

## 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	1.4 (06-11-2007)
Time of report generation	17APR2008 07:51:58
Data source version	SCIA-OL/3.01-R
Processing scope for products	17OCT2002 00:00:00 to 18OCT2002 00:00:00
Start time of first product within scope	17OCT2002 01:39:56
Stop time of last product within scope	18OCT2002 00:23:21
Total number of level 2 products	13
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__2PRDPA20021017_013956_000033242010_00232_03292_1355.N1	17OCT2002 01:39:56	17OCT2002 02:35:21	0	GOOD
1	SCI_OL__2PRDPA20021017_032033_000033242010_00233_03293_1372.N1	17OCT2002 03:20:33	17OCT2002 04:15:57	0	GOOD
2	SCI_OL__2PRDPA20021017_064145_000033242010_00235_03295_1181.N1	17OCT2002 06:41:45	17OCT2002 07:37:10	0	GOOD
3	SCI_OL__2PRDPA20021017_082222_000033242010_00236_03296_1353.N1	17OCT2002 08:22:22	17OCT2002 09:17:46	0	GOOD
4	SCI_OL__2PRDPA20021017_100258_000033242010_00237_03297_1149.N1	17OCT2002 10:02:58	17OCT2002 10:58:22	0	GOOD
5	SCI_OL__2PRDPA20021017_114334_000033242010_00238_03298_1406.N1	17OCT2002 11:43:34	17OCT2002 12:38:59	0	GOOD
6	SCI_OL__2PRDPA20021017_132411_000033242010_00239_03299_1226.N1	17OCT2002 13:24:11	17OCT2002 14:19:35	0	GOOD
7	SCI_OL__2PRDPA20021017_150447_000033242010_00240_03300_1275.N1	17OCT2002 15:04:47	17OCT2002 16:00:11	0	GOOD
8	SCI_OL__2PRDPA20021017_164524_000033242010_00241_03301_1101.N1	17OCT2002 16:45:24	17OCT2002 17:40:48	0	GOOD
9	SCI_OL__2PRDPA20021017_182600_000033242010_00242_03302_1340.N1	17OCT2002 18:26:00	17OCT2002 19:21:24	0	GOOD
10	SCI_OL__2PRDPA20021017_200612_000033772010_00243_03303_1065.N1	17OCT2002 20:06:12	17OCT2002 21:02:29	0	GOOD
11	SCI_OL__2PRDPA20021017_214720_000033192010_00244_03304_1145.N1	17OCT2002 21:47:20	17OCT2002 22:42:40	0	GOOD
12	SCI_OL__2PRDPA20021017_232718_000033632010_00245_03305_1352.N1	17OCT2002 23:27:18	18OCT2002 00:23:21	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: 95835

Total number of cloud data DSRs with good quality flag (=0): 95835 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	95835	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	95835	0.21807	0.25000	0.12500	0.50000	0.079112	s
SURFACE_PRES	95835	0.0000	0.0000	0.0000	0.0000	0.0000	hPa
CL_FRAC	95835	0.44794	0.41947	0.0000	1.0000	0.29750	-
CL_FRAC_ERR	95835	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	95835	6.9782	8.0000	4.0000	16.000	2.5316	

PMD_READ_CL[0]	95835	0.43269	0.0000	0.0000	16.000	1.4367	-
PMD_READ_CL[1]	95835	0.43012	0.0000	0.0000	16.000	1.5663	-
CL_TOP_HEIGHT	87043	4.0660	2.3302	0.0000	17.000	4.0017	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	87043	48.710	35.258	0.0000	101.00	37.667	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	95835	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	95835	11000110	11000010	11000000	11100000	2473.8	flags
AERO_ABSO_IND	95835	0.37346	0.25994	-4.1676	8.9865	0.97025	
AERO_IND_DIAG	95835	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	95835	01101011	11000000	00000000	11000000	24409.	flags

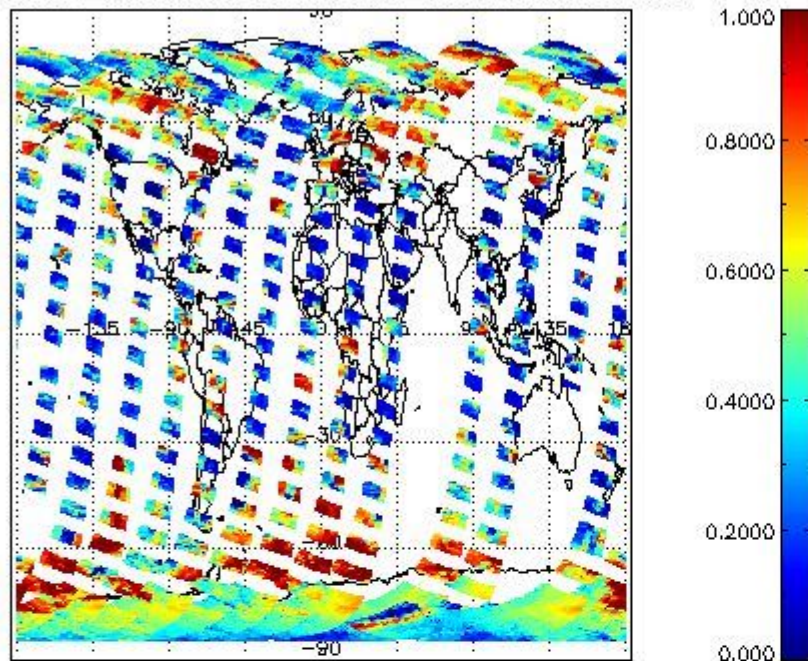
Time and geolocation plots:

Plots are available for the following parameters:

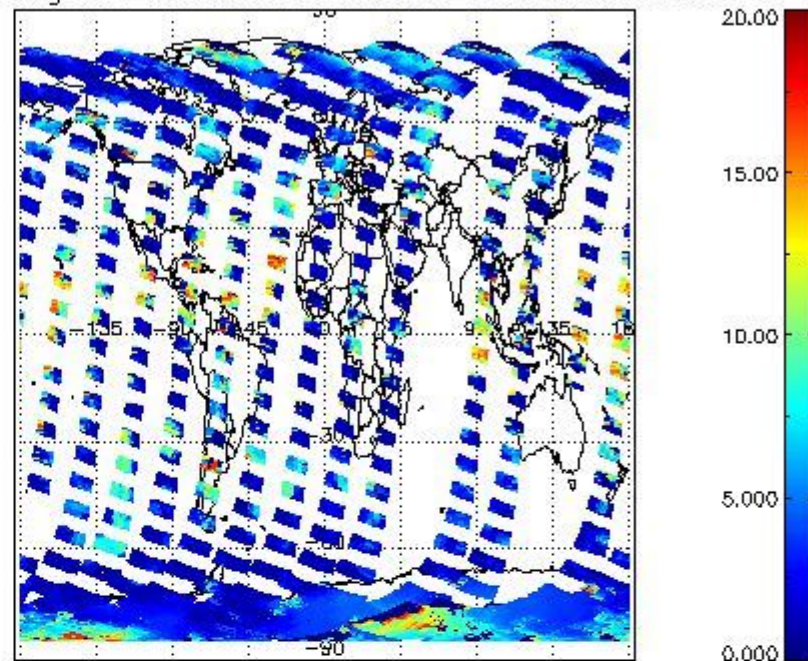
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



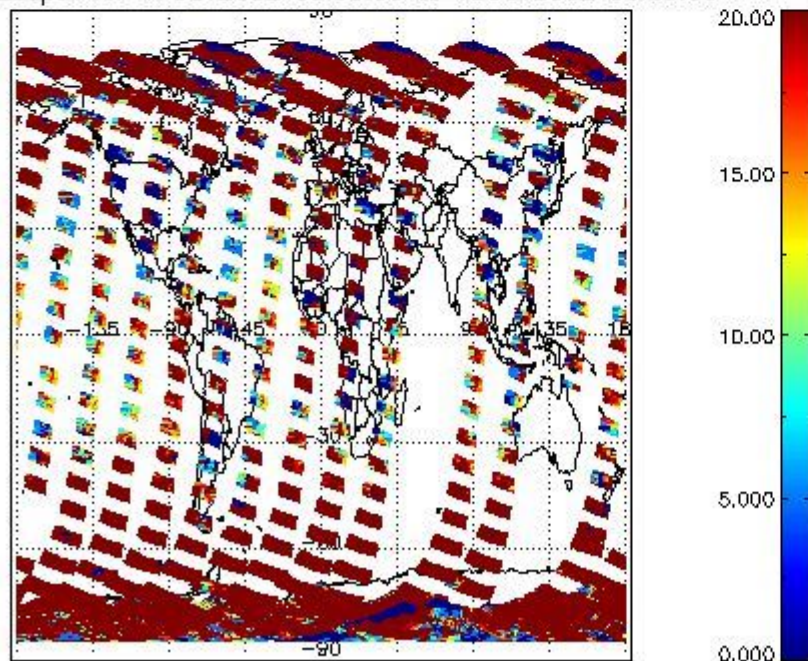
cLfrac for 17OCT2002 00:00:00 to 18OCT2002 00:00:00



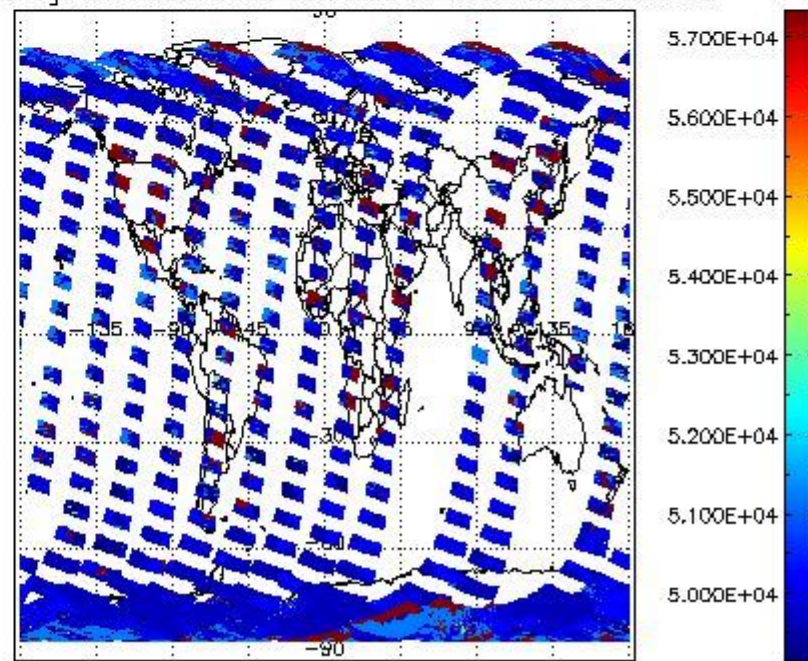
cL\_top\_height for 17OCT2002 00:00:00 to 18OCT2002 00:00:00



cLopt\_depth for 17OCT2002 00:00:00 to 18OCT2002 00:00:00



cloud\_flags for 17OCT2002 00:00:00 to 18OCT2002 00:00:00



### 2.2.2 Nadir

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

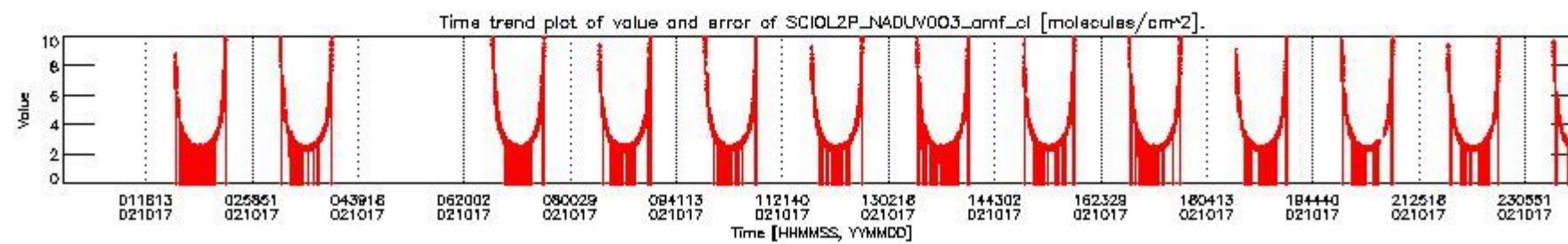
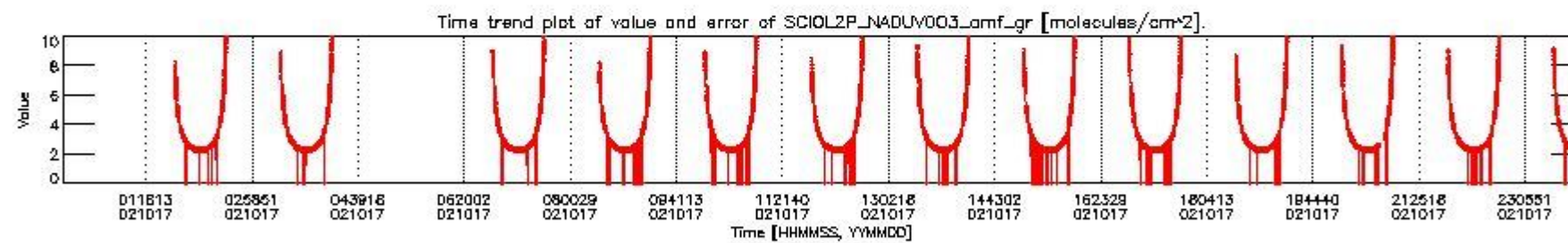
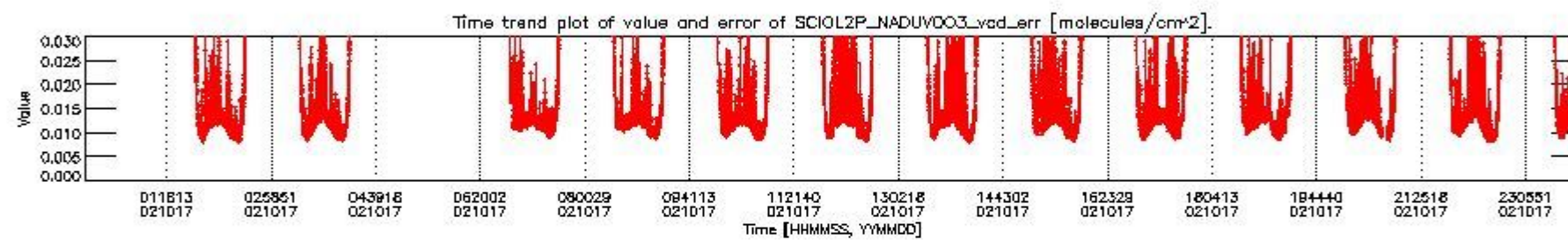
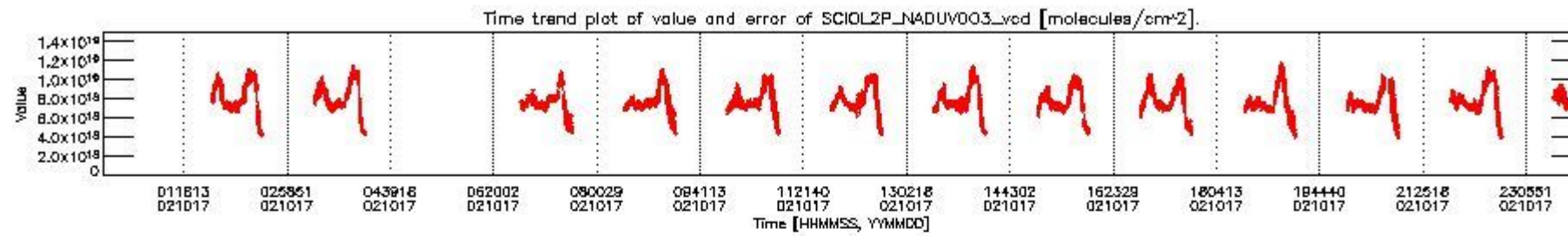
The following data items are currently included into this section:

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



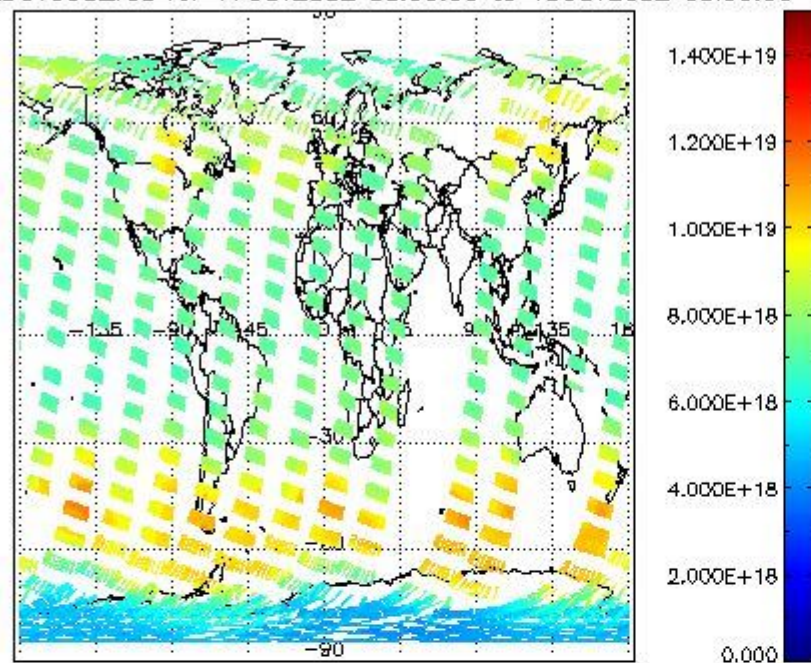
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

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.

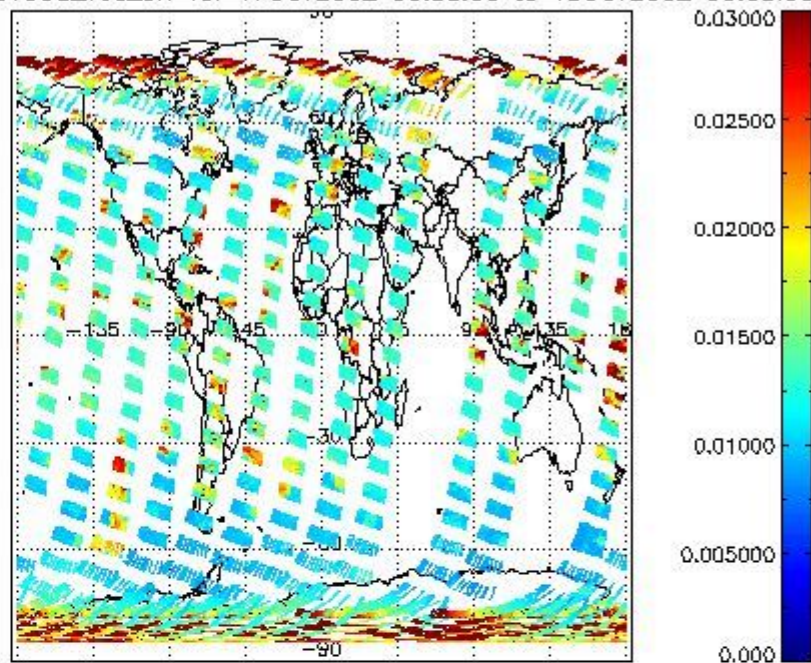




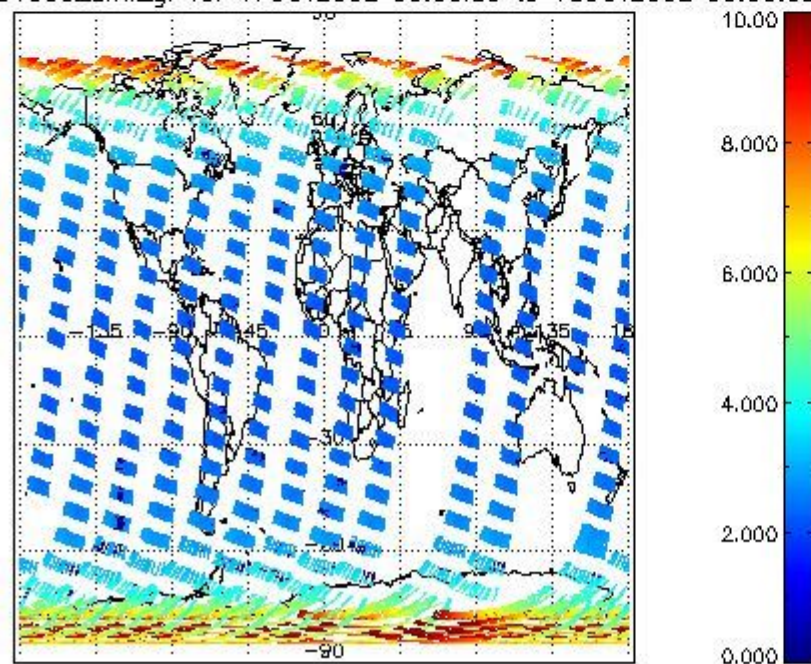
SCIOL2P\_NADUV003\_vcd for 17OCT2002 00:00:00 to 18OCT2002 00:00:00



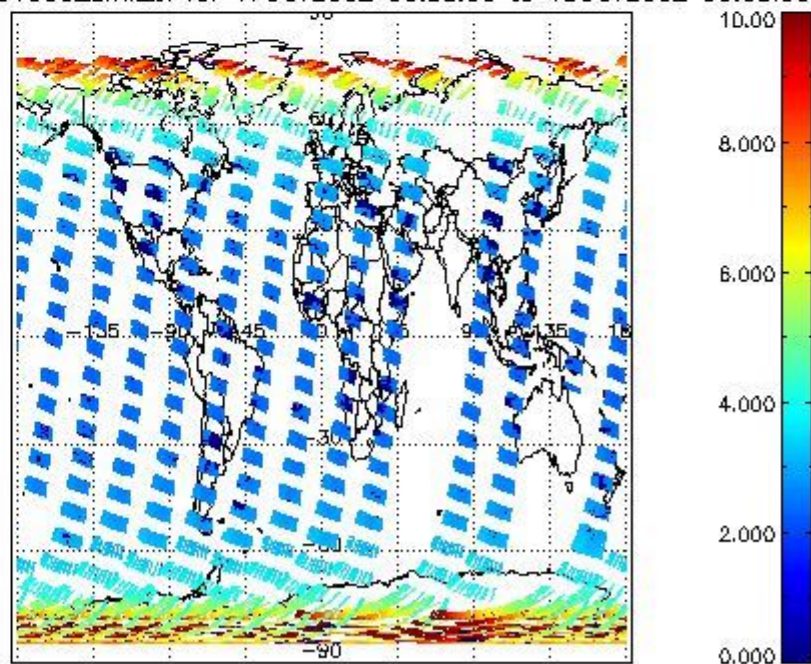
SCIOL2P\_NADUV003\_vcd\_err for 17OCT2002 00:00:00 to 18OCT2002 00:00:00



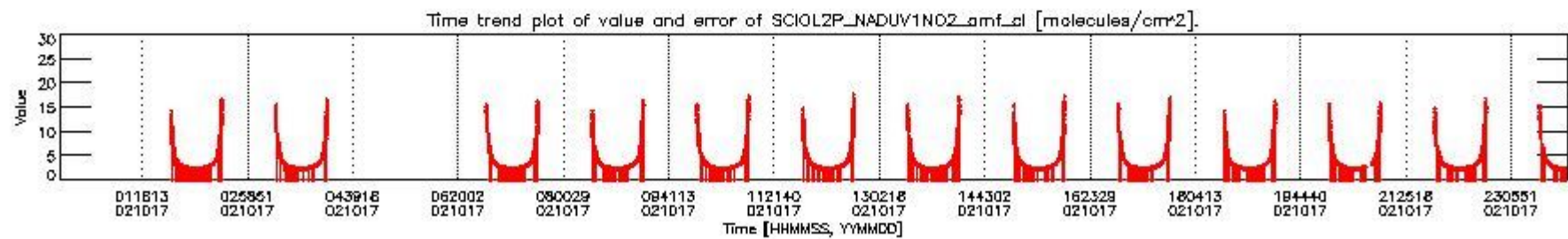
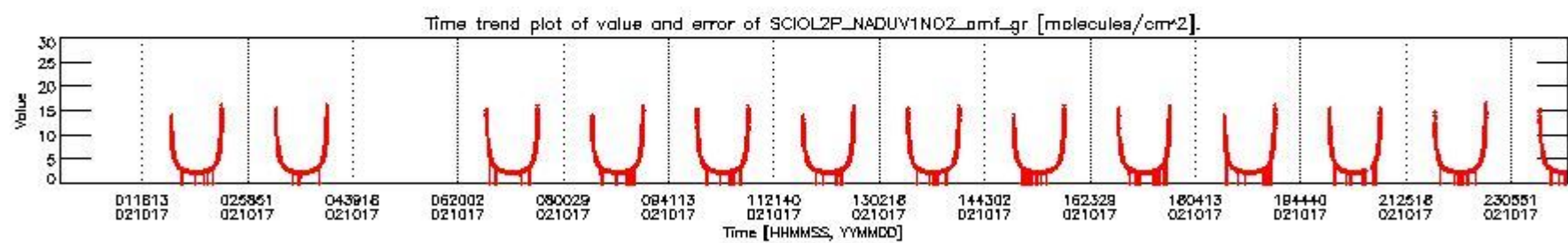
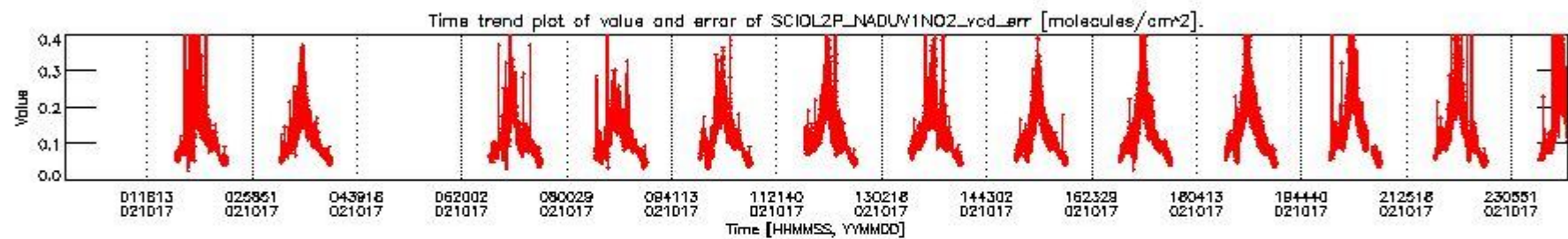
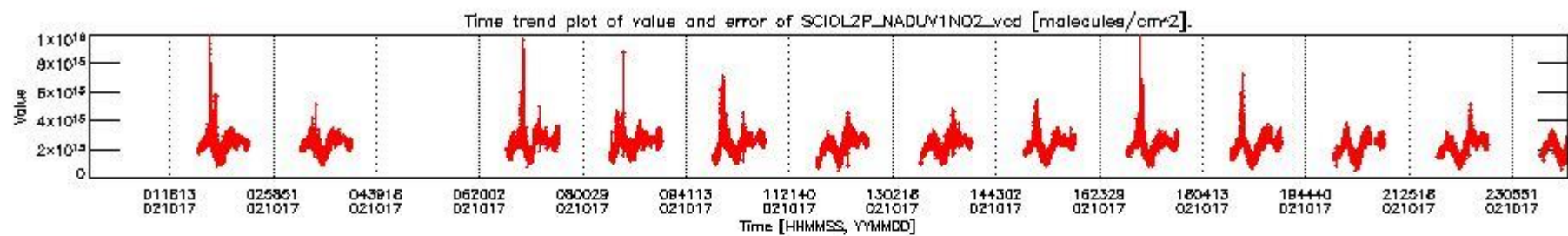
SCIOL2P\_NADUV003\_amf\_gr for 17OCT2002 00:00:00 to 18OCT2002 00:00:00



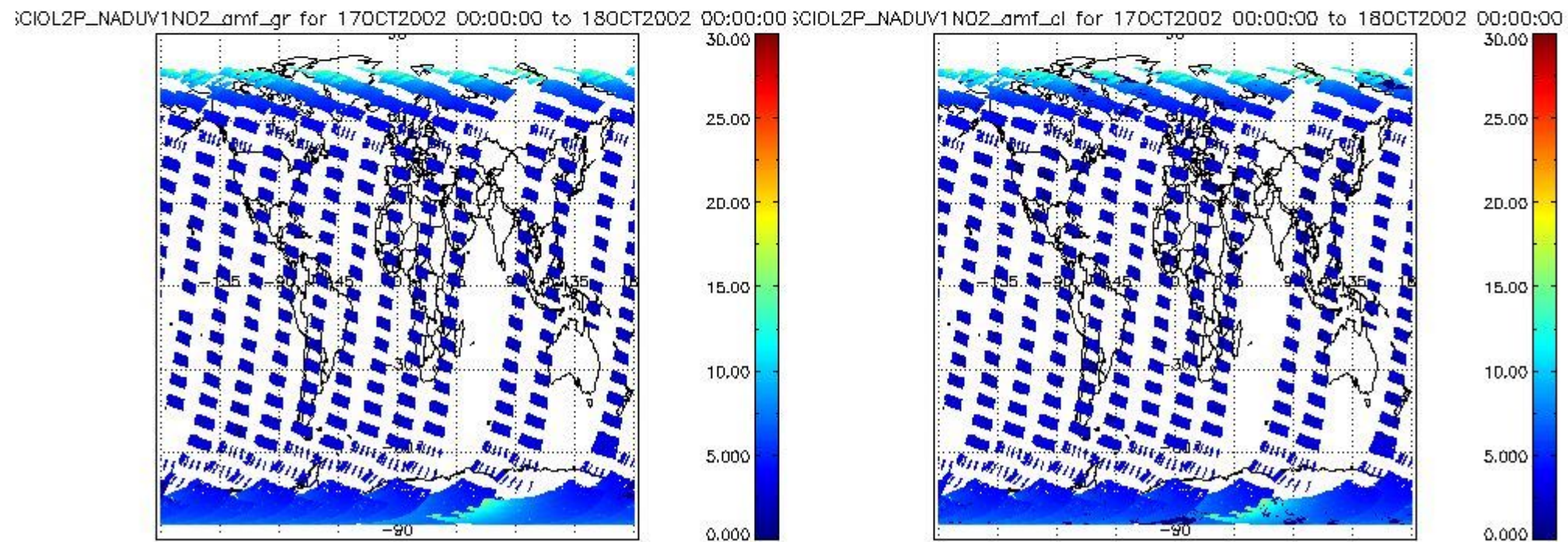
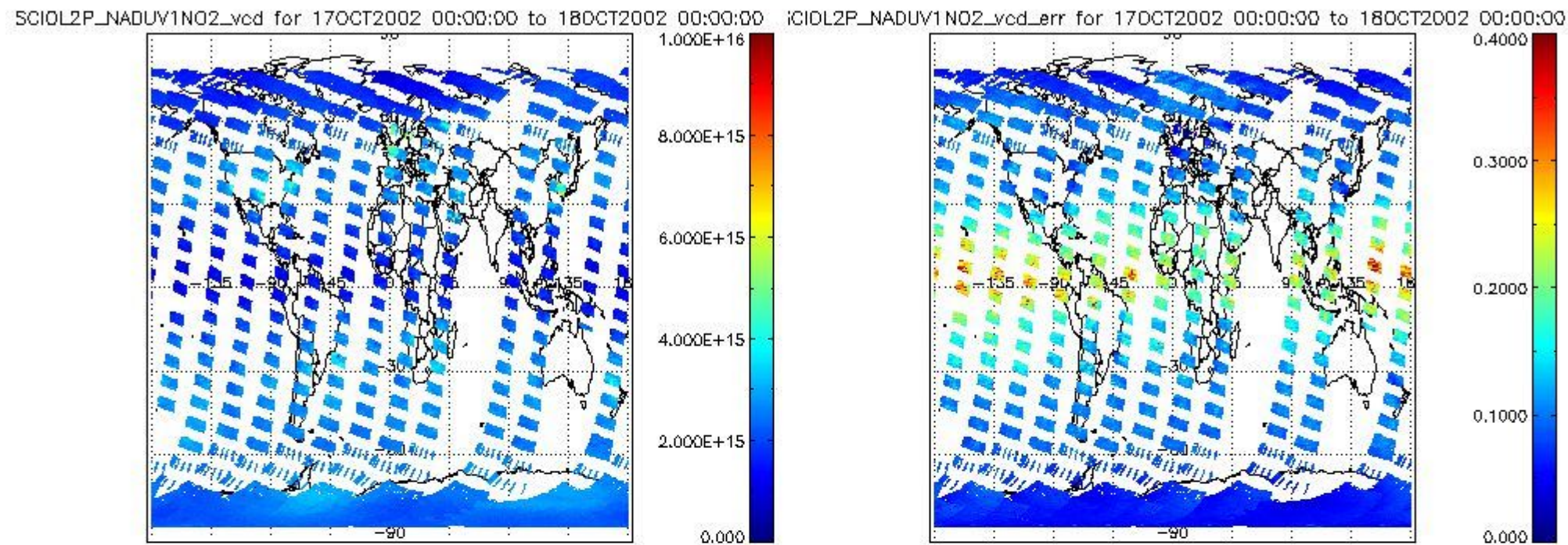
SCIOL2P\_NADUV003\_amf\_sl for 17OCT2002 00:00:00 to 18OCT2002 00:00:00











### 2.2.3 Limb

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

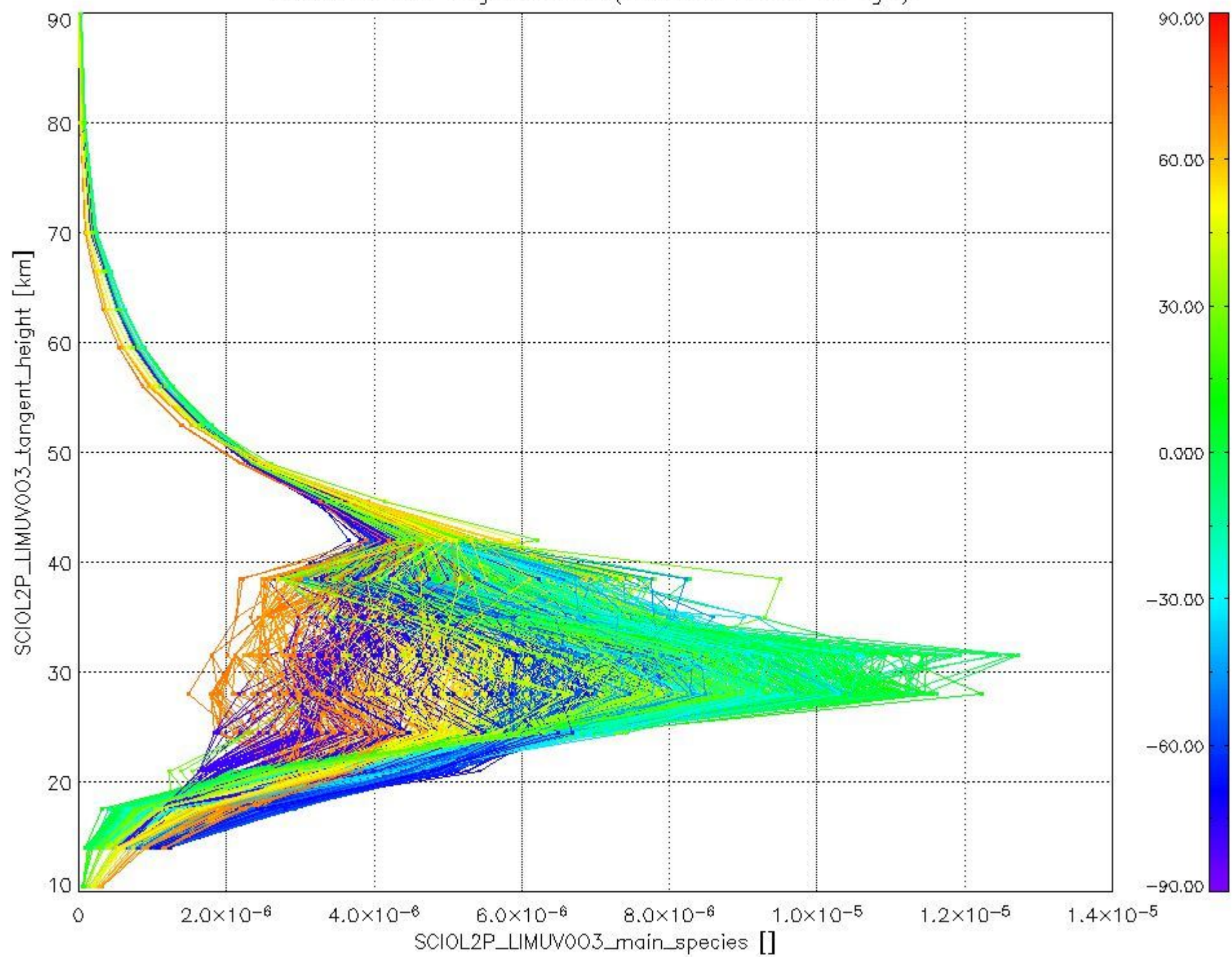
The following data items are currently included into this section:

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.

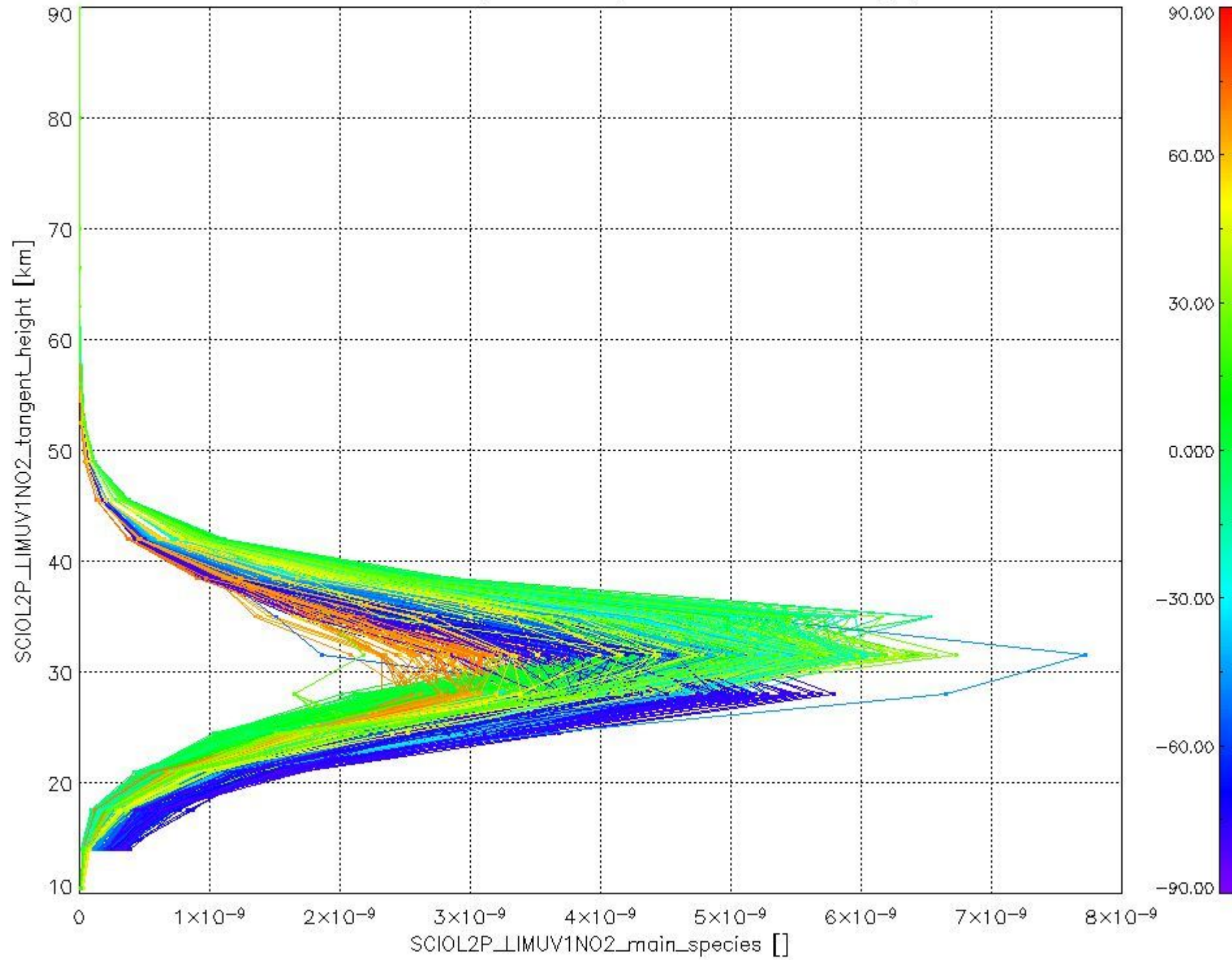


Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).





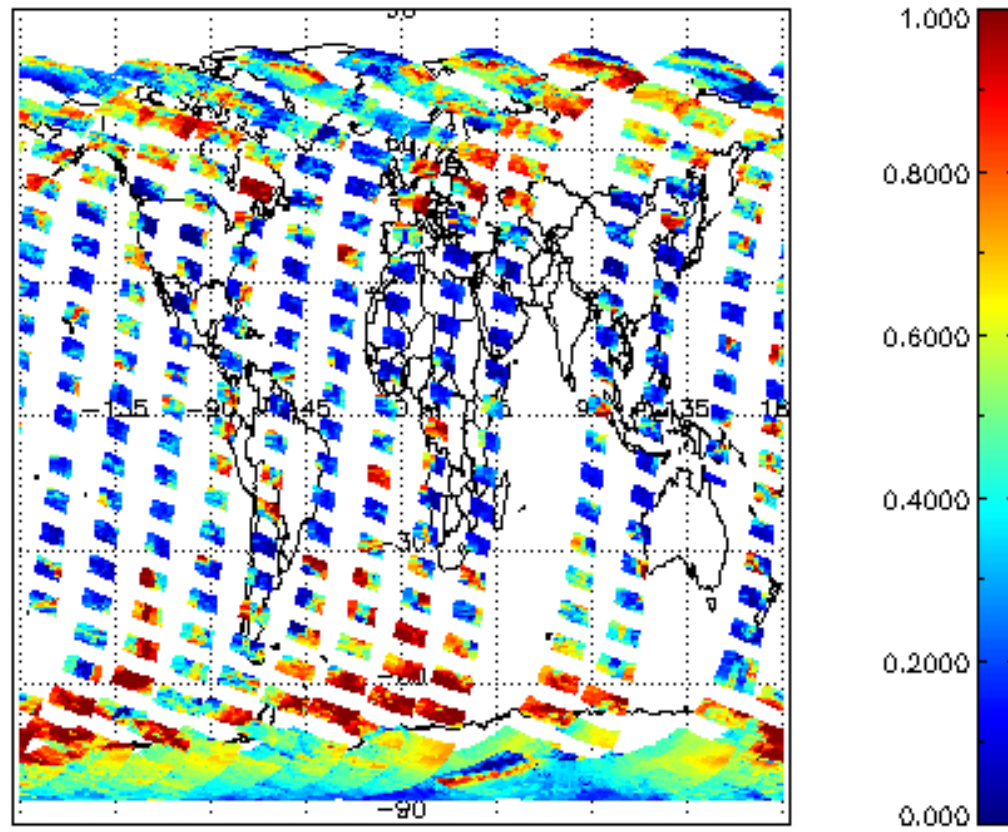
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



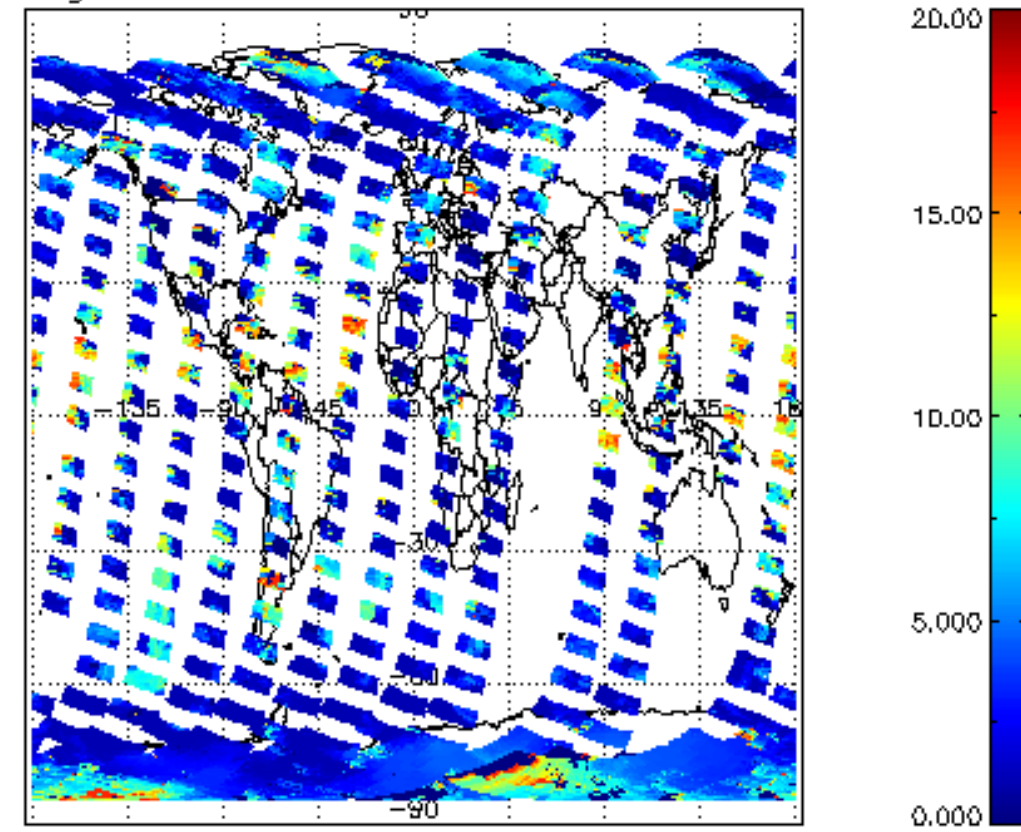
### 2.3 ADF monitoring

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

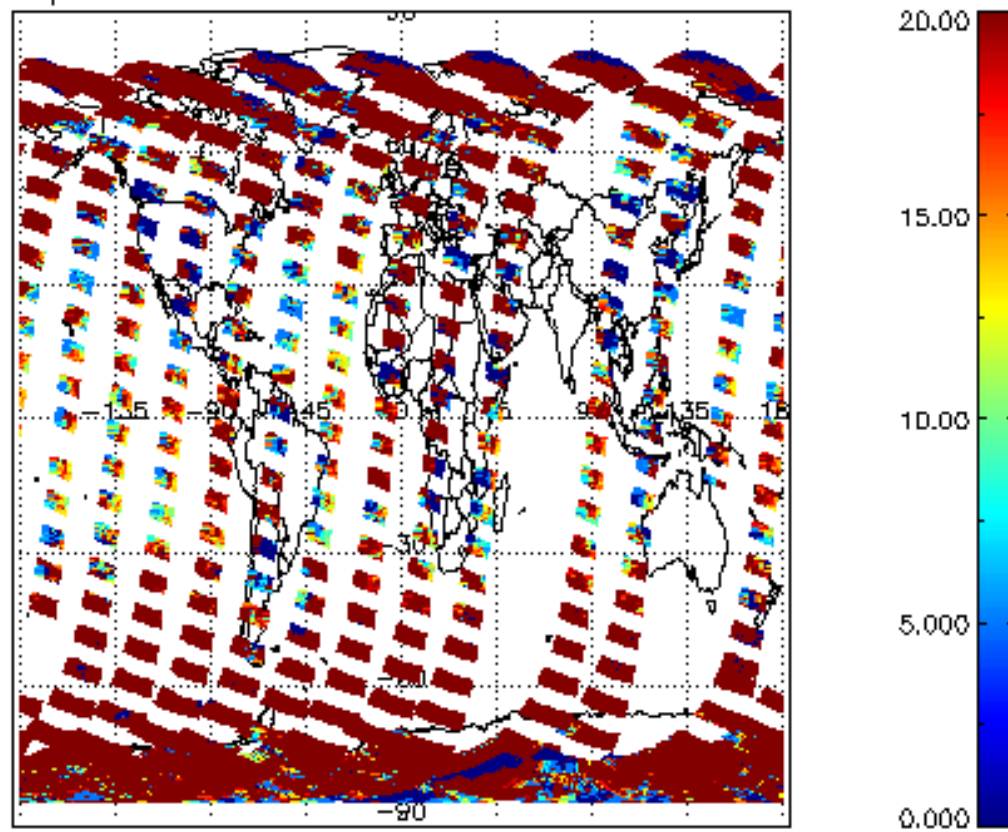
cl\_frac for 17OCT2002 00:00:00 to 18OCT2002 00:00:00



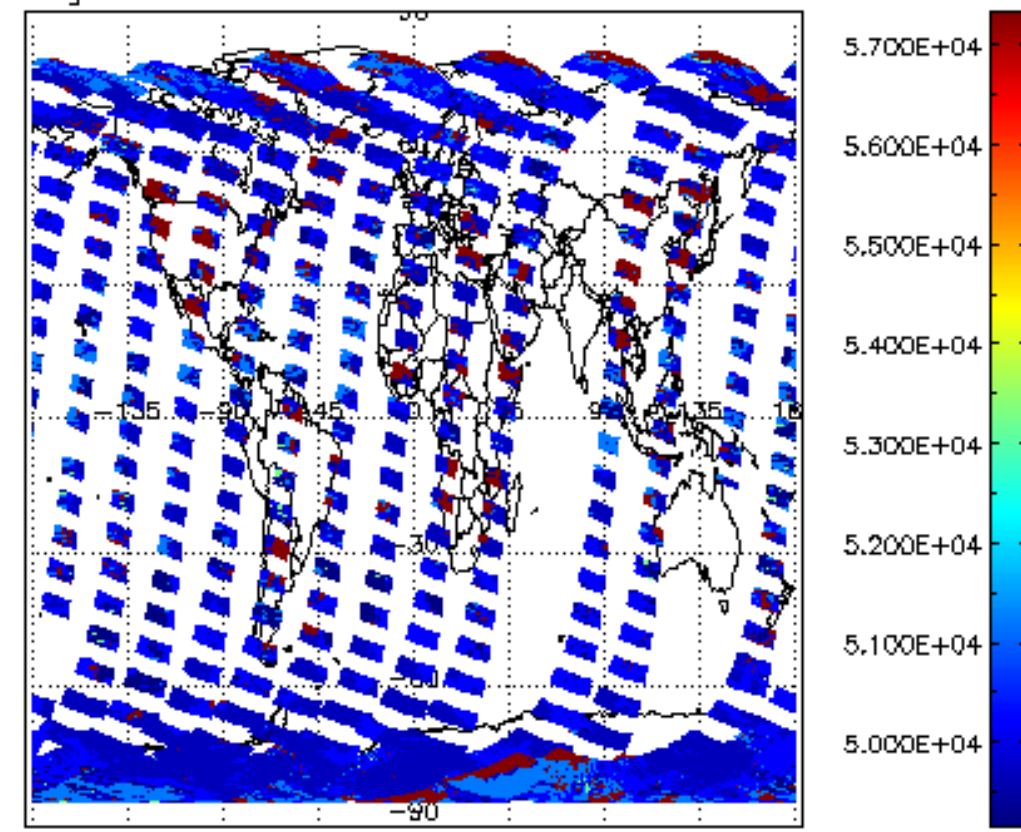
cl\_top\_height for 17OCT2002 00:00:00 to 18OCT2002 00:00:00



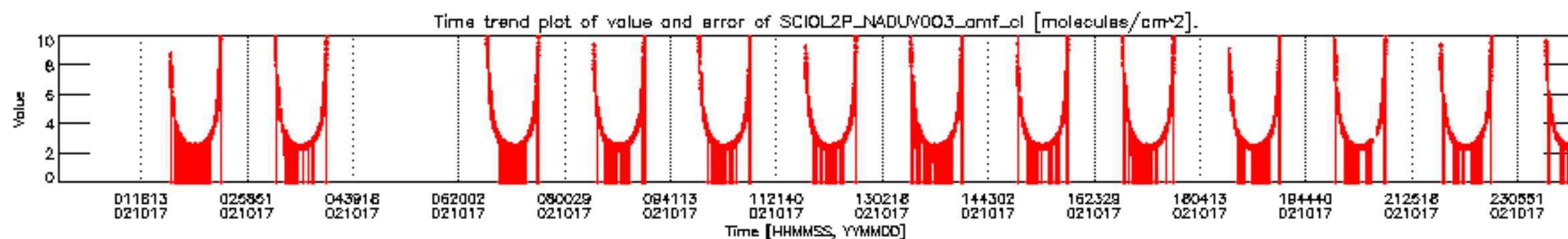
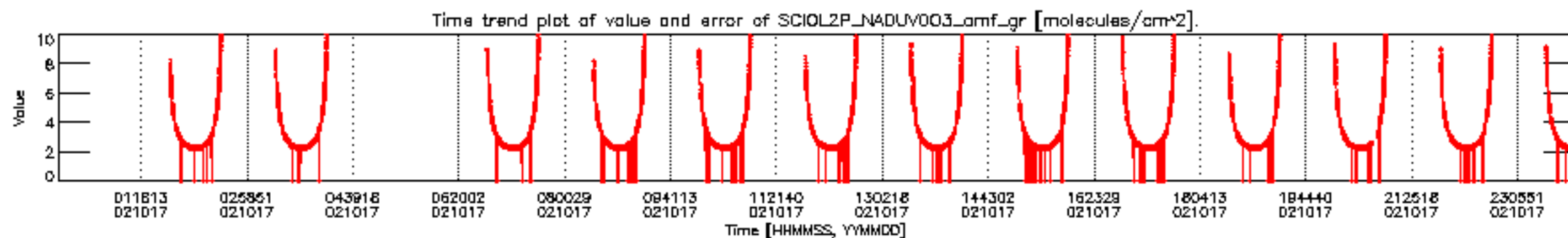
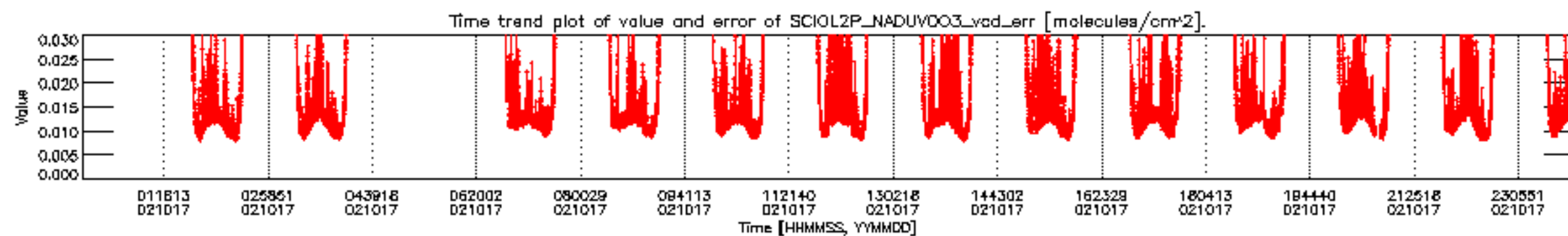
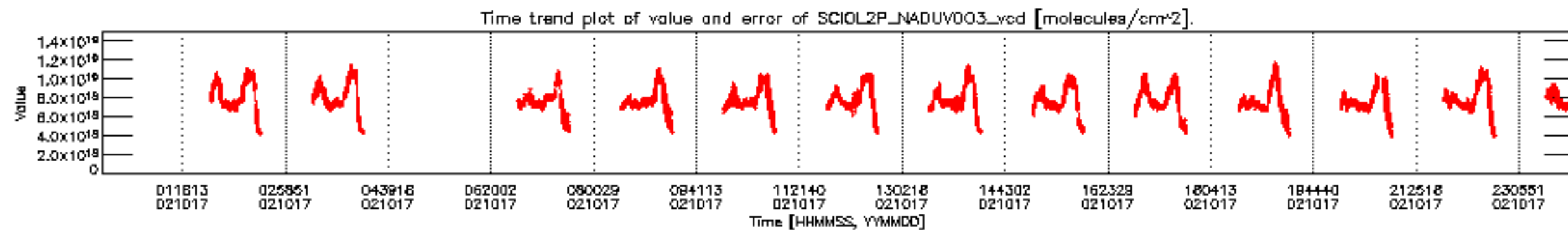
cl\_opt\_depth for 17OCT2002 00:00:00 to 18OCT2002 00:00:00



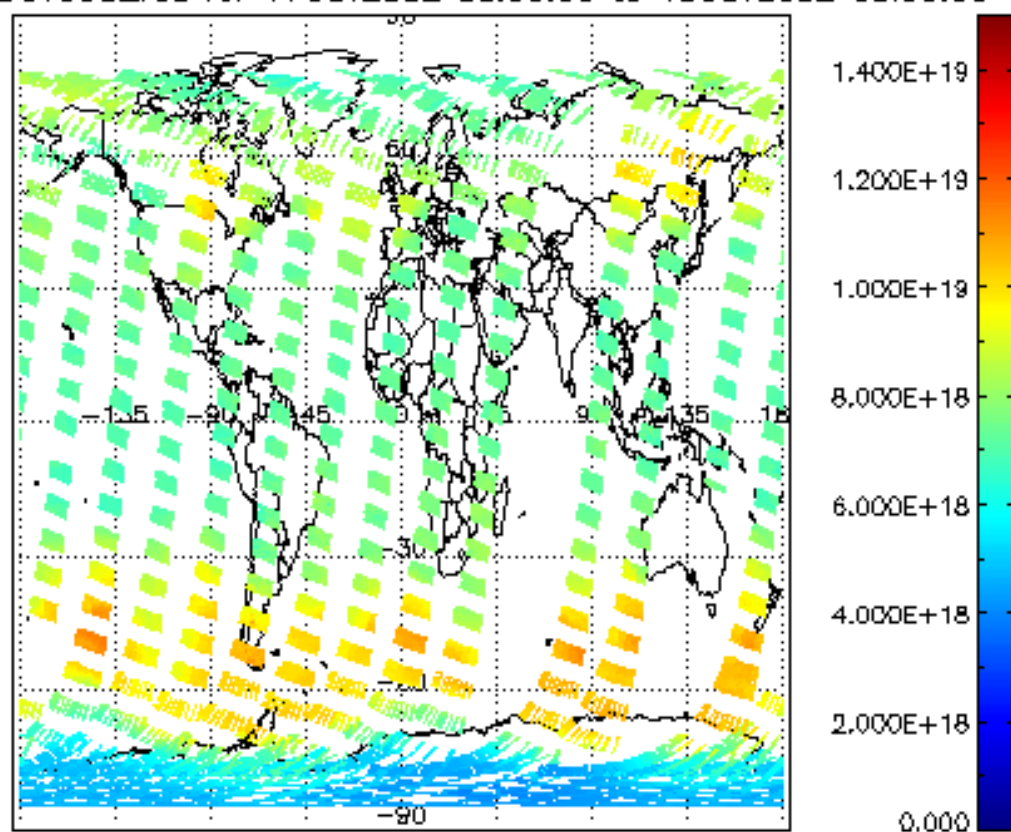
cloud\_flags for 17OCT2002 00:00:00 to 18OCT2002 00:00:00



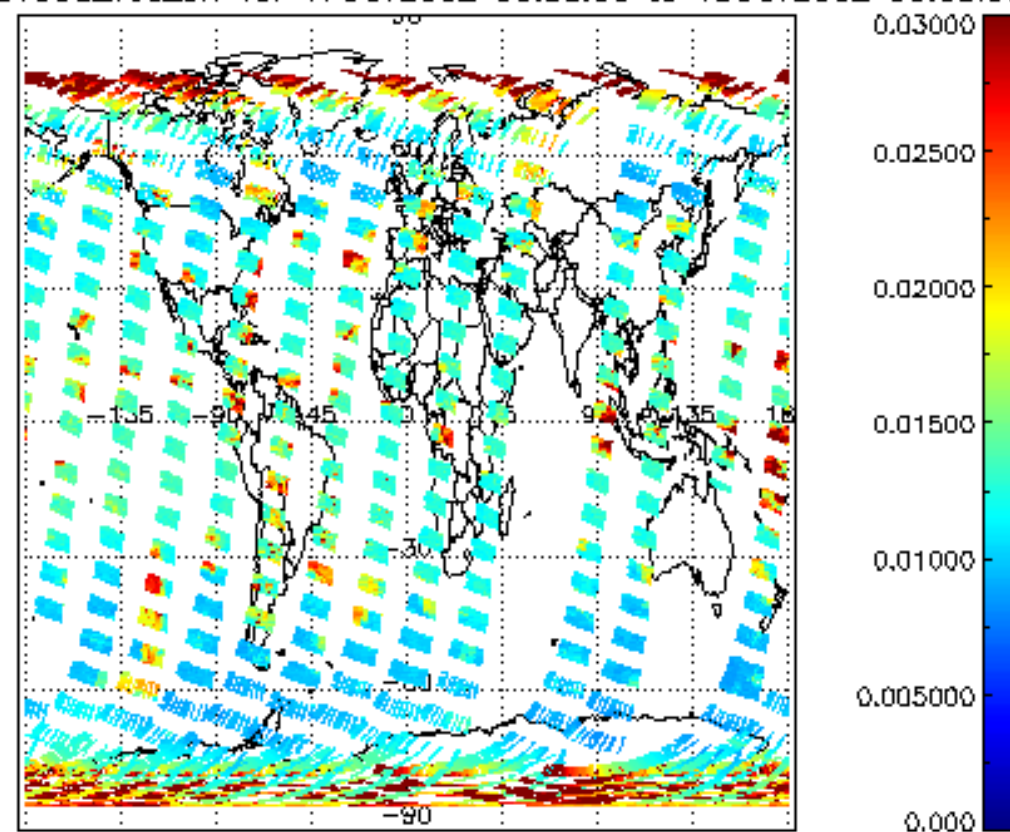




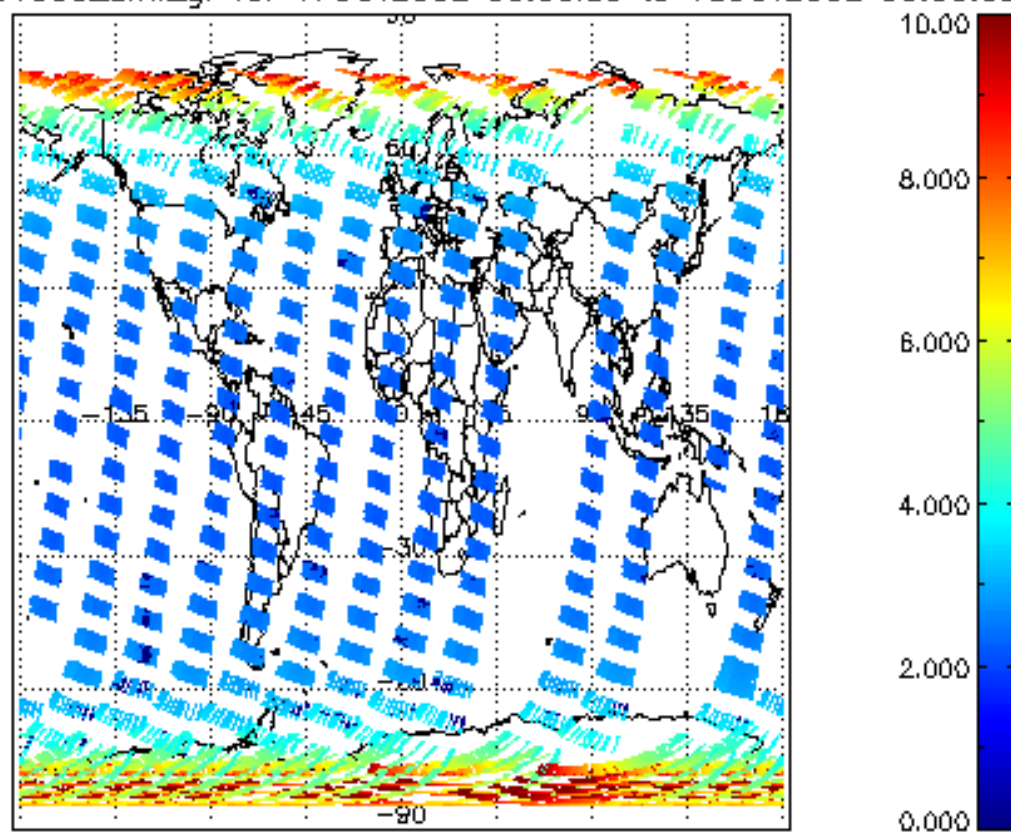
SCIOL2P\_NADUV003\_vcd for 17OCT2002 00:00:00 to 18OCT2002 00:00:00



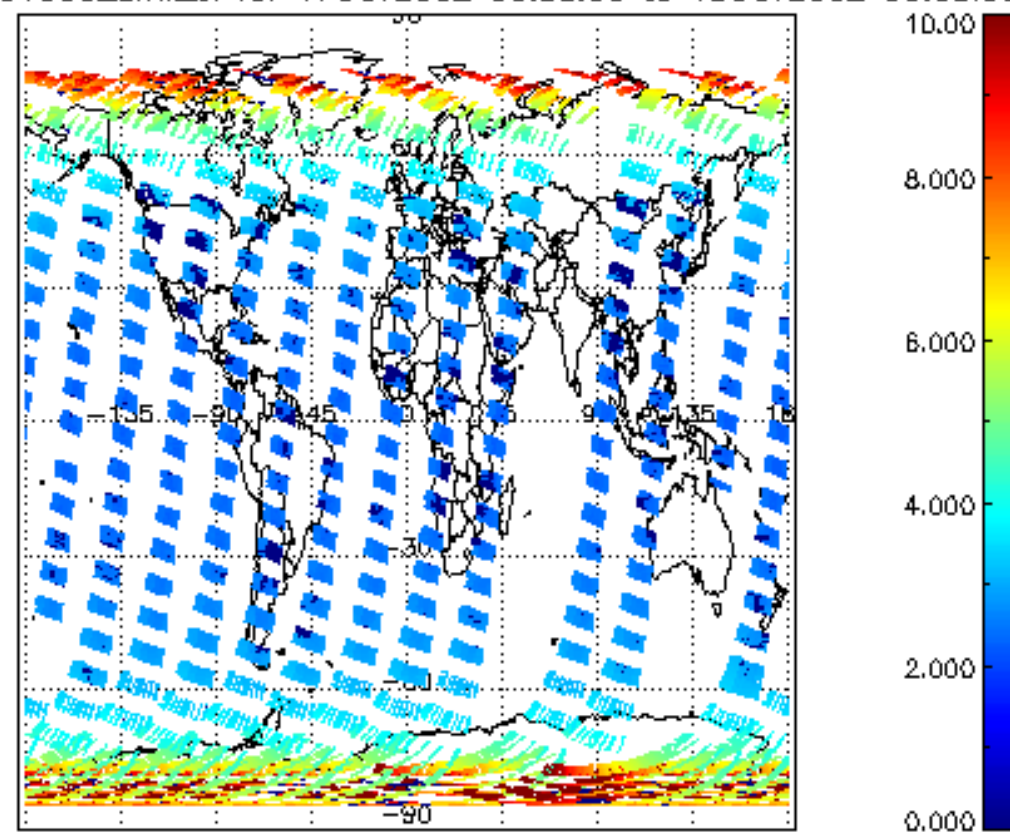
SCIOL2P\_NADUV003\_vcd\_err for 17OCT2002 00:00:00 to 18OCT2002 00:00:00



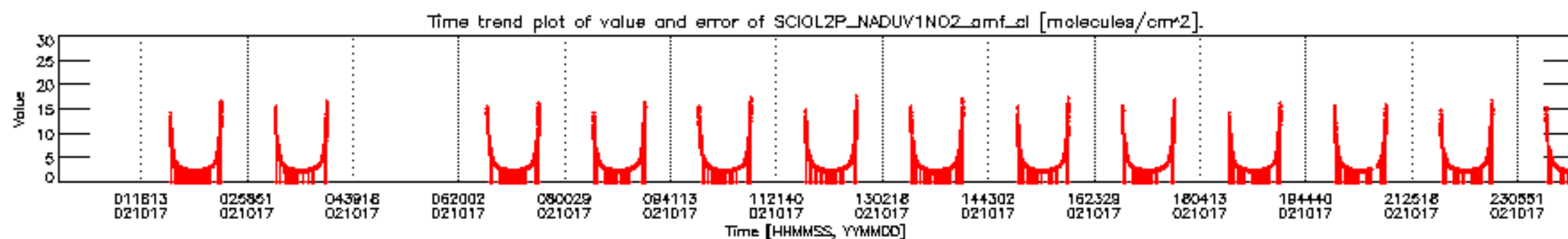
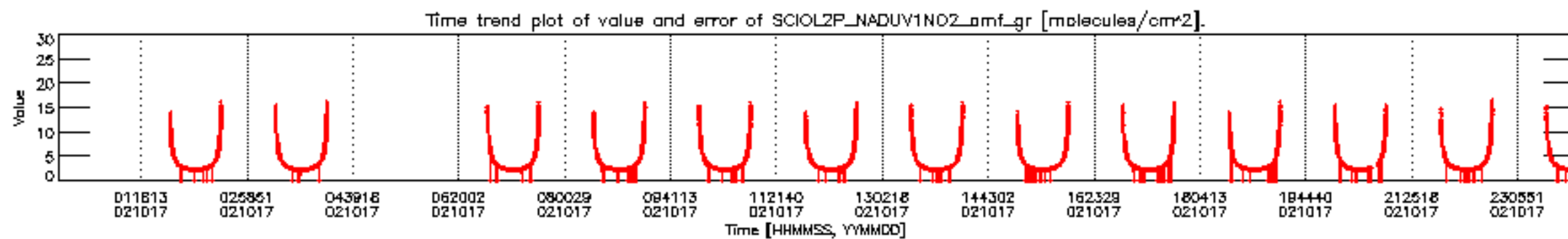
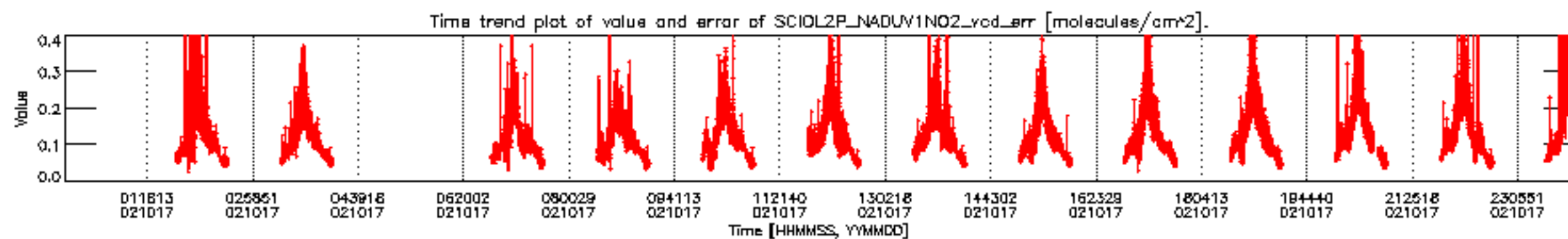
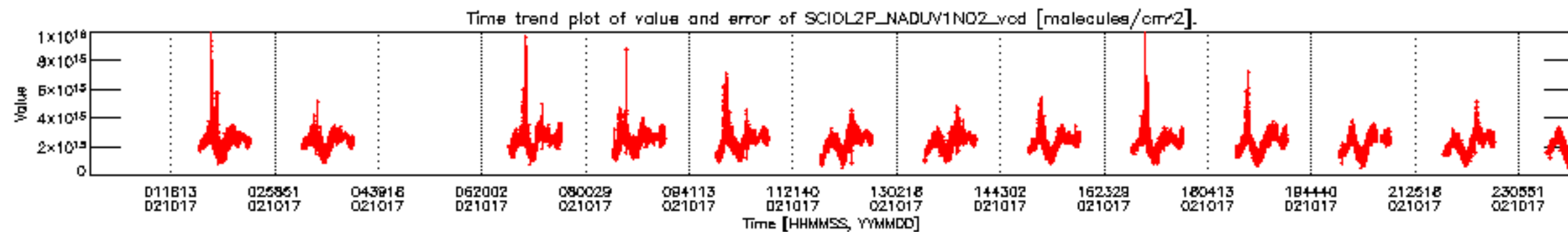
SCIOL2P\_NADUV003\_amf\_gr for 17OCT2002 00:00:00 to 18OCT2002 00:00:00



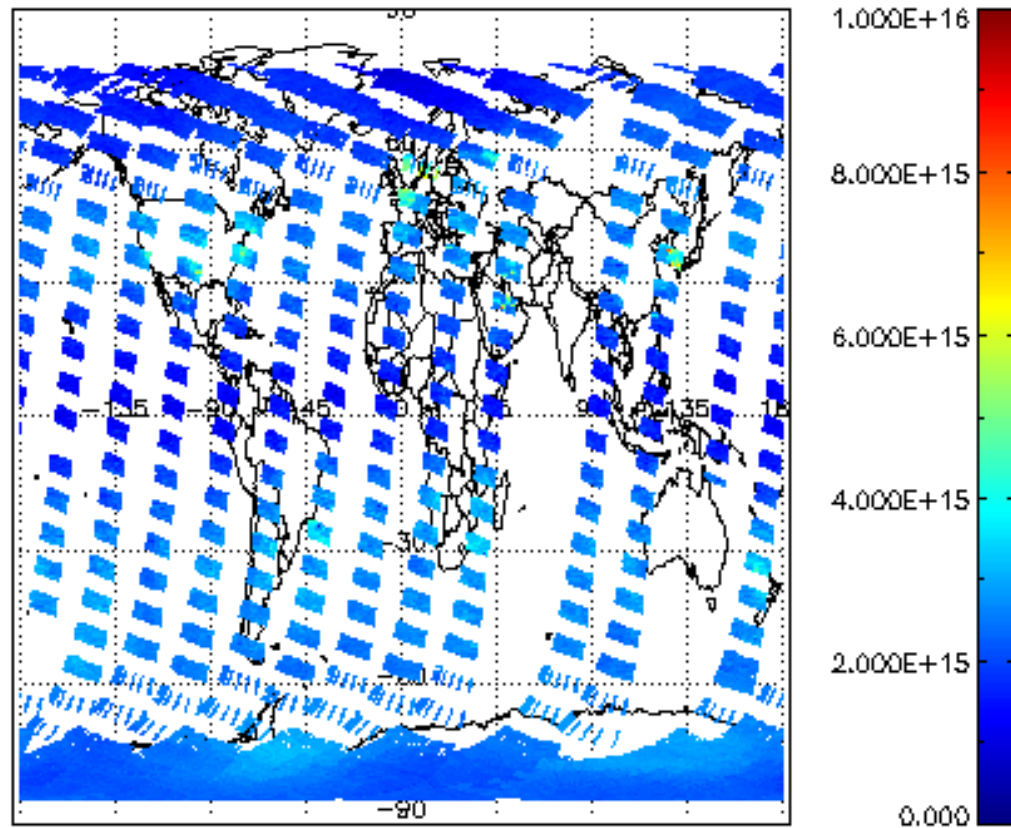
SCIOL2P\_NADUV003\_amf\_el for 17OCT2002 00:00:00 to 18OCT2002 00:00:00



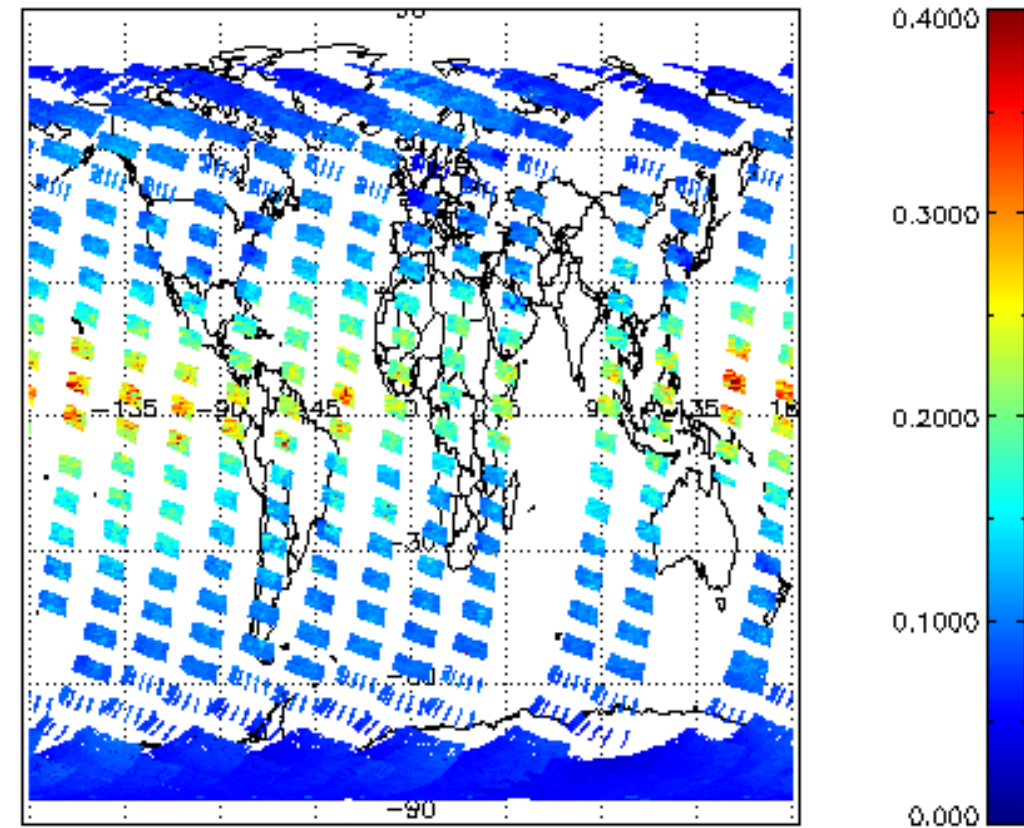




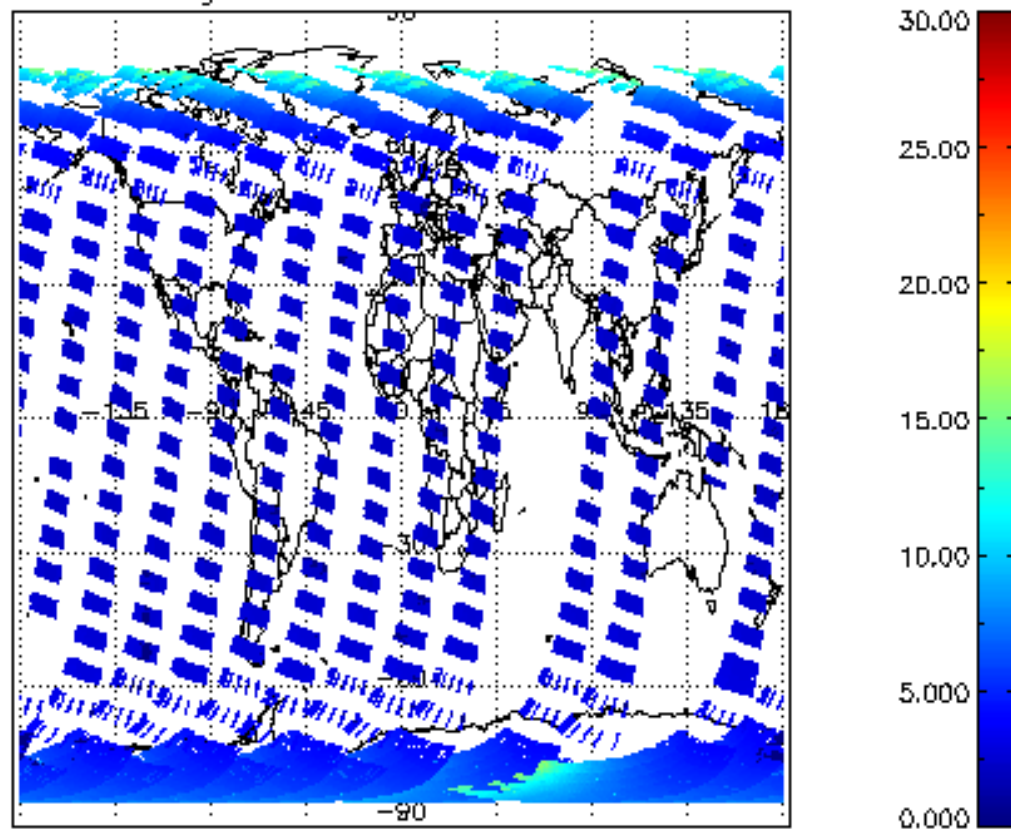
SCIOL2P\_NADUV1NO2\_vcd for 17OCT2002 00:00:00 to 18OCT2002 00:00:00



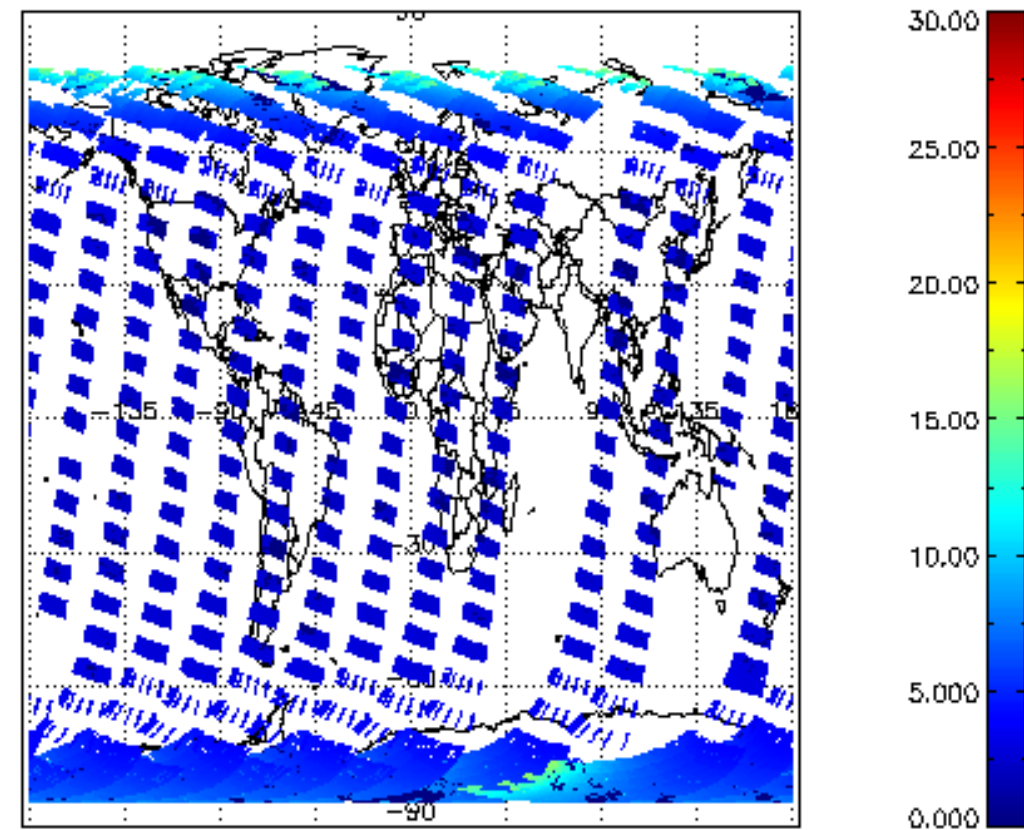
iCIOL2P\_NADUV1NO2\_vcd\_err for 17OCT2002 00:00:00 to 18OCT2002 00:00:00



iCIOL2P\_NADUV1NO2\_amf\_gr for 17OCT2002 00:00:00 to 18OCT2002 00:00:00

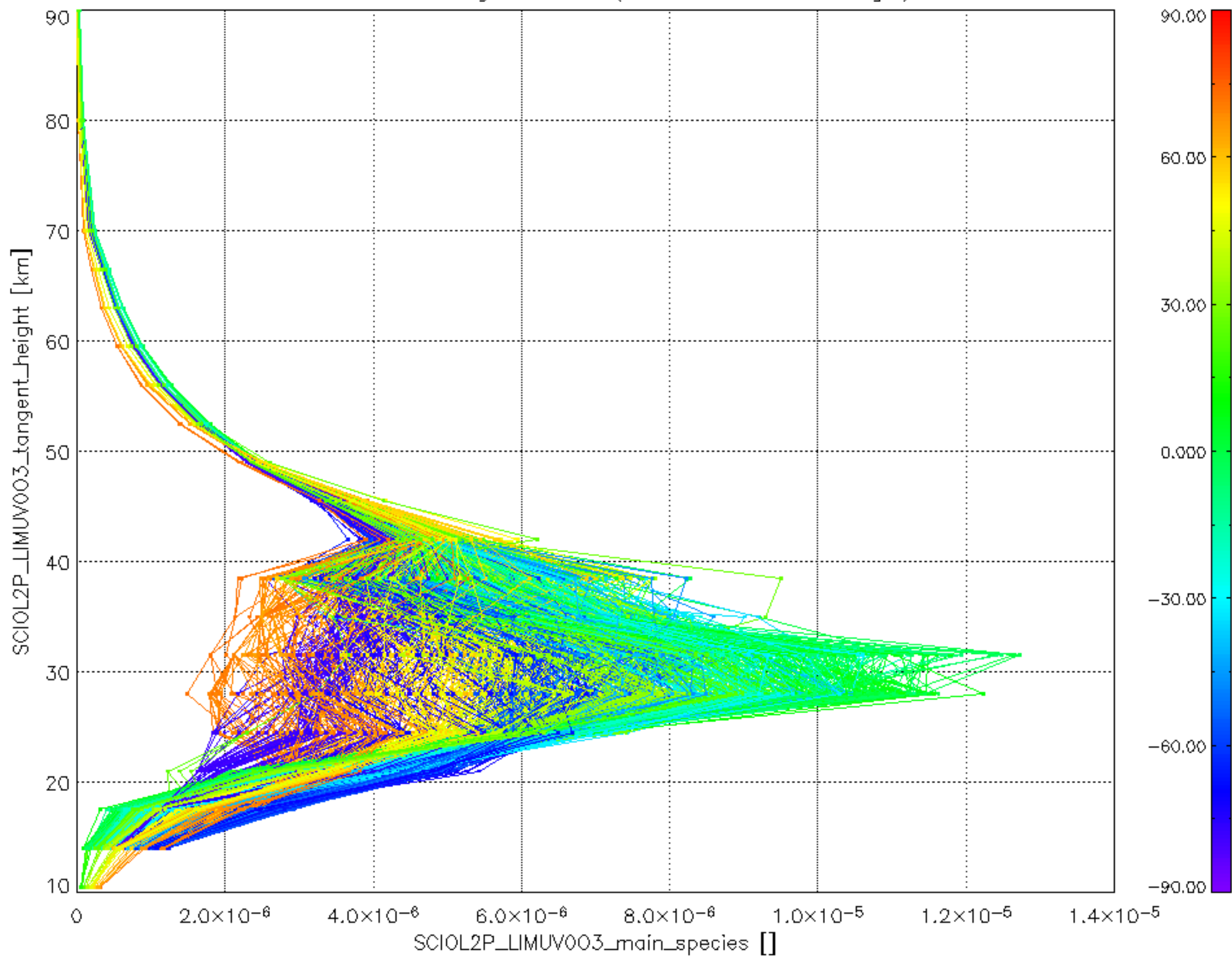


iCIOL2P\_NADUV1NO2\_amf\_cl for 17OCT2002 00:00:00 to 18OCT2002 00:00:00





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).

