

## 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	1.6 (28-07-2008)
Time of report generation	17JUN2009 06:03:07
Data source version	SCIA-OL/3.01-R
Processing scope for products	30MAY2009 00:00:00 to 31MAY2009 00:00:00
Start time of first product within scope	29MAY2009 22:46:37
Stop time of last product within scope	31MAY2009 00:50:46
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.

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	<a href="#">SCI_OL__2PRDPA20090529_224637_000033252079_00259_37888_2760.N1</a>	29MAY2009 22:46:37	29MAY2009 23:42:02	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20090530_002712_000033122079_00260_37889_2755.N1</a>	30MAY2009 00:27:12	30MAY2009 01:22:25	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20090530_020748_000033252079_00261_37890_2754.N1</a>	30MAY2009 02:07:48	30MAY2009 03:03:14	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20090530_034824_000033122079_00262_37891_2753.N1</a>	30MAY2009 03:48:24	30MAY2009 04:43:37	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20090530_052900_000033252079_00263_37892_2756.N1</a>	30MAY2009 05:29:00	30MAY2009 06:24:25	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20090530_070936_000033122079_00264_37893_2758.N1</a>	30MAY2009 07:09:36	30MAY2009 08:04:48	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20090530_085011_000033252079_00265_37894_2757.N1</a>	30MAY2009 08:50:11	30MAY2009 09:45:37	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20090530_103047_000033122079_00266_37895_2762.N1</a>	30MAY2009 10:30:47	30MAY2009 11:26:00	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20090530_121123_000033252079_00267_37896_2763.N1</a>	30MAY2009 12:11:23	30MAY2009 13:06:48	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20090530_135158_000033122079_00268_37897_2765.N1</a>	30MAY2009 13:51:58	30MAY2009 14:47:11	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20090530_153234_000033252079_00269_37898_2766.N1</a>	30MAY2009 15:32:34	30MAY2009 16:28:00	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20090530_171229_000033682079_00270_37899_2764.N1</a>	30MAY2009 17:12:29	30MAY2009 18:08:38	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20090530_185305_000033812079_00271_37900_2767.N1</a>	30MAY2009 18:53:05	30MAY2009 19:49:26	0	GOOD
13	<a href="#">SCI_OL__2PRDPA20090530_203422_000033122079_00272_37901_2768.N1</a>	30MAY2009 20:34:22	30MAY2009 21:29:34	0	GOOD
14	<a href="#">SCI_OL__2PRDPA20090530_221457_000033252079_00273_37902_2769.N1</a>	30MAY2009 22:14:57	30MAY2009 23:10:23	0	GOOD
15	<a href="#">SCI_OL__2PRDPA20090530_235533_000033122079_00274_37903_2770.N1</a>	30MAY2009 23:55:33	31MAY2009 00:50:46	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: 143504

Total number of cloud data DSRs with good quality flag (=0): 143504 (100.0 %)

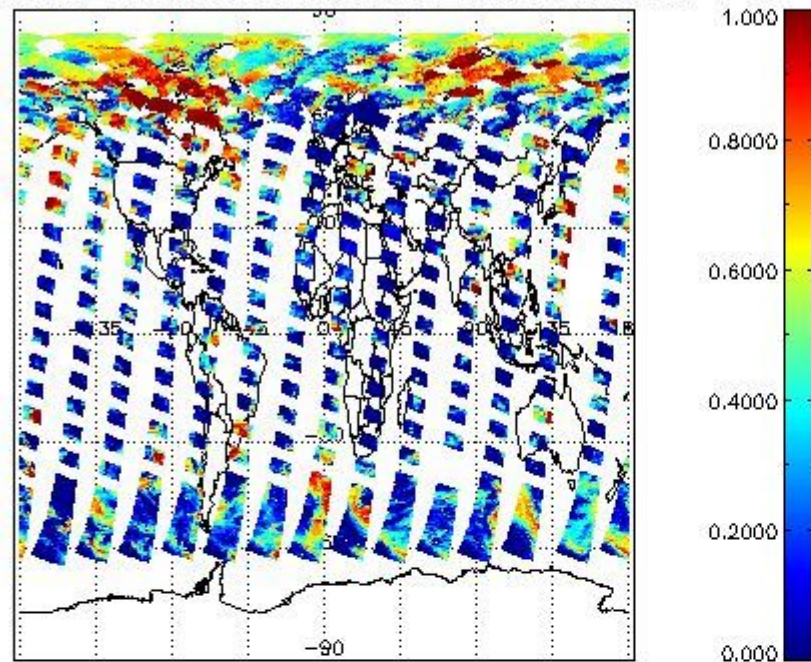
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	143504	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	143504	0.17097	0.12500	0.12500	0.25000	0.060276	s
CL_FRAC	143504	0.33736	0.28589	0.0000	1.0000	0.30479	-
CL_FRAC_ERR	143504	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	143504	5.4712	4.0000	4.0000	8.0000	1.9288	
PMD_READ_CL[0]	143504	0.26513	0.0000	0.0000	8.0000	1.2187	-
PMD_READ_CL[1]	143504	1.7766	0.0000	0.0000	8.0000	2.7179	-
CL_TOP_HEIGHT	128549	2.8635	1.1070	0.0000	17.000	3.5413	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	128549	59.804	100.00	0.0000	101.00	44.722	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	143504	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	143504	11001100	11000100	11000000	11100000	3539.2	flags
AERO_ABSO_IND	143504	3.9141	4.5469	-0.54129	16.202	2.5451	
AERO_IND_DIAG	143504	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	143504	01011001	00000000	00000000	11000000	24513.	flags

### Time and geolocation plots:

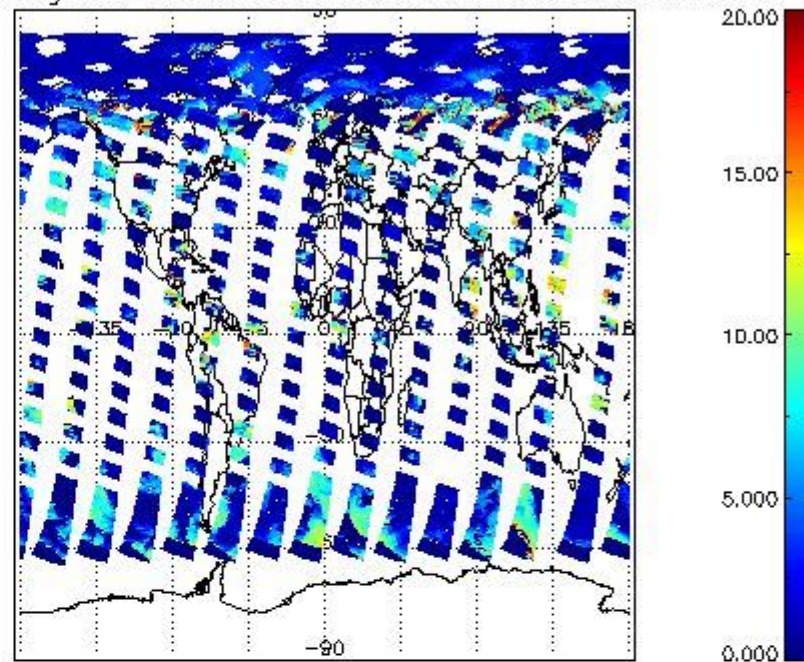
Plots are available for the following parameters:

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

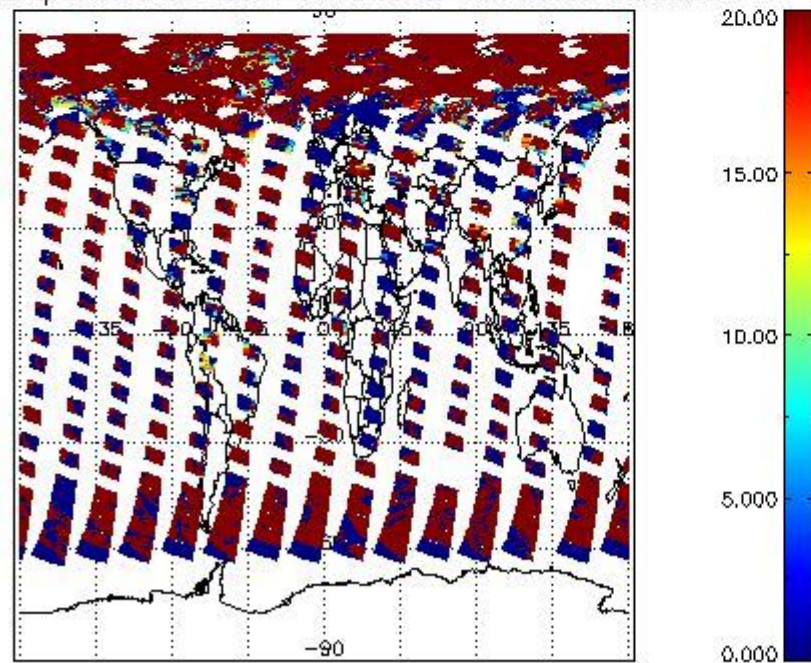
cL\_frac for 30MAY2009 00:00:00 to 31MAY2009 00:00:00



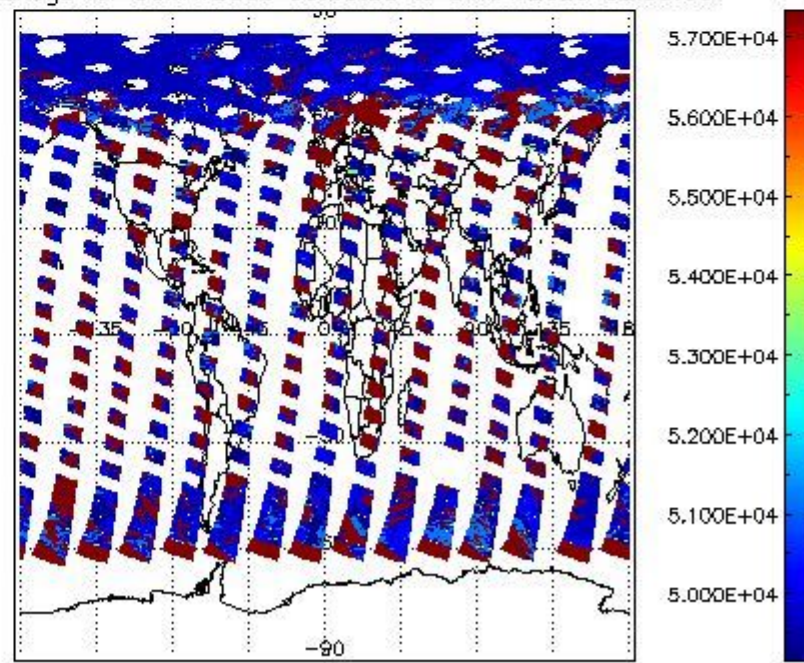
cL\_top\_height for 30MAY2009 00:00:00 to 31MAY2009 00:00:00



cL\_opt\_depth for 30MAY2009 00:00:00 to 31MAY2009 00:00:00



cloud\_flags for 30MAY2009 00:00:00 to 31MAY2009 00:00:00



## 2.2.2 Nadir

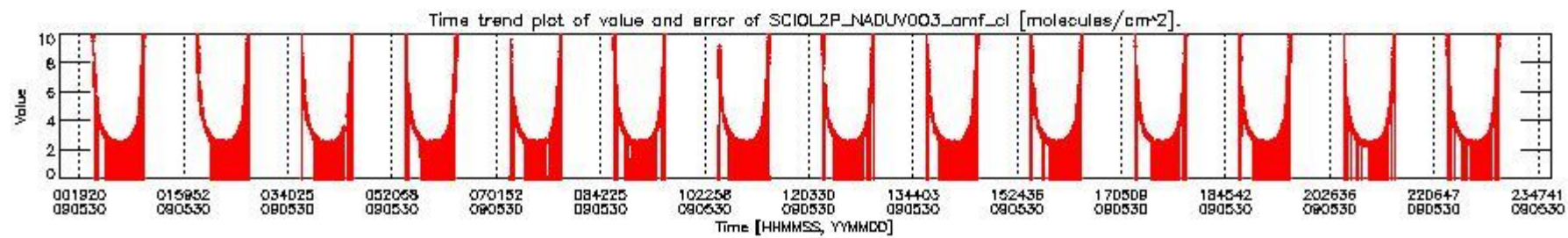
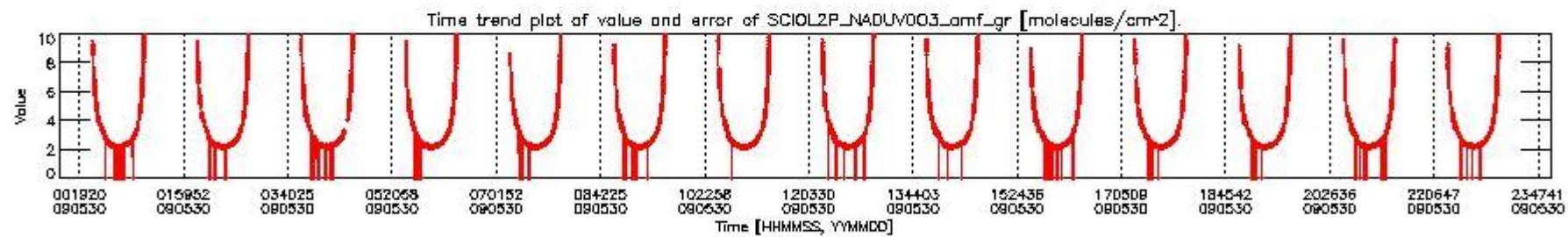
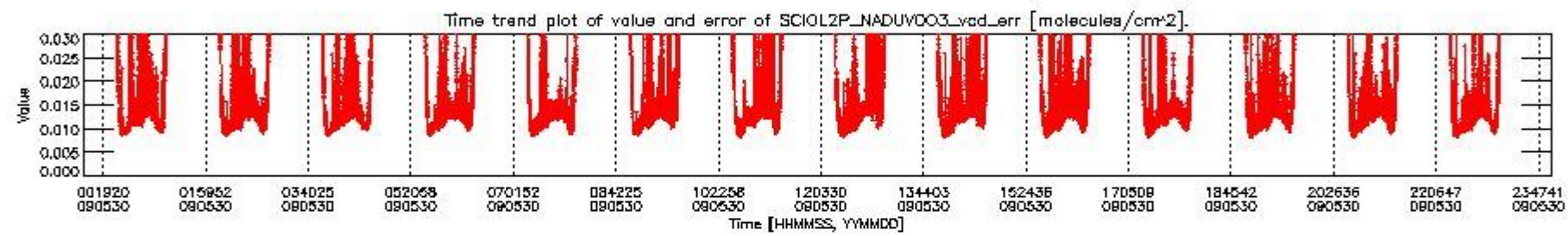
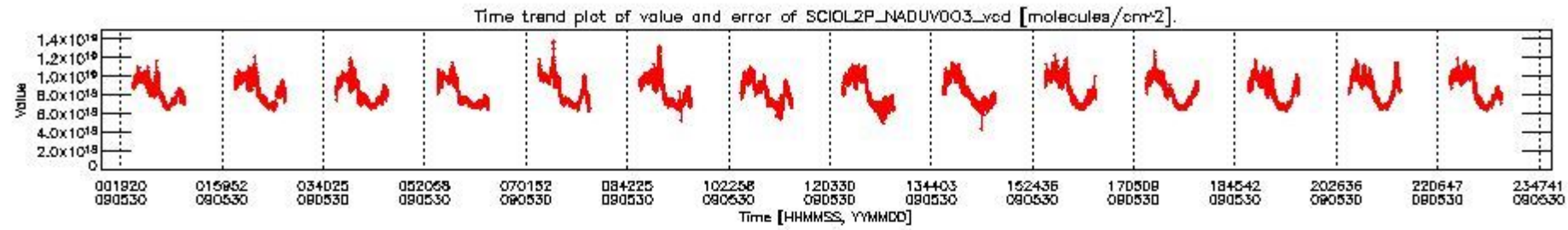
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

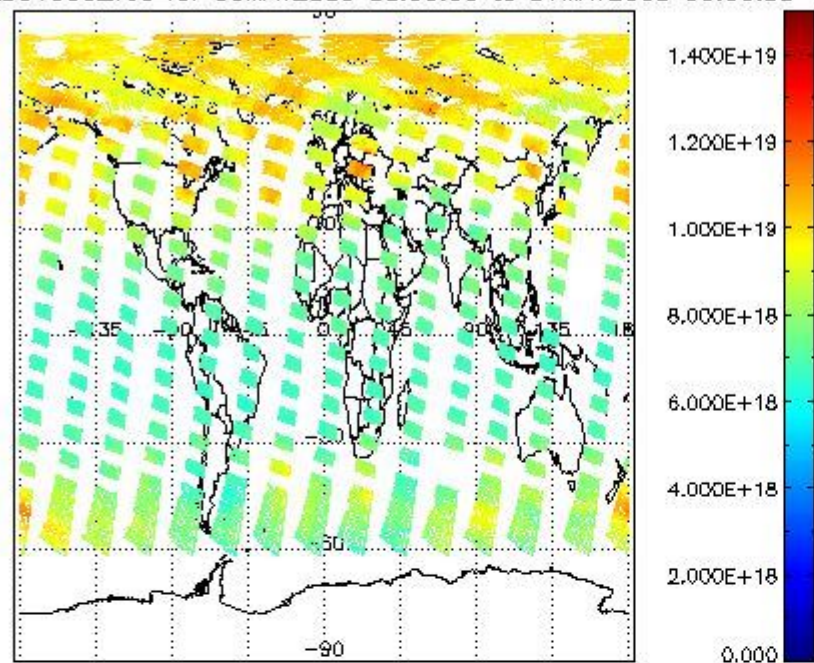
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

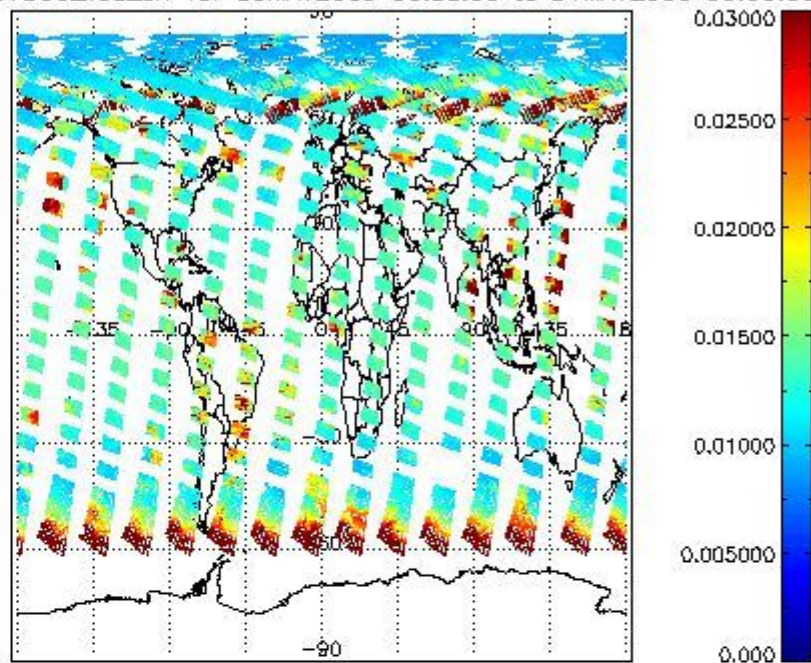
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in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



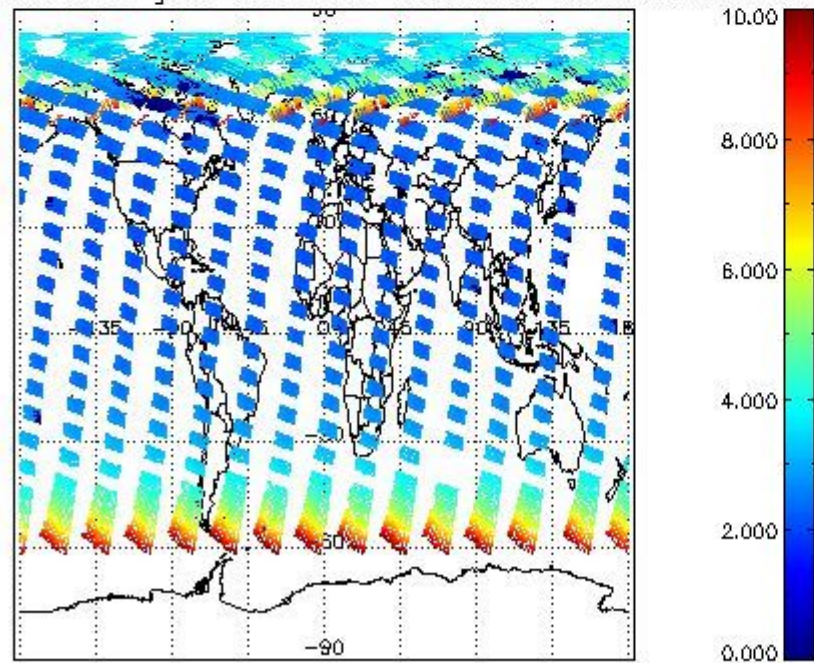
SCIOL2P\_NADUV003\_vcd for 30MAY2009 00:00:00 to 31MAY2009 00:00:00



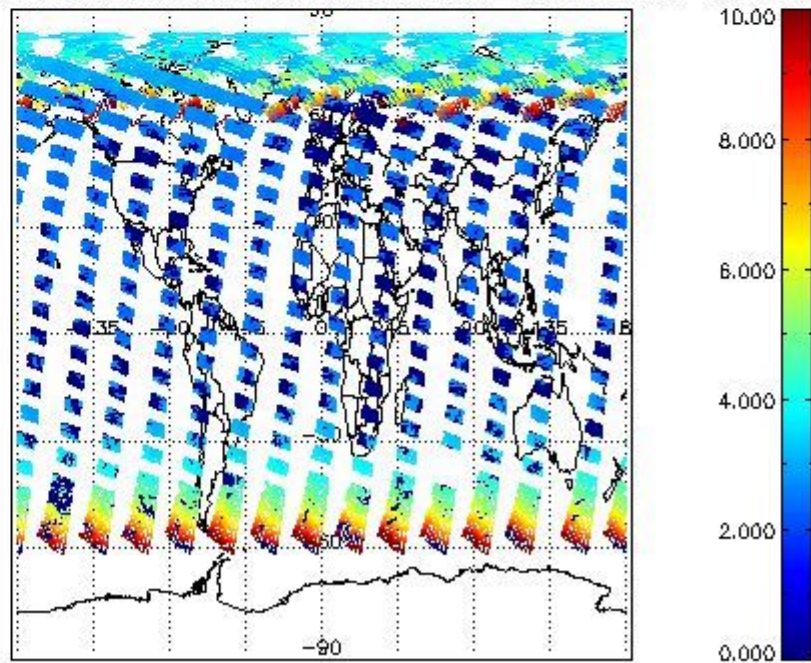
SCIOL2P\_NADUV003\_vcd\_err for 30MAY2009 00:00:00 to 31MAY2009 00:00:00

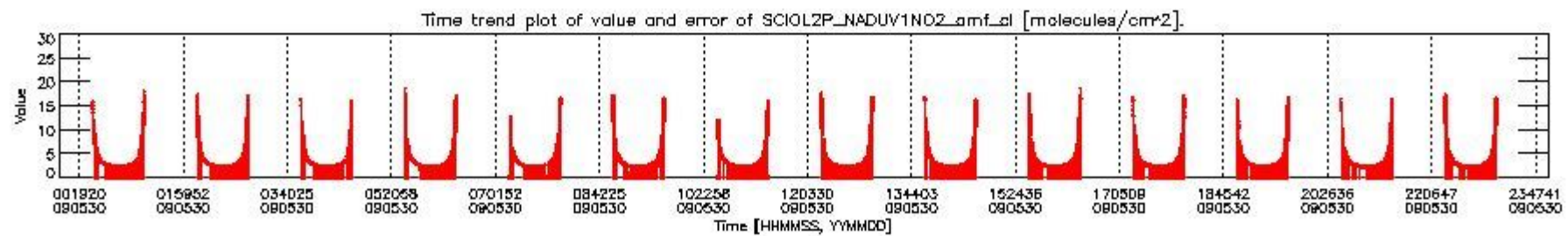
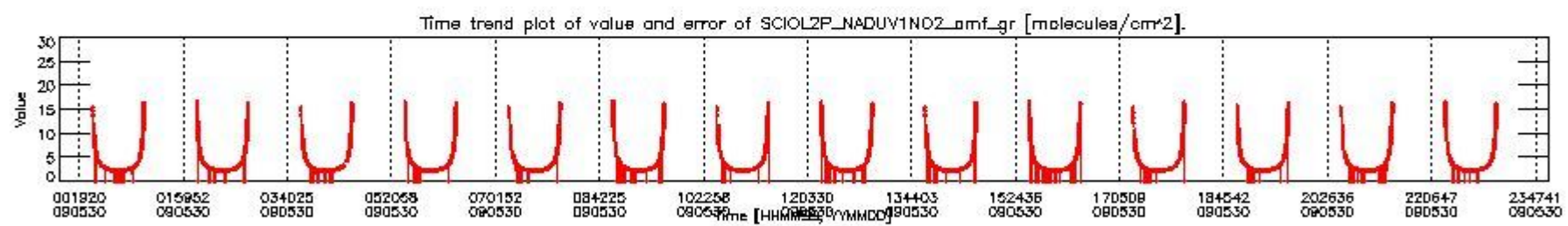
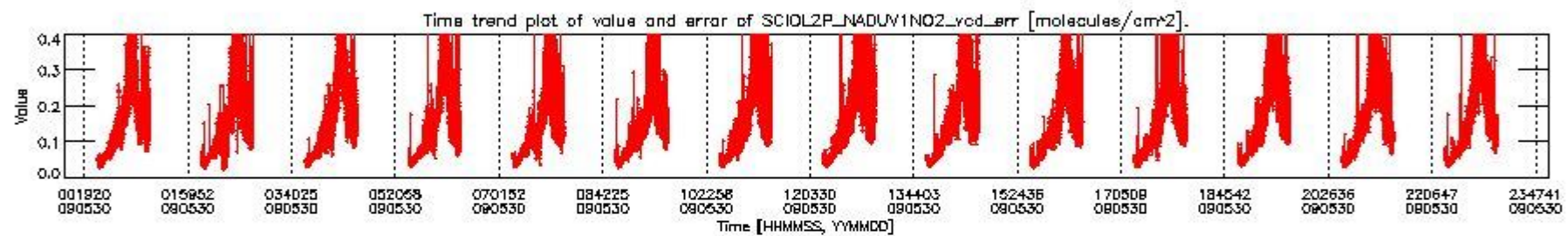
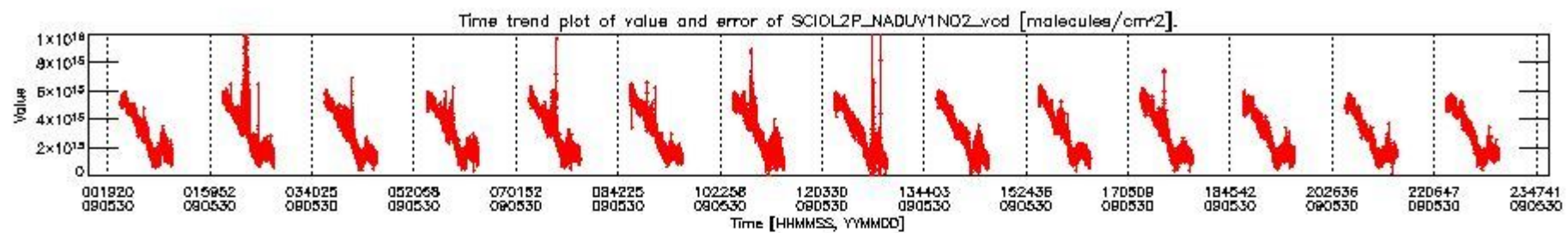


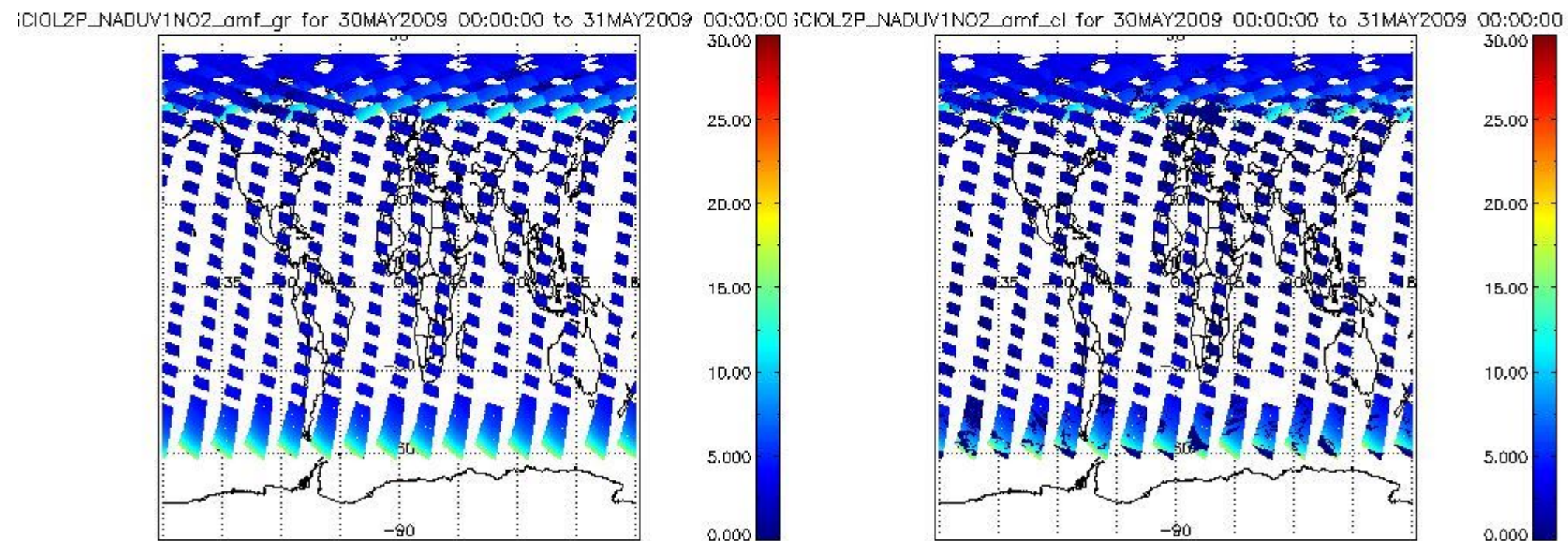
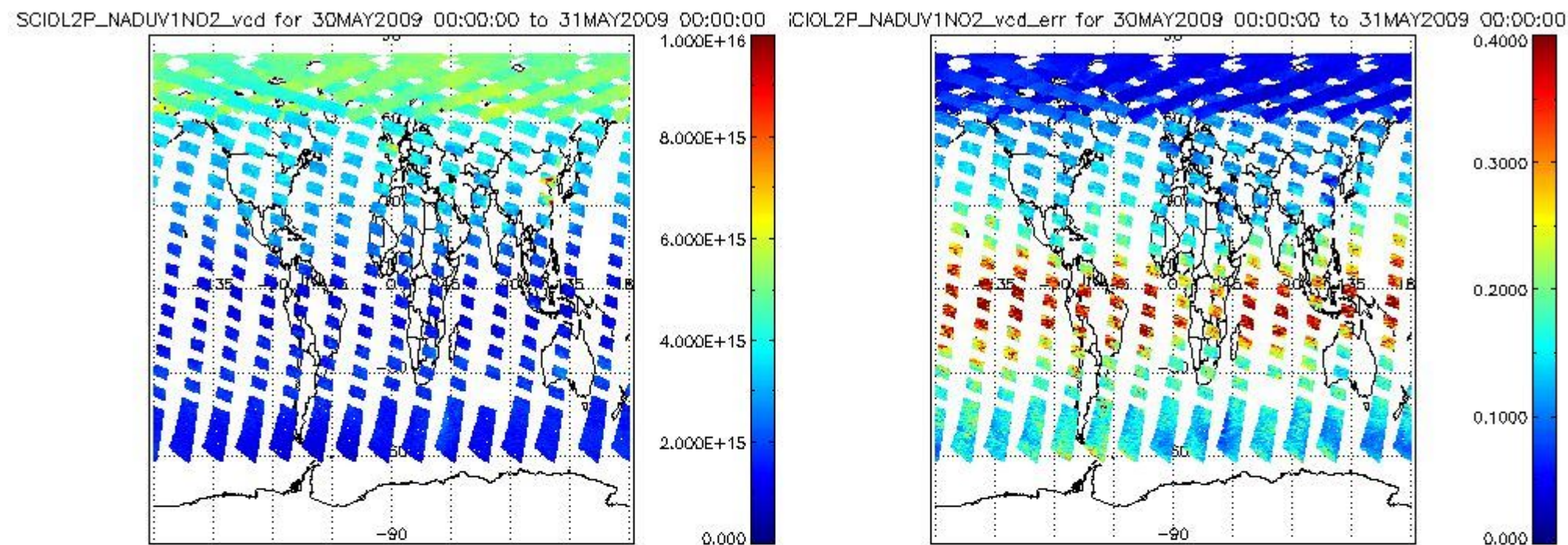
SCIOL2P\_NADUV003\_amf\_gr for 30MAY2009 00:00:00 to 31MAY2009 00:00:00



SCIOL2P\_NADUV003\_amf\_cl for 30MAY2009 00:00:00 to 31MAY2009 00:00:00







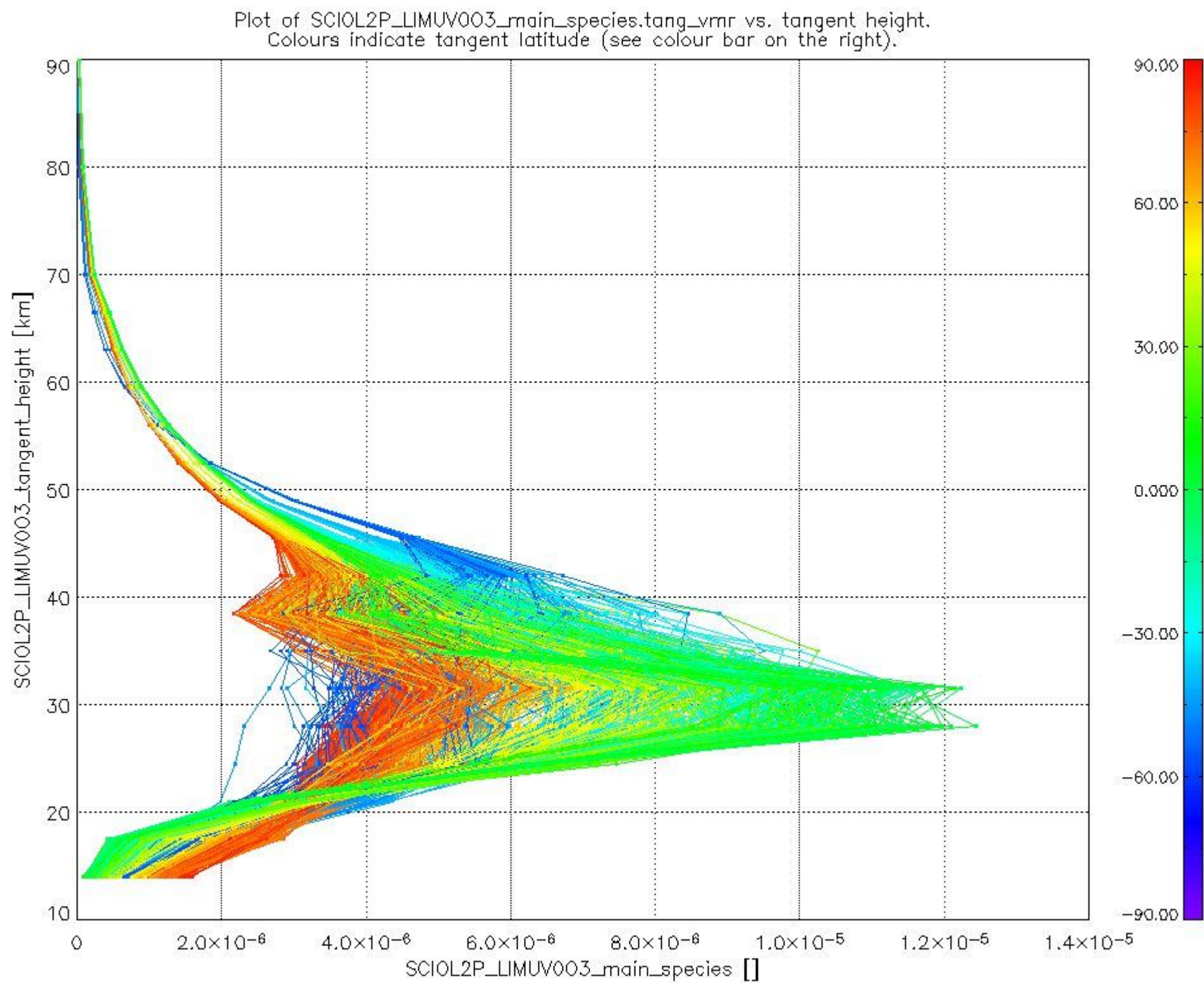
### 2.2.3 Limb

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:

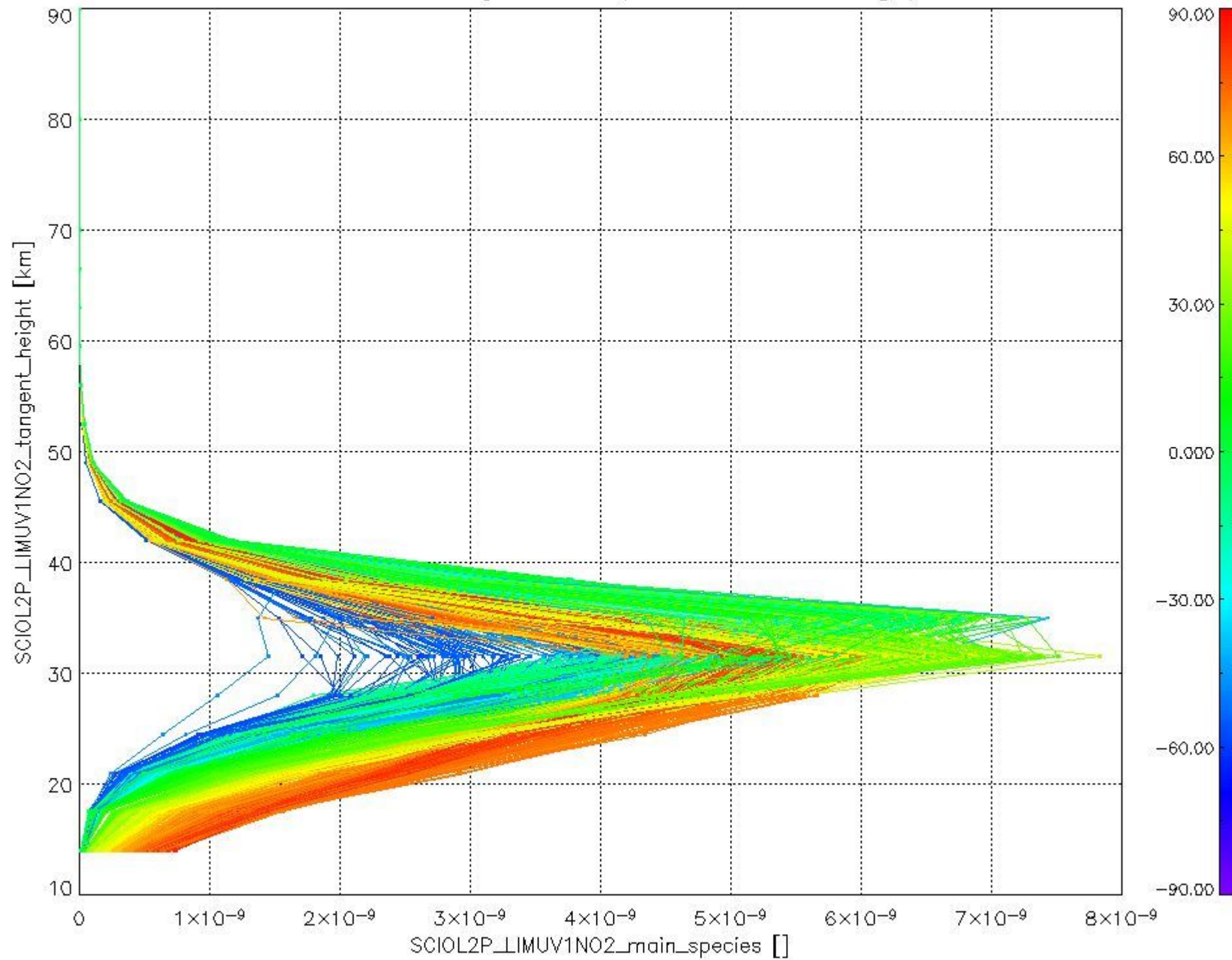
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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





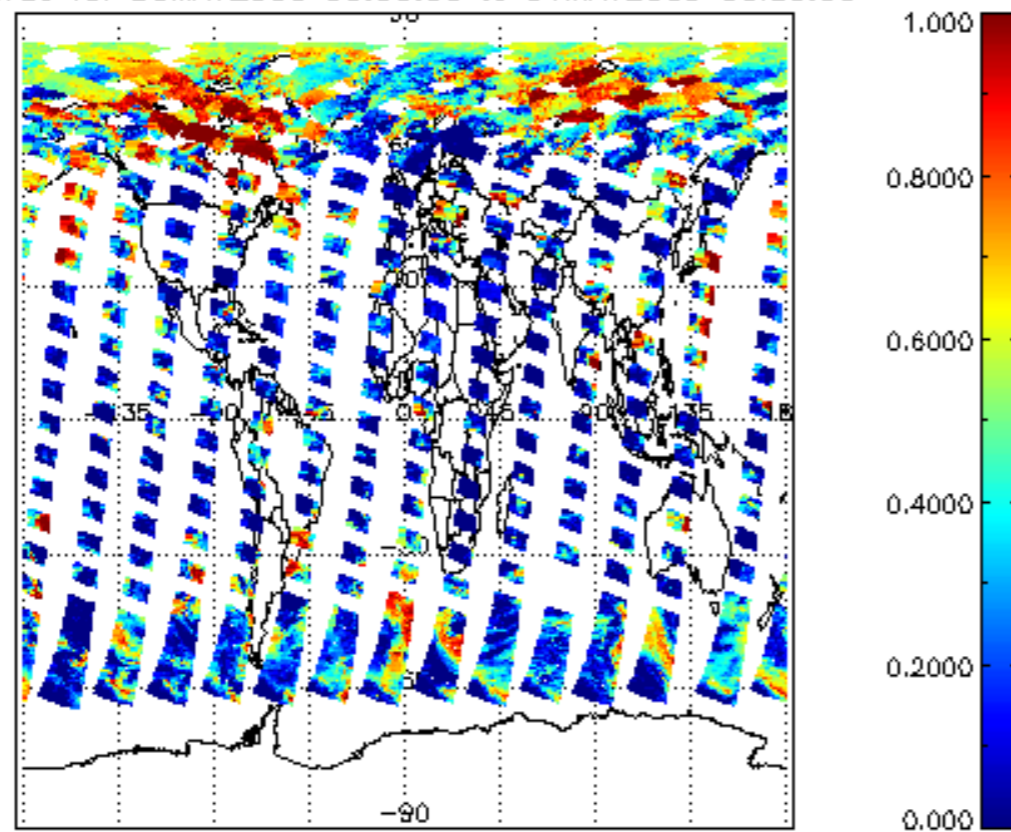
Plot of SCIO2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



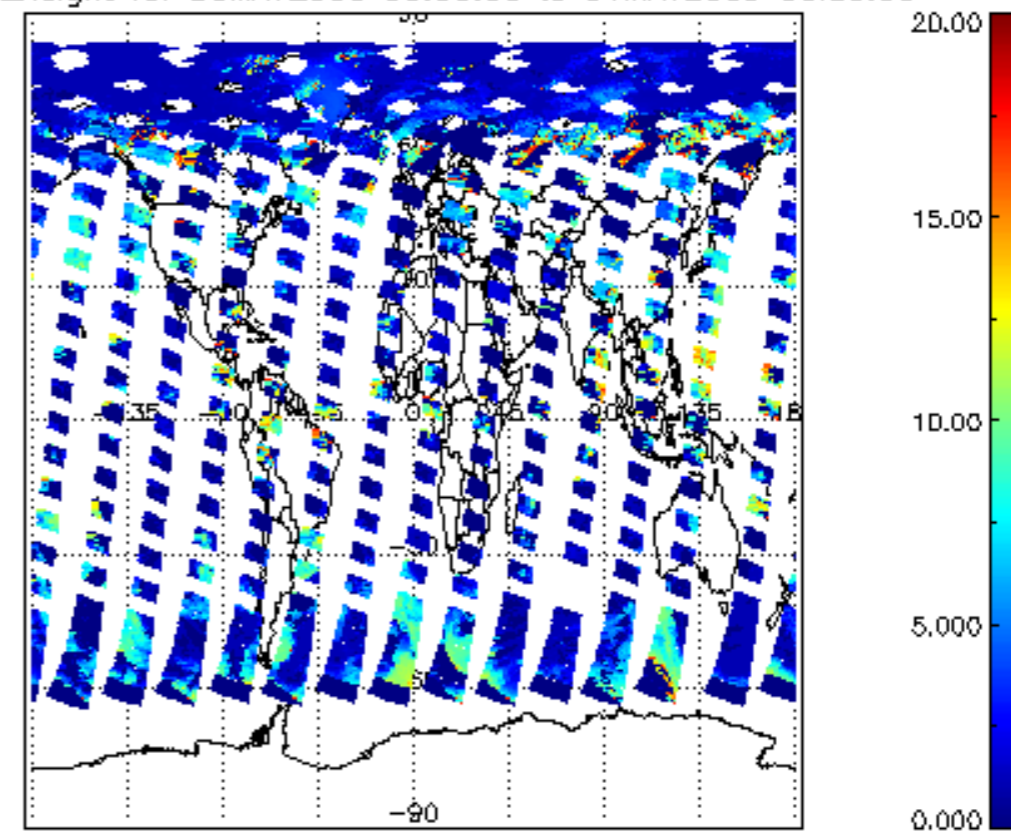
### 2.3 ADF monitoring

Number	ADF
	<b>IN_ (INITIALISATION_FILE)</b>
0	SCI_IN__AXNPDE20070629_092400_20070720_000000_20991231_235959
	<b>ECF (ECMWF_FILE)</b>
1	NOT USED

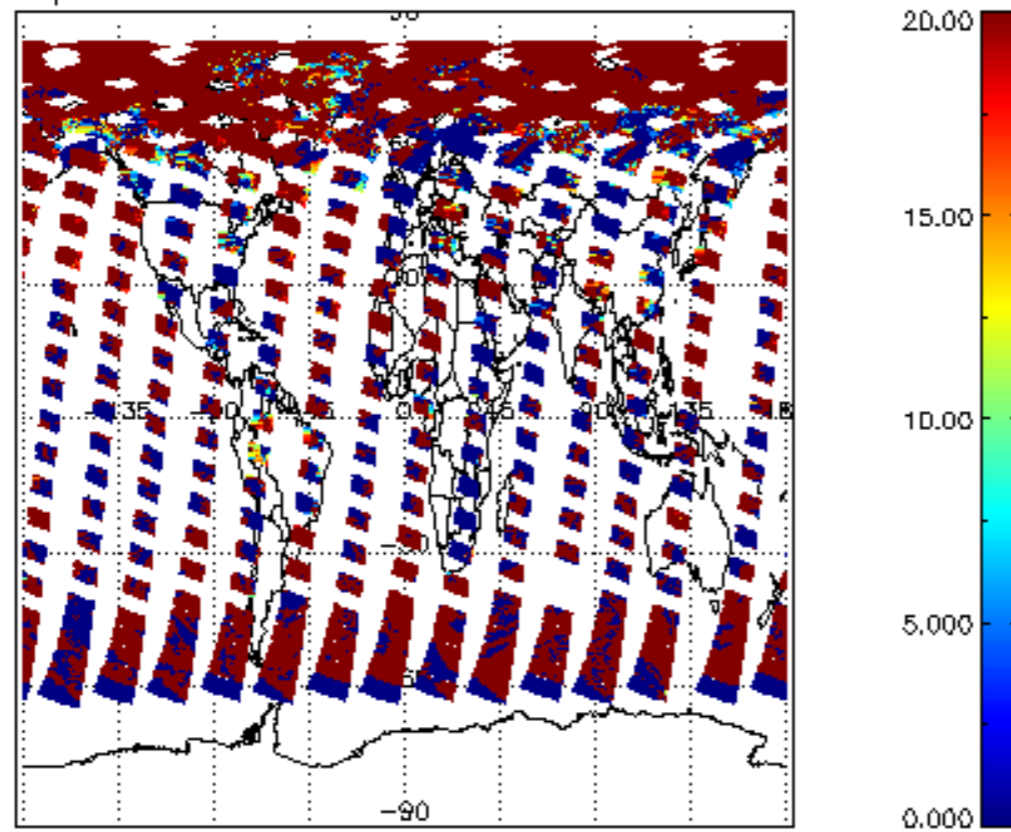
cl\_frac for 30MAY2009 00:00:00 to 31MAY2009 00:00:00



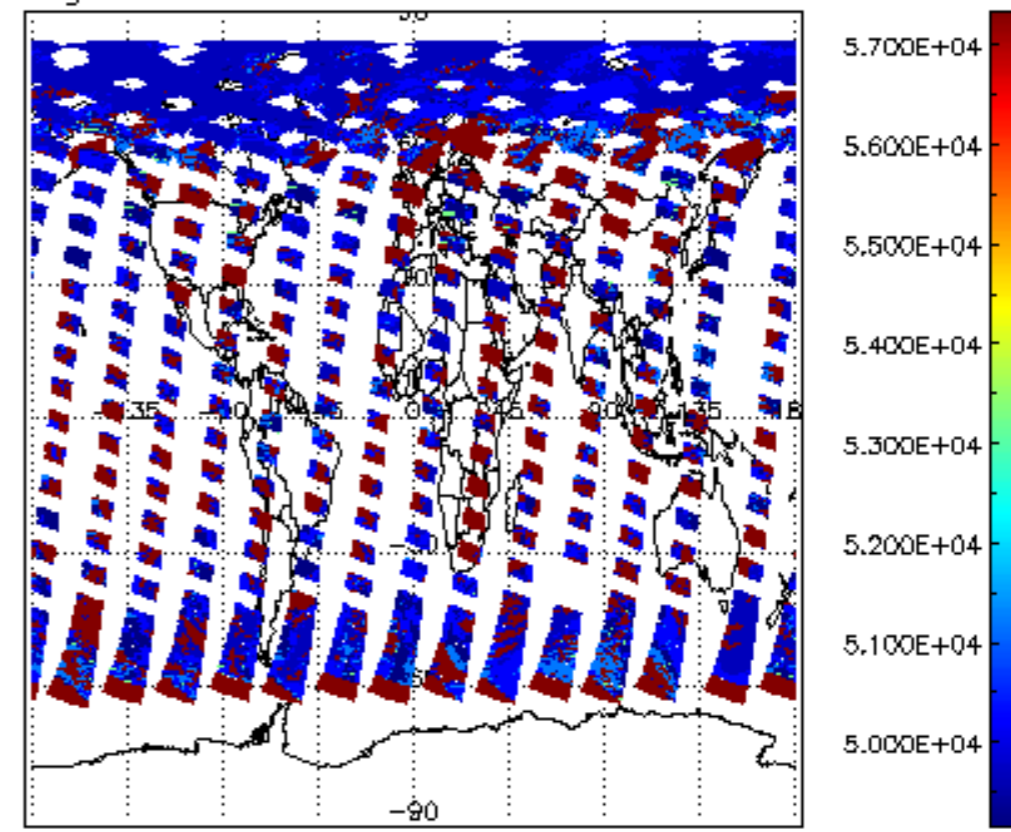
cl\_top\_height for 30MAY2009 00:00:00 to 31MAY2009 00:00:00

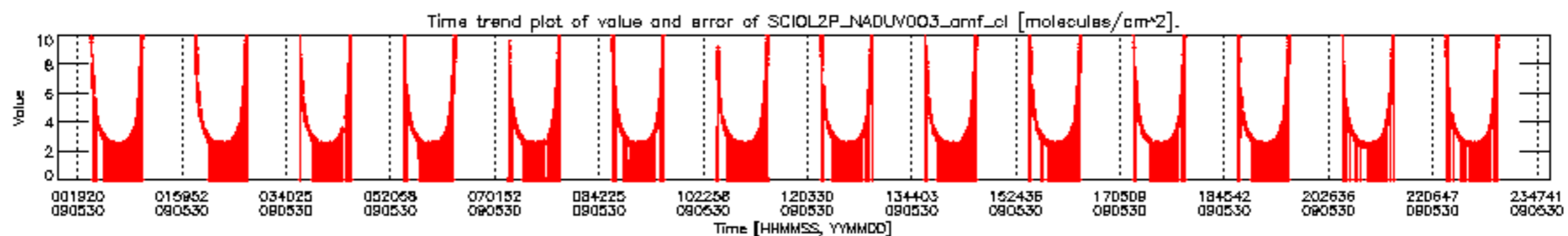
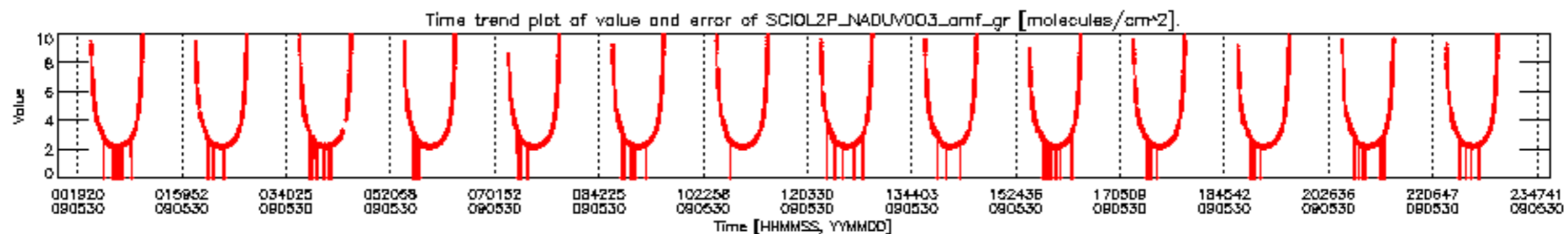
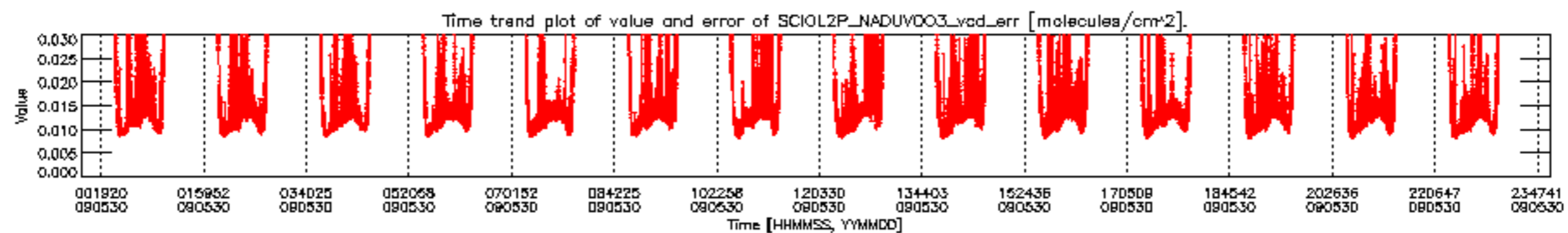
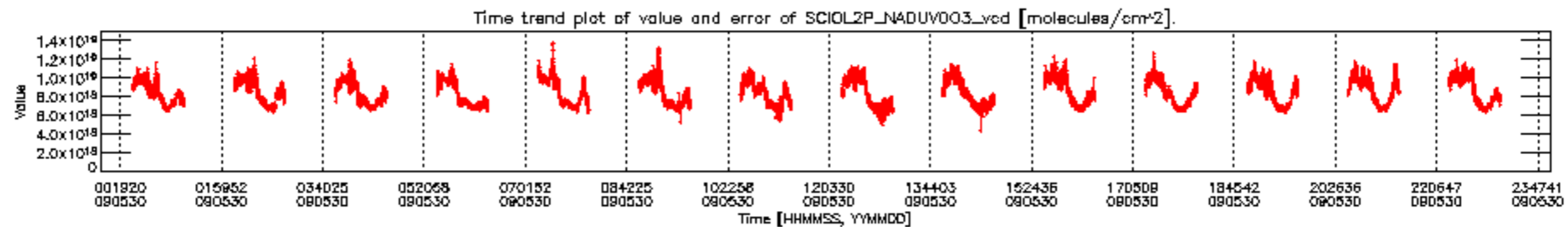


cl\_opt\_depth for 30MAY2009 00:00:00 to 31MAY2009 00:00:00

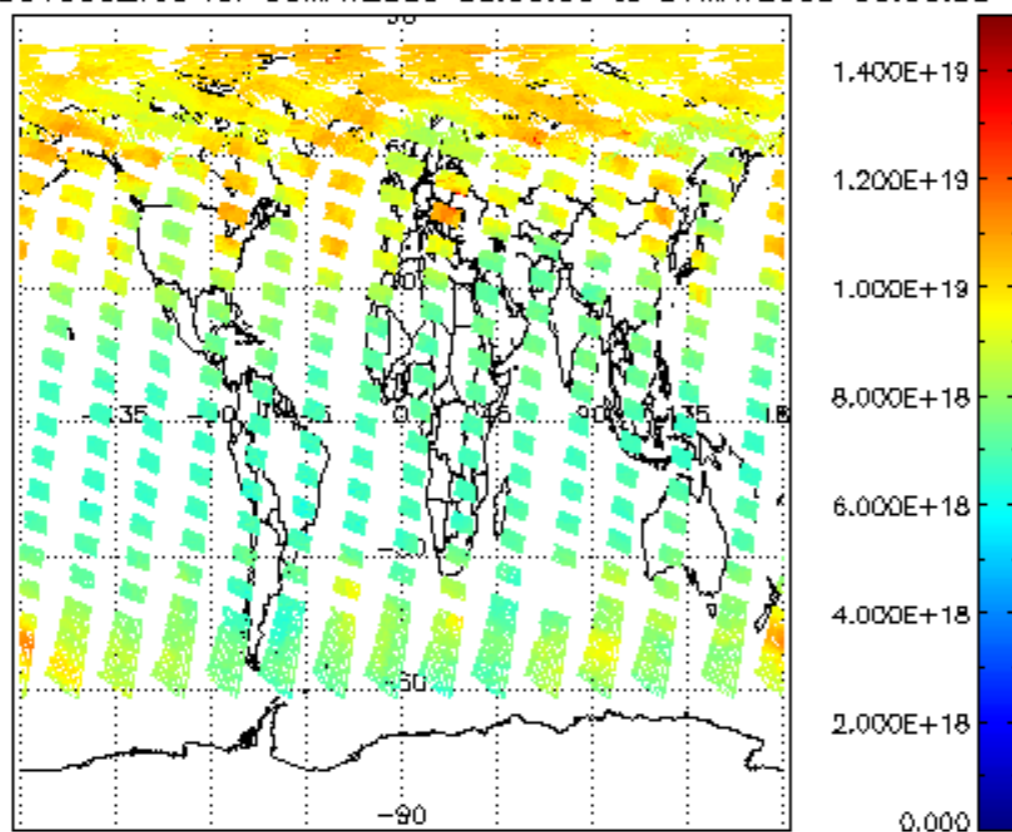


cloud\_flags for 30MAY2009 00:00:00 to 31MAY2009 00:00:00

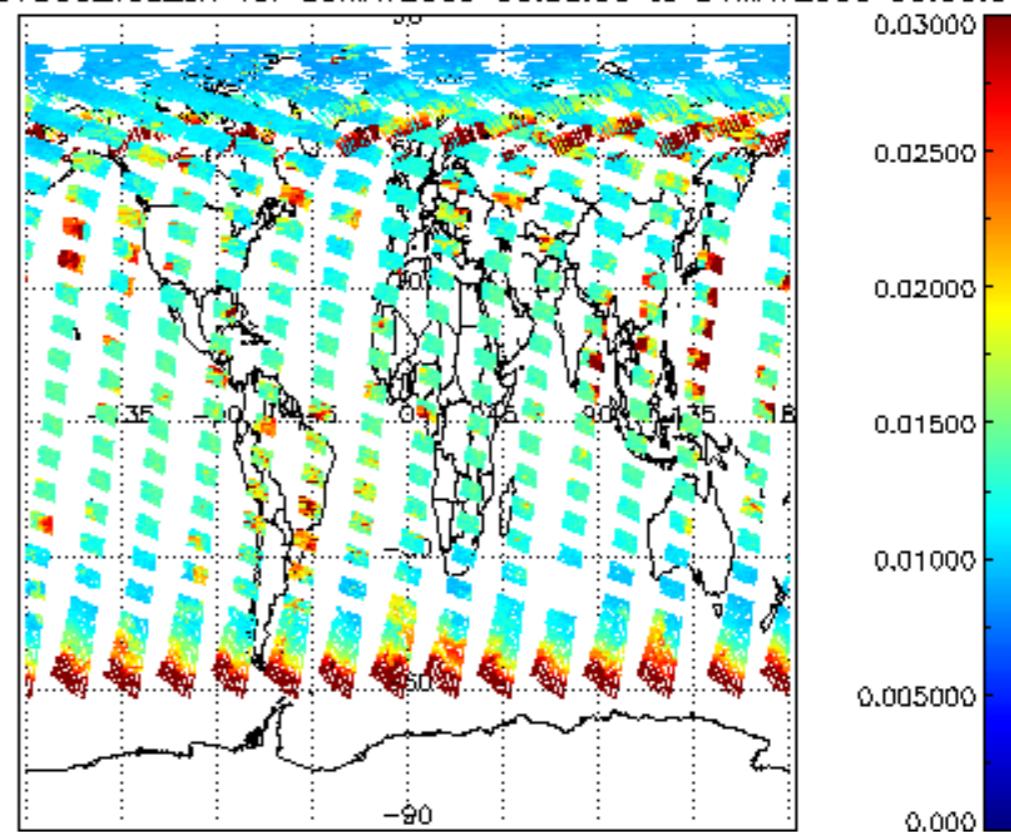




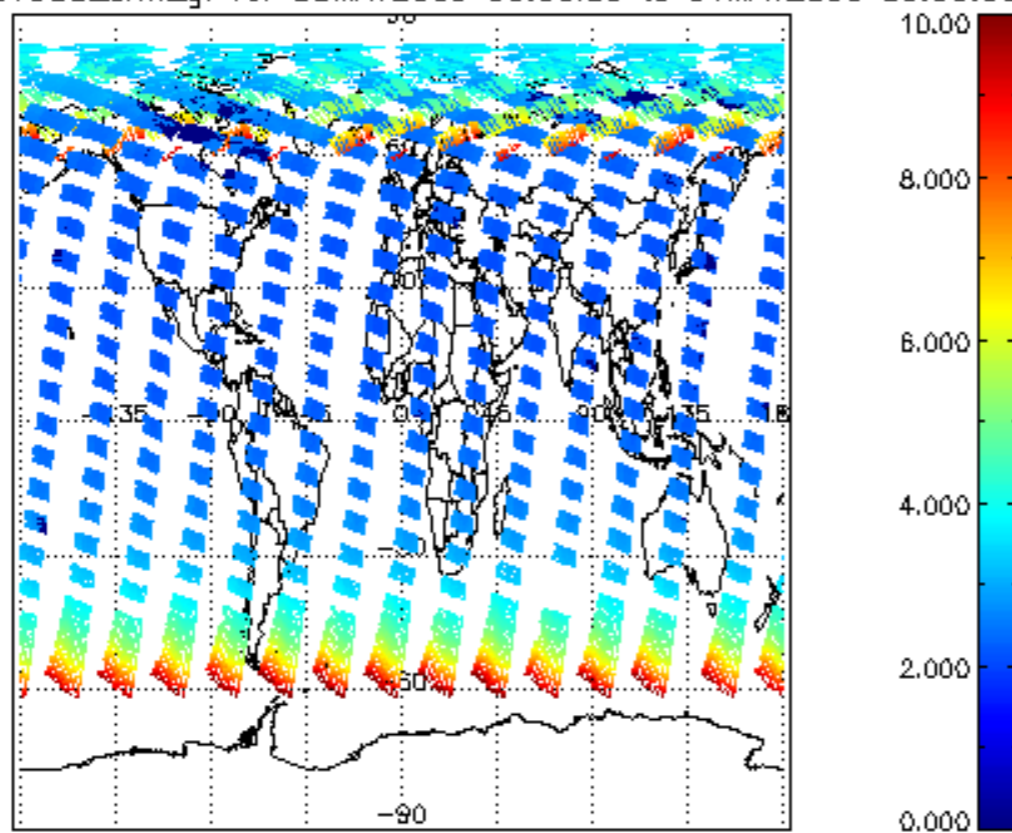
SCIOL2P\_NADUV003\_vcd for 30MAY2009 00:00:00 to 31MAY2009 00:00:00



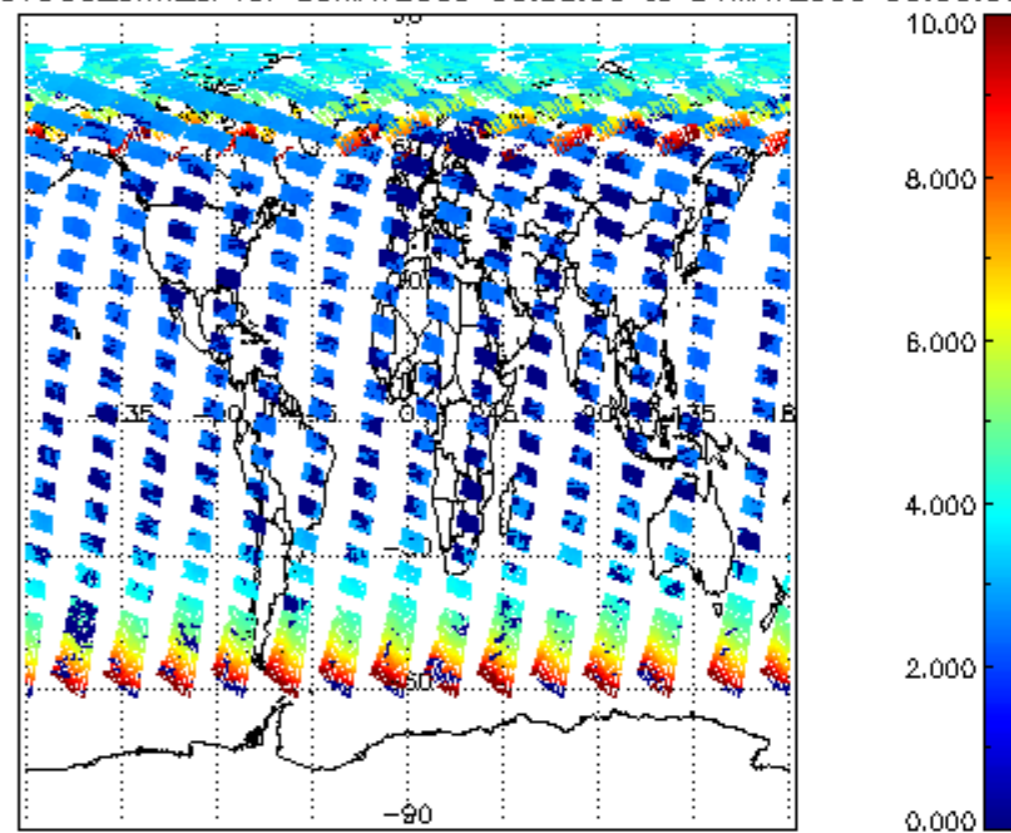
SCIOL2P\_NADUV003\_vcd\_err for 30MAY2009 00:00:00 to 31MAY2009 00:00:00

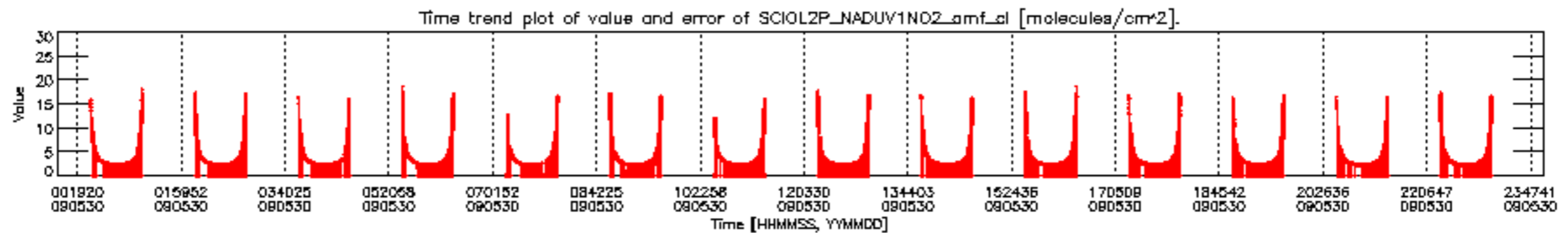
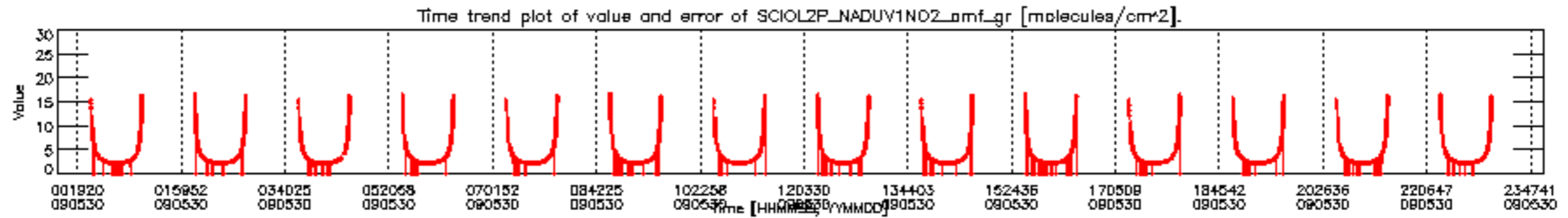
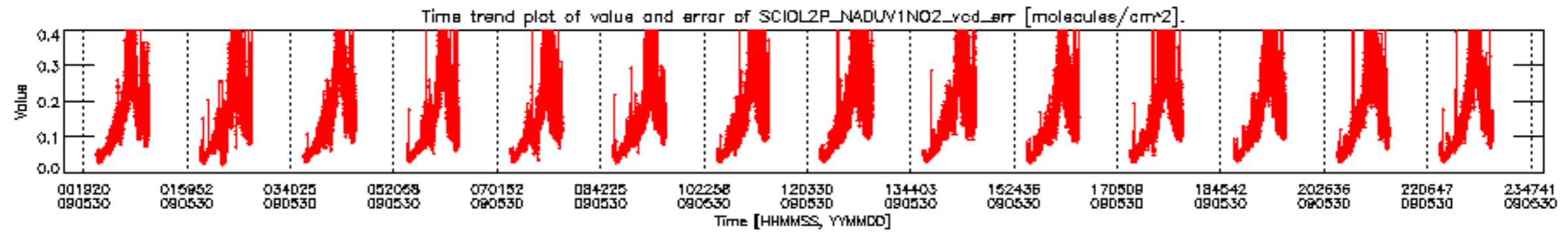
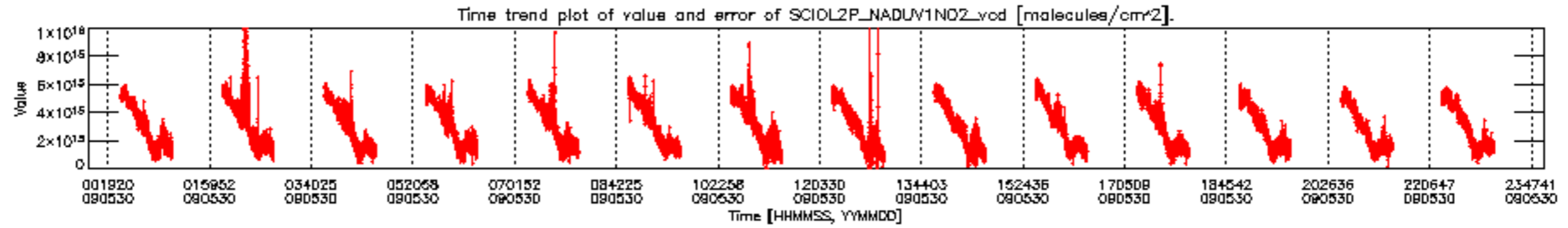


SCIOL2P\_NADUV003\_amf\_gr for 30MAY2009 00:00:00 to 31MAY2009 00:00:00

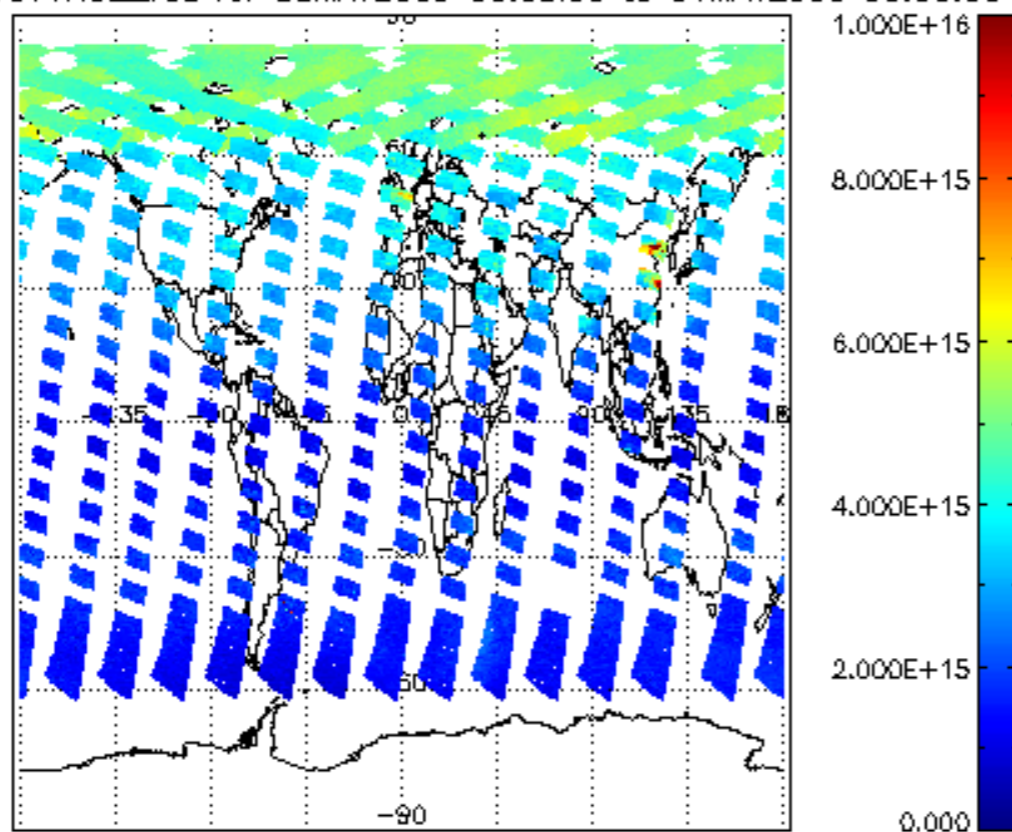


SCIOL2P\_NADUV003\_amf\_cl for 30MAY2009 00:00:00 to 31MAY2009 00:00:00

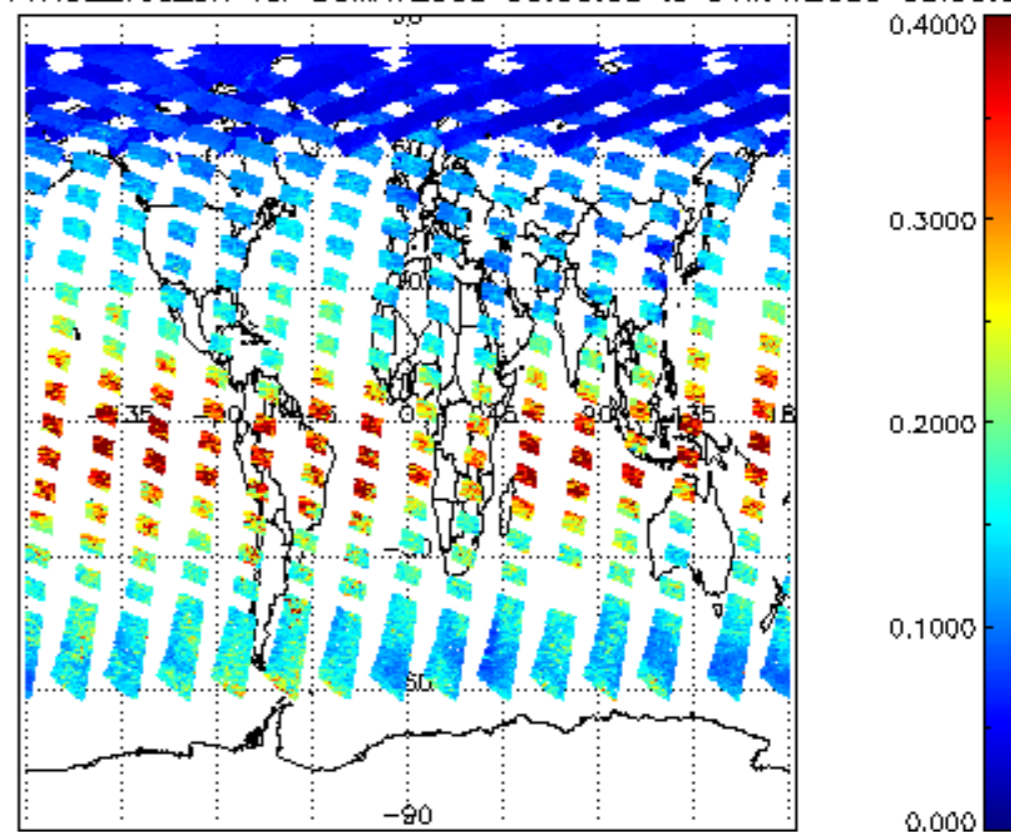




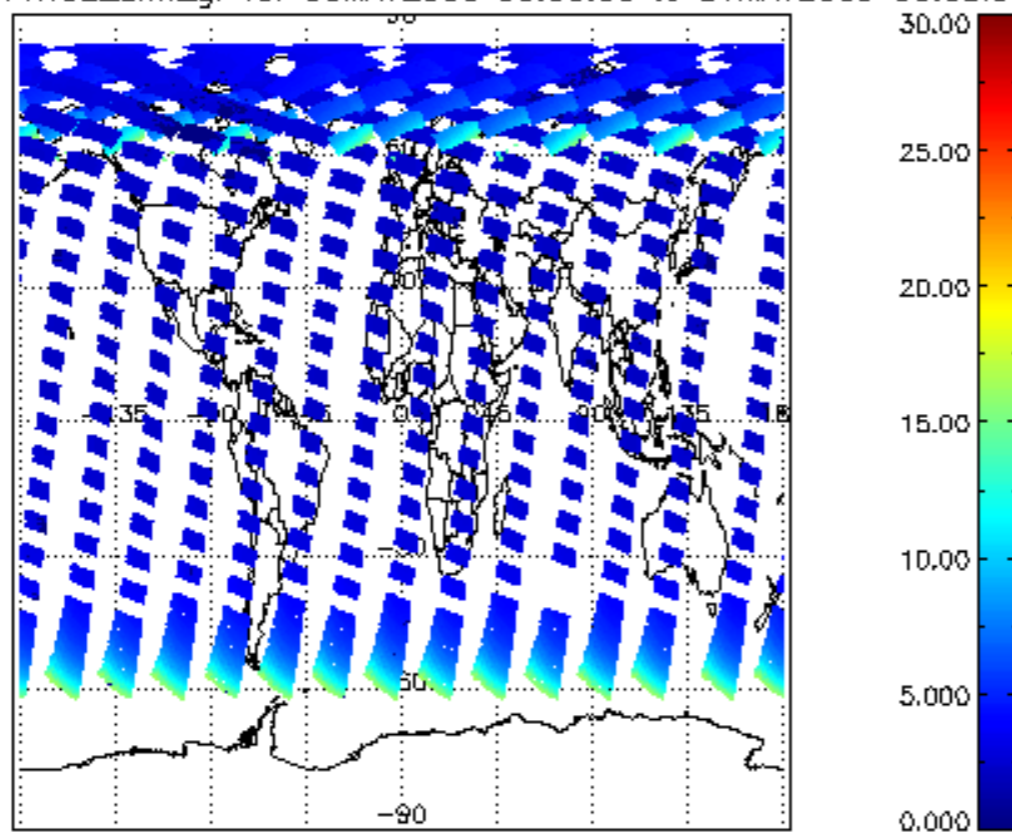
SCIOL2P\_NADUV1NO2\_vcd for 30MAY2009 00:00:00 to 31MAY2009 00:00:00



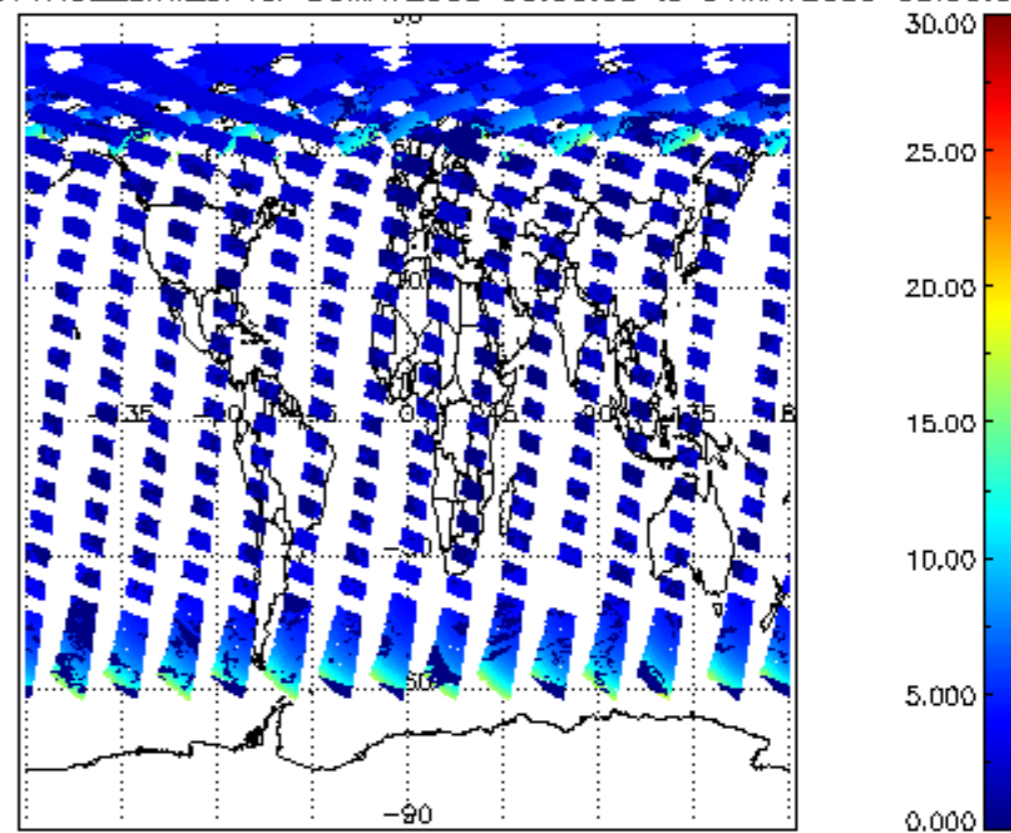
iCIOL2P\_NADUV1NO2\_vcd\_err for 30MAY2009 00:00:00 to 31MAY2009 00:00:00



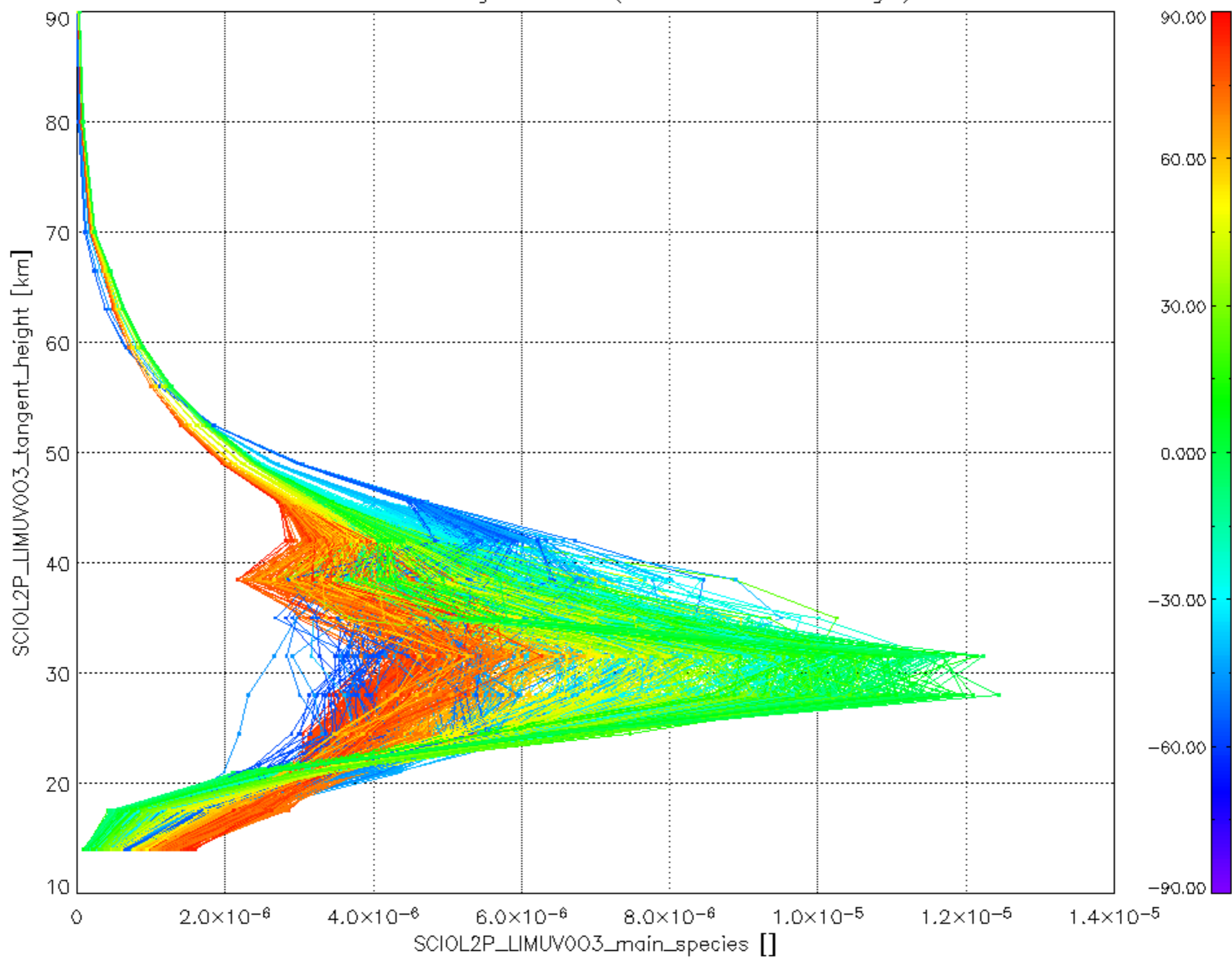
iCIOL2P\_NADUV1NO2\_amf\_gr for 30MAY2009 00:00:00 to 31MAY2009 00:00:00



iCIOL2P\_NADUV1NO2\_amf\_cl for 30MAY2009 00:00:00 to 31MAY2009 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).

