

## 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	14AUG2008 12:35:05
Data source version	SCIA-OL/3.01-R
Processing scope for products	27APR2004 00:00:00 to 28APR2004 00:00:00
Start time of first product within scope	26APR2004 23:14:43
Stop time of last product within scope	27APR2004 23:37:55
Total number of level 2 products	15
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__2PRDPA20040426_231443_000033772026_00202_11278_7416.N1</a>	26APR2004 23:14:43	27APR2004 00:11:00	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20040427_005519_000033492026_00203_11279_7468.N1</a>	27APR2004 00:55:19	27APR2004 01:51:08	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20040427_023554_000033772026_00204_11280_7313.N1</a>	27APR2004 02:35:54	27APR2004 03:32:11	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20040427_041630_000033492026_00205_11281_7285.N1</a>	27APR2004 04:16:30	27APR2004 05:12:19	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20040427_055705_000033772026_00206_11282_7217.N1</a>	27APR2004 05:57:05	27APR2004 06:53:22	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20040427_073741_000033492026_00207_11283_7265.N1</a>	27APR2004 07:37:41	27APR2004 08:33:30	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20040427_091817_000033772026_00208_11284_7426.N1</a>	27APR2004 09:18:17	27APR2004 10:14:34	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20040427_105852_000033492026_00209_11285_7388.N1</a>	27APR2004 10:58:52	27APR2004 11:54:41	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20040427_123928_000033772026_00210_11286_7518.N1</a>	27APR2004 12:39:28	27APR2004 13:35:45	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20040427_142003_000033492026_00211_11287_7496.N1</a>	27APR2004 14:20:03	27APR2004 15:15:52	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20040427_160039_000033772026_00212_11288_7585.N1</a>	27APR2004 16:00:39	27APR2004 16:56:56	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20040427_174116_000033532026_00213_11289_7214.N1</a>	27APR2004 17:41:16	27APR2004 18:37:10	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20040427_192207_000032932026_00214_11290_7380.N1</a>	27APR2004 19:22:07	27APR2004 20:17:01	0	GOOD
13	<a href="#">SCI_OL__2PRDPA20040427_210226_000033492026_00215_11291_7340.N1</a>	27APR2004 21:02:26	27APR2004 21:58:15	0	GOOD
14	<a href="#">SCI_OL__2PRDPA20040427_224301_000032932026_00216_11292_7326.N1</a>	27APR2004 22:43:01	27APR2004 23:37:55	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: 113580

Total number of cloud data DSRs with good quality flag (=0): 113580 (100.0 %)

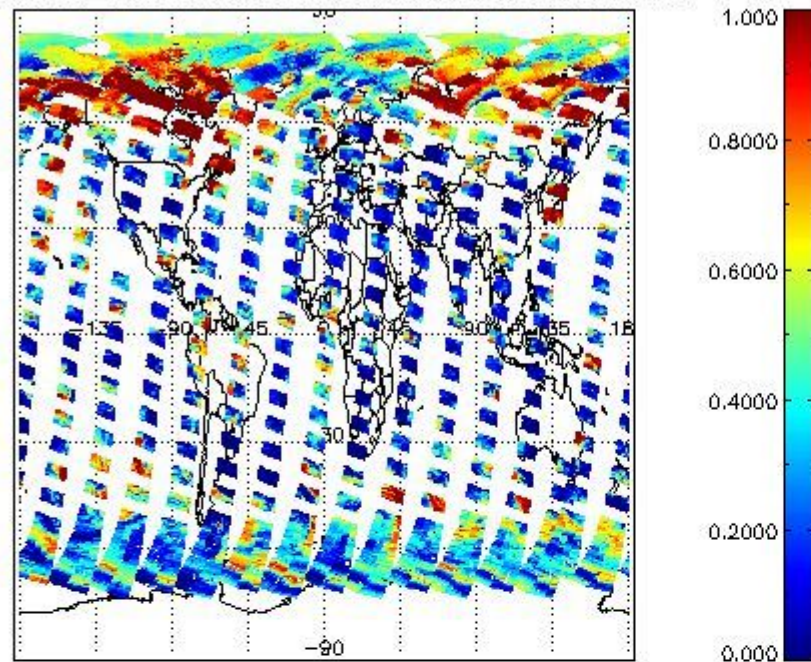
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	113580	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	113580	0.21826	0.25000	0.12500	0.50000	0.087077	s
CL_FRAC	113580	0.41193	0.37543	0.0000	1.0000	0.31978	-
CL_FRAC_ERR	113580	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	113580	6.9843	8.0000	4.0000	16.000	2.7865	
PMD_READ_CL[0]	113580	0.56879	0.0000	0.0000	16.000	1.7471	-
PMD_READ_CL[1]	113580	1.0805	0.0000	0.0000	16.000	2.4157	-
CL_TOP_HEIGHT	102833	3.4076	1.4655	0.0000	17.000	3.7746	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	102833	57.994	56.378	0.0000	101.00	41.209	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	113580	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	113580	11001000	11000010	11000000	11100000	3015.5	flags
AERO_ABSO_IND	113580	0.77780	0.76242	-4.2445	11.411	1.0703	
AERO_IND_DIAG	113580	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	113580	01100111	11000000	00000000	11000000	24499.	flags

### Time and geolocation plots:

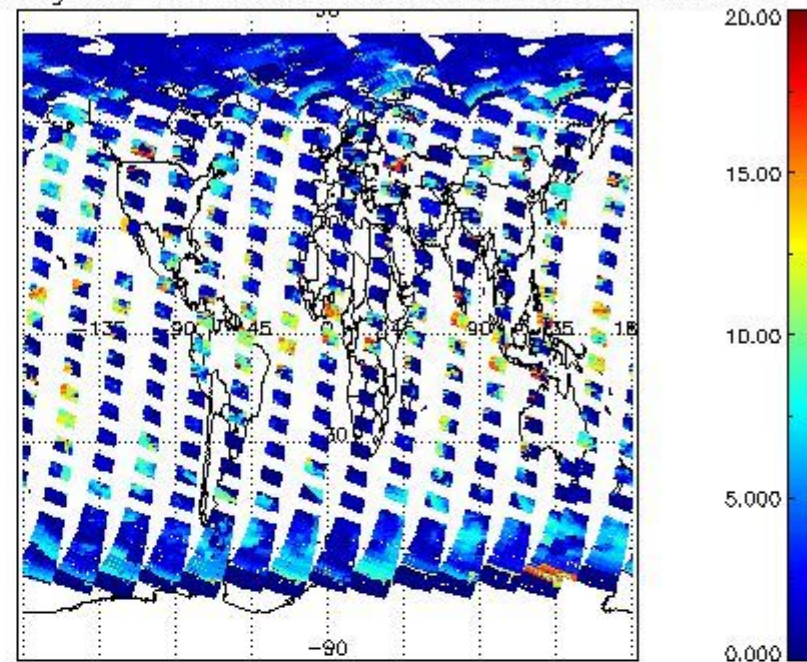
Plots are available for the following parameters:

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

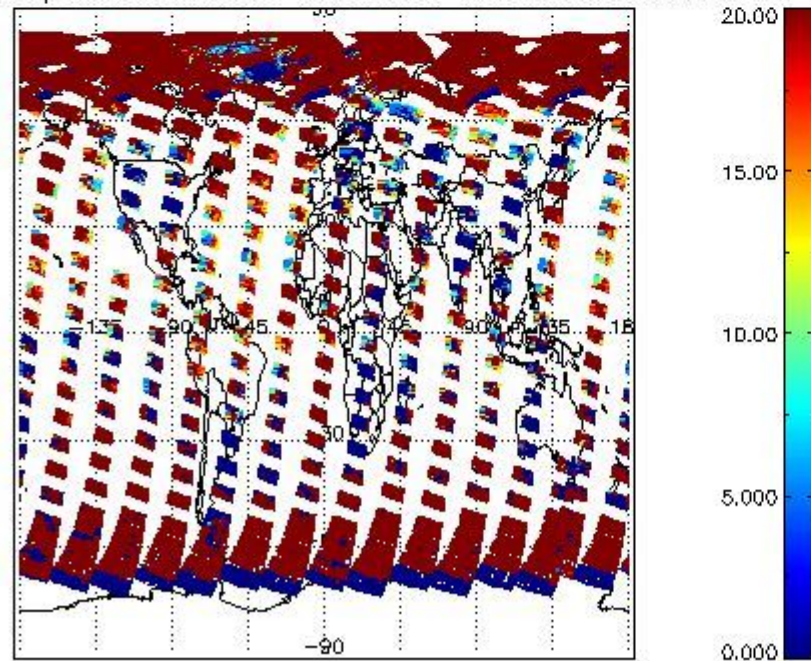
cL\_frac for 27APR2004 00:00:00 to 28APR2004 00:00:00



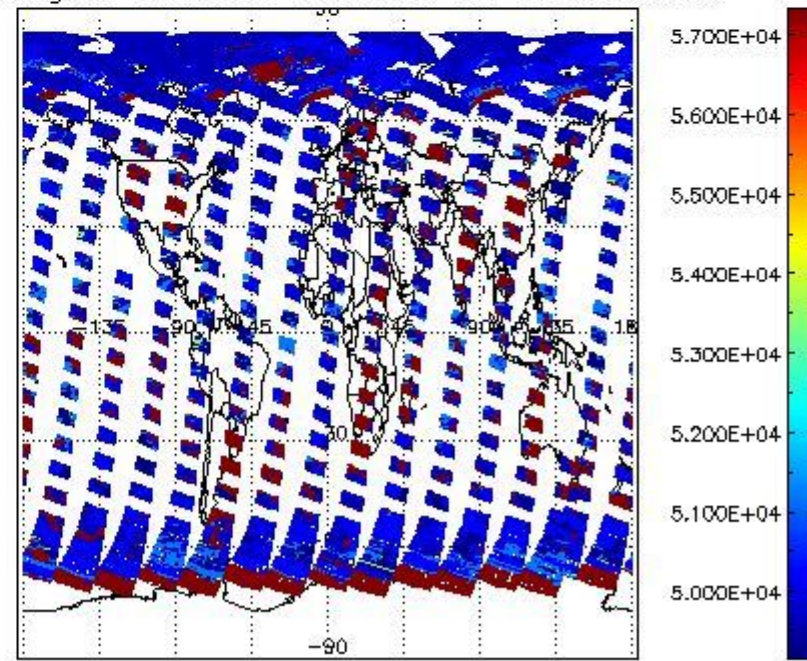
cL\_top\_height for 27APR2004 00:00:00 to 28APR2004 00:00:00



cL\_opt\_depth for 27APR2004 00:00:00 to 28APR2004 00:00:00



cloud\_flags for 27APR2004 00:00:00 to 28APR2004 00:00:00



## 2.2.2 Nadir

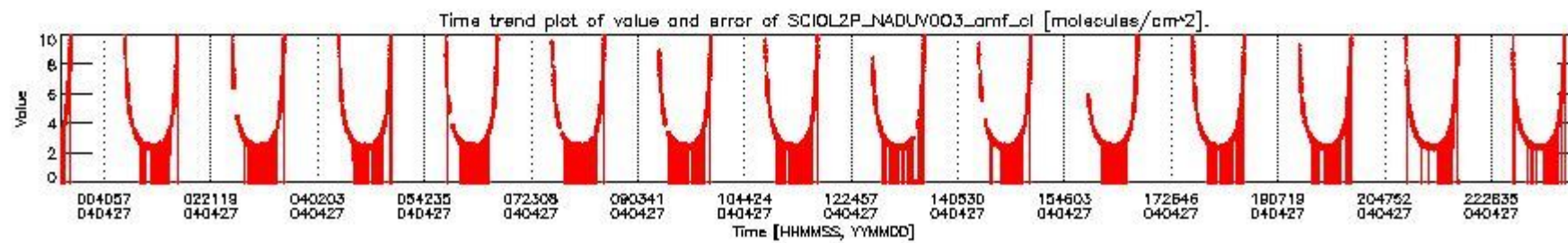
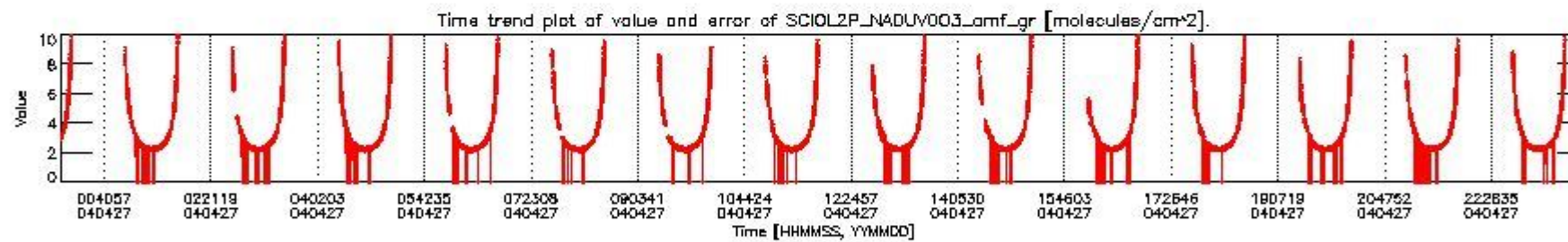
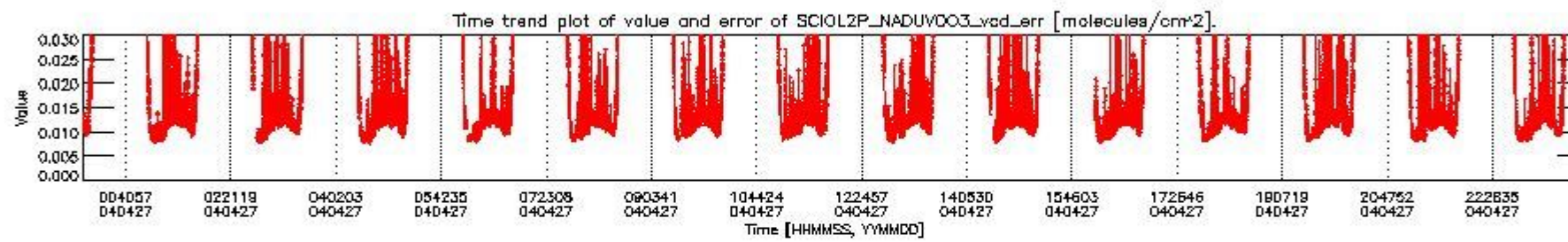
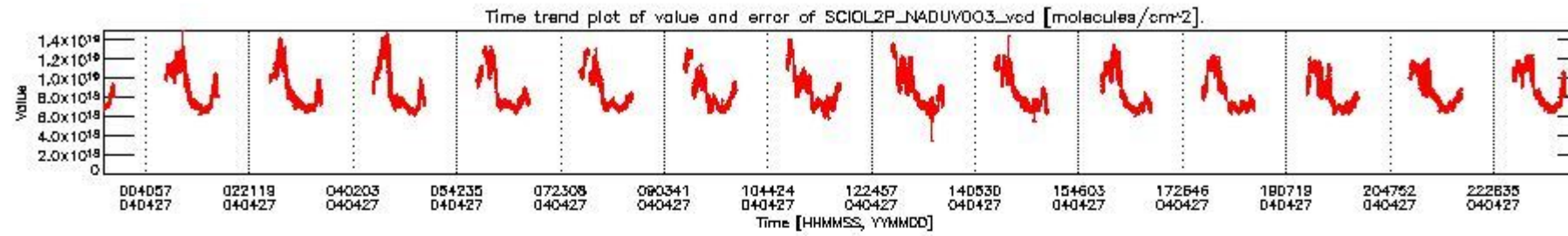
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

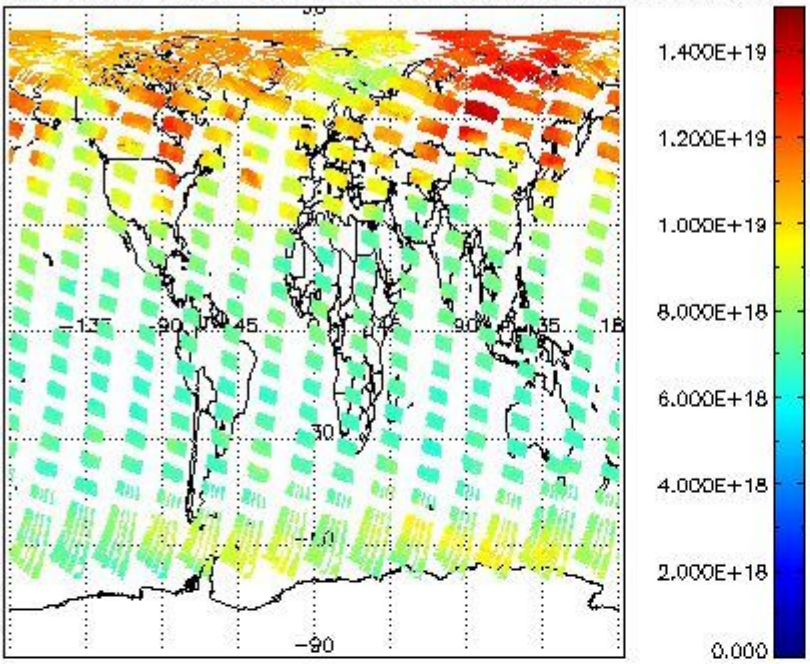
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

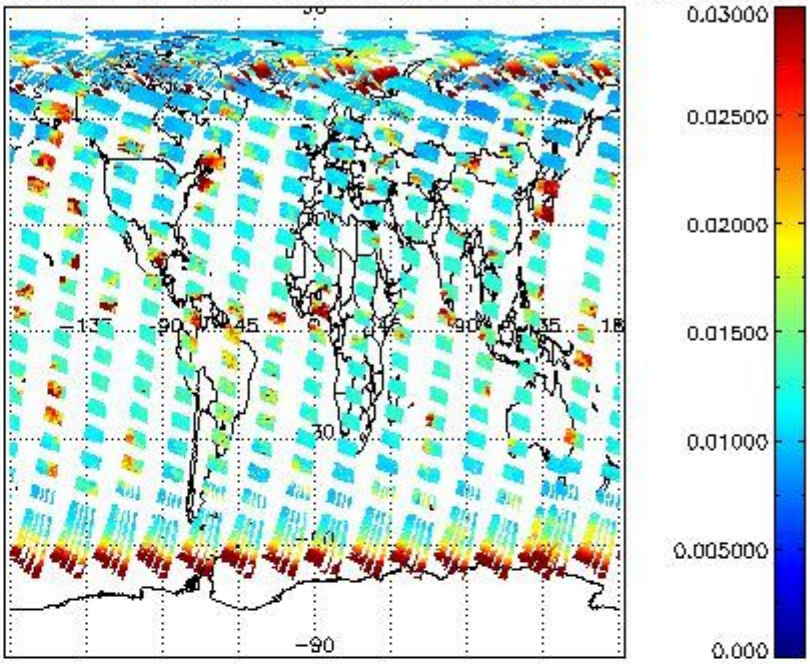
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in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



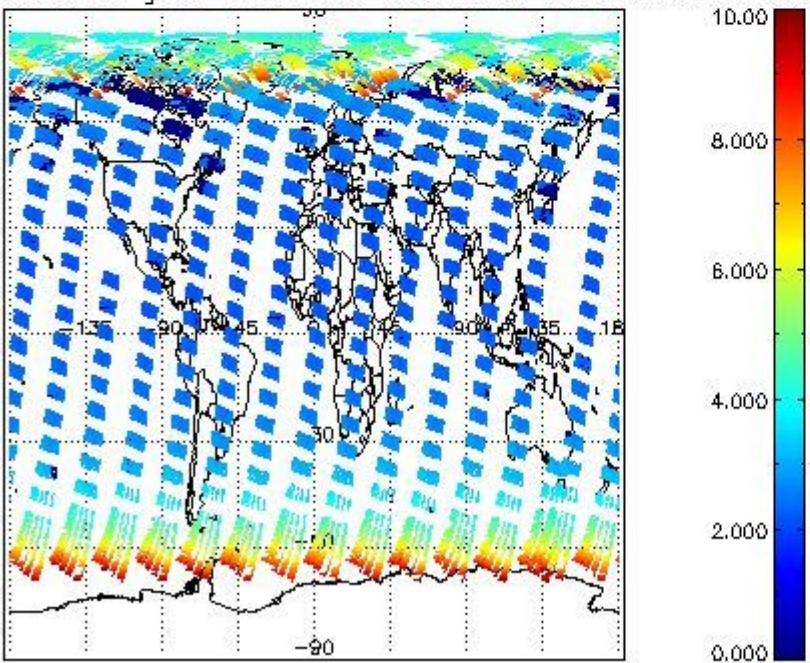
SCIOL2P\_NADUV003\_vcd for 27APR2004 00:00:00 to 28APR2004 00:00:00



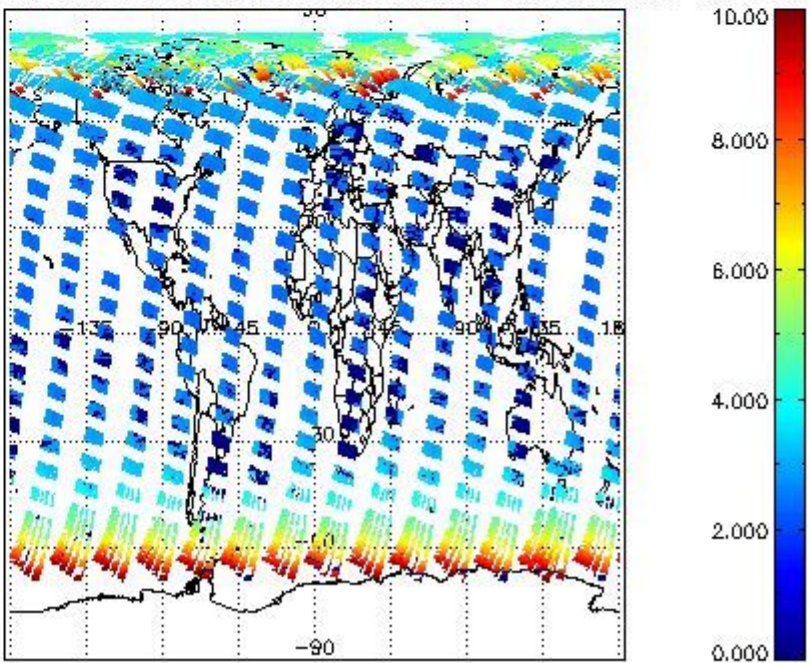
SCIOL2P\_NADUV003\_vcd\_err for 27APR2004 00:00:00 to 28APR2004 00:00:00

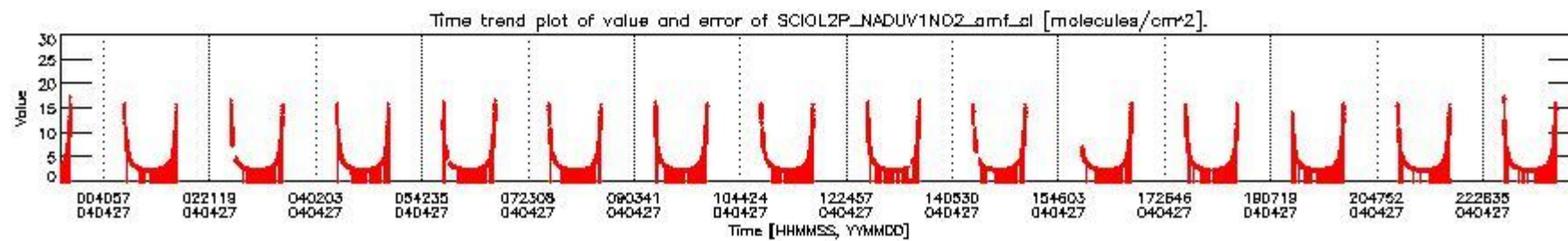
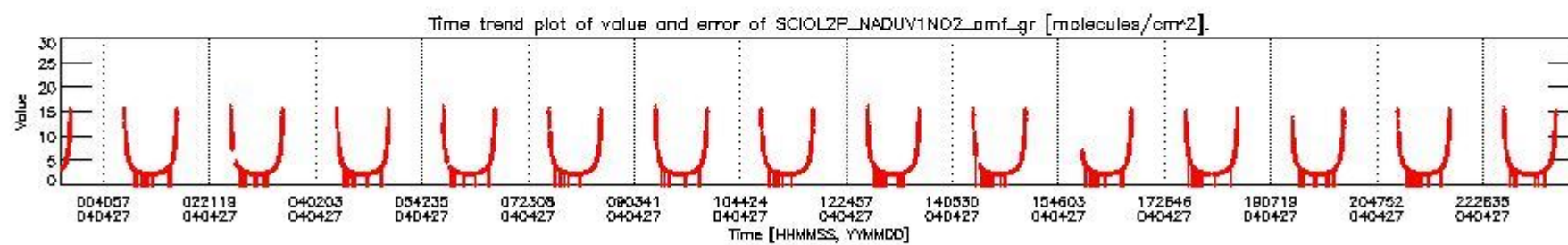
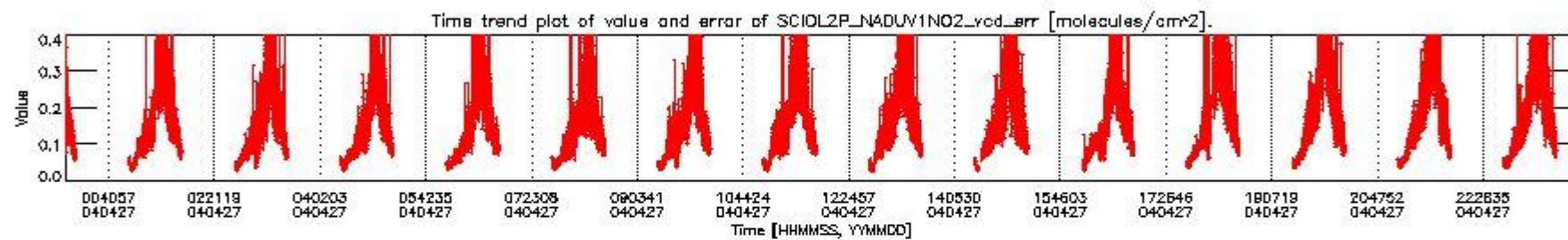
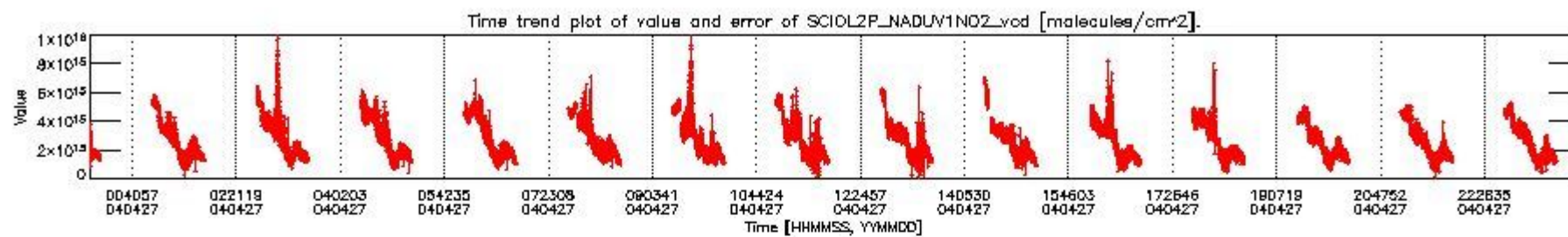


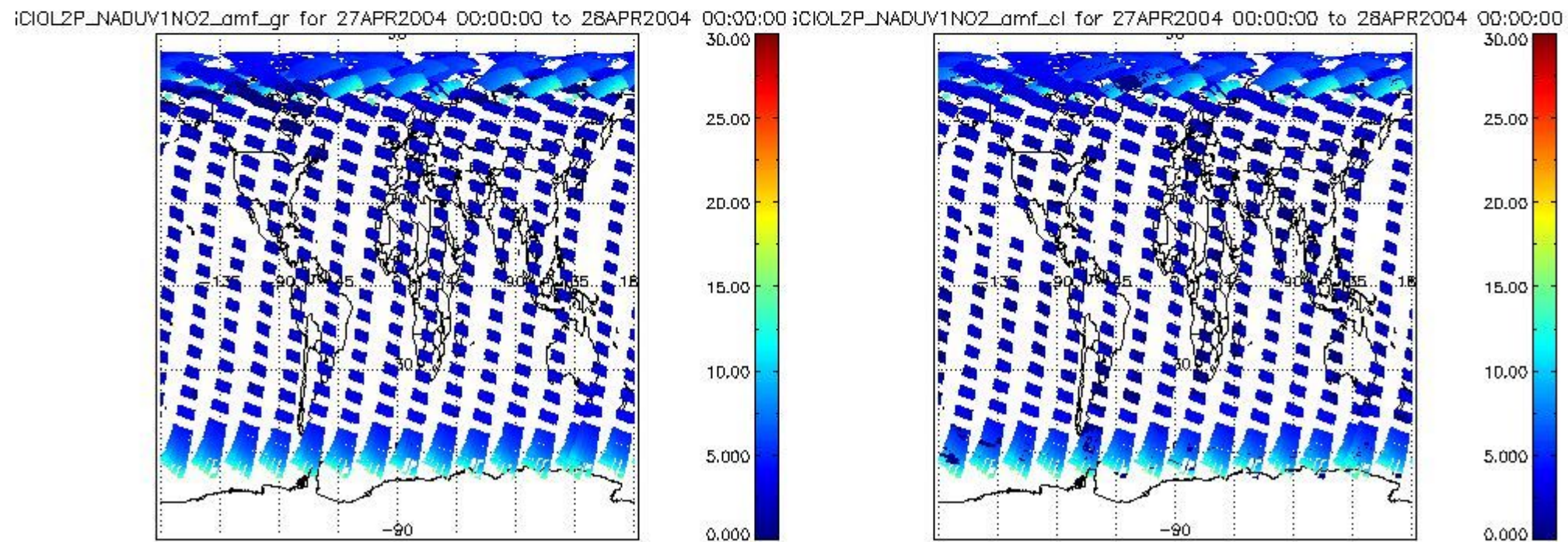
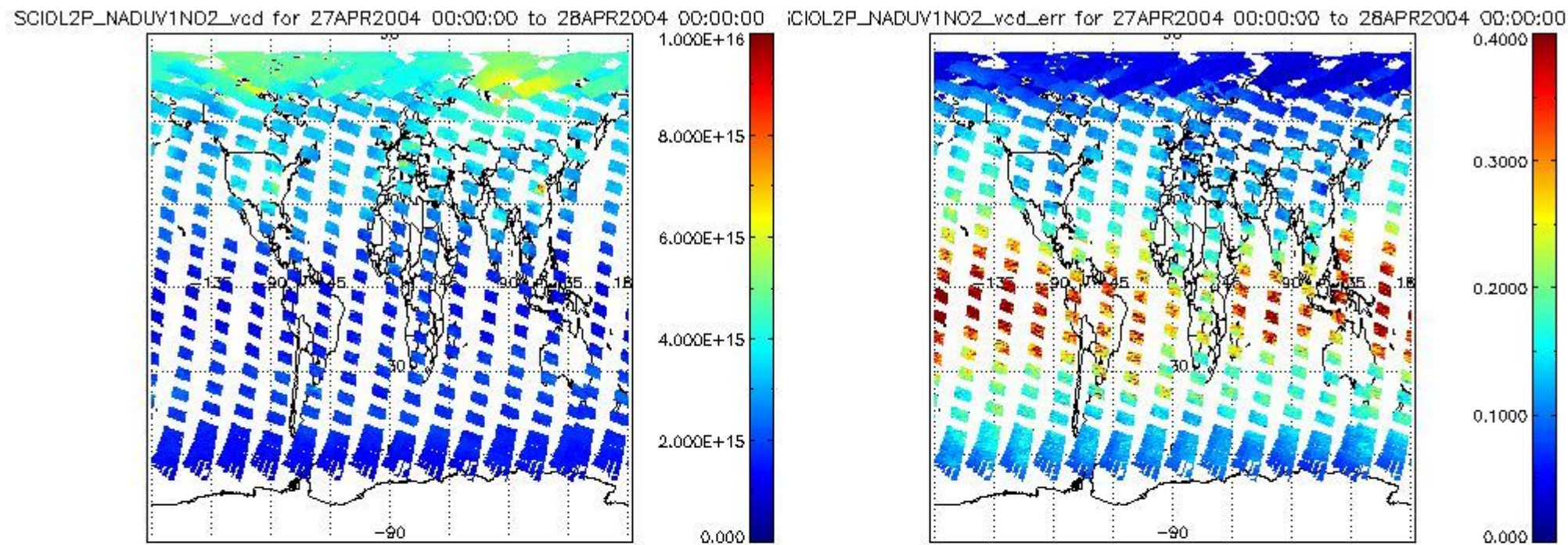
SCIOL2P\_NADUV003\_amf\_gr for 27APR2004 00:00:00 to 28APR2004 00:00:00



SCIOL2P\_NADUV003\_amf\_cl for 27APR2004 00:00:00 to 28APR2004 00:00:00







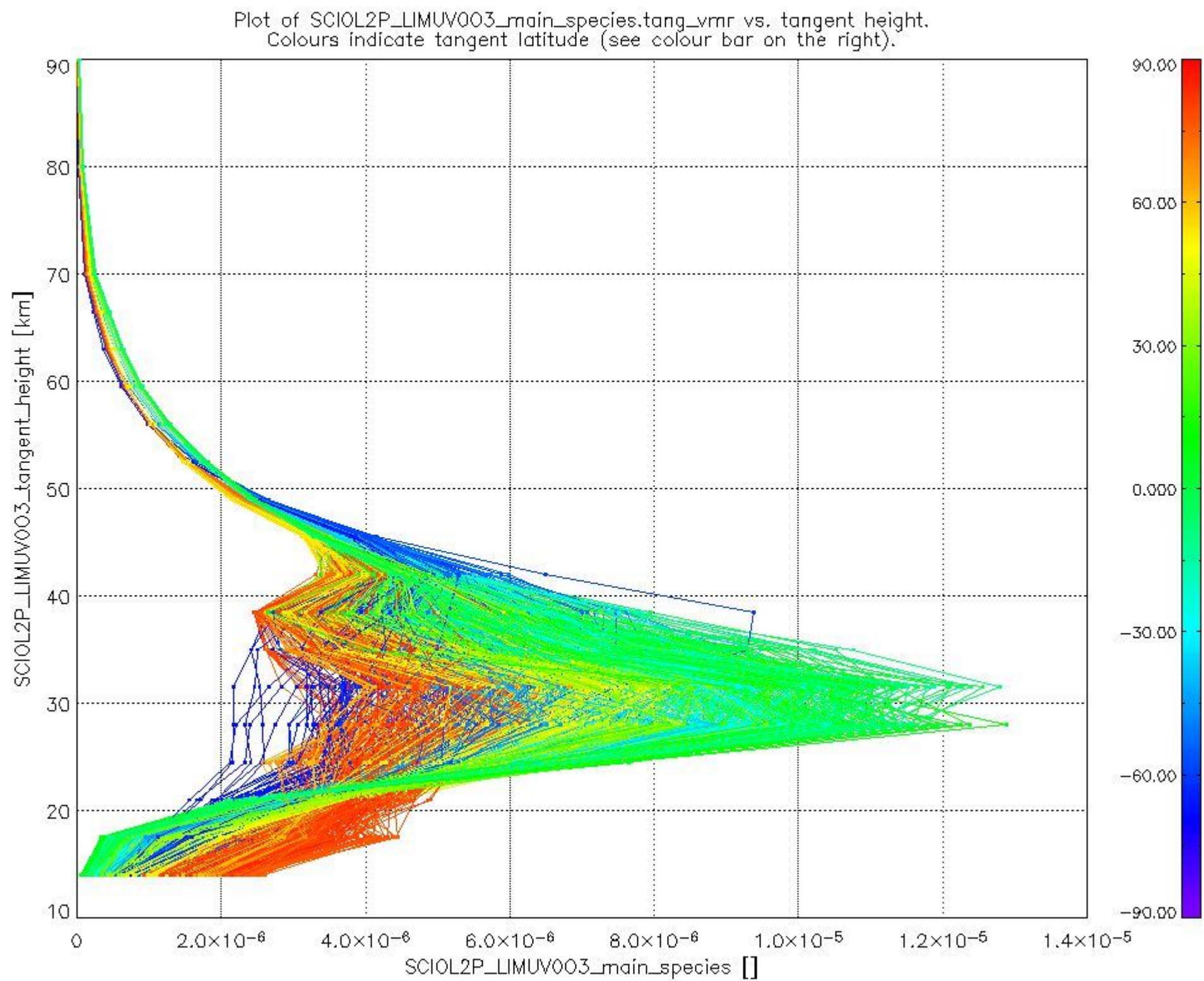
### 2.2.3 Limb

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:

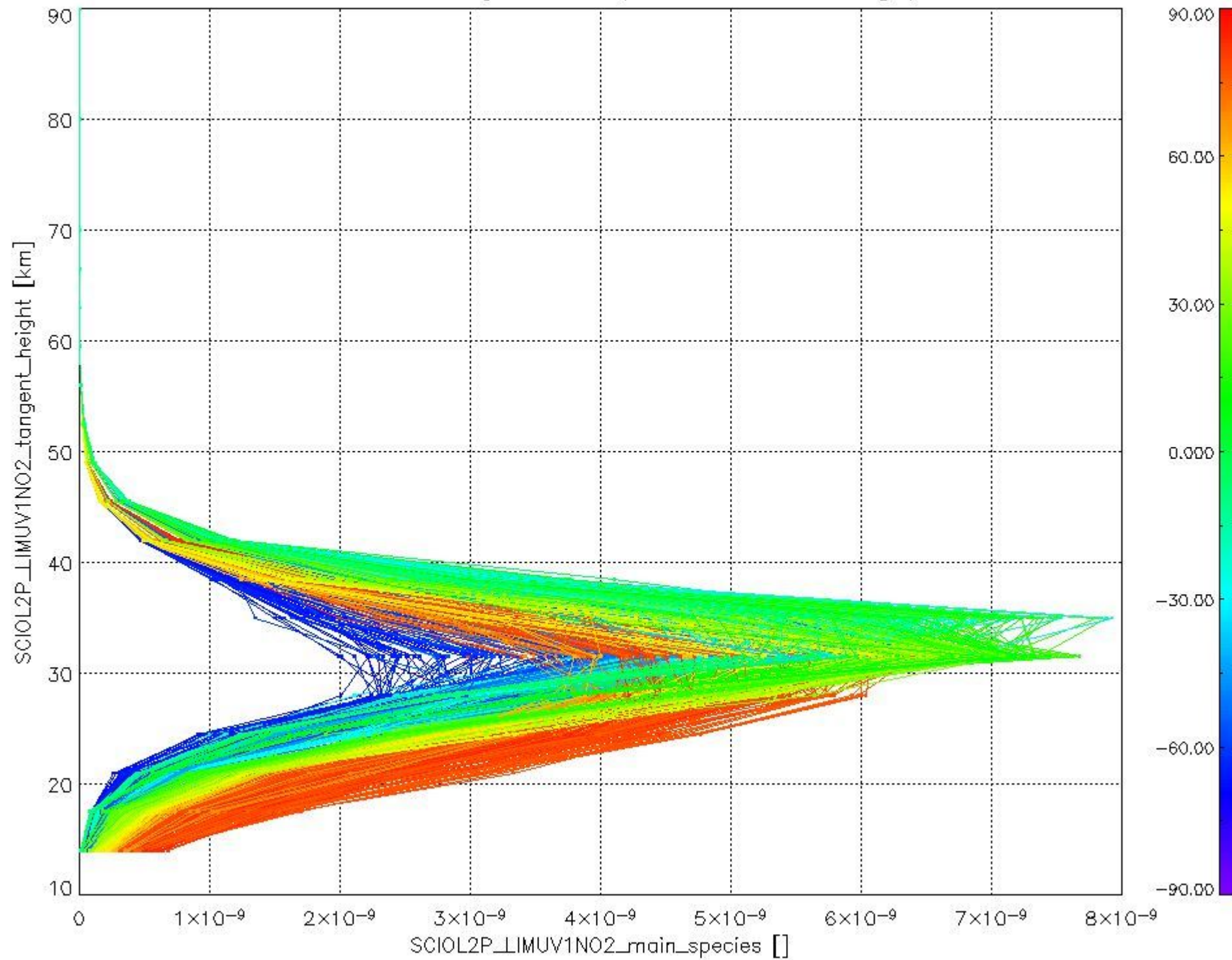
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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





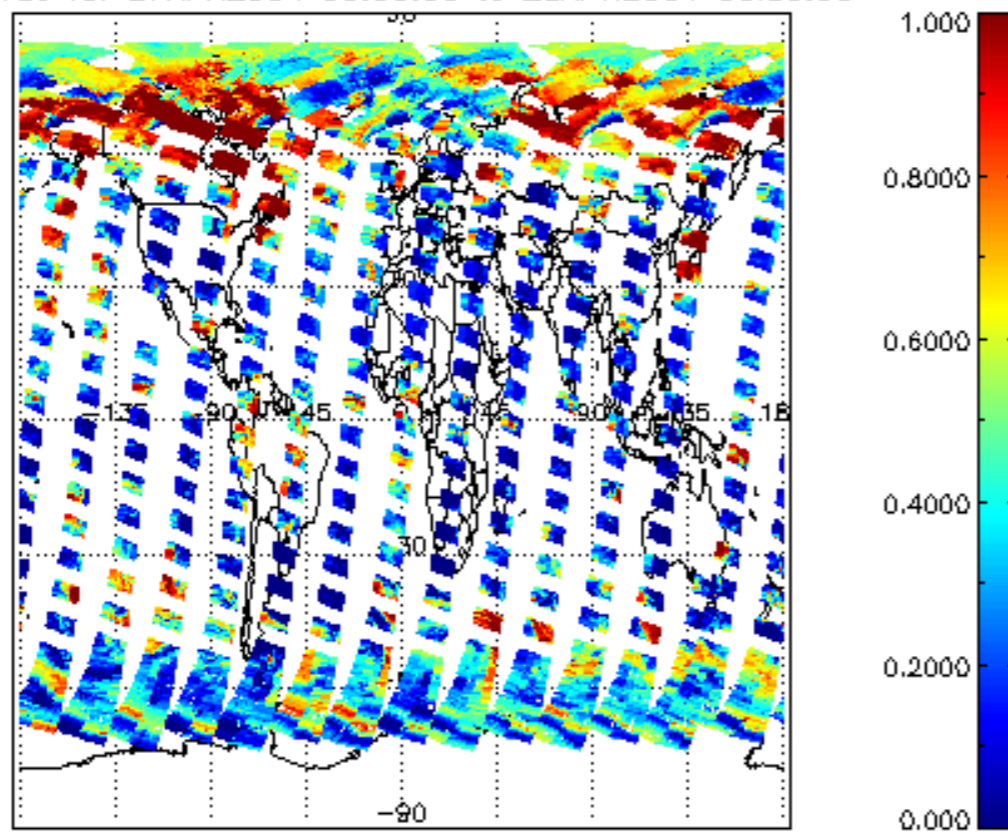
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



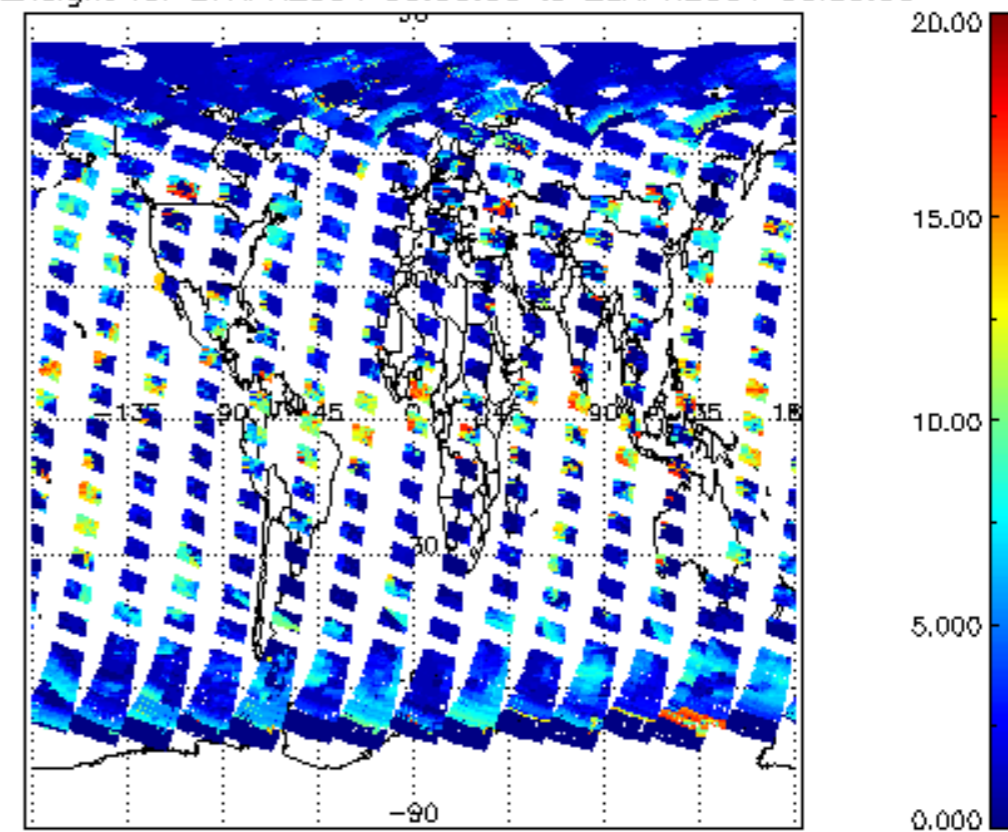
### 2.3 ADF monitoring

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

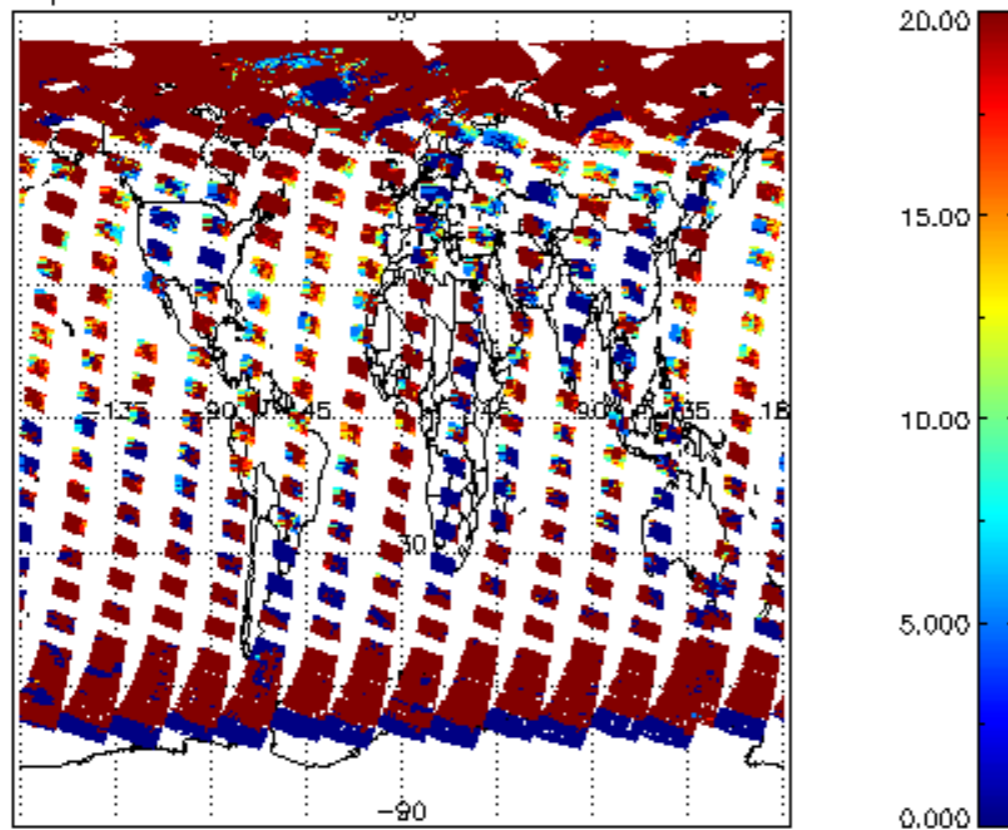
cl\_frac for 27APR2004 00:00:00 to 28APR2004 00:00:00



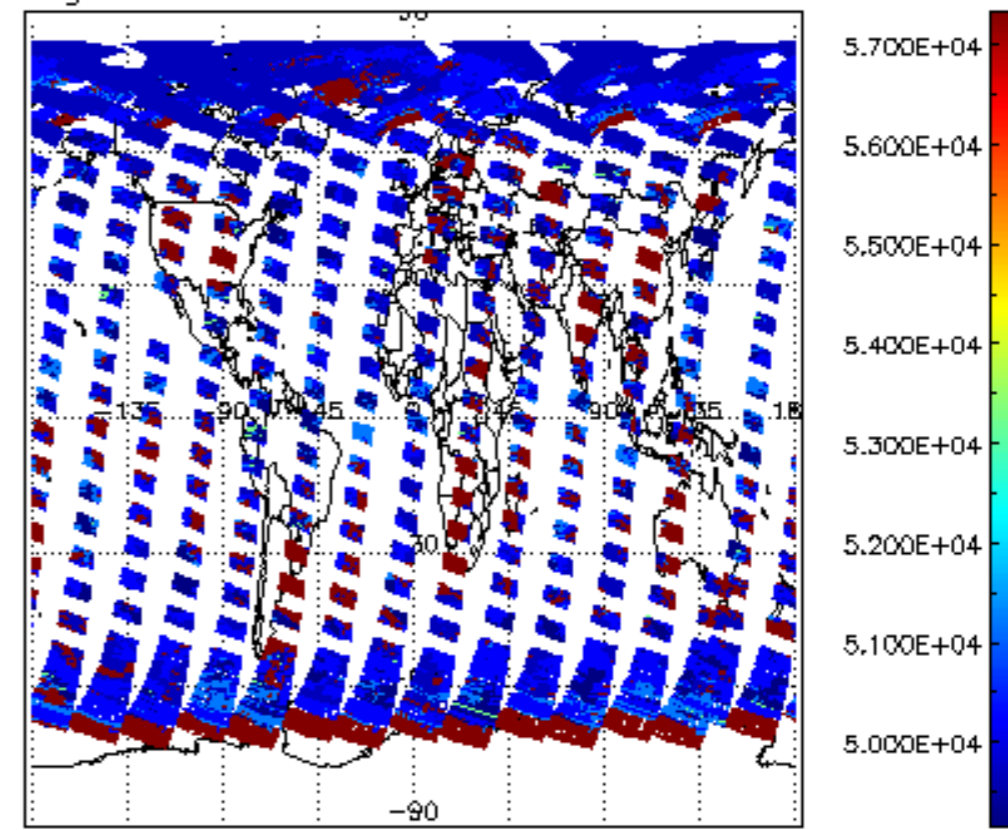
cl\_top\_height for 27APR2004 00:00:00 to 28APR2004 00:00:00

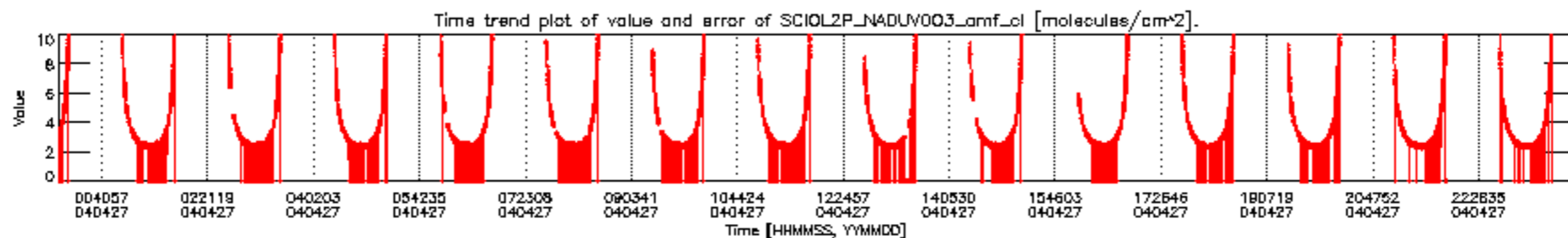
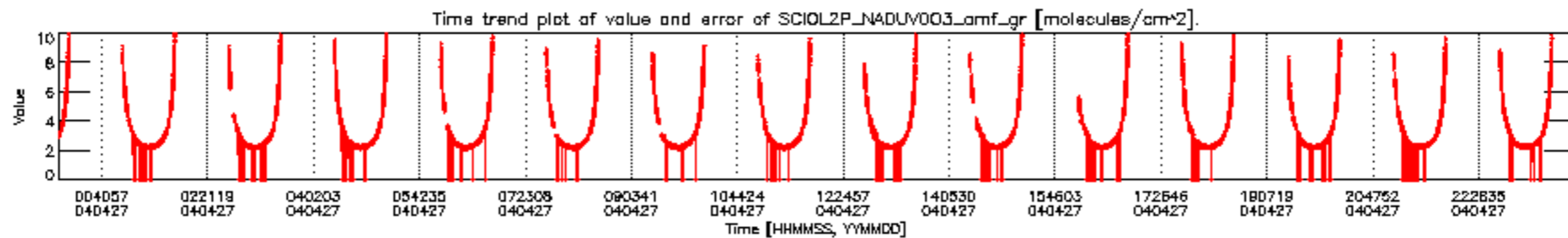
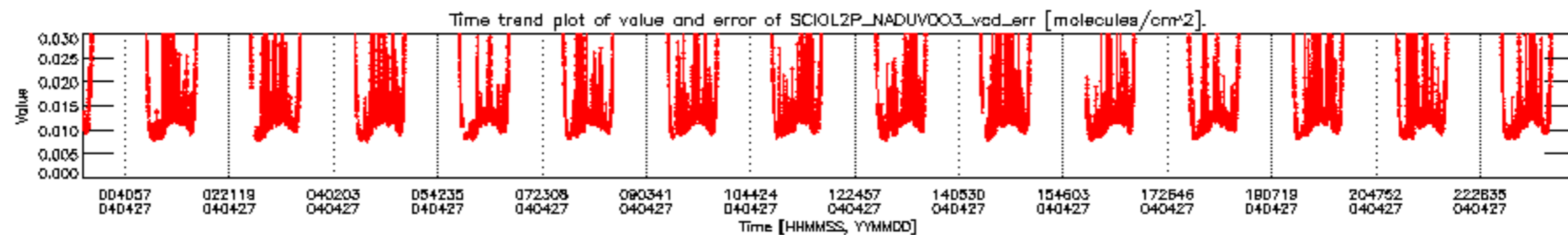
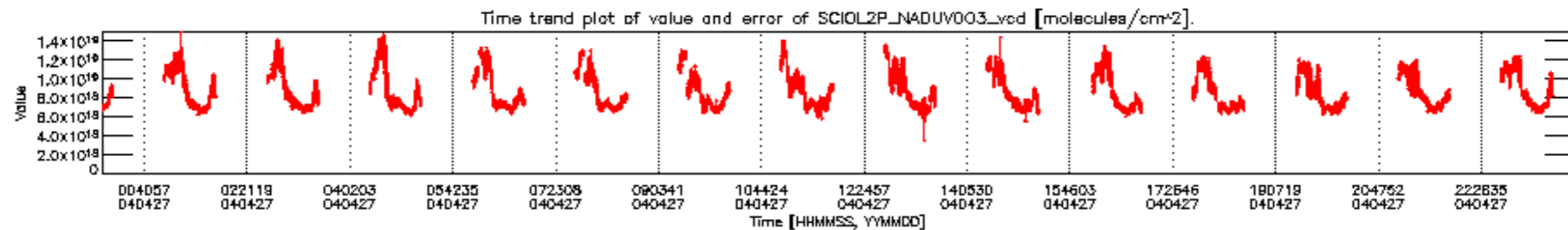


cl\_opt\_depth for 27APR2004 00:00:00 to 28APR2004 00:00:00

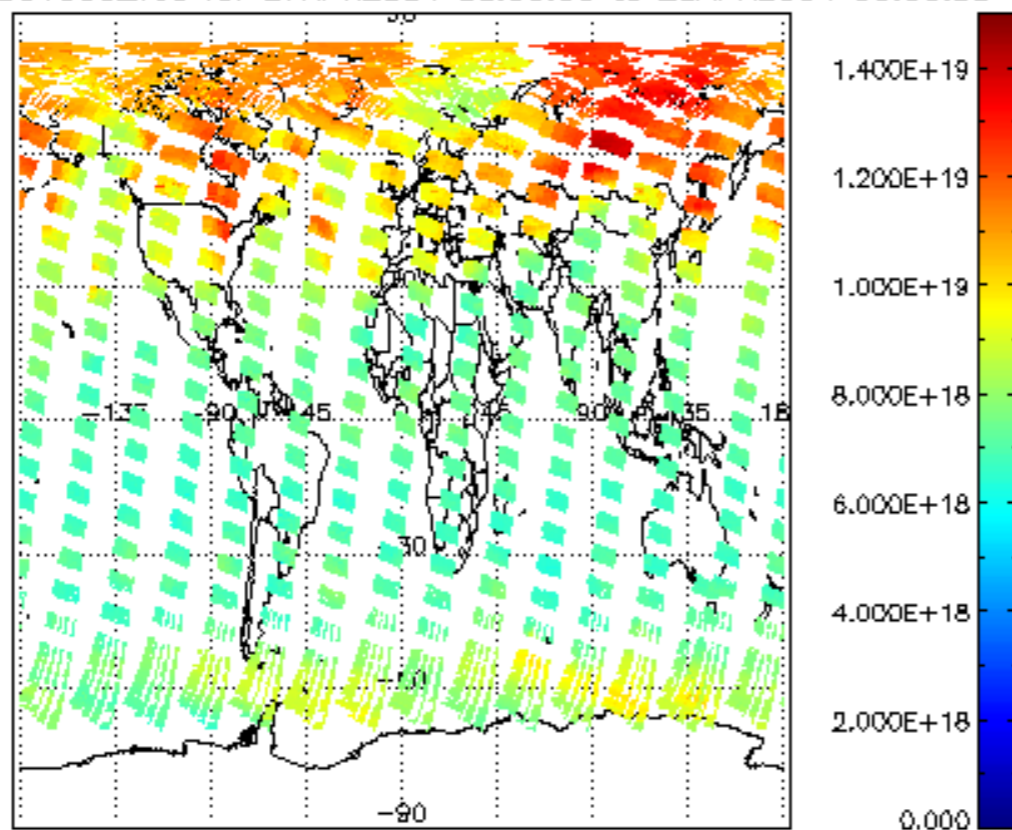


cloud\_flags for 27APR2004 00:00:00 to 28APR2004 00:00:00

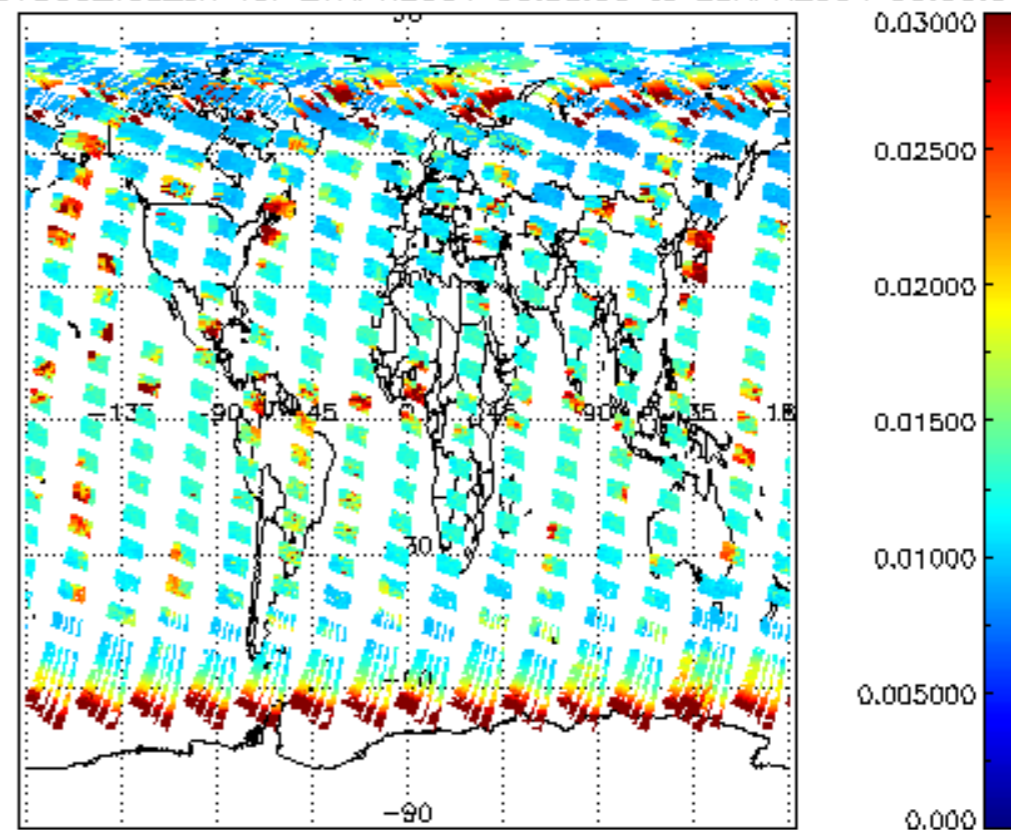




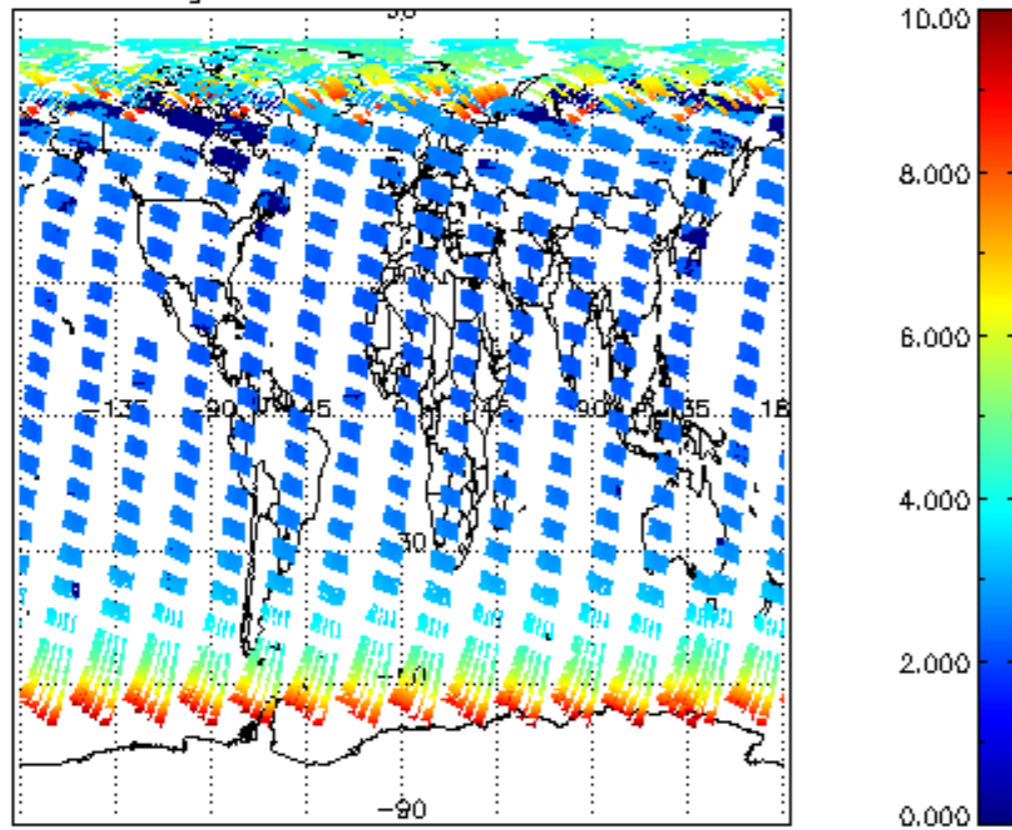
SCIOL2P\_NADUV003\_vcd for 27APR2004 00:00:00 to 28APR2004 00:00:00



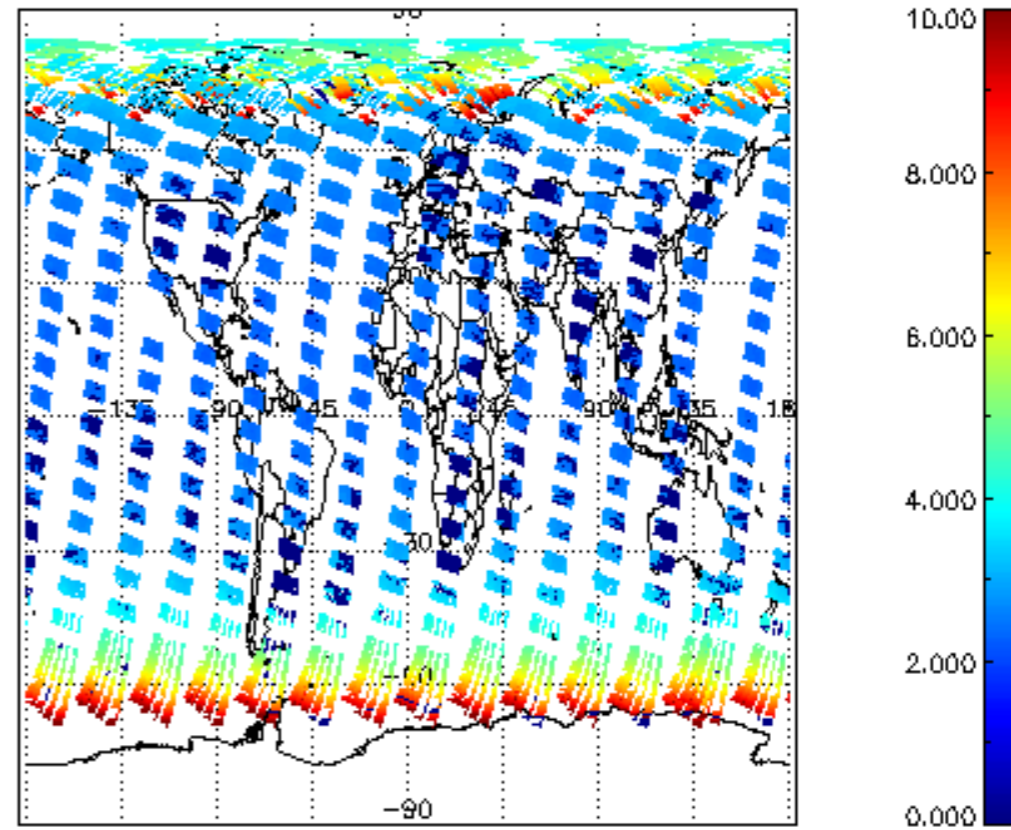
SCIOL2P\_NADUV003\_vcd\_err for 27APR2004 00:00:00 to 28APR2004 00:00:00

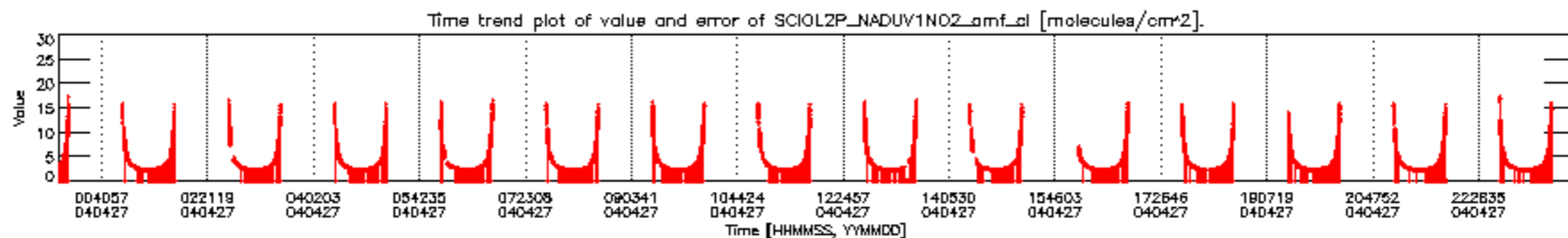
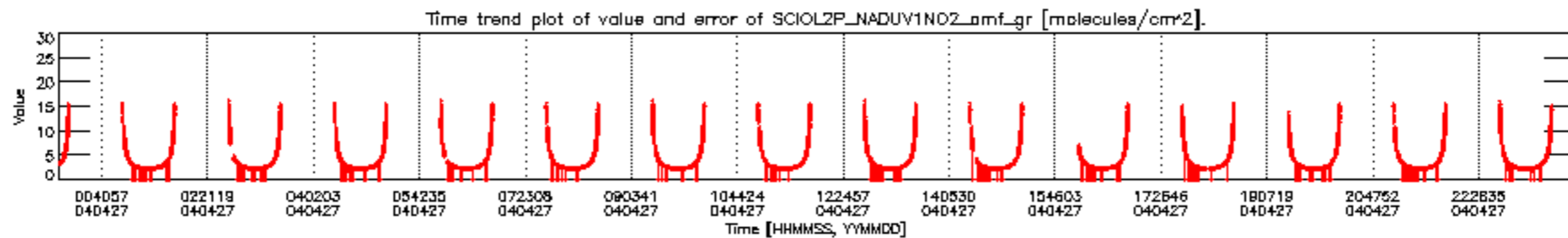
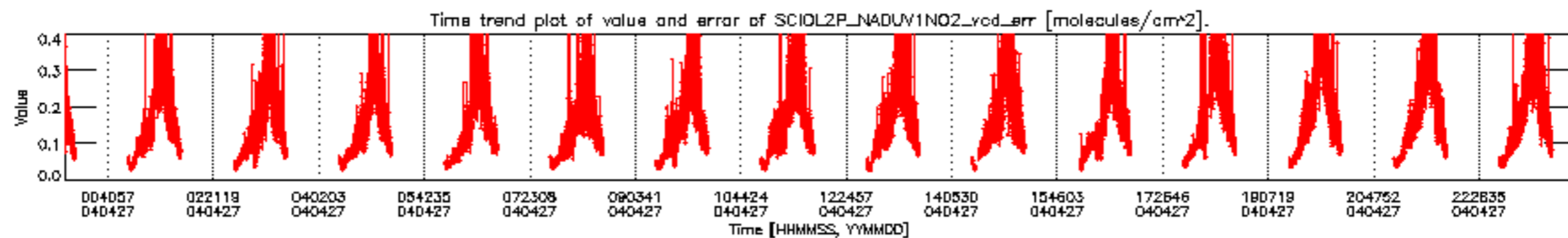
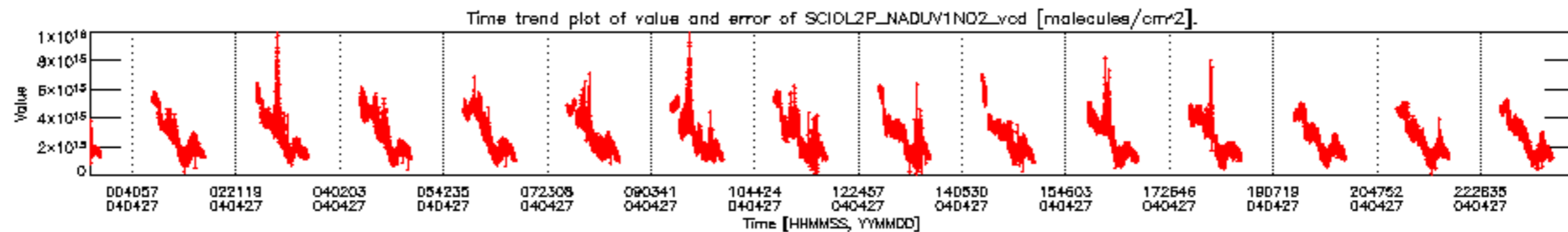


SCIOL2P\_NADUV003\_amf\_gr for 27APR2004 00:00:00 to 28APR2004 00:00:00

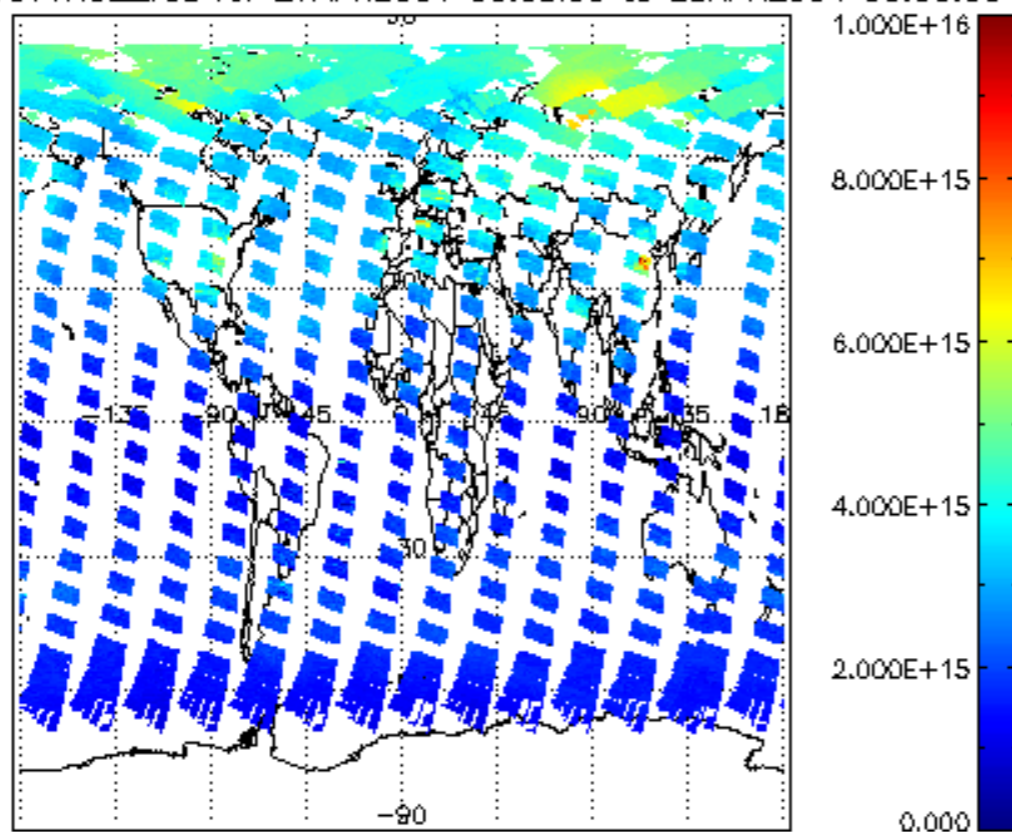


SCIOL2P\_NADUV003\_amf\_cl for 27APR2004 00:00:00 to 28APR2004 00:00:00

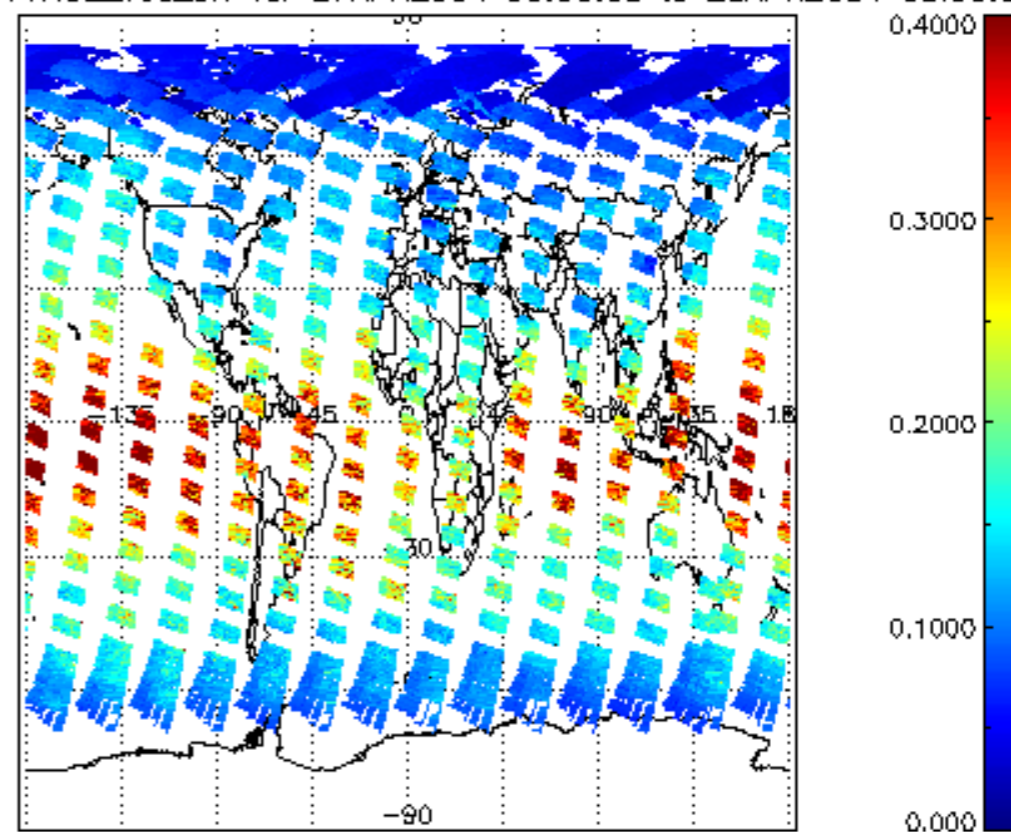




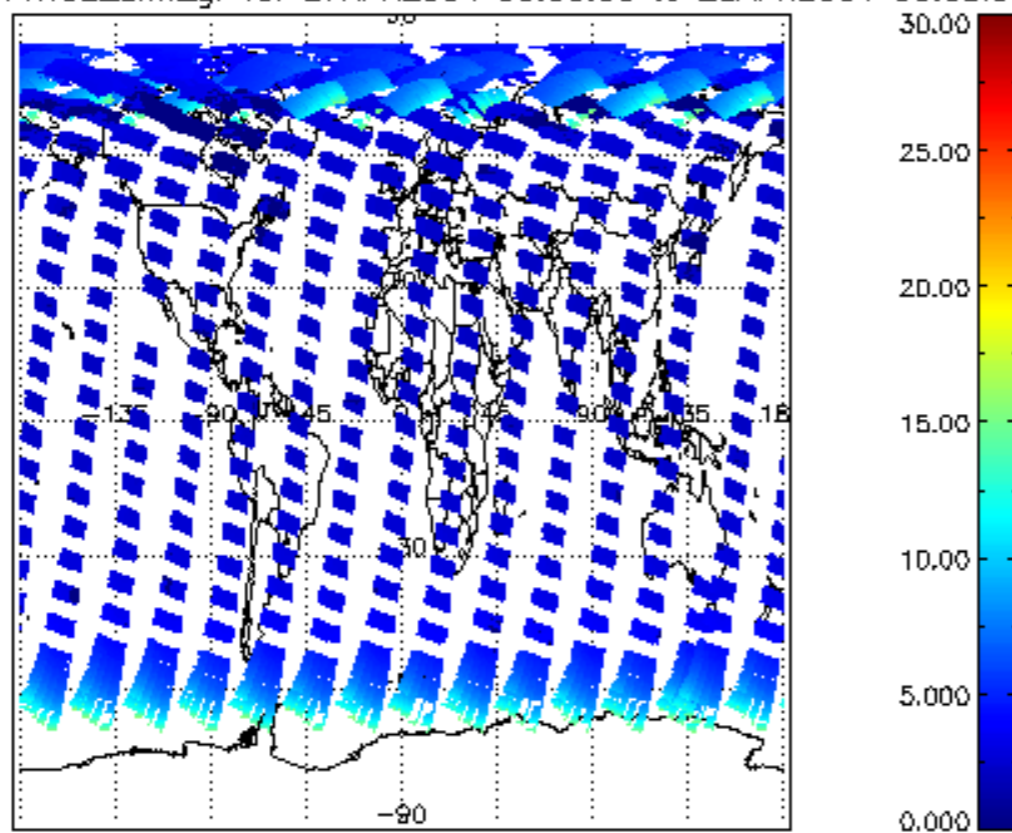
SCIOL2P\_NADUV1NO2\_vcd for 27APR2004 00:00:00 to 28APR2004 00:00:00



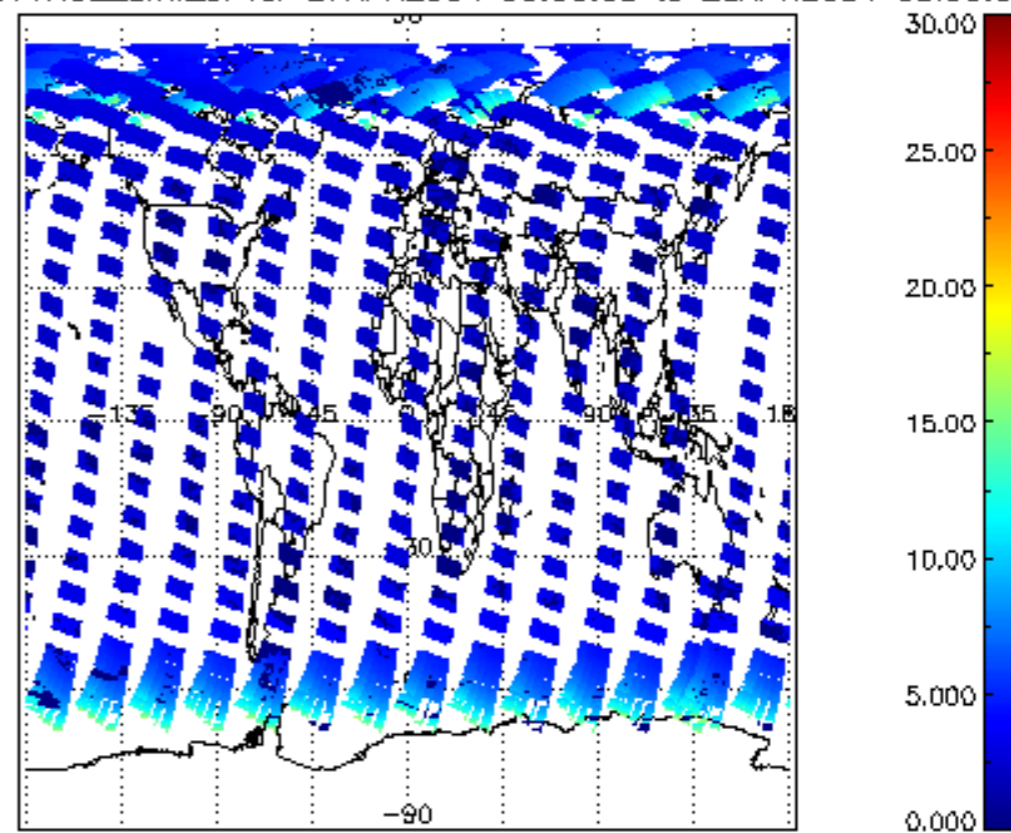
iCIOL2P\_NADUV1NO2\_vcd\_err for 27APR2004 00:00:00 to 28APR2004 00:00:00



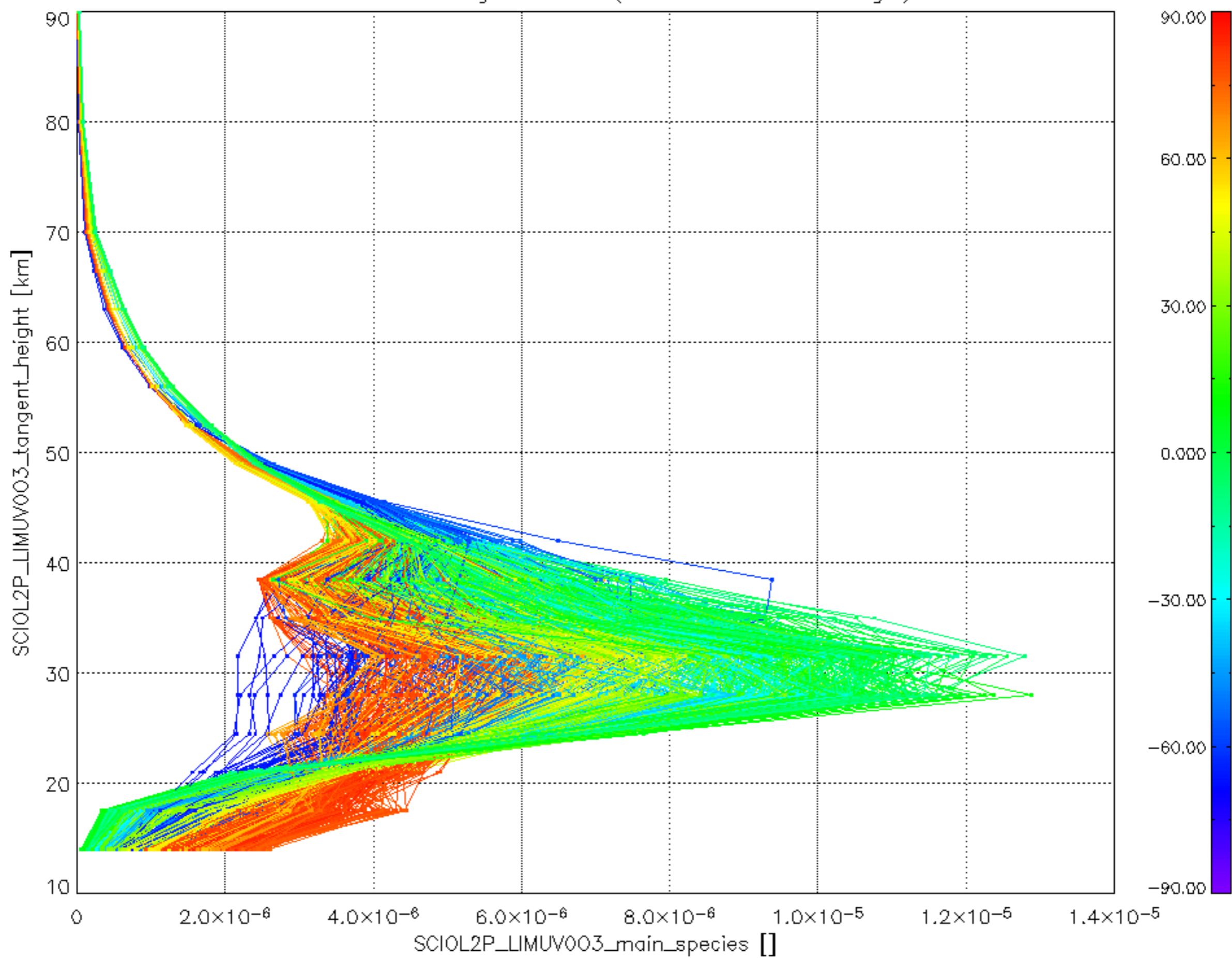
iCIOL2P\_NADUV1NO2\_amf\_gr for 27APR2004 00:00:00 to 28APR2004 00:00:00



iCIOL2P\_NADUV1NO2\_amf\_cl for 27APR2004 00:00:00 to 28APR2004 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).

