

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	10MAR2008 19:53:34
Data source version	SCIA-OL/3.01-R
Processing scope for products	19JAN2008 00:00:00 to 20JAN2008 00:00:00
Start time of first product within scope	18JAN2008 23:19:55
Stop time of last product within scope	19JAN2008 23:44:08
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__2PRDPA20080118_231955_000033742065_00159_30774_1560.N1	18JAN2008 23:19:55	19JAN2008 00:16:09	0	GOOD
1	SCI_OL__2PRDPA20080119_010030_000033742065_00160_30775_1561.N1	19JAN2008 01:00:30	19JAN2008 01:56:44	0	GOOD
2	SCI_OL__2PRDPA20080119_024106_000033732065_00161_30776_1562.N1	19JAN2008 02:41:06	19JAN2008 03:37:19	0	GOOD
3	SCI_OL__2PRDPA20080119_042141_000033722065_00162_30777_1563.N1	19JAN2008 04:21:41	19JAN2008 05:17:54	0	GOOD
4	SCI_OL__2PRDPA20080119_060217_000033712065_00163_30778_1564.N1	19JAN2008 06:02:17	19JAN2008 06:58:29	0	GOOD
5	SCI_OL__2PRDPA20080119_074253_000033702065_00164_30779_1566.N1	19JAN2008 07:42:53	19JAN2008 08:39:04	0	GOOD
6	SCI_OL__2PRDPA20080119_092328_000033692065_00165_30780_1565.N1	19JAN2008 09:23:28	19JAN2008 10:19:38	0	GOOD
7	SCI_OL__2PRDPA20080119_110404_000033682065_00166_30781_1567.N1	19JAN2008 11:04:04	19JAN2008 12:00:12	0	GOOD
8	SCI_OL__2PRDPA20080119_124439_000033662065_00167_30782_1570.N1	19JAN2008 12:44:39	19JAN2008 13:40:46	0	GOOD
9	SCI_OL__2PRDPA20080119_142515_000033652065_00168_30783_1572.N1	19JAN2008 14:25:15	19JAN2008 15:21:20	0	GOOD
10	SCI_OL__2PRDPA20080119_160551_000033632065_00169_30784_1574.N1	19JAN2008 16:05:51	19JAN2008 17:01:54	0	GOOD
11	SCI_OL__2PRDPA20080119_174637_000033612065_00170_30785_1629.N1	19JAN2008 17:46:37	19JAN2008 18:42:38	0	GOOD
12	SCI_OL__2PRDPA20080119_192634_000033872065_00171_30786_1631.N1	19JAN2008 19:26:34	19JAN2008 20:23:02	0	GOOD
13	SCI_OL__2PRDPA20080119_210738_000033572065_00172_30787_1634.N1	19JAN2008 21:07:38	19JAN2008 22:03:35	0	GOOD
14	SCI_OL__2PRDPA20080119_224813_000033552065_00173_30788_1636.N1	19JAN2008 22:48:13	19JAN2008 23:44:08	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: 128180

Total number of cloud data DSRs with good quality flag (=0): 128180 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	128180	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	128180	0.17495	0.12500	0.12500	0.25000	0.061227	s
SURFACE_PRES	128180	0.0000	0.0000	0.0000	0.0000	0.0000	hPa
CL_FRAC	128180	0.42331	0.41855	0.0000	1.0000	0.29761	-

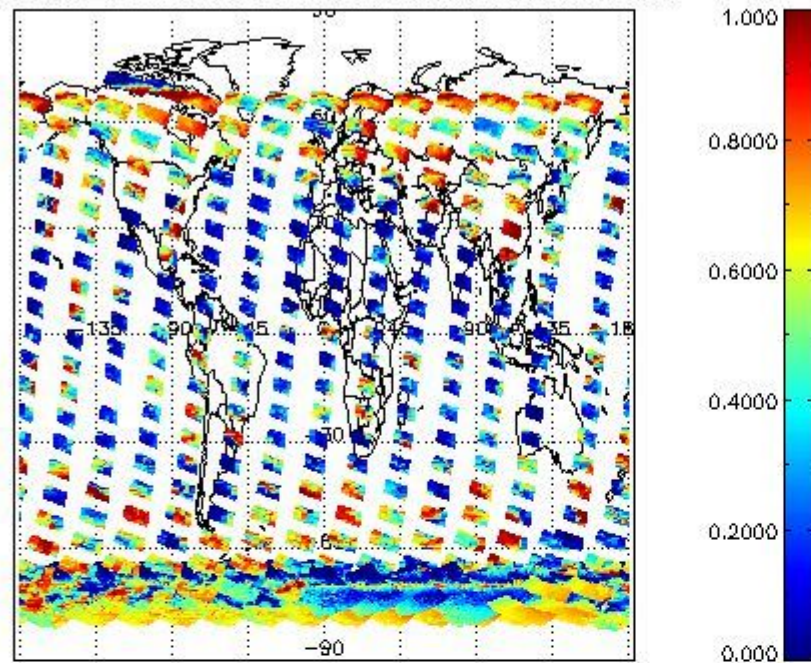
CL_FRAC_ERR	128180	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	128180	5.5984	4.0000	4.0000	8.0000	1.9593	
PMD_READ_CL[0]	128180	0.24380	0.0000	0.0000	8.0000	1.0997	-
PMD_READ_CL[1]	128180	0.71681	0.0000	0.0000	8.0000	1.8125	-
CL_TOP_HEIGHT	107733	4.0107	2.6689	0.0000	17.000	3.8214	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	107733	52.996	40.459	0.0000	101.00	39.880	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	128180	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	128180	11001010	11000100	11000000	11100000	3216.7	flags
AERO_ABSO_IND	128180	2.5700	2.8532	-1.5907	14.020	1.9723	
AERO_IND_DIAG	128180	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	128180	01011011	00000000	00000000	11000000	24552.	flags

Time and geolocation plots:

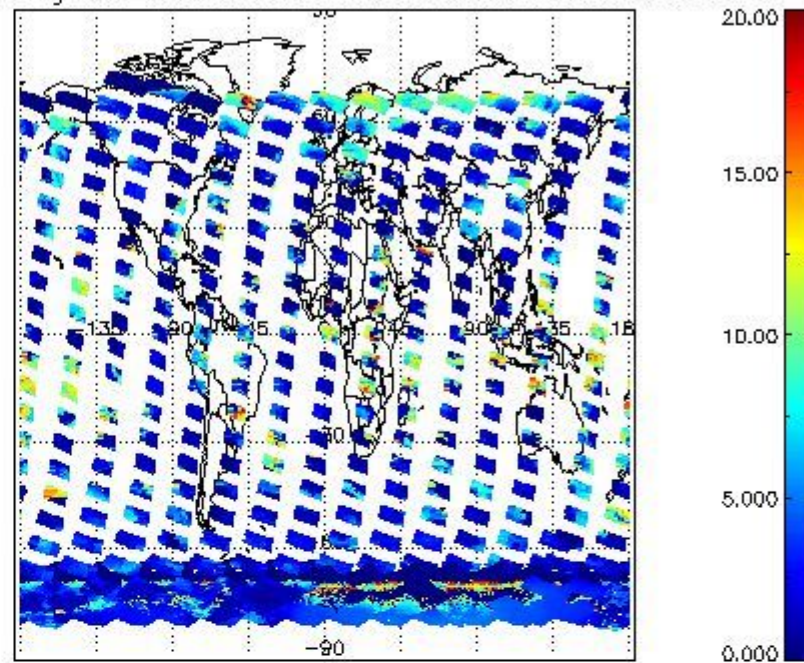
Plots are available for the following parameters:

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

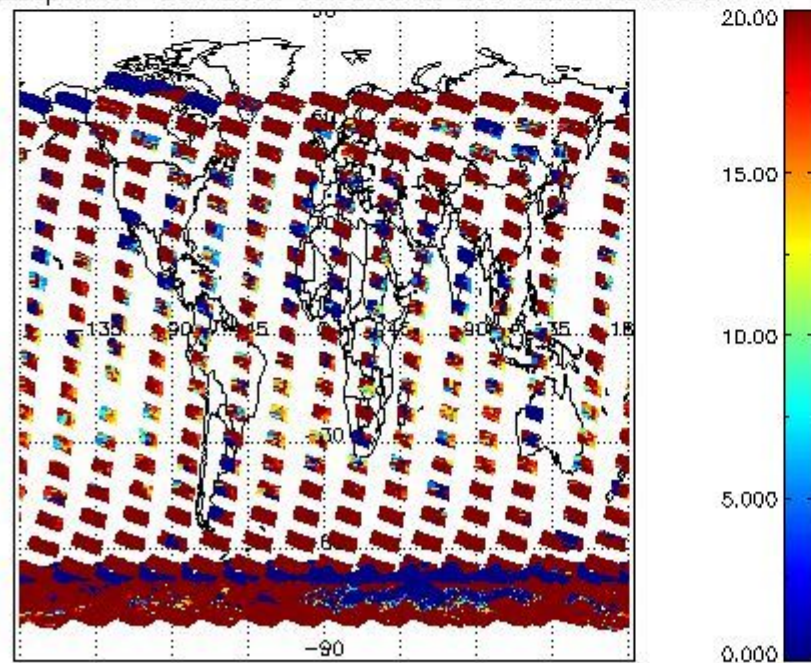
cL_frac for 19JAN2008 00:00:00 to 20JAN2008 00:00:00



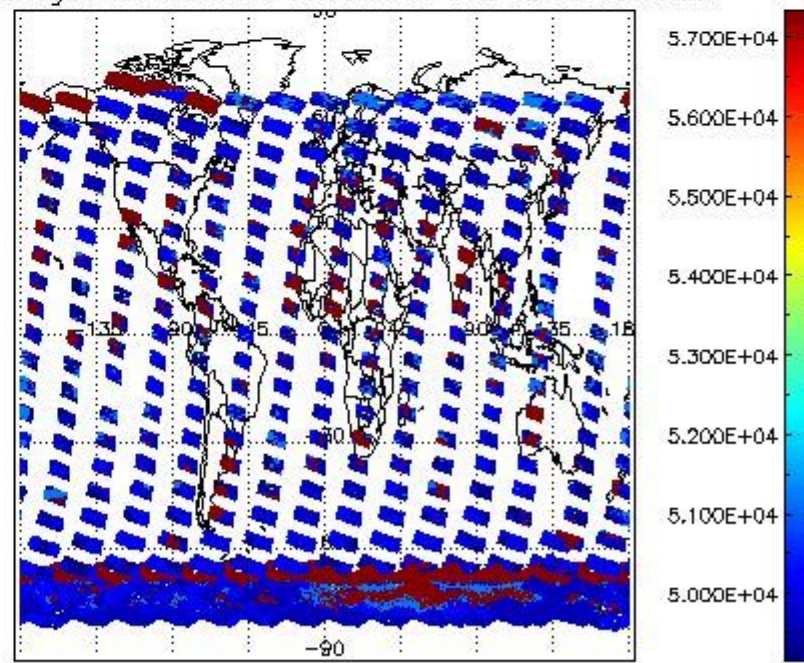
cL_top_height for 19JAN2008 00:00:00 to 20JAN2008 00:00:00



cLopt_depth for 19JAN2008 00:00:00 to 20JAN2008 00:00:00



cloud_flags for 19JAN2008 00:00:00 to 20JAN2008 00:00:00



2.2.2 Nadir

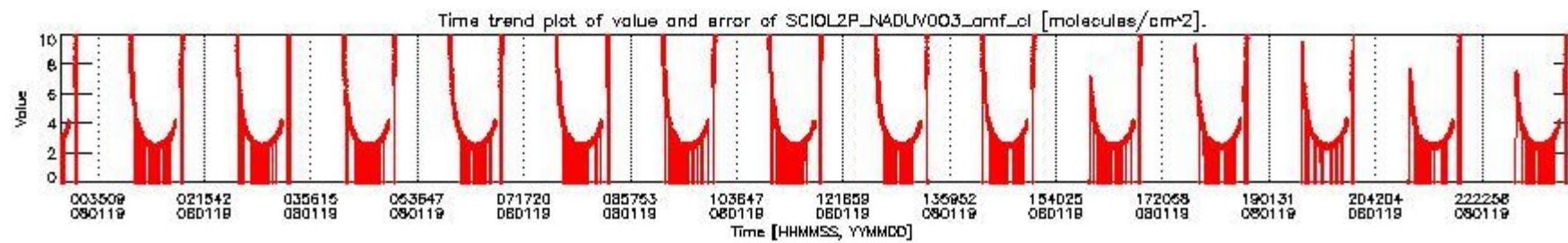
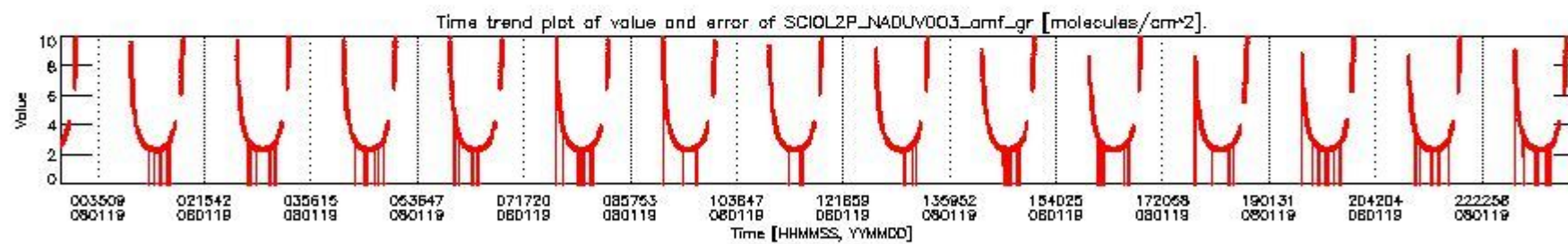
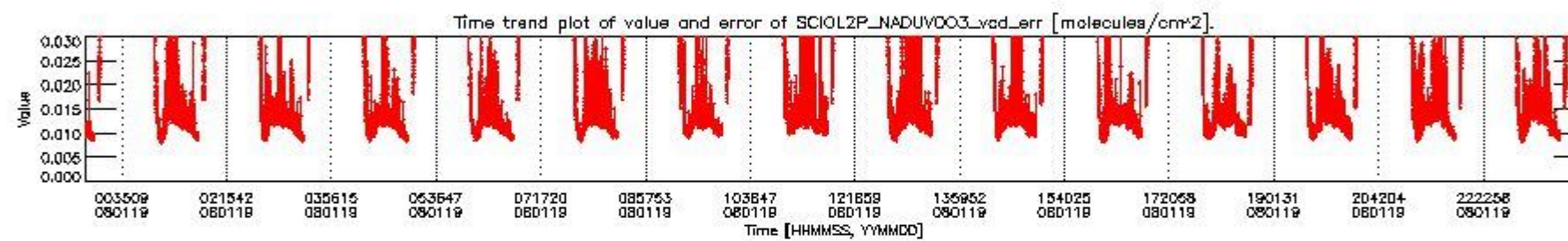
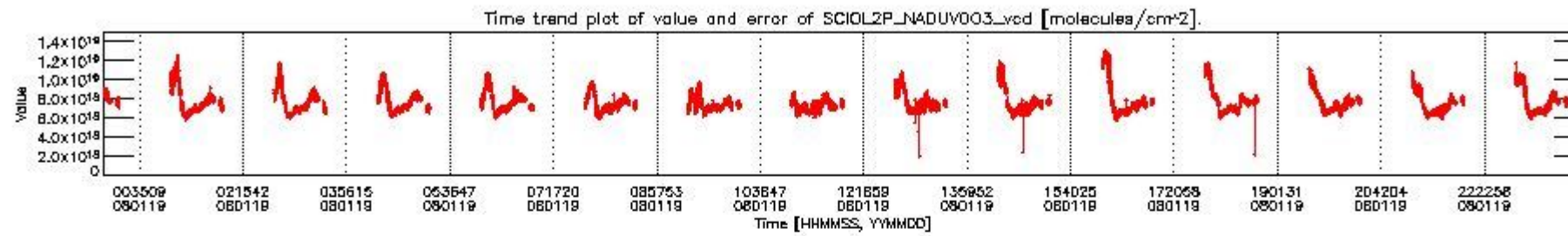
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

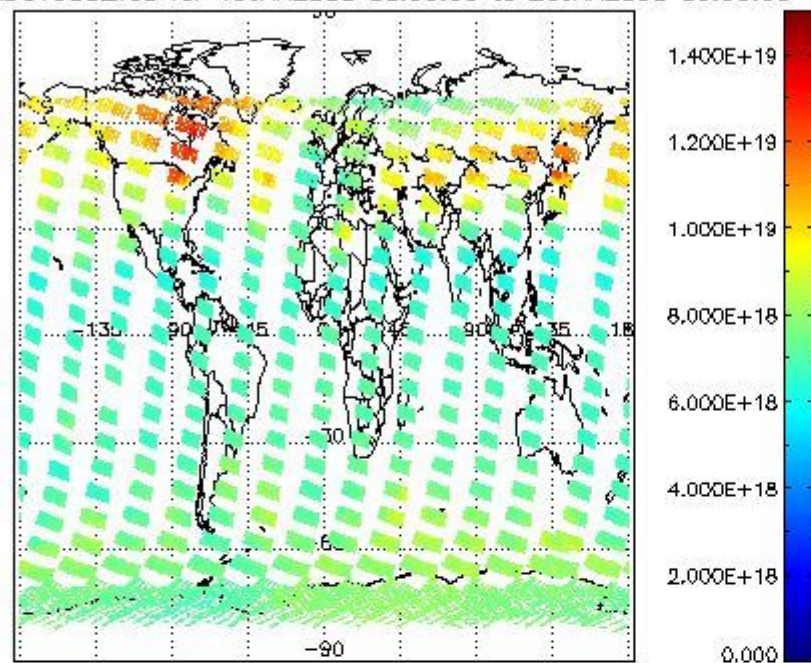
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

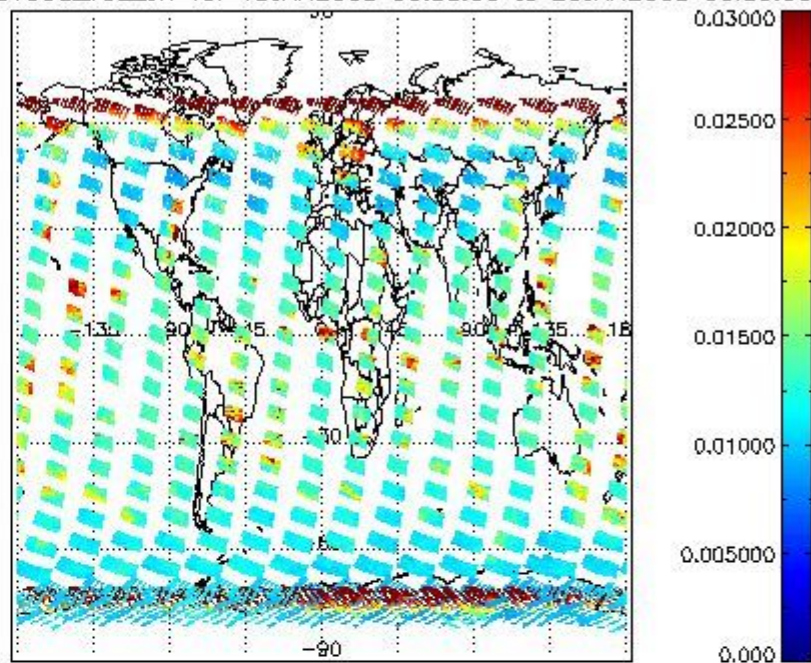
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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



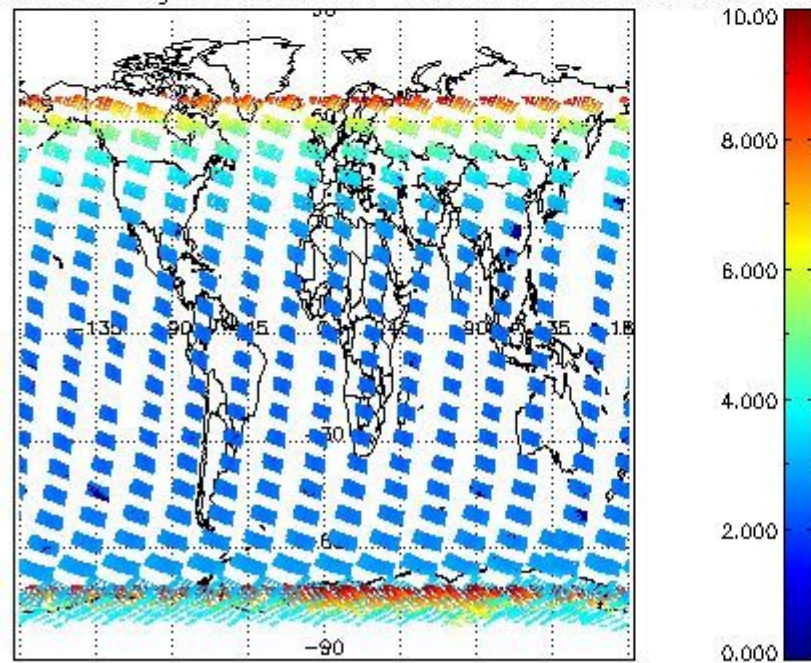
SCIOL2P_NADUV003_vcd for 19JAN2008 00:00:00 to 20JAN2008 00:00:00



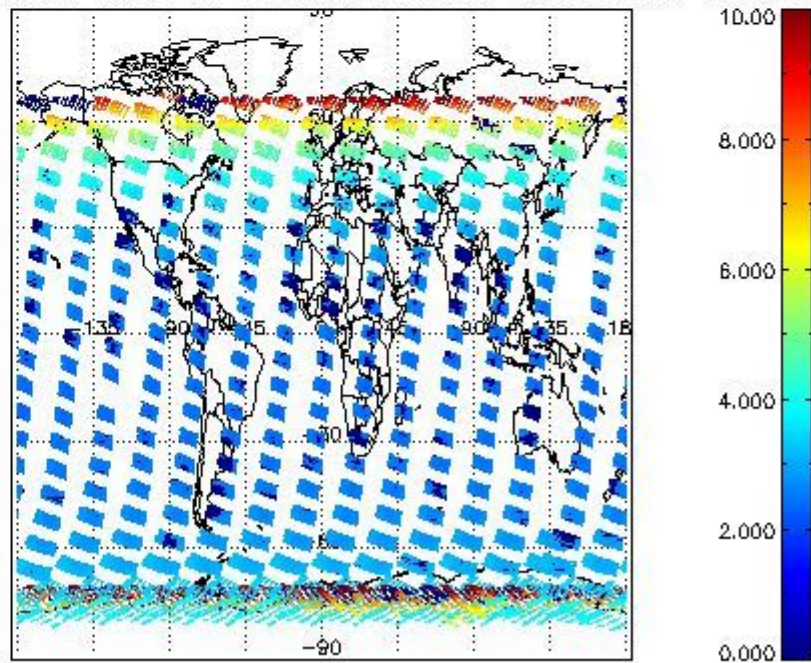
SCIOL2P_NADUV003_vcd_err for 19JAN2008 00:00:00 to 20JAN2008 00:00:00

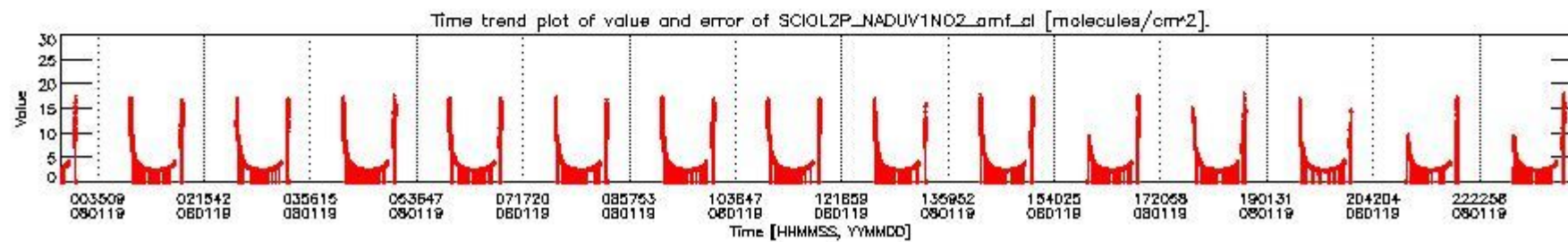
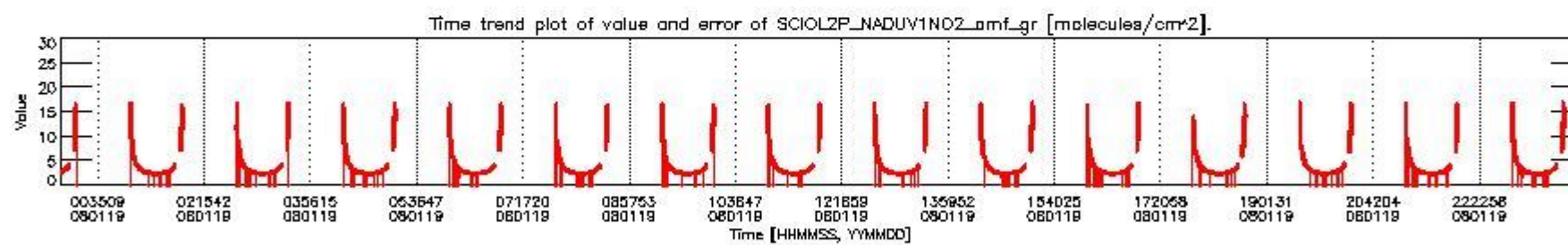
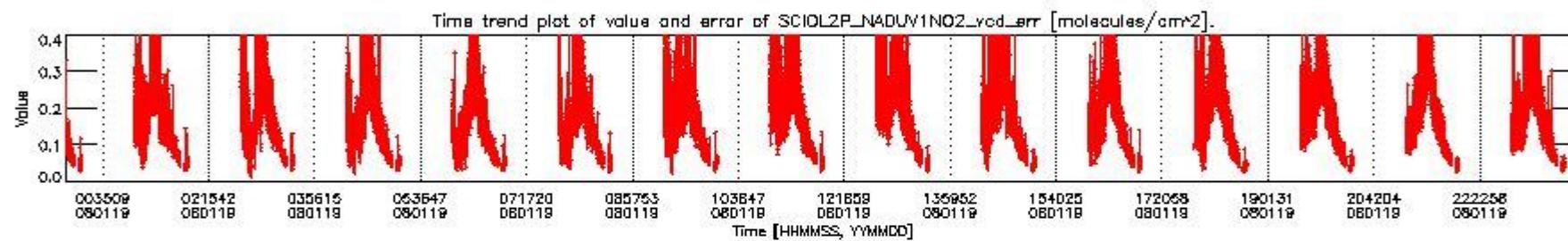
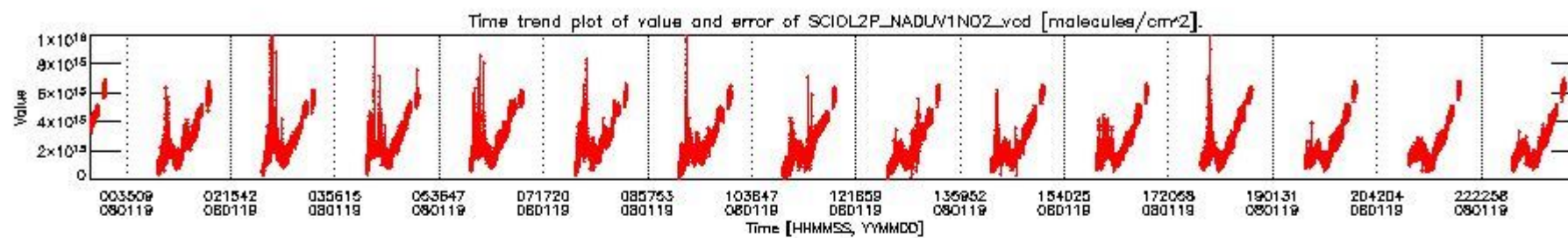


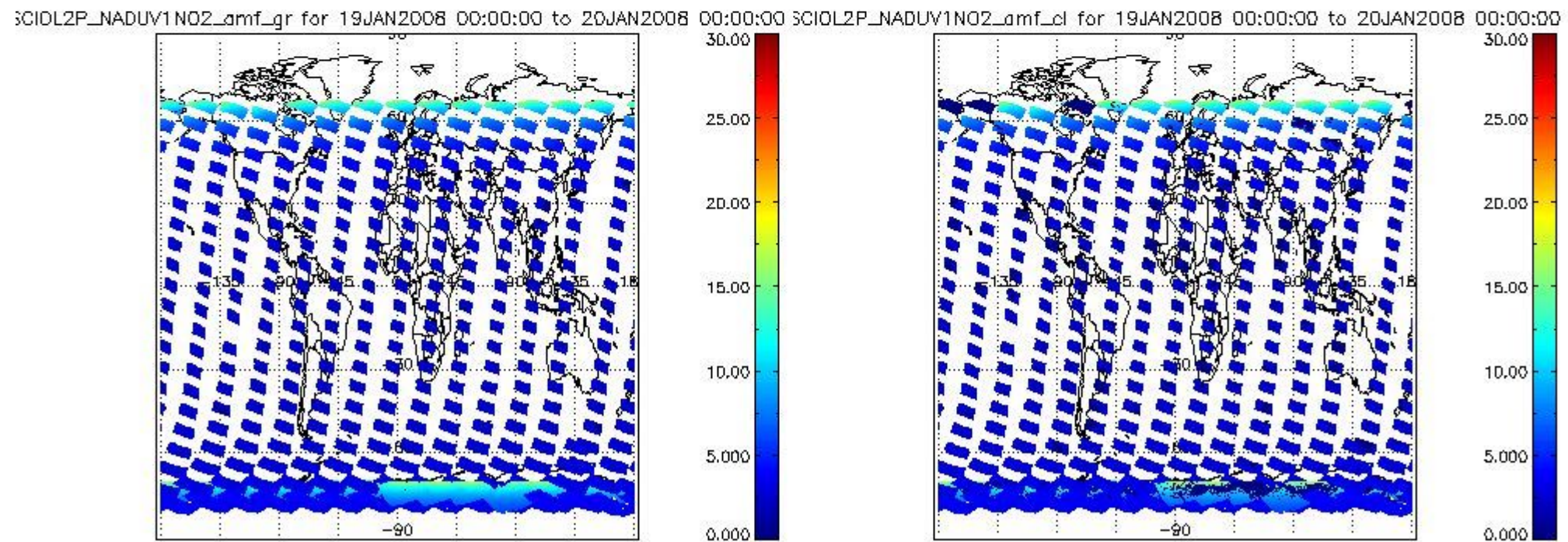
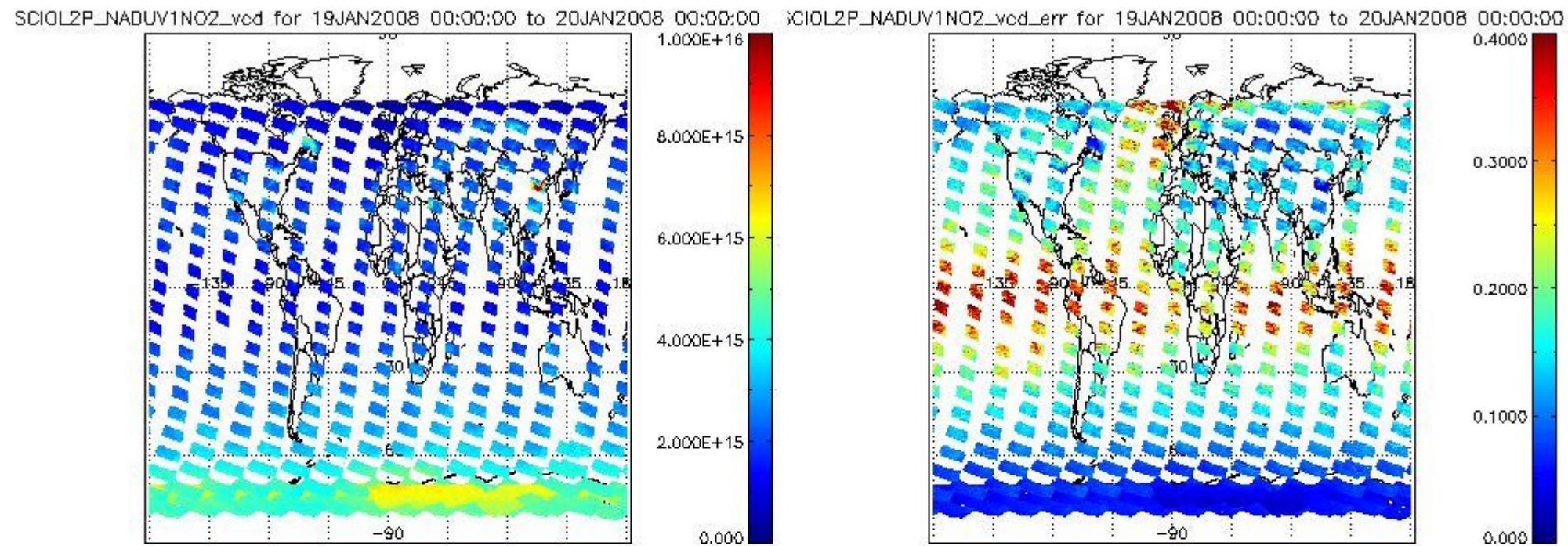
SCIOL2P_NADUV003_amf_gr for 19JAN2008 00:00:00 to 20JAN2008 00:00:00



SCIOL2P_NADUV003_amf_cl for 19JAN2008 00:00:00 to 20JAN2008 00:00:00







2.2.3 Limb

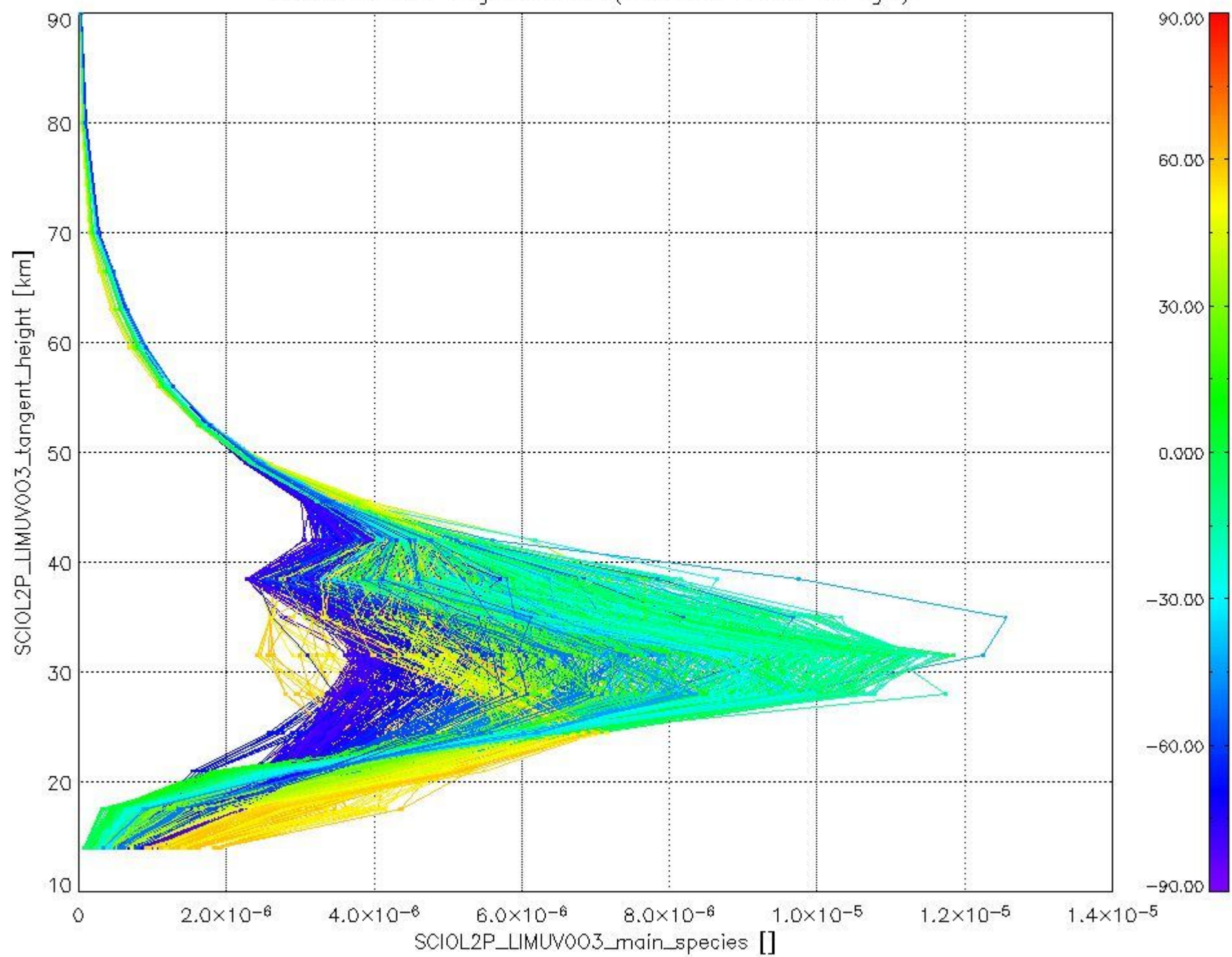
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

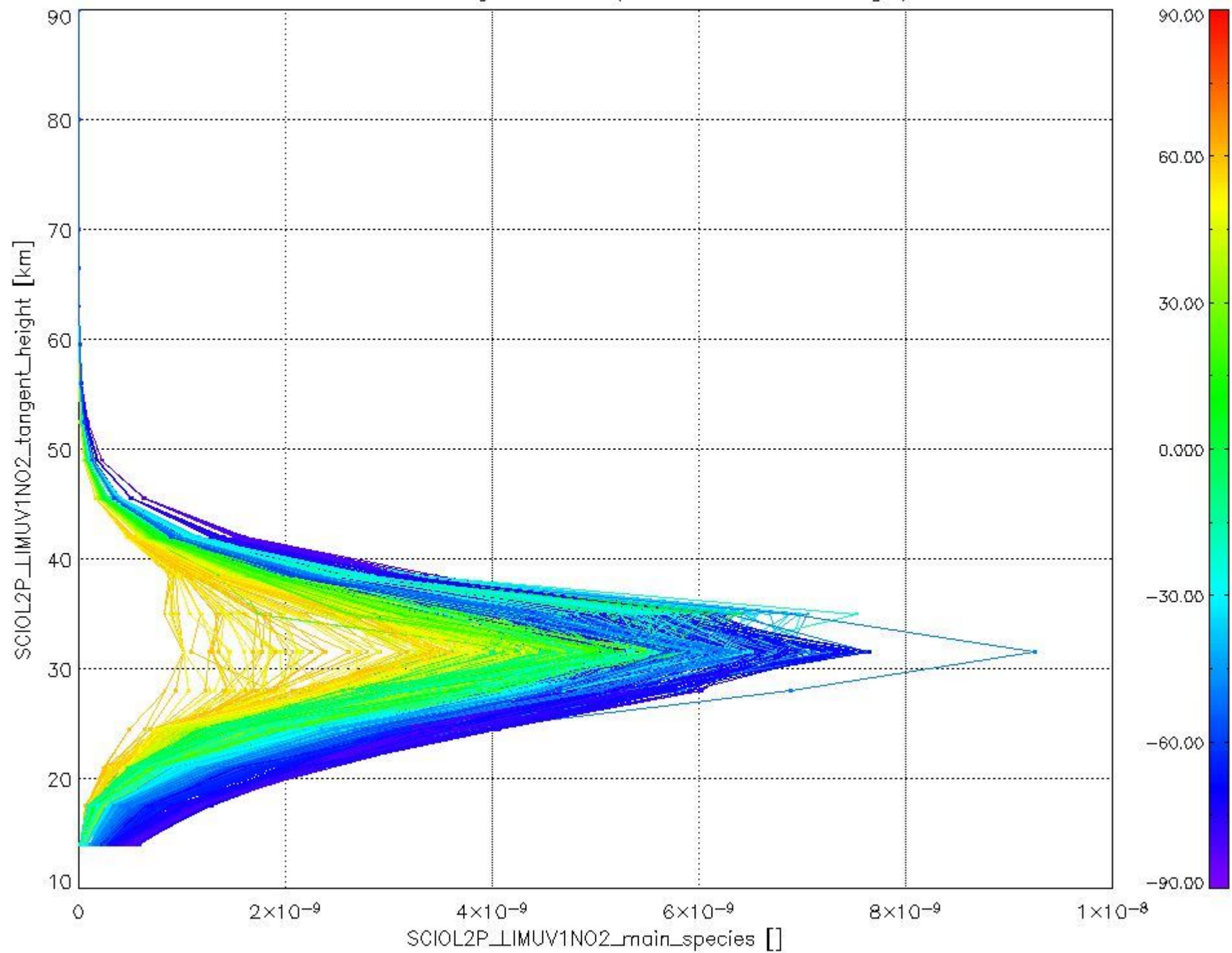
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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).



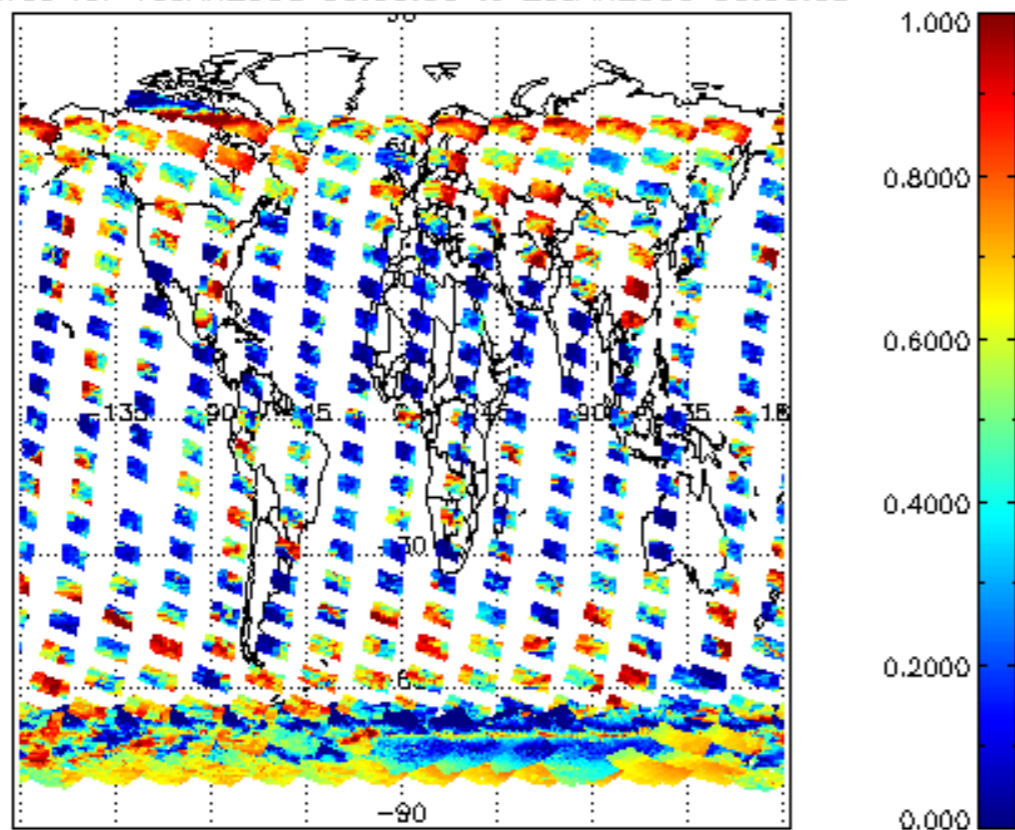
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



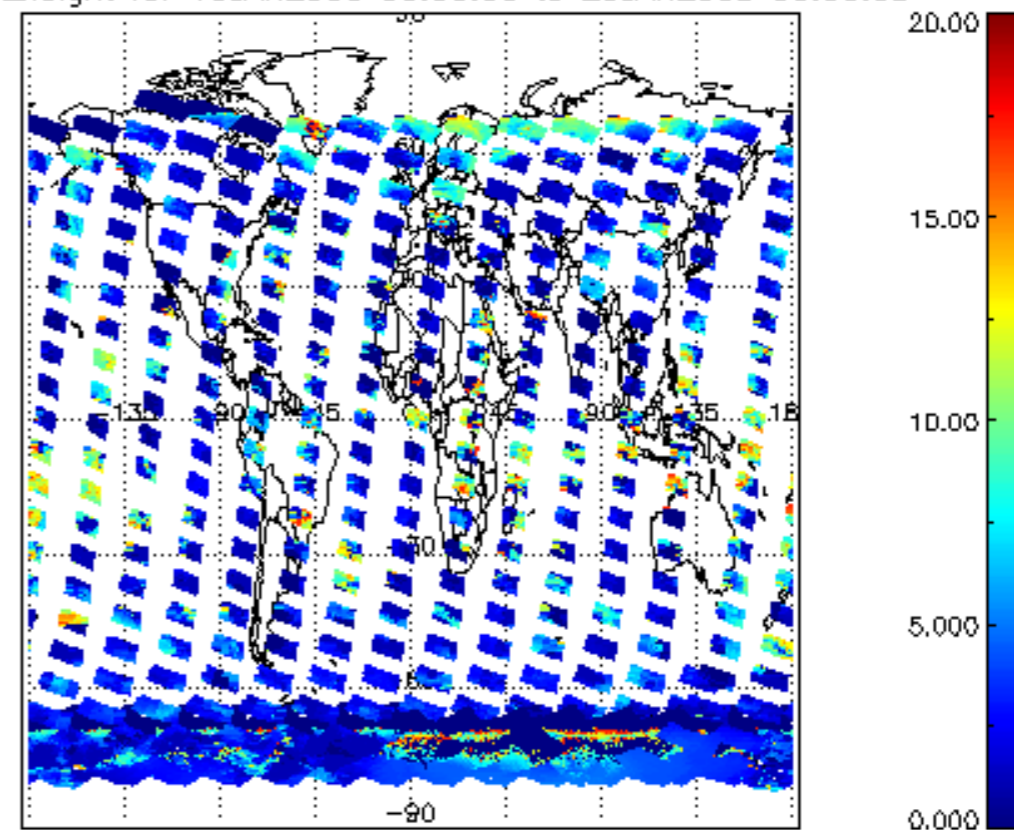
2.3 ADF monitoring

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

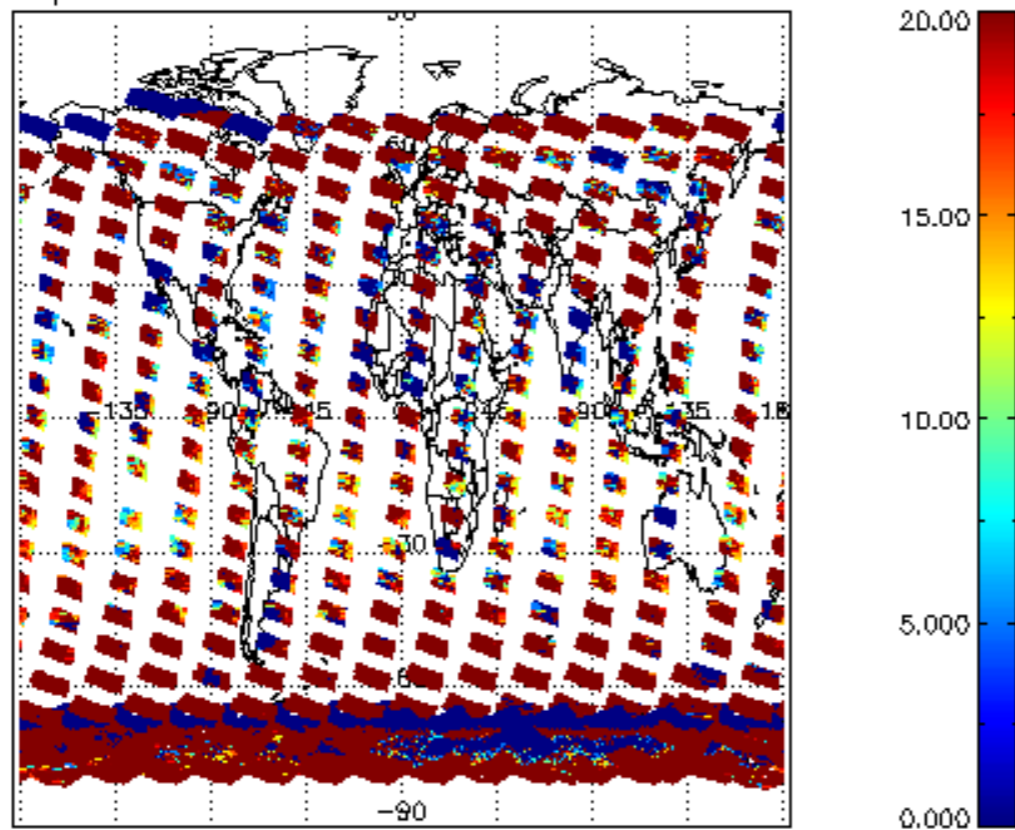
cL_frac for 19JAN2008 00:00:00 to 20JAN2008 00:00:00



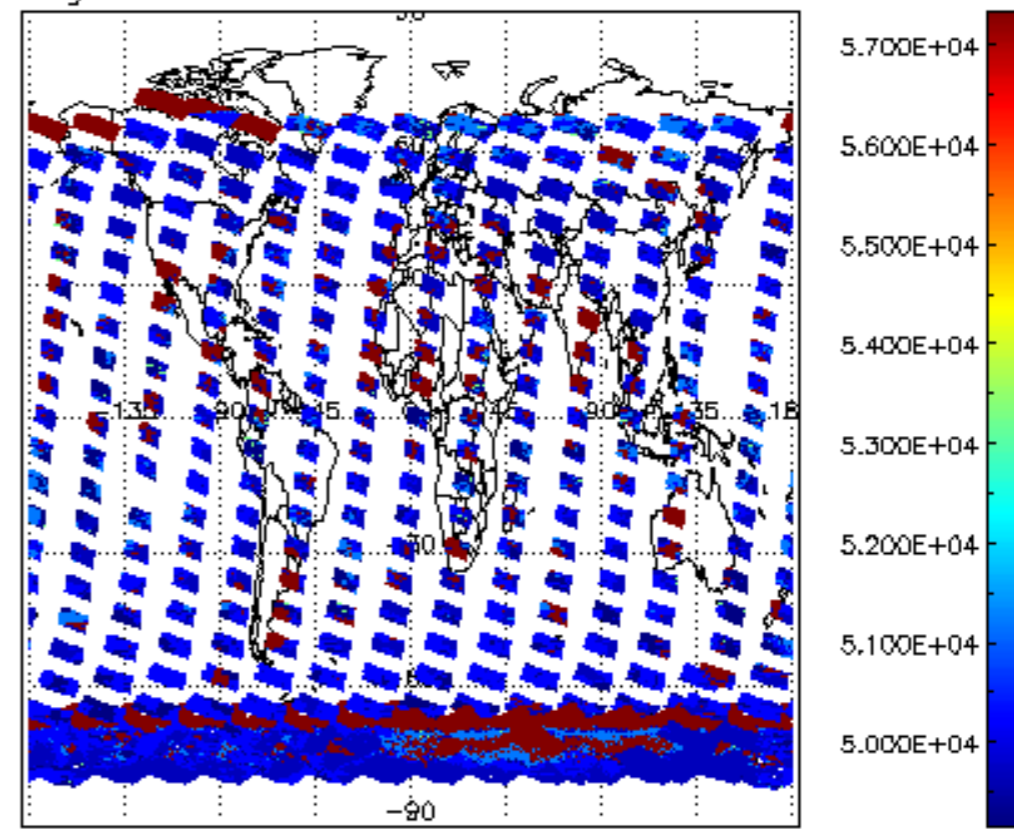
cL_top_height for 19JAN2008 00:00:00 to 20JAN2008 00:00:00

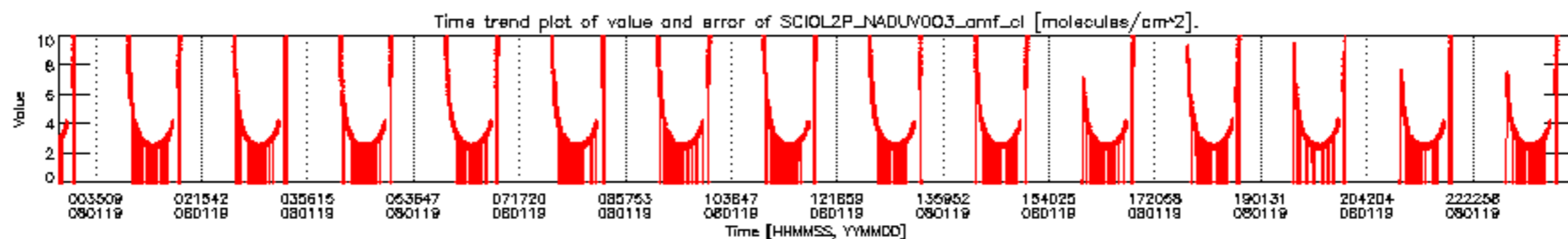
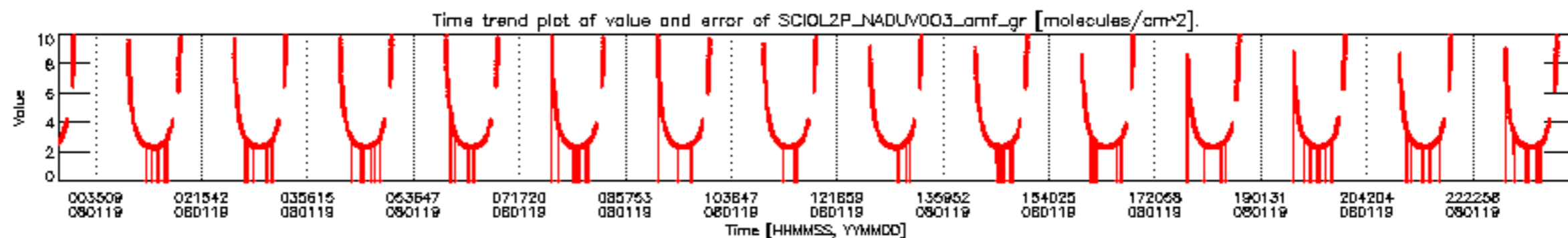
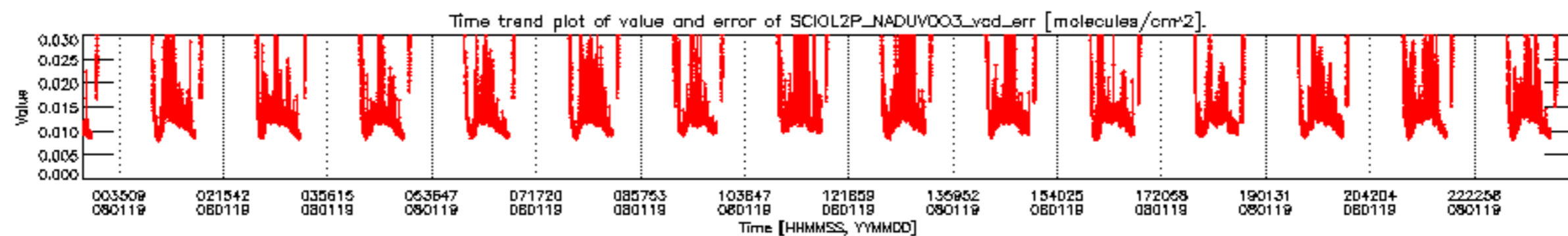
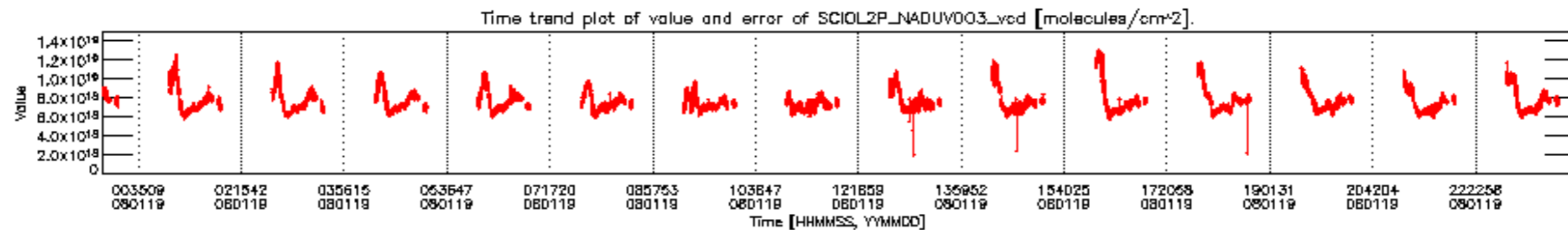


cL_opt_depth for 19JAN2008 00:00:00 to 20JAN2008 00:00:00

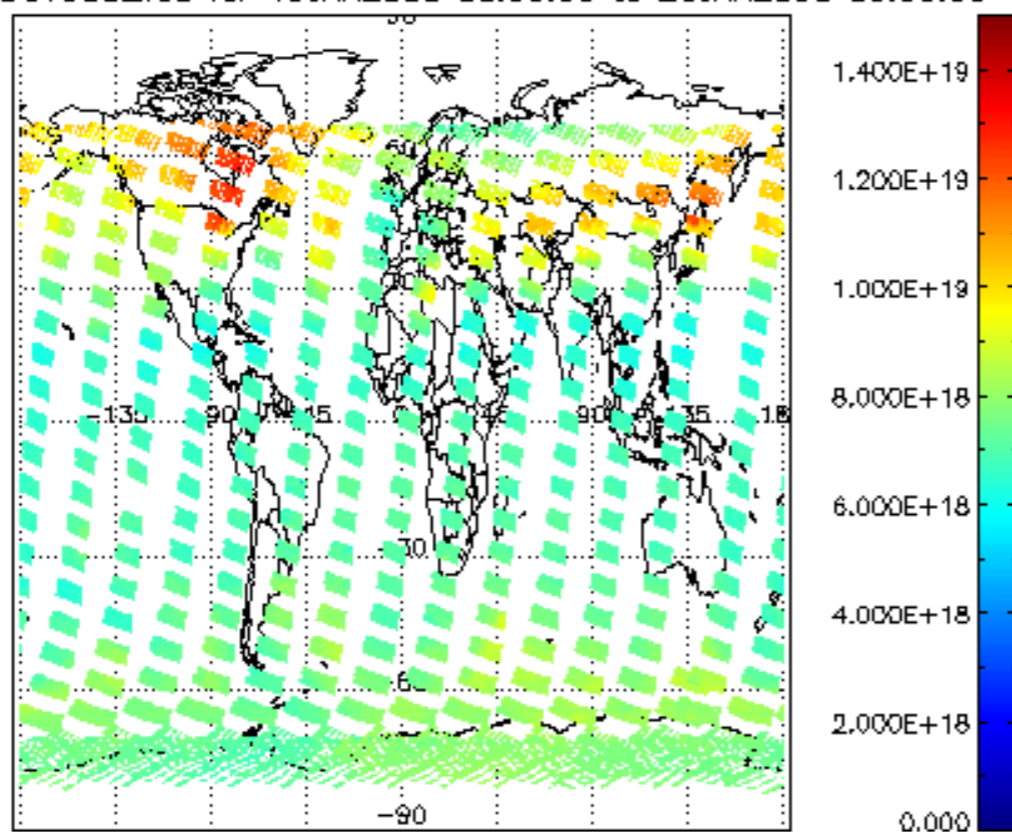


cloud_flags for 19JAN2008 00:00:00 to 20JAN2008 00:00:00

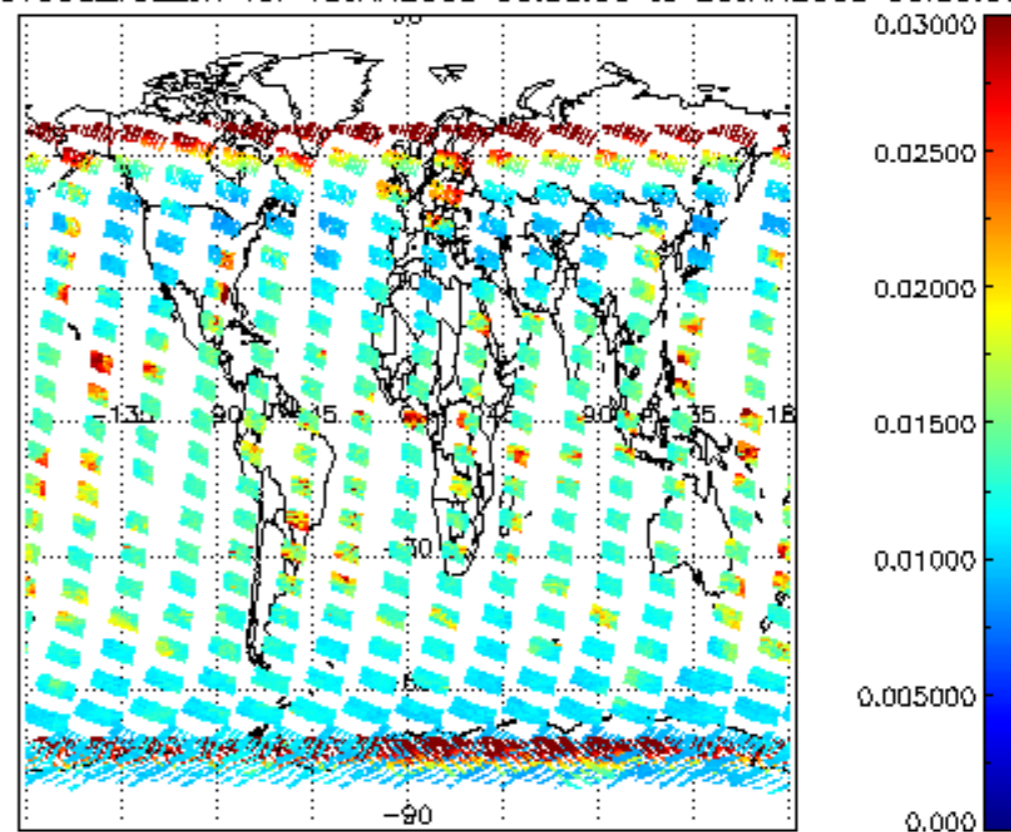




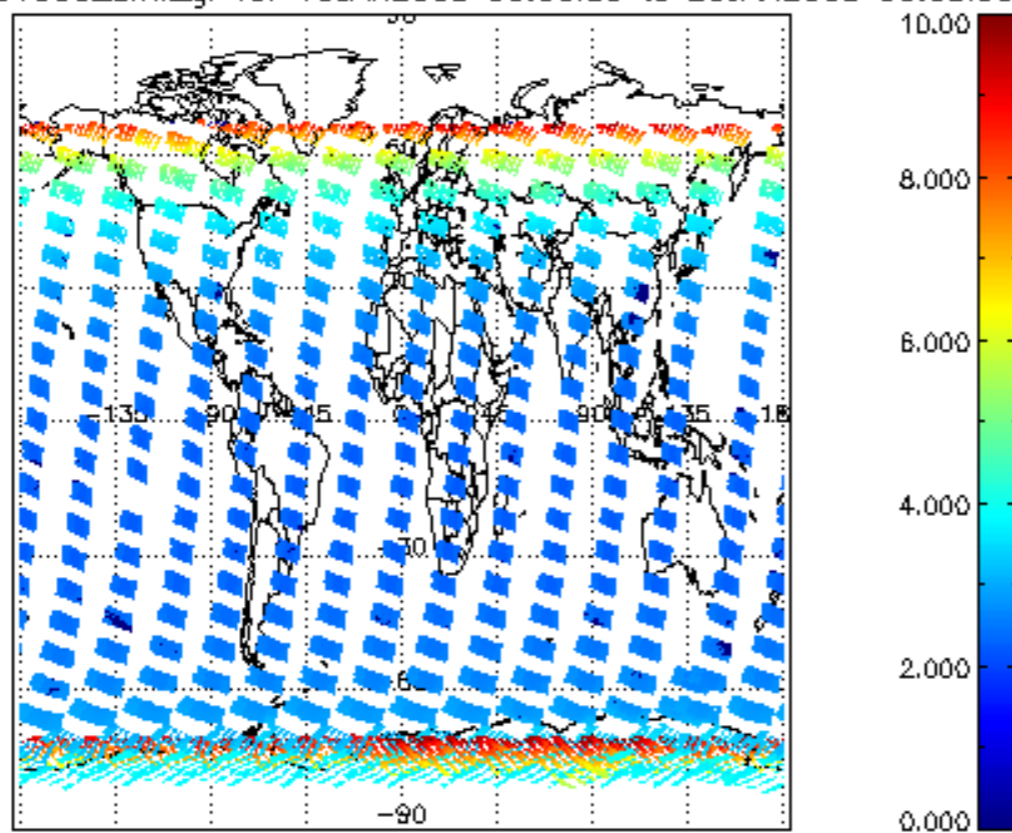
SCIOL2P_NADUV003_vcd for 19JAN2008 00:00:00 to 20JAN2008 00:00:00



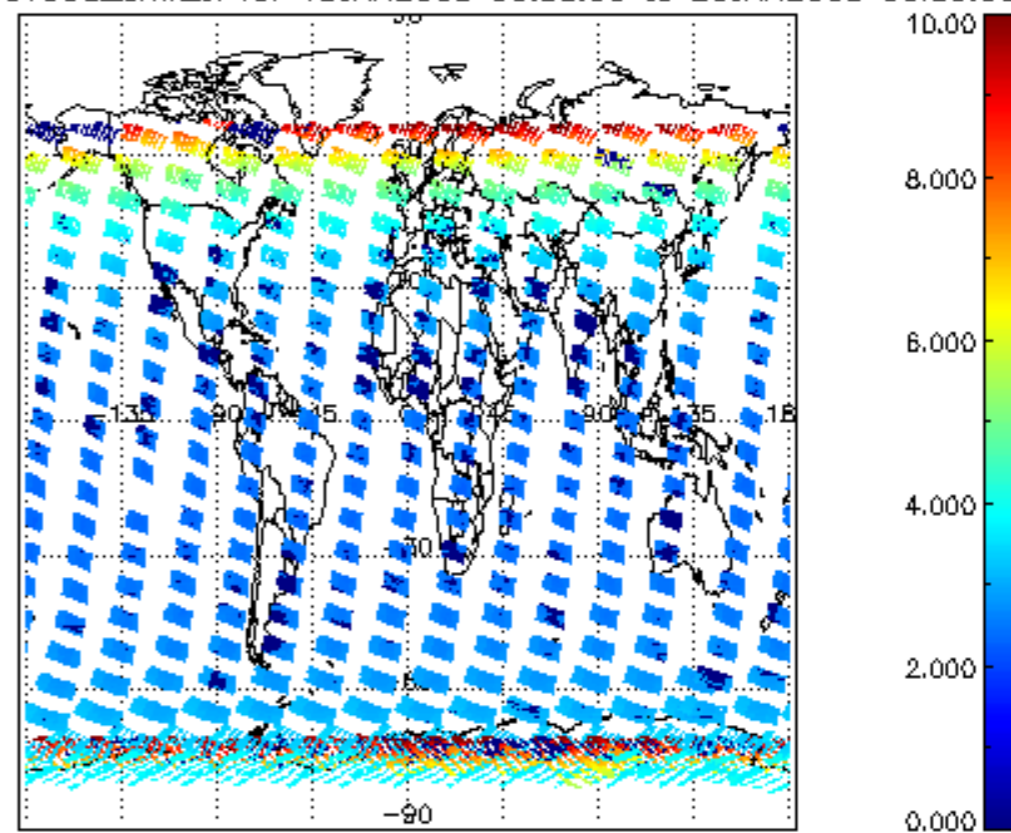
SCIOL2P_NADUV003_vcd_err for 19JAN2008 00:00:00 to 20JAN2008 00:00:00

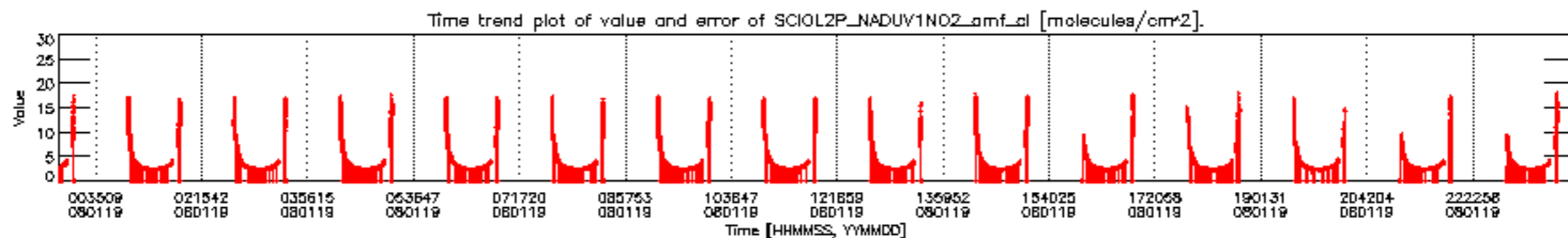
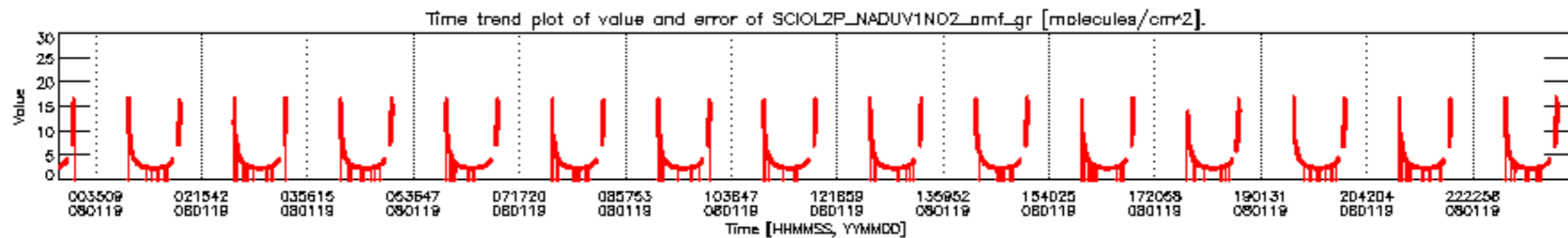
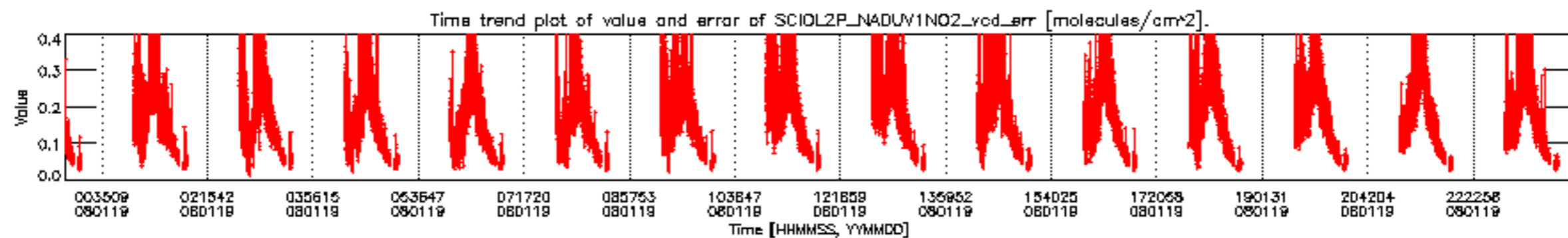
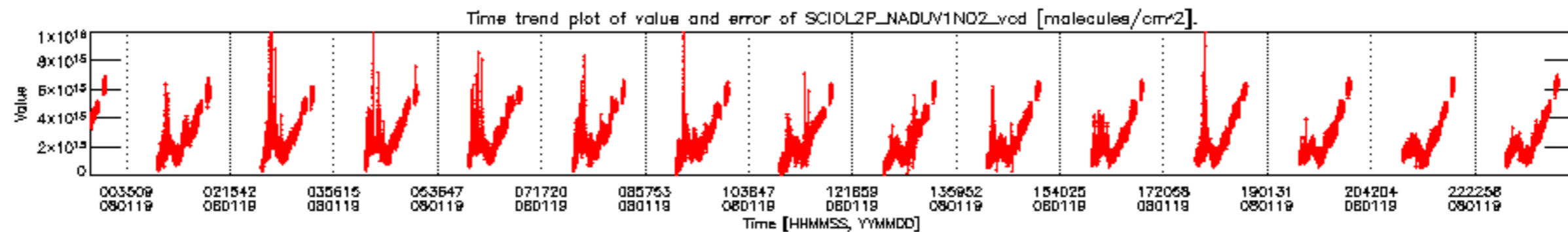


SCIOL2P_NADUV003_amf_gr for 19JAN2008 00:00:00 to 20JAN2008 00:00:00

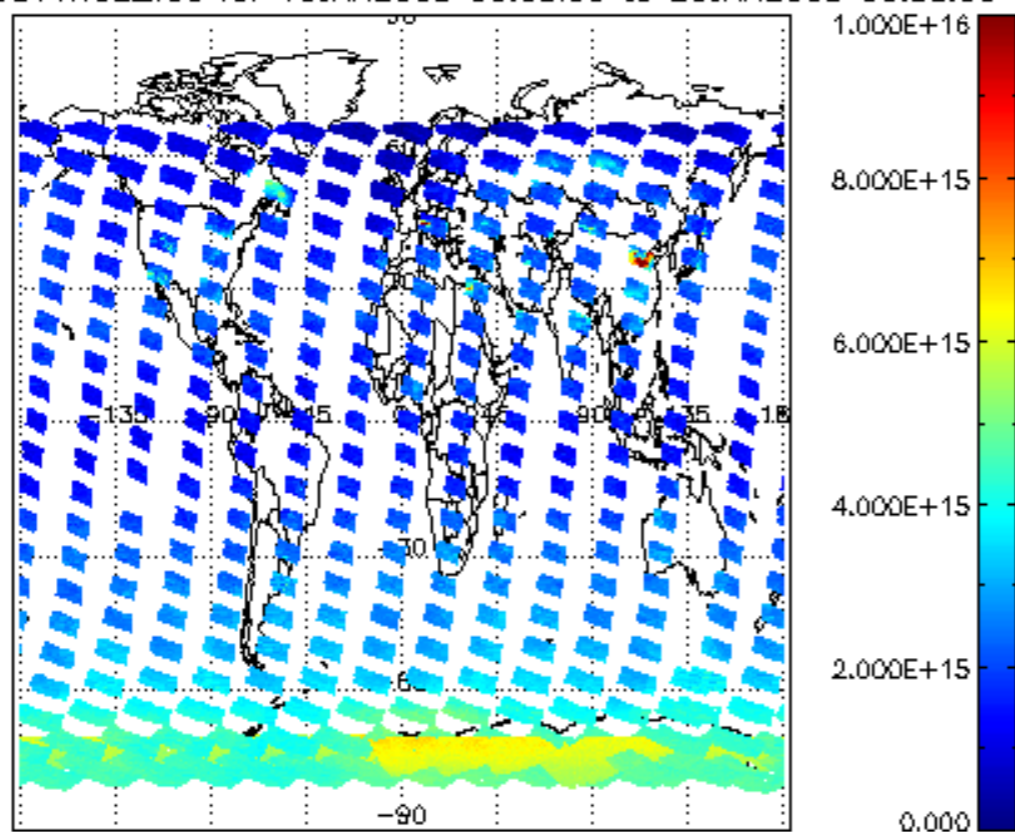


SCIOL2P_NADUV003_amf_cl for 19JAN2008 00:00:00 to 20JAN2008 00:00:00

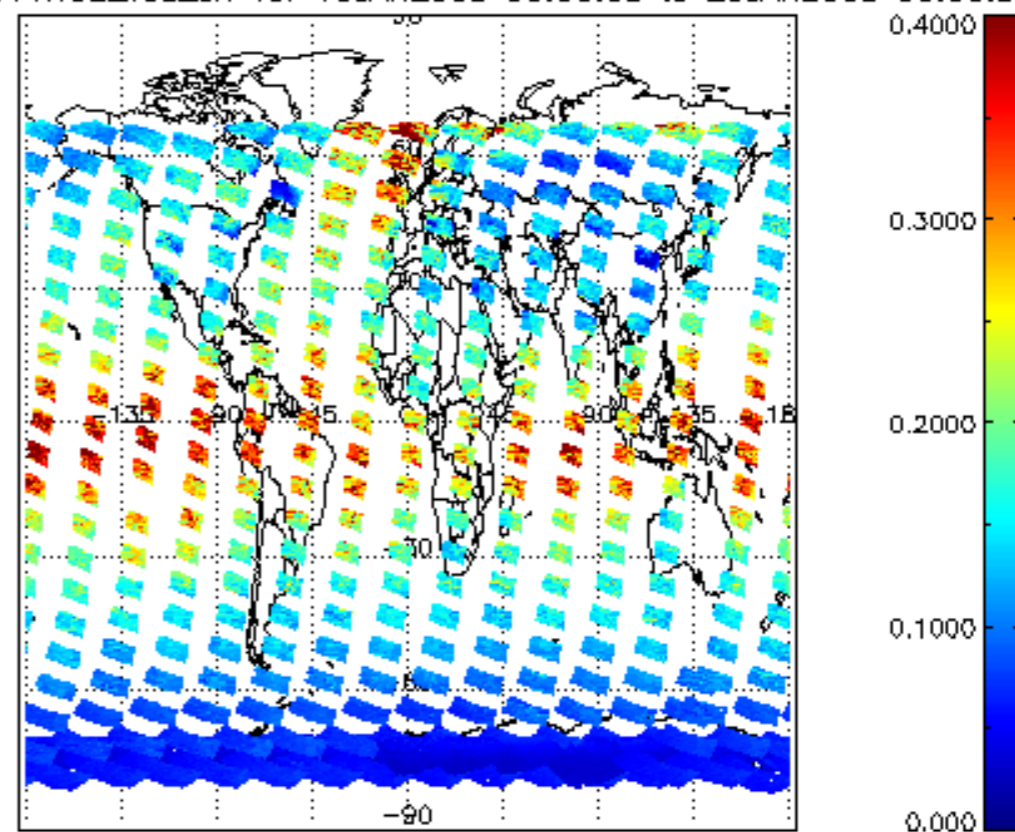




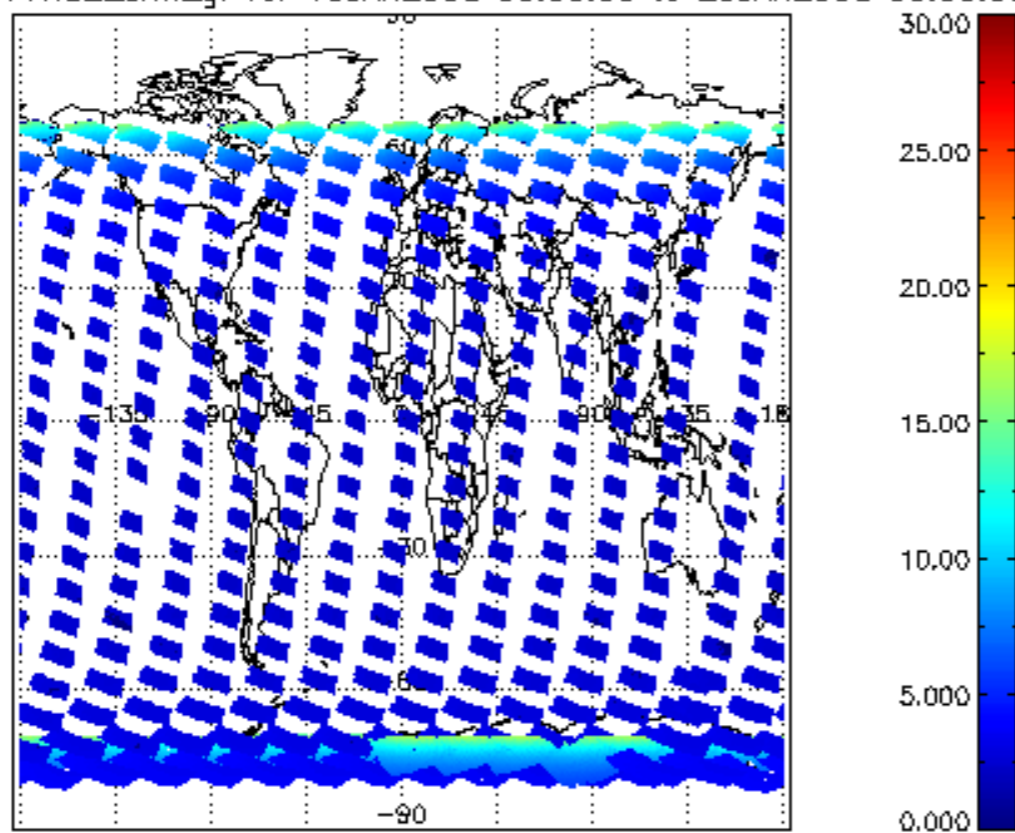
SCIOL2P_NADUV1NO2_vcd for 19JAN2008 00:00:00 to 20JAN2008 00:00:00



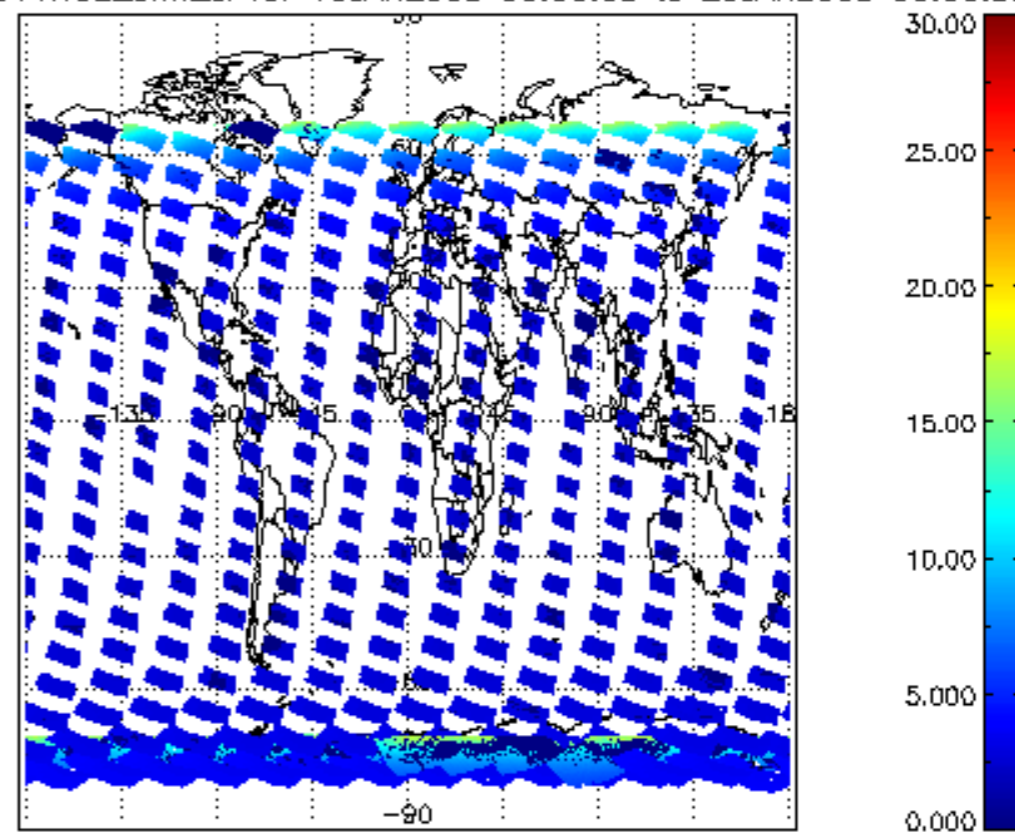
SCIOL2P_NADUV1NO2_vcd_err for 19JAN2008 00:00:00 to 20JAN2008 00:00:00



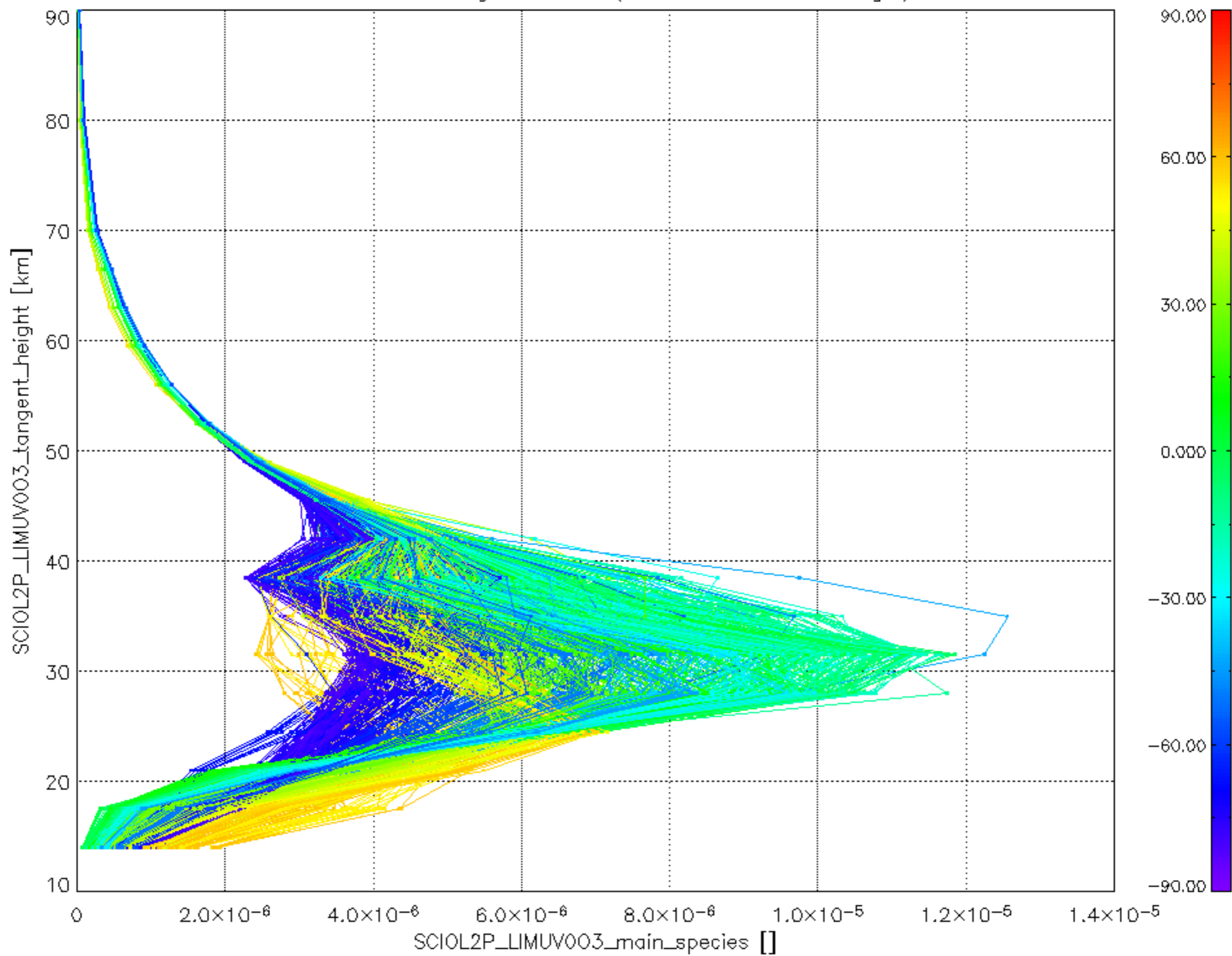
SCIOL2P_NADUV1NO2_amf_gr for 19JAN2008 00:00:00 to 20JAN2008 00:00:00



SCIOL2P_NADUV1NO2_amf_cl for 19JAN2008 00:00:00 to 20JAN2008 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).

