

## 2. SCIAMACHY Daily Report for Level 2 products

### [2.1. General Info](#)

### [2.2 Product Quality Indicators](#)

- [2.2.1 Cloud parameters](#)
- [2.2.2 Nadir](#)
  - [2.2.2.1 O3 \(UV0\)](#)
  - [2.2.2.2 NO2 \(UV1\)](#)
  - [2.2.2.3 BrO \(UV3\)](#)
  - [2.2.2.4 SO2 \(UV5\)](#)
  - [2.2.2.5 SO2 \(UV7\)](#)
  - [2.2.2.6 OCIO \(UV6\)](#)
  - [2.2.2.7 H2O \(UV8\)](#)
  - [2.2.2.8 CO \(IR3\)](#)
- [2.2.3 Limb](#)
  - [2.2.3.1 O3 \(UV0\)](#)
  - [2.2.3.2 NO2 \(UV1\)](#)
  - [2.2.3.3 BrO \(UV3\)](#)

### [2.3 ADF monitoring](#)

## 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	14FEB2012 03:02:02
Data source version	SCIA-OL/5.02-W
Processing scope for products	01FEB2012 00:00:00 to 02FEB2012 00:00:00
Start time of first product within scope	01FEB2012 01:43:41
Stop time of last product within scope	02FEB2012 00:25:27
Total number of level 2 products	11
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__2PWDPA20120201_014341_000035163111_00161_51899_3338.N1</a>	01FEB2012 01:43:41	01FEB2012 02:42:17	0	GOOD
1	<a href="#">SCI_OL__2PWDPA20120201_050408_000035163111_00163_51901_3339.N1</a>	01FEB2012 05:04:08	01FEB2012 06:02:44	0	GOOD
2	<a href="#">SCI_OL__2PWDPA20120201_082435_000035163111_00165_51903_3340.N1</a>	01FEB2012 08:24:35	01FEB2012 09:23:11	0	GOOD
3	<a href="#">SCI_OL__2PWDPA20120201_114502_000035163111_00167_51905_3341.N1</a>	01FEB2012 11:45:02	01FEB2012 12:43:38	0	GOOD
4	<a href="#">SCI_OL__2PWDPA20120201_132515_000035303111_00168_51906_3343.N1</a>	01FEB2012 13:25:15	01FEB2012 14:24:06	0	GOOD

5	SCI_OL__2PWDP20120201_150529_000035163111_00169_51907_3342.N1	01FEB2012 15:05:29	01FEB2012 16:04:05	0	GOOD
6	SCI_OL__2PWDP20120201_164542_000035303111_00170_51908_3344.N1	01FEB2012 16:45:42	01FEB2012 17:44:33	0	GOOD
7	SCI_OL__2PWDP20120201_182703_000034863111_00171_51909_3345.N1	01FEB2012 18:27:03	01FEB2012 19:25:10	0	GOOD
8	SCI_OL__2PWDP20120201_200630_000035303111_00172_51910_3346.N1	01FEB2012 20:06:30	01FEB2012 21:05:21	0	GOOD
9	SCI_OL__2PWDP20120201_214623_000035163111_00173_51911_3347.N1	01FEB2012 21:46:23	01FEB2012 22:44:59	0	GOOD
10	SCI_OL__2PWDP20120201_232637_000035303111_00174_51912_3348.N1	01FEB2012 23:26:37	02FEB2012 00:25:27	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: 118300

Total number of cloud data DSRs with good quality flag (=0): 118300 (100.0 %)

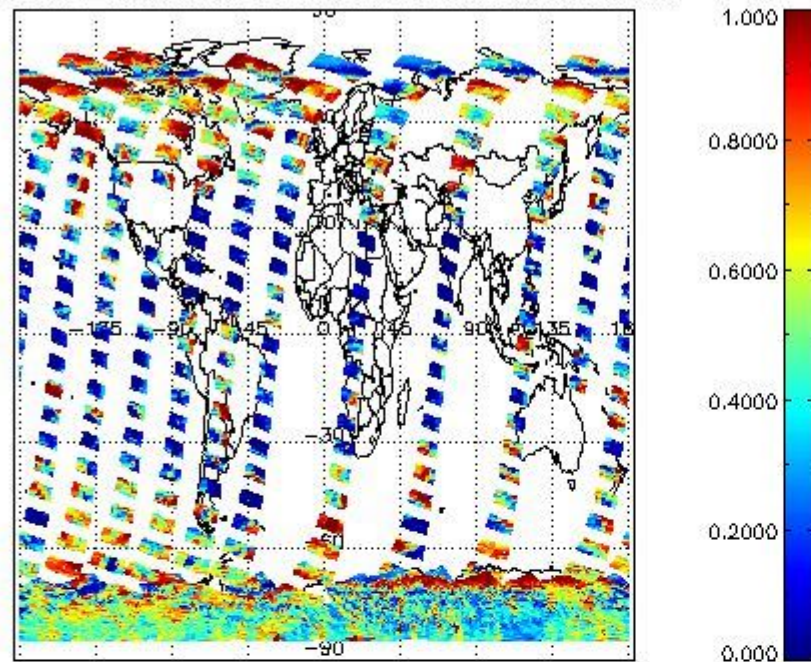
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	118300	0.0000	0.0000	0.0000	0.0000	0.0000	
INTEGR_TIME	118300	0.16593	0.12500	0.12500	0.25000	0.058662	s
CL_FRAC	118300	0.45411	0.43767	0.0000	1.0000	0.30817	
CL_FRAC_ERR	118300	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	118300	5.3099	4.0000	4.0000	8.0000	1.8772	
PMD_READ_CL[0]	118300	0.56380	0.0000	0.0000	8.0000	1.4583	-
PMD_READ_CL[1]	118300	1.0438	0.0000	0.0000	8.0000	2.3579	-
CL_TOP_HEIGHT	96070	4.1663	3.2318	0.0000	17.000	3.7302	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	96070	54.920	45.684	0.0000	101.00	40.425	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	118300	11100000	11100000	11100000	11100000	0.0000	
CLOUD_FLAGS	118300	11001011	11000100	11000000	11100000	3376.7	
AERO_ABSO_IND	118300	0.087979	0.0000	0.0000	4.5561	0.27627	
AERO_IND_DIAG	118300	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	118300	01010101	00000000	00000000	11000000	24433.	

#### Time and geolocation plots:

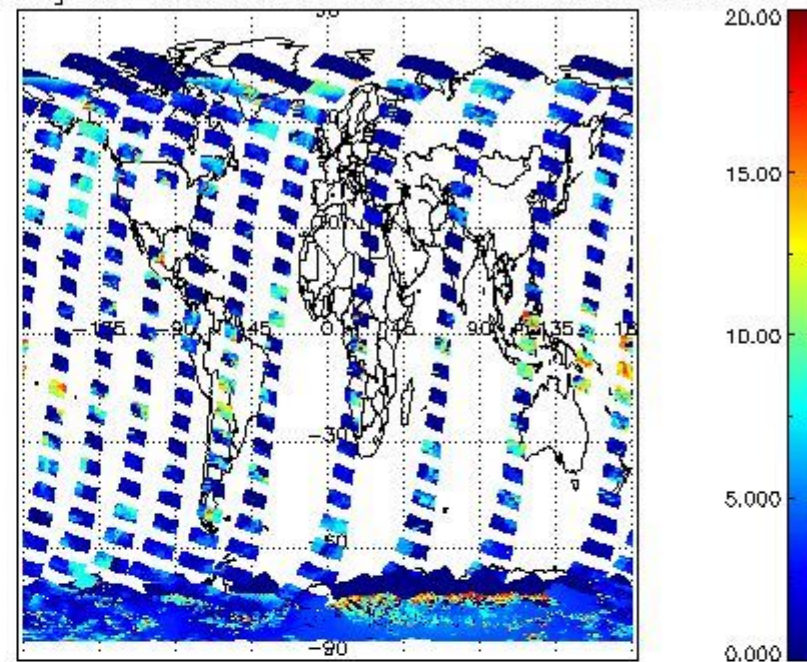
Plots are available for the following parameters:

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

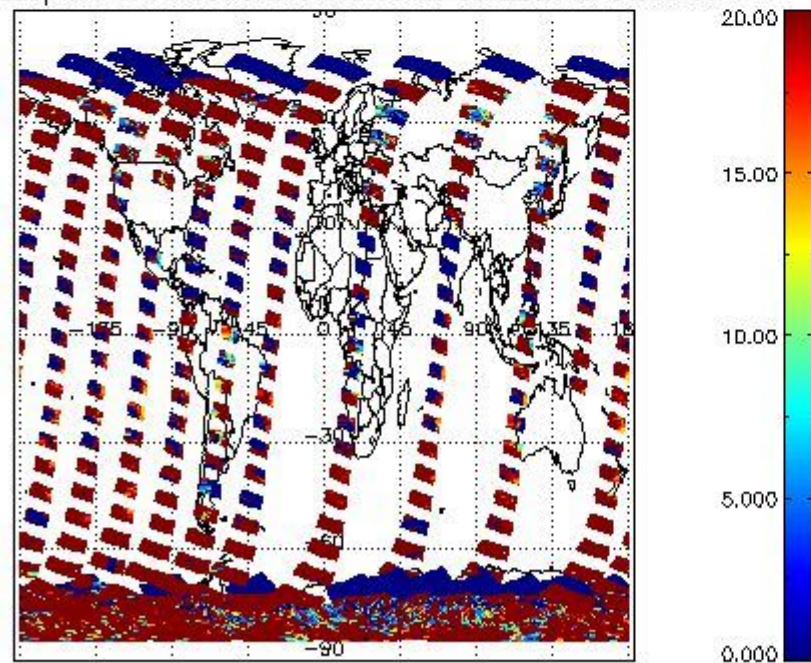
cL\_frac for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



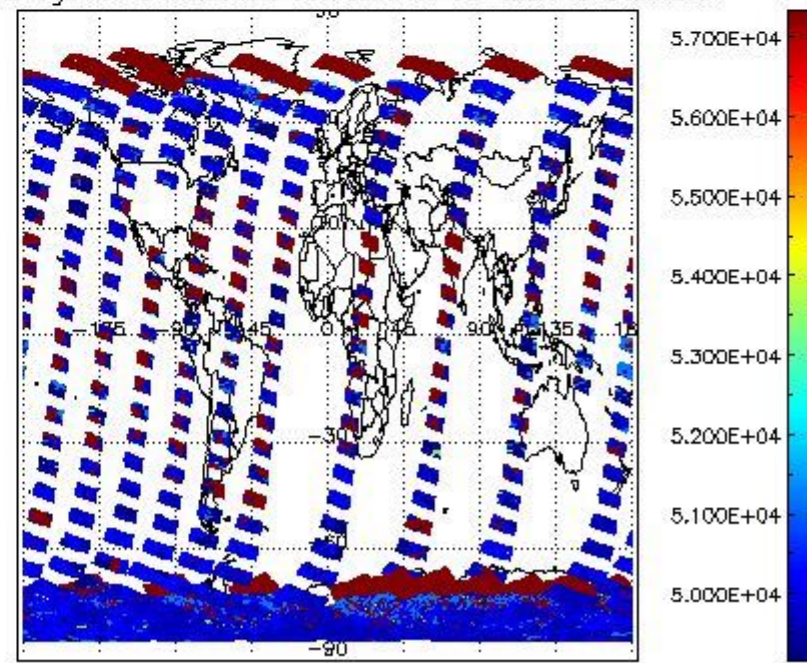
cL\_top\_height for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



cL\_opt\_depth for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



cloud\_flags for 01FEB2012 00:00:00 to 02FEB2012 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

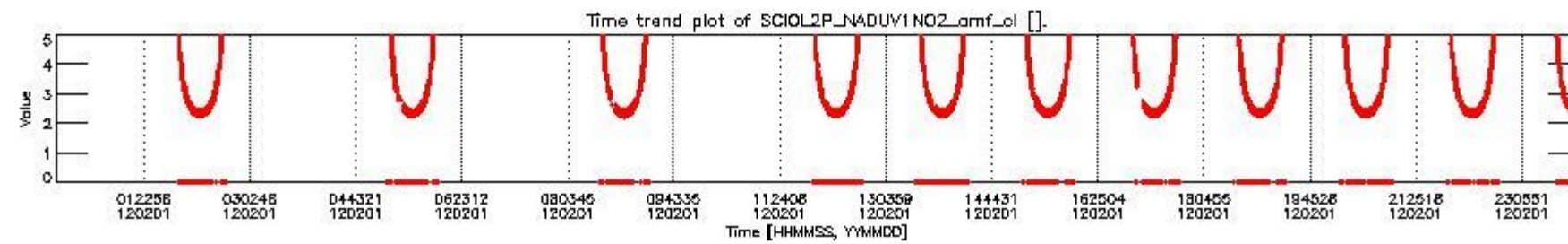
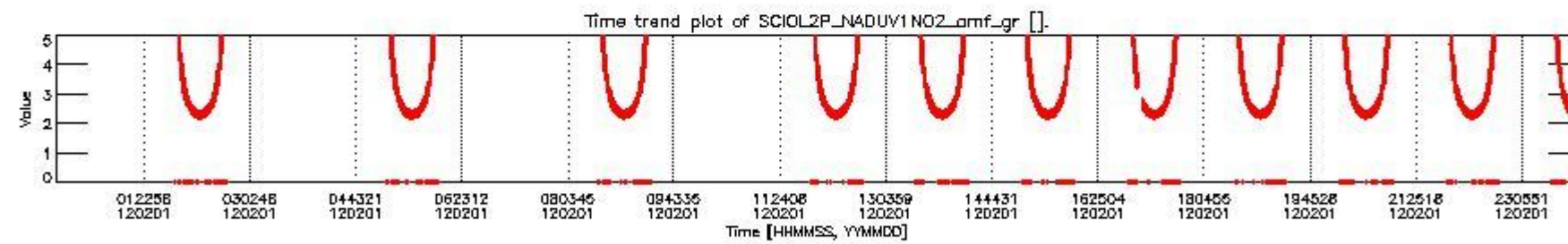
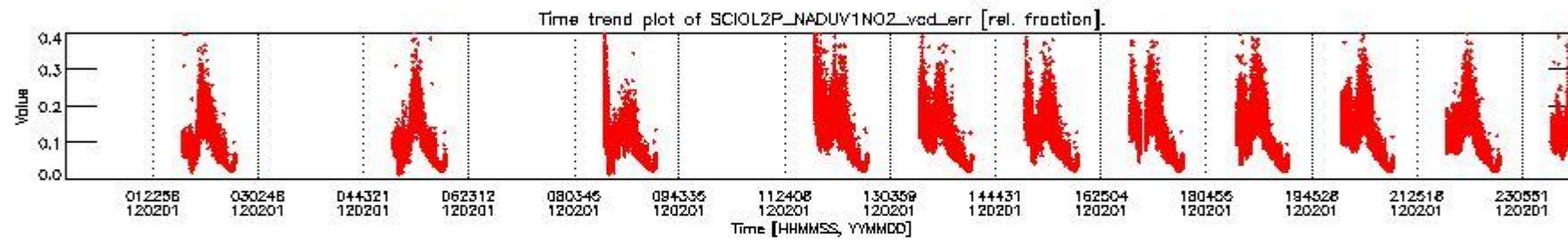
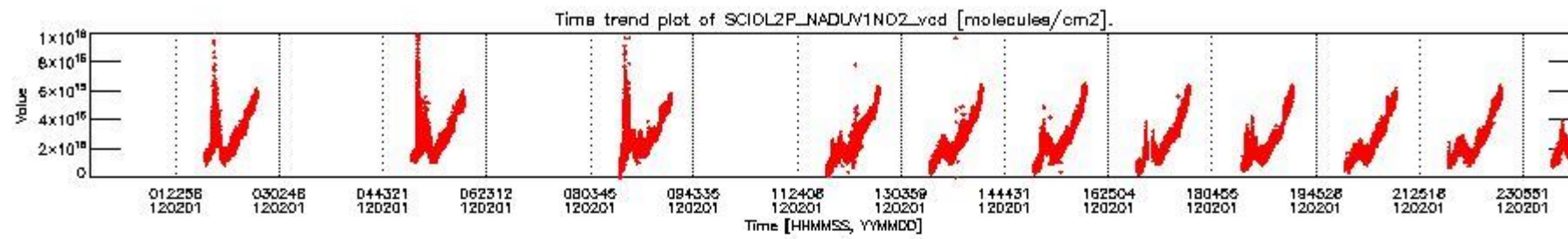
3	SCIOL2P_NADUV0O3_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl
8	SCIOL2P_NADUV3BRO_vcd
9	SCIOL2P_NADUV3BRO_vcd_err
10	SCIOL2P_NADUV3BRO_amf_gr
11	SCIOL2P_NADUV3BRO_amf_cl
12	SCIOL2P_NADUV5SO2_vcd
13	SCIOL2P_NADUV5SO2_vcd_err
14	SCIOL2P_NADUV5SO2_amf_gr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

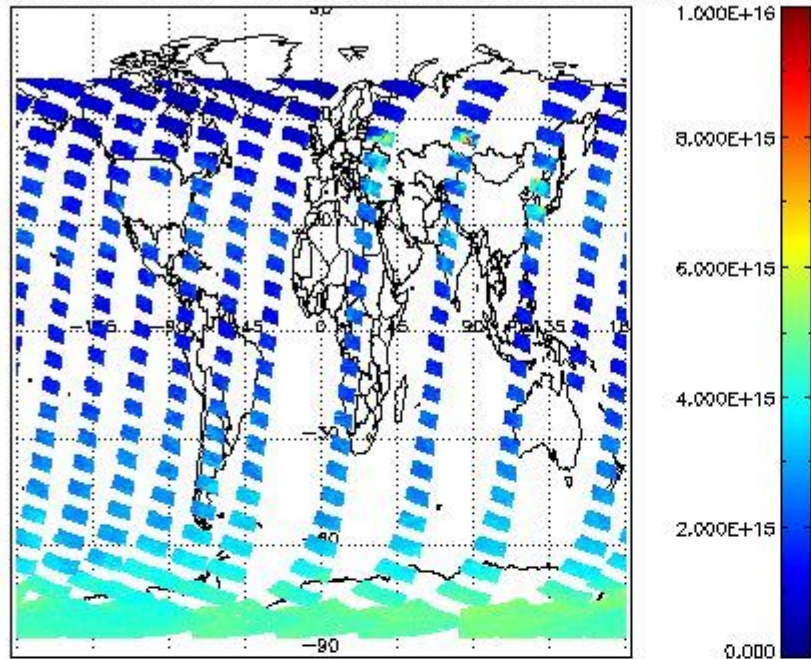
#### 2.2.2.1 O3 (UV0)



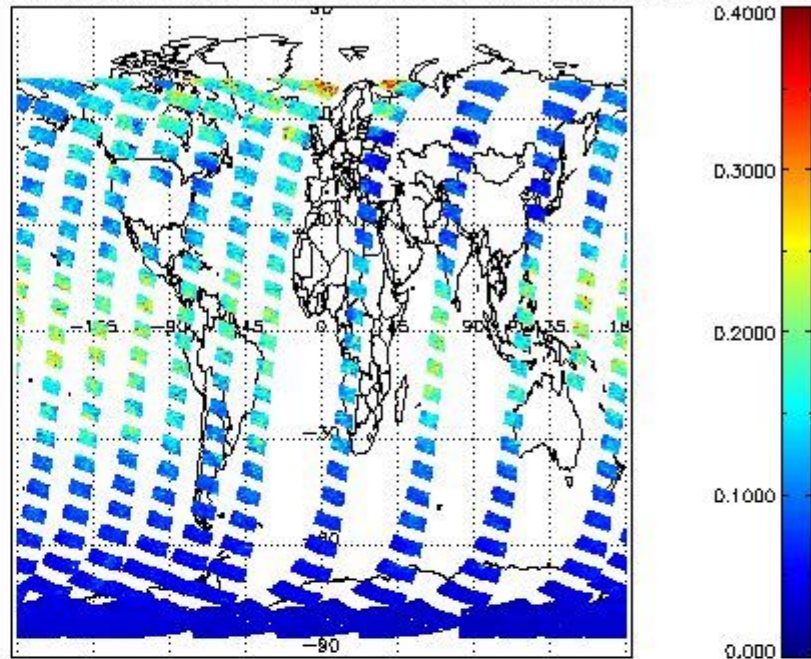
#### 2.2.2.2 NO2 (UV1)



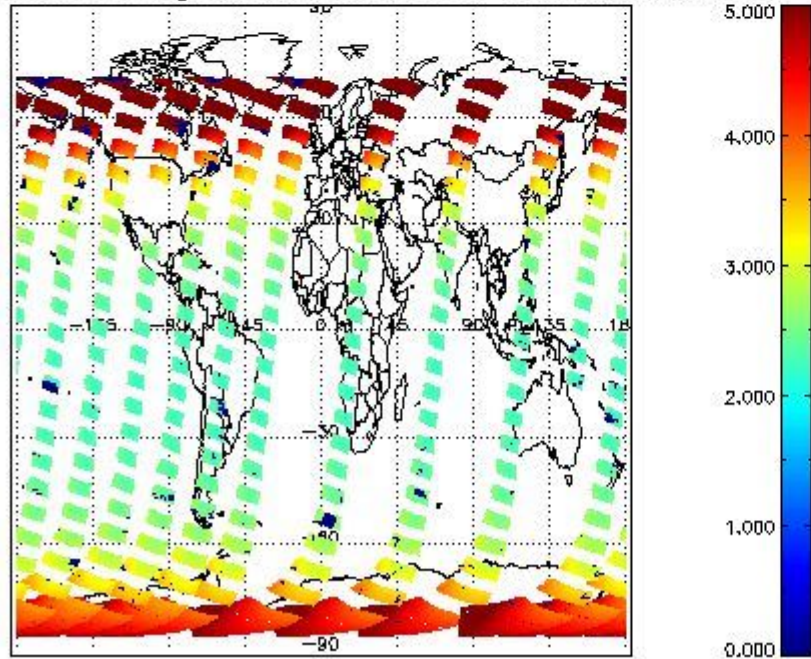
SCIOL2P\_NADUV1N02\_vcd for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



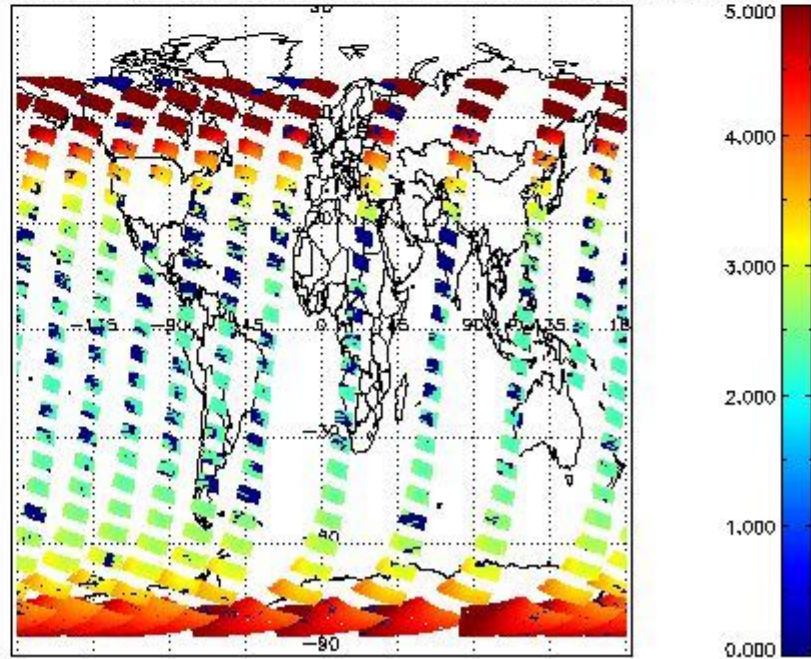
SCIOL2P\_NADUV1N02\_vcd\_err for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



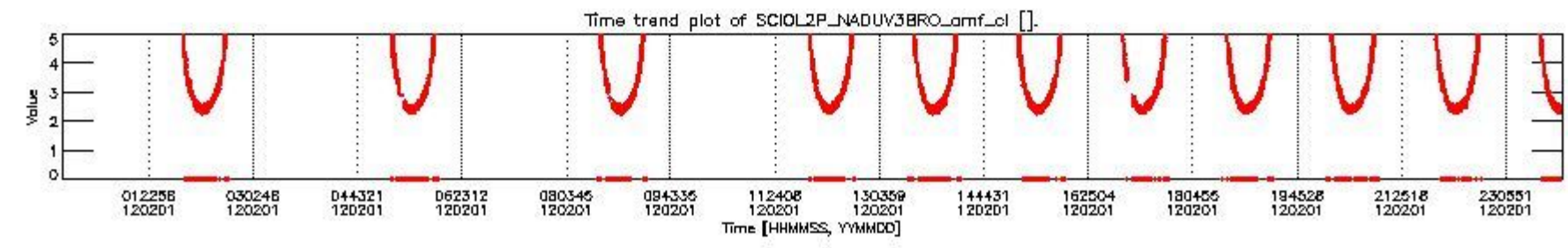
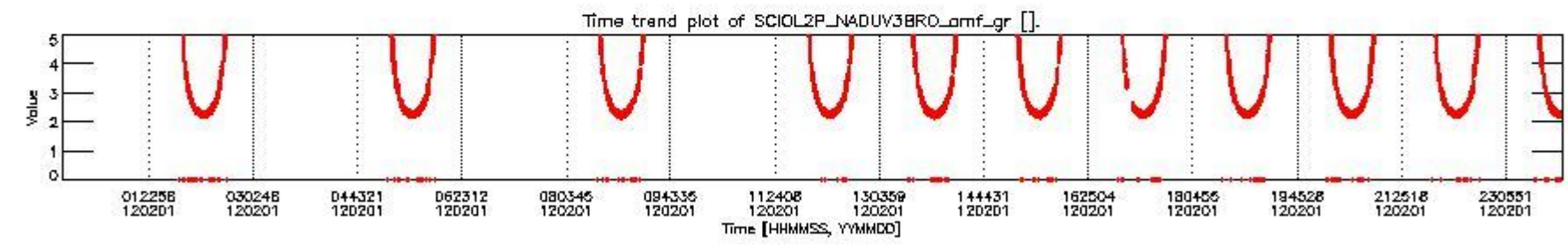
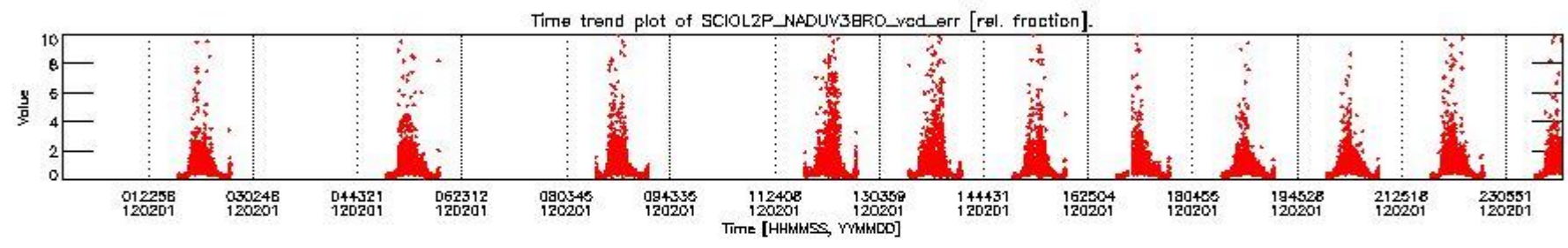
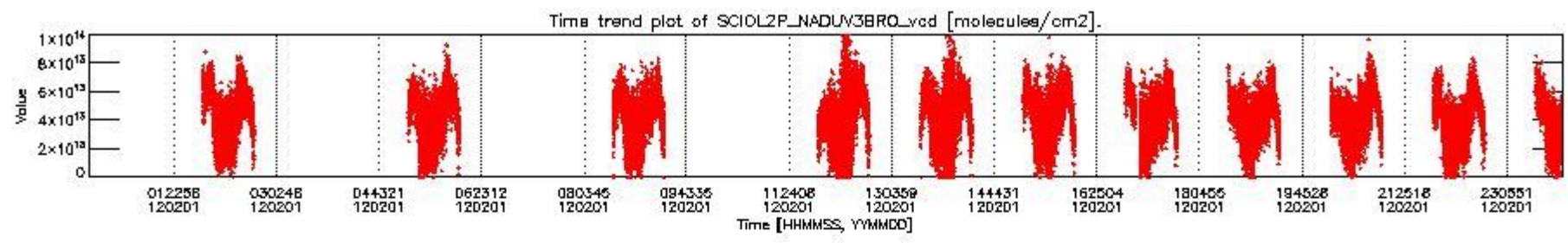
SCIOL2P\_NADUV1N02\_amf\_gr for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



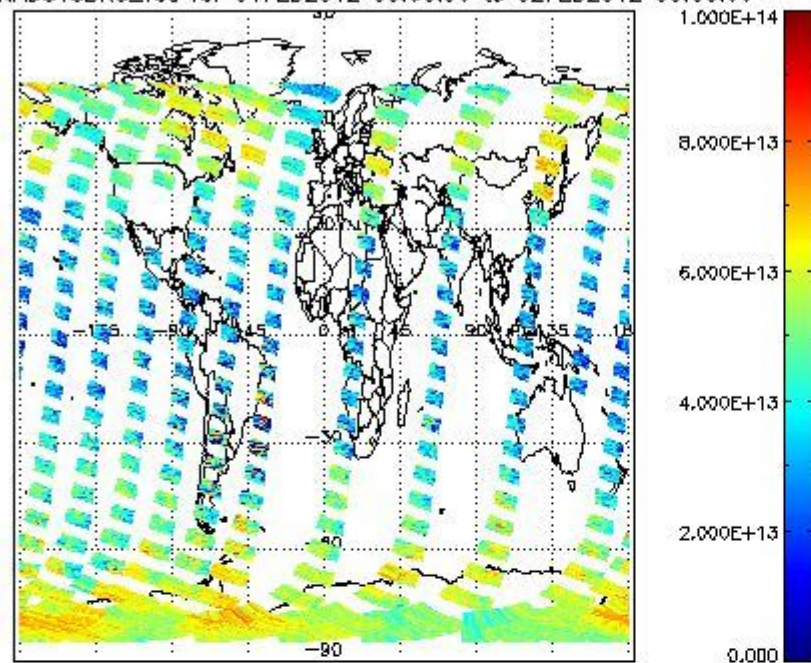
SCIOL2P\_NADUV1N02\_amf\_cl for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



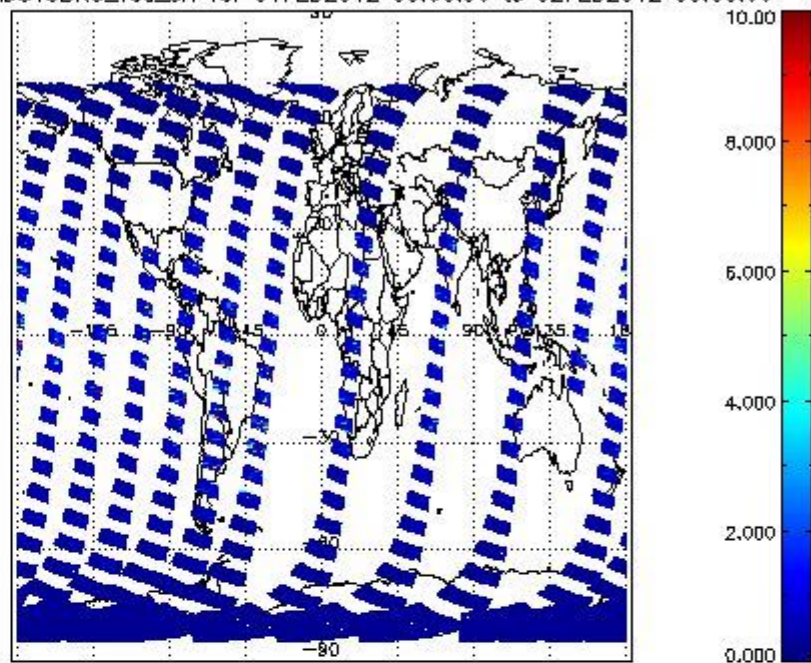
### 2.2.2.3 BrO (UV3)



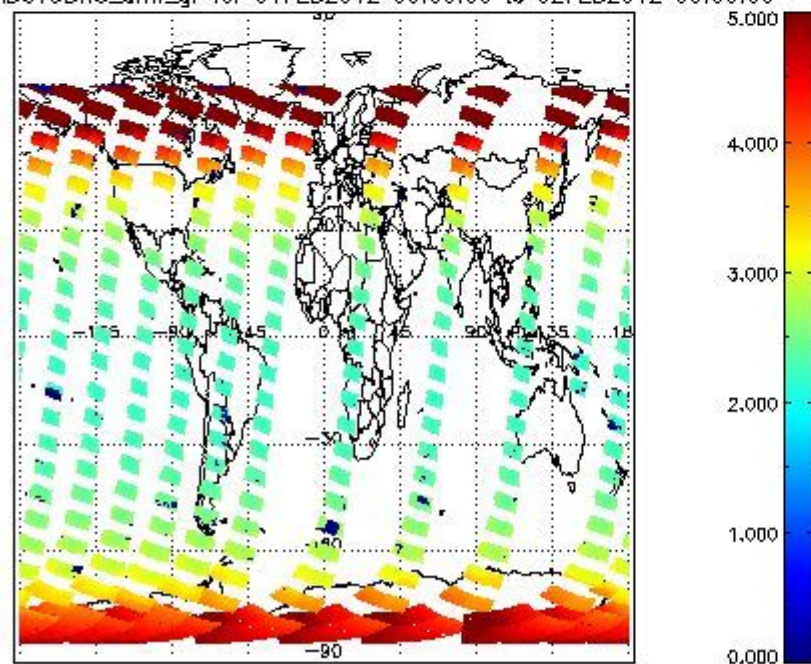
SCIOL2P\_NADUV3BRO\_vcd for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



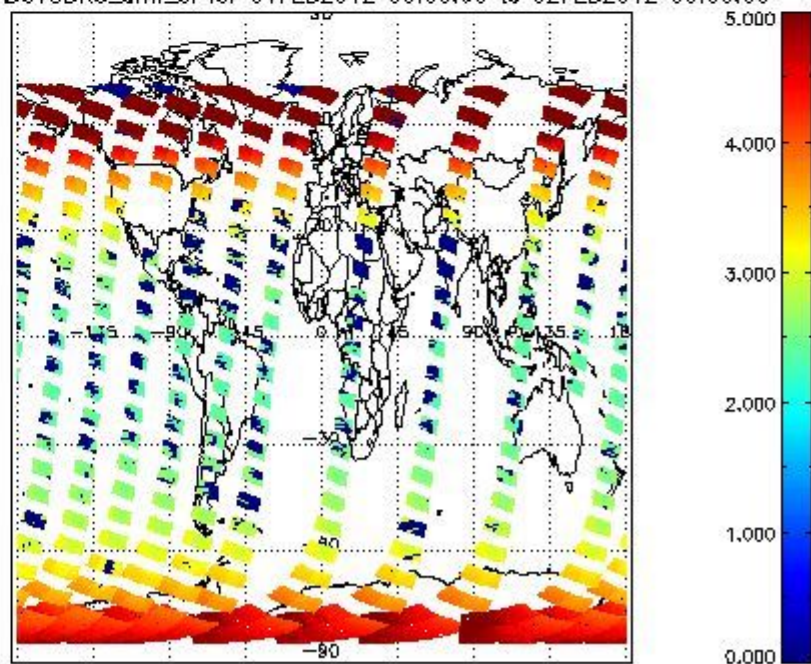
SCIOL2P\_NADUV3BRO\_vcd\_err for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



SCIOL2P\_NADUV3BRO\_amf\_gr for 01FEB2012 00:00:00 to 02FEB2012 00:00:00

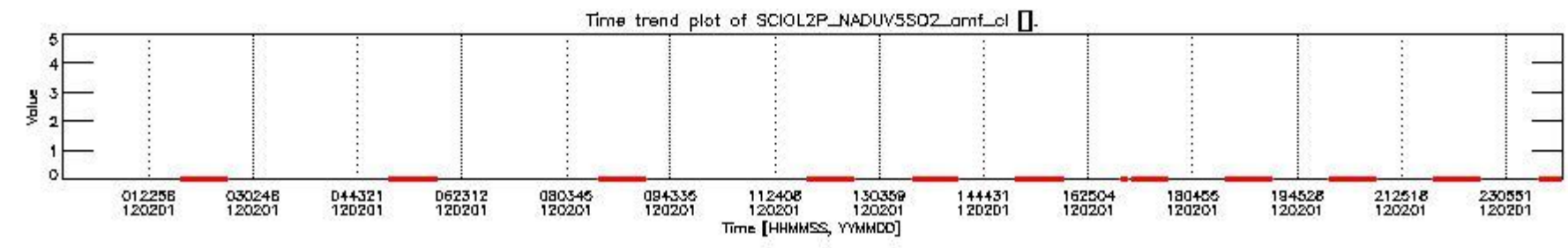
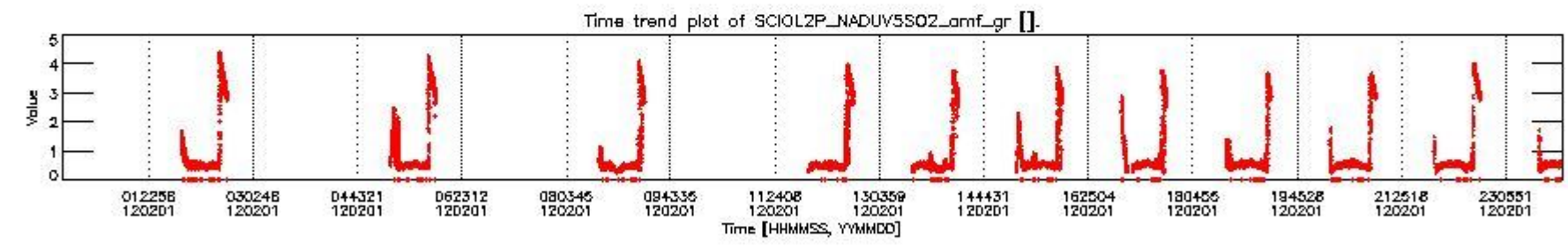
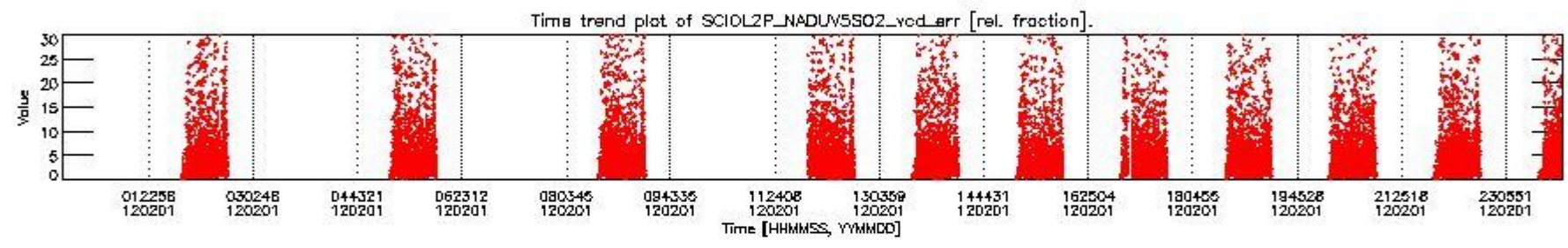
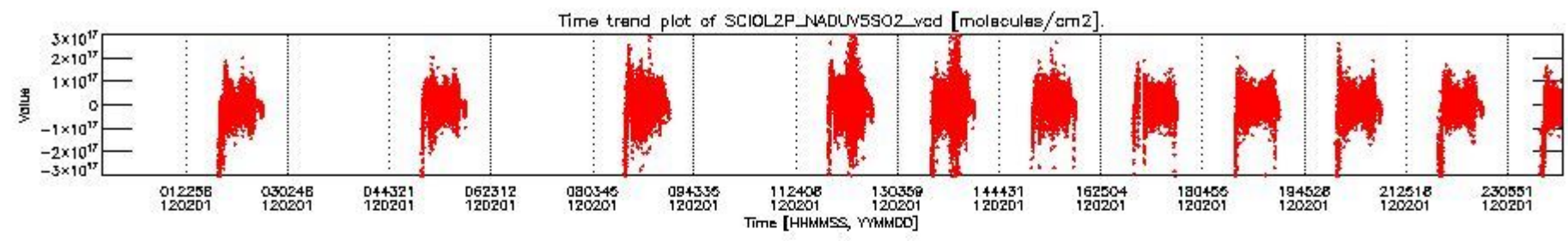


SCIOL2P\_NADUV3BRO\_amf\_cl for 01FEB2012 00:00:00 to 02FEB2012 00:00:00

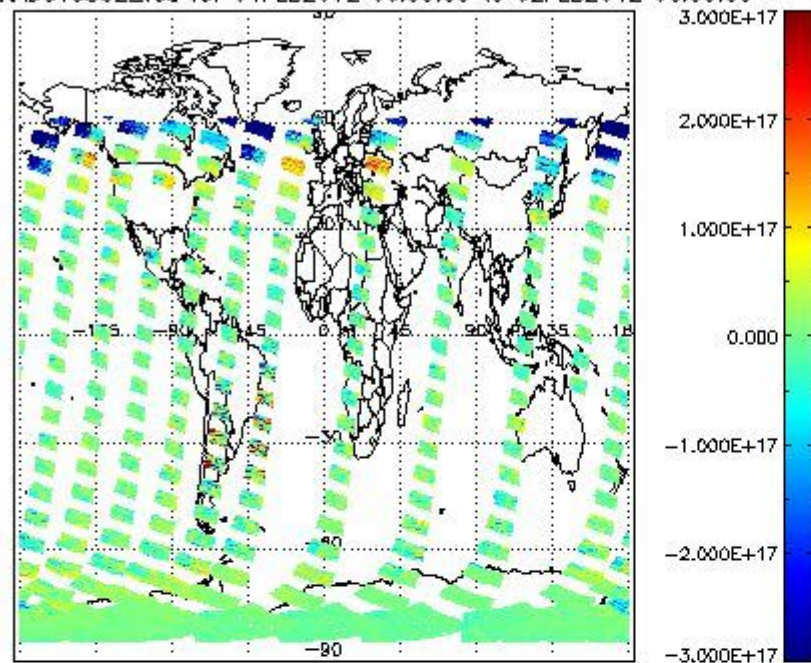


#### 2.2.2.4 SO2 (UV5)

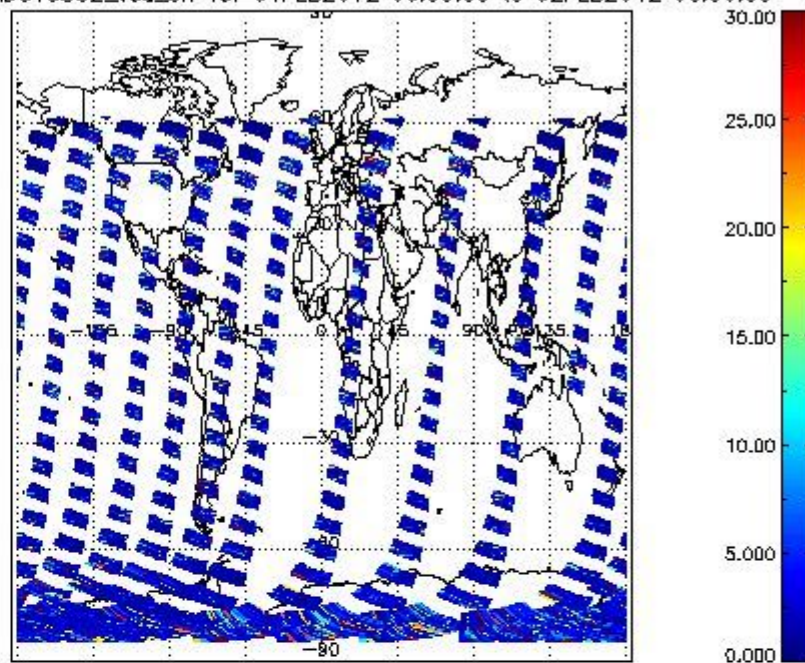




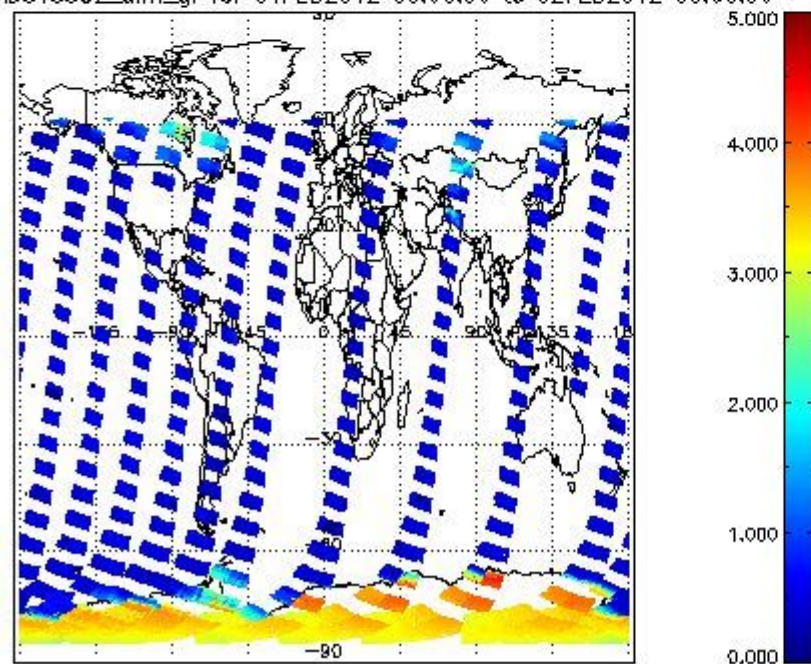
SCIOL2P\_NADUV5S02\_vcd for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



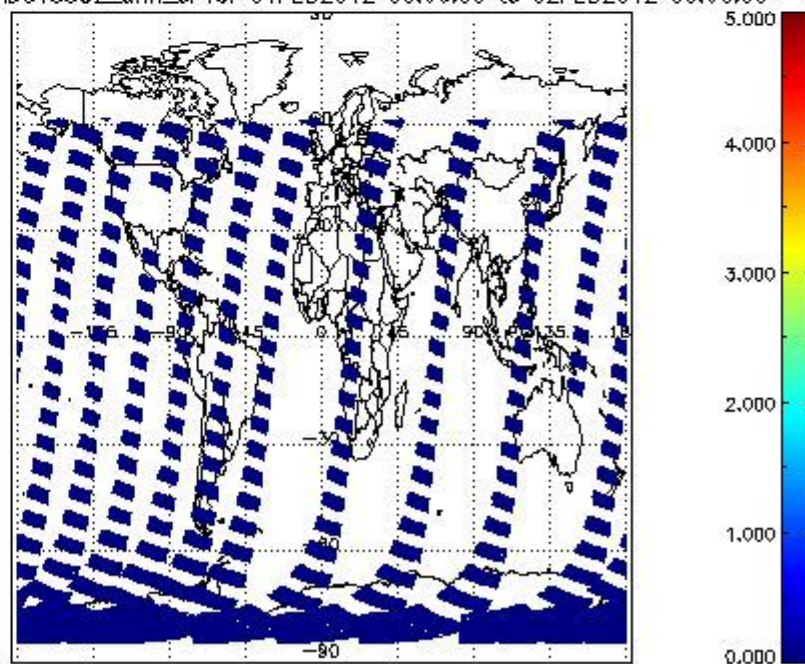
SCIOL2P\_NADUV5S02\_vcd\_err for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



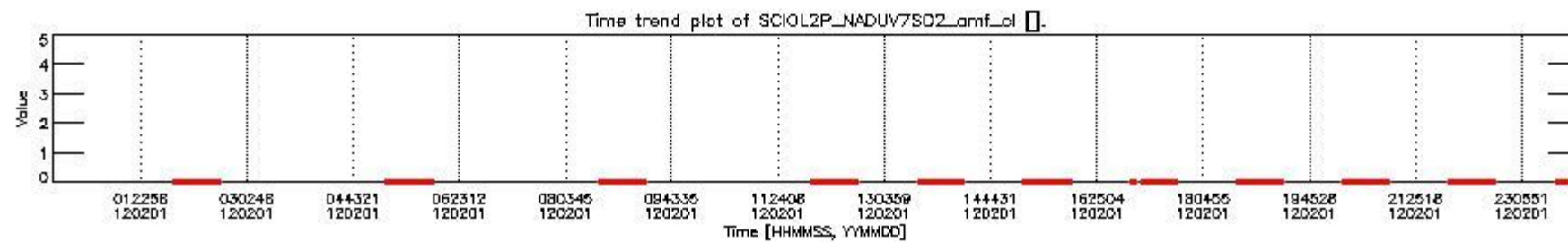
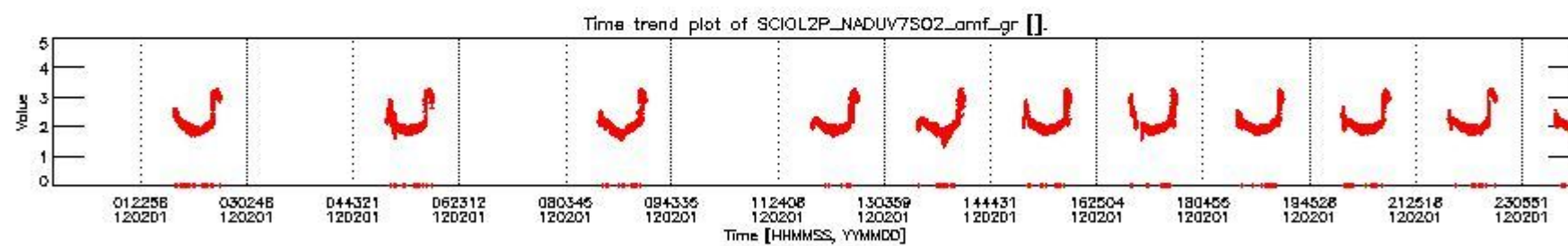
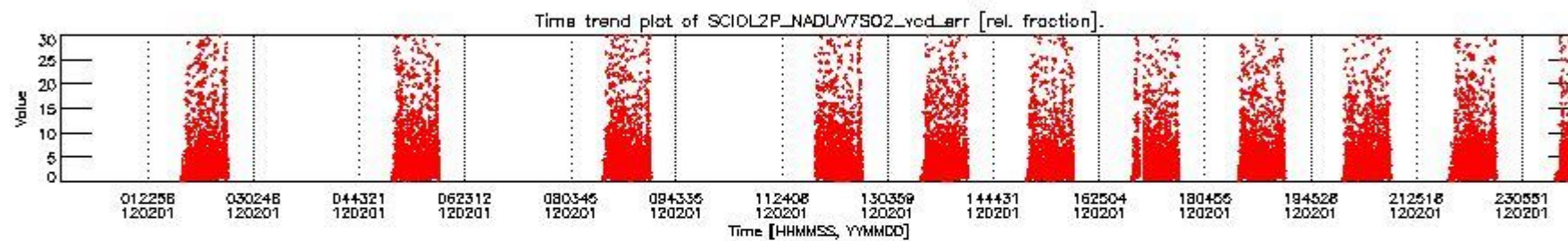
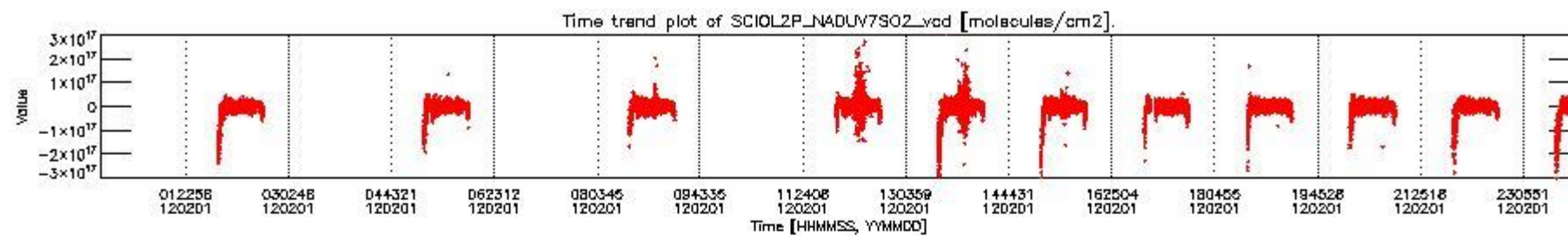
SCIOL2P\_NADUV5S02\_amf\_gr for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



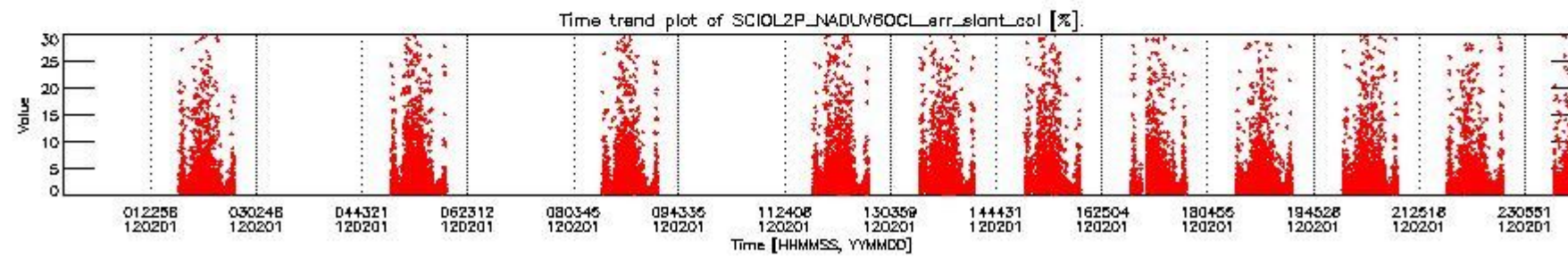
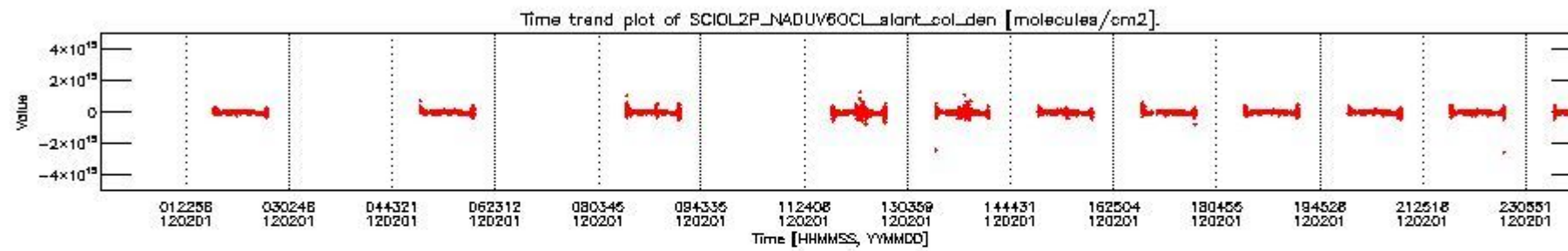
SCIOL2P\_NADUV5S02\_amf\_cl for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



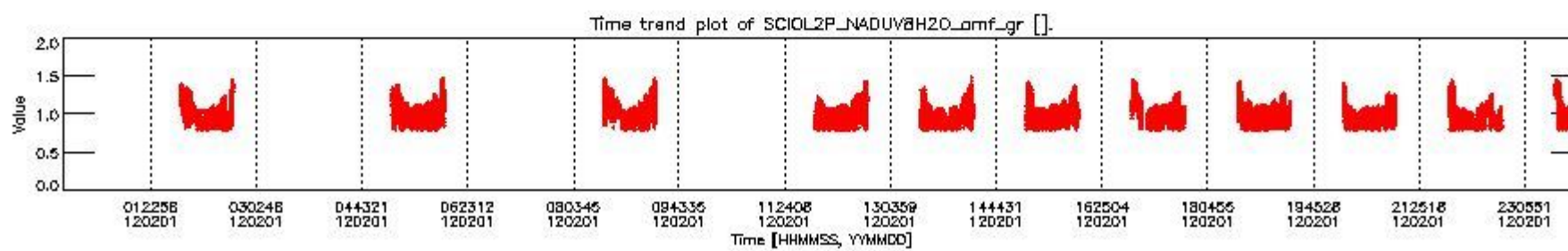
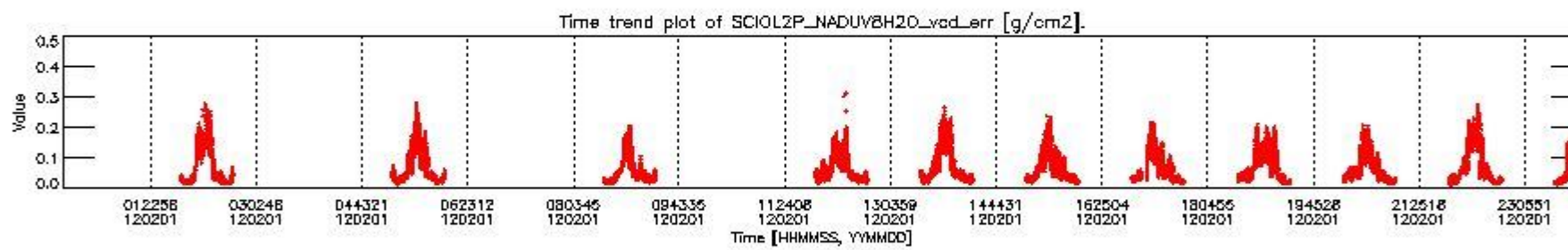
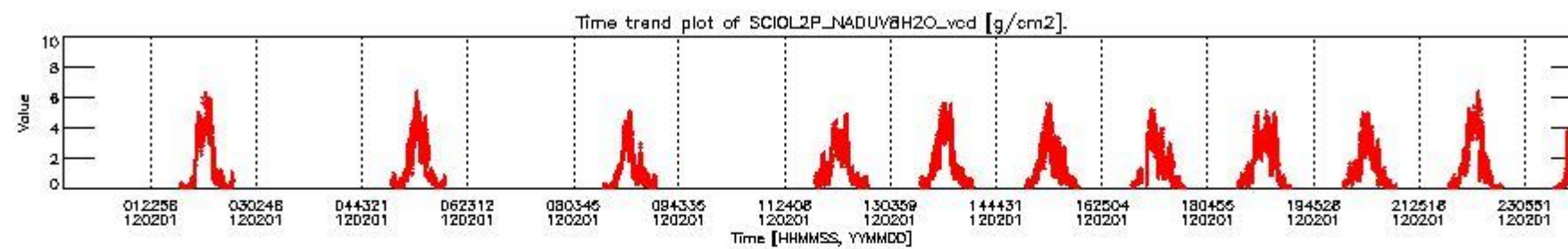
## 2.2.2.5 SO2 (UV7)



### 2.2.2.6 OCIO (UV6)

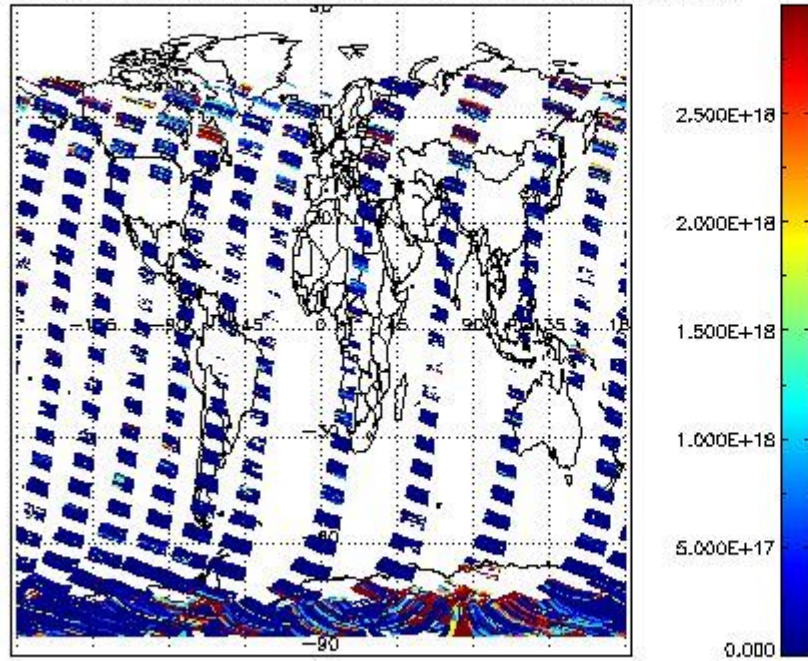


### 2.2.2.7 H2O (UV8)

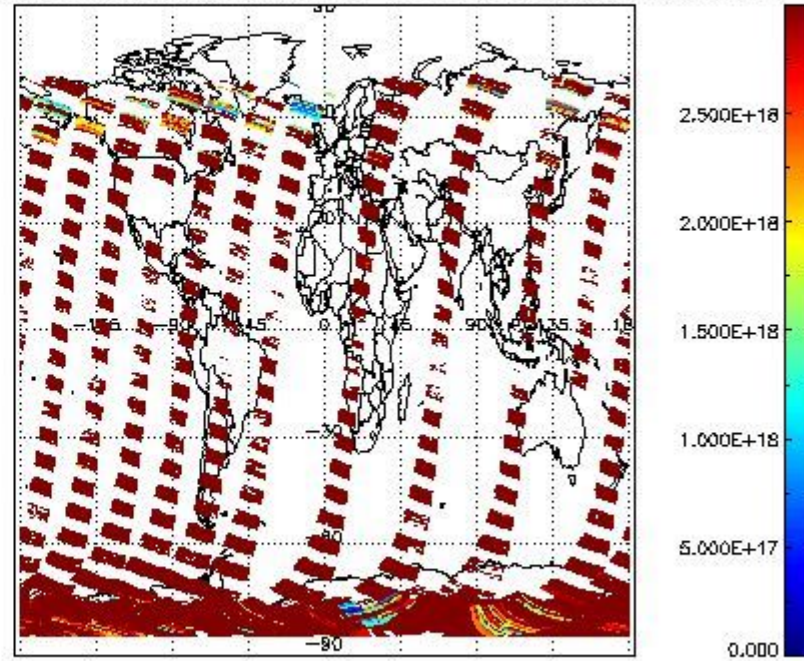




SCIOL2P\_NADIR3CO\_vcd for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



SCIOL2P\_NADIR3CO\_vcd\_err for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



## 2.2.3 Limb

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

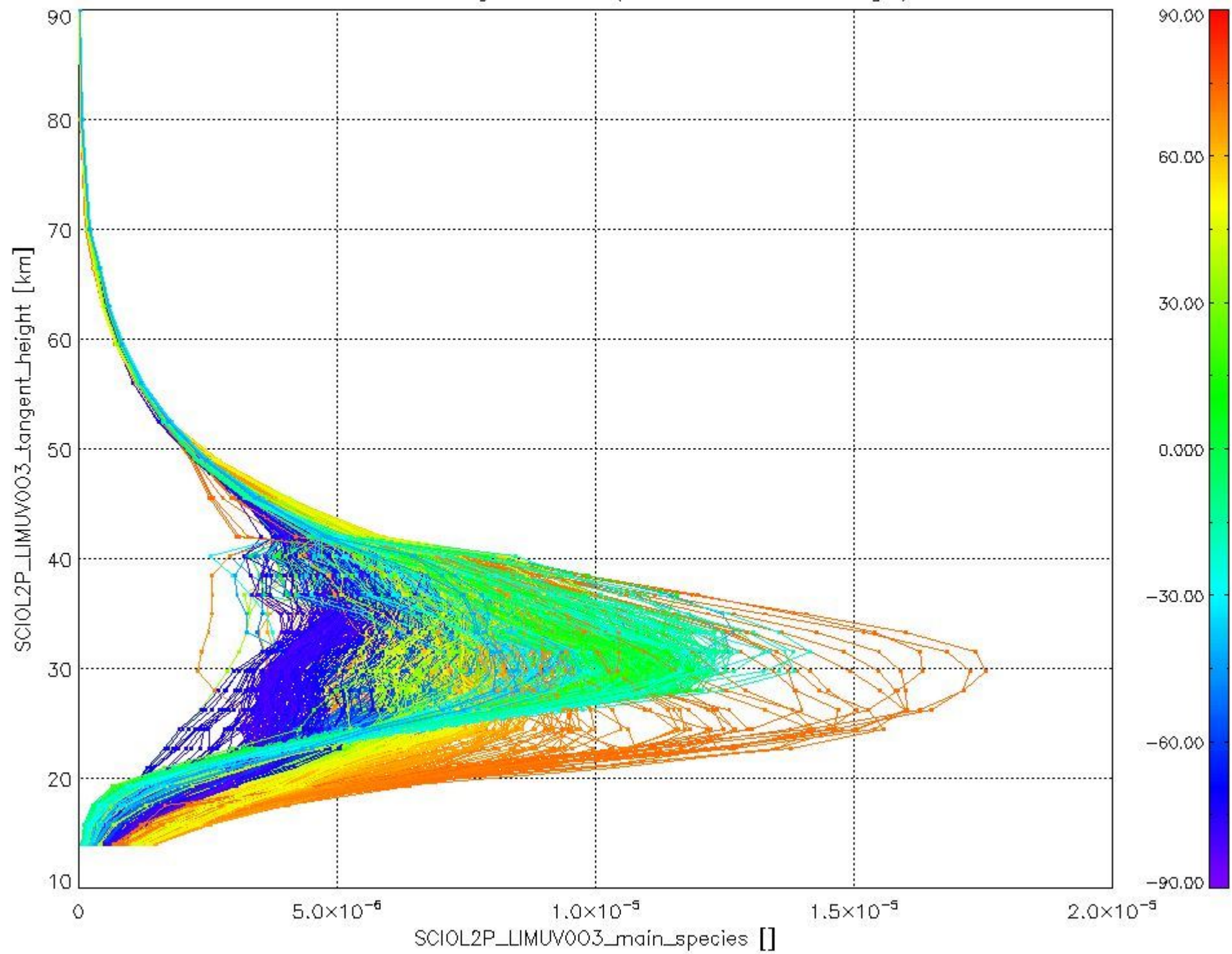
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_LIMUV003_main_species
1	SCIOL2P_LIMUV1NO2_main_species
2	SCIOL2P_LIMUV3BRO_main_species

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

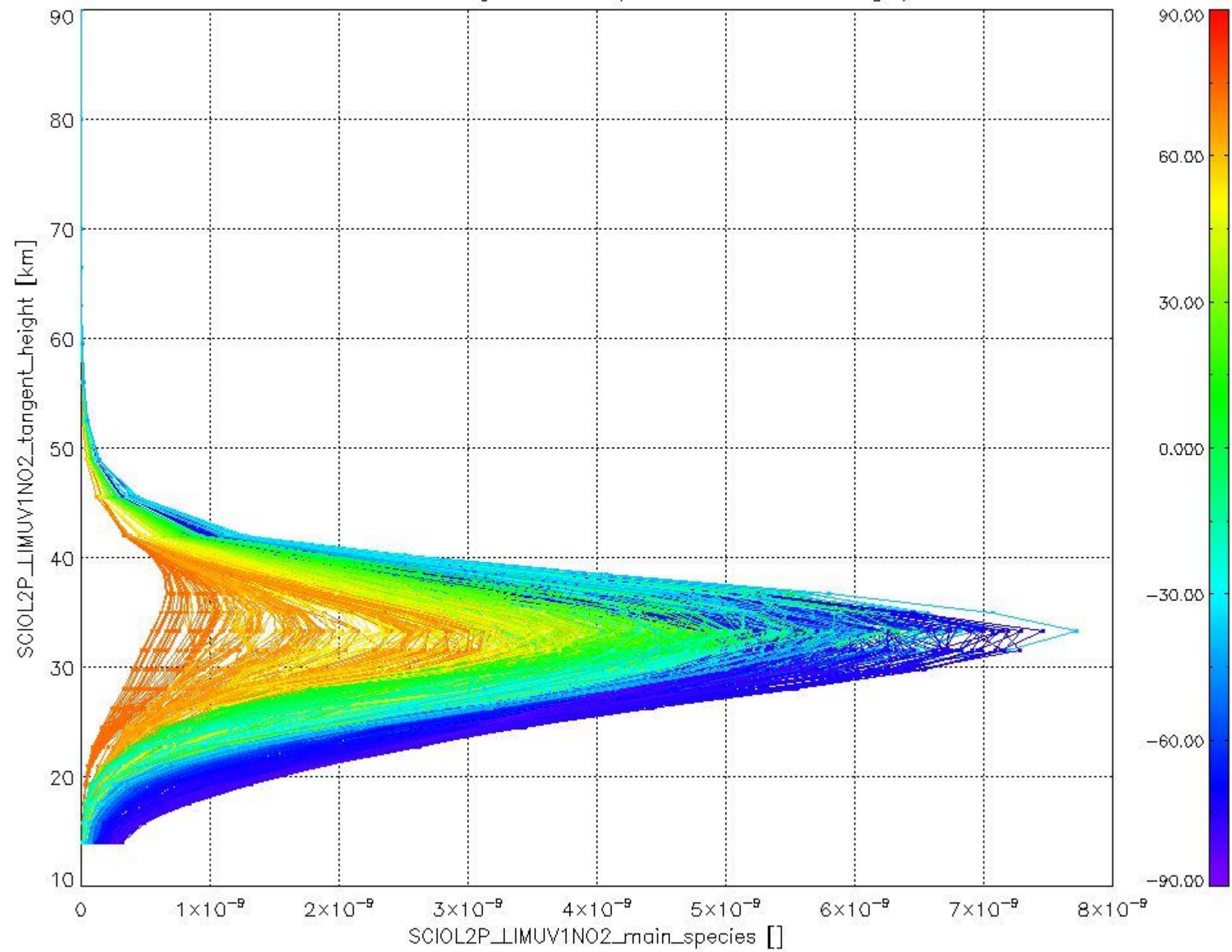
### 2.2.3.1 O3 (UV0)

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



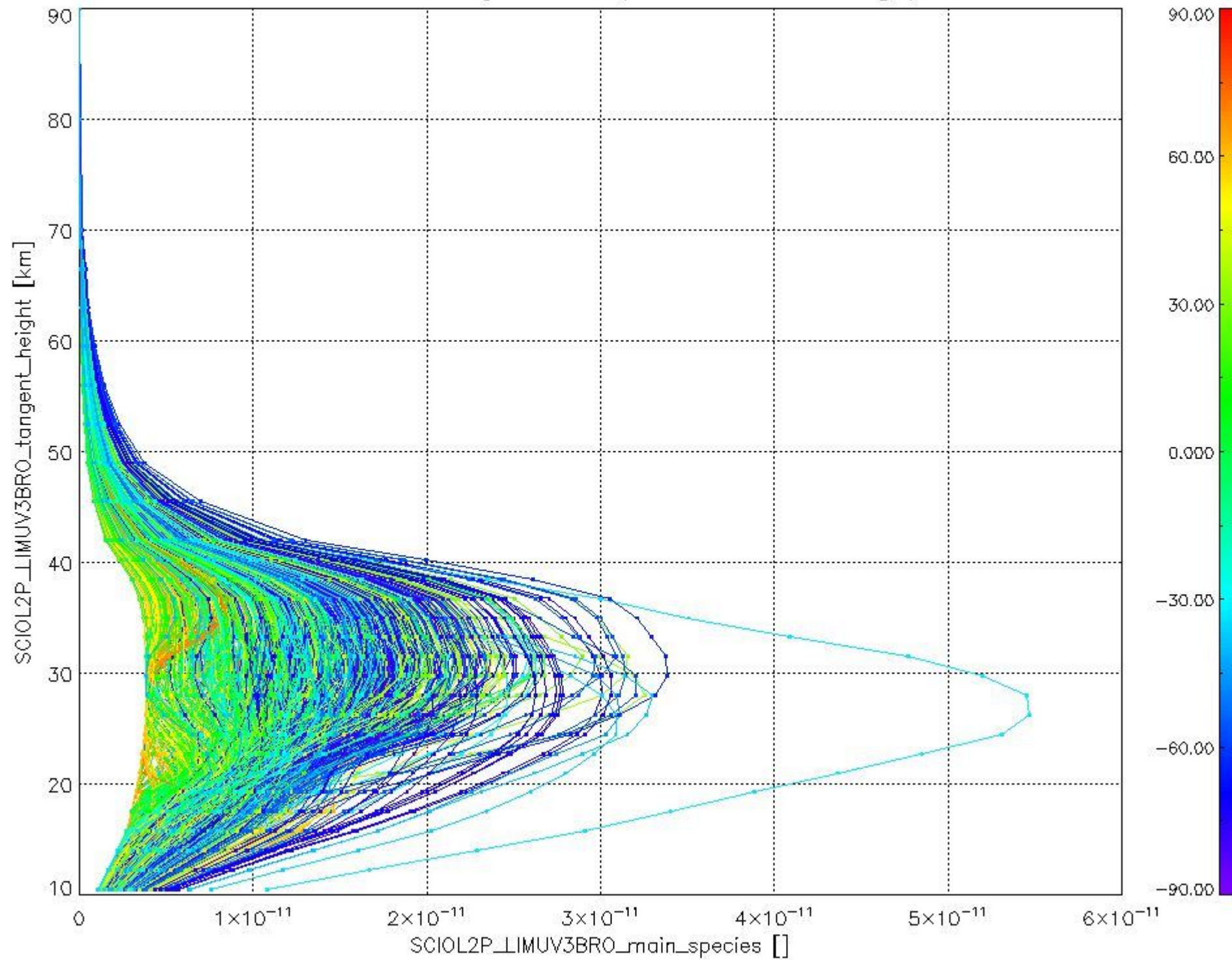
2.2.3.2 NO2 (UV1)

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).



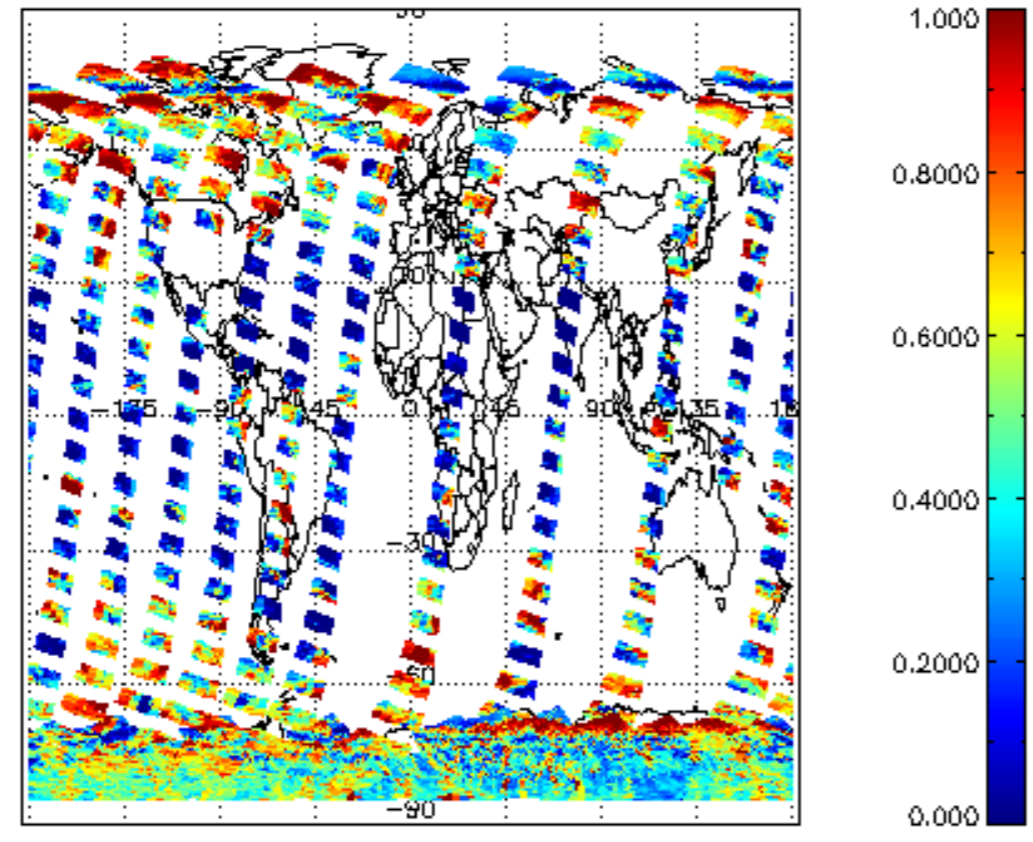
### 2.3 ADF monitoring

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_AXVIEC20120207_164448_20120131_182307_20120202_182307
3	SCI_MF1_AXVIEC20120207_164555_20120201_192636_20120203_192636

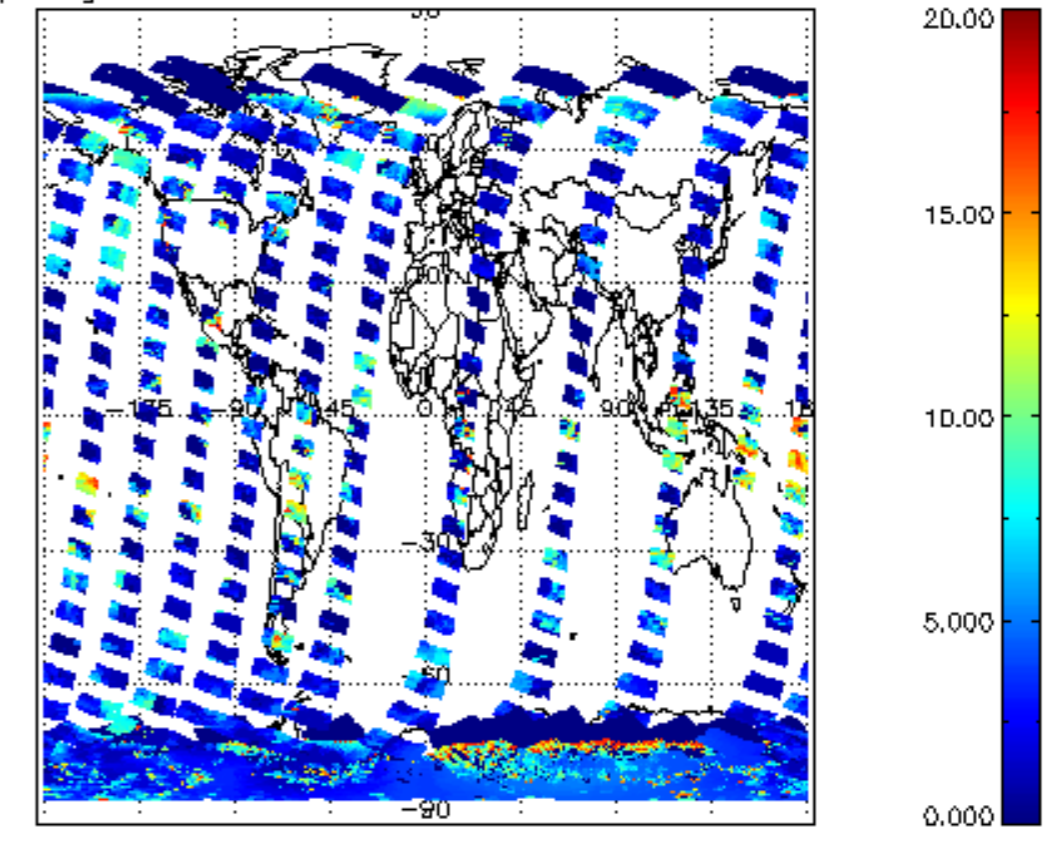




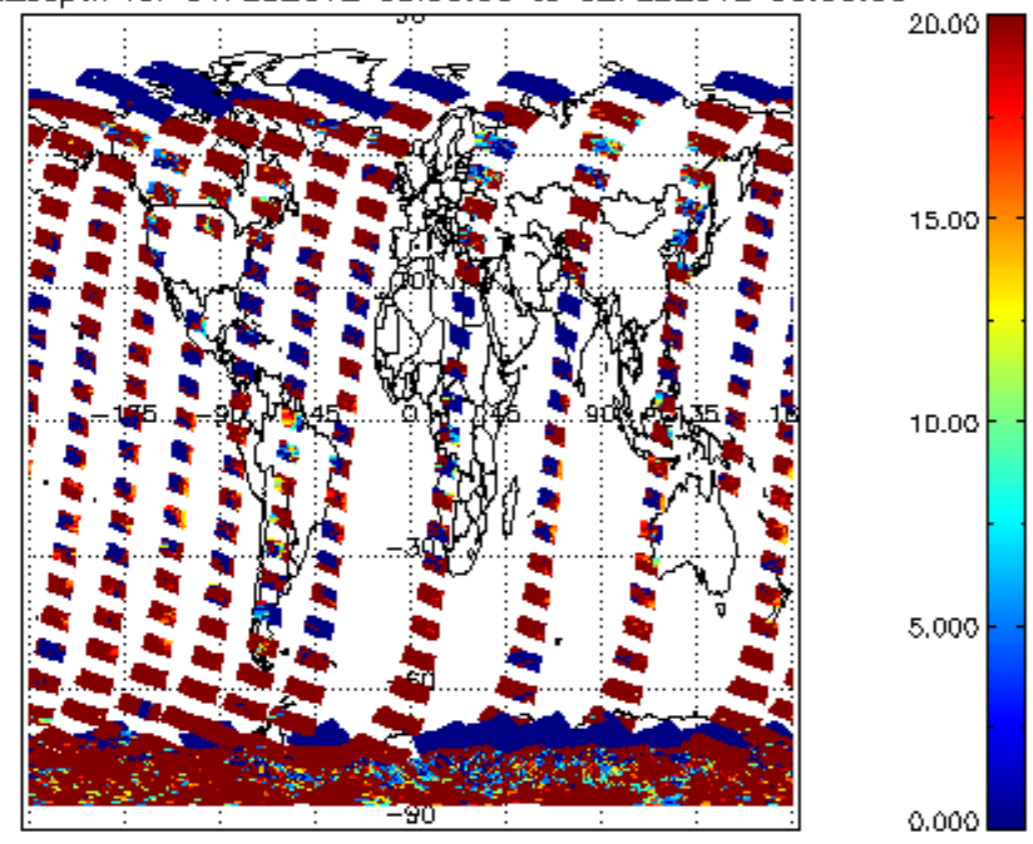
cl\_frac for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



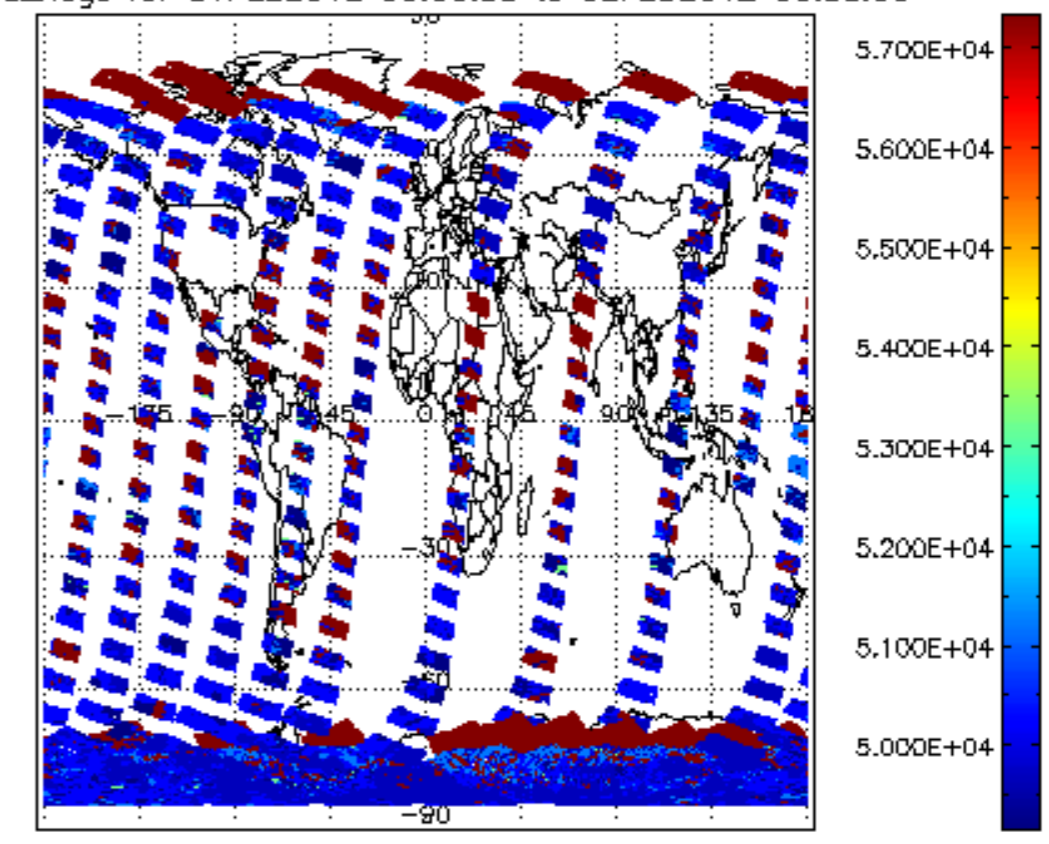
cl\_top\_height for 01FEB2012 00:00:00 to 02FEB2012 00:00:00

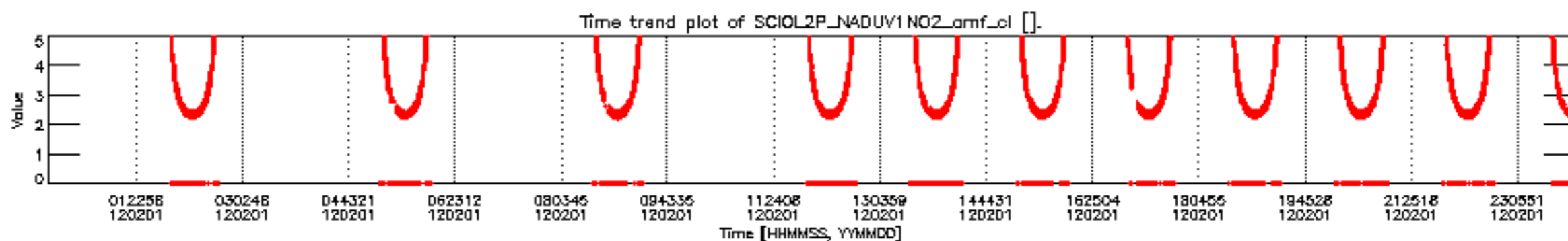
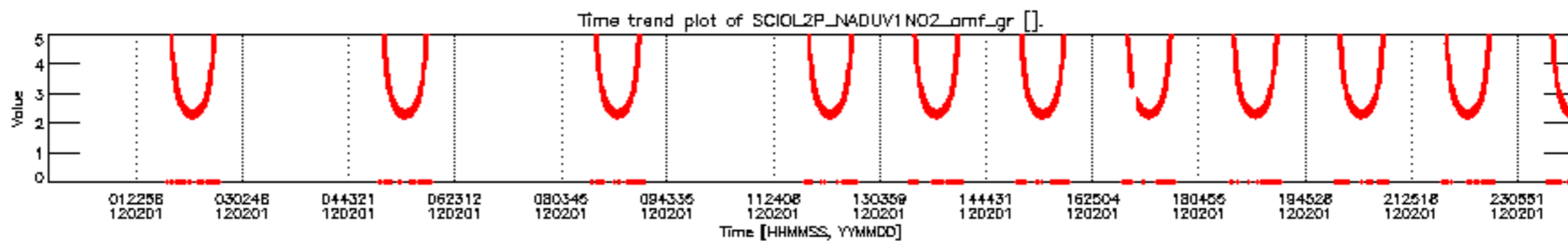
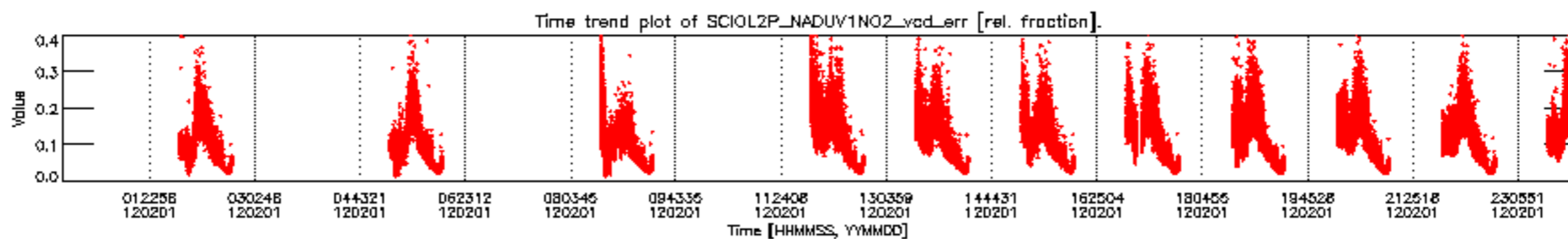
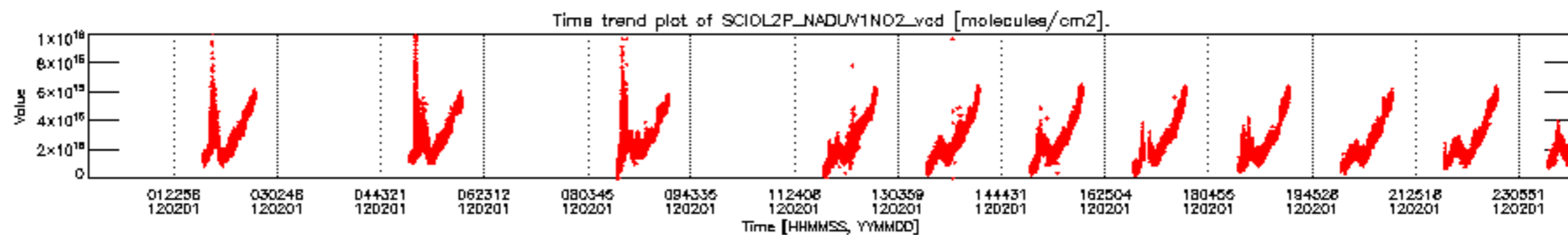


cl\_lopt\_depth for 01FEB2012 00:00:00 to 02FEB2012 00:00:00

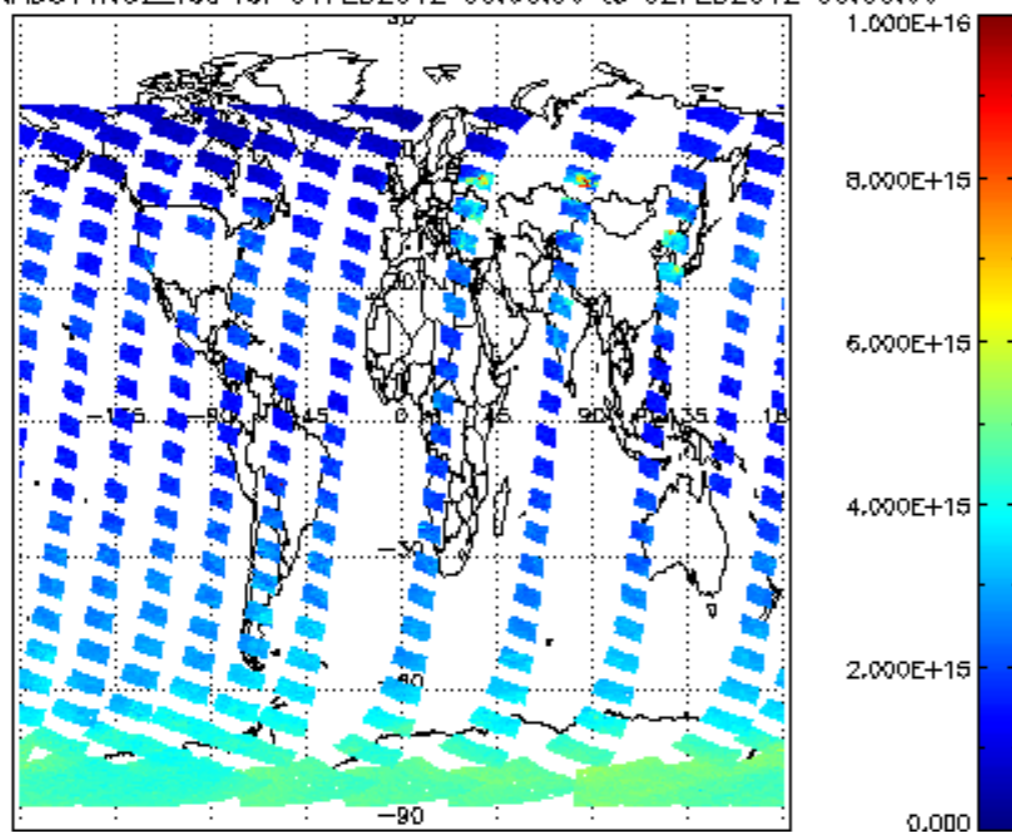


cloud\_flags for 01FEB2012 00:00:00 to 02FEB2012 00:00:00

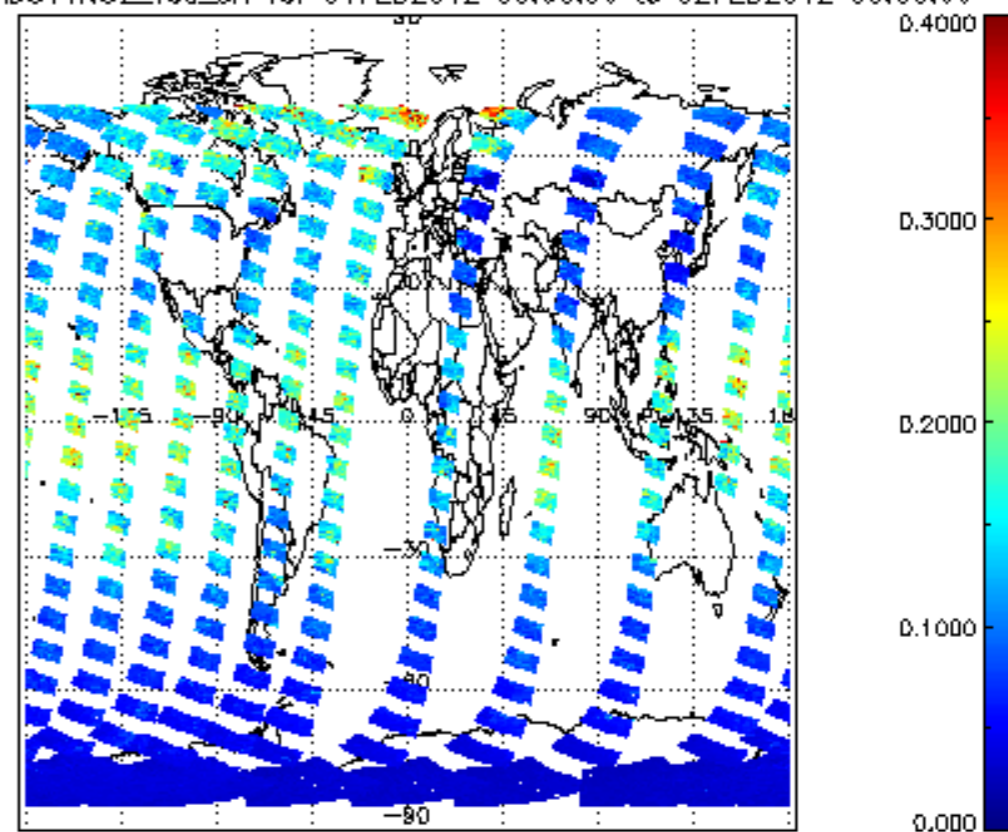




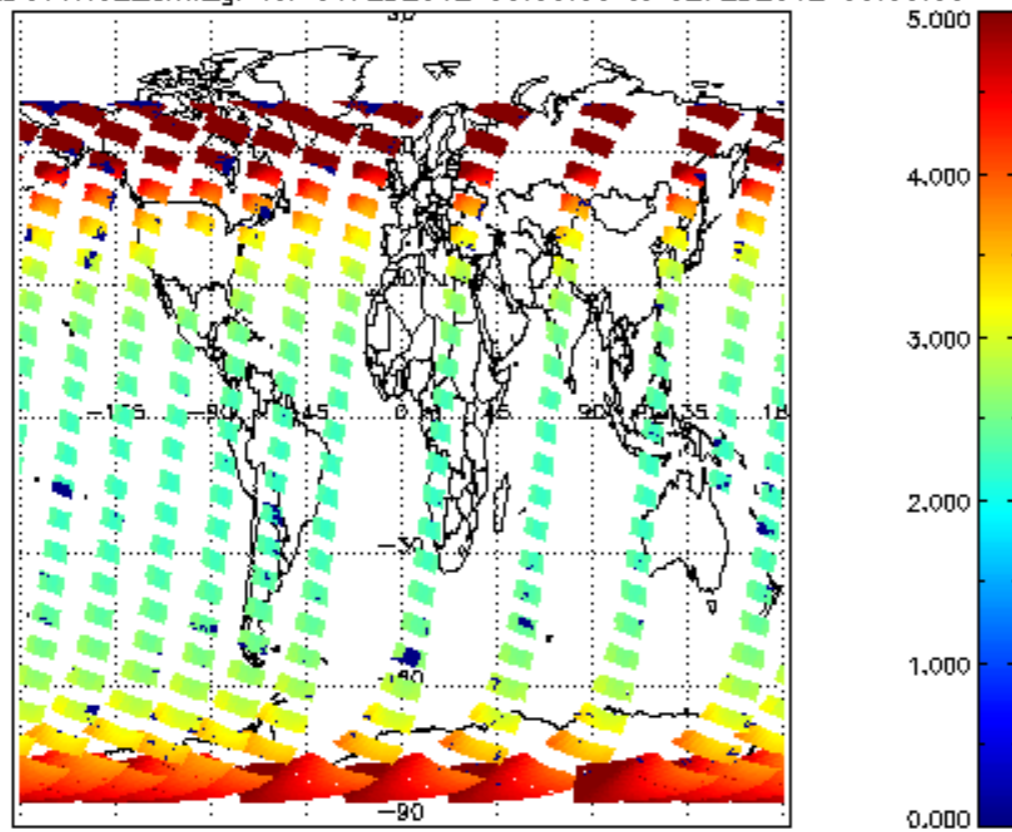
SCIOL2P\_NADUV1N02\_vcd for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



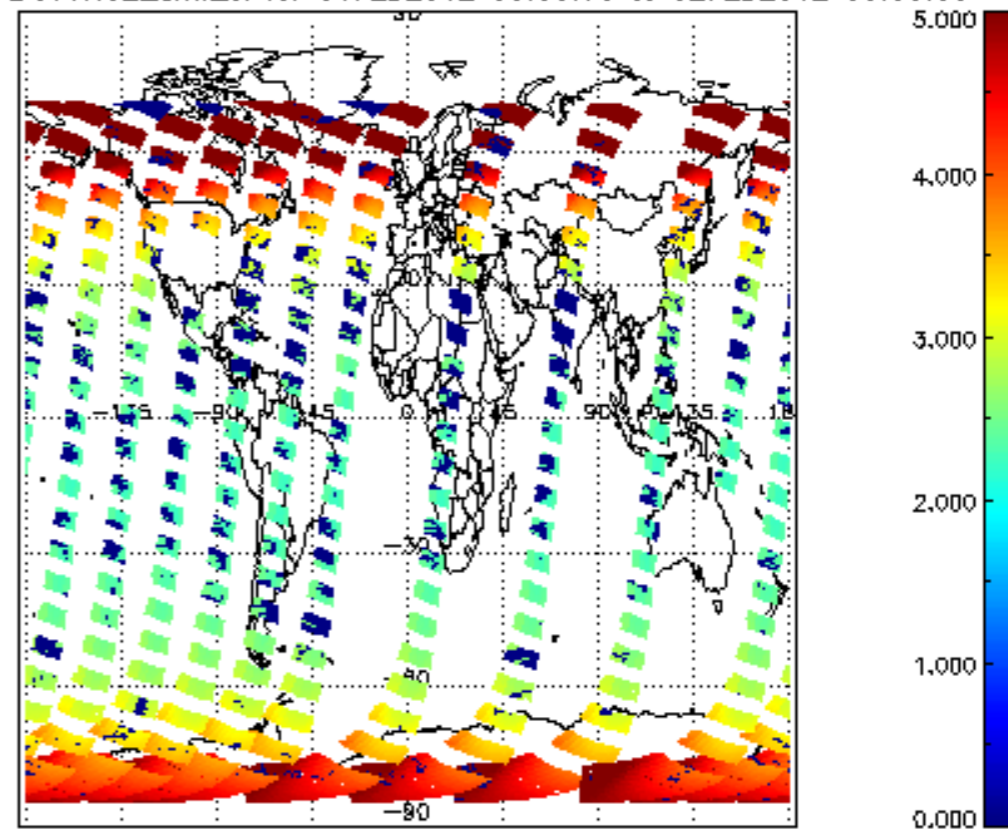
SCIOL2P\_NADUV1N02\_vcd\_err for 01FEB2012 00:00:00 to 02FEB2012 00:00:00

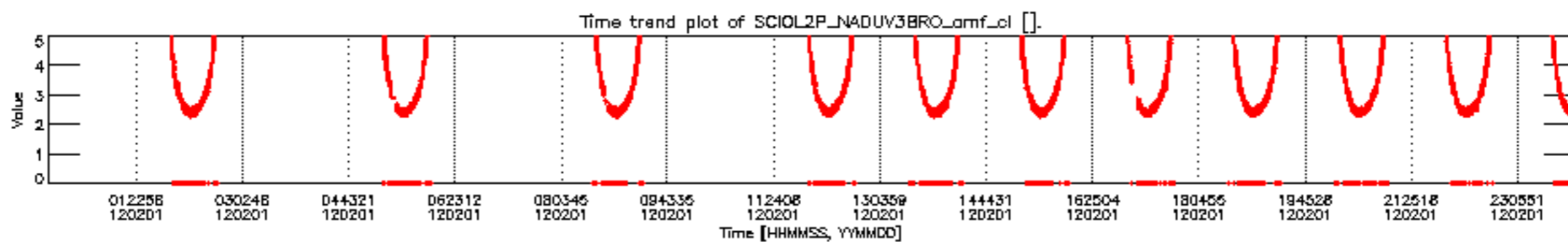
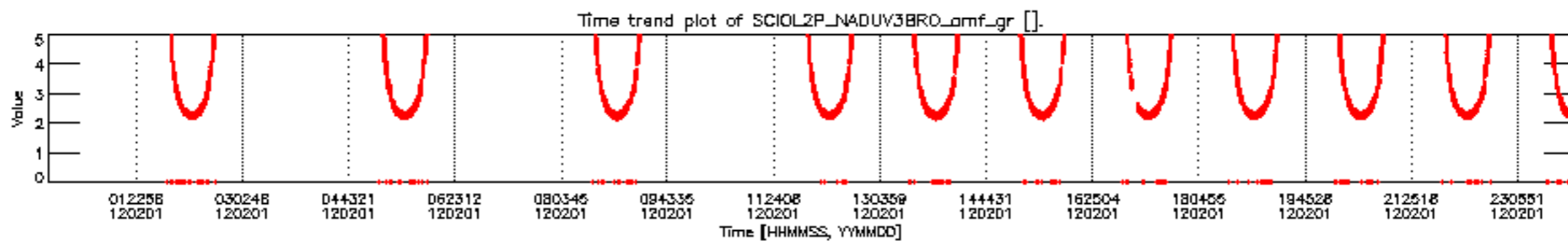
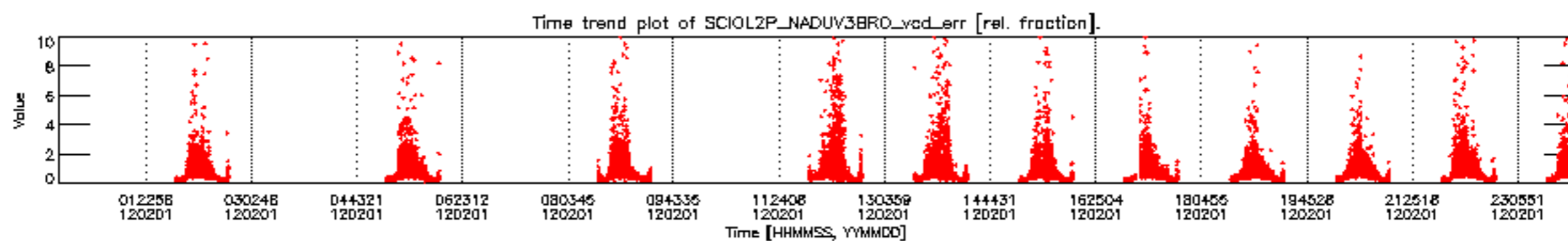
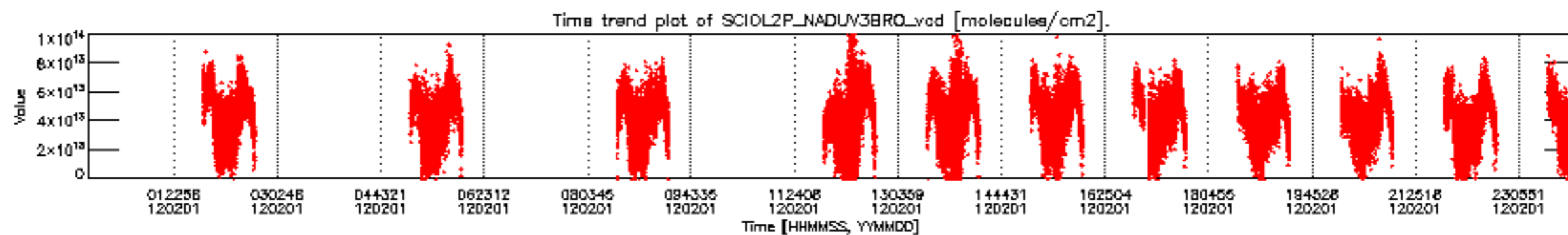


SCIOL2P\_NADUV1N02\_amf\_gr for 01FEB2012 00:00:00 to 02FEB2012 00:00:00

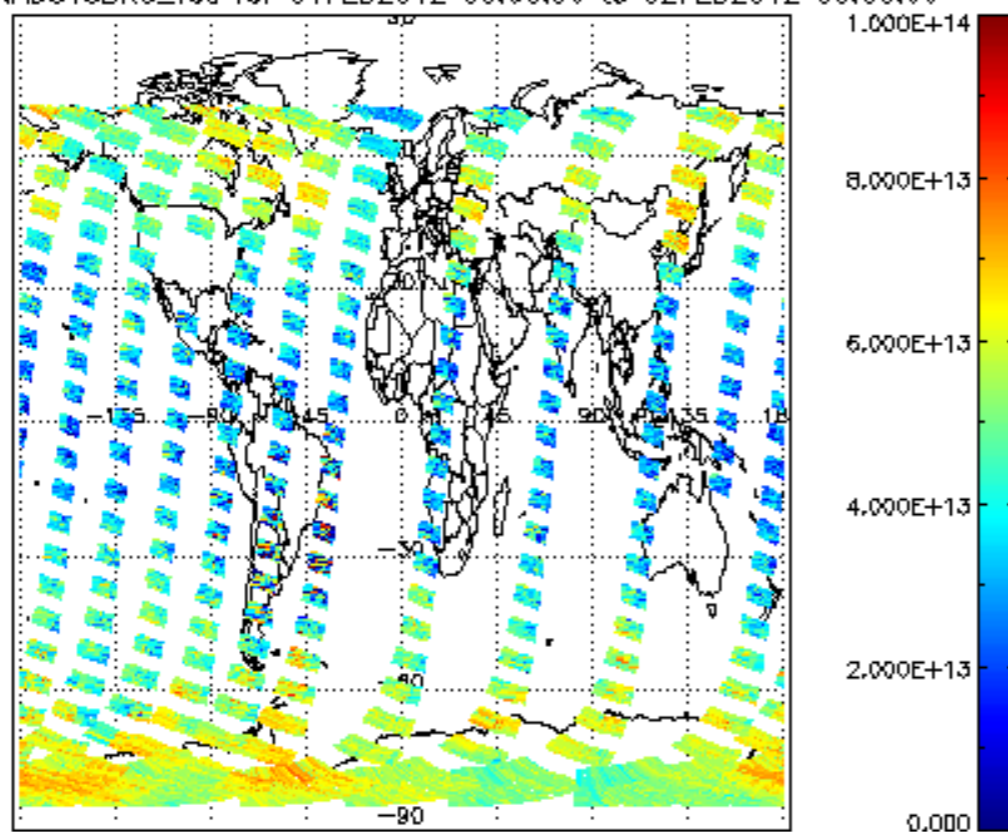


SCIOL2P\_NADUV1N02\_amf\_cl for 01FEB2012 00:00:00 to 02FEB2012 00:00:00

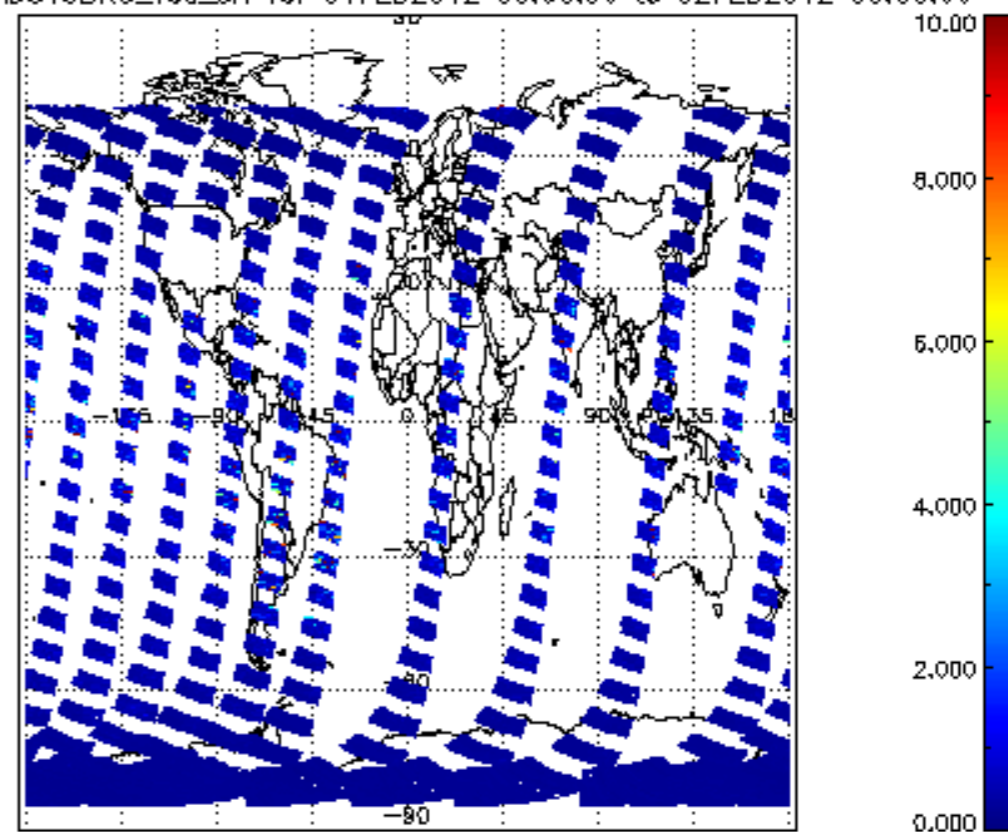




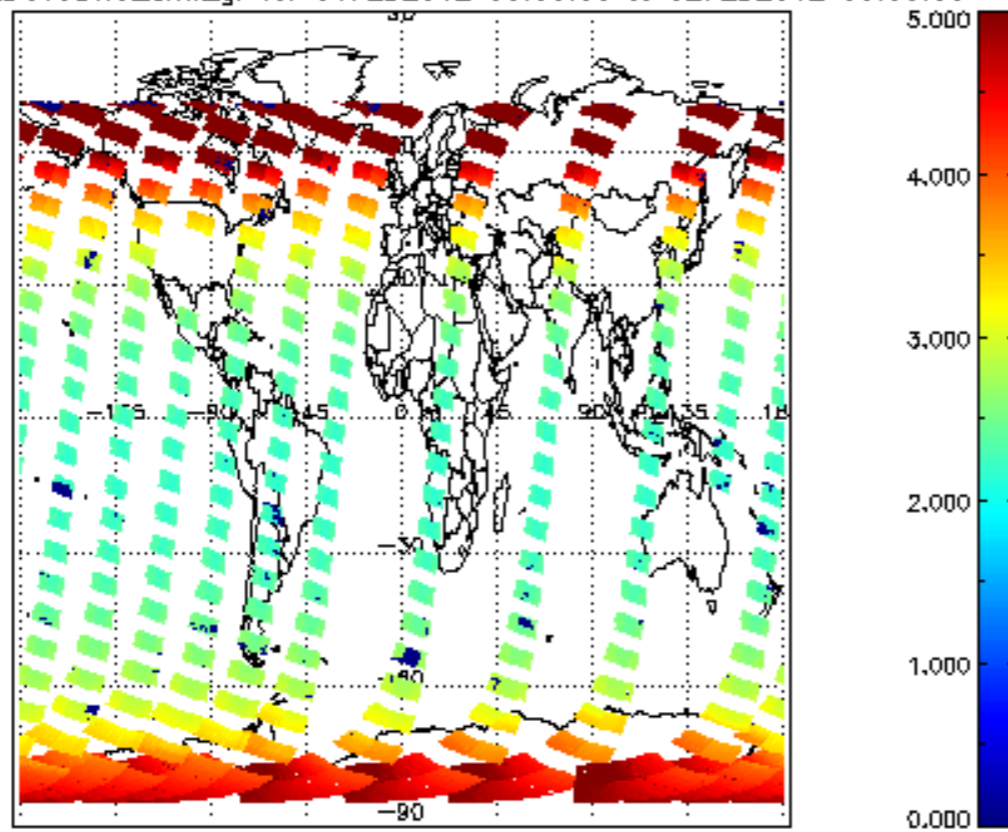
SCIOL2P\_NADUV3BRO\_vcd for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



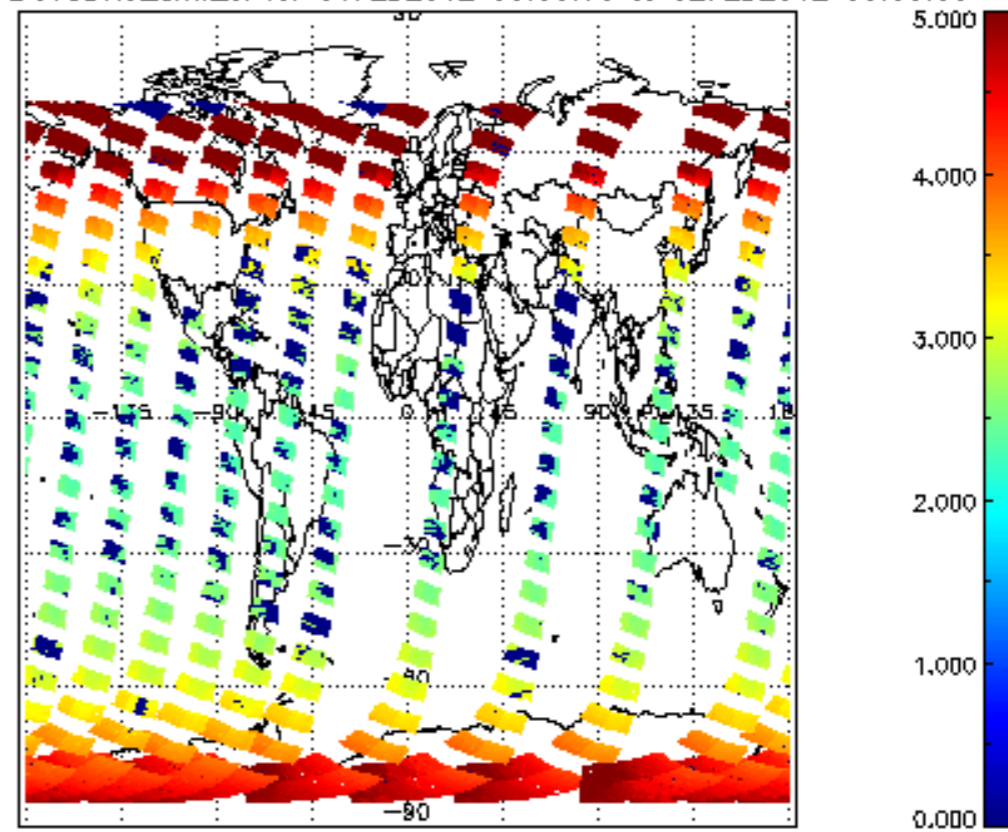
SCIOL2P\_NADUV3BRO\_vcd\_err for 01FEB2012 00:00:00 to 02FEB2012 00:00:00

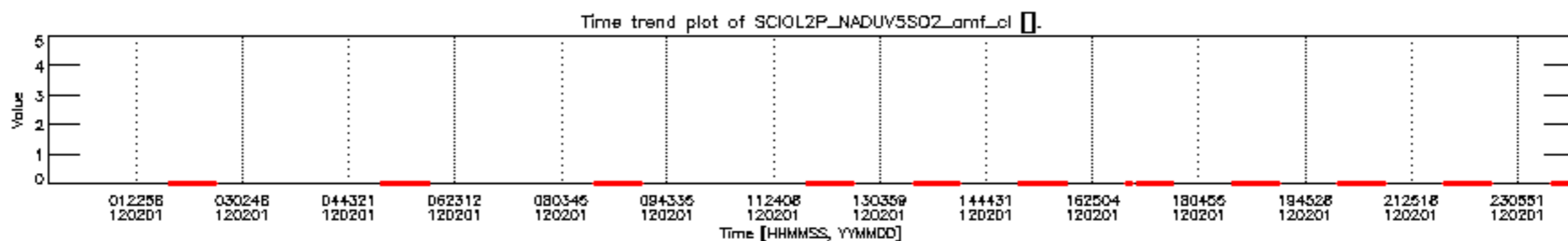
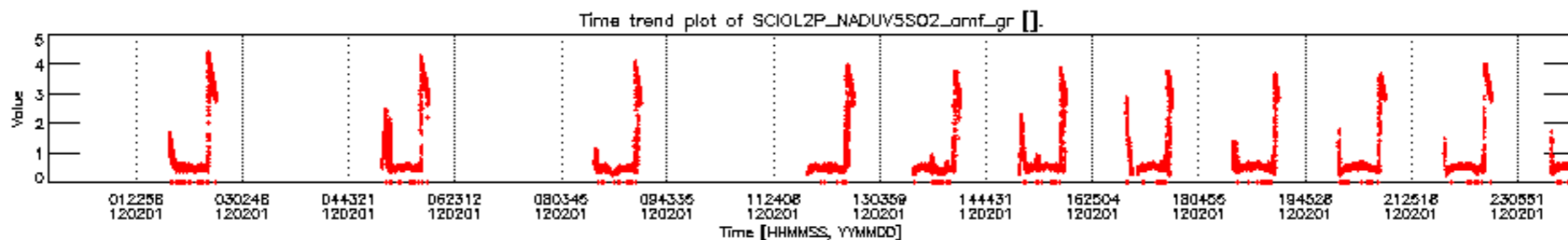
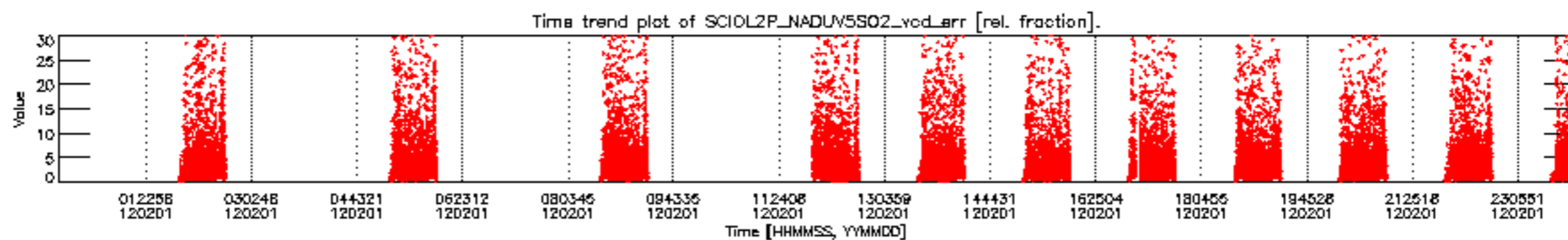
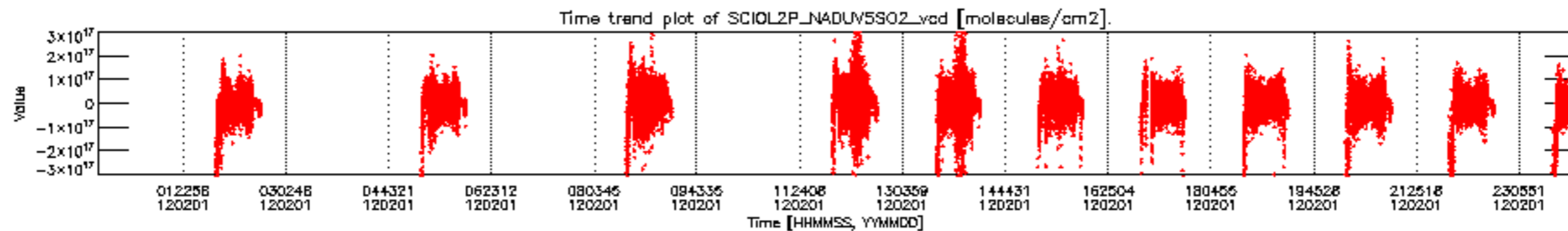


SCIOL2P\_NADUV3BRO\_amf\_gr for 01FEB2012 00:00:00 to 02FEB2012 00:00:00

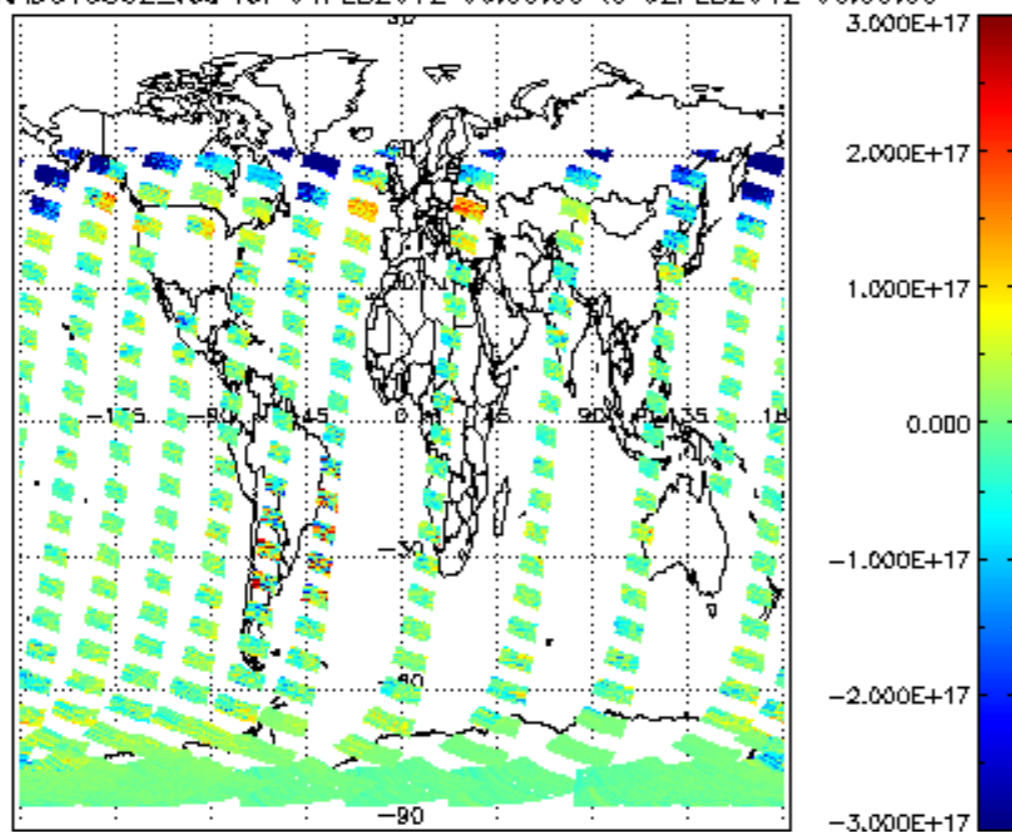


SCIOL2P\_NADUV3BRO\_amf\_cl for 01FEB2012 00:00:00 to 02FEB2012 00:00:00

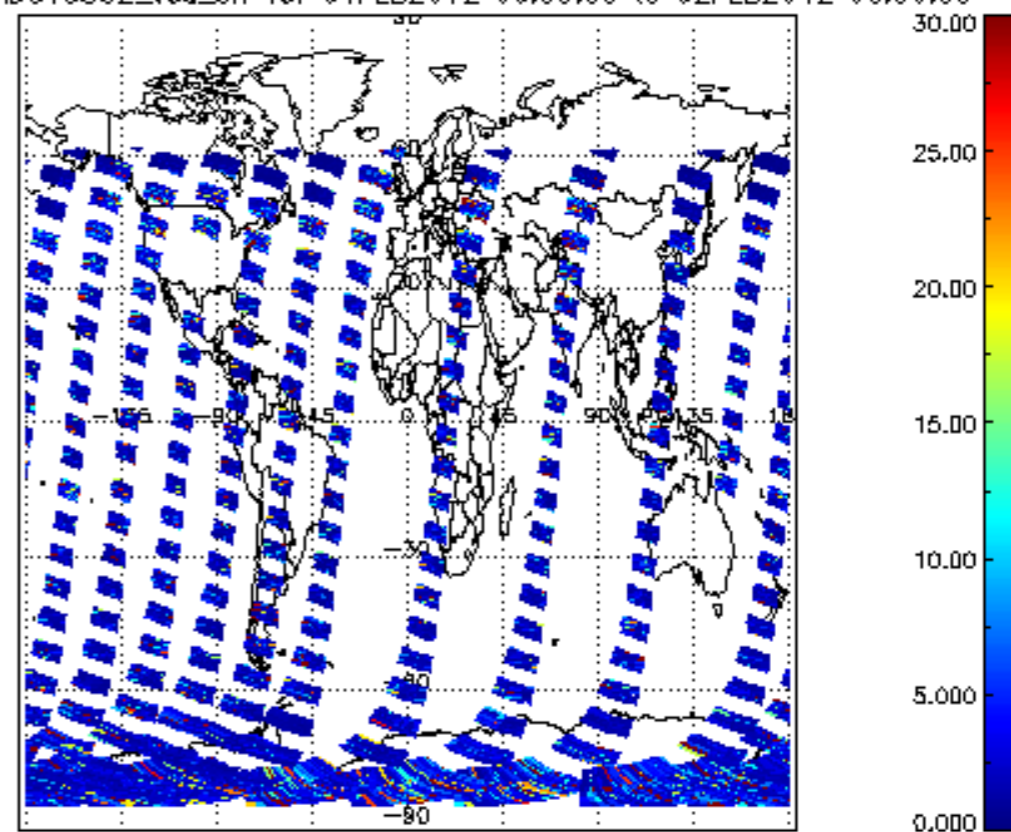




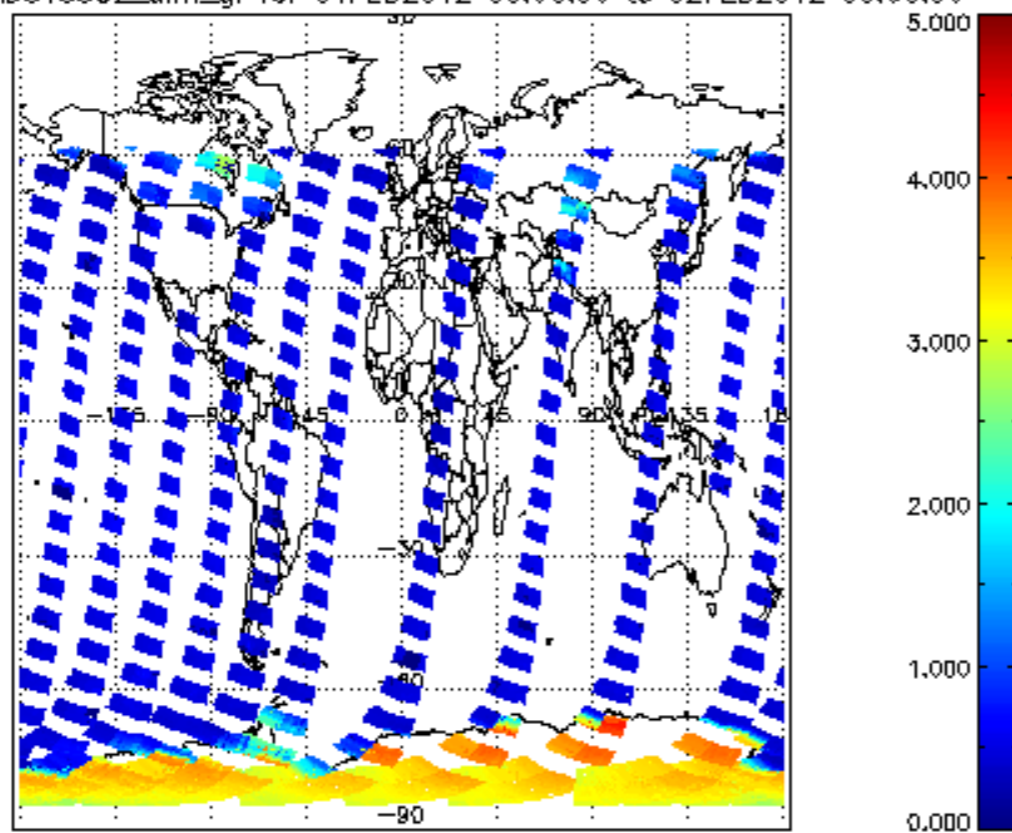
SCIOL2P\_NADUV5S02\_vcd for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



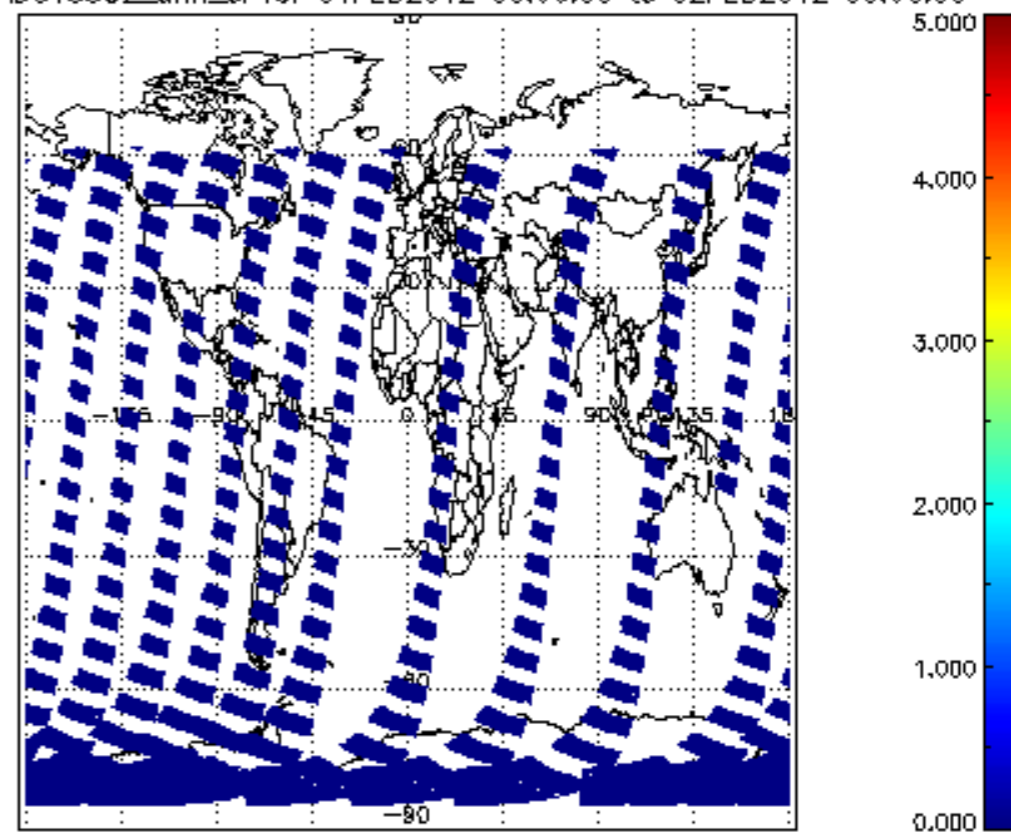
SCIOL2P\_NADUV5S02\_vcd\_err for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



SCIOL2P\_NADUV5S02\_amf\_gr for 01FEB2012 00:00:00 to 02FEB2012 00:00:00

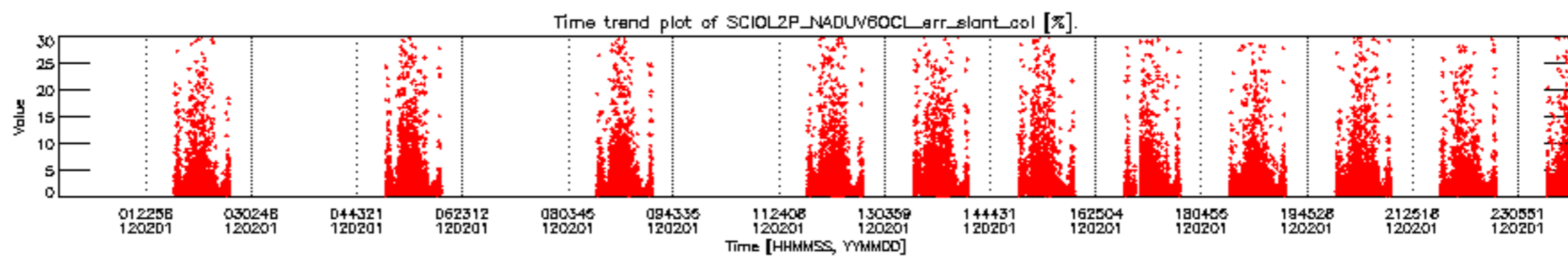
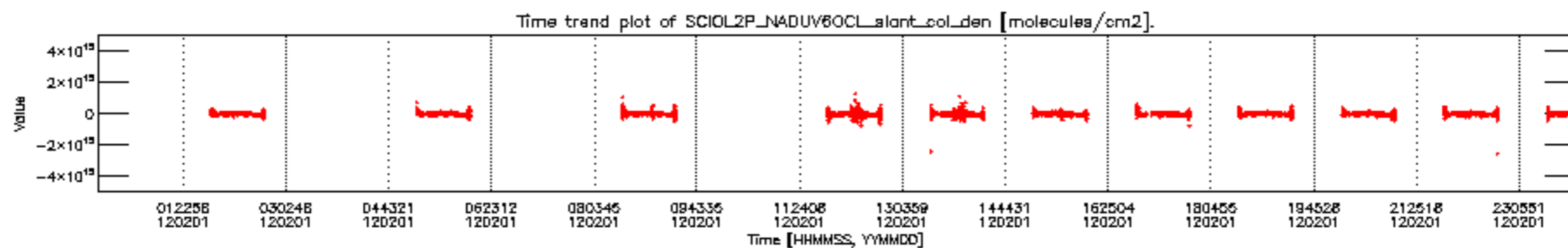


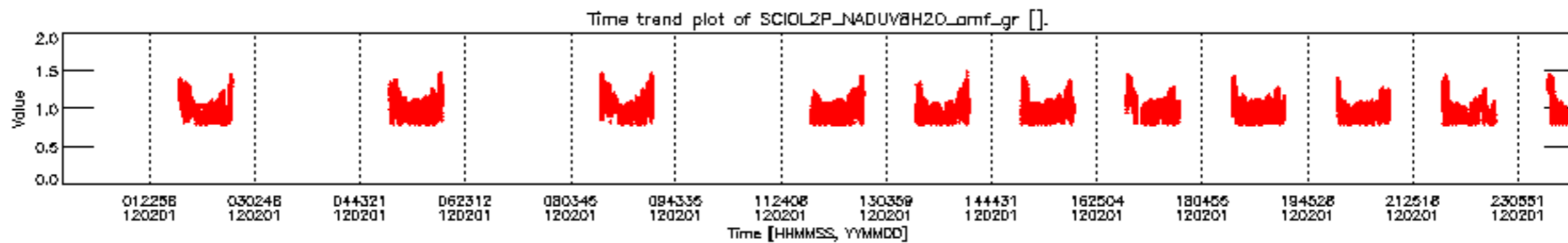
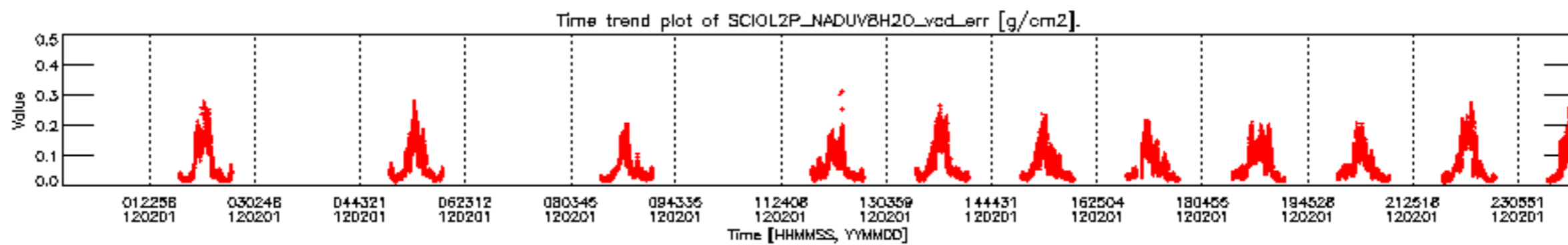
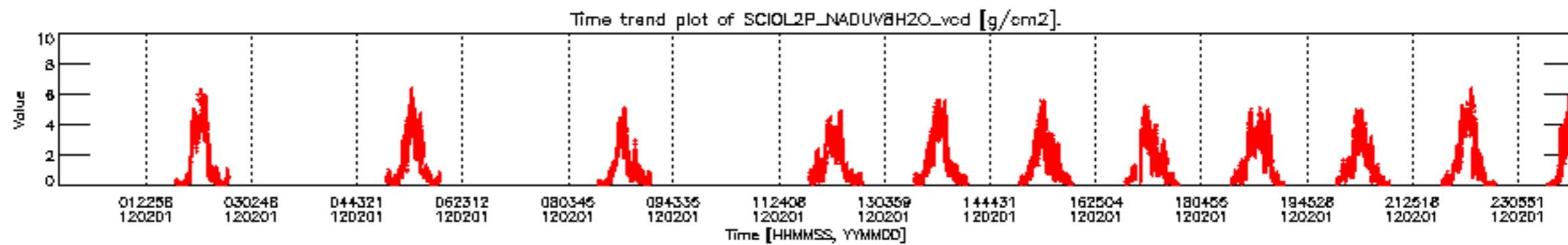
SCIOL2P\_NADUV5S02\_amf\_cl for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



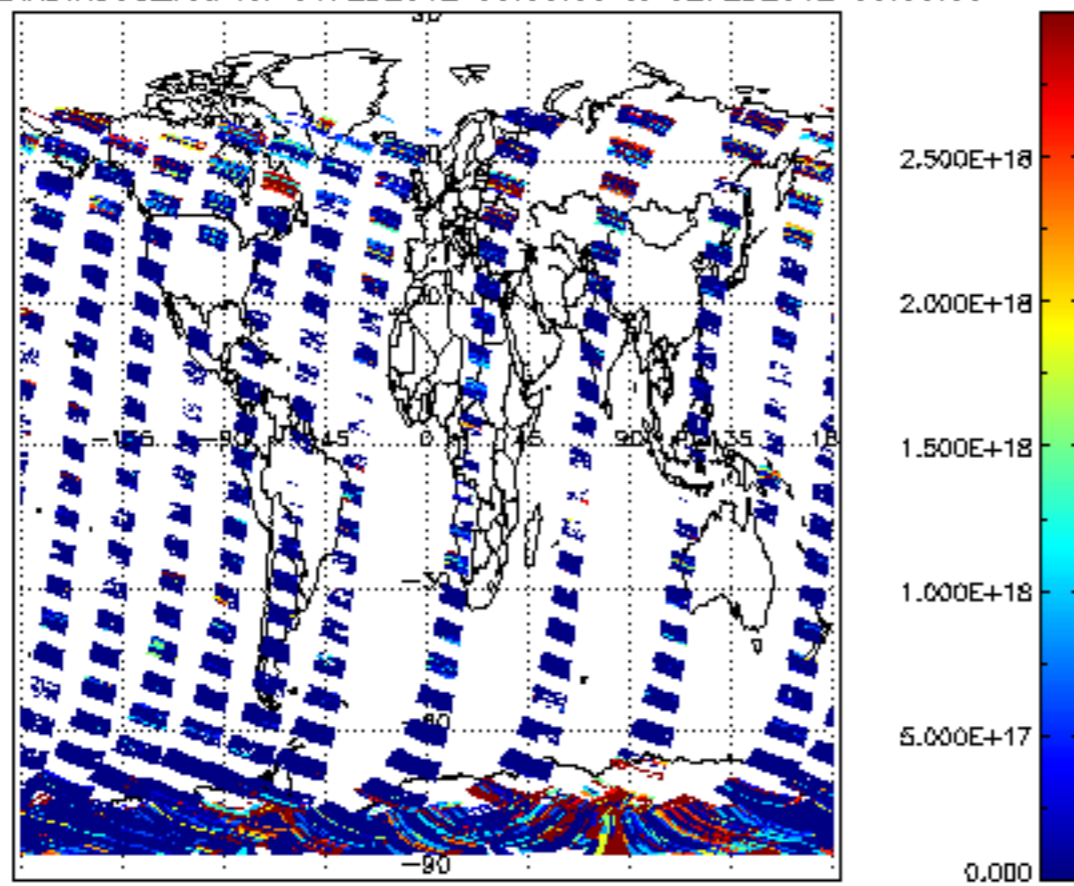




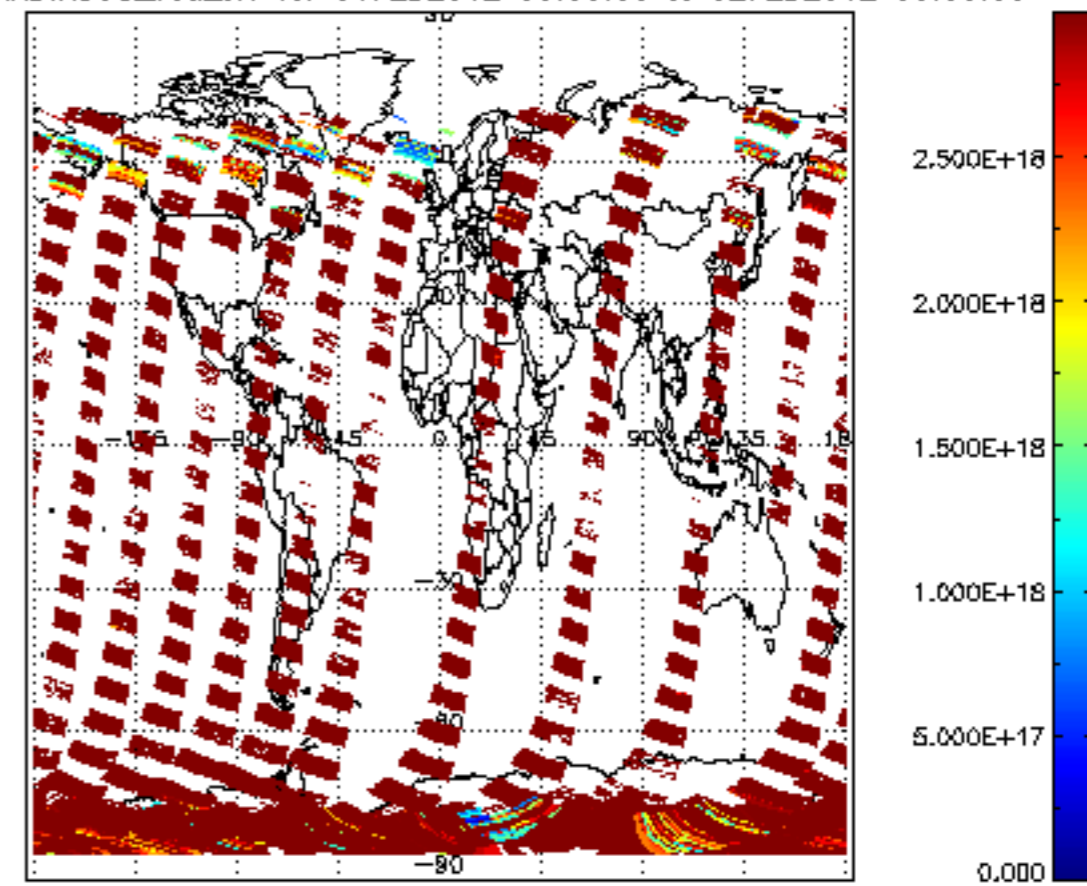




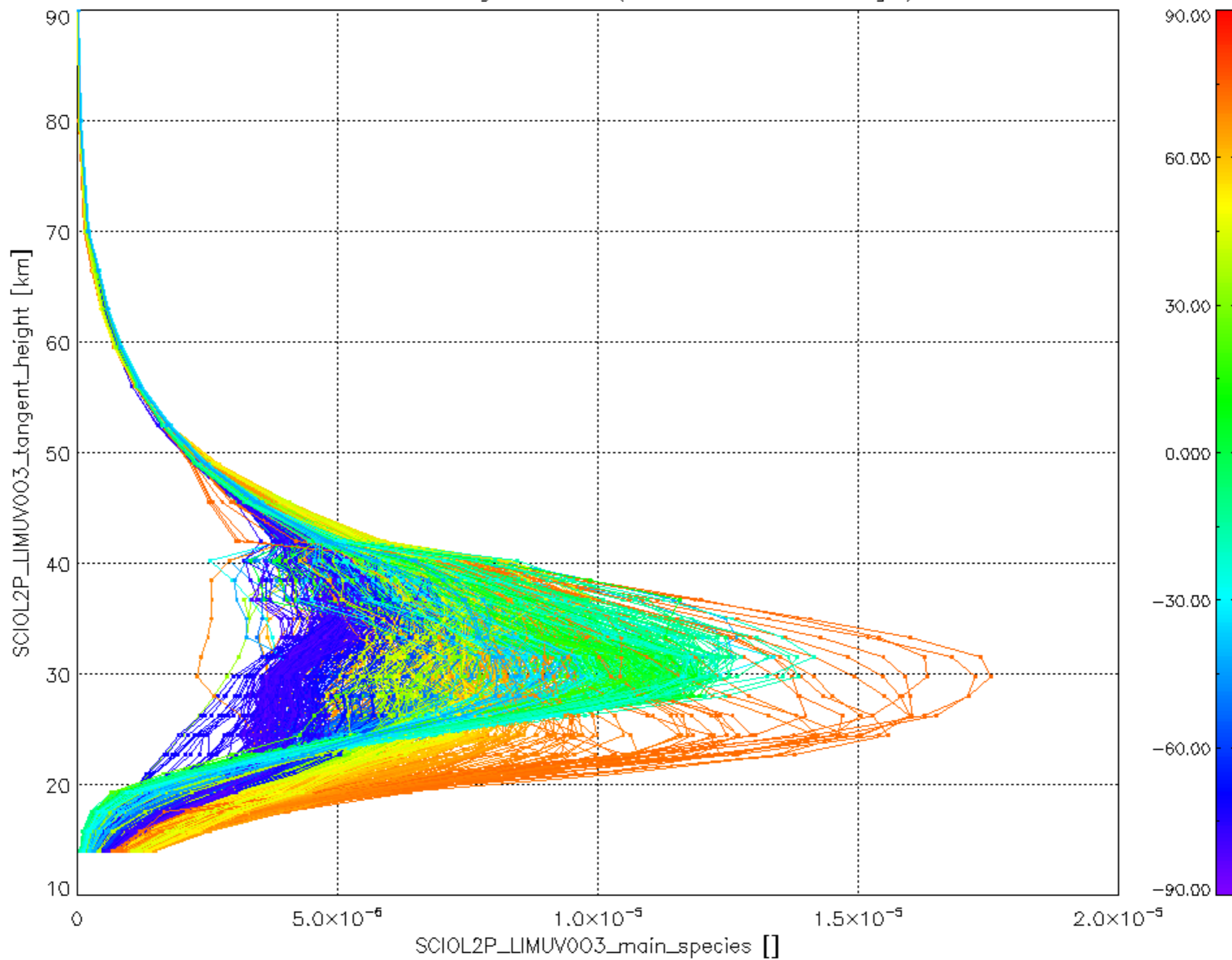
SCIOL2P\_NADIR3CO\_vcd for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



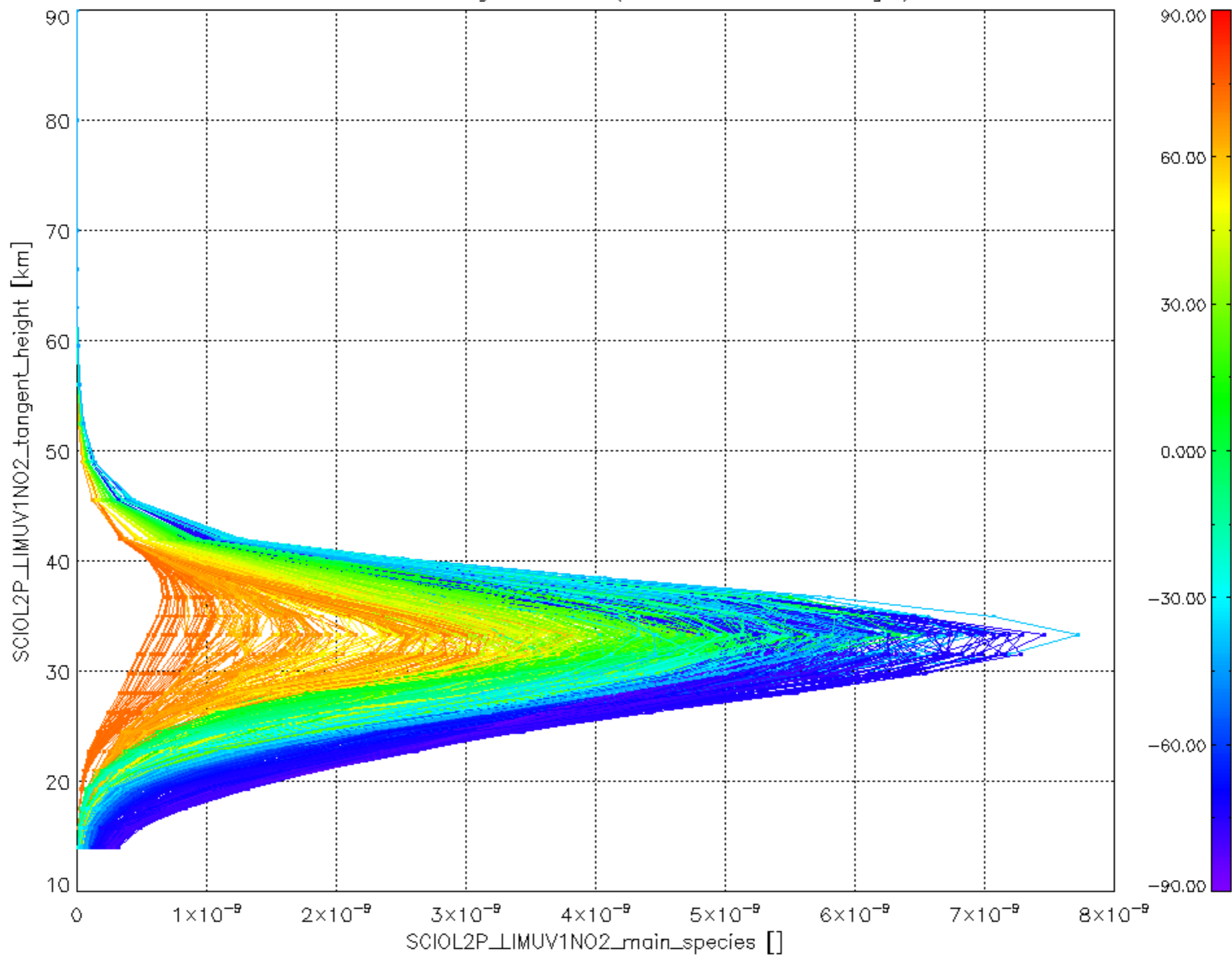
SCIOL2P\_NADIR3CO\_vcd\_err for 01FEB2012 00:00:00 to 02FEB2012 00:00:00



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).

