

## 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	18DEC2009 03:06:45
Data source version	SCIA-OL/3.01-R
Processing scope for products	30NOV2009 00:00:00 to 01DEC2009 00:00:00
Start time of first product within scope	29NOV2009 23:16:47
Stop time of last product within scope	30NOV2009 23:40:55
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__2PRDPA20091129_231647_000033372084_00388_40522_5513.N1</a>	29NOV2009 23:16:47	30NOV2009 00:12:24	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20091130_005723_000033402084_00389_40523_5514.N1</a>	30NOV2009 00:57:23	30NOV2009 01:53:03	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20091130_023759_000033422084_00390_40524_5518.N1</a>	30NOV2009 02:37:59	30NOV2009 03:33:42	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20091130_041835_000033452084_00391_40525_5519.N1</a>	30NOV2009 04:18:35	30NOV2009 05:14:20	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20091130_055911_000033472084_00392_40526_5520.N1</a>	30NOV2009 05:59:11	30NOV2009 06:54:59	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20091130_073947_000033492084_00393_40527_5521.N1</a>	30NOV2009 07:39:47	30NOV2009 08:35:37	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20091130_092023_000033512084_00394_40528_5522.N1</a>	30NOV2009 09:20:23	30NOV2009 10:16:15	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20091130_110059_000033532084_00395_40529_5523.N1</a>	30NOV2009 11:00:59	30NOV2009 11:56:53	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20091130_124136_000033542084_00396_40530_5524.N1</a>	30NOV2009 12:41:36	30NOV2009 13:37:30	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20091130_142212_000033562084_00397_40531_5525.N1</a>	30NOV2009 14:22:12	30NOV2009 15:18:08	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20091130_160248_000033572084_00398_40532_5526.N1</a>	30NOV2009 16:02:48	30NOV2009 16:58:46	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20091130_174345_000033782084_00399_40533_5527.N1</a>	30NOV2009 17:43:45	30NOV2009 18:40:04	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20091130_224933_000030812084_00402_40536_5528.N1</a>	30NOV2009 22:49:33	30NOV2009 23:40:55	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: 126880

Total number of cloud data DSRs with good quality flag (=0): 126880 (100.0 %)

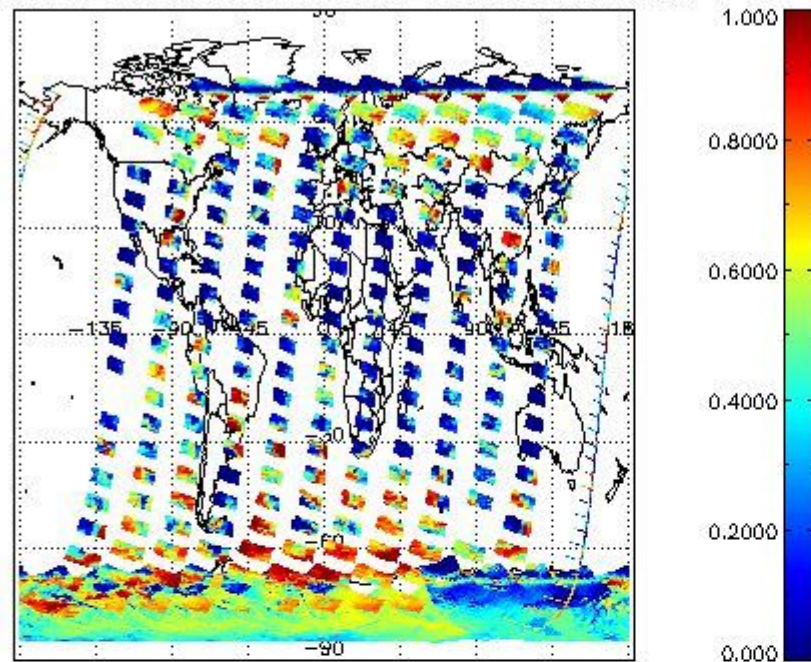
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	126880	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	126880	0.18238	0.12500	0.12500	0.25000	0.062290	s
CL_FRAC	126880	0.38538	0.38341	0.0000	1.0000	0.28329	-
CL_FRAC_ERR	126880	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	126880	5.8361	4.0000	4.0000	8.0000	1.9933	
PMD_READ_CL[0]	126880	0.20977	0.0000	0.0000	8.0000	1.0935	-
PMD_READ_CL[1]	126880	1.0657	0.0000	0.0000	8.0000	2.2463	-
CL_TOP_HEIGHT	109352	3.9193	2.8672	0.0000	17.000	3.8244	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	109352	52.866	41.842	0.0000	101.00	40.994	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	126880	11100000	11100000	11100000	11100000	0.0000	flags
CLOUD_FLAGS	126880	11001010	11000100	11000000	11100000	3315.2	flags
AERO_ABSO_IND	126880	3.8064	4.6523	-2.9262	17.402	3.0442	
AERO_IND_DIAG	126880	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	126880	01010100	00000000	00000000	11000000	24405.	flags

### Time and geolocation plots:

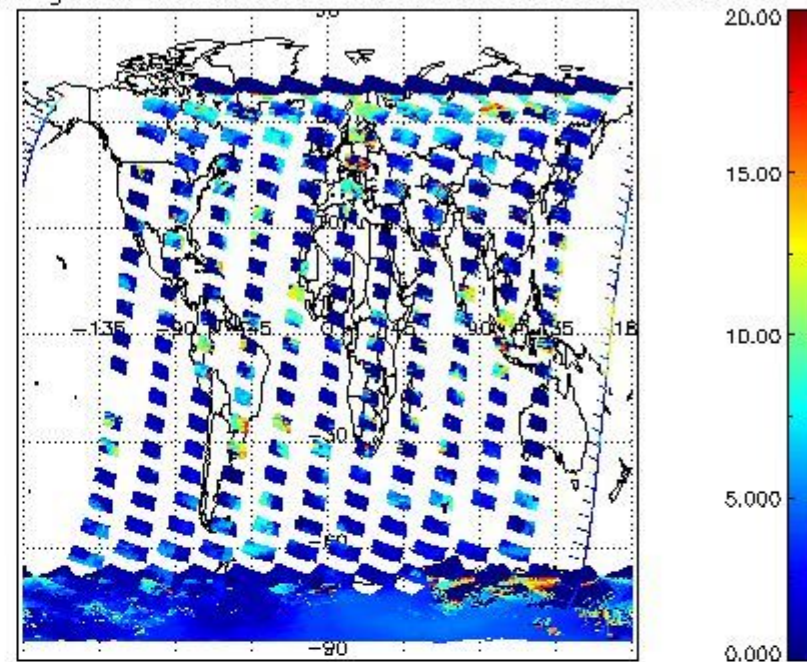
Plots are available for the following parameters:

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

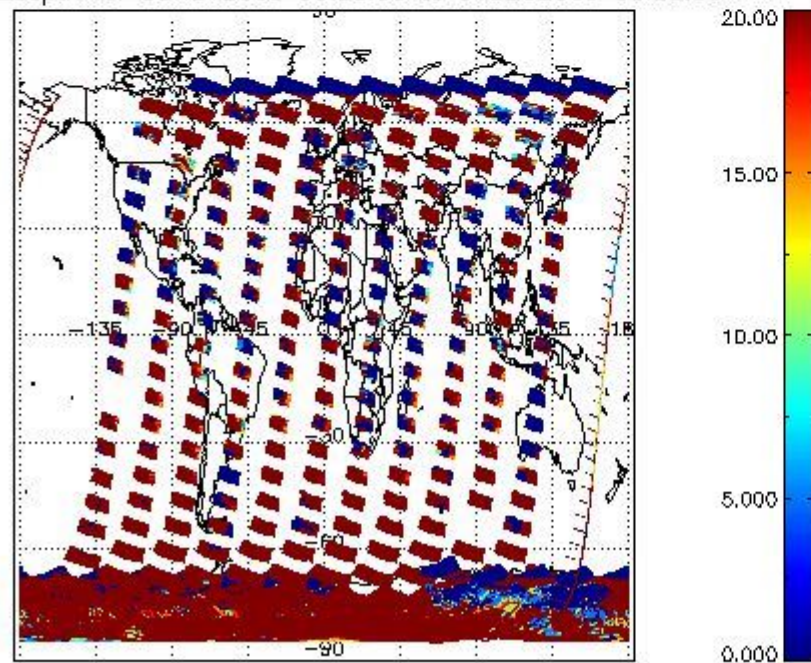
cLfrac for 30NOV2009 00:00:00 to 01DEC2009 00:00:00



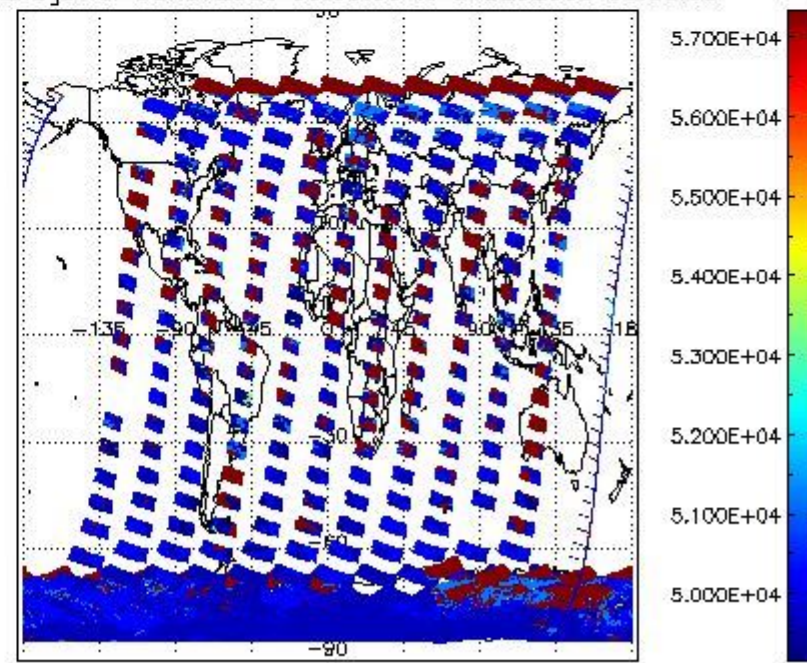
cL\_top\_height for 30NOV2009 00:00:00 to 01DEC2009 00:00:00



cL\_opt\_depth for 30NOV2009 00:00:00 to 01DEC2009 00:00:00



cloud\_flags for 30NOV2009 00:00:00 to 01DEC2009 00:00:00



## 2.2.2 Nadir

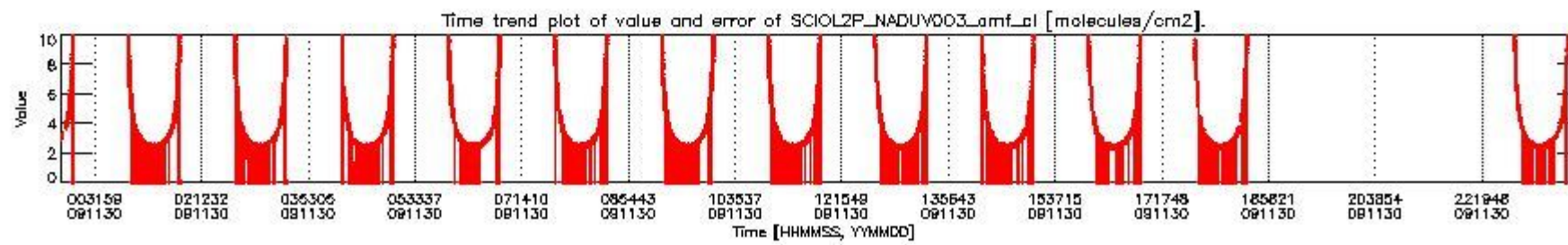
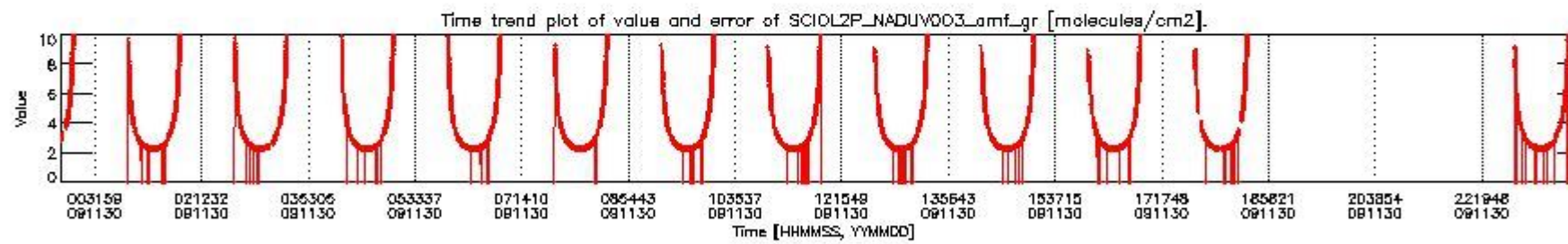
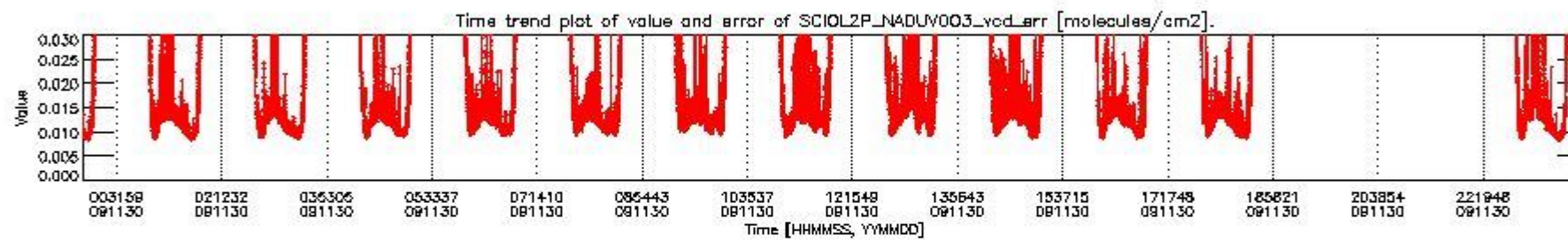
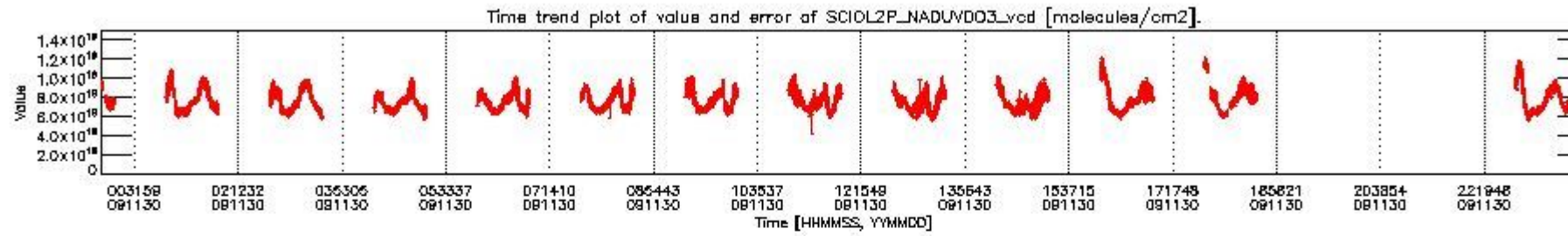
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

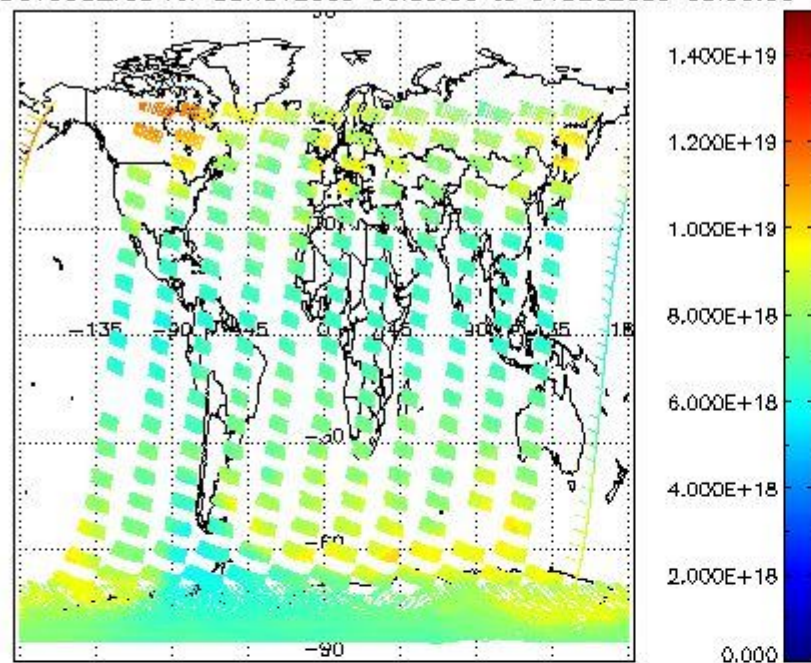
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

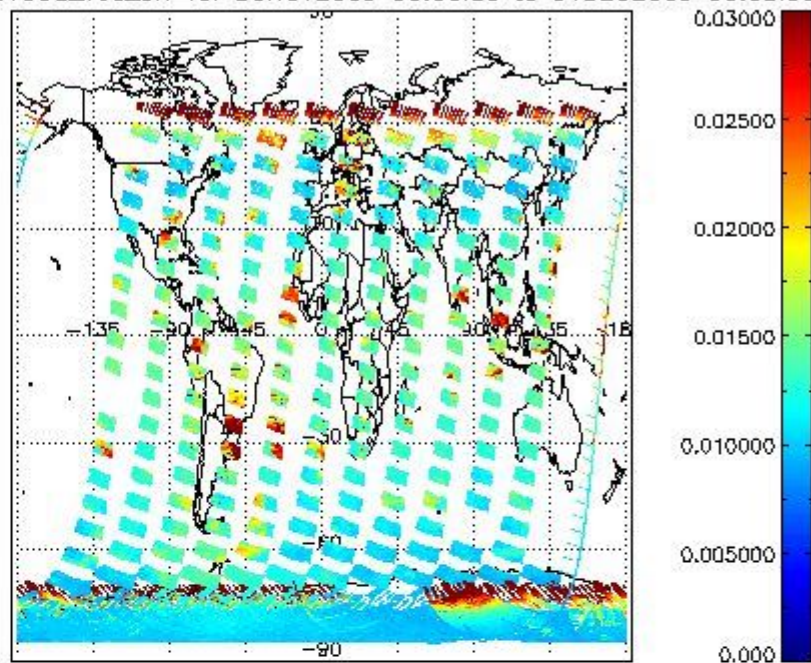
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in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



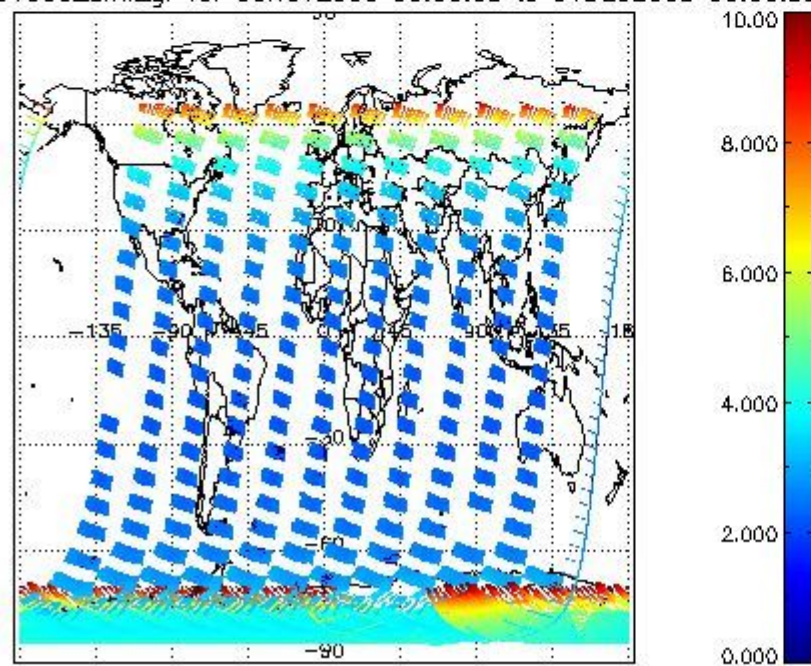
SCIOL2P\_NADUV003\_vcd for 30NOV2009 00:00:00 to 01DEC2009 00:00:00



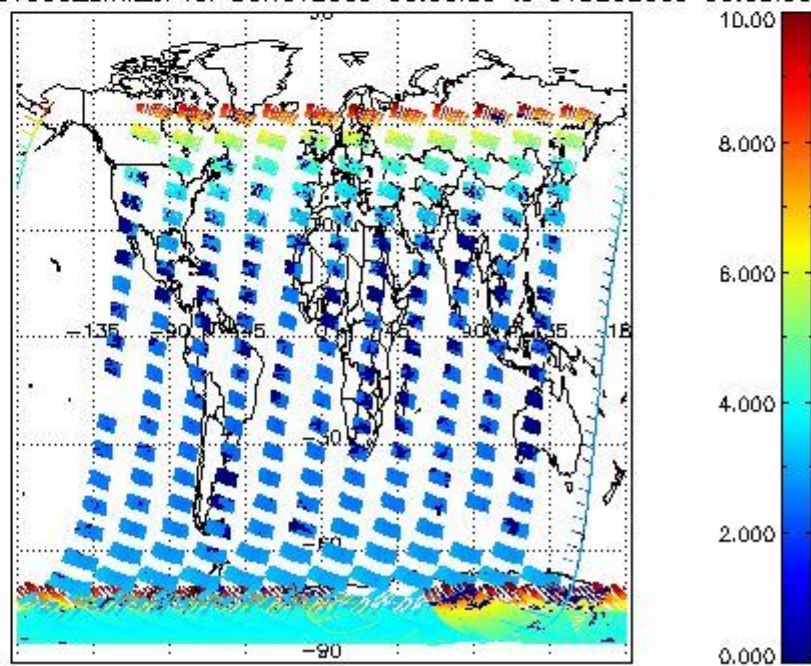
SCIOL2P\_NADUV003\_vcd\_err for 30NOV2009 00:00:00 to 01DEC2009 00:00:00

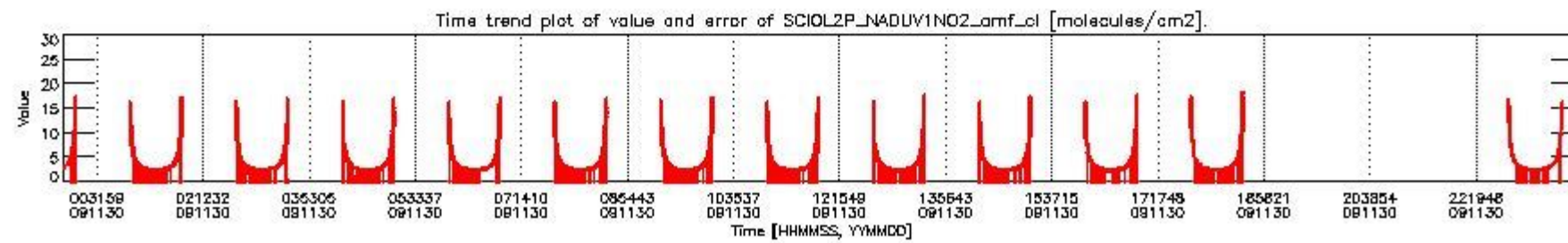
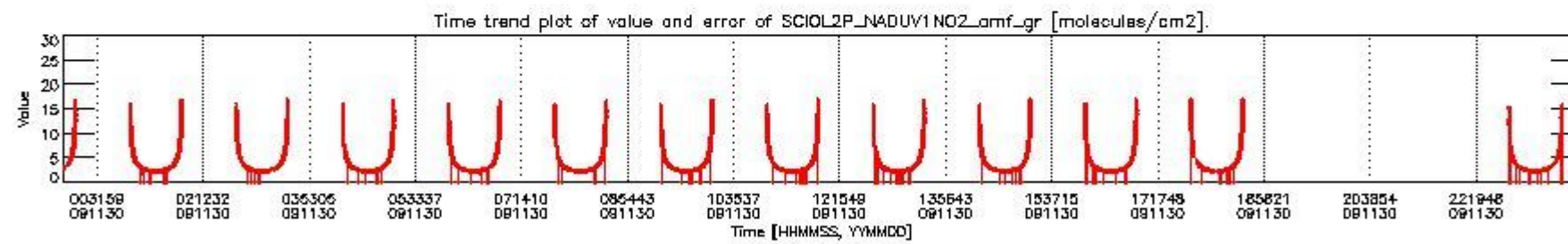
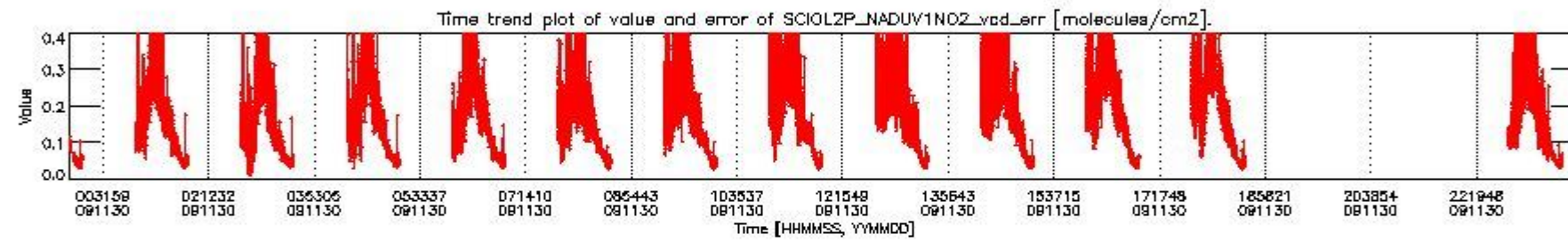
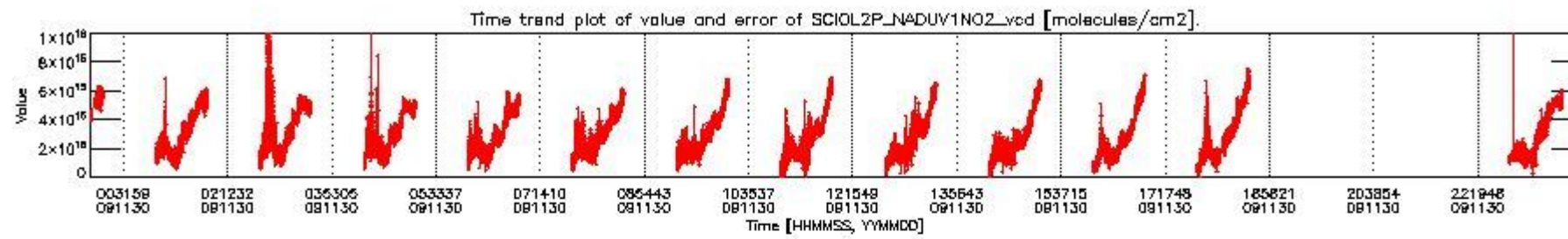


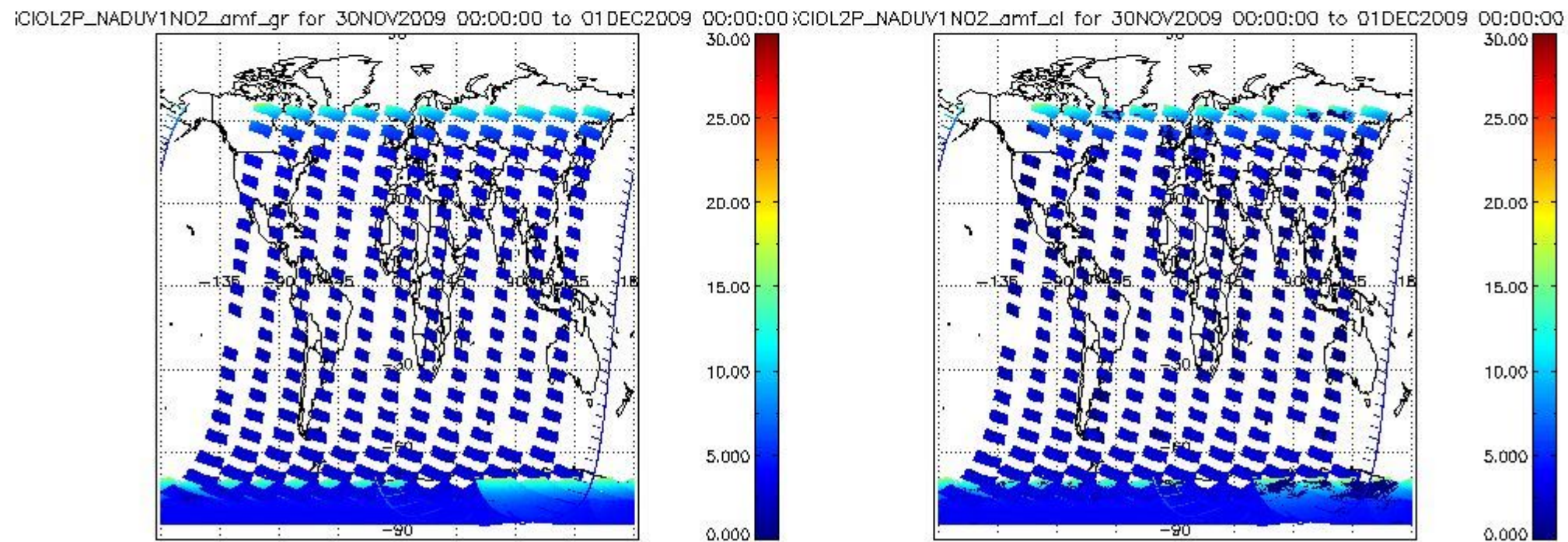
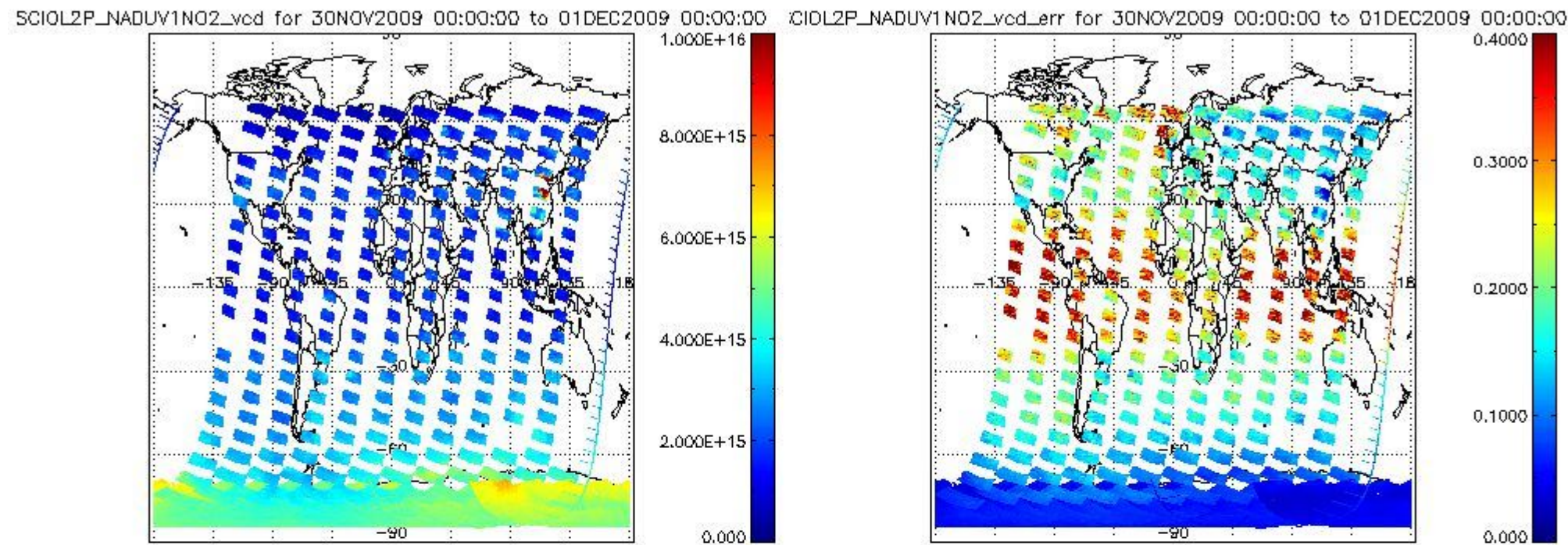
SCIOL2P\_NADUV003\_amf\_gr for 30NOV2009 00:00:00 to 01DEC2009 00:00:00



SCIOL2P\_NADUV003\_amf\_sl for 30NOV2009 00:00:00 to 01DEC2009 00:00:00







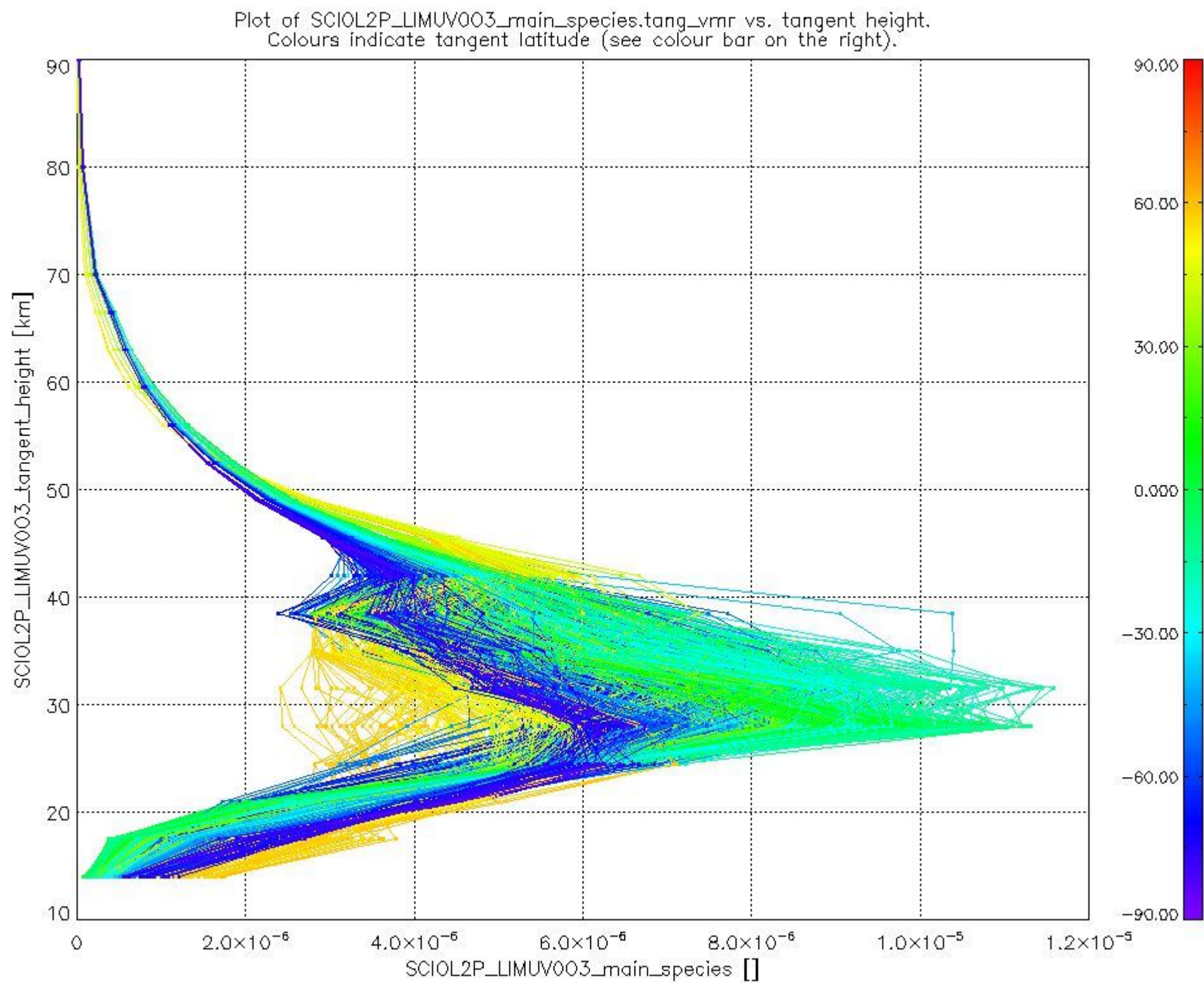
### 2.2.3 Limb

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:

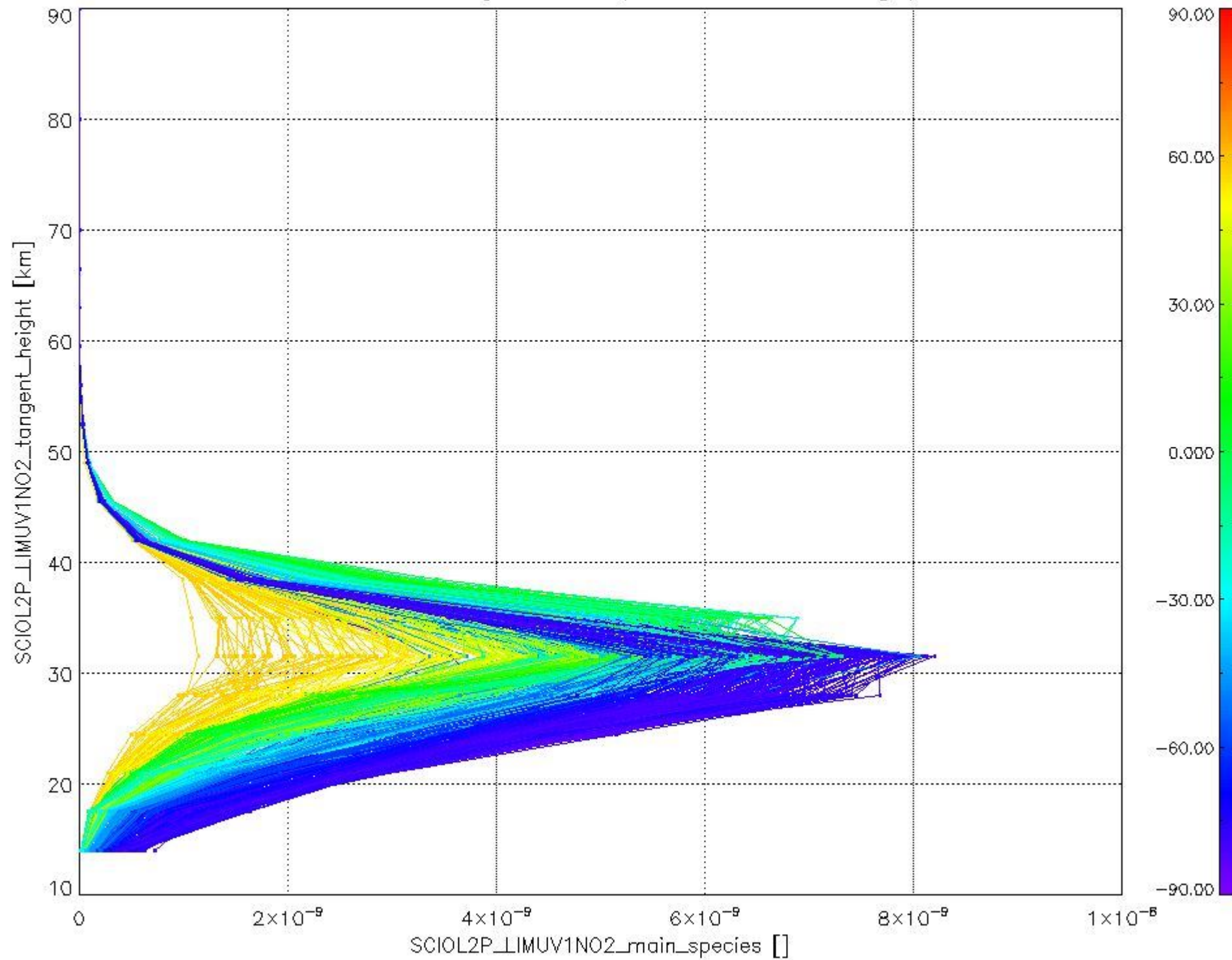
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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





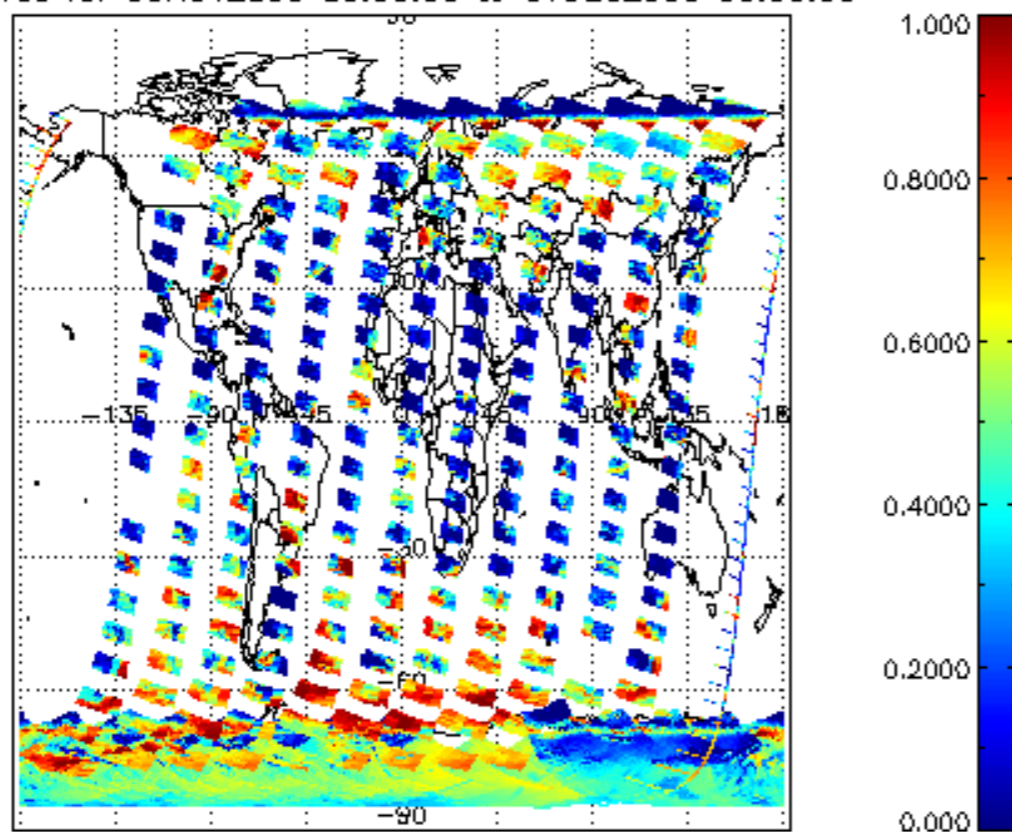
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



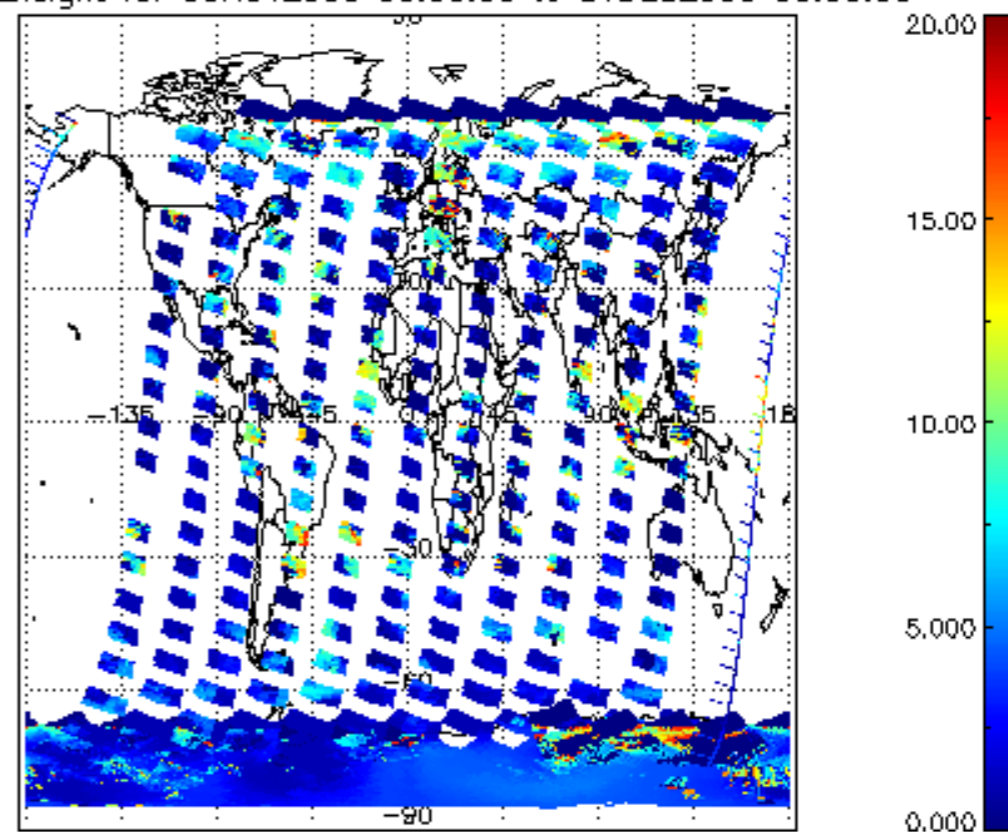
### 2.3 ADF monitoring

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

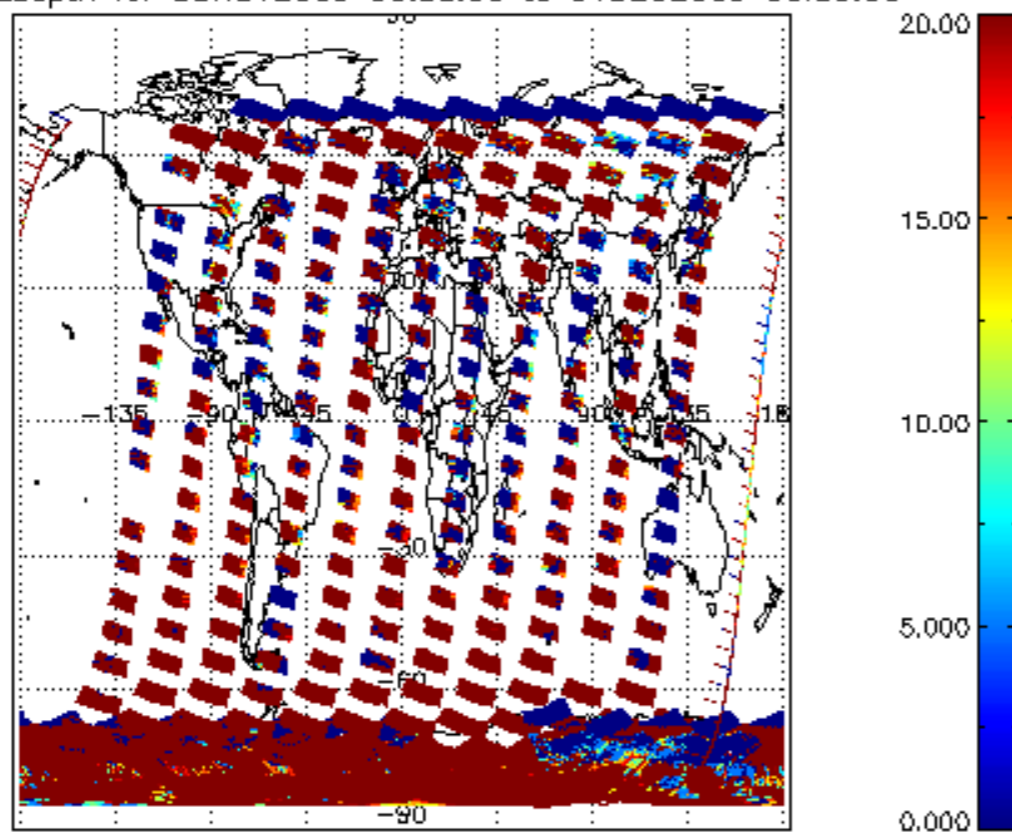
cl\_frac for 30NOV2009 00:00:00 to 01DEC2009 00:00:00



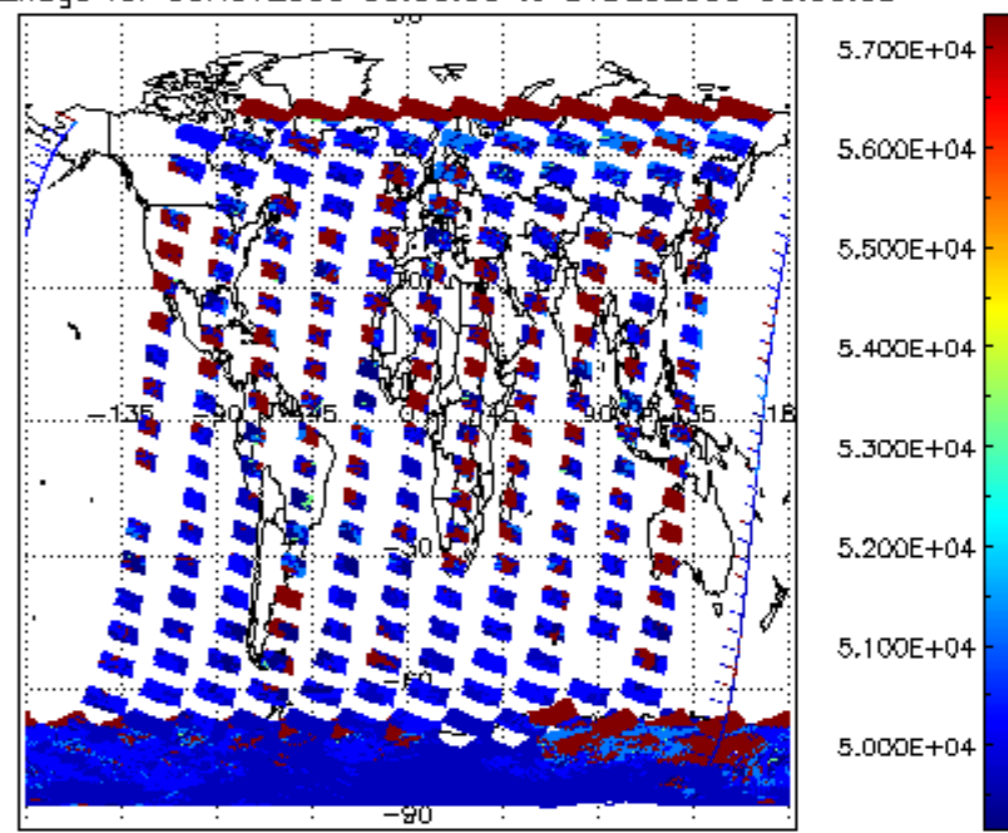
cl\_top\_height for 30NOV2009 00:00:00 to 01DEC2009 00:00:00

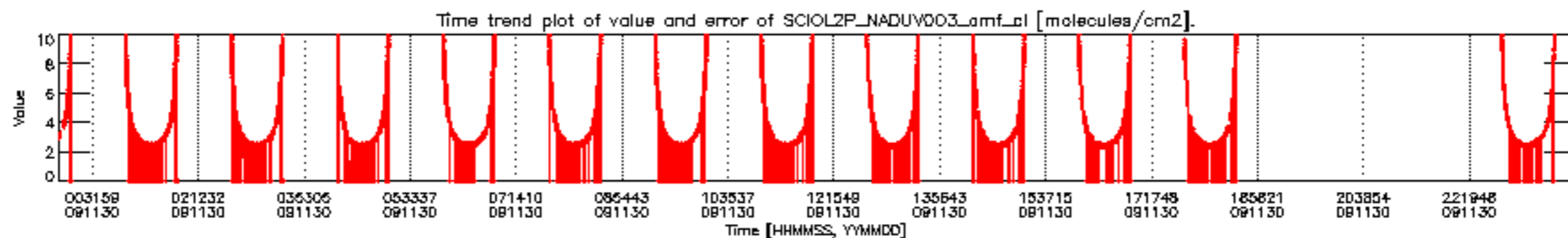
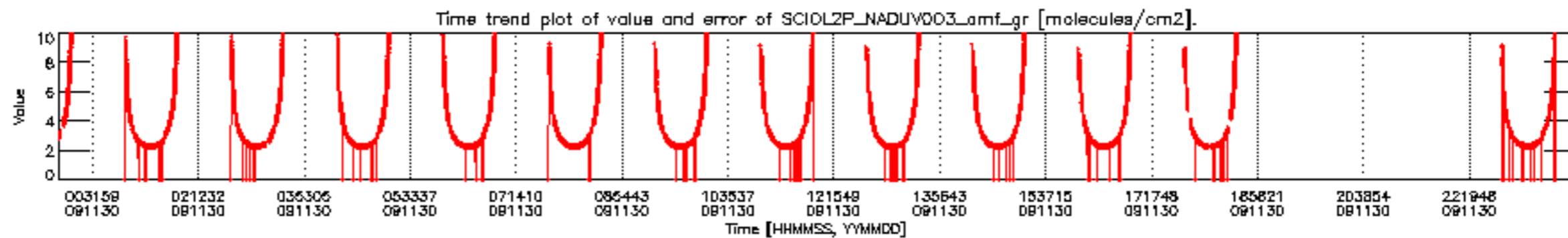
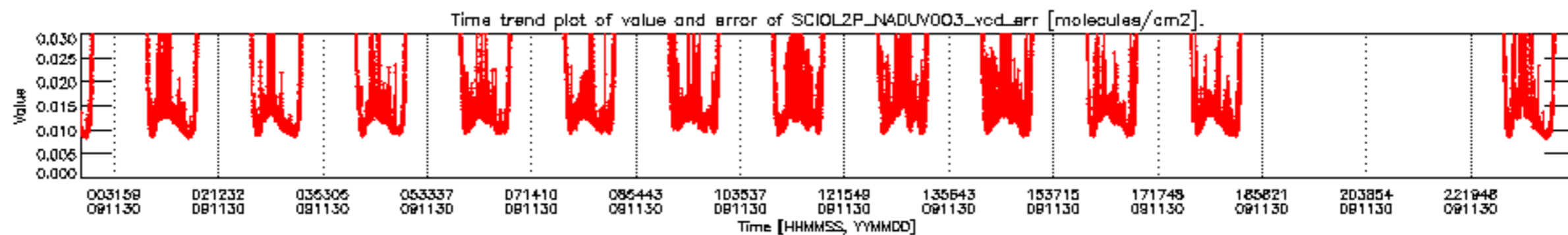
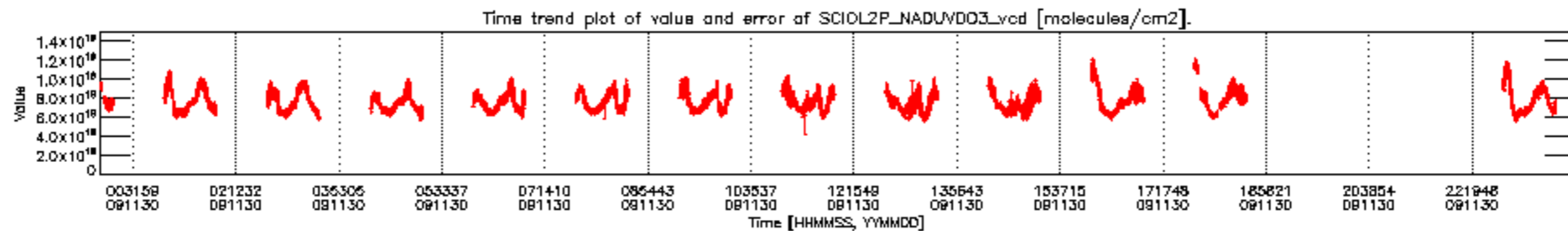


cl\_opt\_depth for 30NOV2009 00:00:00 to 01DEC2009 00:00:00

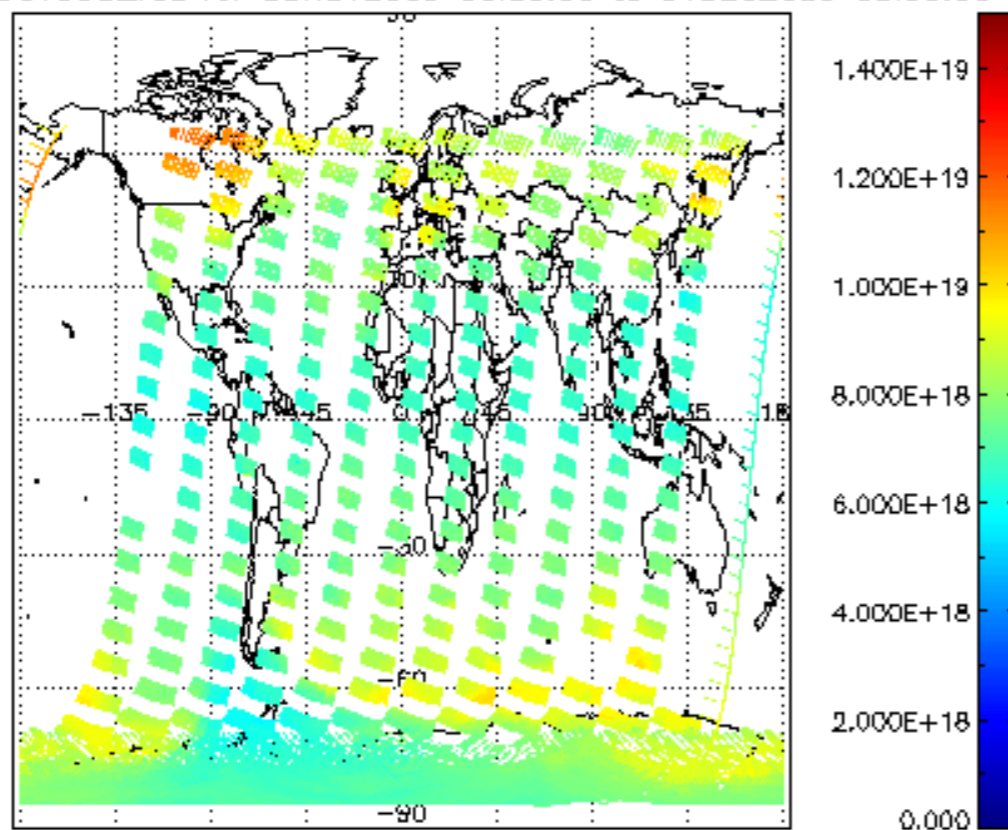


cloud\_flags for 30NOV2009 00:00:00 to 01DEC2009 00:00:00

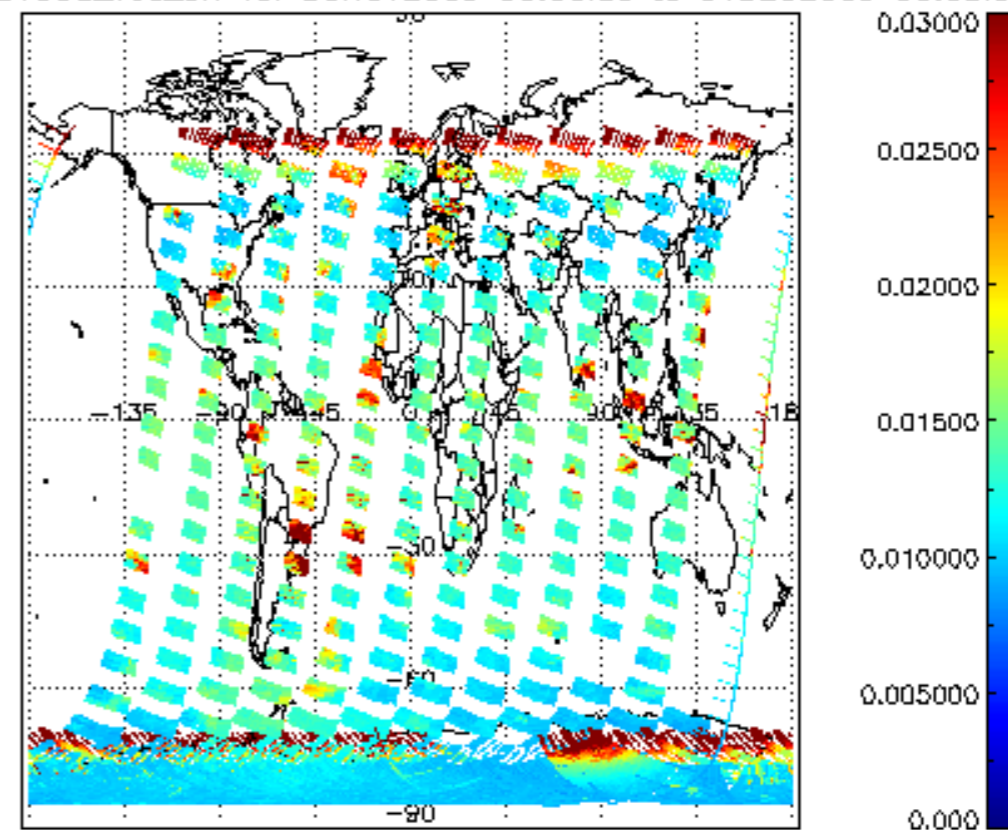




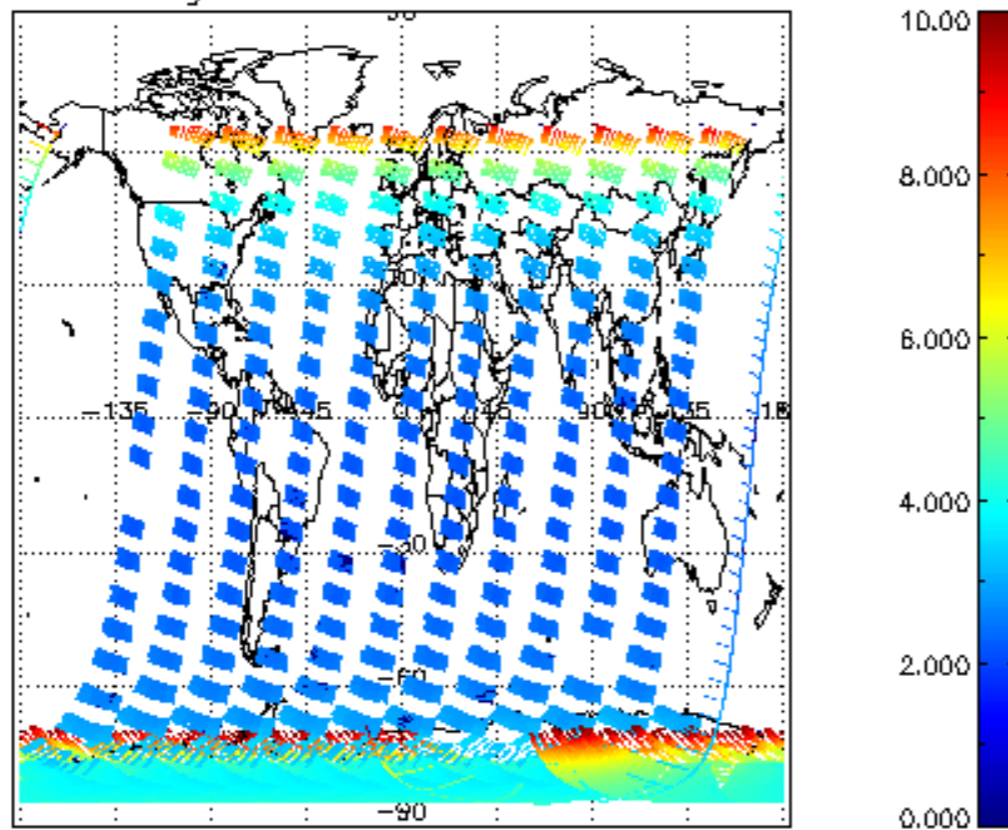
SCIOL2P\_NADUV003\_vcd for 30NOV2009 00:00:00 to 01DEC2009 00:00:00



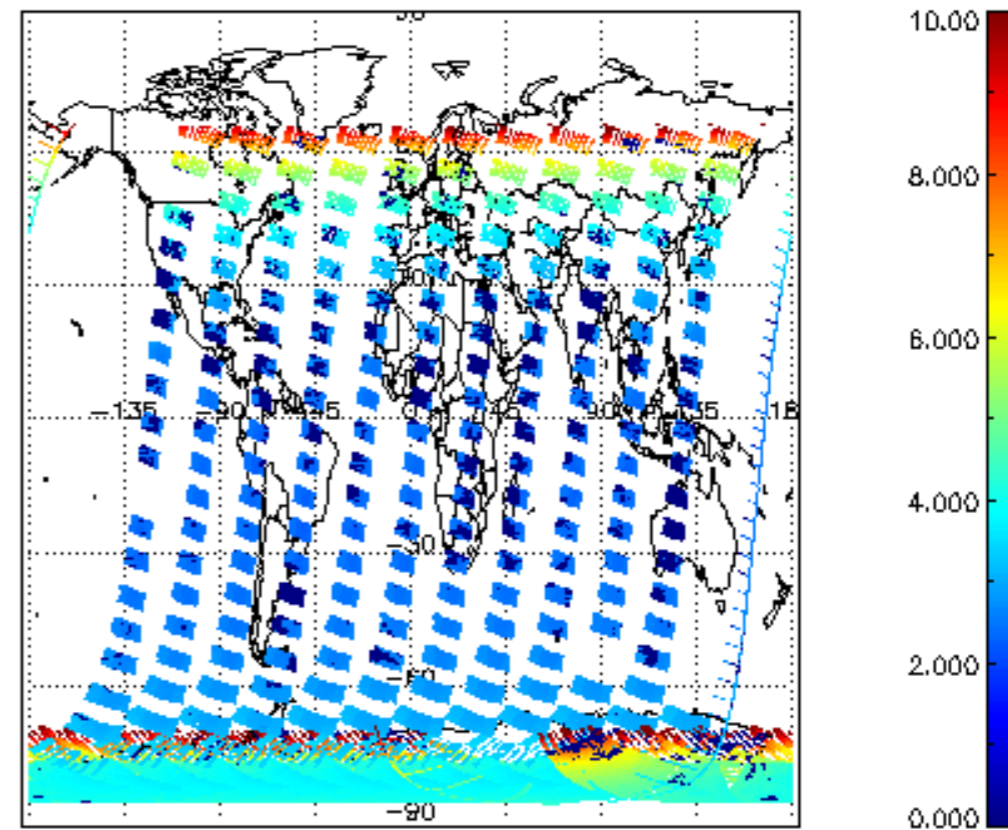
SCIOL2P\_NADUV003\_vcd\_err for 30NOV2009 00:00:00 to 01DEC2009 00:00:00

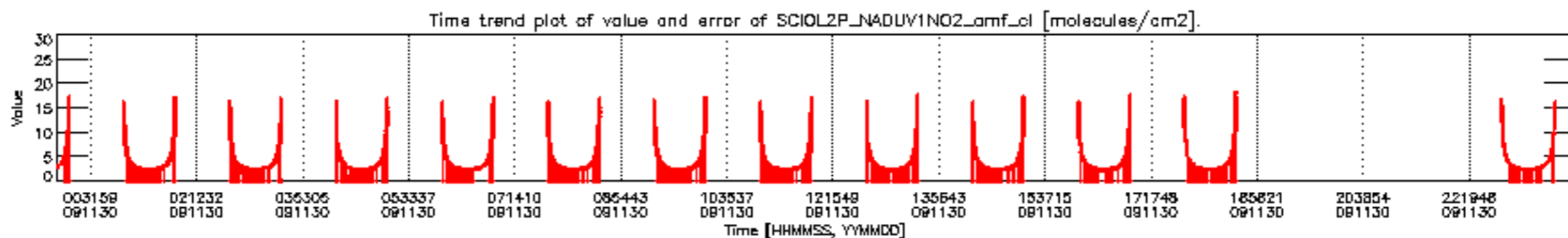
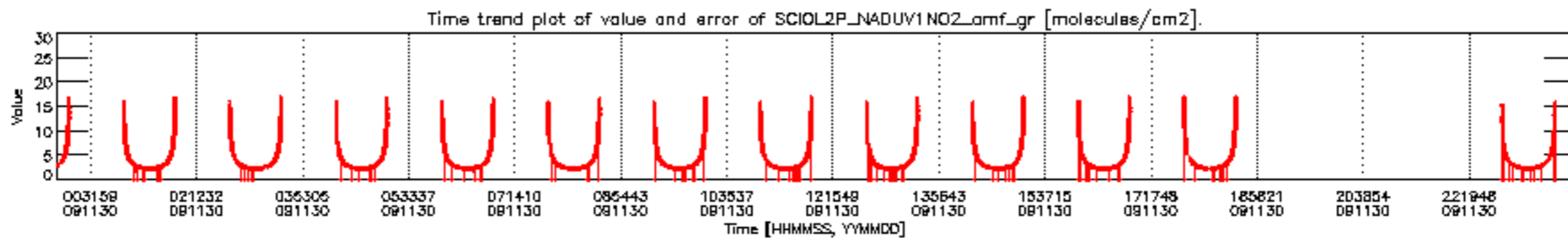
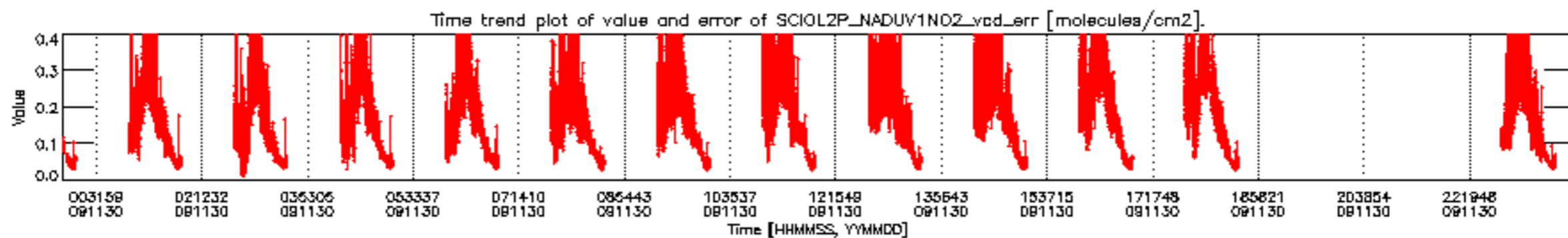
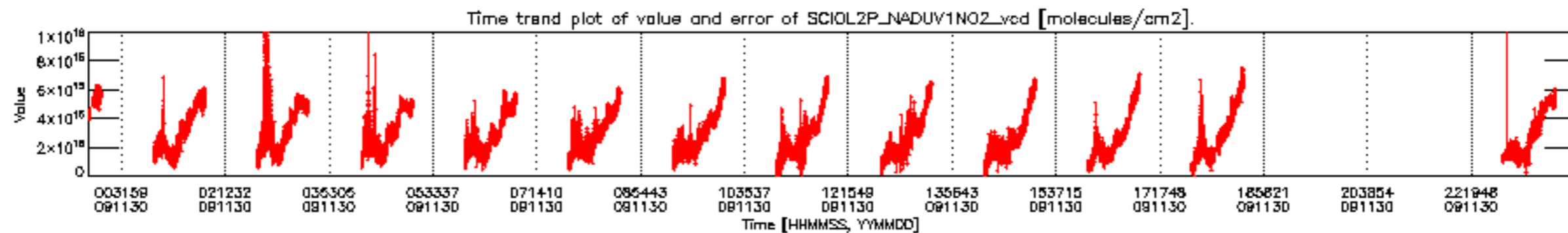


SCIOL2P\_NADUV003\_amf\_gr for 30NOV2009 00:00:00 to 01DEC2009 00:00:00

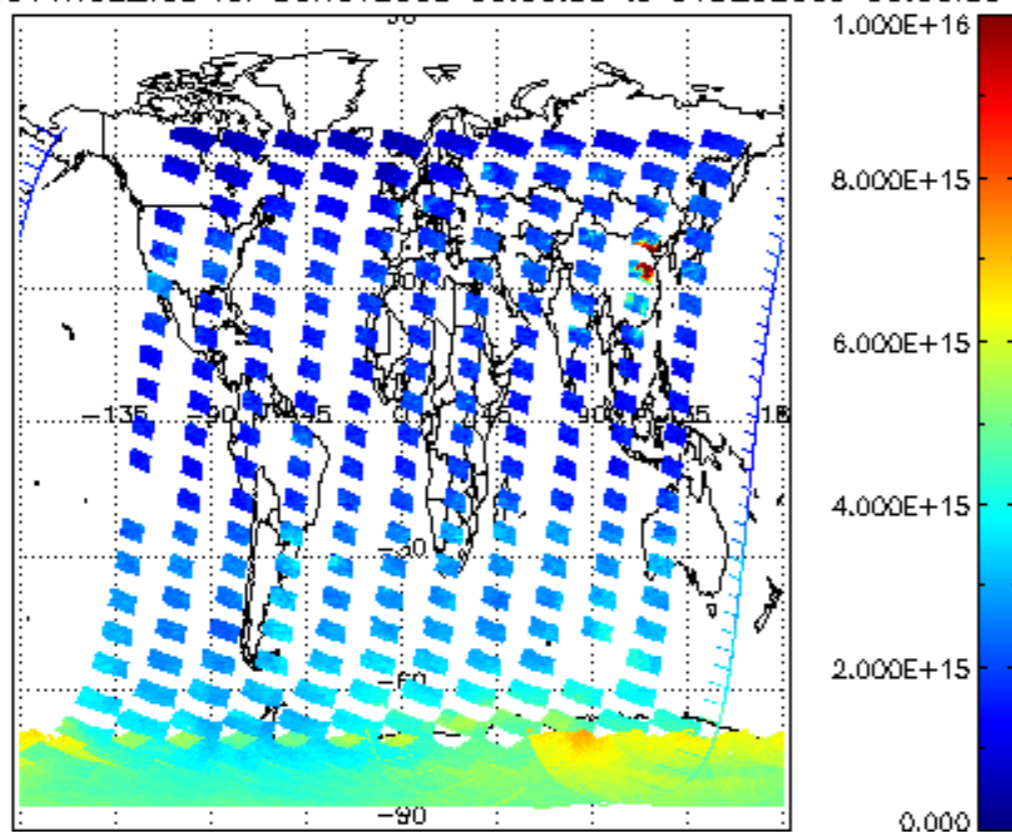


SCIOL2P\_NADUV003\_amf\_cl for 30NOV2009 00:00:00 to 01DEC2009 00:00:00

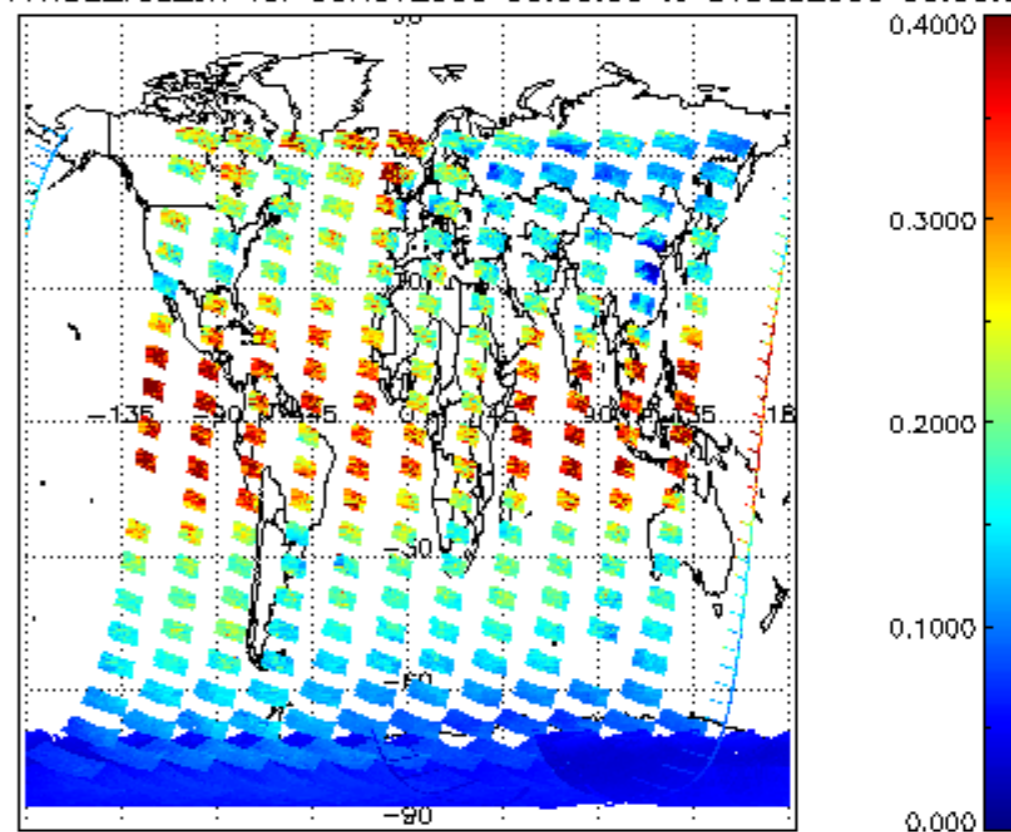




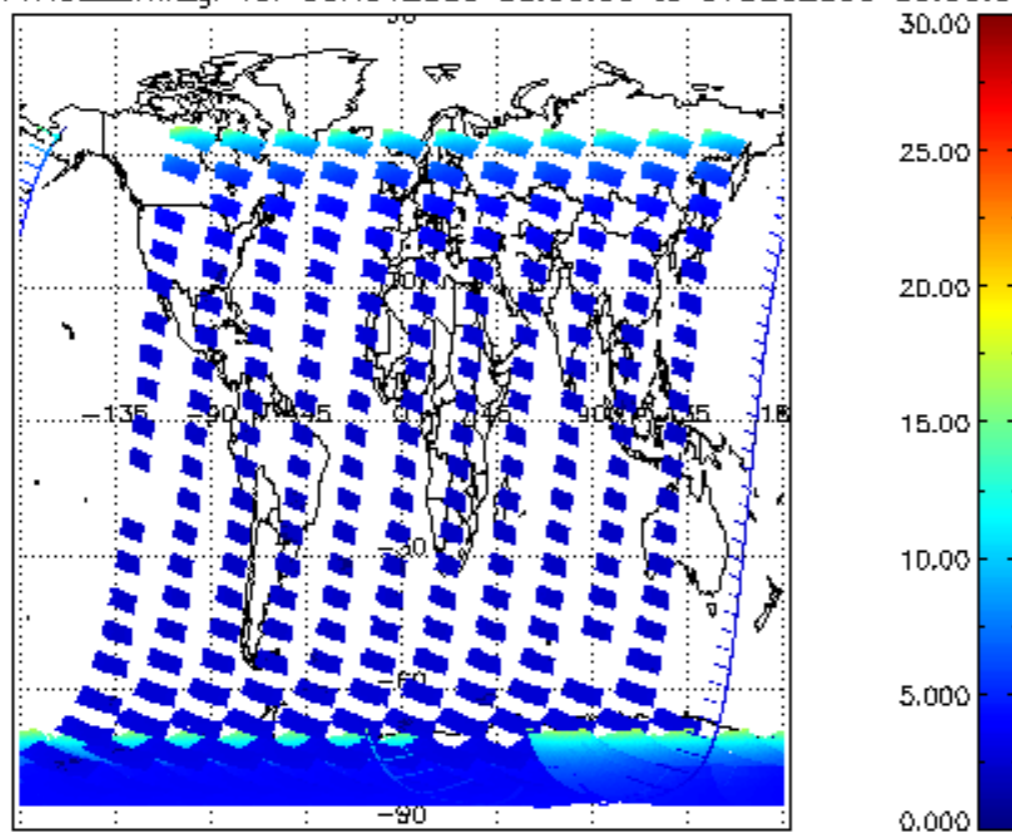
SCIOL2P\_NADUV1NO2\_vcd for 30NOV2009 00:00:00 to 01DEC2009 00:00:00



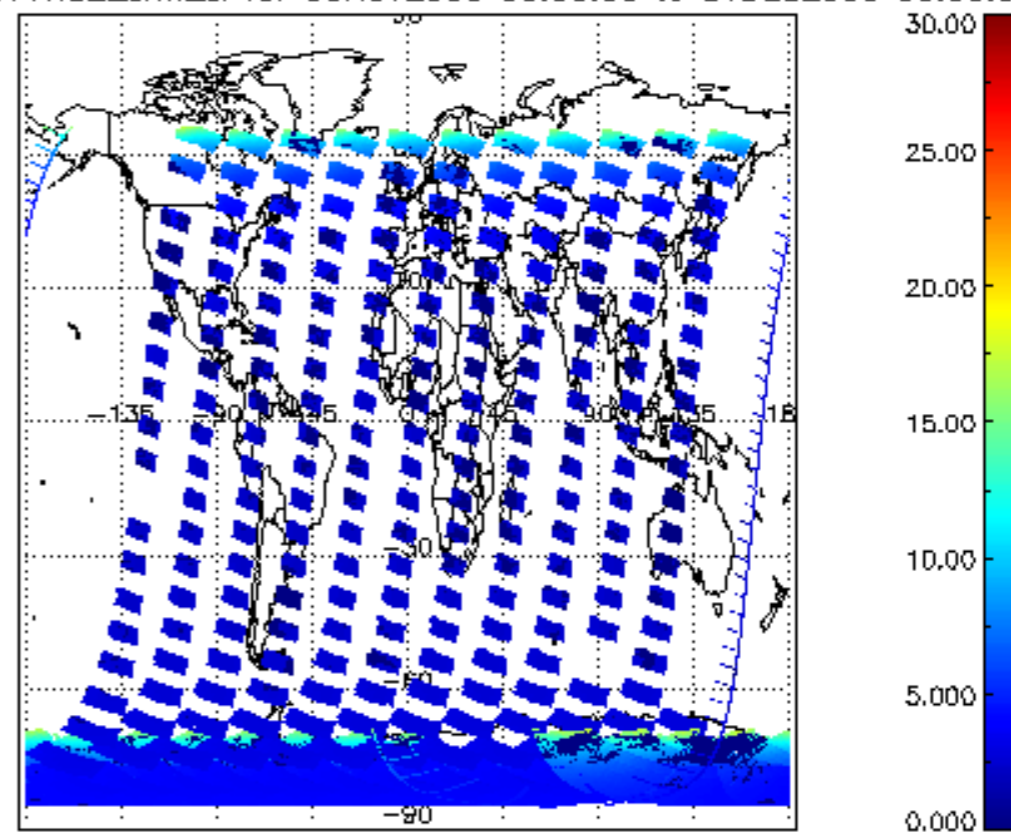
ICIOL2P\_NADUV1NO2\_vcd\_err for 30NOV2009 00:00:00 to 01DEC2009 00:00:00



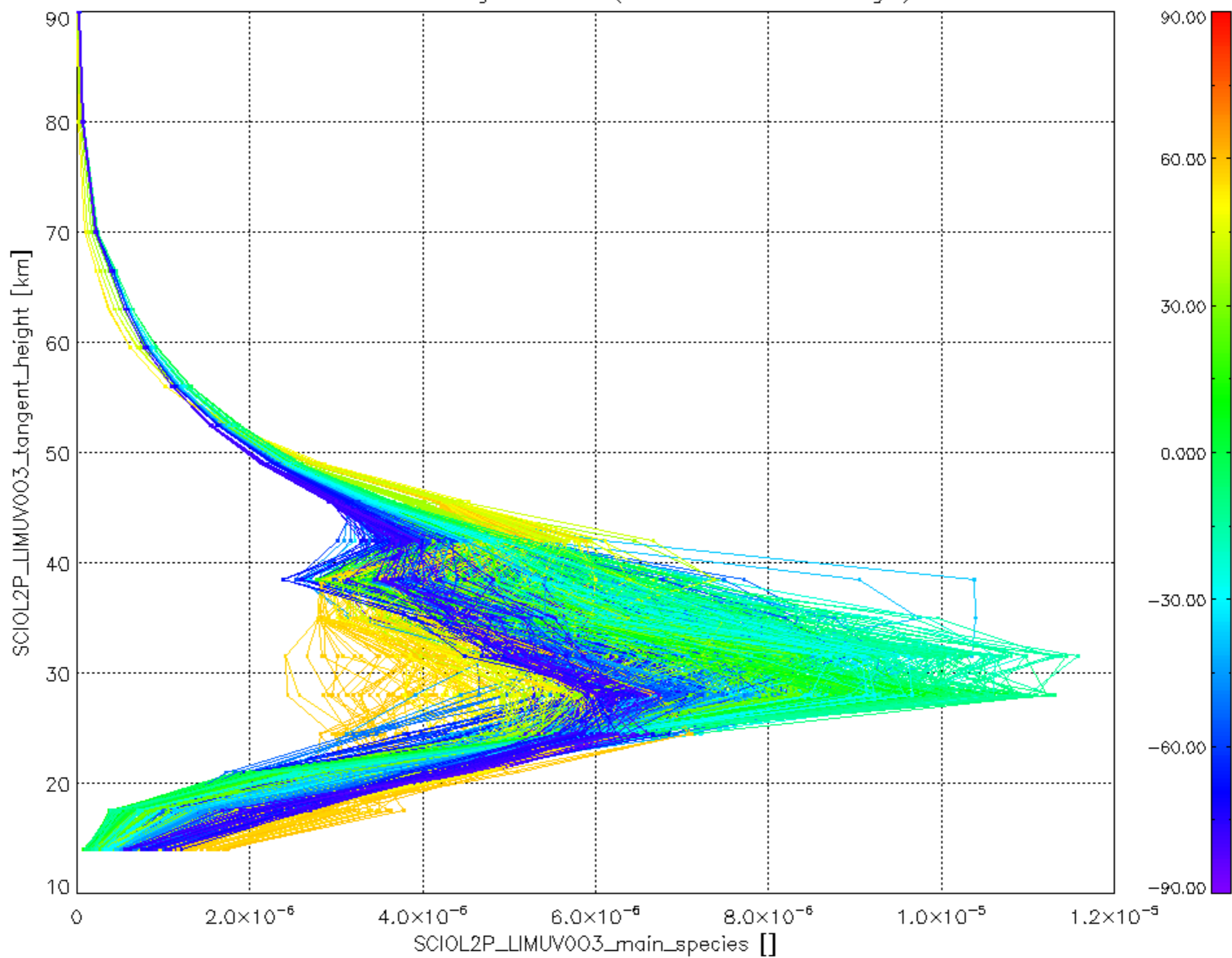
ICIOL2P\_NADUV1NO2\_amf\_gr for 30NOV2009 00:00:00 to 01DEC2009 00:00:00



ICIOL2P\_NADUV1NO2\_amf\_cl for 30NOV2009 00:00:00 to 01DEC2009 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).

