

# 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	04AUG2011 06:30:23
Data source version	SCIA/7.04-U
Processing scope for products	22JUL2011 00:00:00 to 23JUL2011 00:00:00
Start time of first product within scope	21JUL2011 23:58:20
Stop time of last product within scope	23JUL2011 00:31:54
Total number of level 1 products	15
Number of level 1 products with errors	0
SCIAL1C executable used in processing	Unknown
SCIAL1C parameters used in processing	Unknown

#### 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	22JUL2011 00:30:23.363	22JUL2011 23:59:50.327
1	NADIR	07	09	N/A	22JUL2011 00:30:23.363	22JUL2011 23:59:50.327
2	NADIR	07	15	N/A	22JUL2011 00:30:23.363	22JUL2011 23:59:50.327
3	NADIR	07	24	N/A	22JUL2011 00:30:23.363	22JUL2011 23:59:50.327
4	NADIR	07	55	N/A	22JUL2011 00:30:23.363	22JUL2011 23:59:50.327
5	LIMB	32	09	~19 km	22JUL2011 00:17:12.730	22JUL2011 23:58:56.140
6	LIMB	32	09	~22 km	22JUL2011 00:17:12.730	22JUL2011 23:58:56.140
7	LIMB	32	09	~25 km	22JUL2011 00:17:12.730	22JUL2011 23:58:56.140
8	LIMB	32	15	~22 km	22JUL2011 00:17:12.730	22JUL2011 23:58:56.140
9	LIMB	32	15	~25 km	22JUL2011 00:17:12.730	22JUL2011 23:58:56.140
10	LIMB	32	15	~35 km	22JUL2011 00:17:12.730	22JUL2011 23:58:56.140

#### 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	#noproduct	#cimpl_drk	#incmpl_drk	Decont
0	<a href="#">SCI_NLC_1CUDPA20110721_235327_000060543104_00390_49111_0169.N1</a>	21JUL2011 23:58:20	22JUL2011 01:08:35	0	35	31	0	0	1	0	0	
1	<a href="#">SCI_NLC_1CUDPA20110722_013834_000057173104_00391_49112_0170.N1</a>	22JUL2011 01:38:34	22JUL2011 02:49:03	0	36	30	0	0	1	0	0	
2	<a href="#">SCI_NLC_1CUDPA20110722_031355_000060543104_00392_49113_0173.N1</a>	22JUL2011 03:18:49	22JUL2011 04:29:03	0	35	31	0	0	1	0	0	
3	<a href="#">SCI_NLC_1CUDPA20110722_045903_000057173104_00393_49114_0174.N1</a>	22JUL2011 04:59:03	22JUL2011 06:09:32	0	36	30	0	0	1	0	0	
4	<a href="#">SCI_NLC_1CUDPA20110722_063424_000060543104_00394_49115_0175.N1</a>	22JUL2011 06:39:17	22JUL2011 07:49:32	0	35	31	0	0	1	0	0	
5	<a href="#">SCI_NLC_1CUDPA20110722_081931_000057173104_00395_49116_0176.N1</a>	22JUL2011 08:19:31	22JUL2011 09:30:00	0	36	30	0	0	1	0	0	

6	SCI_NLC_1CUDPA20110722_095452_000060543104_00396_49117_0177.N1	22JUL2011 09:59:46	22JUL2011 11:10:00	0	35	31	0	0	1	0	0	
7	SCI_NLC_1CUDPA20110722_114000_000057173104_00397_49118_0196.N1	22JUL2011 11:40:00	22JUL2011 12:50:29	0	36	30	0	0	1	0	0	
8	SCI_NLC_1CUDPA20110722_131521_000060543104_00398_49119_0198.N1	22JUL2011 13:20:14	22JUL2011 14:30:28	0	35	31	0	0	1	0	0	
9	SCI_NLC_1CUDPA20110722_150028_000057173104_00399_49120_0193.N1	22JUL2011 15:00:28	22JUL2011 16:10:57	0	36	30	0	0	1	0	0	
10	SCI_NLC_1CUDPA20110722_163549_000060543104_00400_49121_0200.N1	22JUL2011 16:40:42	22JUL2011 17:50:57	0	35	31	0	0	1	0	0	
11	SCI_NLC_1CUDPA20110722_182056_000057173104_00401_49122_0201.N1	22JUL2011 18:20:56	22JUL2011 19:31:36	0	36	30	0	1	1	0	0	
12	SCI_NLC_1CUDPA20110722_195618_000060543104_00402_49123_0204.N1	22JUL2011 20:01:11	22JUL2011 21:11:36	0	35	31	0	1	1	0	0	
13	SCI_NLC_1CUDPA20110722_214125_000057173104_00403_49124_0206.N1	22JUL2011 21:41:25	22JUL2011 22:51:54	0	36	30	0	0	1	0	0	
14	SCI_NLC_1CUDPA20110722_231646_000060543104_00404_49125_0207.N1	22JUL2011 23:21:39	23JUL2011 00:31:54	0	35	31	0	0	1	0	0	

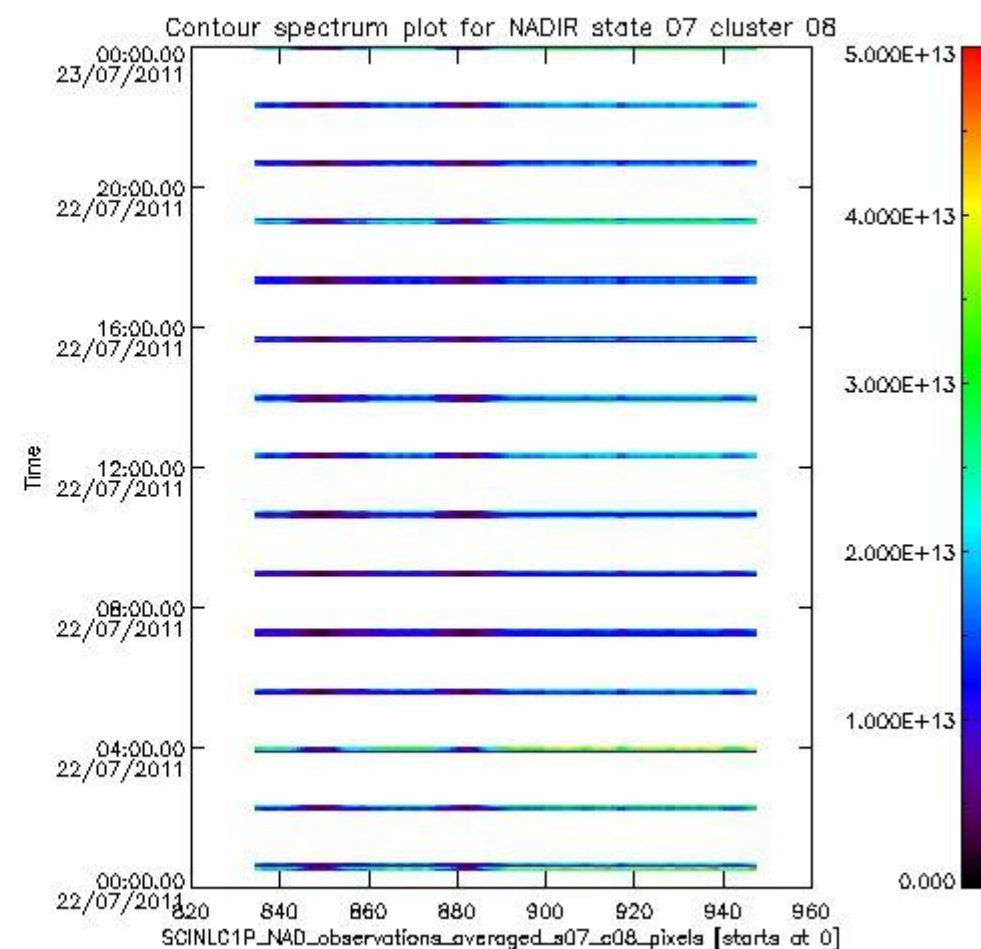
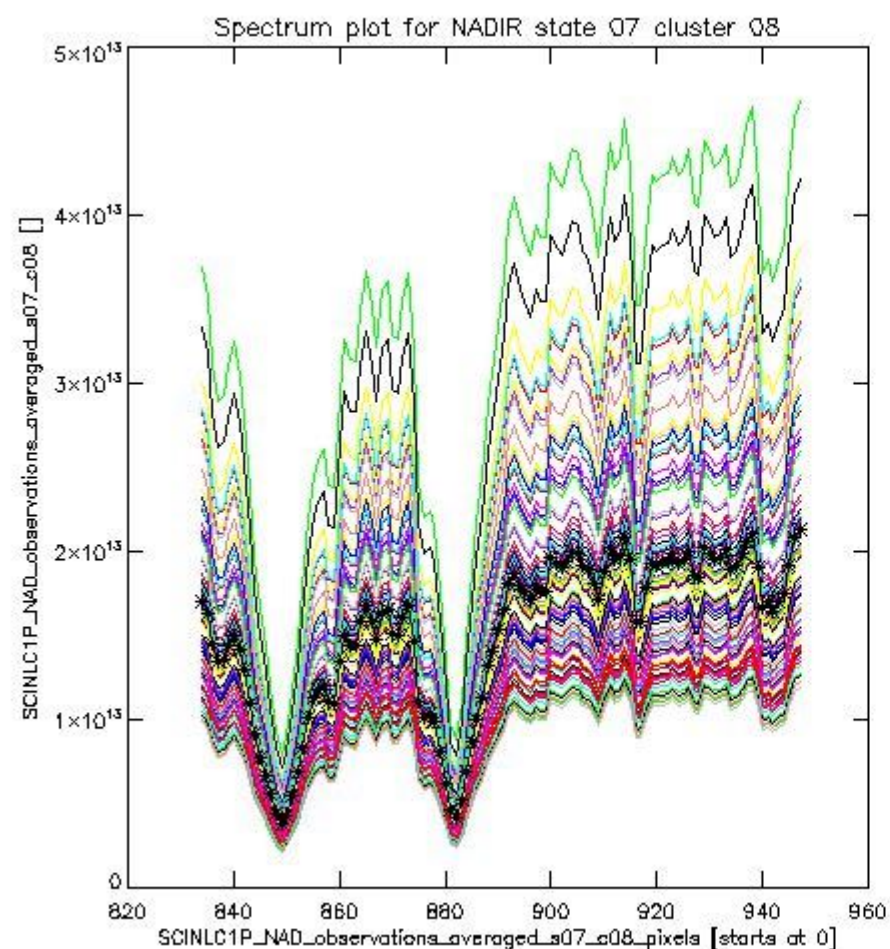
## 1.2 Source packet monitoring

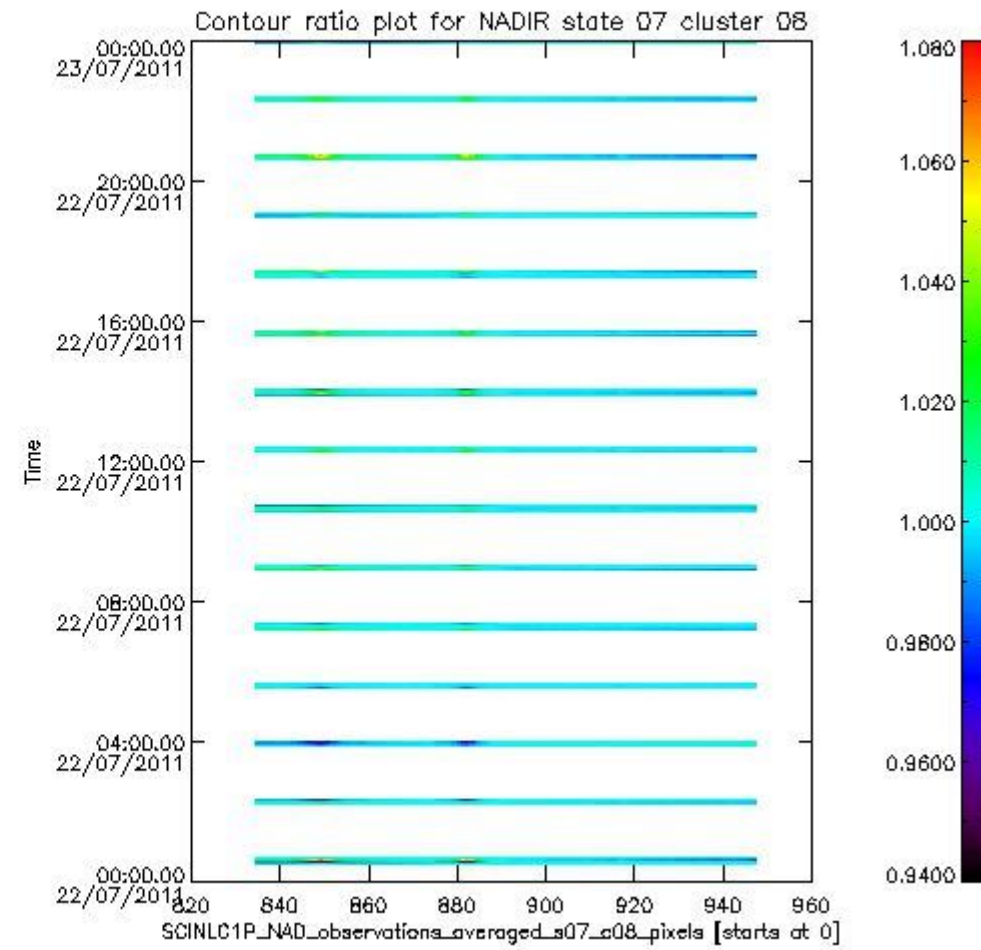
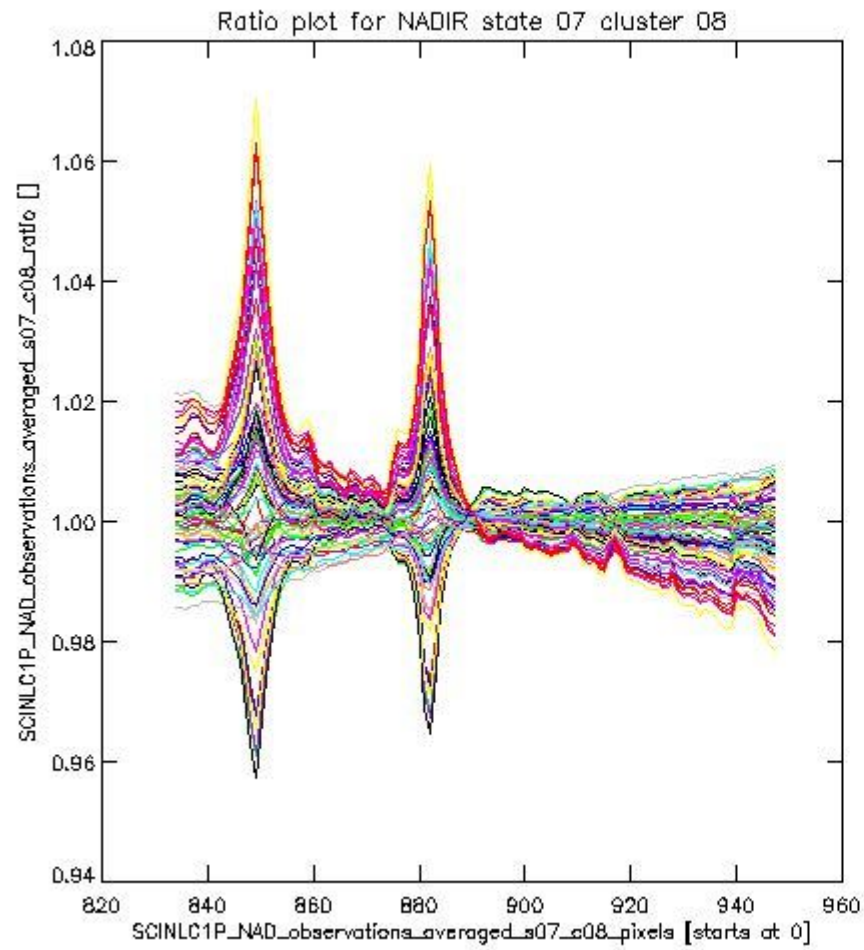
This section shows figures for each of the monitored source packet types listed in the Source Packet Summary section. For each mode-state-cluster(-height) combination the following plots are shown:

- 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	22JUL2011 00:30:23.363
Start time of last sample	22JUL2011 23:59:50.327
Reference period start time	22JUN2011 00:30:27.689
Reference period stop time	21JUL2011 22:59:28.757
Channel number	2
First pixel number (starts at 0)	834
Last pixel number (starts at 0)	947

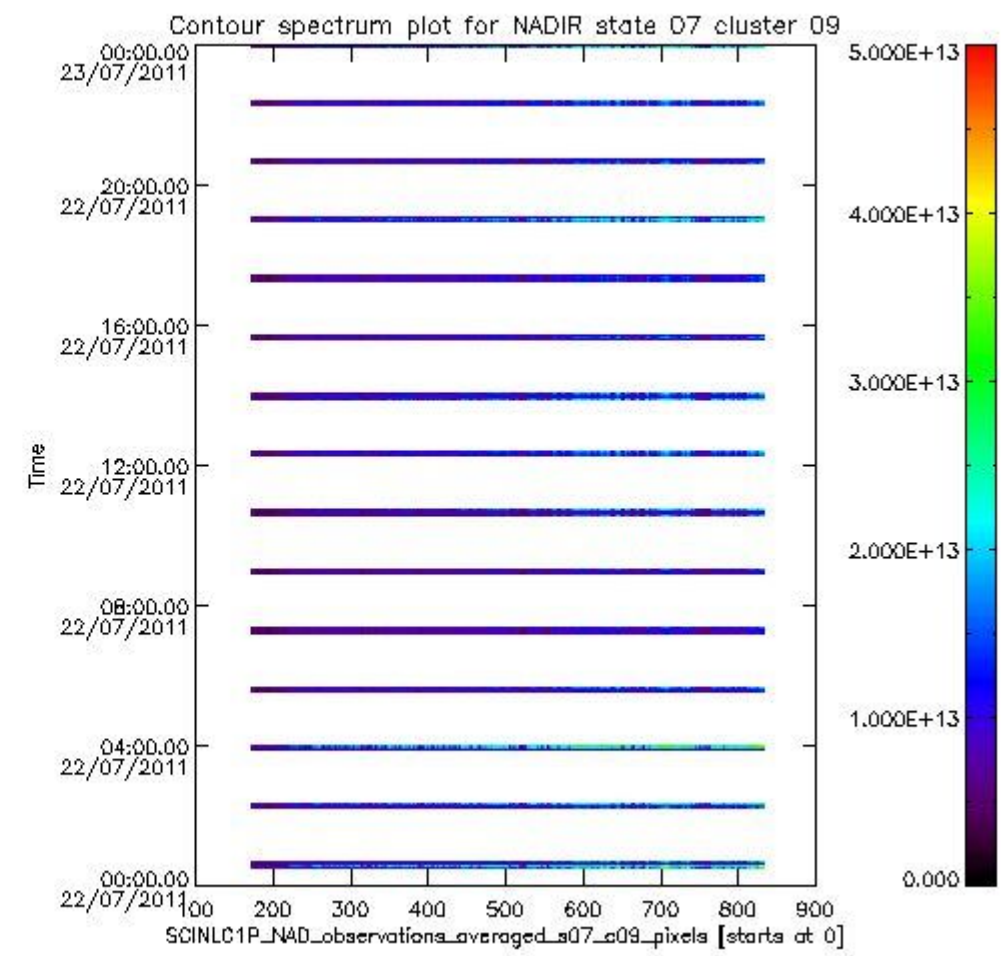
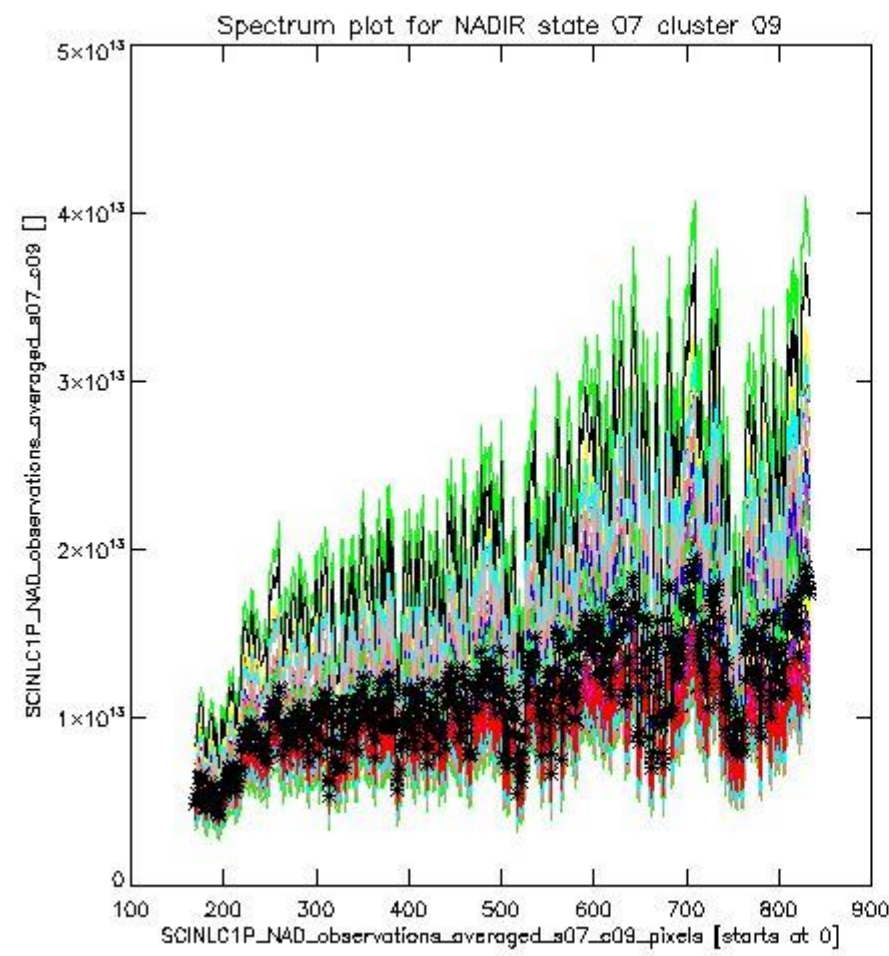




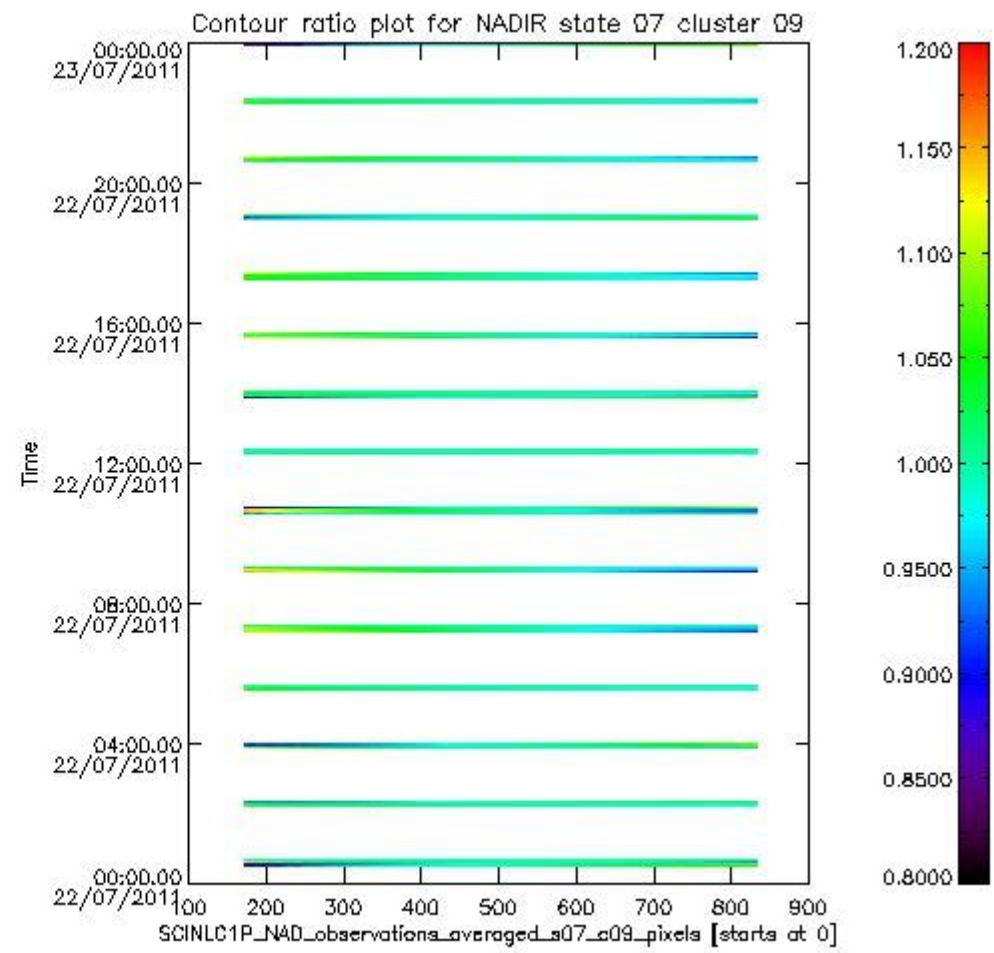
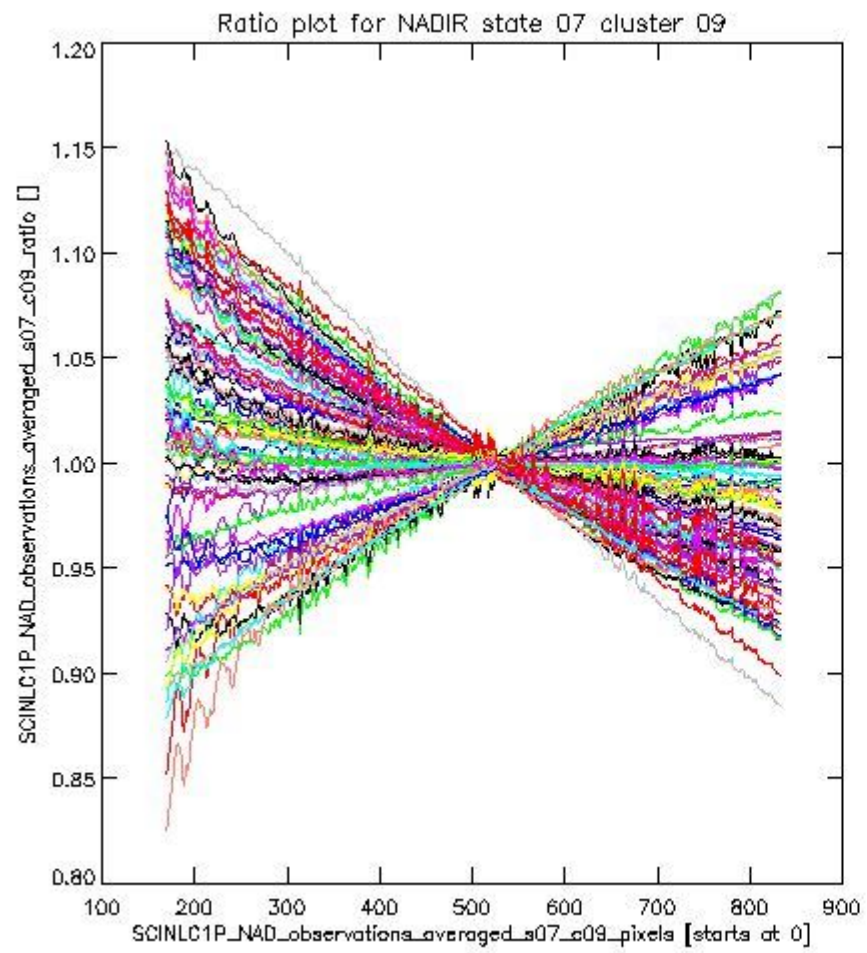
**1.2.2 NADIR state 07 cluster 09** The data for the analysis of NADIR state 07 cluster 09 have the following characteristics:

Item	Value
Start time of first sample	22JUL2011 00:30:23.363
Start time of last sample	22JUL2011 23:59:50.327
Reference period start time	22JUN2011 00:30:27.689
Reference period stop time	21JUL2011 22:59:28.757
Channel number	2
First pixel number (starts at 0)	170
Last pixel number (starts at 0)	833





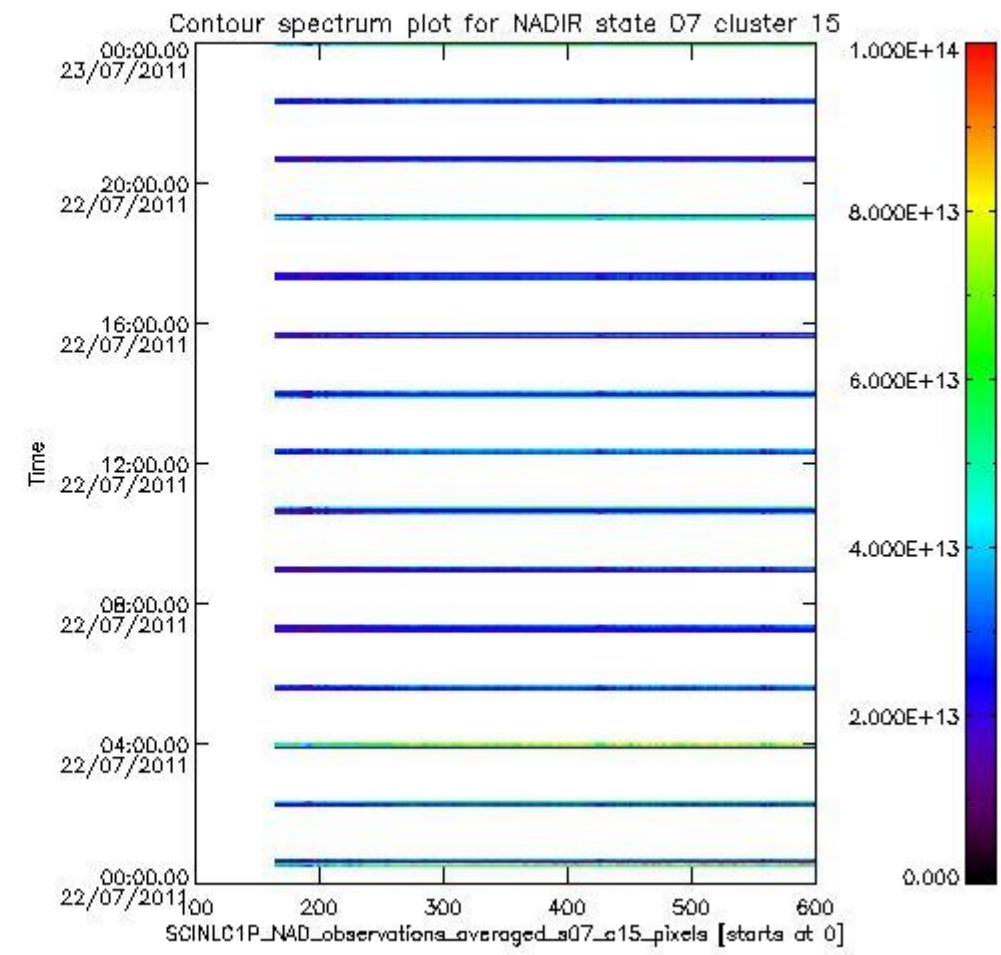
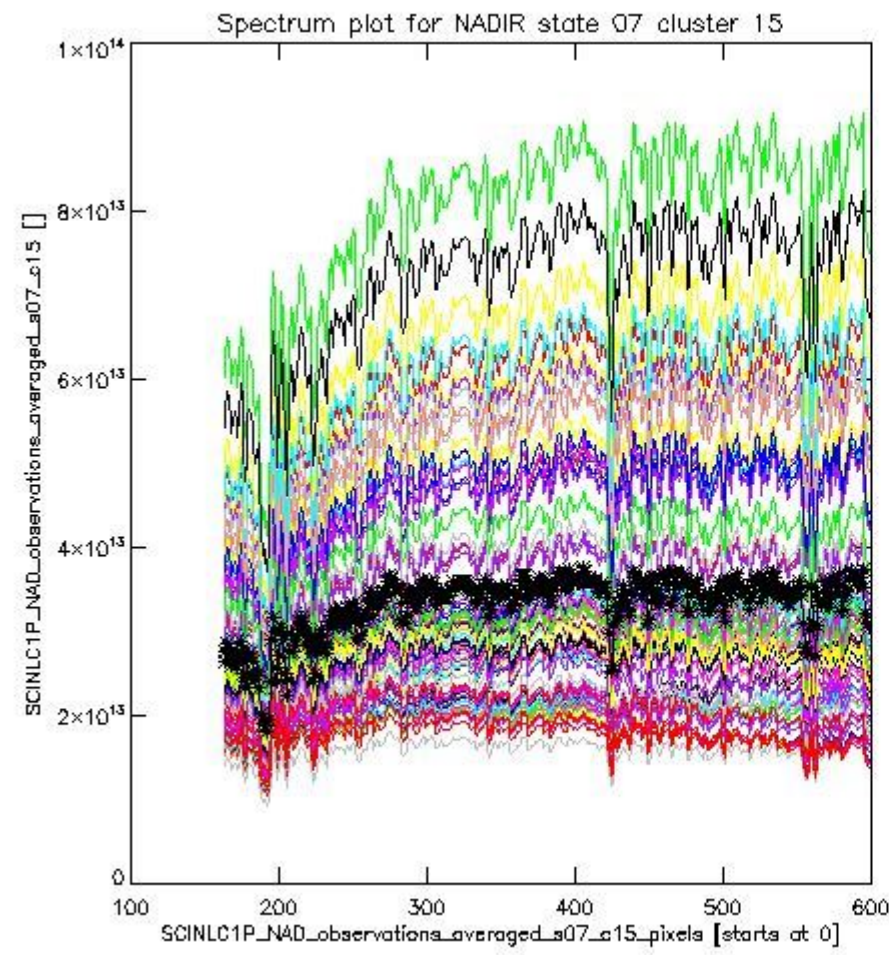
sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110722\_2.PNG



sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110722\_3.PNG

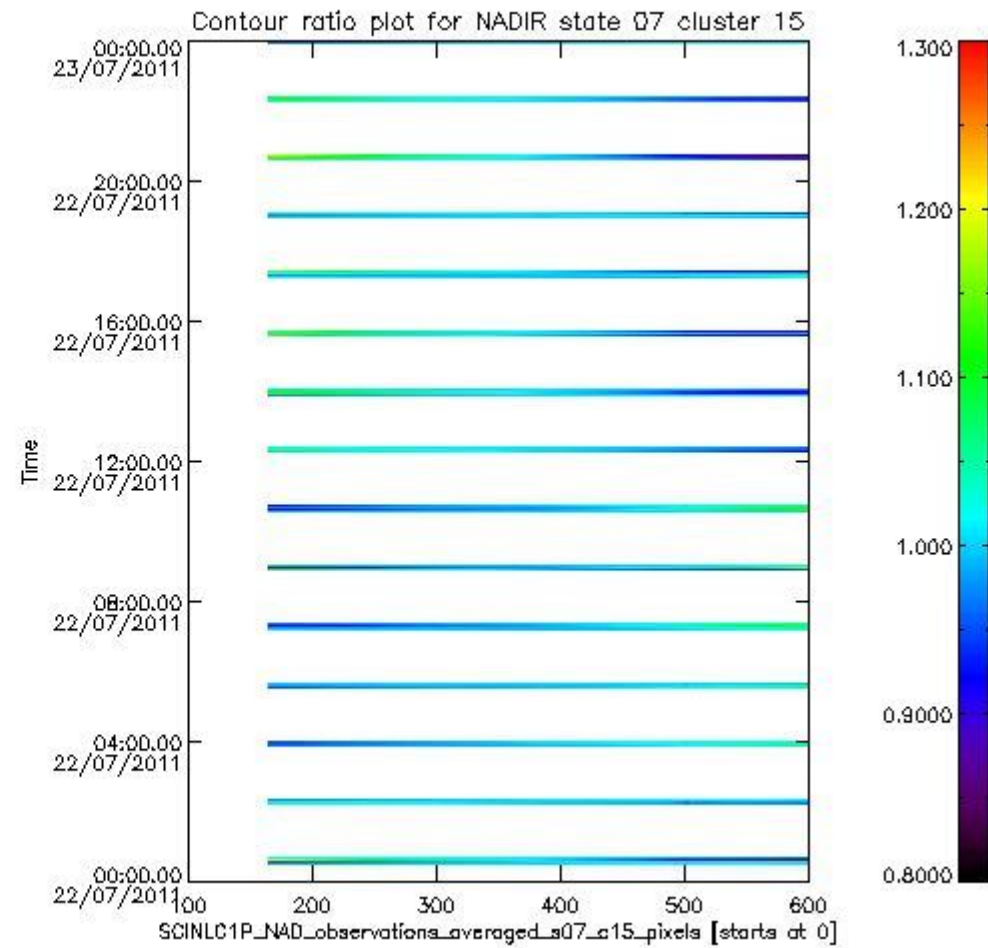
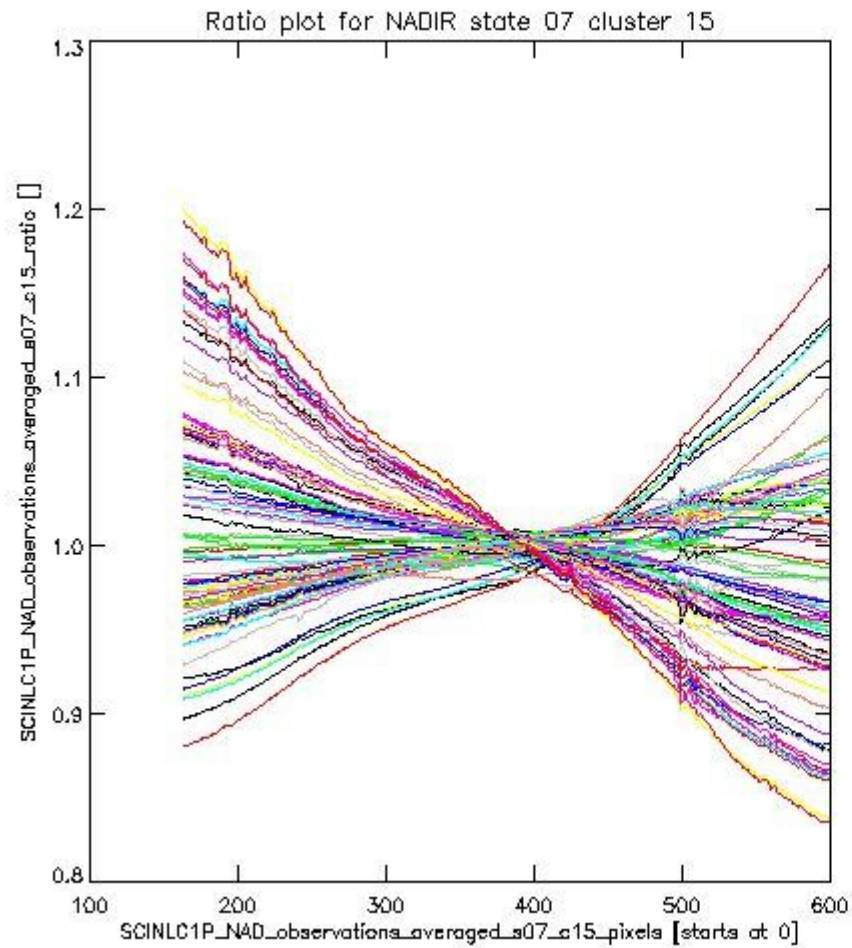
**1.2.3 NADIR state 07 cluster 15** The data for the analysis of NADIR state 07 cluster 15 have the following characteristics:

Item	Value
Start time of first sample	22JUL2011 00:30:23.363
Start time of last sample	22JUL2011 23:59:50.327
Reference period start time	22JUN2011 00:30:27.689
Reference period stop time	21JUL2011 22:59:28.757
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\_20110722\_4.PNG

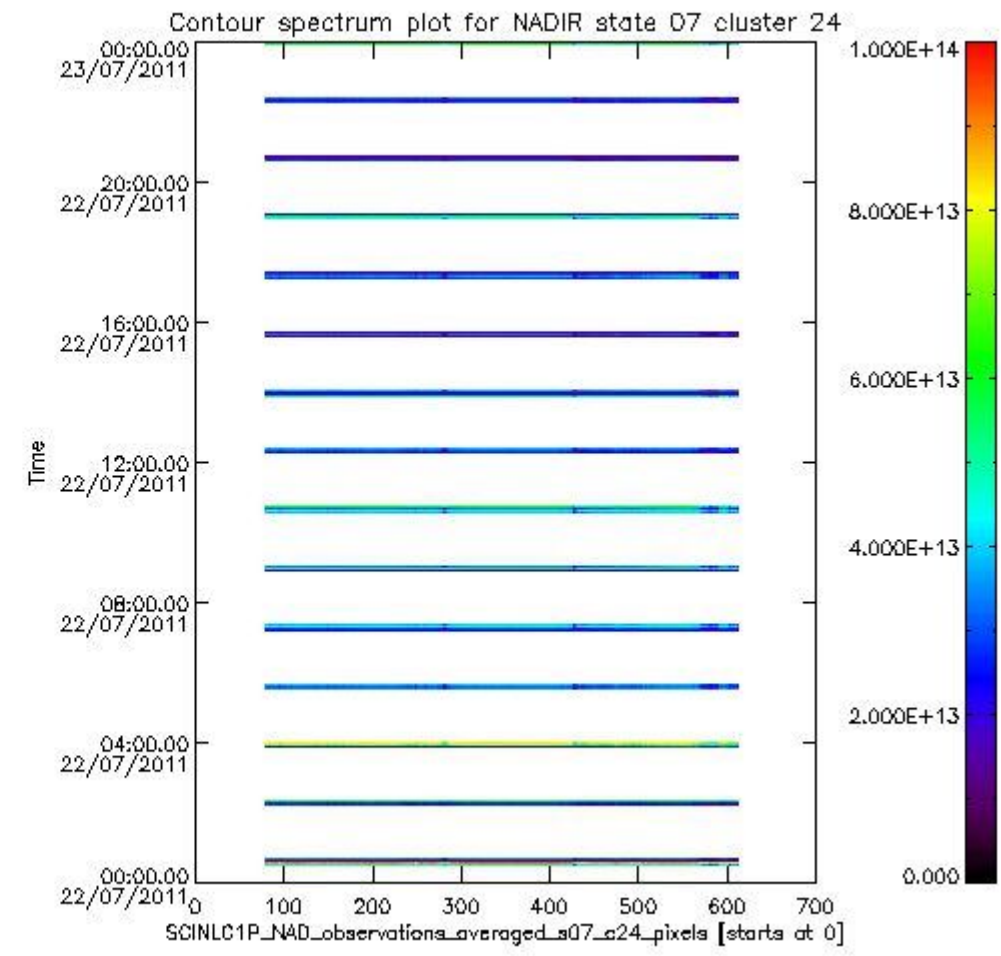
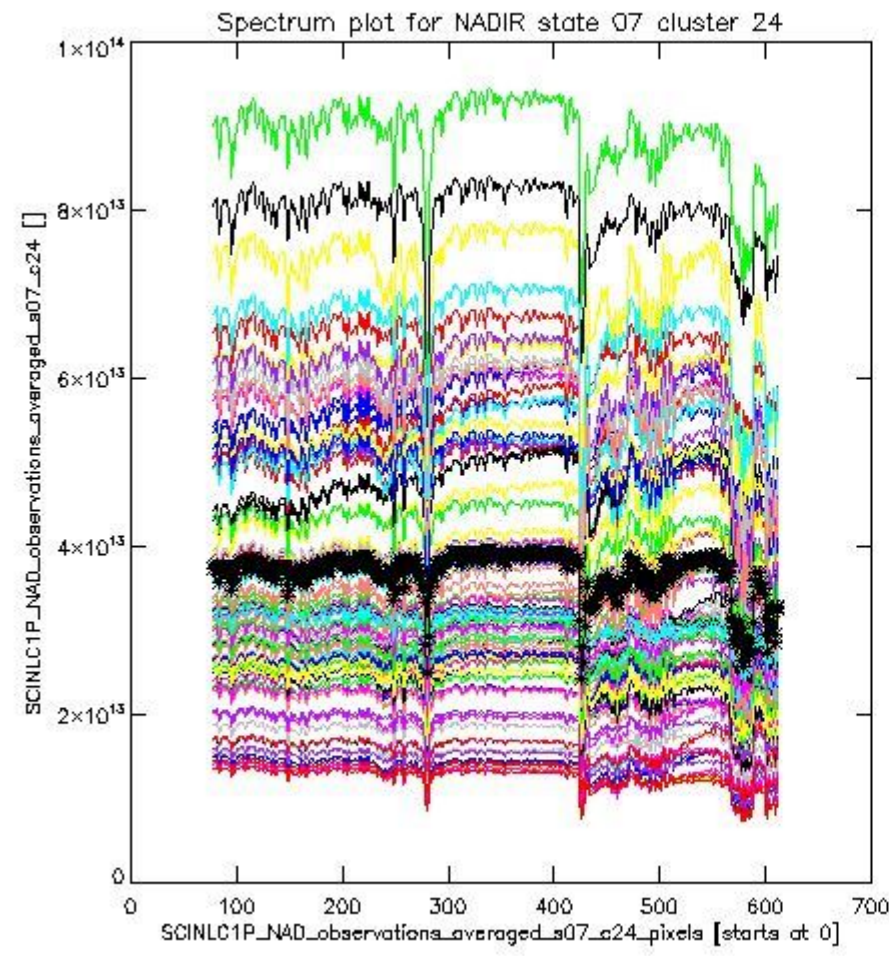




sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110722\_5.PNG

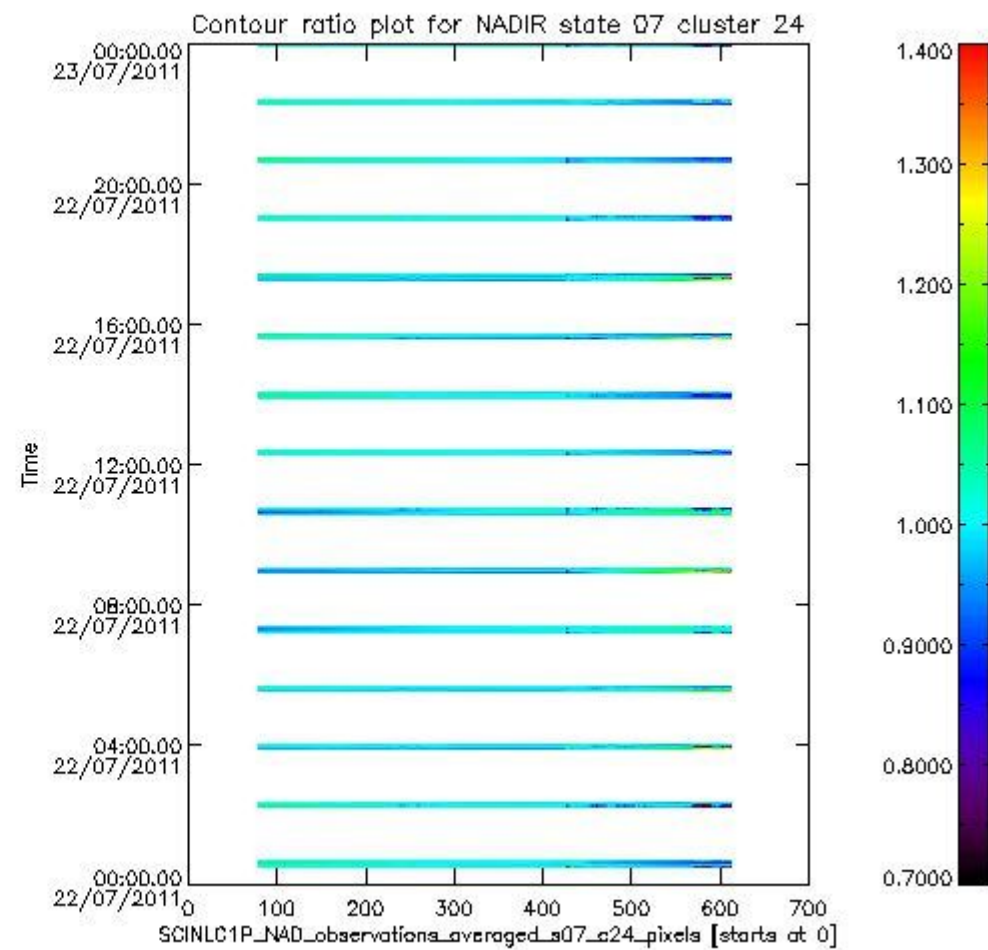
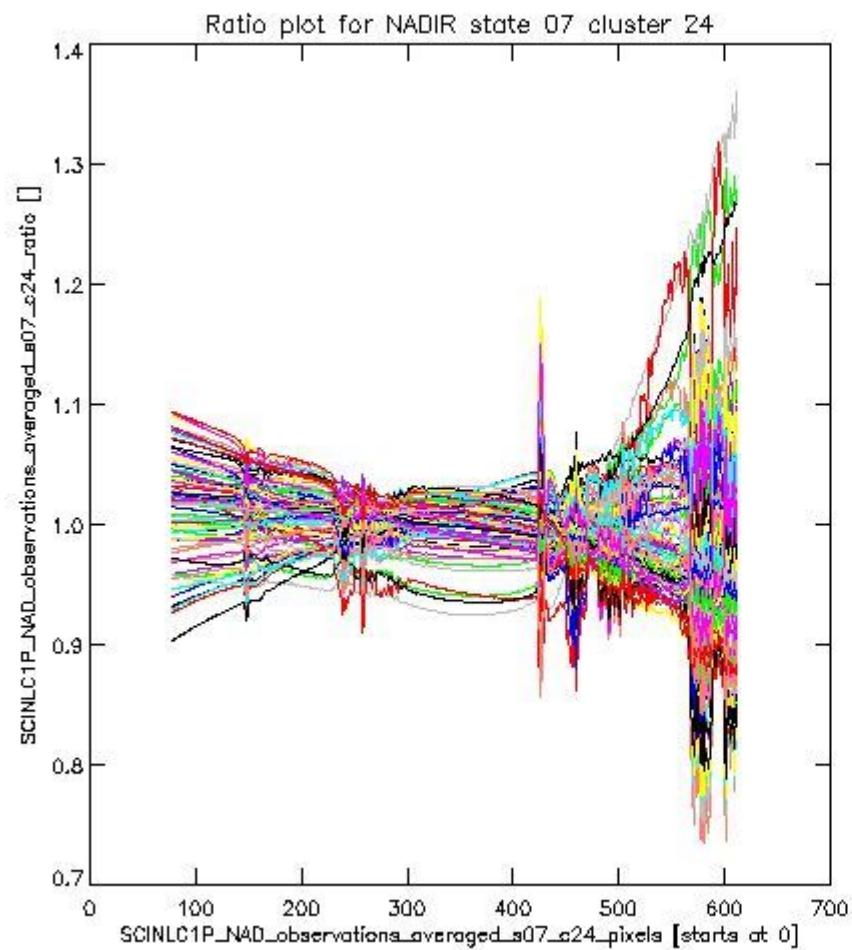
**1.2.4 NADIR state 07 cluster 24** The data for the analysis of NADIR state 07 cluster 24 have the following characteristics:

Item	Value
Start time of first sample	22JUL2011 00:30:23.363
Start time of last sample	22JUL2011 23:59:50.327
Reference period start time	22JUN2011 00:30:27.689
Reference period stop time	21JUL2011 22:59:28.757
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\_20110722\_6.PNG

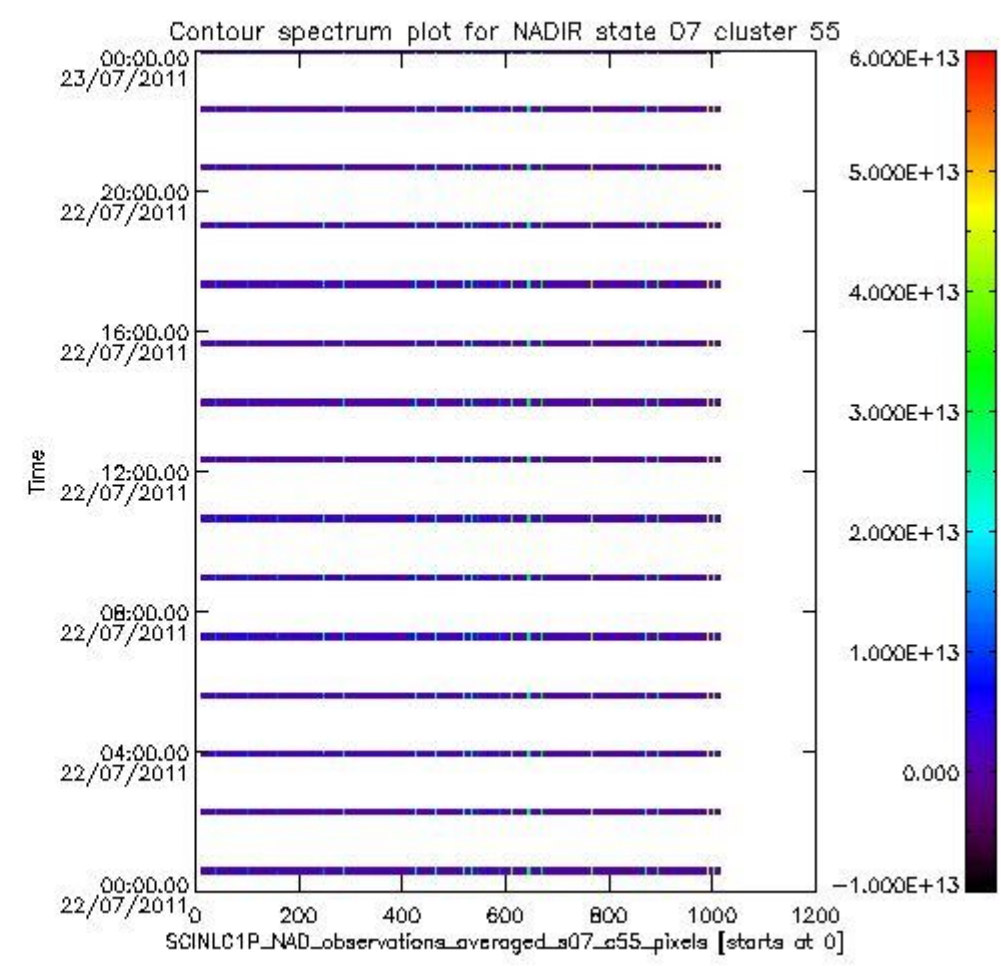
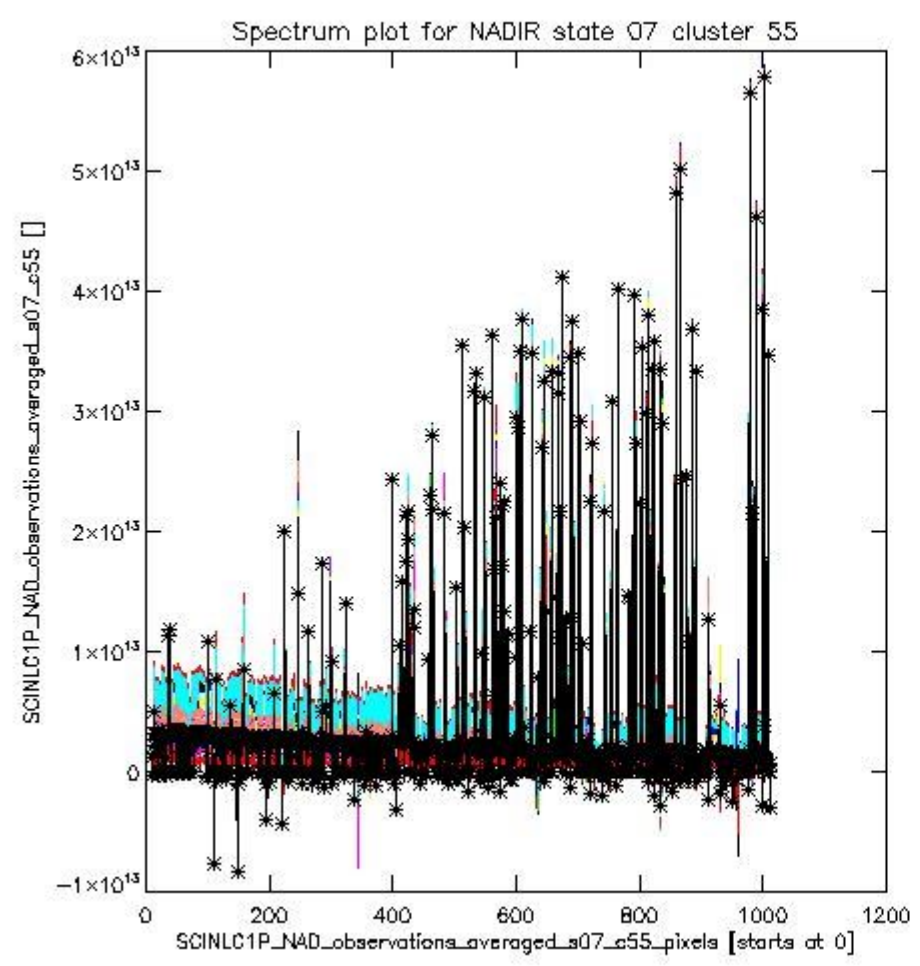




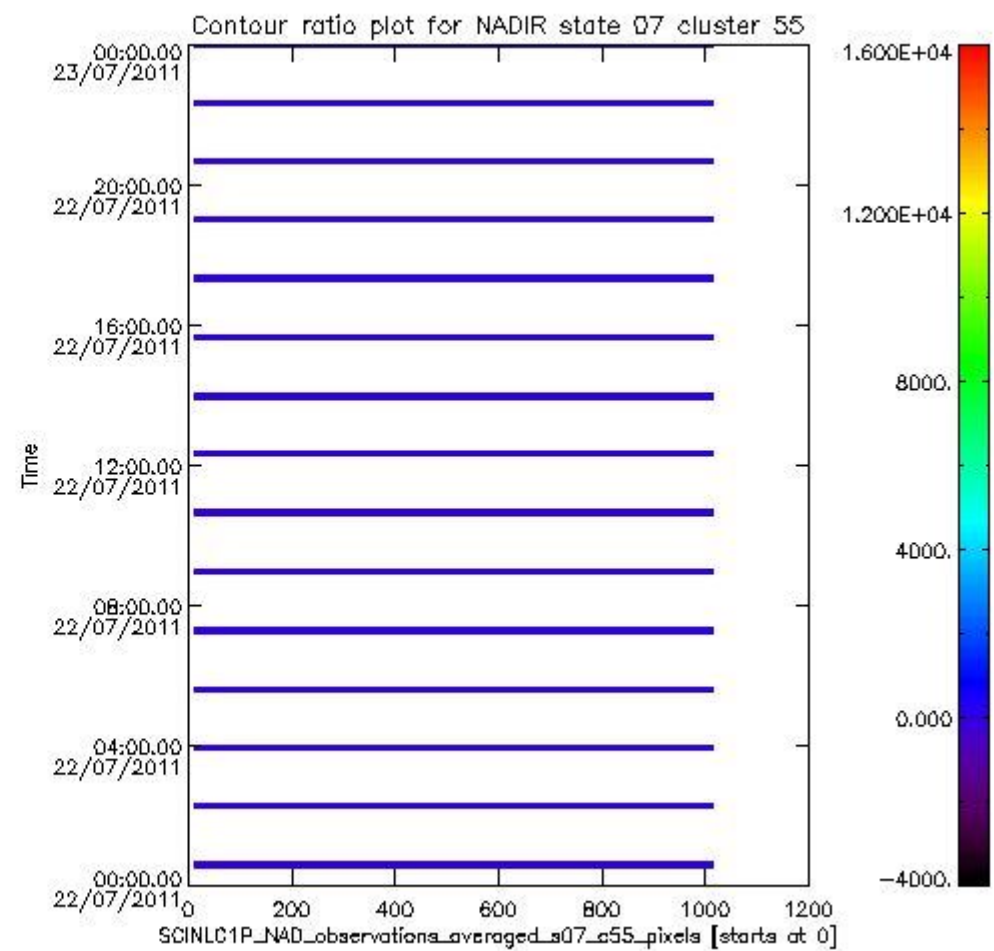
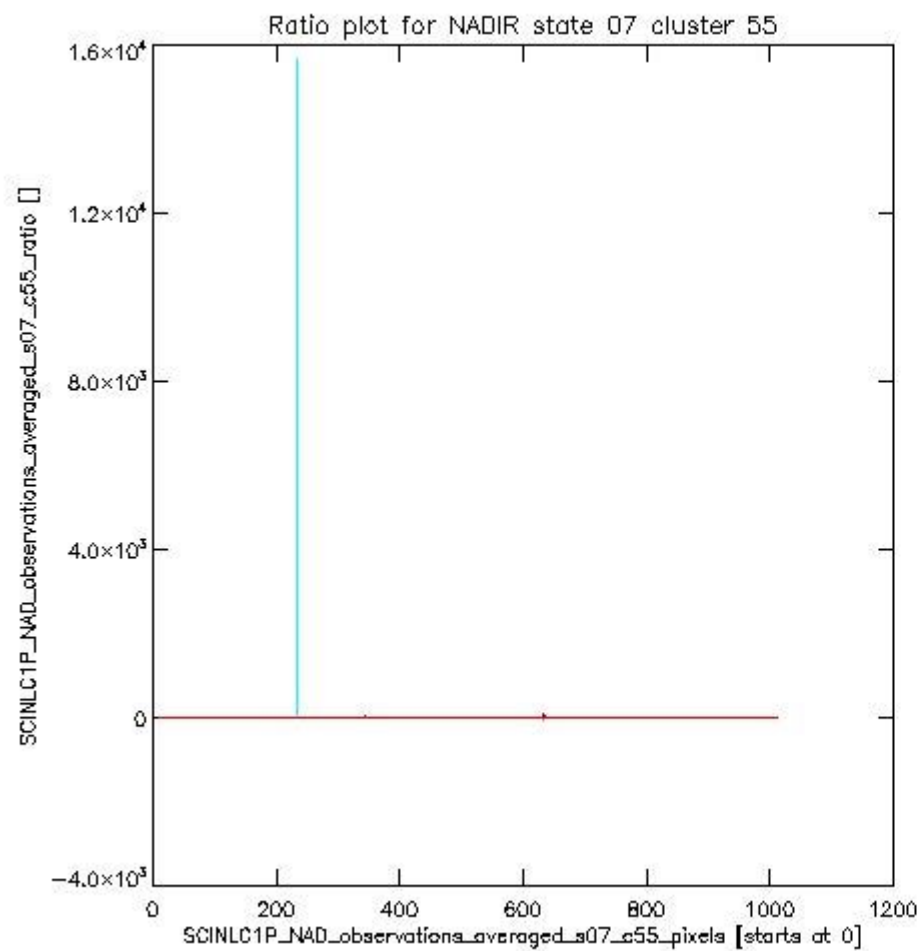
sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110722\_7.PNG

**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	22JUL2011 00:30:23.363
Start time of last sample	22JUL2011 23:59:50.327
Reference period start time	22JUN2011 00:30:27.689
Reference period stop time	21JUL2011 22:59:28.757
Channel number	8
First pixel number (starts at 0)	10
Last pixel number (starts at 0)	1013



sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110722\_8.PNG

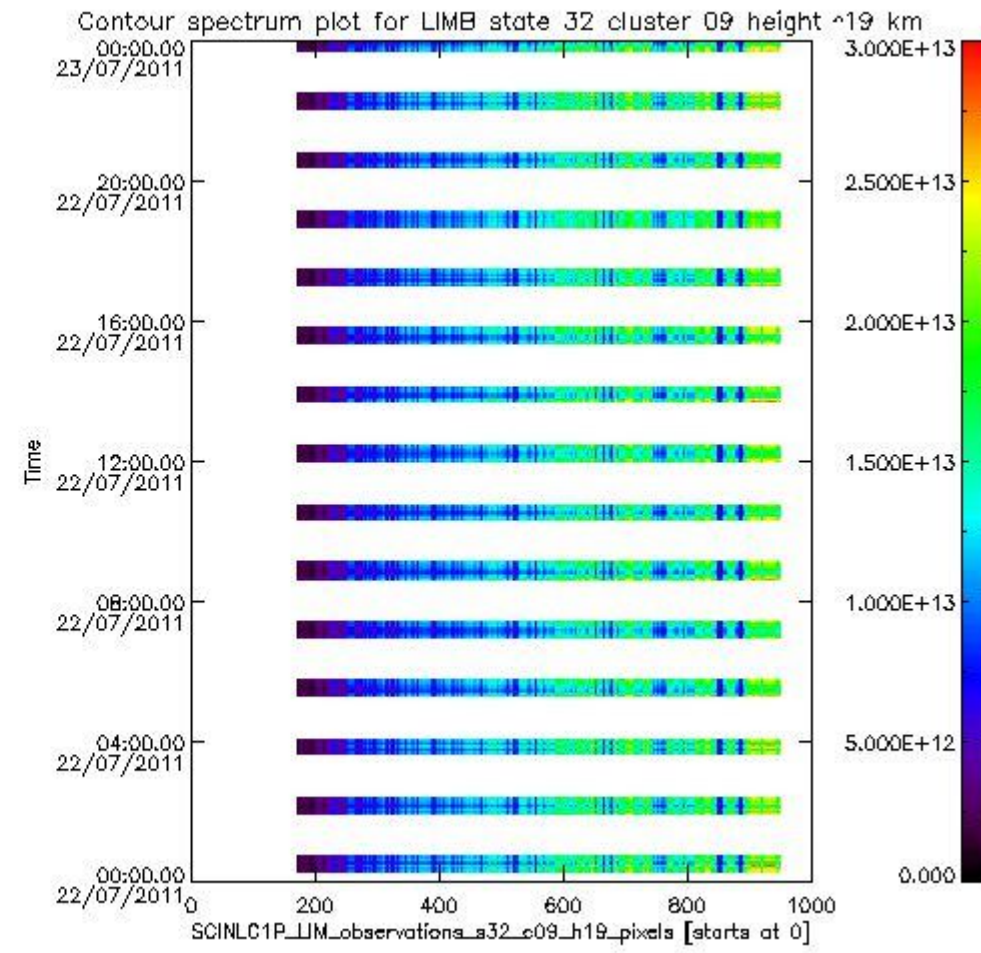
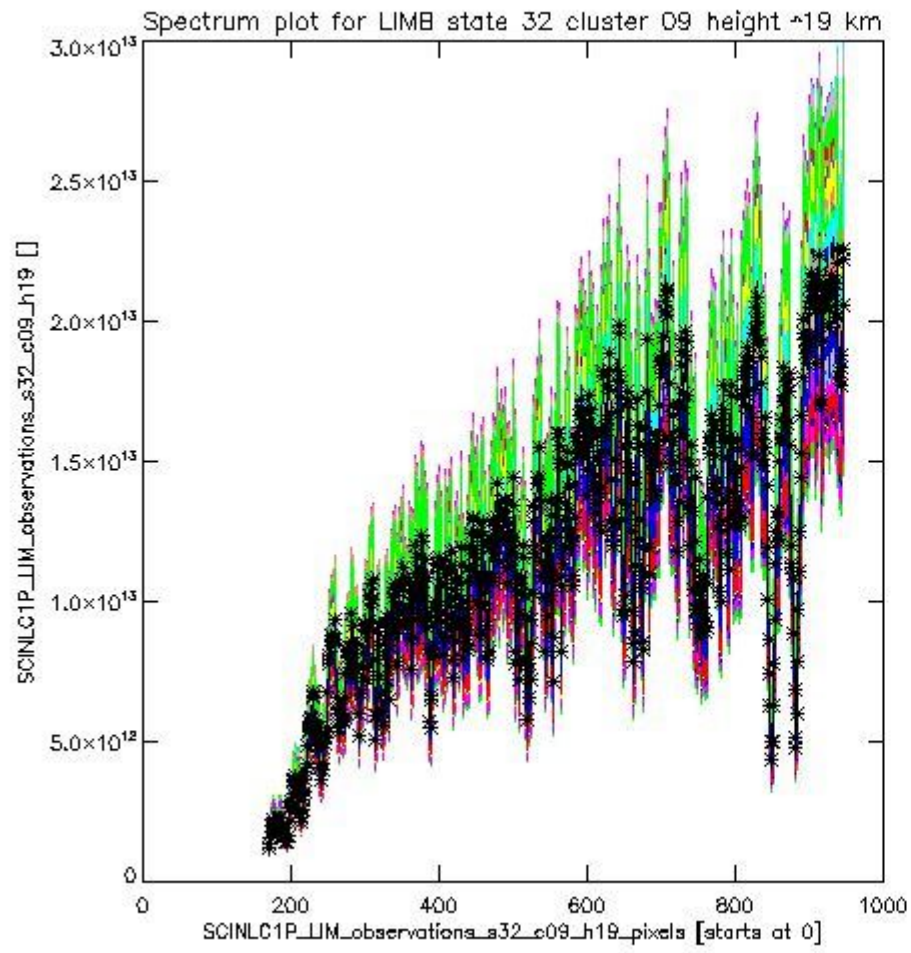


sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110722\_9.PNG

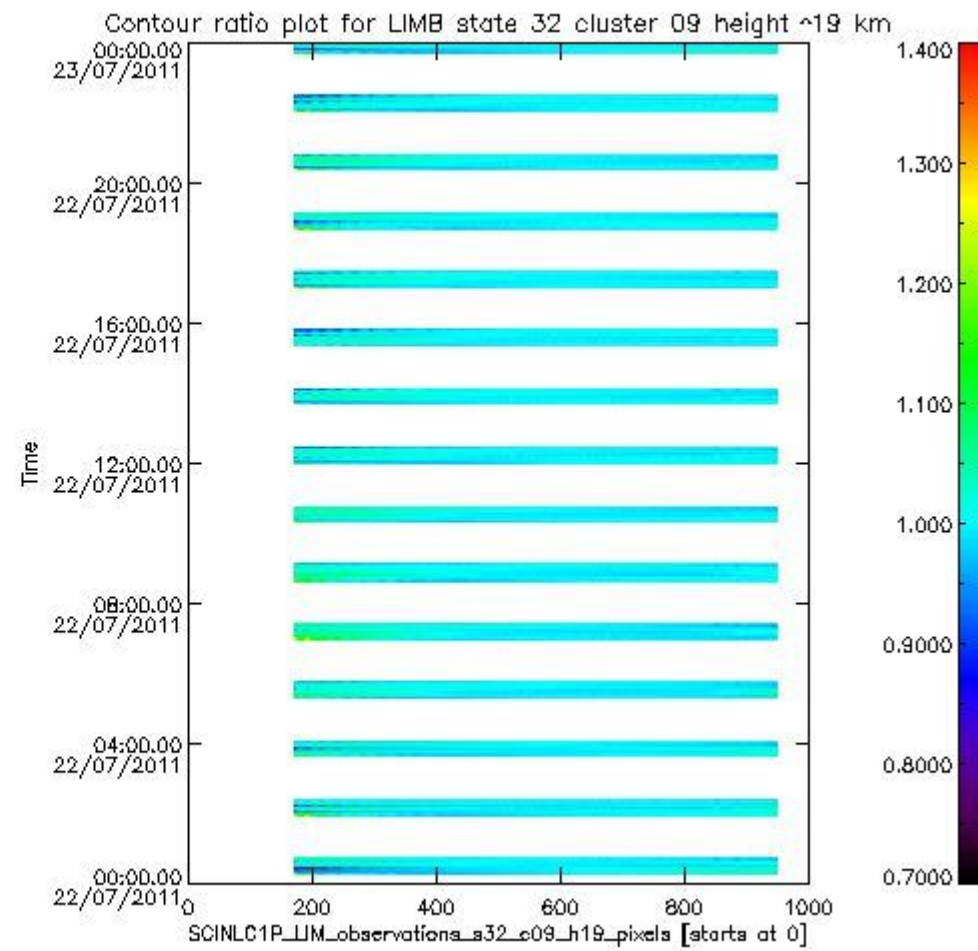
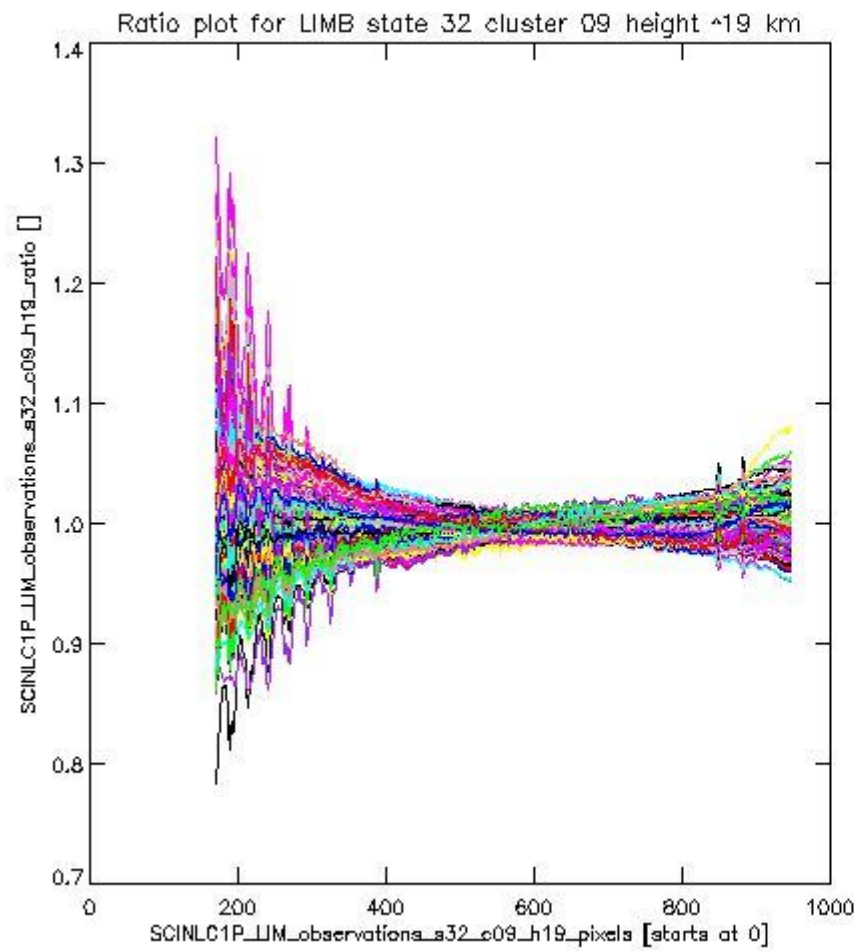
**1.2.6 LIMB state 32 cluster 09 height ~19 km** The data for the analysis of LIMB state 32 cluster 09 height ~19 km have the following characteristics:

Item	Value
Start time of first sample	22JUL2011 00:17:12.730
Start time of last sample	22JUL2011 23:58:56.140
Reference period start time	22JUN2011 00:15:14.314
Reference period stop time	21JUL2011 23:04:42.804
Channel number	2
First pixel number (starts at 0)	170
Last pixel number (starts at 0)	947





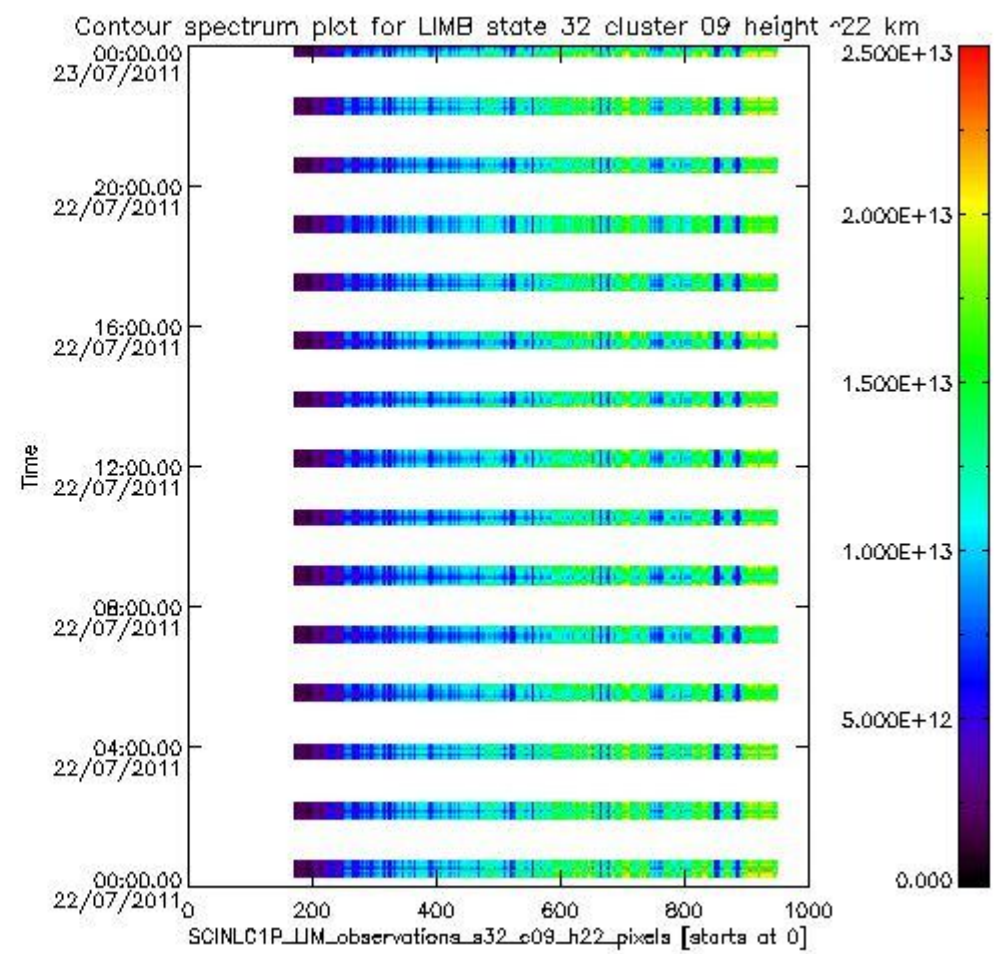
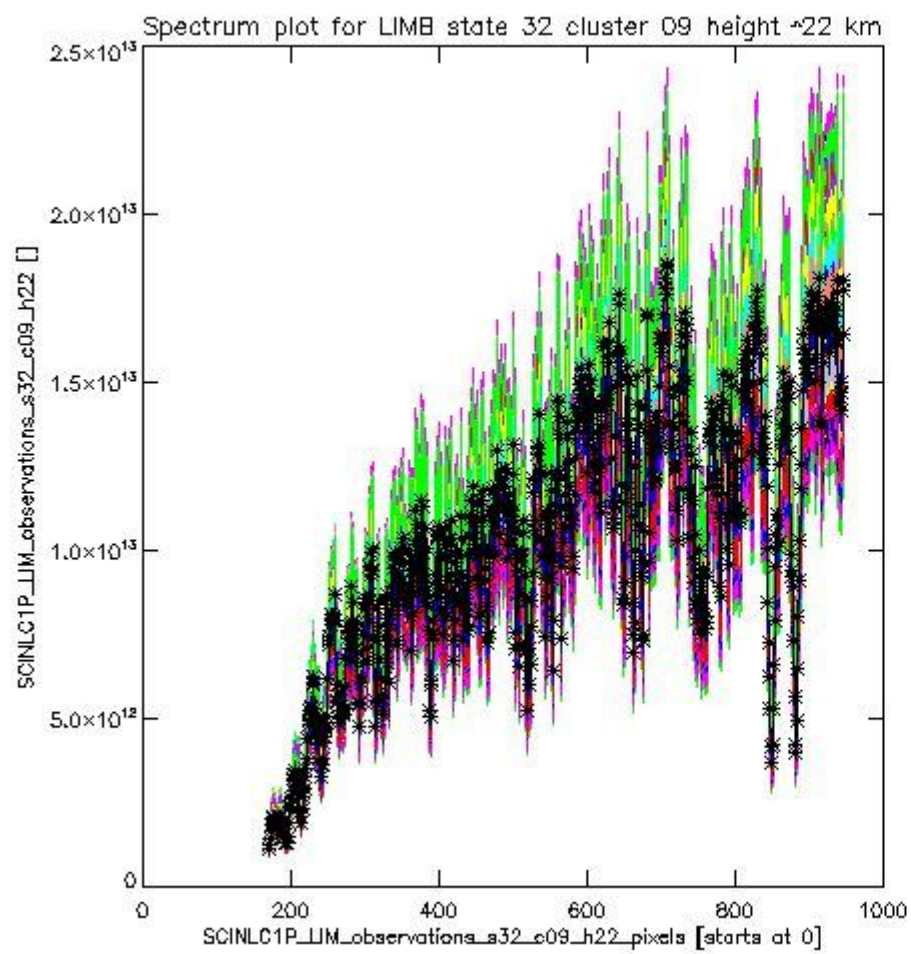
sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110722\_10.PNG



sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110722\_11.PNG

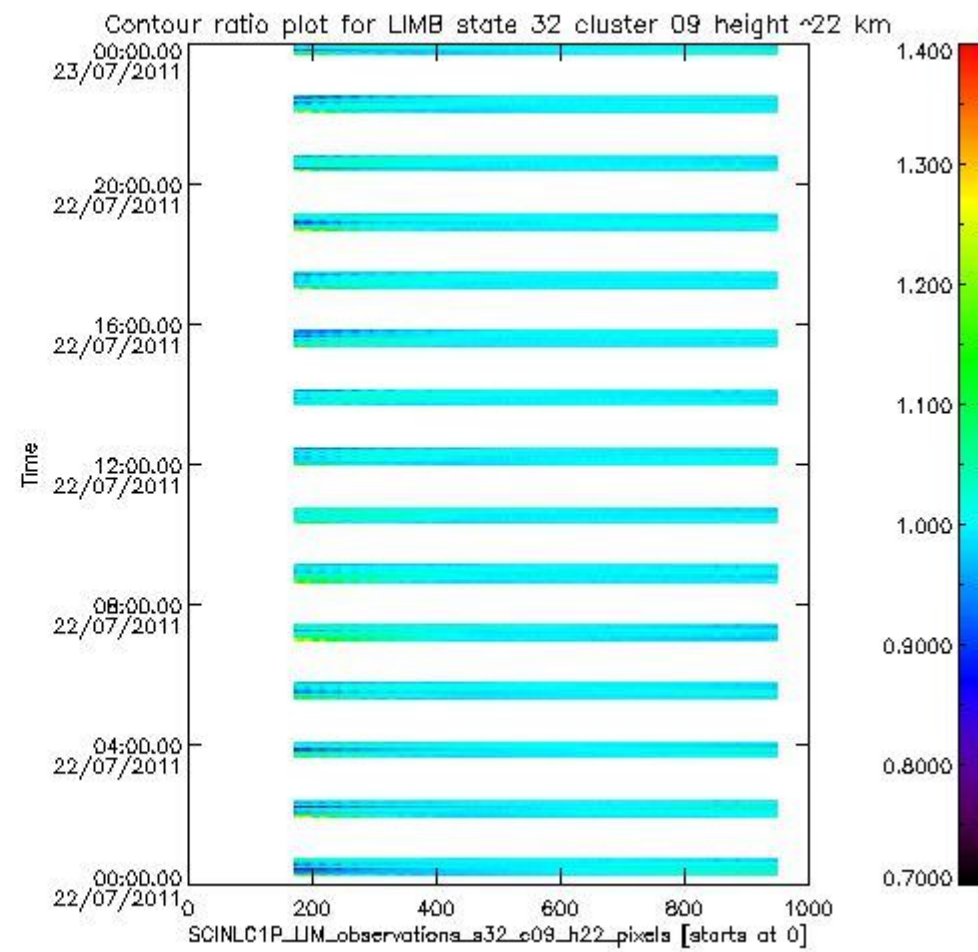
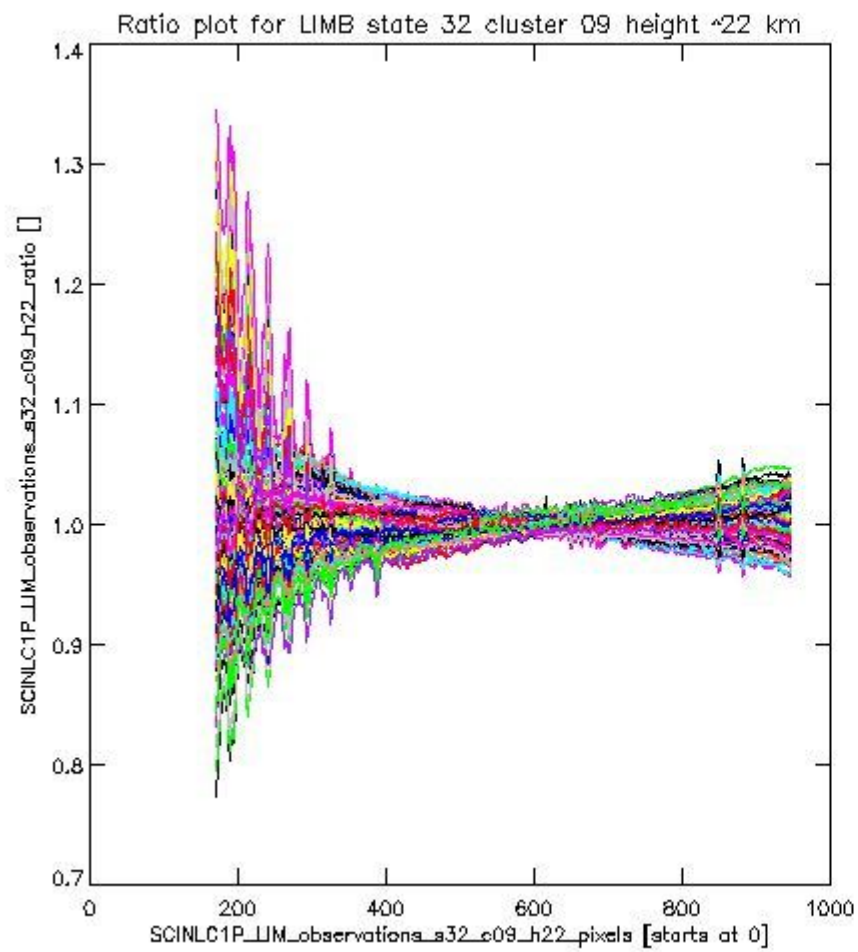
**1.2.7 LIMB state 32 cluster 09 height ~22 km** The data for the analysis of LIMB state 32 cluster 09 height ~22 km have the following characteristics:

Item	Value
Start time of first sample	22JUL2011 00:17:12.730
Start time of last sample	22JUL2011 23:58:56.140
Reference period start time	22JUN2011 00:15:14.314
Reference period stop time	21JUL2011 23:04:42.804
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\_20110722\_12.PNG

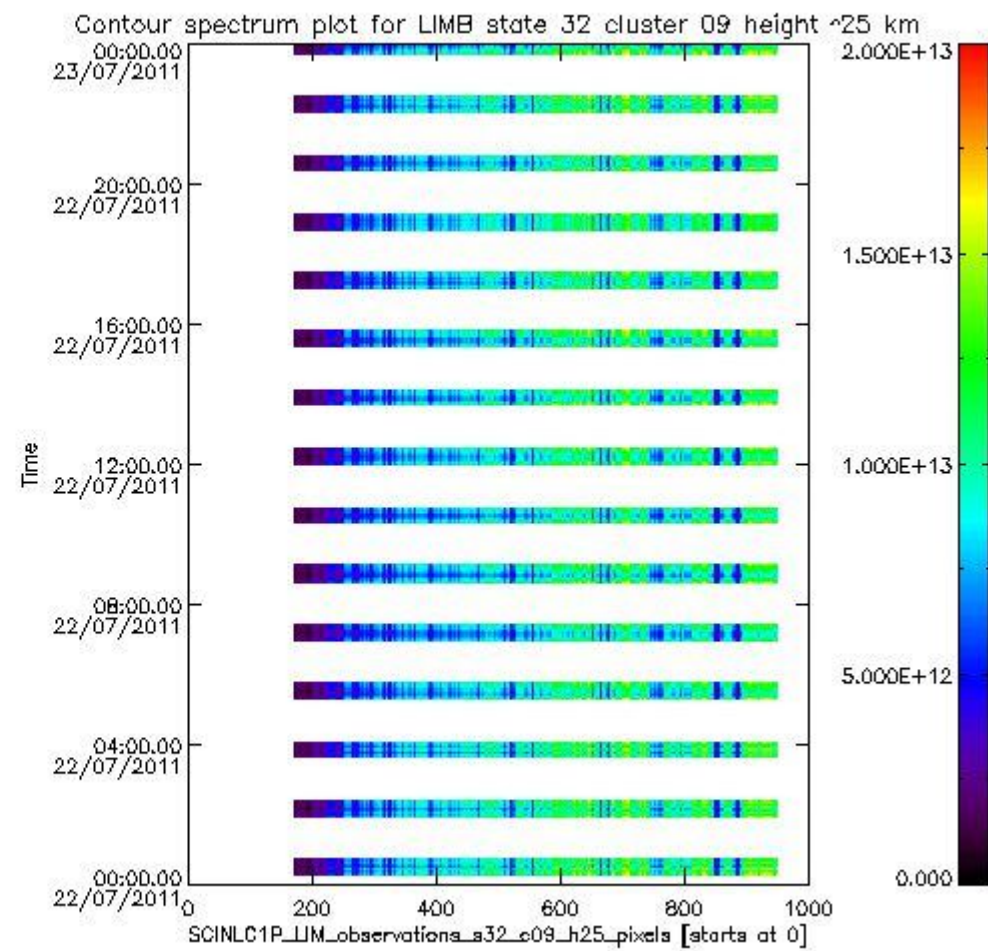
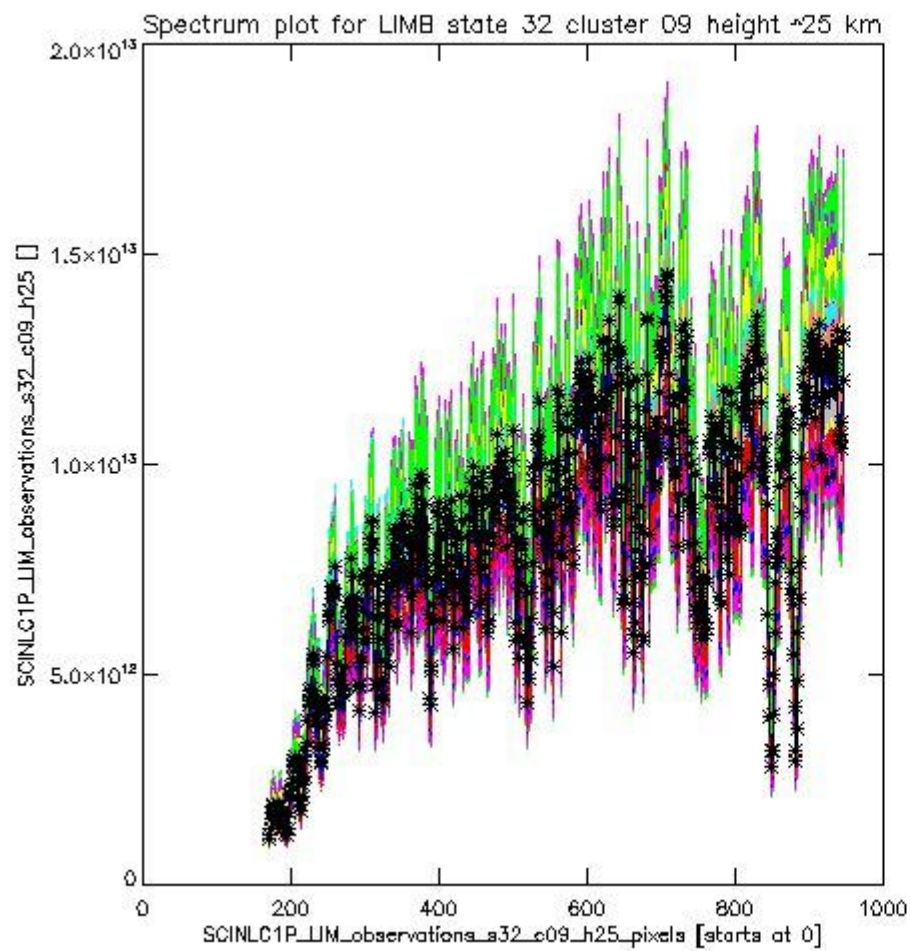




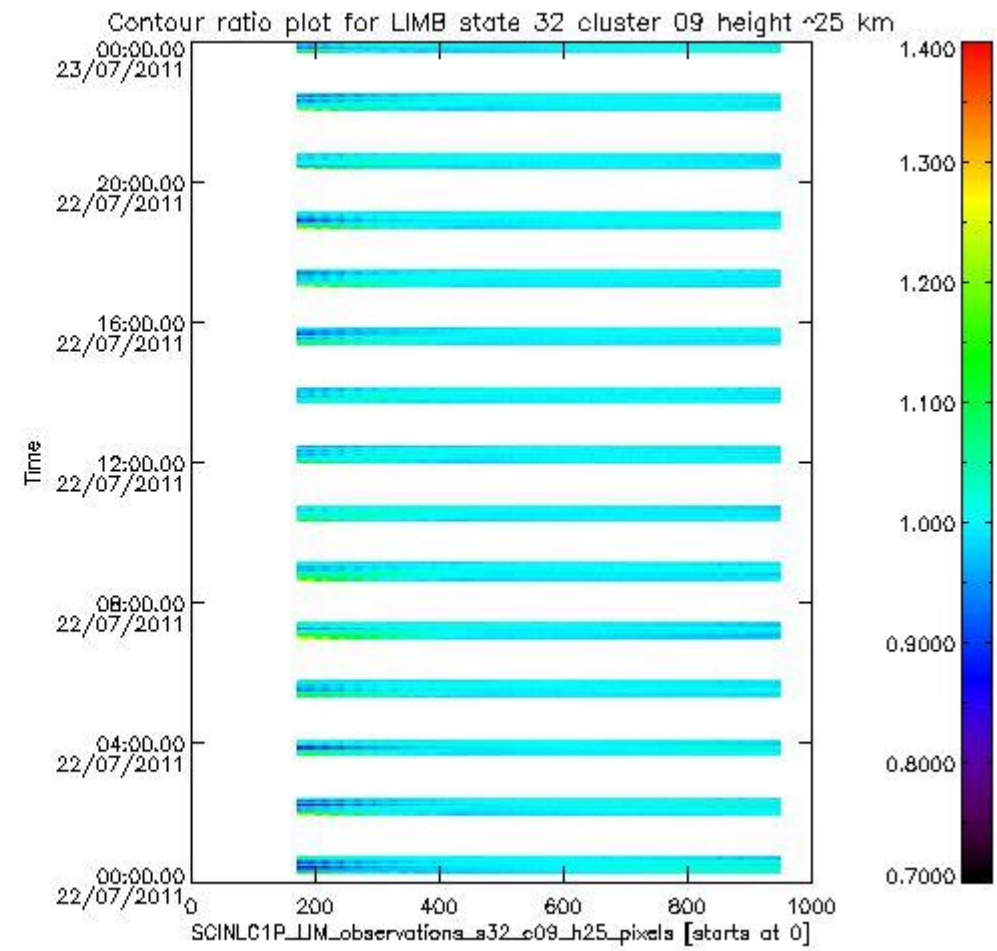
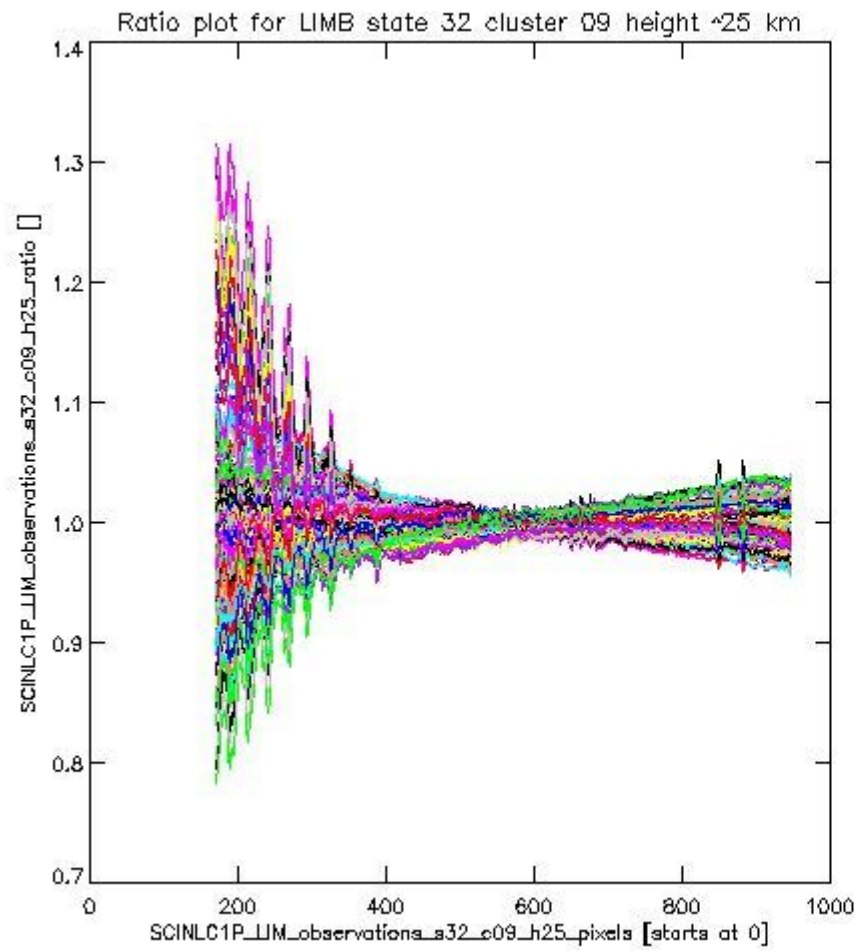
sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110722\_13.PNG

**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	22JUL2011 00:17:12.730
Start time of last sample	22JUL2011 23:58:56.140
Reference period start time	22JUN2011 00:15:14.314
Reference period stop time	21JUL2011 23:04:42.804
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\_20110722\_14.PNG

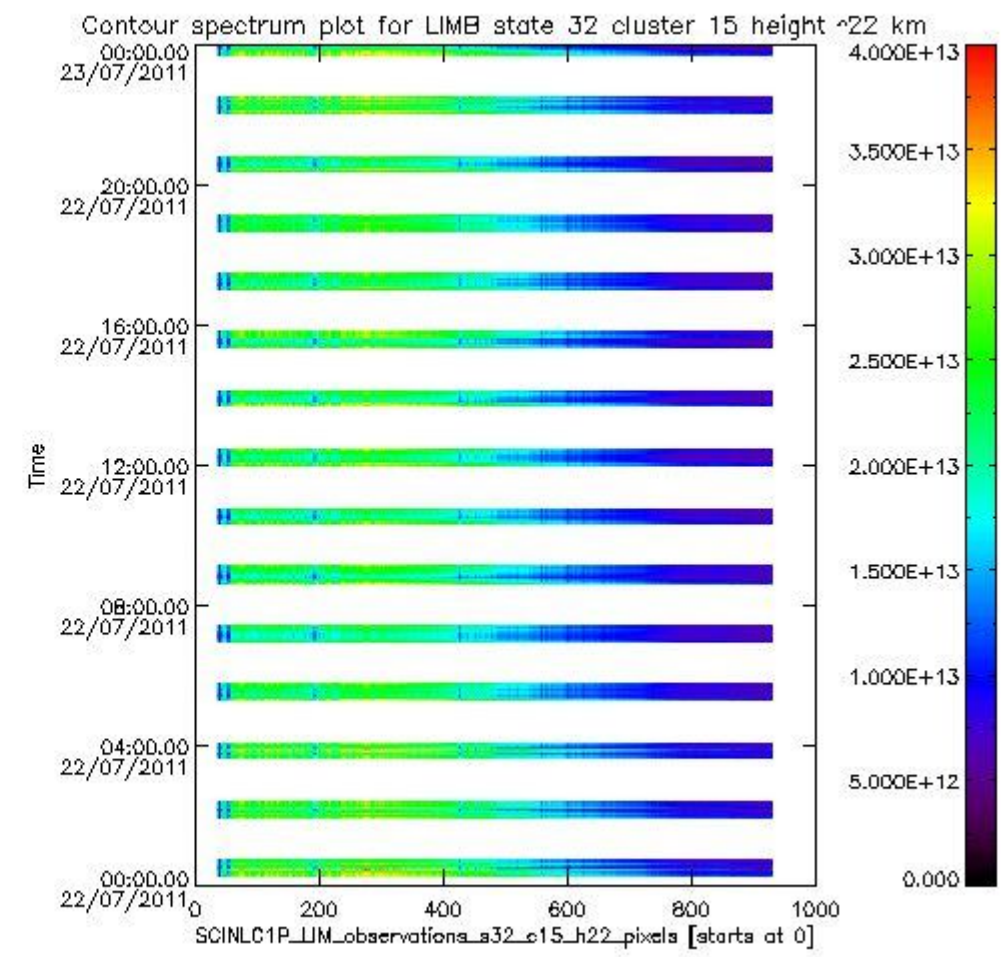
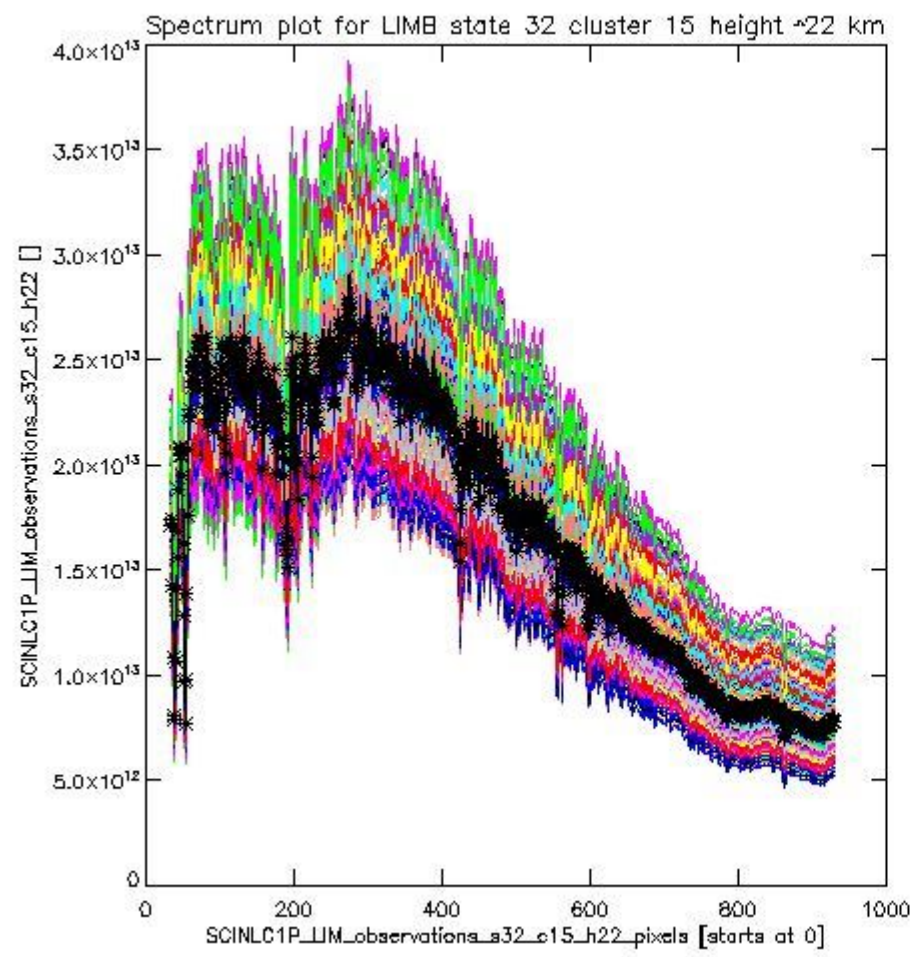


sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110722\_15.PNG

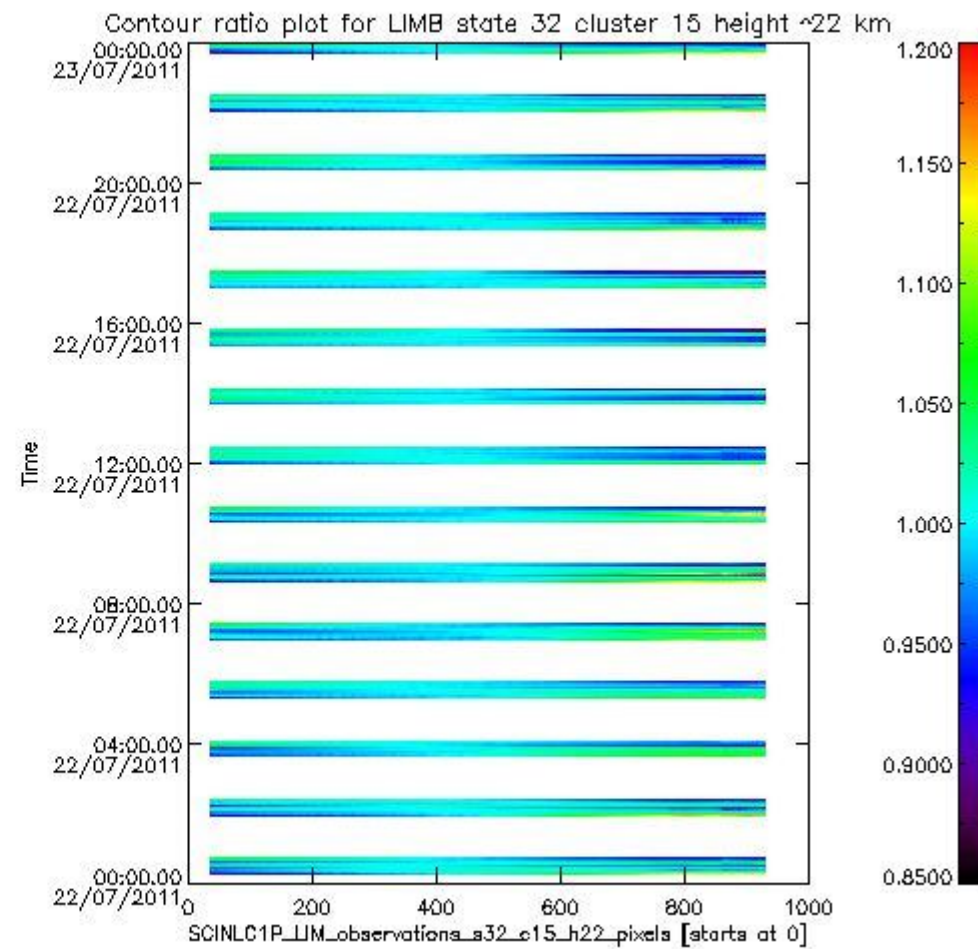
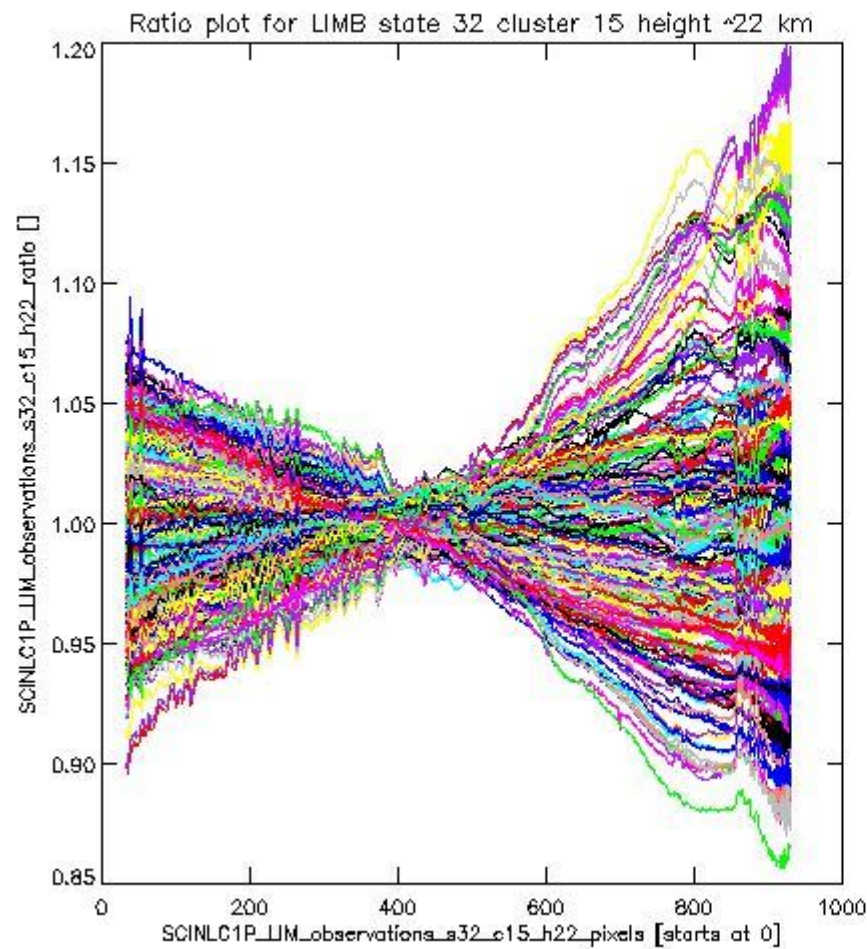
**1.2.9 LIMB state 32 cluster 15 height ~22 km** The data for the analysis of LIMB state 32 cluster 15 height ~22 km have the following characteristics:

Item	Value
Start time of first sample	22JUL2011 00:17:12.730
Start time of last sample	22JUL2011 23:58:56.140
Reference period start time	22JUN2011 00:15:14.314
Reference period stop time	21JUL2011 23:04:42.804
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\_20110722\_16.PNG

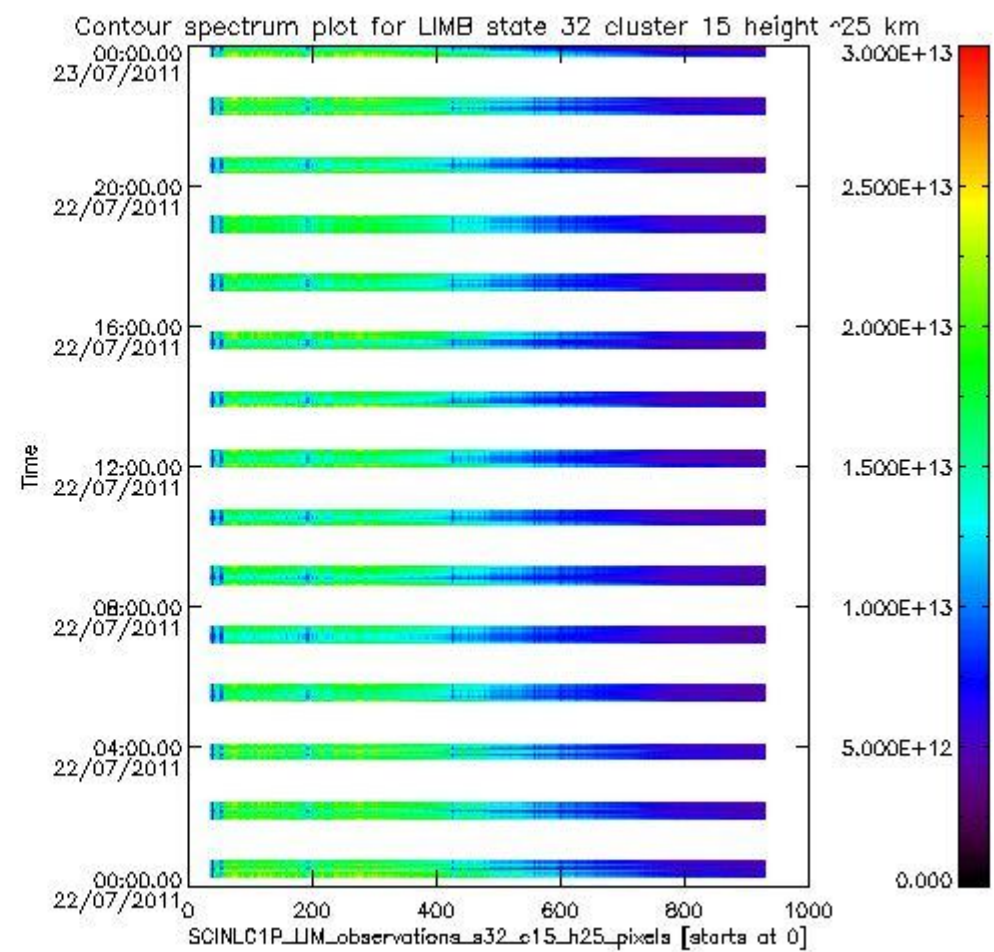
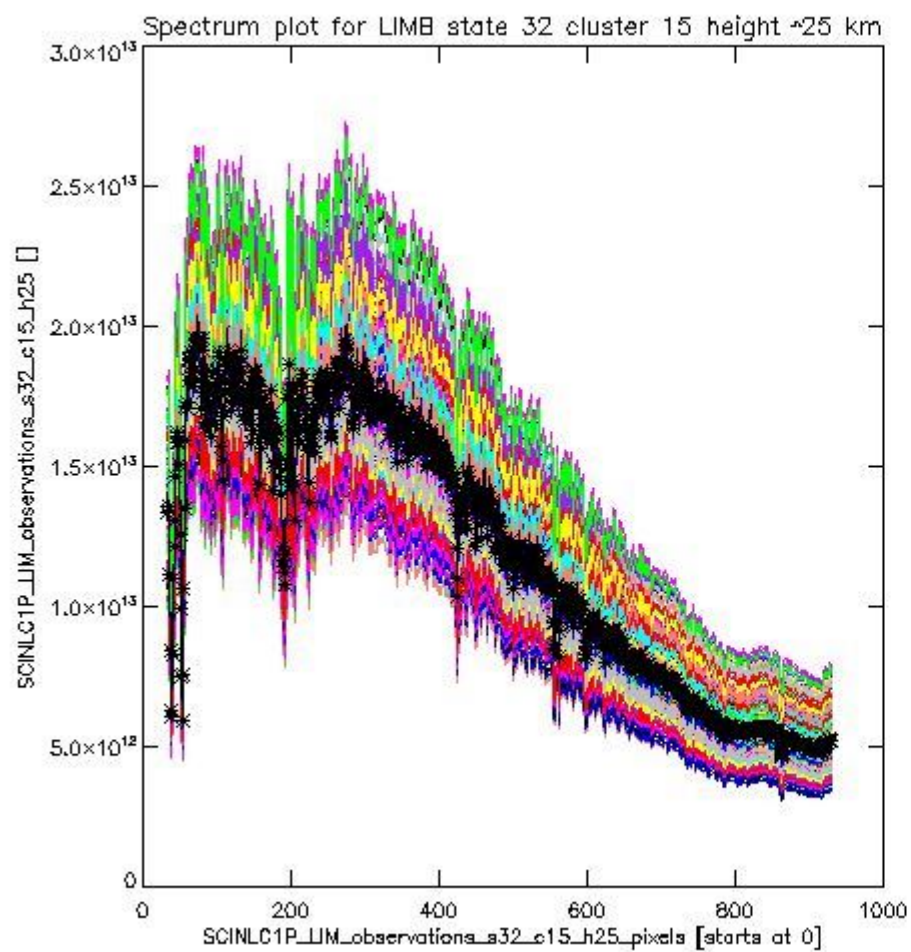


sciamachy\_11b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110722\_17.PNG

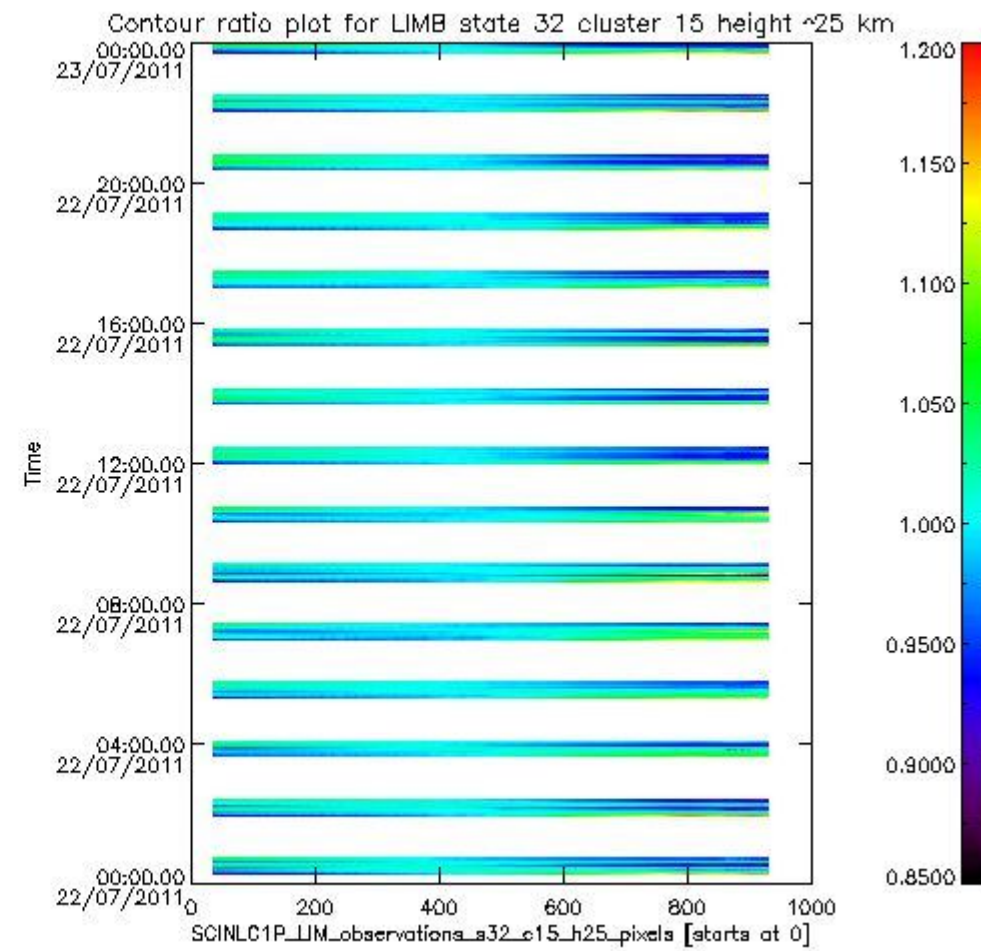
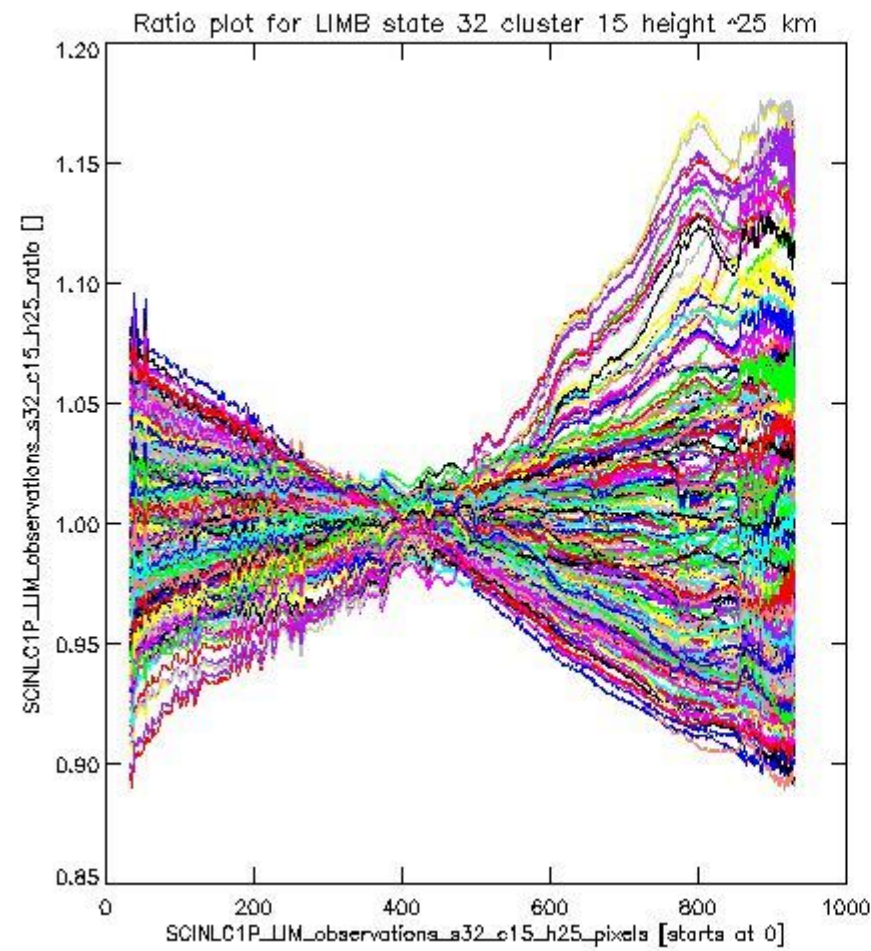
**1.2.10 LIMB state 32 cluster 15 height ~25 km** The data for the analysis of LIMB state 32 cluster 15 height ~25 km have the following characteristics:

Item	Value
Start time of first sample	22JUL2011 00:17:12.730
Start time of last sample	22JUL2011 23:58:56.140
Reference period start time	22JUN2011 00:15:14.314
Reference period stop time	21JUL2011 23:04:42.804
Channel number	3
First pixel number (starts at 0)	33
Last pixel number (starts at 0)	929





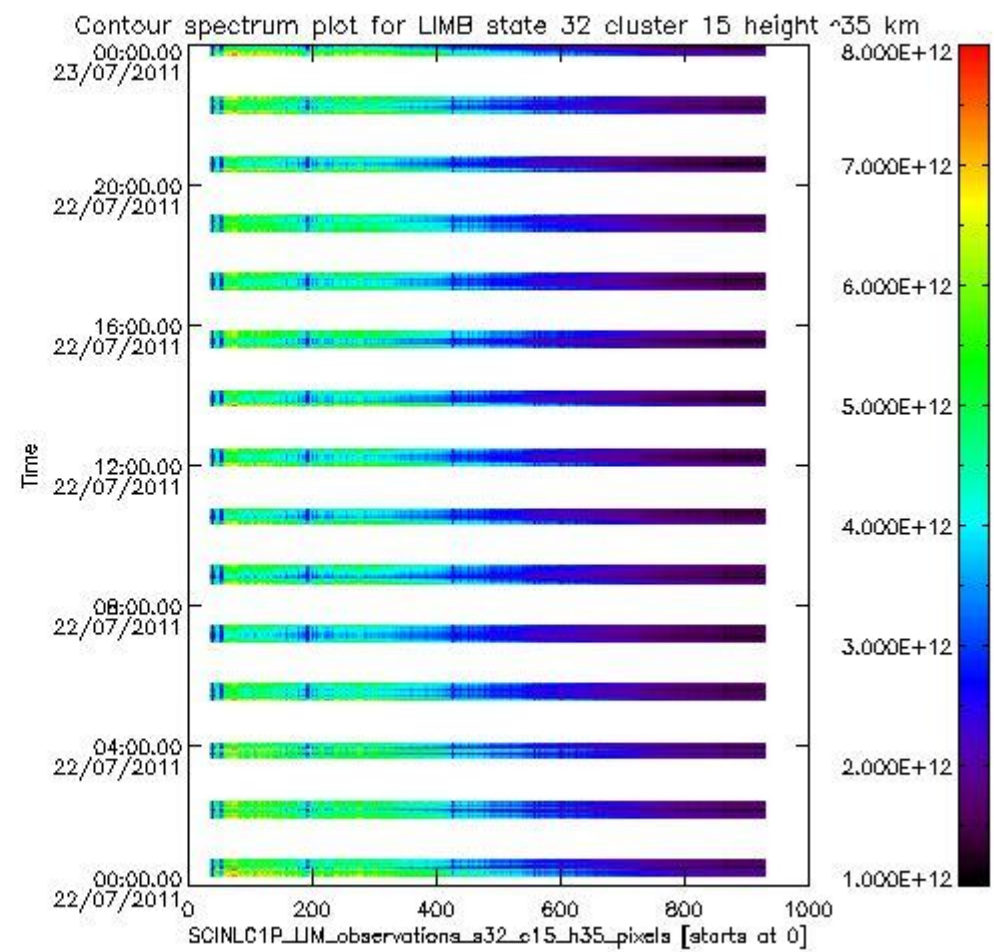
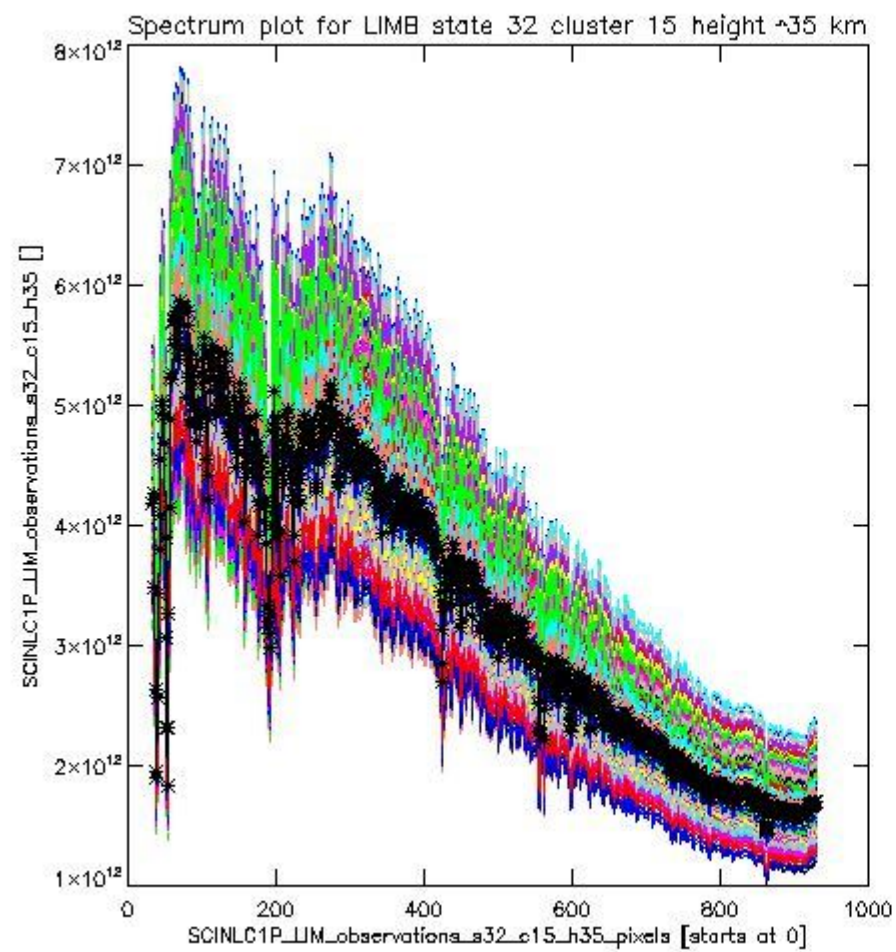


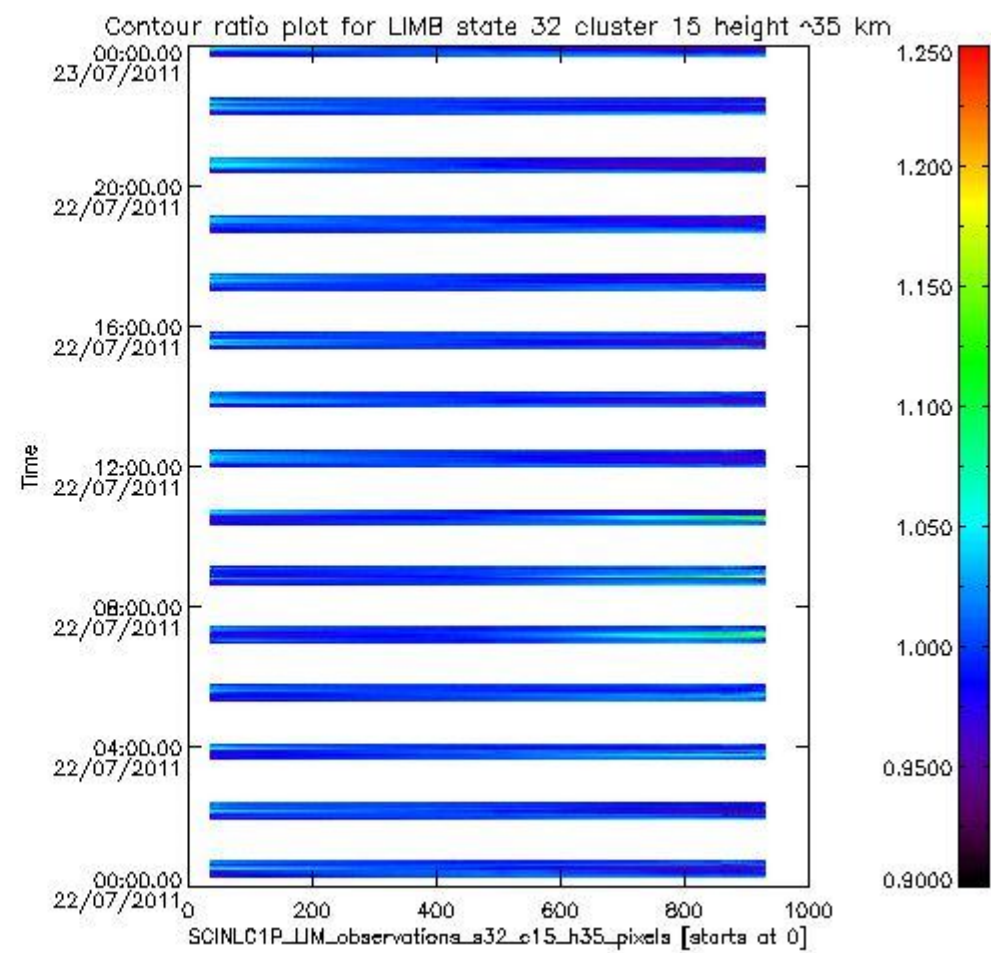
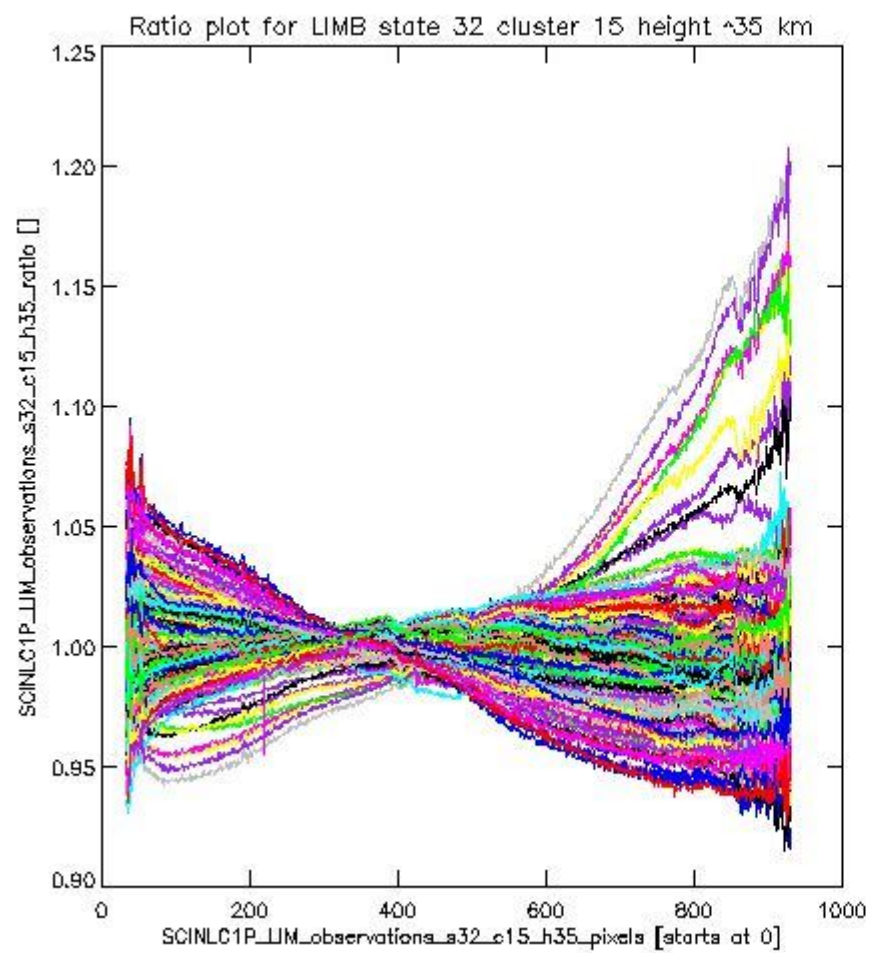


sciamachy\_11b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110722\_19.PNG

**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:

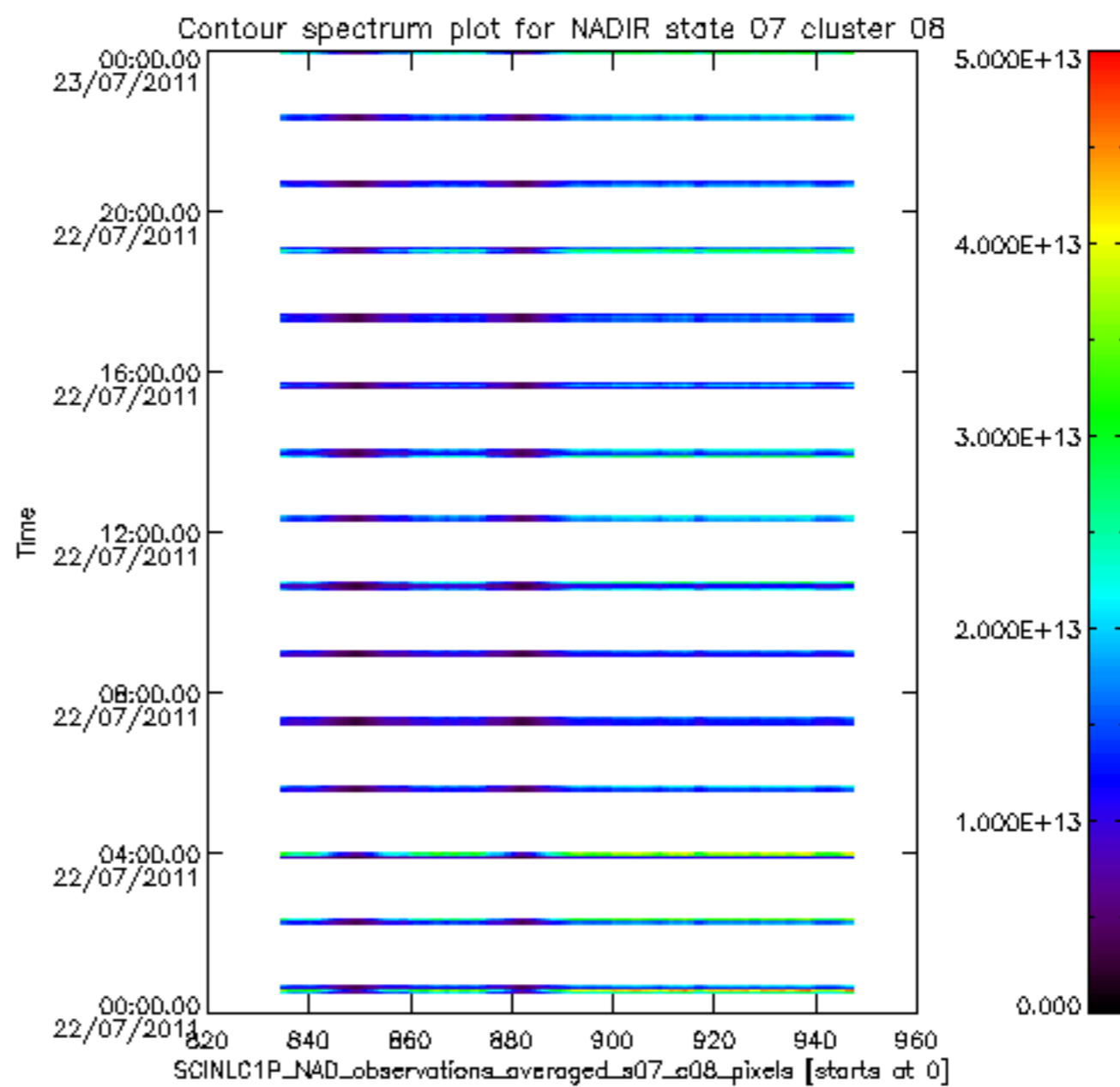
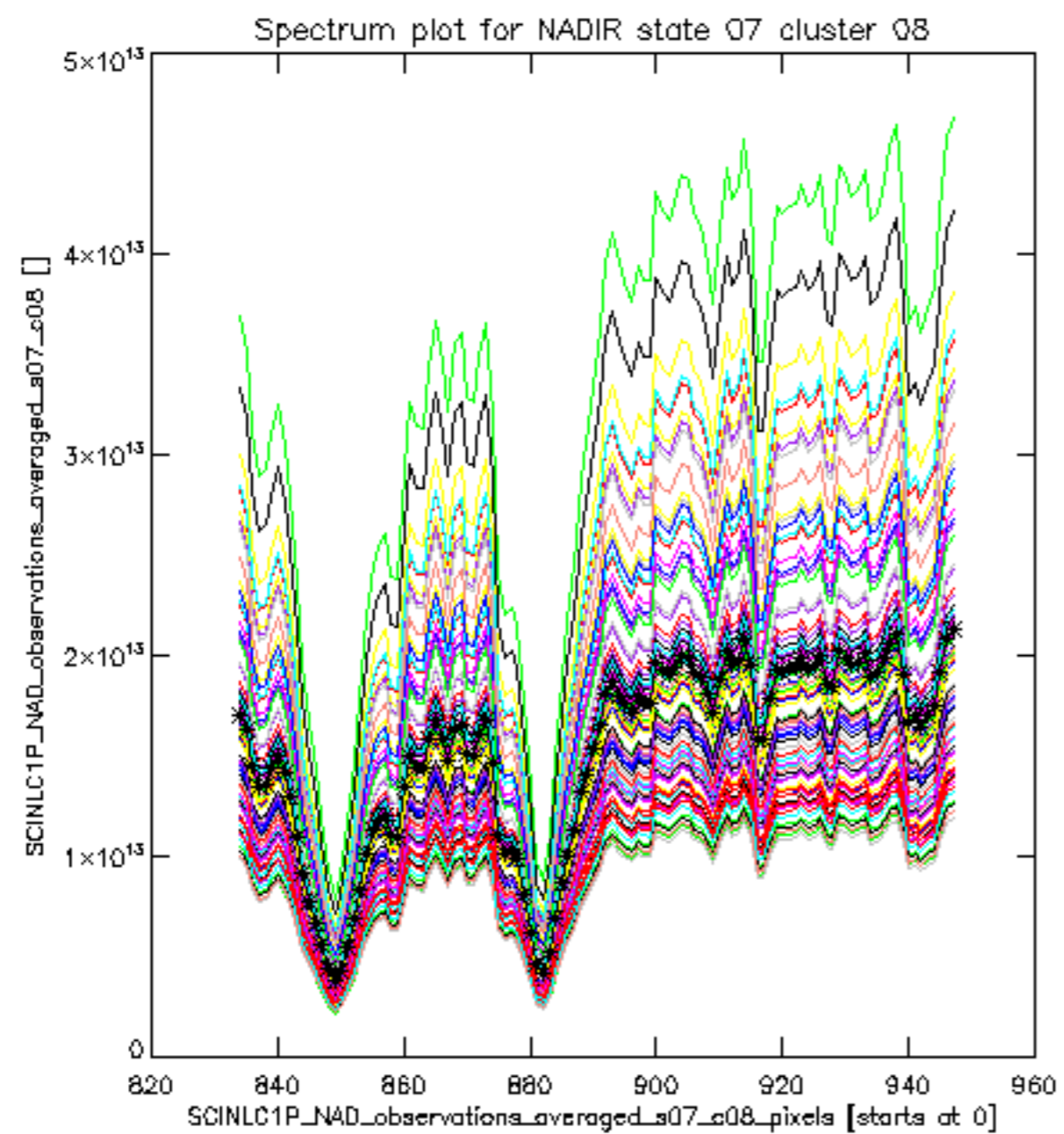
Item	Value
Start time of first sample	22JUL2011 00:17:12.730
Start time of last sample	22JUL2011 23:58:56.140
Reference period start time	22JUN2011 00:15:14.314
Reference period stop time	21JUL2011 23:04:42.804
Channel number	3
First pixel number (starts at 0)	33
Last pixel number (starts at 0)	929

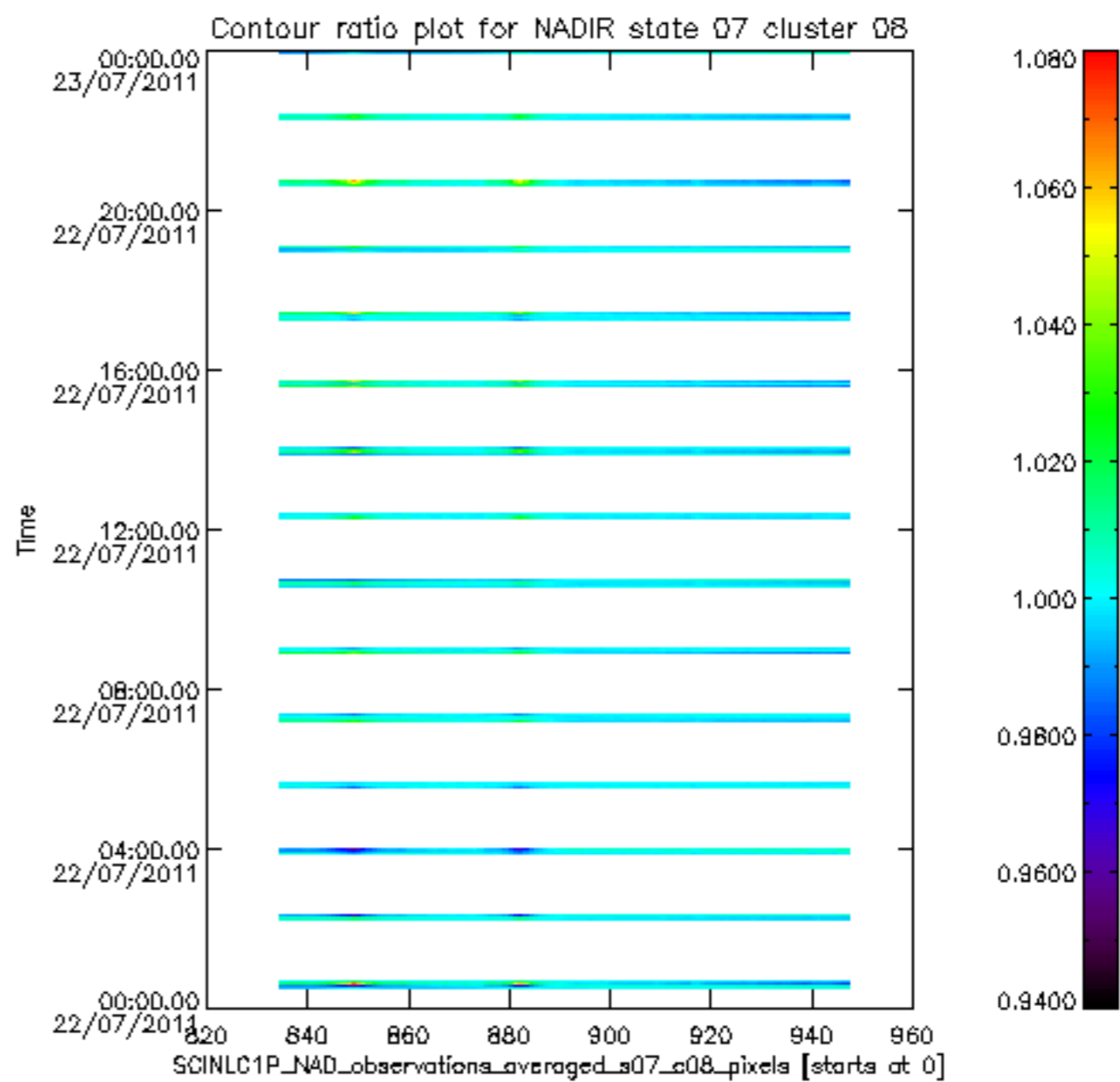
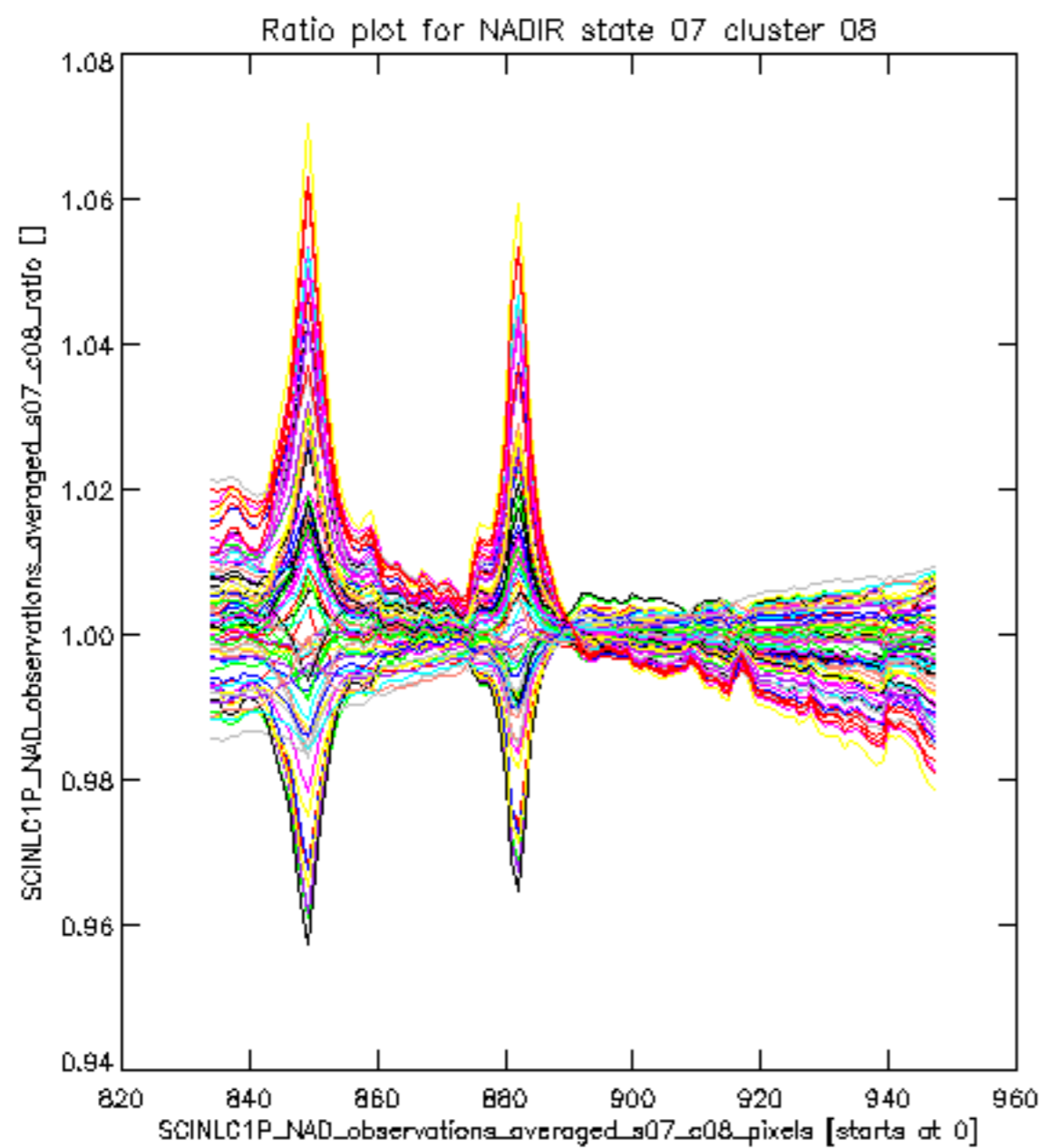


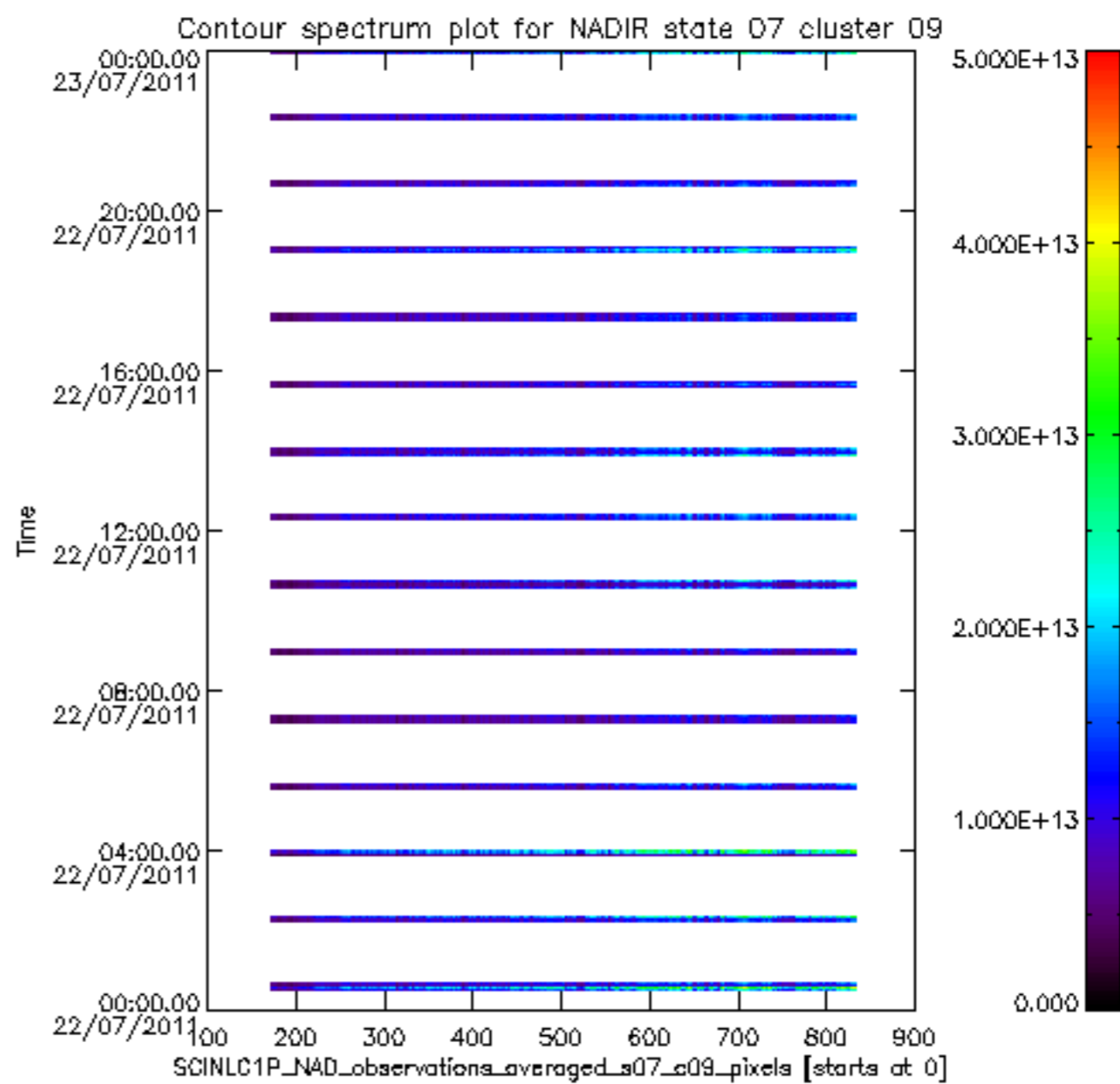
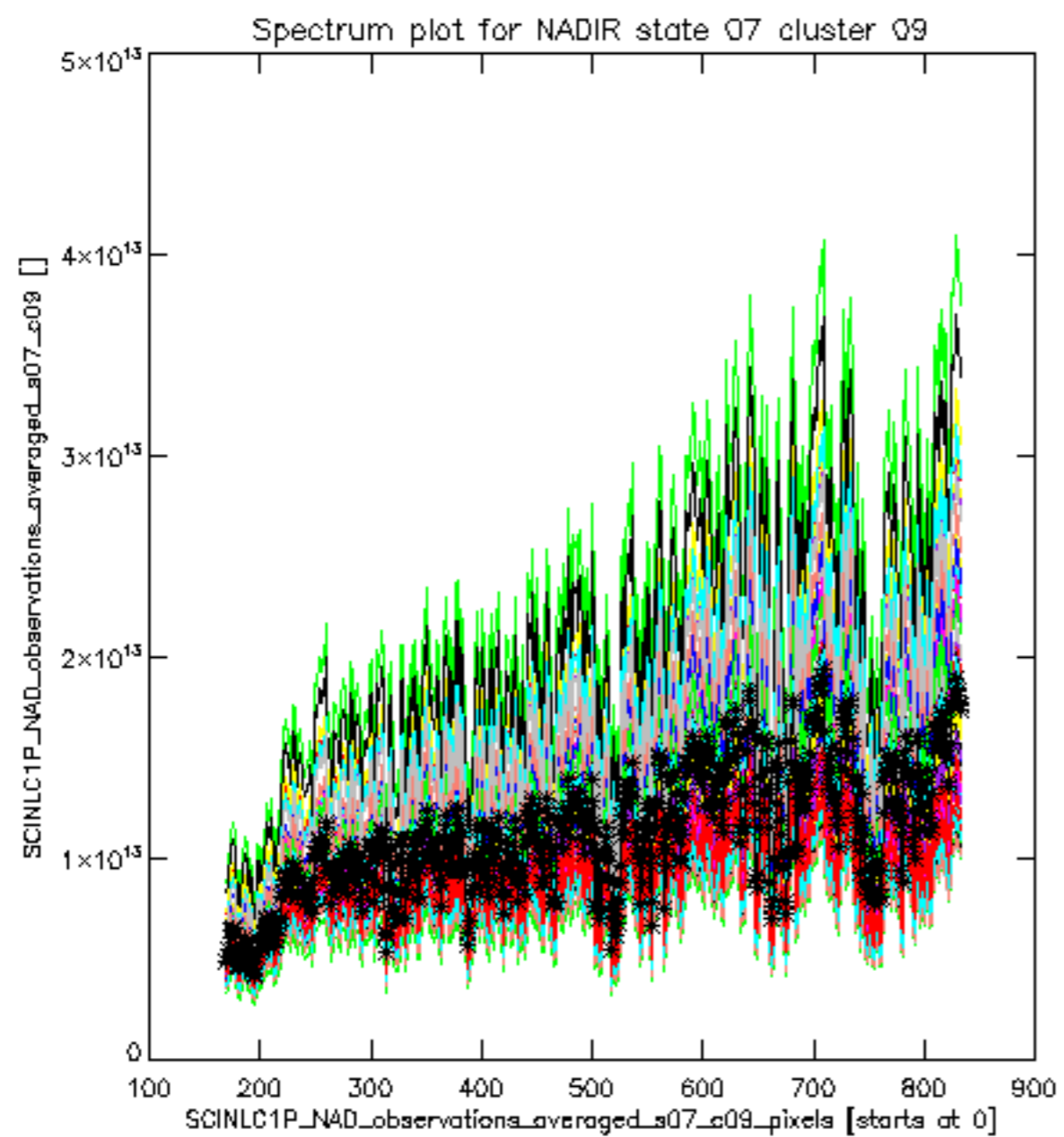


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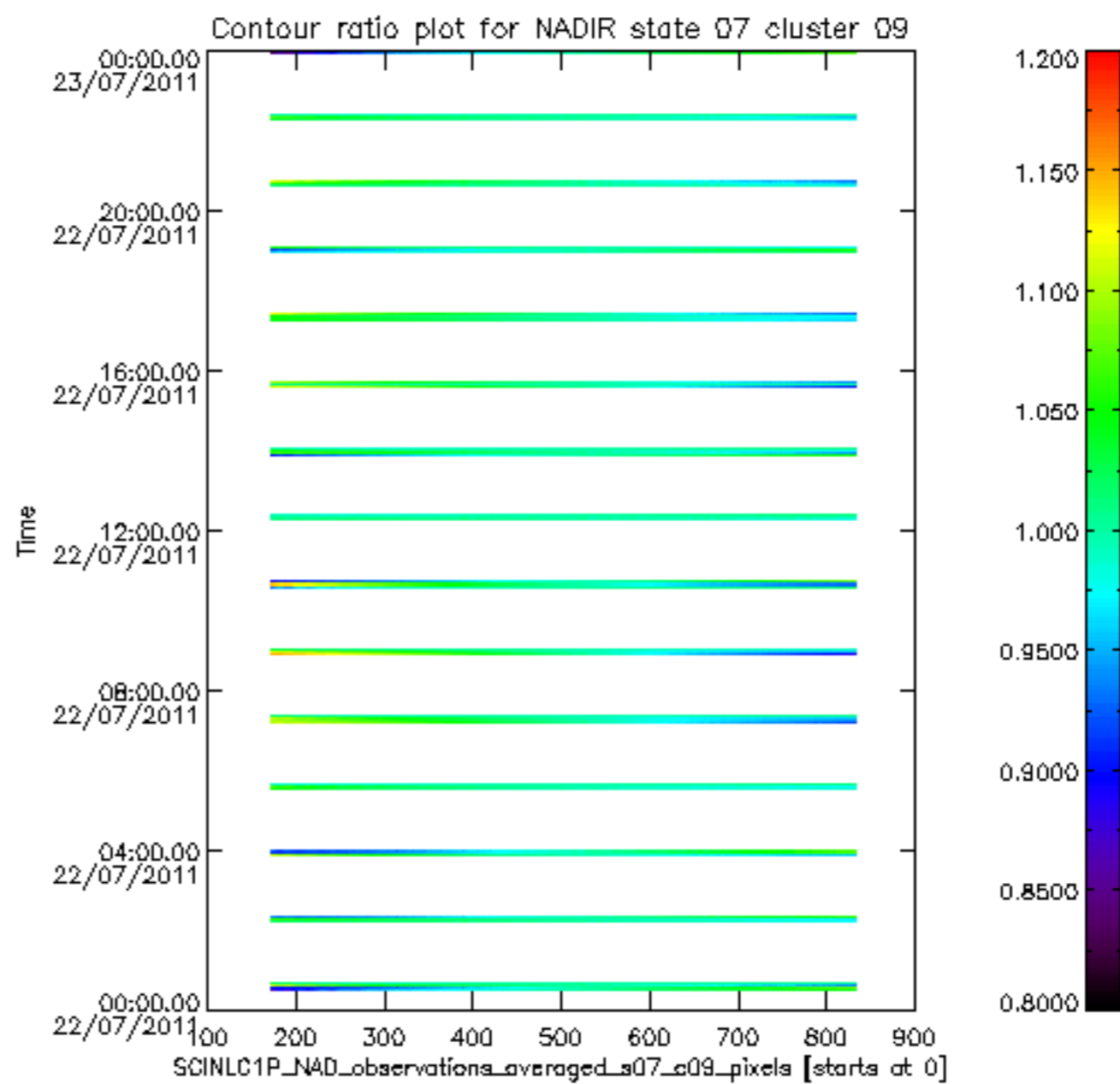
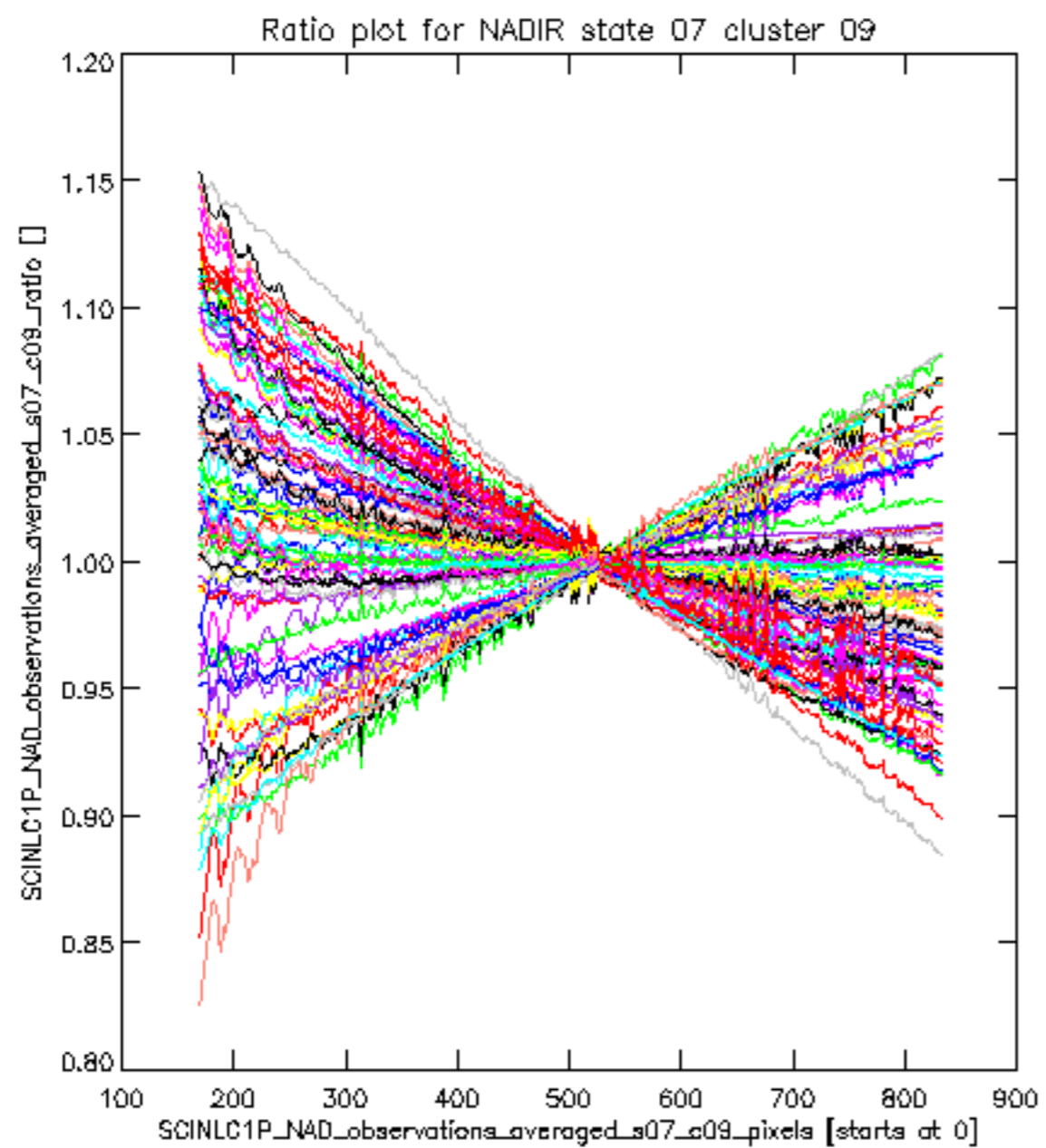


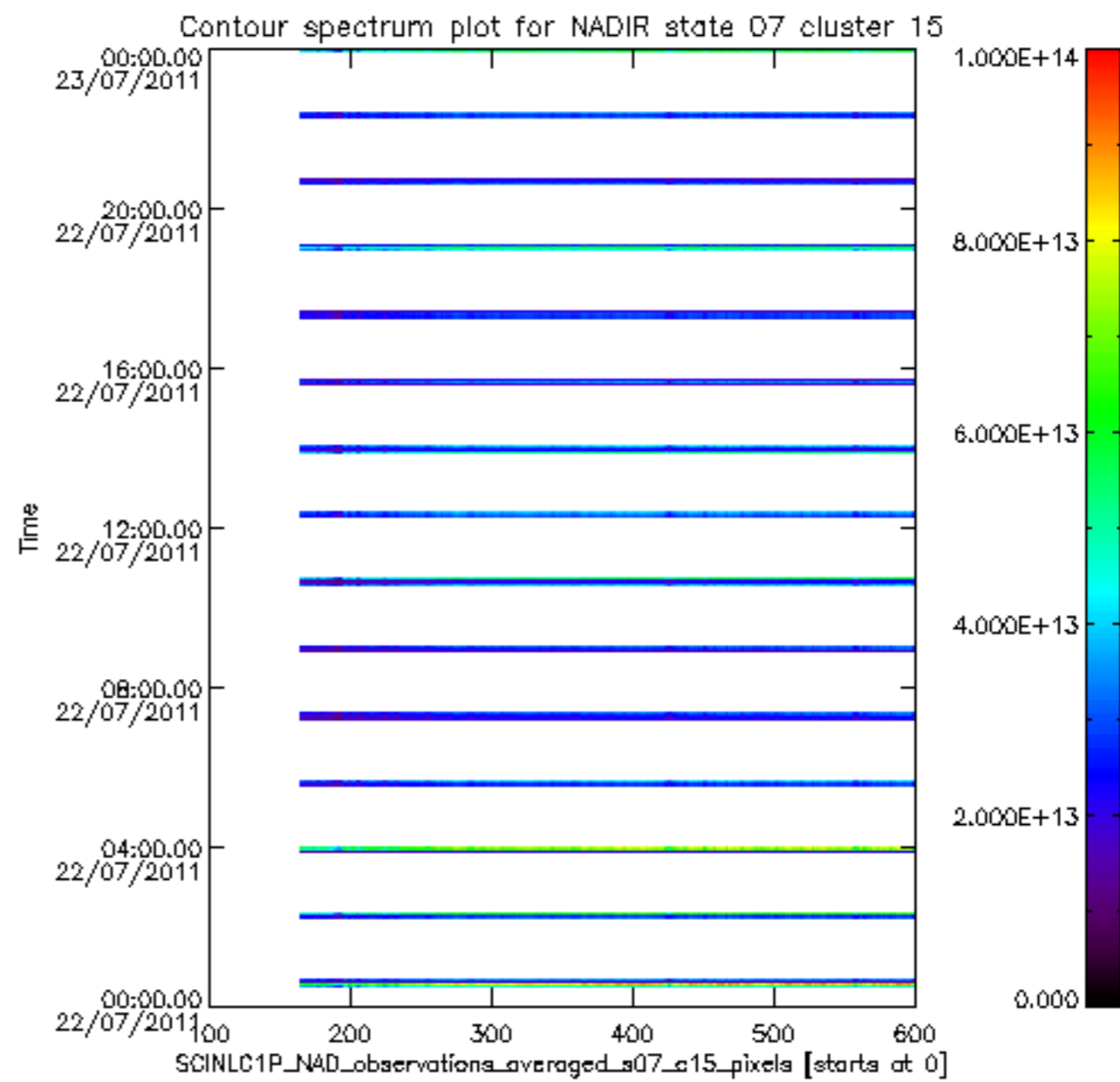
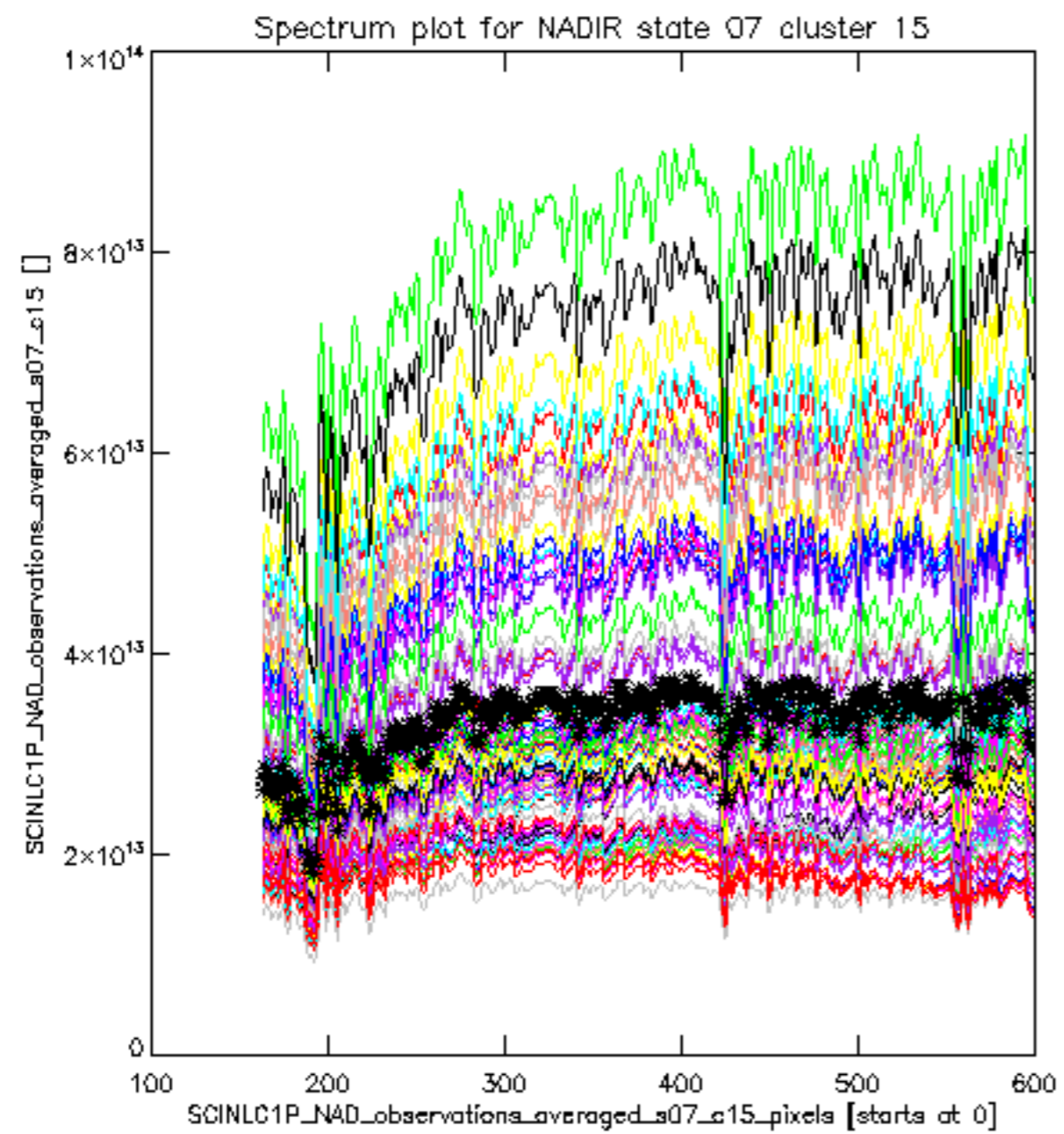


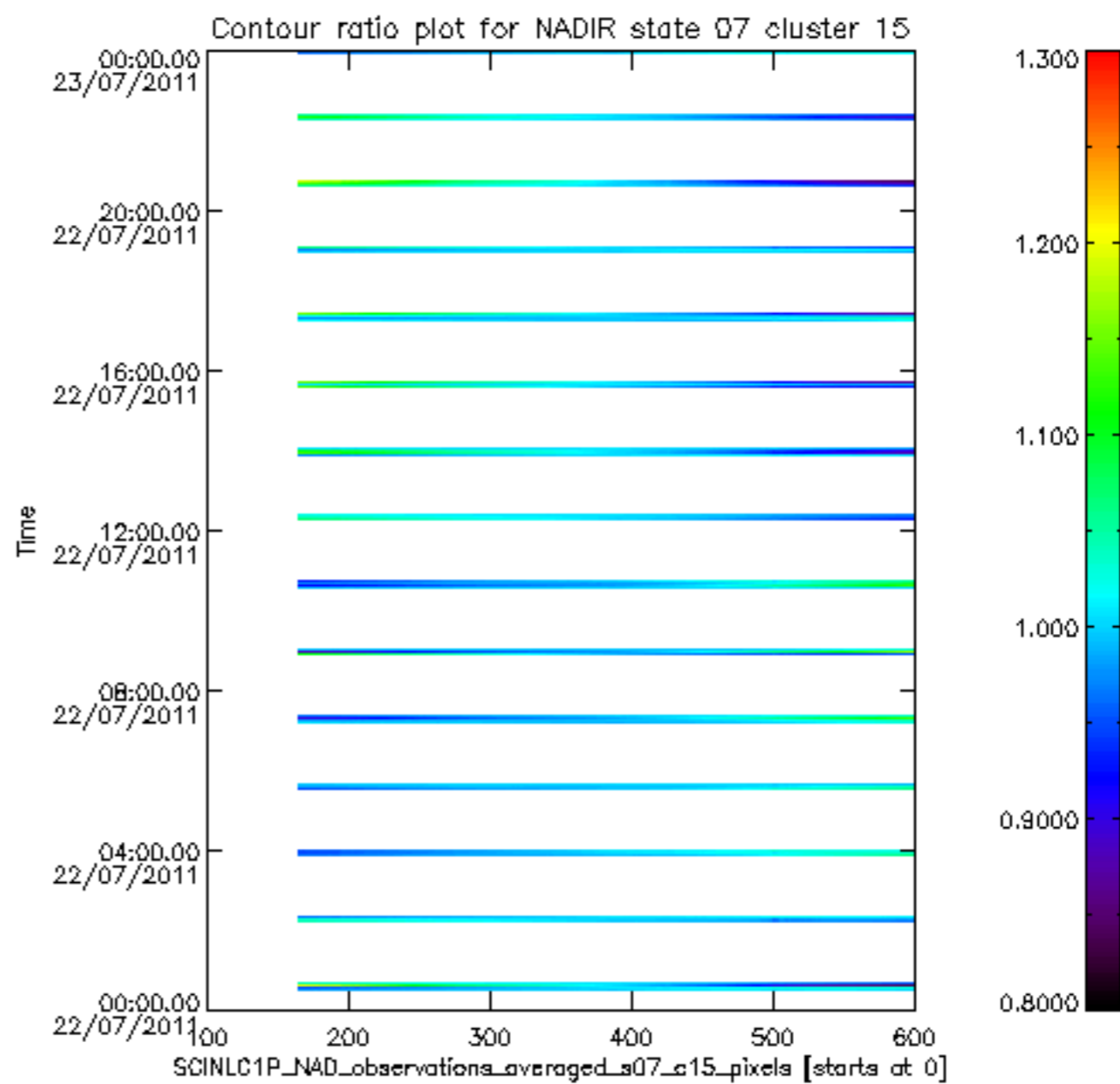
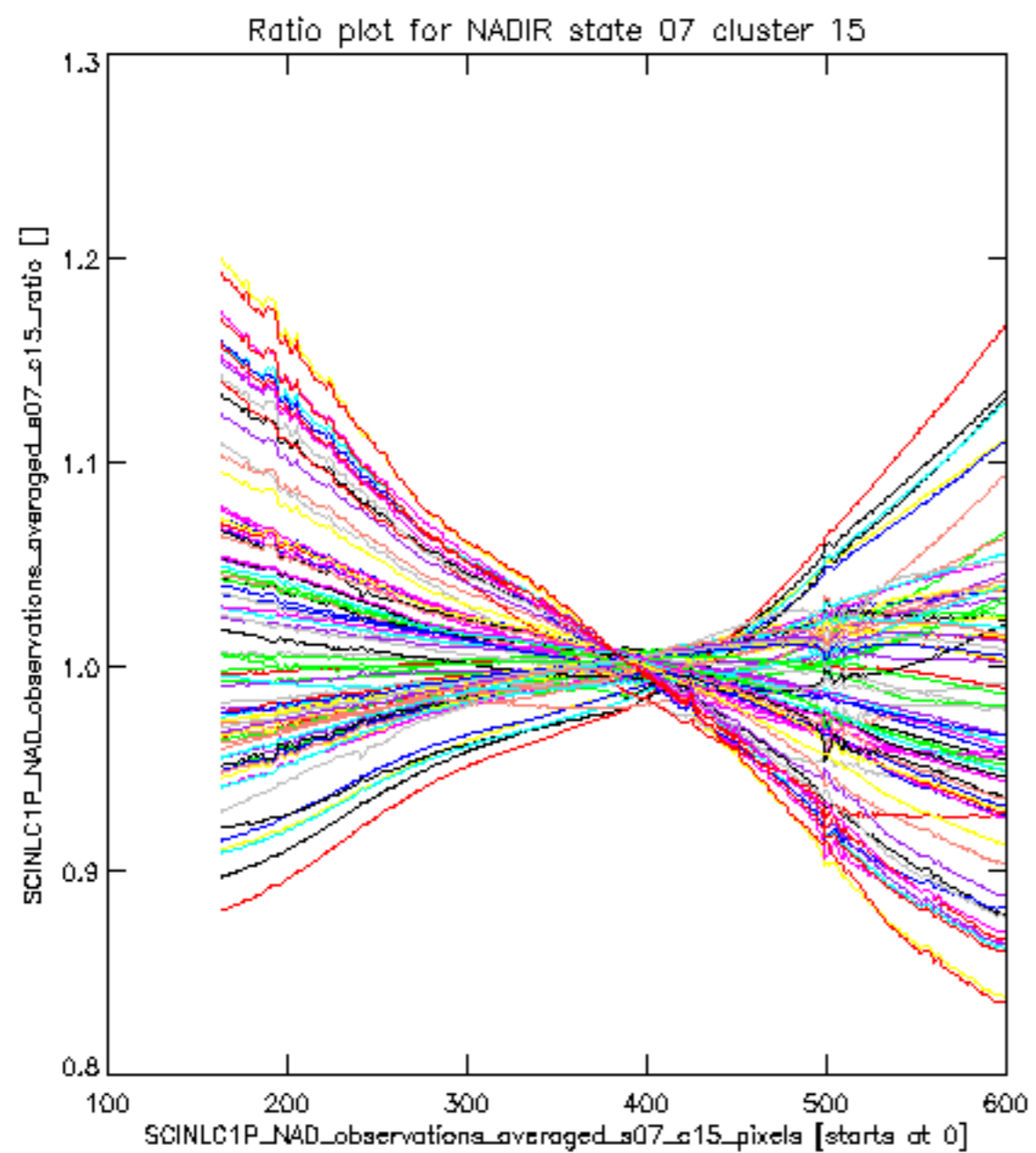




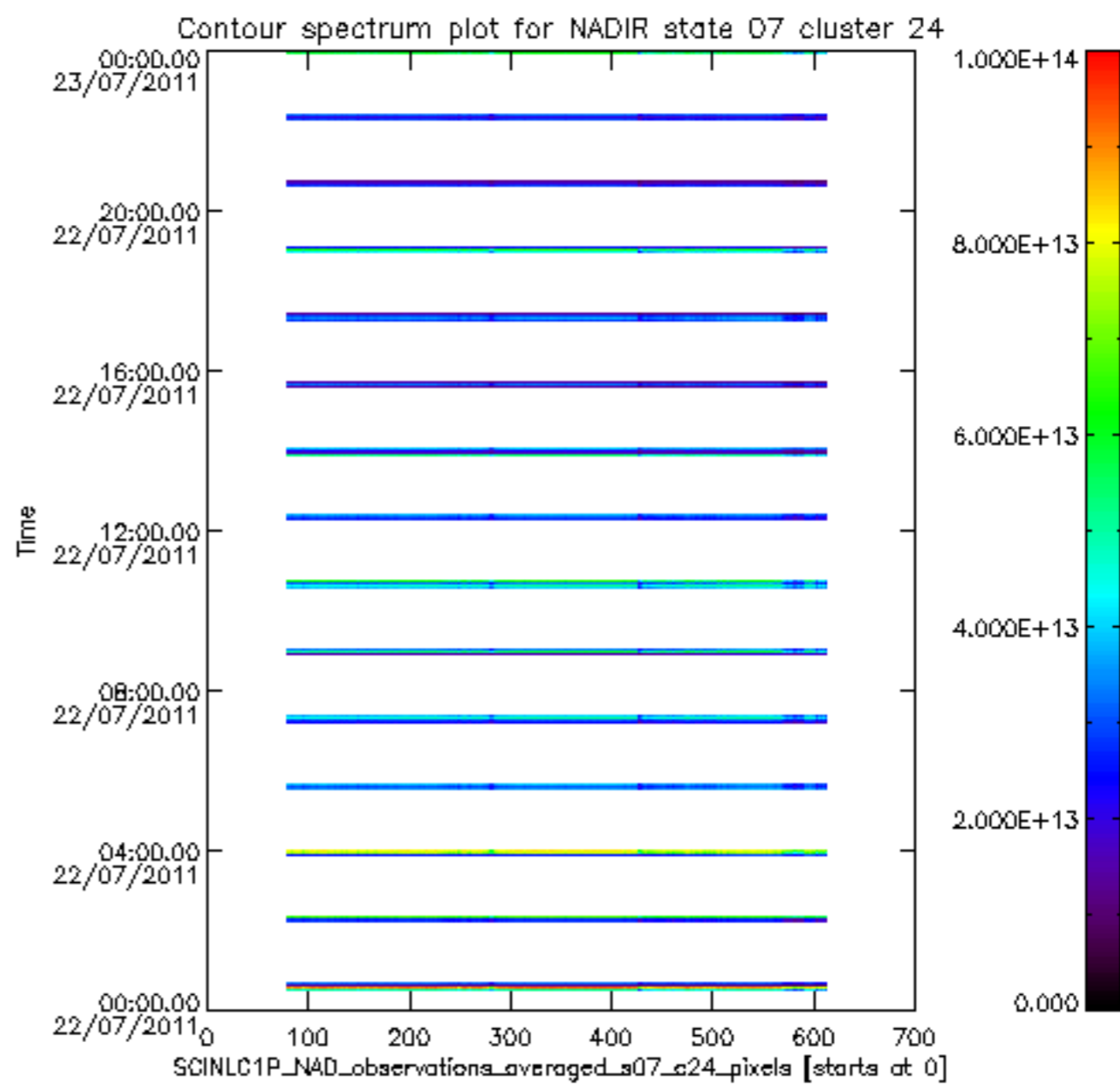
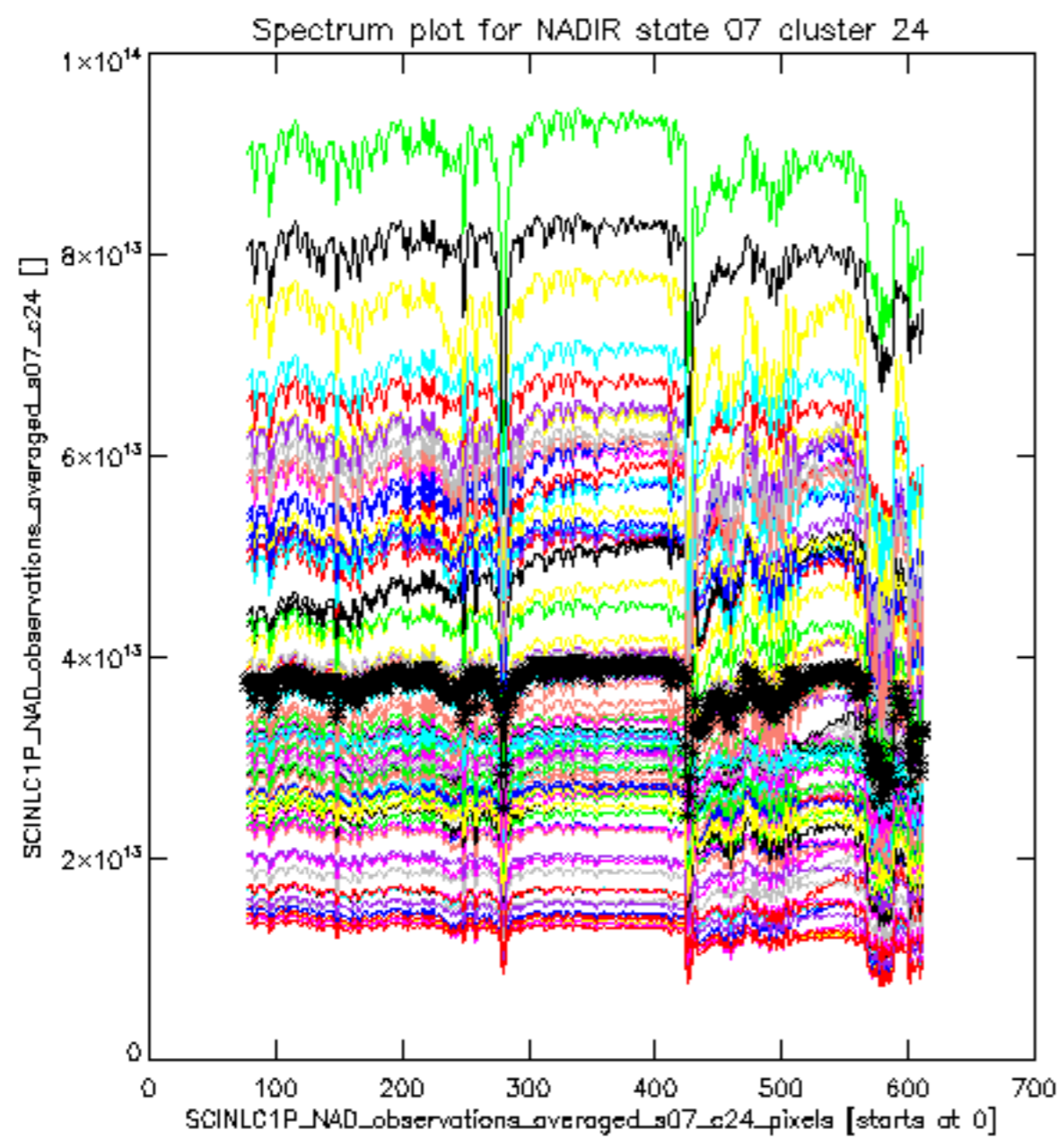


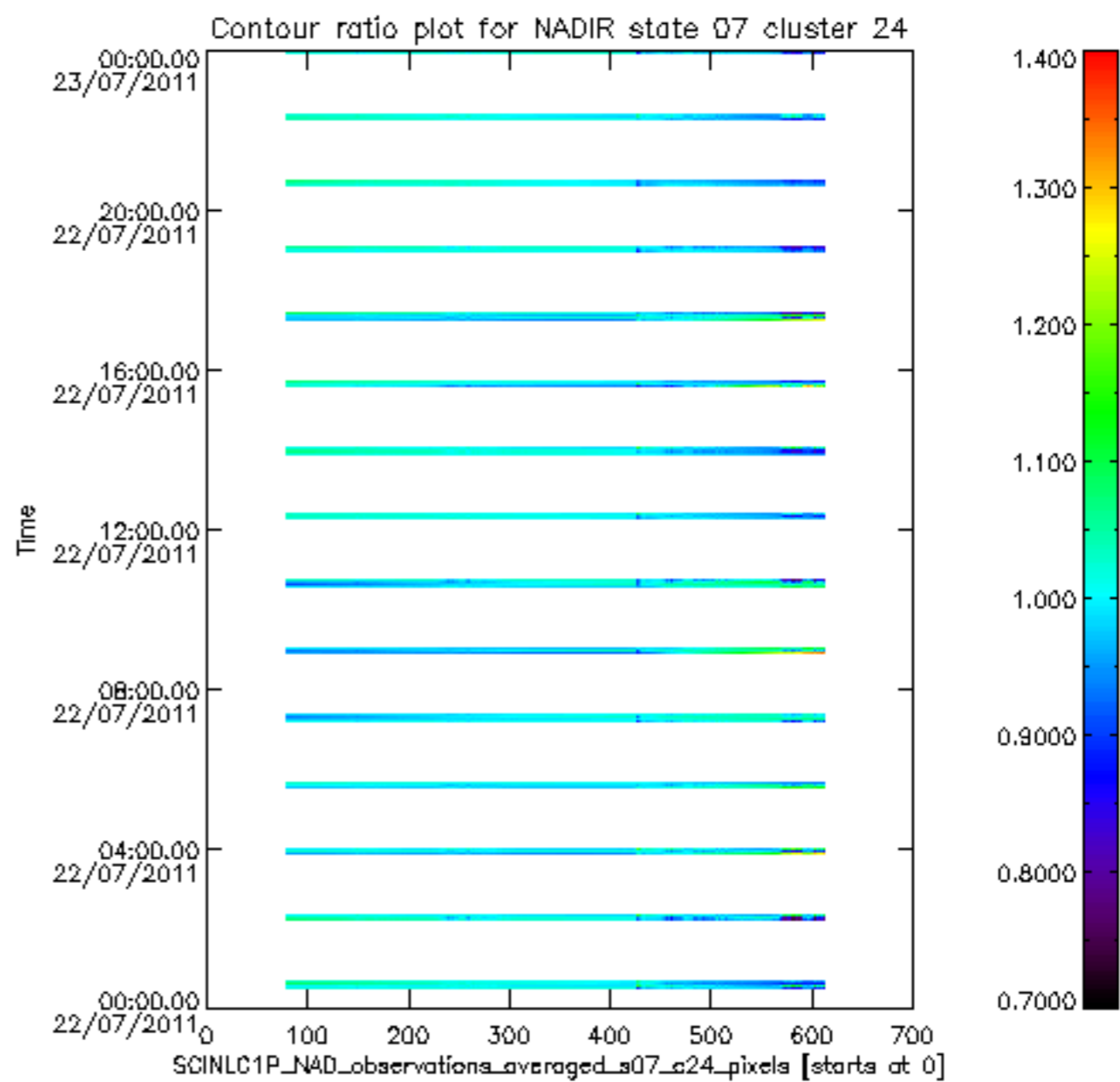
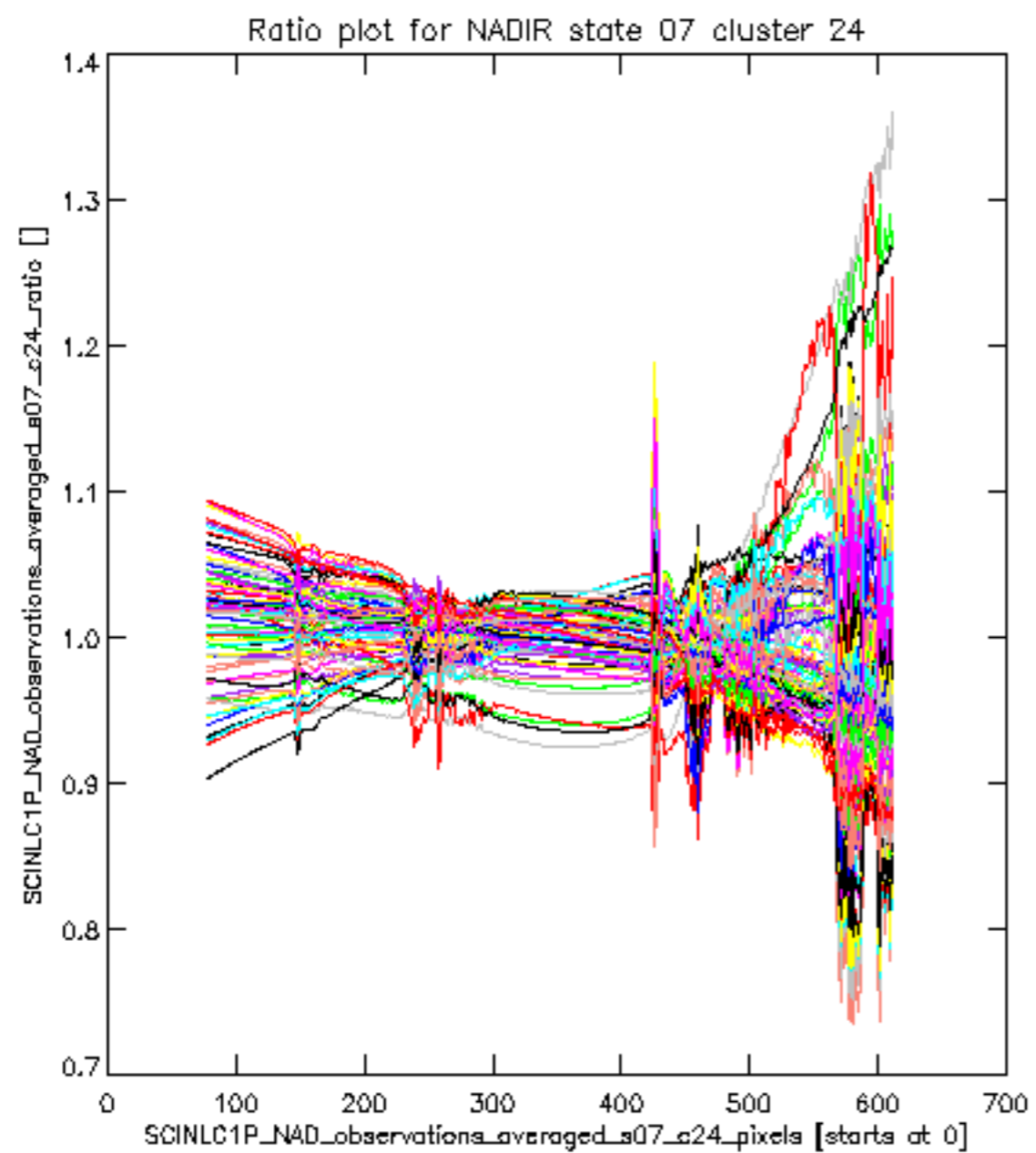




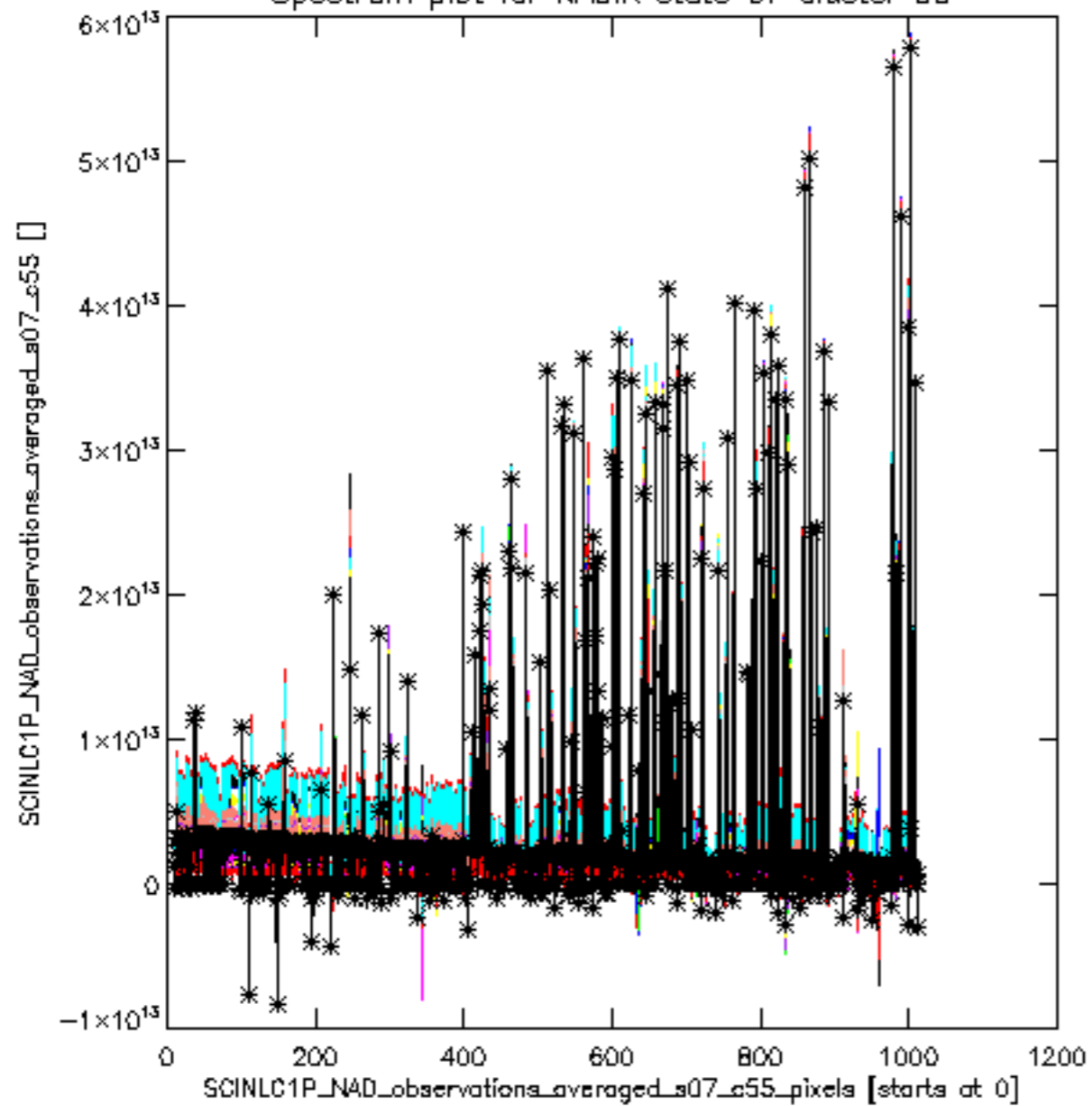








Spectrum plot for NADIR state 07 cluster 55



Contour spectrum plot for NADIR state 07 cluster 55

