

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	11JUN2008 14:34:55
Data source version	SCIA-OL/3.01-R
Processing scope for products	03NOV2002 00:00:00 to 04NOV2002 00:00:00
Start time of first product within scope	02NOV2002 23:26:43
Stop time of last product within scope	03NOV2002 23:50:36
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__2PRDPA20021102_232643_000033242010_00474_03534_1485.N1	02NOV2002 23:26:43	03NOV2002 00:22:07	0	GOOD
1	SCI_OL__2PRDPA20021103_010719_000033242010_00475_03535_1588.N1	03NOV2002 01:07:19	03NOV2002 02:02:44	0	GOOD
2	SCI_OL__2PRDPA20021103_024756_000033242010_00476_03536_1477.N1	03NOV2002 02:47:56	03NOV2002 03:43:20	0	GOOD
3	SCI_OL__2PRDPA20021103_042832_000033242010_00477_03537_3312.N1	03NOV2002 04:28:32	03NOV2002 05:23:56	0	GOOD
4	SCI_OL__2PRDPA20021103_060908_000033242010_00478_03538_1586.N1	03NOV2002 06:09:08	03NOV2002 07:04:33	0	GOOD
5	SCI_OL__2PRDPA20021103_074945_000033242010_00479_03539_1535.N1	03NOV2002 07:49:45	03NOV2002 08:45:09	0	GOOD
6	SCI_OL__2PRDPA20021103_093021_000033242010_00480_03540_1492.N1	03NOV2002 09:30:21	03NOV2002 10:25:45	0	GOOD
7	SCI_OL__2PRDPA20021103_111057_000033242010_00481_03541_1618.N1	03NOV2002 11:10:57	03NOV2002 12:06:21	0	GOOD
8	SCI_OL__2PRDPA20021103_125133_000033242010_00482_03542_1486.N1	03NOV2002 12:51:33	03NOV2002 13:46:58	0	GOOD
9	SCI_OL__2PRDPA20021103_143210_000033242010_00483_03543_1550.N1	03NOV2002 14:32:10	03NOV2002 15:27:34	0	GOOD
10	SCI_OL__2PRDPA20021103_161246_000033242010_00484_03544_1439.N1	03NOV2002 16:12:46	03NOV2002 17:08:10	0	GOOD
11	SCI_OL__2PRDPA20021103_175258_000033742010_00485_03545_1520.N1	03NOV2002 17:52:58	03NOV2002 18:49:12	0	GOOD
12	SCI_OL__2PRDPA20021103_193316_000033862010_00486_03546_1518.N1	03NOV2002 19:33:16	03NOV2002 20:29:43	0	GOOD
13	SCI_OL__2PRDPA20021103_211435_000033242010_00487_03547_1463.N1	03NOV2002 21:14:35	03NOV2002 22:09:59	0	GOOD
14	SCI_OL__2PRDPA20021103_225511_000033242010_00488_03548_4976.N1	03NOV2002 22:55:11	03NOV2002 23:50:36	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: 112220

Total number of cloud data DSRs with good quality flag (=0): 112220 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	112220	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	112220	0.21645	0.25000	0.12500	1.0000	0.081304	s
SURFACE_PRES	112220	0.0000	0.0000	0.0000	0.0000	0.0000	hPa
CL_FRAC	112220	0.44670	0.42764	0.0000	1.0000	0.28990	-

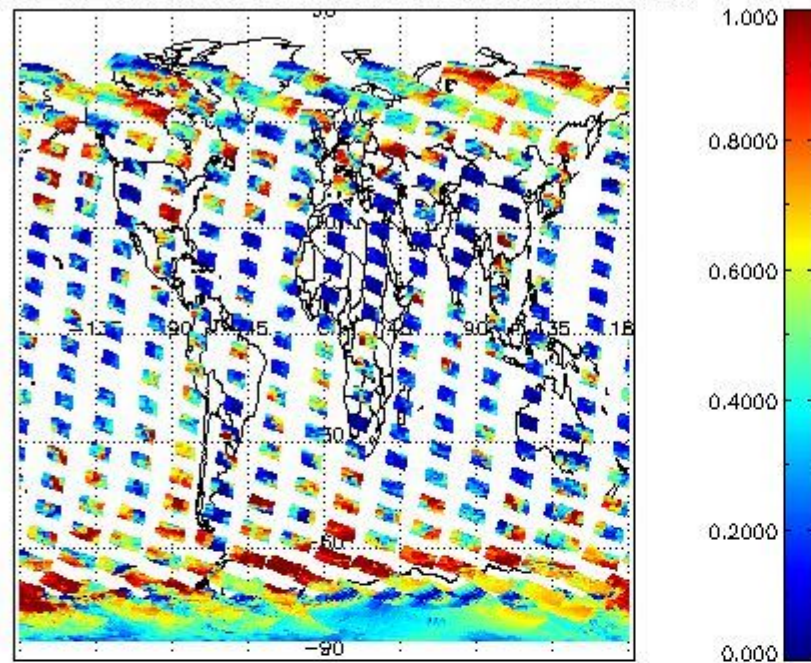
CL_FRAC_ERR	112220	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	112220	6.9264	8.0000	4.0000	32.000	2.6017		
PMD_READ_CL[0]	112220	0.42770	0.0000	0.0000	23.000	1.4958	-	
PMD_READ_CL[1]	112220	0.45088	0.0000	0.0000	28.000	1.6079	-	
CL_TOP_HEIGHT	101003	4.3659	3.2669	0.0000	17.000	3.8937	km	
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---	
CL_OPT_DEPTH	101003	48.021	32.812	0.0000	101.00	38.084	km	
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---	
CL_TYPE_FLAGS	112220	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	112220	11000110	11000010	11000000	11100000	2596.9	flags	
AERO_ABSO_IND	112220	0.47837	0.37229	-4.7470	12.294	1.0255		
AERO_IND_DIAG	112220	0.0000	0.0000	0.0000	0.0000	0.0000		
AERO_FLAGS	112220	01101001	11000000	00000000	11000000	24458.	flags	

Time and geolocation plots:

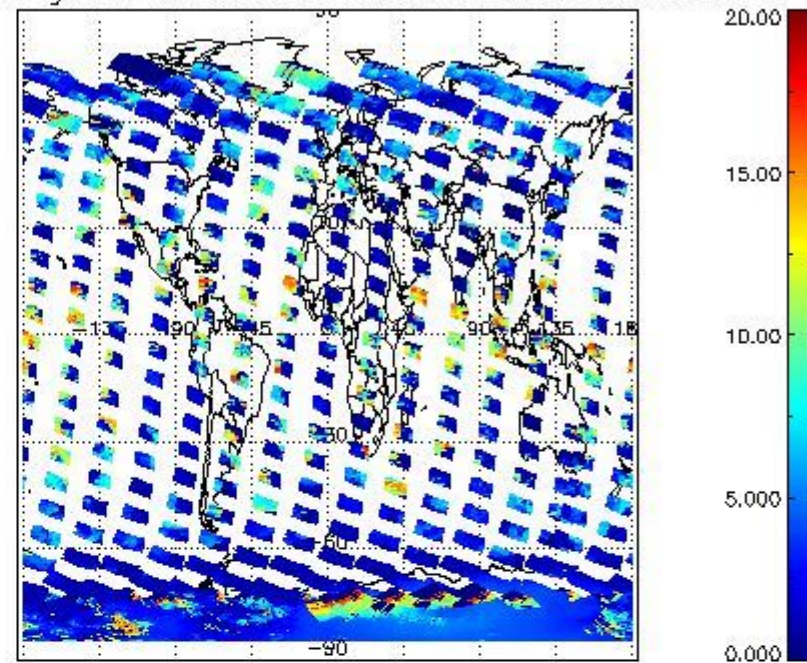
Plots are available for the following parameters:

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

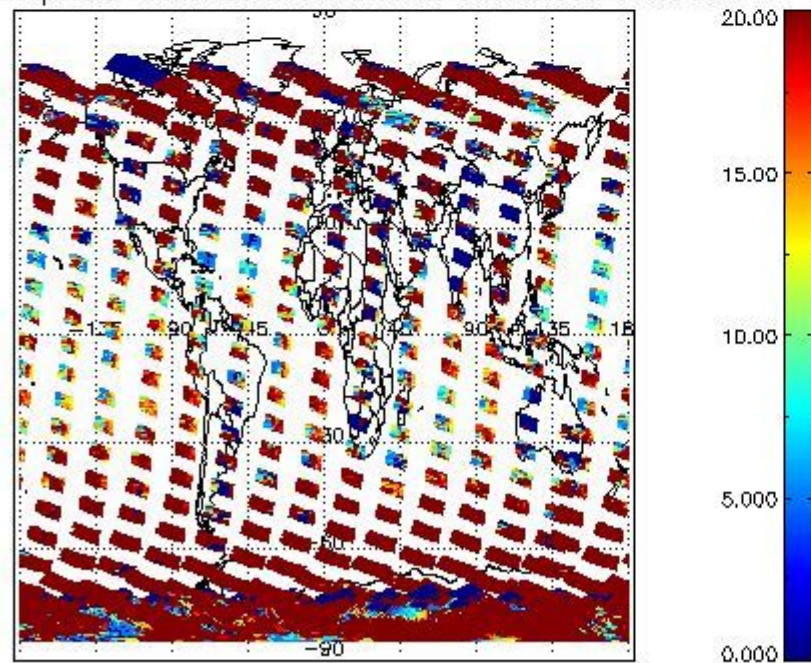
cLfrac for 03NOV2002 00:00:00 to 04NOV2002 00:00:00



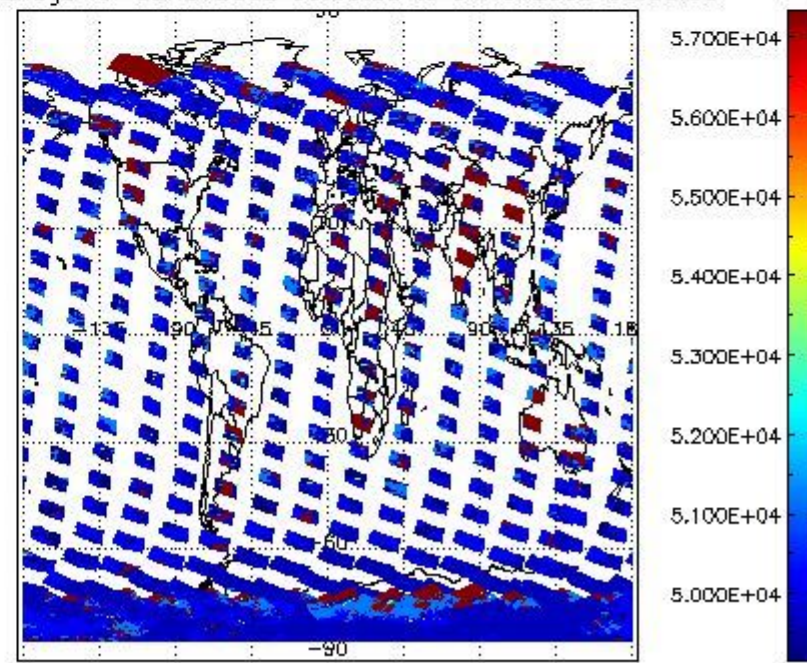
cL_top_height for 03NOV2002 00:00:00 to 04NOV2002 00:00:00



cL_opt_depth for 03NOV2002 00:00:00 to 04NOV2002 00:00:00



cloud_flags for 03NOV2002 00:00:00 to 04NOV2002 00:00:00



2.2.2 Nadir

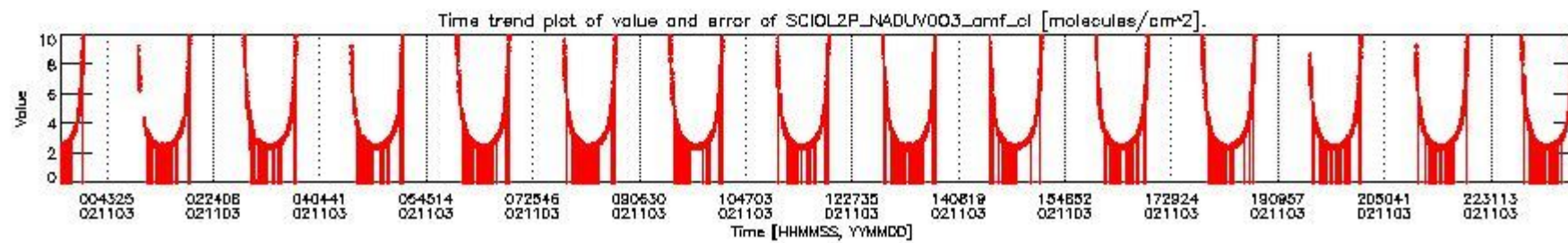
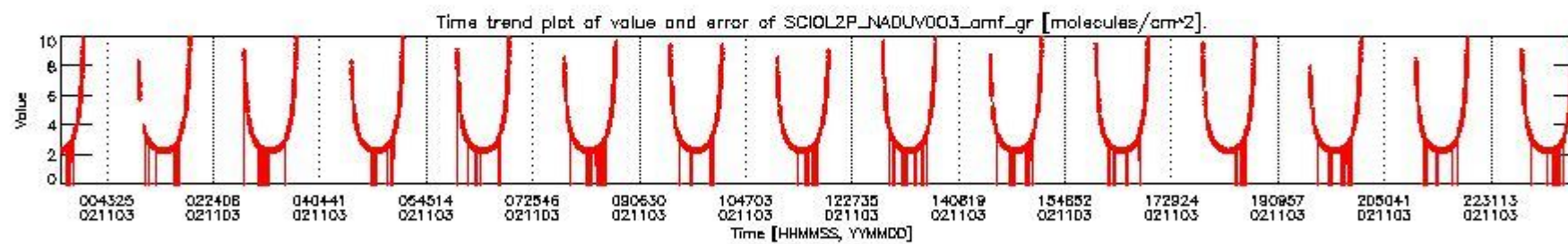
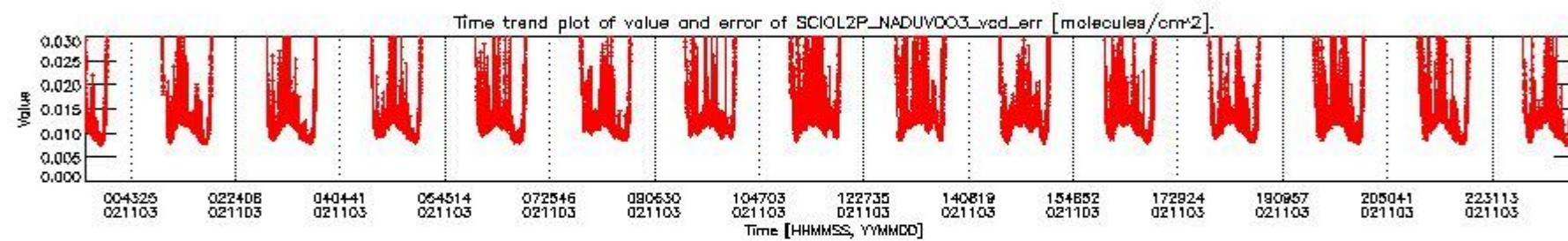
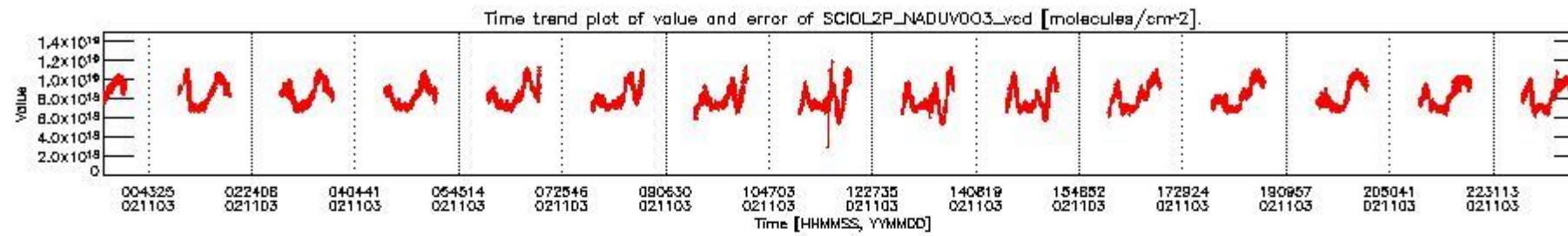
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

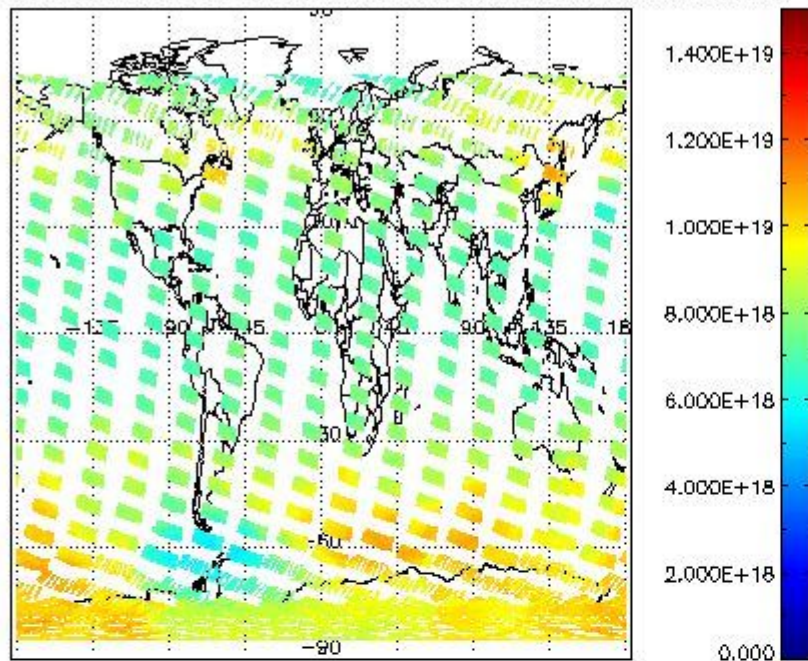
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

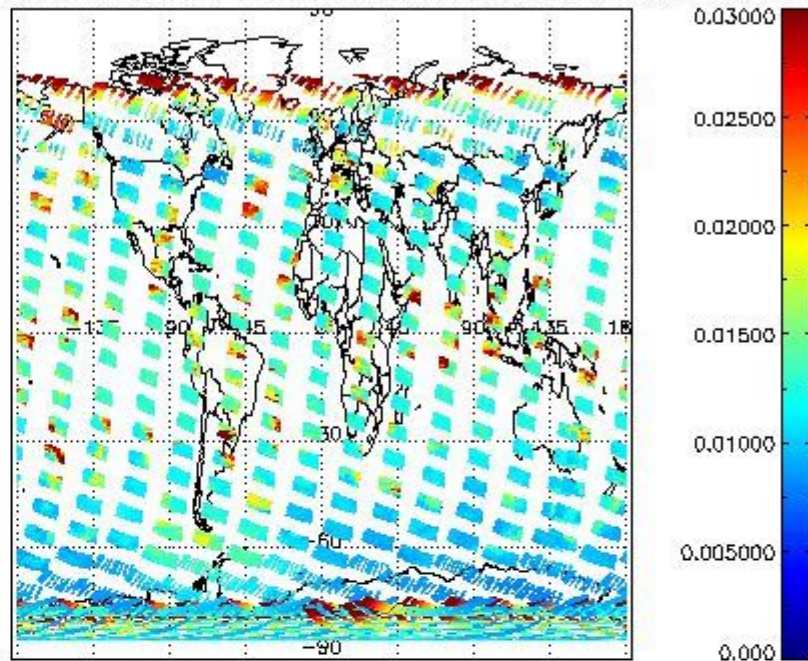
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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



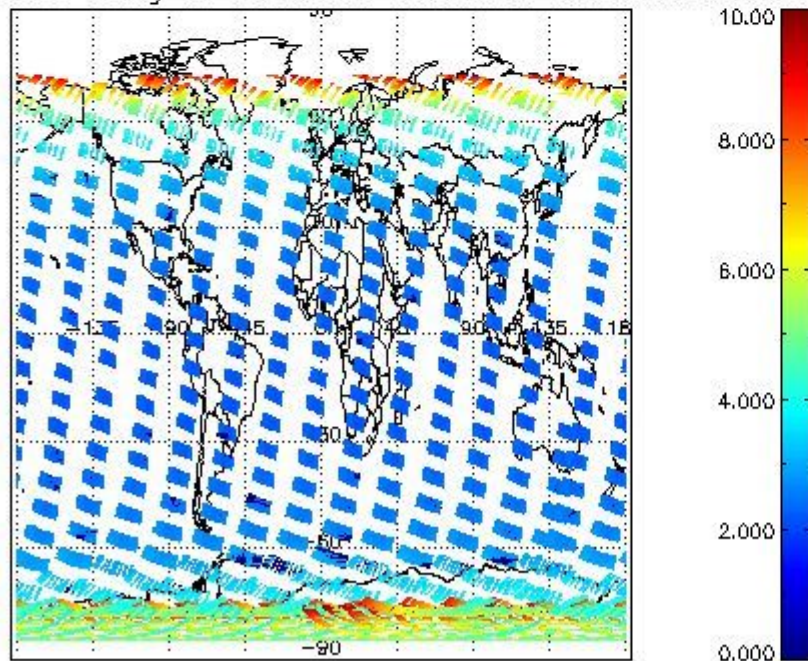
SCIOL2P_NADUV003_vcd for 03NOV2002 00:00:00 to 04NOV2002 00:00:00



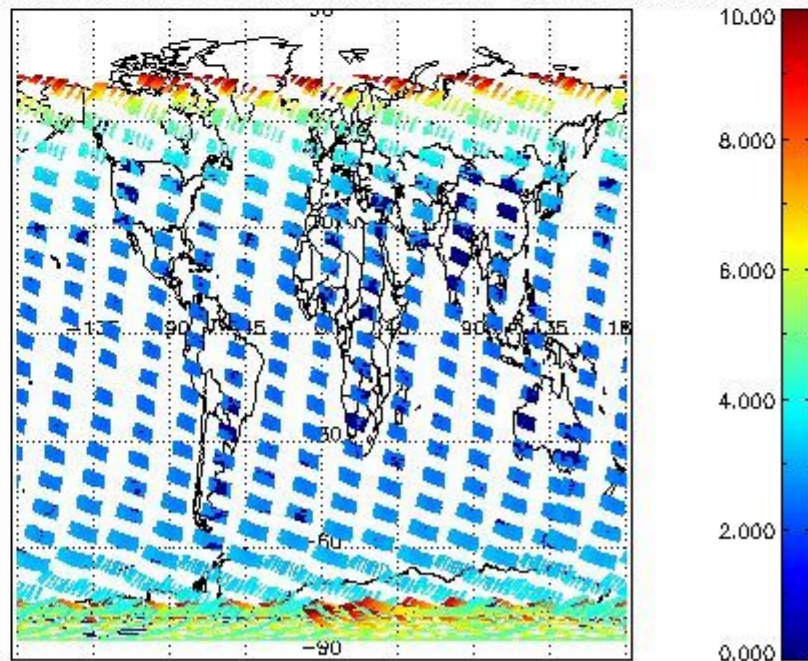
SCIOL2P_NADUV003_vcd_err for 03NOV2002 00:00:00 to 04NOV2002 00:00:00

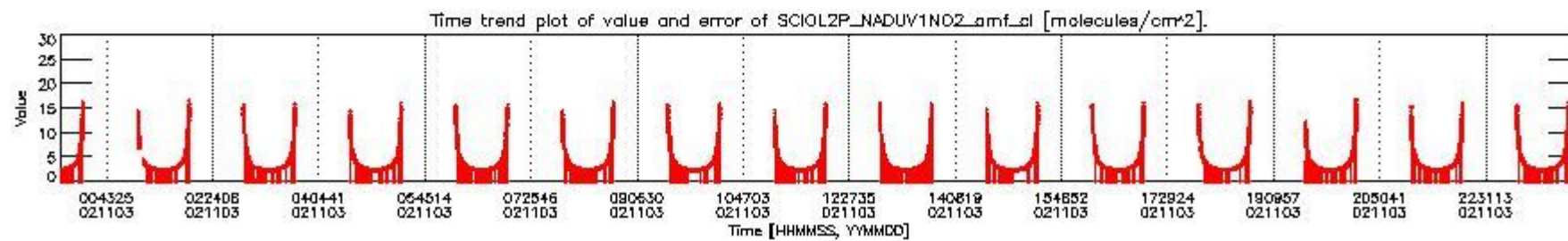
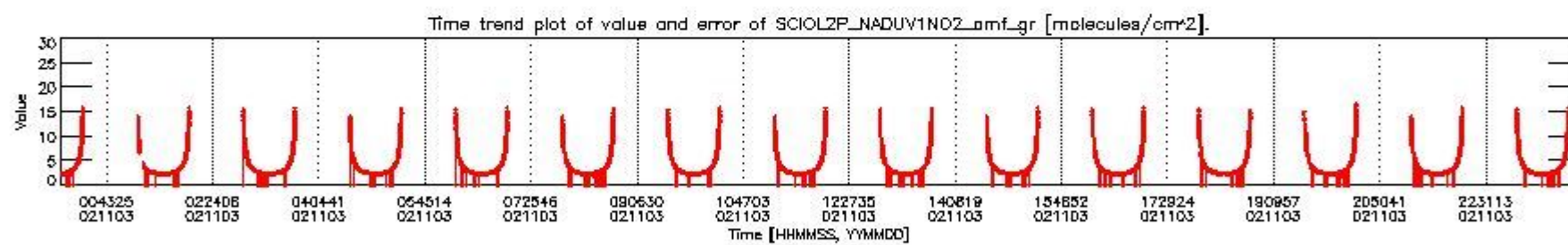
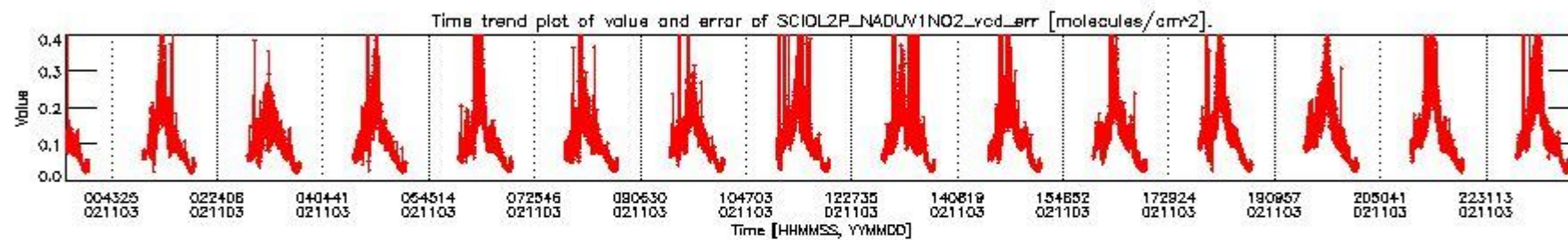
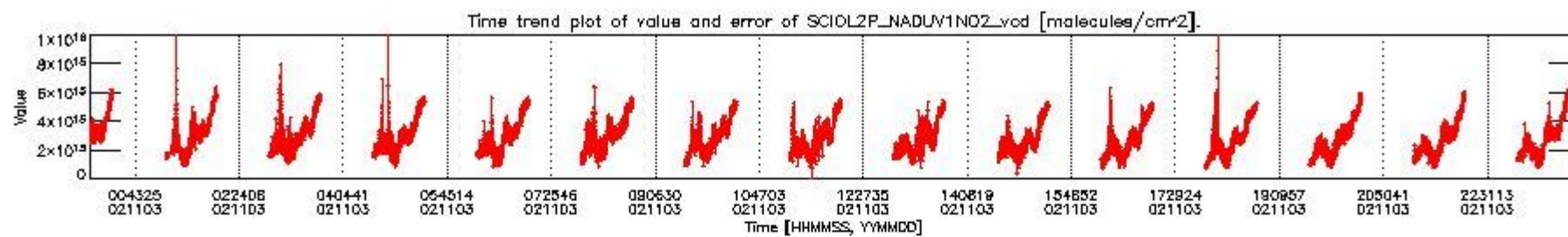


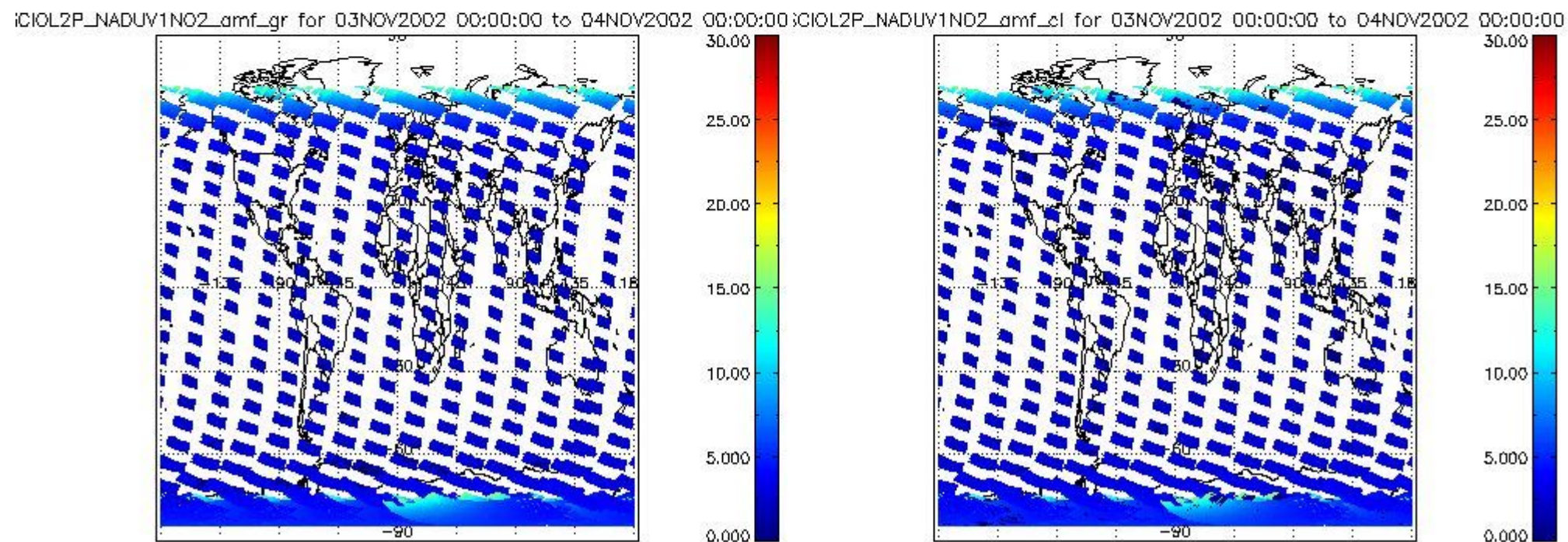
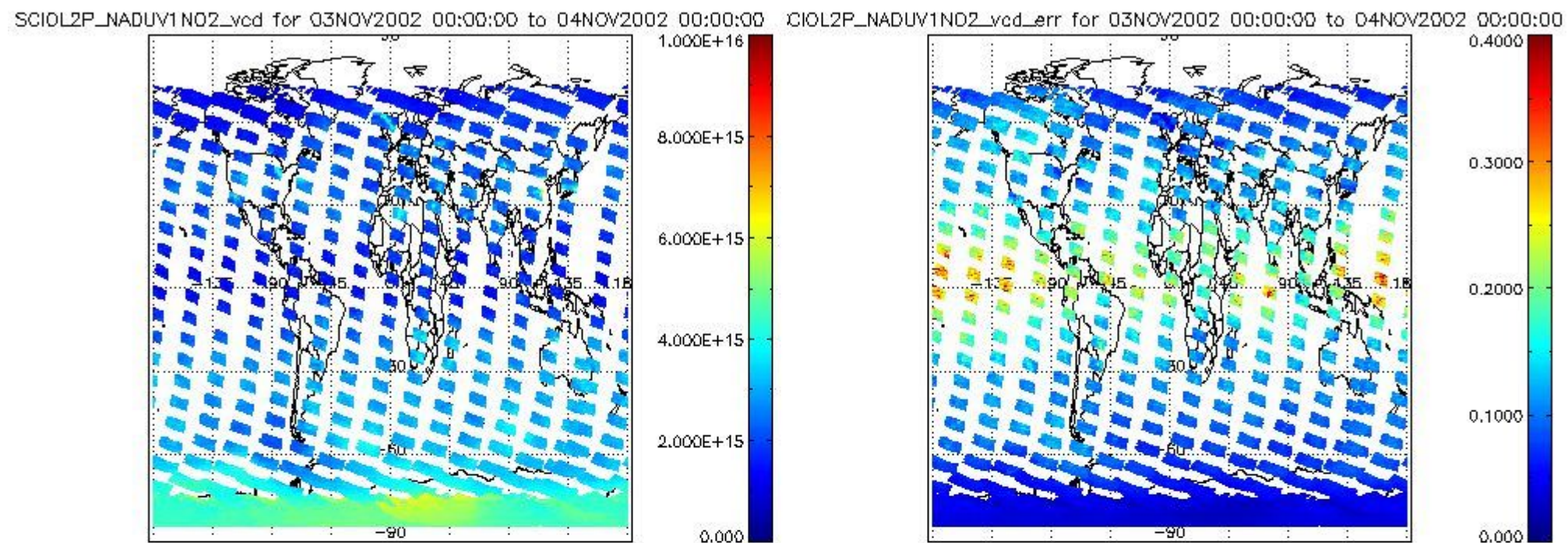
SCIOL2P_NADUV003_amf_gr for 03NOV2002 00:00:00 to 04NOV2002 00:00:00



SCIOL2P_NADUV003_amf_cl for 03NOV2002 00:00:00 to 04NOV2002 00:00:00







2.2.3 Limb

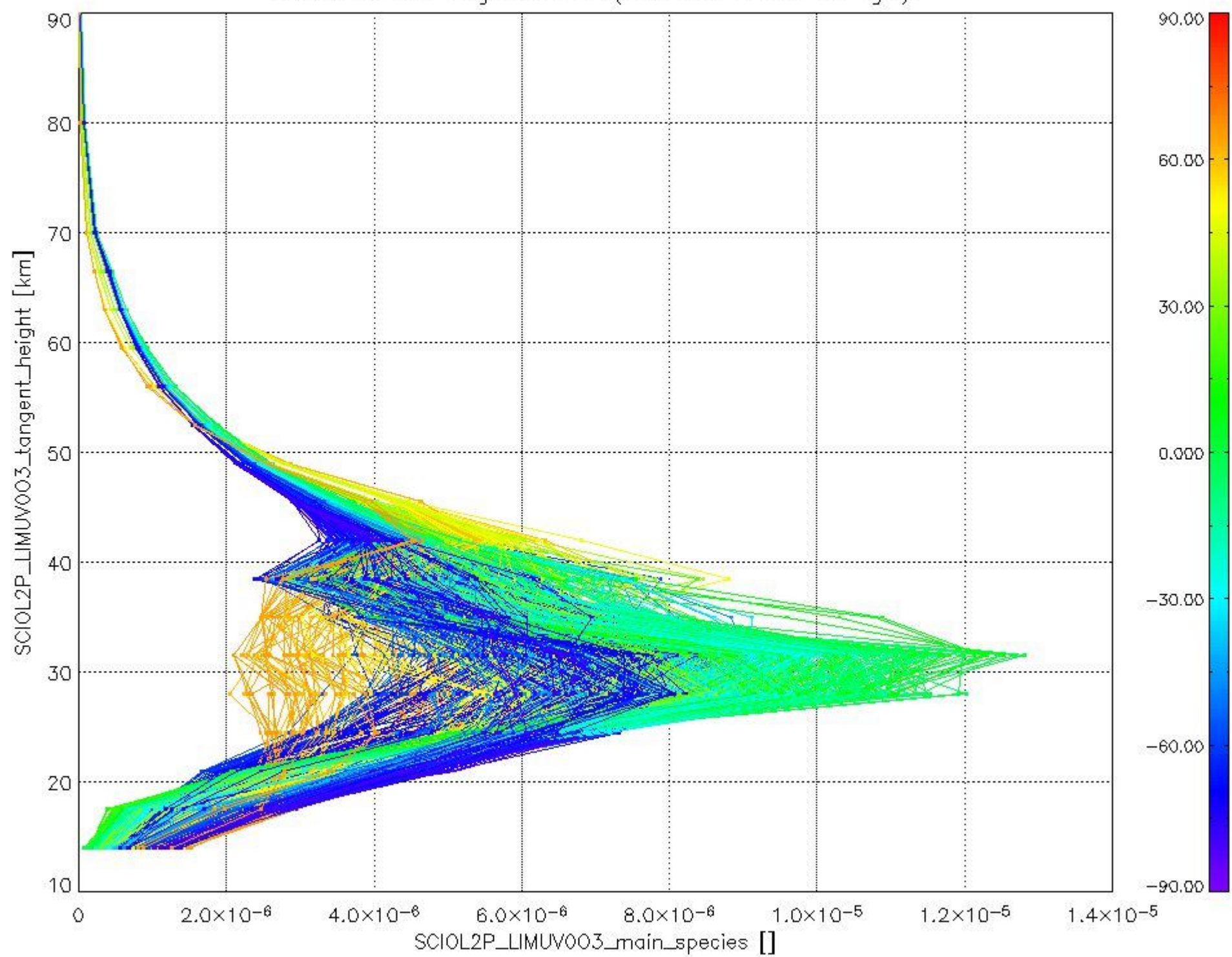
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

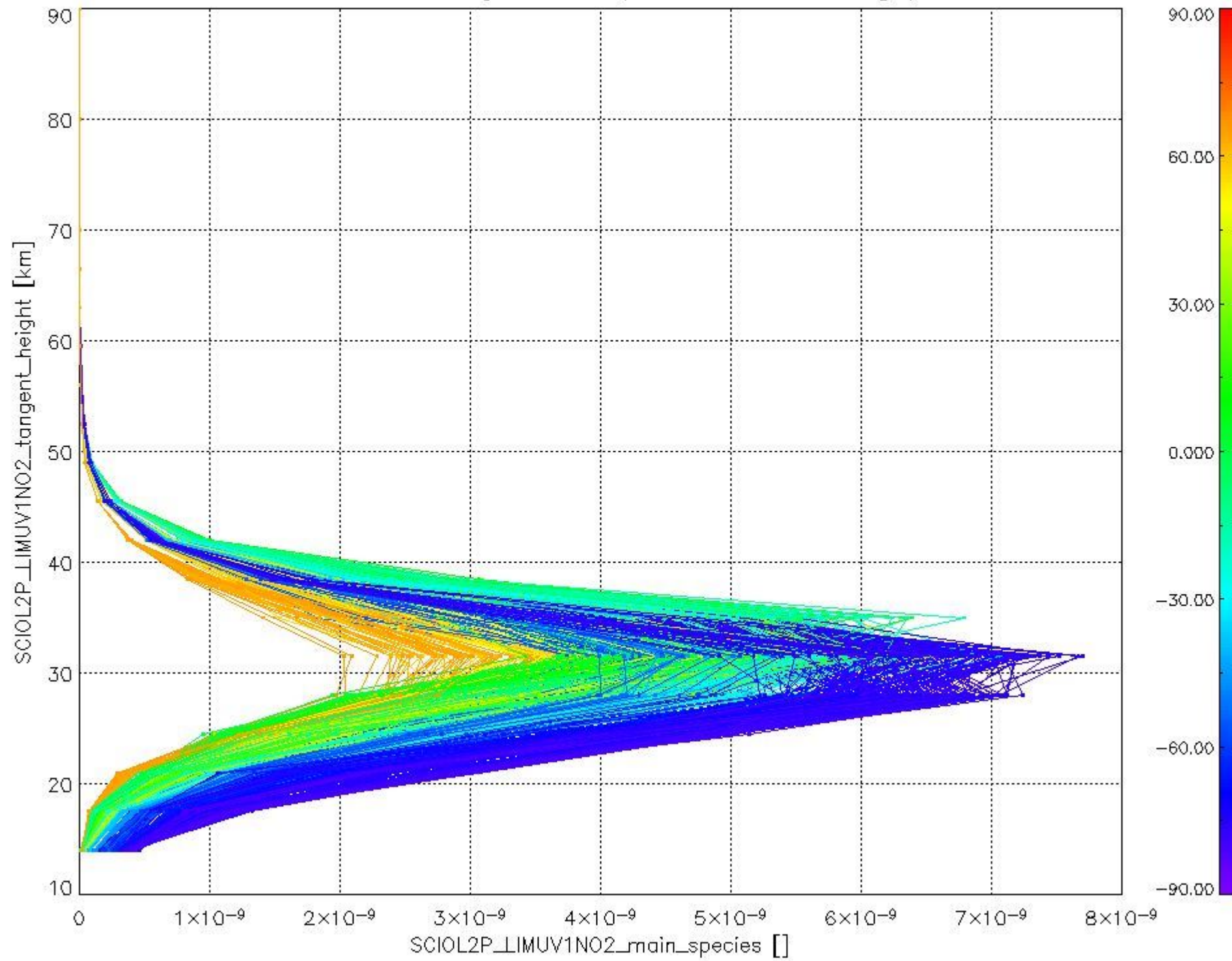
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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).



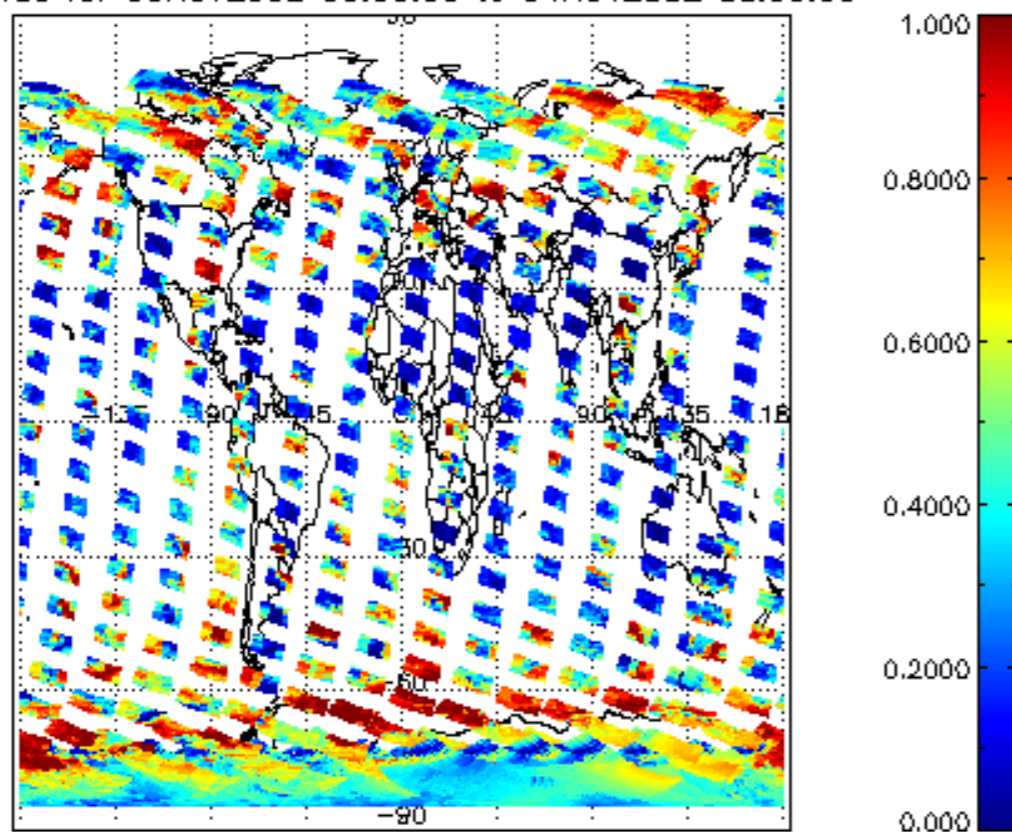
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



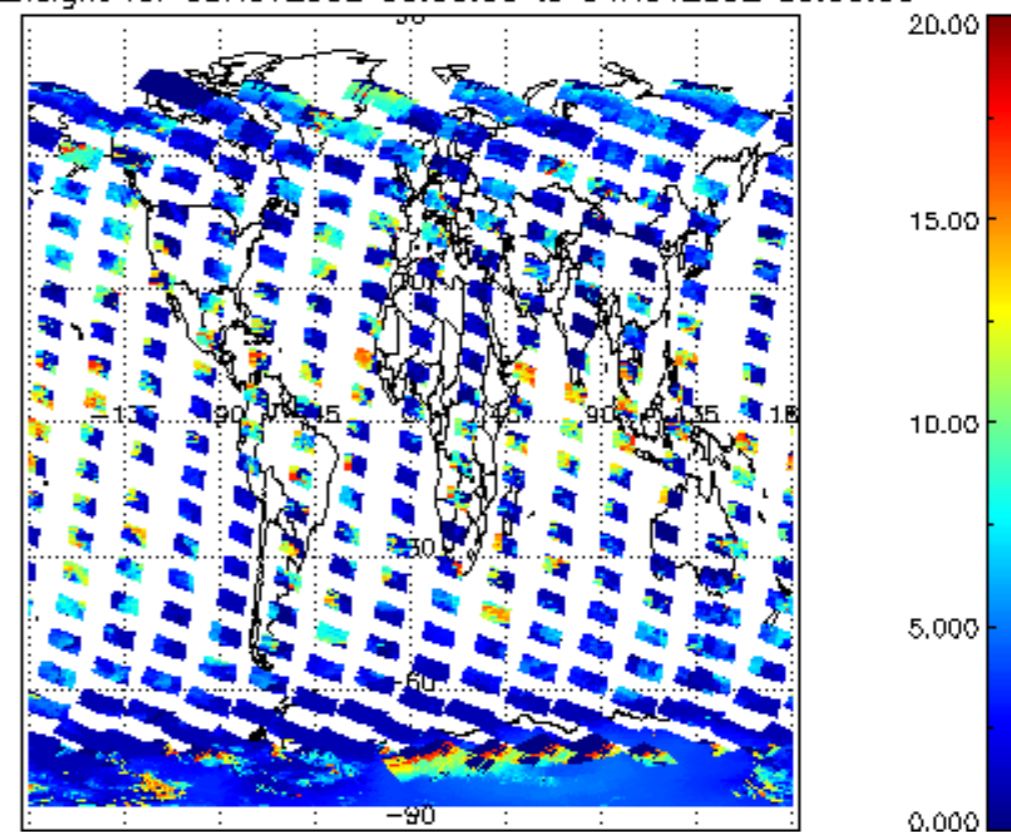
2.3 ADF monitoring

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

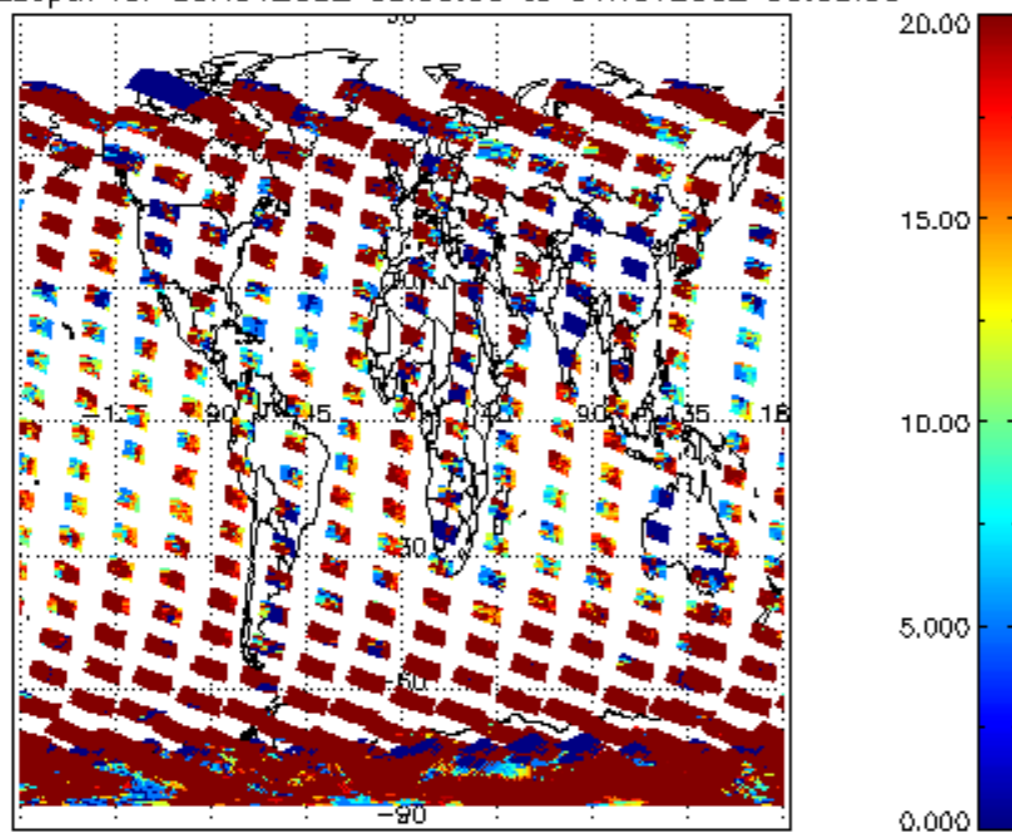
cLfrac for 03NOV2002 00:00:00 to 04NOV2002 00:00:00



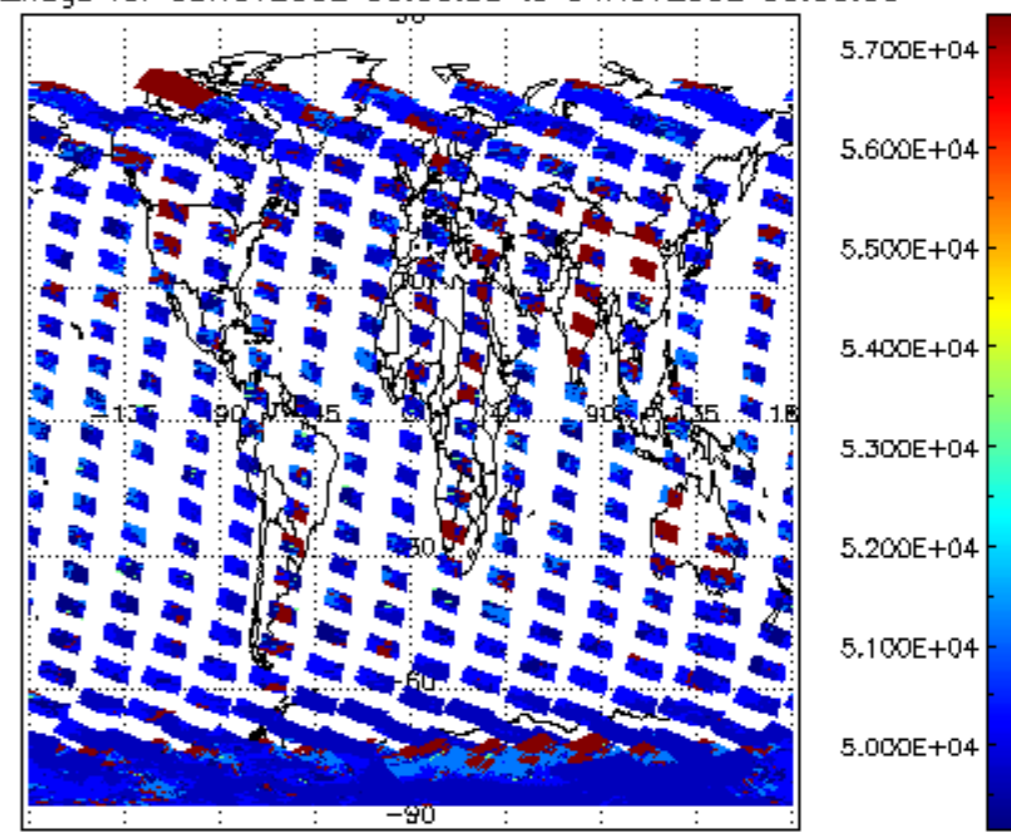
cL_top_height for 03NOV2002 00:00:00 to 04NOV2002 00:00:00

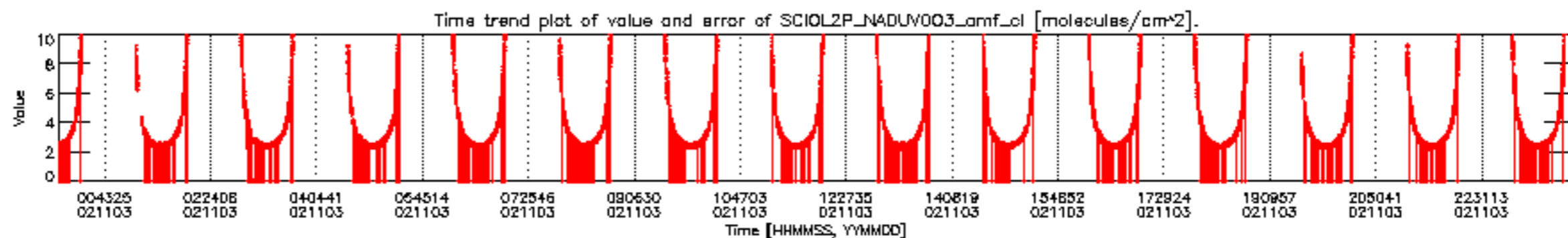
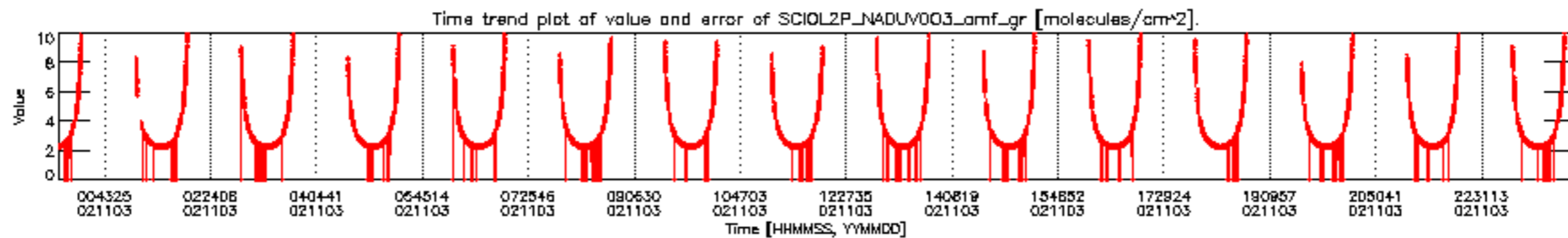
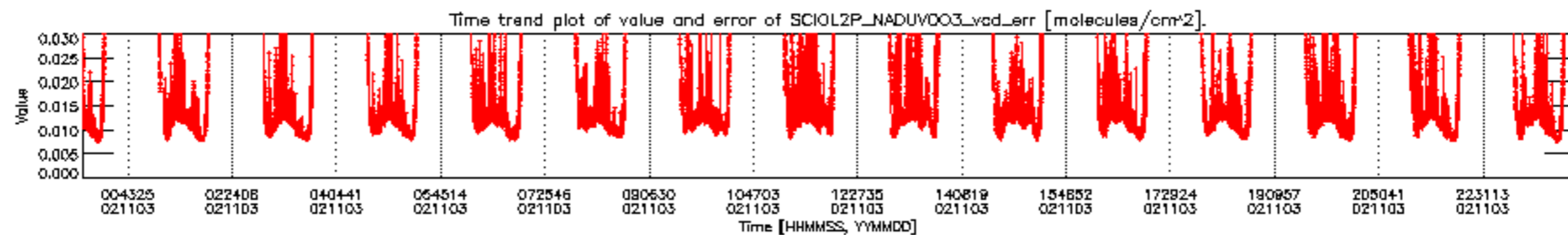
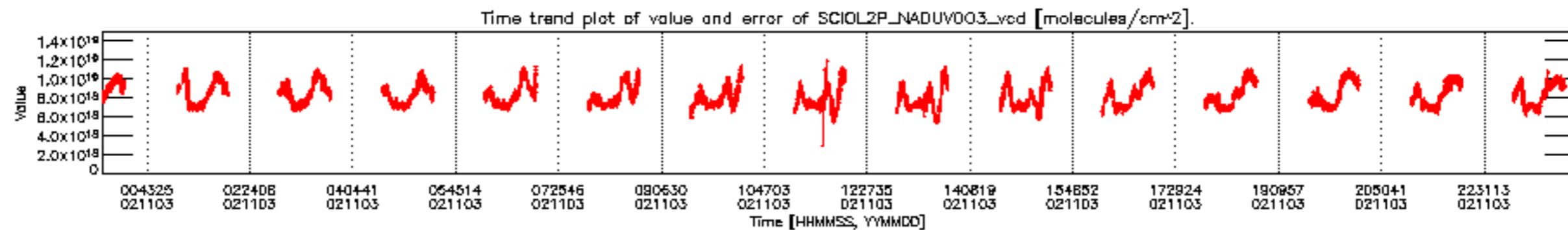


cL_opt_depth for 03NOV2002 00:00:00 to 04NOV2002 00:00:00

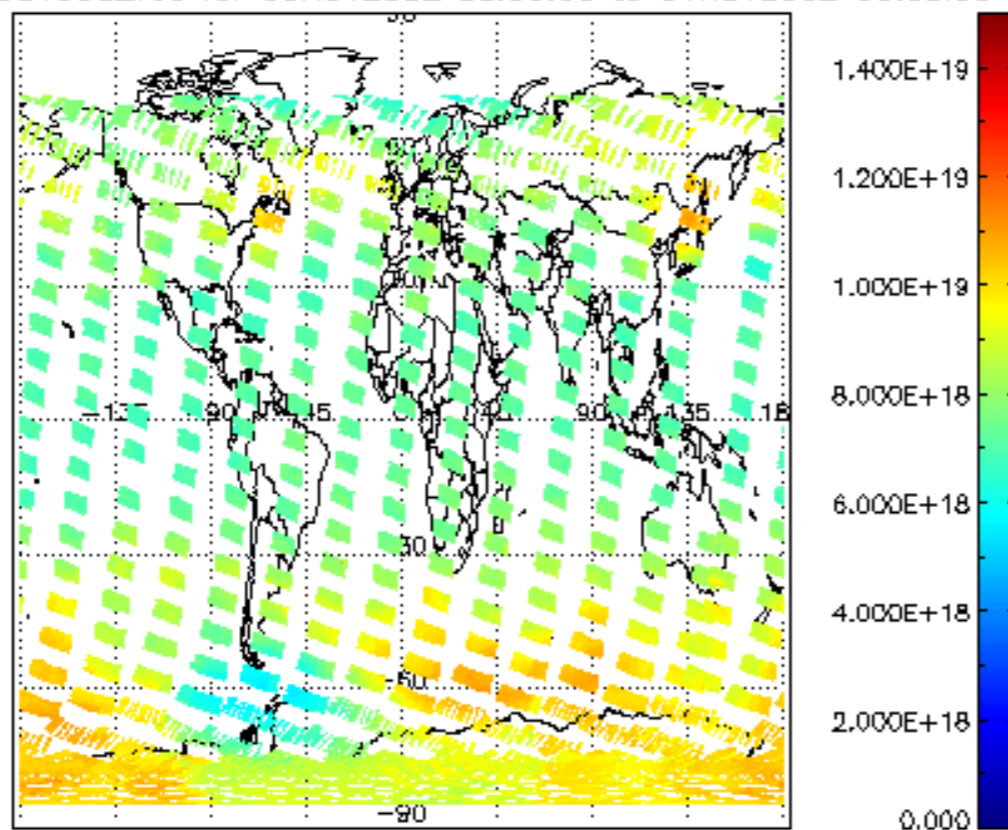


cloud_flags for 03NOV2002 00:00:00 to 04NOV2002 00:00:00

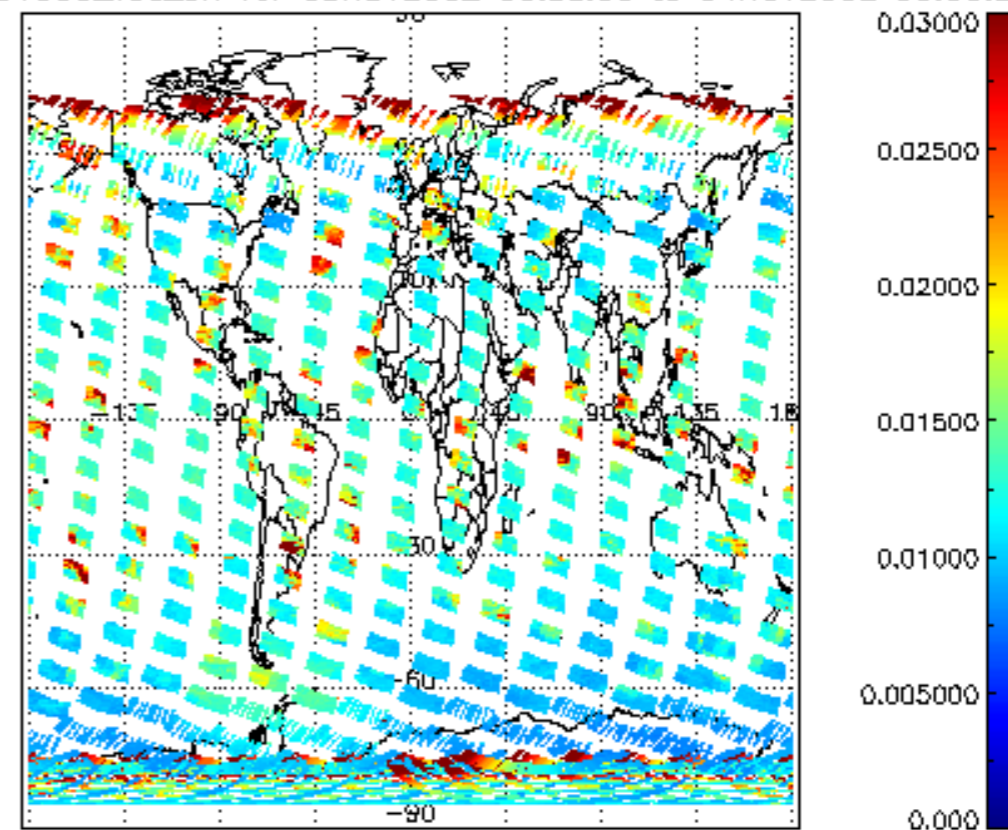




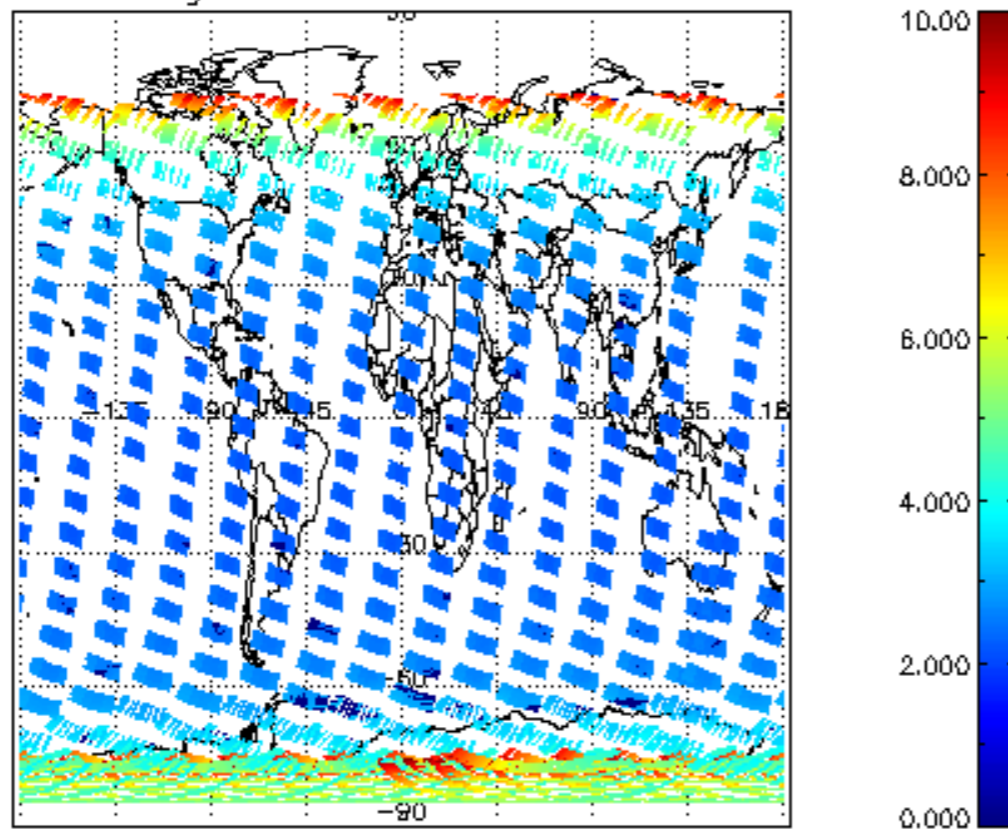
SCIOL2P_NADUV003_vcd for 03NOV2002 00:00:00 to 04NOV2002 00:00:00



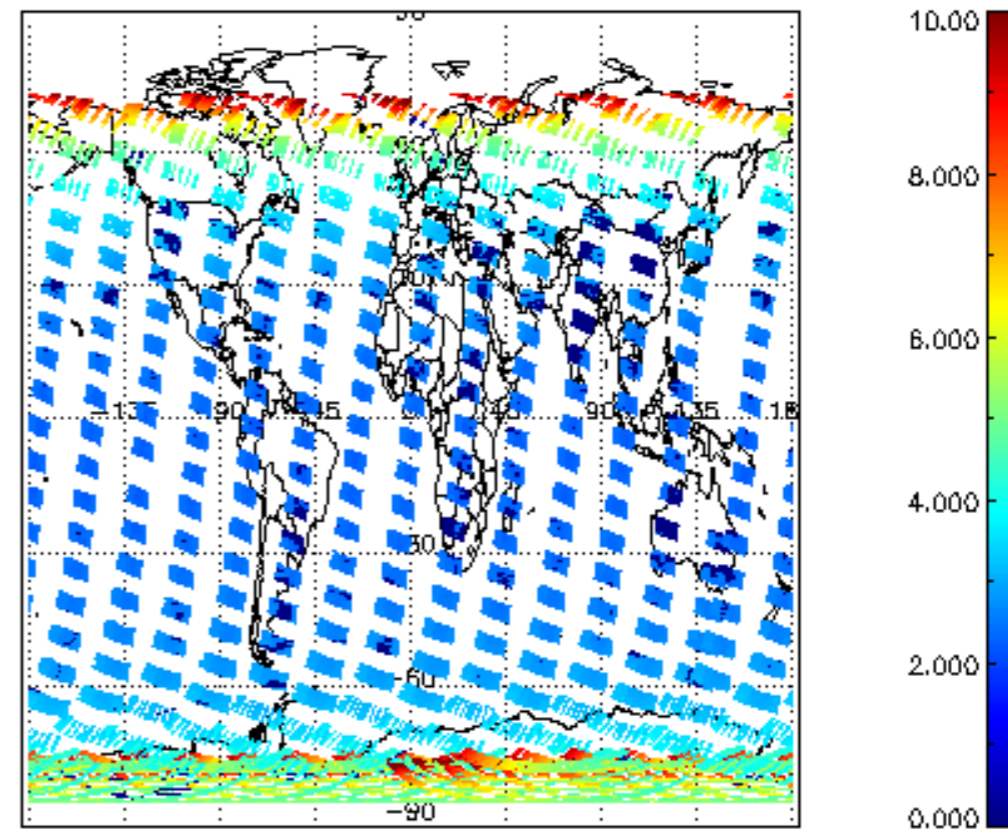
SCIOL2P_NADUV003_vcd_err for 03NOV2002 00:00:00 to 04NOV2002 00:00:00

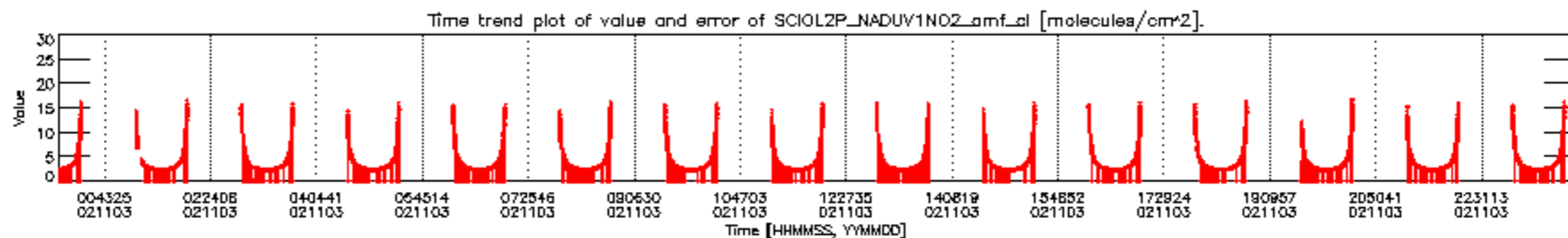
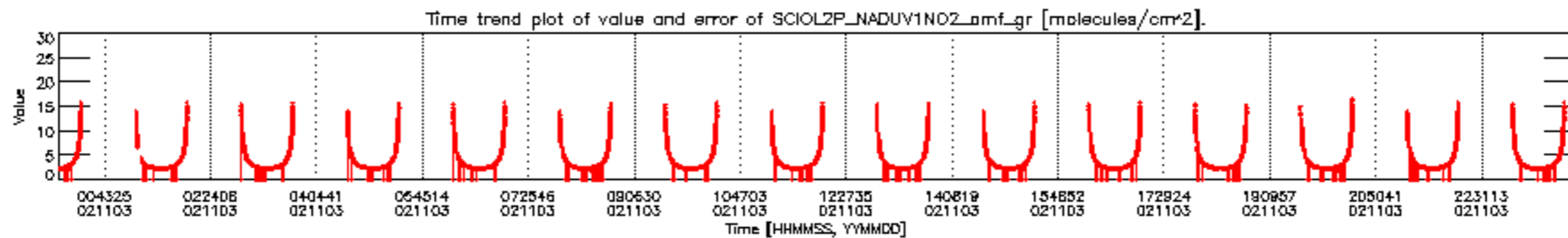
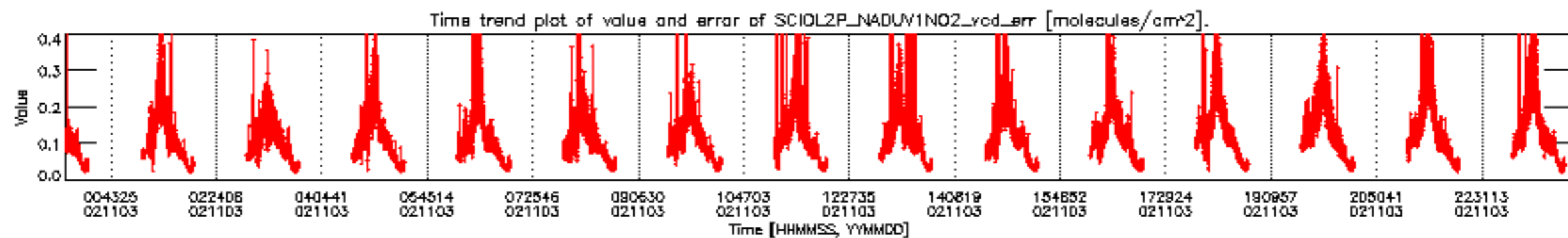
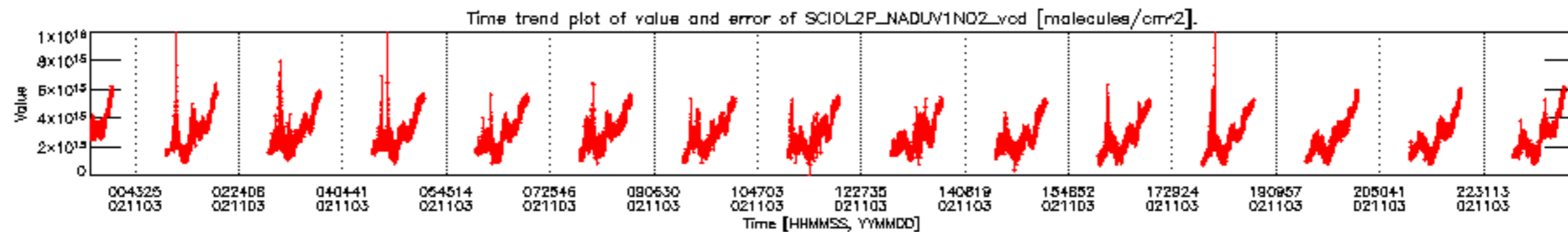


SCIOL2P_NADUV003_amf_gr for 03NOV2002 00:00:00 to 04NOV2002 00:00:00

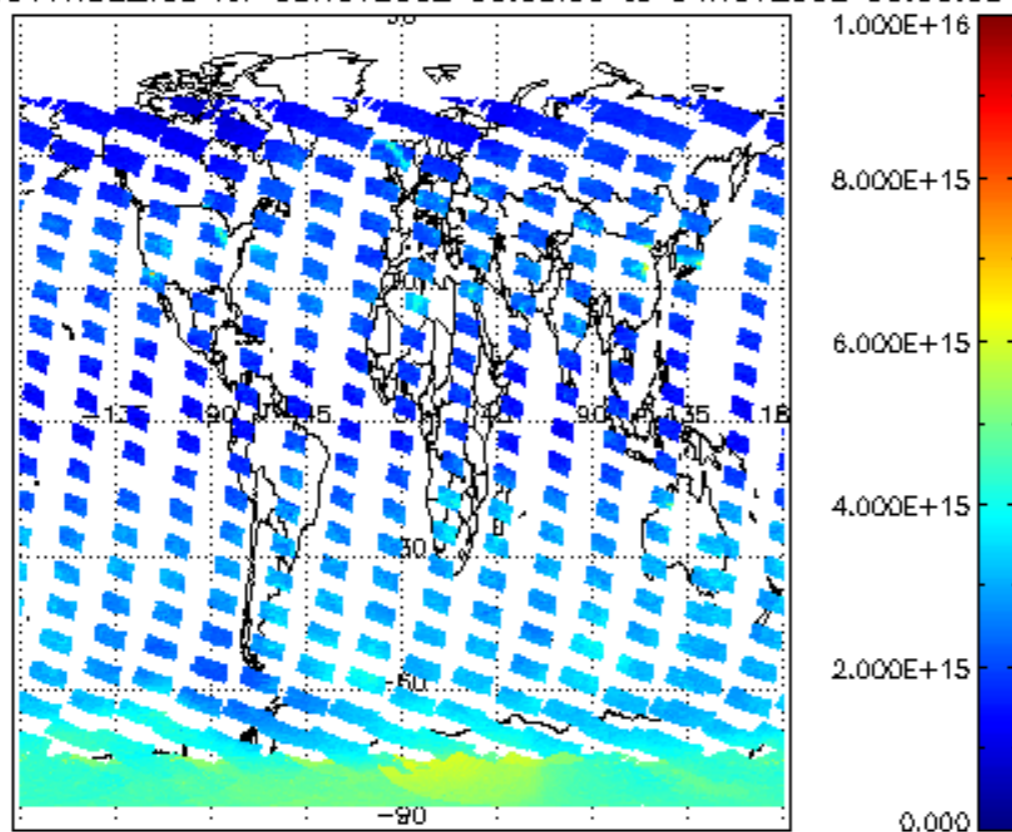


SCIOL2P_NADUV003_amf_cl for 03NOV2002 00:00:00 to 04NOV2002 00:00:00

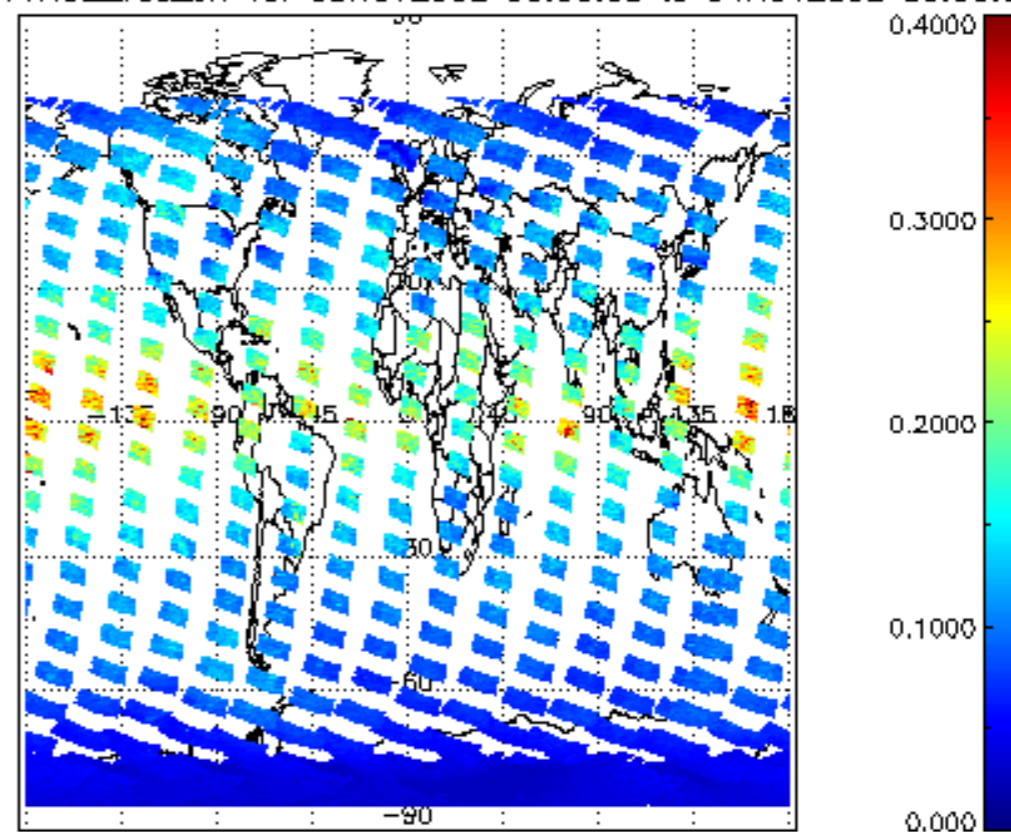




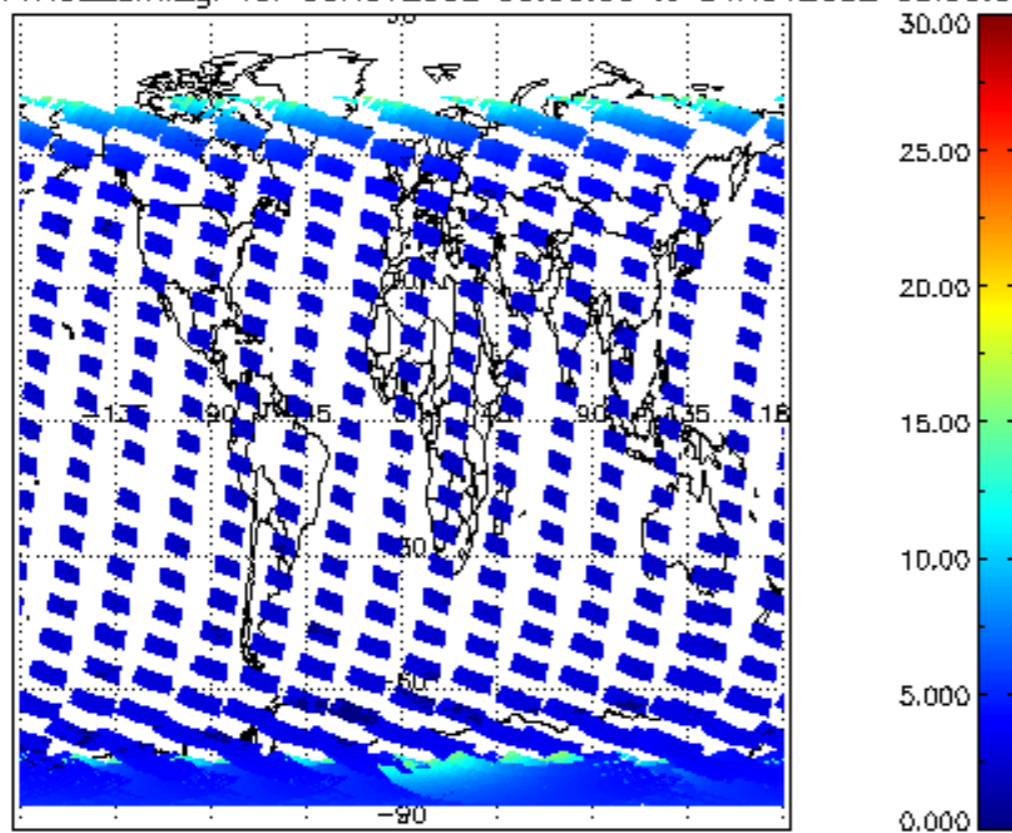
SCIOL2P_NADUV1NO2_vcd for 03NOV2002 00:00:00 to 04NOV2002 00:00:00



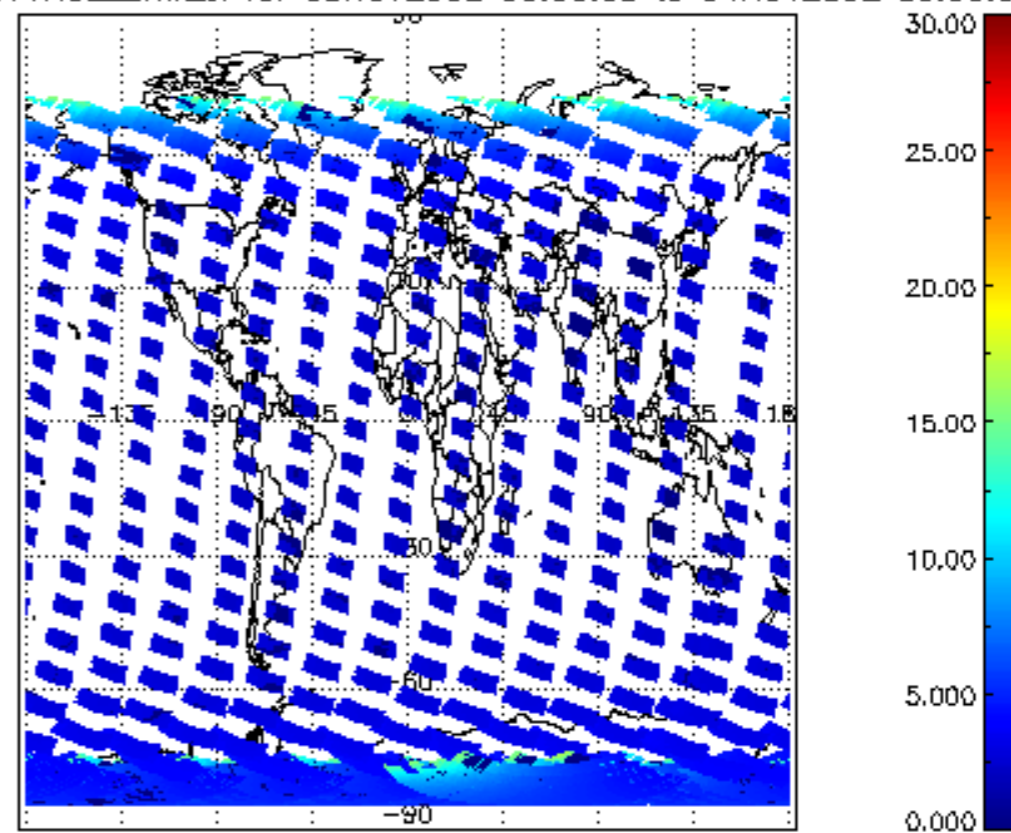
SCIOL2P_NADUV1NO2_vcd_err for 03NOV2002 00:00:00 to 04NOV2002 00:00:00



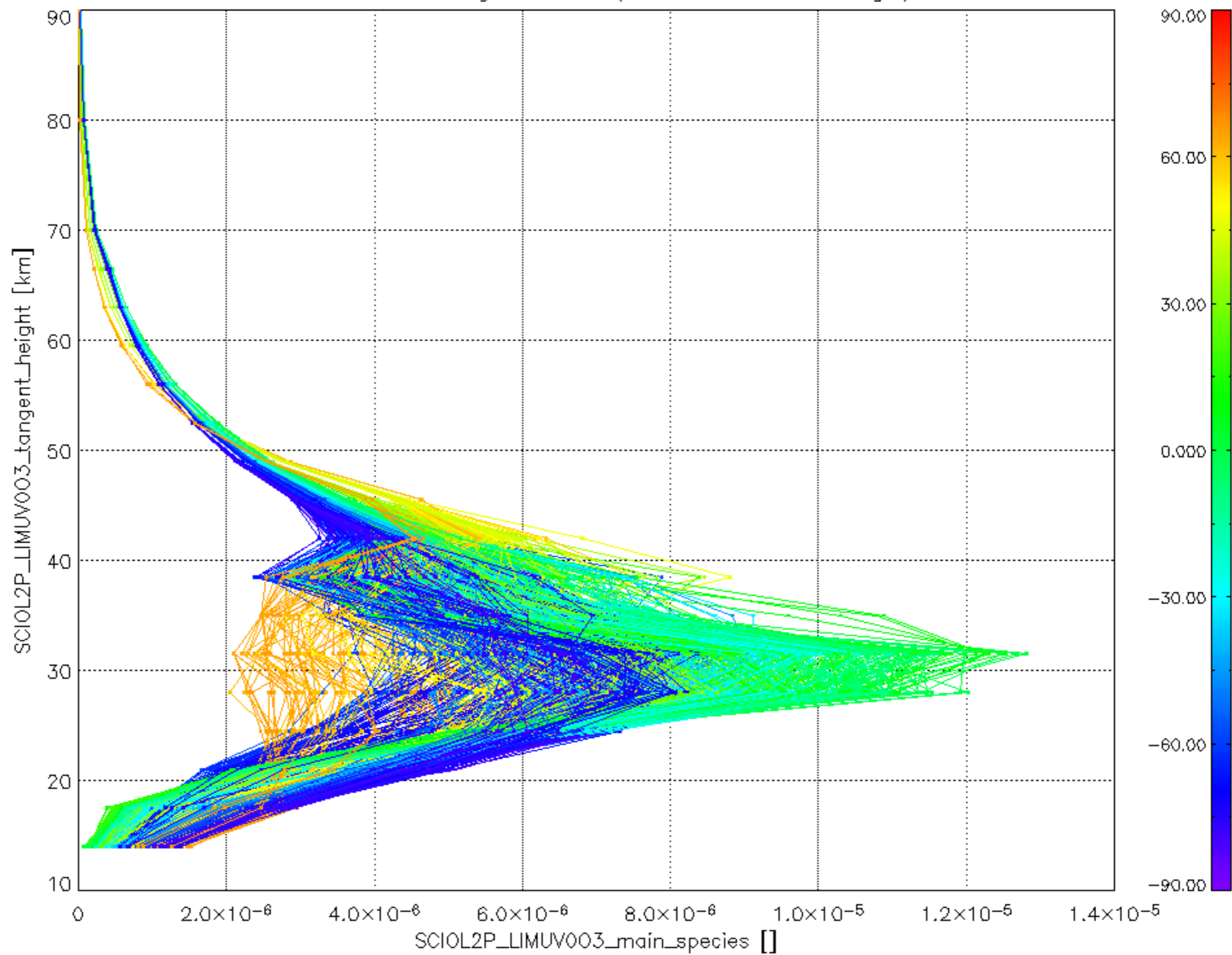
SCIOL2P_NADUV1NO2_amf_gr for 03NOV2002 00:00:00 to 04NOV2002 00:00:00



SCIOL2P_NADUV1NO2_amf_cl for 03NOV2002 00:00:00 to 04NOV2002 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).

