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2. SCIAMACHY Daily Report for level 2 products

2.1. General Info
2.2 Product Quality Indicators
2.3 ADF monitoring

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	1.6 (28-07-2008)
Time of report generation	05JUN2009 18:35:55
Data source version	SCIA-OL/3.01-R
Processing scope for products	13MAY2009 00:00:00 to 14MAY2009 00:00:00
Start time of first product within scope	12MAY2009 23:22:01
Stop time of last product within scope	13MAY2009 23:45:34
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.

Products are linked to a corresponding server directory for view/download. Note: Link access may be restricted by security settings of your internet browser or firewall.

#	Product name	Start time	Stop time	Prod err	Fit summary
0	SCI_OL__2PRDPA20090512_232201_000033122079_00016_37645_2512.N1	12MAY2009 23:22:01	13MAY2009 00:17:14	0	GOOD
1	SCI_OL__2PRDPA20090513_010237_000033252079_00017_37646_2513.N1	13MAY2009 01:02:37	13MAY2009 01:58:03	0	GOOD
2	SCI_OL__2PRDPA20090513_024313_000033122079_00018_37647_2514.N1	13MAY2009 02:43:13	13MAY2009 03:38:25	0	GOOD
3	SCI_OL__2PRDPA20090513_042348_000033252079_00019_37648_2515.N1	13MAY2009 04:23:48	13MAY2009 05:19:14	0	GOOD
4	SCI_OL__2PRDPA20090513_060424_000033122079_00020_37649_2516.N1	13MAY2009 06:04:24	13MAY2009 06:59:37	0	GOOD
5	SCI_OL__2PRDPA20090513_074500_000033252079_00021_37650_2517.N1	13MAY2009 07:45:00	13MAY2009 08:40:25	0	GOOD
6	SCI_OL__2PRDPA20090513_092535_000033122079_00022_37651_2518.N1	13MAY2009 09:25:35	13MAY2009 10:20:48	0	GOOD
7	SCI_OL__2PRDPA20090513_110611_000033252079_00023_37652_2519.N1	13MAY2009 11:06:11	13MAY2009 12:01:37	0	GOOD
8	SCI_OL__2PRDPA20090513_124647_000033122079_00024_37653_2520.N1	13MAY2009 12:46:47	13MAY2009 13:41:59	0	GOOD
9	SCI_OL__2PRDPA20090513_142722_000033252079_00025_37654_2521.N1	13MAY2009 14:27:22	13MAY2009 15:22:48	0	GOOD
10	SCI_OL__2PRDPA20090513_160758_000033122079_00026_37655_2522.N1	13MAY2009 16:07:58	13MAY2009 17:03:11	0	GOOD
11	SCI_OL__2PRDPA20090513_174754_000033812079_00027_37656_2523.N1	13MAY2009 17:47:54	13MAY2009 18:44:15	0	GOOD
12	SCI_OL__2PRDPA20090513_192829_000033682079_00028_37657_2524.N1	13MAY2009 19:28:29	13MAY2009 20:24:38	0	GOOD
13	SCI_OL__2PRDPA20090513_210945_000033252079_00029_37658_2525.N1	13MAY2009 21:09:45	13MAY2009 22:05:11	0	GOOD
14	SCI_OL__2PRDPA20090513_225021_000033122079_00030_37659_2526.N1	13MAY2009 22:50:21	13MAY2009 23:45:34	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: 146696

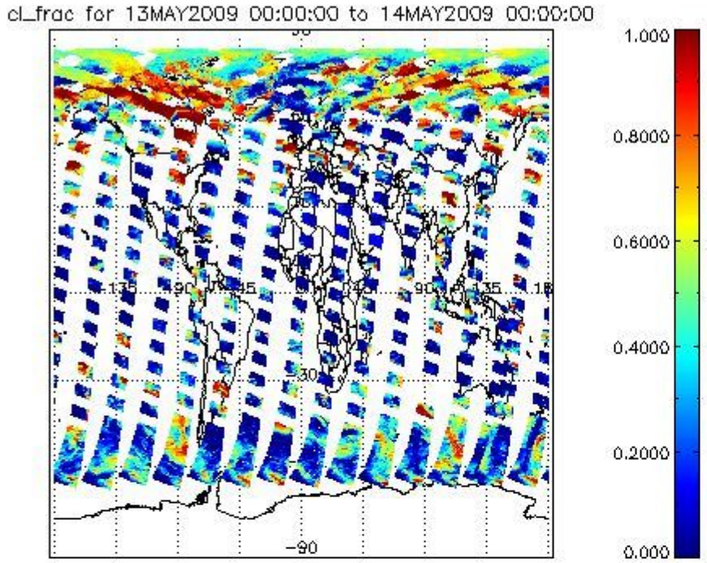
Total number of cloud data DSRs with good quality flag (=0): 146696 (100.0 %)

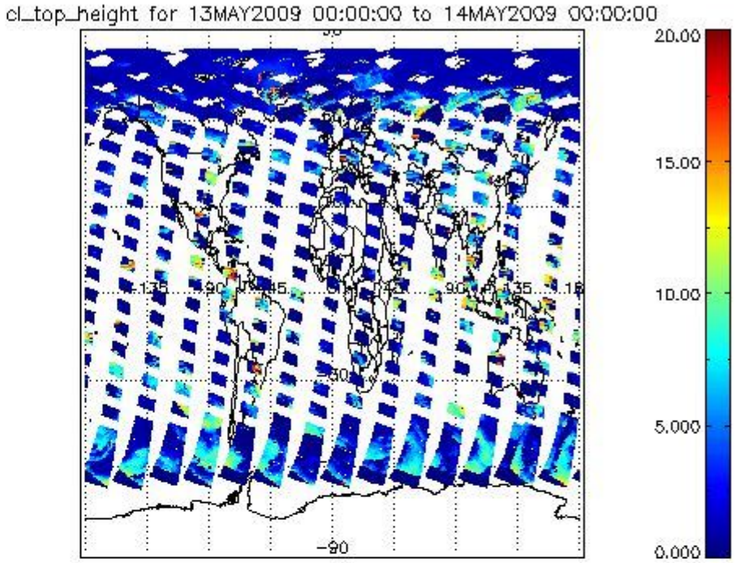
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	146696	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	146696	0.17069	0.12500	0.12500	0.25000	0.060196	s
CL_FRAC	146696	0.35238	0.31352	0.0000	1.0000	0.30673	-
CL_FRAC_ERR	146696	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	146696	5.4620	4.0000	4.0000	8.0000	1.9263	
PMD_READ_CL[0]	146696	0.33741	0.0000	0.0000	8.0000	1.3811	-
PMD_READ_CL[1]	146696	1.6331	0.0000	0.0000	8.0000	2.6613	-
CL_TOP_HEIGHT	129476	2.8778	1.1280	0.0000	17.000	3.3972	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	129476	62.395	100.00	0.0000	101.00	43.887	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	146696	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	146696	11001011	11000100	11000000	11100000	3505.5	flags
AERO_ABSO_IND	146696	3.8173	4.4983	-0.93411	13.812	2.4778	
AERO_IND_DIAG	146696	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	146696	01011000	00000000	00000000	11000000	24503.	flags

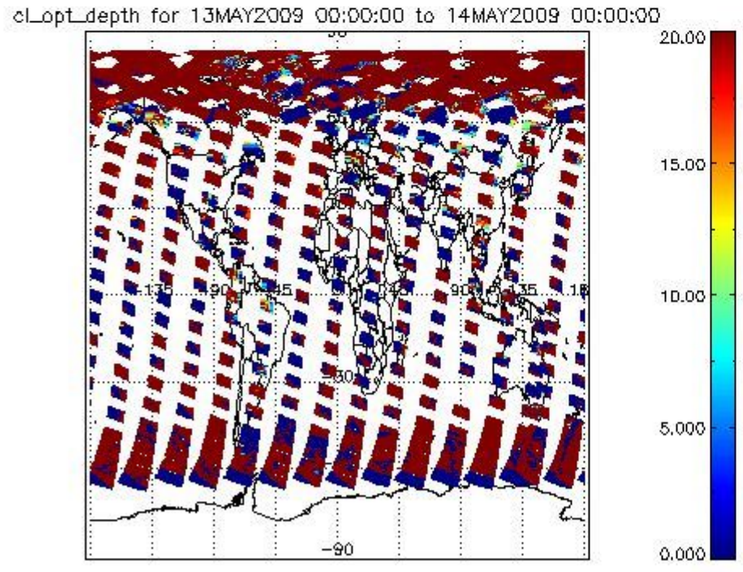
Time and geolocation plots:

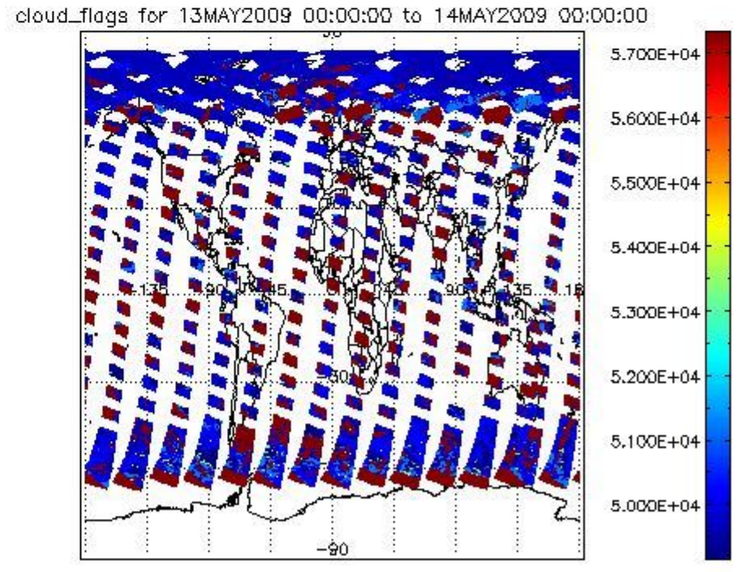
Plots are available for the following parameters:

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









2.2.2 Nadir

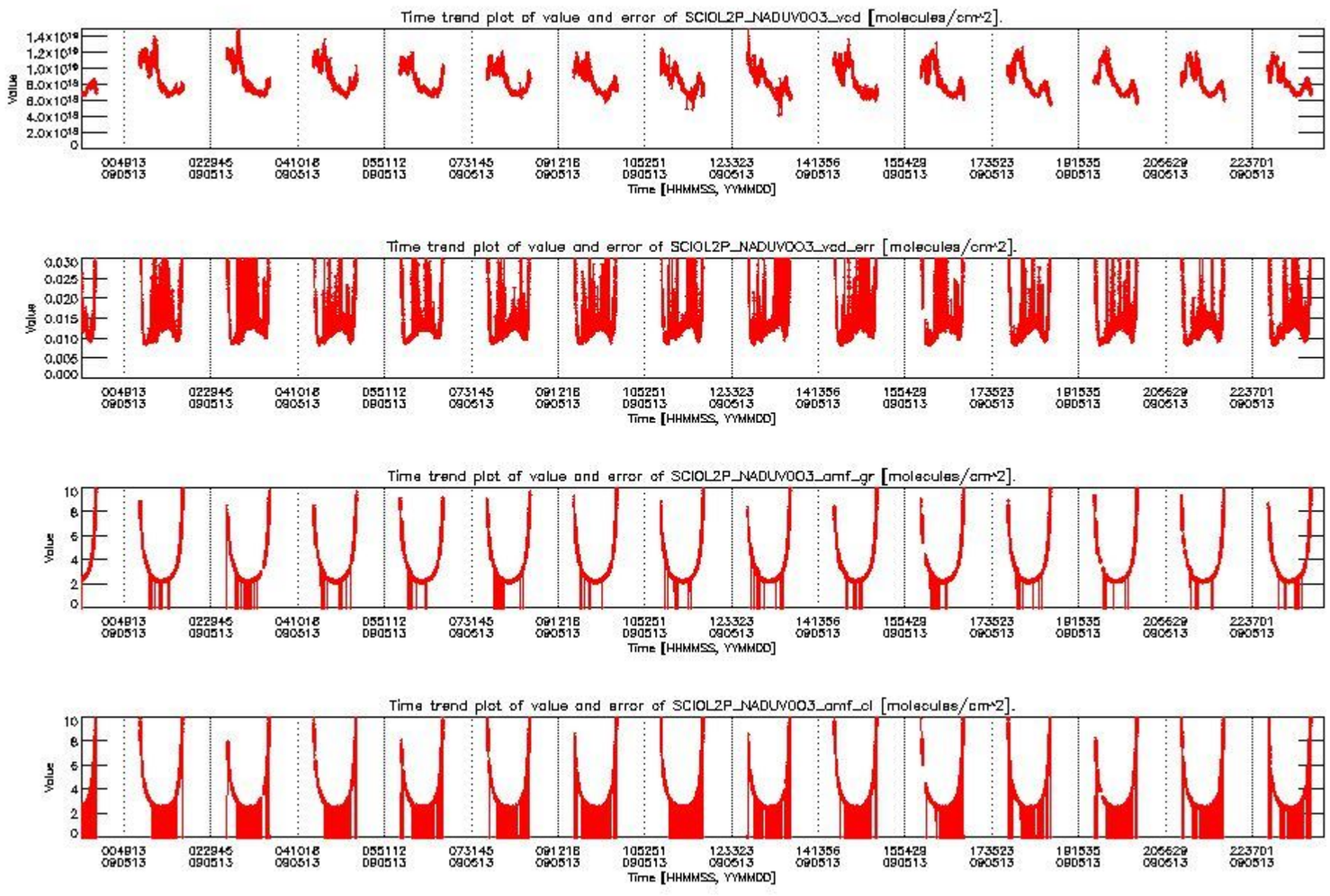
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

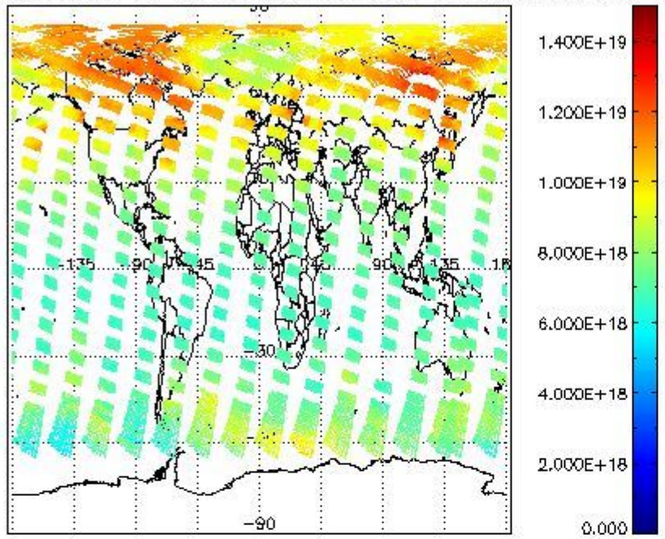
Number	Data item ID
0	SCIOL2P_NADUV0O3_vcd
1	SCIOL2P_NADUV0O3_vcd_err
2	SCIOL2P_NADUV0O3_amf_gr

3	SCIOL2P_NADUV0O3_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

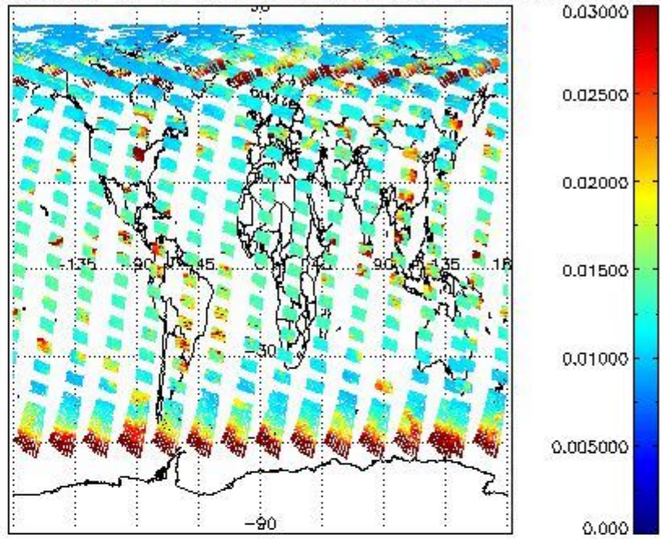
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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



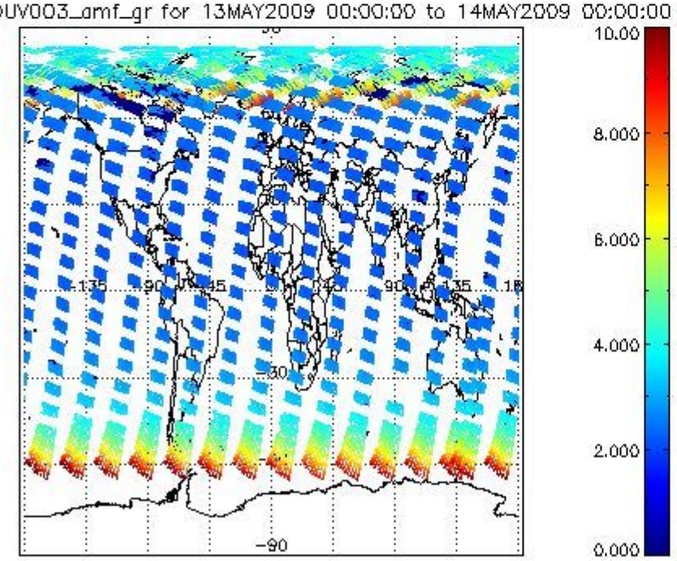
SCIOL2P_NADUV003_vcd for 13MAY2009 00:00:00 to 14MAY2009 00:00:00



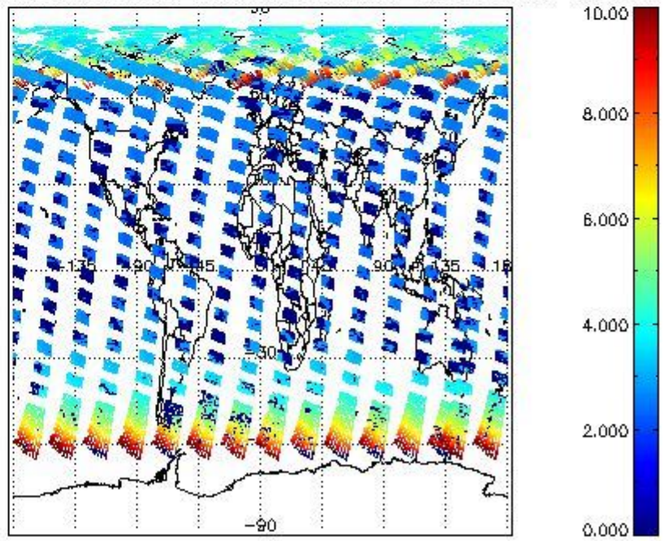
SCIOL2P_NADUV003_vcd_err for 13MAY2009 00:00:00 to 14MAY2009 00:00:00

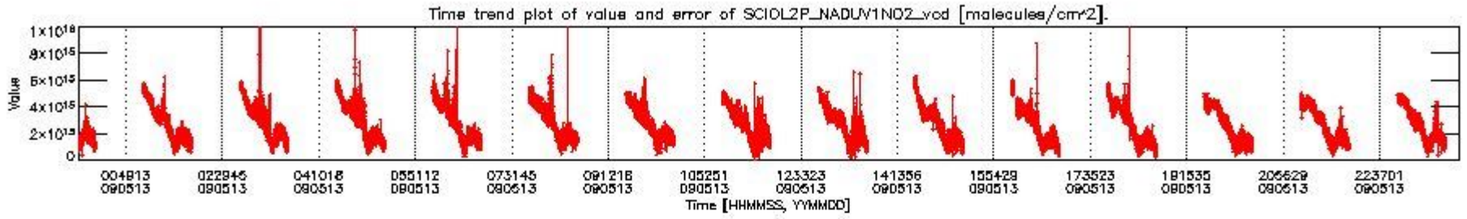


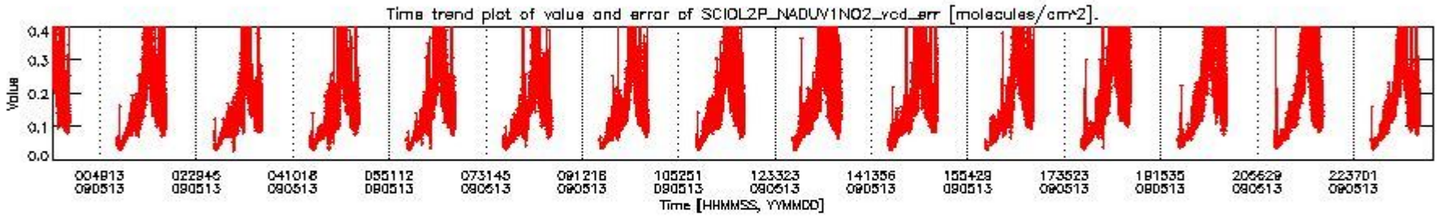
SCIOL2P_NADUV003_amf_gr for 13MAY2009 00:00:00 to 14MAY2009 00:00:00

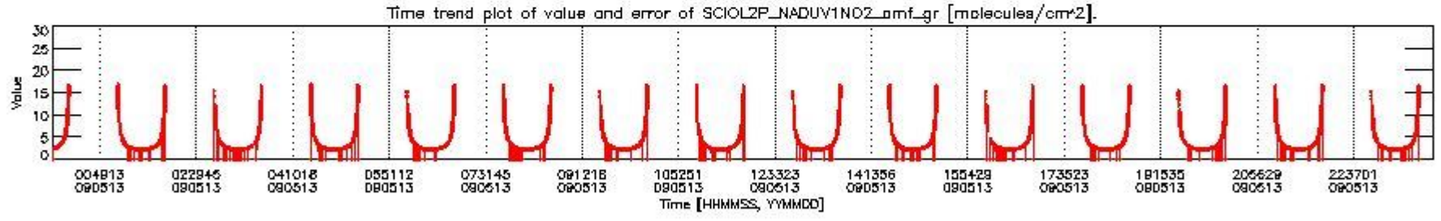


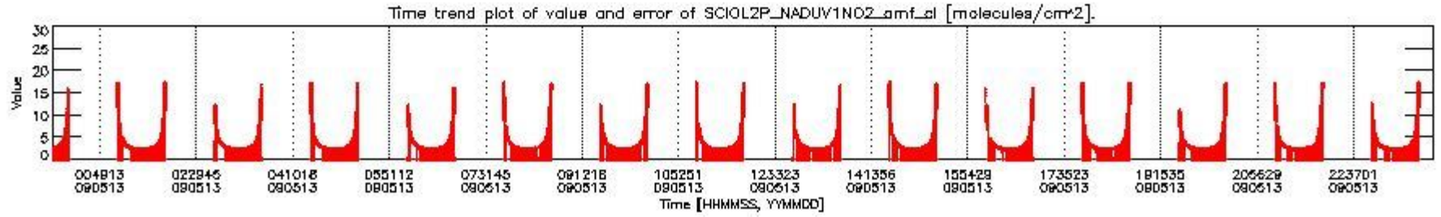
SCIOL2P_NADUV003_amf_cl for 13MAY2009 00:00:00 to 14MAY2009 00:00:00

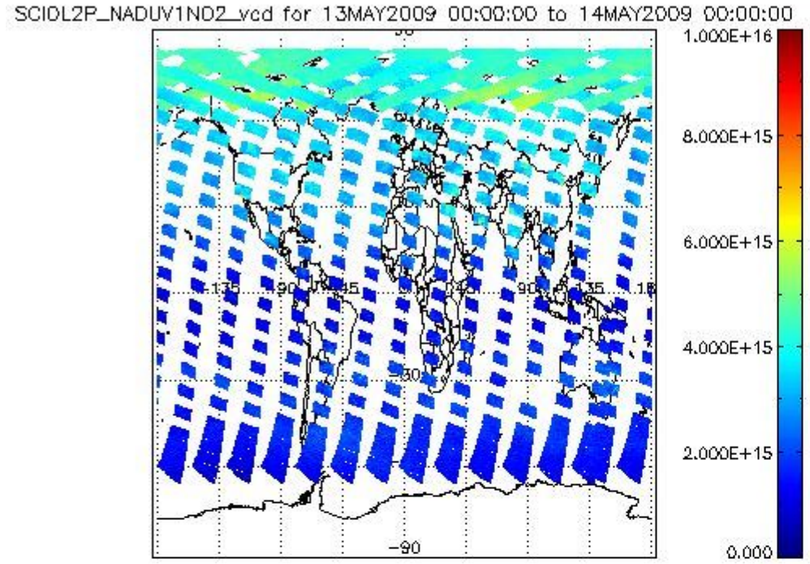


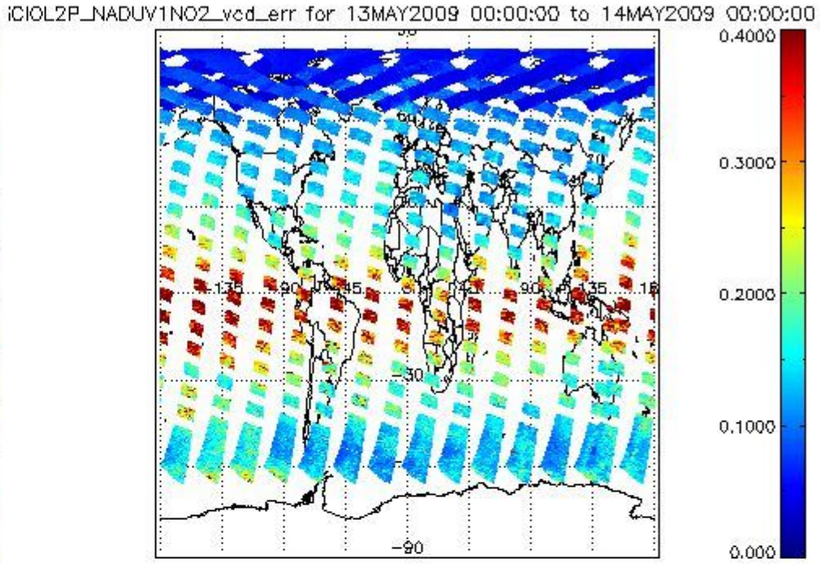

Time trend plot of value and error of SCIOL2P_NADUV1NO2_vcd [molecules/cm^2].
Value
1x10^16
8x10^15
6x10^15
4x10^15
2x10^15
0
004813 090513
022945 090513
041018 090513
055112 090513
073145 090513
091218 090513
105251 090513
123323 090513
141356 090513
155429 090513
173523 090513
191535 090513
205629 090513
223701 090513
Time [HHMMSS, YYMMDD]

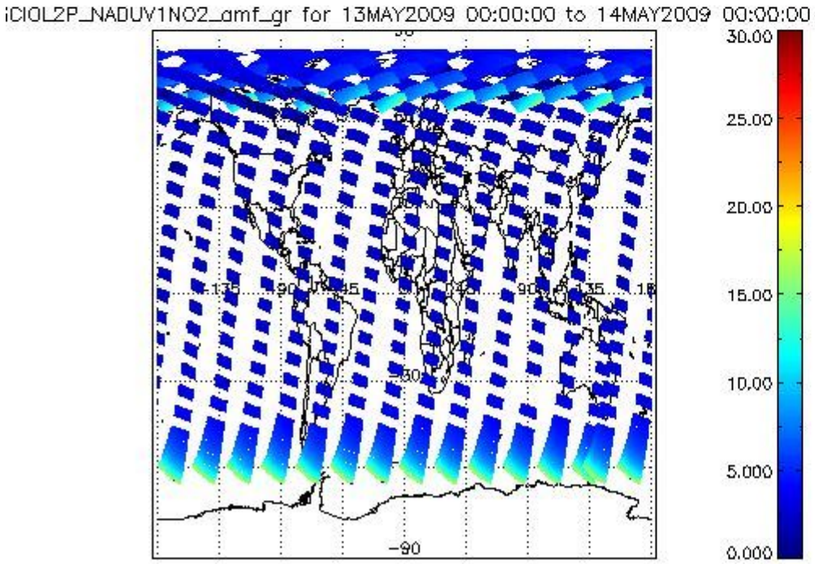

Time trend plot of value and error of SCIOL2P_NADUV1NO2_vcd_err [molecules/cm^2].
Value
0.4
0.3
0.2
0.1
0.0
004813 090513
022945 090513
041018 090513
055112 090513
073145 090513
091218 090513
105251 090513
123323 090513
141356 090513
155429 090513
173523 090513
191535 090513
205629 090513
223701 090513
Time [HHMMSS, YYMMDD]

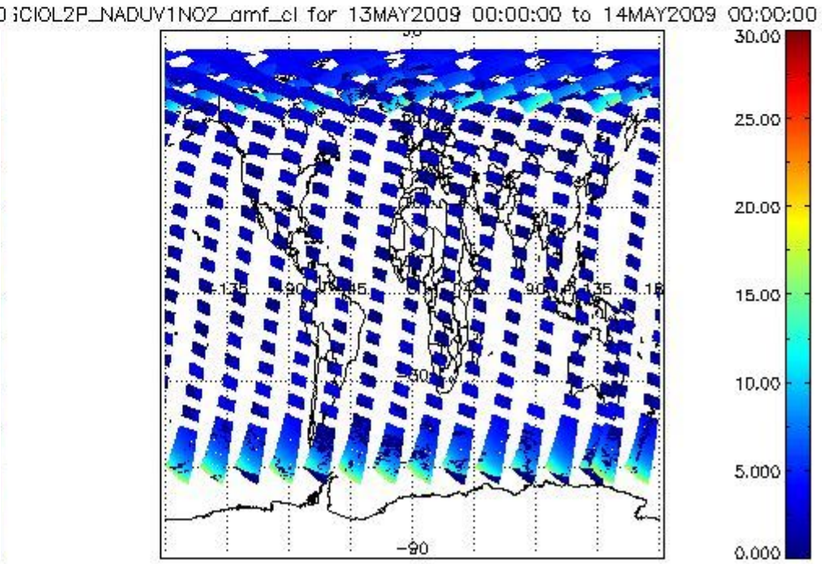

Time trend plot of value and error of SCIOL2P_NADUV1NO2_amf_gr [molecules/cm^2].
Value
30
25
20
15
10
5
0
004813 090513
022945 090513
041018 090513
055112 090513
073145 090513
091218 090513
105251 090513
123323 090513
141356 090513
155429 090513
173523 090513
191535 090513
205629 090513
223701 090513
Time [HHMMSS, YYMMDD]


Time trend plot of value and error of SCIOL2P_NADUV1NO2_amf_cl [molecules/cm^2].
Value
30
25
20
15
10
5
0
004813 090513
022945 090513
041018 090513
055112 090513
073145 090513
091218 090513
105251 090513
123323 090513
141356 090513
155429 090513
173523 090513
191535 090513
205629 090513
223701 090513
Time [HHMMSS, YYMMDD]









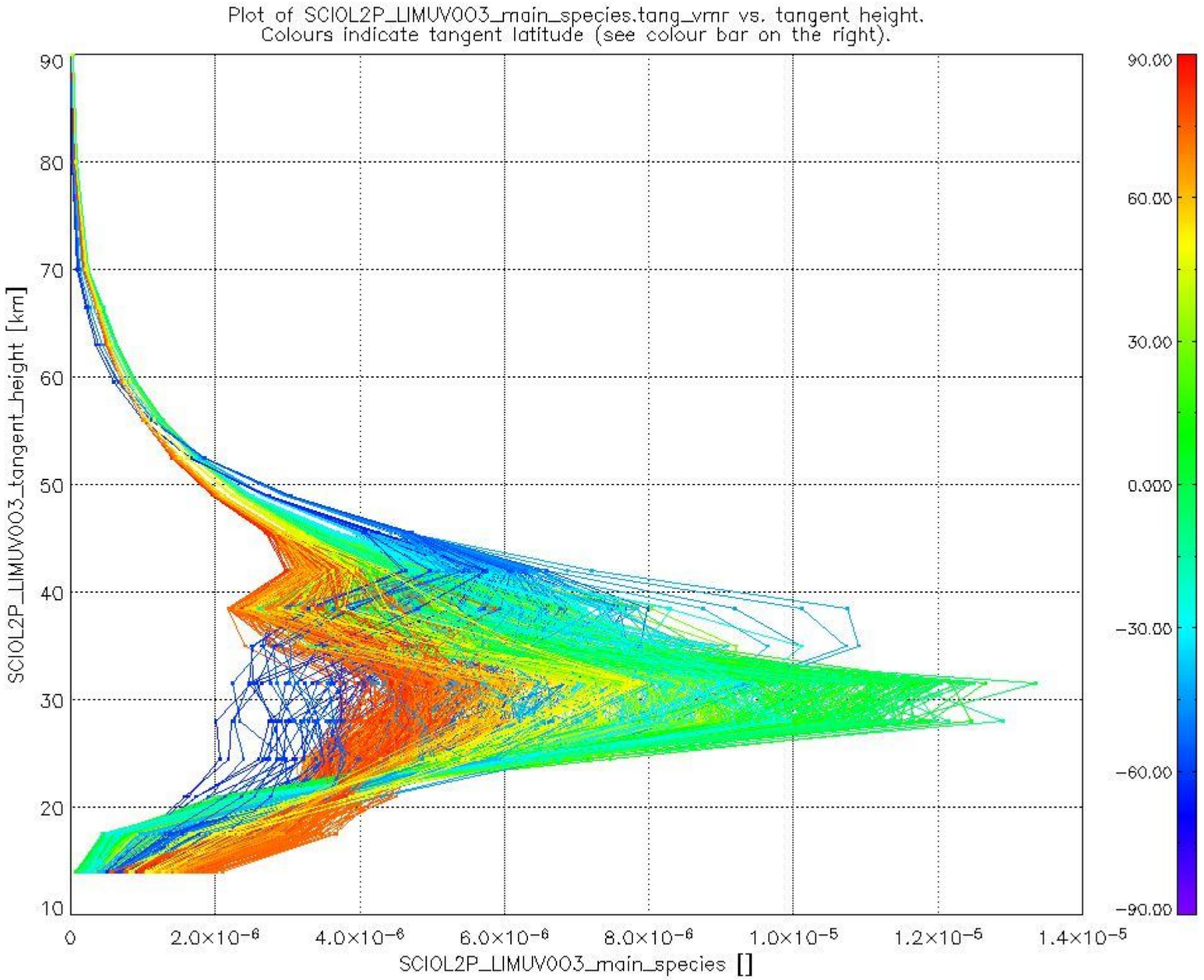
2.2.3 Limb

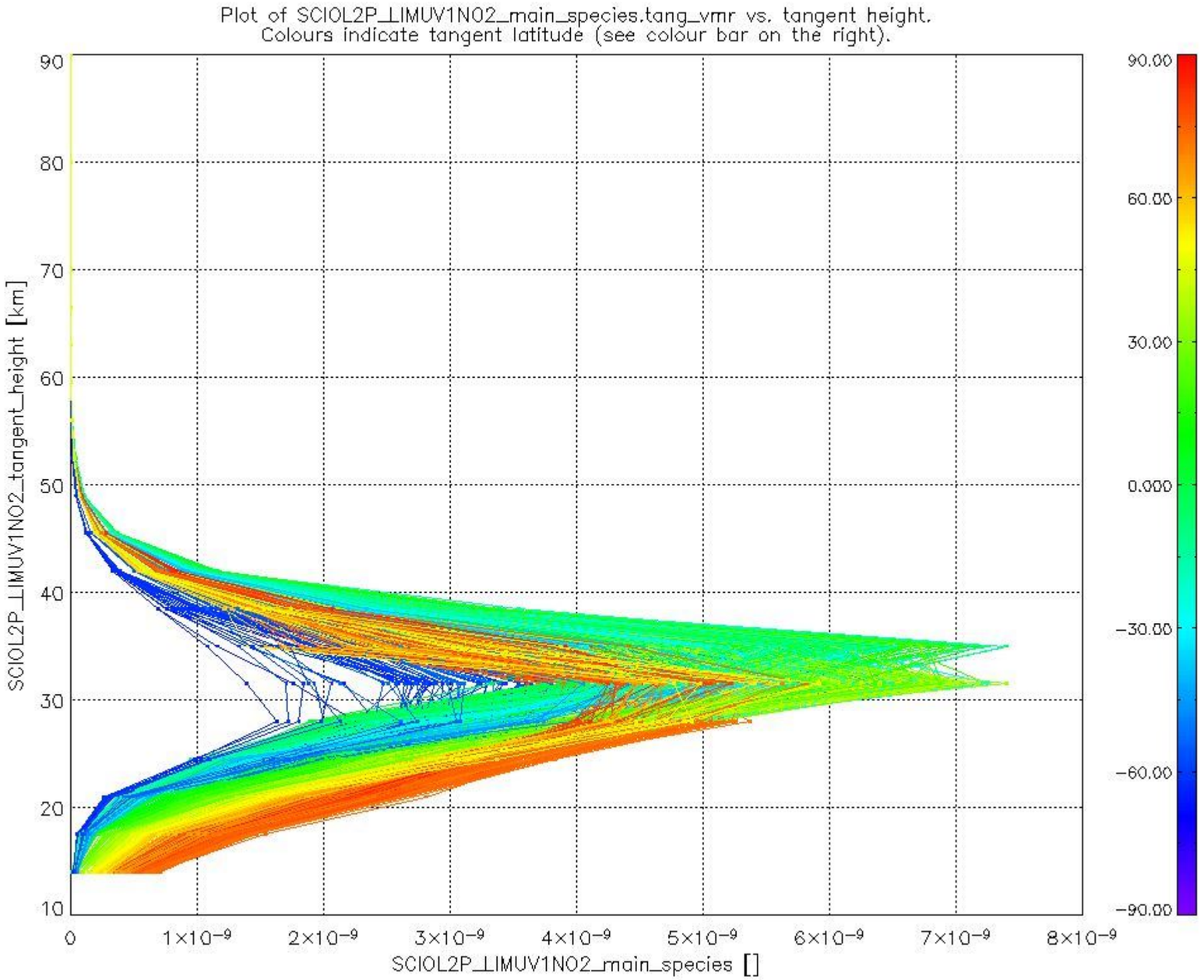
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2PLIMUV0O3_main_species
1	SCIOL2PLIMUV1NO2_main_species

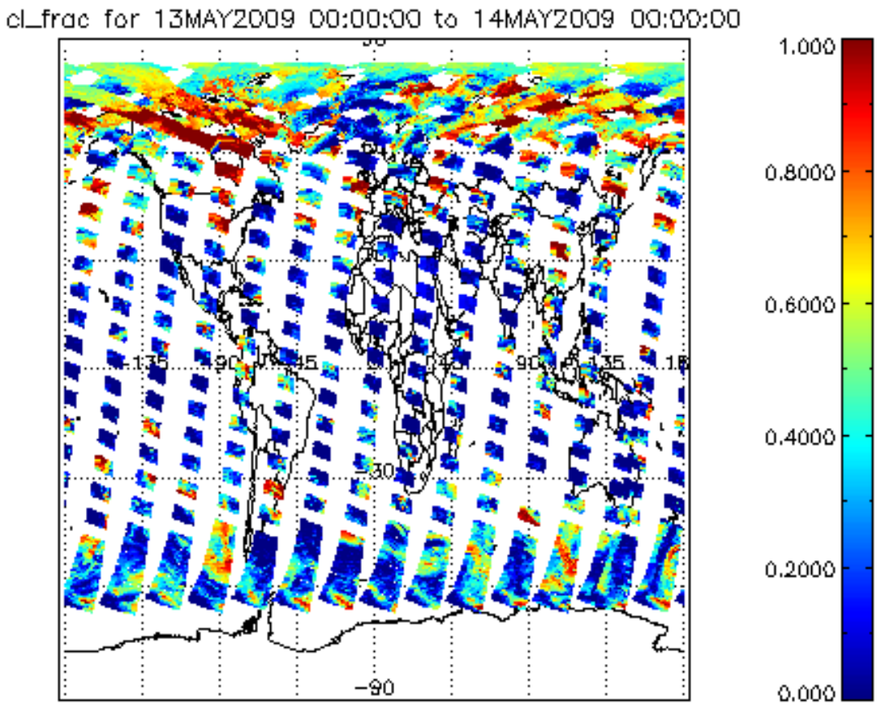
The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

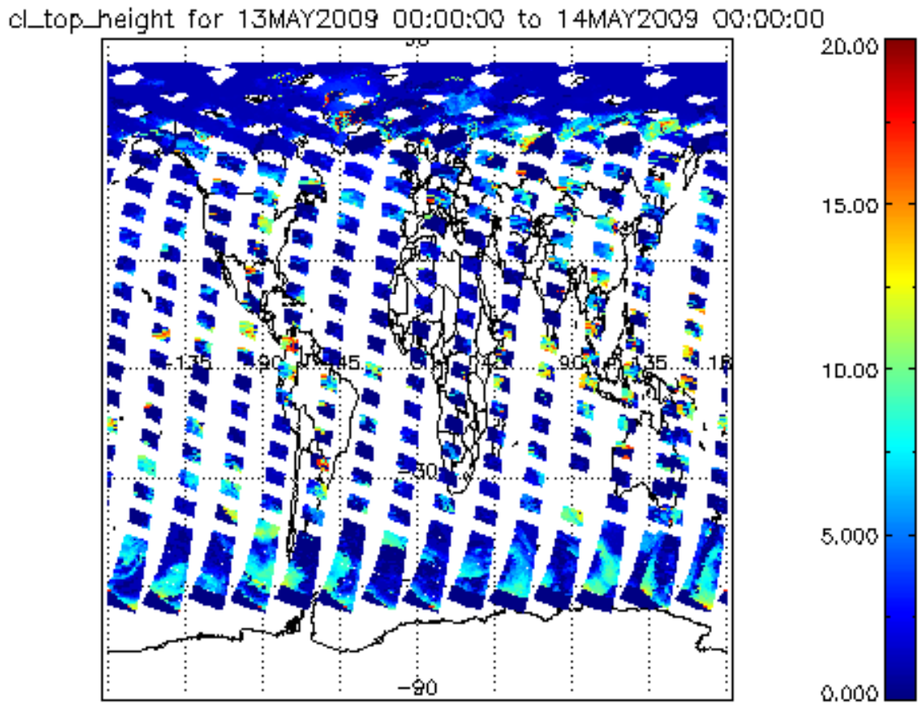


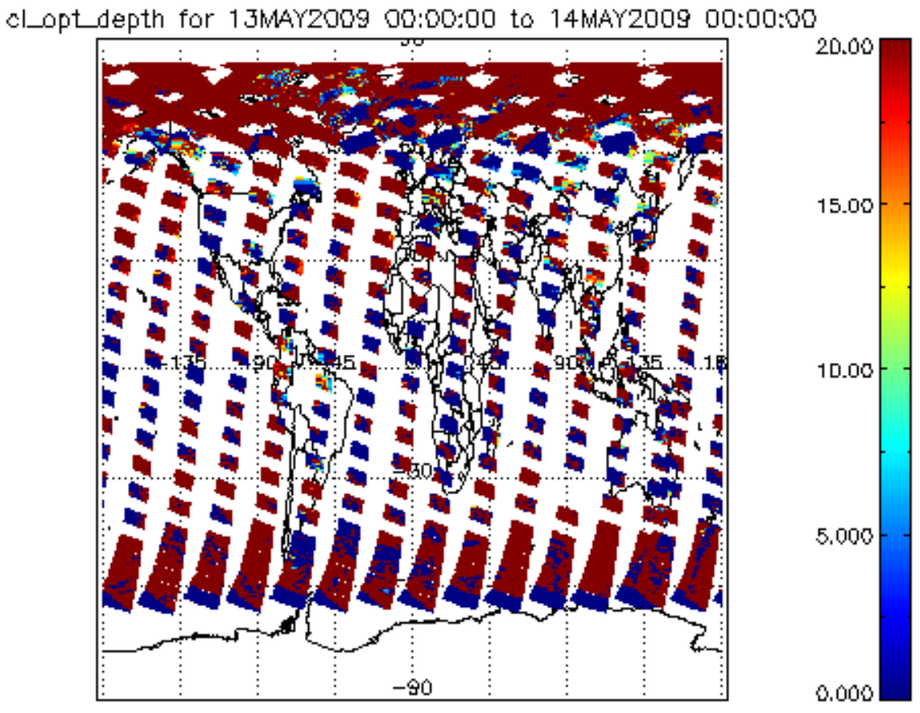


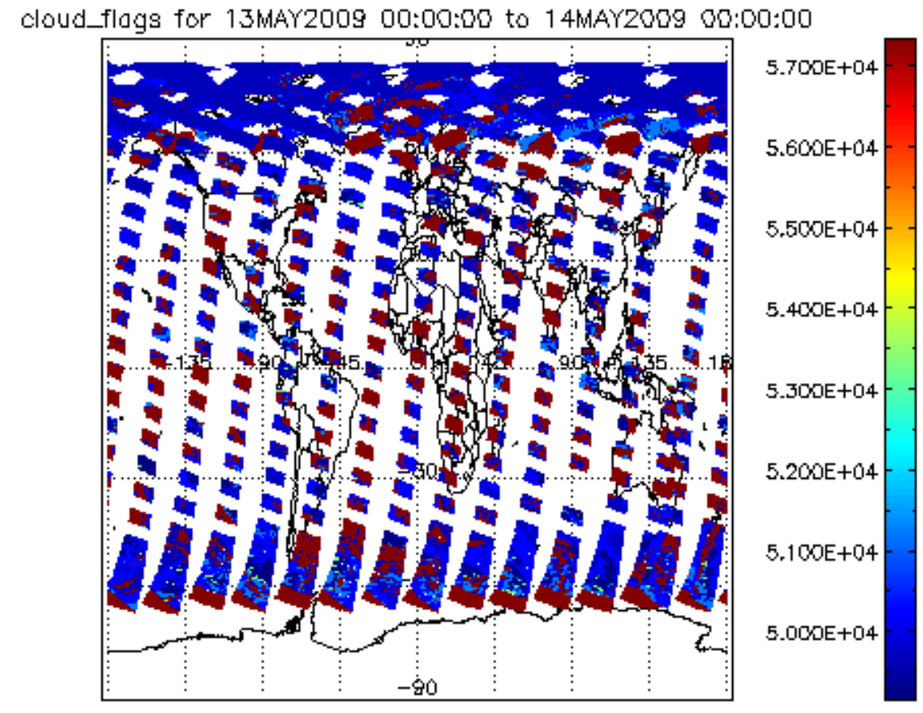
2.3 ADF monitoring

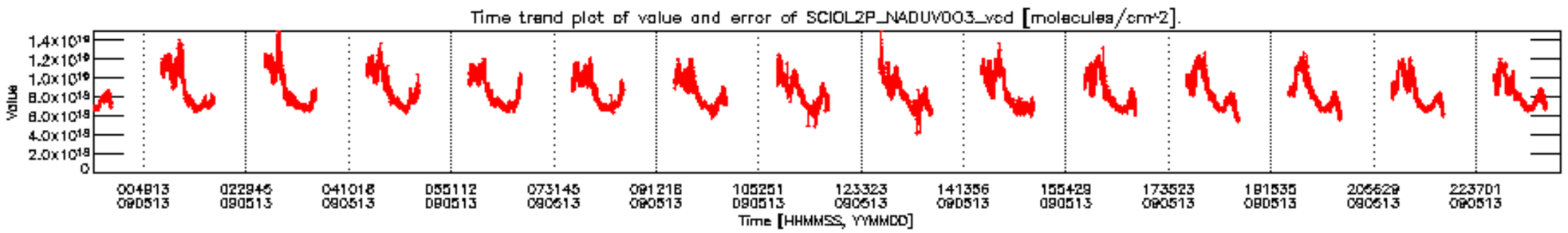
Number	ADF
	IN_ (INITIALISATION_FILE)
0	SCI_IN__AXNPDE20070629_092400_20070720_000000_20991231_235959
	ECF (ECMWF_FILE)
1	NOT USED

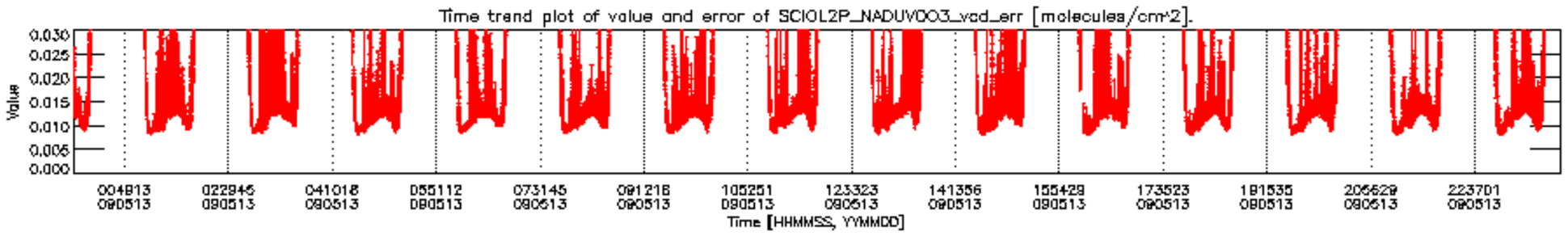

cl_frac for 13MAY2009 00:00:00 to 14MAY2009 00:00:00
1.000
0.8000
0.6000
0.4000
0.2000
0.000
-90

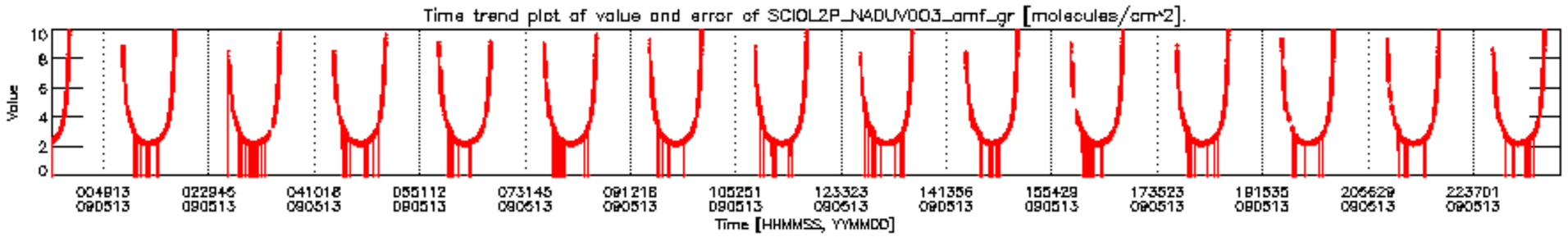

cl_top_height for 13MAY2009 00:00:00 to 14MAY2009 00:00:00
20.00
15.00
10.00
5.000
0.000
-90

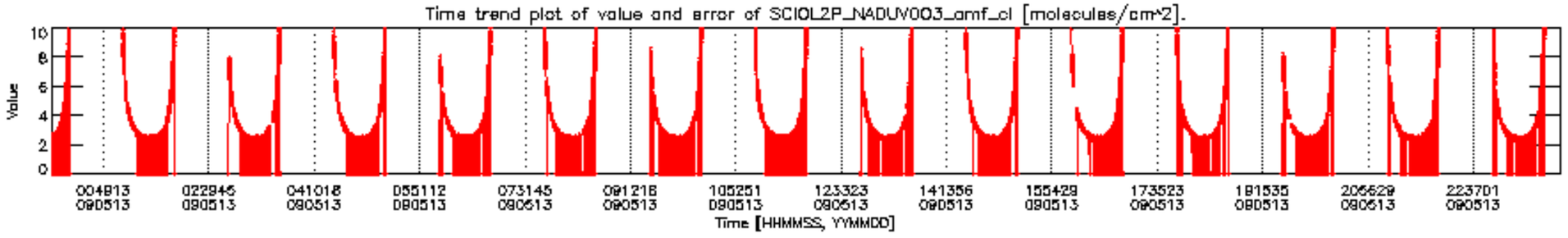

cl_opt_depth for 13MAY2009 00:00:00 to 14MAY2009 00:00:00
20.00
15.00
10.00
5.000
0.000
-90


cloud_flags for 13MAY2009 00:00:00 to 14MAY2009 00:00:00
5.700E+04
5.600E+04
5.500E+04
5.400E+04
5.300E+04
5.200E+04
5.100E+04
5.000E+04
-90

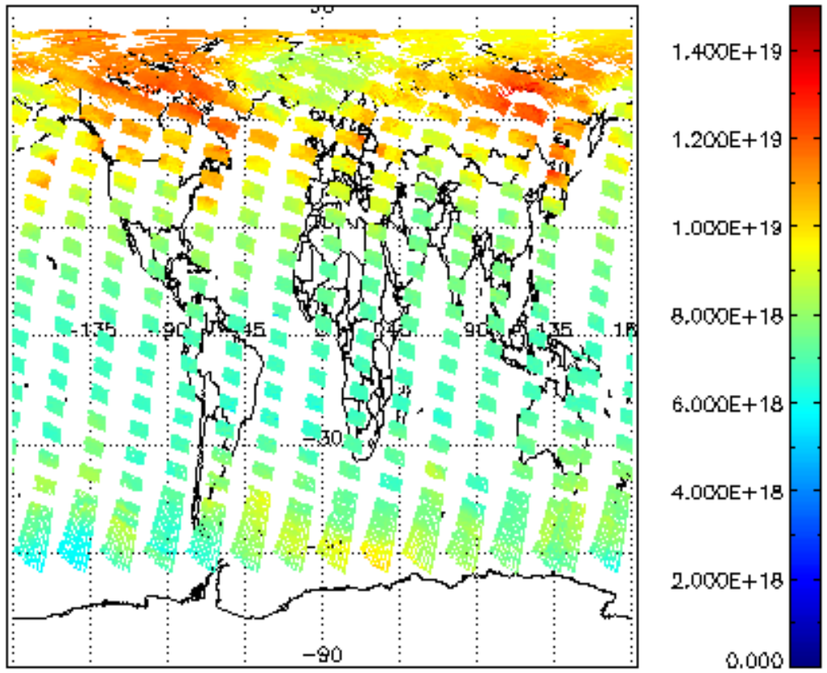

Time trend plot of value and error of SCIOL2P_NADUV003_vcd [molecules/cm^2].
Value
1.4x10^19
1.2x10^19
1.0x10^19
8.0x10^18
6.0x10^18
4.0x10^18
2.0x10^18
0
004813 090513
022945 090513
041018 090513
055112 090513
073145 090513
091218 090513
105251 090513
123323 090513
141356 090513
155429 090513
173523 090513
191535 090513
205629 090513
223701 090513
Time [HHMMSS, YYMMDD]


Time trend plot of value and error of SCIOL2P_NADUV003_vcd_err [molecules/cm^2].
Value
0.030
0.025
0.020
0.015
0.010
0.005
0.000
004813 090513
022945 090513
041018 090513
055112 090513
073145 090513
091218 090513
105251 090513
123323 090513
141356 090513
155429 090513
173523 090513
191535 090513
205629 090513
223701 090513
Time [HHMMSS, YYMMDD]

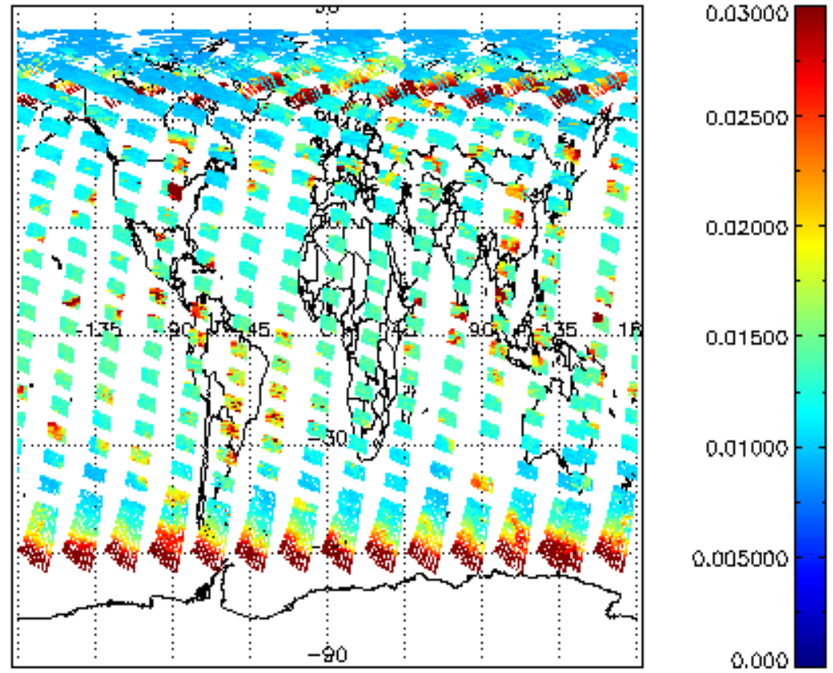

Time trend plot of value and error of SCIOL2P_NADUV003_amf_gr [molecules/cm^2].
Value
10
8
6
4
2
0
004813 090513
022945 090513
041018 090513
055112 090513
073145 090513
091218 090513
105251 090513
123323 090513
141356 090513
155429 090513
173523 090513
191535 090513
205629 090513
223701 090513
Time [HHMMSS, YYMMDD]


Time trend plot of value and error of SCIOL2P_NADUV003_amf_cl [molecules/cm^2].
Value
10
8
6
4
2
0
004813 090513
022945 090513
041018 090513
055112 090513
073145 090513
091218 090513
105251 090513
123323 090513
141356 090513
155429 090513
173523 090513
191535 090513
205629 090513
223701 090513
Time [HHMMSS, YYMMDD]

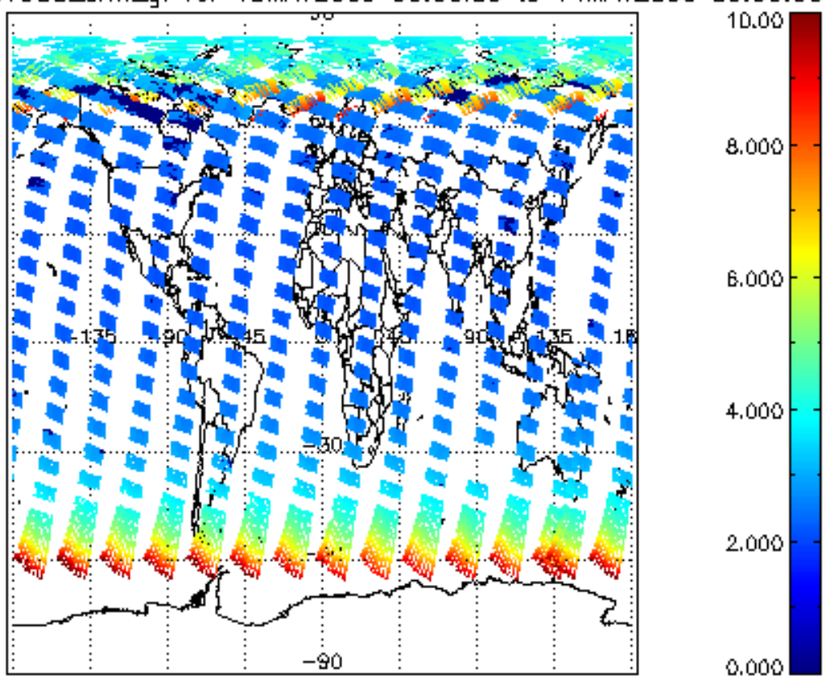
SCIOL2P_NADUV003_vcd for 13MAY2009 00:00:00 to 14MAY2009 00:00:00



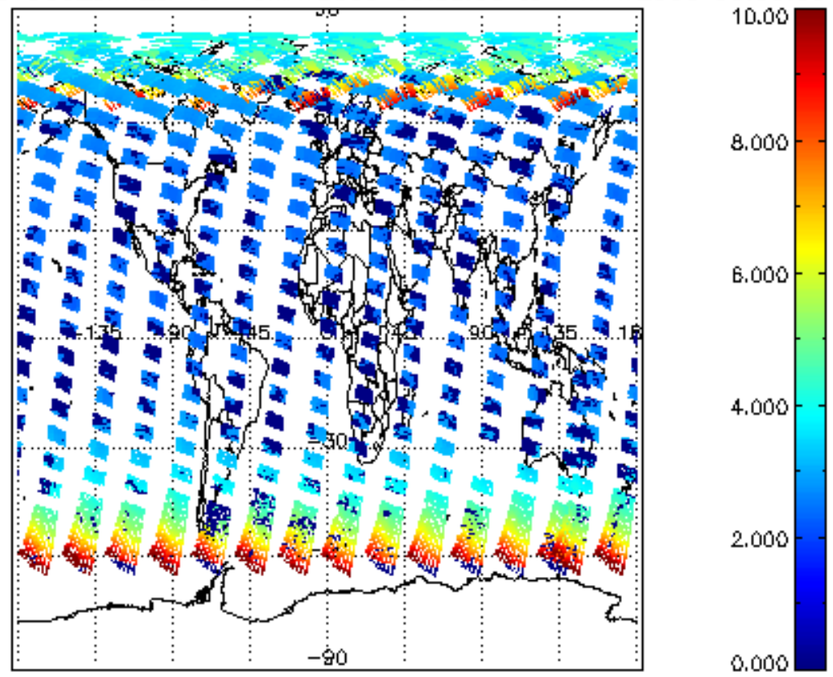
SCIOL2P_NADUV003_vcd_err for 13MAY2009 00:00:00 to 14MAY2009 00:00:00

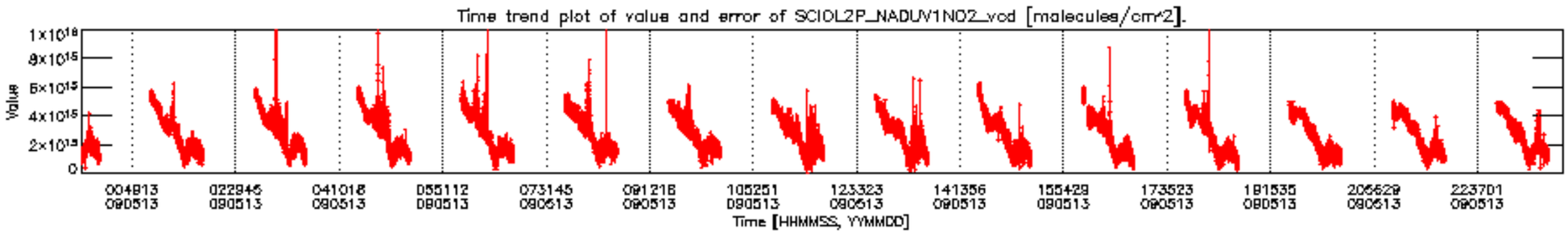


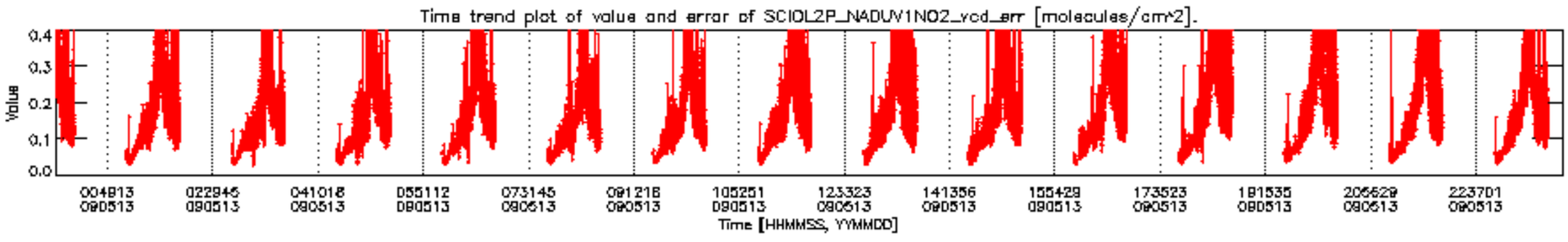
SCIOL2P_NADUV003_amf_gr for 13MAY2009 00:00:00 to 14MAY2009 00:00:00

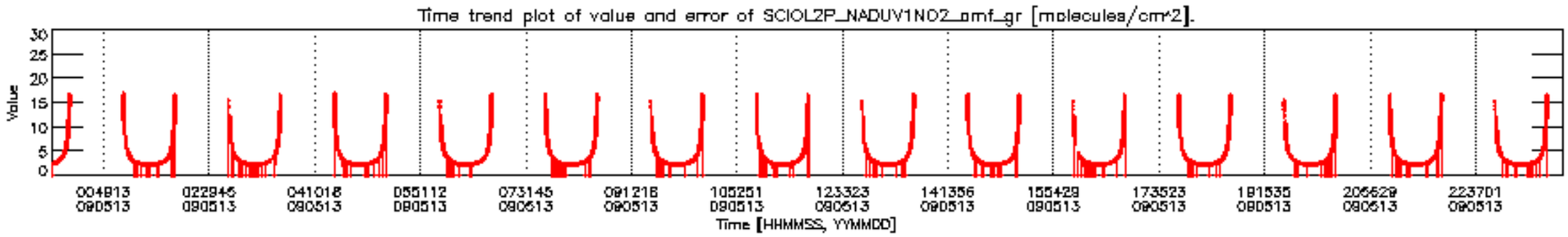


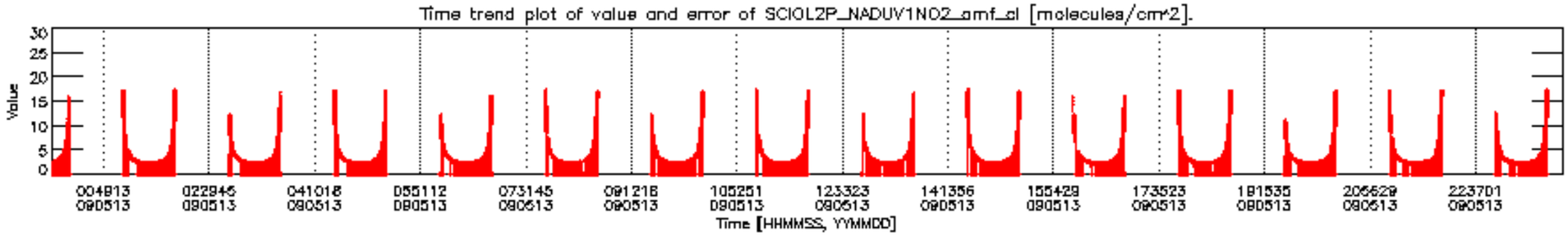
SCIOL2P_NADUV003_amf_cl for 13MAY2009 00:00:00 to 14MAY2009 00:00:00



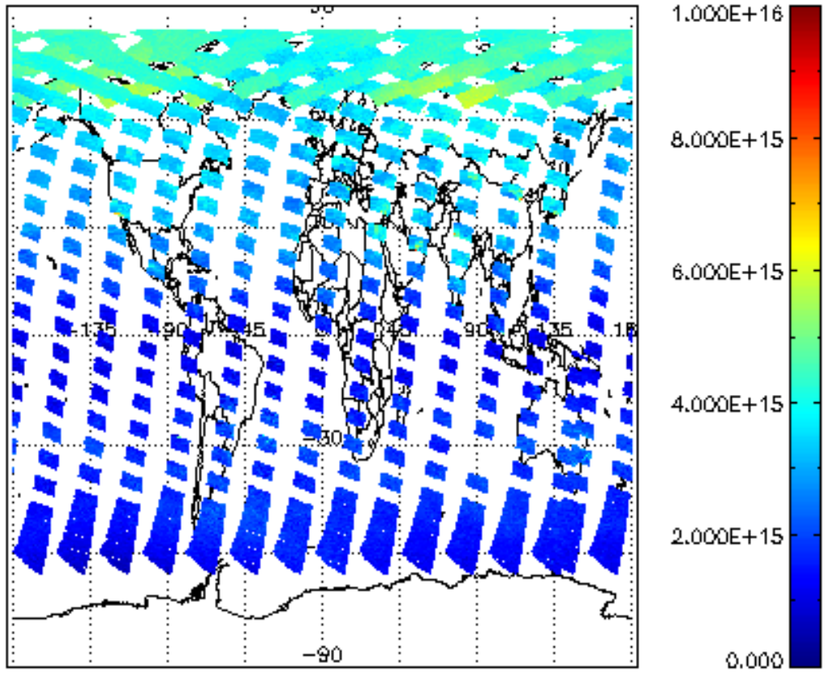

Time trend plot of value and error of SCIOL2P_NADUV1NO2_vcd [molecules/cm^2].
Value
1x10^16
8x10^15
6x10^15
4x10^15
2x10^15
0
004813 090513
022945 090513
041018 090513
055112 090513
073145 090513
091218 090513
105251 090513
123323 090513
141356 090513
155429 090513
173523 090513
191535 090513
205629 090513
223701 090513
Time [HHMMSS, YYMMDD]


Time trend plot of value and error of SCIOL2P_NADUV1NO2_vcd_err [molecules/cm^2].
Value
0.4
0.3
0.2
0.1
0.0
004813 090513
022945 090513
041018 090513
055112 090513
073145 090513
091218 090513
105251 090513
123323 090513
141356 090513
155429 090513
173523 090513
191535 090513
205629 090513
223701 090513
Time [HHMMSS, YYMMDD]

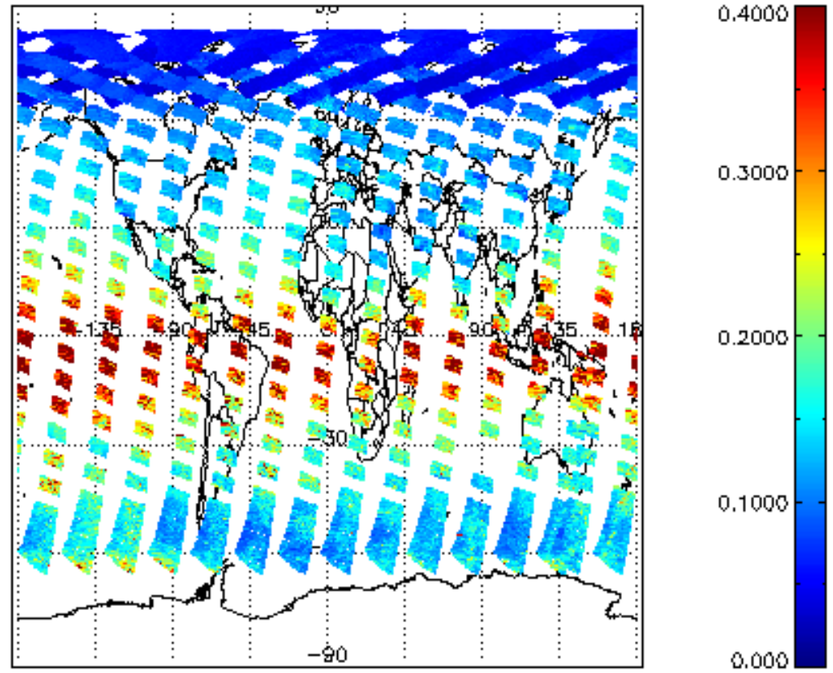

Time trend plot of value and error of SCIOL2P_NADUV1NO2_amf_gr [molecules/cm^2].
Value
30
25
20
15
10
5
0
004813 090513
022945 090513
041018 090513
055112 090513
073145 090513
091218 090513
105251 090513
123323 090513
141356 090513
155429 090513
173523 090513
191535 090513
205629 090513
223701 090513
Time [HHMMSS, YYMMDD]


Time trend plot of value and error of SCIOL2P_NADUV1NO2_amf_cl [molecules/cm^2].
Value
30
25
20
15
10
5
0
004813 090513
022945 090513
041018 090513
055112 090513
073145 090513
091218 090513
105251 090513
123323 090513
141356 090513
155429 090513
173523 090513
191535 090513
205629 090513
223701 090513
Time [HHMMSS, YYMMDD]

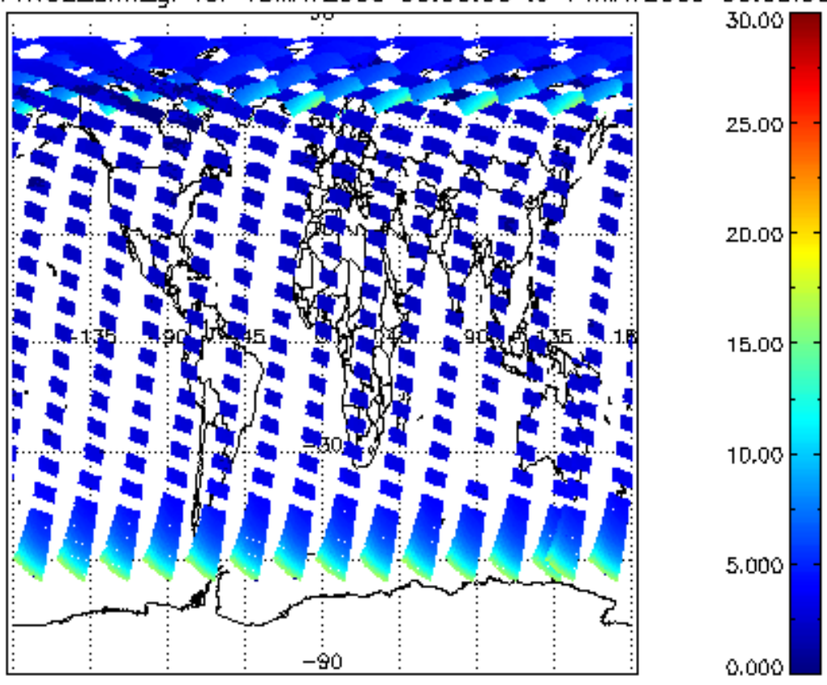
SCIDL2P_NADUV1NO2_vcd for 13MAY2009 00:00:00 to 14MAY2009 00:00:00



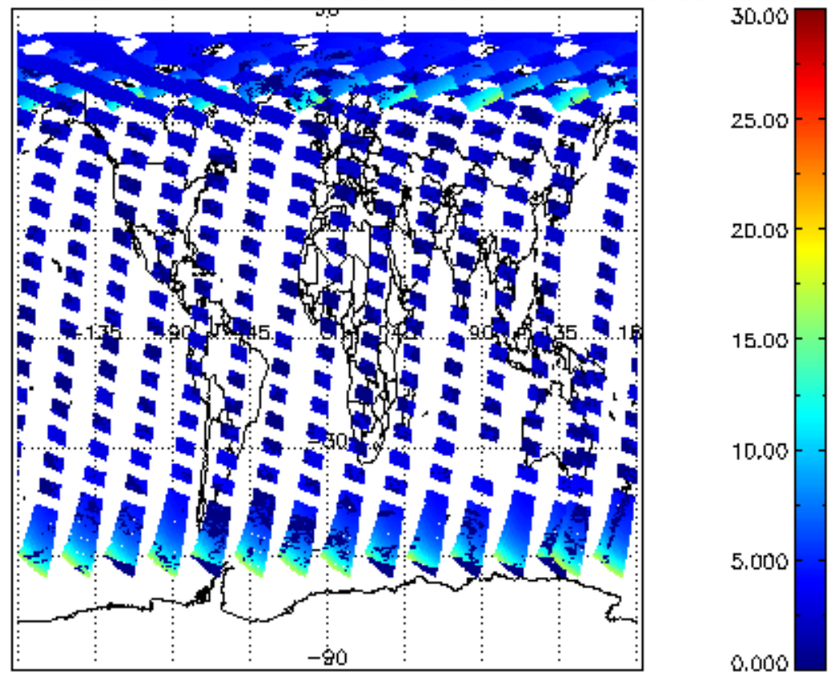
iCIOL2P_NADUV1NO2_vcd_err for 13MAY2009 00:00:00 to 14MAY2009 00:00:00



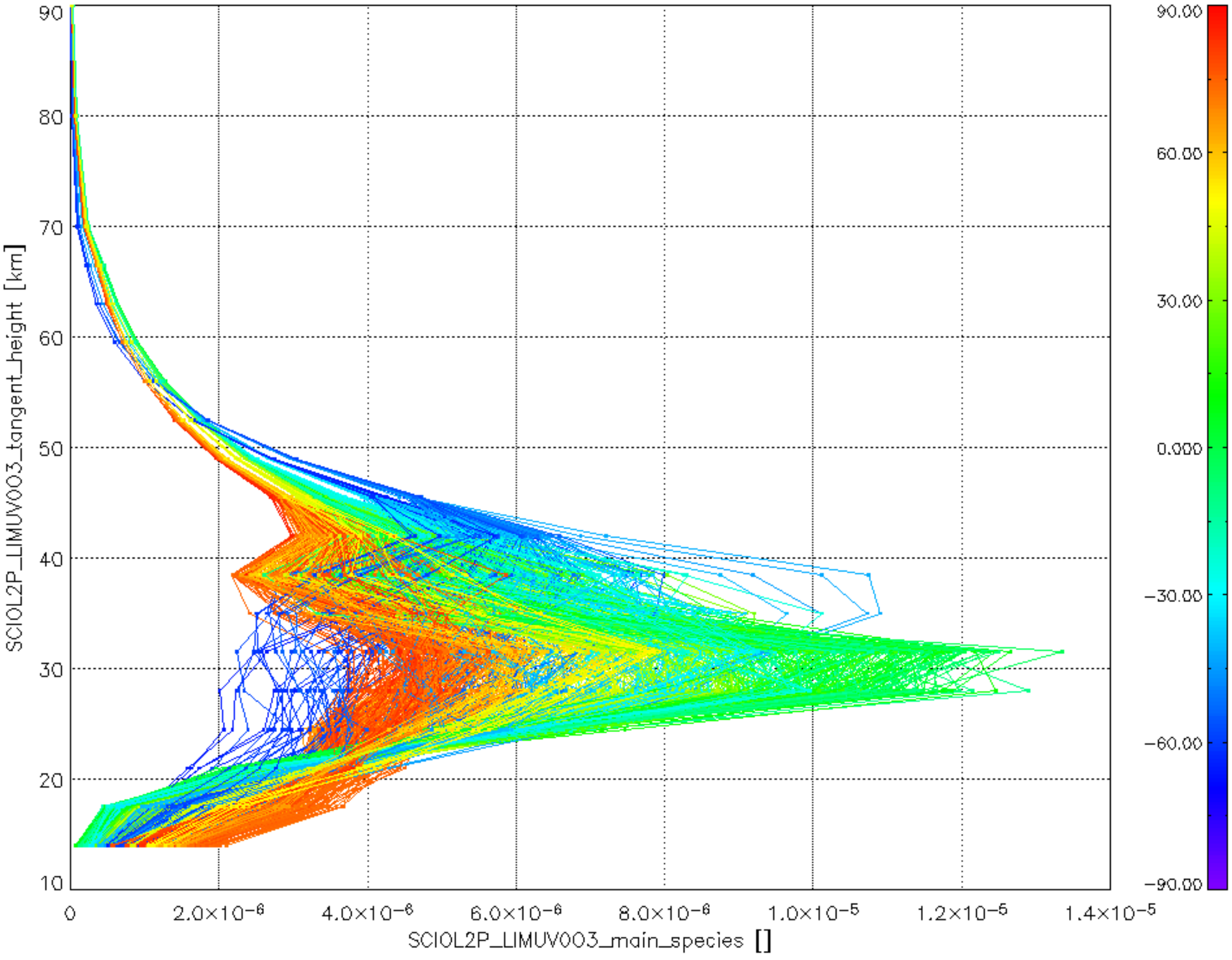
iCIOL2P_NADUV1NO2_amf_gr for 13MAY2009 00:00:00 to 14MAY2009 00:00:00



iCIOL2P_NADUV1NO2_amf_cl for 13MAY2009 00:00:00 to 14MAY2009 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).