

## 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	11AUG2008 15:57:53
Data source version	SCIA-OL/3.01-R
Processing scope for products	24MAR2004 00:00:00 to 25MAR2004 00:00:00
Start time of first product within scope	23MAR2004 22:46:20
Stop time of last product within scope	25MAR2004 00:51:02
Total number of level 2 products	16
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__2PRDPA20040323_224620_000033772025_00216_10791_7168.N1</a>	23MAR2004 22:46:20	23MAR2004 23:42:37	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20040324_002656_000033492025_00217_10792_7000.N1</a>	24MAR2004 00:26:56	24MAR2004 01:22:45	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20040324_020731_000033772025_00218_10793_6942.N1</a>	24MAR2004 02:07:31	24MAR2004 03:03:48	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20040324_034807_000033492025_00219_10794_7057.N1</a>	24MAR2004 03:48:07	24MAR2004 04:43:56	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20040324_052842_000033772025_00220_10795_7124.N1</a>	24MAR2004 05:28:42	24MAR2004 06:24:59	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20040324_070918_000033492025_00221_10796_7037.N1</a>	24MAR2004 07:09:18	24MAR2004 08:05:07	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20040324_085528_000030422025_00222_10797_7109.N1</a>	24MAR2004 08:55:28	24MAR2004 09:46:10	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20040324_103440_000030982025_00223_10798_6971.N1</a>	24MAR2004 10:34:40	24MAR2004 11:26:18	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20040324_121639_000030422025_00224_10799_6952.N1</a>	24MAR2004 12:16:39	24MAR2004 13:07:21	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20040324_135551_000030982025_00225_10800_7021.N1</a>	24MAR2004 13:55:51	24MAR2004 14:47:29	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20040324_153750_000030422025_00226_10801_7039.N1</a>	24MAR2004 15:37:50	24MAR2004 16:28:32	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20040324_171811_000030522025_00227_10802_7010.N1</a>	24MAR2004 17:18:11	24MAR2004 18:09:03	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20040324_185924_000030422025_00228_10803_7028.N1</a>	24MAR2004 18:59:24	24MAR2004 19:50:06	0	GOOD
13	<a href="#">SCI_OL__2PRDPA20040324_203813_000030982025_00229_10804_7160.N1</a>	24MAR2004 20:38:13	24MAR2004 21:29:51	0	GOOD
14	<a href="#">SCI_OL__2PRDPA20040324_222012_000030422025_00230_10805_7097.N1</a>	24MAR2004 22:20:12	24MAR2004 23:10:54	0	GOOD
15	<a href="#">SCI_OL__2PRDPA20040324_235924_000030982025_00231_10806_7147.N1</a>	24MAR2004 23:59:24	25MAR2004 00:51:02	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: 114172

Total number of cloud data DSRs with good quality flag (=0): 114172 (100.0 %)

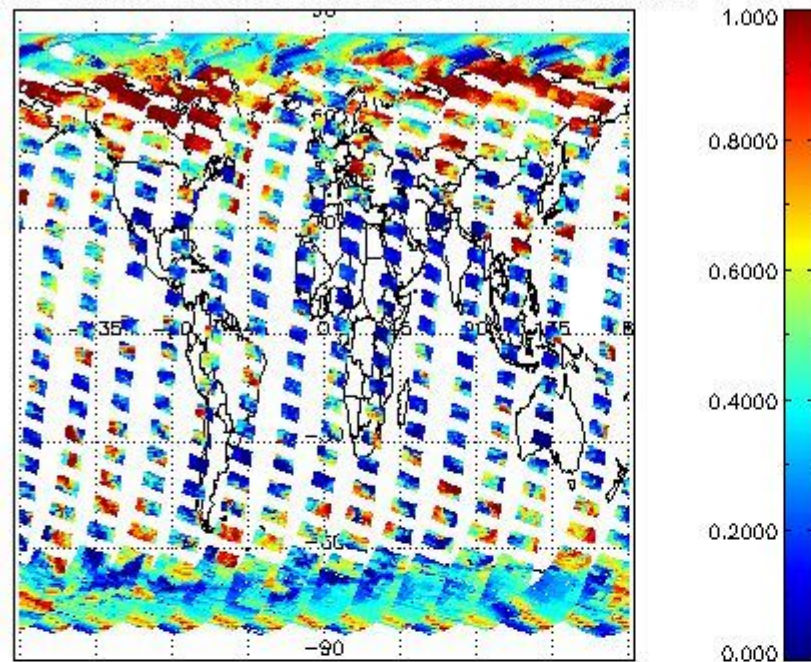
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	114172	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	114172	0.21801	0.25000	0.12500	0.50000	0.087365	s
CL_FRAC	114172	0.44879	0.41636	0.0000	1.0000	0.30703	-
CL_FRAC_ERR	114172	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	114172	6.9764	8.0000	4.0000	16.000	2.7957	
PMD_READ_CL[0]	114172	0.46654	0.0000	0.0000	16.000	1.4504	-
PMD_READ_CL[1]	114172	0.57466	0.0000	0.0000	16.000	1.8091	-
CL_TOP_HEIGHT	104618	3.7152	1.7909	0.0000	17.000	3.8260	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	104618	53.581	40.513	0.0000	101.00	39.632	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	114172	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	114172	11000110	11000010	11000000	11100000	2545.5	flags
AERO_ABSO_IND	114172	0.84776	0.73127	-3.8278	12.072	1.1806	
AERO_IND_DIAG	114172	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	114172	01100111	11000000	00000000	11000000	24507.	flags

### Time and geolocation plots:

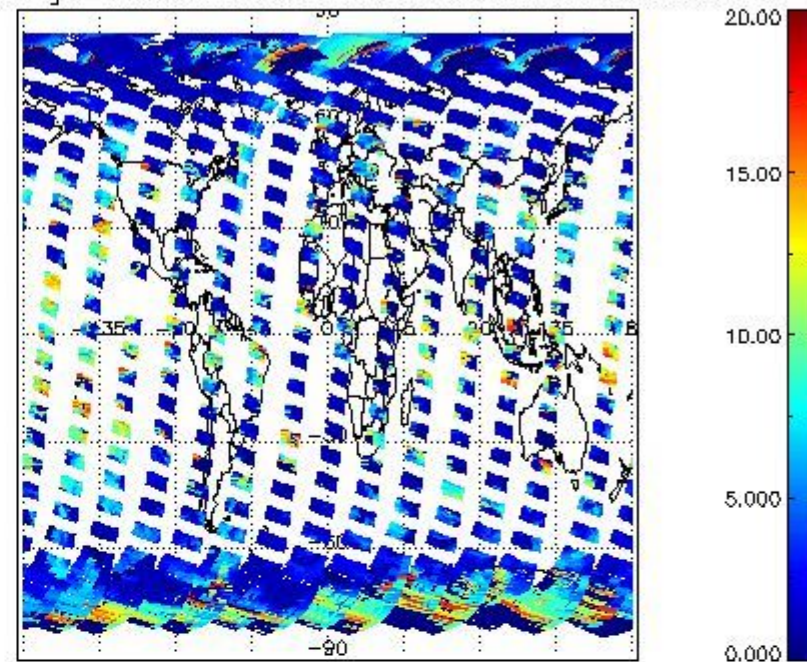
Plots are available for the following parameters:

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

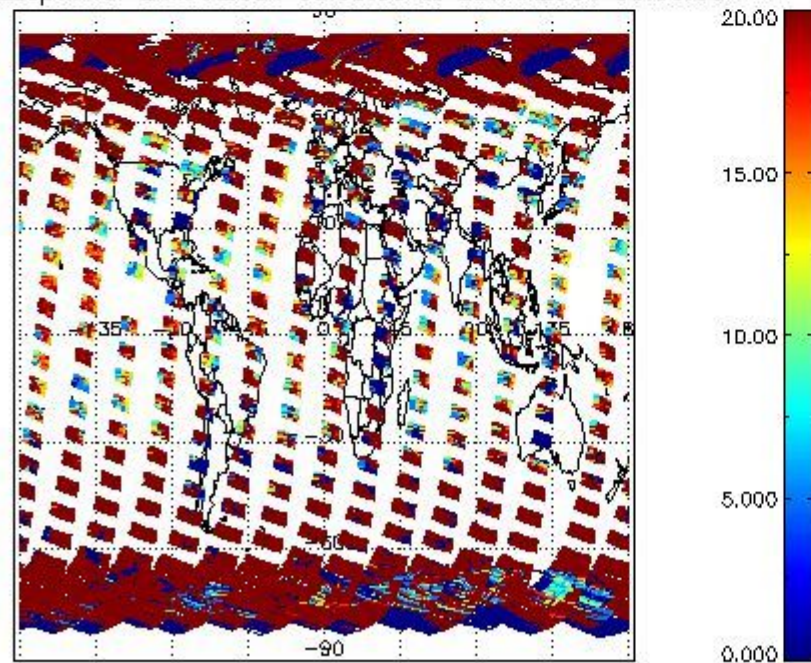
cL\_frac for 24MAR2004 00:00:00 to 25MAR2004 00:00:00



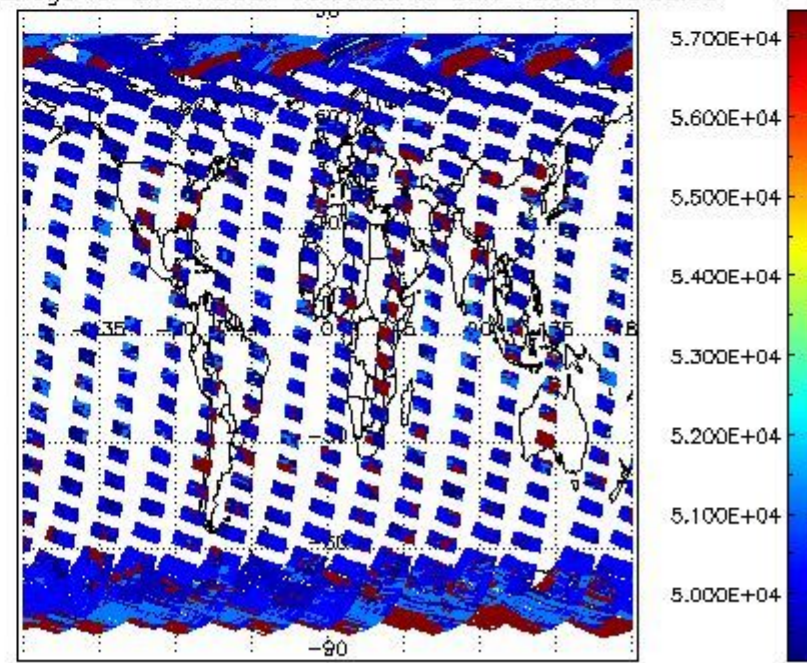
cL\_top\_height for 24MAR2004 00:00:00 to 25MAR2004 00:00:00



cL\_opt\_depth for 24MAR2004 00:00:00 to 25MAR2004 00:00:00



cloud\_flags for 24MAR2004 00:00:00 to 25MAR2004 00:00:00



## 2.2.2 Nadir

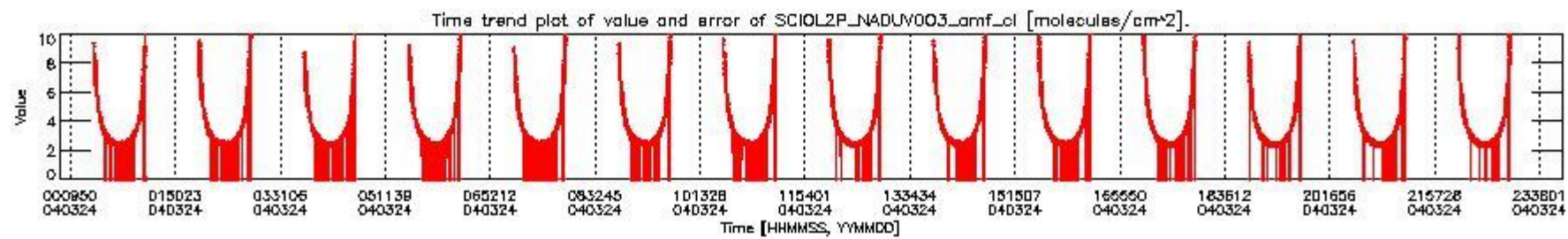
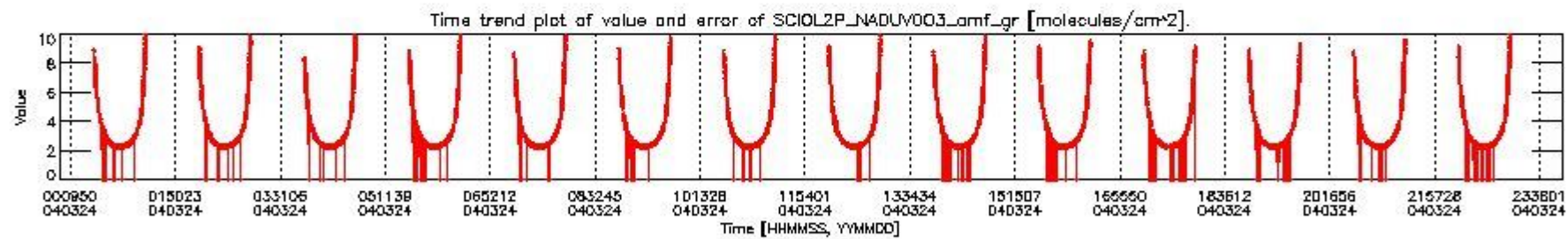
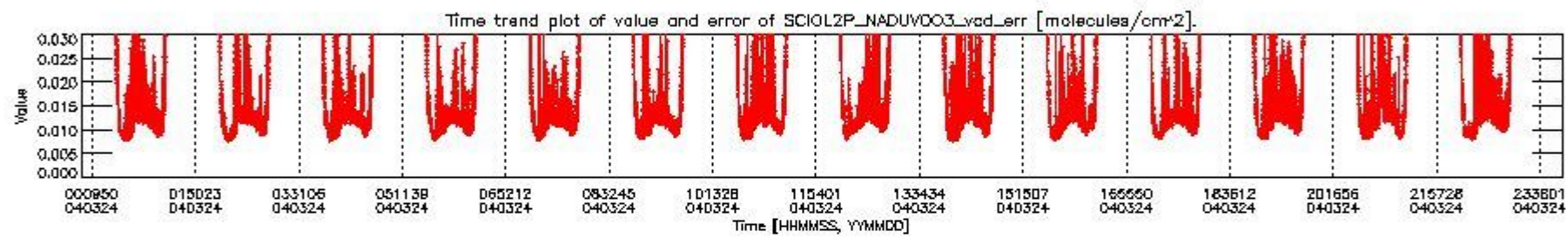
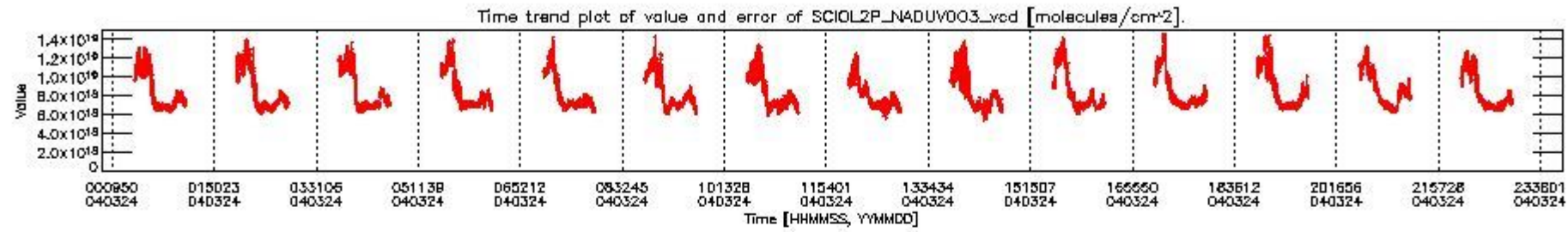
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

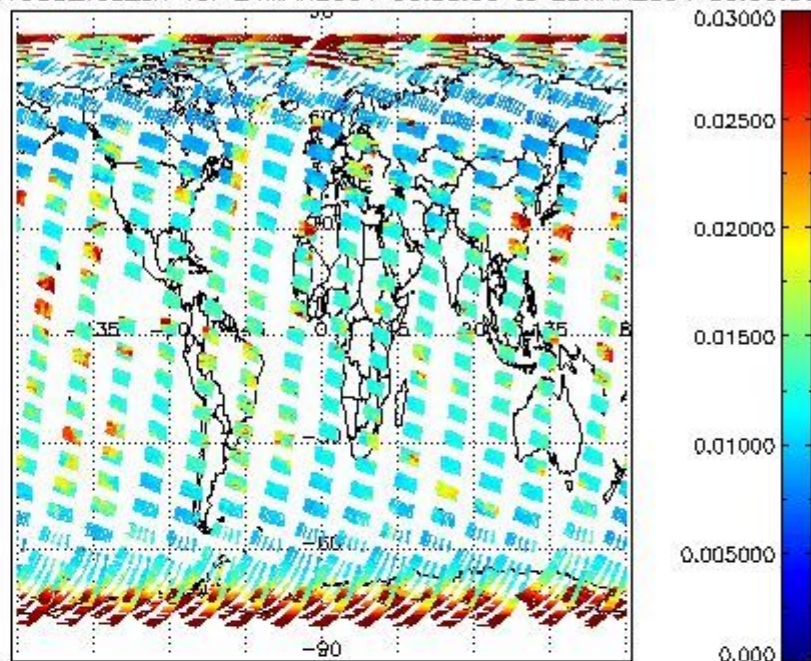
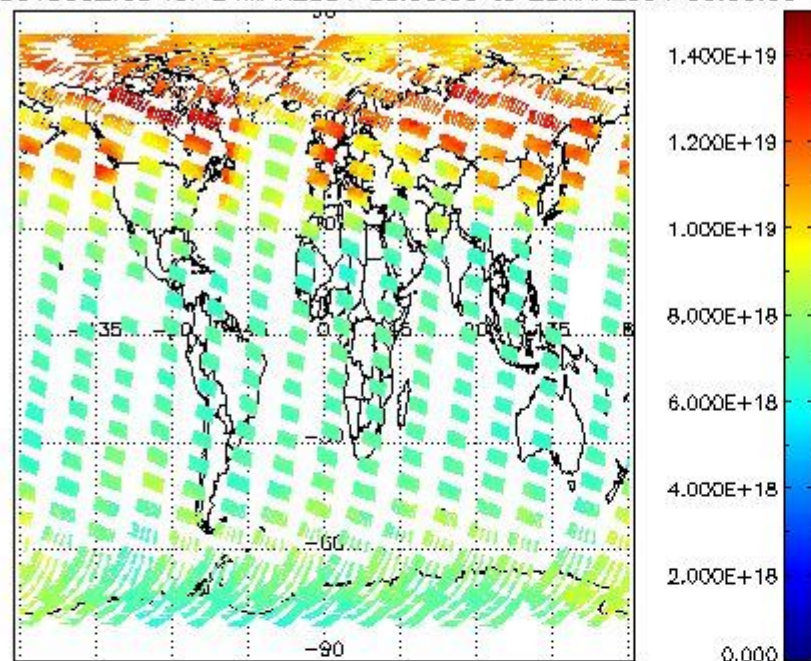
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

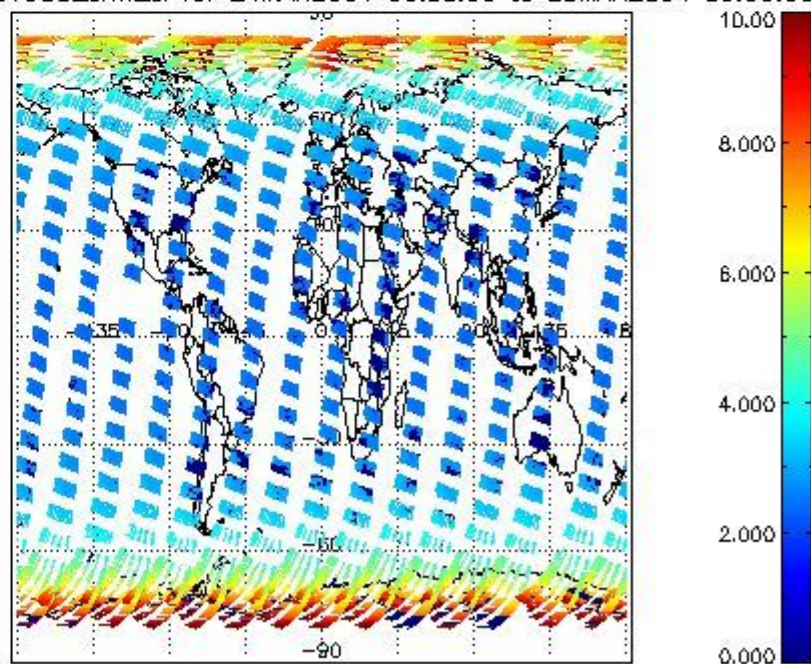
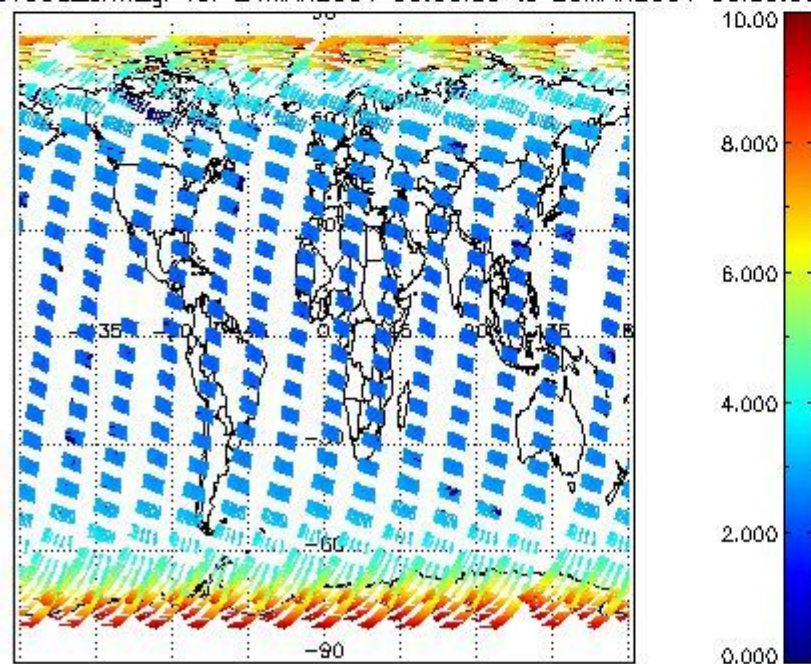
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in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

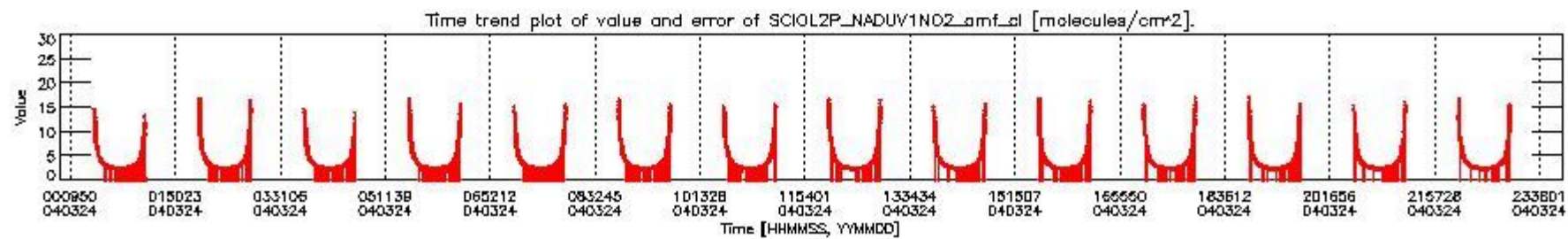
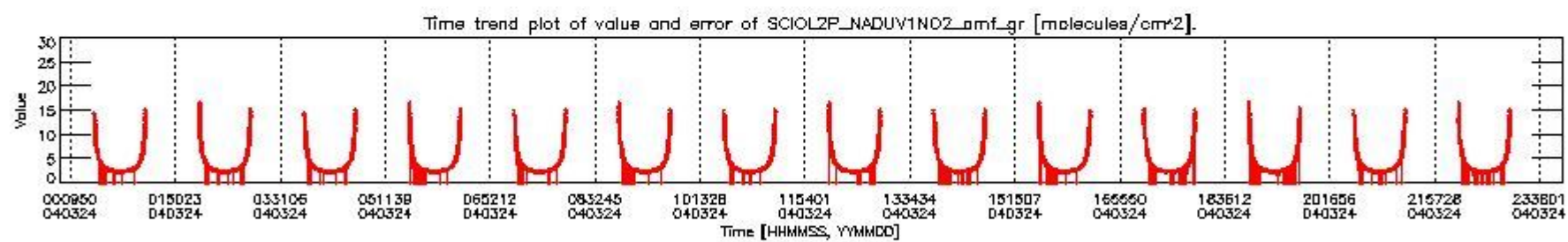
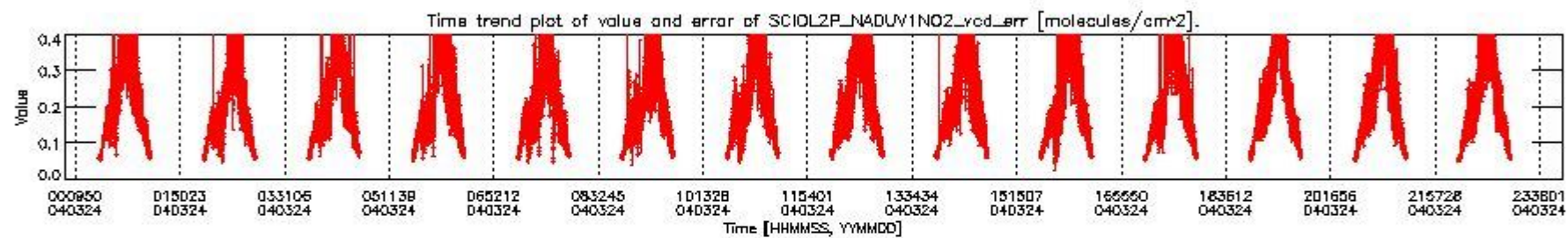
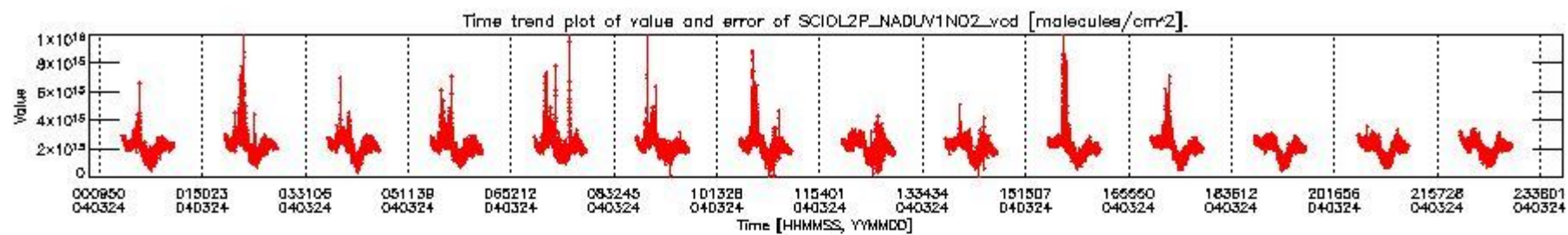


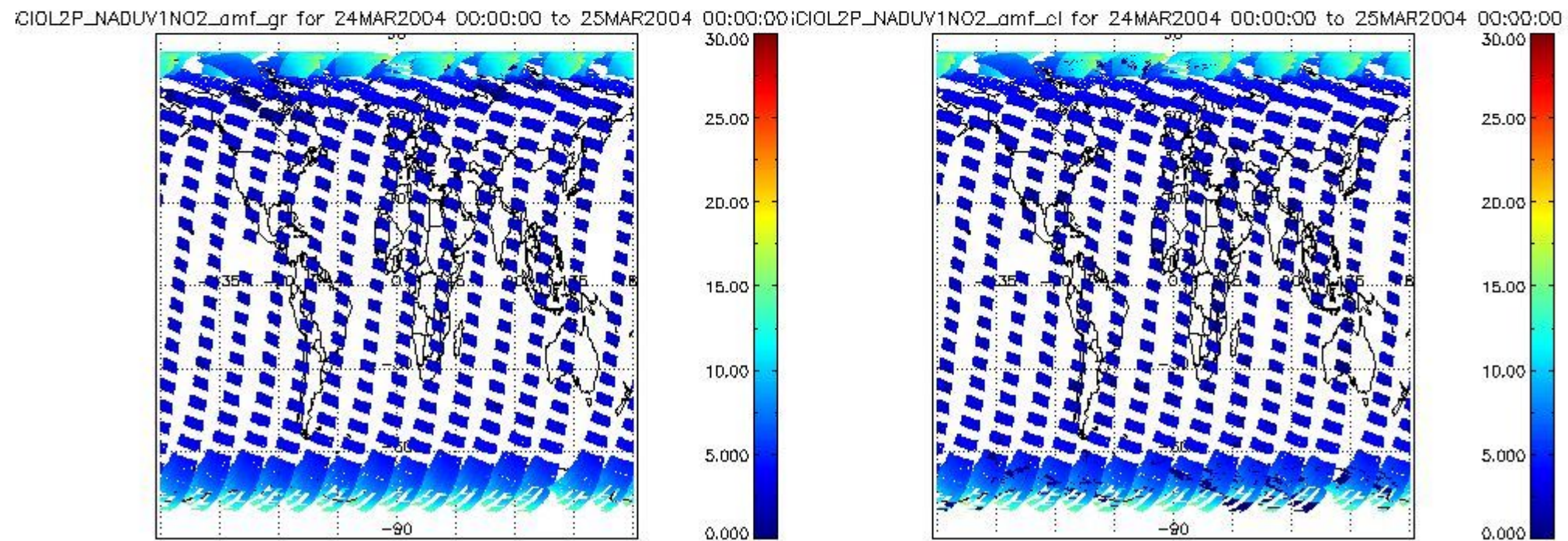
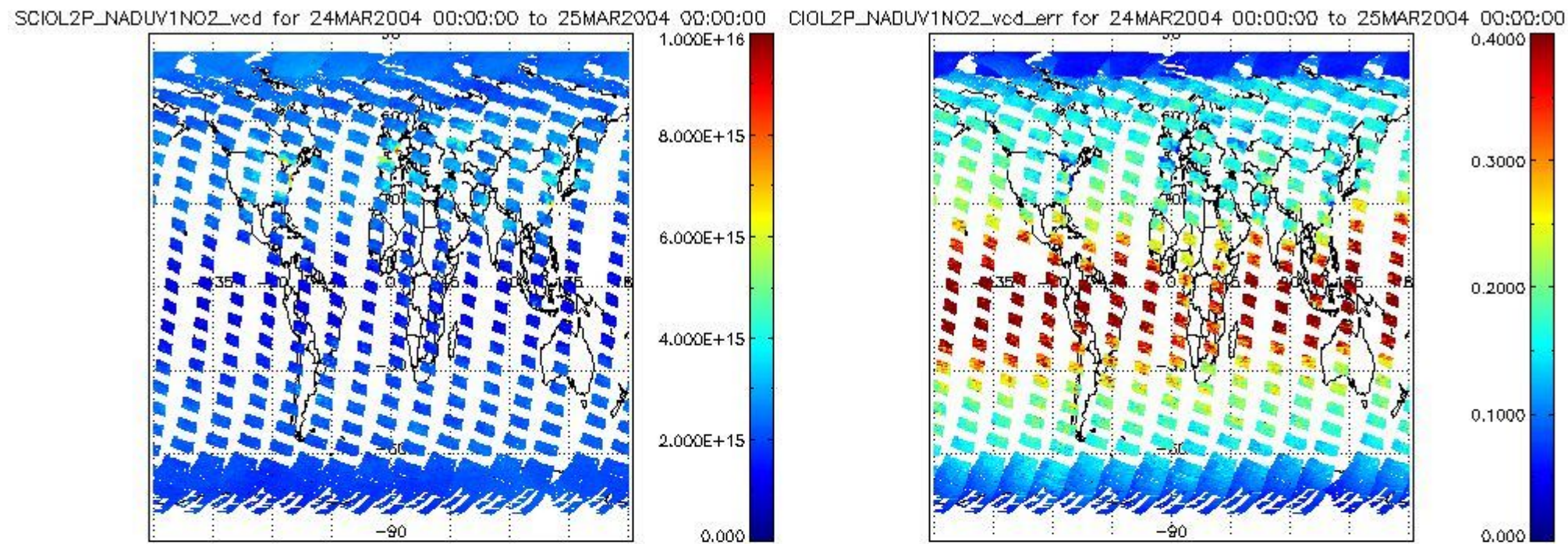
SCIOL2P\_NADUV003\_vcd for 24MAR2004 00:00:00 to 25MAR2004 00:00:00    SCIOL2P\_NADUV003\_vcd\_err for 24MAR2004 00:00:00 to 25MAR2004 00:00:00



SCIOL2P\_NADUV003\_amf\_gr for 24MAR2004 00:00:00 to 25MAR2004 00:00:00    SCIOL2P\_NADUV003\_amf\_cl for 24MAR2004 00:00:00 to 25MAR2004 00:00:00







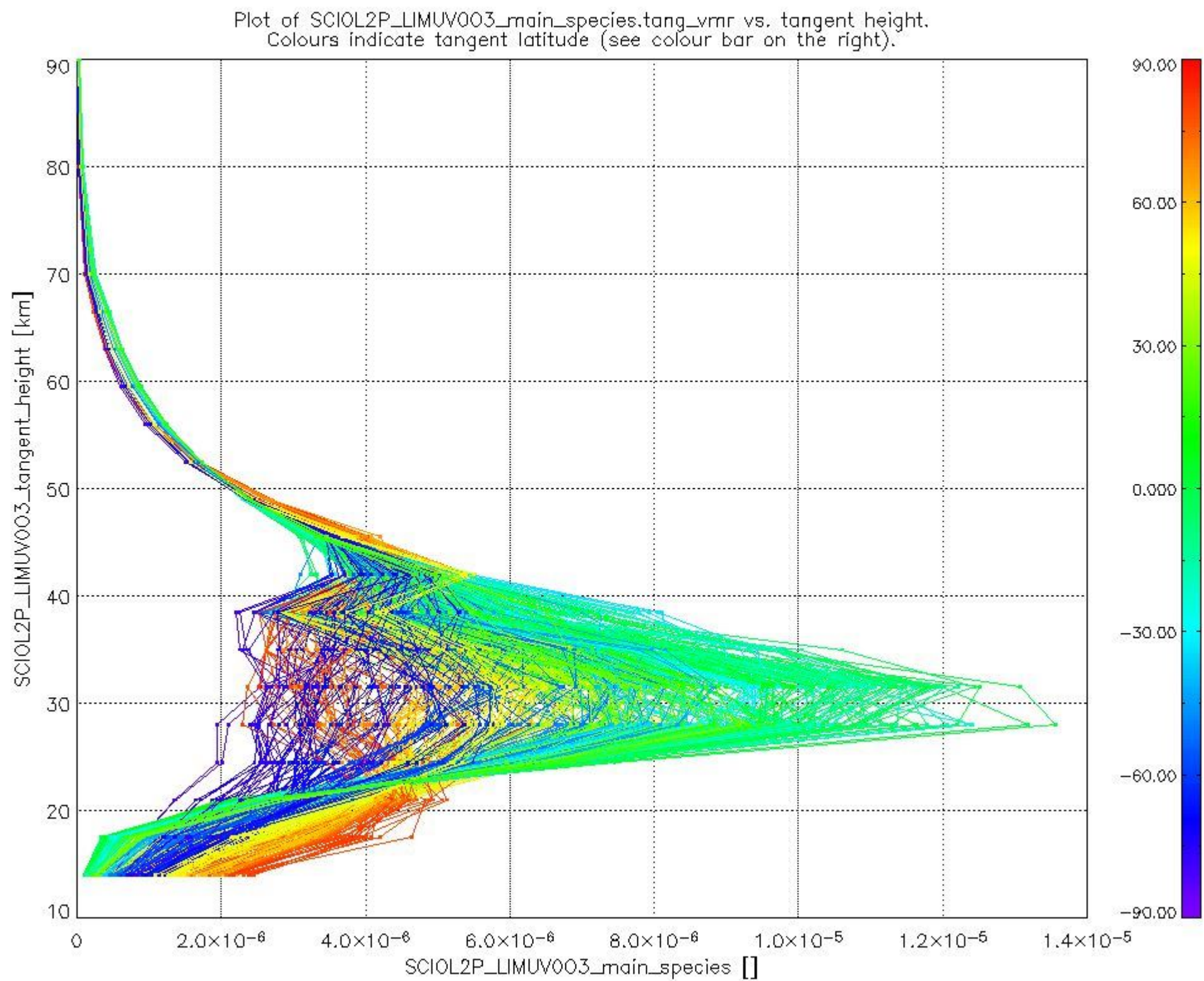
### 2.2.3 Limb

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:

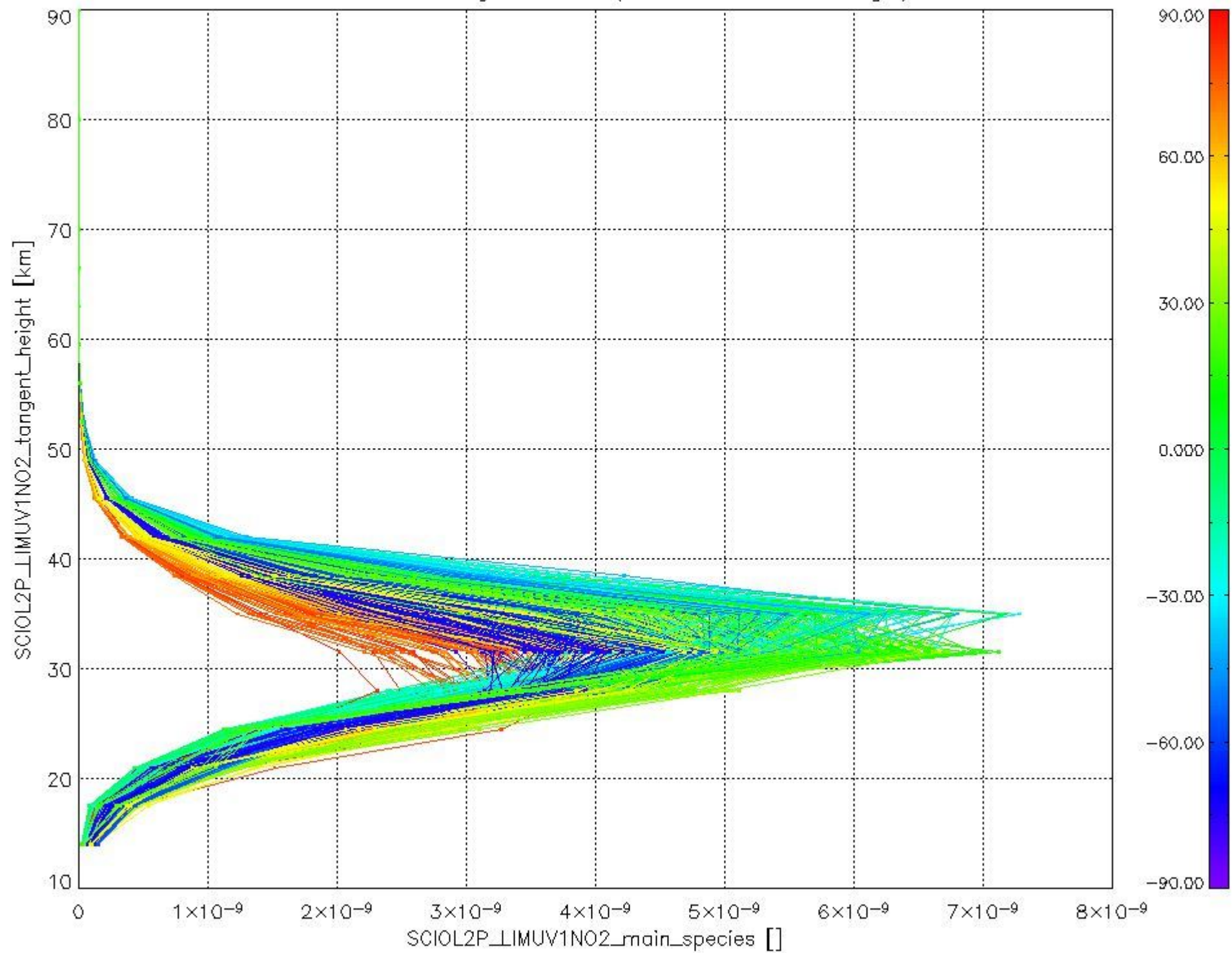
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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





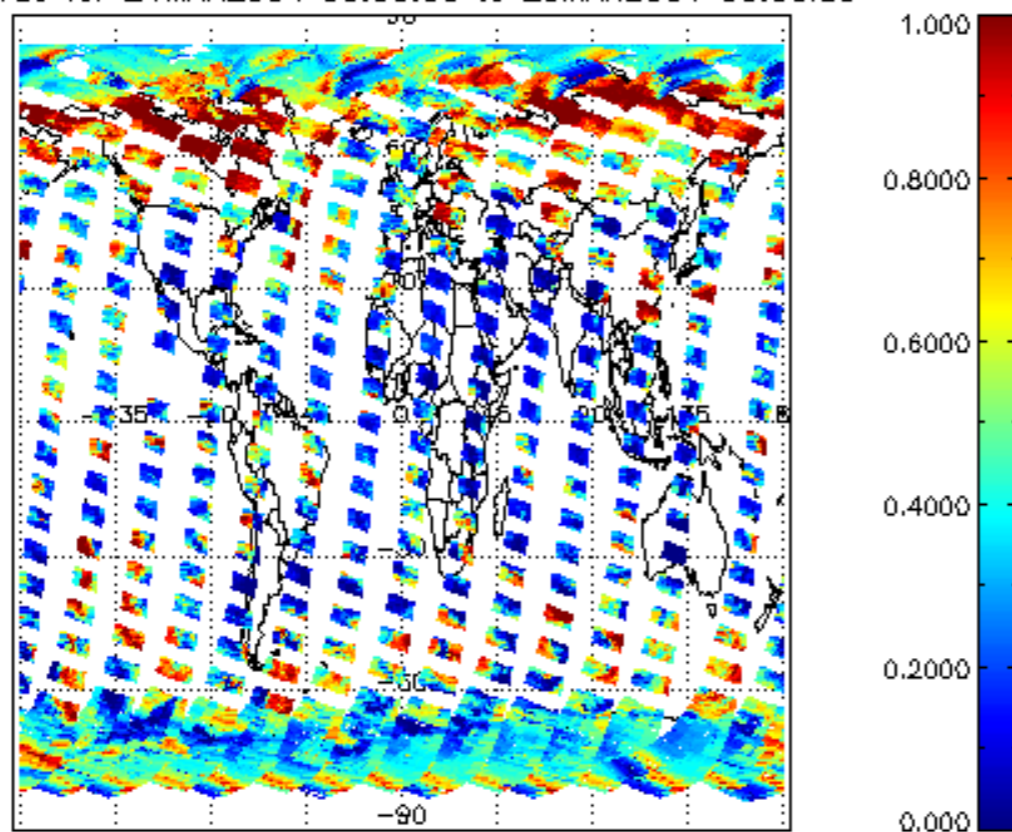
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



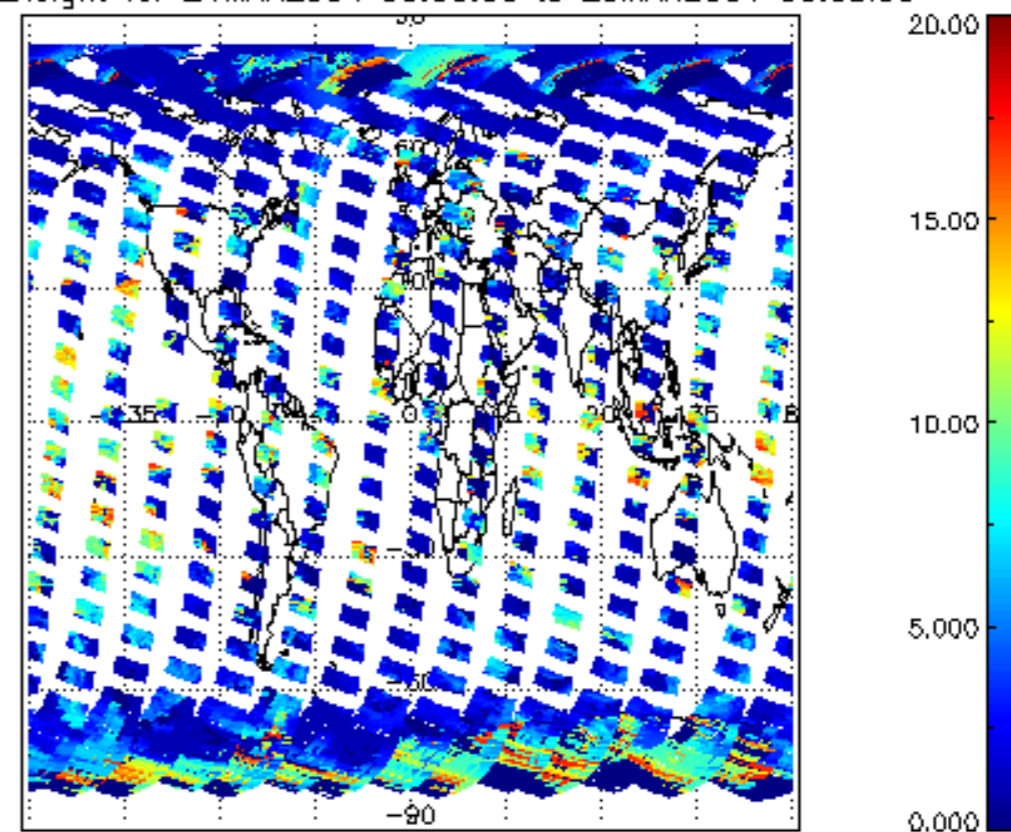
### 2.3 ADF monitoring

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

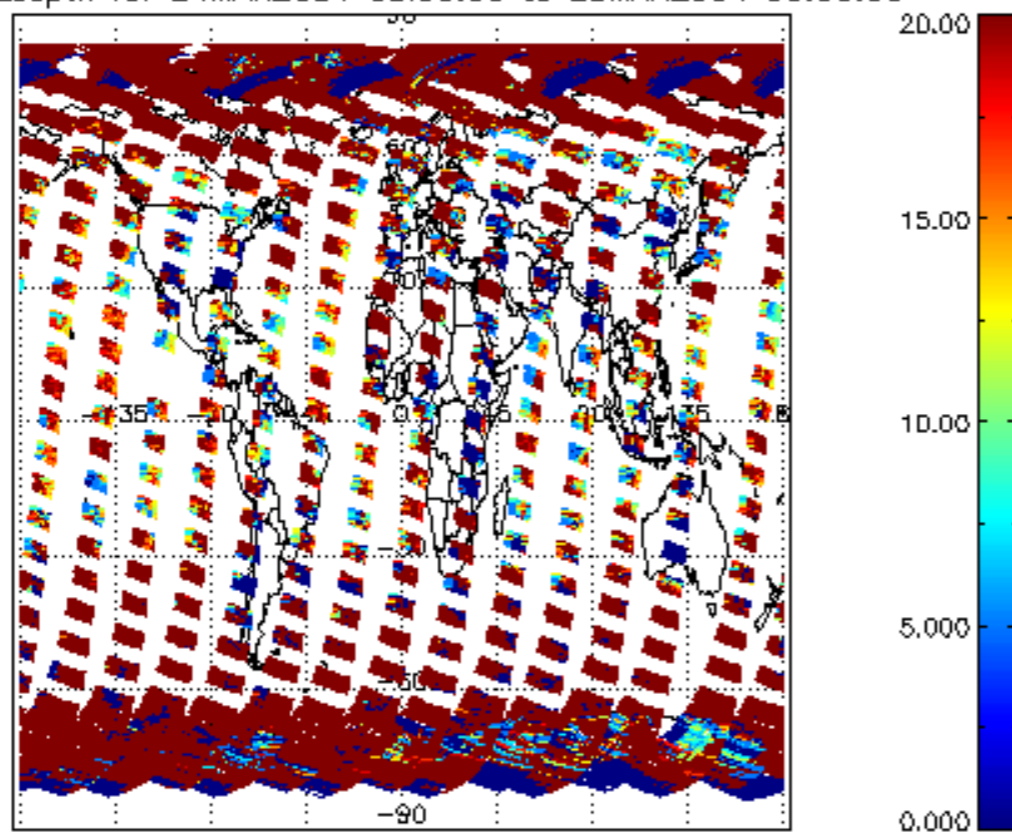
cL\_frac for 24MAR2004 00:00:00 to 25MAR2004 00:00:00



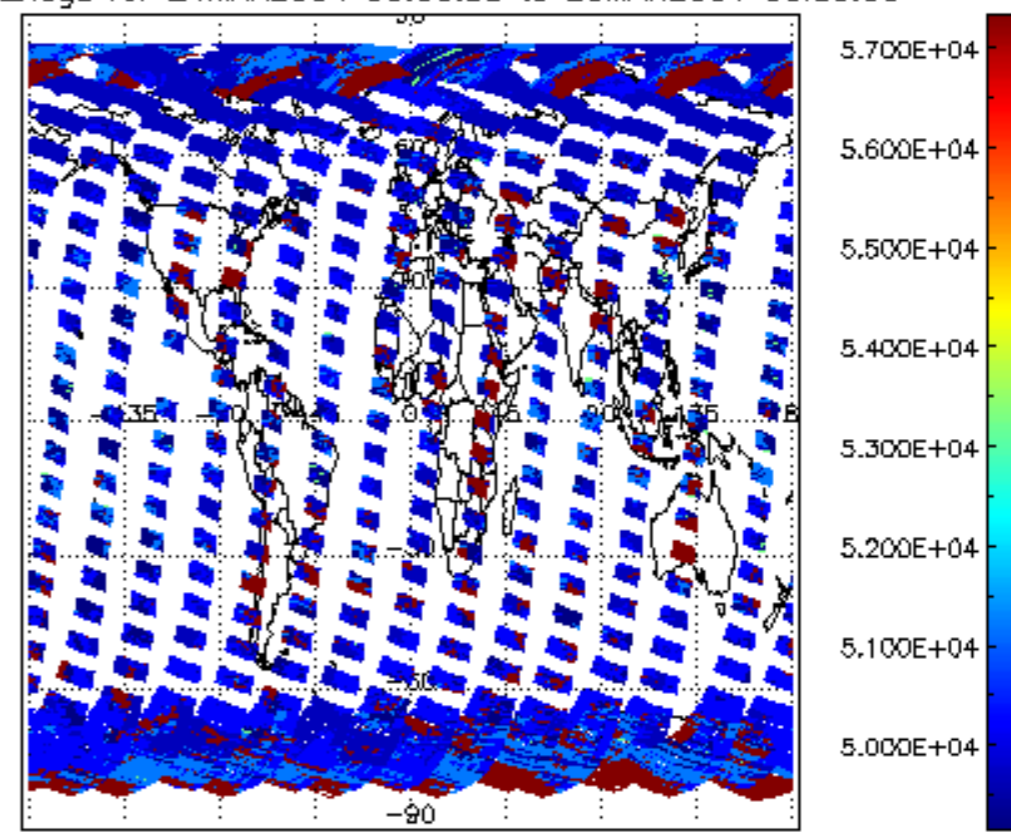
cL\_top\_height for 24MAR2004 00:00:00 to 25MAR2004 00:00:00

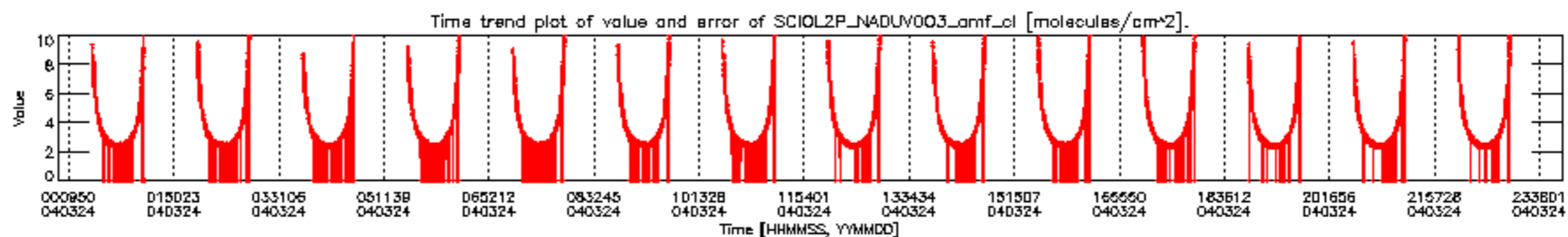
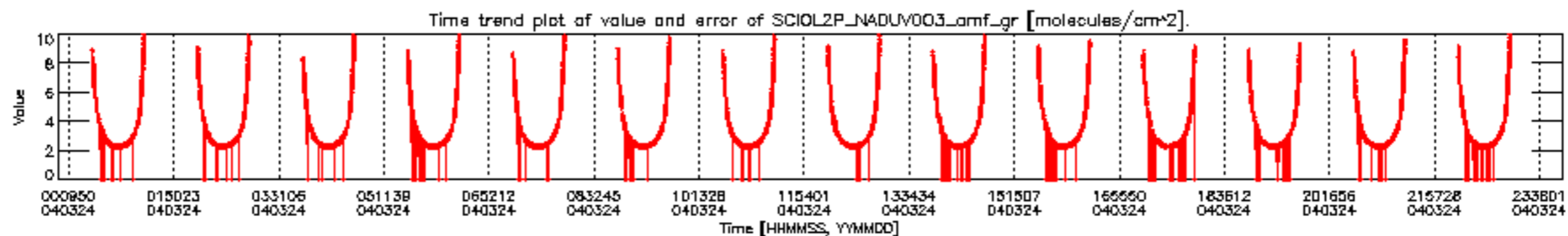
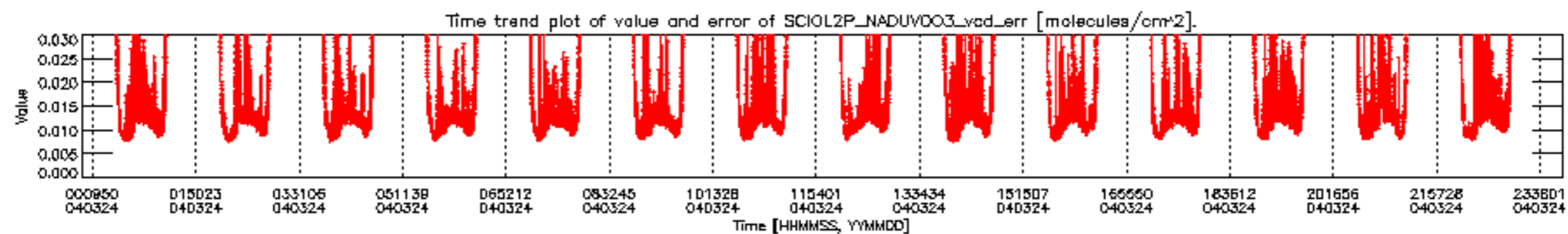
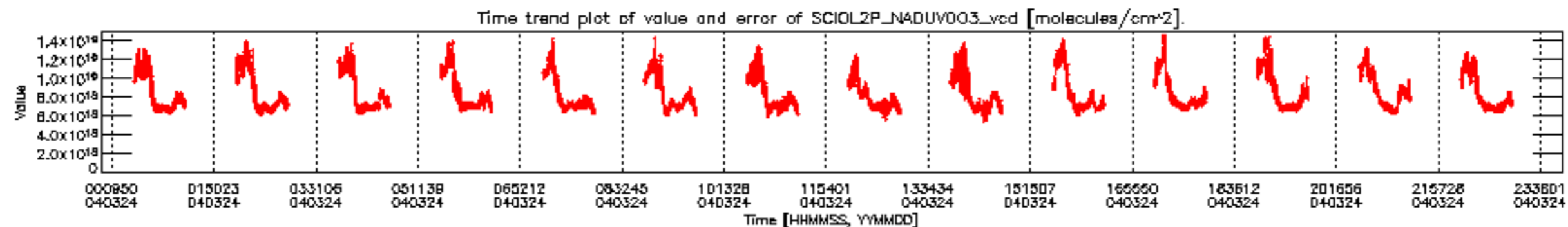


cL\_opt\_depth for 24MAR2004 00:00:00 to 25MAR2004 00:00:00

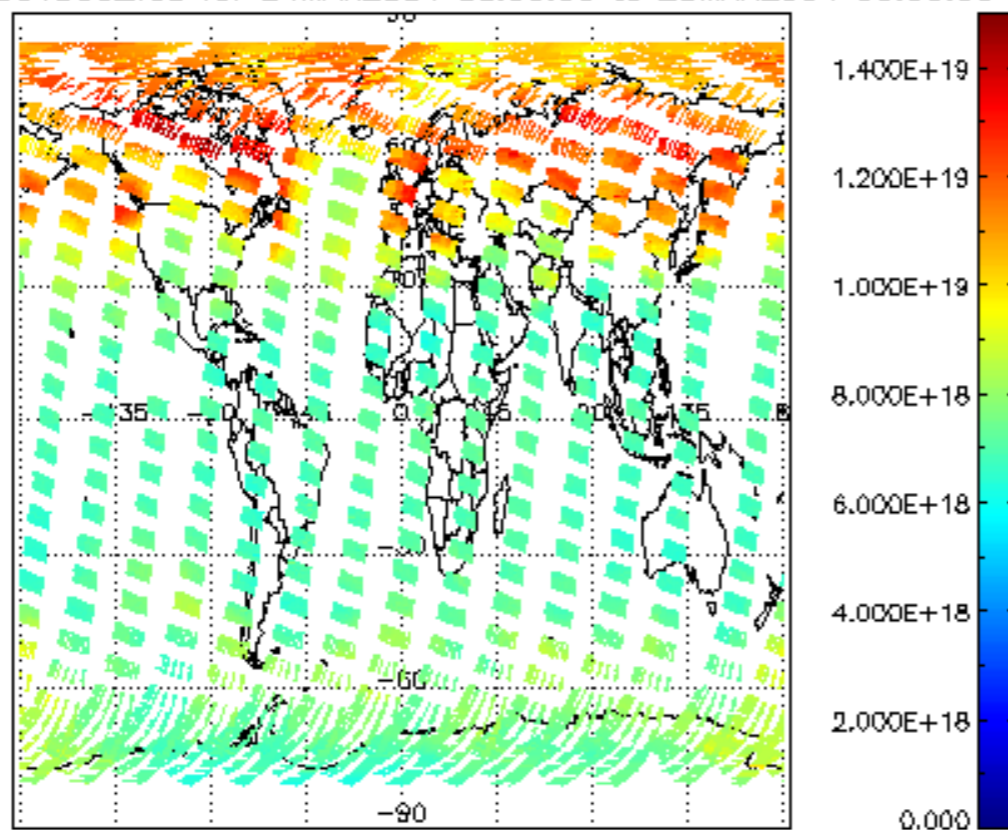


cloud\_flags for 24MAR2004 00:00:00 to 25MAR2004 00:00:00

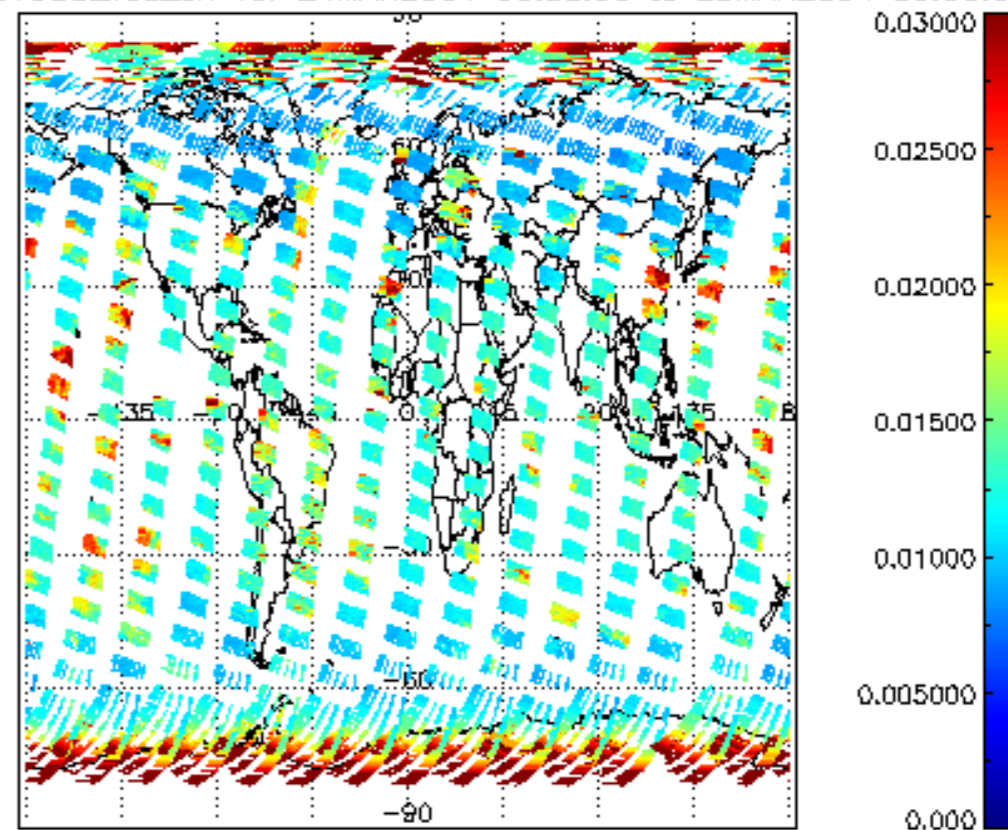




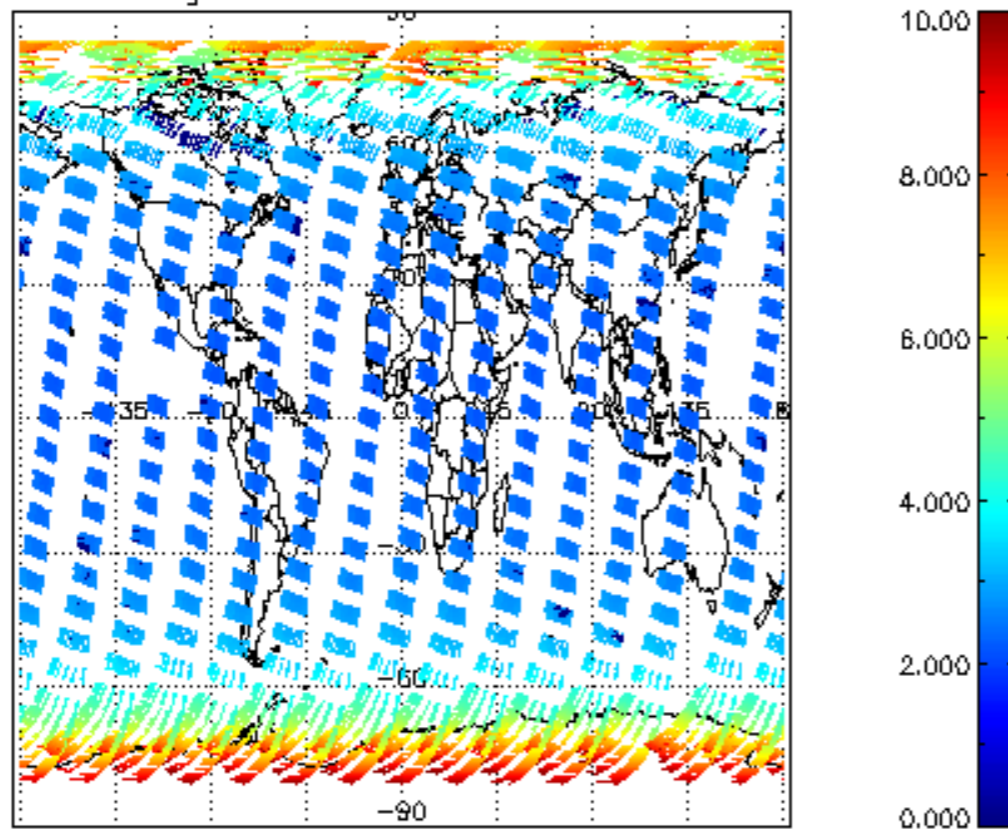
SCIOL2P\_NADUV003\_vcd for 24MAR2004 00:00:00 to 25MAR2004 00:00:00



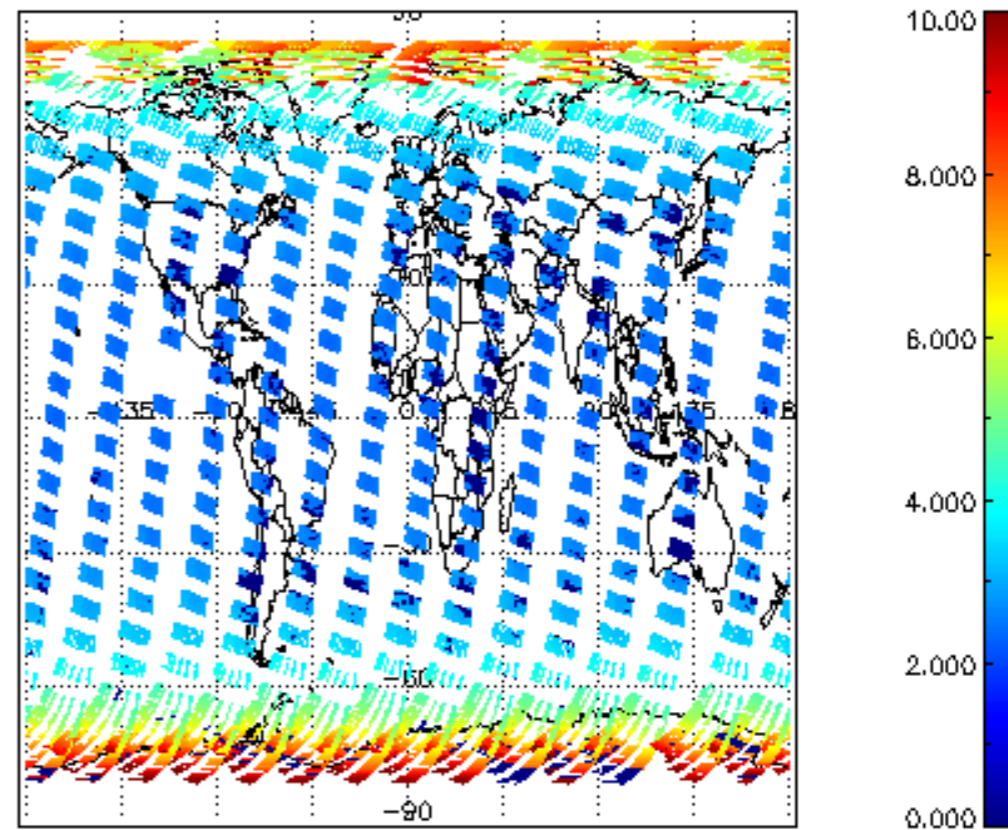
SCIOL2P\_NADUV003\_vcd\_err for 24MAR2004 00:00:00 to 25MAR2004 00:00:00

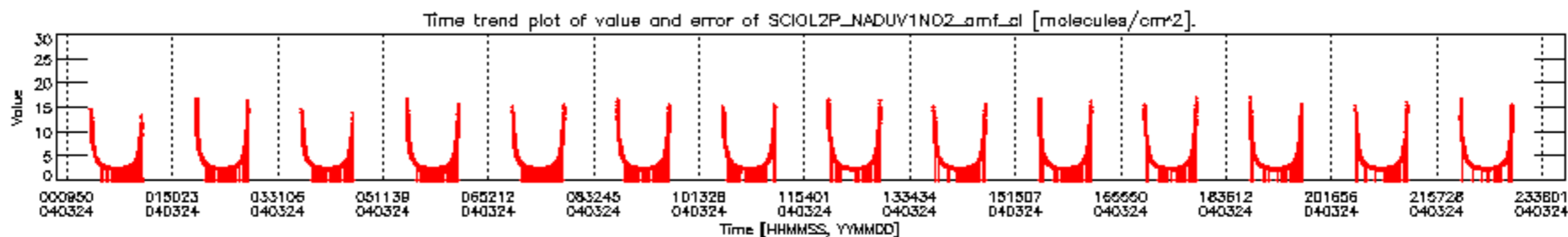
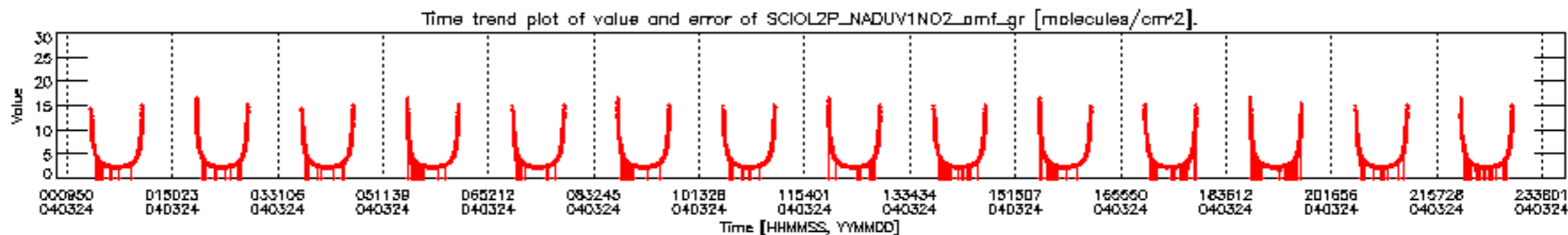
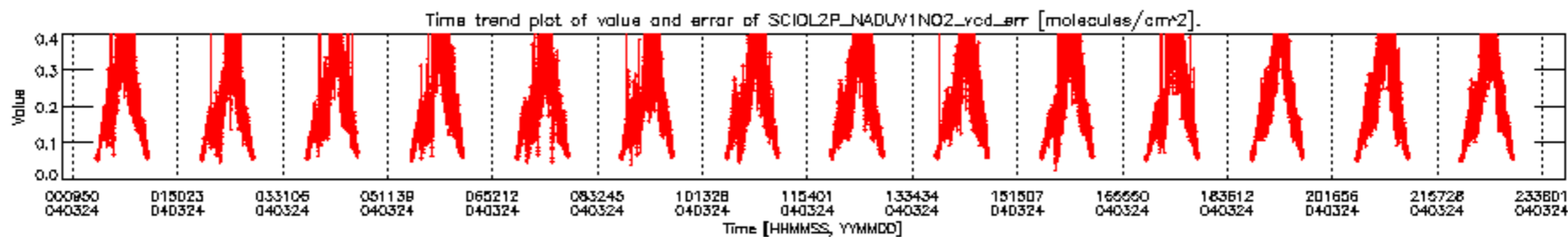
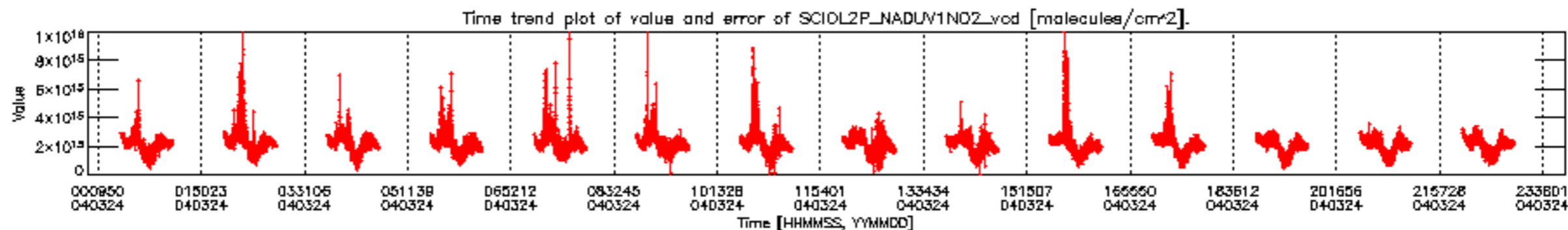


SCIOL2P\_NADUV003\_amf\_gr for 24MAR2004 00:00:00 to 25MAR2004 00:00:00

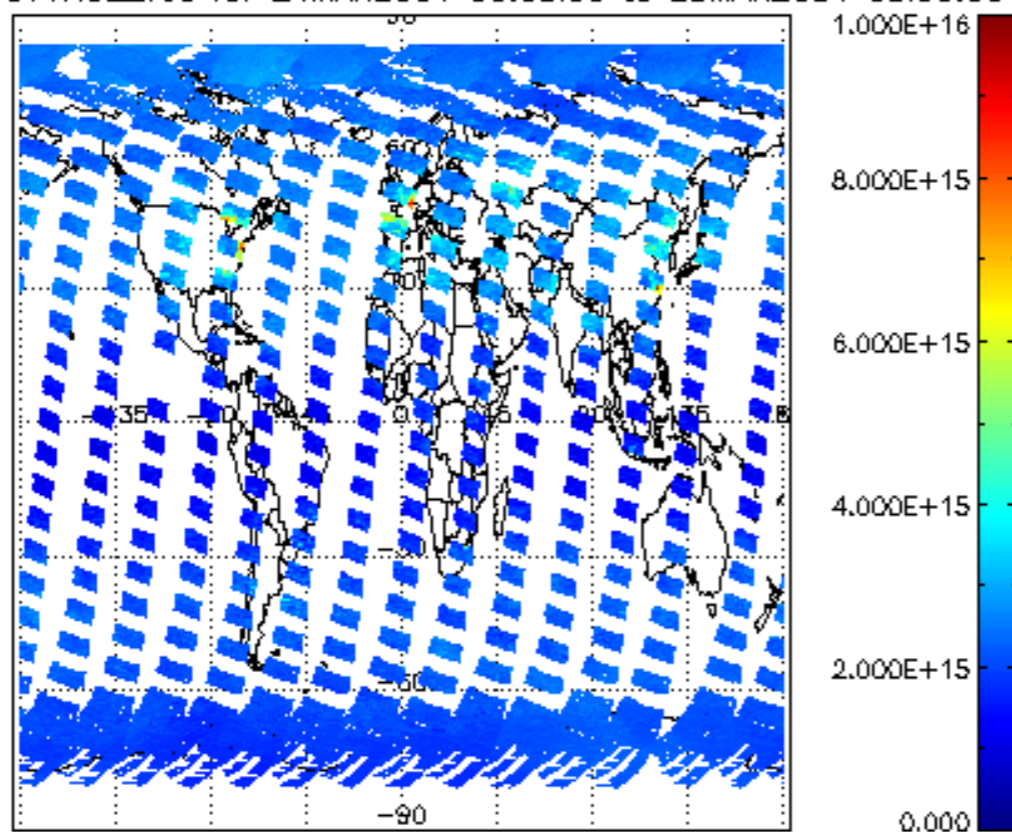


SCIOL2P\_NADUV003\_amf\_cl for 24MAR2004 00:00:00 to 25MAR2004 00:00:00

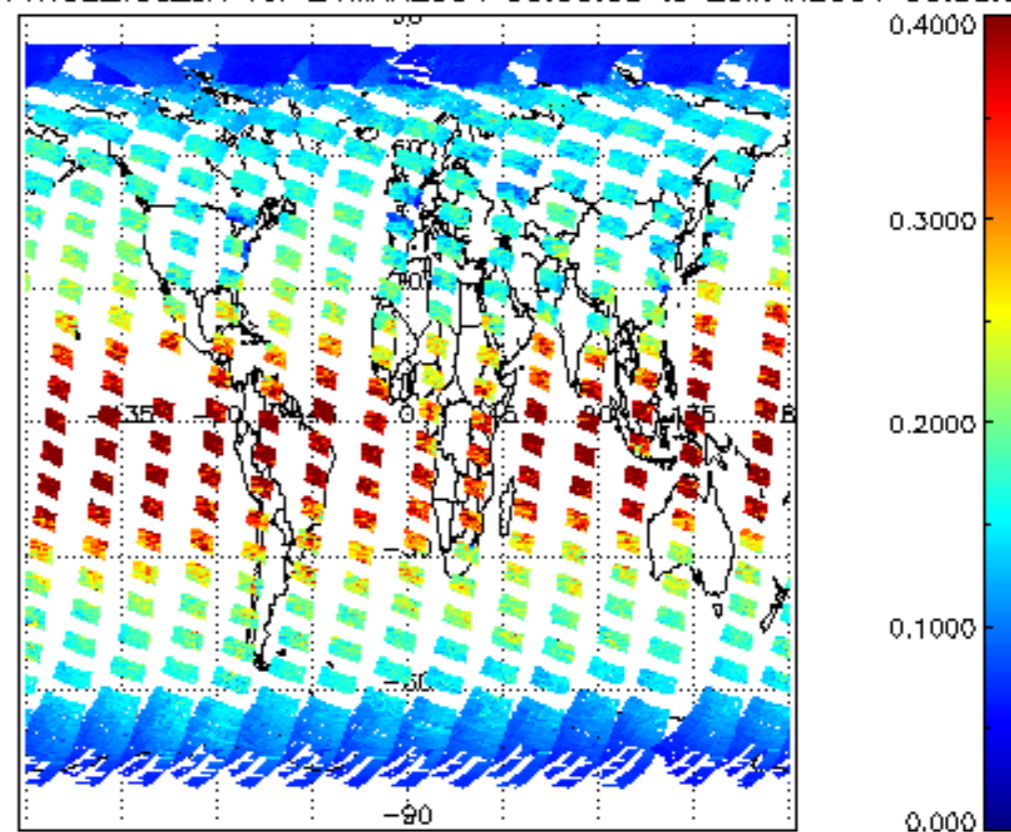




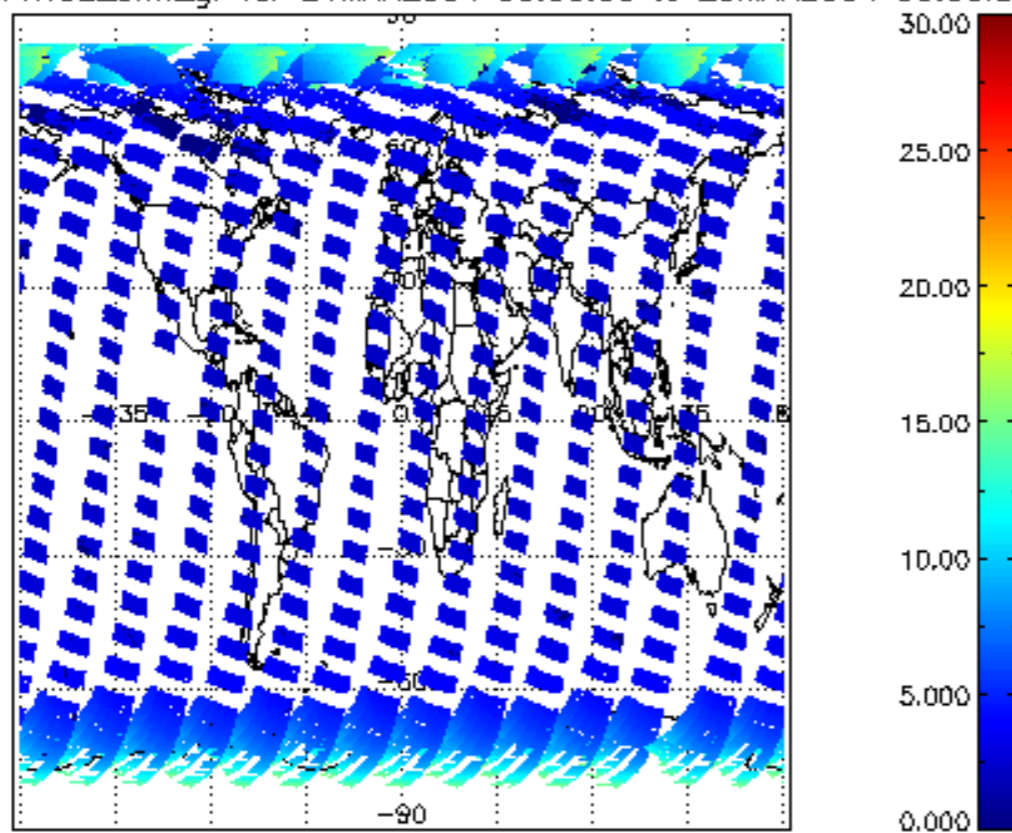
SCIOL2P\_NADUV1NO2\_vcd for 24MAR2004 00:00:00 to 25MAR2004 00:00:00



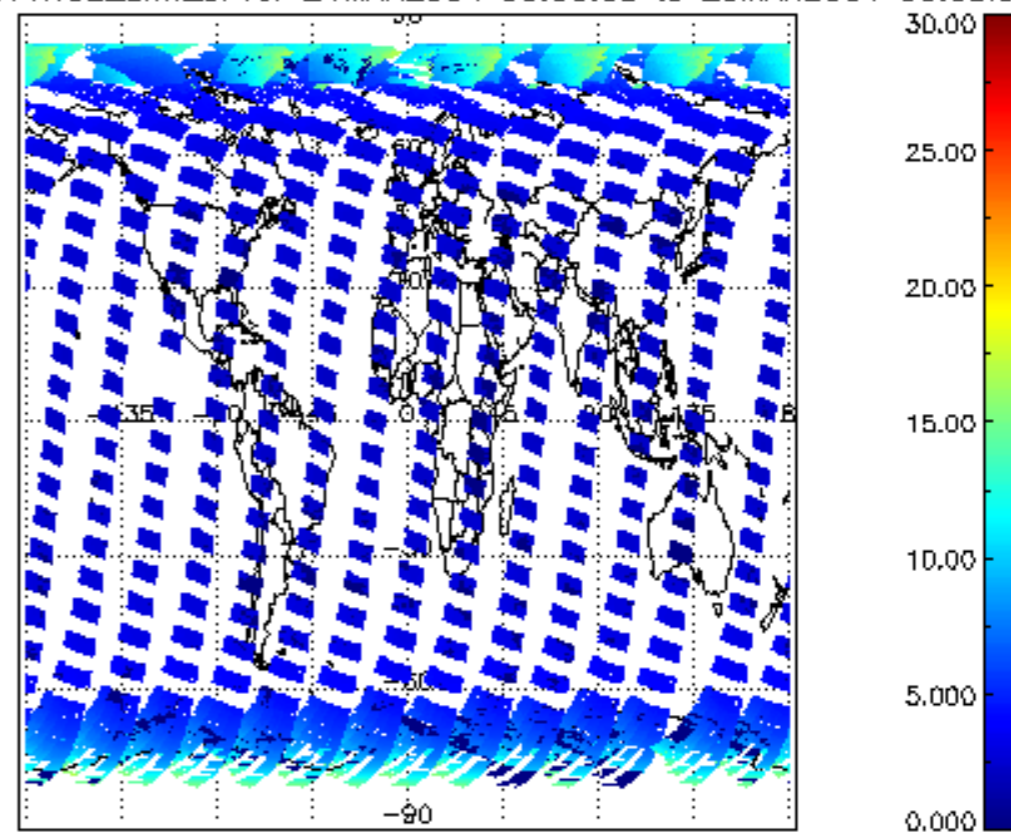
SCIOL2P\_NADUV1NO2\_vcd\_err for 24MAR2004 00:00:00 to 25MAR2004 00:00:00



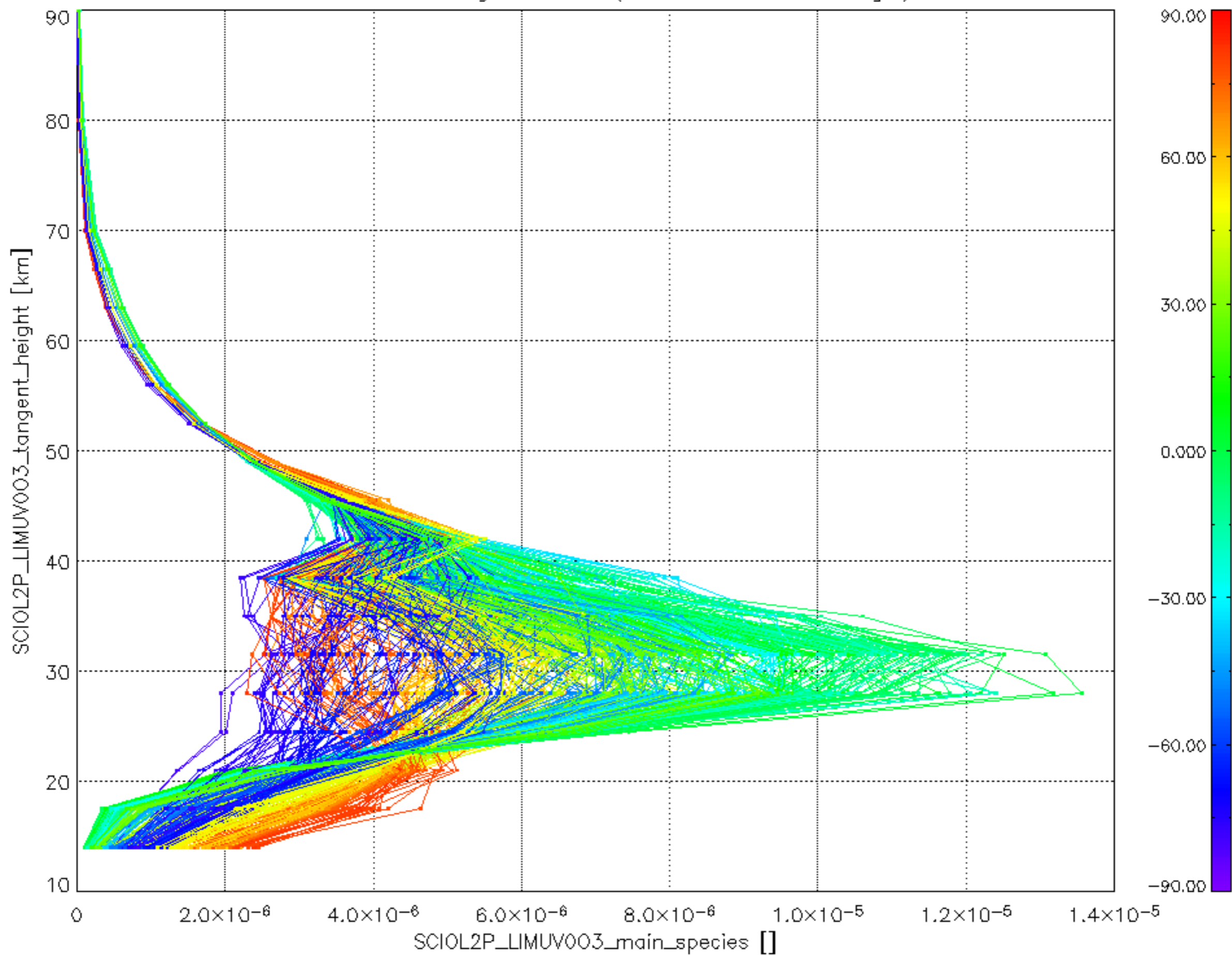
SCIOL2P\_NADUV1NO2\_amf\_gr for 24MAR2004 00:00:00 to 25MAR2004 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_cl for 24MAR2004 00:00:00 to 25MAR2004 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).

