

## 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	08OCT2011 03:11:50
Data source version	SCIA-OL/5.02-W
Processing scope for products	25SEP2011 00:00:00 to 26SEP2011 00:00:00
Start time of first product within scope	24SEP2011 22:47:55
Stop time of last product within scope	26SEP2011 00:50:09
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__2PWDPA20110924_224755_000034613107_00030_50044_5159.N1</a>	24SEP2011 22:47:55	24SEP2011 23:45:37	0	GOOD
1	<a href="#">SCI_OL__2PWDPA20110925_002810_000035163107_00031_50045_5140.N1</a>	25SEP2011 00:28:10	25SEP2011 01:26:46	0	GOOD
2	<a href="#">SCI_OL__2PWDPA20110925_020824_000034613107_00032_50046_5141.N1</a>	25SEP2011 02:08:24	25SEP2011 03:06:06	0	GOOD
3	<a href="#">SCI_OL__2PWDPA20110925_034839_000035163107_00033_50047_5142.N1</a>	25SEP2011 03:48:39	25SEP2011 04:47:15	0	GOOD
4	<a href="#">SCI_OL__2PWDPA20110925_052853_000034613107_00034_50048_5143.N1</a>	25SEP2011 05:28:53	25SEP2011 06:26:35	0	GOOD

5	SCI_OL__2PWDP	A20110925_070908_000035163107_00035_50049_5144.N1	25SEP2011 07:09:08	25SEP2011 08:07:44	0	GOOD
6	SCI_OL__2PWDP	A20110925_084922_000034613107_00036_50050_5145.N1	25SEP2011 08:49:22	25SEP2011 09:47:04	0	GOOD
7	SCI_OL__2PWDP	A20110925_102937_000035163107_00037_50051_5146.N1	25SEP2011 10:29:37	25SEP2011 11:28:13	0	GOOD
8	SCI_OL__2PWDP	A20110925_120951_000034613107_00038_50052_5147.N1	25SEP2011 12:09:51	25SEP2011 13:07:33	0	GOOD
9	SCI_OL__2PWDP	A20110925_135006_000035163107_00039_50053_5148.N1	25SEP2011 13:50:06	25SEP2011 14:48:42	0	GOOD
10	SCI_OL__2PWDP	A20110925_153020_000034613107_00040_50054_5149.N1	25SEP2011 15:30:20	25SEP2011 16:28:02	0	GOOD
11	SCI_OL__2PWDP	A20110925_171035_000035163107_00041_50055_5150.N1	25SEP2011 17:10:35	25SEP2011 18:09:11	0	GOOD
12	SCI_OL__2PWDP	A20110925_185102_000034613107_00042_50056_5160.N1	25SEP2011 18:51:02	25SEP2011 19:48:44	0	GOOD
13	SCI_OL__2PWDP	A20110925_203117_000034473107_00043_50057_5151.N1	25SEP2011 20:31:17	25SEP2011 21:28:44	0	GOOD
14	SCI_OL__2PWDP	A20110925_221118_000034613107_00044_50058_5189.N1	25SEP2011 22:11:18	25SEP2011 23:09:00	0	GOOD
15	SCI_OL__2PWDP	A20110925_235133_000035163107_00045_50059_5152.N1	25SEP2011 23:51:33	26SEP2011 00:50:09	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: 158697

Total number of cloud data DSRs with good quality flag (=0): 158697 (100.0 %)

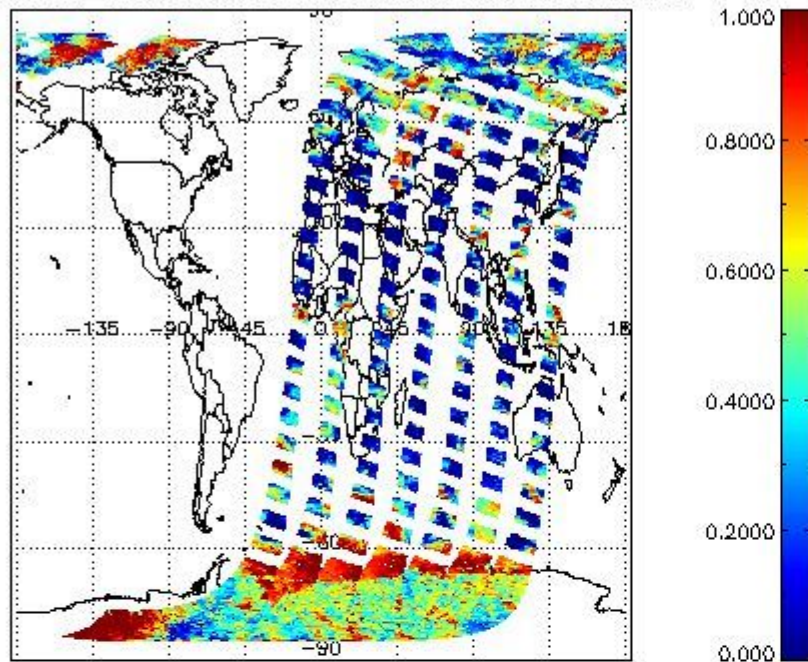
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	158697	0.0000	0.0000	0.0000	0.0000	0.0000	
INTEGR_TIME	158697	0.16657	0.12500	0.12500	0.25000	0.058893	s
CL_FRAC	158697	0.42005	0.39181	0.0000	1.0000	0.32796	
CL_FRAC_ERR	158697	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	158697	5.3303	4.0000	4.0000	8.0000	1.8846	
PMD_READ_CL[0]	158697	0.48583	0.0000	0.0000	8.0000	1.2817	-
PMD_READ_CL[1]	158697	1.4318	0.0000	0.0000	8.0000	2.6577	-
CL_TOP_HEIGHT	129216	3.6638	2.0402	0.0000	17.000	4.0650	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	129216	61.332	85.306	0.0000	101.00	42.608	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	158697	11100000	11100000	11100000	11100000	0.0000	
CLOUD_FLAGS	158697	11001100	11000100	11000000	11100000	3508.5	
AERO_ABSO_IND	158697	0.18507	0.0000	0.0000	5.2628	0.44153	
AERO_IND_DIAG	158697	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	158697	01010110	00000000	00000000	11000000	24449.	

#### Time and geolocation plots:

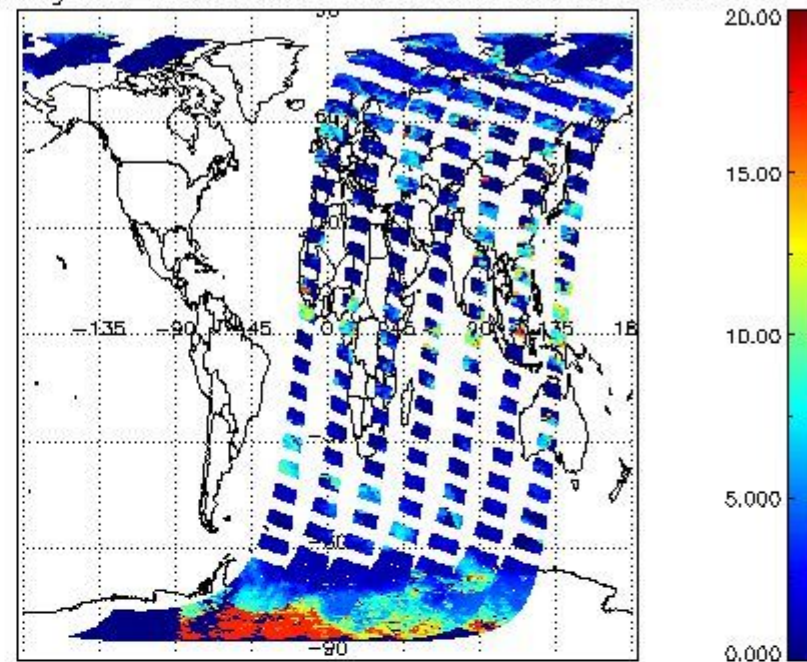
Plots are available for the following parameters:

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

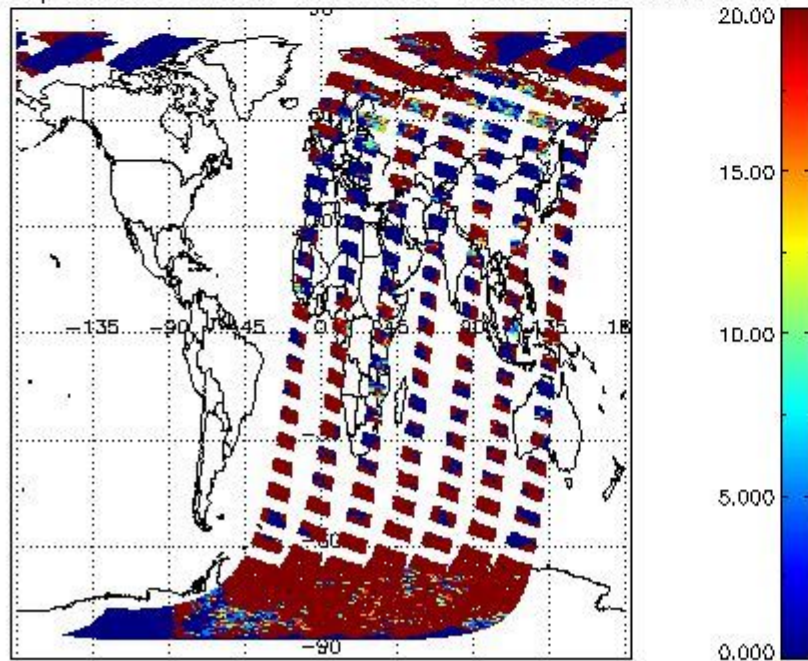
cL\_frac for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



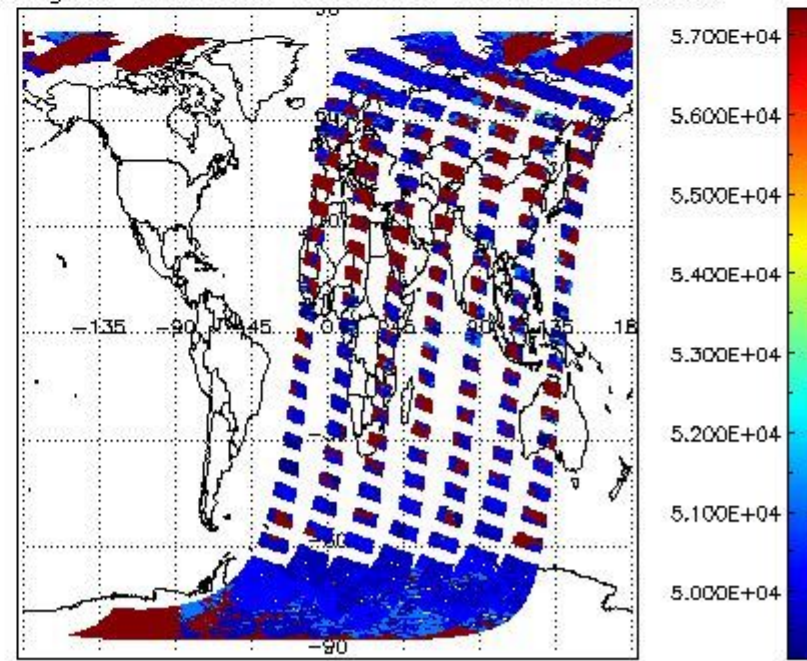
cL\_top\_height for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



cL\_opt\_depth for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



cloud\_flags for 25SEP2011 00:00:00 to 26SEP2011 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:

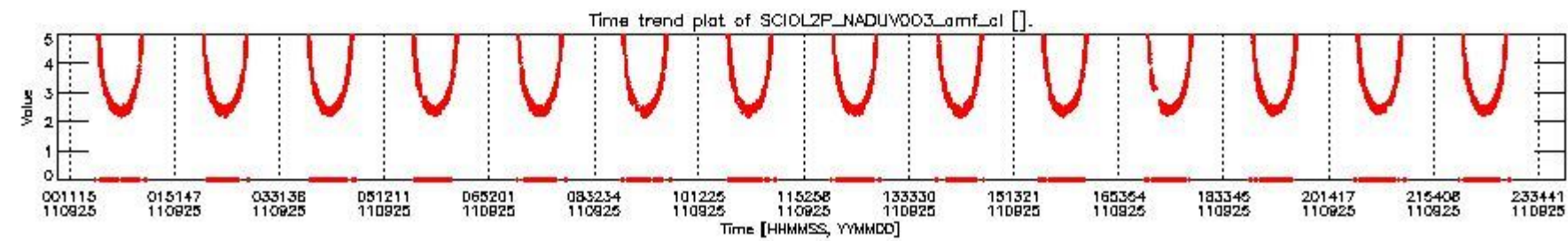
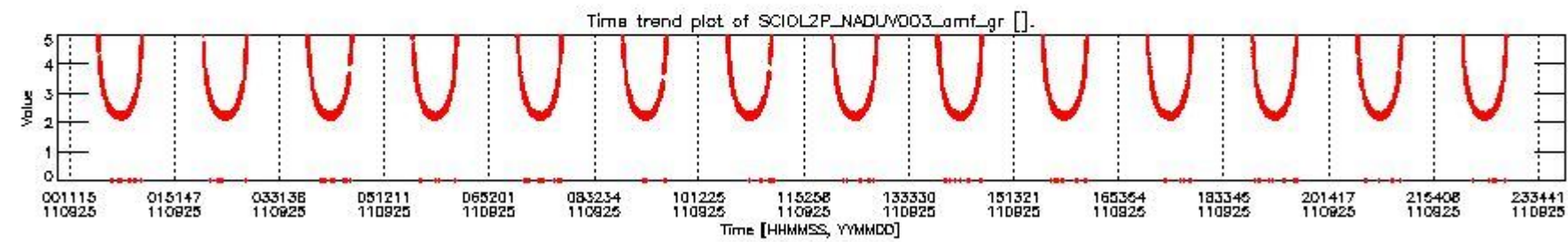
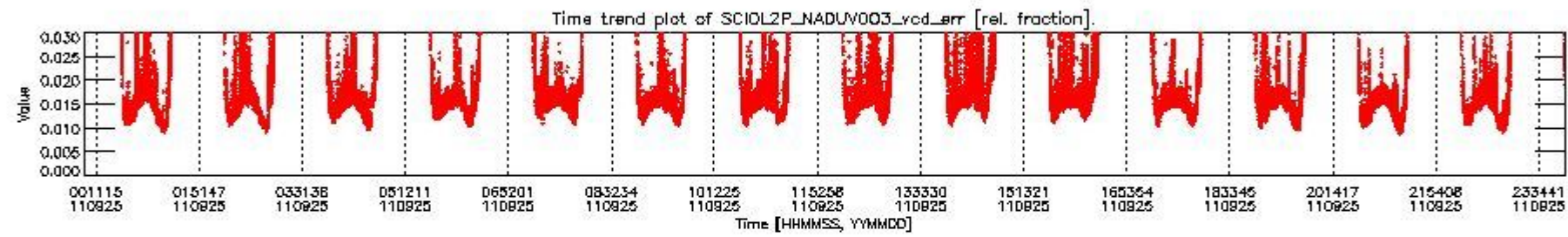
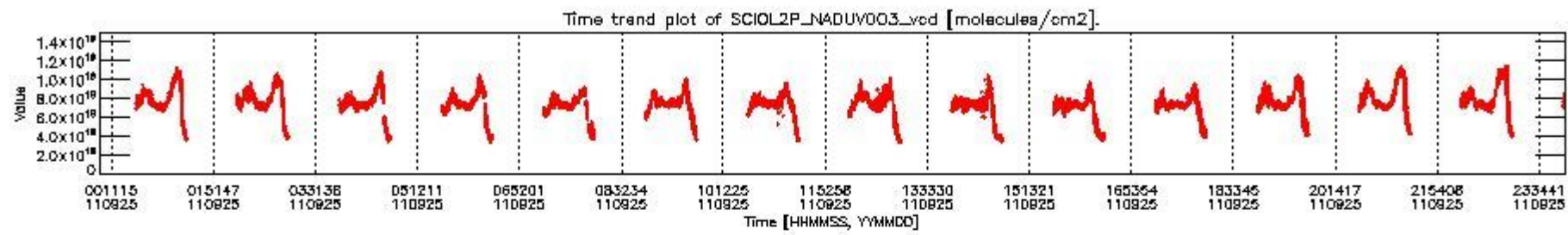
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr



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

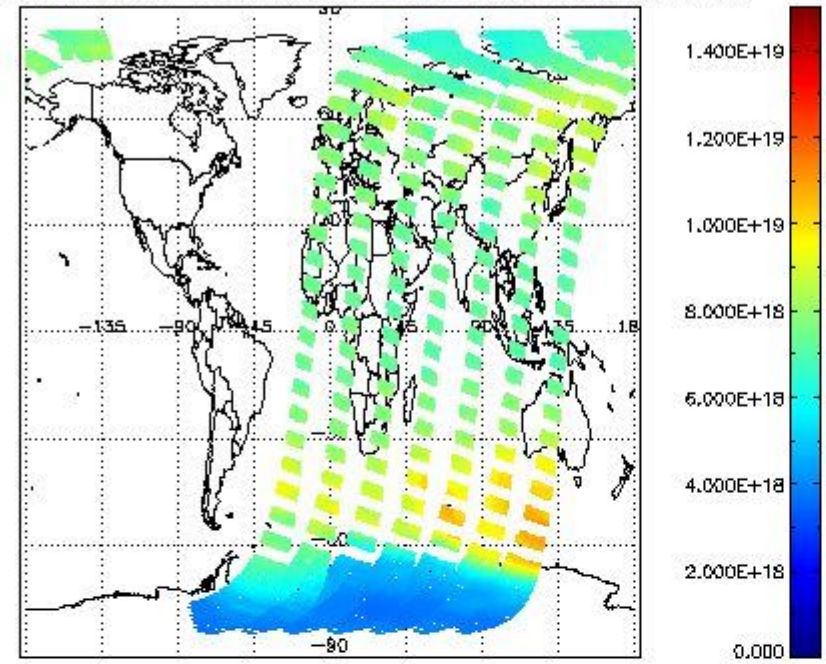
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in the MPH.

#### 2.2.2.1 O3 (UV0)

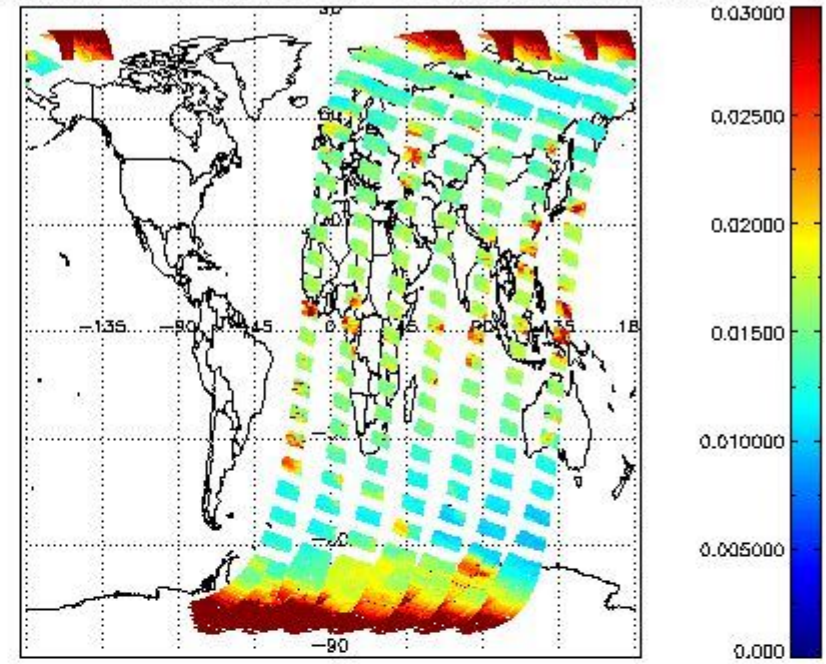




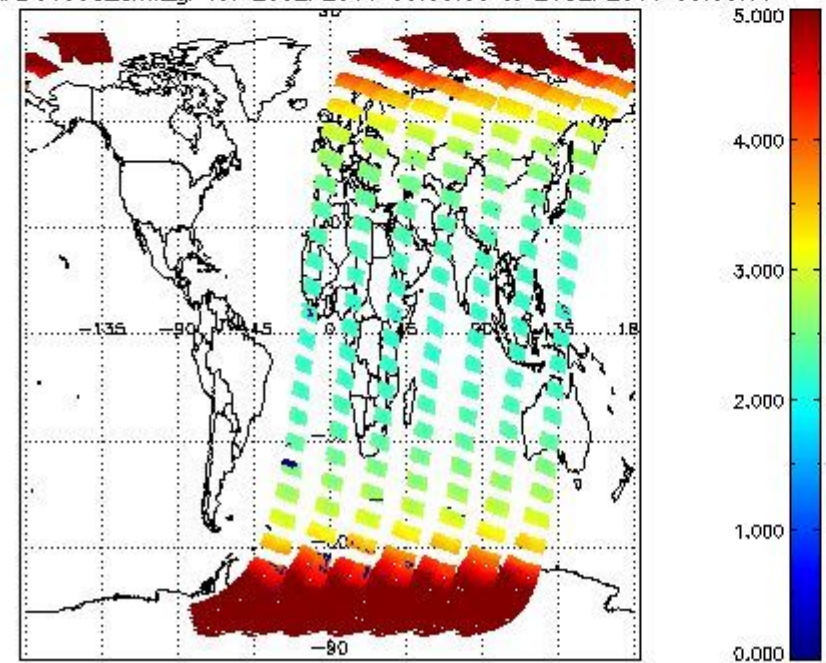
SCIOL2P\_NADUV003\_vcd for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



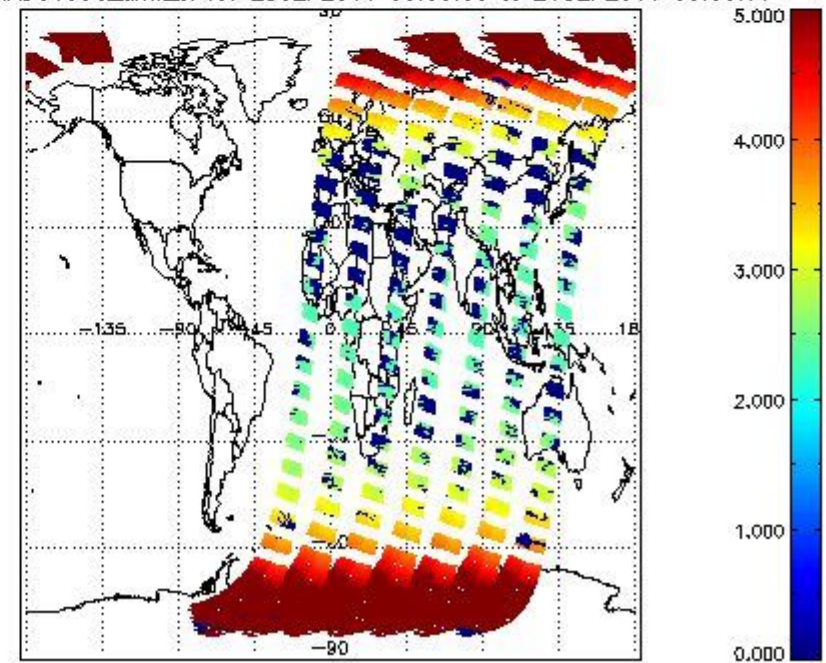
SCIOL2P\_NADUV003\_vcd\_err for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



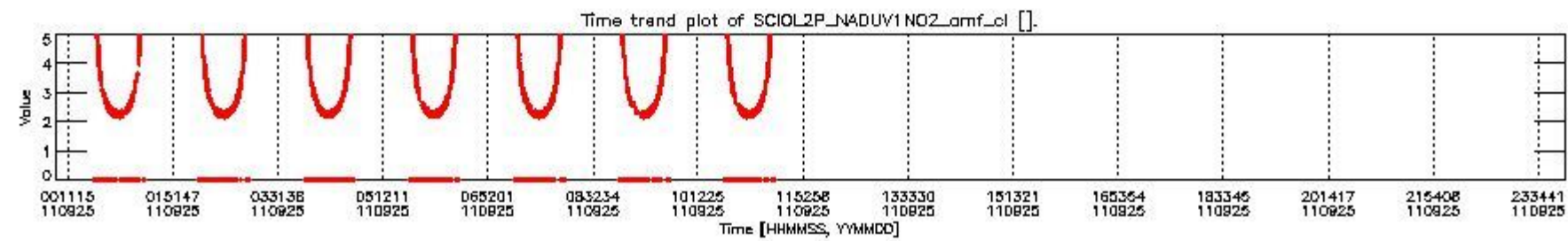
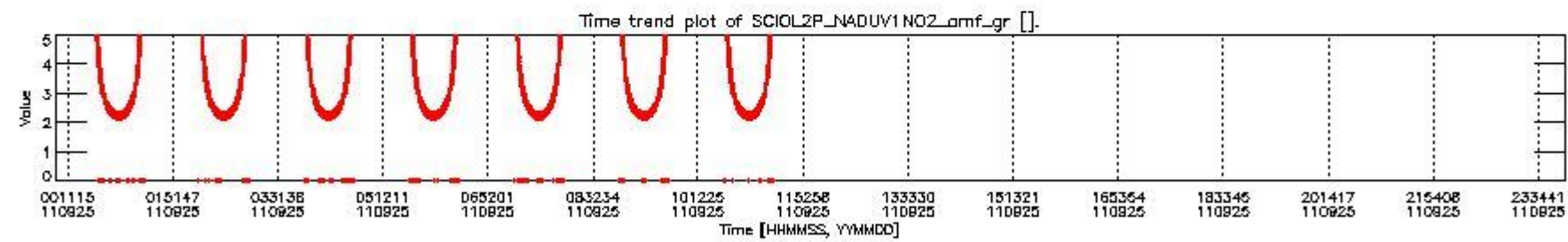
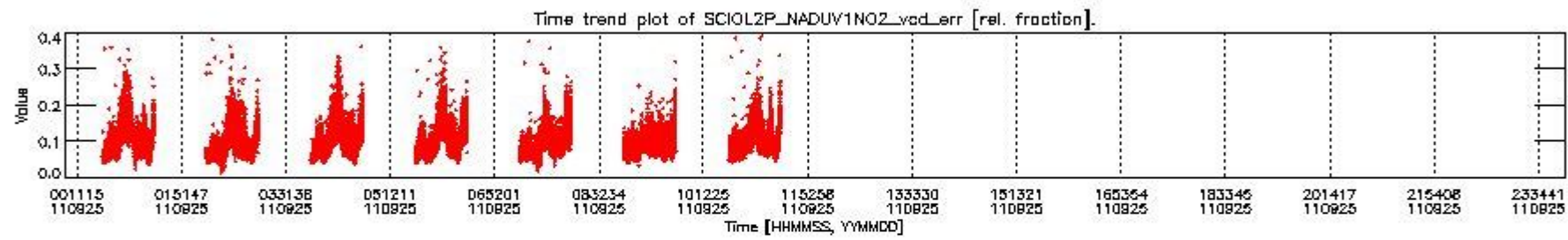
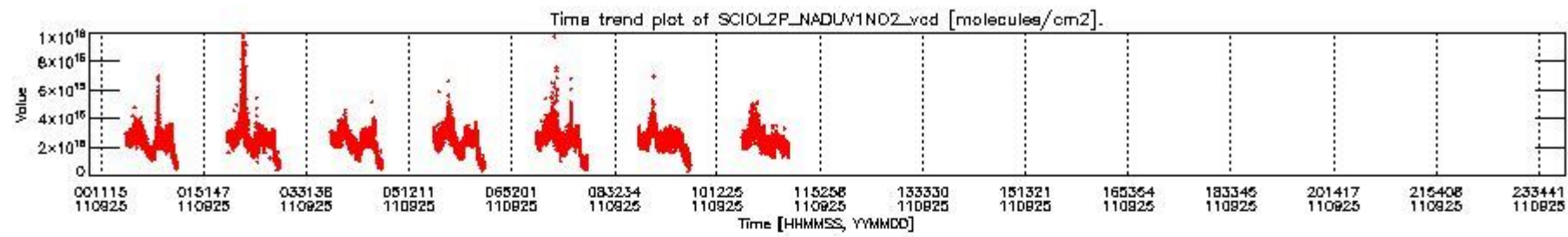
SCIOL2P\_NADUV003\_amf\_gr for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



SCIOL2P\_NADUV003\_amf\_cl for 25SEP2011 00:00:00 to 26SEP2011 00:00:00

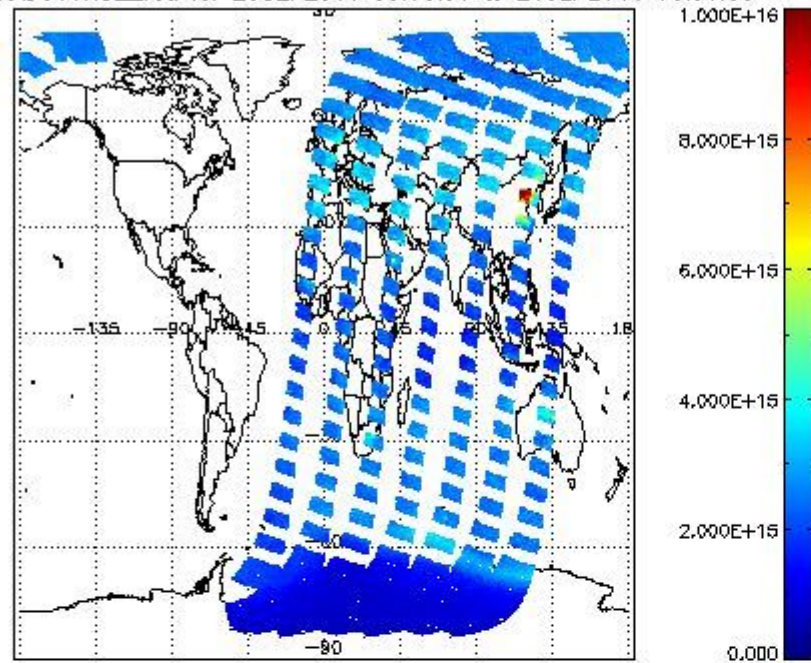


2.2.2.2 NO2 (UV1)

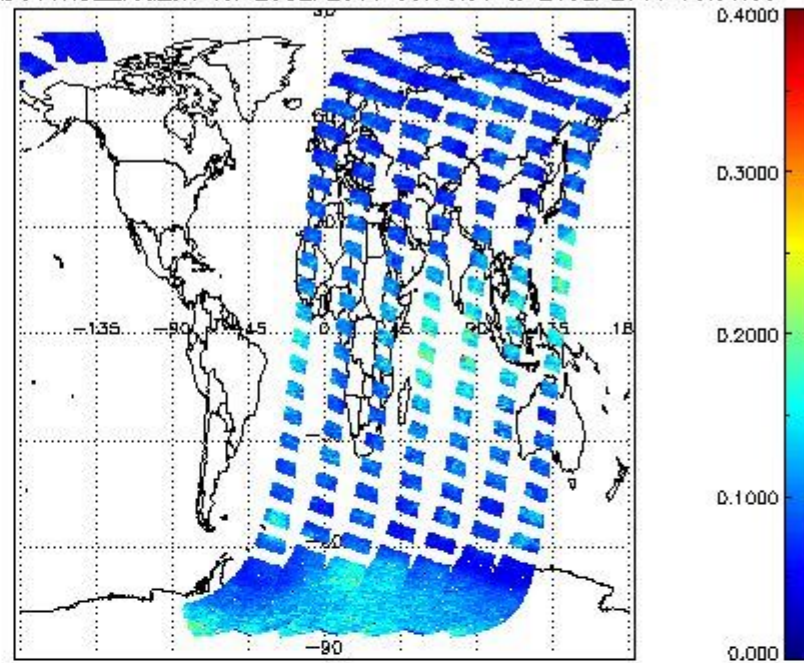




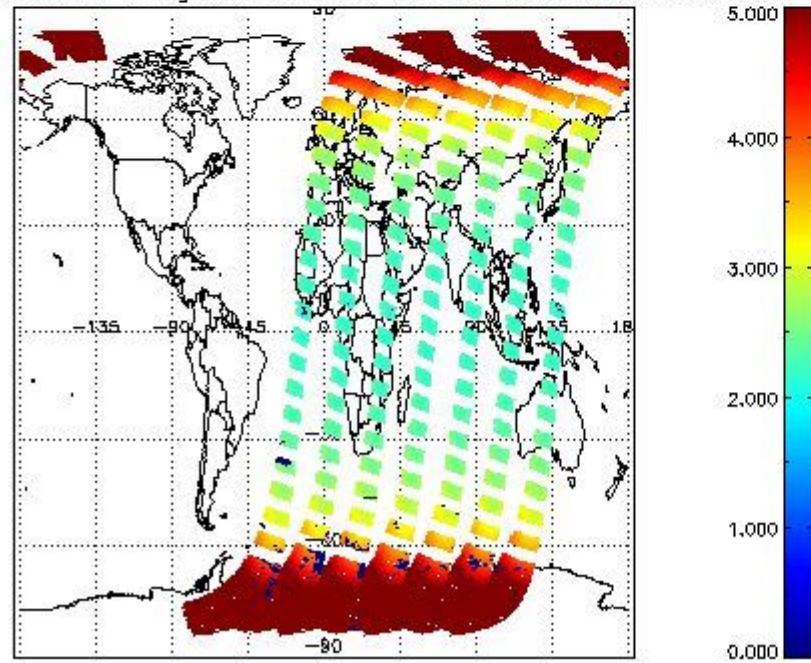
SCIOL2P\_NADUV1NO2\_vcd for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



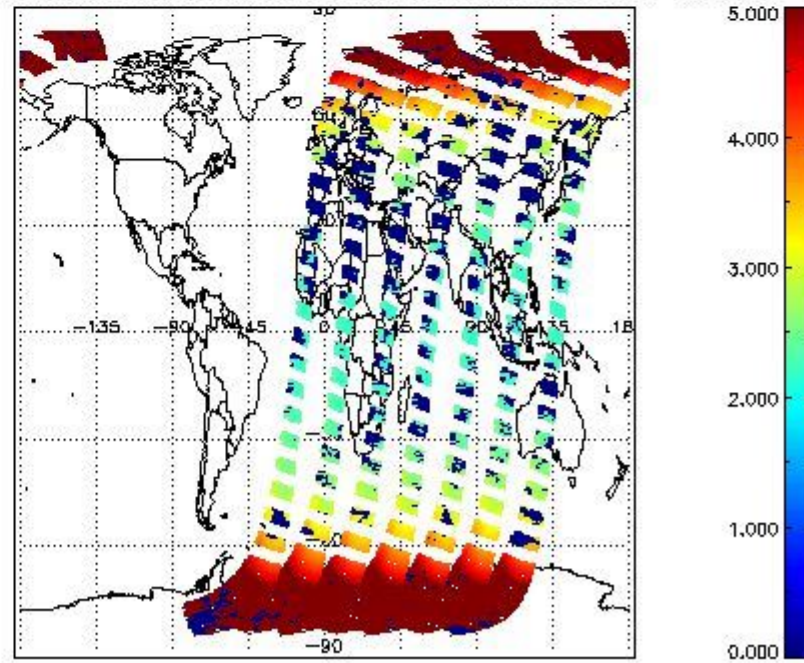
SCIOL2P\_NADUV1NO2\_vcd\_err for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 25SEP2011 00:00:00 to 26SEP2011 00:00:00

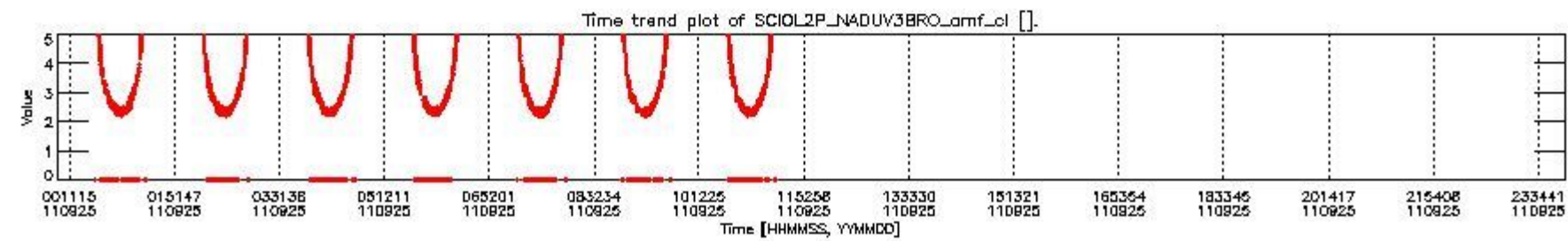
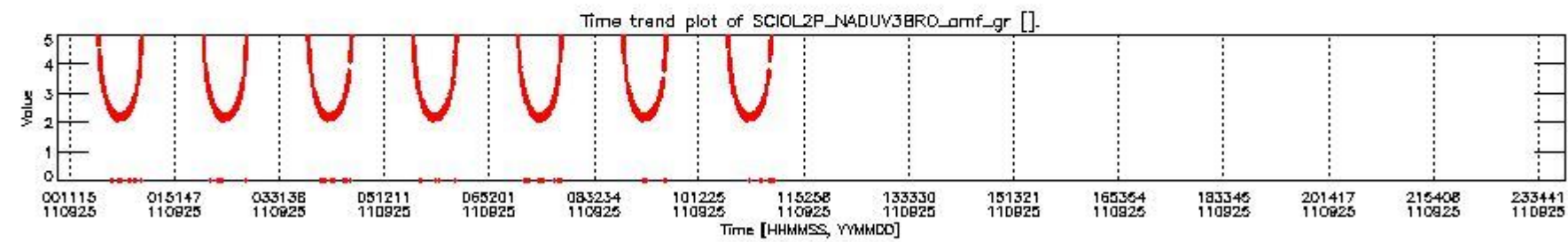
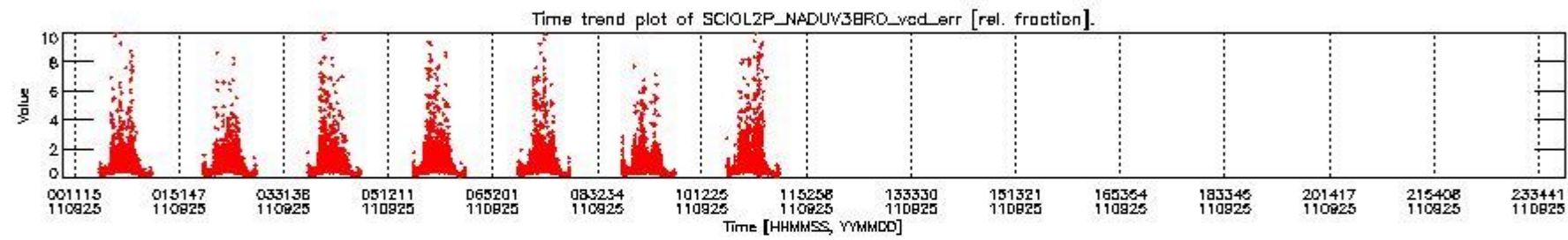
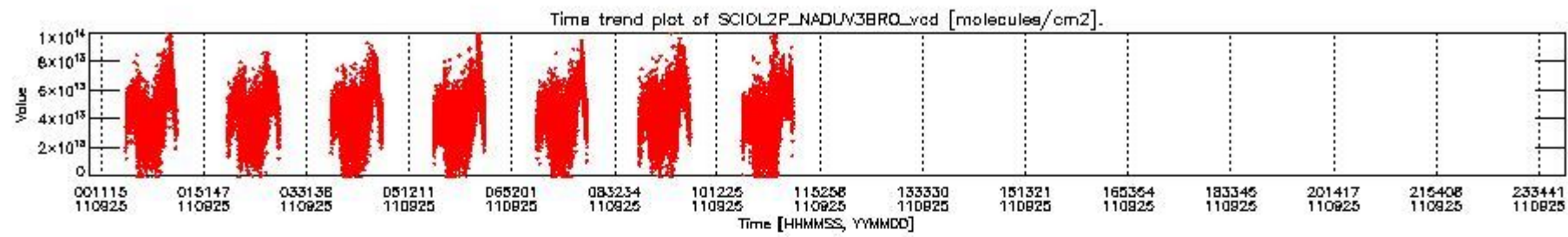


SCIOL2P\_NADUV1NO2\_amf\_cl for 25SEP2011 00:00:00 to 26SEP2011 00:00:00

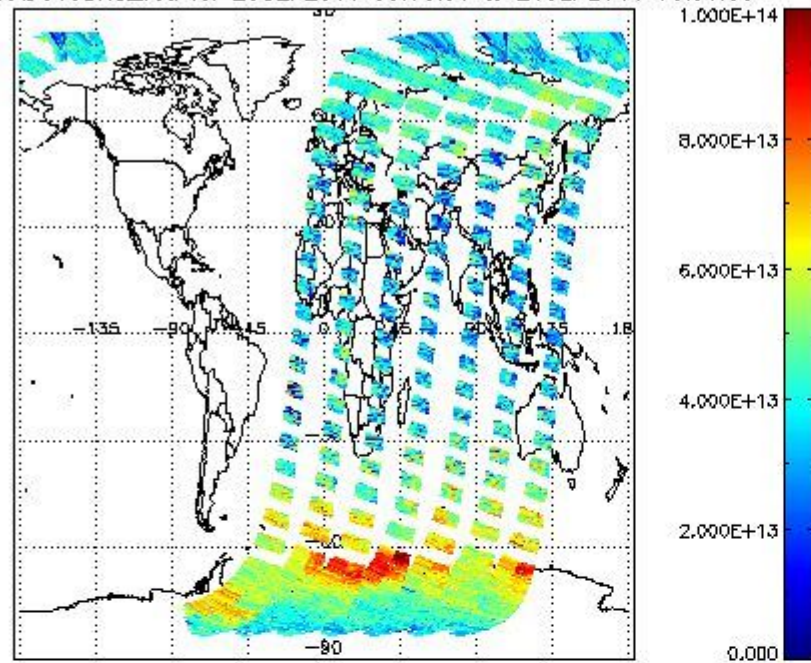


2.2.2.3 BrO (UV3)

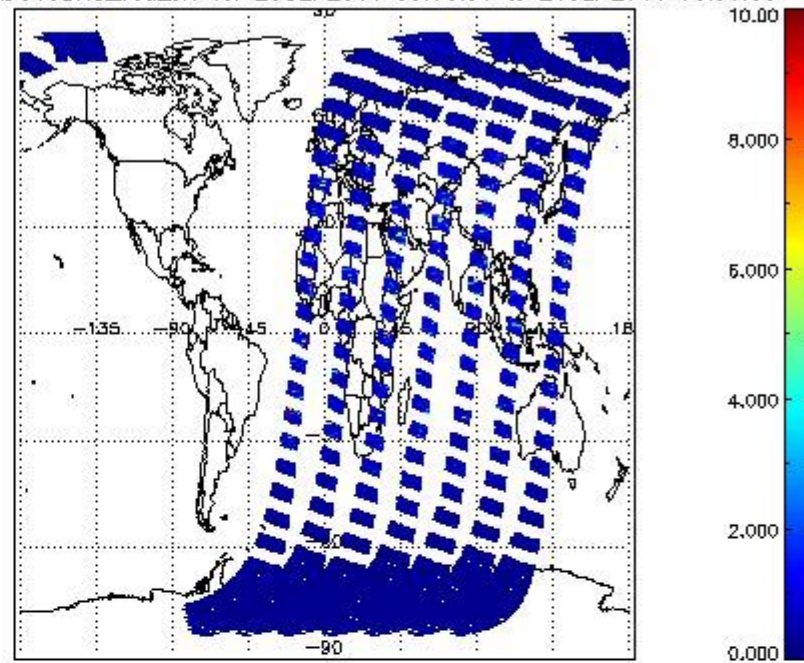




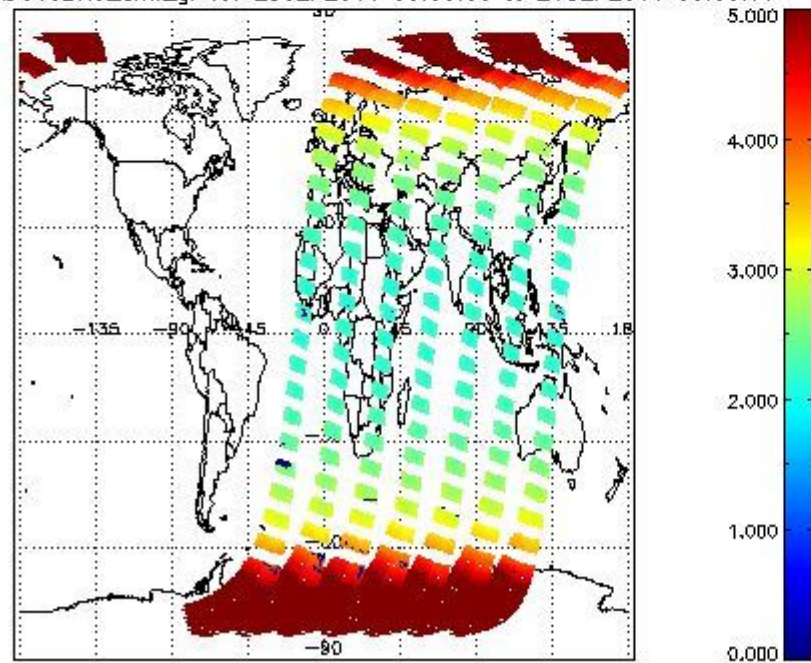
SCIOL2P\_NADUV3BRO\_vcd for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



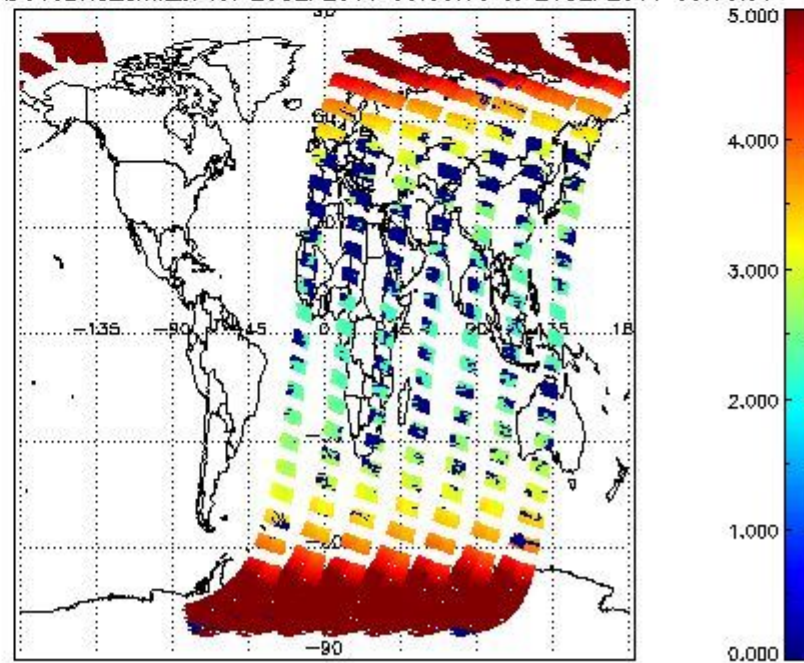
SCIOL2P\_NADUV3BRO\_vcd\_err for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



SCIOL2P\_NADUV3BRO\_amf\_gr for 25SEP2011 00:00:00 to 26SEP2011 00:00:00

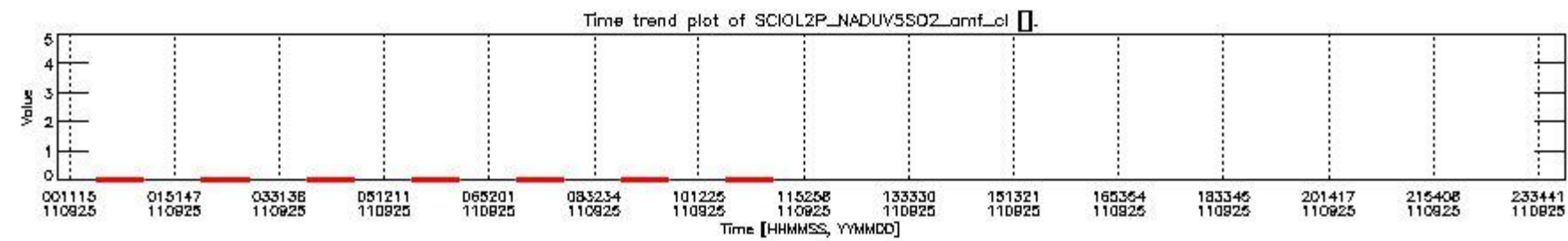
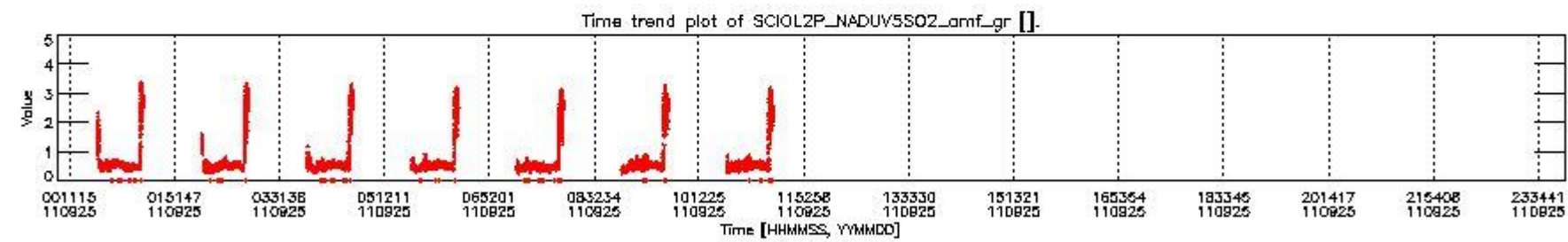
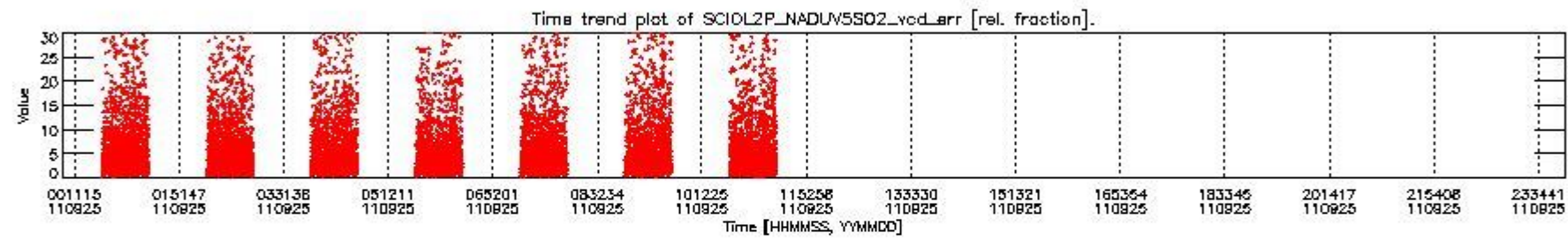
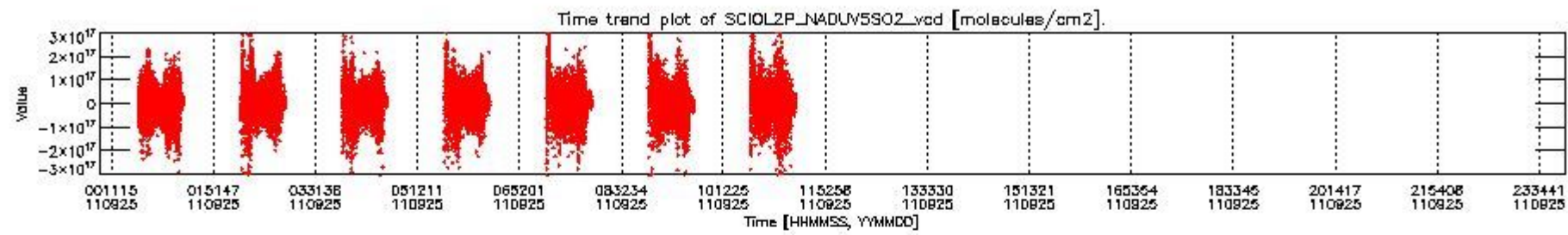


SCIOL2P\_NADUV3BRO\_amf\_cl for 25SEP2011 00:00:00 to 26SEP2011 00:00:00

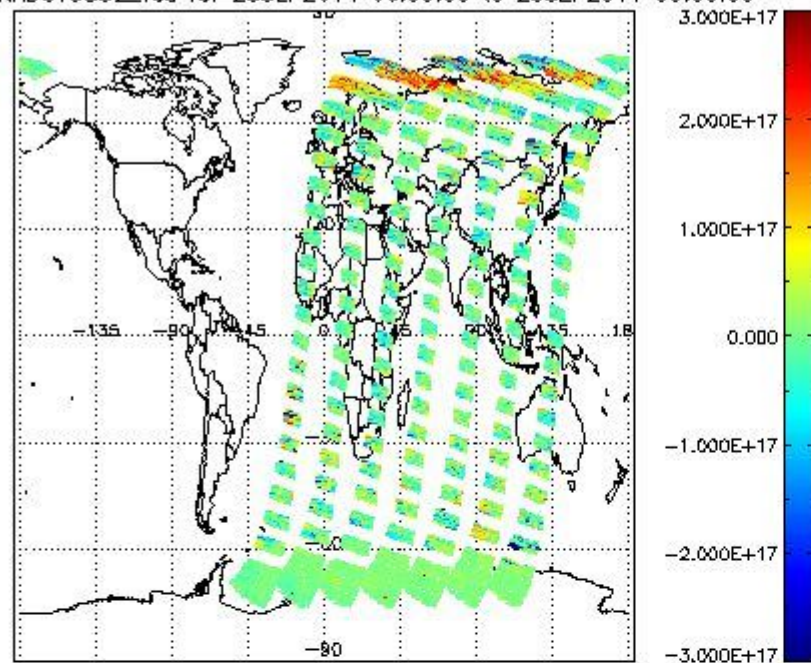


2.2.2.4 SO2 (UV5)

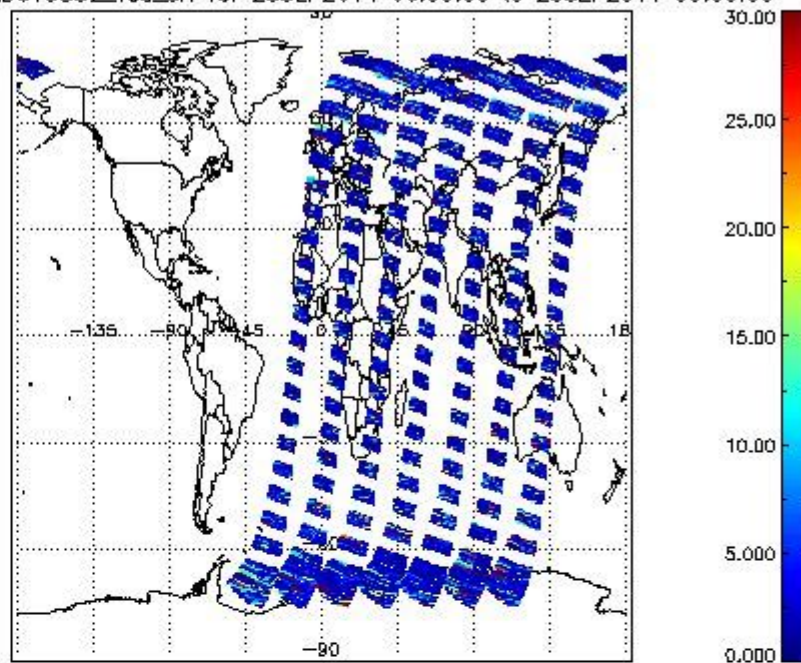




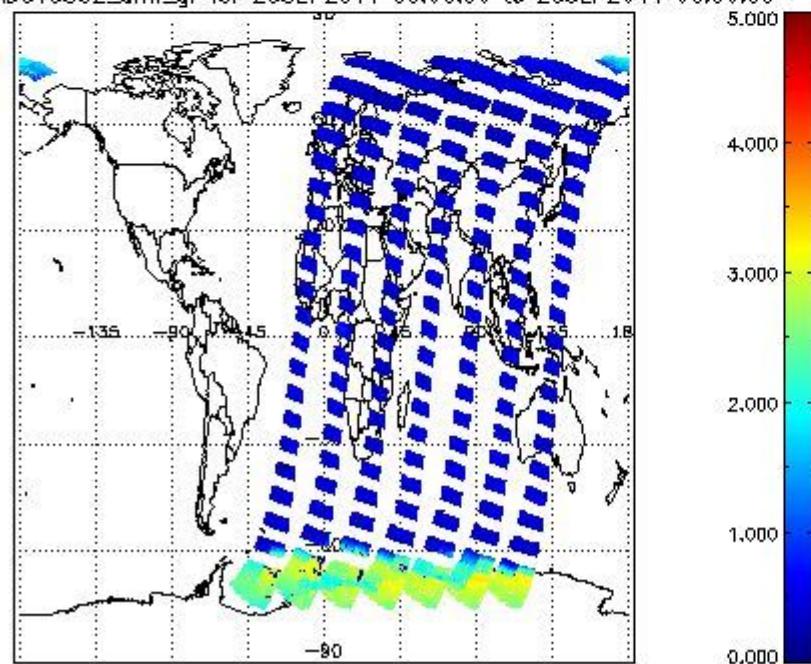
SCIOL2P\_NADUV5S02\_vcd for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



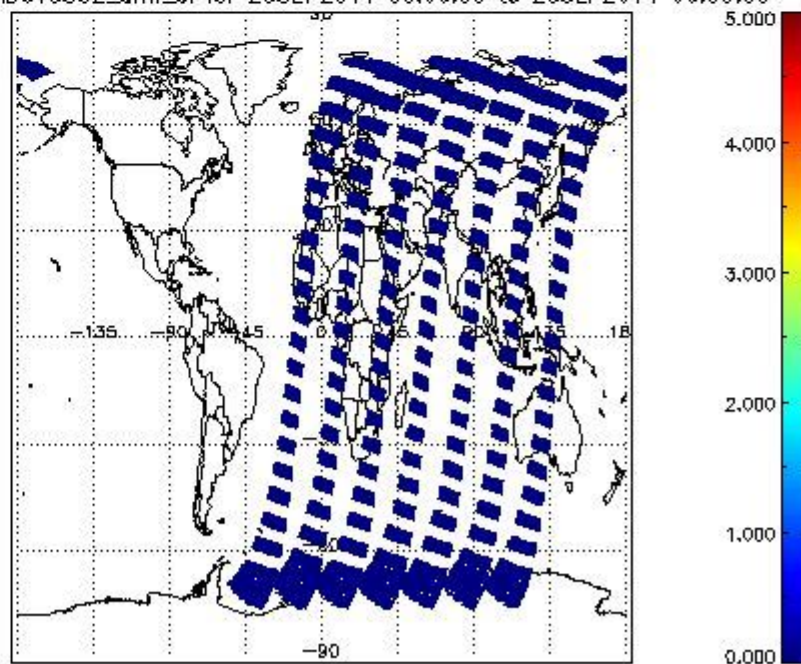
SCIOL2P\_NADUV5S02\_vcd\_err for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



SCIOL2P\_NADUV5S02\_amf\_gr for 25SEP2011 00:00:00 to 26SEP2011 00:00:00

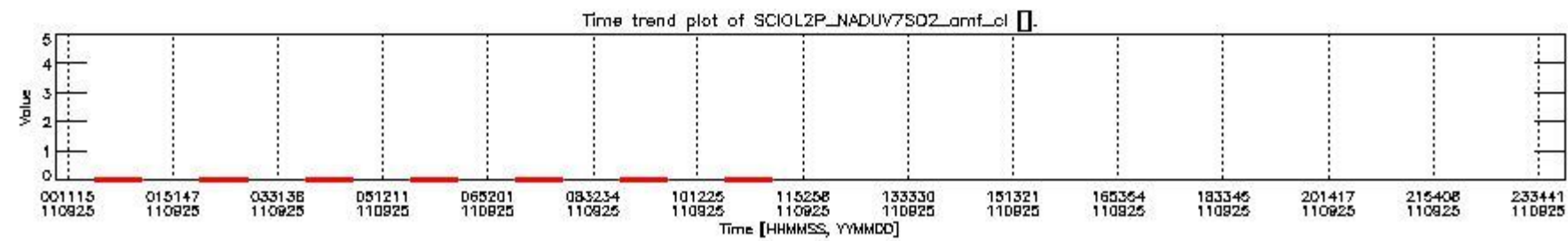
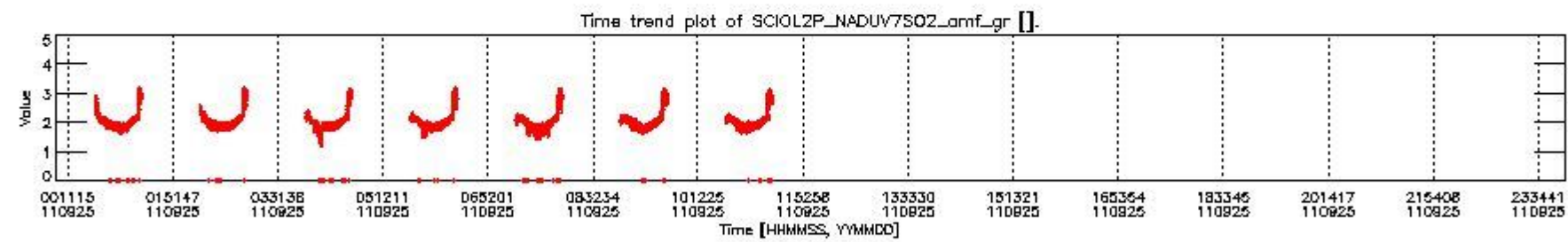
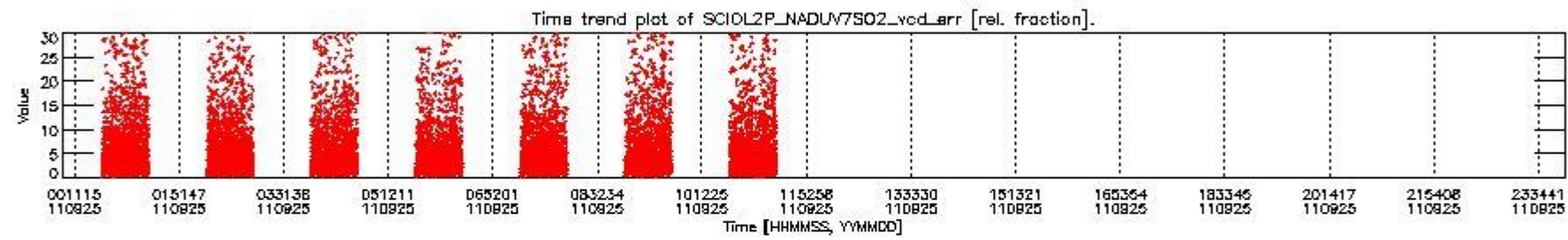
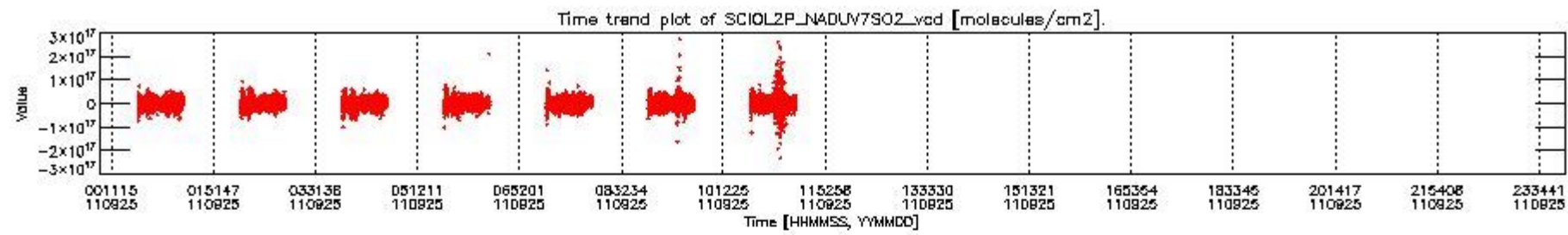


SCIOL2P\_NADUV5S02\_amf\_cl for 25SEP2011 00:00:00 to 26SEP2011 00:00:00

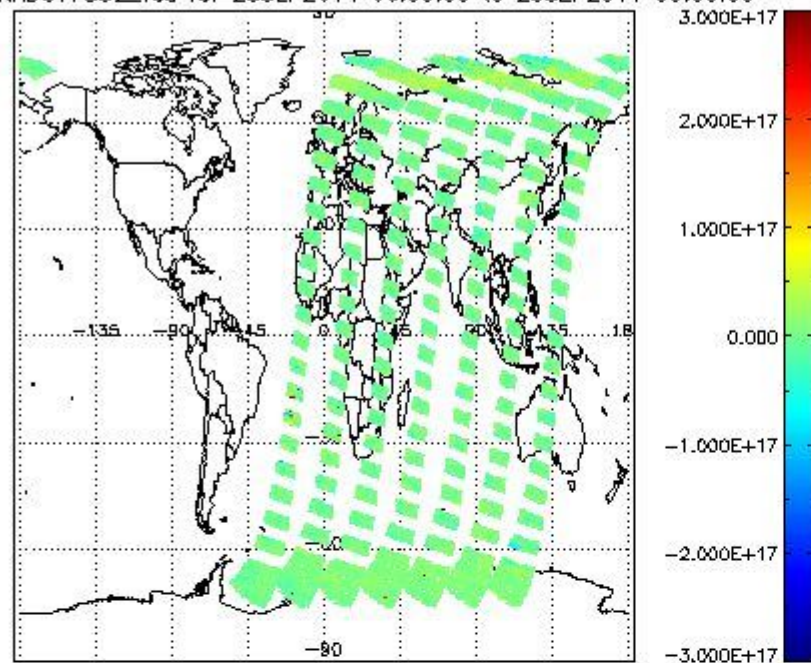


2.2.2.5 SO2 (UV7)

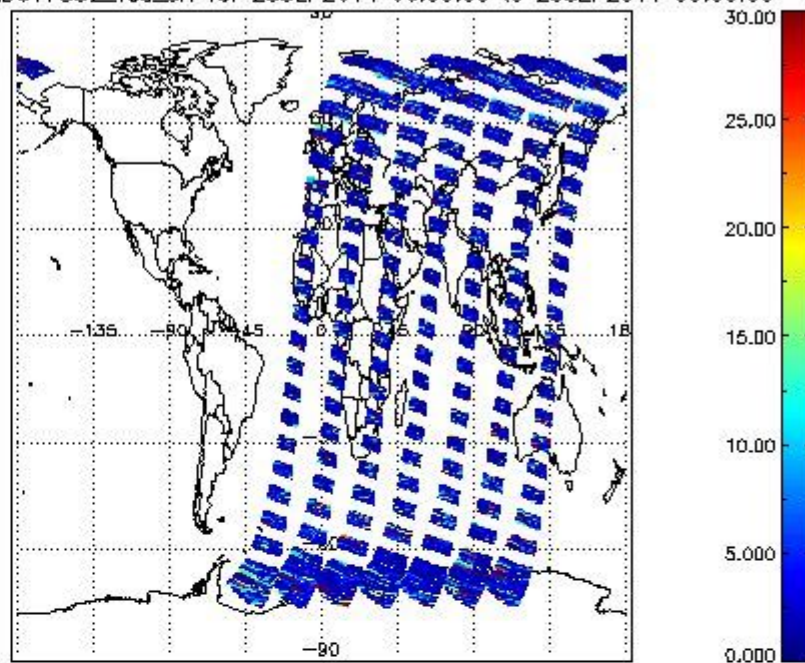




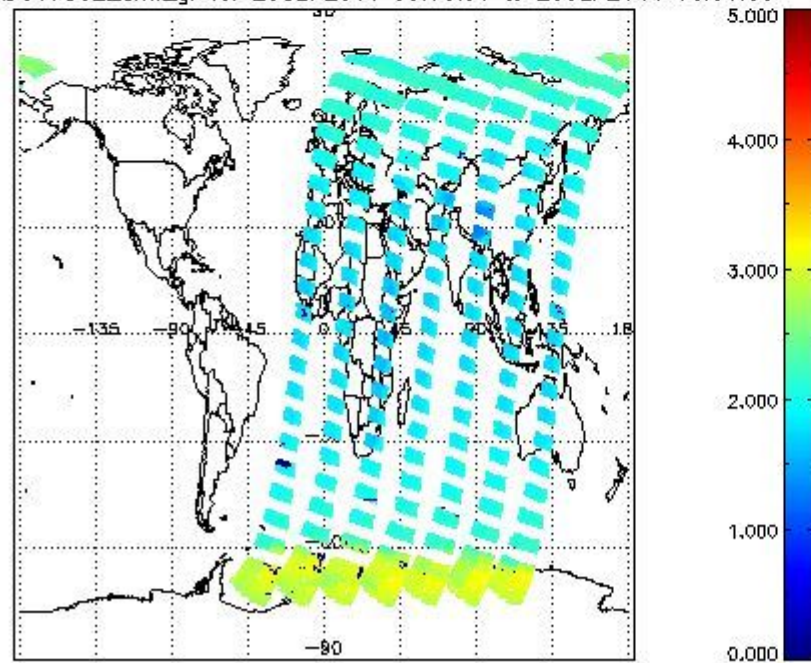
SCIOL2P\_NADUV7S02\_vcd for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



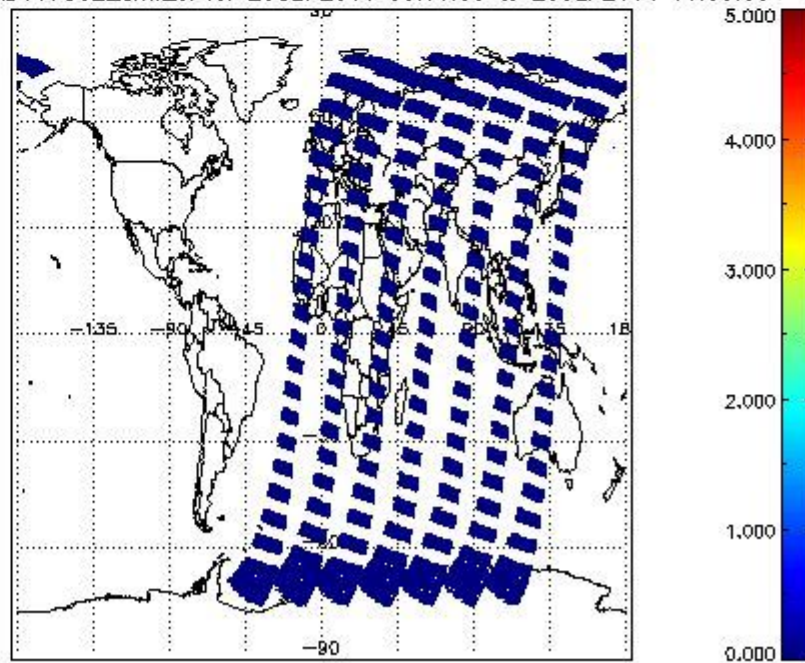
SCIOL2P\_NADUV7S02\_vcd\_err for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



SCIOL2P\_NADUV7S02\_amf\_gr for 25SEP2011 00:00:00 to 26SEP2011 00:00:00

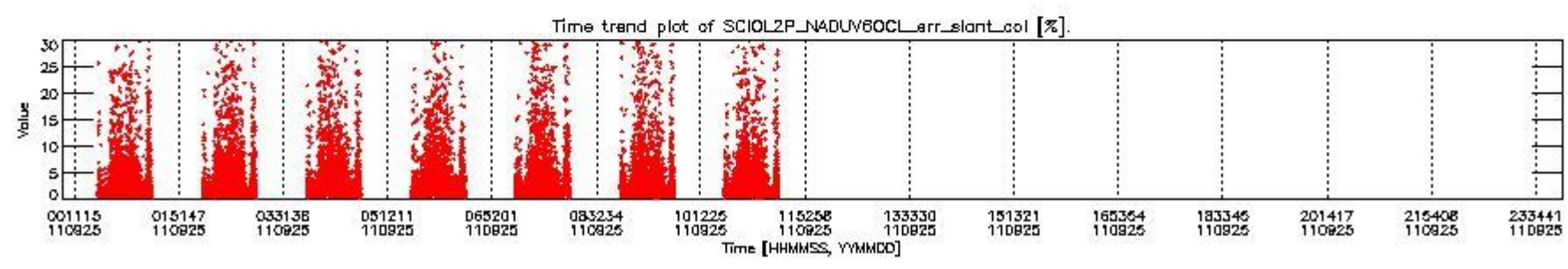
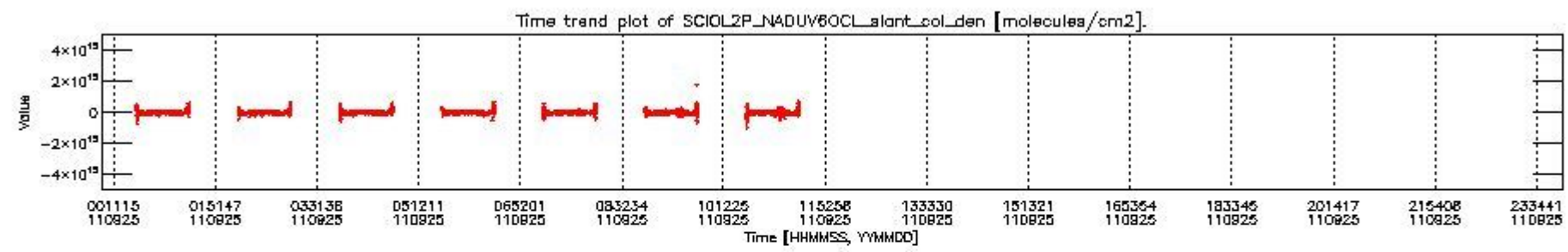


SCIOL2P\_NADUV7S02\_amf\_cl for 25SEP2011 00:00:00 to 26SEP2011 00:00:00

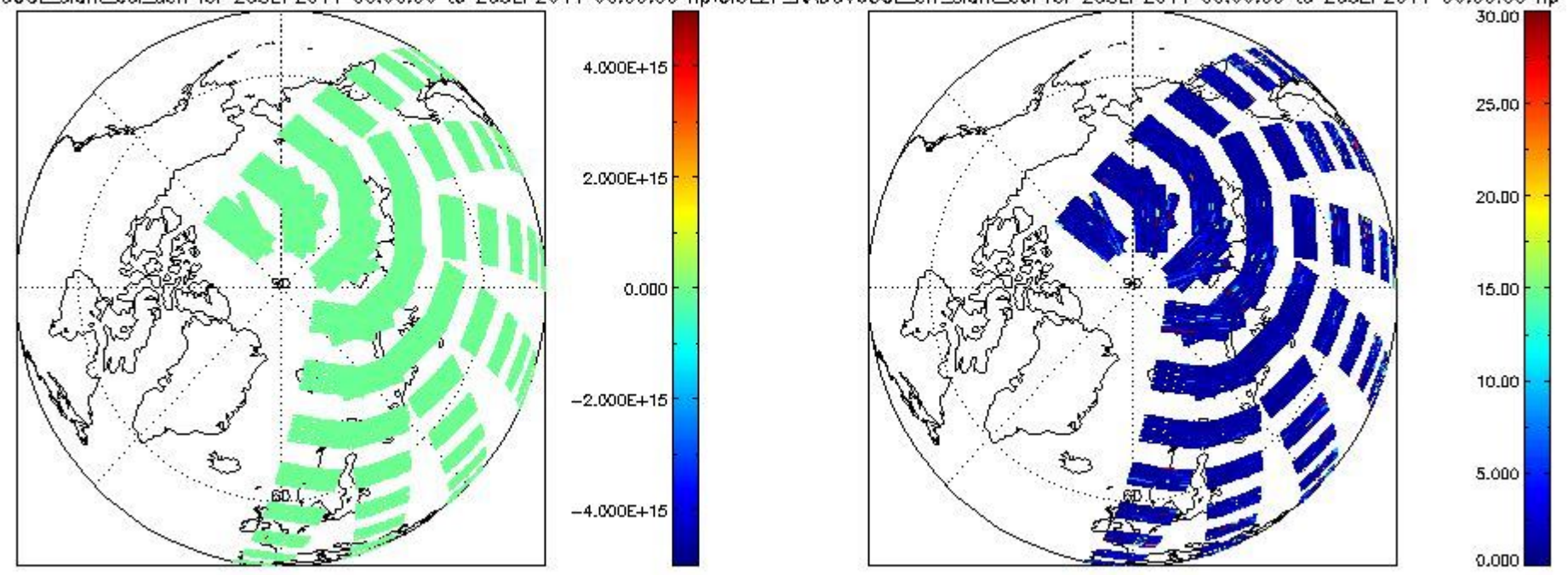


2.2.2.6 OCIO (UV6)

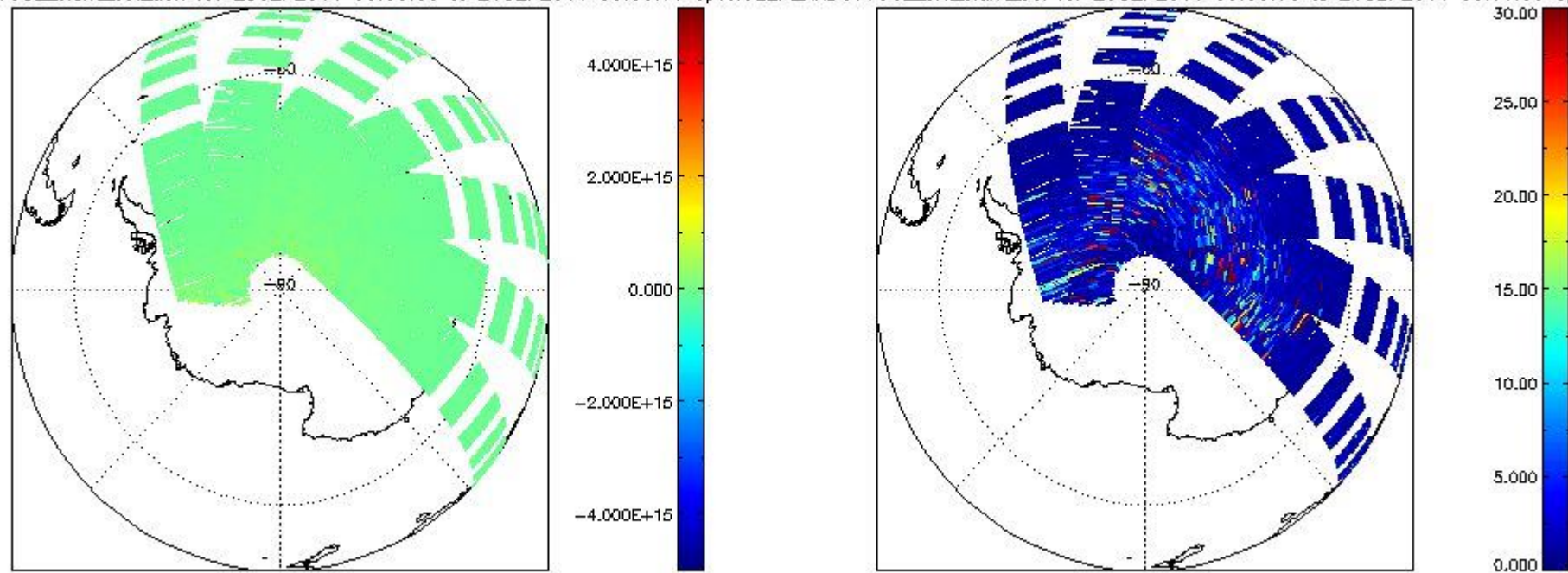




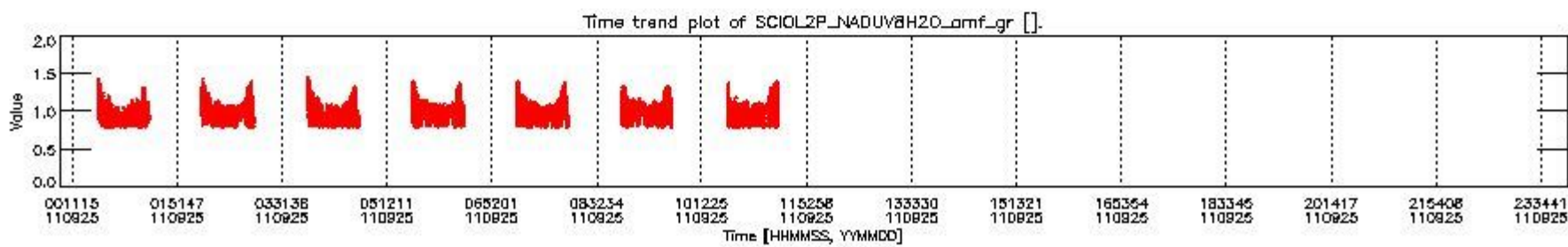
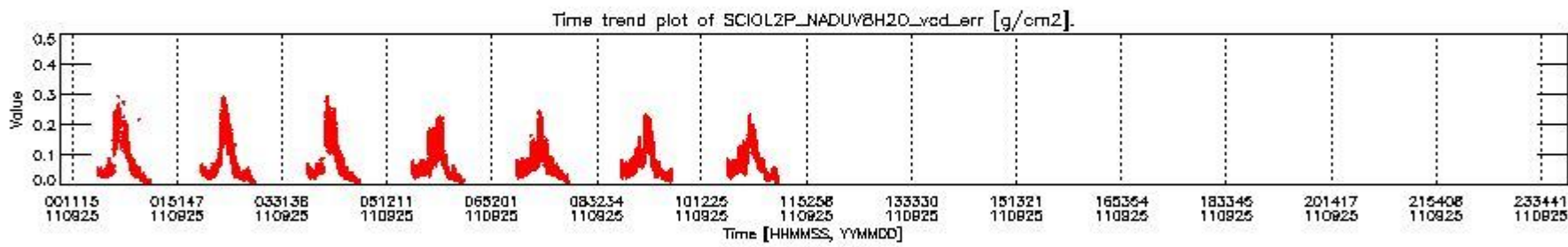
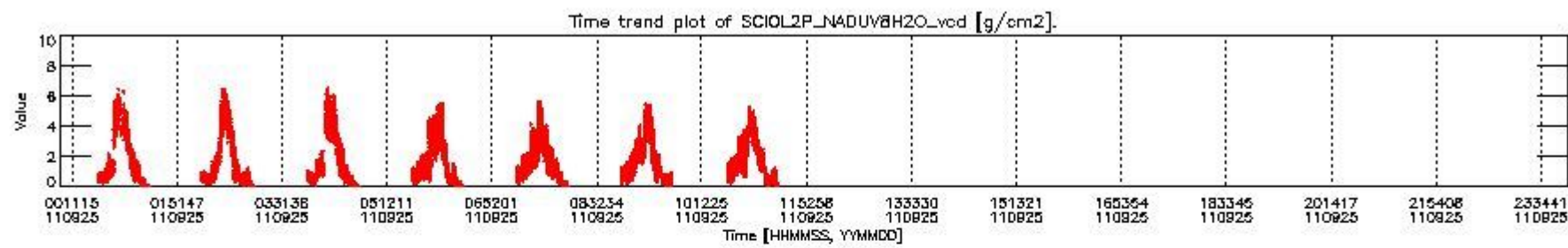
CIOL2P\_NADUV6OCLslant\_col\_den for 25SEP2011 00:00:00 to 26SEP2011 00:00:00 np; CIOL2P\_NADUV6OCLarr\_slant\_col for 25SEP2011 00:00:00 to 26SEP2011 00:00:00 np



CIOL2P\_NADUV60CL\_slant\_col\_den for 25SEP2011 00:00:00 to 26SEP2011 00:00:00 sp CIOL2P\_NADUV60CL\_err\_slant\_col for 25SEP2011 00:00:00 to 26SEP2011 00:00:00 sp

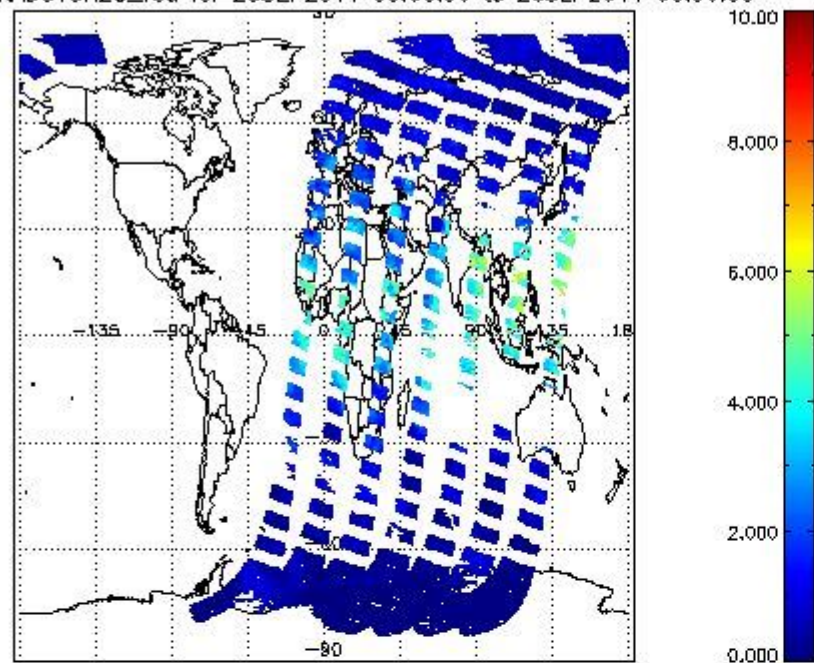


### 2.2.2.7 H2O (UV8)

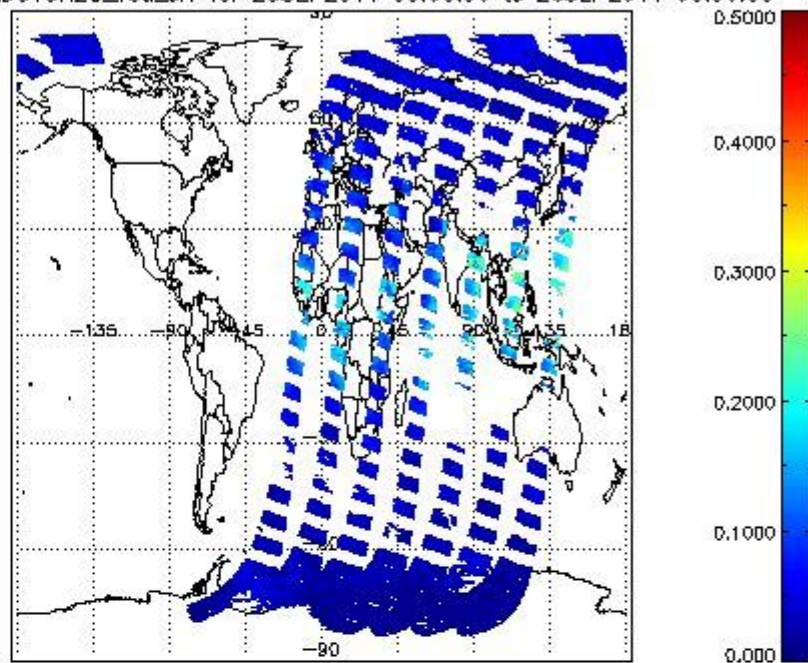




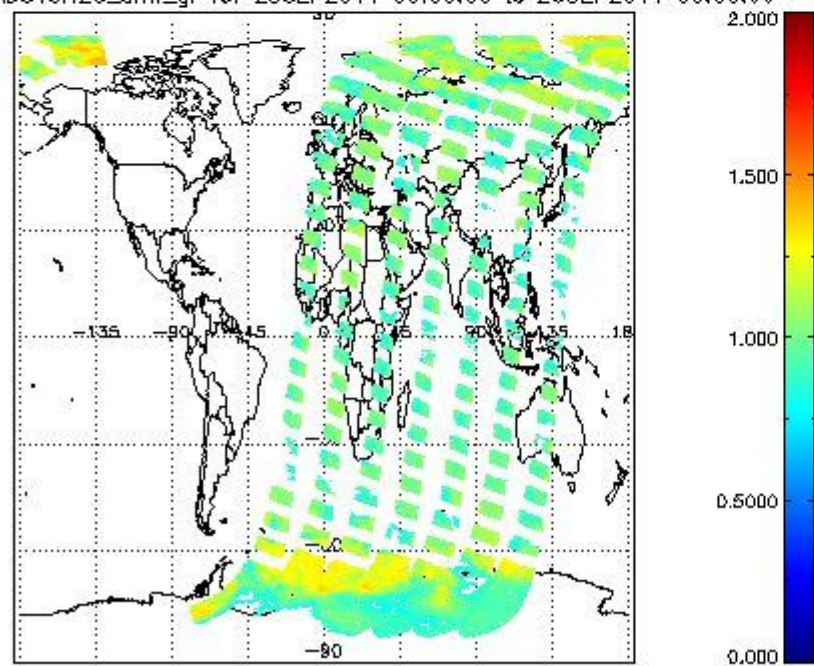
SCIOL2P\_NADUV8H2O\_vcd for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



SCIOL2P\_NADUV8H2O\_vcd\_err for 25SEP2011 00:00:00 to 26SEP2011 00:00:00

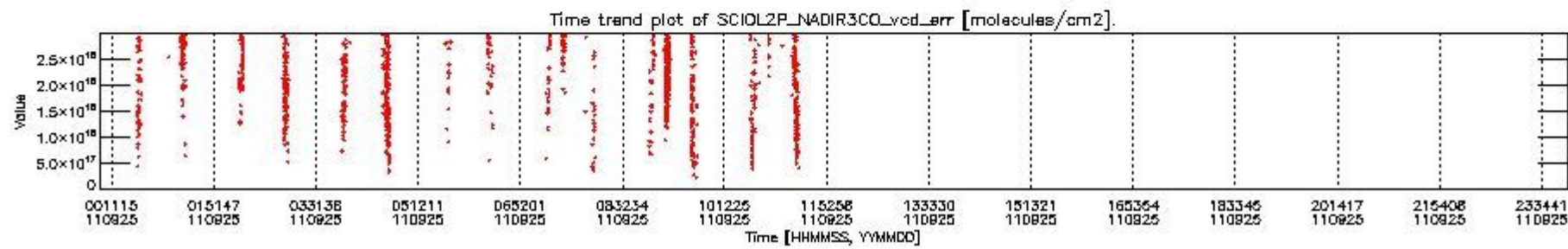
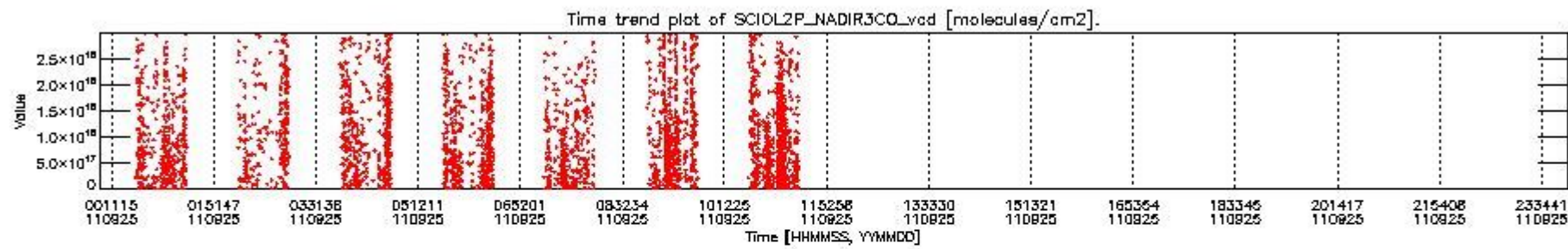


SCIOL2P\_NADUV8H2O\_arnf\_gr for 25SEP2011 00:00:00 to 26SEP2011 00:00:00

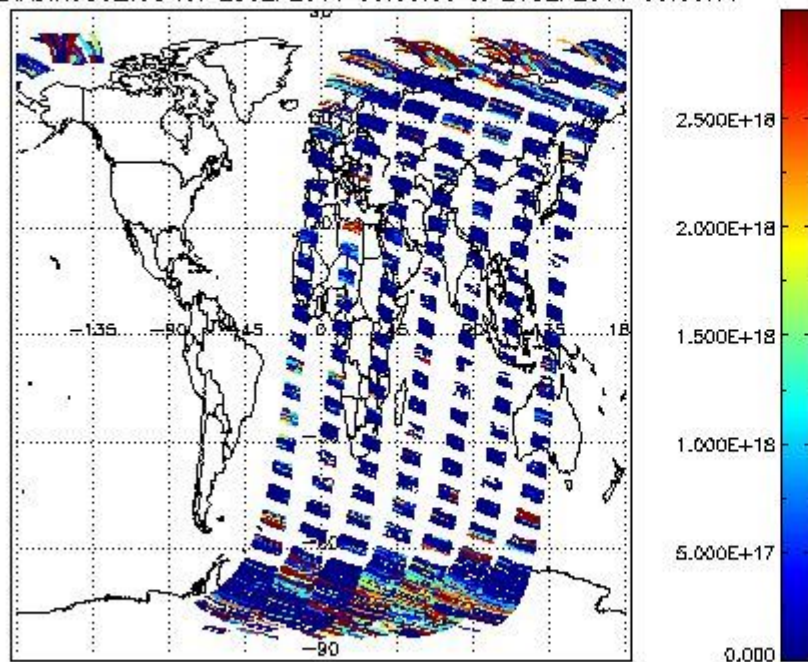


2.2.2.8 CO (IR3)

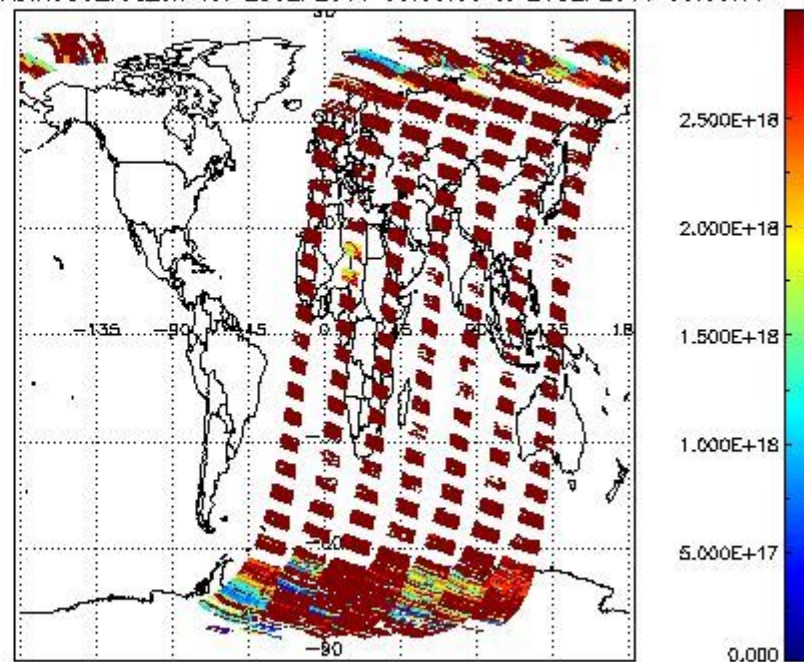




SCIDL2P\_NADIR3CO\_vcd for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



SCIDL2P\_NADIR3CO\_vcd\_err for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



### 2.2.3 Limb

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

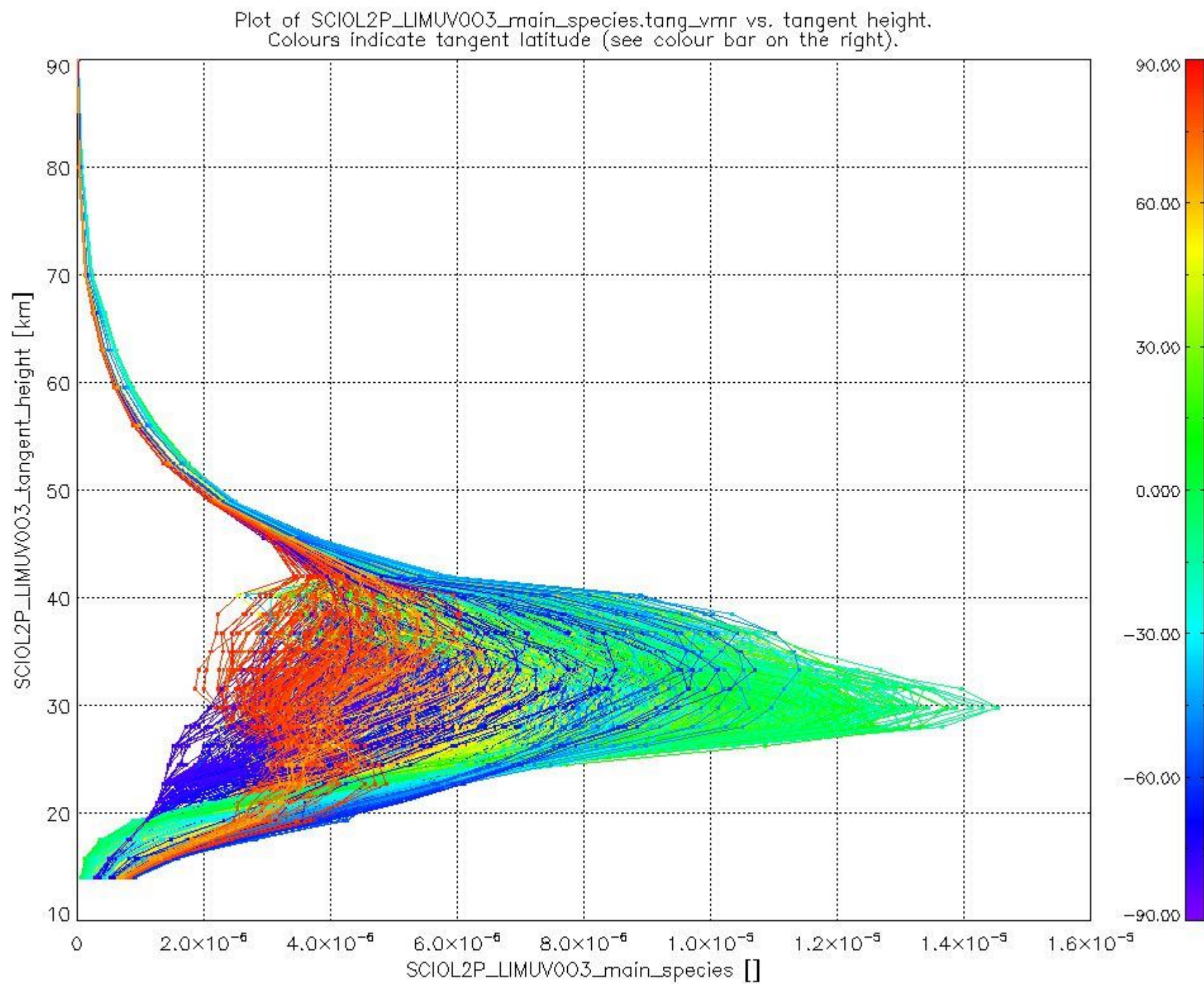
The following data items are currently included into this section:

Number	Data item ID
0	SCIDL2P_LIMUV003_main_species
1	SCIDL2P_LIMUV1NO2_main_species
2	SCIDL2P_LIMUV3BRO_main_species



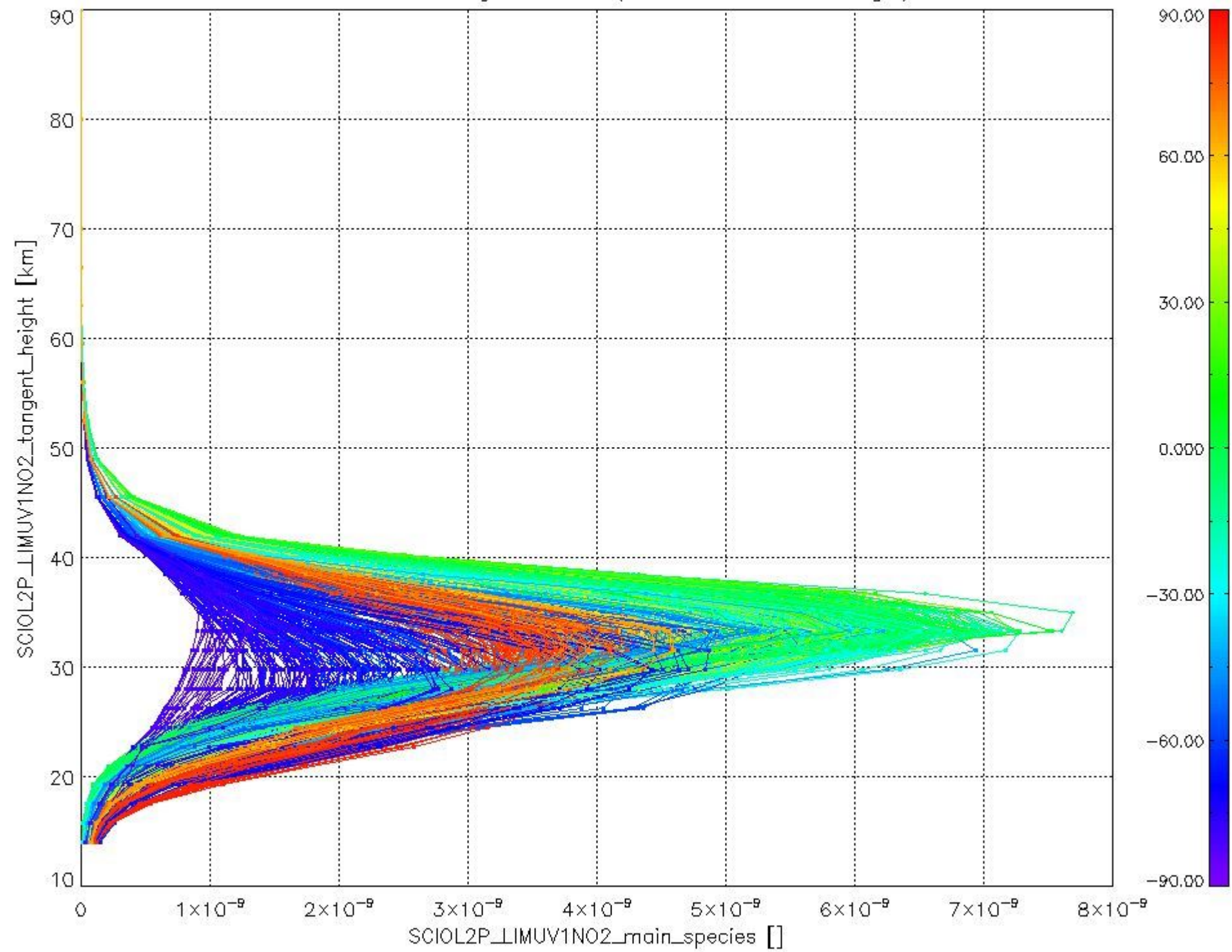
The following plots show for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

### 2.2.3.1 O3 (UV0)



### 2.2.3.2 NO2 (UV1)

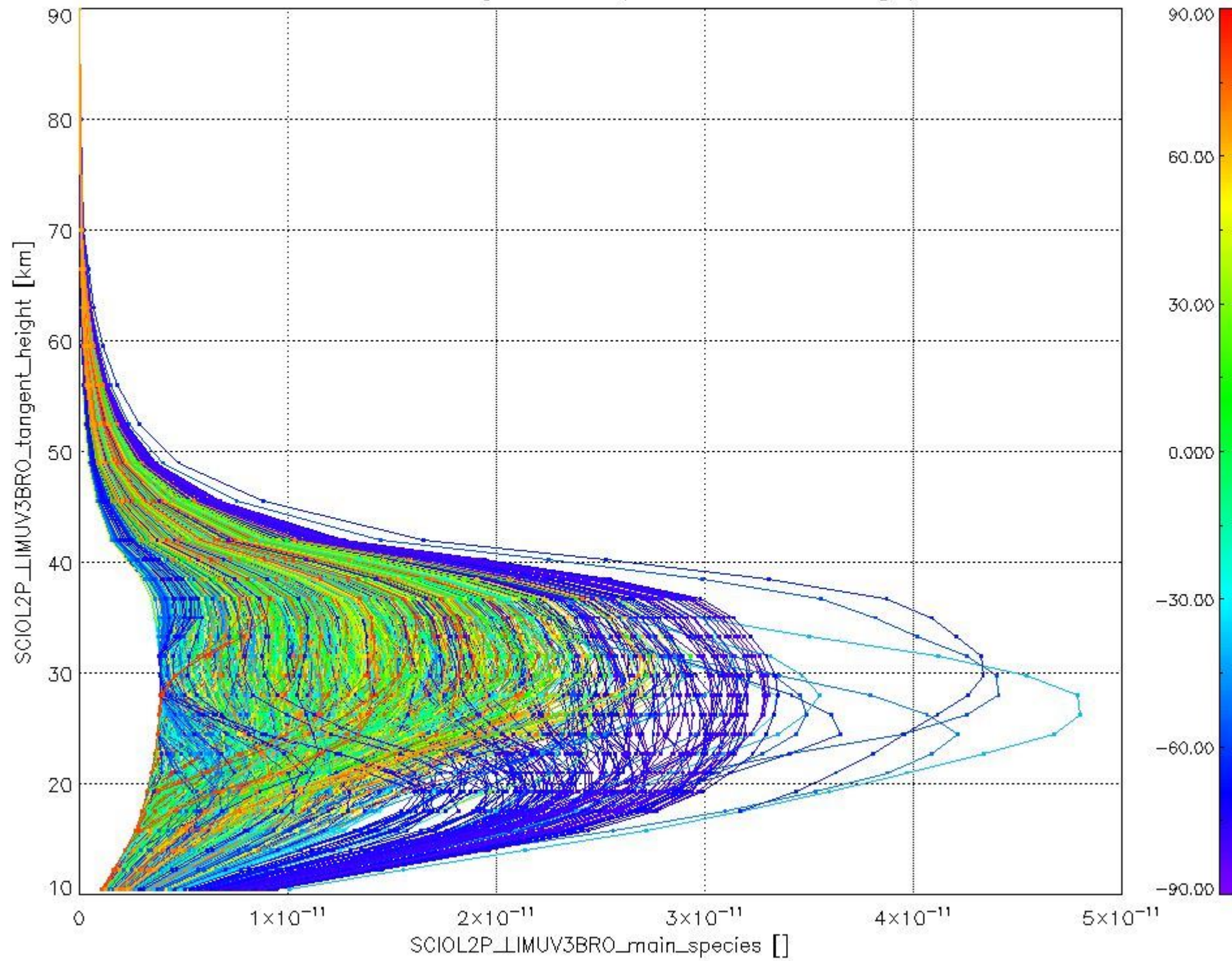
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



2.2.3.3 BrO (UV3)



Plot of SCIOL2P\_LIMUV3BRO\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



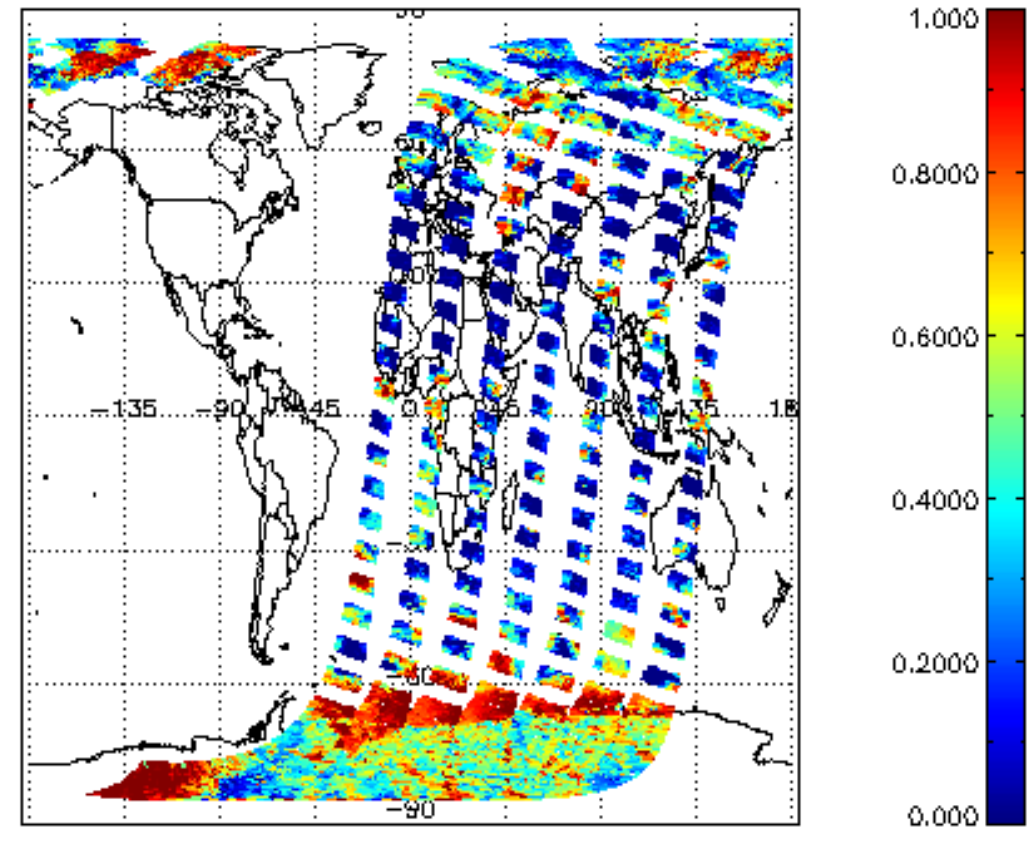
### 2.3 ADF monitoring

Number	ADF
	<b>IN_ (INITIALISATION_FILE)</b>
0	SCI_IN_AXNPDE20110201_120000_20020301_000000_20991231_235959
	<b>ECF (ECMWF_FILE)</b>
1	NOT USED
	<b>MF1 (M_FACTOR_FILE)</b>
2	SCI_MF1_AXVIEC20110927_141242_20110925_181713_20110927_181713
3	SCI_MF1_AXVIEC20110927_141319_20110924_185359_20110926_185359

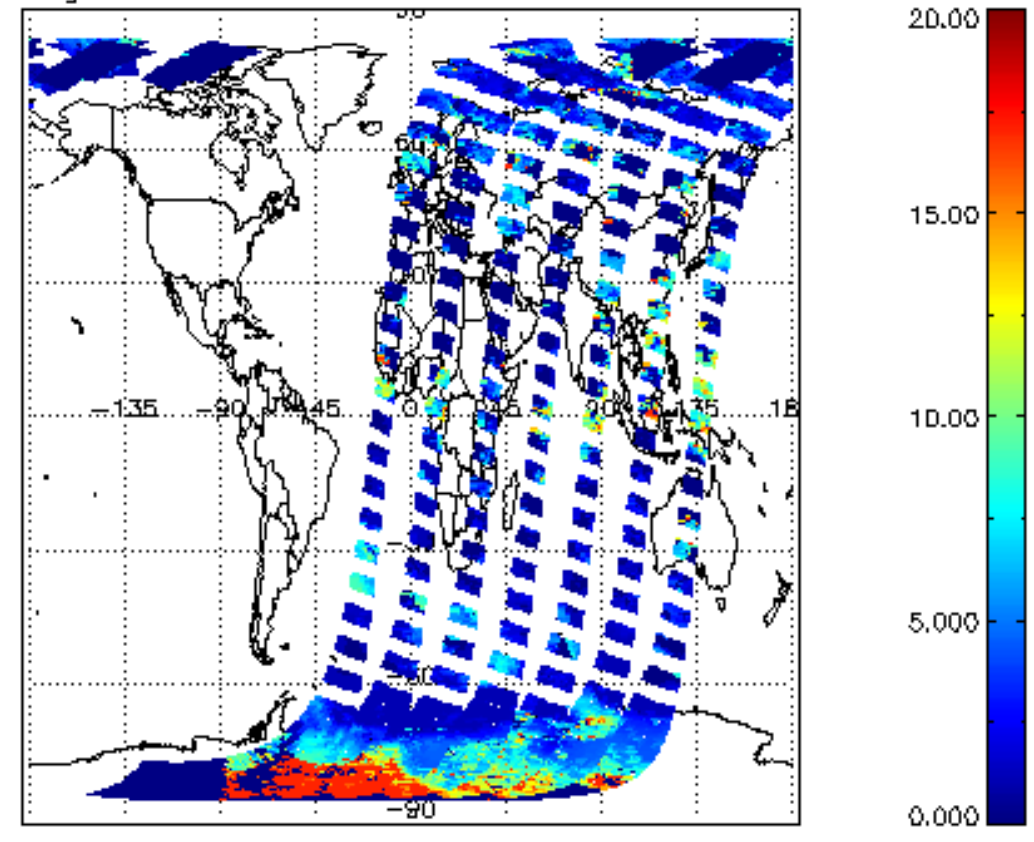




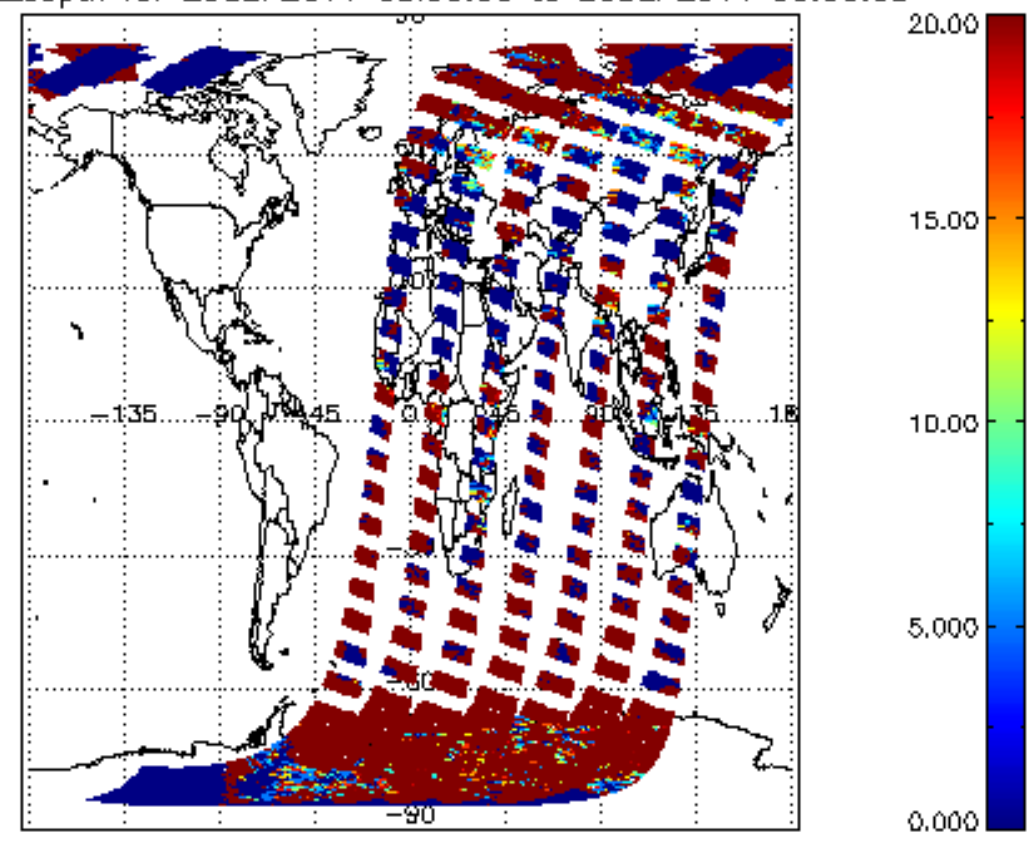
cl\_frac for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



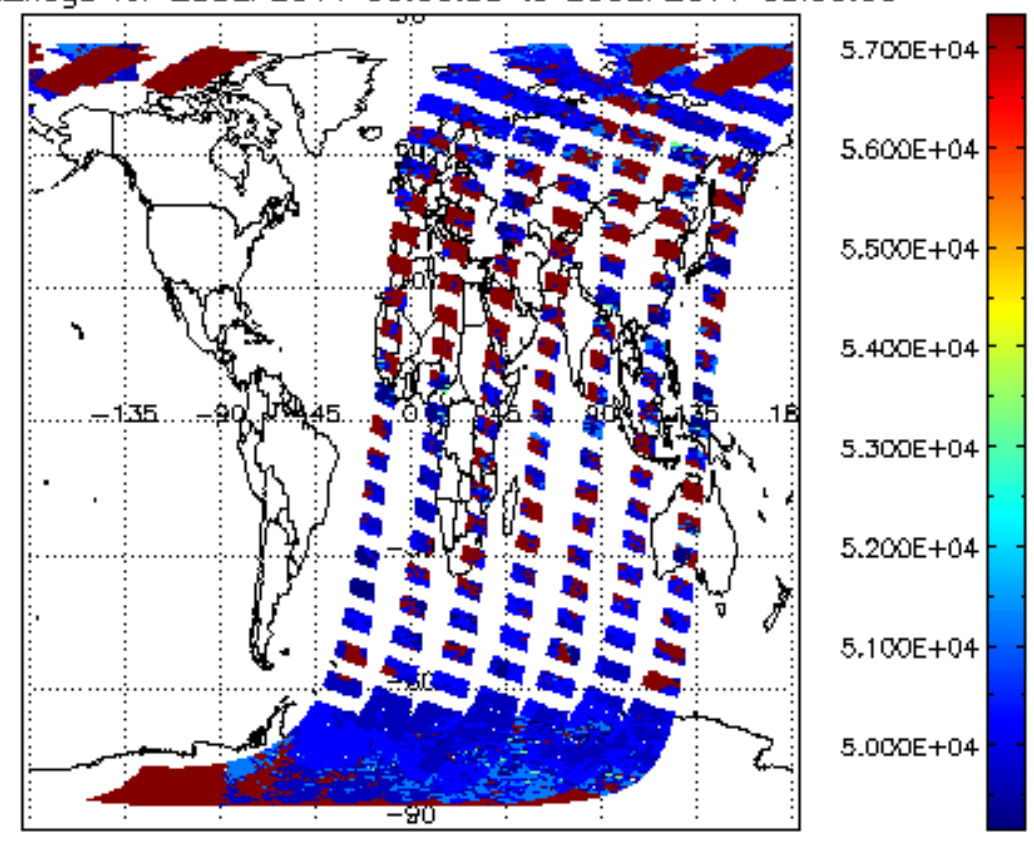
cl\_top\_height for 25SEP2011 00:00:00 to 26SEP2011 00:00:00

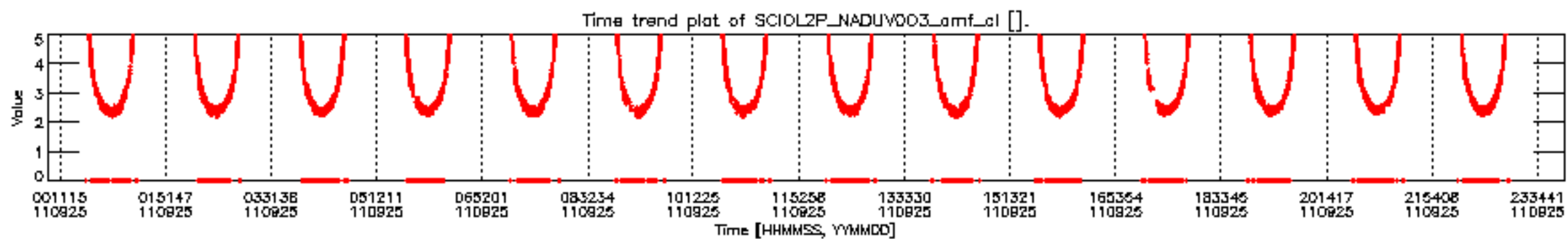
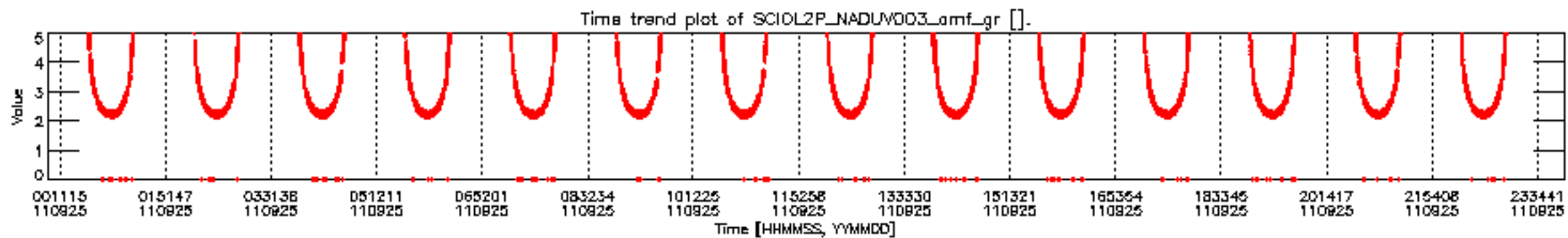
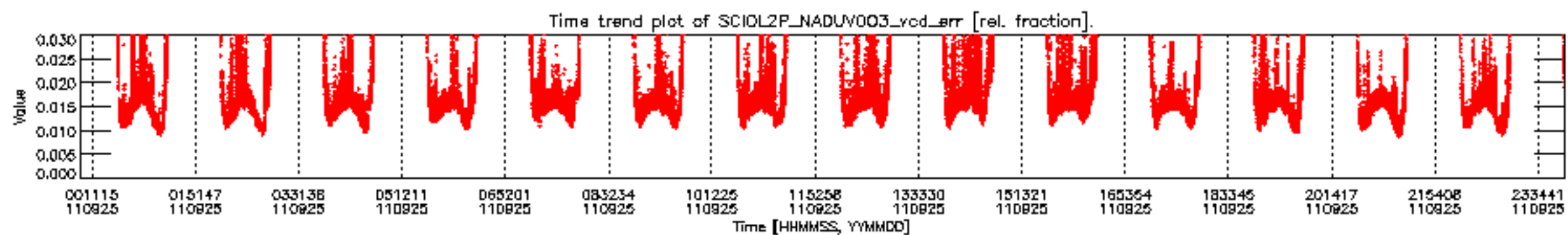
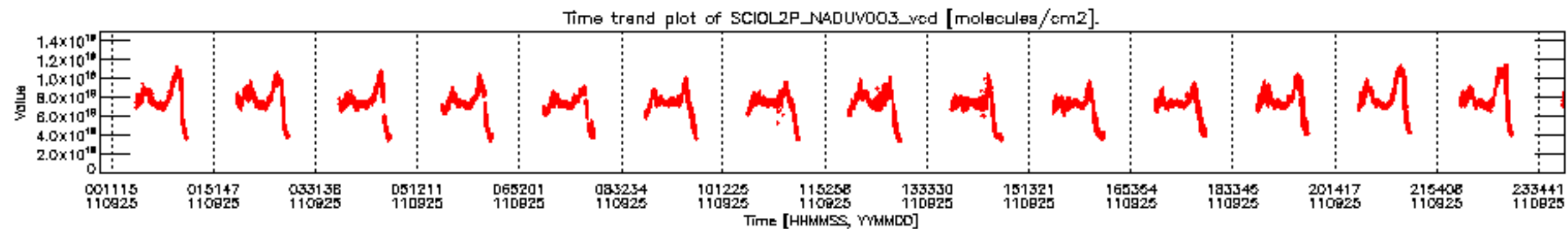


cl\_opt\_depth for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



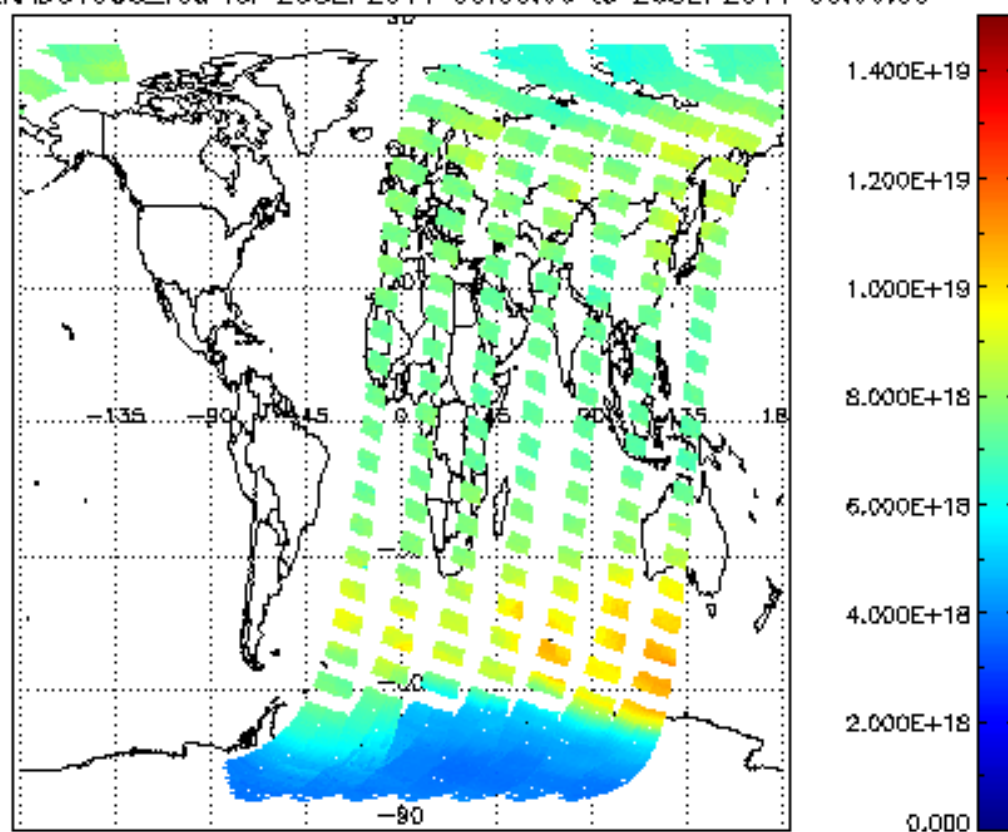
cloud\_flags for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



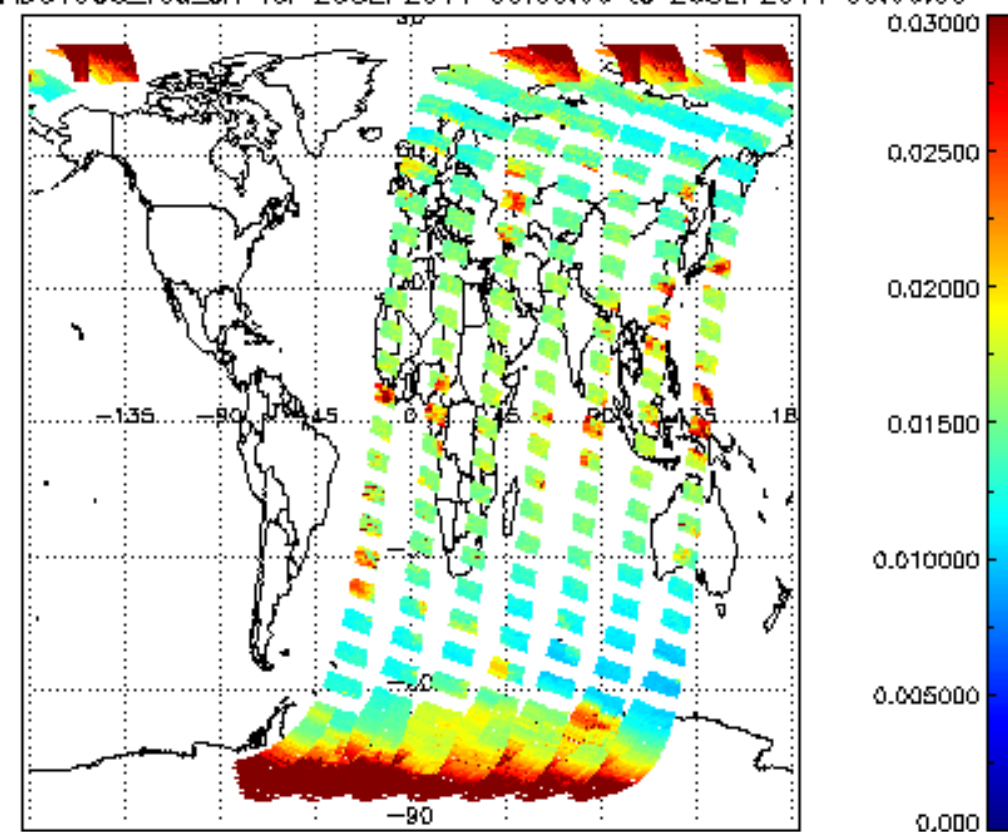




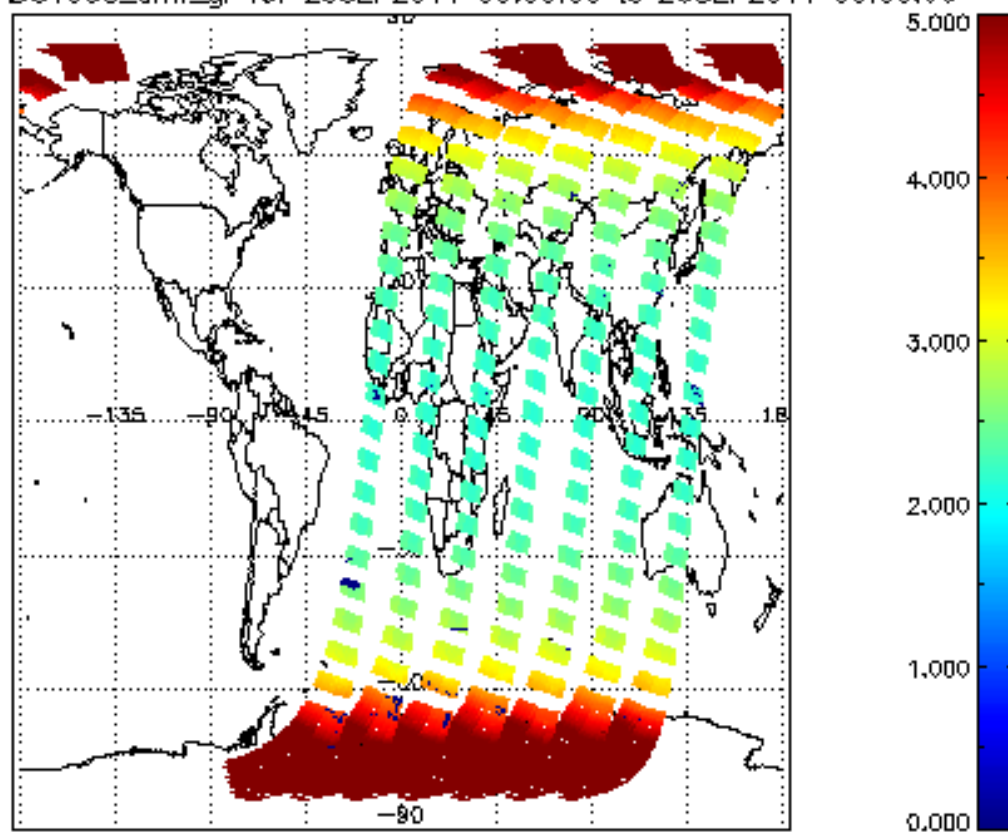
SCIOL2P\_NADUV003\_vcd for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



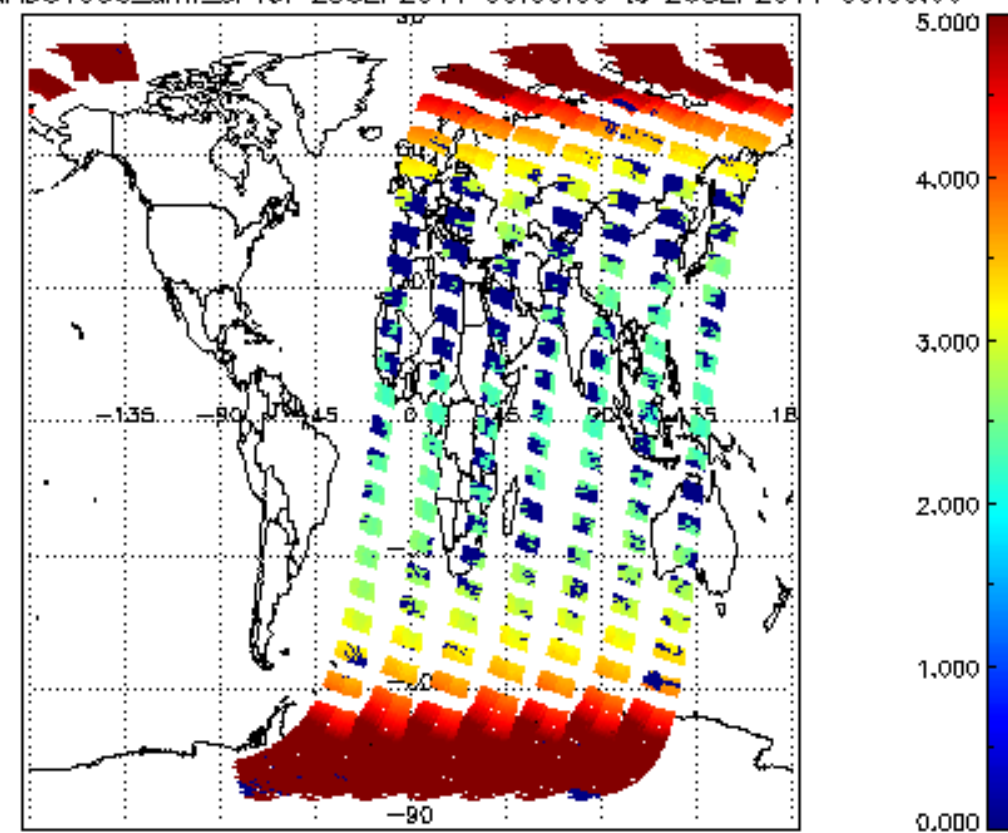
SCIOL2P\_NADUV003\_vcd\_err for 25SEP2011 00:00:00 to 26SEP2011 00:00:00

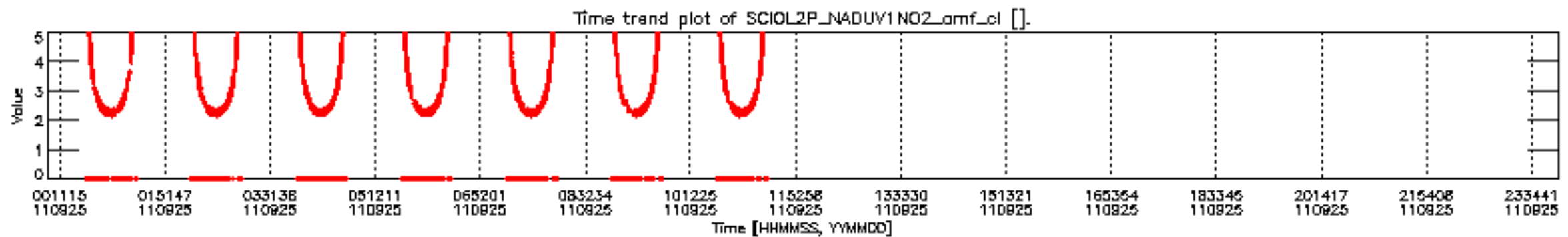
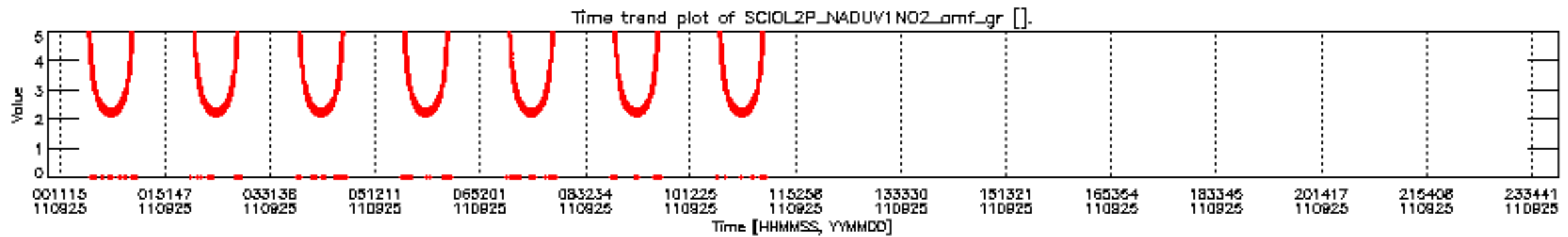
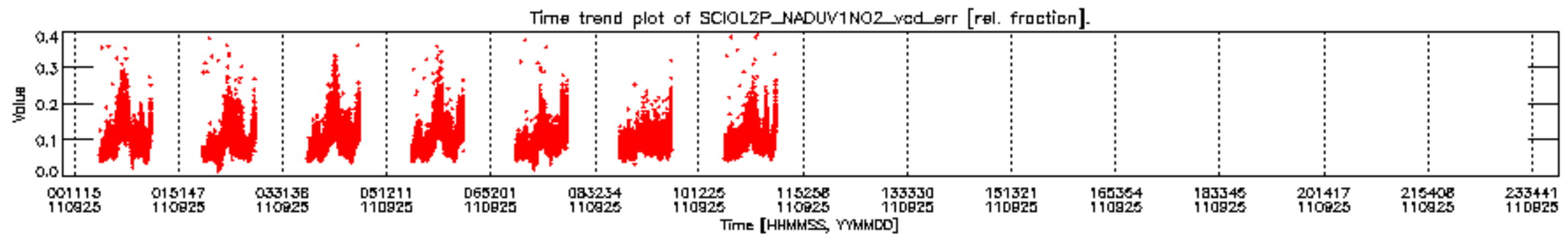
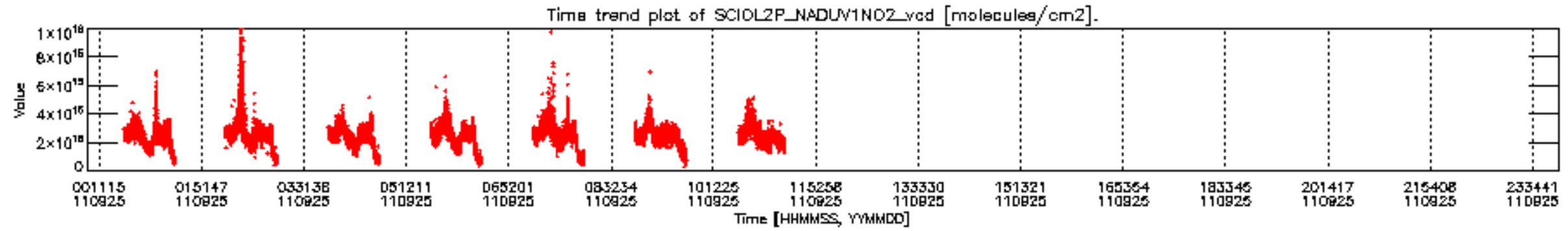


SCIOL2P\_NADUV003\_amf\_gr for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



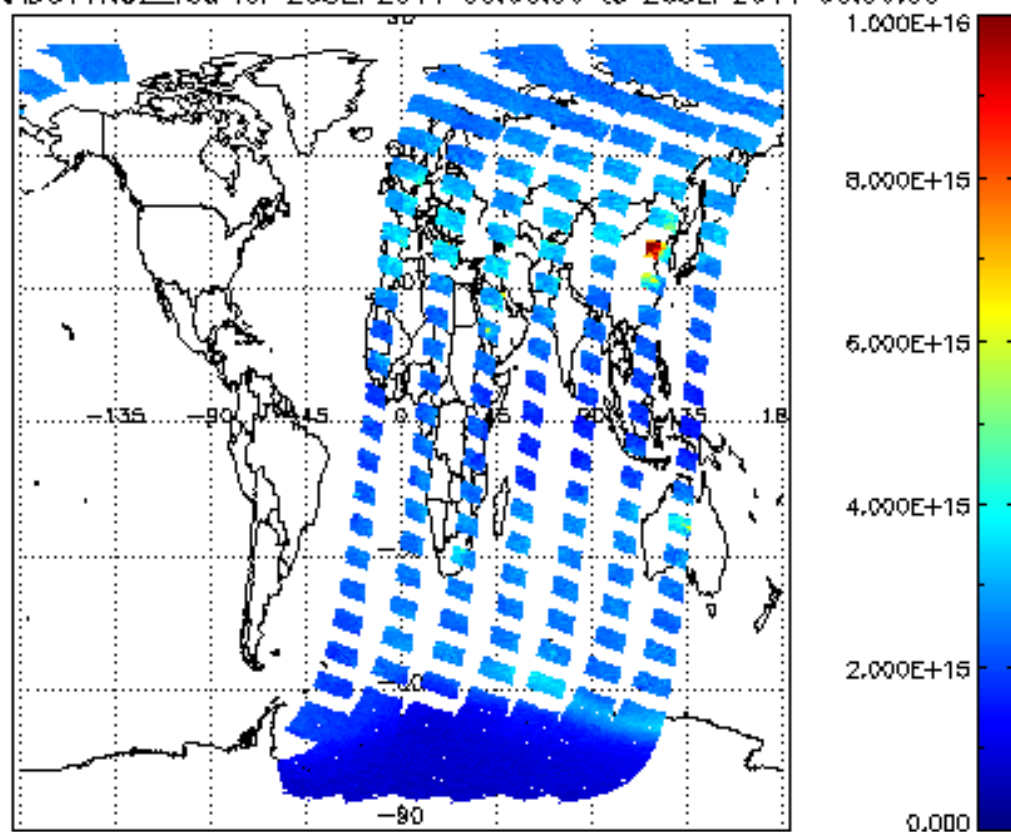
SCIOL2P\_NADUV003\_amf\_cl for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



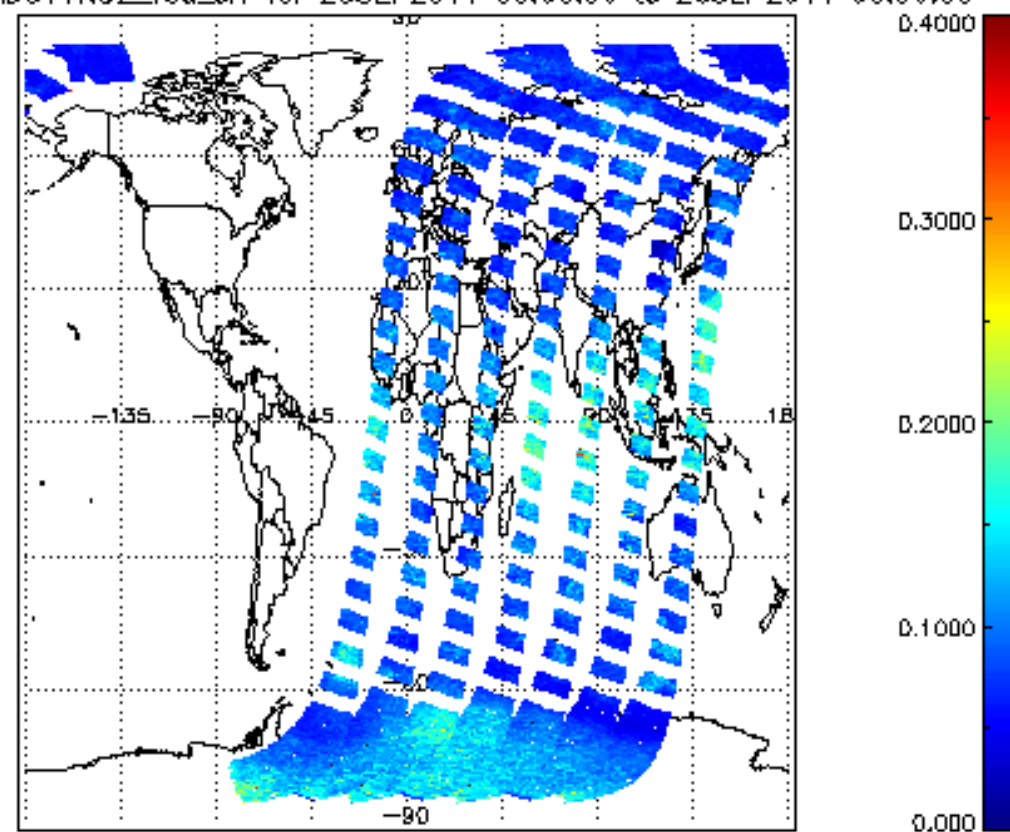




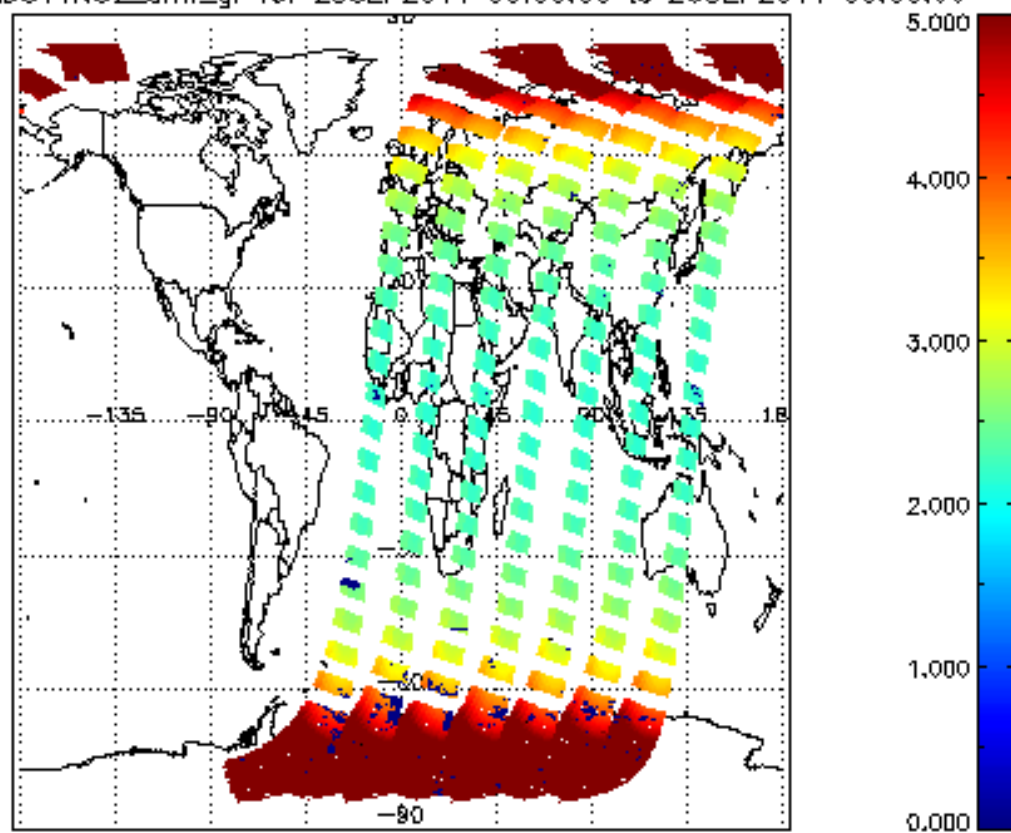
SCIOL2P\_NADUV1NO2\_vcd for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



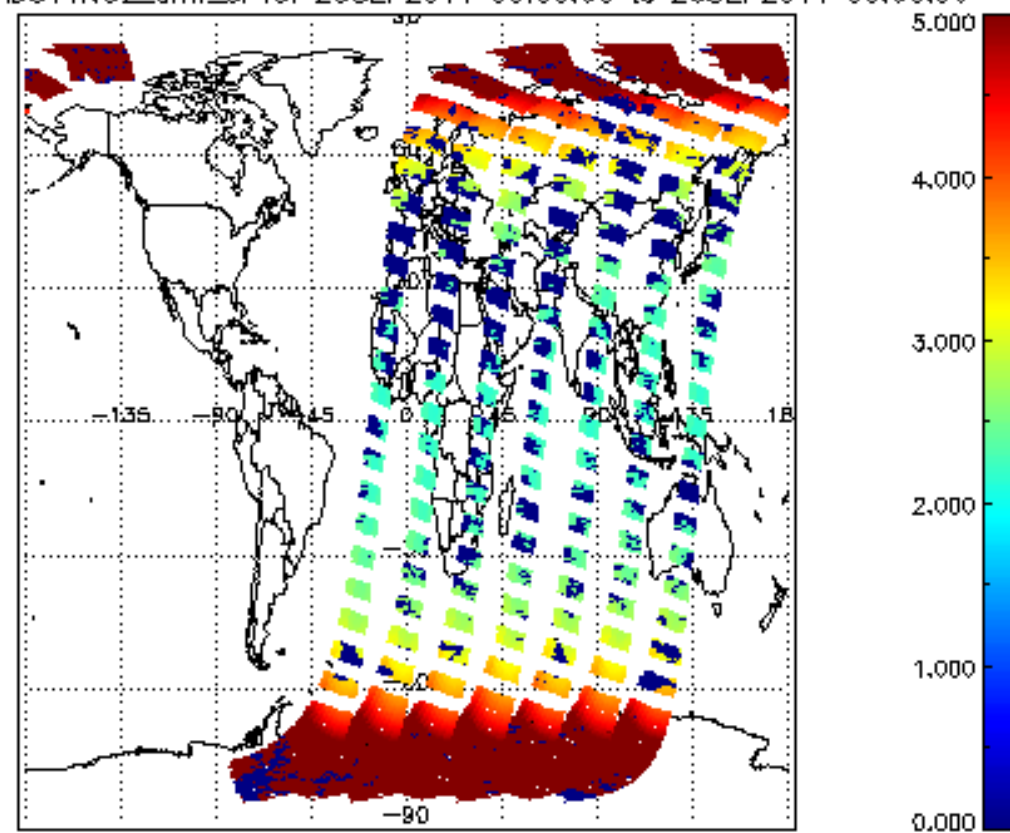
SCIOL2P\_NADUV1NO2\_vcd\_err for 25SEP2011 00:00:00 to 26SEP2011 00:00:00

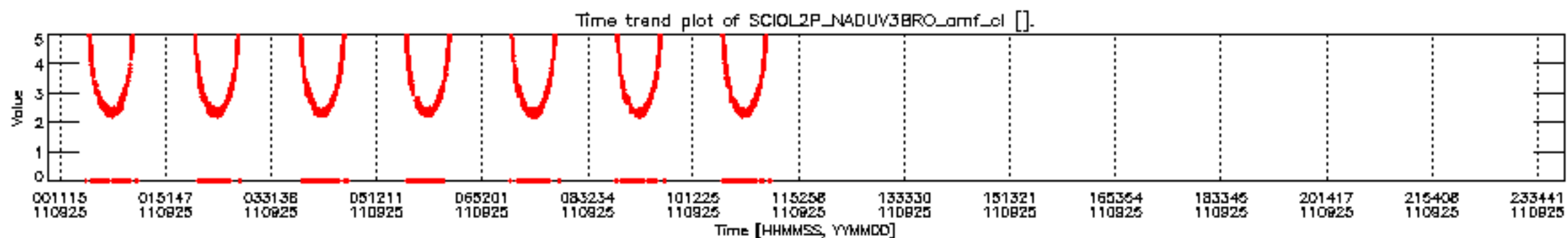
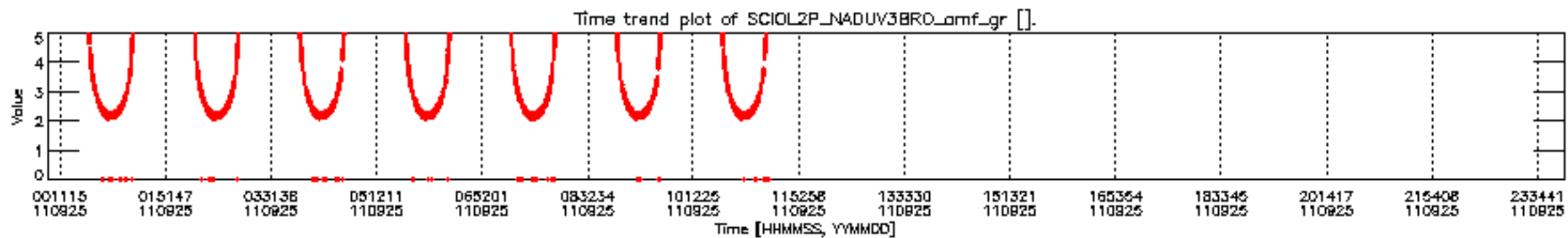
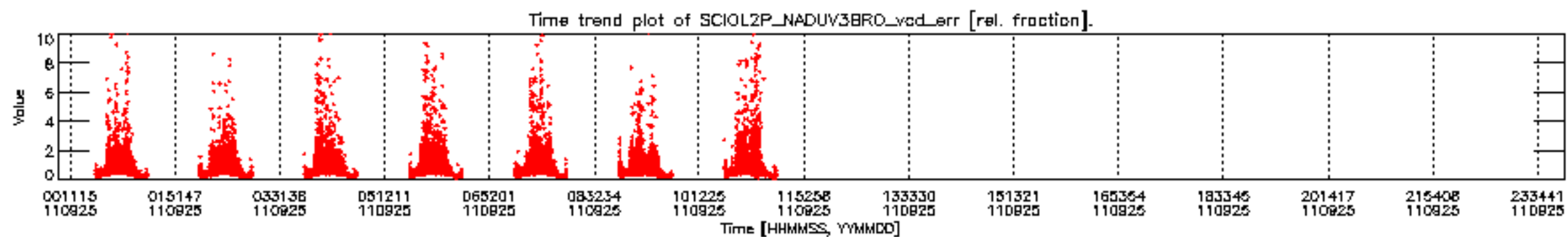
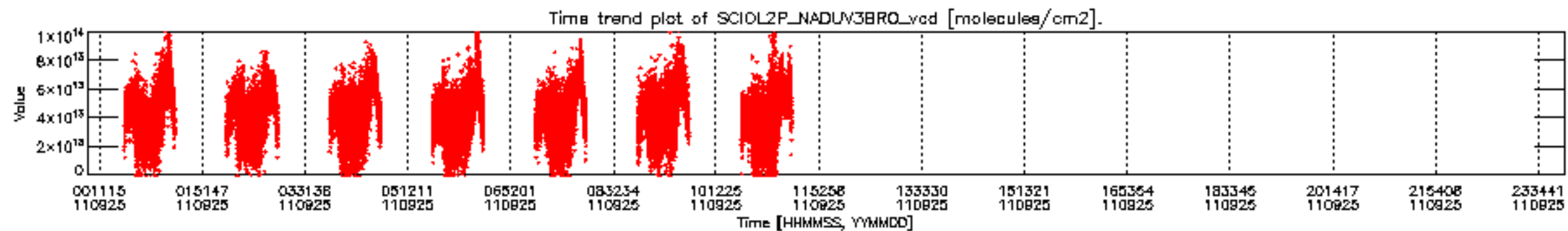


SCIOL2P\_NADUV1NO2\_amf\_gr for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



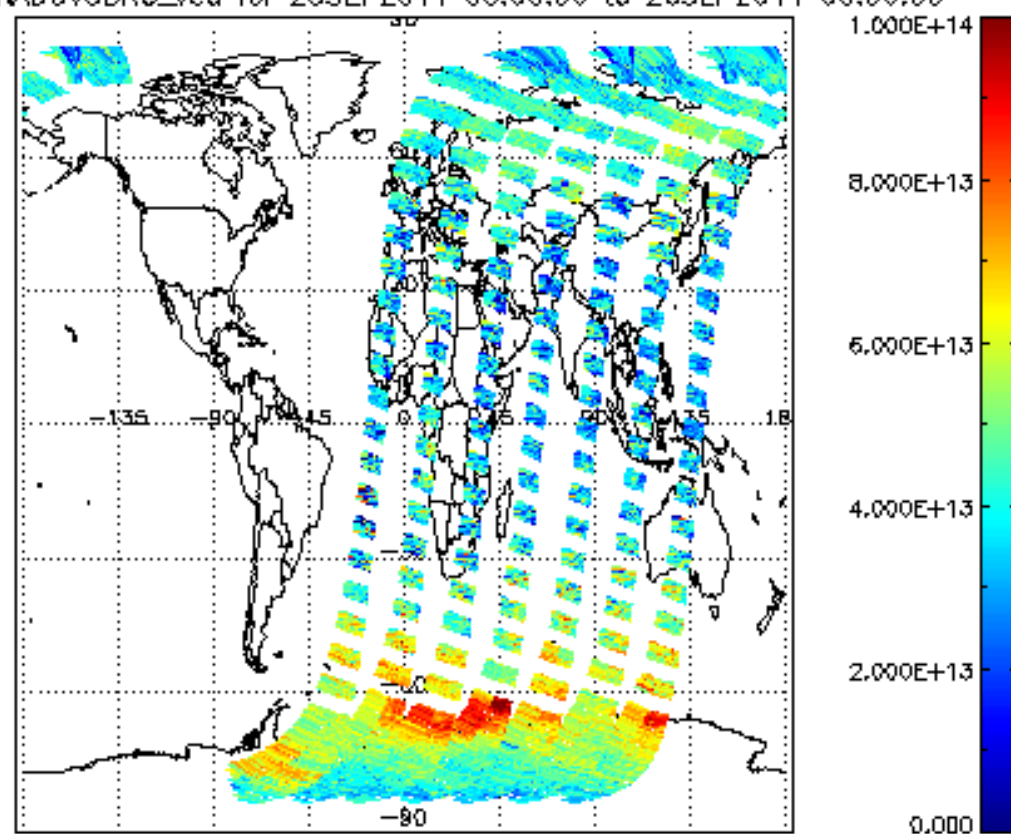
SCIOL2P\_NADUV1NO2\_amf\_cl for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



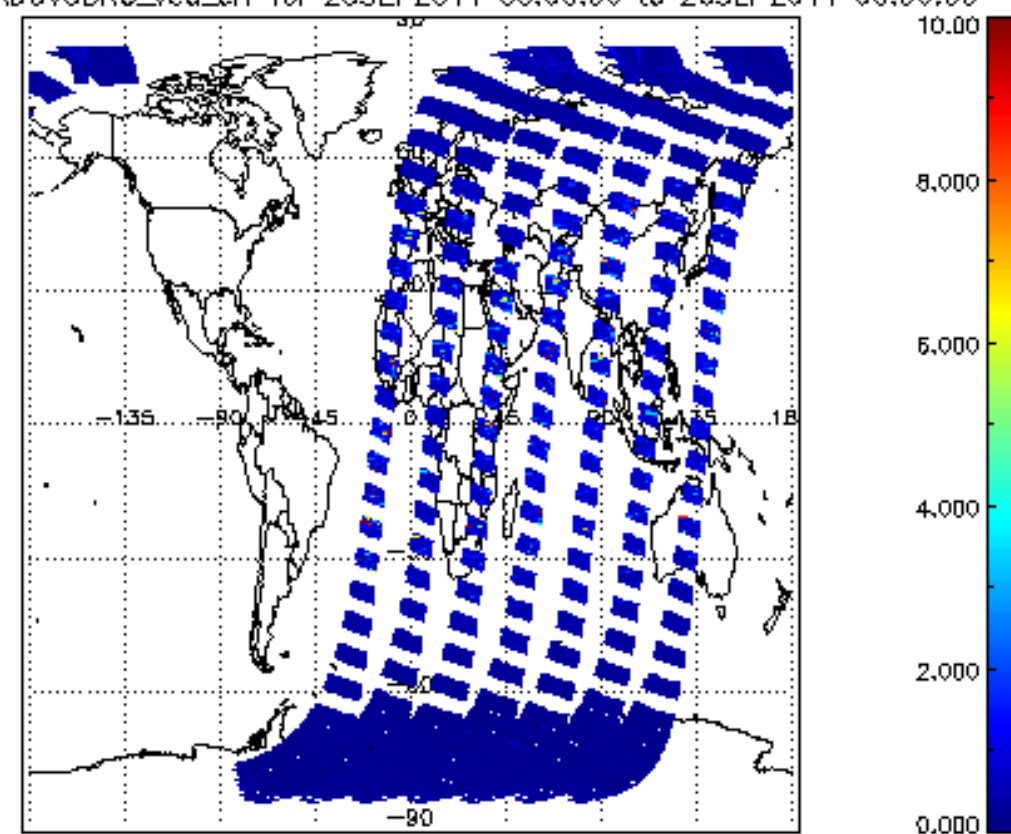




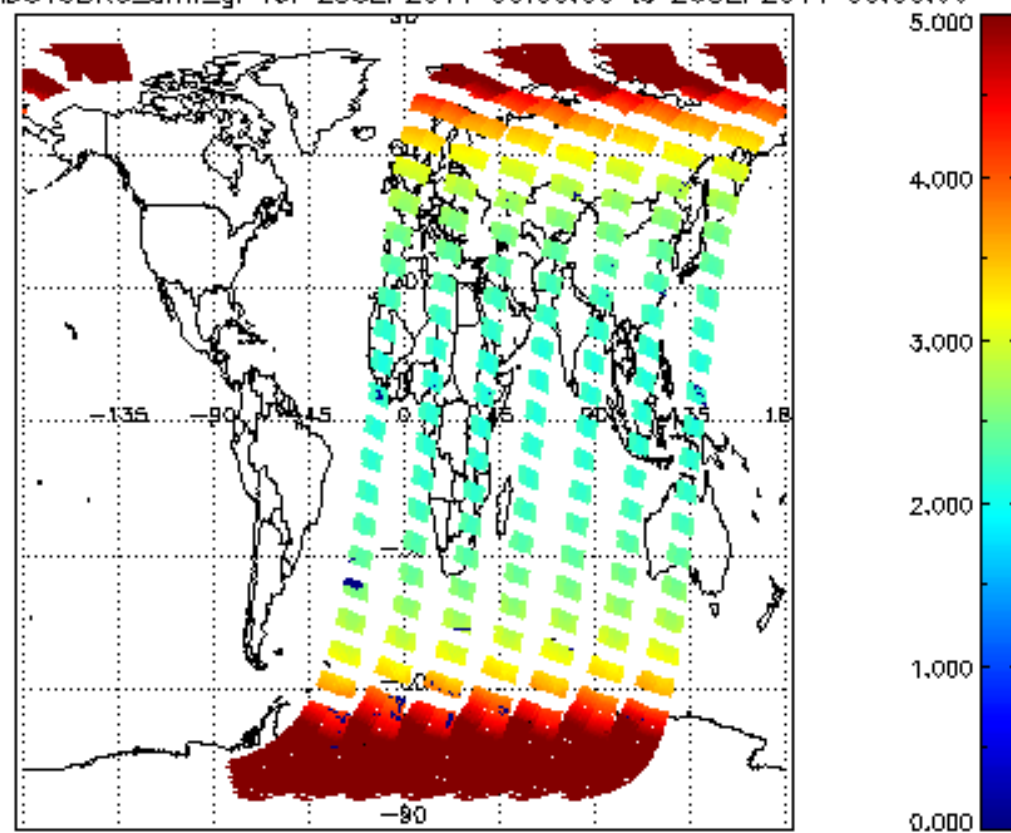
SCIOL2P\_NADUV3BRO\_vcd for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



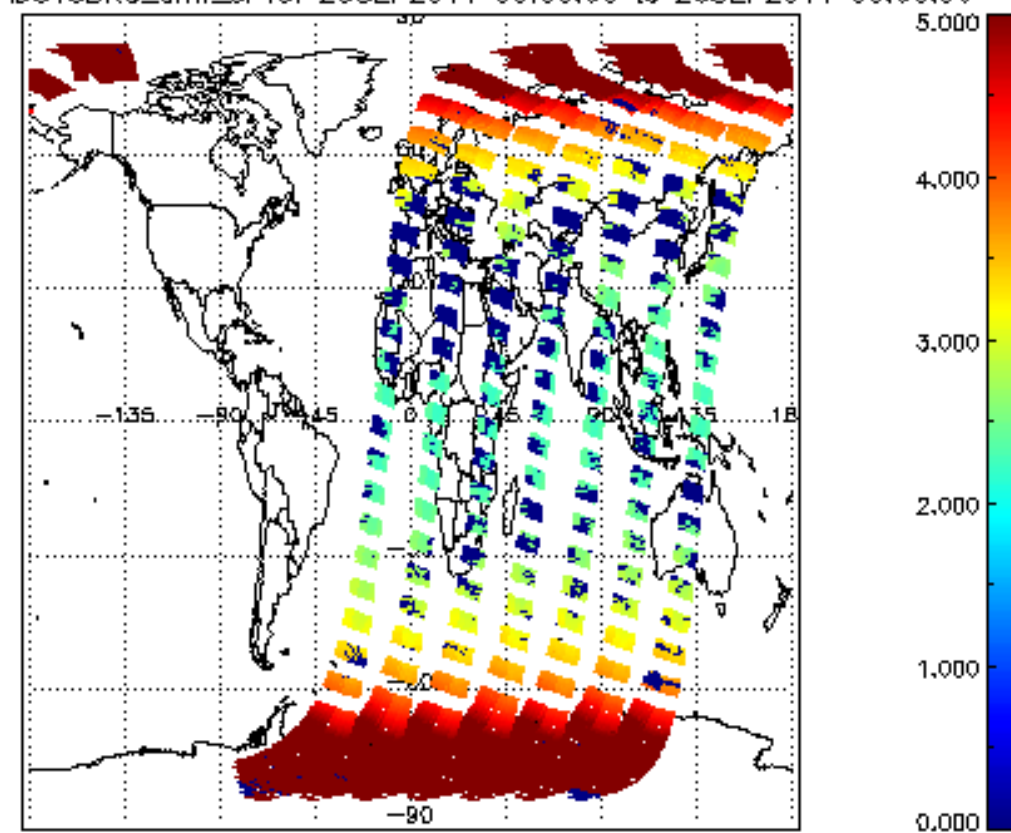
SCIOL2P\_NADUV3BRO\_vcd\_err for 25SEP2011 00:00:00 to 26SEP2011 00:00:00

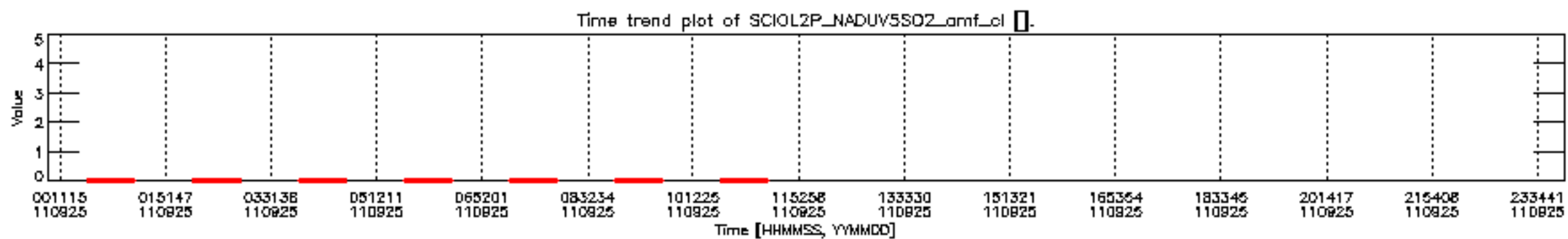
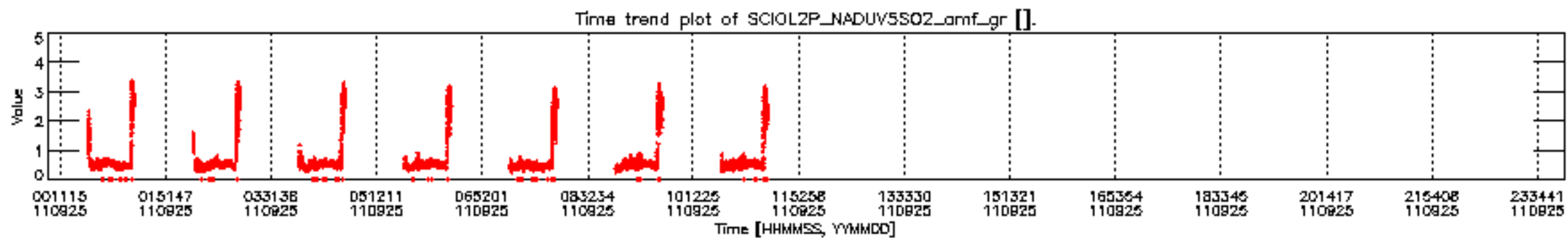
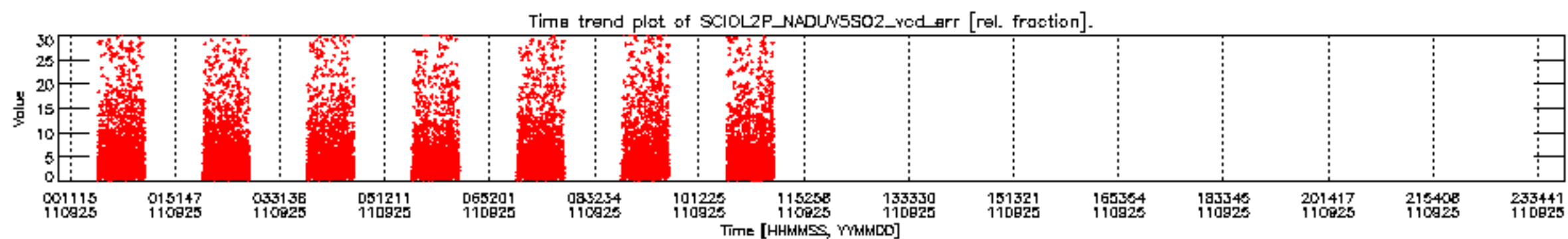
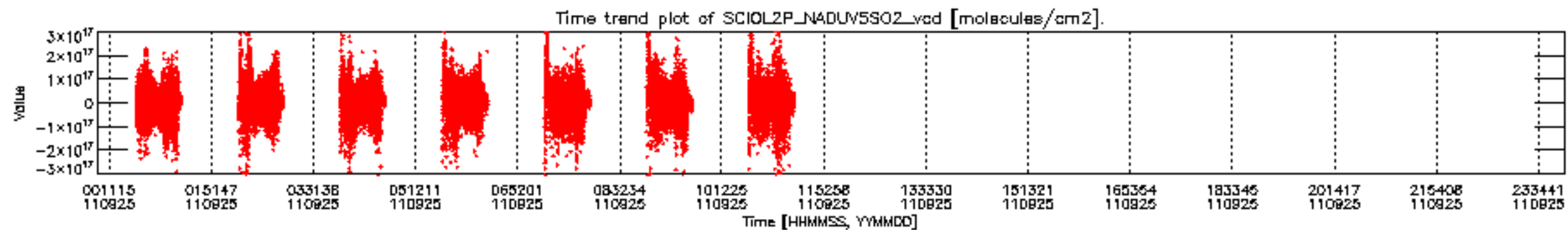


SCIOL2P\_NADUV3BRO\_amf\_gr for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



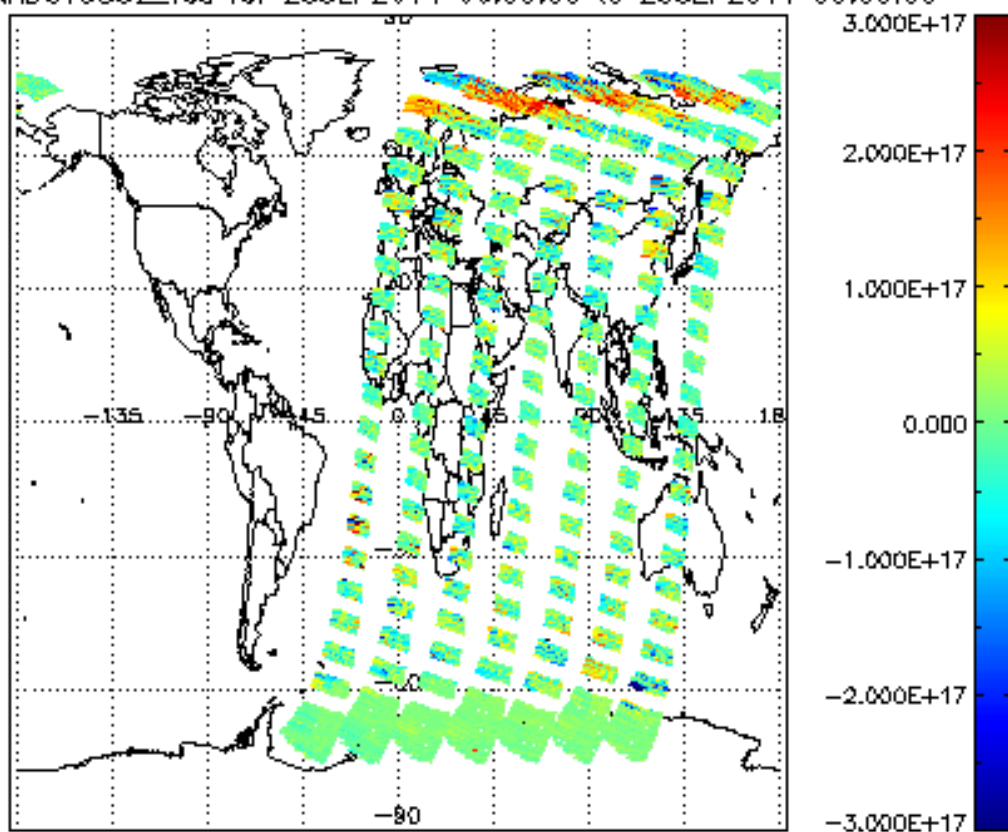
SCIOL2P\_NADUV3BRO\_amf\_cl for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



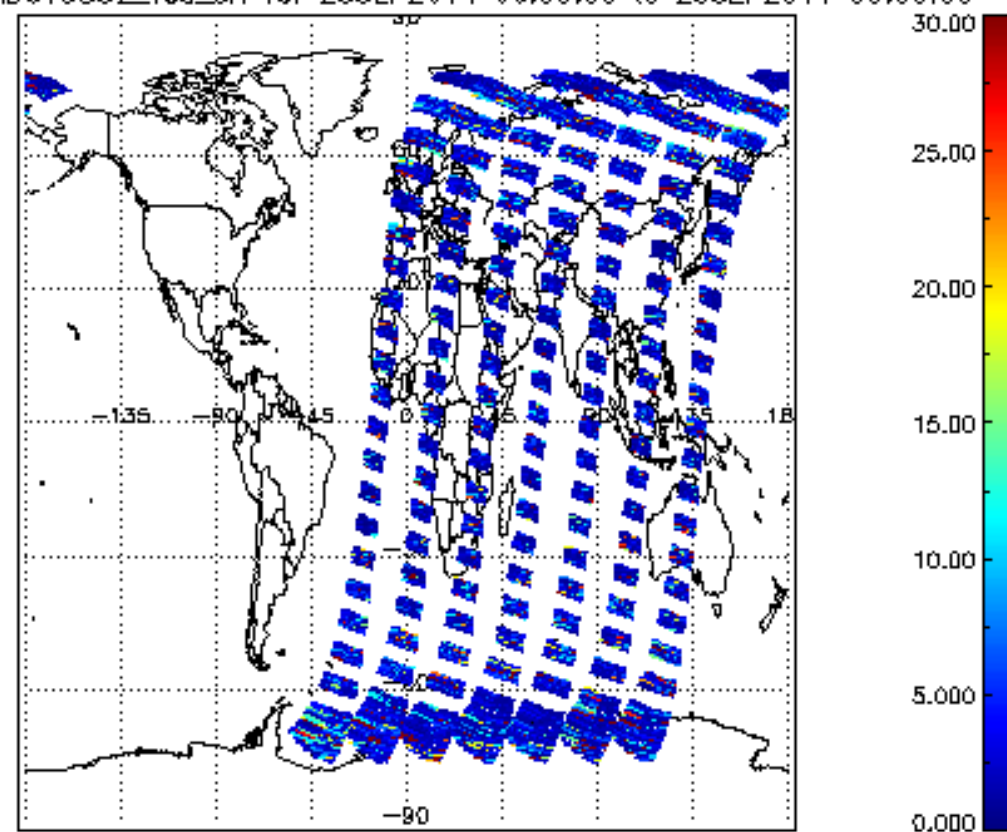




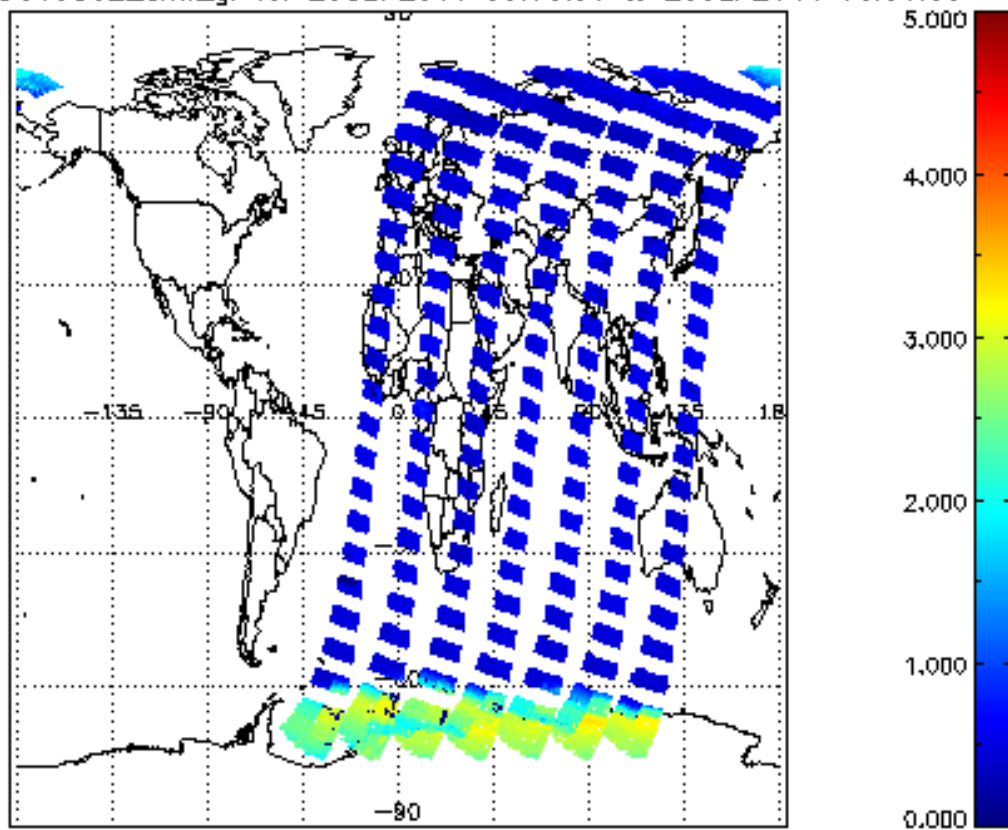
SCIOL2P\_NADUV5S02\_vcd for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



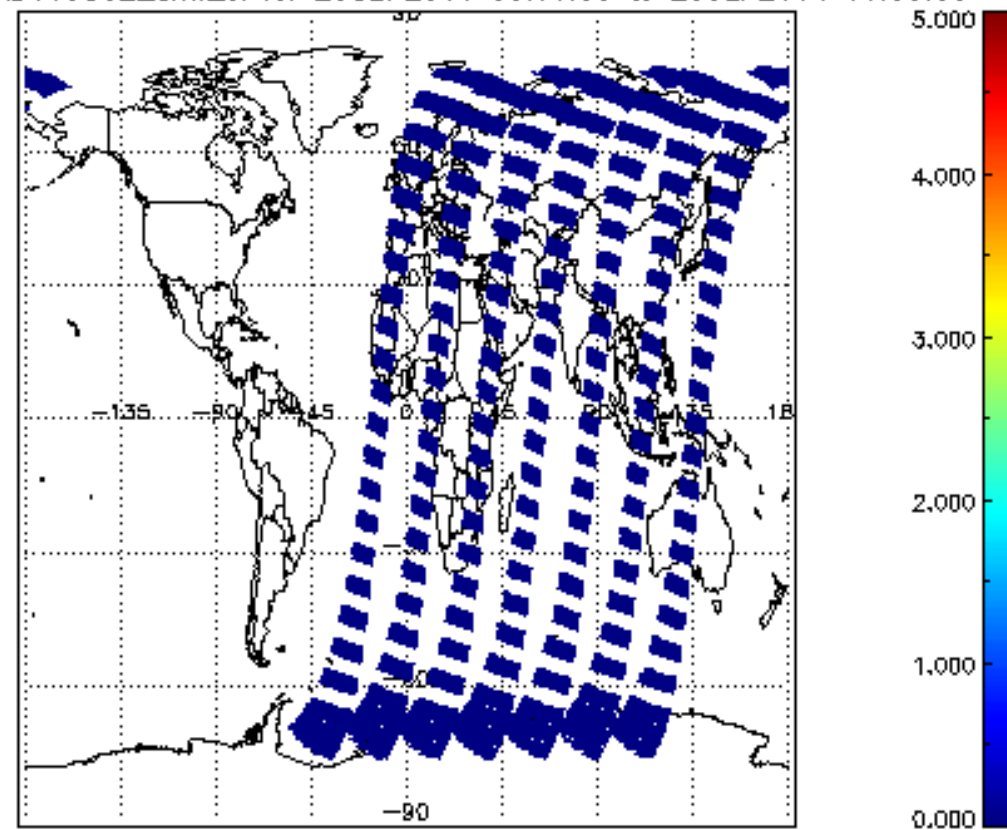
SCIOL2P\_NADUV5S02\_vcd\_err for 25SEP2011 00:00:00 to 26SEP2011 00:00:00

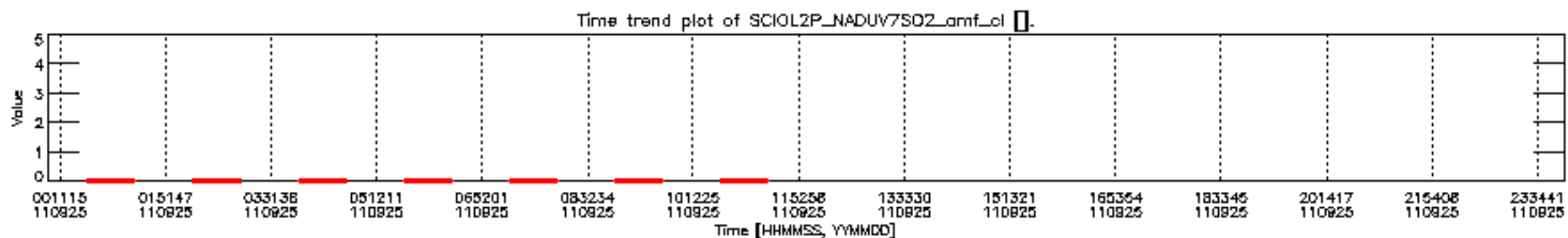
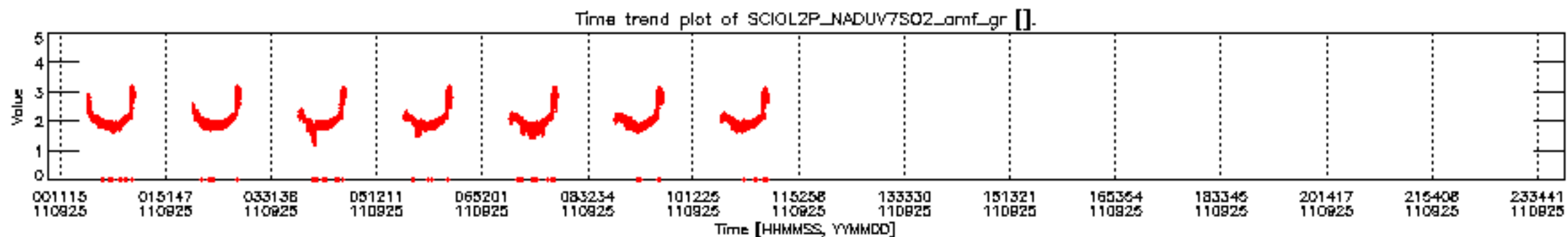
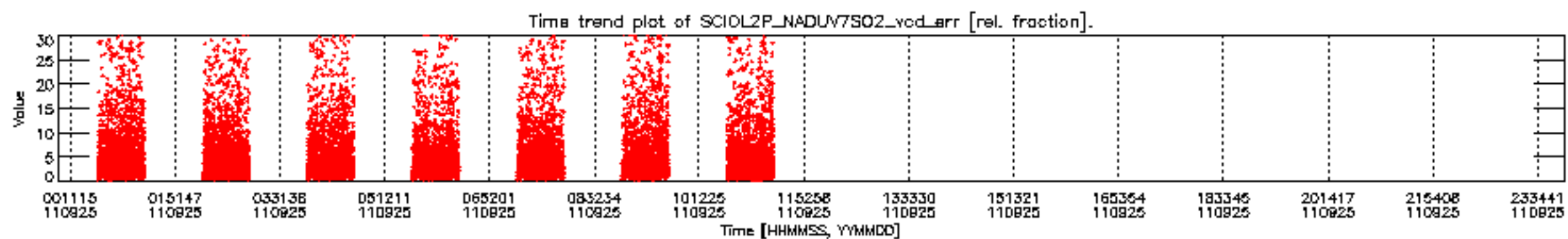
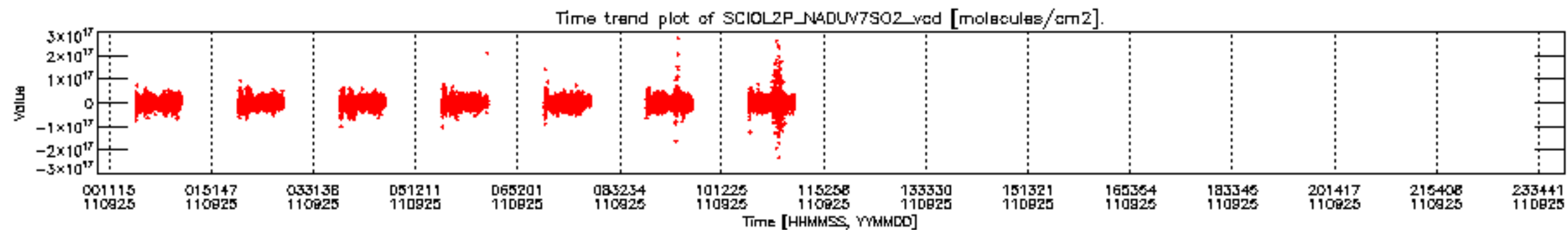


SCIOL2P\_NADUV5S02\_amf\_gr for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



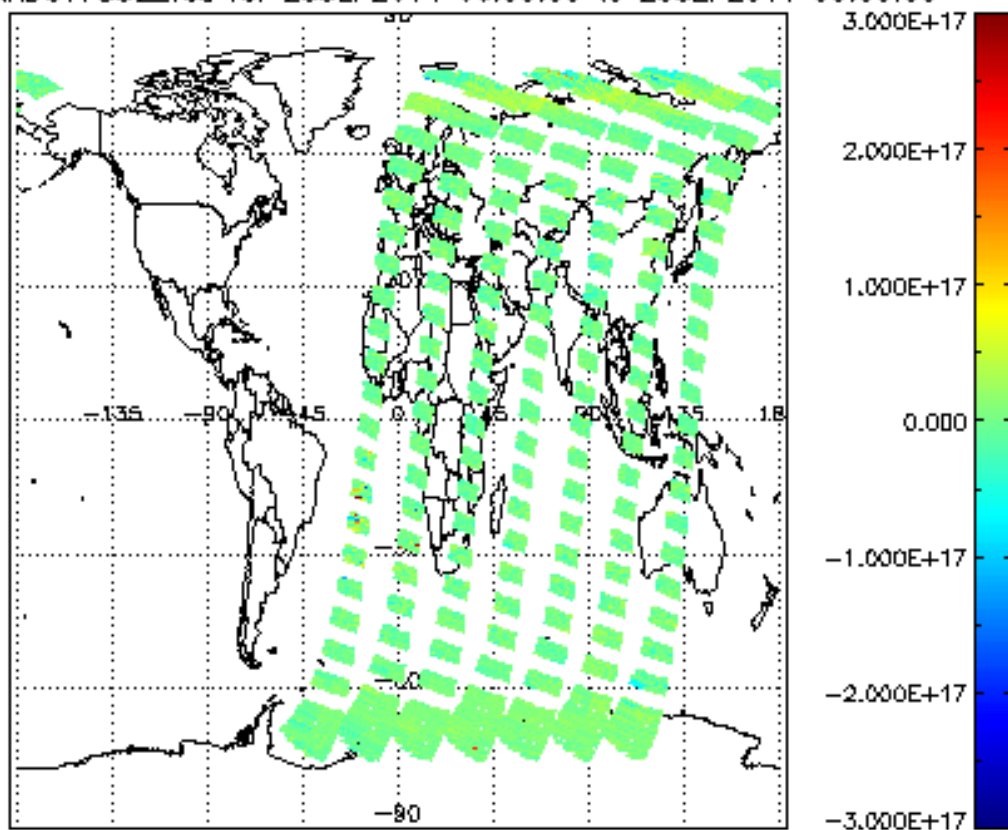
SCIOL2P\_NADUV5S02\_amf\_cl for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



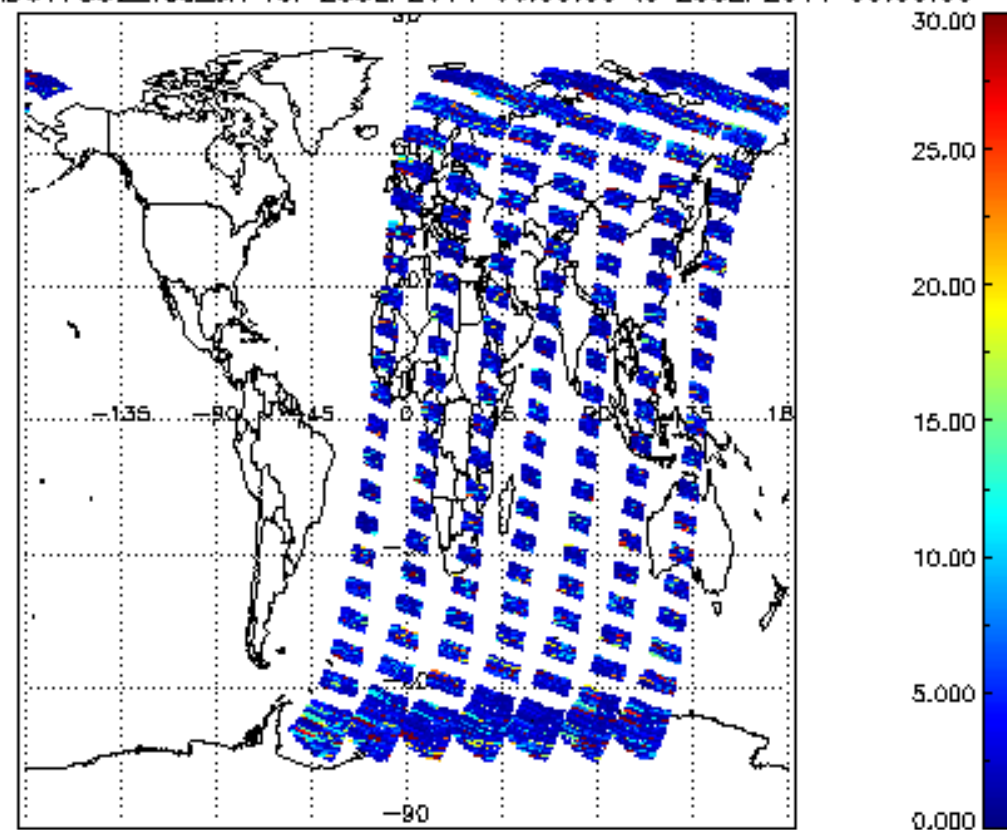




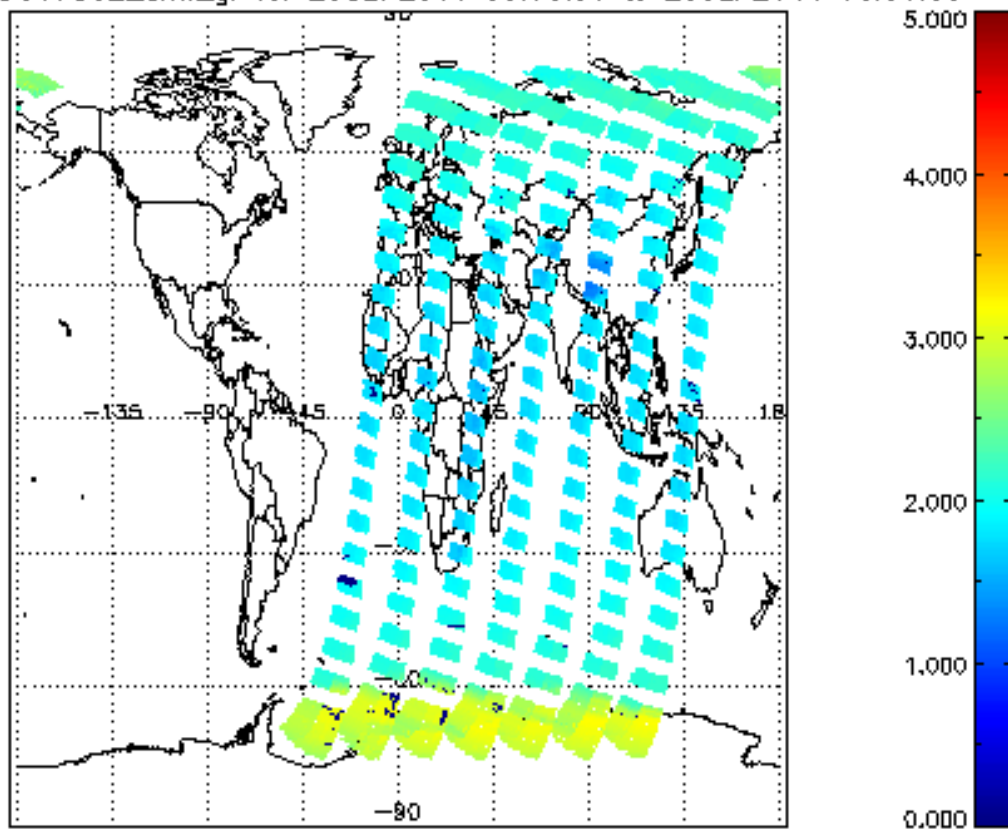
SCIOL2P\_NADUV7S02\_vcd for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



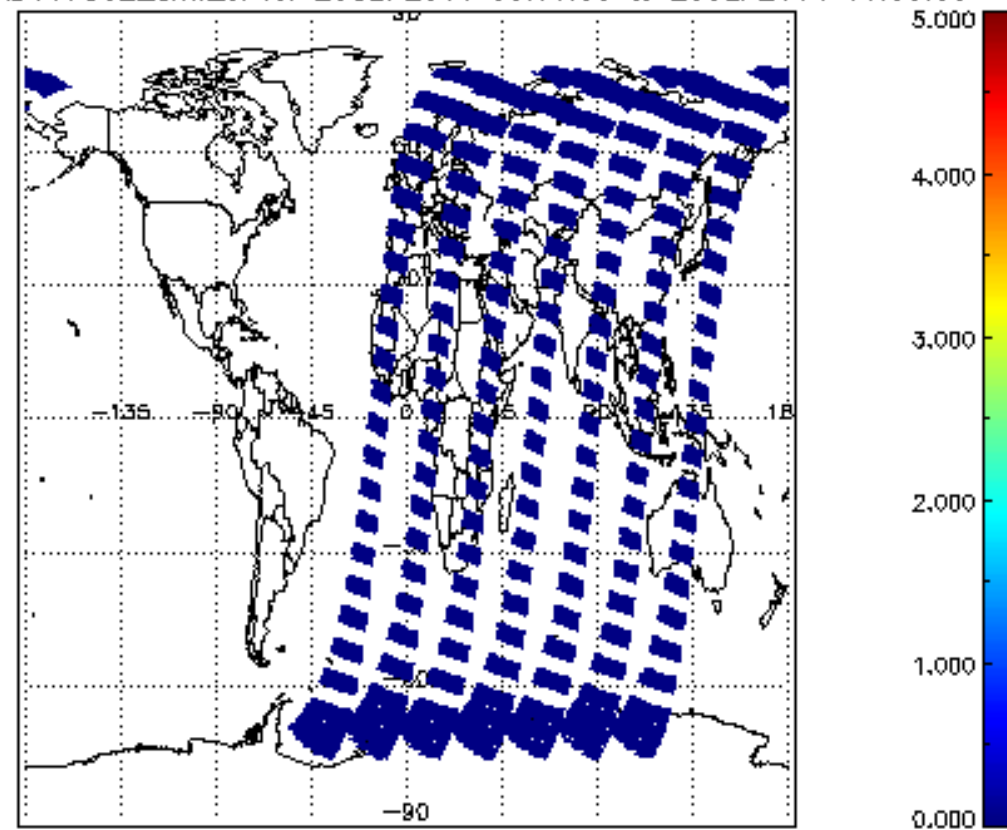
SCIOL2P\_NADUV7S02\_vcd\_err for 25SEP2011 00:00:00 to 26SEP2011 00:00:00

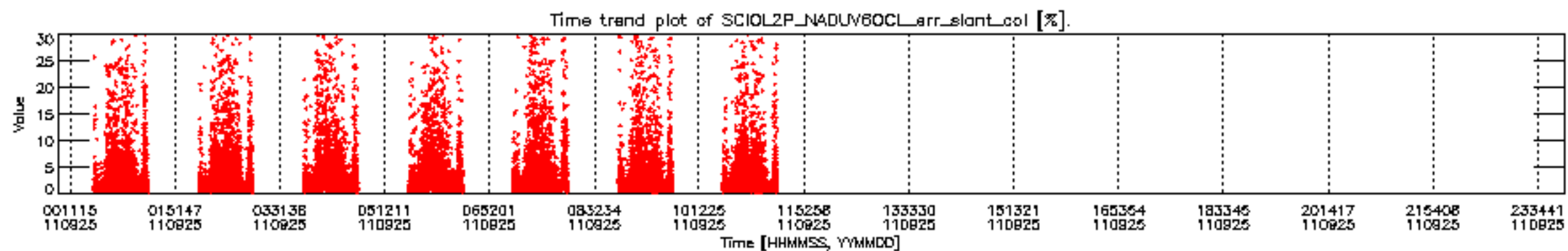
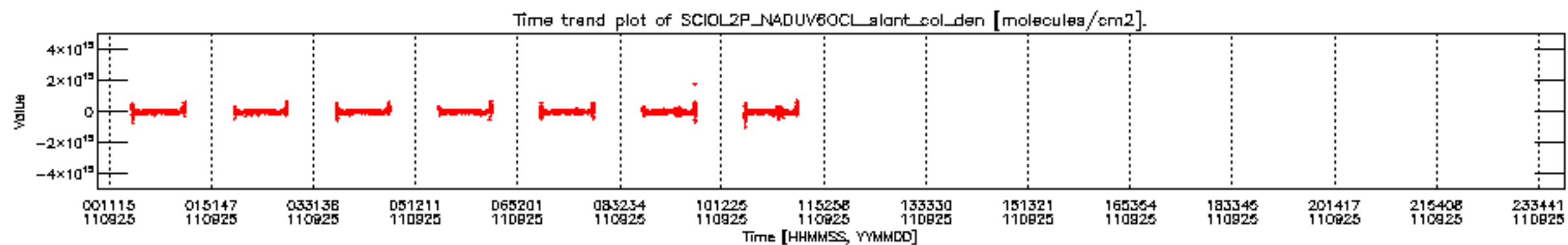


SCIOL2P\_NADUV7S02\_amf\_gr for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



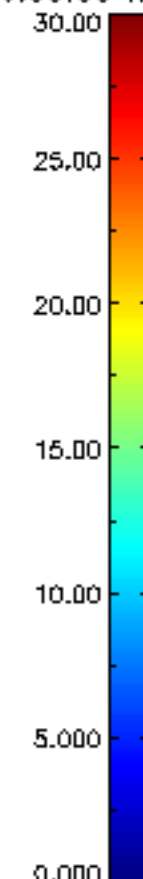
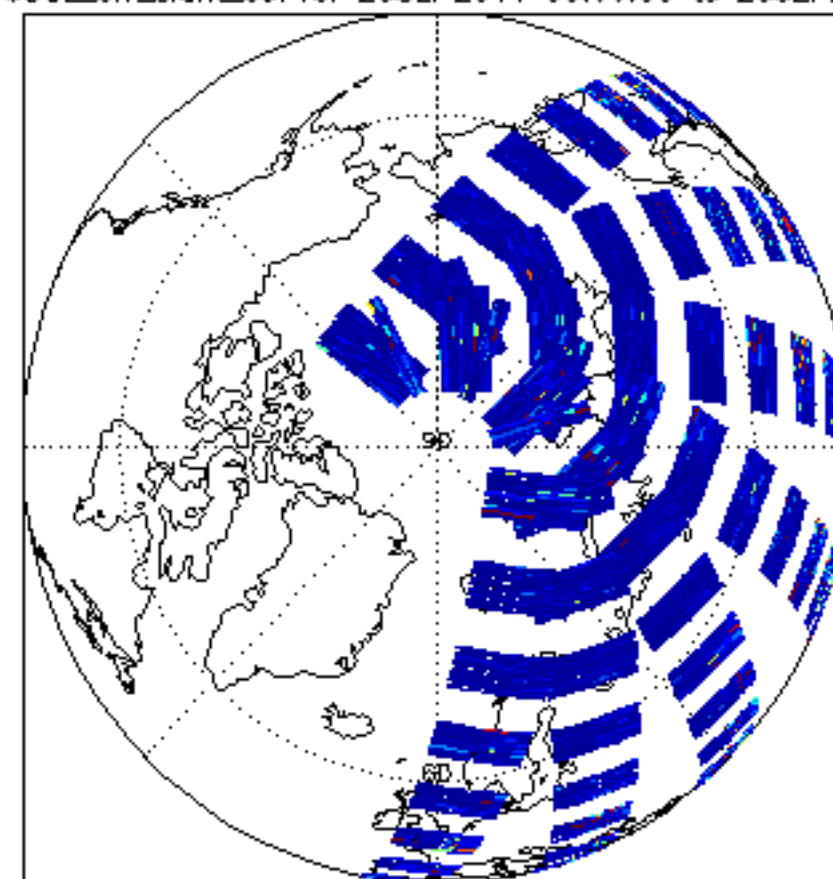
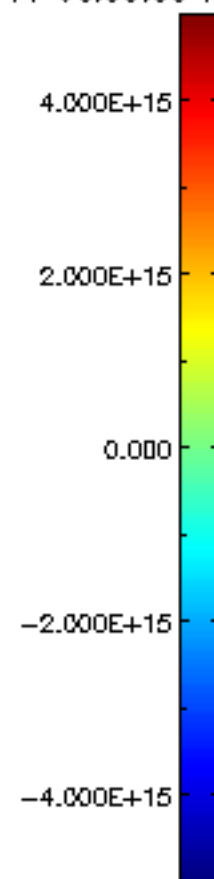
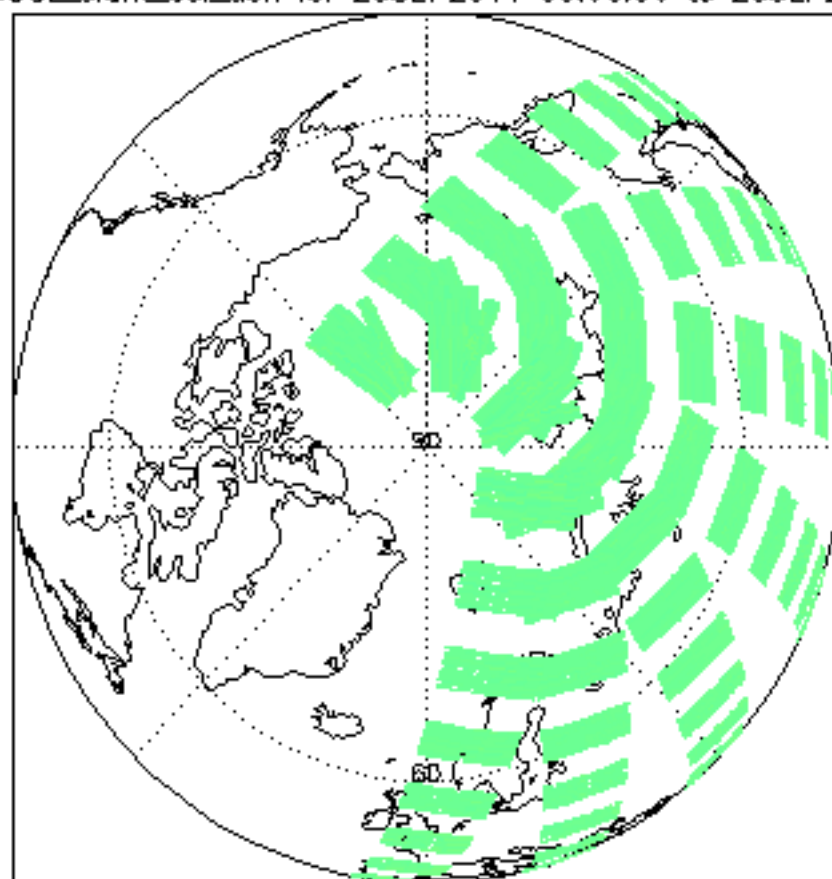
SCIOL2P\_NADUV7S02\_amf\_cl for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



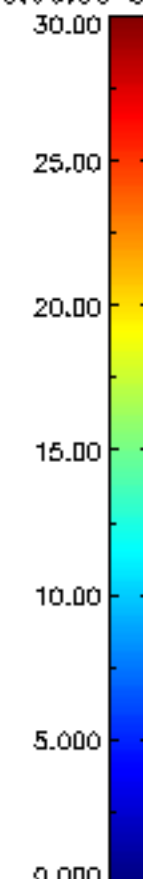
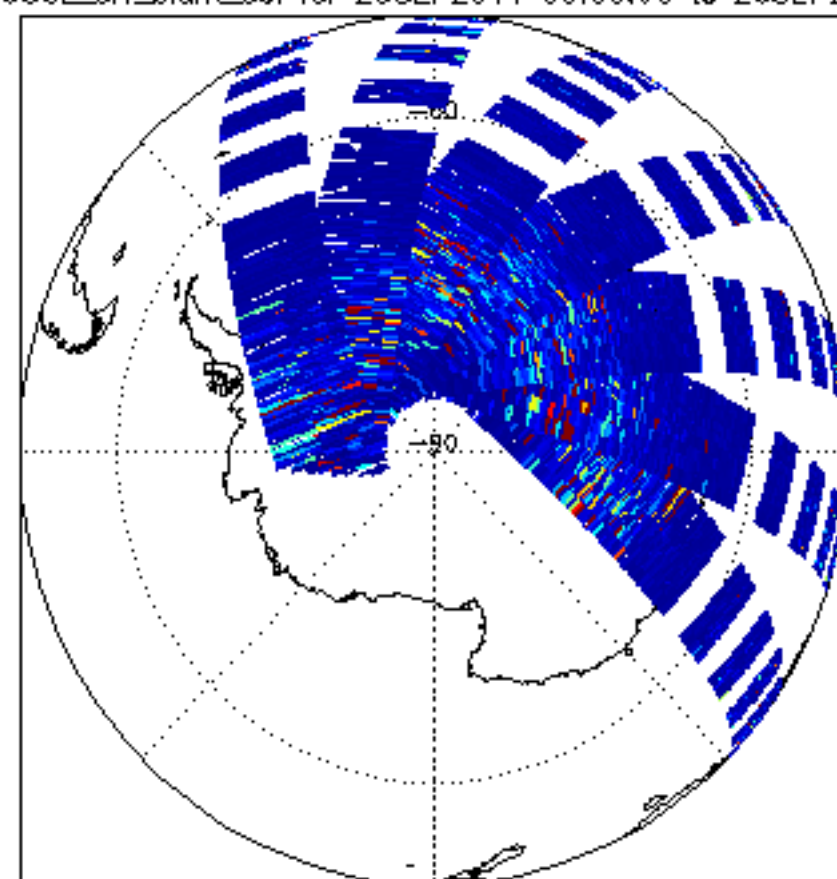
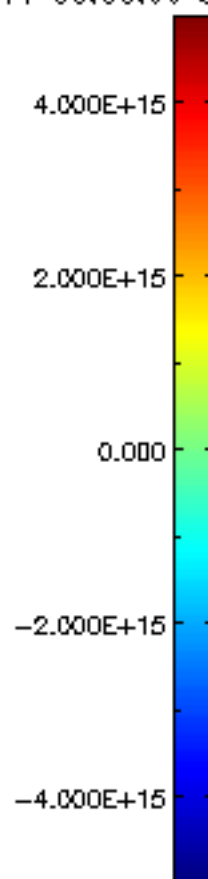
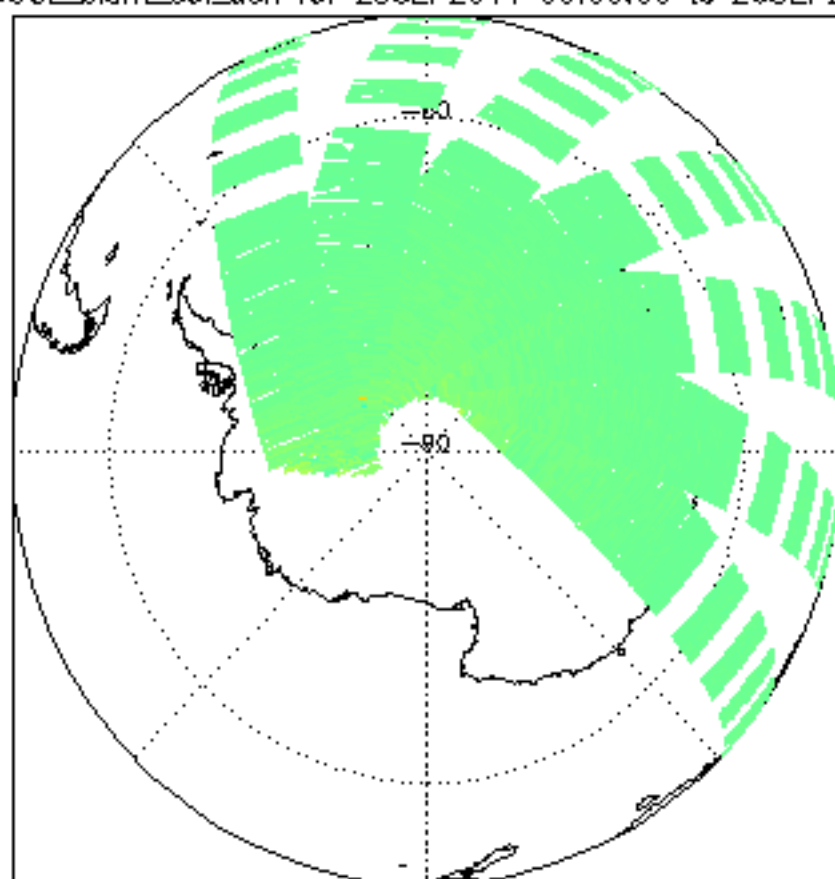




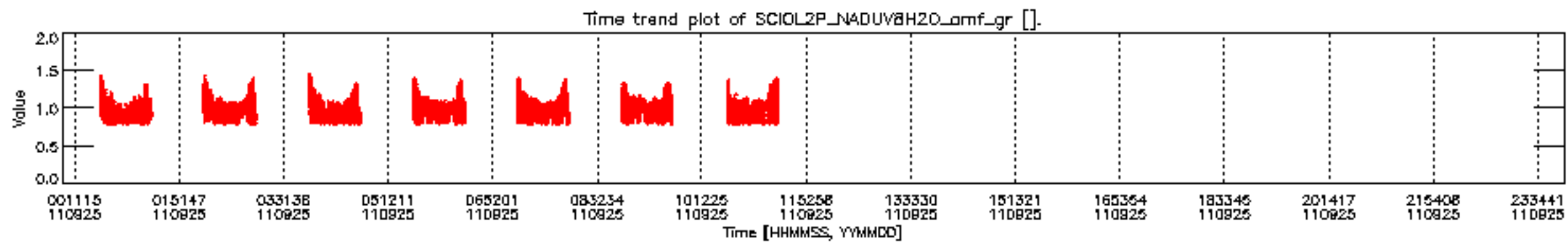
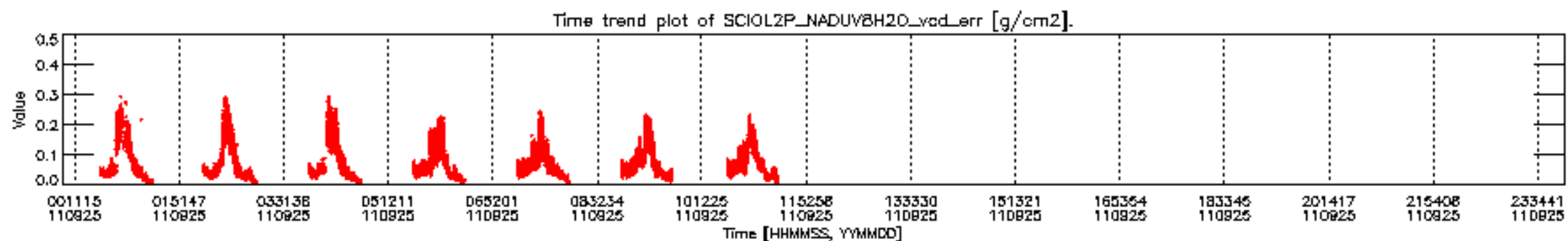
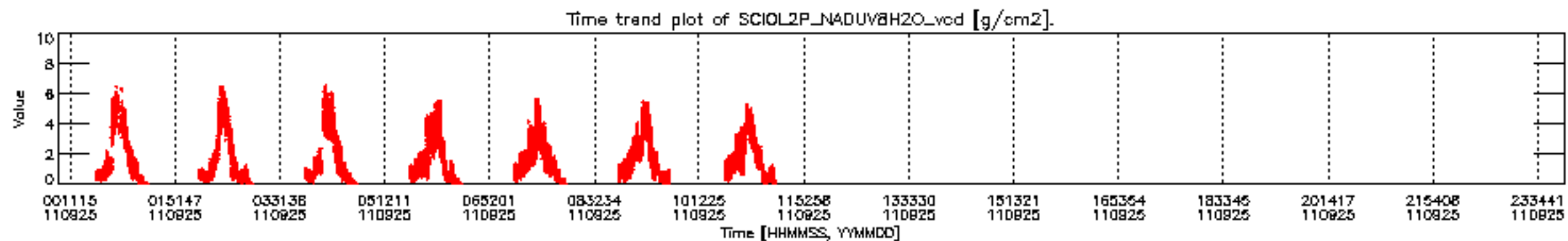
CIOL2P\_NADUV6OCL\_slant\_col\_den for 25SEP2011 00:00:00 to 26SEP2011 00:00:00 np iCIOL2P\_NADUV6OCL\_err\_slant\_col for 25SEP2011 00:00:00 to 26SEP2011 00:00:00 np



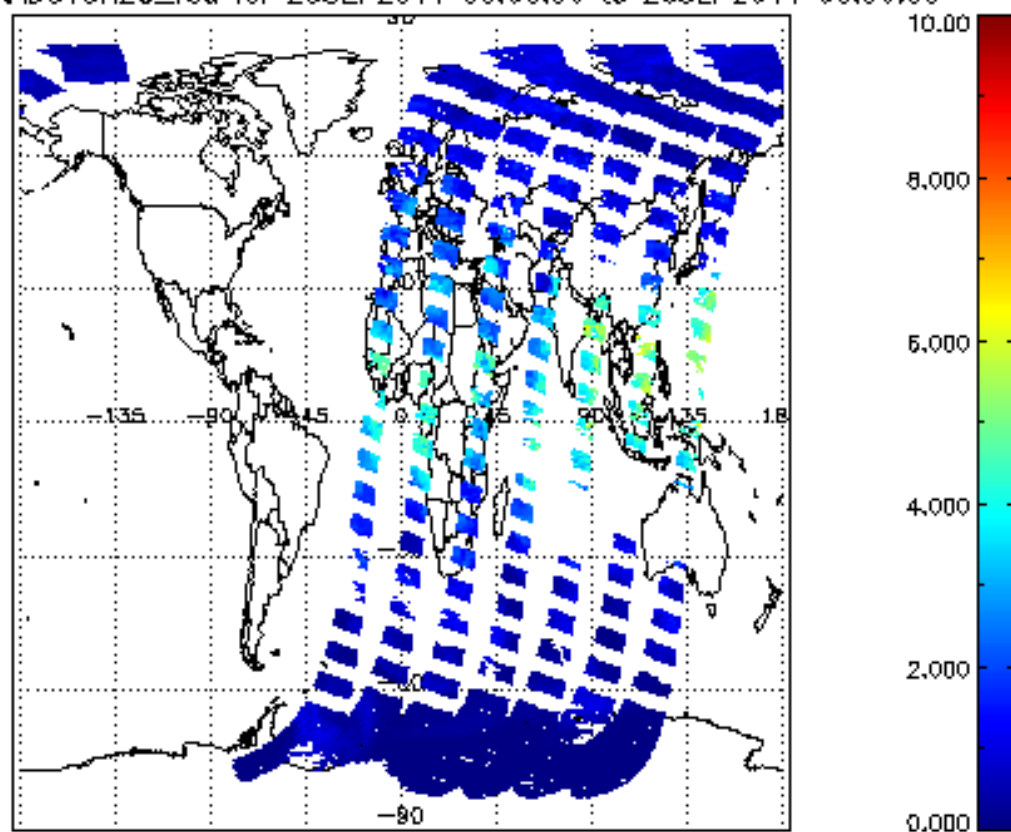
CIOL2P\_NADUV60CL\_slant\_col\_den for 25SEP2011 00:00:00 to 26SEP2011 00:00:00 sp iCIOL2P\_NADUV60CL\_err\_slant\_col for 25SEP2011 00:00:00 to 26SEP2011 00:00:00 sp



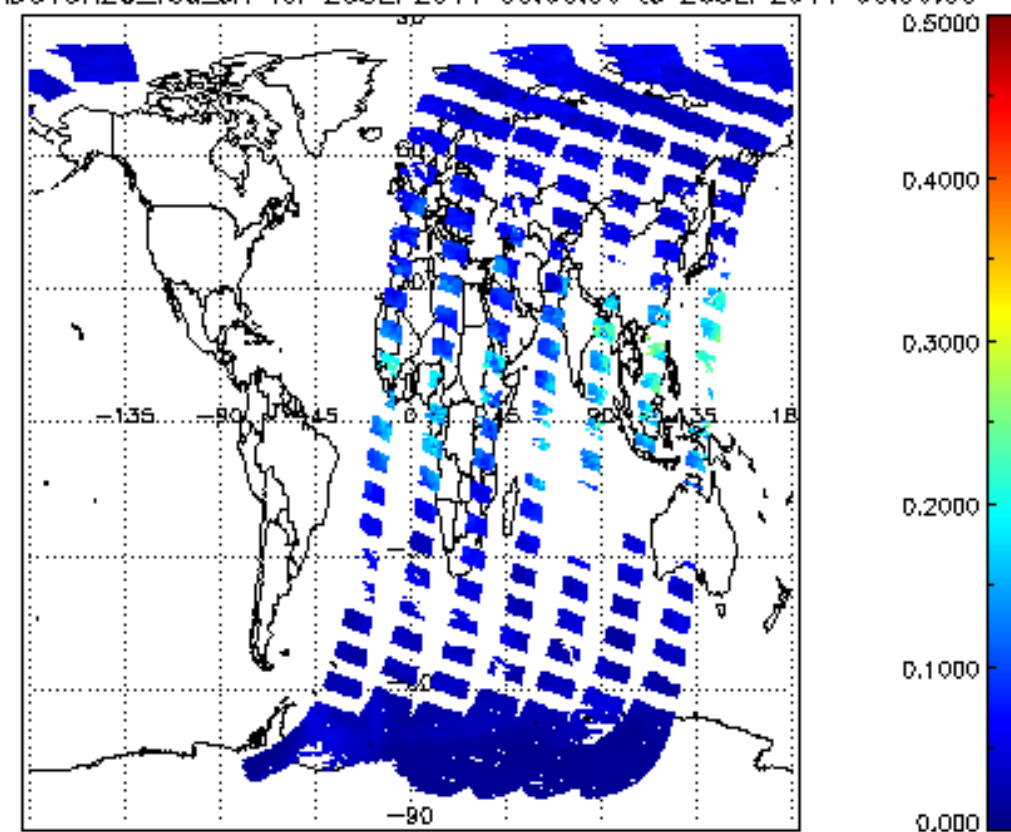




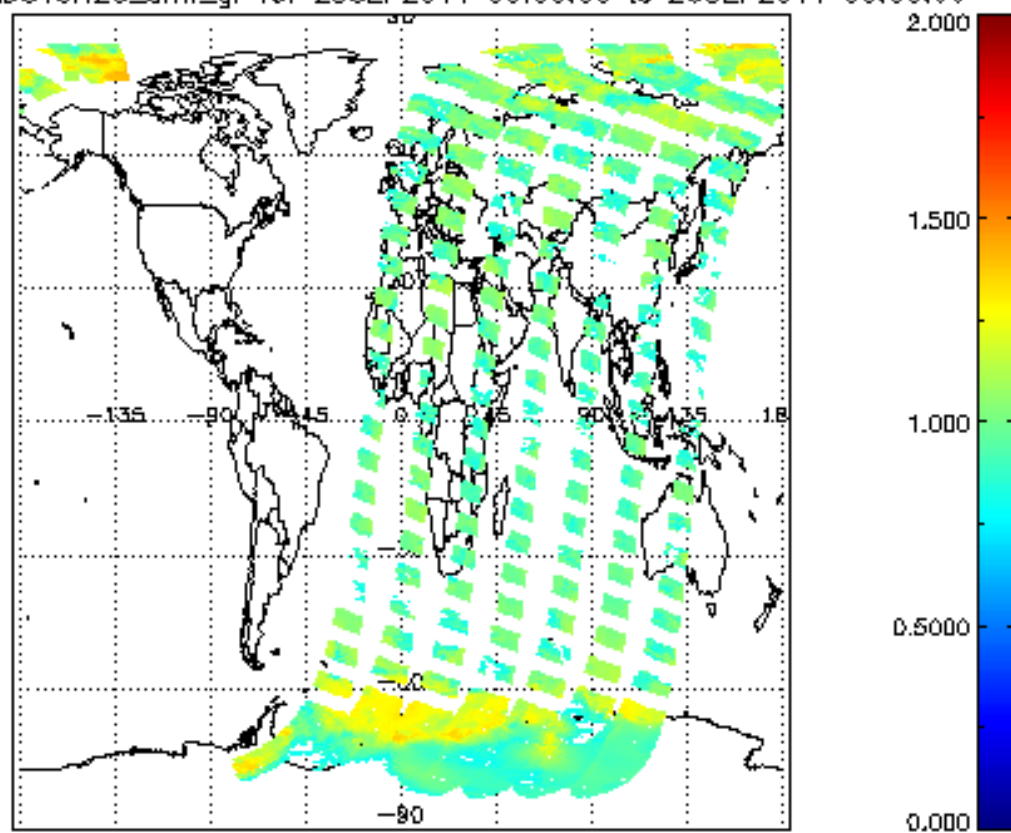
SCIOL2P\_NADUV8H2O\_vcd for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



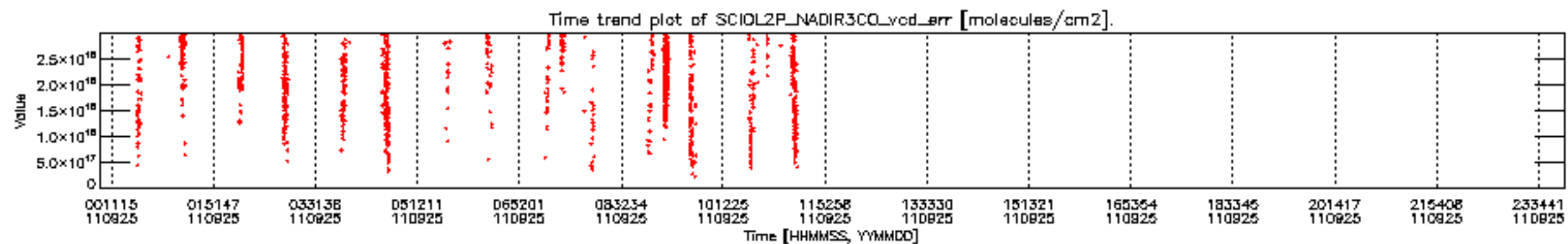
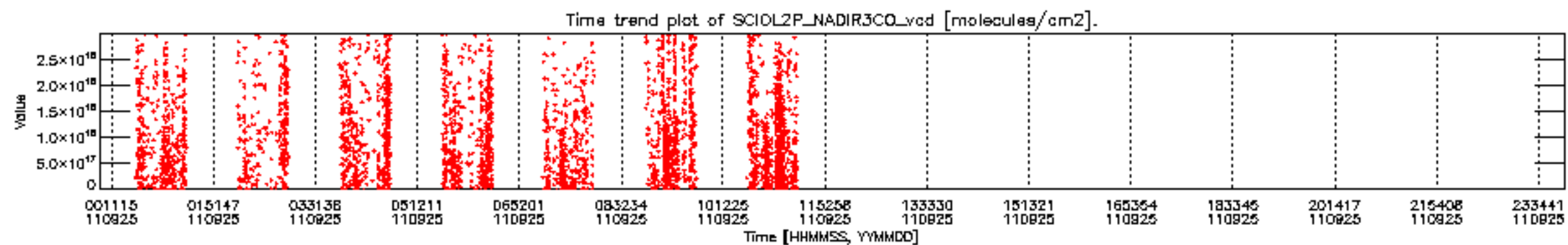
SCIOL2P\_NADUV8H2O\_vcd\_err for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



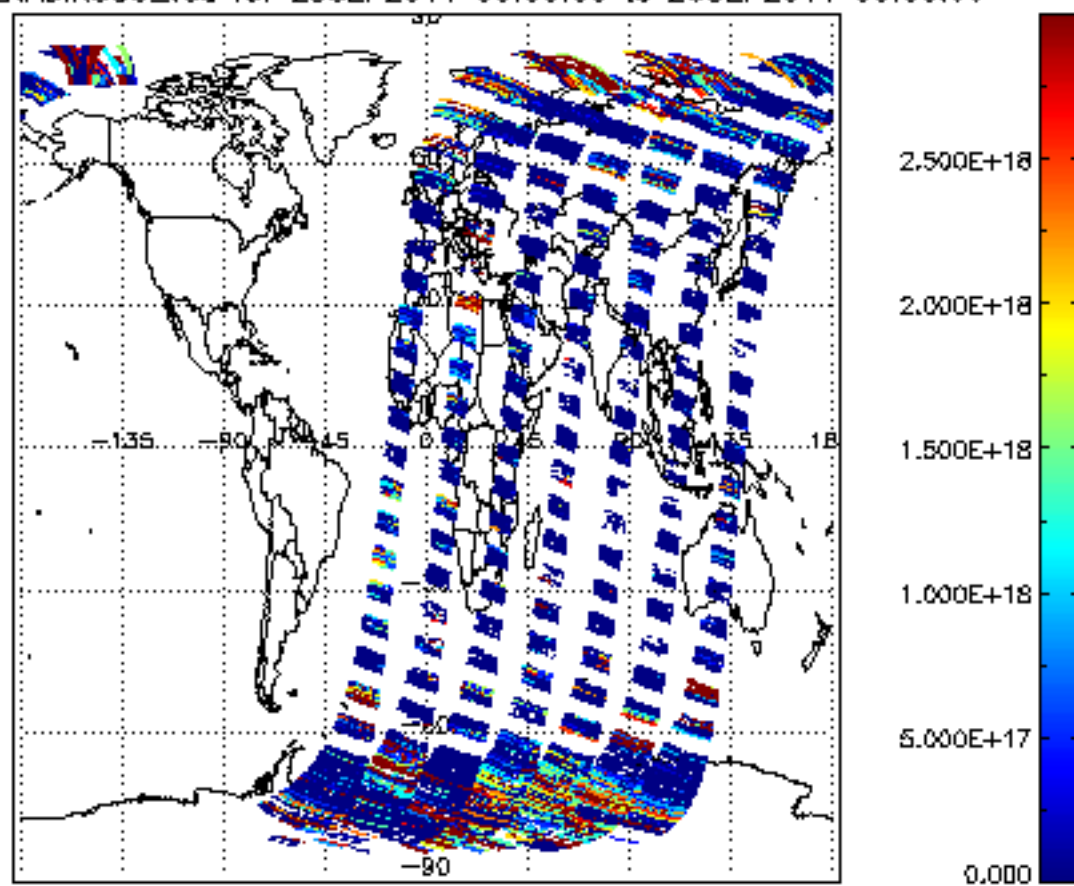
SCIOL2P\_NADUV8H2O\_amf\_gr for 25SEP2011 00:00:00 to 26SEP2011 00:00:00



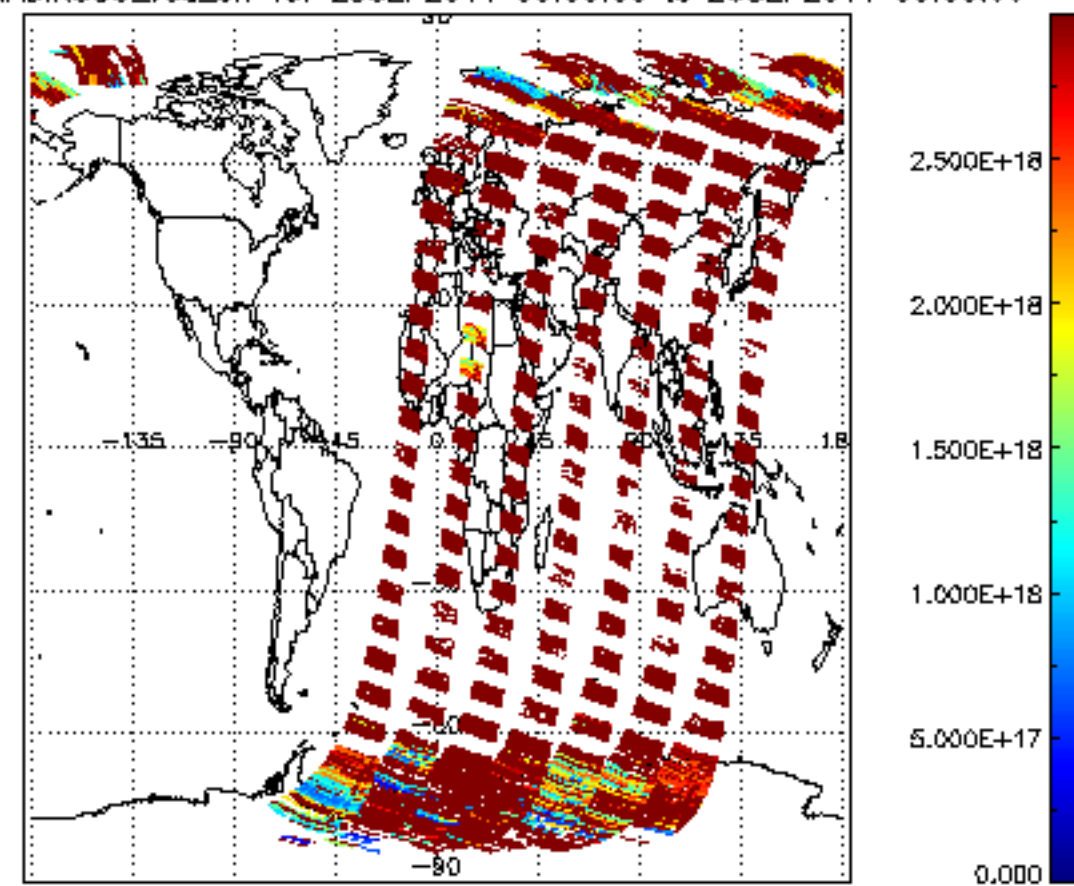




SCIOL2P\_NADIR3CO\_vcd for 25SEP2011 00:00:00 to 26SEP2011 00:00:00

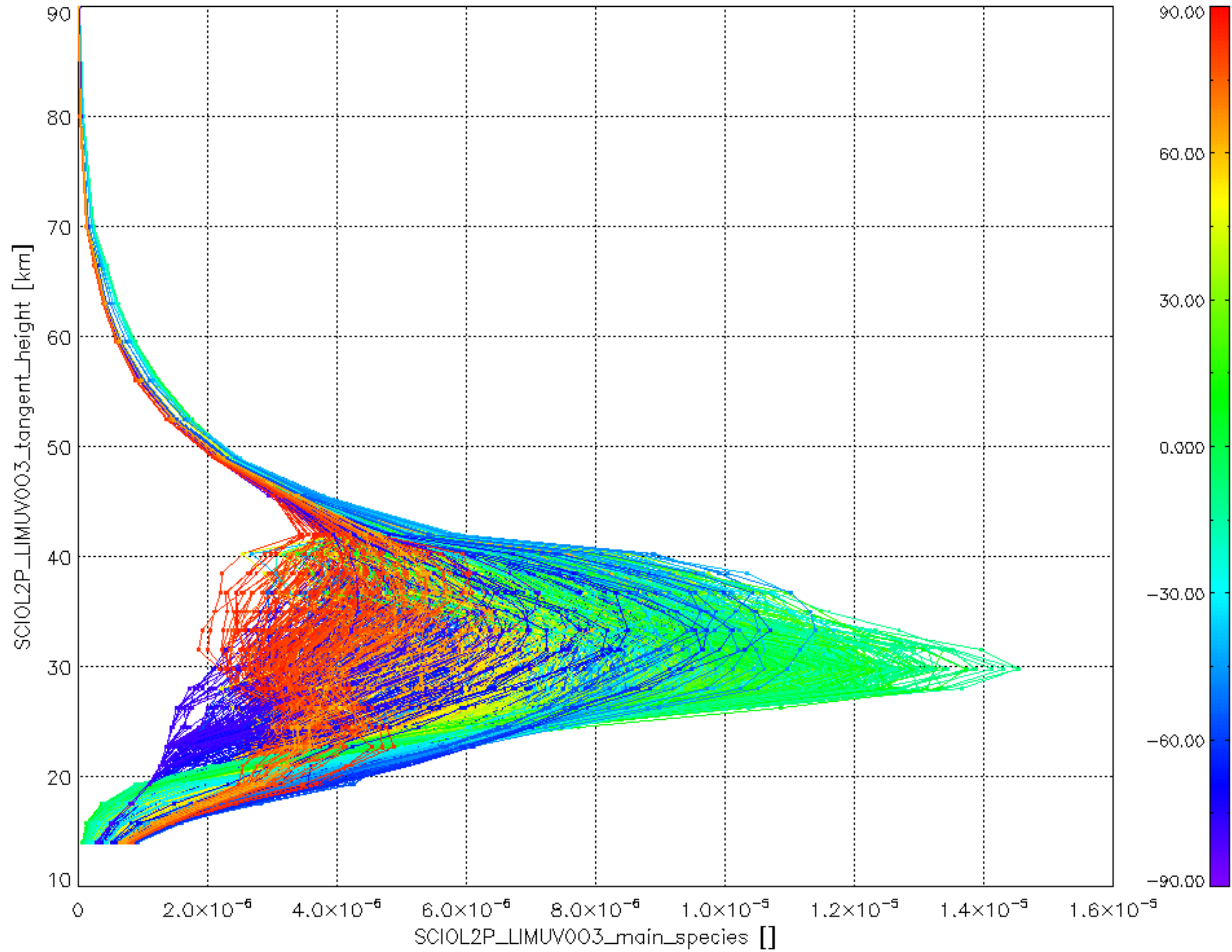


SCIOL2P\_NADIR3CO\_vcd\_err for 25SEP2011 00:00:00 to 26SEP2011 00:00:00

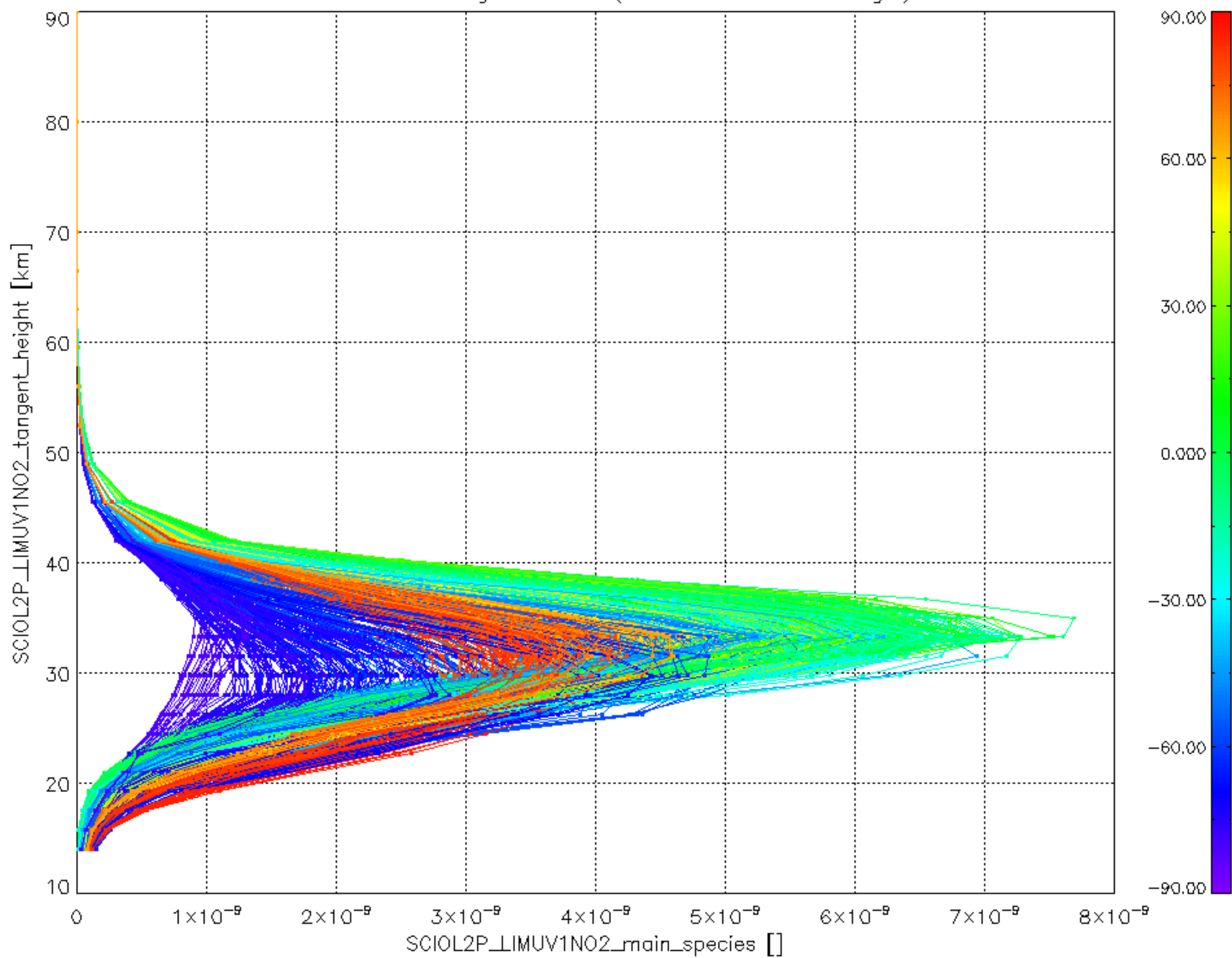




Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



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).

