

## 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	11OCT2011 03:14:46
Data source version	SCIA-OL/5.02-W
Processing scope for products	28SEP2011 00:00:00 to 29SEP2011 00:00:00
Start time of first product within scope	27SEP2011 22:38:18
Stop time of last product within scope	29SEP2011 00:39:38
Total number of level 2 products	16
Number of level 2 products with errors	0

### 2.1.2 Summary per product

The following table shows a summary for each product used in this report.

Products are linked to a corresponding server directory for view/download. Note: Link access may be restricted by security settings of your internet browser or firewall.

Products are checked for a minimum duration of 3500.0000 seconds and a maximum duration of 6000.0000 seconds. Products failing the duration test are highlighted in bold, and their stop time is highlighted in red.

#	Product name	Start time	Stop time	Prod err	Fit summary
0	<a href="#">SCI_OL__2PWDPA20110927_223818_000035163107_00073_50087_5184.N1</a>	27SEP2011 22:38:18	27SEP2011 23:36:55	0	GOOD
1	<a href="#">SCI_OL__2PWDPA20110928_001833_000034613107_00074_50088_5188.N1</a>	<b>28SEP2011 00:18:33</b>	<b>28SEP2011 01:16:15</b>	0	GOOD
2	<a href="#">SCI_OL__2PWDPA20110928_015847_000035163107_00075_50089_5185.N1</a>	28SEP2011 01:58:47	28SEP2011 02:57:23	0	GOOD
3	<a href="#">SCI_OL__2PWDPA20110928_033902_000034613107_00076_50090_5186.N1</a>	<b>28SEP2011 03:39:02</b>	<b>28SEP2011 04:36:44</b>	0	GOOD
4	<a href="#">SCI_OL__2PWDPA20110928_051916_000035163107_00077_50091_5187.N1</a>	28SEP2011 05:19:16	28SEP2011 06:17:53	0	GOOD

5	SCI_OL__2PWDP	A20110928_065931_000034613107_00078_50092_5191.N1	28SEP2011 06:59:31	28SEP2011 07:57:13	0	GOOD
6	SCI_OL__2PWDP	A20110928_083945_000035163107_00079_50093_5192.N1	28SEP2011 08:39:45	28SEP2011 09:38:22	0	GOOD
7	SCI_OL__2PWDP	A20110928_102000_000034613107_00080_50094_5193.N1	28SEP2011 10:20:00	28SEP2011 11:17:42	0	GOOD
8	SCI_OL__2PWDP	A20110928_120014_000035163107_00081_50095_5194.N1	28SEP2011 12:00:14	28SEP2011 12:58:50	0	GOOD
9	SCI_OL__2PWDP	A20110928_134029_000034613107_00082_50096_5195.N1	28SEP2011 13:40:29	28SEP2011 14:38:11	0	GOOD
10	SCI_OL__2PWDP	A20110928_152043_000035163107_00083_50097_5196.N1	28SEP2011 15:20:43	28SEP2011 16:19:19	0	GOOD
11	SCI_OL__2PWDP	A20110928_170058_000034613107_00084_50098_5197.N1	28SEP2011 17:00:58	28SEP2011 17:58:40	0	GOOD
12	SCI_OL__2PWDP	A20110928_184125_000034473107_00085_50099_5198.N1	28SEP2011 18:41:25	28SEP2011 19:38:53	0	GOOD
13	SCI_OL__2PWDP	A20110928_202140_000034613107_00086_50100_5199.N1	28SEP2011 20:21:40	28SEP2011 21:19:22	0	GOOD
14	SCI_OL__2PWDP	A20110928_220141_000035163107_00087_50101_5200.N1	28SEP2011 22:01:41	28SEP2011 23:00:17	0	GOOD
15	SCI_OL__2PWDP	A20110928_234156_000034613107_00088_50102_5201.N1	28SEP2011 23:41:56	29SEP2011 00:39:38	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: 161189

Total number of cloud data DSRs with good quality flag (=0): 161189 (100.0 %)

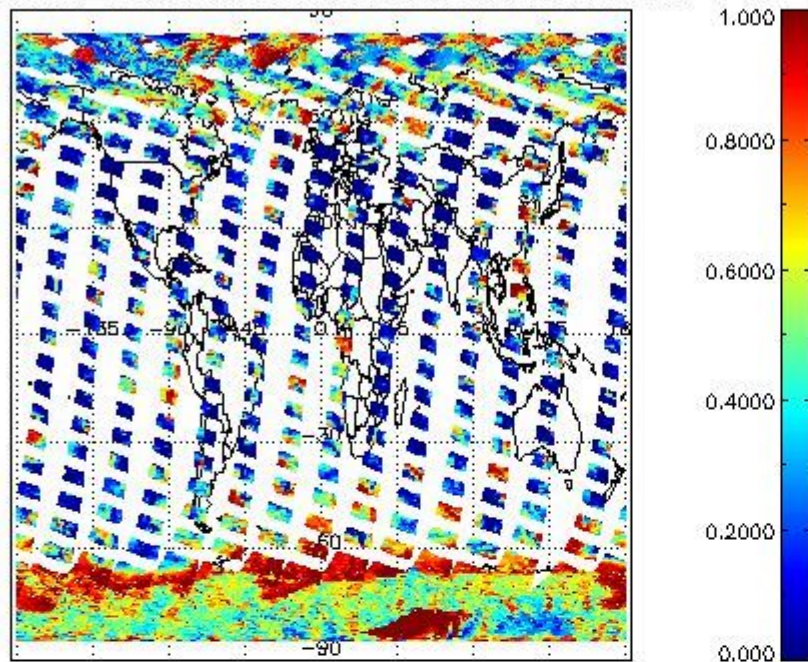
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	161189	0.0000	0.0000	0.0000	0.0000	0.0000	
INTEGR_TIME	161189	0.16612	0.12500	0.12500	0.25000	0.058731	s
CL_FRAC	161189	0.44078	0.42449	0.0000	1.0000	0.32327	
CL_FRAC_ERR	161189	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	161189	5.3159	4.0000	4.0000	8.0000	1.8794	
PMD_READ_CL[0]	161189	0.48024	0.0000	0.0000	8.0000	1.2512	-
PMD_READ_CL[1]	161189	1.2947	0.0000	0.0000	8.0000	2.5715	-
CL_TOP_HEIGHT	128918	3.6302	2.1236	0.0000	17.000	3.9514	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	128918	62.058	82.083	0.0000	101.00	41.630	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	161189	11100000	11100000	11100000	11100000	0.0000	
CLOUD_FLAGS	161189	11001100	11000100	11000000	11100000	3502.5	
AERO_ABSO_IND	161189	0.18186	0.0000	0.0000	4.8524	0.43666	
AERO_IND_DIAG	161189	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	161189	01010101	00000000	00000000	11000000	24437.	

#### Time and geolocation plots:

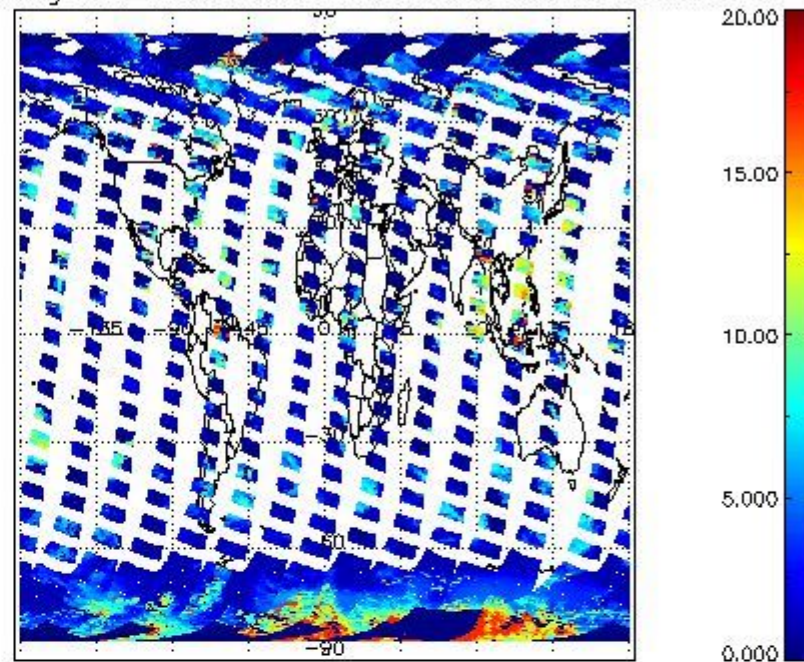
Plots are available for the following parameters:

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

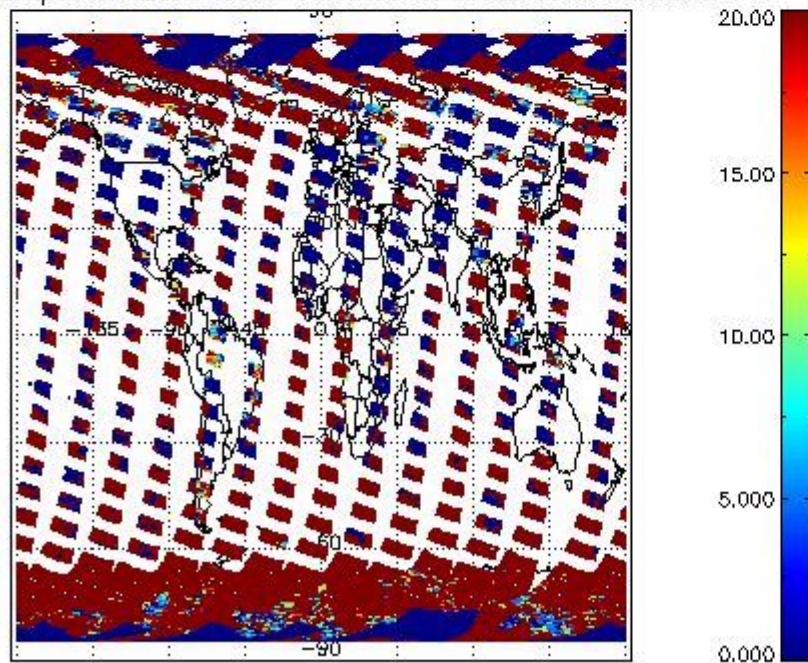
cL\_frac for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



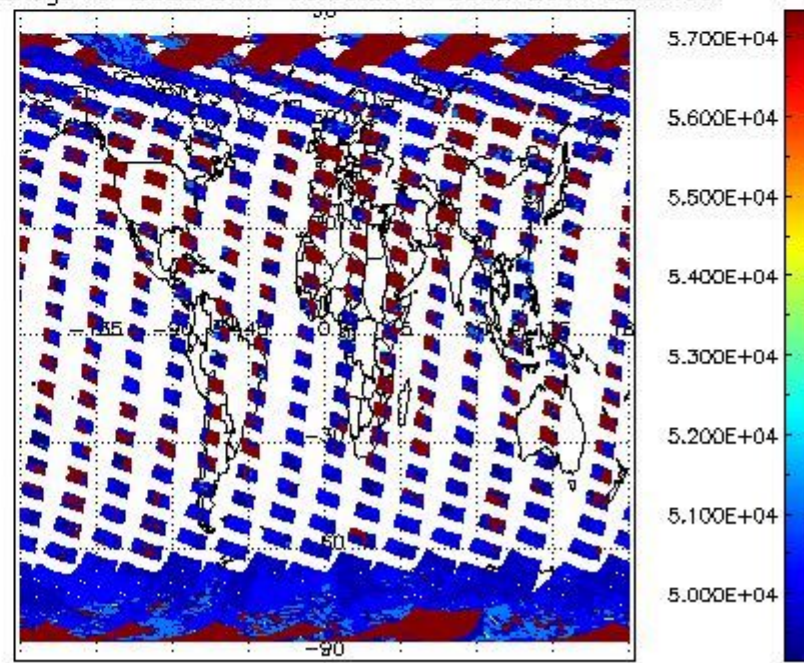
cL\_top\_height for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



cL\_opt\_depth for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



cloud\_flags for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



## 2.2.2 Nadir

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

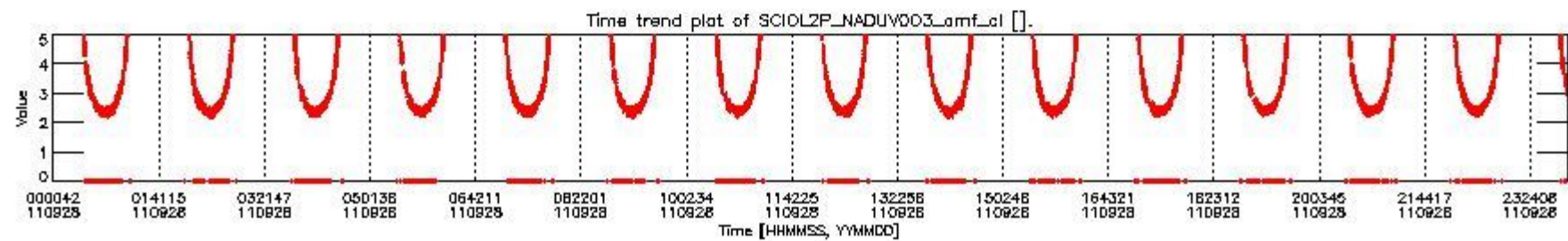
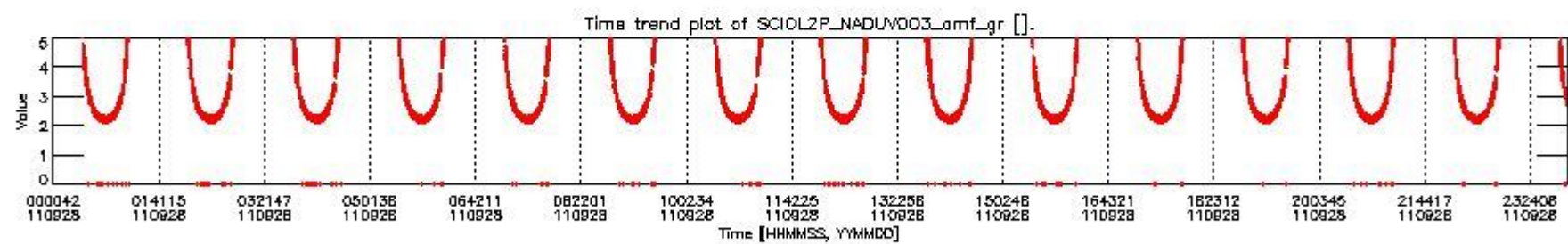
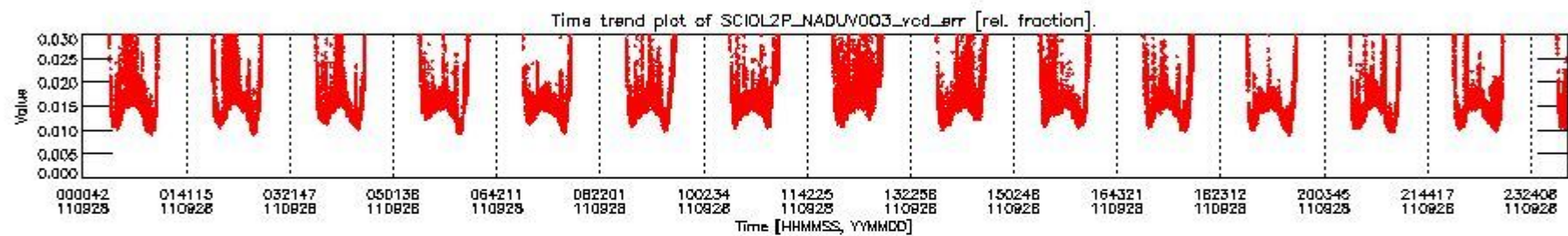
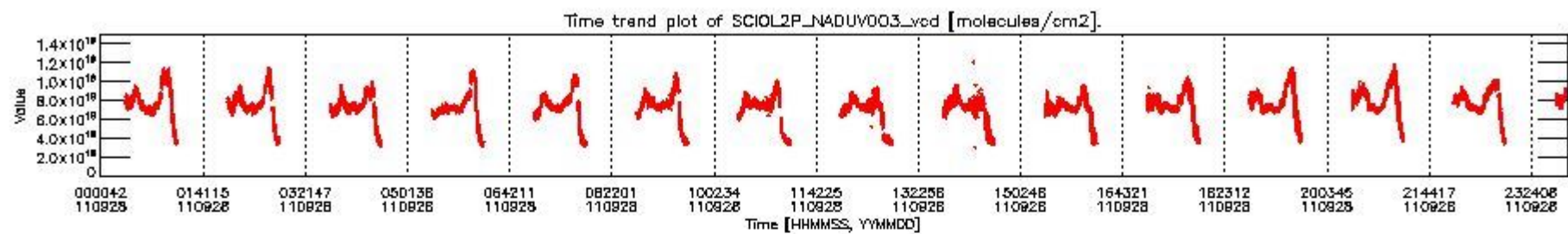
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

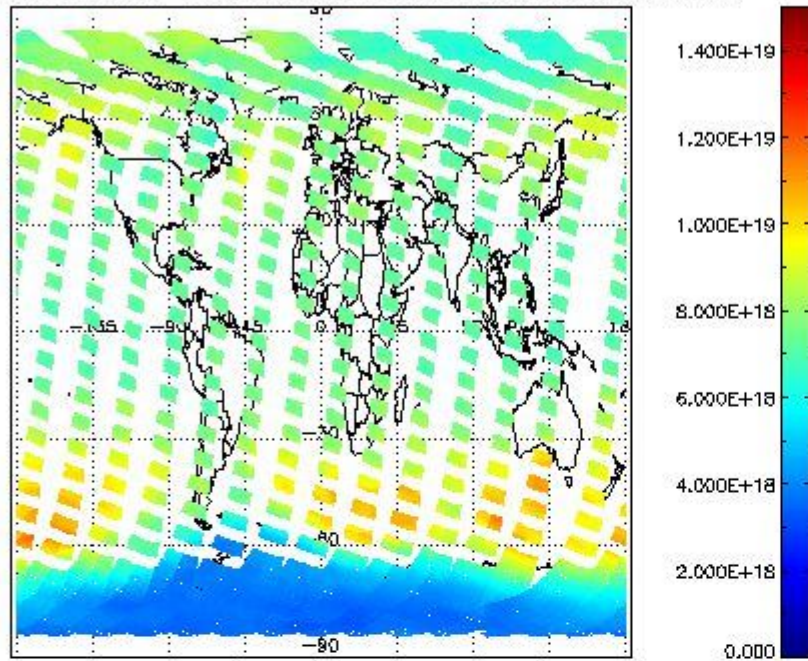
3	SCIOL2P_NADUV0O3_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl
8	SCIOL2P_NADUV3BRO_vcd
9	SCIOL2P_NADUV3BRO_vcd_err
10	SCIOL2P_NADUV3BRO_amf_gr
11	SCIOL2P_NADUV3BRO_amf_cl
12	SCIOL2P_NADUV5SO2_vcd
13	SCIOL2P_NADUV5SO2_vcd_err
14	SCIOL2P_NADUV5SO2_amf_gr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

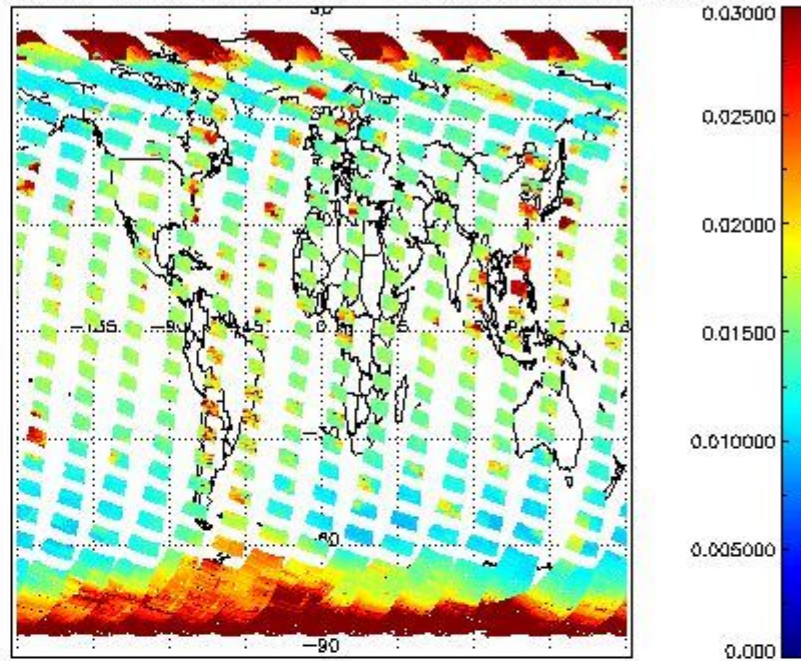
#### 2.2.2.1 O3 (UV0)



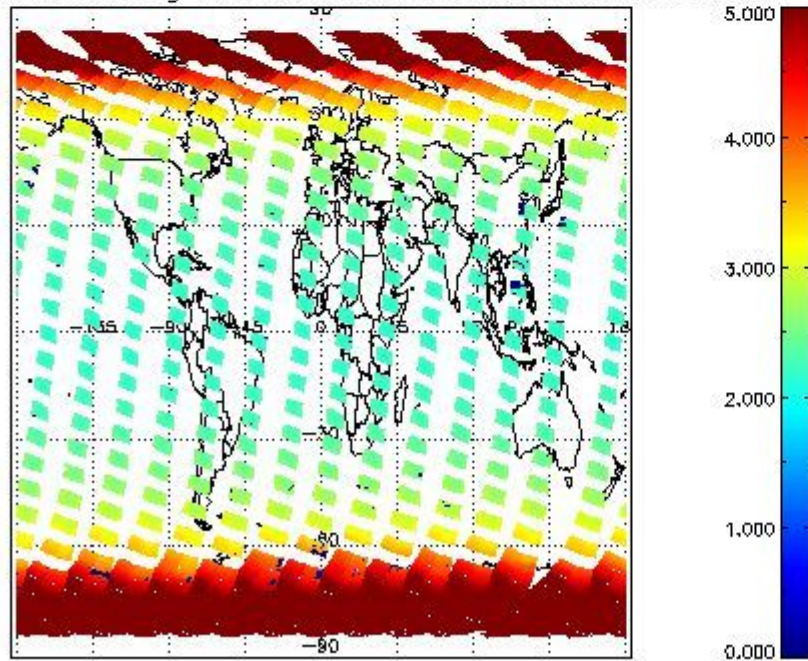
SCIOL2P\_NADUV003\_vcd for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



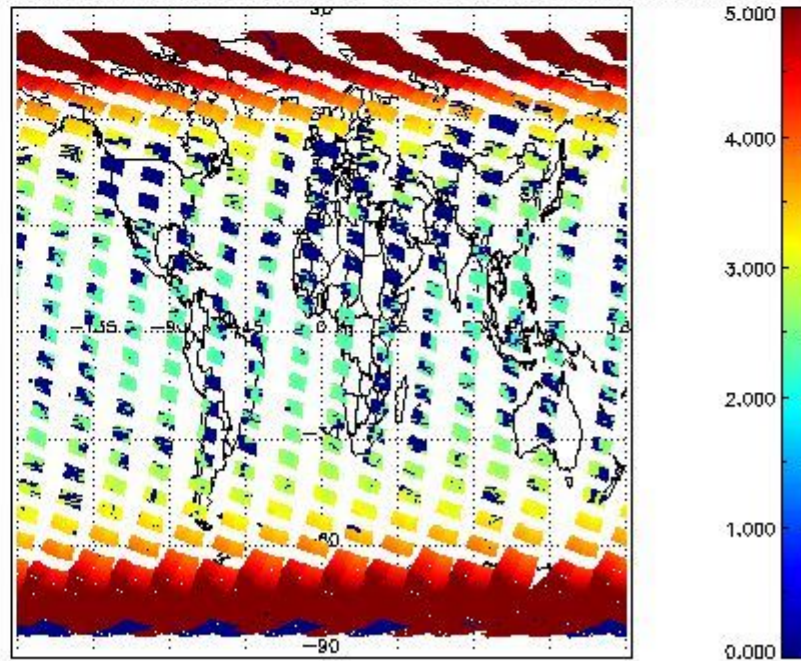
SCIOL2P\_NADUV003\_vcd\_err for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



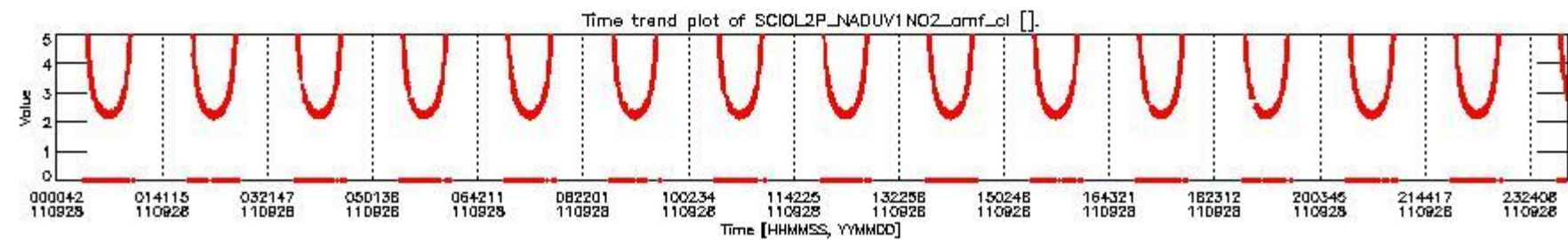
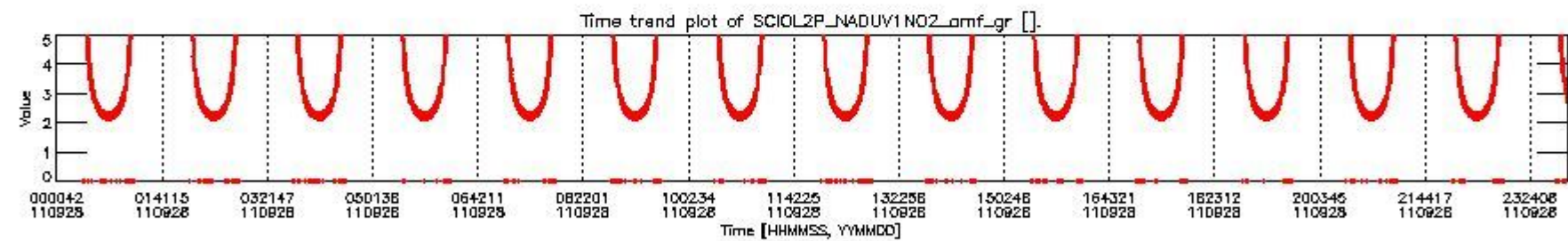
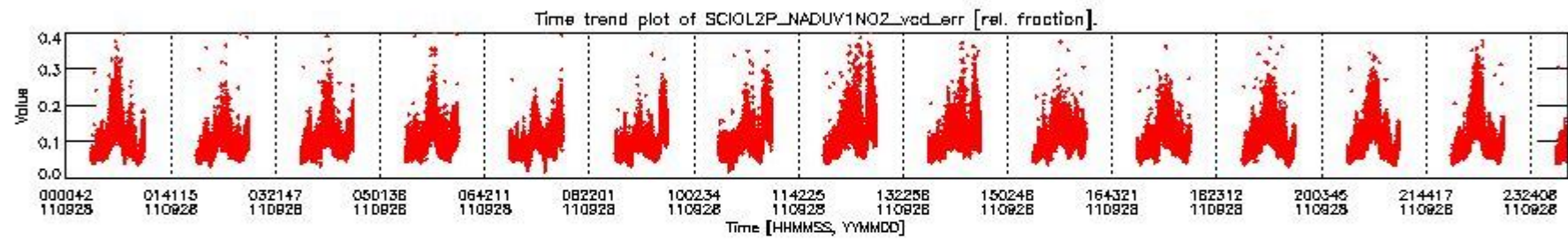
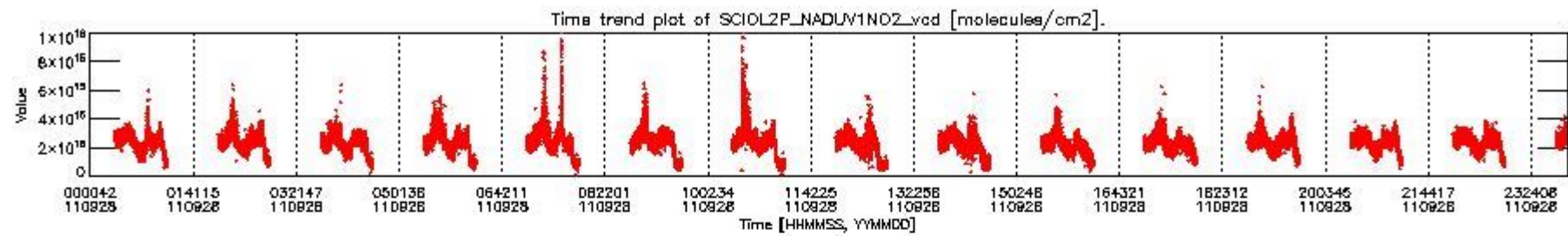
SCIOL2P\_NADUV003\_amf\_gr for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



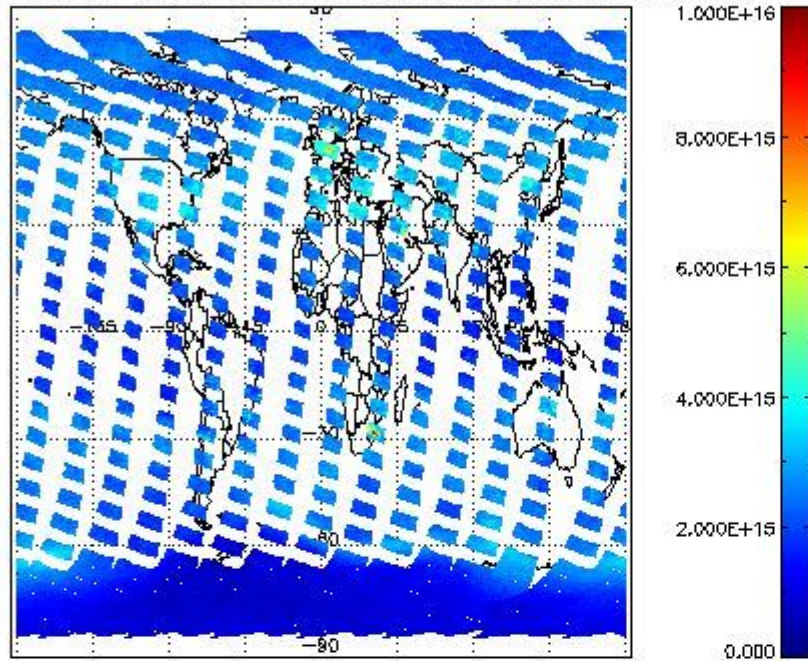
SCIOL2P\_NADUV003\_amf\_cl for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



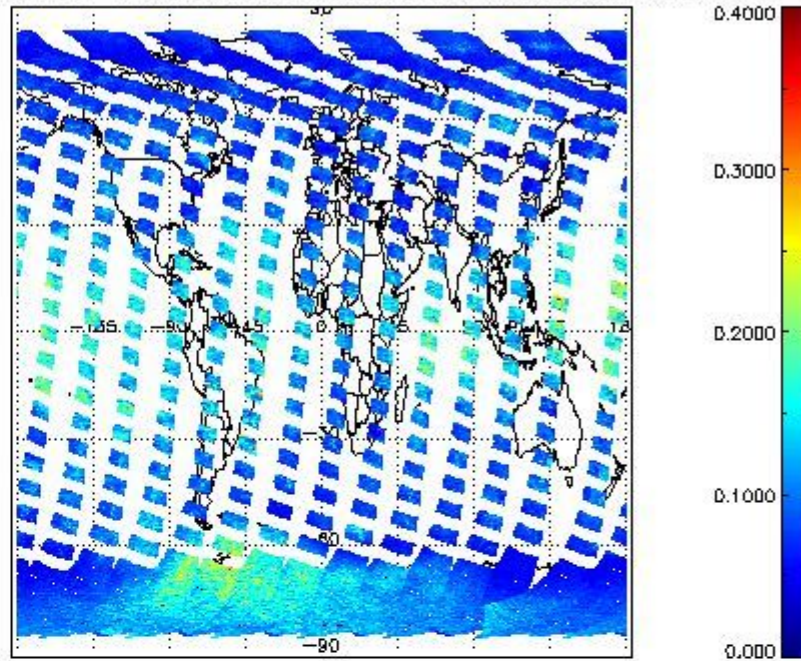
2.2.2.2 NO2 (UV1)



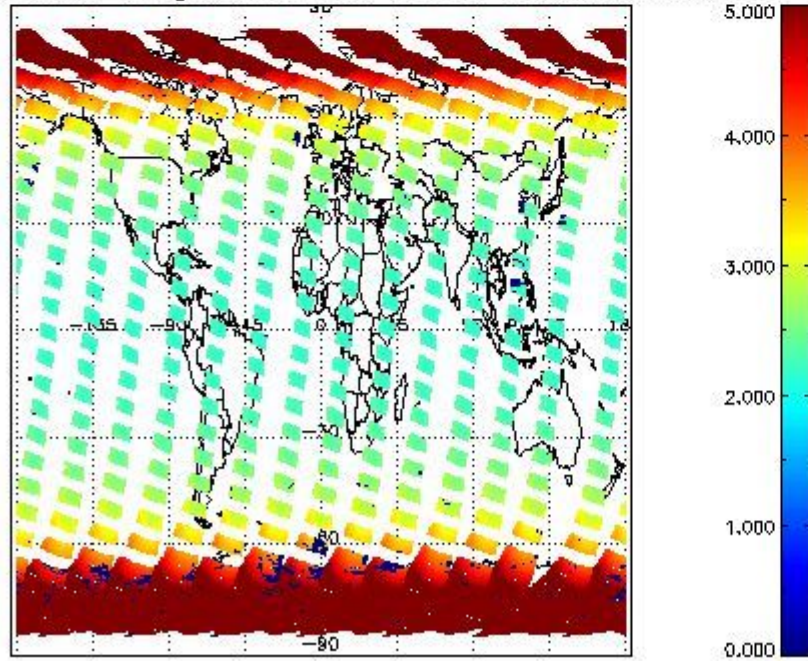
SCIOL2P\_NADUV1N02\_vcd for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



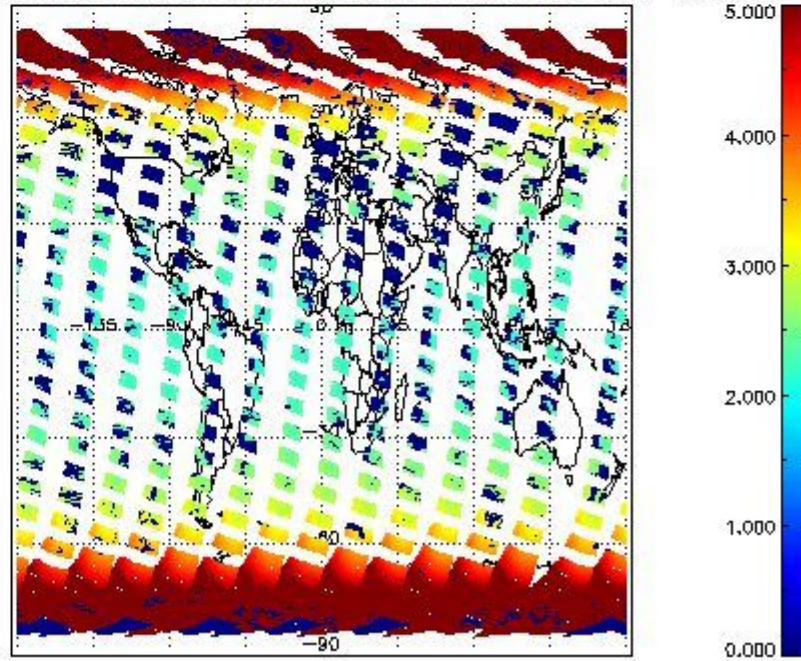
SCIOL2P\_NADUV1N02\_vcd\_err for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



SCIOL2P\_NADUV1N02\_amf\_gr for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

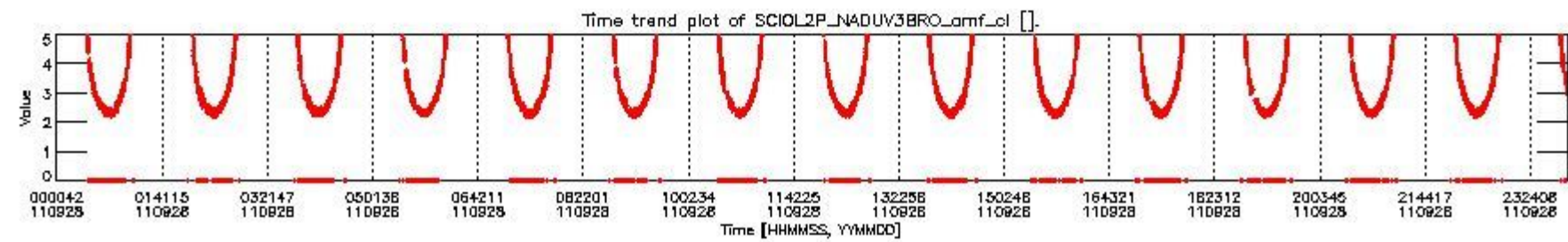
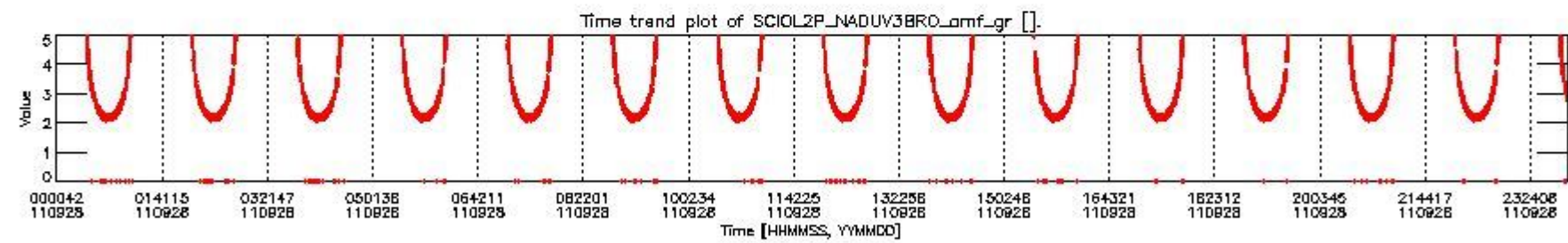
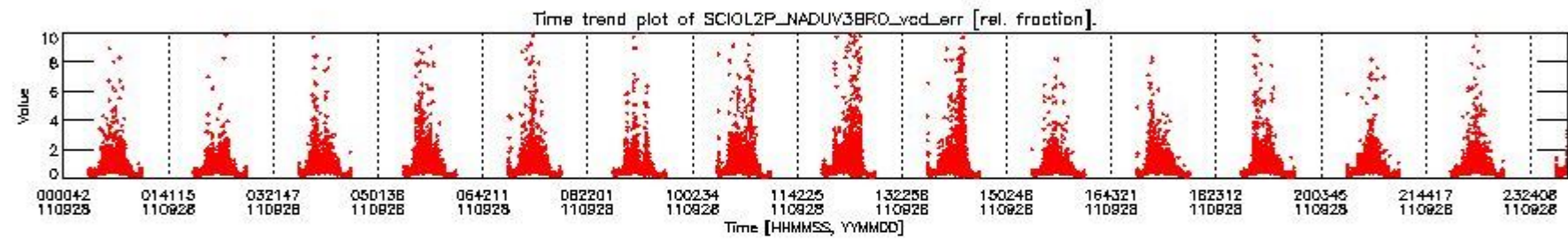
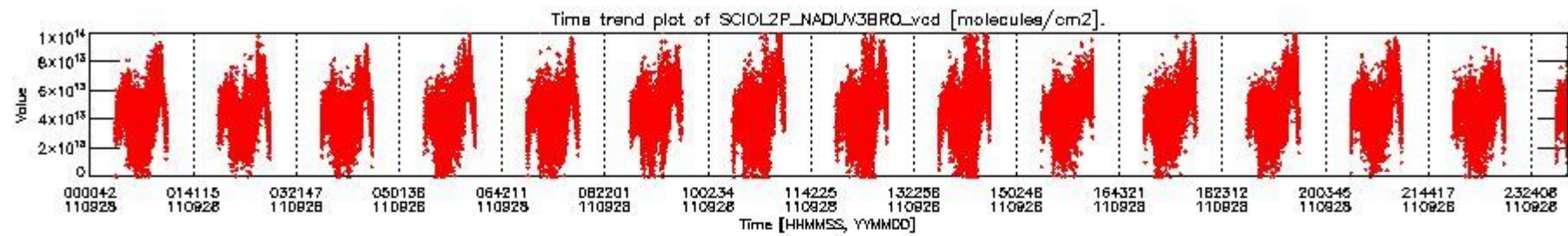


SCIOL2P\_NADUV1N02\_amf\_cl for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

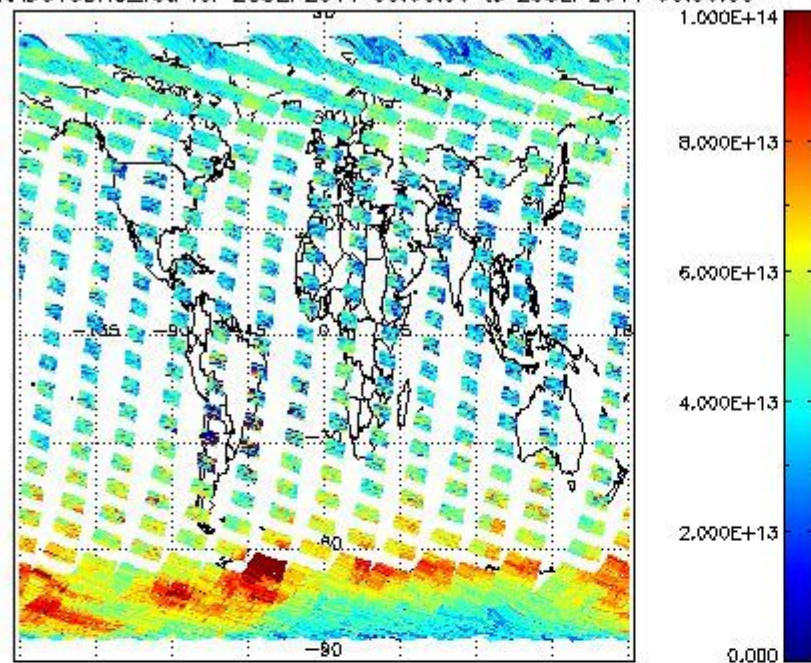


2.2.2.3 BrO (UV3)

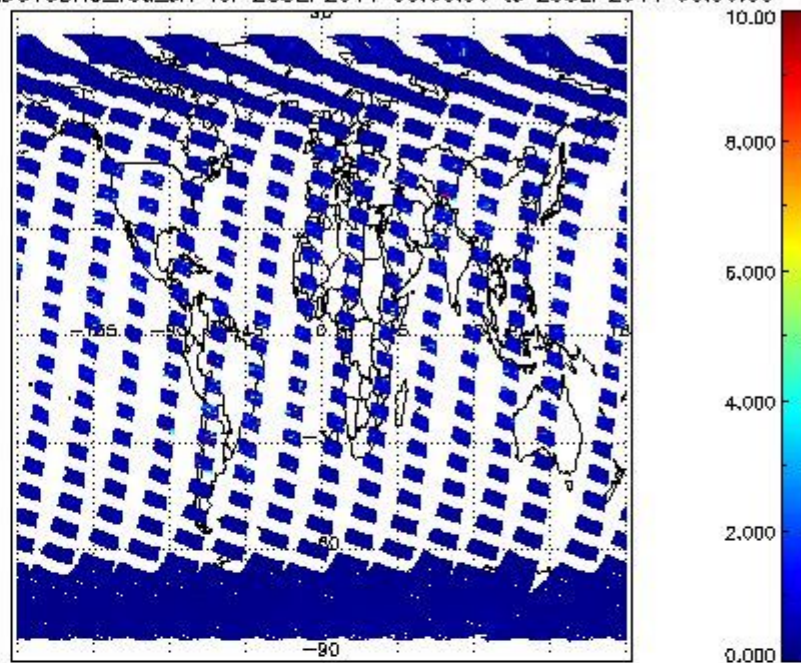




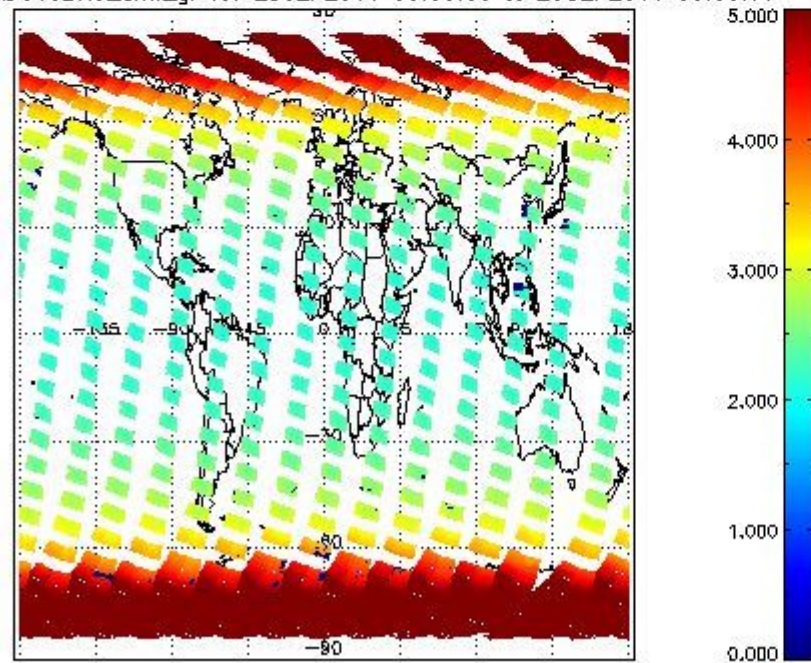
SCIOL2P\_NADUV3BRO\_vcd for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



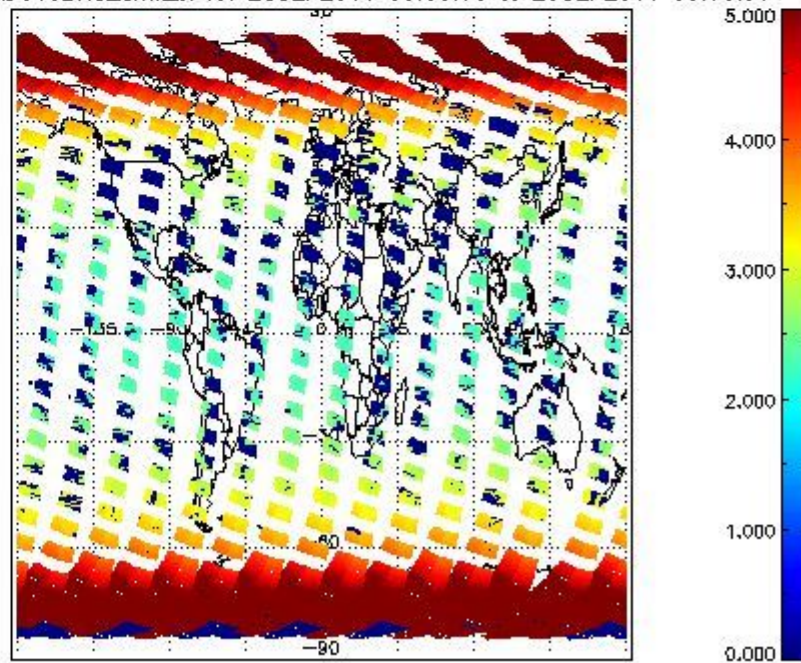
SCIOL2P\_NADUV3BRO\_vcd\_err for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



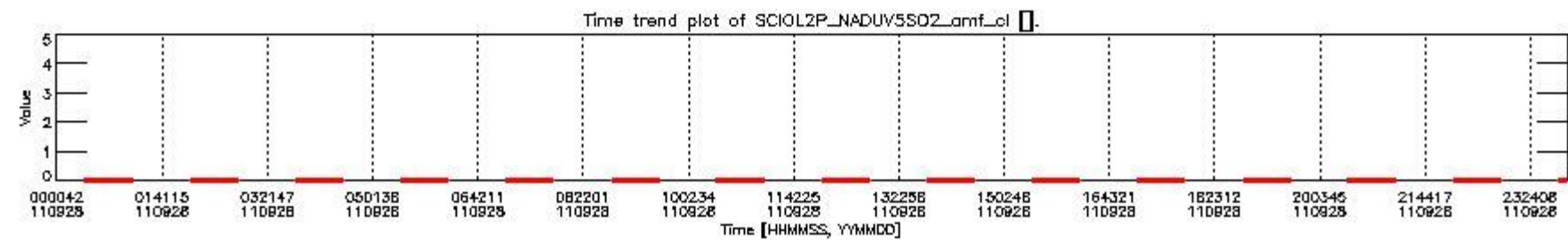
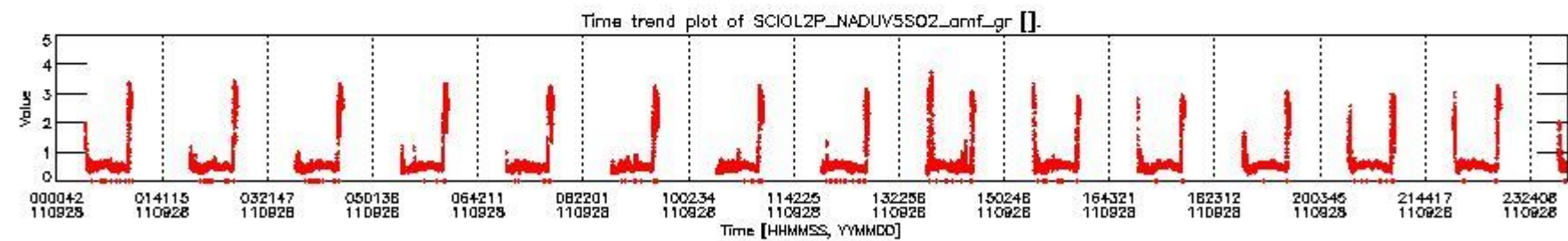
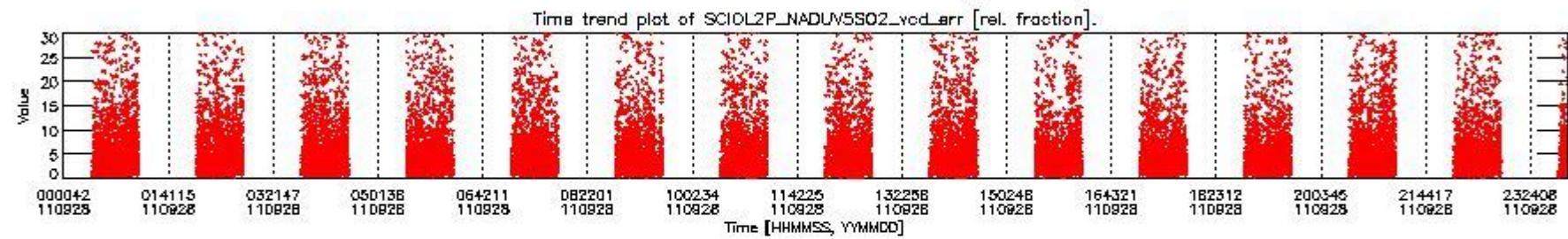
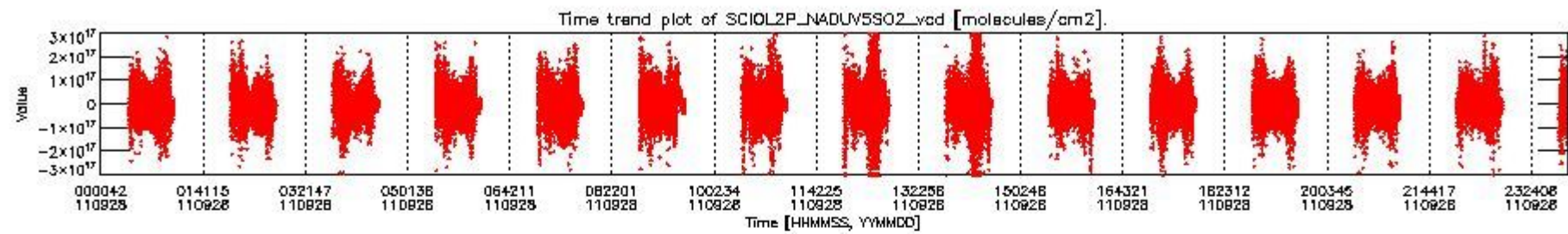
SCIOL2P\_NADUV3BRO\_amf\_gr for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



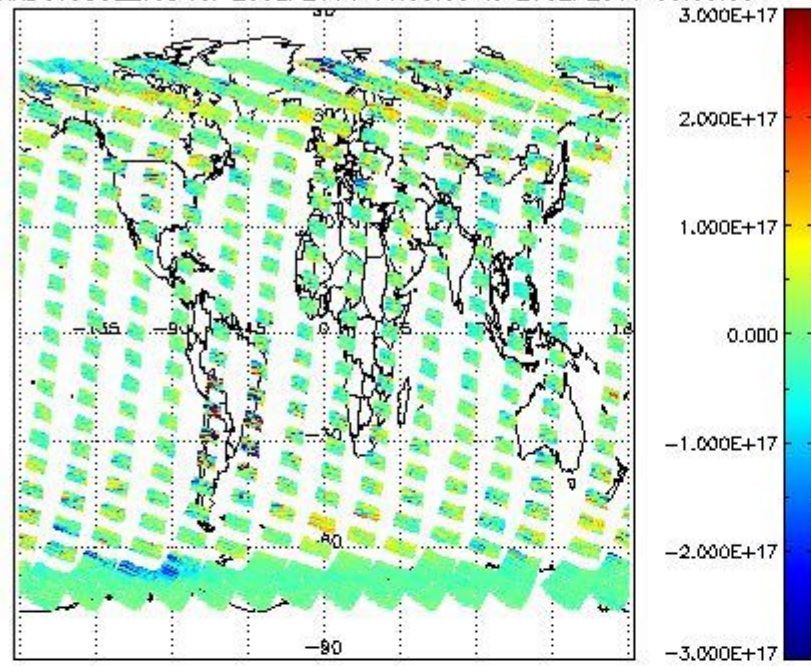
SCIOL2P\_NADUV3BRO\_amf\_cl for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



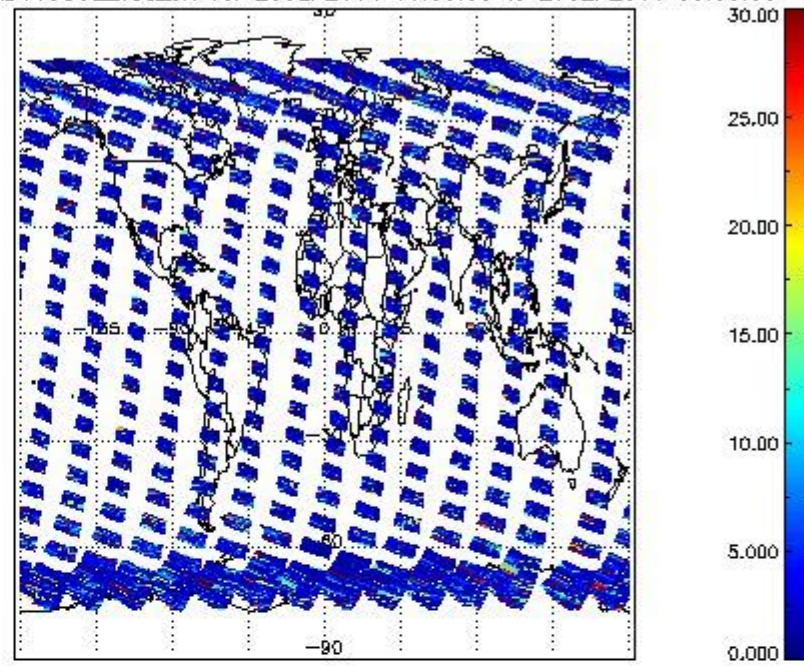
2.2.2.4 SO2 (UV5)



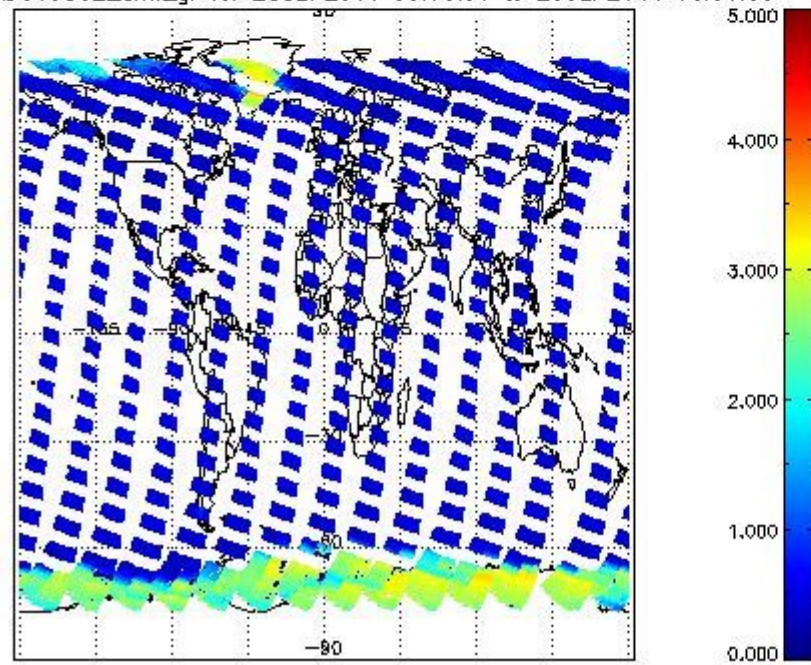
SCIOL2P\_NADUV5S02\_vcd for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



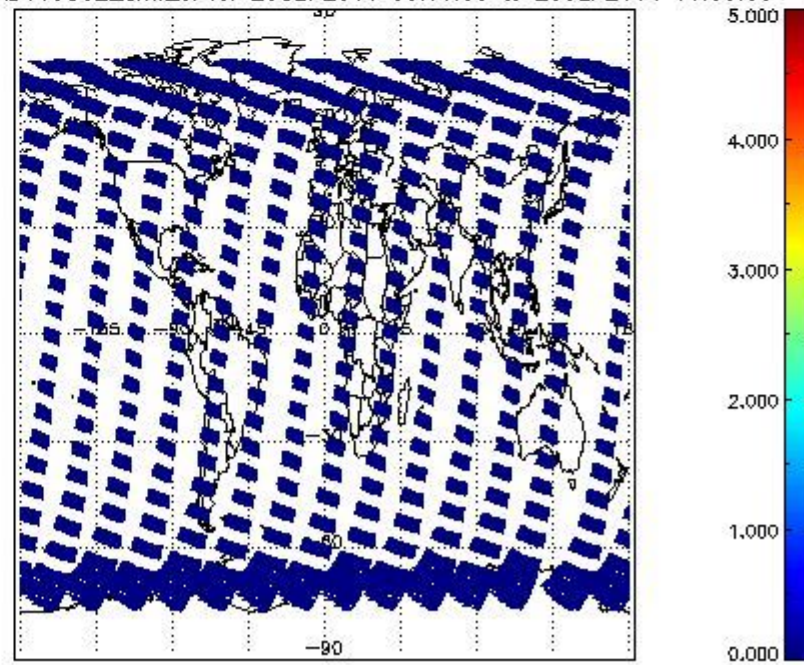
SCIOL2P\_NADUV5S02\_vcd\_err for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



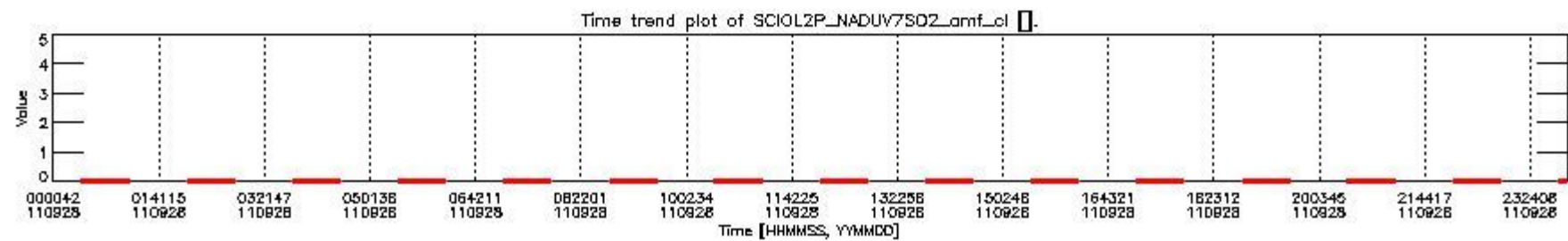
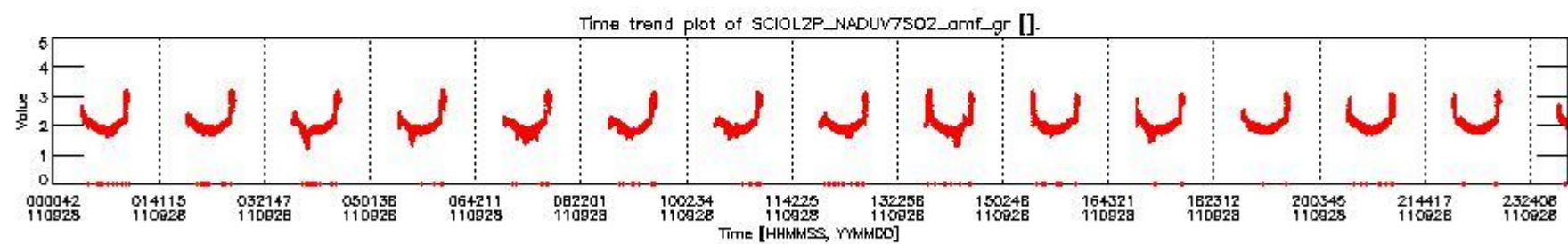
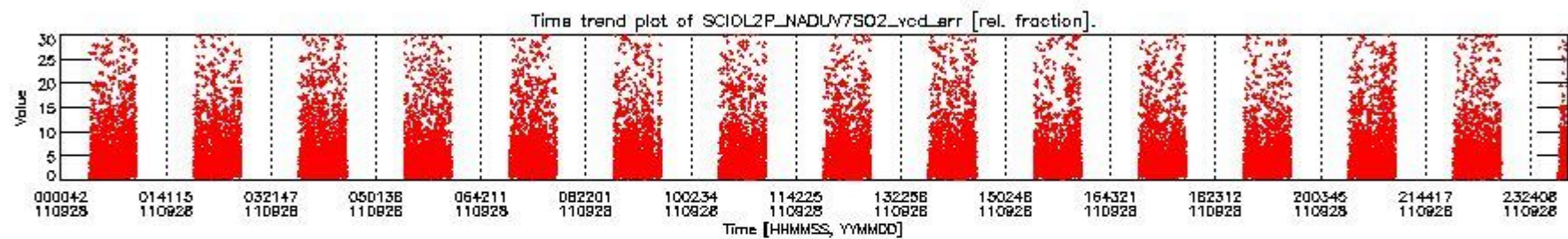
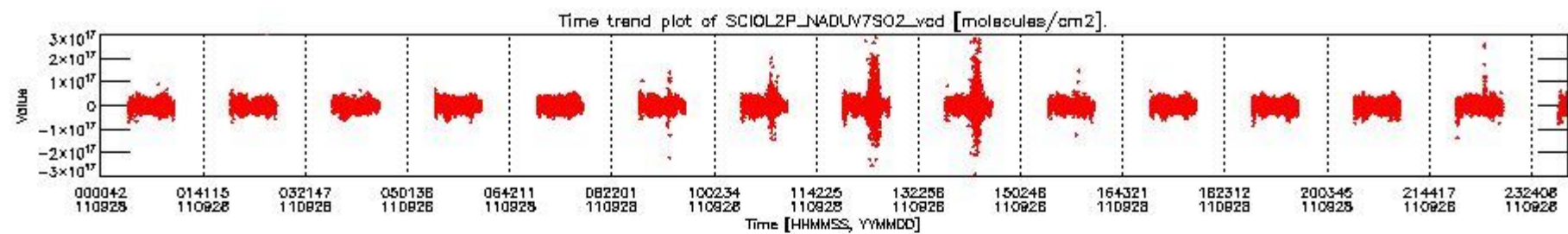
SCIOL2P\_NADUV5S02\_amf\_gr for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



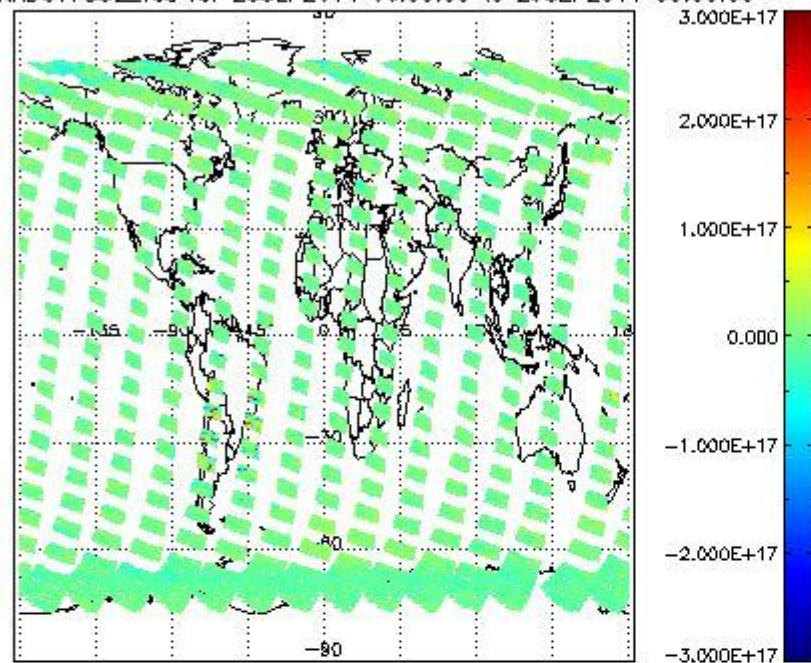
SCIOL2P\_NADUV5S02\_amf\_cl for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



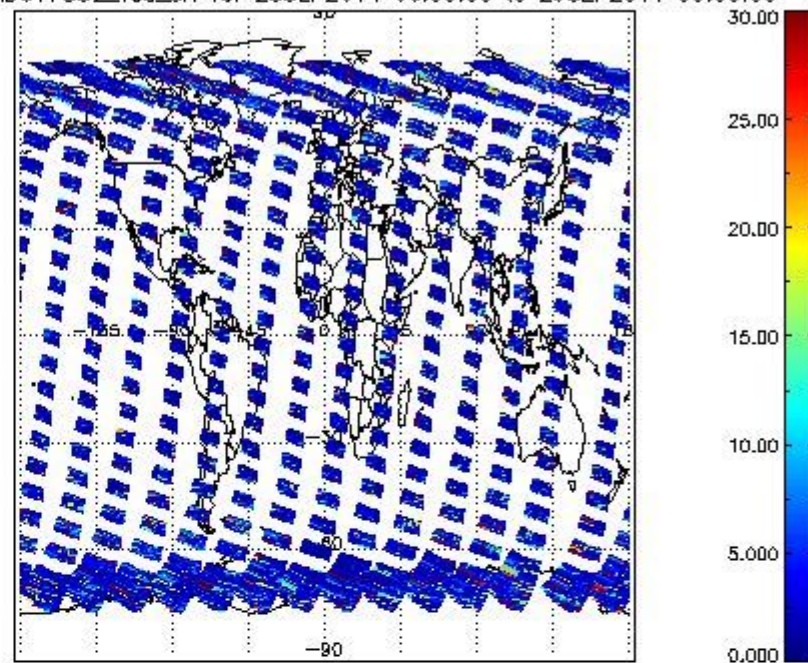
2.2.2.5 SO2 (UV7)



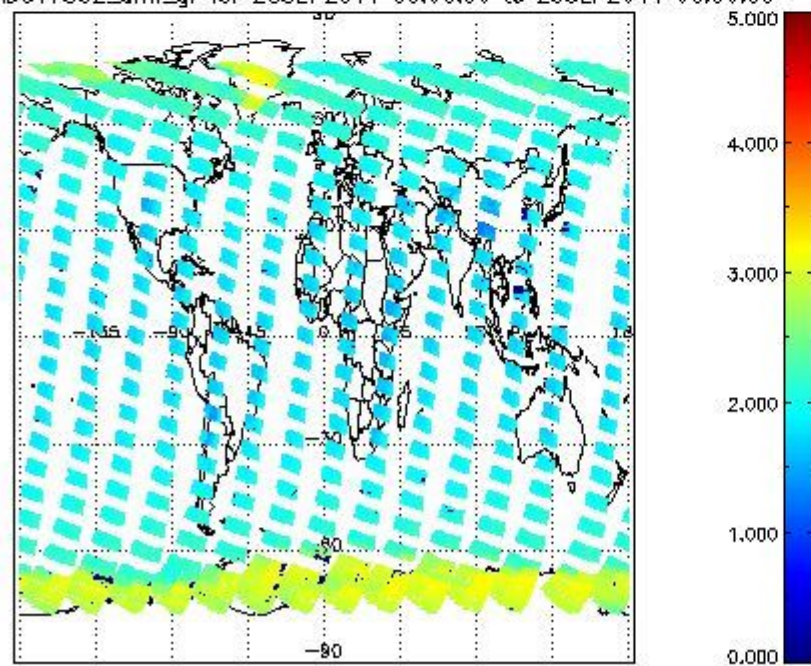
SCIOL2P\_NADUV7S02\_vcd for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



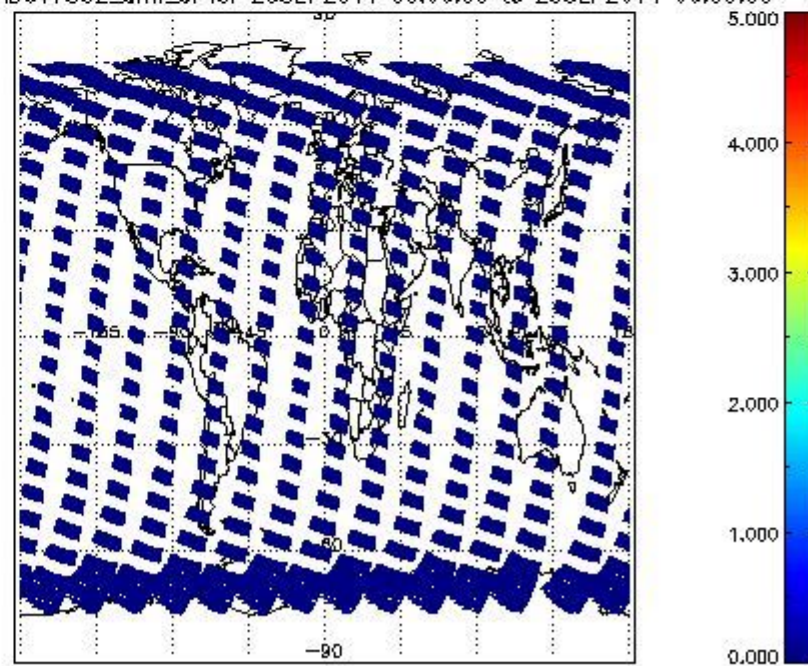
SCIOL2P\_NADUV7S02\_vcd\_err for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



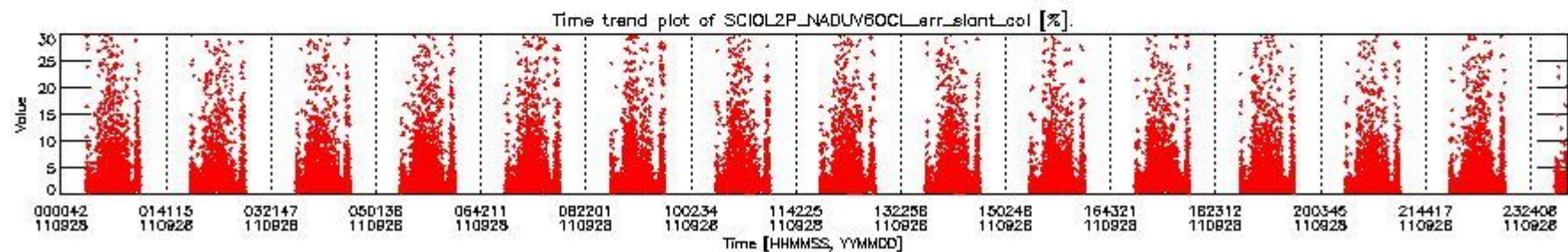
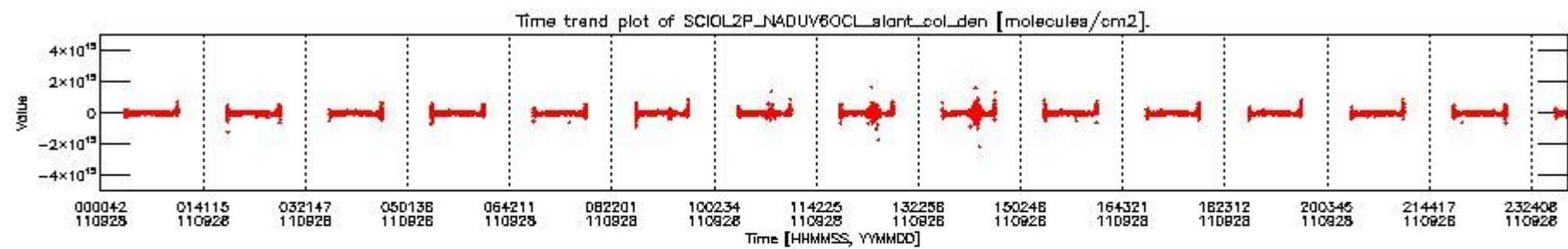
SCIOL2P\_NADUV7S02\_amf\_gr for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



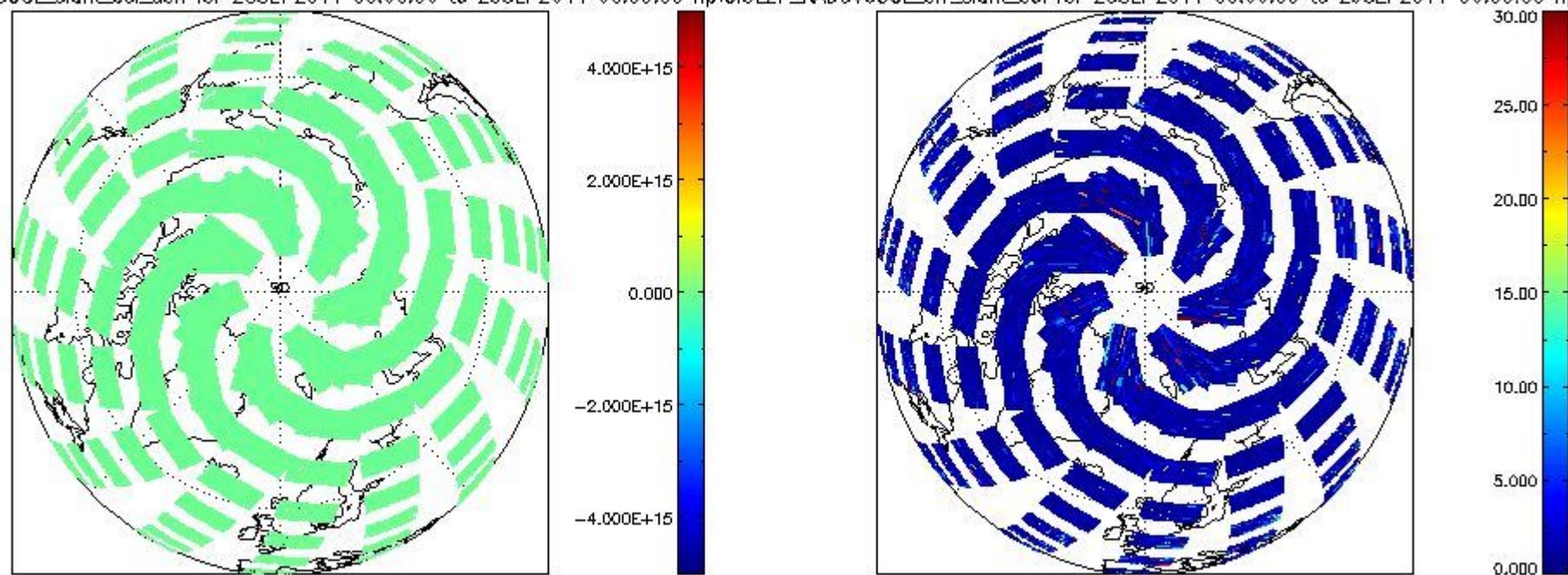
SCIOL2P\_NADUV7S02\_amf\_cl for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



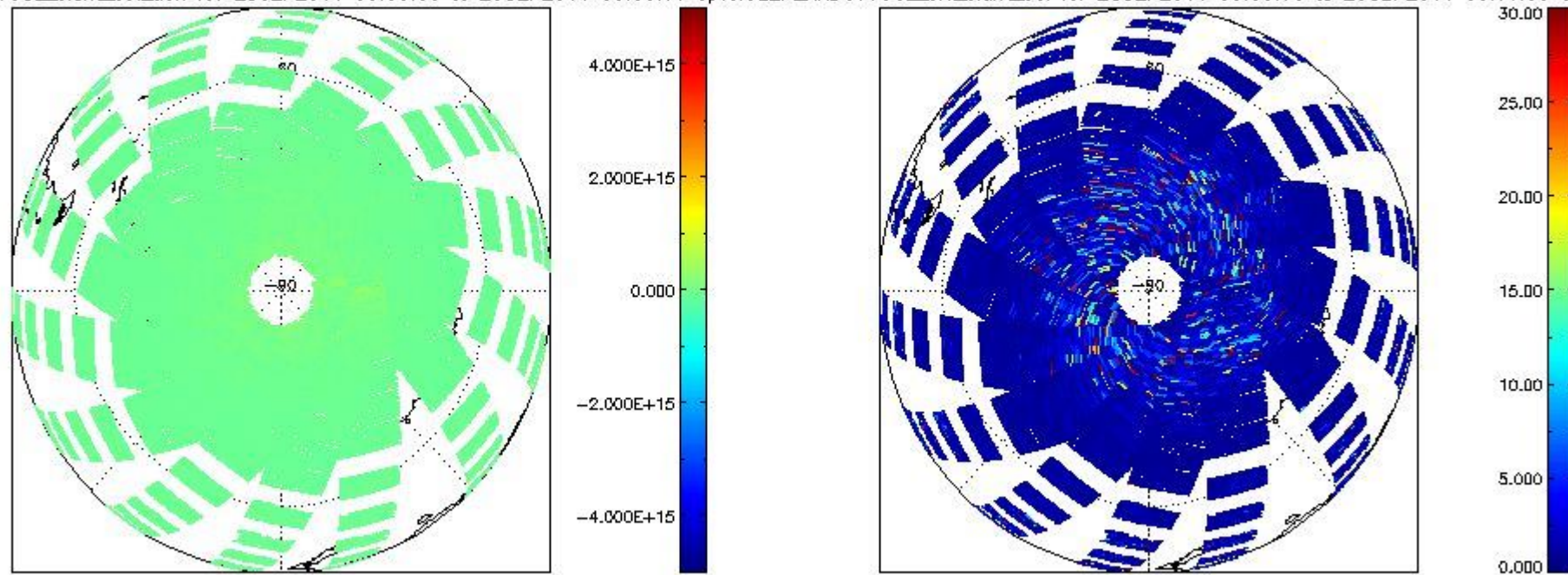
2.2.2.6 OCIO (UV6)



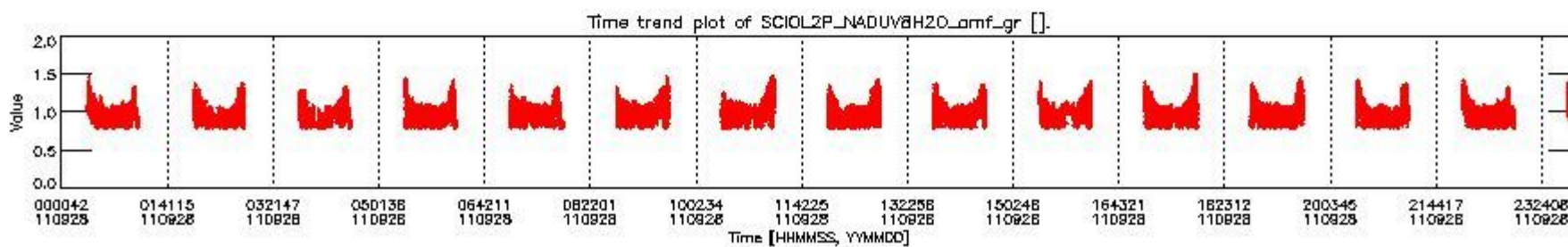
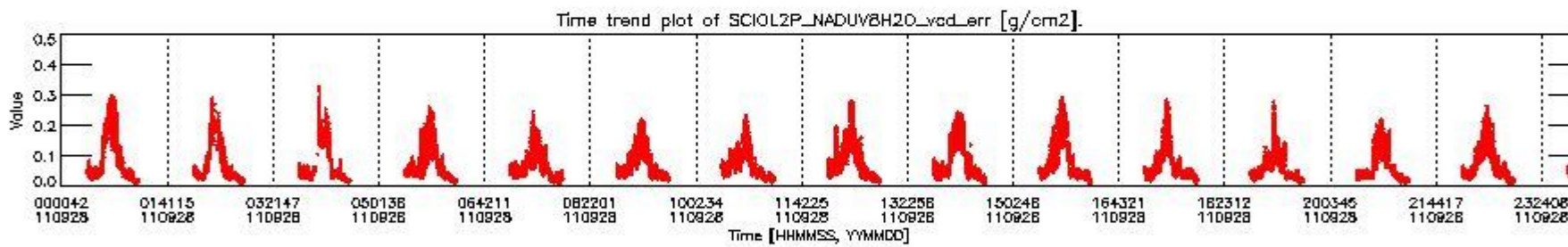
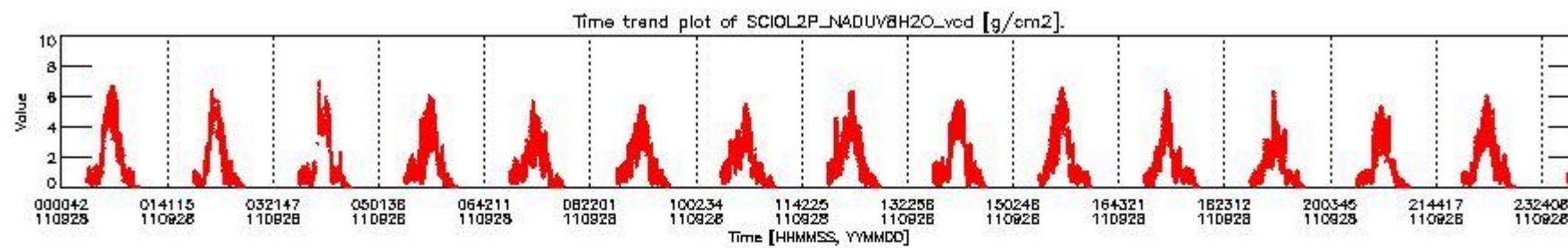
CIOL2P\_NADUV60CLslant\_col\_den for 28SEP2011 00:00:00 to 29SEP2011 00:00:00 np; CIOL2P\_NADUV60CLarr\_slant\_col for 28SEP2011 00:00:00 to 29SEP2011 00:00:00 np



CIOL2P\_NADUV60CL\_slant\_col\_den for 28SEP2011 00:00:00 to 29SEP2011 00:00:00 sp CIOL2P\_NADUV60CL\_err\_slant\_col for 28SEP2011 00:00:00 to 29SEP2011 00:00:00 sp

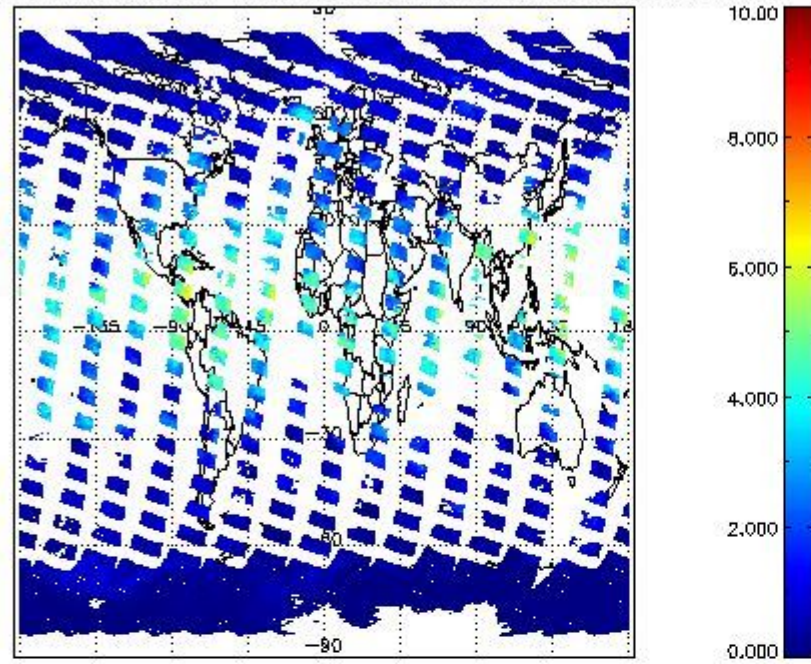


### 2.2.2.7 H2O (UV8)

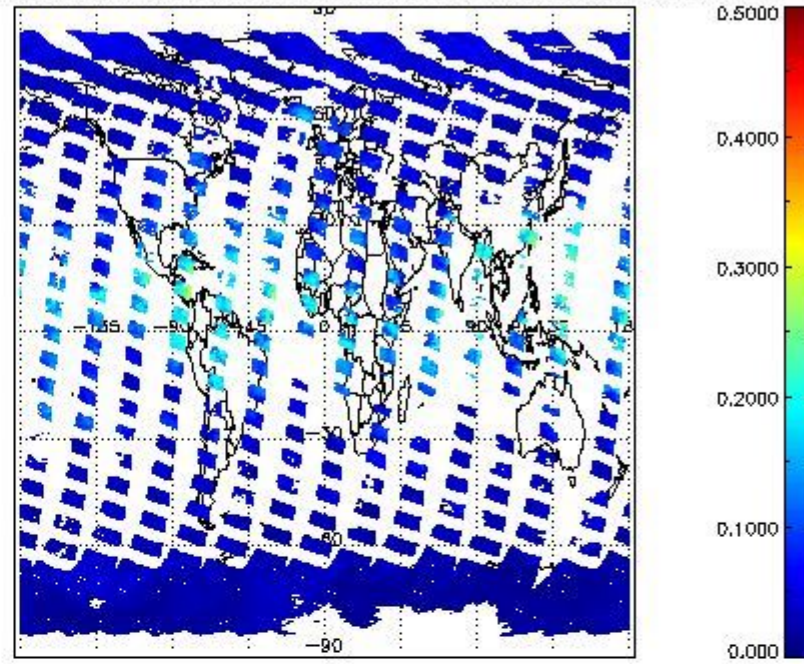




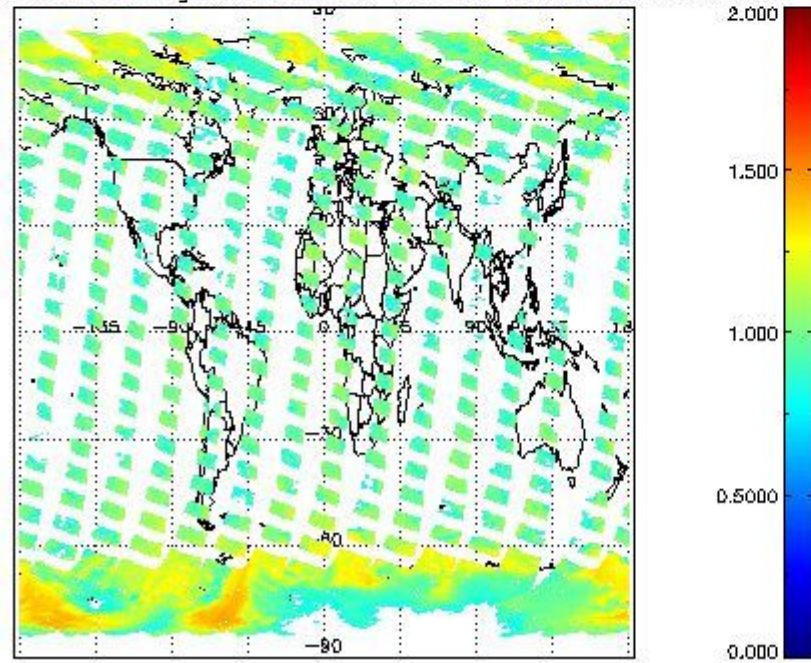
SCIOL2P\_NADUV6H2O\_vcd for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



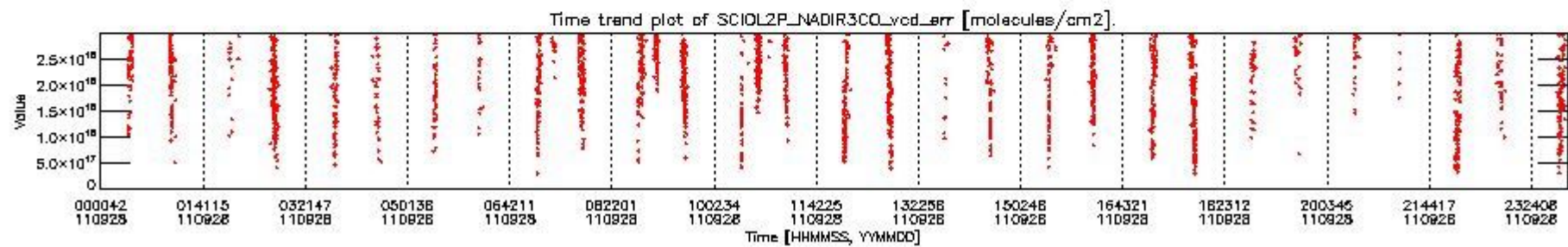
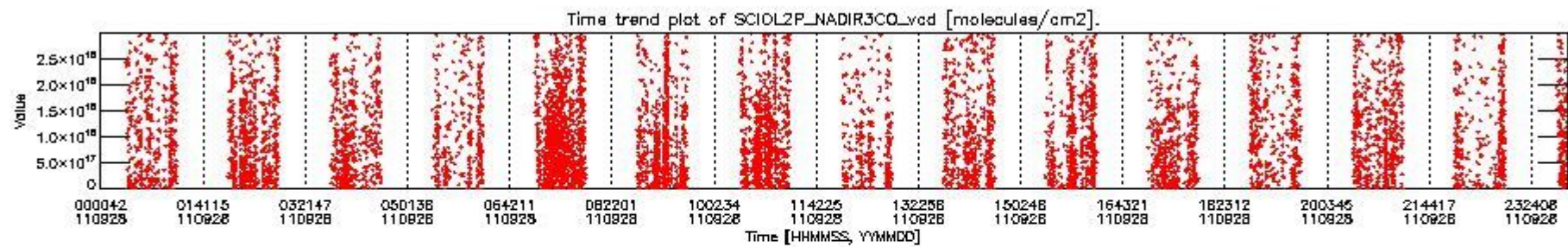
SCIOL2P\_NADUV6H2O\_vcd\_err for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



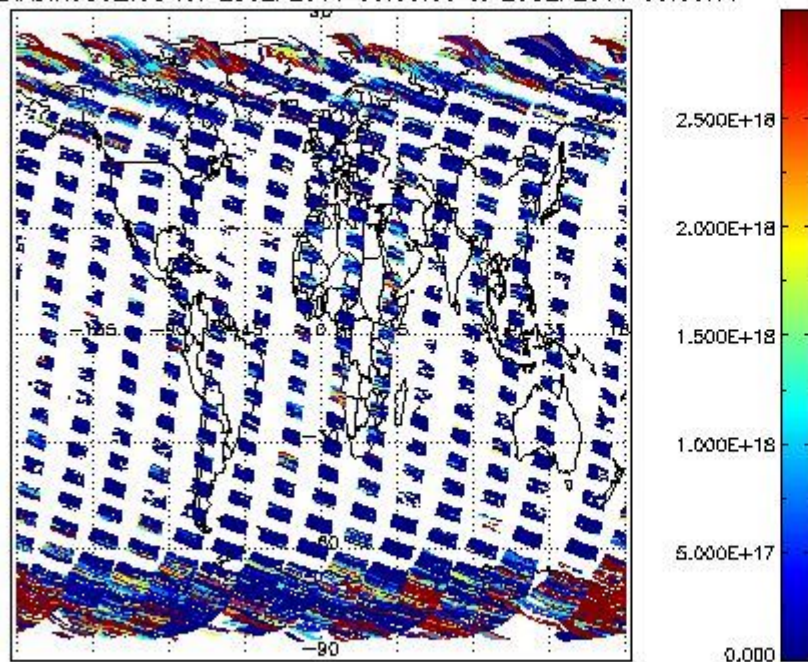
SCIOL2P\_NADUV6H2O\_arnf\_gr for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



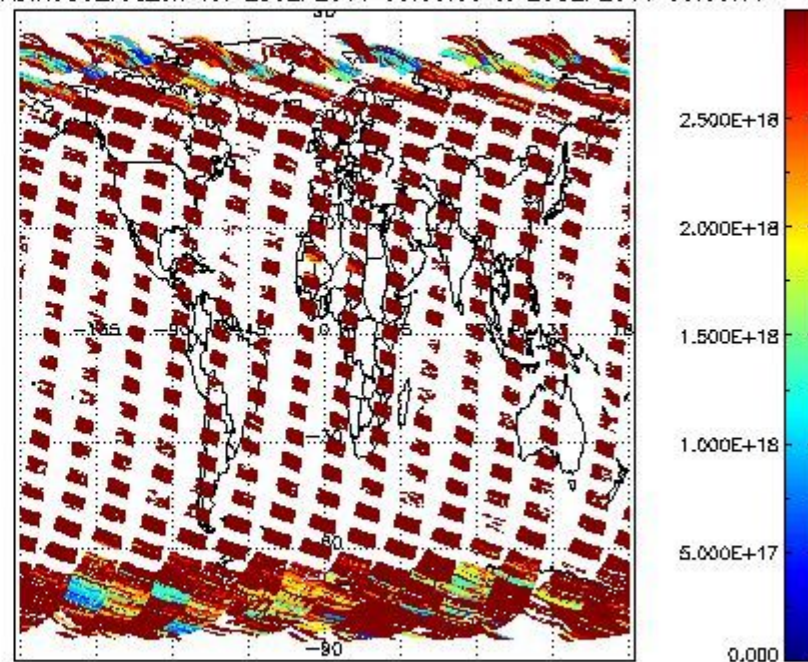
### 2.2.2.8 CO (IR3)



SCIDL2P\_NADIR3CO\_vcd for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



SCIDL2P\_NADIR3CO\_vcd\_err for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



### 2.2.3 Limb

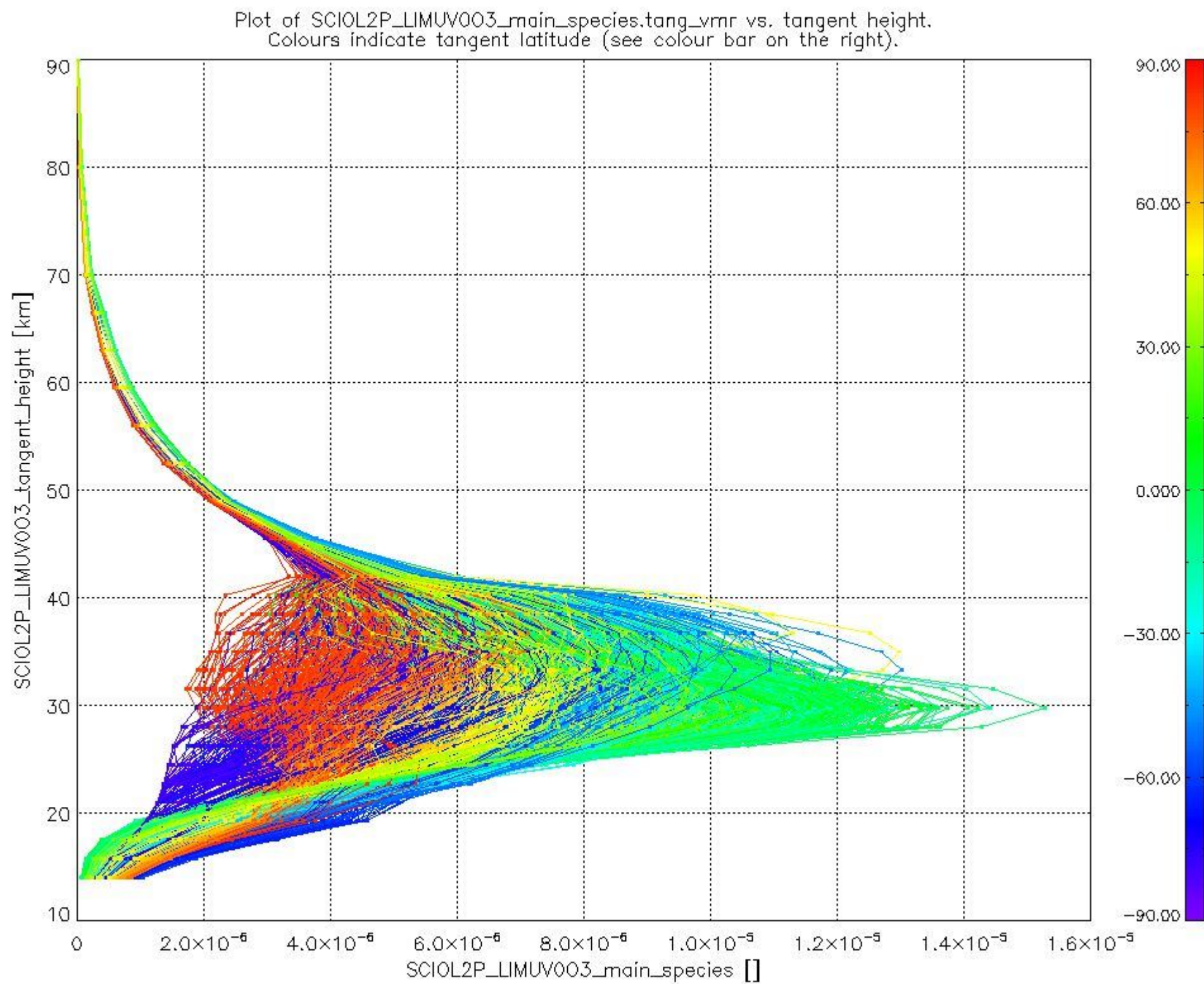
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

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

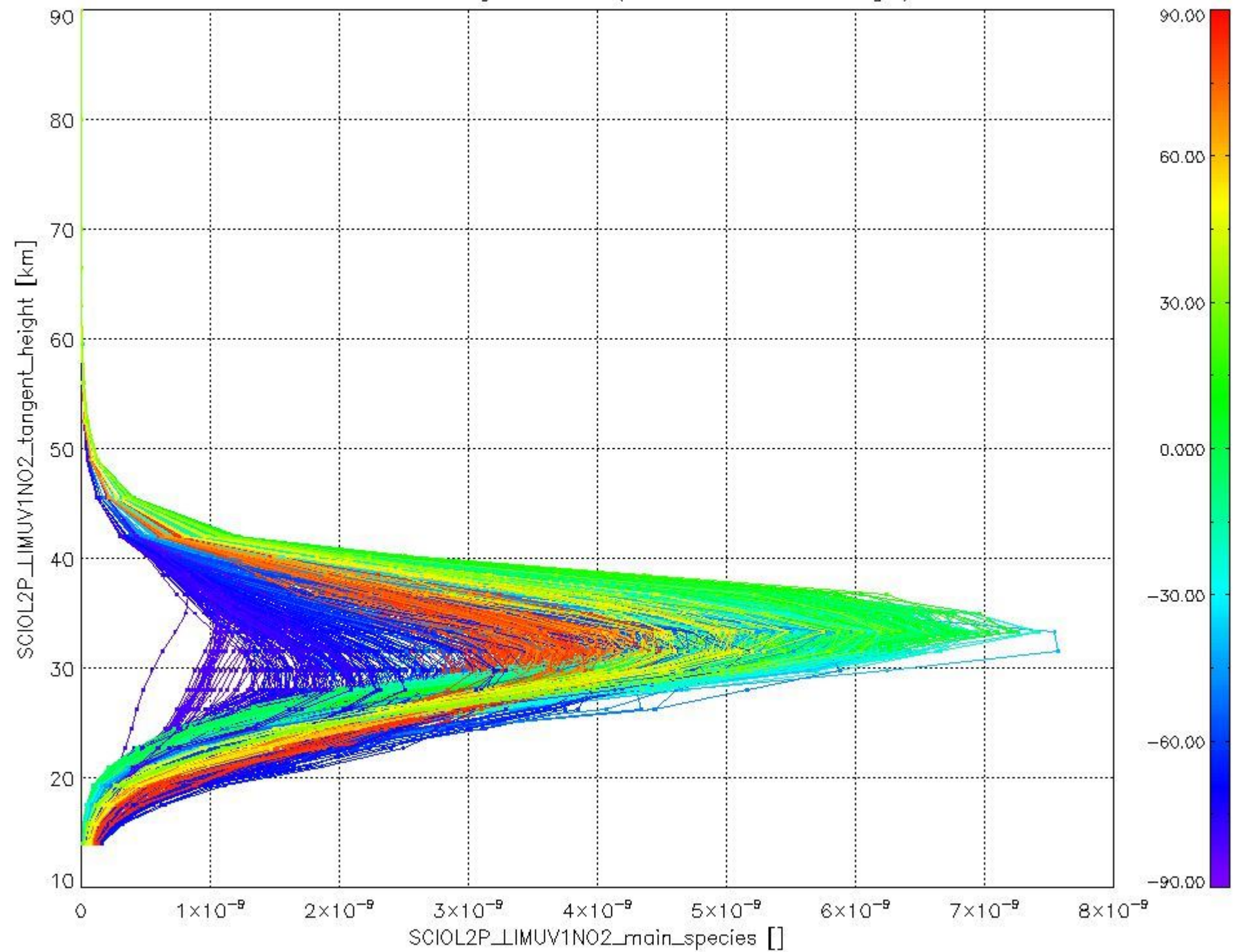
The following plots show for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

### 2.2.3.1 O3 (UV0)



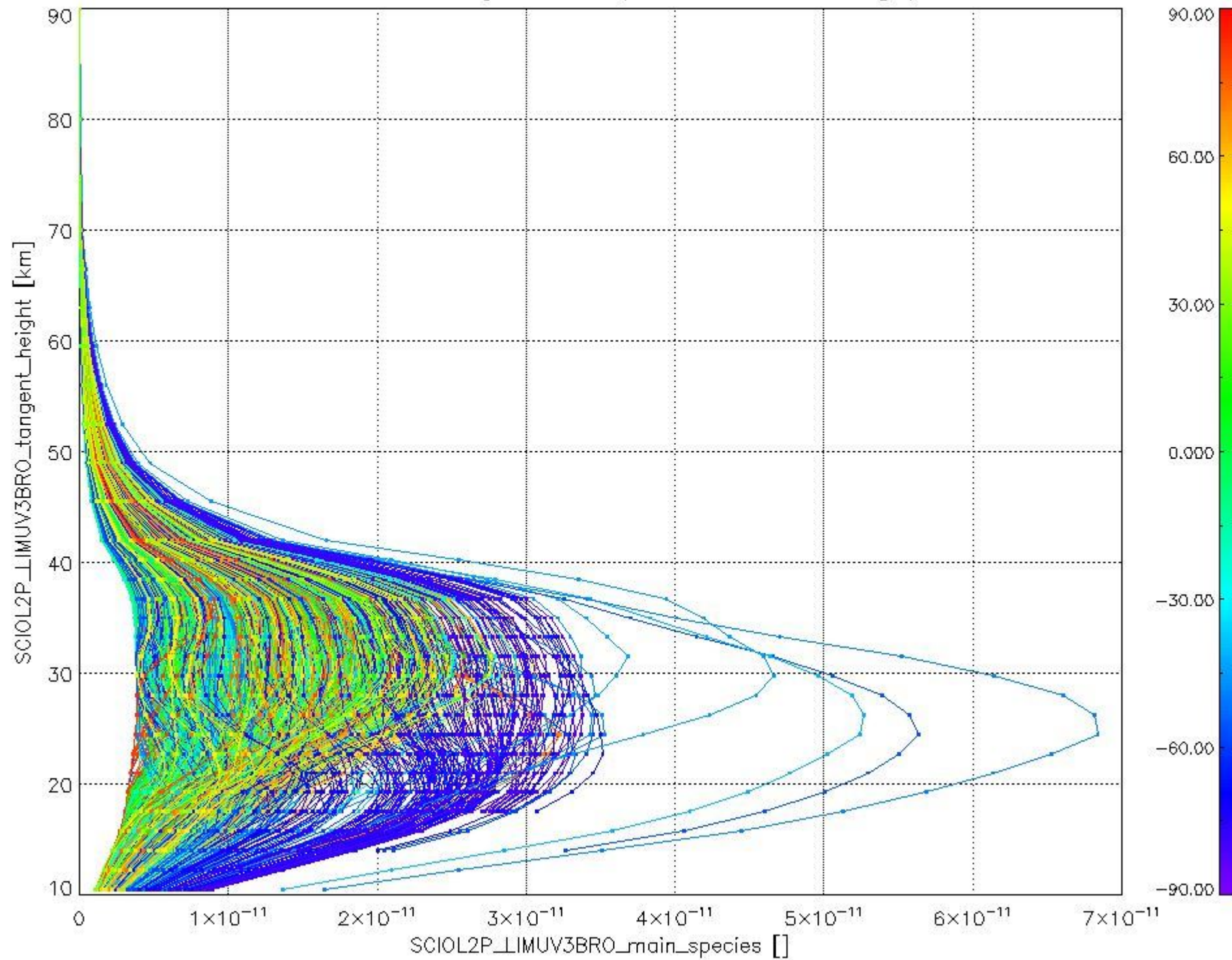
### 2.2.3.2 NO2 (UV1)

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).

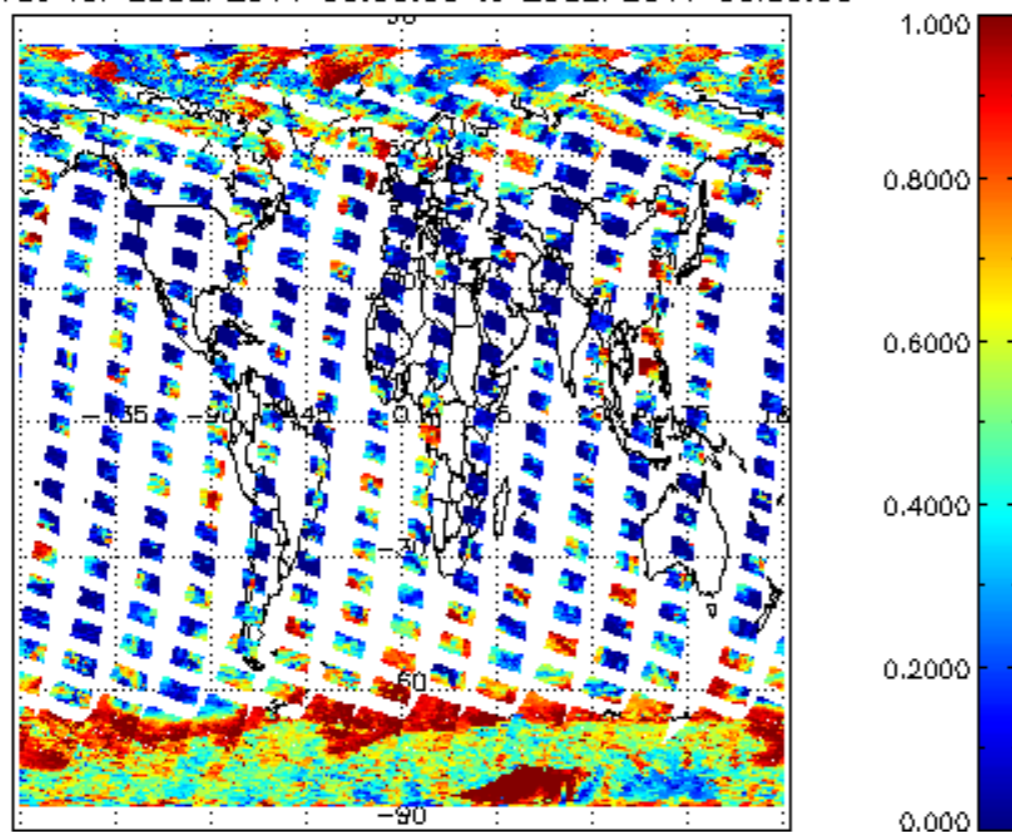


### 2.3 ADF monitoring

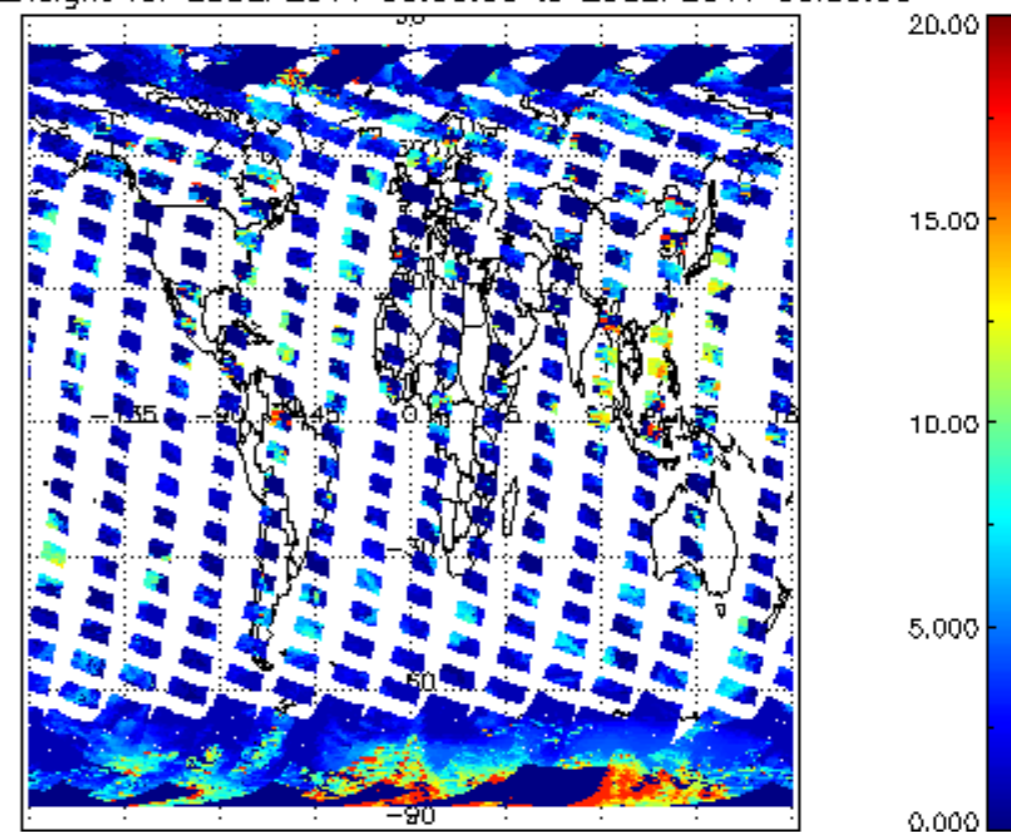
Number	ADF
	<b>IN_ (INITIALISATION_FILE)</b>
0	SCI_IN_AXNPDE20110201_120000_20020301_000000_20991231_235959
	<b>ECF (ECMWF_FILE)</b>
1	NOT USED
	<b>MF1 (M_FACTOR_FILE)</b>
2	SCI_MF1_AXVIEC20111004_131424_20110927_184356_20110929_184356
3	SCI_MF1_AXVIEC20111004_131454_20110928_180711_20110930_180711



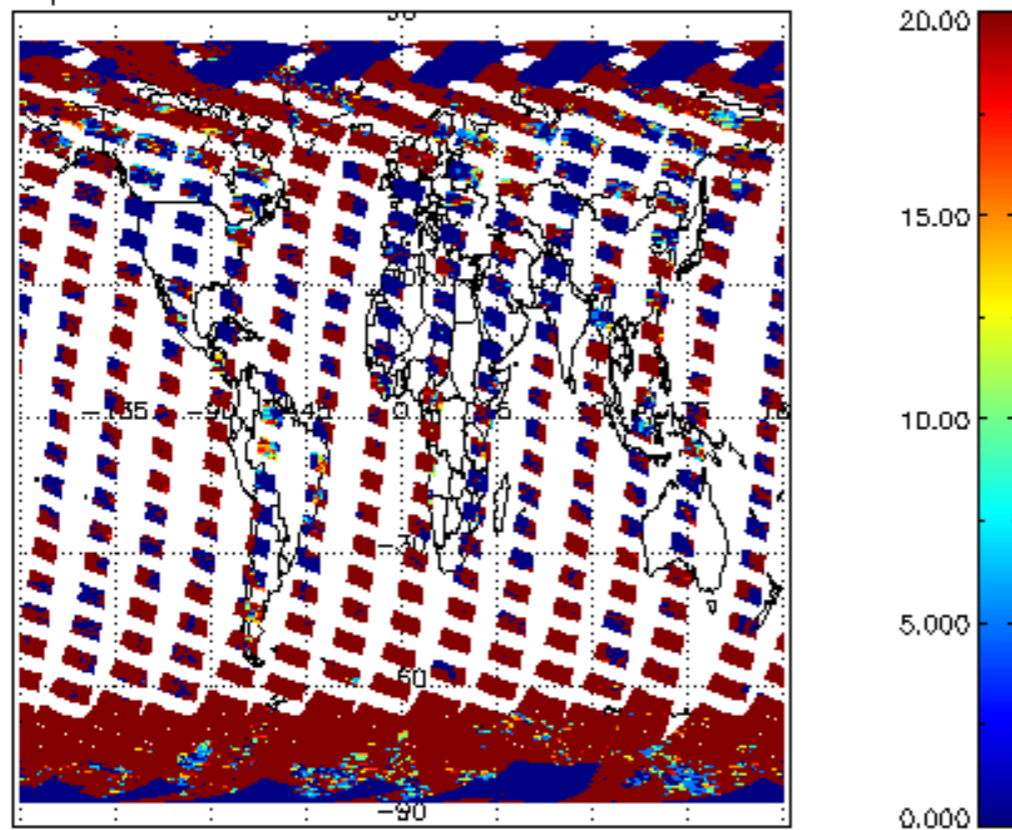
cl\_frac for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



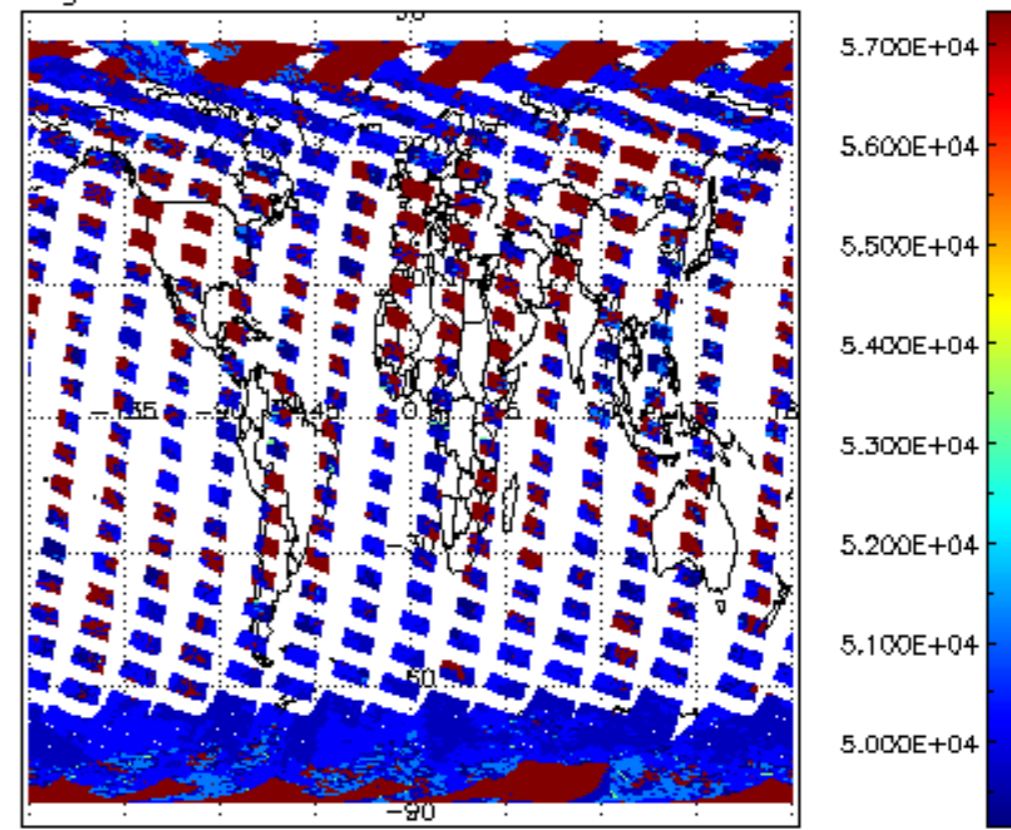
cl\_top\_height for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

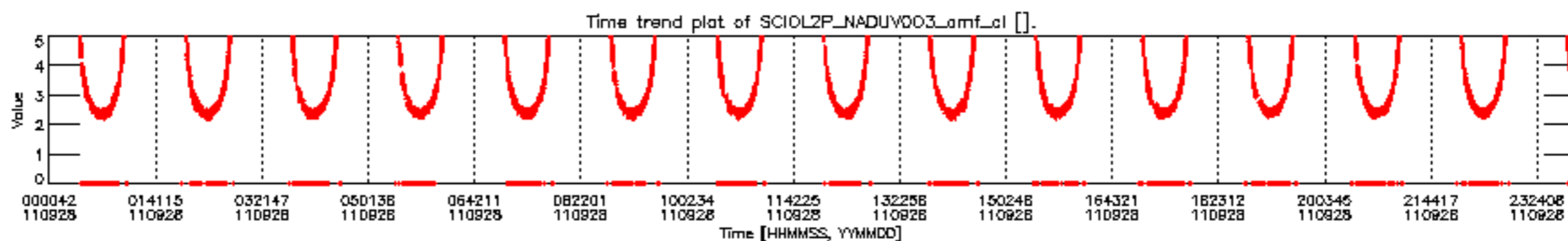
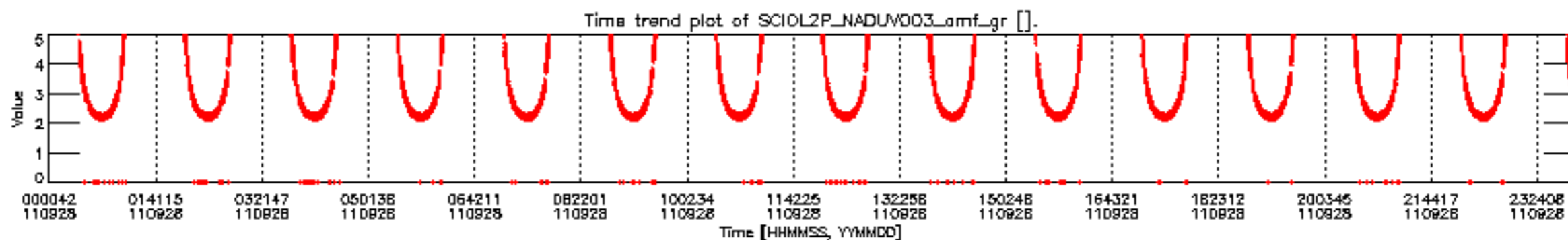
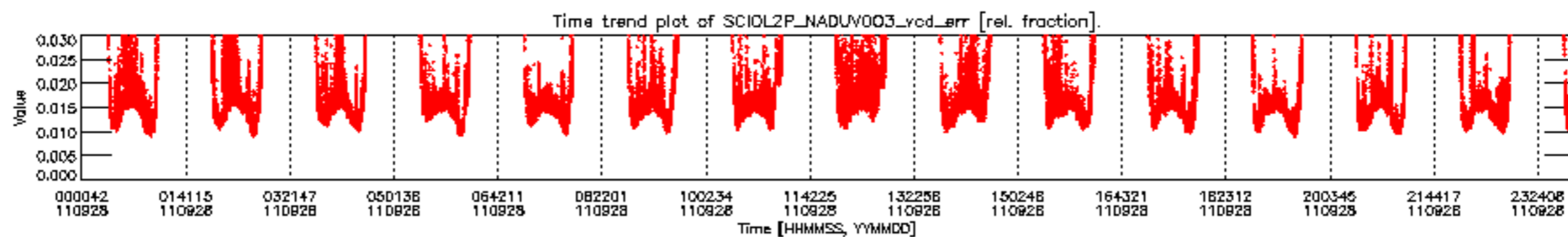
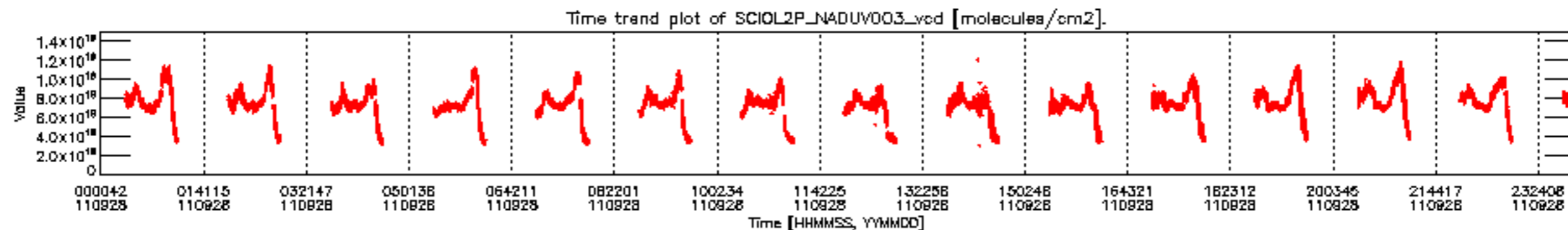


cl\_opt\_depth for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



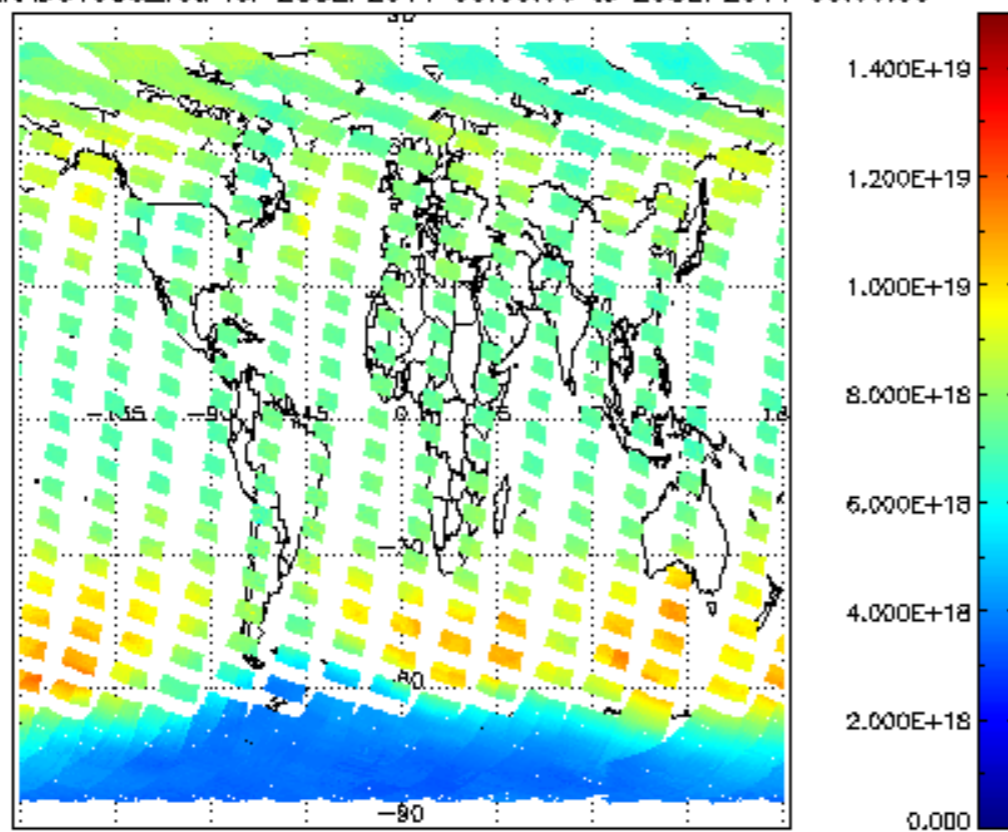
cloud\_flags for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



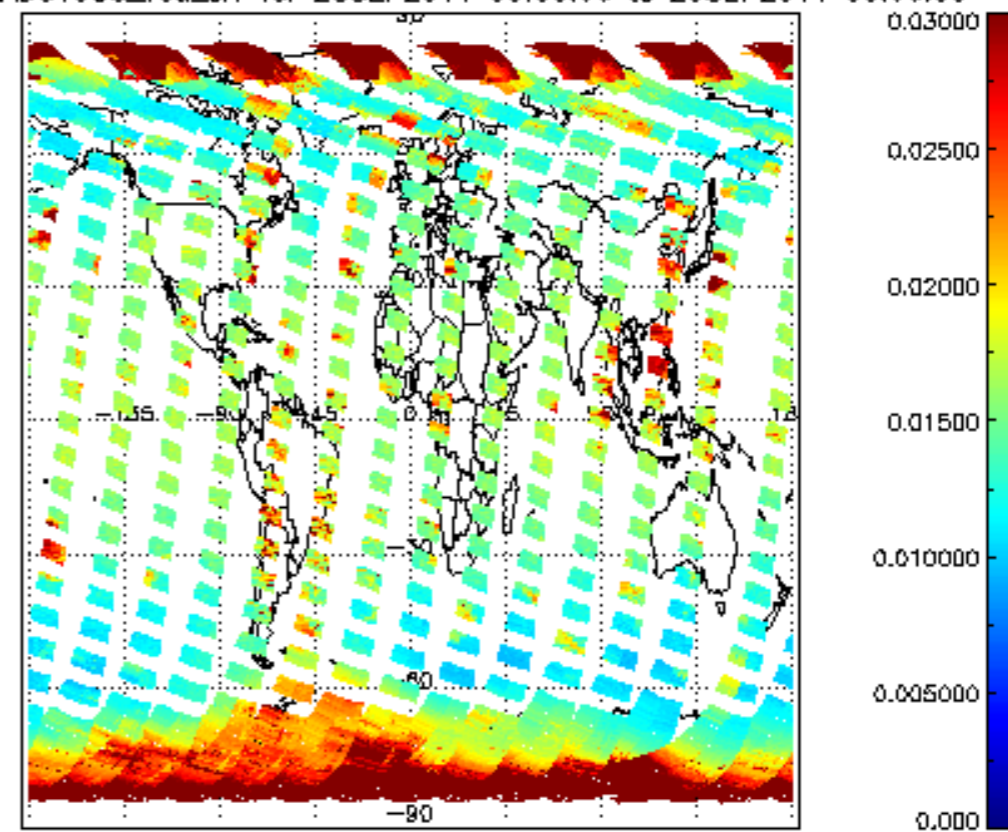




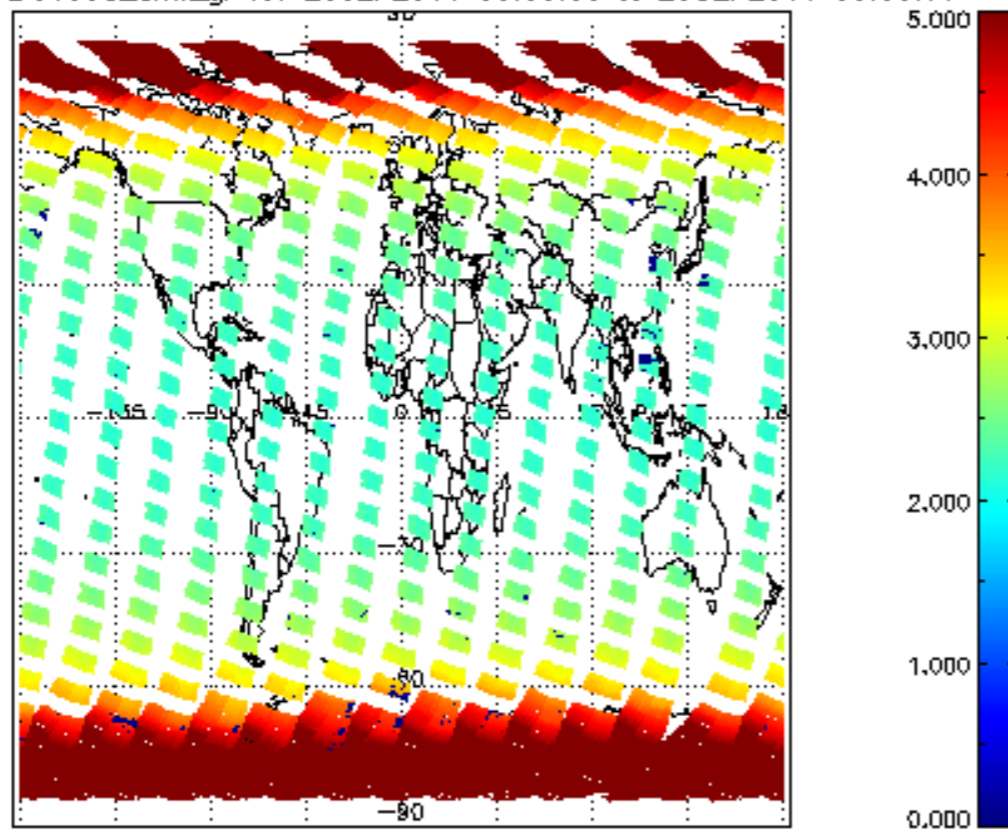
SCIOL2P\_NADUV003\_vcd for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



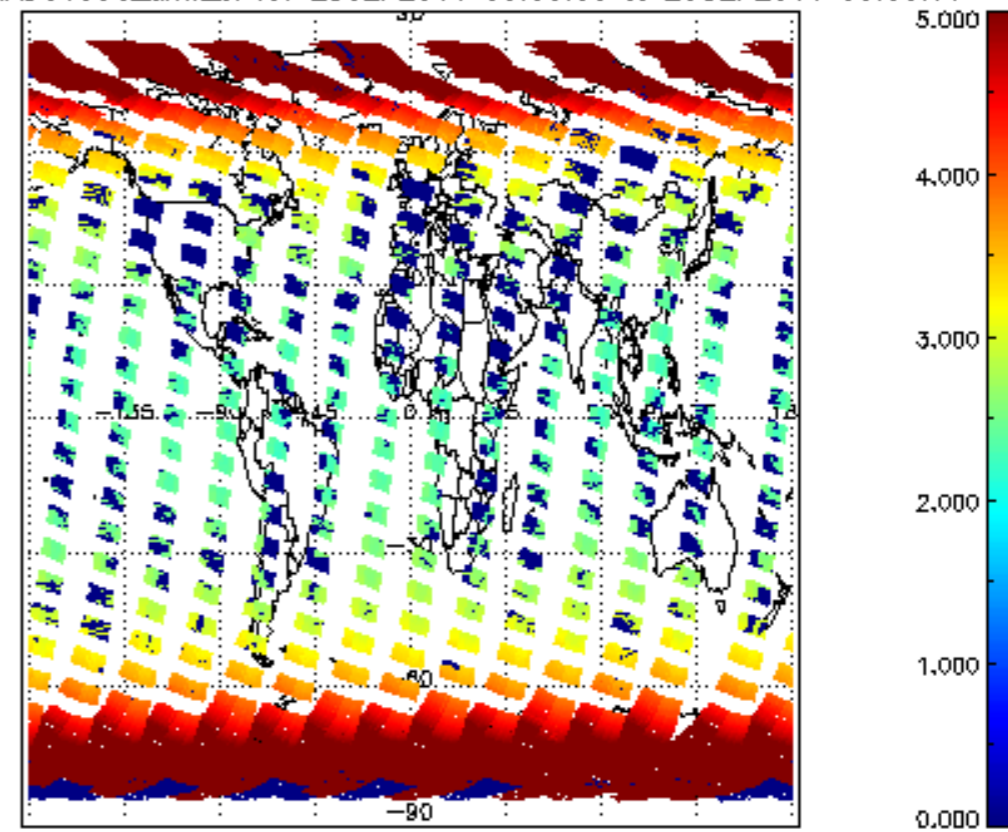
SCIOL2P\_NADUV003\_vcd\_err for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

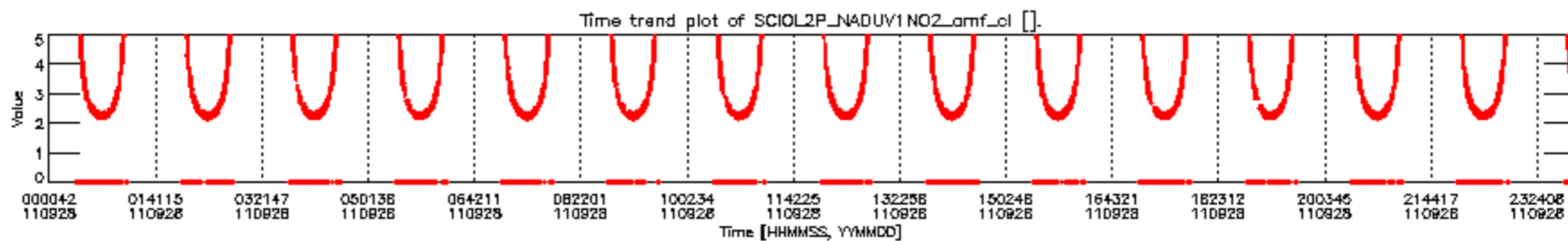
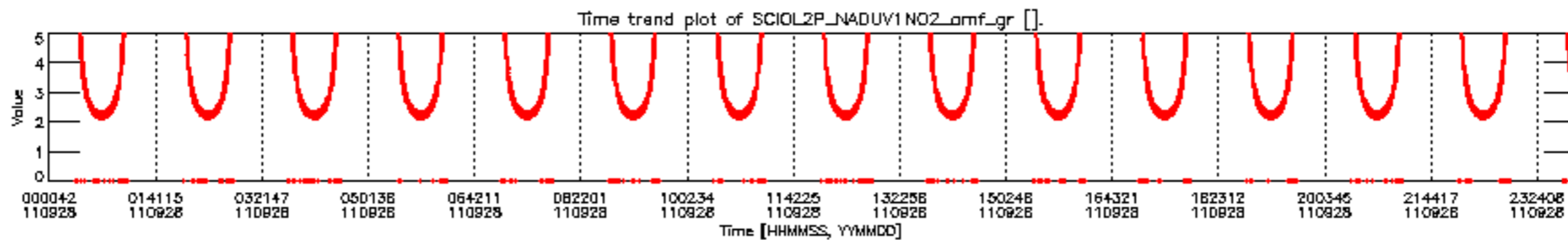
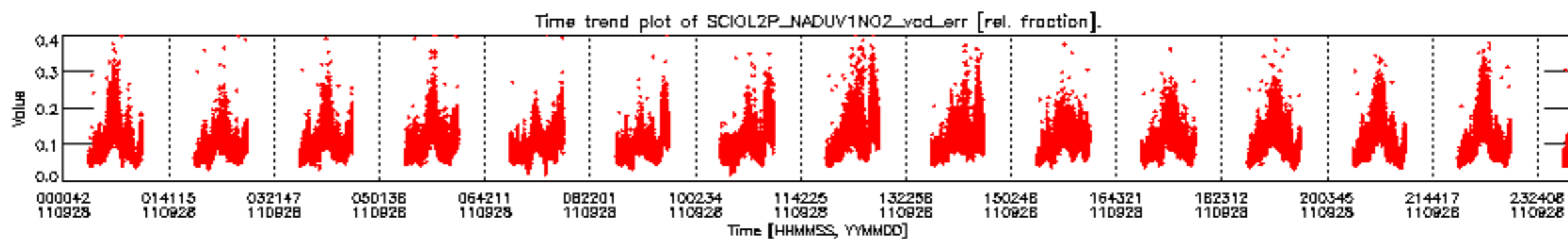
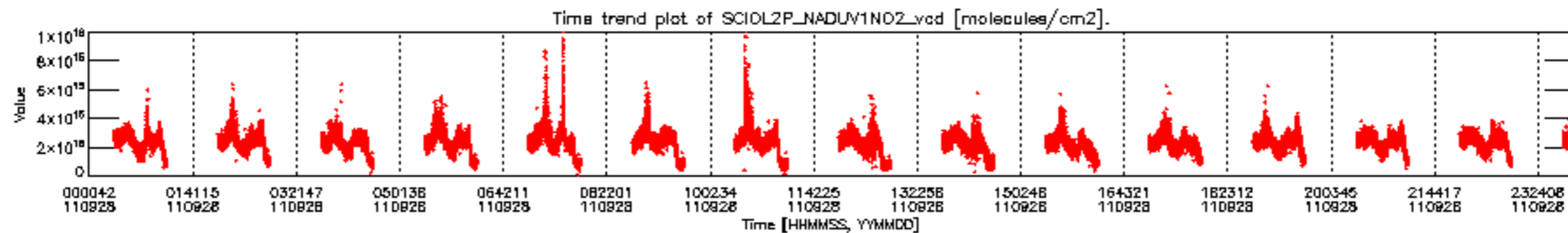


SCIOL2P\_NADUV003\_amf\_gr for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

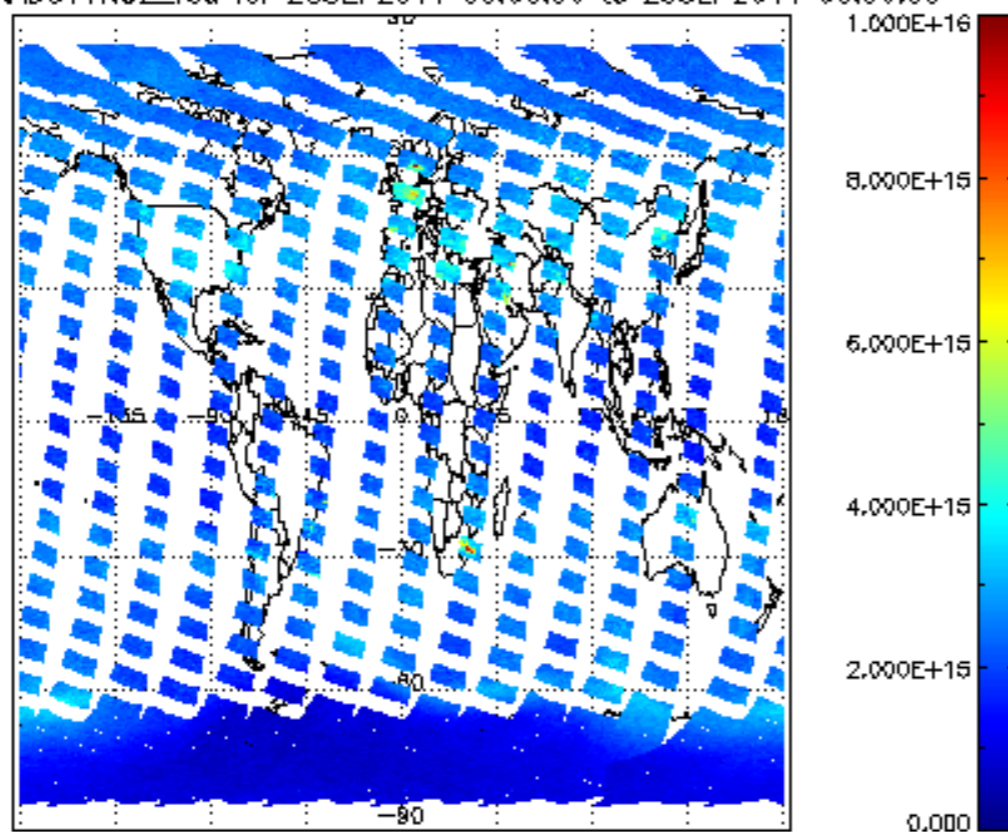


SCIOL2P\_NADUV003\_amf\_cl for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

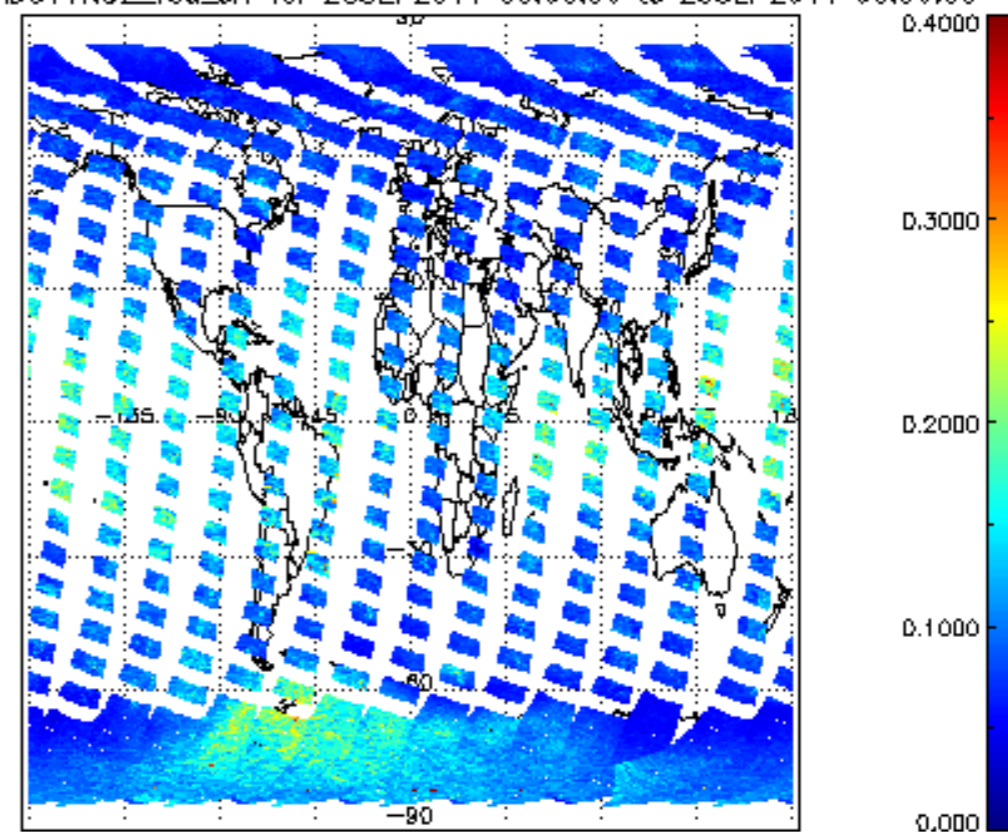




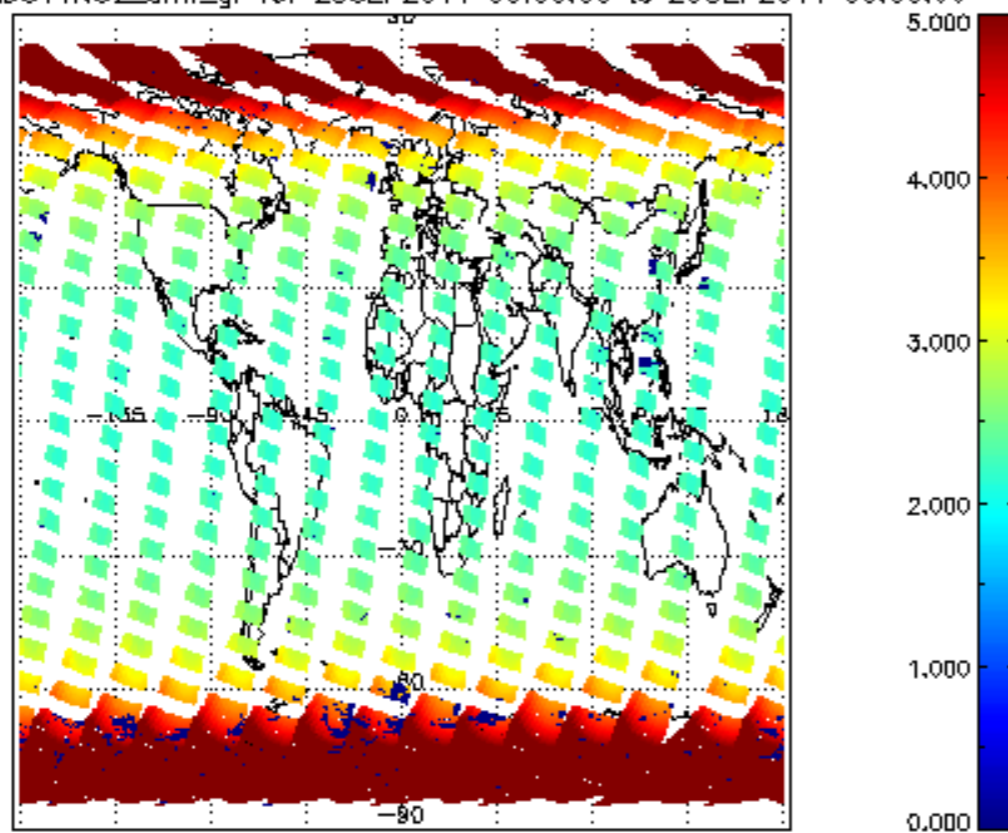
SCIOL2P\_NADUV1N02\_vcd for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



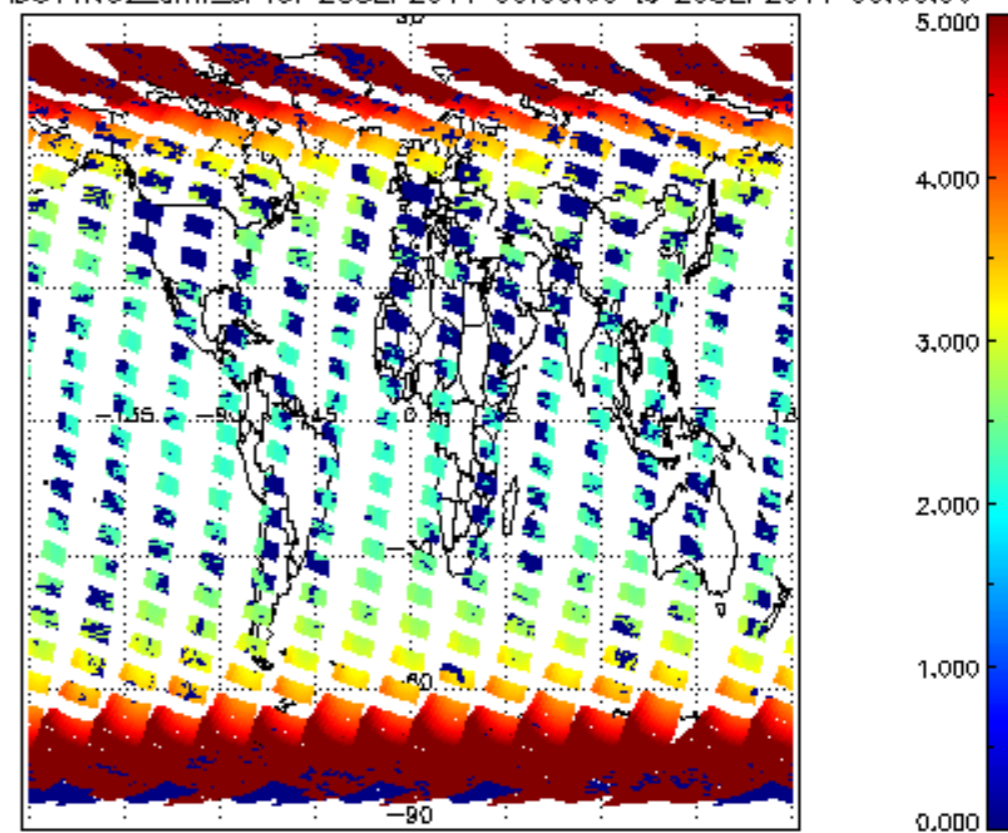
SCIOL2P\_NADUV1N02\_vcd\_err for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

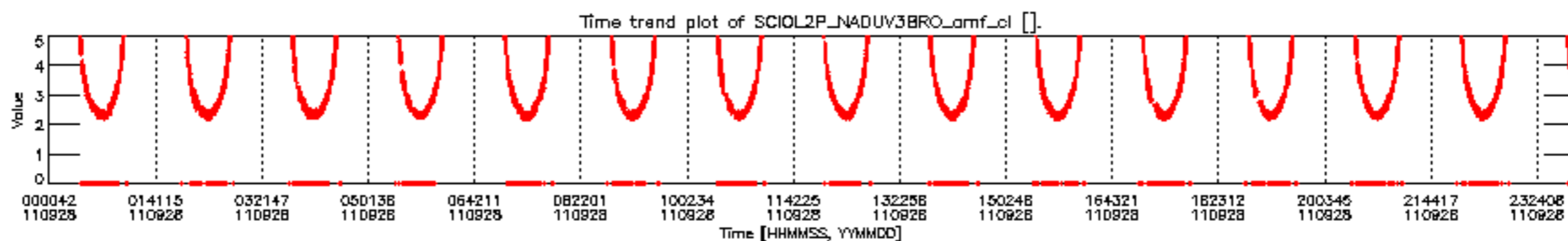
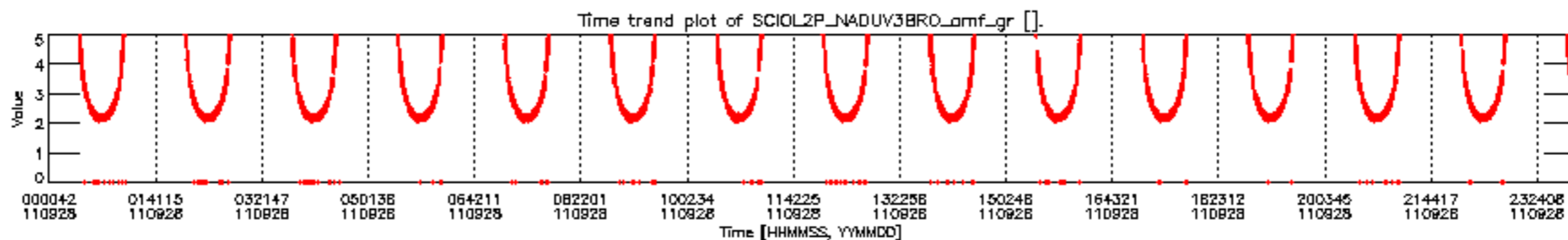
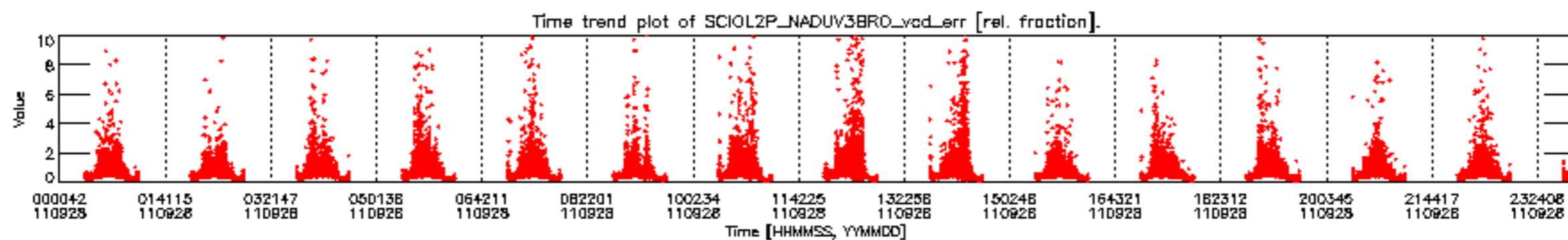
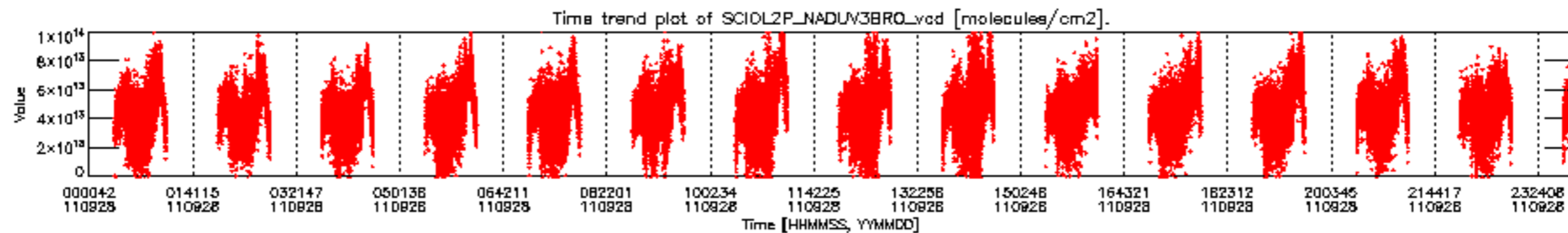


SCIOL2P\_NADUV1N02\_amf\_gr for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

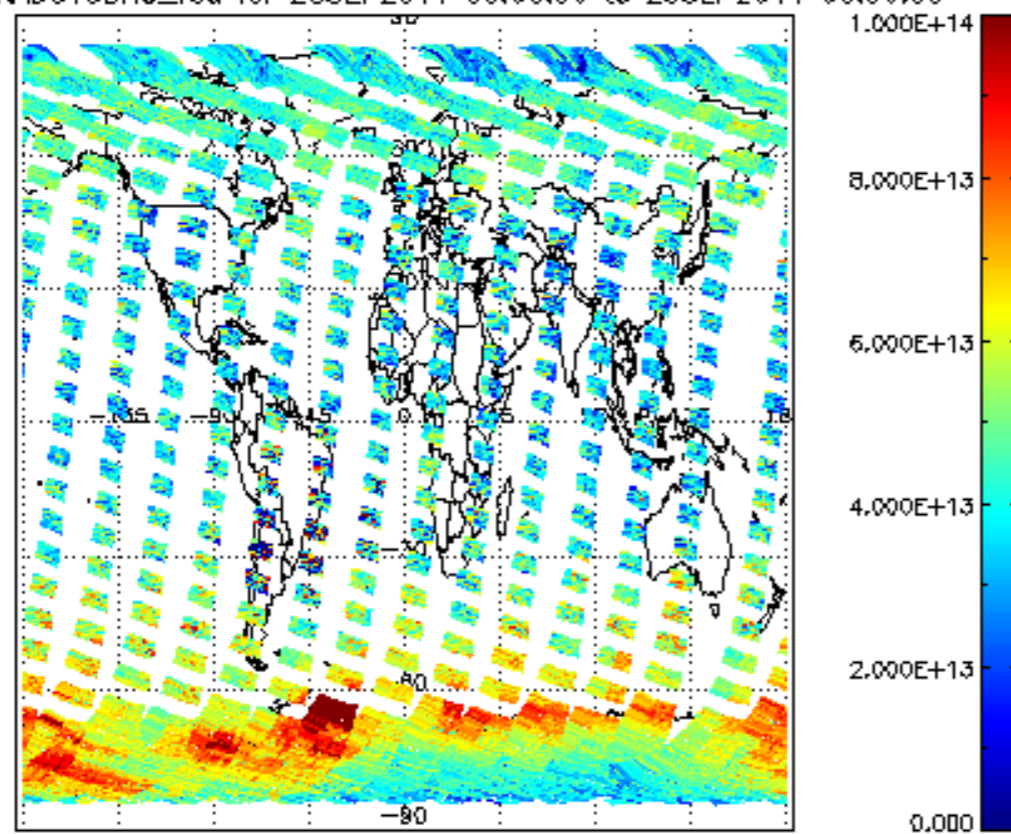


SCIOL2P\_NADUV1N02\_amf\_sl for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

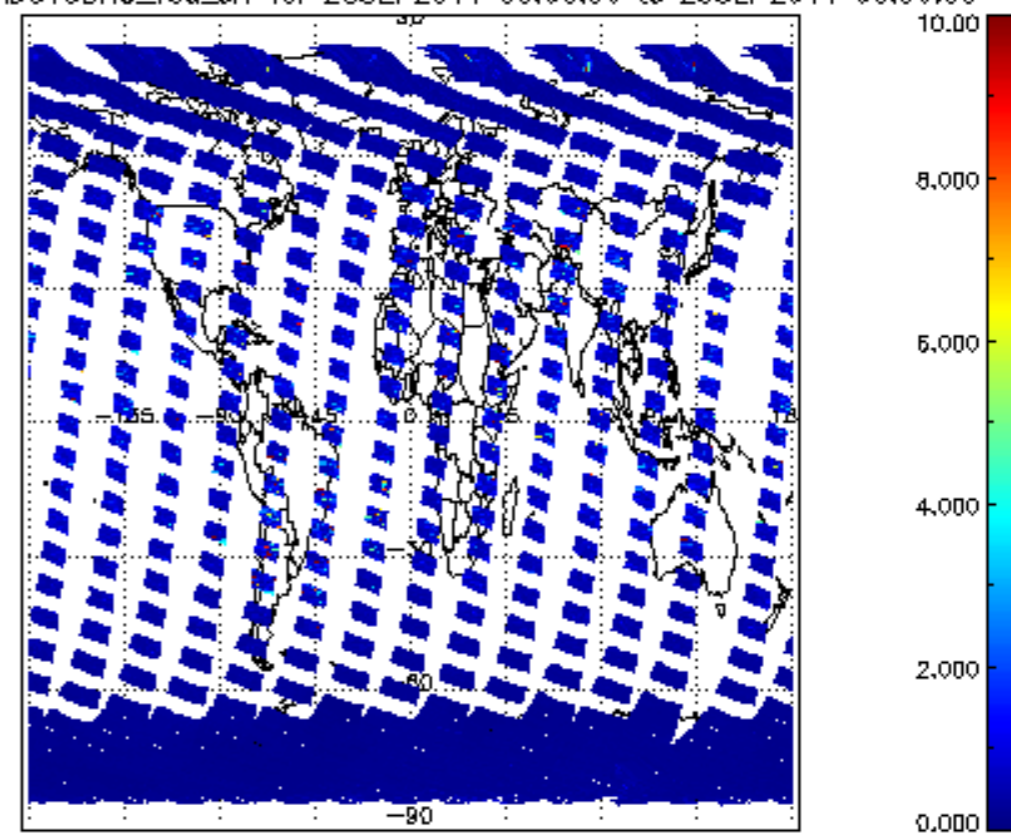




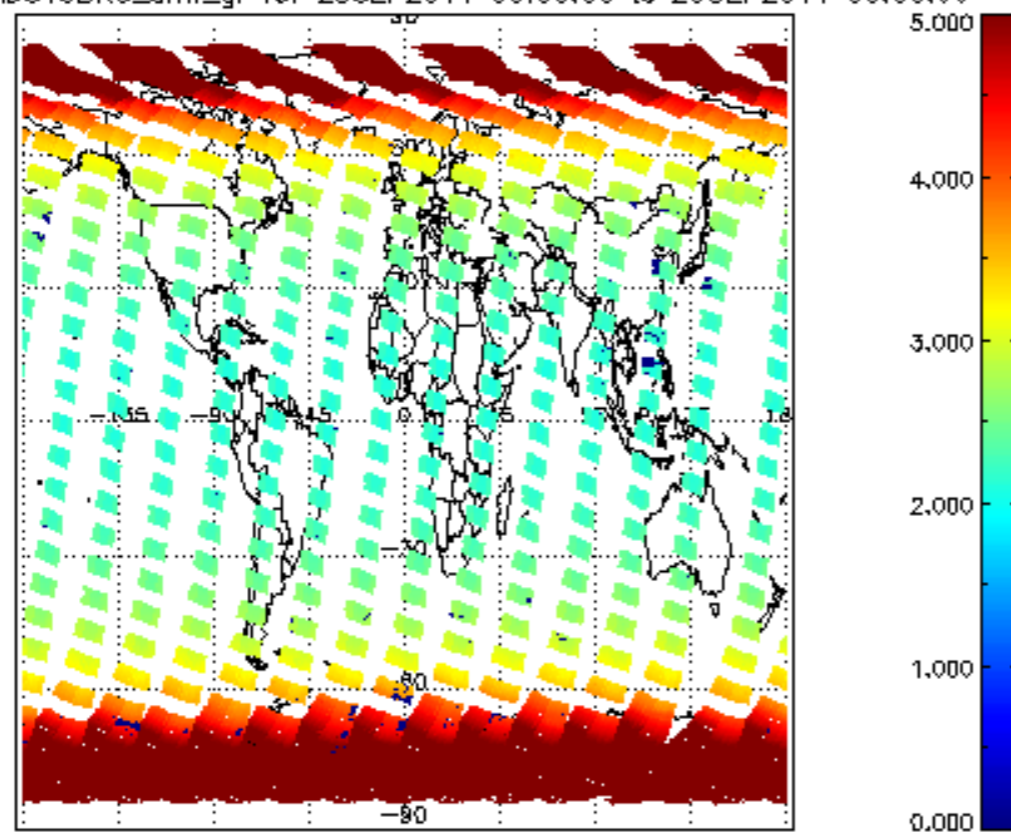
SCIOL2P\_NADUV3BRO\_vcd for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



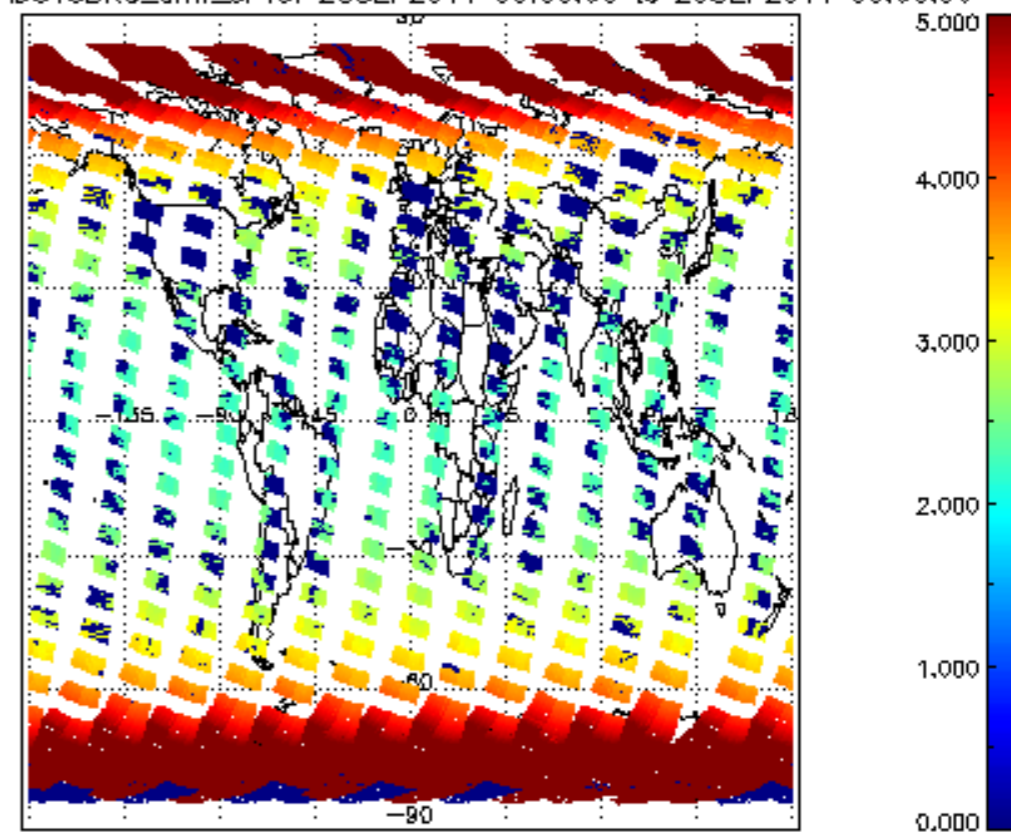
SCIOL2P\_NADUV3BRO\_vcd\_err for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

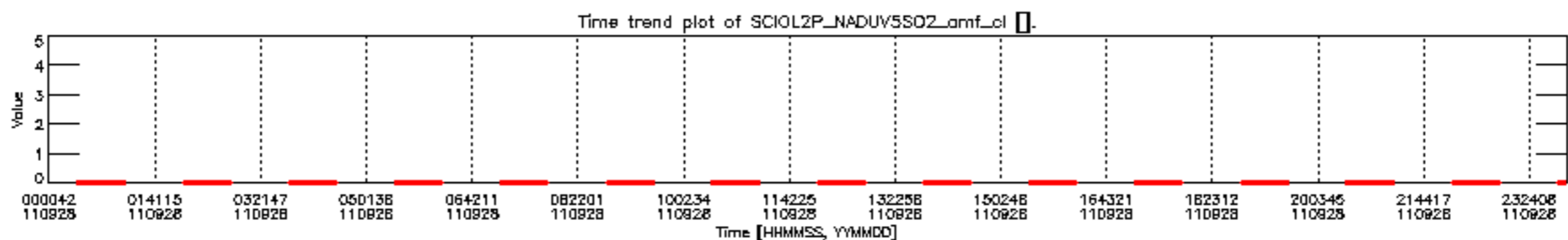
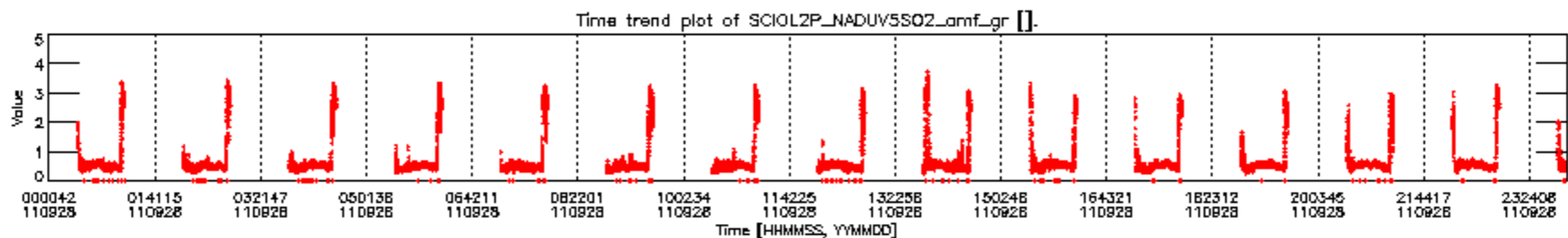
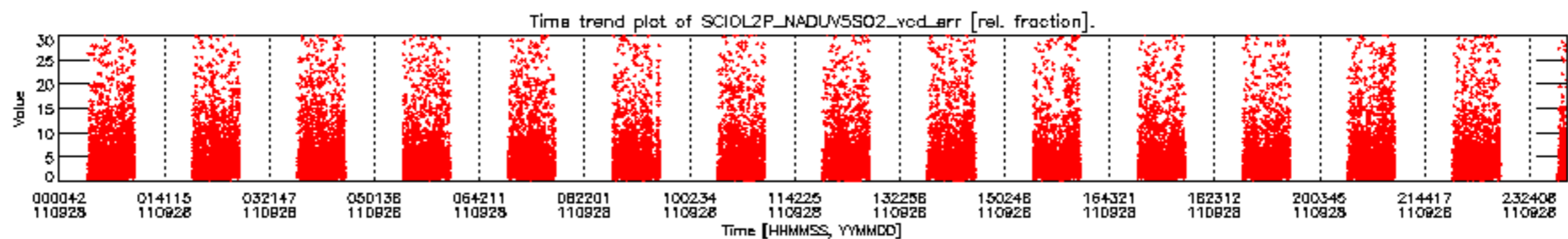
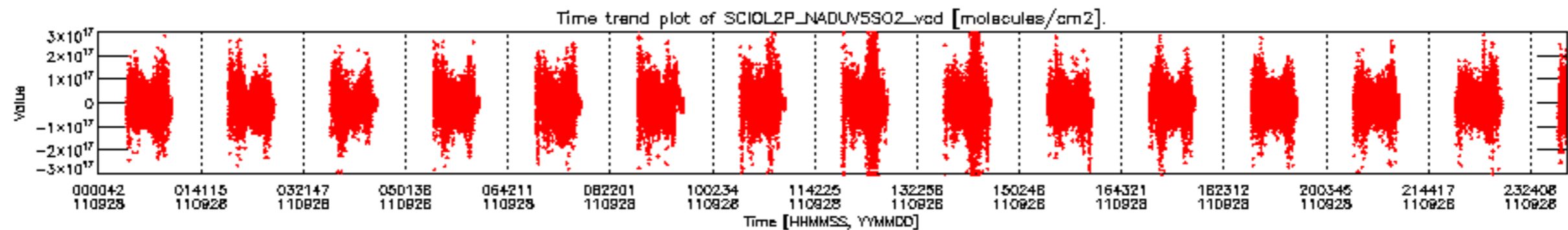


SCIOL2P\_NADUV3BRO\_amf\_gr for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

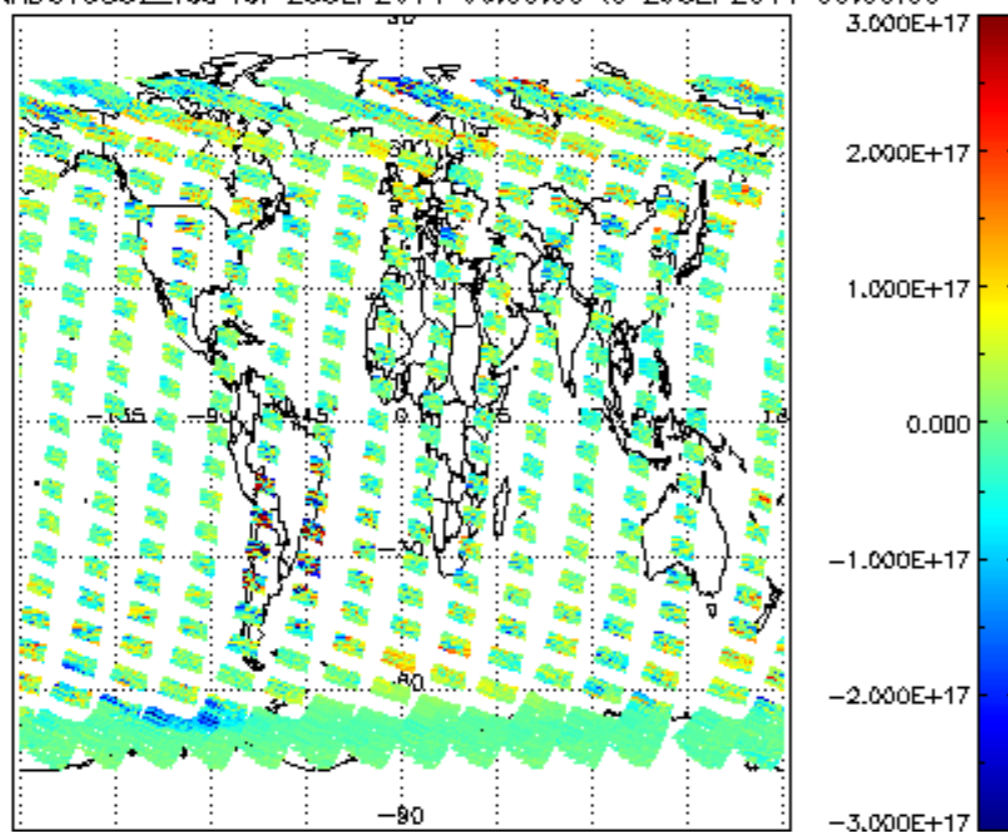


SCIOL2P\_NADUV3BRO\_amf\_cl for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

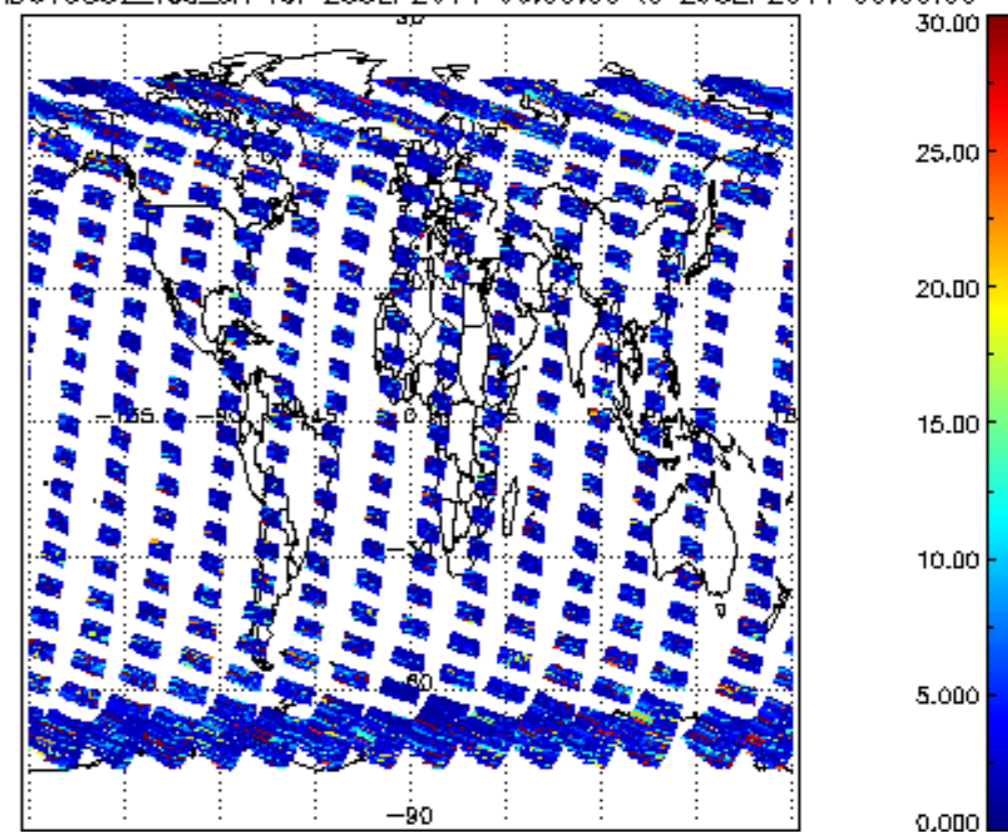




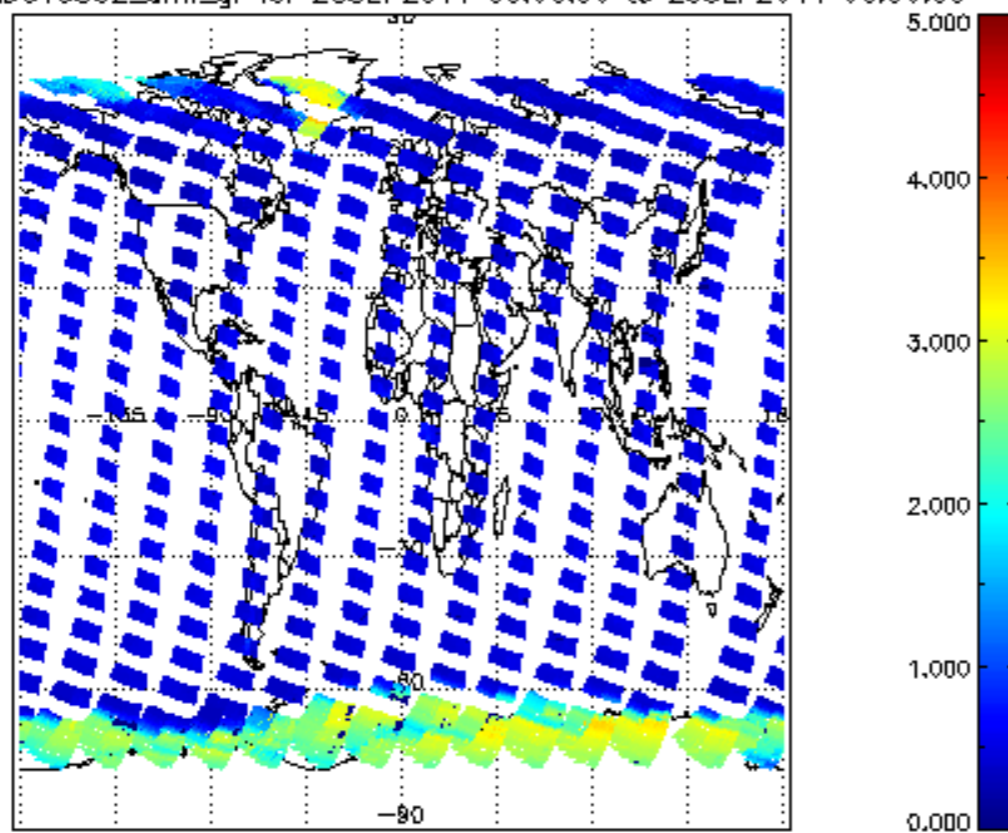
SCIOL2P\_NADUV5S02\_vcd for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



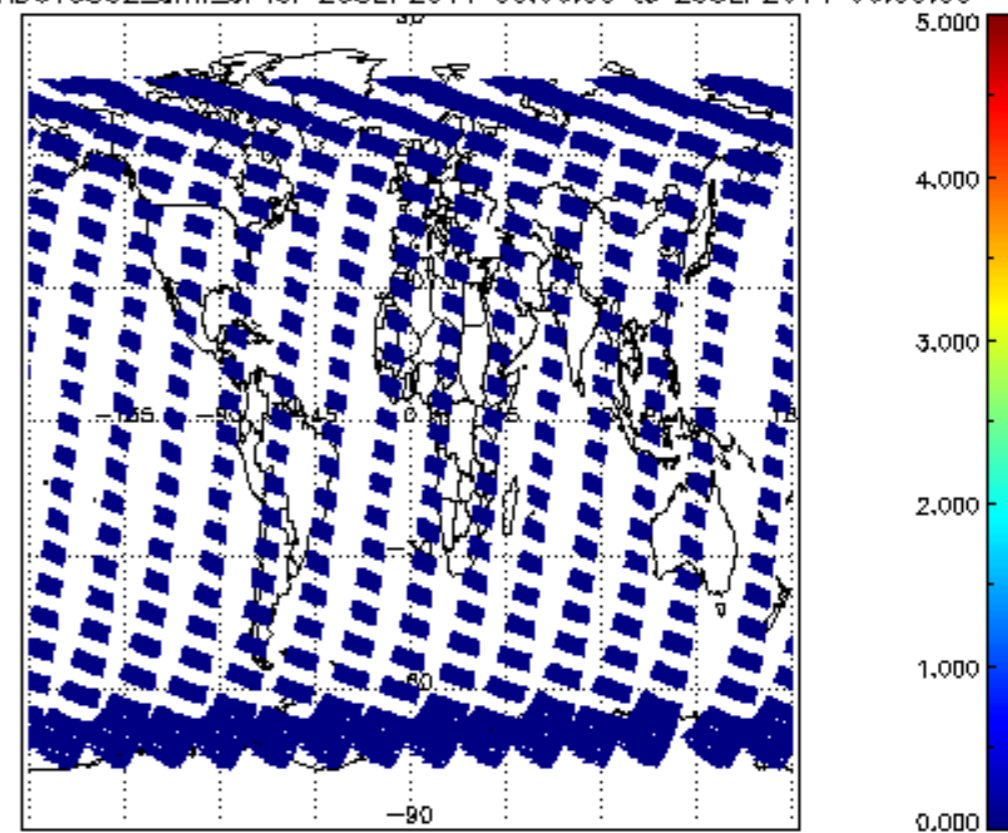
SCIOL2P\_NADUV5S02\_vcd\_err for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

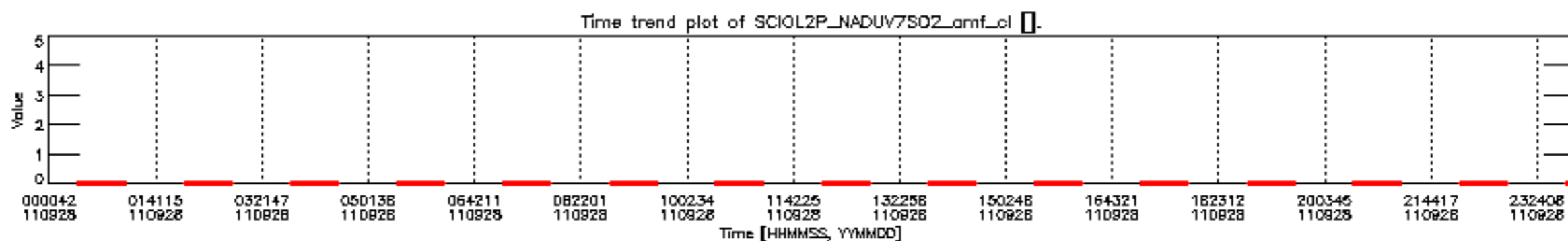
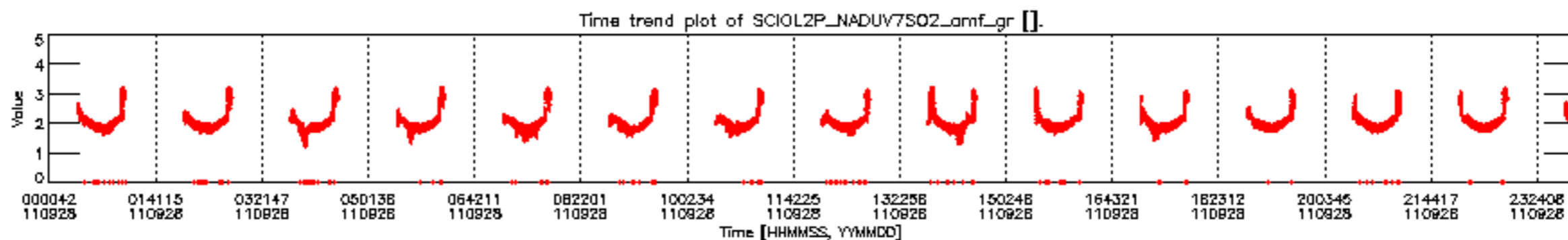
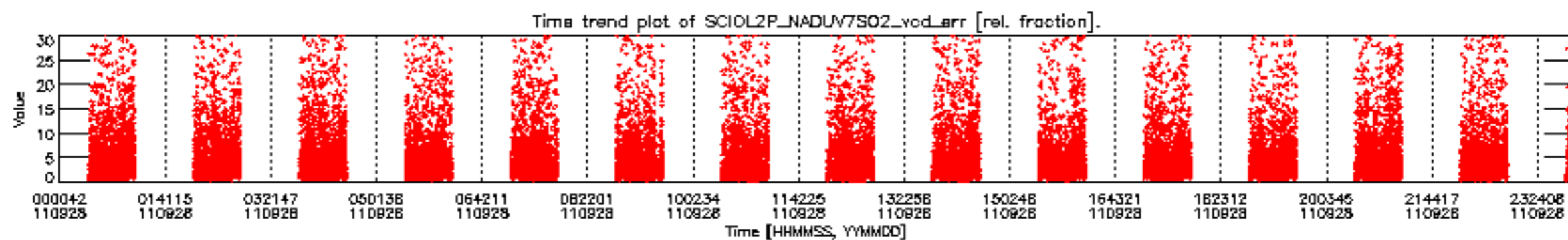
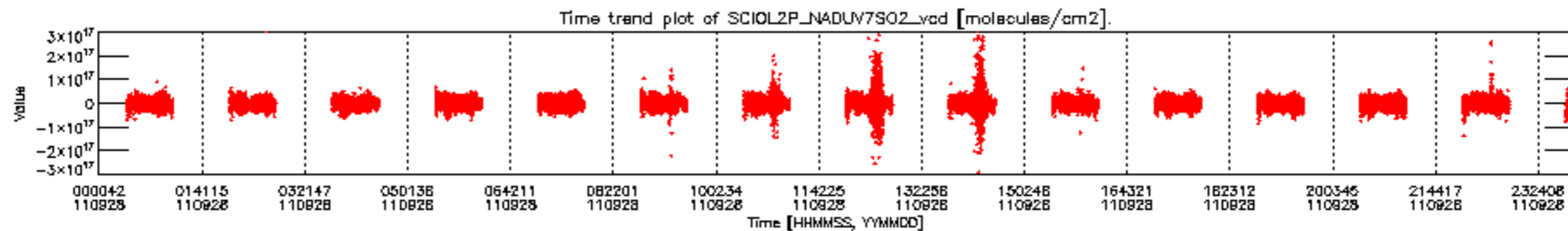


SCIOL2P\_NADUV5S02\_amf\_gr for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



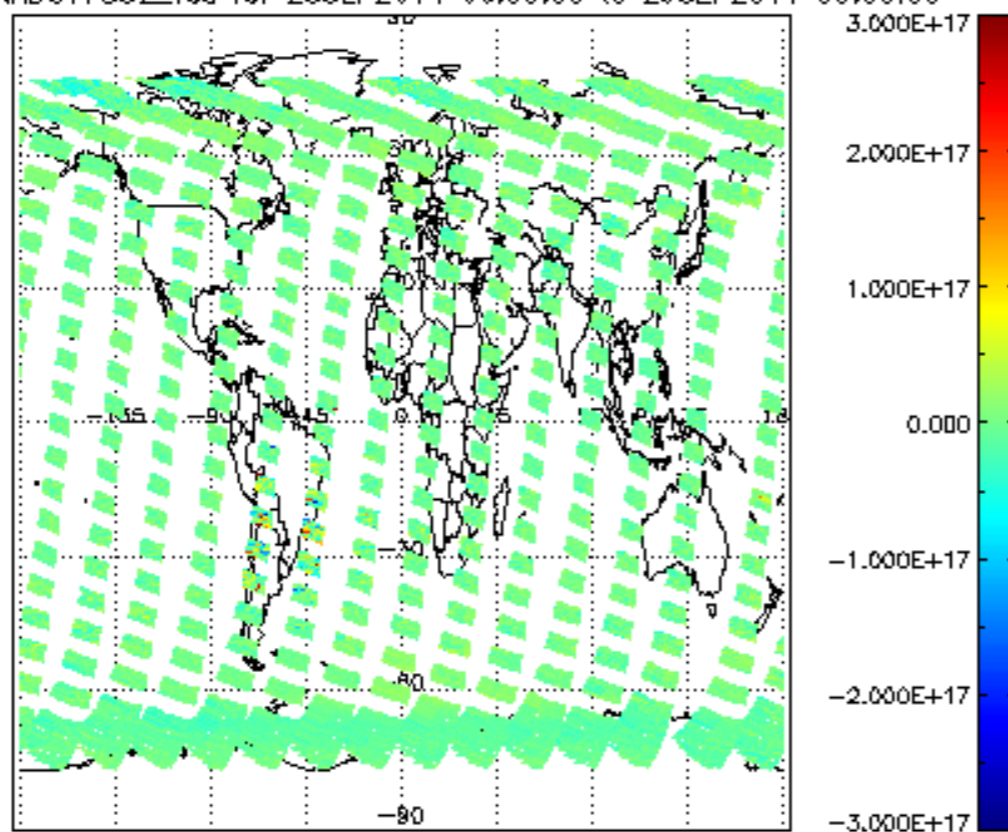
SCIOL2P\_NADUV5S02\_amf\_cl for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



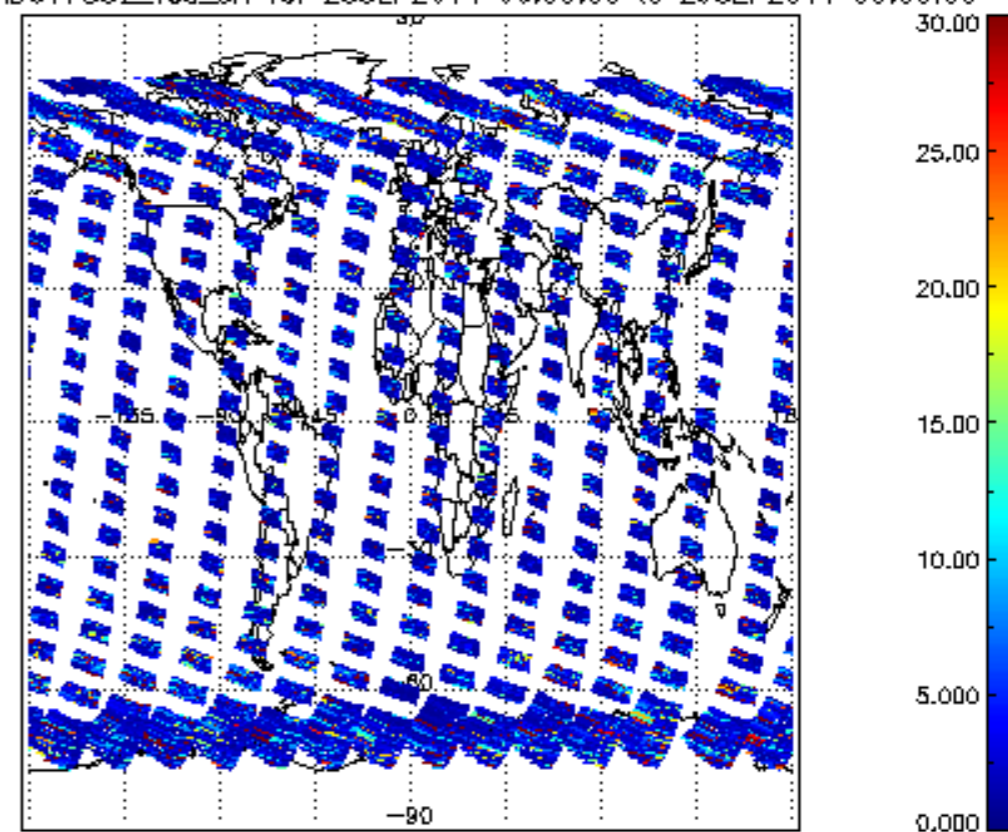




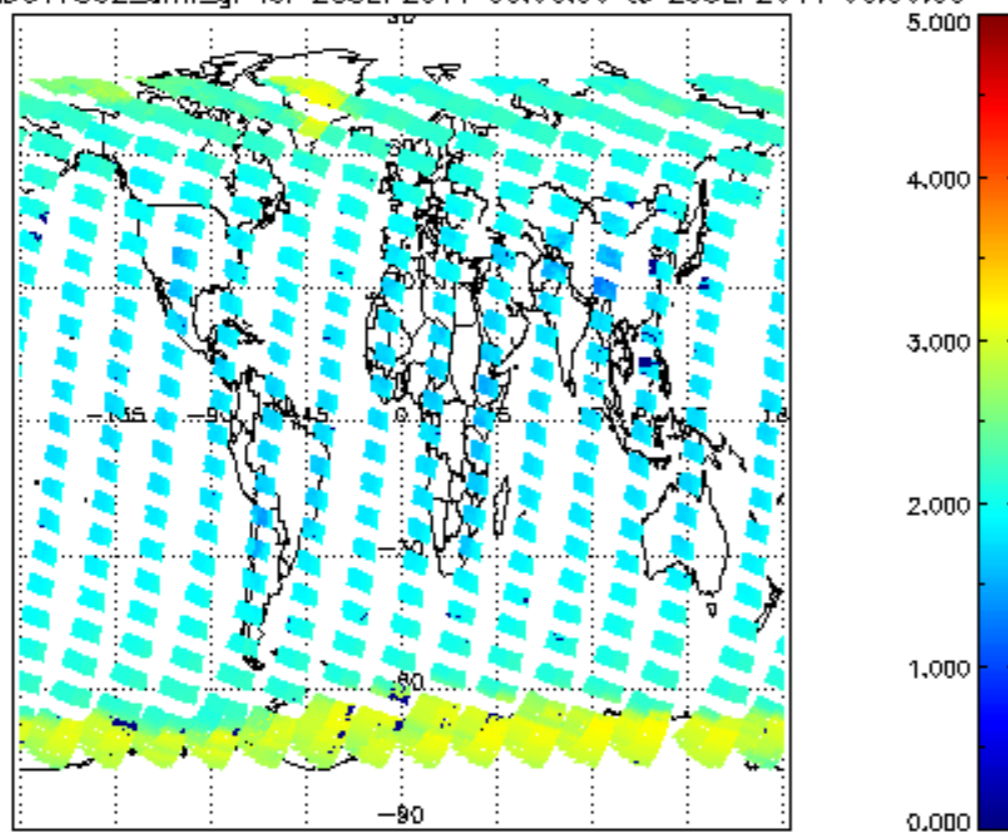
SCIOL2P\_NADUV7S02\_vcd for 28SEP2011 00:00:00 to 29SEP2011 00:00:00



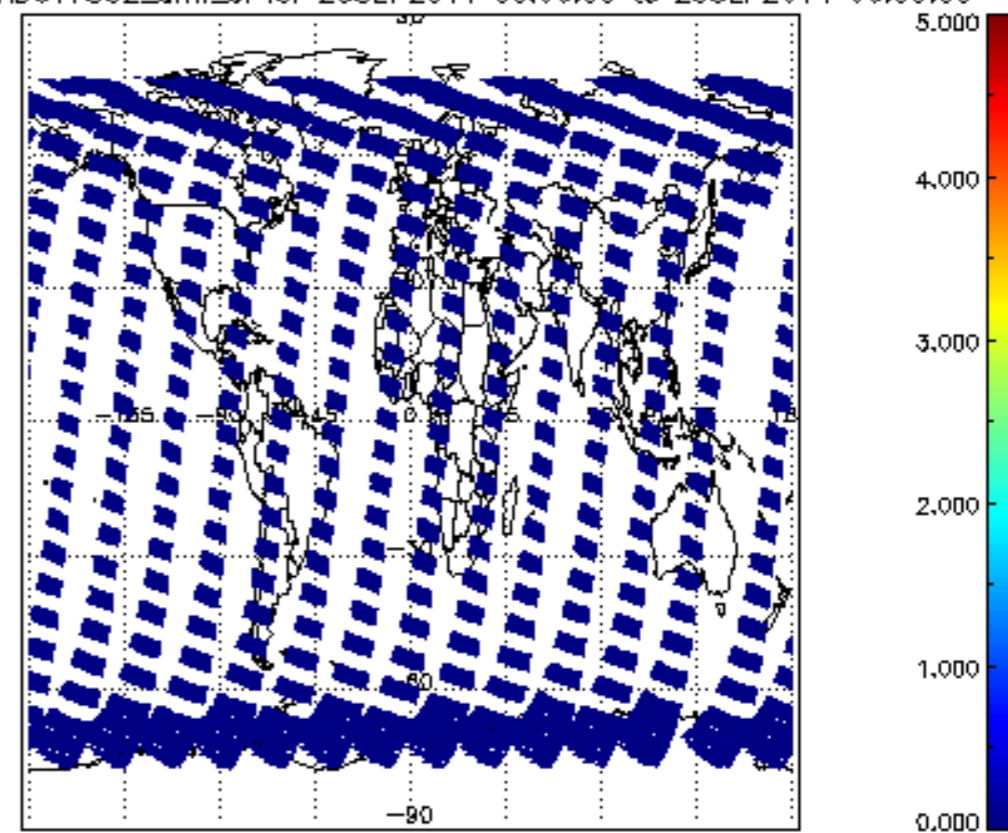
SCIOL2P\_NADUV7S02\_vcd\_err for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

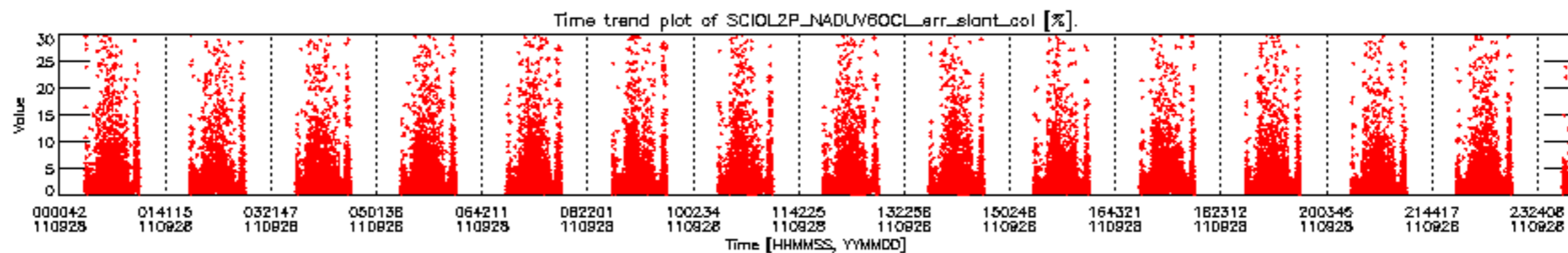
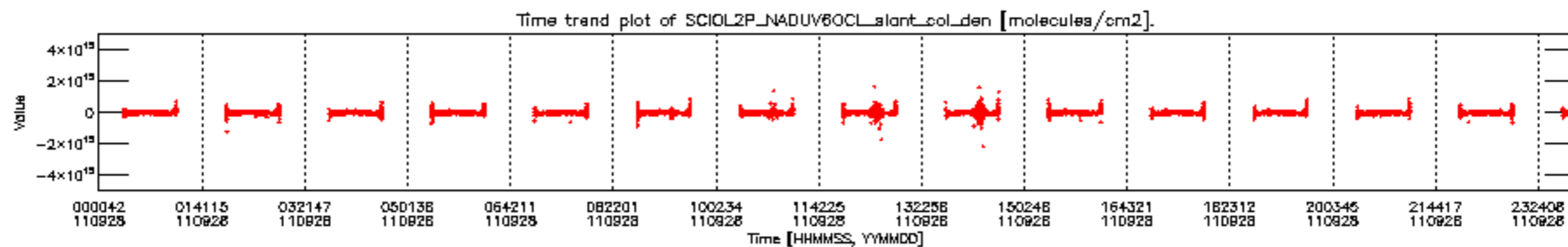


SCIOL2P\_NADUV7S02\_amf\_gr for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

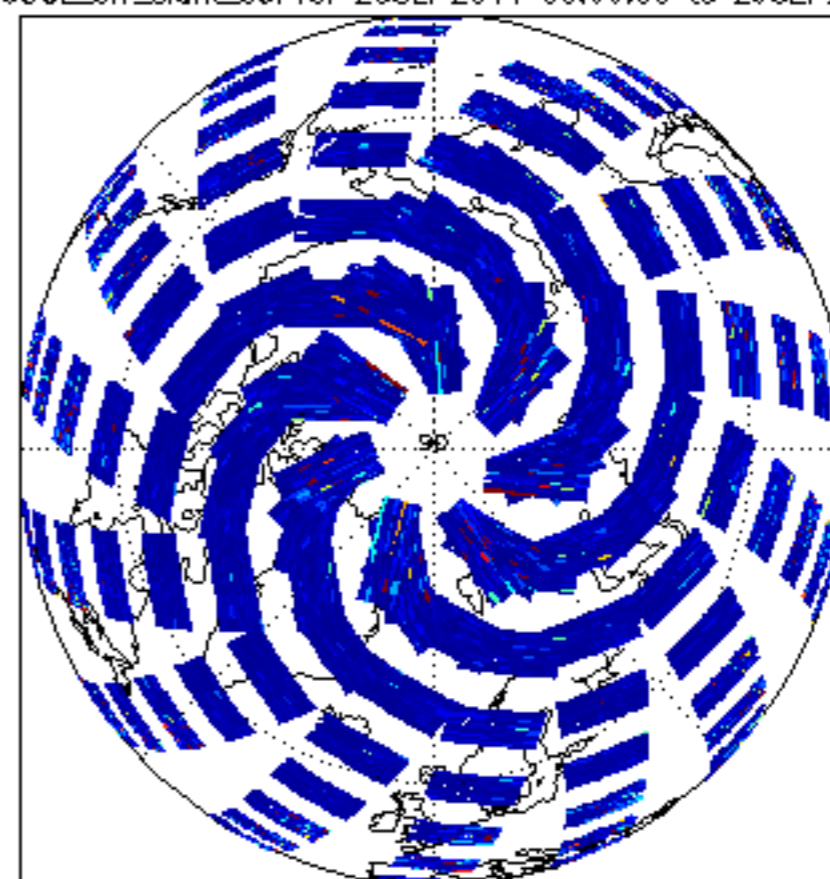
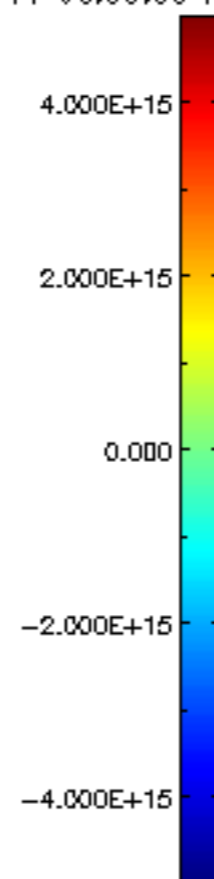
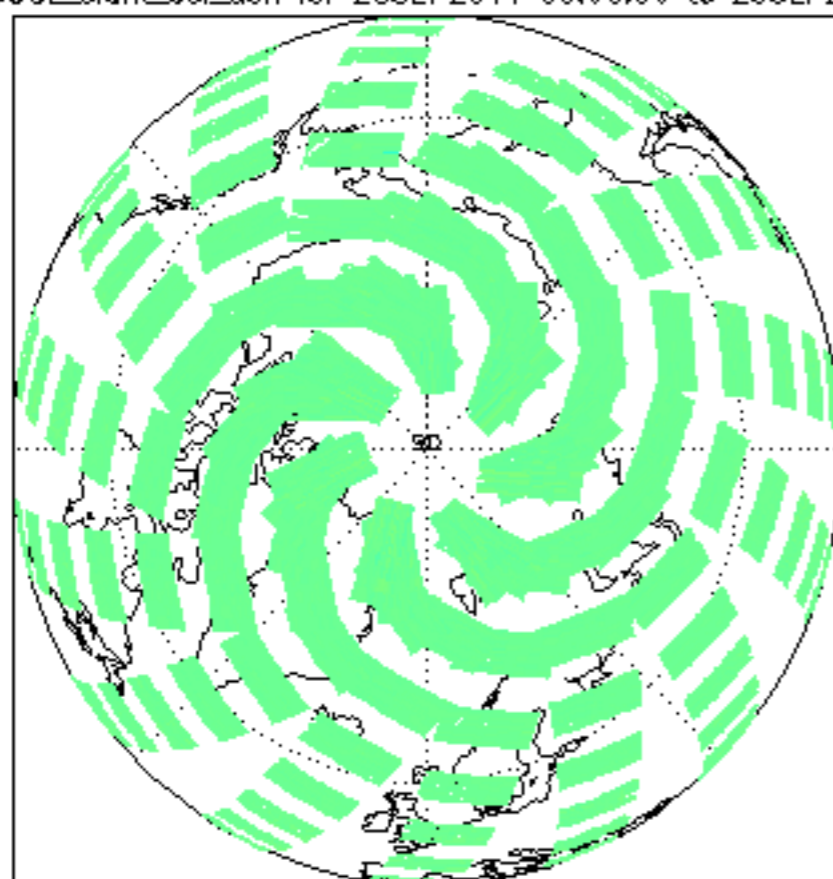


SCIOL2P\_NADUV7S02\_amf\_cl for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

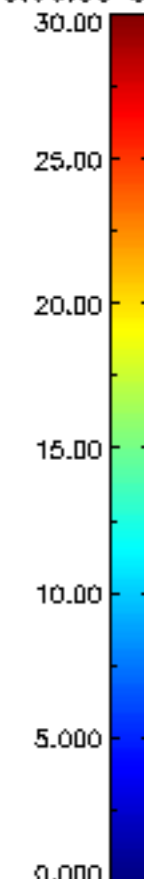
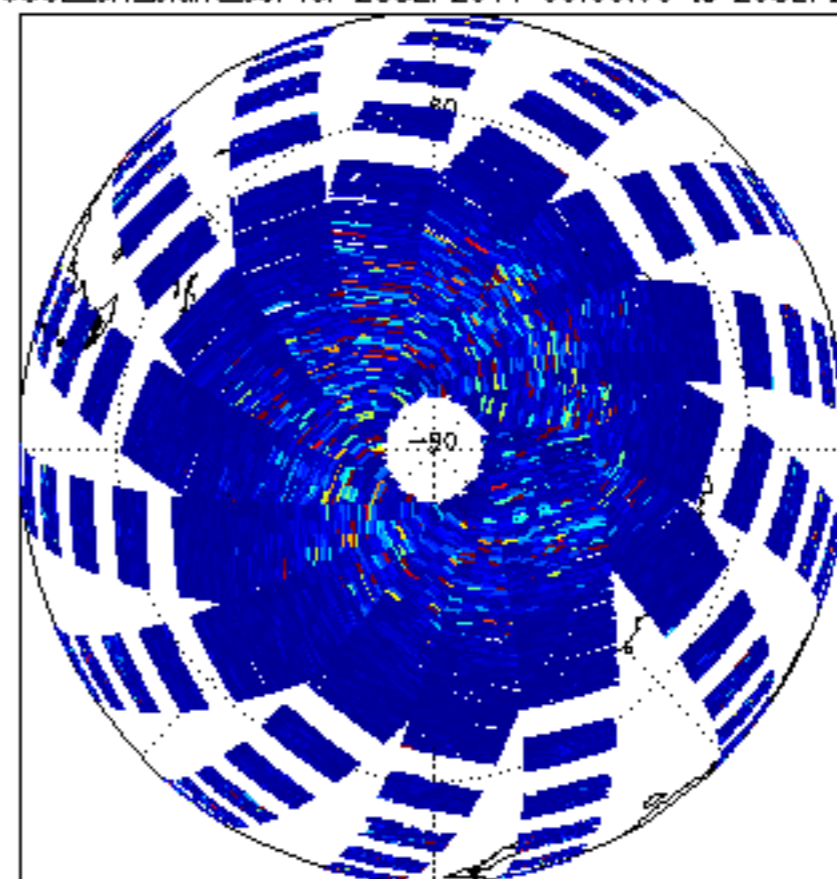
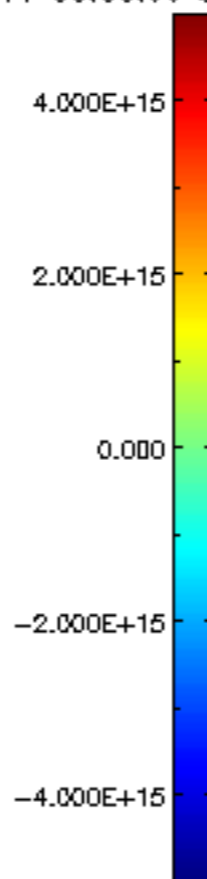
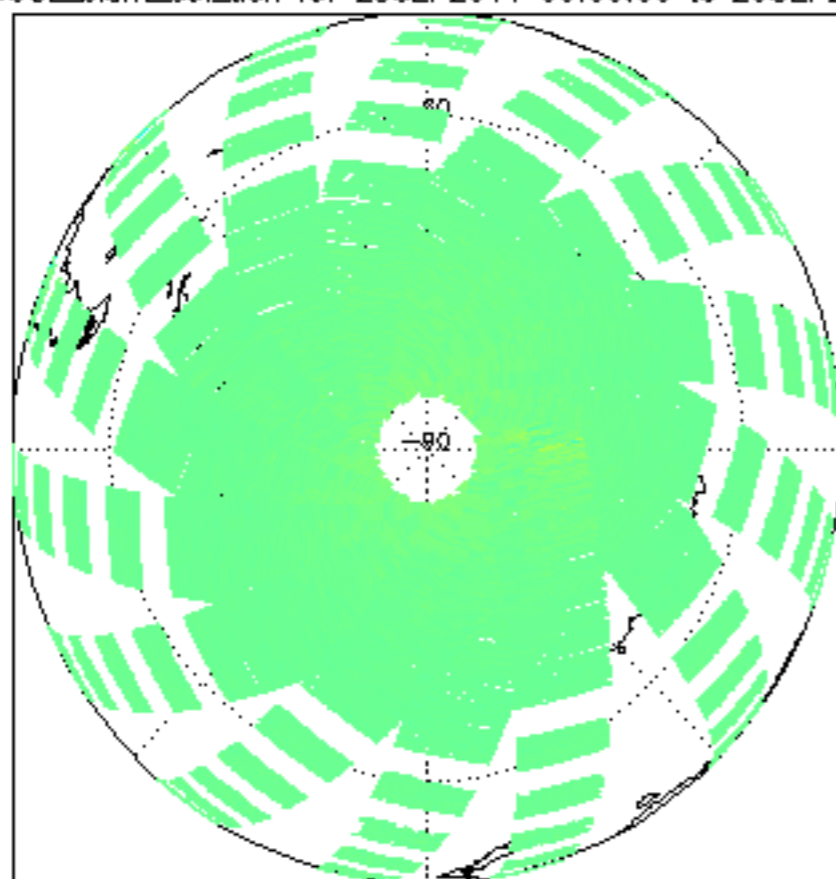




CIOL2P\_NADUV60CL\_slant\_col\_den for 28SEP2011 00:00:00 to 29SEP2011 00:00:00 np iCIOL2P\_NADUV60CL\_err\_slant\_col for 28SEP2011 00:00:00 to 29SEP2011 00:00:00 np

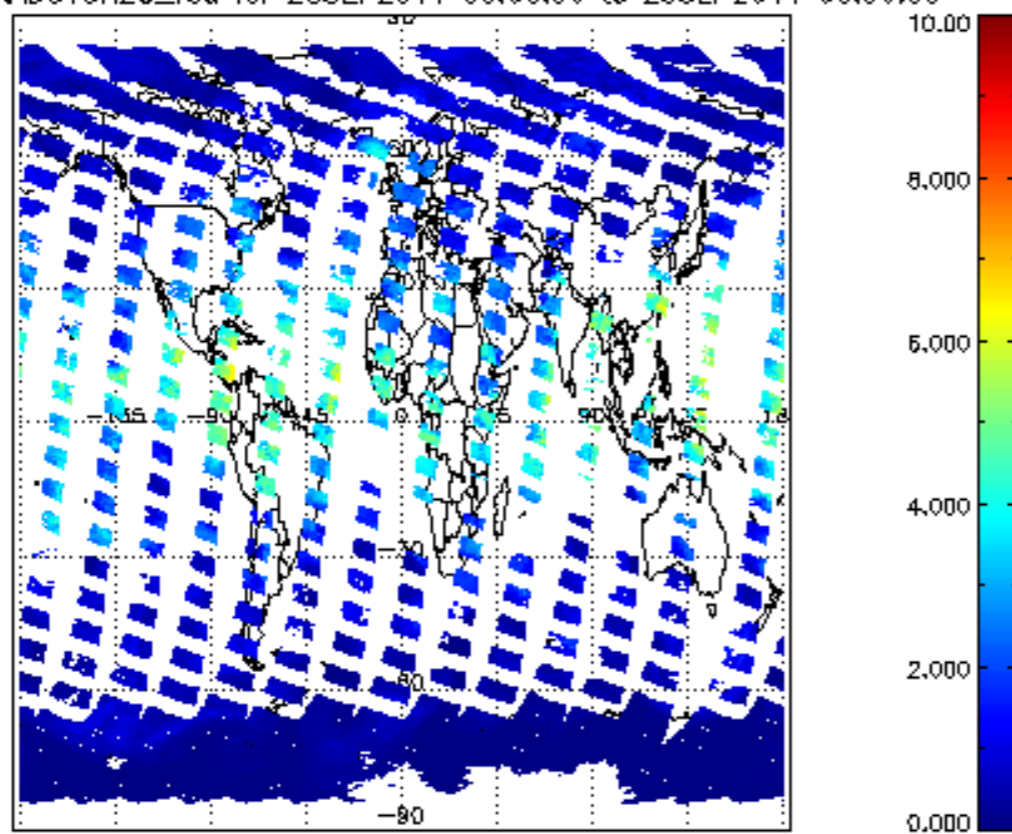


CIOL2P\_NADUV60CL\_slant\_col\_den for 28SEP2011 00:00:00 to 29SEP2011 00:00:00 sp iCIOL2P\_NADUV60CL\_err\_slant\_col for 28SEP2011 00:00:00 to 29SEP2011 00:00:00 sp

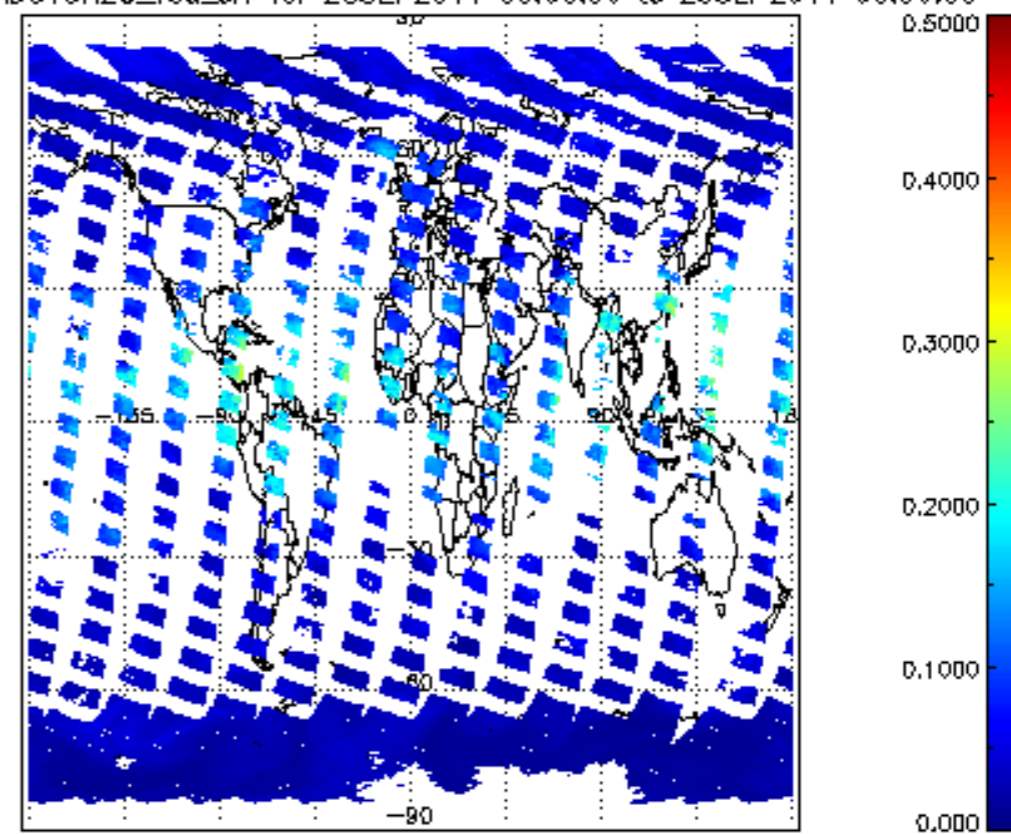




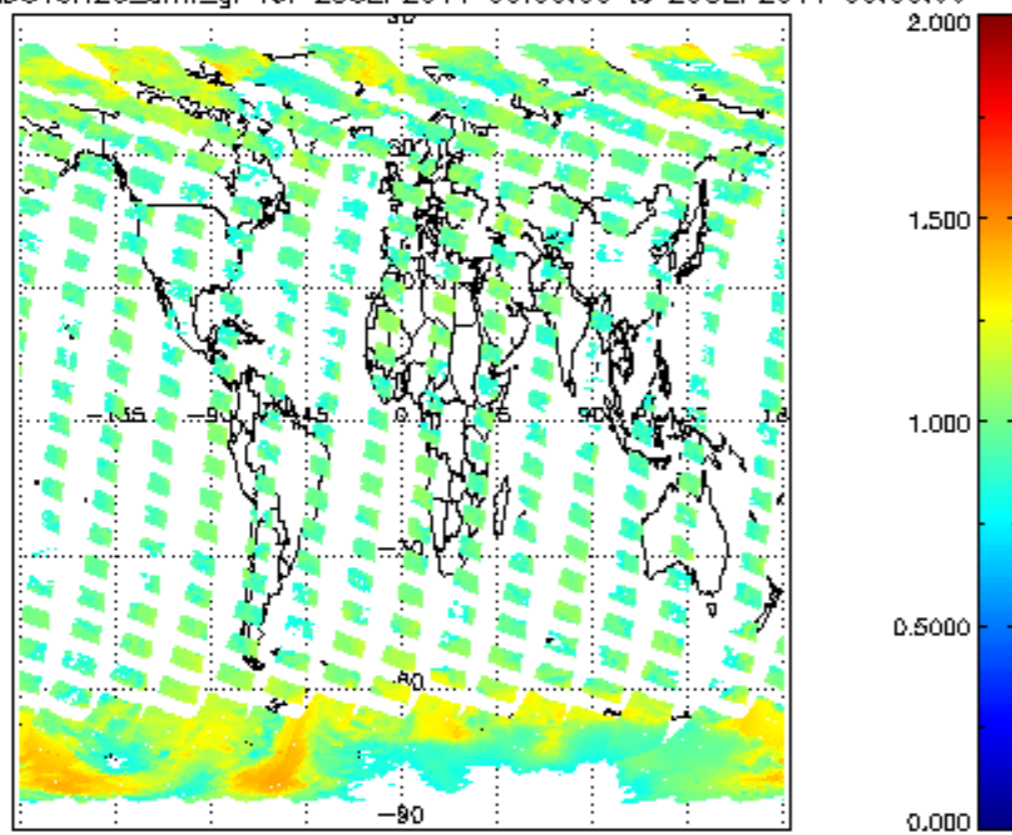
SCIOL2P\_NADUV8H2O\_vcd for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

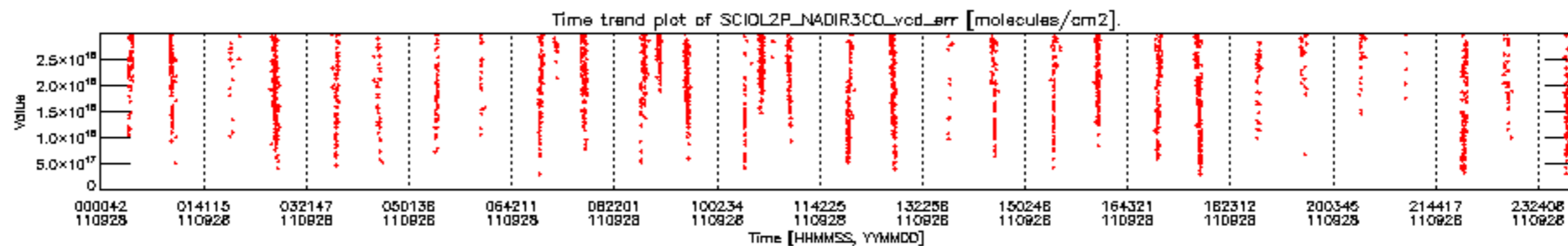
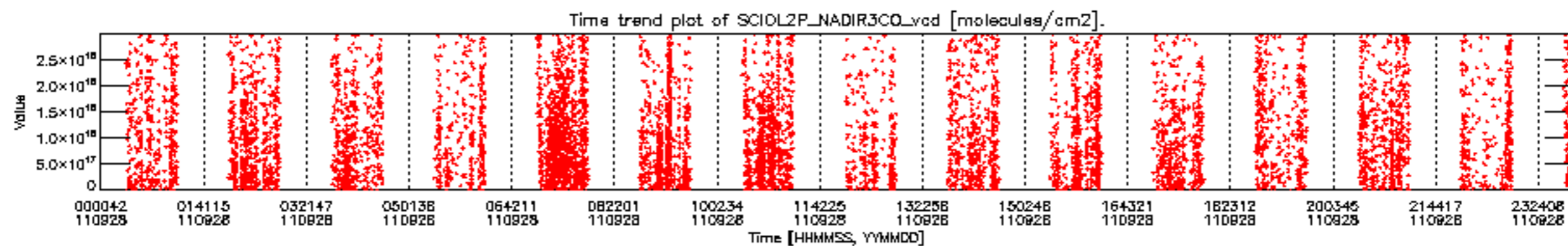


SCIOL2P\_NADUV8H2O\_vcd\_err for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

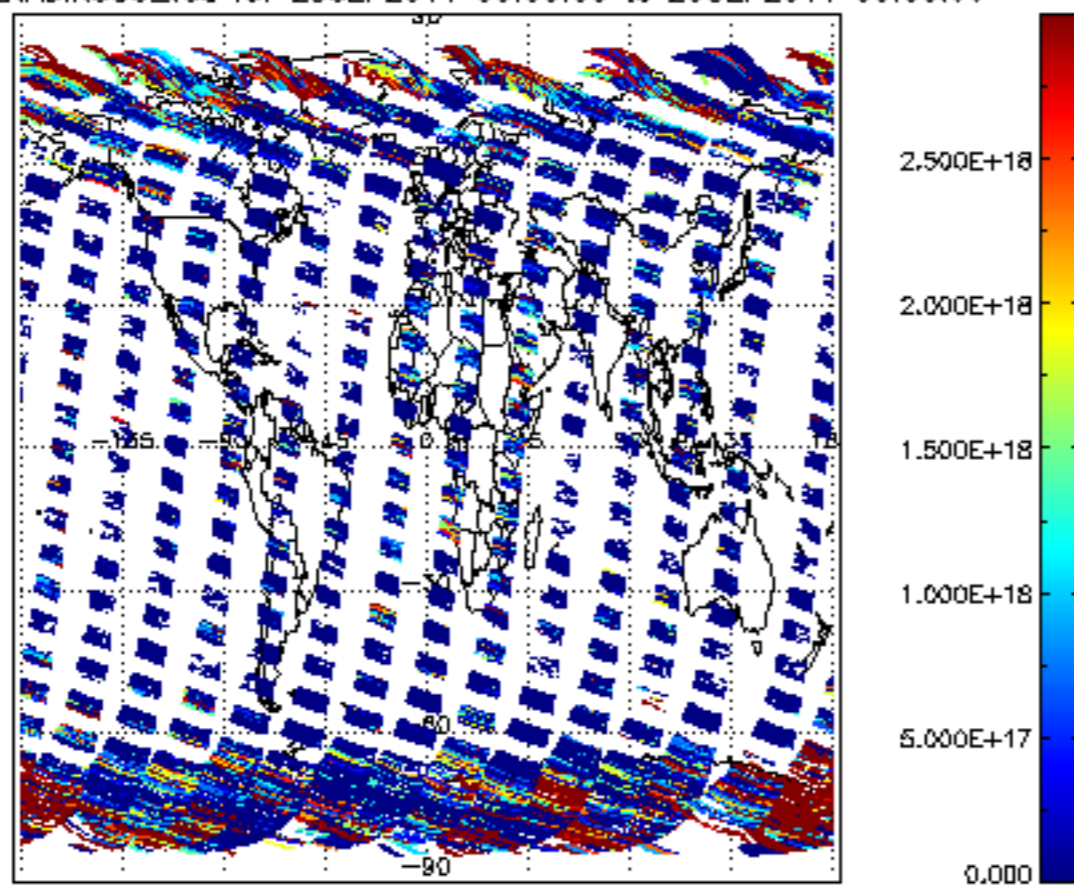


SCIOL2P\_NADUV8H2O\_amf\_gr for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

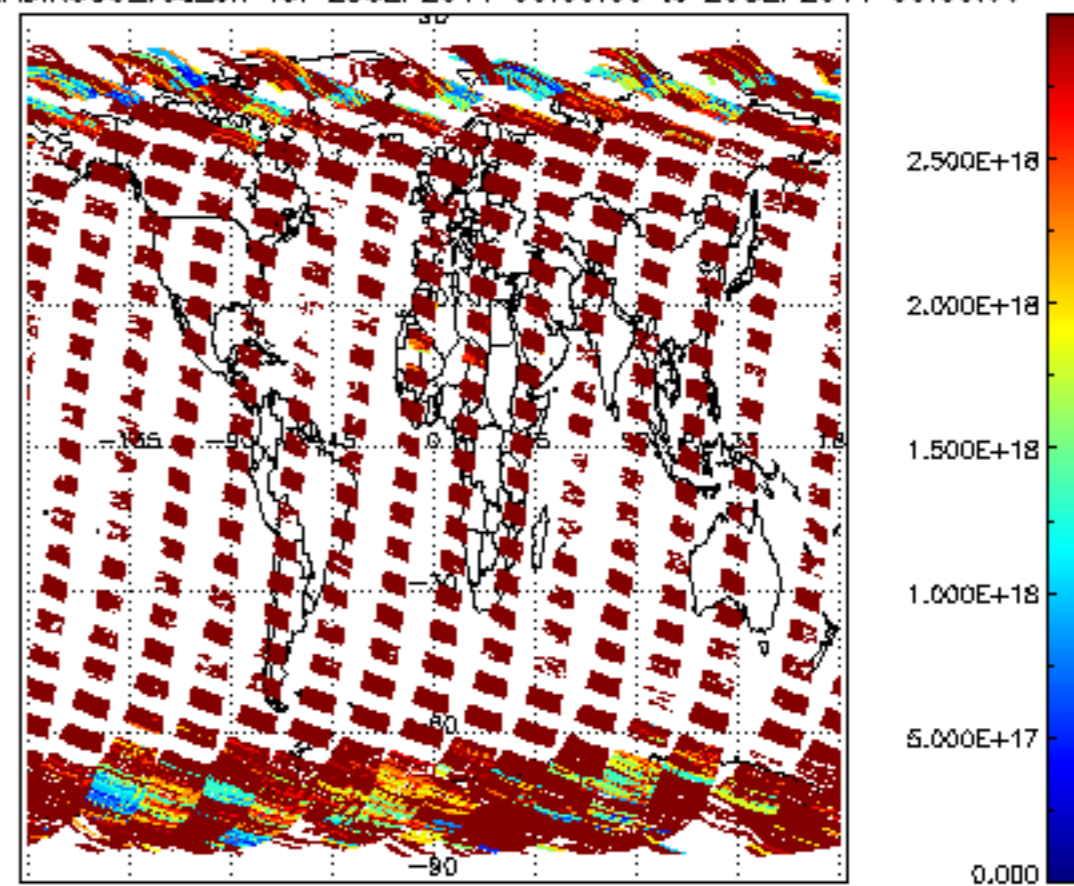




SCIOL2P\_NADIR3CO\_vcd for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

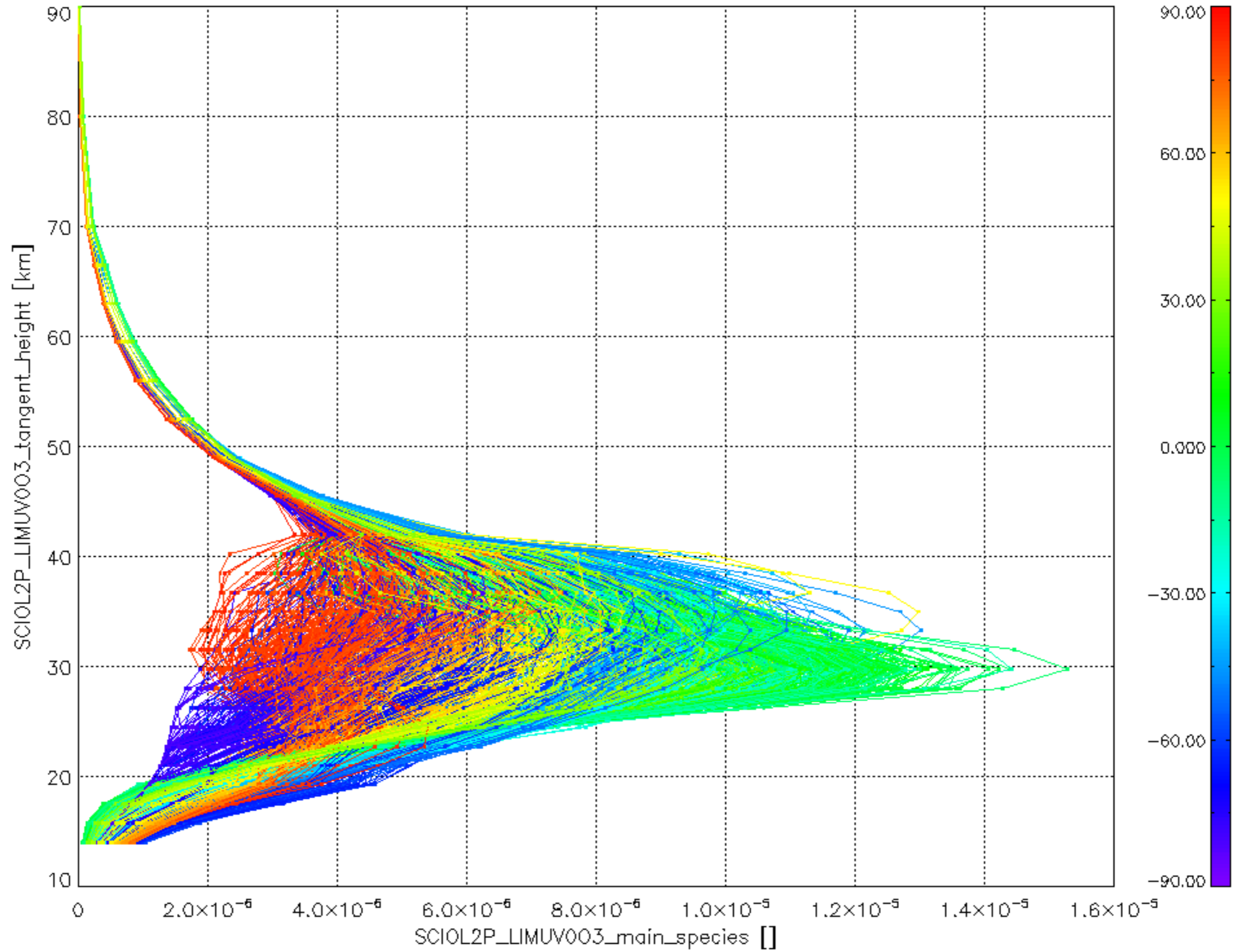


SCIOL2P\_NADIR3CO\_vcd\_err for 28SEP2011 00:00:00 to 29SEP2011 00:00:00

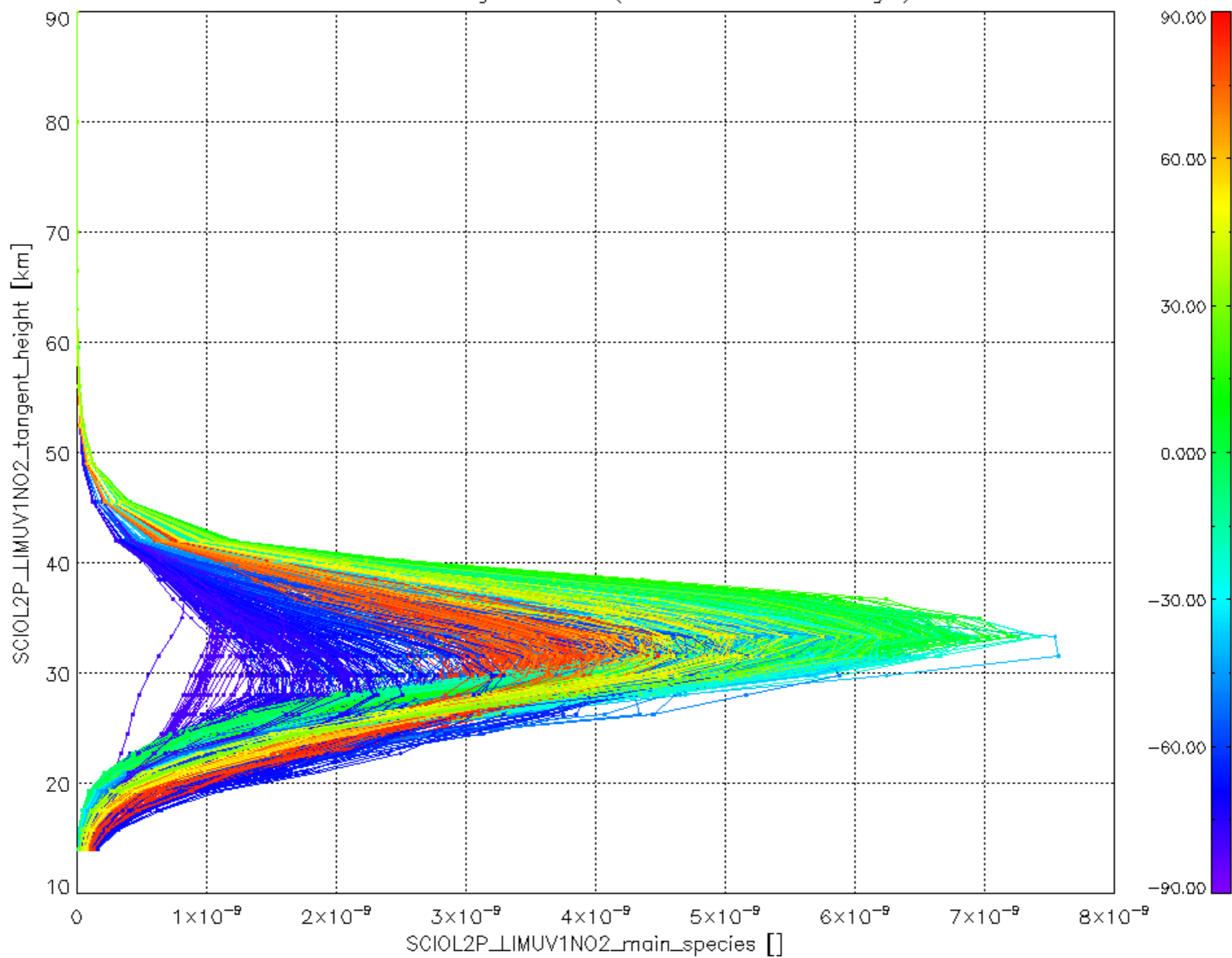




Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



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).

