

## 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	1.6 (28-07-2008)
Time of report generation	04OCT2008 06:12:08
Data source version	SCIA-OL/3.01-R
Processing scope for products	17SEP2008 00:00:00 to 18SEP2008 00:00:00
Start time of first product within scope	16SEP2008 23:06:28
Stop time of last product within scope	18SEP2008 01:11:57
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.

#	Product name	Start time	Stop time	Prod err	Fit summary
0	<a href="#">SCI_OL__2PRDPA20080916_230628_000033252072_00116_34238_0869.N1</a>	16SEP2008 23:06:28	17SEP2008 00:01:54	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20080917_004705_000033812072_00117_34239_0870.N1</a>	17SEP2008 00:47:05	17SEP2008 01:43:26	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20080917_022741_000033252072_00118_34240_0873.N1</a>	17SEP2008 02:27:41	17SEP2008 03:23:07	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20080917_040817_000033812072_00119_34241_0874.N1</a>	17SEP2008 04:08:17	17SEP2008 05:04:39	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20080917_054854_000033252072_00120_34242_0880.N1</a>	17SEP2008 05:48:54	17SEP2008 06:44:20	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20080917_072931_000033812072_00121_34243_0883.N1</a>	17SEP2008 07:29:31	17SEP2008 08:25:52	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20080917_091007_000033252072_00122_34244_0926.N1</a>	17SEP2008 09:10:07	17SEP2008 10:05:33	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20080917_105043_000033812072_00123_34245_0941.N1</a>	17SEP2008 10:50:43	17SEP2008 11:47:05	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20080917_123120_000033252072_00124_34246_1006.N1</a>	17SEP2008 12:31:20	17SEP2008 13:26:45	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20080917_155233_000033252072_00126_34248_0976.N1</a>	17SEP2008 15:52:33	17SEP2008 16:47:58	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20080917_191406_000033252072_00128_34250_0982.N1</a>	17SEP2008 19:14:06	17SEP2008 20:09:31	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20080917_205422_000033812072_00129_34251_0985.N1</a>	17SEP2008 20:54:22	17SEP2008 21:50:44	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20080918_001535_000033812072_00131_34253_0988.N1</a>	18SEP2008 00:15:35	18SEP2008 01:11:57	0	GOOD

## 2.2 Product Quality Indicators

### 2.2.1 Cloud parameters

This is a new section that 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: 115806

Total number of cloud data DSRs with good quality flag (=0): 115806 (100.0 %)

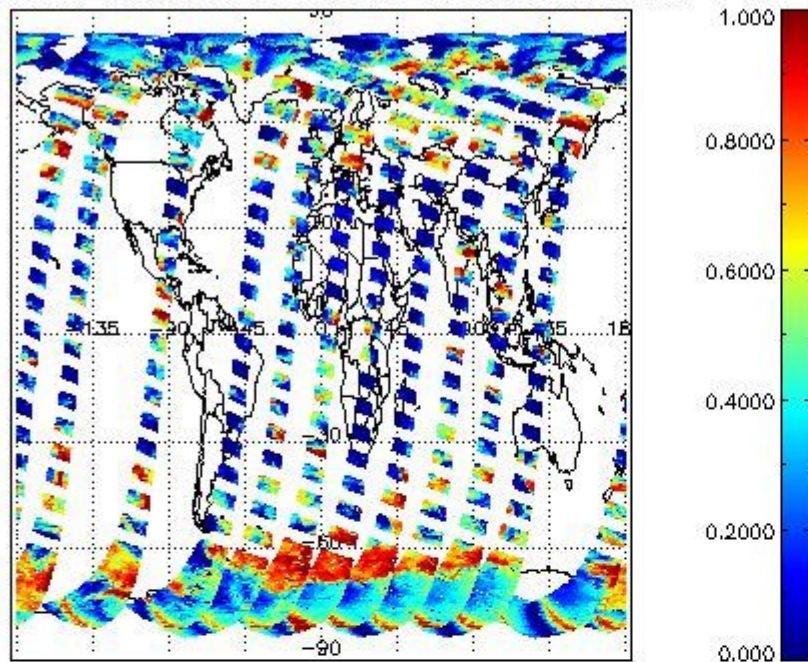
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	115806	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	115806	0.16990	0.12500	0.12500	0.25000	0.059972	s
CL_FRAC	115806	0.36510	0.32504	0.0000	1.0000	0.29612	-
CL_FRAC_ERR	115806	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	115806	5.4369	4.0000	4.0000	8.0000	1.9191	
PMD_READ_CL[0]	115806	0.19186	0.0000	0.0000	8.0000	0.97536	-
PMD_READ_CL[1]	115806	1.2432	0.0000	0.0000	8.0000	2.4159	-
CL_TOP_HEIGHT	98173	3.8208	2.0350	0.0000	17.000	4.1477	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	98173	59.487	67.369	0.0000	101.00	42.171	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	115806	11100000	11100000	11100000	11100000	0.0000	flags. Bit definition = 0: low or high cloud; 1: ice or water cloud; 2: thick or thin cloud; 3-15: not used
CLOUD_FLAGS	115806	11001011	11000100	11000000	11100000	3371.5	flags
AERO_ABSO_IND	115806	3.0732	3.6080	-1.1316	14.994	2.1477	
AERO_IND_DIAG	115806	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	115806	01010110	00000000	00000000	11000000	24464.	flags

### Time and geolocation plots:

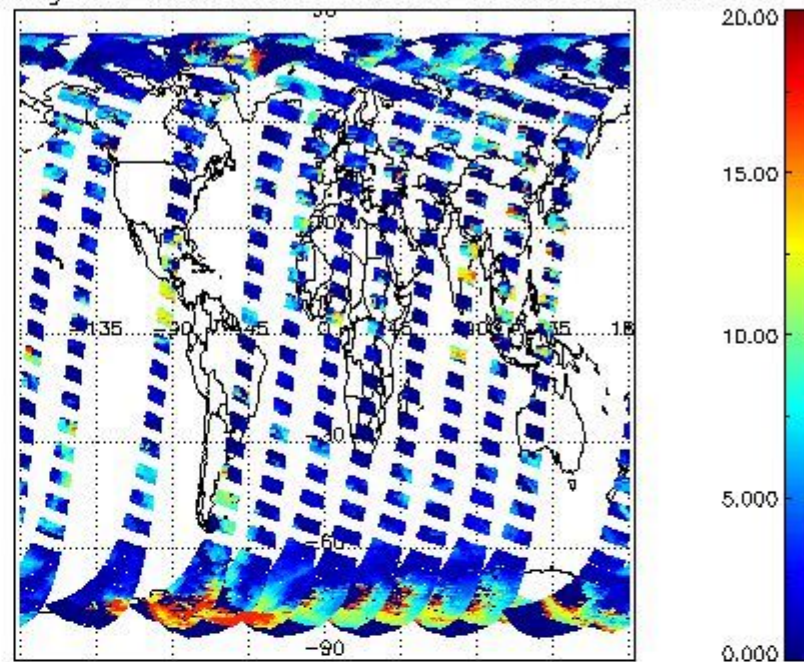
Plots are available for the following parameters:

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

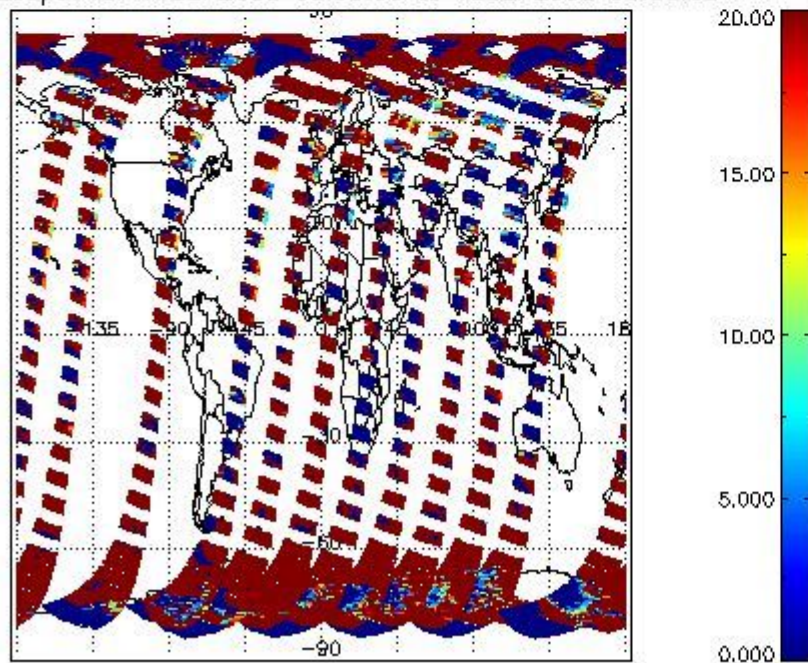
cL\_frac for 17SEP2008 00:00:00 to 18SEP2008 00:00:00



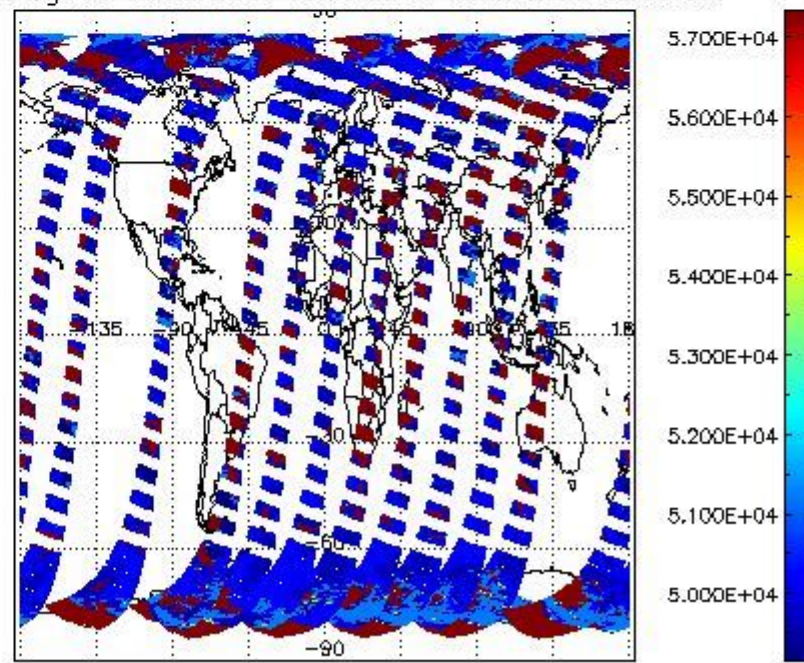
cL\_top\_height for 17SEP2008 00:00:00 to 18SEP2008 00:00:00



cL\_opt\_depth for 17SEP2008 00:00:00 to 18SEP2008 00:00:00



cloud\_flags for 17SEP2008 00:00:00 to 18SEP2008 00:00:00



## 2.2.2 Nadir

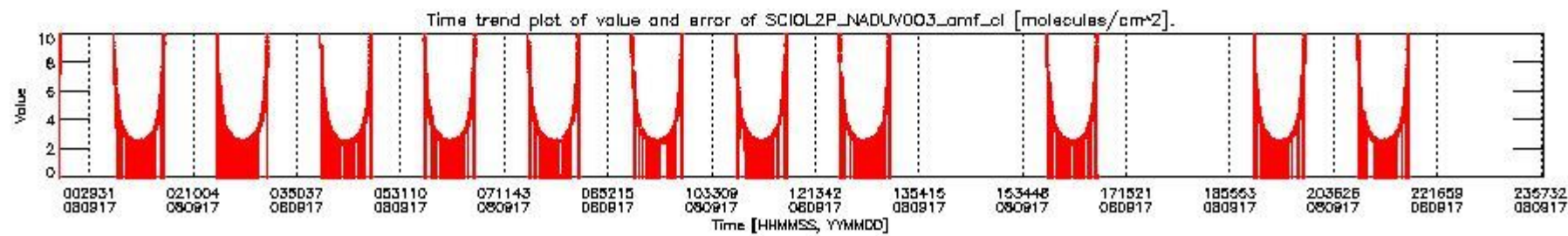
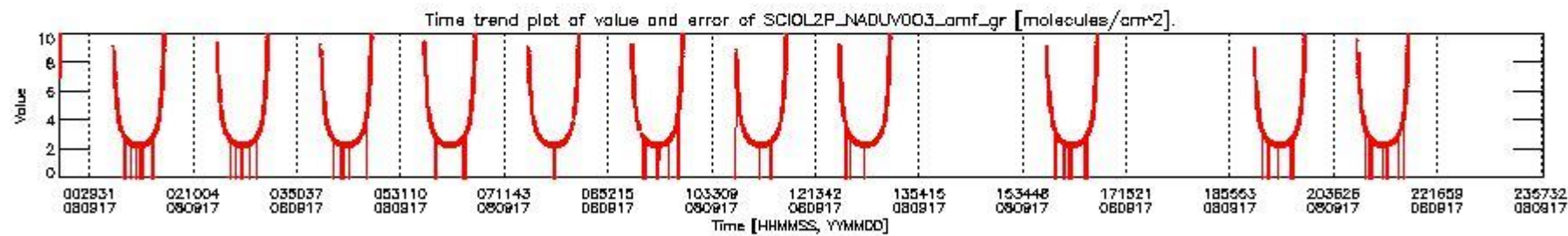
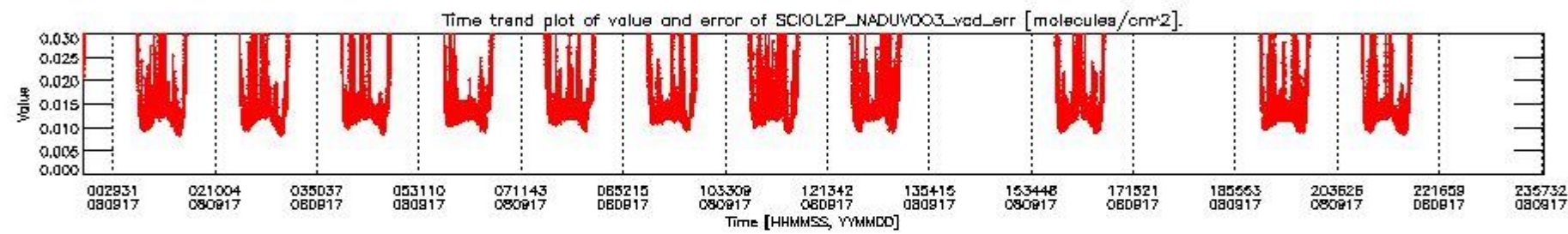
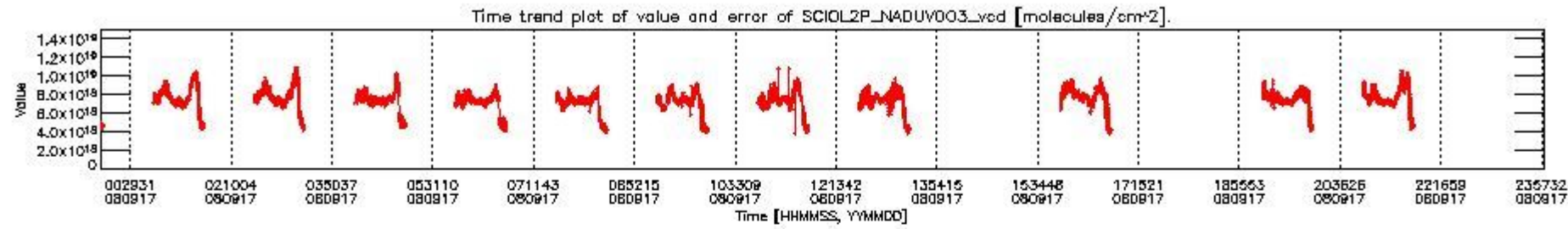
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

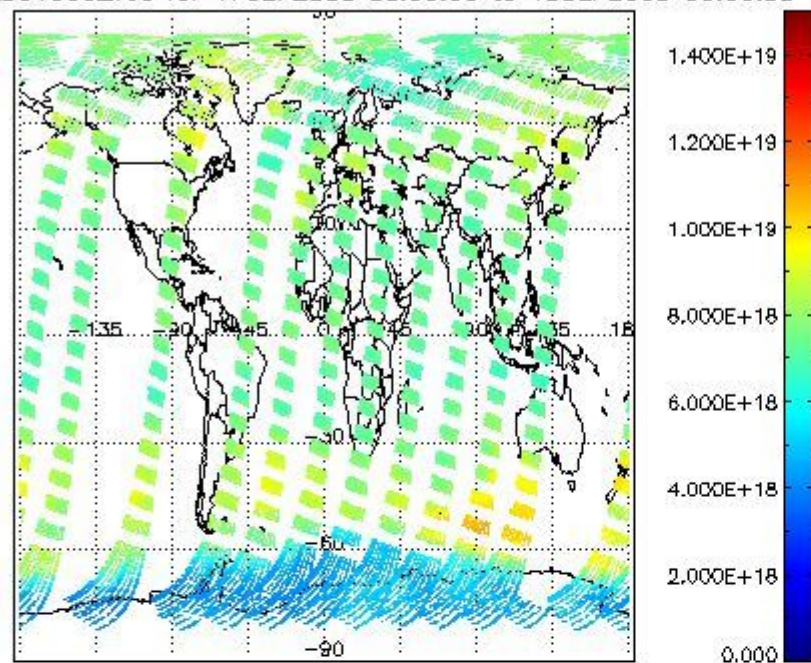
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

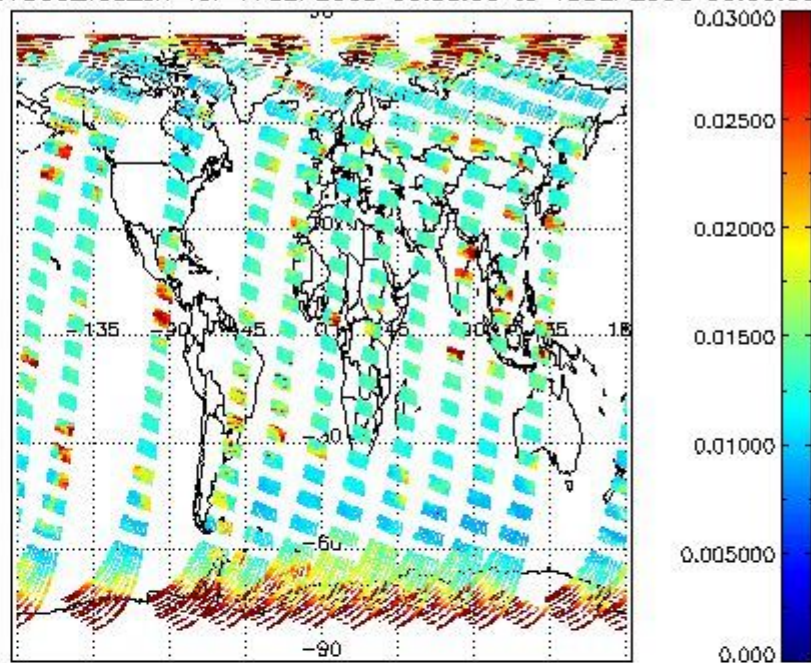
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in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



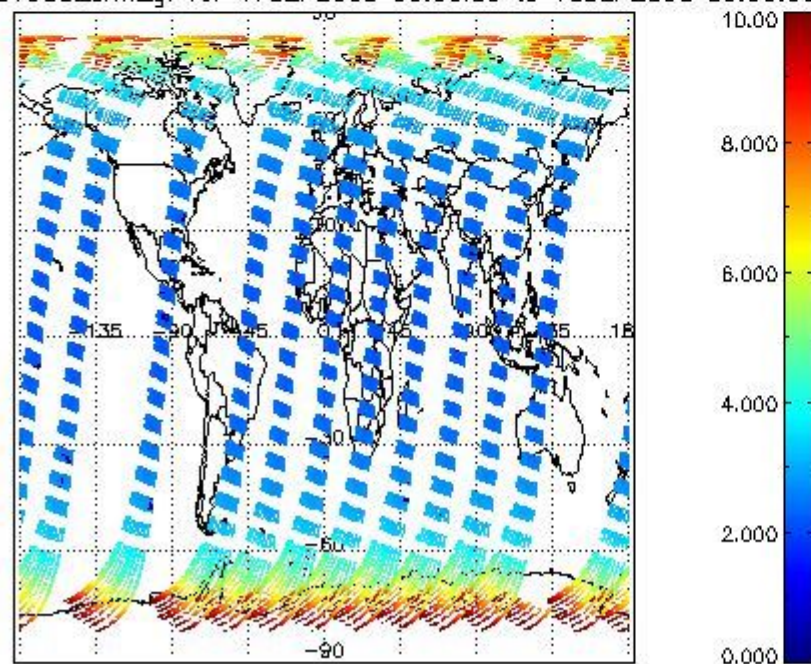
SCIOL2P\_NADUV003\_vcd for 17SEP2008 00:00:00 to 18SEP2008 00:00:00



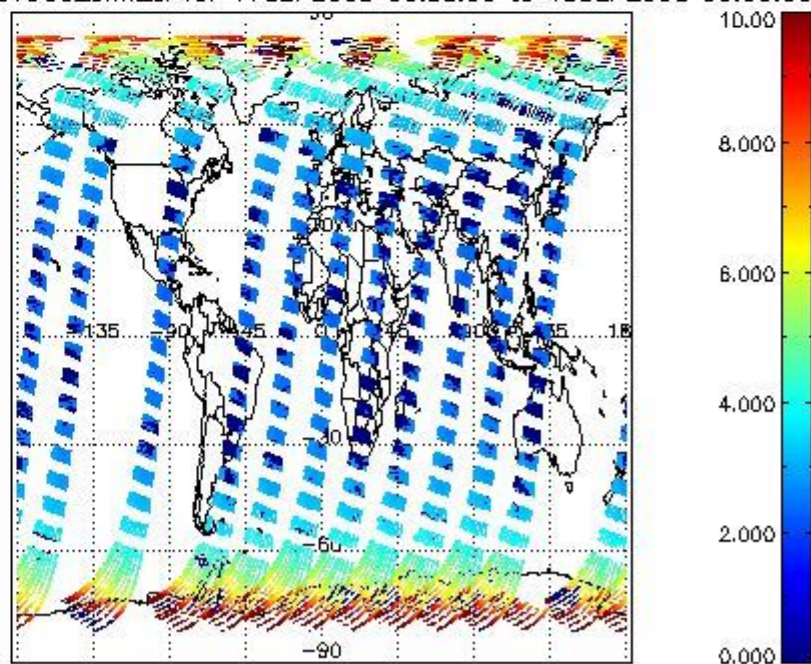
SCIOL2P\_NADUV003\_vcd\_err for 17SEP2008 00:00:00 to 18SEP2008 00:00:00

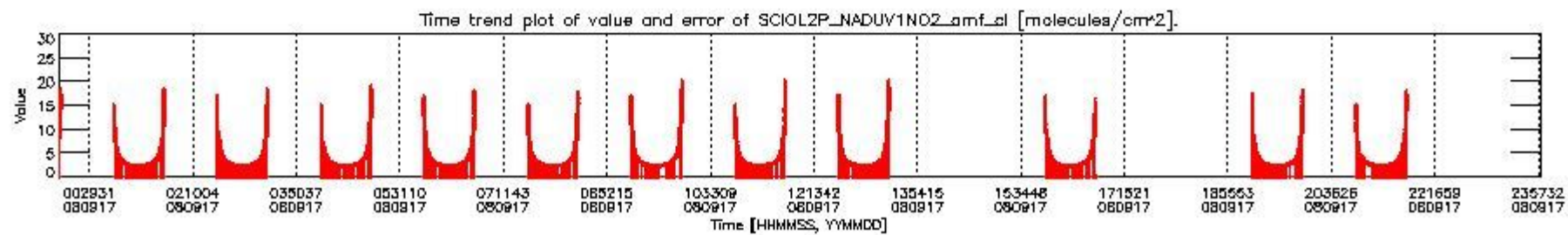
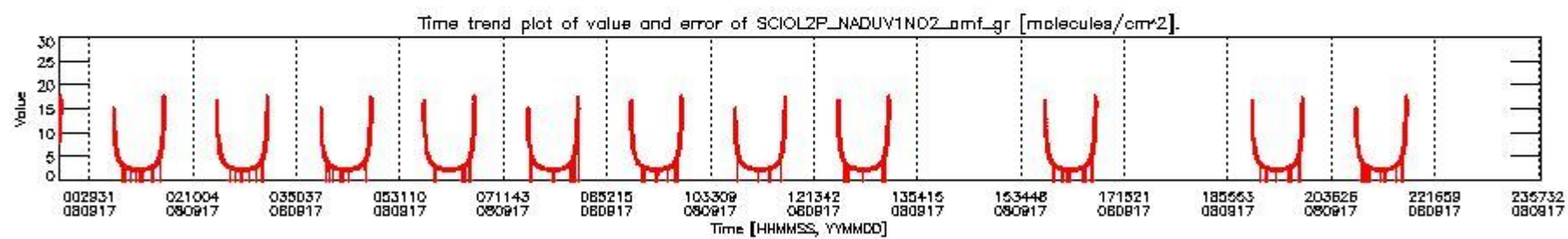
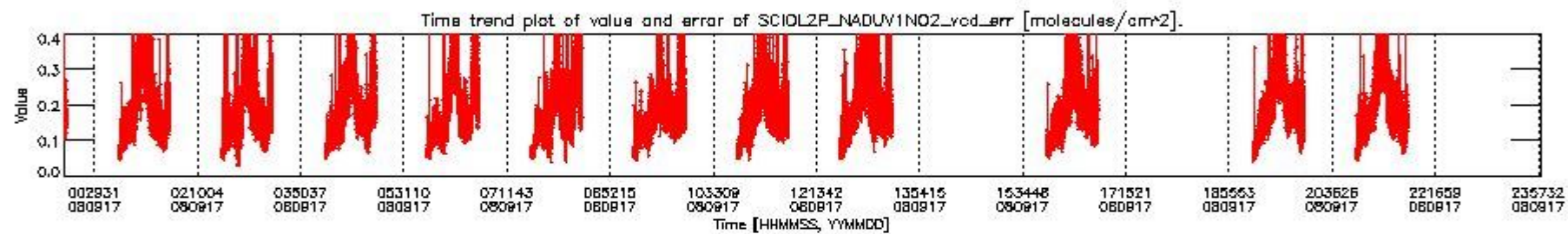
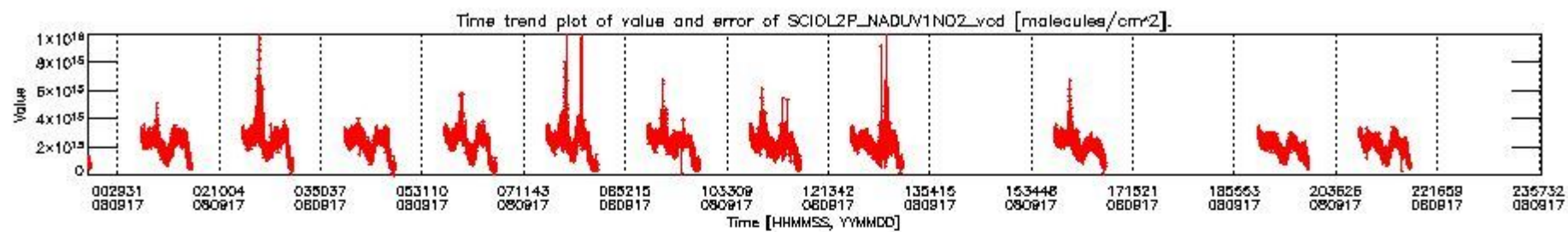


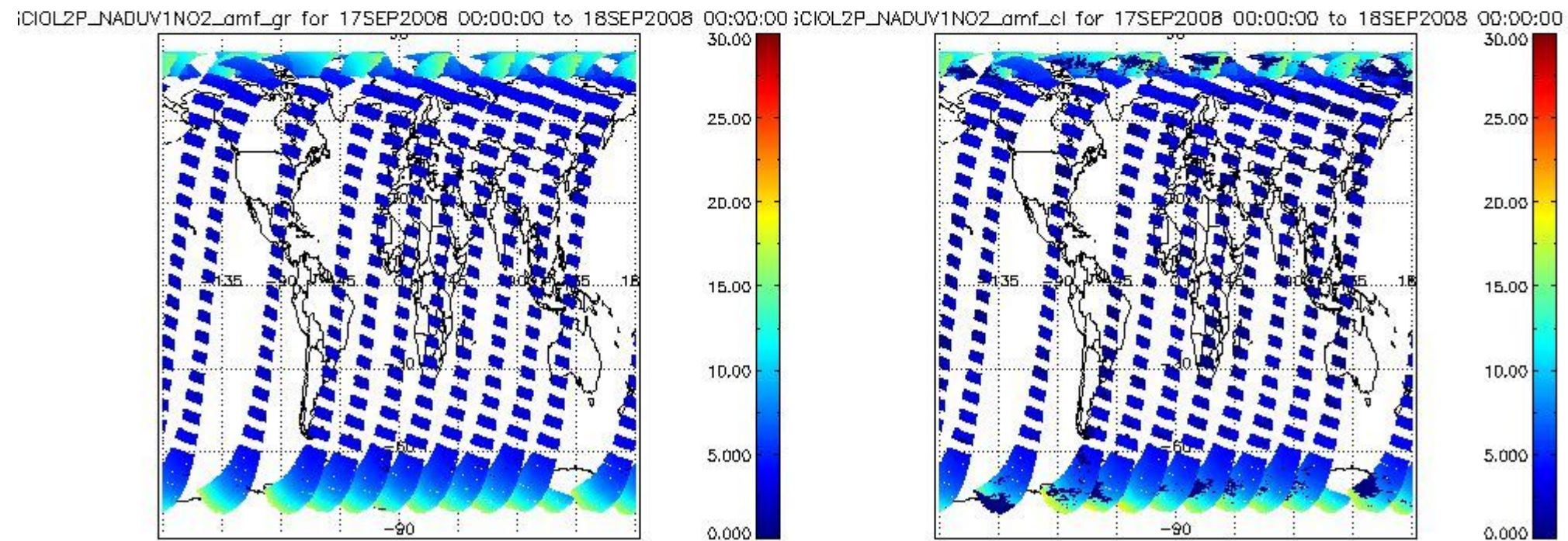
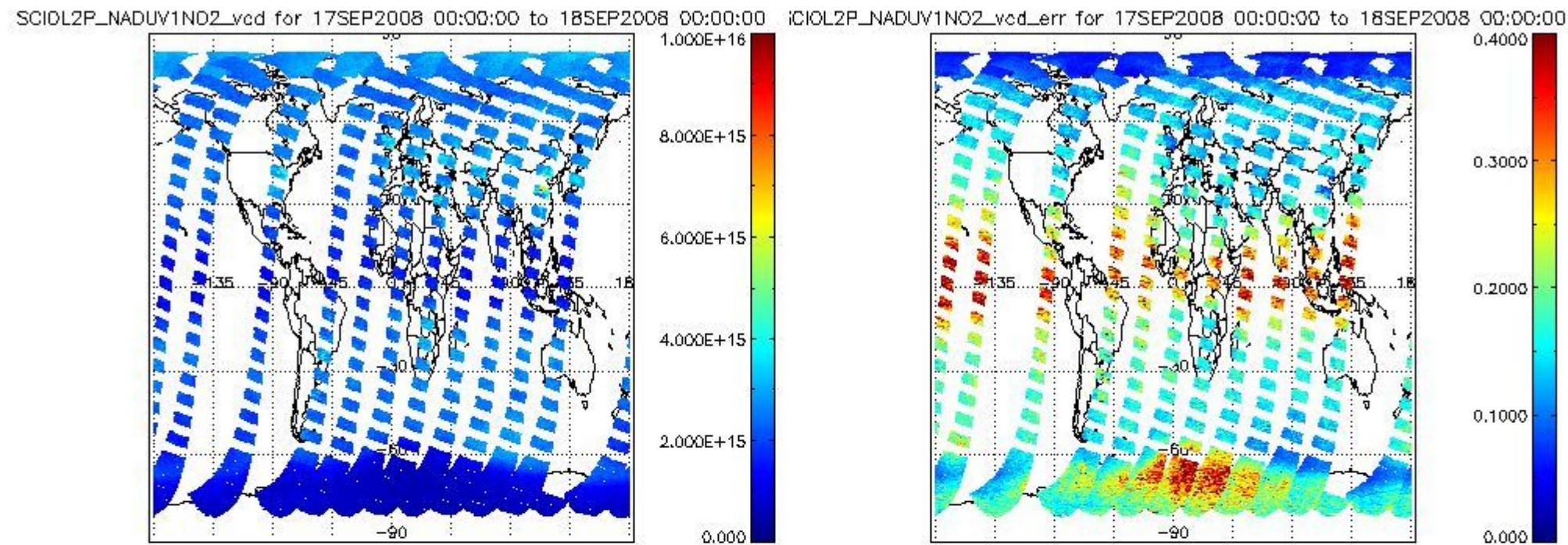
SCIOL2P\_NADUV003\_amf\_gr for 17SEP2008 00:00:00 to 18SEP2008 00:00:00



SCIOL2P\_NADUV003\_amf\_cl for 17SEP2008 00:00:00 to 18SEP2008 00:00:00







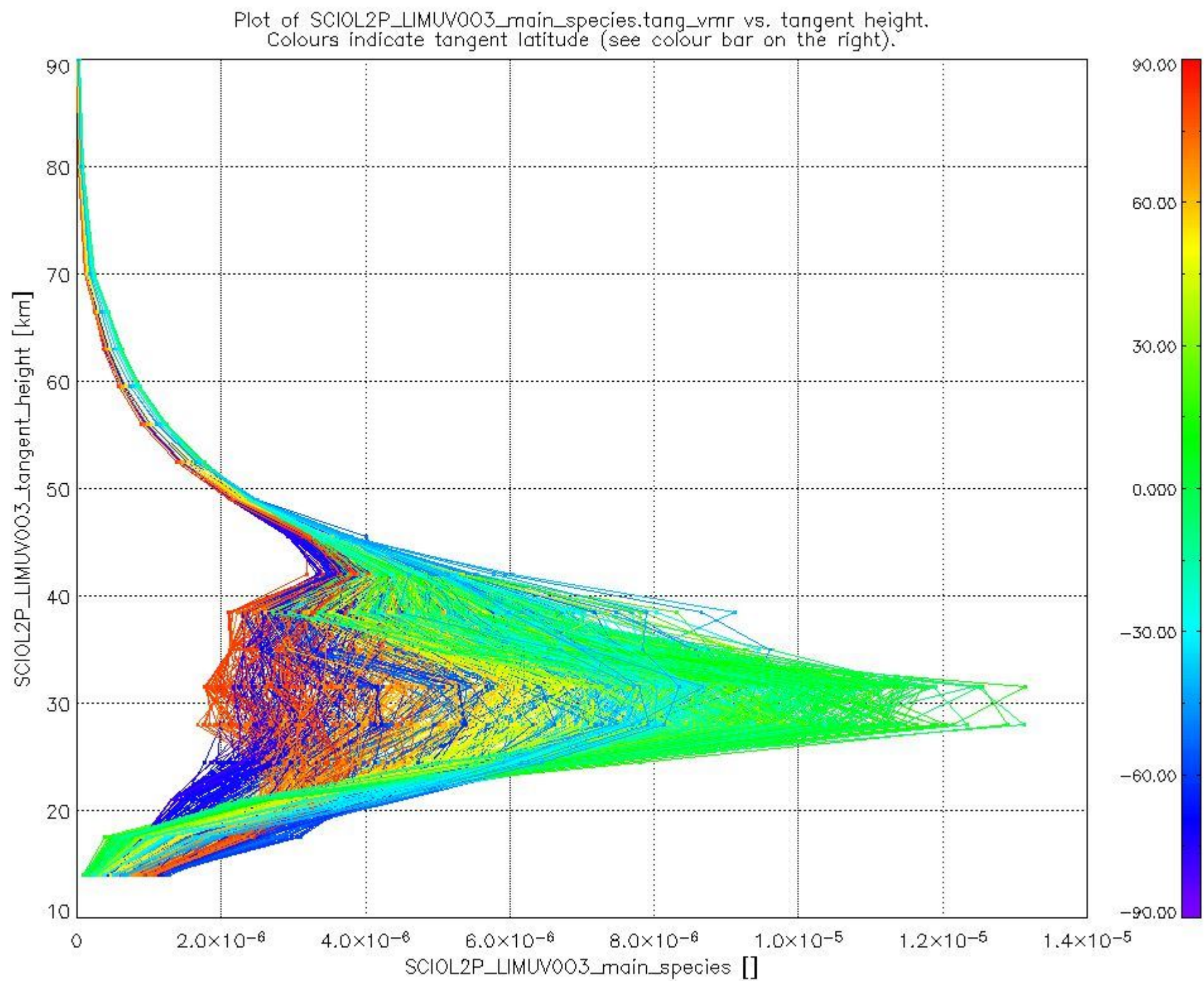
### 2.2.3 Limb

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:

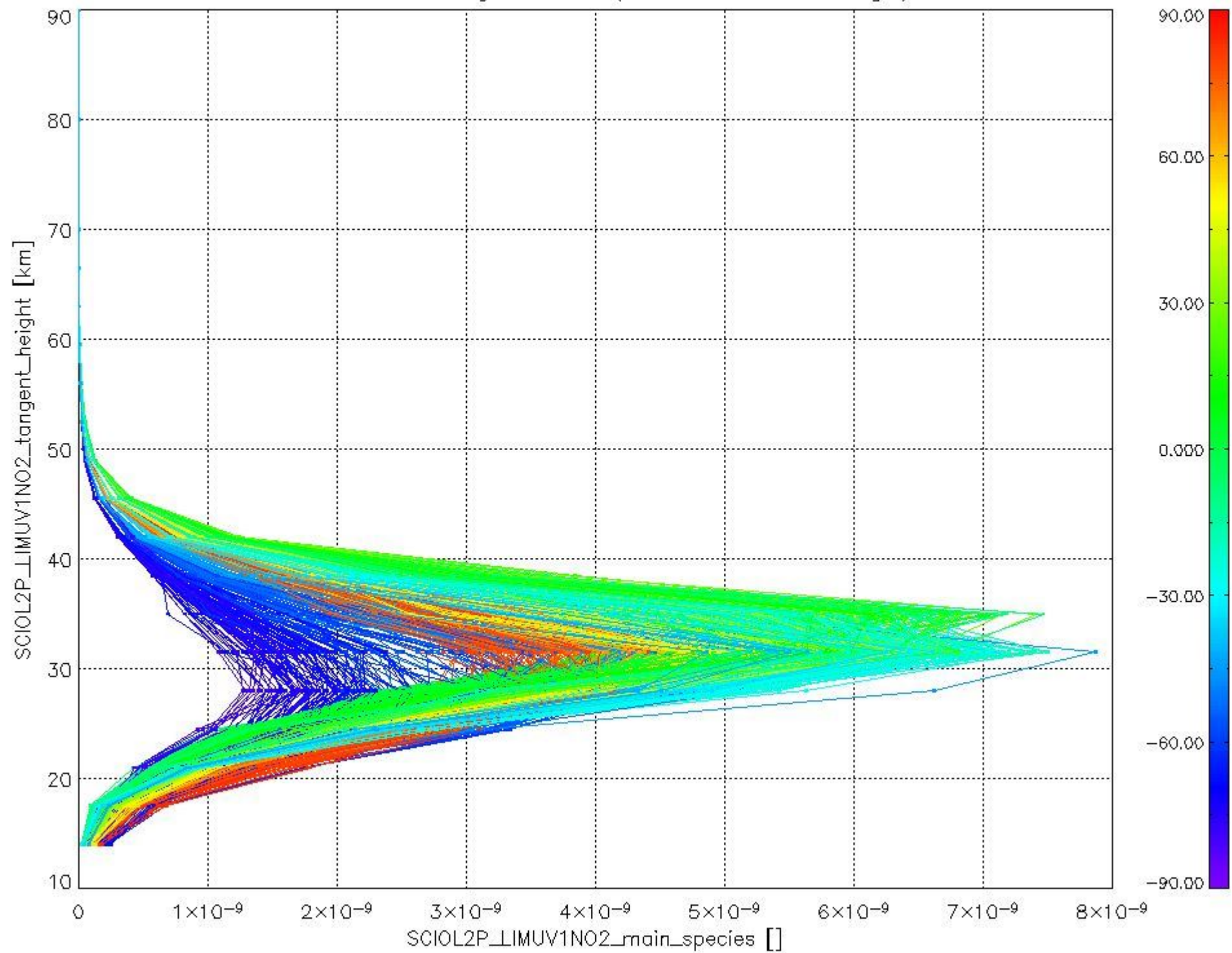
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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





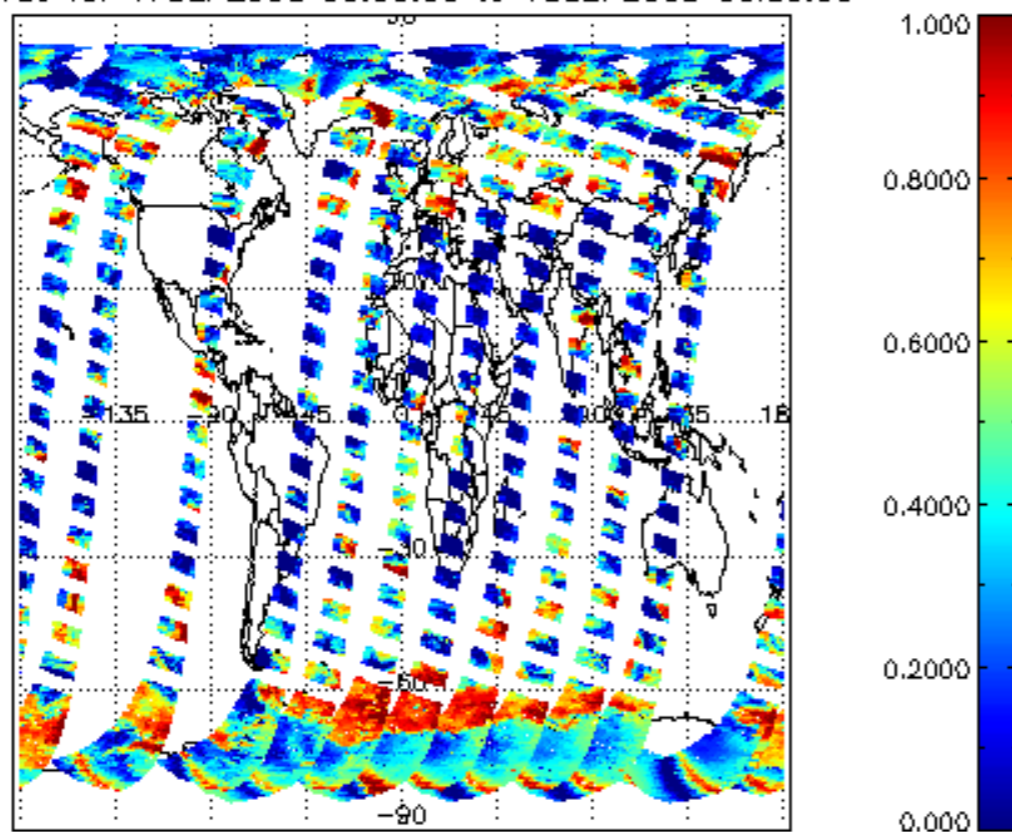
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



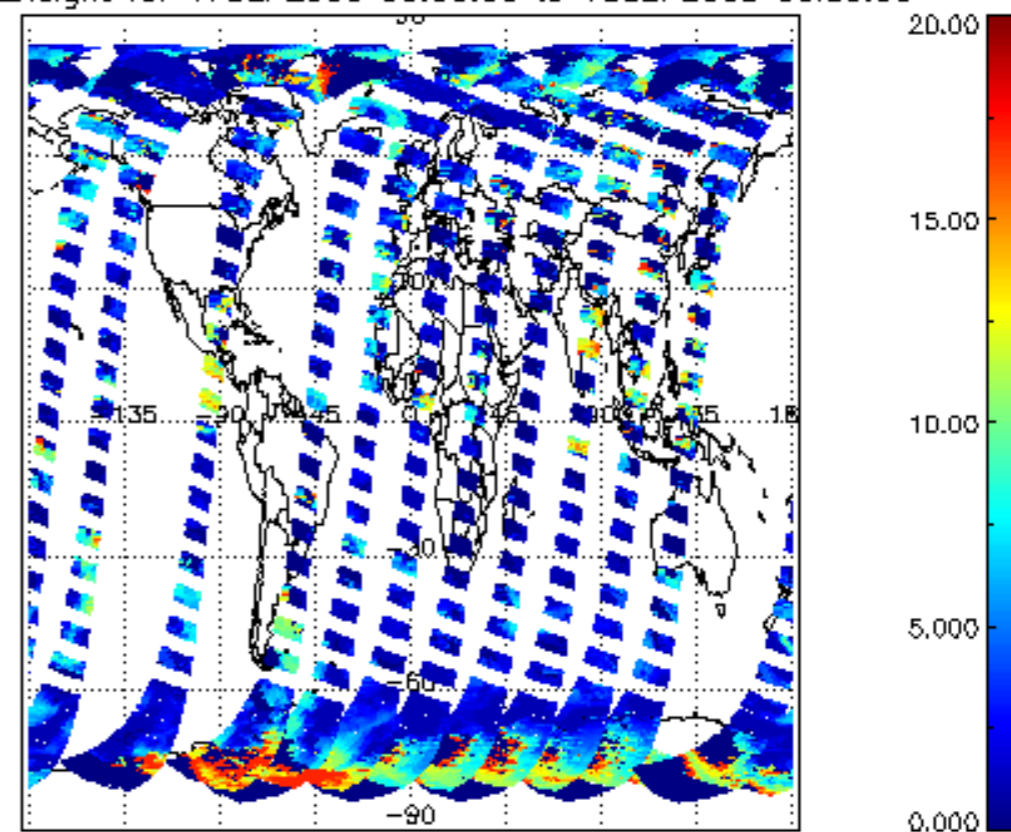
### 2.3 ADF monitoring

Number	ADF
	<b>IN_ (INITIALISATION_FILE)</b>
0	SCI_IN__AXNPDE20070629_092400_20070720_000000_20991231_235959
	<b>ECF (ECMWF_FILE)</b>
1	NOT USED

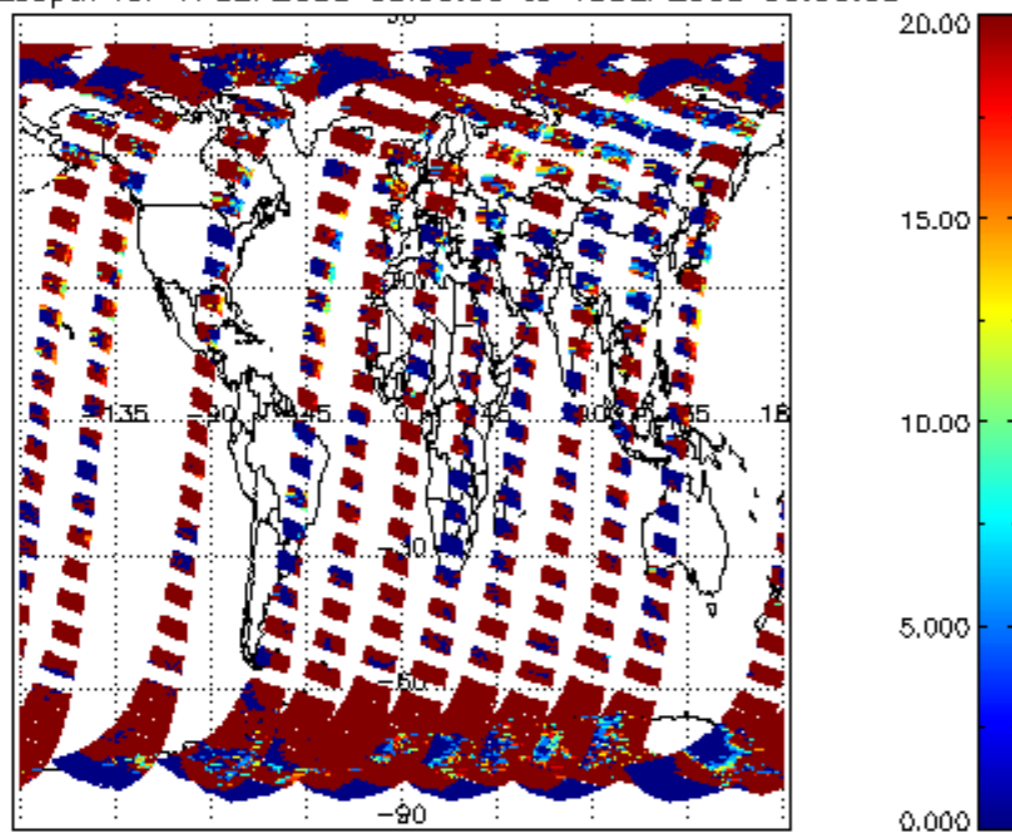
cl\_frac for 17SEP2008 00:00:00 to 18SEP2008 00:00:00



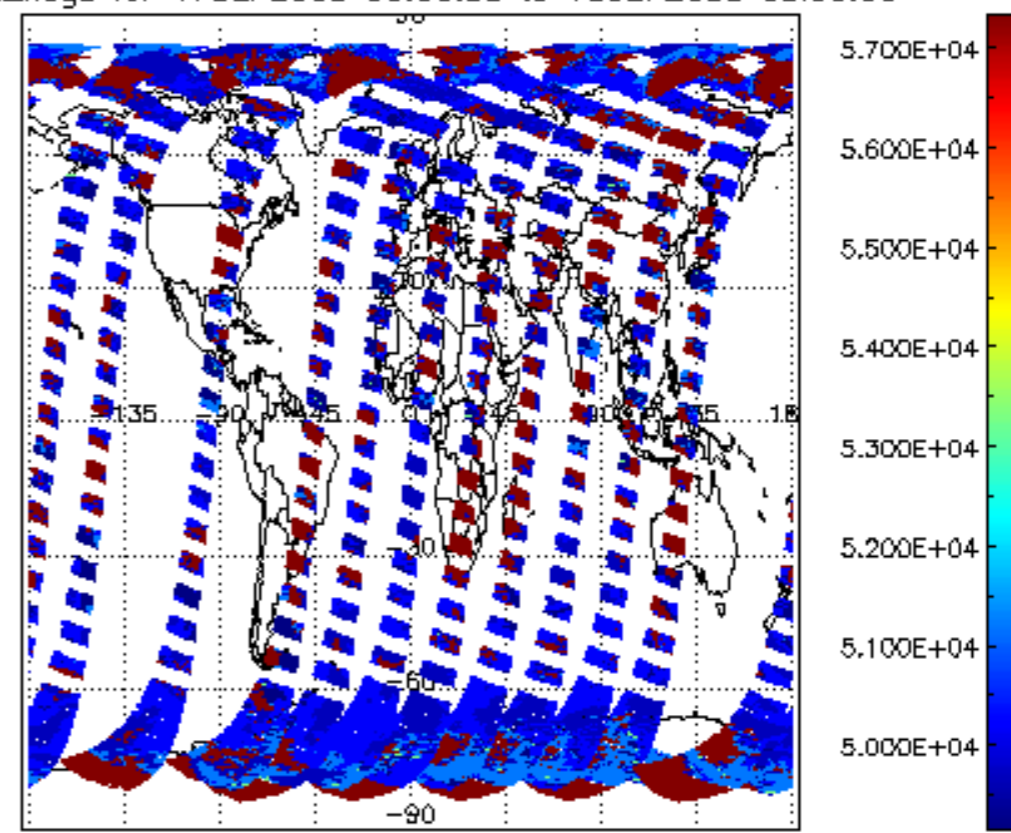
cl\_top\_height for 17SEP2008 00:00:00 to 18SEP2008 00:00:00

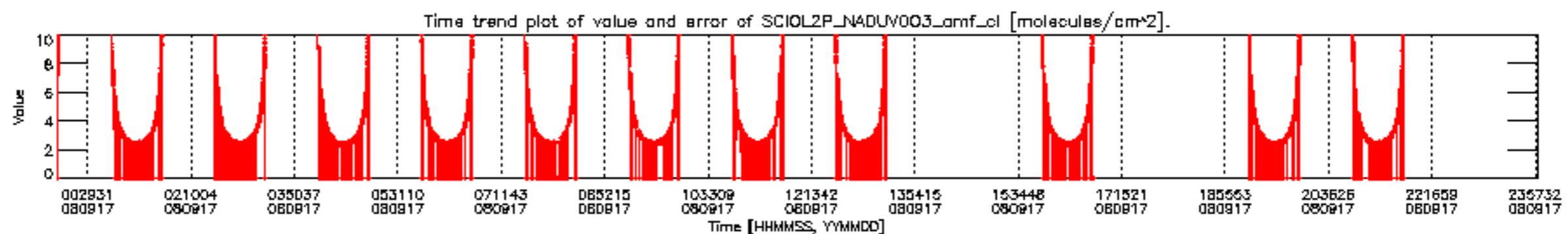
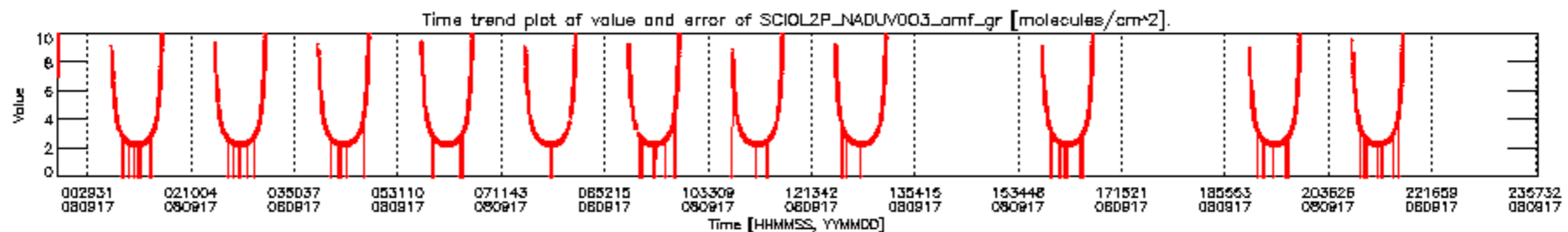
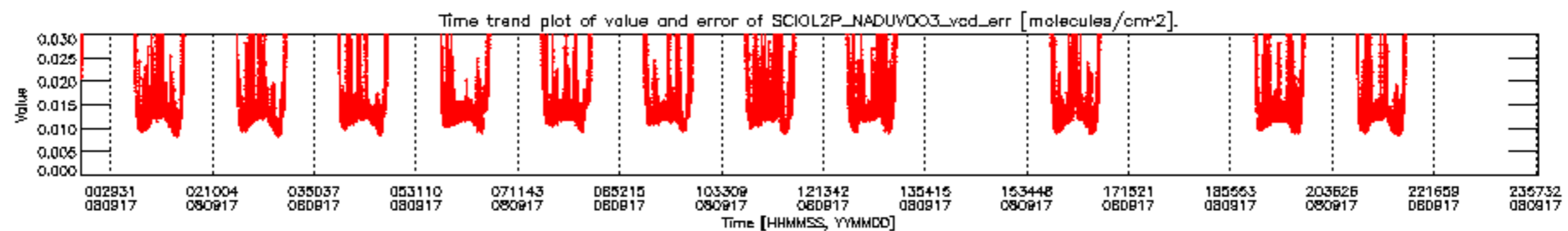
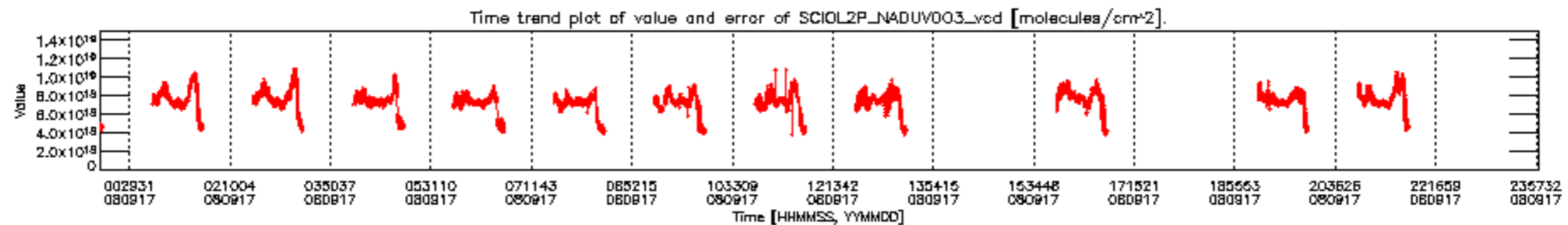


cl\_opt\_depth for 17SEP2008 00:00:00 to 18SEP2008 00:00:00

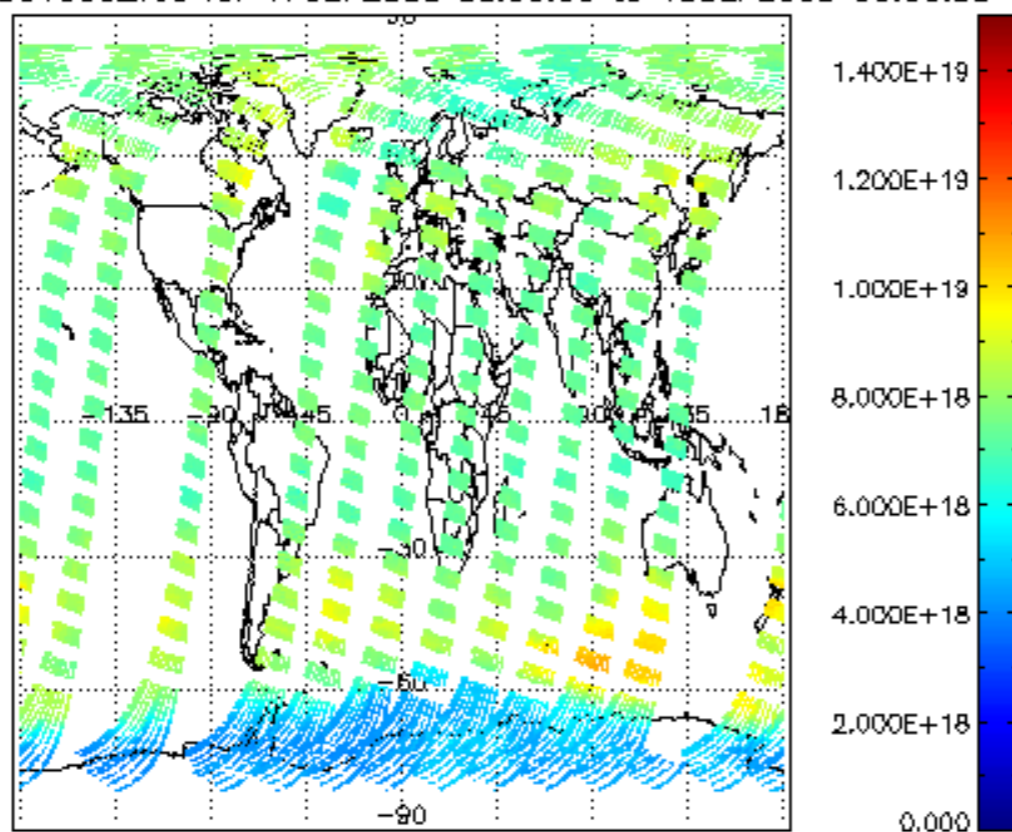


cloud\_flags for 17SEP2008 00:00:00 to 18SEP2008 00:00:00

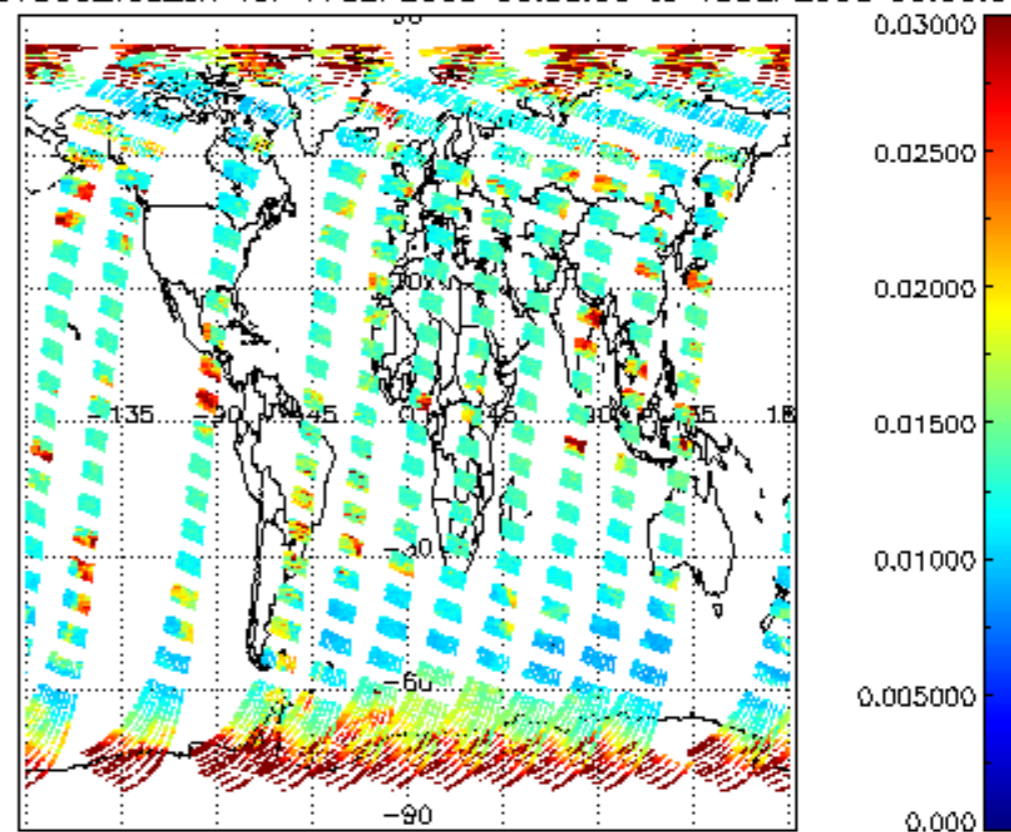




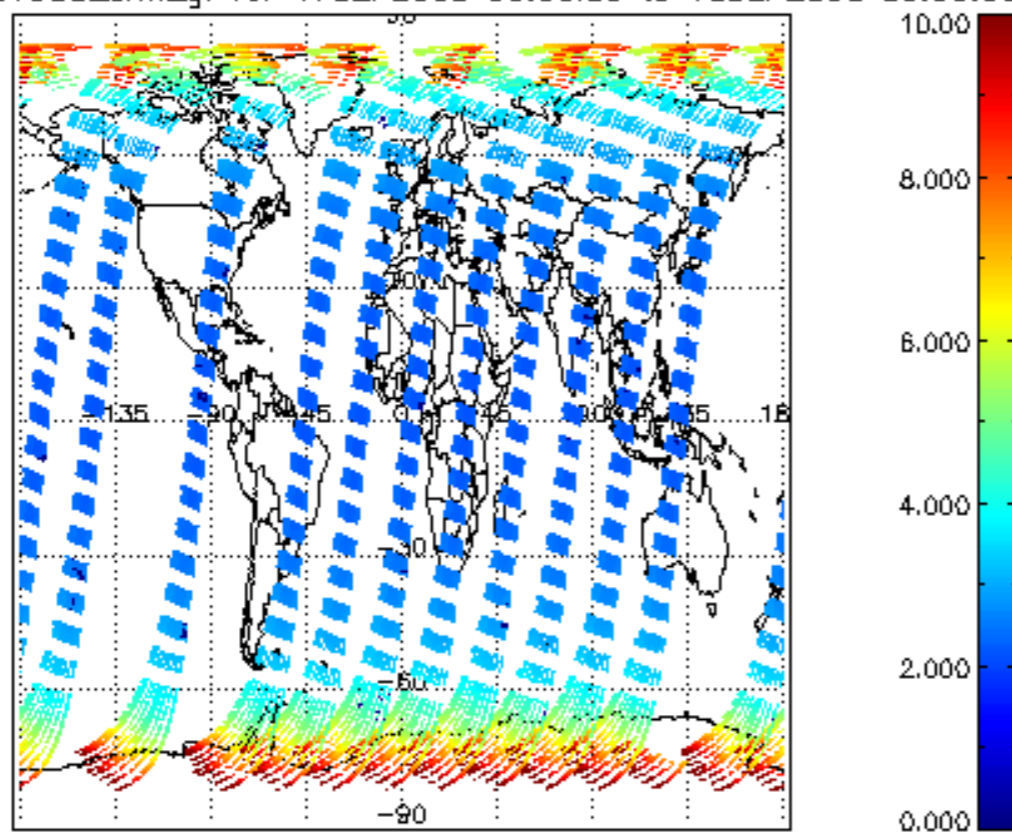
SCIOL2P\_NADUV003\_vcd for 17SEP2008 00:00:00 to 18SEP2008 00:00:00



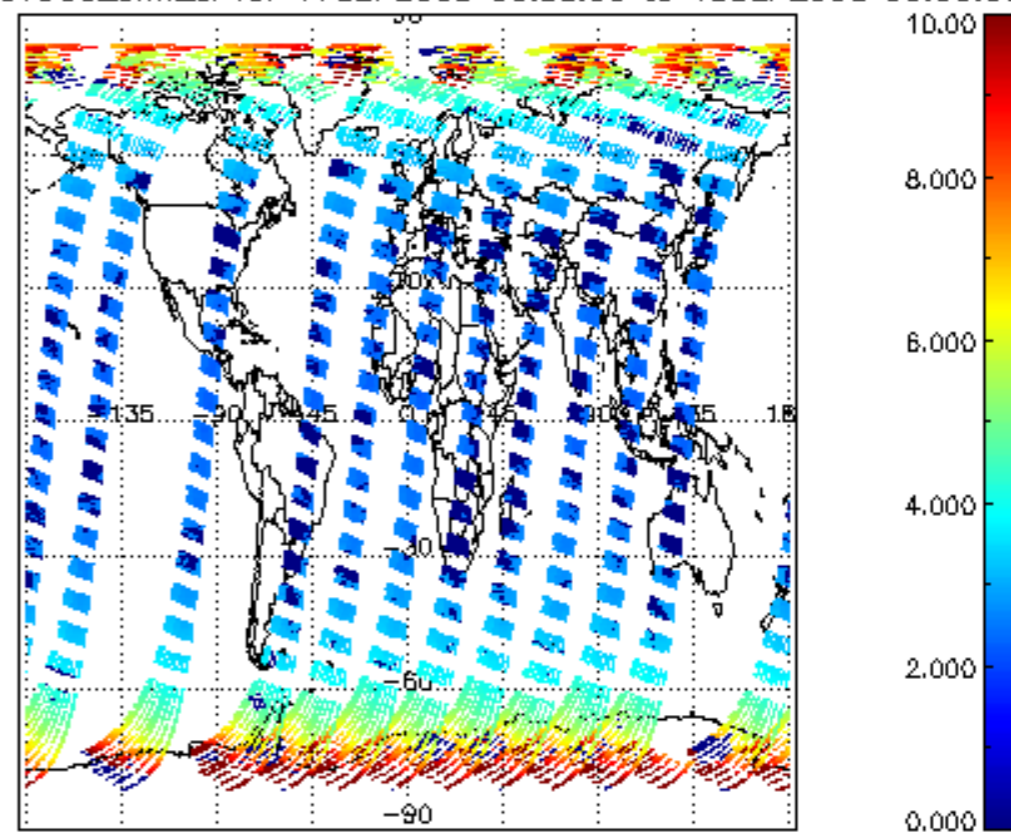
SCIOL2P\_NADUV003\_vcd\_err for 17SEP2008 00:00:00 to 18SEP2008 00:00:00

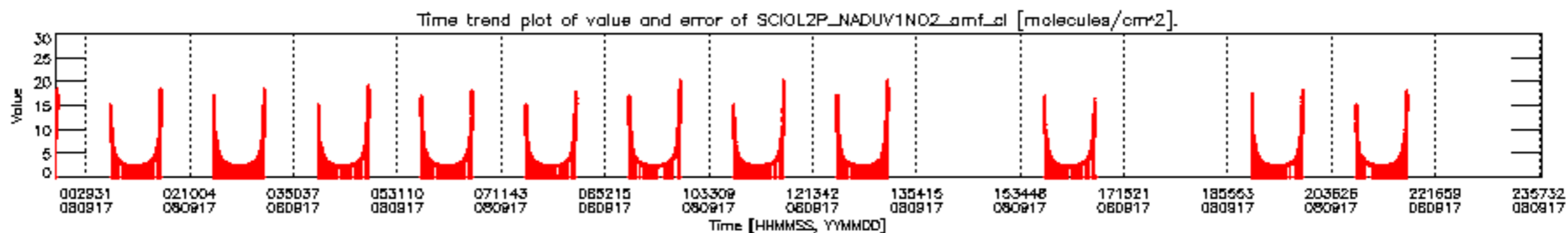
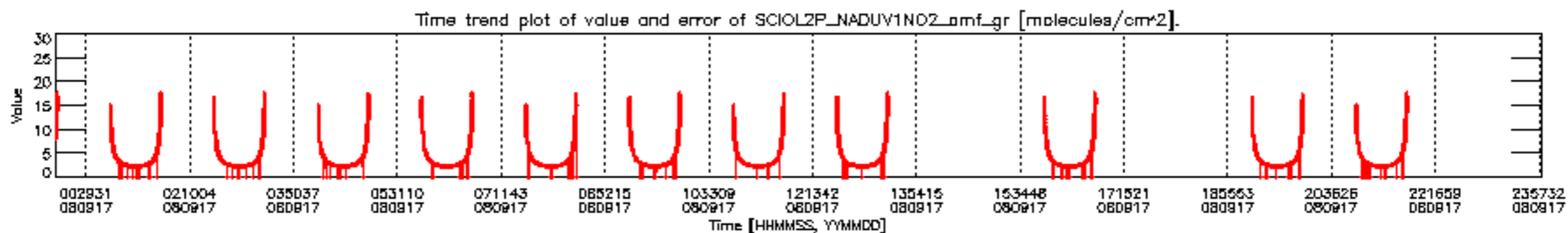
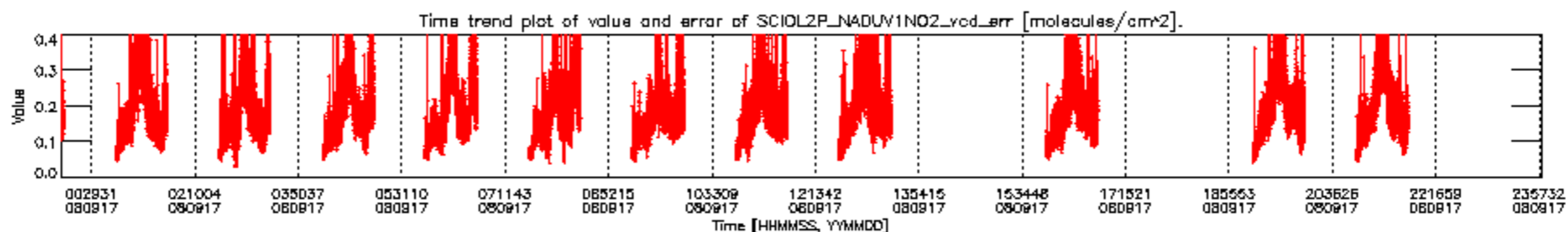
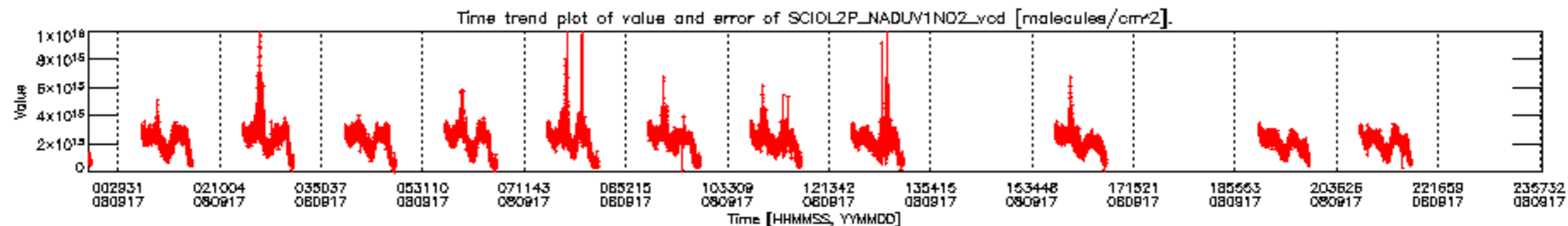


SCIOL2P\_NADUV003\_amf\_gr for 17SEP2008 00:00:00 to 18SEP2008 00:00:00

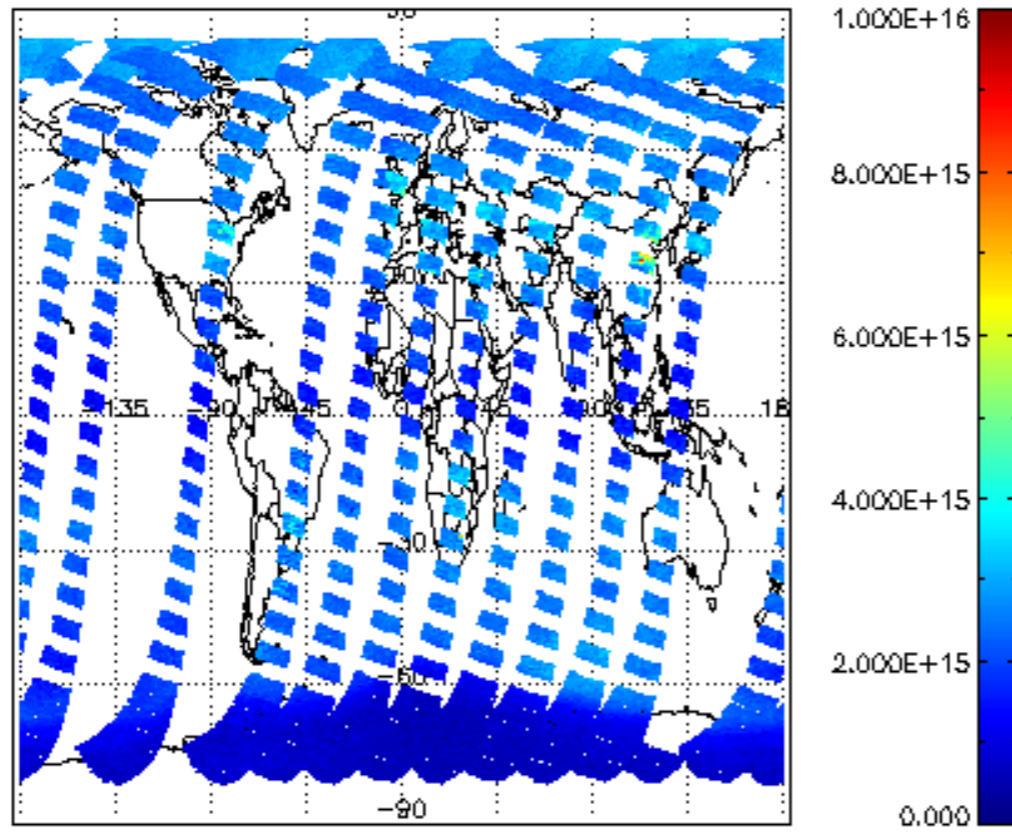


SCIOL2P\_NADUV003\_amf\_cl for 17SEP2008 00:00:00 to 18SEP2008 00:00:00

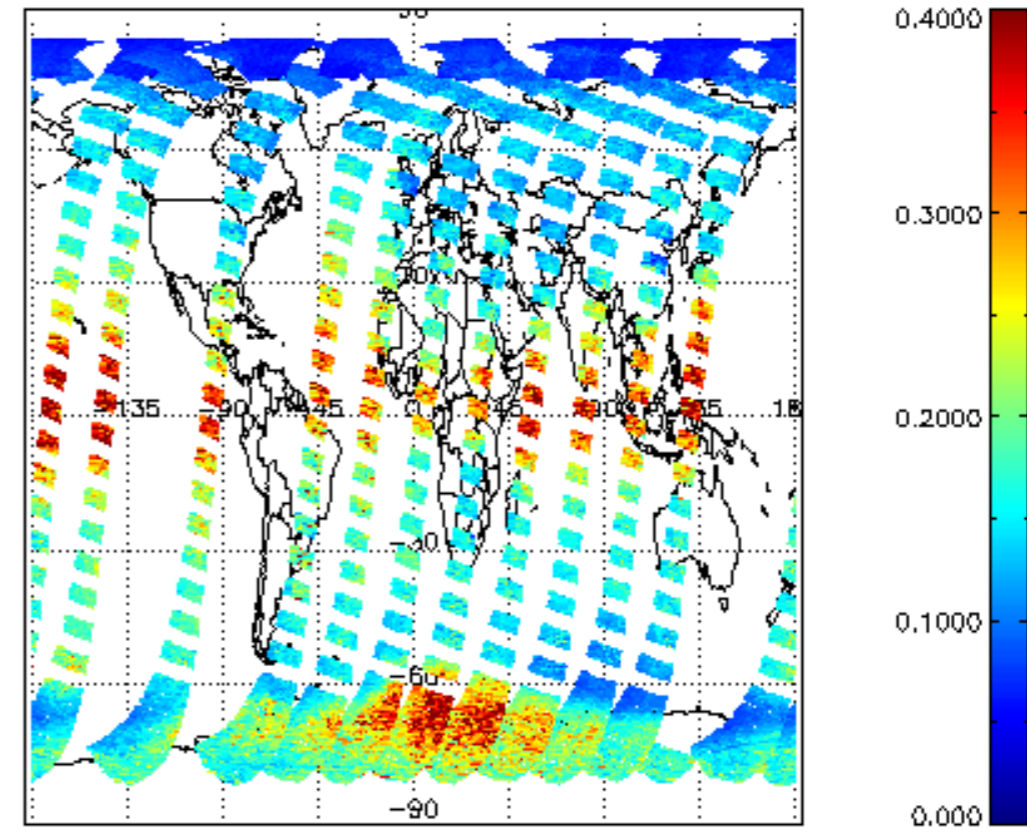




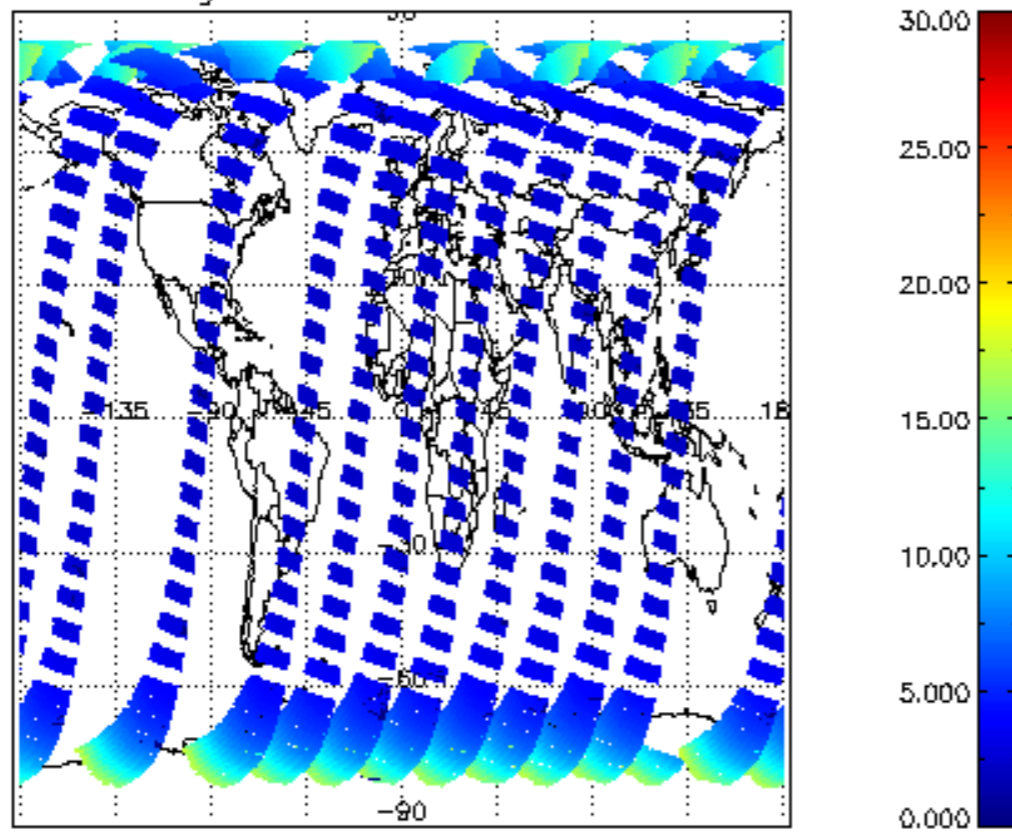
SCIOL2P\_NADUV1NO2\_vcd for 17SEP2008 00:00:00 to 18SEP2008 00:00:00



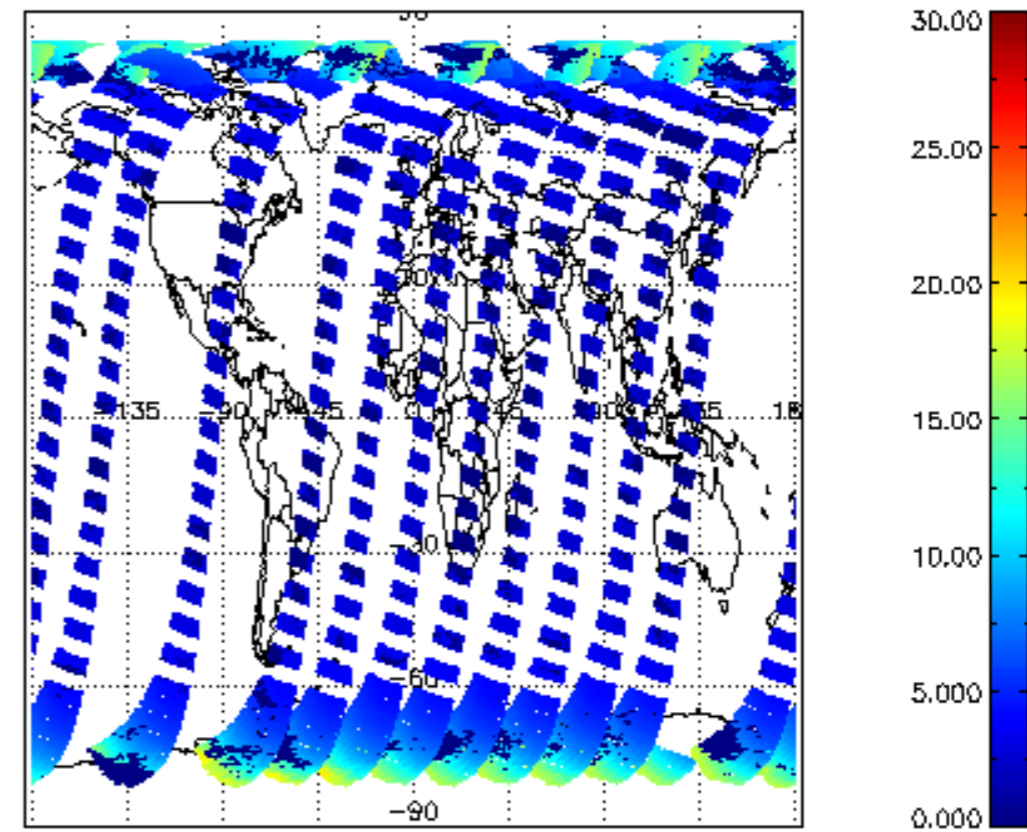
iCIOL2P\_NADUV1NO2\_vcd\_err for 17SEP2008 00:00:00 to 18SEP2008 00:00:00



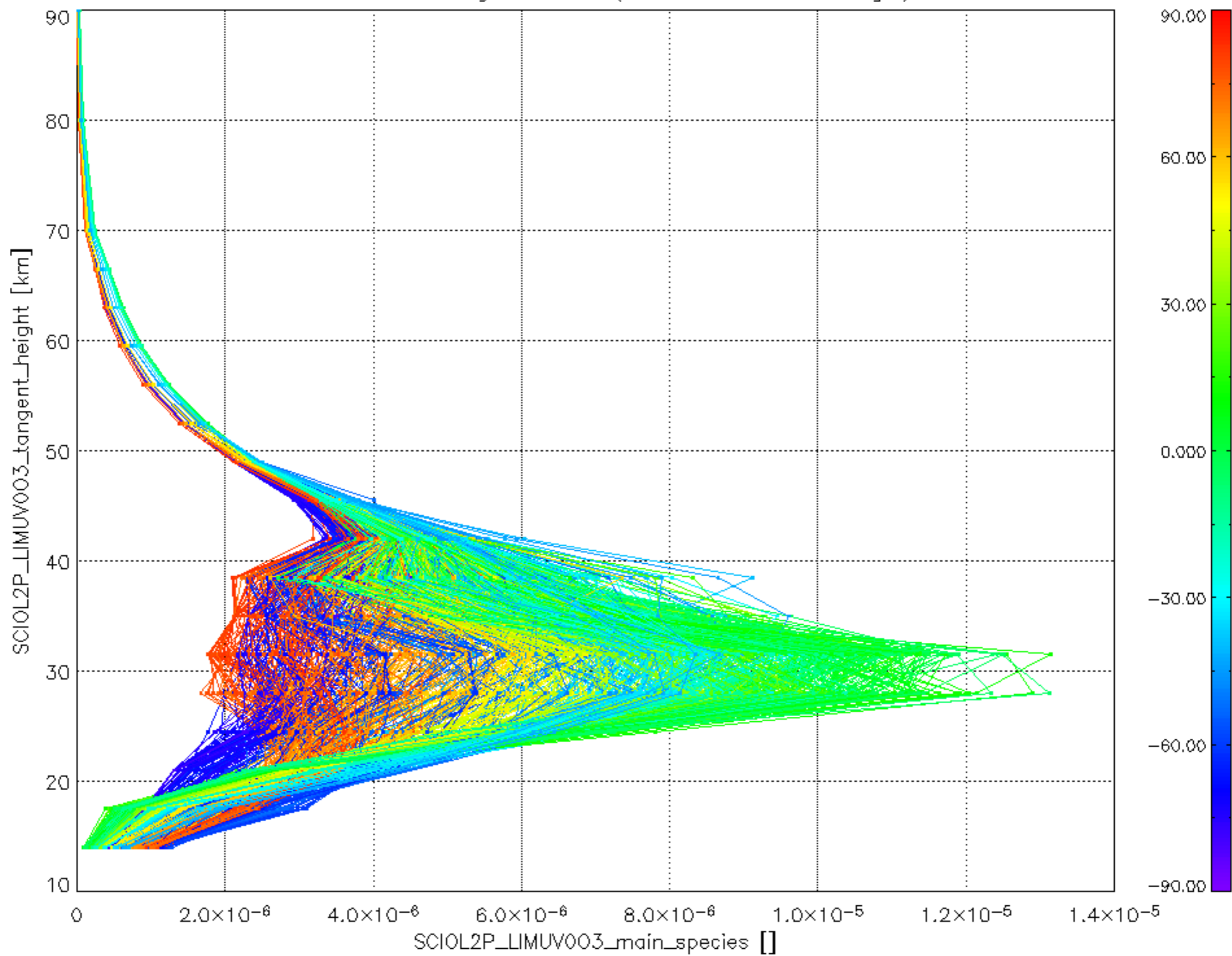
iCIOL2P\_NADUV1NO2\_amf\_gr for 17SEP2008 00:00:00 to 18SEP2008 00:00:00



iCIOL2P\_NADUV1NO2\_amf\_cl for 17SEP2008 00:00:00 to 18SEP2008 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).

