

# 1. SCIAMACHY Level 1B source packet monitoring report

## [1.1. General Info](#)

## [1.2 Source packet monitoring](#)

### 1.1 General Info

This report contains results of the analysis on source packets from SCIAMACHY level 1 data (The SCI\_NL\_\_1P product).

#### 1.1.1 Report summary

The table below shows general characteristics of the data that are included into this report.

Item	Value
Report version	1.1 (07-01-2010)
Time of report generation	27JAN2011 06:55:31
Data source version	SCIA/7.04-U
Processing scope for products	16JAN2011 00:00:00 to 17JAN2011 00:00:00
Start time of first product within scope	15JAN2011 23:23:53
Stop time of last product within scope	16JAN2011 23:59:26
Total number of level 1 products	15
Number of level 1 products with errors	0
SCIAL1C executable used in processing	scial1c-2.1.73-i686-pc-linux-gnu-gcc-3.3.6
SCIAL1C parameters used in processing	-allcal -type all -cat 1,2,8,10,11,16,19,23 -nadircluster 8,9,15,24,55 -limbcluster 9,15

#### 1.1.2 Source packet summary

The table below shows which source packets have been included into the report.

Item	Mode	State	Cluster	Height	First start time	Last start time
0	NADIR	07	08	N/A	16JAN2011 00:00:01.144	16JAN2011 23:29:21.510
1	NADIR	07	09	N/A	16JAN2011 00:00:01.144	16JAN2011 23:29:21.510
2	NADIR	07	15	N/A	16JAN2011 00:00:01.144	16JAN2011 23:29:21.510
3	NADIR	07	24	N/A	16JAN2011 00:00:01.144	16JAN2011 23:29:21.510
4	NADIR	07	55	N/A	16JAN2011 00:00:01.144	16JAN2011 23:29:21.510
5	LIMB	32	09	~19 km	16JAN2011 00:01:09.702	16JAN2011 23:32:32.807
6	LIMB	32	09	~22 km	16JAN2011 00:01:09.702	16JAN2011 23:32:32.807
7	LIMB	32	09	~25 km	16JAN2011 00:01:09.702	16JAN2011 23:32:32.807
8	LIMB	32	15	~22 km	16JAN2011 00:01:09.702	16JAN2011 23:32:32.807
9	LIMB	32	15	~25 km	16JAN2011 00:01:09.702	16JAN2011 23:32:32.807
10	LIMB	32	15	~35 km	16JAN2011 01:22:04.492	16JAN2011 23:32:32.807

#### 1.1.3 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	ProdErr	#nadir	#limb	#occ	#mon	#noprocc	#cmpl_drk	#incmpl_drk	Decont
0	<a href="#">SCI_NLC_1CUDPA20110115_230654_000060213098_00289_46424_2331.N1</a>	15JAN2011 23:23:53	16JAN2011 00:34:07	0	35	31	0	0	1	0	0	
1	<a href="#">SCI_NLC_1CUDPA20110116_004719_000059993098_00290_46425_2384.N1</a>	16JAN2011 01:04:06	16JAN2011 02:14:35	0	36	30	0	0	1	0	0	
2	<a href="#">SCI_NLC_1CUDPA20110116_022722_000060213098_00291_46426_2486.N1</a>	16JAN2011 02:44:20	16JAN2011 03:54:35	0	35	31	0	0	1	0	0	
3	<a href="#">SCI_NLC_1CUDPA20110116_040747_000059993098_00292_46427_2537.N1</a>	16JAN2011 04:24:34	16JAN2011 05:35:03	0	36	30	0	0	1	0	0	
4	<a href="#">SCI_NLC_1CUDPA20110116_054750_000060213098_00293_46428_2689.N1</a>	16JAN2011 06:04:47	16JAN2011 07:15:02	0	35	31	0	0	1	0	0	
5	<a href="#">SCI_NLC_1CUDPA20110116_072814_000059993098_00294_46429_2690.N1</a>	16JAN2011 07:45:01	16JAN2011 08:55:30	0	36	30	0	0	1	0	0	

6	SCI_NLC_1CUDPA20110116_090817_000060213098_00295_46430_2741.N1	16JAN2011 09:25:15	16JAN2011 10:35:30	0	35	31	0	0	1	0	0	
7	SCI_NLC_1CUDPA20110116_104842_000059993098_00296_46431_2792.N1	16JAN2011 11:05:29	16JAN2011 12:15:58	0	36	30	0	0	1	0	0	
8	SCI_NLC_1CUDPA20110116_122845_000060213098_00297_46432_2844.N1	16JAN2011 12:45:42	16JAN2011 13:58:15	0	36	30	0	0	1	0	0	
9	SCI_NLC_1CUDPA20110116_140909_000059993098_00298_46433_3104.N1	16JAN2011 14:25:56	16JAN2011 15:38:27	0	36	30	0	0	1	0	0	
10	SCI_NLC_1CUDPA20110116_154912_000060213098_00299_46434_2998.N1	16JAN2011 16:06:10	16JAN2011 17:18:39	0	36	30	0	0	1	0	0	
11	SCI_NLC_1CUDPA20110116_172937_000059993098_00300_46435_3100.N1	16JAN2011 17:46:24	16JAN2011 18:59:11	0	34	29	0	1	1	0	0	
12	SCI_NLC_1CUDPA20110116_190940_000060213098_00301_46436_3102.N1	16JAN2011 19:26:37	16JAN2011 20:39:03	0	36	30	0	1	1	0	0	
13	SCI_NLC_1CUDPA20110116_205005_000059993098_00302_46437_3105.N1	16JAN2011 21:06:51	16JAN2011 22:19:15	0	36	30	0	0	1	0	0	
14	SCI_NLC_1CUDPA20110116_223008_000060213098_00303_46438_3108.N1	16JAN2011 22:47:05	16JAN2011 23:59:26	0	36	30	0	0	1	0	0	

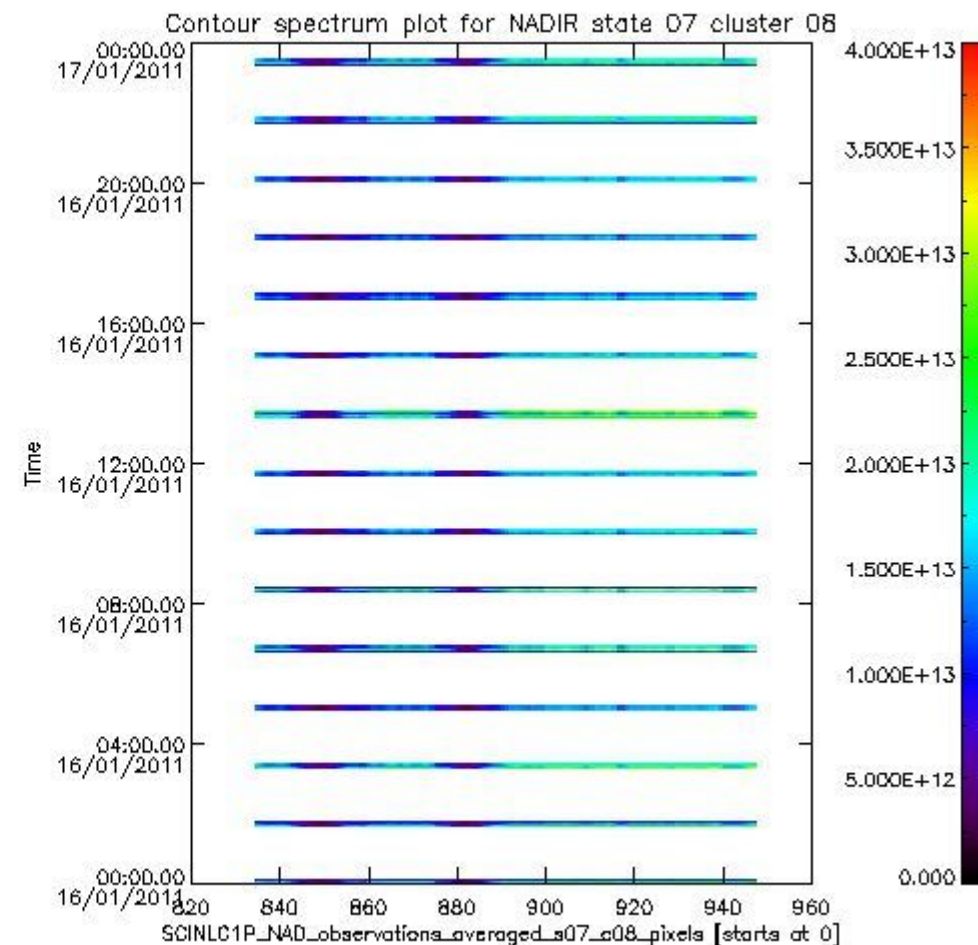
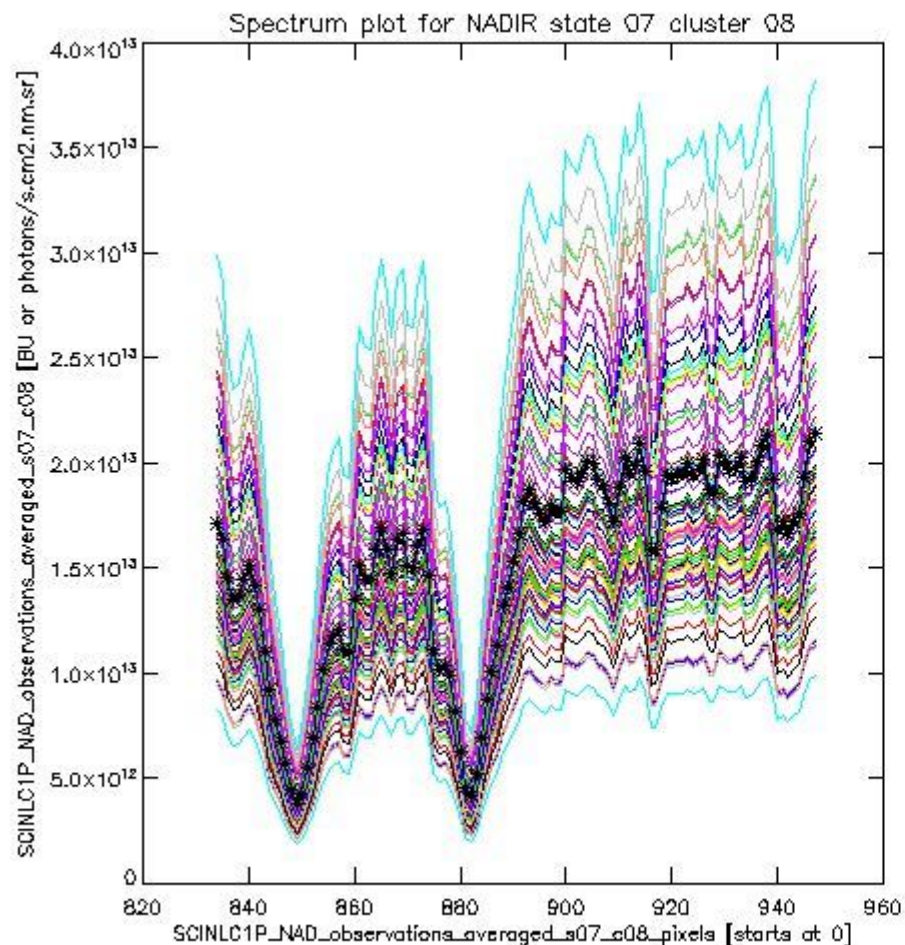
## 1.2 Source packet monitoring

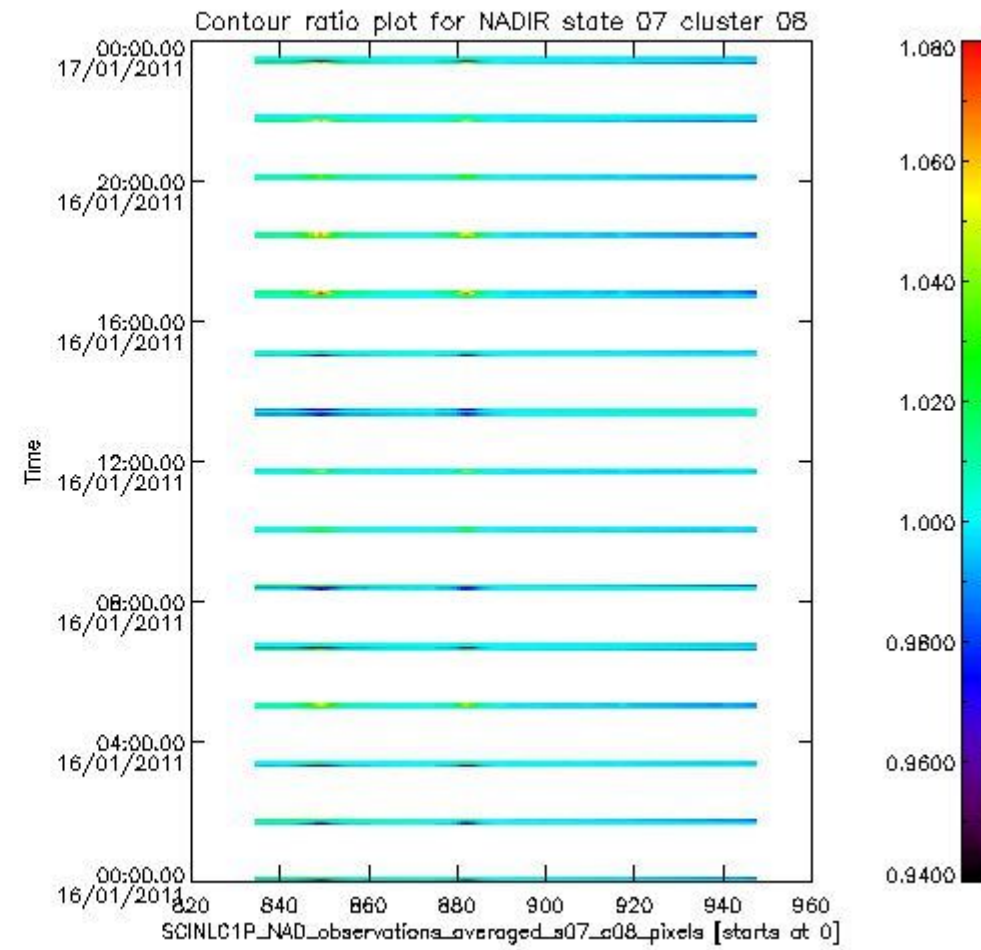
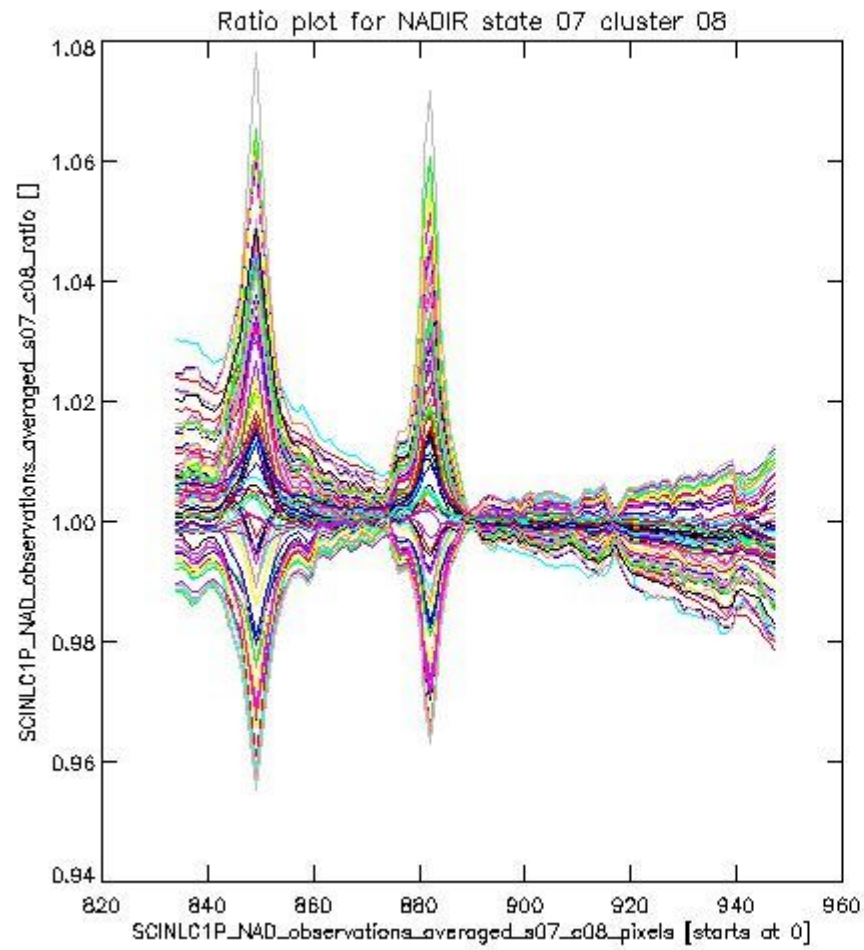
This section shows figures for each of the monitored source packet types listed in the Source Packet Summary section. For each mode-state-cluster(-height) combination the following plots are shown:

- A plot that shows all calibrated averaged spectra vs. pixel number as 2D-profiles. Each line is an average spectrum for a single state occurrence. For Limb modes, the average is performed on spectra recorded at a specific height. The reference spectrum that is used for comparison is also shown as a black line with \* markers.
- A plot that shows all calibrated averaged spectra vs. pixel number and time using a coloured contour plot. The colours indicate the intensity.
- A plot that shows ratios of all calibrated averaged spectra and the reference spectrum vs. pixel number. Each line is the ratio of a calibrated averaged spectrum and the reference spectrum, where both spectra have been intensity corrected (the spectrum has been divided by the average pixel intensity) prior to division.
- A plot that shows ratios of all calibrated averaged spectra and the reference spectrum vs. pixel number and time using a coloured contour plot.

### 1.2.1 NADIR state 07 cluster 08 The data for the analysis of NADIR state 07 cluster 08 have the following characteristics:

Item	Value
Start time of first sample	16JAN2011 00:00:01.144
Start time of last sample	16JAN2011 23:29:21.510
Reference period start time	17DEC2010 01:36:26.779
Reference period stop time	15JAN2011 23:57:58.402
Channel number	2
First pixel number (starts at 0)	834
Last pixel number (starts at 0)	947

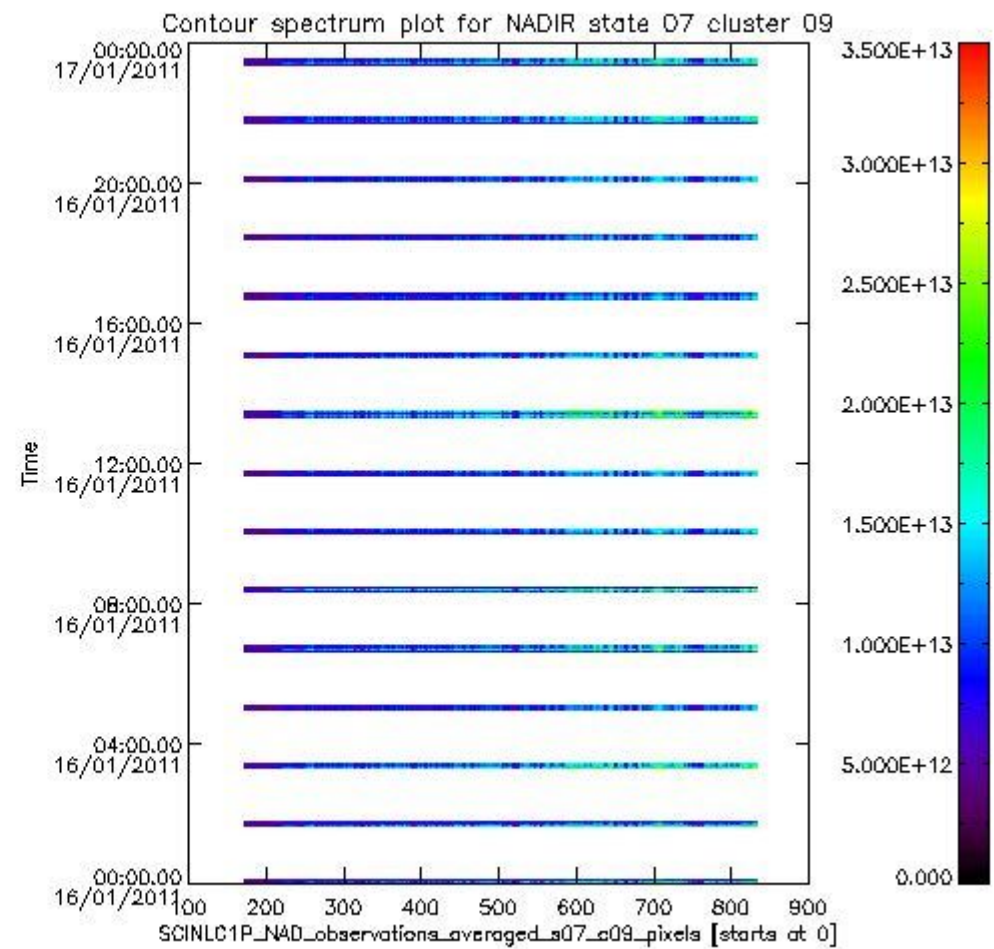
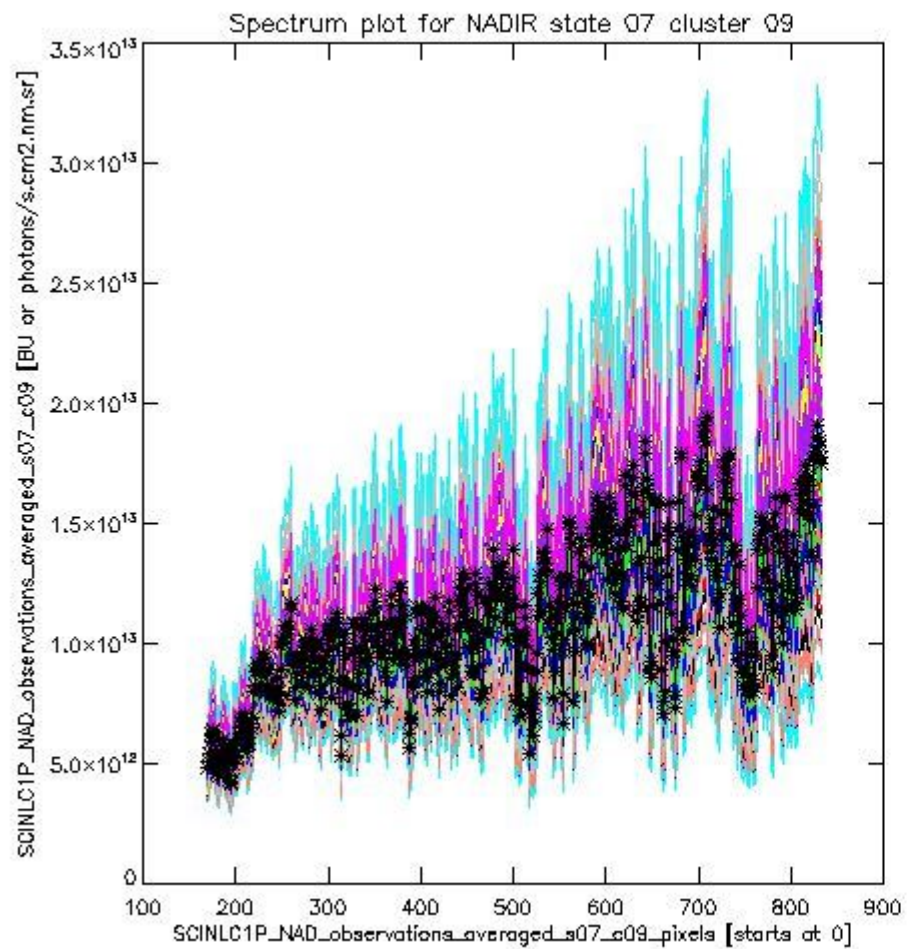




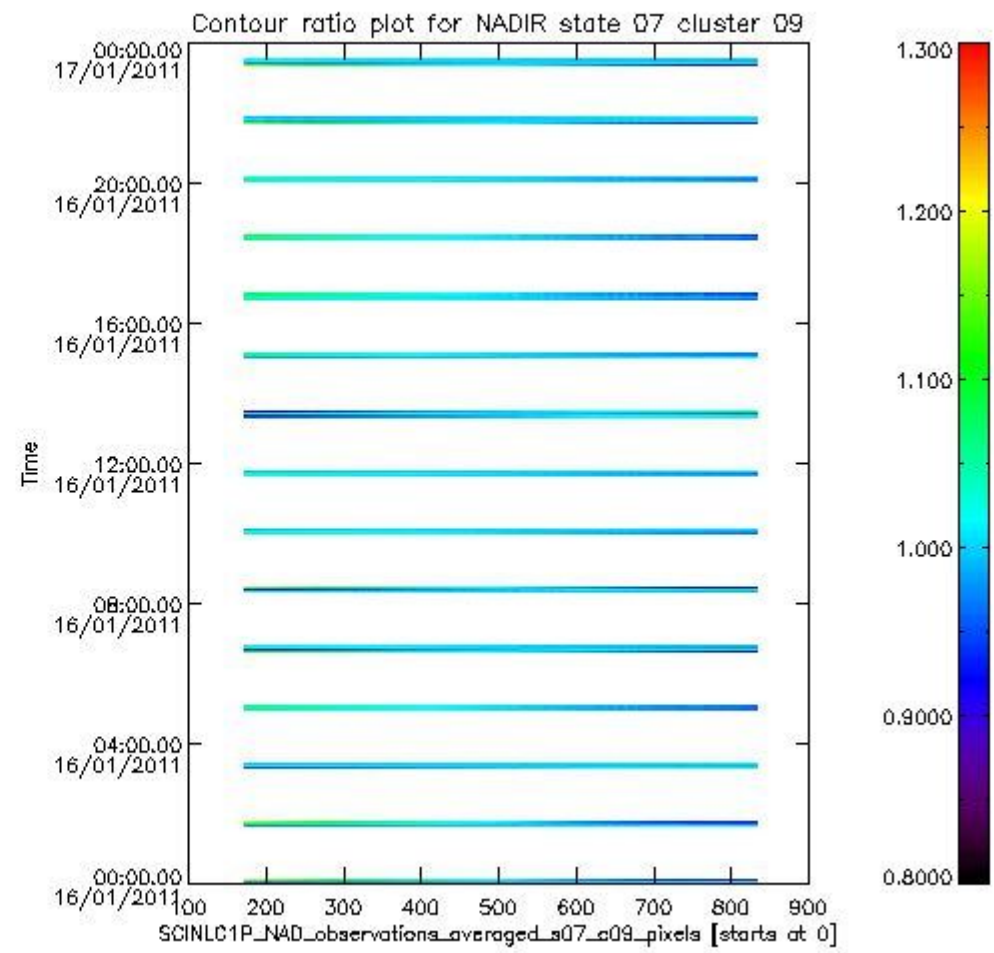
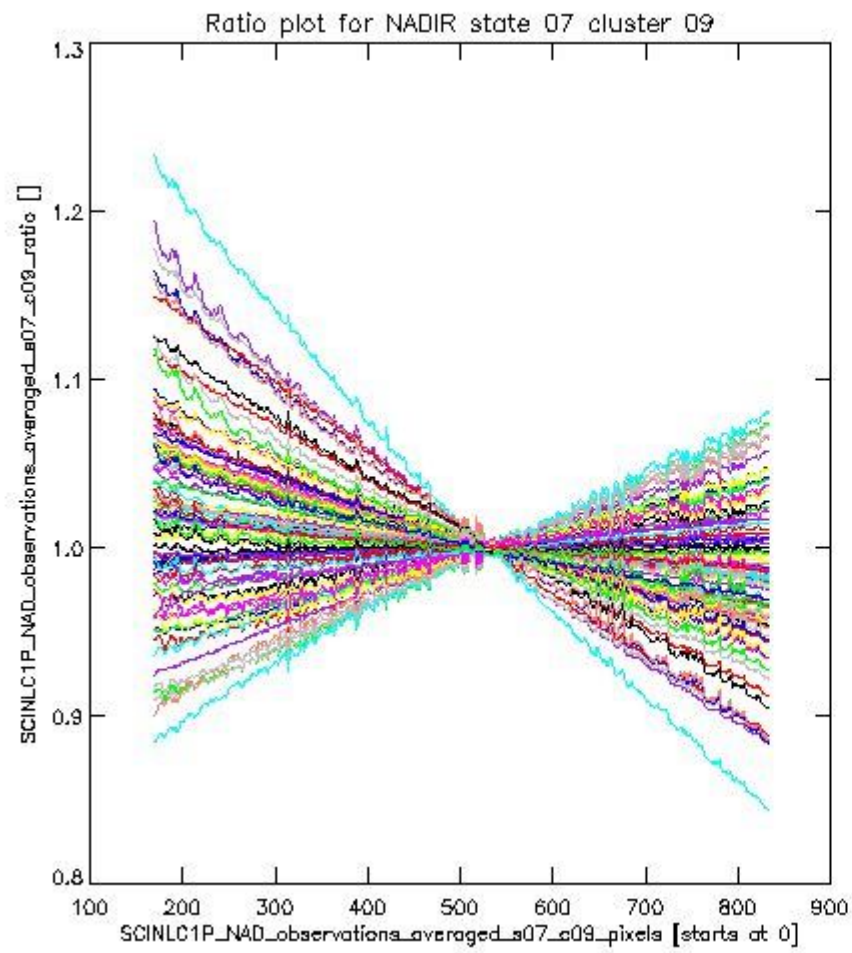
**1.2.2 NADIR state 07 cluster 09** The data for the analysis of NADIR state 07 cluster 09 have the following characteristics:

Item	Value
Start time of first sample	16JAN2011 00:00:01.144
Start time of last sample	16JAN2011 23:29:21.510
Reference period start time	17DEC2010 01:36:26.779
Reference period stop time	15JAN2011 23:57:58.402
Channel number	2
First pixel number (starts at 0)	170
Last pixel number (starts at 0)	833





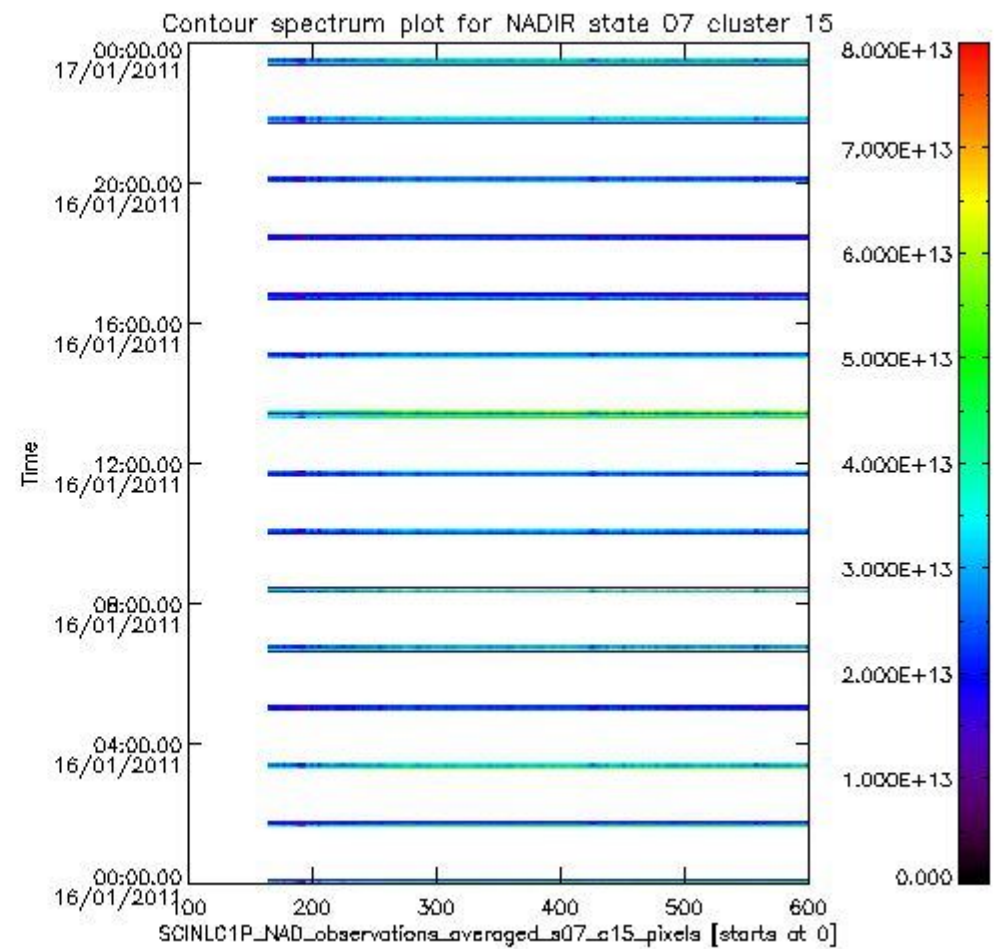
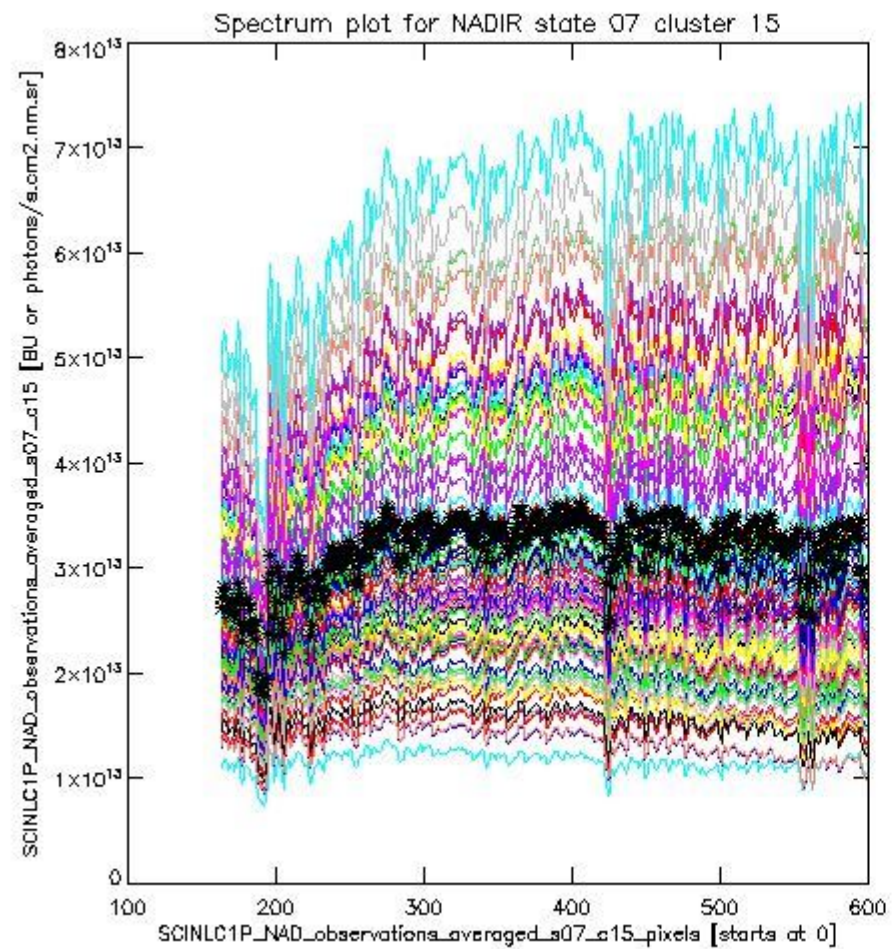
sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110116\_2.PNG



sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110116\_3.PNG

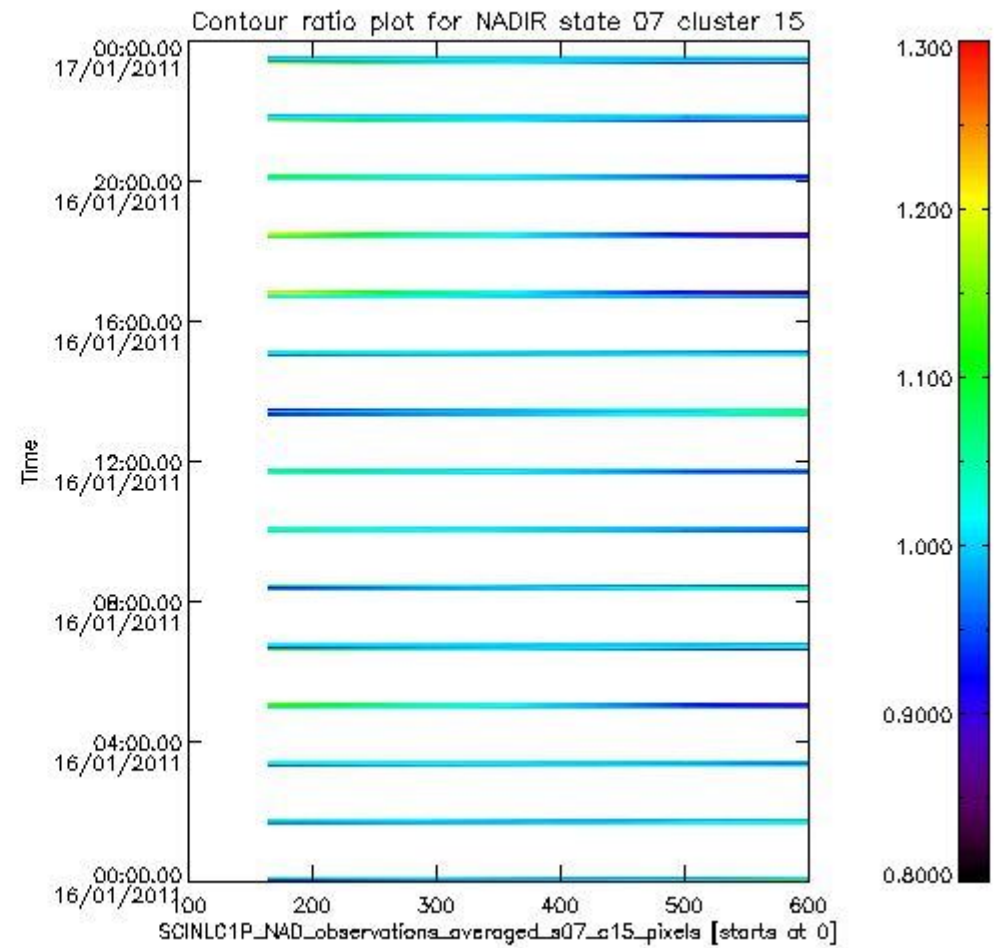
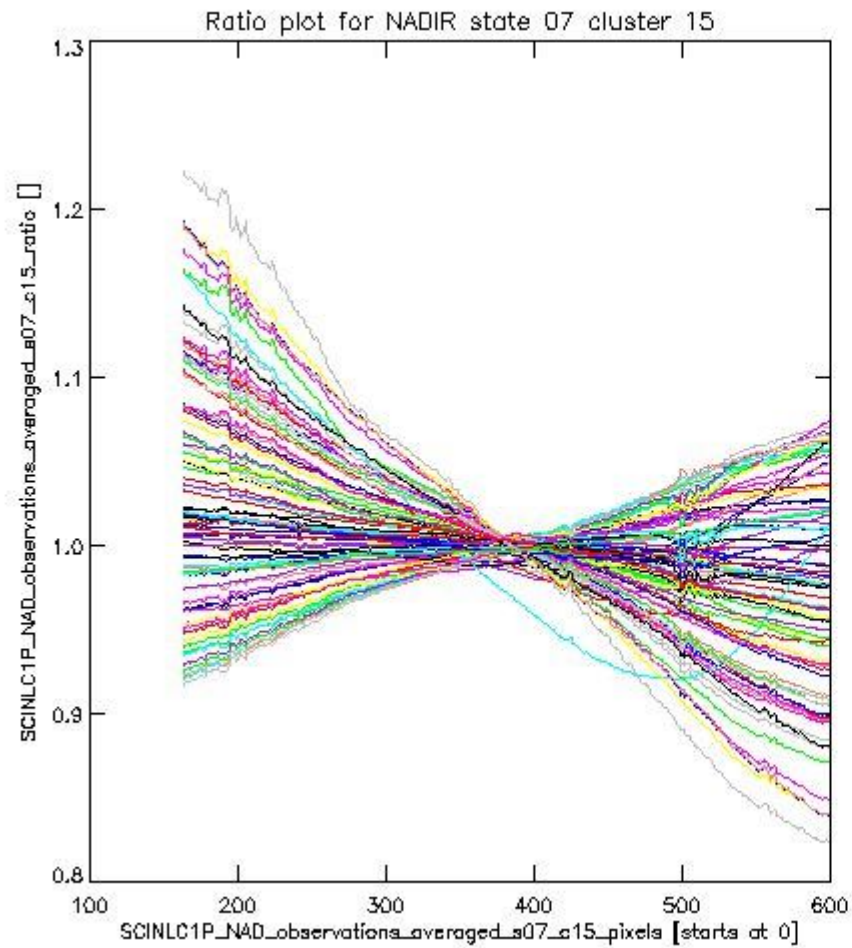
**1.2.3 NADIR state 07 cluster 15** The data for the analysis of NADIR state 07 cluster 15 have the following characteristics:

Item	Value
Start time of first sample	16JAN2011 00:00:01.144
Start time of last sample	16JAN2011 23:29:21.510
Reference period start time	17DEC2010 01:36:26.779
Reference period stop time	15JAN2011 23:57:58.402
Channel number	3
First pixel number (starts at 0)	163
Last pixel number (starts at 0)	598



sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110116\_4.PNG

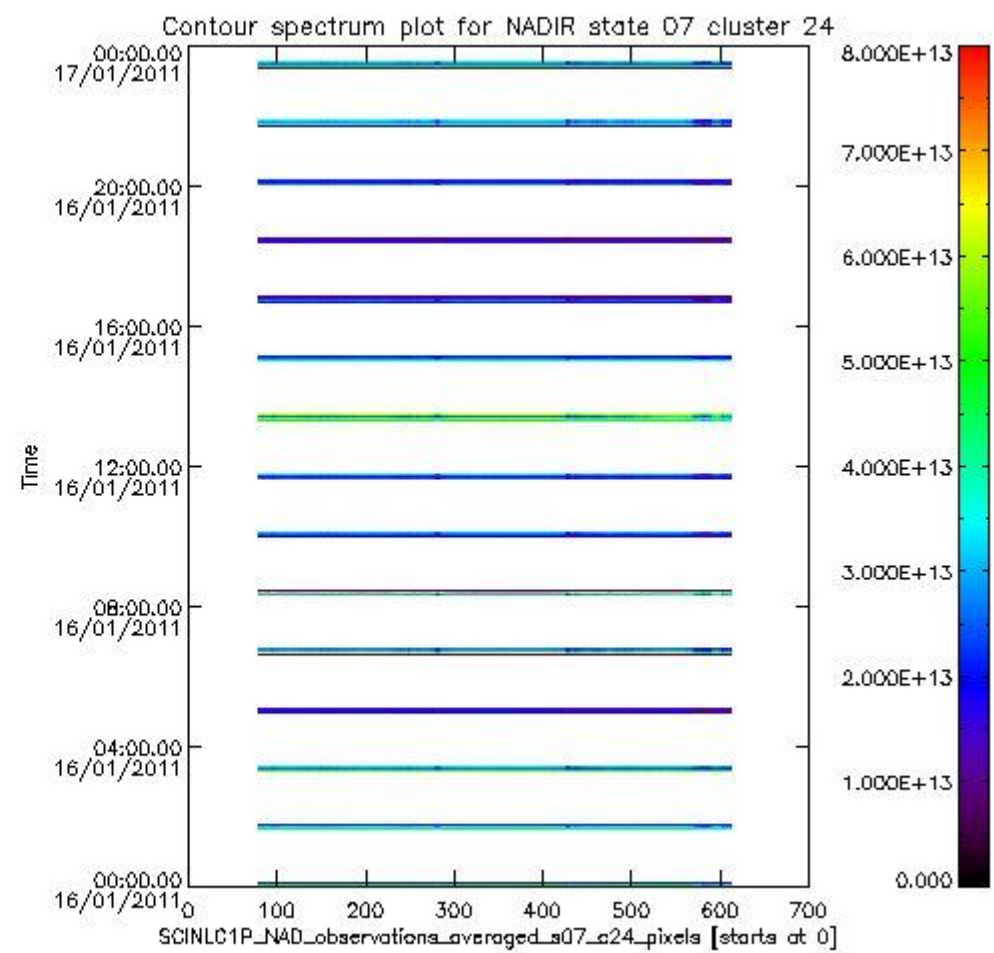
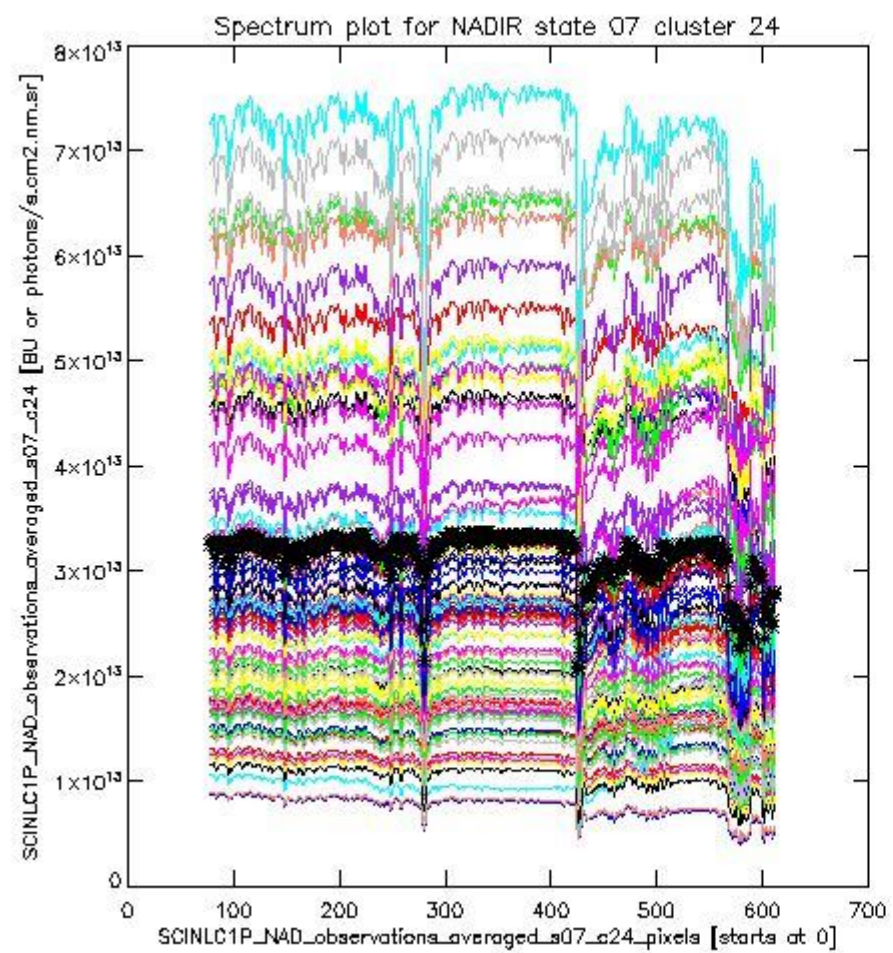




sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110116\_5.PNG

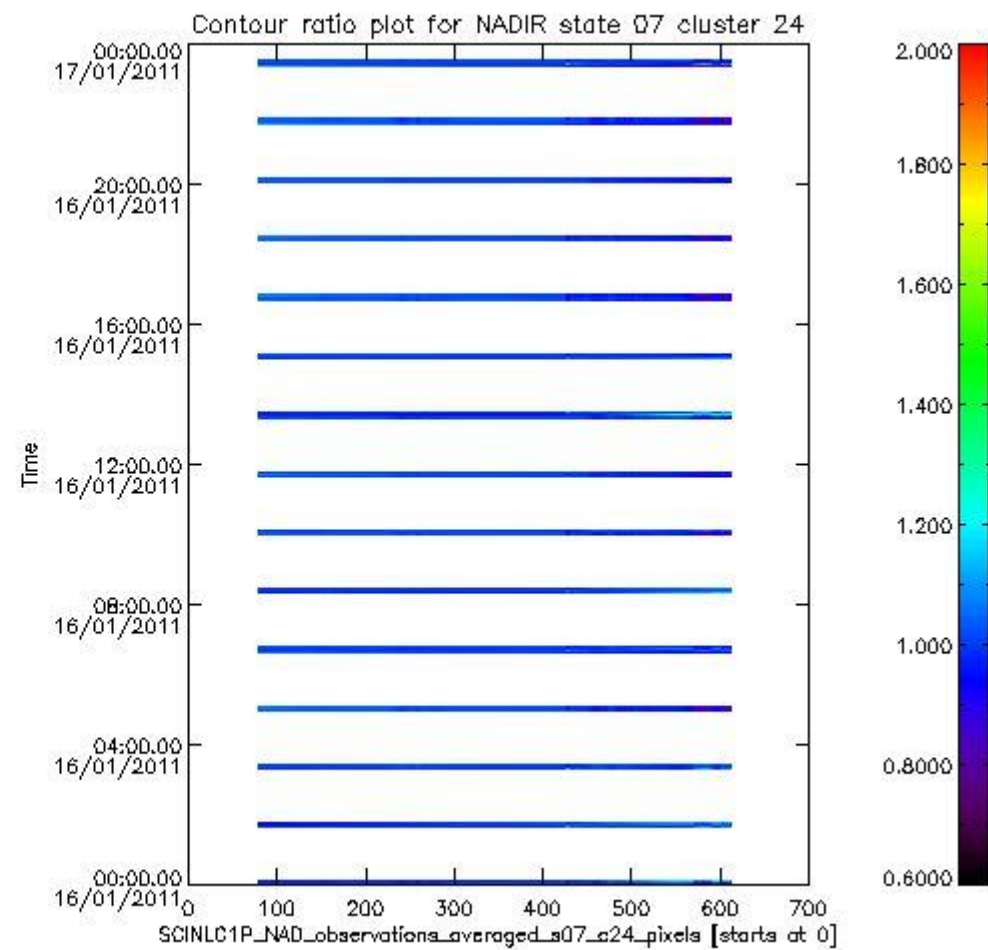
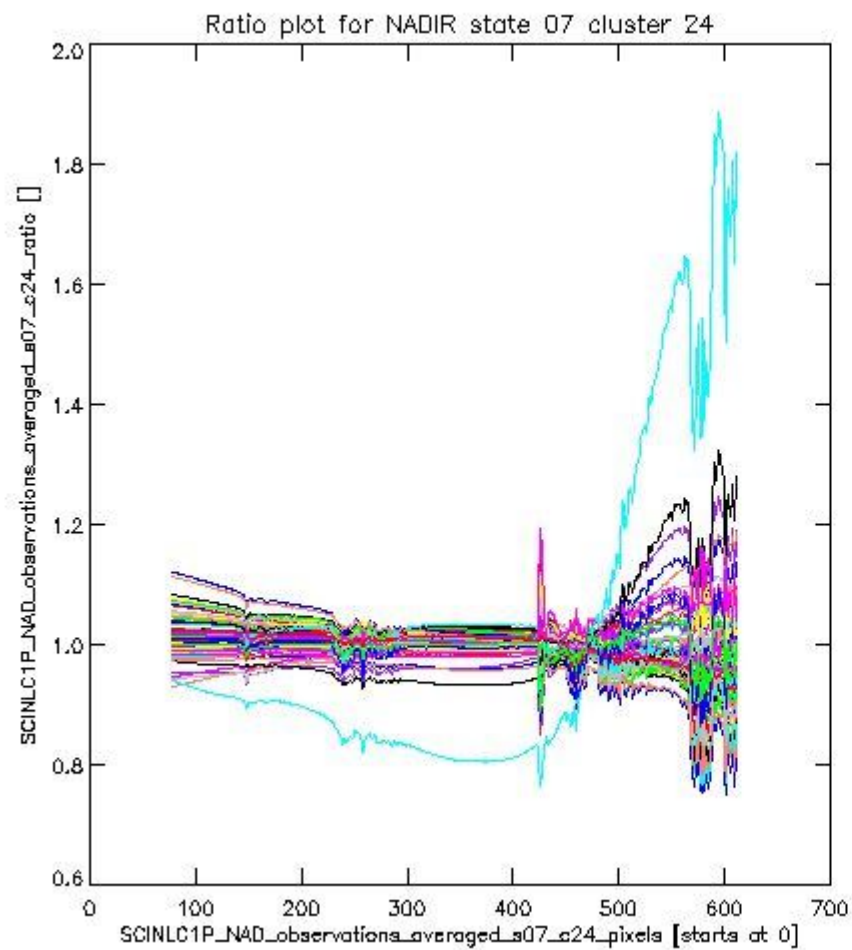
**1.2.4 NADIR state 07 cluster 24** The data for the analysis of NADIR state 07 cluster 24 have the following characteristics:

Item	Value
Start time of first sample	16JAN2011 00:00:01.144
Start time of last sample	16JAN2011 23:29:21.510
Reference period start time	17DEC2010 01:36:26.779
Reference period stop time	15JAN2011 23:57:58.402
Channel number	4
First pixel number (starts at 0)	78
Last pixel number (starts at 0)	612



sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110116\_6.PNG

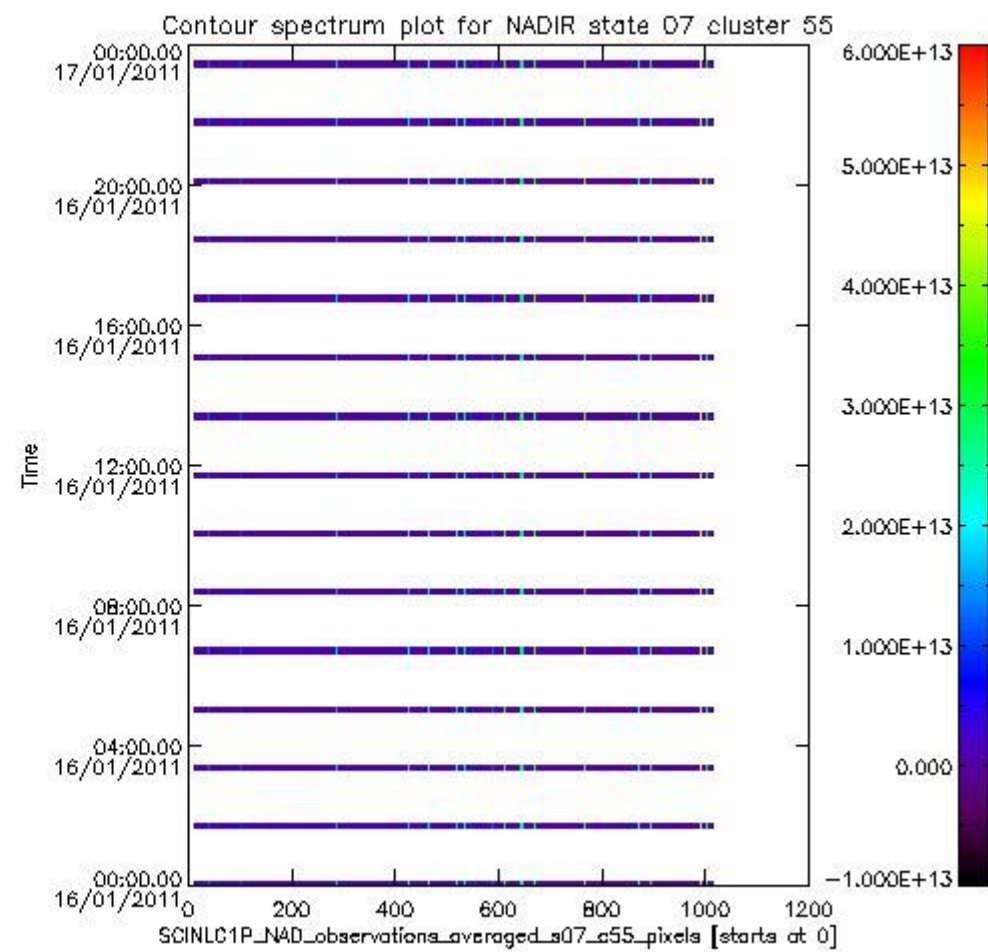
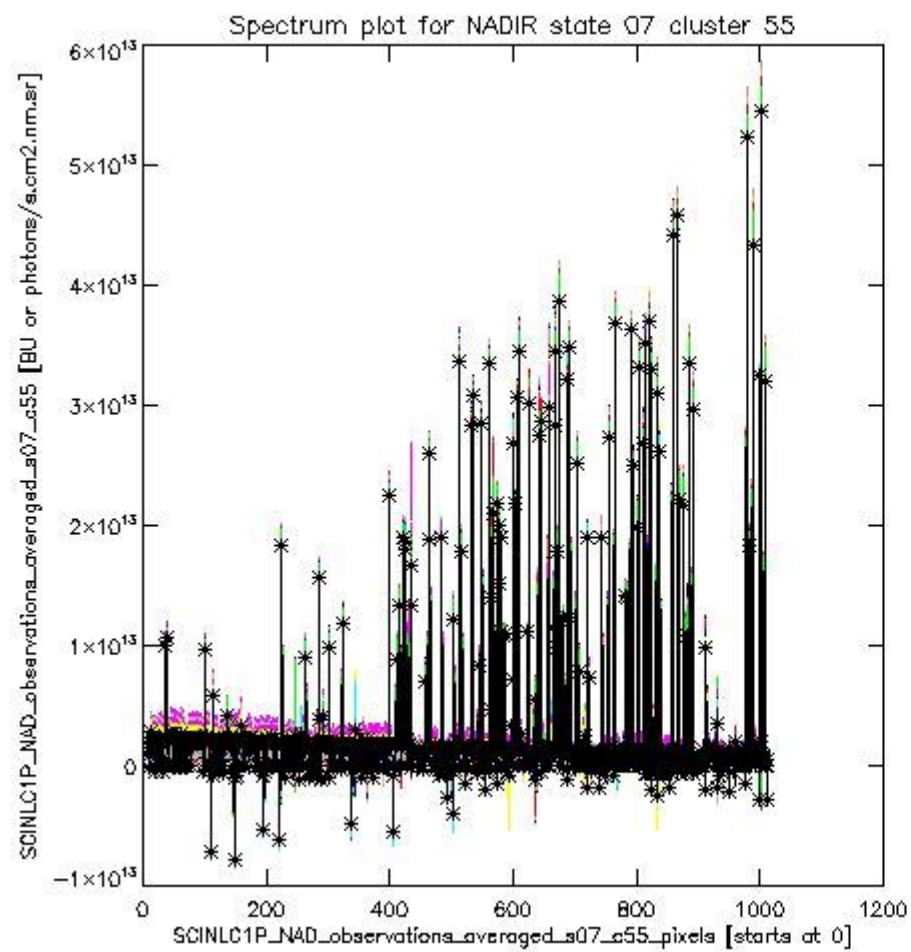




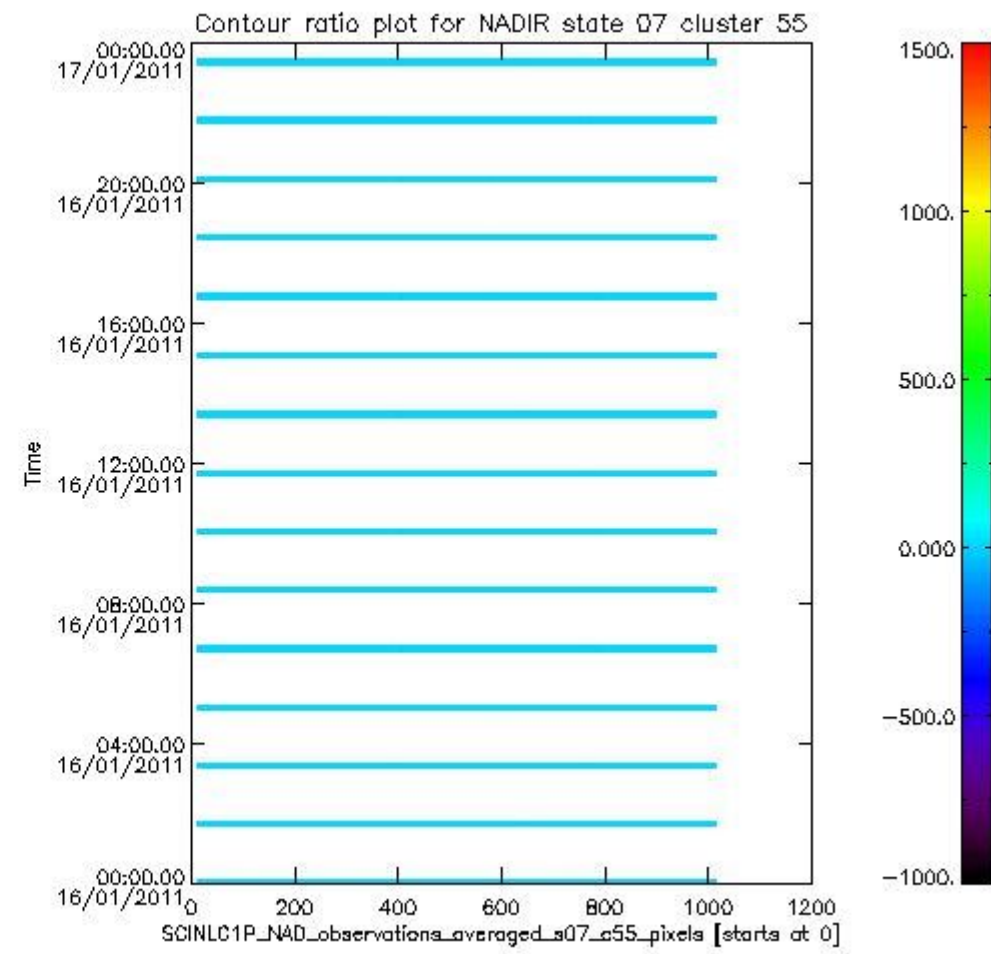
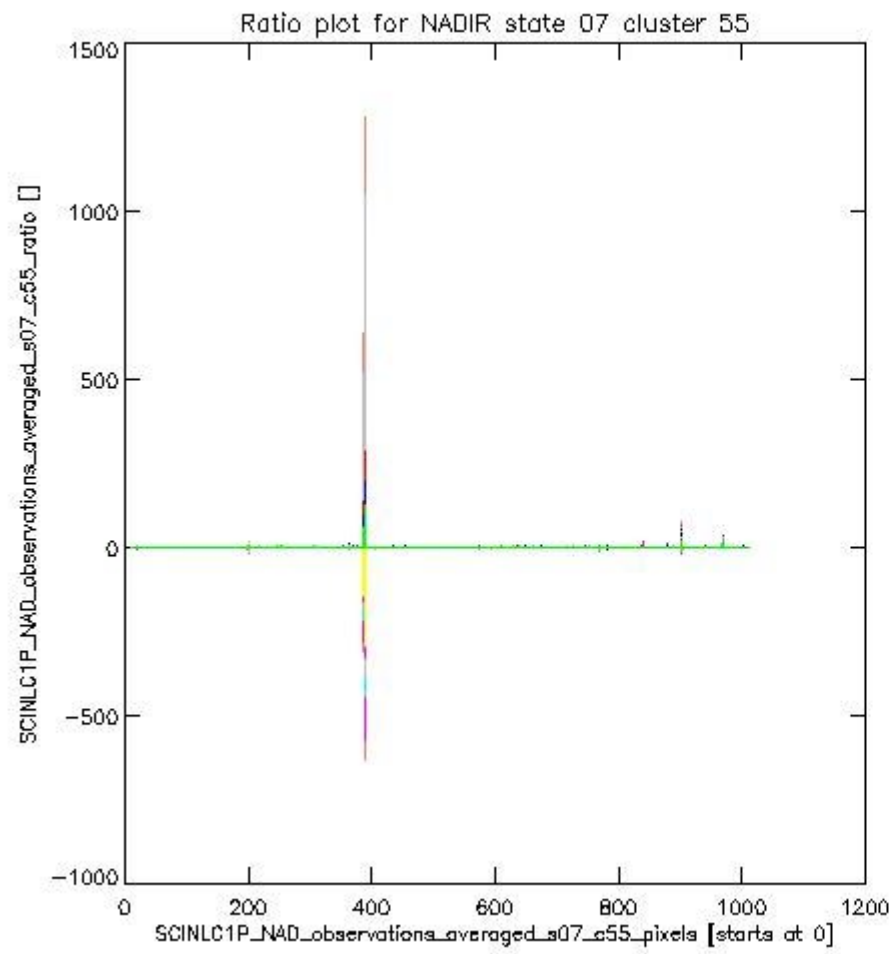
sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110116\_7.PNG

**1.2.5 NADIR state 07 cluster 55** The data for the analysis of NADIR state 07 cluster 55 have the following characteristics:

Item	Value
Start time of first sample	16JAN2011 00:00:01.144
Start time of last sample	16JAN2011 23:29:21.510
Reference period start time	17DEC2010 01:36:26.779
Reference period stop time	15JAN2011 23:57:58.402
Channel number	8
First pixel number (starts at 0)	10
Last pixel number (starts at 0)	1013



sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110116\_8.PNG

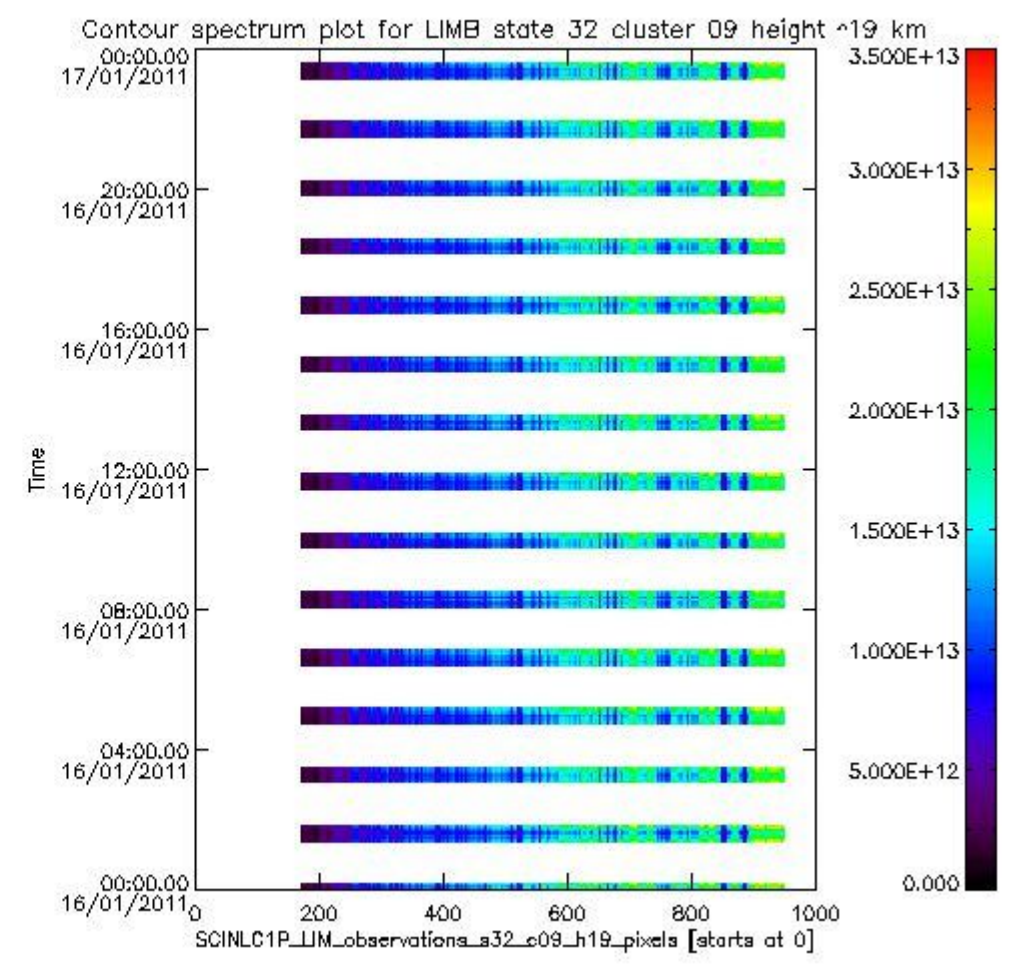
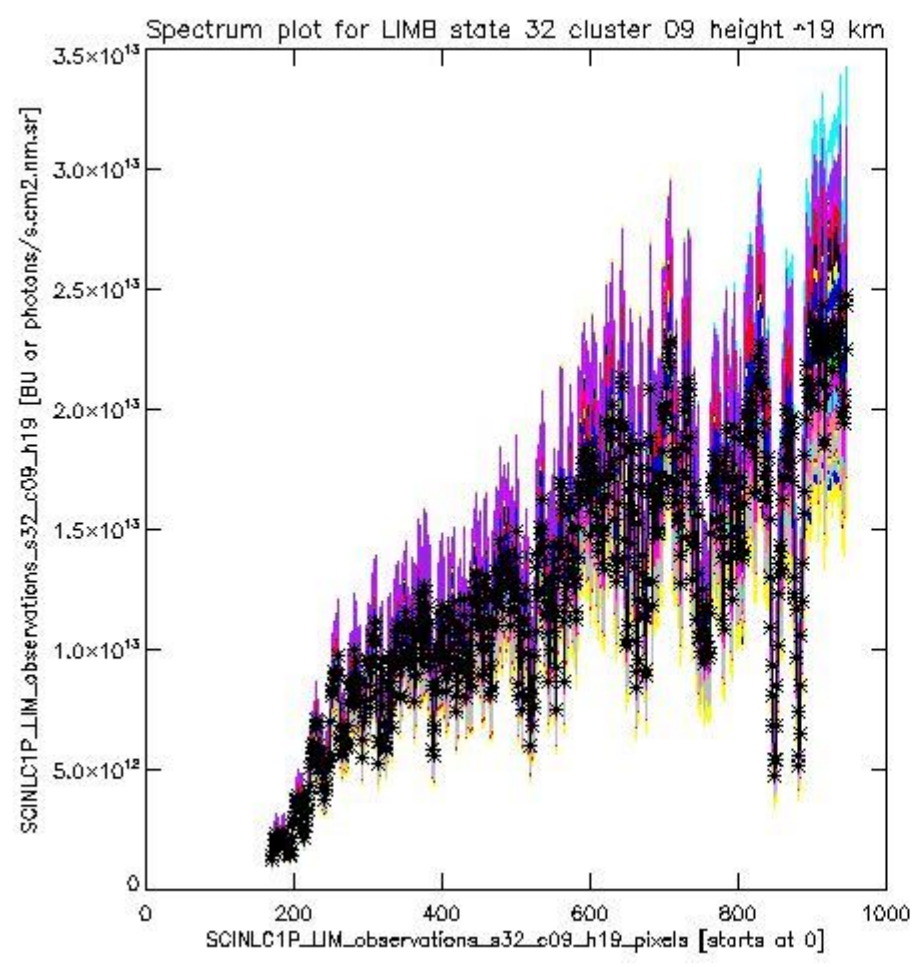


sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110116\_9.PNG

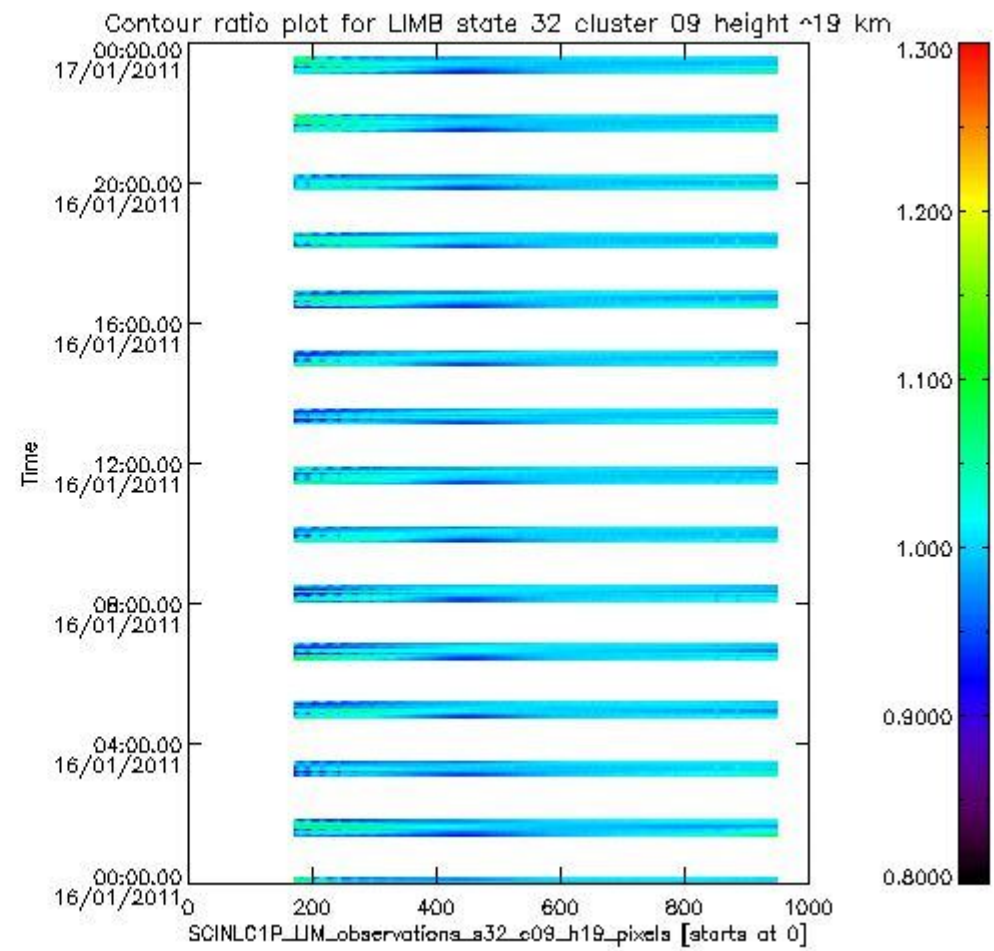
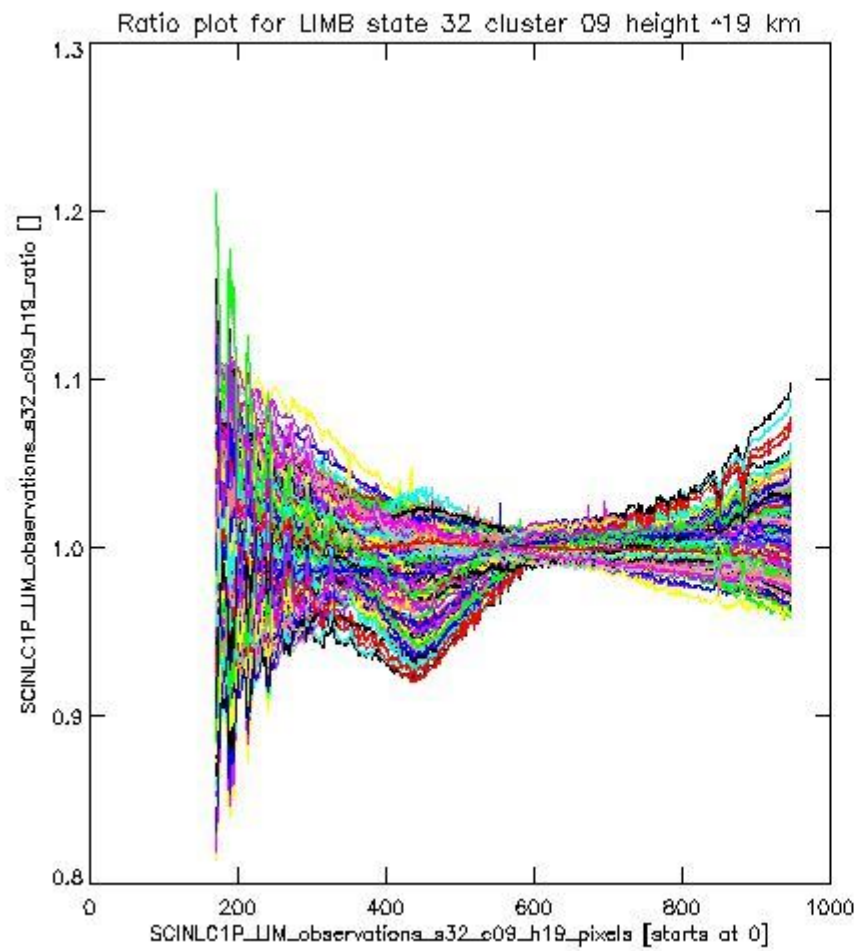
**1.2.6 LIMB state 32 cluster 09 height ~19 km** The data for the analysis of LIMB state 32 cluster 09 height ~19 km have the following characteristics:

Item	Value
Start time of first sample	16JAN2011 00:01:09.702
Start time of last sample	16JAN2011 23:32:32.807
Reference period start time	17DEC2010 01:23:16.143
Reference period stop time	15JAN2011 23:59:06.964
Channel number	2
First pixel number (starts at 0)	170
Last pixel number (starts at 0)	947





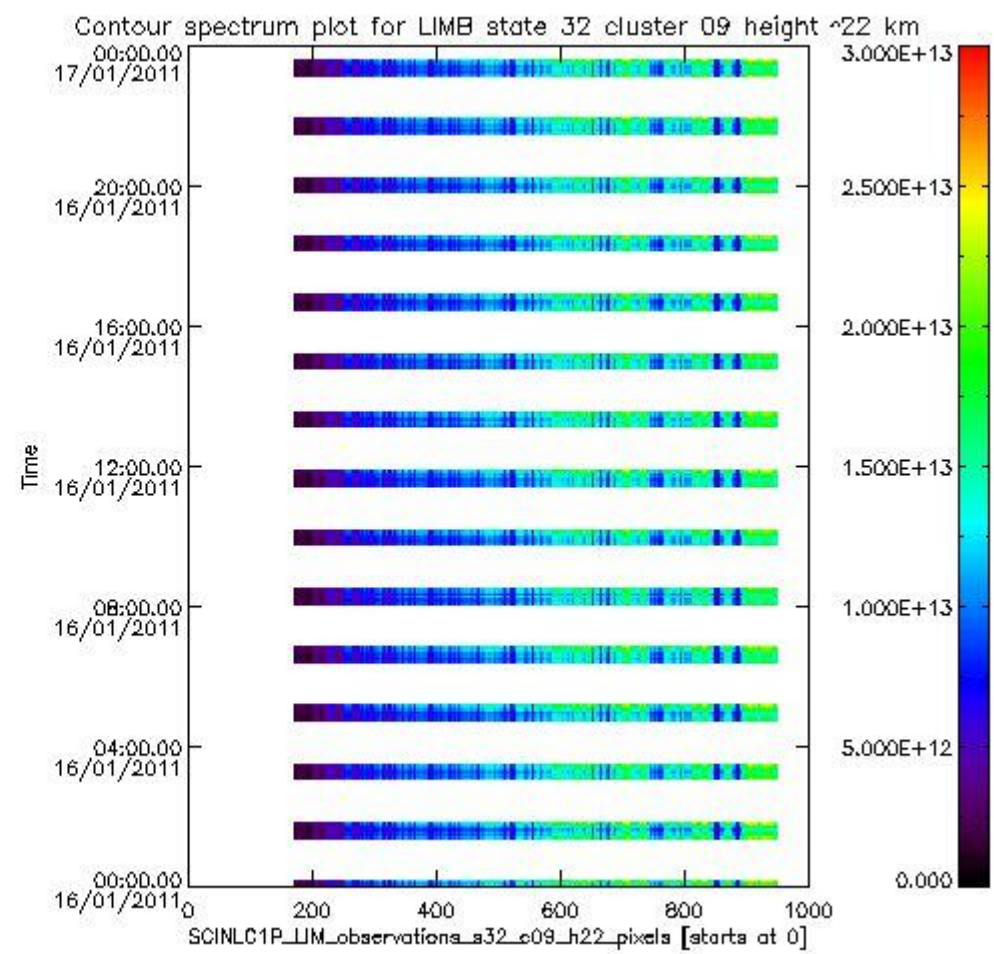
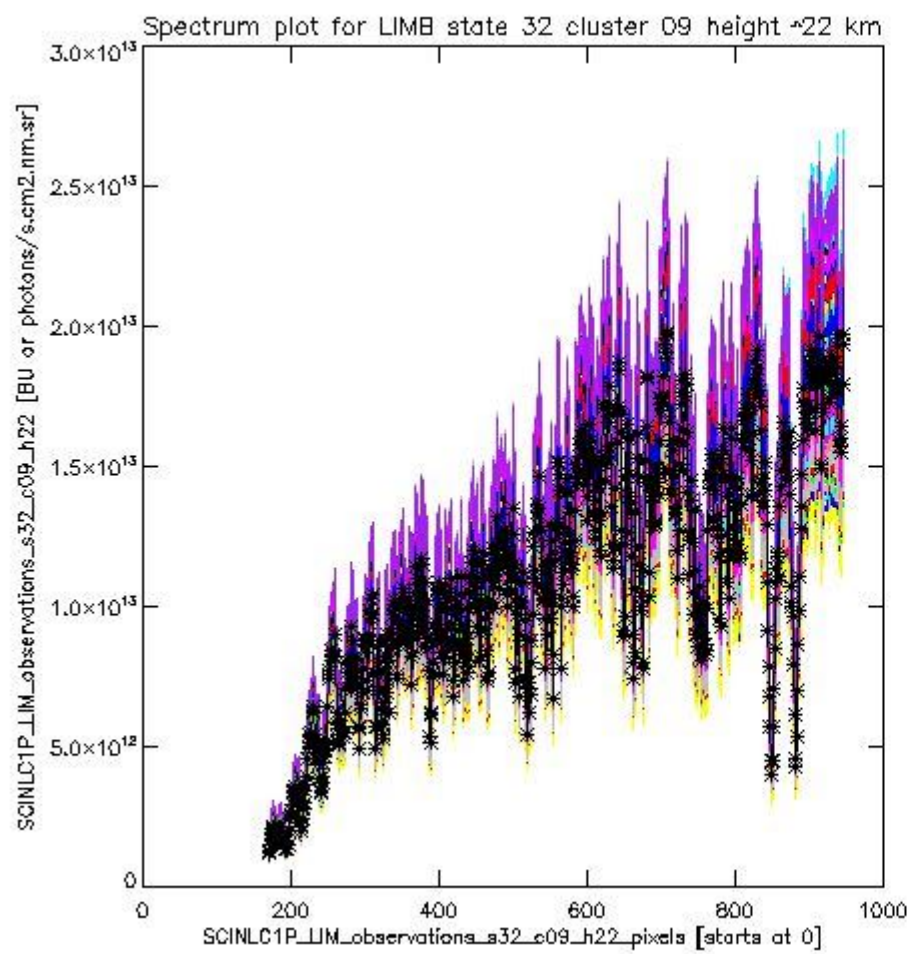
sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110116\_10.PNG



sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110116\_11.PNG

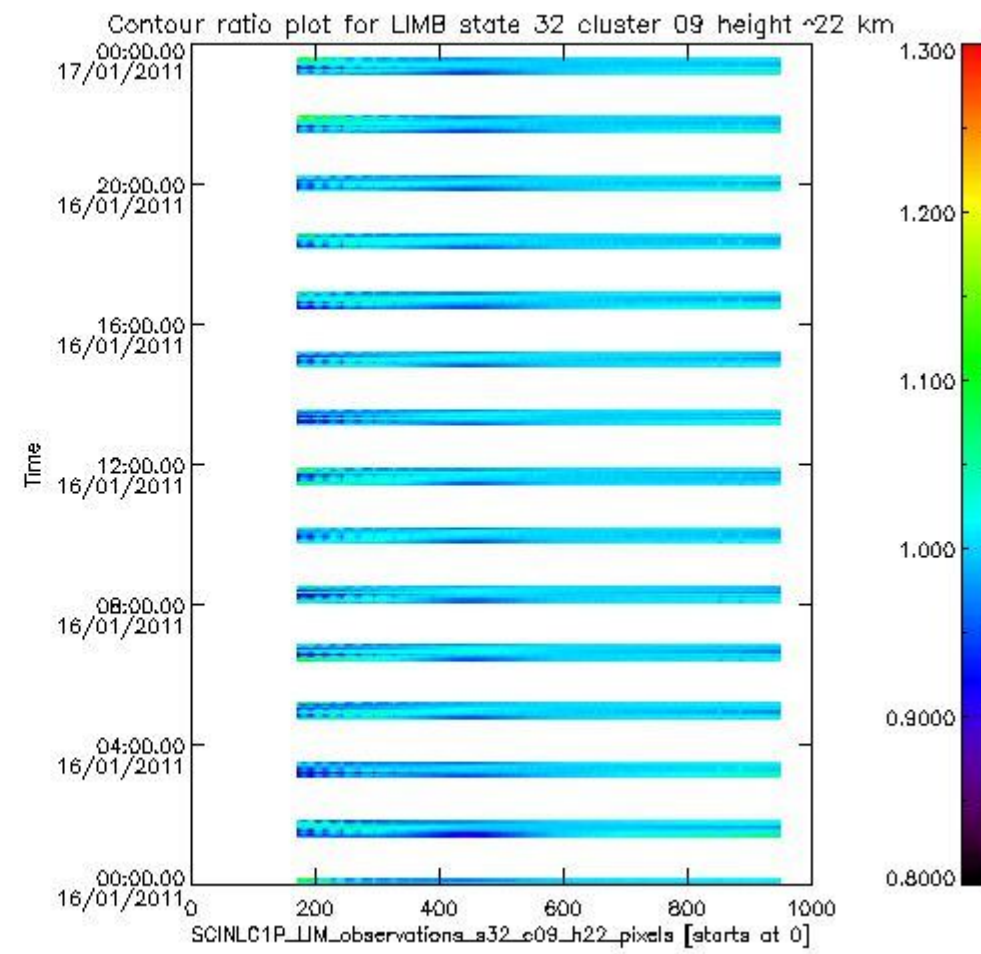
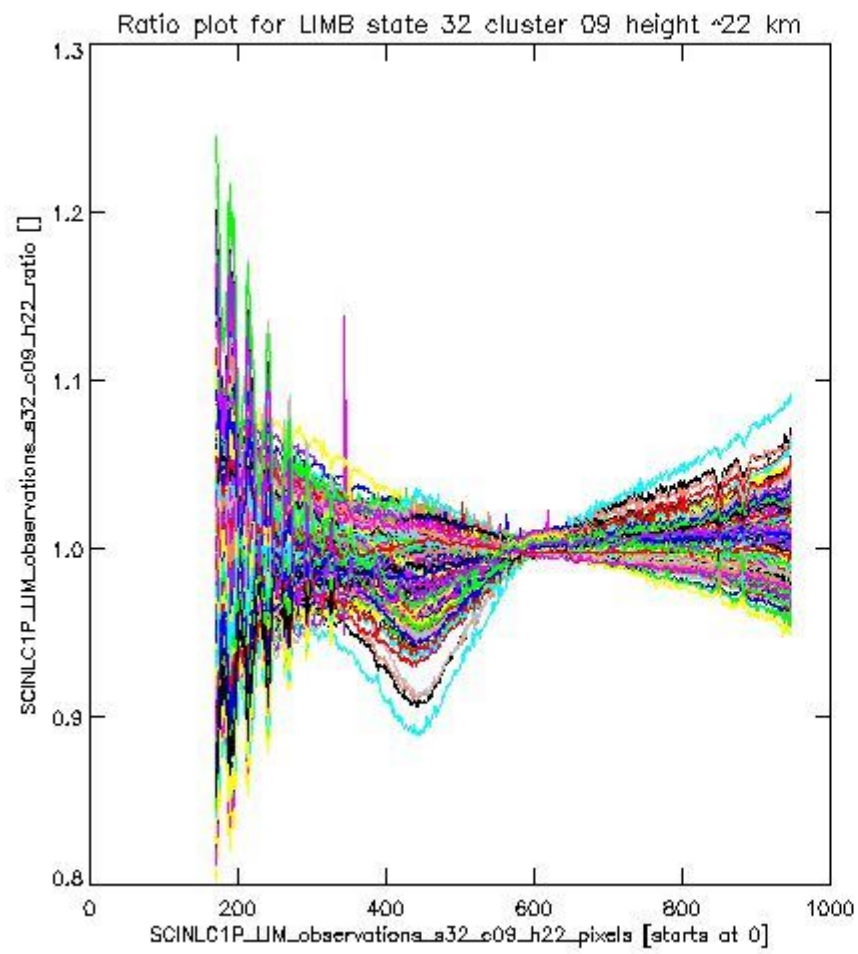
**1.2.7 LIMB state 32 cluster 09 height ~22 km** The data for the analysis of LIMB state 32 cluster 09 height ~22 km have the following characteristics:

Item	Value
Start time of first sample	16JAN2011 00:01:09.702
Start time of last sample	16JAN2011 23:32:32.807
Reference period start time	17DEC2010 01:23:16.143
Reference period stop time	15JAN2011 23:59:06.964
Channel number	2
First pixel number (starts at 0)	170
Last pixel number (starts at 0)	947



sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110116\_12.PNG

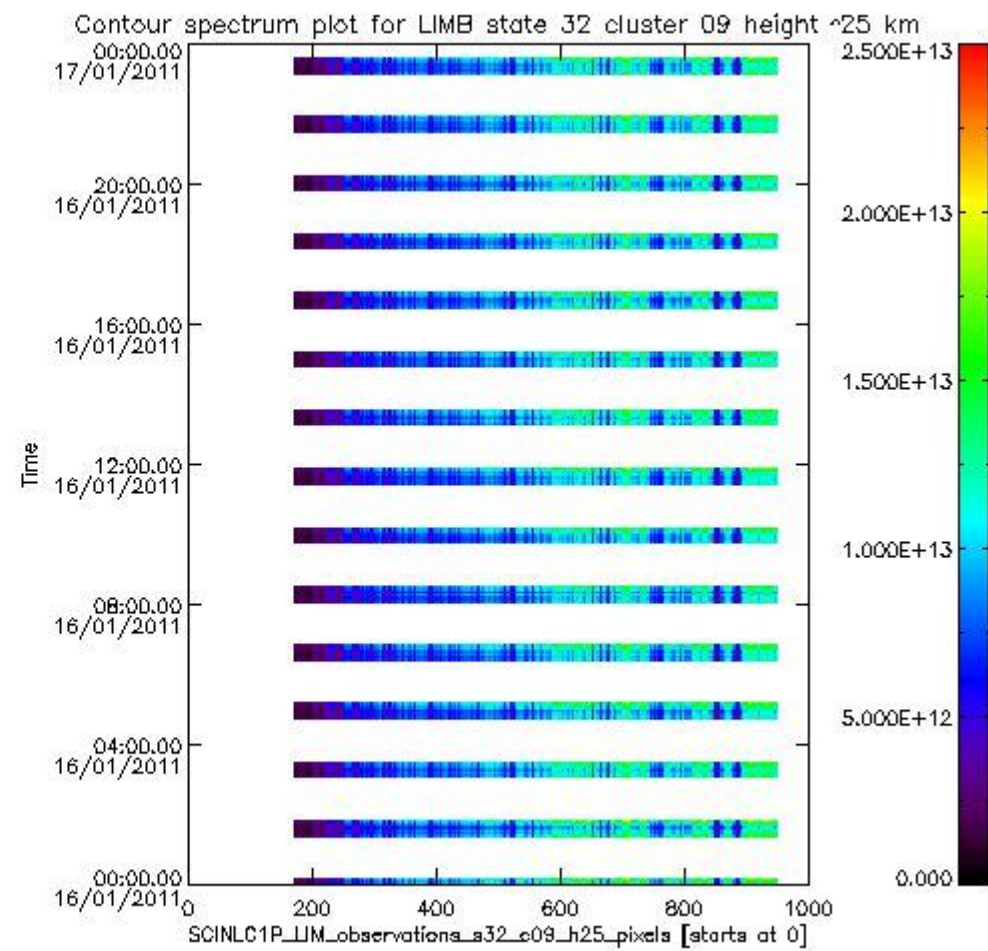
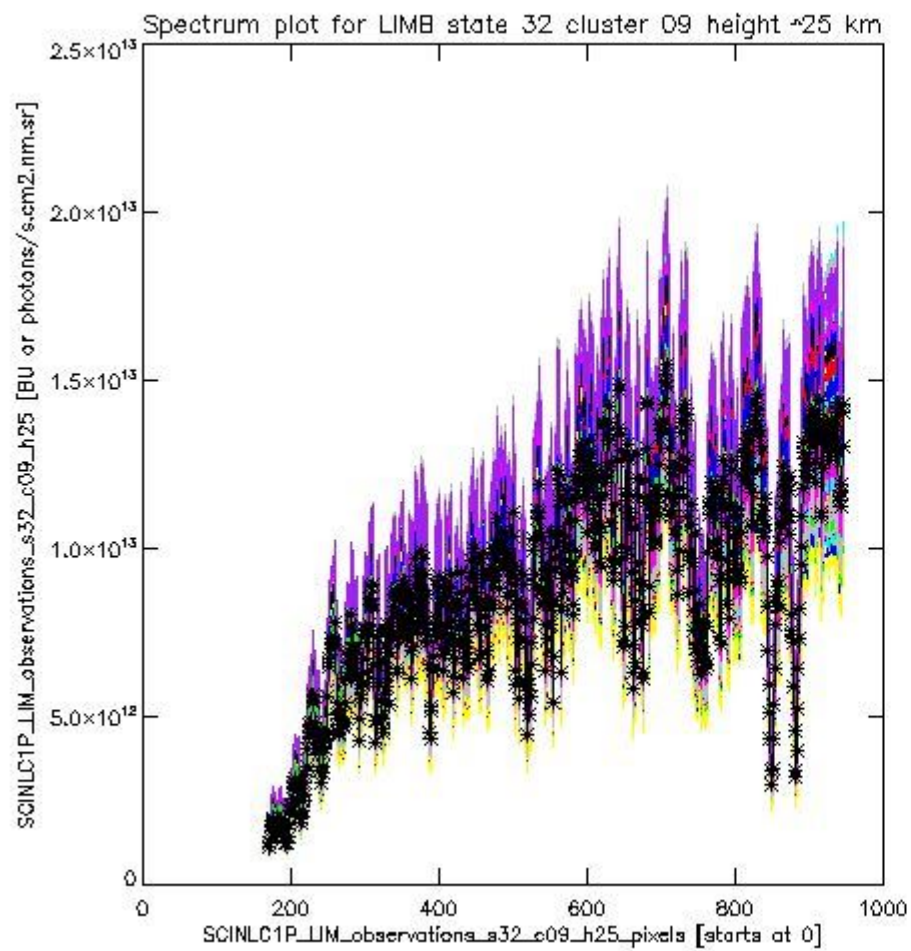




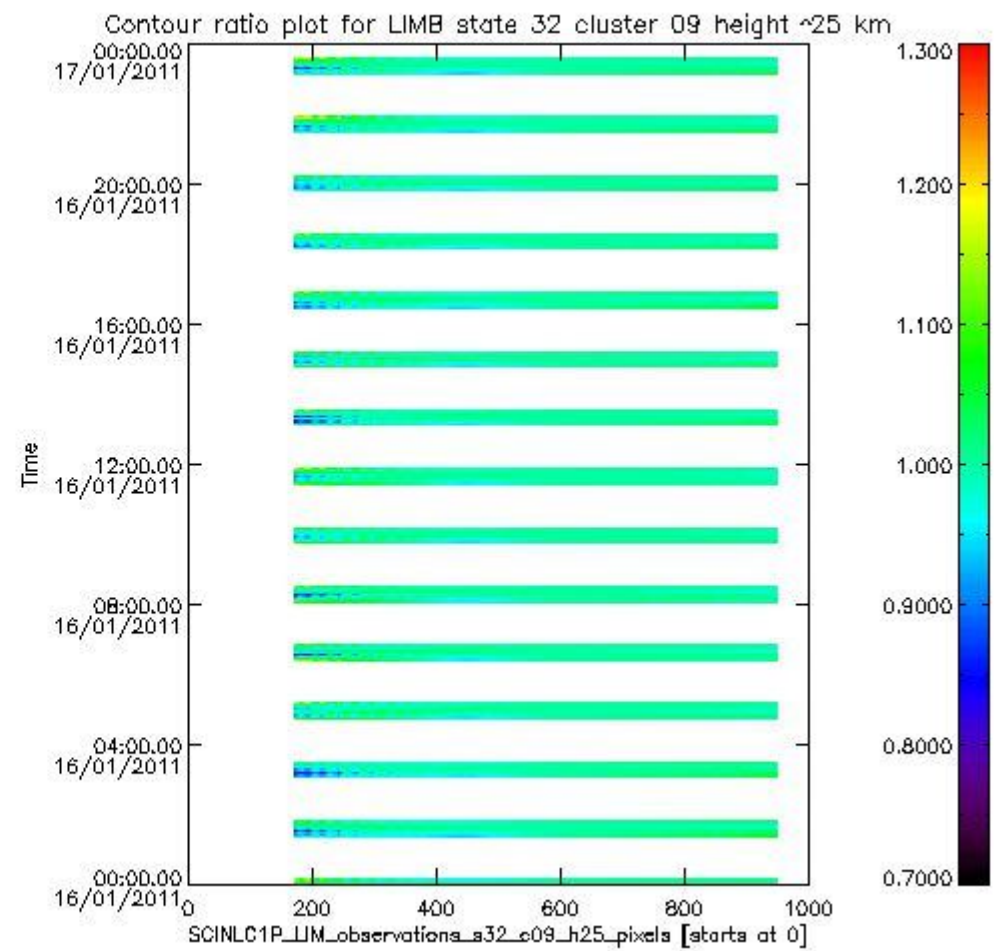
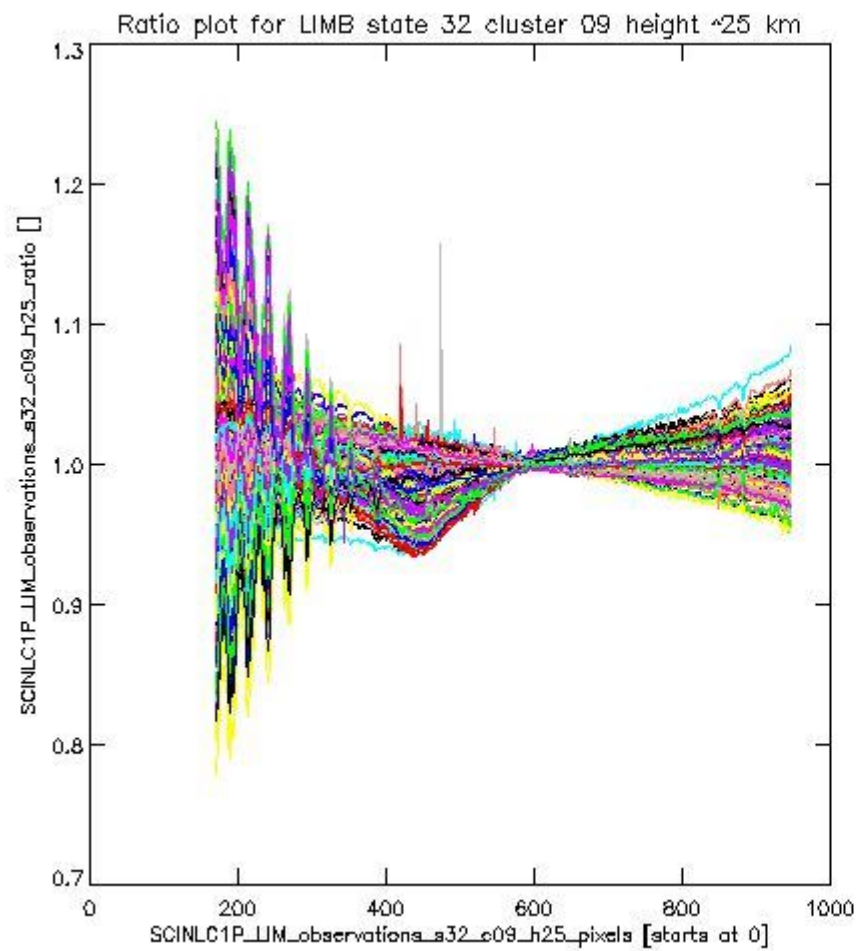
sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110116\_13.PNG

**1.2.8 LIMB state 32 cluster 09 height ~25 km** The data for the analysis of LIMB state 32 cluster 09 height ~25 km have the following characteristics:

Item	Value
Start time of first sample	16JAN2011 00:01:09.702
Start time of last sample	16JAN2011 23:32:32.807
Reference period start time	17DEC2010 01:23:16.143
Reference period stop time	15JAN2011 23:59:06.964
Channel number	2
First pixel number (starts at 0)	170
Last pixel number (starts at 0)	947



sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110116\_14.PNG

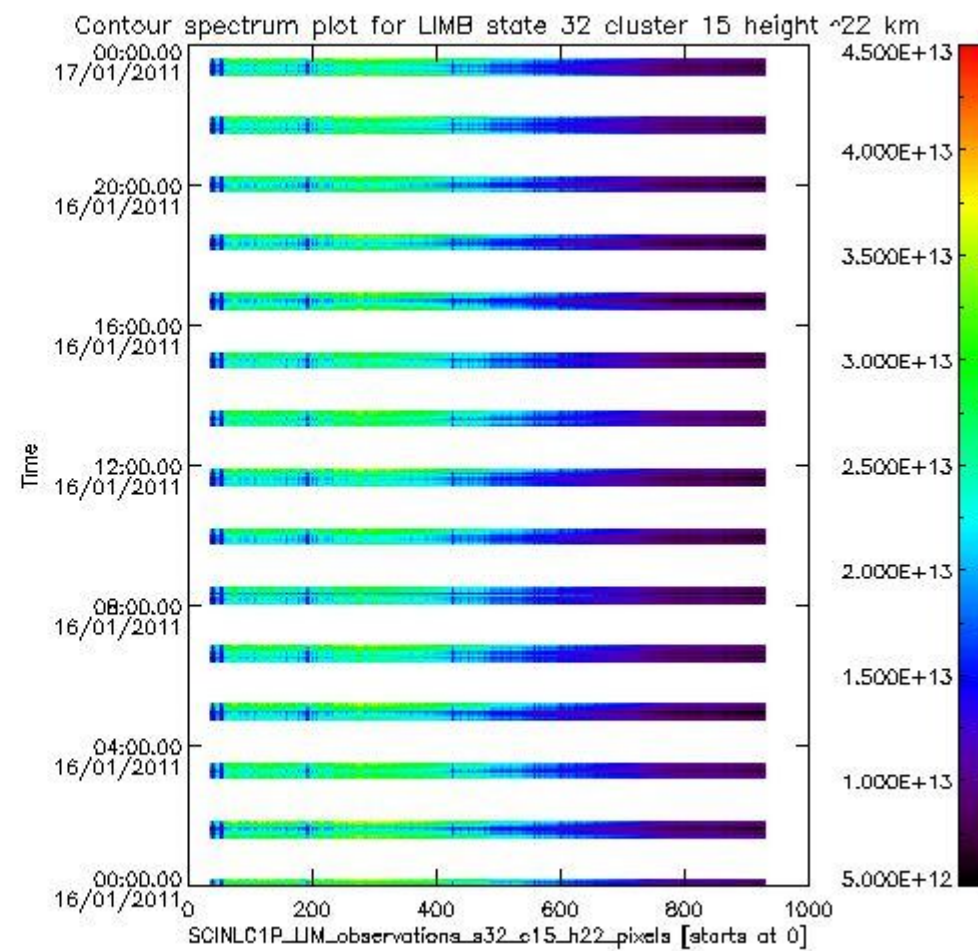
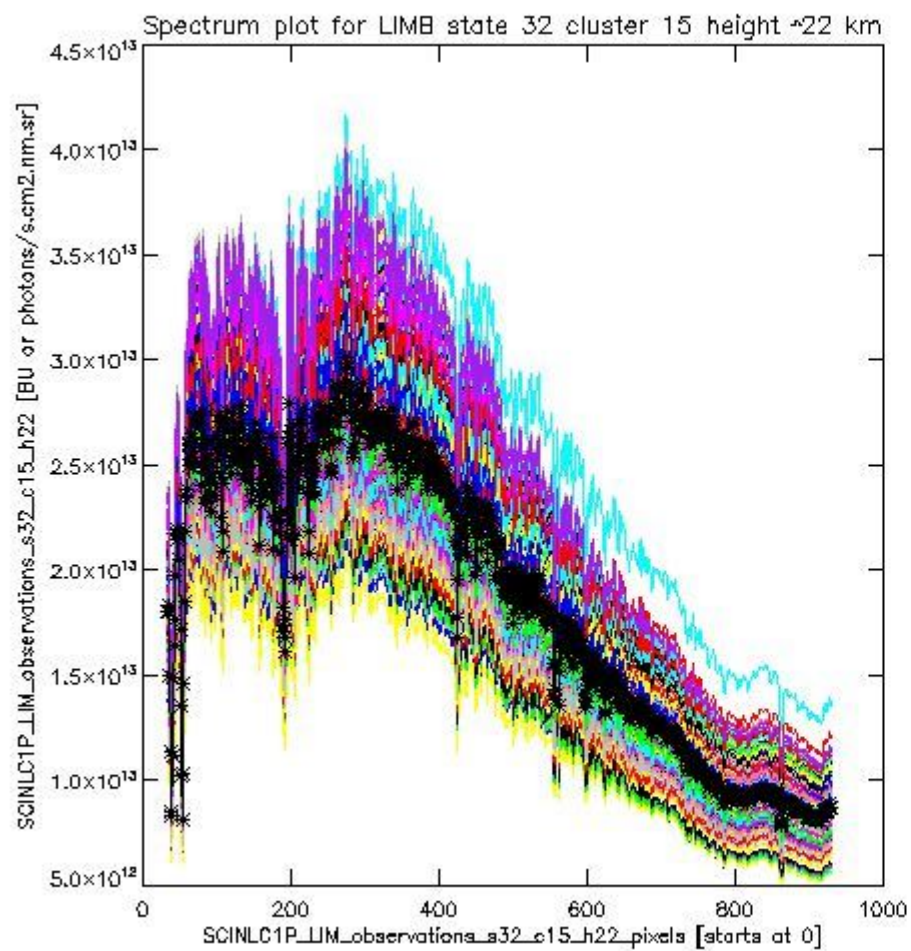


sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110116\_15.PNG

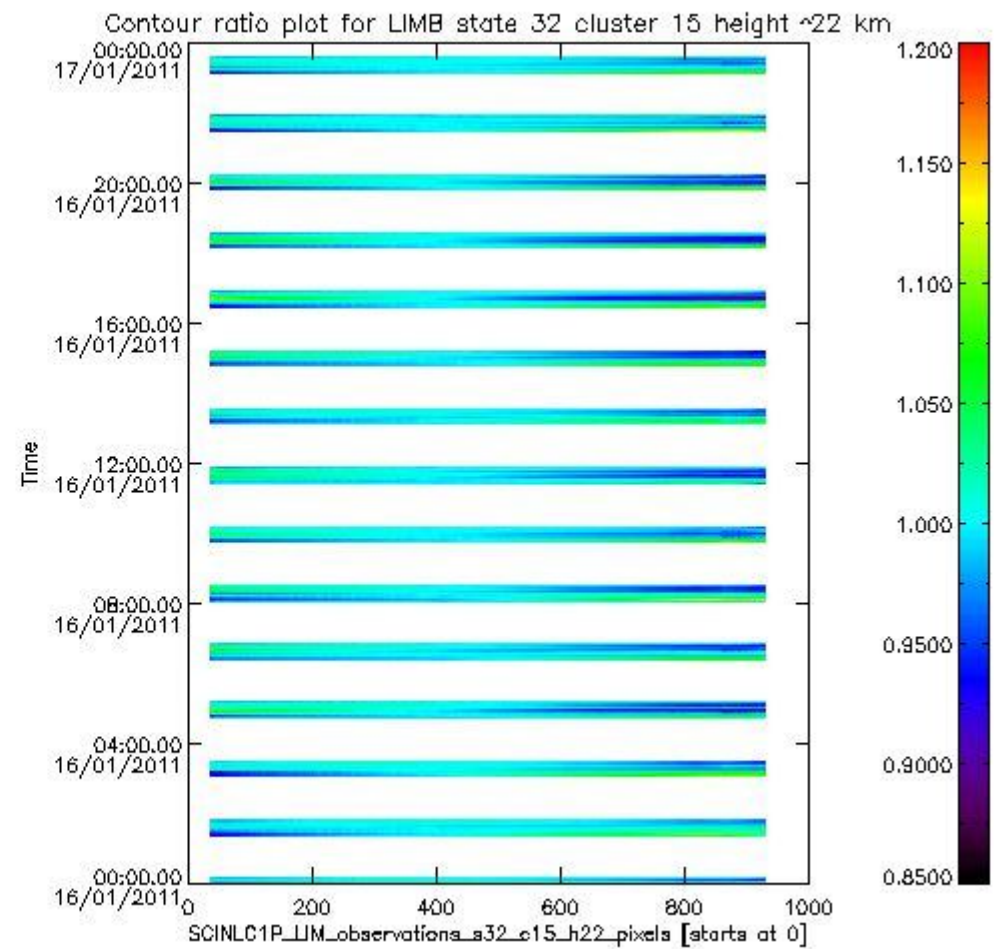
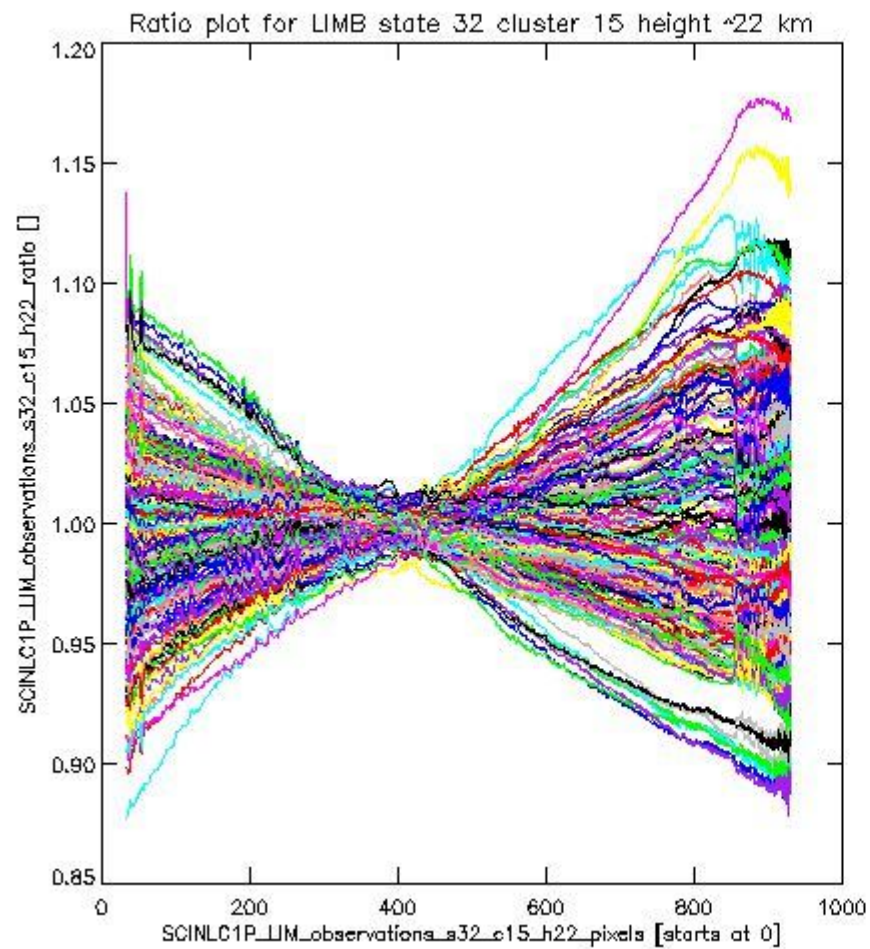
**1.2.9 LIMB state 32 cluster 15 height ~22 km** The data for the analysis of LIMB state 32 cluster 15 height ~22 km have the following characteristics:

Item	Value
Start time of first sample	16JAN2011 00:01:09.702
Start time of last sample	16JAN2011 23:32:32.807
Reference period start time	17DEC2010 01:23:16.143
Reference period stop time	15JAN2011 23:59:06.964
Channel number	3
First pixel number (starts at 0)	33
Last pixel number (starts at 0)	929





sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110116\_16.PNG

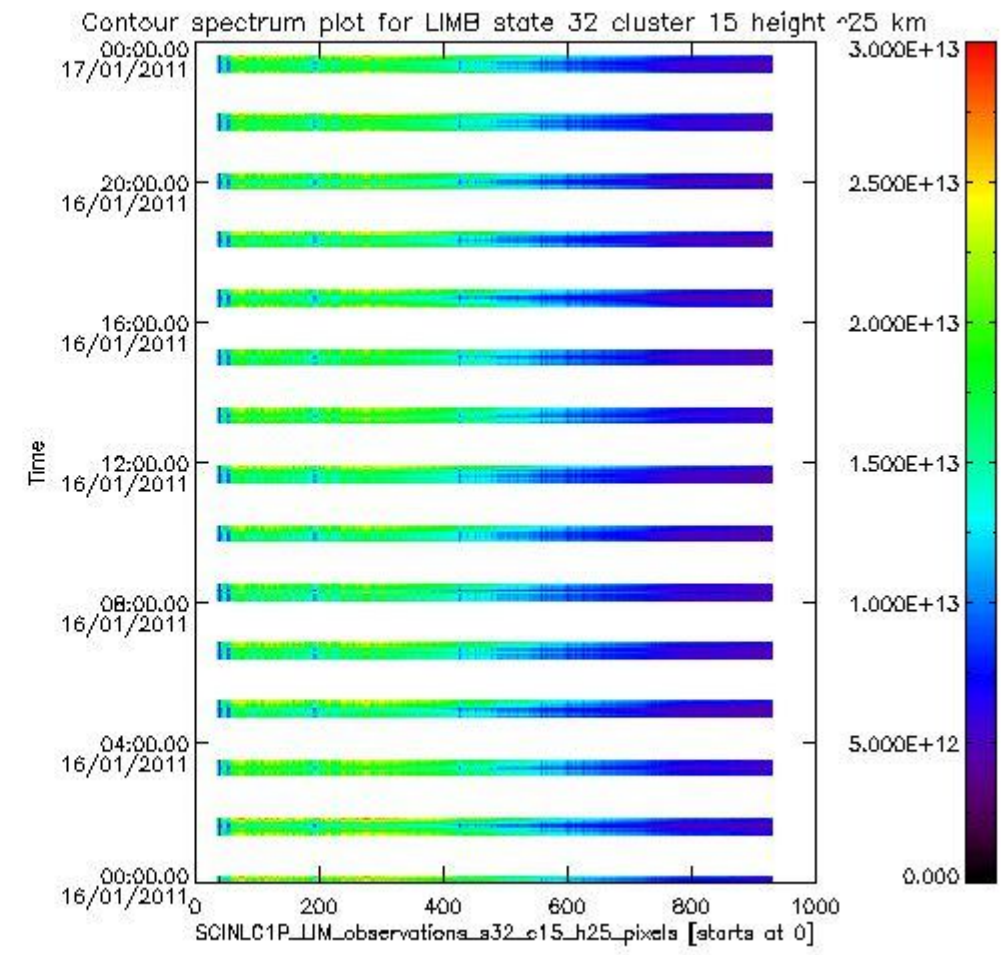
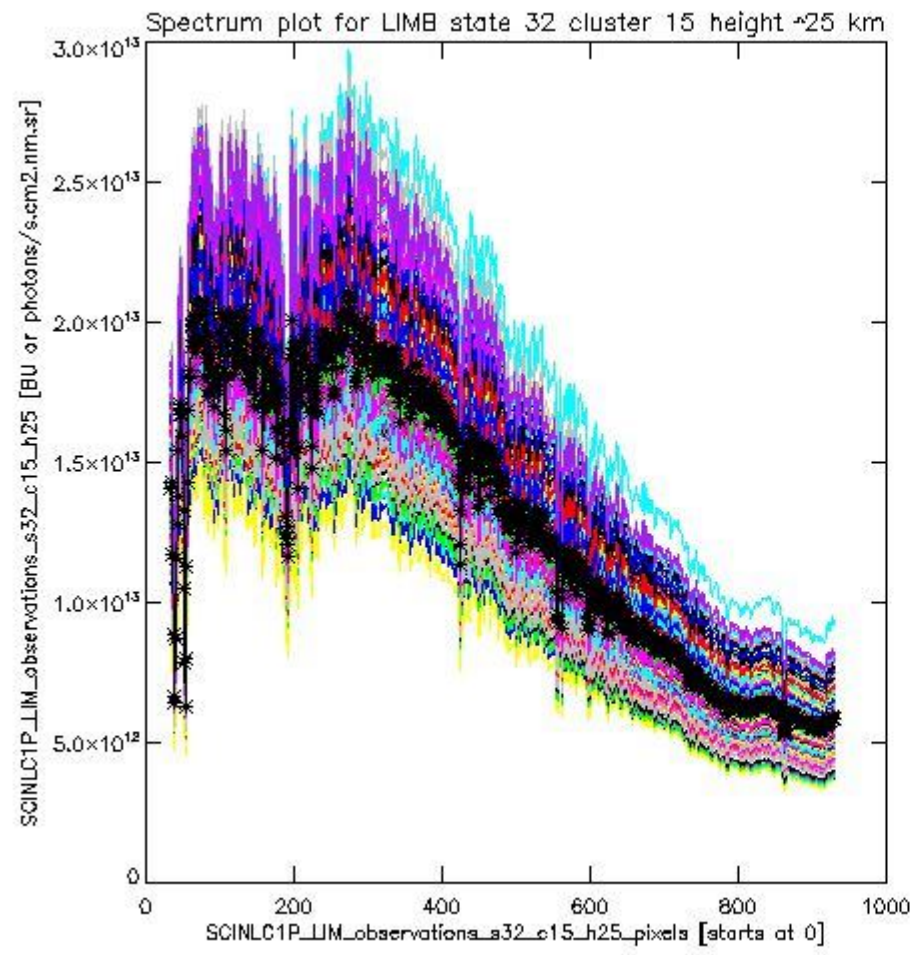


sciamachy\_11b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110116\_17.PNG

**1.2.10 LIMB state 32 cluster 15 height ~25 km** The data for the analysis of LIMB state 32 cluster 15 height ~25 km have the following characteristics:

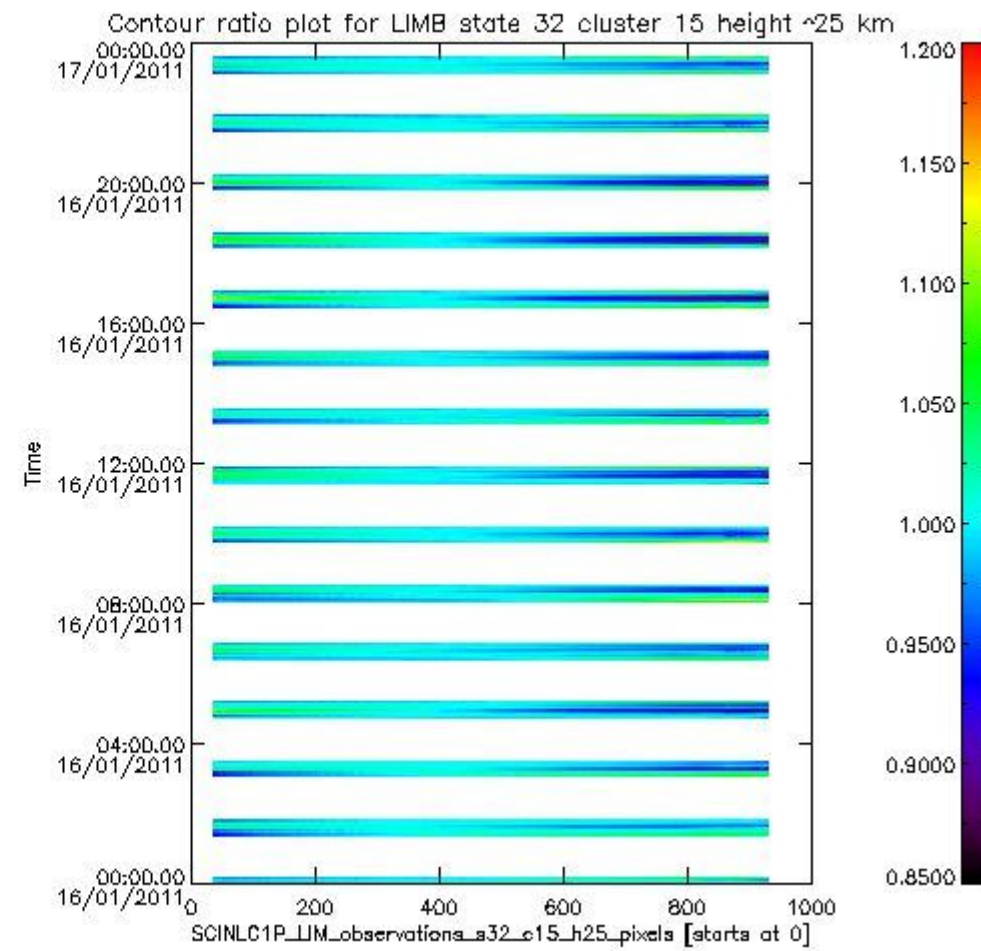
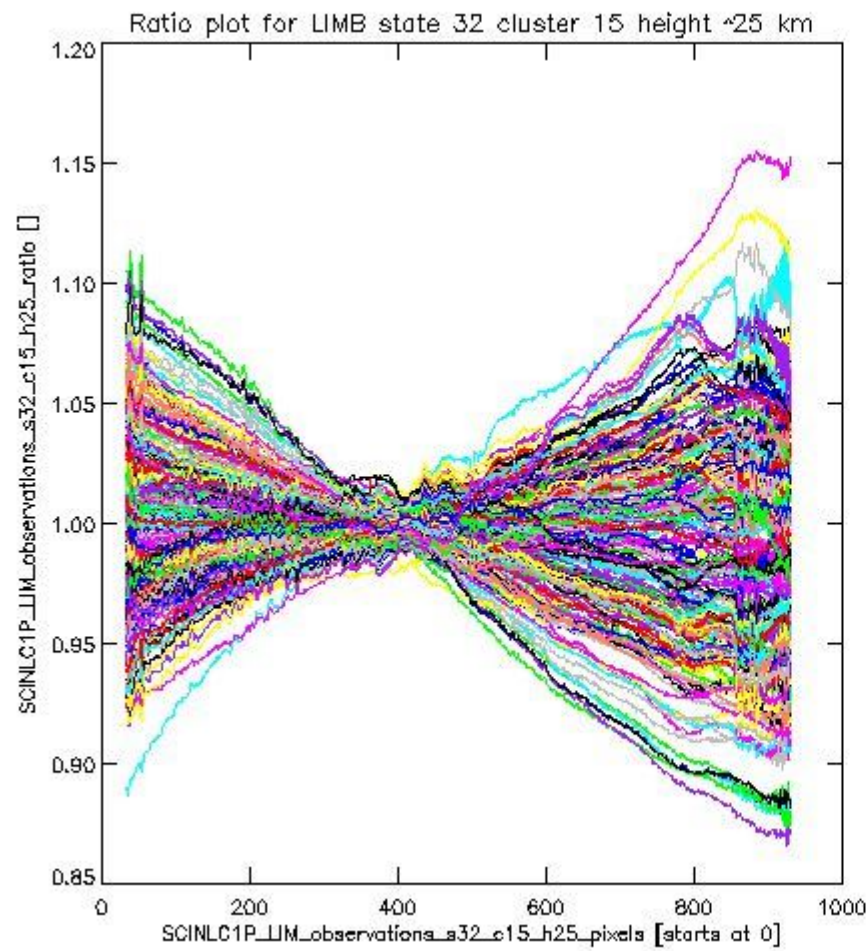
Item	Value
Start time of first sample	16JAN2011 00:01:09.702
Start time of last sample	16JAN2011 23:32:32.807
Reference period start time	17DEC2010 01:23:16.143
Reference period stop time	15JAN2011 23:59:06.964
Channel number	3
First pixel number (starts at 0)	33
Last pixel number (starts at 0)	929





sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110116\_18.PNG

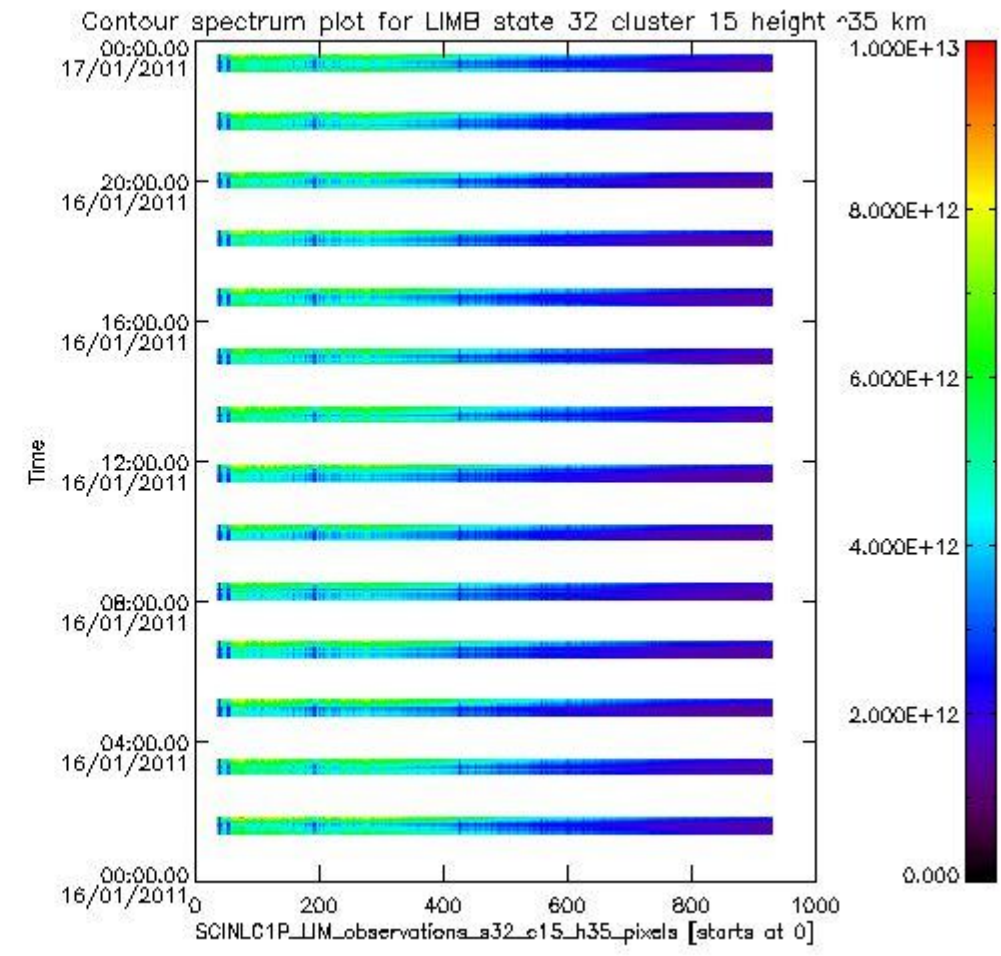
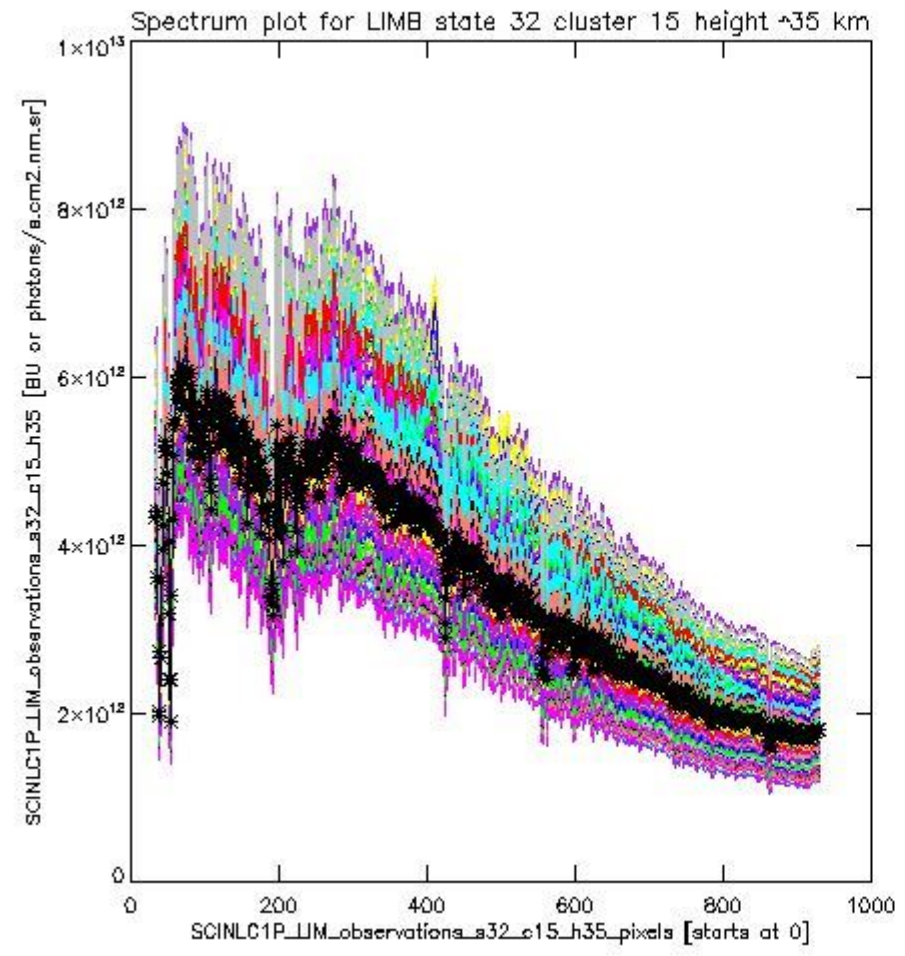




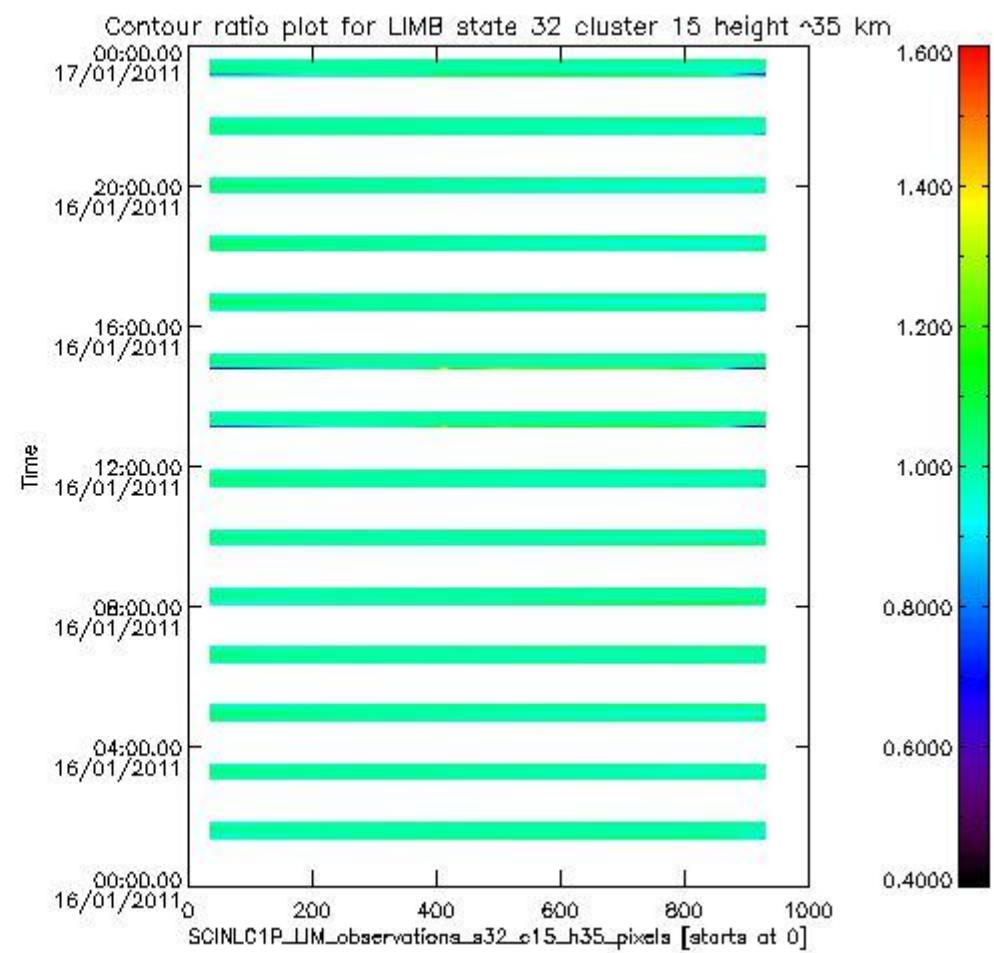
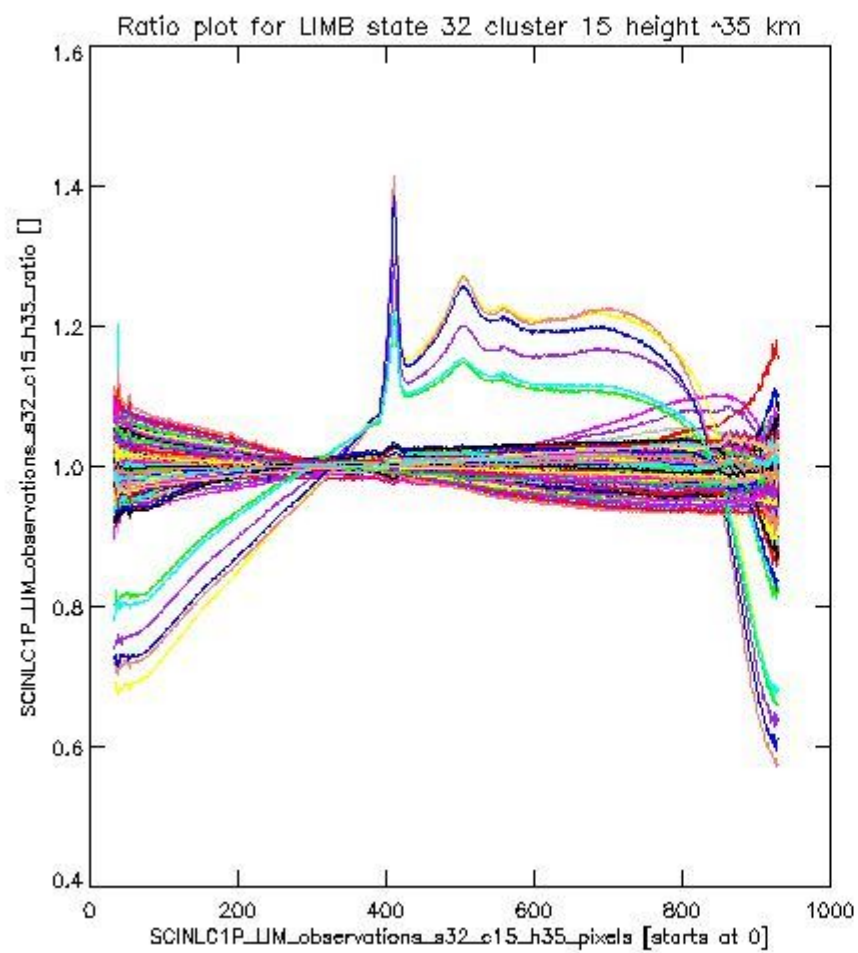
sciamachy\_11b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110116\_19.PNG

**1.2.11 LIMB state 32 cluster 15 height ~35 km** The data for the analysis of LIMB state 32 cluster 15 height ~35 km have the following characteristics:

Item	Value
Start time of first sample	16JAN2011 01:22:04.492
Start time of last sample	16JAN2011 23:32:32.807
Reference period start time	17DEC2010 01:23:16.143
Reference period stop time	15JAN2011 15:49:20.480
Channel number	3
First pixel number (starts at 0)	33
Last pixel number (starts at 0)	929

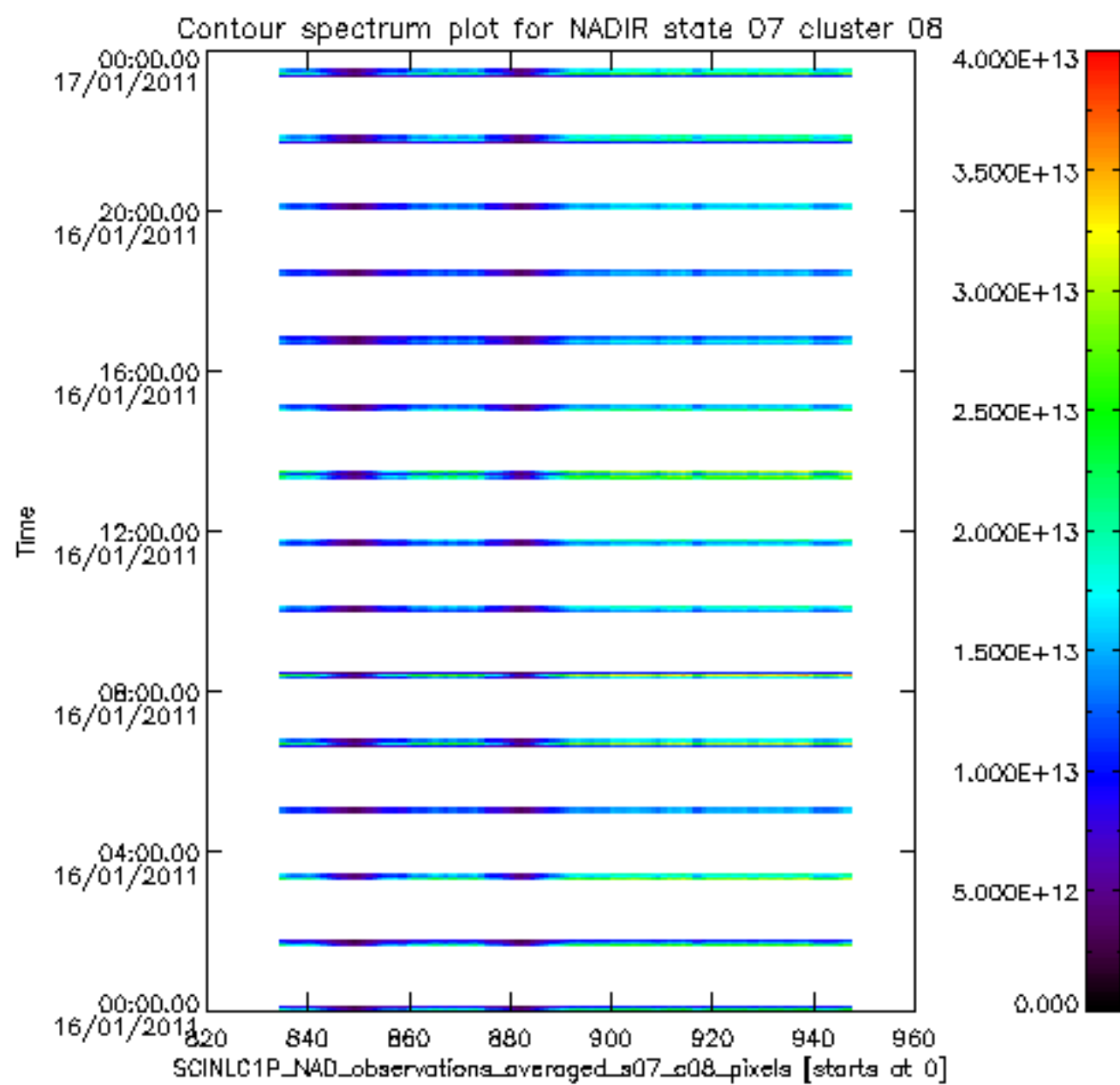
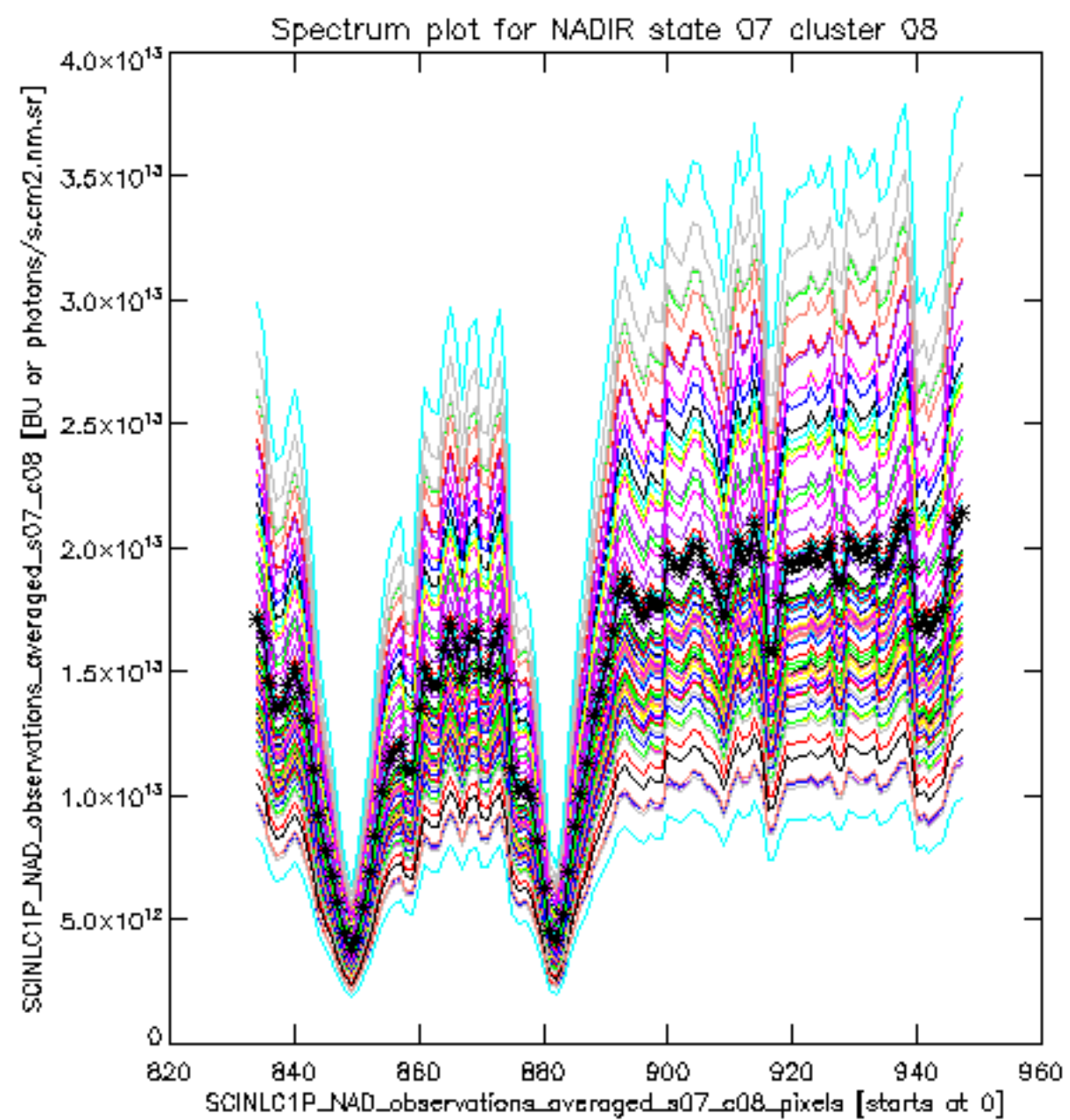


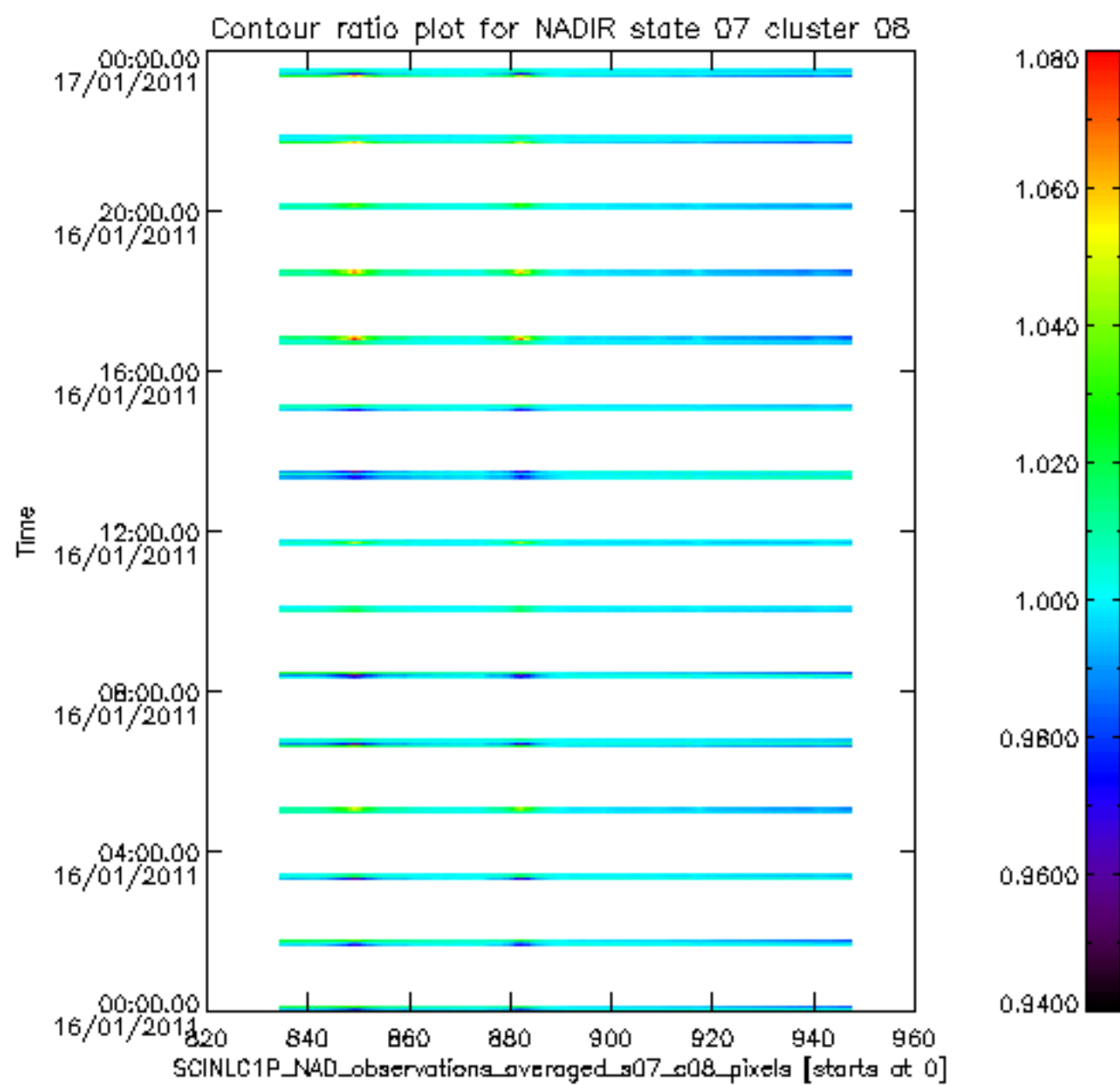
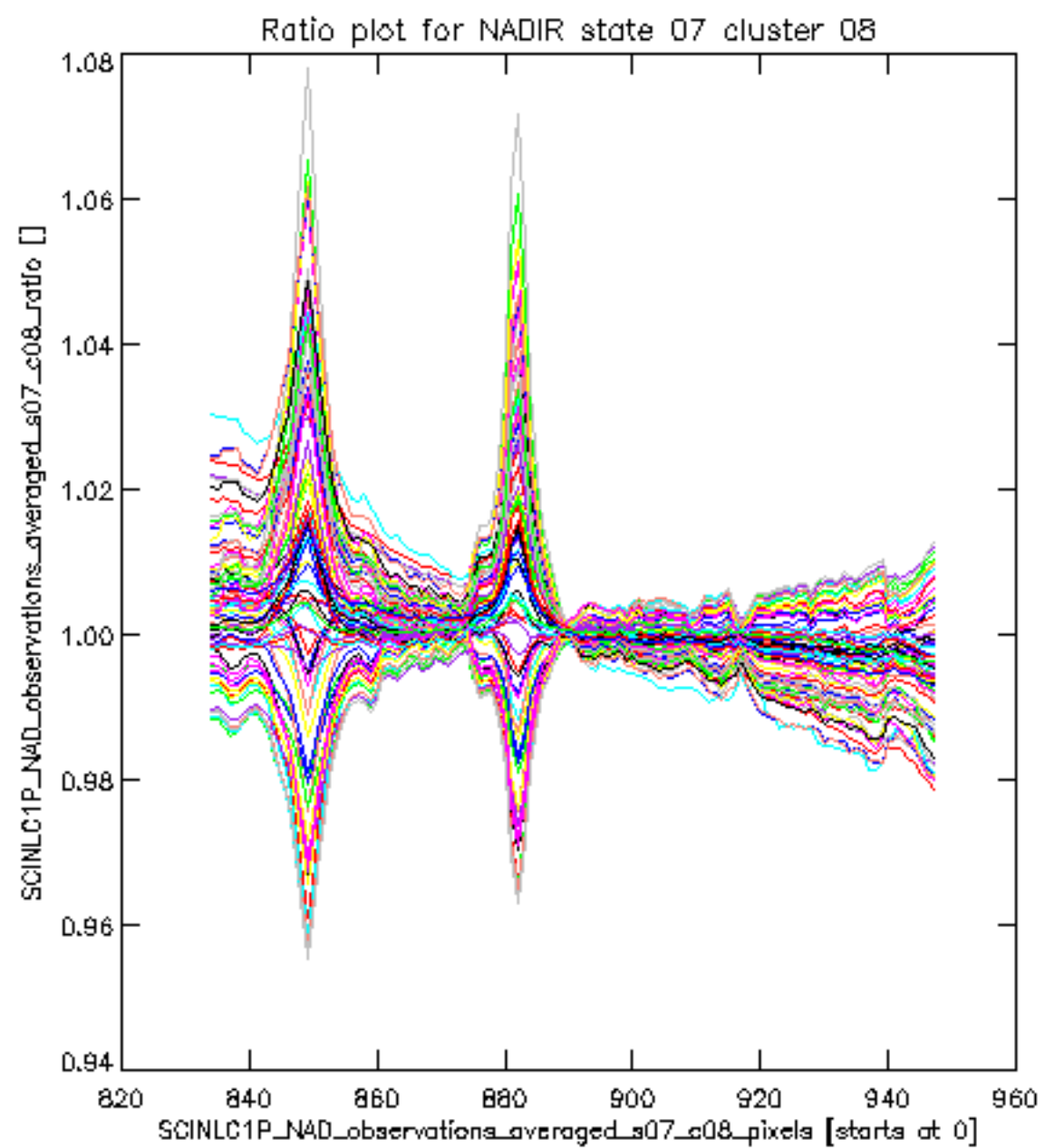
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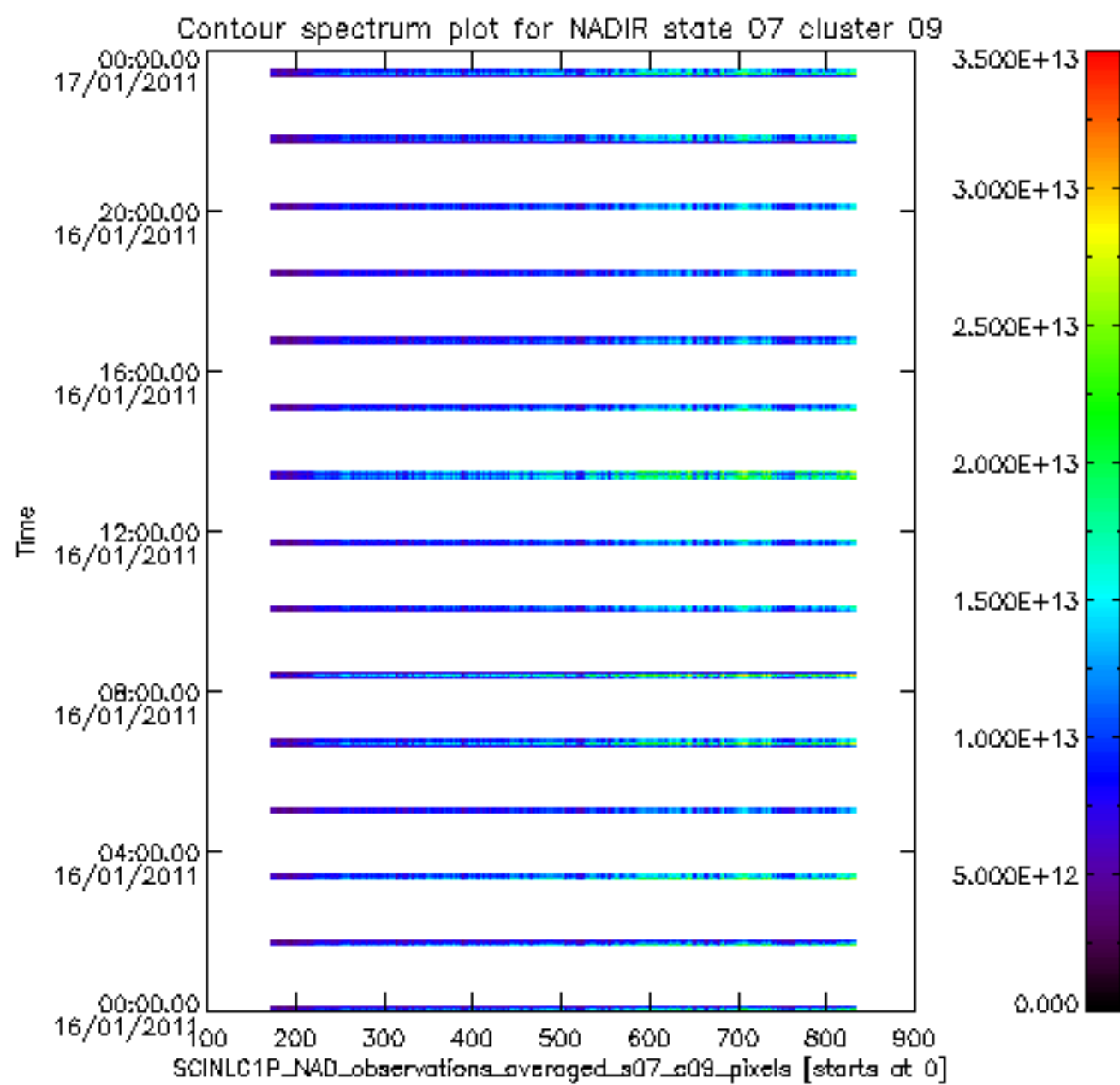
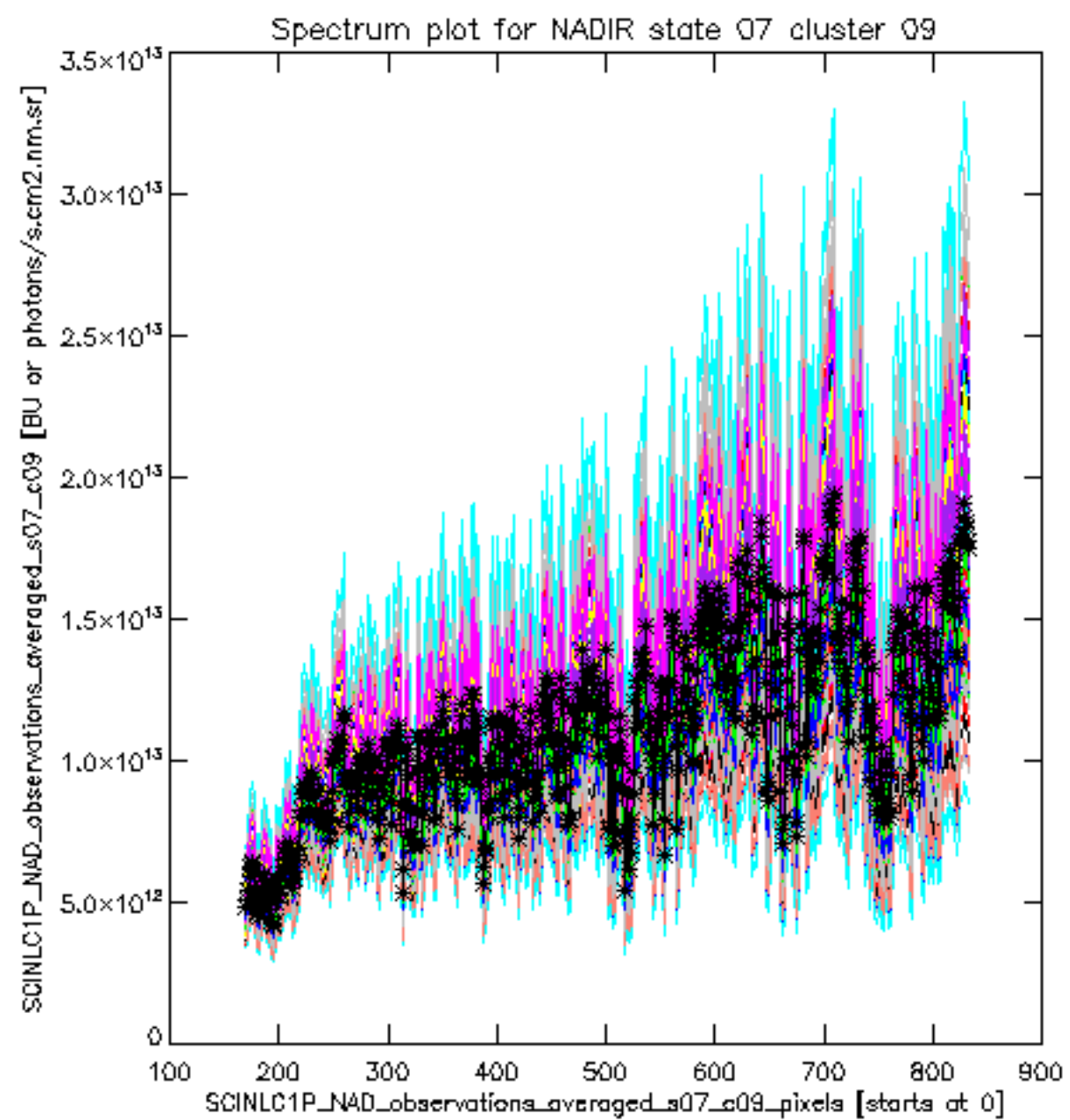


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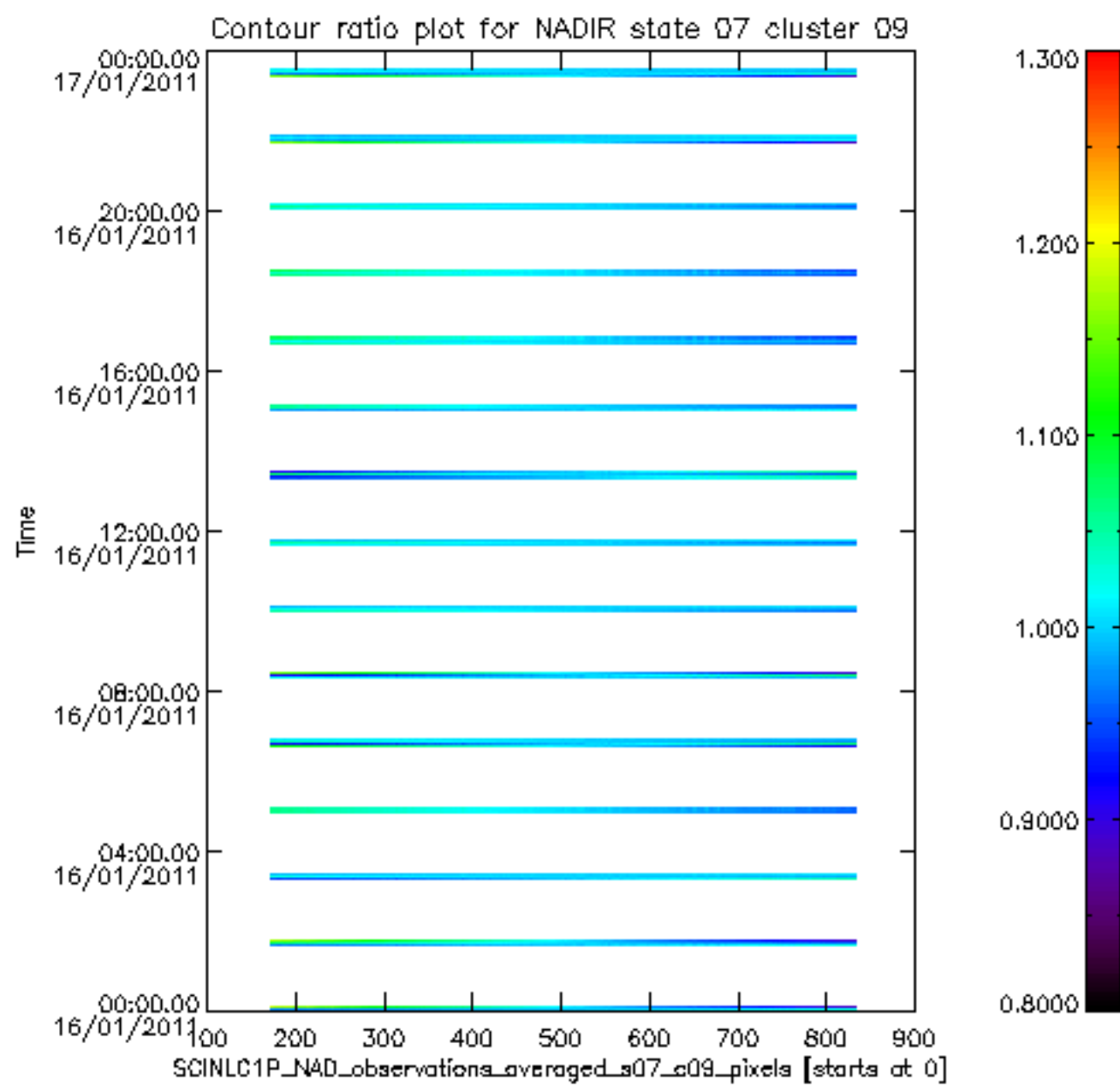
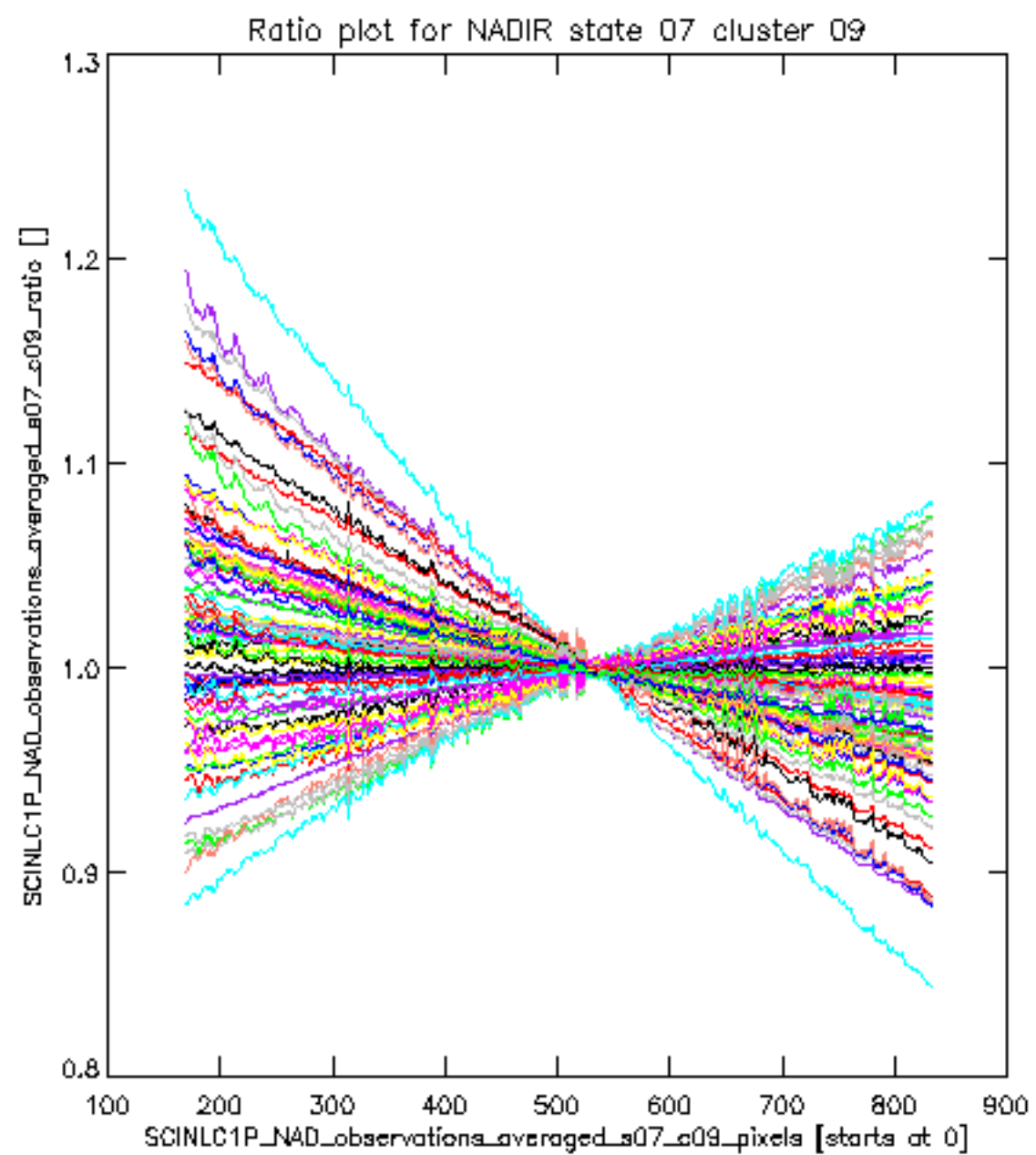


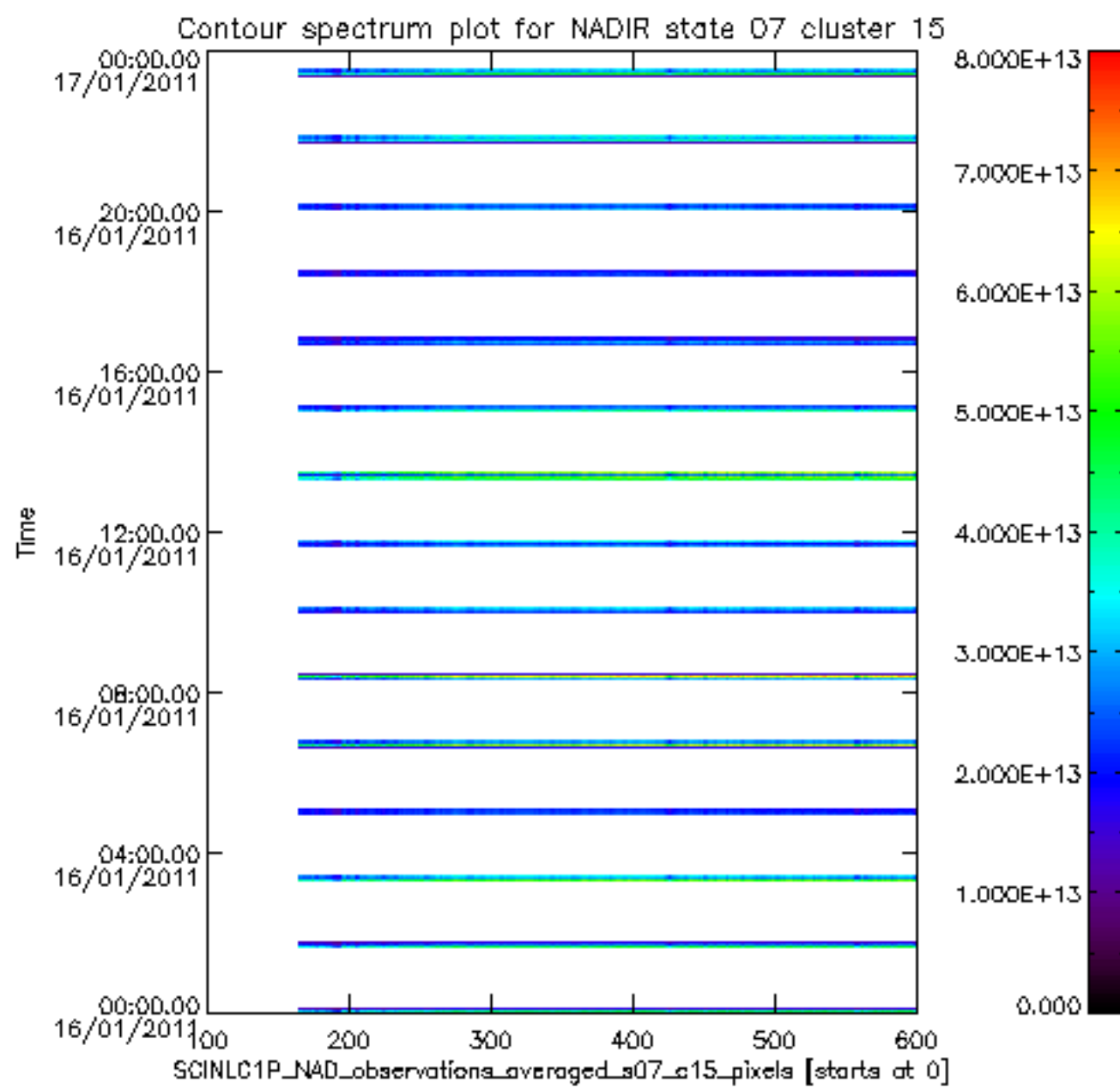
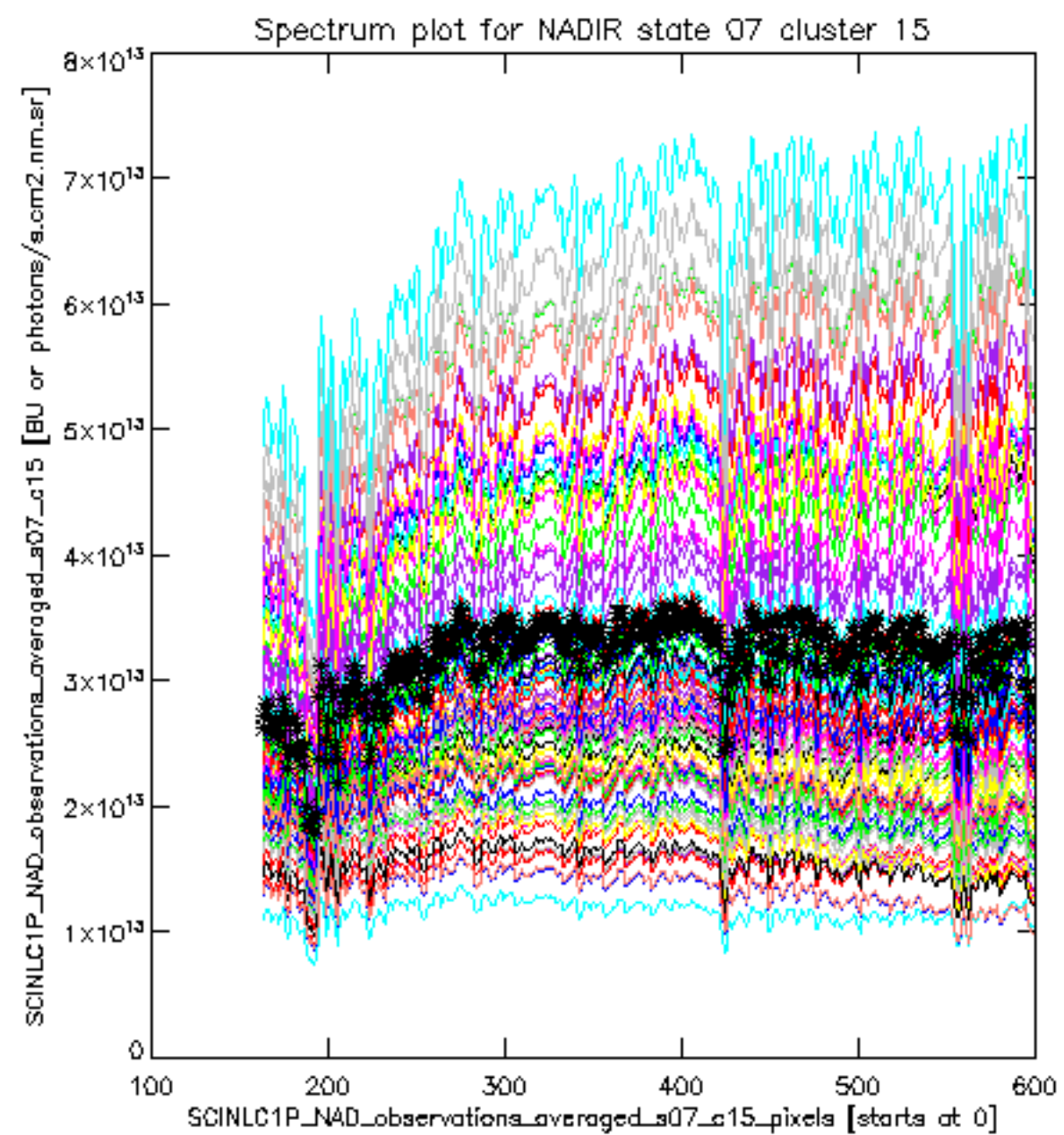


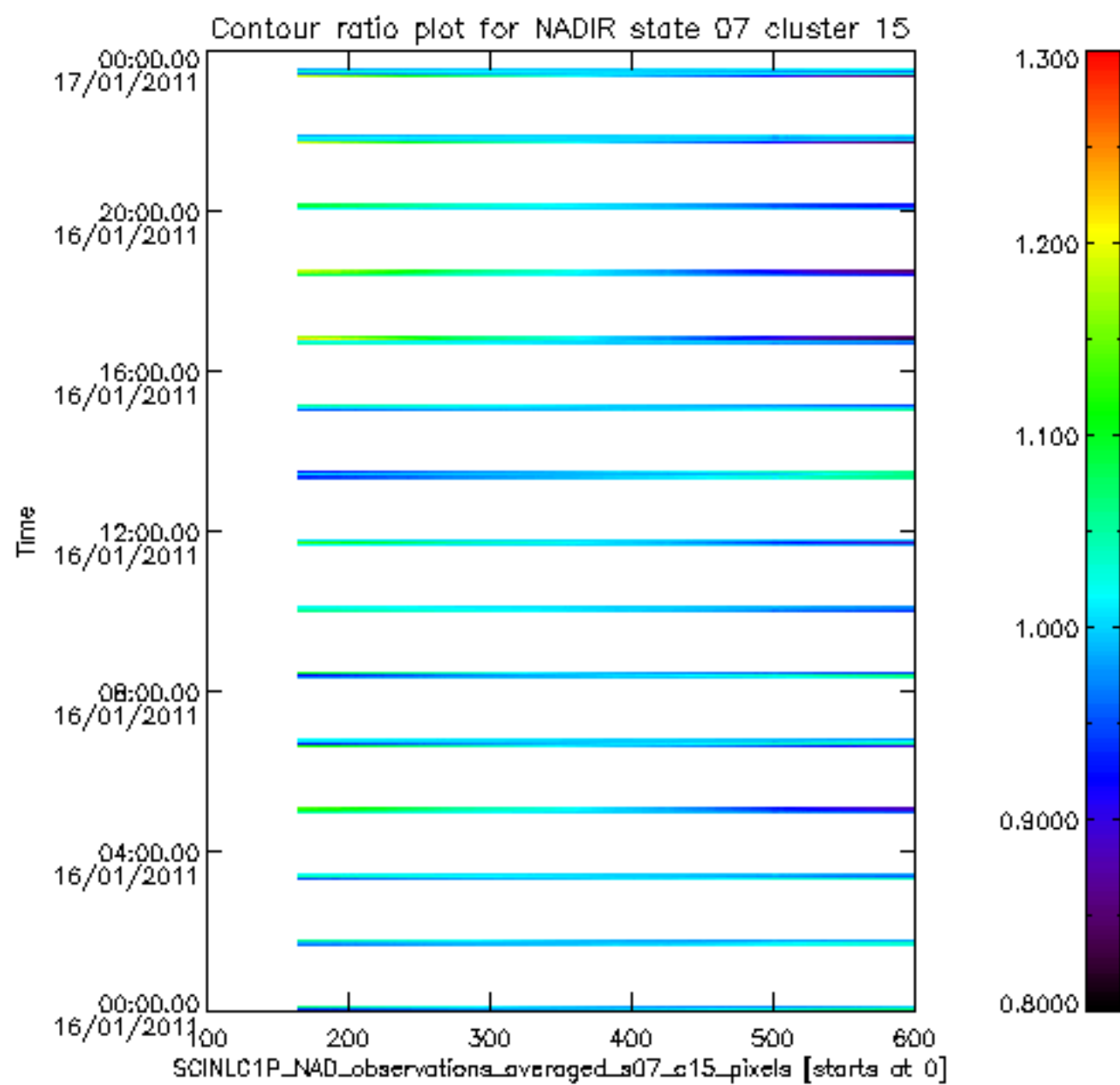
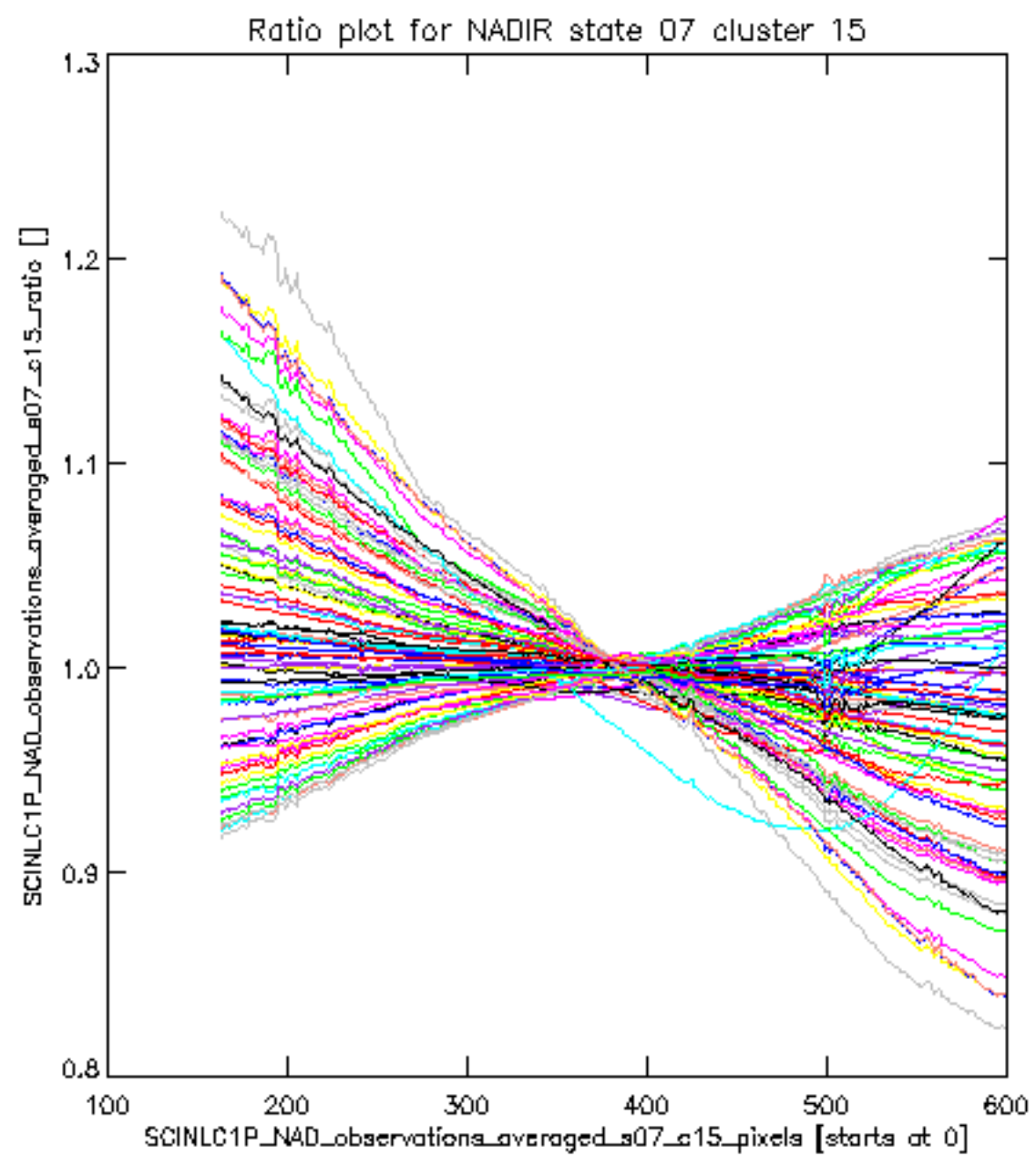




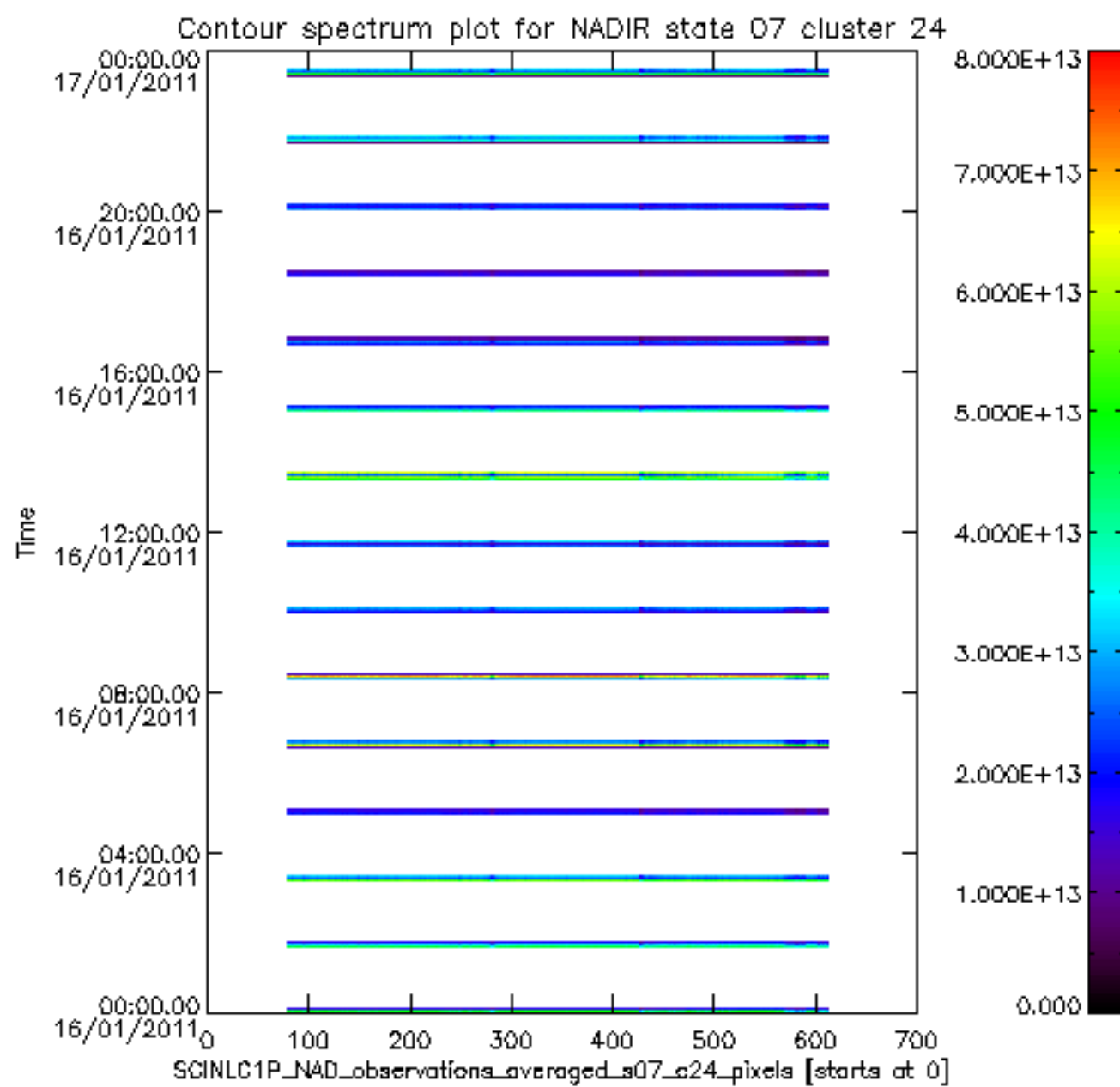
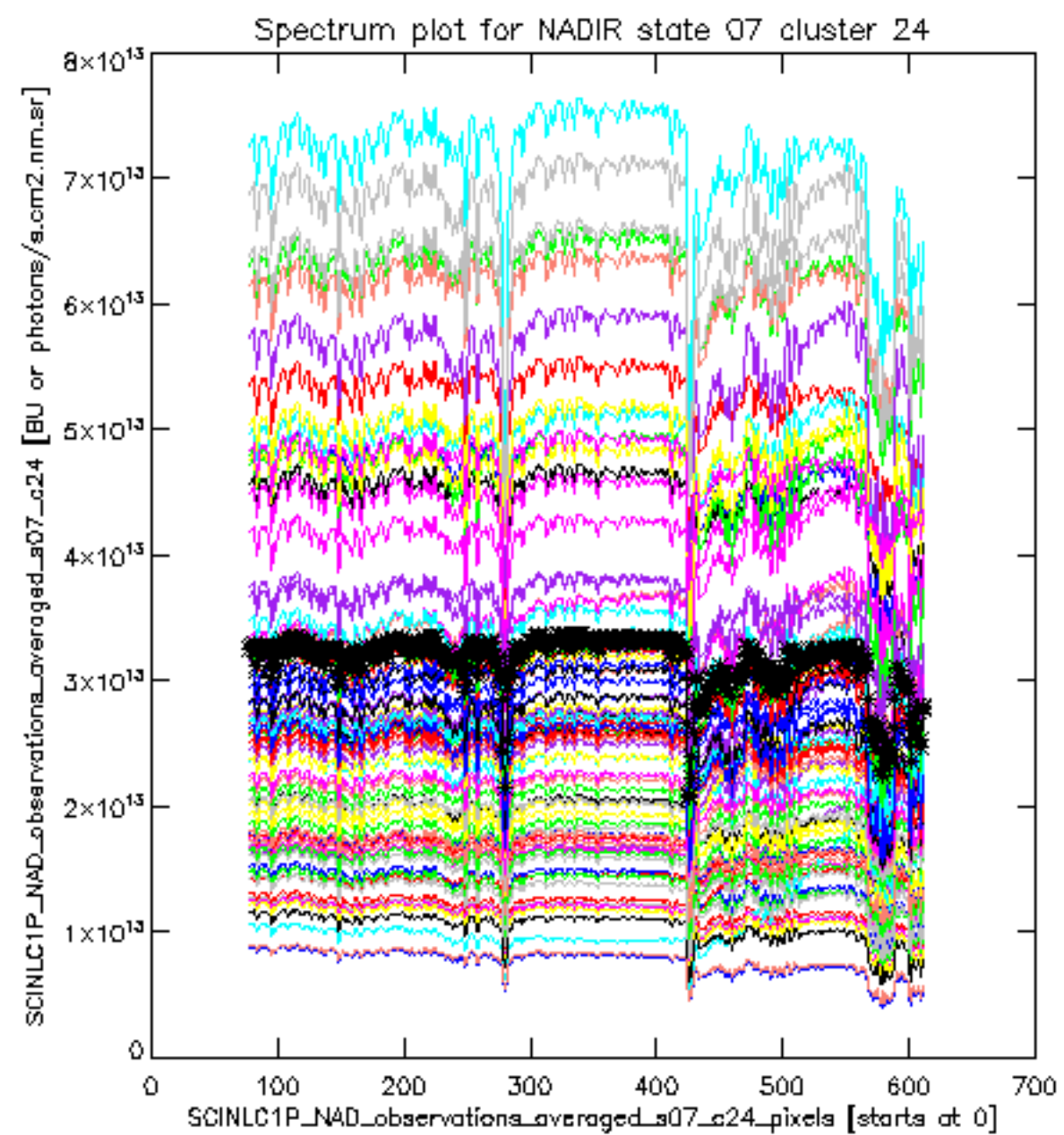


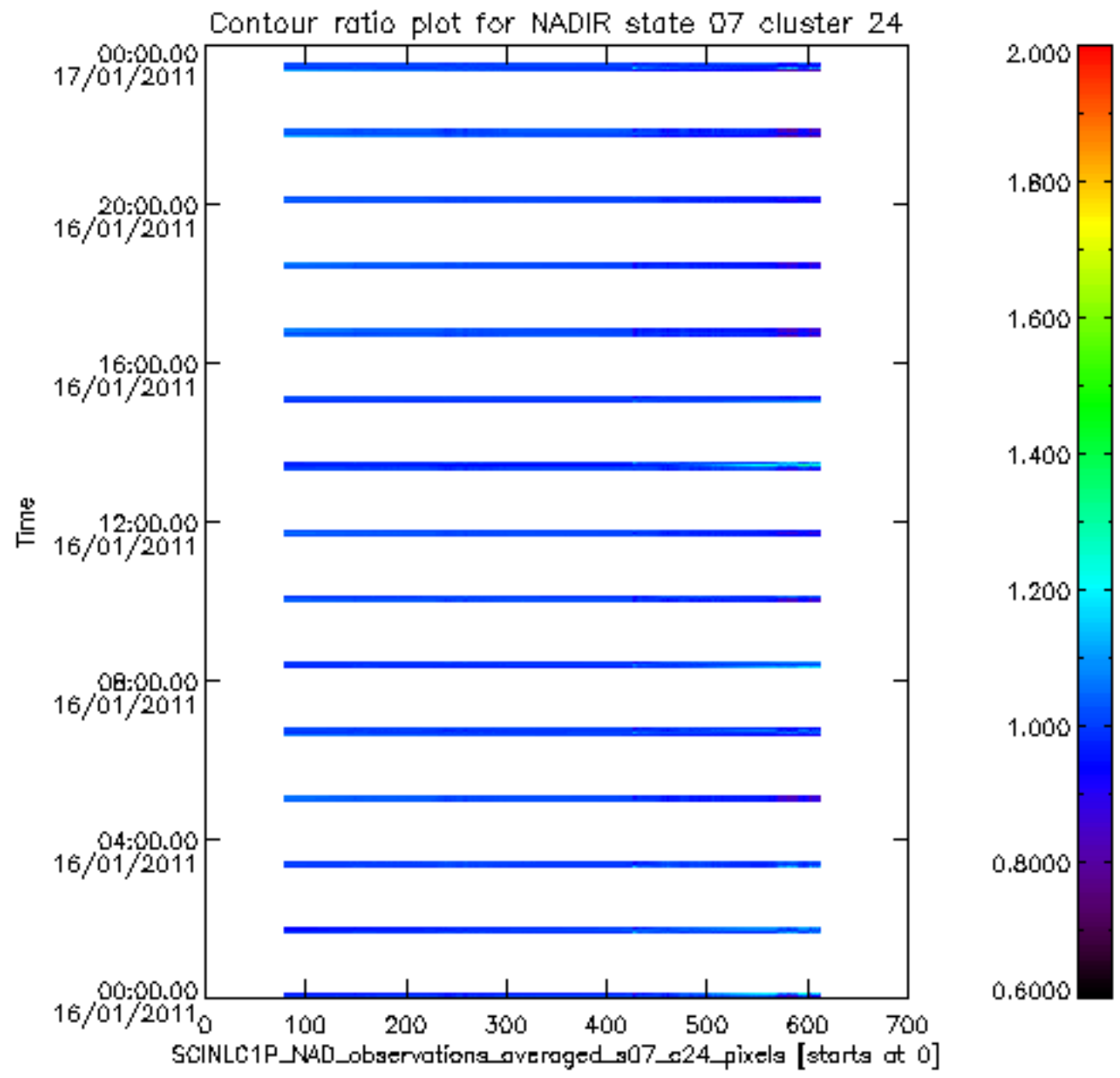
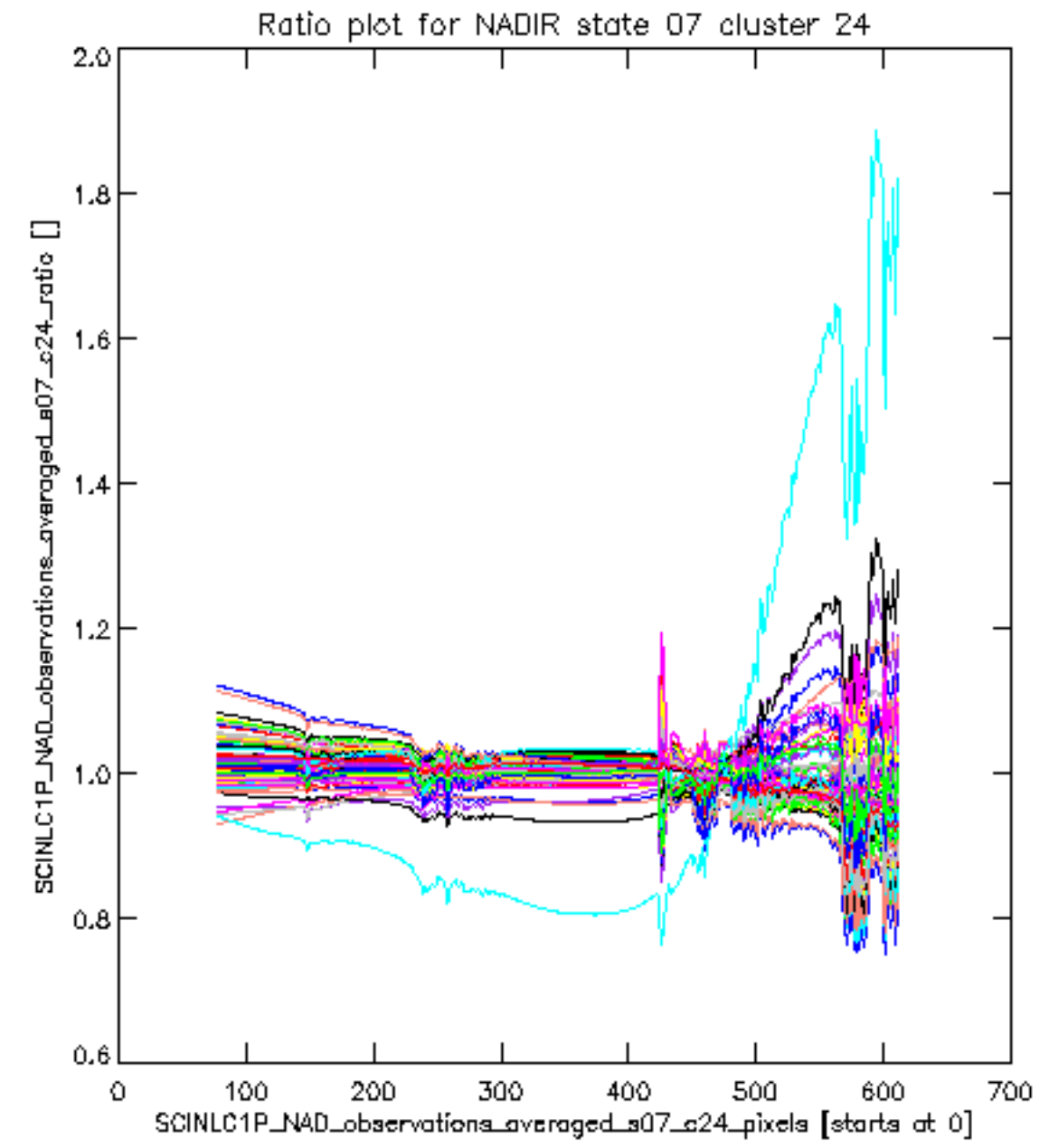




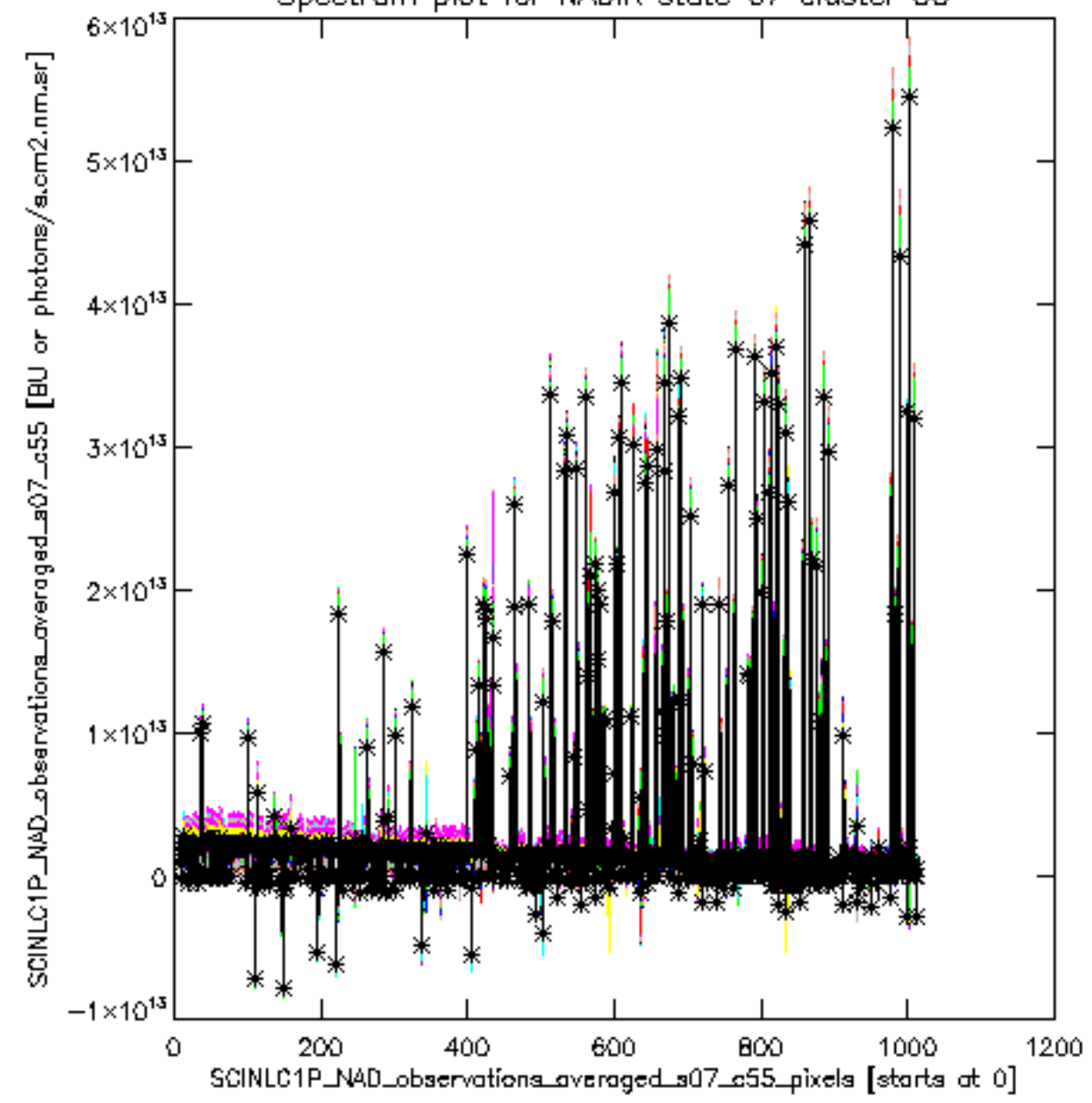








Spectrum plot for NADIR state 07 cluster 55



Contour spectrum plot for NADIR state 07 cluster 55

