

## 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	14AUG2009 06:04:14
Data source version	SCIA-OL/3.01-R
Processing scope for products	27JUL2009 00:00:00 to 28JUL2009 00:00:00
Start time of first product within scope	27JUL2009 00:04:30
Stop time of last product within scope	28JUL2009 00:28:22
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	<a href="#">SCI_OL__2PRDPA20090727_000430_000033252081_00088_38719_3554.N1</a>	27JUL2009 00:04:30	27JUL2009 00:59:56	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20090727_014506_000033122081_00089_38720_3555.N1</a>	27JUL2009 01:45:06	27JUL2009 02:40:19	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20090727_032542_000033252081_00090_38721_3553.N1</a>	27JUL2009 03:25:42	27JUL2009 04:21:08	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20090727_050619_000033122081_00091_38722_3556.N1</a>	27JUL2009 05:06:19	27JUL2009 06:01:31	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20090727_064655_000033252081_00092_38723_3558.N1</a>	27JUL2009 06:46:55	27JUL2009 07:42:20	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20090727_082731_000033122081_00093_38724_3559.N1</a>	27JUL2009 08:27:31	27JUL2009 09:22:44	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20090727_100807_000033252081_00094_38725_3560.N1</a>	27JUL2009 10:08:07	27JUL2009 11:03:33	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20090727_114843_000033122081_00095_38726_3561.N1</a>	27JUL2009 11:48:43	27JUL2009 12:43:56	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20090727_132919_00007982081_00096_38727_3562.N1</a>	27JUL2009 13:29:19	27JUL2009 13:42:38	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20090727_152005_000027032081_00097_38728_3563.N1</a>	27JUL2009 15:20:05	27JUL2009 16:05:08	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20090727_165032_000033252081_00098_38729_3564.N1</a>	27JUL2009 16:50:32	27JUL2009 17:45:57	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20090727_183126_000033122081_00099_38730_3565.N1</a>	27JUL2009 18:31:26	27JUL2009 19:26:38	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20090727_201202_000033252081_00100_38731_3566.N1</a>	27JUL2009 20:12:02	27JUL2009 21:07:27	0	GOOD
13	<a href="#">SCI_OL__2PRDPA20090727_215220_000033122081_00101_38732_3567.N1</a>	27JUL2009 21:52:20	27JUL2009 22:47:33	0	GOOD
14	<a href="#">SCI_OL__2PRDPA20090727_233257_000033252081_00102_38733_3568.N1</a>	27JUL2009 23:32:57	28JUL2009 00:28:22	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: 137800

Total number of cloud data DSRs with good quality flag (=0): 137800 (100.0 %)

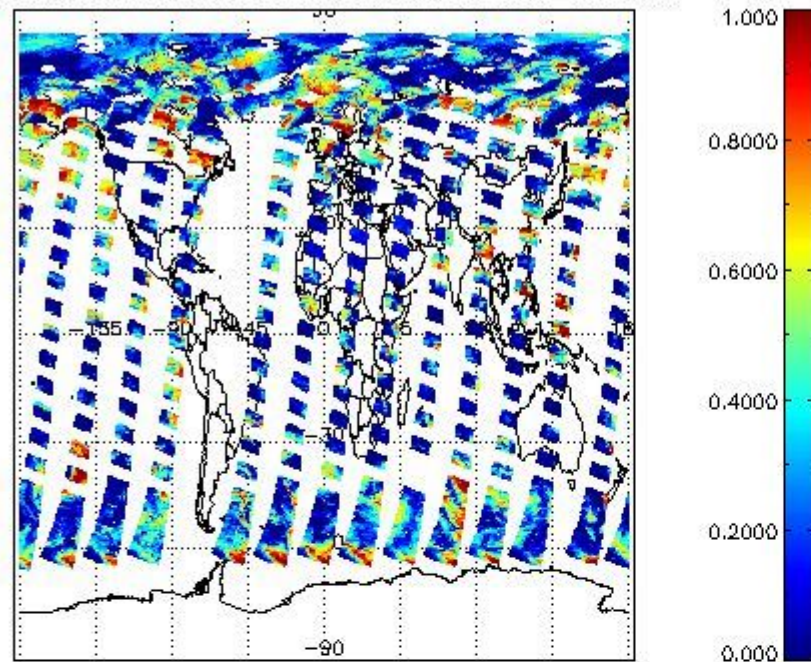
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	137800	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	137800	0.17075	0.12500	0.12500	0.25000	0.060215	s
CL_FRAC	137800	0.26945	0.19623	0.0000	1.0000	0.26962	-
CL_FRAC_ERR	137800	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	137800	5.4642	4.0000	4.0000	8.0000	1.9269	
PMD_READ_CL[0]	137800	0.14457	0.0000	0.0000	8.0000	0.84942	-
PMD_READ_CL[1]	137800	1.8570	0.0000	0.0000	8.0000	2.6589	-
CL_TOP_HEIGHT	119557	3.1193	1.2620	0.0000	17.000	3.7019	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	119557	57.073	75.183	0.0000	101.00	45.386	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	137800	11100000	11100000	11100000	11100000	0.0000	flags
CLOUD_FLAGS	137800	11001101	11000100	11000000	11100000	3612.8	flags
AERO_ABSO_IND	137800	4.2865	5.0644	-0.78960	15.127	2.7307	
AERO_IND_DIAG	137800	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	137800	01011001	00000000	00000000	11000000	24511.	flags

### Time and geolocation plots:

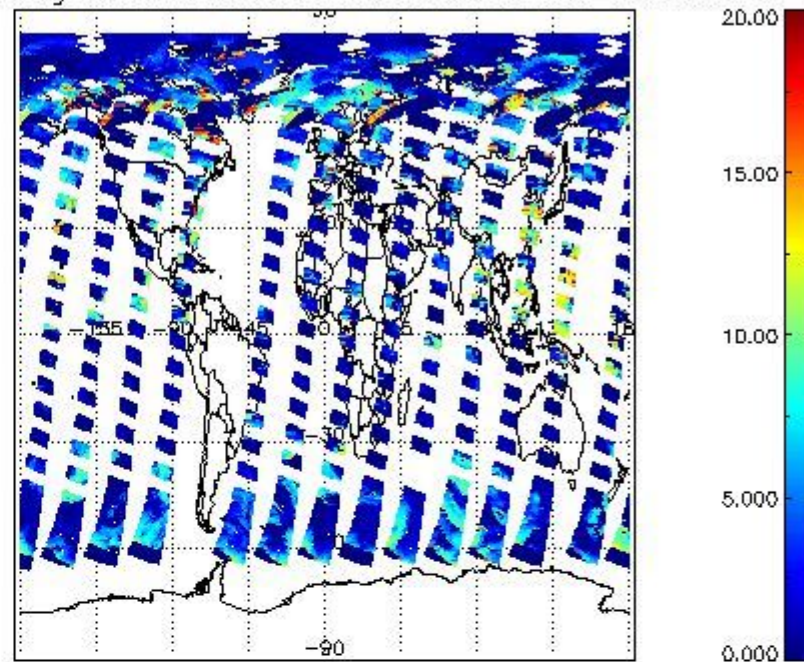
Plots are available for the following parameters:

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

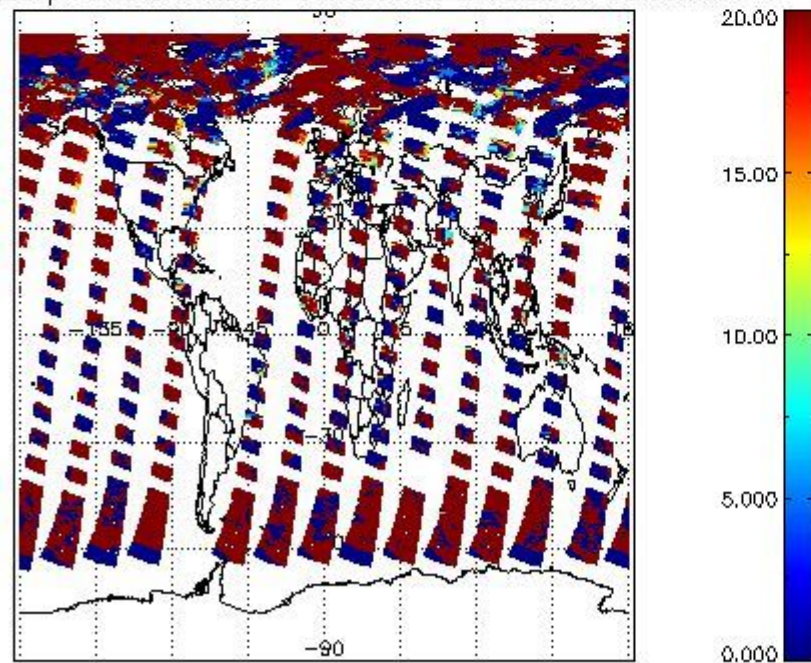
cL\_frac for 27JUL2009 00:00:00 to 28JUL2009 00:00:00



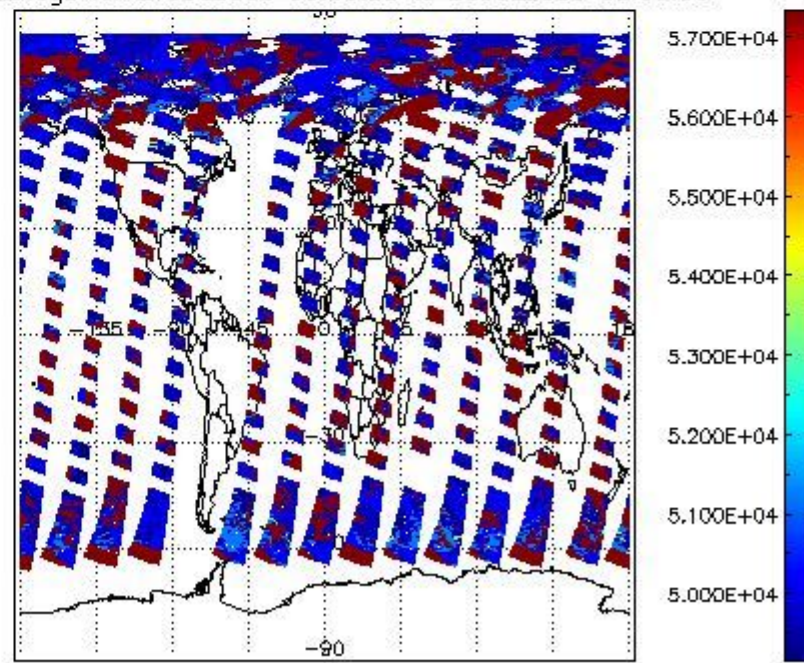
cL\_top\_height for 27JUL2009 00:00:00 to 28JUL2009 00:00:00



cL\_opt\_depth for 27JUL2009 00:00:00 to 28JUL2009 00:00:00



cloud\_flags for 27JUL2009 00:00:00 to 28JUL2009 00:00:00



## 2.2.2 Nadir

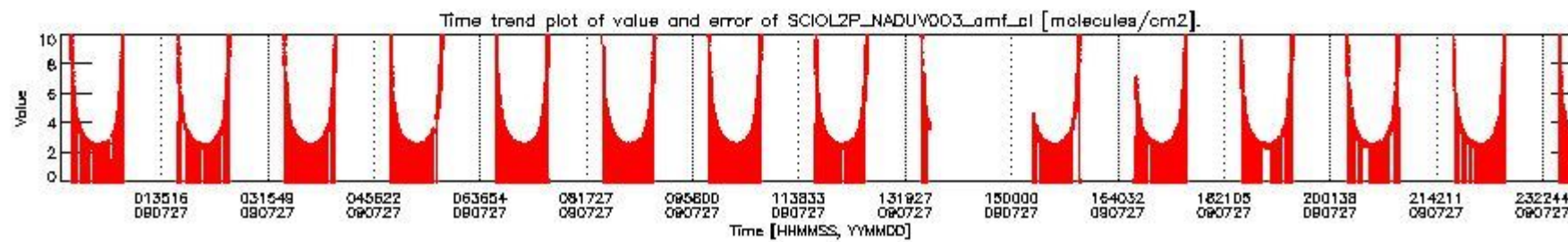
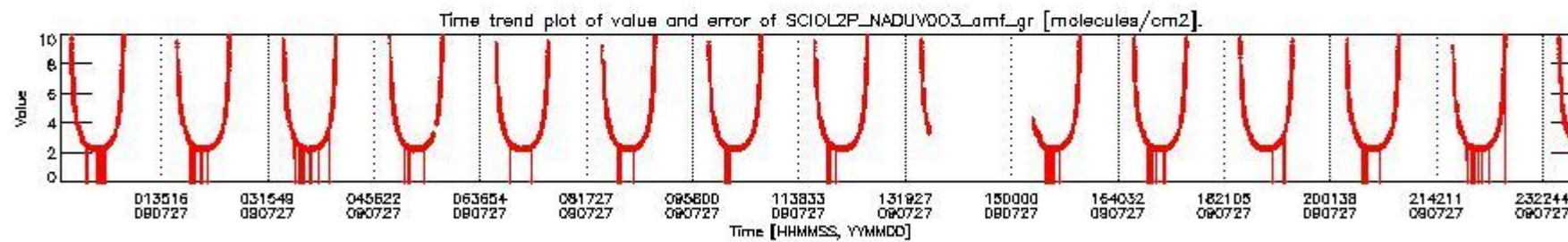
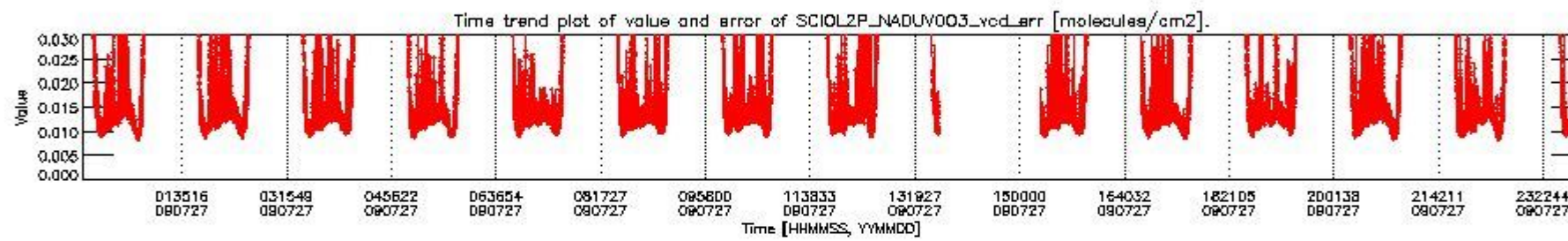
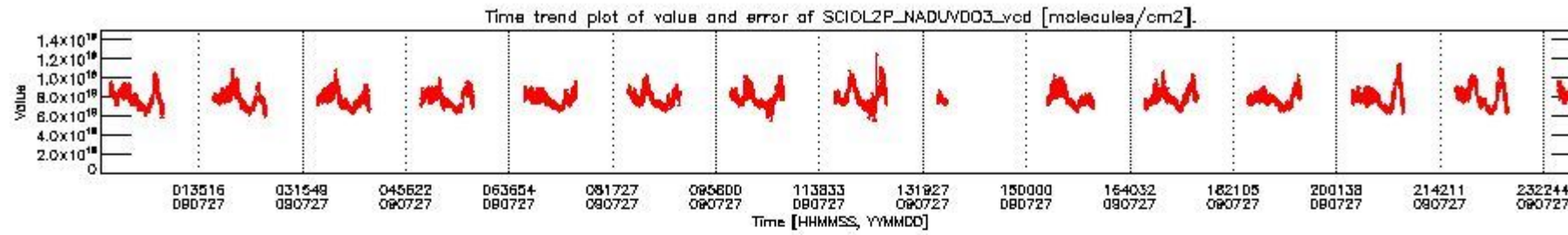
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

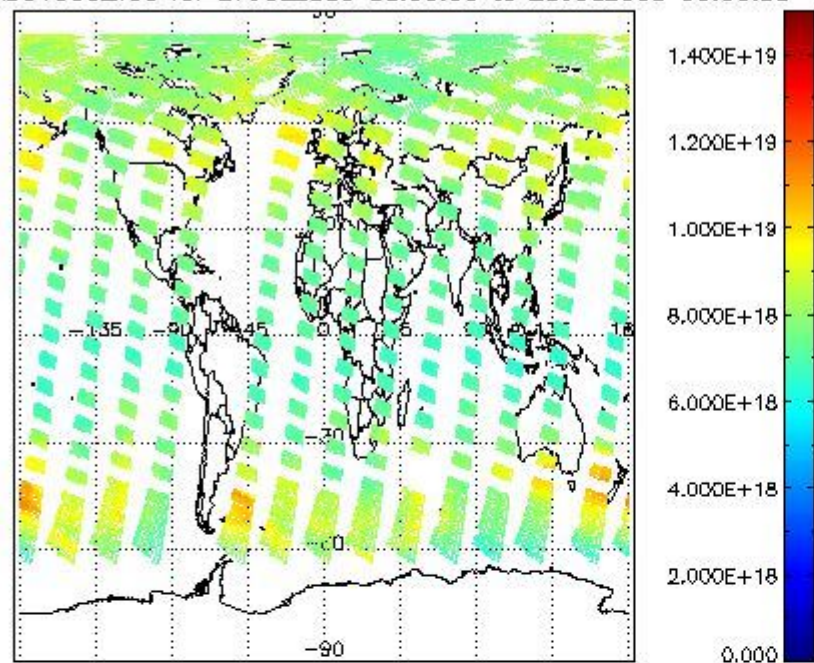
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

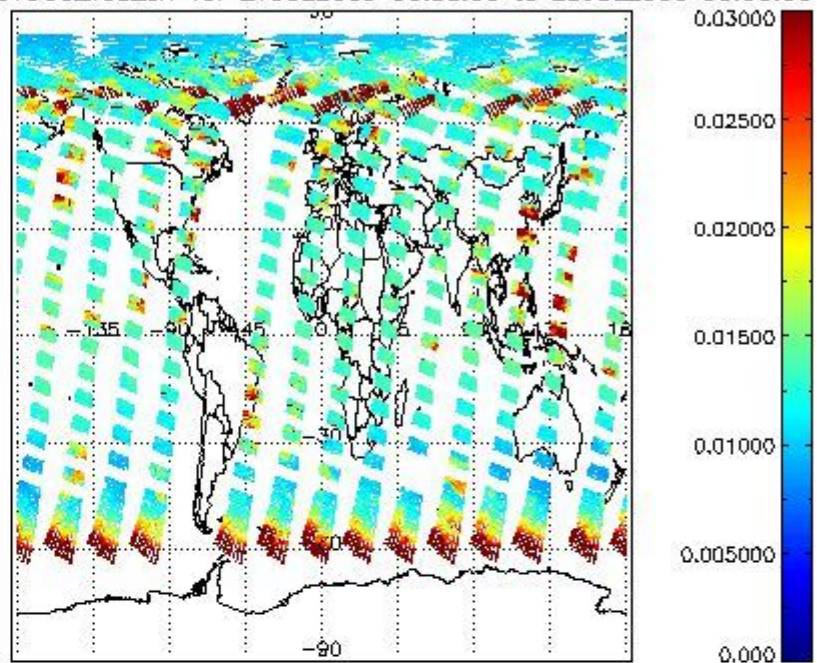
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in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



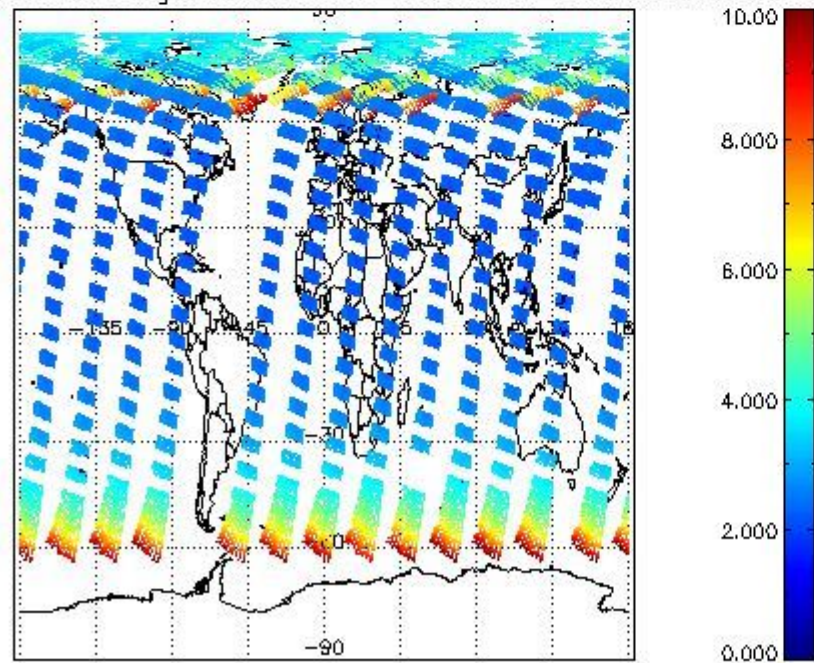
SCIOL2P\_NADUV003\_vcd for 27JUL2009 00:00:00 to 28JUL2009 00:00:00



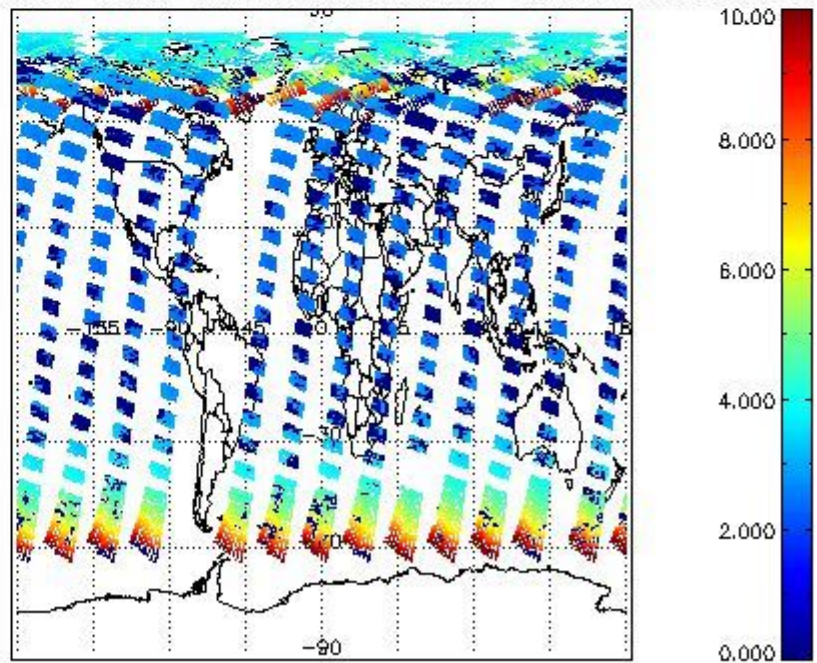
SCIOL2P\_NADUV003\_vcd\_err for 27JUL2009 00:00:00 to 28JUL2009 00:00:00

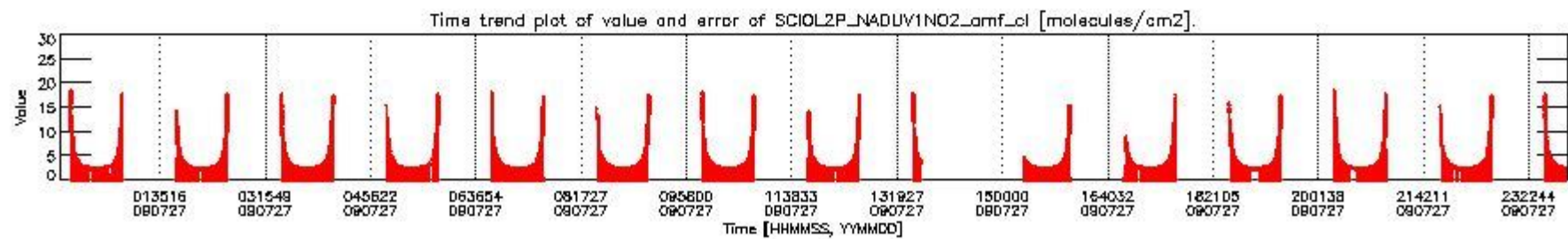
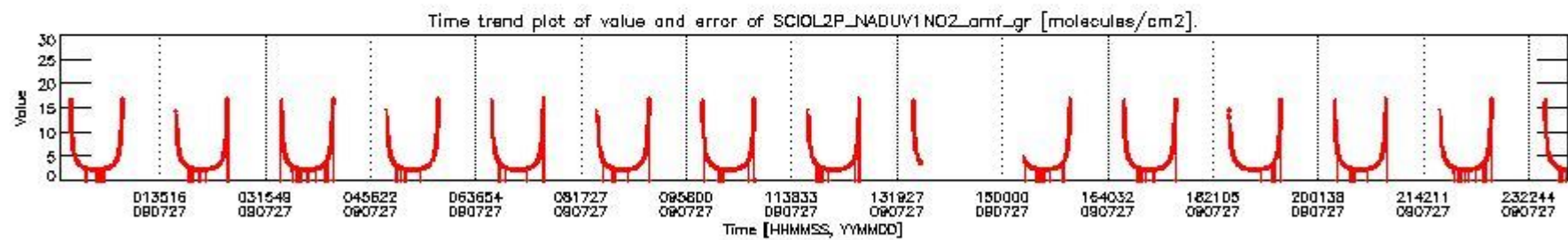
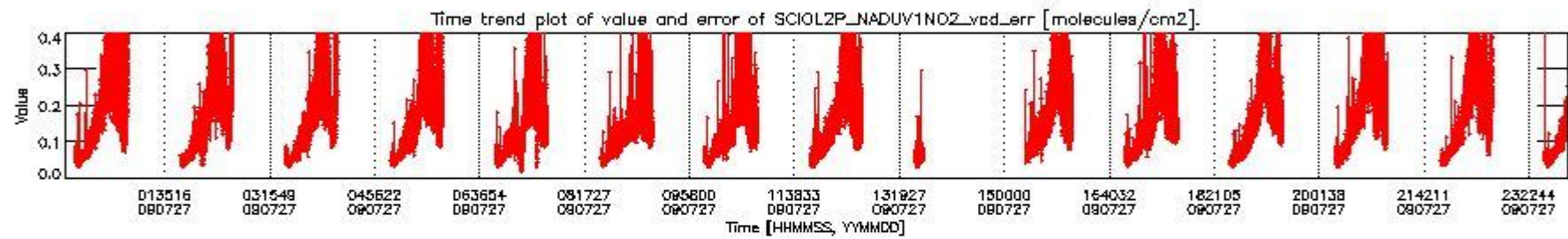
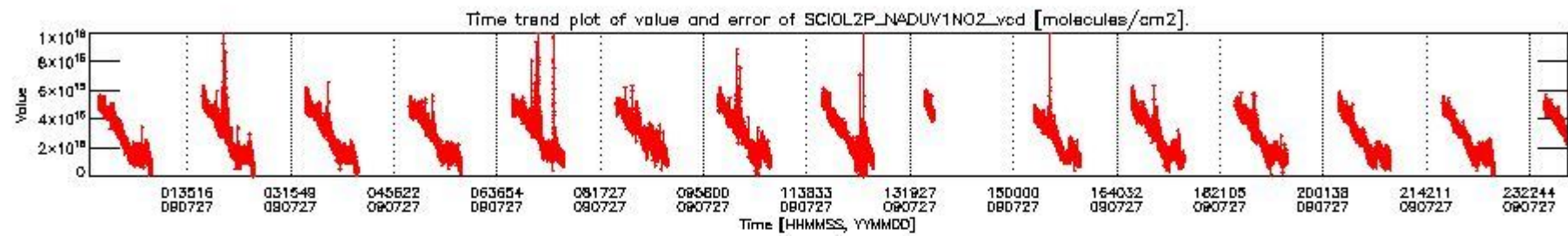


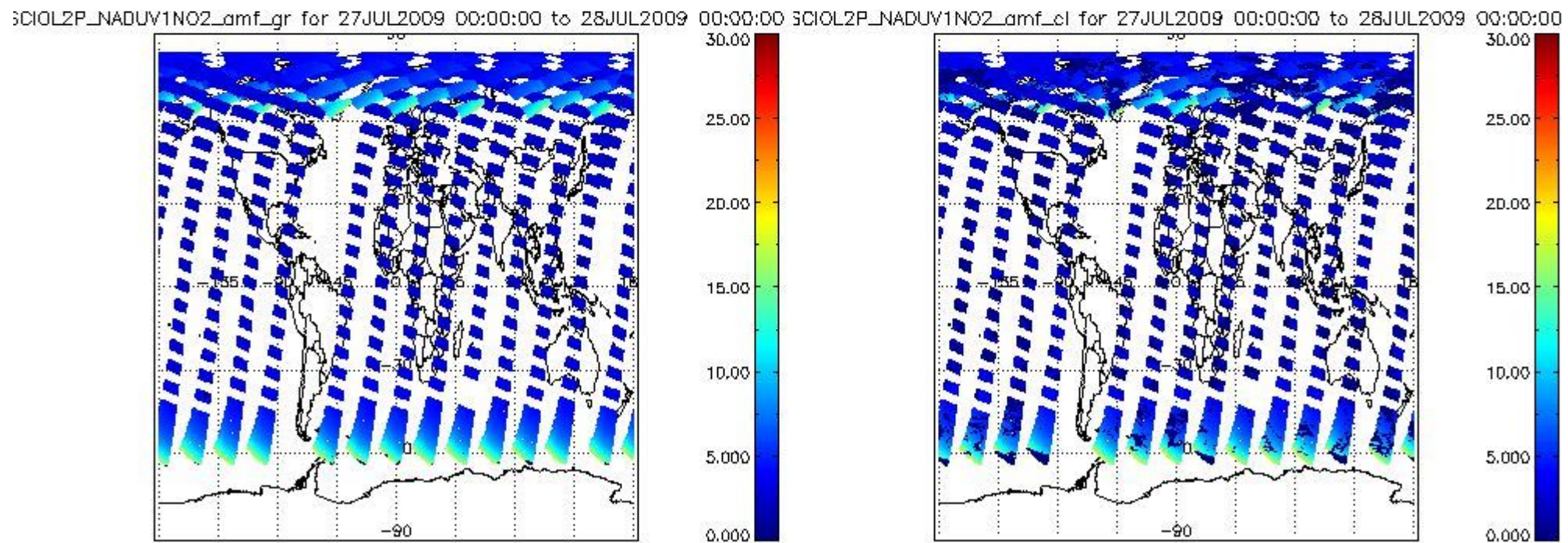
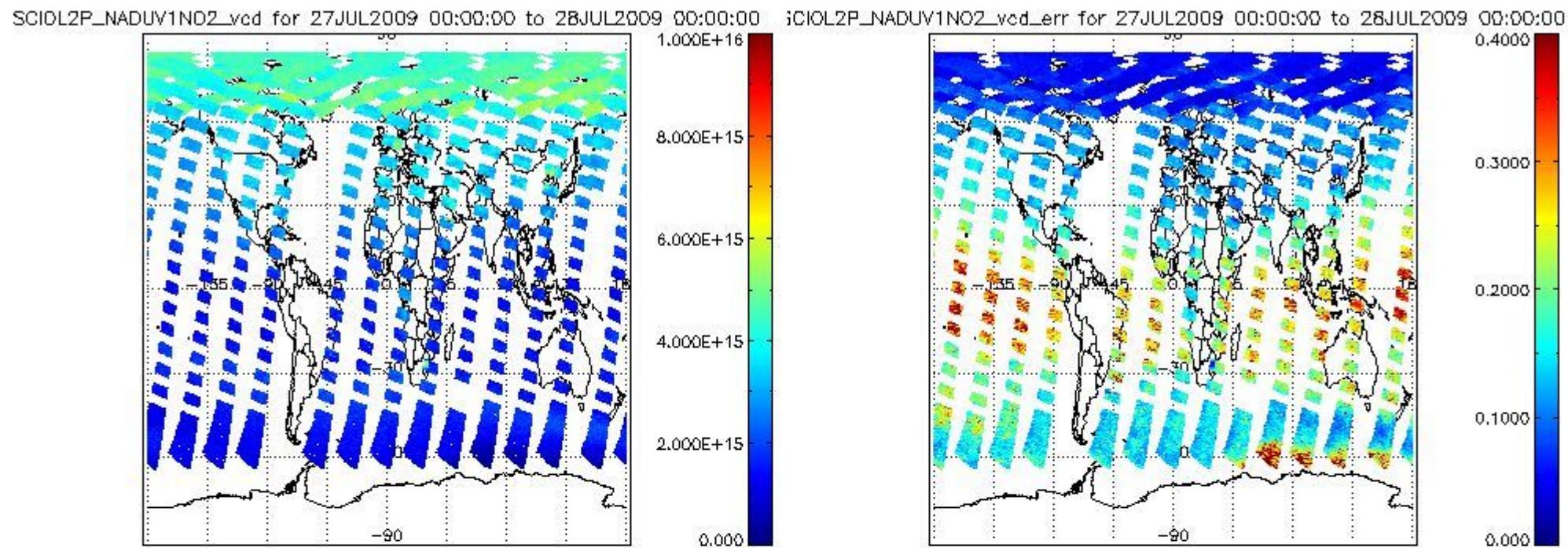
SCIOL2P\_NADUV003\_amf\_gr for 27JUL2009 00:00:00 to 28JUL2009 00:00:00



SCIOL2P\_NADUV003\_amf\_cl for 27JUL2009 00:00:00 to 28JUL2009 00:00:00







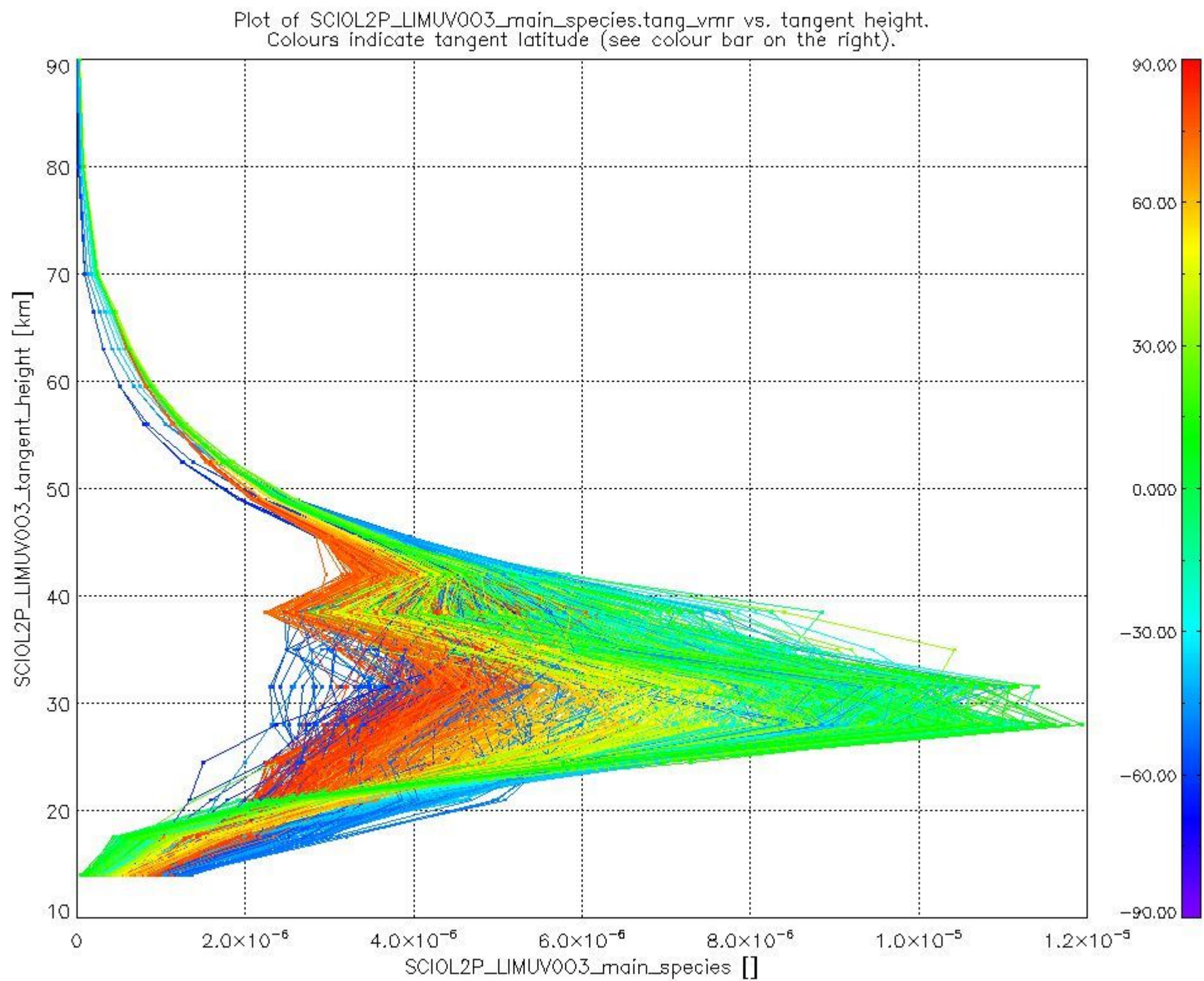
### 2.2.3 Limb

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:

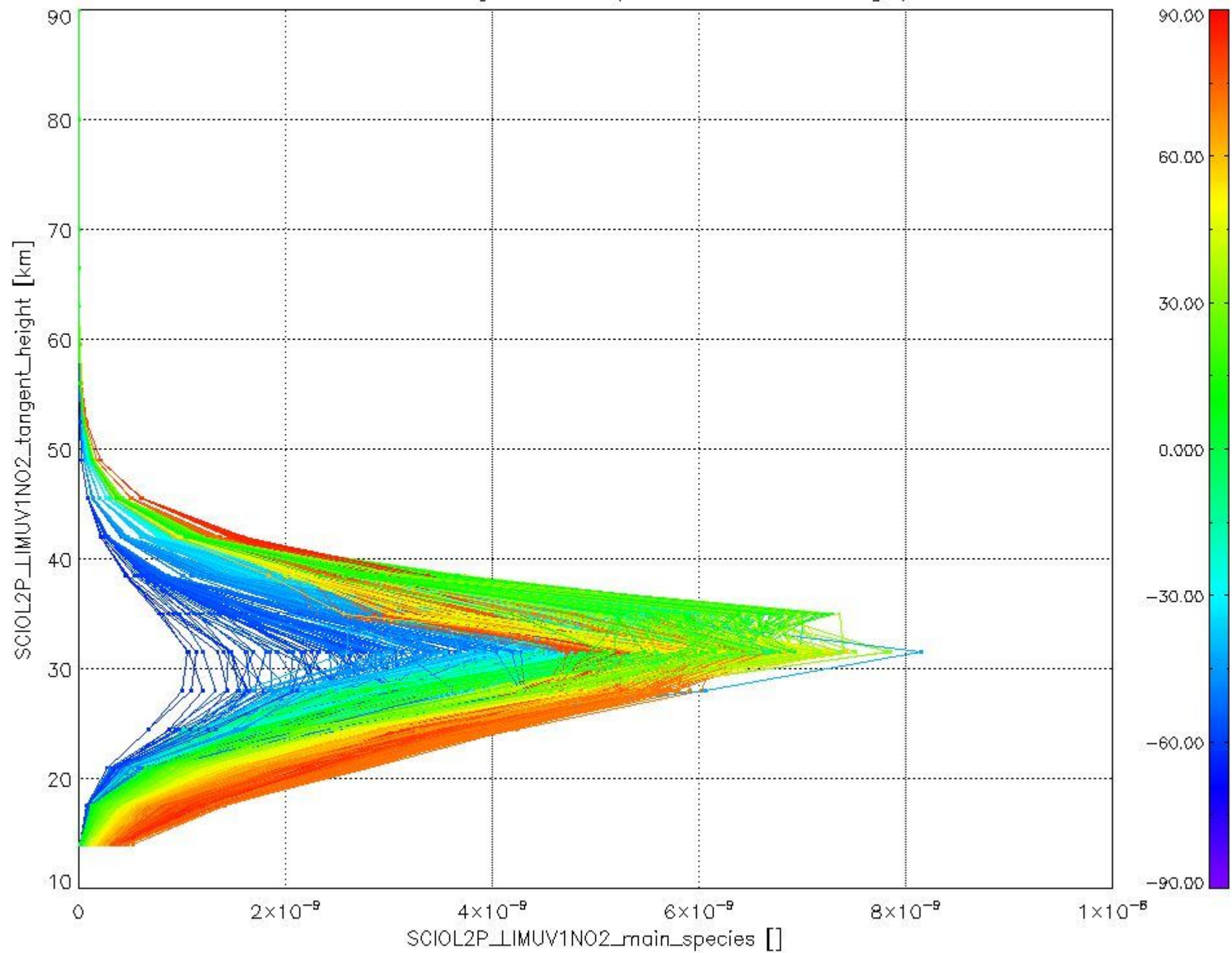
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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





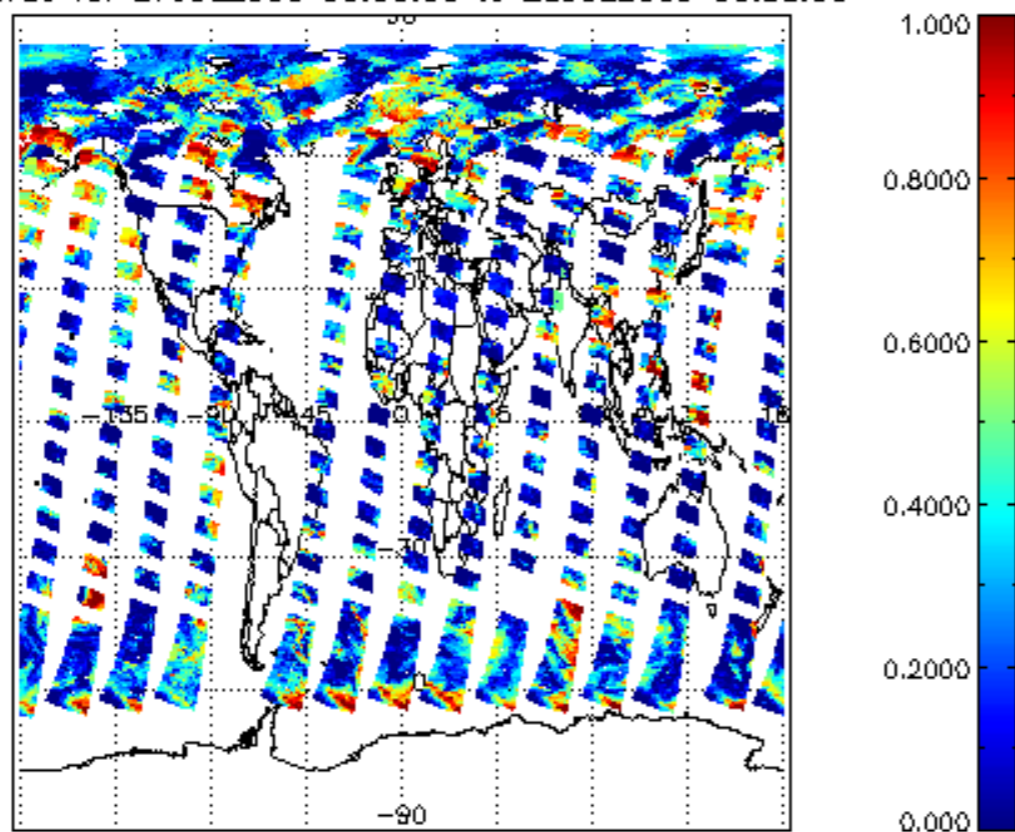
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



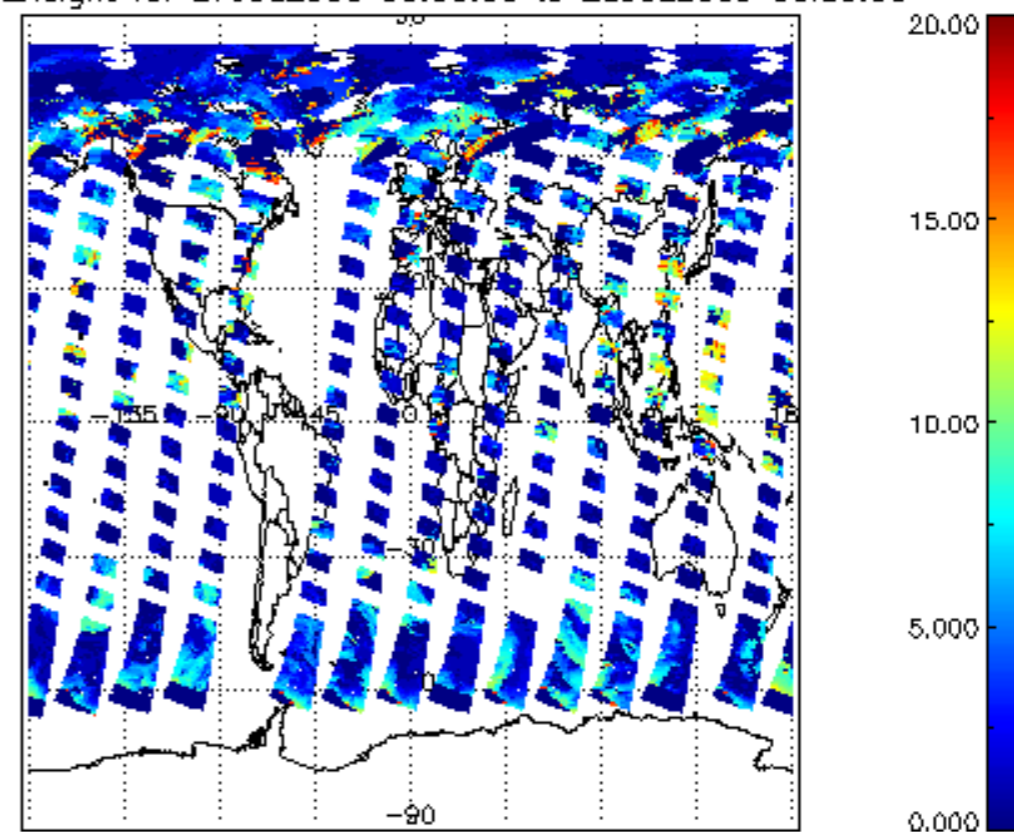
### 2.3 ADF monitoring

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

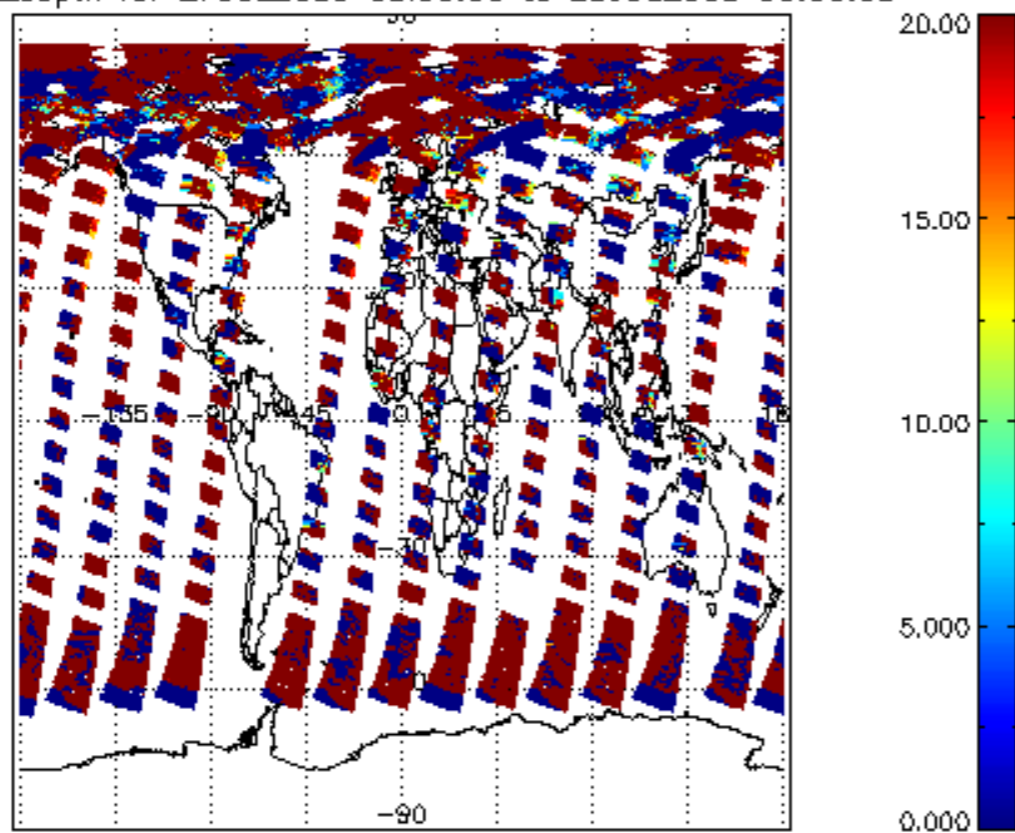
cl\_frac for 27JUL2009 00:00:00 to 28JUL2009 00:00:00



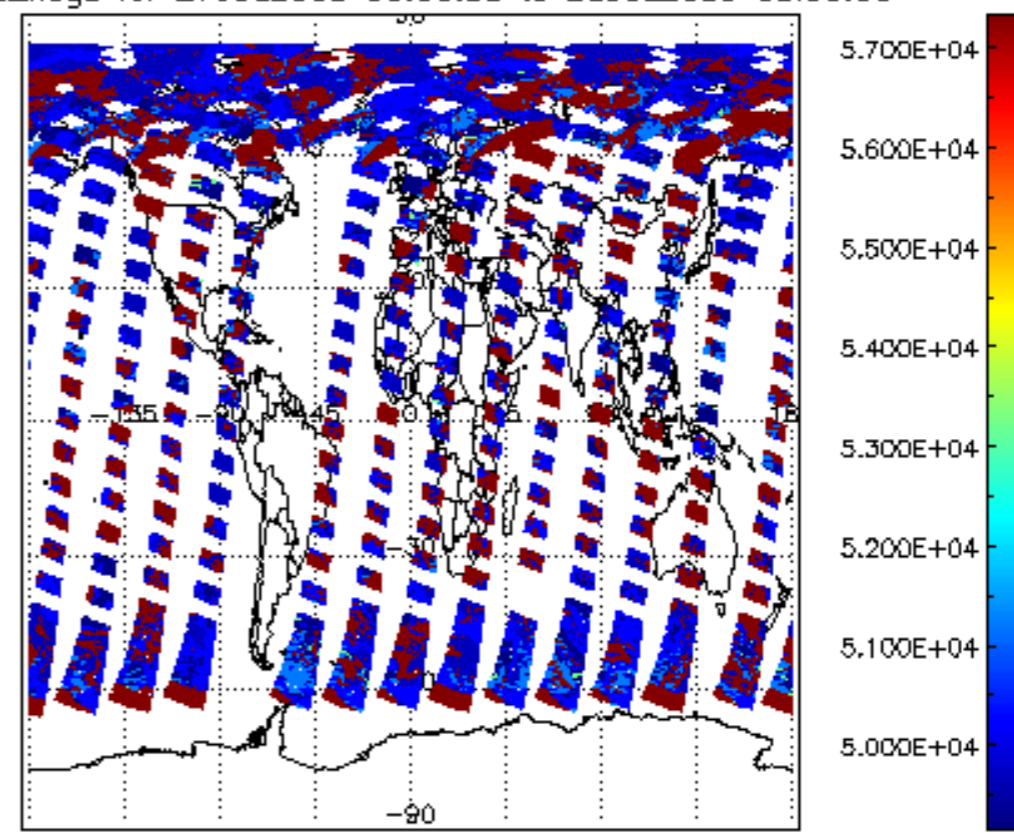
cl\_top\_height for 27JUL2009 00:00:00 to 28JUL2009 00:00:00

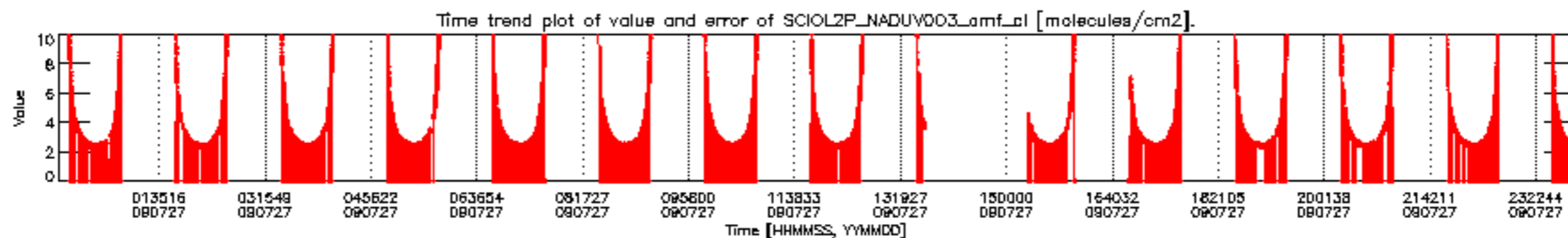
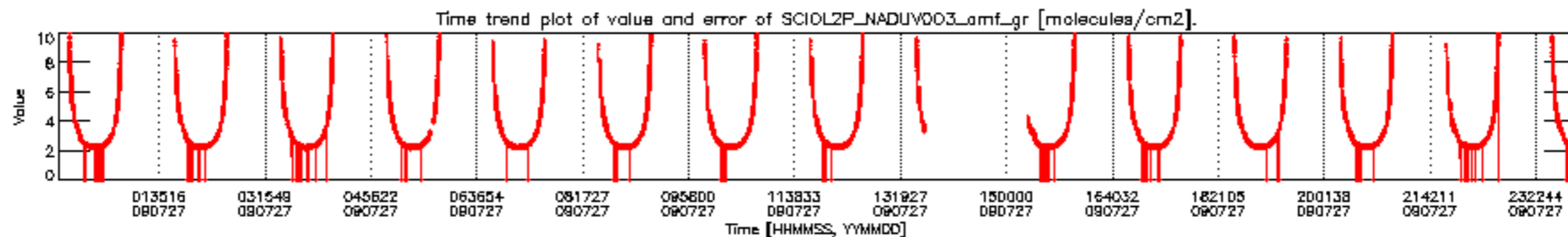
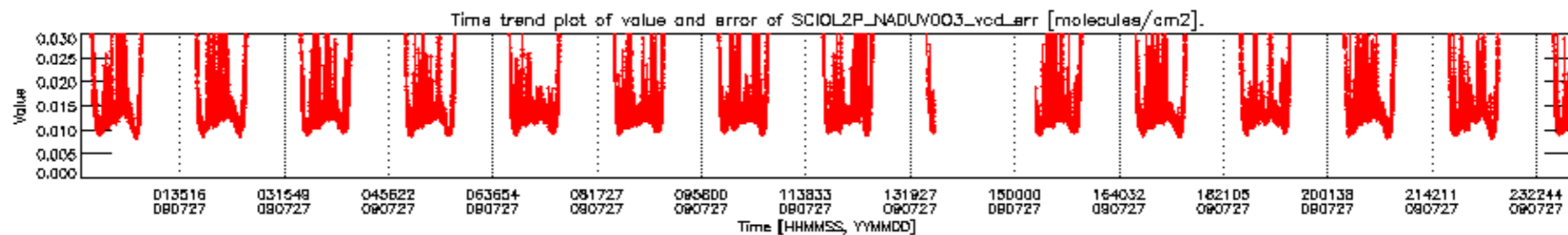
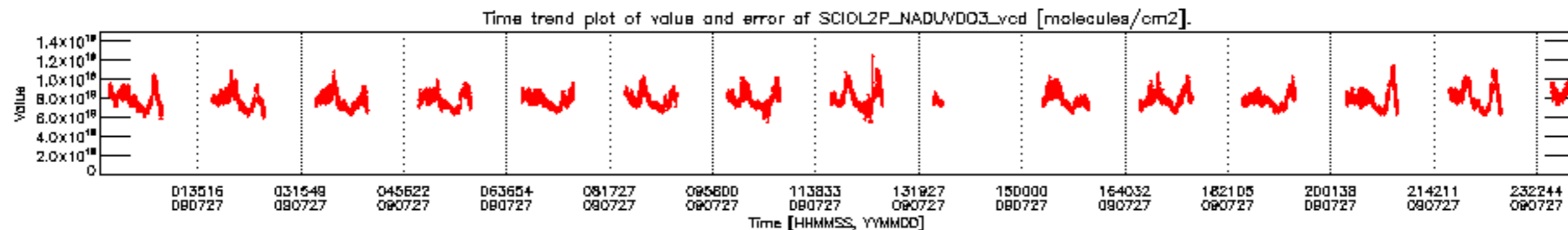


cl\_lopt\_depth for 27JUL2009 00:00:00 to 28JUL2009 00:00:00

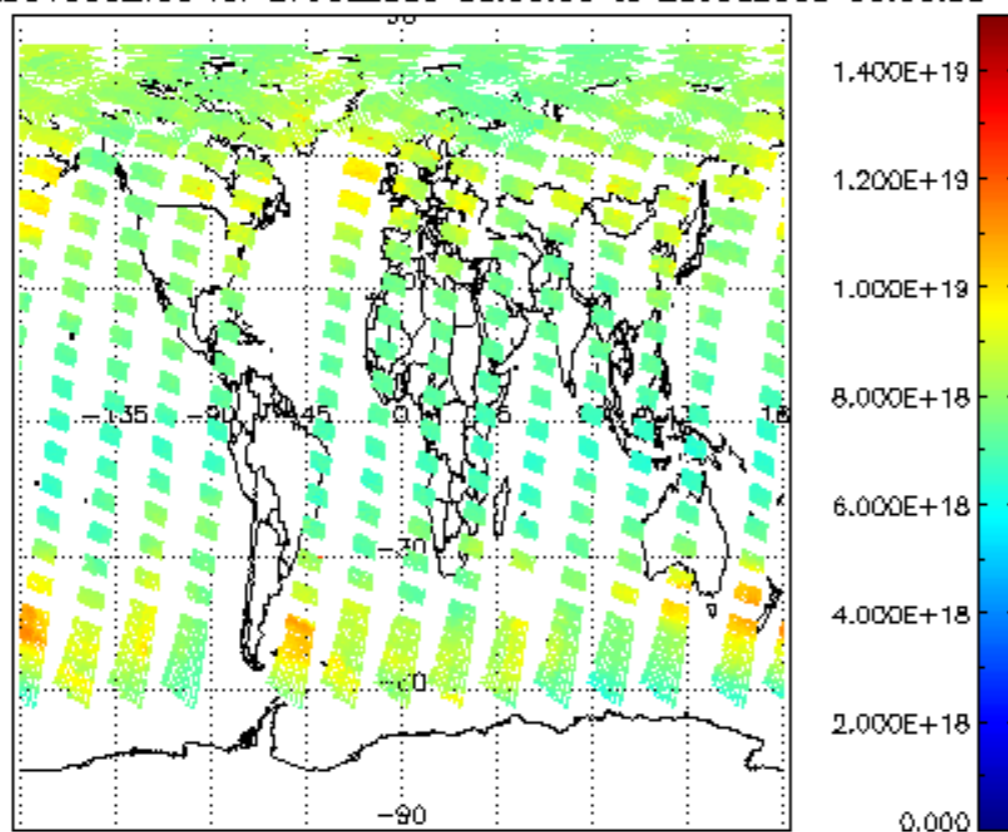


cloud\_flags for 27JUL2009 00:00:00 to 28JUL2009 00:00:00

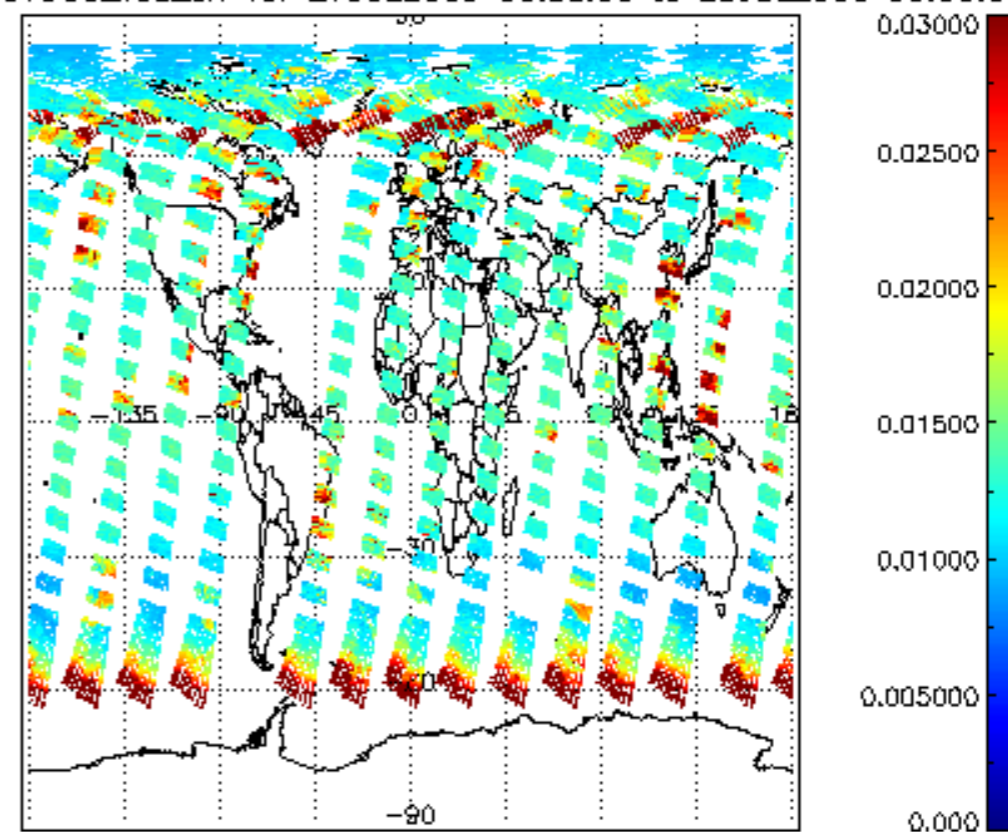




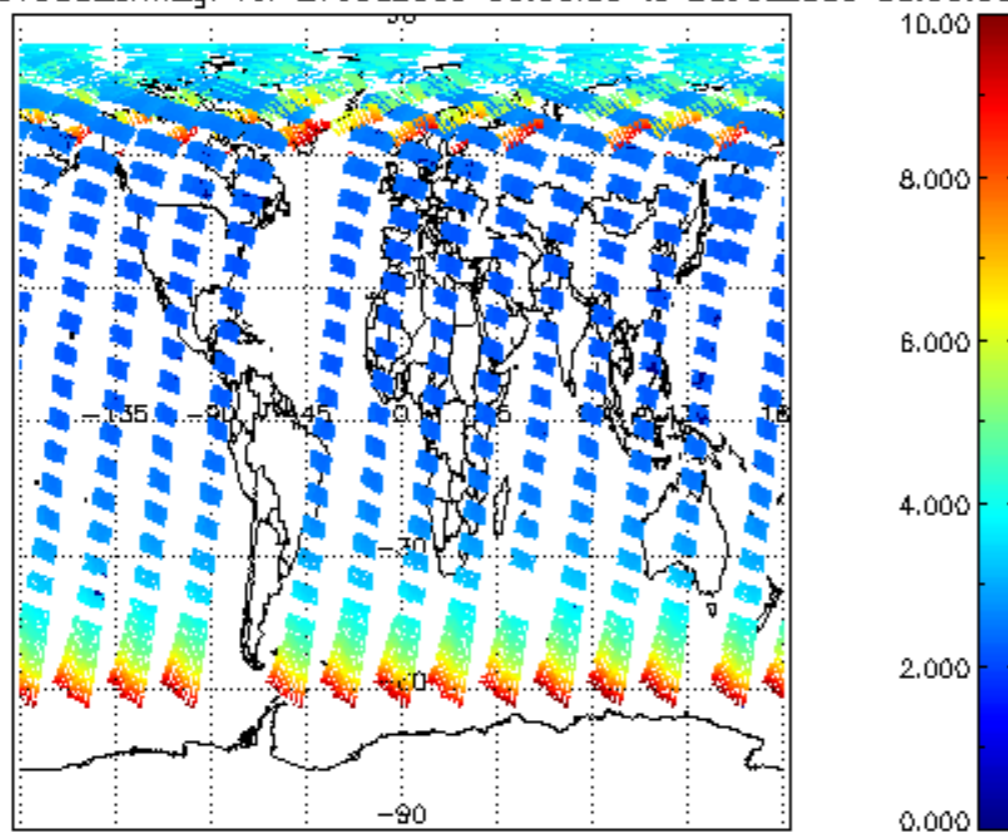
SCIOL2P\_NADUV003\_vcd for 27JUL2009 00:00:00 to 28JUL2009 00:00:00



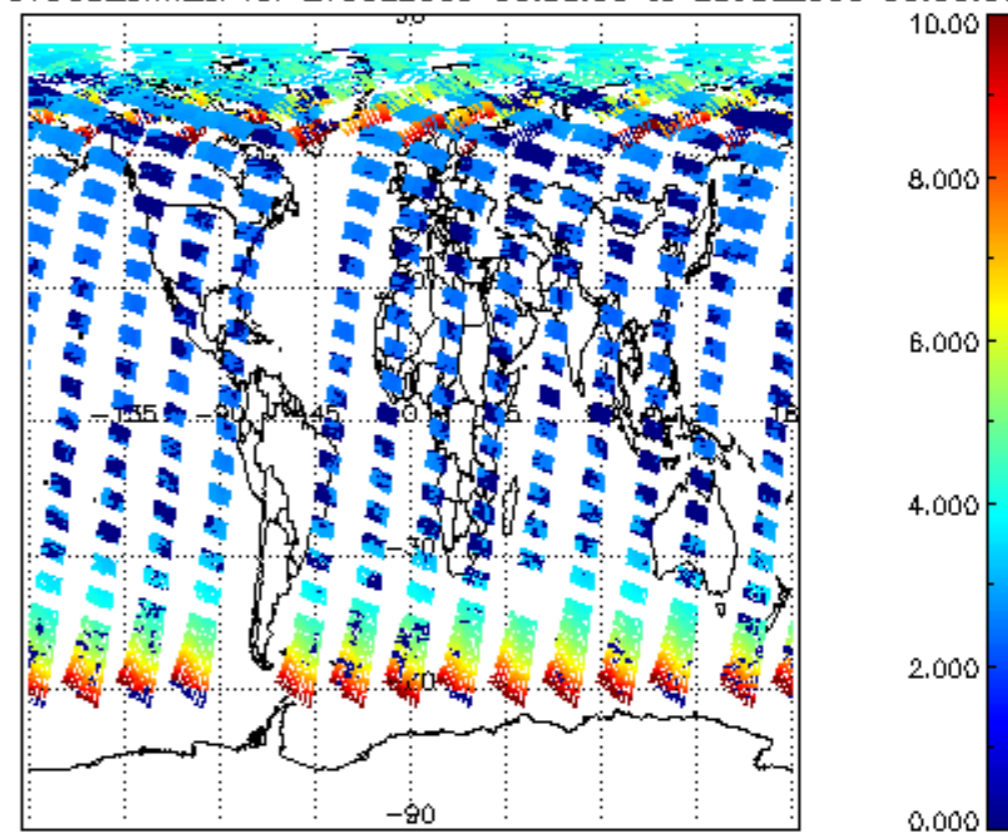
SCIOL2P\_NADUV003\_vcd\_err for 27JUL2009 00:00:00 to 28JUL2009 00:00:00

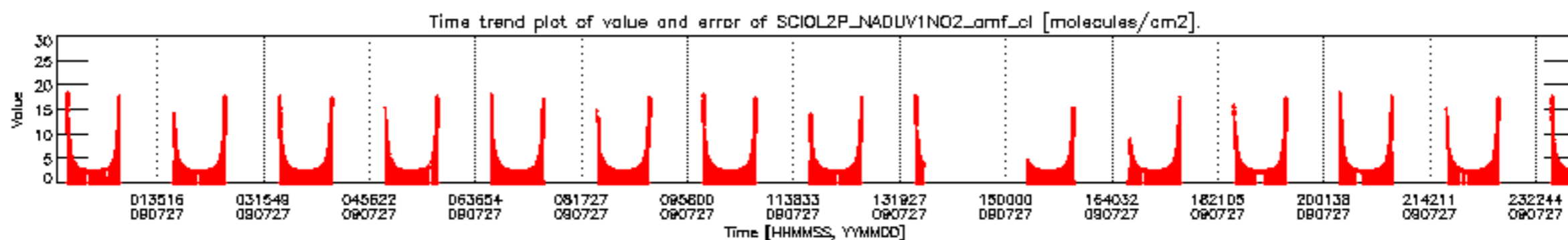
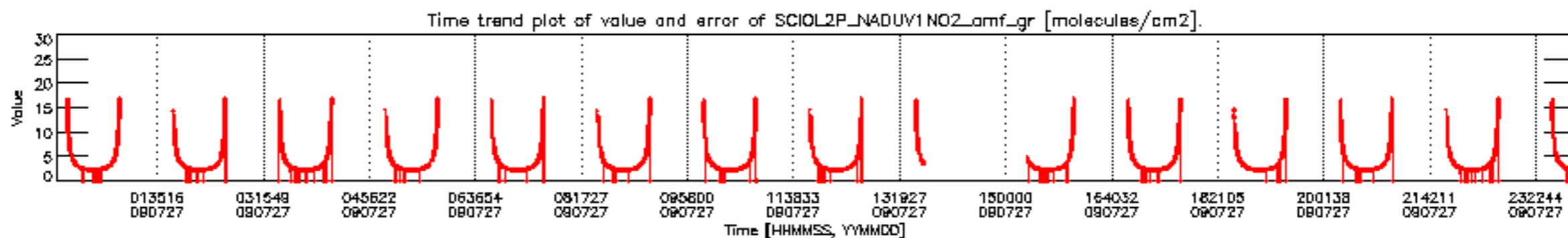
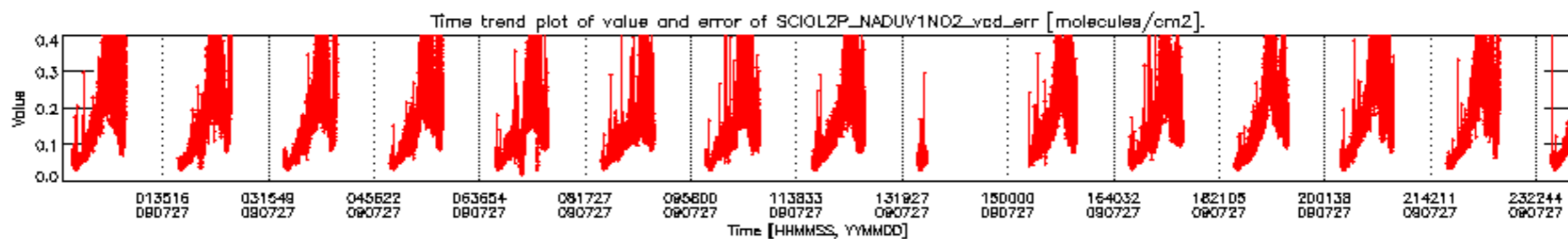
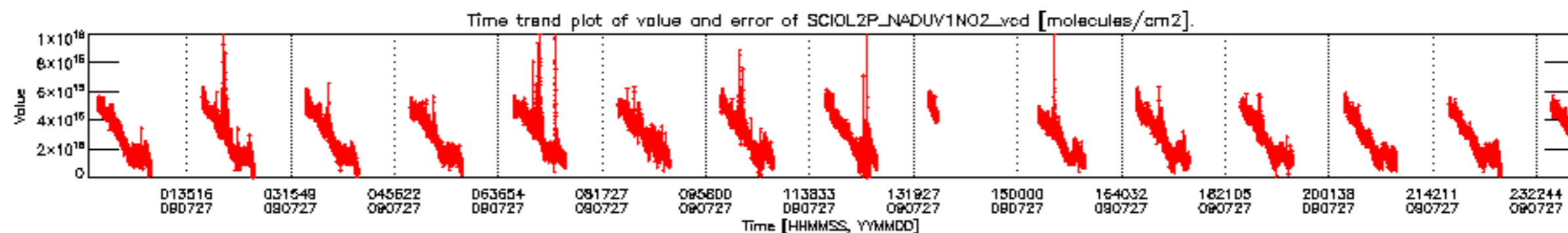


SCIOL2P\_NADUV003\_amf\_gr for 27JUL2009 00:00:00 to 28JUL2009 00:00:00

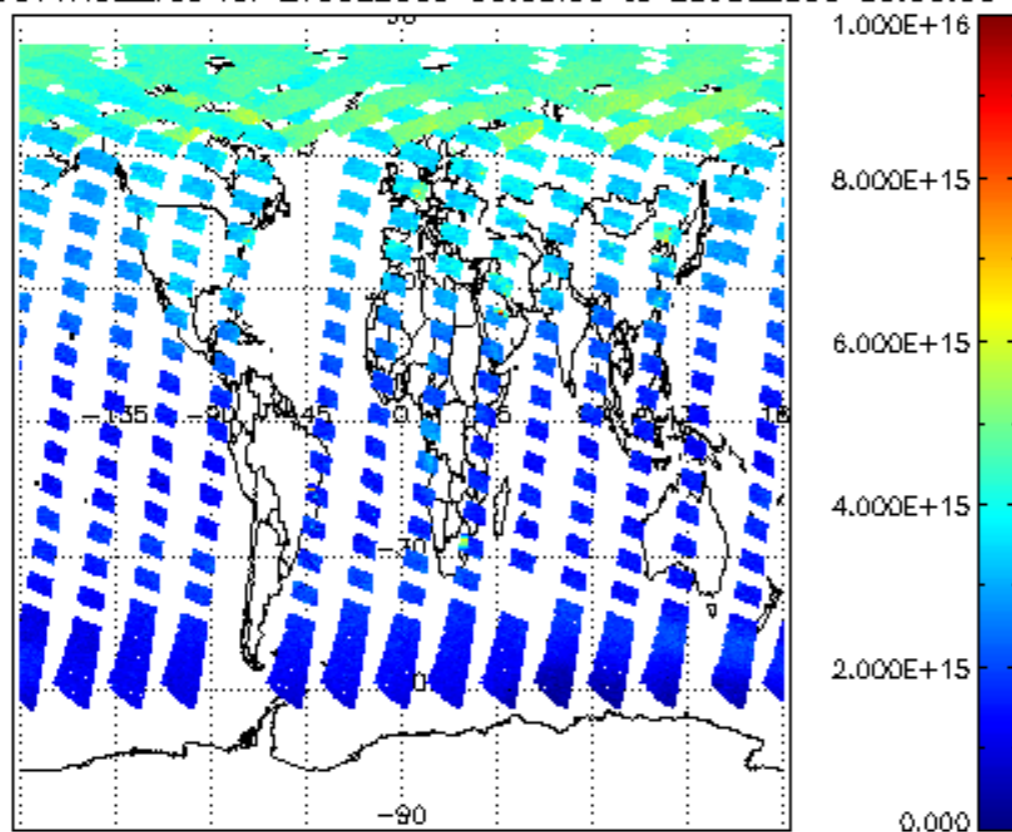


SCIOL2P\_NADUV003\_amf\_cl for 27JUL2009 00:00:00 to 28JUL2009 00:00:00

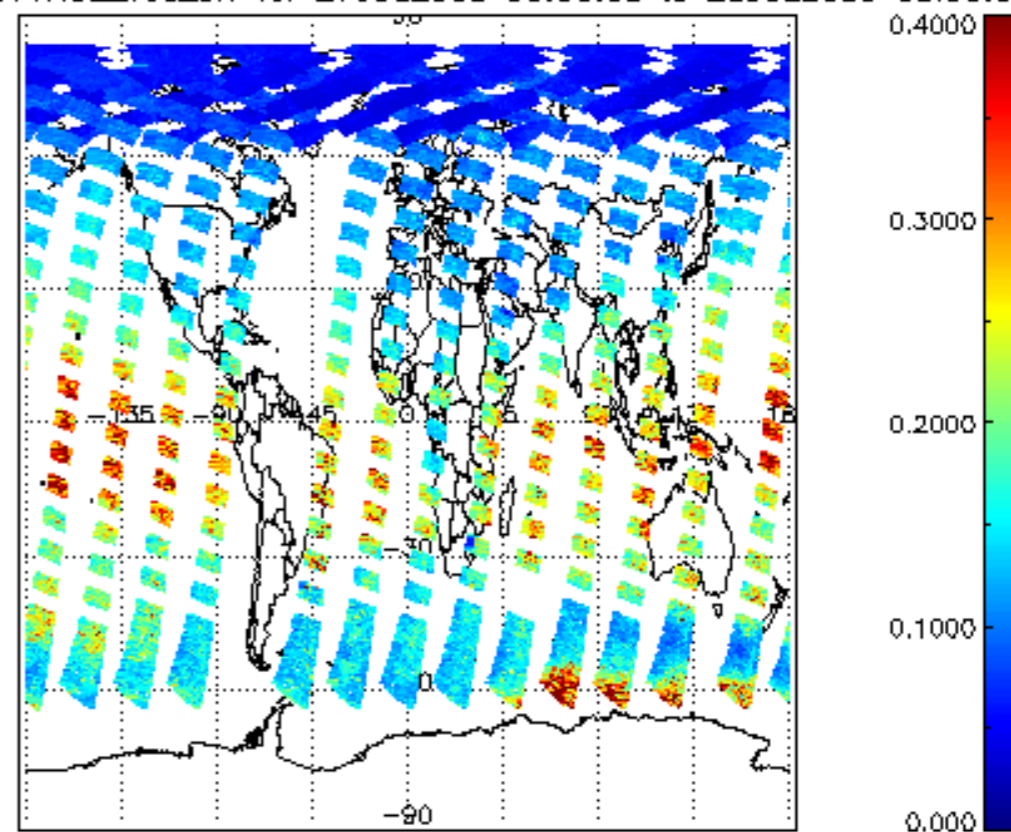




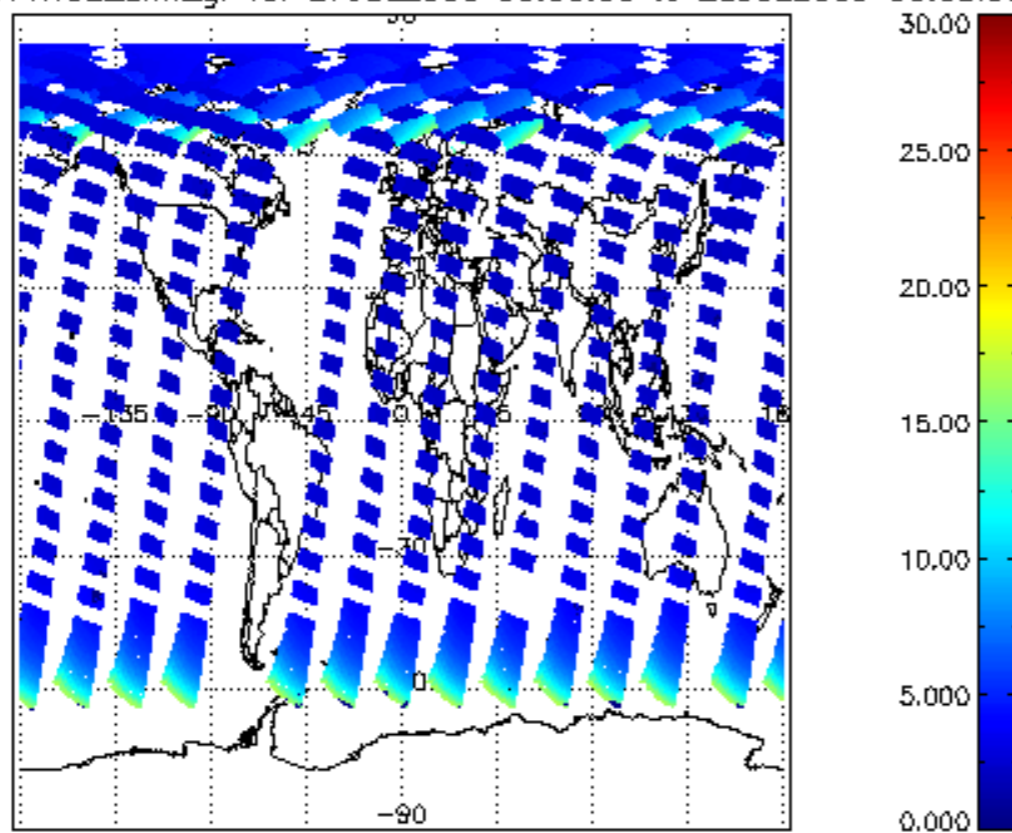
SCIOL2P\_NADUV1NO2\_vcd for 27JUL2009 00:00:00 to 28JUL2009 00:00:00



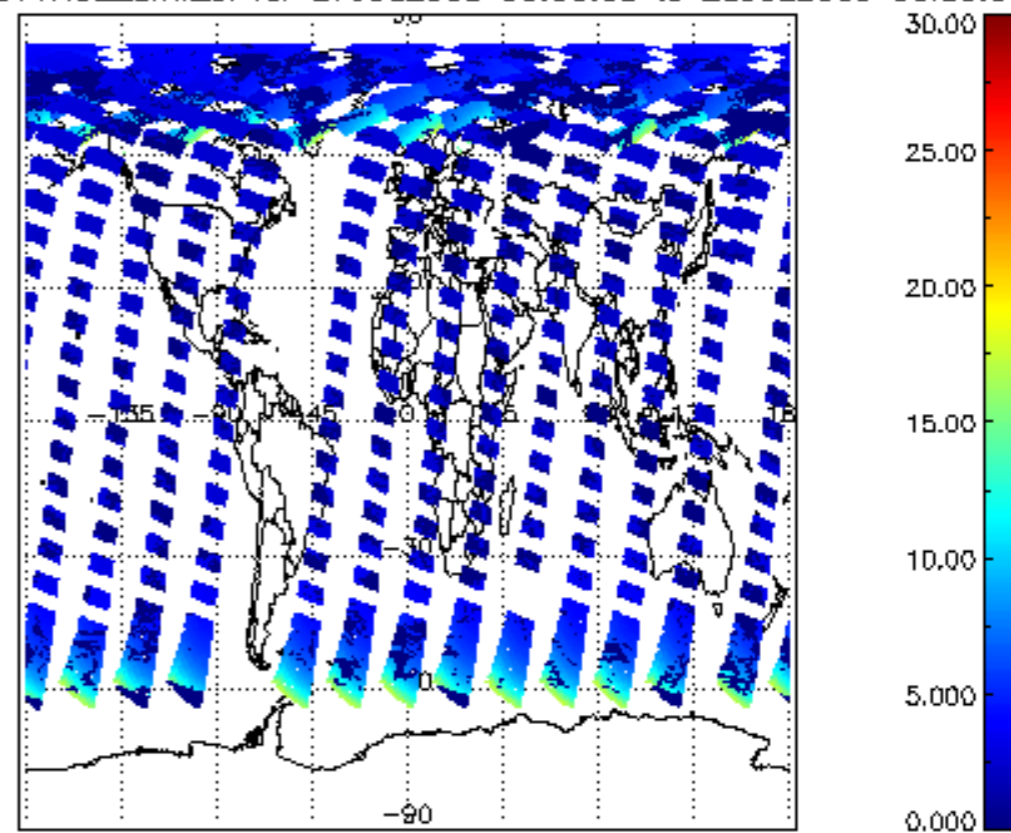
SCIOL2P\_NADUV1NO2\_vcd\_err for 27JUL2009 00:00:00 to 28JUL2009 00:00:00



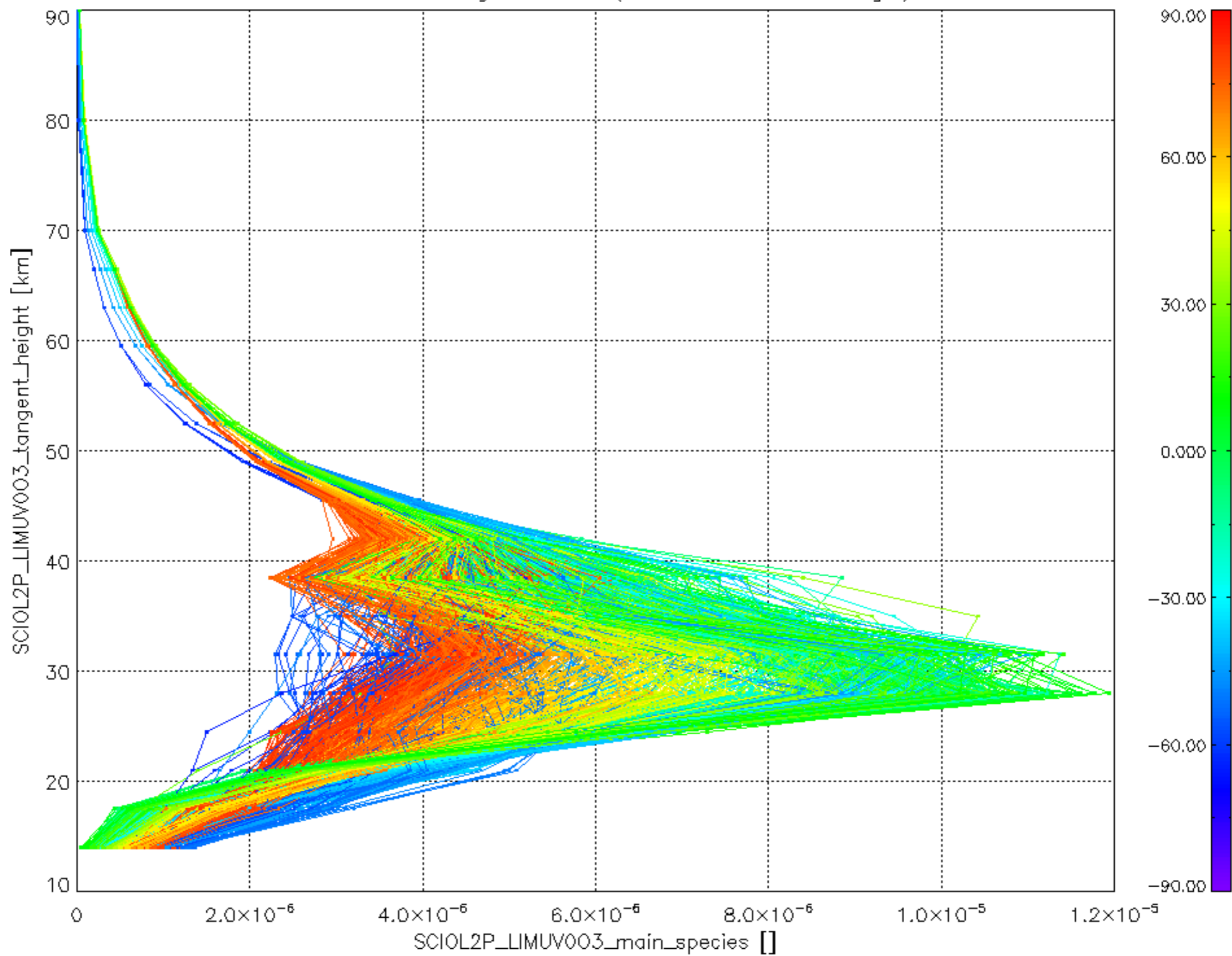
SCIOL2P\_NADUV1NO2\_amf\_gr for 27JUL2009 00:00:00 to 28JUL2009 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_cl for 27JUL2009 00:00:00 to 28JUL2009 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).

