

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	28JUL2008 10:32:51
Data source version	SCIA-OL/3.01-R
Processing scope for products	07JAN2004 00:00:00 to 08JAN2004 00:00:00
Start time of first product within scope	06JAN2004 23:18:34
Stop time of last product within scope	08JAN2004 01:18:55
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__2PRDPA20040106_231834_000031502023_00116_09689_6145.N1	06JAN2004 23:18:34	07JAN2004 00:11:04	0	GOOD
1	SCI_OL__2PRDPA20040107_005951_000030812023_00117_09690_6192.N1	07JAN2004 00:59:51	07JAN2004 01:51:13	0	GOOD
2	SCI_OL__2PRDPA20040107_023618_000033202023_00118_09691_6391.N1	07JAN2004 02:36:18	07JAN2004 03:31:38	0	GOOD
3	SCI_OL__2PRDPA20040107_041653_000033172023_00119_09692_6017.N1	07JAN2004 04:16:53	07JAN2004 05:12:11	0	GOOD
4	SCI_OL__2PRDPA20040107_055729_000033132023_00120_09693_6043.N1	07JAN2004 05:57:29	07JAN2004 06:52:43	0	GOOD
5	SCI_OL__2PRDPA20040107_073805_000033102023_00121_09694_6097.N1	07JAN2004 07:38:05	07JAN2004 08:33:15	0	GOOD
6	SCI_OL__2PRDPA20040107_091841_000033062023_00122_09695_6363.N1	07JAN2004 09:18:41	07JAN2004 10:13:48	0	GOOD
7	SCI_OL__2PRDPA20040107_105916_000033032023_00123_09696_6146.N1	07JAN2004 10:59:16	07JAN2004 11:54:19	0	GOOD
8	SCI_OL__2PRDPA20040107_123952_000032992023_00124_09697_6289.N1	07JAN2004 12:39:52	07JAN2004 13:34:51	0	GOOD
9	SCI_OL__2PRDPA20040107_142028_000032942023_00125_09698_6109.N1	07JAN2004 14:20:28	07JAN2004 15:15:22	0	GOOD
10	SCI_OL__2PRDPA20040107_160103_000032902023_00126_09699_6118.N1	07JAN2004 16:01:03	07JAN2004 16:55:54	0	GOOD
11	SCI_OL__2PRDPA20040107_174102_000033522023_00127_09700_6180.N1	07JAN2004 17:41:02	07JAN2004 18:36:54	0	GOOD
12	SCI_OL__2PRDPA20040107_192145_000033772023_00128_09701_6362.N1	07JAN2004 19:21:45	07JAN2004 20:18:03	0	GOOD
13	SCI_OL__2PRDPA20040107_210251_000032932023_00129_09702_6324.N1	07JAN2004 21:02:51	07JAN2004 21:57:44	0	GOOD
14	SCI_OL__2PRDPA20040107_224450_000032372023_00130_09703_6095.N1	07JAN2004 22:44:50	07JAN2004 23:38:47	0	GOOD
15	SCI_OL__2PRDPA20040108_002402_000032932023_00131_09704_6196.N1	08JAN2004 00:24:02	08JAN2004 01:18:55	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: 111231

Total number of cloud data DSRs with good quality flag (=0): 111231 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	111231	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	111231	0.22582	0.25000	0.12500	0.50000	0.077970	s
CL_FRAC	111231	0.45177	0.43557	0.0000	1.0000	0.28132	-

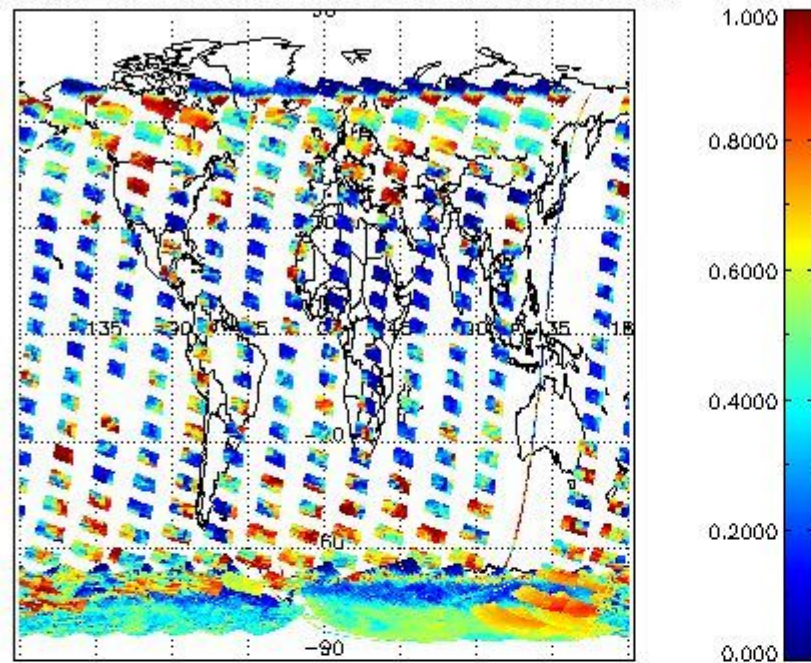
CL_FRAC_ERR	111231	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	111231	7.2261	8.0000	4.0000	16.000	2.4950	
PMD_READ_CL[0]	111231	0.42147	0.0000	0.0000	16.000	1.5981	-
PMD_READ_CL[1]	111231	0.33085	0.0000	0.0000	16.000	1.6694	-
CL_TOP_HEIGHT	99360	4.3122	3.2180	0.0000	17.000	3.7577	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	99360	45.414	27.670	0.0000	101.00	38.238	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	111231	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	111231	11000110	11000100	11000000	11100000	2550.3	flags
AERO_ABSO_IND	111231	0.55948	0.23332	-4.2034	12.157	1.1845	
AERO_IND_DIAG	111231	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	111231	01110000	11000000	00000000	11000000	24216.	flags

Time and geolocation plots:

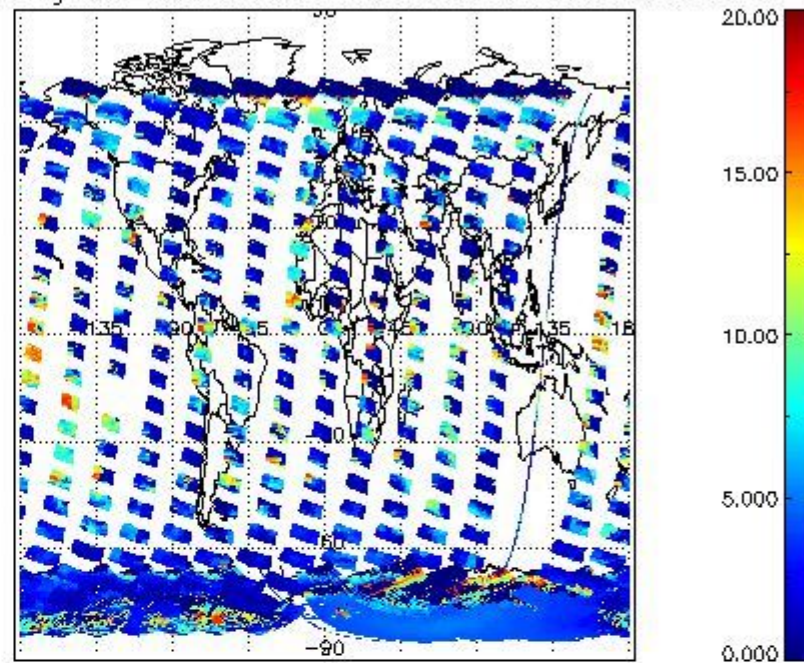
Plots are available for the following parameters:

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

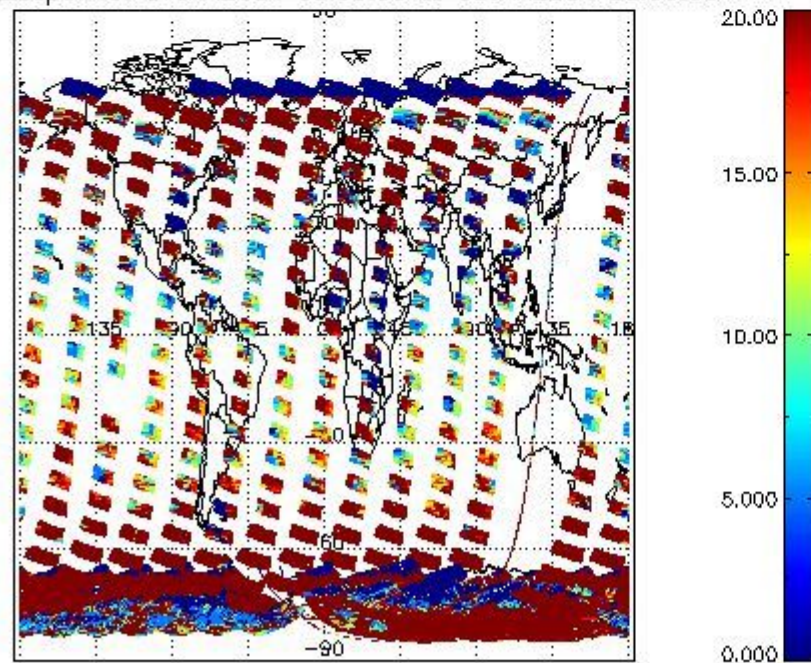
cL_frac for 07JAN2004 00:00:00 to 08JAN2004 00:00:00



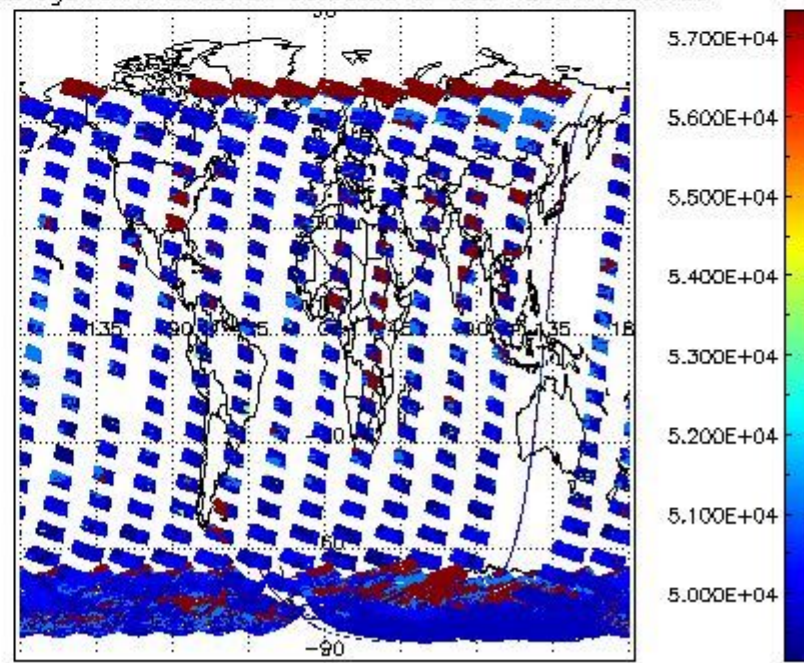
cL_top_height for 07JAN2004 00:00:00 to 08JAN2004 00:00:00



cLopt_depth for 07JAN2004 00:00:00 to 08JAN2004 00:00:00



cloud_flags for 07JAN2004 00:00:00 to 08JAN2004 00:00:00



2.2.2 Nadir

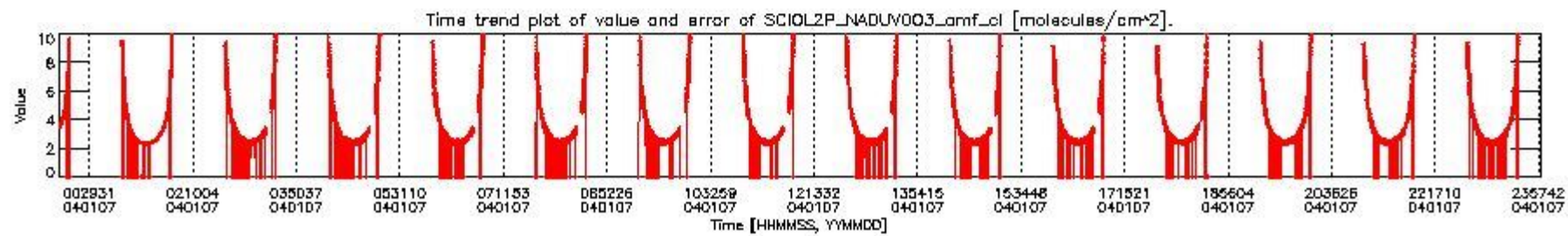
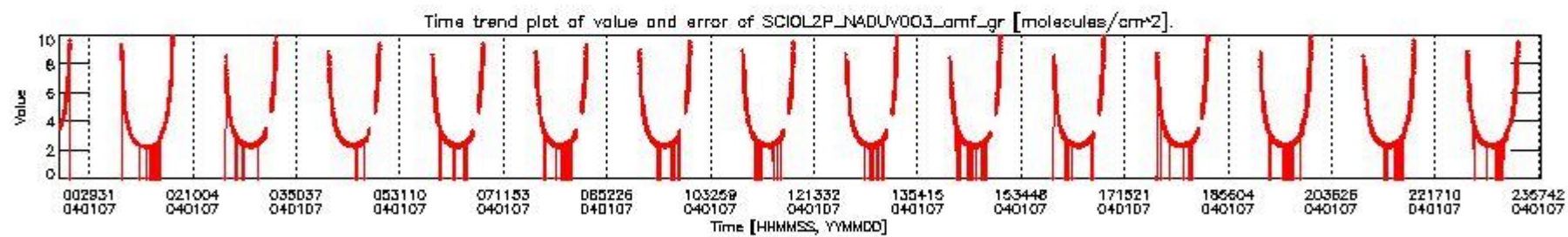
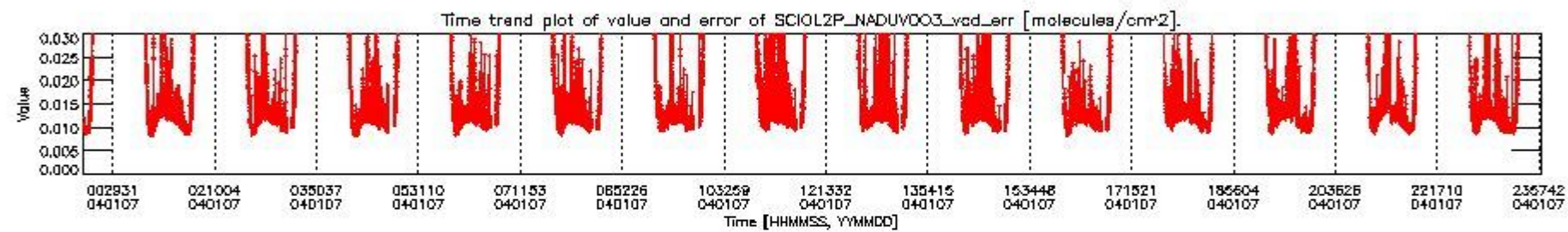
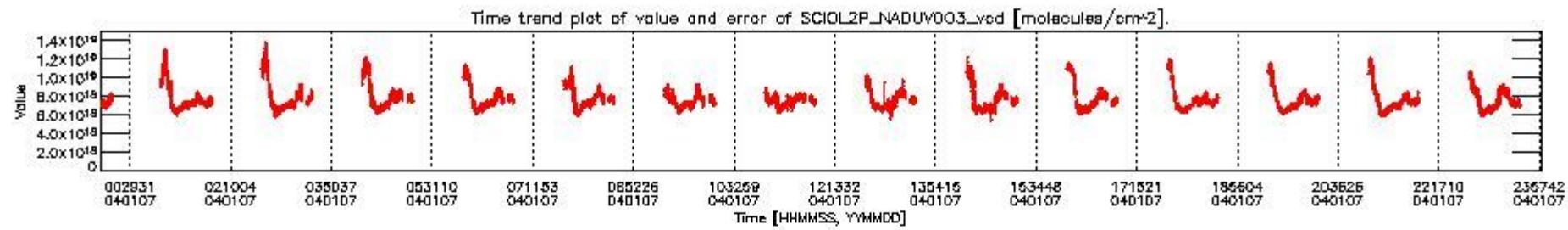
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

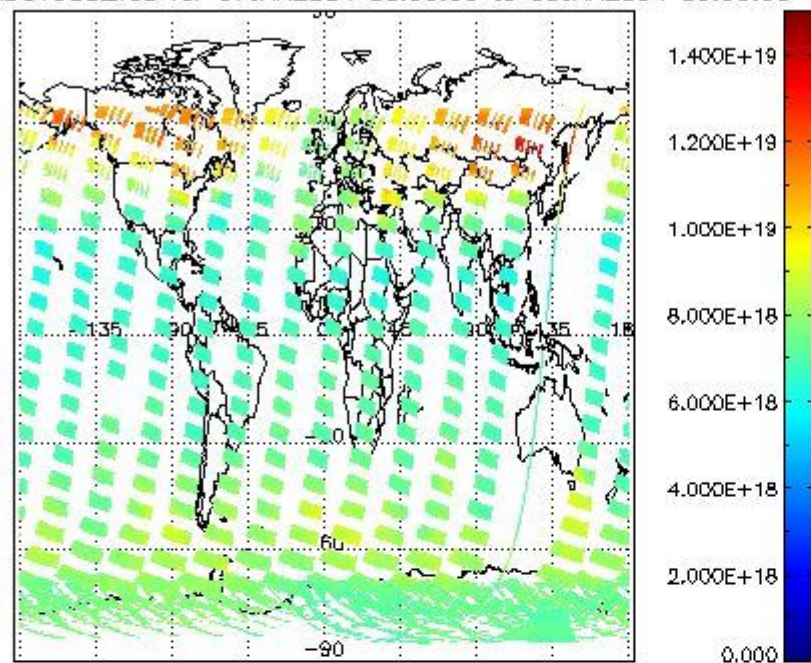
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

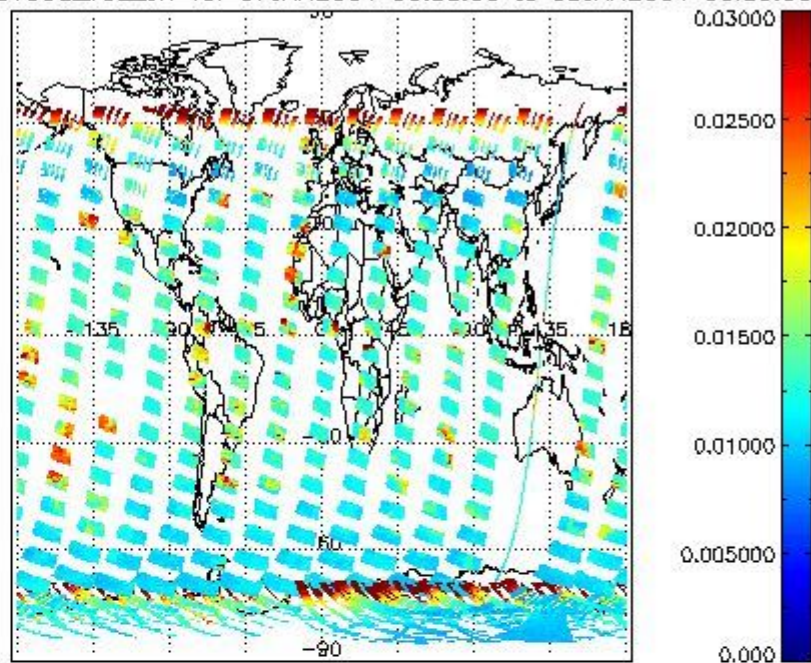
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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



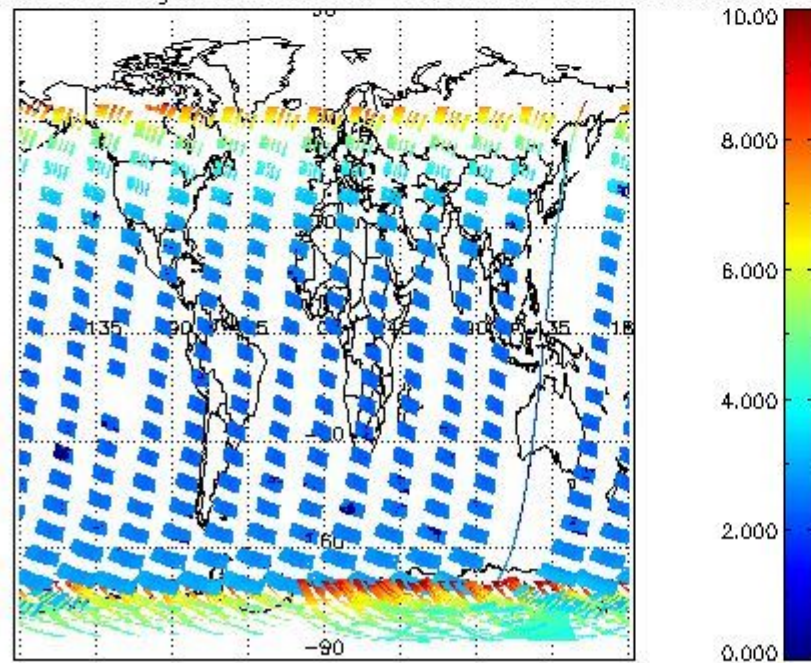
SCIOL2P_NADUV003_vcd for 07JAN2004 00:00:00 to 08JAN2004 00:00:00



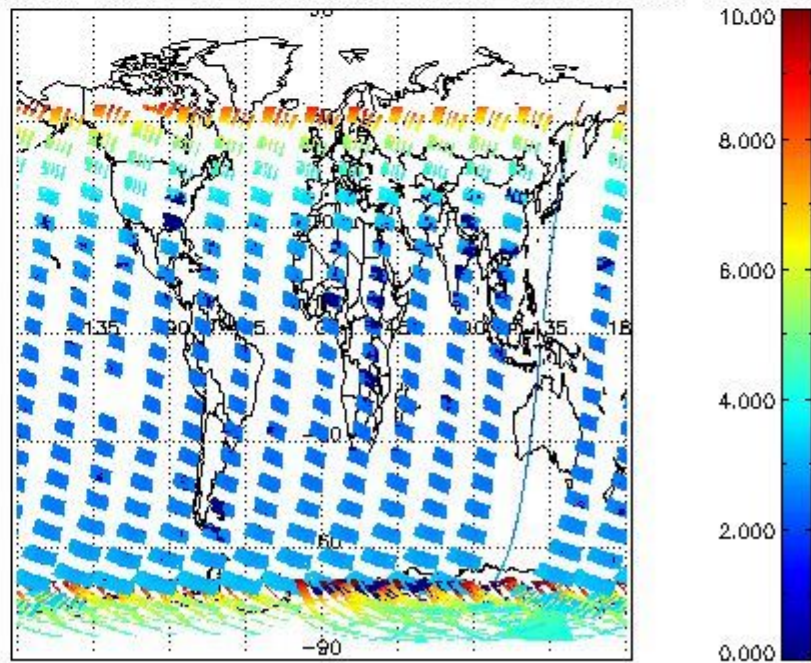
SCIOL2P_NADUV003_vcd_err for 07JAN2004 00:00:00 to 08JAN2004 00:00:00

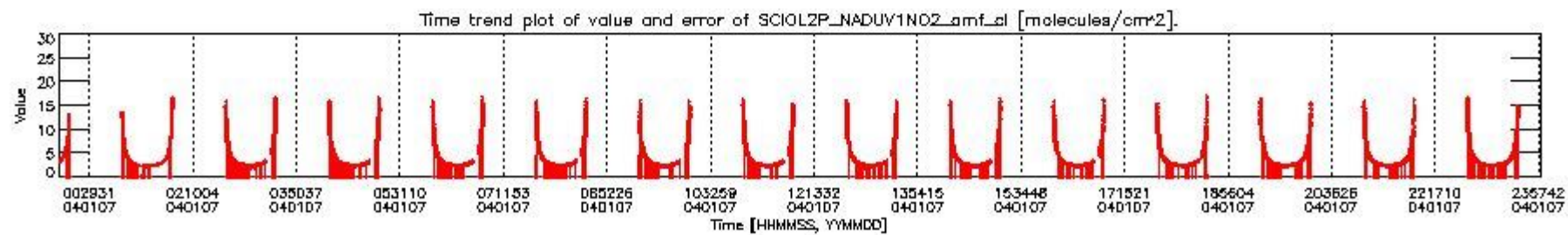
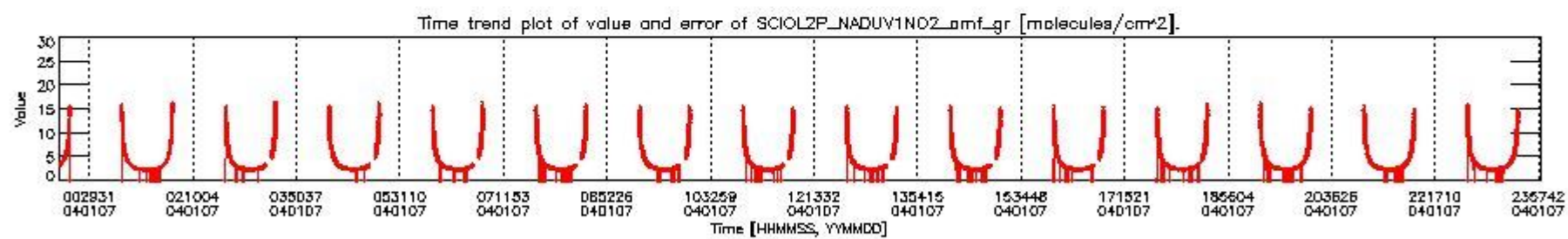
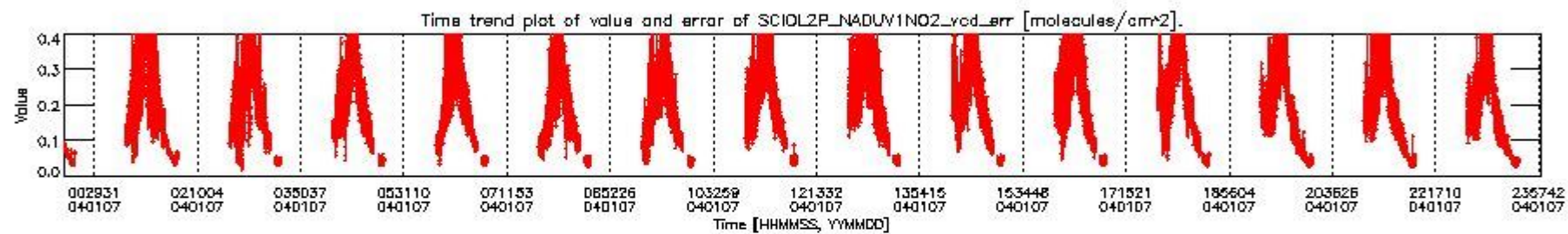
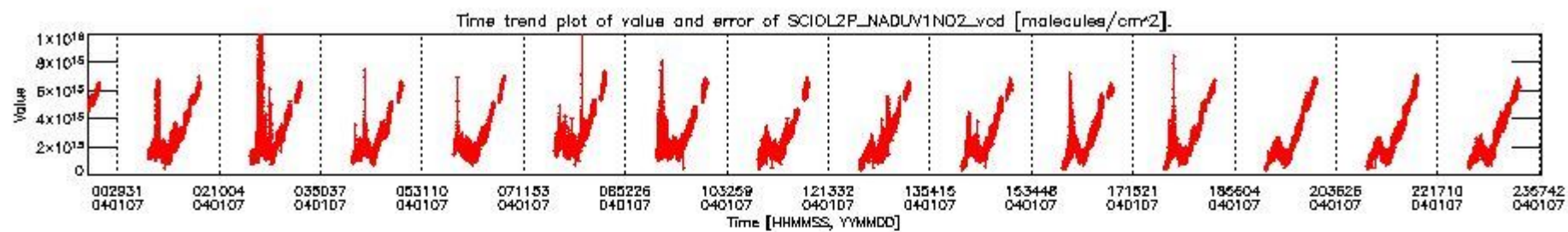


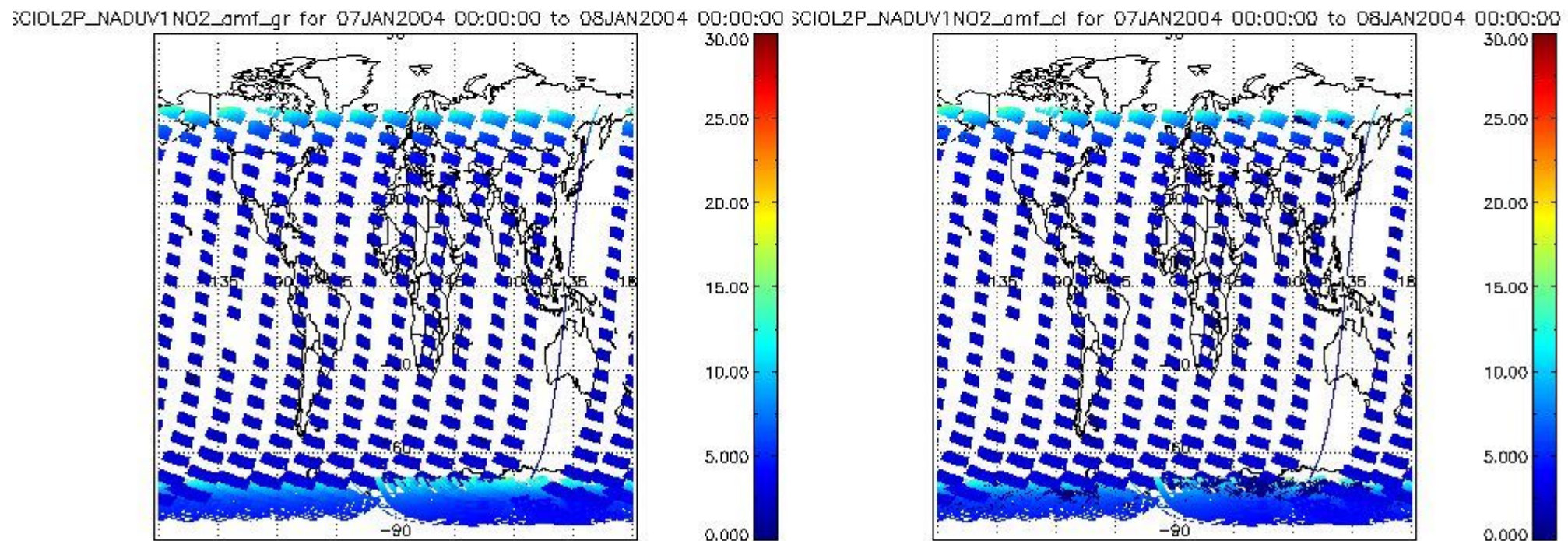
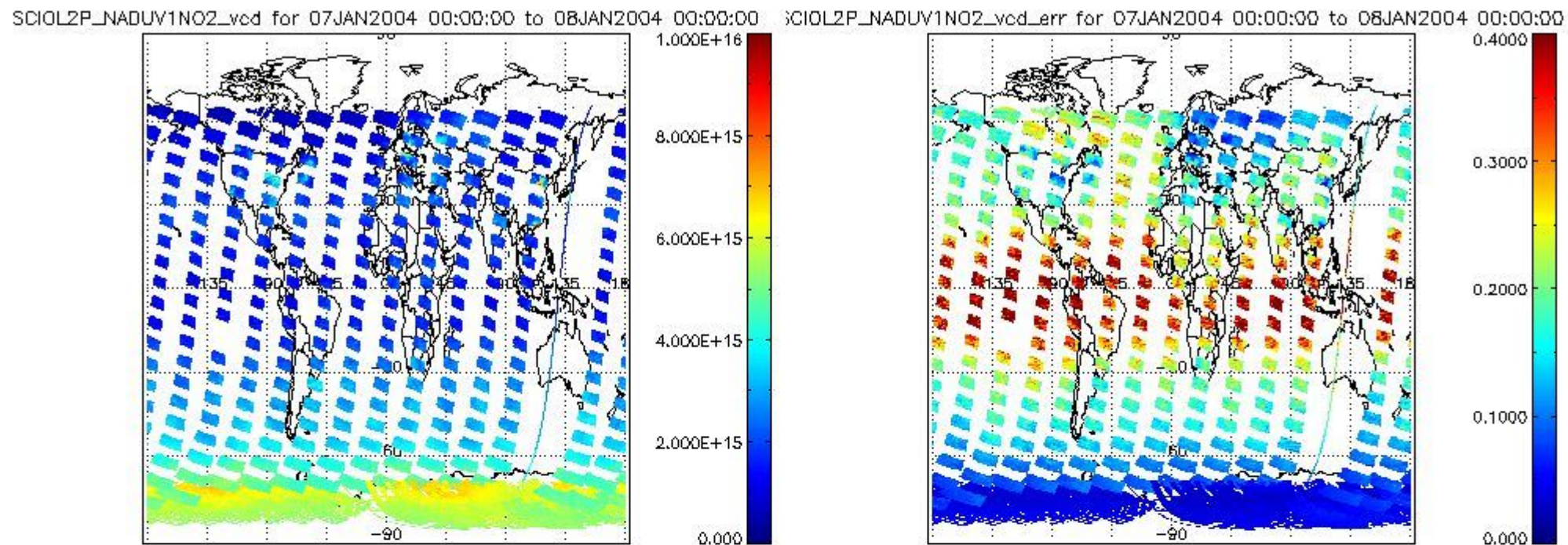
SCIOL2P_NADUV003_amf_gr for 07JAN2004 00:00:00 to 08JAN2004 00:00:00



SCIOL2P_NADUV003_amf_cl for 07JAN2004 00:00:00 to 08JAN2004 00:00:00







2.2.3 Limb

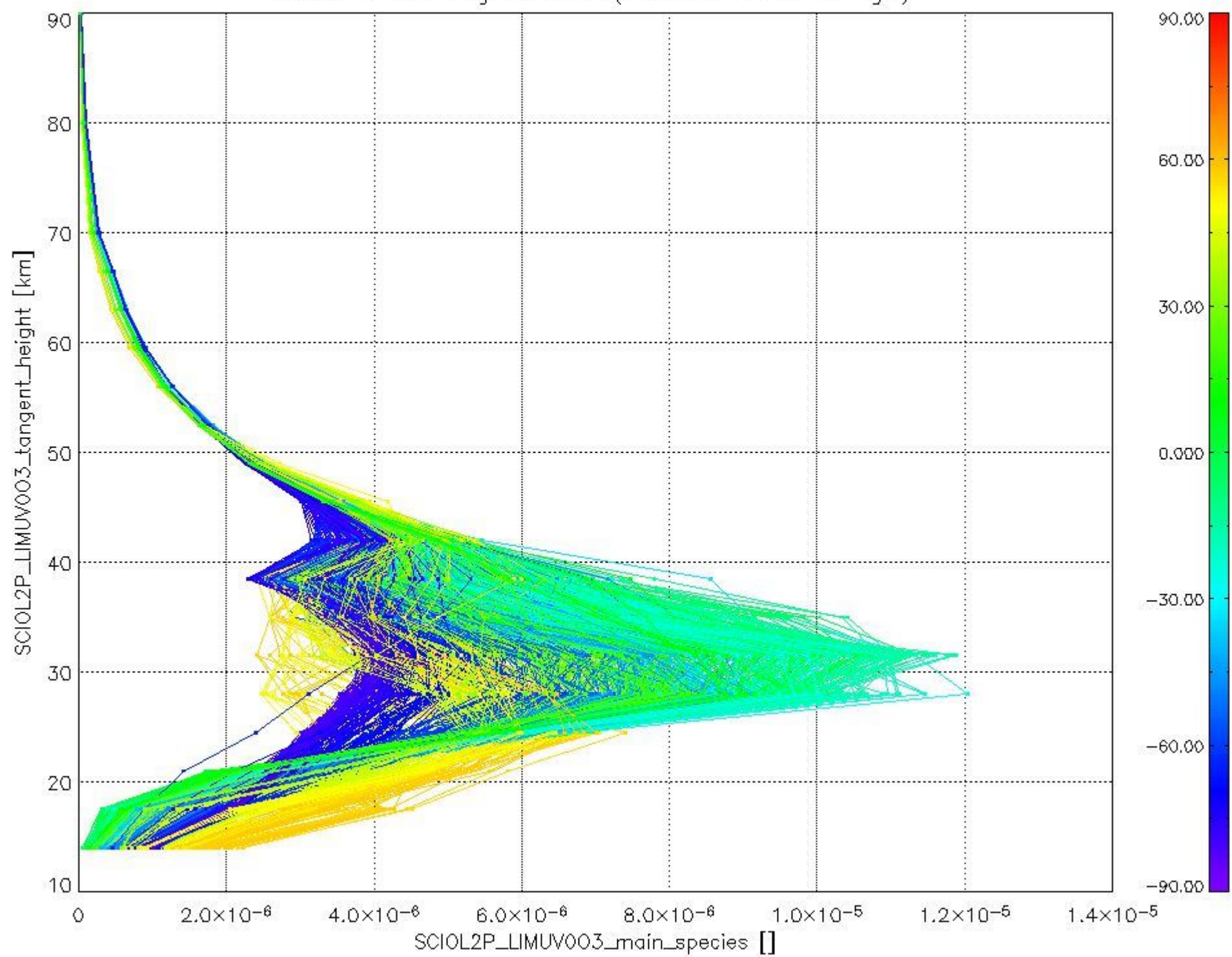
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

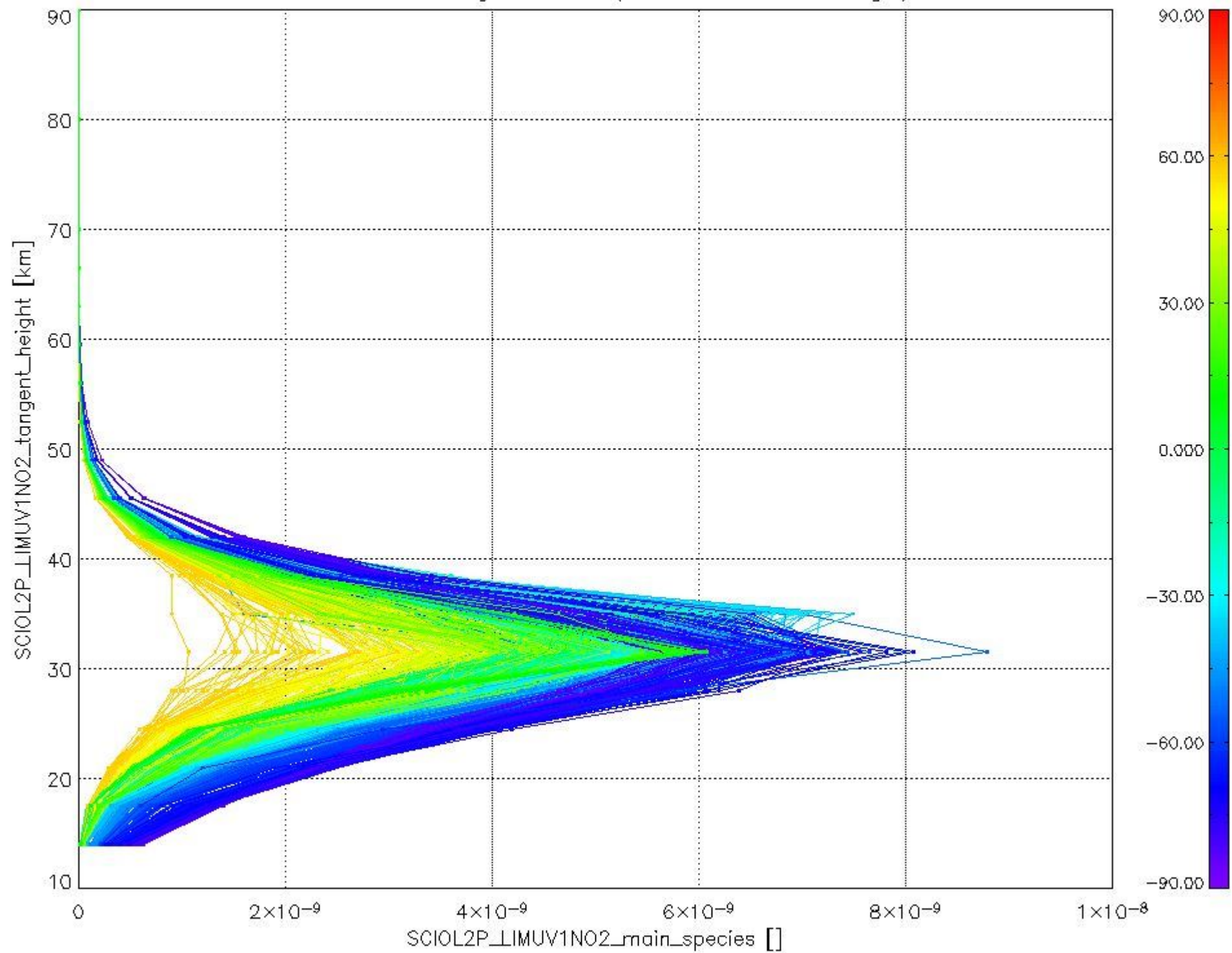
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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).



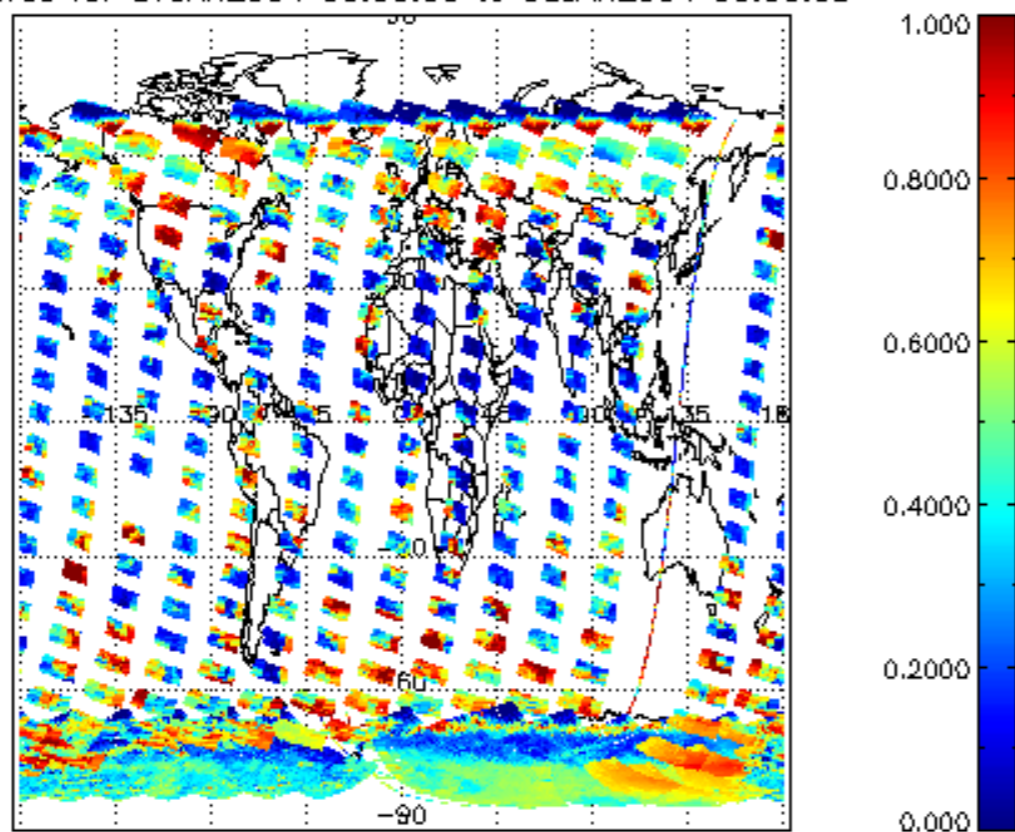
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



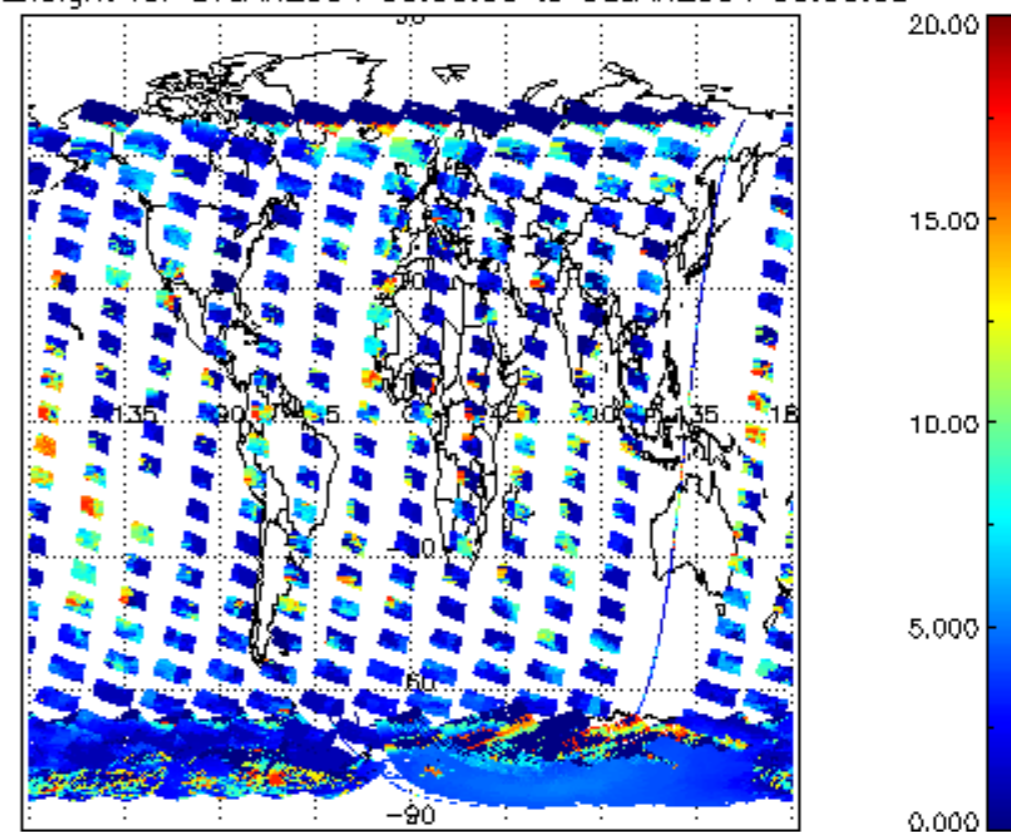
2.3 ADF monitoring

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

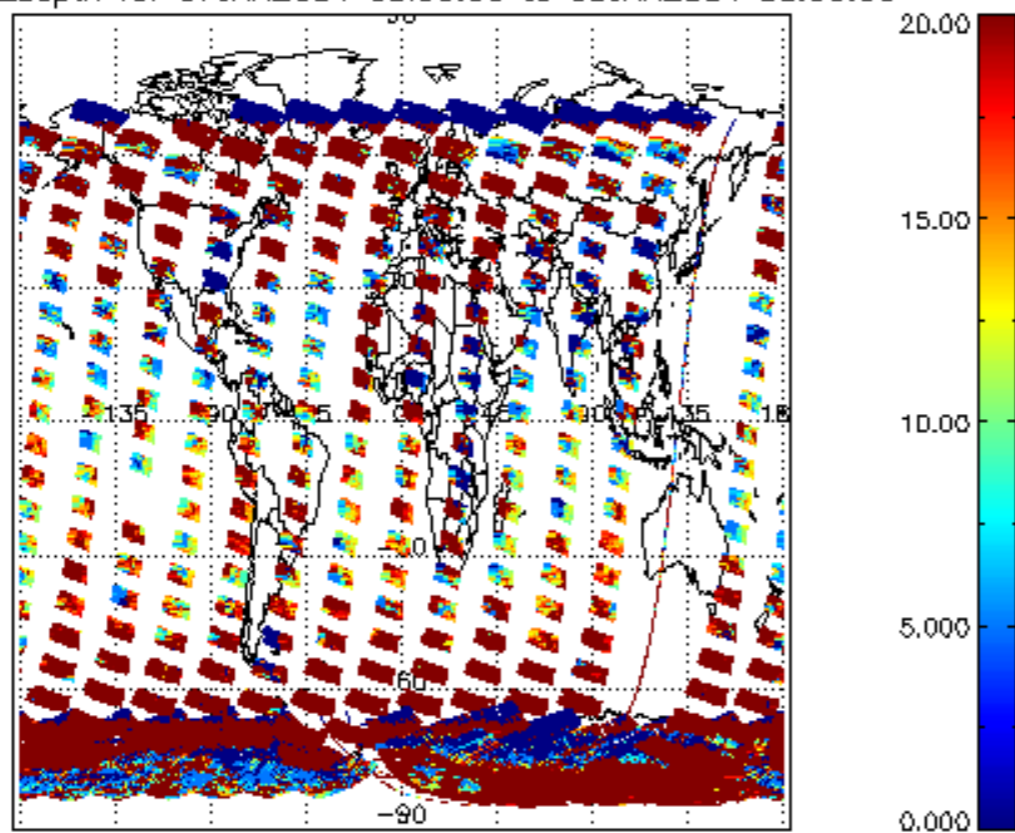
cL_frac for 07JAN2004 00:00:00 to 08JAN2004 00:00:00



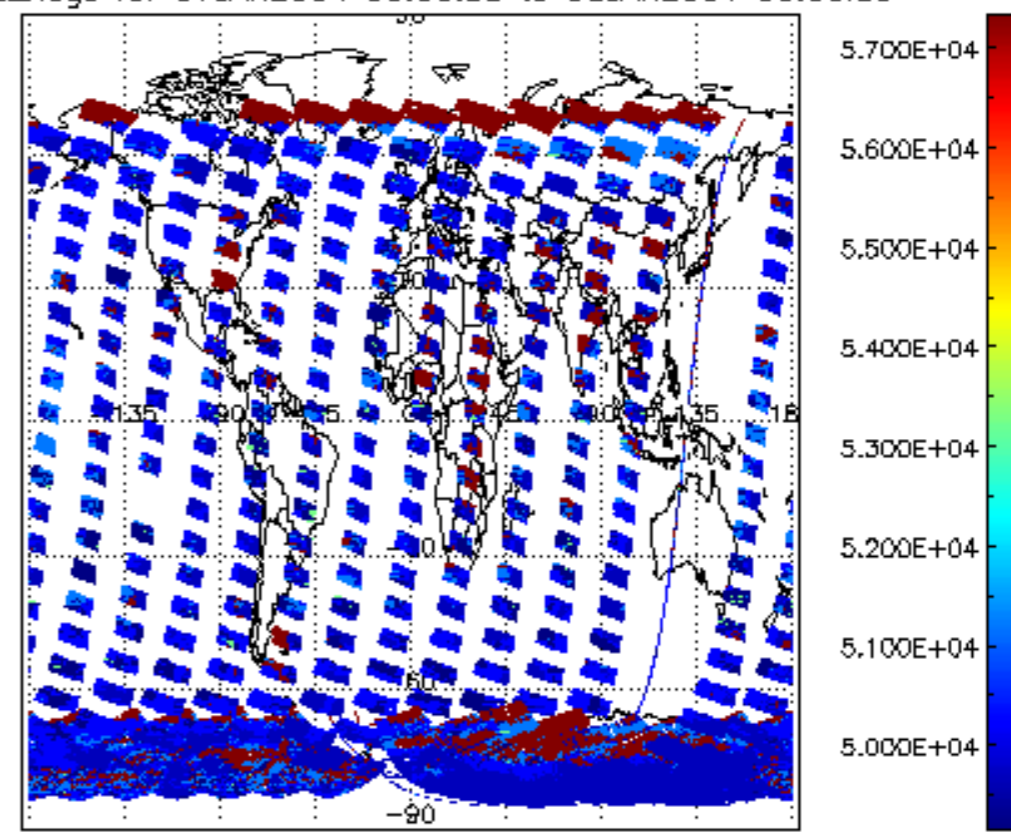
cL_top_height for 07JAN2004 00:00:00 to 08JAN2004 00:00:00

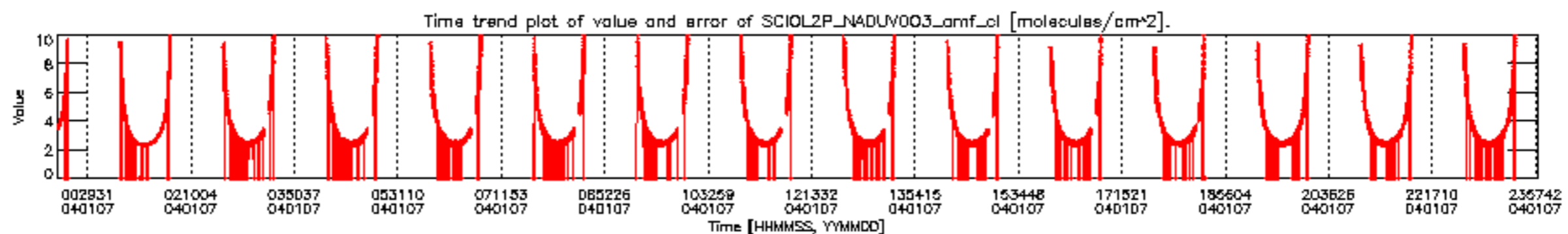
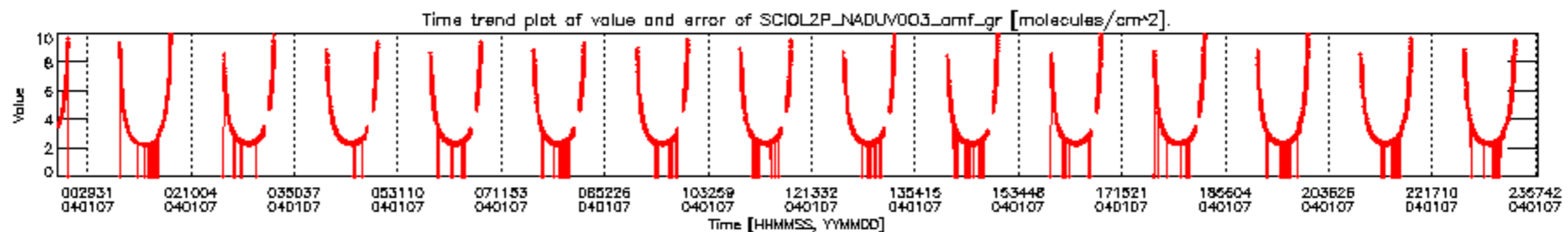
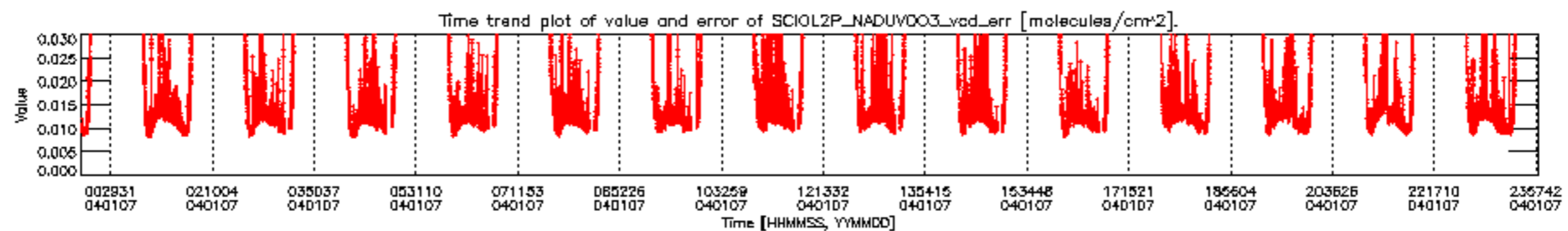
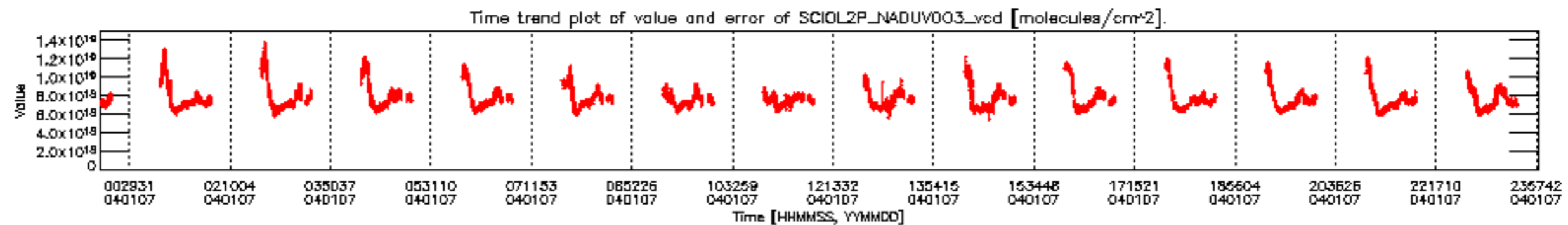


cLopt_depth for 07JAN2004 00:00:00 to 08JAN2004 00:00:00

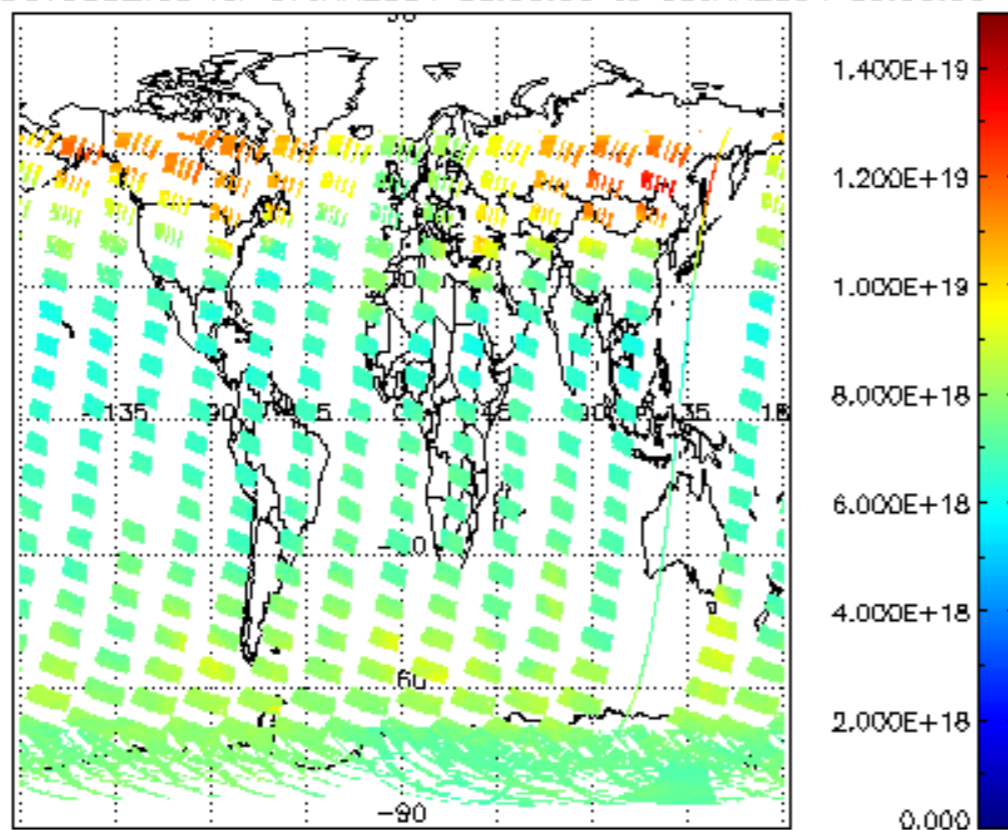


cloud_flags for 07JAN2004 00:00:00 to 08JAN2004 00:00:00

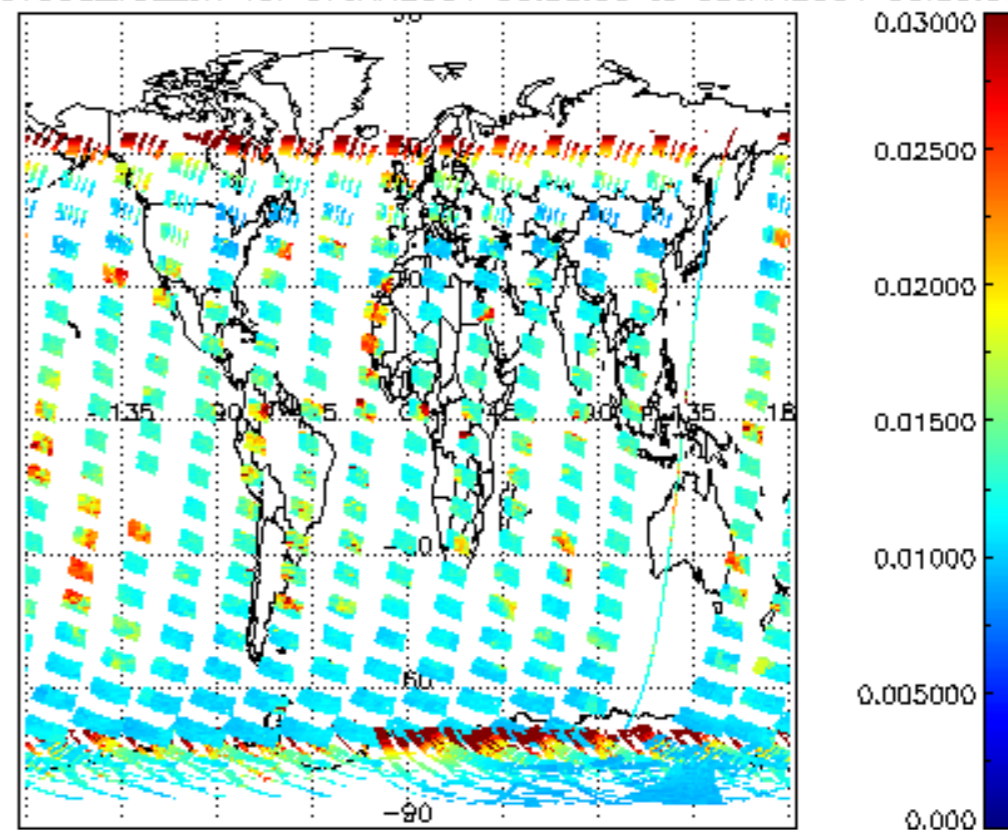




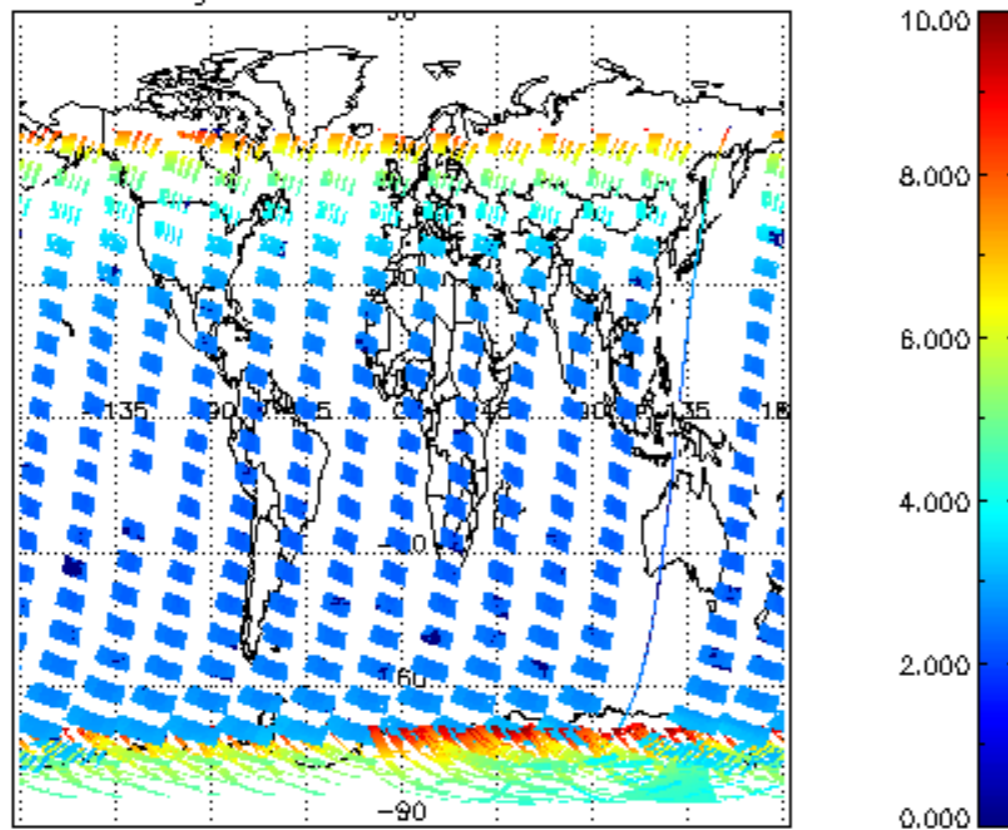
SCIOL2P_NADUV003_vcd for 07JAN2004 00:00:00 to 08JAN2004 00:00:00



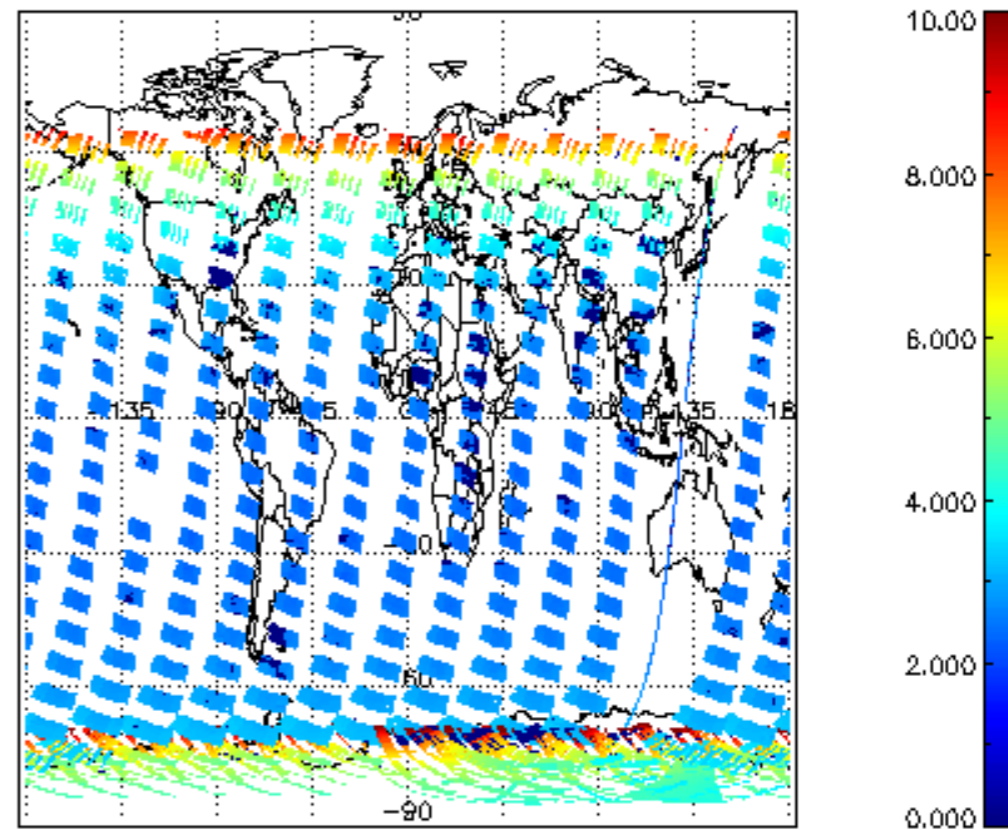
SCIOL2P_NADUV003_vcd_err for 07JAN2004 00:00:00 to 08JAN2004 00:00:00

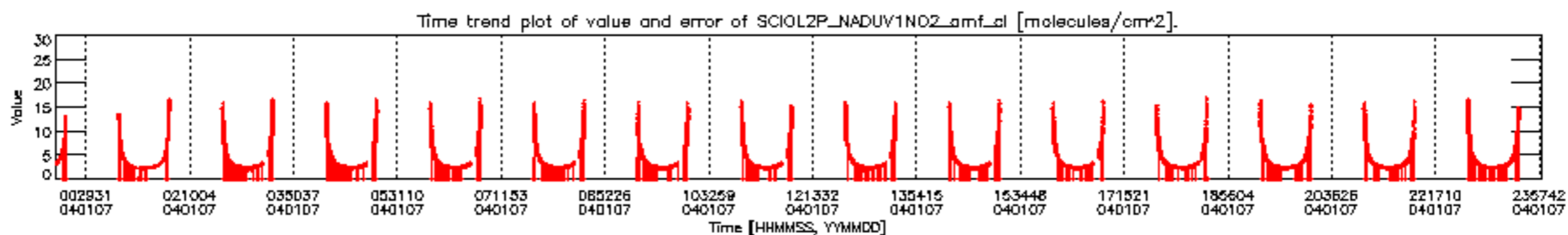
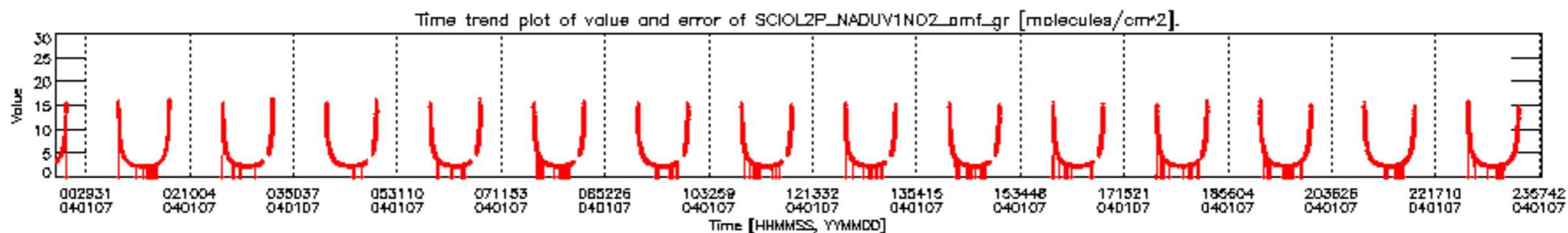
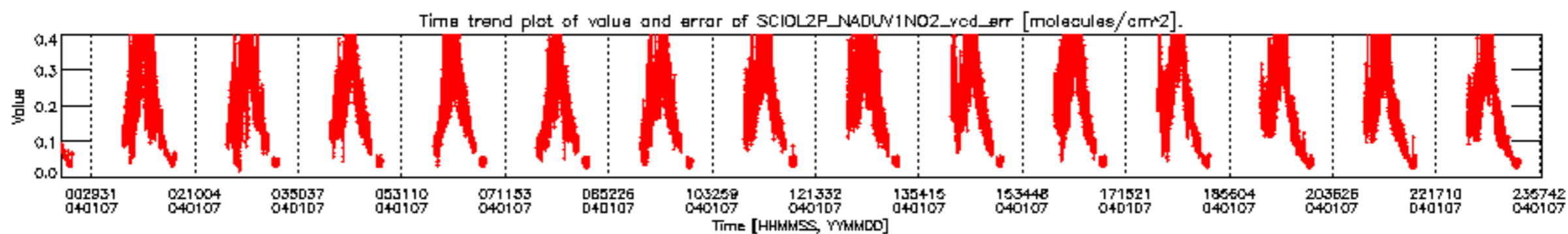
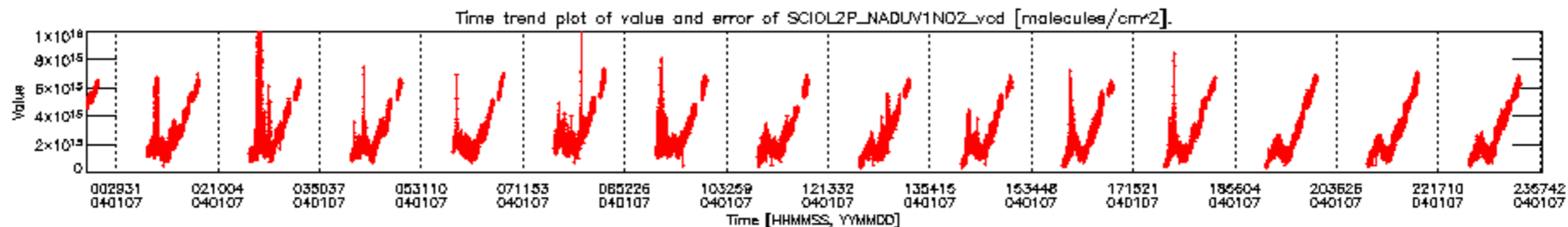


SCIOL2P_NADUV003_amf_gr for 07JAN2004 00:00:00 to 08JAN2004 00:00:00

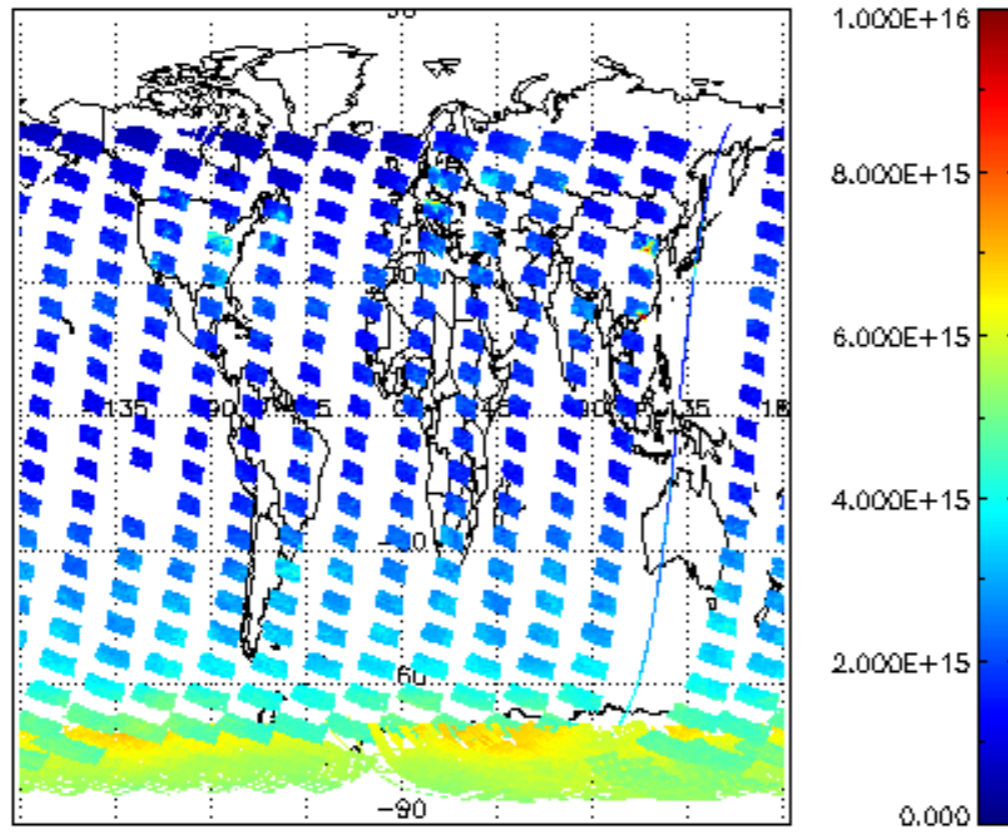


SCIOL2P_NADUV003_amf_cl for 07JAN2004 00:00:00 to 08JAN2004 00:00:00

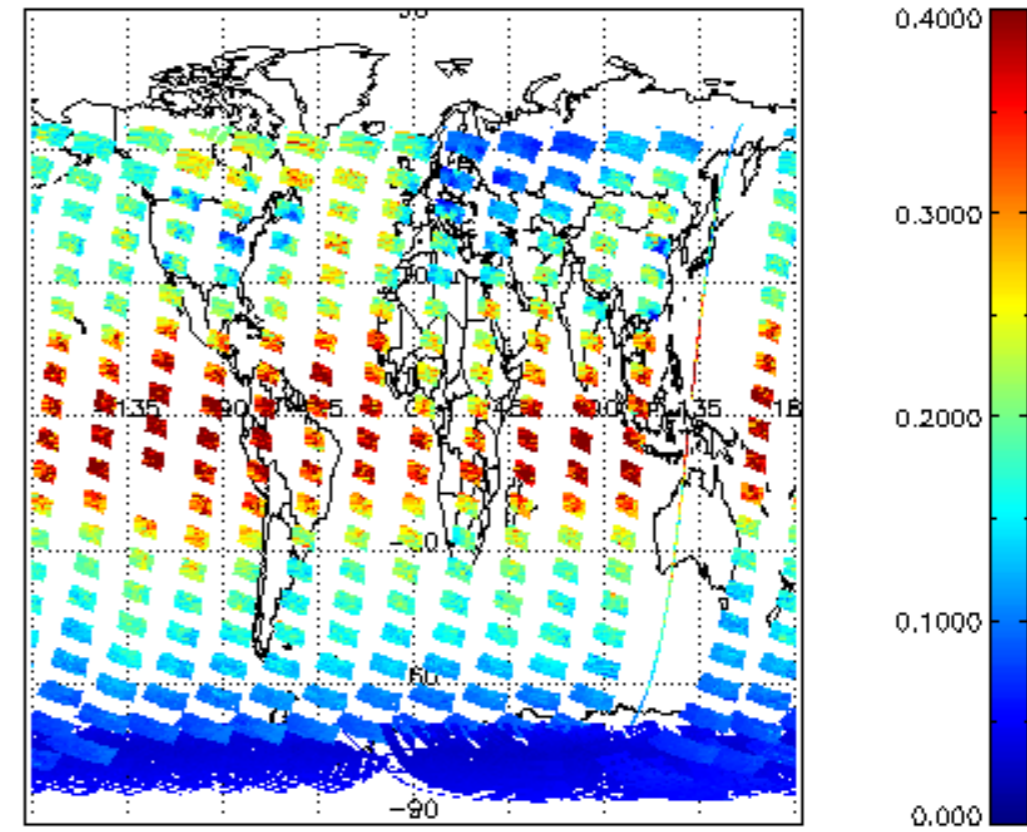




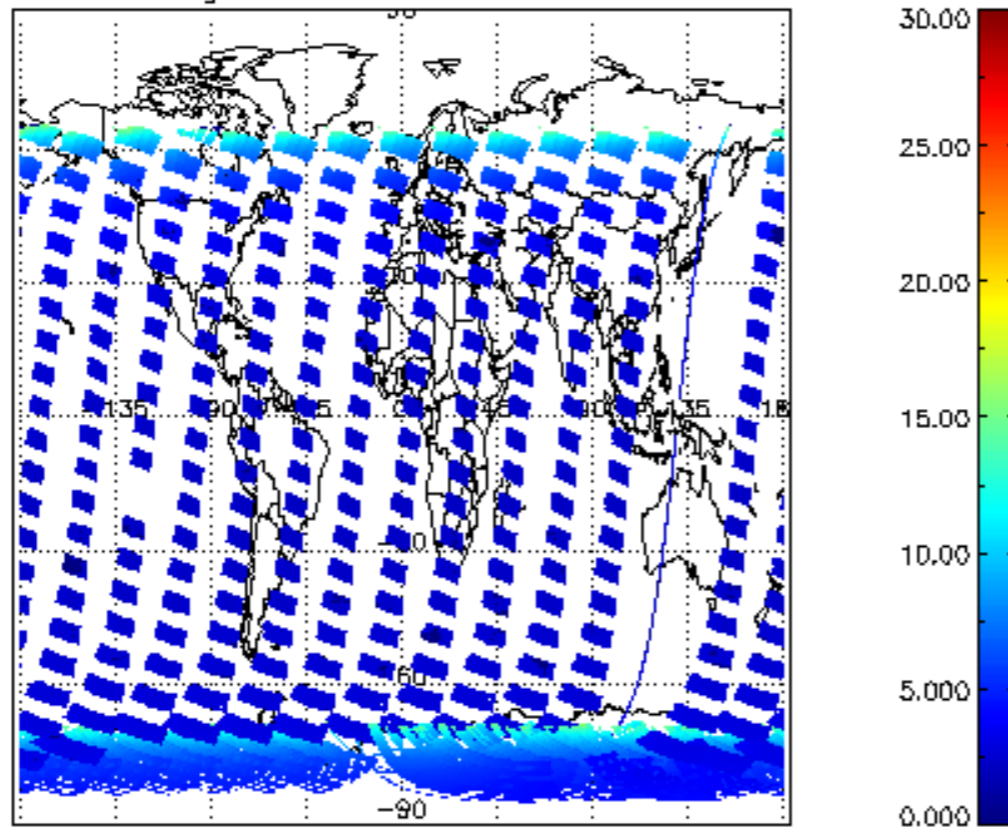
SCIOL2P_NADUV1NO2_vcd for 07JAN2004 00:00:00 to 08JAN2004 00:00:00



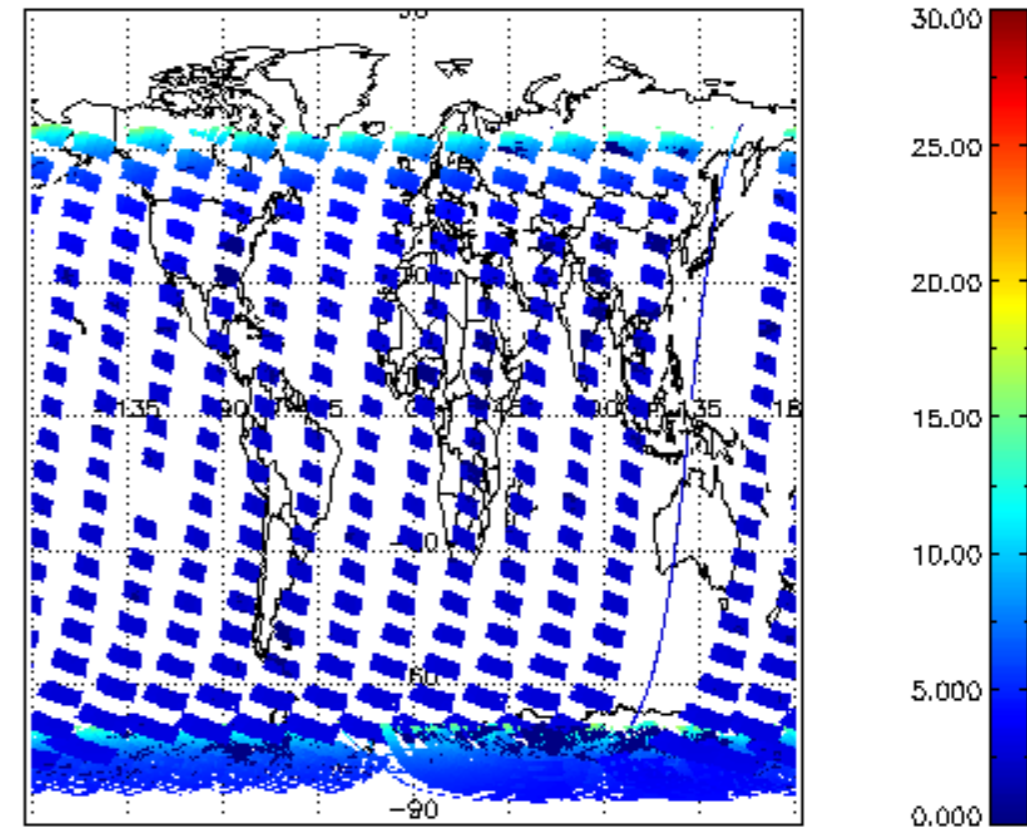
SCIOL2P_NADUV1NO2_vcd_err for 07JAN2004 00:00:00 to 08JAN2004 00:00:00



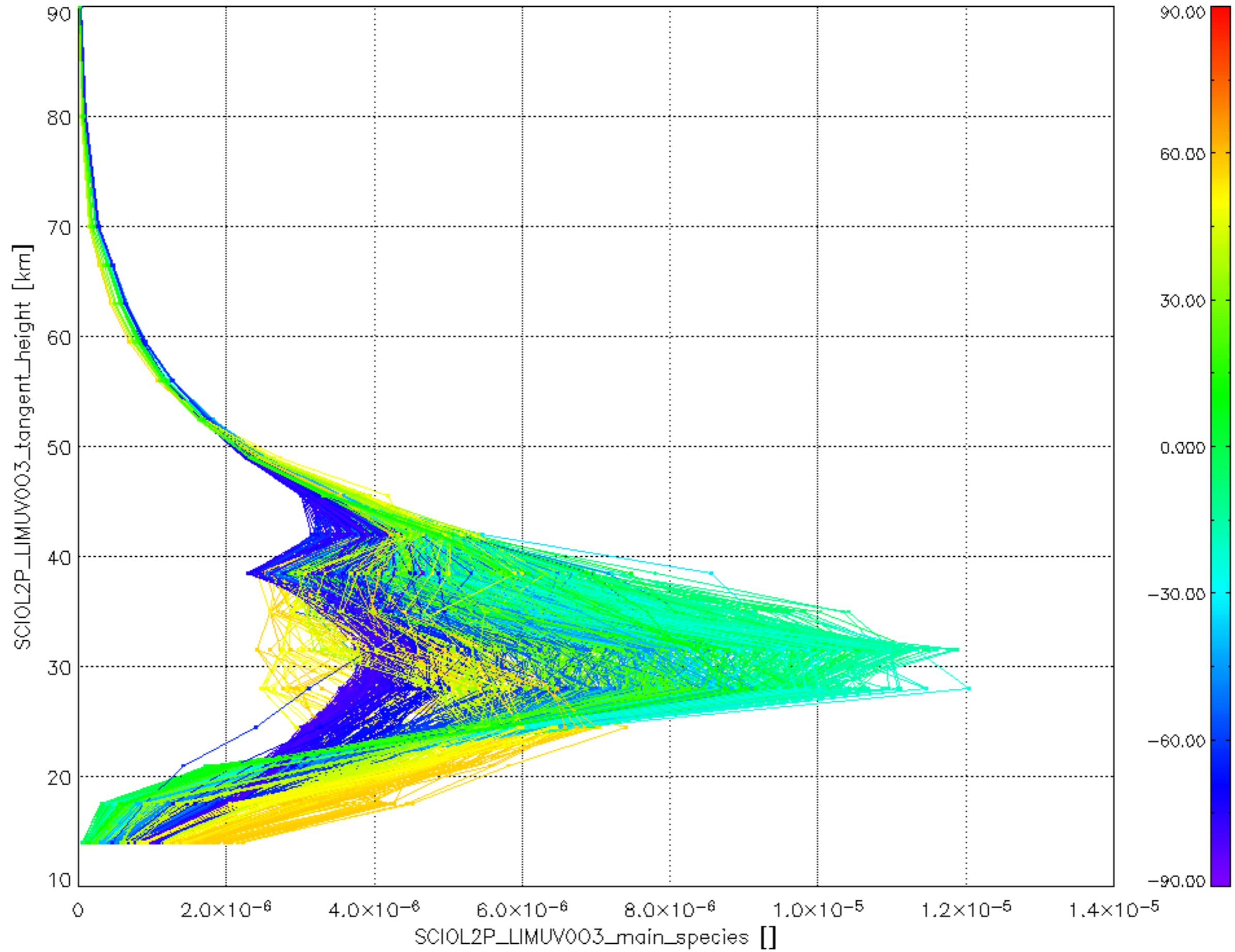
SCIOL2P_NADUV1NO2_amf_gr for 07JAN2004 00:00:00 to 08JAN2004 00:00:00



SCIOL2P_NADUV1NO2_amf_cl for 07JAN2004 00:00:00 to 08JAN2004 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).

