

## 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	24FEB2012 17:40:25
Data source version	SCIA-OL/5.02-W
Processing scope for products	14OCT2002 00:00:00 to 15OCT2002 00:00:00
Start time of first product within scope	13OCT2002 23:51:10
Stop time of last product within scope	14OCT2002 22:36:53
Total number of level 2 products	13
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__2PWDP A20021013_235110_000035332010_00188_03248_2106.N1</a>	13OCT2002 23:51:10	14OCT2002 00:50:03	0	GOOD
1	<a href="#">SCI_OL__2PWDP A20021014_013146_000034492010_00189_03249_2107.N1</a>	<b>14OCT2002 01:31:46</b>	<b>14OCT2002 02:29:16</b>	0	GOOD
2	<a href="#">SCI_OL__2PWDP A20021014_031222_000035332010_00190_03250_2108.N1</a>	14OCT2002 03:12:22	14OCT2002 04:11:16	0	GOOD
3	<a href="#">SCI_OL__2PWDP A20021014_063335_000035332010_00192_03252_2109.N1</a>	14OCT2002 06:33:35	14OCT2002 07:32:29	0	GOOD
4	<a href="#">SCI_OL__2PWDP A20021014_081412_000034492010_00193_03253_2110.N1</a>	<b>14OCT2002 08:14:12</b>	<b>14OCT2002 09:11:41</b>	0	GOOD

5	SCI_OL__2PWDP20021014_095448_000035332010_00194_03254_2111.N1	14OCT2002 09:54:48	14OCT2002 10:53:41	0	GOOD
6	SCI_OL__2PWDP20021014_113525_000034492010_00195_03255_2112.N1	14OCT2002 11:35:25	14OCT2002 12:32:54	0	GOOD
7	SCI_OL__2PWDP20021014_131601_000035332010_00196_03256_2113.N1	14OCT2002 13:16:01	14OCT2002 14:14:54	0	GOOD
8	SCI_OL__2PWDP20021014_145637_000034492010_00197_03257_2114.N1	14OCT2002 14:56:37	14OCT2002 15:54:07	0	GOOD
9	SCI_OL__2PWDP20021014_163714_000035332010_00198_03258_2115.N1	14OCT2002 16:37:14	14OCT2002 17:36:07	0	GOOD
10	SCI_OL__2PWDP20021014_181750_000034492010_00199_03259_2116.N1	14OCT2002 18:17:50	14OCT2002 19:15:20	0	GOOD
11	SCI_OL__2PWDP20021014_195857_000035132010_00200_03260_2117.N1	14OCT2002 19:58:57	14OCT2002 20:57:31	0	GOOD
12	SCI_OL__2PWDP20021014_213923_000034492010_00201_03261_2118.N1	14OCT2002 21:39:23	14OCT2002 22:36:53	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: 101423

Total number of cloud data DSRs with good quality flag (=0): 101423 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	101423	0.0000	0.0000	0.0000	0.0000	0.0000	
INTEGR_TIME	101423	0.22279	0.25000	0.12500	1.0000	0.098042	s
CL_FRAC	101423	0.42757	0.41060	0.0000	1.0000	0.33349	
CL_FRAC_ERR	101423	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	101423	7.1292	8.0000	4.0000	32.000	3.1373	
PMD_READ_CL[0]	101423	0.85688	0.0000	0.0000	32.000	2.0503	-
PMD_READ_CL[1]	101423	1.7006	0.0000	0.0000	25.000	2.8982	-
CL_TOP_HEIGHT	90388	3.2107	1.8020	0.0000	17.000	3.5091	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	90388	52.050	42.027	0.0000	101.00	40.279	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	101423	11100000	11100000	11100000	11100000	0.0000	
CLOUD_FLAGS	101423	11001010	11000100	11000000	11100000	3297.4	
AERO_ABSO_IND	101423	0.14155	0.0000	0.0000	14.104	0.37273	
AERO_IND_DIAG	101423	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	101423	01101100	11000000	00000000	11000000	24381.	

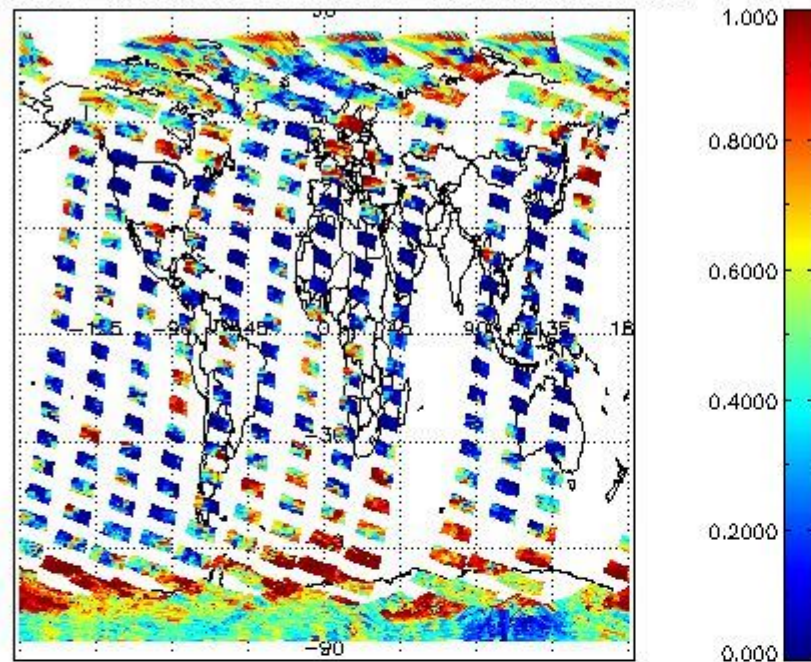
#### Time and geolocation plots:

Plots are available for the following parameters:

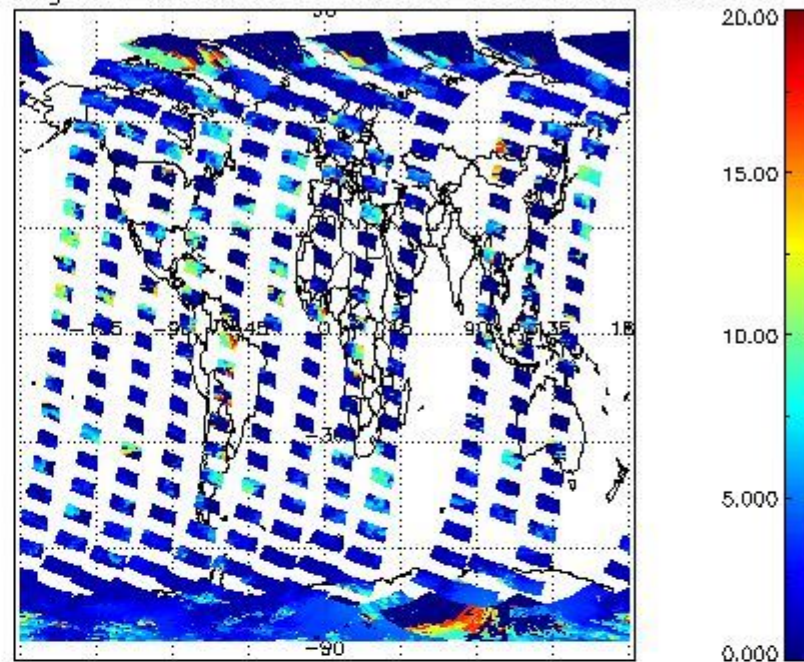
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



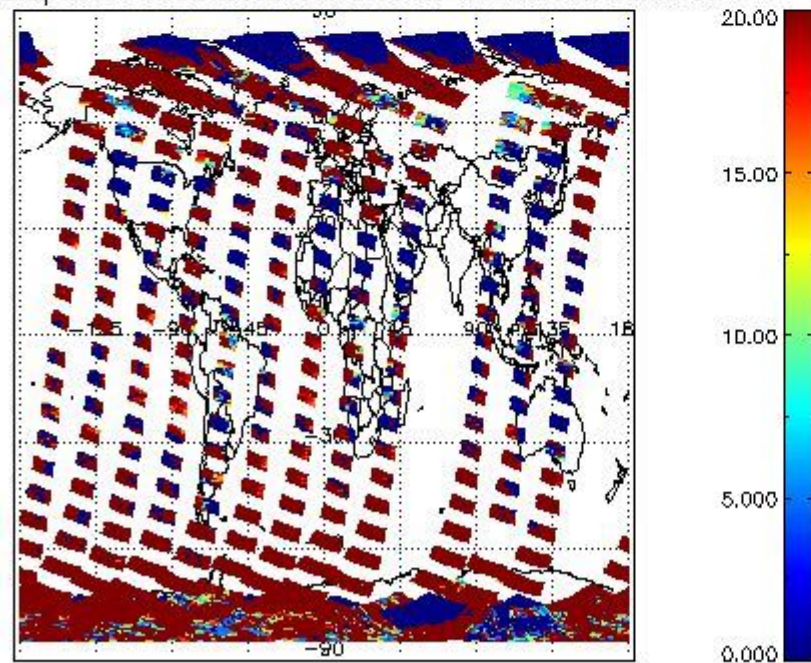
cLfrac for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



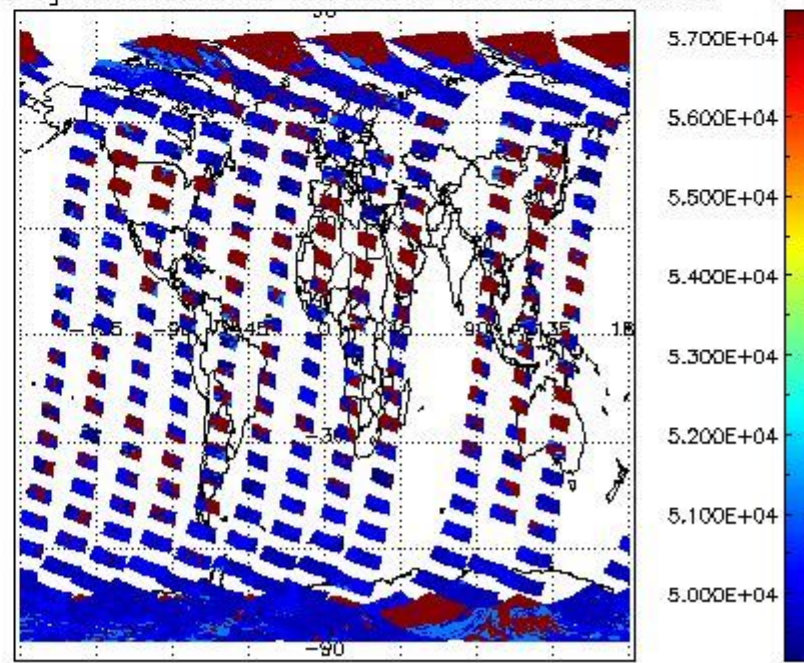
cL\_top\_height for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



cL\_opt\_depth for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



cloud\_flags for 14OCT2002 00:00:00 to 15OCT2002 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:

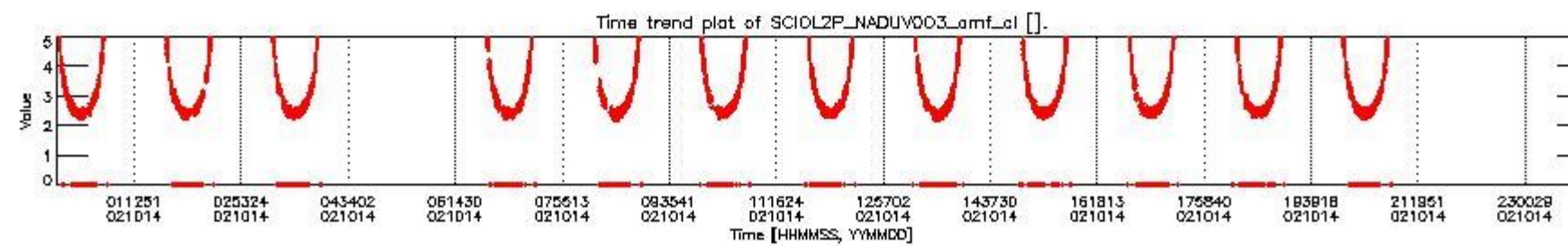
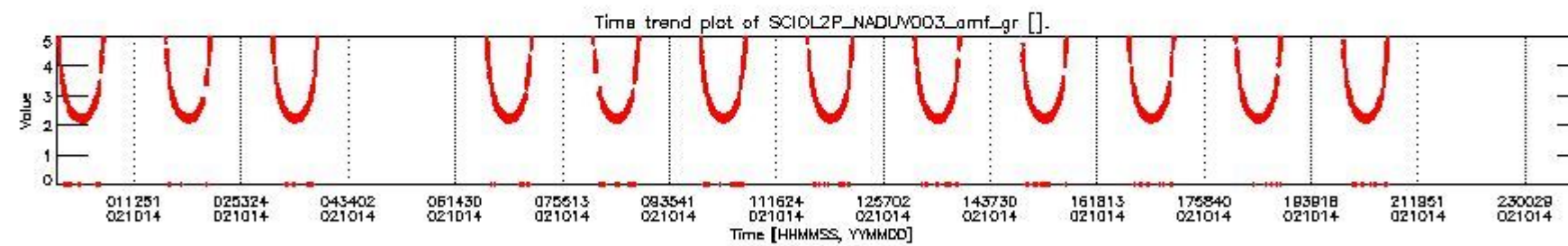
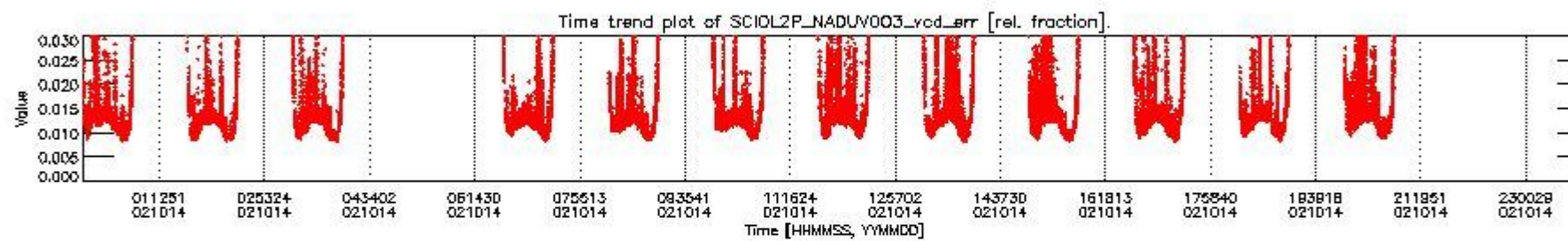
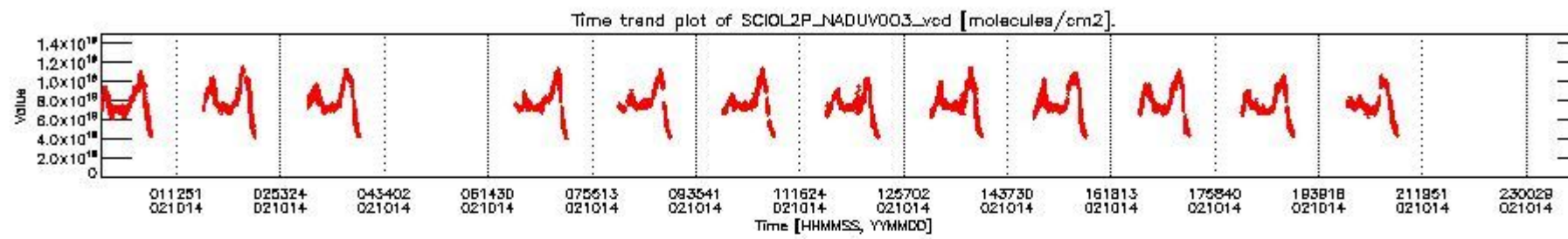
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr



3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err

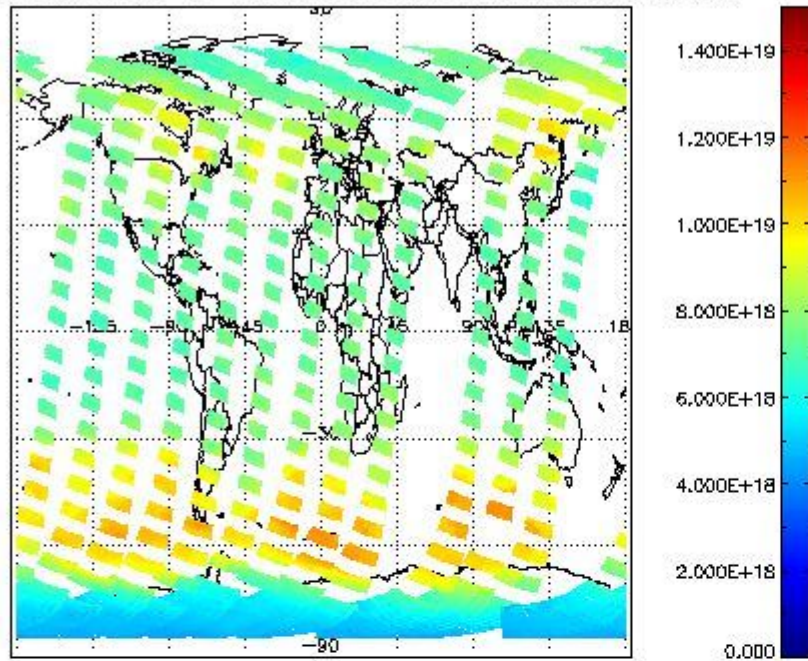
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in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

### 2.2.2.1 O3 (UV0)

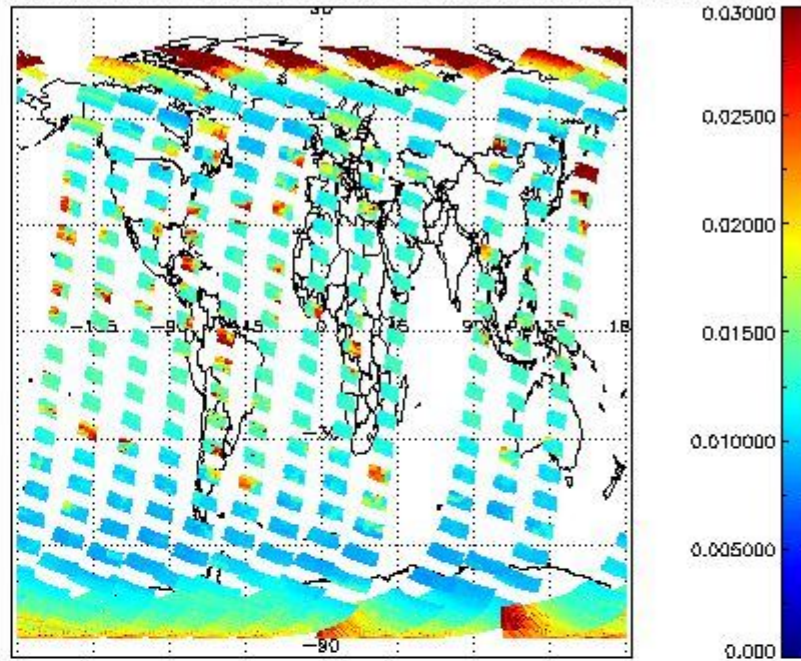




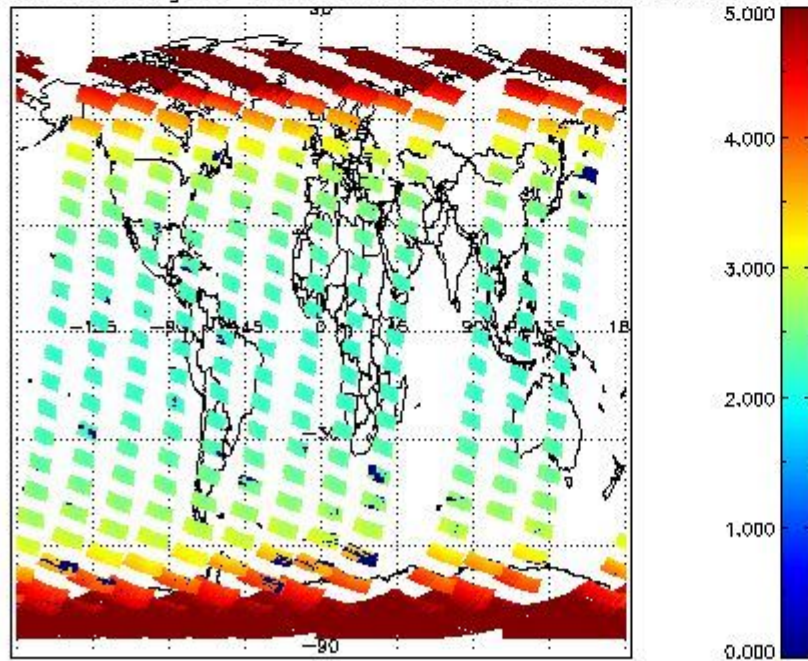
SCIOL2P\_NADUV003\_vcd for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



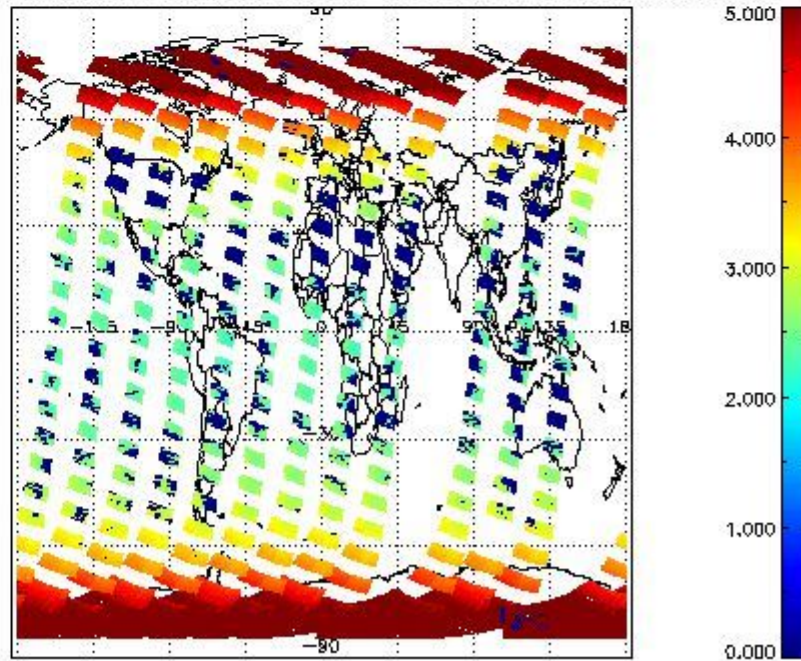
SCIOL2P\_NADUV003\_vcd\_err for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



SCIOL2P\_NADUV003\_amf\_gr for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



SCIOL2P\_NADUV003\_amf\_cl for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



### 2.2.2.2 NO2 (UV1)

No data available for NO2 (UV1)

### 2.2.2.3 BrO (UV3)

No data available for BrO (UV3)

#### 2.2.2.4 SO2 (UV5)

No data available for SO2 (UV5)

#### 2.2.2.5 SO2 (UV7)

No data available for SO2 (UV7)

#### 2.2.2.6 OCIO (UV6)

No data available for OCIO (UV6)

#### 2.2.2.7 H2O (UV8)

No data available for H2O (UV8)

#### 2.2.2.8 CO (IR3)

No data available for CO (IR3)

### 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	No data available

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)

No data available for O3 (UV0)

#### 2.2.3.2 NO2 (UV1)

No data available for NO2 (UV1)

#### 2.2.3.3 BrO (UV3)

No data available for BrO (UV3)

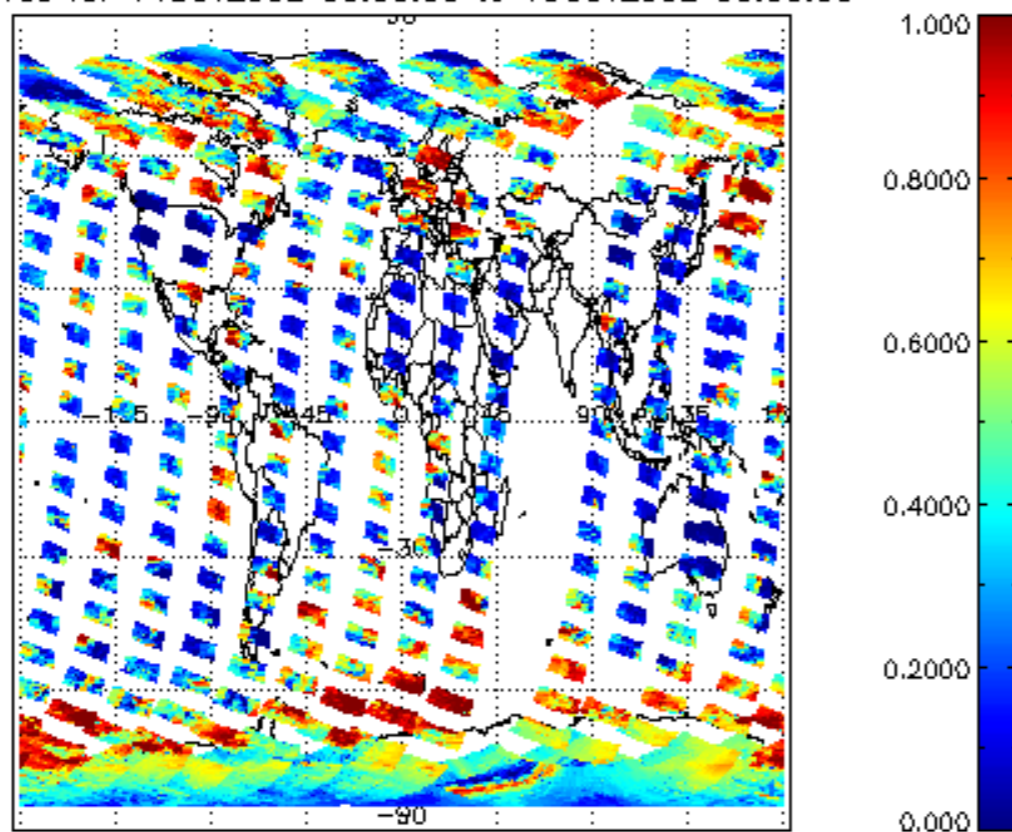
## 2.3 ADF monitoring

Number	ADF
	IN_ (INITIALISATION_FILE)
0	SCI_IN_AXNPDE20110201_120000_20020301_000000_20991231_235959

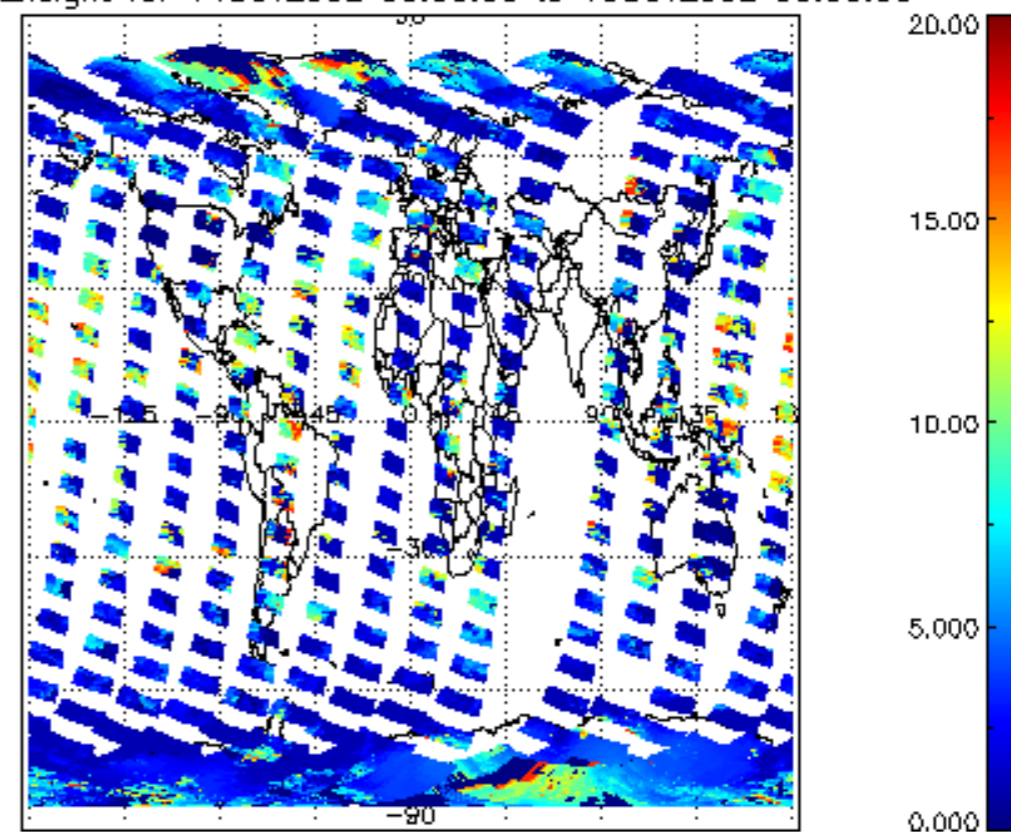
	<b>ECF (ECMWF_FILE)</b>
1	NOT USED
	<b>MF1 (M_FACTOR_FILE)</b>
2	SCI_MF1_AXNIEC20100218_141137_20021013_145827_20021015_145827
3	SCI_MF1_AXNIEC20100218_141239_20021014_174802_20021016_174802



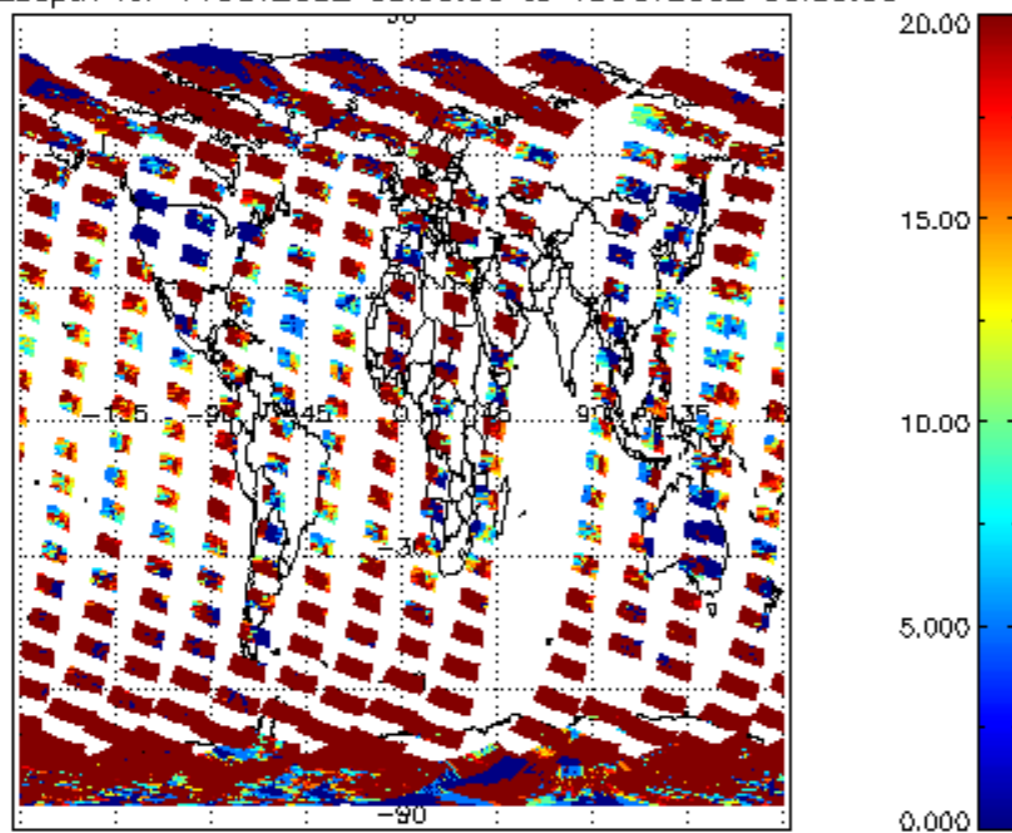
cl\_frac for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



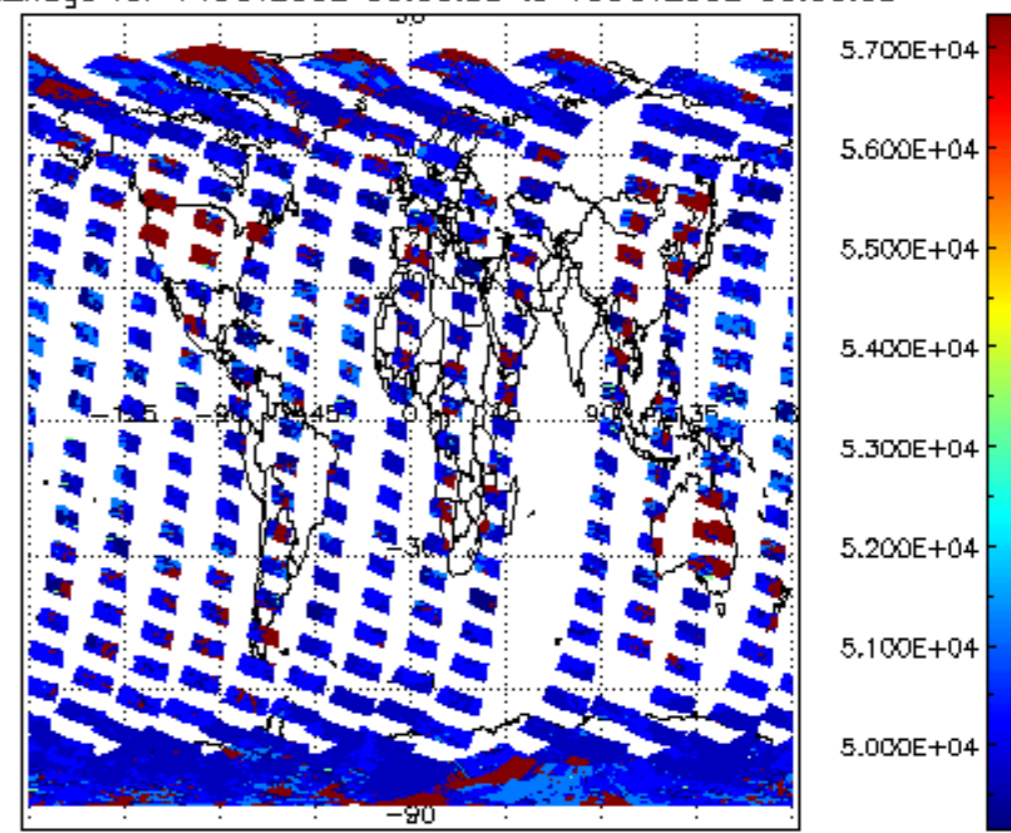
cl\_top\_height for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



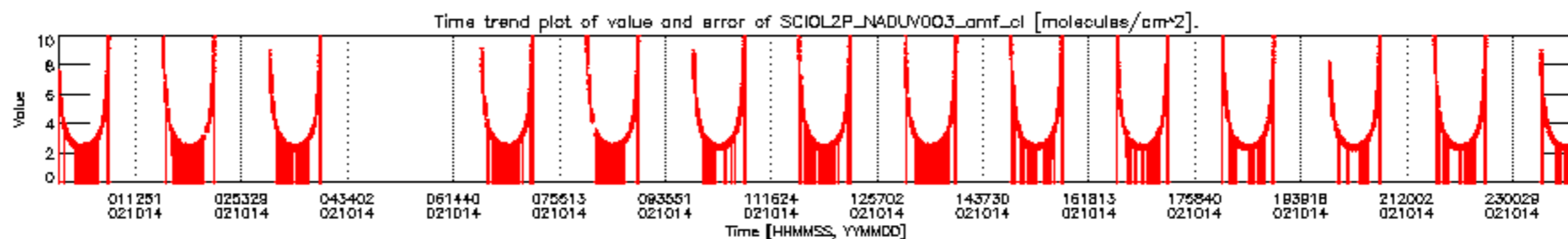
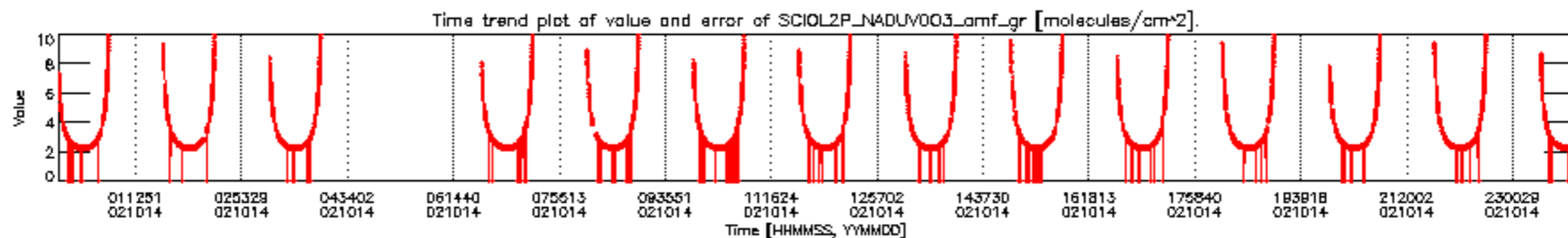
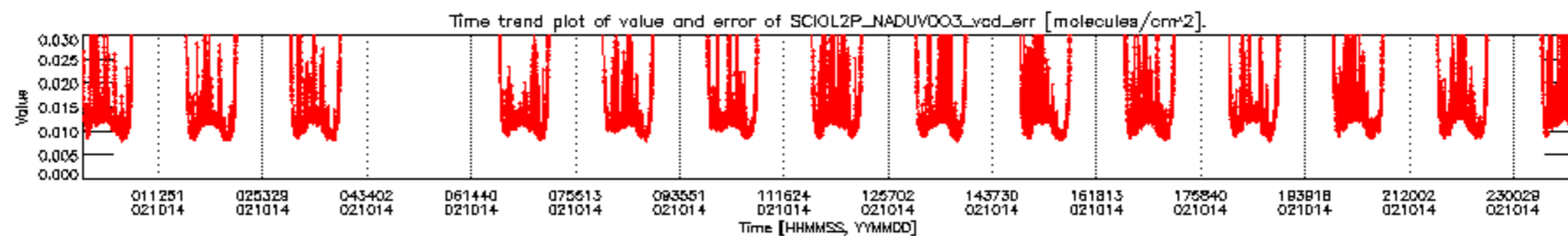
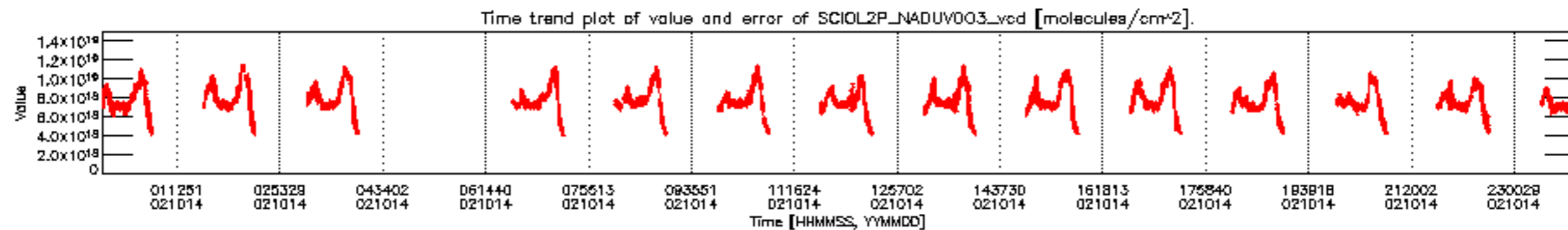
cl\_opt\_depth for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



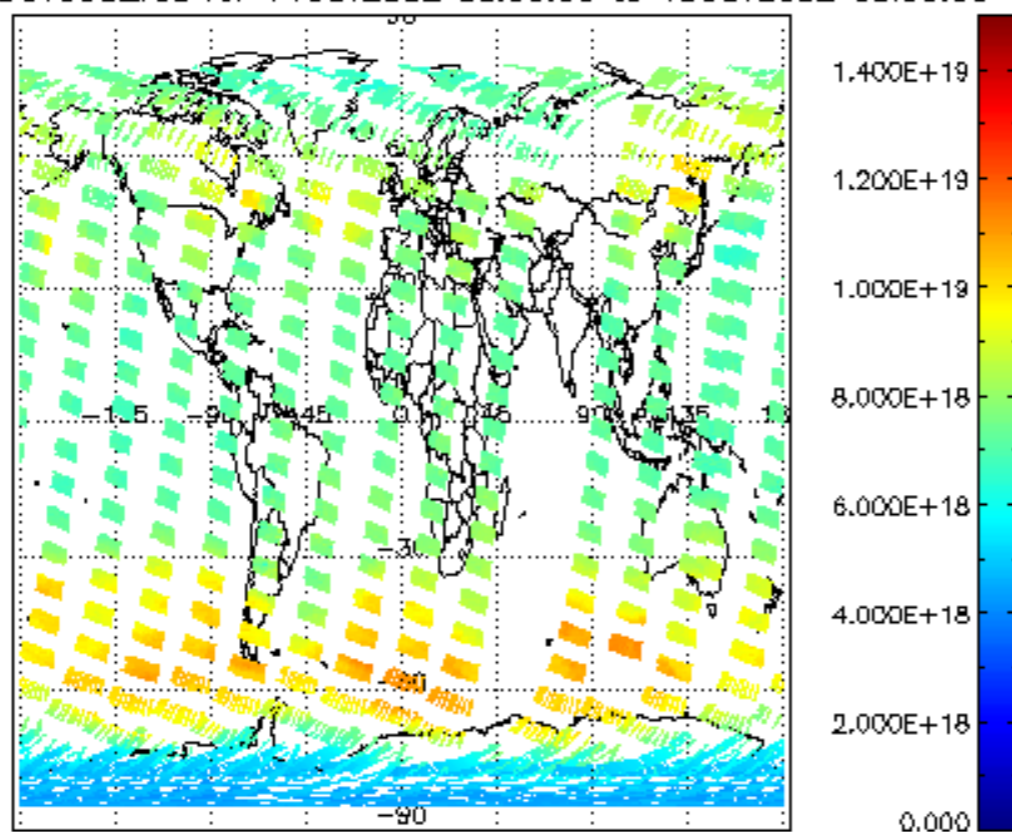
cloud\_flags for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



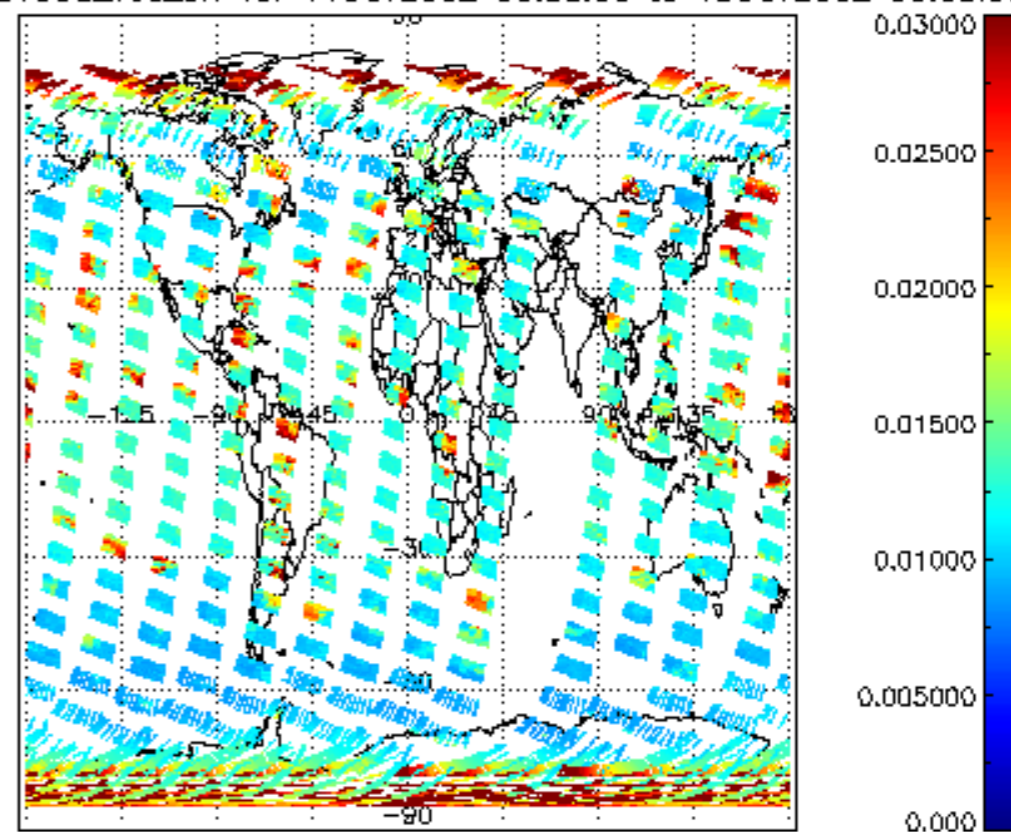




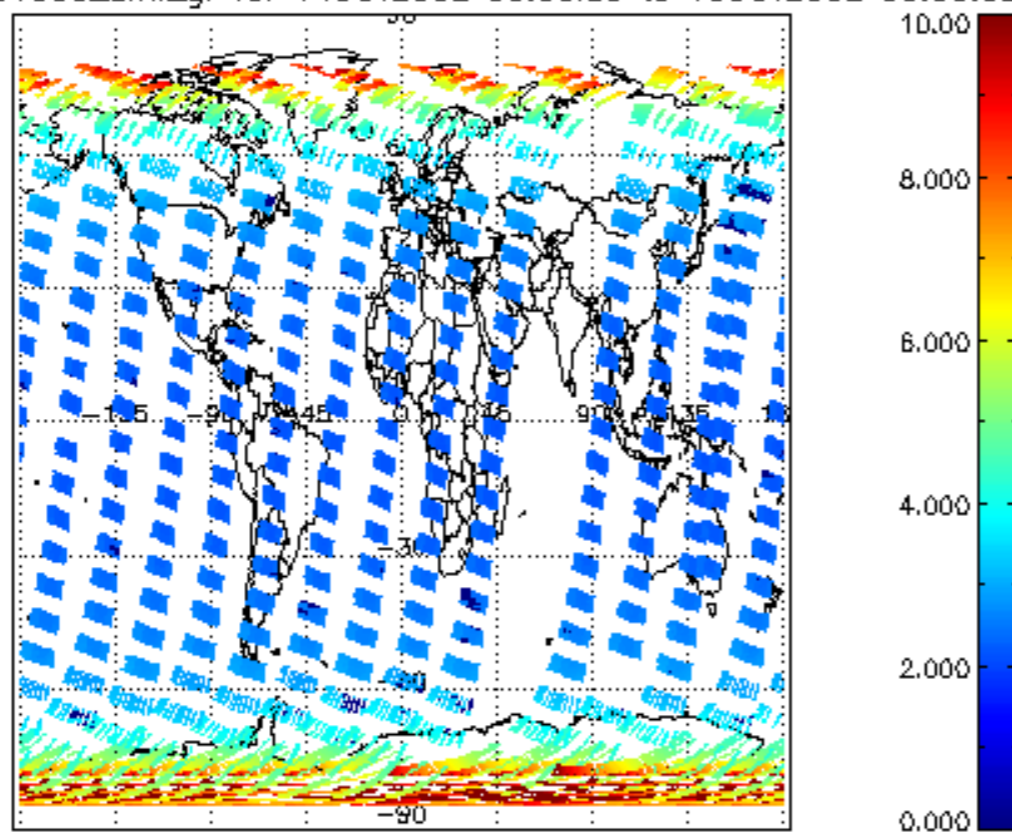
SCIOL2P\_NADUV003\_vcd for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



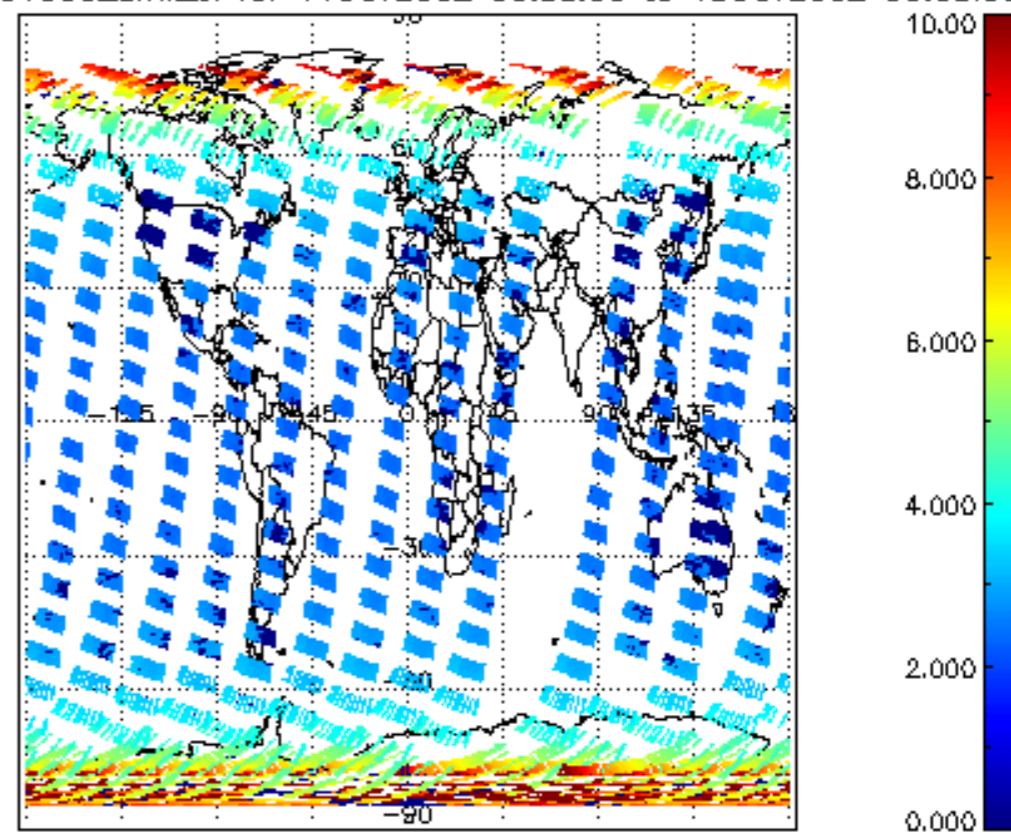
SCIOL2P\_NADUV003\_vcd\_err for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



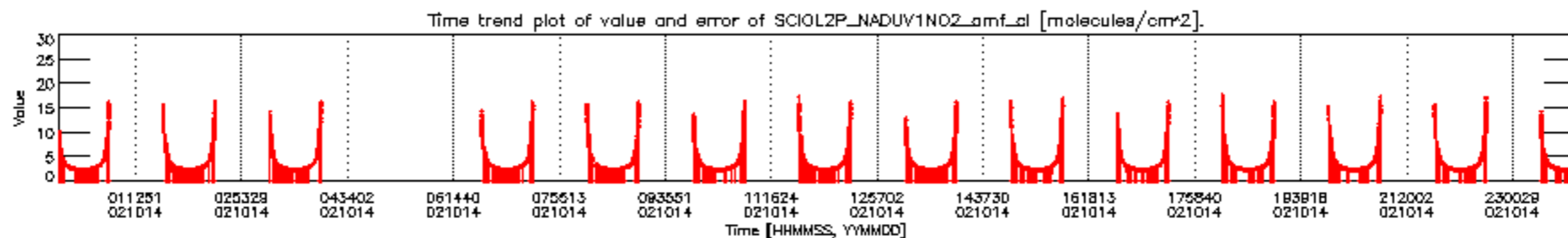
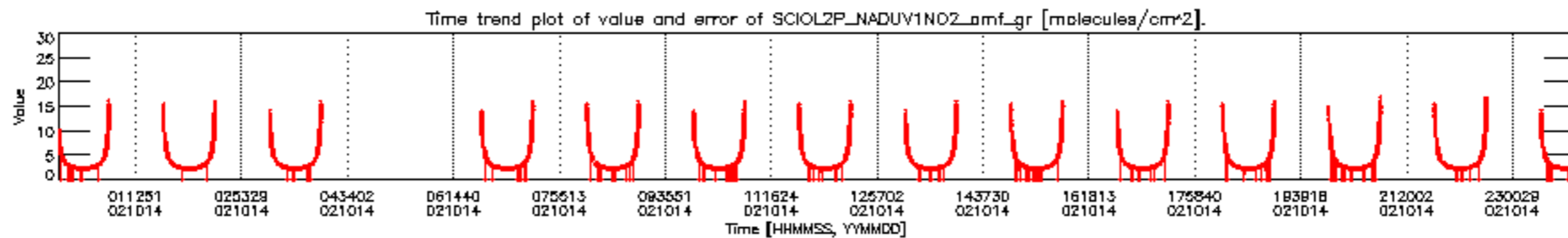
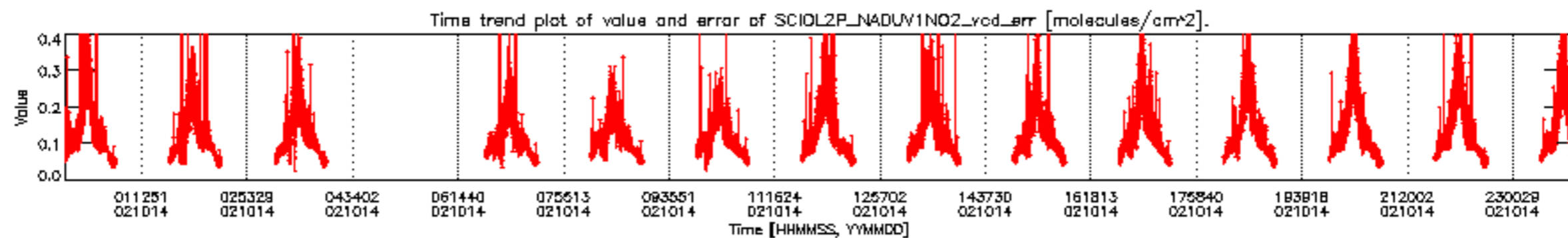
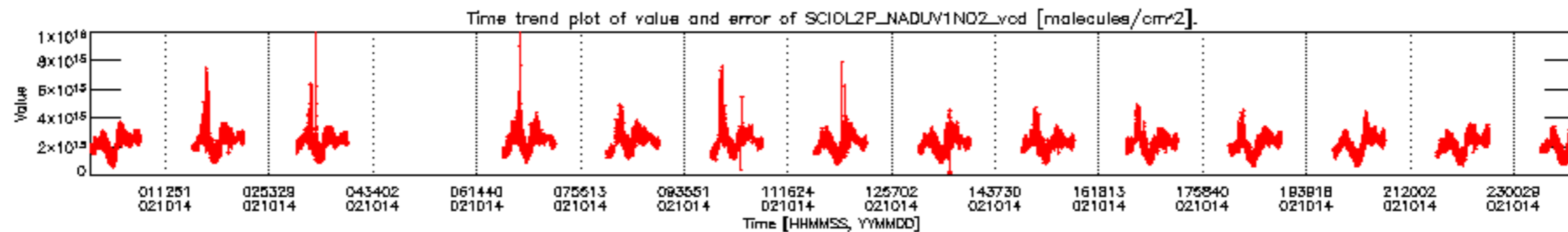
SCIOL2P\_NADUV003\_amf\_gr for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



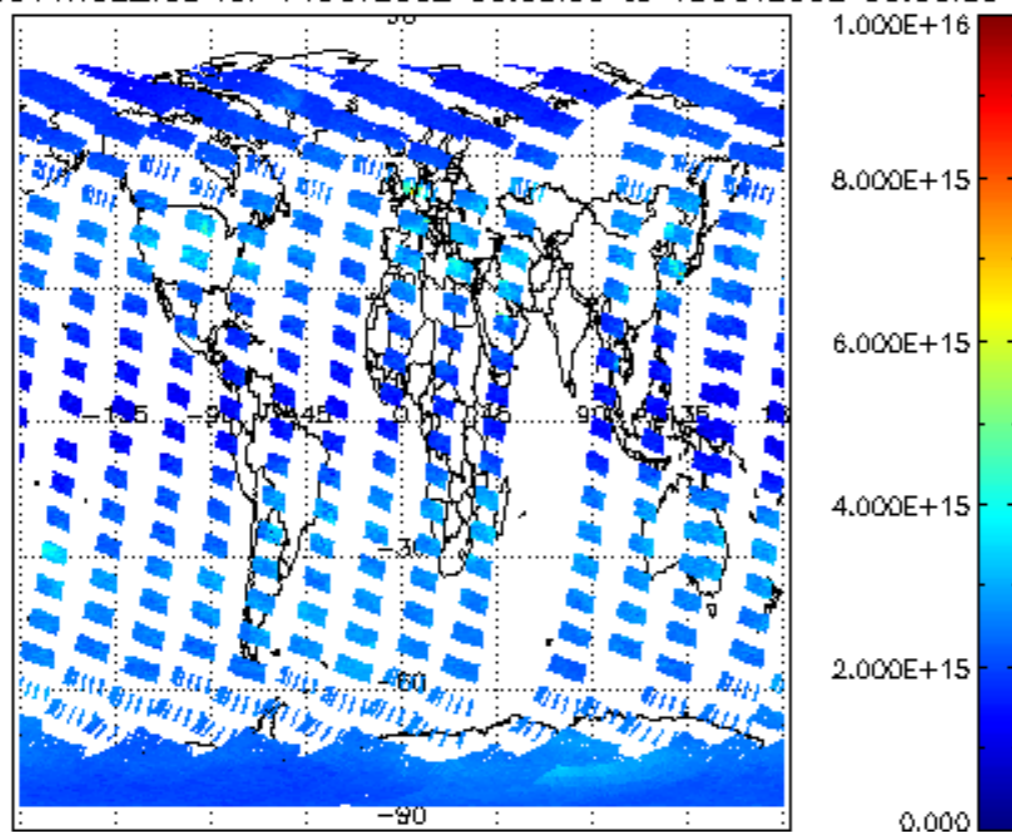
SCIOL2P\_NADUV003\_amf\_sl for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



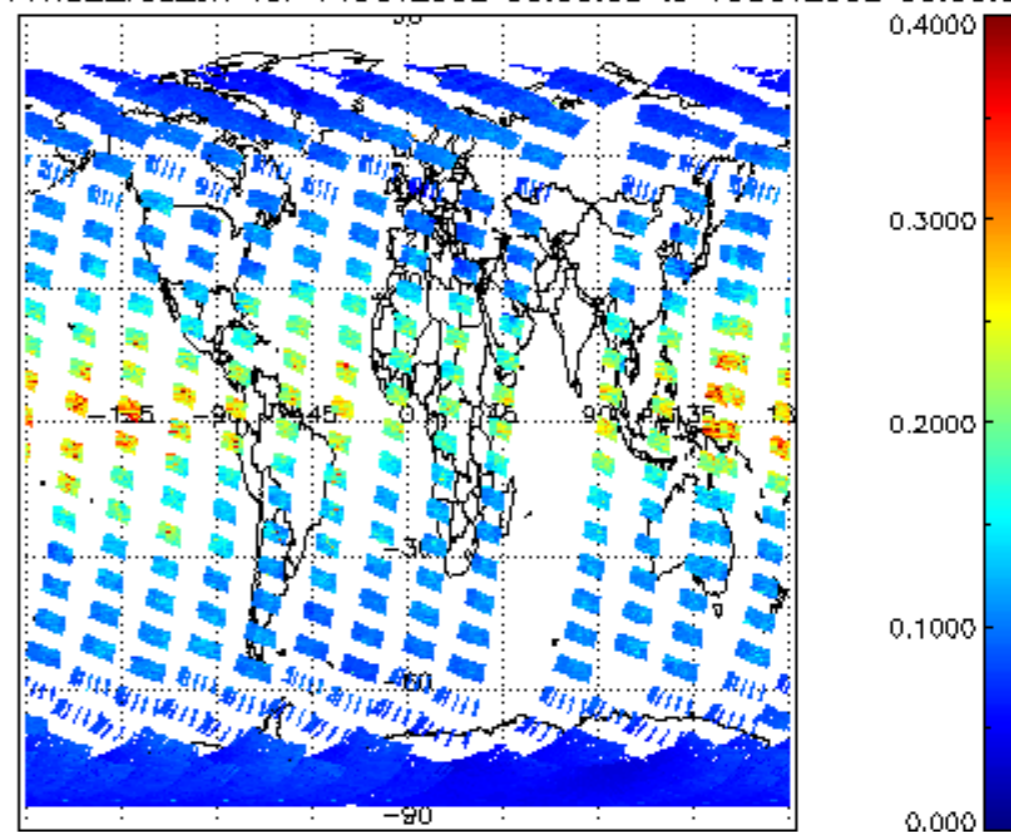




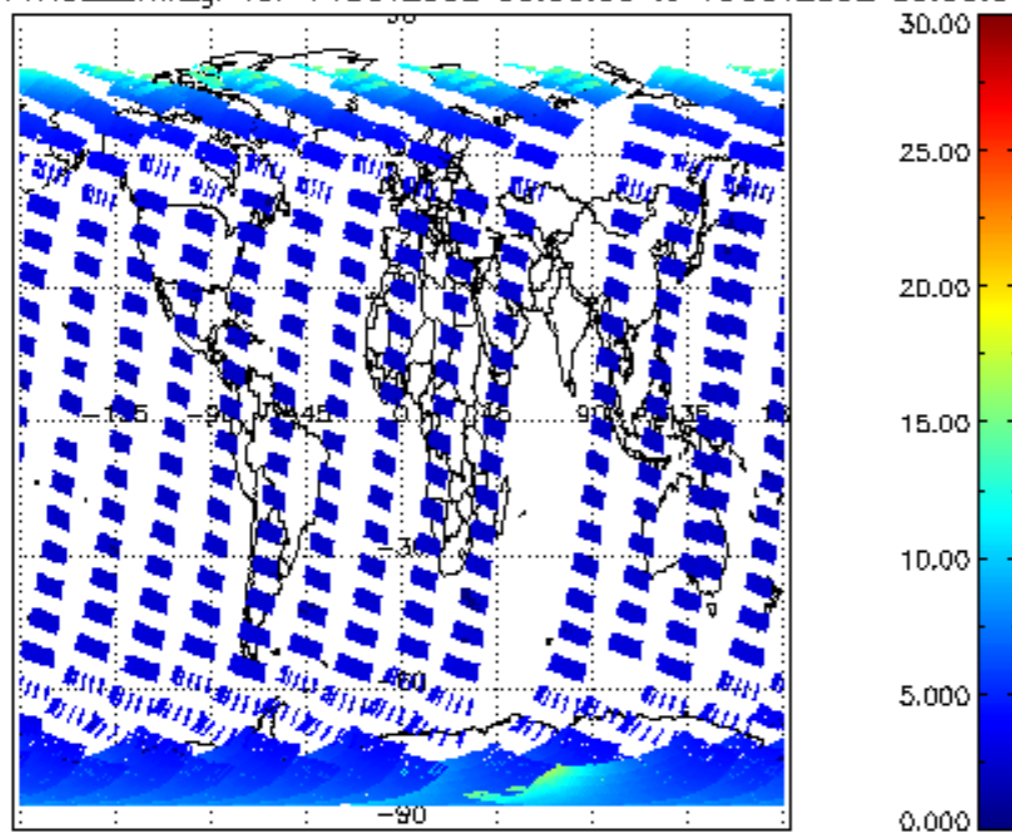
SCIOL2P\_NADUV1NO2\_vcd for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



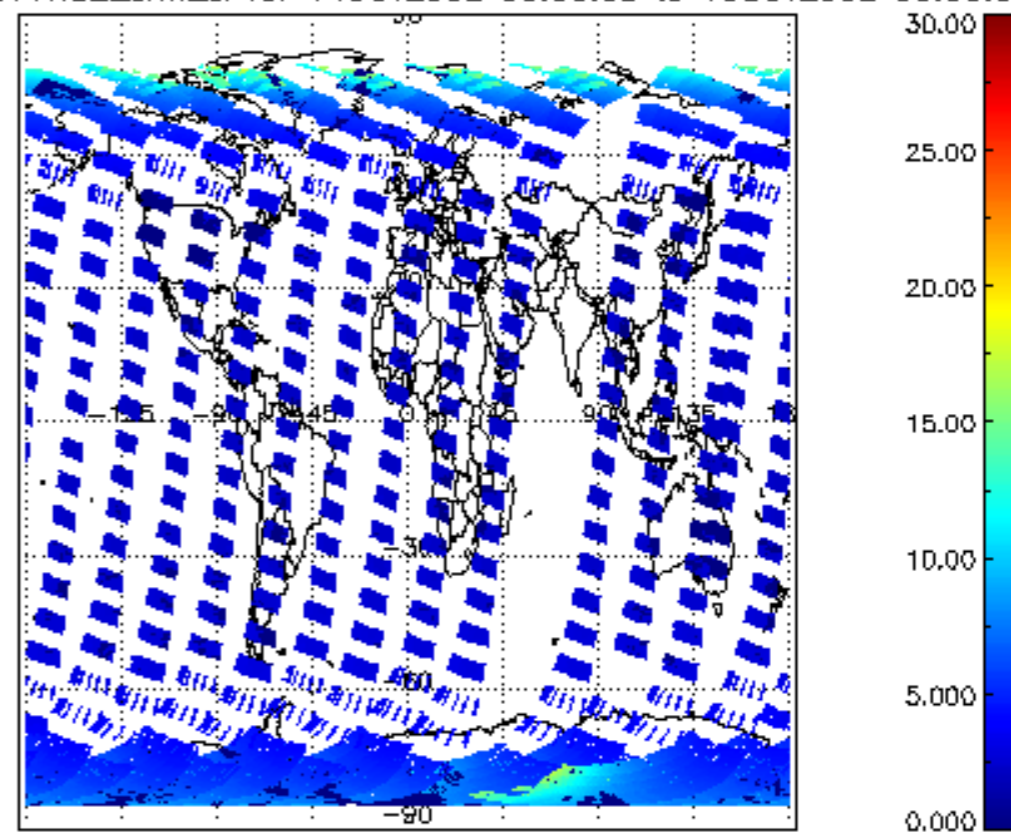
ICIOL2P\_NADUV1NO2\_vcd\_err for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



ICIOL2P\_NADUV1NO2\_amf\_gr for 14OCT2002 00:00:00 to 15OCT2002 00:00:00

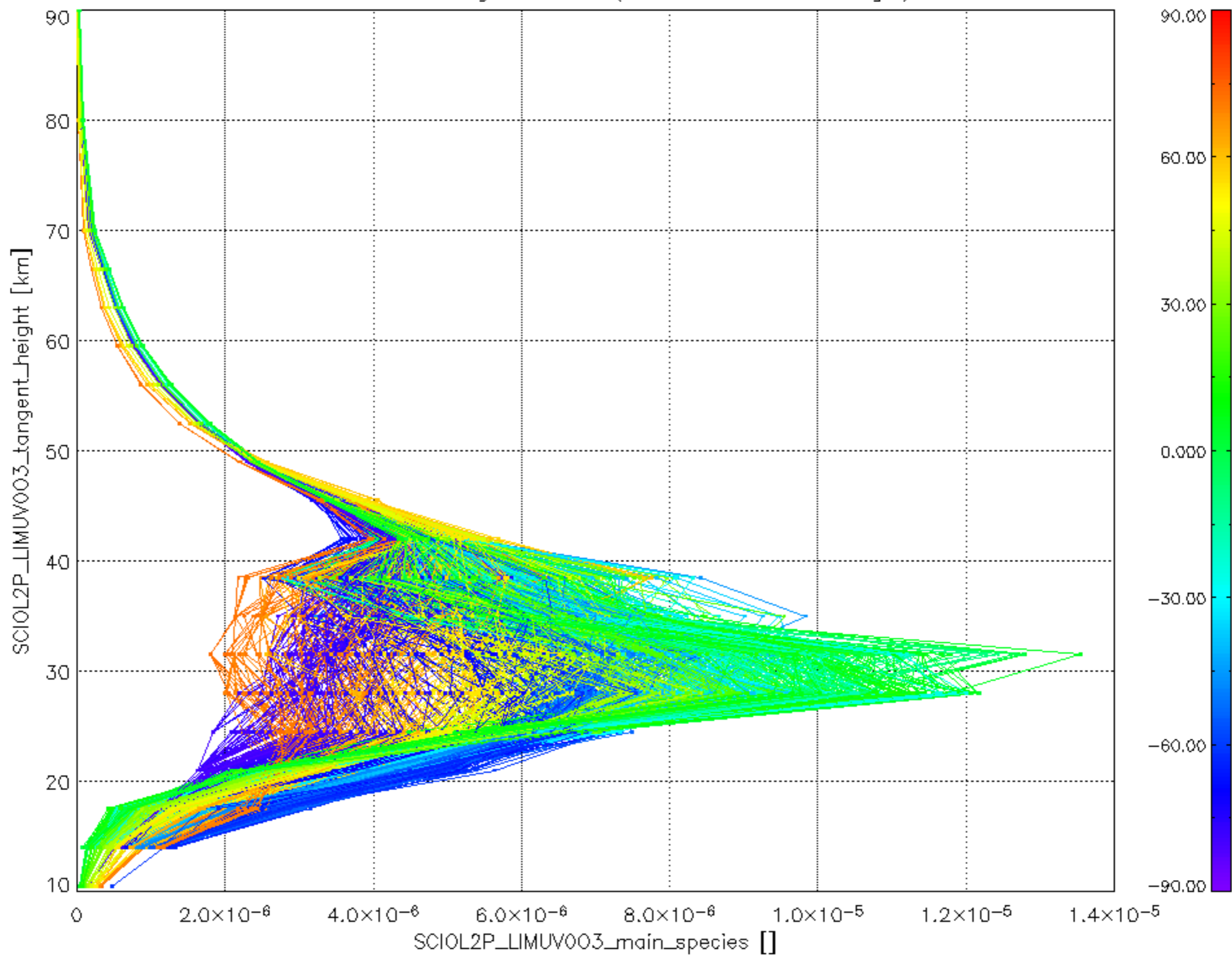


ICIOL2P\_NADUV1NO2\_amf\_cl for 14OCT2002 00:00:00 to 15OCT2002 00:00:00

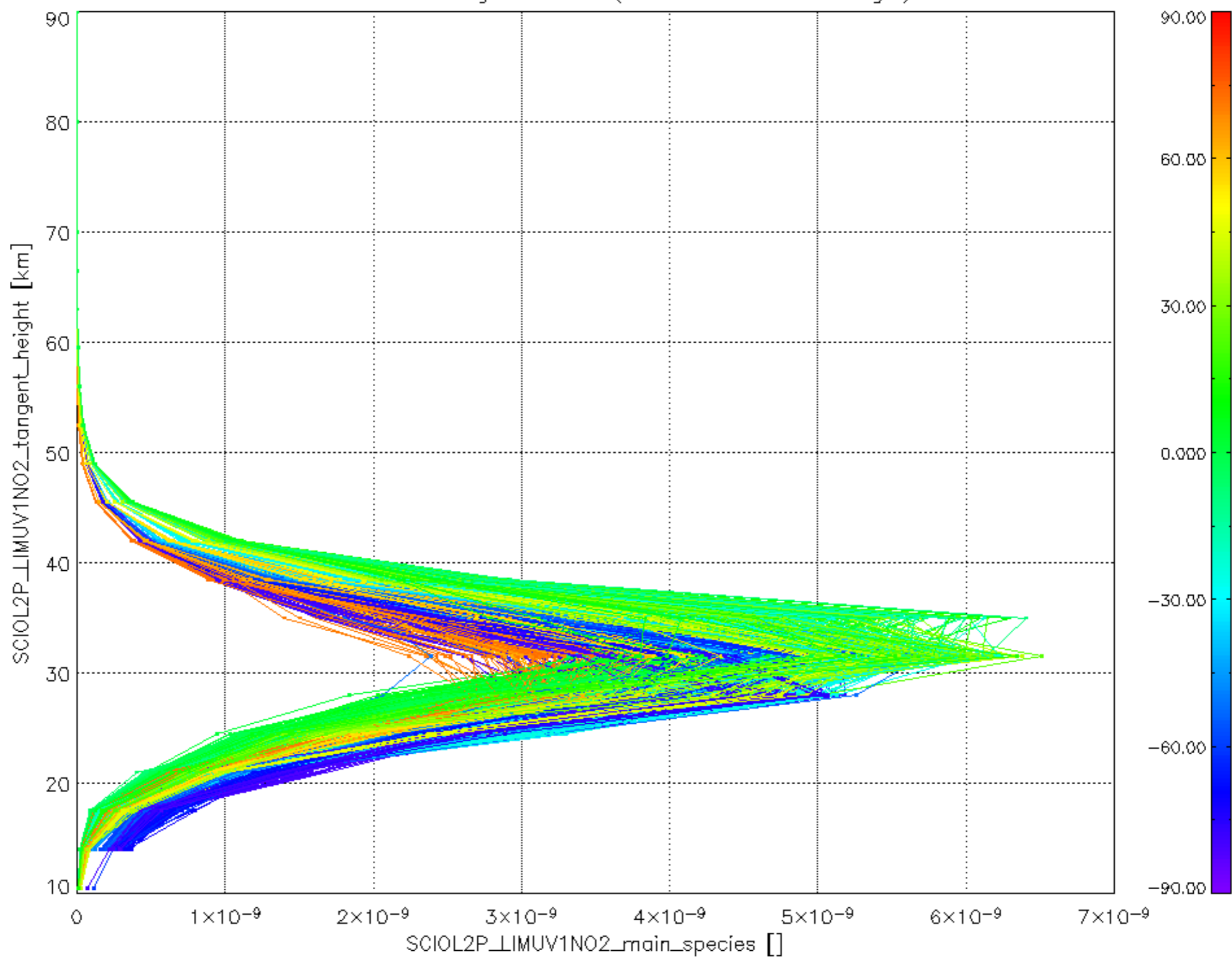




Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).

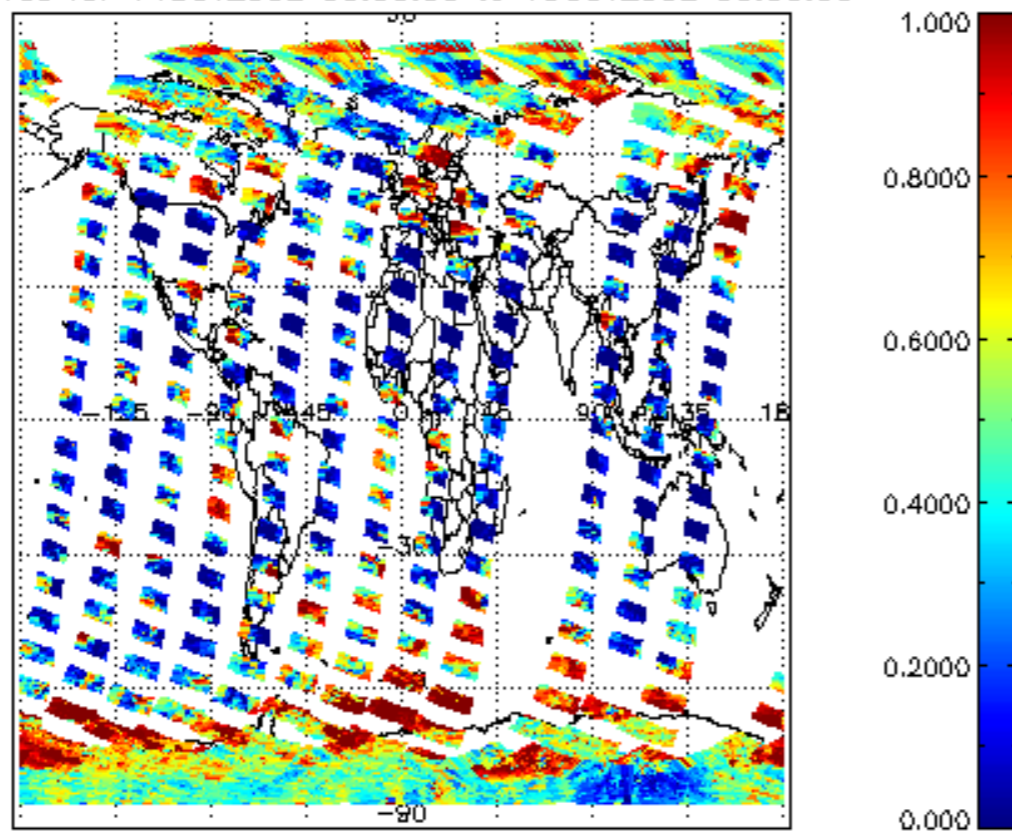


Plot of SCIOL2P\_LIMUV1N02\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).

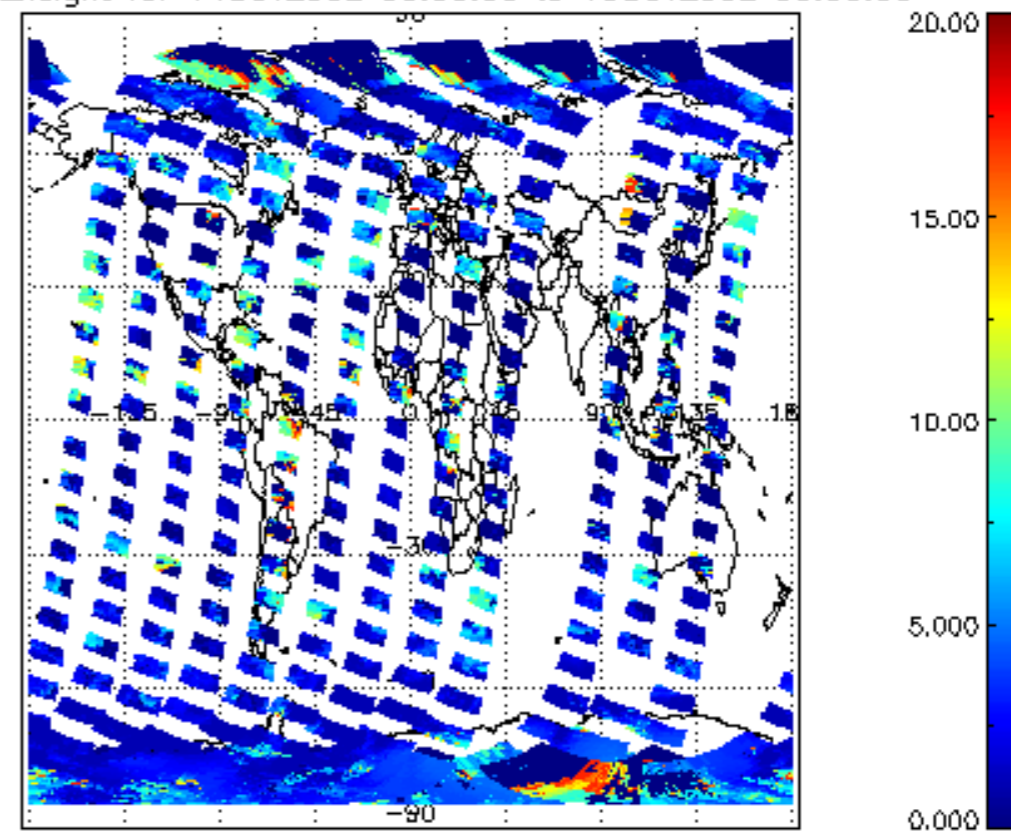




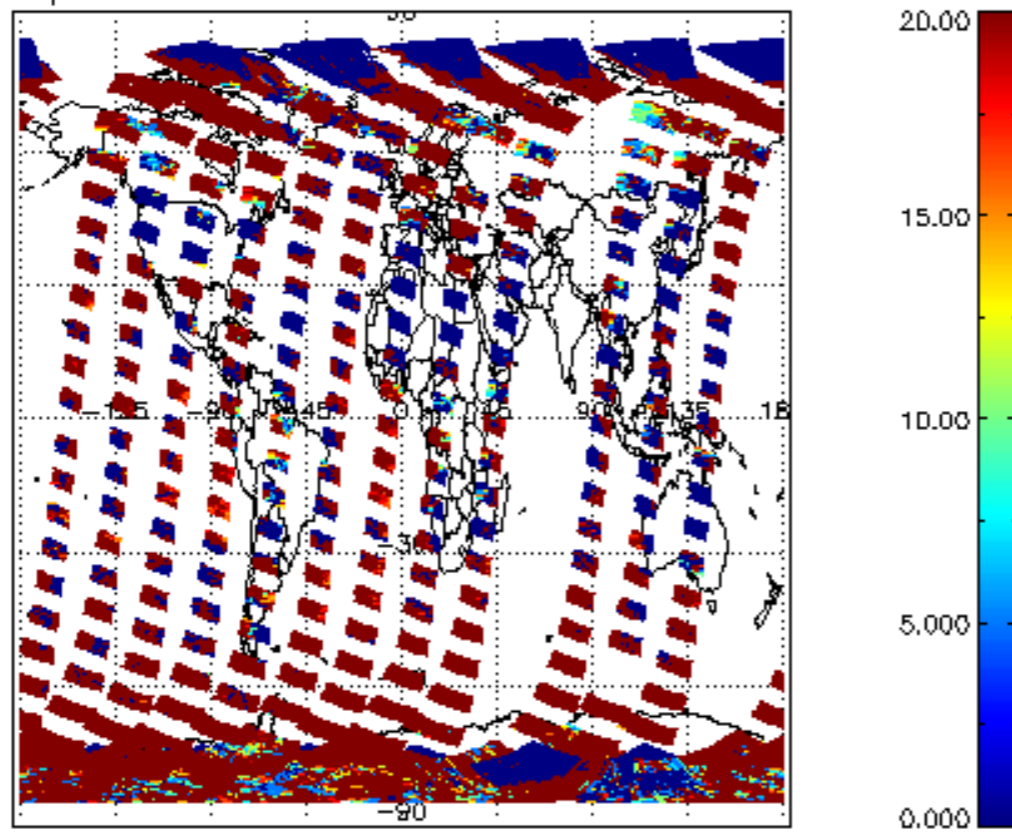
cl\_frac for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



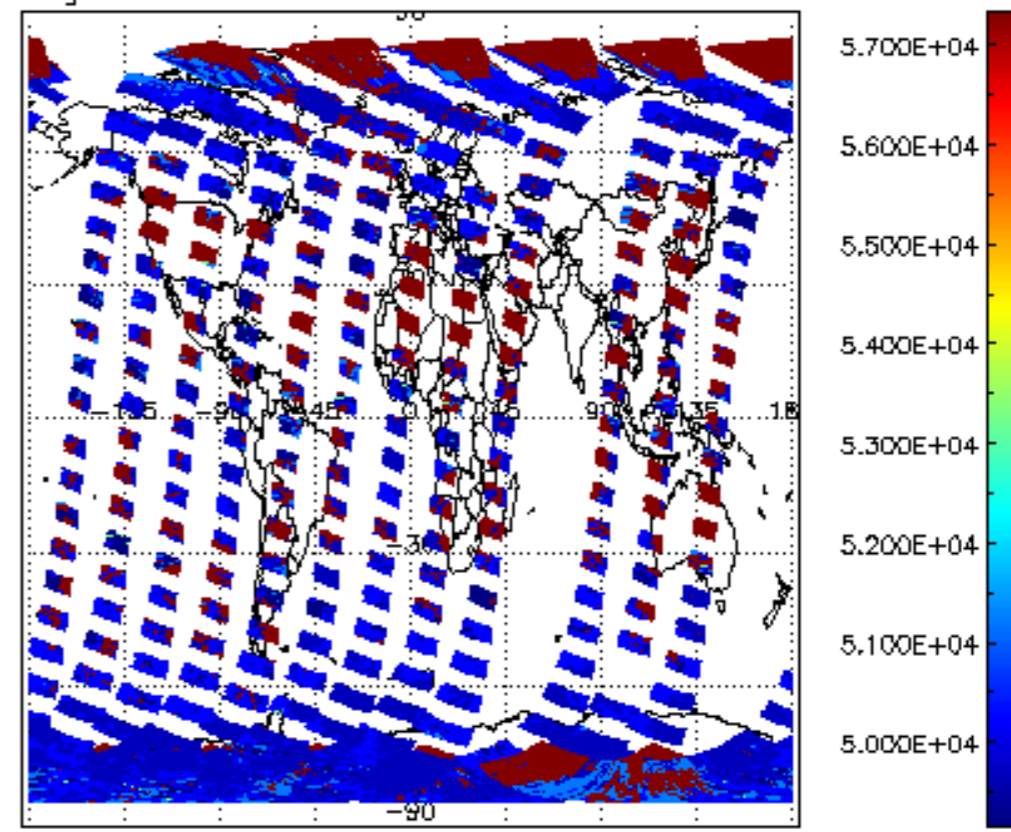
cl\_top\_height for 14OCT2002 00:00:00 to 15OCT2002 00:00:00

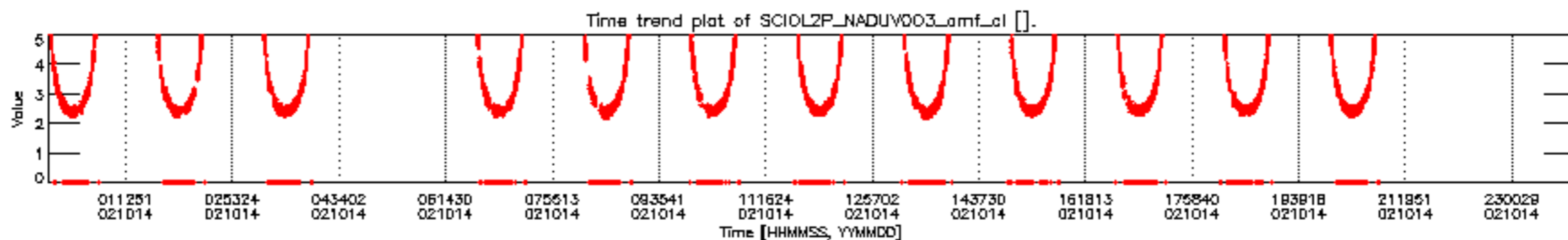
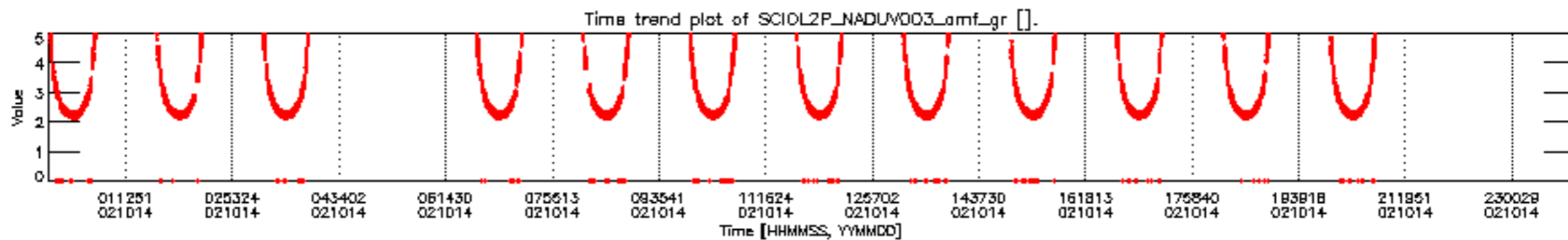
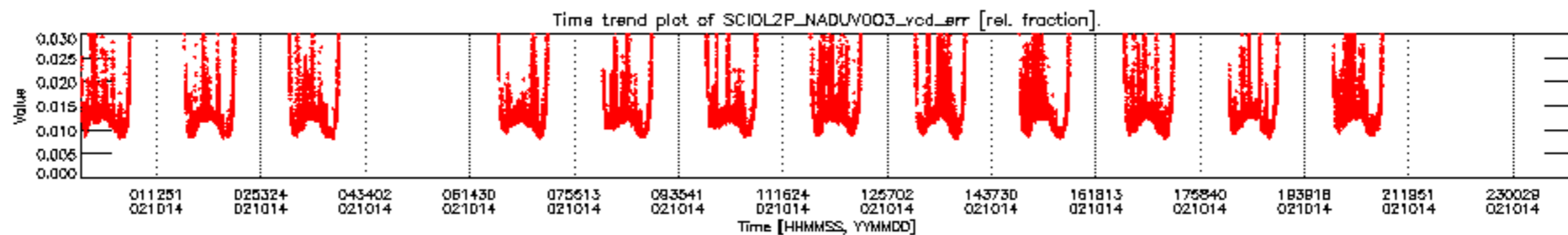
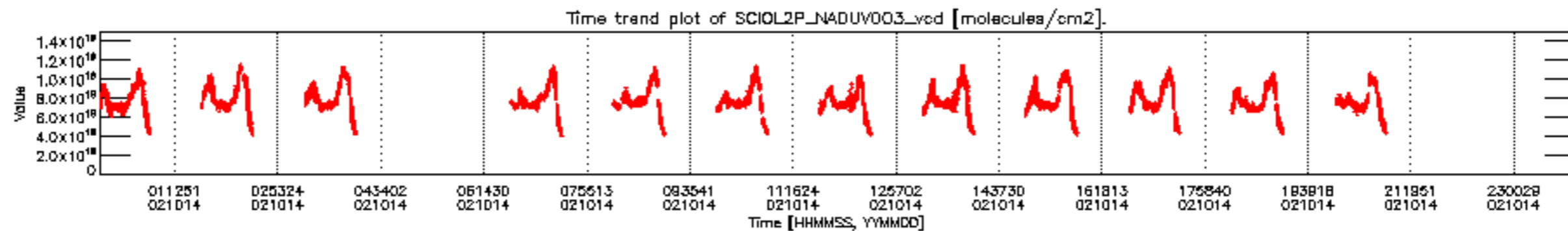


cl\_opt\_depth for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



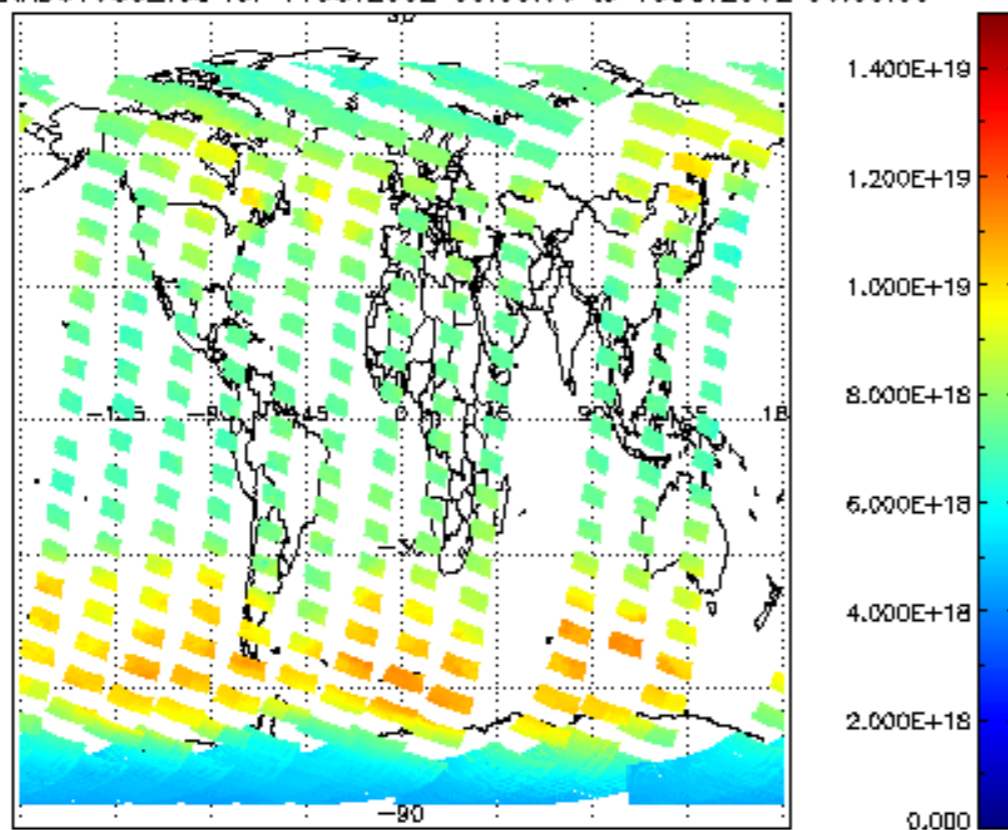
cloud\_flags for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



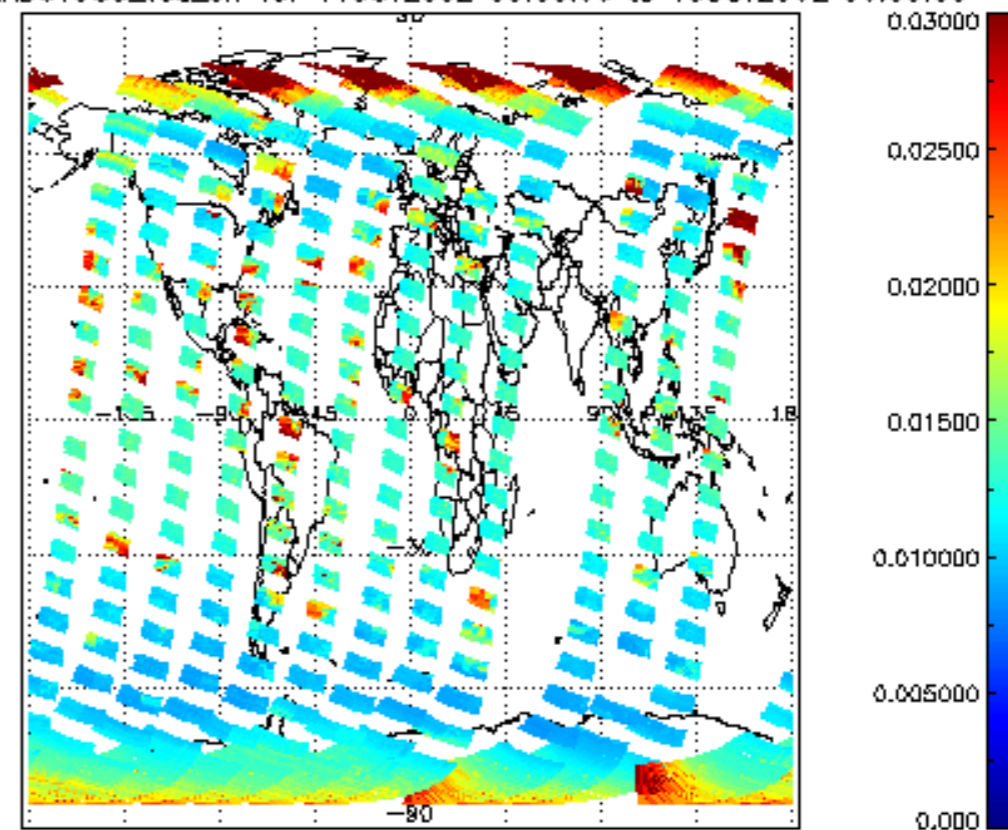




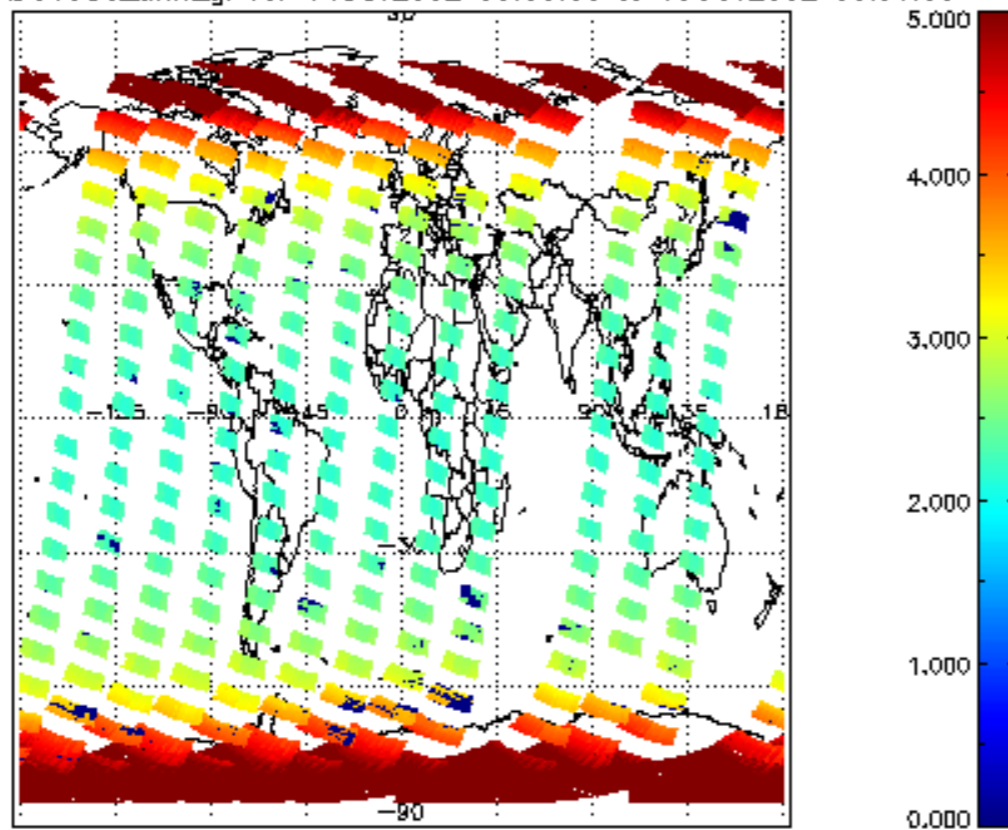
SCIOL2P\_NADUV003\_vcd for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



SCIOL2P\_NADUV003\_vcd\_err for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



SCIOL2P\_NADUV003\_amf\_gr for 14OCT2002 00:00:00 to 15OCT2002 00:00:00



SCIOL2P\_NADUV003\_amf\_cl for 14OCT2002 00:00:00 to 15OCT2002 00:00:00

