

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	04AUG2008 08:21:40
Data source version	SCIA-OL/3.01-R
Processing scope for products	15FEB2004 00:00:00 to 16FEB2004 00:00:00
Start time of first product within scope	14FEB2004 22:47:09
Stop time of last product within scope	16FEB2004 00:49:59
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__2PRDPA20040214_224709_000032372024_00173_10247_6758.N1	14FEB2004 22:47:09	14FEB2004 23:41:07	0	GOOD
1	SCI_OL__2PRDPA20040215_002745_000032372024_00174_10248_6726.N1	15FEB2004 00:27:45	15FEB2004 01:21:42	0	GOOD
2	SCI_OL__2PRDPA20040215_020657_000033772024_00175_10249_6783.N1	15FEB2004 02:06:57	15FEB2004 03:03:14	0	GOOD
3	SCI_OL__2PRDPA20040215_034856_000032372024_00176_10250_6714.N1	15FEB2004 03:48:56	15FEB2004 04:42:53	0	GOOD
4	SCI_OL__2PRDPA20040215_052808_000033772024_00177_10251_6756.N1	15FEB2004 05:28:08	15FEB2004 06:24:25	0	GOOD
5	SCI_OL__2PRDPA20040215_071007_000032372024_00178_10252_6695.N1	15FEB2004 07:10:07	15FEB2004 08:04:04	0	GOOD
6	SCI_OL__2PRDPA20040215_084918_000033772024_00179_10253_6703.N1	15FEB2004 08:49:18	15FEB2004 09:45:35	0	GOOD
7	SCI_OL__2PRDPA20040215_103117_000032372024_00180_10254_6736.N1	15FEB2004 10:31:17	15FEB2004 11:25:15	0	GOOD
8	SCI_OL__2PRDPA20040215_121029_000033772024_00181_10255_6681.N1	15FEB2004 12:10:29	15FEB2004 13:06:46	0	GOOD
9	SCI_OL__2PRDPA20040215_135228_000032372024_00182_10256_4082.N1	15FEB2004 13:52:28	15FEB2004 14:46:26	0	GOOD
10	SCI_OL__2PRDPA20040215_153140_000033772024_00183_10257_6801.N1	15FEB2004 15:31:40	15FEB2004 16:27:57	0	GOOD
11	SCI_OL__2PRDPA20040215_171227_000033352024_00184_10258_6845.N1	15FEB2004 17:12:27	15FEB2004 18:08:02	0	GOOD
12	SCI_OL__2PRDPA20040215_185224_000033492024_00185_10259_6767.N1	15FEB2004 18:52:24	15FEB2004 19:48:14	0	GOOD
13	SCI_OL__2PRDPA20040215_203450_000032372024_00186_10260_6723.N1	15FEB2004 20:34:50	15FEB2004 21:28:48	0	GOOD
14	SCI_OL__2PRDPA20040215_221402_000033772024_00187_10261_6882.N1	15FEB2004 22:14:02	15FEB2004 23:10:19	0	GOOD
15	SCI_OL__2PRDPA20040215_235601_000032372024_00188_10262_6710.N1	15FEB2004 23:56:01	16FEB2004 00:49:59	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: 113633

Total number of cloud data DSRs with good quality flag (=0): 113633 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	113633	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	113633	0.21968	0.25000	0.12500	1.0000	0.097994	s
CL_FRAC	113633	0.47544	0.46355	0.0000	1.0000	0.28156	-

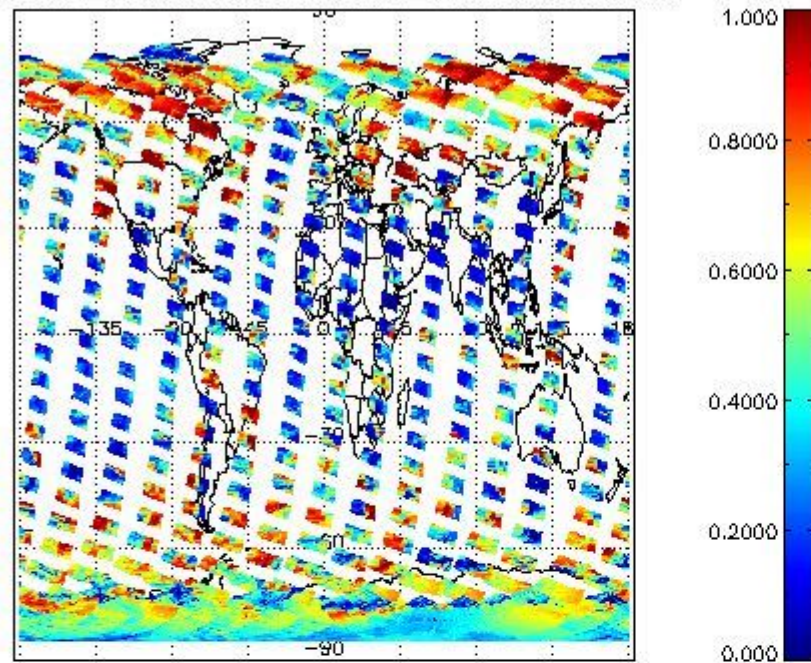
CL_FRAC_ERR	113633	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	113633	7.0299	8.0000	4.0000	32.000	3.1358	
PMD_READ_CL[0]	113633	0.40324	0.0000	0.0000	27.000	1.4473	-
PMD_READ_CL[1]	113633	0.23805	0.0000	0.0000	32.000	1.3095	-
CL_TOP_HEIGHT	103983	4.1584	2.7560	0.0000	17.000	3.7484	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	103983	47.670	32.526	0.0000	101.00	37.999	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	113633	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	113633	11000101	11000100	11000000	11100000	2280.5	flags
AERO_ABSO_IND	113633	0.73363	0.45251	-3.9317	11.079	1.2145	
AERO_IND_DIAG	113633	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	113633	01101000	11000000	00000000	11000000	24484.	flags

Time and geolocation plots:

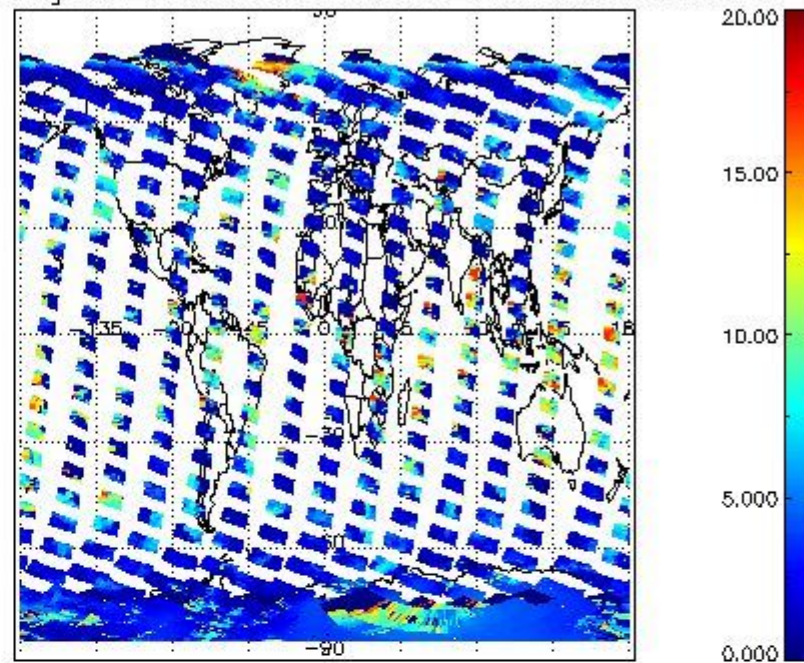
Plots are available for the following parameters:

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

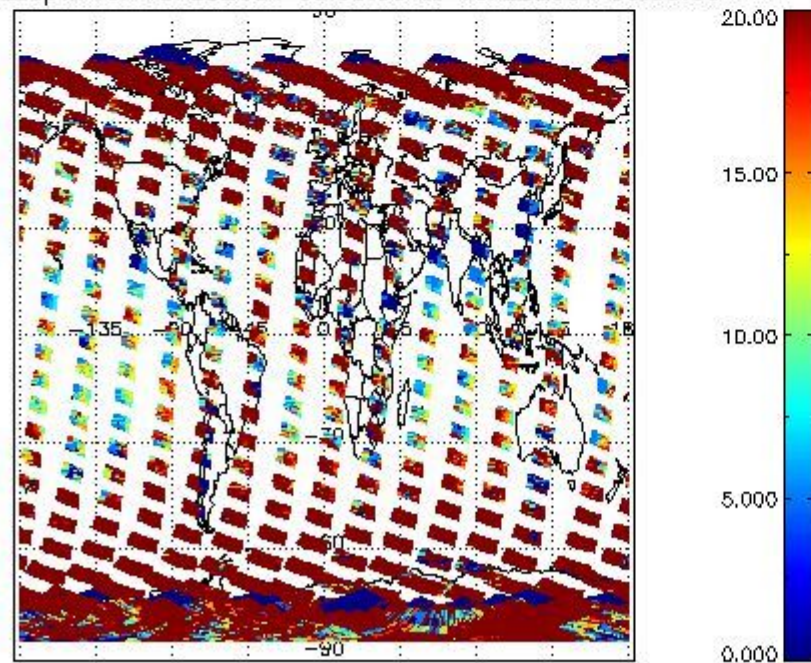
cLfrac for 15FEB2004 00:00:00 to 16FEB2004 00:00:00



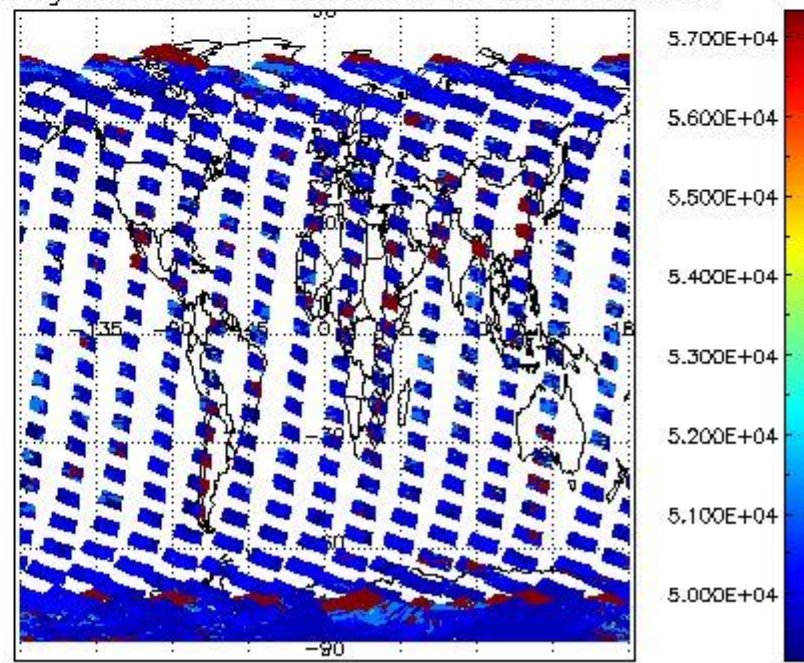
cL_top_height for 15FEB2004 00:00:00 to 16FEB2004 00:00:00



cLopt_depth for 15FEB2004 00:00:00 to 16FEB2004 00:00:00



cloud_flags for 15FEB2004 00:00:00 to 16FEB2004 00:00:00



2.2.2 Nadir

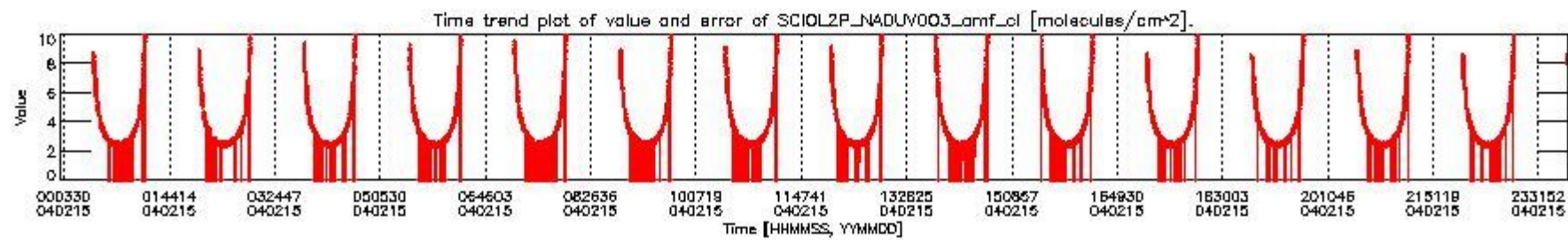
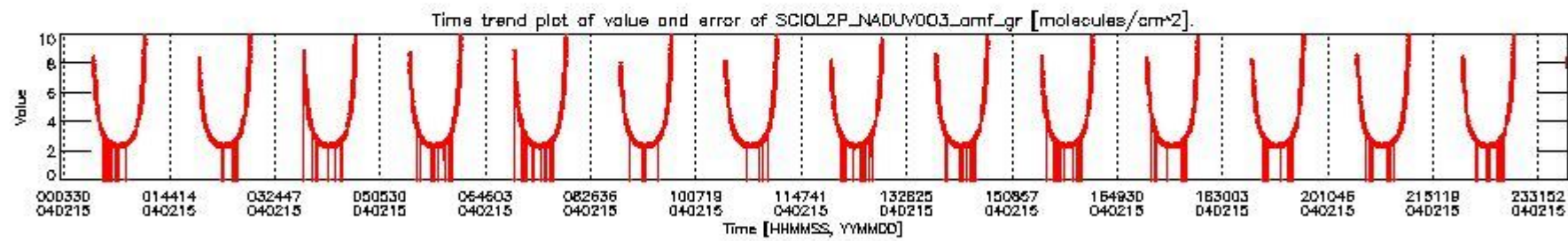
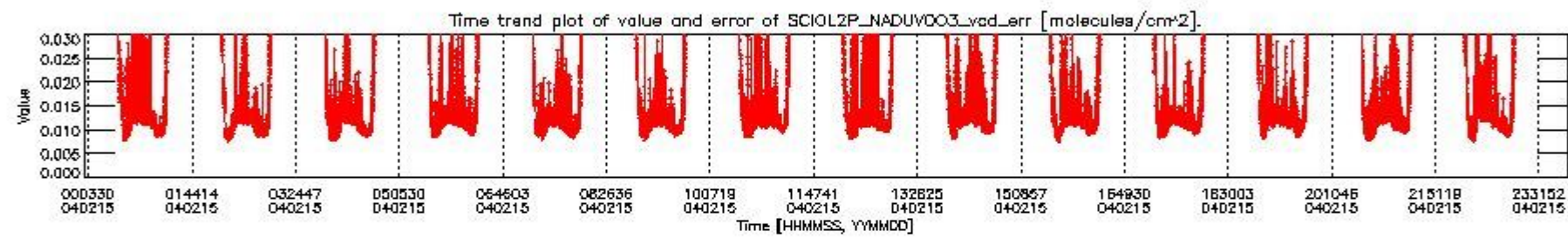
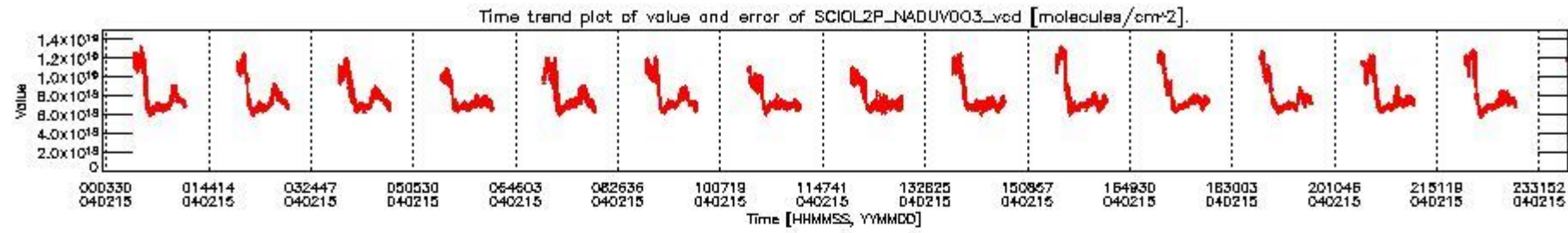
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

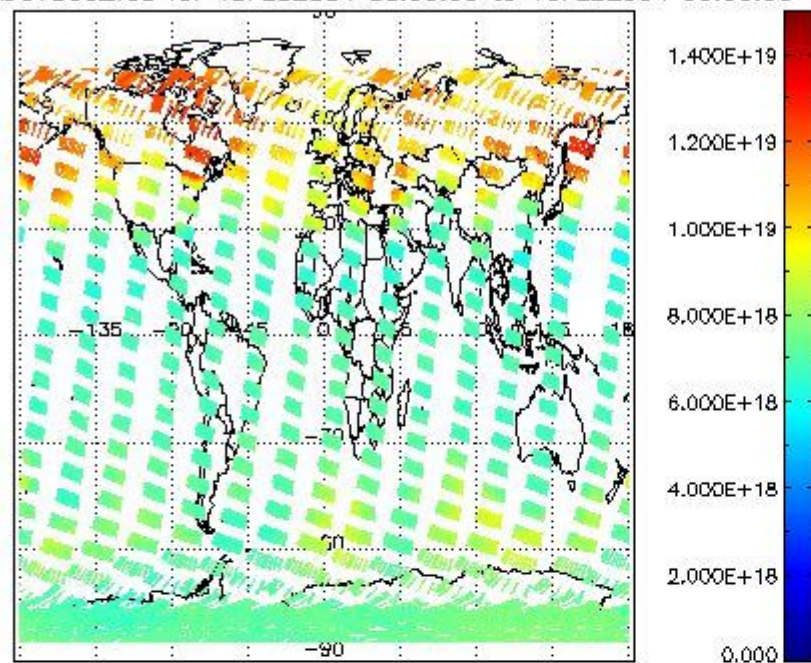
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

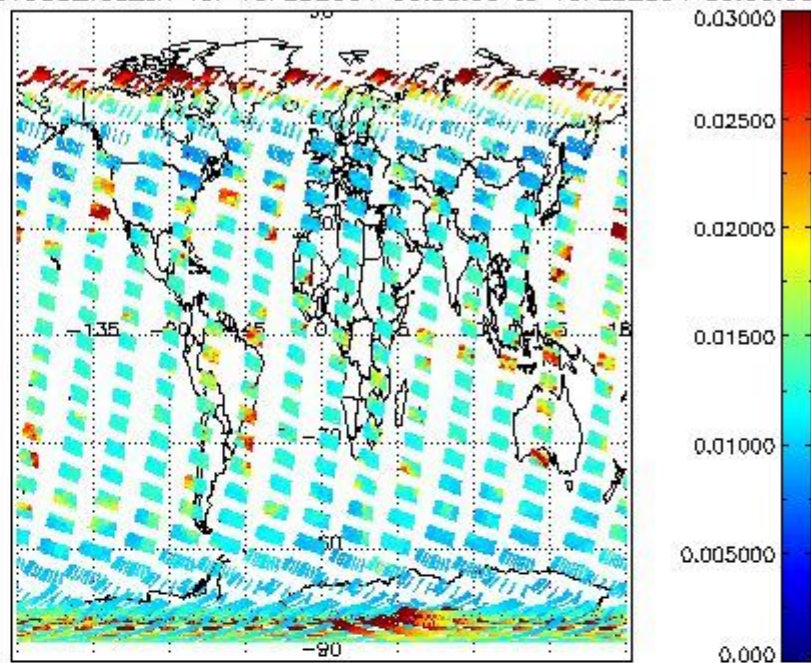
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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



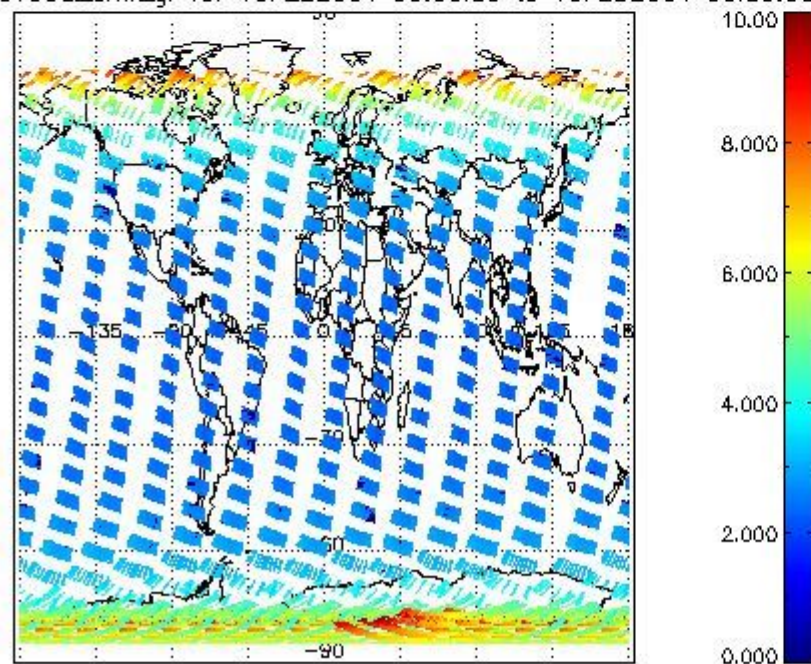
SCIOL2P_NADUV003_vcd for 15FEB2004 00:00:00 to 16FEB2004 00:00:00



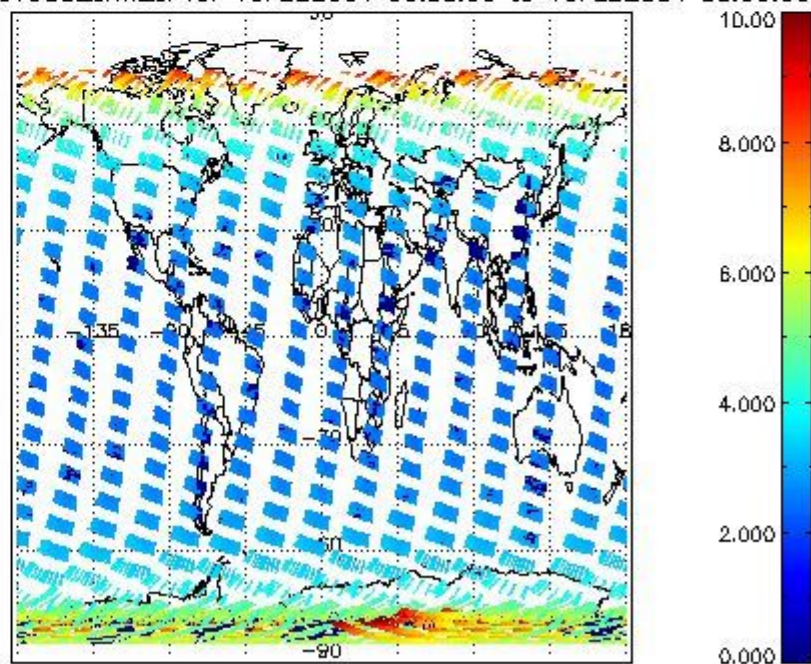
SCIOL2P_NADUV003_vcd_err for 15FEB2004 00:00:00 to 16FEB2004 00:00:00

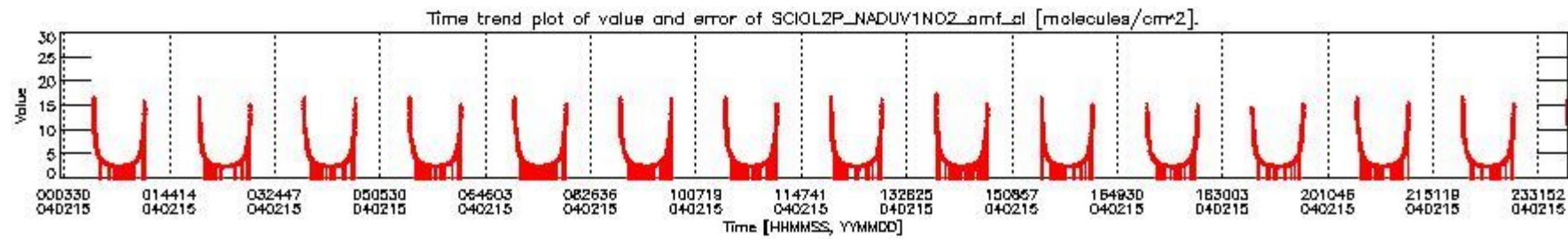
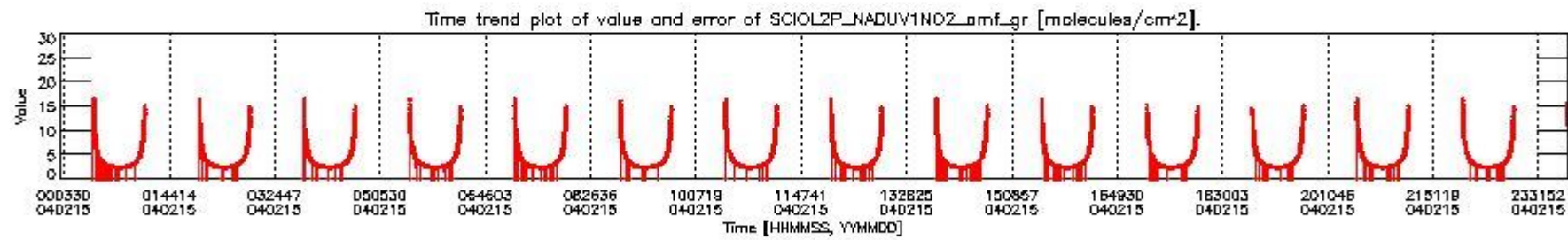
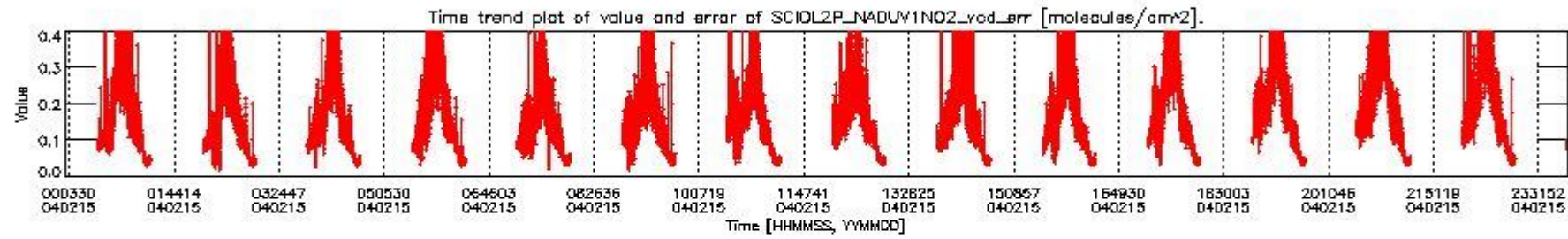
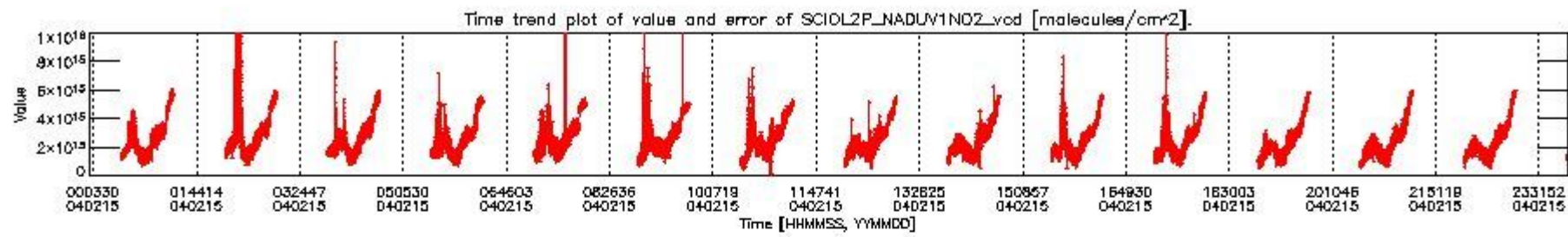


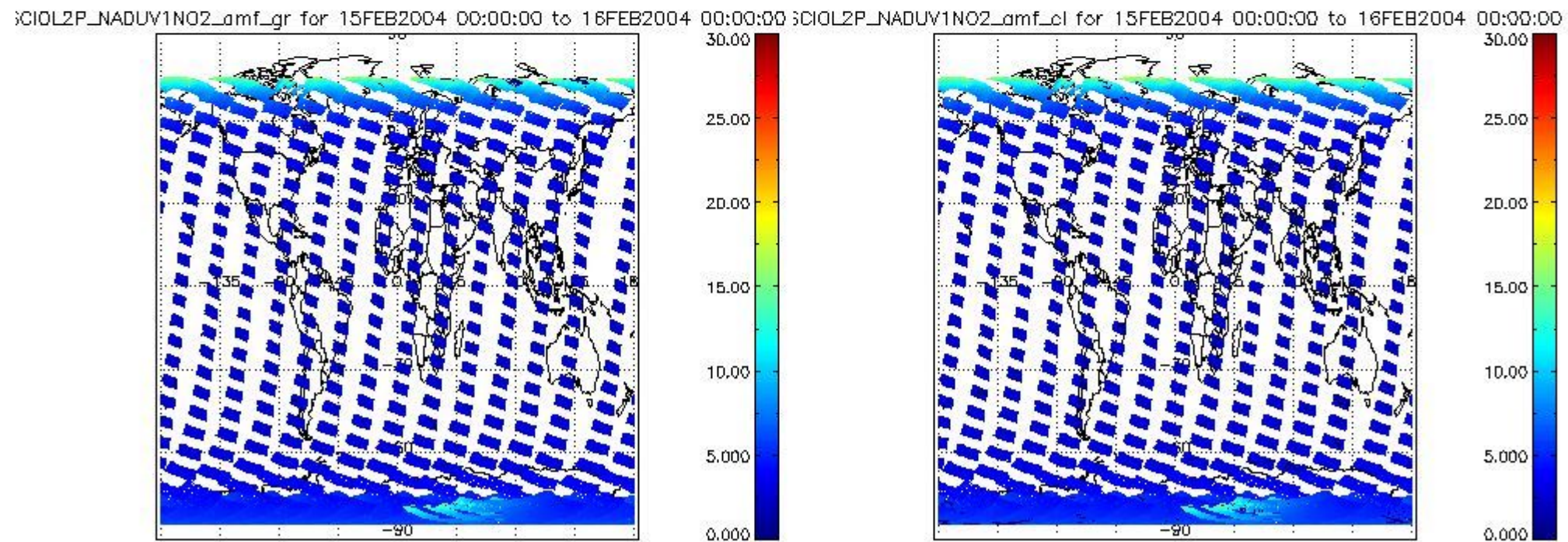
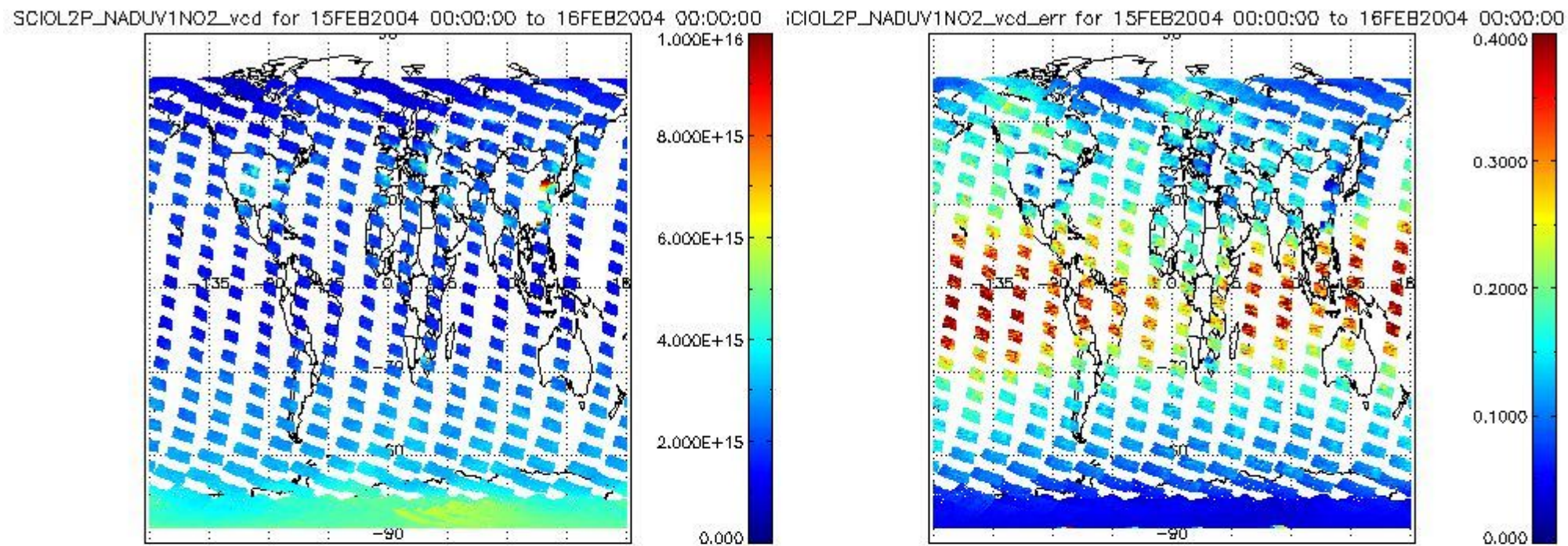
SCIOL2P_NADUV003_amf_gr for 15FEB2004 00:00:00 to 16FEB2004 00:00:00



SCIOL2P_NADUV003_amf_cl for 15FEB2004 00:00:00 to 16FEB2004 00:00:00







2.2.3 Limb

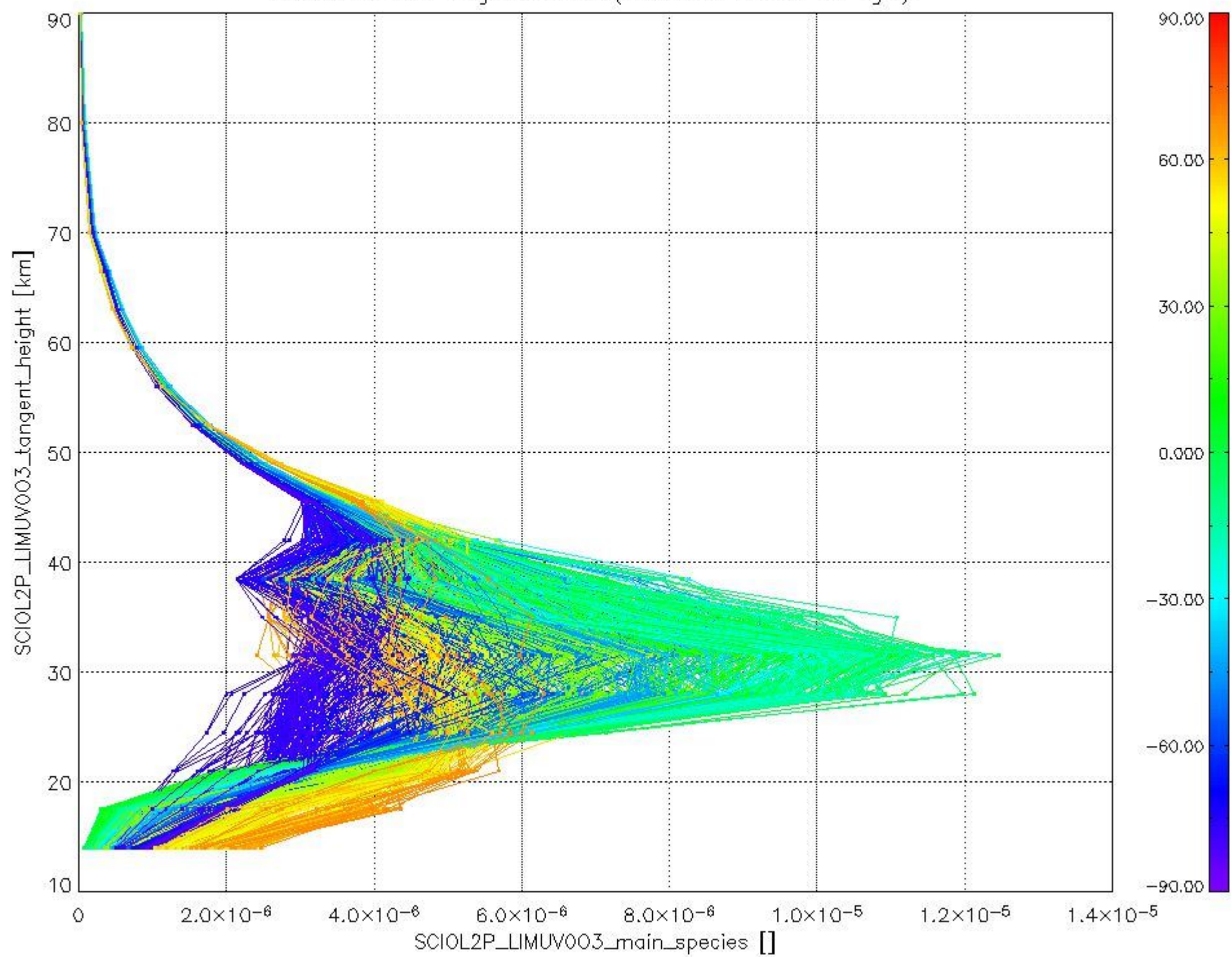
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

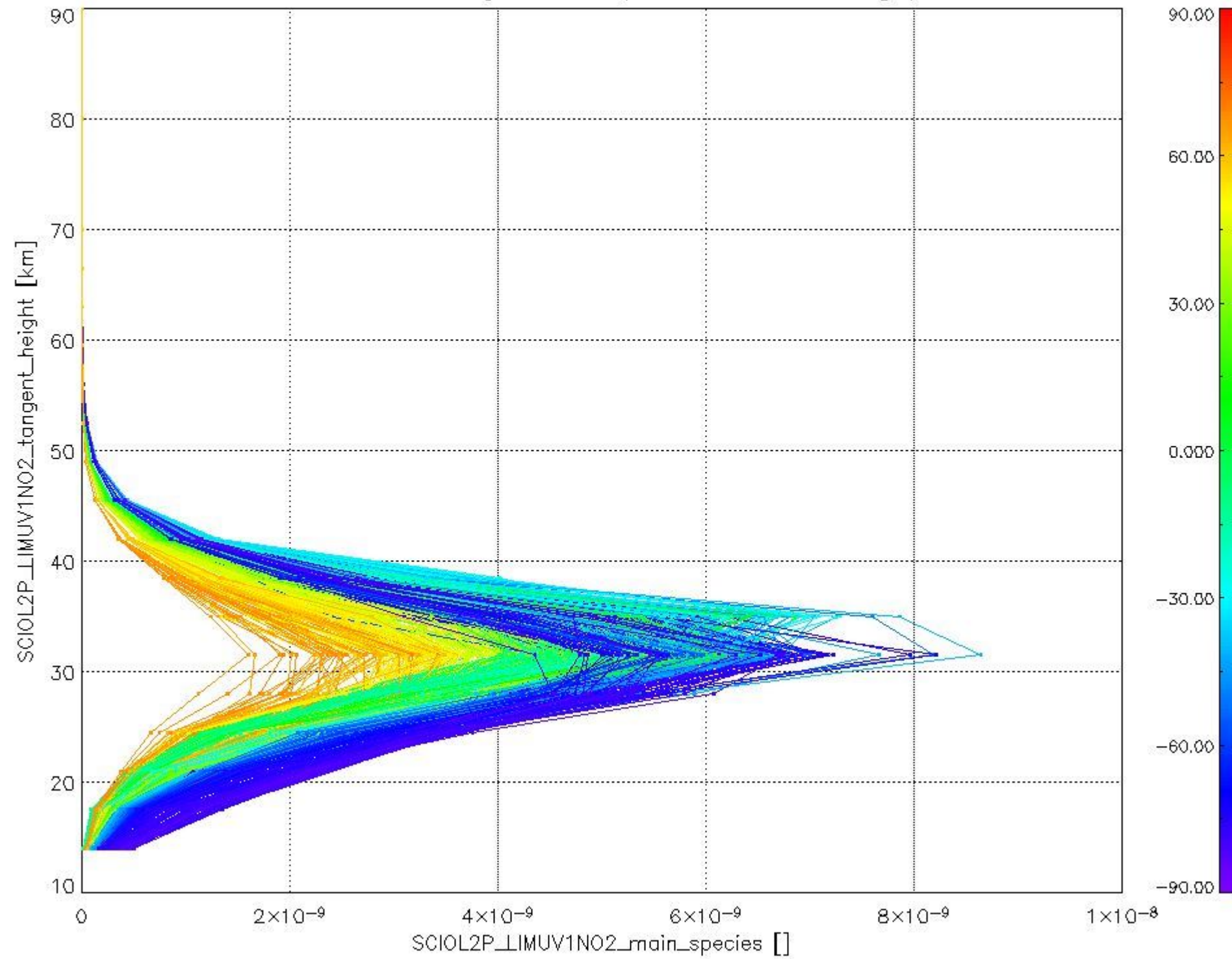
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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).



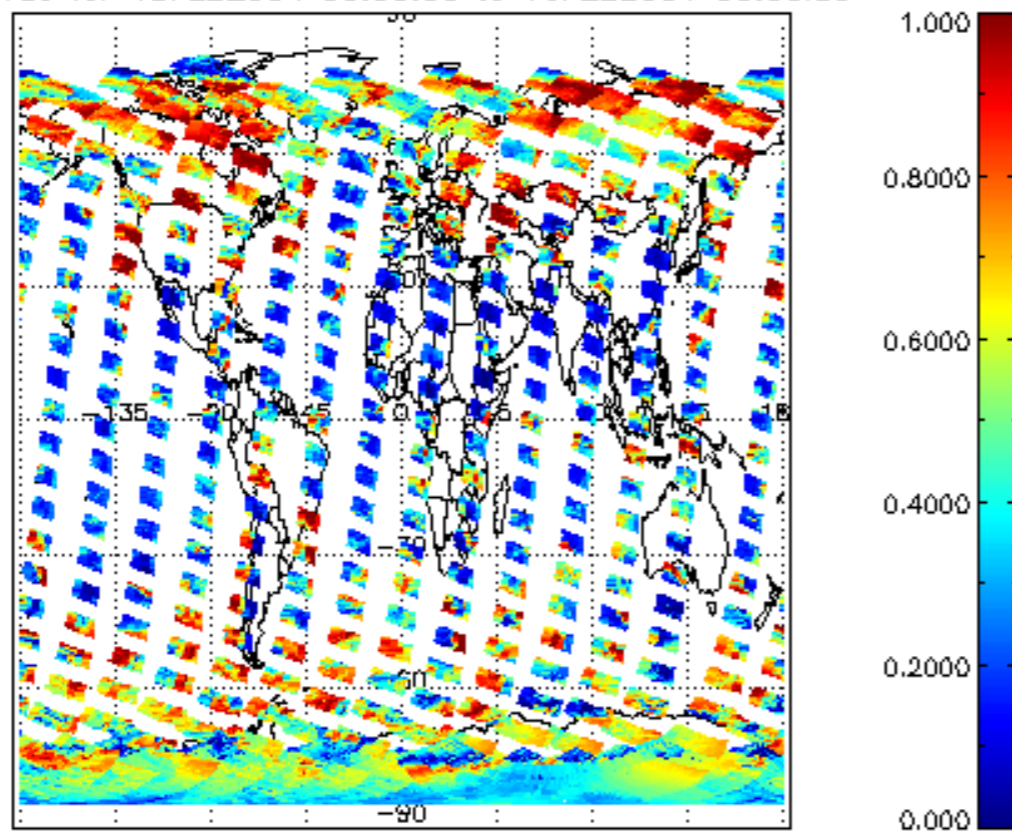
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



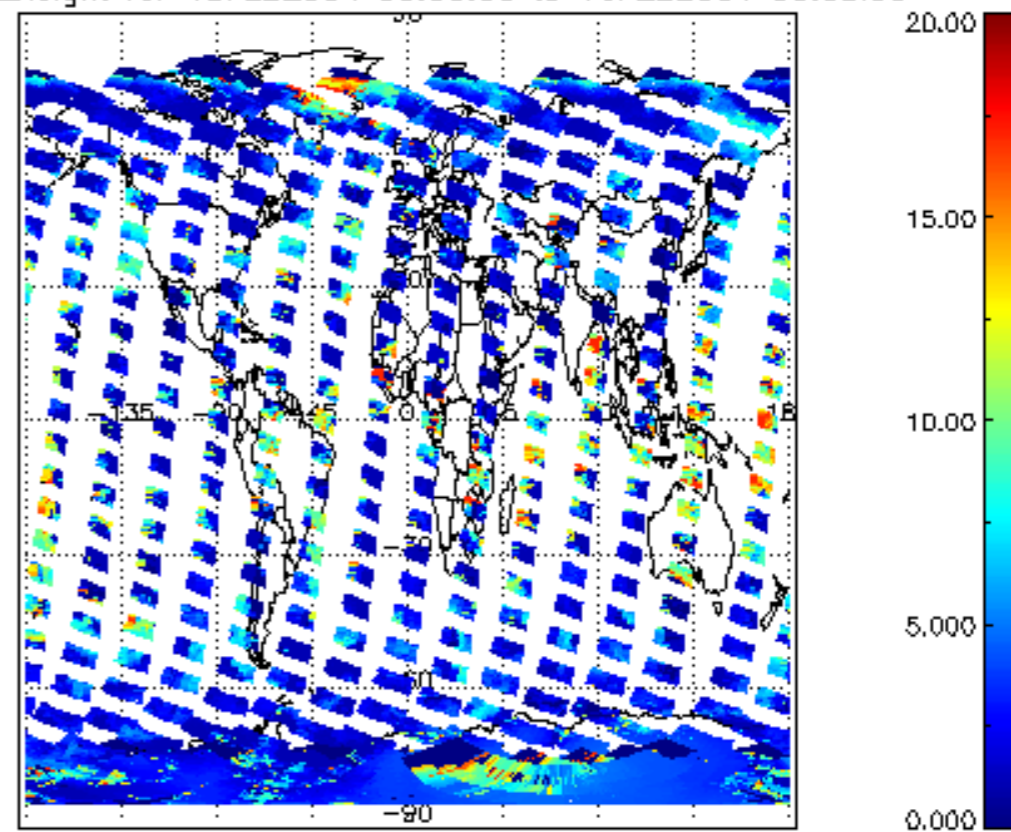
2.3 ADF monitoring

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

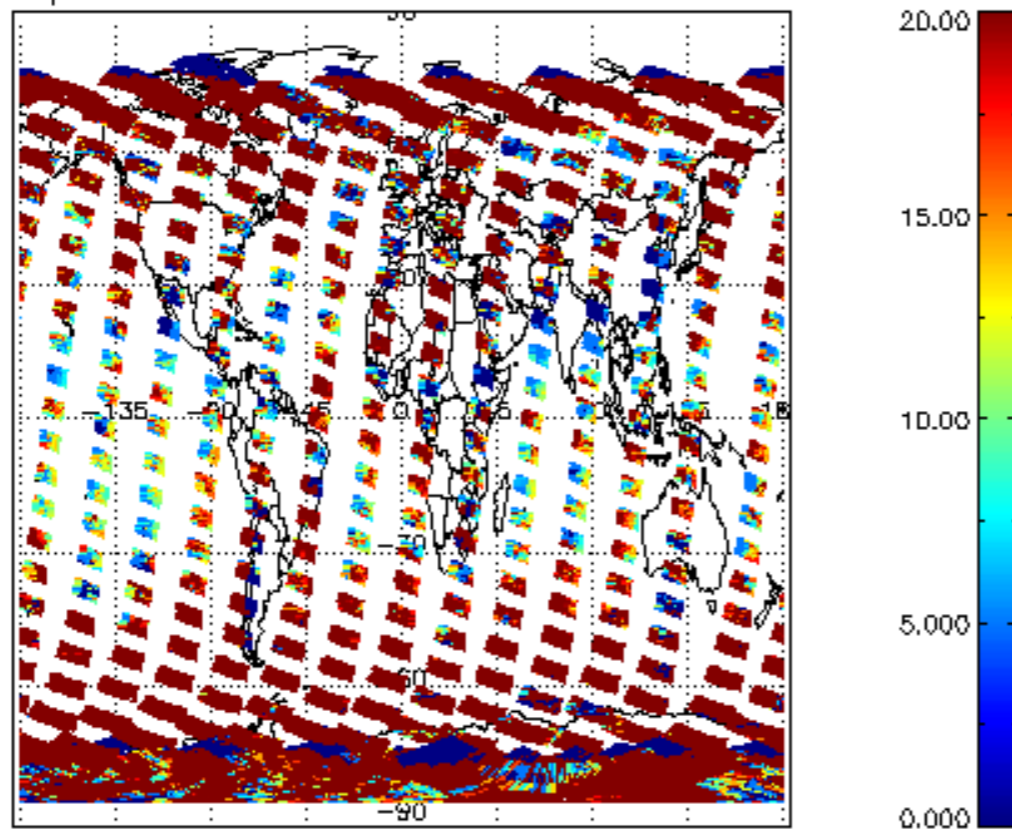
cl_frac for 15FEB2004 00:00:00 to 16FEB2004 00:00:00



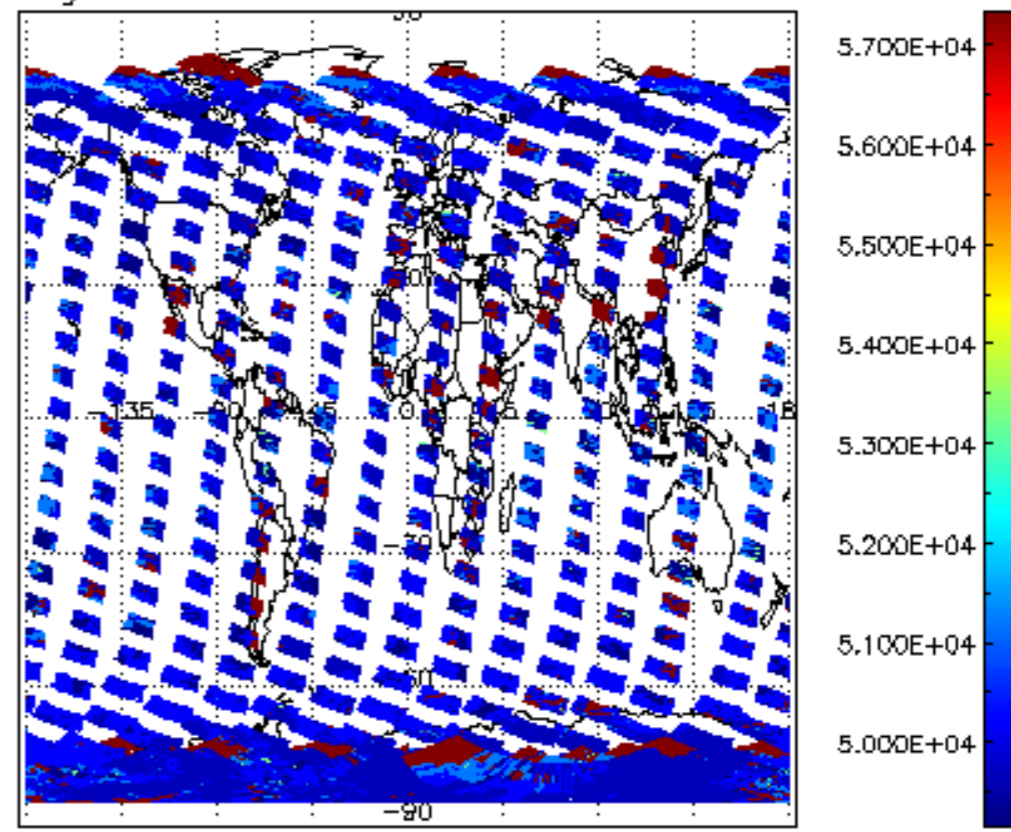
cl_top_height for 15FEB2004 00:00:00 to 16FEB2004 00:00:00

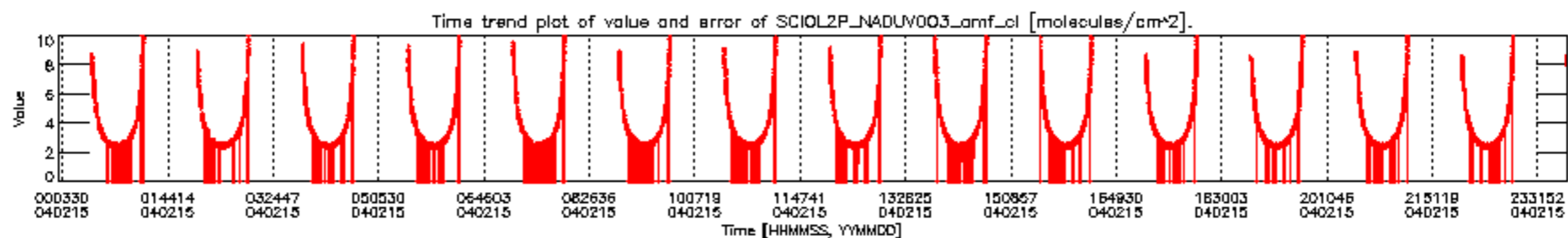
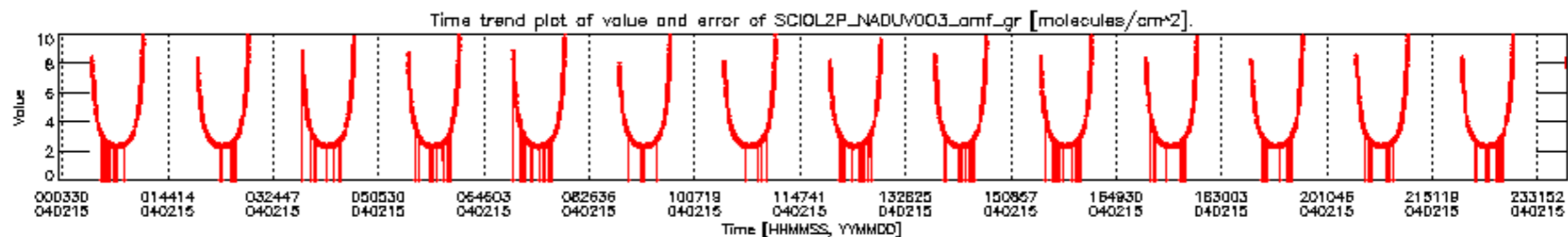
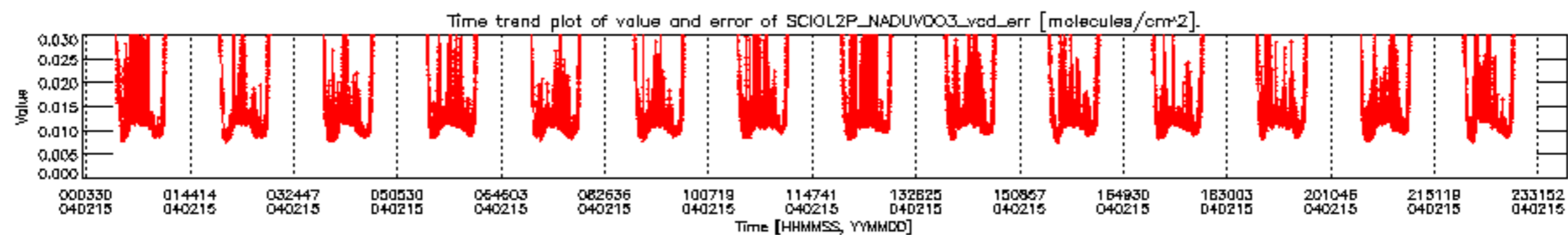
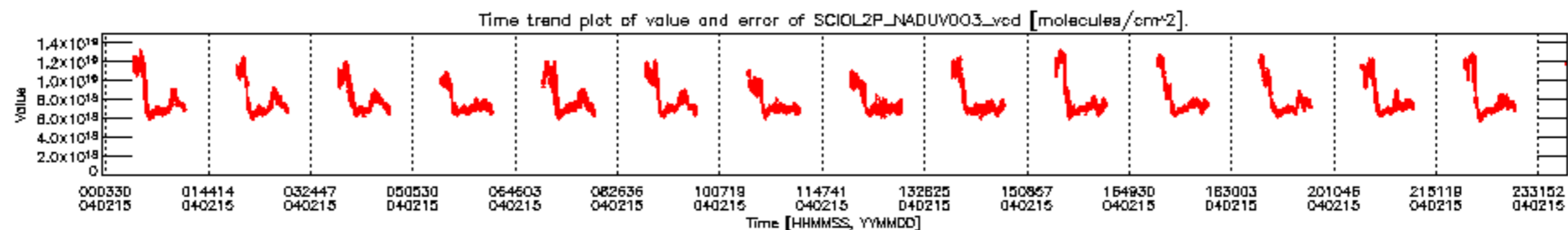


cl_opt_depth for 15FEB2004 00:00:00 to 16FEB2004 00:00:00

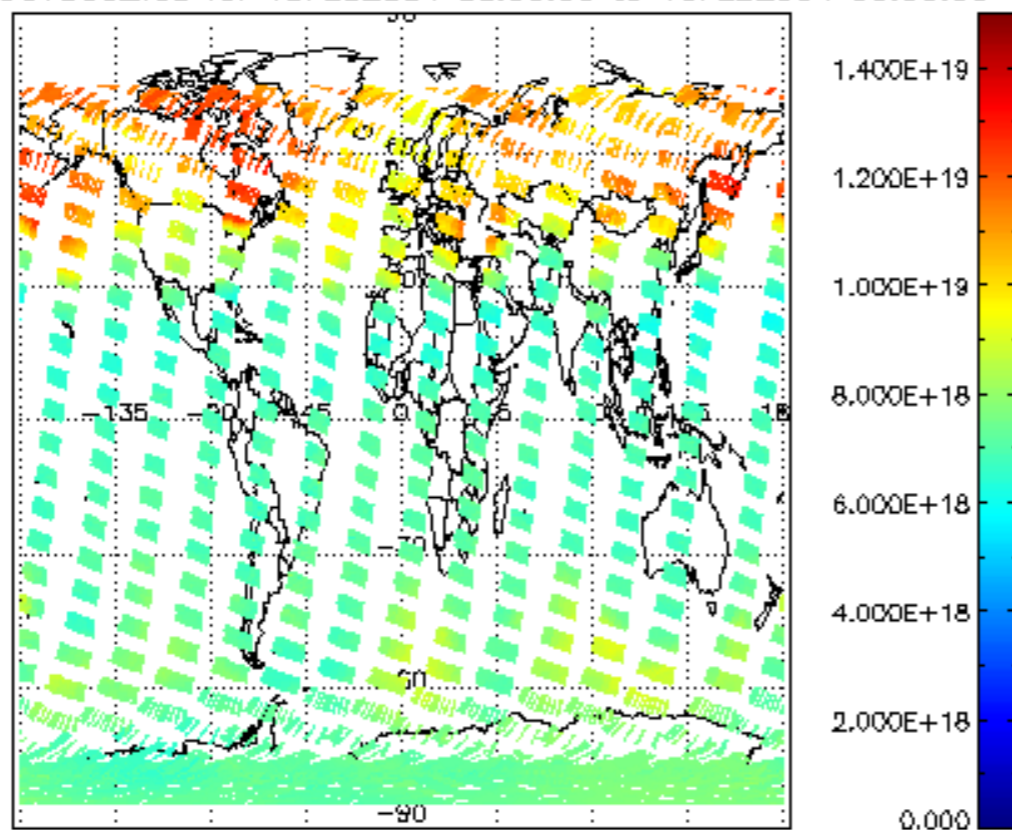


cloud_flags for 15FEB2004 00:00:00 to 16FEB2004 00:00:00

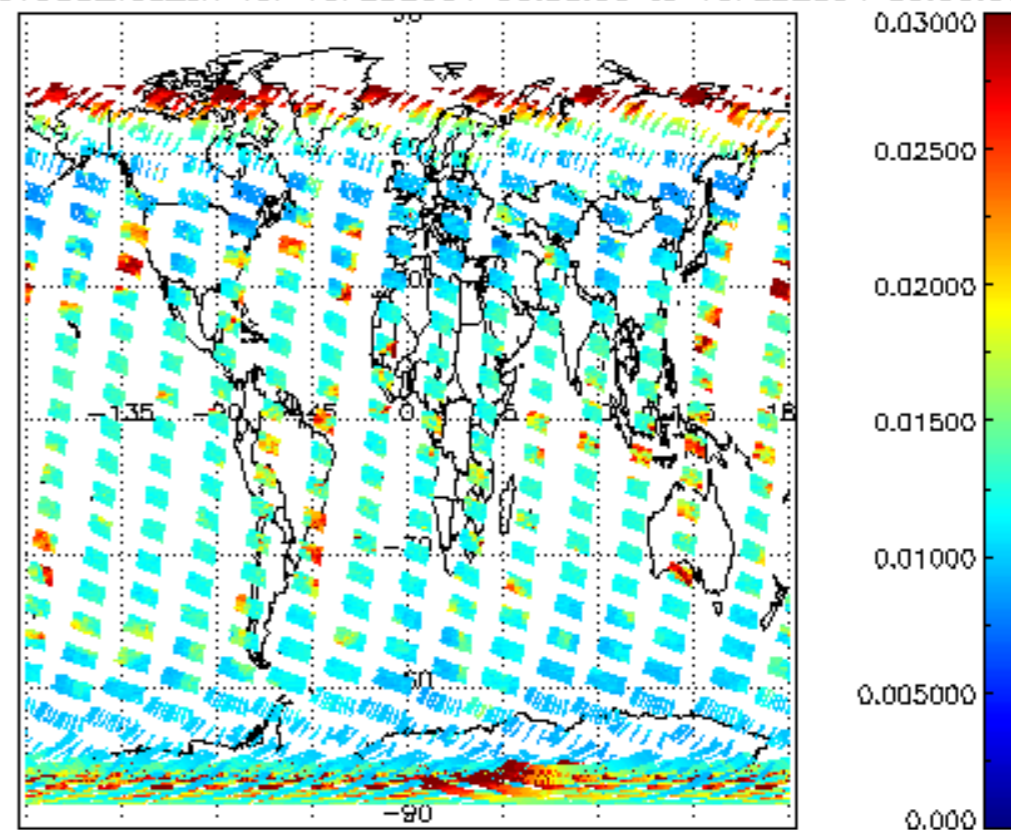




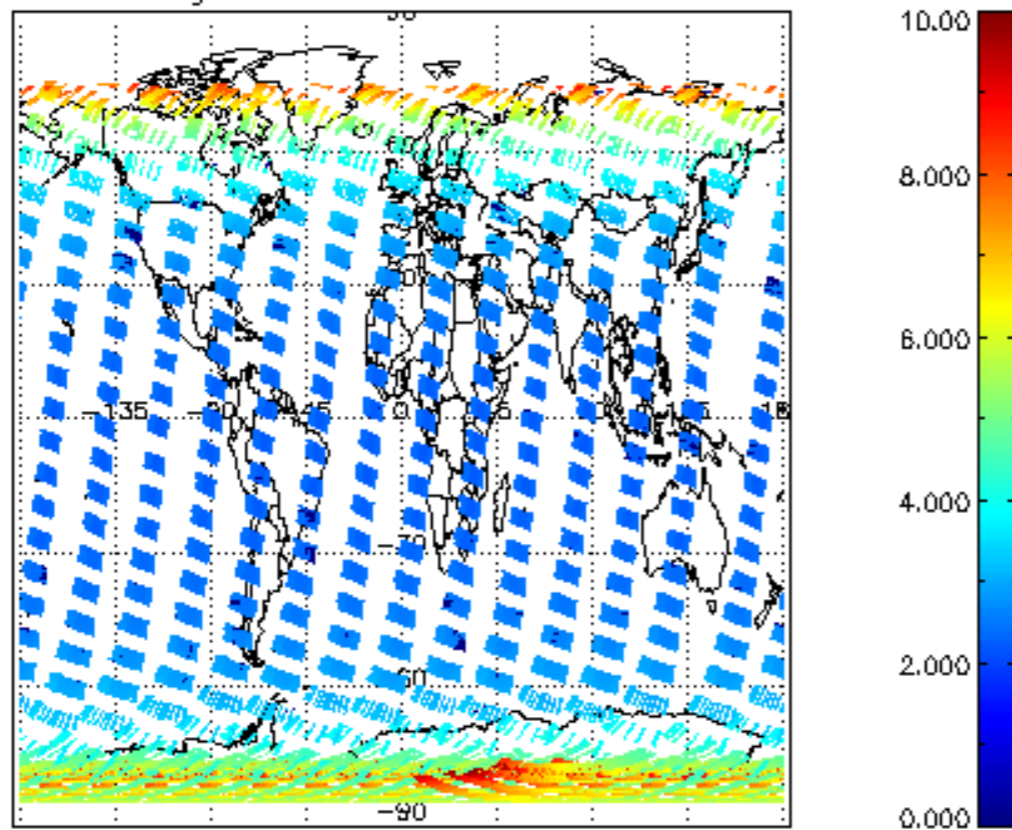
SCIOL2P_NADUV003_vcd for 15FEB2004 00:00:00 to 16FEB2004 00:00:00



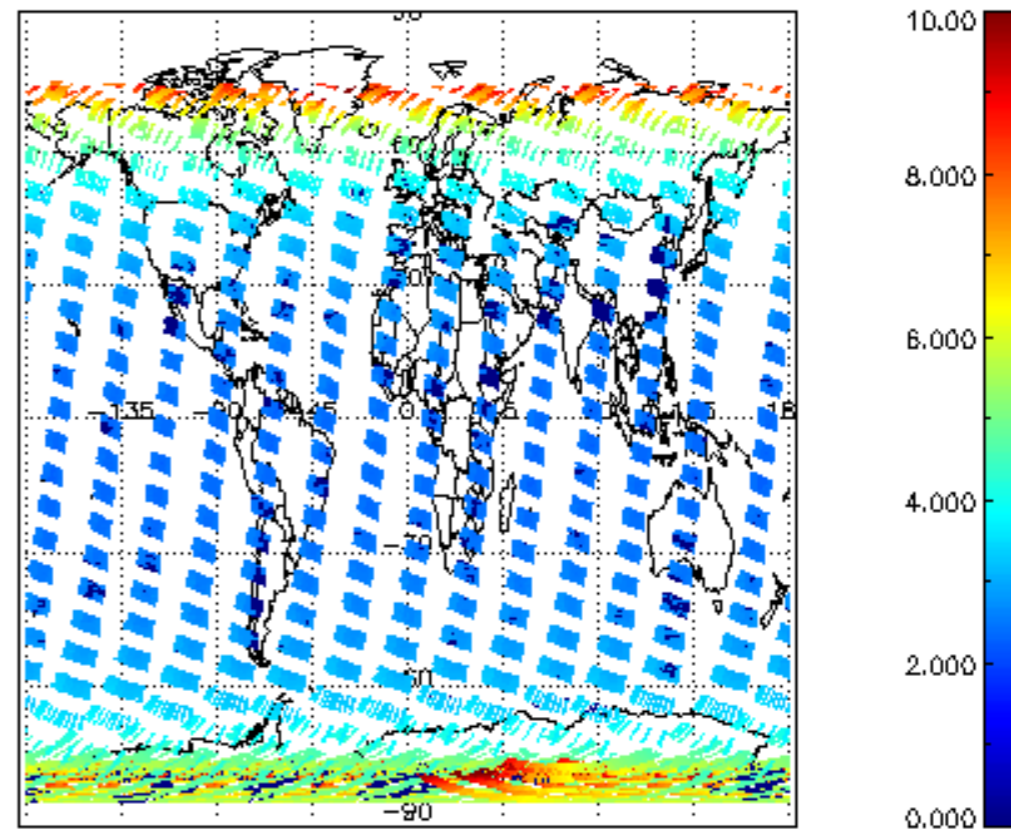
SCIOL2P_NADUV003_vcd_err for 15FEB2004 00:00:00 to 16FEB2004 00:00:00



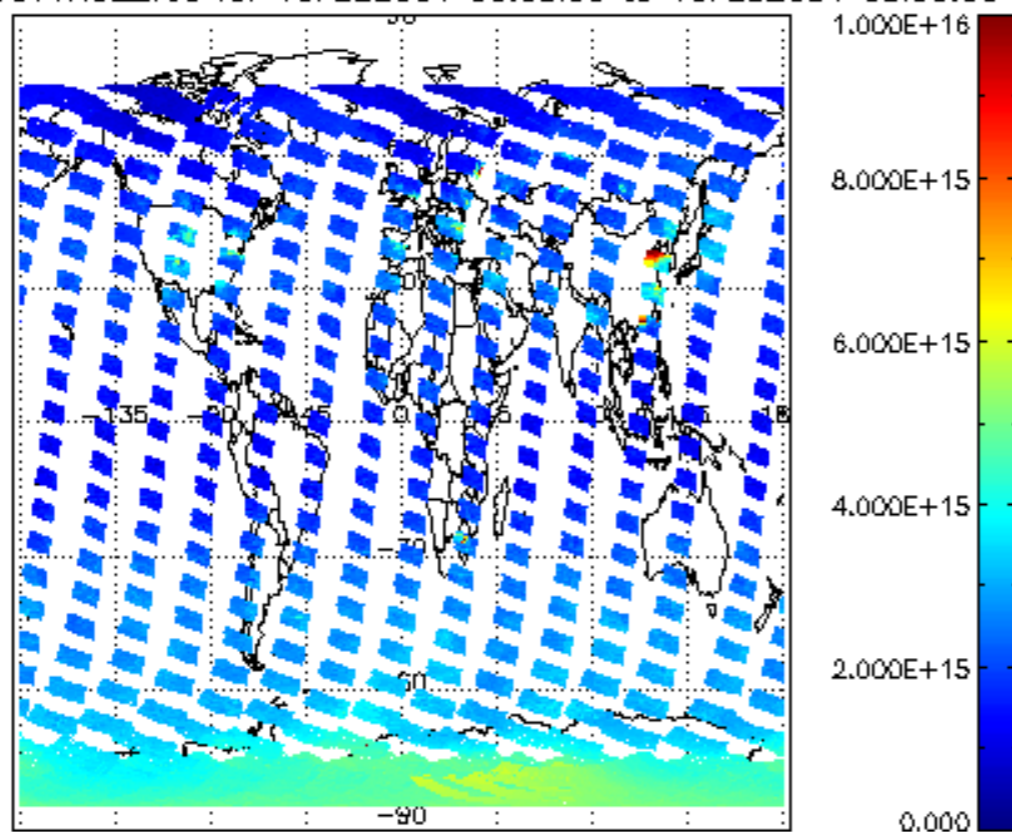
SCIOL2P_NADUV003_amf_gr for 15FEB2004 00:00:00 to 16FEB2004 00:00:00



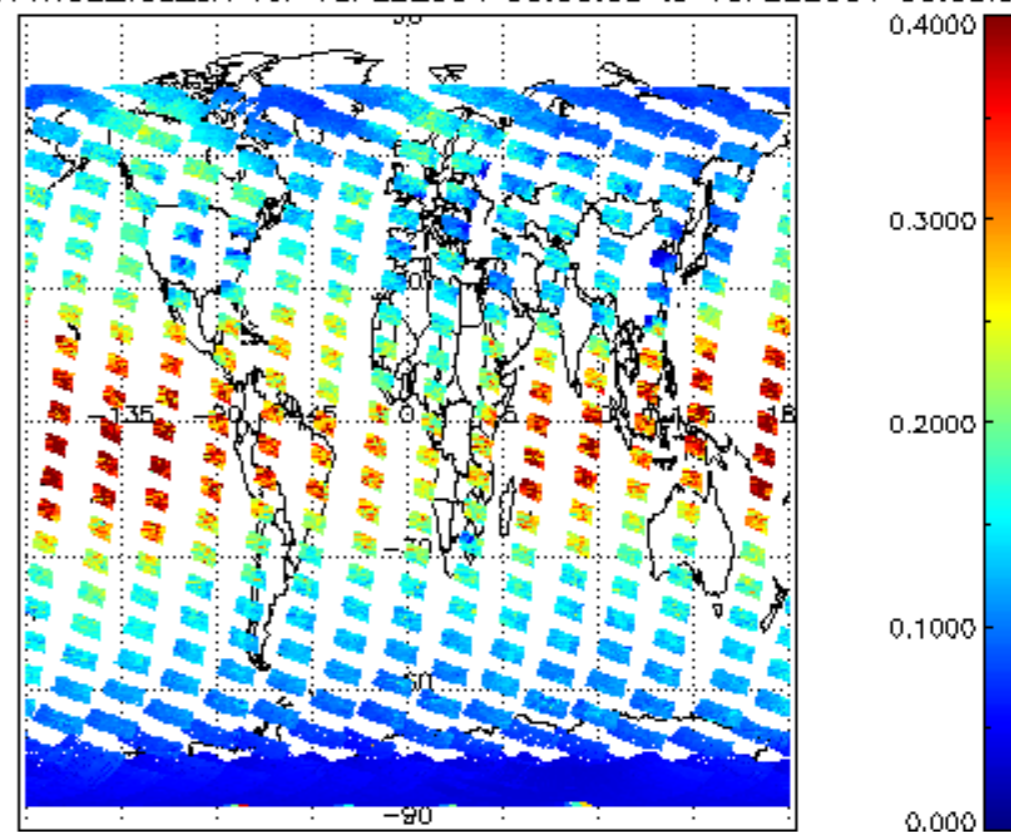
SCIOL2P_NADUV003_amf_cl for 15FEB2004 00:00:00 to 16FEB2004 00:00:00



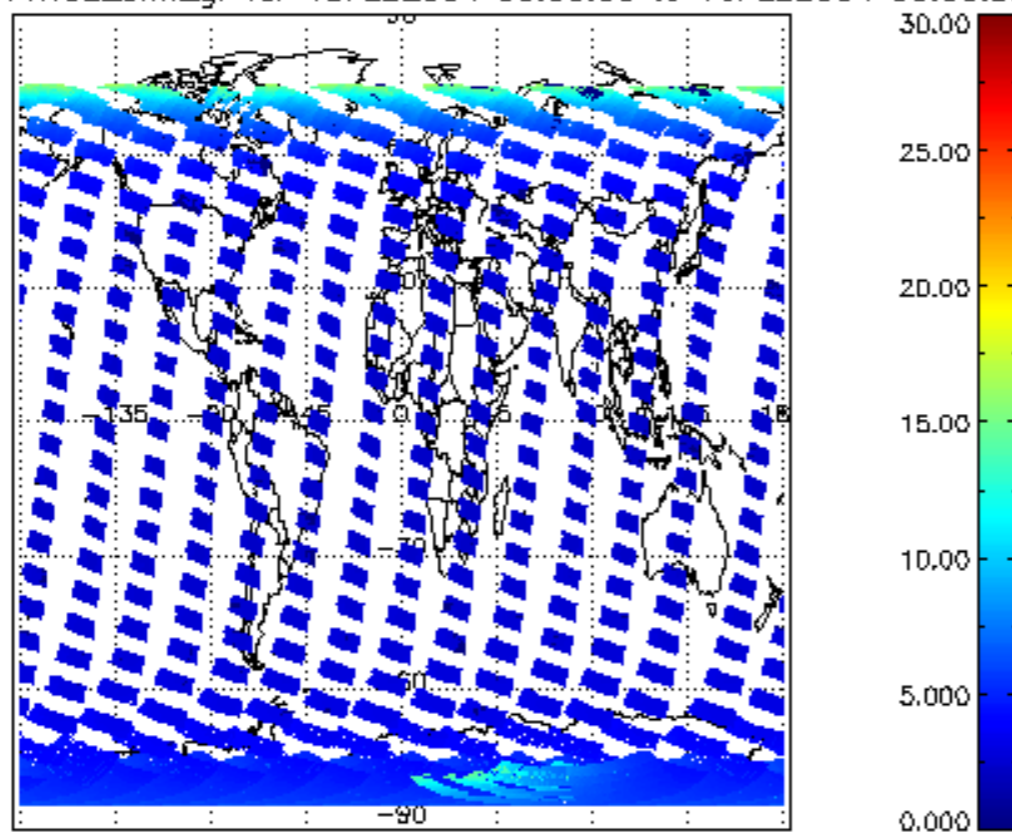
SCIOL2P_NADUV1NO2_vcd for 15FEB2004 00:00:00 to 16FEB2004 00:00:00



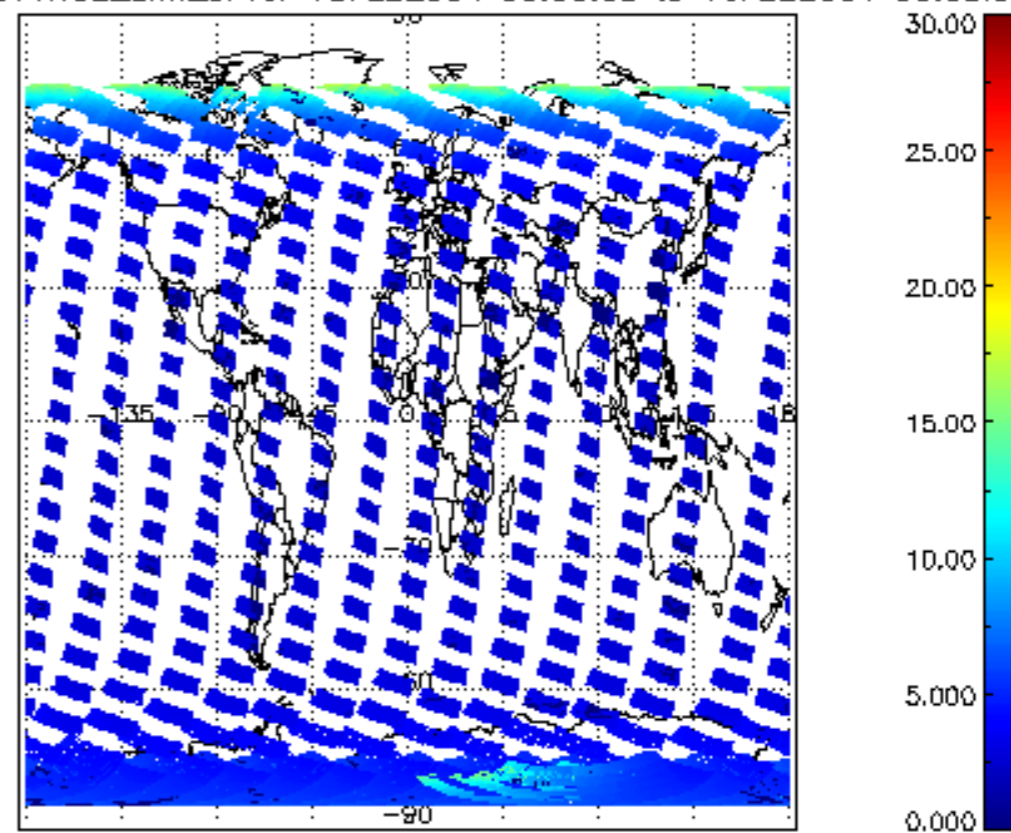
SCIOL2P_NADUV1NO2_vcd_err for 15FEB2004 00:00:00 to 16FEB2004 00:00:00



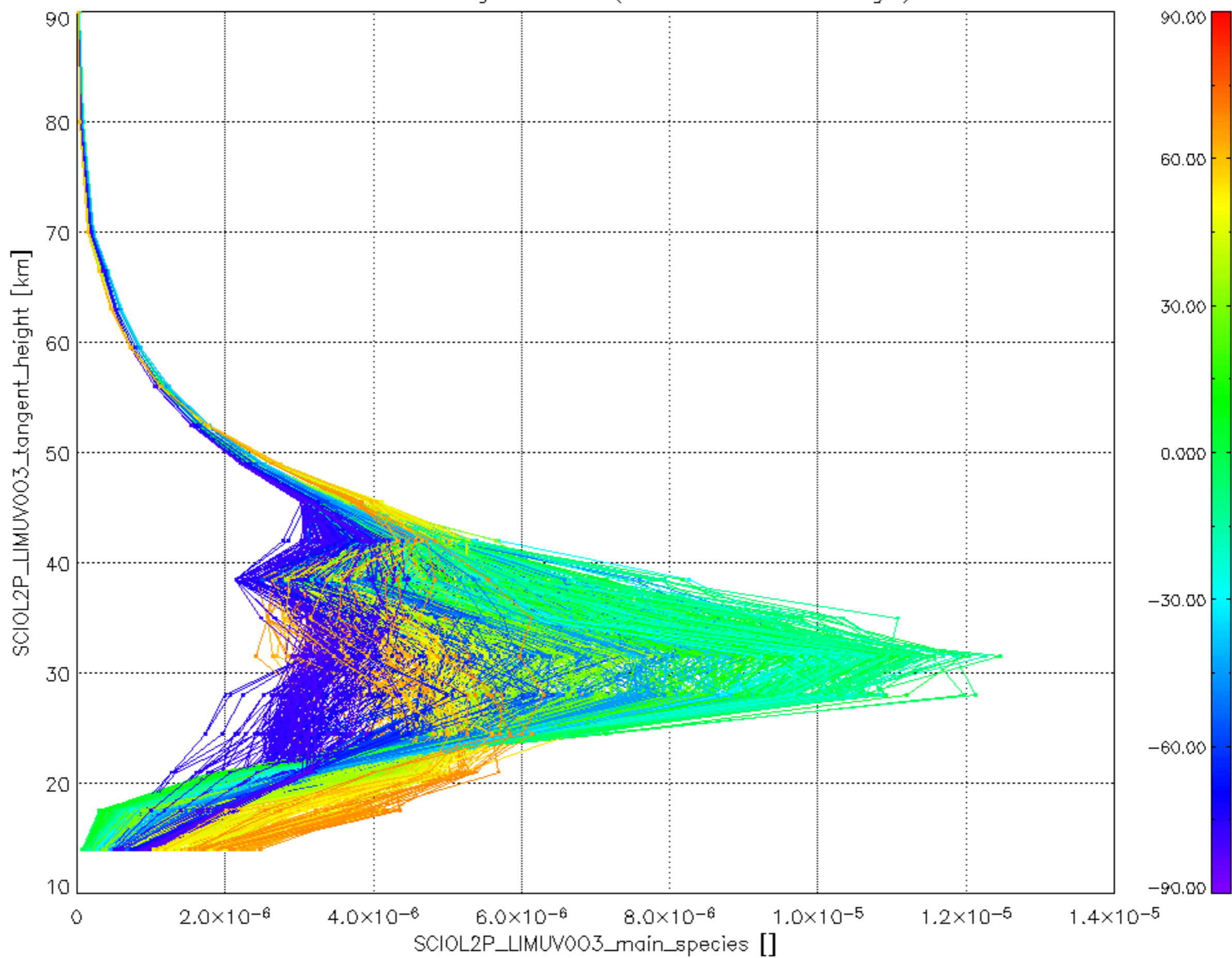
SCIOL2P_NADUV1NO2_amf_gr for 15FEB2004 00:00:00 to 16FEB2004 00:00:00



SCIOL2P_NADUV1NO2_amf_cl for 15FEB2004 00:00:00 to 16FEB2004 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).

