

## 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	13OCT2011 03:20:51
Data source version	SCIA-OL/5.02-W
Processing scope for products	30SEP2011 00:00:00 to 01OCT2011 00:00:00
Start time of first product within scope	29SEP2011 23:05:18
Stop time of last product within scope	01OCT2011 01:07:32
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__2PWDPA20110929_230518_000034613107_00102_50116_5215.N1</a>	29SEP2011 23:05:18	30SEP2011 00:03:00	0	GOOD
1	<a href="#">SCI_OL__2PWDPA20110930_004533_000035163107_00103_50117_5216.N1</a>	30SEP2011 00:45:33	30SEP2011 01:44:09	0	GOOD
2	<a href="#">SCI_OL__2PWDPA20110930_022547_000034613107_00104_50118_5217.N1</a>	30SEP2011 02:25:47	30SEP2011 03:23:29	0	GOOD
3	<a href="#">SCI_OL__2PWDPA20110930_040602_000035163107_00105_50119_5218.N1</a>	30SEP2011 04:06:02	30SEP2011 05:04:38	0	GOOD
4	<a href="#">SCI_OL__2PWDPA20110930_054616_000034613107_00106_50120_5219.N1</a>	30SEP2011 05:46:16	30SEP2011 06:43:58	0	GOOD

5	SCI_OL__2PWDP	A20110930_072631_000035163107_00107_50121_5220.N1	30SEP2011 07:26:31	30SEP2011 08:25:07	0	GOOD
6	SCI_OL__2PWDP	A20110930_090645_000034613107_00108_50122_5221.N1	30SEP2011 09:06:45	30SEP2011 10:04:27	0	GOOD
7	SCI_OL__2PWDP	A20110930_104700_000035163107_00109_50123_5222.N1	30SEP2011 10:47:00	30SEP2011 11:45:36	0	GOOD
8	SCI_OL__2PWDP	A20110930_122714_000034613107_00110_50124_5223.N1	30SEP2011 12:27:14	30SEP2011 13:24:56	0	GOOD
9	SCI_OL__2PWDP	A20110930_140729_000035163107_00111_50125_5224.N1	30SEP2011 14:07:29	30SEP2011 15:06:05	0	GOOD
10	SCI_OL__2PWDP	A20110930_154743_000034613107_00112_50126_5225.N1	30SEP2011 15:47:43	30SEP2011 16:45:25	0	GOOD
11	SCI_OL__2PWDP	A20110930_172811_000034473107_00113_50127_5226.N1	30SEP2011 17:28:11	30SEP2011 18:25:38	0	GOOD
12	SCI_OL__2PWDP	A20110930_190825_000034613107_00114_50128_5227.N1	30SEP2011 19:08:25	30SEP2011 20:06:07	0	GOOD
13	SCI_OL__2PWDP	A20110930_204827_000035163107_00115_50129_5228.N1	30SEP2011 20:48:27	30SEP2011 21:47:03	0	GOOD
14	SCI_OL__2PWDP	A20110930_222841_000034613107_00116_50130_5229.N1	30SEP2011 22:28:41	30SEP2011 23:26:23	0	GOOD
15	SCI_OL__2PWDP	A20111001_000856_000035163107_00117_50131_5230.N1	01OCT2011 00:08:56	01OCT2011 01:07:32	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: 147251

Total number of cloud data DSRs with good quality flag (=0): 147251 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	147251	0.0000	0.0000	0.0000	0.0000	0.0000	
INTEGR_TIME	147251	0.16407	0.12500	0.12500	0.25000	0.057941	s
CL_FRAC	147251	0.45329	0.43976	0.0000	1.0000	0.32618	
CL_FRAC_ERR	147251	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	147251	5.2501	4.0000	4.0000	8.0000	1.8541	
PMD_READ_CL[0]	147251	0.55484	0.0000	0.0000	8.0000	1.3577	-
PMD_READ_CL[1]	147251	1.2350	0.0000	0.0000	8.0000	2.5308	-
CL_TOP_HEIGHT	117949	3.8153	2.1312	0.0000	17.000	4.1401	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	117949	63.011	86.559	0.0000	101.00	41.297	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	147251	11100000	11100000	11100000	11100000	0.0000	
CLOUD_FLAGS	147251	11001100	11000100	11000000	11100000	3490.7	
AERO_ABSO_IND	147251	0.16277	0.0000	0.0000	4.0643	0.40261	
AERO_IND_DIAG	147251	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	147251	01010010	00000000	00000000	11000000	24345.	

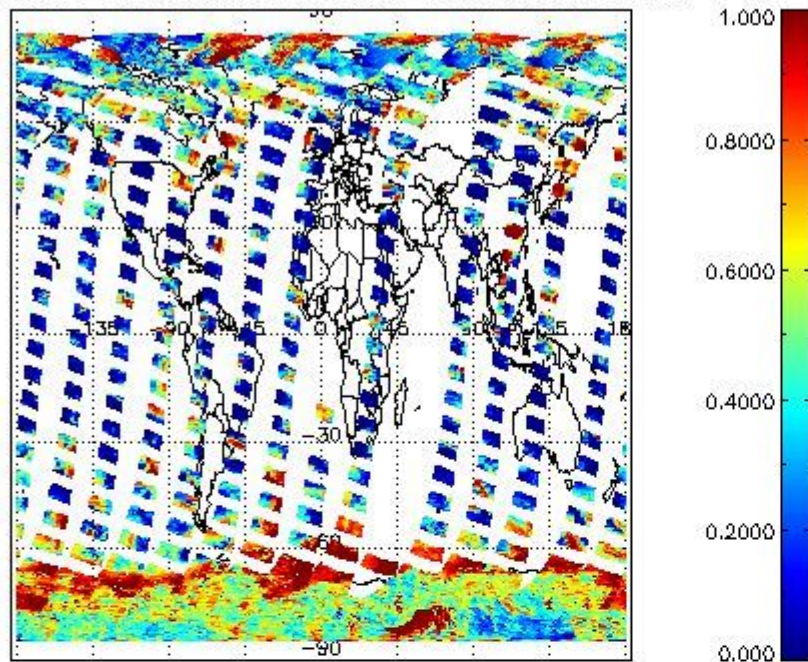
#### Time and geolocation plots:

Plots are available for the following parameters:

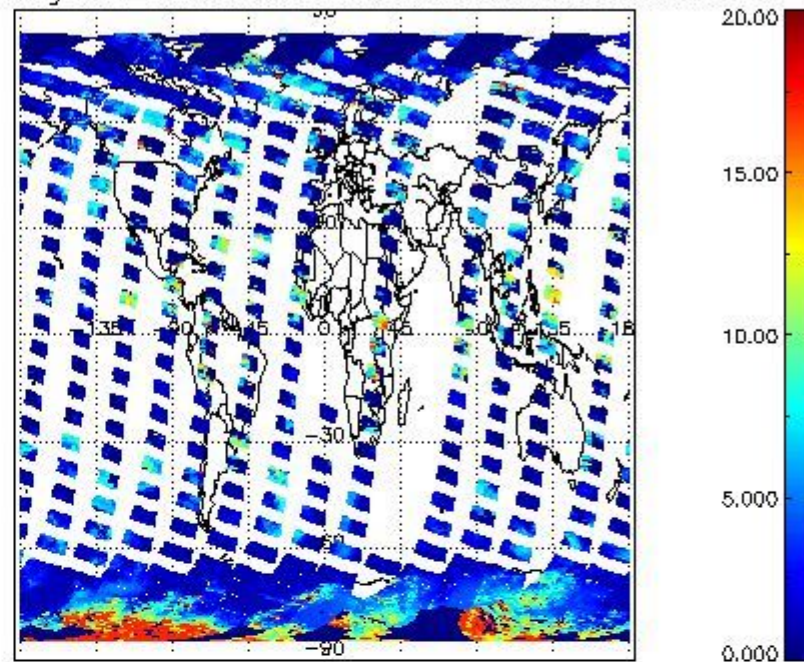
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



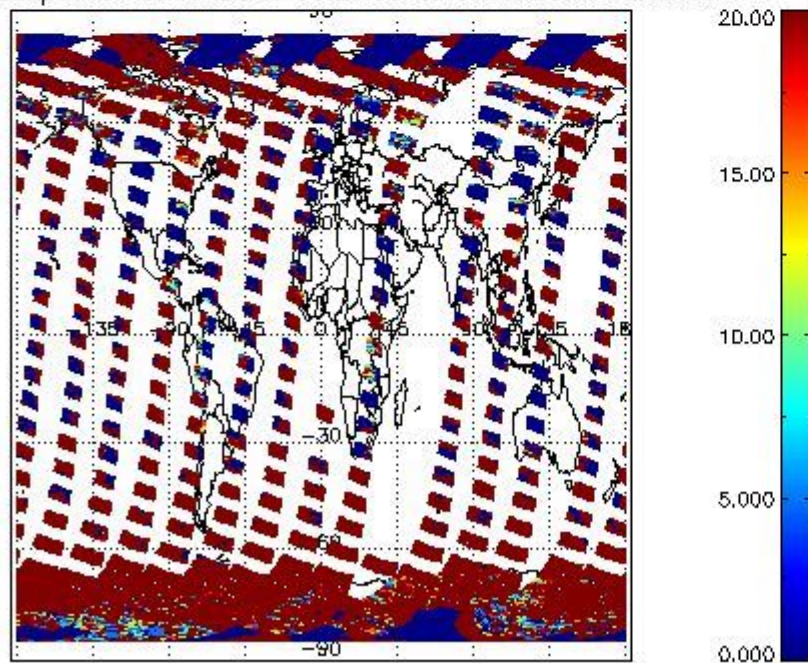
cLfrac for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



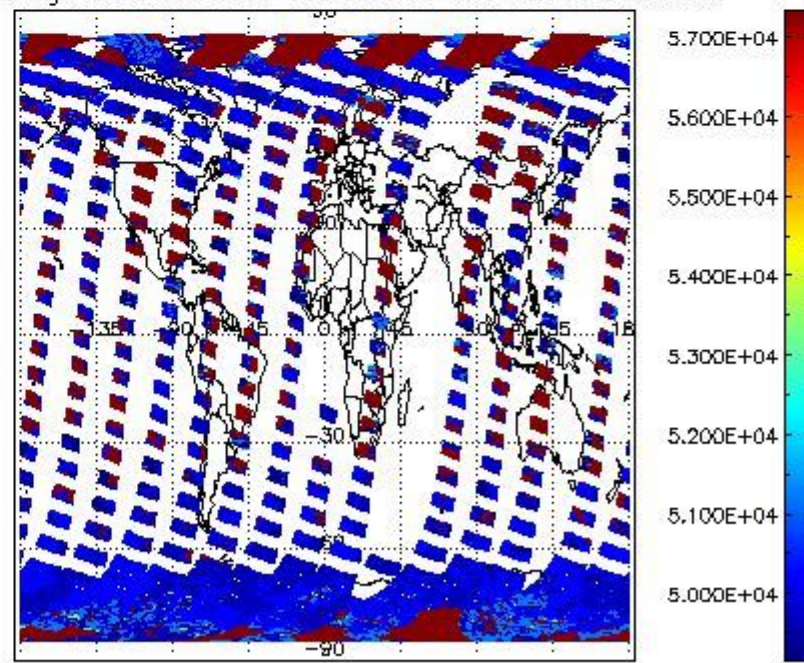
cL\_top\_height for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



cLopt\_depth for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



cloud\_flags for 30SEP2011 00:00:00 to 01OCT2011 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:

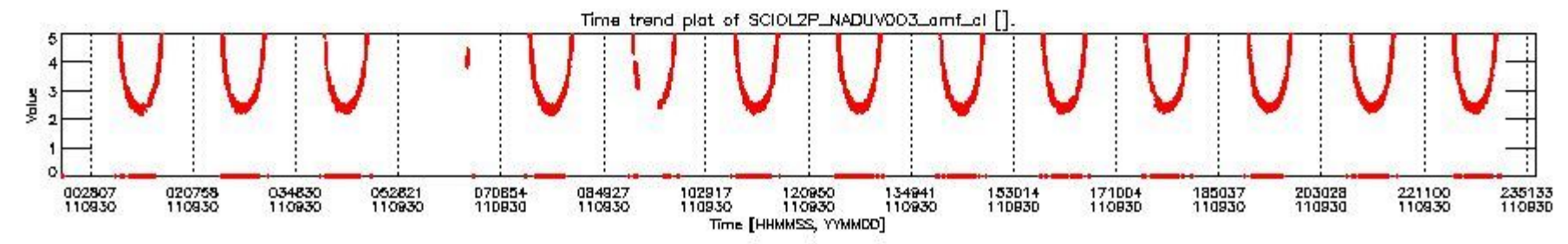
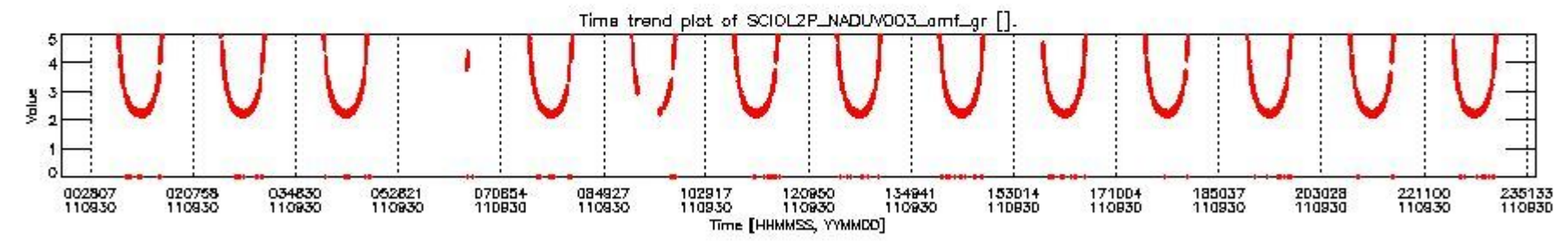
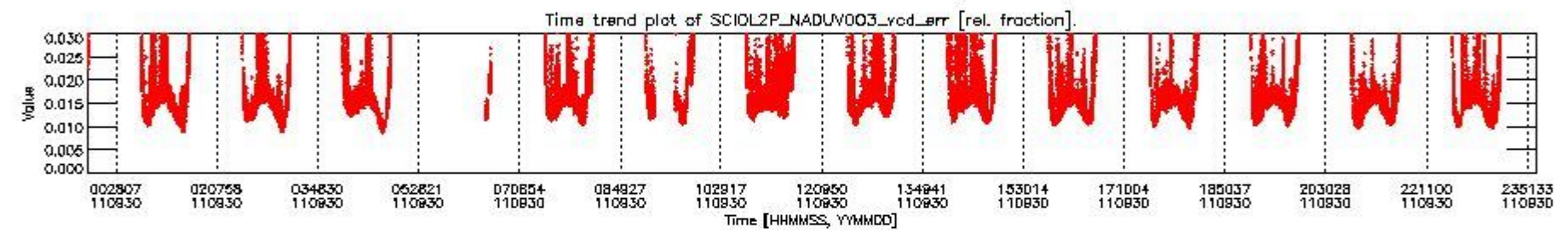
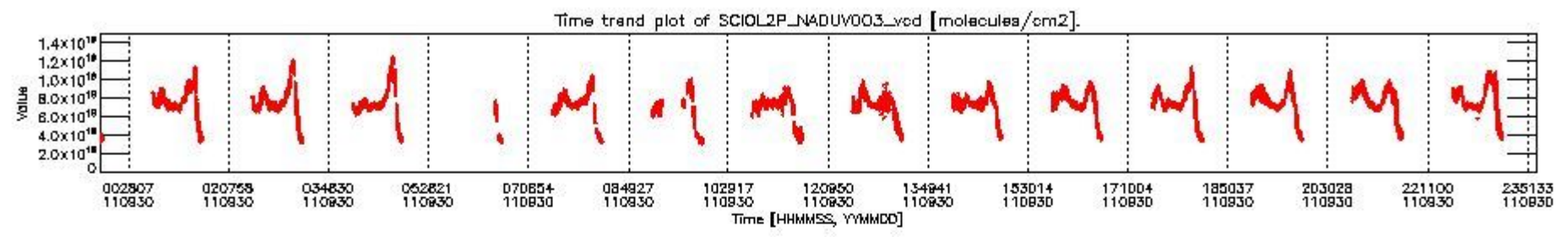
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

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.

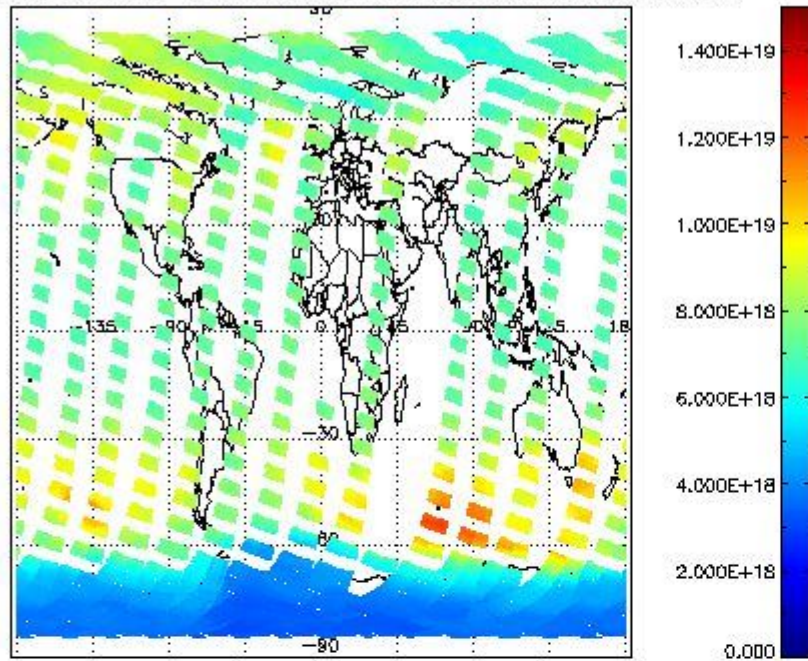
#### 2.2.2.1 O3 (UV0)



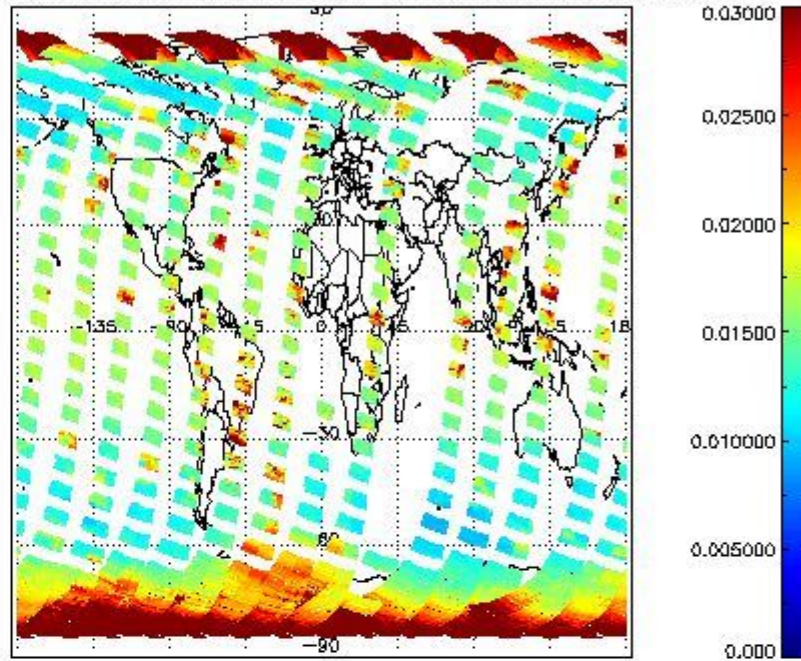




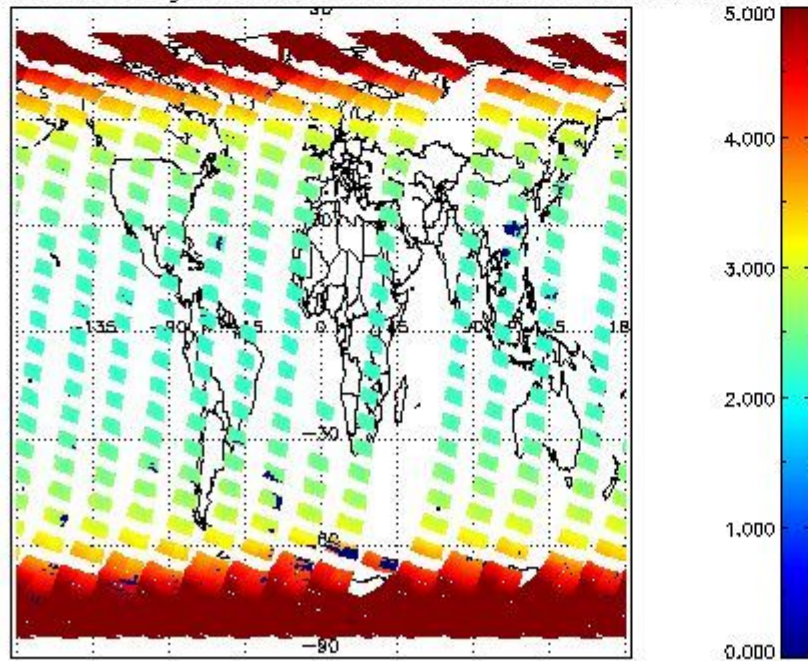
SCIOL2P\_NADUV003\_vcd for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



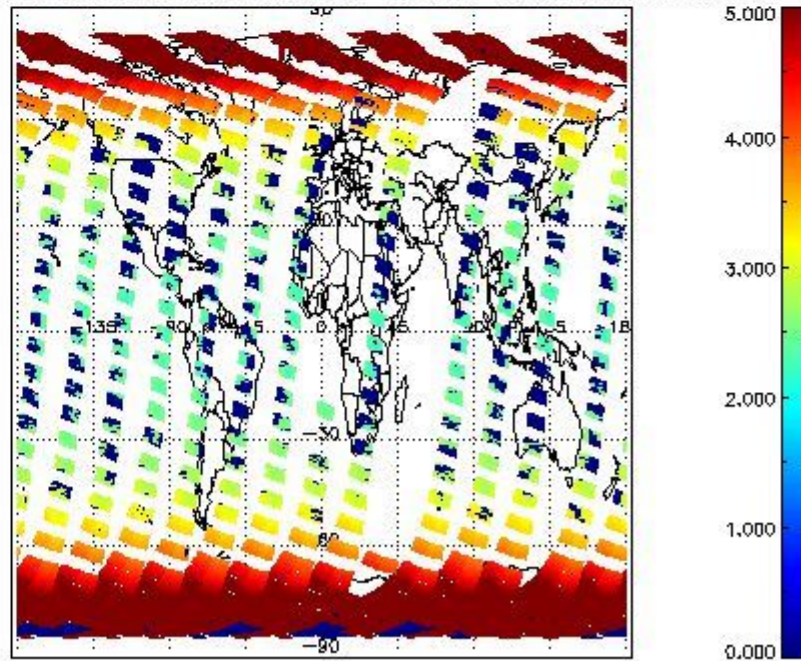
SCIOL2P\_NADUV003\_vcd\_err for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



SCIOL2P\_NADUV003\_amf\_gr for 30SEP2011 00:00:00 to 01OCT2011 00:00:00

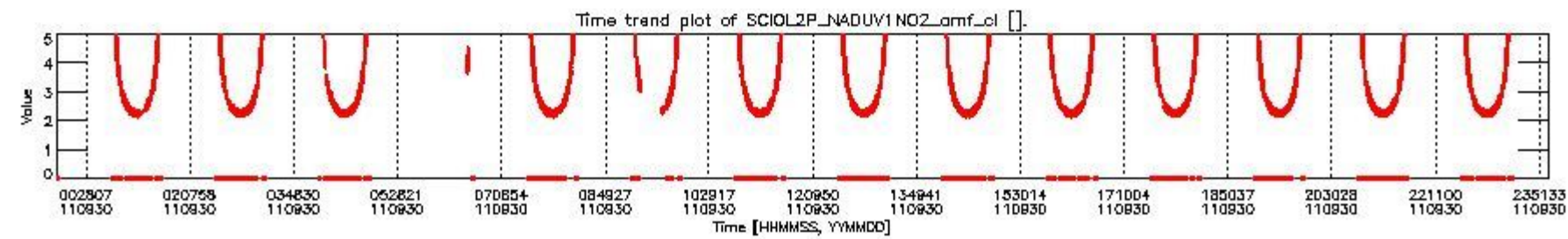
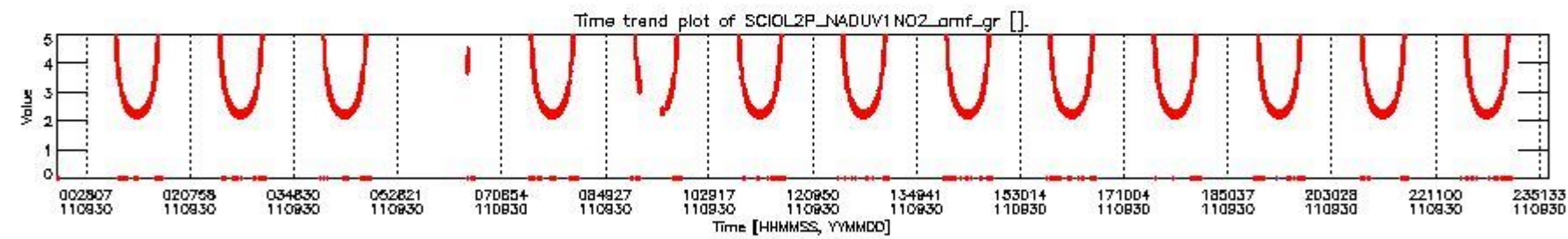
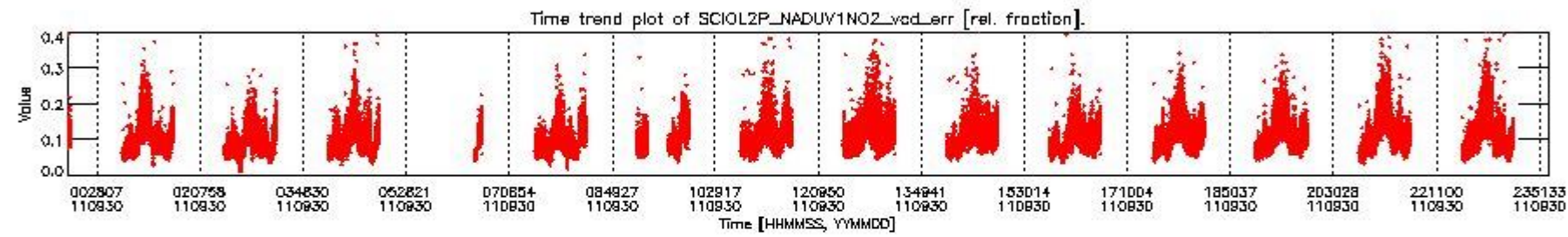
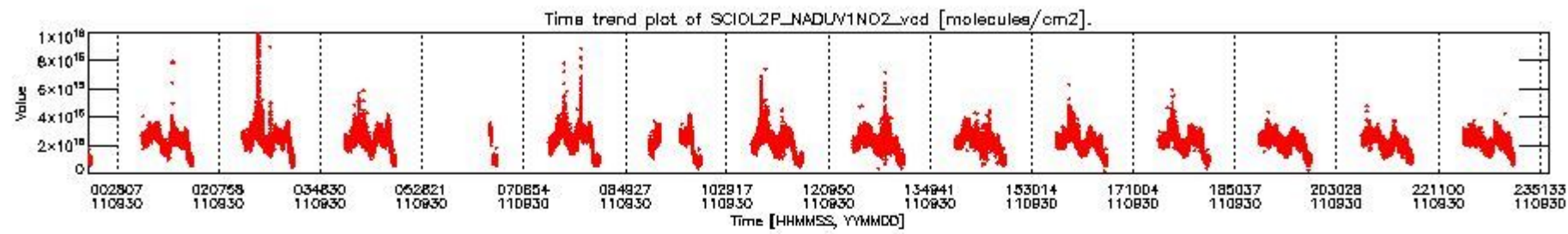


SCIOL2P\_NADUV003\_amf\_cl for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



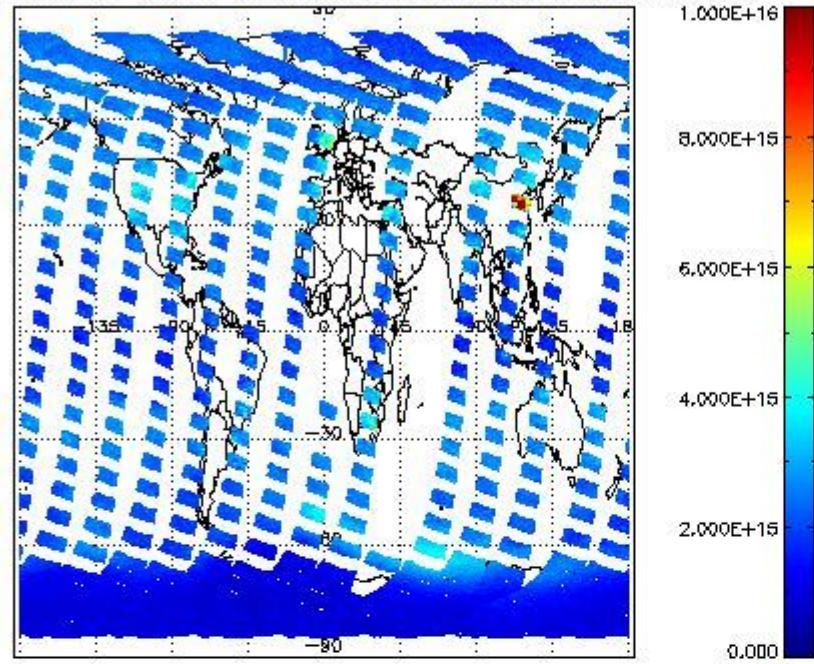
2.2.2.2 NO2 (UV1)



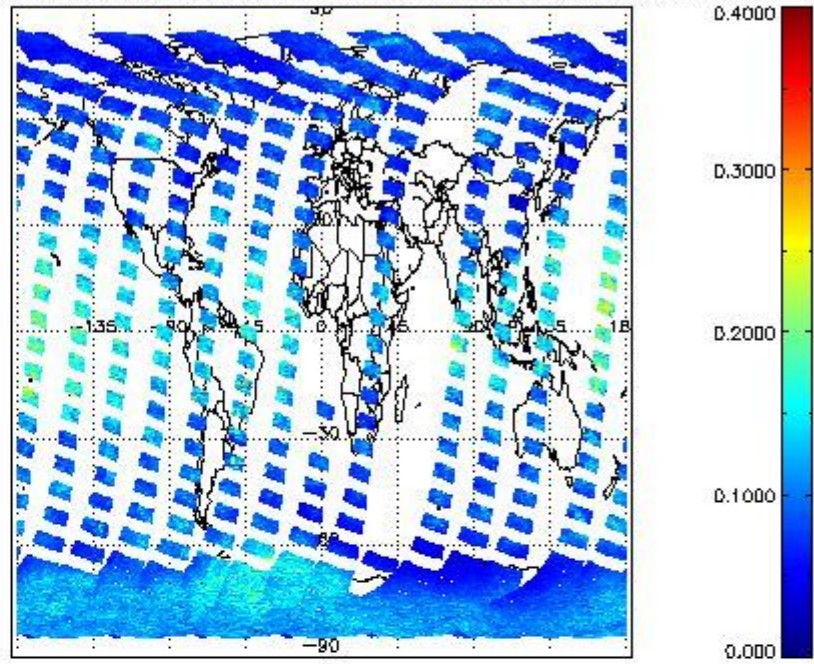




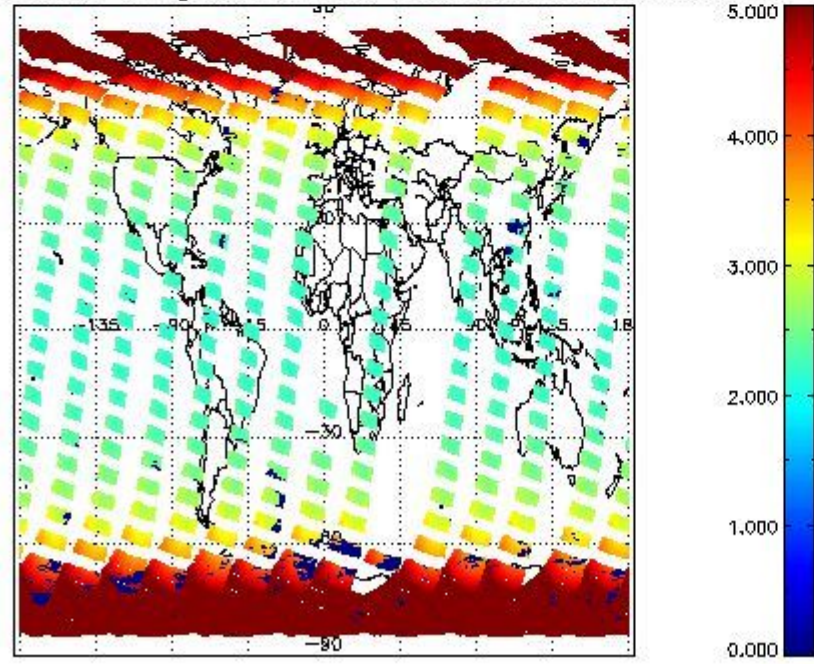
SCIOL2P\_NADUV1NO2\_vcd for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



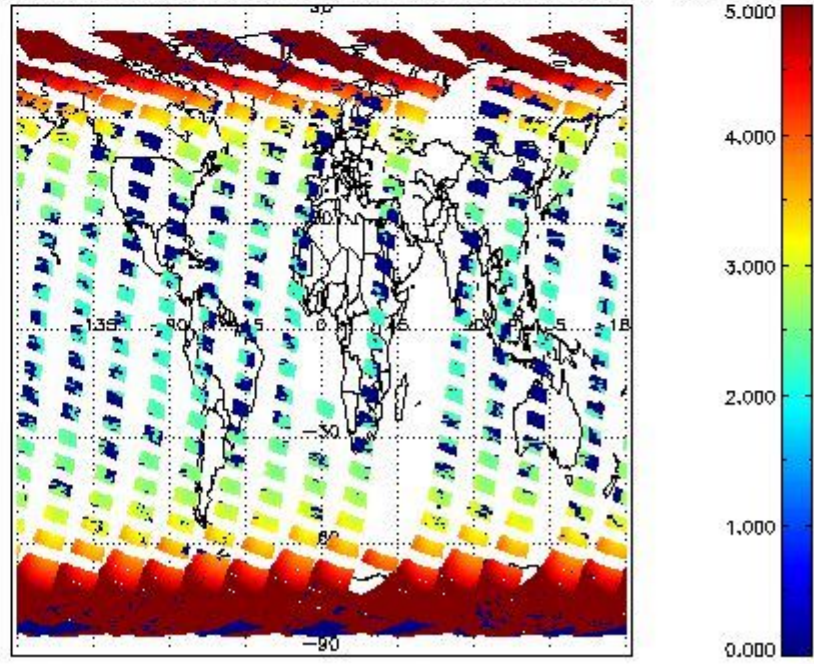
SCIOL2P\_NADUV1NO2\_vcd\_err for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 30SEP2011 00:00:00 to 01OCT2011 00:00:00

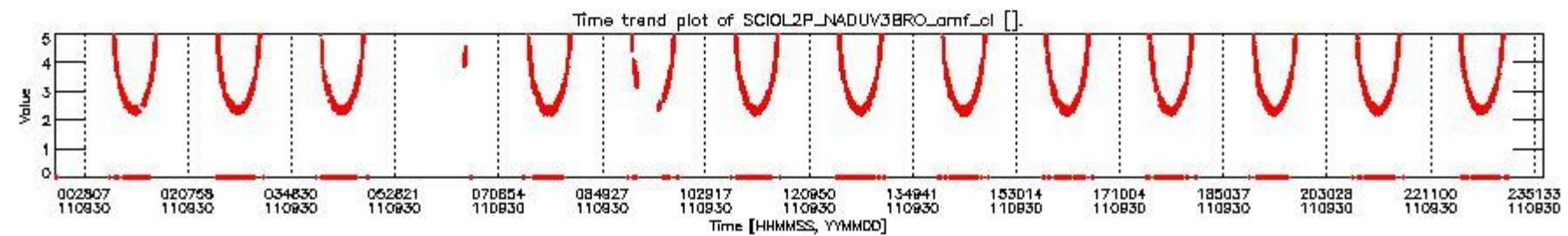
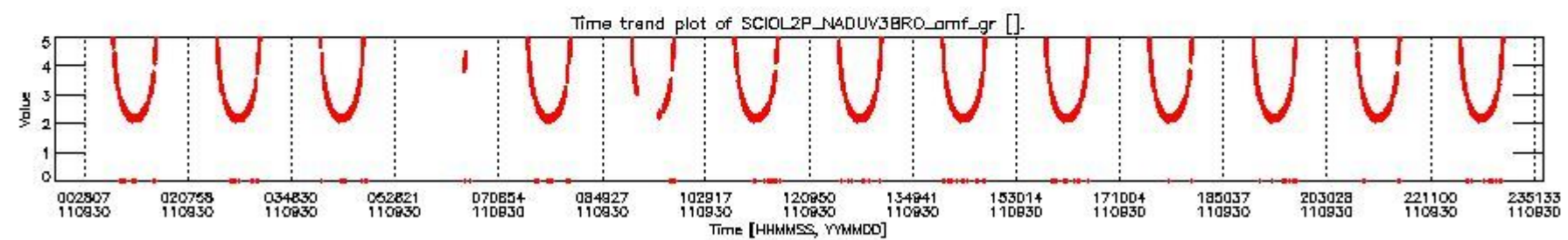
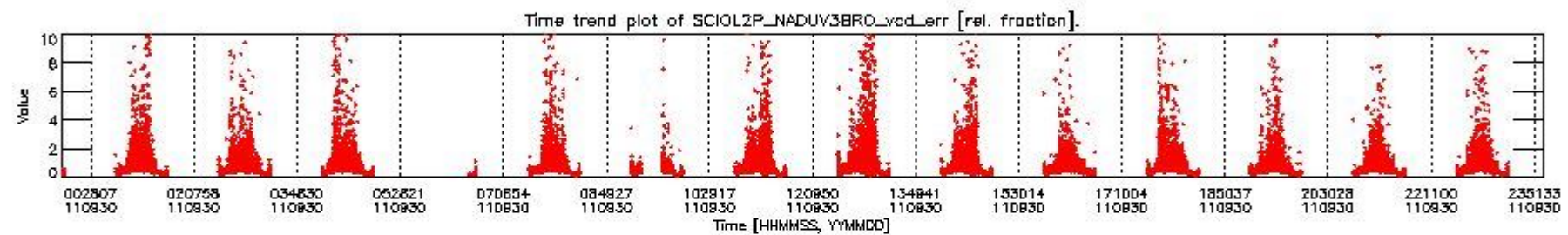
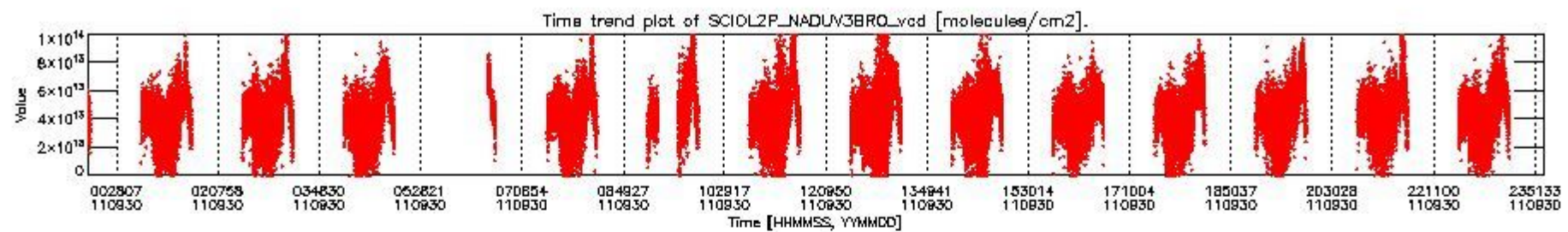


SCIOL2P\_NADUV1NO2\_amf\_cl for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



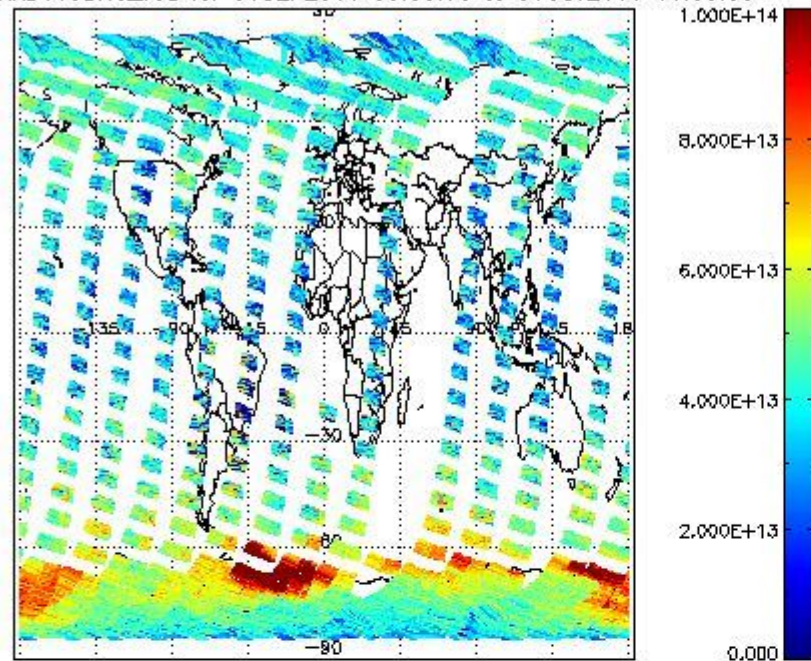
2.2.2.3 BrO (UV3)



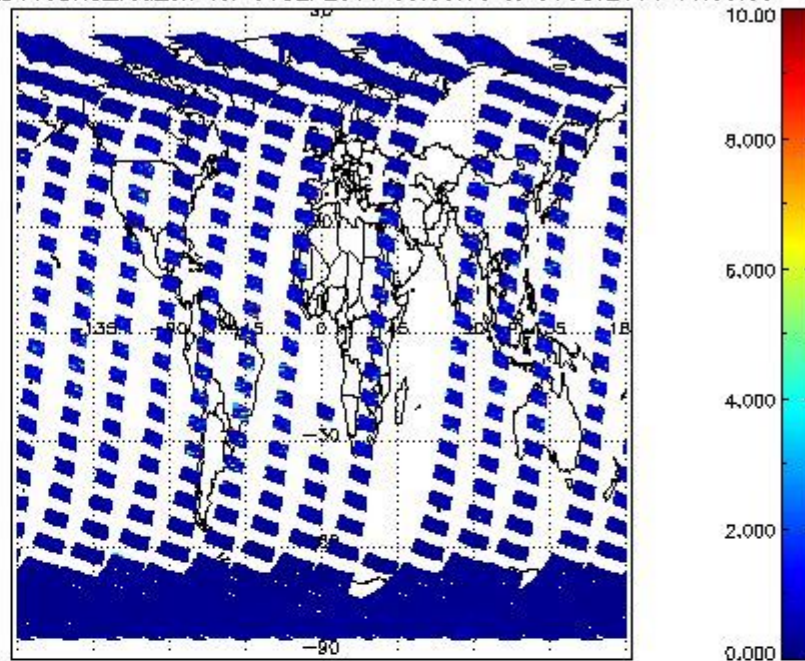




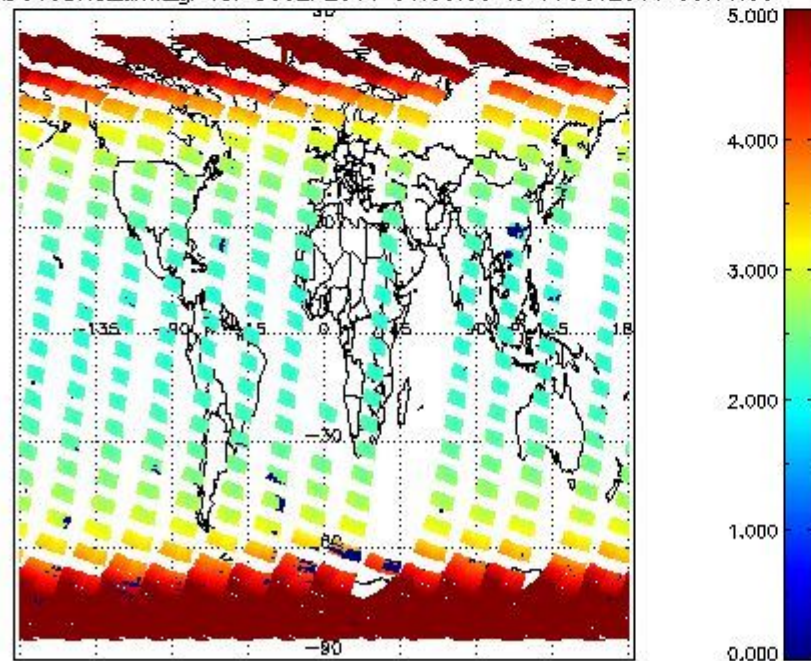
SCIOL2P\_NADUV3BRO\_vcd for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



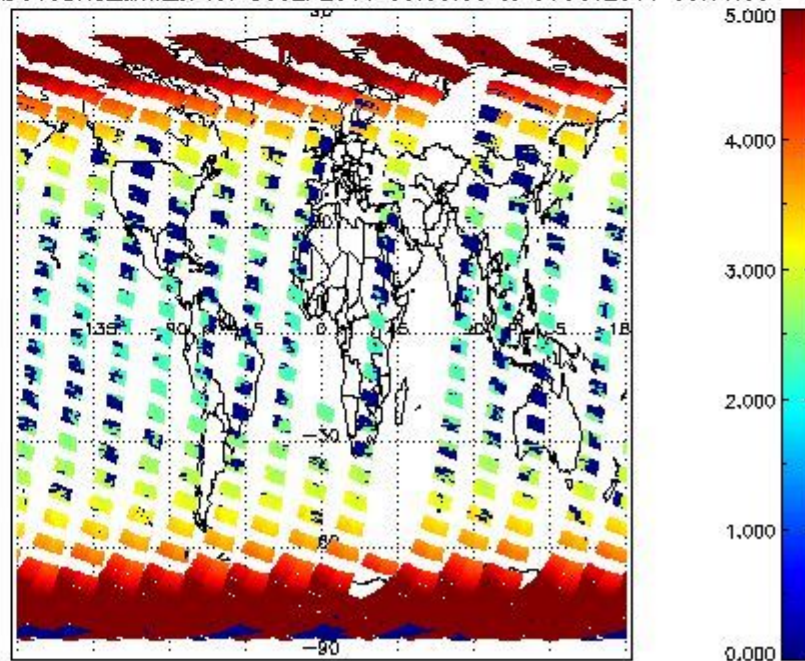
SCIOL2P\_NADUV3BRO\_vcd\_err for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



SCIOL2P\_NADUV3BRO\_amf\_gr for 30SEP2011 00:00:00 to 01OCT2011 00:00:00

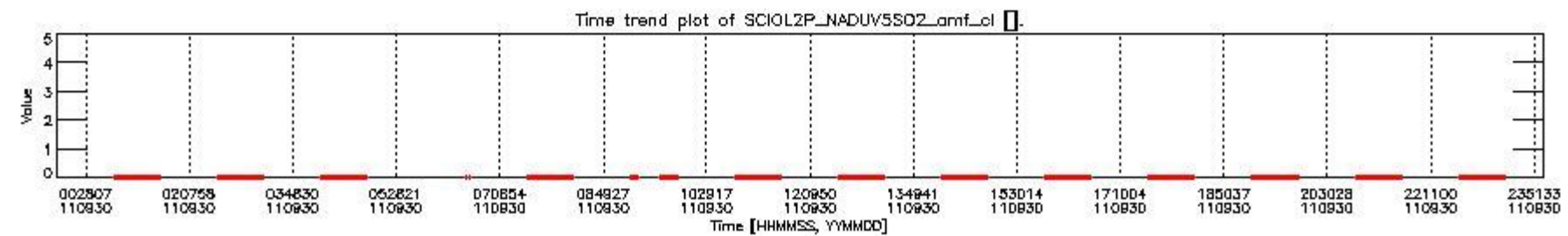
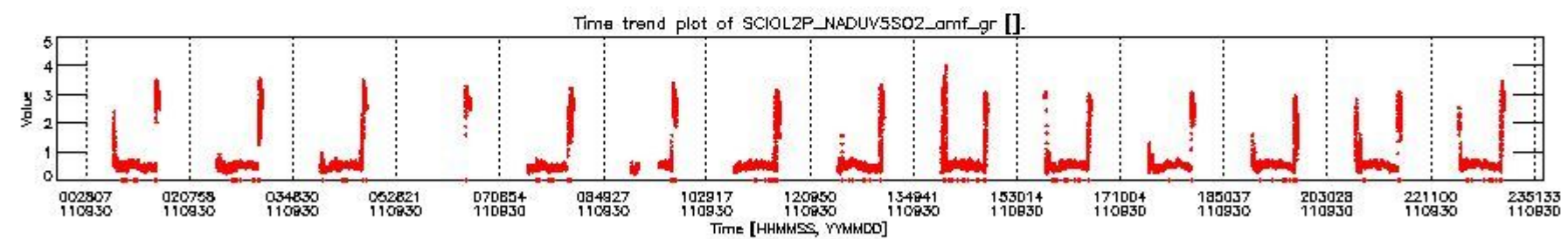
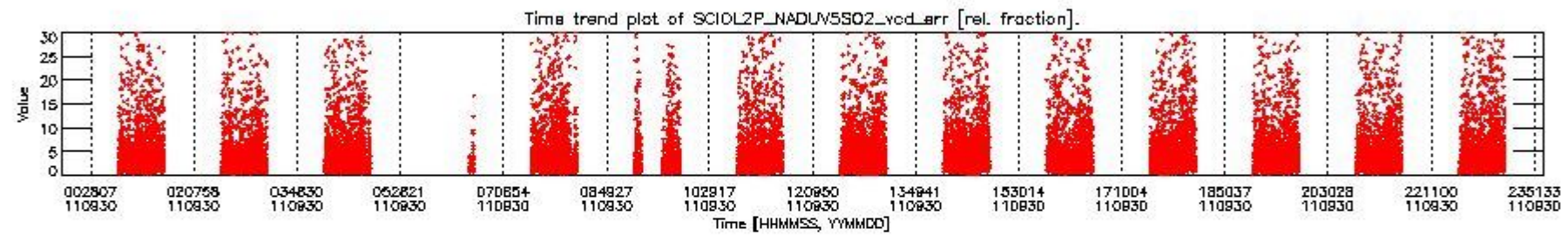
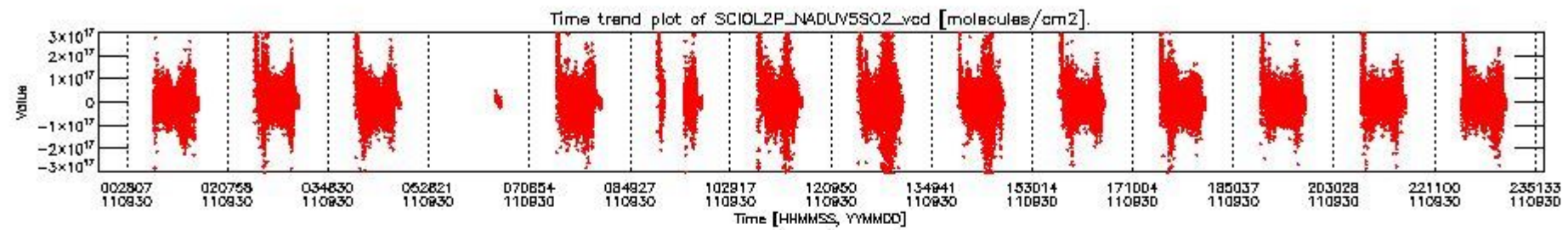


SCIOL2P\_NADUV3BRO\_amf\_cl for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



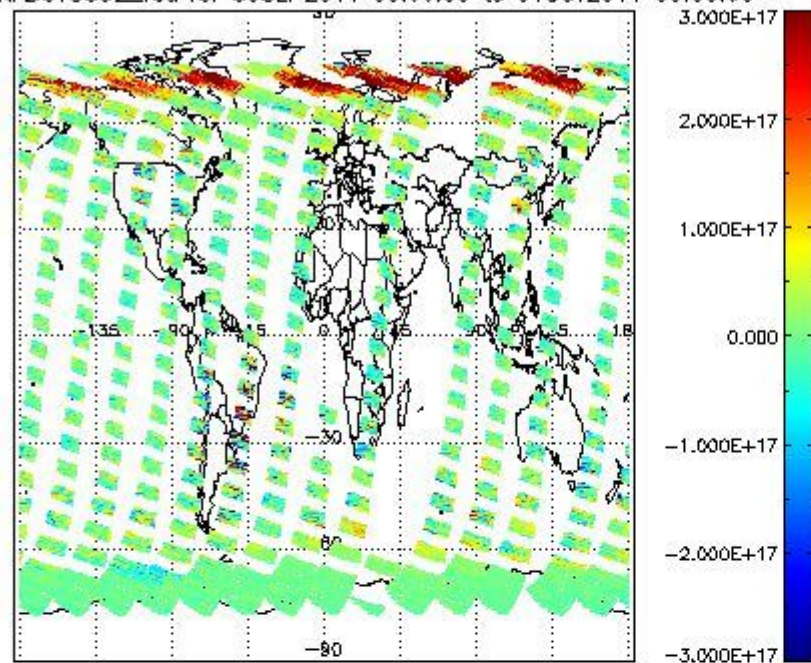
2.2.2.4 SO2 (UV5)



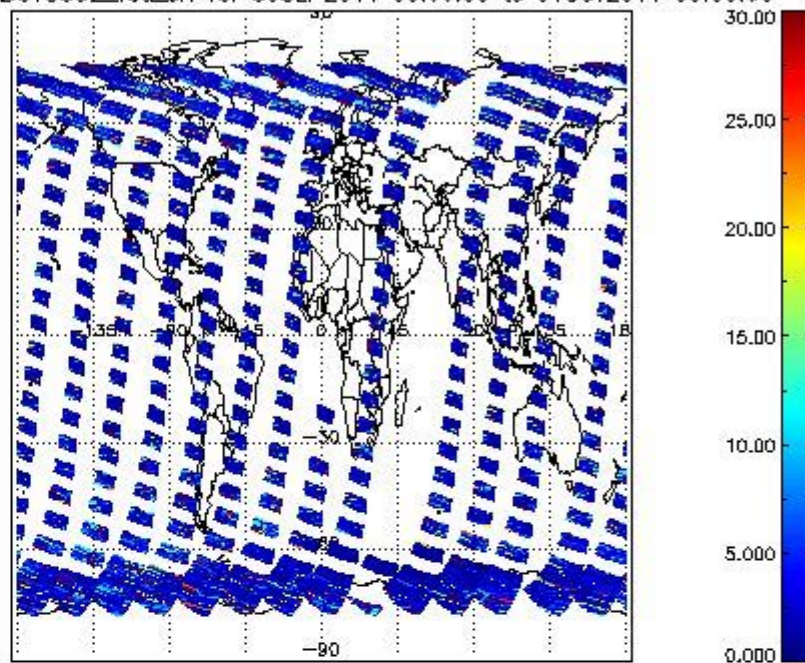




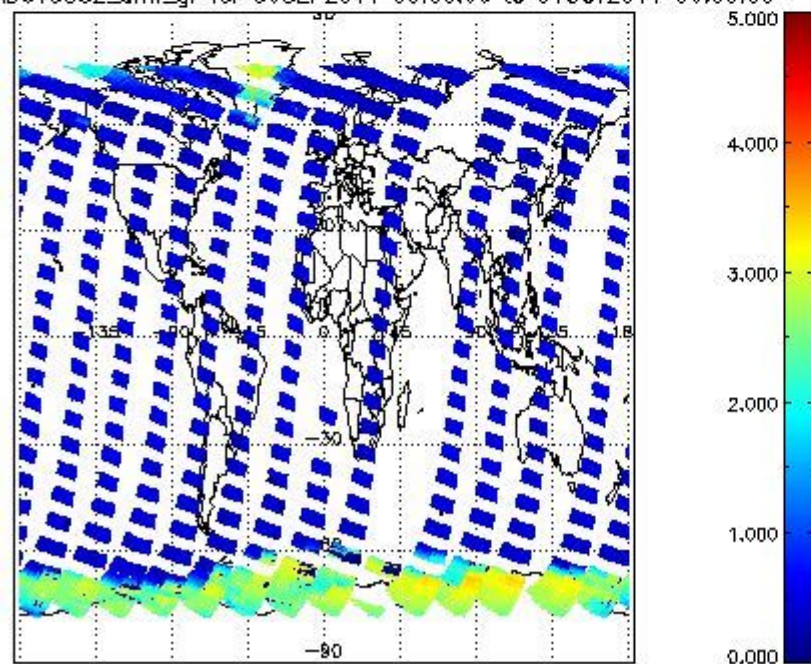
SCIOL2P\_NADUV5S02\_vcd for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



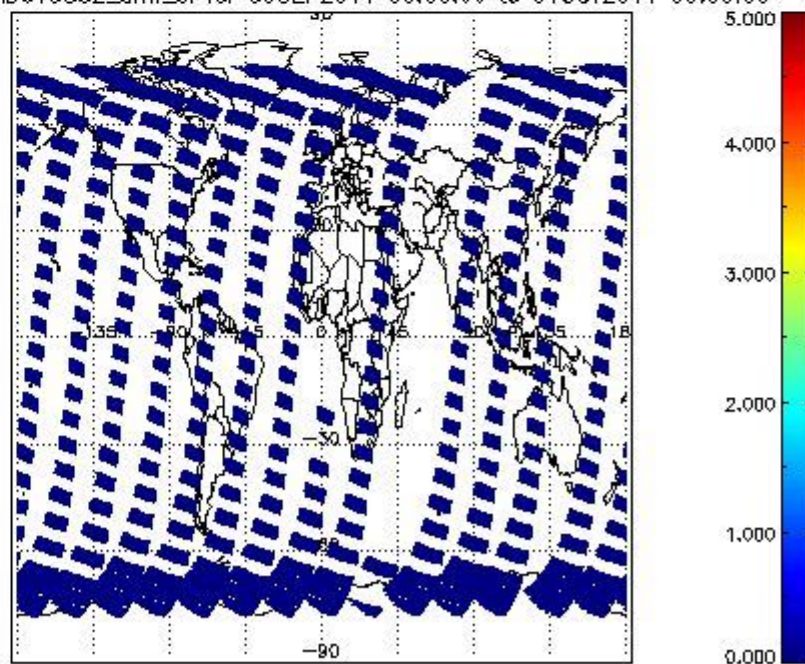
SCIOL2P\_NADUV5S02\_vcd\_err for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



SCIOL2P\_NADUV5S02\_amf\_gr for 30SEP2011 00:00:00 to 01OCT2011 00:00:00

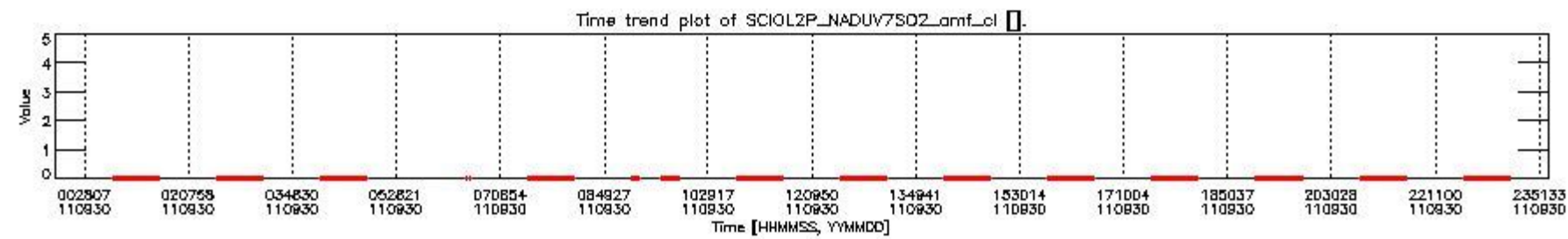
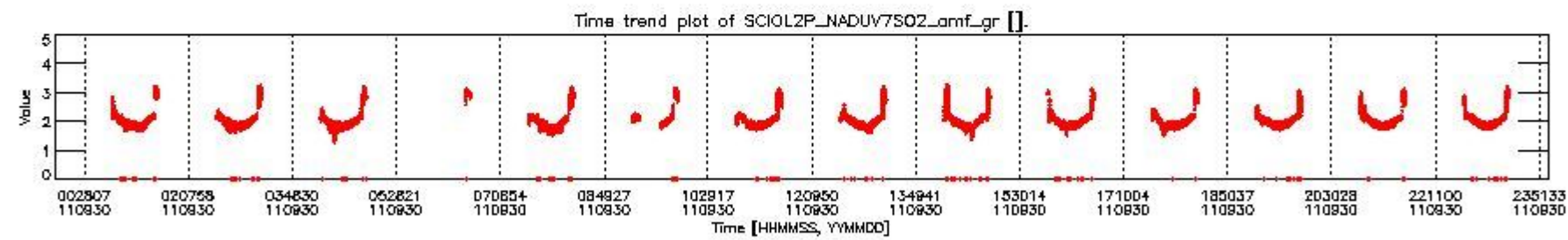
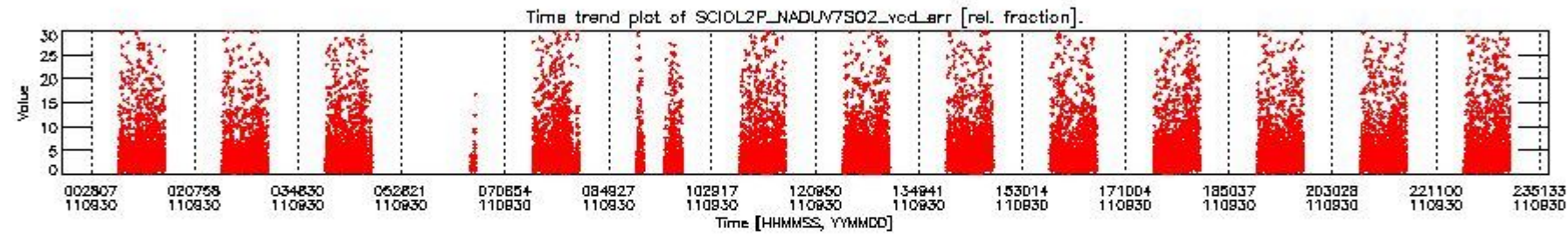
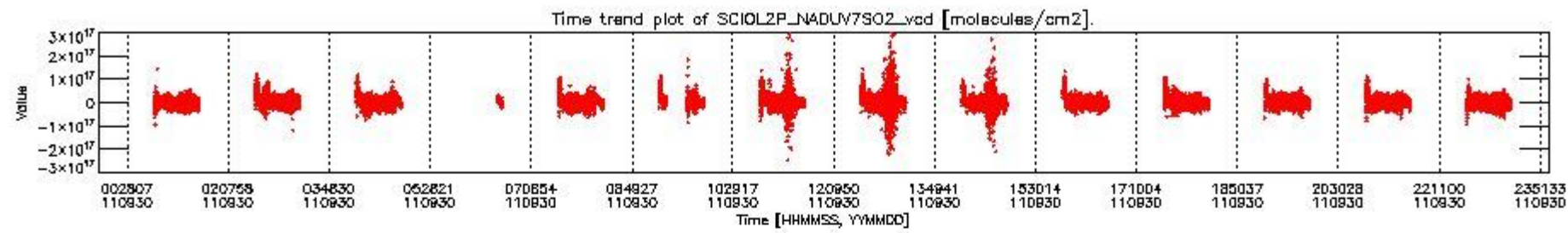


SCIOL2P\_NADUV5S02\_amf\_cl for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



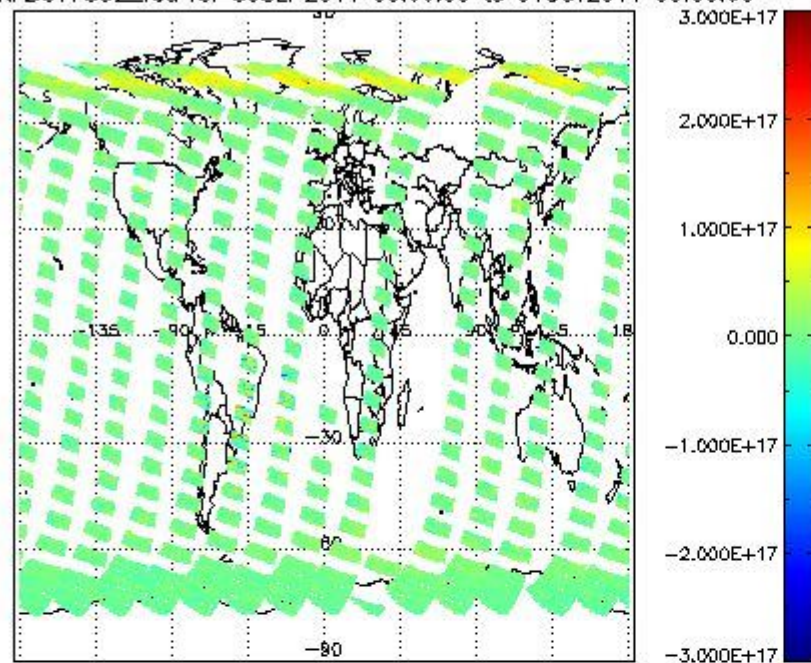
2.2.2.5 SO2 (UV7)



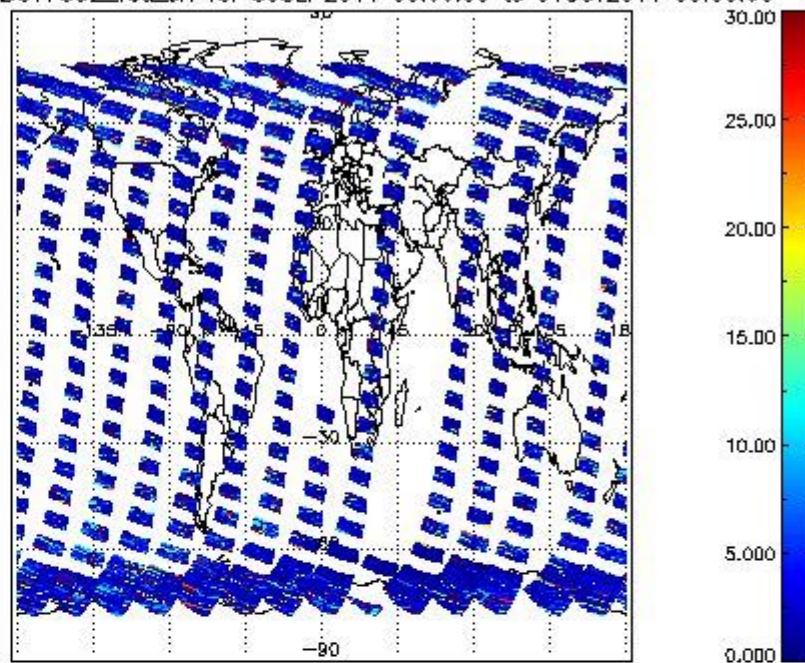




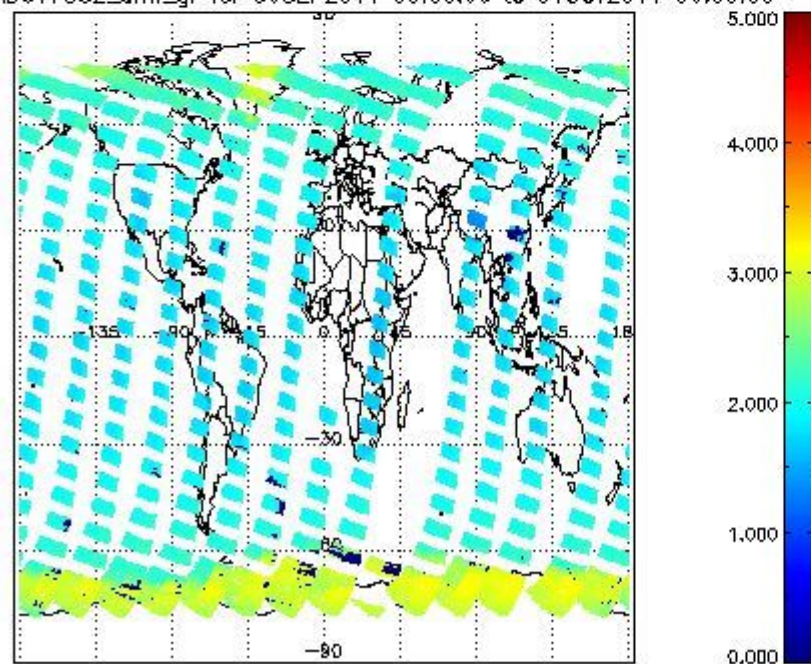
SCIOL2P\_NADUV7S02\_vcd for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



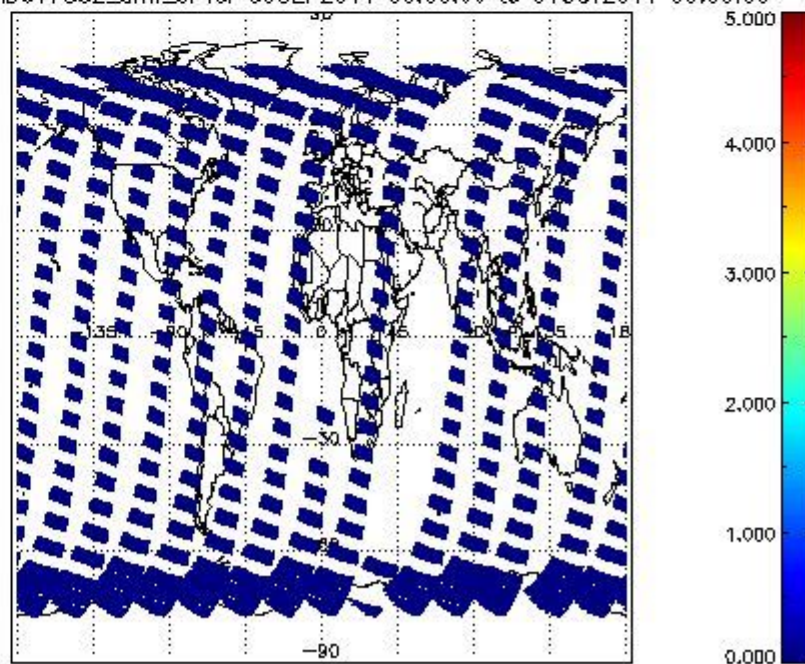
SCIOL2P\_NADUV7S02\_vcd\_err for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



SCIOL2P\_NADUV7S02\_amf\_gr for 30SEP2011 00:00:00 to 01OCT2011 00:00:00

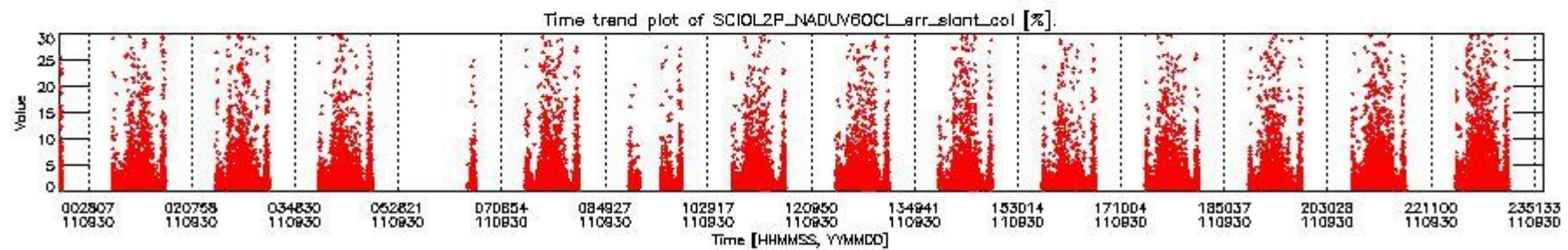
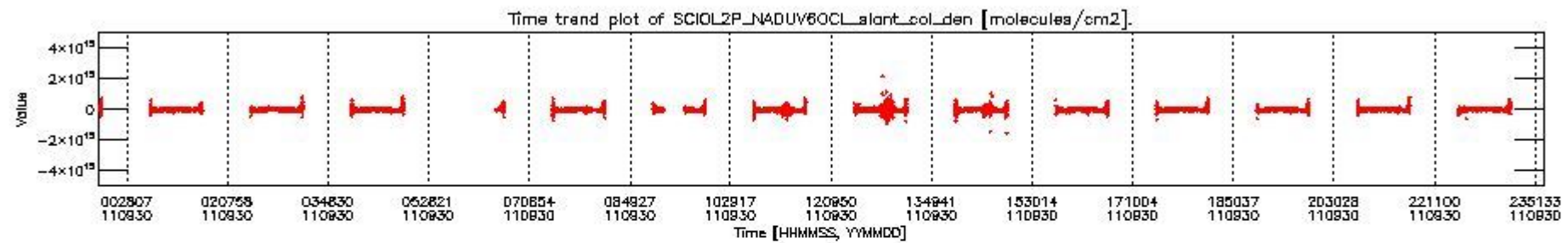


SCIOL2P\_NADUV7S02\_amf\_cl for 30SEP2011 00:00:00 to 01OCT2011 00:00:00

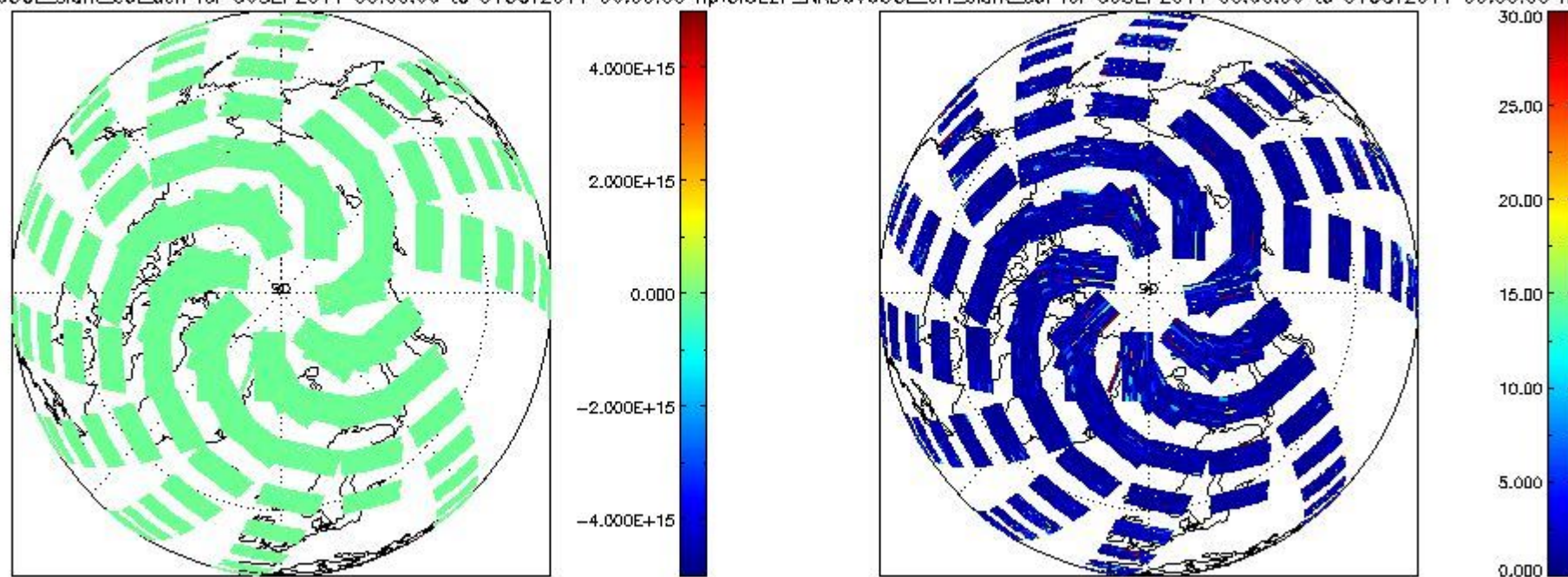


2.2.2.6 OCIO (UV6)



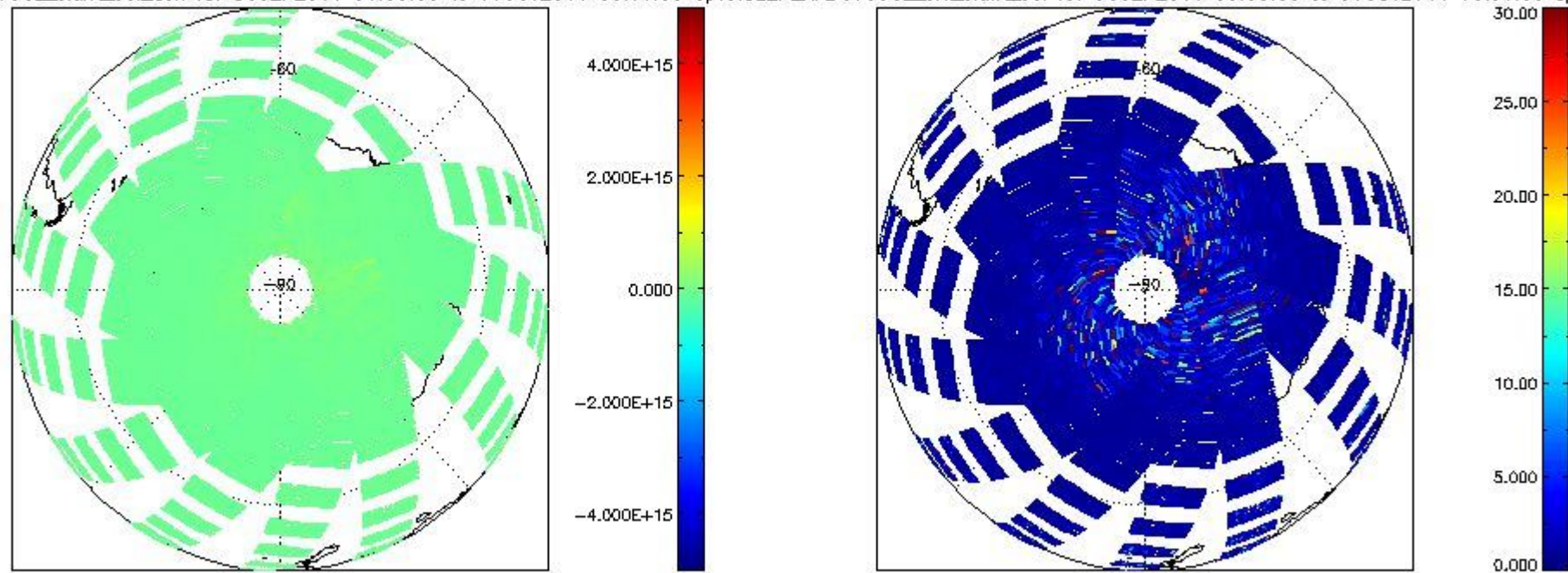


CIOL2P\_NADUV60CLslant\_colDen for 30SEP2011 00:00:00 to 01OCT2011 00:00:00 np; CIOL2P\_NADUV60CLerr\_slant\_col for 30SEP2011 00:00:00 to 01OCT2011 00:00:00 np

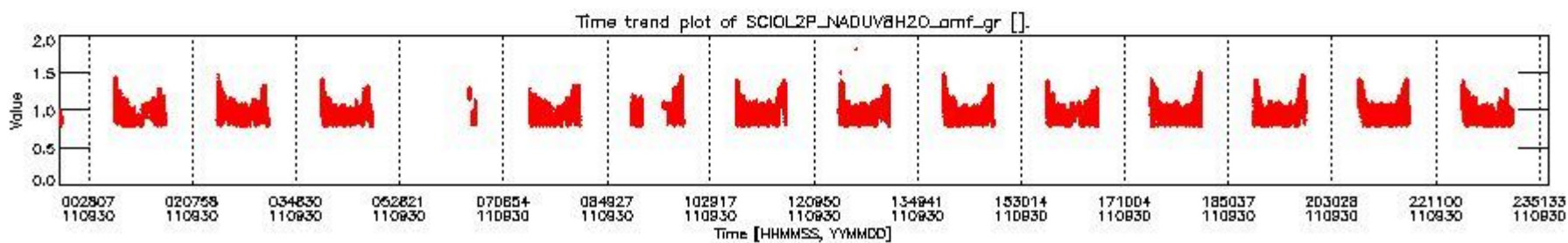
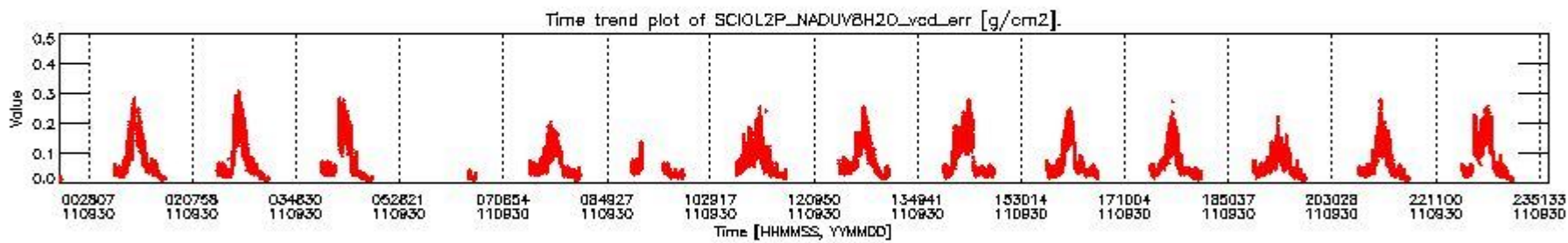
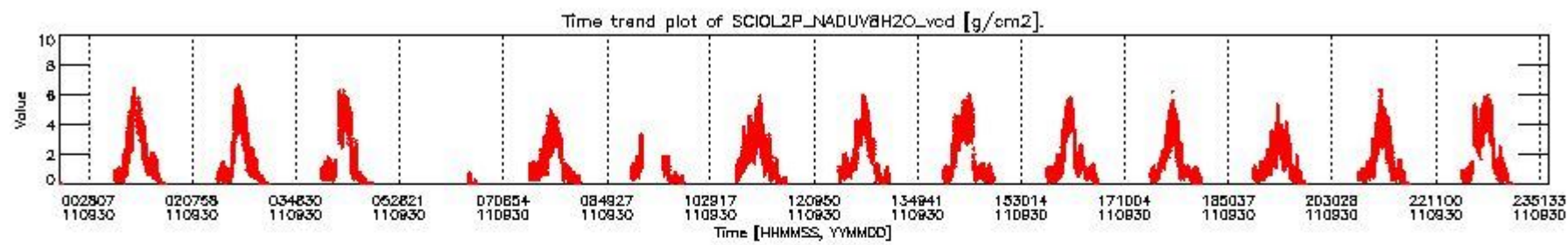




CIOL2P\_NADUV6OCL\_slant\_col\_den for 30SEP2011 00:00:00 to 01OCT2011 00:00:00 sp; CIOL2P\_NADUV6OCL\_err\_slant\_col for 30SEP2011 00:00:00 to 01OCT2011 00:00:00 sp

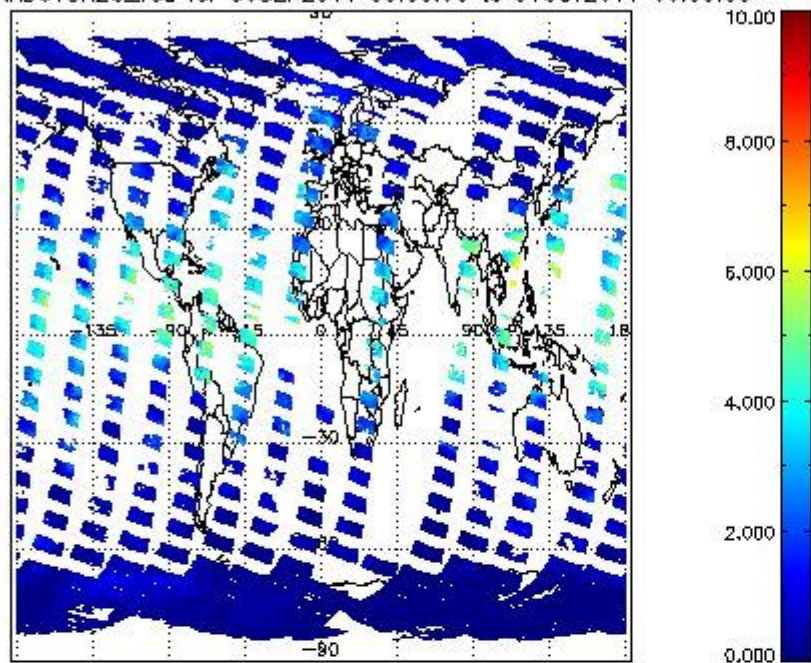


### 2.2.2.7 H2O (UV8)

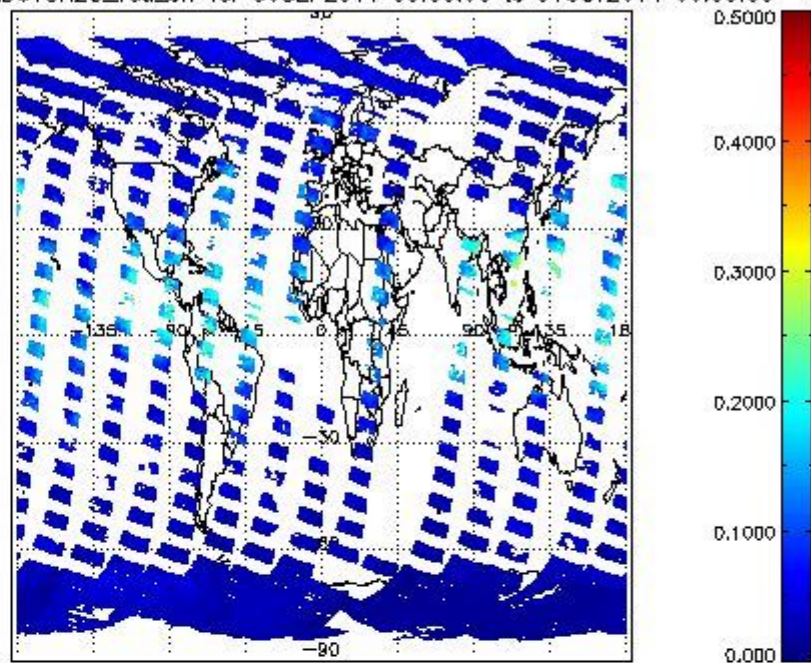




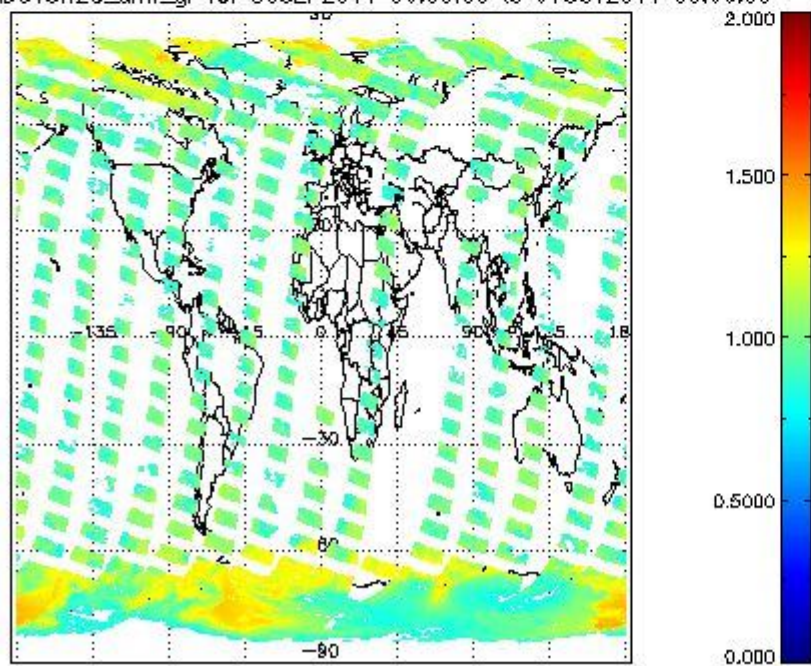
SCIOL2P\_NADUV8H2O\_vcd for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



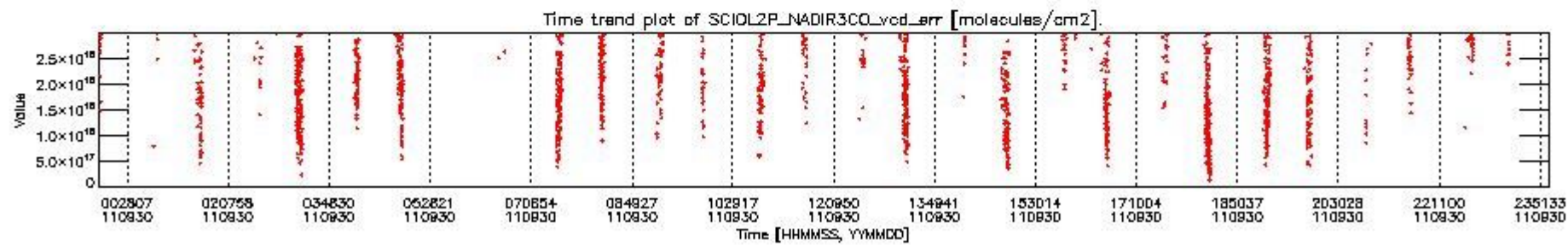
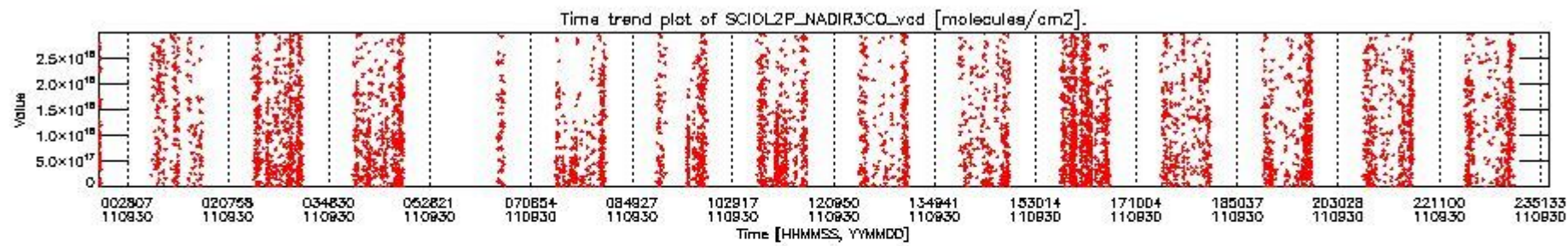
SCIOL2P\_NADUV8H2O\_vcd\_err for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



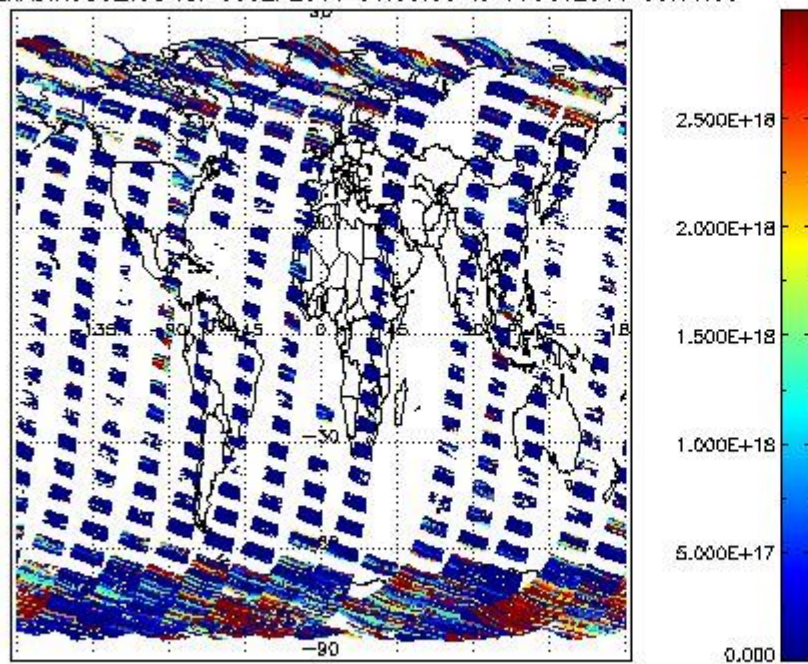
SCIOL2P\_NADUV8H2O\_amf\_gr for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



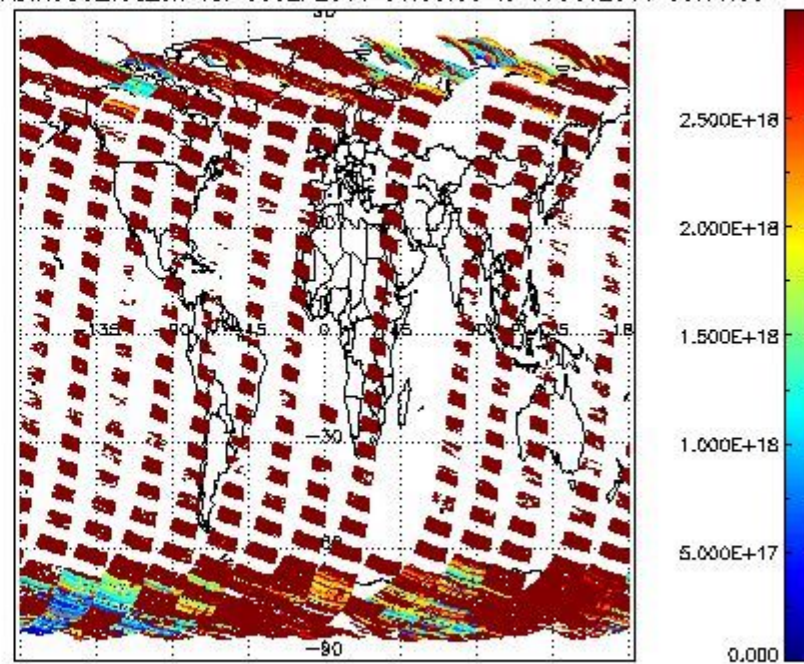




SCIDL2P\_NADIR3CO\_vcd for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



SCIDL2P\_NADIR3CO\_vcd\_err for 30SEP2011 00:00:00 to 01OCT2011 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.

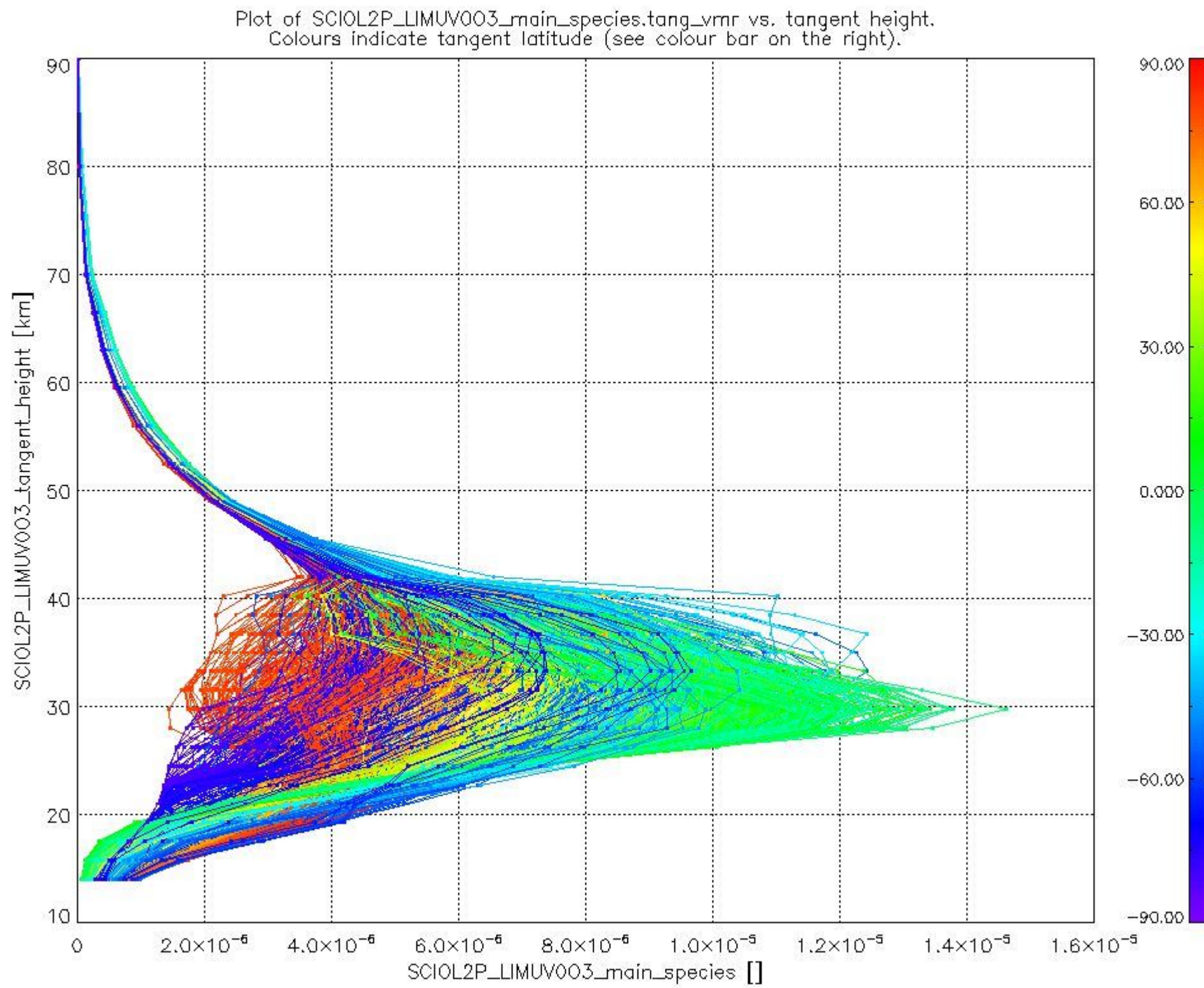
The following data items are currently included into this section:

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.

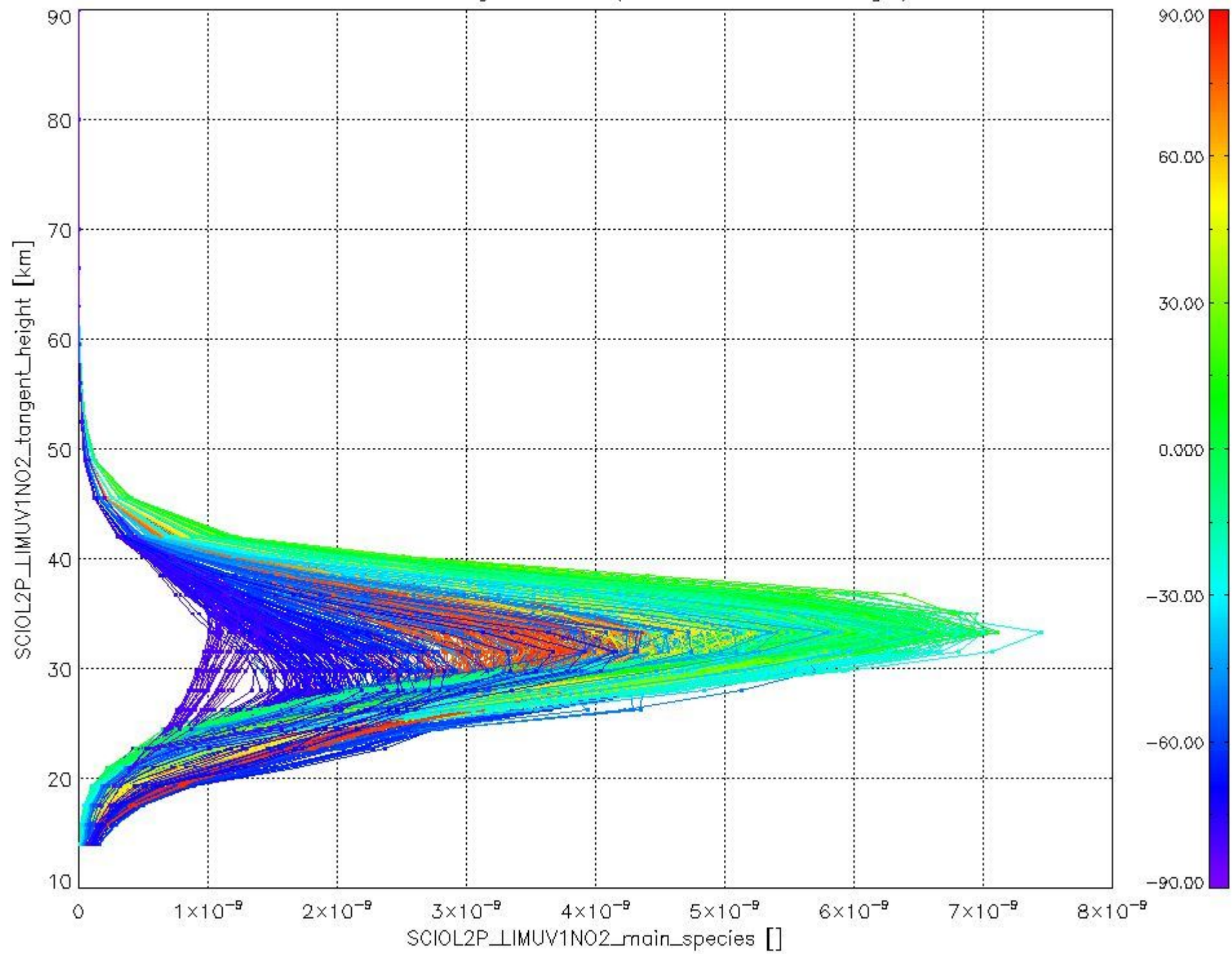
### 2.2.3.1 O3 (UV0)



### 2.2.3.2 NO2 (UV1)



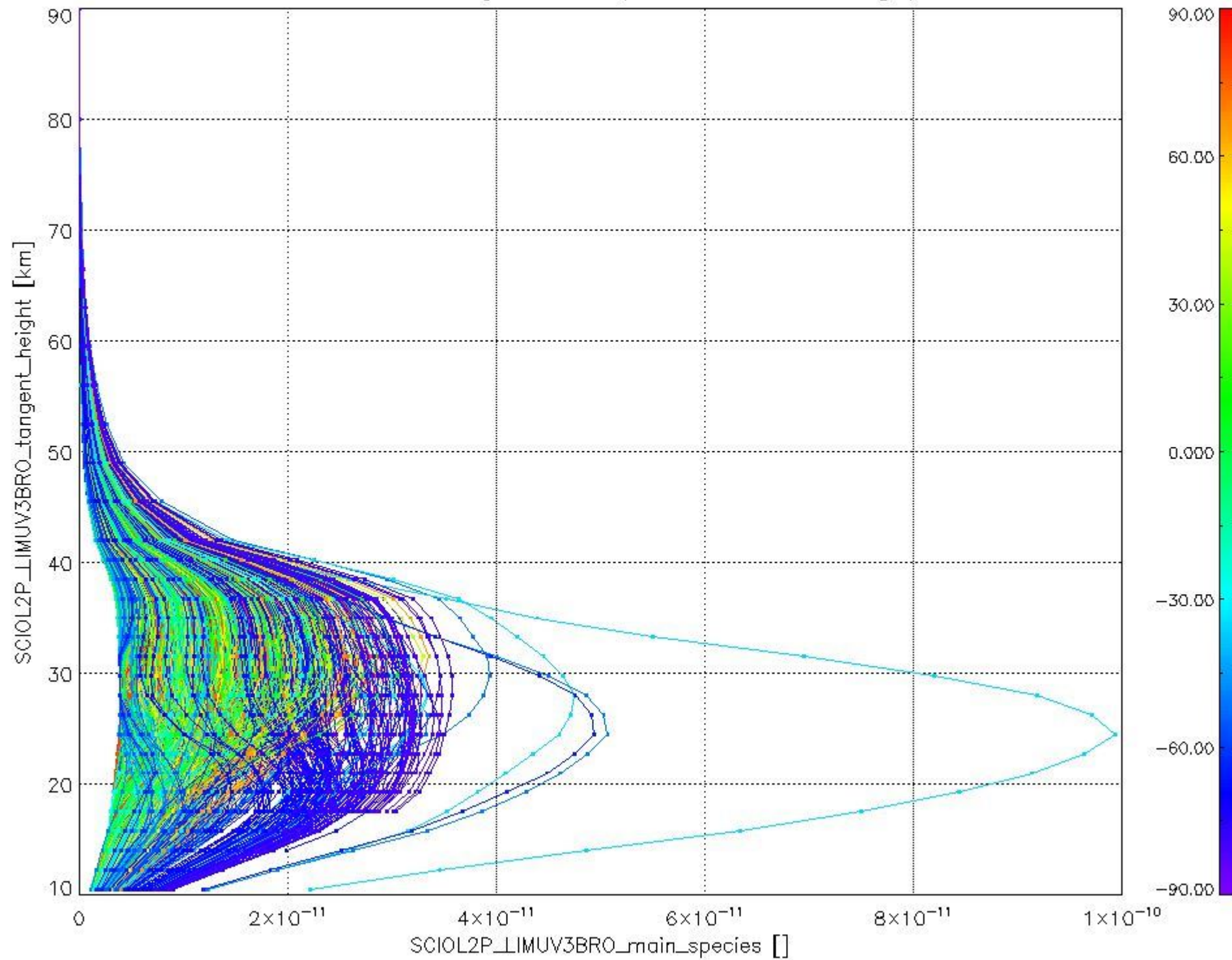
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



### 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

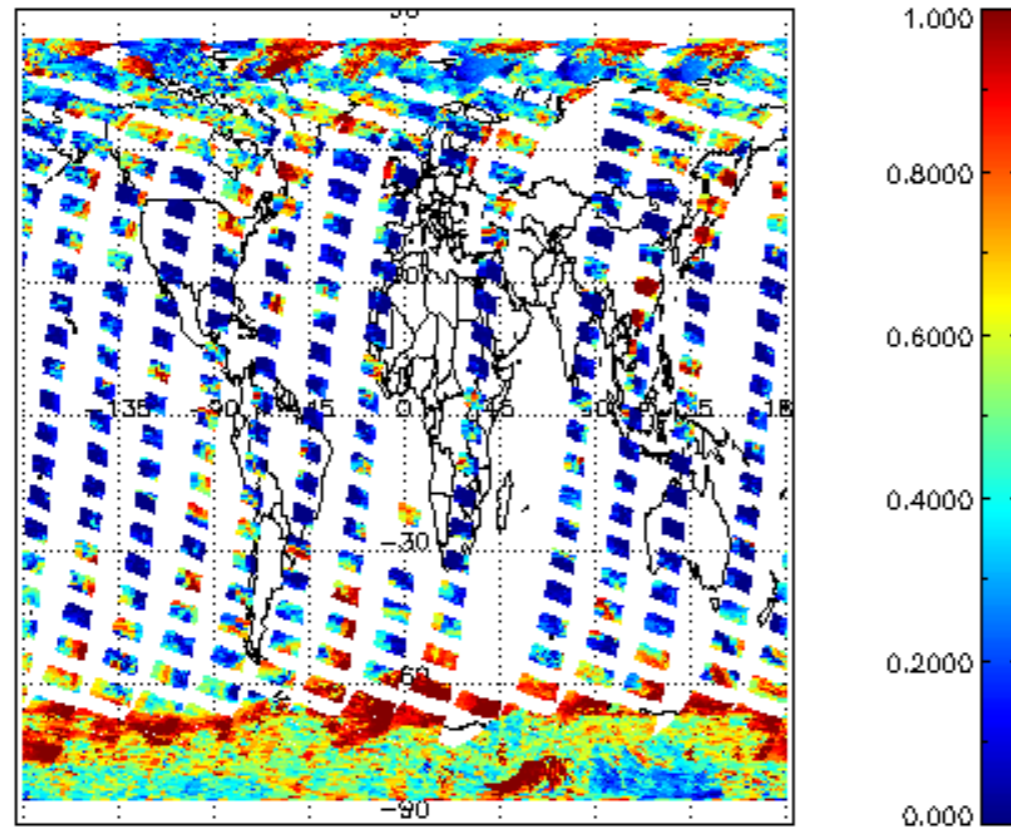
Number	ADF
	<b>IN_ (INITIALISATION_FILE)</b>
0	SCI_IN_AXNPDE20110201_120000_20020301_000000_20991231_235959
	<b>ECF (ECMWF_FILE)</b>
1	NOT USED
	<b>MF1 (M_FACTOR_FILE)</b>
2	SCI_MF1_AXVIEC20111004_131501_20110930_183354_20111002_183354
3	SCI_MF1_AXVIEC20111004_131502_20110929_191039_20111001_191039



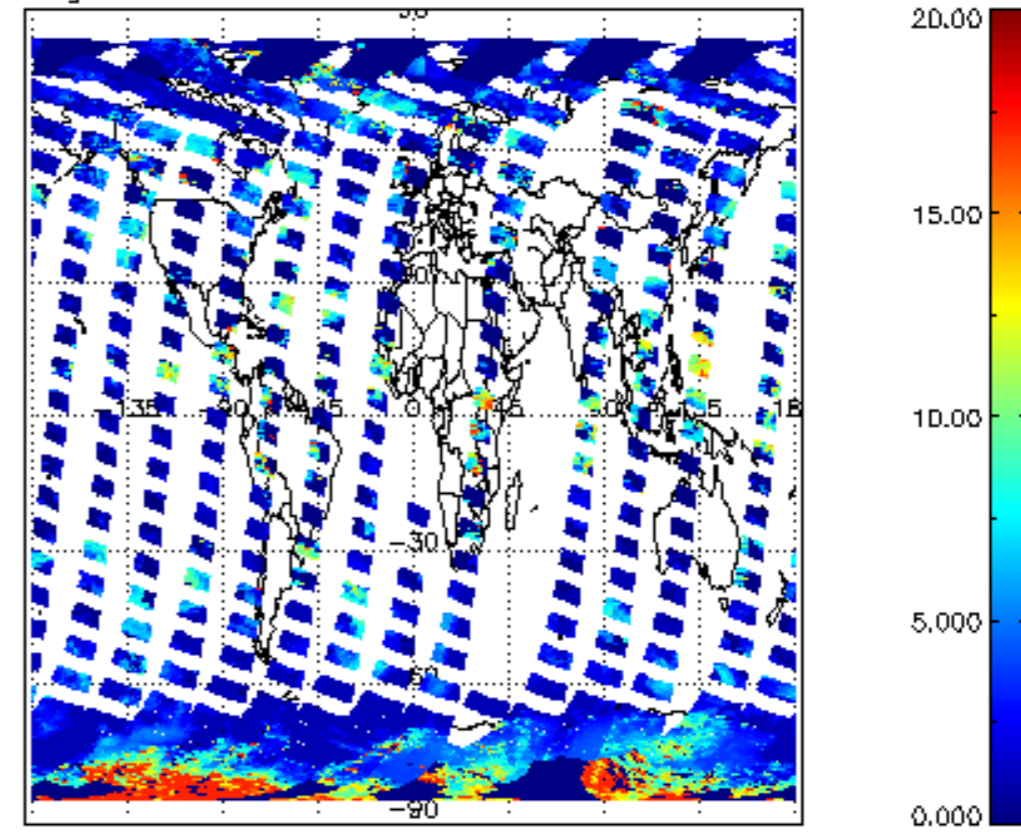




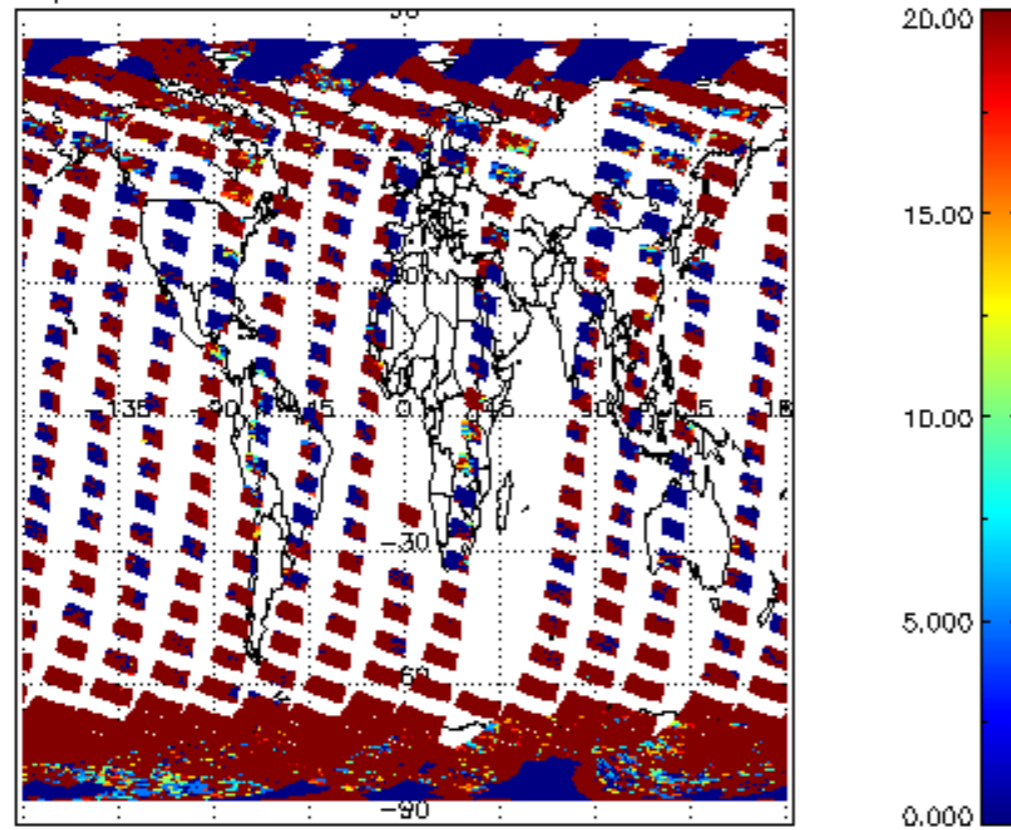
cLfrac for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



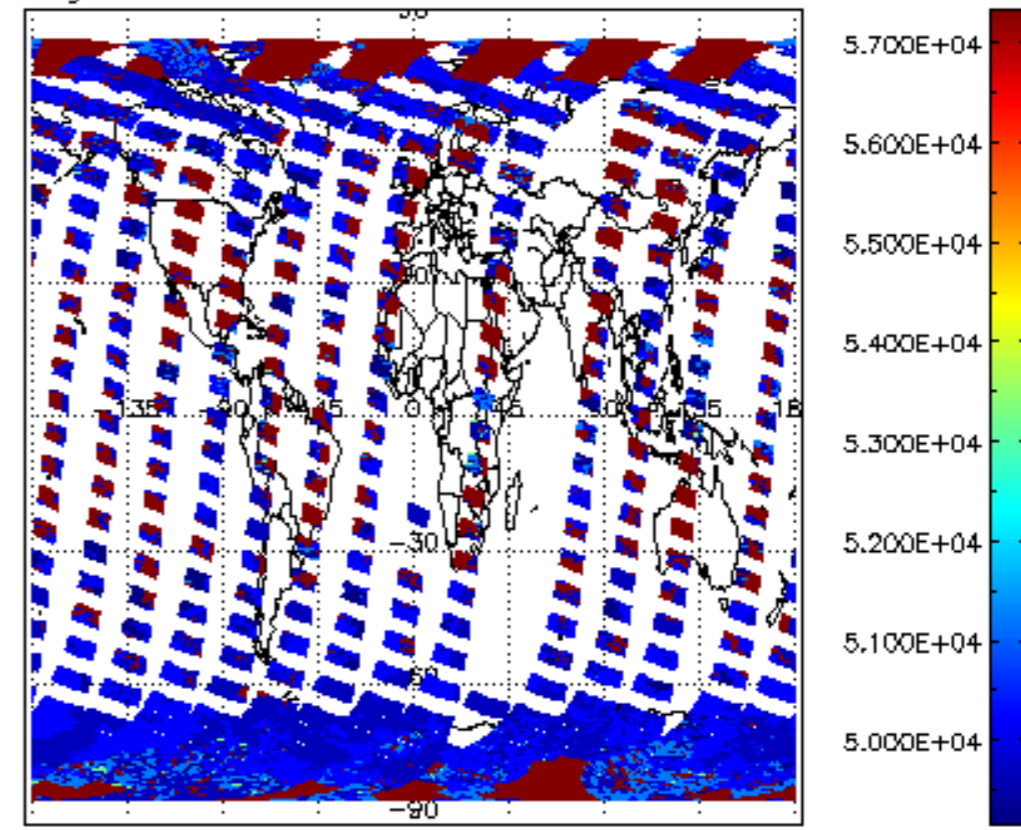
cl\_top\_height for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



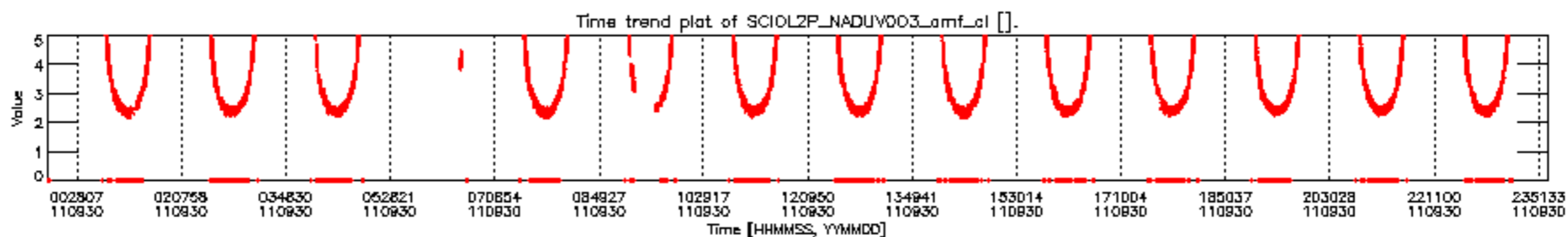
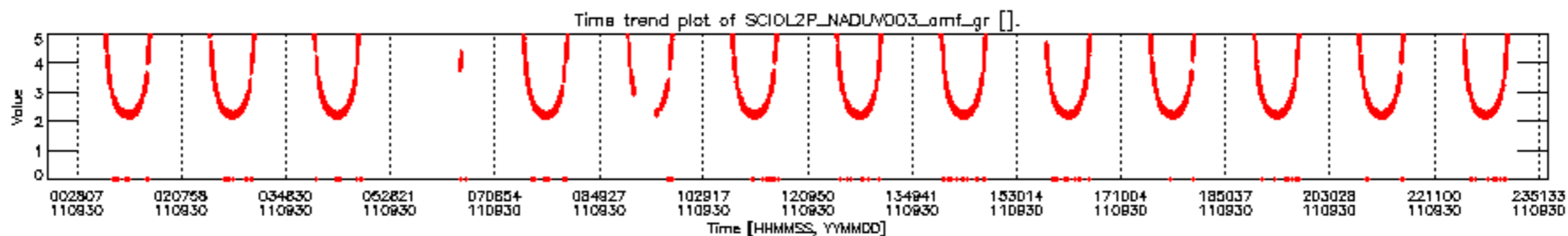
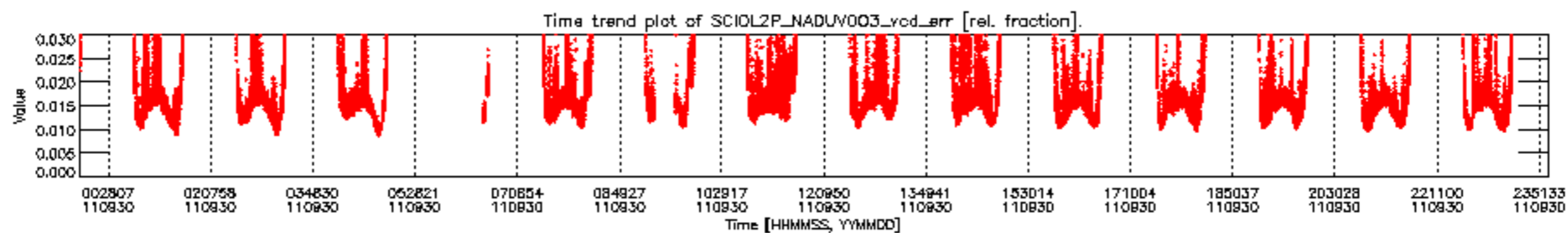
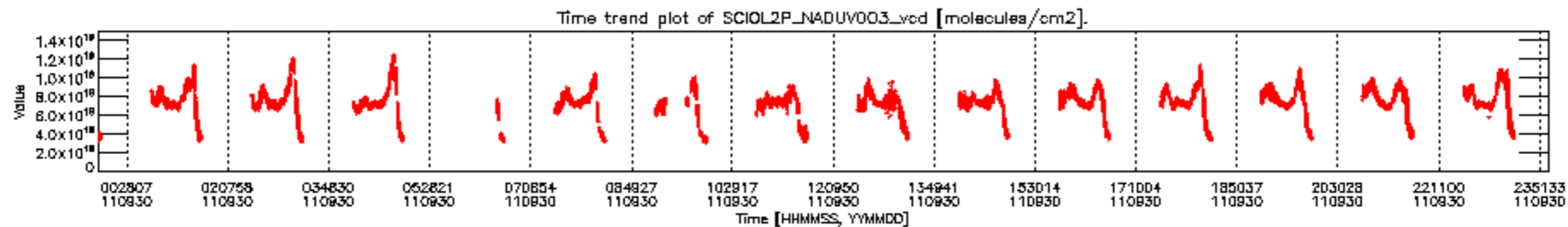
cl\_opt\_depth for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



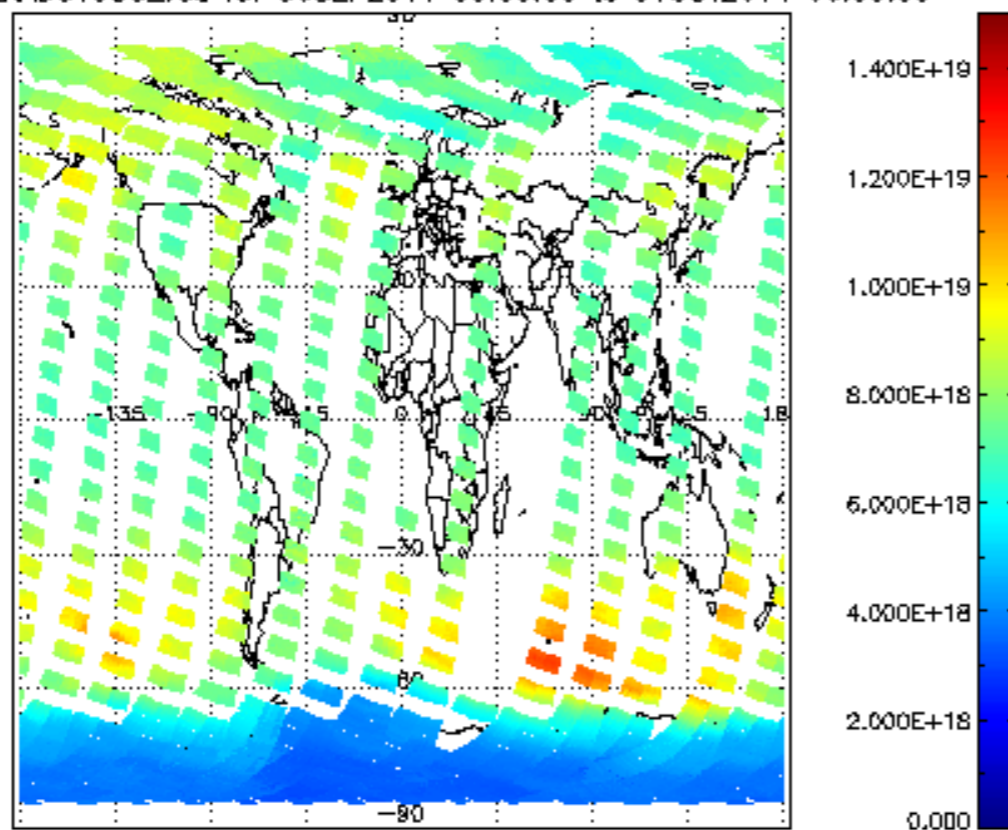
cloud\_flags for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



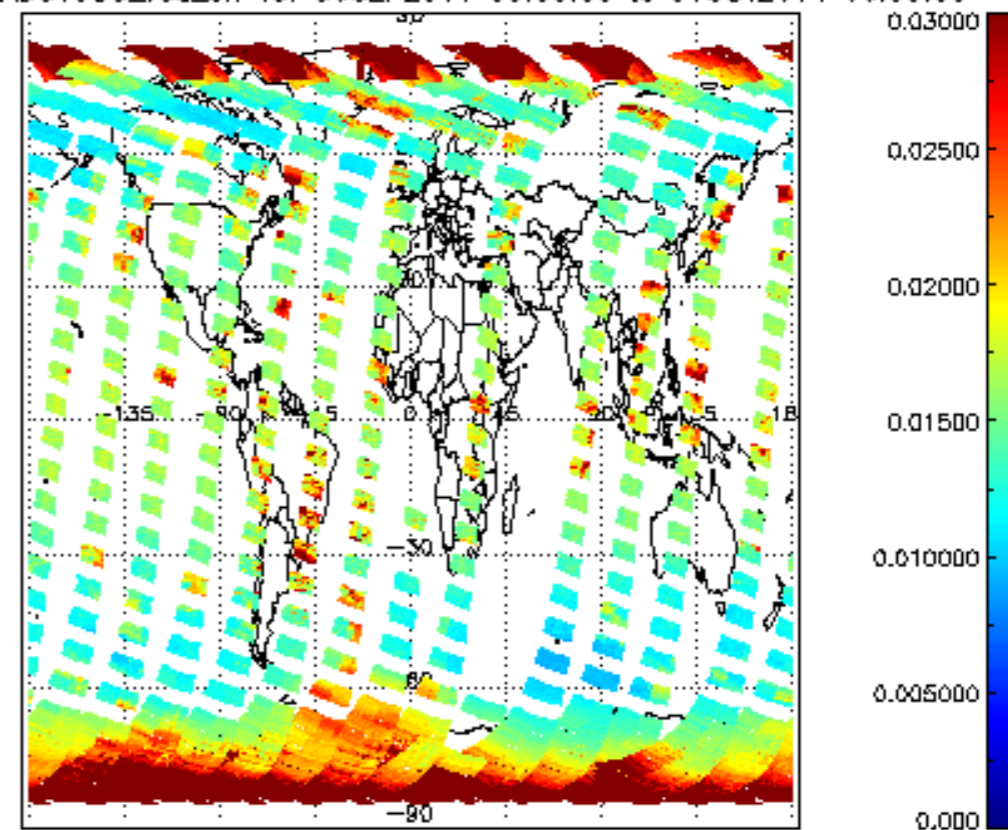




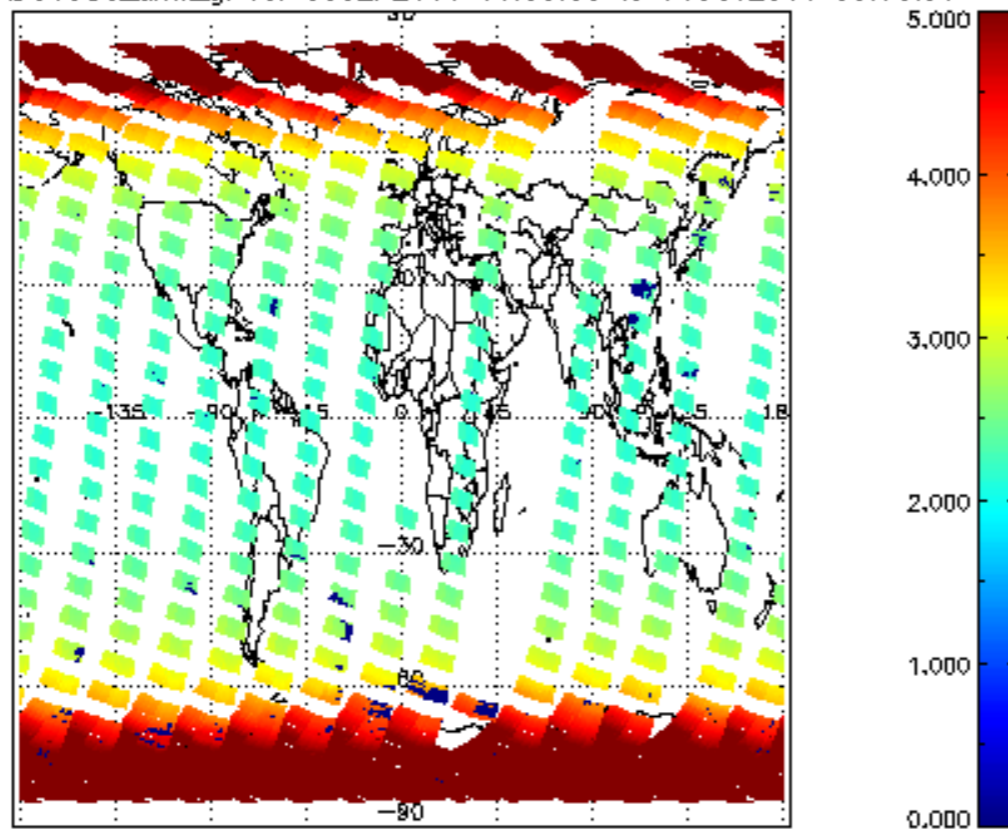
SCIOL2P\_NADUV003\_vcd for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



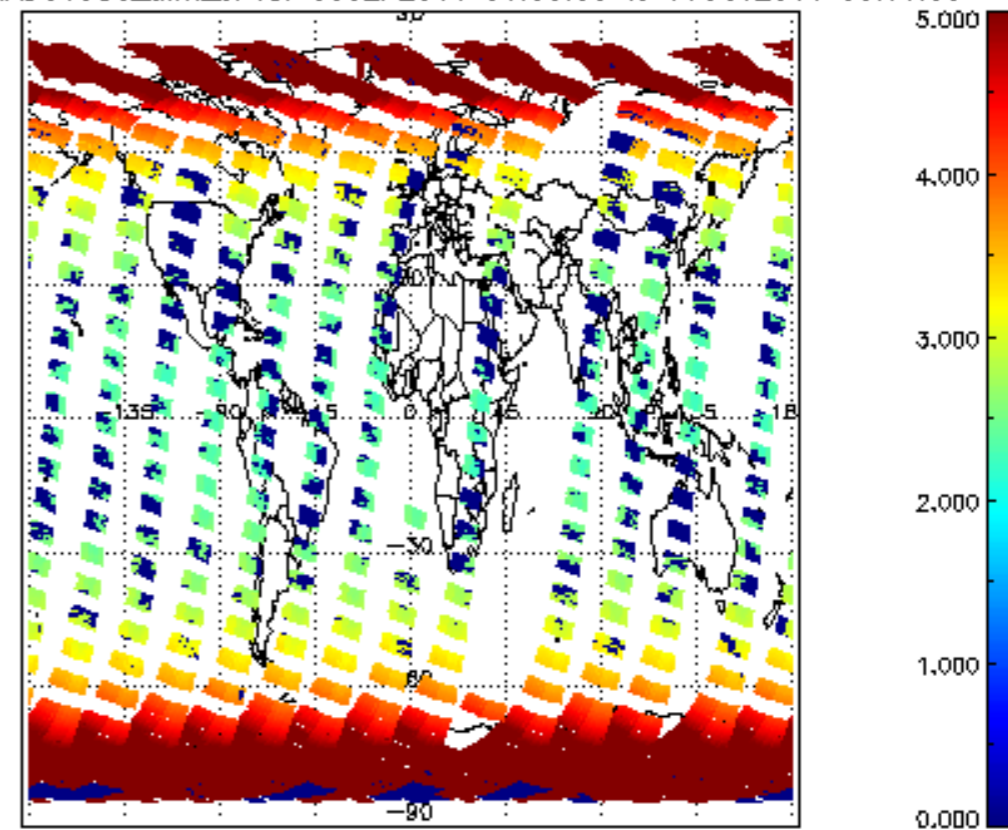
SCIOL2P\_NADUV003\_vcd\_err for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



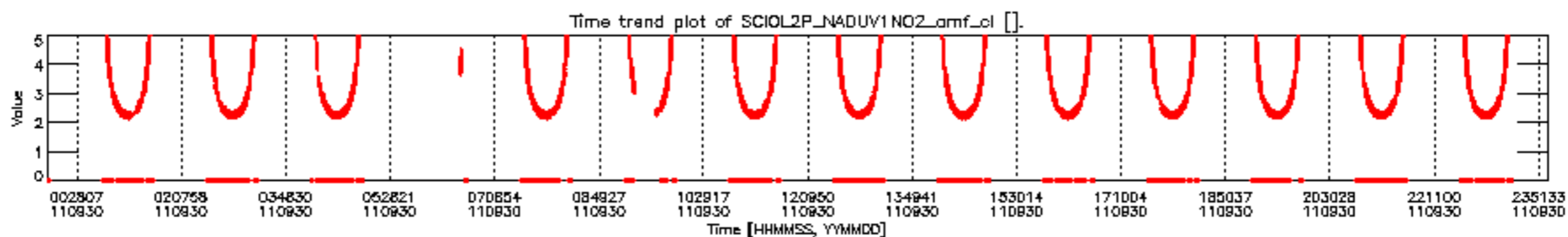
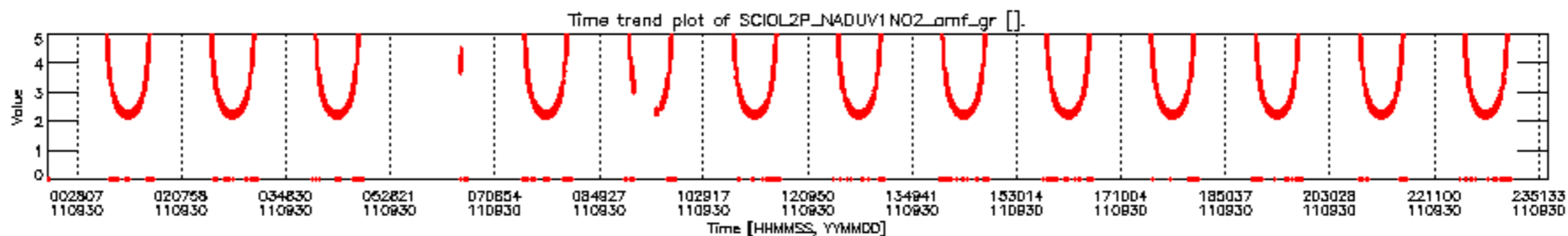
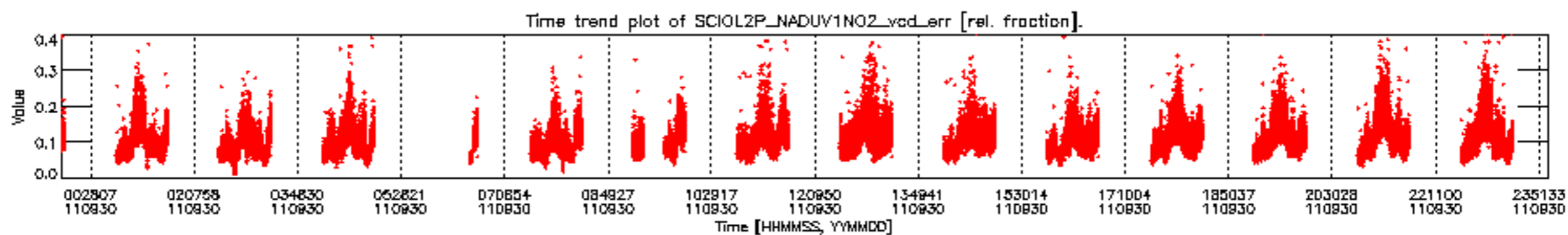
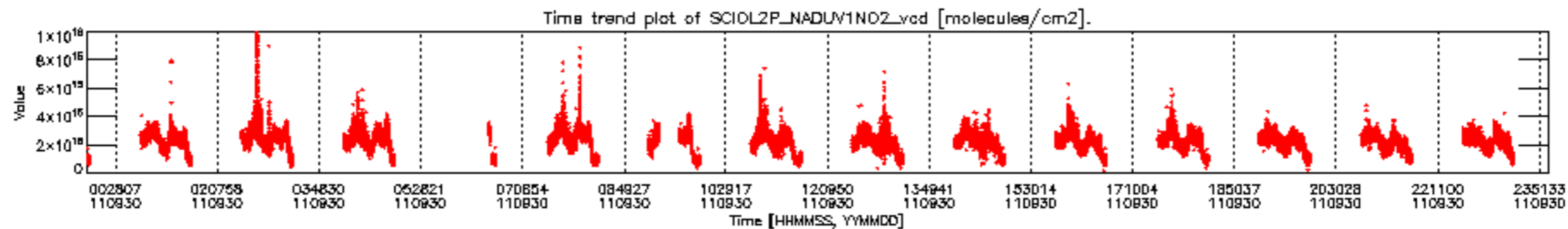
SCIOL2P\_NADUV003\_amf\_gr for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



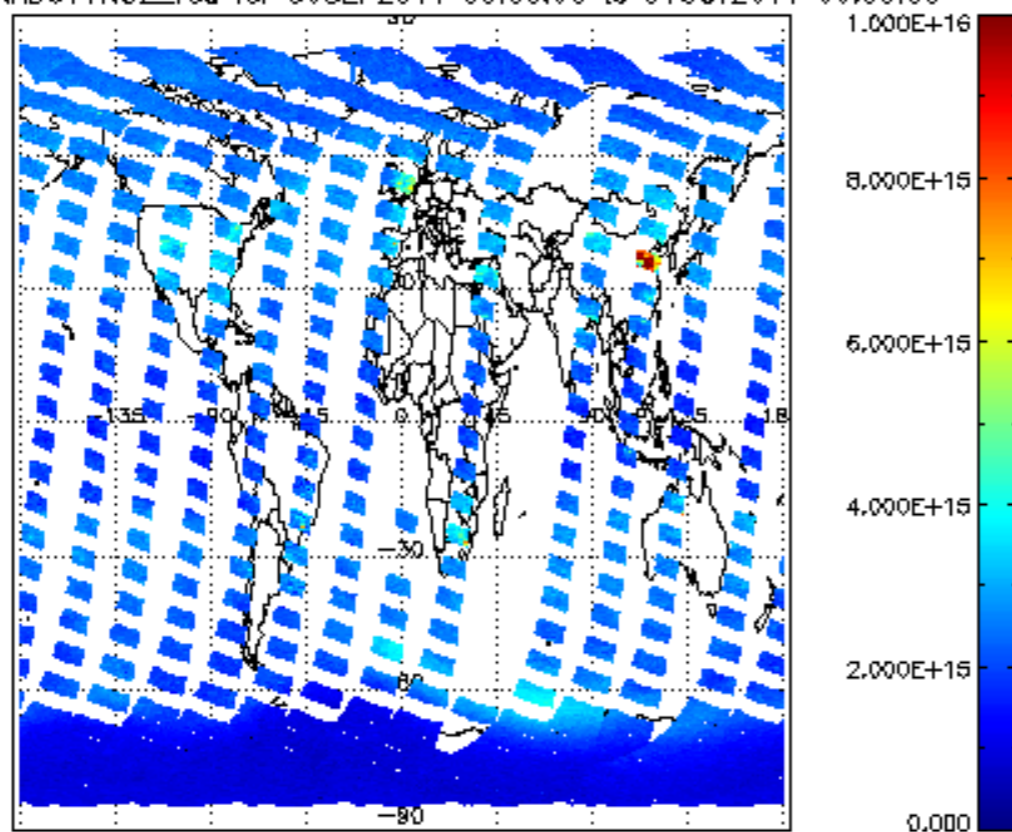
SCIOL2P\_NADUV003\_amf\_cl for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



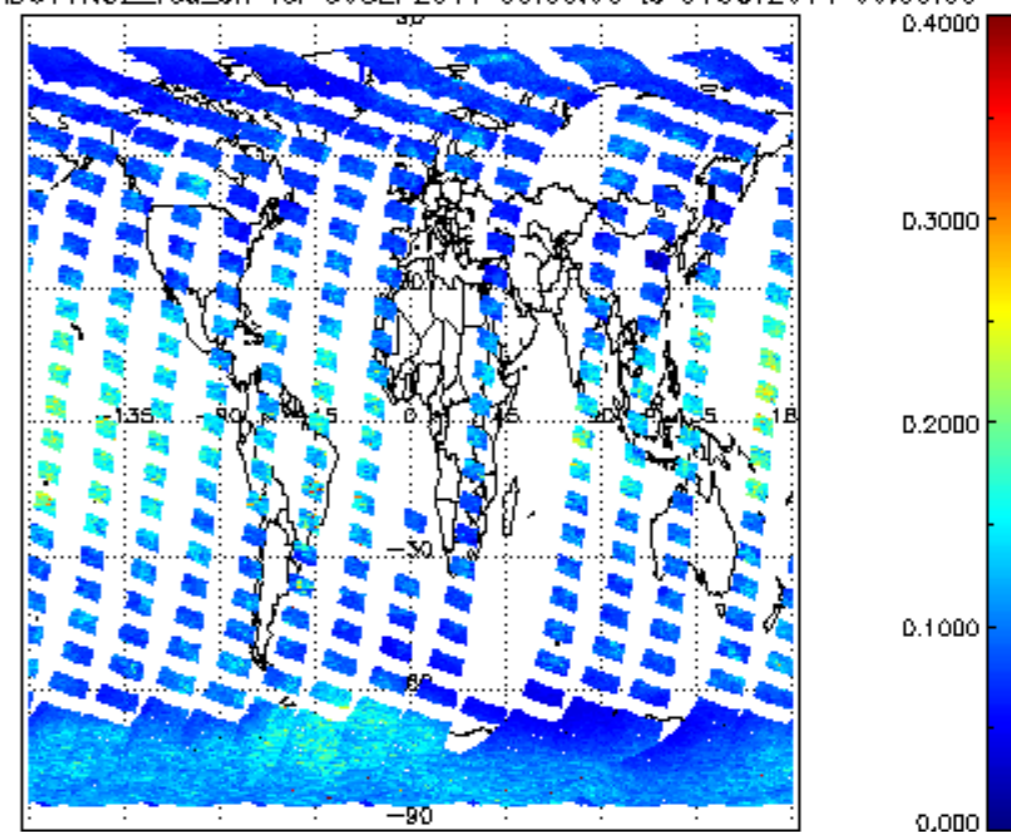




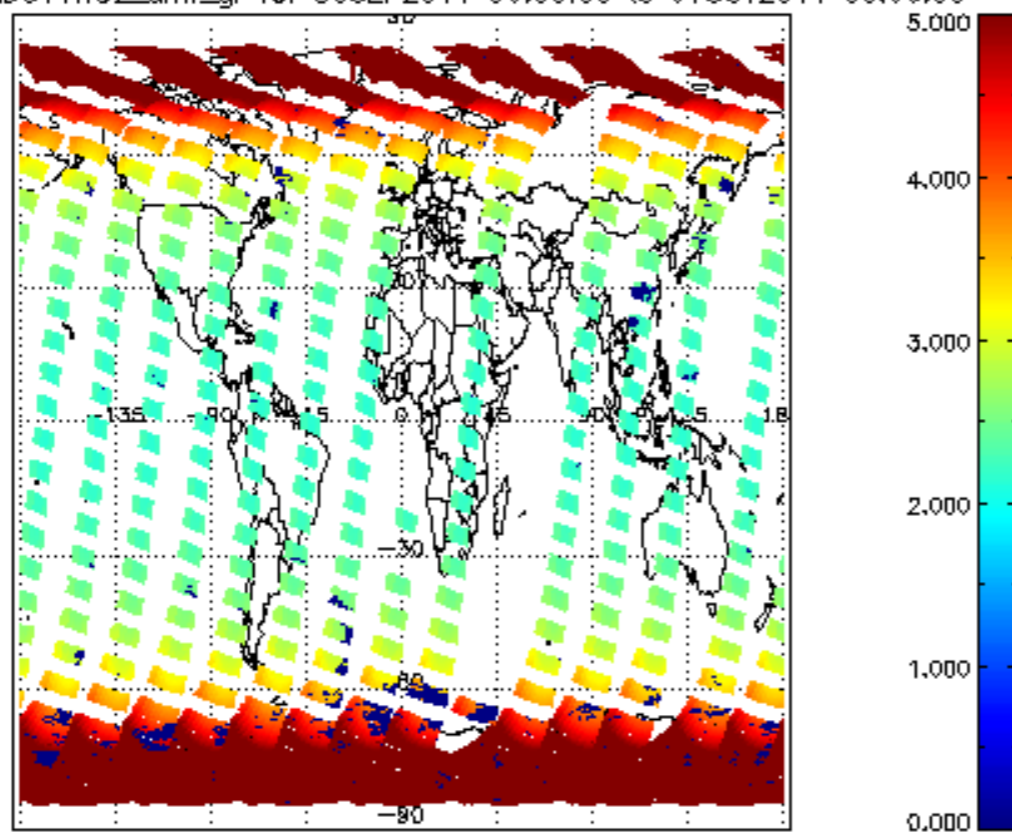
SCIOL2P\_NADUV1NO2\_vcd for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



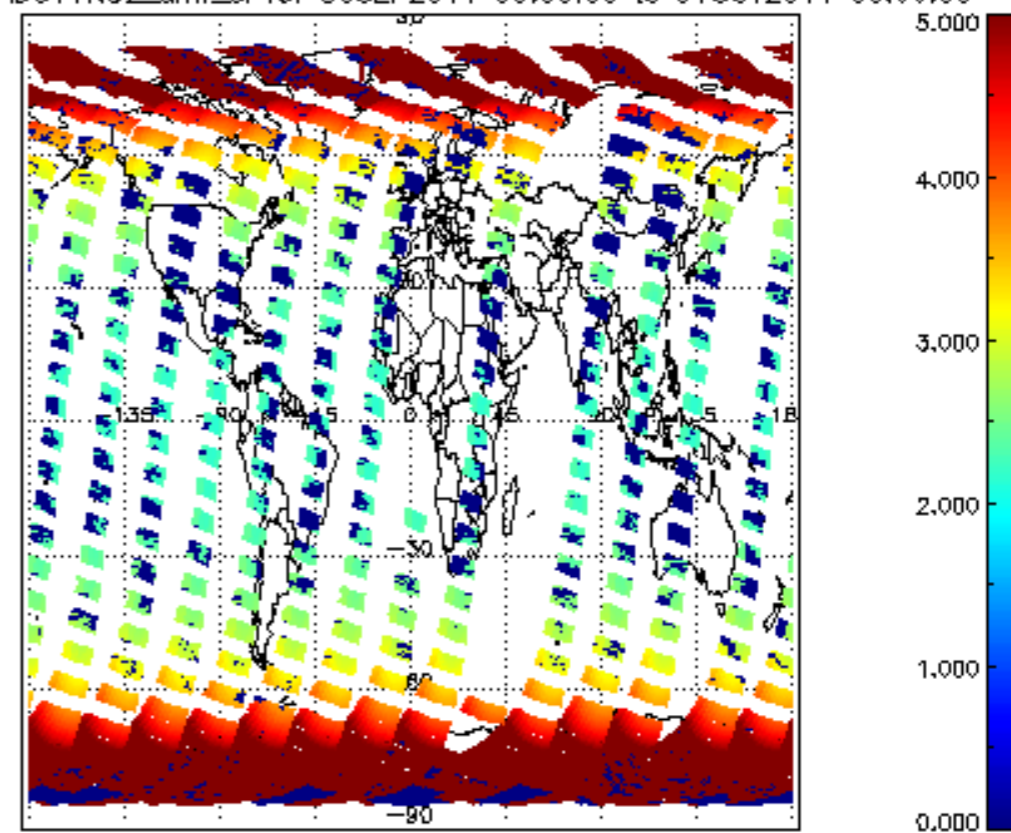
SCIOL2P\_NADUV1NO2\_vcd\_err for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



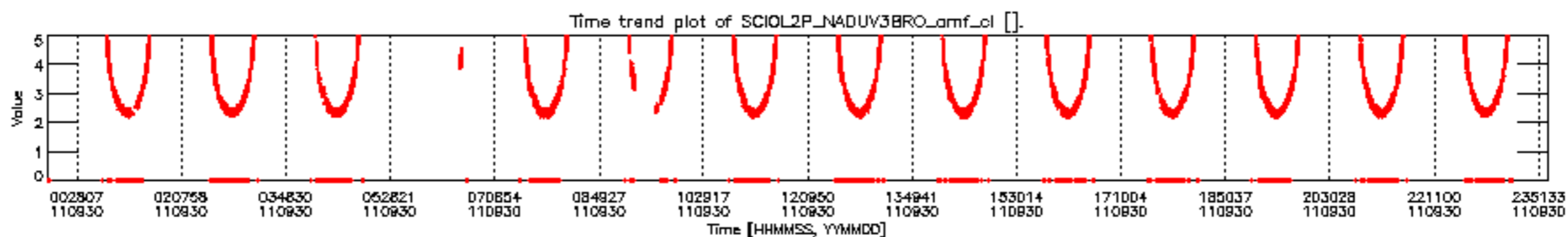
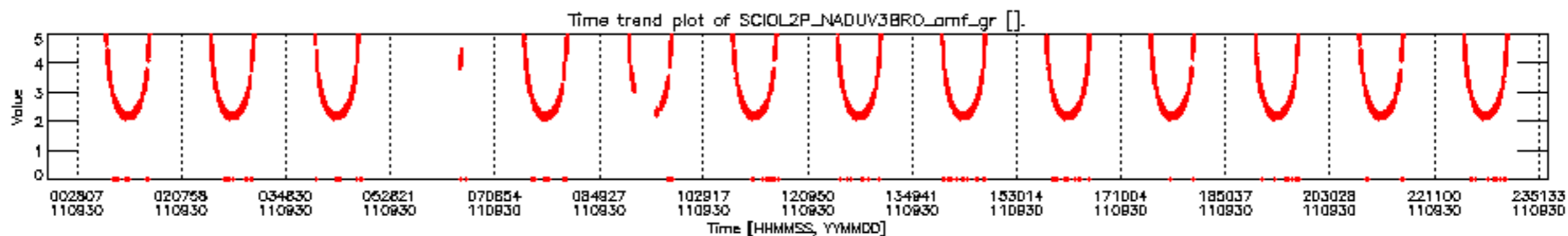
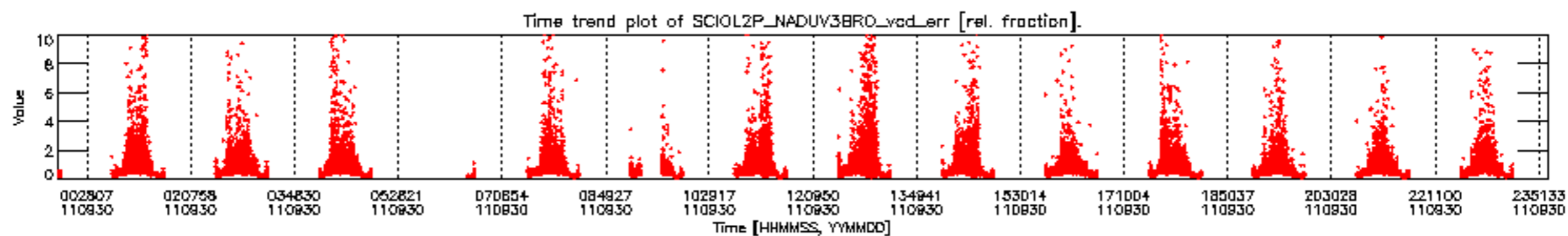
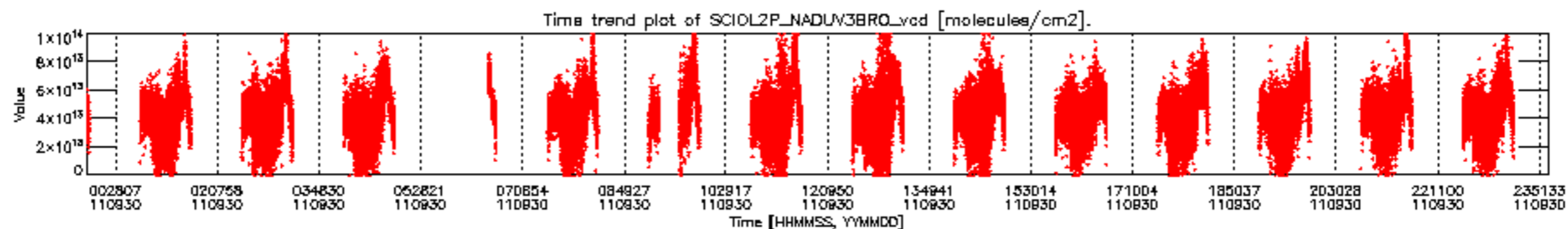
SCIOL2P\_NADUV1NO2\_amf\_gr for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



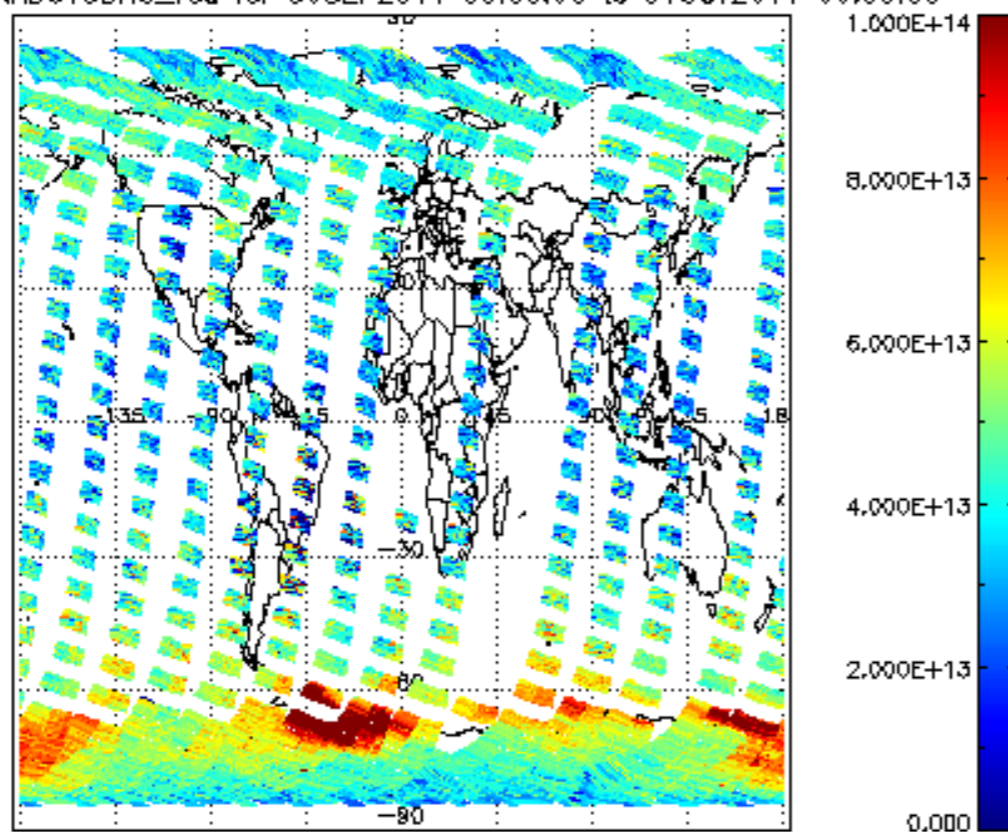
SCIOL2P\_NADUV1NO2\_amf\_cl for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



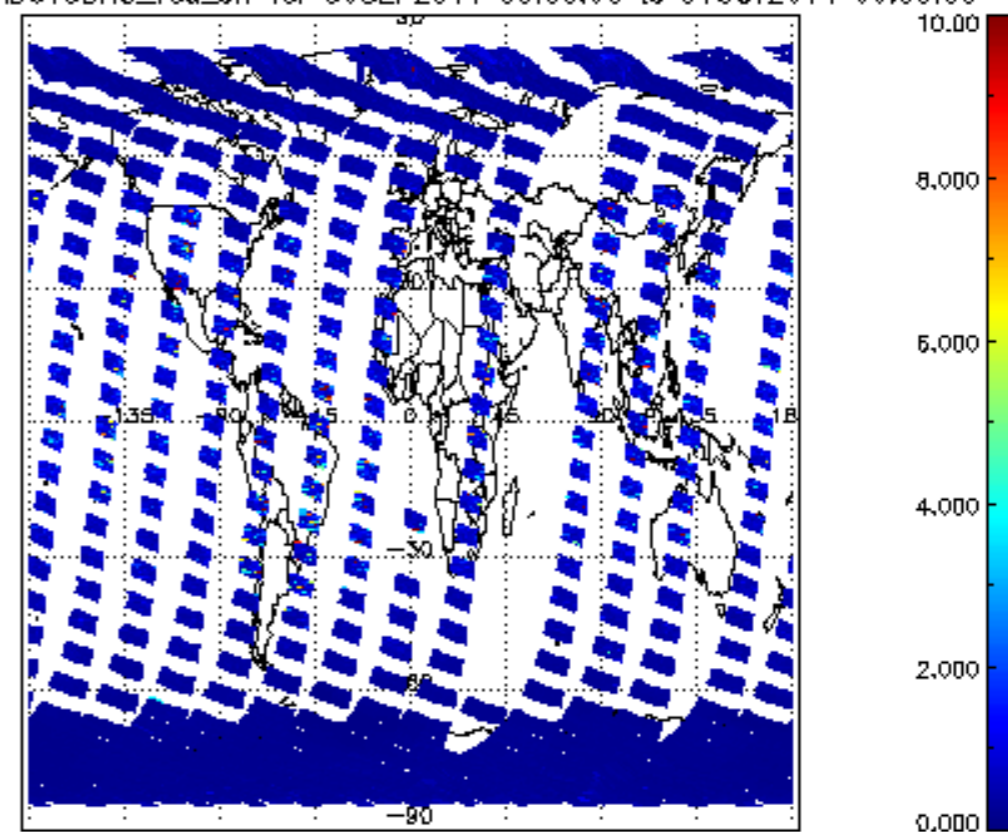




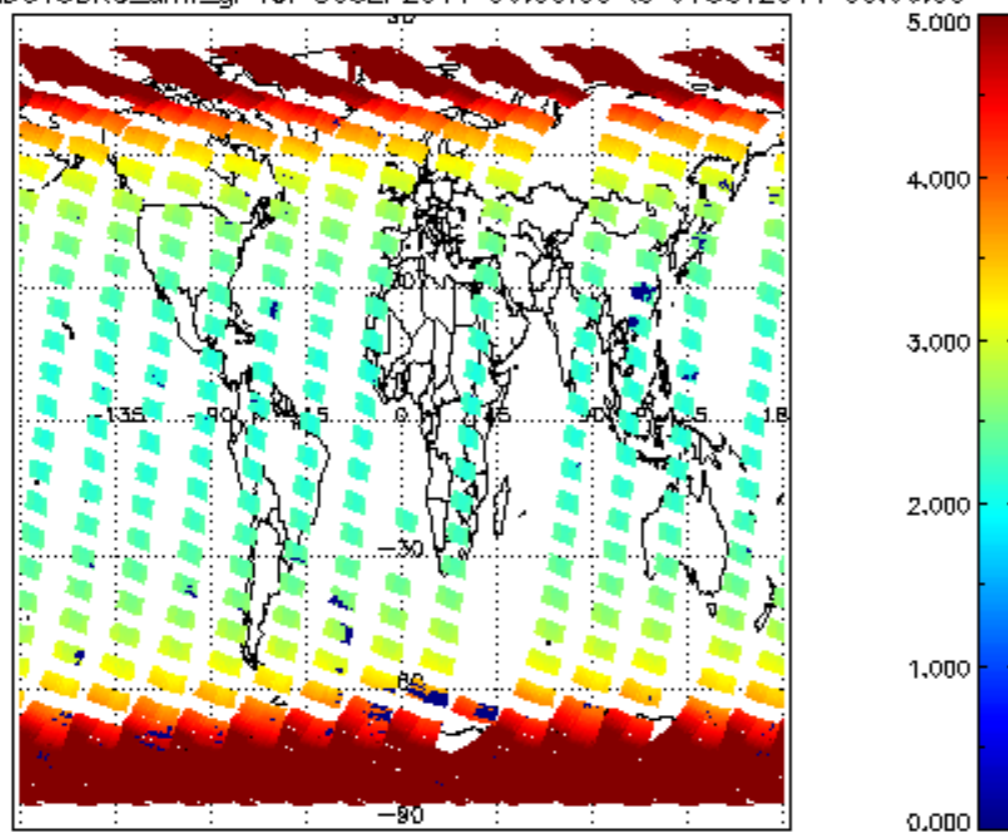
SCIOL2P\_NADUV3BRO\_vcd for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



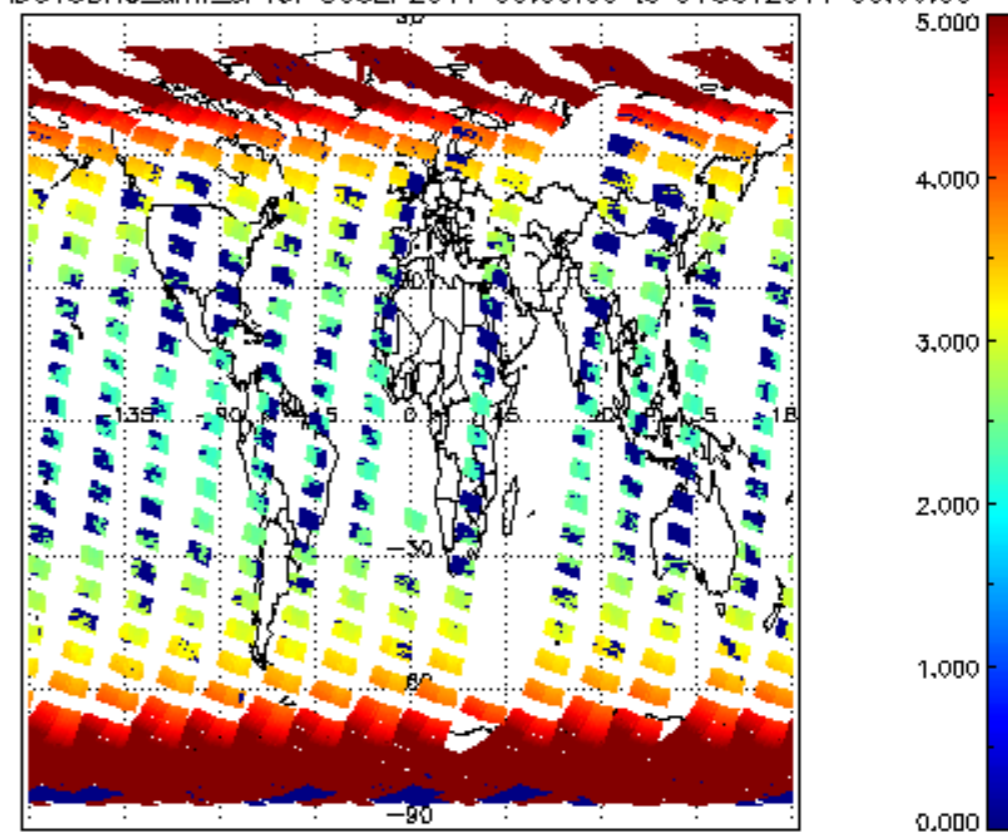
SCIOL2P\_NADUV3BRO\_vcd\_err for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



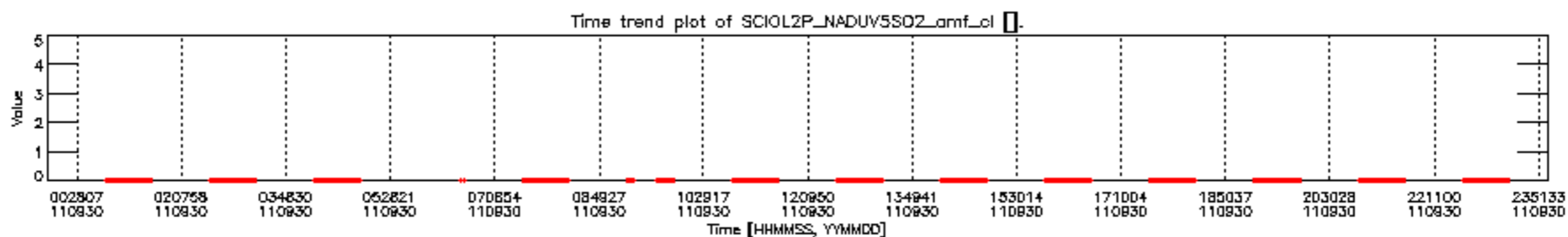
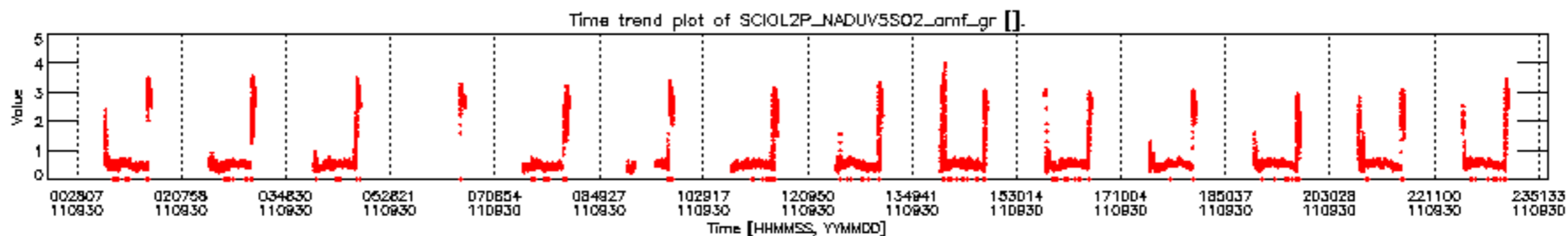
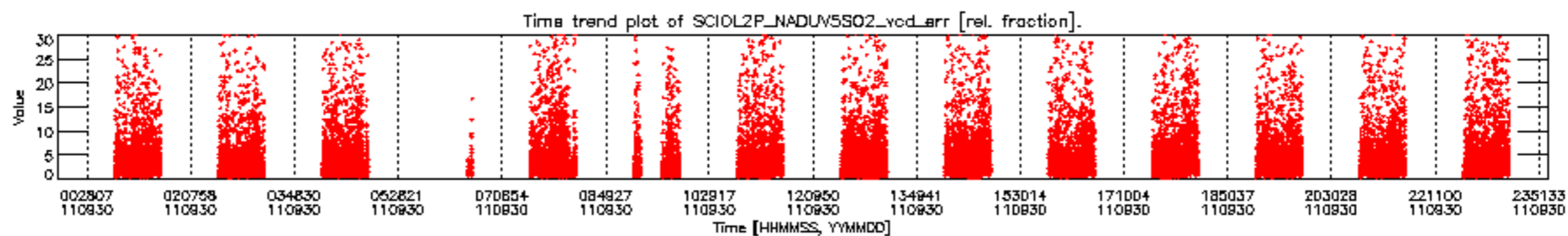
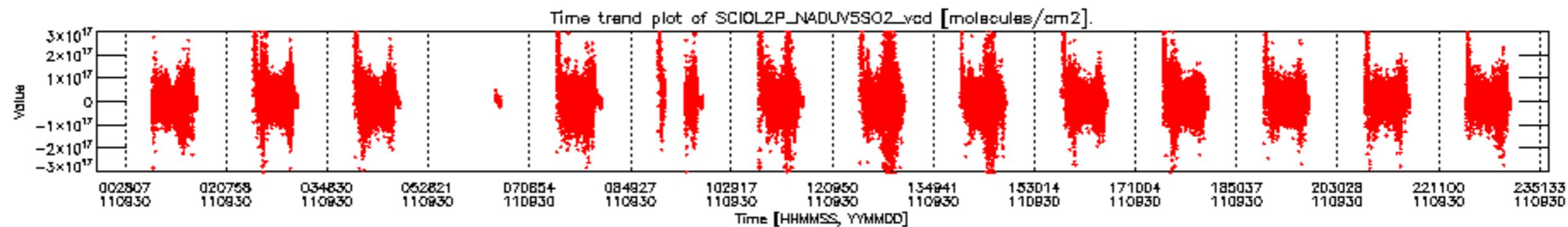
SCIOL2P\_NADUV3BRO\_amf\_gr for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



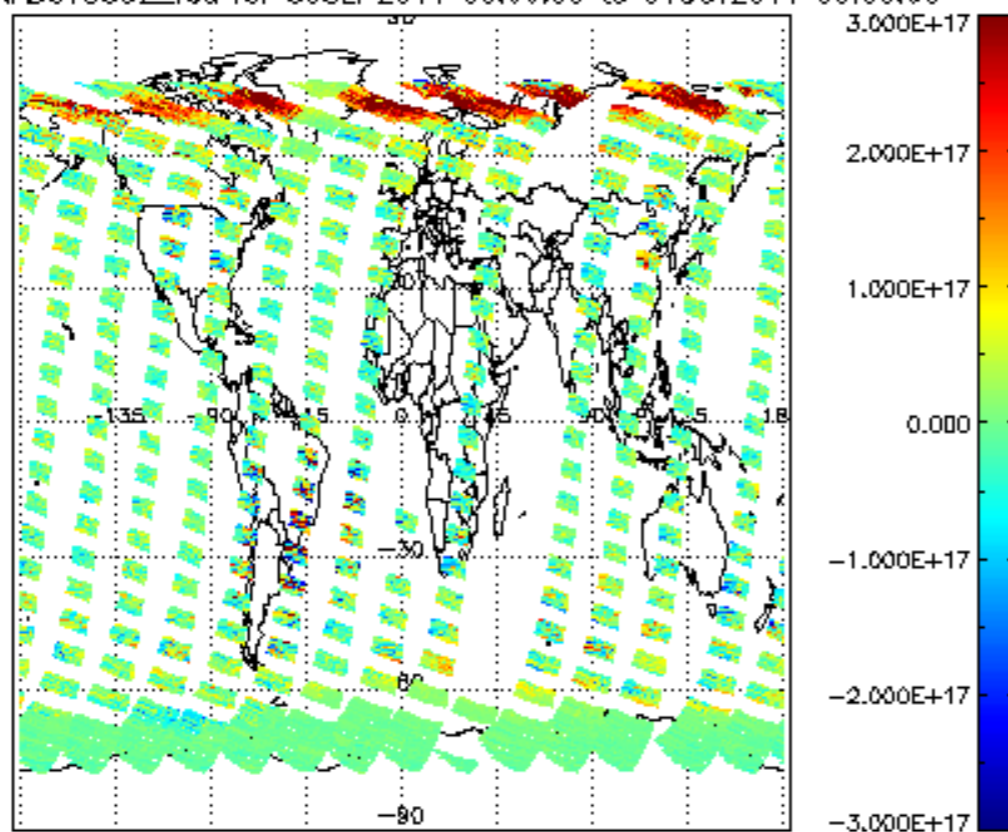
SCIOL2P\_NADUV3BRO\_amf\_cl for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



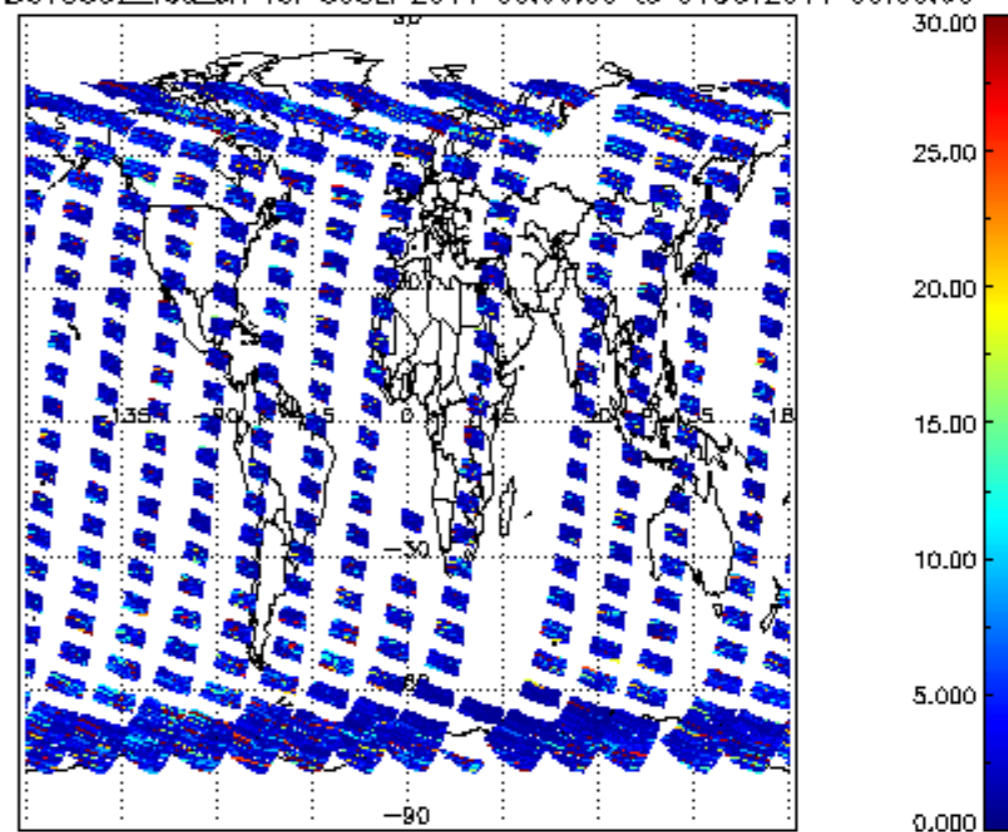




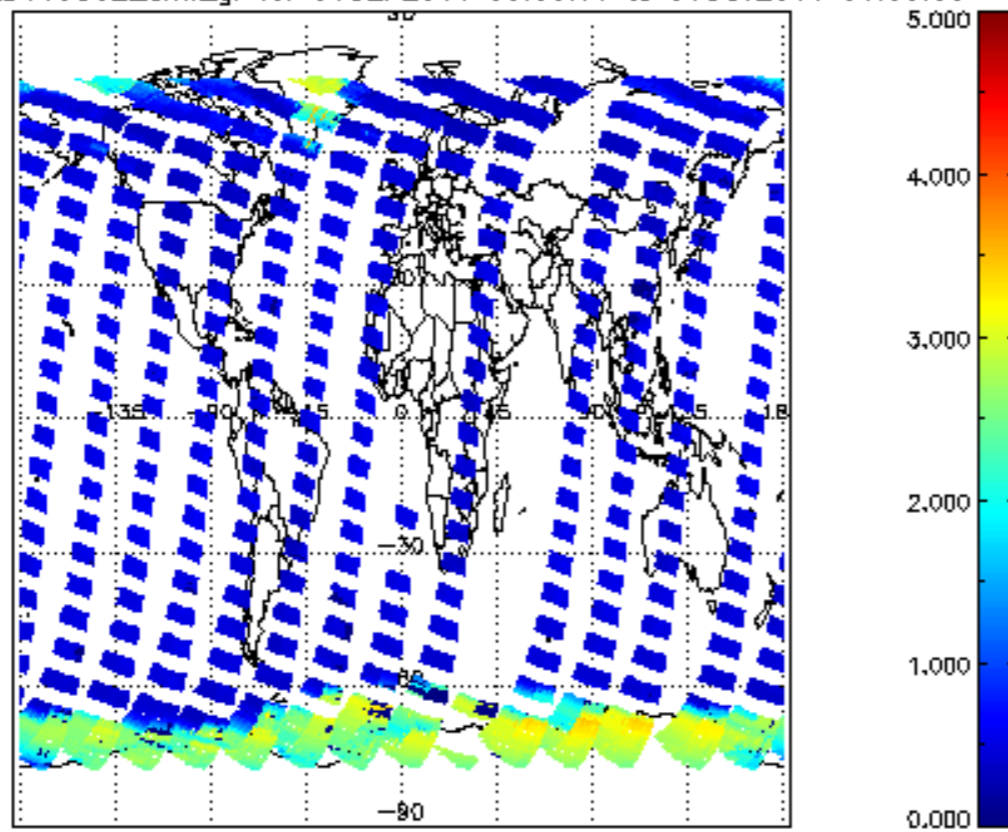
SCIOL2P\_NADUV5S02\_vcd for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



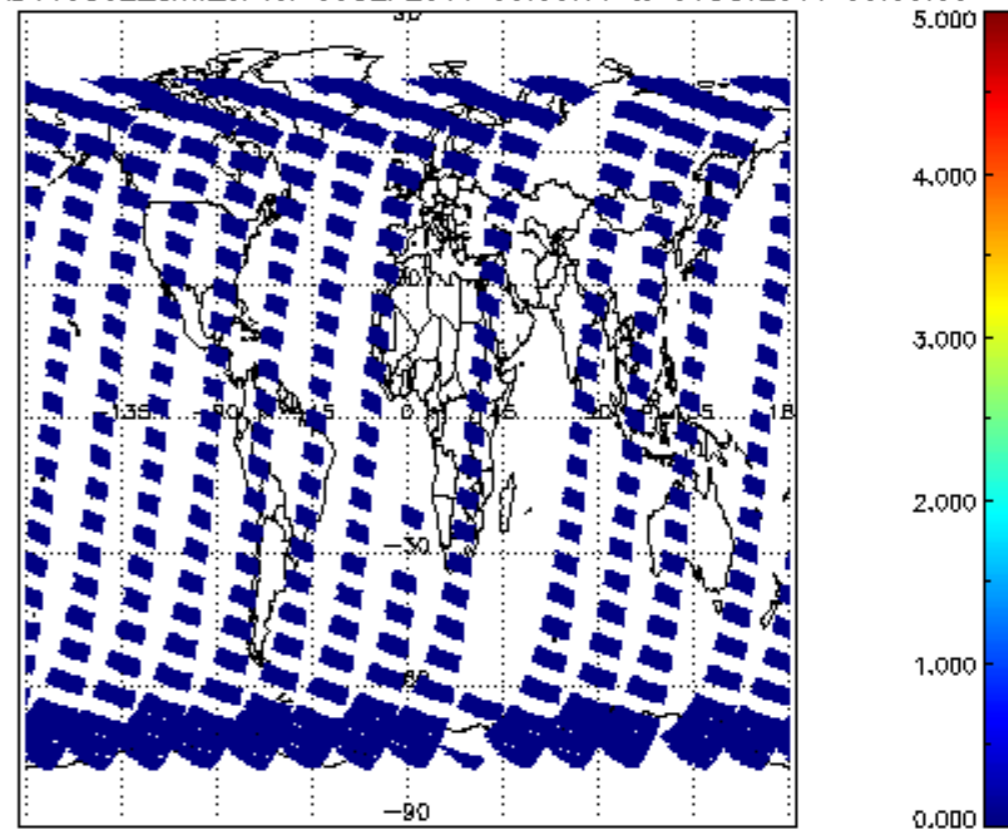
SCIOL2P\_NADUV5S02\_vcd\_err for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



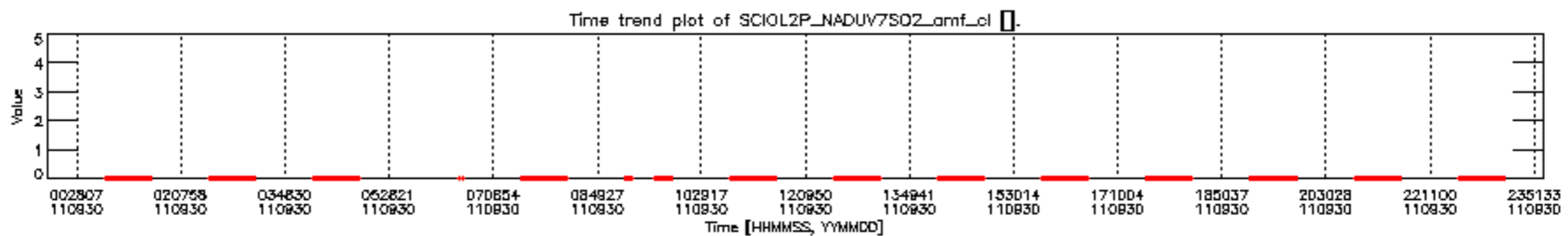
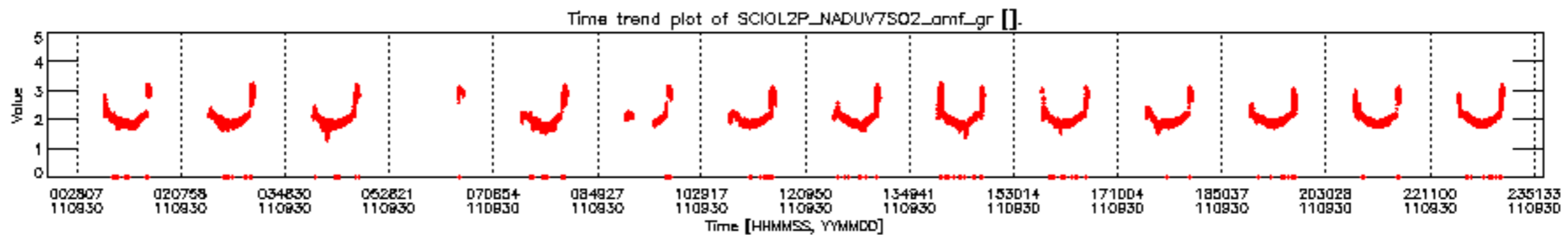
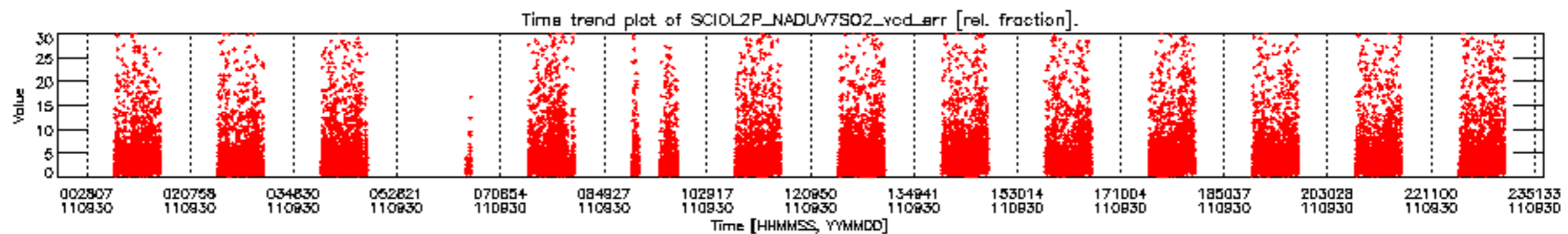
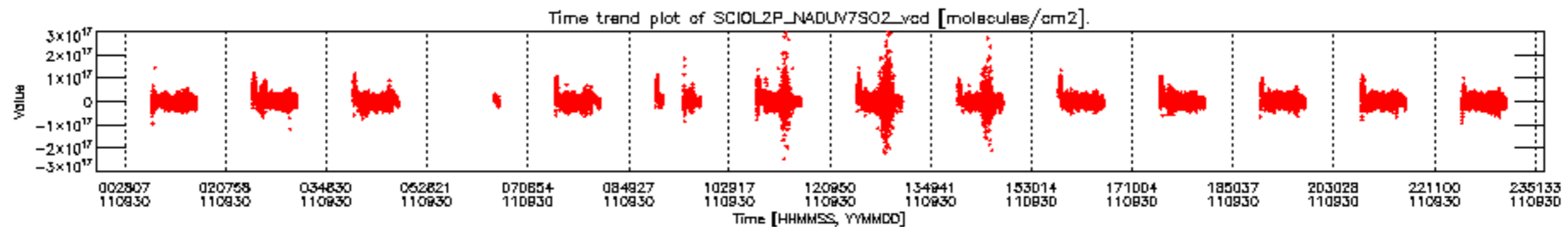
SCIOL2P\_NADUV5S02\_amf\_gr for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



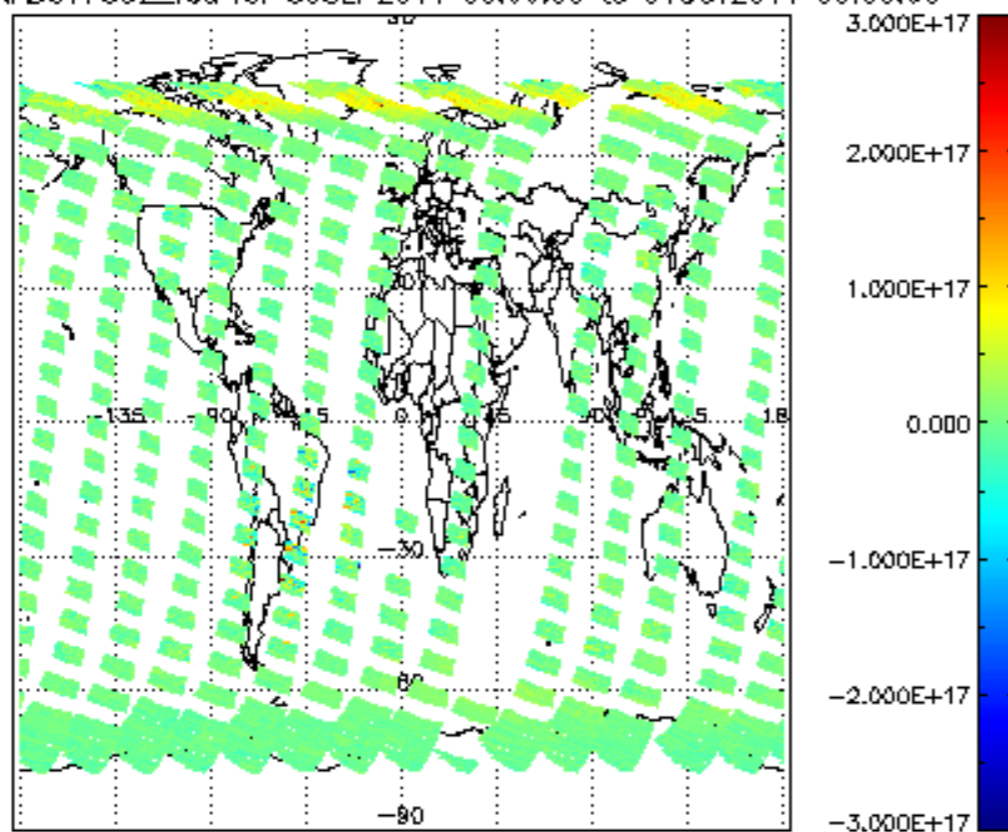
SCIOL2P\_NADUV5S02\_amf\_cl for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



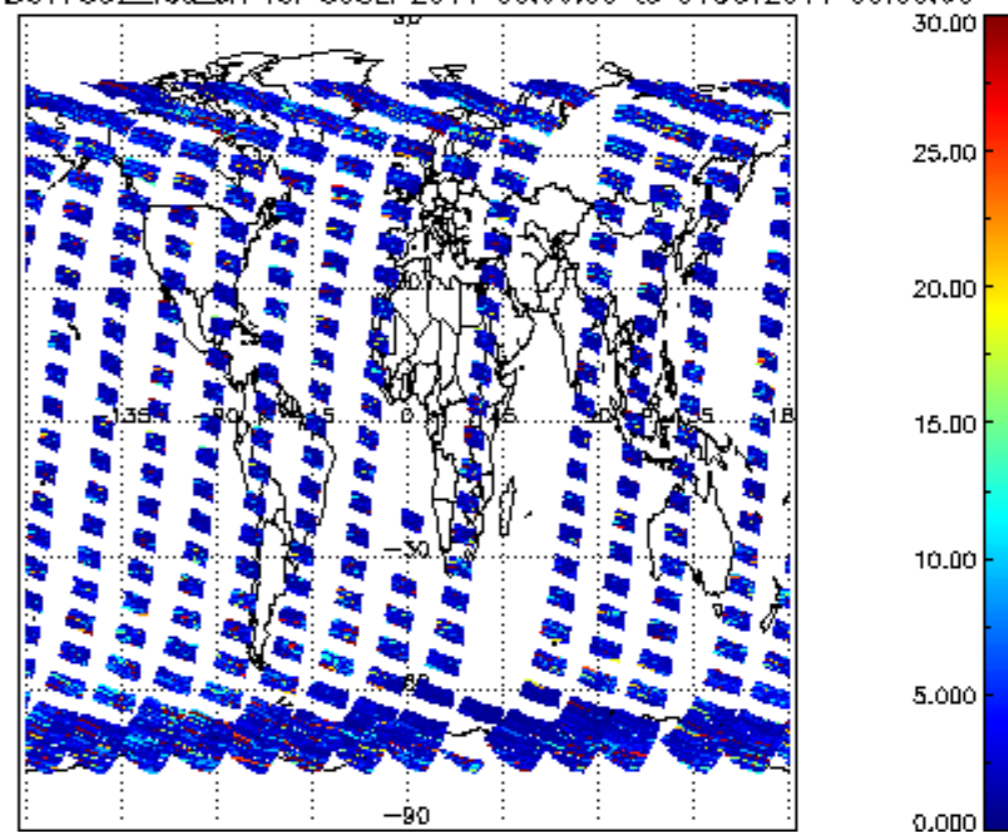




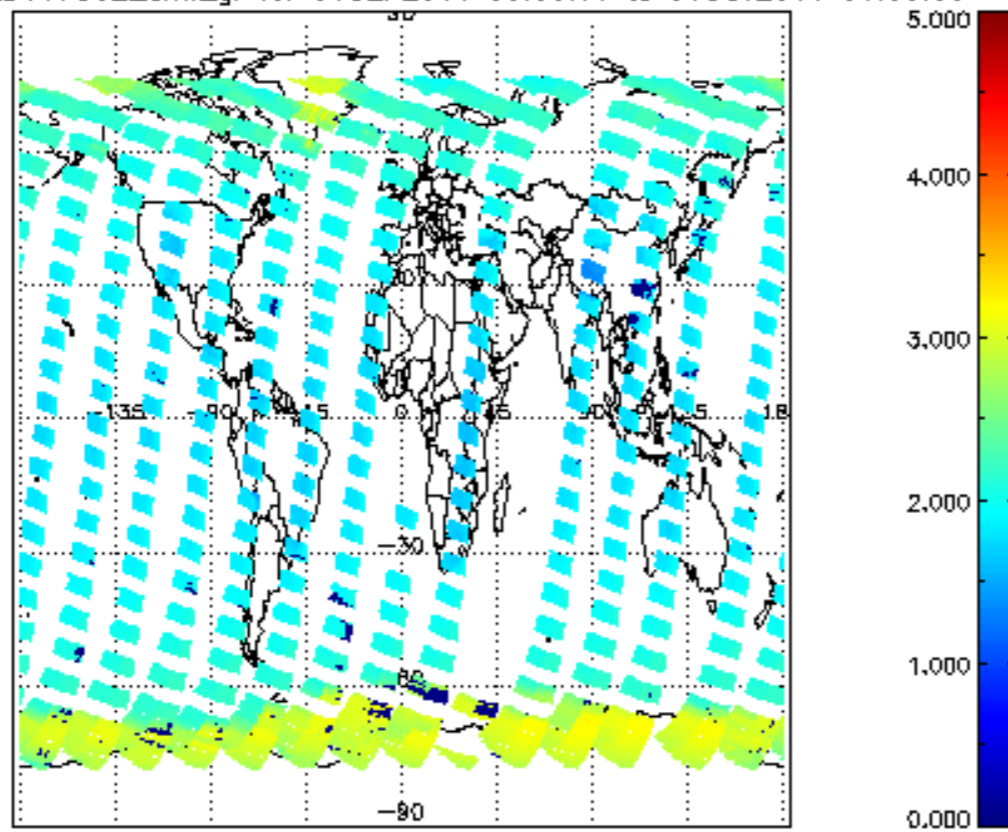
SCIOL2P\_NADUV7S02\_vcd for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



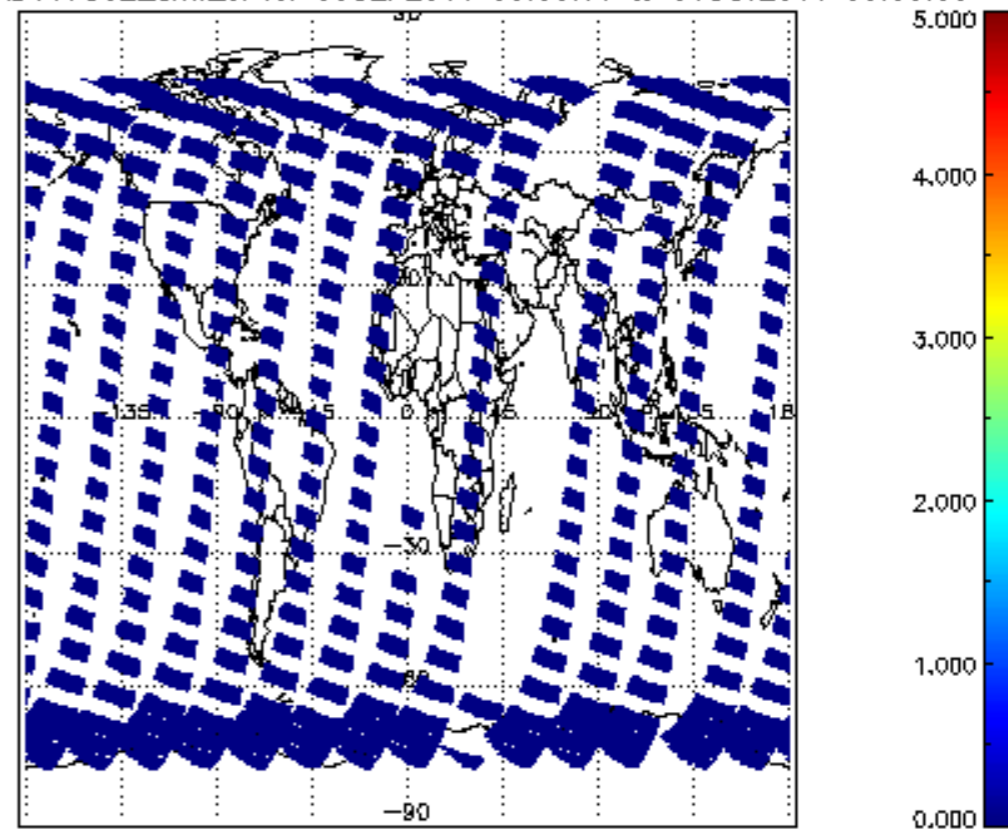
SCIOL2P\_NADUV7S02\_vcd\_err for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



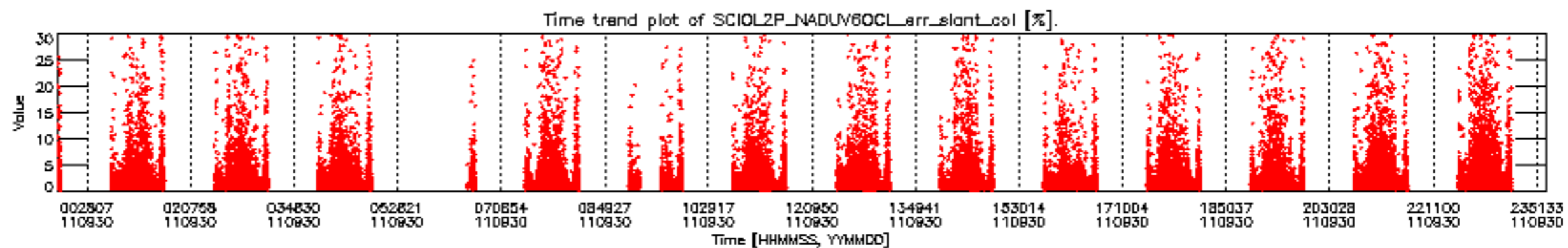
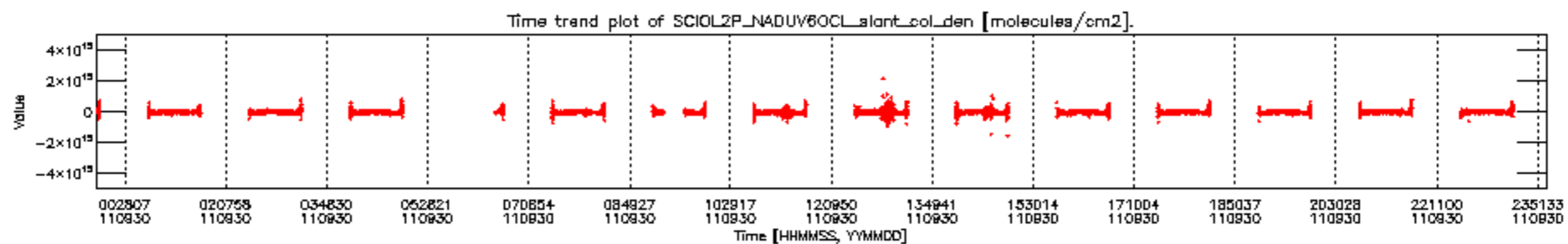
SCIOL2P\_NADUV7S02\_amf\_gr for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



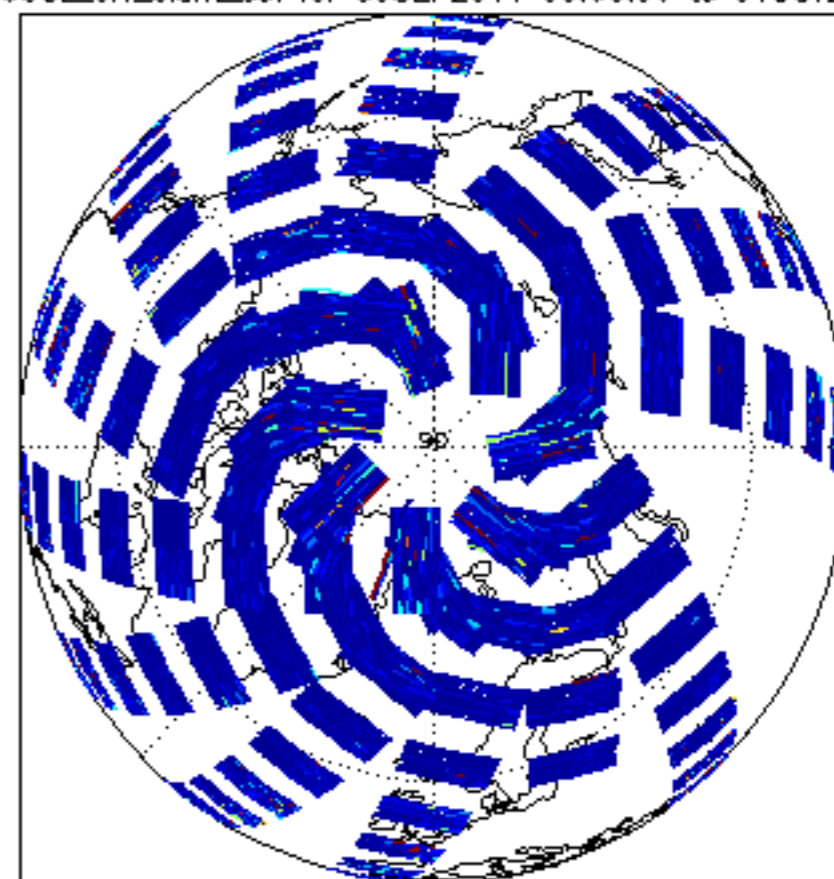
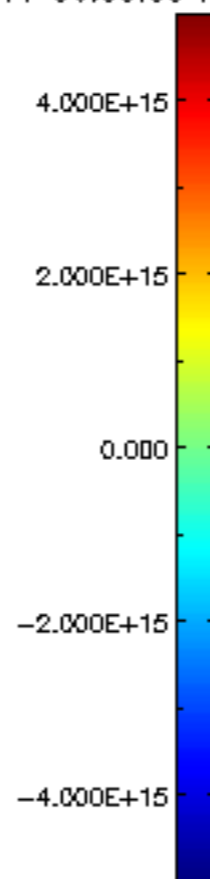
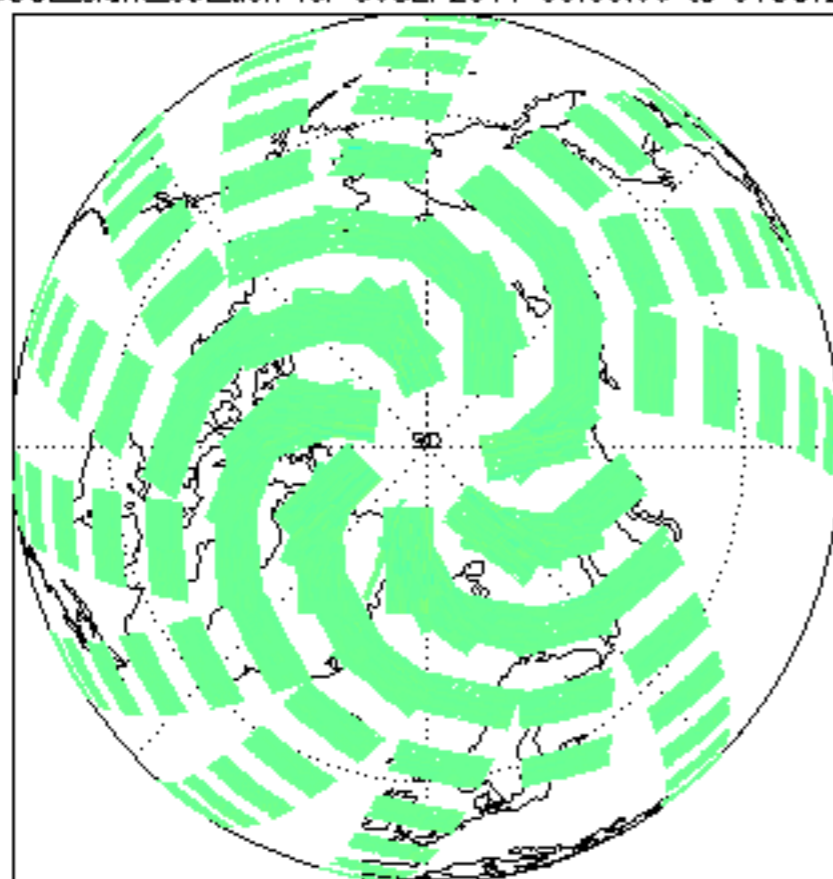
SCIOL2P\_NADUV7S02\_amf\_cl for 30SEP2011 00:00:00 to 01OCT2011 00:00:00





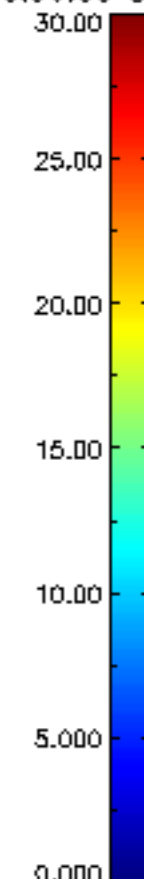
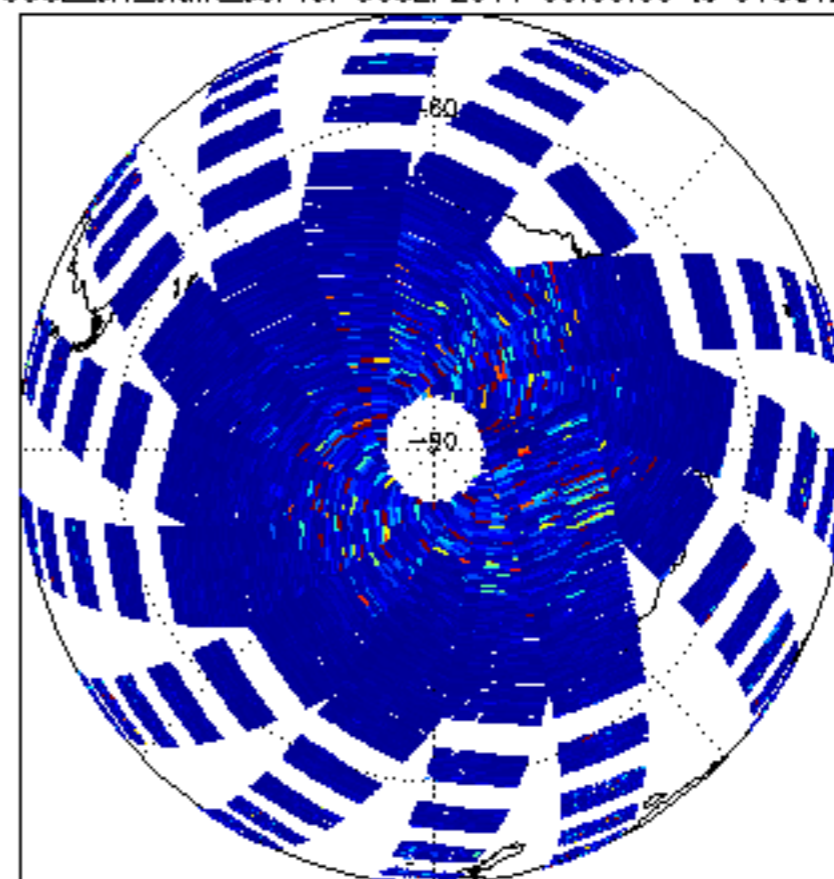
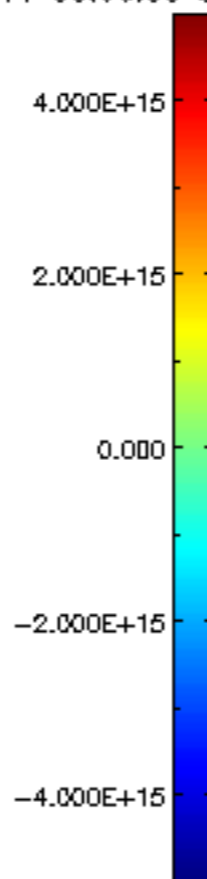
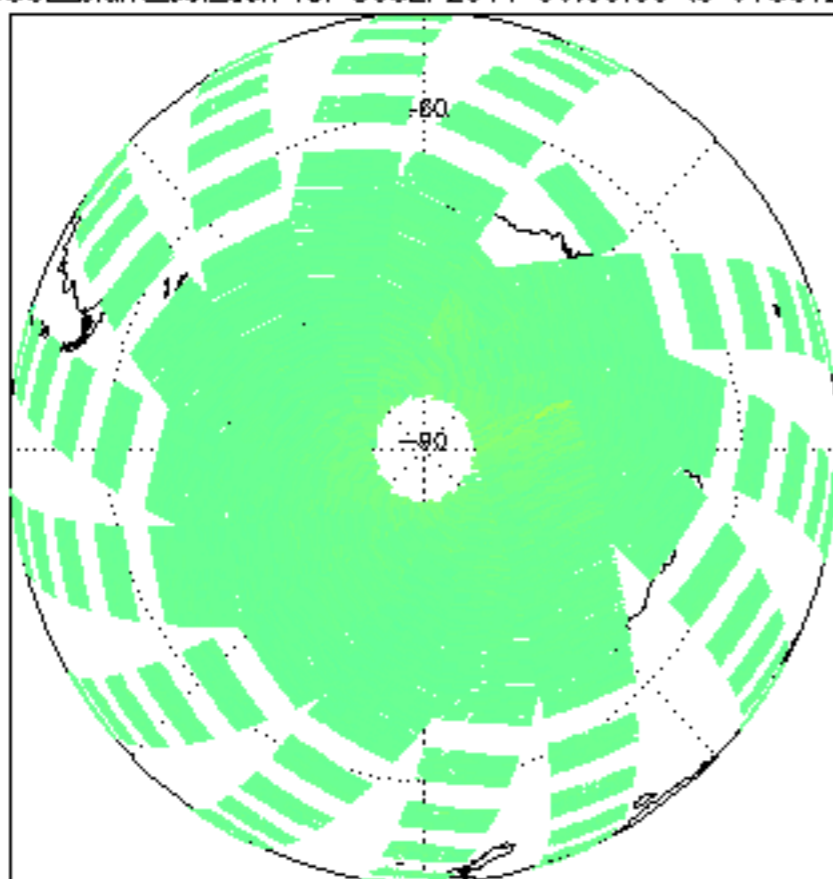


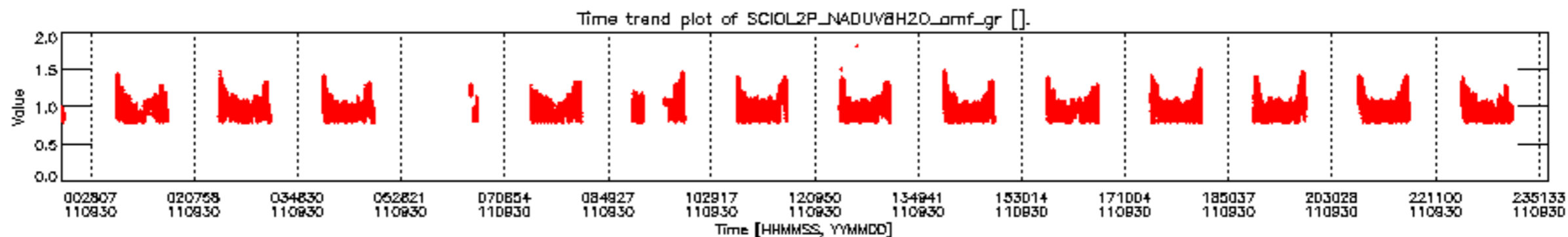
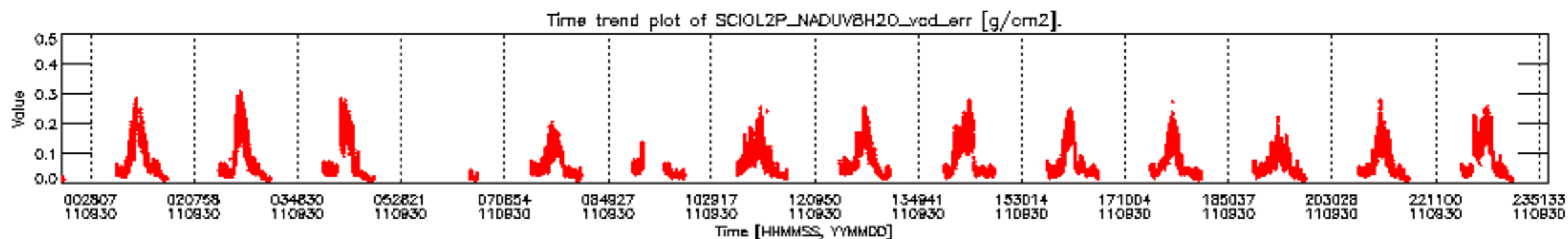
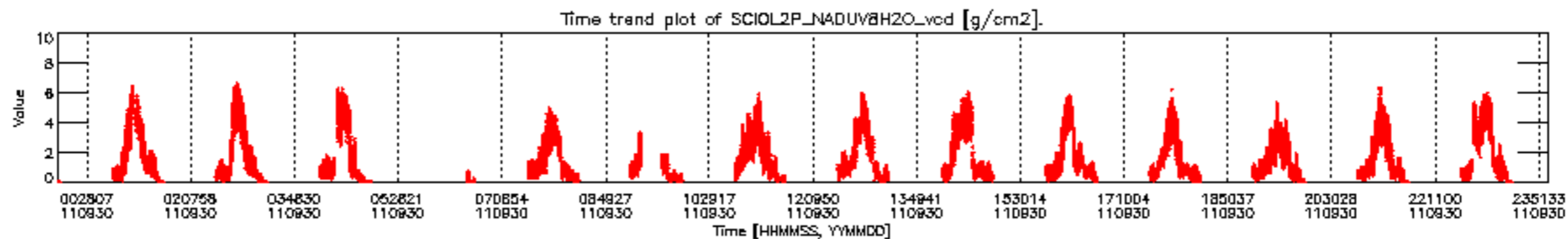
CIOL2P\_NADUV6OCL\_slant\_col\_den for 30SEP2011 00:00:00 to 01OCT2011 00:00:00 np | CIOL2P\_NADUV6OCL\_err\_slant\_col for 30SEP2011 00:00:00 to 01OCT2011 00:00:00 np





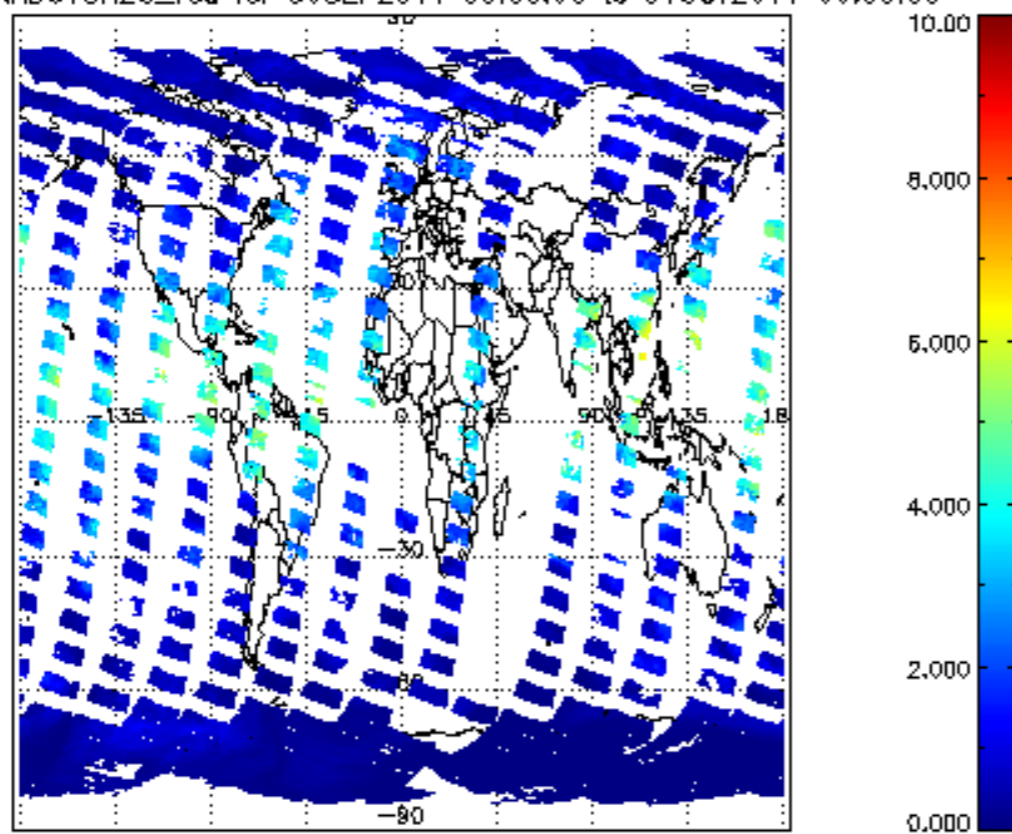
CIOL2P\_NADUV60CL\_slant\_col\_den for 30SEP2011 00:00:00 to 01OCT2011 00:00:00 sp; CIOL2P\_NADUV60CL\_err\_slant\_col for 30SEP2011 00:00:00 to 01OCT2011 00:00:00 sp



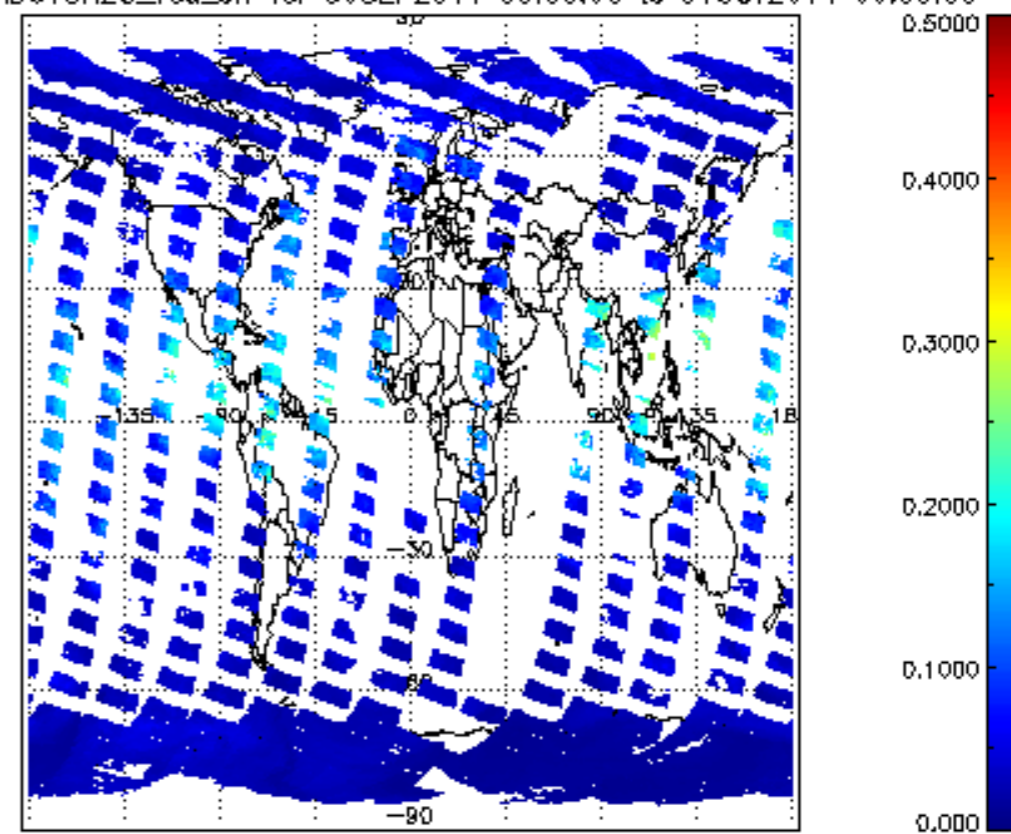




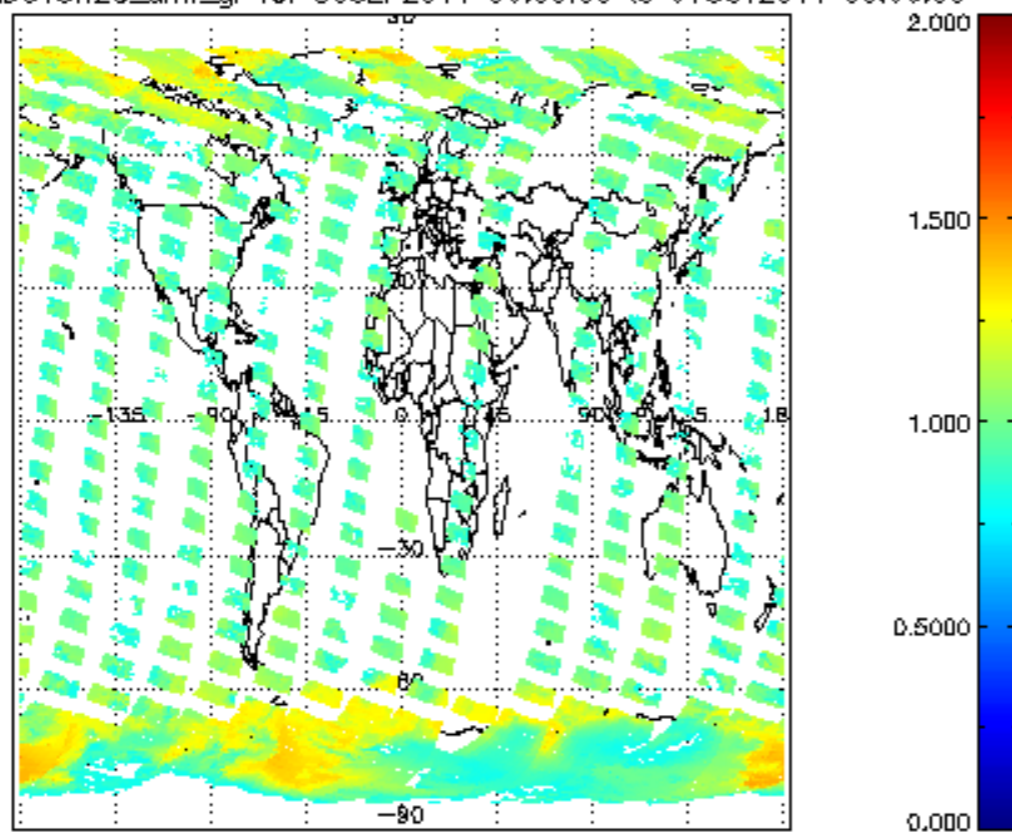
SCIOL2P\_NADUV8H20\_vcd for 30SEP2011 00:00:00 to 01OCT2011 00:00:00

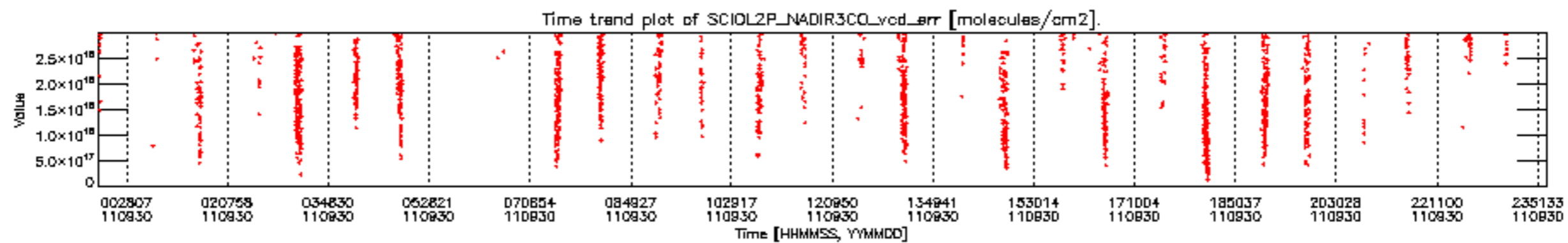
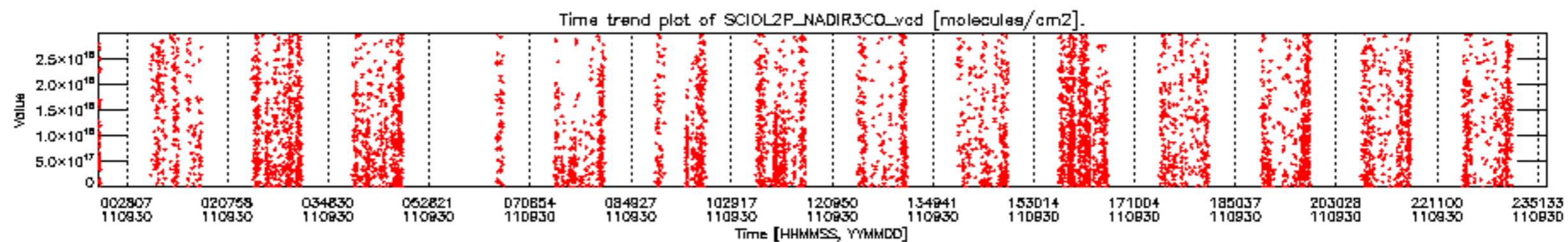


SCIOL2P\_NADUV8H20\_vcd\_err for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



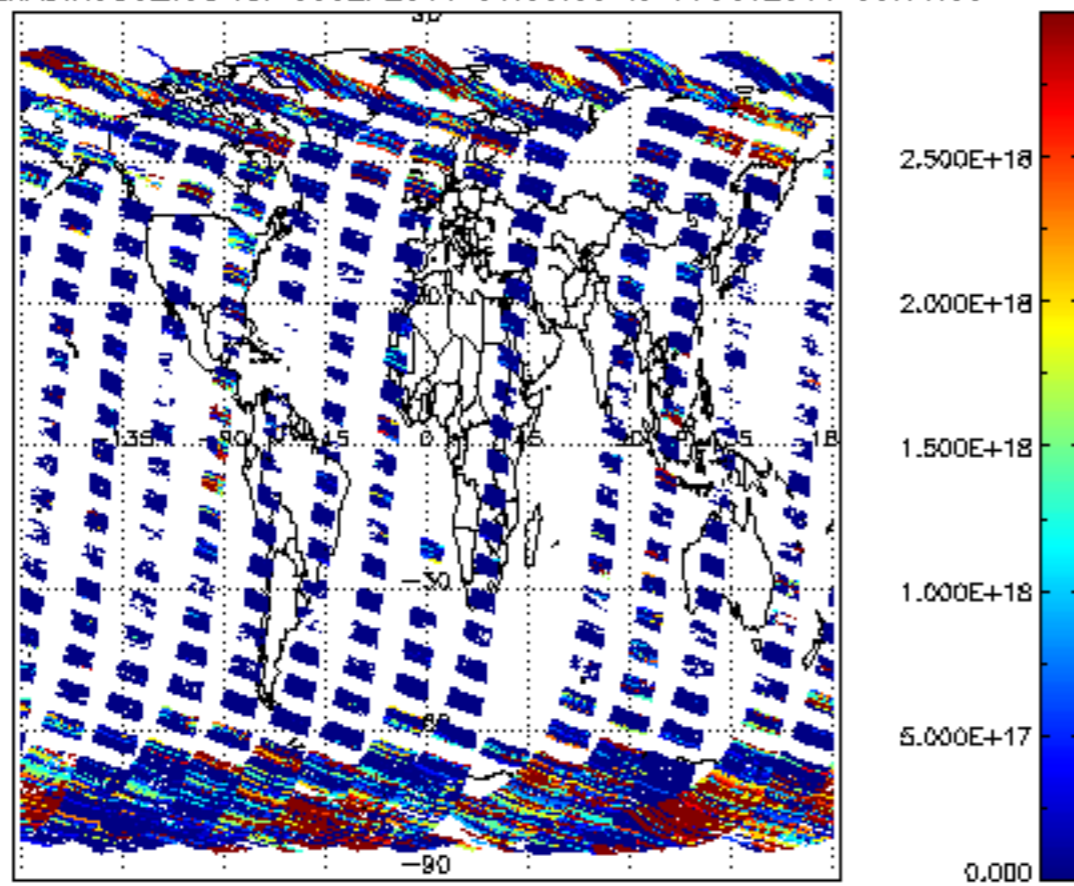
SCIOL2P\_NADUV8H20\_amf\_gr for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



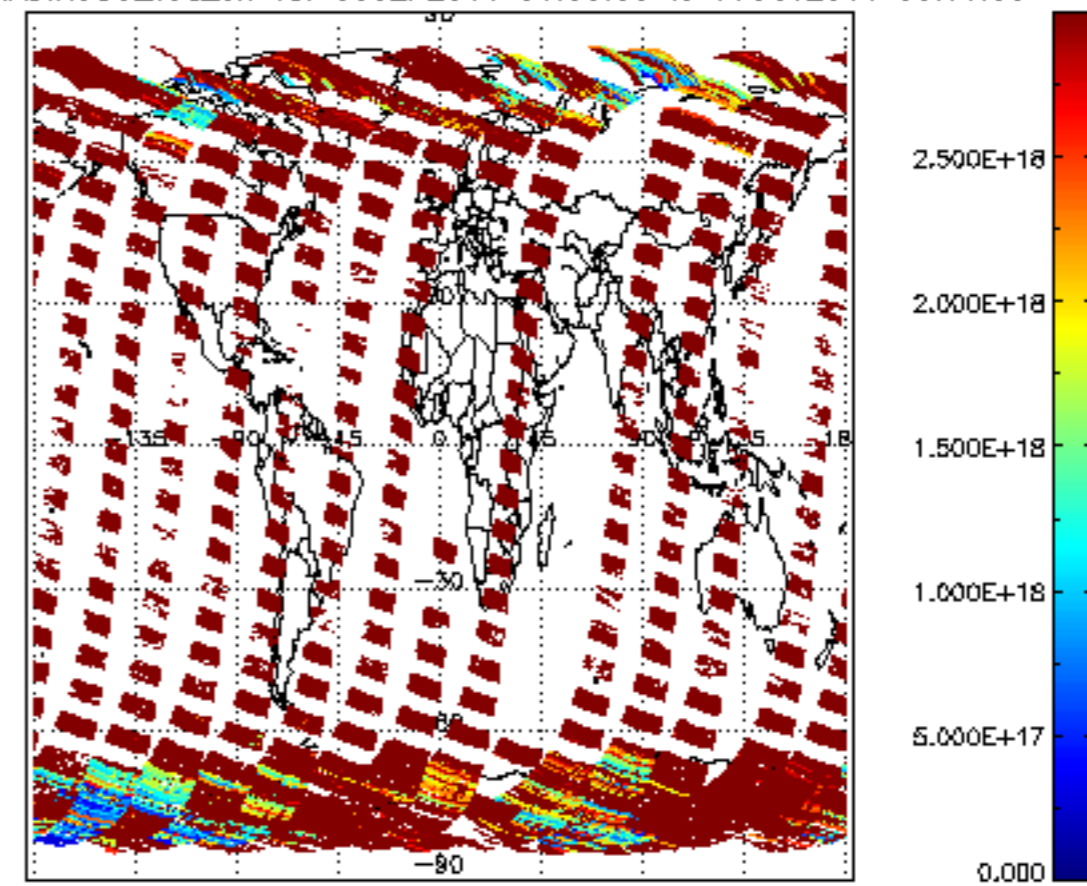




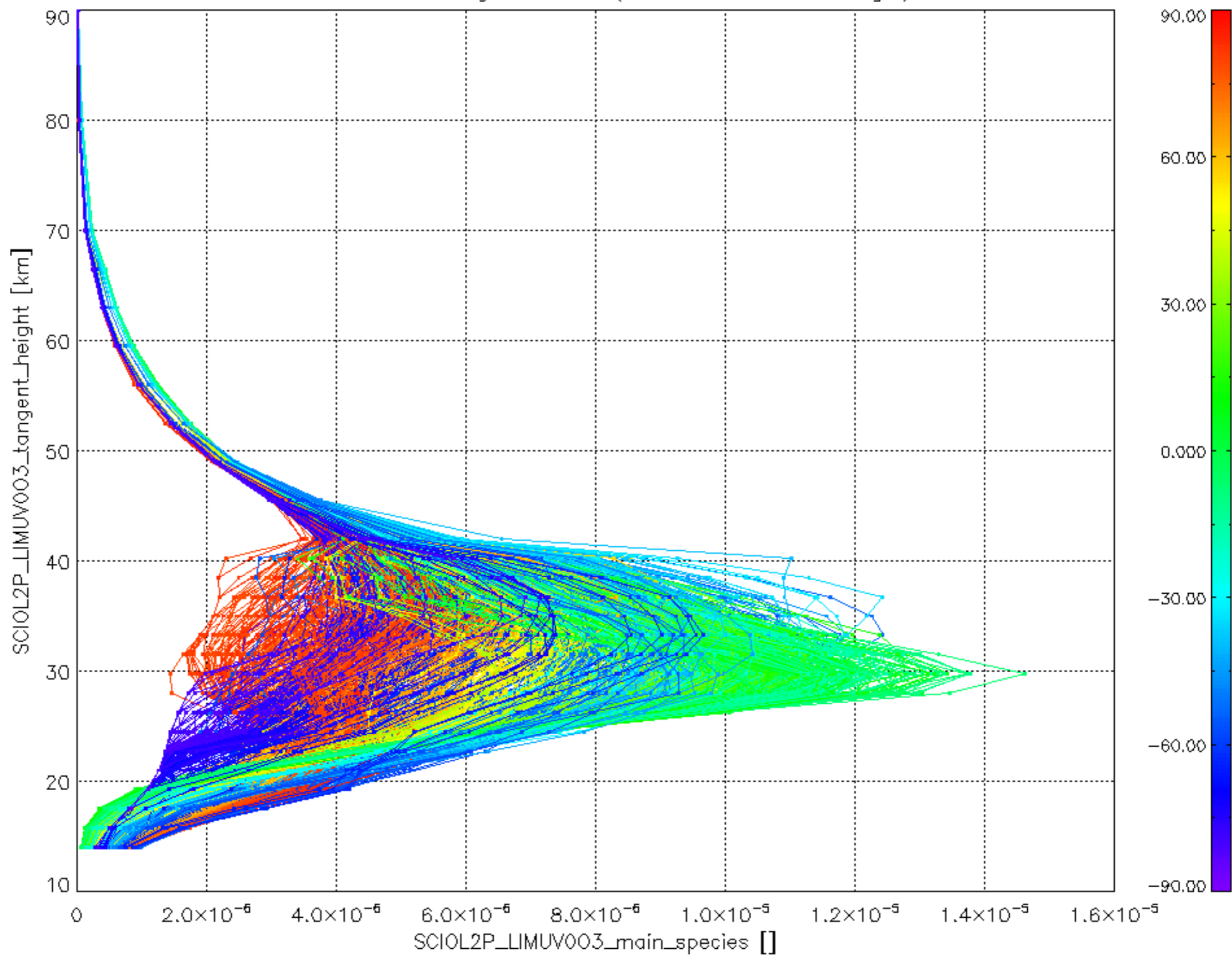
SCIOL2P\_NADIR3CO\_vcd for 30SEP2011 00:00:00 to 01OCT2011 00:00:00



SCIOL2P\_NADIR3CO\_vcd\_err for 30SEP2011 00:00:00 to 01OCT2011 00:00:00

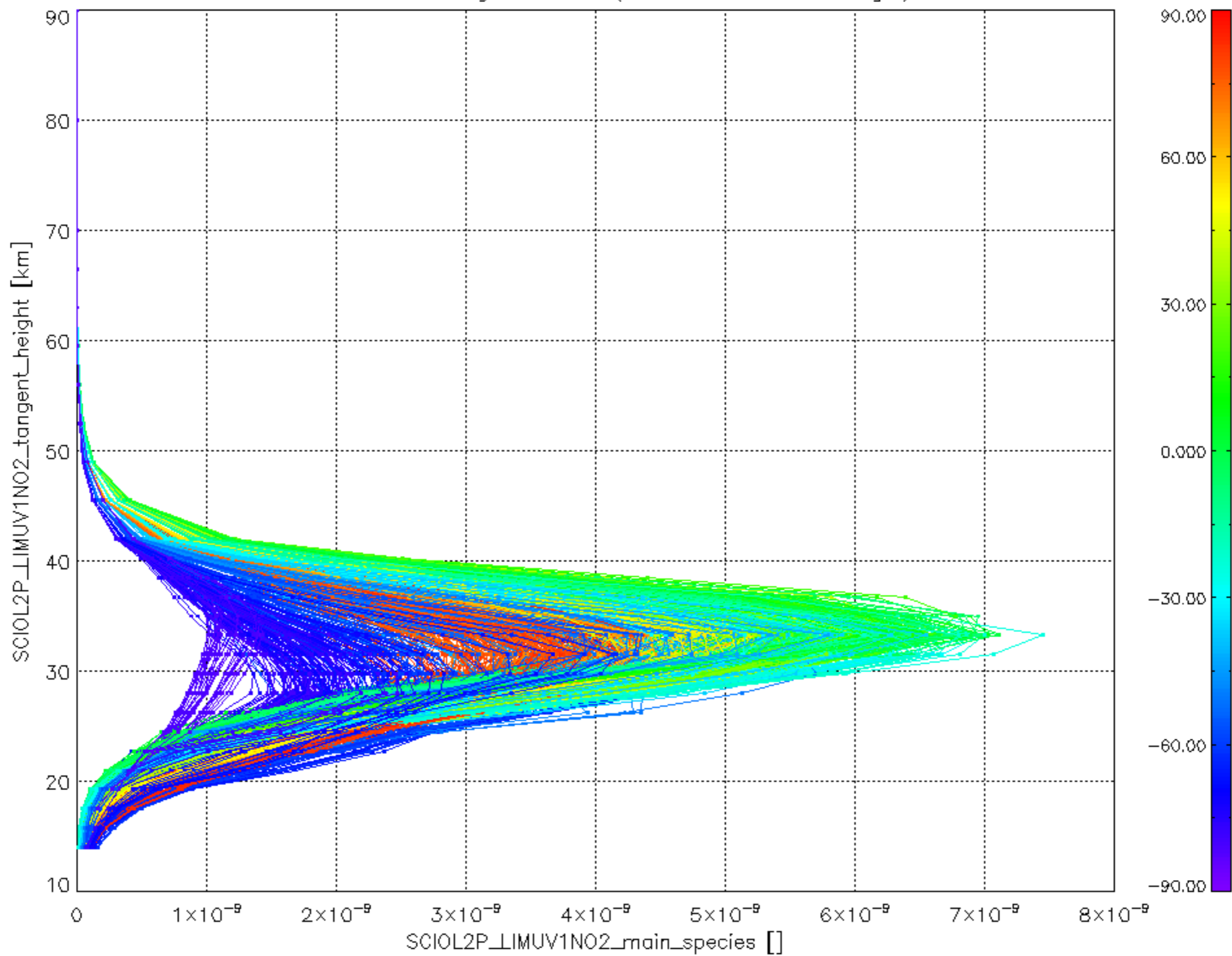


Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).





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).

