

## 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	09DEC2009 13:53:40
Data source version	SCIA-OL/3.01-R
Processing scope for products	17AUG2009 00:00:00 to 18AUG2009 00:00:00
Start time of first product within scope	16AUG2009 23:05:47
Stop time of last product within scope	17AUG2009 23:29:42
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__2PRDPA20090816_230547_000033252081_00388_39019_3825.N1</a>	16AUG2009 23:05:47	17AUG2009 00:01:13	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20090817_004624_000033122081_00389_39020_3824.N1</a>	17AUG2009 00:46:24	17AUG2009 01:41:37	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20090817_022700_000033252081_00390_39021_3826.N1</a>	17AUG2009 02:27:00	17AUG2009 03:22:25	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20090817_040736_000033122081_00391_39022_3827.N1</a>	17AUG2009 04:07:36	17AUG2009 05:02:49	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20090817_054813_000033252081_00392_39023_3828.N1</a>	17AUG2009 05:48:13	17AUG2009 06:43:38	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20090817_072849_000033122081_00393_39024_3830.N1</a>	17AUG2009 07:28:49	17AUG2009 08:24:02	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20090817_090925_000033252081_00394_39025_3829.N1</a>	17AUG2009 09:09:25	17AUG2009 10:04:51	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20090817_105002_000033122081_00395_39026_3831.N1</a>	17AUG2009 10:50:02	17AUG2009 11:45:15	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20090817_123038_000033252081_00396_39027_3832.N1</a>	17AUG2009 12:30:38	17AUG2009 13:26:03	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20090817_141114_000033122081_00397_39028_3833.N1</a>	17AUG2009 14:11:14	17AUG2009 15:06:27	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20090817_155151_000033252081_00398_39029_3834.N1</a>	17AUG2009 15:51:51	17AUG2009 16:47:16	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20090817_173221_000033202081_00399_39030_3835.N1</a>	17AUG2009 17:32:21	17AUG2009 18:27:42	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20090817_191322_000033252081_00400_39031_3836.N1</a>	17AUG2009 19:13:22	17AUG2009 20:08:48	0	GOOD
13	<a href="#">SCI_OL__2PRDPA20090817_205340_000033122081_00401_39032_3837.N1</a>	17AUG2009 20:53:40	17AUG2009 21:48:53	0	GOOD
14	<a href="#">SCI_OL__2PRDPA20090817_223416_000033252081_00402_39033_3838.N1</a>	17AUG2009 22:34:16	17AUG2009 23:29:42	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: 144340

Total number of cloud data DSRs with good quality flag (=0): 144340 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	144340	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	144340	0.17071	0.12500	0.12500	0.25000	0.060202	s
CL_FRAC	144340	0.31629	0.26885	0.0000	1.0000	0.28314	-
CL_FRAC_ERR	144340	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	144340	5.4627	4.0000	4.0000	8.0000	1.9265	
PMD_READ_CL[0]	144340	0.15314	0.0000	0.0000	8.0000	0.87258	-
PMD_READ_CL[1]	144340	1.7117	0.0000	0.0000	8.0000	2.6819	-
CL_TOP_HEIGHT	127865	3.3960	1.8070	0.0000	17.000	3.7086	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	127865	61.864	100.00	0.0000	101.00	44.235	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	144340	11100000	11100000	11100000	11100000	0.0000	flags
CLOUD_FLAGS	144340	11001100	11000100	11000000	11100000	3472.0	flags
AERO_ABSO_IND	144340	4.2529	5.1231	-0.44663	17.278	2.6969	
AERO_IND_DIAG	144340	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	144340	01011000	00000000	00000000	11000000	24505.	flags

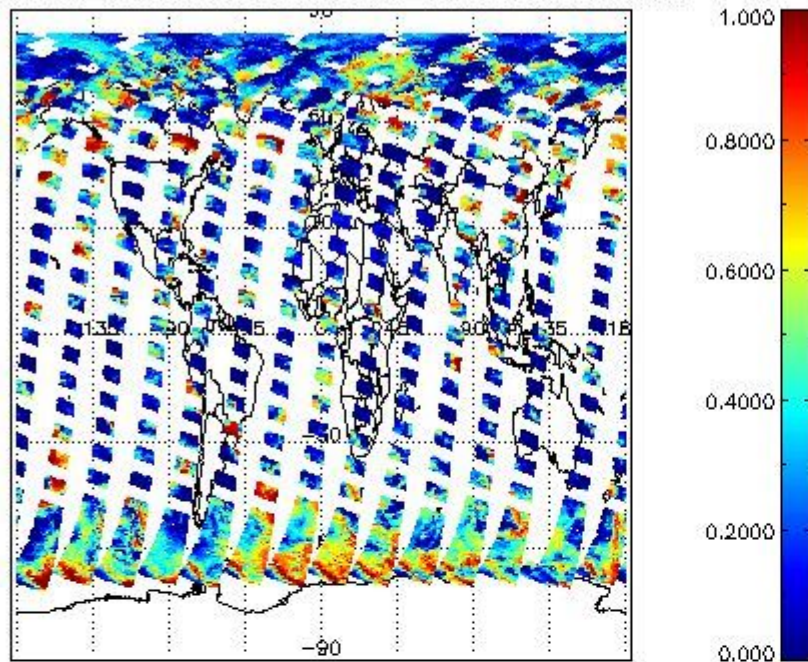
### Time and geolocation plots:

Plots are available for the following parameters:

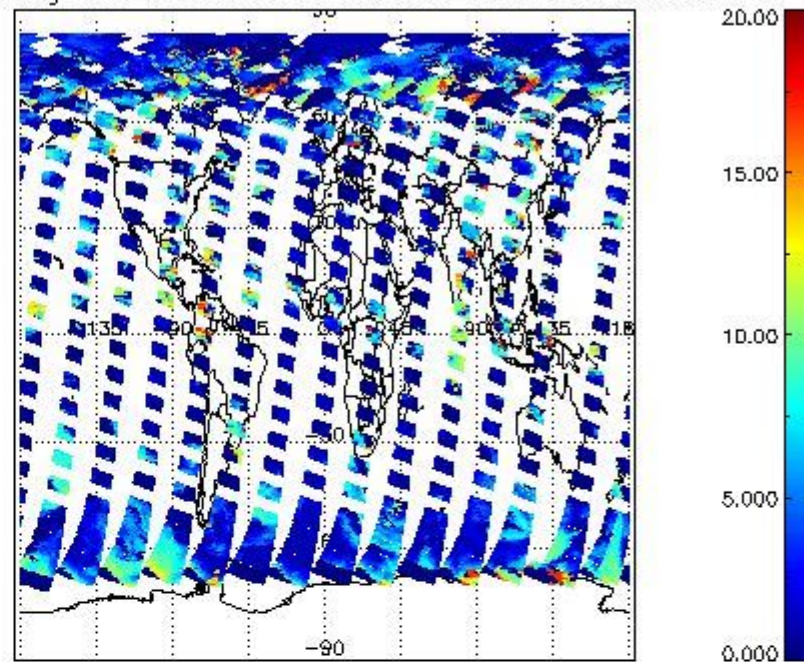
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



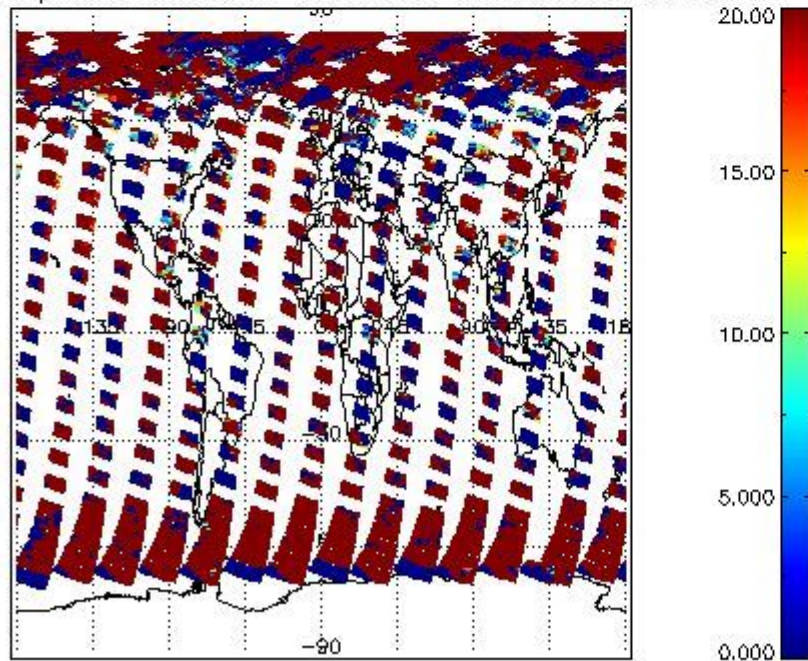
cL\_frac for 17AUG2009 00:00:00 to 18AUG2009 00:00:00



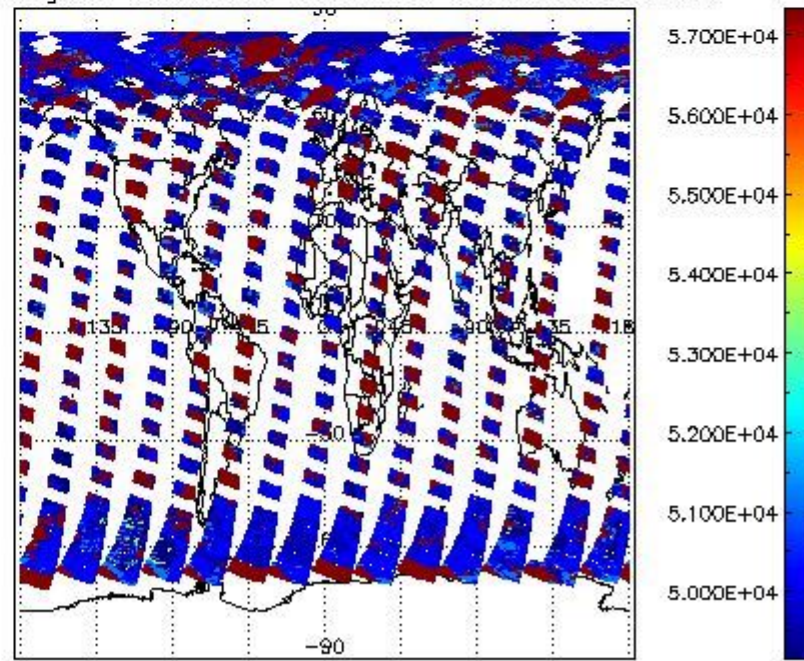
cL\_top\_height for 17AUG2009 00:00:00 to 18AUG2009 00:00:00



cL\_opt\_depth for 17AUG2009 00:00:00 to 18AUG2009 00:00:00



cloud\_flags for 17AUG2009 00:00:00 to 18AUG2009 00:00:00



## 2.2.2 Nadir

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

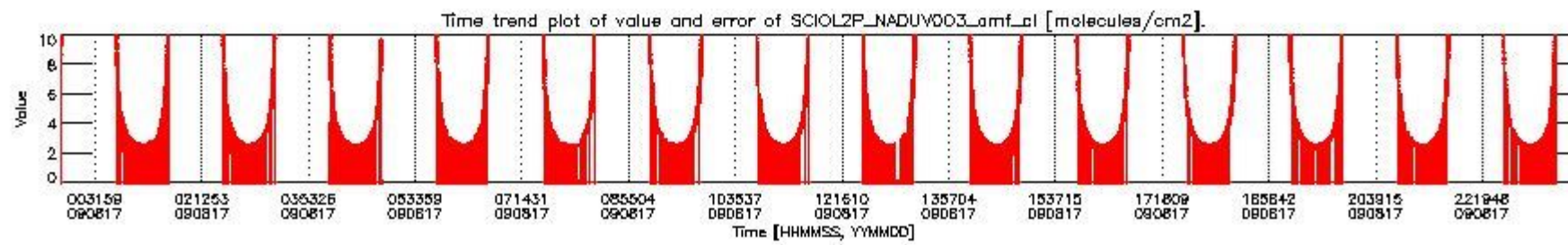
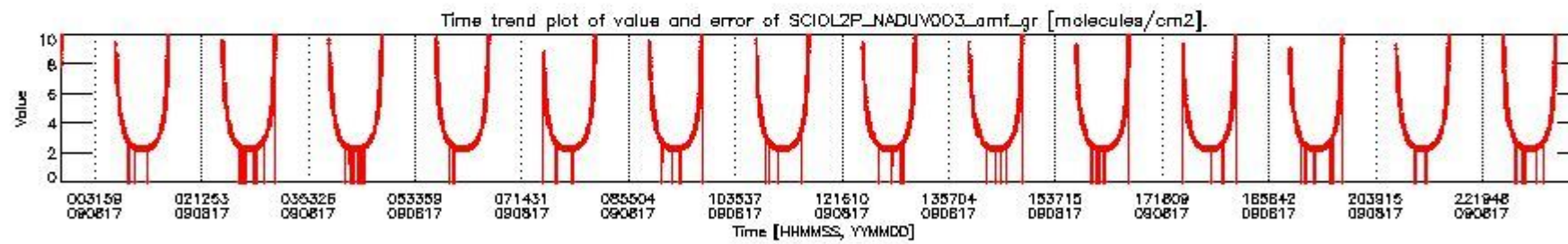
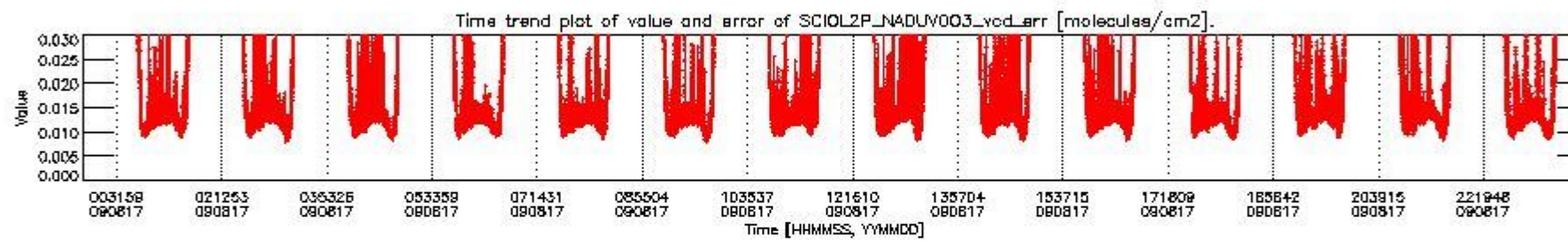
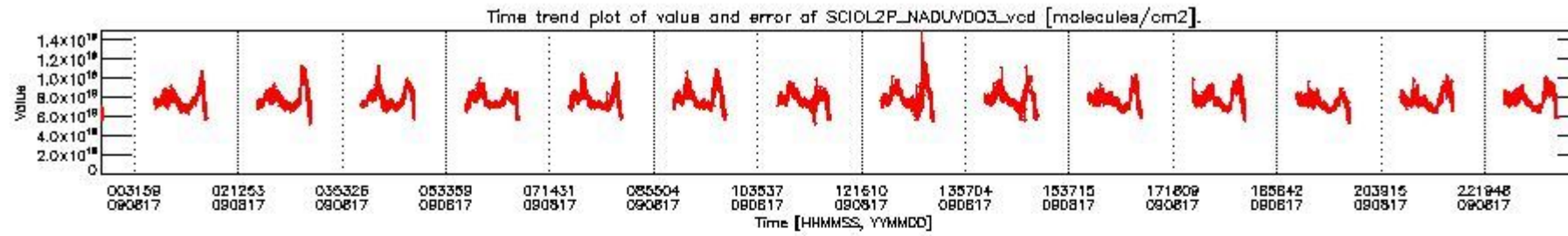
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr



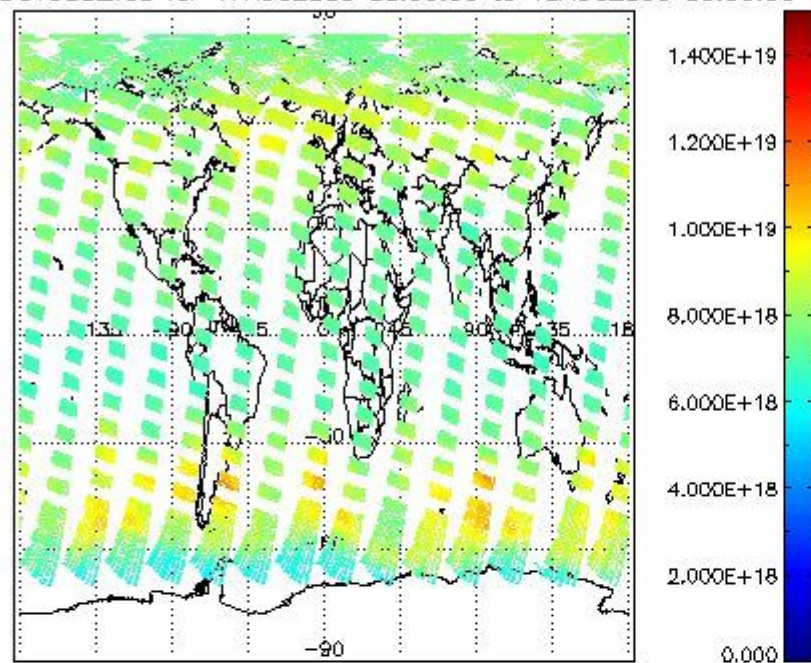
3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

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.

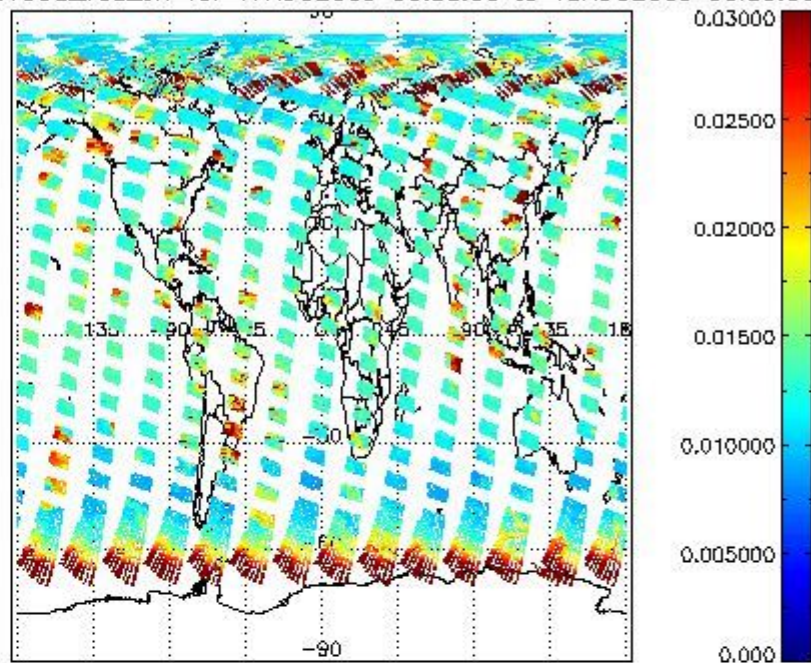




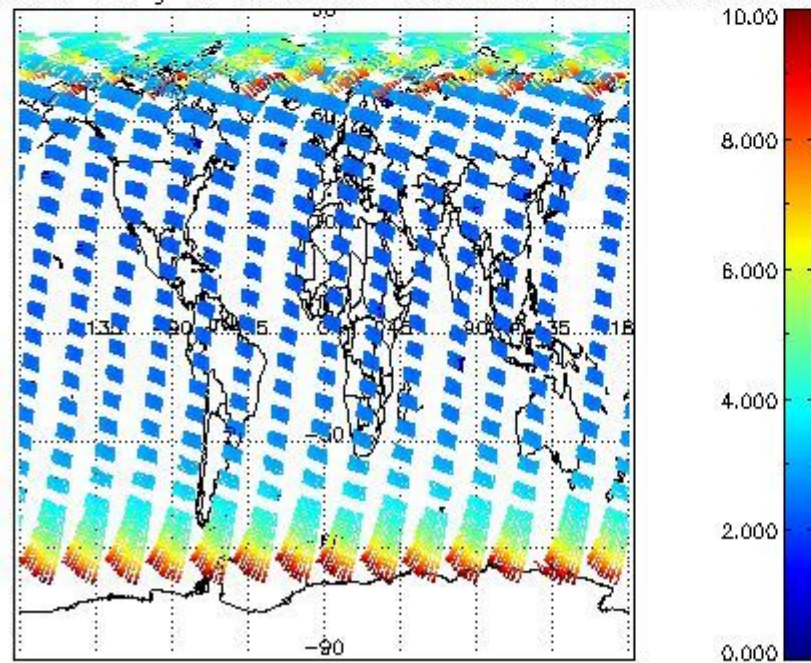
SCIOL2P\_NADUV003\_vcd for 17AUG2009 00:00:00 to 18AUG2009 00:00:00



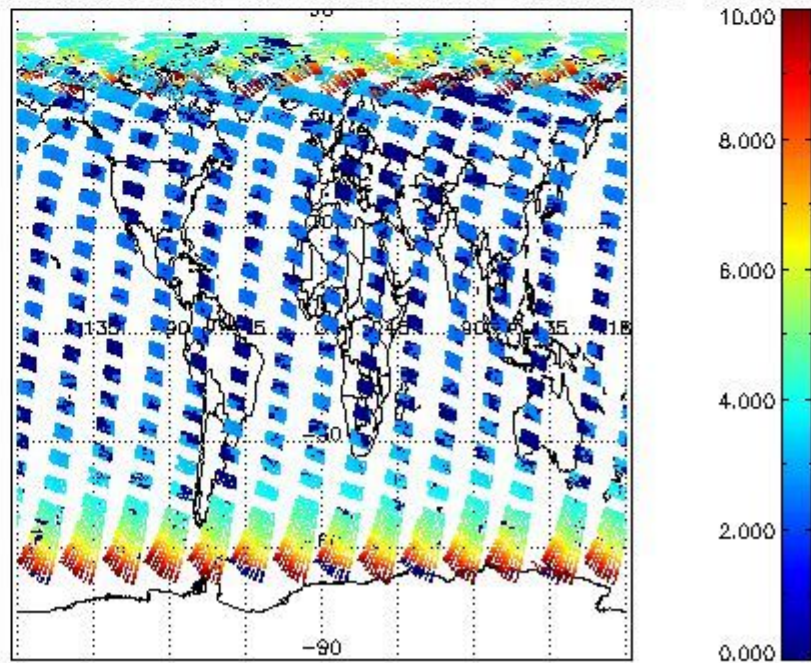
SCIOL2P\_NADUV003\_vcd\_err for 17AUG2009 00:00:00 to 18AUG2009 00:00:00



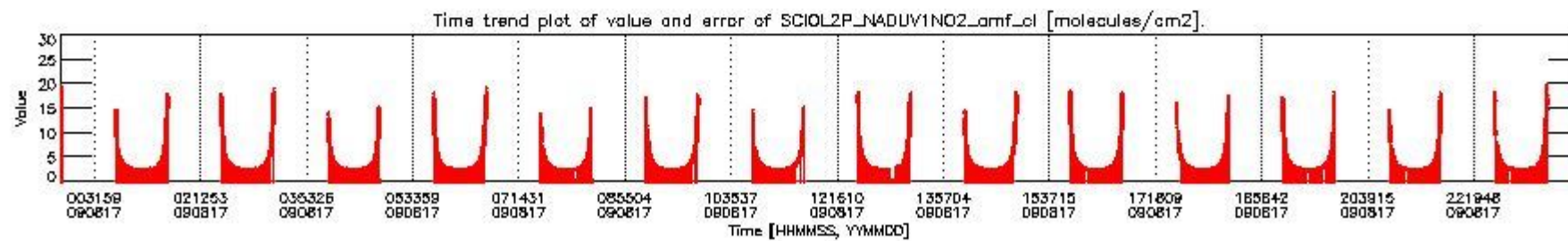
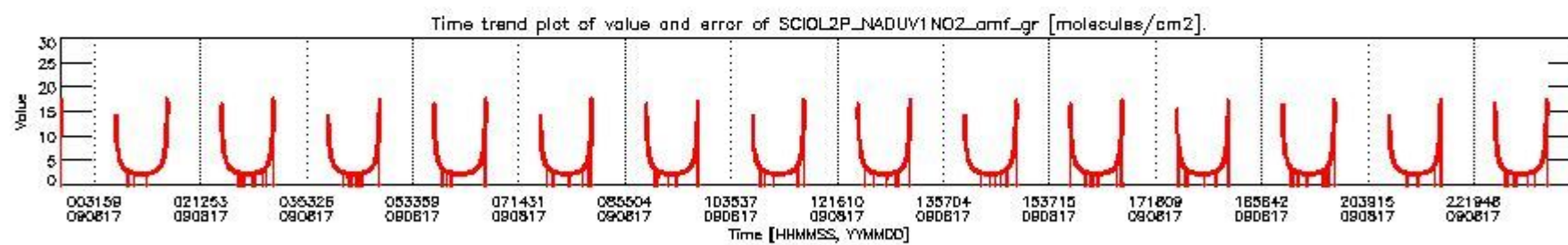
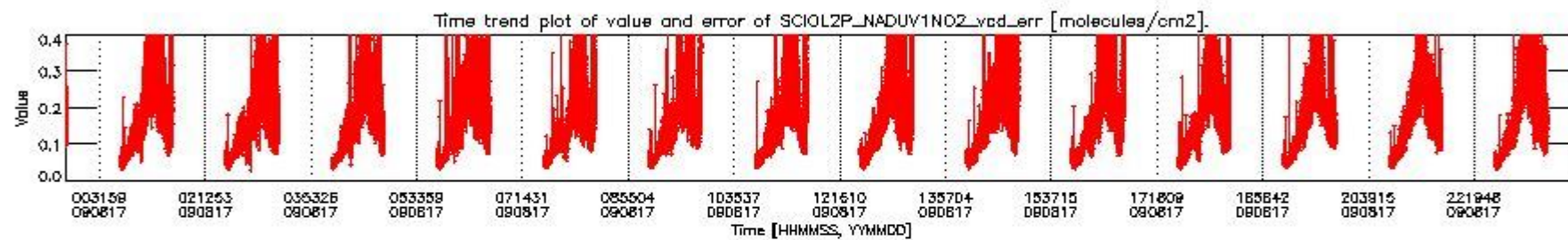
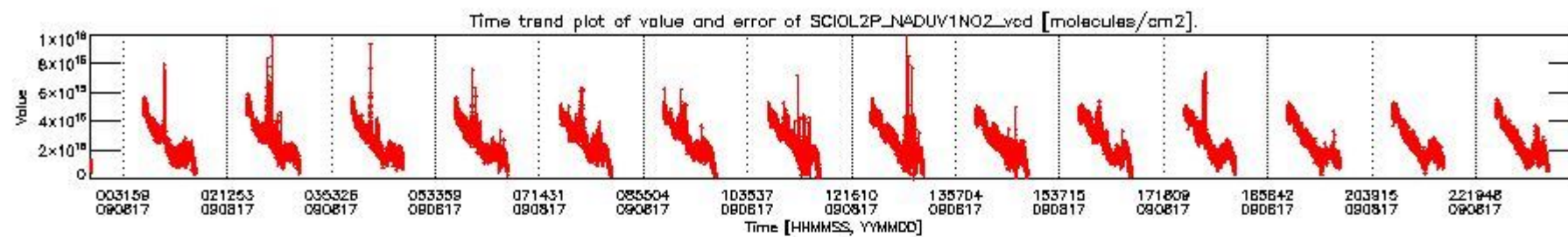
SCIOL2P\_NADUV003\_amf\_gr for 17AUG2009 00:00:00 to 18AUG2009 00:00:00



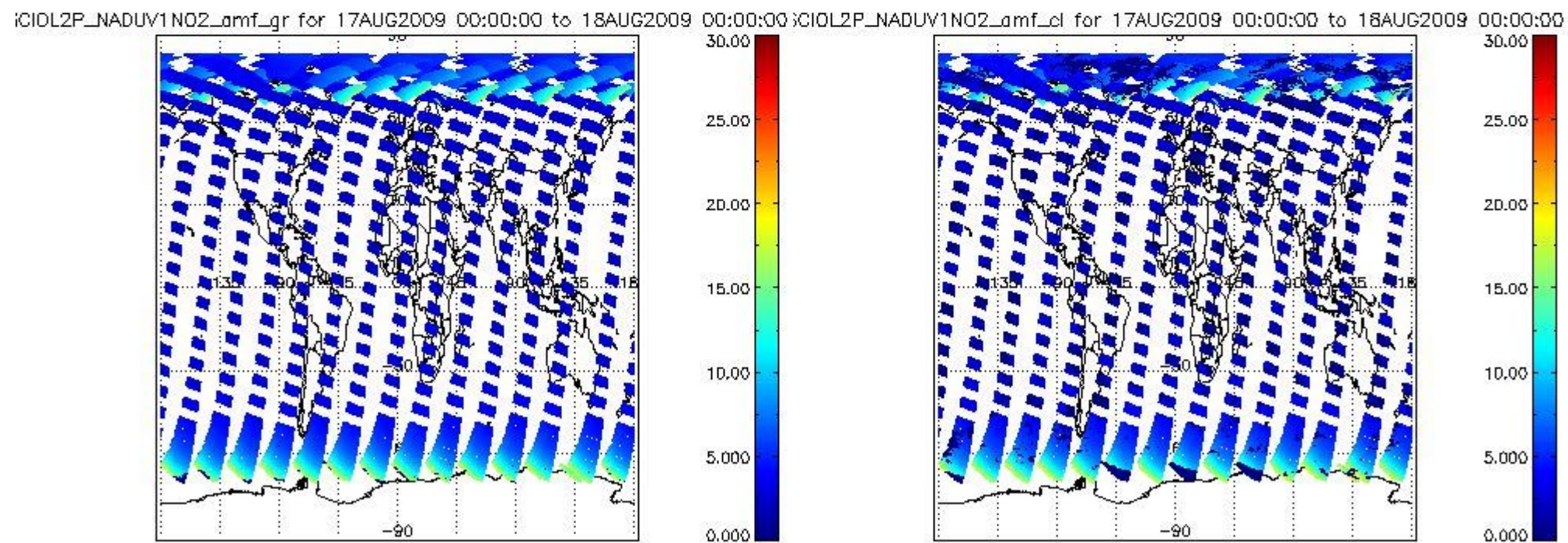
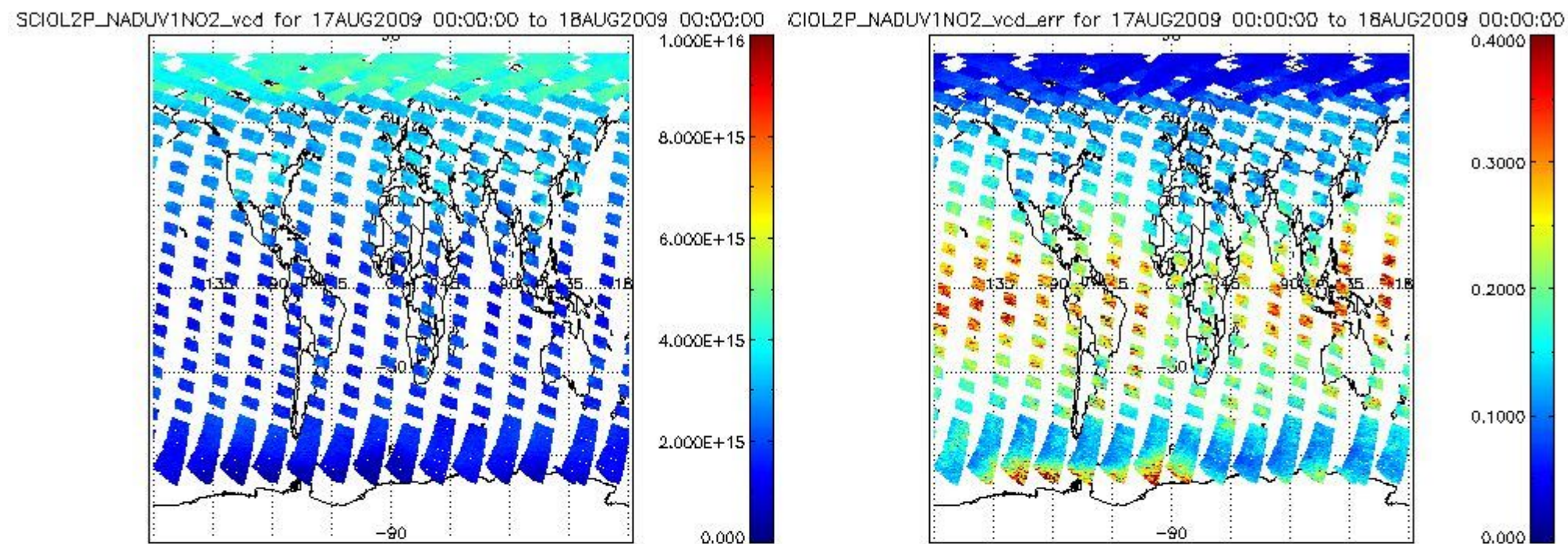
SCIOL2P\_NADUV003\_amf\_cl for 17AUG2009 00:00:00 to 18AUG2009 00:00:00











### 2.2.3 Limb

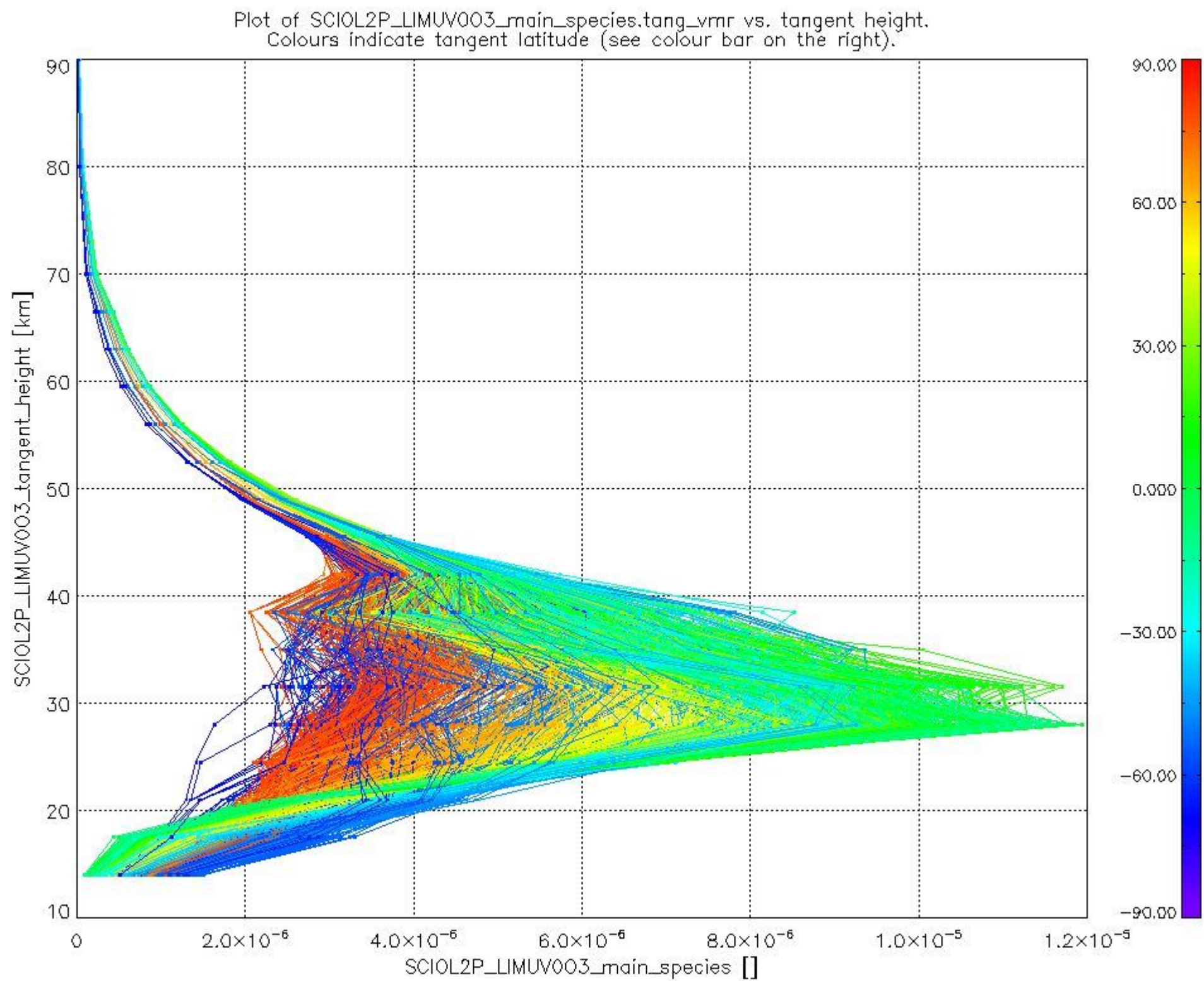
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

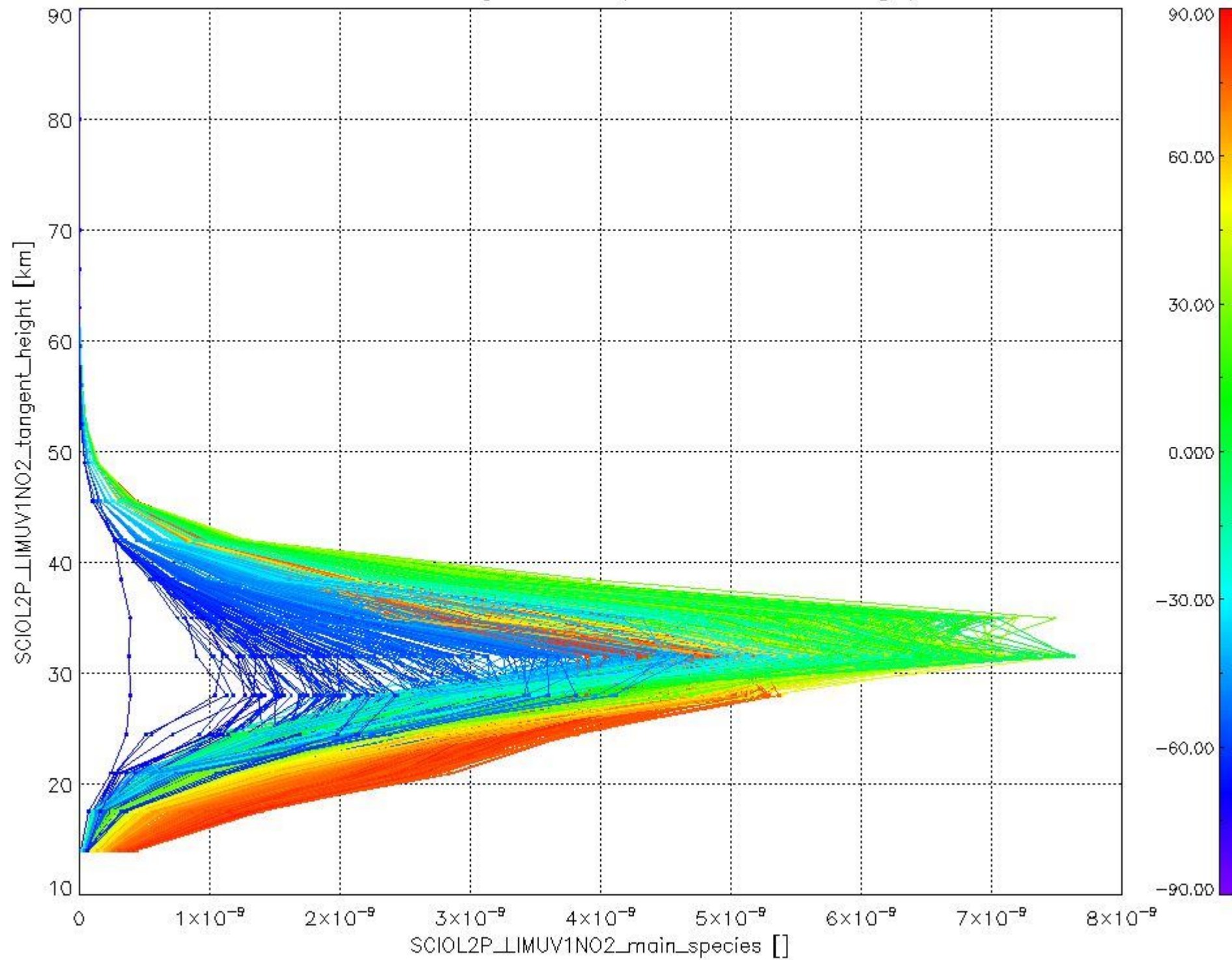


The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.





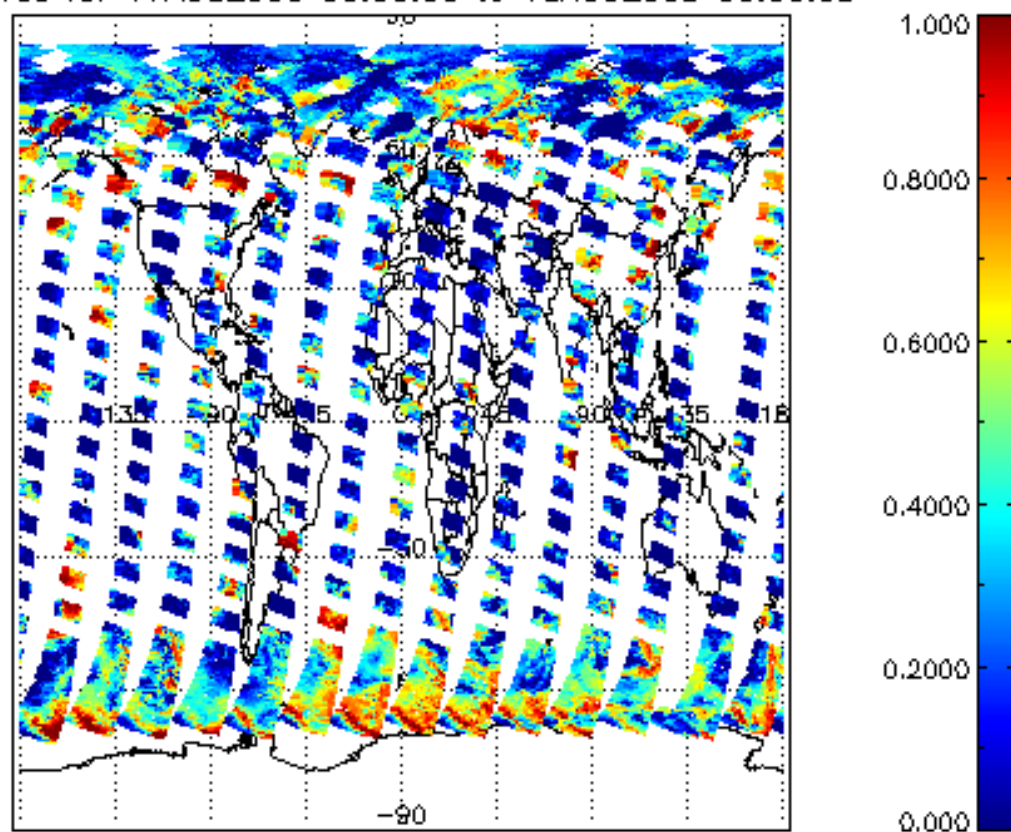
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



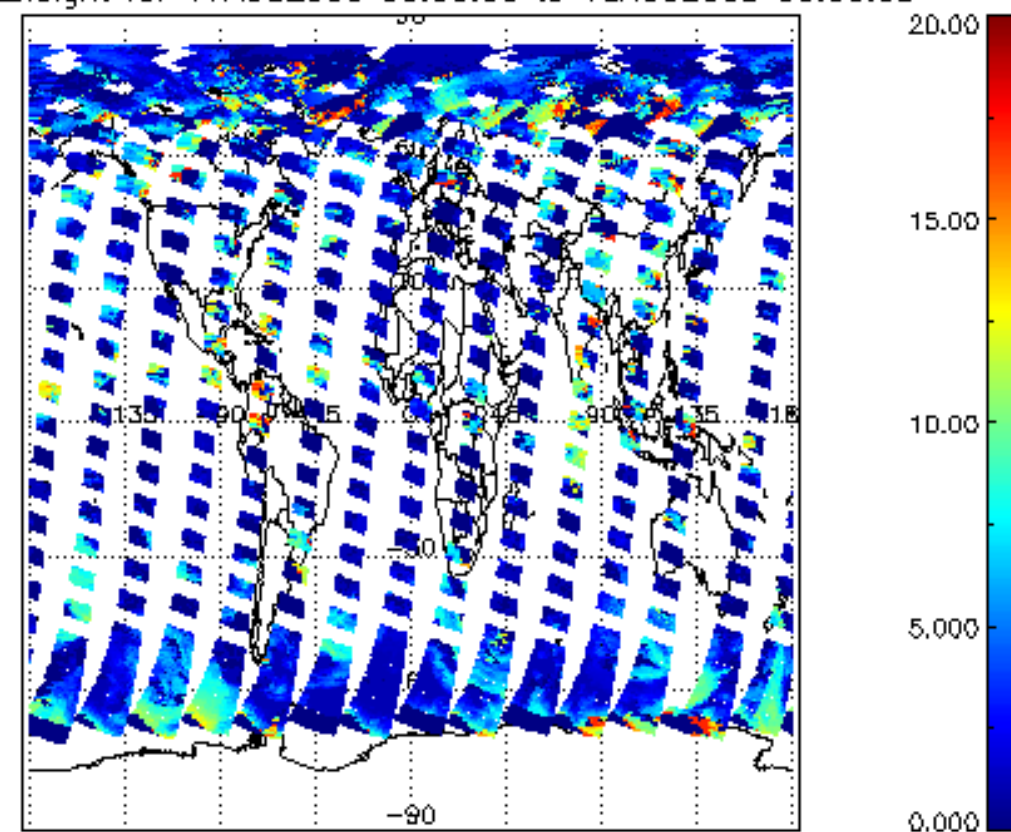
### 2.3 ADF monitoring

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

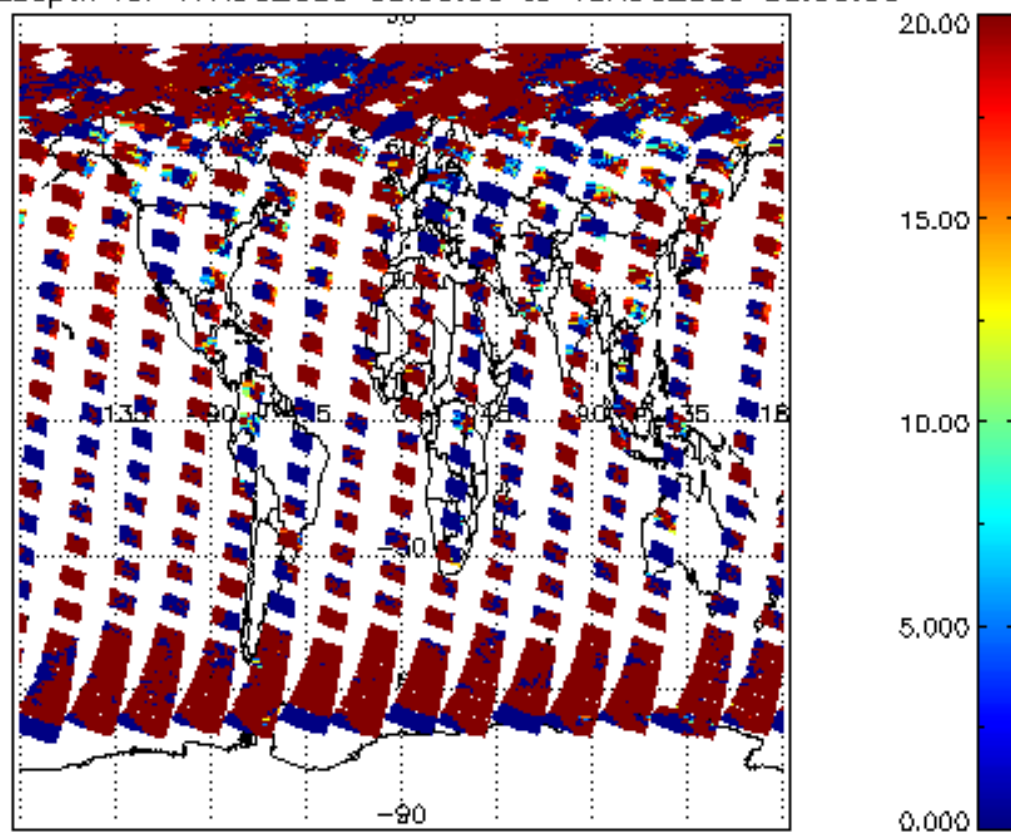
cL\_frac for 17AUG2009 00:00:00 to 18AUG2009 00:00:00



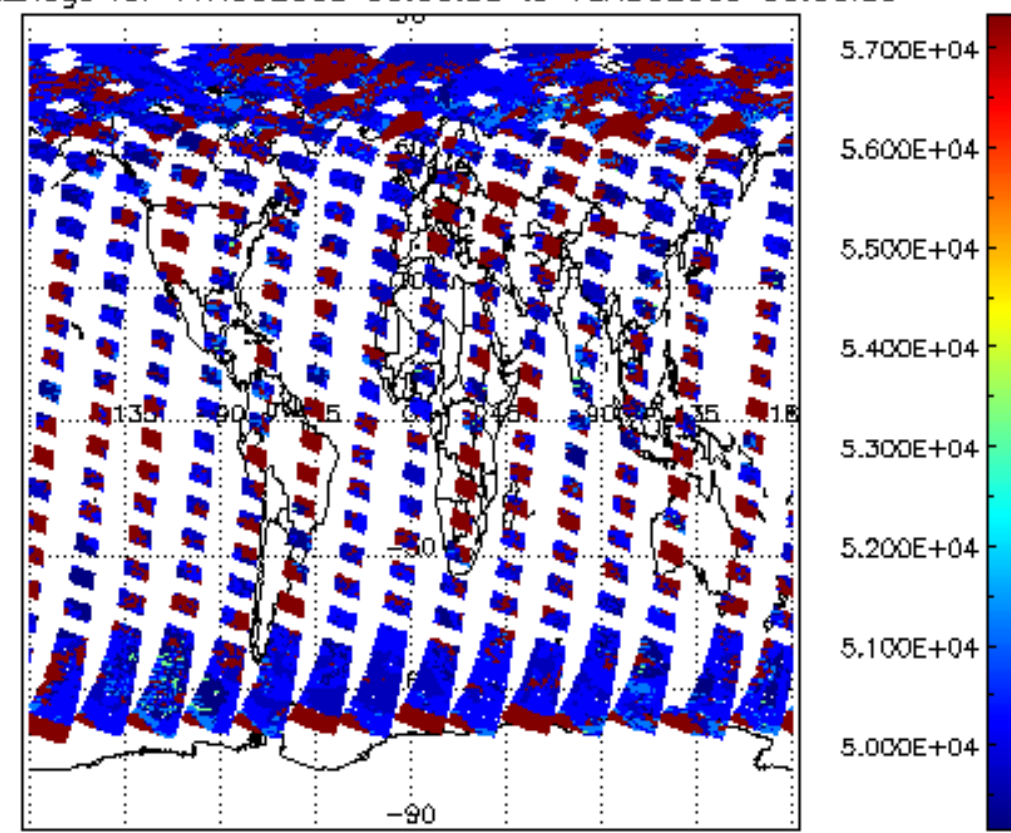
cL\_top\_height for 17AUG2009 00:00:00 to 18AUG2009 00:00:00



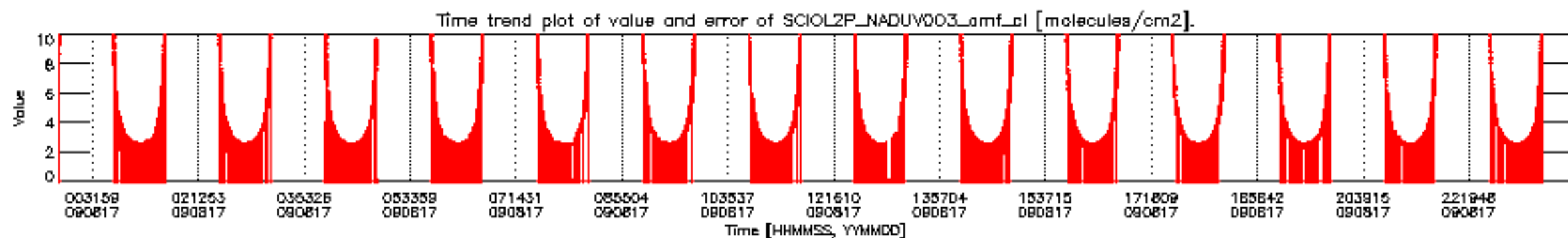
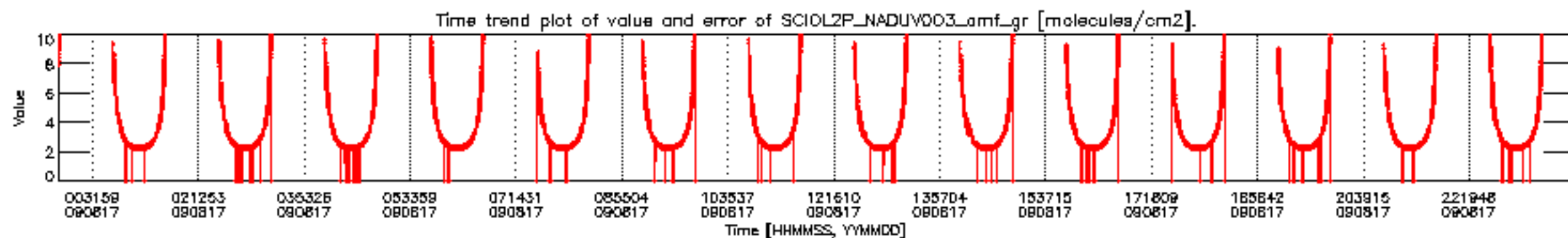
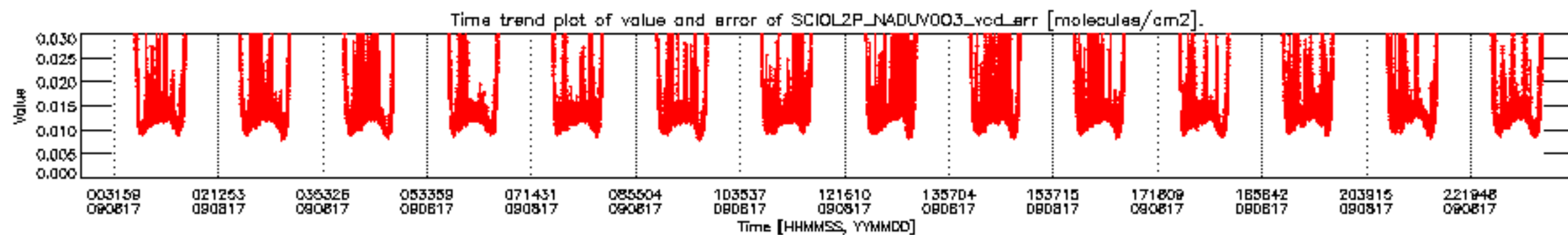
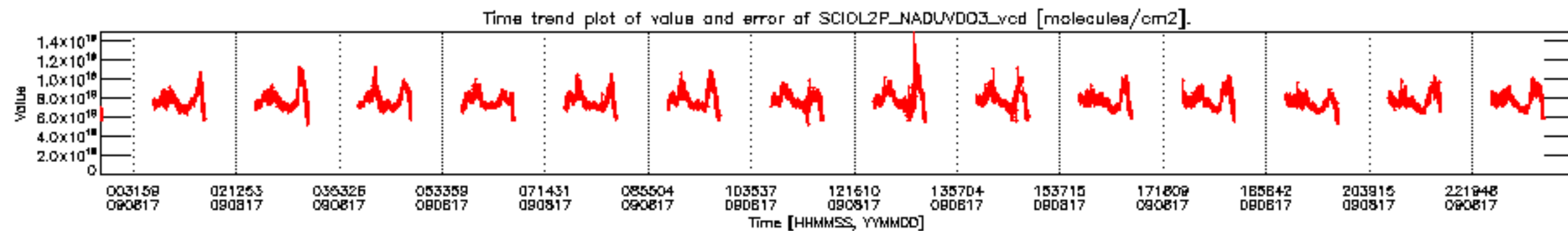
cL\_opt\_depth for 17AUG2009 00:00:00 to 18AUG2009 00:00:00



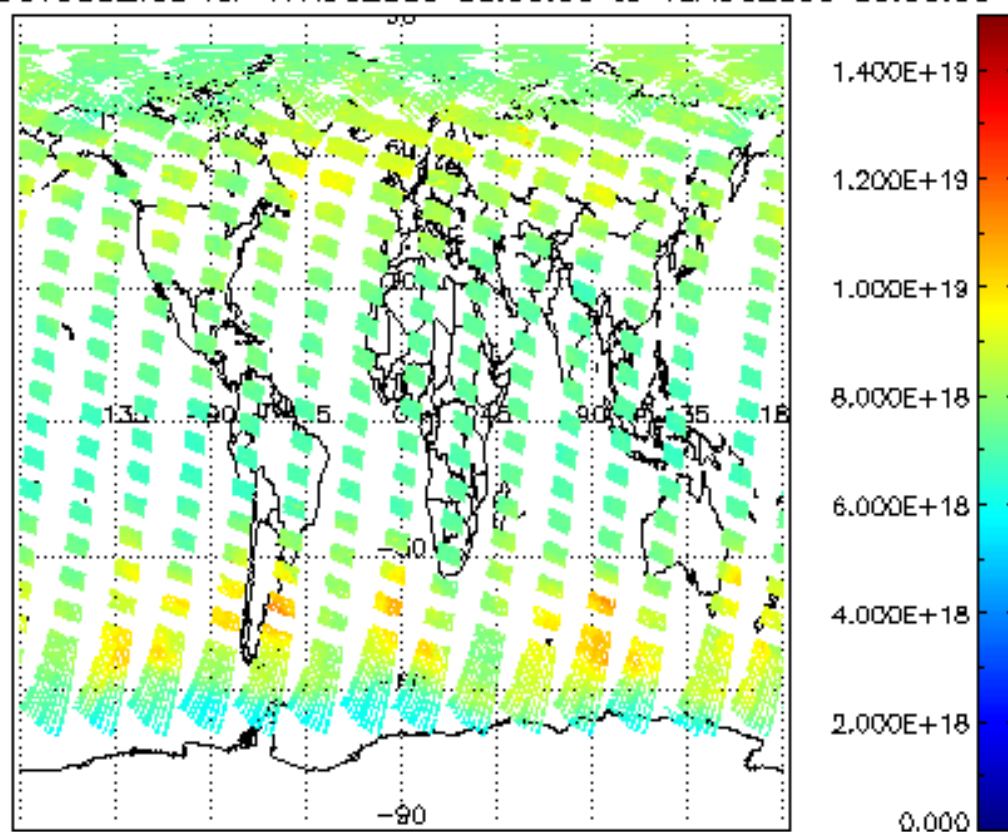
cloud\_flags for 17AUG2009 00:00:00 to 18AUG2009 00:00:00



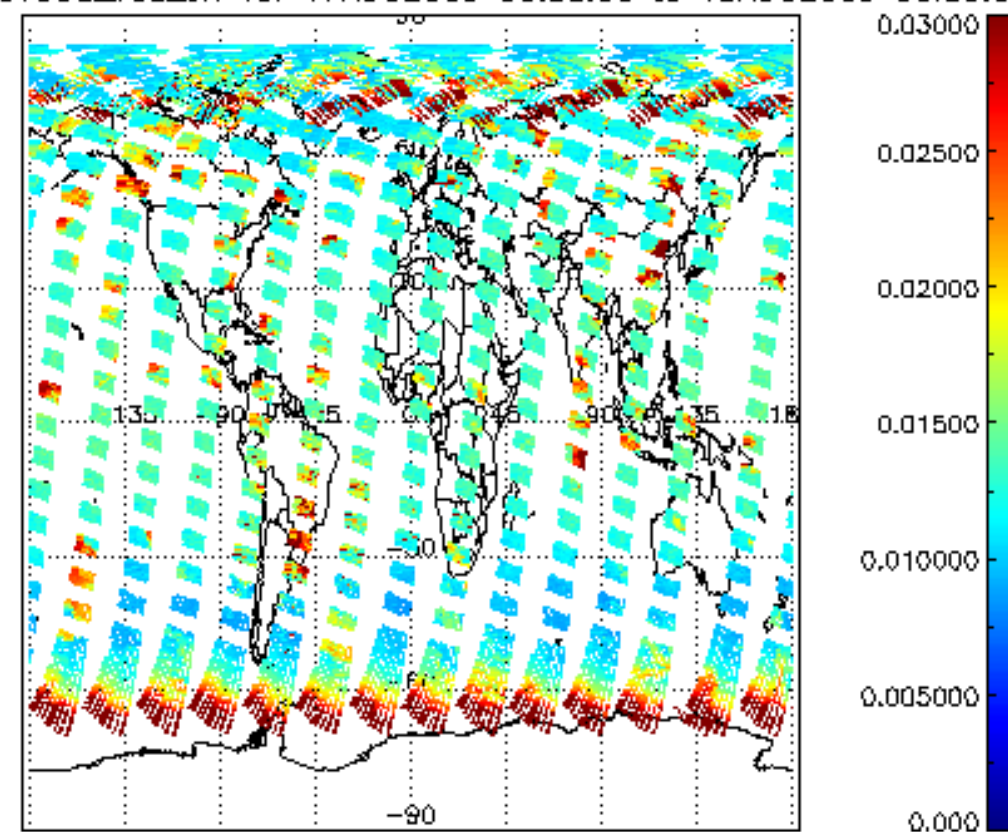




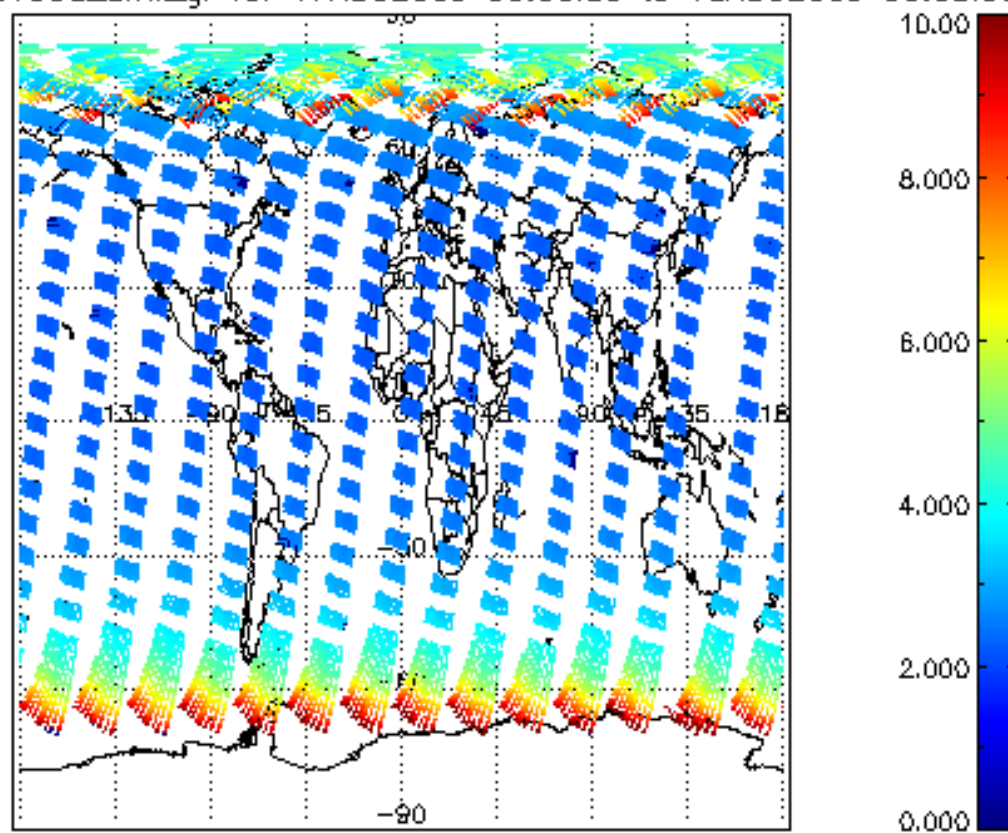
SCIOL2P\_NADUV003\_vcd for 17AUG2009 00:00:00 to 18AUG2009 00:00:00



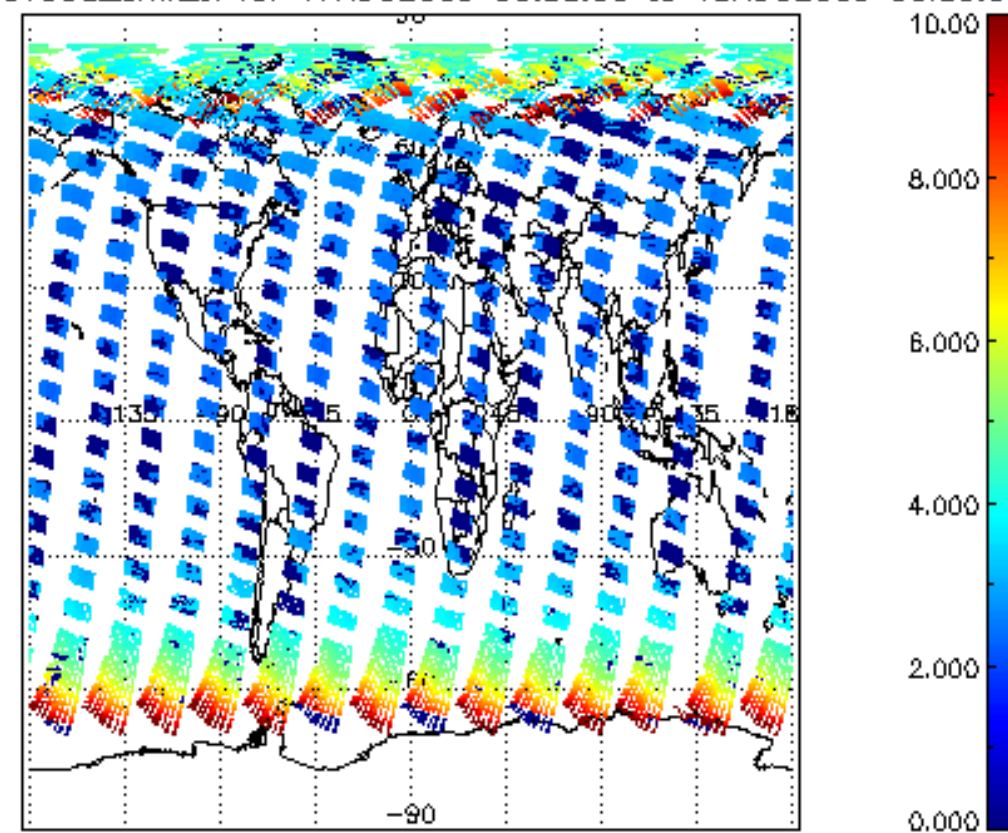
SCIOL2P\_NADUV003\_vcd\_err for 17AUG2009 00:00:00 to 18AUG2009 00:00:00



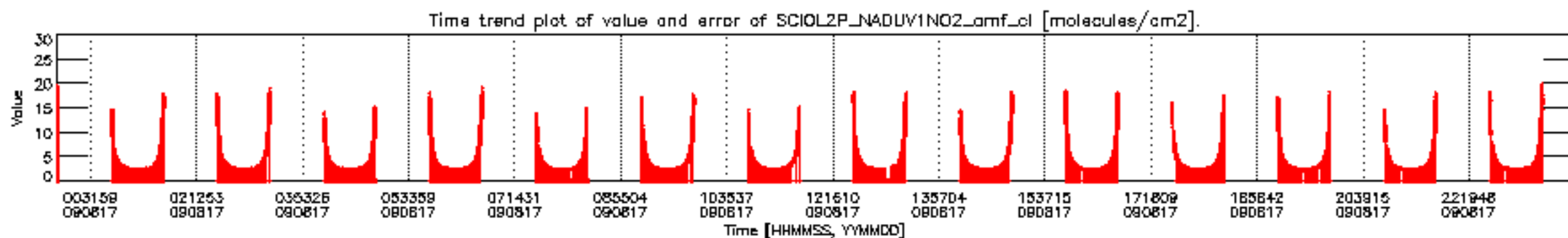
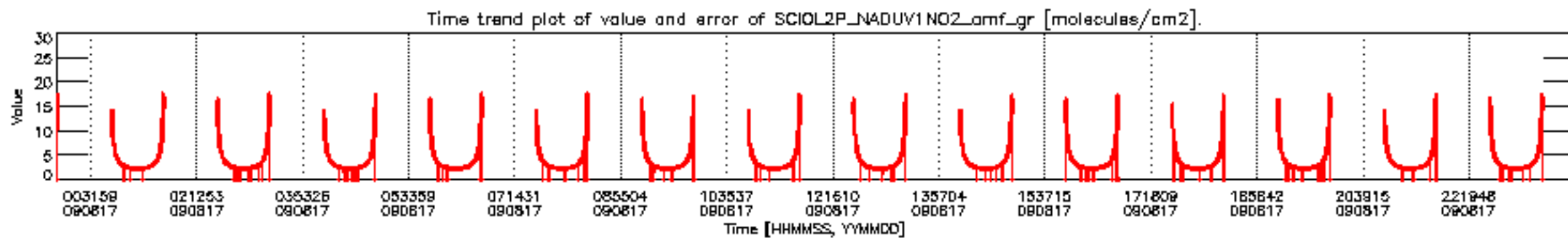
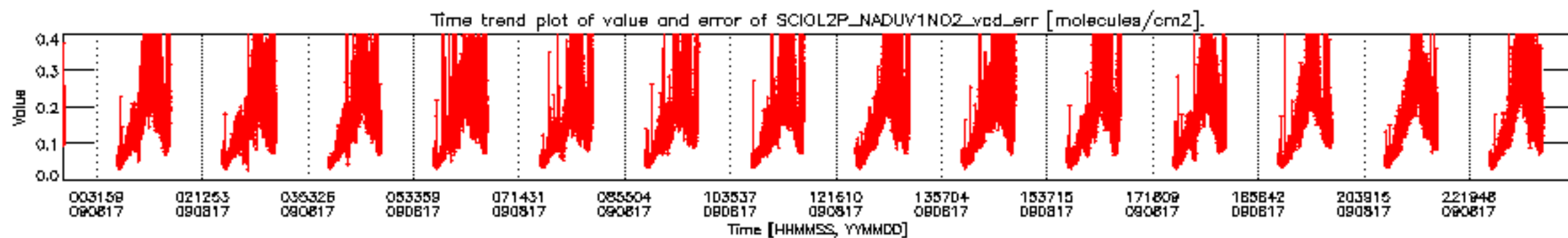
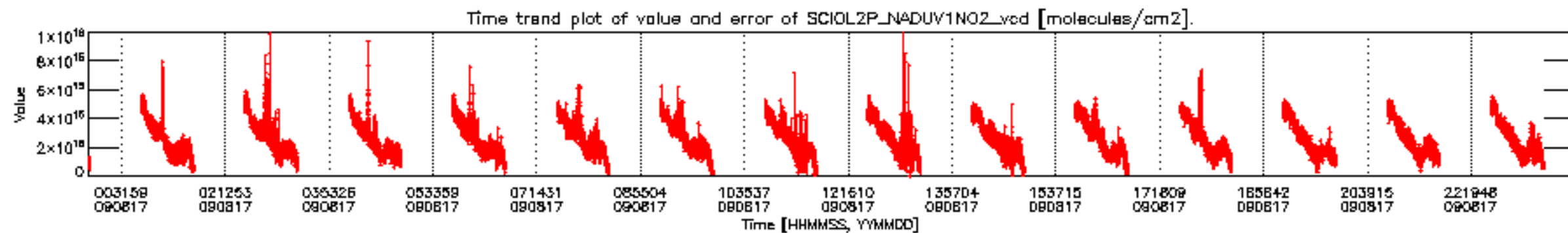
SCIOL2P\_NADUV003\_amf\_gr for 17AUG2009 00:00:00 to 18AUG2009 00:00:00



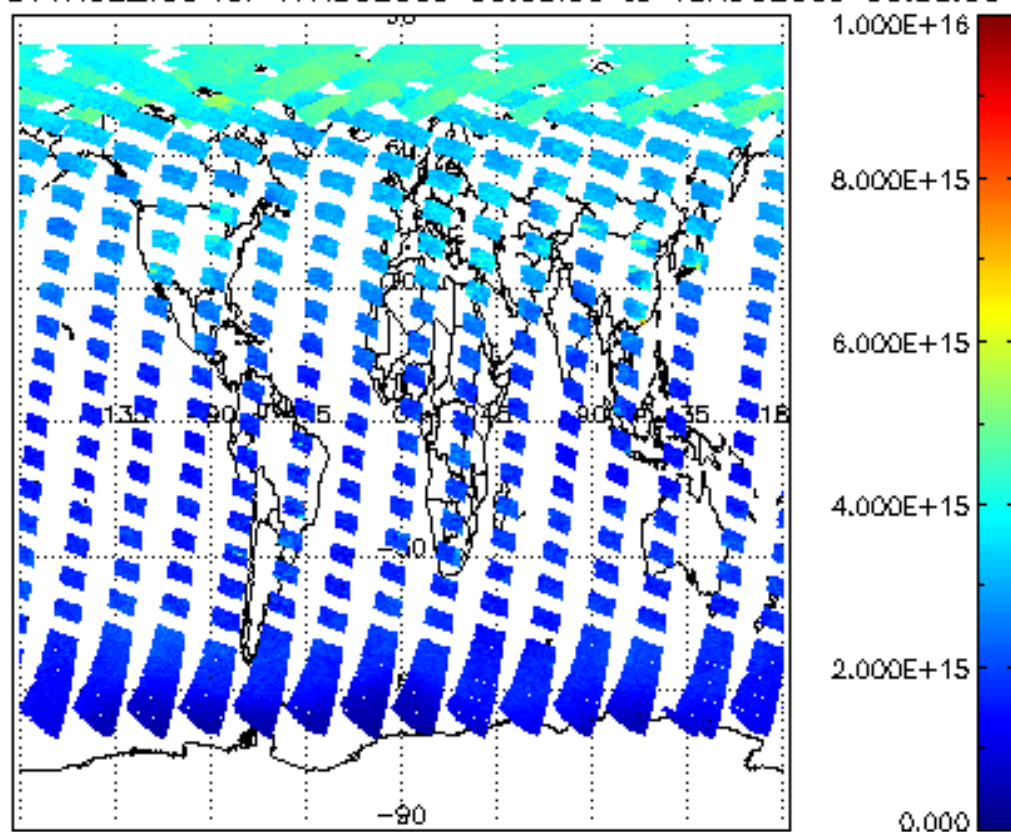
SCIOL2P\_NADUV003\_amf\_cl for 17AUG2009 00:00:00 to 18AUG2009 00:00:00



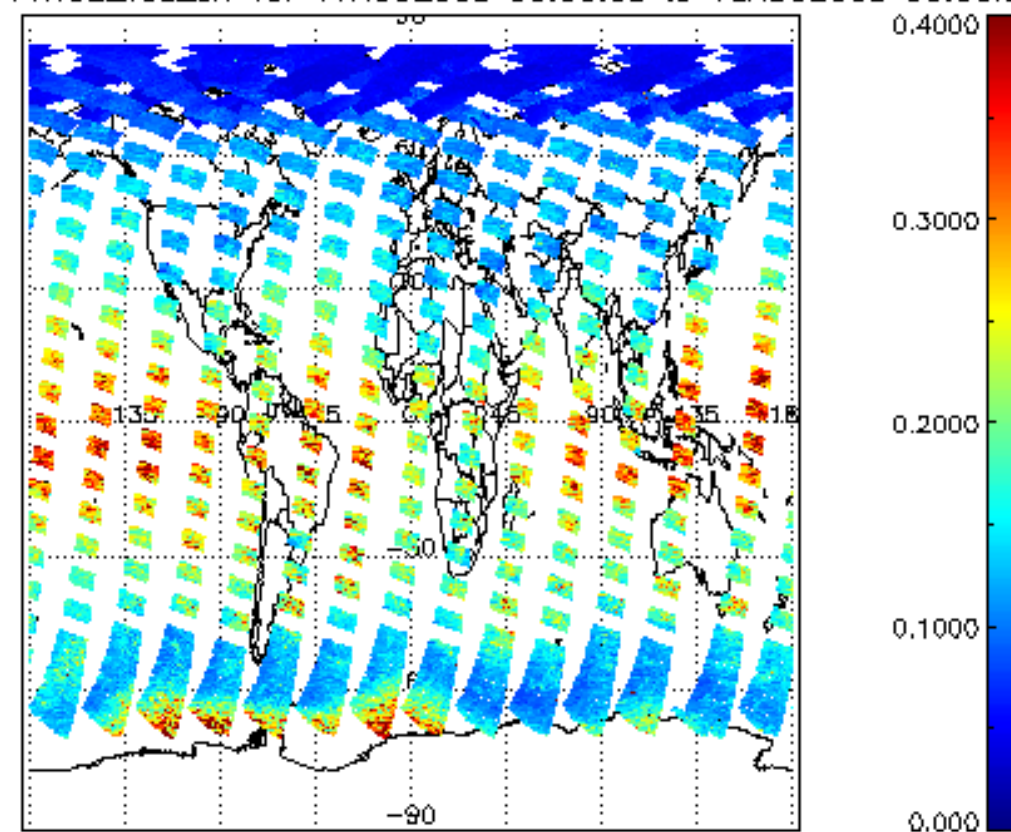




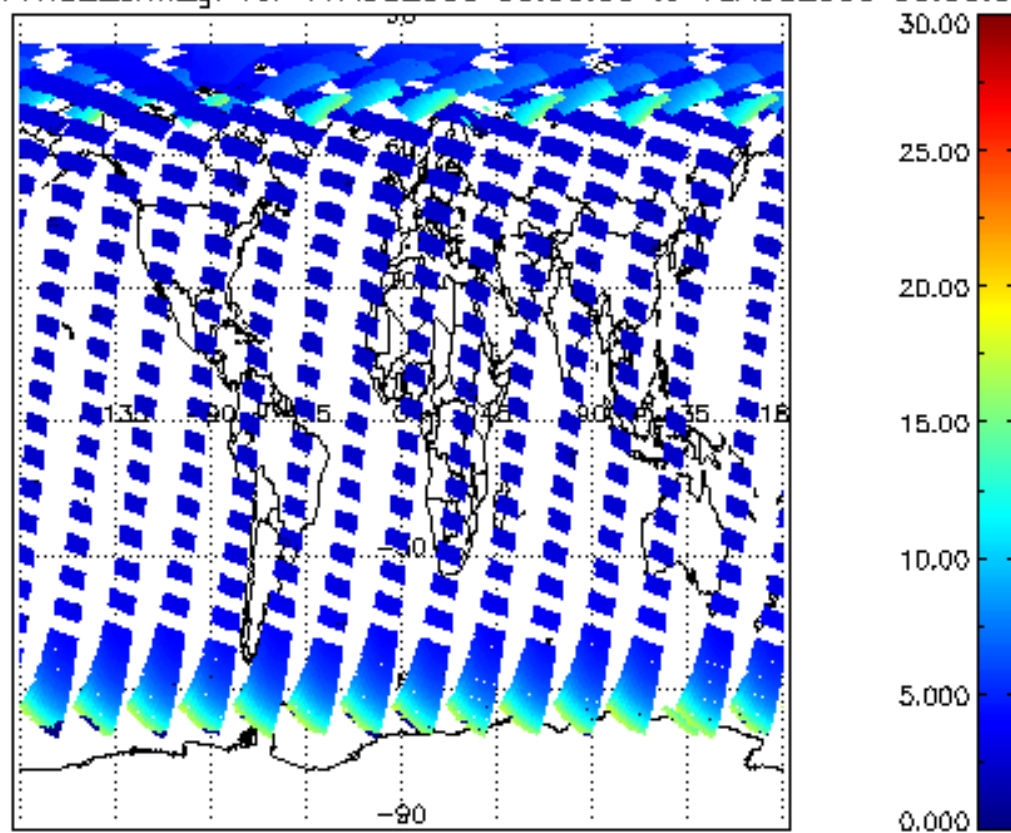
SCIOL2P\_NADUV1NO2\_vcd for 17AUG2009 00:00:00 to 18AUG2009 00:00:00



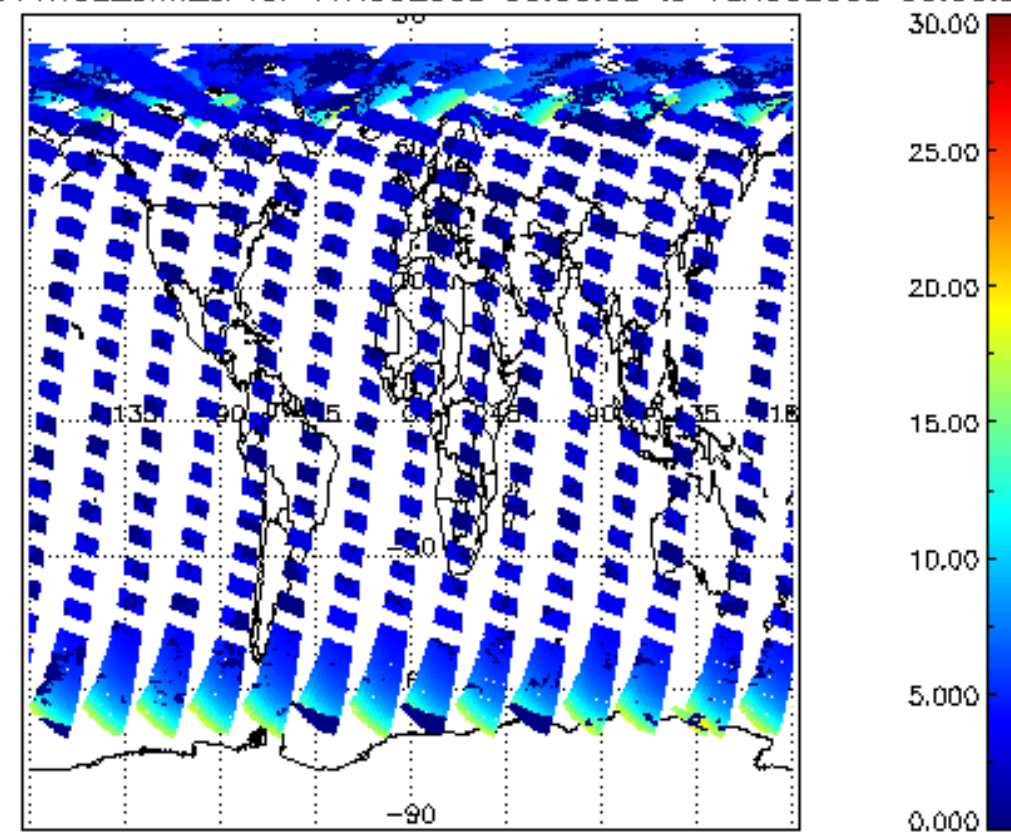
SCIOL2P\_NADUV1NO2\_vcd\_err for 17AUG2009 00:00:00 to 18AUG2009 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 17AUG2009 00:00:00 to 18AUG2009 00:00:00

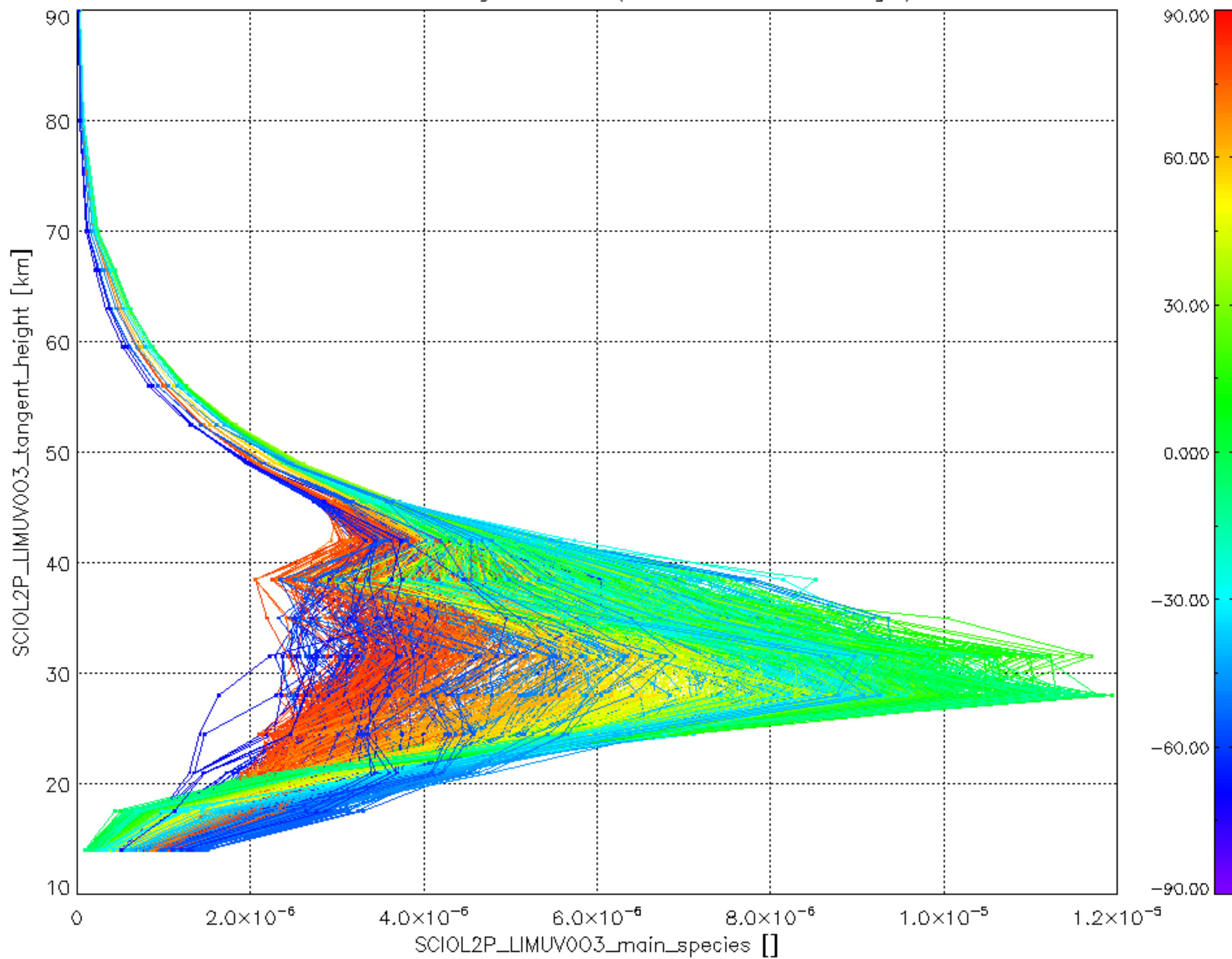


SCIOL2P\_NADUV1NO2\_amf\_cl for 17AUG2009 00:00:00 to 18AUG2009 00:00:00





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).

