

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	11MAR2008 09:10:09
Data source version	SCIA-OL/3.01-R
Processing scope for products	12FEB2008 00:00:00 to 13FEB2008 00:00:00
Start time of first product within scope	12FEB2008 11:47:41
Stop time of last product within scope	13FEB2008 00:27:27
Total number of level 2 products	8
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__2PRDPA20080212_114741_000033252066_00009_31125_3019.N1	12FEB2008 11:47:41	12FEB2008 12:43:06	0	GOOD
1	SCI_OL__2PRDPA20080212_132925_000032692066_00010_31126_3021.N1	12FEB2008 13:29:25	12FEB2008 14:23:54	0	GOOD
2	SCI_OL__2PRDPA20080212_150852_000033252066_00011_31127_3029.N1	12FEB2008 15:08:52	12FEB2008 16:04:17	0	GOOD
3	SCI_OL__2PRDPA20080212_165036_000032692066_00012_31128_3031.N1	12FEB2008 16:50:36	12FEB2008 17:45:05	0	GOOD
4	SCI_OL__2PRDPA20080212_182936_000033812066_00013_31129_3033.N1	12FEB2008 18:29:36	12FEB2008 19:25:57	0	GOOD
5	SCI_OL__2PRDPA20080212_201011_000033942066_00014_31130_3036.N1	12FEB2008 20:10:11	12FEB2008 21:06:45	0	GOOD
6	SCI_OL__2PRDPA20080212_215114_000033252066_00015_31131_3037.N1	12FEB2008 21:51:14	12FEB2008 22:46:39	0	GOOD
7	SCI_OL__2PRDPA20080212_233258_000032692066_00016_31132_3039.N1	12FEB2008 23:32:58	13FEB2008 00:27:27	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: 78000

Total number of cloud data DSRs with good quality flag (=0): 78000 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	78000	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	78000	0.17000	0.12500	0.12500	0.25000	0.060000	s
SURFACE_PRES	78000	0.0000	0.0000	0.0000	0.0000	0.0000	hPa
CL_FRAC	78000	0.42203	0.39453	0.0000	1.0000	0.27492	-
CL_FRAC_ERR	78000	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	78000	5.4400	4.0000	4.0000	8.0000	1.9200	-
PMD_READ_CL[0]	78000	0.17313	0.0000	0.0000	8.0000	0.88415	-
PMD_READ_CL[1]	78000	0.52540	0.0000	0.0000	8.0000	1.6323	-
CL_TOP_HEIGHT	66380	3.9636	2.6662	0.0000	17.000	3.5821	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	66380	52.213	39.188	0.0000	101.00	39.404	km

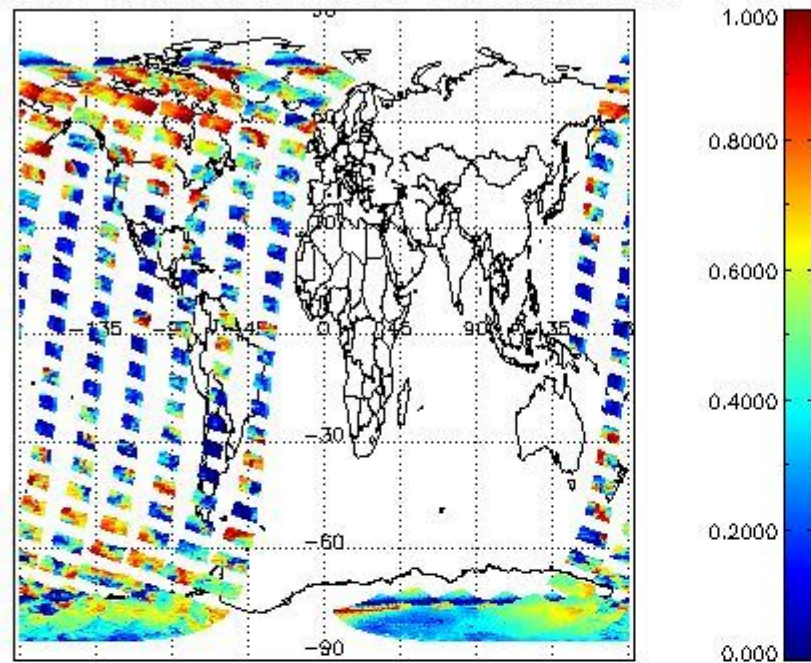
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	78000	11100000	11100000	11100000	11100000	0.0000	flags. Bit definition = 0: low or high cloud; 1: ice or water cloud; 2: thick or thin cloud; 3-15: not used
CLOUD_FLAGS	78000	11001000	11000100	11000000	11100000	2992.4	flags
AERO_ABSO_IND	78000	2.7597	3.1346	-1.0015	12.305	1.9491	
AERO_IND_DIAG	78000	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	78000	01010111	00000000	00000000	11000000	24471.	flags

Time and geolocation plots:

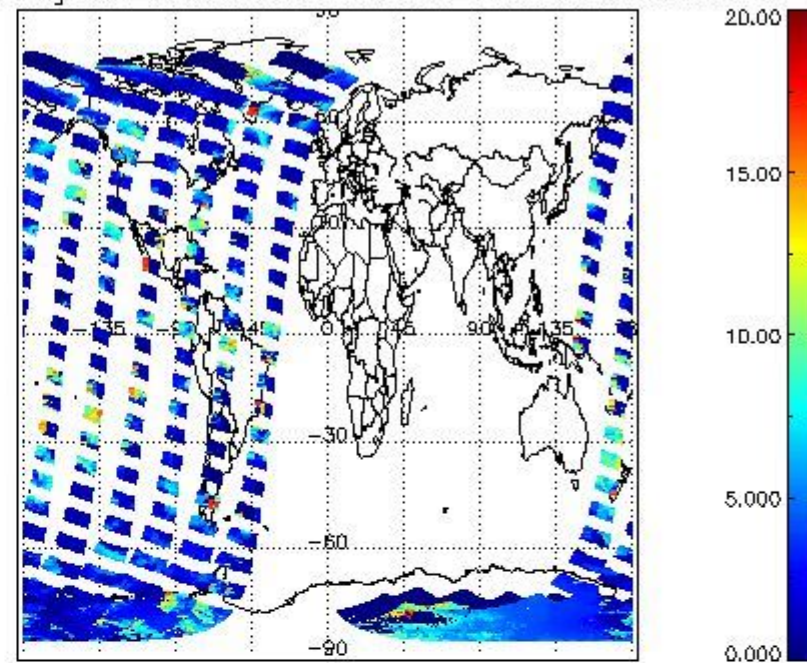
Plots are available for the following parameters:

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

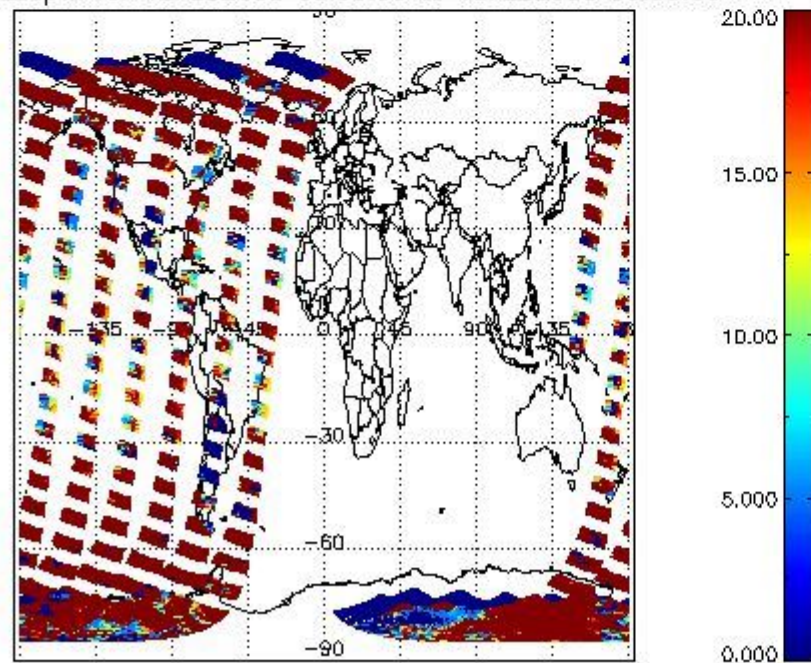
cL_frac for 12FEB2008 00:00:00 to 13FEB2008 00:00:00



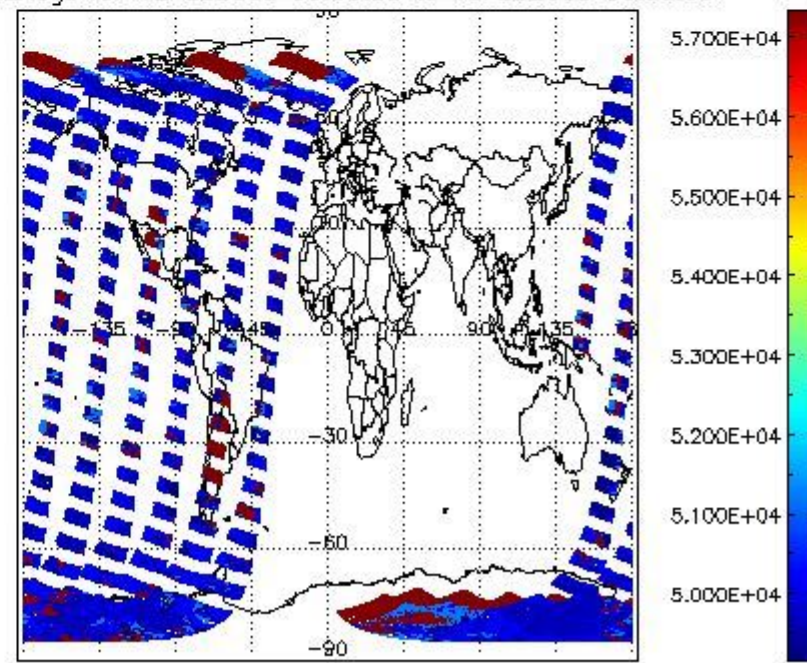
cL_top_height for 12FEB2008 00:00:00 to 13FEB2008 00:00:00



cL_opt_depth for 12FEB2008 00:00:00 to 13FEB2008 00:00:00



cloud_flags for 12FEB2008 00:00:00 to 13FEB2008 00:00:00



2.2.2 Nadir

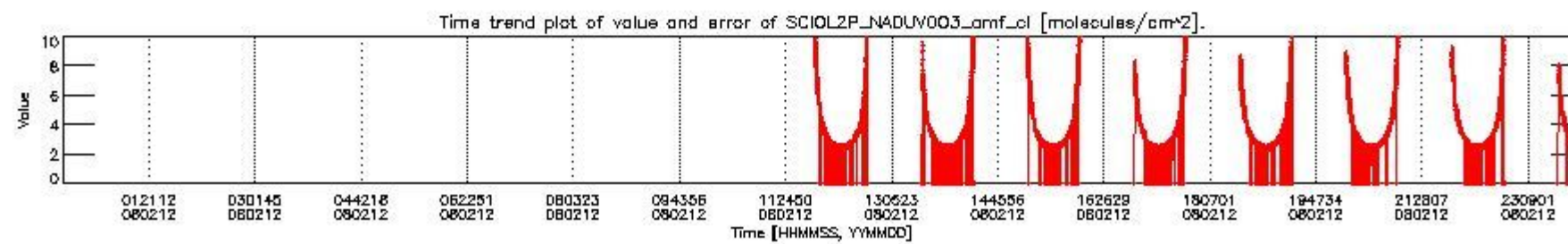
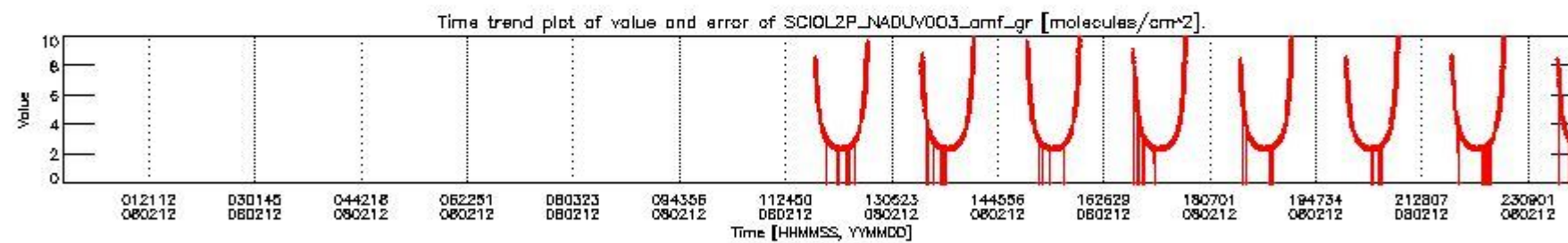
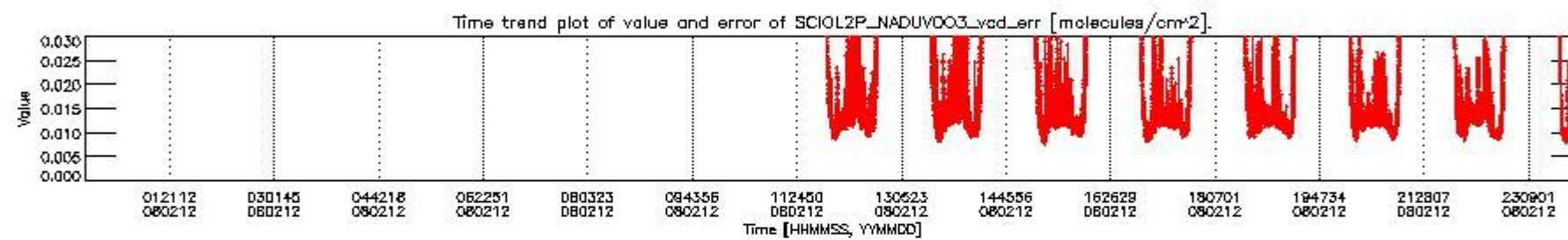
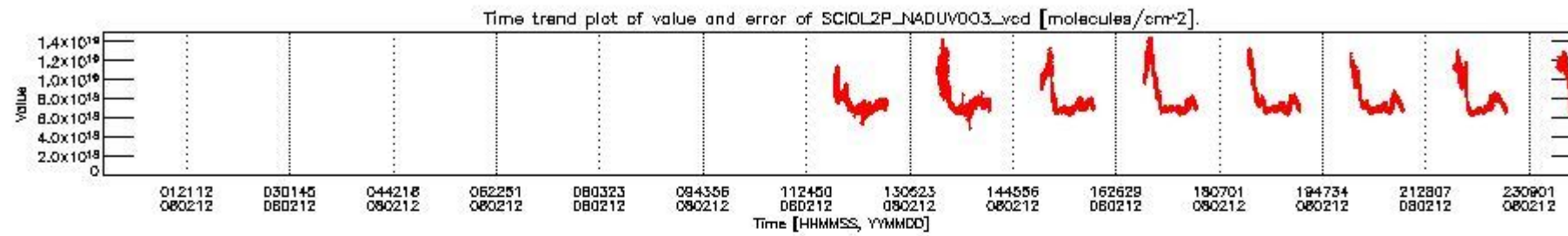
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

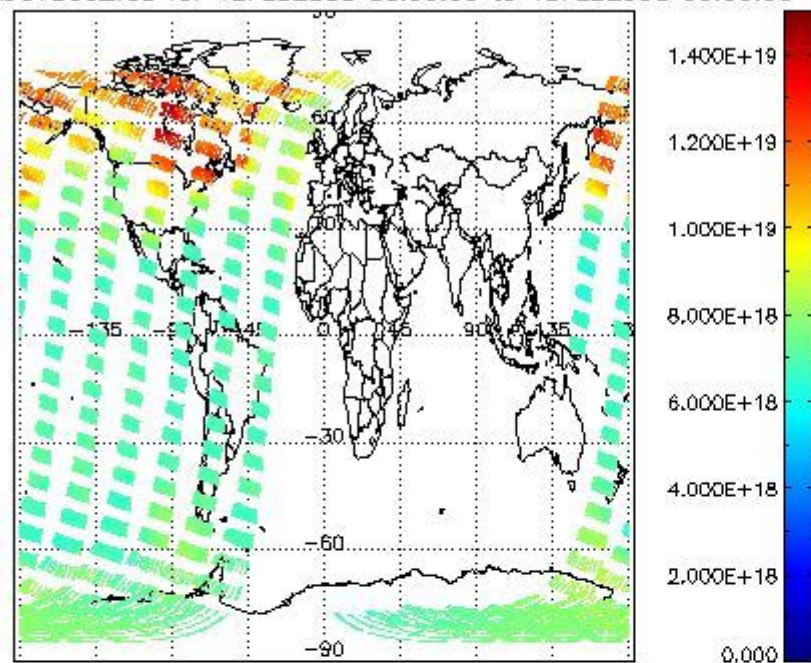
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

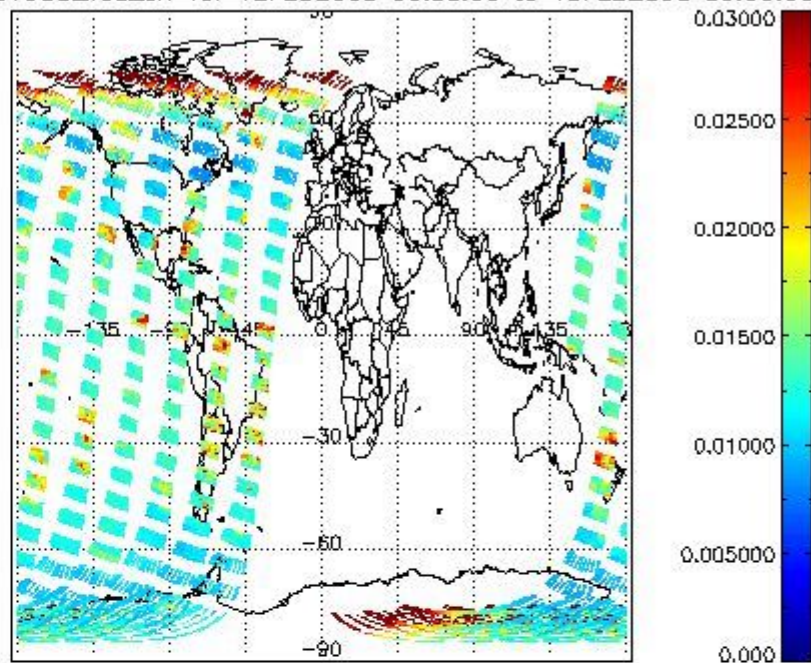
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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



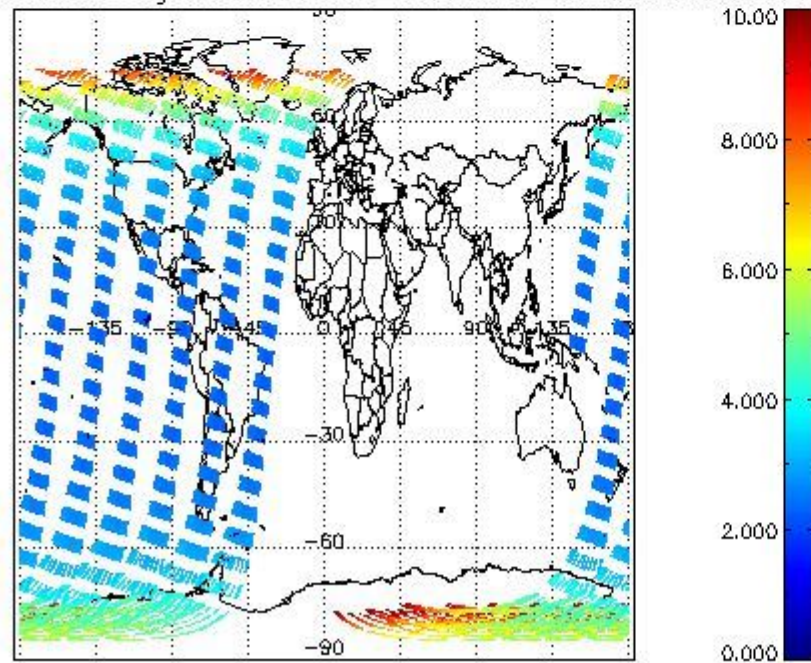
SCIOL2P_NADUV003_vcd for 12FEB2008 00:00:00 to 13FEB2008 00:00:00



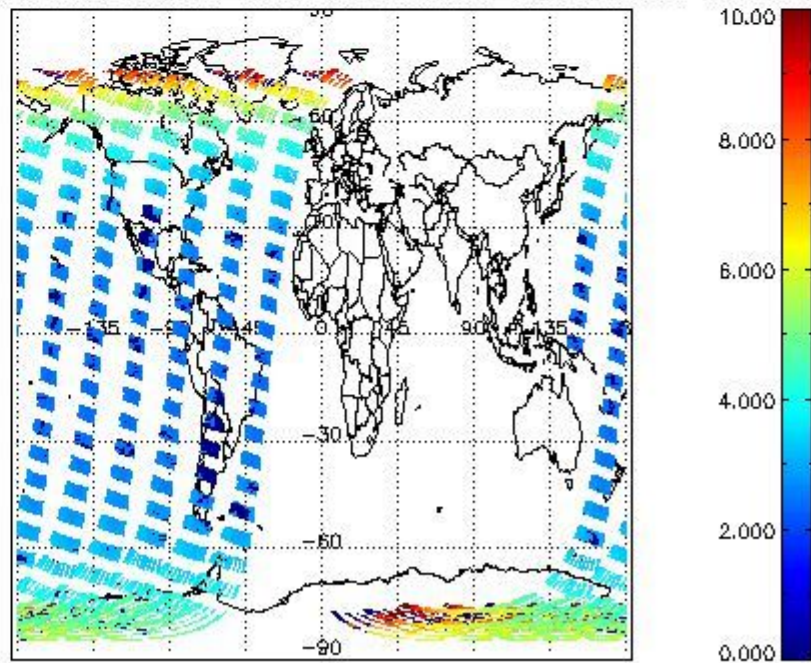
SCIOL2P_NADUV003_vcd_err for 12FEB2008 00:00:00 to 13FEB2008 00:00:00

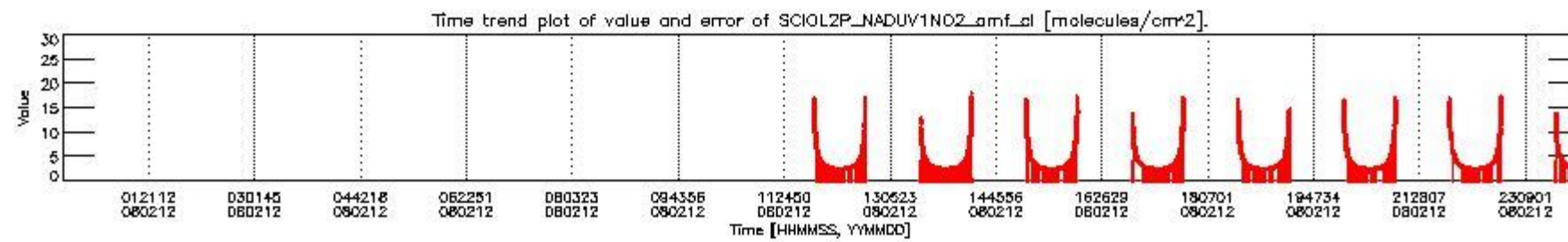
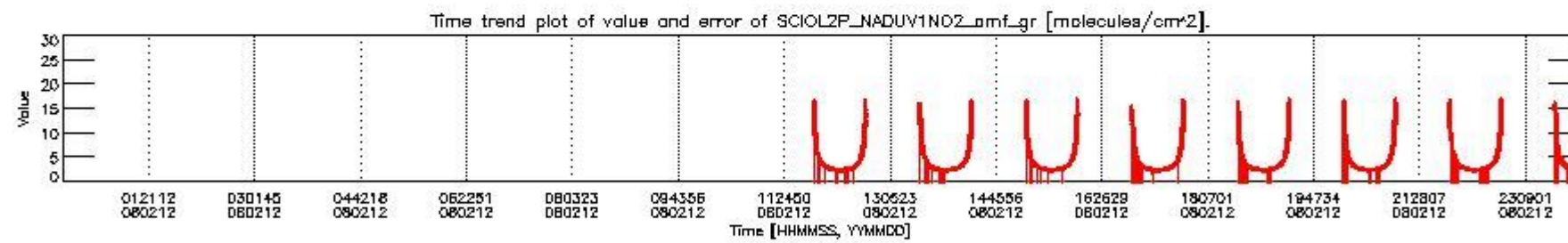
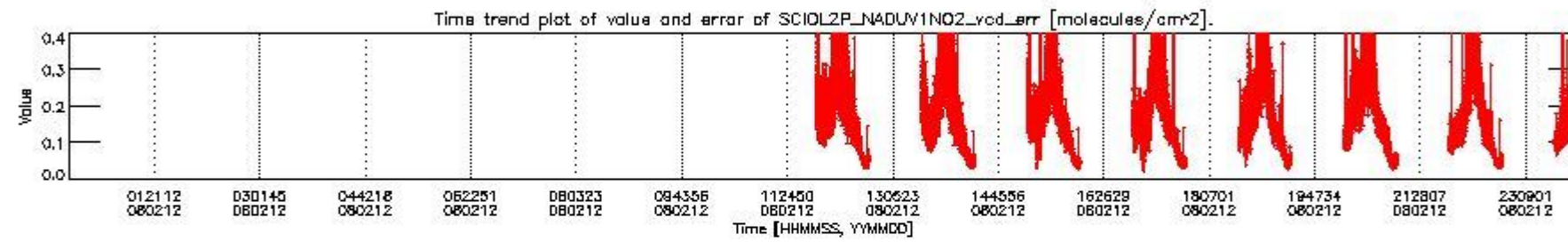
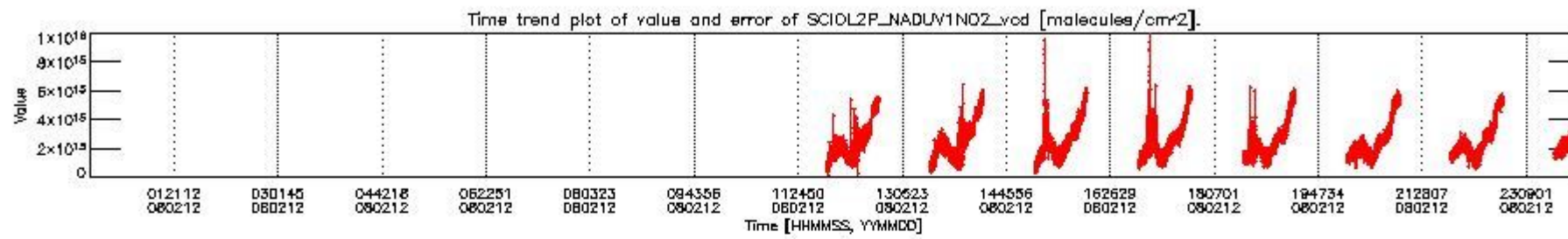


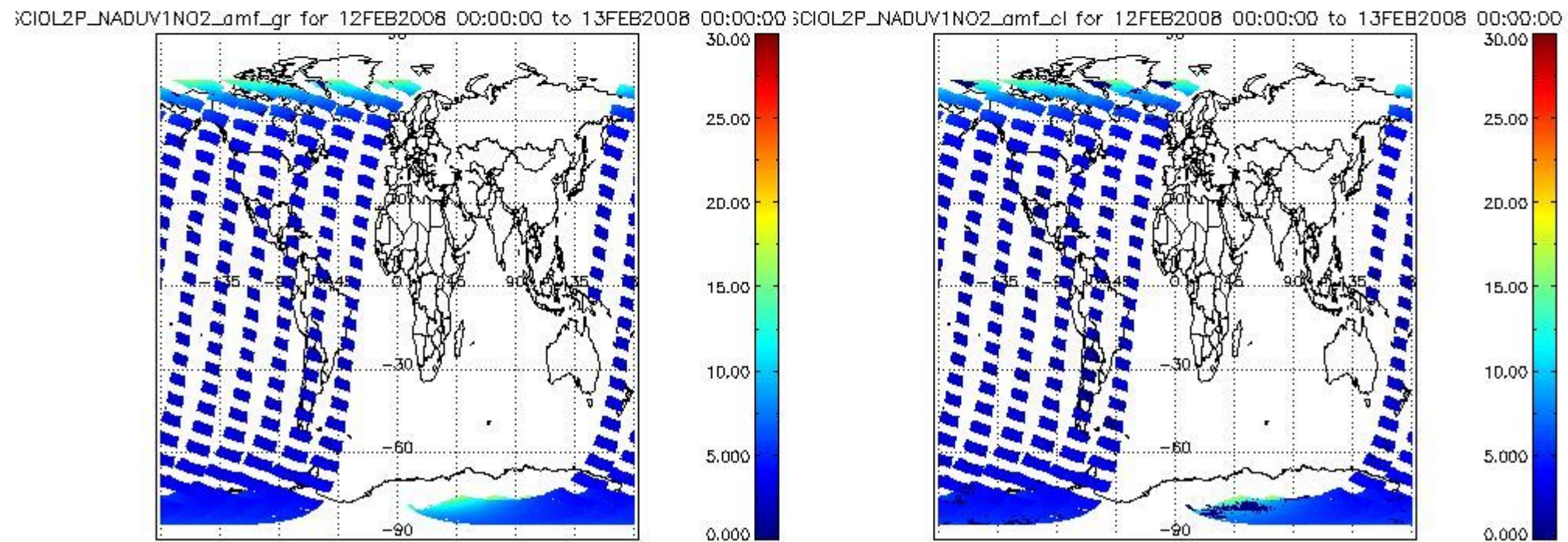
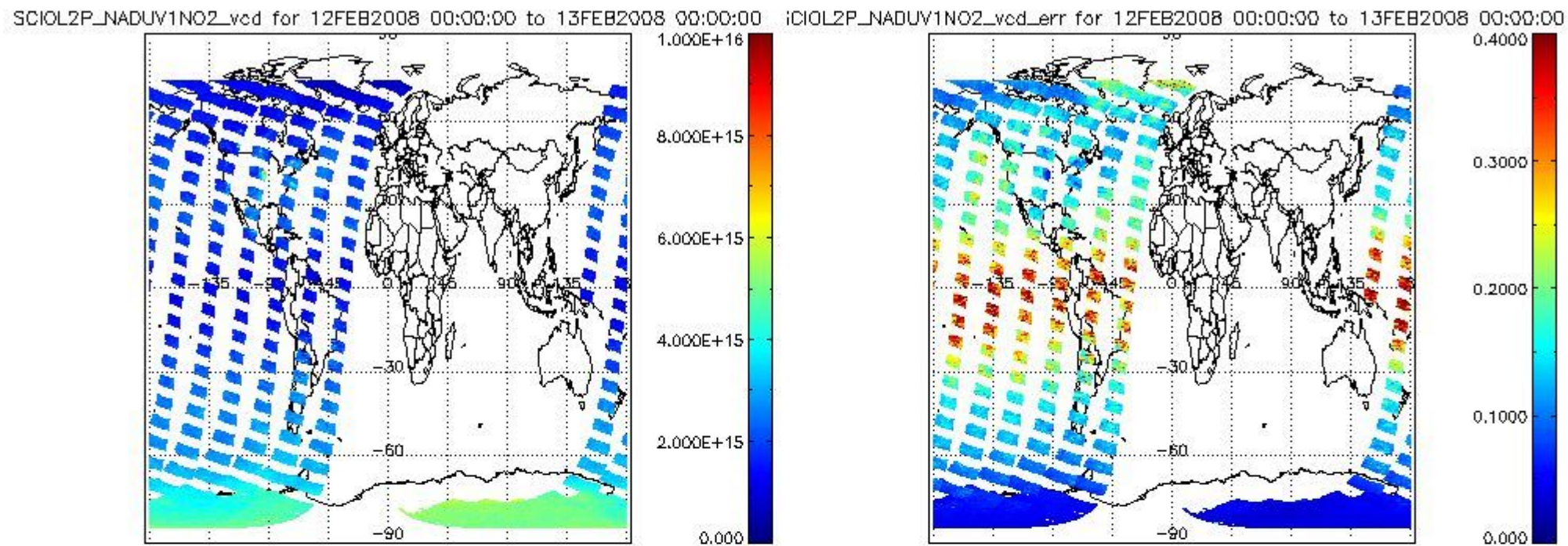
SCIOL2P_NADUV003_amf_gr for 12FEB2008 00:00:00 to 13FEB2008 00:00:00



SCIOL2P_NADUV003_amf_cl for 12FEB2008 00:00:00 to 13FEB2008 00:00:00







2.2.3 Limb

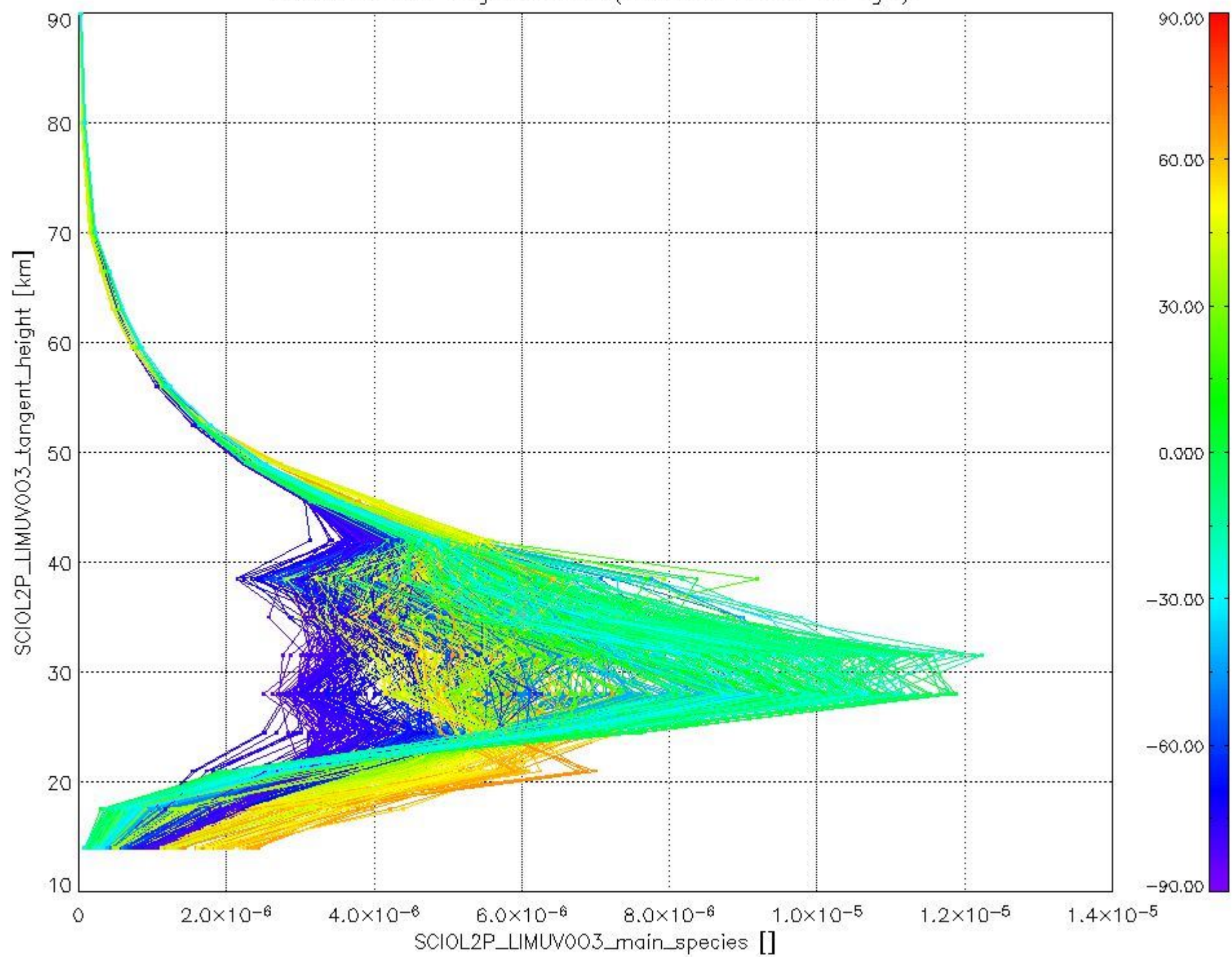
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

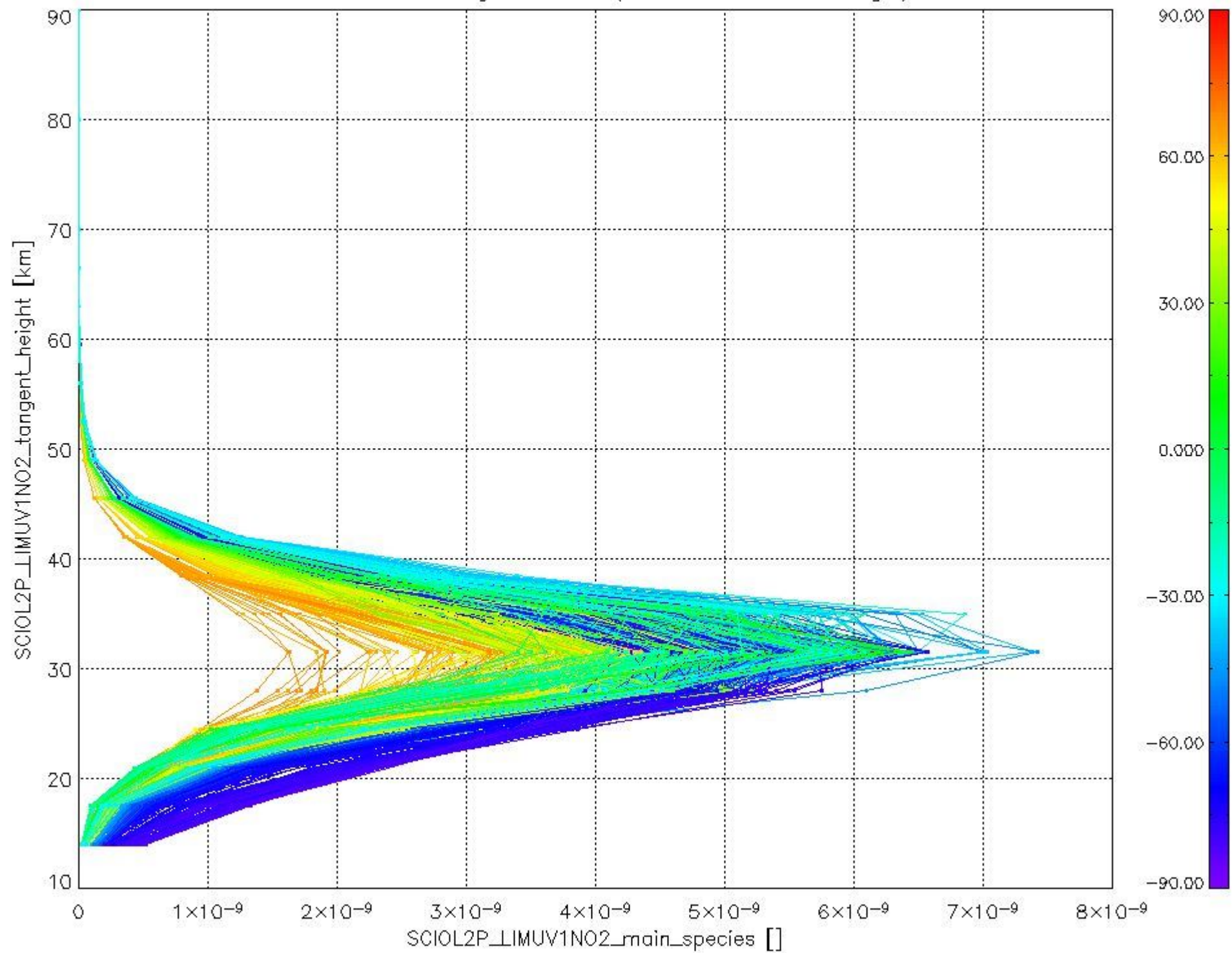
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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).



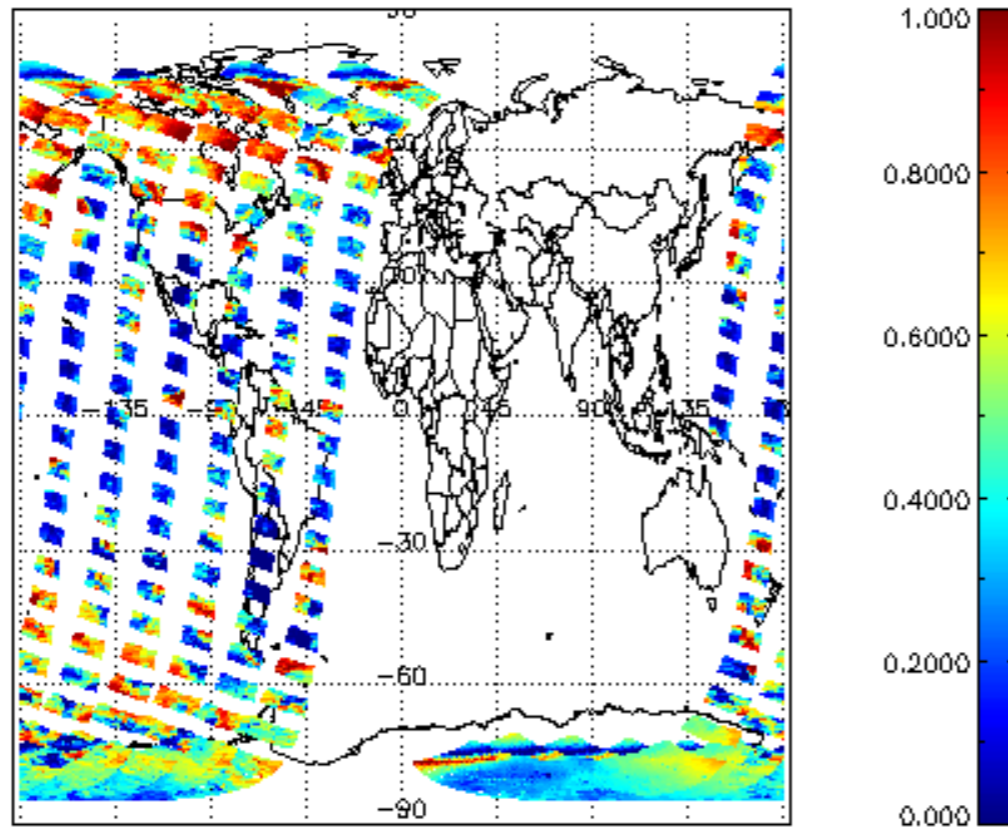
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



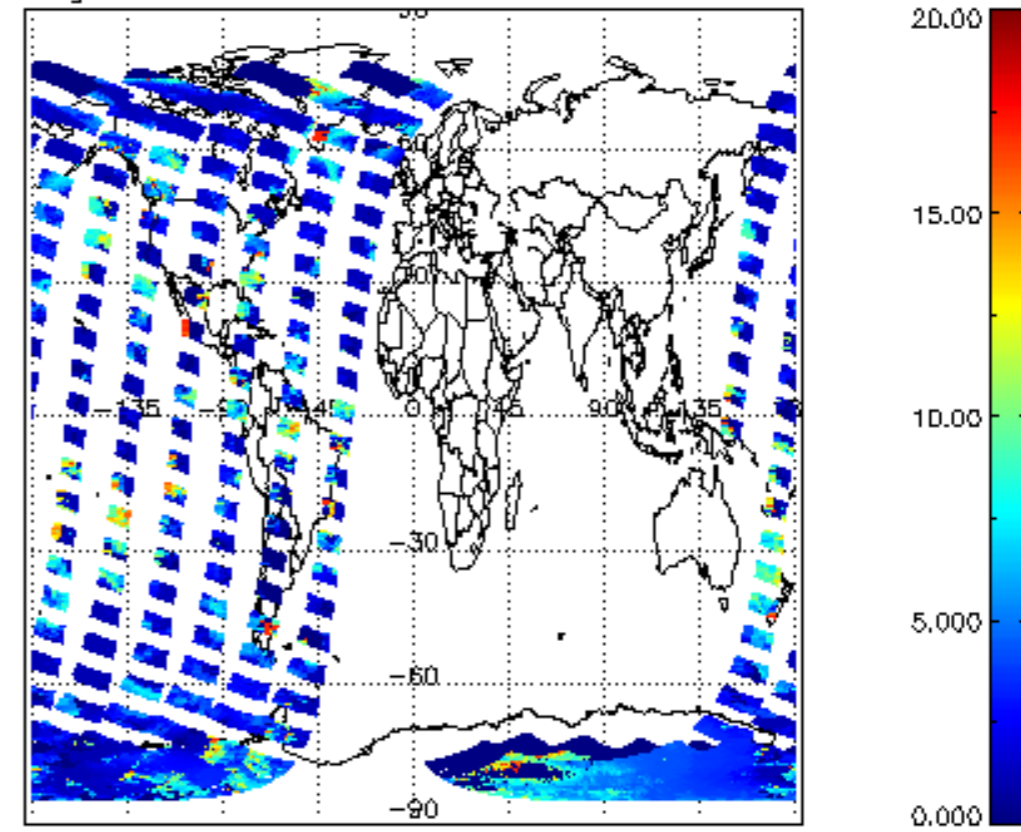
2.3 ADF monitoring

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

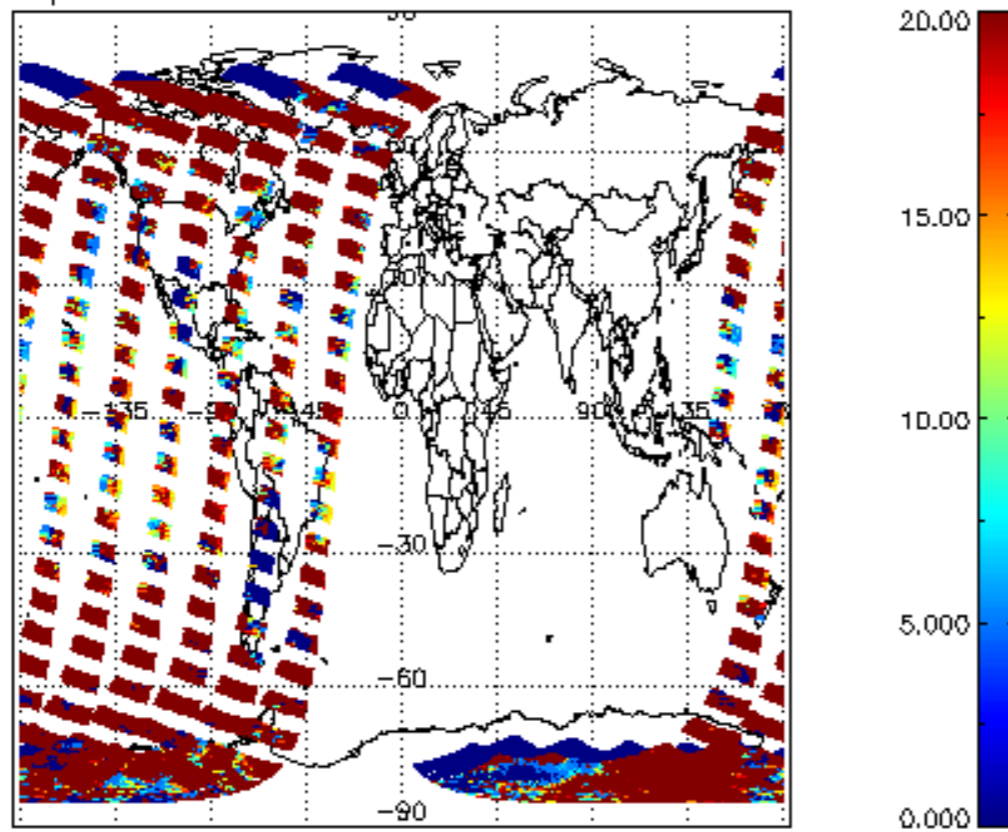
cl_frac for 12FEB2008 00:00:00 to 13FEB2008 00:00:00



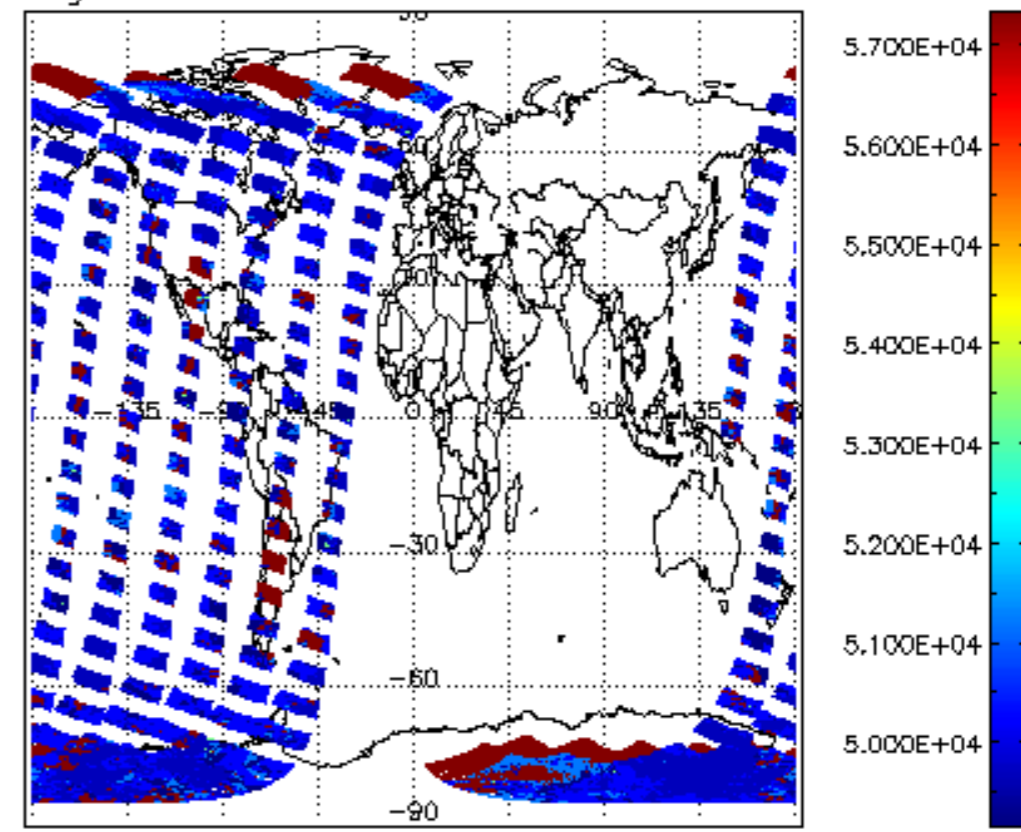
cl_top_height for 12FEB2008 00:00:00 to 13FEB2008 00:00:00

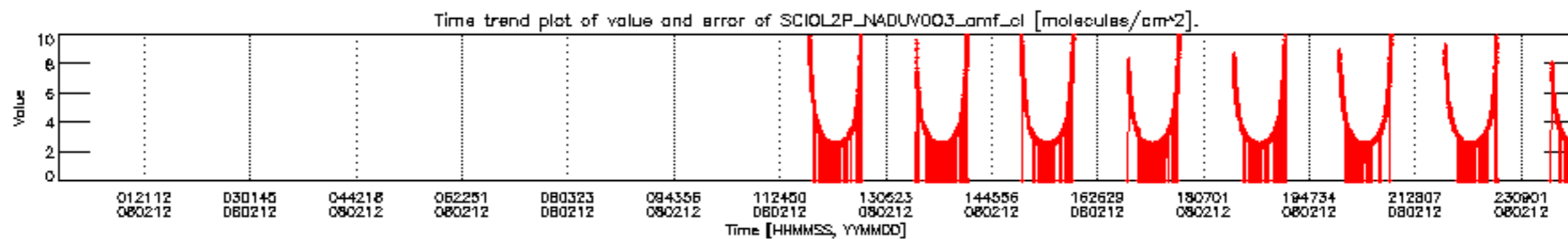
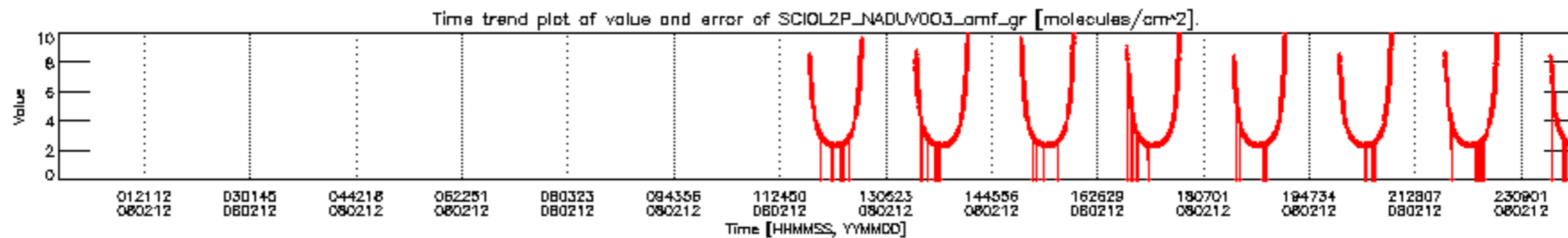
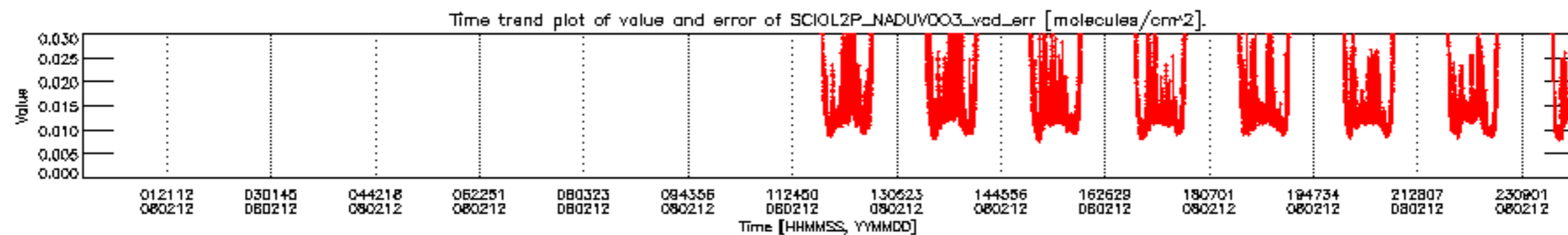
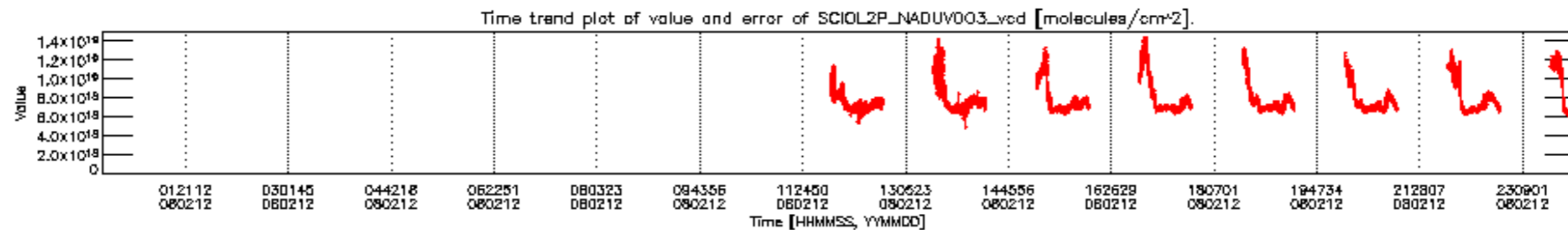


cl_opt_depth for 12FEB2008 00:00:00 to 13FEB2008 00:00:00

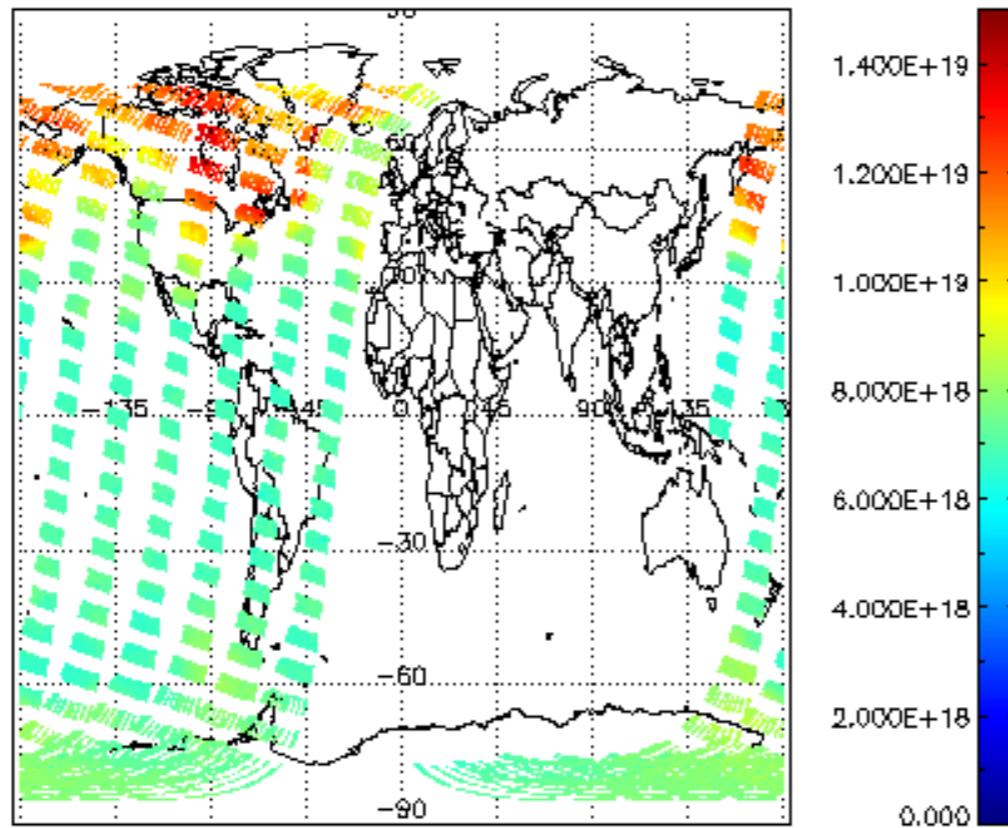


cloud_flags for 12FEB2008 00:00:00 to 13FEB2008 00:00:00

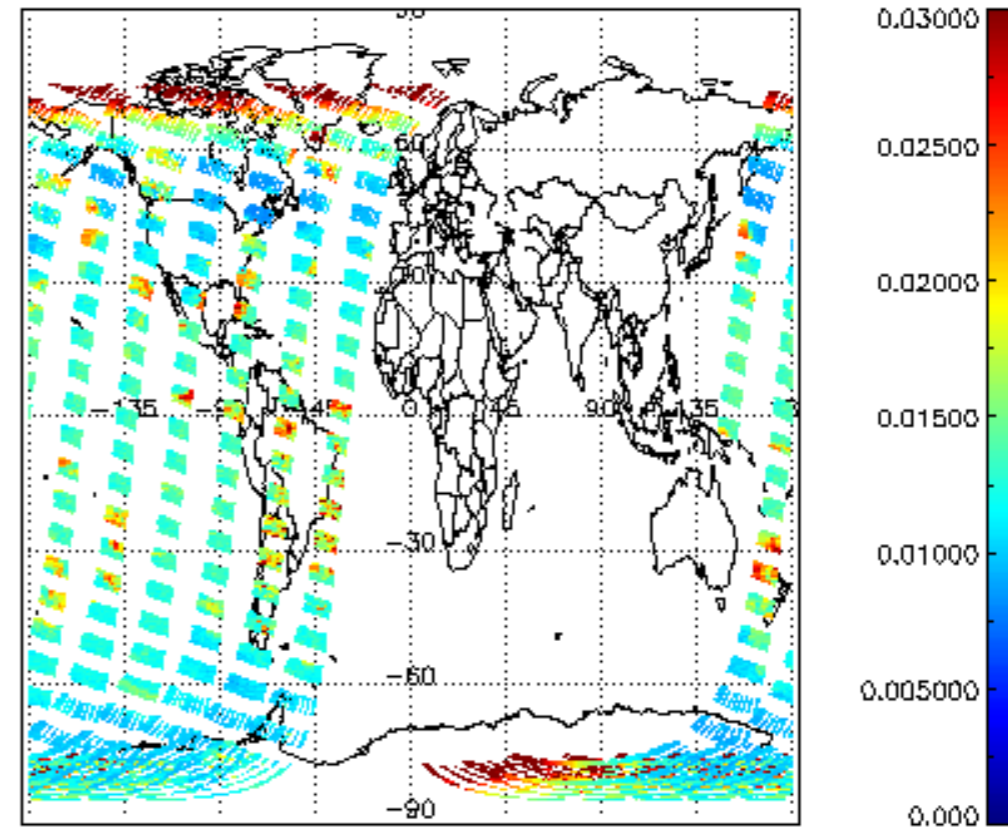




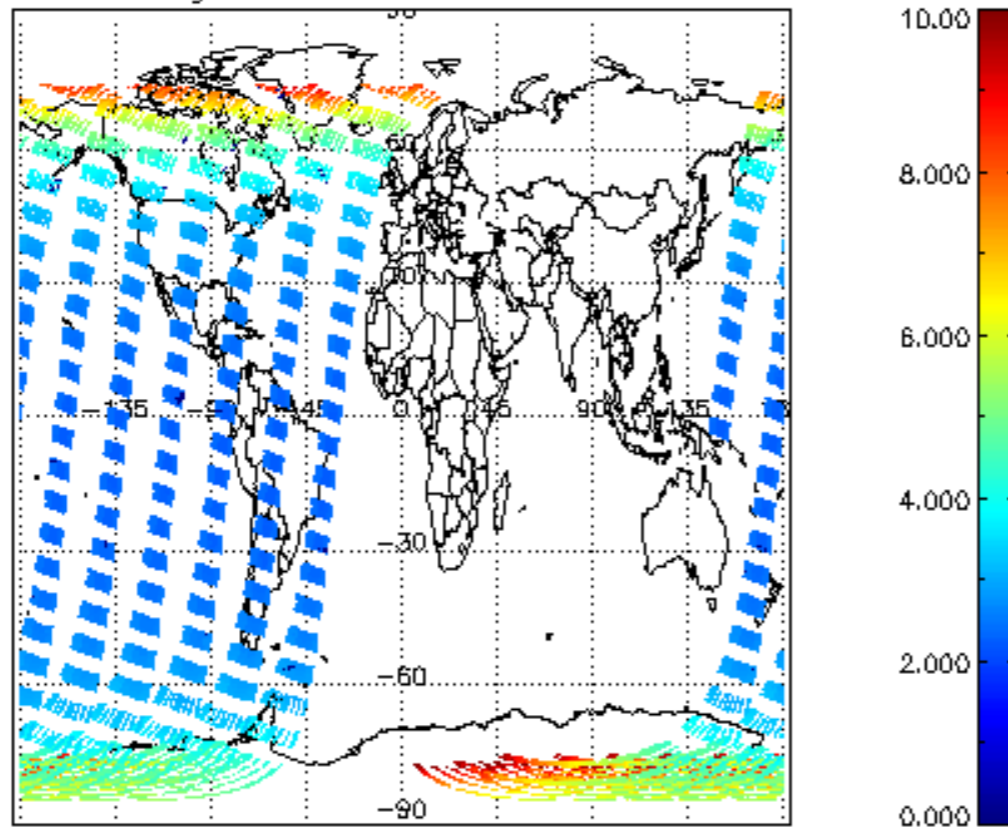
SCIOL2P_NADUV003_vcd for 12FEB2008 00:00:00 to 13FEB2008 00:00:00



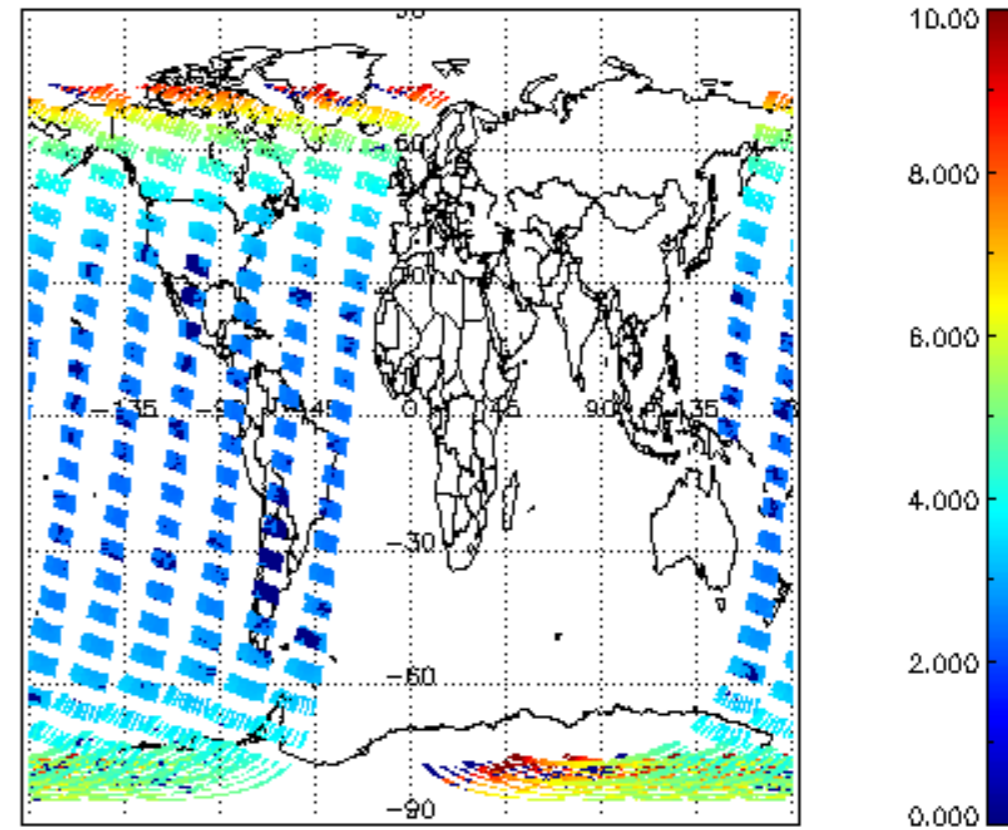
SCIOL2P_NADUV003_vcd_err for 12FEB2008 00:00:00 to 13FEB2008 00:00:00

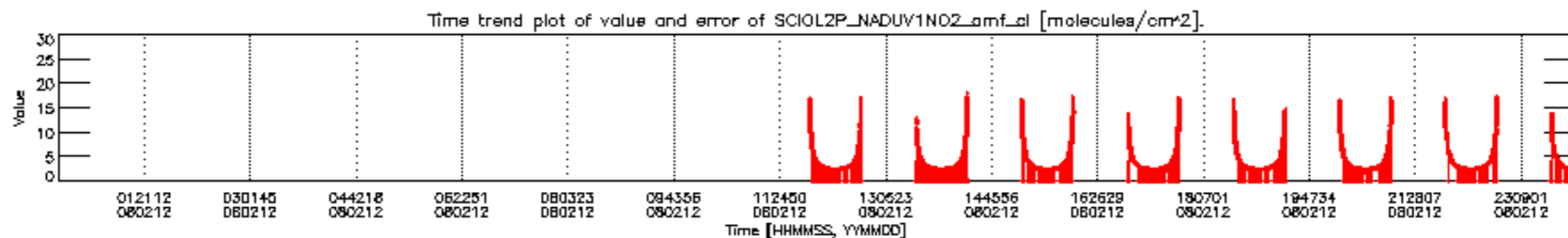
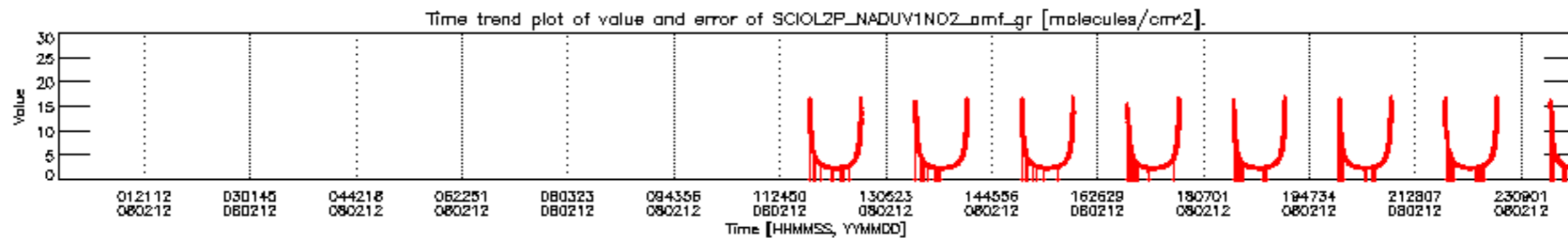
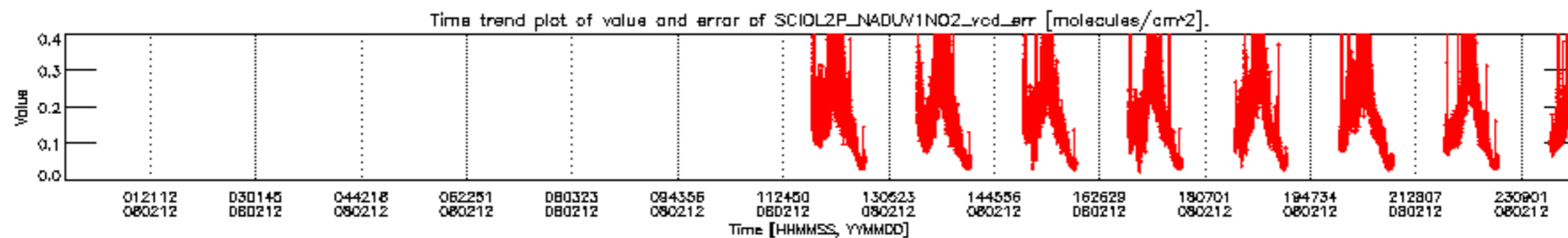
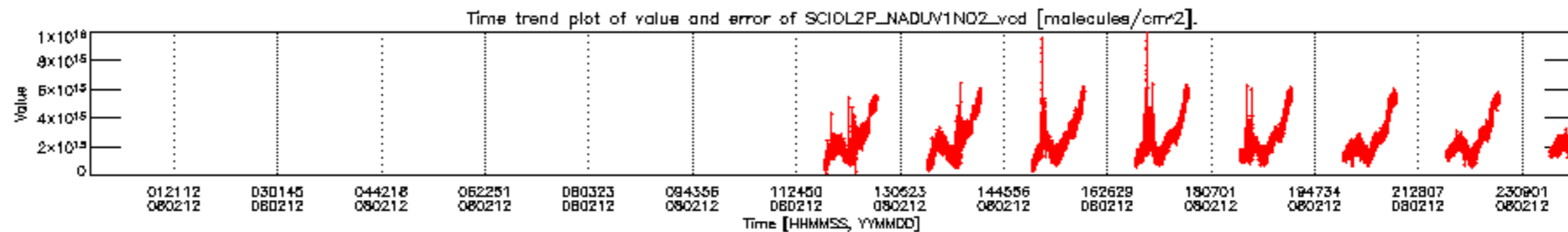


SCIOL2P_NADUV003_amf_gr for 12FEB2008 00:00:00 to 13FEB2008 00:00:00

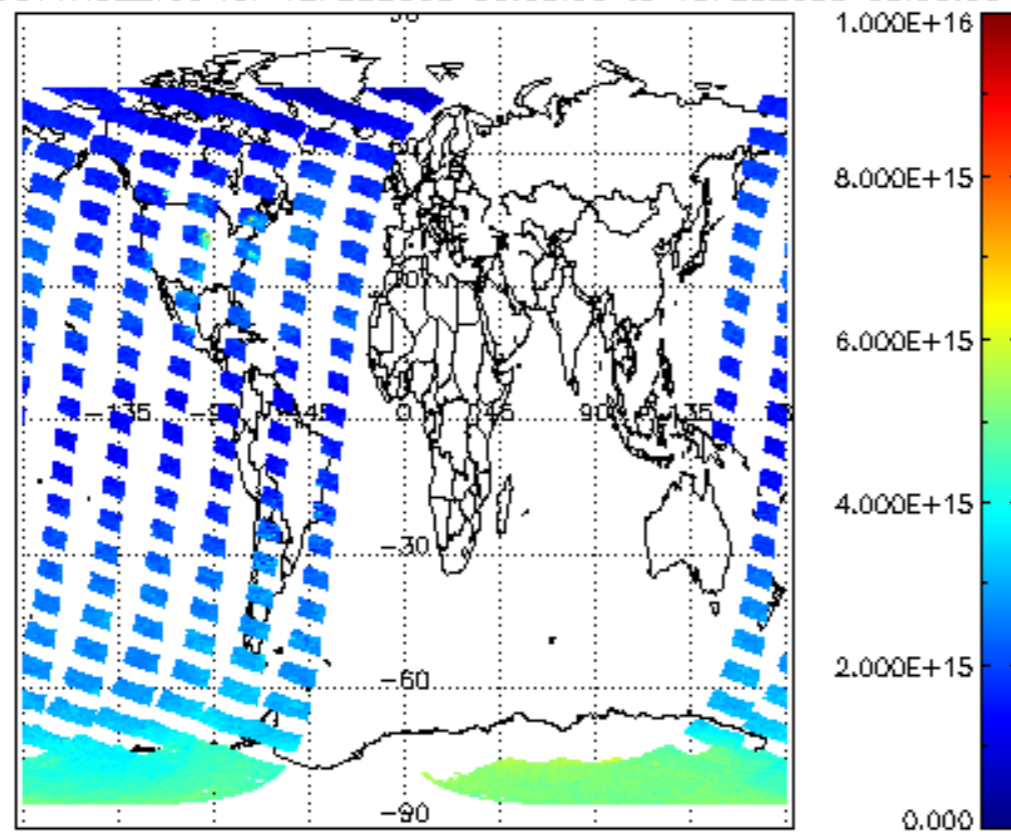


SCIOL2P_NADUV003_amf_cl for 12FEB2008 00:00:00 to 13FEB2008 00:00:00

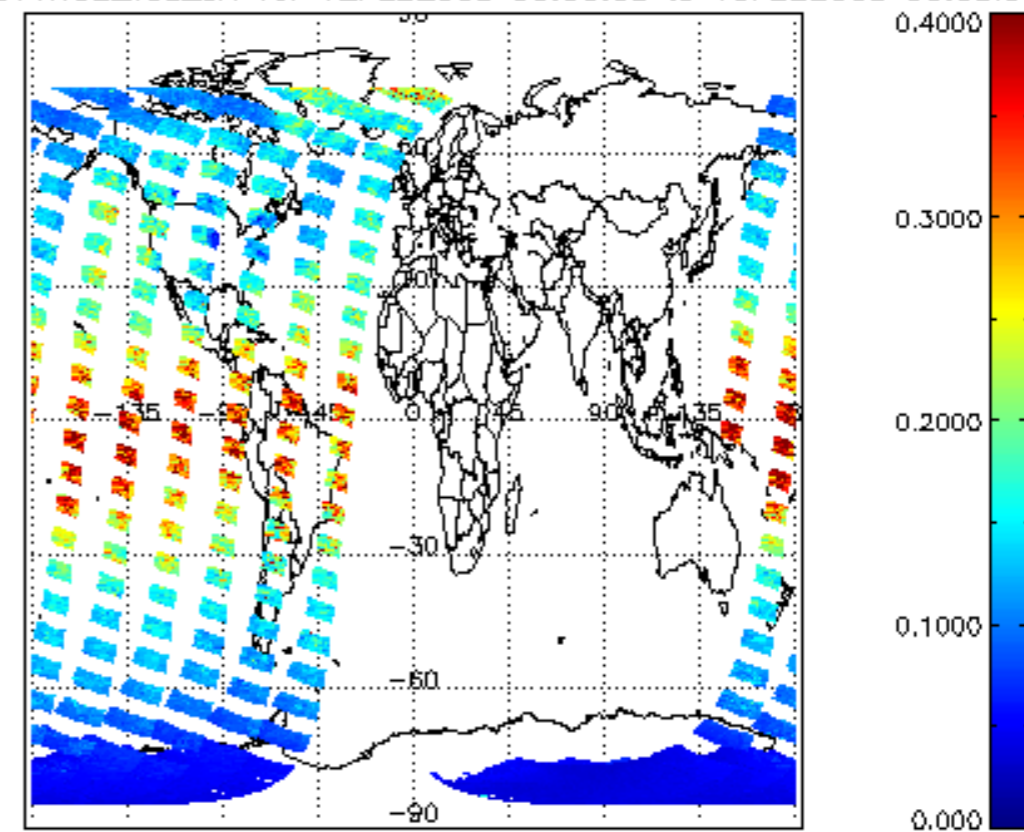




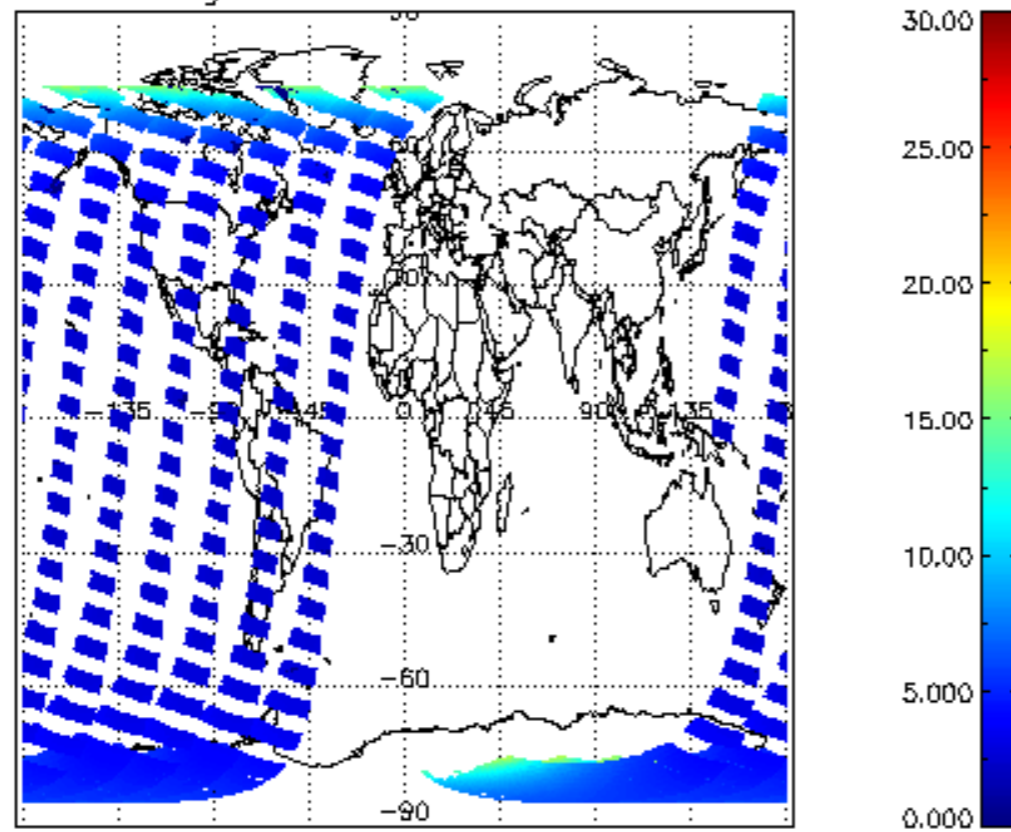
SCIOL2P_NADUV1NO2_vcd for 12FEB2008 00:00:00 to 13FEB2008 00:00:00



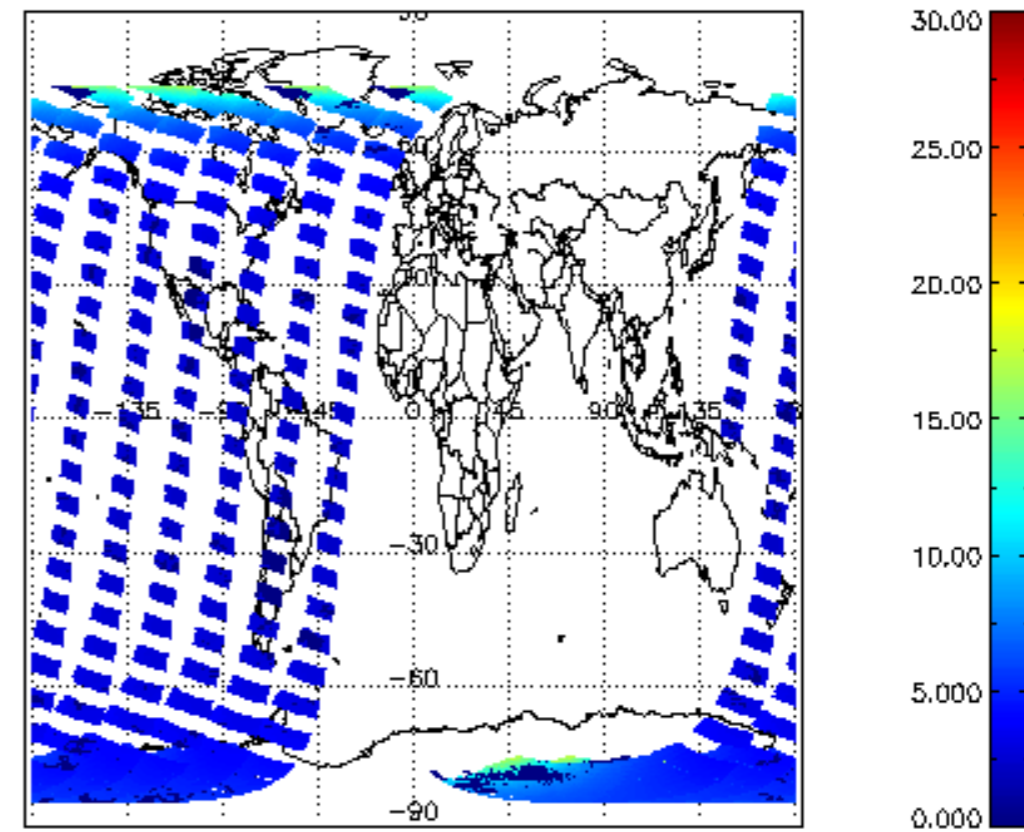
SCIOL2P_NADUV1NO2_vcd_err for 12FEB2008 00:00:00 to 13FEB2008 00:00:00



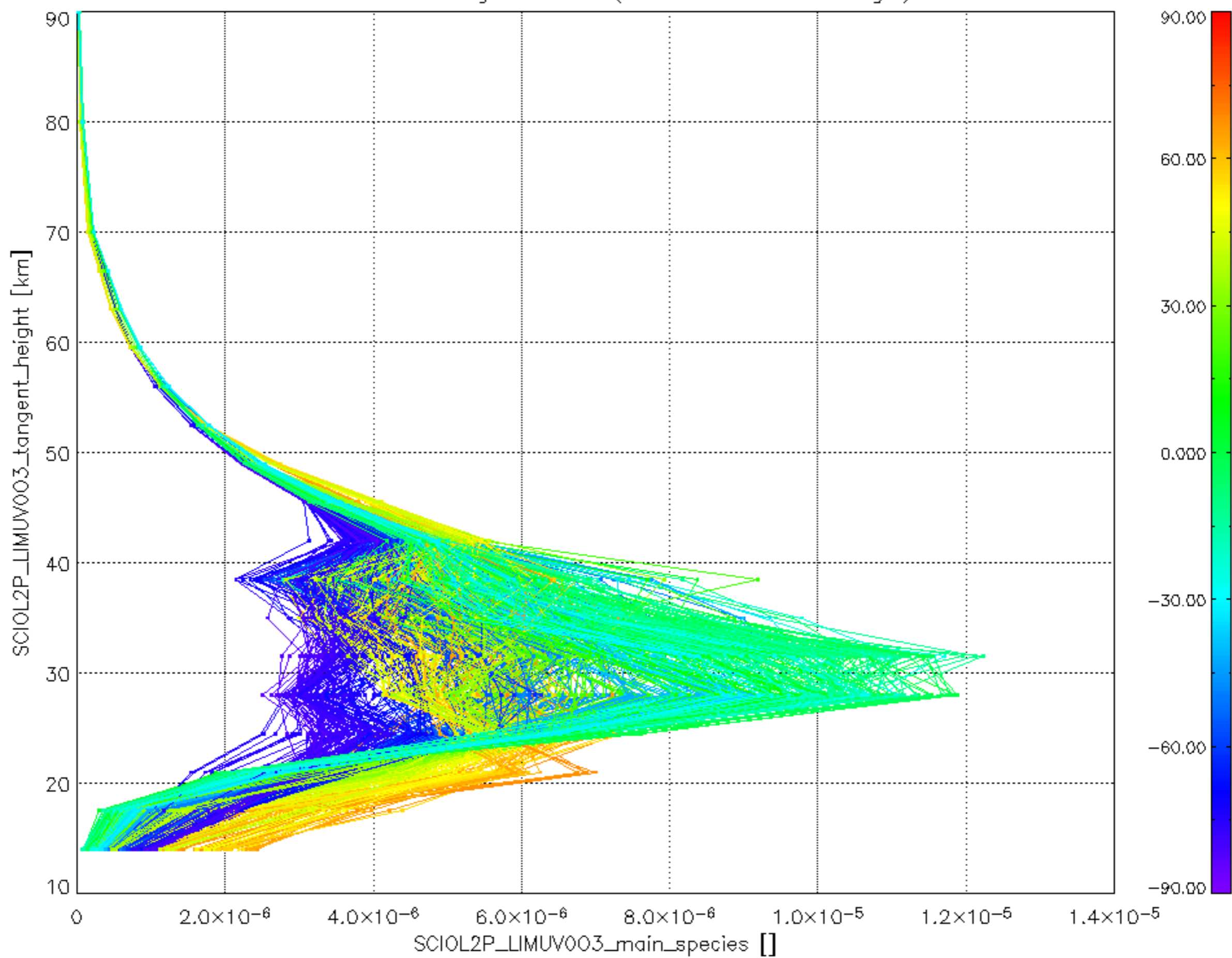
SCIOL2P_NADUV1NO2_amf_gr for 12FEB2008 00:00:00 to 13FEB2008 00:00:00



SCIOL2P_NADUV1NO2_amf_cl for 12FEB2008 00:00:00 to 13FEB2008 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).

