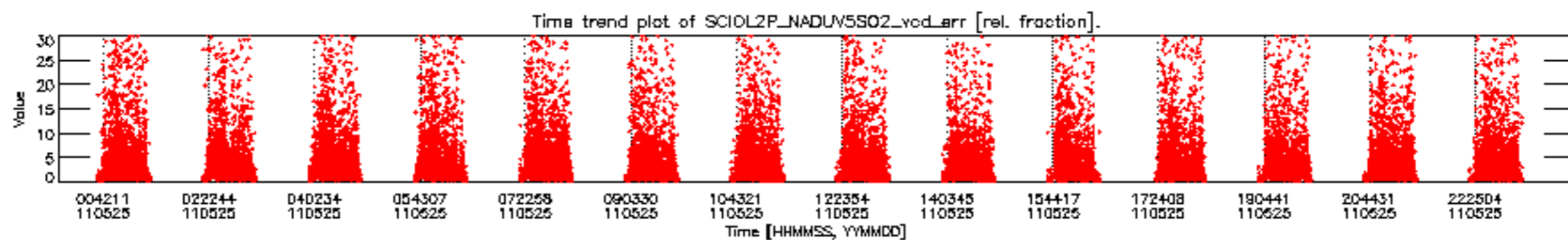
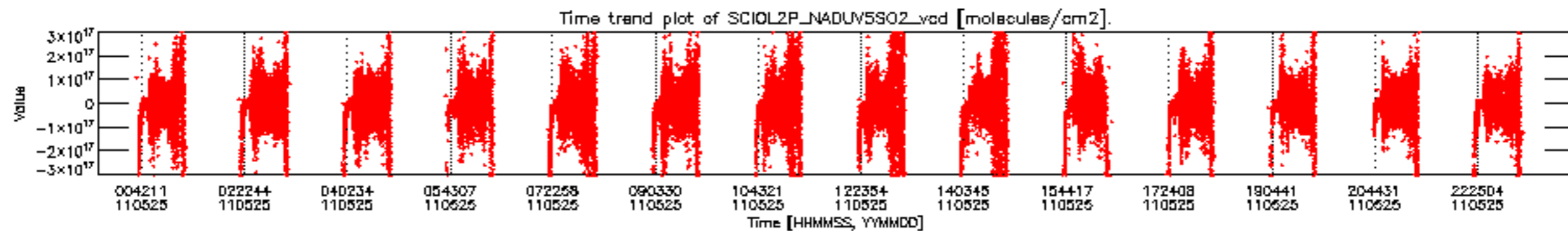


SCIOL2P\_NADUV3BRO\_amf\_gr for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

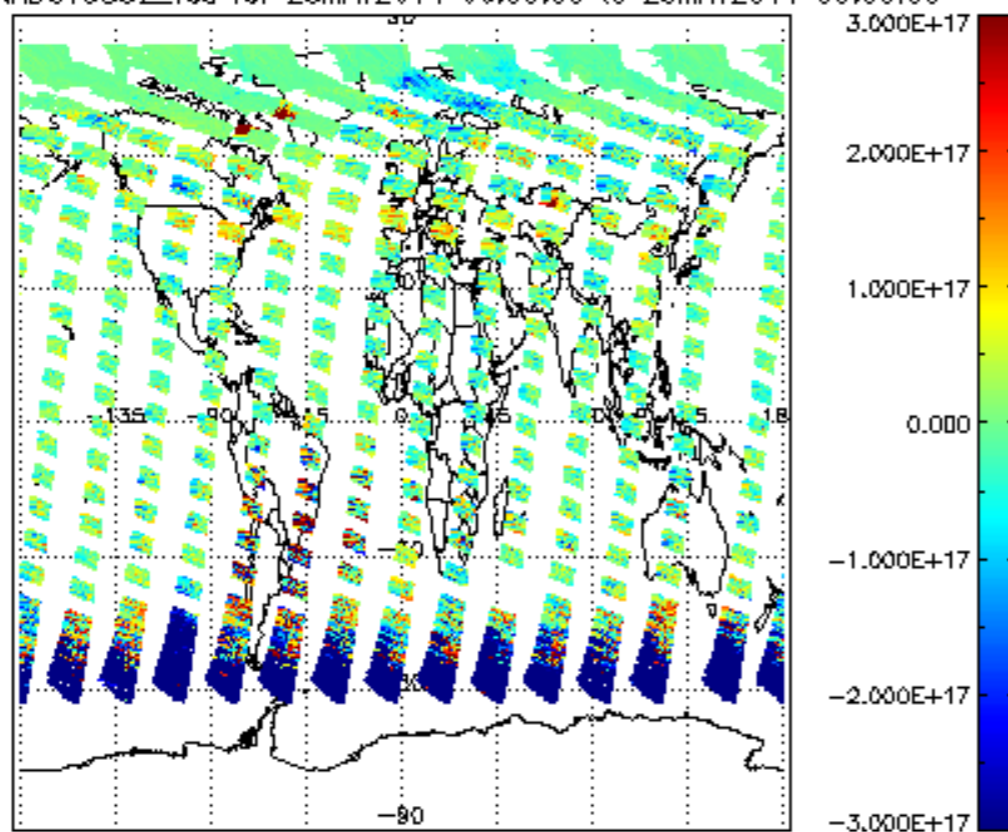


SCIOL2P\_NADUV3BRO\_amf\_cl for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

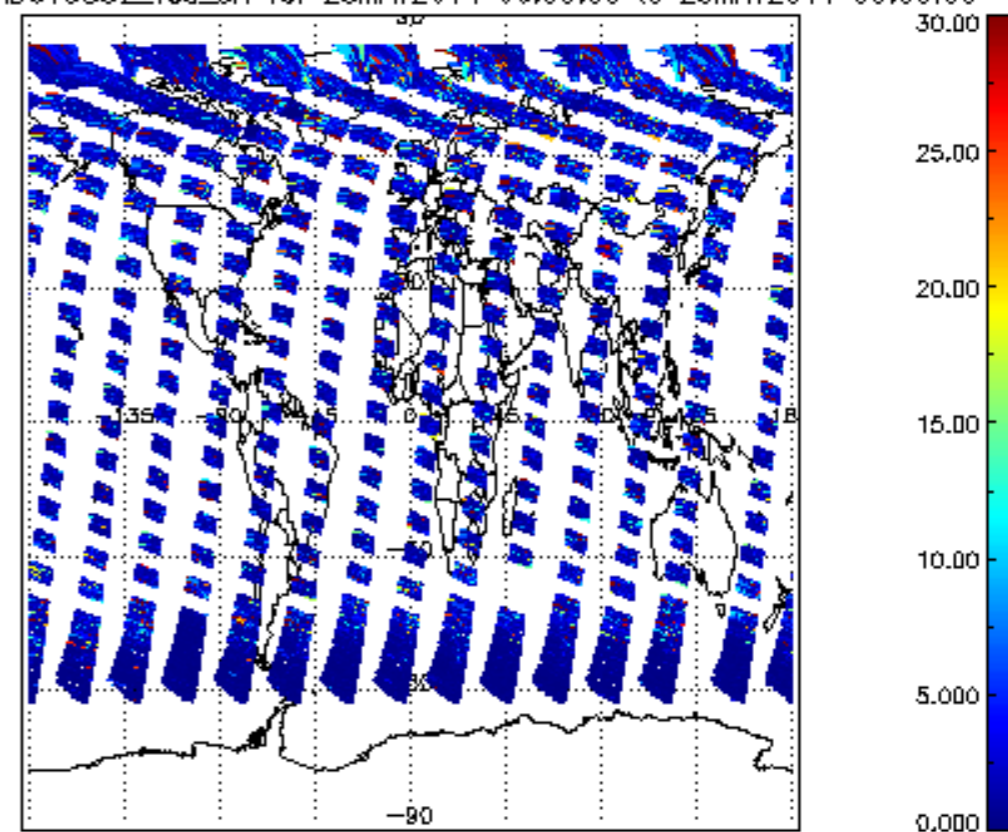




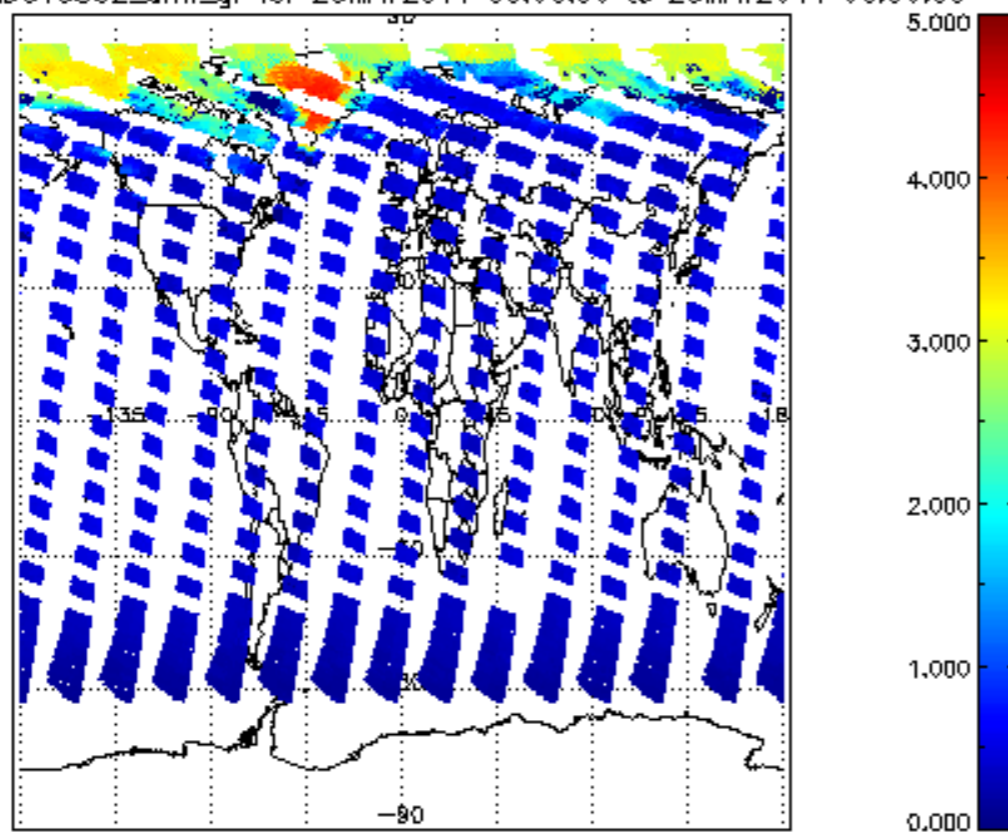
SCIOL2P\_NADUV5S02\_vcd for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



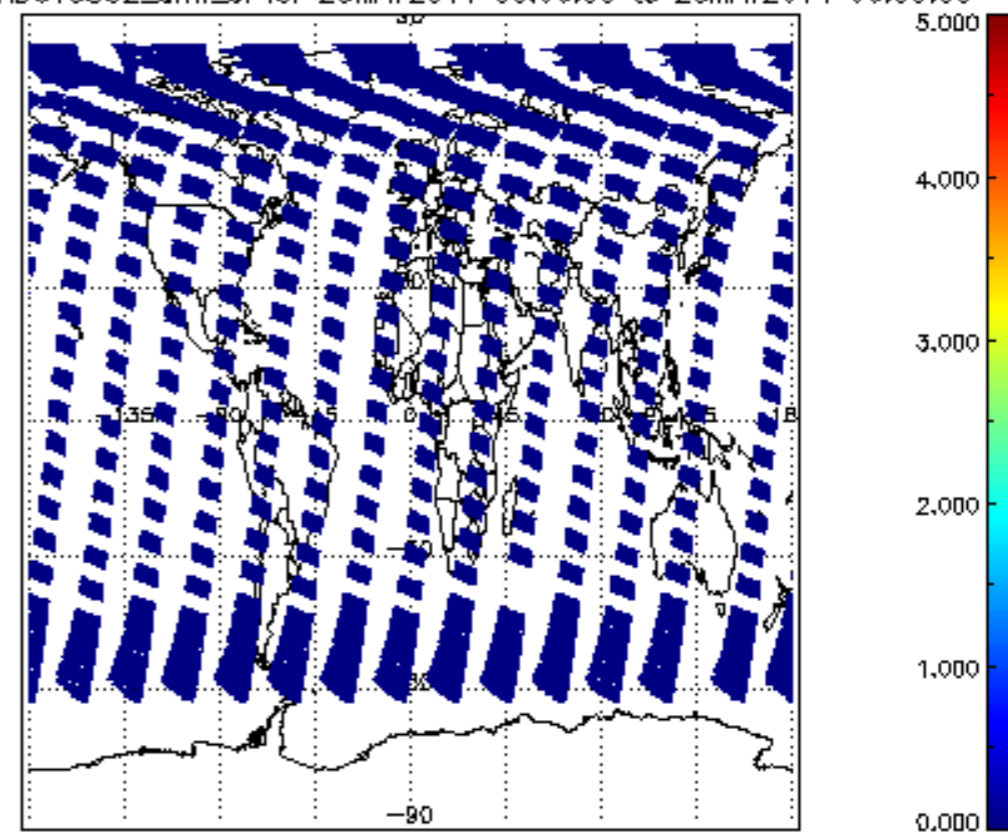
SCIOL2P\_NADUV5S02\_vcd\_err for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

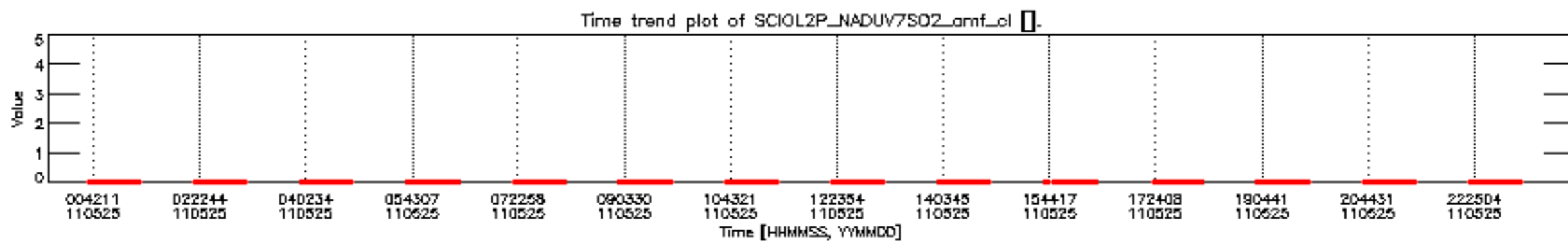
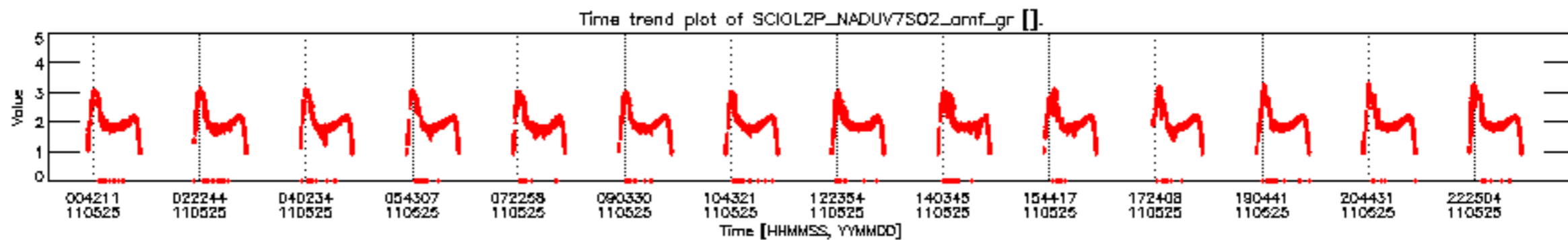
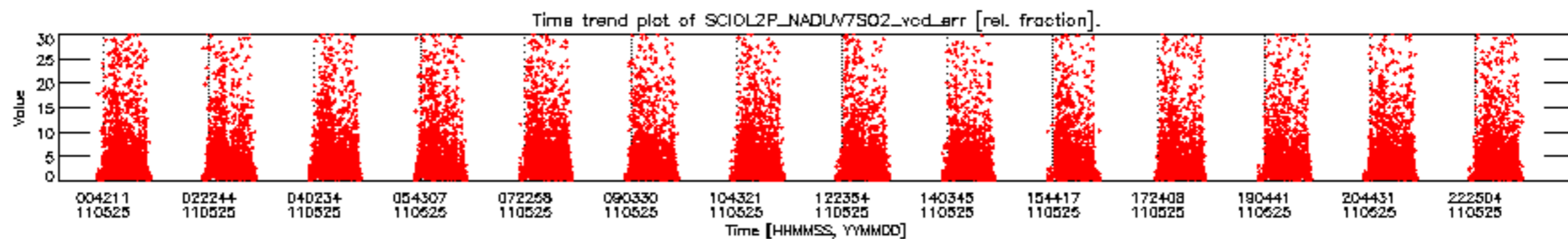
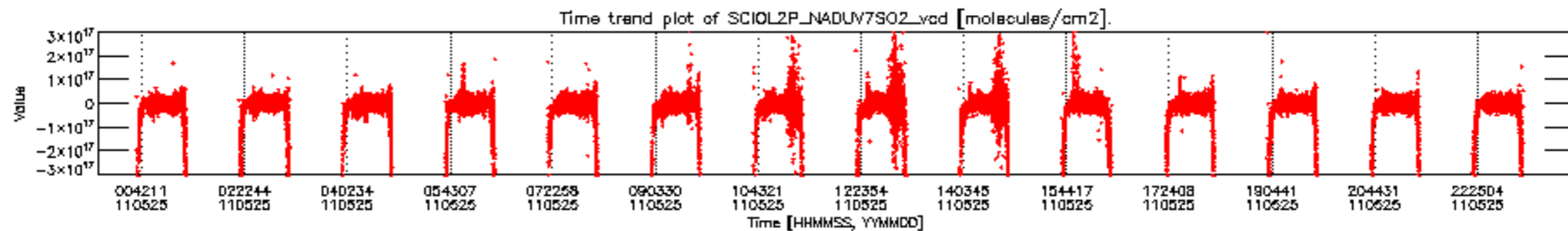


SCIOL2P\_NADUV5S02\_amf\_gr for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



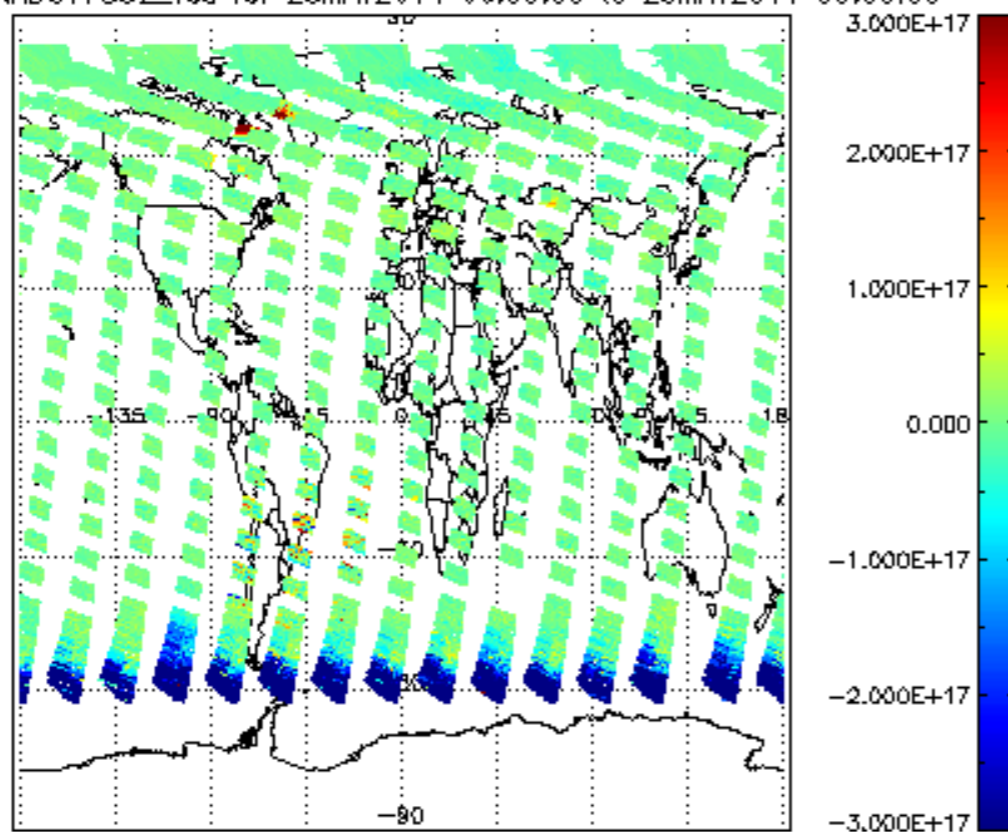
SCIOL2P\_NADUV5S02\_amf\_cl for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



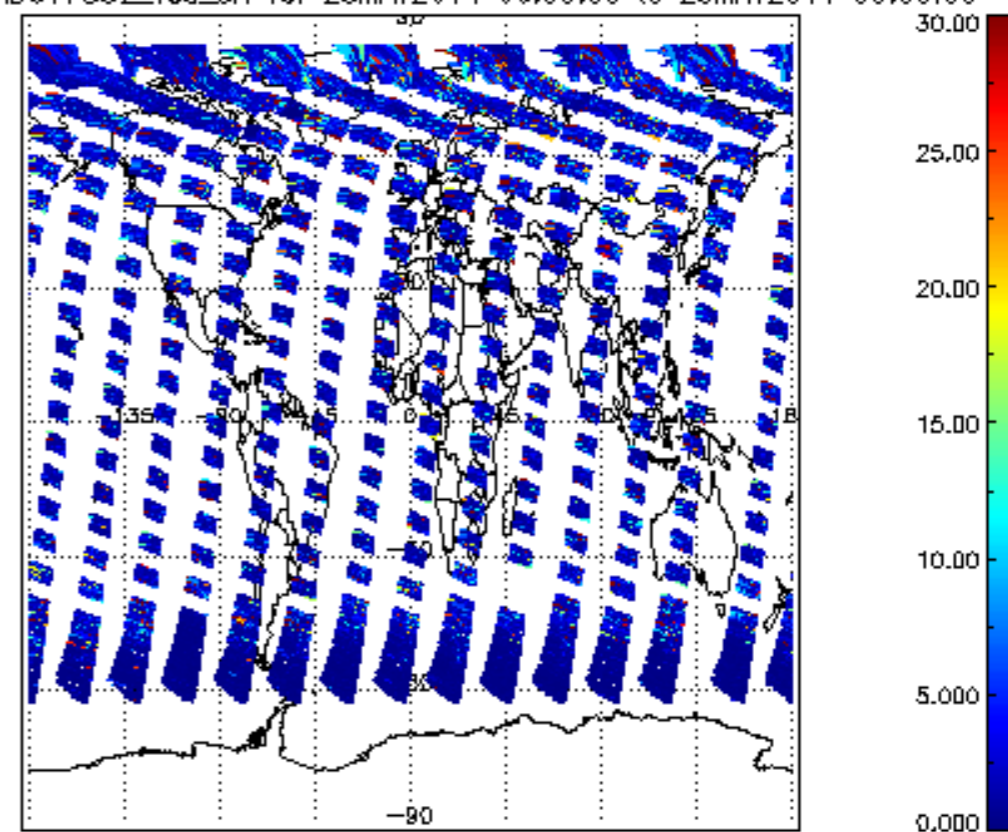




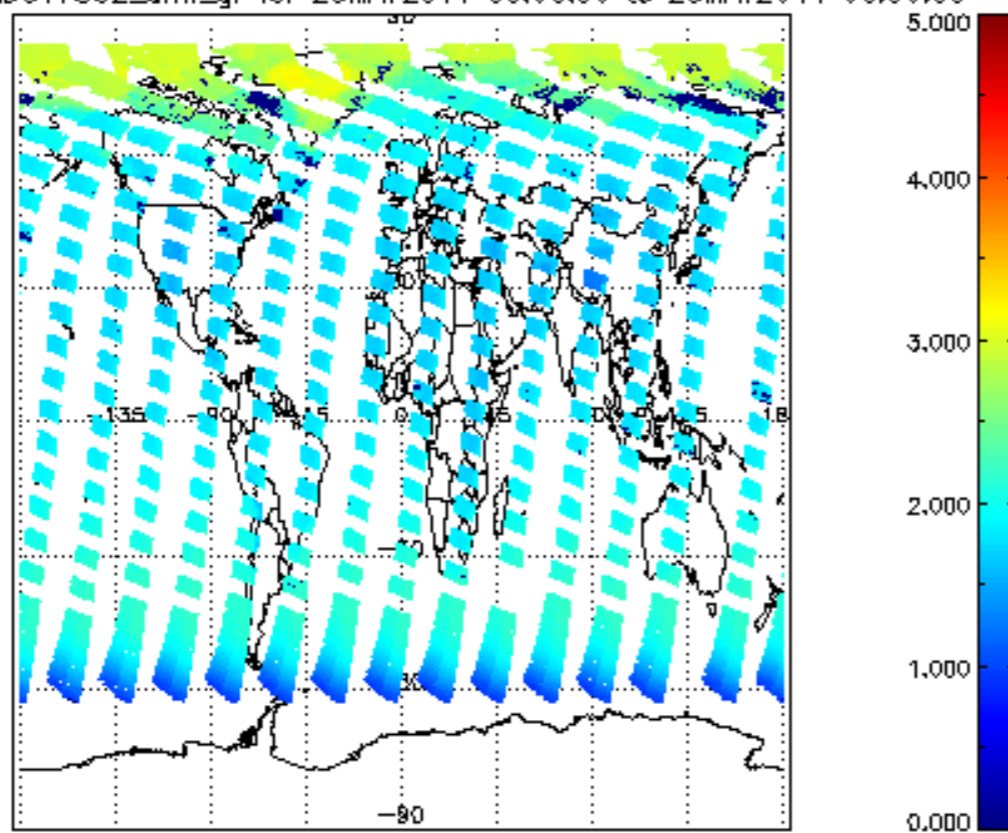
SCIOL2P\_NADUV7S02\_vcd for 25MAY2011 00:00:00 to 26MAY2011 00:00:00



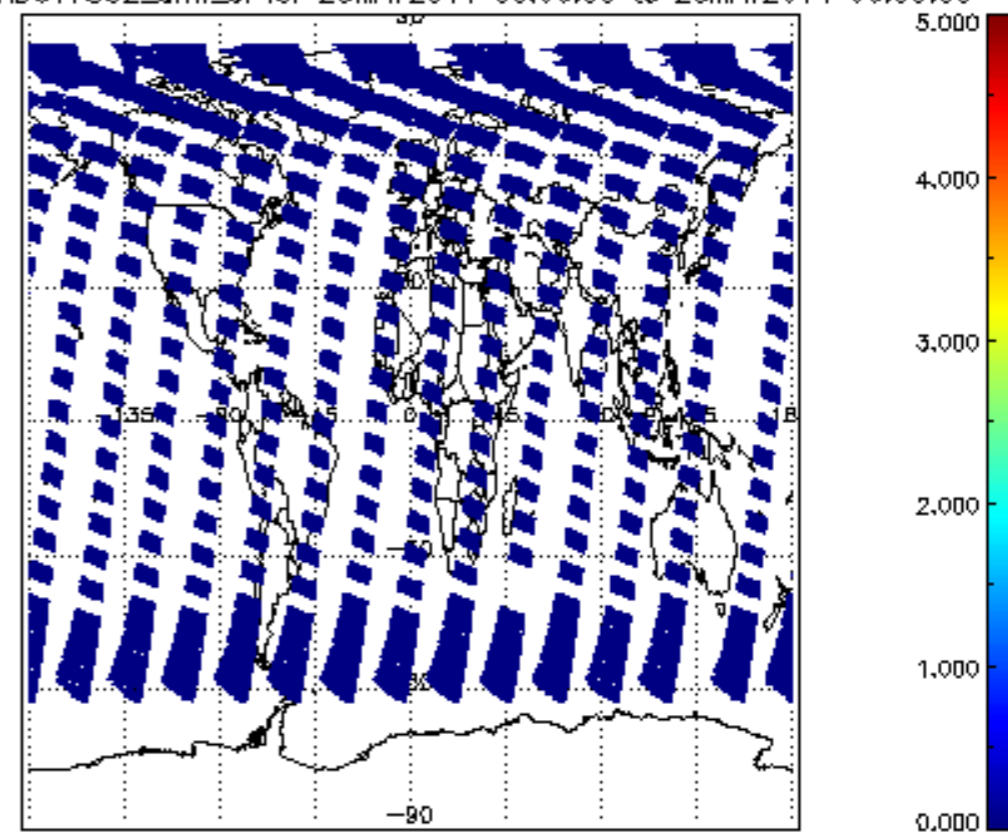
SCIOL2P\_NADUV7S02\_vcd\_err for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

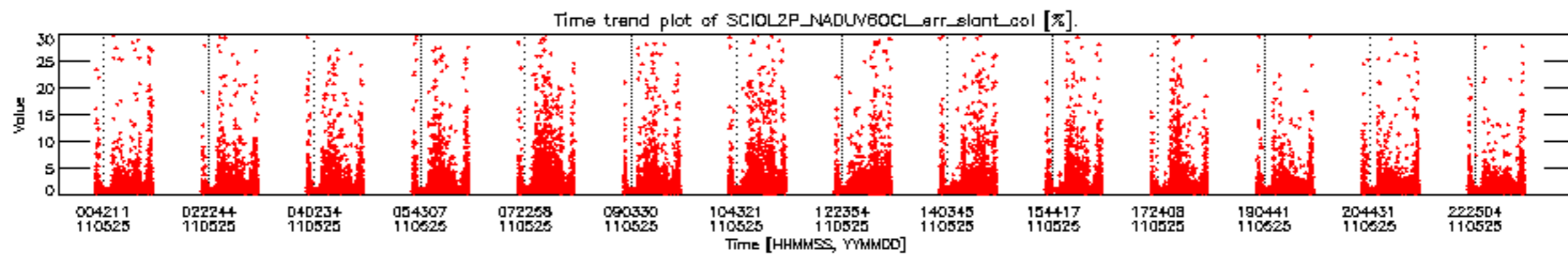
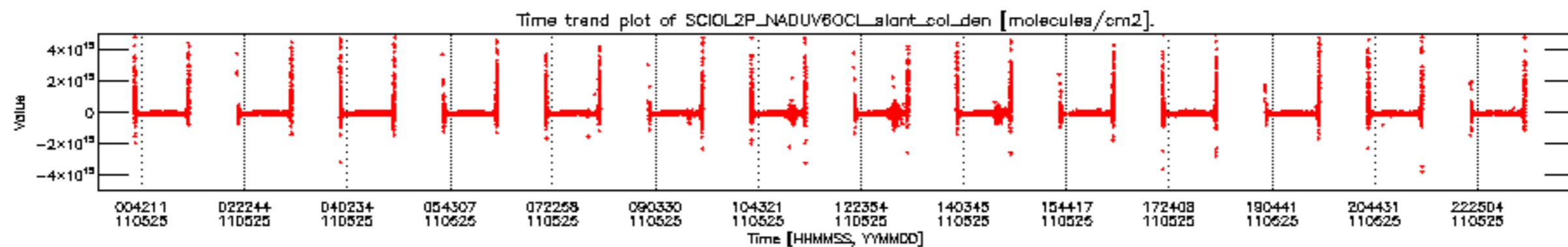


SCIOL2P\_NADUV7S02\_amf\_gr for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

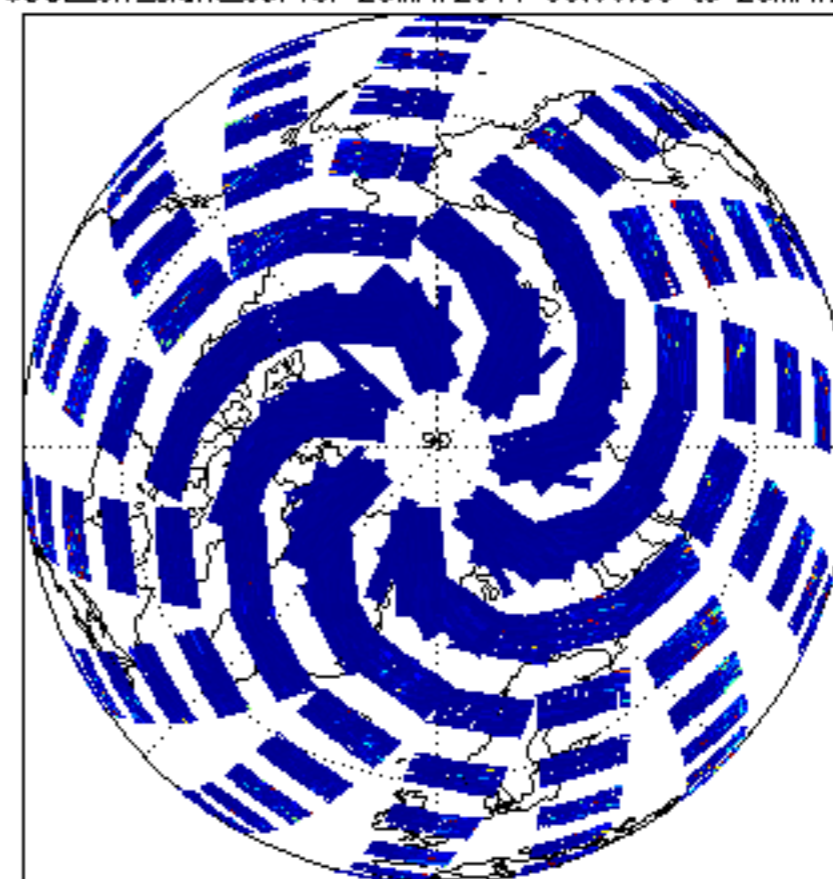
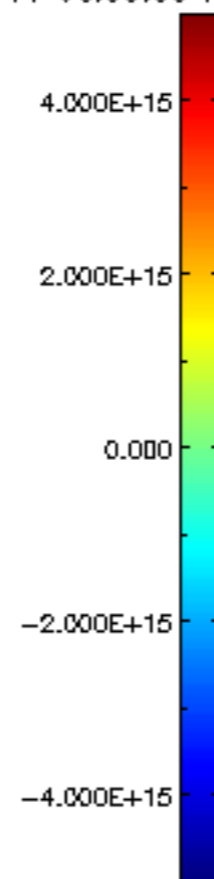
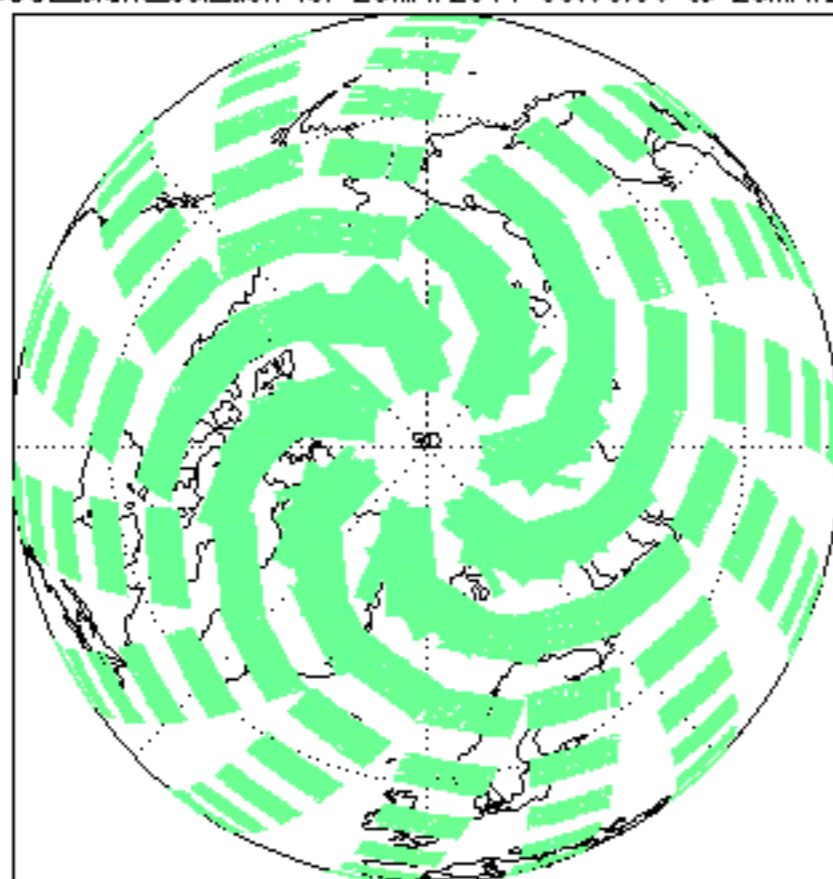


SCIOL2P\_NADUV7S02\_amf\_cl for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

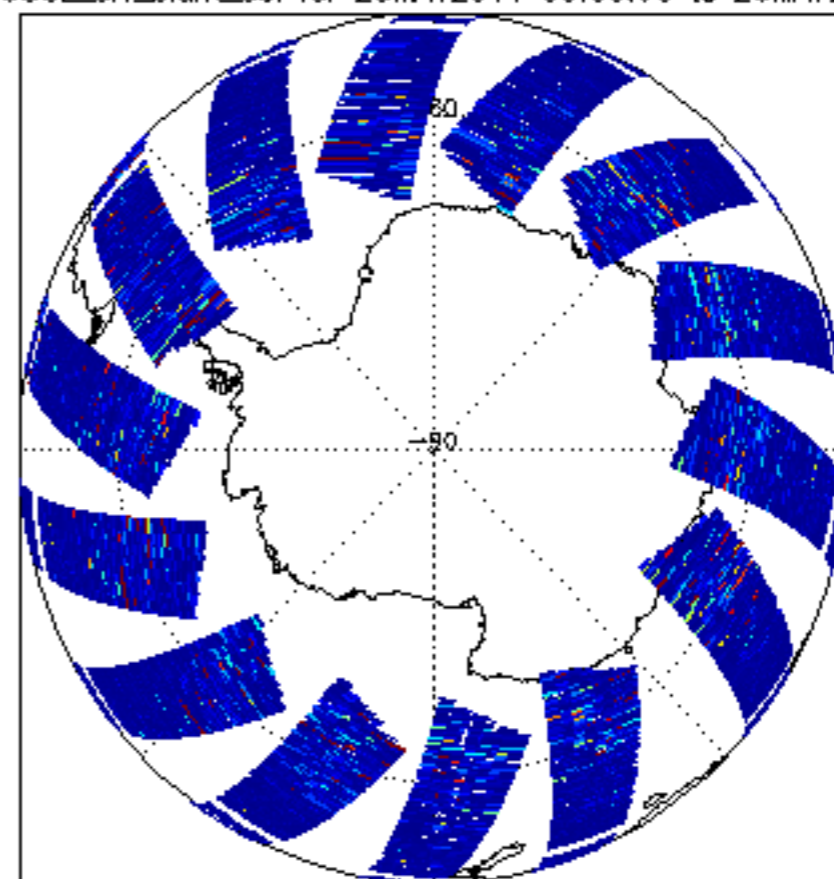
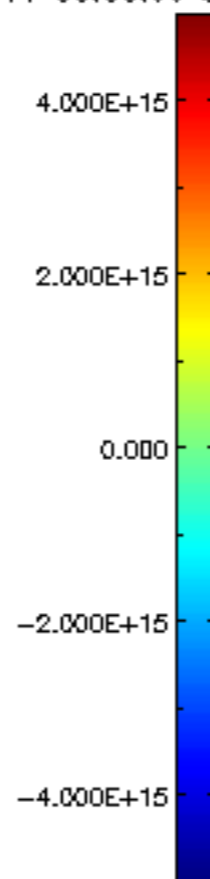
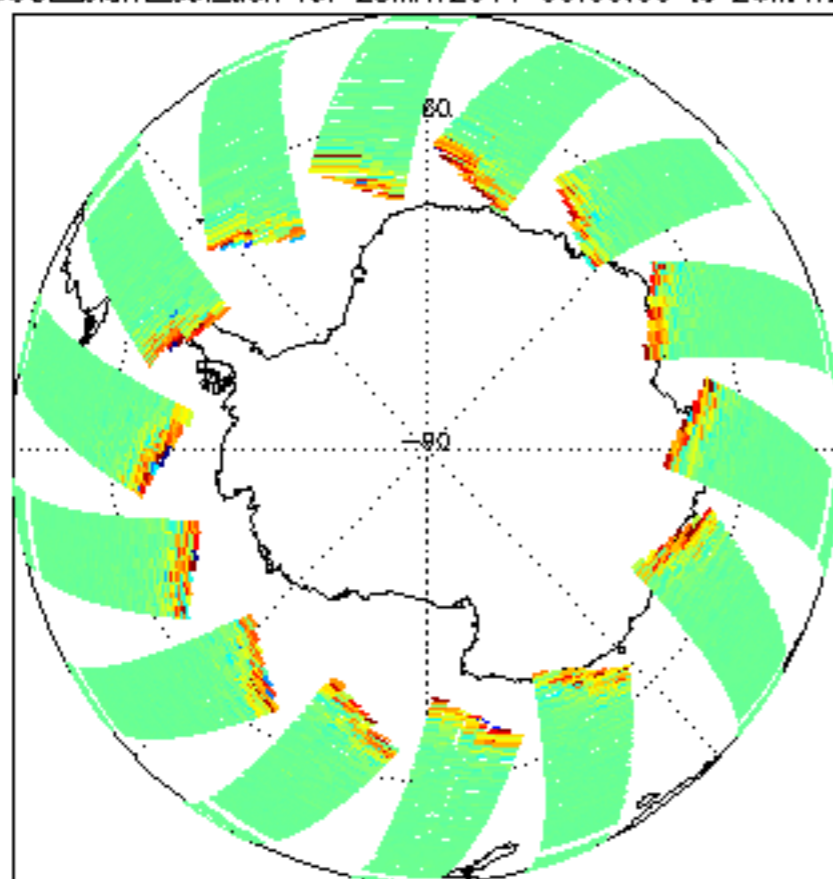


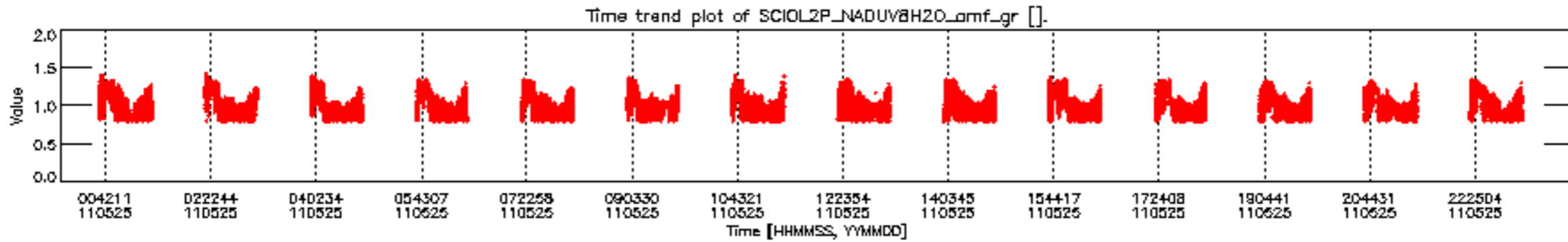
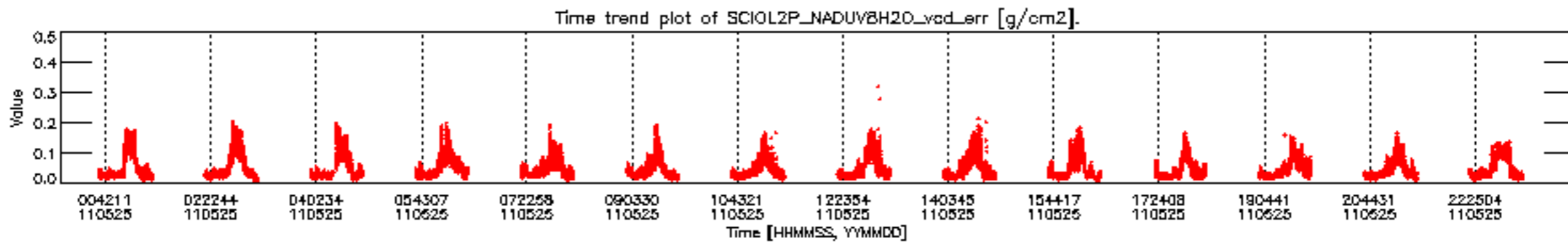
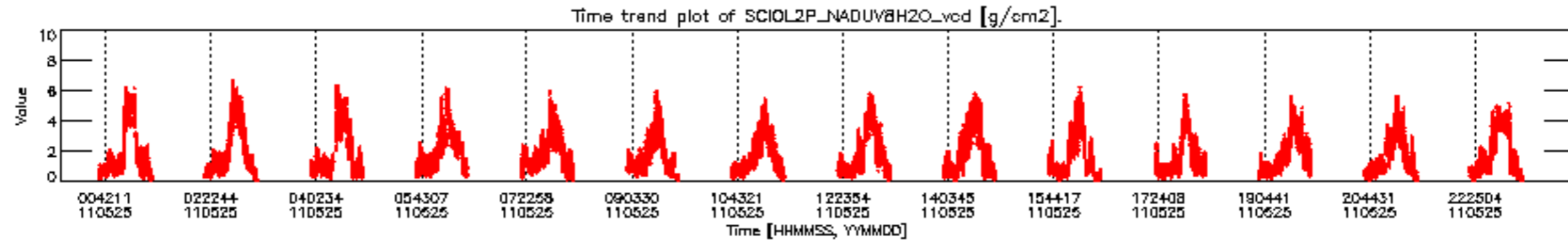


CIOL2P\_NADUV6OCL\_slant\_col\_den for 25MAY2011 00:00:00 to 26MAY2011 00:00:00 np iCIOL2P\_NADUV6OCL\_err\_slant\_col for 25MAY2011 00:00:00 to 26MAY2011 00:00:00 np

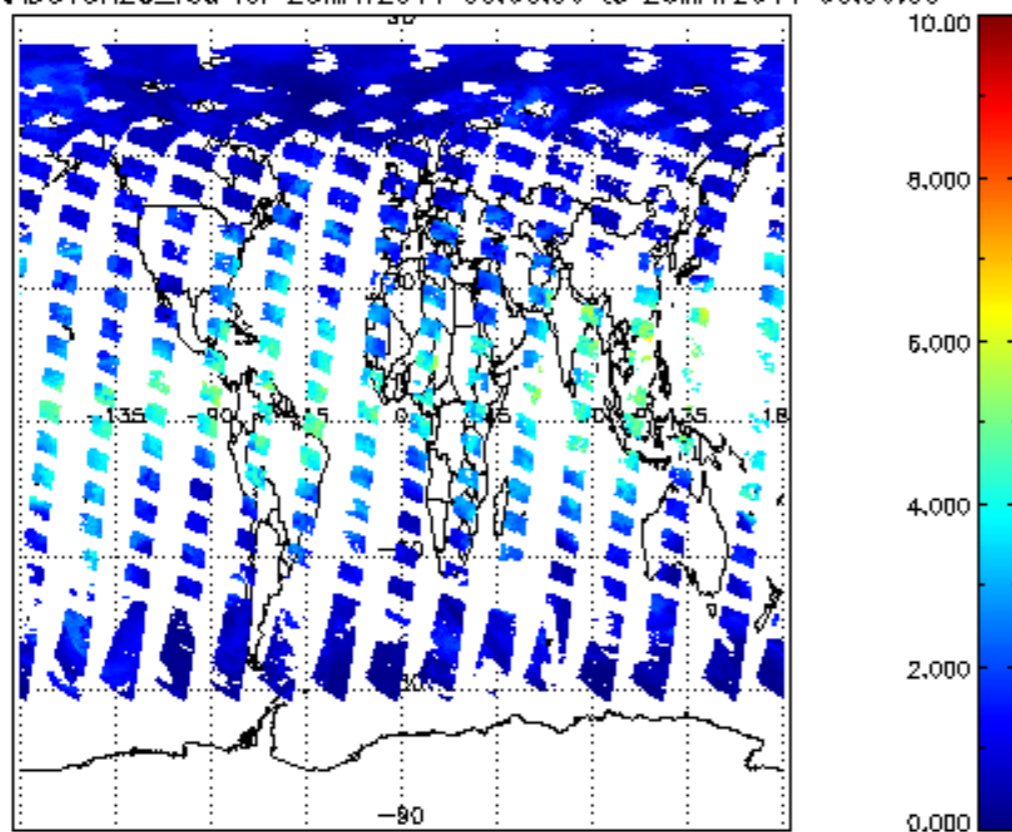


CIOL2P\_NADUV60CL\_slant\_col\_den for 25MAY2011 00:00:00 to 26MAY2011 00:00:00 sp iCIOL2P\_NADUV60CL\_err\_slant\_col for 25MAY2011 00:00:00 to 26MAY2011 00:00:00 sp

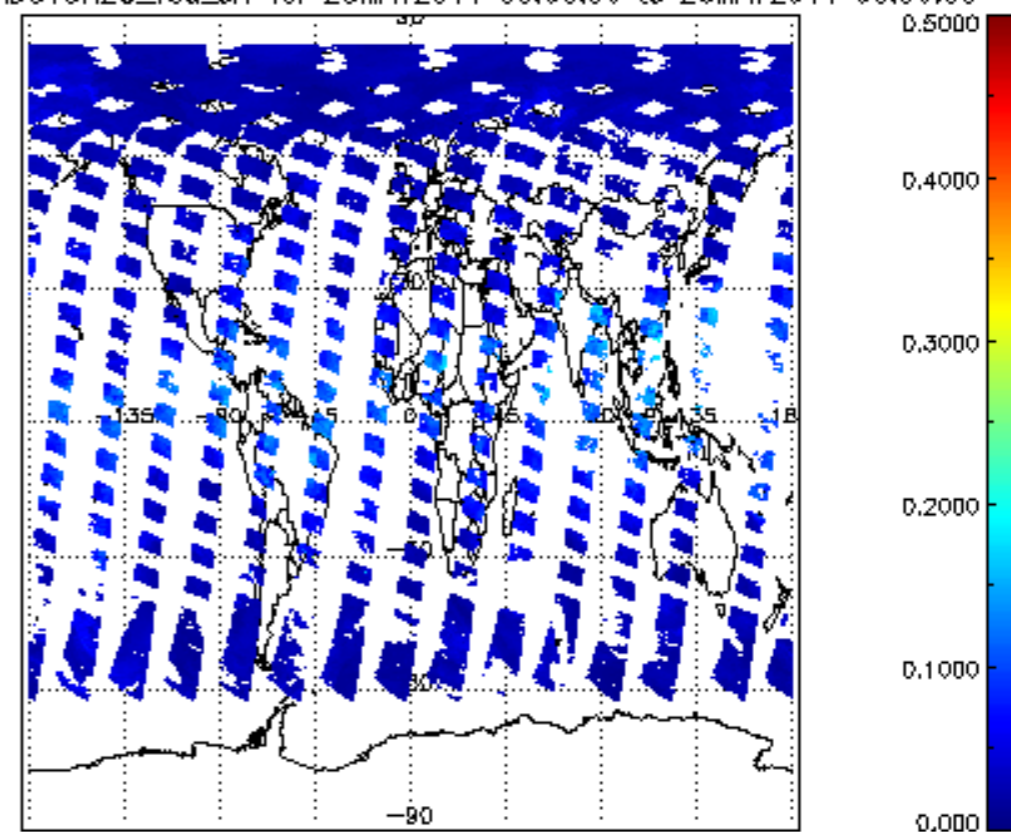




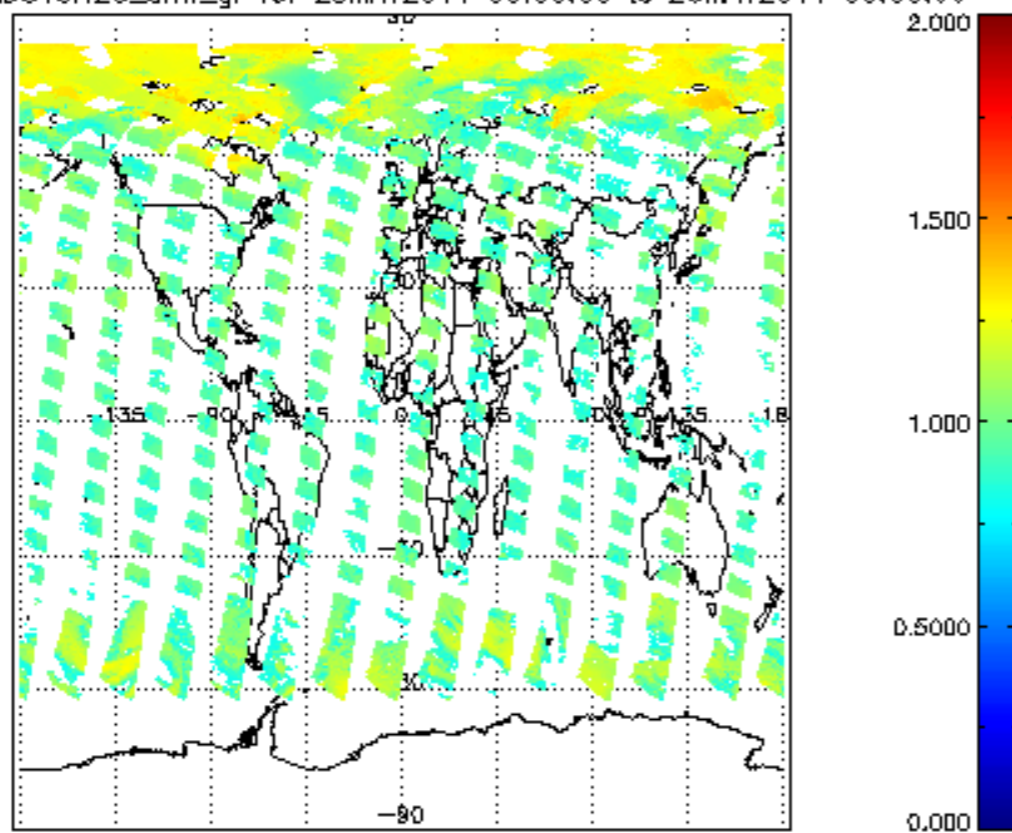
SCIOL2P\_NADUV8H2O\_vcd for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

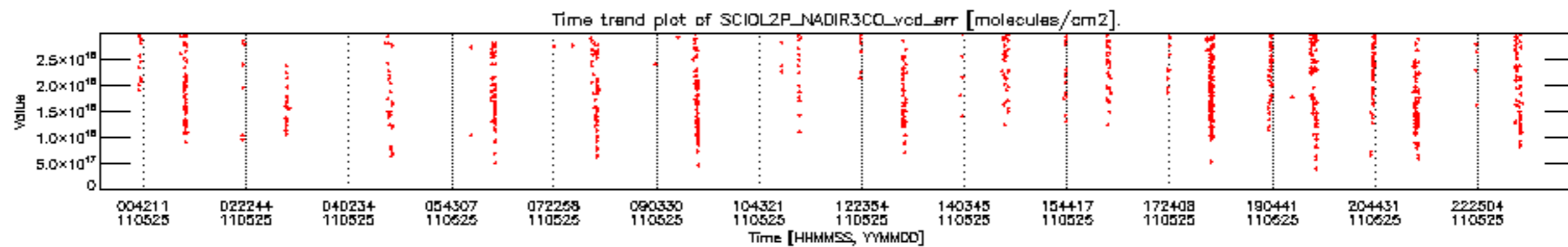
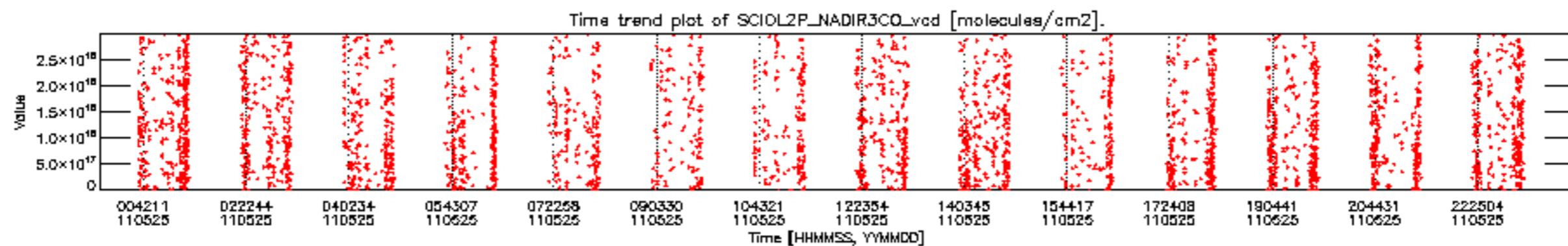


SCIOL2P\_NADUV8H2O\_vcd\_err for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

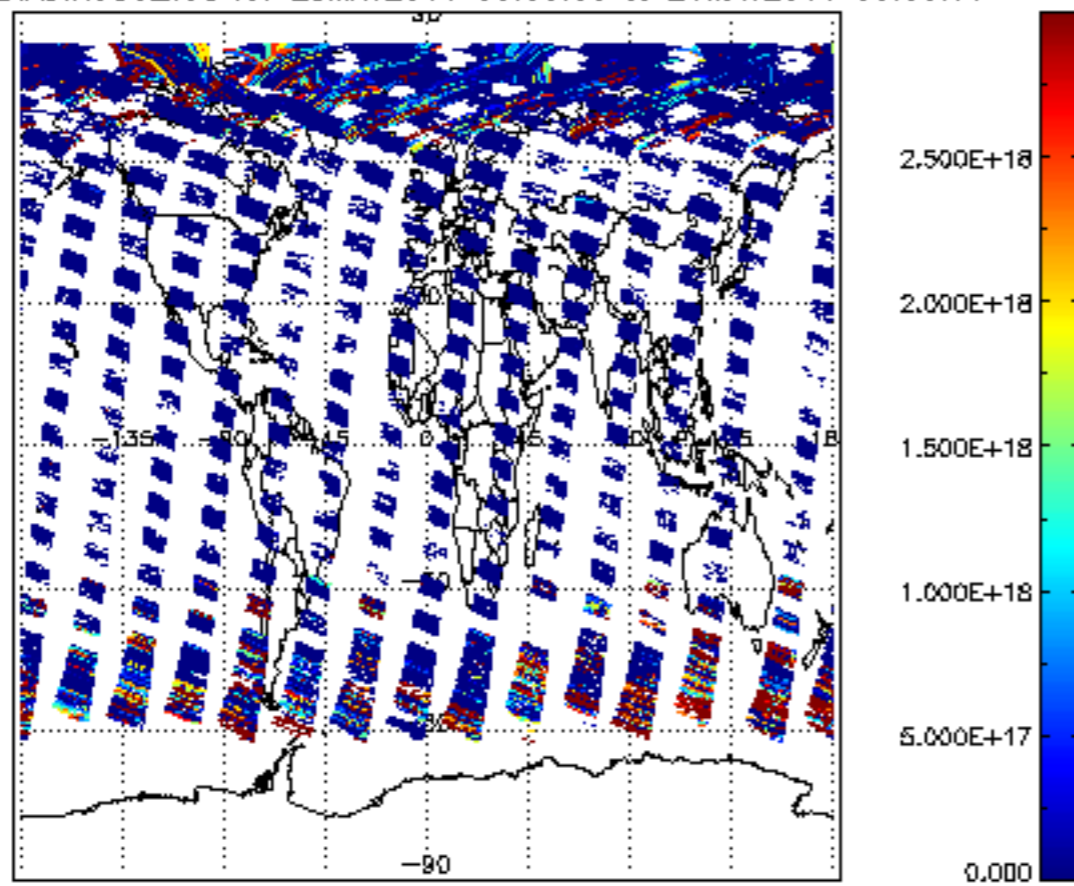


SCIOL2P\_NADUV8H2O\_amf\_gr for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

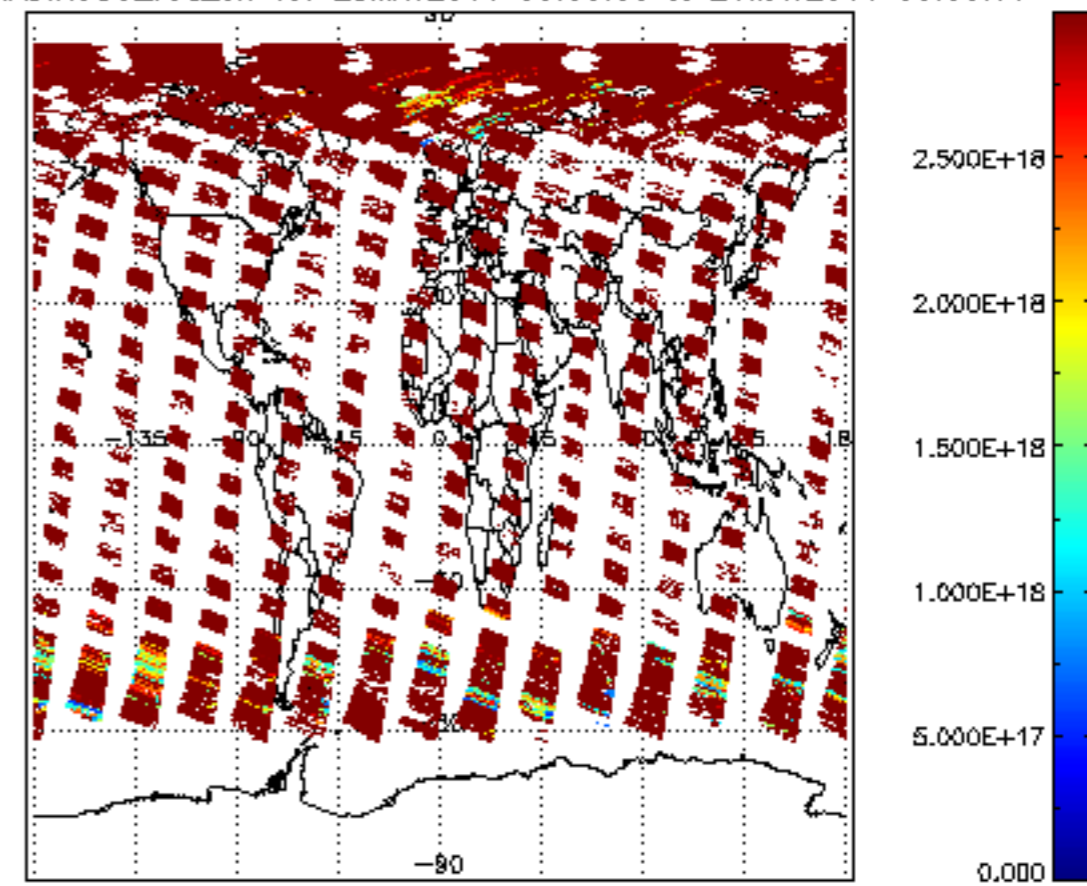




SCIOL2P\_NADIR3CO\_vcd for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

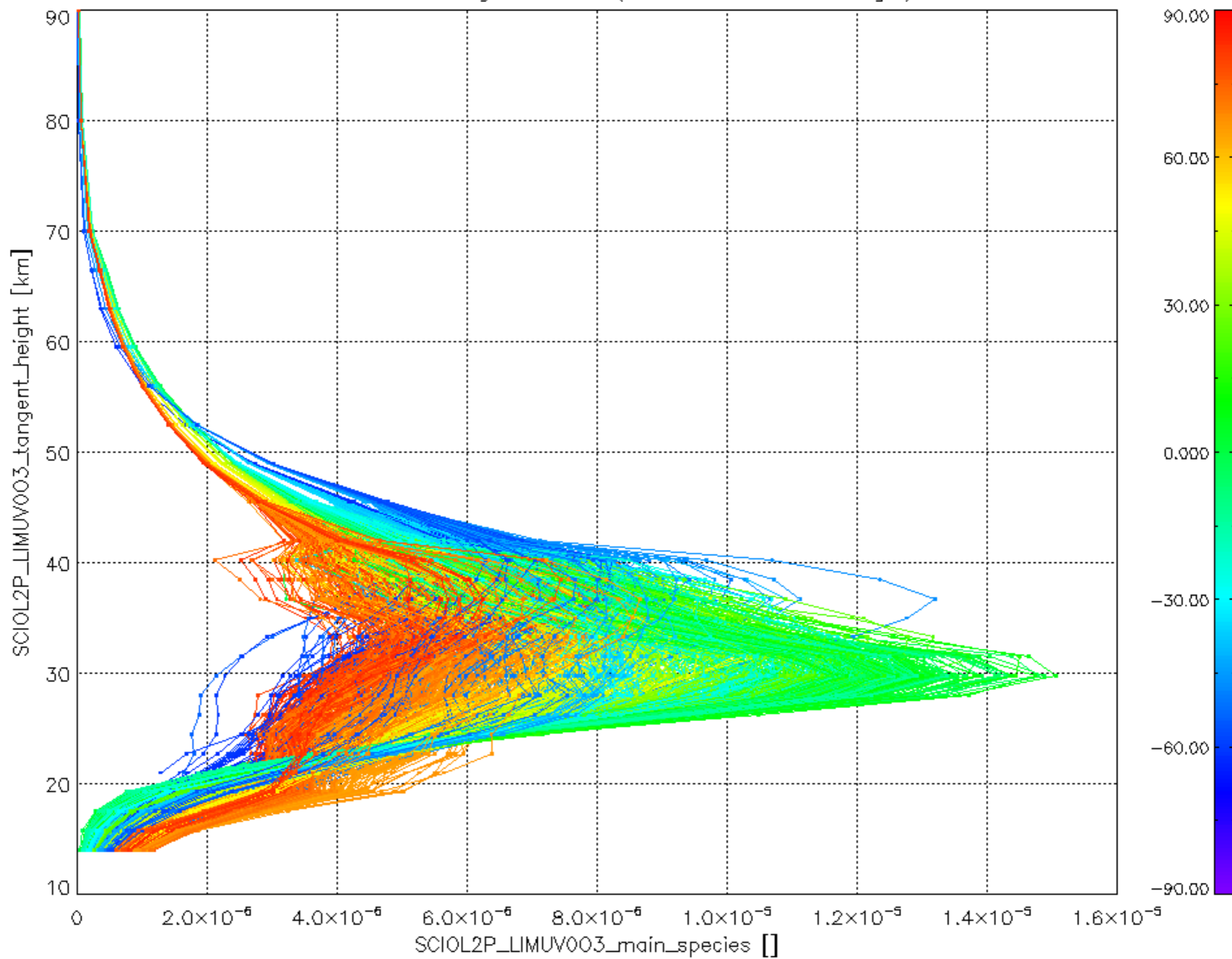


SCIOL2P\_NADIR3CO\_vcd\_err for 25MAY2011 00:00:00 to 26MAY2011 00:00:00

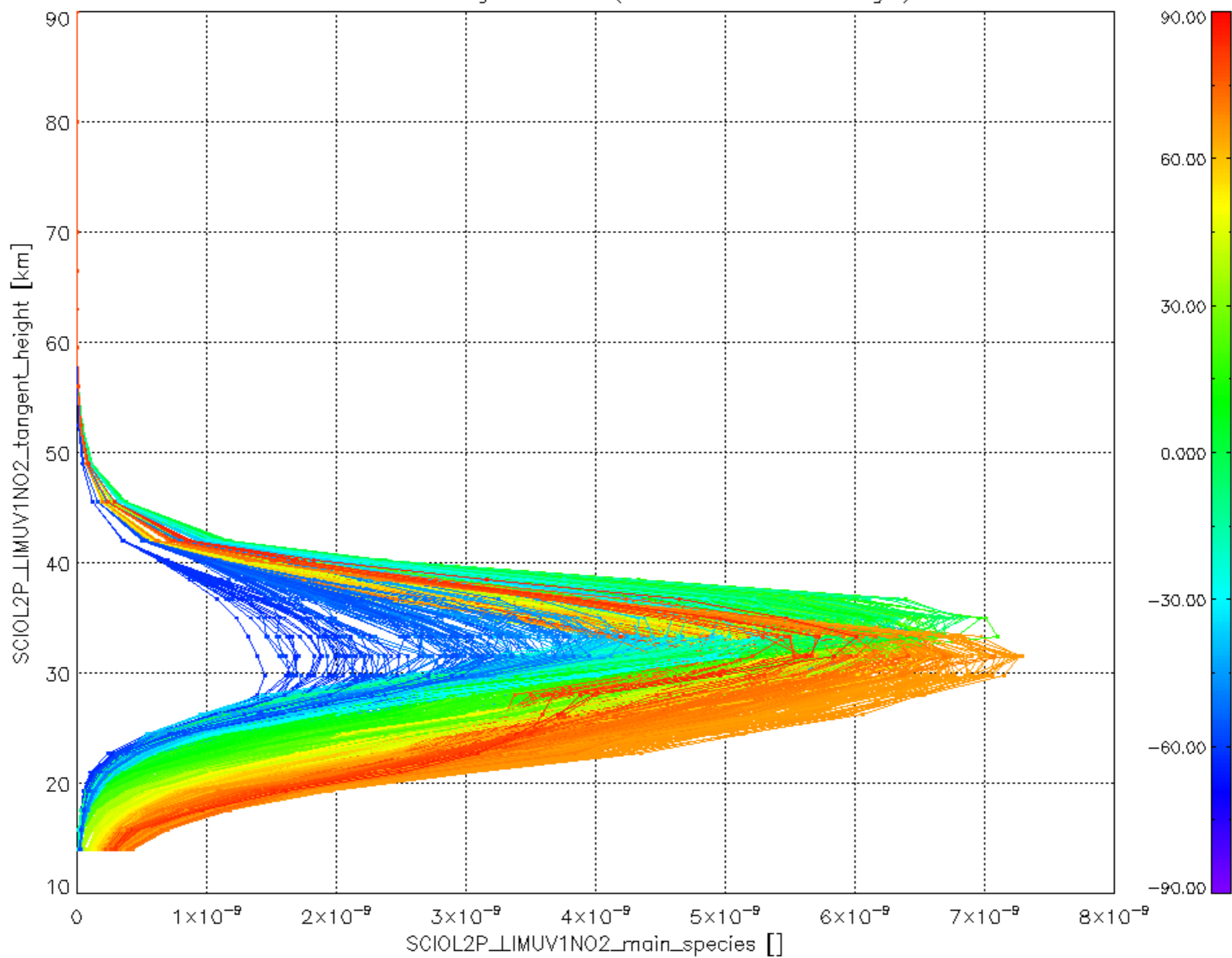




Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



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).

