

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	30MAY2008 15:37:44
Data source version	SCIA-OL/3.01-R
Processing scope for products	30DEC2002 00:00:00 to 31DEC2002 00:00:00
Start time of first product within scope	29DEC2002 23:37:33
Stop time of last product within scope	30DEC2002 23:54:36
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__2PRDPA20021229_233733_000033242012_00288_04350_1937.N1	29DEC2002 23:37:33	30DEC2002 00:32:57	0	GOOD
1	SCI_OL__2PRDPA20021230_011809_000033242012_00289_04351_1732.N1	30DEC2002 01:18:09	30DEC2002 02:13:33	0	GOOD
2	SCI_OL__2PRDPA20021230_025844_000033242012_00290_04352_1775.N1	30DEC2002 02:58:44	30DEC2002 03:54:09	0	GOOD
3	SCI_OL__2PRDPA20021230_043920_000033242012_00291_04353_1762.N1	30DEC2002 04:39:20	30DEC2002 05:34:45	0	GOOD
4	SCI_OL__2PRDPA20021230_062920_000027602012_00292_04354_1907.N1	30DEC2002 06:29:20	30DEC2002 07:15:20	0	GOOD
5	SCI_OL__2PRDPA20021230_080032_000033242012_00293_04355_1945.N1	30DEC2002 08:00:32	30DEC2002 08:55:56	0	GOOD
6	SCI_OL__2PRDPA20021230_094108_000033242012_00294_04356_1729.N1	30DEC2002 09:41:08	30DEC2002 10:36:32	0	GOOD
7	SCI_OL__2PRDPA20021230_112143_000033242012_00295_04357_1717.N1	30DEC2002 11:21:43	30DEC2002 12:17:08	0	GOOD
8	SCI_OL__2PRDPA20021230_130219_000033242012_00296_04358_1754.N1	30DEC2002 13:02:19	30DEC2002 13:57:43	0	GOOD
9	SCI_OL__2PRDPA20021230_144255_000033242012_00297_04359_1827.N1	30DEC2002 14:42:55	30DEC2002 15:38:19	0	GOOD
10	SCI_OL__2PRDPA20021230_162331_000033242012_00298_04360_1859.N1	30DEC2002 16:23:31	30DEC2002 17:18:55	0	GOOD
11	SCI_OL__2PRDPA20021230_180448_000029222012_00299_04361_1801.N1	30DEC2002 18:04:48	30DEC2002 18:53:30	0	GOOD
12	SCI_OL__2PRDPA20021230_194508_000029212012_00300_04362_1927.N1	30DEC2002 19:45:08	30DEC2002 20:33:49	0	GOOD
13	SCI_OL__2PRDPA20021230_212518_000028732012_00301_04363_1865.N1	30DEC2002 21:25:18	30DEC2002 22:13:12	0	GOOD
14	SCI_OL__2PRDPA20021230_230554_000029212012_00302_04364_1772.N1	30DEC2002 23:05:54	30DEC2002 23:54:36	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: 82400

Total number of cloud data DSRs with good quality flag (=0): 82400 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	82400	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	82400	0.21547	0.25000	0.12500	0.50000	0.076514	s
SURFACE_PRES	82400	0.0000	0.0000	0.0000	0.0000	0.0000	hPa
CL_FRAC	82400	0.46219	0.46815	0.0000	1.0000	0.27719	-

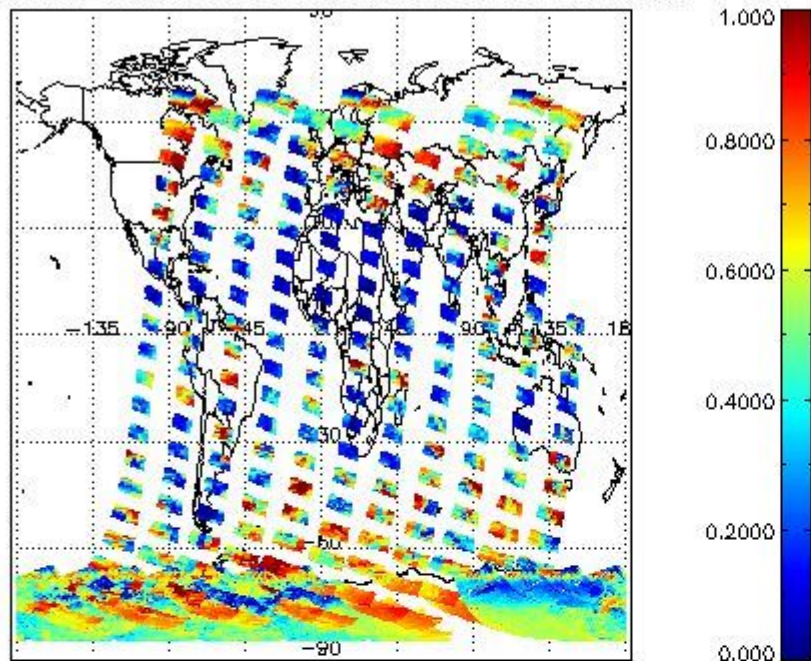
CL_FRAC_ERR	82400	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	82400	6.8951	8.0000	4.0000	16.000	2.4484	
PMD_READ_CL[0]	82400	0.32722	0.0000	0.0000	16.000	1.3397	-
PMD_READ_CL[1]	82400	0.34285	0.0000	0.0000	16.000	1.3844	-
CL_TOP_HEIGHT	74601	4.3871	3.2298	0.0000	17.000	3.8388	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	74601	49.316	31.807	0.0000	101.00	39.306	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	82400	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	82400	11000110	11000010	11000000	11100000	2450.9	flags
AERO_ABSO_IND	82400	0.47688	0.16208	-4.0109	13.152	1.2253	
AERO_IND_DIAG	82400	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	82400	01101011	11000000	00000000	11000000	24414.	flags

Time and geolocation plots:

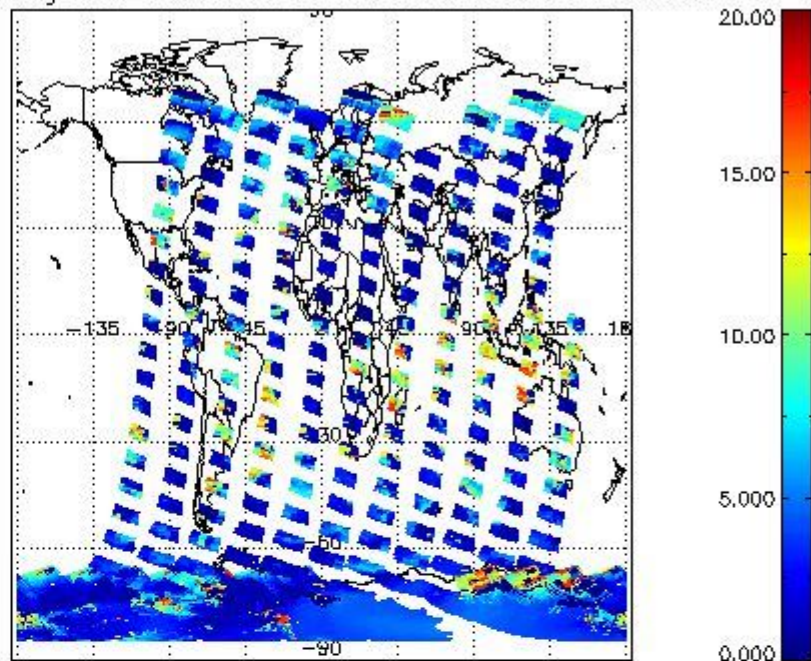
Plots are available for the following parameters:

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

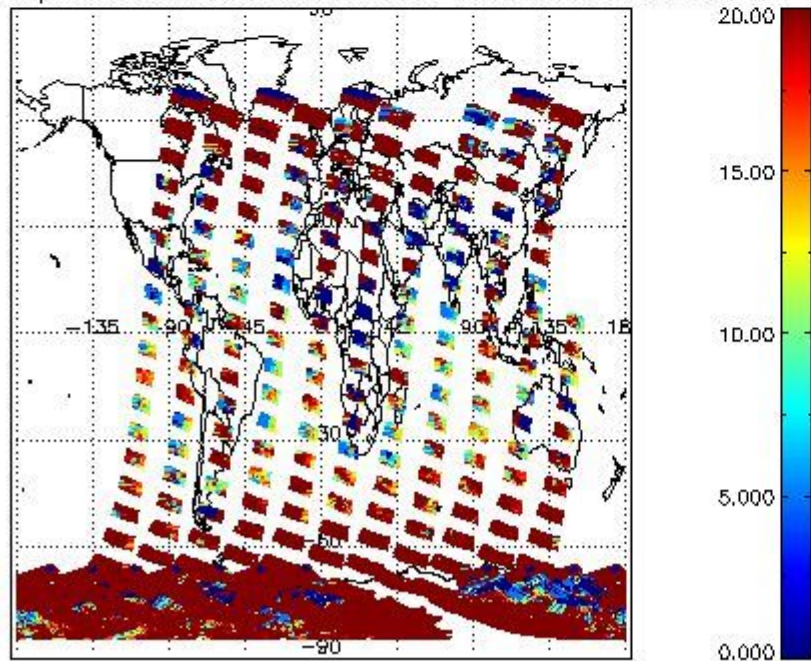
cL_frac for 30DEC2002 00:00:00 to 31DEC2002 00:00:00



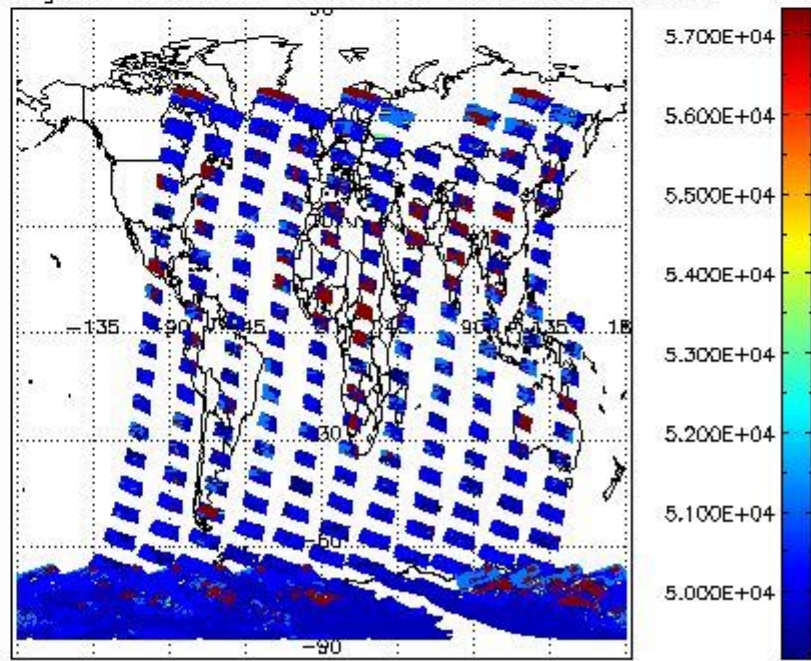
cL_top_height for 30DEC2002 00:00:00 to 31DEC2002 00:00:00



cL_opt_depth for 30DEC2002 00:00:00 to 31DEC2002 00:00:00



cloud_flags for 30DEC2002 00:00:00 to 31DEC2002 00:00:00



2.2.2 Nadir

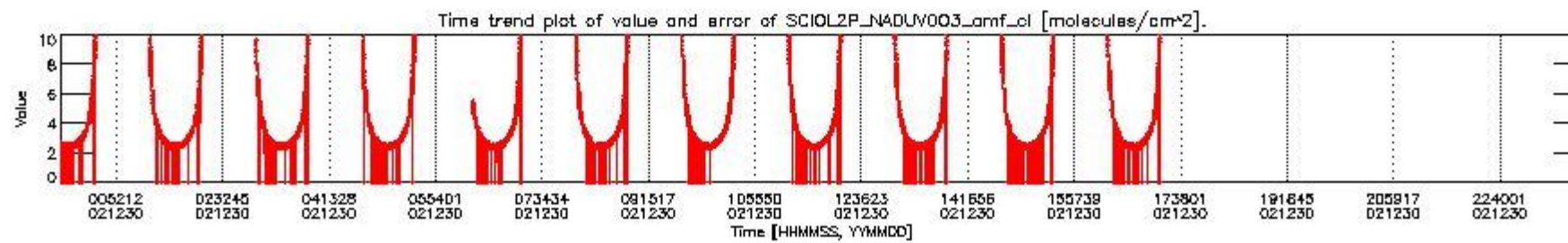
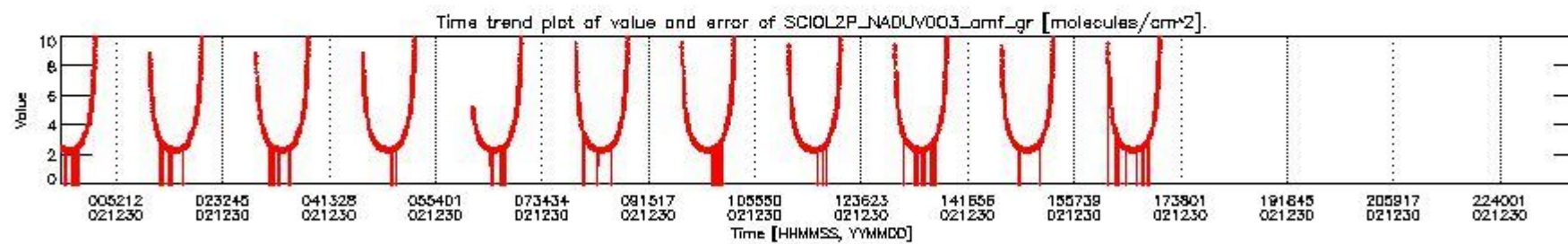
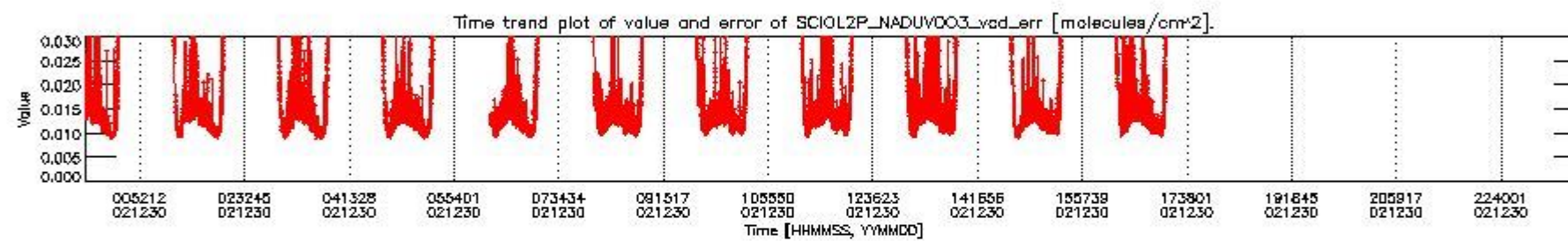
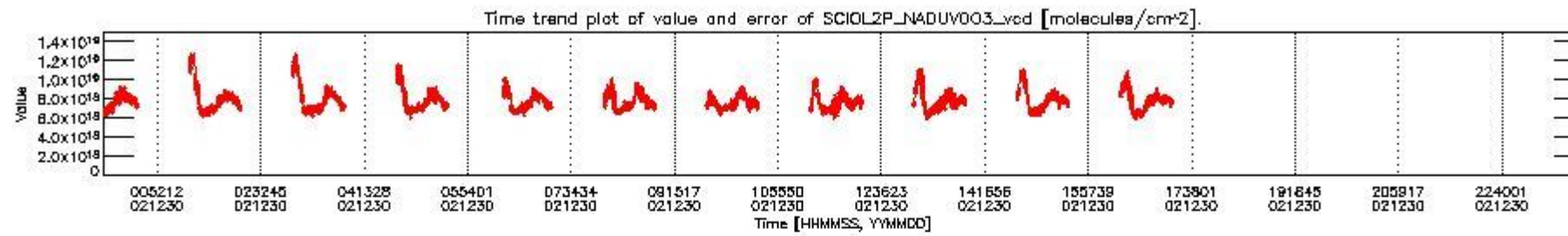
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

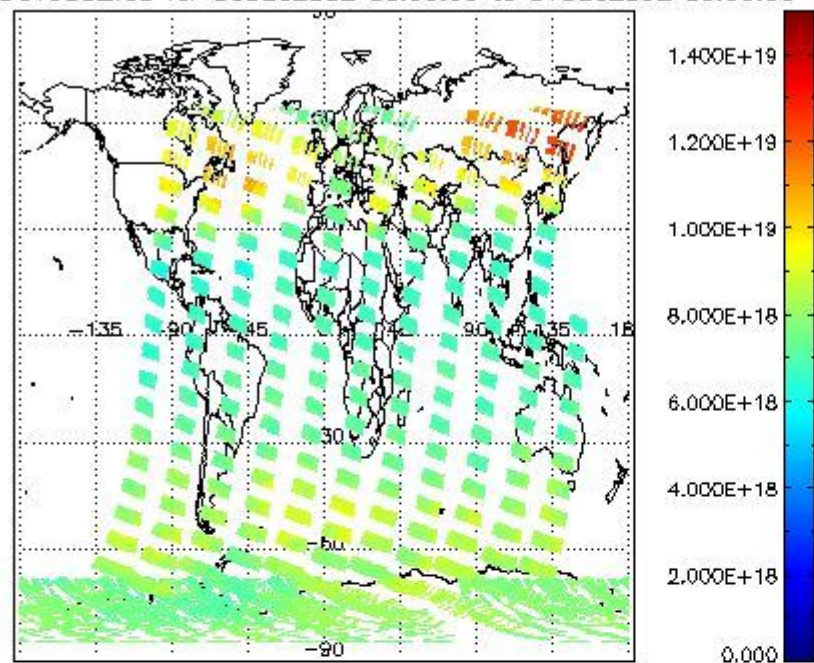
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

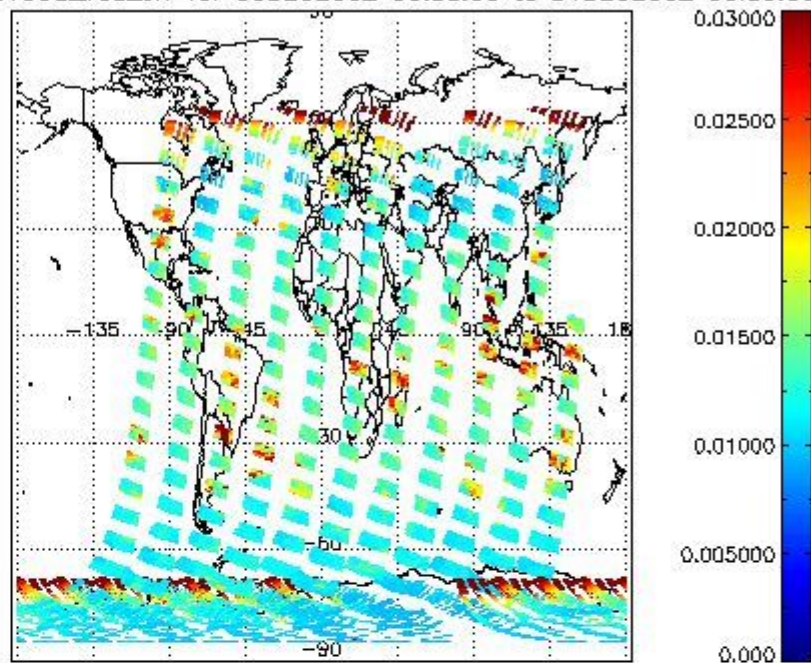
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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



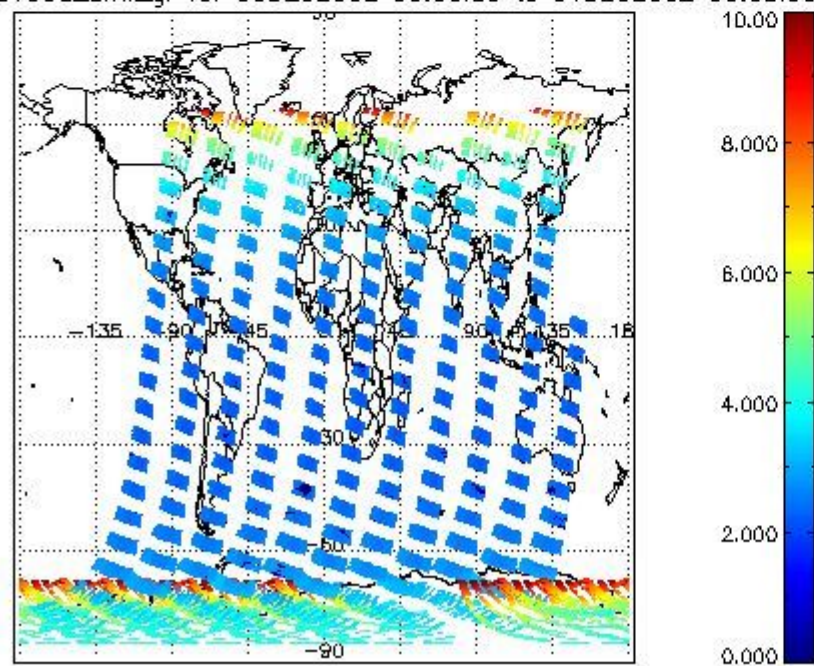
SCIOL2P_NADUV003_vcd for 30DEC2002 00:00:00 to 31DEC2002 00:00:00



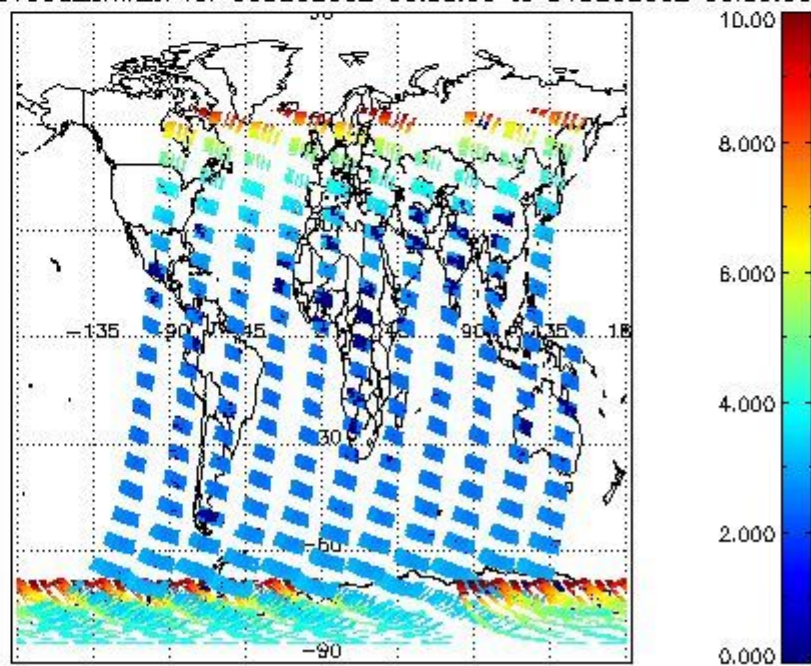
SCIOL2P_NADUV003_vcd_err for 30DEC2002 00:00:00 to 31DEC2002 00:00:00

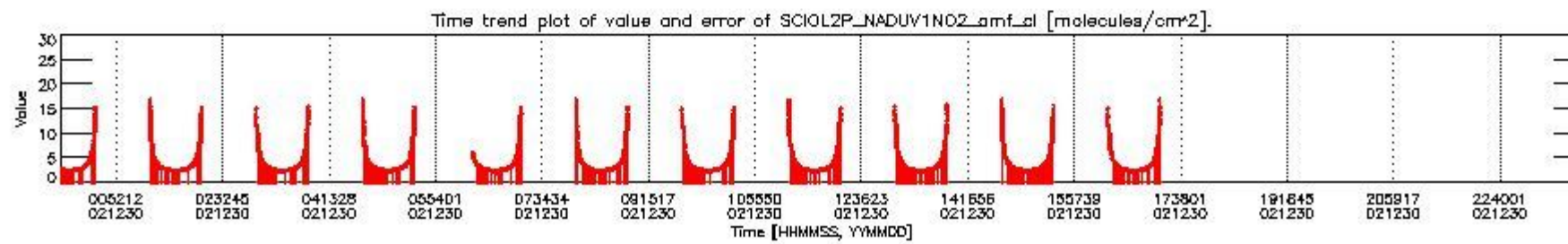
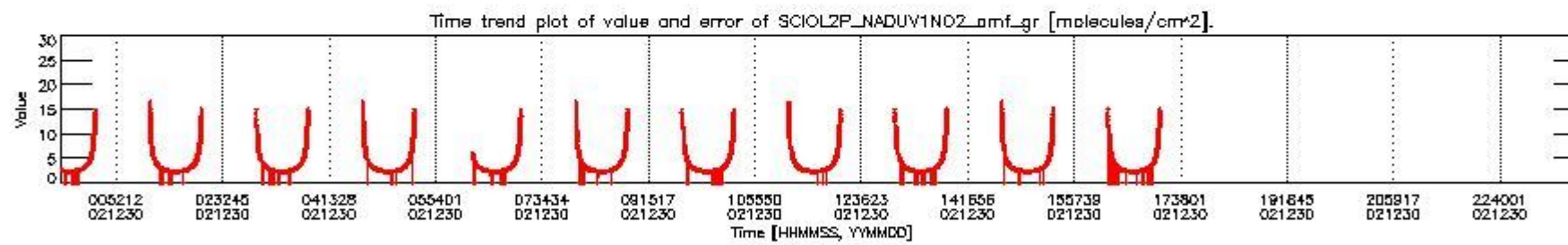
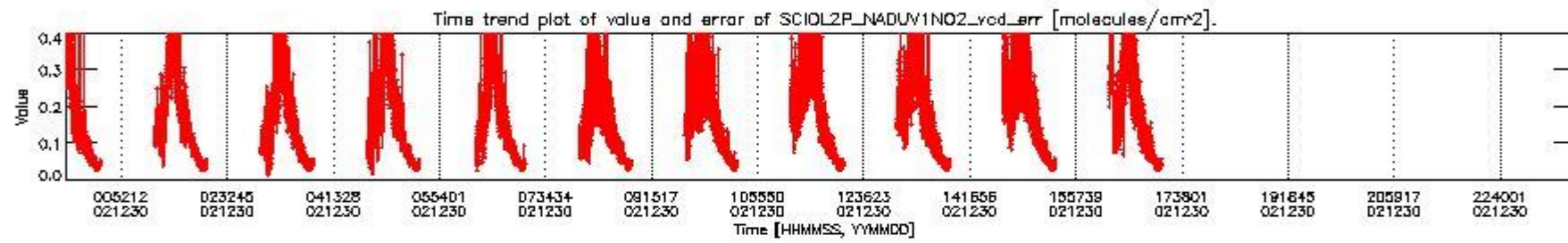
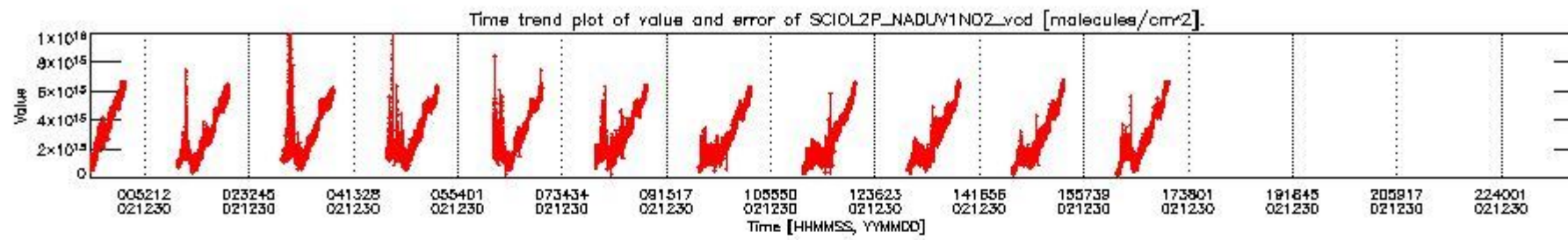


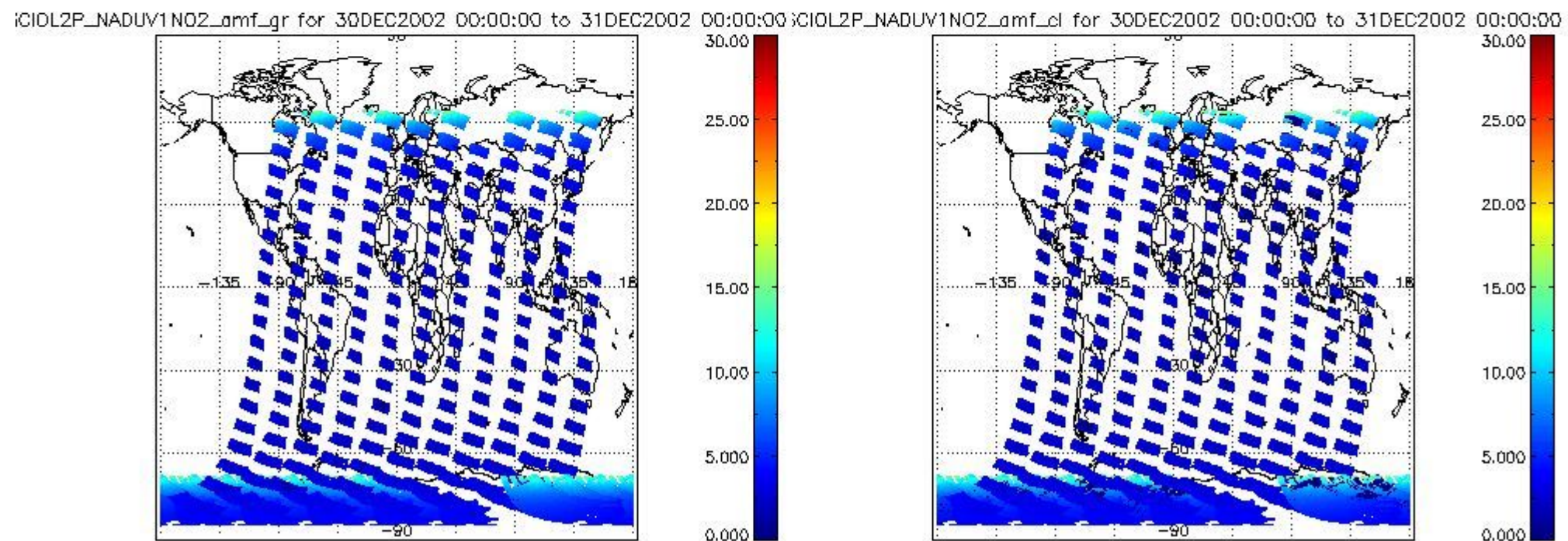
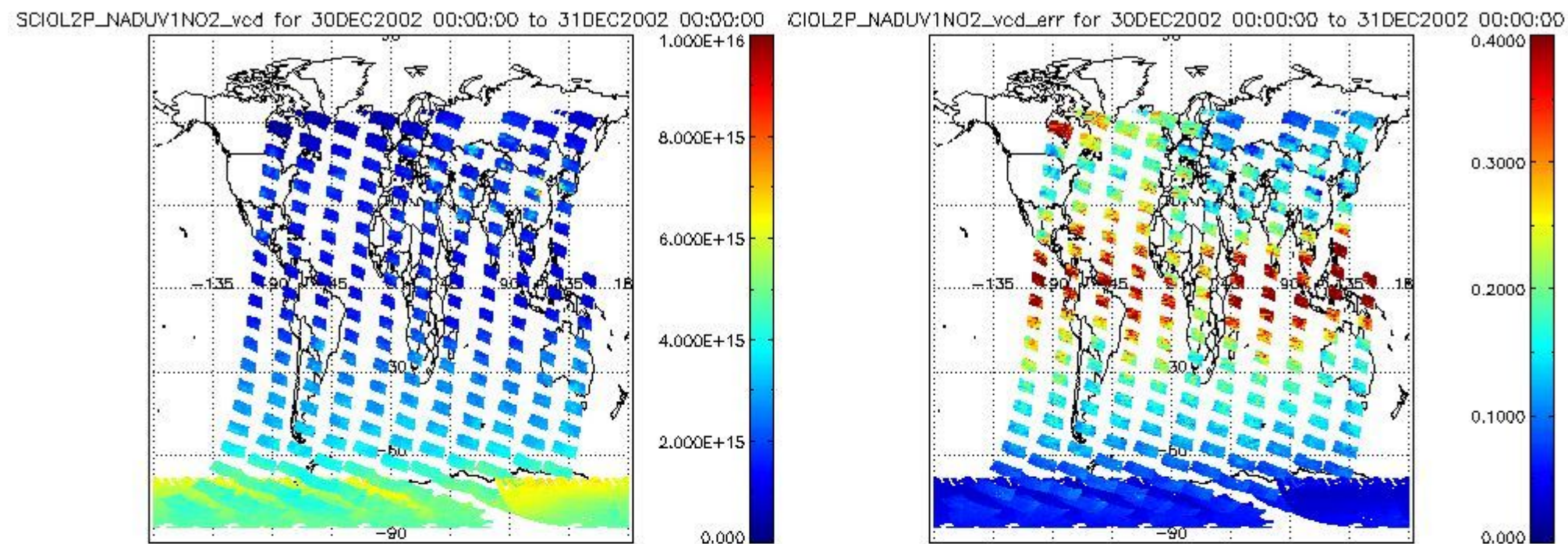
SCIOL2P_NADUV003_amf_gr for 30DEC2002 00:00:00 to 31DEC2002 00:00:00



SCIOL2P_NADUV003_amf_sl for 30DEC2002 00:00:00 to 31DEC2002 00:00:00







2.2.3 Limb

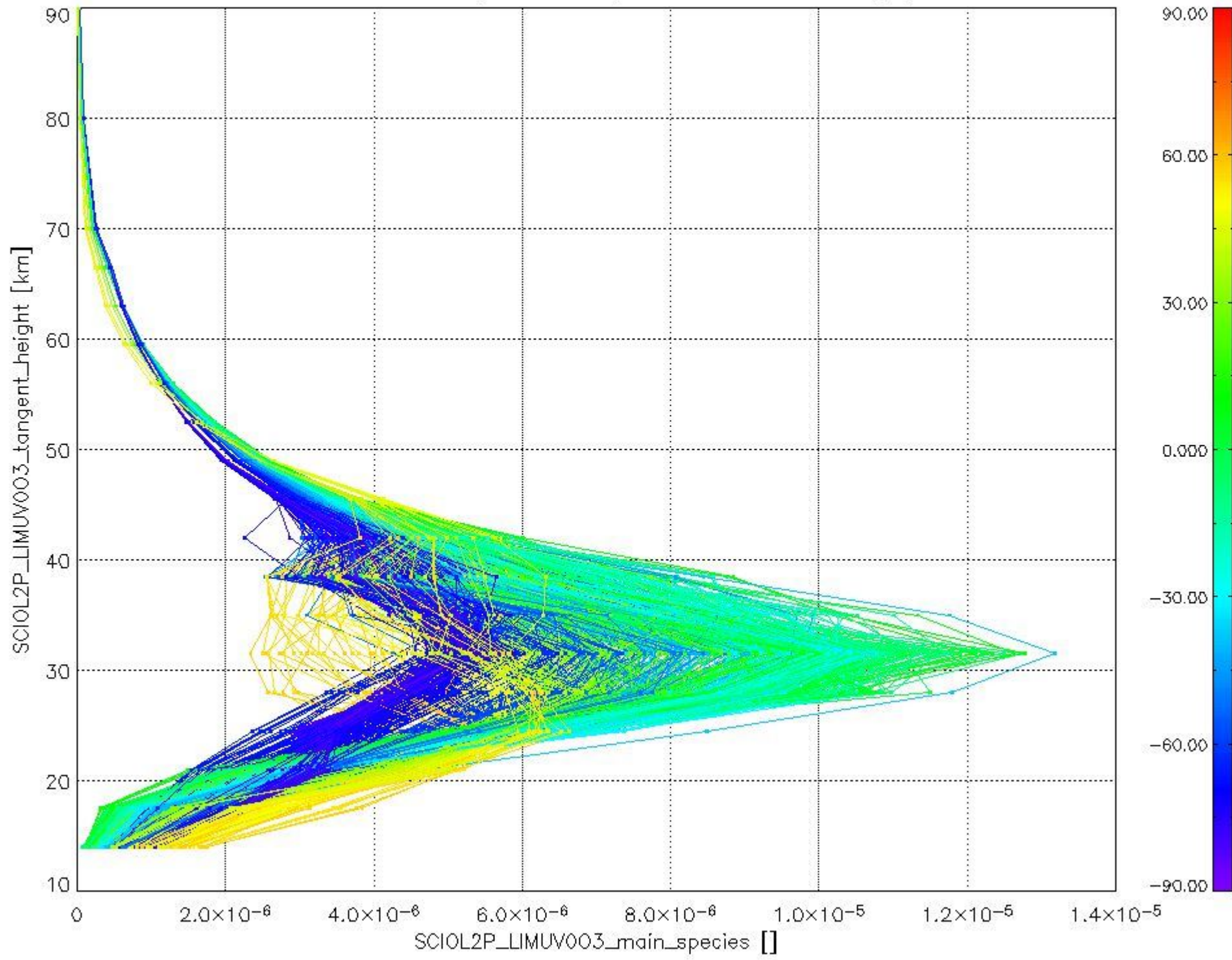
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

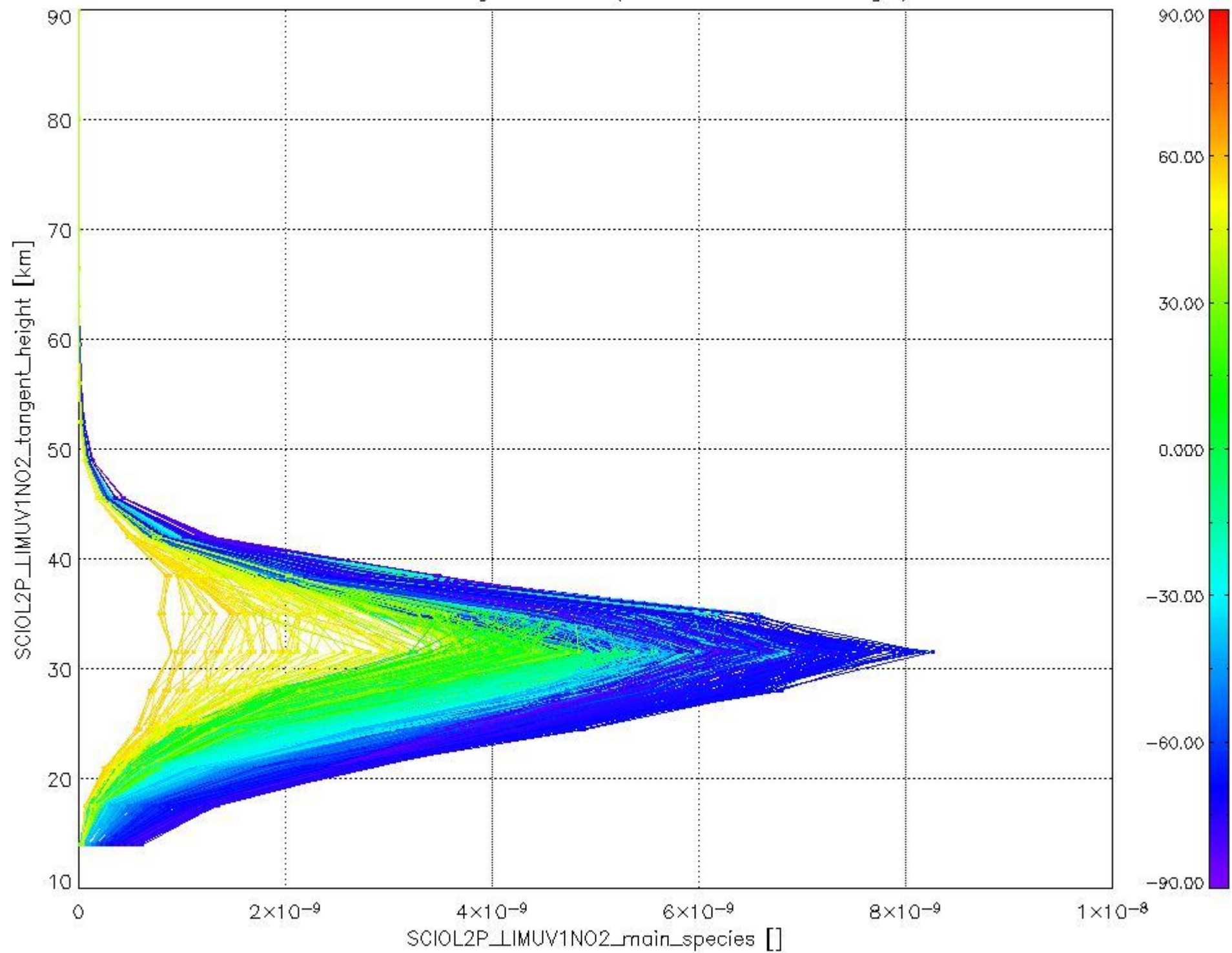
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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).



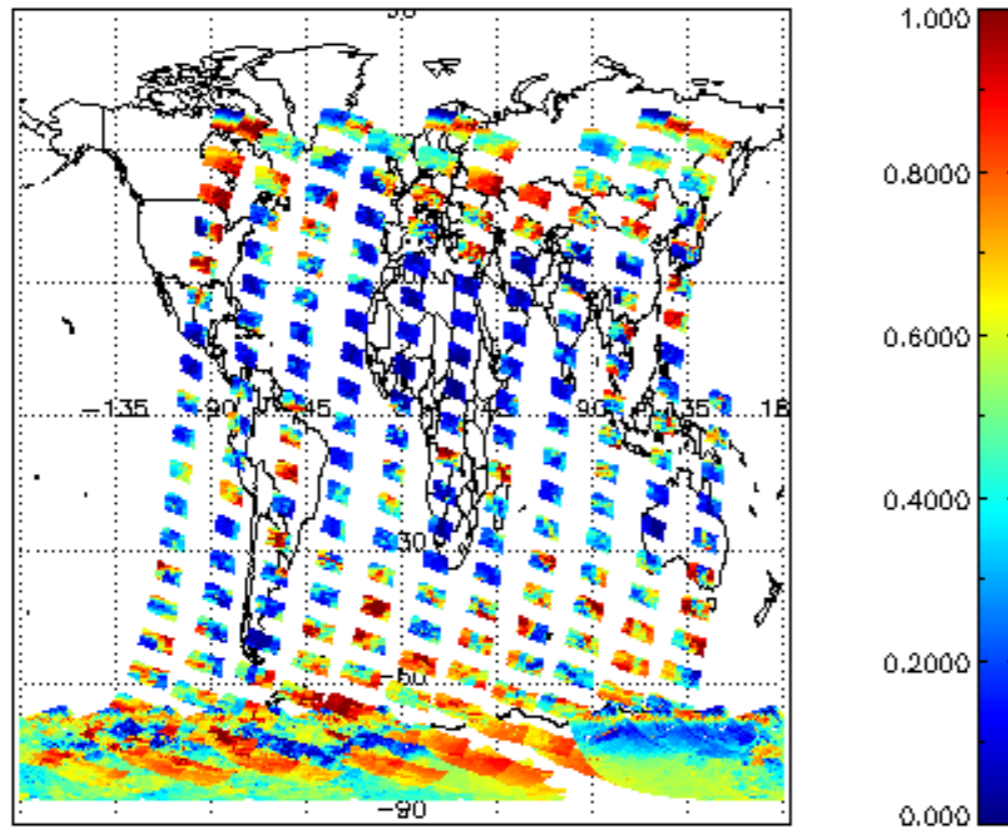
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



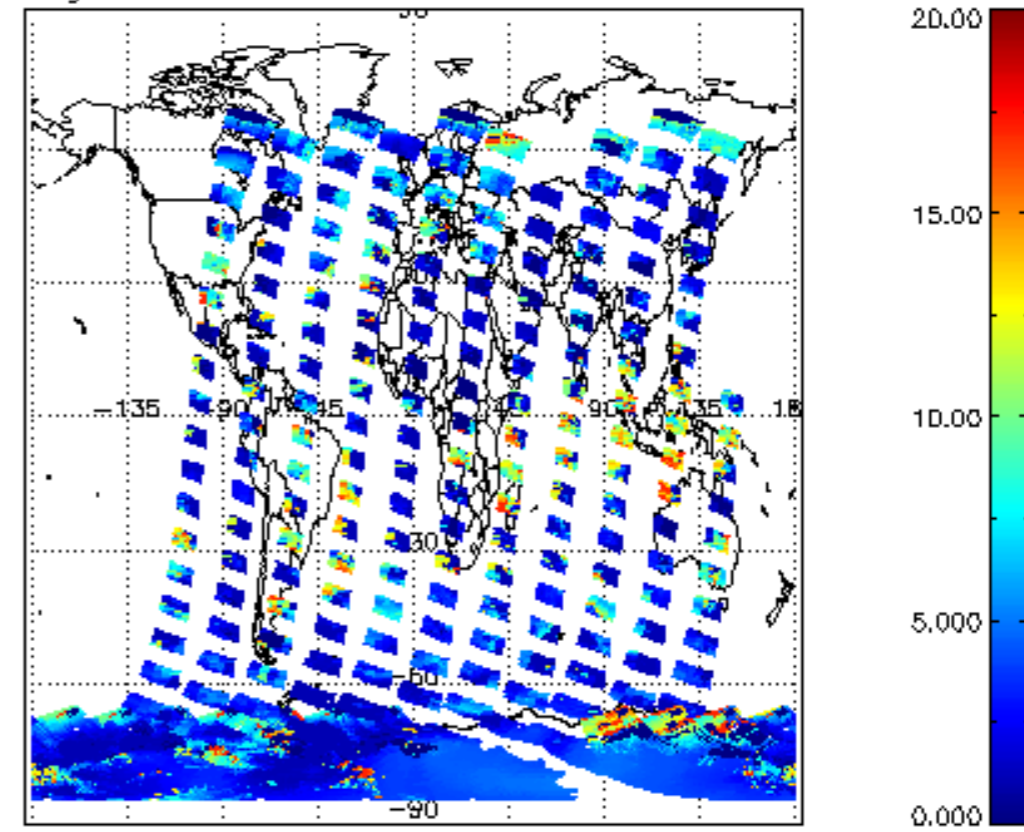
2.3 ADF monitoring

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

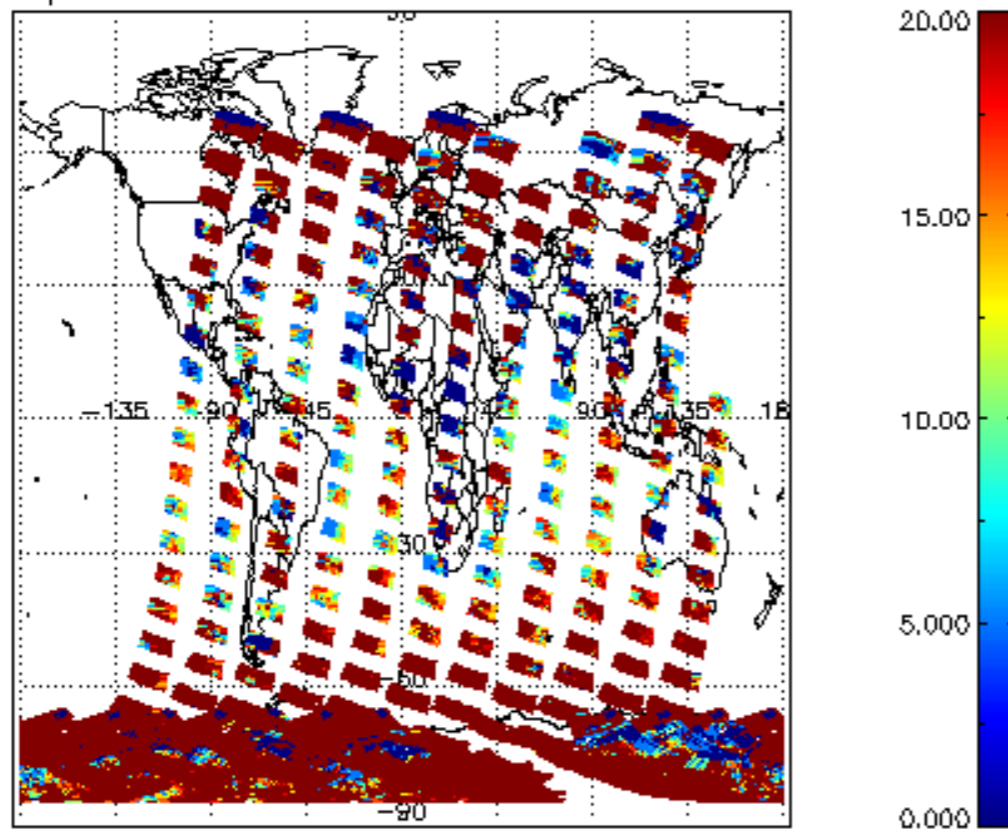
cl_frac for 30DEC2002 00:00:00 to 31DEC2002 00:00:00



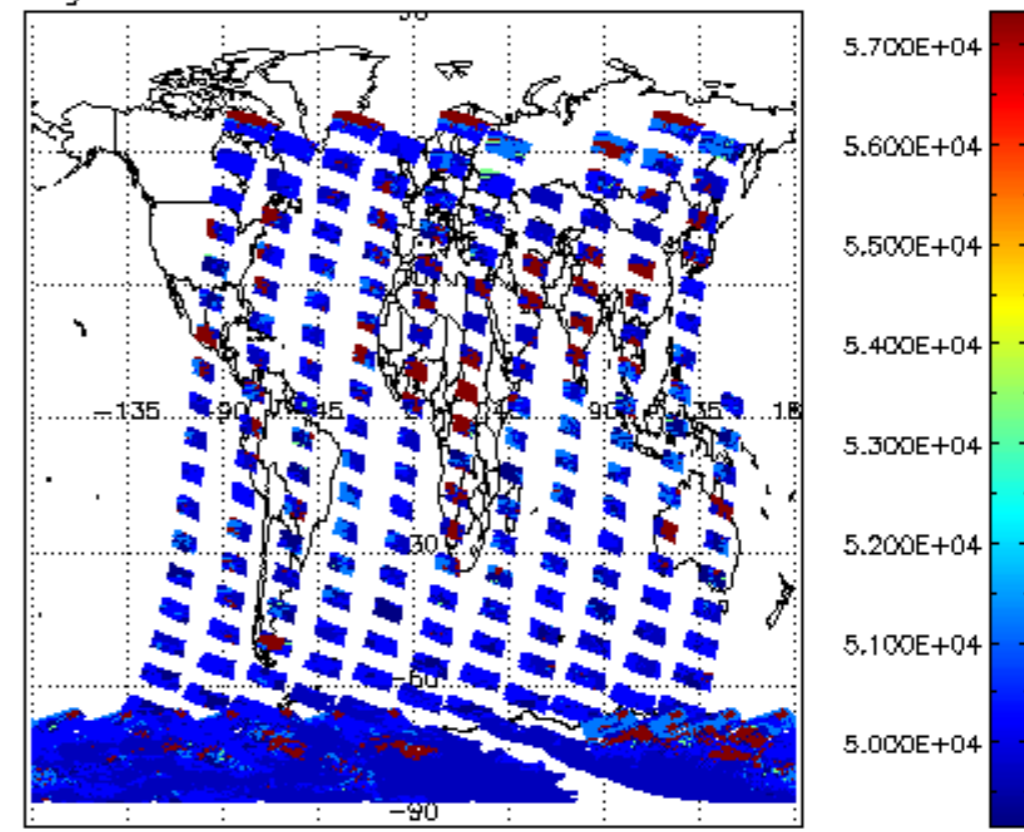
cl_top_height for 30DEC2002 00:00:00 to 31DEC2002 00:00:00

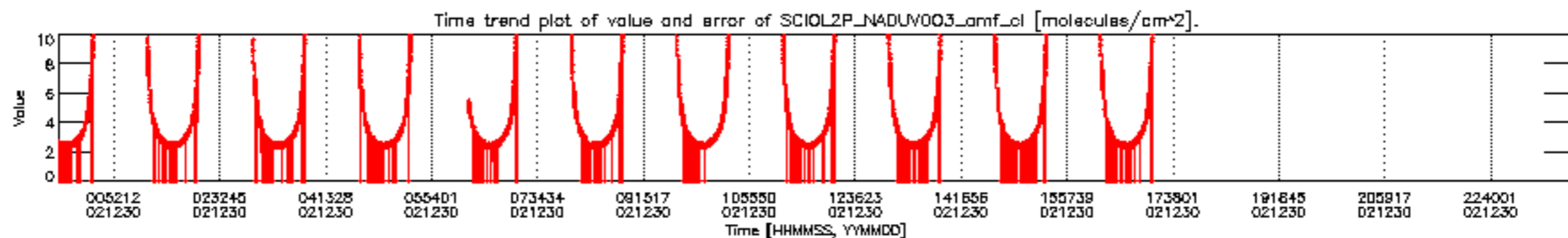
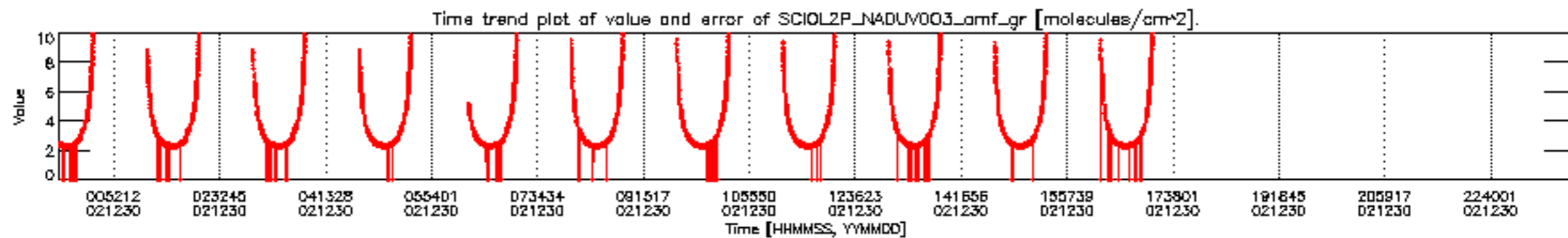
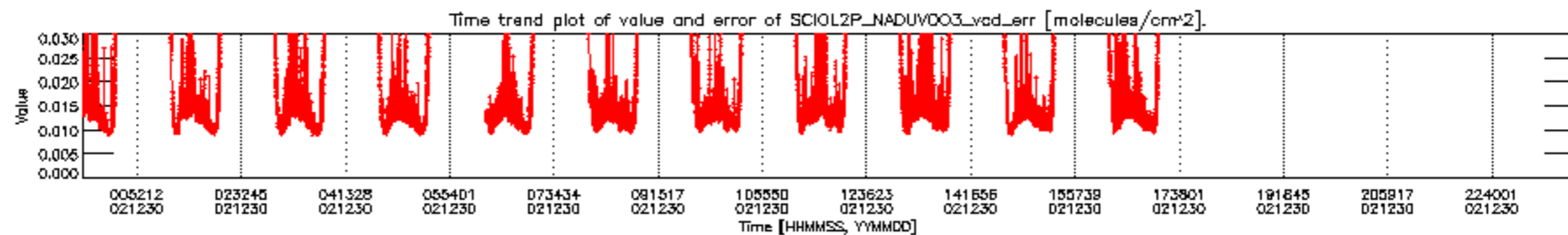
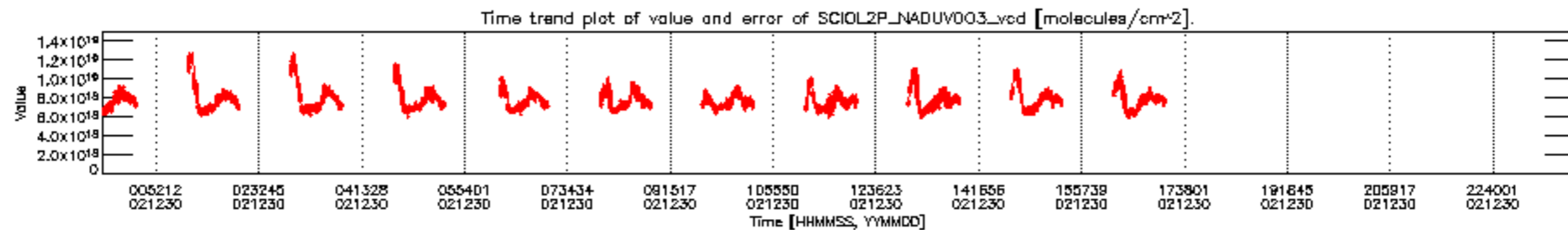


cl_opt_depth for 30DEC2002 00:00:00 to 31DEC2002 00:00:00

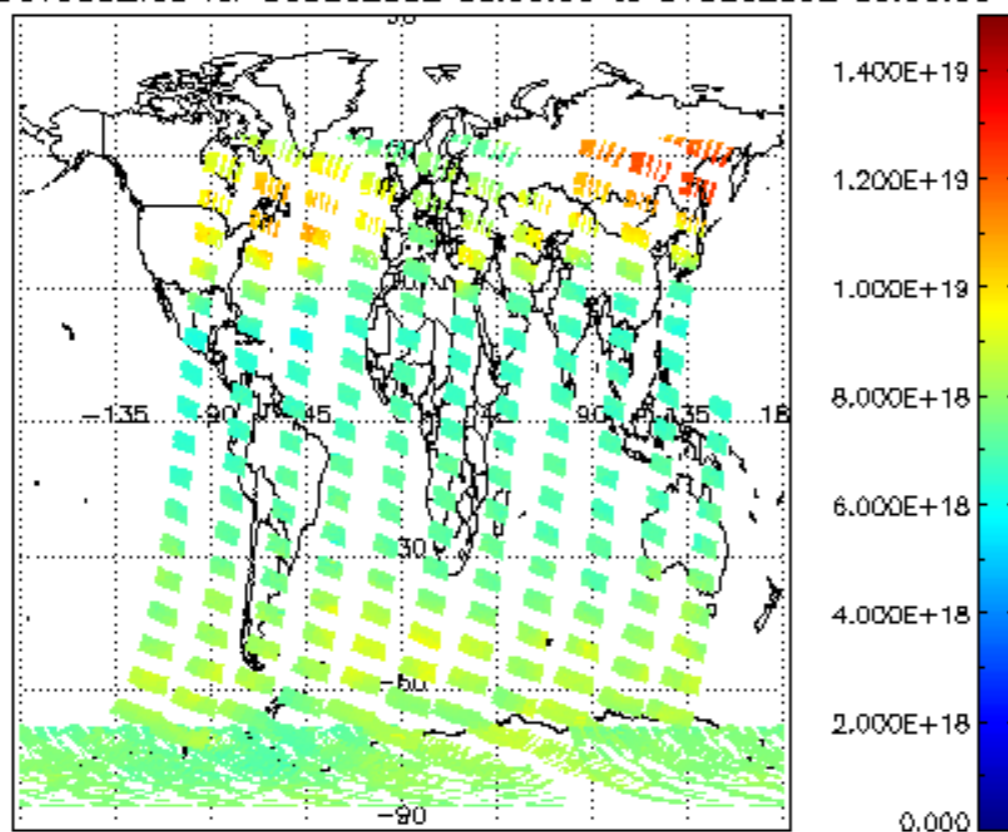


cloud_flags for 30DEC2002 00:00:00 to 31DEC2002 00:00:00

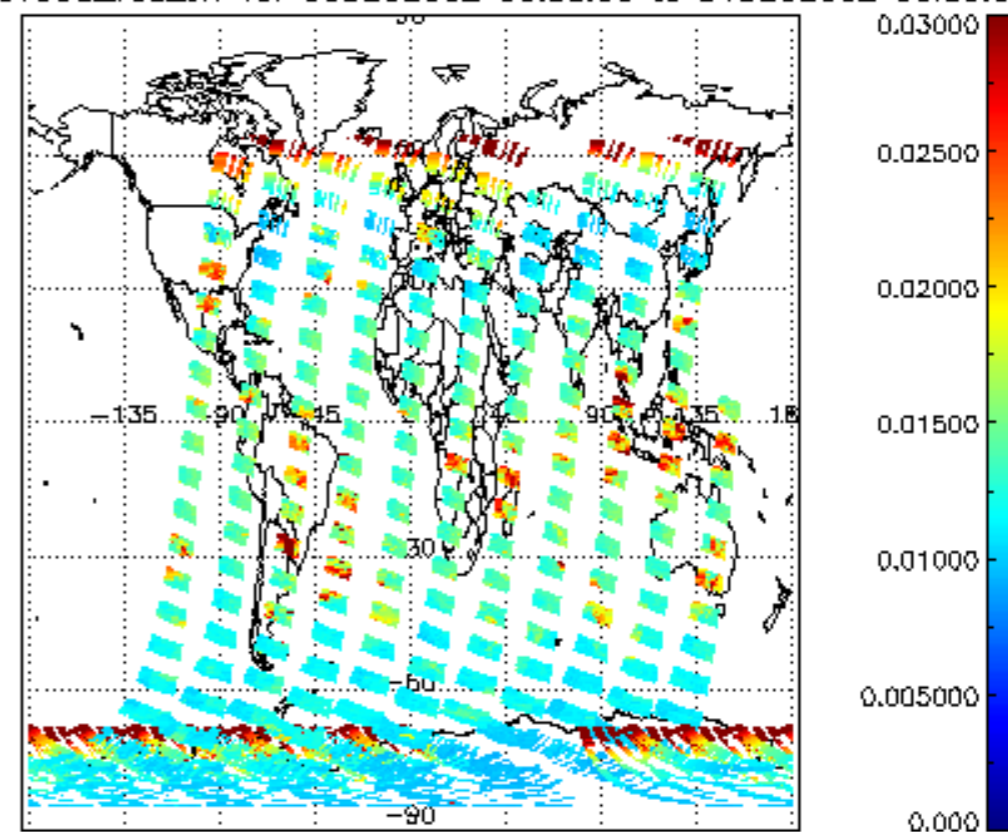




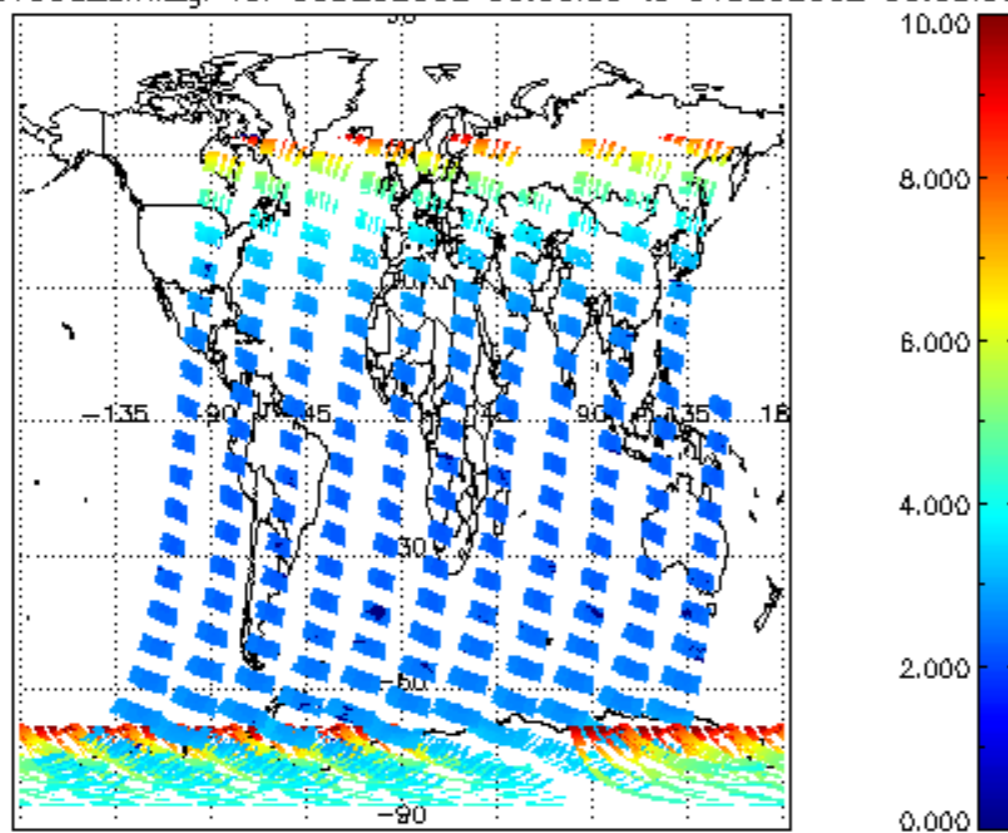
SCIOL2P_NADUV003_vcd for 30DEC2002 00:00:00 to 31DEC2002 00:00:00



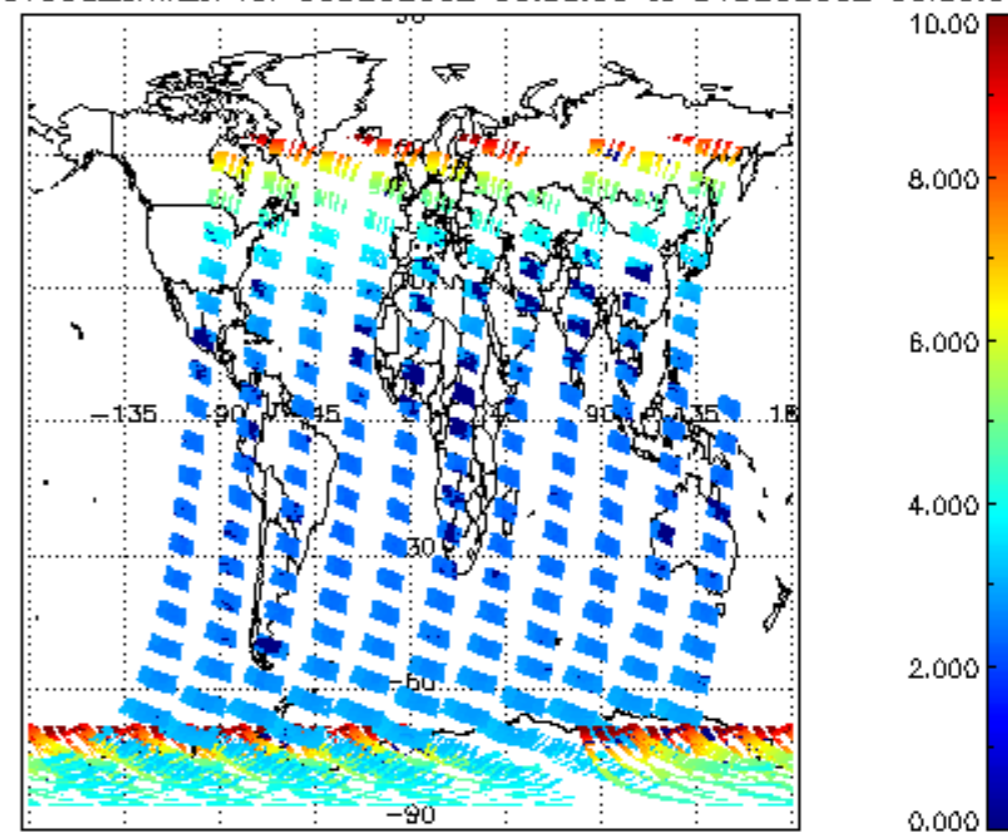
SCIOL2P_NADUV003_vcd_err for 30DEC2002 00:00:00 to 31DEC2002 00:00:00

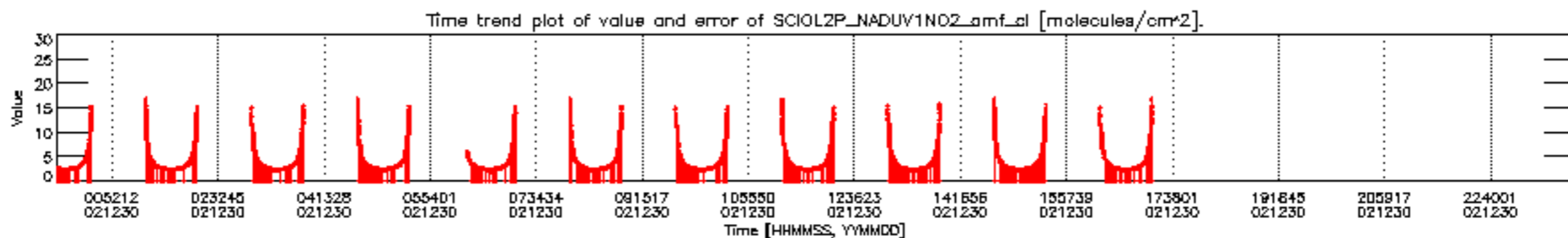
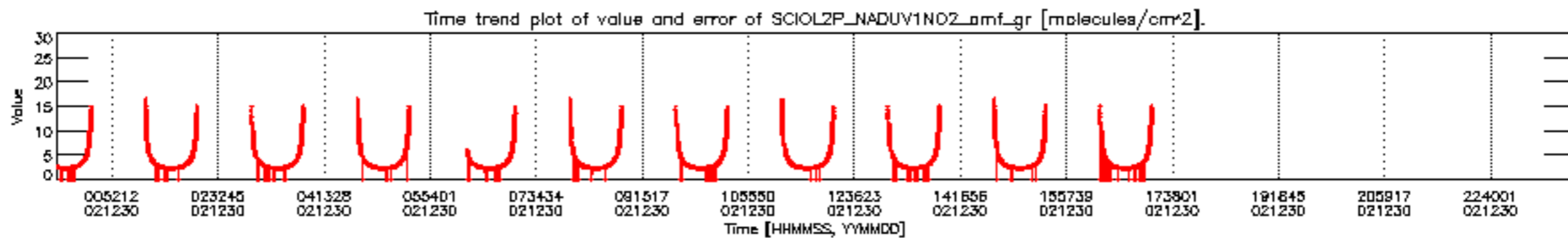
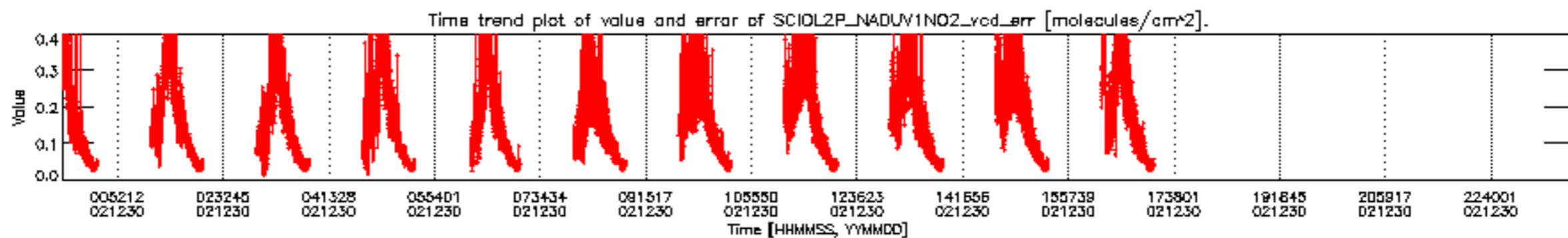
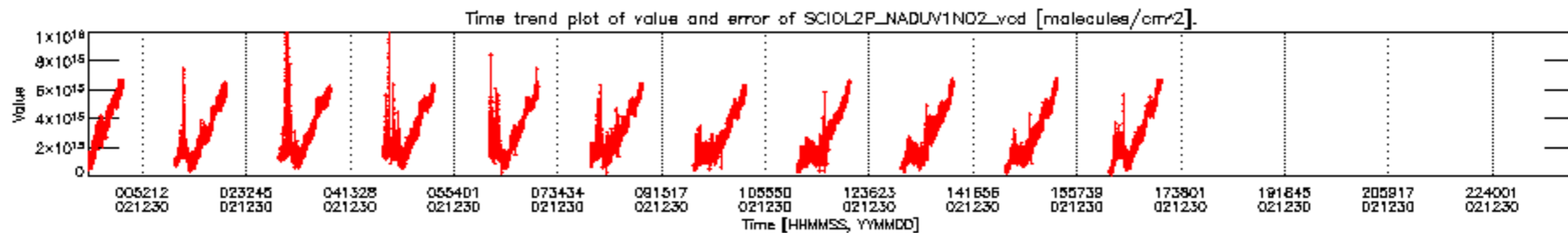


SCIOL2P_NADUV003_amf_gr for 30DEC2002 00:00:00 to 31DEC2002 00:00:00

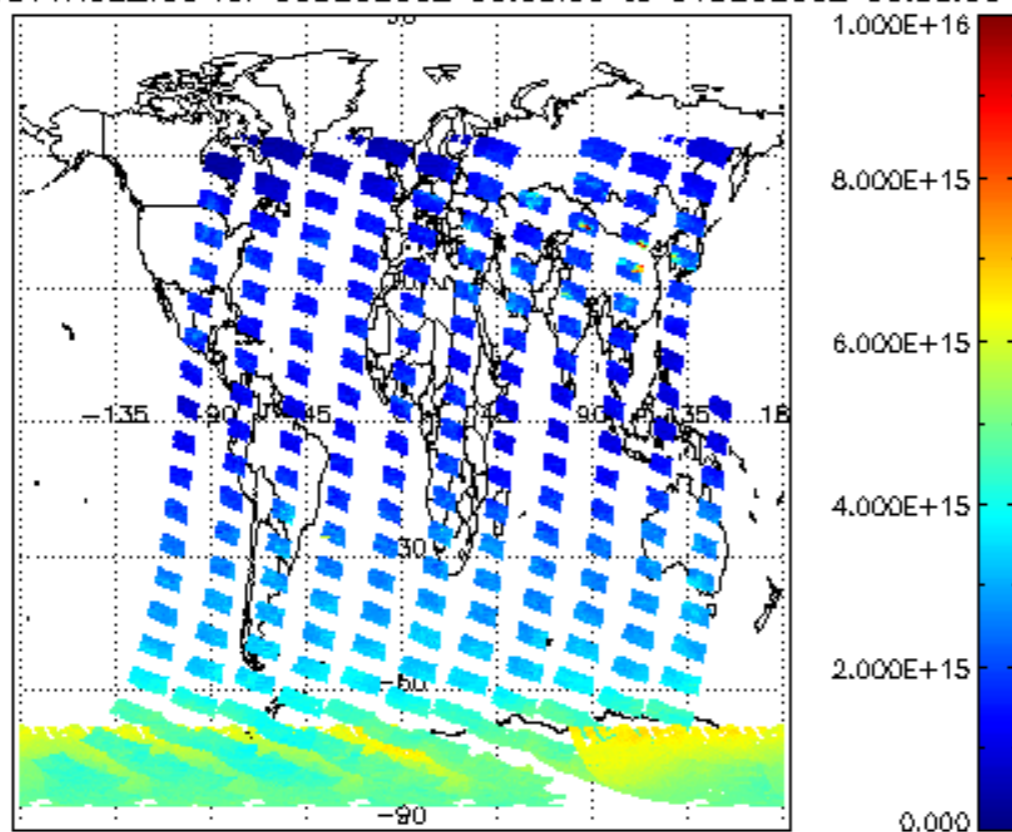


SCIOL2P_NADUV003_amf_cl for 30DEC2002 00:00:00 to 31DEC2002 00:00:00

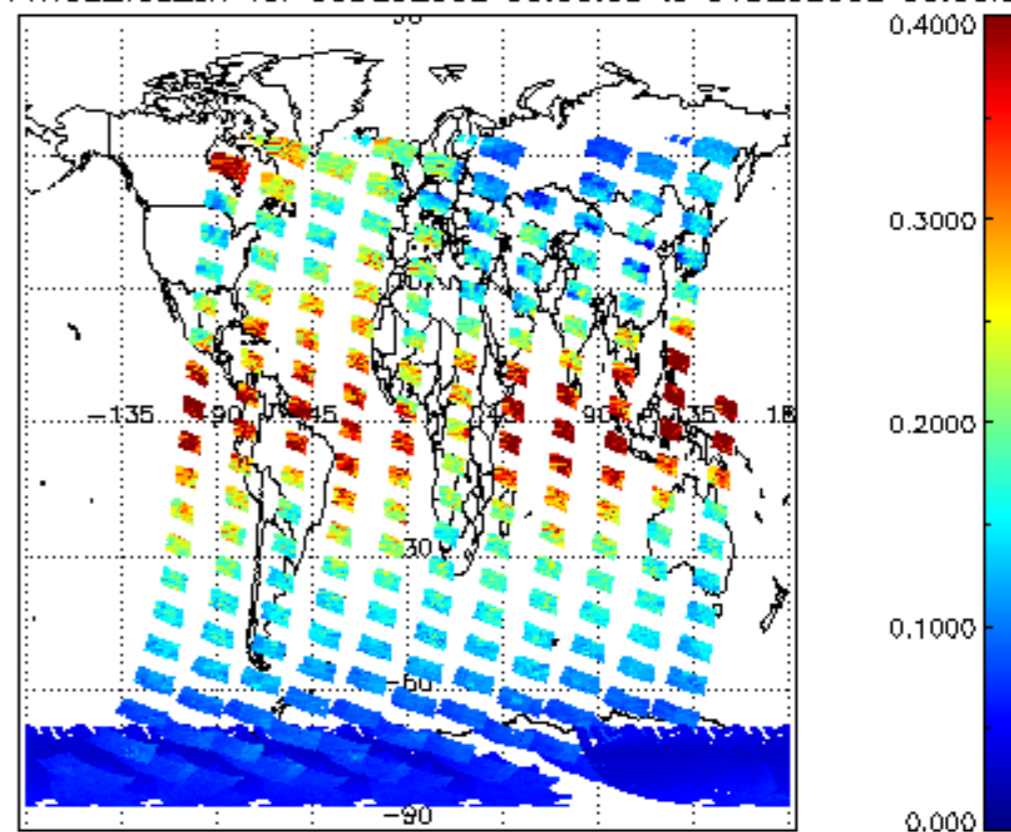




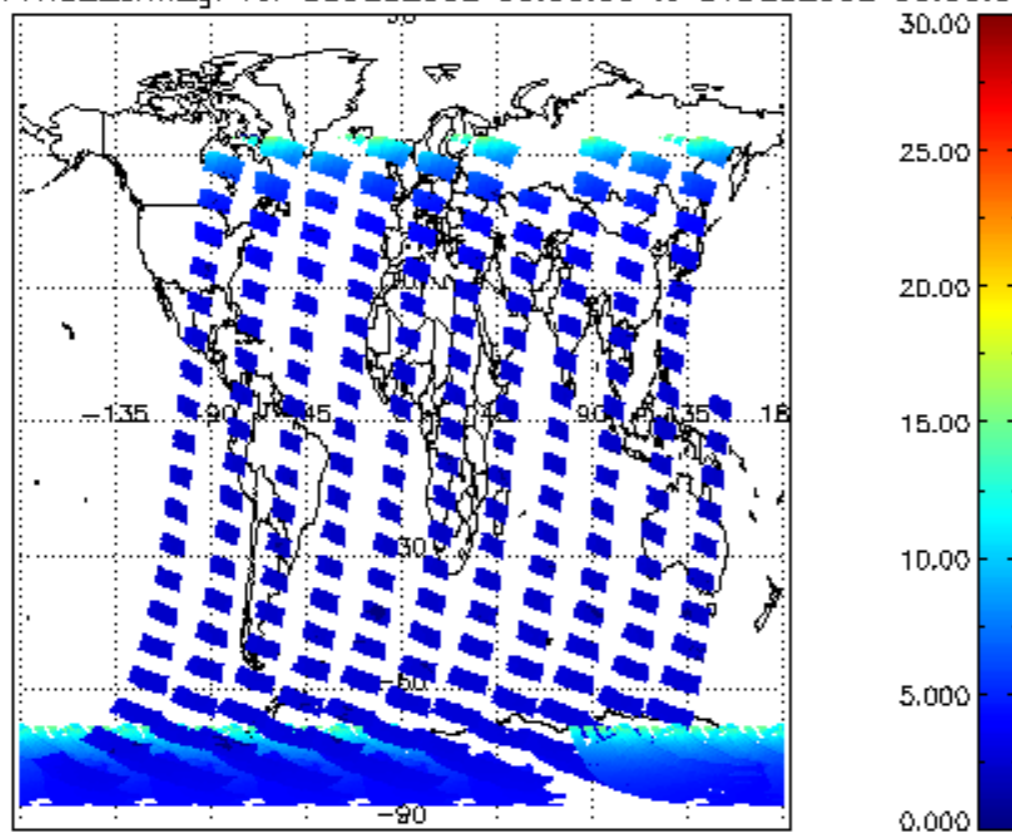
SCIOL2P_NADUV1NO2_vcd for 30DEC2002 00:00:00 to 31DEC2002 00:00:00



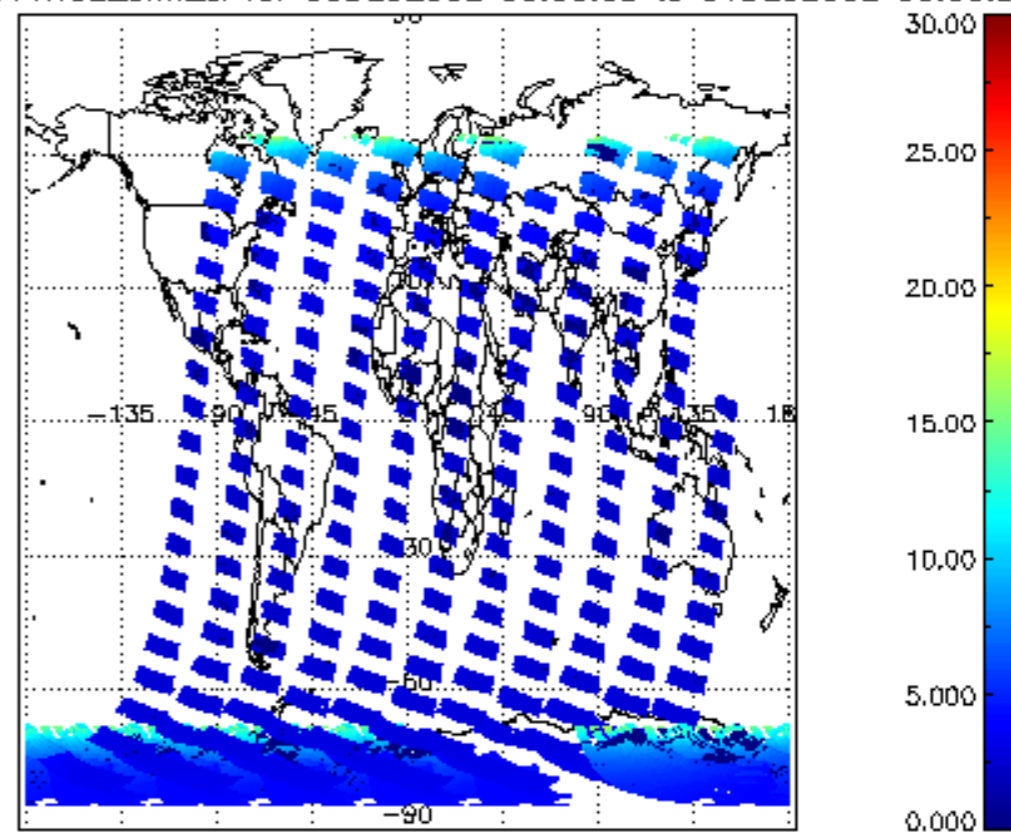
SCIOL2P_NADUV1NO2_vcd_err for 30DEC2002 00:00:00 to 31DEC2002 00:00:00



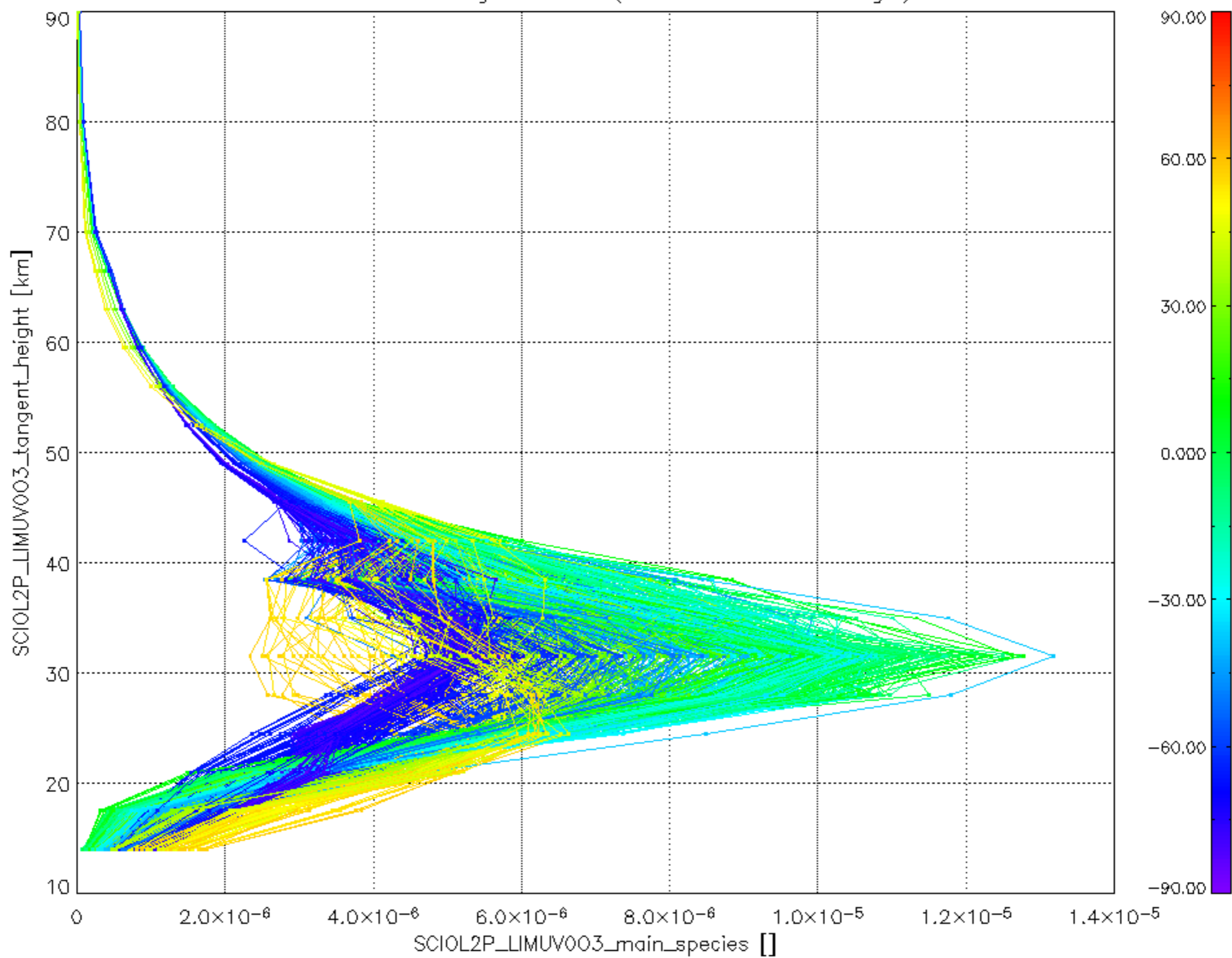
SCIOL2P_NADUV1NO2_amf_gr for 30DEC2002 00:00:00 to 31DEC2002 00:00:00



SCIOL2P_NADUV1NO2_amf_cl for 30DEC2002 00:00:00 to 31DEC2002 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).

