

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	26JUL2008 15:53:35
Data source version	SCIA-OL/3.01-R
Processing scope for products	01JAN2004 00:00:00 to 02JAN2004 00:00:00
Start time of first product within scope	31DEC2003 23:05:16
Stop time of last product within scope	02JAN2004 01:07:43
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__2PRDPA20031231_230516_000032372023_00030_09603_3431.N1	31DEC2003 23:05:16	31DEC2003 23:59:14	0	GOOD
1	SCI_OL__2PRDPA20040101_004428_000032932023_00031_09604_4045.N1	01JAN2004 00:44:28	01JAN2004 01:39:22	0	GOOD
2	SCI_OL__2PRDPA20040101_022628_000032372023_00032_09605_6290.N1	01JAN2004 02:26:28	01JAN2004 03:20:25	0	GOOD
3	SCI_OL__2PRDPA20040101_040540_000032932023_00033_09606_6054.N1	01JAN2004 04:05:40	01JAN2004 05:00:33	0	GOOD
4	SCI_OL__2PRDPA20040101_054739_000032372023_00034_09607_6403.N1	01JAN2004 05:47:39	01JAN2004 06:41:37	0	GOOD
5	SCI_OL__2PRDPA20040101_072652_000032932023_00035_09608_6254.N1	01JAN2004 07:26:52	01JAN2004 08:21:45	0	GOOD
6	SCI_OL__2PRDPA20040101_090851_000032372023_00036_09609_6251.N1	01JAN2004 09:08:51	01JAN2004 10:02:48	0	GOOD
7	SCI_OL__2PRDPA20040101_104803_000032932023_00037_09610_6070.N1	01JAN2004 10:48:03	01JAN2004 11:42:56	0	GOOD
8	SCI_OL__2PRDPA20040101_123002_000032372023_00038_09611_6140.N1	01JAN2004 12:30:02	01JAN2004 13:24:00	0	GOOD
9	SCI_OL__2PRDPA20040101_140915_000032932023_00039_09612_6394.N1	01JAN2004 14:09:15	01JAN2004 15:04:08	0	GOOD
10	SCI_OL__2PRDPA20040101_155114_000032372023_00040_09613_6398.N1	01JAN2004 15:51:14	01JAN2004 16:45:11	0	GOOD
11	SCI_OL__2PRDPA20040101_172947_000033792023_00041_09614_6055.N1	01JAN2004 17:29:47	01JAN2004 18:26:06	0	GOOD
12	SCI_OL__2PRDPA20040101_191032_000033772023_00042_09615_6267.N1	01JAN2004 19:10:32	01JAN2004 20:06:49	0	GOOD
13	SCI_OL__2PRDPA20040101_205138_000032932023_00043_09616_6162.N1	01JAN2004 20:51:38	01JAN2004 21:46:31	0	GOOD
14	SCI_OL__2PRDPA20040101_223337_000032372023_00044_09617_6177.N1	01JAN2004 22:33:37	01JAN2004 23:27:35	0	GOOD
15	SCI_OL__2PRDPA20040102_001249_000032932023_00045_09618_6353.N1	02JAN2004 00:12:49	02JAN2004 01:07:43	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: 113680

Total number of cloud data DSRs with good quality flag (=0): 113680 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	113680	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	113680	0.21794	0.25000	0.12500	0.50000	0.086407	s
CL_FRAC	113680	0.47303	0.49187	0.0000	1.0000	0.27537	-

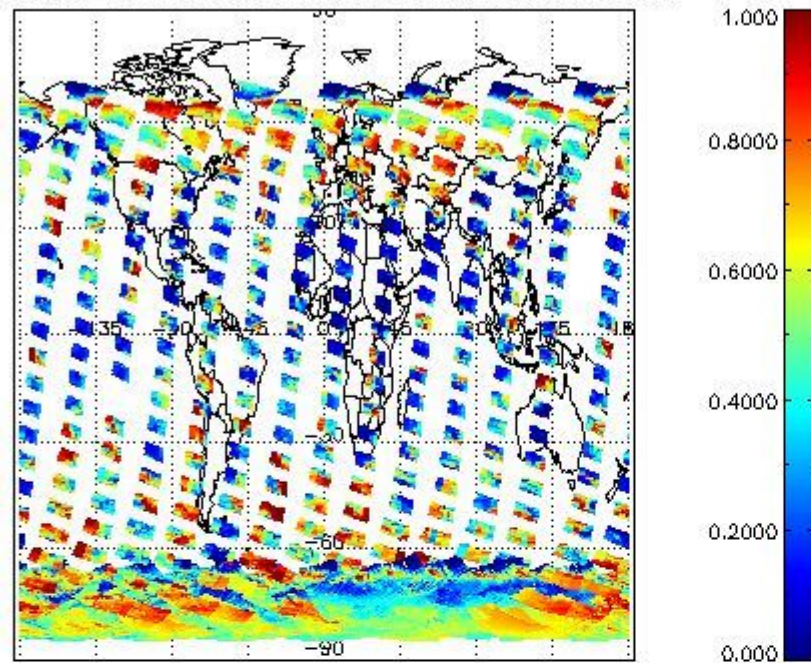
CL_FRAC_ERR	113680	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	113680	6.9740	8.0000	4.0000	16.000	2.7650	
PMD_READ_CL[0]	113680	0.34303	0.0000	0.0000	16.000	1.4000	-
PMD_READ_CL[1]	113680	0.34482	0.0000	0.0000	16.000	1.6216	-
CL_TOP_HEIGHT	103337	4.3198	3.2080	0.0000	17.000	3.8098	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	103337	49.257	32.918	0.0000	101.00	38.607	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	113680	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	113680	11000110	11000010	11000000	11100000	2440.0	flags
AERO_ABSO_IND	113680	0.49455	0.19027	-4.4590	11.691	1.1948	
AERO_IND_DIAG	113680	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	113680	01100111	11000000	00000000	11000000	24498.	flags

Time and geolocation plots:

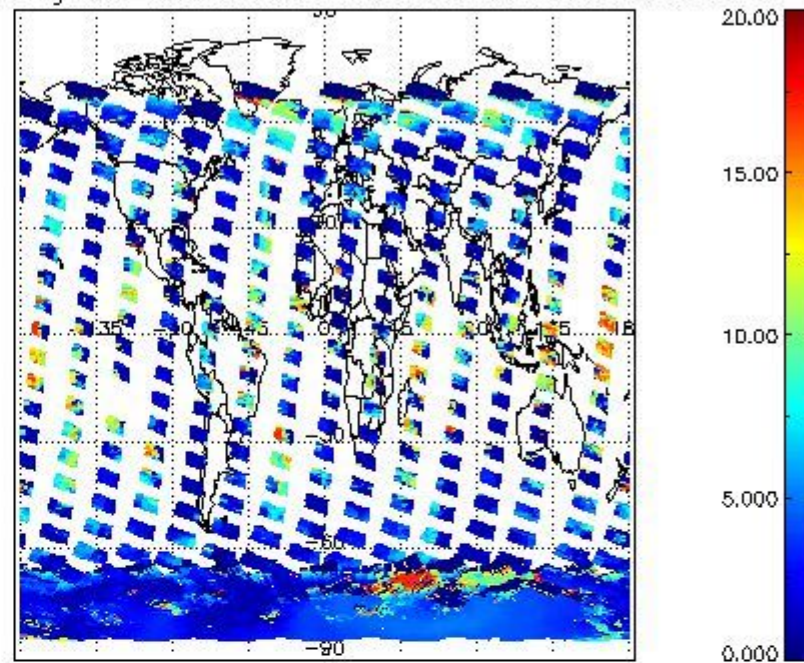
Plots are available for the following parameters:

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

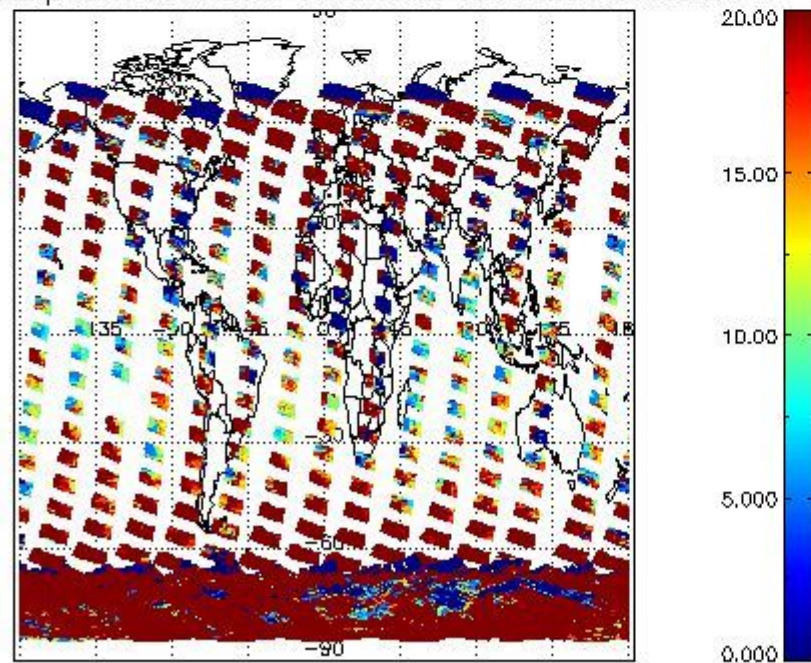
cL_frac for 01JAN2004 00:00:00 to 02JAN2004 00:00:00



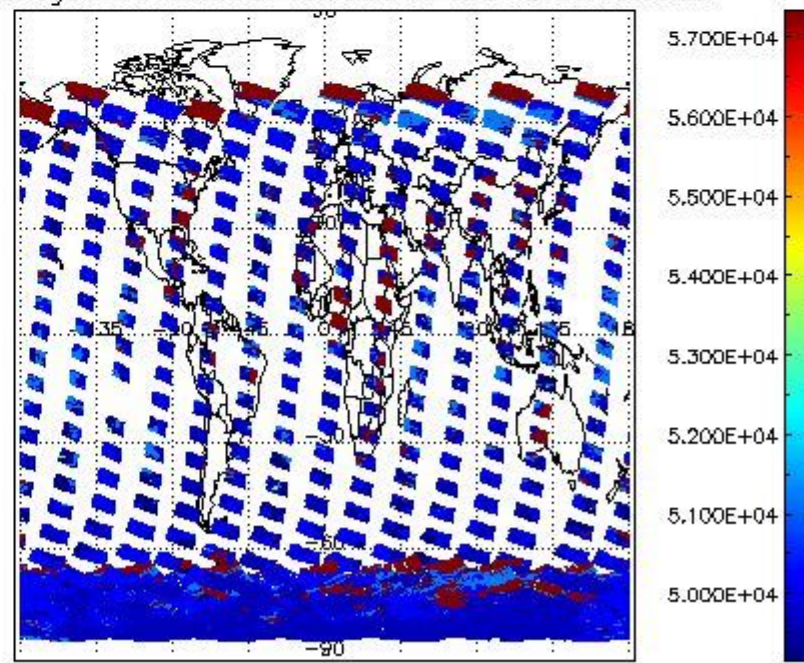
cL_top_height for 01JAN2004 00:00:00 to 02JAN2004 00:00:00



cLopt_depth for 01JAN2004 00:00:00 to 02JAN2004 00:00:00



cloud_flags for 01JAN2004 00:00:00 to 02JAN2004 00:00:00



2.2.2 Nadir

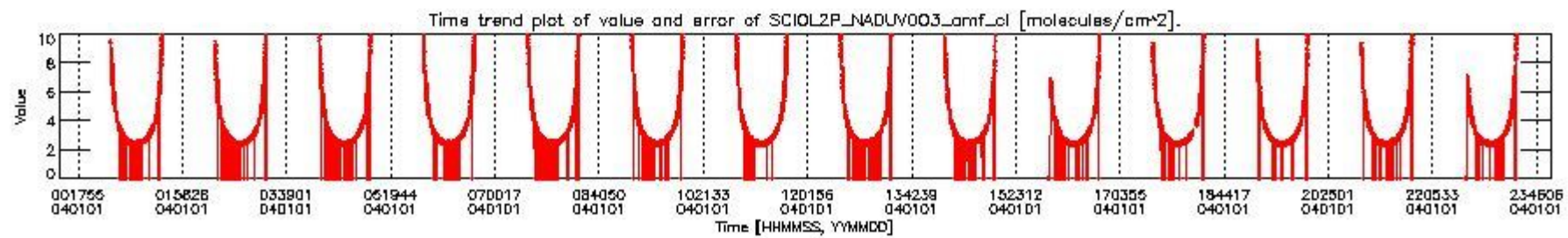
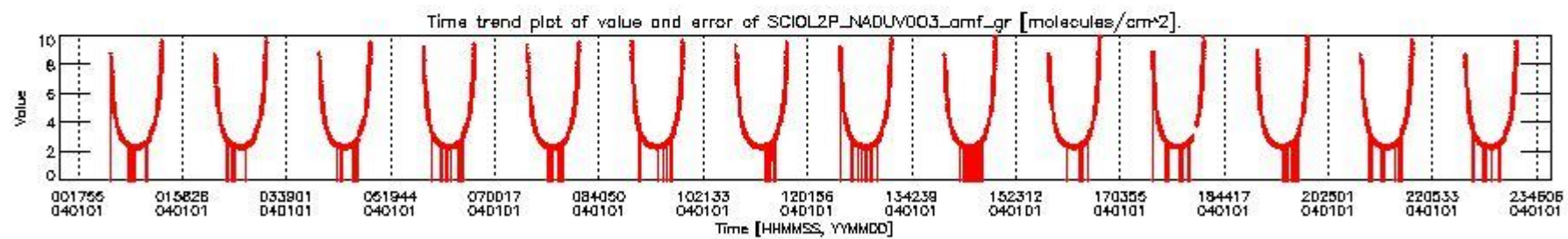
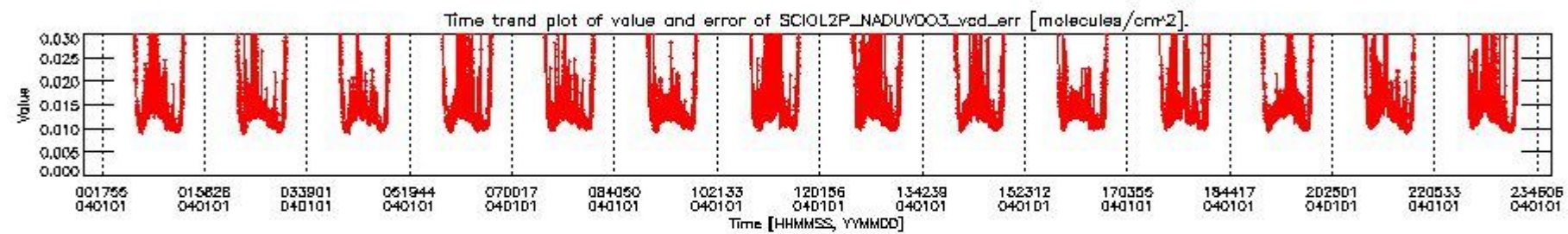
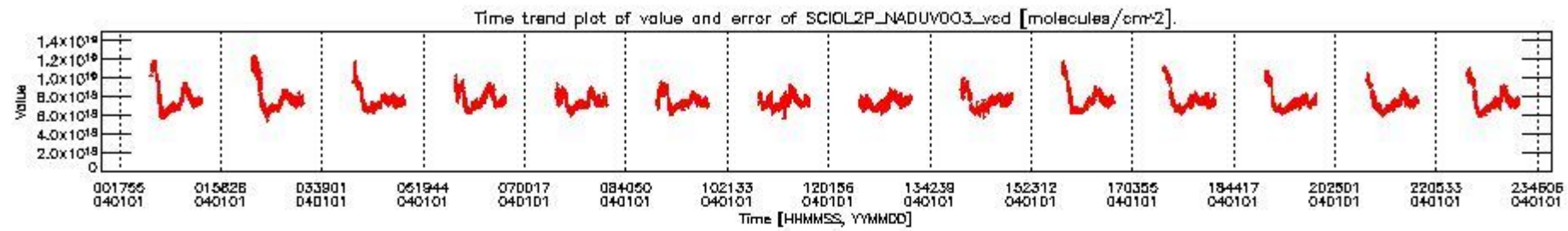
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

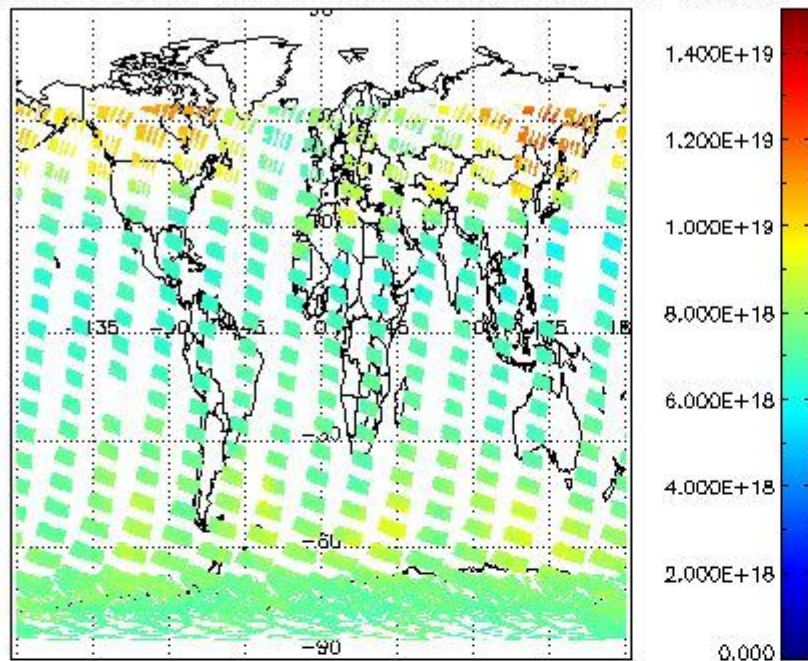
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

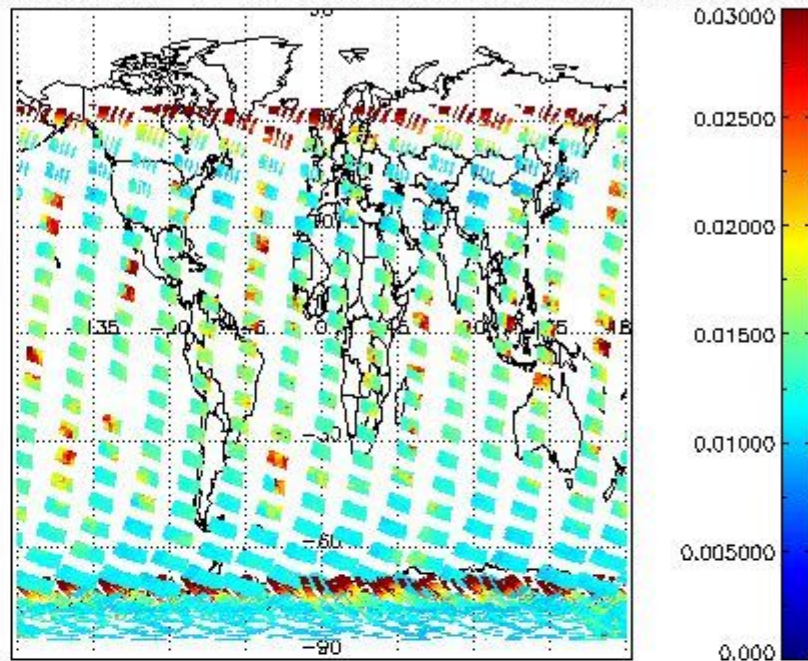
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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



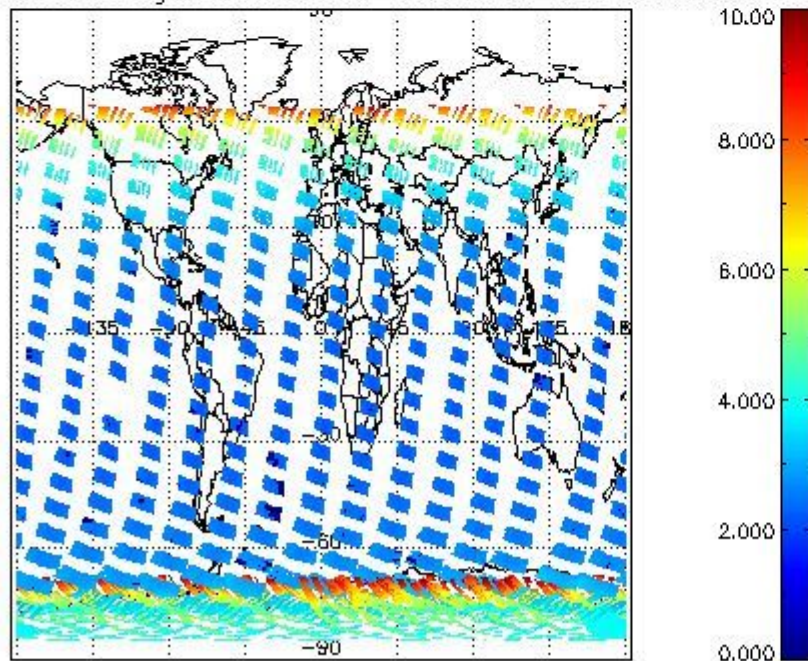
SCIOL2P_NADUV003_vcd for 01JAN2004 00:00:00 to 02JAN2004 00:00:00



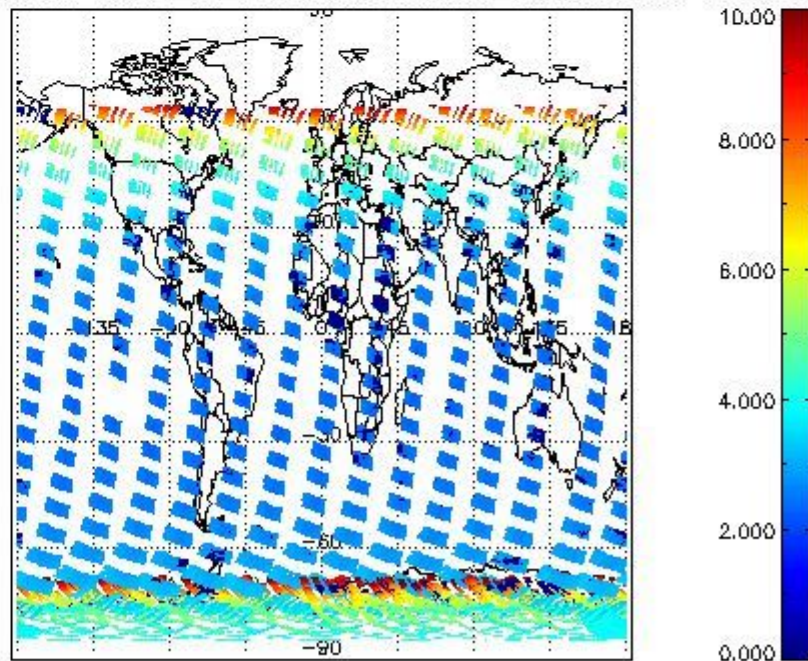
SCIOL2P_NADUV003_vcd_err for 01JAN2004 00:00:00 to 02JAN2004 00:00:00

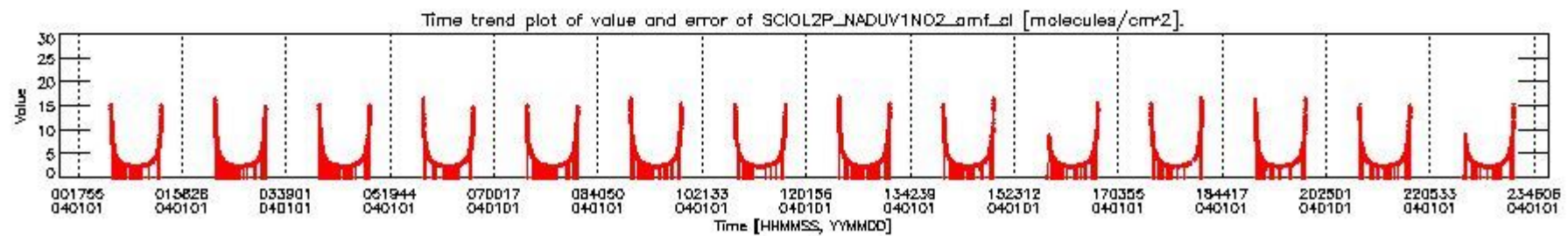
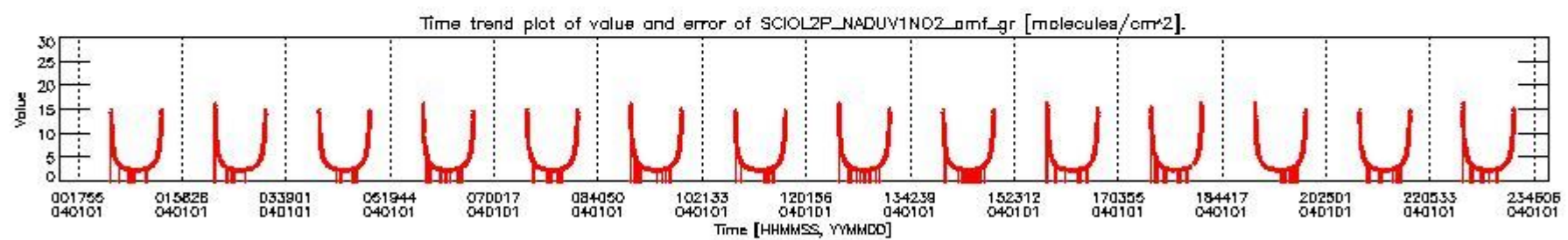
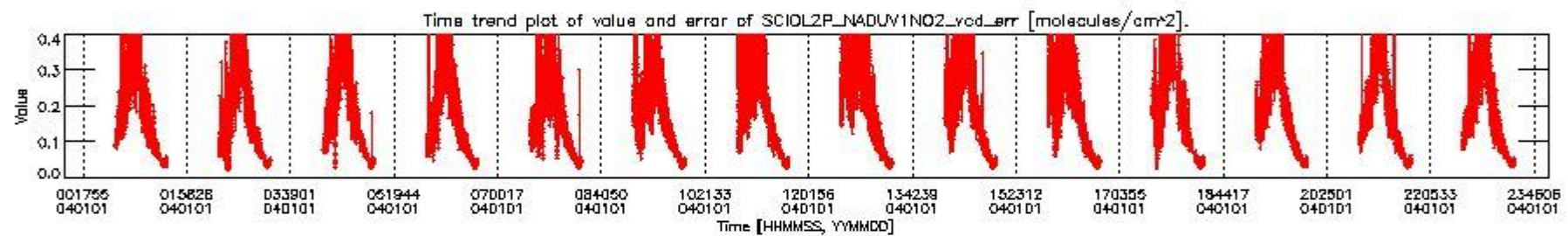
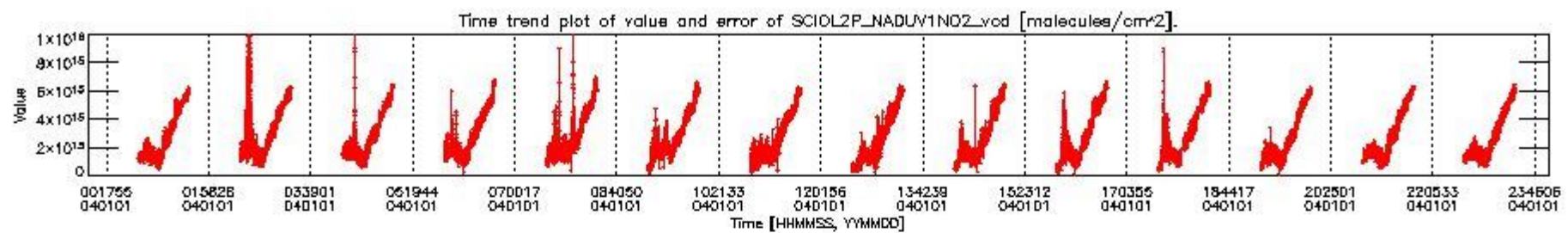


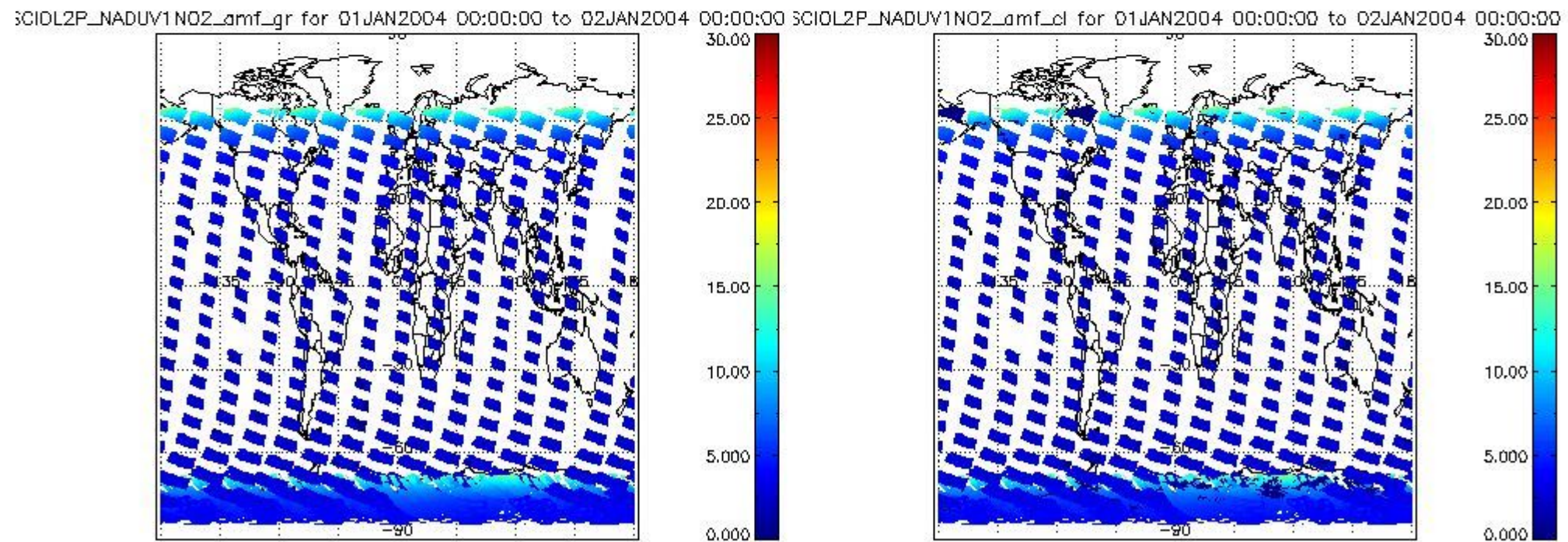
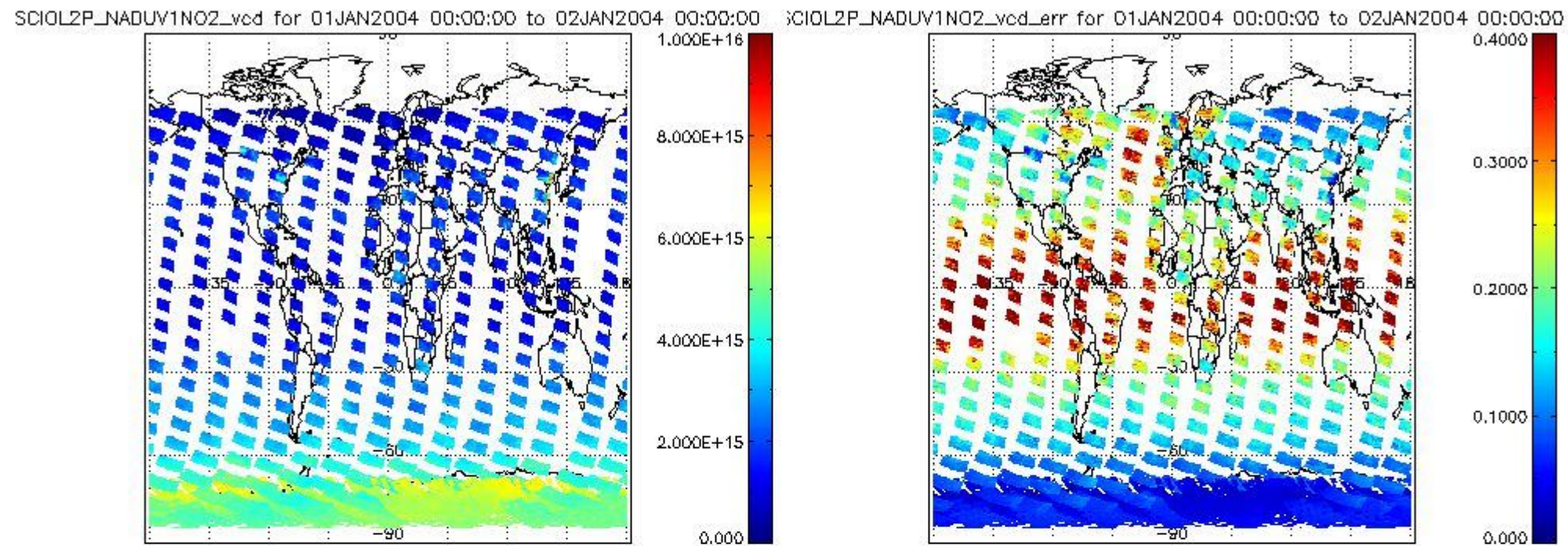
SCIOL2P_NADUV003_amf_gr for 01JAN2004 00:00:00 to 02JAN2004 00:00:00



SCIOL2P_NADUV003_amf_cl for 01JAN2004 00:00:00 to 02JAN2004 00:00:00







2.2.3 Limb

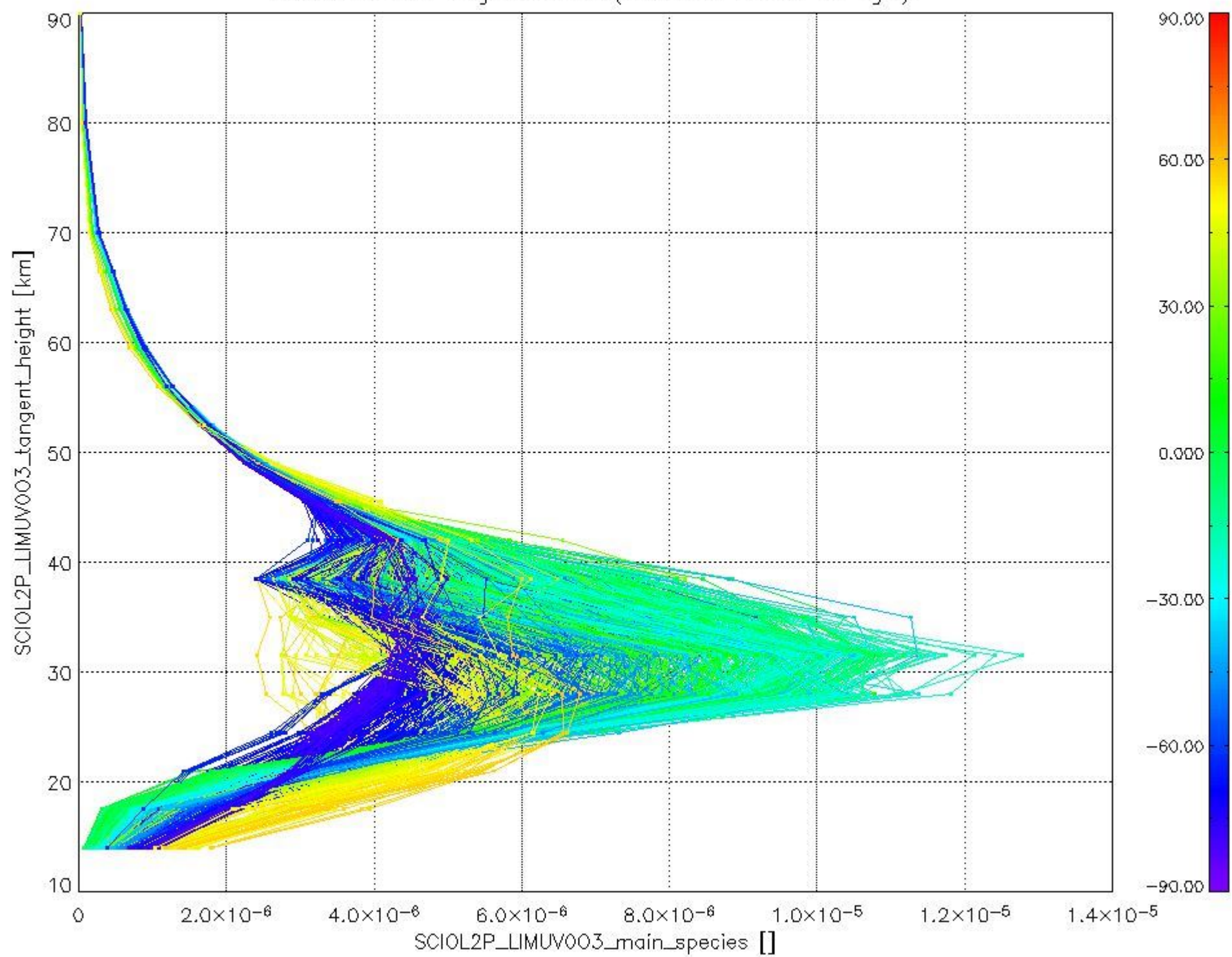
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

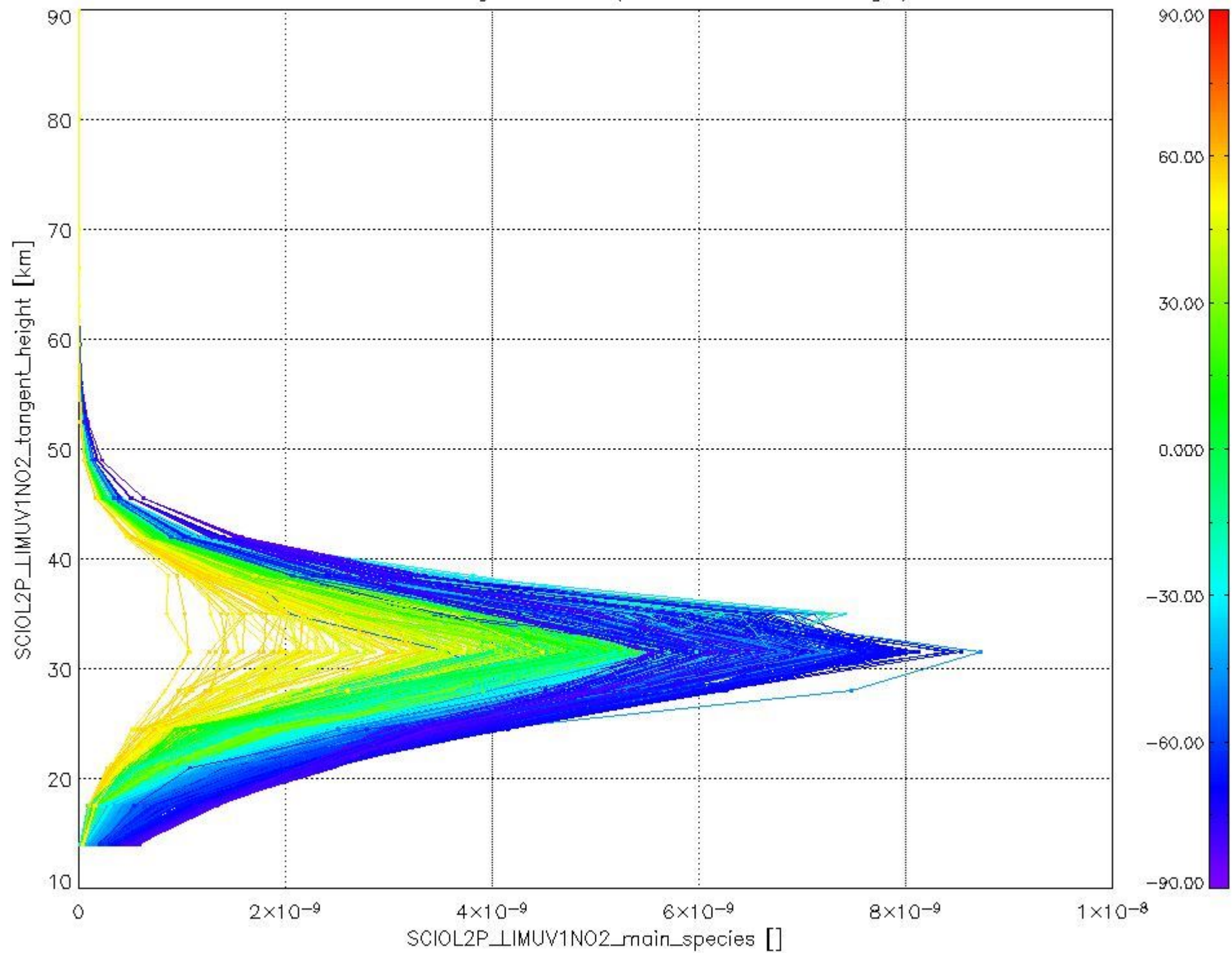
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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).



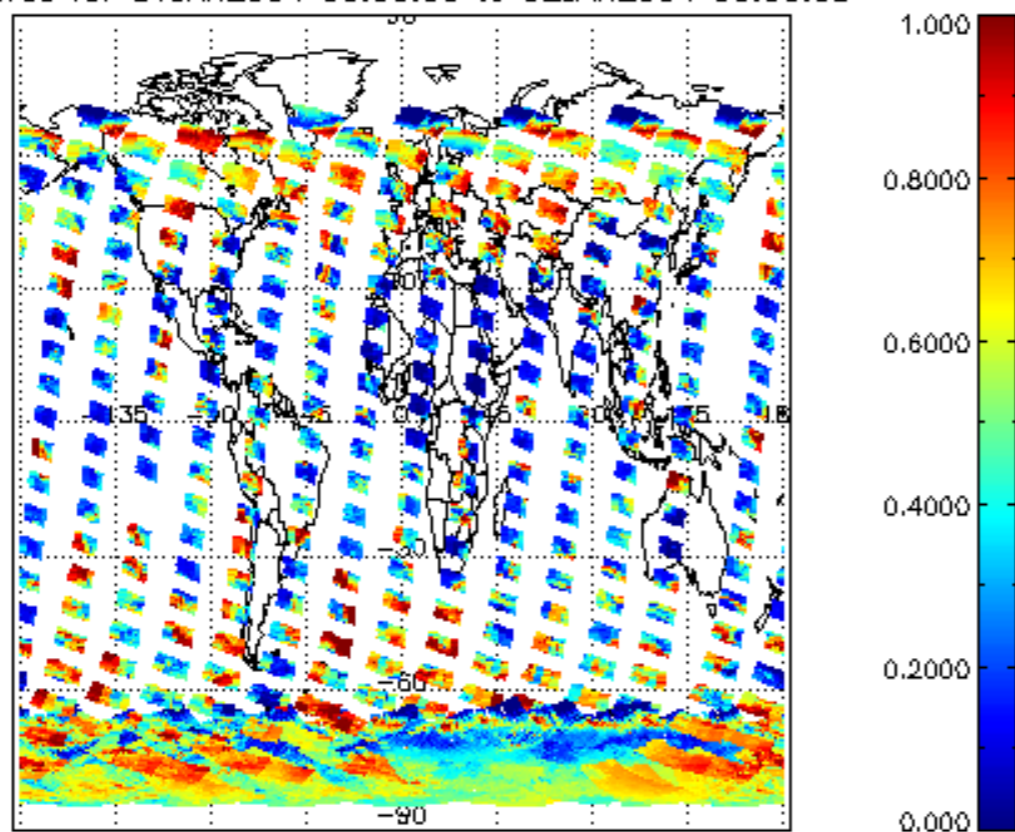
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



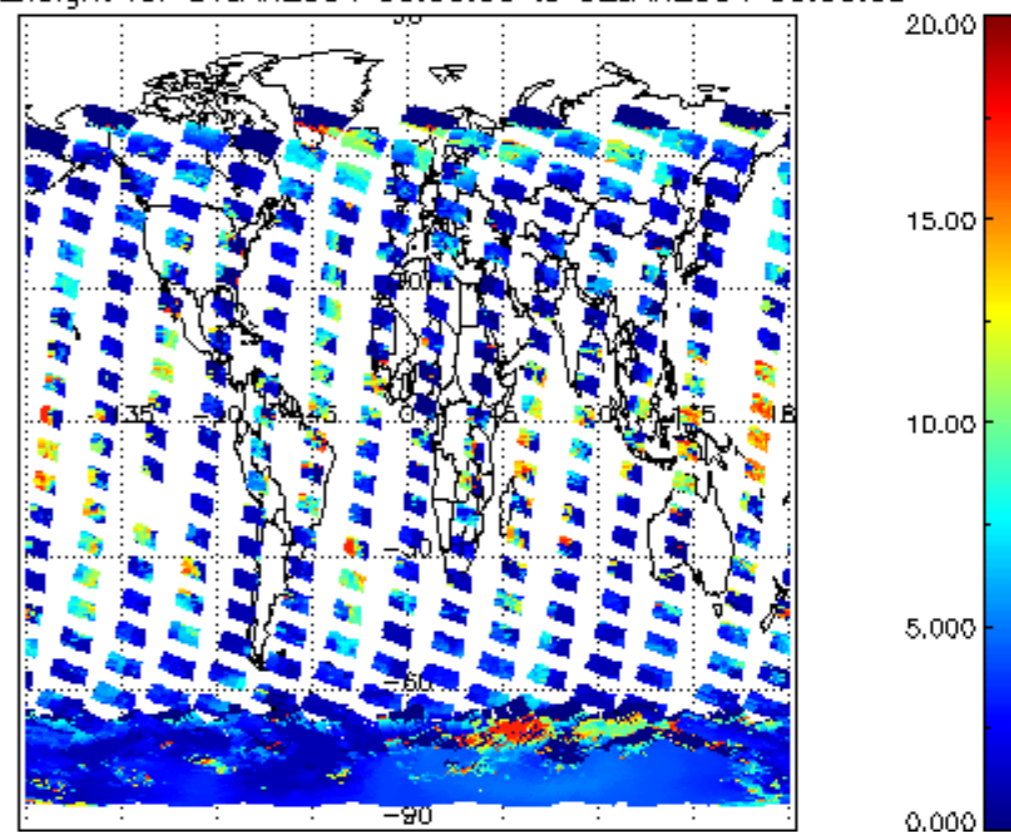
2.3 ADF monitoring

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

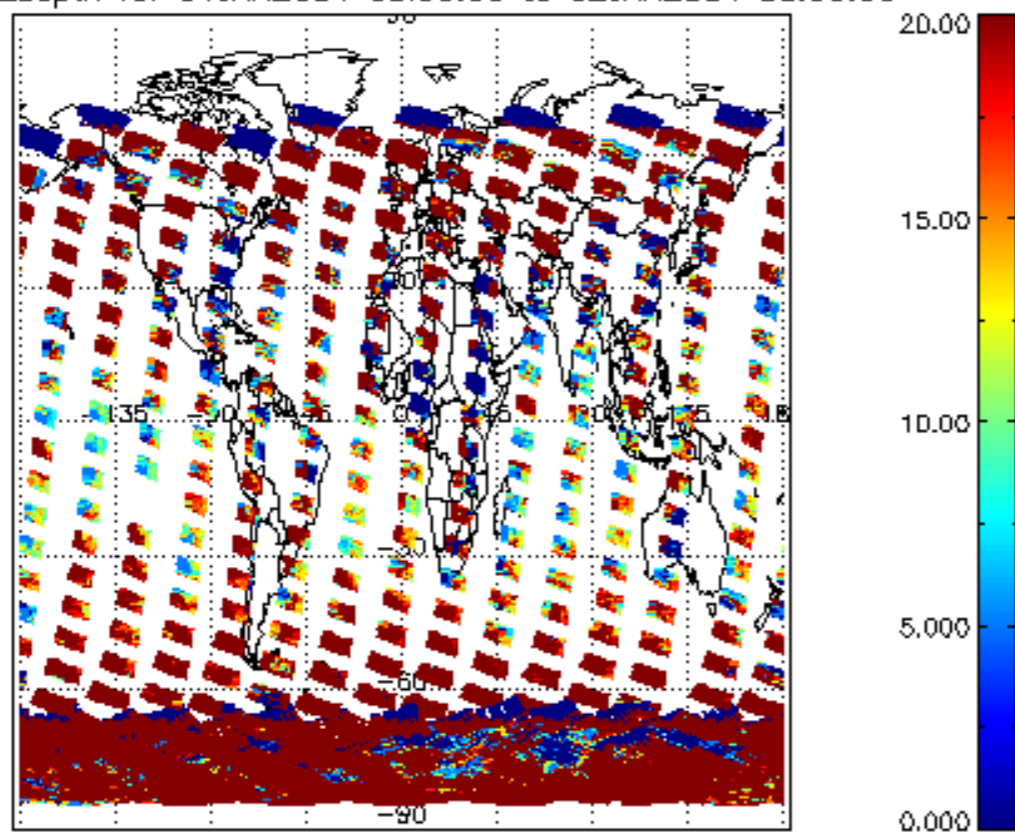
cL_frac for 01JAN2004 00:00:00 to 02JAN2004 00:00:00



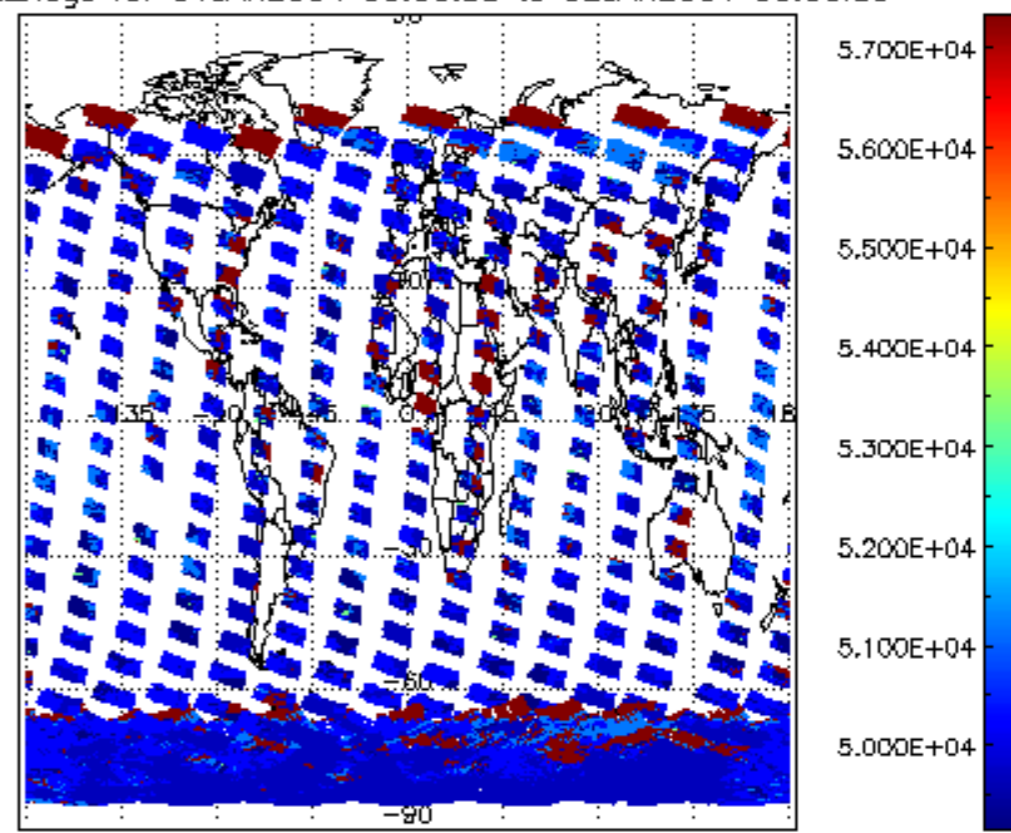
cL_top_height for 01JAN2004 00:00:00 to 02JAN2004 00:00:00

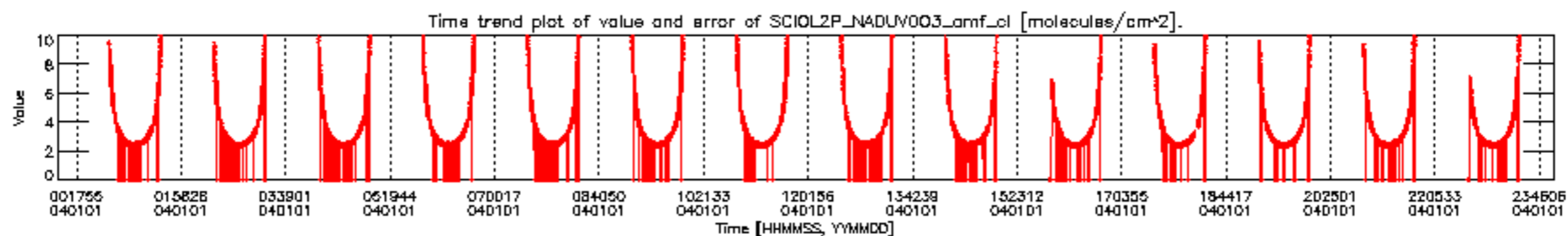
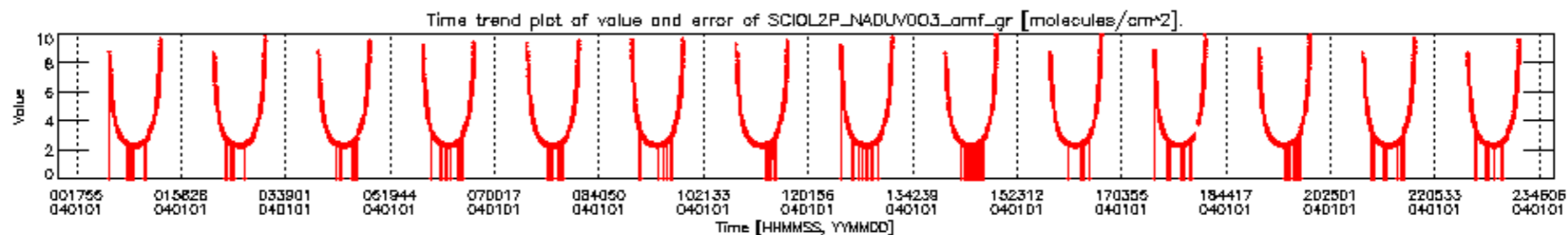
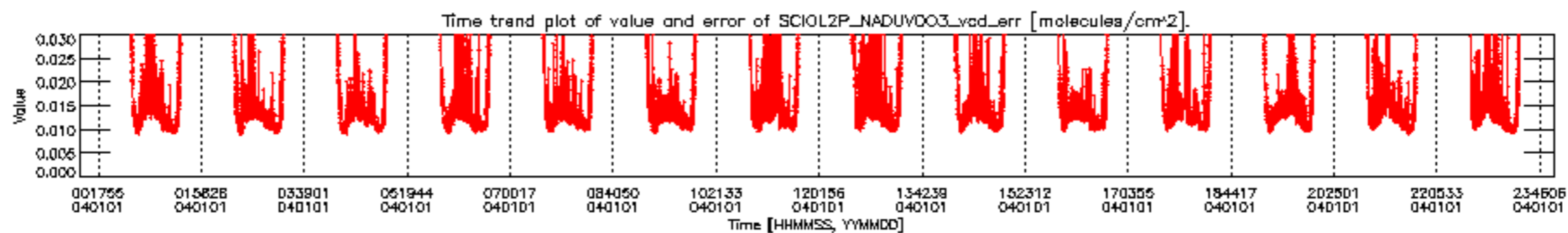
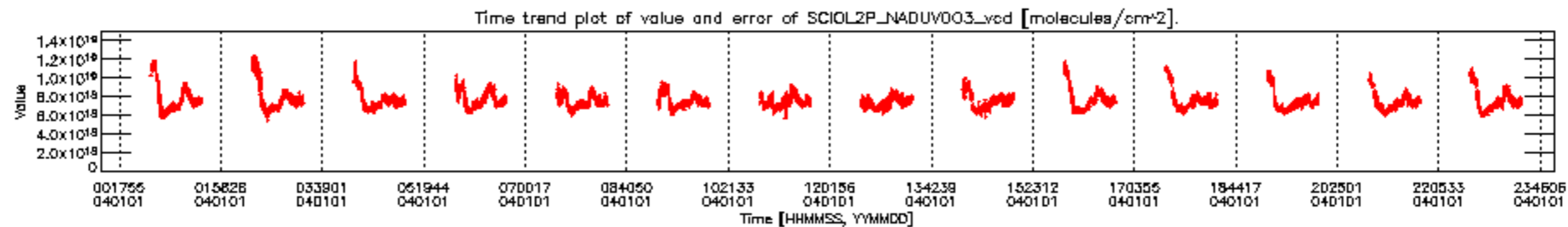


cLopt_depth for 01JAN2004 00:00:00 to 02JAN2004 00:00:00

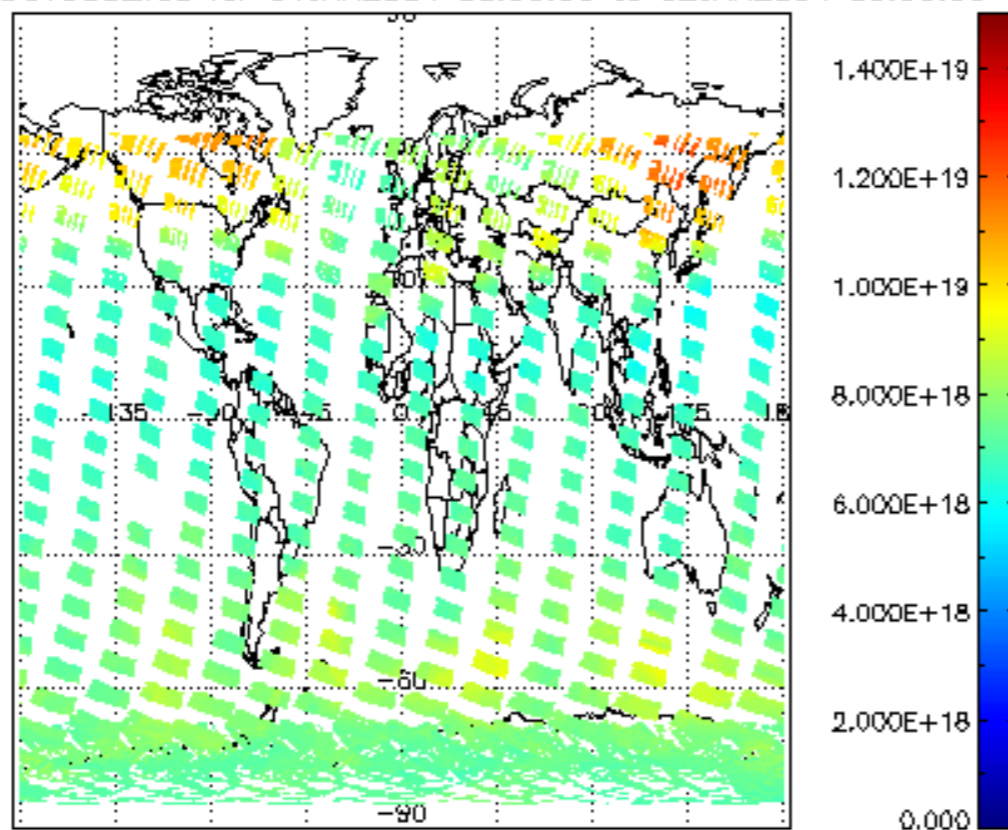


cloud_flags for 01JAN2004 00:00:00 to 02JAN2004 00:00:00

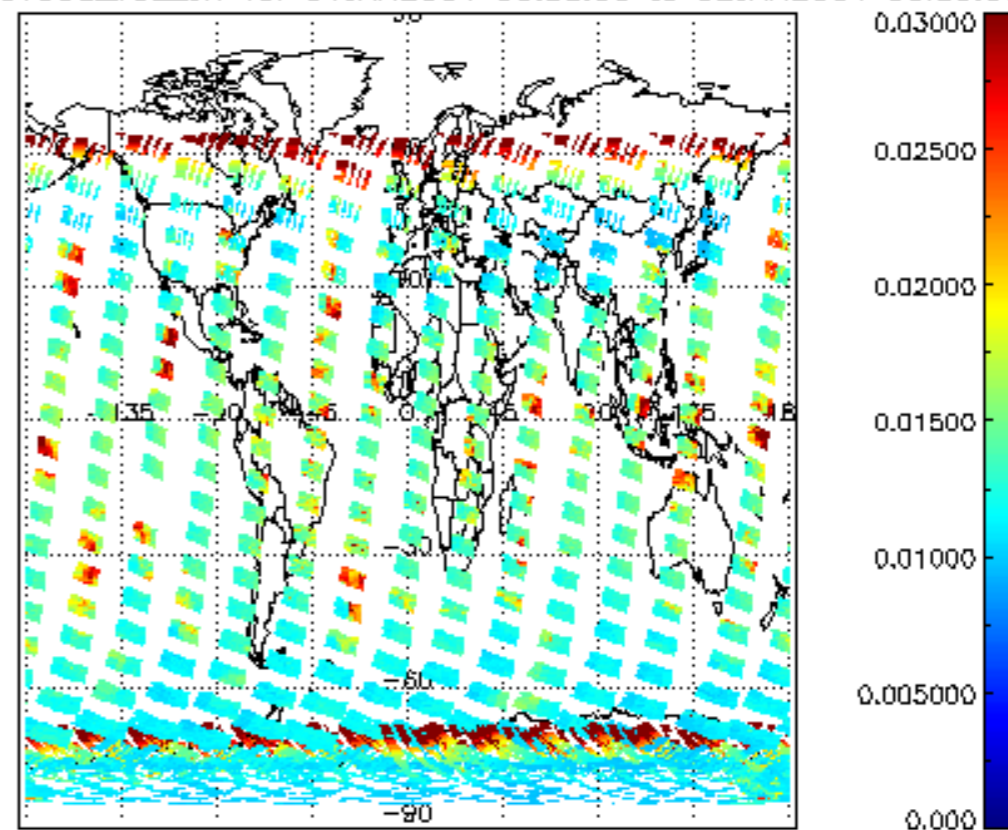




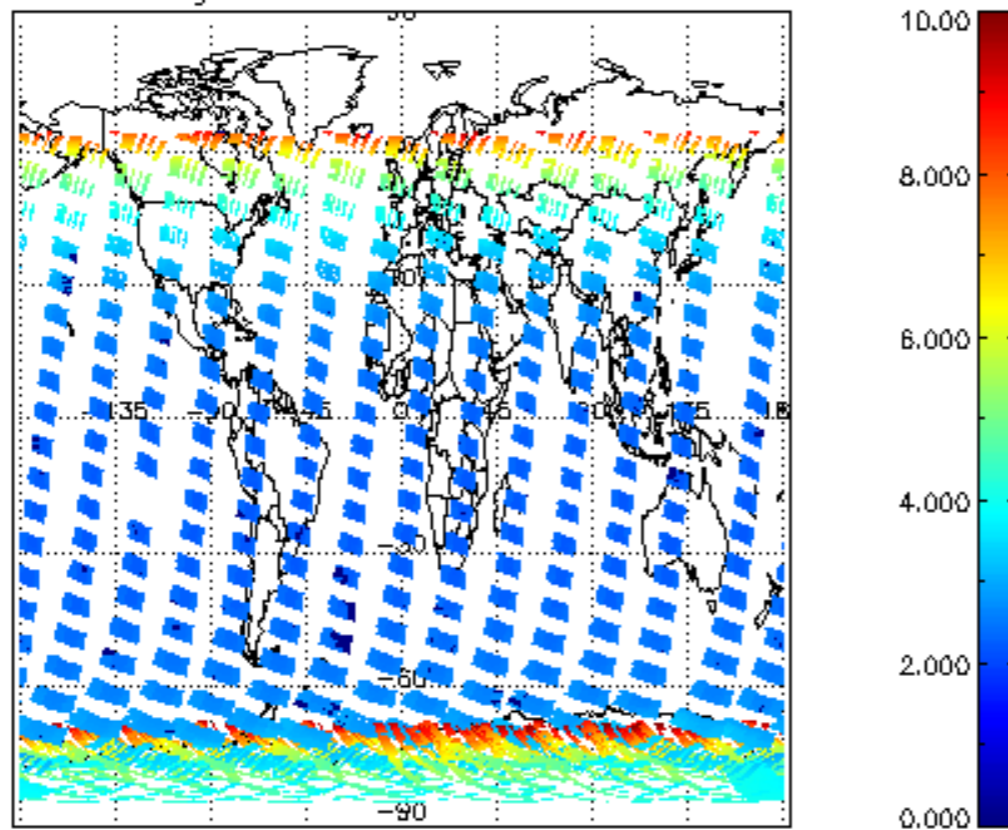
SCIOL2P_NADUV003_vcd for 01JAN2004 00:00:00 to 02JAN2004 00:00:00



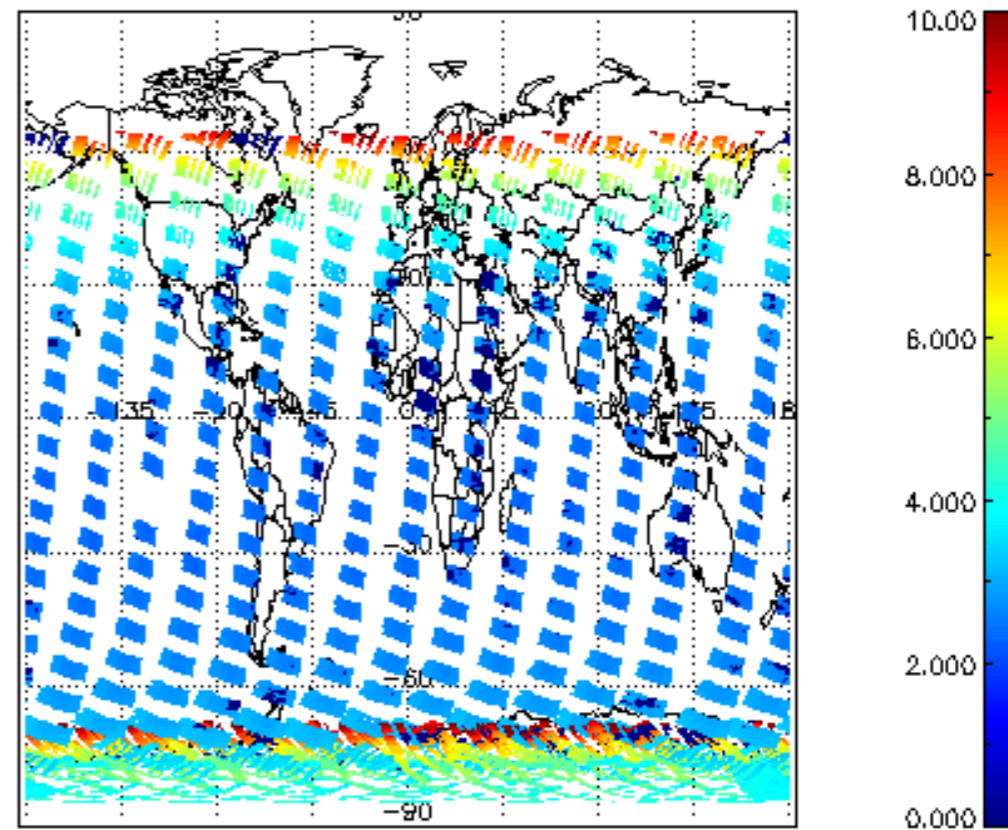
SCIOL2P_NADUV003_vcd_err for 01JAN2004 00:00:00 to 02JAN2004 00:00:00

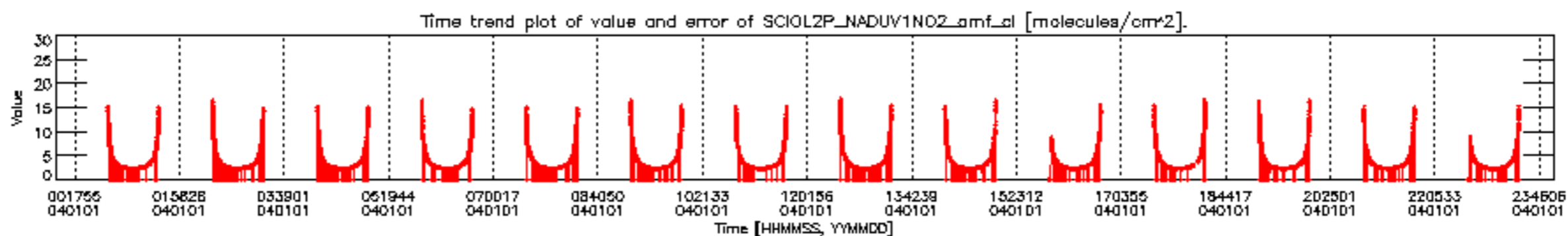
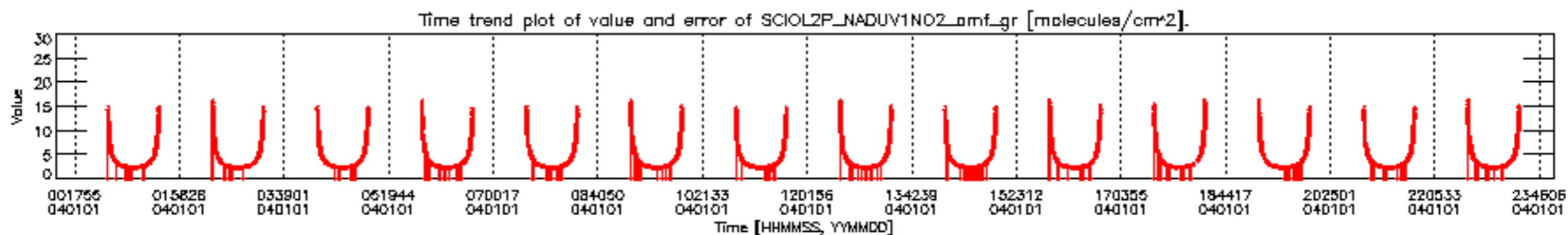
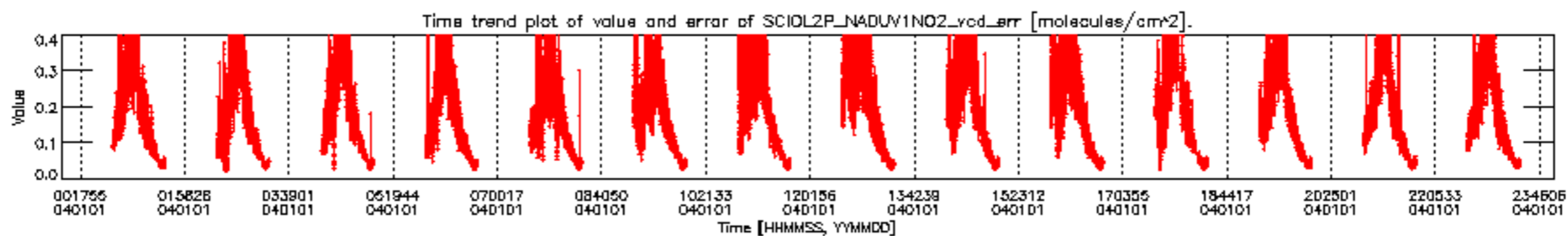
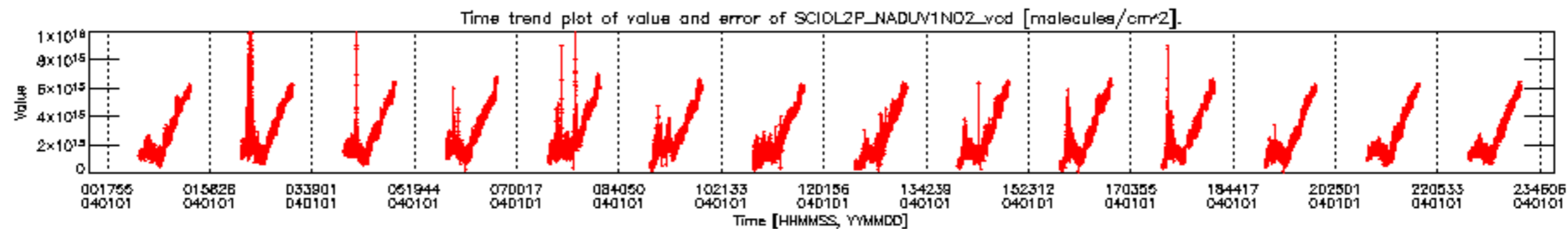


SCIOL2P_NADUV003_amf_gr for 01JAN2004 00:00:00 to 02JAN2004 00:00:00

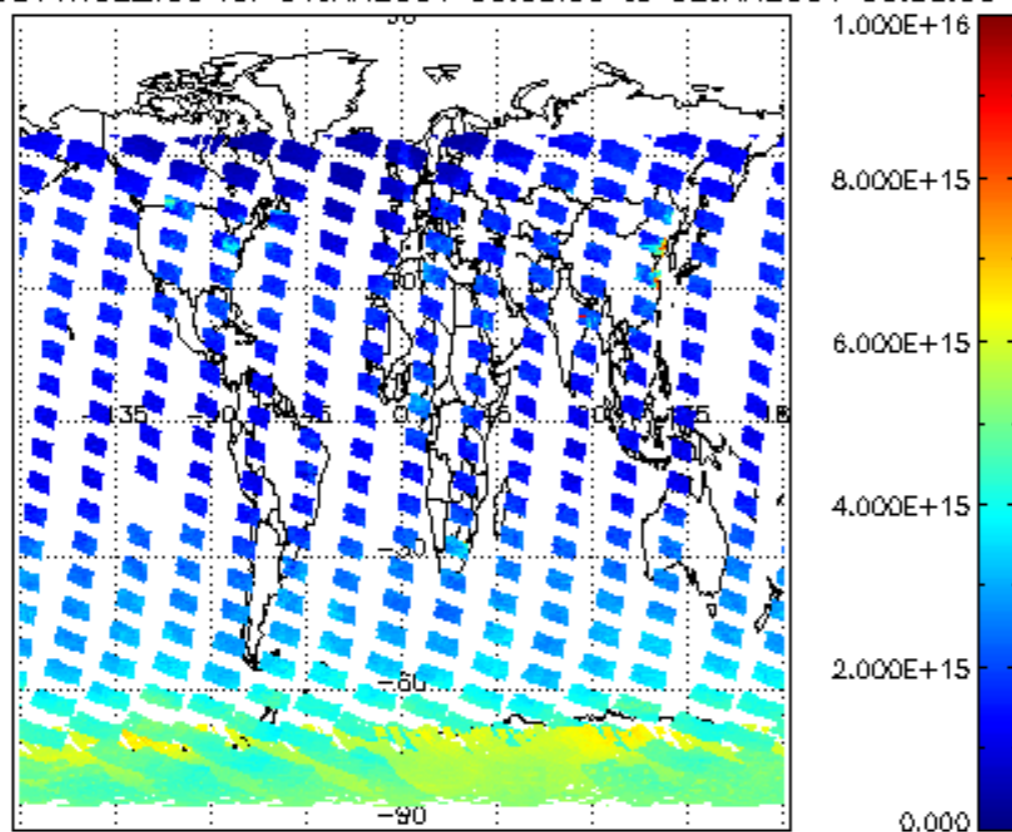


SCIOL2P_NADUV003_amf_cl for 01JAN2004 00:00:00 to 02JAN2004 00:00:00

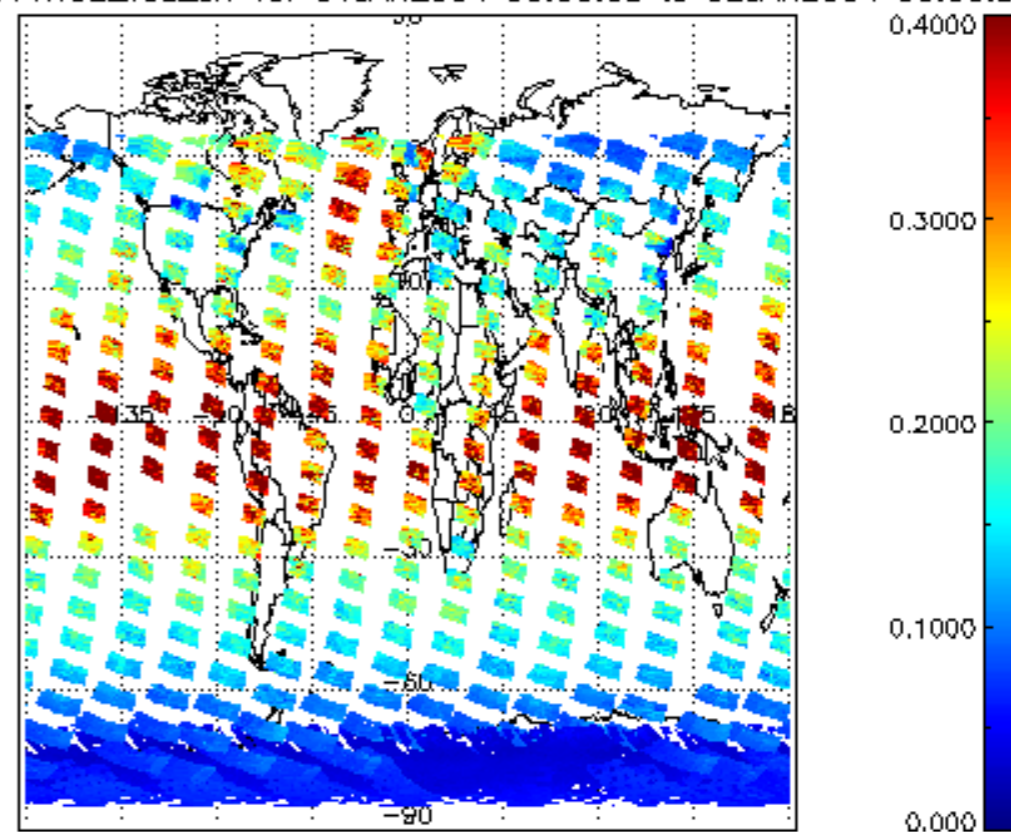




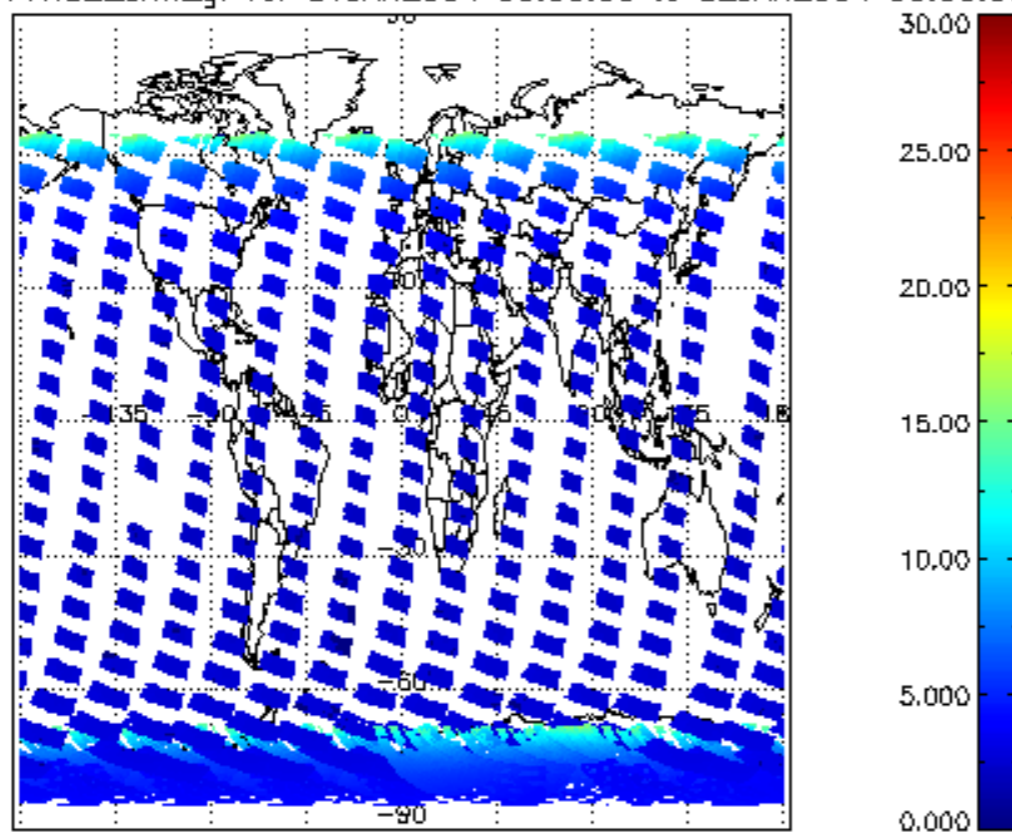
SCIOL2P_NADUV1NO2_vcd for 01JAN2004 00:00:00 to 02JAN2004 00:00:00



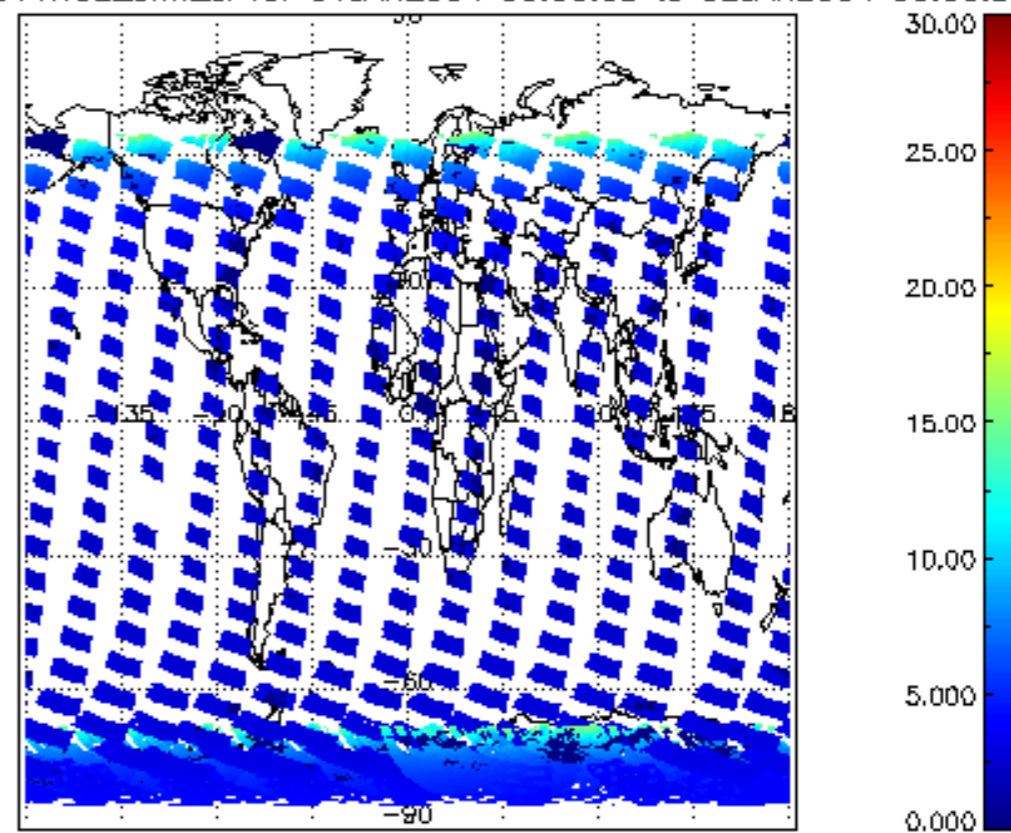
SCIOL2P_NADUV1NO2_vcd_err for 01JAN2004 00:00:00 to 02JAN2004 00:00:00



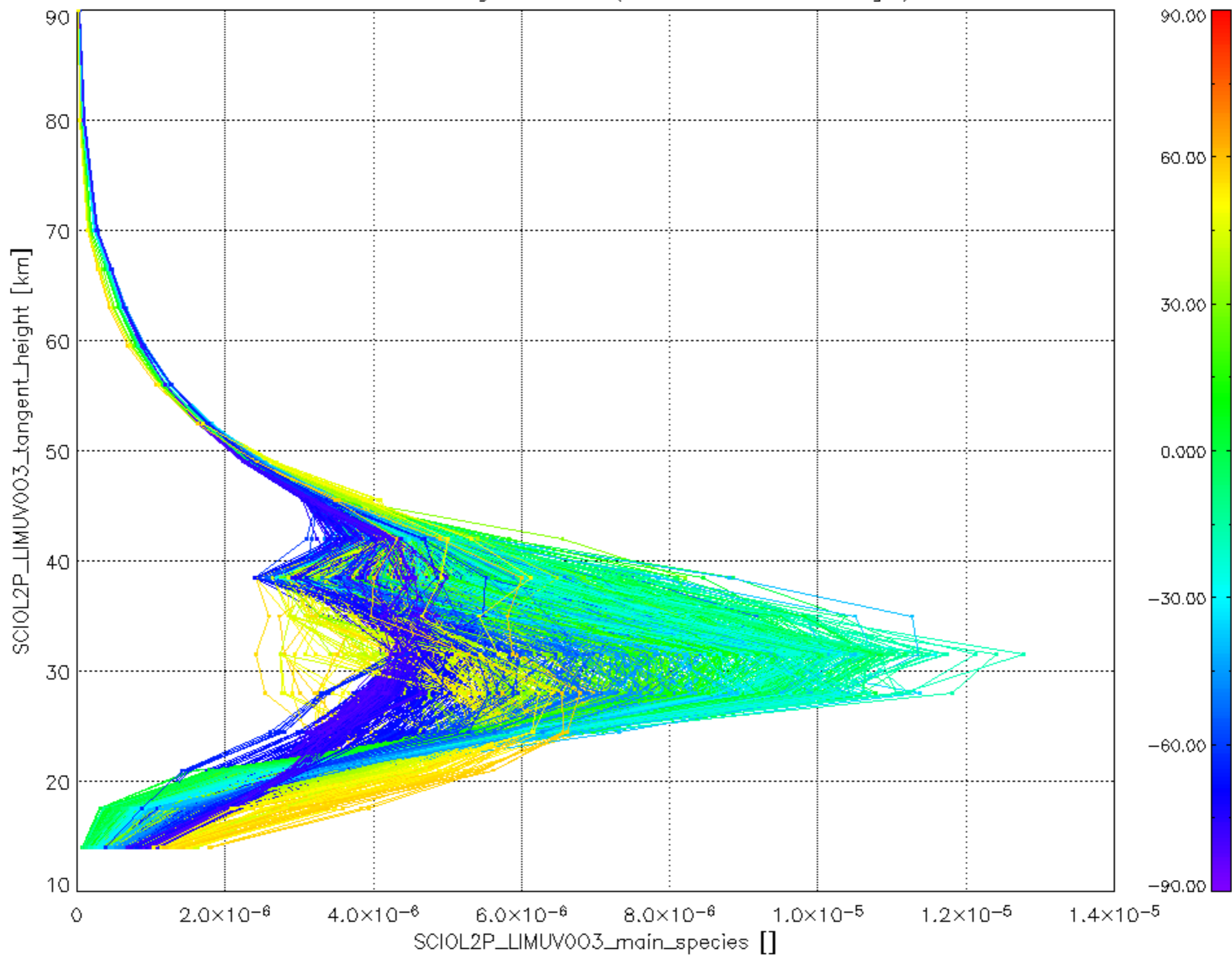
SCIOL2P_NADUV1NO2_amf_gr for 01JAN2004 00:00:00 to 02JAN2004 00:00:00



SCIOL2P_NADUV1NO2_amf_cl for 01JAN2004 00:00:00 to 02JAN2004 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).

