

## 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	25OCT2011 07:28:50
Data source version	SCIA-OL/5.02-N
Processing scope for products	19OCT2011 00:00:00 to 20OCT2011 00:00:00
Start time of first product within scope	18OCT2011 23:11:07
Stop time of last product within scope	20OCT2011 01:12:25
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__2PNDPA20111018_231107_000035163107_00374_50388_1260.N1</a>	18OCT2011 23:11:07	19OCT2011 00:09:43	0	GOOD
1	<a href="#">SCI_OL__2PNDPA20111019_005121_000034613107_00375_50389_1261.N1</a>	<b>19OCT2011 00:51:21</b>	<b>19OCT2011 01:49:03</b>	0	GOOD
2	<a href="#">SCI_OL__2PNDPA20111019_023136_000022993107_00376_50390_1262.N1</a>	<b>19OCT2011 02:31:36</b>	<b>19OCT2011 03:09:55</b>	0	GOOD
3	<a href="#">SCI_OL__2PNDPA20111019_031108_000060793107_00377_50391_1263.N1</a>	<b>19OCT2011 03:11:08</b>	<b>19OCT2011 04:52:27</b>	0	GOOD
4	<a href="#">SCI_OL__2PNDPA20111019_045231_000059963107_00378_50392_1271.N1</a>	19OCT2011 04:52:31	19OCT2011 06:32:27	0	GOOD

5	SCI_OL__2PNDPA20111019_063231_000039923107_00379_50393_1267.N1	19OCT2011 06:32:31	19OCT2011 07:39:04	0	GOOD
6	SCI_OL__2PNDPA20111019_073813_000060653107_00380_50394_1268.N1	19OCT2011 07:38:13	19OCT2011 09:19:18	0	GOOD
7	SCI_OL__2PNDPA20111019_091922_000060103107_00381_50395_1269.N1	19OCT2011 09:19:22	19OCT2011 10:59:32	0	GOOD
8	SCI_OL__2PNDPA20111019_105936_000059423107_00382_50396_1270.N1	19OCT2011 10:59:36	19OCT2011 12:38:38	0	GOOD
9	SCI_OL__2PNDPA20111019_123842_000059563107_00383_50397_1272.N1	19OCT2011 12:38:42	19OCT2011 14:17:58	0	GOOD
10	SCI_OL__2PNDPA20111019_141911_000057113107_00384_50398_1276.N1	19OCT2011 14:19:11	19OCT2011 15:54:22	0	GOOD
11	SCI_OL__2PNDPA20111019_155425_000034613107_00385_50399_1273.N1	19OCT2011 15:54:25	19OCT2011 16:52:07	0	GOOD
12	SCI_OL__2PNDPA20111019_173435_000034623107_00386_50400_1274.N1	19OCT2011 17:34:35	19OCT2011 18:32:17	0	GOOD
13	SCI_OL__2PNDPA20111019_191413_000034473107_00387_50401_1275.N1	19OCT2011 19:14:13	19OCT2011 20:11:41	0	GOOD
14	SCI_OL__2PNDPA20111019_205415_000033933107_00388_50402_1280.N1	19OCT2011 20:54:15	19OCT2011 21:50:48	0	GOOD
15	SCI_OL__2PNDPA20111019_223429_000035163107_00388_50402_1290.N1	19OCT2011 22:34:29	19OCT2011 23:33:05	0	GOOD
16	SCI_OL__2PNDPA20111020_001443_000034613107_00389_50403_1284.N1	20OCT2011 00:14:43	20OCT2011 01:12:25	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: 160556

Total number of cloud data DSRs with good quality flag (=0): 160556 (100.0 %)

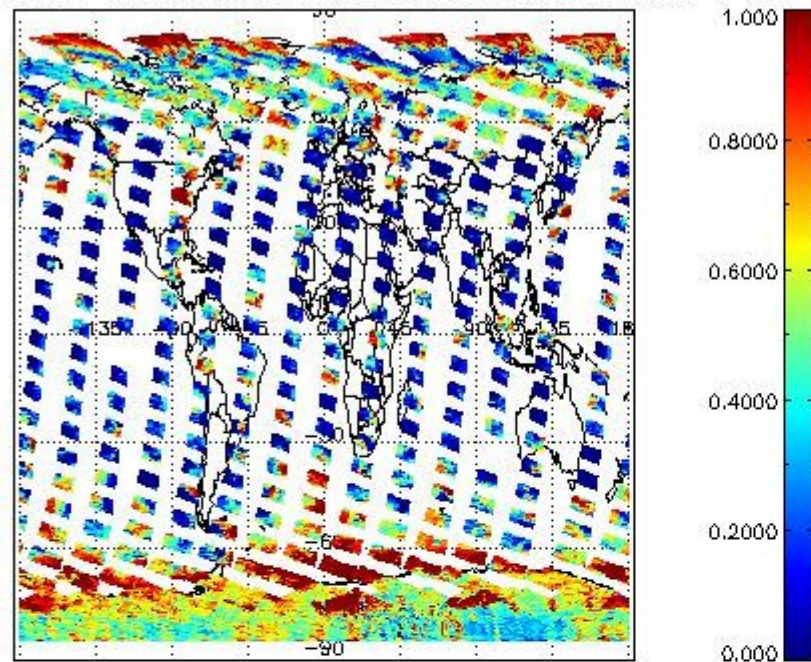
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	160556	0.0000	0.0000	0.0000	0.0000	0.0000	
INTEGR_TIME	160556	0.16548	0.12500	0.12500	0.25000	0.058494	s
CL_FRAC	160556	0.44598	0.44543	0.0000	1.0000	0.31652	
CL_FRAC_ERR	160556	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	160556	5.2955	4.0000	4.0000	8.0000	1.8718	
PMD_READ_CL[0]	160556	0.53834	0.0000	0.0000	8.0000	1.3383	-
PMD_READ_CL[1]	160556	1.2370	0.0000	0.0000	8.0000	2.5194	-
CL_TOP_HEIGHT	130736	4.0670	3.0191	0.0000	17.000	3.9595	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	130736	57.958	57.901	0.0000	101.00	41.045	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	160556	11100000	11100000	11100000	11100000	0.0000	
CLOUD_FLAGS	160556	11001100	11000100	11000000	11100000	3461.9	
AERO_ABSO_IND	160556	0.10092	0.0000	0.0000	6.0735	0.29955	
AERO_IND_DIAG	160556	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	160556	01010101	00000000	00000000	11000000	24420.	

#### Time and geolocation plots:

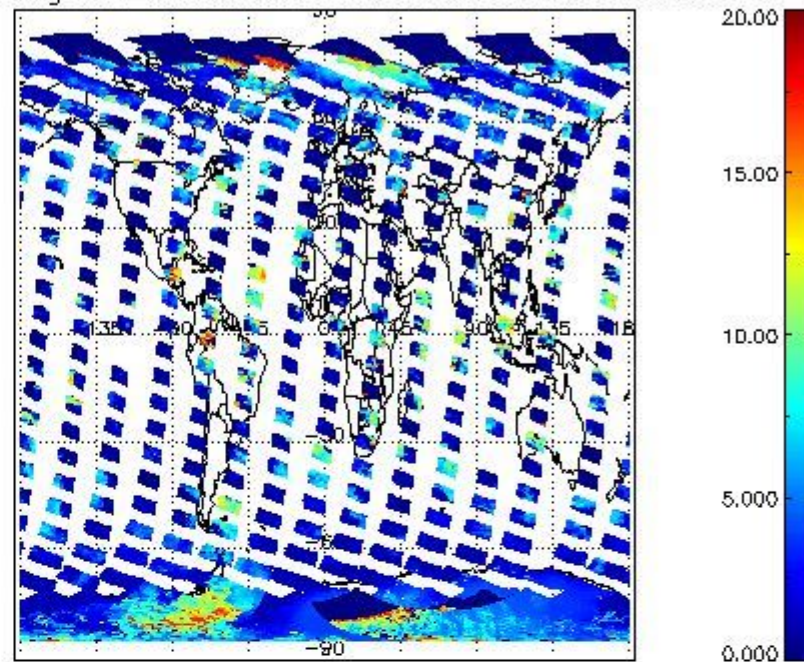
Plots are available for the following parameters:

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

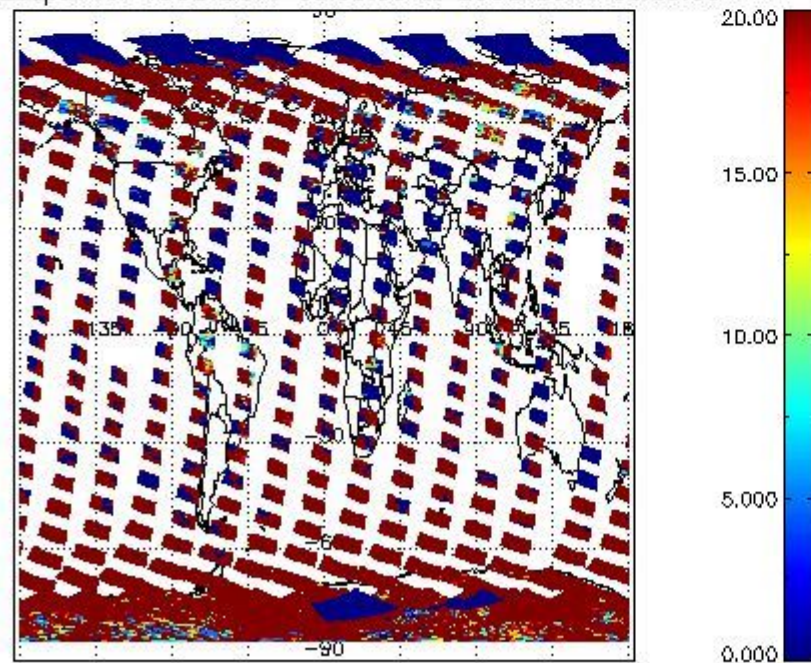
cLfrac for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



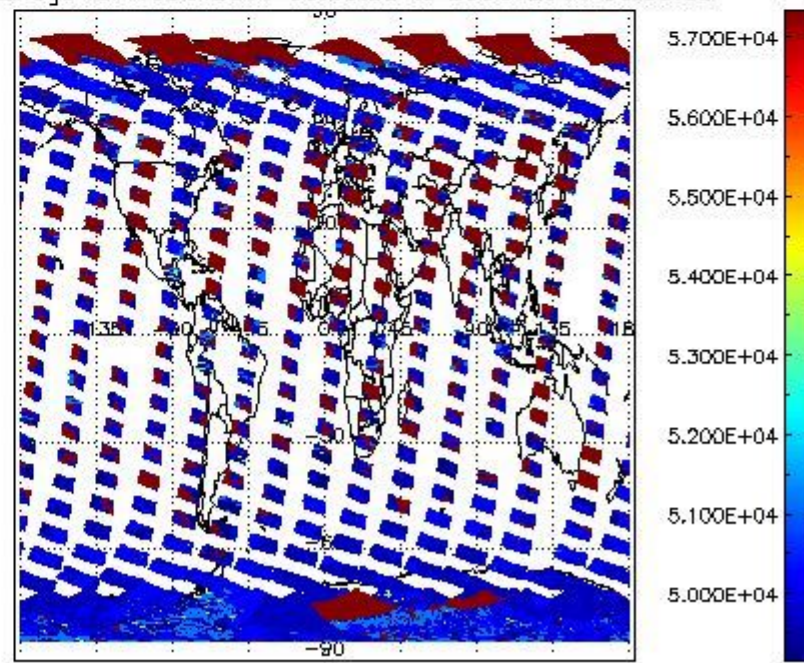
cL\_top\_height for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



cL\_opt\_depth for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



cloud\_flags for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



## 2.2.2 Nadir

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

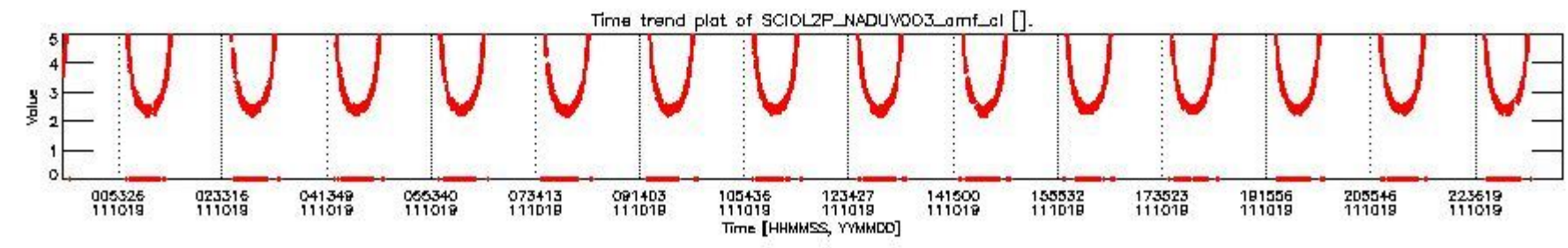
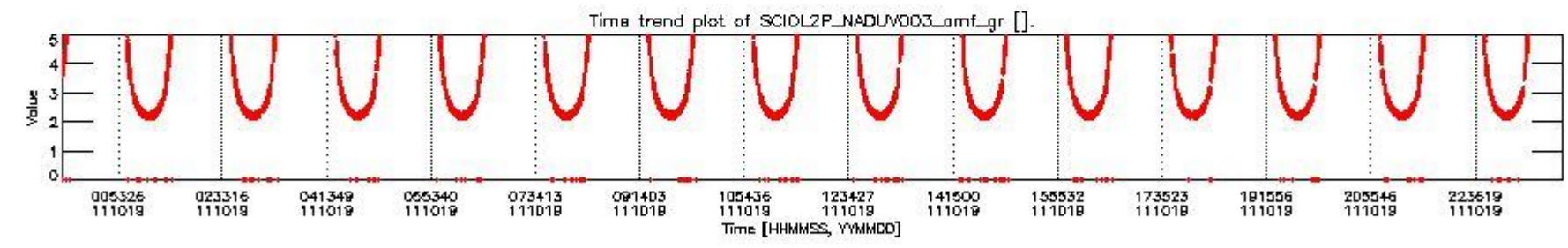
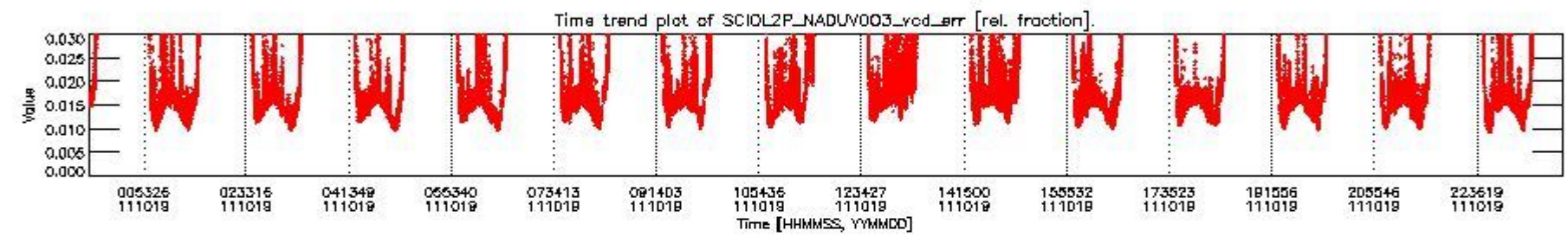
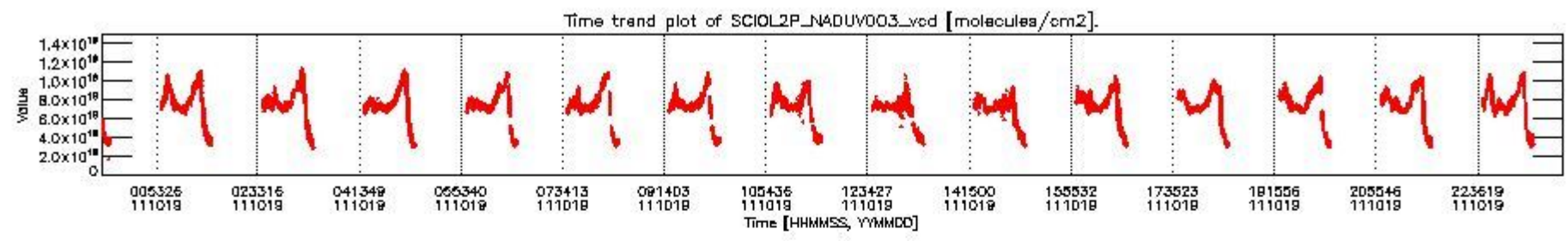
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

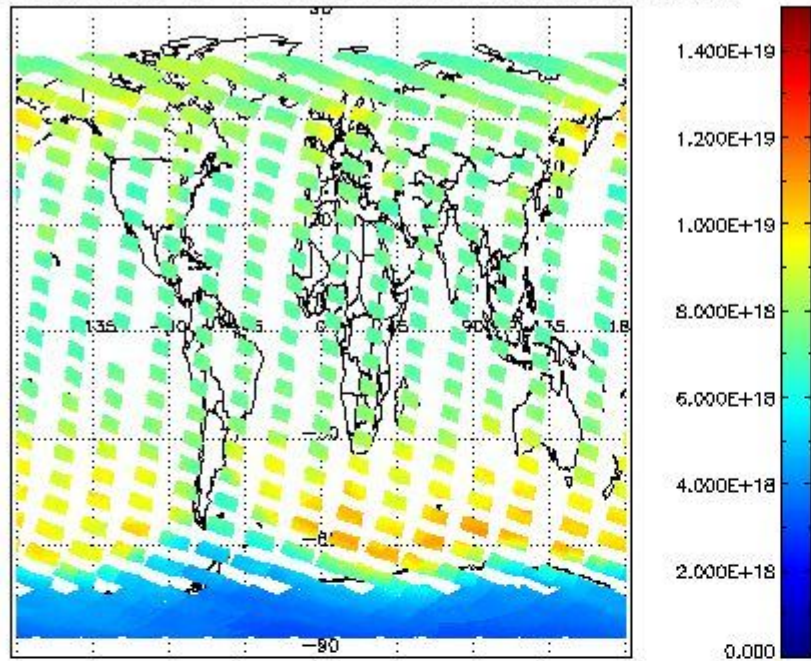
3	SCIOL2P_NADUV0O3_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl
8	SCIOL2P_NADUV3BRO_vcd
9	SCIOL2P_NADUV3BRO_vcd_err
10	SCIOL2P_NADUV3BRO_amf_gr
11	SCIOL2P_NADUV3BRO_amf_cl
12	SCIOL2P_NADUV5SO2_vcd
13	SCIOL2P_NADUV5SO2_vcd_err
14	SCIOL2P_NADUV5SO2_amf_gr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

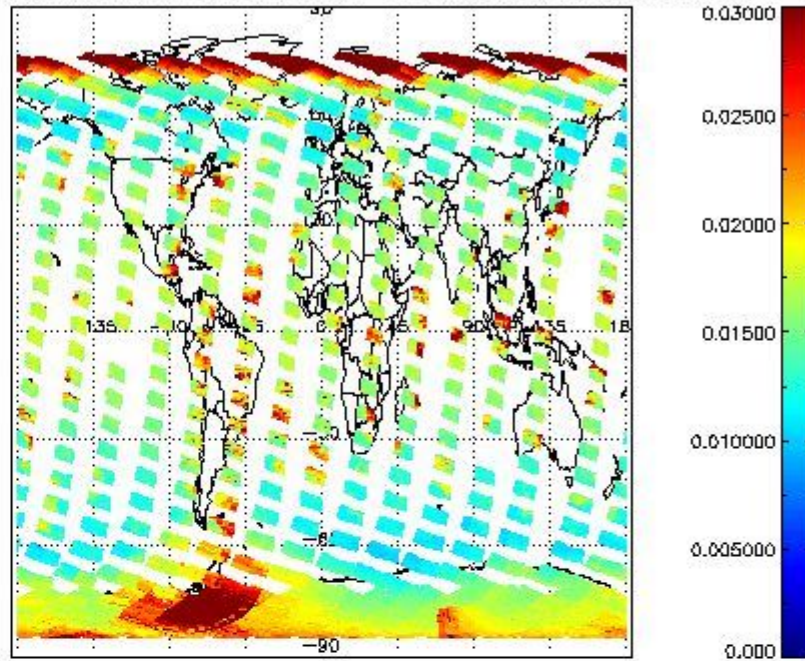
#### 2.2.2.1 O3 (UV0)



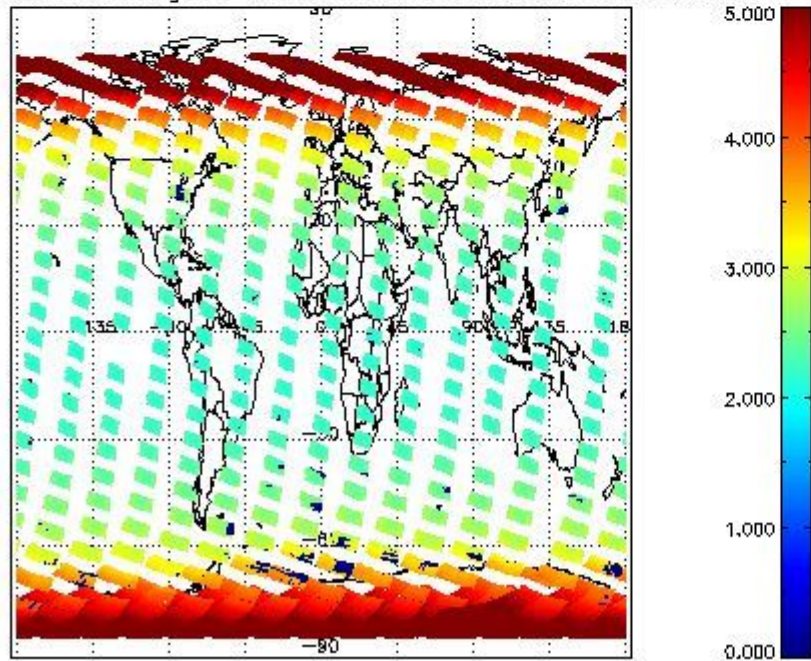
SCIOL2P\_NADUV003\_vcd for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



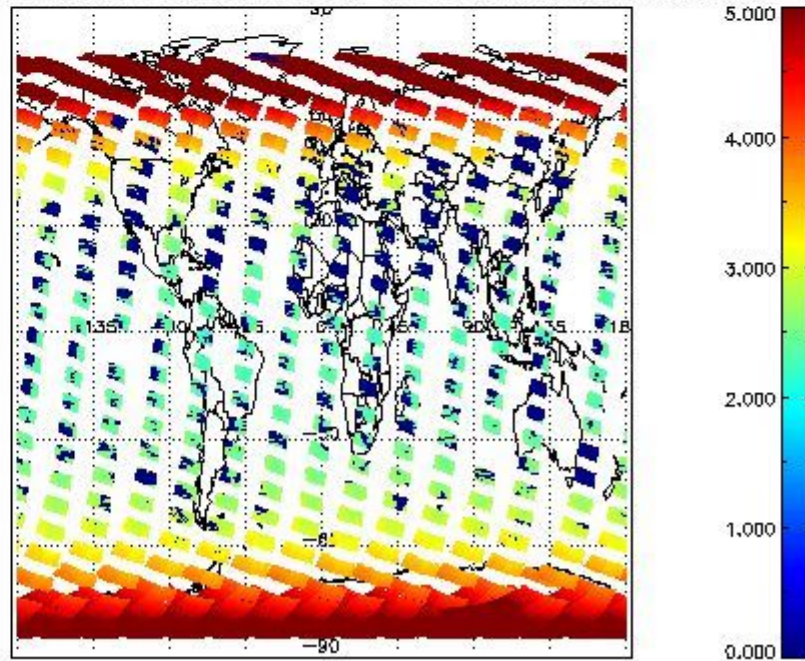
SCIOL2P\_NADUV003\_vcd\_err for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



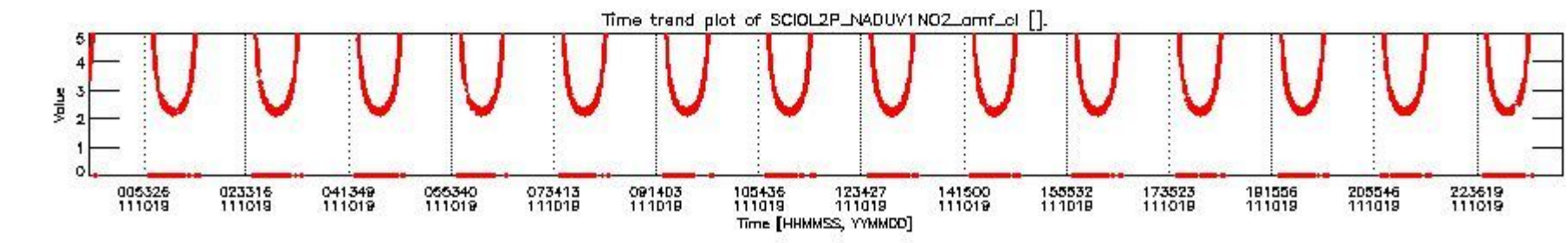
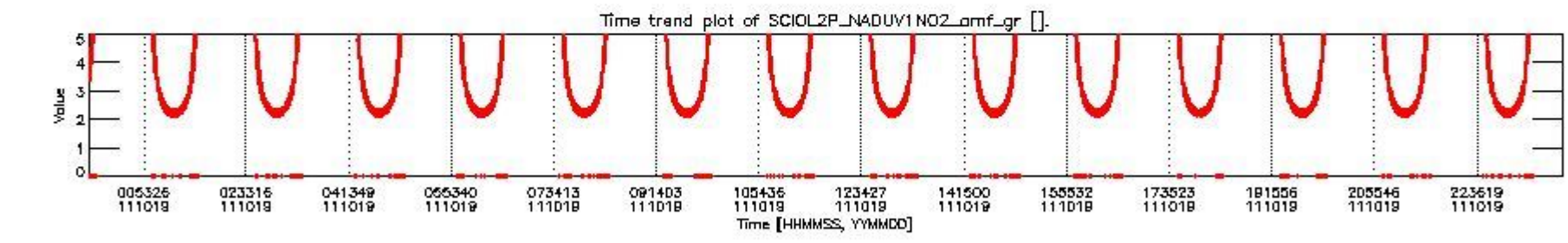
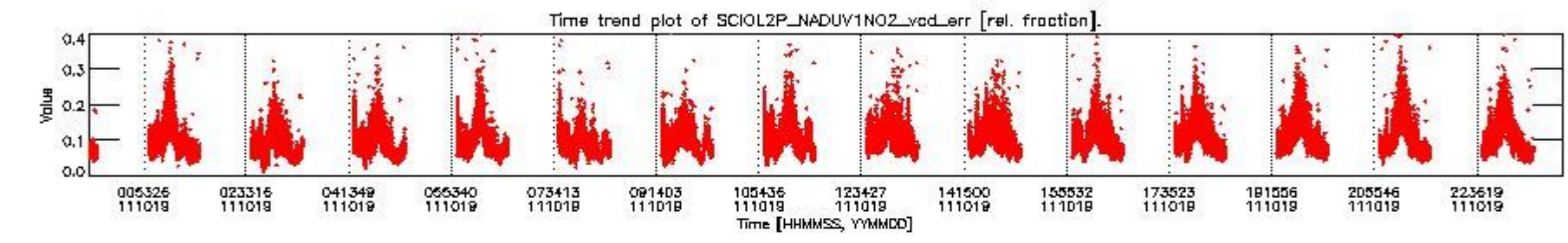
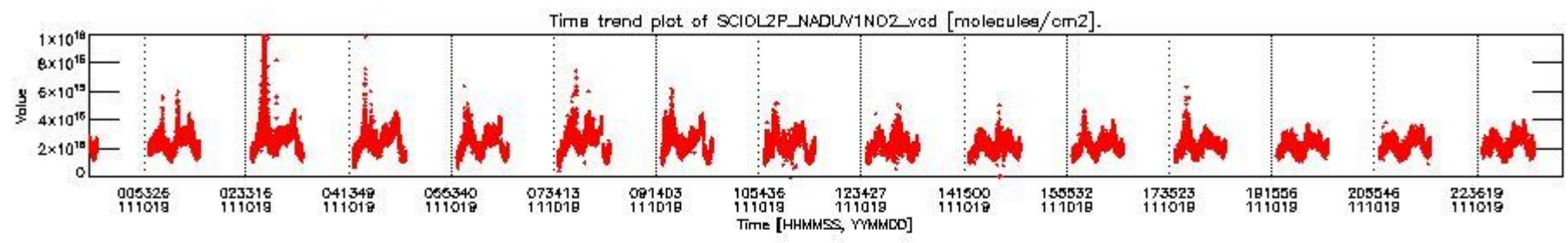
SCIOL2P\_NADUV003\_amf\_gr for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



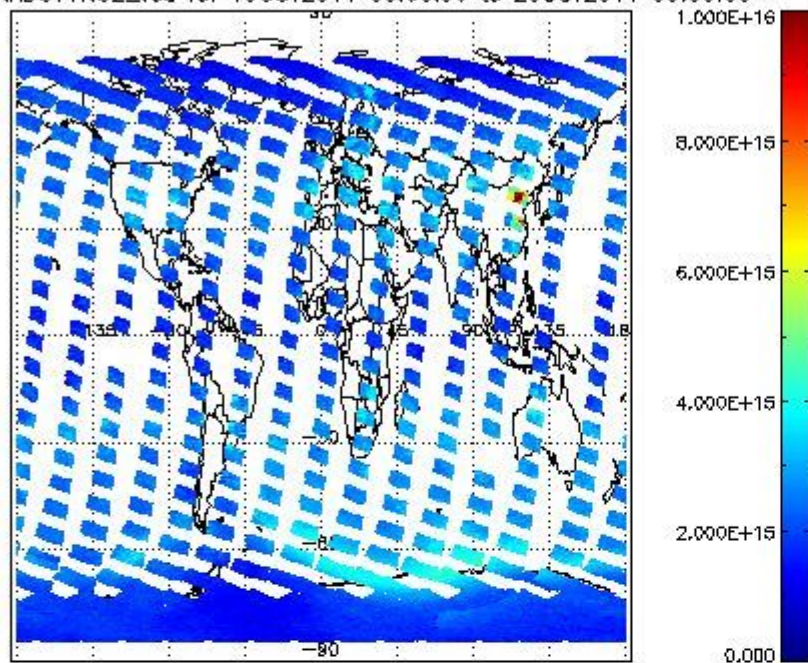
SCIOL2P\_NADUV003\_amf\_cl for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



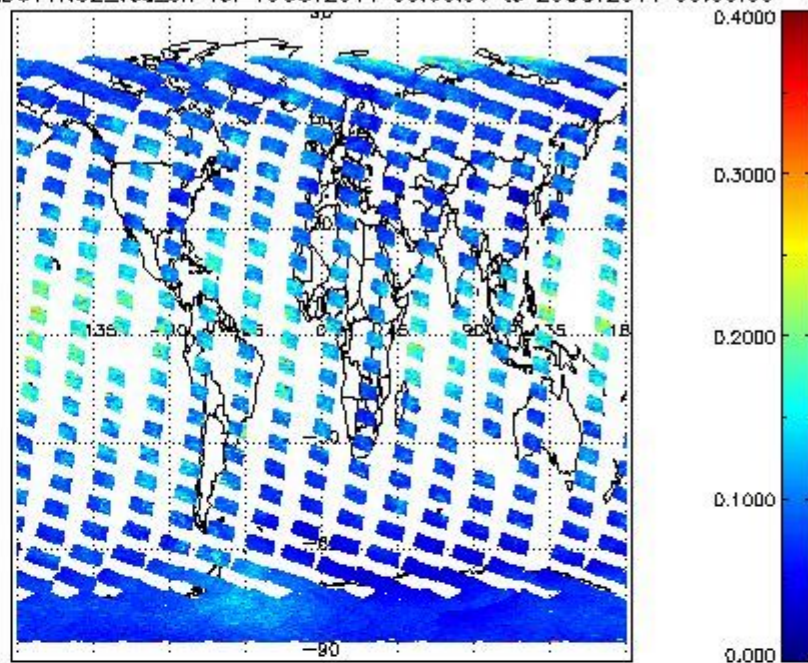
2.2.2.2 NO2 (UV1)



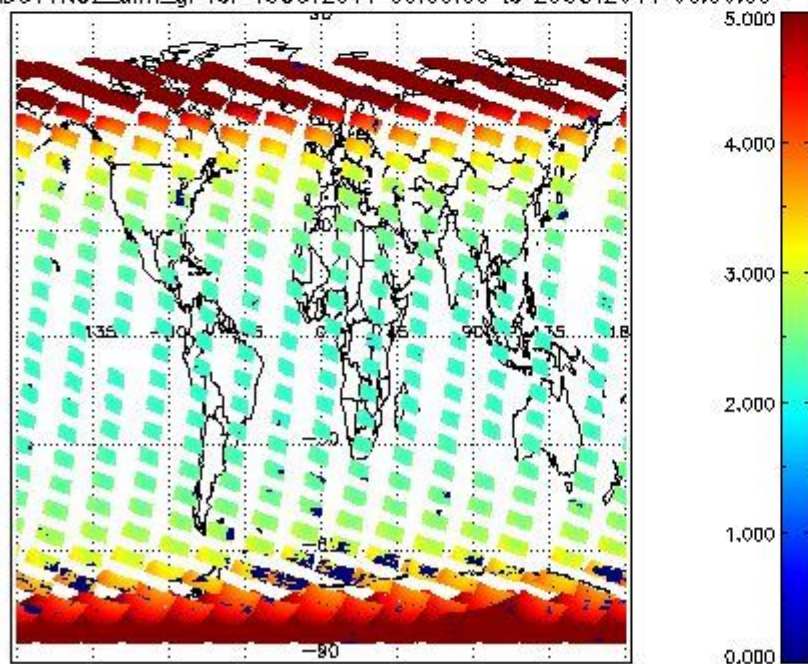
SCIOL2P\_NADUV1NO2\_vcd for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



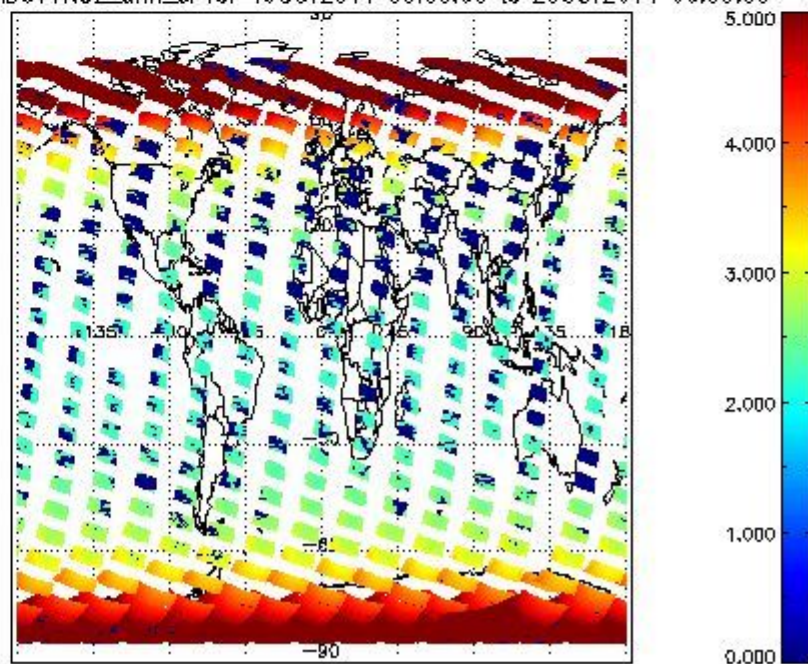
SCIOL2P\_NADUV1NO2\_vcd\_err for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

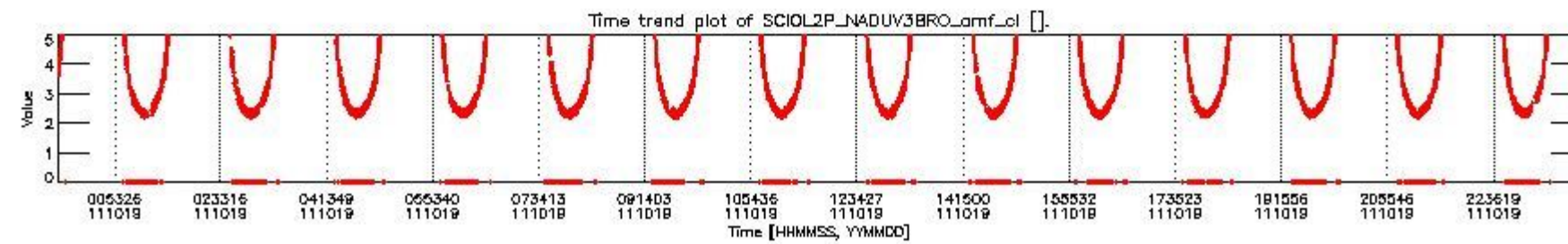
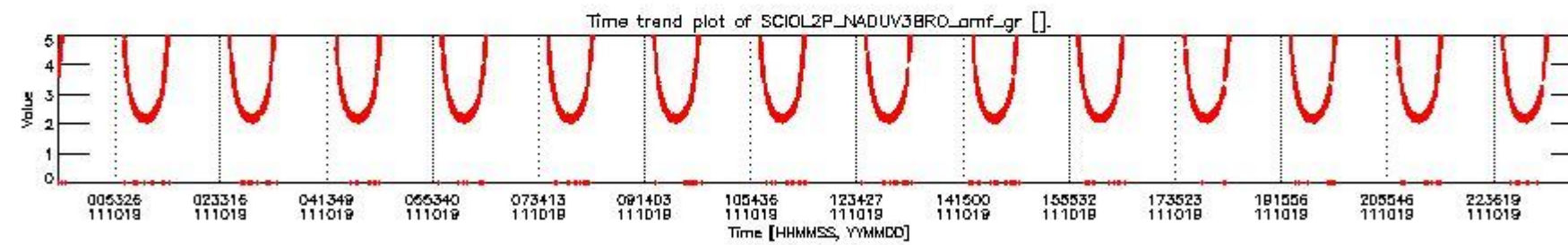
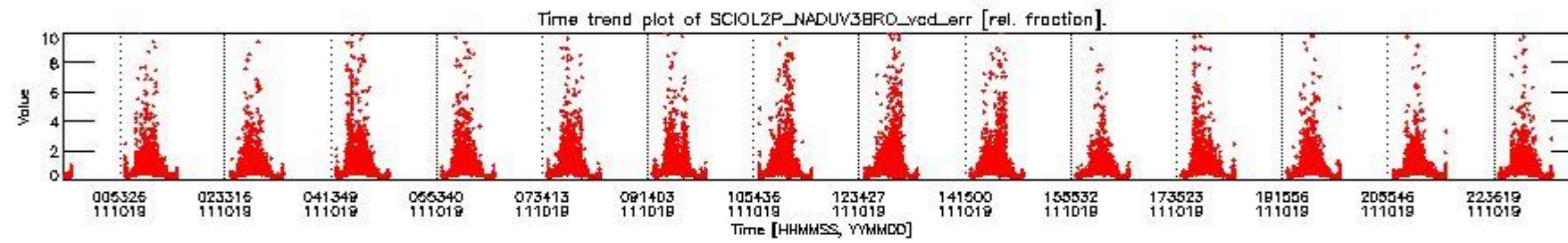
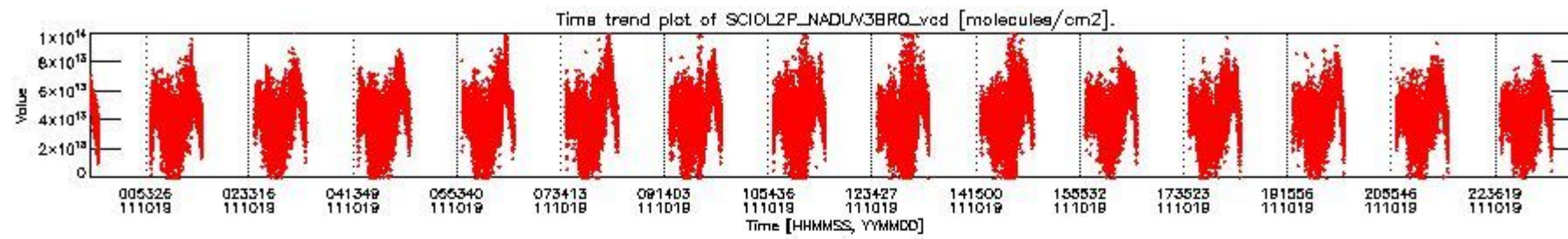


SCIOL2P\_NADUV1NO2\_amf\_cl for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

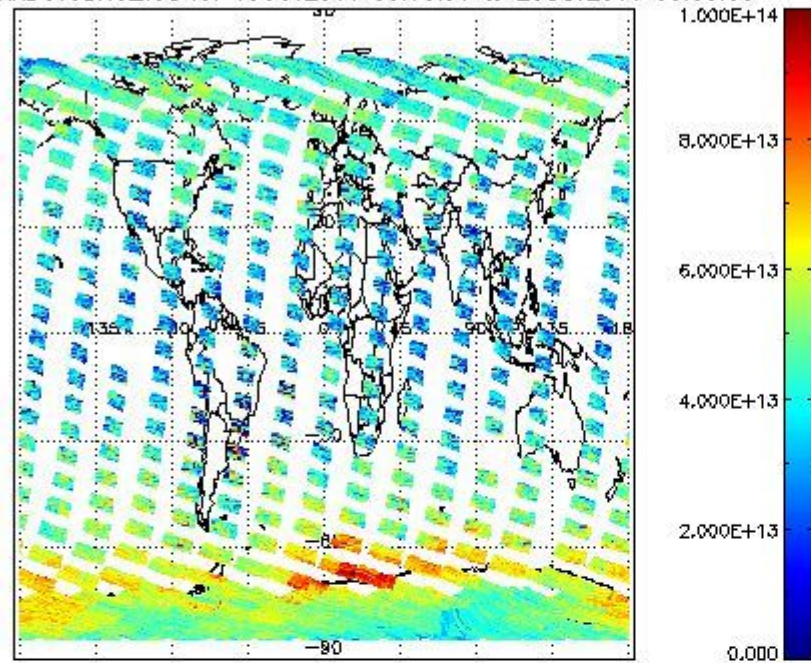


2.2.2.3 Bro (UV3)

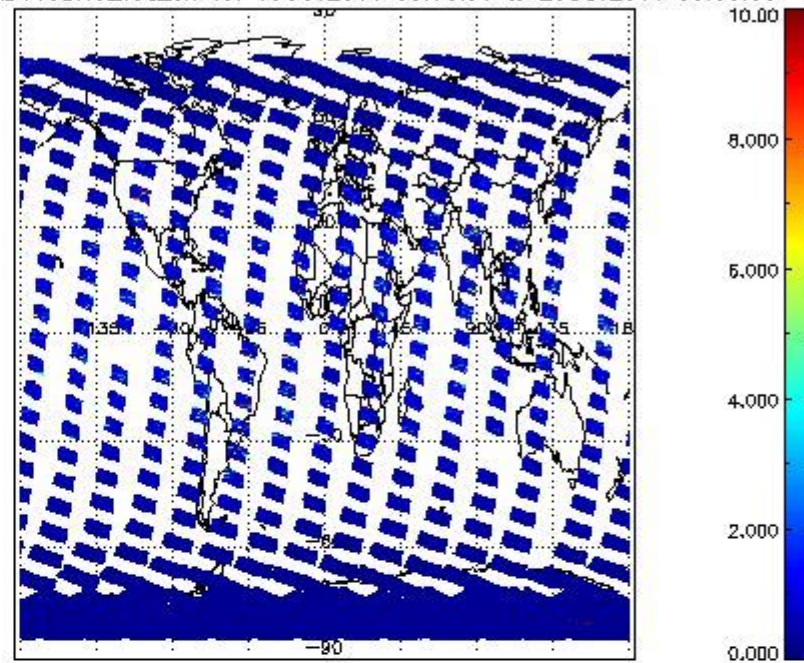




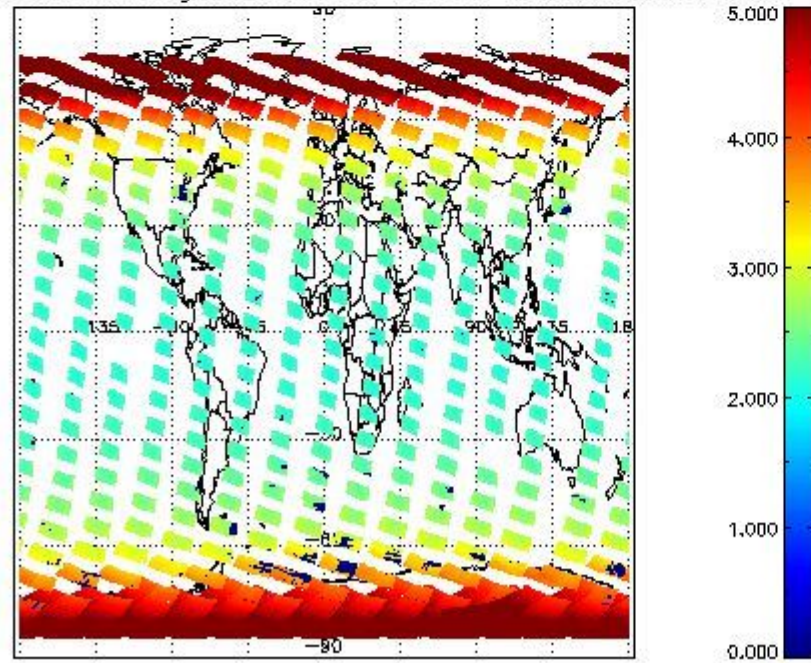
SCIOL2P\_NADUV3BRO\_vcd for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



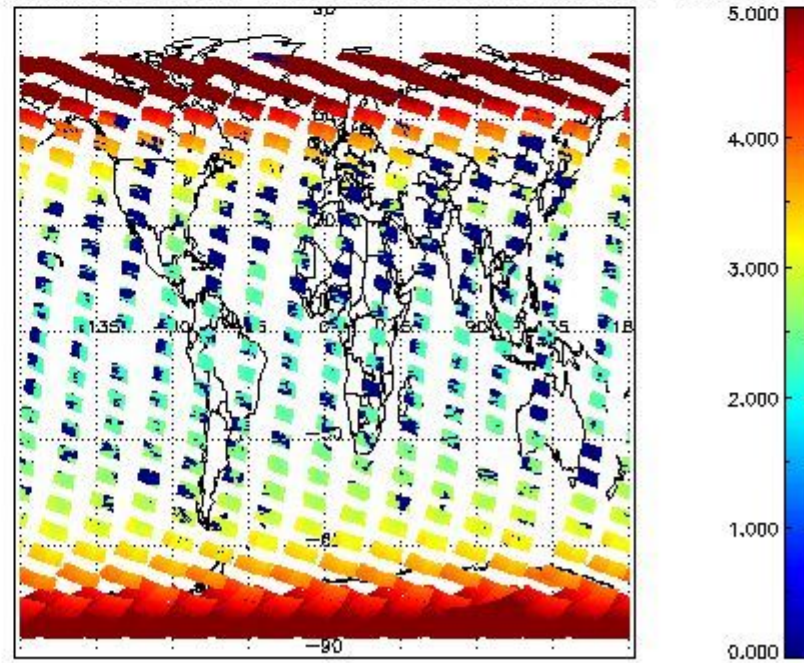
SCIOL2P\_NADUV3BRO\_vcd\_err for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



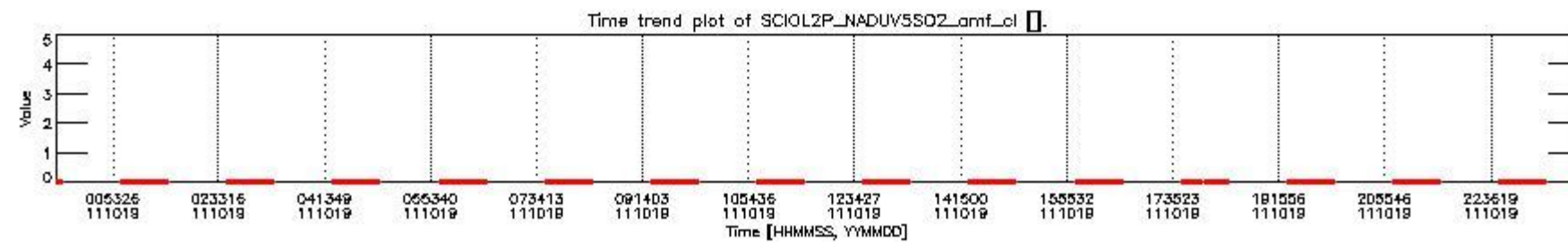
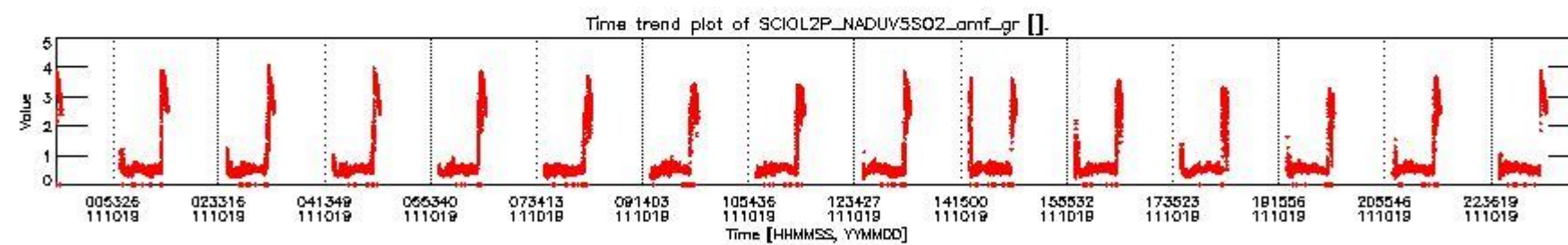
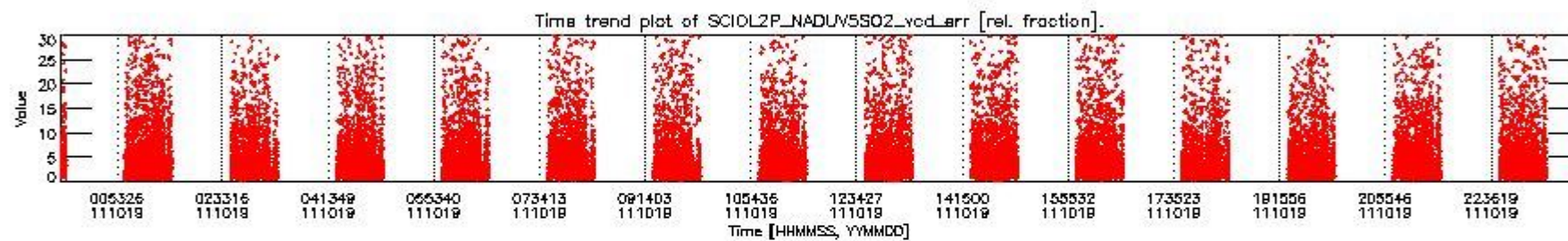
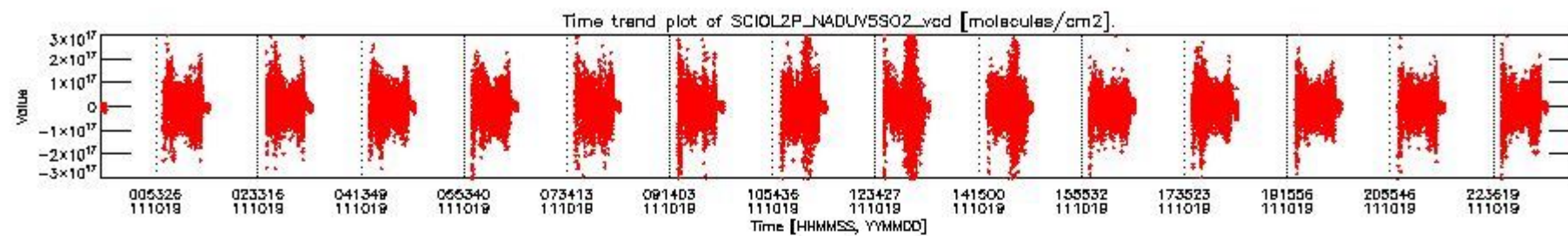
SCIOL2P\_NADUV3BRO\_amf\_gr for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



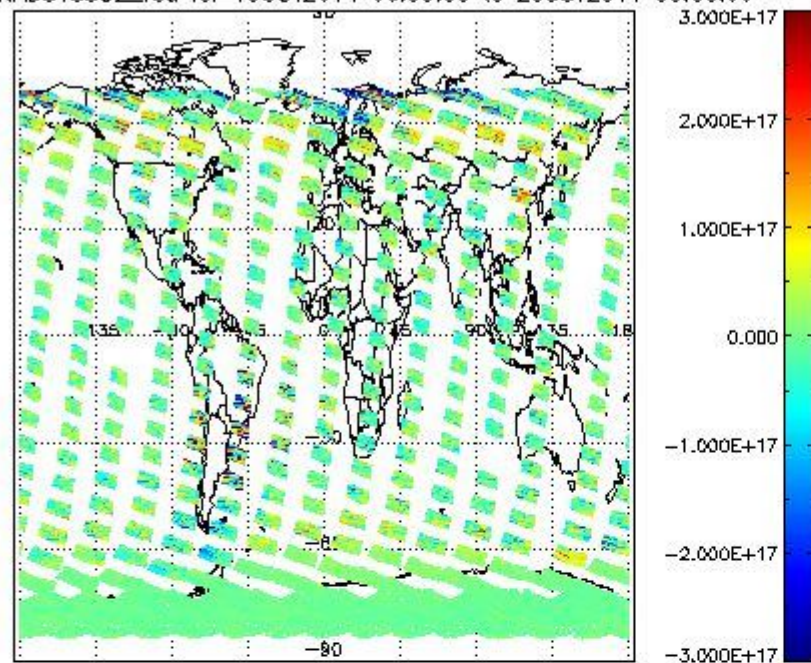
SCIOL2P\_NADUV3BRO\_amf\_cl for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



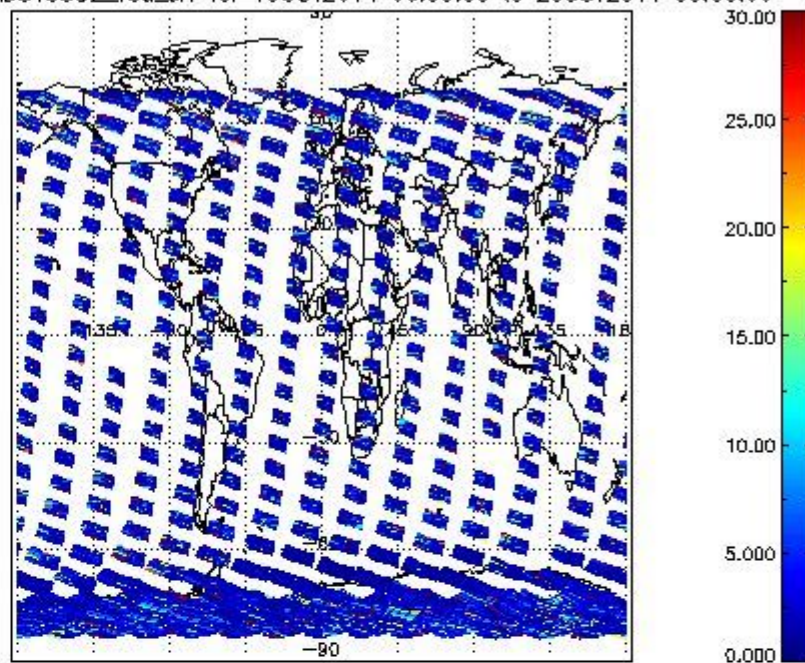
#### 2.2.2.4 SO2 (UV5)



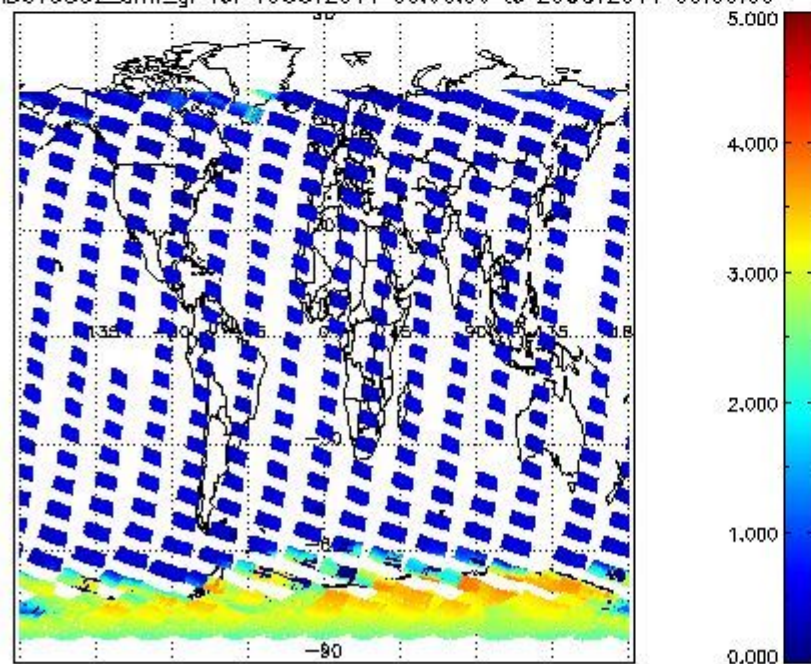
SCIOL2P\_NADUV5SO2\_vcd for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



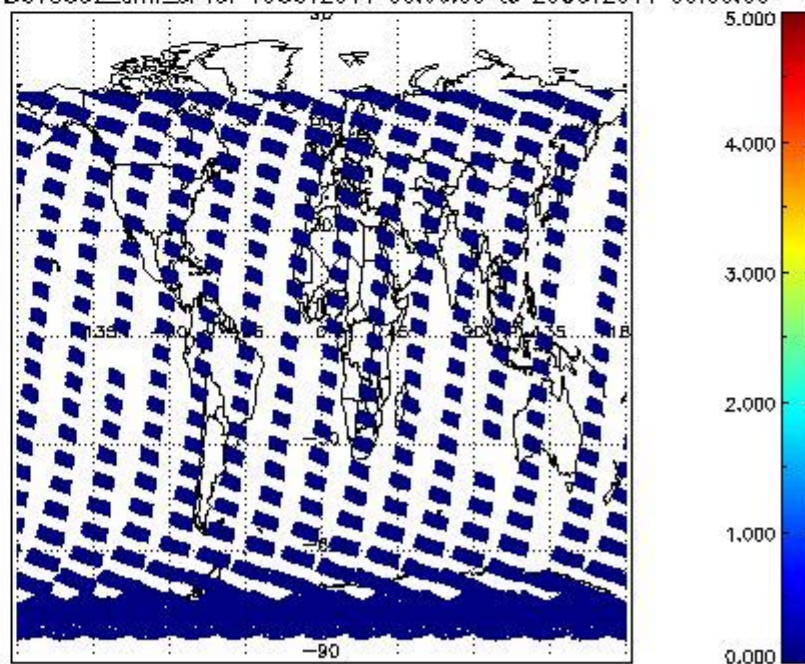
SCIOL2P\_NADUV5SO2\_vcd\_err for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



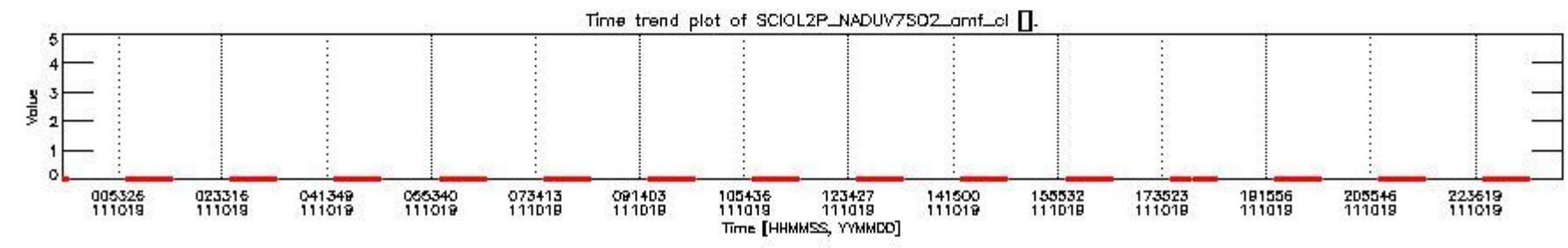
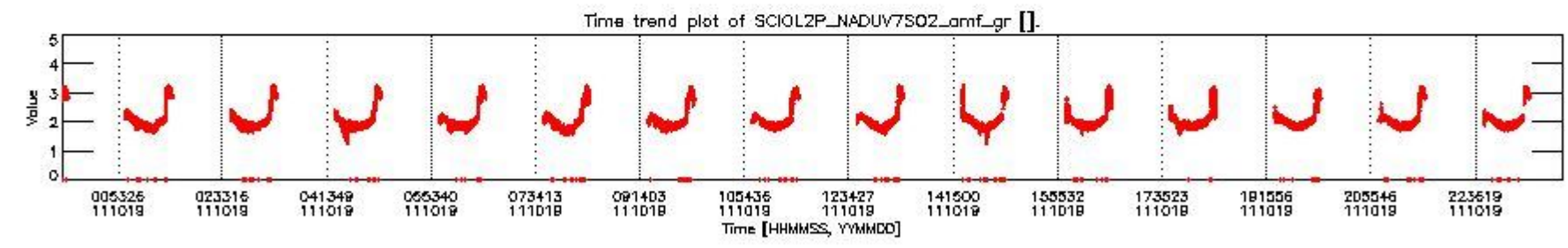
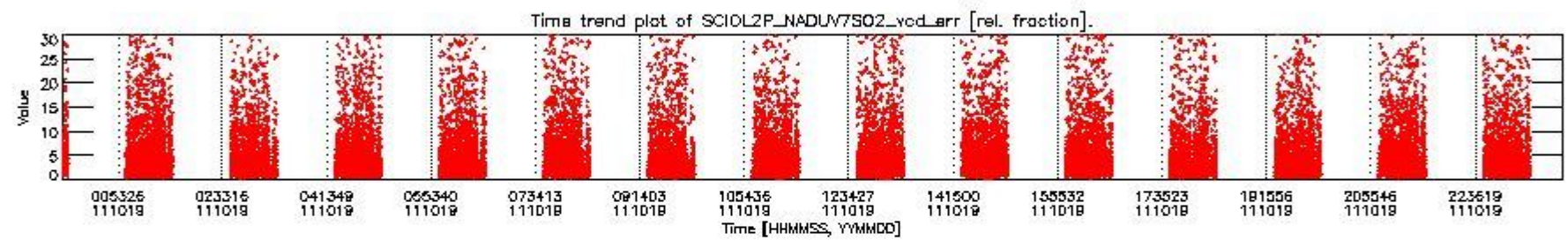
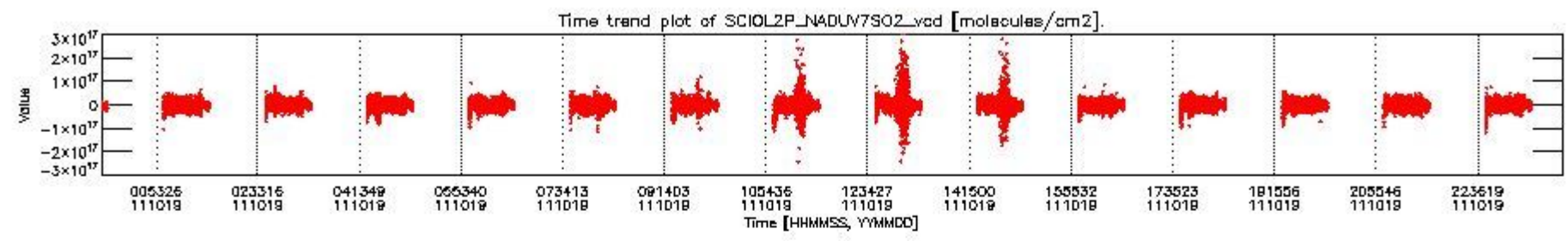
SCIOL2P\_NADUV5SO2\_amf\_gr for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



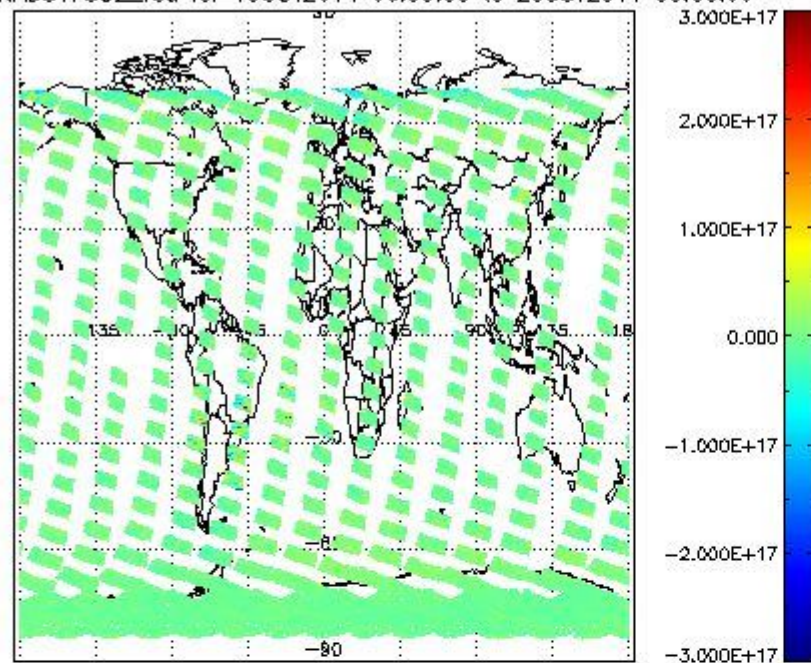
SCIOL2P\_NADUV5SO2\_amf\_cl for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



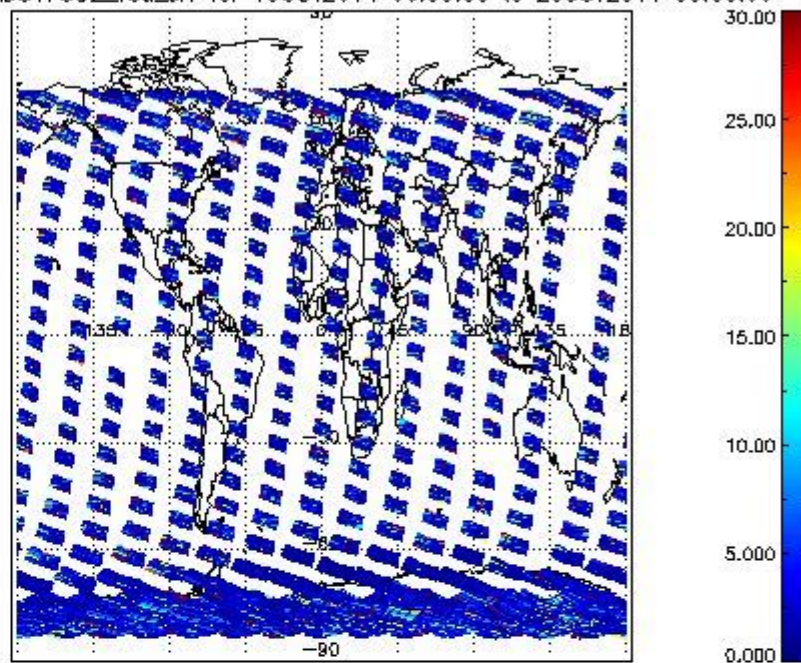
2.2.2.5 SO2 (UV7)



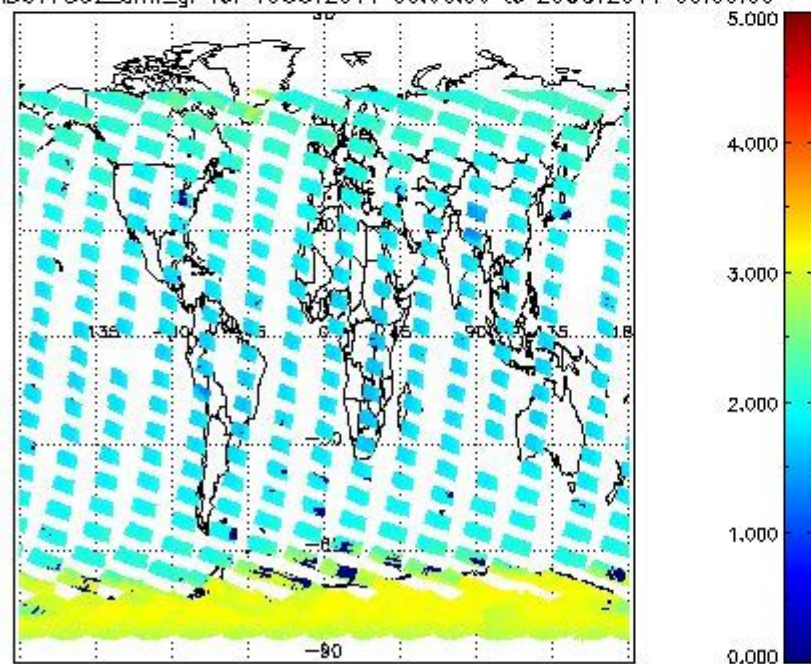
SCIOL2P\_NADUV7S02\_vcd for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



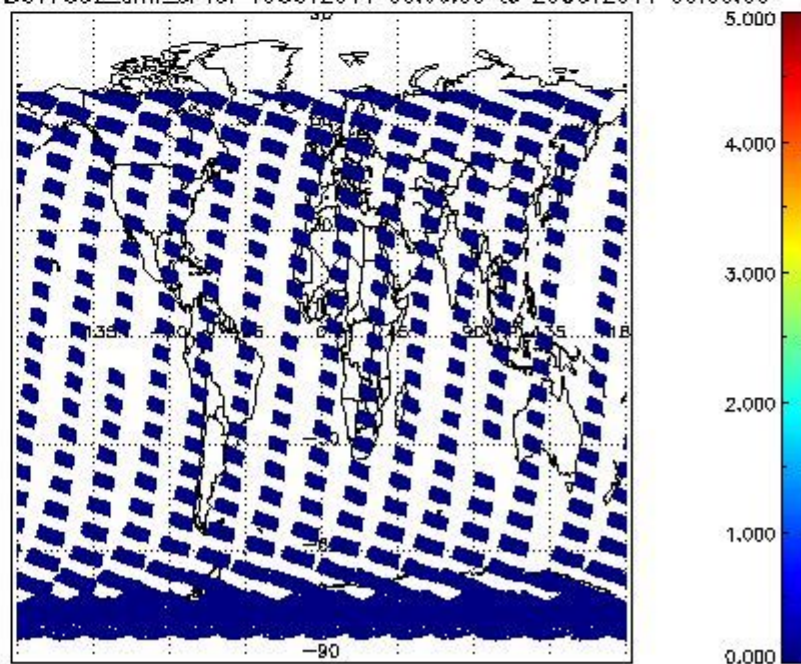
SCIOL2P\_NADUV7S02\_vcd\_err for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



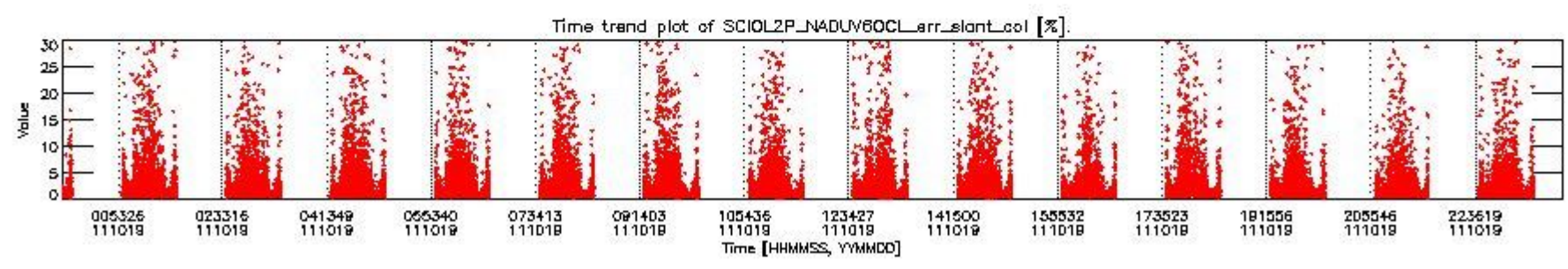
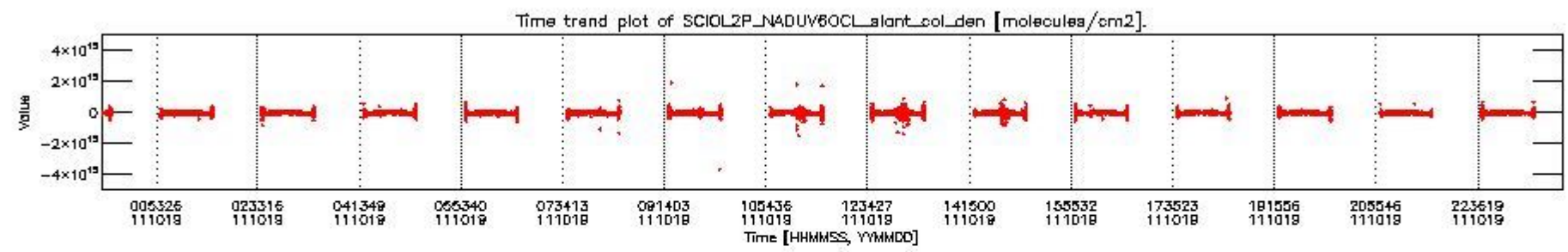
SCIOL2P\_NADUV7S02\_amf\_gr for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



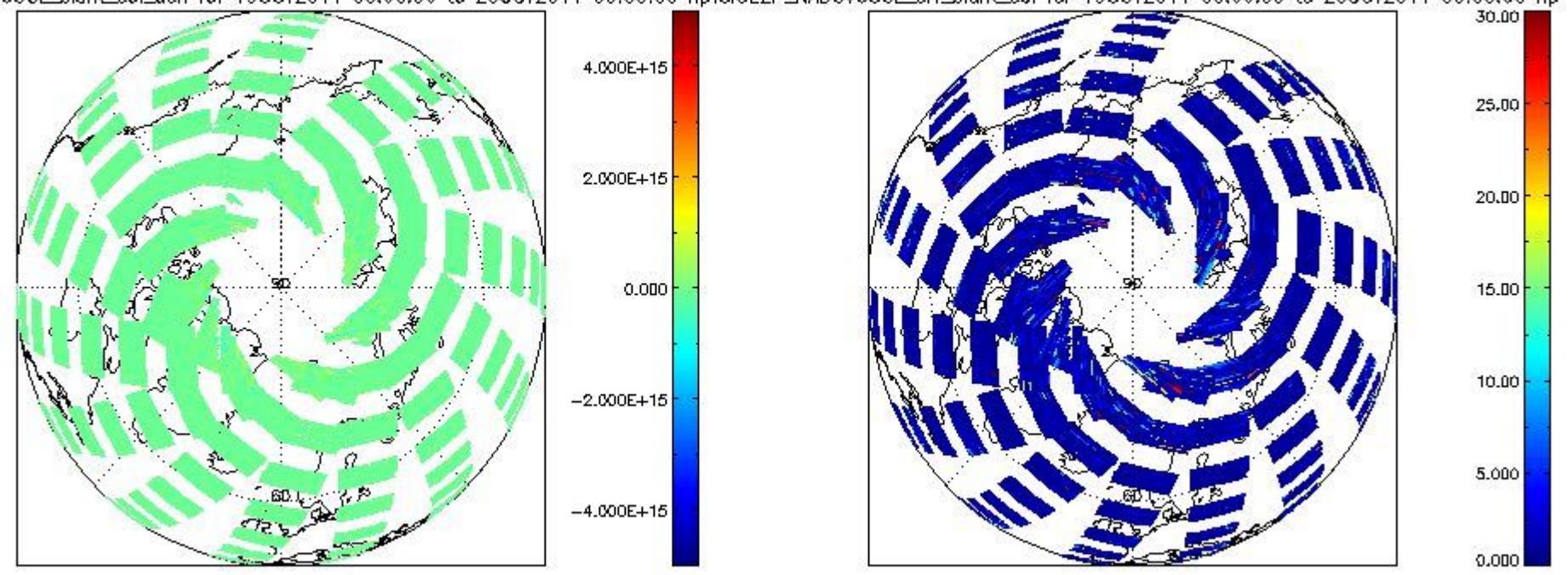
SCIOL2P\_NADUV7S02\_amf\_cl for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



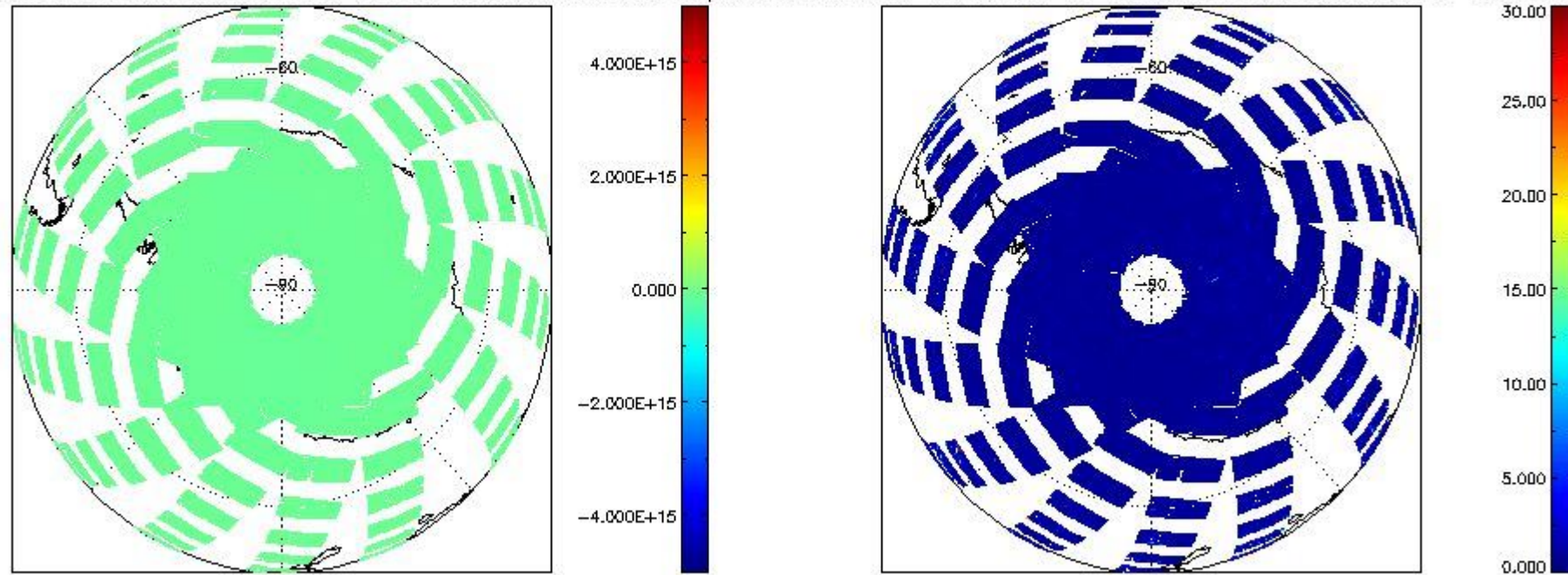
2.2.2.6 OCIO (UV6)



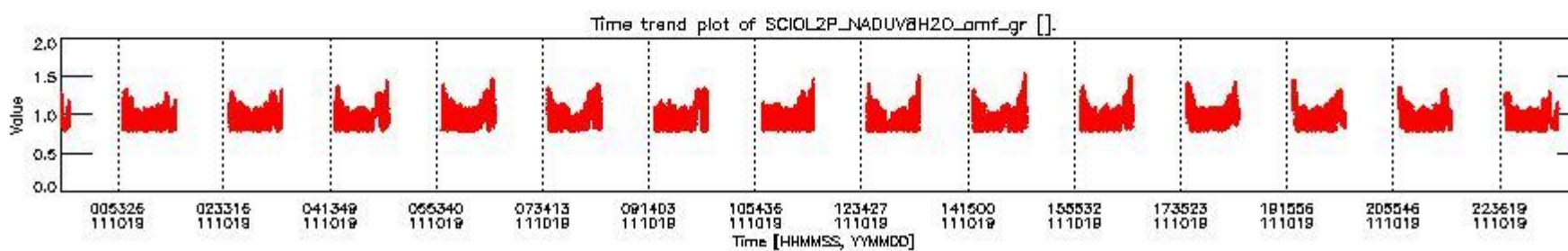
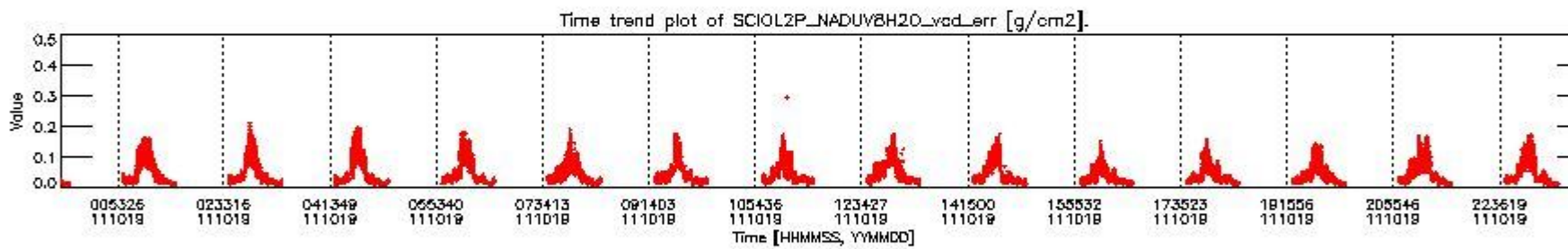
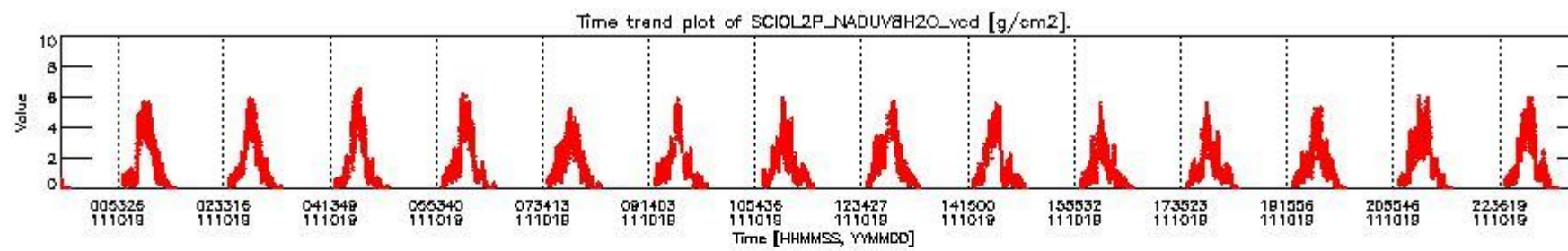
CIOL2P\_NADUV60CL\_slant\_col\_den for 19OCT2011 00:00:00 to 20OCT2011 00:00:00 np CIOL2P\_NADUV60CL\_err\_slant\_col for 19OCT2011 00:00:00 to 20OCT2011 00:00:00 np



CIOL2P\_NADUV60CL\_slant\_col\_den for 19OCT2011 00:00:00 to 20OCT2011 00:00:00 sp; CIOL2P\_NADUV60CL\_err\_slant\_col for 19OCT2011 00:00:00 to 20OCT2011 00:00:00 sp

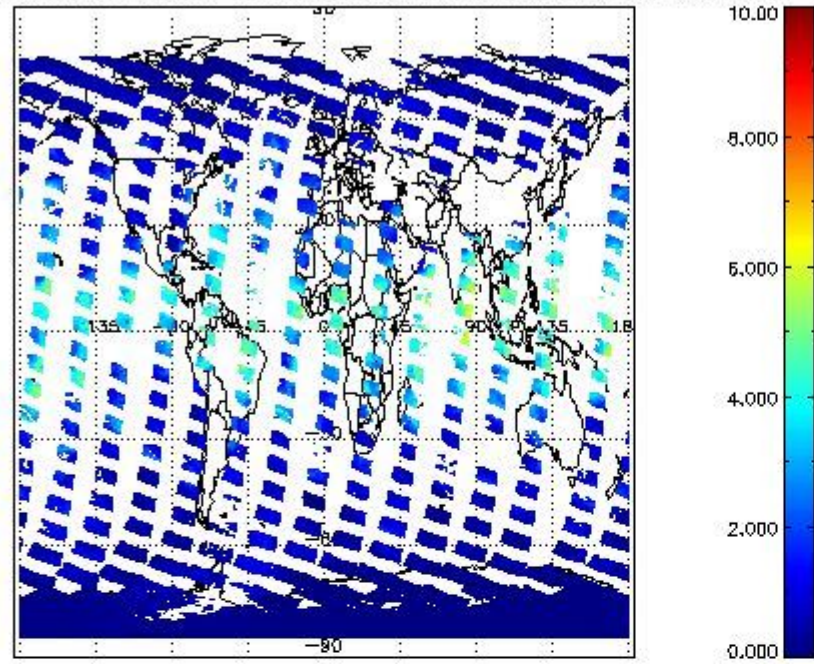


### 2.2.2.7 H2O (UV8)

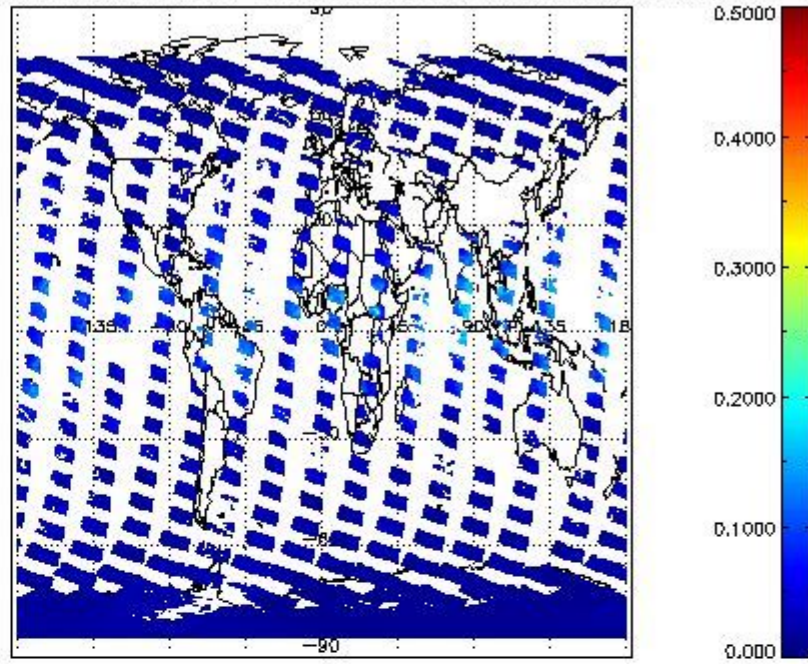




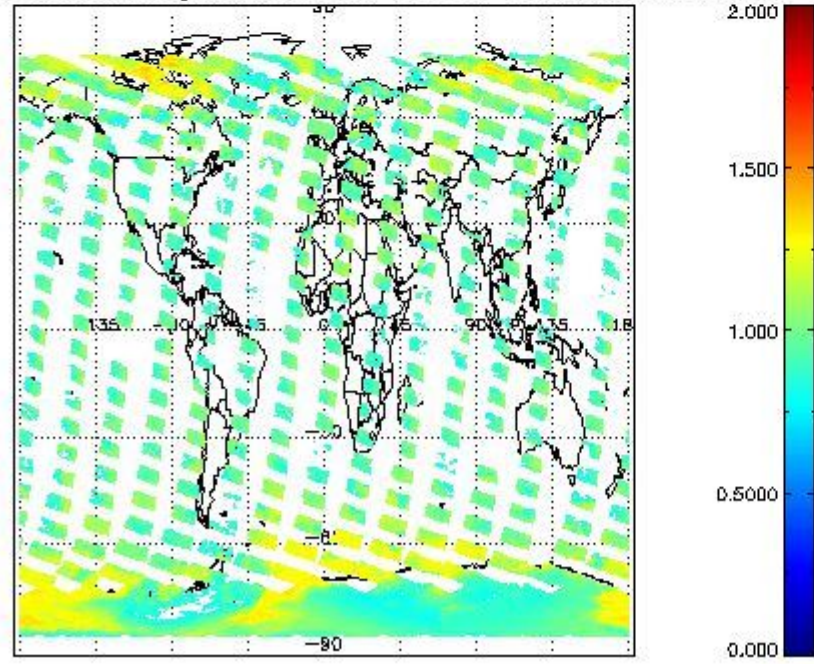
SCIOL2P\_NADUV8H20\_vcd for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



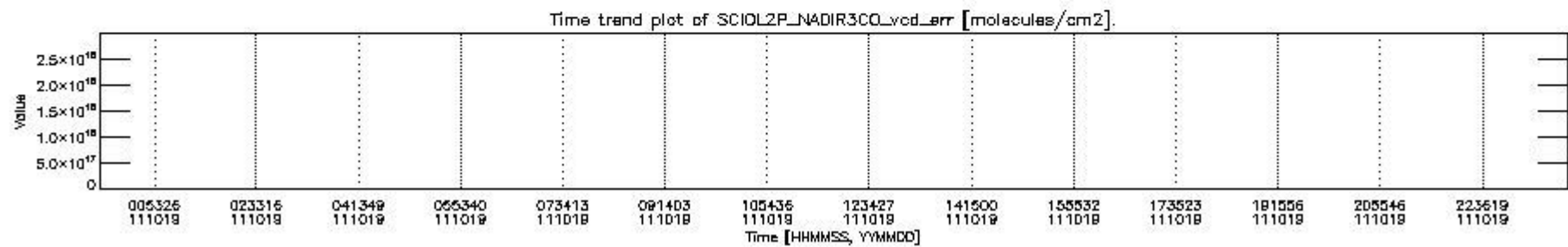
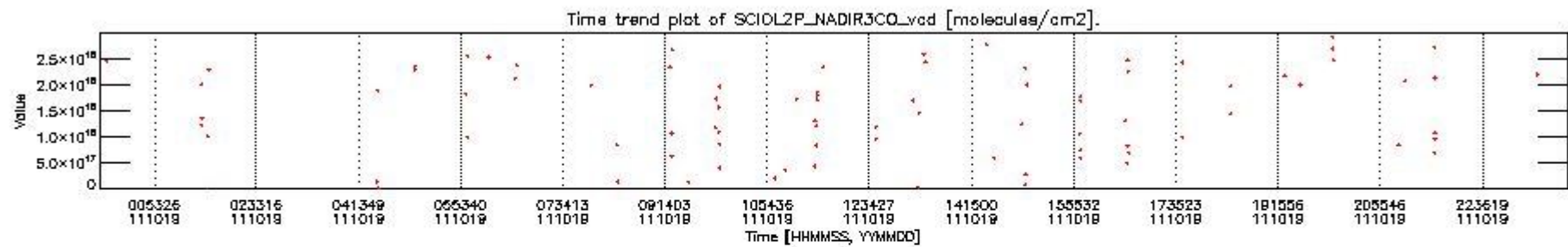
SCIOL2P\_NADUV8H20\_vcd\_err for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



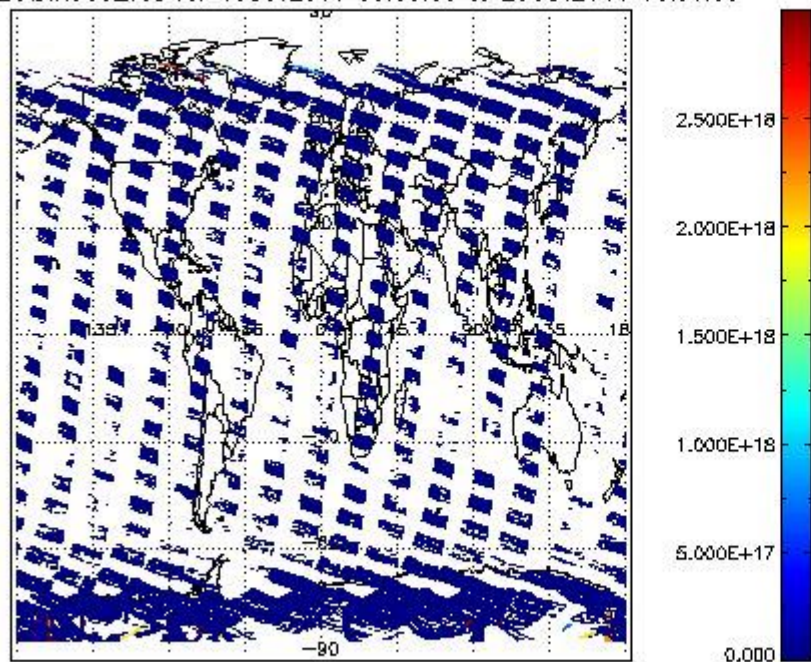
SCIOL2P\_NADUV8H20\_amf\_gr for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



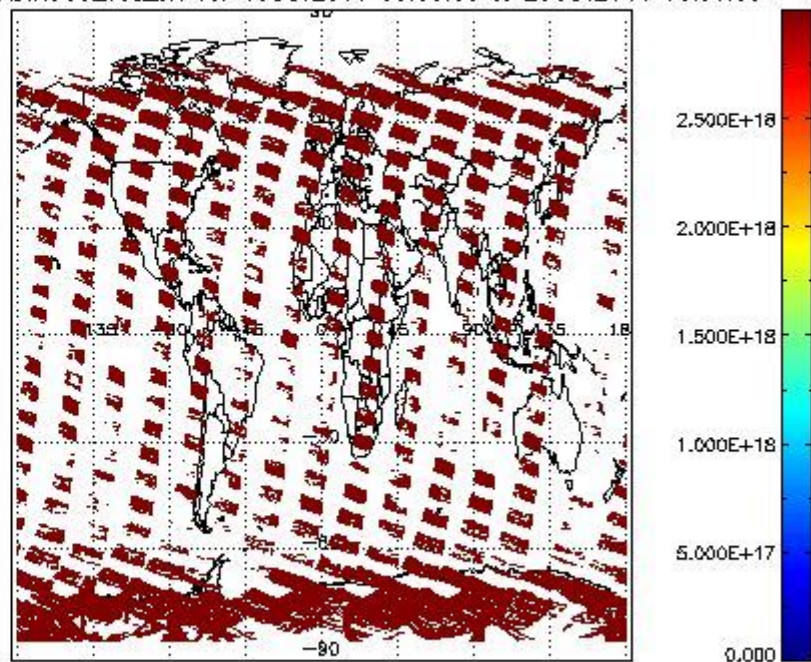
### 2.2.2.8 CO (IR3)



SCIDL2P\_NADIR3CO\_vcd for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



SCIDL2P\_NADIR3CO\_vcd\_err for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



### 2.2.3 Limb

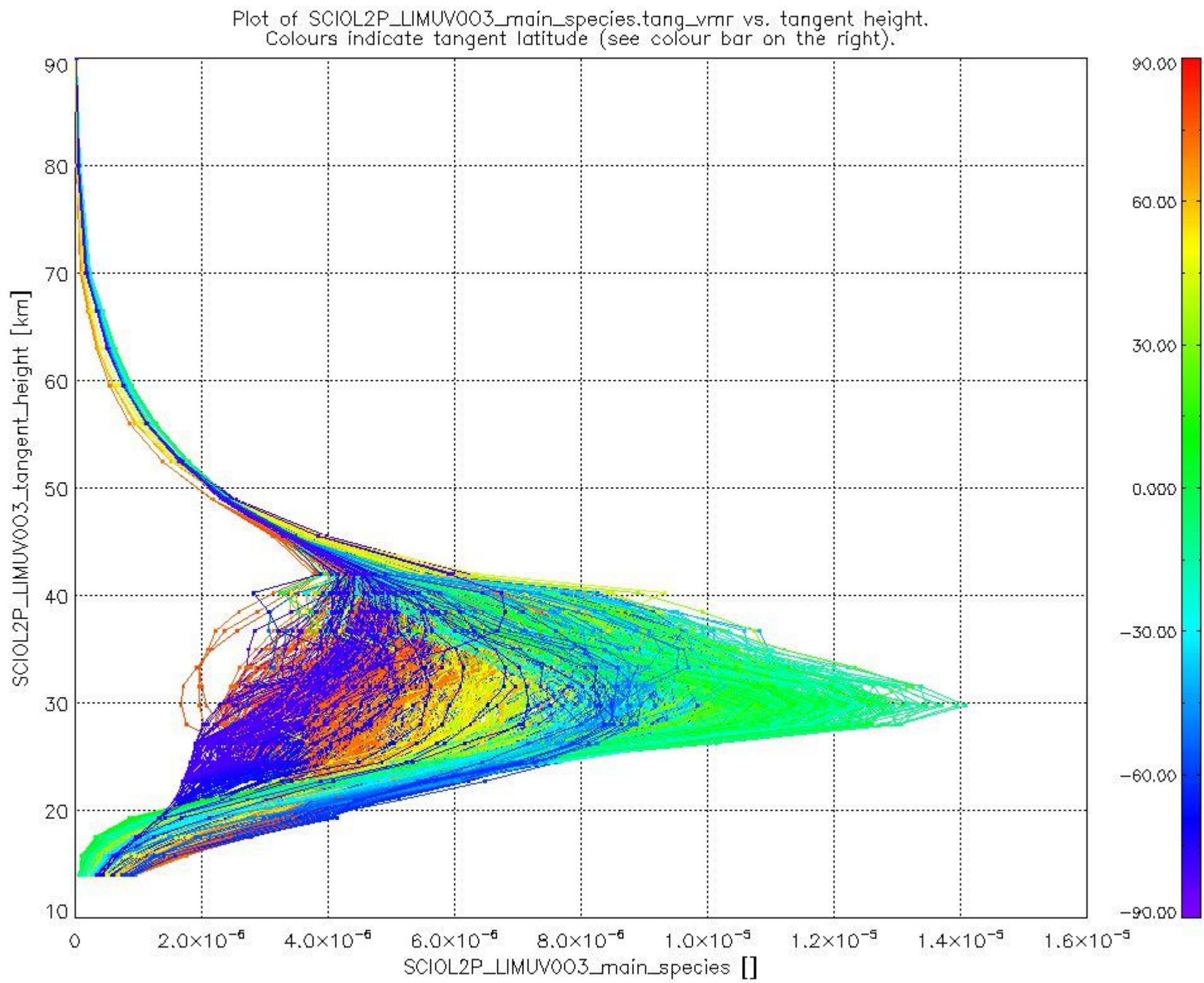
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

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

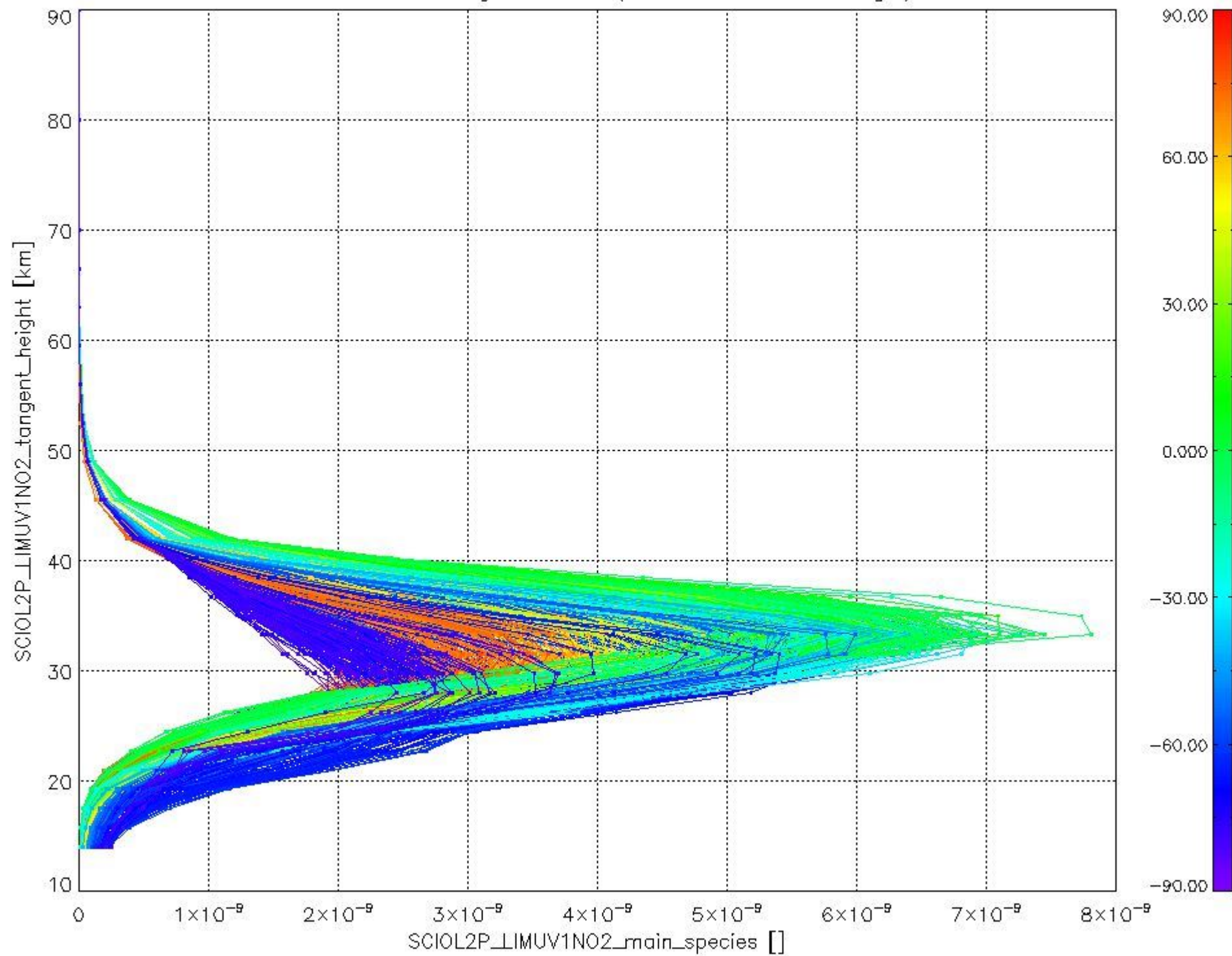
The following plots show for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

2.2.3.1 O3 (UV0)



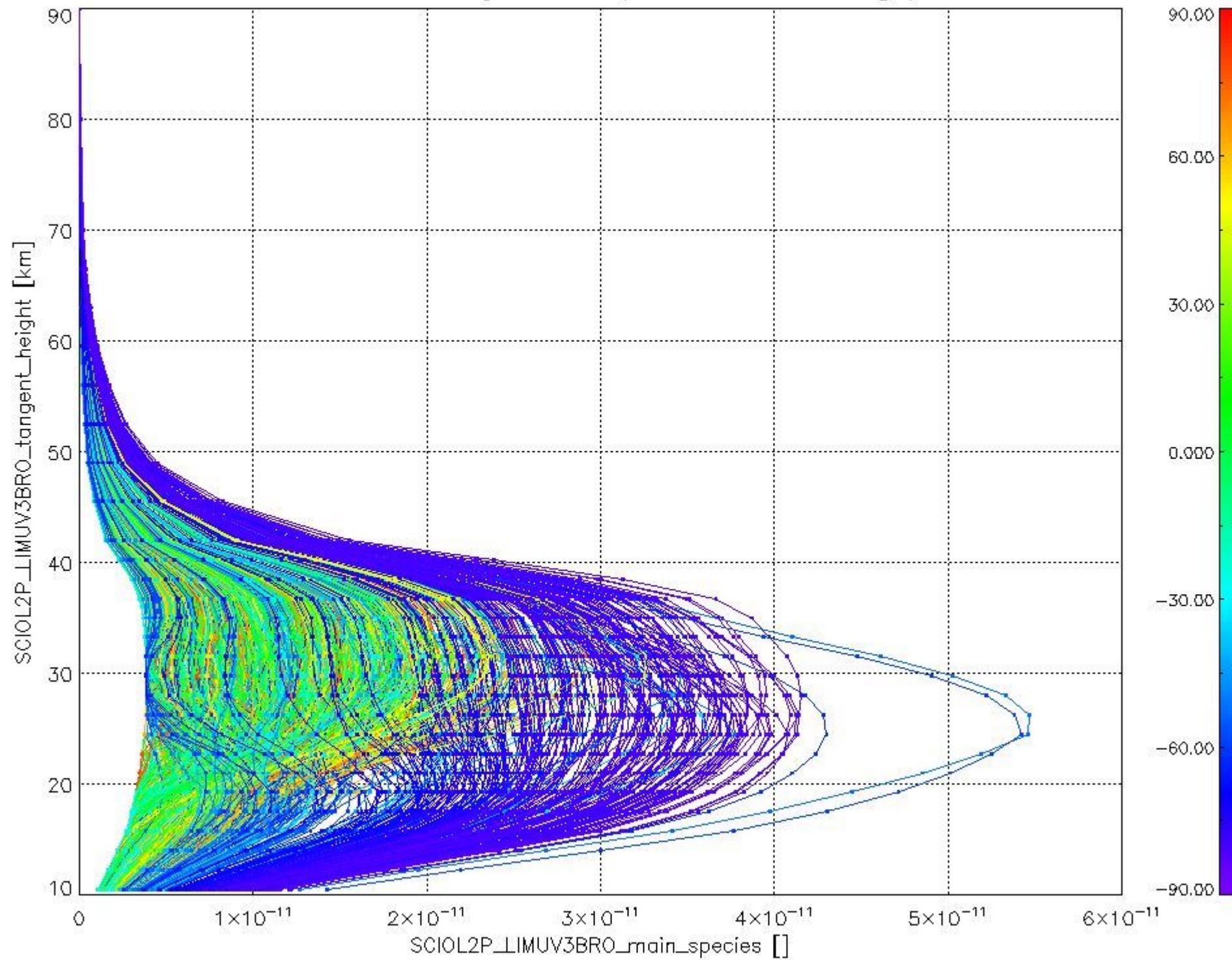
2.2.3.2 NO2 (UV1)

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).

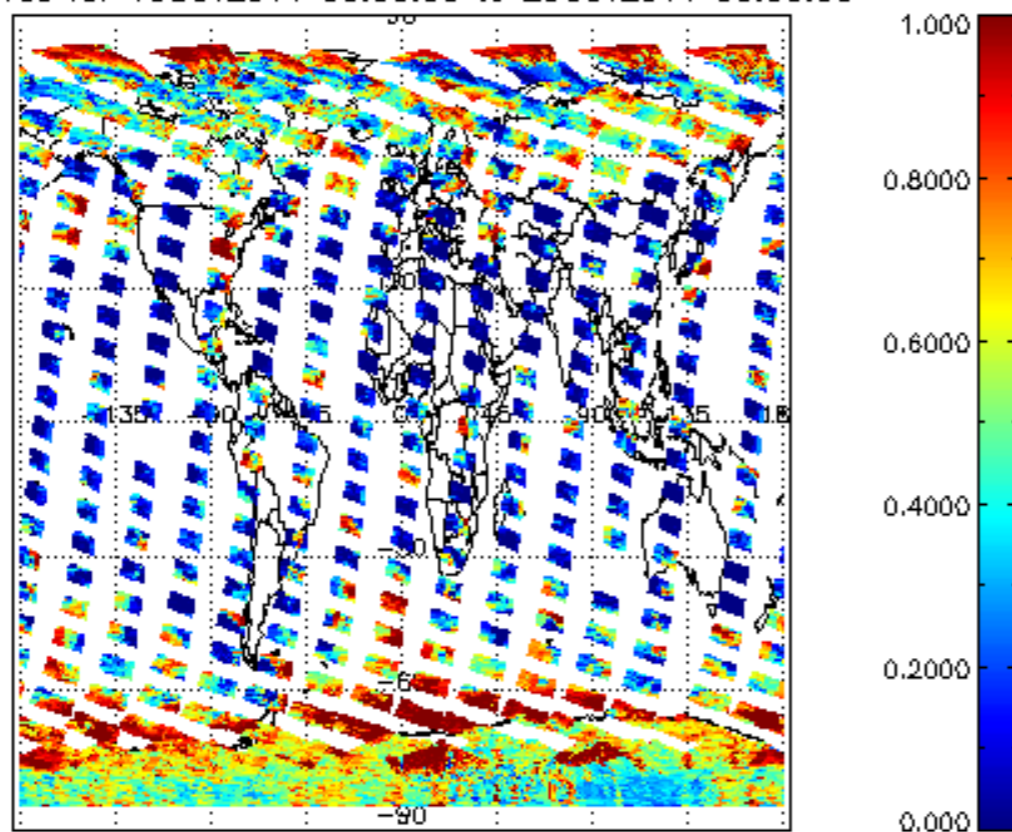


### 2.3 ADF monitoring

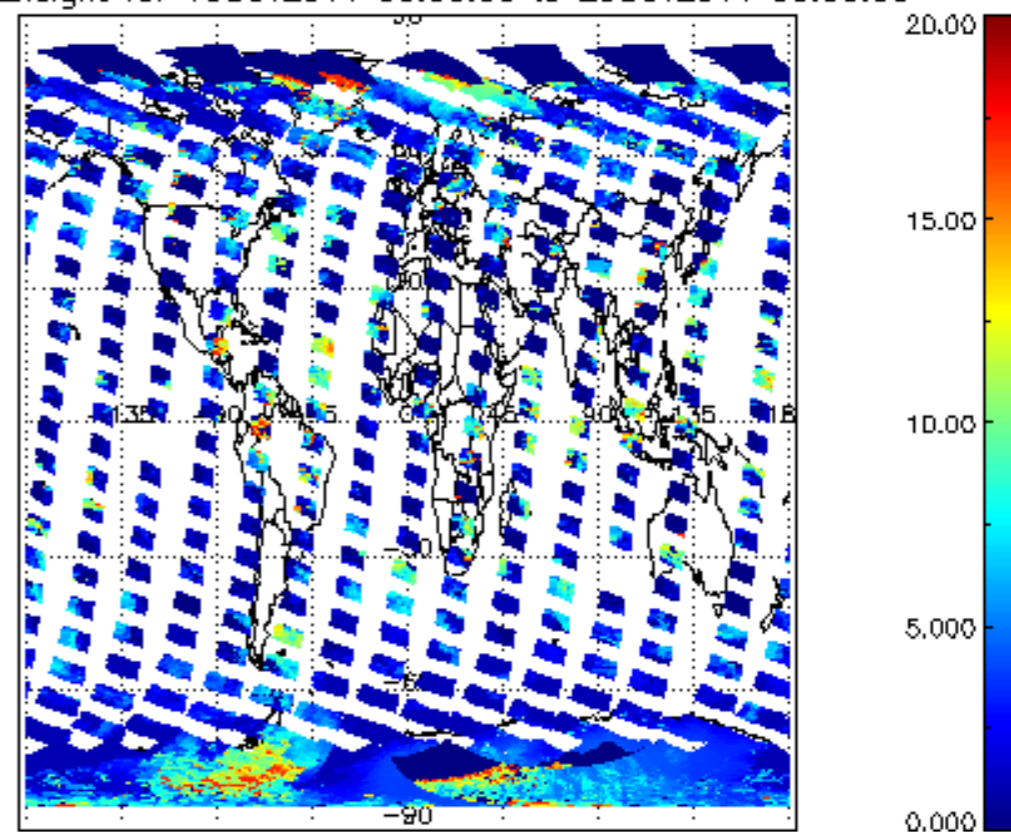
Number	ADF
	<b>IN_ (INITIALISATION_FILE)</b>
0	SCI_IN_AXNPDE20110201_120000_20020301_000000_20991231_235959
	<b>ECF (ECMWF_FILE)</b>
1	NOT USED
	<b>MF1 (M_FACTOR_FILE)</b>
2	SCI_MF1_AXVIEC20111018_110757_20111018_191353_20111020_191353
3	SCI_MF1_AXVIEC20111018_110903_20111019_183707_20111021_183707



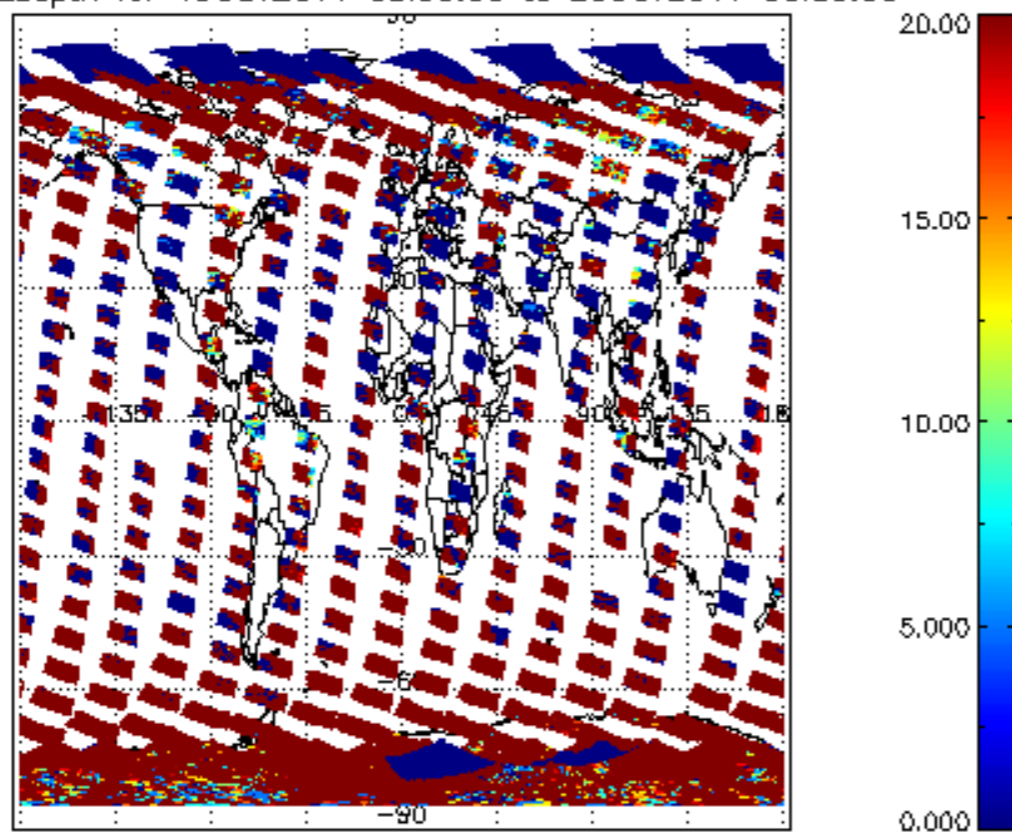
cl\_frac for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



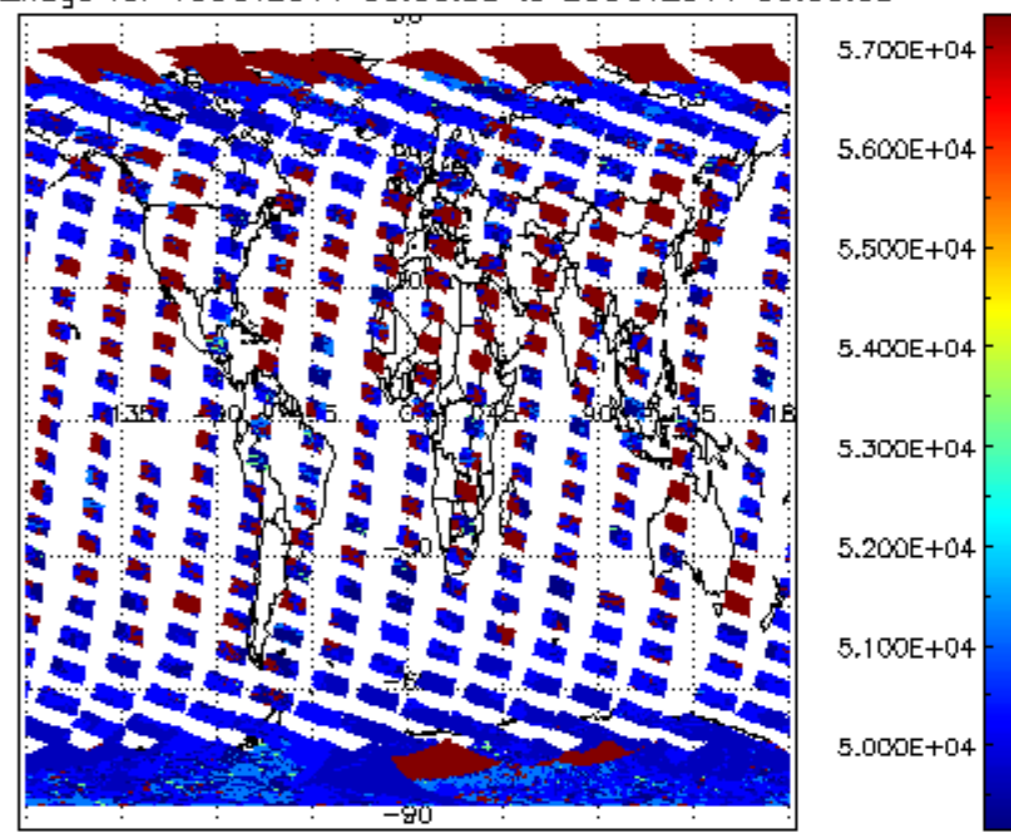
cl\_top\_height for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

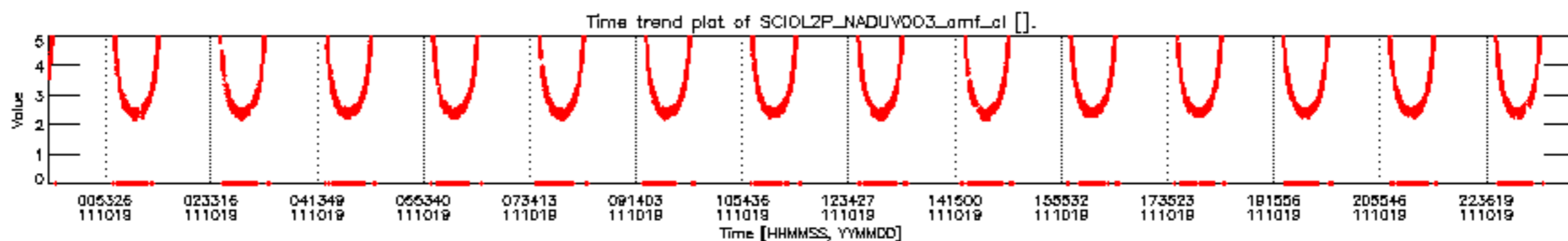
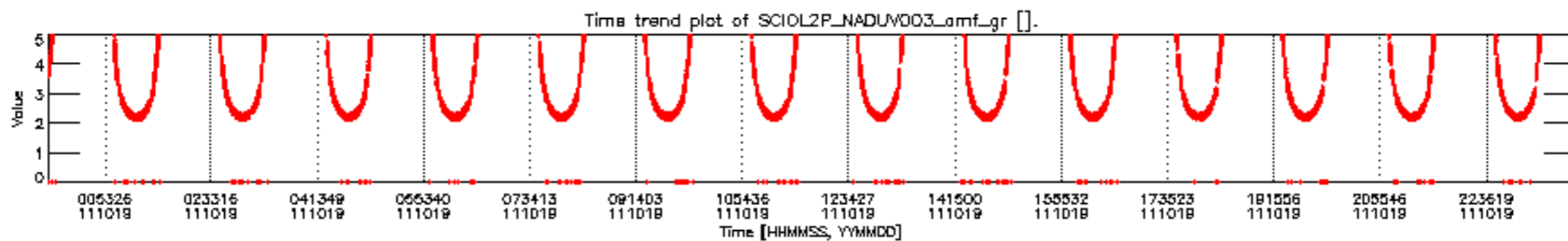
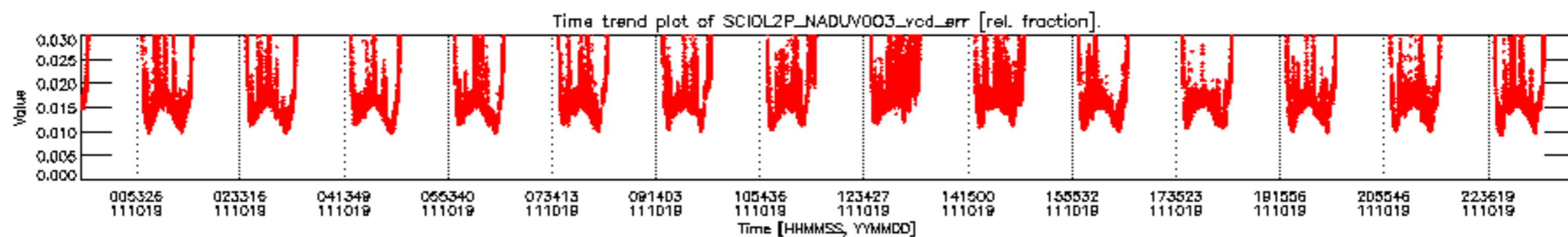
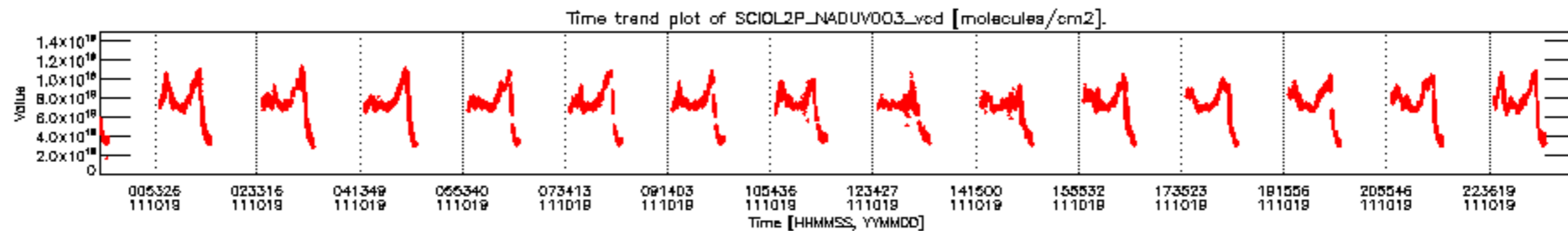


cl\_opt\_depth for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



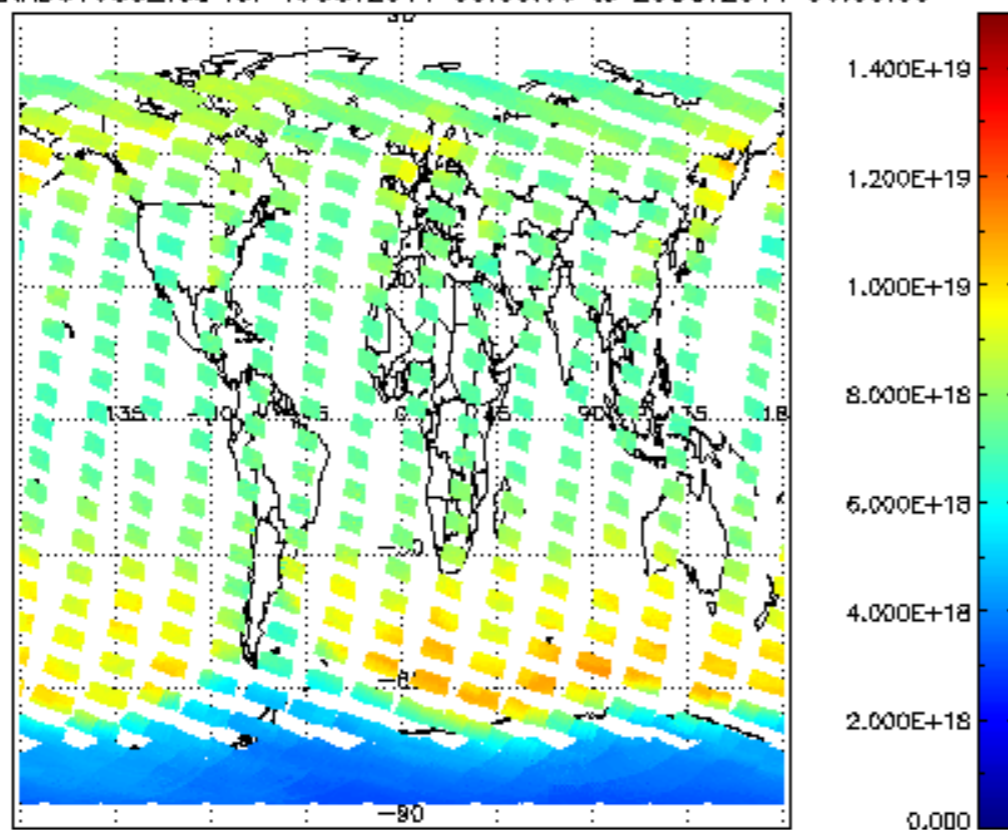
cloud\_flags for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



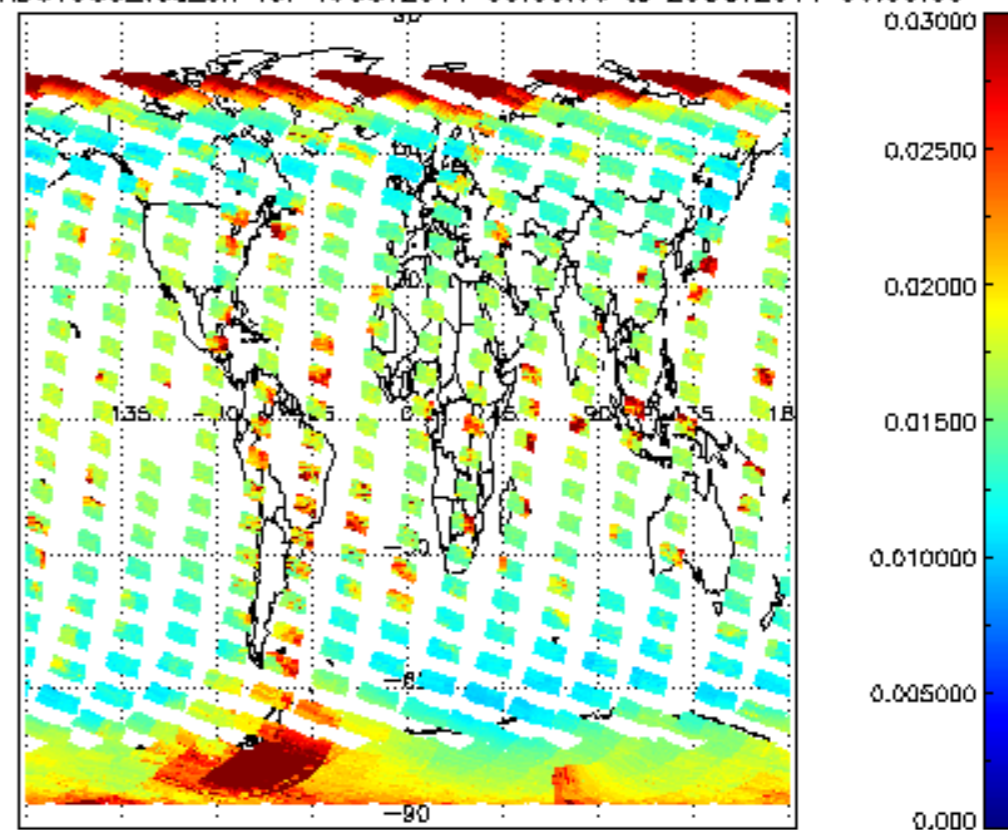




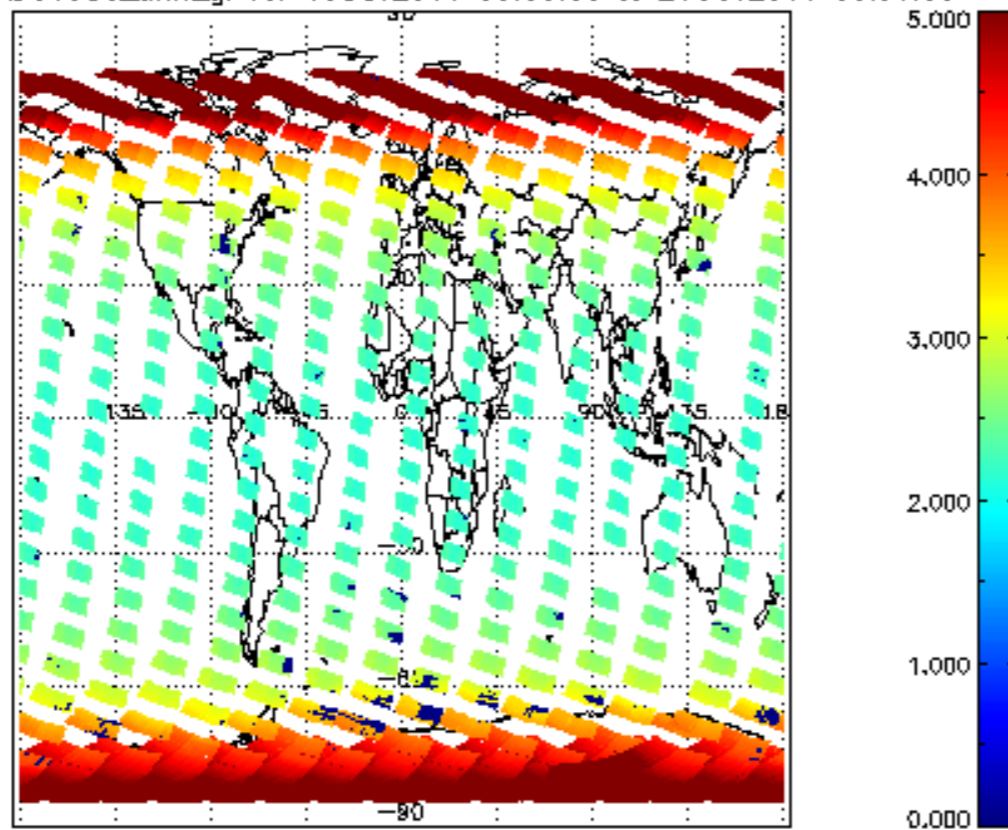
SCIOL2P\_NADUV003\_vcd for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



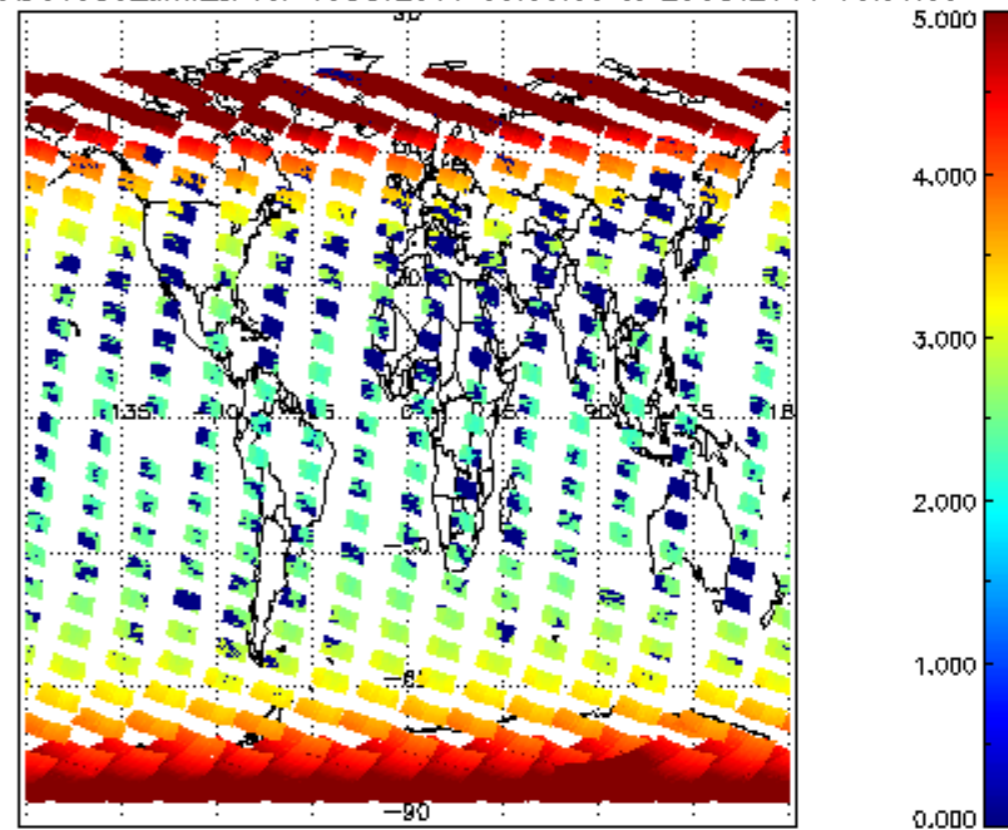
SCIOL2P\_NADUV003\_vcd\_err for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

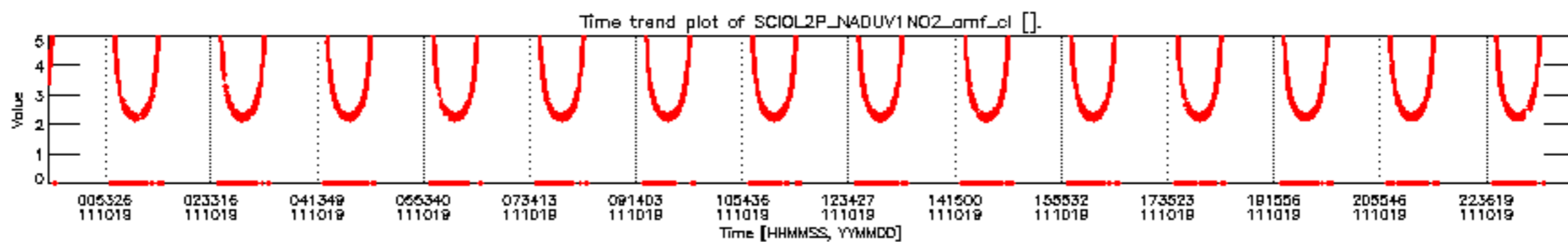
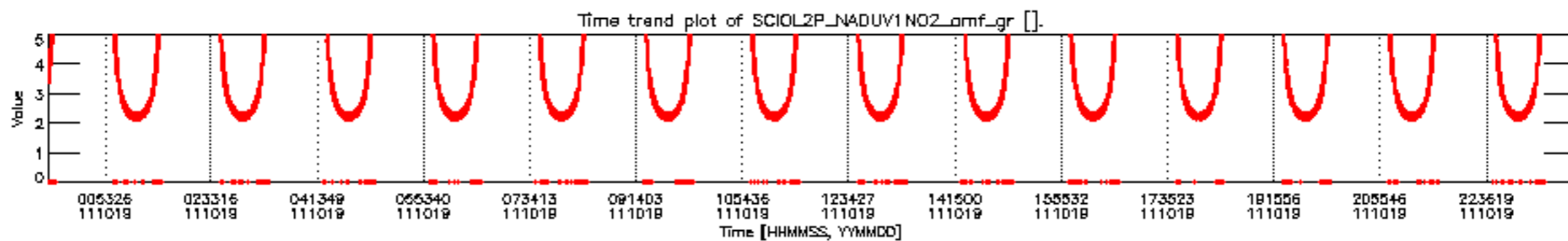
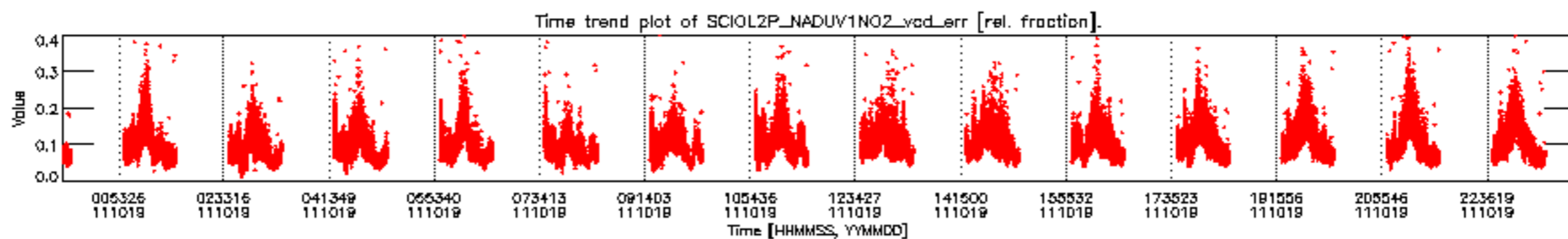
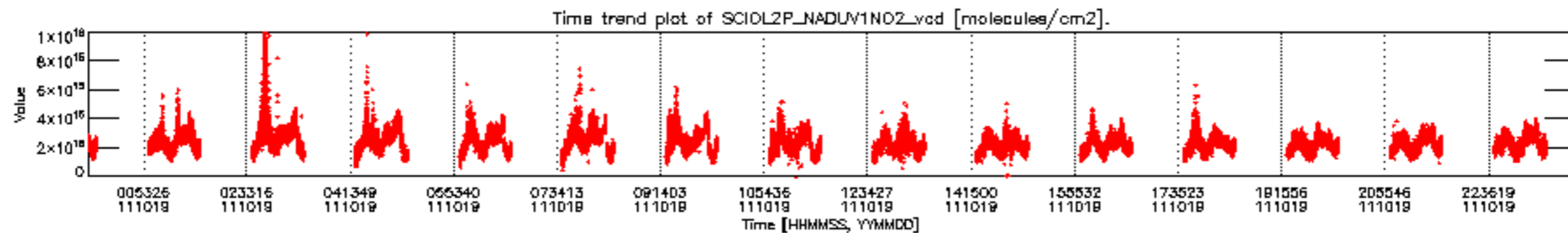


SCIOL2P\_NADUV003\_amf\_gr for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

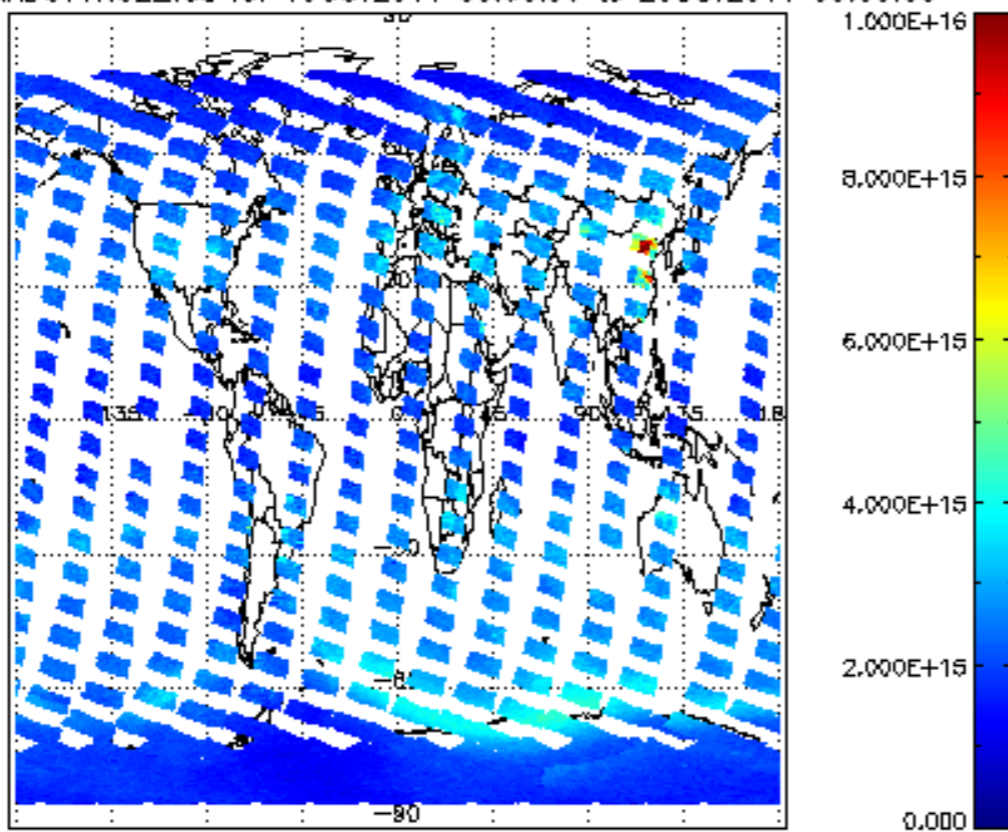


SCIOL2P\_NADUV003\_amf\_cl for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

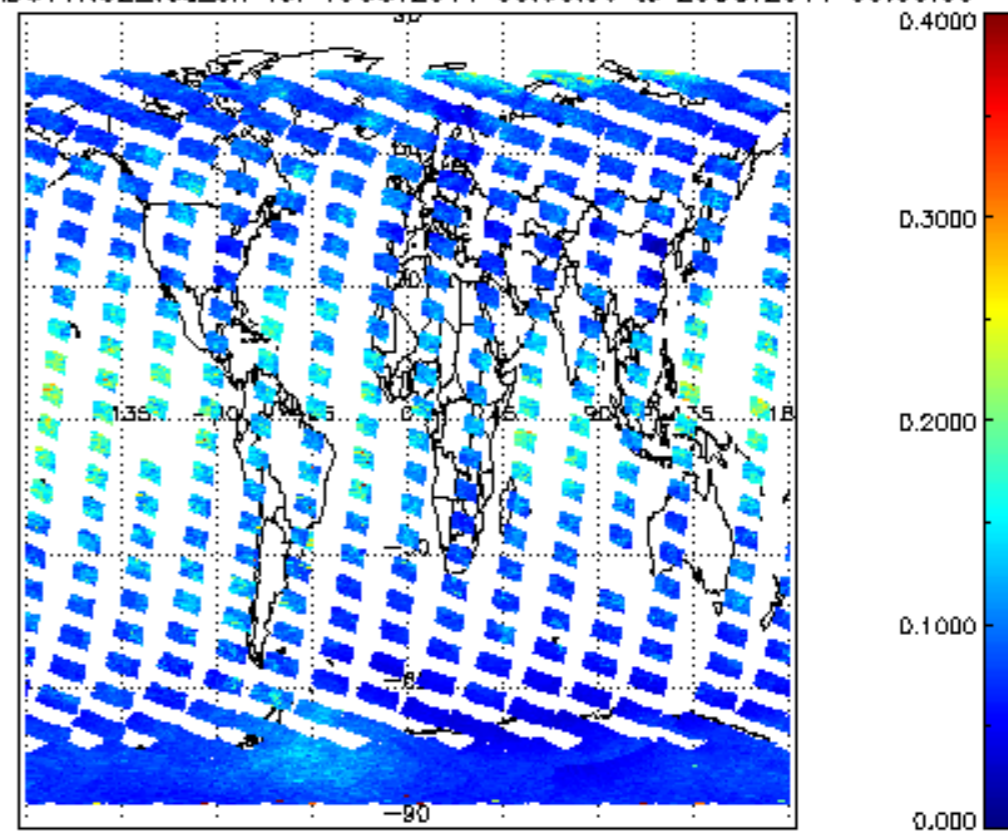




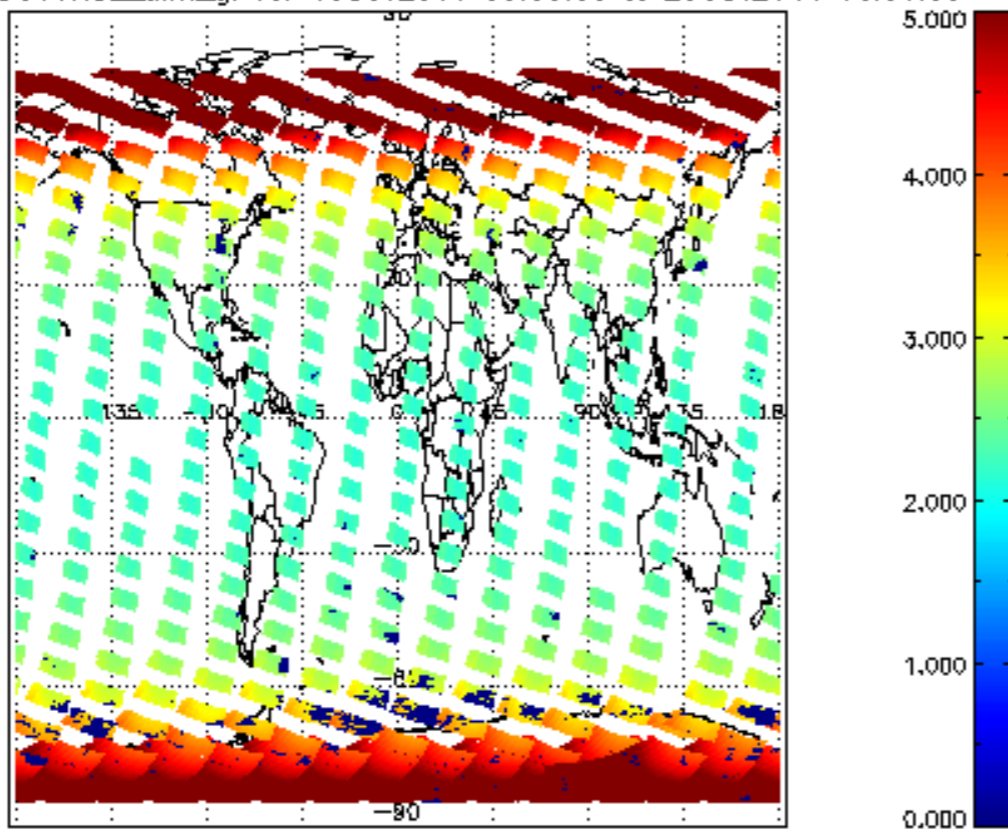
SCIOL2P\_NADUV1NO2\_vcd for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



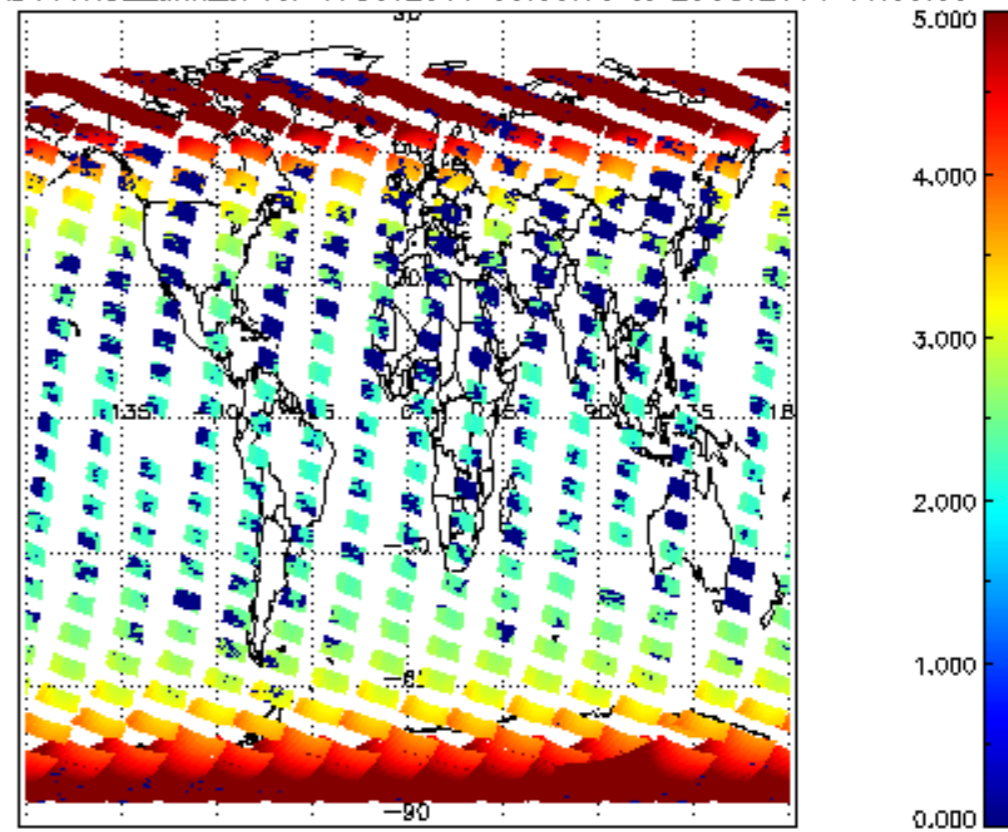
SCIOL2P\_NADUV1NO2\_vcd\_err for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

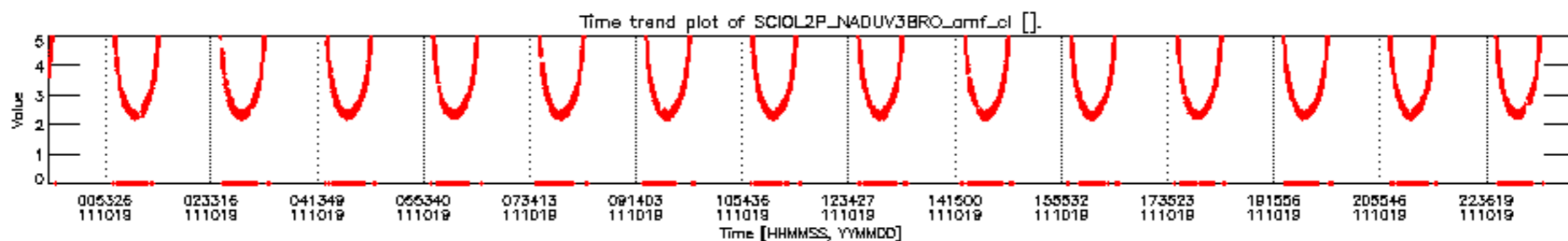
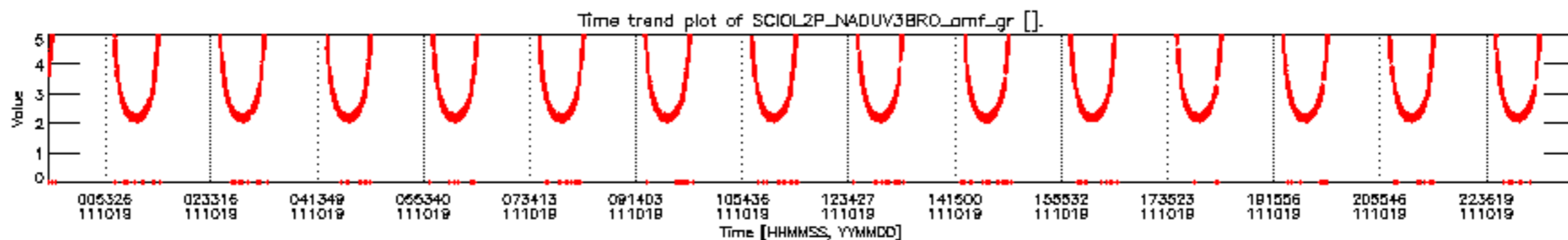
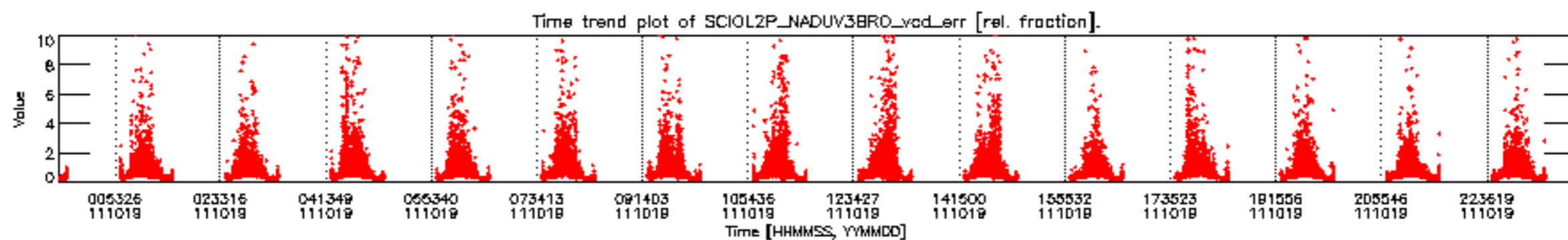
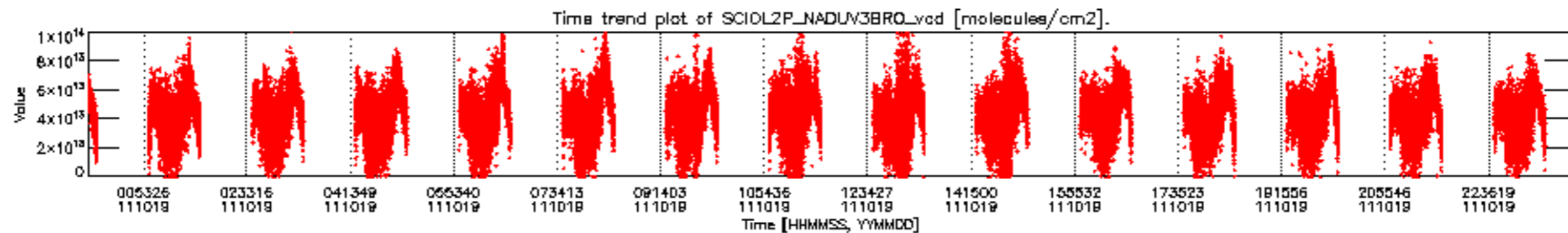


SCIOL2P\_NADUV1NO2\_amf\_gr for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

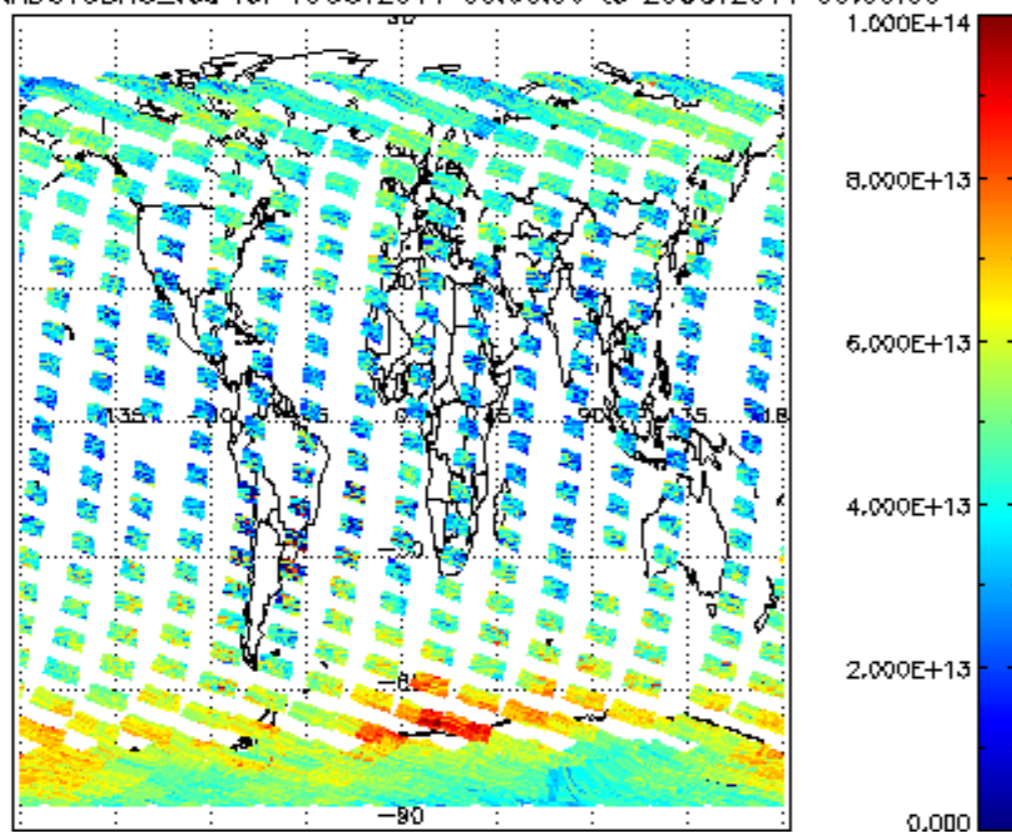


SCIOL2P\_NADUV1NO2\_amf\_cl for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

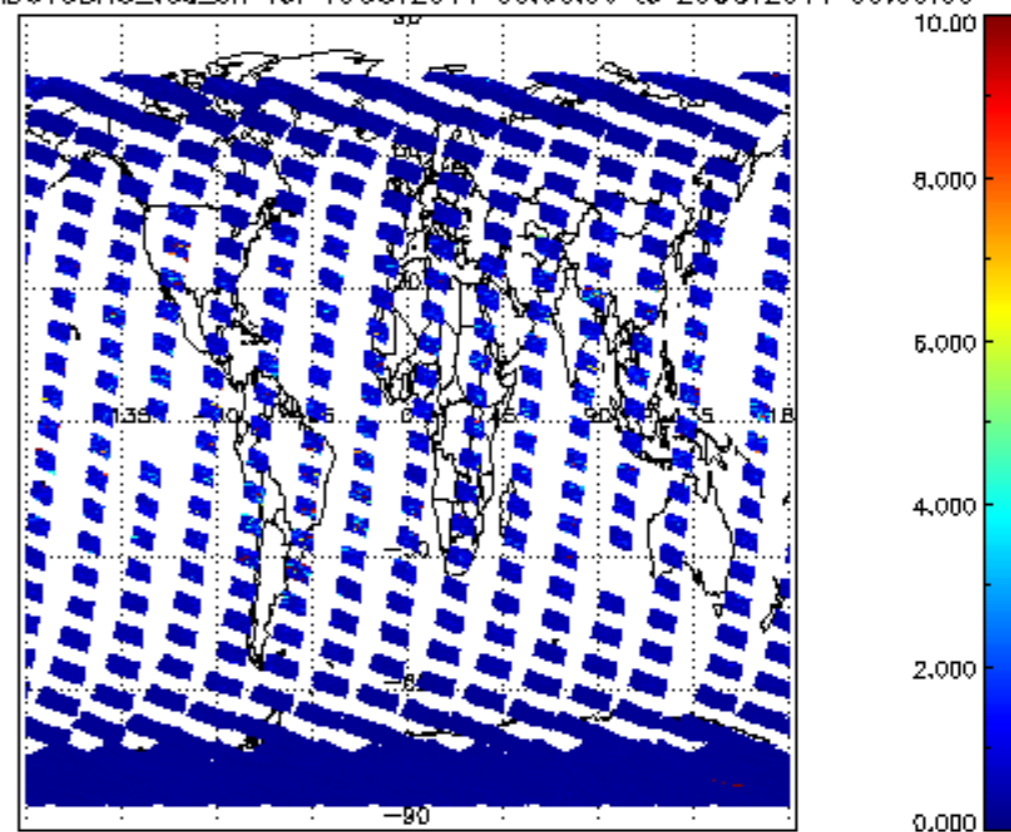




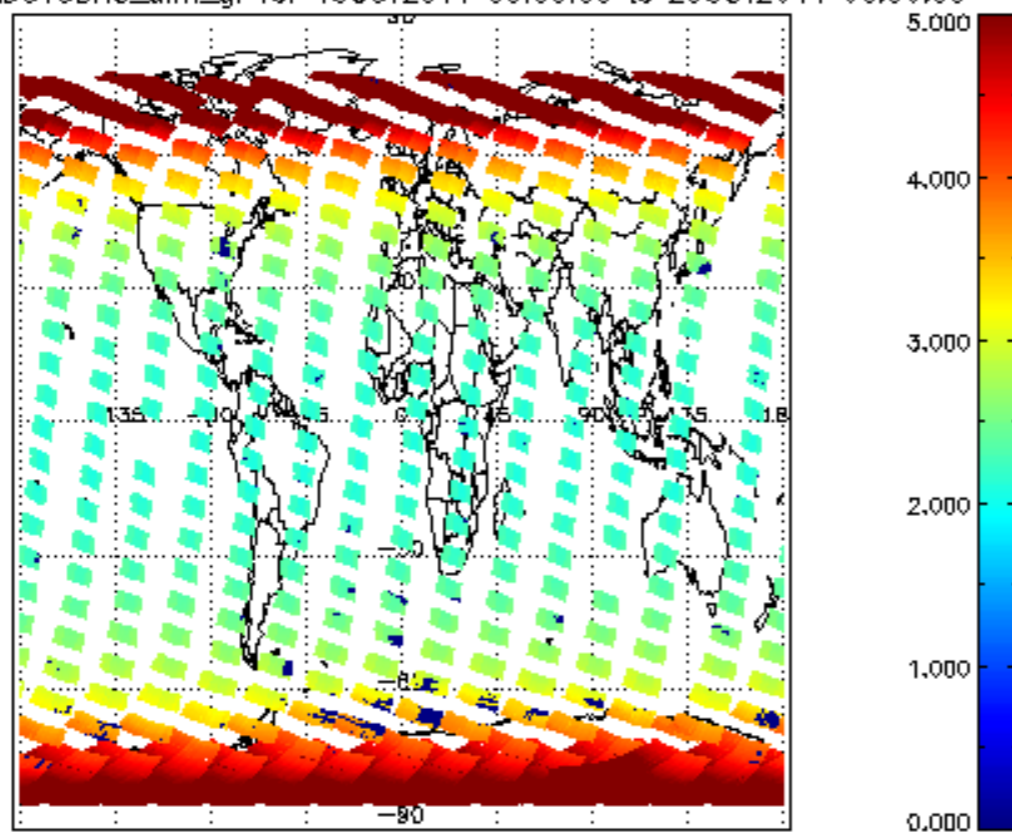
SCIOL2P\_NADUV3BRO\_vcd for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



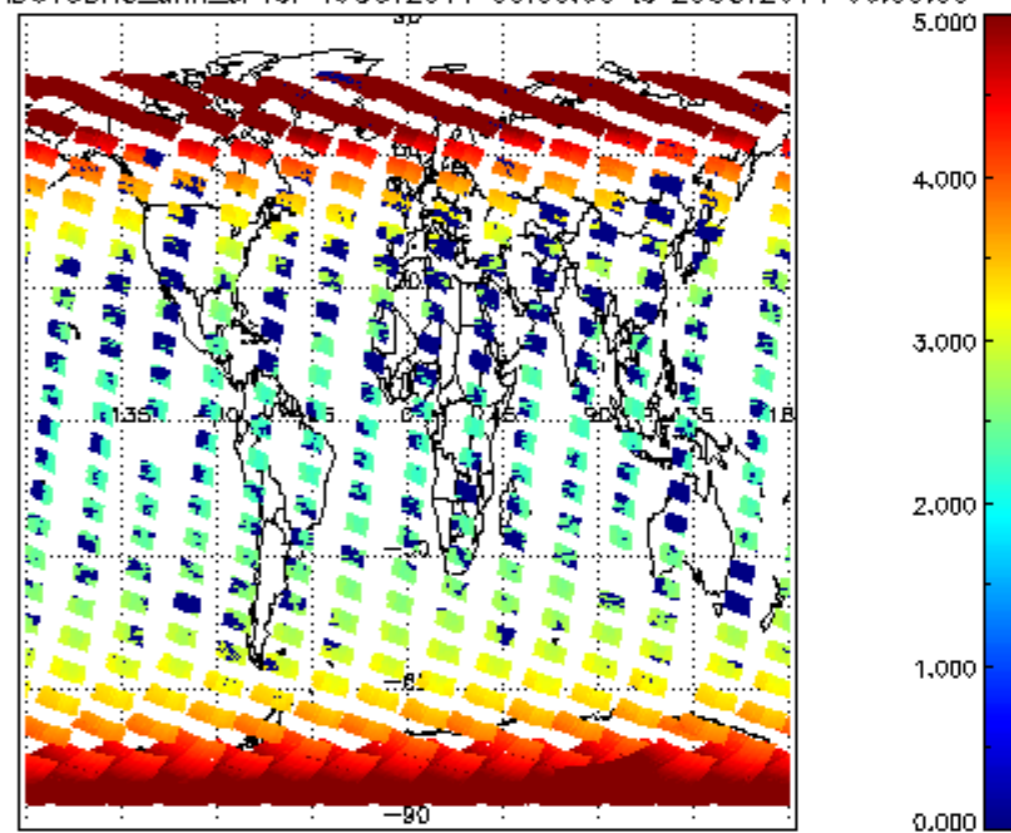
SCIOL2P\_NADUV3BRO\_vcd\_err for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

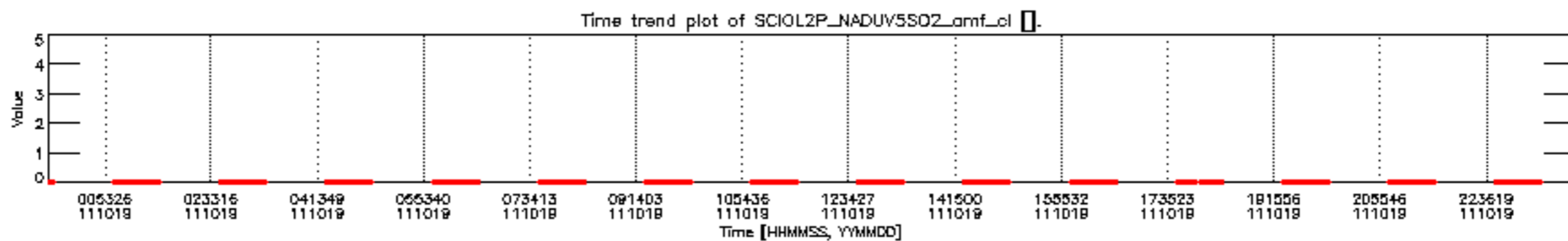
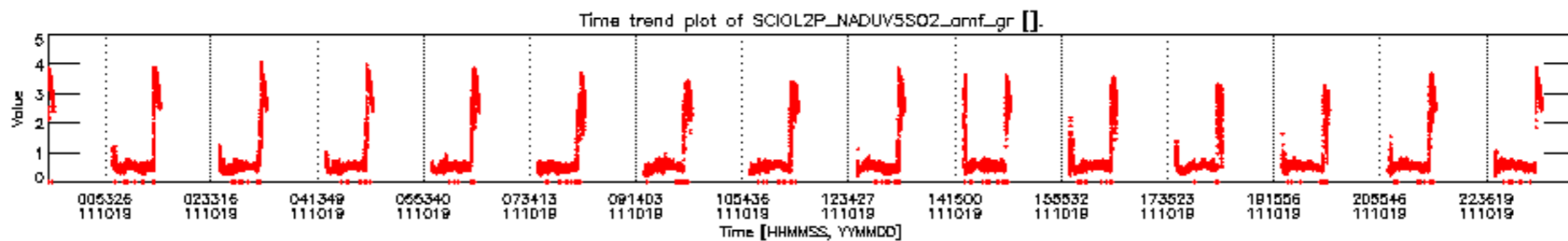
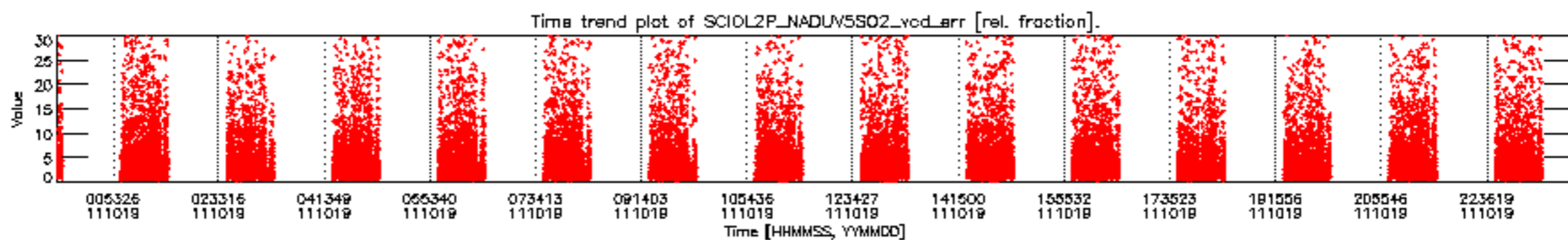
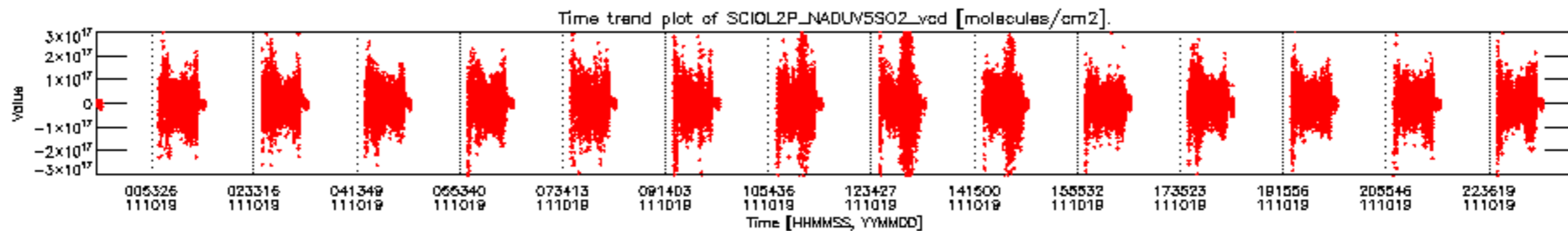


SCIOL2P\_NADUV3BRO\_amf\_gr for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

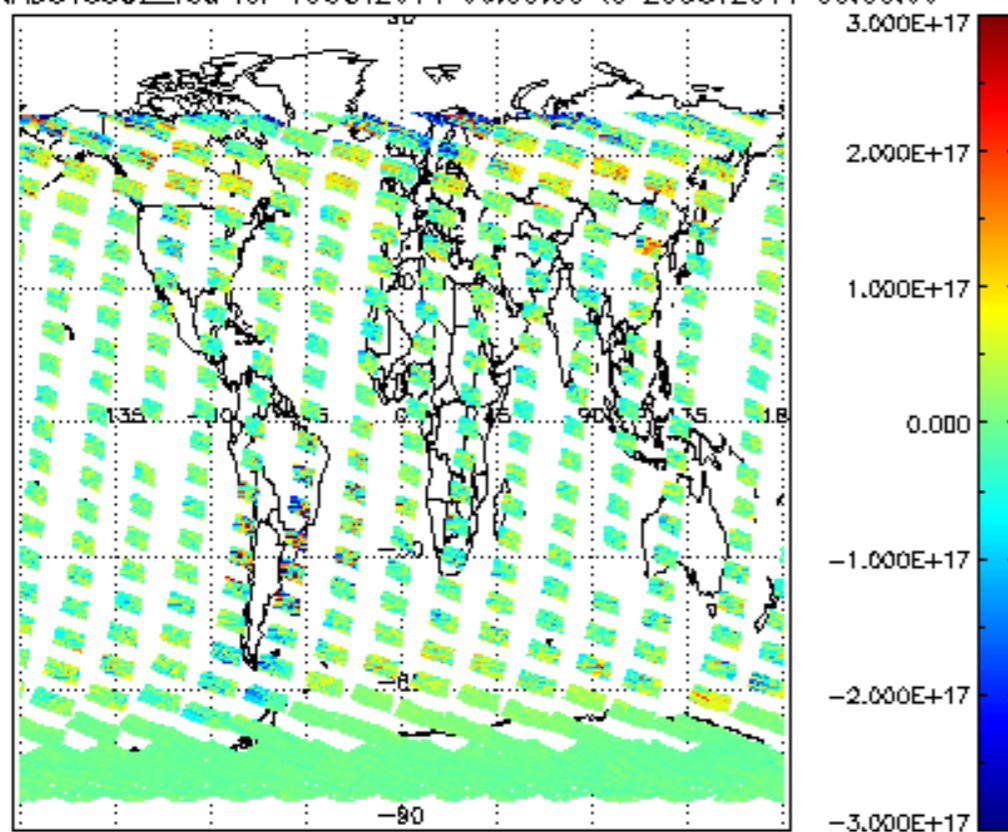


SCIOL2P\_NADUV3BRO\_amf\_cl for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

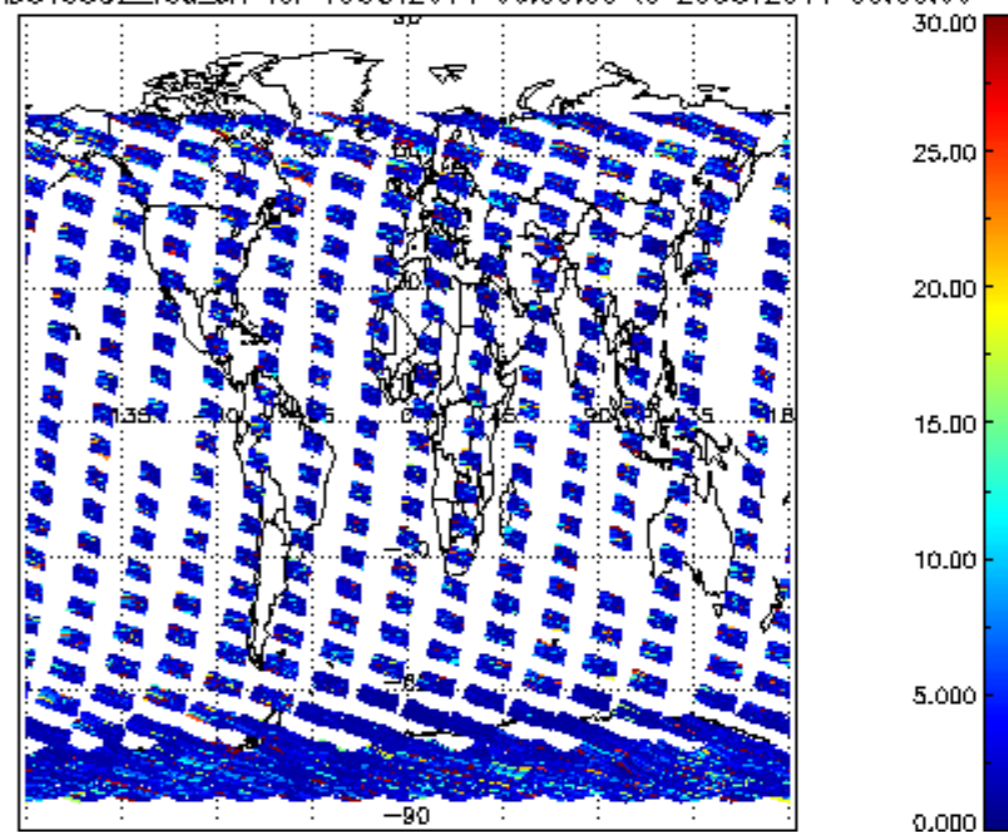




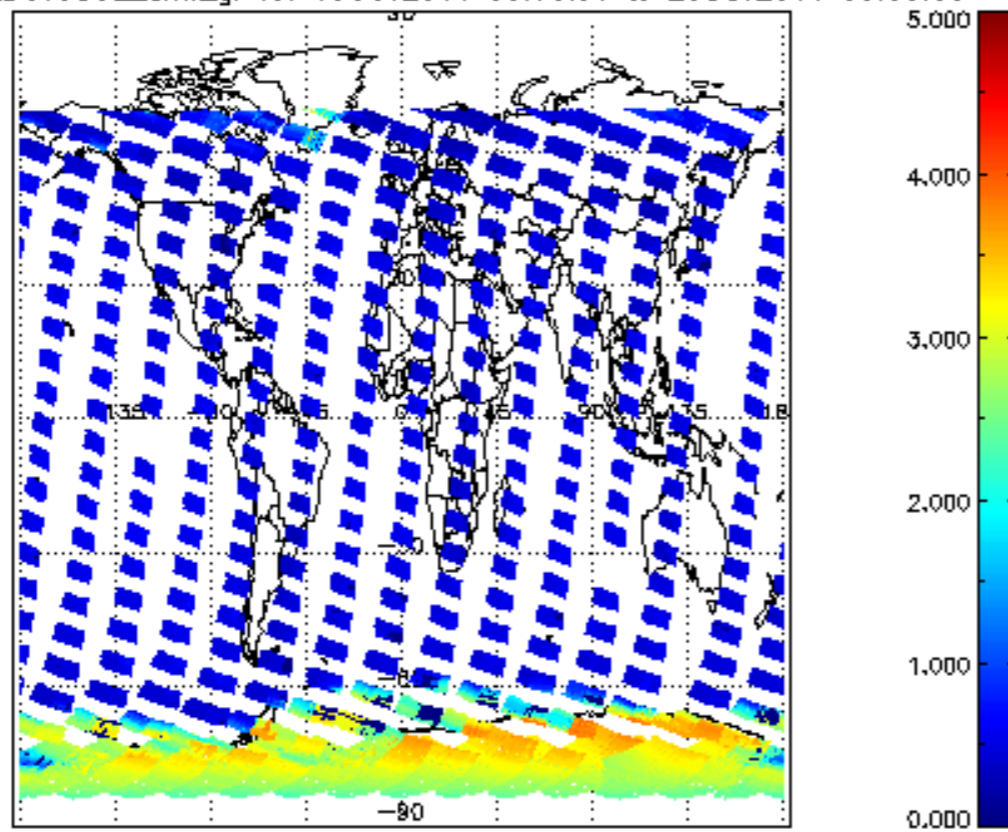
SCIOL2P\_NADUV5S02\_vcd for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



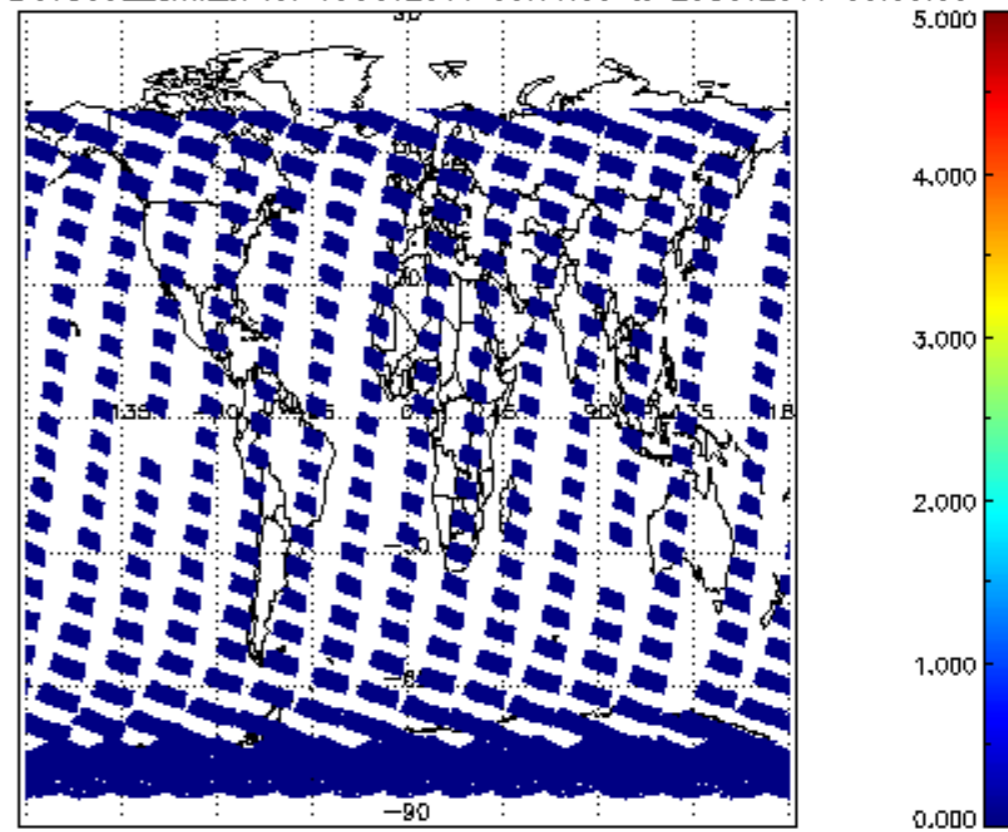
SCIOL2P\_NADUV5S02\_vcd\_err for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

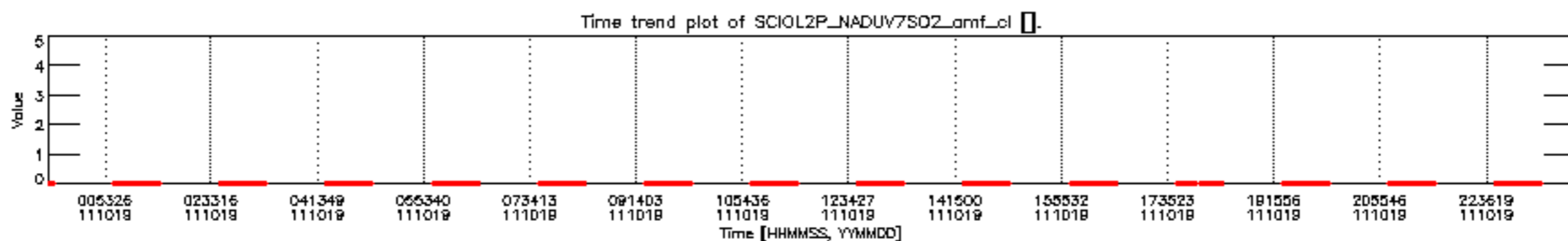
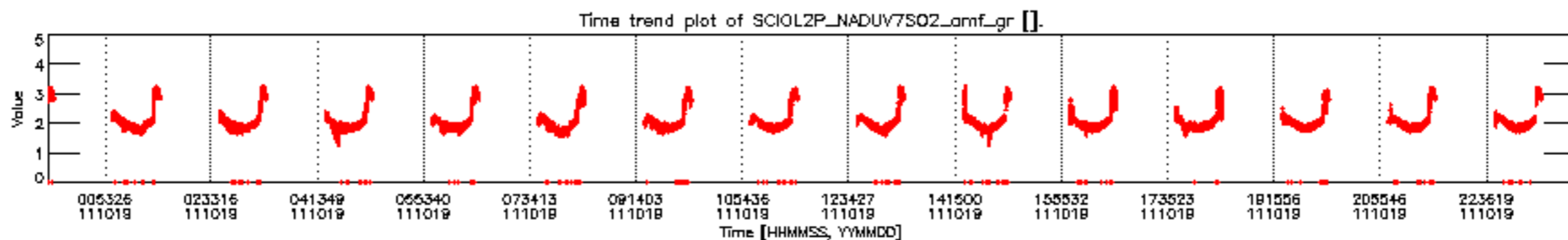
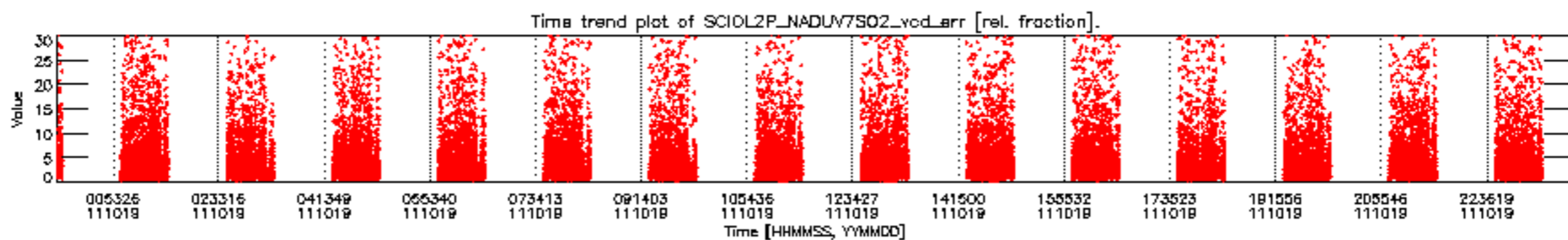
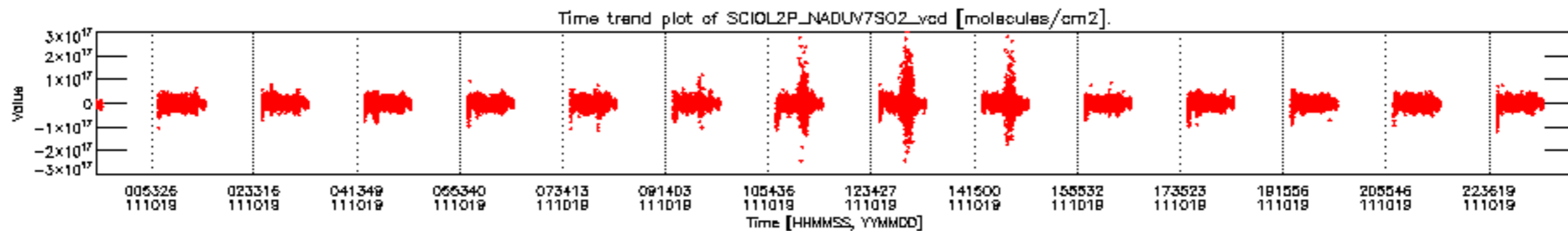


SCIOL2P\_NADUV5S02\_amf\_gr for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



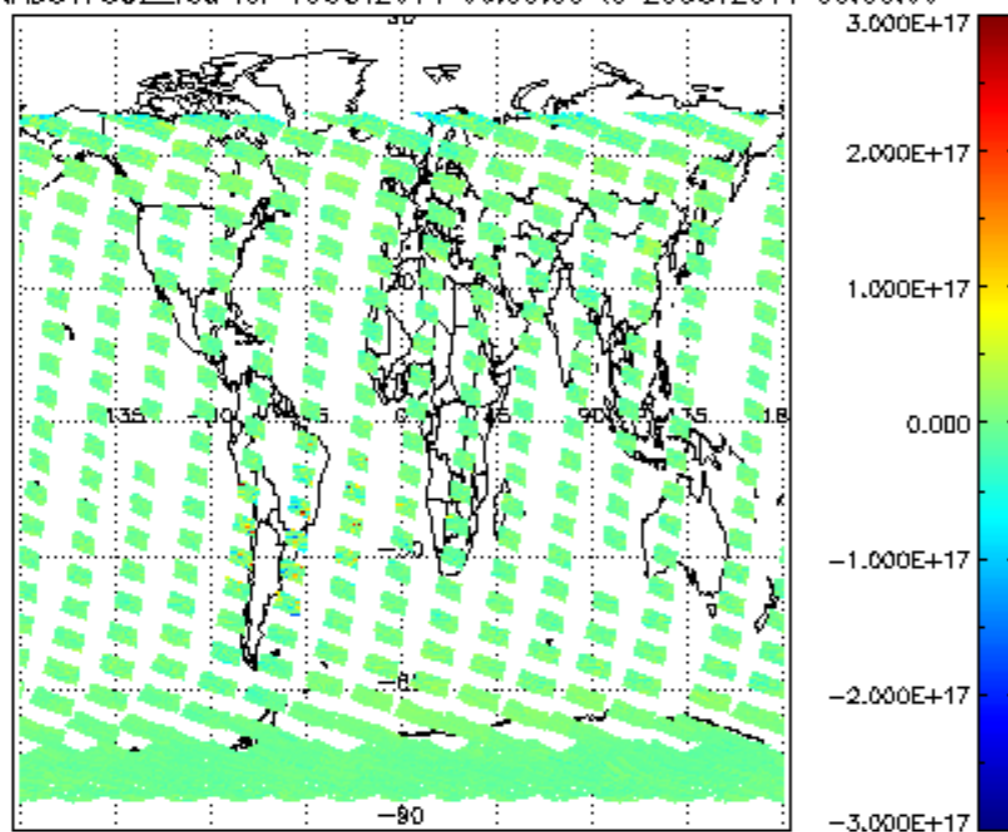
SCIOL2P\_NADUV5S02\_amf\_sl for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



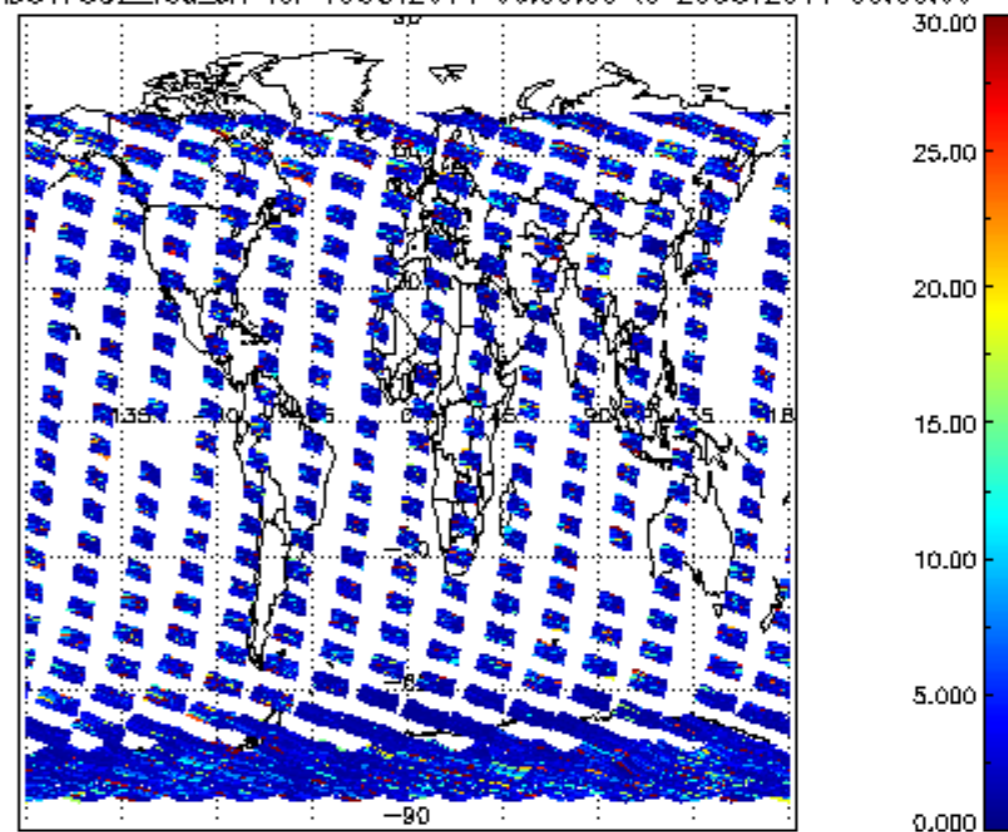




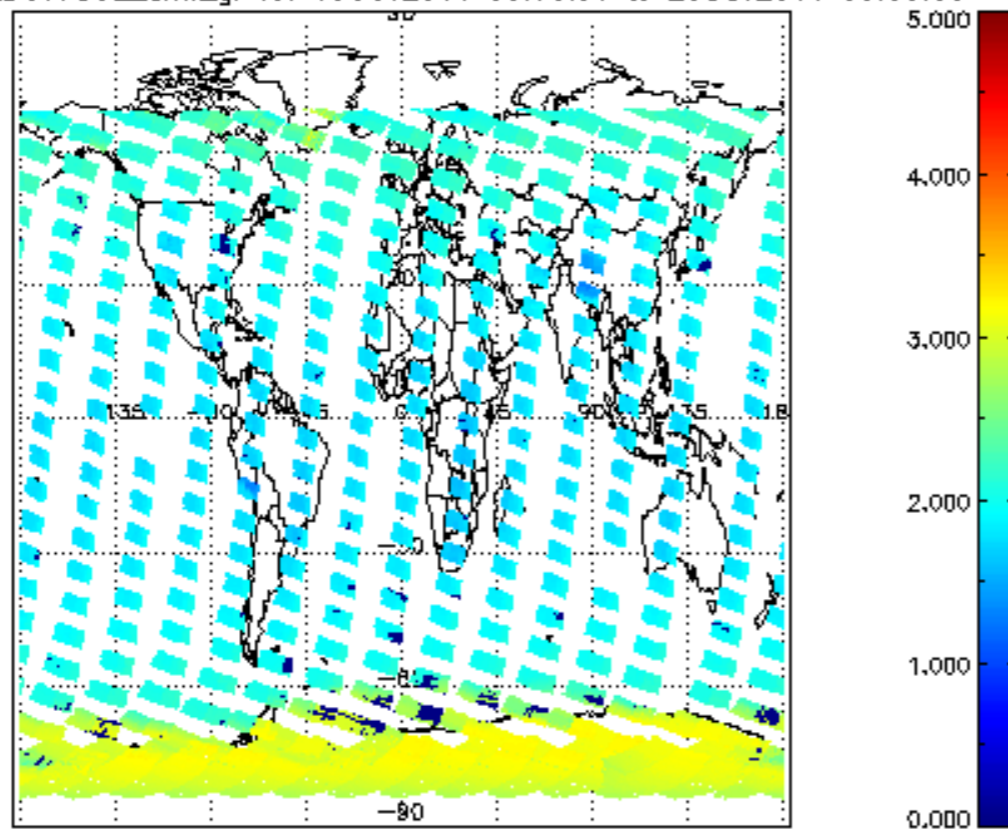
SCIOL2P\_NADUV7S02\_vcd for 19OCT2011 00:00:00 to 20OCT2011 00:00:00



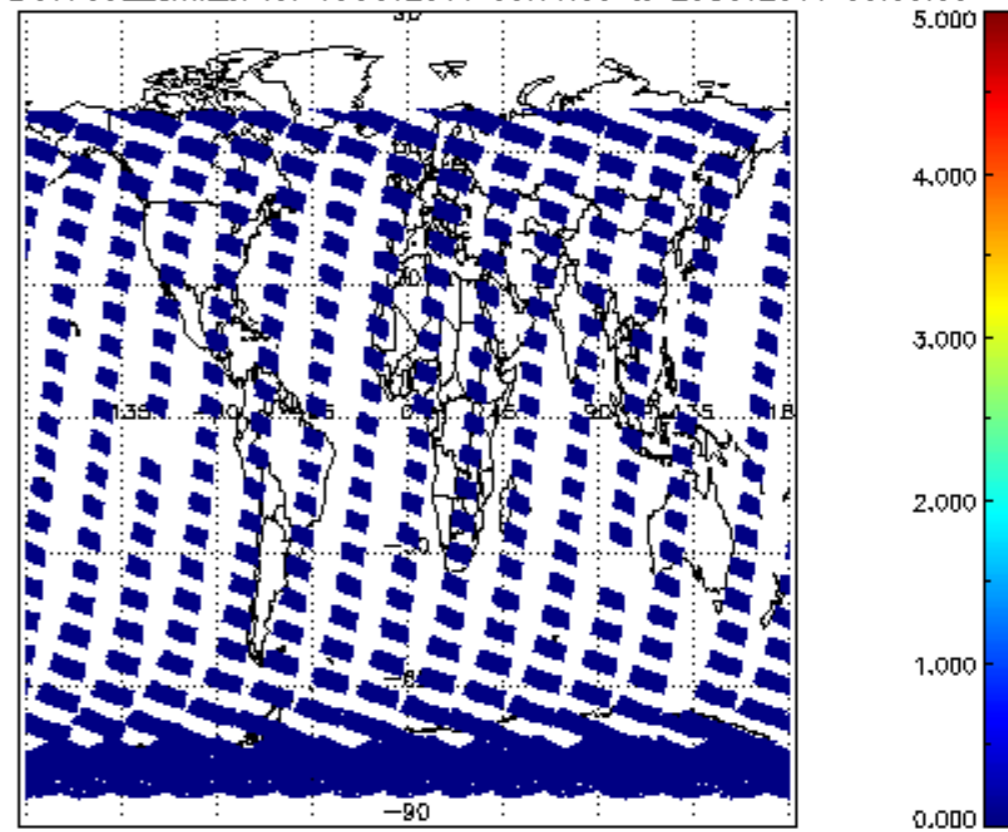
SCIOL2P\_NADUV7S02\_vcd\_err for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

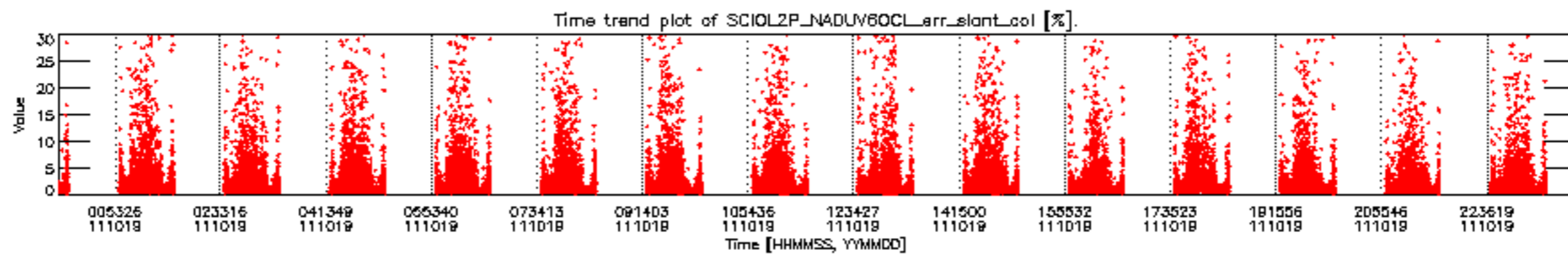
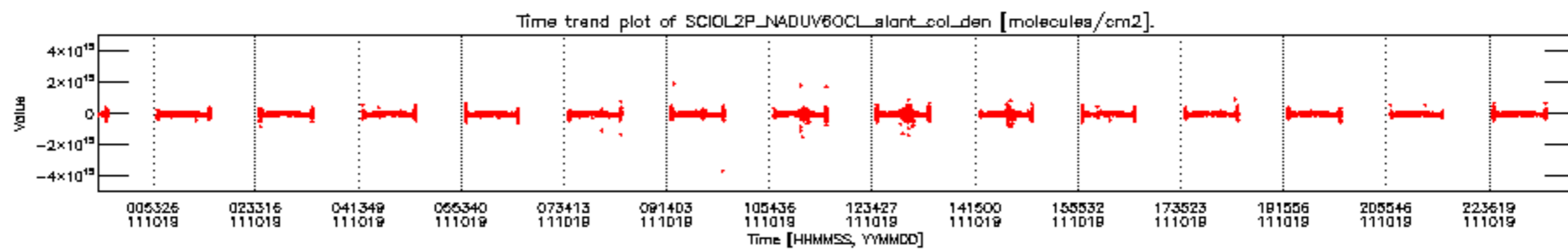


SCIOL2P\_NADUV7S02\_amf\_gr for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

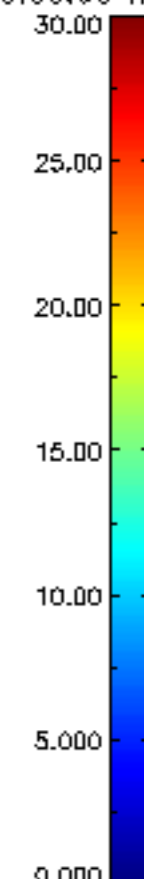
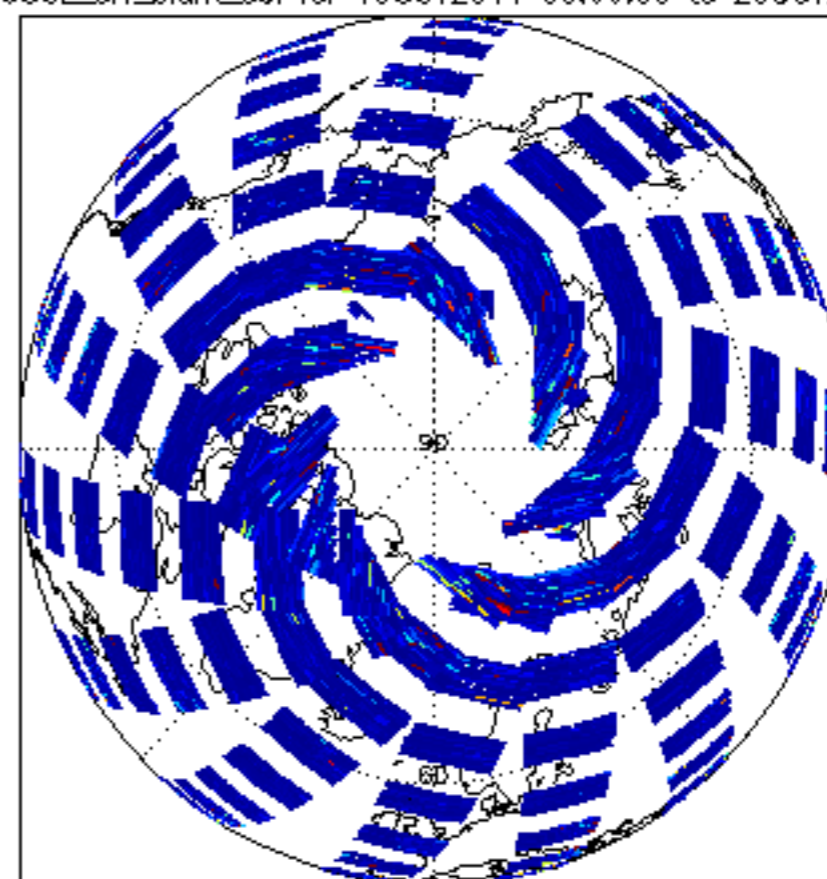
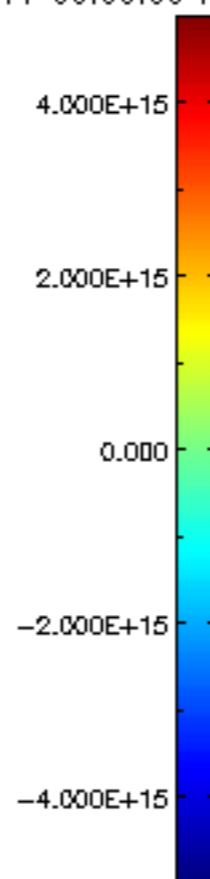
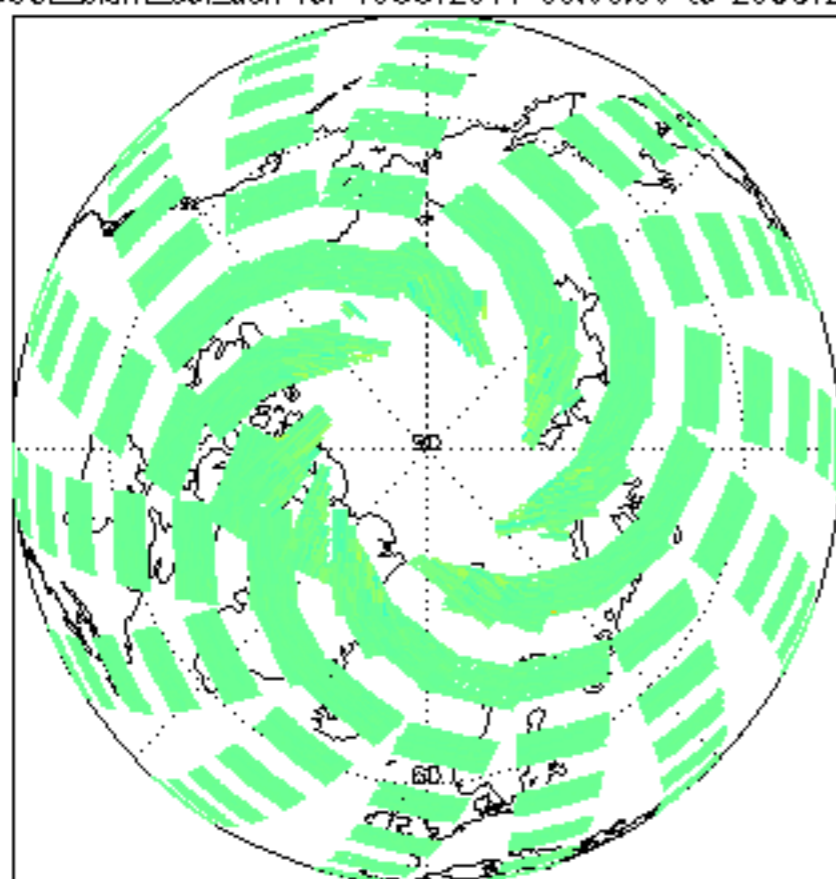


SCIOL2P\_NADUV7S02\_amf\_sl for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

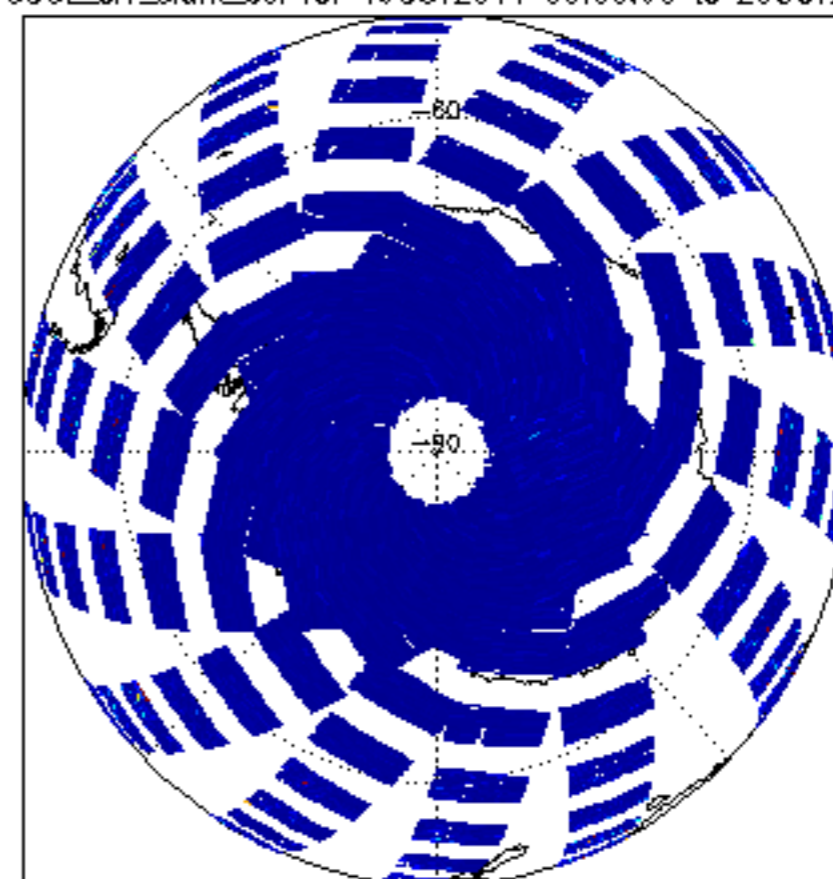
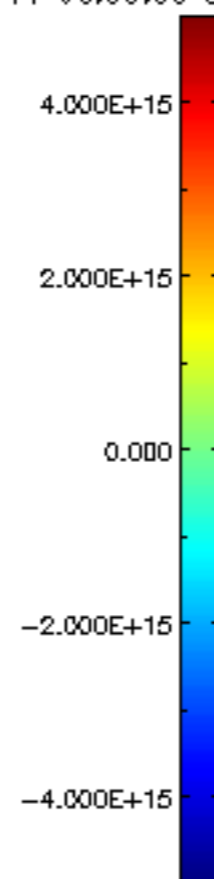
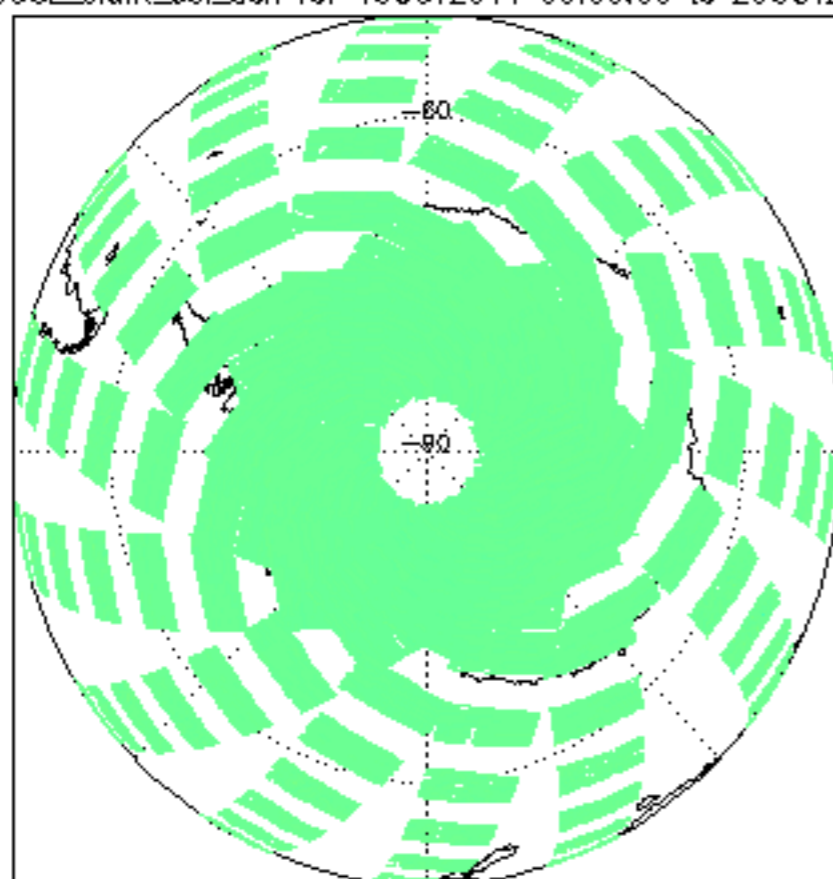


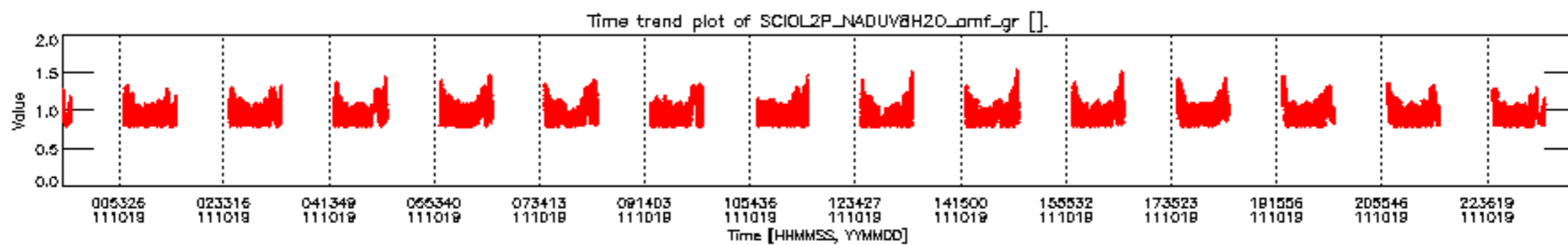
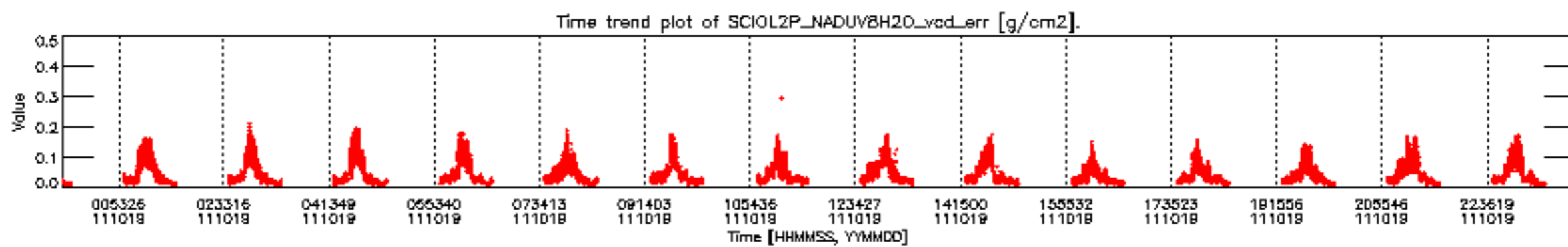
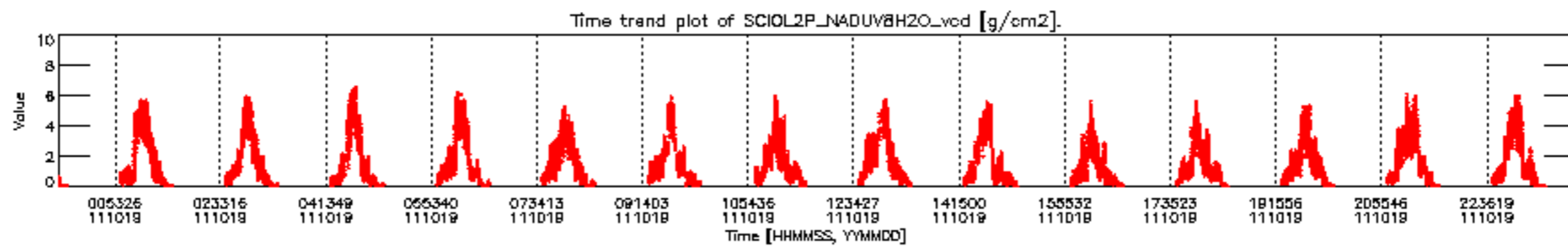


CIOL2P\_NADUV60CL\_slant\_col\_den for 19OCT2011 00:00:00 to 20OCT2011 00:00:00 np iCIOL2P\_NADUV60CL\_err\_slant\_col for 19OCT2011 00:00:00 to 20OCT2011 00:00:00 np

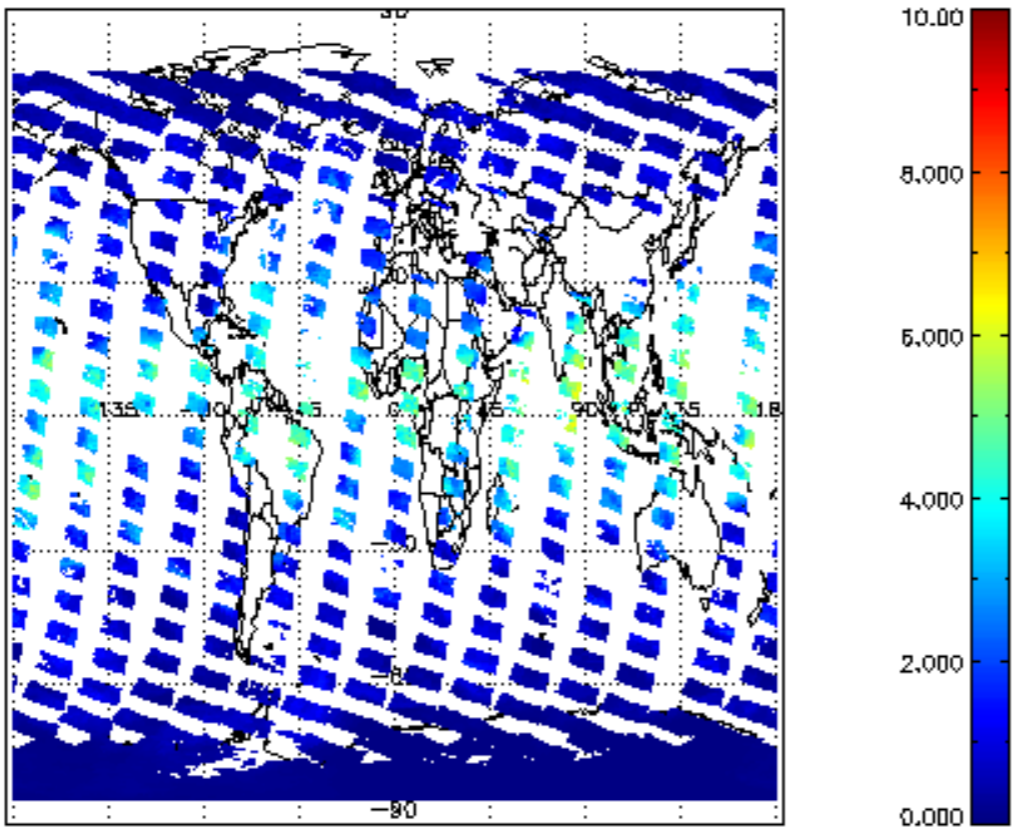


CIOL2P\_NADUV60CL\_slant\_col\_den for 19OCT2011 00:00:00 to 20OCT2011 00:00:00 sp; CIOL2P\_NADUV60CL\_err\_slant\_col for 19OCT2011 00:00:00 to 20OCT2011 00:00:00 sp

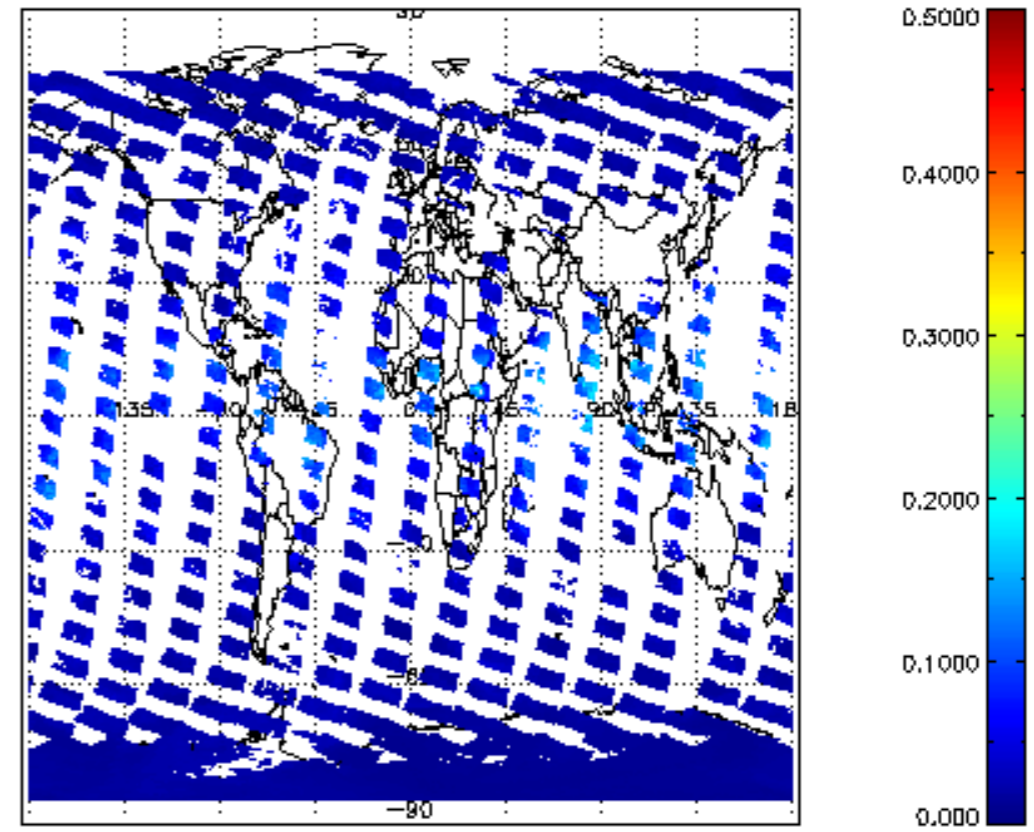




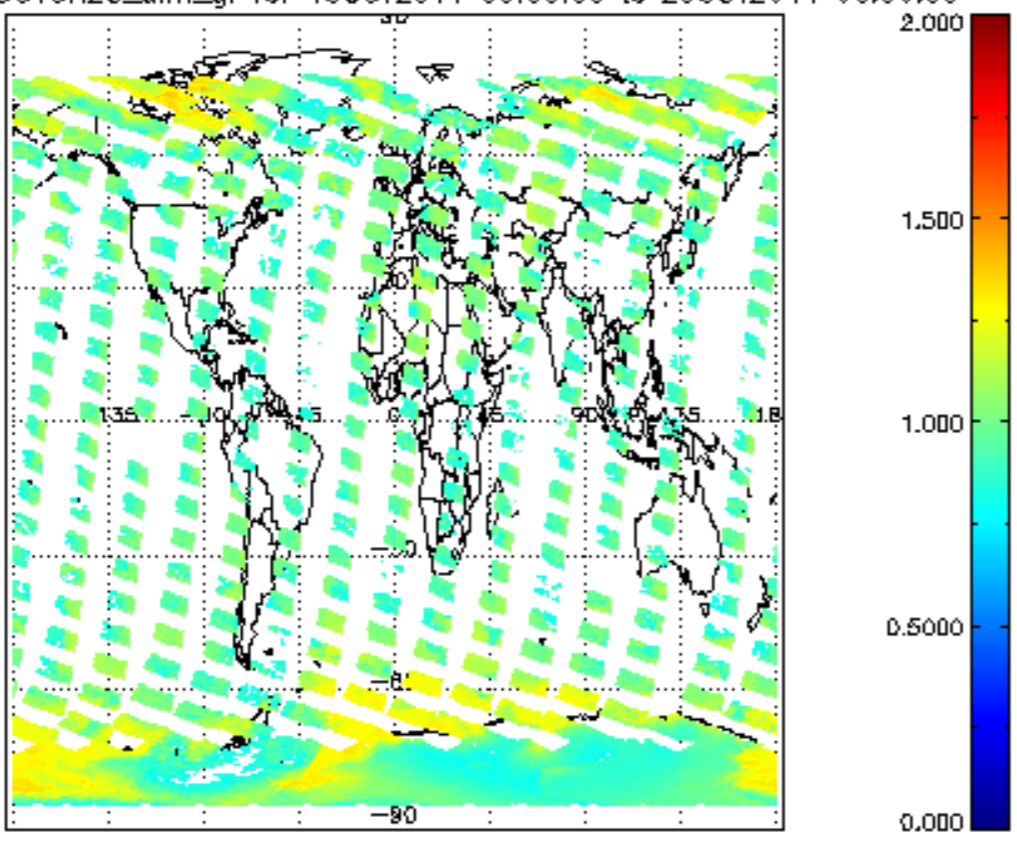
SCIOL2P\_NADUV8H20\_vcd for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

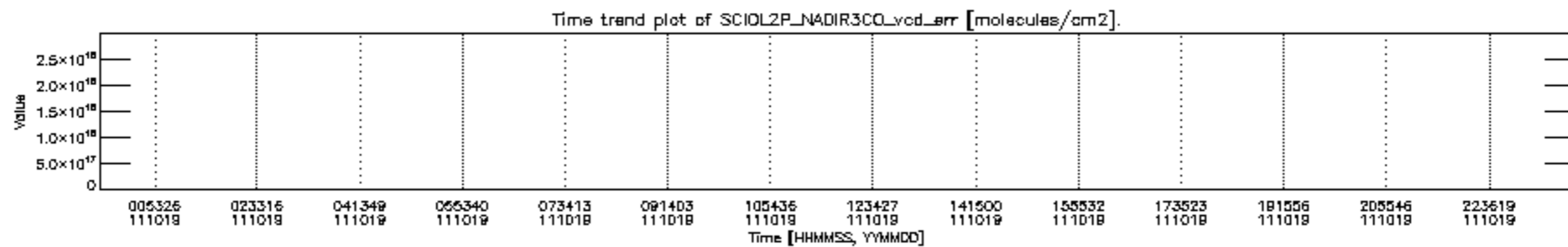
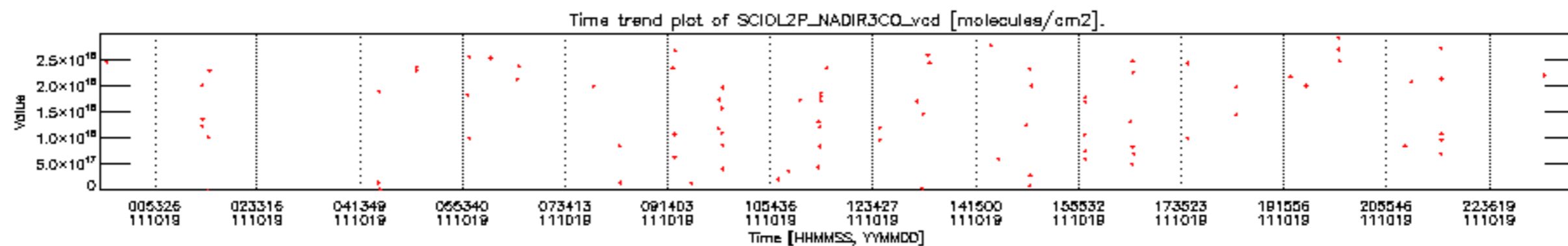


SCIOL2P\_NADUV8H20\_vcd\_err for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

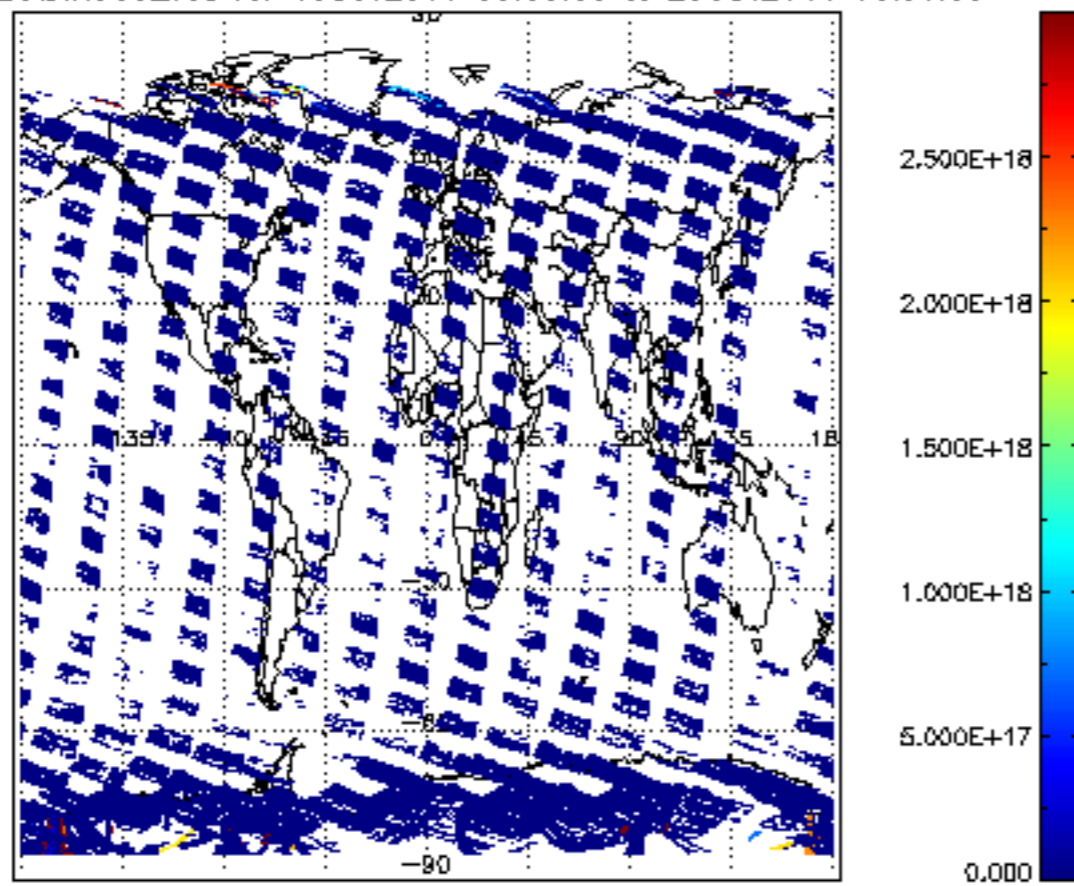


SCIOL2P\_NADUV8H20\_amf\_gr for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

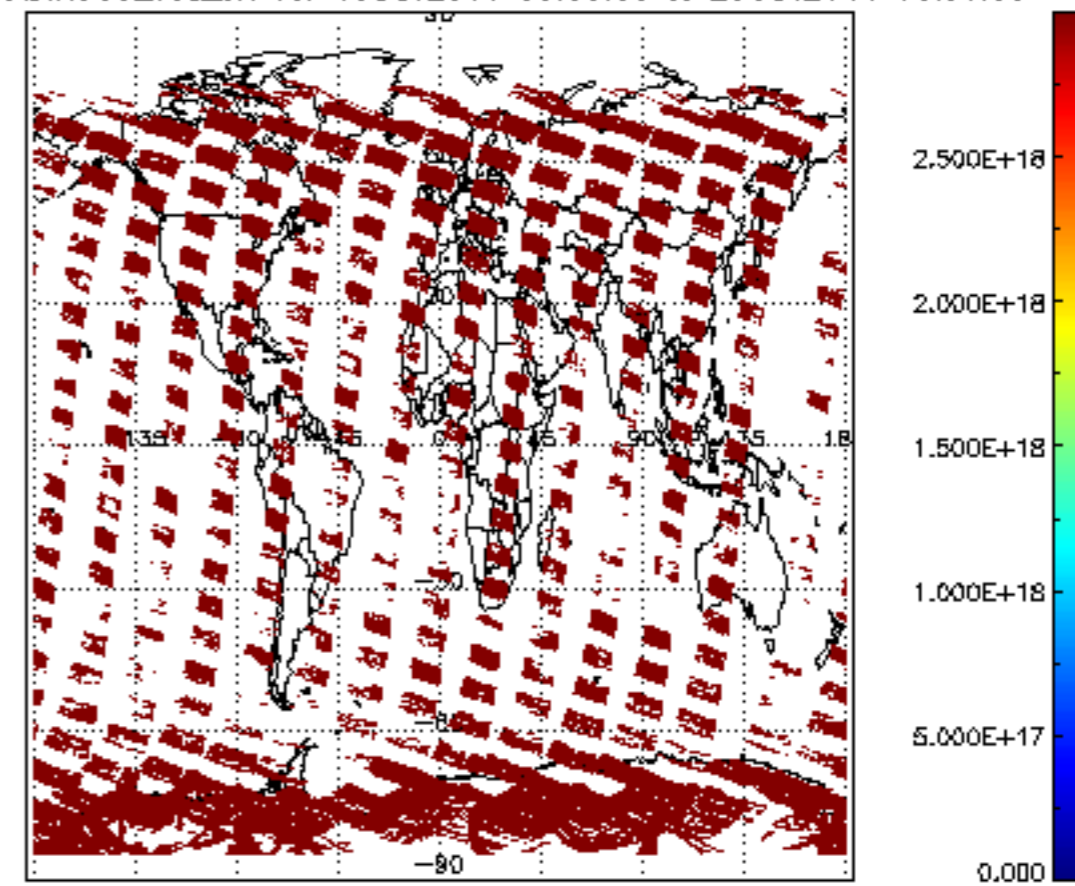




SCIOL2P\_NADIR3CO\_vcd for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

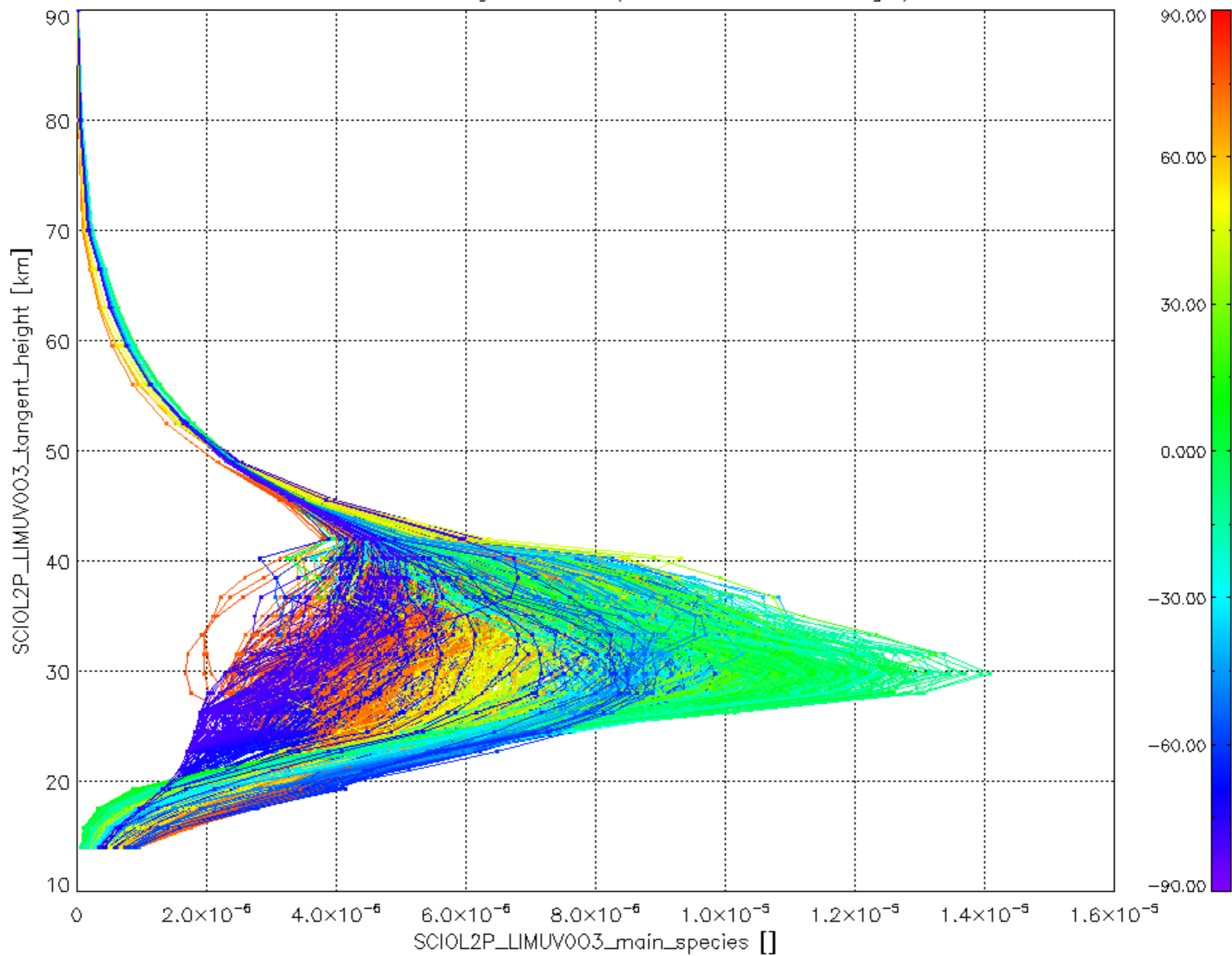


SCIOL2P\_NADIR3CO\_vcd\_err for 19OCT2011 00:00:00 to 20OCT2011 00:00:00

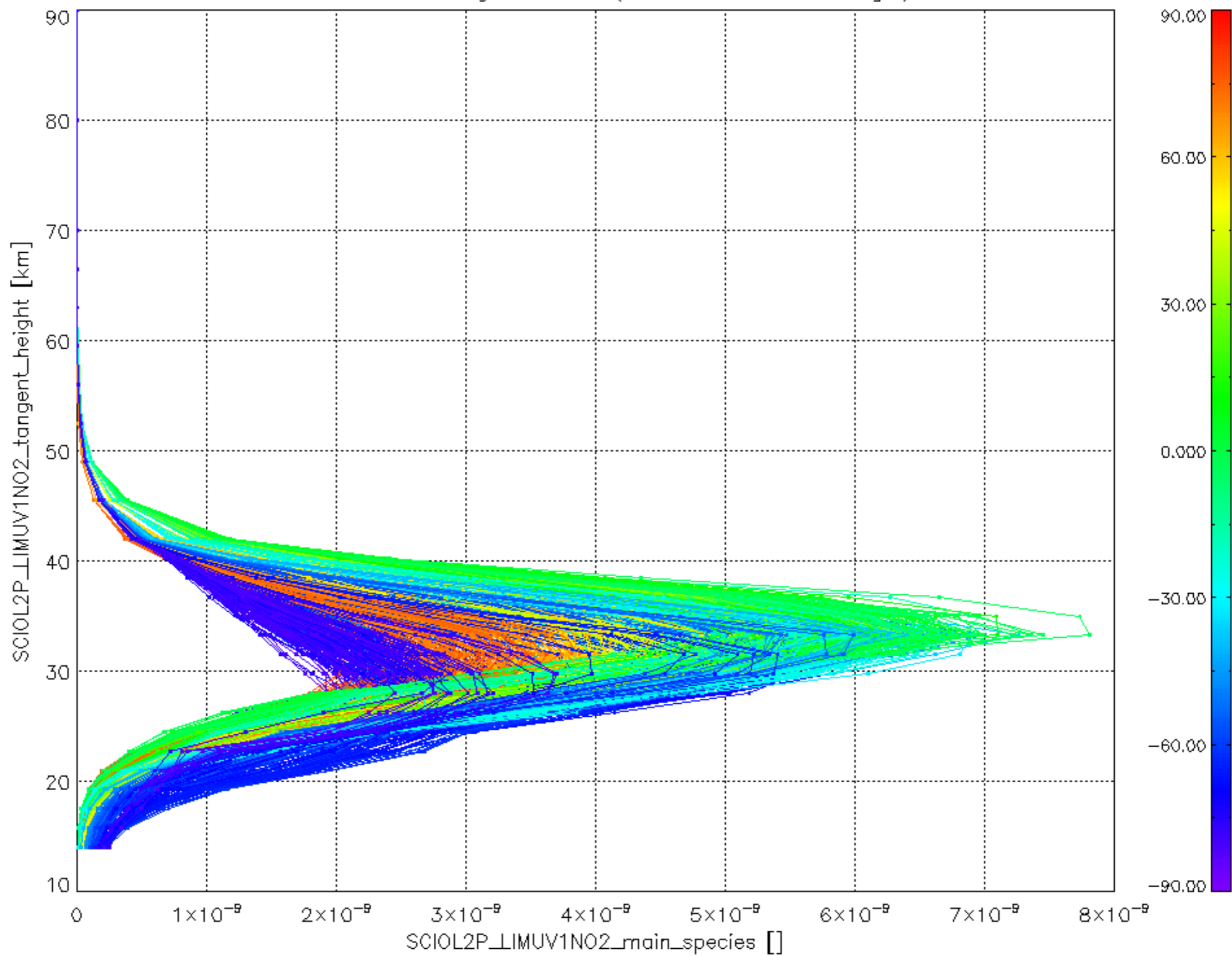




Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



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).

