

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	1.4 (06-11-2007)
Time of report generation	27FEB2008 06:02:54
Data source version	SCIA-OL/3.01-R
Processing scope for products	04FEB2008 00:00:00 to 05FEB2008 00:00:00
Start time of first product within scope	03FEB2008 23:15:34
Stop time of last product within scope	04FEB2008 23:39:16
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.

#	Product name	Start time	Stop time	Prod err	Fit summary
0	SCI_OL__2PRDPA20080203_231534_000033252065_00388_31003_2444.N1	03FEB2008 23:15:34	04FEB2008 00:10:59	0	GOOD
1	SCI_OL__2PRDPA20080204_005718_000032692065_00389_31004_2445.N1	04FEB2008 00:57:18	04FEB2008 01:51:47	0	GOOD
2	SCI_OL__2PRDPA20080204_023645_000033252065_00390_31005_2447.N1	04FEB2008 02:36:45	04FEB2008 03:32:10	0	GOOD
3	SCI_OL__2PRDPA20080204_041829_000032692065_00391_31006_2450.N1	04FEB2008 04:18:29	04FEB2008 05:12:58	0	GOOD
4	SCI_OL__2PRDPA20080204_055756_000033252065_00392_31007_2451.N1	04FEB2008 05:57:56	04FEB2008 06:53:21	0	GOOD
5	SCI_OL__2PRDPA20080204_073940_000032692065_00393_31008_2456.N1	04FEB2008 07:39:40	04FEB2008 08:34:09	0	GOOD
6	SCI_OL__2PRDPA20080204_091907_000033252065_00394_31009_2459.N1	04FEB2008 09:19:07	04FEB2008 10:14:32	0	GOOD
7	SCI_OL__2PRDPA20080204_110051_000032692065_00395_31010_2461.N1	04FEB2008 11:00:51	04FEB2008 11:55:20	0	GOOD
8	SCI_OL__2PRDPA20080204_124017_000033252065_00396_31011_2498.N1	04FEB2008 12:40:17	04FEB2008 13:35:43	0	GOOD
9	SCI_OL__2PRDPA20080204_142201_000032692065_00397_31012_2499.N1	04FEB2008 14:22:01	04FEB2008 15:16:31	0	GOOD
10	SCI_OL__2PRDPA20080204_160128_000033252065_00398_31013_2503.N1	04FEB2008 16:01:28	04FEB2008 16:56:54	0	GOOD
11	SCI_OL__2PRDPA20080204_174137_000033942065_00399_31014_2508.N1	04FEB2008 17:41:37	04FEB2008 18:38:11	0	GOOD
12	SCI_OL__2PRDPA20080204_192213_000033812065_00400_31015_2511.N1	04FEB2008 19:22:13	04FEB2008 20:18:34	0	GOOD
13	SCI_OL__2PRDPA20080204_210424_000032692065_00401_31016_2513.N1	04FEB2008 21:04:24	04FEB2008 21:58:53	0	GOOD
14	SCI_OL__2PRDPA20080204_224350_000033252065_00402_31017_2515.N1	04FEB2008 22:43:50	04FEB2008 23:39:16	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: 151580

Total number of cloud data DSRs with good quality flag (=0): 151580 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	151580	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	151580	0.16852	0.12500	0.12500	0.25000	0.059550	s
SURFACE_PRES	151580	0.0000	0.0000	0.0000	0.0000	0.0000	hPa
CL_FRAC	151580	0.41810	0.39807	0.0000	1.0000	0.26964	-

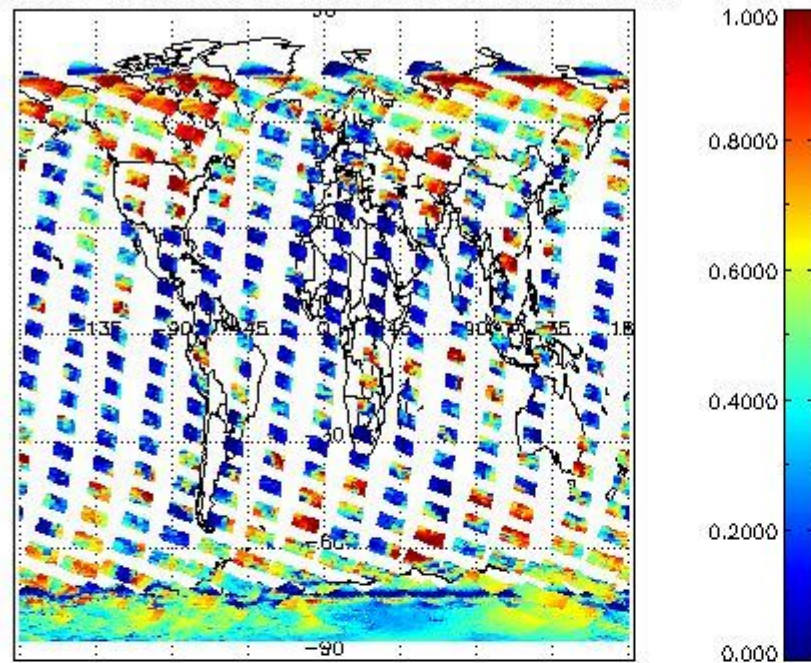
CL_FRAC_ERR	151580	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	151580	5.3928	4.0000	4.0000	8.0000	1.9056	
PMD_READ_CL[0]	151580	0.21936	0.0000	0.0000	8.0000	1.0615	-
PMD_READ_CL[1]	151580	0.52067	0.0000	0.0000	8.0000	1.6183	-
CL_TOP_HEIGHT	126650	4.2545	3.3130	0.0000	17.000	3.6730	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	126650	54.015	43.087	0.0000	101.00	39.533	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	151580	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	151580	11001001	11000100	11000000	11100000	3070.6	flags
AERO_ABSO_IND	151580	2.6859	3.0401	-1.8102	17.236	1.9654	
AERO_IND_DIAG	151580	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	151580	01010101	00000000	00000000	11000000	24420.	flags

Time and geolocation plots:

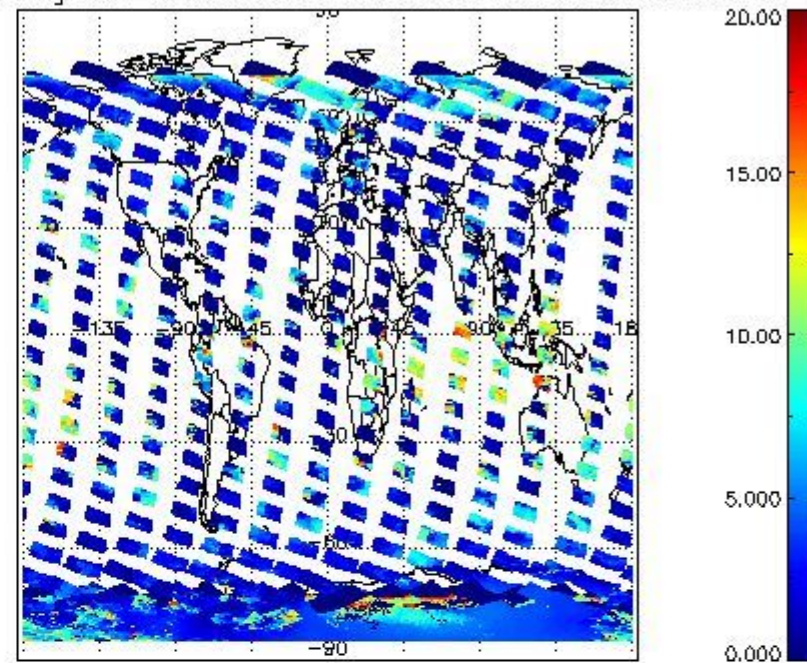
Plots are available for the following parameters:

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

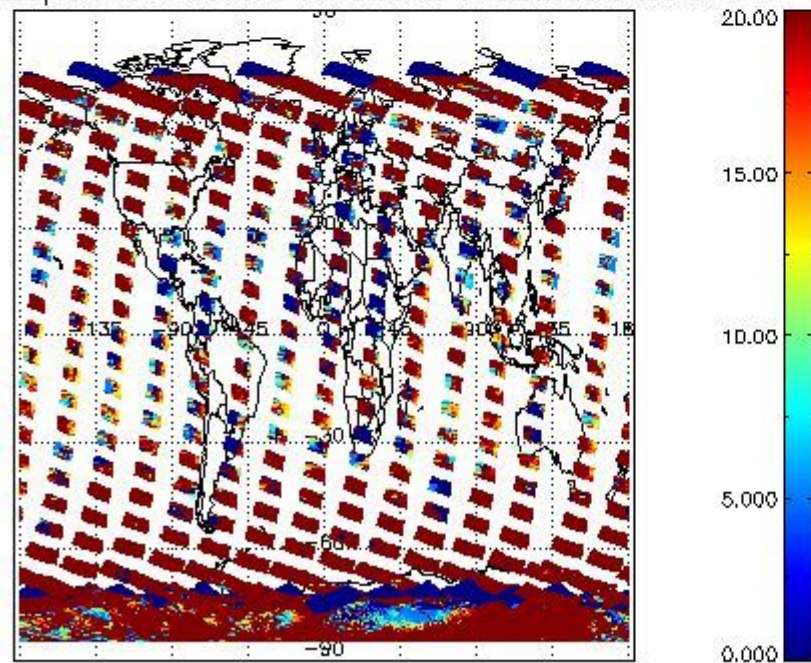
cLfrac for 04FEB2008 00:00:00 to 05FEB2008 00:00:00



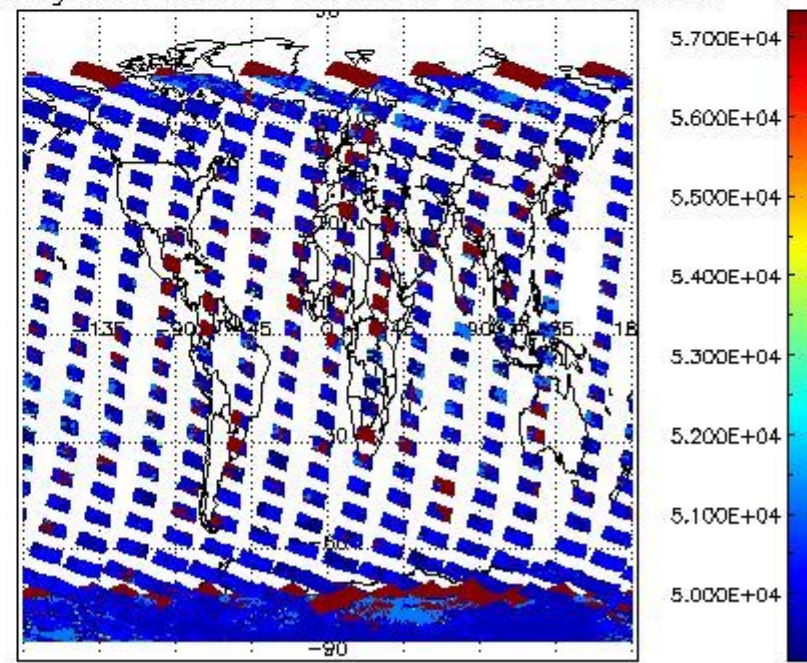
cL_top_height for 04FEB2008 00:00:00 to 05FEB2008 00:00:00



cLopt_depth for 04FEB2008 00:00:00 to 05FEB2008 00:00:00



cloud_flags for 04FEB2008 00:00:00 to 05FEB2008 00:00:00



2.2.2 Nadir

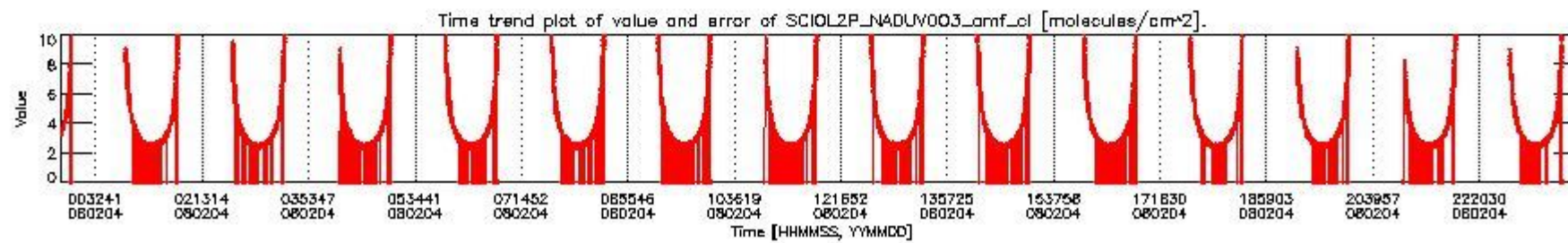
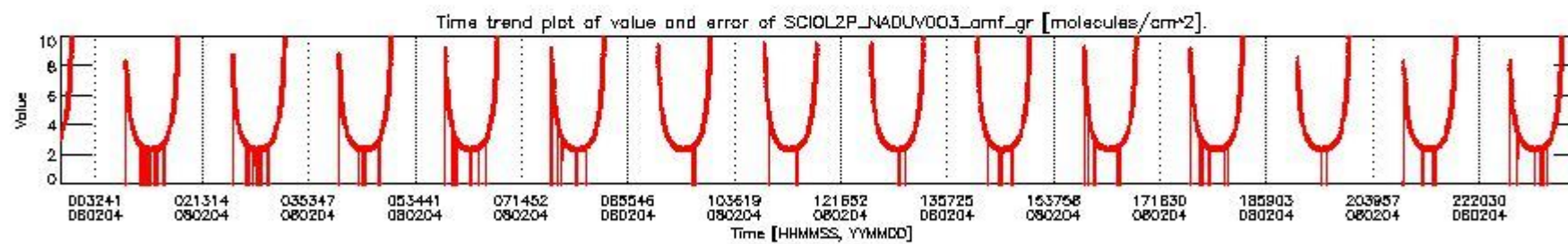
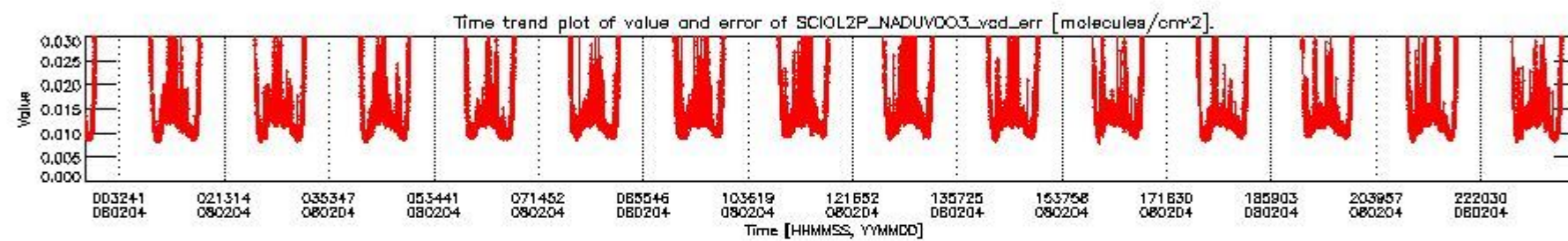
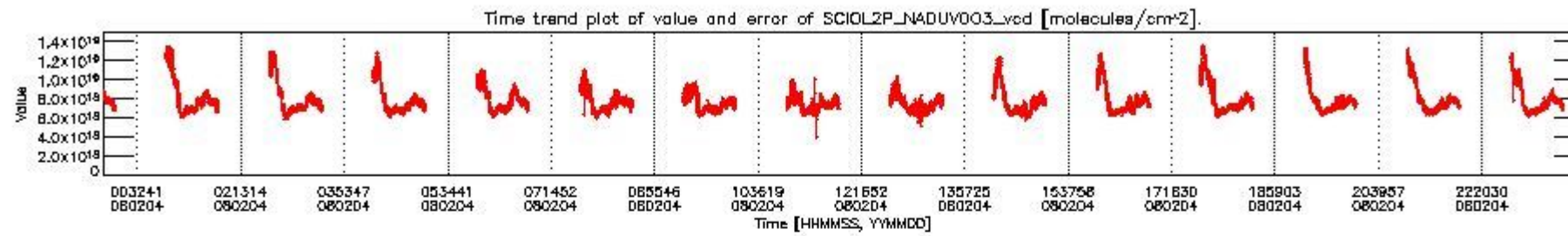
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

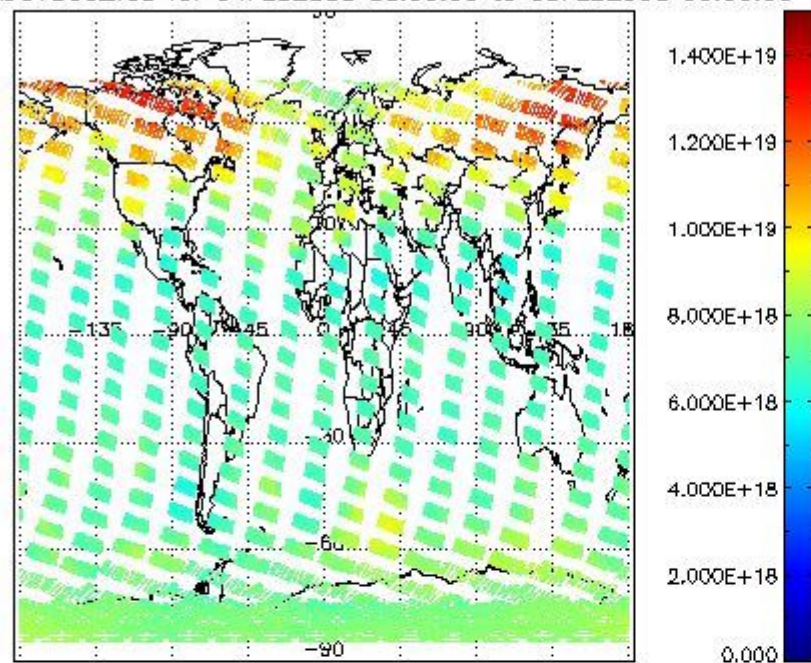
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

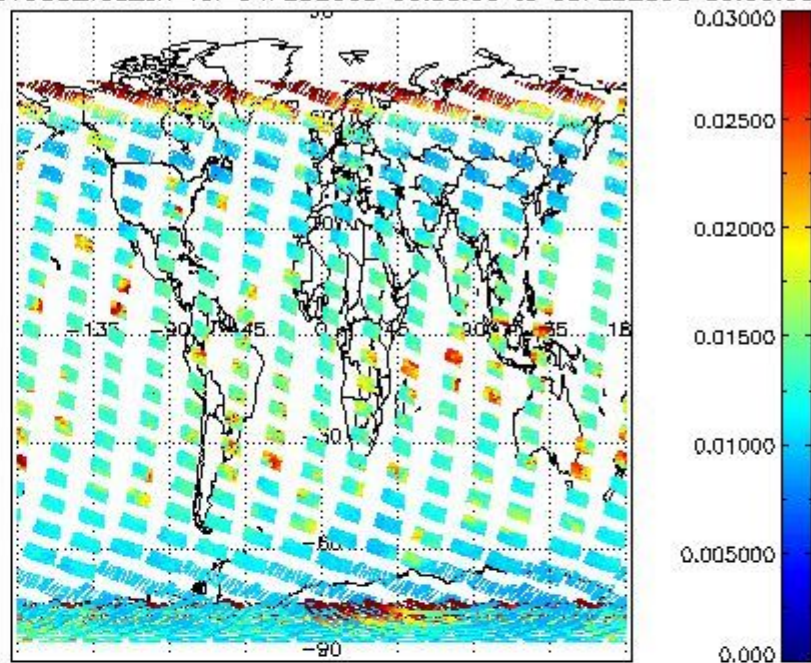
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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



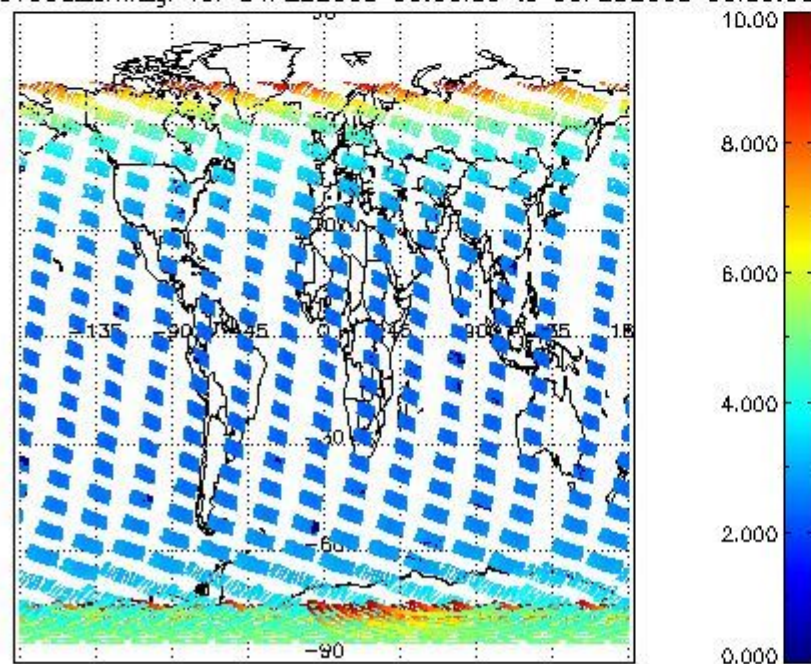
SCIOL2P_NADUV003_vcd for 04FEB2008 00:00:00 to 05FEB2008 00:00:00



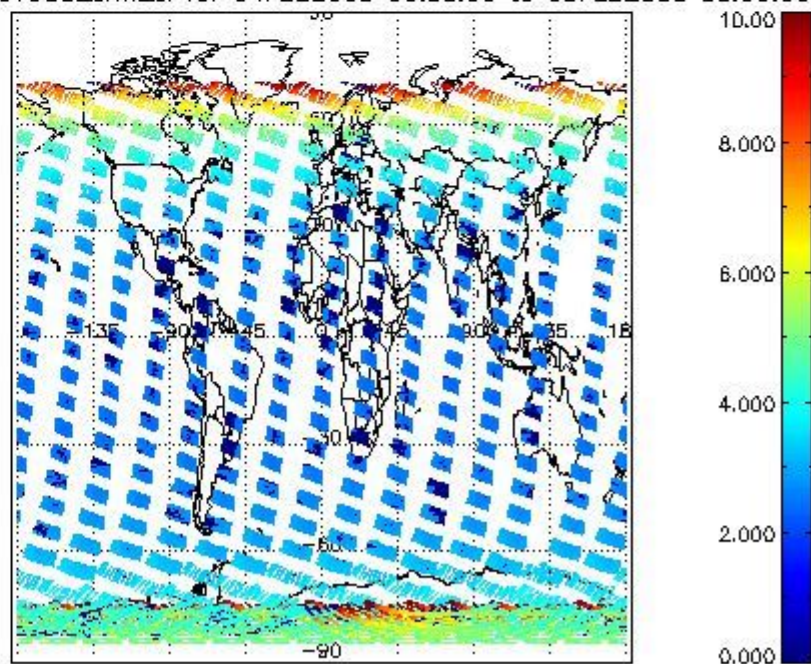
SCIOL2P_NADUV003_vcd_err for 04FEB2008 00:00:00 to 05FEB2008 00:00:00

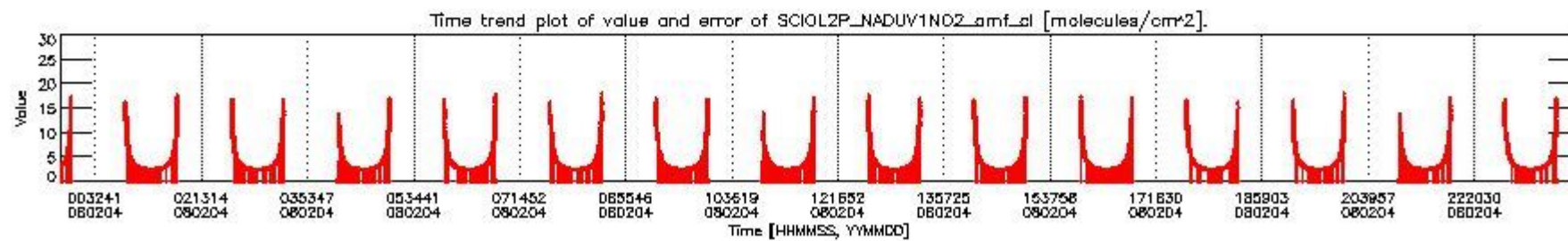
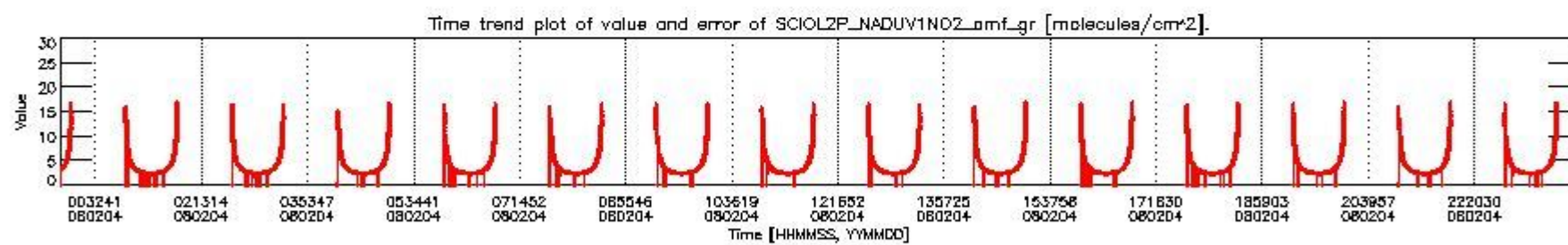
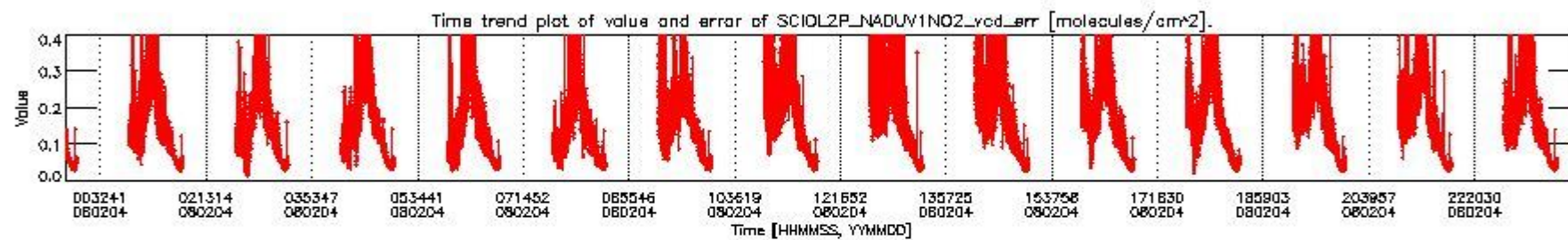
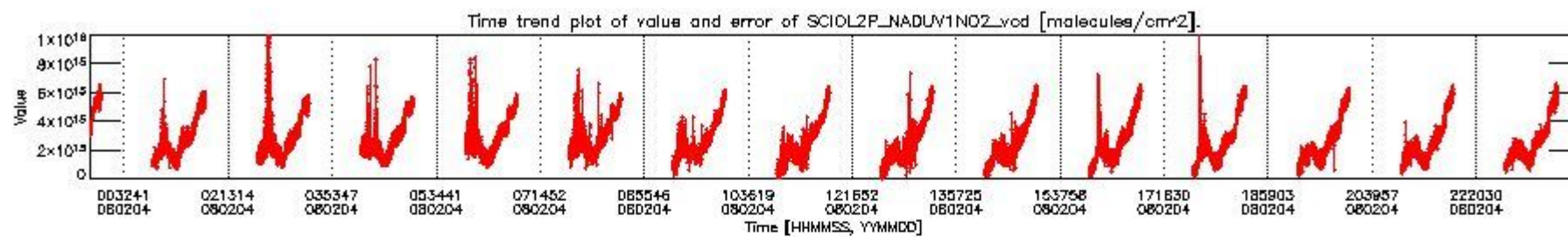


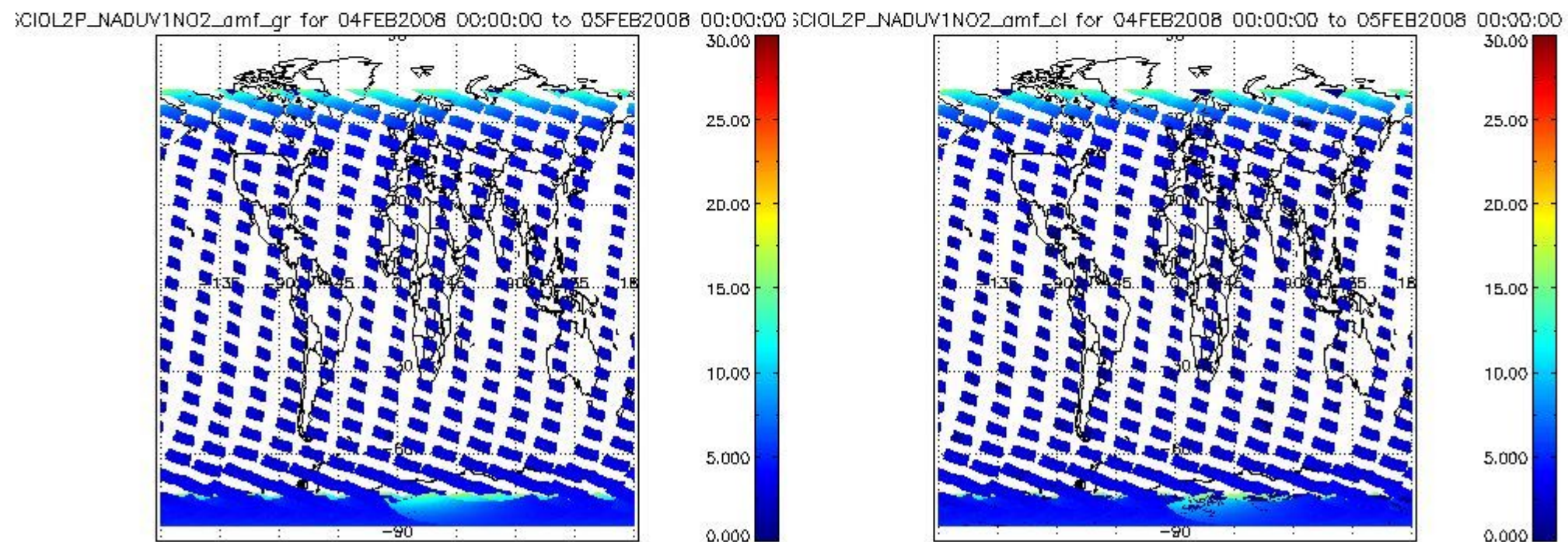
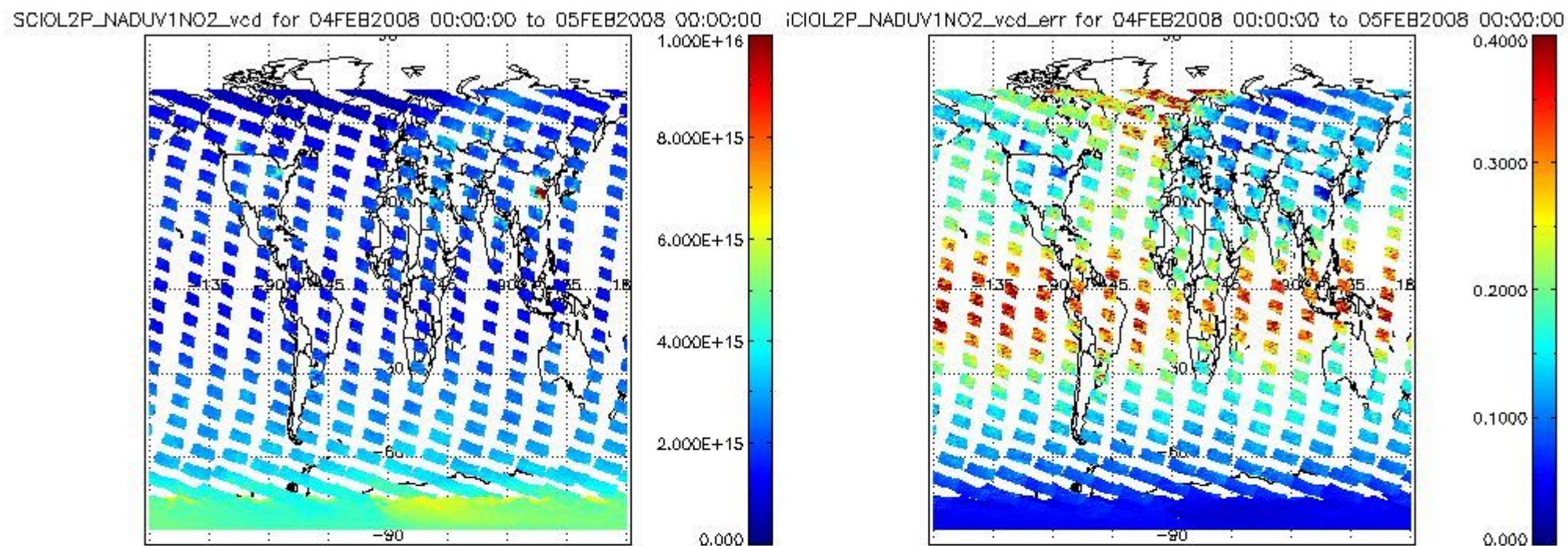
SCIOL2P_NADUV003_amf_gr for 04FEB2008 00:00:00 to 05FEB2008 00:00:00



SCIOL2P_NADUV003_amf_sl for 04FEB2008 00:00:00 to 05FEB2008 00:00:00







2.2.3 Limb

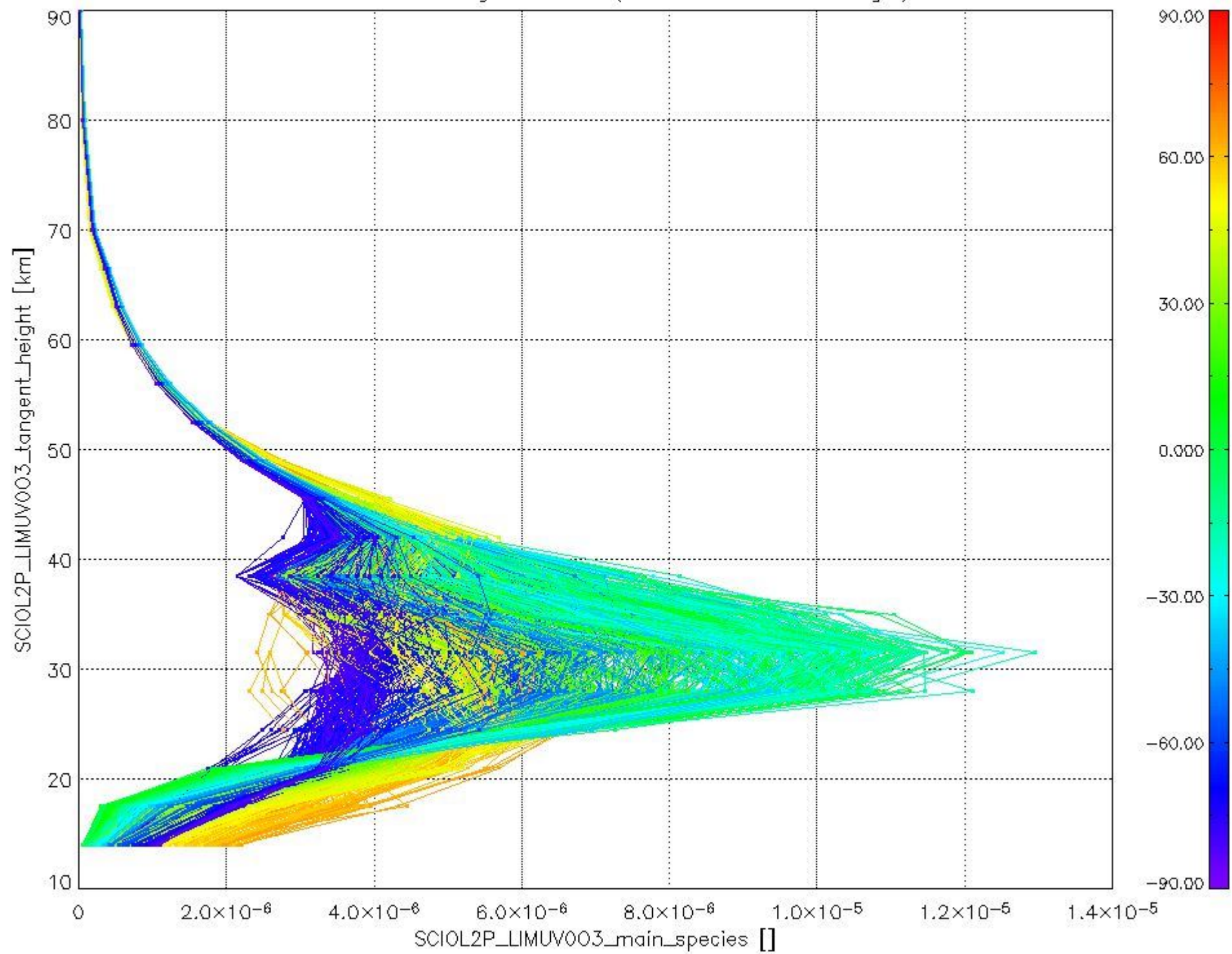
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

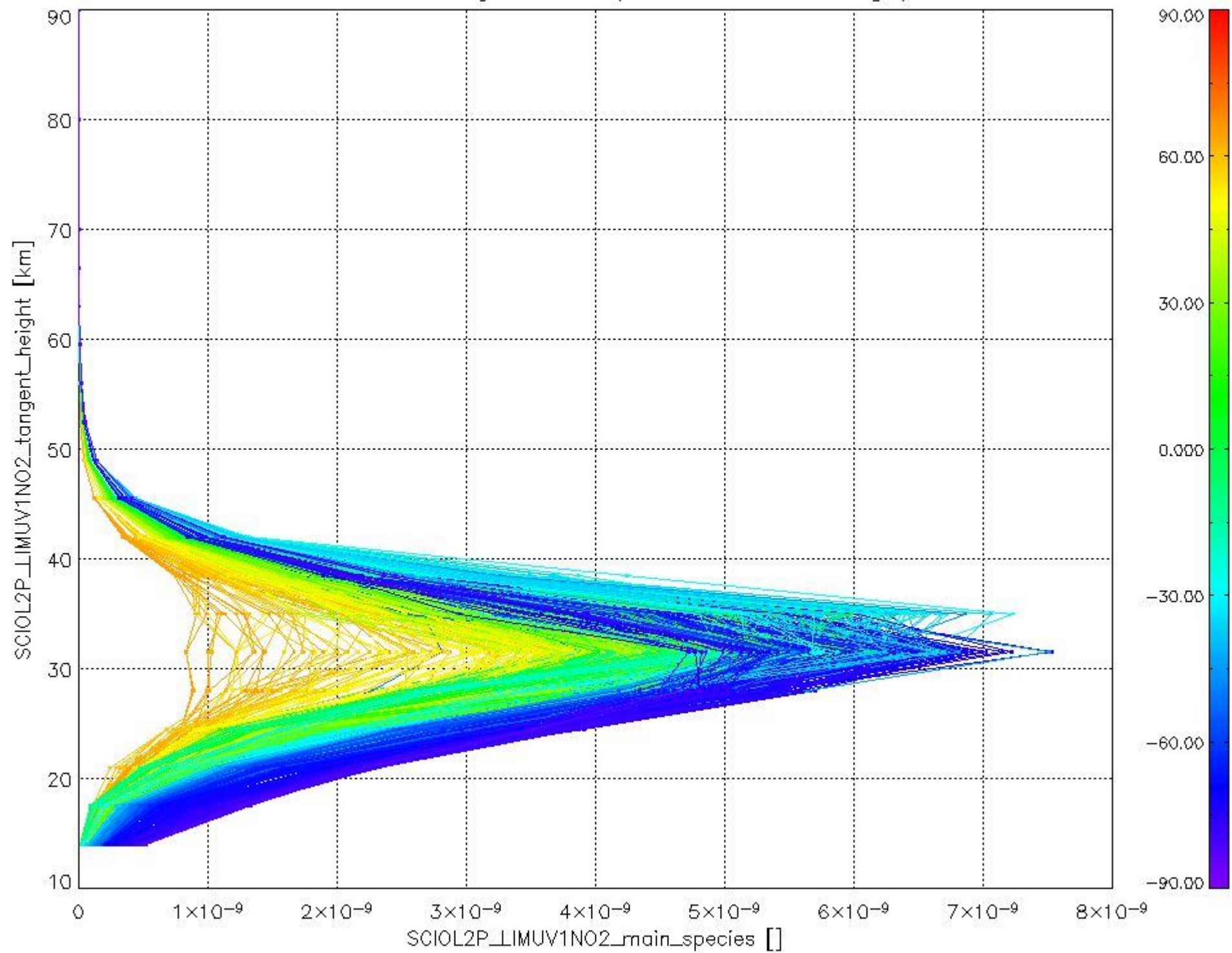
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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).



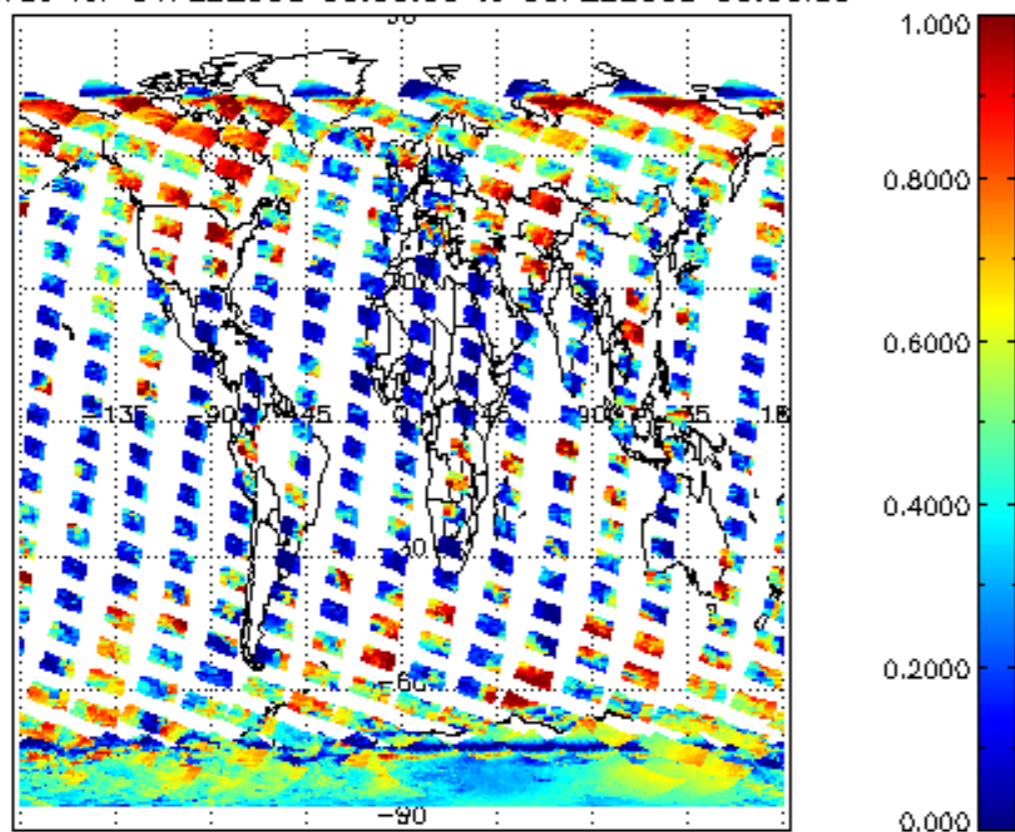
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



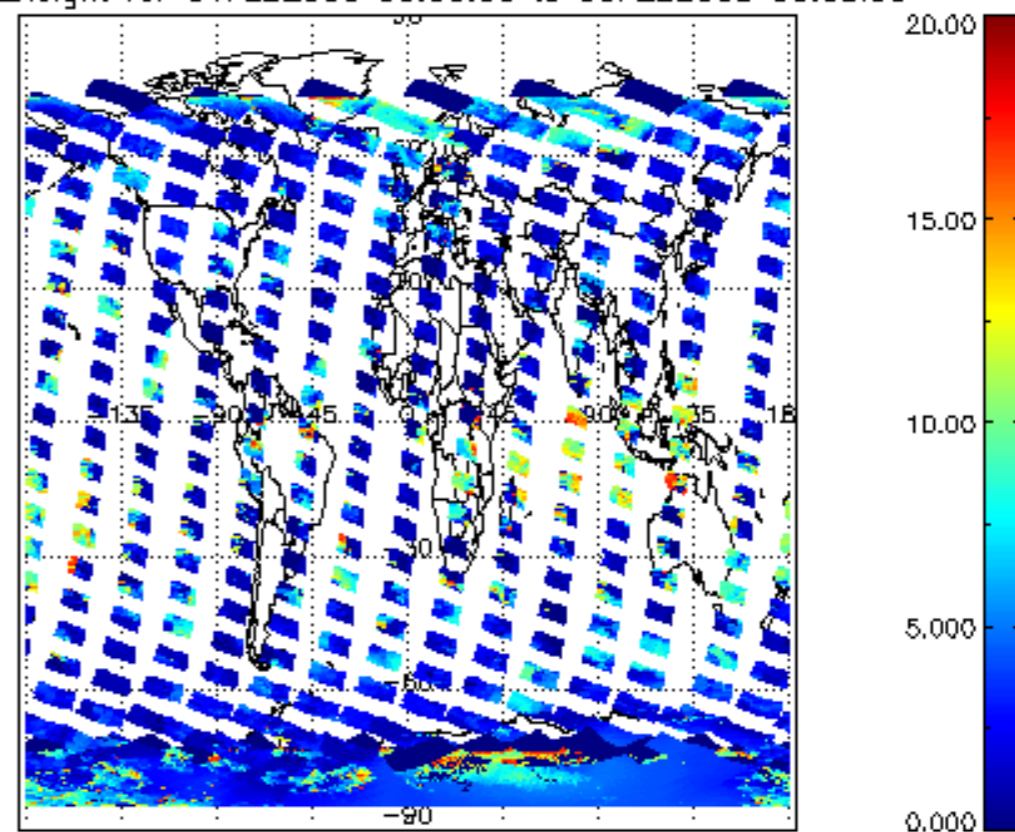
2.3 ADF monitoring

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

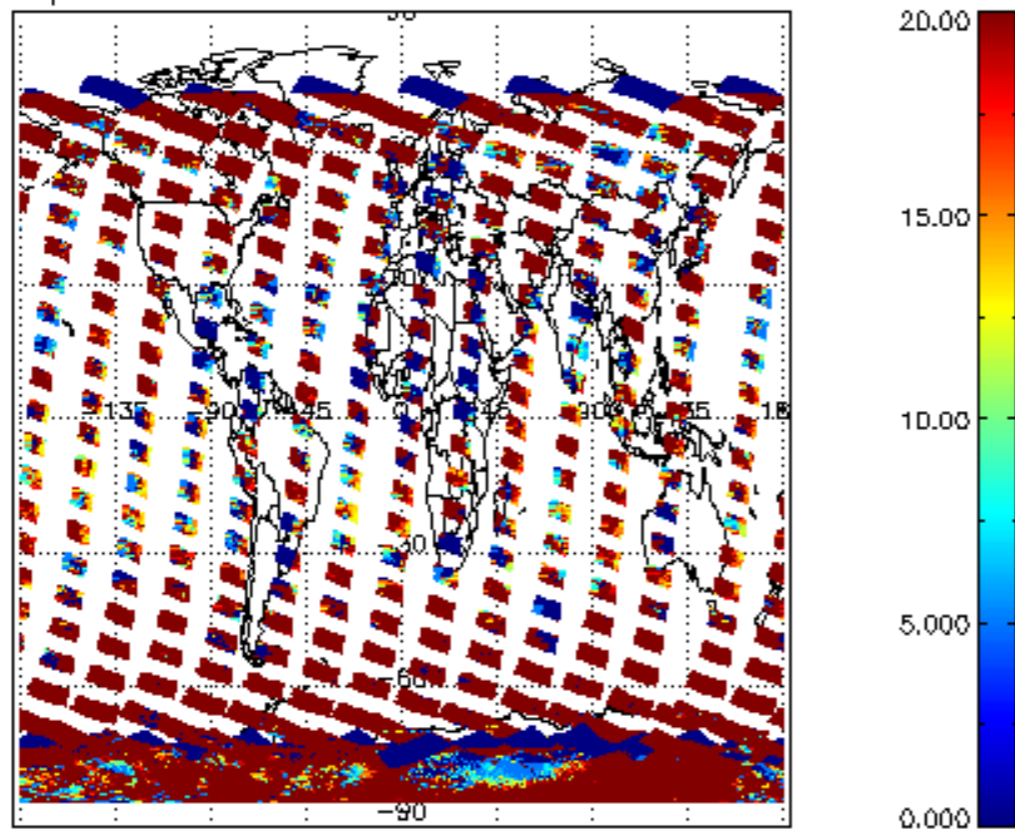
cl_frac for 04FEB2008 00:00:00 to 05FEB2008 00:00:00



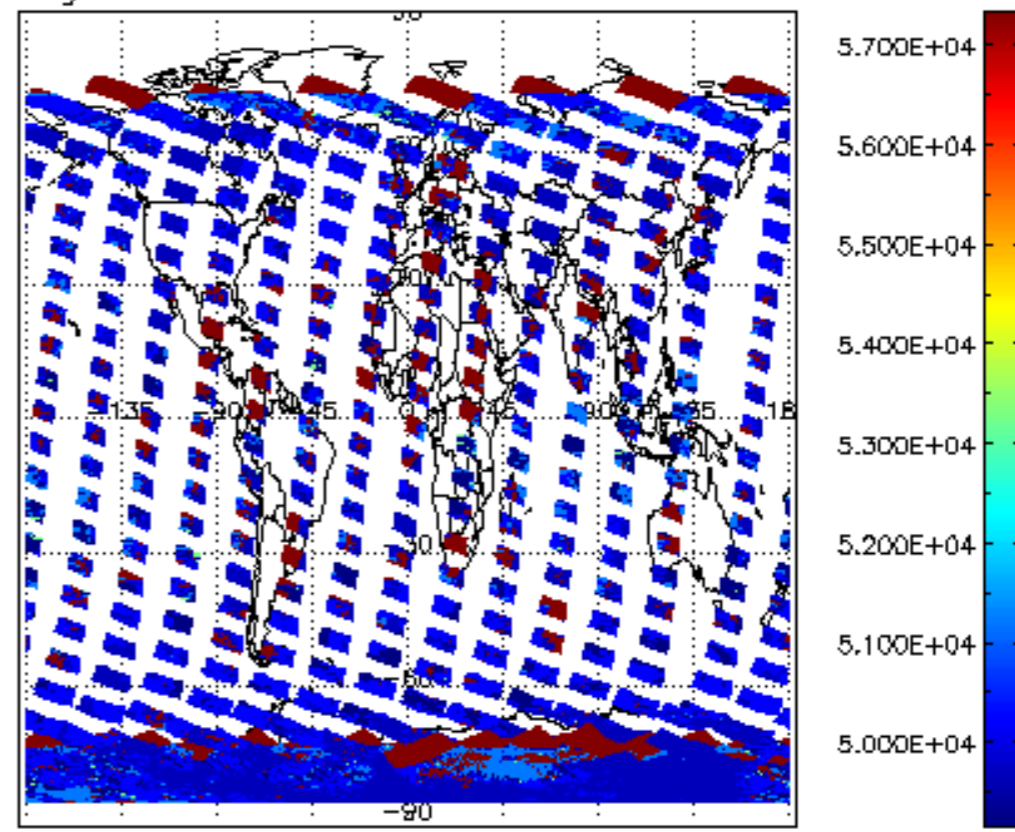
cl_top_height for 04FEB2008 00:00:00 to 05FEB2008 00:00:00

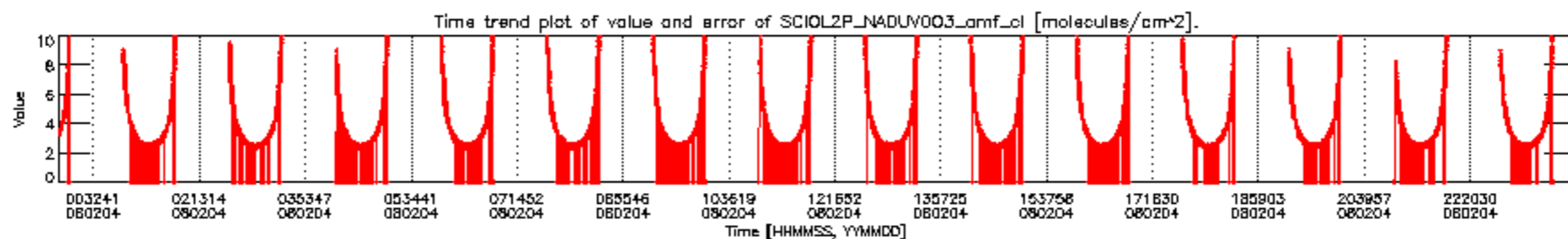
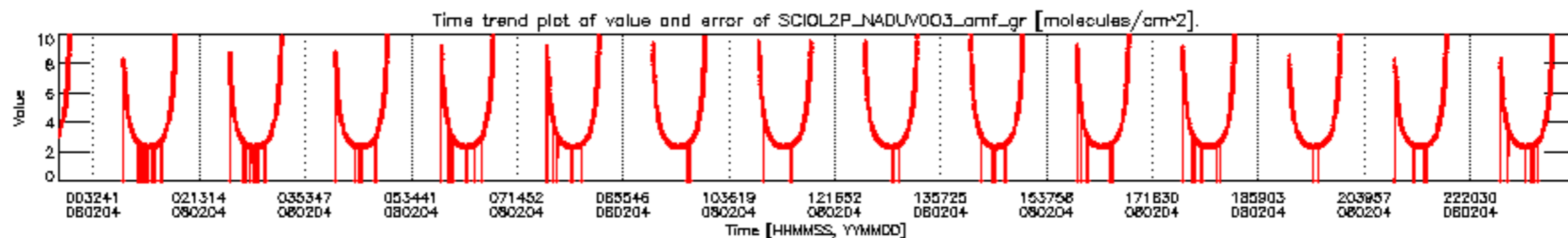
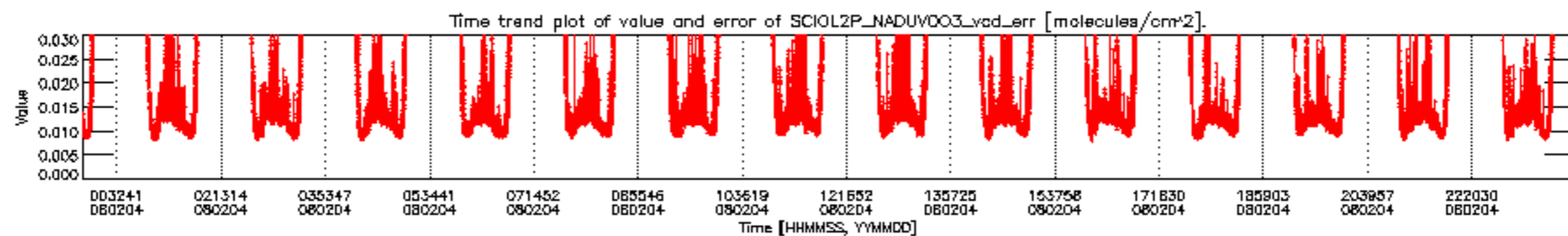
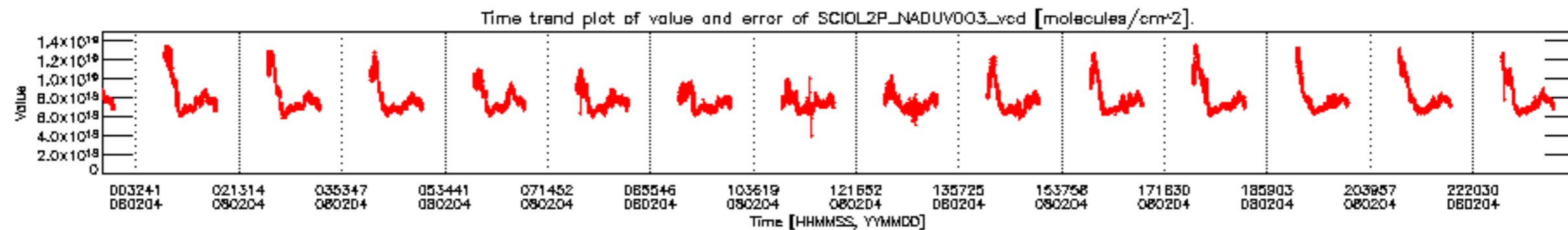


cl_opt_depth for 04FEB2008 00:00:00 to 05FEB2008 00:00:00

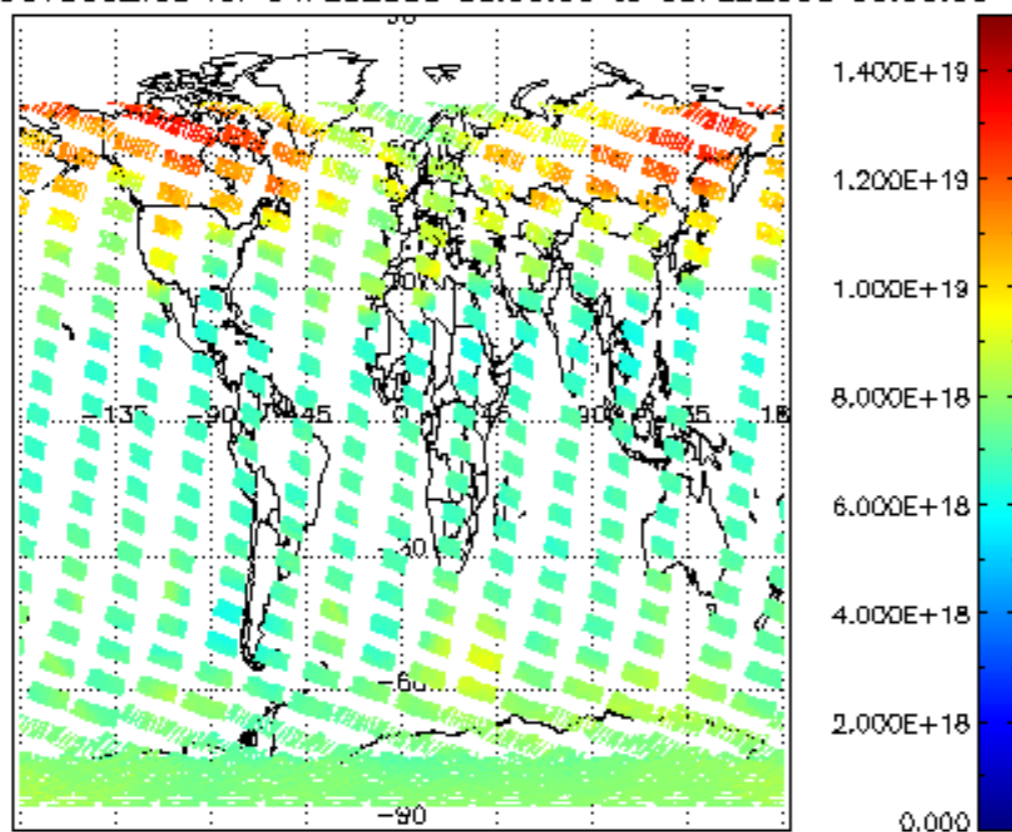


cloud_flags for 04FEB2008 00:00:00 to 05FEB2008 00:00:00

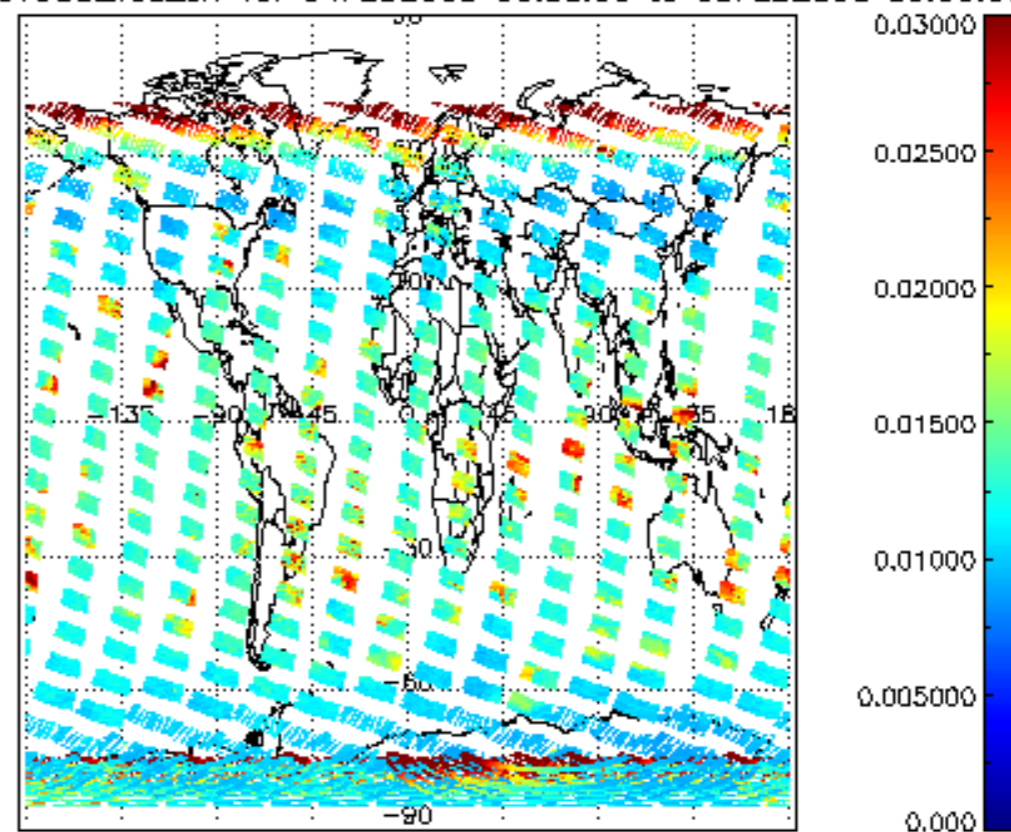




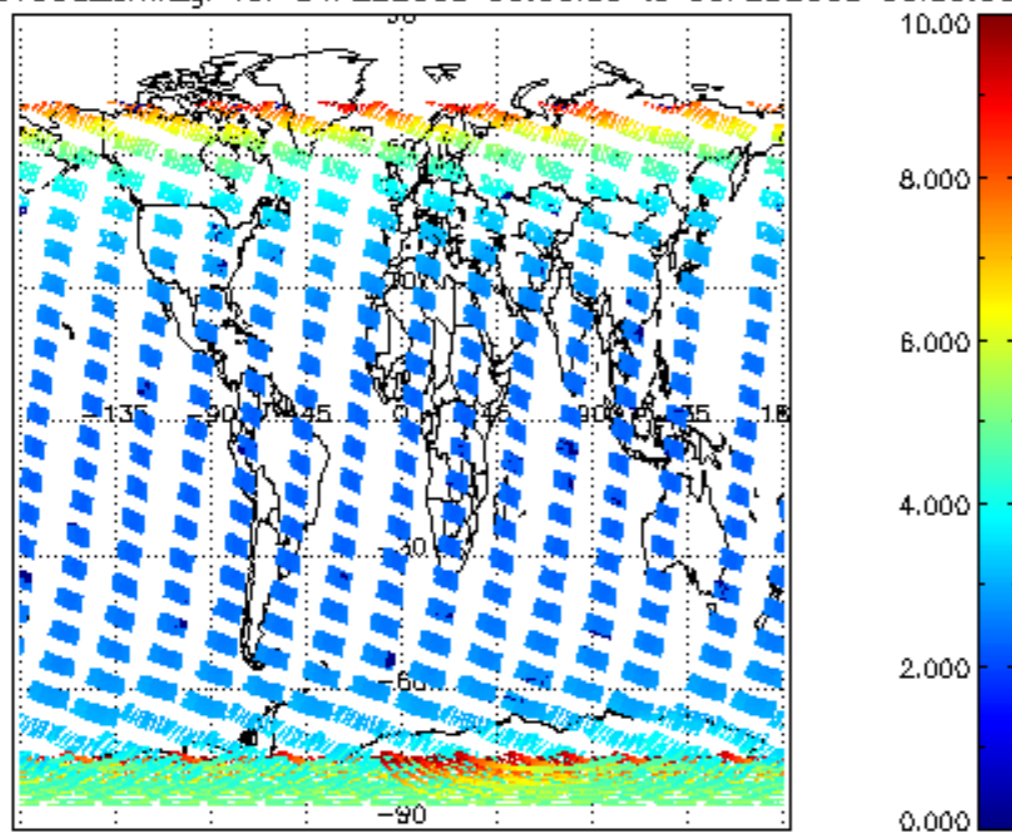
SCIOL2P_NADUV003_vcd for 04FEB2008 00:00:00 to 05FEB2008 00:00:00



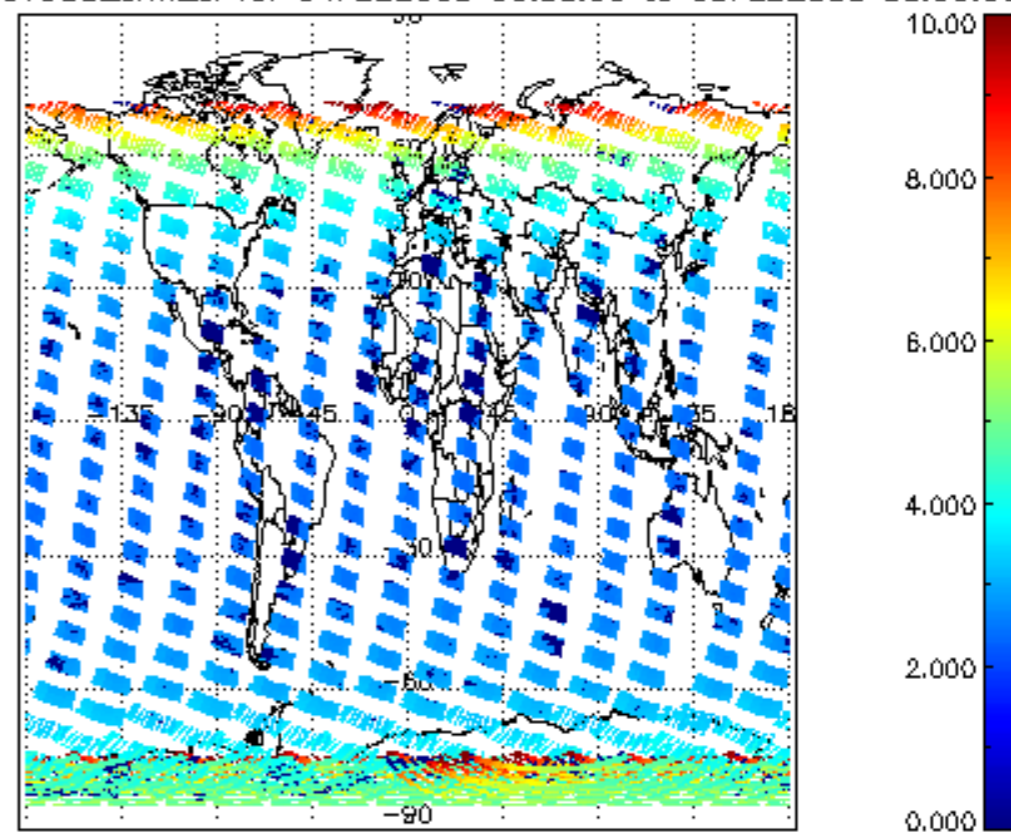
SCIOL2P_NADUV003_vcd_err for 04FEB2008 00:00:00 to 05FEB2008 00:00:00

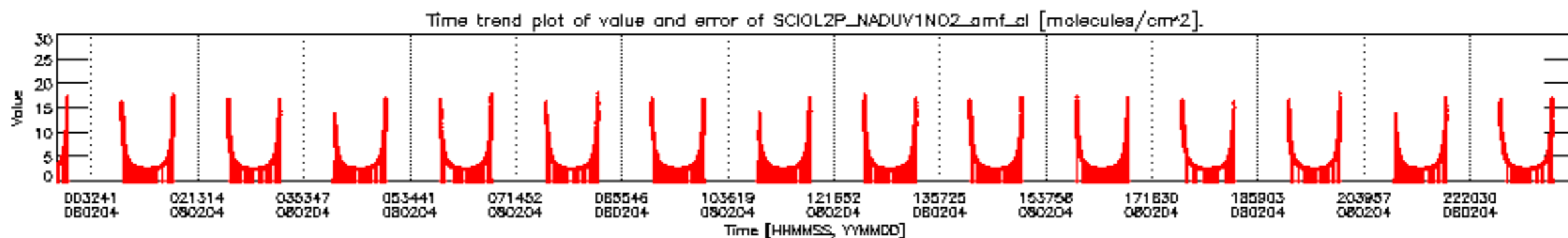
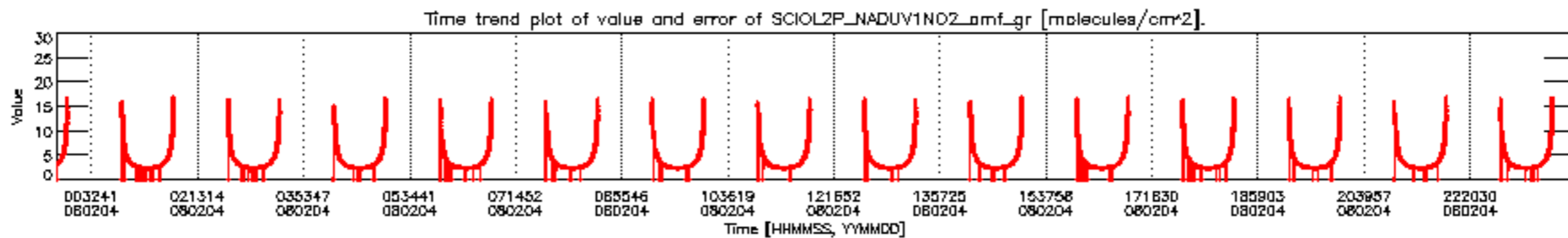
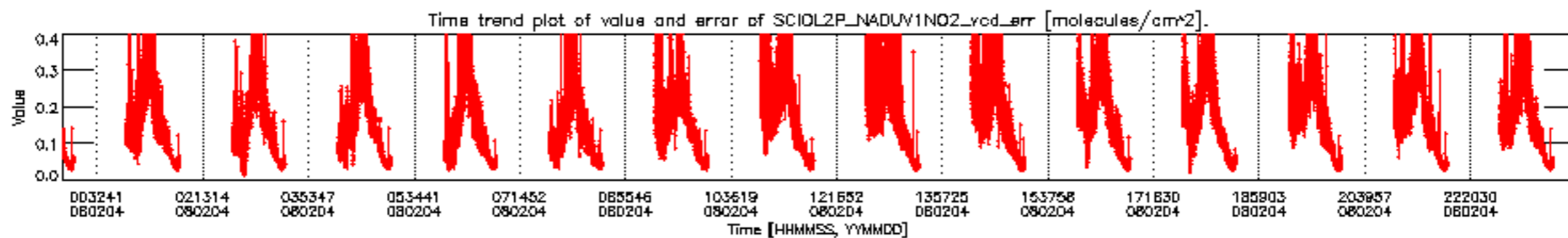
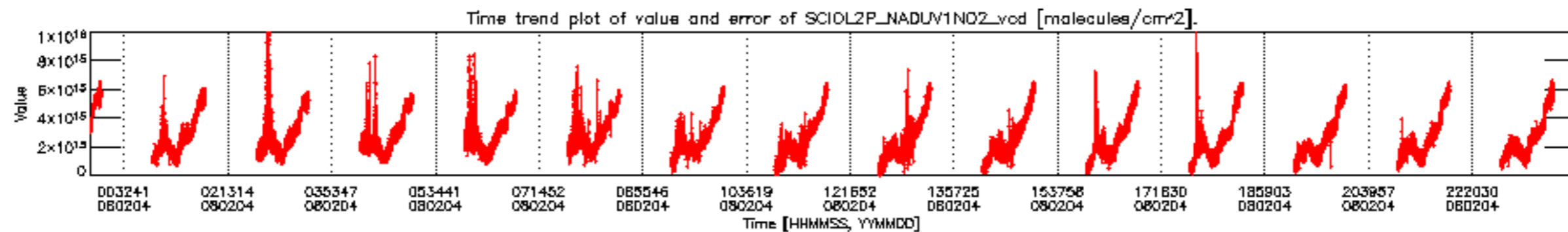


SCIOL2P_NADUV003_amf_gr for 04FEB2008 00:00:00 to 05FEB2008 00:00:00

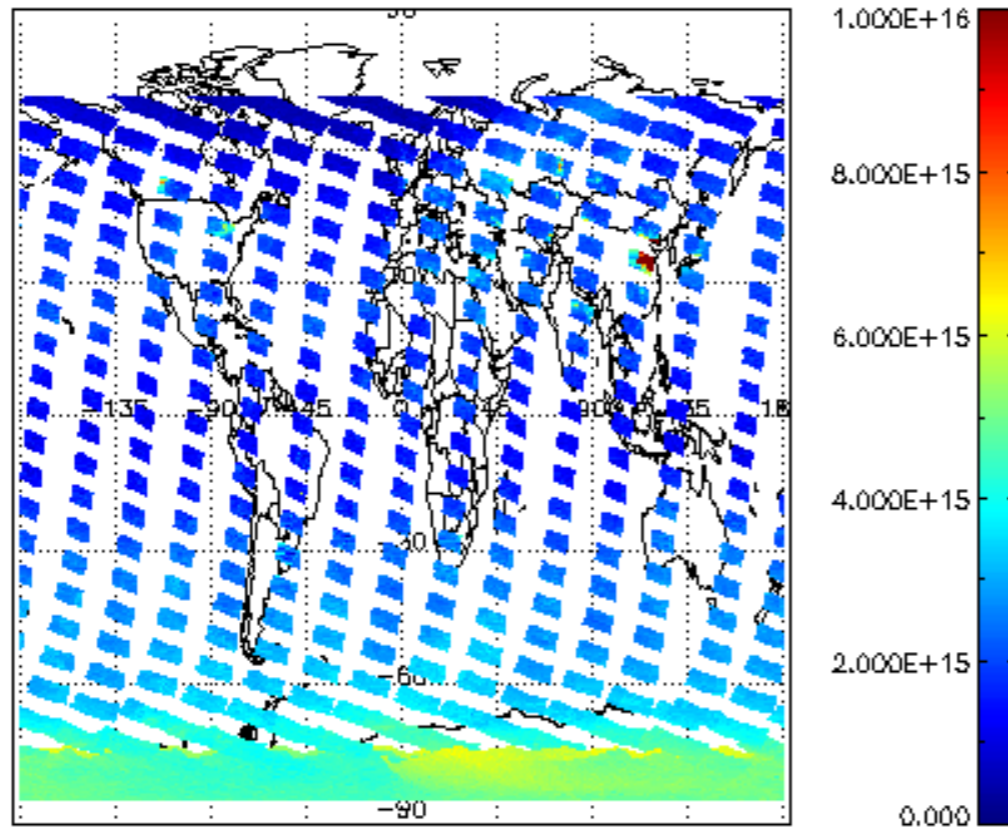


SCIOL2P_NADUV003_amf_cl for 04FEB2008 00:00:00 to 05FEB2008 00:00:00

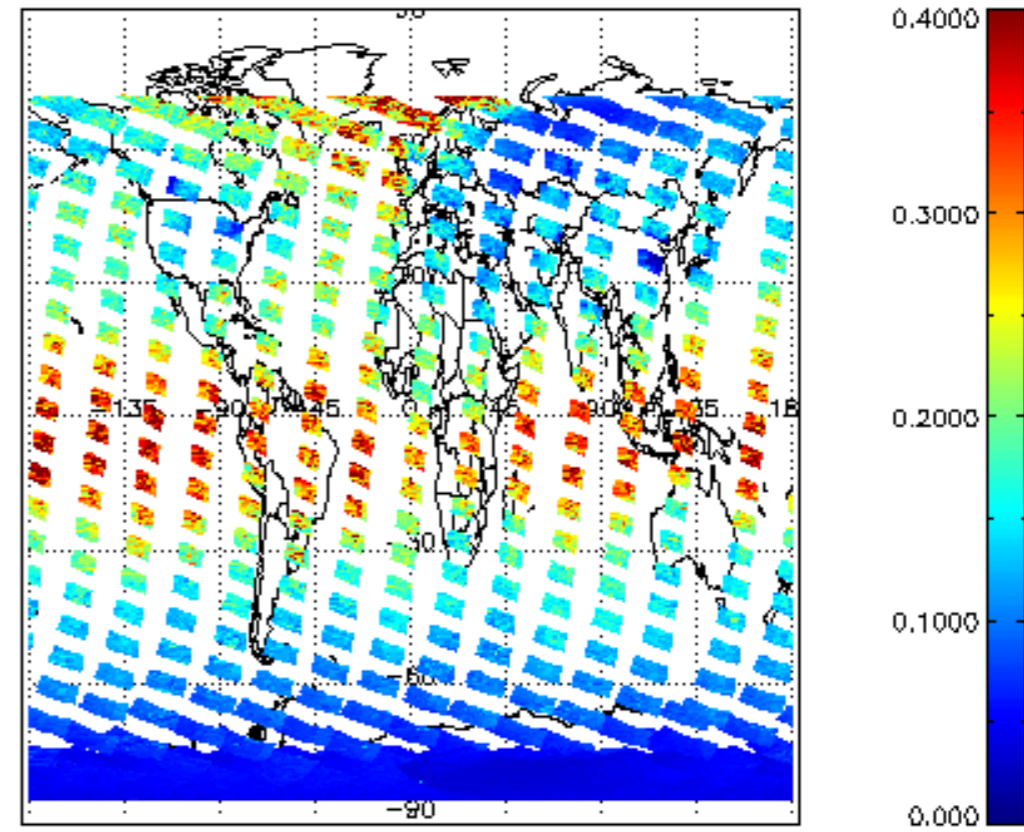




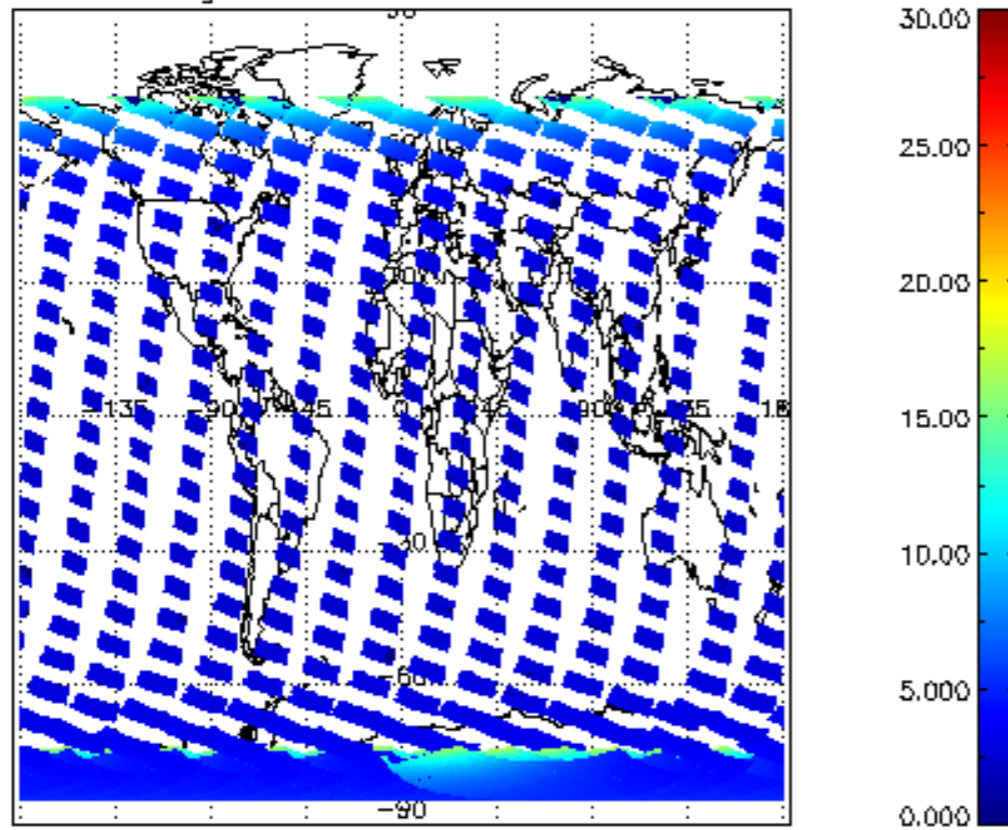
SCIOL2P_NADUV1NO2_vcd for 04FEB2008 00:00:00 to 05FEB2008 00:00:00



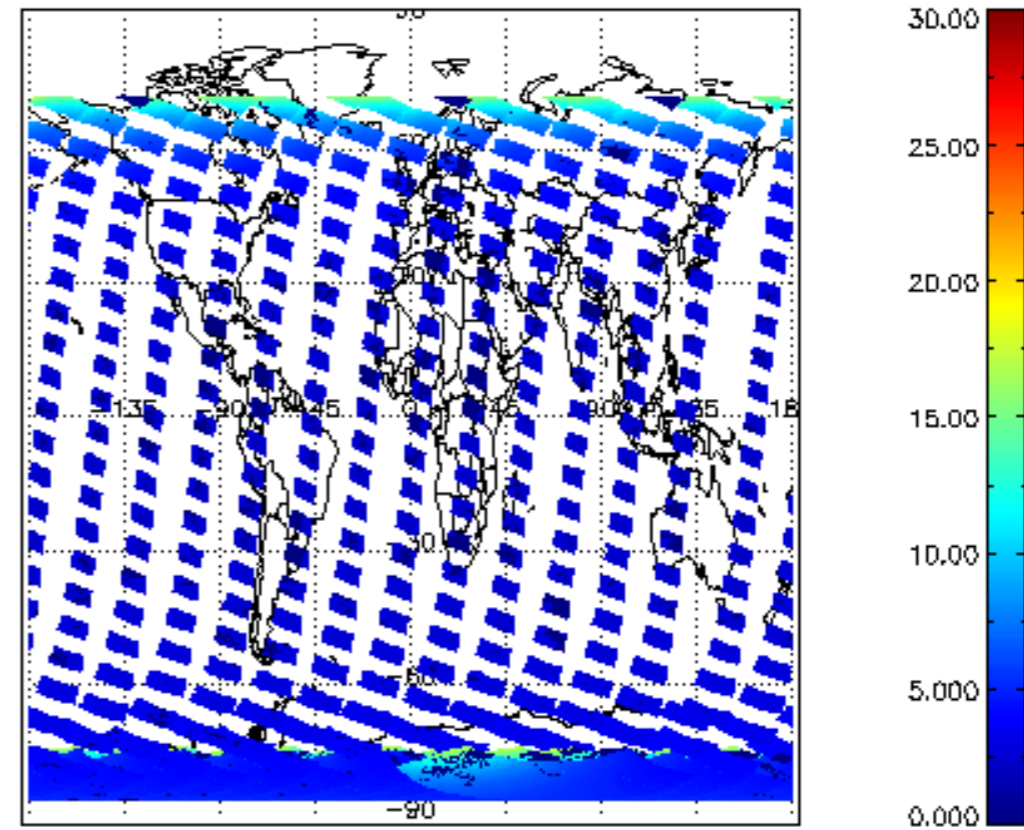
SCIOL2P_NADUV1NO2_vcd_err for 04FEB2008 00:00:00 to 05FEB2008 00:00:00



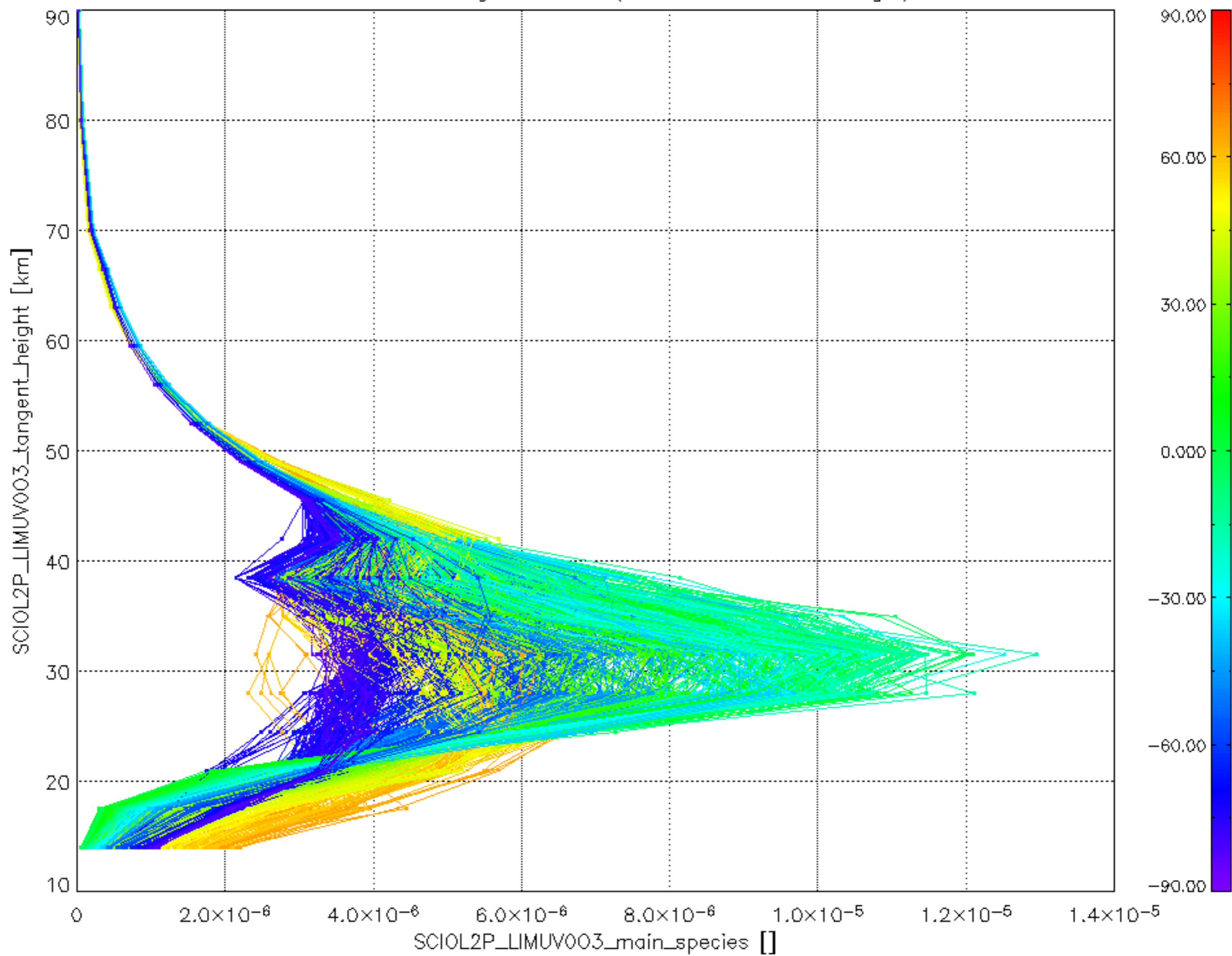
SCIOL2P_NADUV1NO2_amf_gr for 04FEB2008 00:00:00 to 05FEB2008 00:00:00



SCIOL2P_NADUV1NO2_amf_cl for 04FEB2008 00:00:00 to 05FEB2008 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).

