

## 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	13AUG2008 09:12:10
Data source version	SCIA-OL/3.01-R
Processing scope for products	10APR2004 00:00:00 to 11APR2004 00:00:00
Start time of first product within scope	09APR2004 23:50:42
Stop time of last product within scope	11APR2004 00:15:16
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__2PRDPA20040409_235042_000033772025_00460_11035_7554.N1</a>	09APR2004 23:50:42	10APR2004 00:46:59	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20040410_013117_000033492025_00461_11036_7563.N1</a>	10APR2004 01:31:17	10APR2004 02:27:06	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20040410_031153_000033772025_00462_11037_7208.N1</a>	10APR2004 03:11:53	10APR2004 04:08:10	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20040410_045228_000033492025_00463_11038_7534.N1</a>	10APR2004 04:52:28	10APR2004 05:48:17	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20040410_063304_000033772025_00464_11039_7235.N1</a>	10APR2004 06:33:04	10APR2004 07:29:21	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20040410_081339_000033492025_00465_11040_7293.N1</a>	10APR2004 08:13:39	10APR2004 09:09:29	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20040410_095415_000033772025_00466_11041_7457.N1</a>	10APR2004 09:54:15	10APR2004 10:50:32	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20040410_113450_000033492025_00467_11042_7187.N1</a>	10APR2004 11:34:50	10APR2004 12:30:40	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20040410_131526_000033772025_00468_11043_7560.N1</a>	10APR2004 13:15:26	10APR2004 14:11:43	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20040410_145601_000033492025_00469_11044_7592.N1</a>	10APR2004 14:56:01	10APR2004 15:51:51	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20040410_163637_000033772025_00470_11045_7579.N1</a>	10APR2004 16:36:37	10APR2004 17:32:54	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20040410_181719_000033562025_00471_11046_7449.N1</a>	10APR2004 18:17:19	10APR2004 19:13:15	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20040410_195808_000032932025_00472_11047_7417.N1</a>	10APR2004 19:58:08	10APR2004 20:53:01	0	GOOD
13	<a href="#">SCI_OL__2PRDPA20040410_213824_000033492025_00473_11048_7196.N1</a>	10APR2004 21:38:24	10APR2004 22:34:13	0	GOOD
14	<a href="#">SCI_OL__2PRDPA20040410_231859_000033772025_00474_11049_7320.N1</a>	10APR2004 23:18:59	11APR2004 00:15:16	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: 117780

Total number of cloud data DSRs with good quality flag (=0): 117780 (100.0 %)

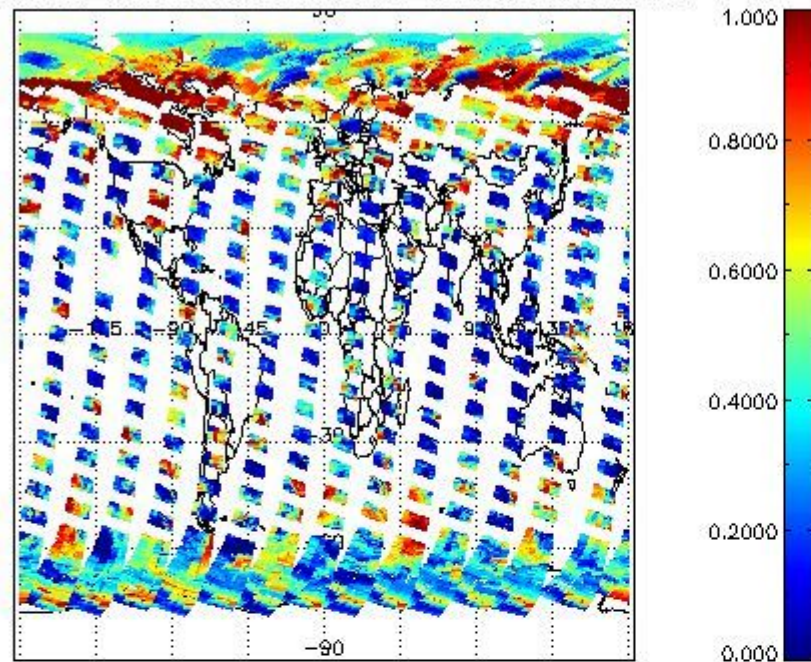
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	117780	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	117780	0.21740	0.25000	0.12500	0.50000	0.085689	s
CL_FRAC	117780	0.44328	0.42830	0.0000	1.0000	0.31215	-
CL_FRAC_ERR	117780	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	117780	6.9567	8.0000	4.0000	16.000	2.7420	
PMD_READ_CL[0]	117780	0.53285	0.0000	0.0000	16.000	1.5877	-
PMD_READ_CL[1]	117780	0.72971	0.0000	0.0000	16.000	2.0367	-
CL_TOP_HEIGHT	107980	3.6279	1.7822	0.0000	17.000	3.8271	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	107980	57.190	49.637	0.0000	101.00	40.208	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	117780	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	117780	11000111	11000010	11000000	11100000	2645.1	flags
AERO_ABSO_IND	117780	0.78201	0.74853	-4.3419	17.482	1.0751	
AERO_IND_DIAG	117780	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	117780	01101001	11000000	00000000	11000000	24456.	flags

### Time and geolocation plots:

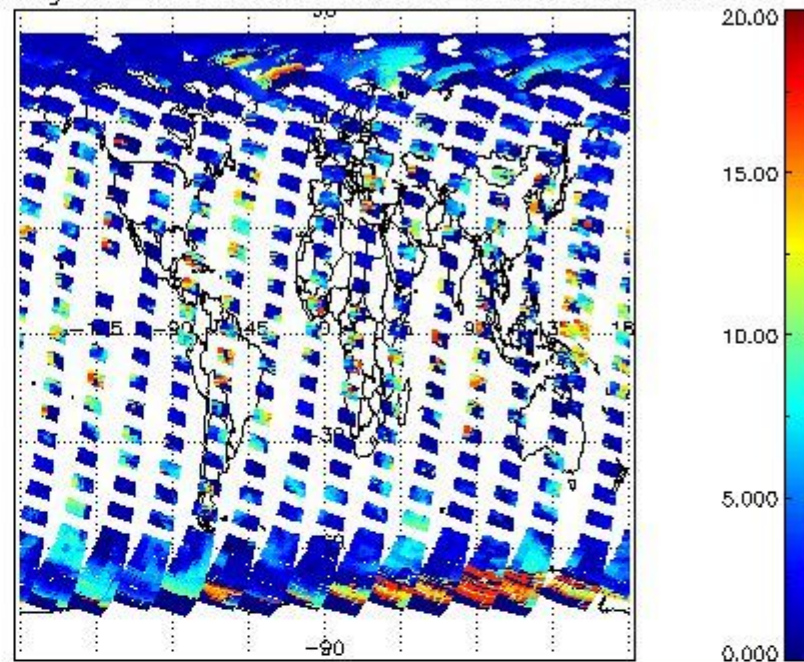
Plots are available for the following parameters:

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

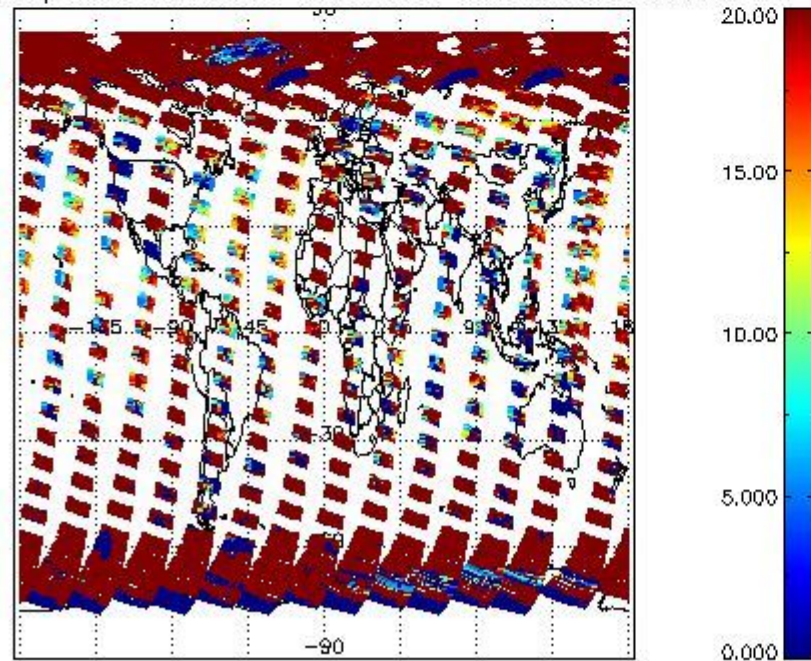
cL\_frac for 10APR2004 00:00:00 to 11APR2004 00:00:00



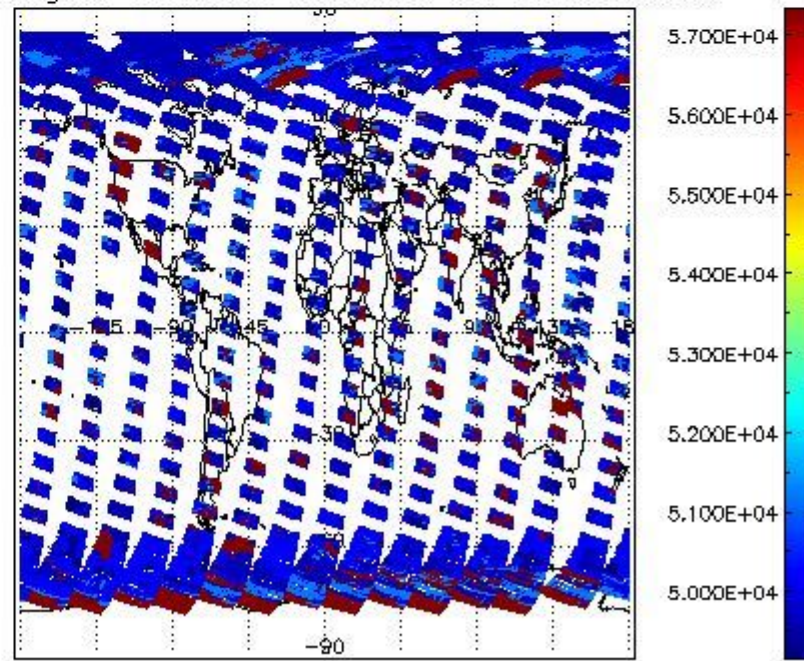
cL\_top\_height for 10APR2004 00:00:00 to 11APR2004 00:00:00



cL\_opt\_depth for 10APR2004 00:00:00 to 11APR2004 00:00:00



cloud\_flags for 10APR2004 00:00:00 to 11APR2004 00:00:00



## 2.2.2 Nadir

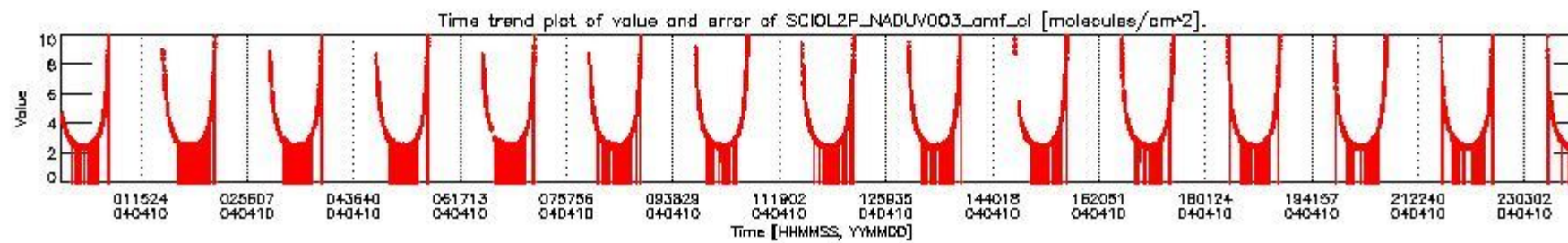
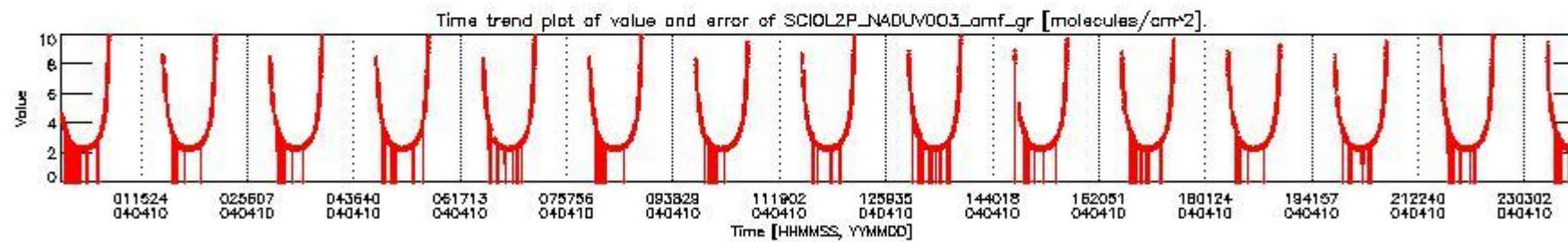
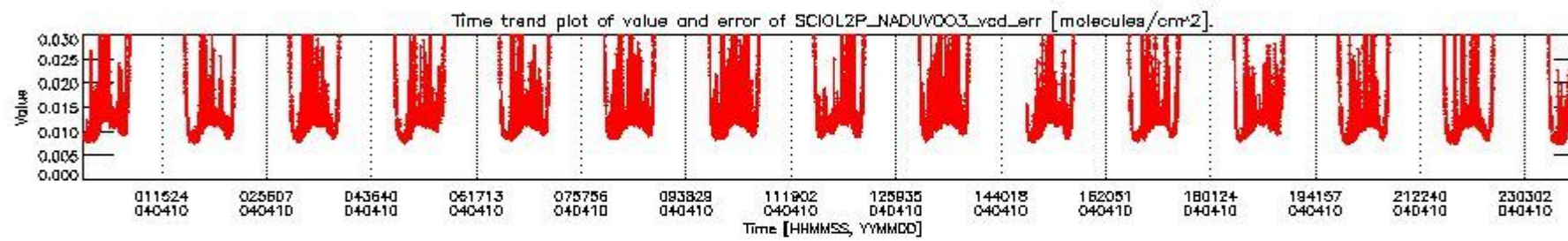
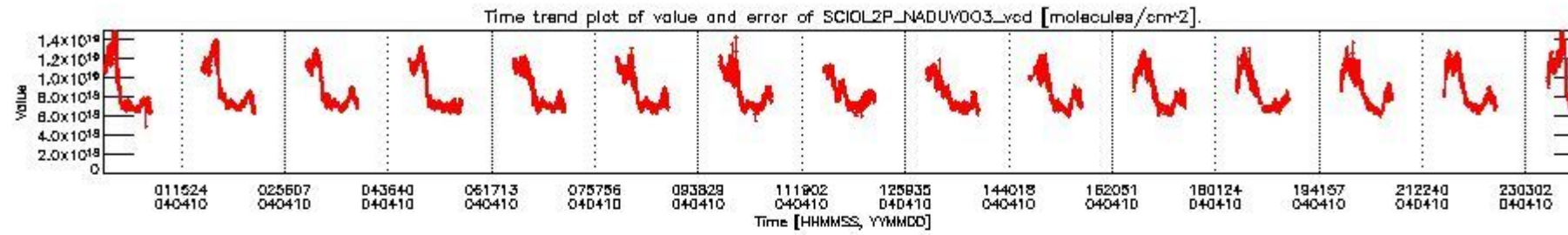
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

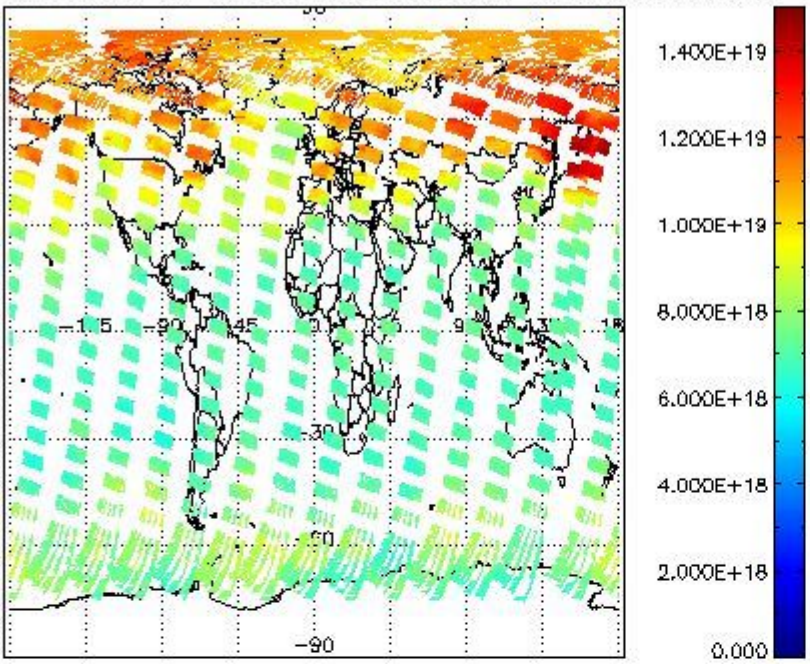
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

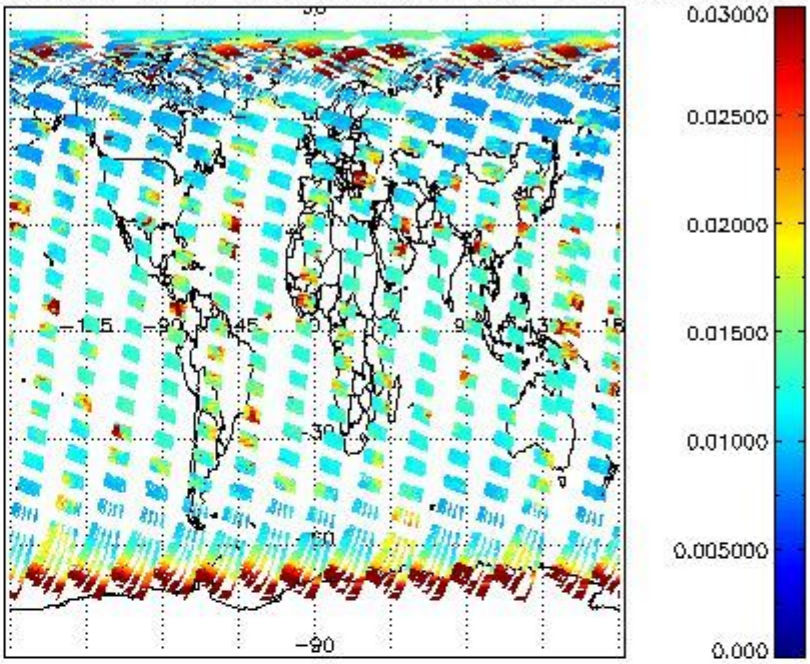
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in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



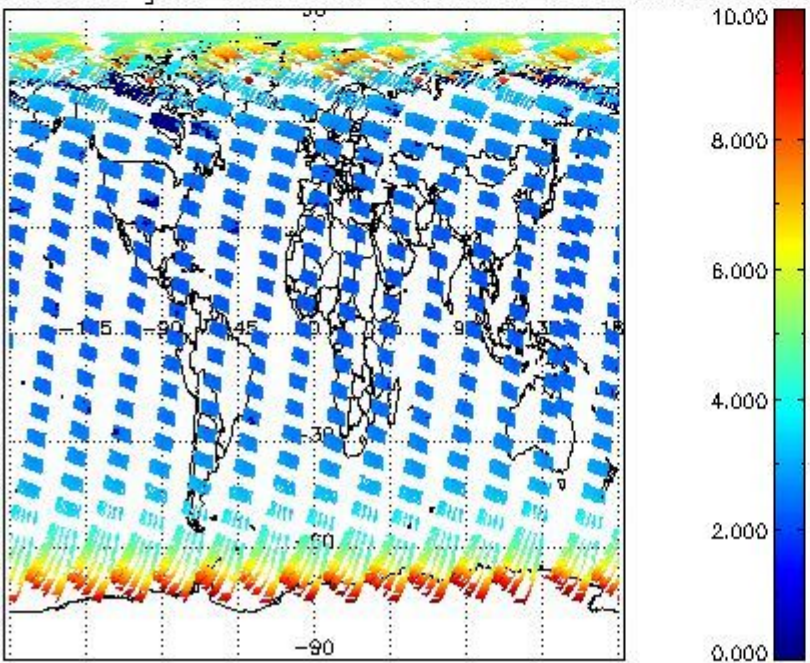
SCIOL2P\_NADUV003\_vcd for 10APR2004 00:00:00 to 11APR2004 00:00:00



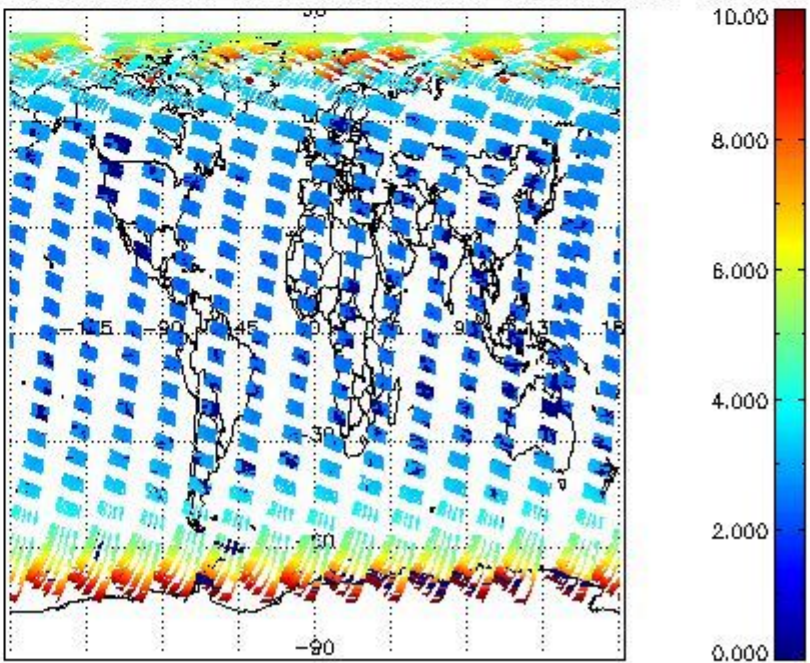
SCIOL2P\_NADUV003\_vcd\_err for 10APR2004 00:00:00 to 11APR2004 00:00:00

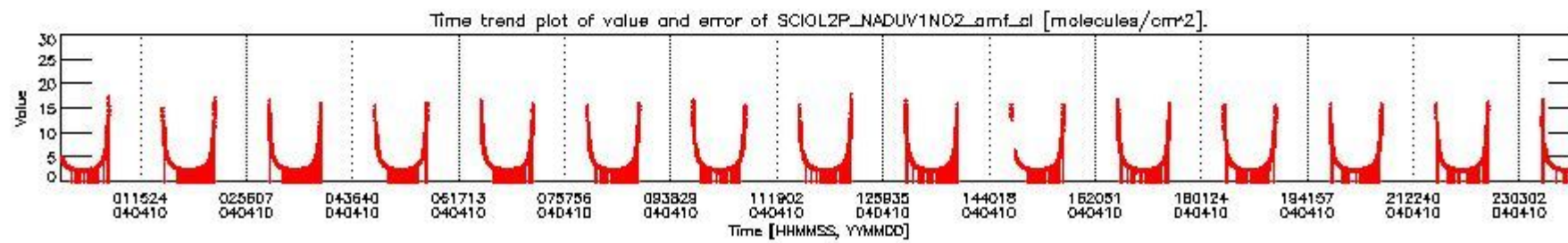
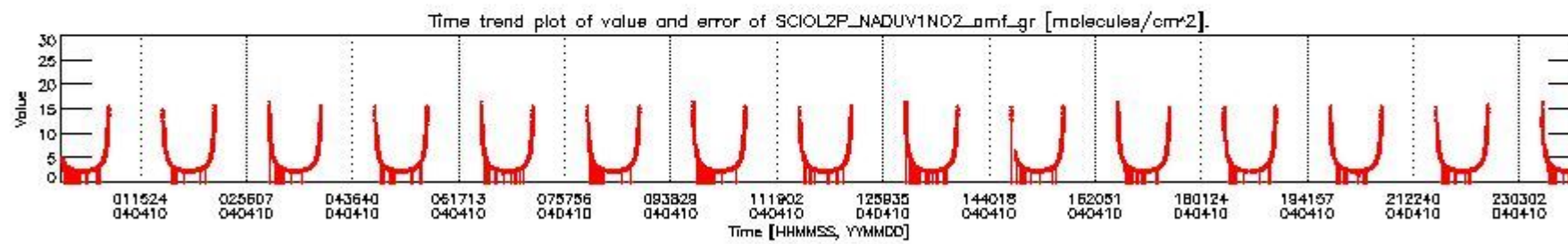
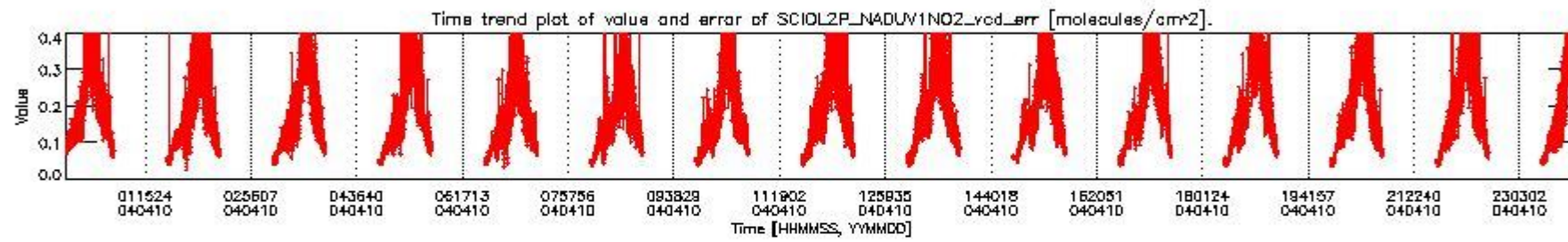
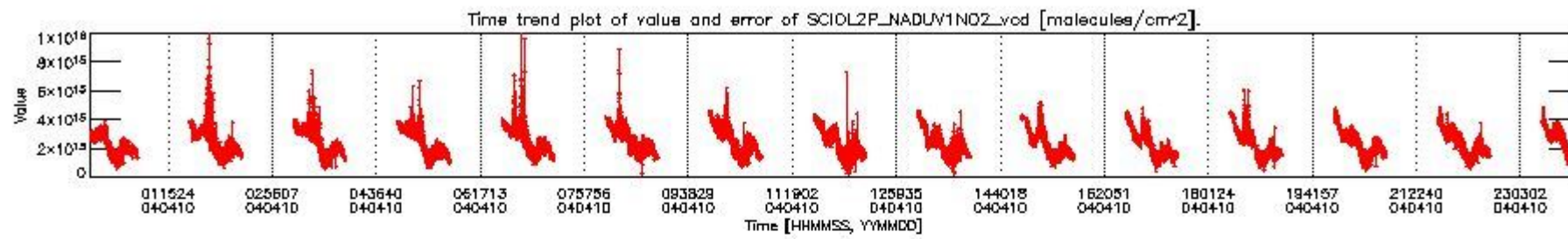


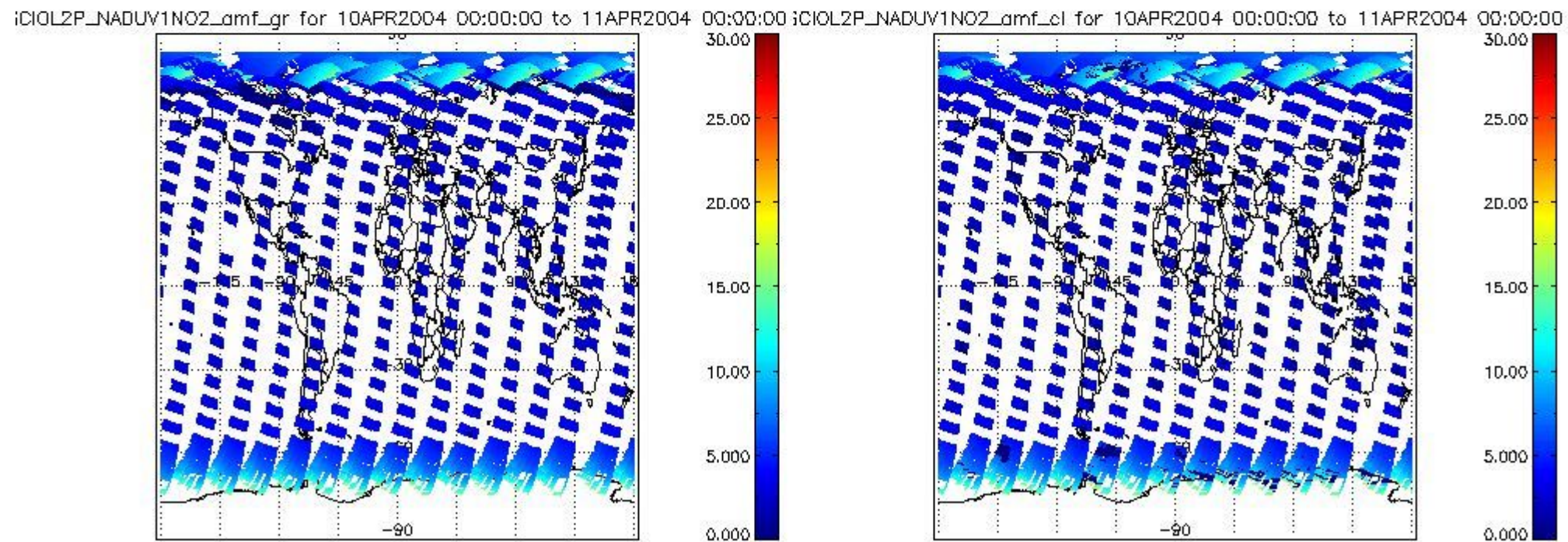
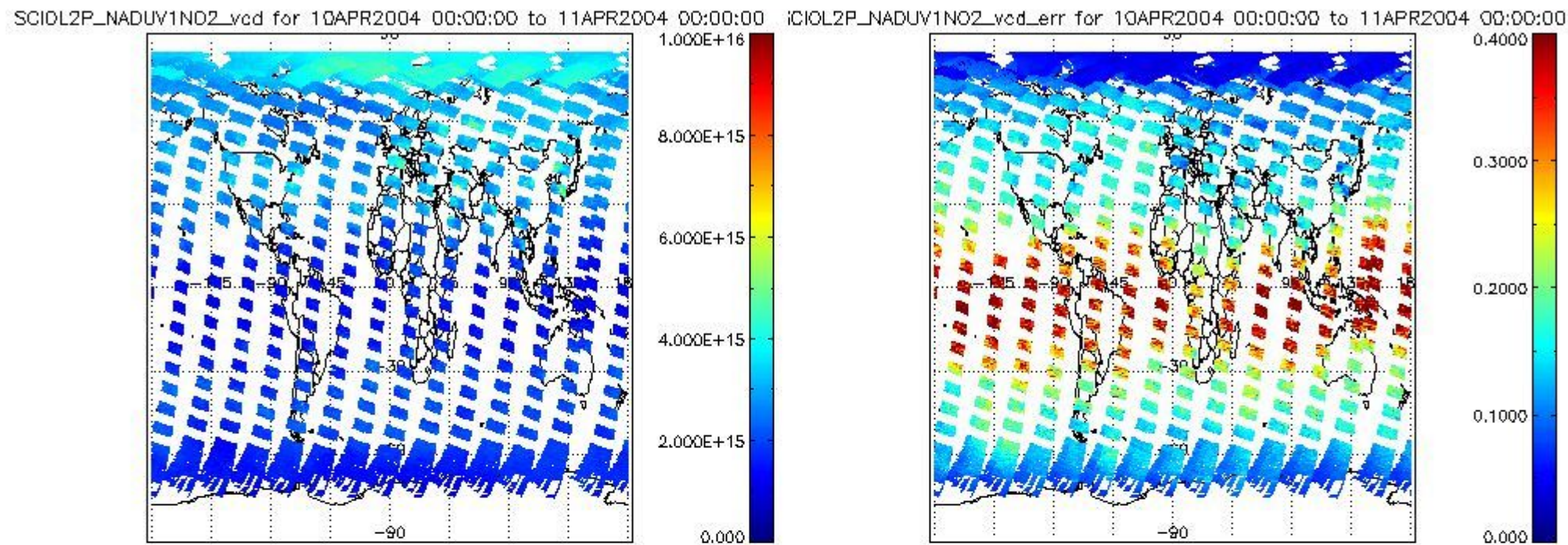
SCIOL2P\_NADUV003\_amf\_gr for 10APR2004 00:00:00 to 11APR2004 00:00:00



SCIOL2P\_NADUV003\_amf\_cl for 10APR2004 00:00:00 to 11APR2004 00:00:00







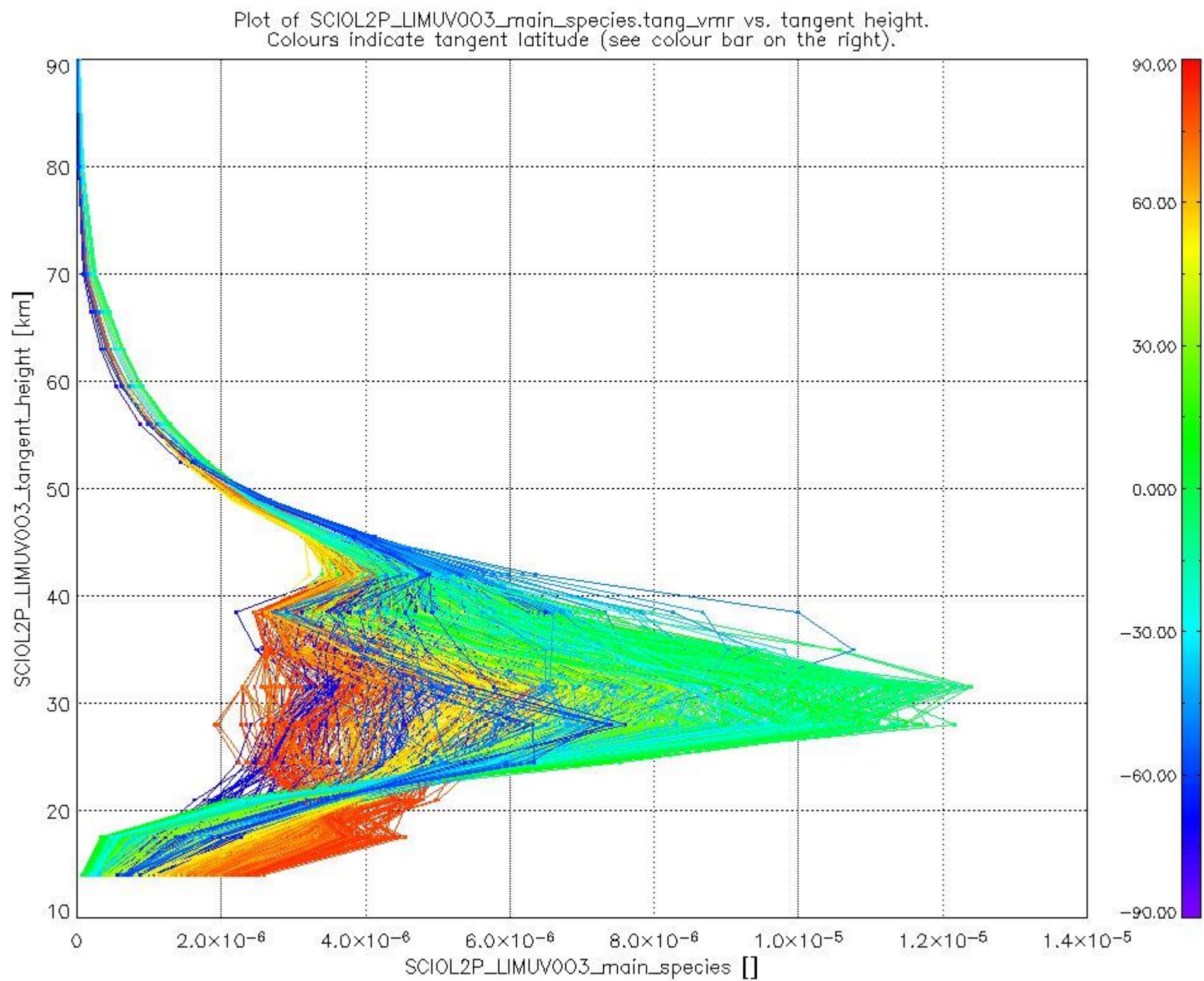
### 2.2.3 Limb

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:

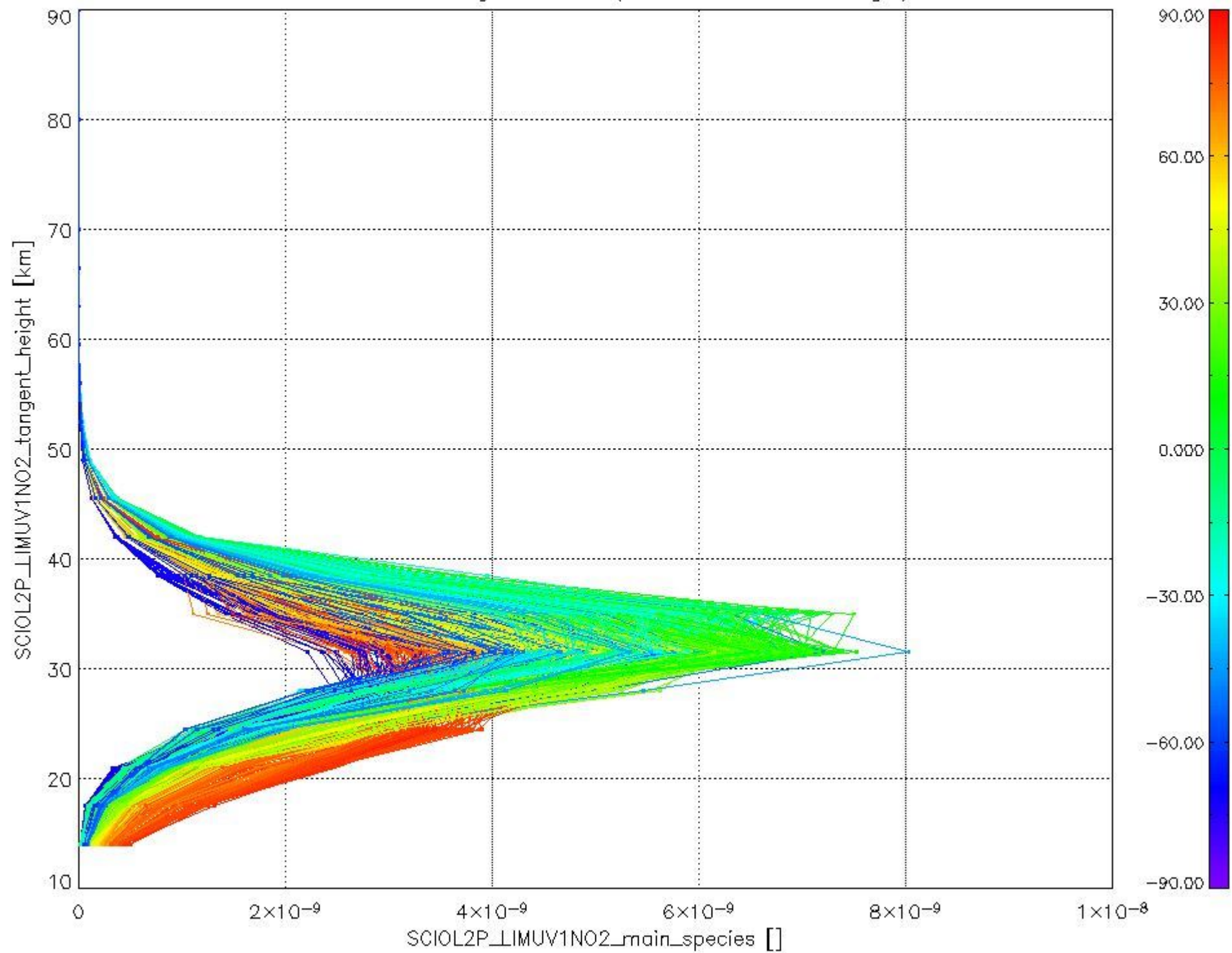
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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





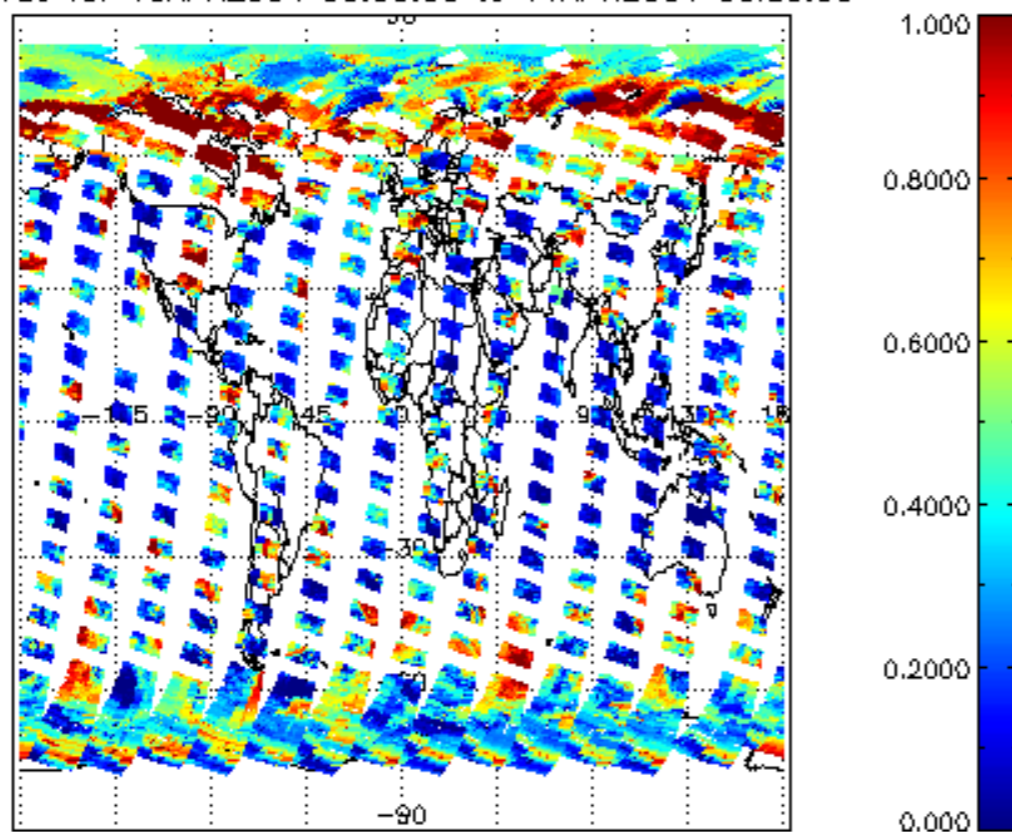
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



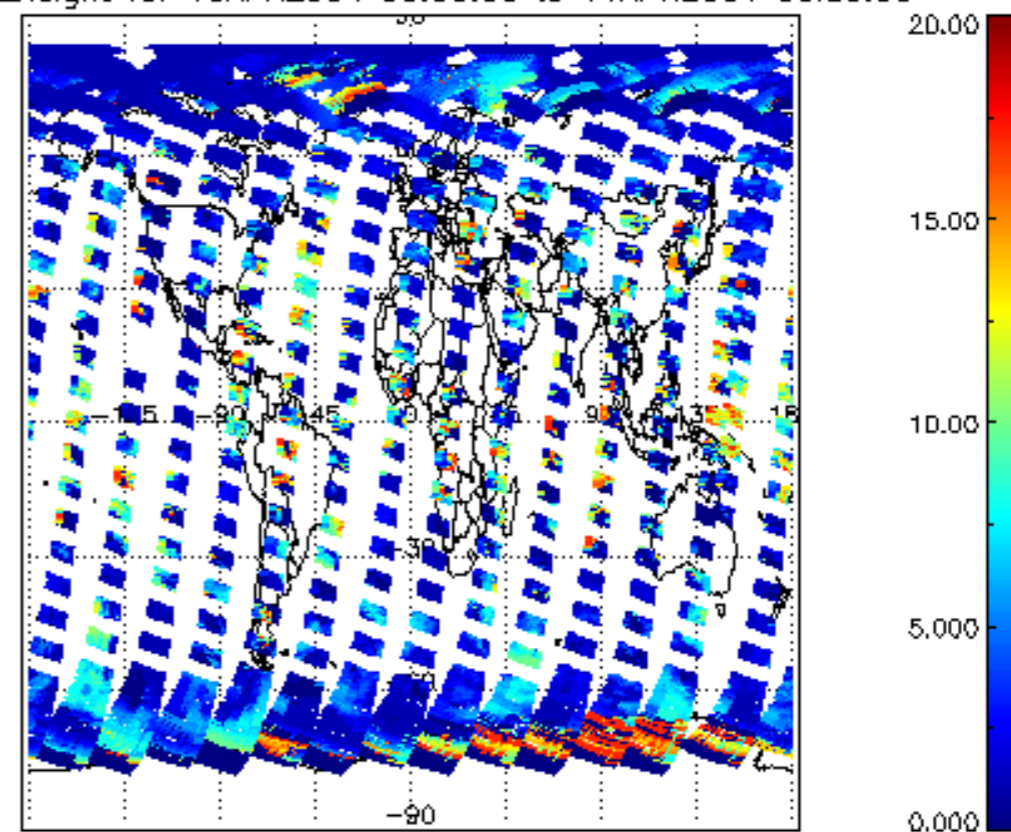
### 2.3 ADF monitoring

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

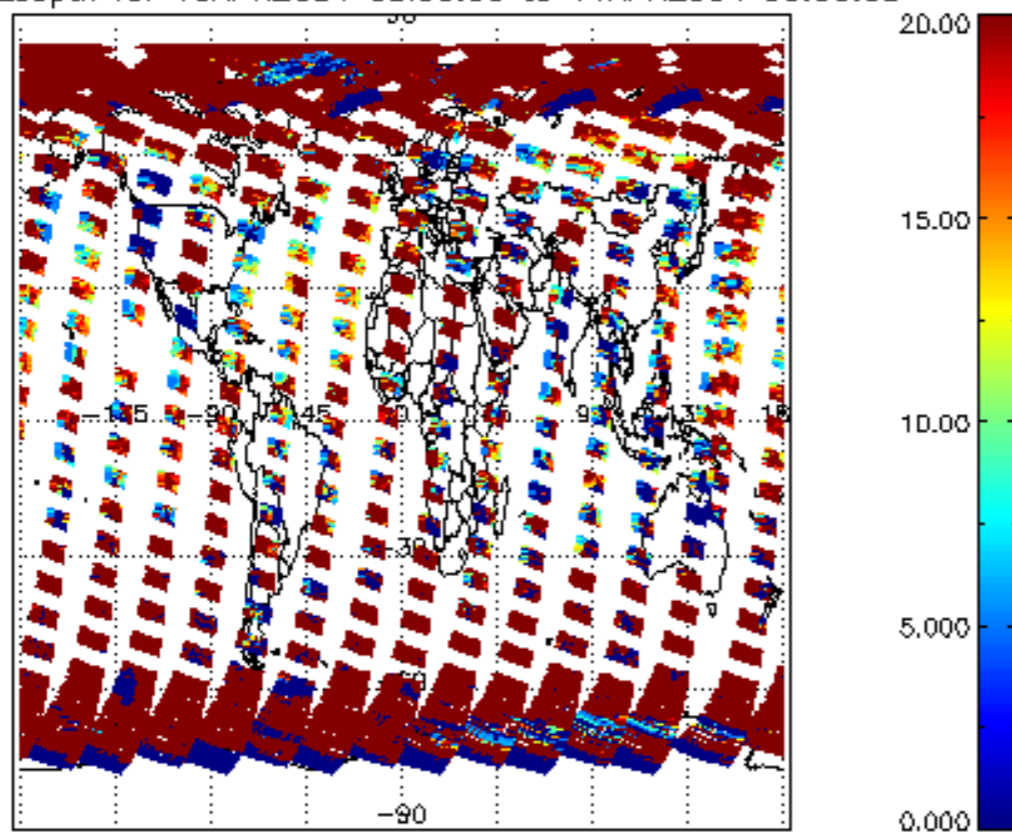
cl\_frac for 10APR2004 00:00:00 to 11APR2004 00:00:00



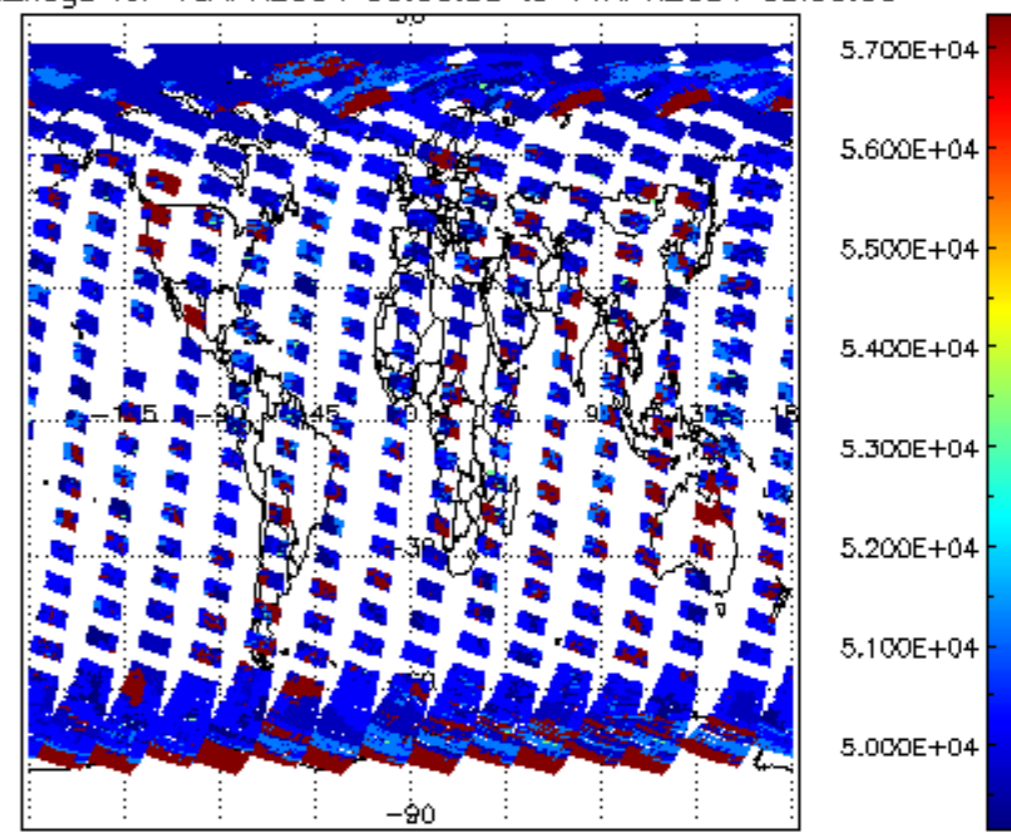
cl\_top\_height for 10APR2004 00:00:00 to 11APR2004 00:00:00

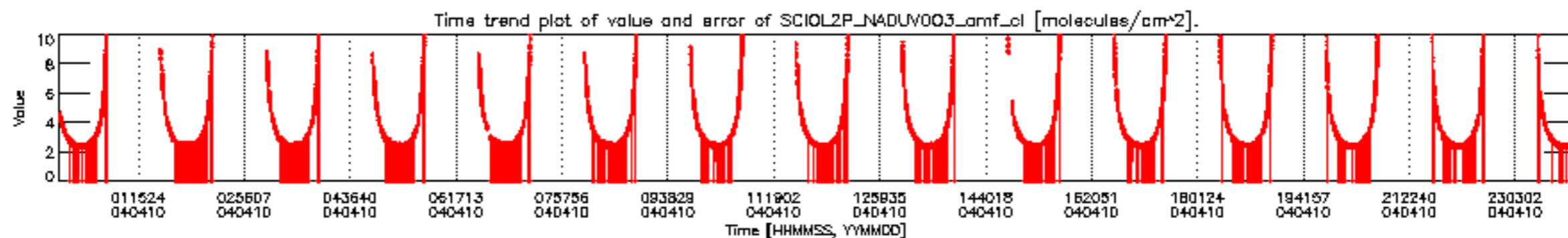
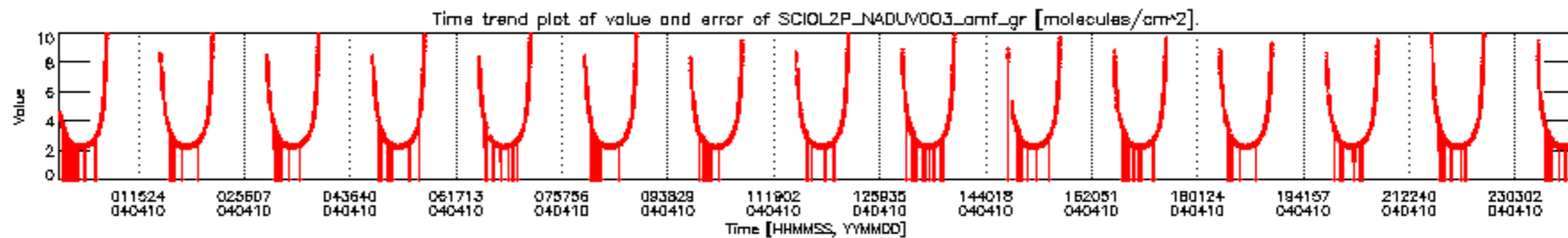
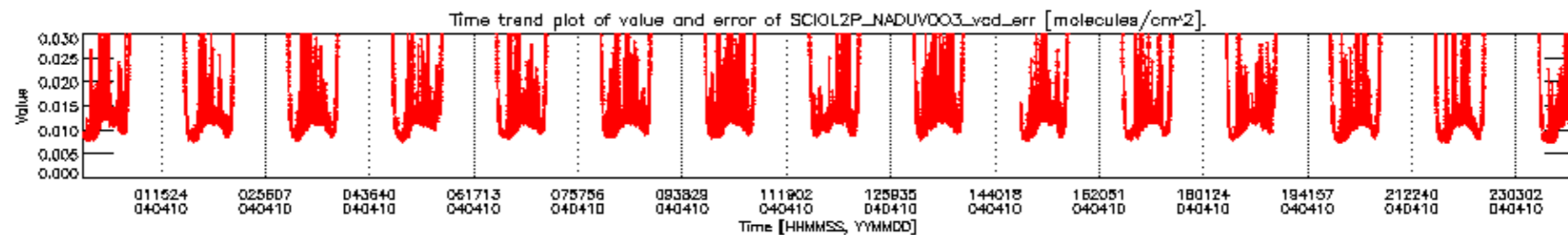
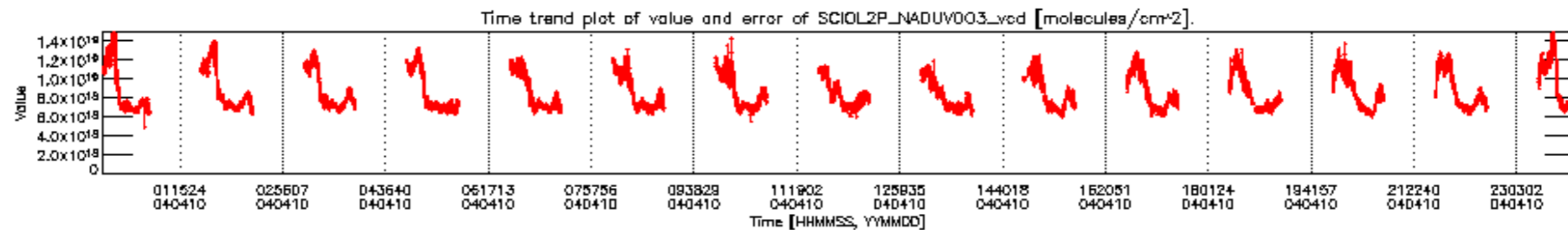


cl\_opt\_depth for 10APR2004 00:00:00 to 11APR2004 00:00:00

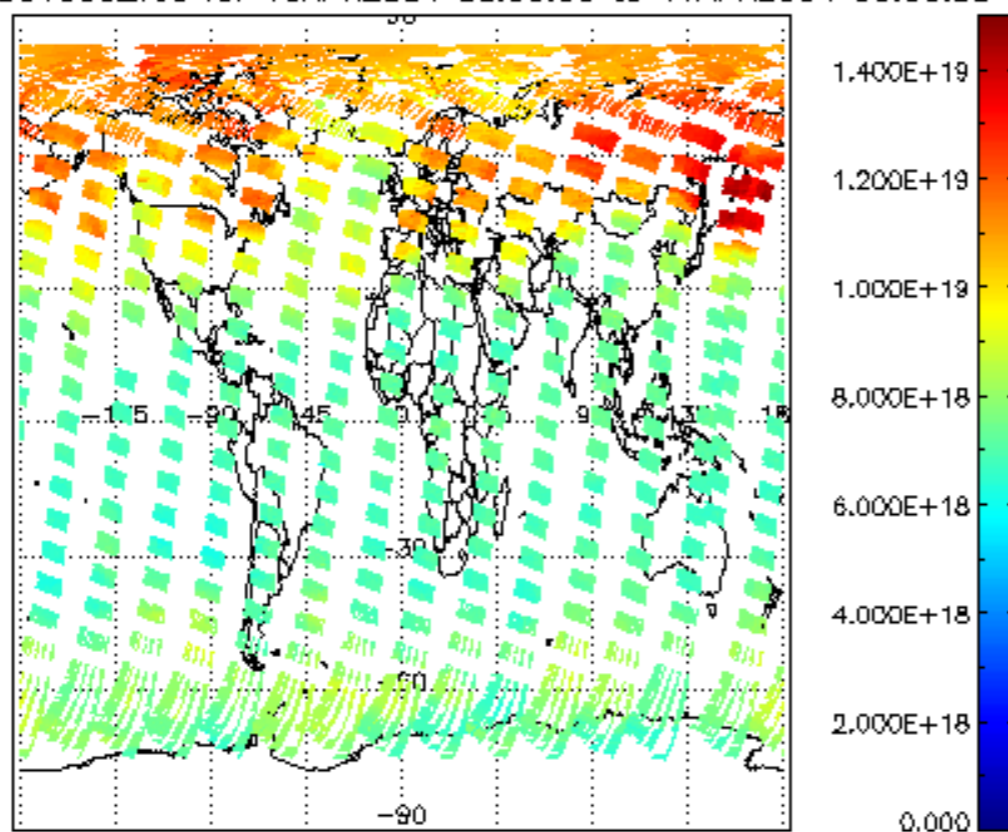


cloud\_flags for 10APR2004 00:00:00 to 11APR2004 00:00:00

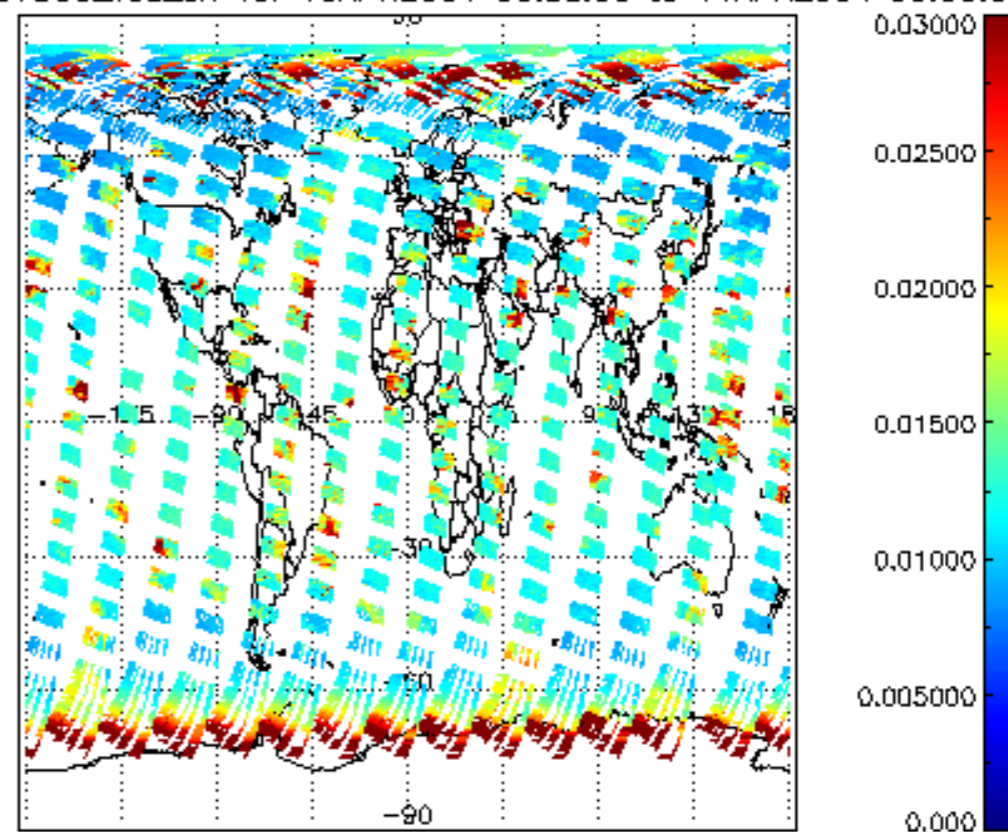




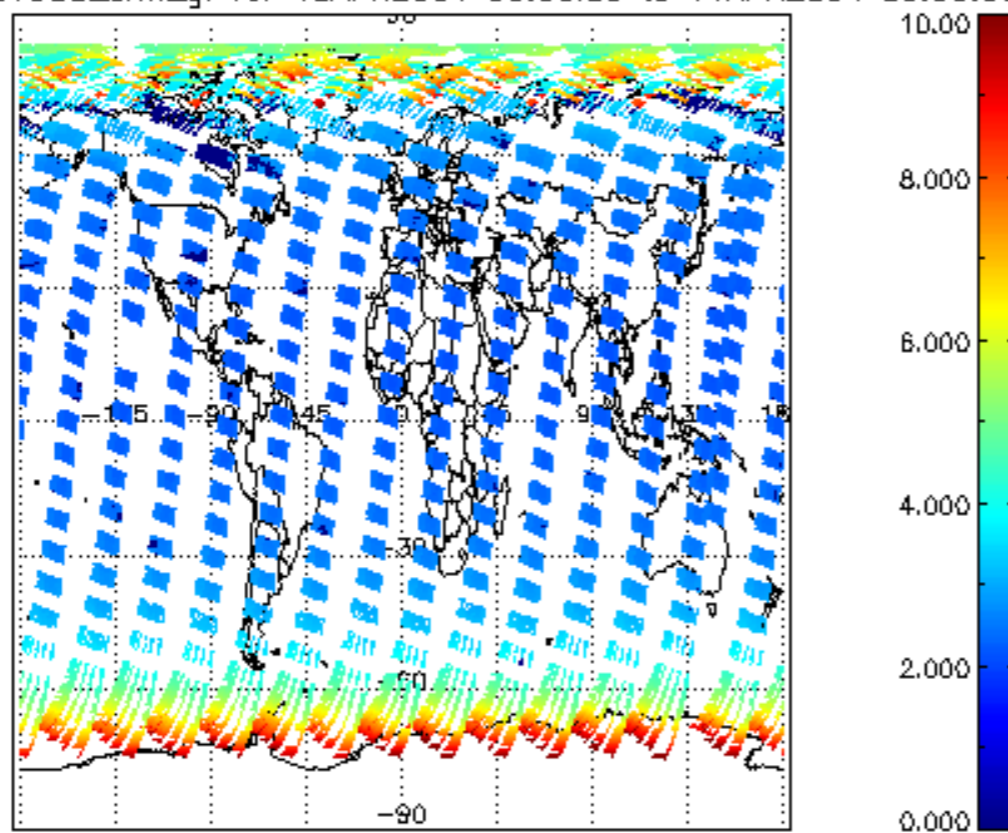
SCIOL2P\_NADUV003\_vcd for 10APR2004 00:00:00 to 11APR2004 00:00:00



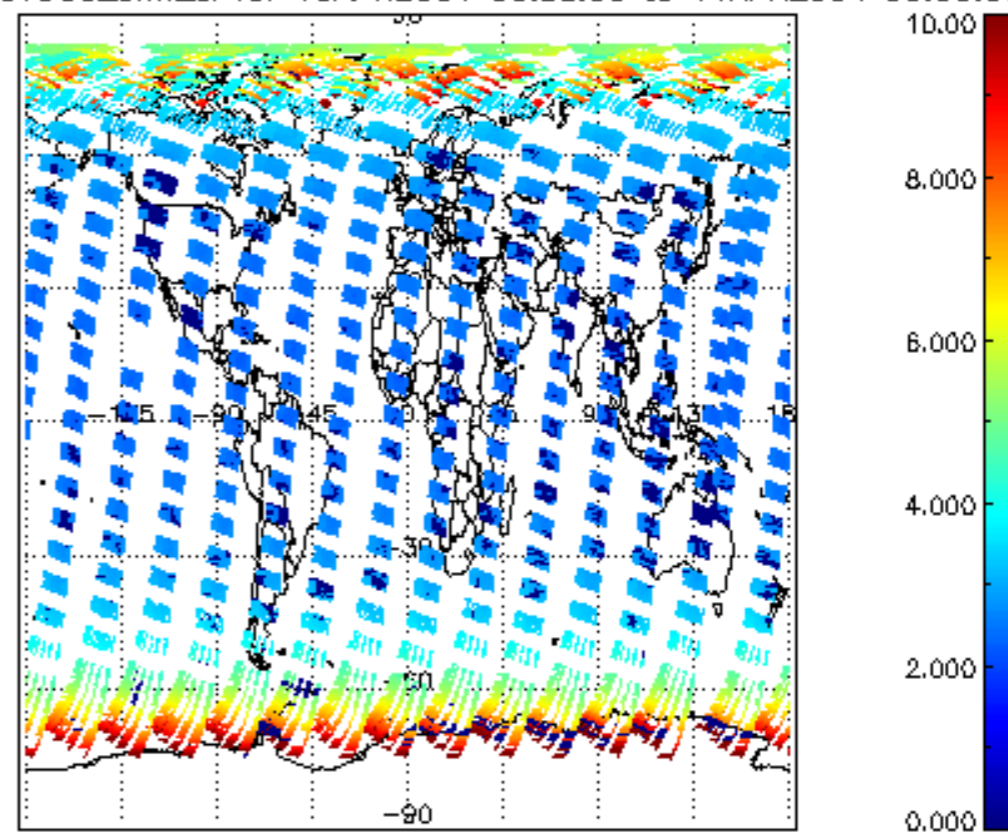
SCIOL2P\_NADUV003\_vcd\_err for 10APR2004 00:00:00 to 11APR2004 00:00:00

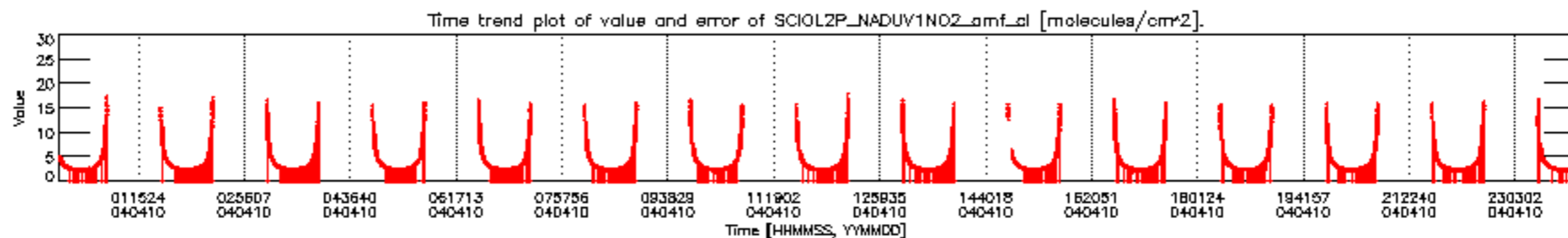
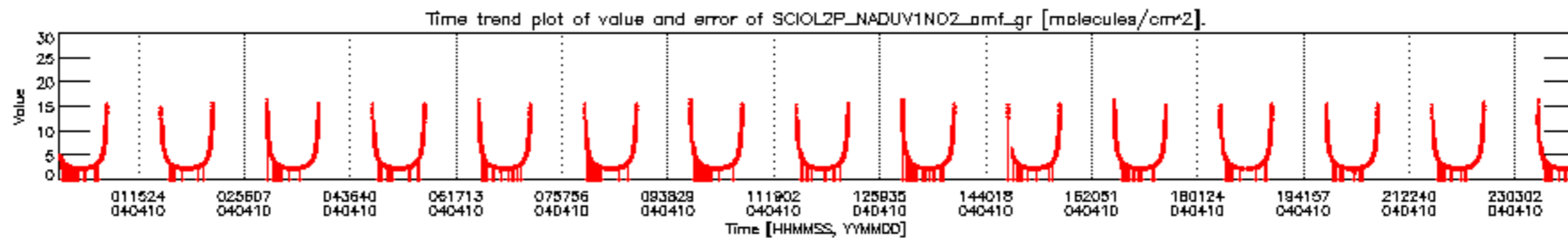
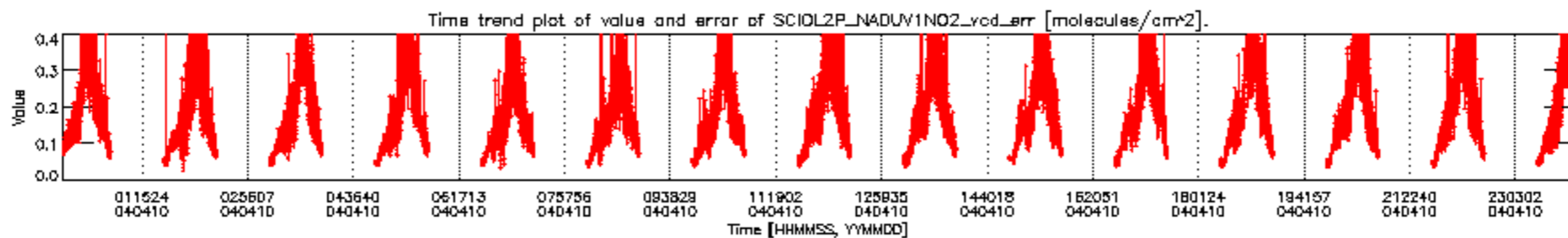
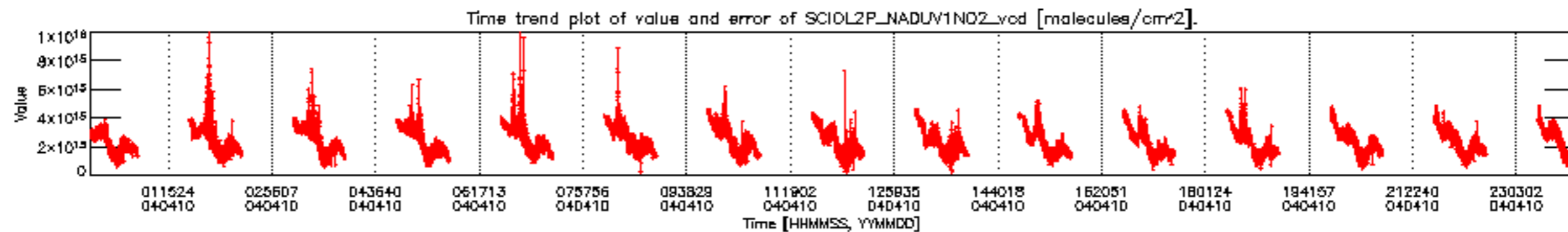


SCIOL2P\_NADUV003\_amf\_gr for 10APR2004 00:00:00 to 11APR2004 00:00:00

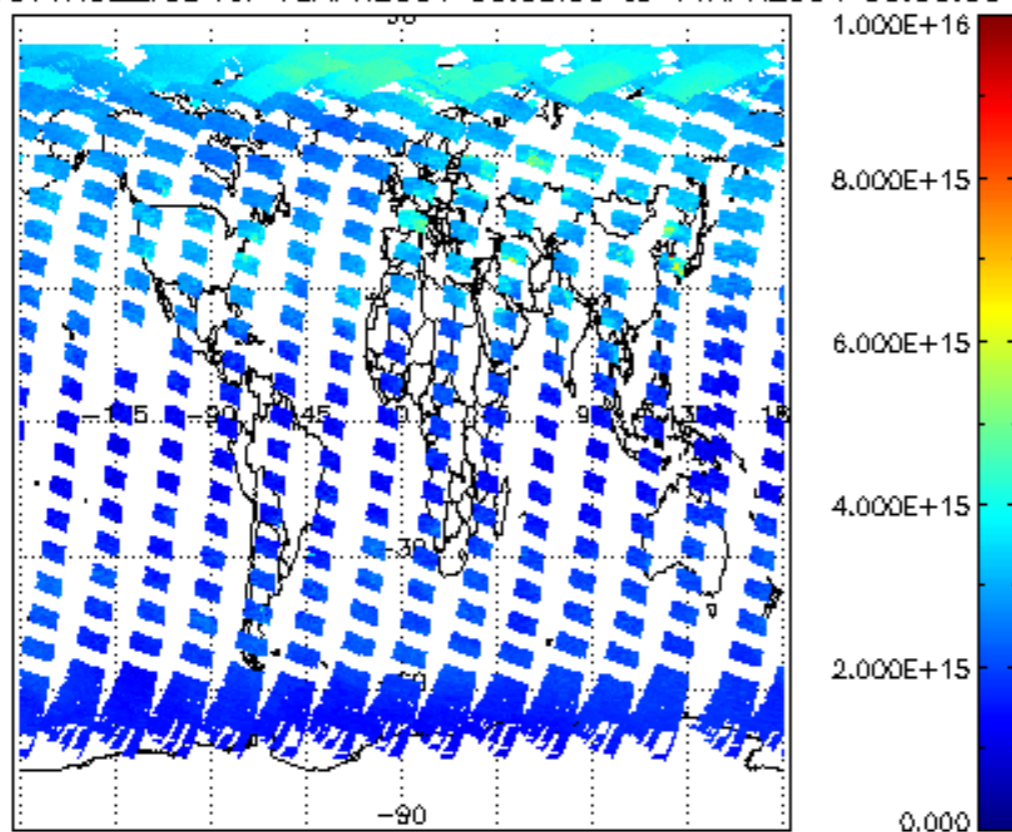


SCIOL2P\_NADUV003\_amf\_cl for 10APR2004 00:00:00 to 11APR2004 00:00:00

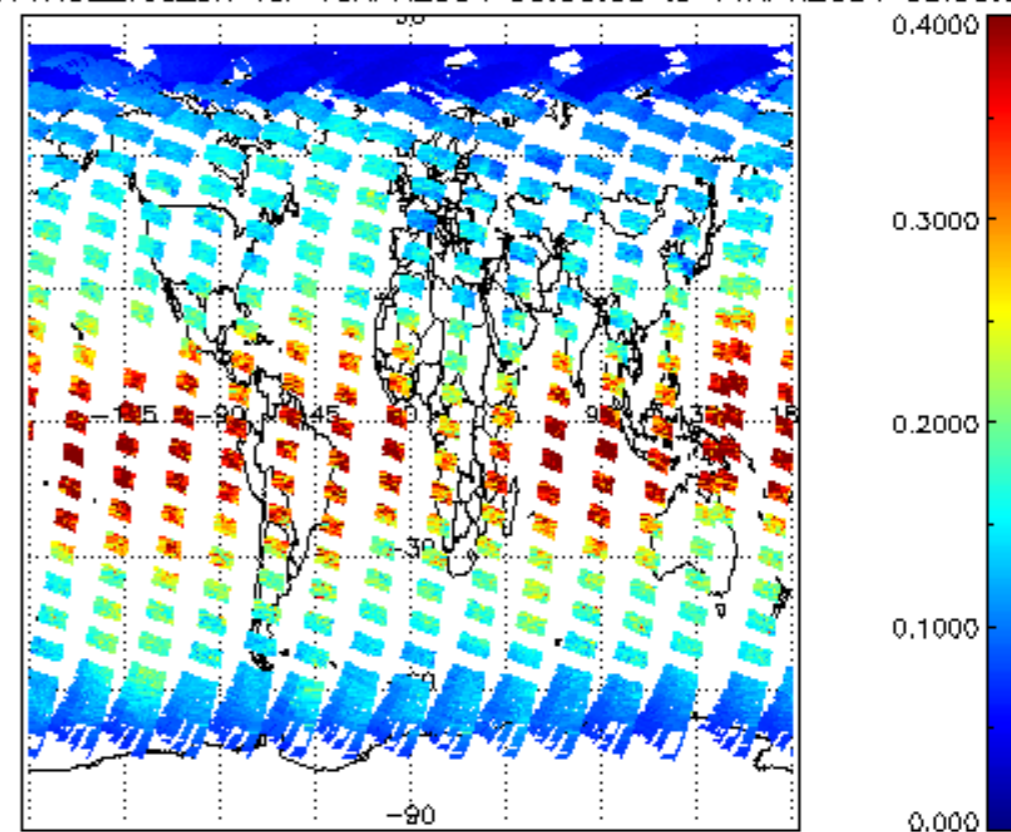




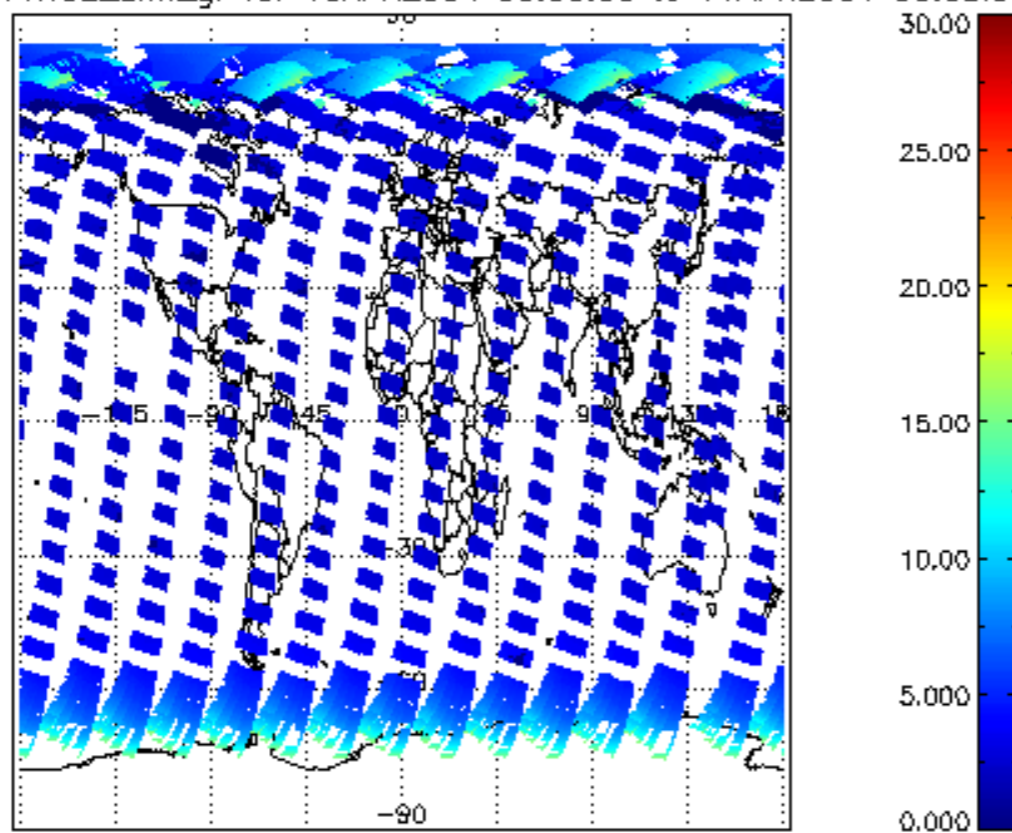
SCIOL2P\_NADUV1NO2\_vcd for 10APR2004 00:00:00 to 11APR2004 00:00:00



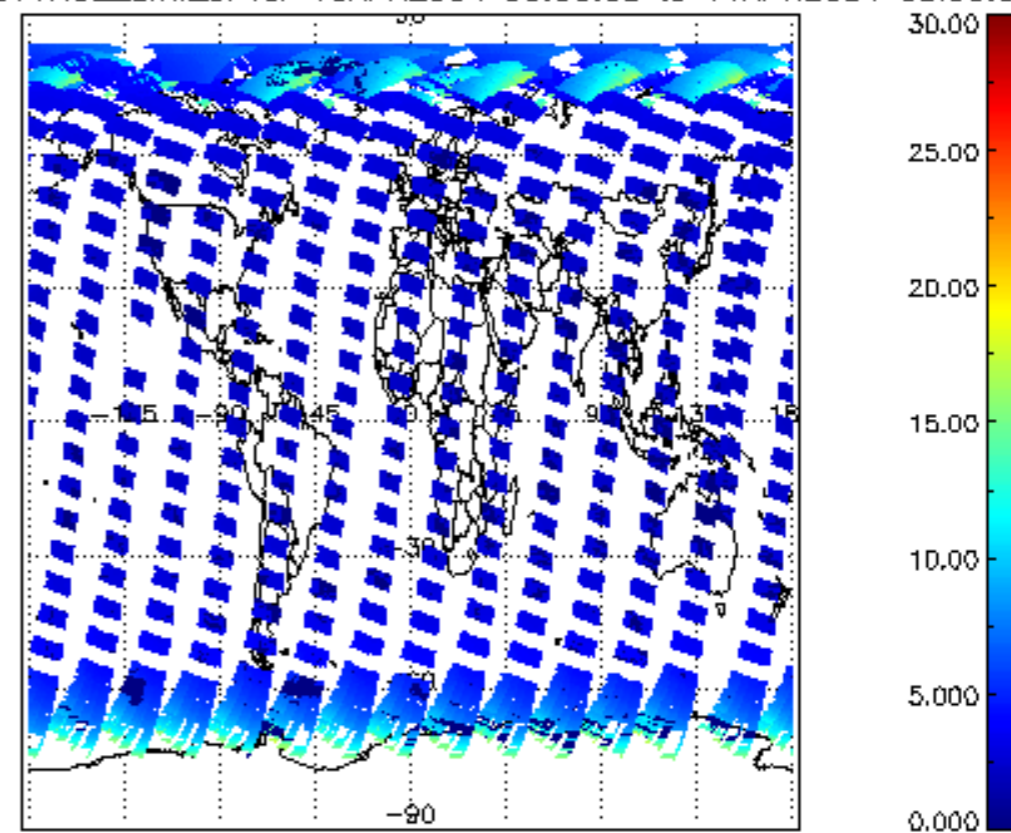
iCIOL2P\_NADUV1NO2\_vcd\_err for 10APR2004 00:00:00 to 11APR2004 00:00:00



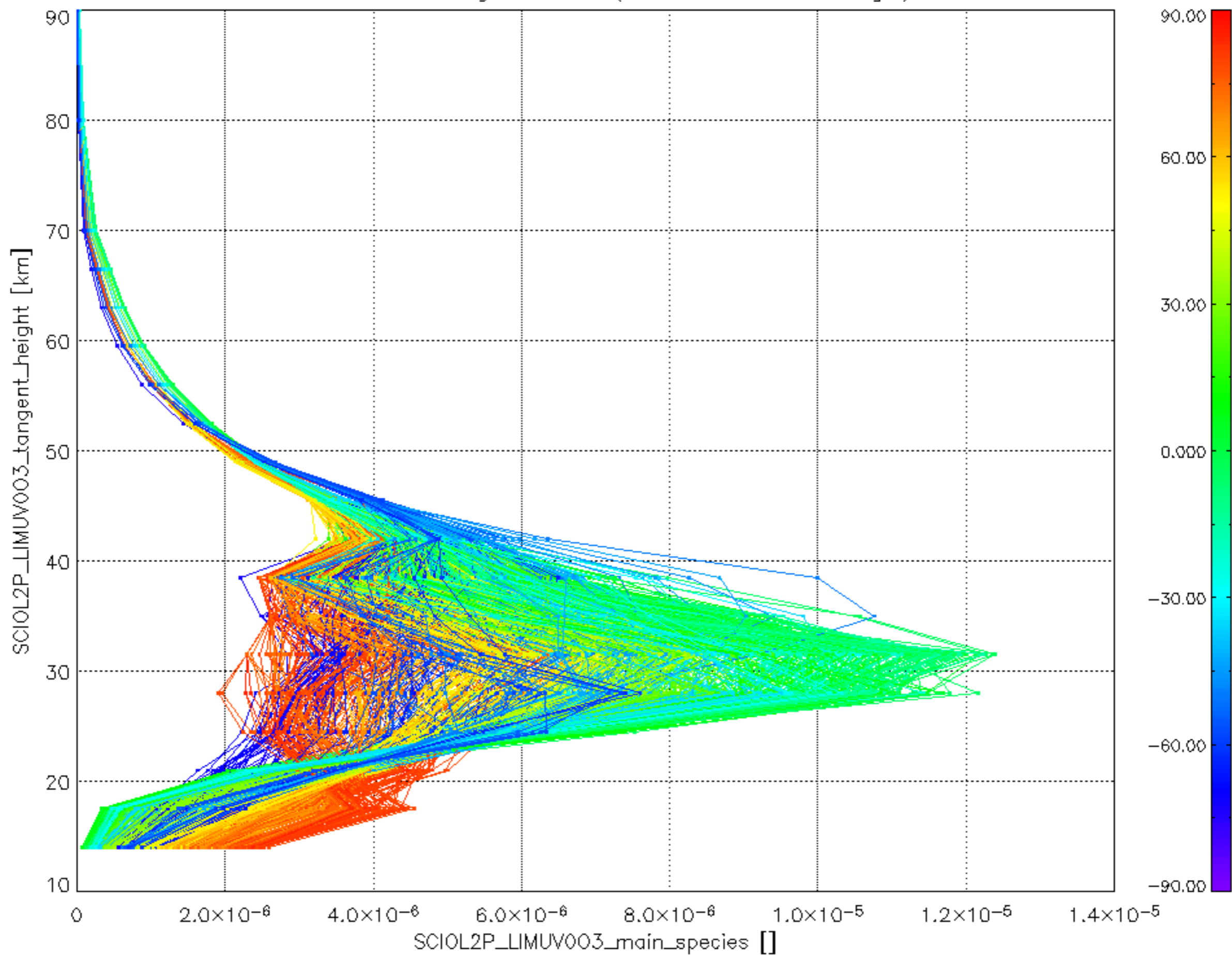
iCIOL2P\_NADUV1NO2\_amf\_gr for 10APR2004 00:00:00 to 11APR2004 00:00:00



iCIOL2P\_NADUV1NO2\_amf\_cl for 10APR2004 00:00:00 to 11APR2004 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).

