

## 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	19NOV2008 16:25:08
Data source version	SCIA-OL/3.01-R
Processing scope for products	16NOV2004 00:00:00 to 17NOV2004 00:00:00
Start time of first product within scope	16NOV2004 03:06:13
Stop time of last product within scope	17NOV2004 00:08:53
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.

#	Product name	Start time	Stop time	Prod err	Fit summary
0	<a href="#">SCI_OL__2PRDPA20041116_030613_000033252032_00104_14186_0601.N1</a>	16NOV2004 03:06:13	16NOV2004 04:01:38	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20041116_044649_000033812032_00105_14187_0655.N1</a>	16NOV2004 04:46:49	16NOV2004 05:43:10	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20041116_062725_000033252032_00106_14188_0737.N1</a>	16NOV2004 06:27:25	16NOV2004 07:22:51	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20041116_080801_000033812032_00107_14189_0622.N1</a>	16NOV2004 08:08:01	16NOV2004 09:04:23	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20041116_094838_000033252032_00108_14190_0577.N1</a>	16NOV2004 09:48:38	16NOV2004 10:44:03	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20041116_112914_000033812032_00109_14191_0749.N1</a>	16NOV2004 11:29:14	16NOV2004 12:25:35	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20041116_130950_000033252032_00110_14192_0747.N1</a>	16NOV2004 13:09:50	16NOV2004 14:05:16	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20041116_145026_000033812032_00111_14193_0691.N1</a>	16NOV2004 14:50:26	16NOV2004 15:46:48	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20041116_163103_000033252032_00112_14194_0605.N1</a>	16NOV2004 16:31:03	16NOV2004 17:26:28	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20041116_181132_000033732032_00113_14195_0632.N1</a>	16NOV2004 18:11:32	16NOV2004 19:07:45	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20041116_195236_000033252032_00114_14196_0656.N1</a>	16NOV2004 19:52:36	16NOV2004 20:48:01	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20041116_213251_000033812032_00115_14197_0681.N1</a>	16NOV2004 21:32:51	16NOV2004 22:29:13	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20041116_231327_000033252032_00116_14198_0624.N1</a>	16NOV2004 23:13:27	17NOV2004 00:08:53	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: 132340

Total number of cloud data DSRs with good quality flag (=0): 132340 (100.0 %)

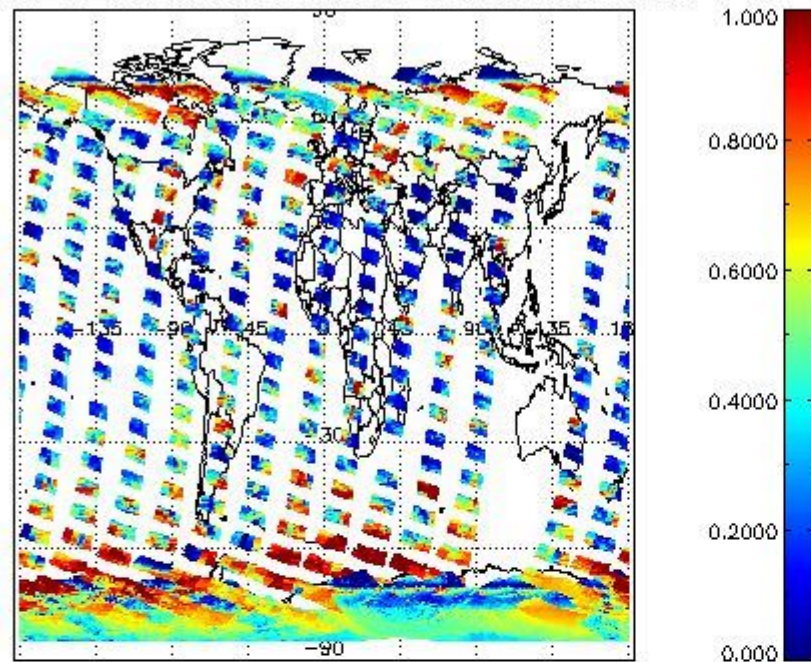
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	132340	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	132340	0.17092	0.12500	0.12500	0.25000	0.060262	s
CL_FRAC	132340	0.43394	0.42306	0.0000	1.0000	0.27889	-
CL_FRAC_ERR	132340	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	132340	5.4695	4.0000	4.0000	8.0000	1.9284	
PMD_READ_CL[0]	132340	0.33245	0.0000	0.0000	8.0000	1.3246	-
PMD_READ_CL[1]	132340	0.38835	0.0000	0.0000	8.0000	1.3295	-
CL_TOP_HEIGHT	111694	4.2452	3.0431	0.0000	17.000	3.8631	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	111694	50.691	35.283	0.0000	101.00	39.769	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	132340	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	132340	11001001	11000100	11000000	11100000	3044.1	flags
AERO_ABSO_IND	132340	0.70171	0.40354	-4.5210	12.412	1.1057	
AERO_IND_DIAG	132340	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	132340	01011000	00000000	00000000	11000000	24504.	flags

### Time and geolocation plots:

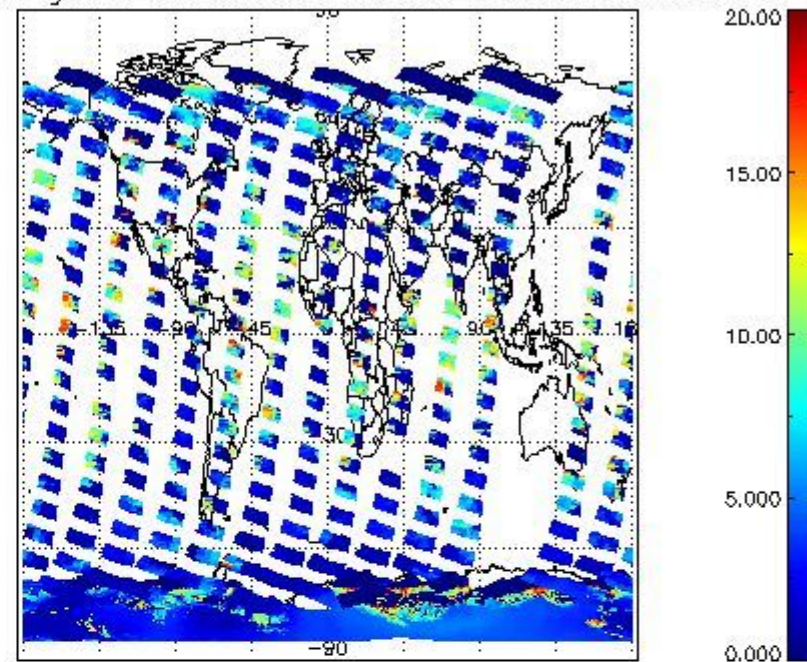
Plots are available for the following parameters:

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

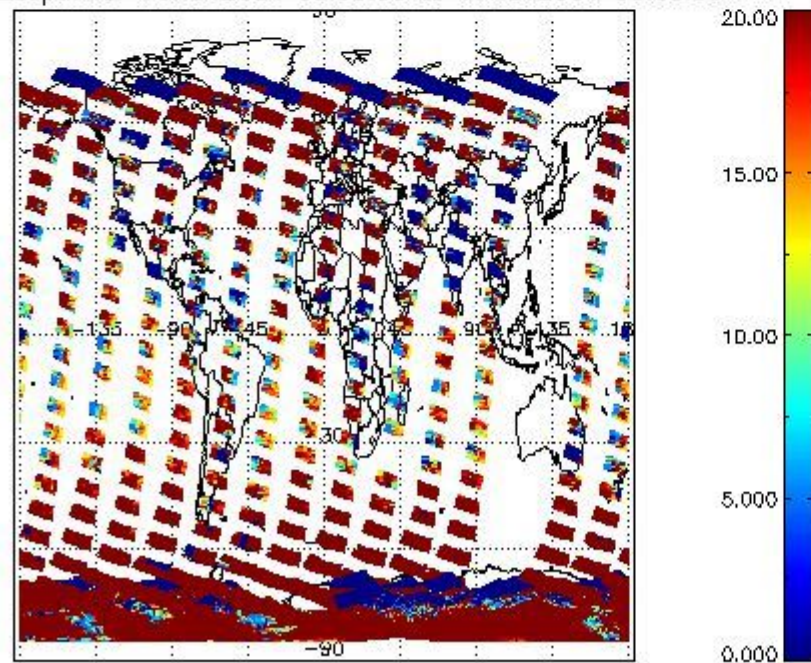
cLfrac for 16NOV2004 00:00:00 to 17NOV2004 00:00:00



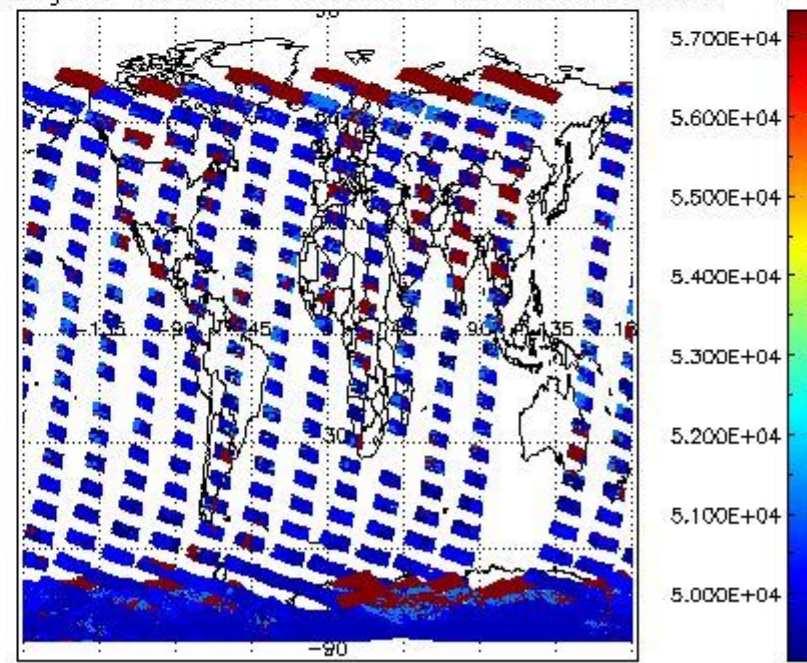
cL\_top\_height for 16NOV2004 00:00:00 to 17NOV2004 00:00:00



cLopt\_depth for 16NOV2004 00:00:00 to 17NOV2004 00:00:00



cloud\_flags for 16NOV2004 00:00:00 to 17NOV2004 00:00:00



## 2.2.2 Nadir

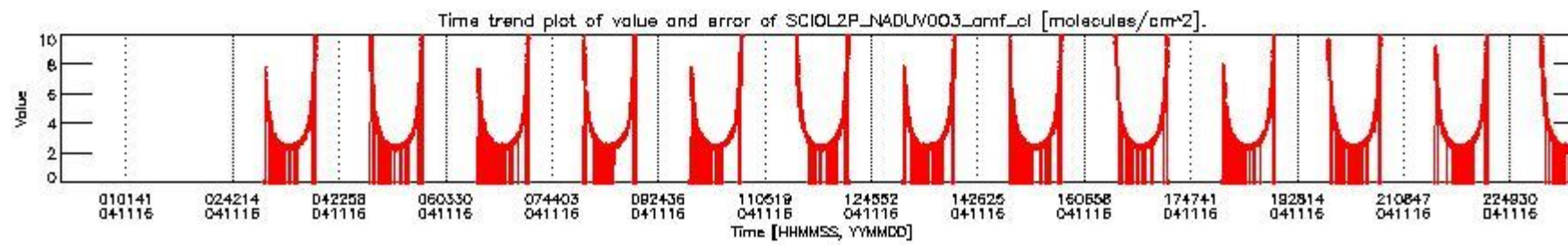
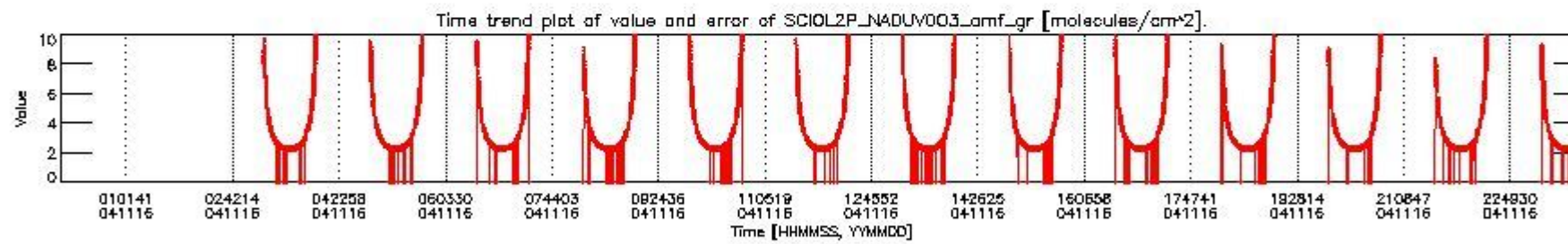
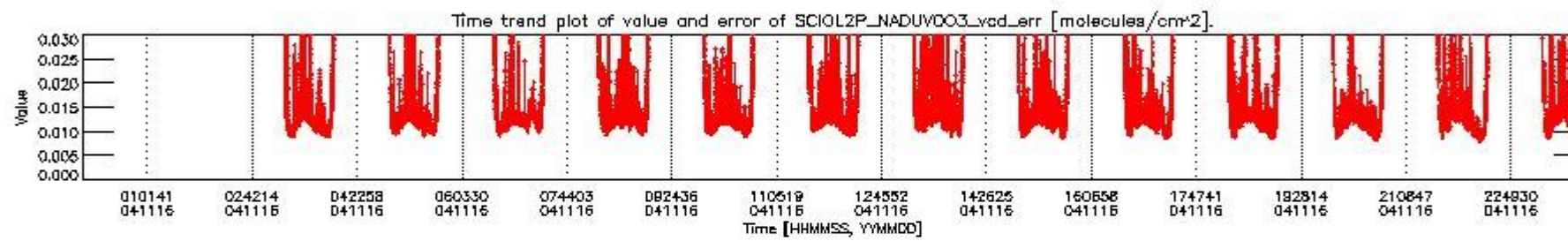
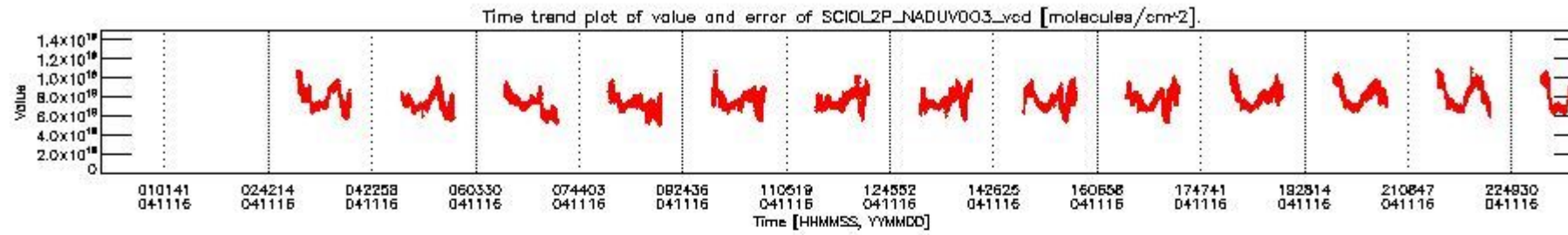
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

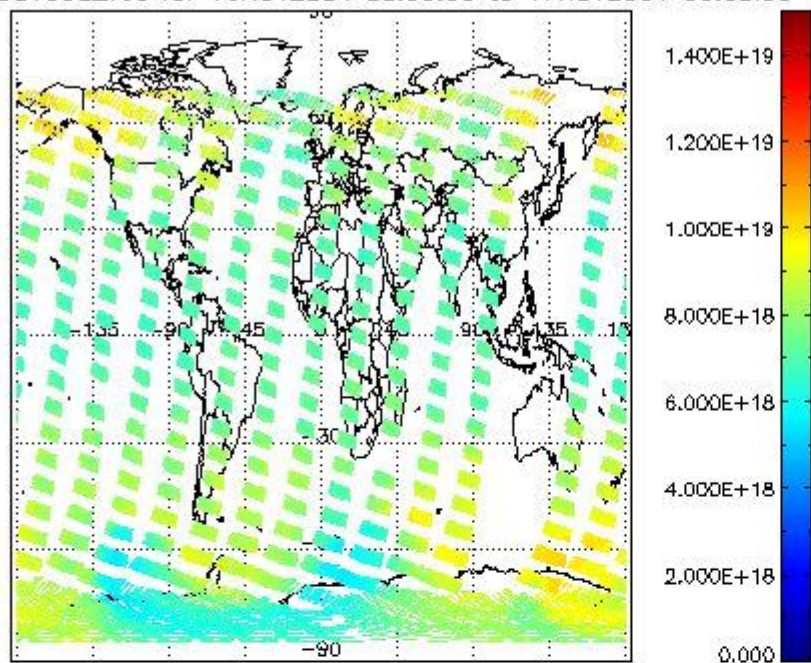
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

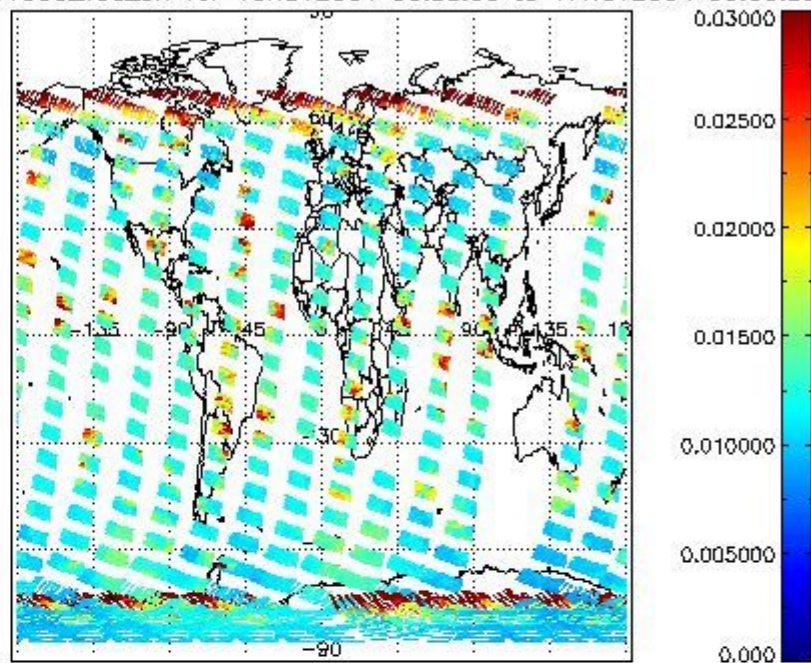
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in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



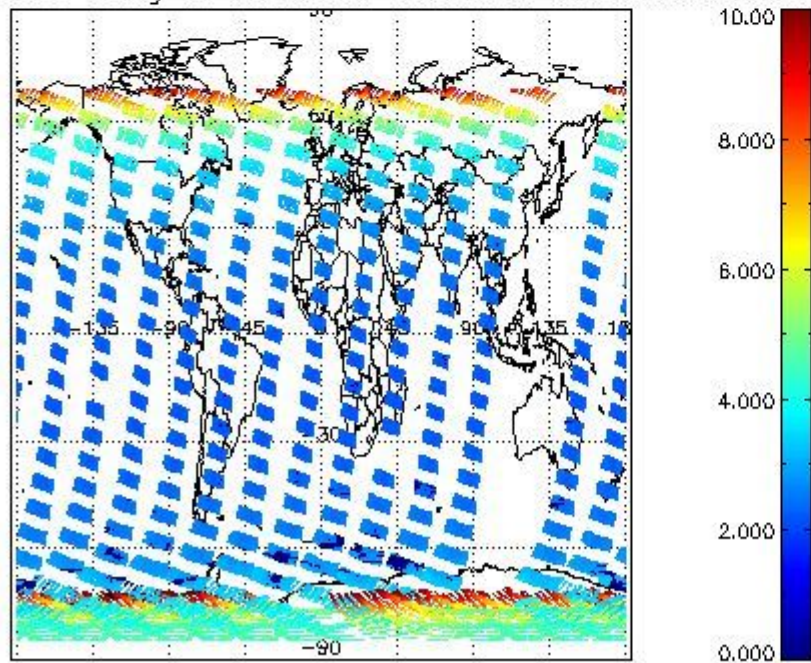
SCIOL2P\_NADUV003\_vcd for 16NOV2004 00:00:00 to 17NOV2004 00:00:00



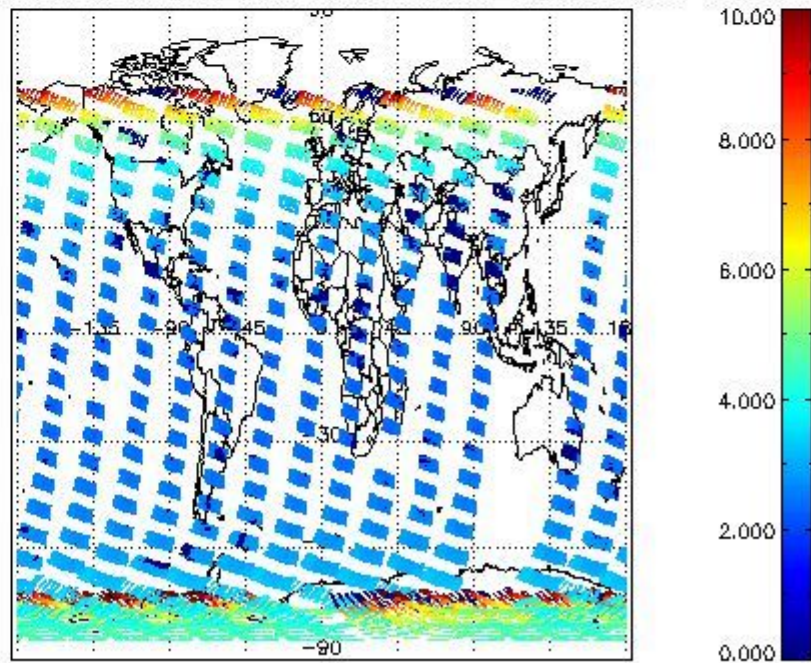
SCIOL2P\_NADUV003\_vcd\_err for 16NOV2004 00:00:00 to 17NOV2004 00:00:00

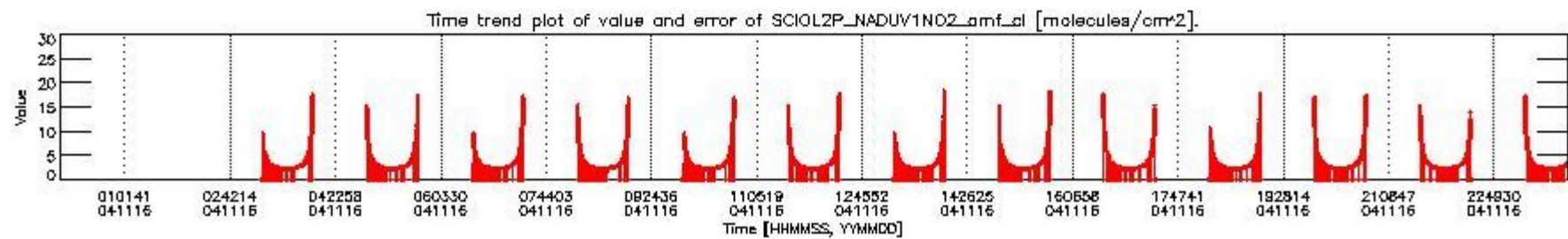
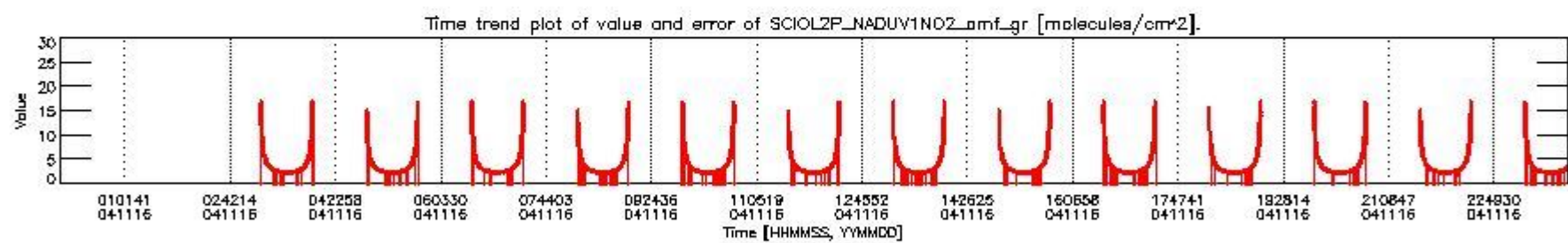
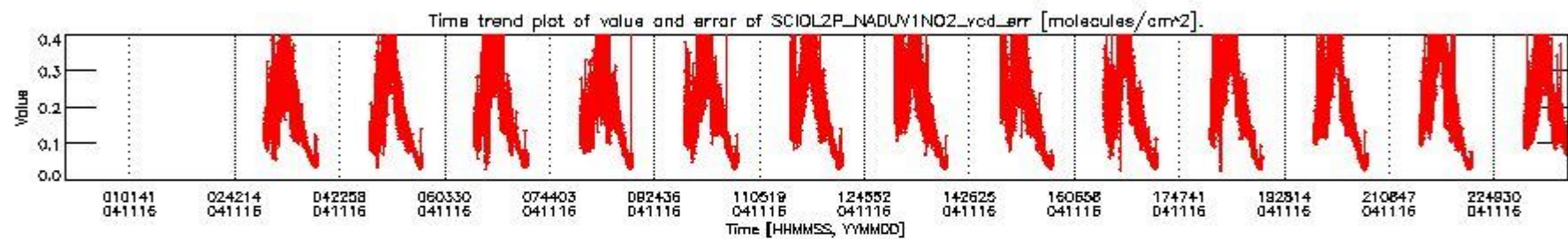
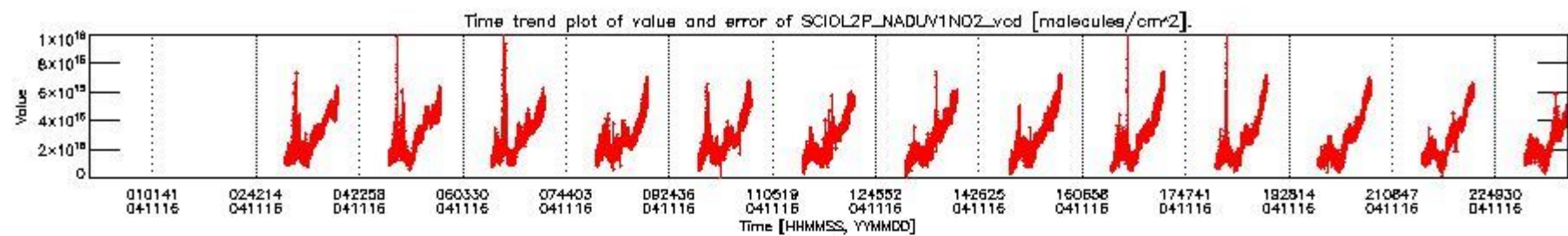


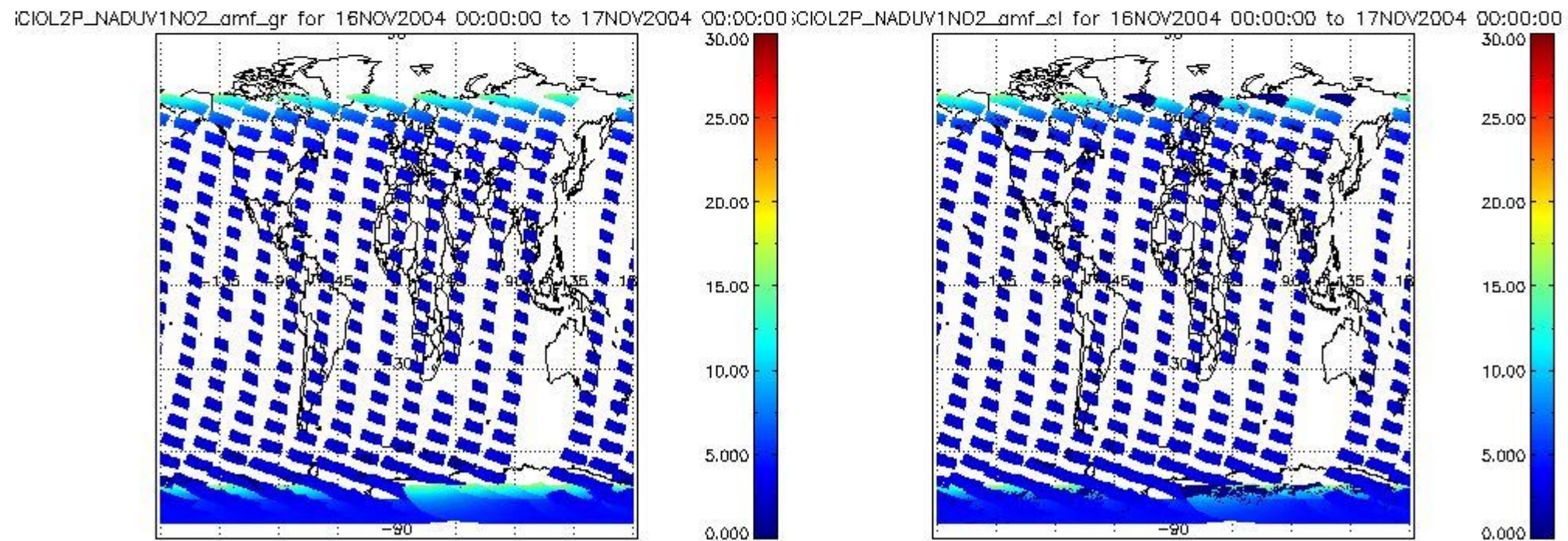
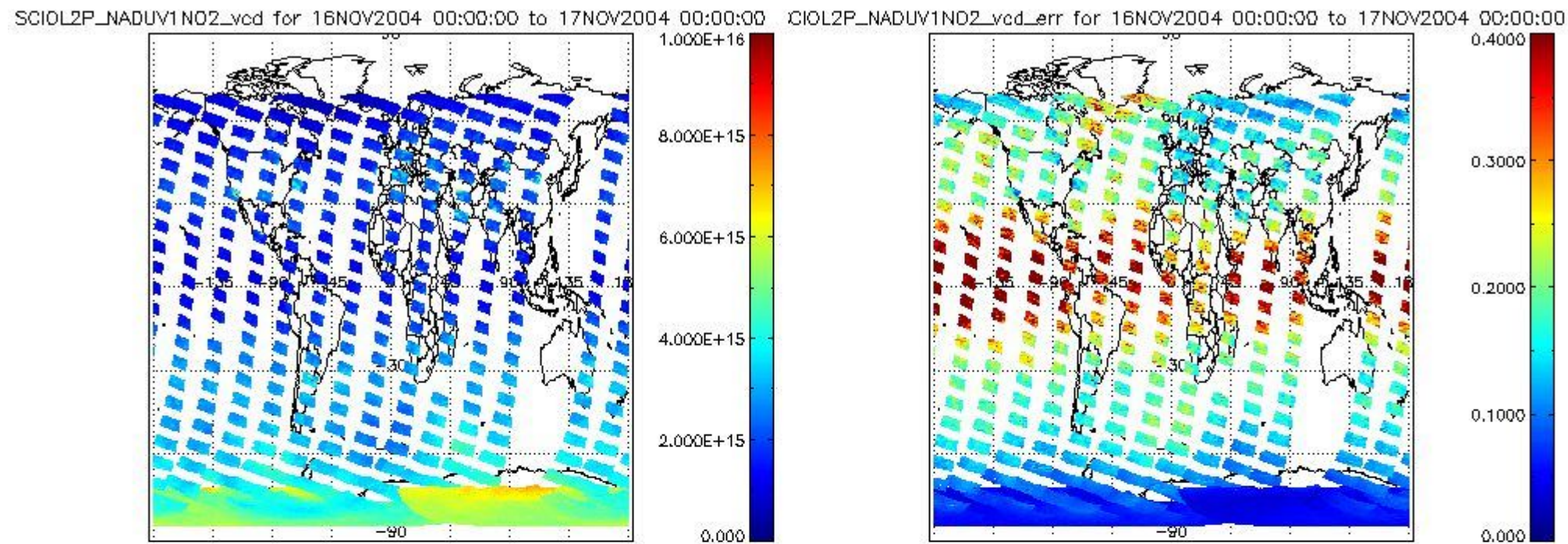
SCIOL2P\_NADUV003\_amf\_gr for 16NOV2004 00:00:00 to 17NOV2004 00:00:00



SCIOL2P\_NADUV003\_amf\_cl for 16NOV2004 00:00:00 to 17NOV2004 00:00:00







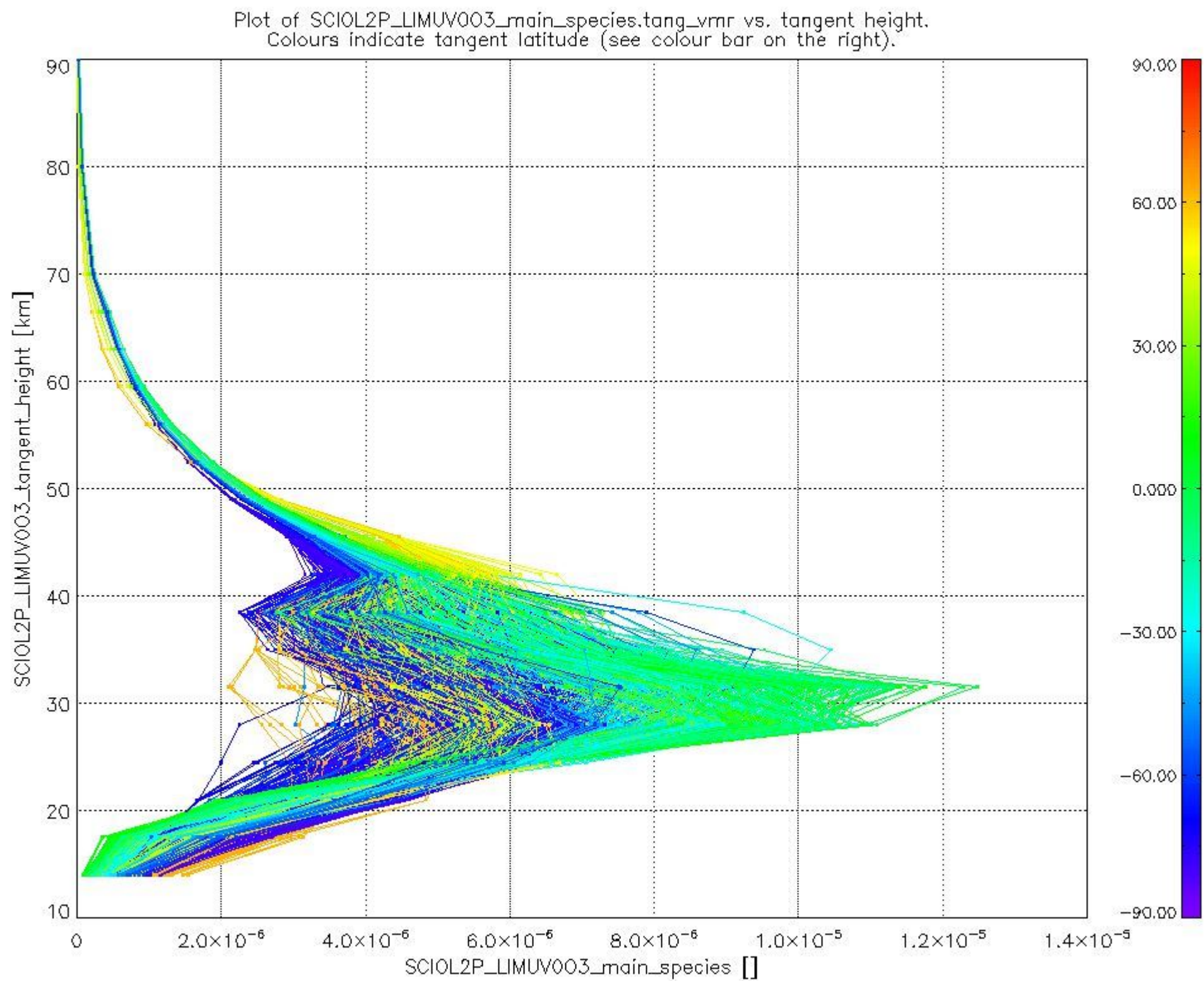
### 2.2.3 Limb

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:

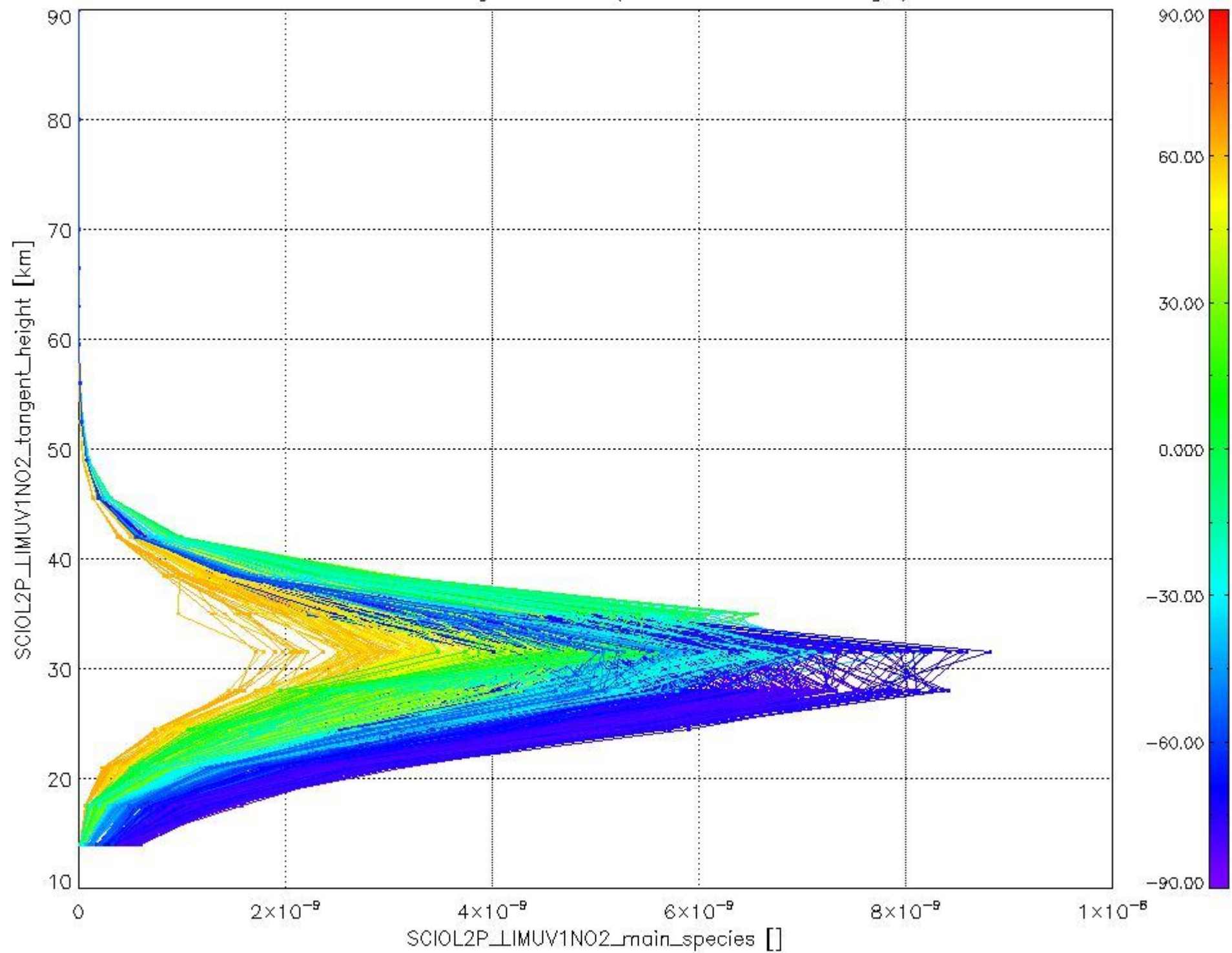
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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





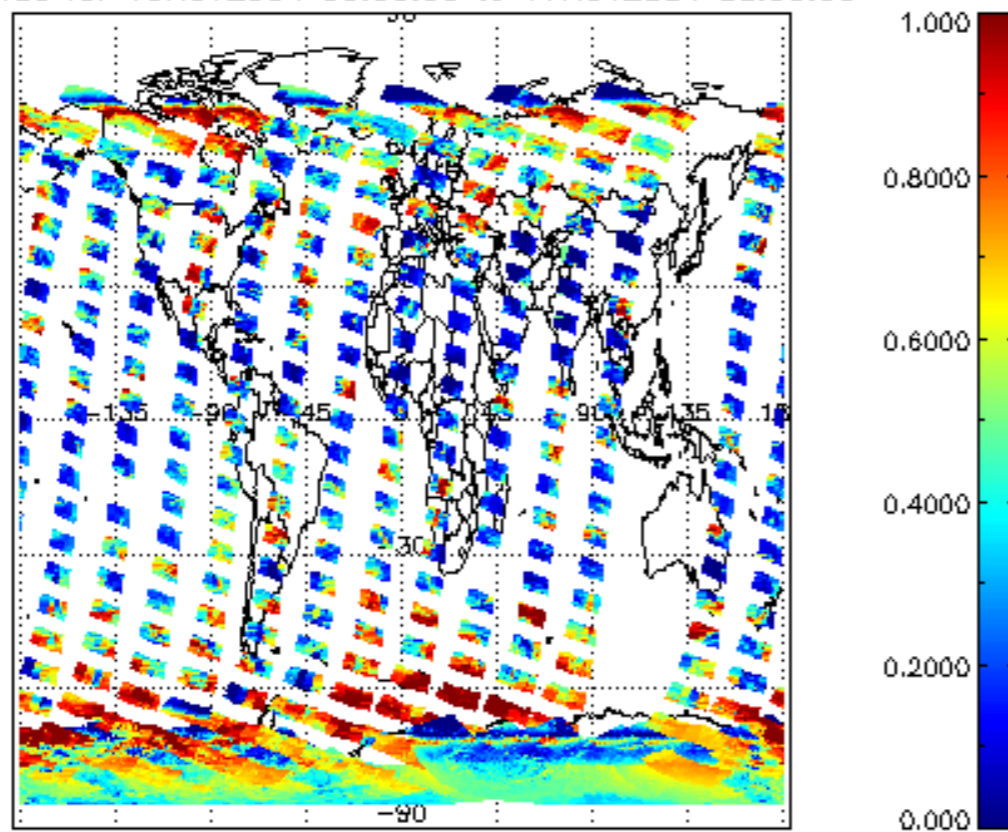
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



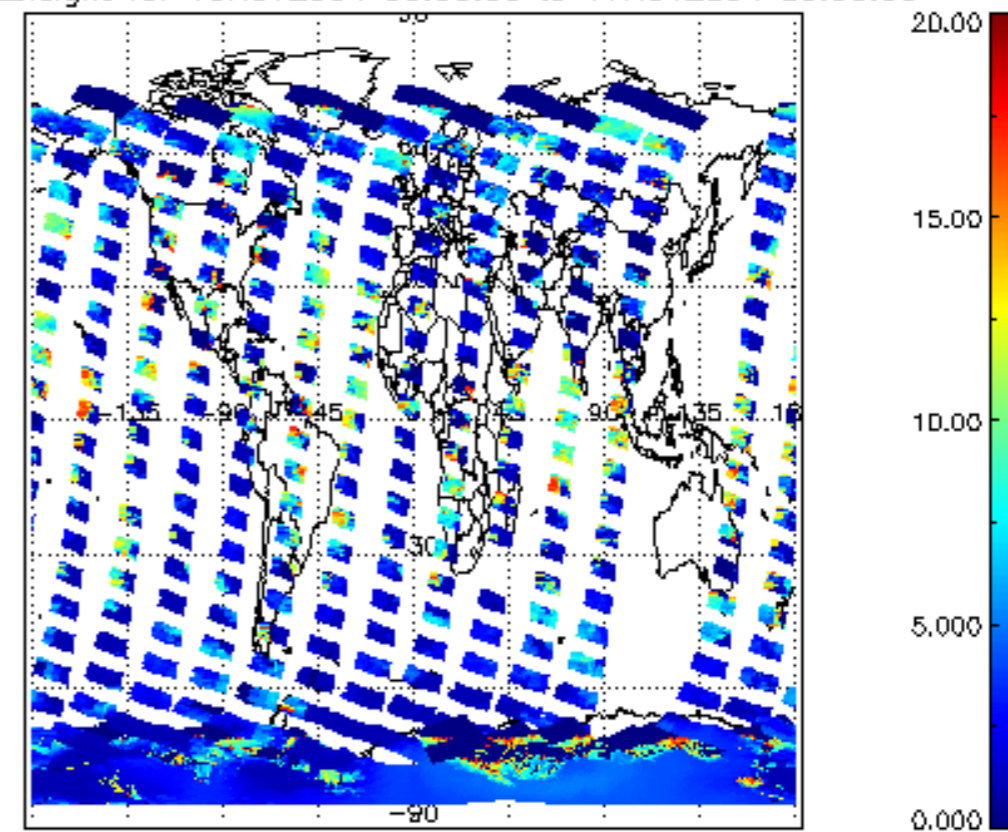
### 2.3 ADF monitoring

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

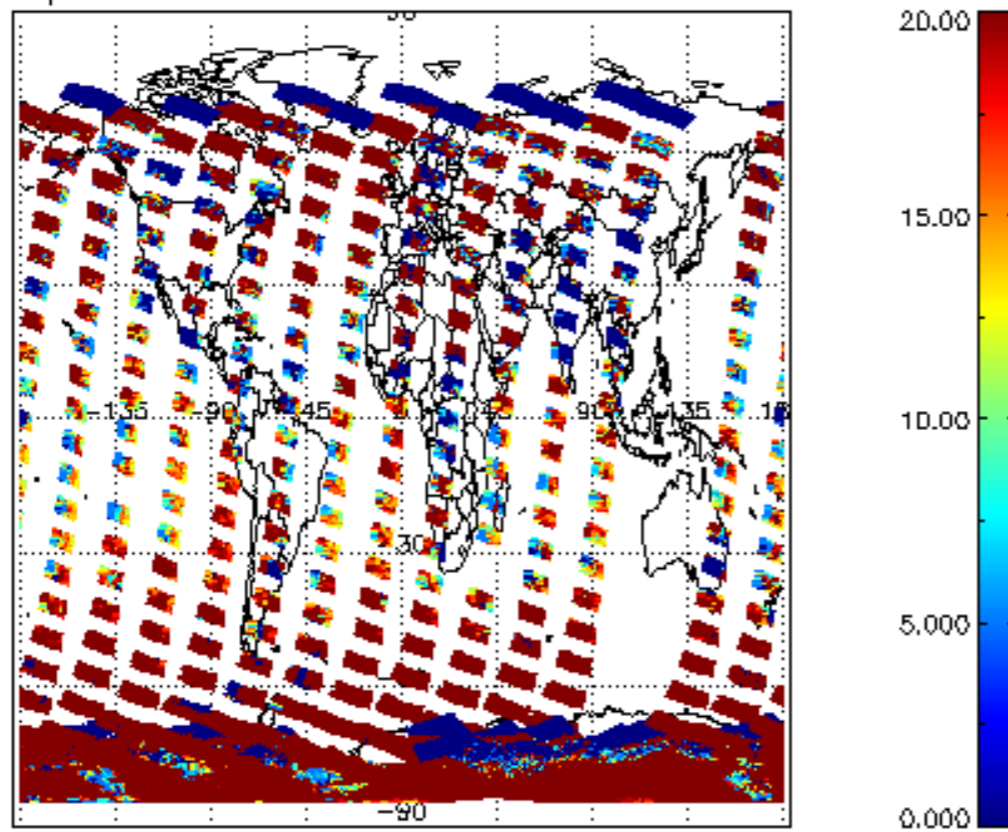
cLfrac for 16NOV2004 00:00:00 to 17NOV2004 00:00:00



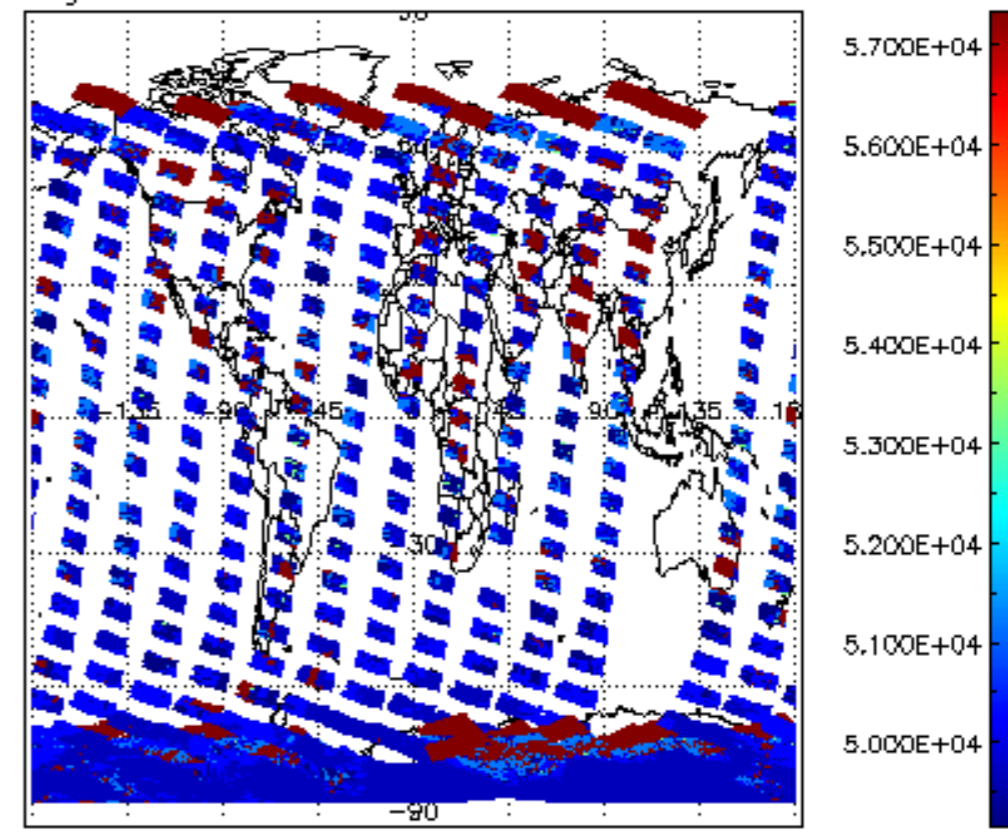
cL\_top\_height for 16NOV2004 00:00:00 to 17NOV2004 00:00:00

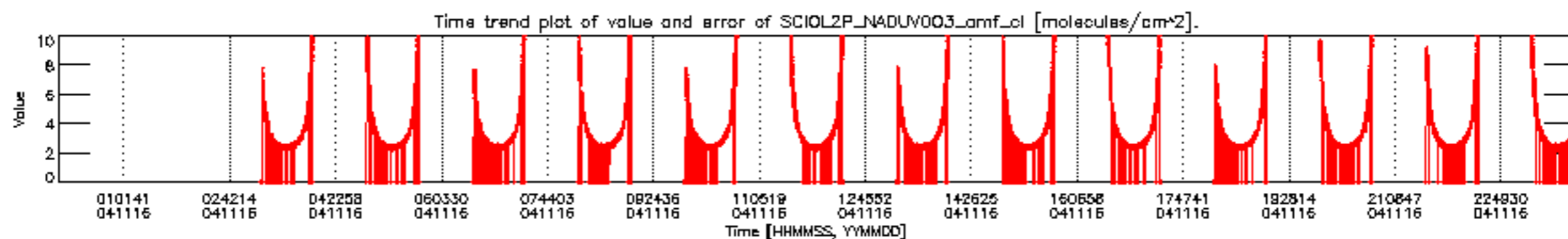
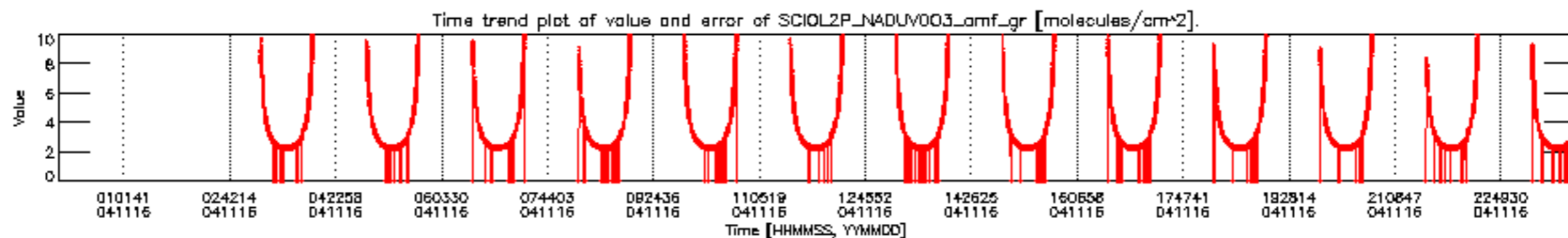
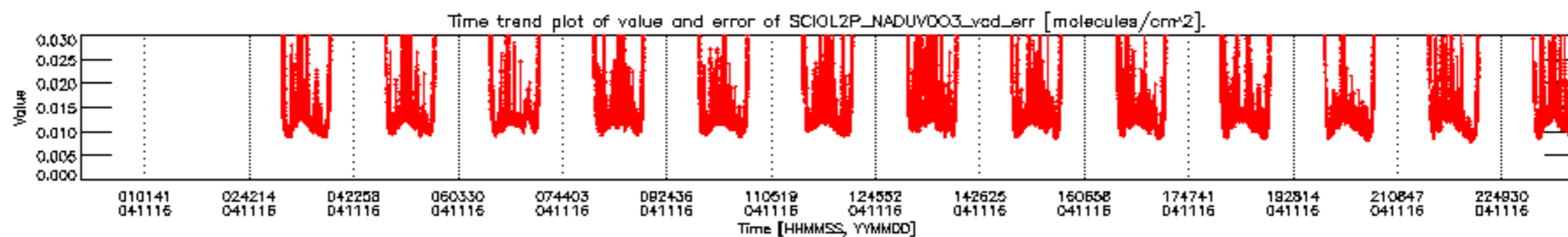
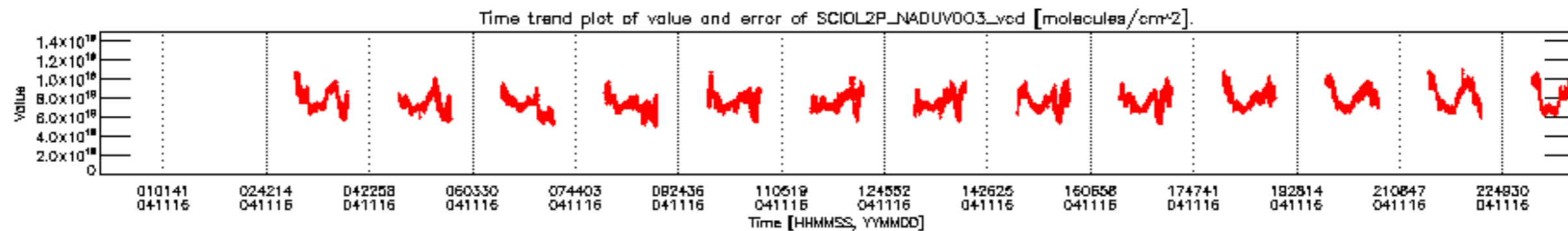


cL\_opt\_depth for 16NOV2004 00:00:00 to 17NOV2004 00:00:00

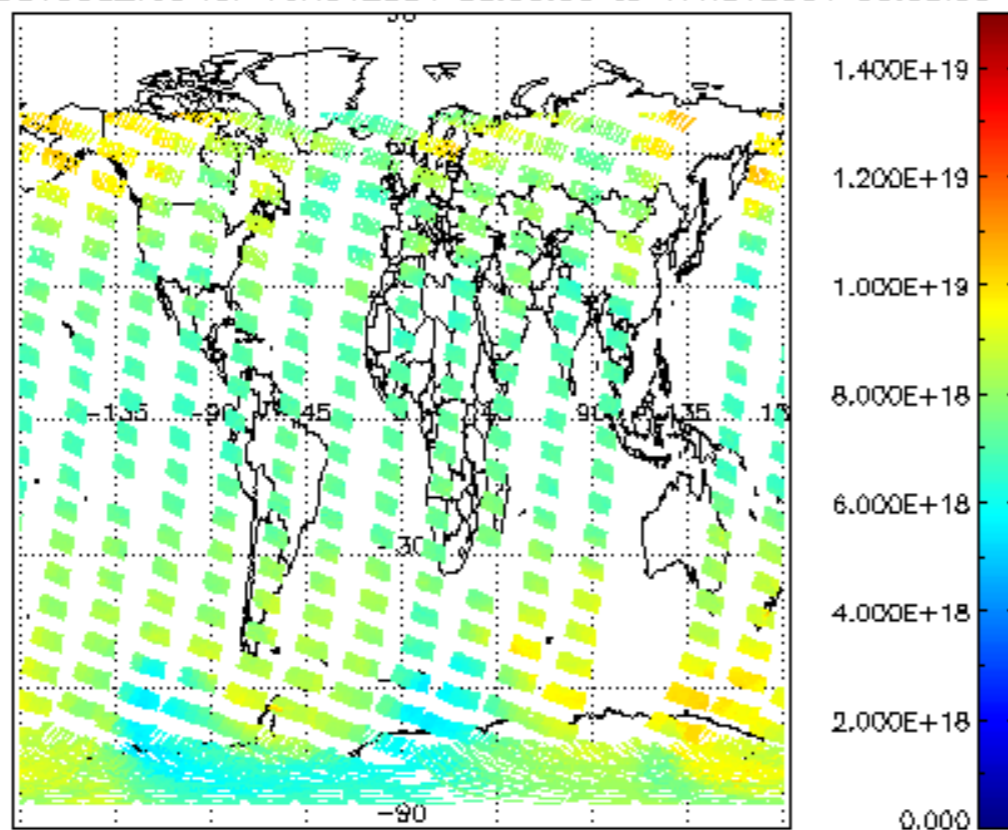


cloud\_flags for 16NOV2004 00:00:00 to 17NOV2004 00:00:00

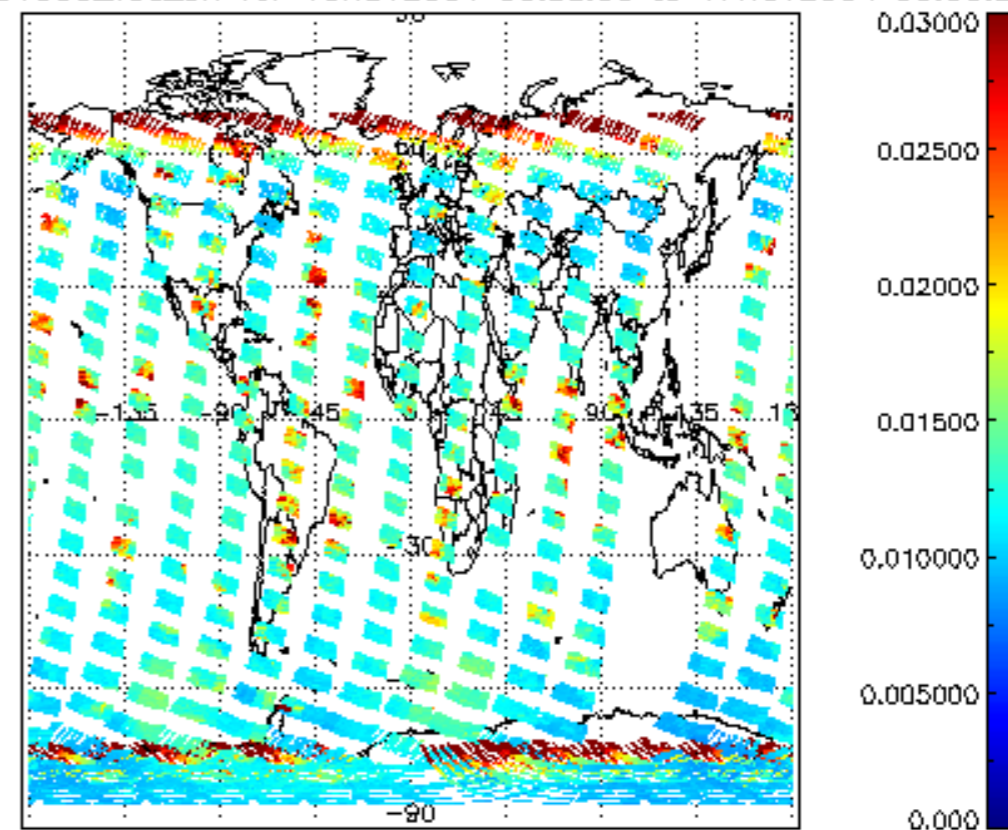




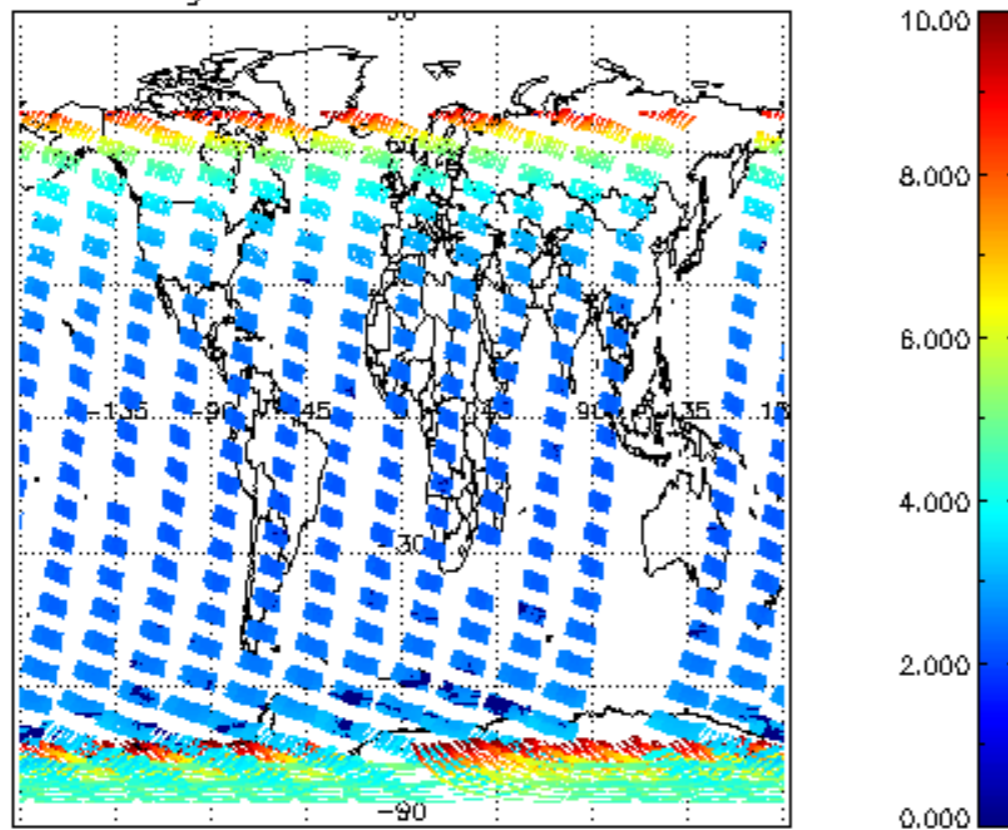
SCIOL2P\_NADUV003\_vcd for 16NOV2004 00:00:00 to 17NOV2004 00:00:00



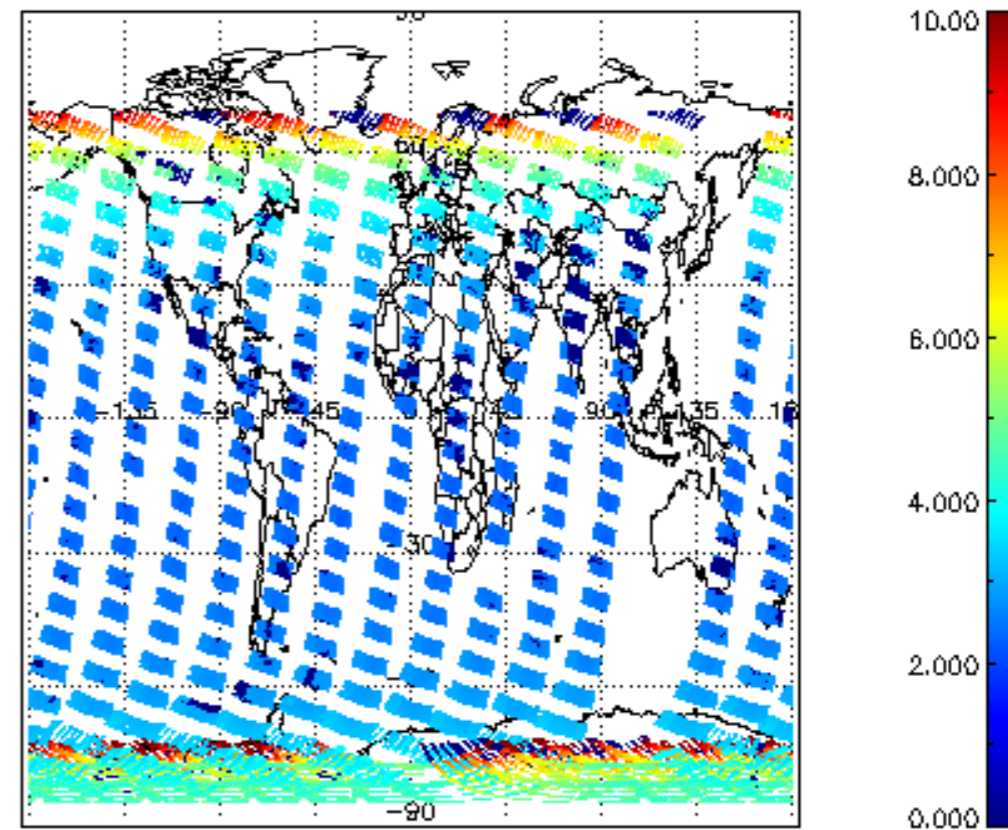
SCIOL2P\_NADUV003\_vcd\_err for 16NOV2004 00:00:00 to 17NOV2004 00:00:00

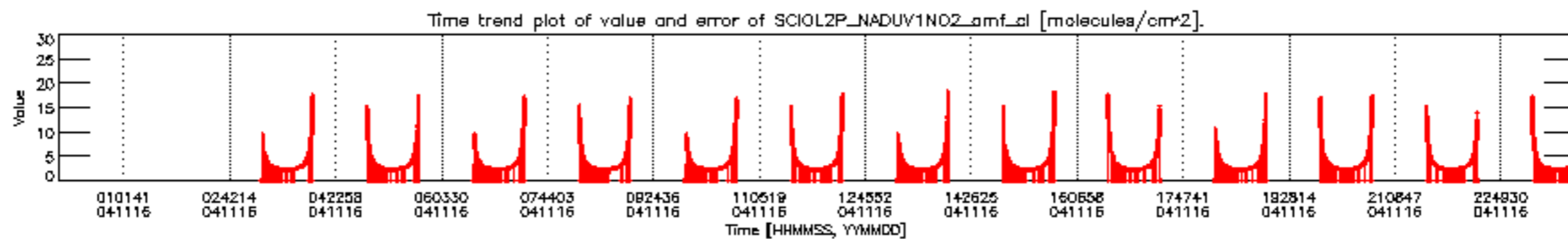
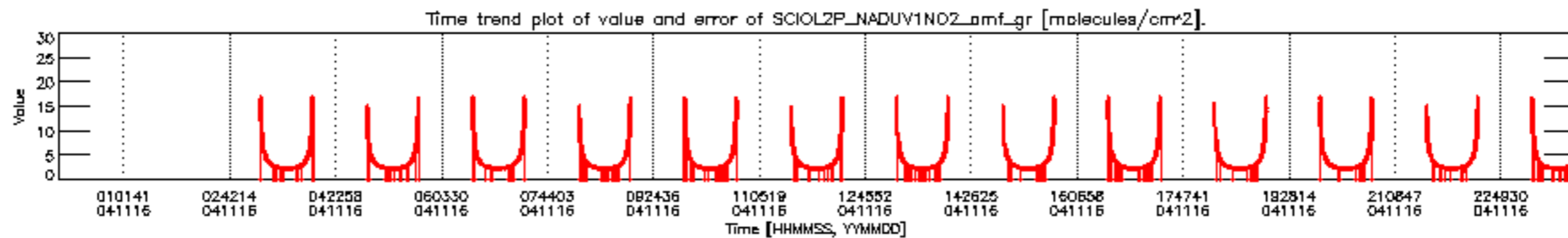
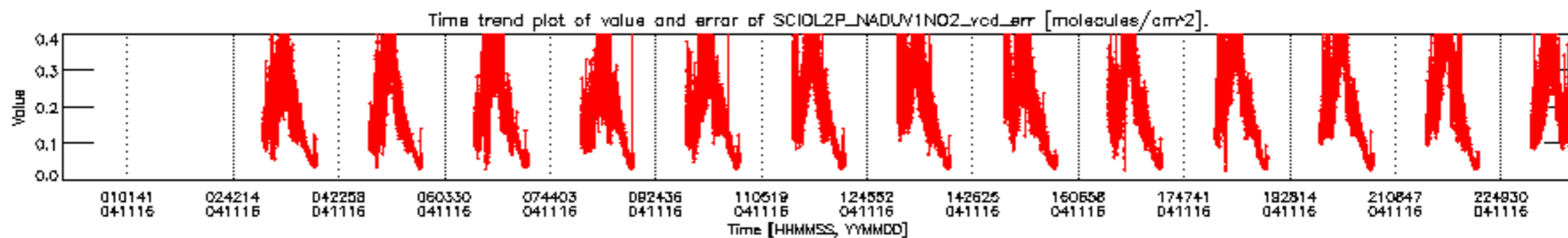
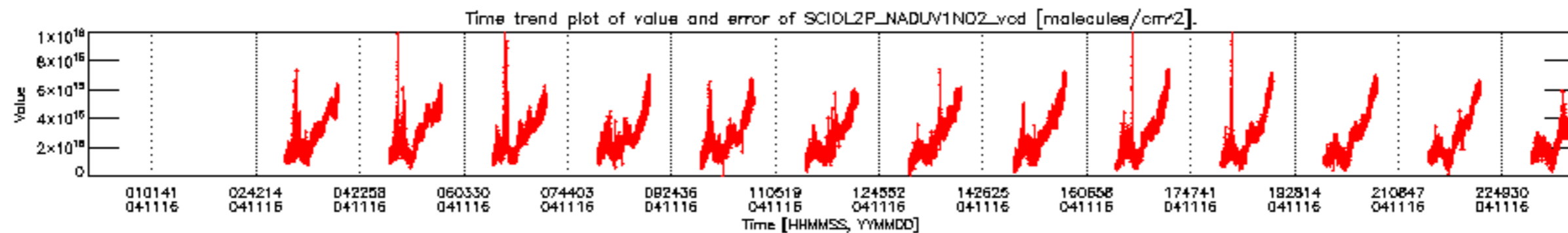


SCIOL2P\_NADUV003\_amf\_gr for 16NOV2004 00:00:00 to 17NOV2004 00:00:00

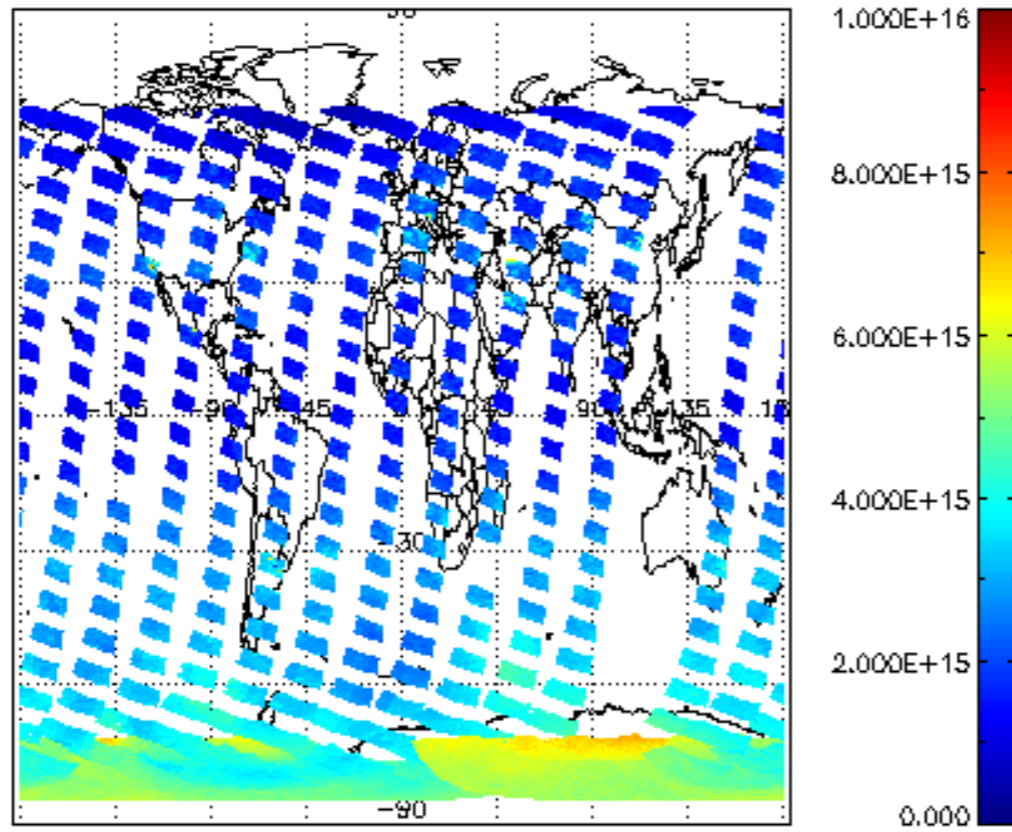


SCIOL2P\_NADUV003\_amf\_cl for 16NOV2004 00:00:00 to 17NOV2004 00:00:00

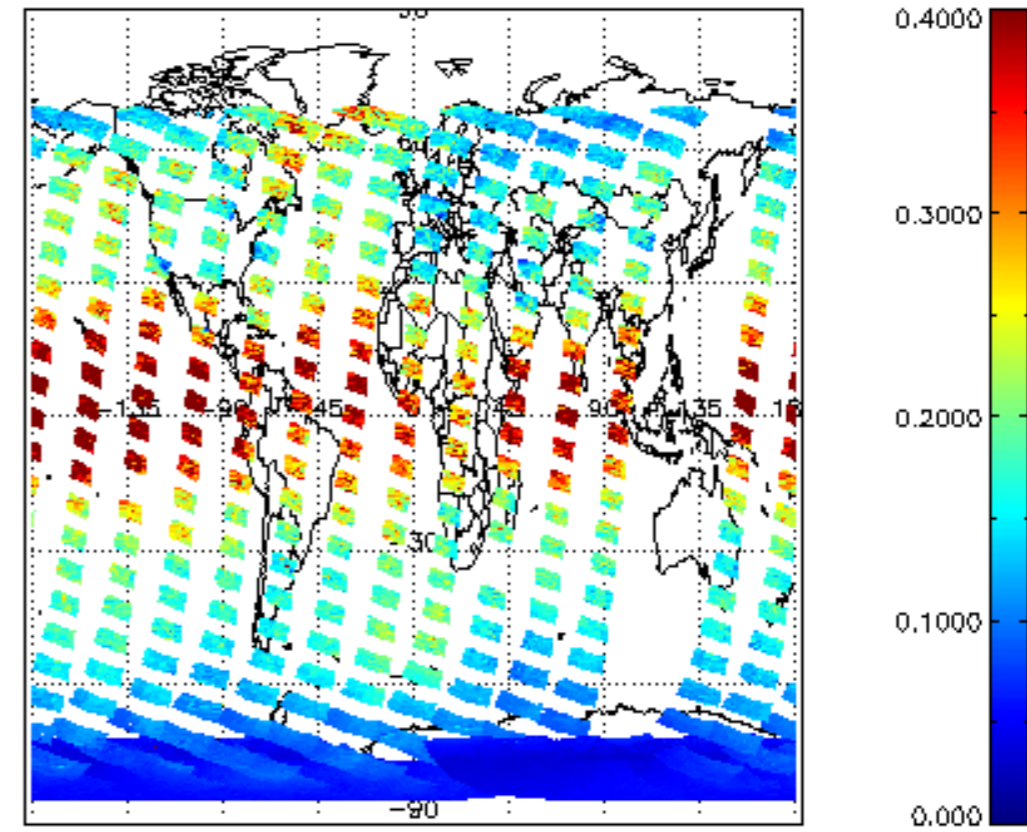




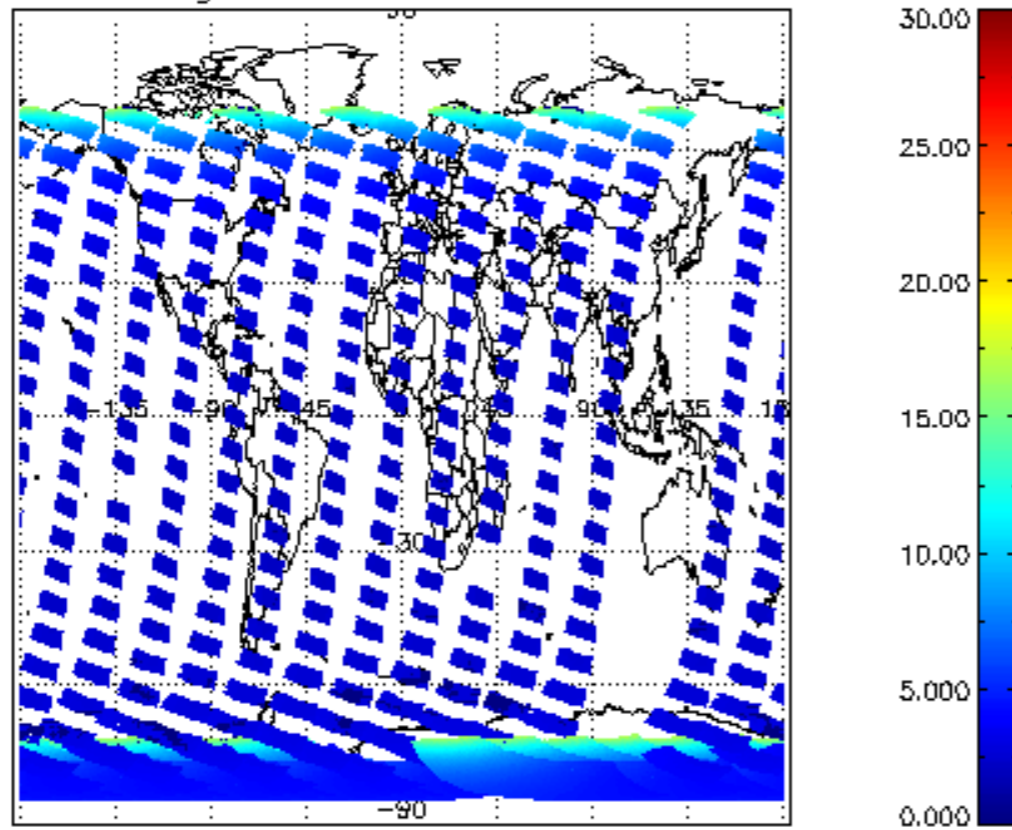
SCIOL2P\_NADUV1NO2\_vcd for 16NOV2004 00:00:00 to 17NOV2004 00:00:00



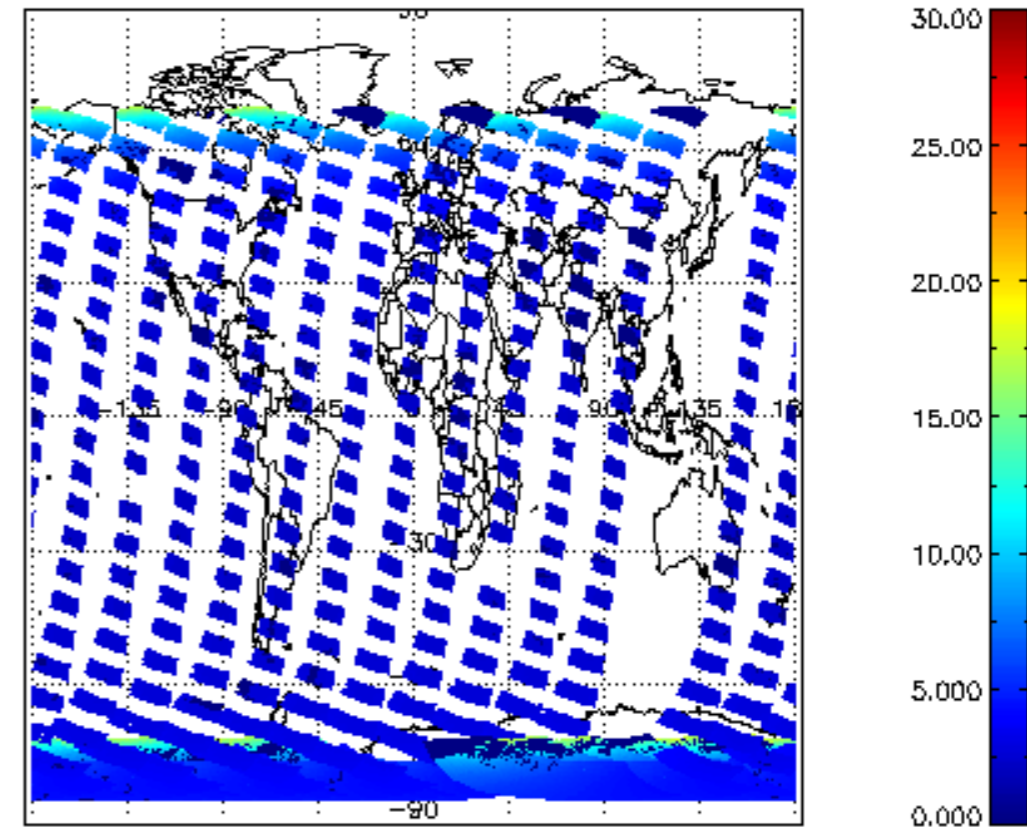
SCIOL2P\_NADUV1NO2\_vcd\_err for 16NOV2004 00:00:00 to 17NOV2004 00:00:00



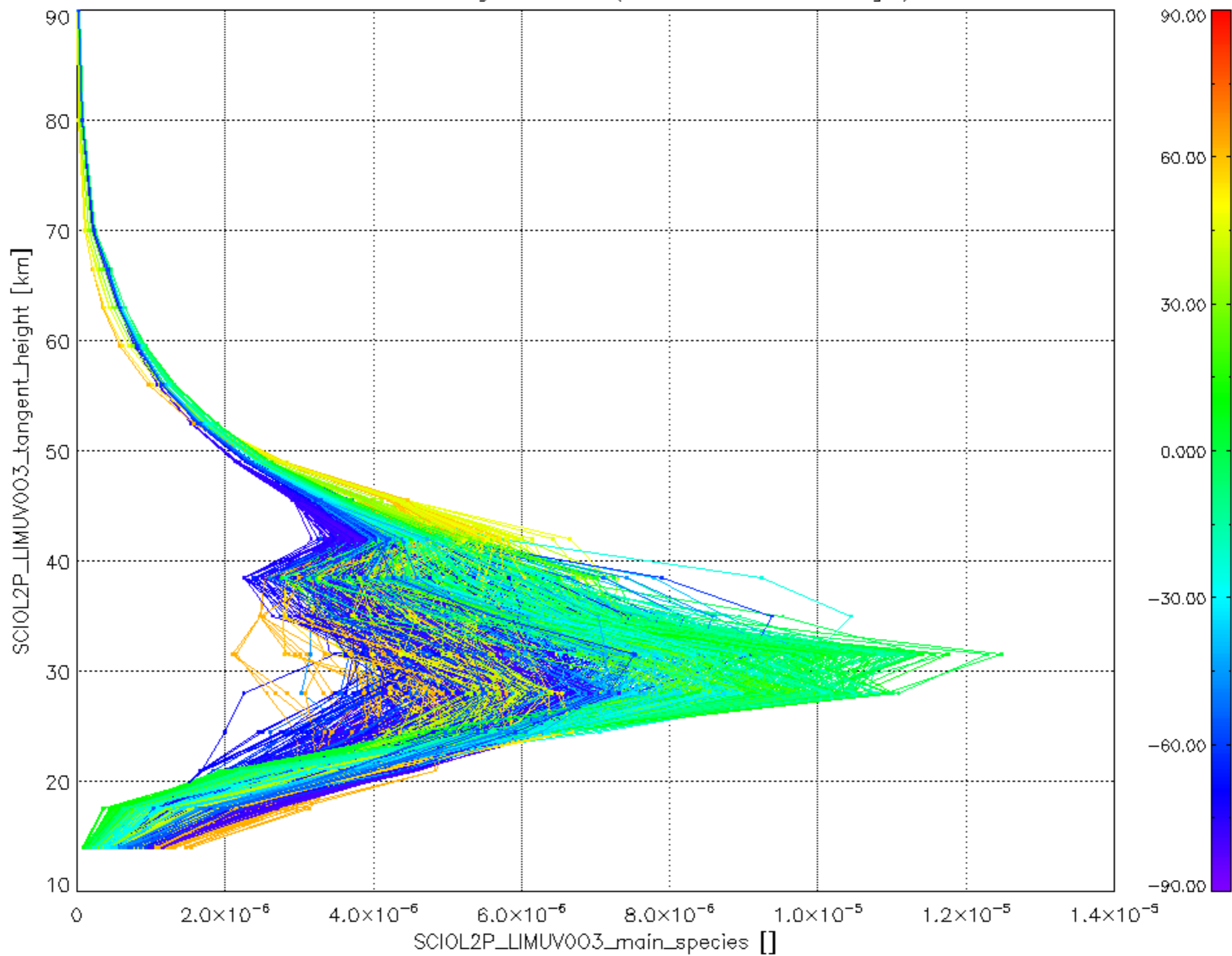
SCIOL2P\_NADUV1NO2\_amf\_gr for 16NOV2004 00:00:00 to 17NOV2004 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_cl for 16NOV2004 00:00:00 to 17NOV2004 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).

