

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	05APR2008 06:03:33
Data source version	SCIA-OL/3.01-R
Processing scope for products	13MAR2008 00:00:00 to 14MAR2008 00:00:00
Start time of first product within scope	12MAR2008 23:18:11
Stop time of last product within scope	13MAR2008 23:40:58
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__2PRDPA20080312_231811_000032692066_00431_31547_4577.N1	12MAR2008 23:18:11	13MAR2008 00:12:41	0	GOOD
1	SCI_OL__2PRDPA20080313_005738_000033252066_00432_31548_4580.N1	13MAR2008 00:57:38	13MAR2008 01:53:04	0	GOOD
2	SCI_OL__2PRDPA20080313_023922_000032692066_00433_31549_4581.N1	13MAR2008 02:39:22	13MAR2008 03:33:52	0	GOOD
3	SCI_OL__2PRDPA20080313_041849_000033252066_00434_31550_4582.N1	13MAR2008 04:18:49	13MAR2008 05:14:15	0	GOOD
4	SCI_OL__2PRDPA20080313_060033_000032692066_00435_31551_4584.N1	13MAR2008 06:00:33	13MAR2008 06:55:03	0	GOOD
5	SCI_OL__2PRDPA20080313_074000_000033252066_00436_31552_4588.N1	13MAR2008 07:40:00	13MAR2008 08:35:26	0	GOOD
6	SCI_OL__2PRDPA20080313_092144_000032692066_00437_31553_4629.N1	13MAR2008 09:21:44	13MAR2008 10:16:14	0	GOOD
7	SCI_OL__2PRDPA20080313_110111_000033252066_00438_31554_4630.N1	13MAR2008 11:01:11	13MAR2008 11:56:37	0	GOOD
8	SCI_OL__2PRDPA20080313_124255_000032692066_00439_31555_4636.N1	13MAR2008 12:42:55	13MAR2008 13:37:25	0	GOOD
9	SCI_OL__2PRDPA20080313_142222_000033252066_00440_31556_4666.N1	13MAR2008 14:22:22	13MAR2008 15:17:47	0	GOOD
10	SCI_OL__2PRDPA20080313_160406_000032012066_00441_31557_4669.N1	13MAR2008 16:04:06	13MAR2008 16:57:27	0	GOOD
11	SCI_OL__2PRDPA20080313_174243_000033942066_00442_31558_4670.N1	13MAR2008 17:42:43	13MAR2008 18:39:18	0	GOOD
12	SCI_OL__2PRDPA20080313_192338_000033252066_00443_31559_4671.N1	13MAR2008 19:23:38	13MAR2008 20:19:03	0	GOOD
13	SCI_OL__2PRDPA20080313_210444_000033252066_00444_31560_4672.N1	13MAR2008 21:04:44	13MAR2008 22:00:10	0	GOOD
14	SCI_OL__2PRDPA20080313_224628_000032692066_00445_31561_4689.N1	13MAR2008 22:46:28	13MAR2008 23:40:58	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: 146120

Total number of cloud data DSRs with good quality flag (=0): 146120 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	146120	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	146120	0.17037	0.12500	0.12500	0.25000	0.060108	s
SURFACE_PRES	146120	0.0000	0.0000	0.0000	0.0000	0.0000	hPa
CL_FRAC	146120	0.39352	0.35737	0.0000	1.0000	0.28579	-

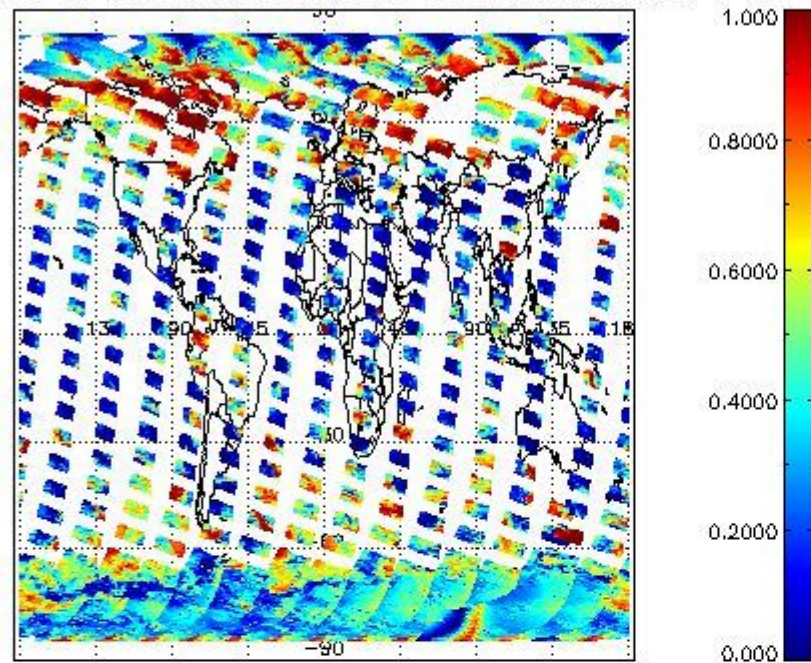
CL_FRAC_ERR	146120	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	146120	5.4520	4.0000	4.0000	8.0000	1.9235	
PMD_READ_CL[0]	146120	0.23916	0.0000	0.0000	8.0000	1.0741	-
PMD_READ_CL[1]	146120	0.82872	0.0000	0.0000	8.0000	2.0290	-
CL_TOP_HEIGHT	122192	3.8326	2.0870	0.0000	17.000	3.9479	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	122192	59.002	58.587	0.0000	101.00	40.431	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	146120	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	146120	11001010	11000100	11000000	11100000	3208.7	flags
AERO_ABSO_IND	146120	2.9188	3.4195	-1.5763	14.578	2.0101	
AERO_IND_DIAG	146120	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	146120	01010111	00000000	00000000	11000000	24484.	flags

Time and geolocation plots:

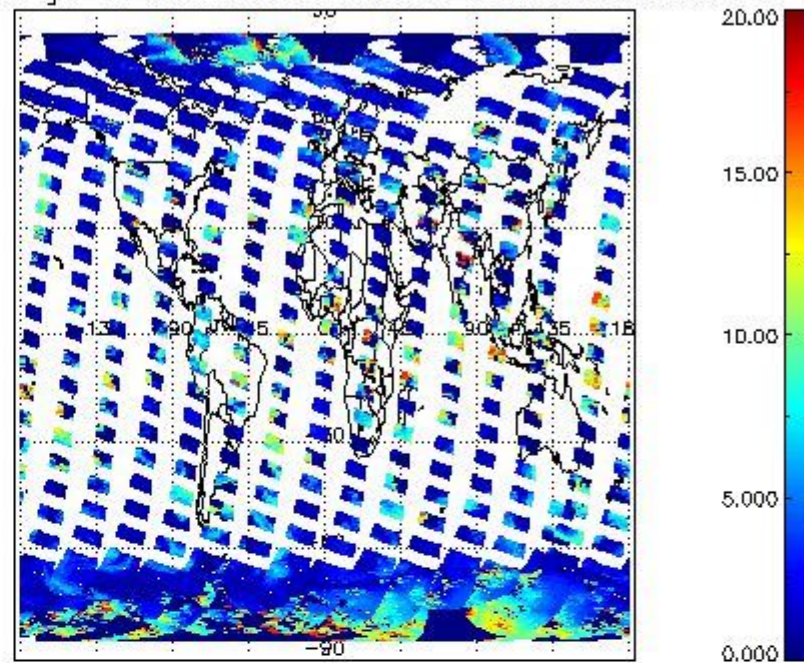
Plots are available for the following parameters:

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

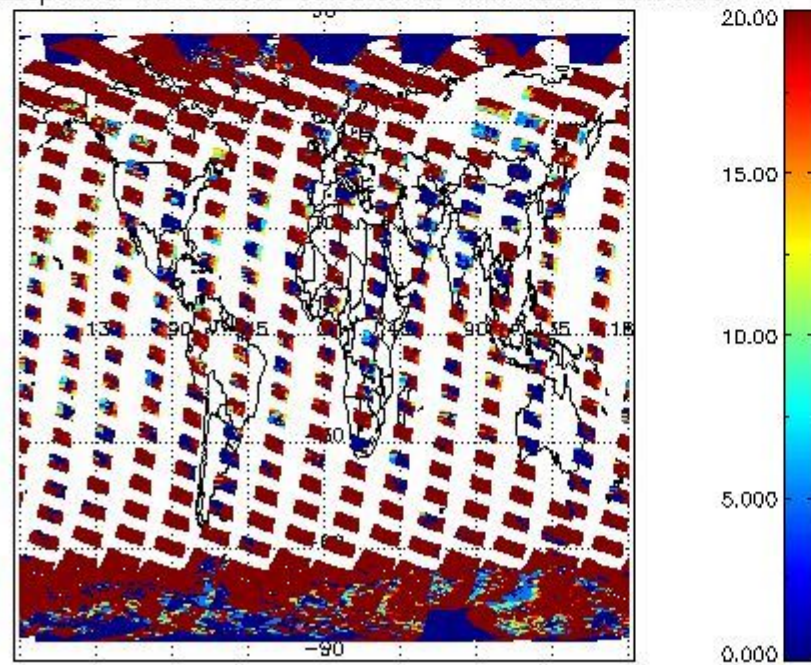
cLfrac for 13MAR2008 00:00:00 to 14MAR2008 00:00:00



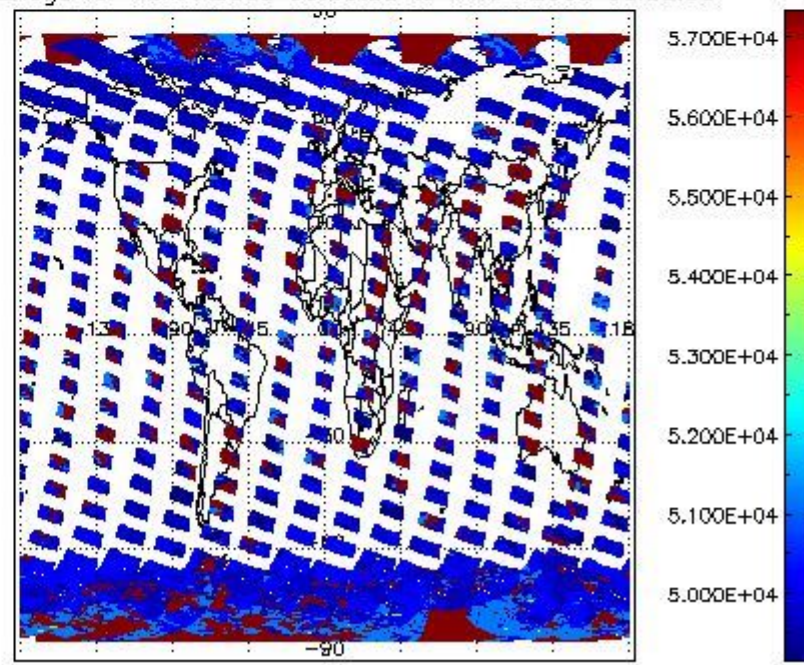
cLtop_height for 13MAR2008 00:00:00 to 14MAR2008 00:00:00



cLopt_depth for 13MAR2008 00:00:00 to 14MAR2008 00:00:00



cloud_flags for 13MAR2008 00:00:00 to 14MAR2008 00:00:00



2.2.2 Nadir

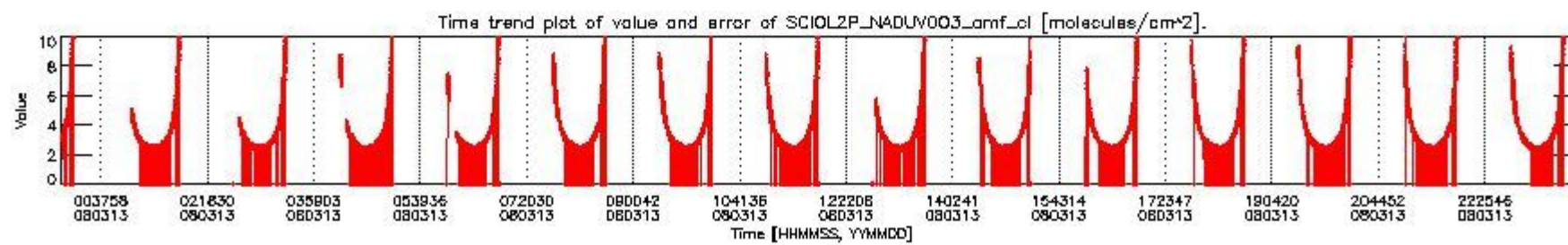
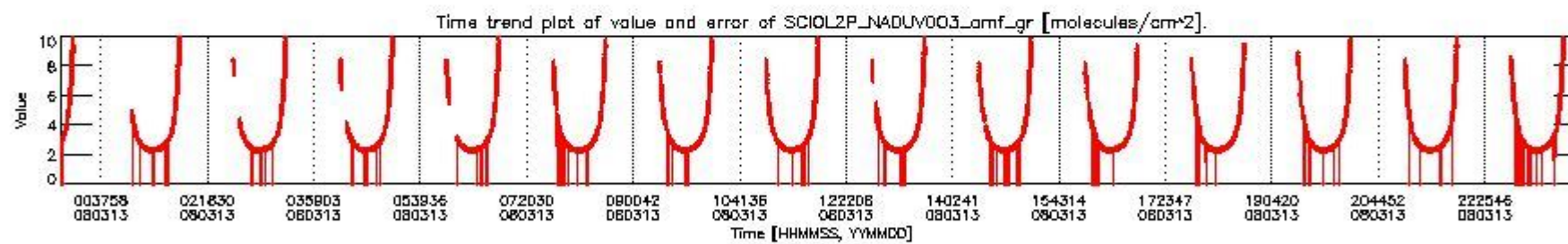
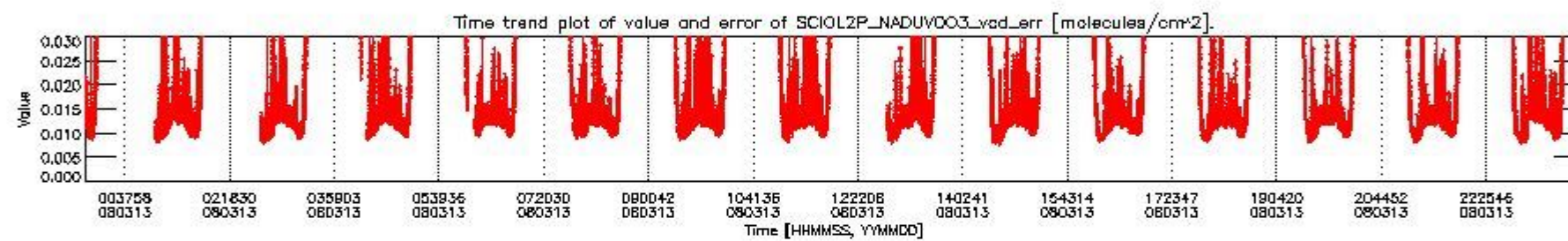
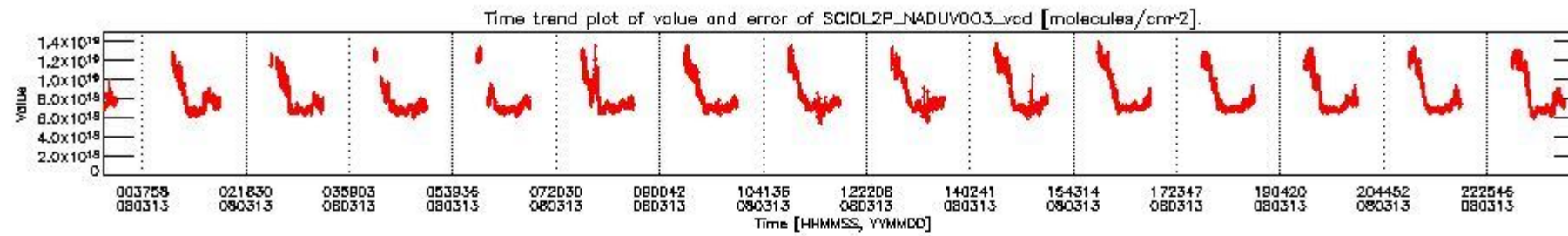
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

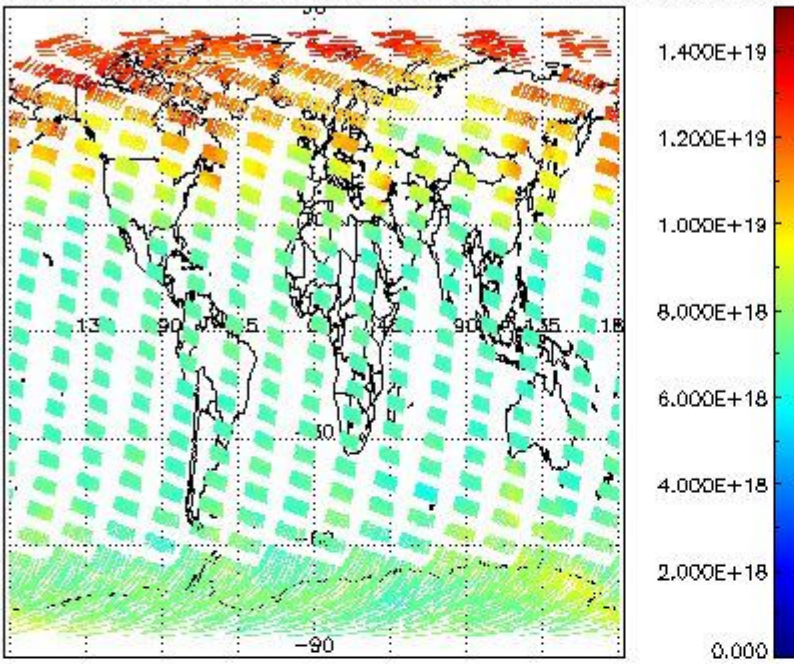
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

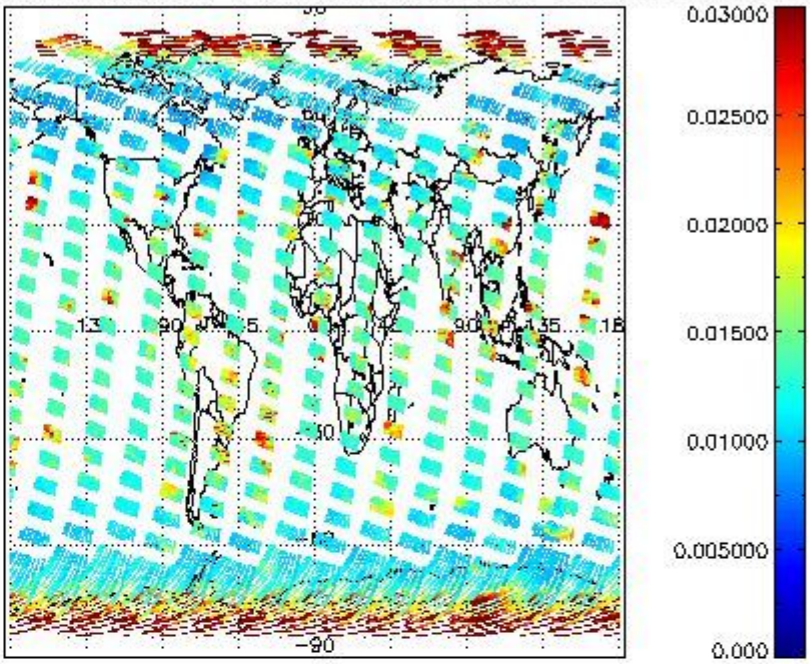
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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



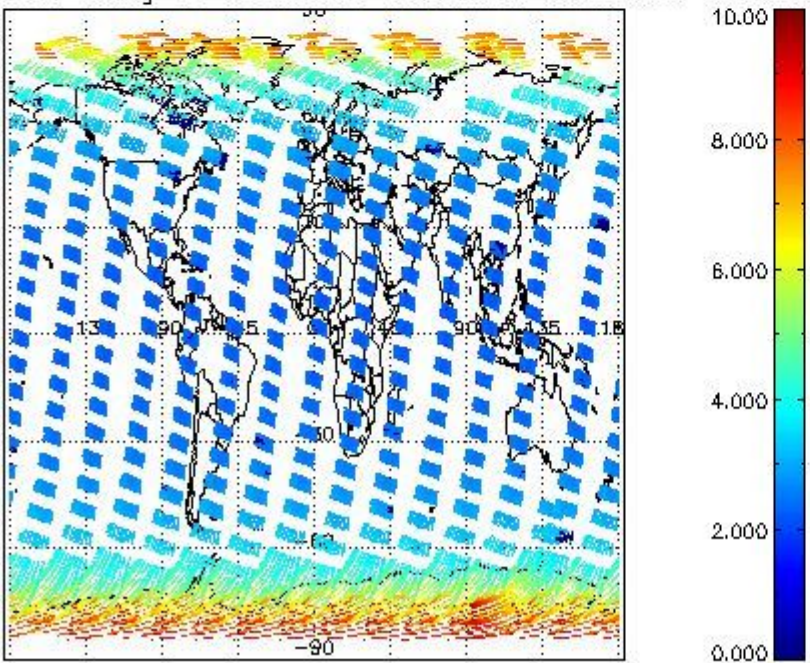
SCIOL2P_NADUV003_vcd for 13MAR2008 00:00:00 to 14MAR2008 00:00:00



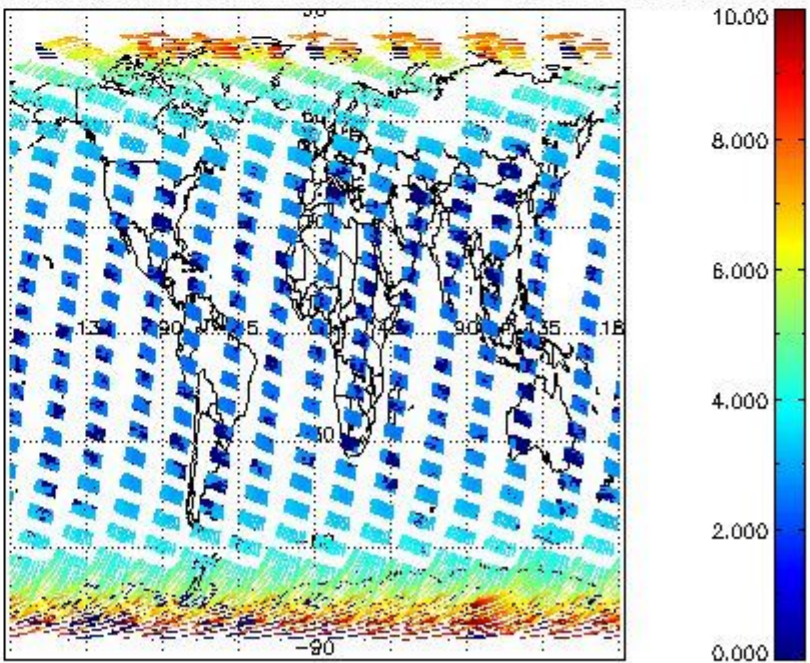
SCIOL2P_NADUV003_vcd_err for 13MAR2008 00:00:00 to 14MAR2008 00:00:00

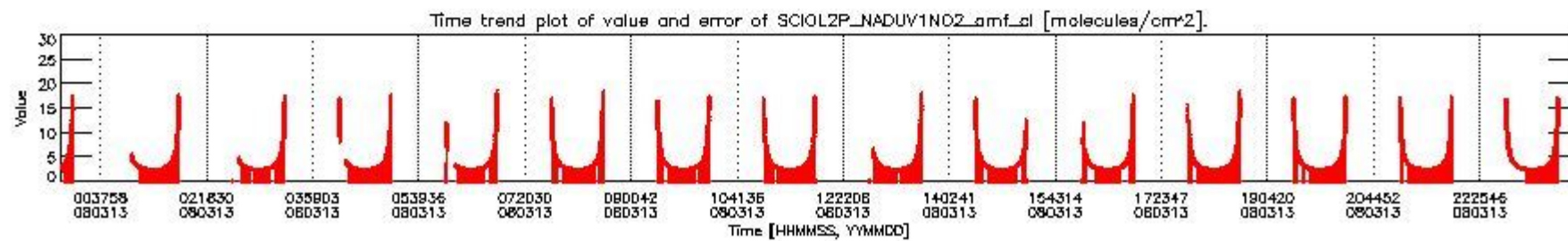
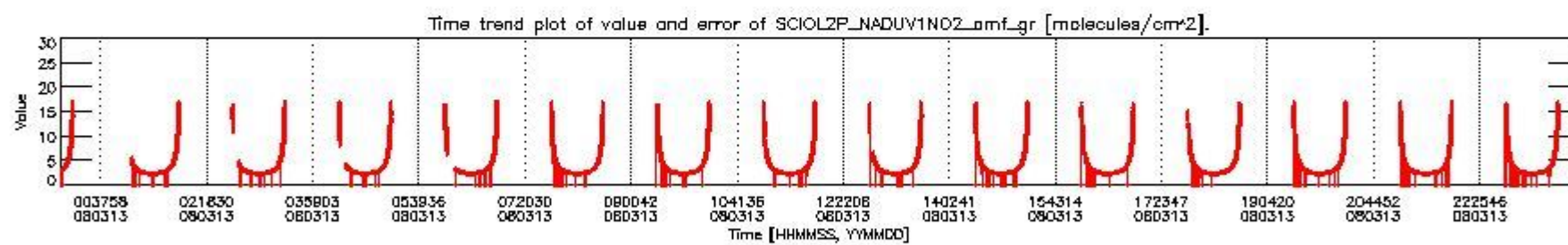
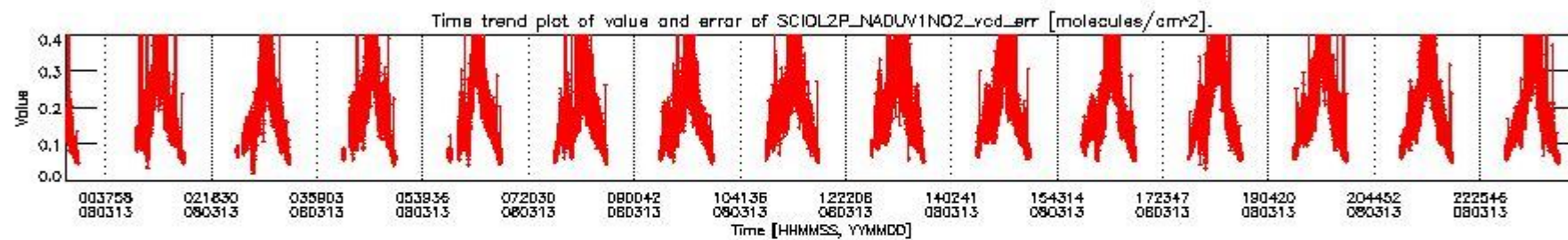
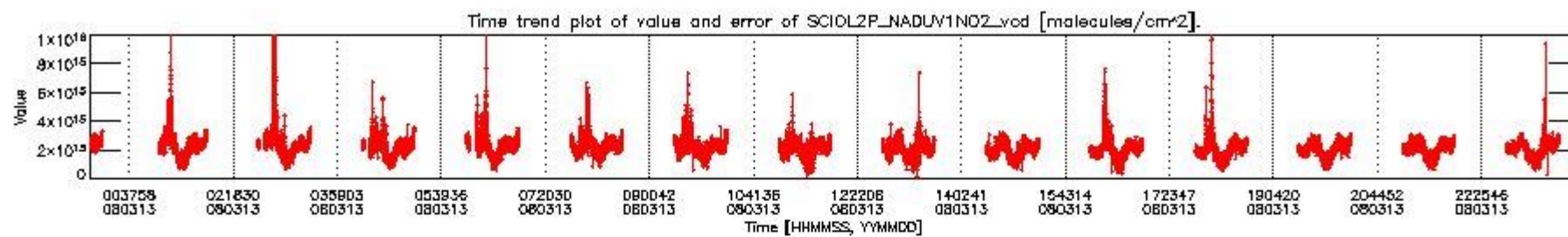


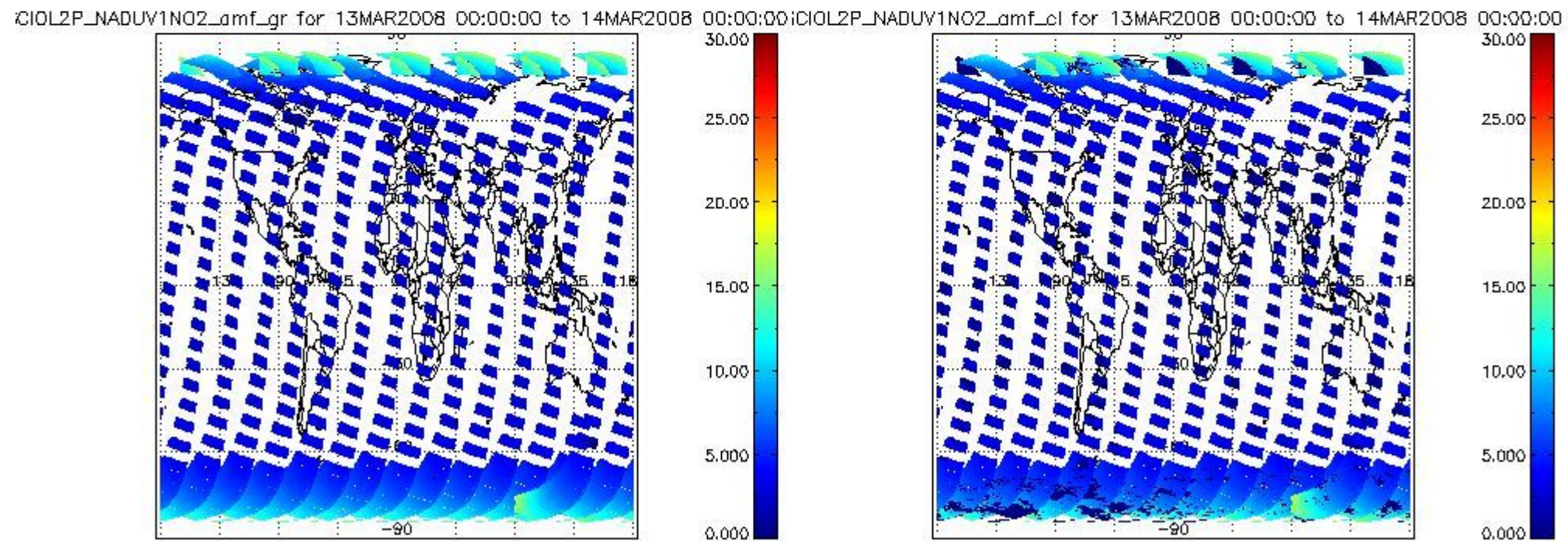
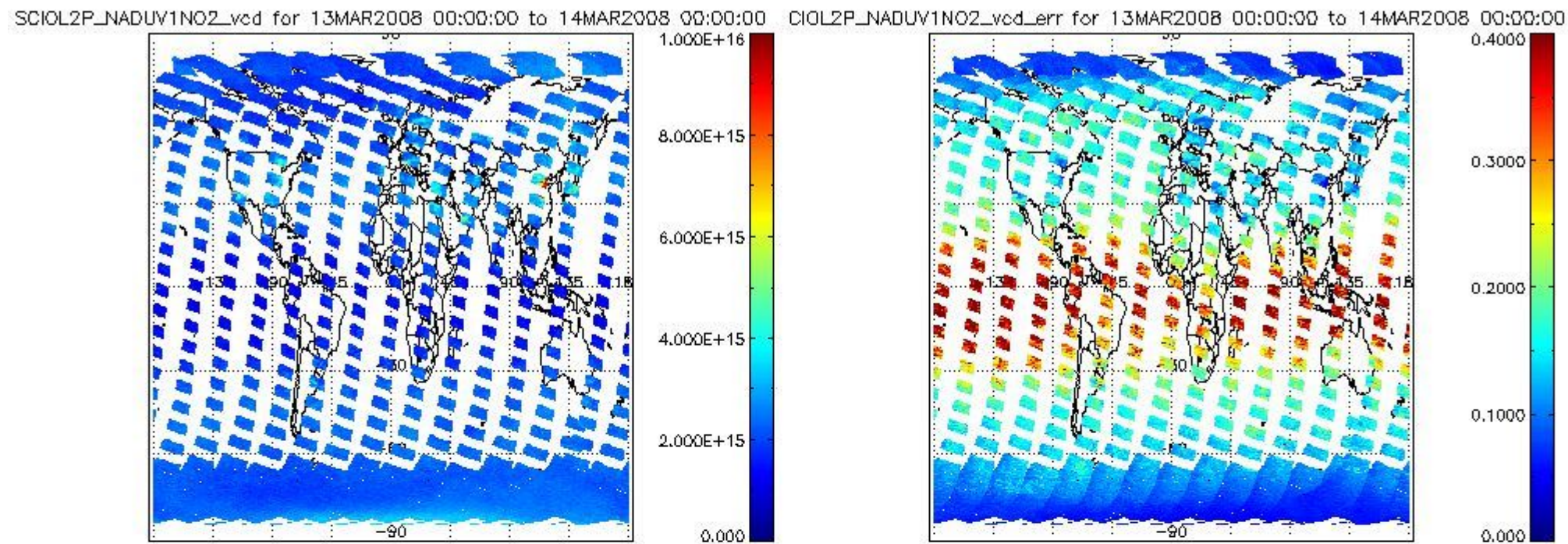
SCIOL2P_NADUV003_amf_gr for 13MAR2008 00:00:00 to 14MAR2008 00:00:00



SCIOL2P_NADUV003_amf_cl for 13MAR2008 00:00:00 to 14MAR2008 00:00:00







2.2.3 Limb

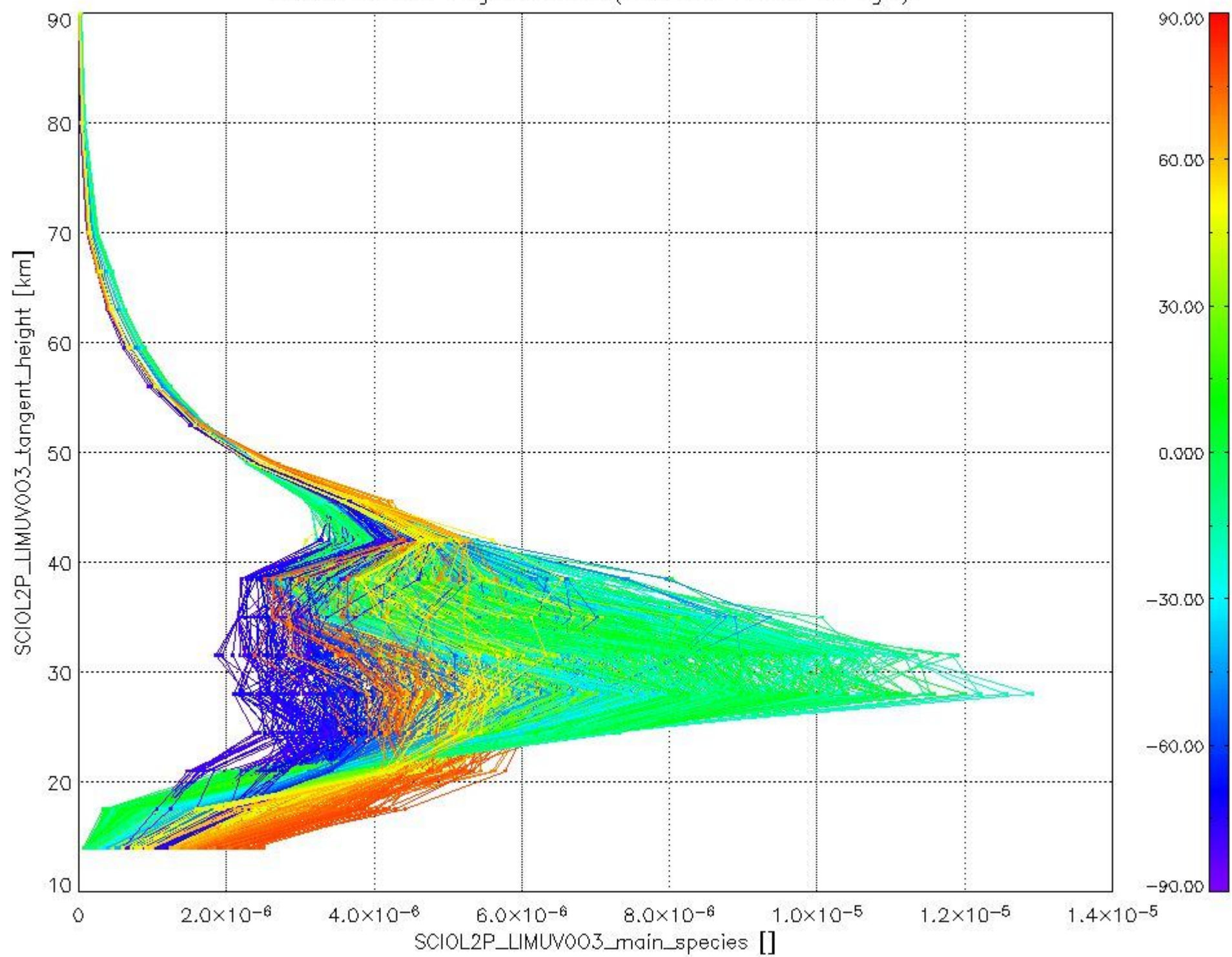
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

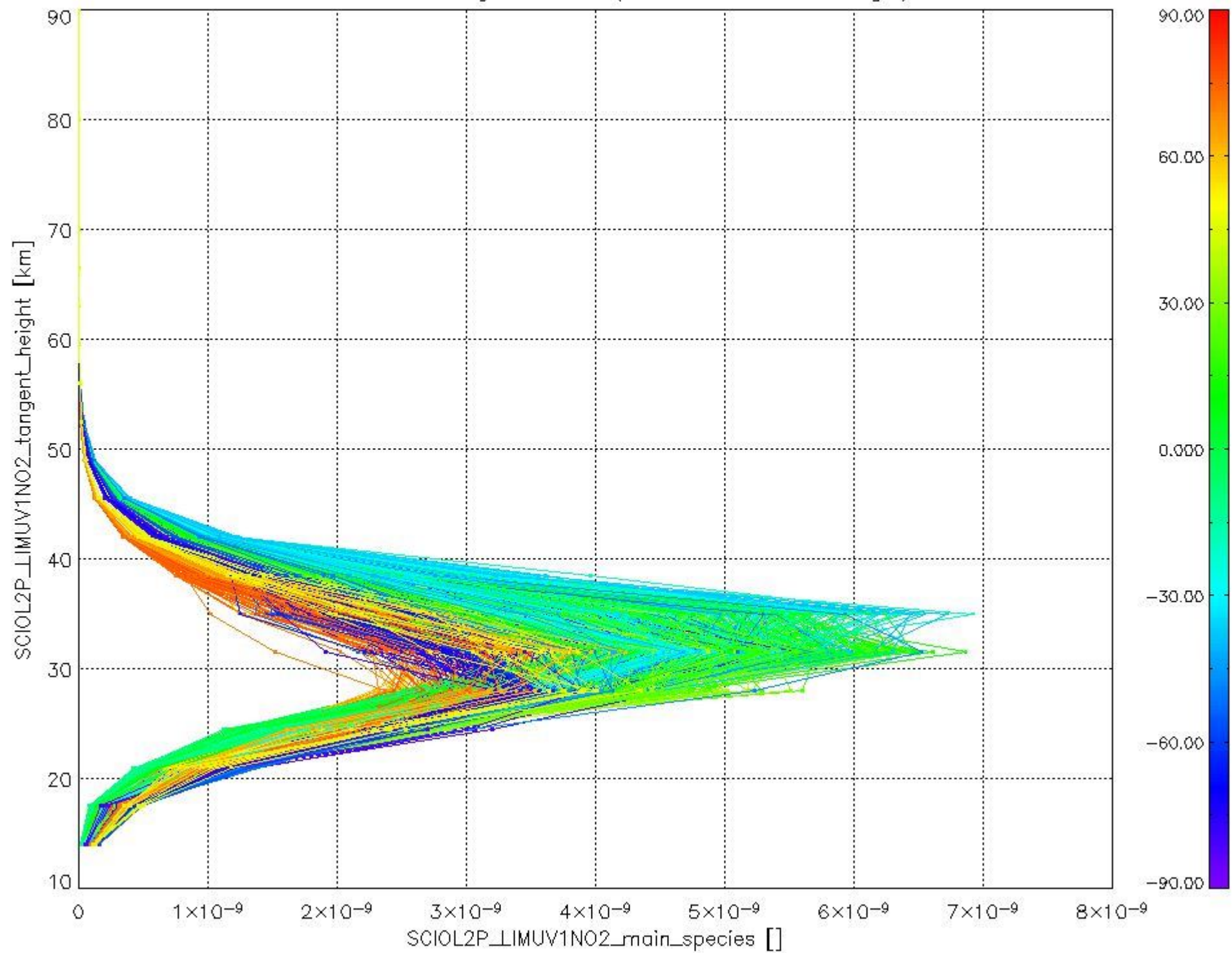
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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).



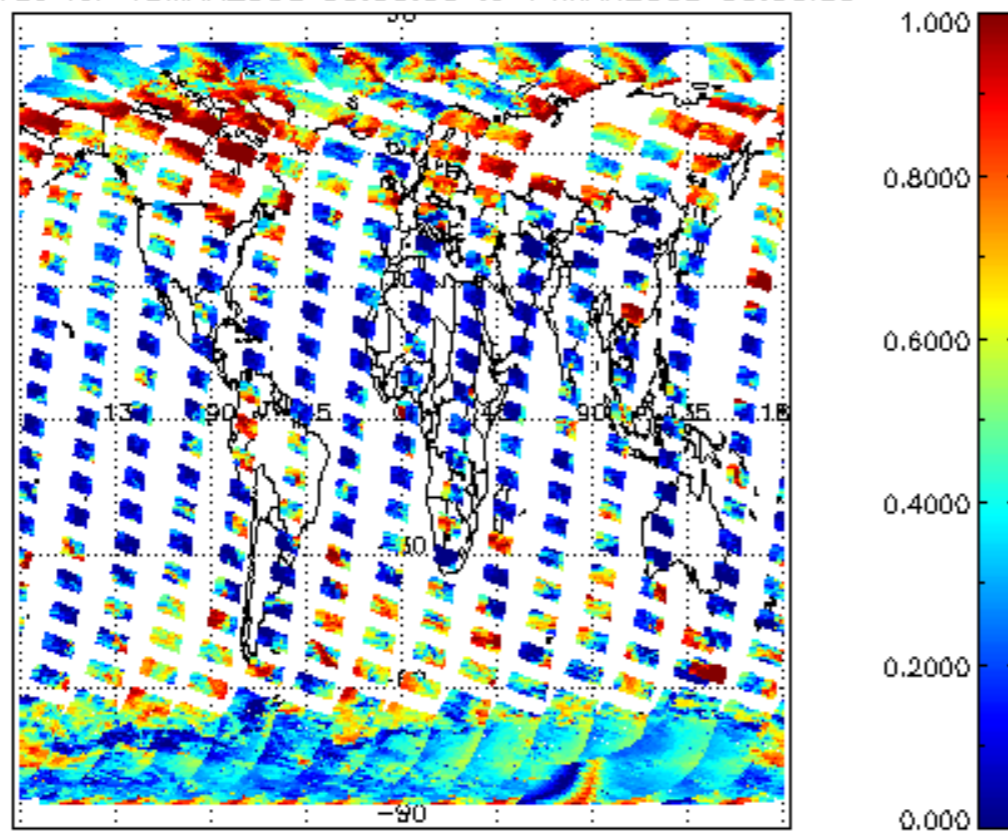
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



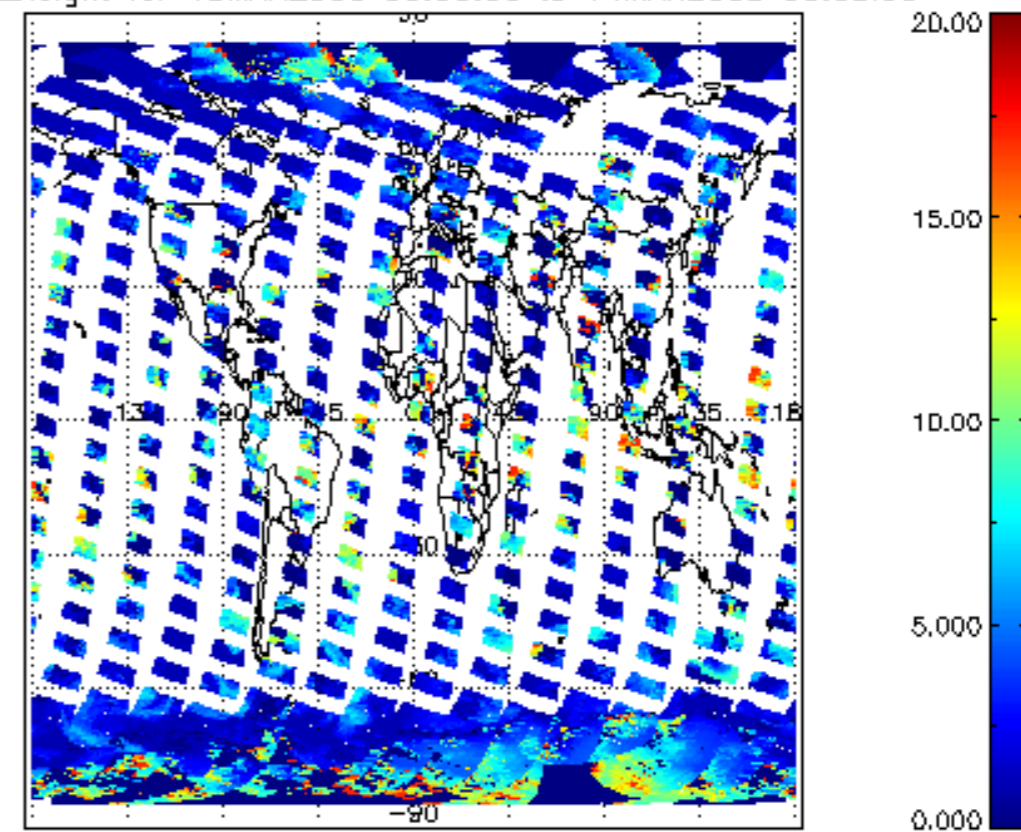
2.3 ADF monitoring

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

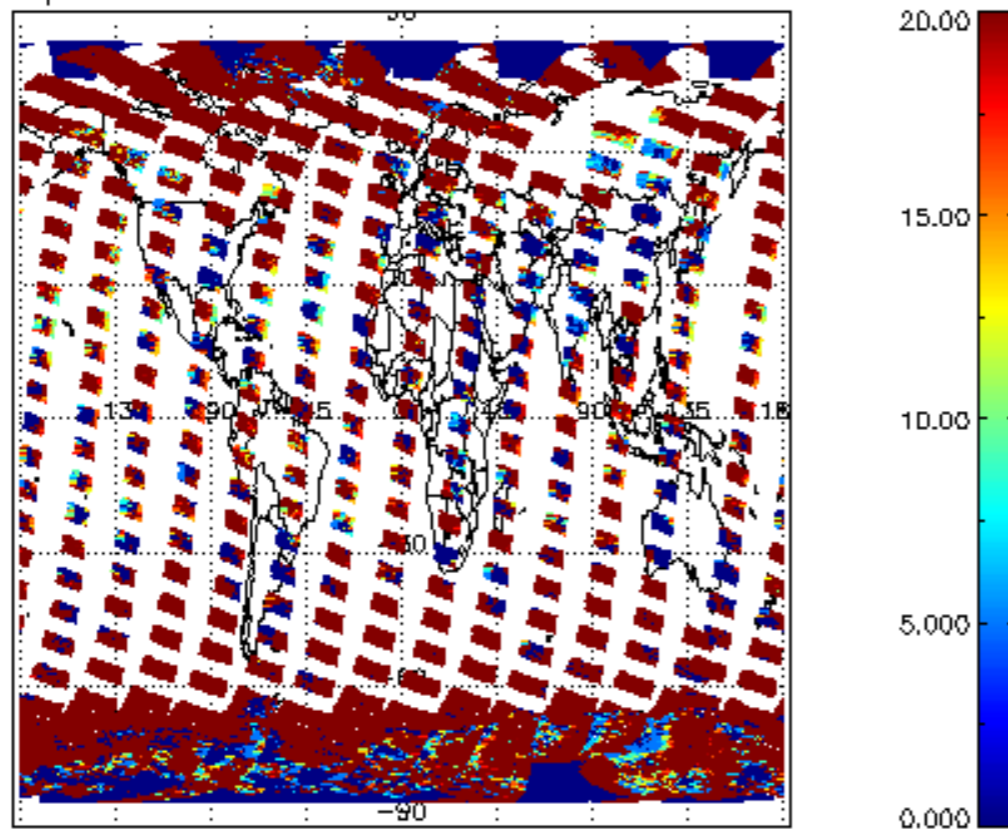
cL_frac for 13MAR2008 00:00:00 to 14MAR2008 00:00:00



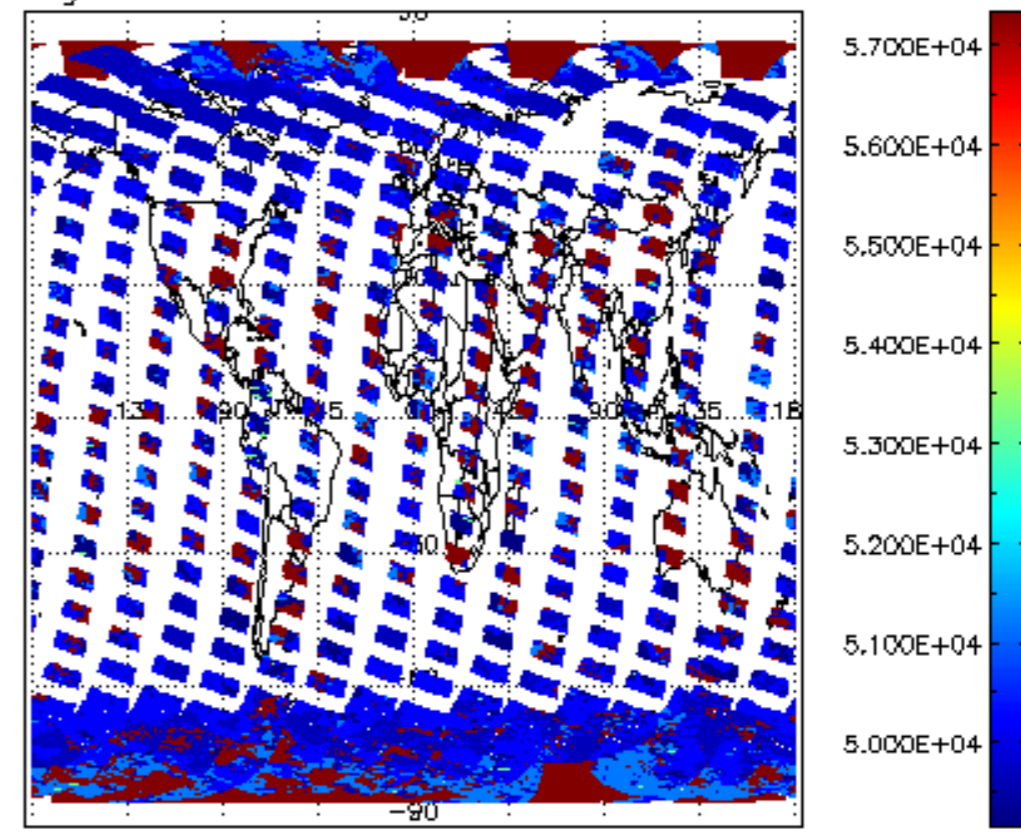
cL_top_height for 13MAR2008 00:00:00 to 14MAR2008 00:00:00

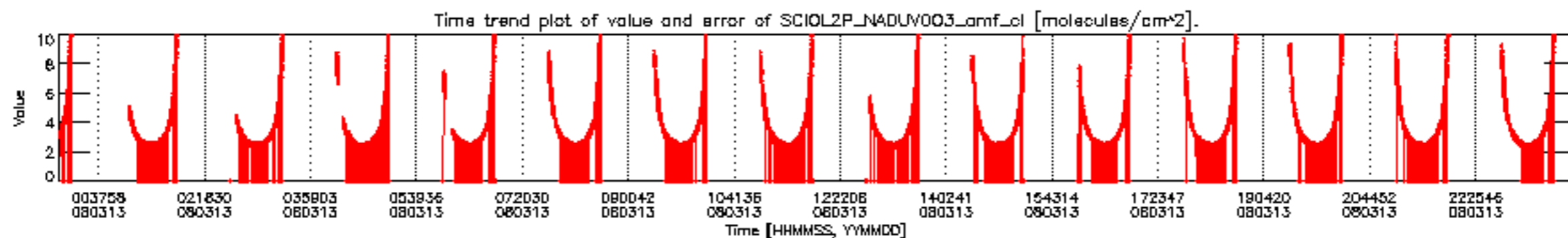
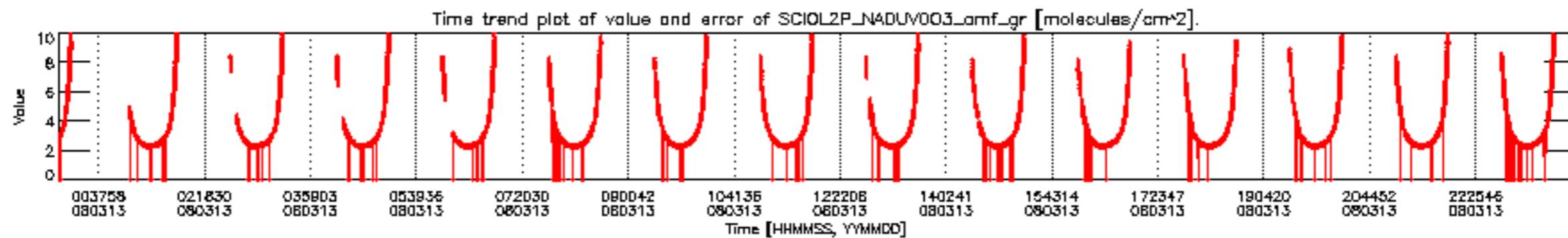
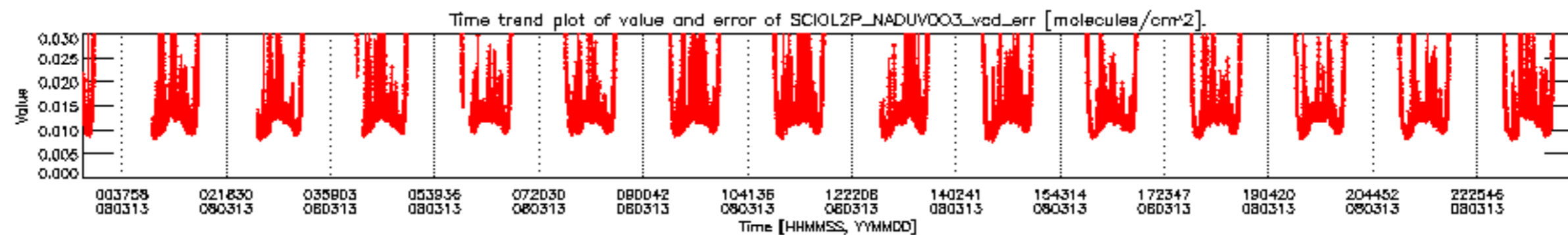
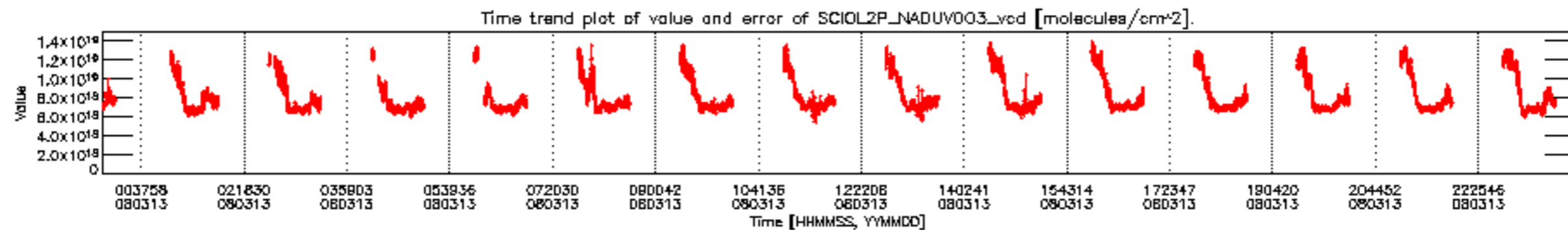


cL_opt_depth for 13MAR2008 00:00:00 to 14MAR2008 00:00:00

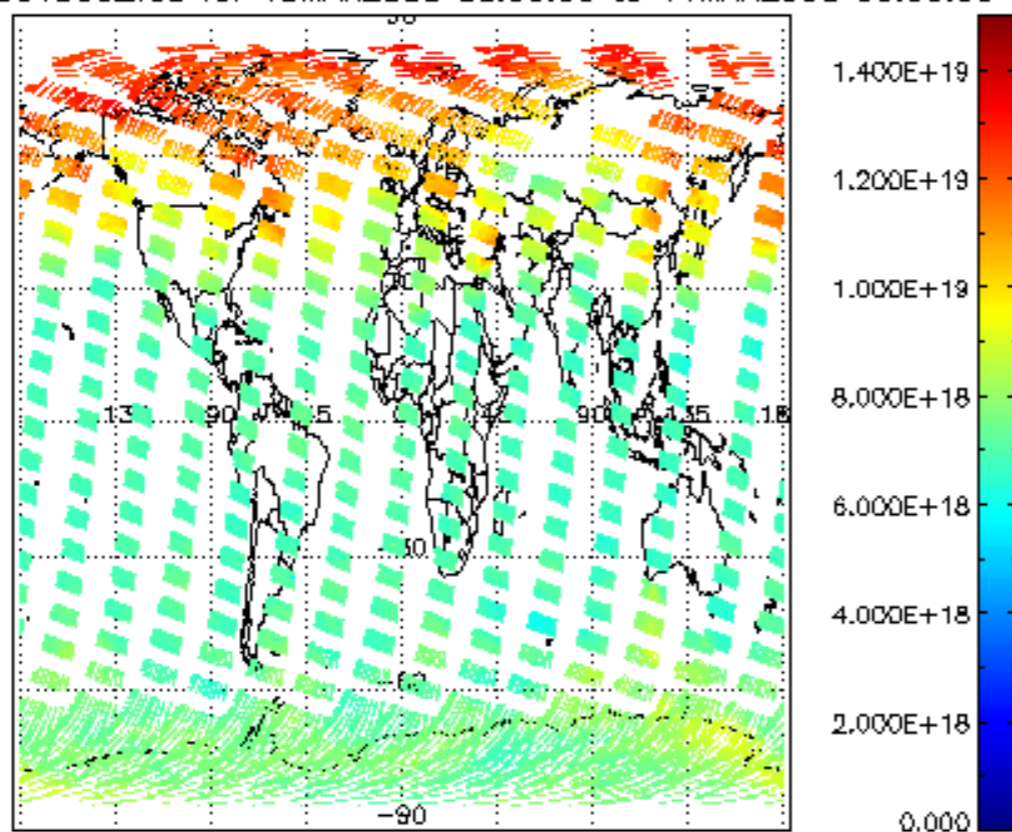


cloud_flags for 13MAR2008 00:00:00 to 14MAR2008 00:00:00

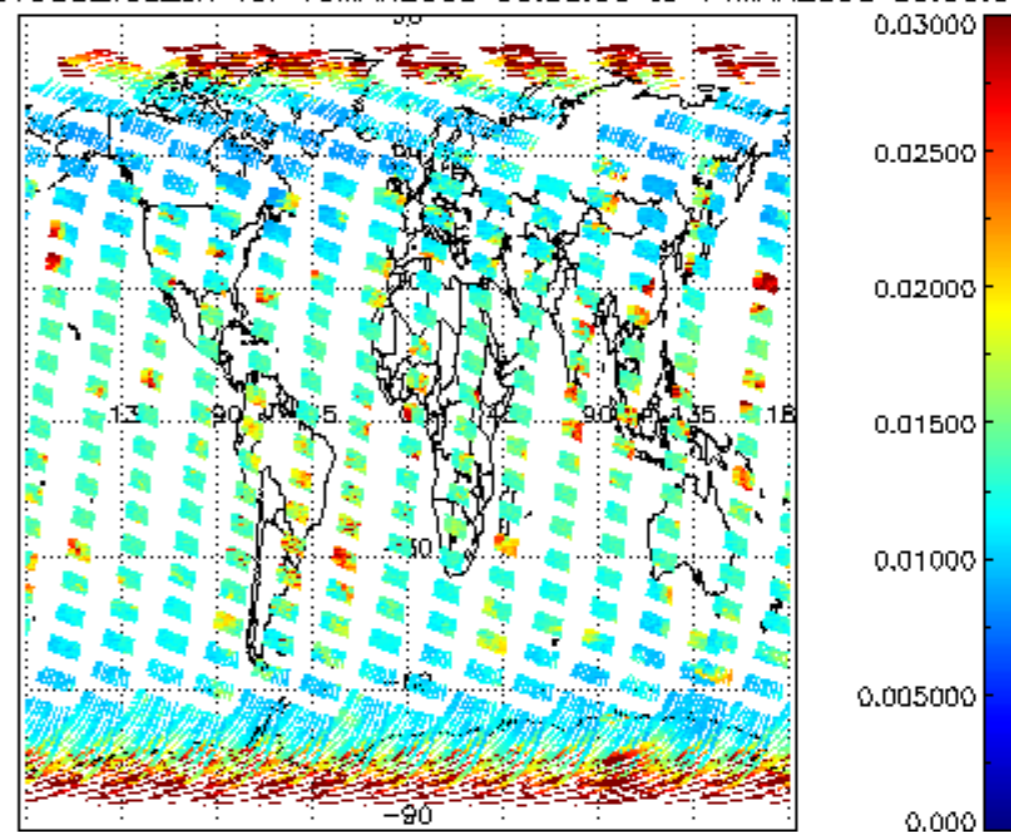




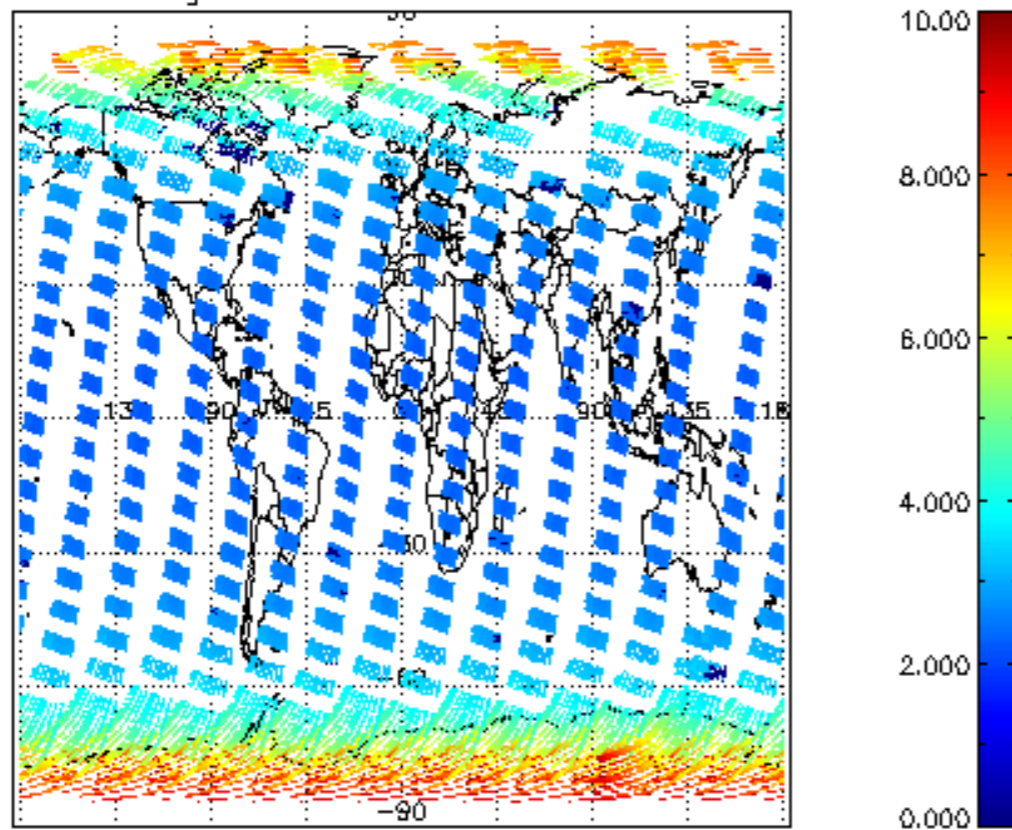
SCIOL2P_NADUV003_vcd for 13MAR2008 00:00:00 to 14MAR2008 00:00:00



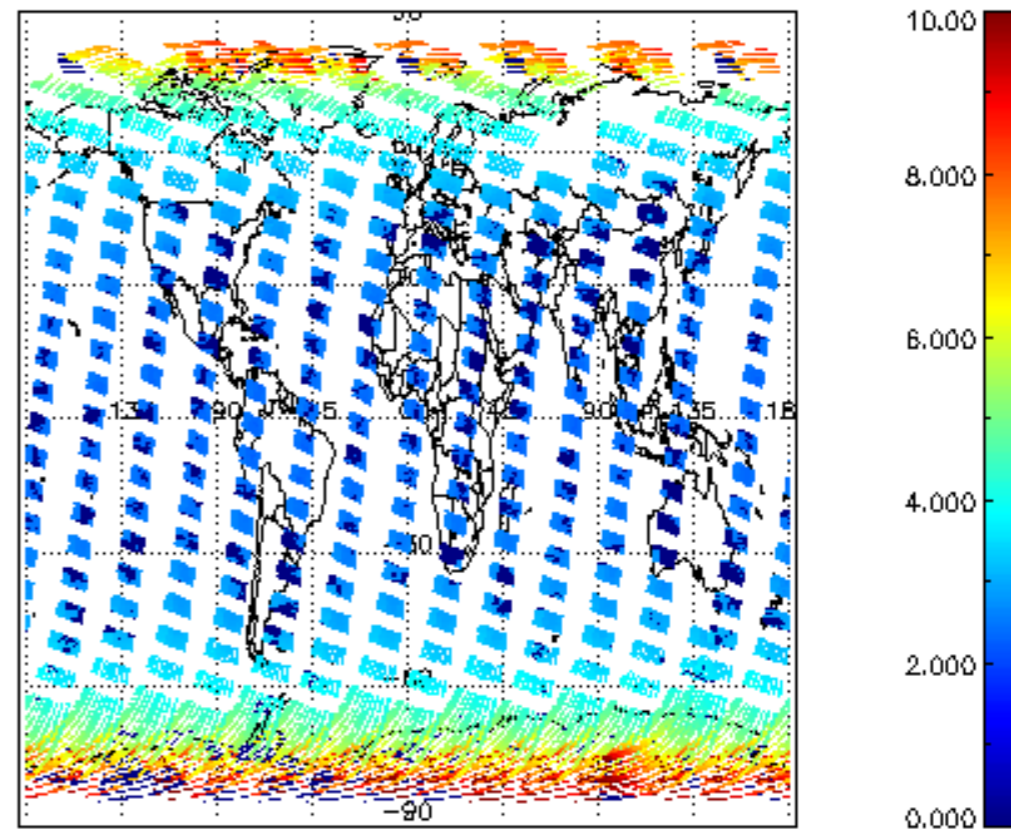
SCIOL2P_NADUV003_vcd_err for 13MAR2008 00:00:00 to 14MAR2008 00:00:00

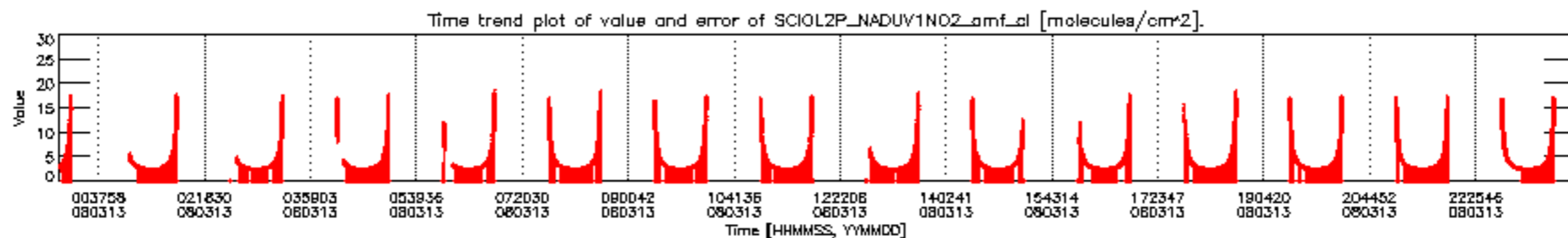
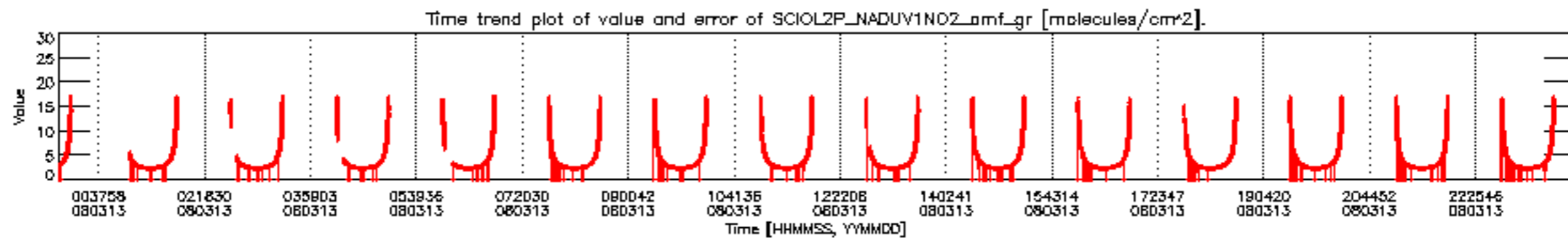
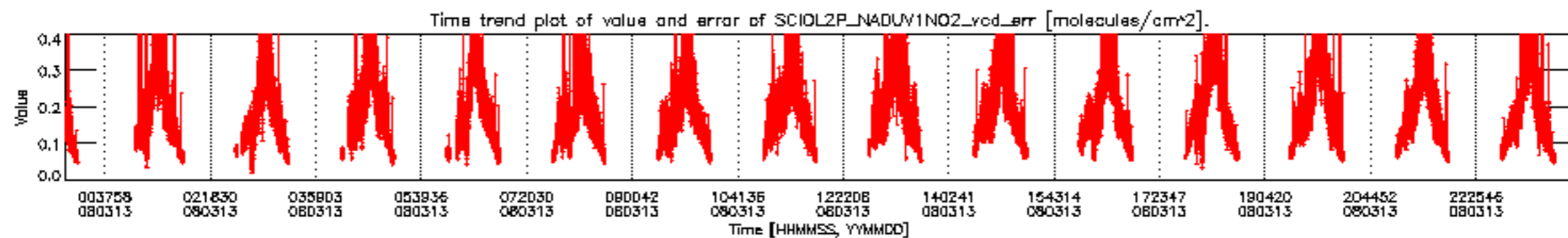
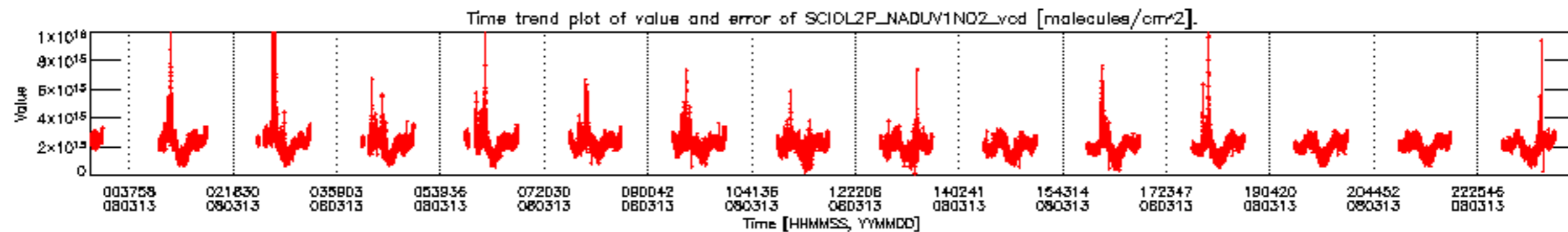


SCIOL2P_NADUV003_amf_gr for 13MAR2008 00:00:00 to 14MAR2008 00:00:00

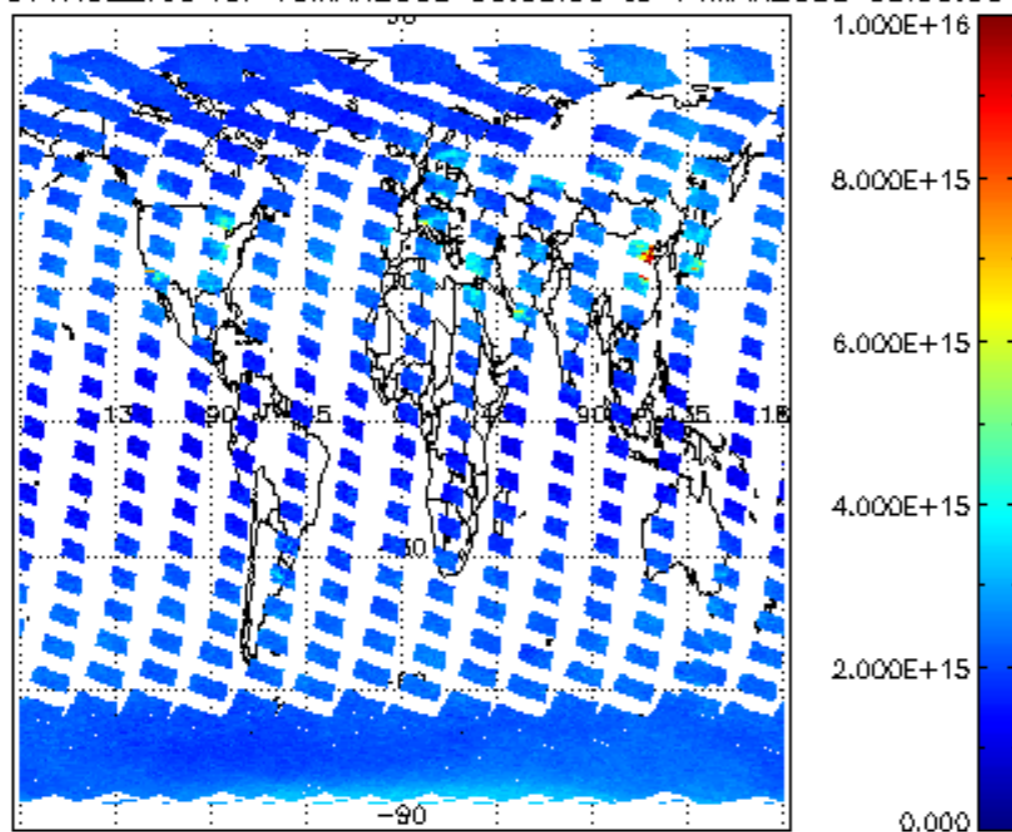


SCIOL2P_NADUV003_amf_cl for 13MAR2008 00:00:00 to 14MAR2008 00:00:00

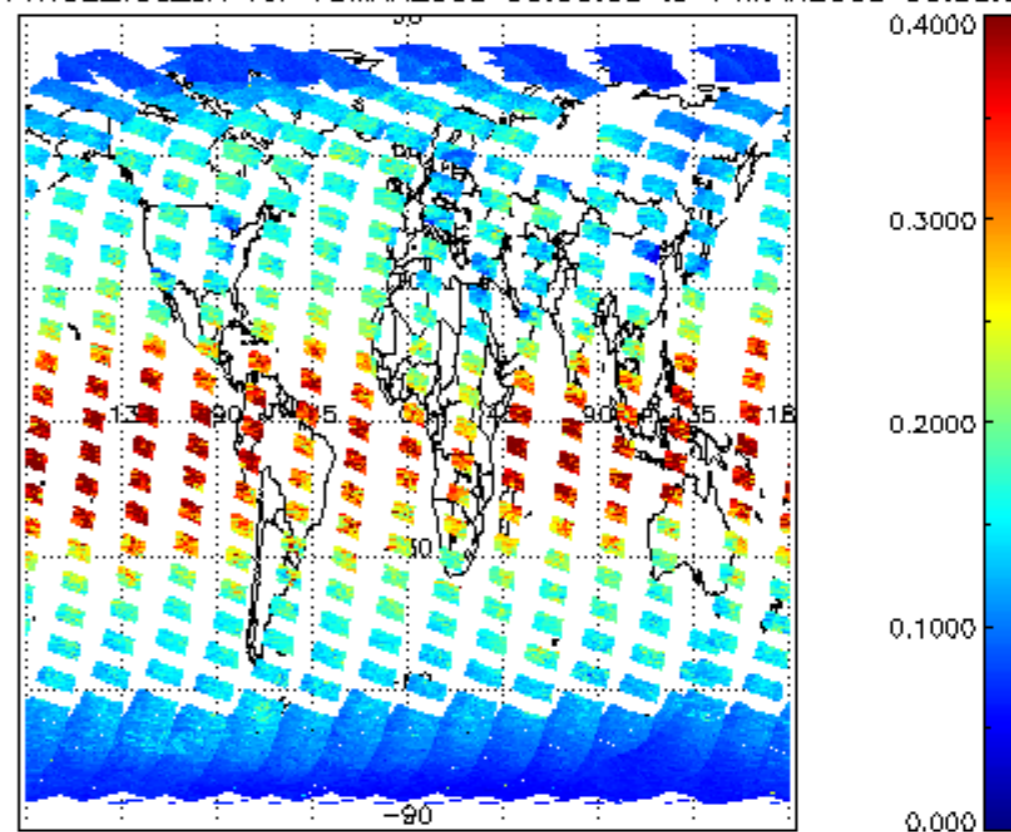




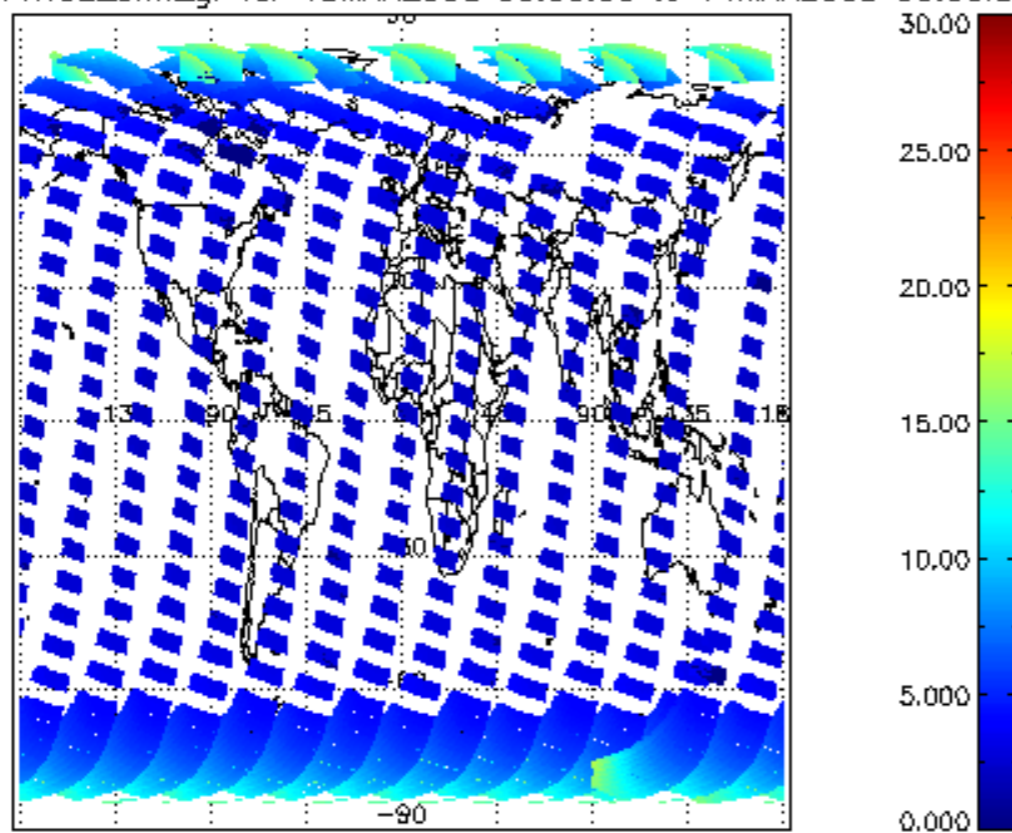
SCIOL2P_NADUV1NO2_vcd for 13MAR2008 00:00:00 to 14MAR2008 00:00:00



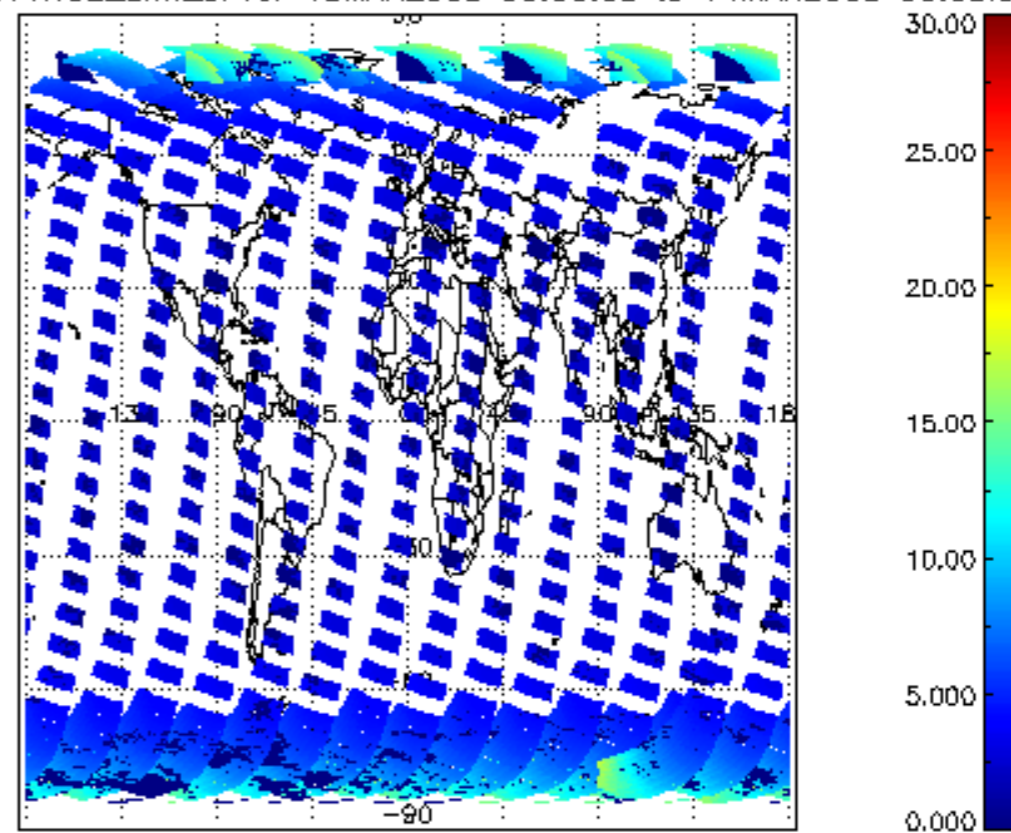
SCIOL2P_NADUV1NO2_vcd_err for 13MAR2008 00:00:00 to 14MAR2008 00:00:00



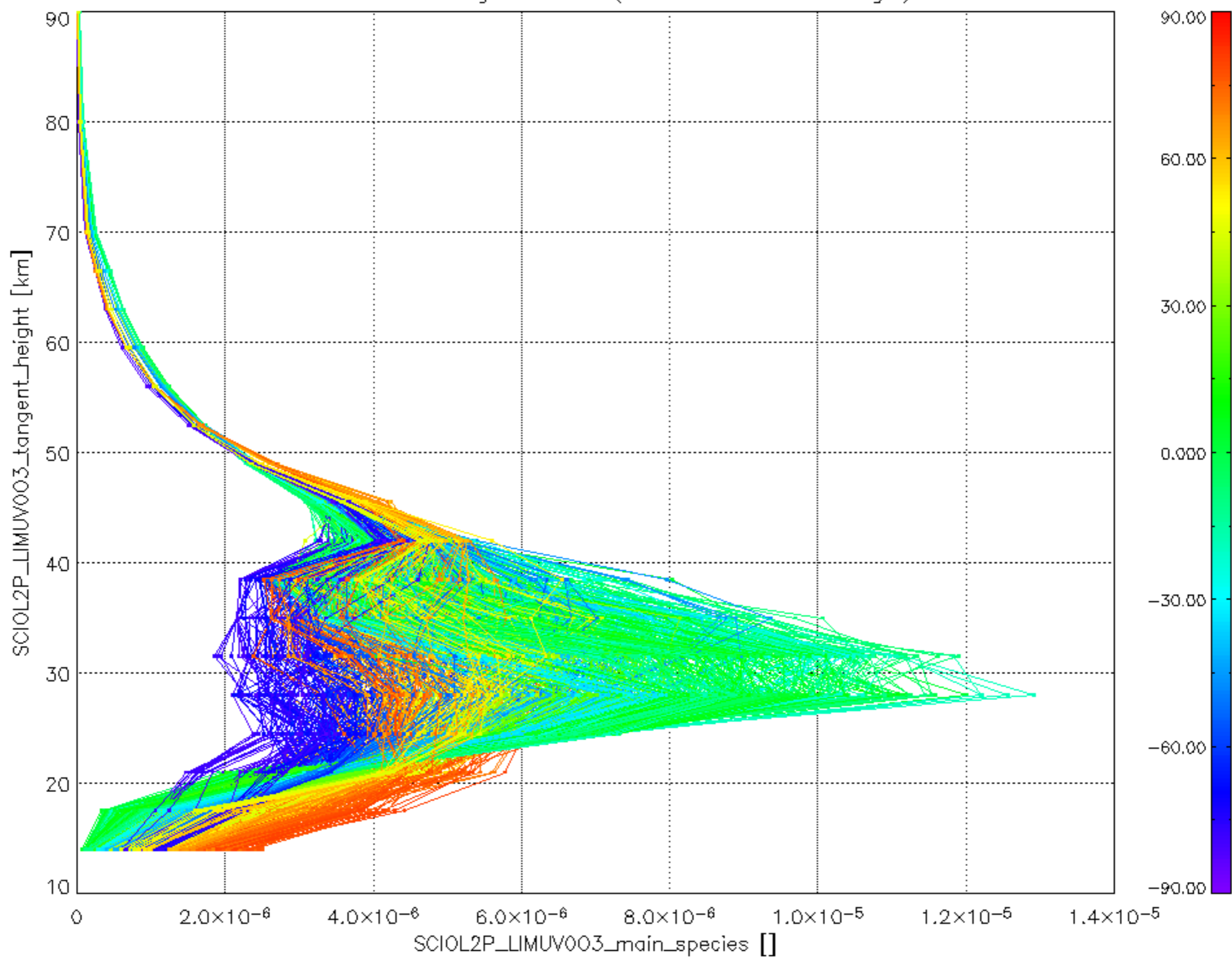
SCIOL2P_NADUV1NO2_amf_gr for 13MAR2008 00:00:00 to 14MAR2008 00:00:00



SCIOL2P_NADUV1NO2_amf_cl for 13MAR2008 00:00:00 to 14MAR2008 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).

