

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	1.5 (01-07-2008)
Time of report generation	29JUL2008 12:30:03
Data source version	SCIA-OL/3.01-R
Processing scope for products	17JAN2004 00:00:00 to 18JAN2004 00:00:00
Start time of first product within scope	16JAN2004 23:00:05
Stop time of last product within scope	18JAN2004 01:04:20
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.

#	Product name	Start time	Stop time	Prod err	Fit summary
0	SCI_OL__2PRDPA20040116_230005_000032932023_00259_09832_6137.N1	16JAN2004 23:00:05	16JAN2004 23:54:58	0	GOOD
1	SCI_OL__2PRDPA20040117_004204_000032372023_00260_09833_6064.N1	17JAN2004 00:42:04	17JAN2004 01:36:01	0	GOOD
2	SCI_OL__2PRDPA20040117_022116_000032932023_00261_09834_6085.N1	17JAN2004 02:21:16	17JAN2004 03:16:09	0	GOOD
3	SCI_OL__2PRDPA20040117_040315_000032372023_00262_09835_6389.N1	17JAN2004 04:03:15	17JAN2004 04:57:12	0	GOOD
4	SCI_OL__2PRDPA20040117_054227_000032932023_00263_09836_6282.N1	17JAN2004 05:42:27	17JAN2004 06:37:20	0	GOOD
5	SCI_OL__2PRDPA20040117_072426_000032372023_00264_09837_6374.N1	17JAN2004 07:24:26	17JAN2004 08:18:24	0	GOOD
6	SCI_OL__2PRDPA20040117_090338_000032932023_00265_09838_6256.N1	17JAN2004 09:03:38	17JAN2004 09:58:32	0	GOOD
7	SCI_OL__2PRDPA20040117_104537_000032372023_00266_09839_6161.N1	17JAN2004 10:45:37	17JAN2004 11:39:35	0	GOOD
8	SCI_OL__2PRDPA20040117_122449_000032932023_00267_09840_6076.N1	17JAN2004 12:24:49	17JAN2004 13:19:43	0	GOOD
9	SCI_OL__2PRDPA20040117_140648_000032372023_00268_09841_6052.N1	17JAN2004 14:06:48	17JAN2004 15:00:46	0	GOOD
10	SCI_OL__2PRDPA20040117_154600_000033772023_00269_09842_6392.N1	17JAN2004 15:46:00	17JAN2004 16:42:17	0	GOOD
11	SCI_OL__2PRDPA20040117_172644_000033332023_00270_09843_6175.N1	17JAN2004 17:26:44	17JAN2004 18:22:17	0	GOOD
12	SCI_OL__2PRDPA20040117_190644_000033492023_00271_09844_6253.N1	17JAN2004 19:06:44	17JAN2004 20:02:33	0	GOOD
13	SCI_OL__2PRDPA20040117_204911_000032372023_00272_09845_6215.N1	17JAN2004 20:49:11	17JAN2004 21:43:09	0	GOOD
14	SCI_OL__2PRDPA20040117_222823_000033772023_00273_09846_6102.N1	17JAN2004 22:28:23	17JAN2004 23:24:40	0	GOOD
15	SCI_OL__2PRDPA20040118_001022_000032372023_00274_09847_6202.N1	18JAN2004 00:10:22	18JAN2004 01:04:20	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: 113220

Total number of cloud data DSRs with good quality flag (=0): 113220 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	113220	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	113220	0.21798	0.25000	0.12500	1.0000	0.091339	s
CL_FRAC	113220	0.48572	0.49477	0.0000	1.0000	0.27489	-

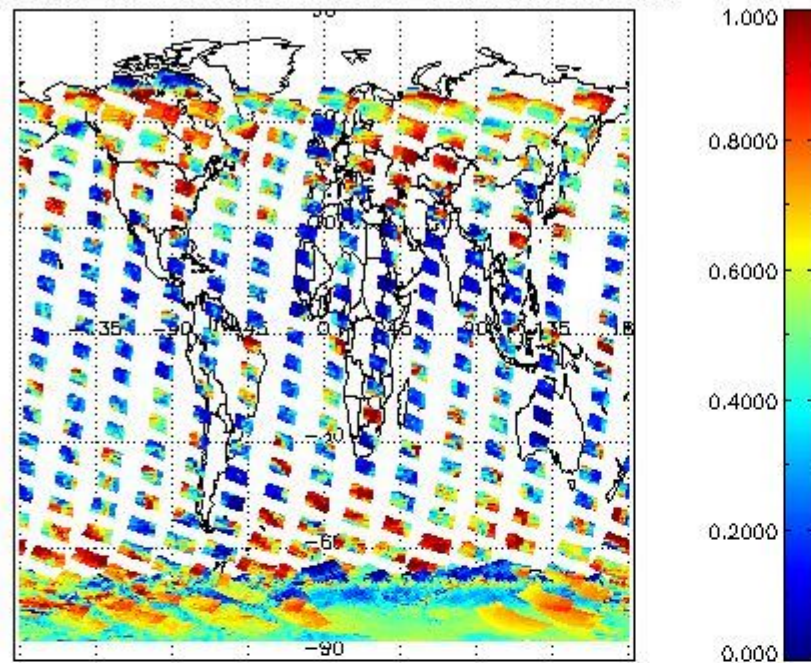
CL_FRAC_ERR	113220	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	113220	6.9754	8.0000	4.0000	32.000	2.9228	
PMD_READ_CL[0]	113220	0.38028	0.0000	0.0000	32.000	1.4528	-
PMD_READ_CL[1]	113220	0.25543	0.0000	0.0000	32.000	1.4396	-
CL_TOP_HEIGHT	104464	4.5561	3.5310	0.0000	17.000	3.7681	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	104464	49.257	33.520	0.0000	101.00	38.766	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	113220	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	113220	11000101	11000010	11000000	11100000	2237.1	flags
AERO_ABSO_IND	113220	0.61432	0.37916	-3.8515	11.019	1.1568	
AERO_IND_DIAG	113220	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	113220	01101000	11000000	00000000	11000000	24474.	flags

Time and geolocation plots:

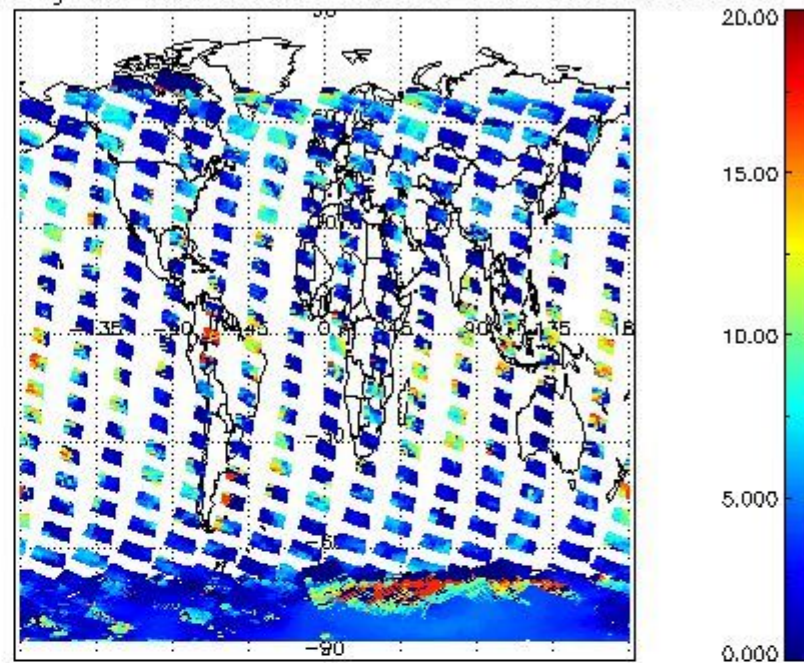
Plots are available for the following parameters:

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

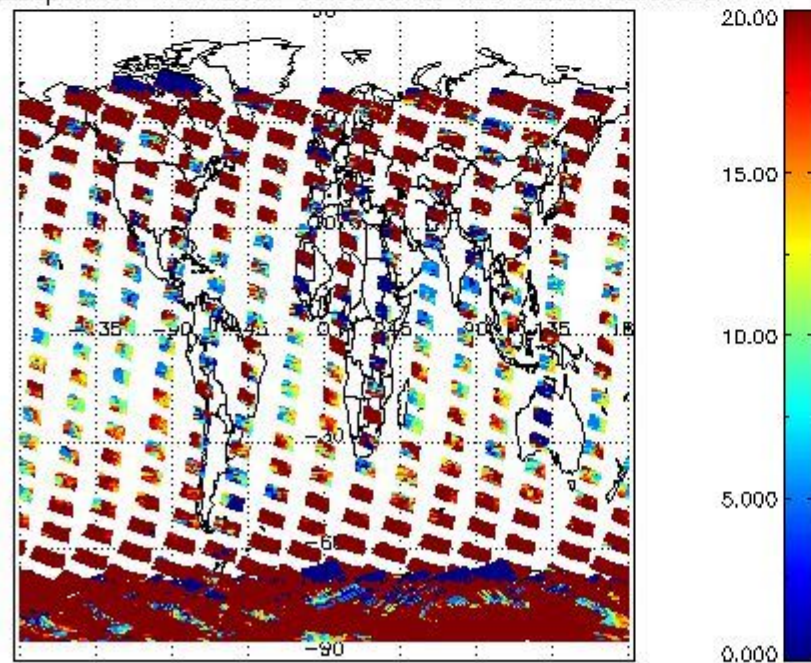
cL_frac for 17JAN2004 00:00:00 to 18JAN2004 00:00:00



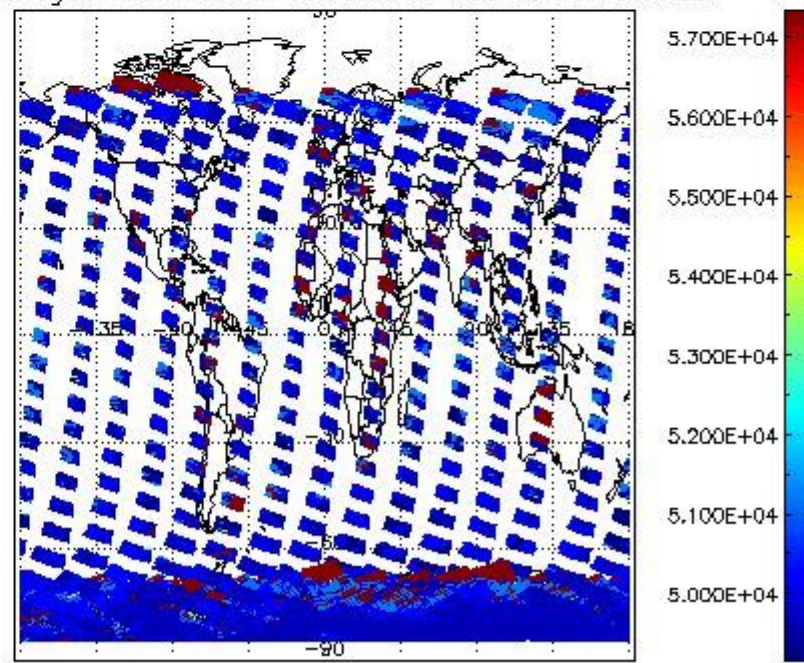
cL_top_height for 17JAN2004 00:00:00 to 18JAN2004 00:00:00



cLopt_depth for 17JAN2004 00:00:00 to 18JAN2004 00:00:00



cloud_flags for 17JAN2004 00:00:00 to 18JAN2004 00:00:00



2.2.2 Nadir

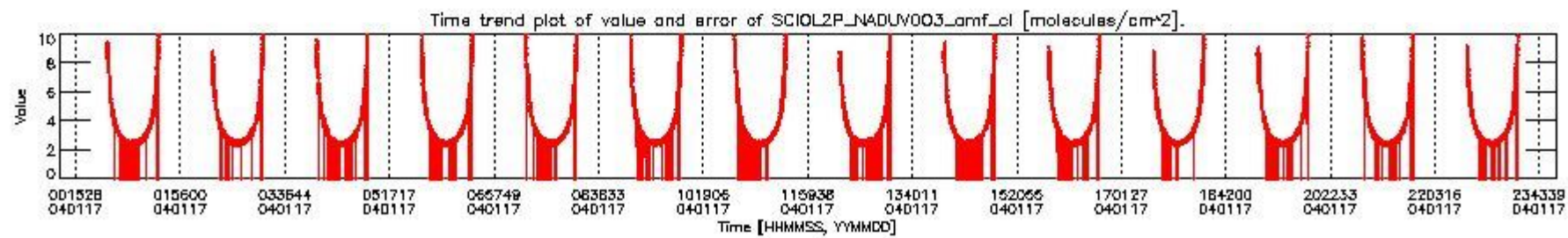
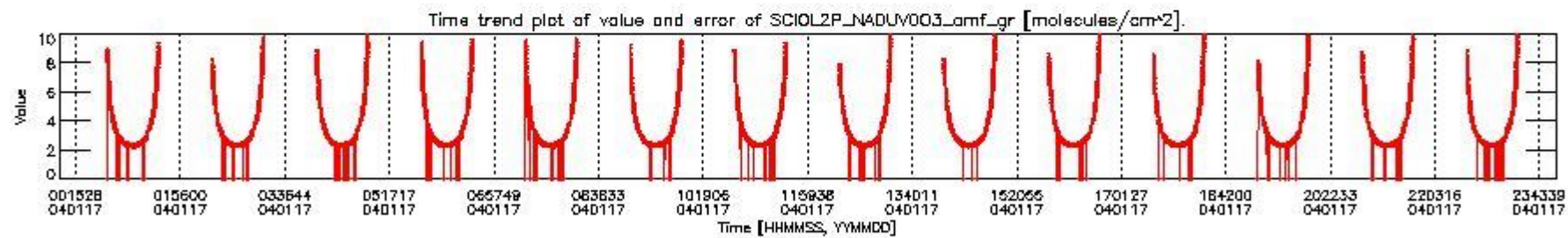
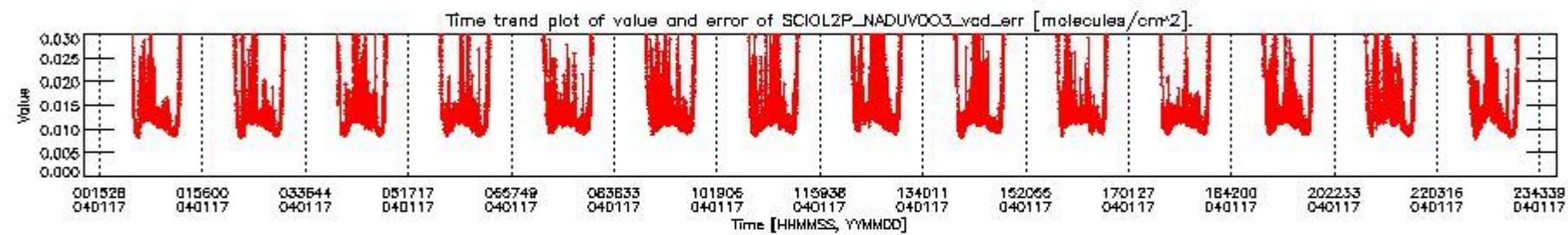
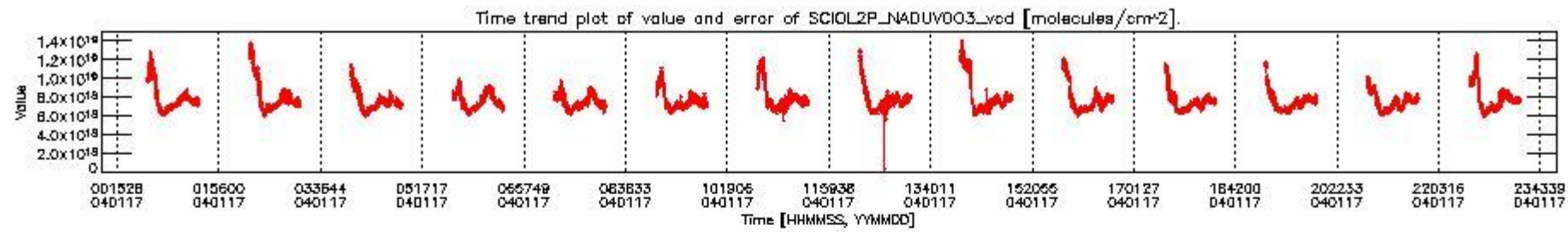
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

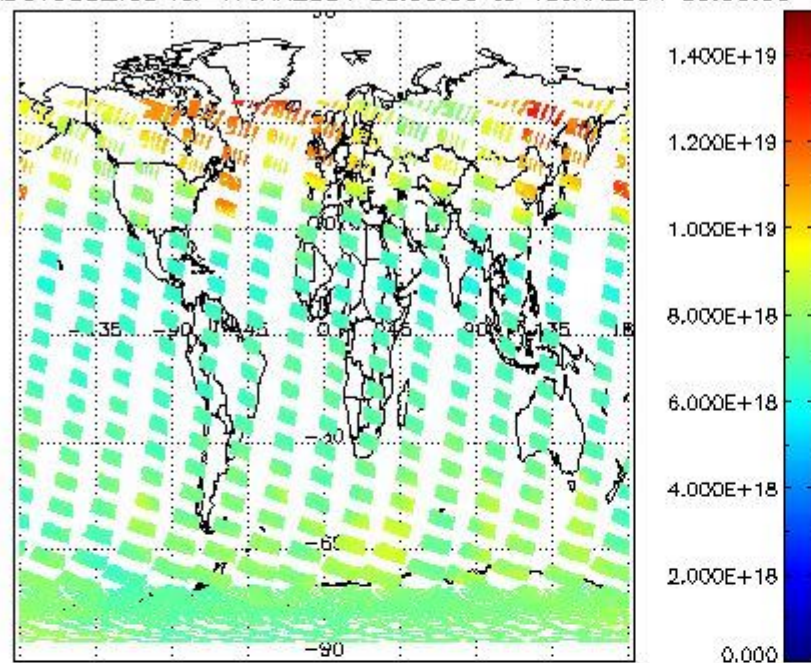
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

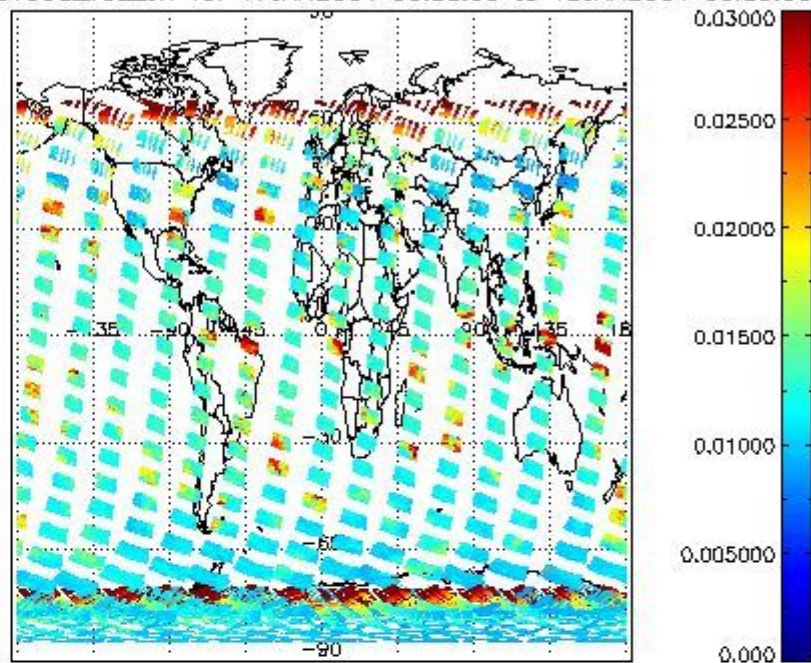
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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



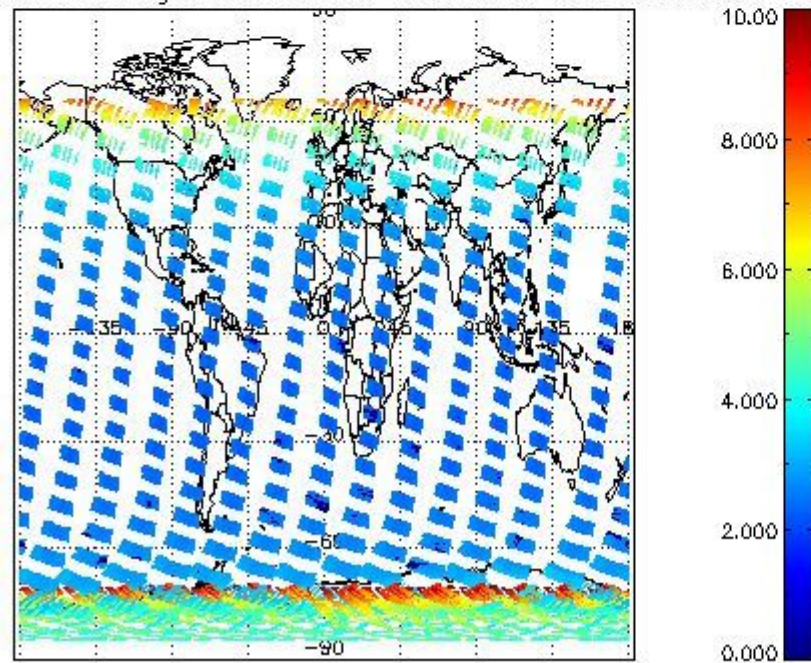
SCIOL2P_NADUV003_vcd for 17JAN2004 00:00:00 to 18JAN2004 00:00:00



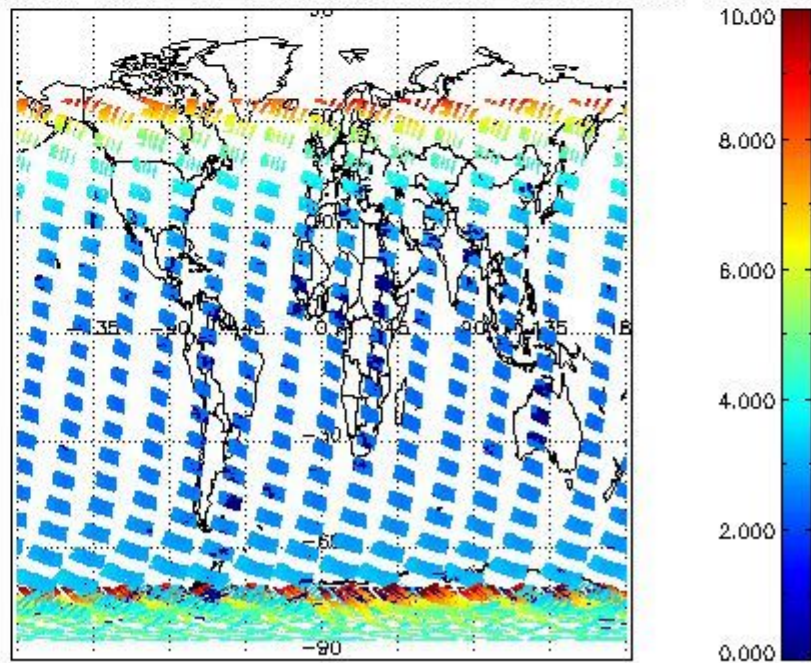
SCIOL2P_NADUV003_vcd_err for 17JAN2004 00:00:00 to 18JAN2004 00:00:00

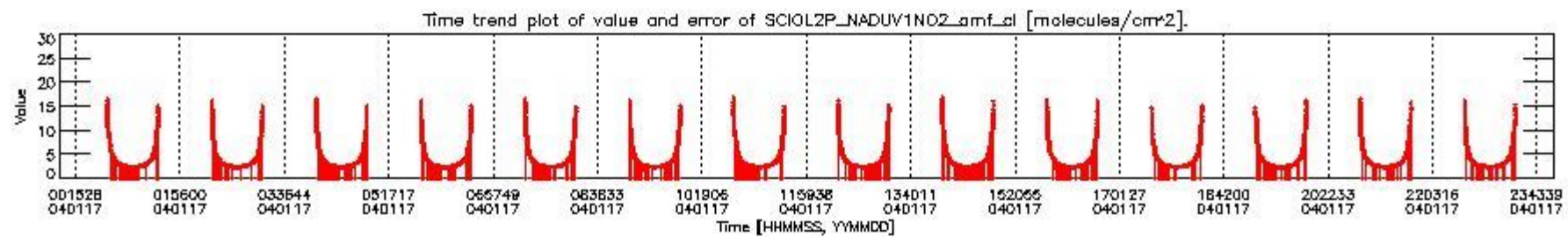
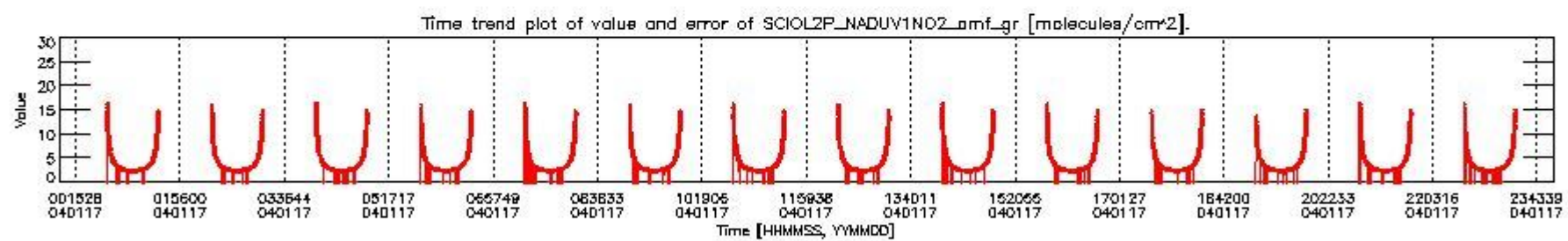
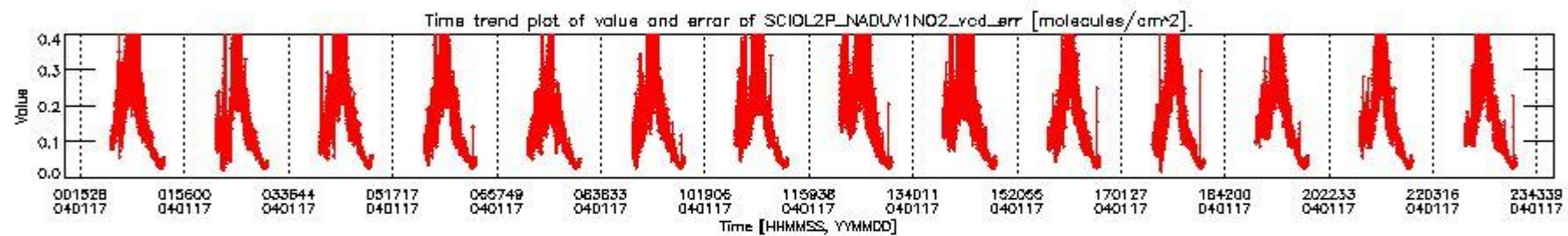
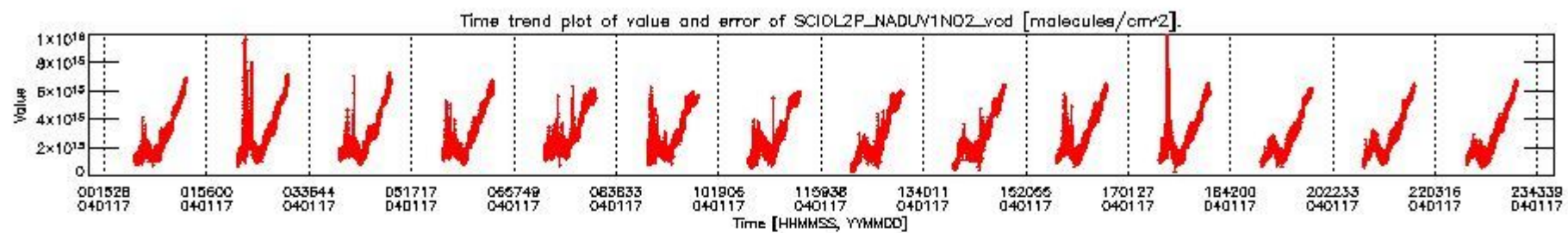


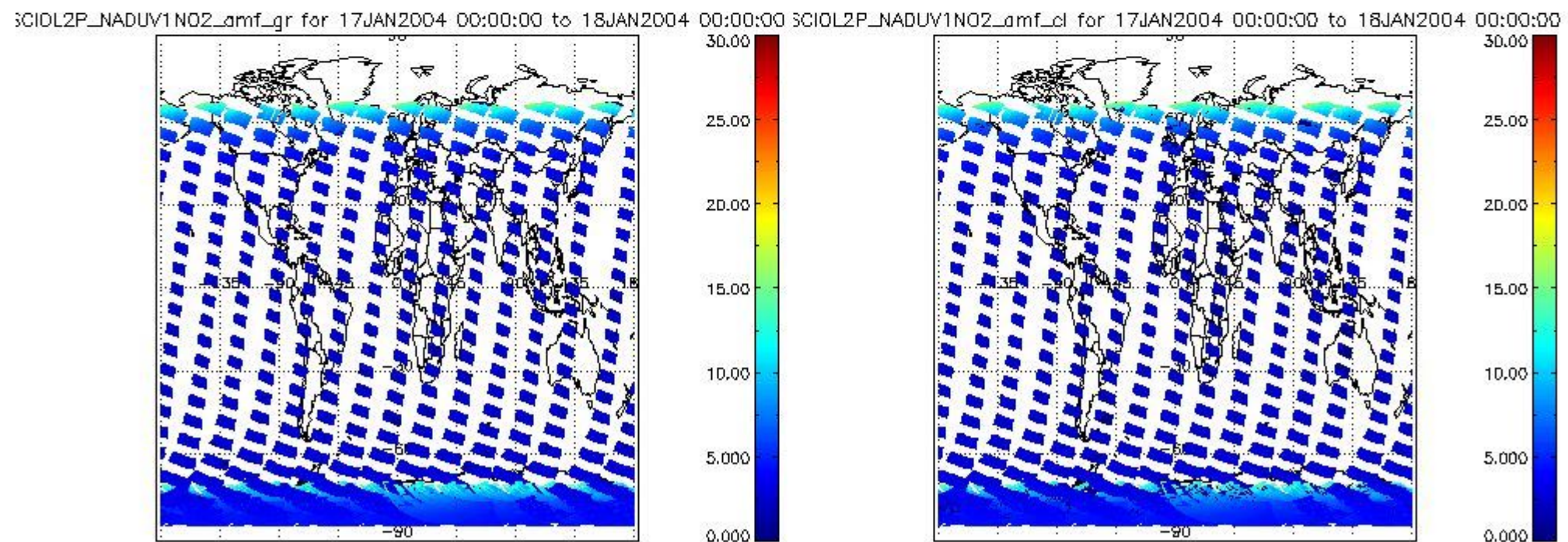
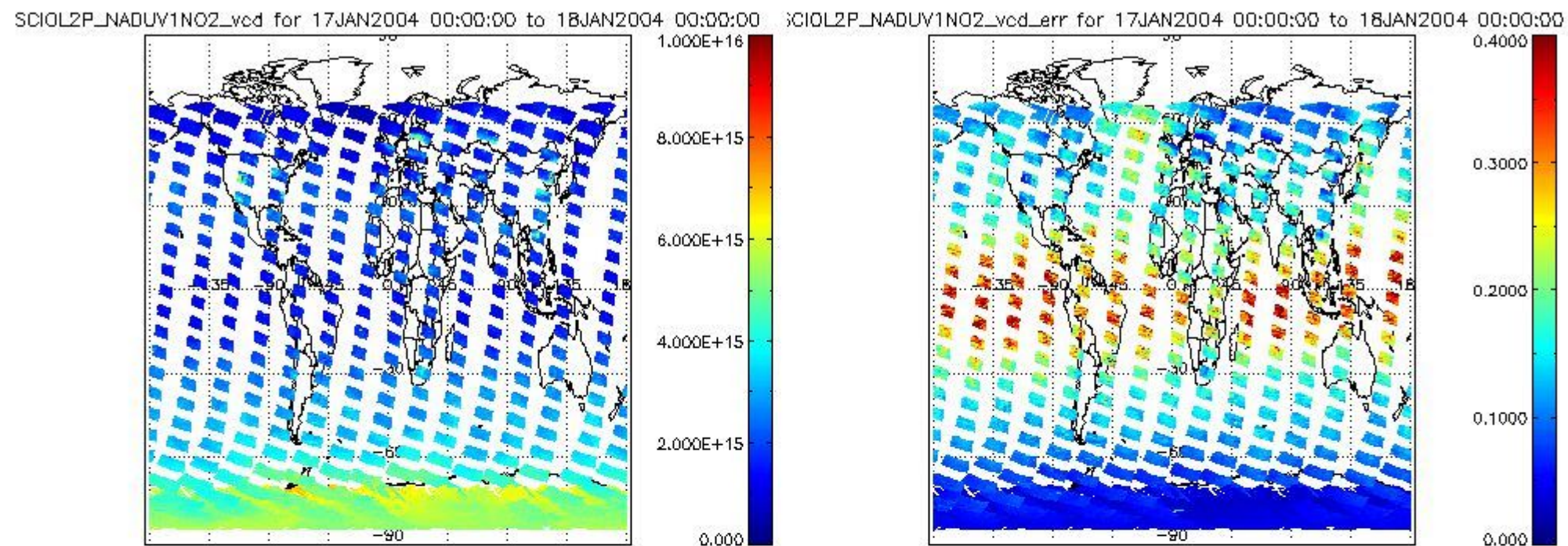
SCIOL2P_NADUV003_amf_gr for 17JAN2004 00:00:00 to 18JAN2004 00:00:00



SCIOL2P_NADUV003_amf_cl for 17JAN2004 00:00:00 to 18JAN2004 00:00:00







2.2.3 Limb

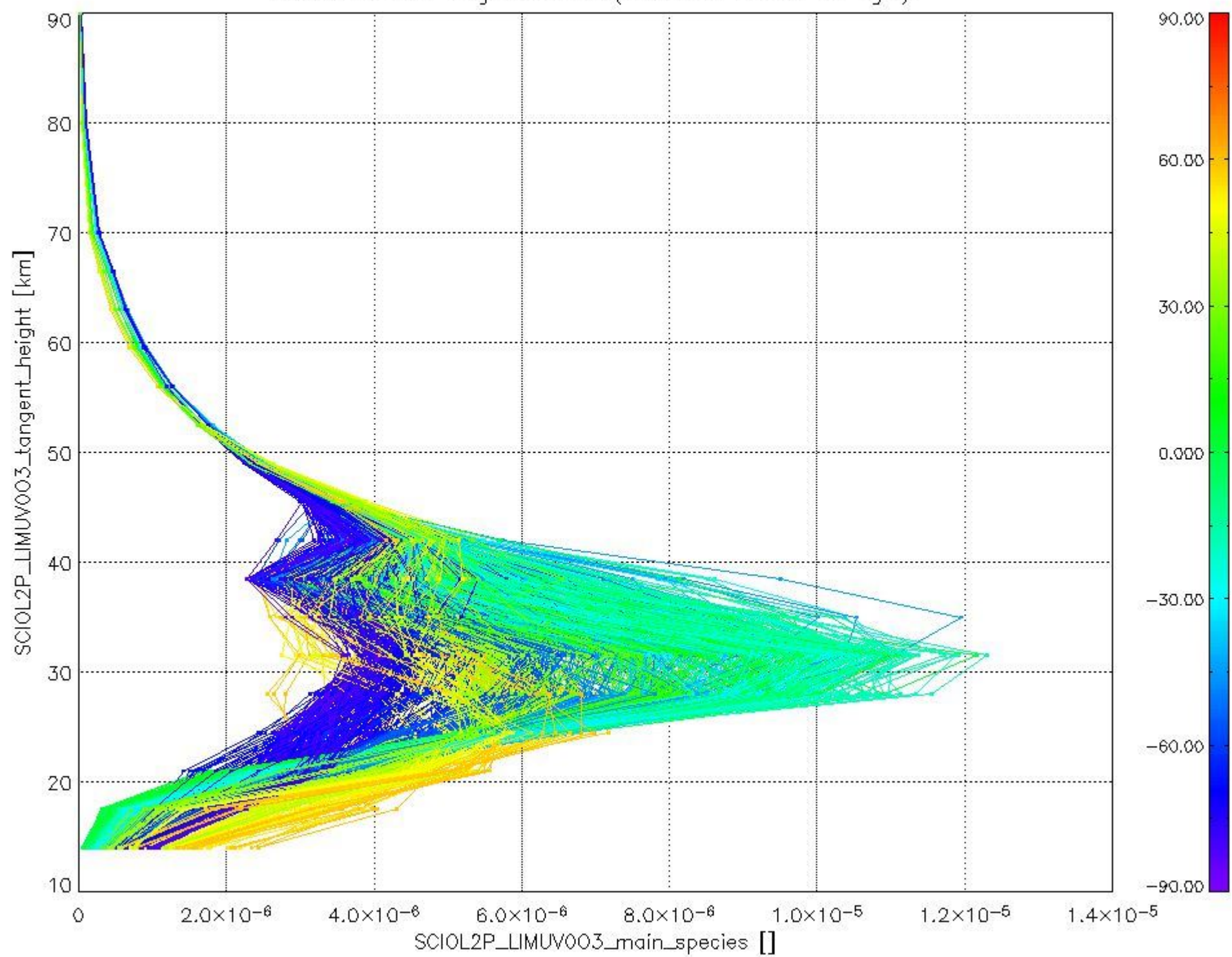
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

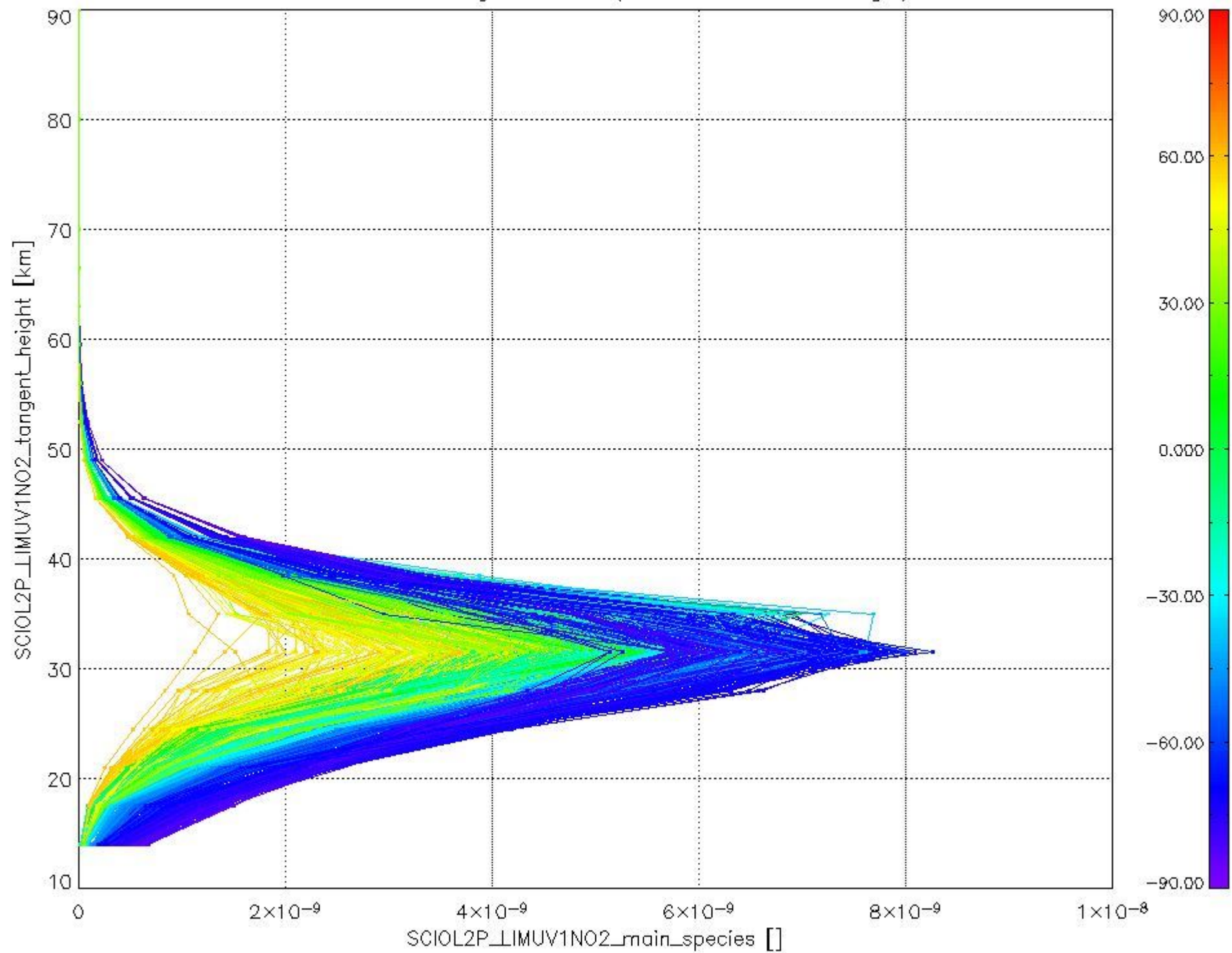
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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

Plot of SCIOL2P_LIMUV003_main_species.tang_vmr vs. tangent height.
 Colours indicate tangent latitude (see colour bar on the right).



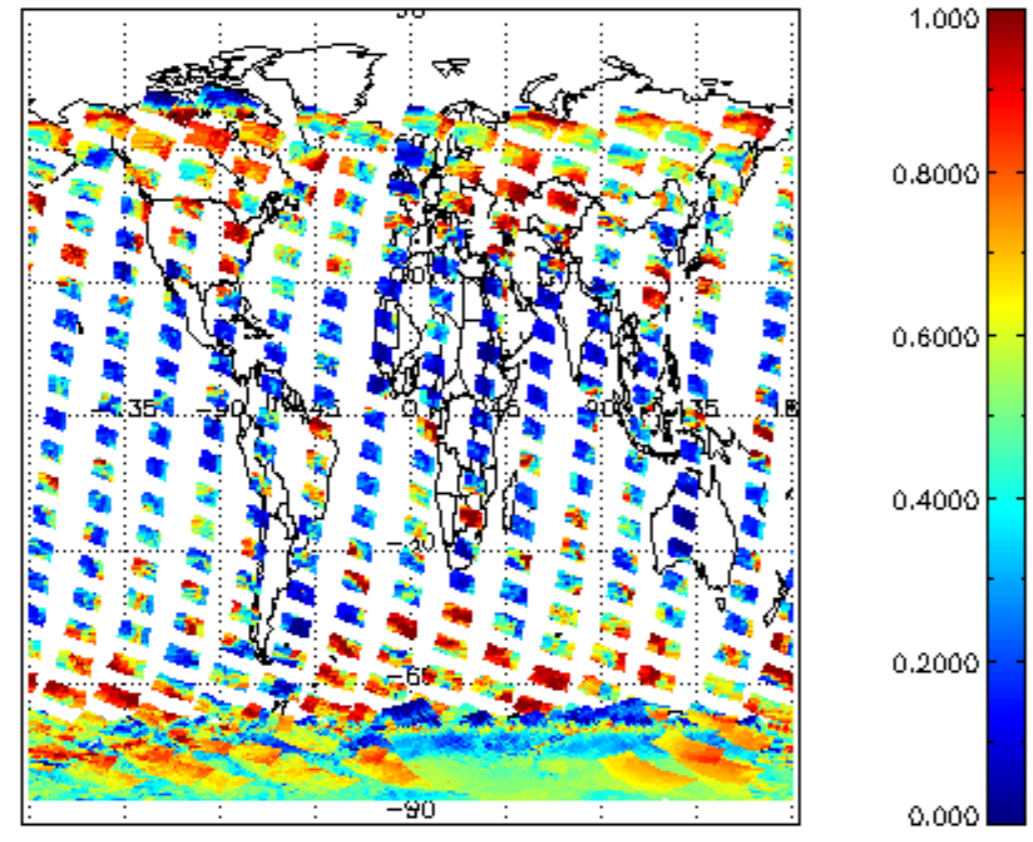
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



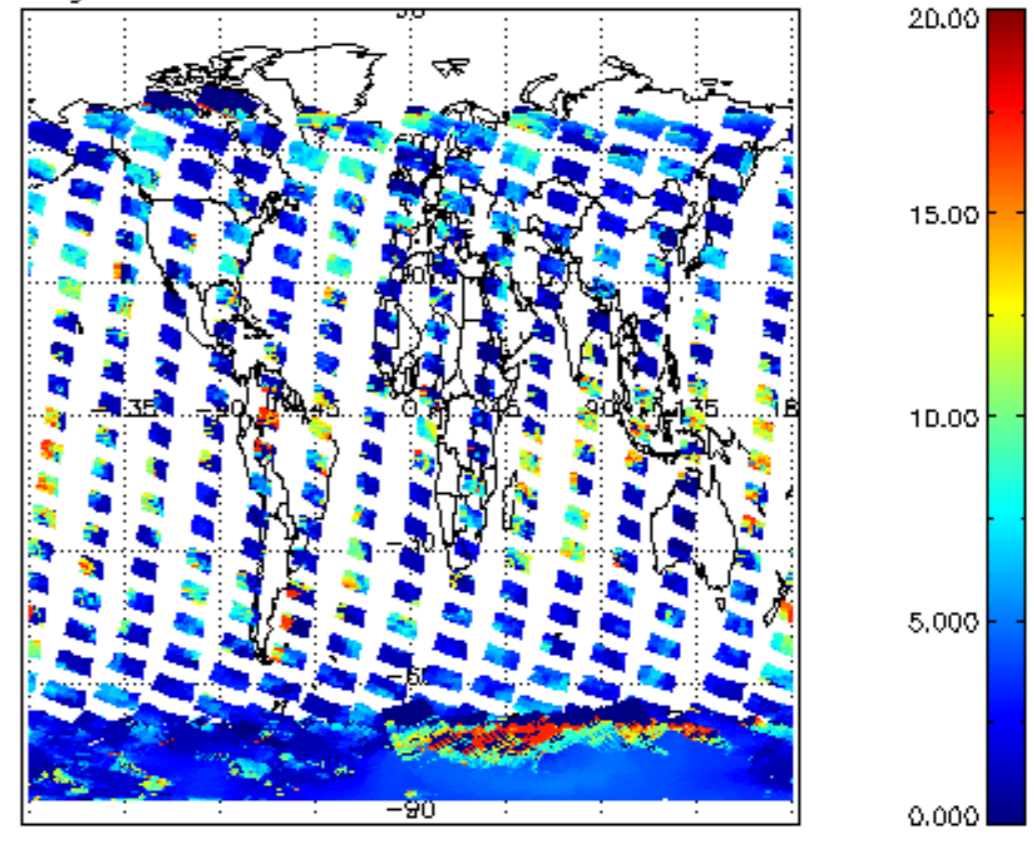
2.3 ADF monitoring

Number	ADP
	IN_ (INITIALISATION_FILE)
0	SCI_IN_AXNPDE20070629_092400_20070720_000000_20991231_235959
	ECF (ECMWF_FILE)
1	NOT USED

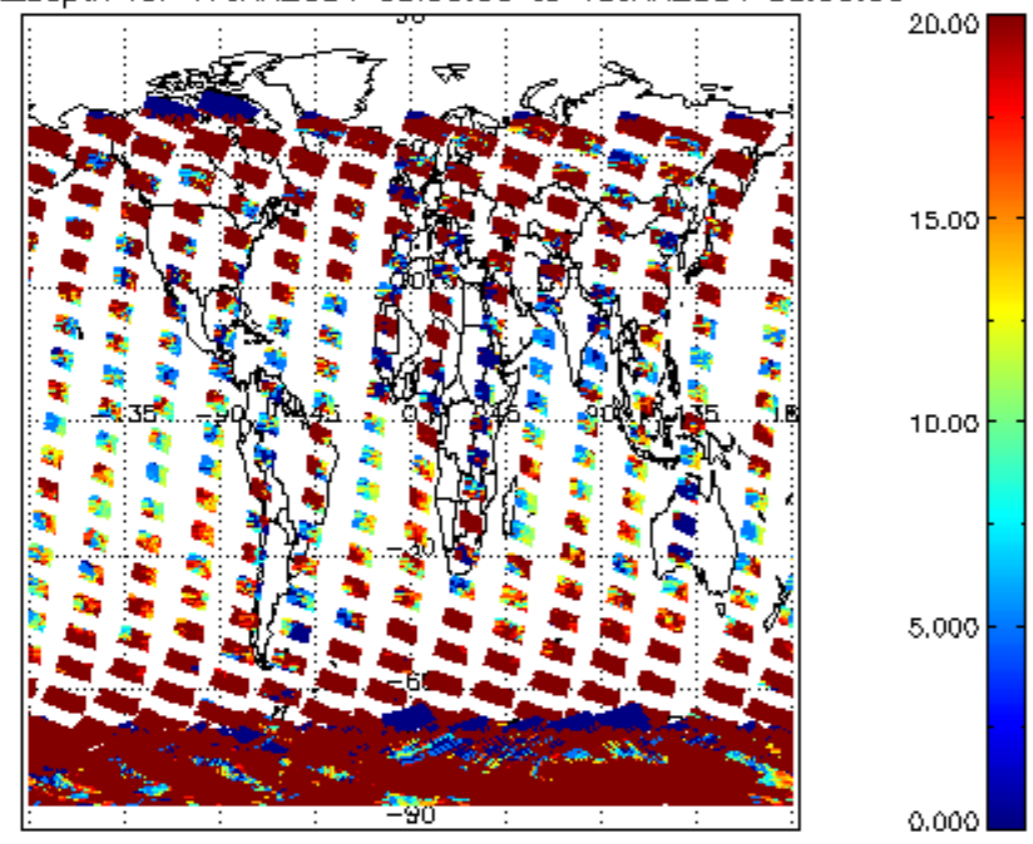
cL_frac for 17JAN2004 00:00:00 to 18JAN2004 00:00:00



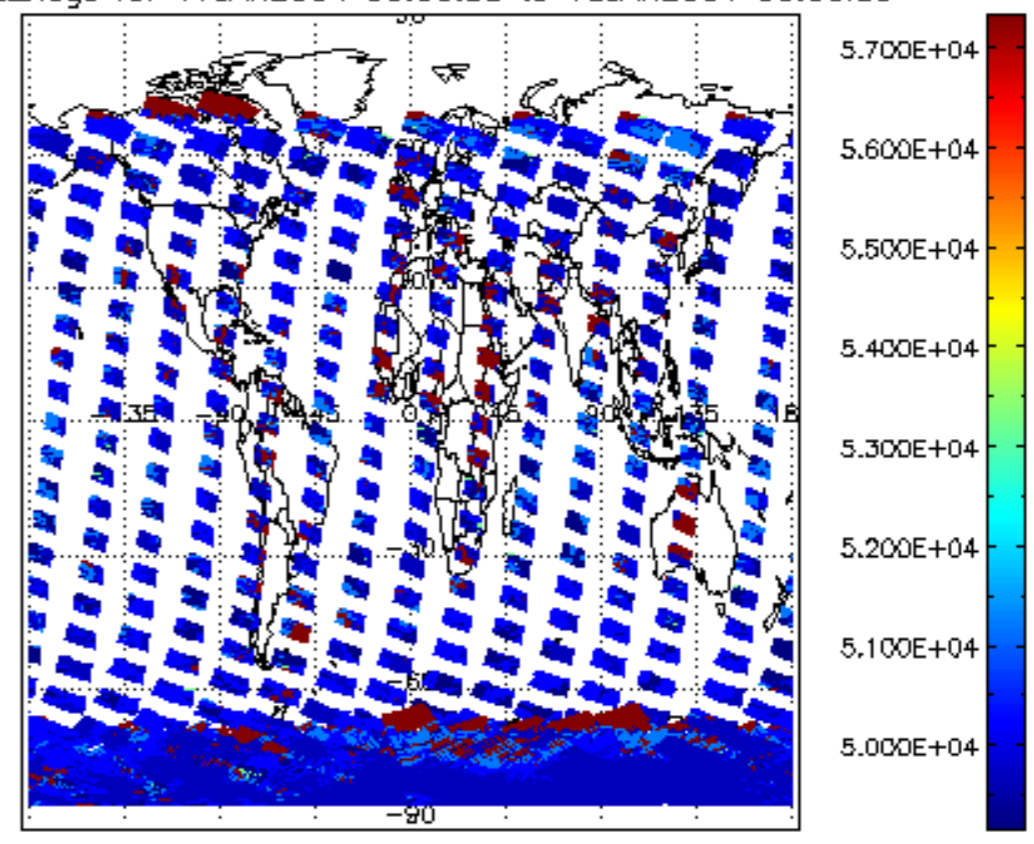
cL_top_height for 17JAN2004 00:00:00 to 18JAN2004 00:00:00

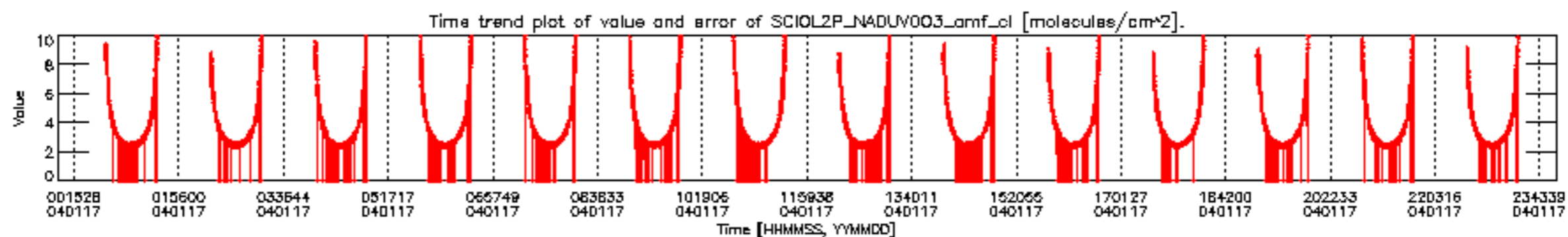
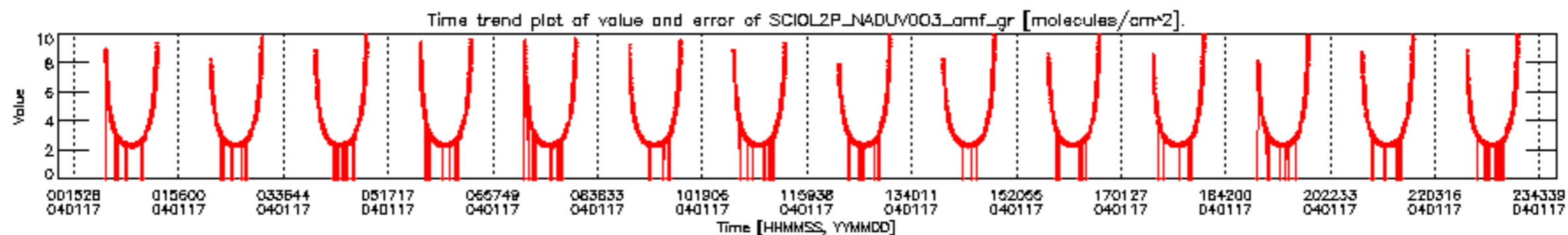
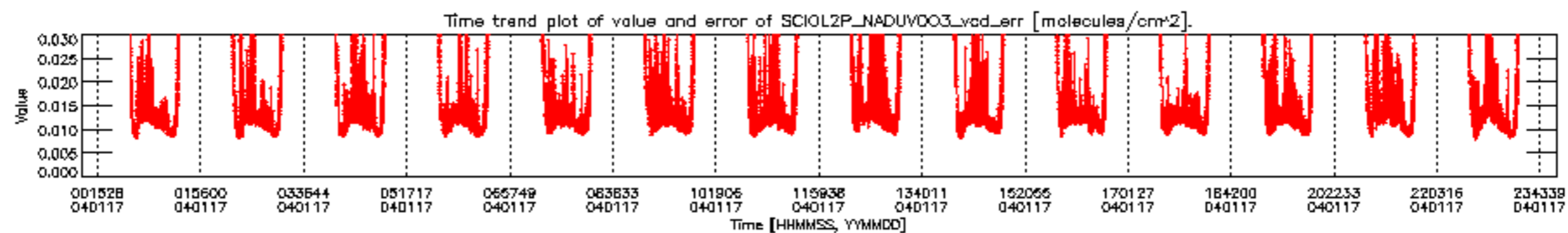
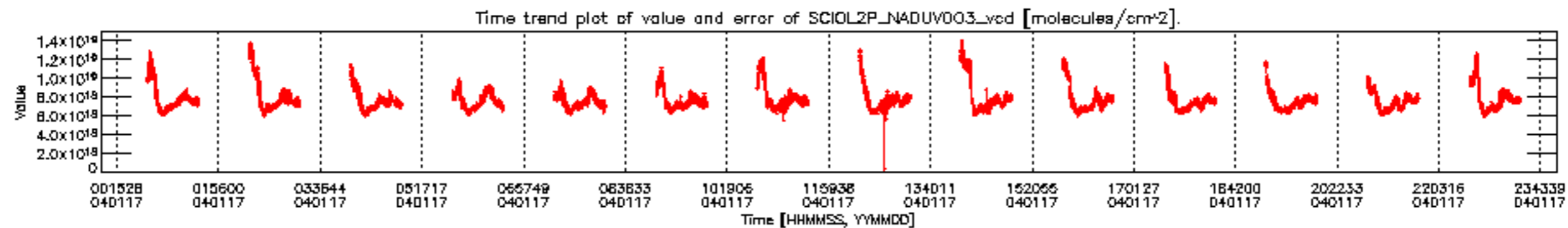


cL_opt_depth for 17JAN2004 00:00:00 to 18JAN2004 00:00:00

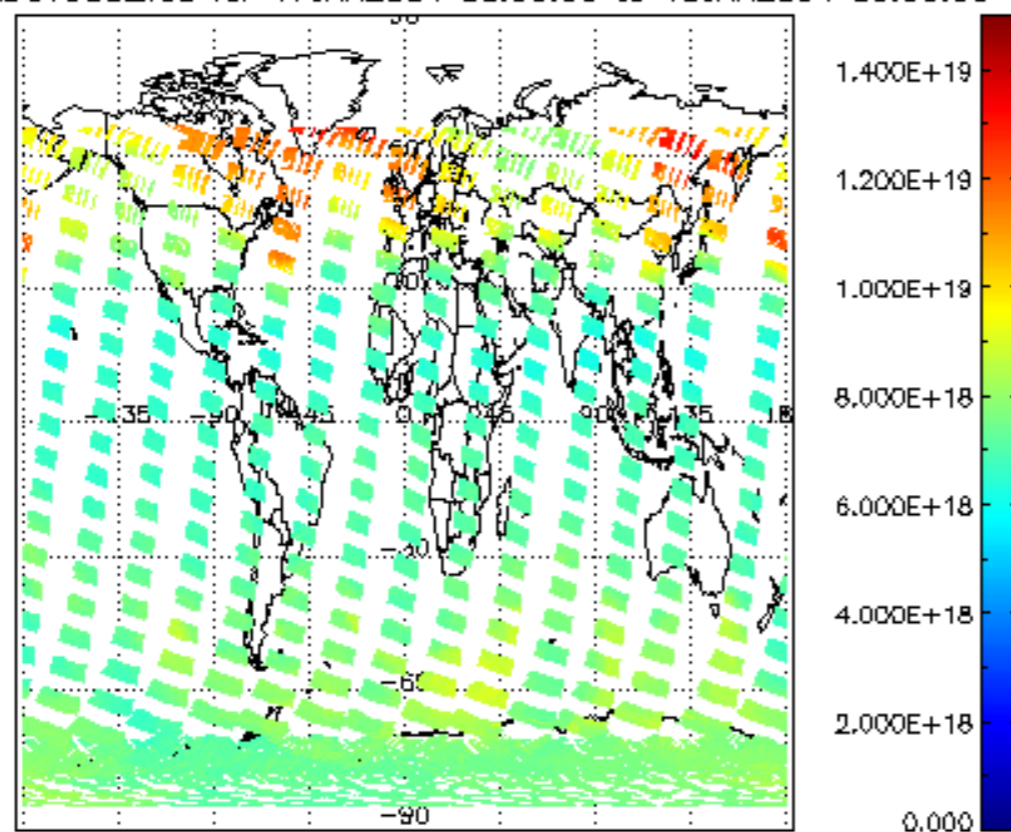


cloud_flags for 17JAN2004 00:00:00 to 18JAN2004 00:00:00

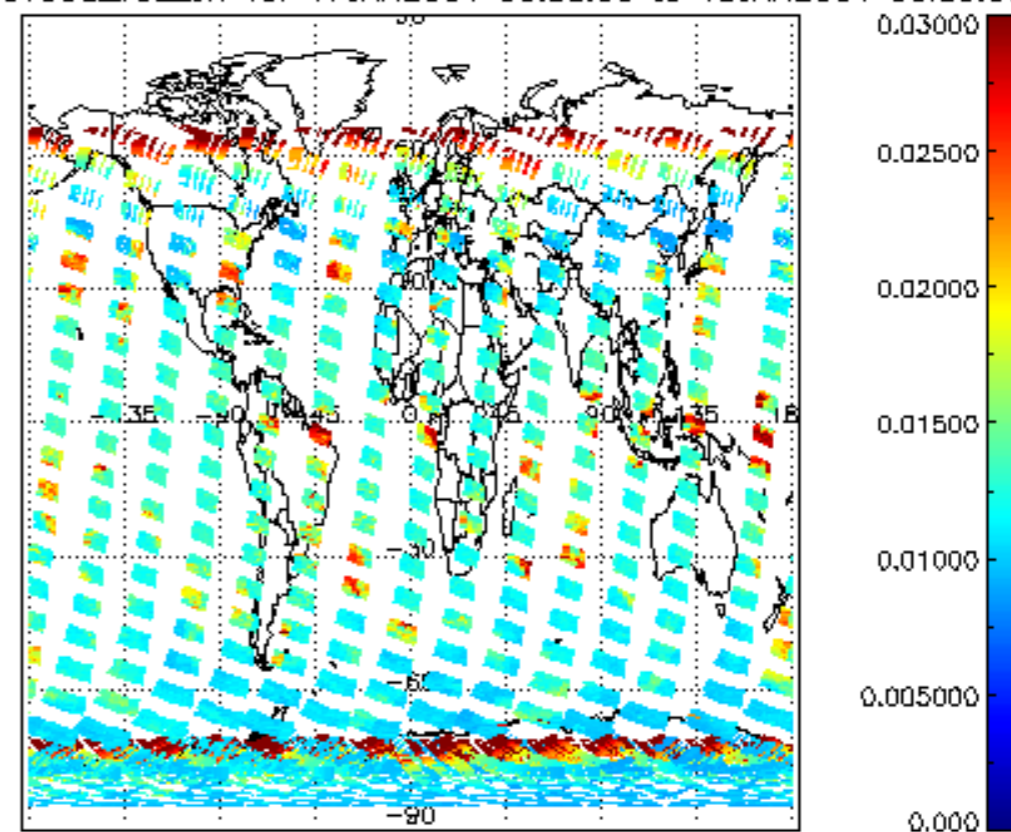




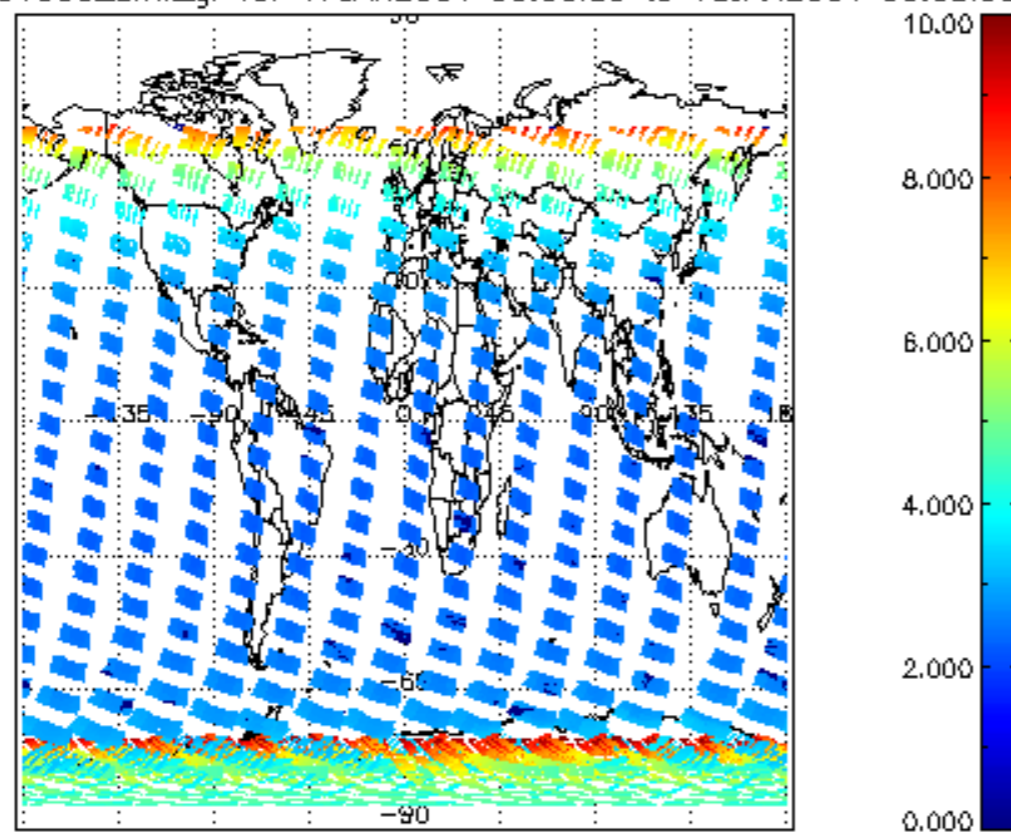
SCIOL2P_NADUV003_vcd for 17JAN2004 00:00:00 to 18JAN2004 00:00:00



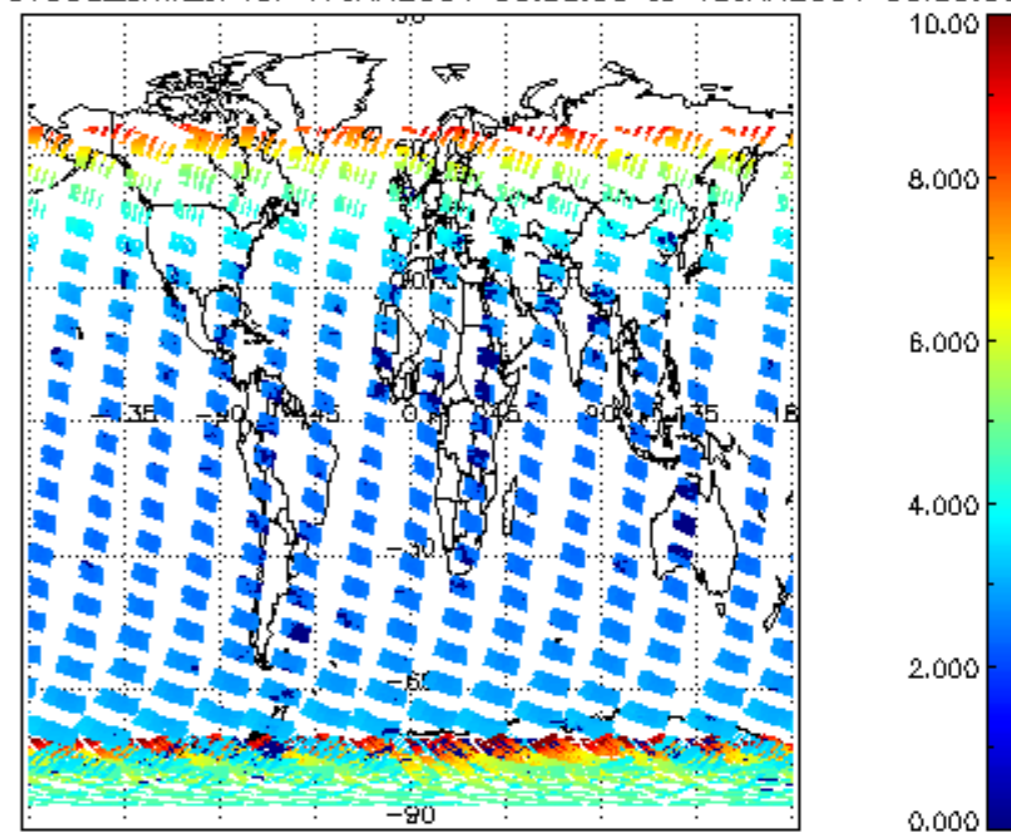
SCIOL2P_NADUV003_vcd_err for 17JAN2004 00:00:00 to 18JAN2004 00:00:00

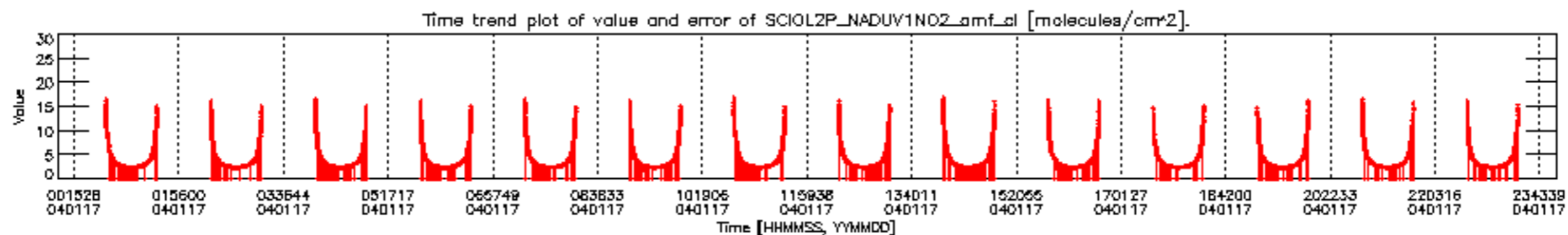
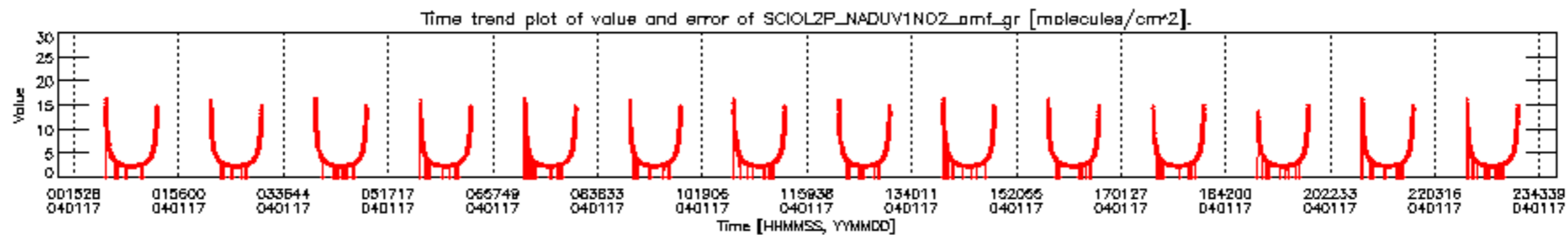
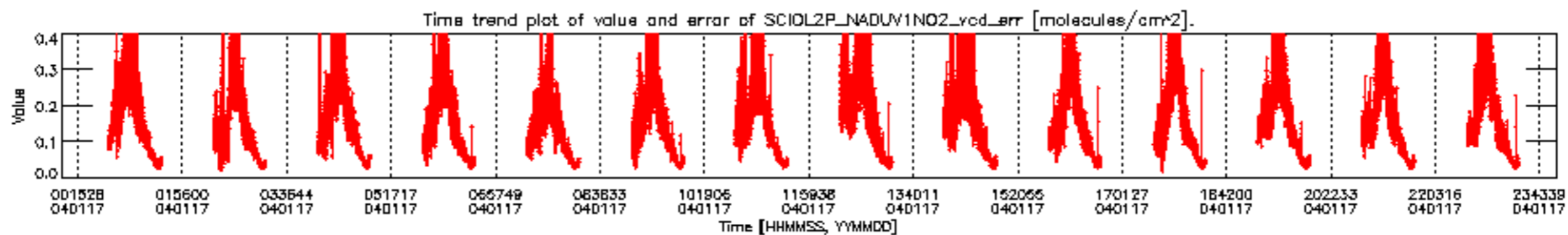
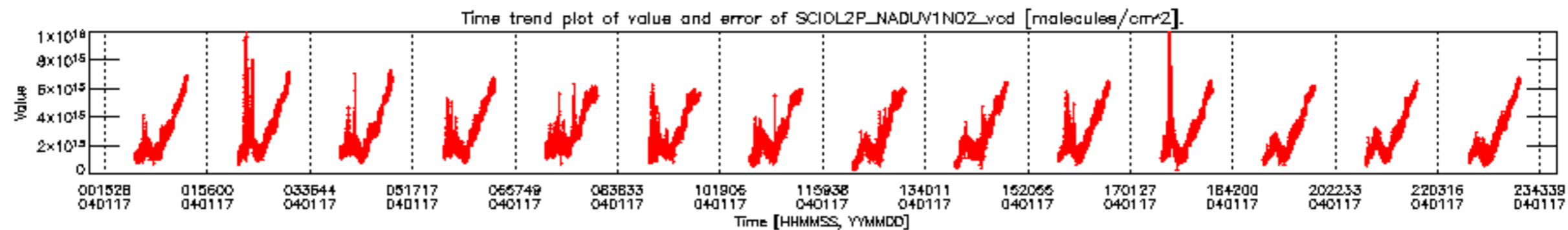


SCIOL2P_NADUV003_amf_gr for 17JAN2004 00:00:00 to 18JAN2004 00:00:00

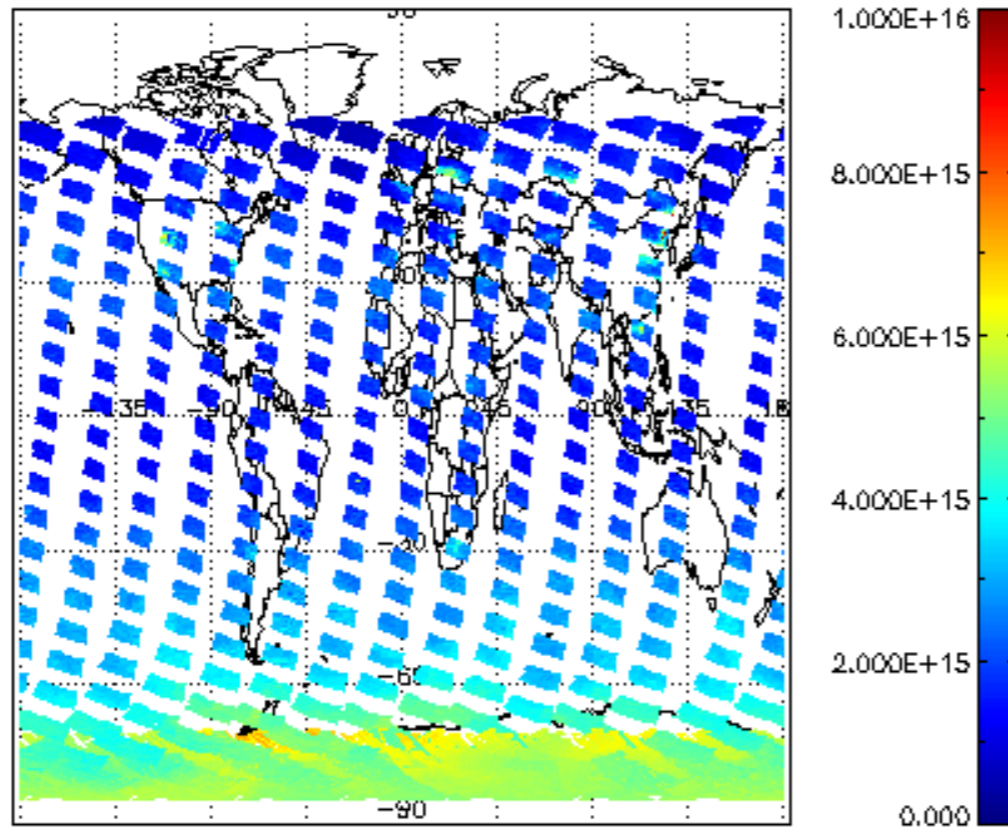


SCIOL2P_NADUV003_amf_cl for 17JAN2004 00:00:00 to 18JAN2004 00:00:00

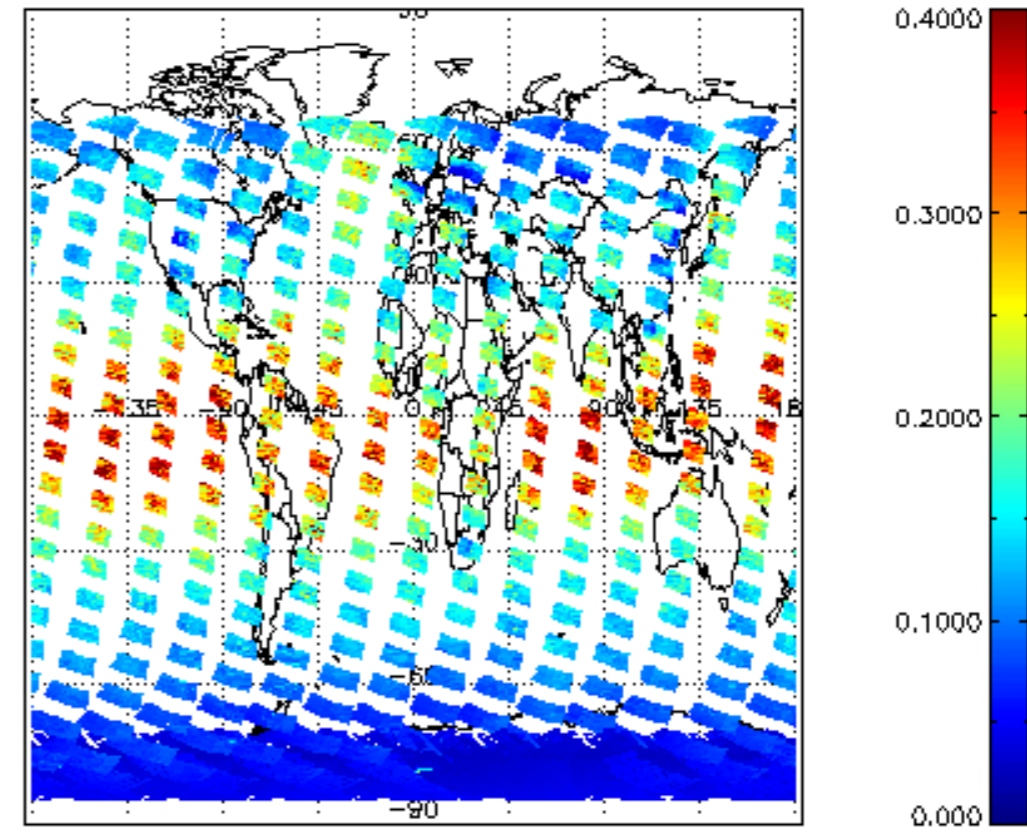




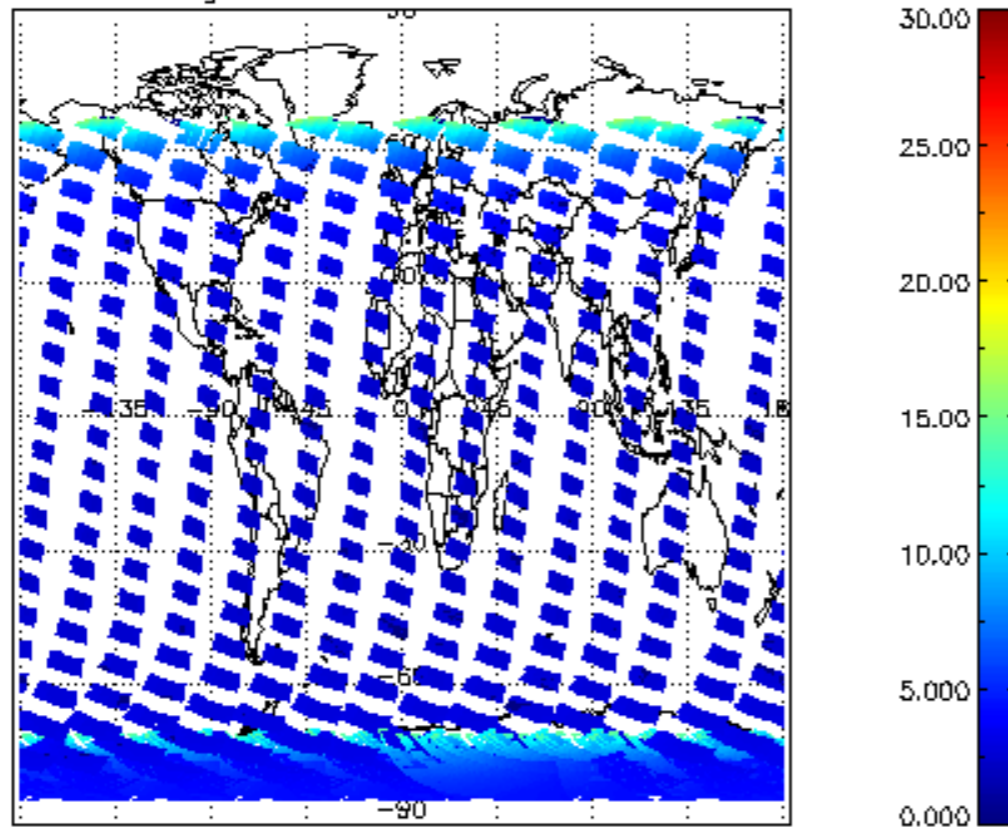
SCIOL2P_NADUV1NO2_vcd for 17JAN2004 00:00:00 to 18JAN2004 00:00:00



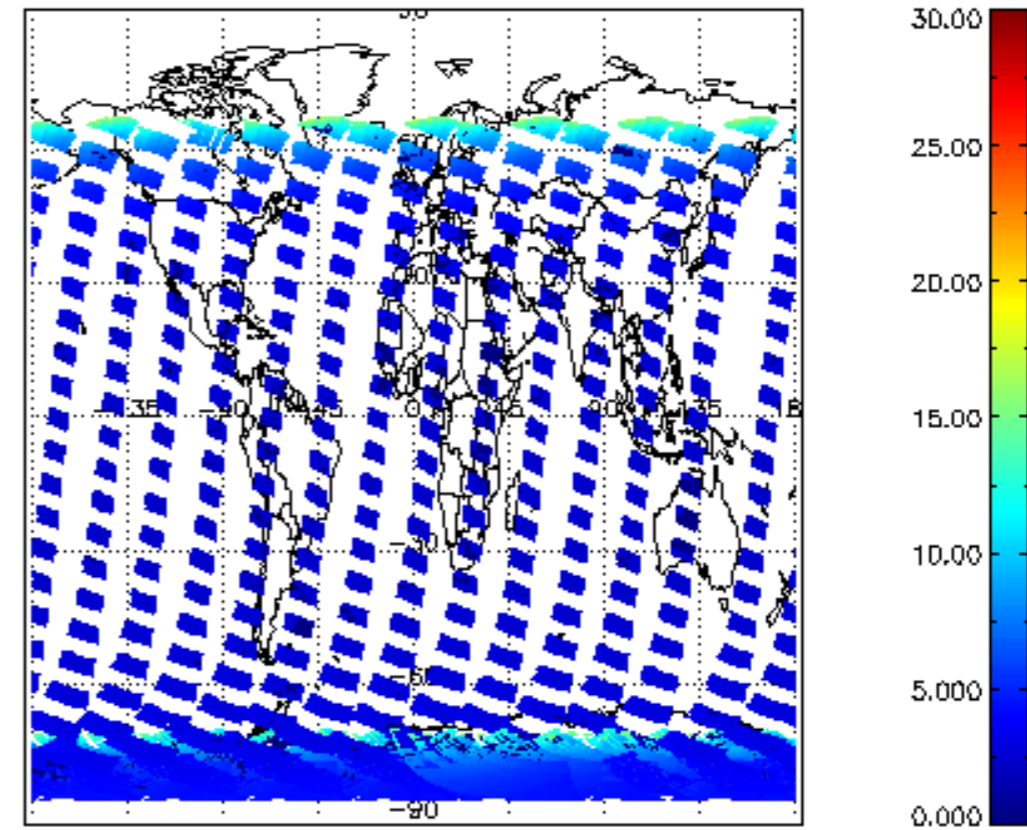
SCIOL2P_NADUV1NO2_vcd_err for 17JAN2004 00:00:00 to 18JAN2004 00:00:00



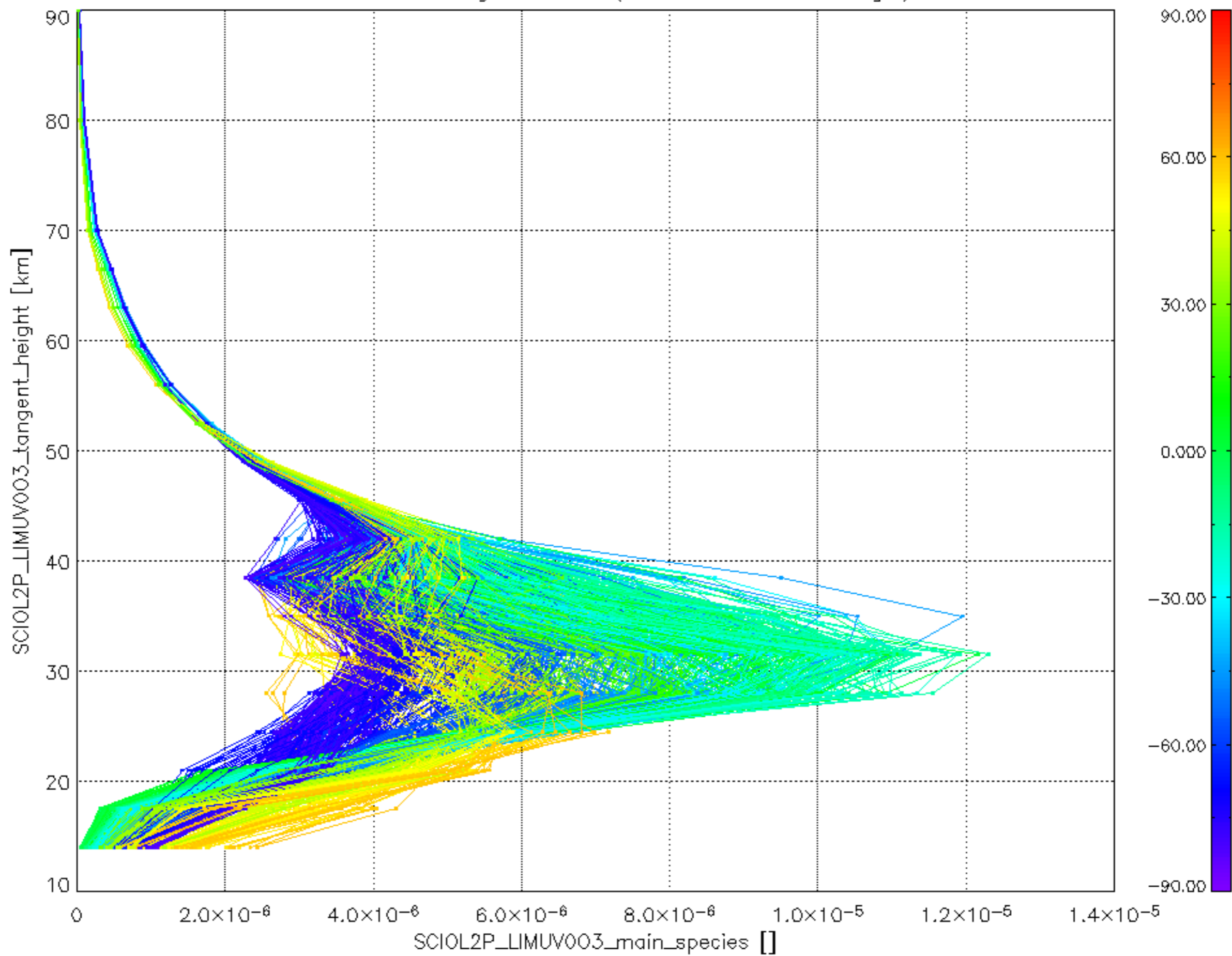
SCIOL2P_NADUV1NO2_amf_gr for 17JAN2004 00:00:00 to 18JAN2004 00:00:00



SCIOL2P_NADUV1NO2_amf_cl for 17JAN2004 00:00:00 to 18JAN2004 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).

