

# 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	24MAY2011 06:55:39
Data source version	SCIA/7.04-U
Processing scope for products	11MAY2011 00:00:00 to 12MAY2011 00:00:00
Start time of first product within scope	10MAY2011 22:58:10
Stop time of last product within scope	12MAY2011 01:11:50
Total number of level 1 products	16
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	11MAY2011 01:10:26.492	11MAY2011 23:02:44.405
1	NADIR	07	09	N/A	11MAY2011 01:10:26.492	11MAY2011 23:02:44.405
2	NADIR	07	15	N/A	11MAY2011 01:10:26.492	11MAY2011 23:02:44.405
3	NADIR	07	24	N/A	11MAY2011 01:10:26.492	11MAY2011 23:02:44.405
4	NADIR	07	55	N/A	11MAY2011 01:10:26.492	11MAY2011 23:02:44.405
5	LIMB	32	09	~19 km	11MAY2011 00:57:15.856	11MAY2011 23:07:58.452
6	LIMB	32	09	~22 km	11MAY2011 00:57:15.856	11MAY2011 23:07:58.452
7	LIMB	32	09	~25 km	11MAY2011 00:57:15.856	11MAY2011 23:07:58.452
8	LIMB	32	15	~22 km	11MAY2011 00:57:15.856	11MAY2011 23:07:58.452
9	LIMB	32	15	~25 km	11MAY2011 00:57:15.856	11MAY2011 23:07:58.452
10	LIMB	32	15	~35 km	11MAY2011 00:57:15.856	11MAY2011 23:07:58.452

#### 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	#nopro	#cmlprk	#incmpl_rk	Decont
0	<a href="#">SCI_NLC_1CUDPA20110510_225228_000060053102_00217_48076_1281.N1</a>	10MAY2011 22:58:10	11MAY2011 00:08:49	0	36	30	0	1	1	0	0	
1	<a href="#">SCI_NLC_1CUDPA20110511_003237_000060143102_00218_48077_1288.N1</a>	11MAY2011 00:38:23	11MAY2011 01:48:38	0	35	31	0	0	1	0	0	
2	<a href="#">SCI_NLC_1CUDPA20110511_021255_000060053102_00219_48078_1283.N1</a>	11MAY2011 02:18:37	11MAY2011 03:29:06	0	36	30	0	0	1	0	0	
3	<a href="#">SCI_NLC_1CUDPA20110511_035304_000060143102_00220_48079_1285.N1</a>	11MAY2011 03:58:51	11MAY2011 05:09:05	0	35	31	0	0	1	0	0	
4	<a href="#">SCI_NLC_1CUDPA20110511_053322_000060053102_00221_48080_1290.N1</a>	11MAY2011 05:39:05	11MAY2011 06:49:34	0	36	30	0	0	1	0	0	
5	<a href="#">SCI_NLC_1CUDPA20110511_071332_000060143102_00222_48081_1291.N1</a>	11MAY2011 07:19:18	11MAY2011 08:29:33	0	35	31	0	0	1	0	0	

6	SCI_NLC_1CUDPA20110511_085350_000060053102_00223_48082_1293.N1	11MAY2011 08:59:32	11MAY2011 10:10:01	0	36	30	0	0	1	0	0	
7	SCI_NLC_1CUDPA20110511_103359_000060143102_00224_48083_1295.N1	11MAY2011 10:39:46	11MAY2011 11:50:00	0	35	31	0	0	1	0	0	
8	SCI_NLC_1CUDPA20110511_121417_000060053102_00225_48084_1299.N1	11MAY2011 12:19:59	11MAY2011 13:30:28	0	36	30	0	0	1	0	0	
9	SCI_NLC_1CUDPA20110511_135426_000060143102_00226_48085_1298.N1	11MAY2011 14:00:13	11MAY2011 15:10:28	0	35	31	0	0	1	0	0	
10	SCI_NLC_1CUDPA20110511_153444_000060053102_00227_48086_1302.N1	11MAY2011 15:40:27	11MAY2011 16:50:56	0	36	30	0	0	1	0	0	
11	SCI_NLC_1CUDPA20110511_171453_000060143102_00228_48087_1303.N1	11MAY2011 17:20:41	11MAY2011 18:29:54	0	34	29	0	1	1	0	0	
12	SCI_NLC_1CUDPA20110511_185512_000060053102_00229_48088_1306.N1	11MAY2011 19:00:54	11MAY2011 20:11:33	0	36	30	0	1	1	0	0	
13	SCI_NLC_1CUDPA20110511_203521_000060143102_00230_48089_1308.N1	11MAY2011 20:41:08	11MAY2011 21:51:23	0	35	31	0	0	1	0	0	
14	SCI_NLC_1CUDPA20110511_221539_000060053102_00231_48090_1310.N1	11MAY2011 22:21:22	11MAY2011 23:31:51	0	36	30	0	0	1	0	0	
15	SCI_NLC_1CUDPA20110511_235548_000060143102_00232_48091_1311.N1	12MAY2011 00:01:35	12MAY2011 01:11:50	0	35	31	0	0	1	0	0	

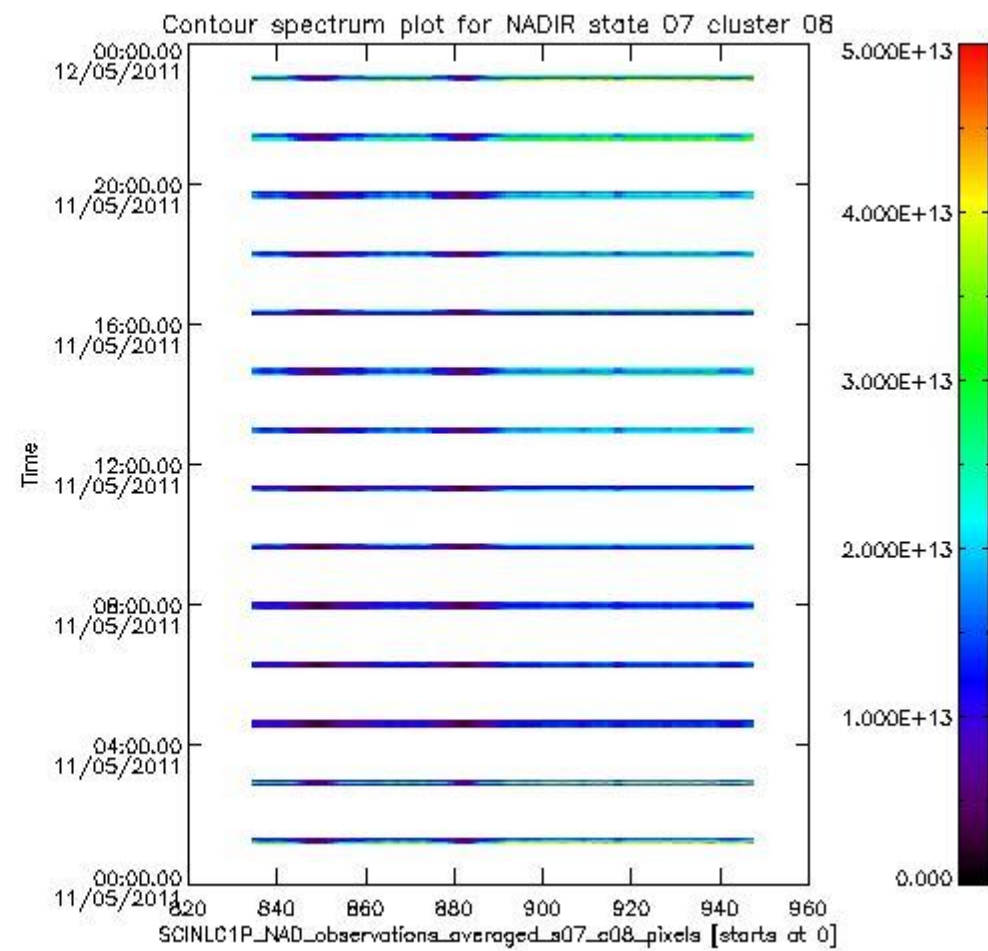
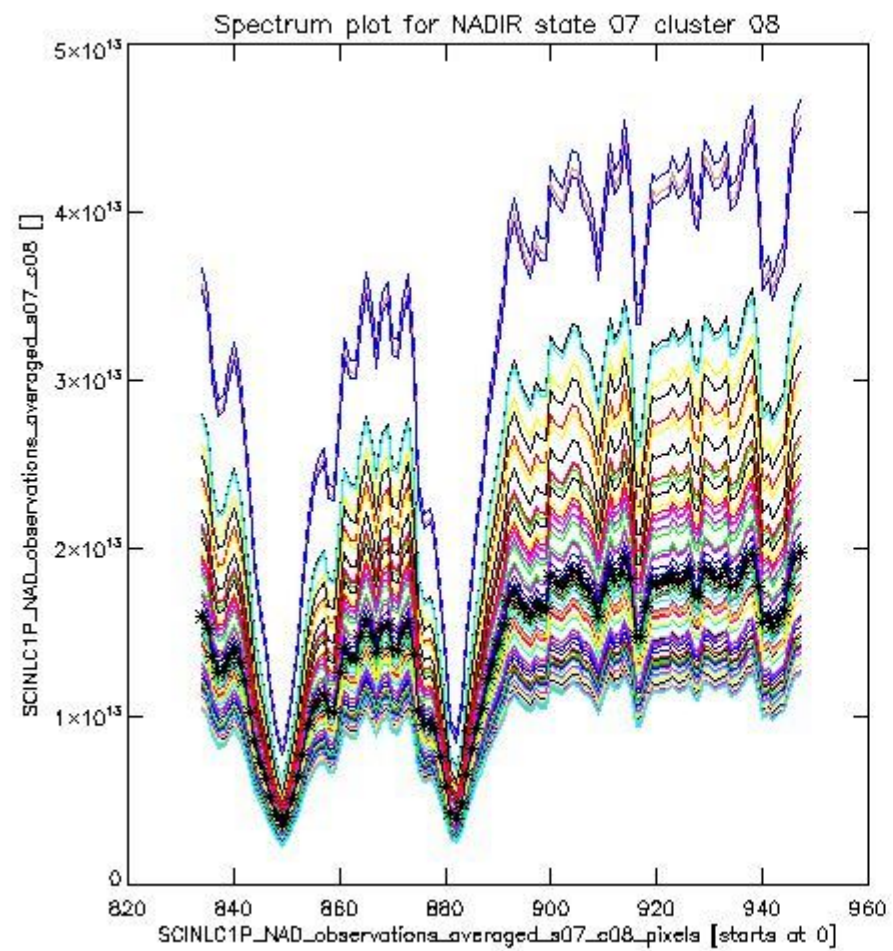
## 1.2 Source packet monitoring

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:

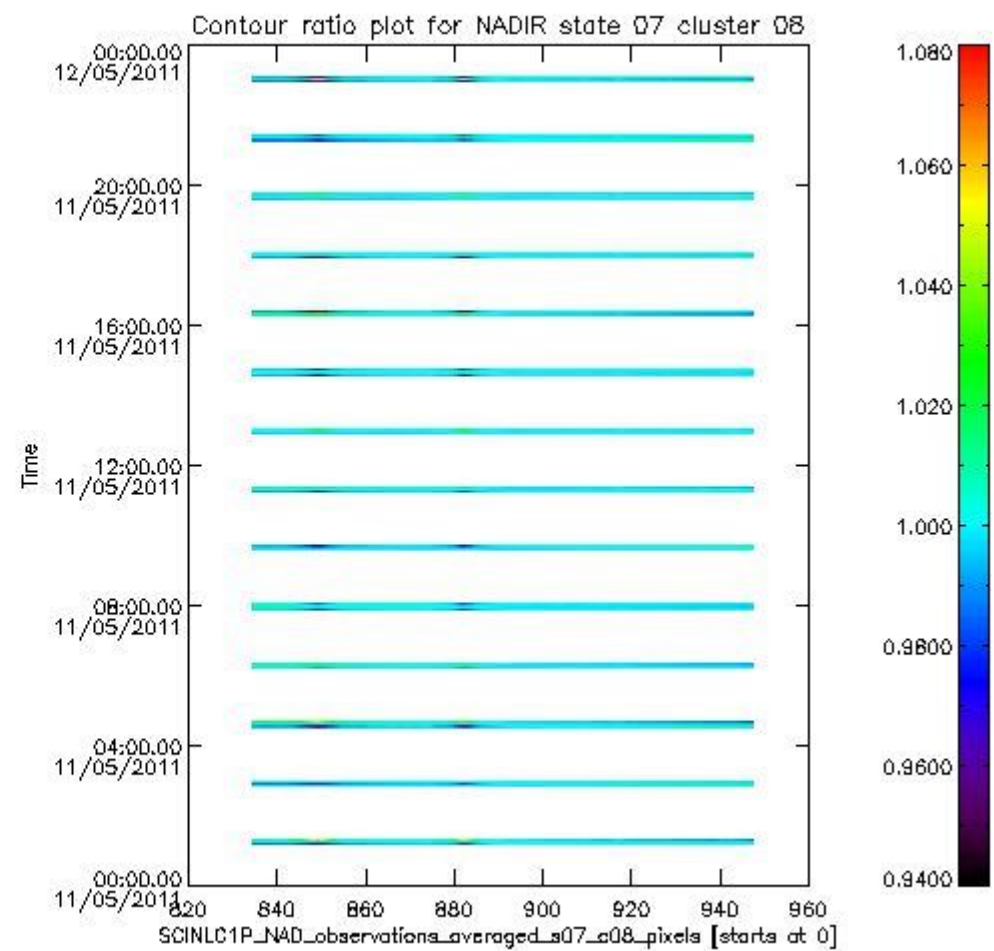
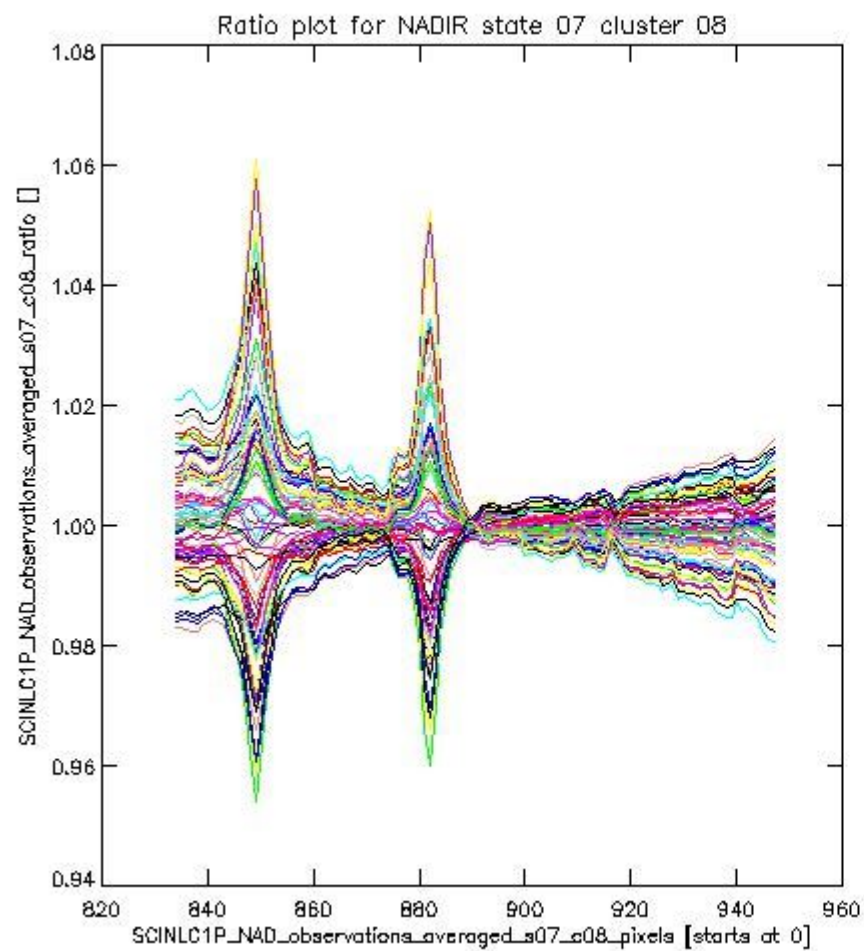
- A plot that shows all calibrated averaged spectra vs. pixel number as 2D-profiles. Each line is an average spectrum for a single state occurrence. For Limb modes, the average is performed on spectra recorded at a specific height. The reference spectrum that is used for comparison is also shown as a 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	11MAY2011 01:10:26.492
Start time of last sample	11MAY2011 23:02:44.405
Reference period start time	11APR2011 01:13:31.035
Reference period stop time	10MAY2011 23:39:42.187
Channel number	2
First pixel number (starts at 0)	834
Last pixel number (starts at 0)	947



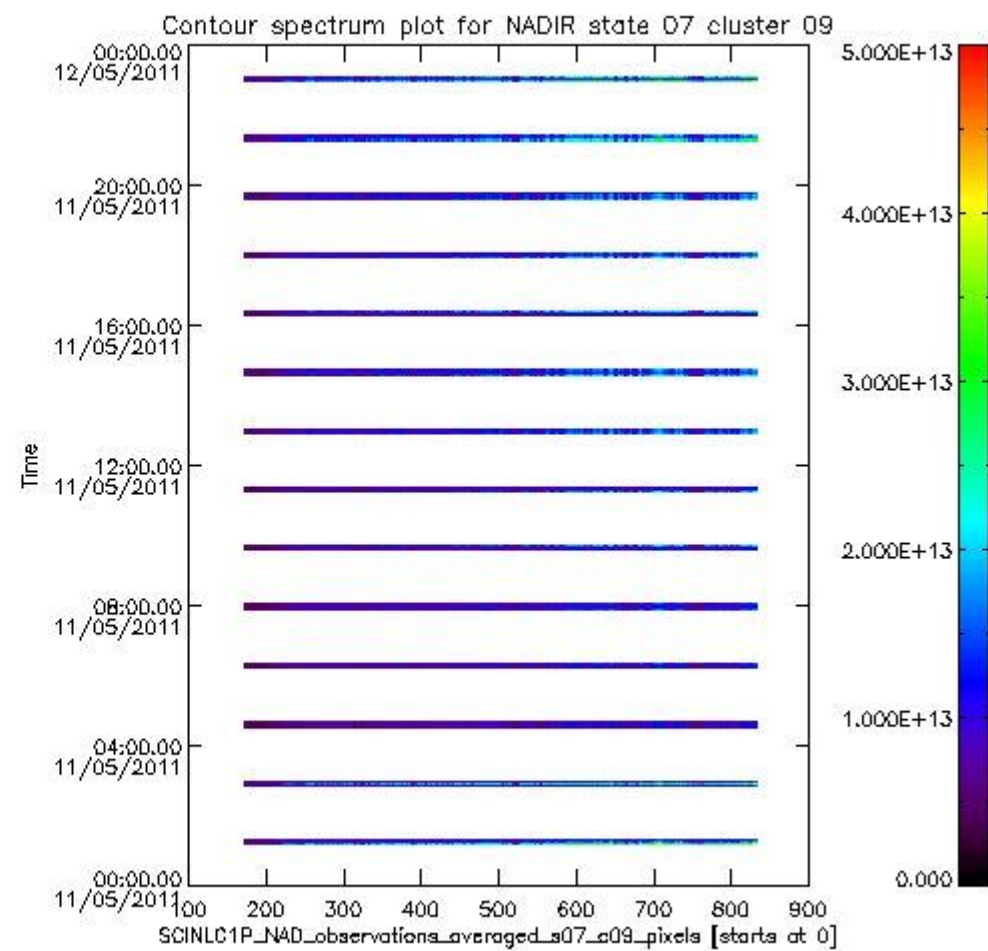
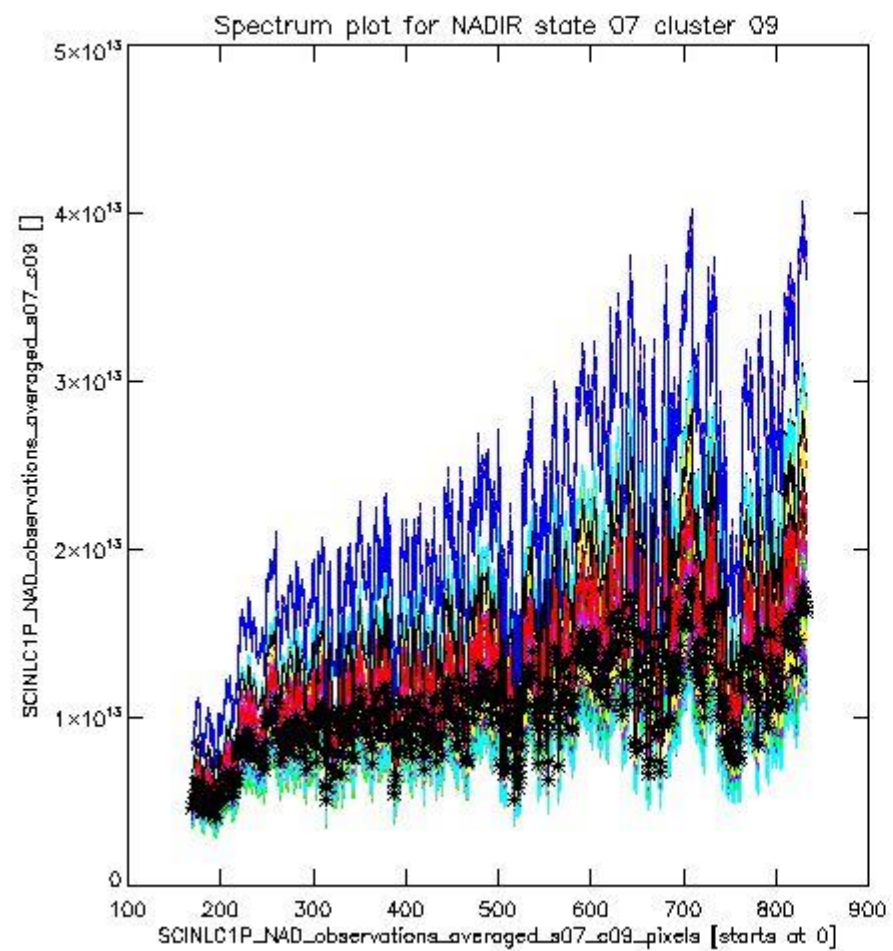
sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110511\_0.PNG



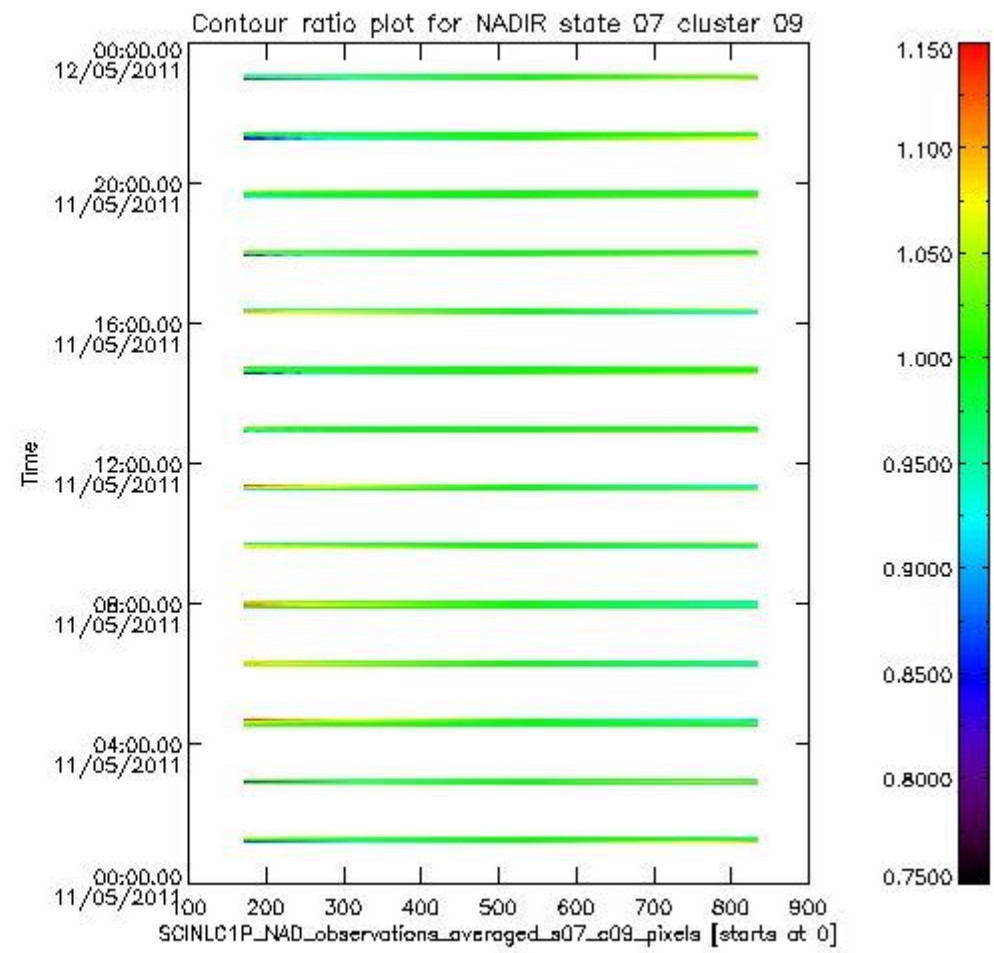
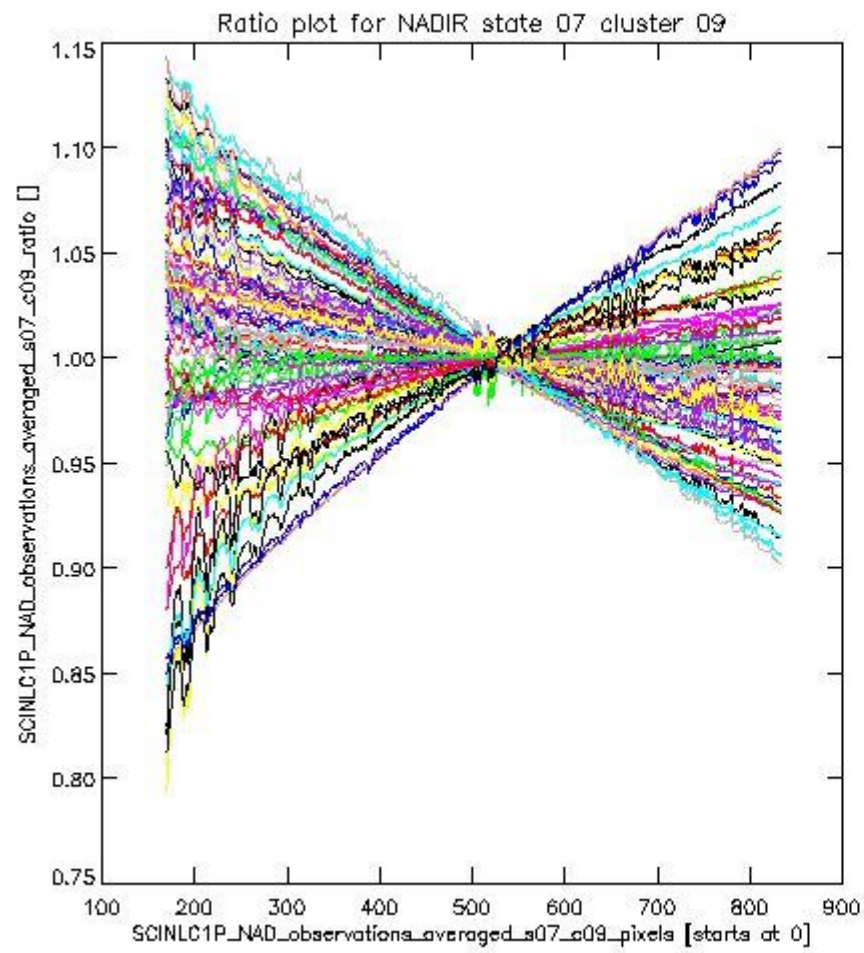
sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110511\_1.PNG

**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	11MAY2011 01:10:26.492
Start time of last sample	11MAY2011 23:02:44.405
Reference period start time	11APR2011 01:13:31.035
Reference period stop time	10MAY2011 23:39:42.187
Channel number	2
First pixel number (starts at 0)	170
Last pixel number (starts at 0)	833



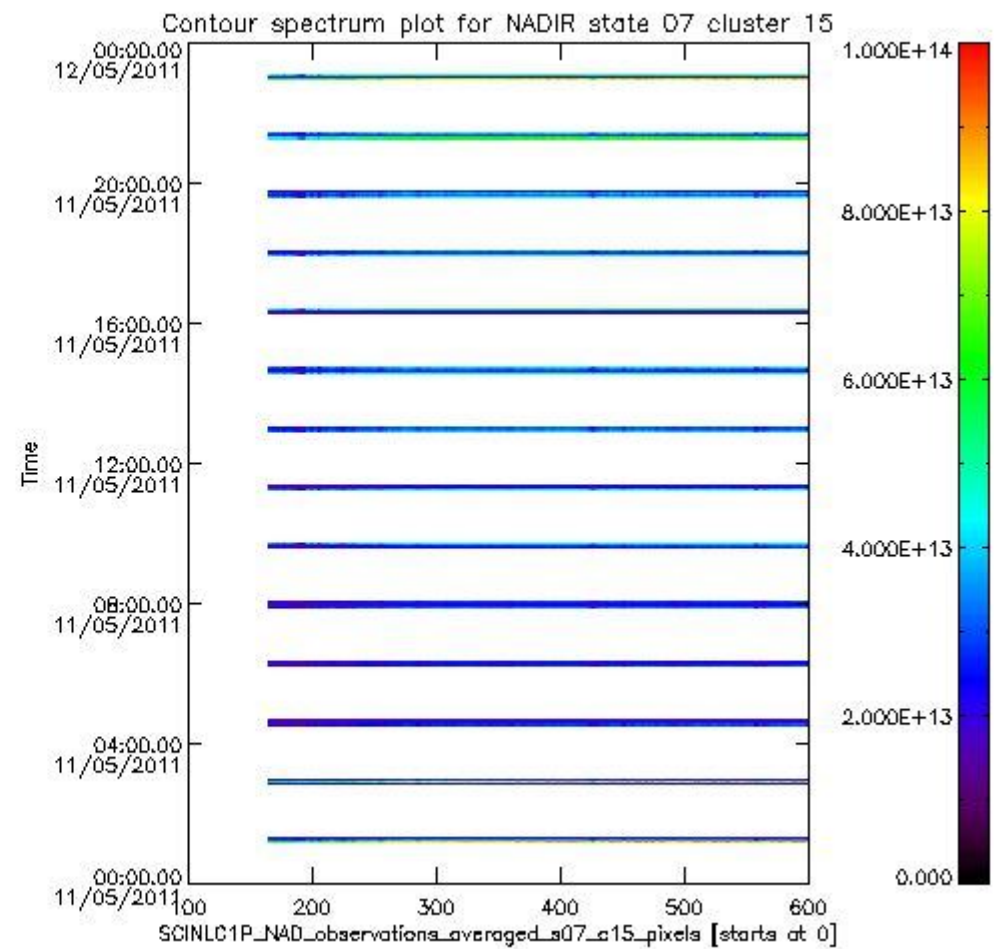
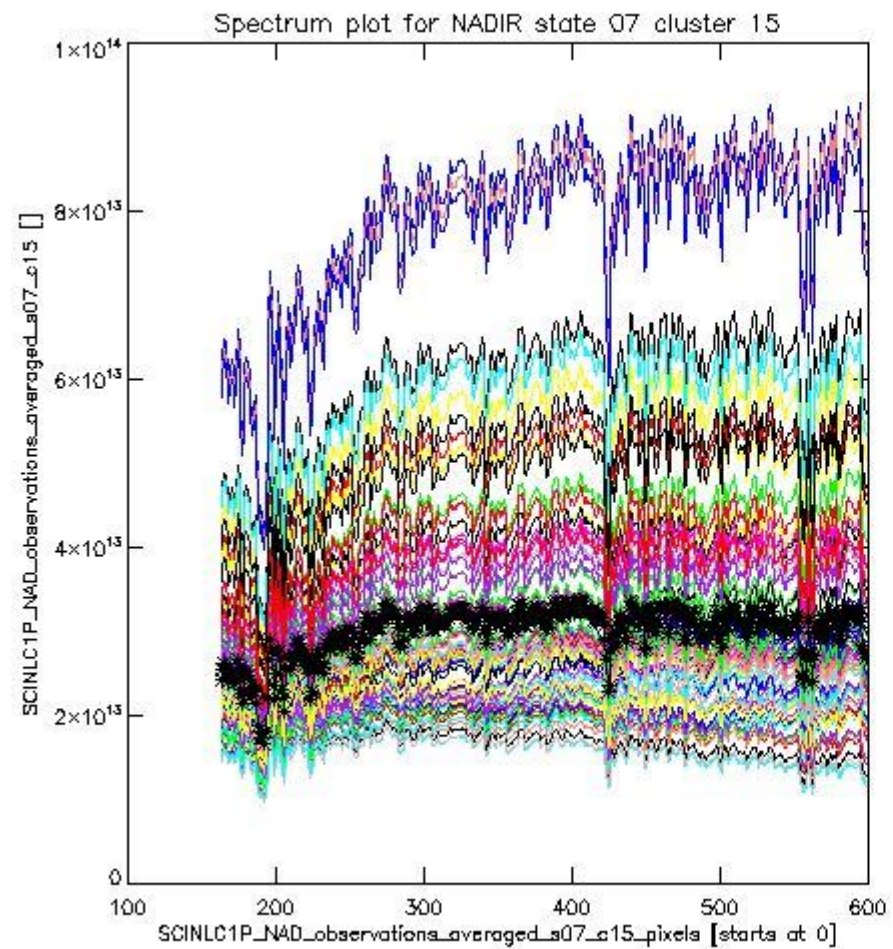
sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110511\_2.PNG



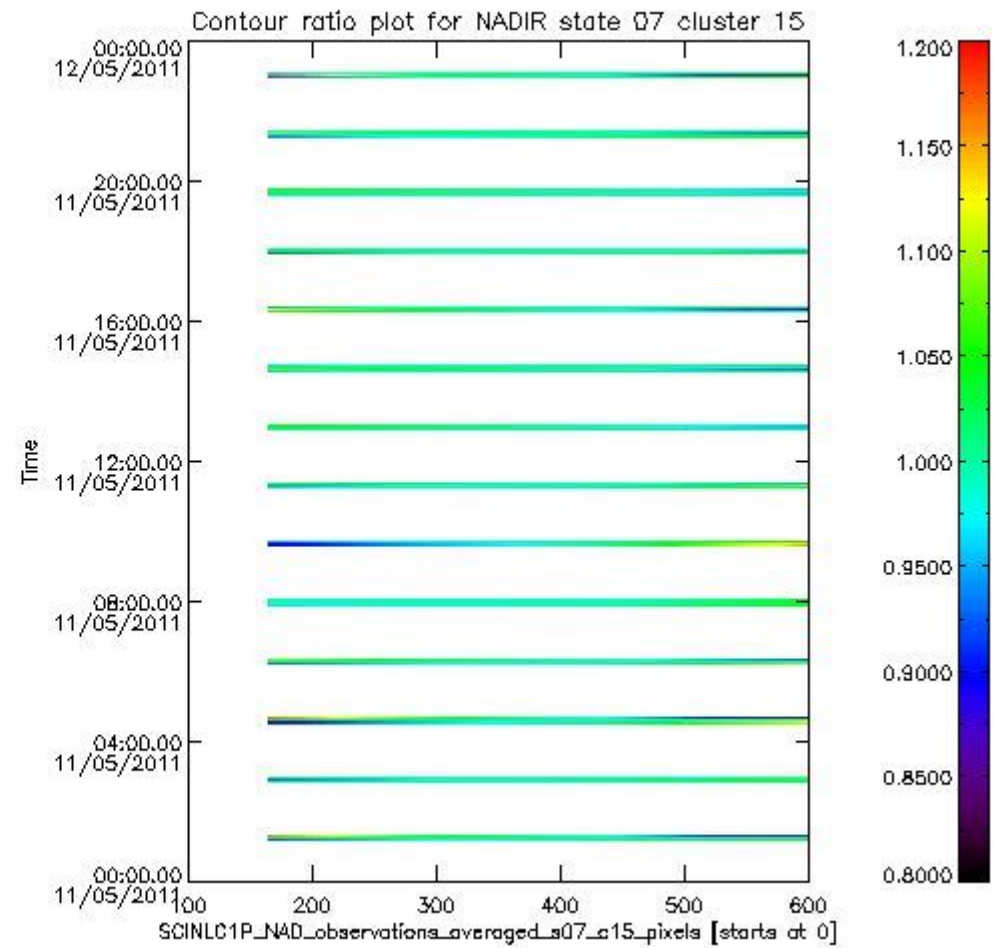
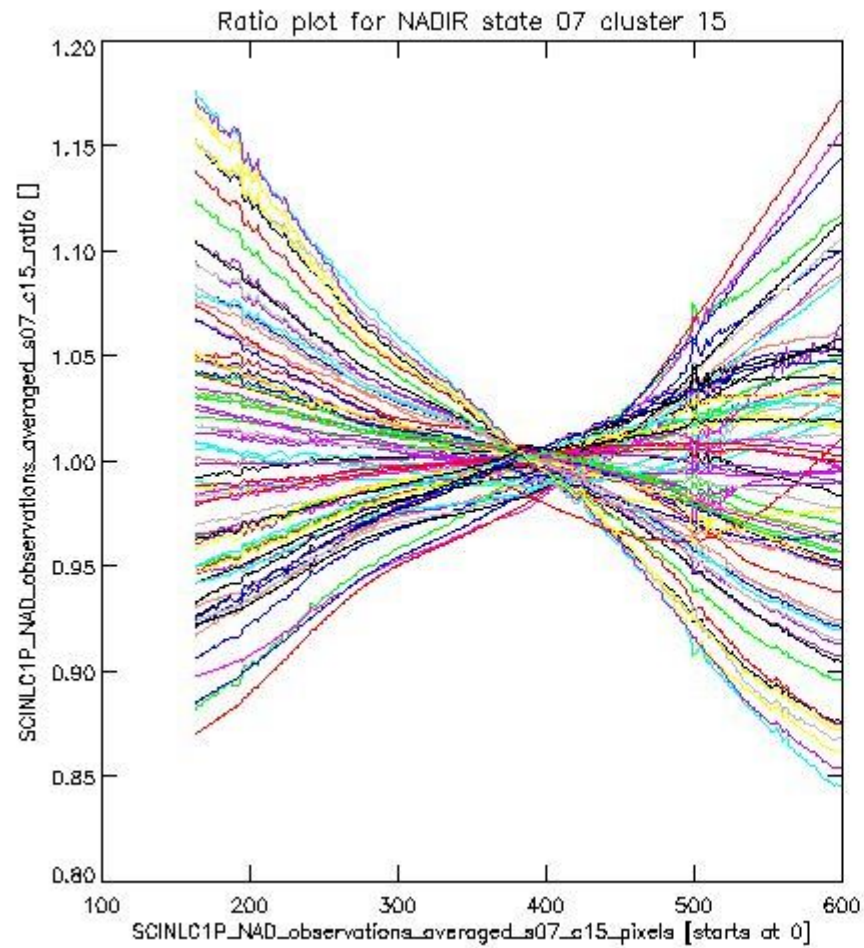
sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110511\_3.PNG

**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	11MAY2011 01:10:26.492
Start time of last sample	11MAY2011 23:02:44.405
Reference period start time	11APR2011 01:13:31.035
Reference period stop time	10MAY2011 23:39:42.187
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\_20110511\_4.PNG

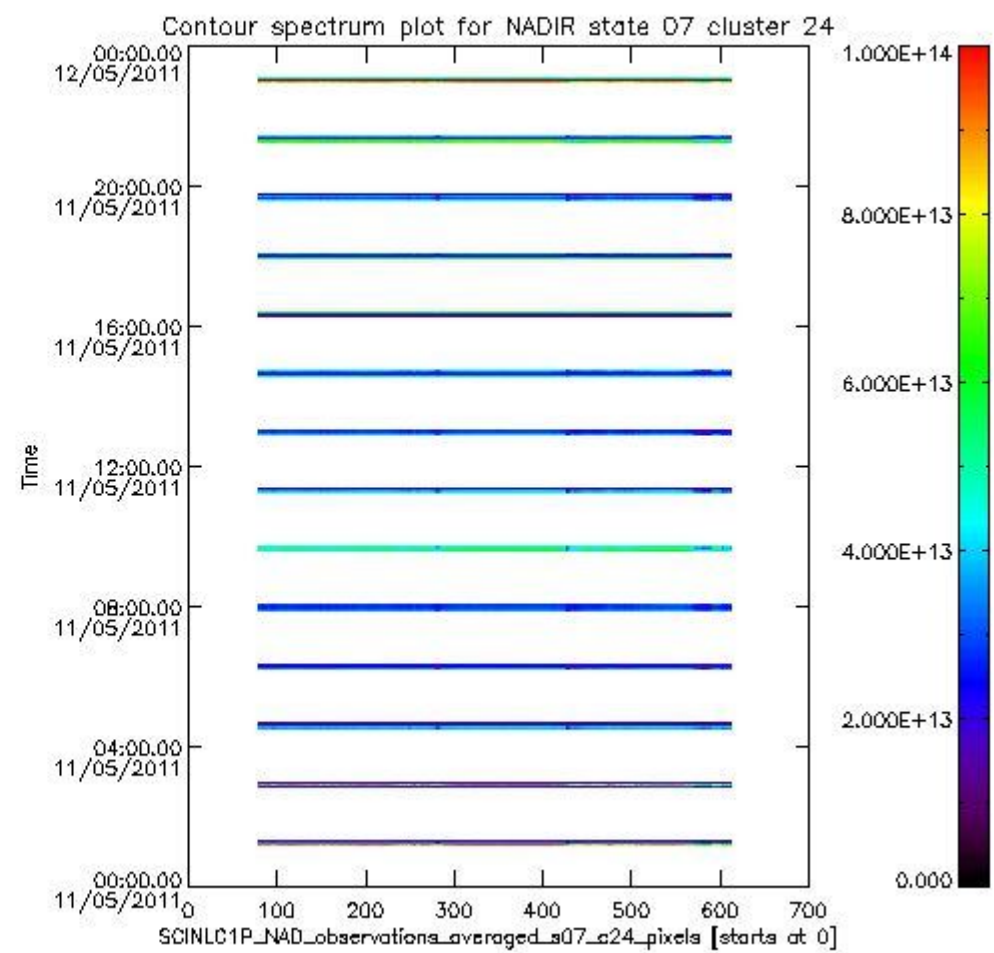
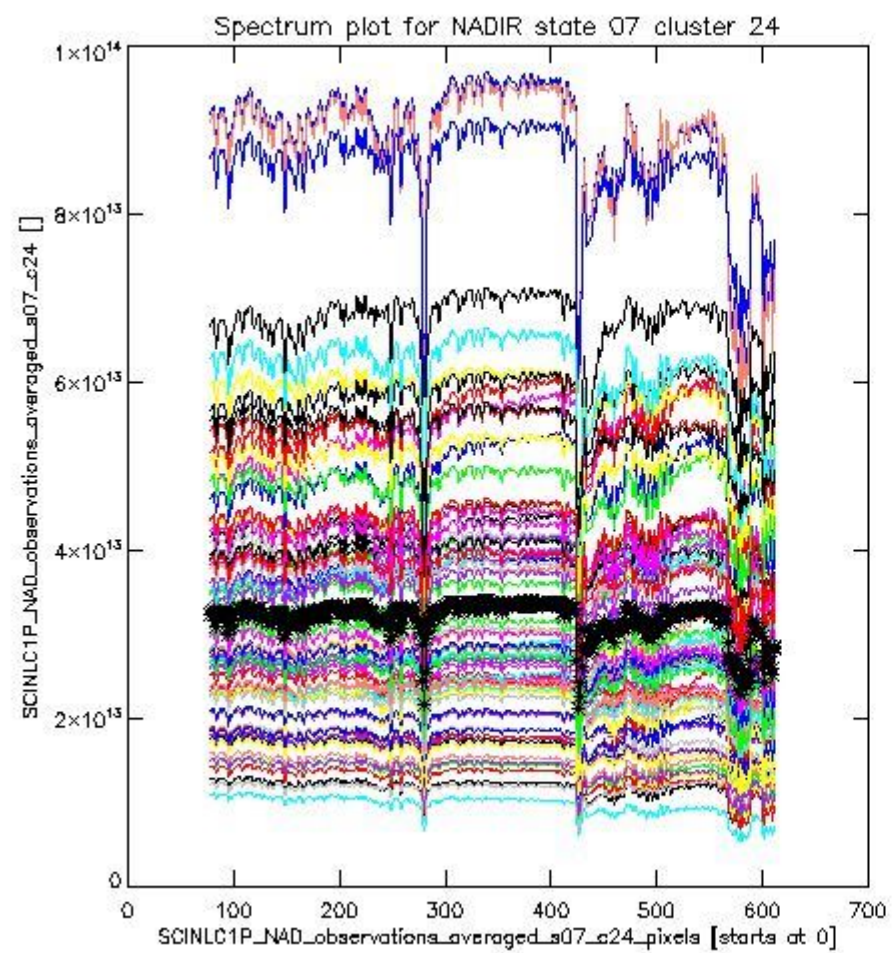


sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110511\_5.PNG

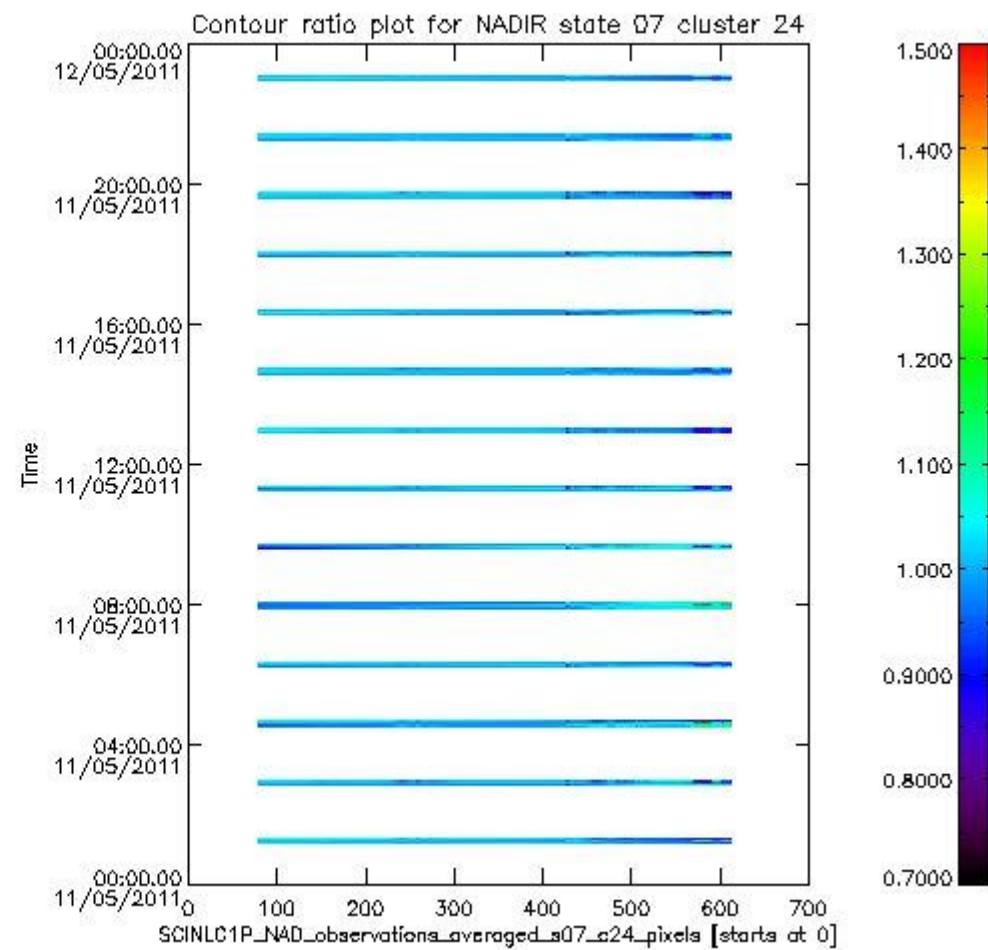
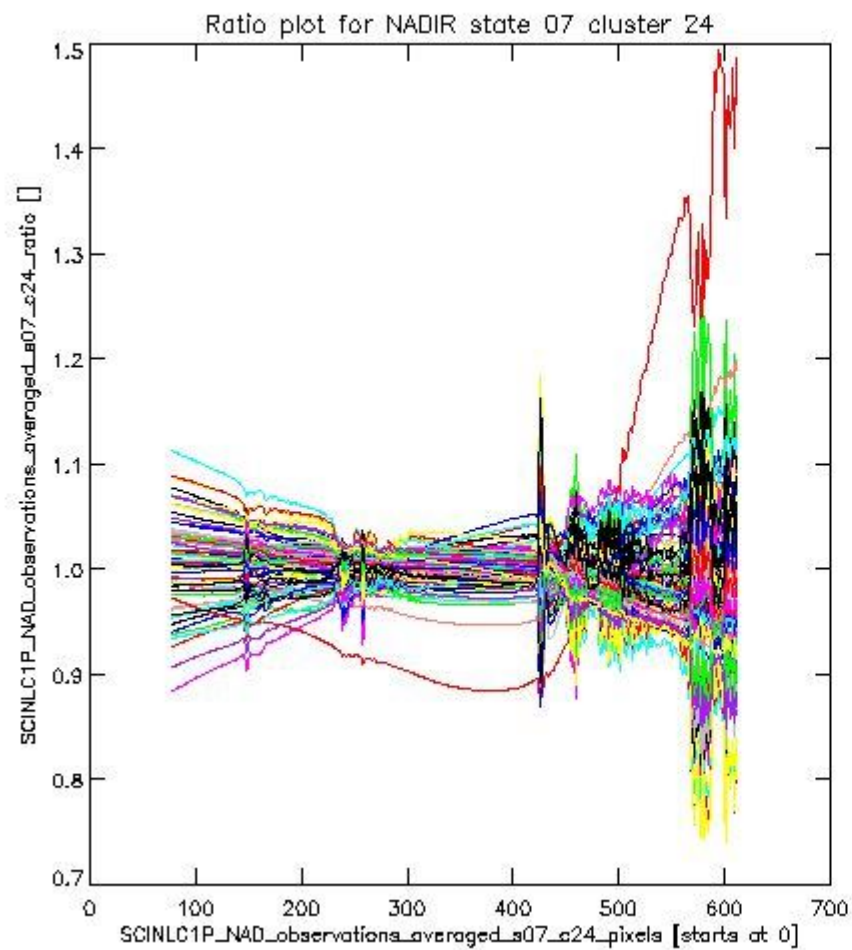
**1.2.4 NADIR state 07 cluster 24** The data for the analysis of NADIR state 07 cluster 24 have the following characteristics:

Item	Value
Start time of first sample	11MAY2011 01:10:26.492
Start time of last sample	11MAY2011 23:02:44.405
Reference period start time	11APR2011 01:13:31.035
Reference period stop time	10MAY2011 23:39:42.187
Channel number	4
First pixel number (starts at 0)	78
Last pixel number (starts at 0)	612





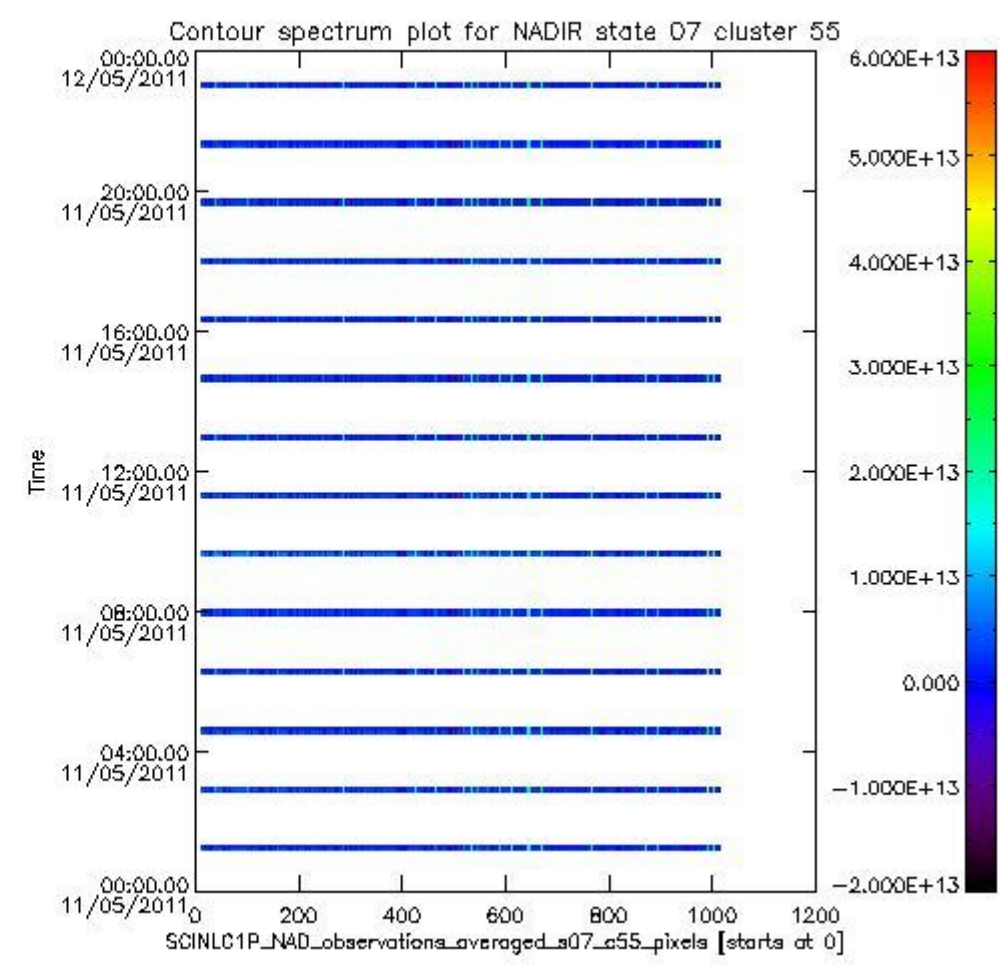
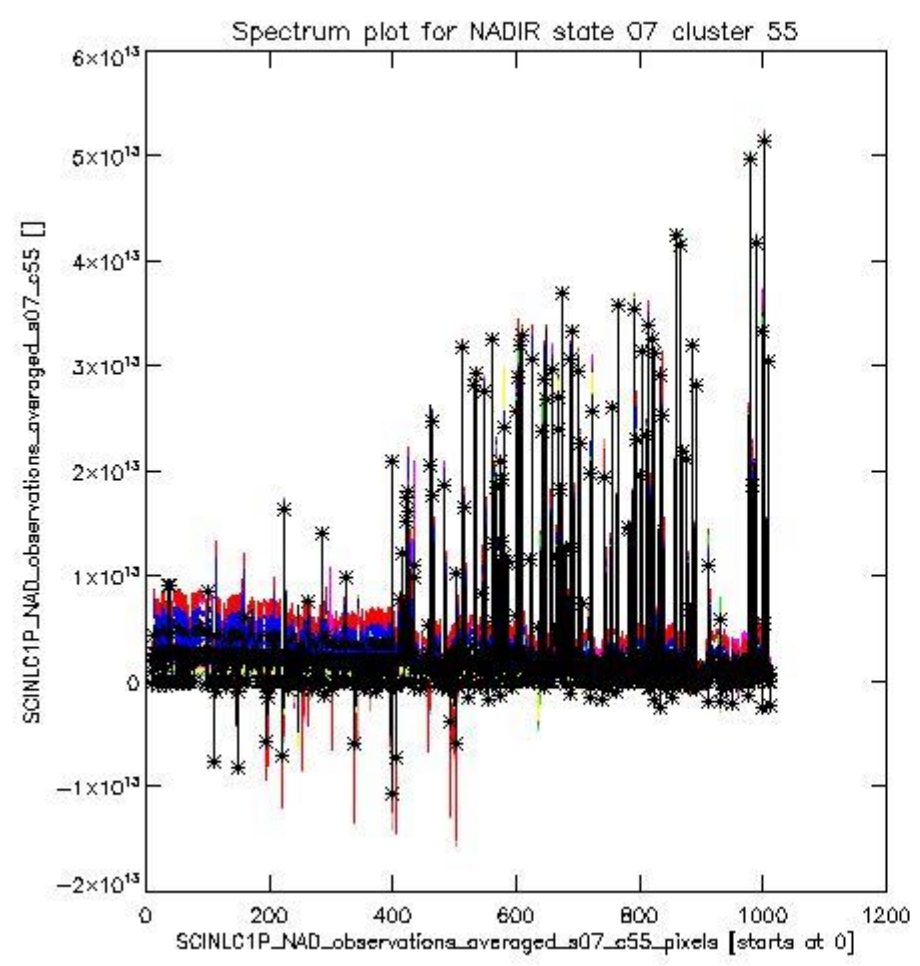
sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110511\_6.PNG



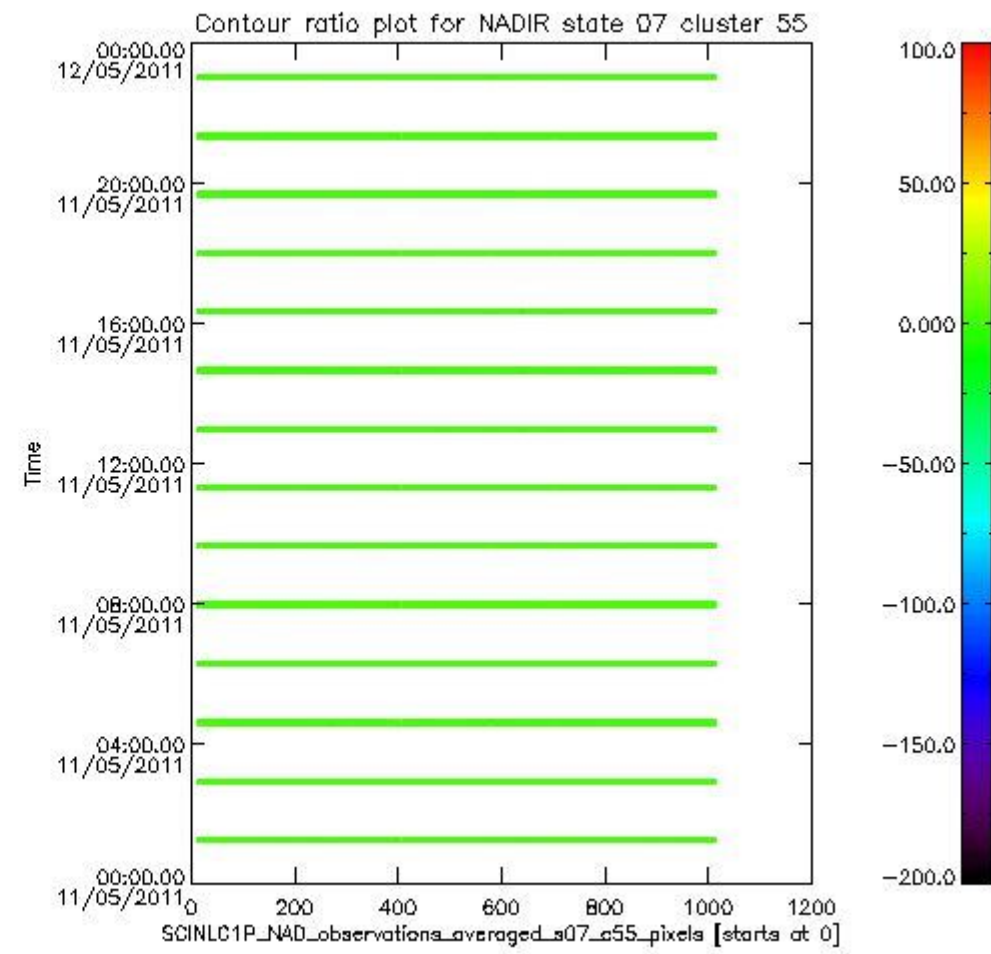
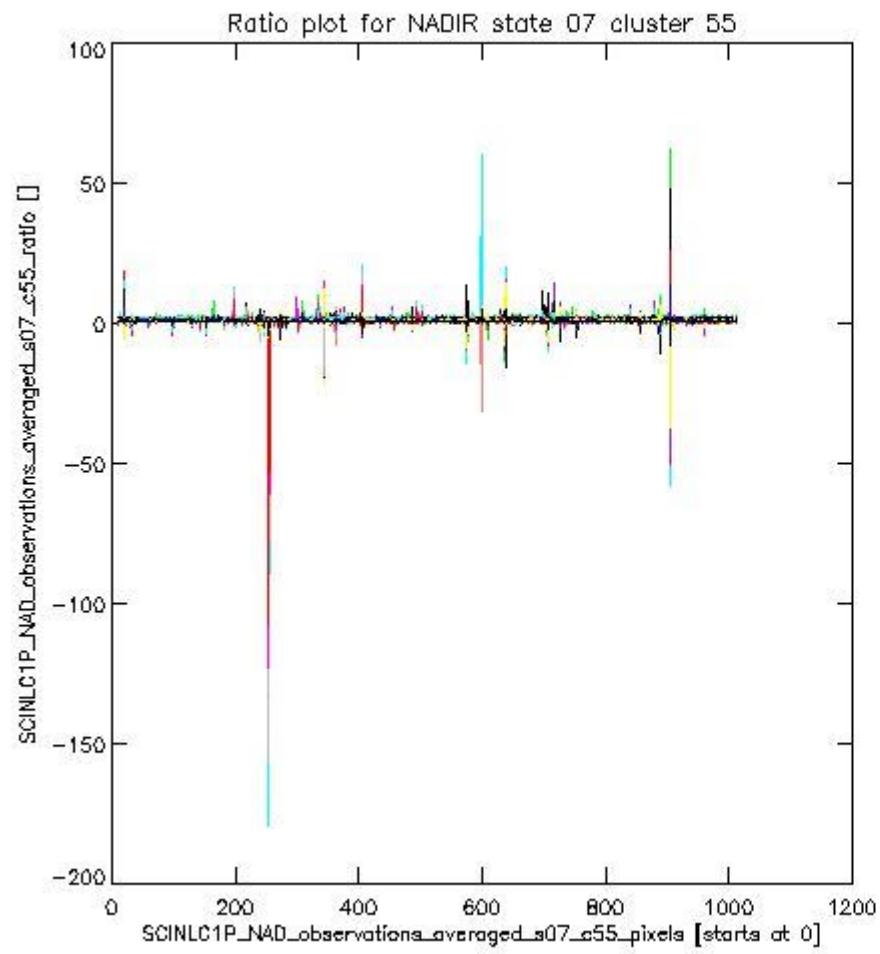
sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110511\_7.PNG

**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	11MAY2011 01:10:26.492
Start time of last sample	11MAY2011 23:02:44.405
Reference period start time	11APR2011 01:13:31.035
Reference period stop time	10MAY2011 23:39:42.187
Channel number	8
First pixel number (starts at 0)	10
Last pixel number (starts at 0)	1013



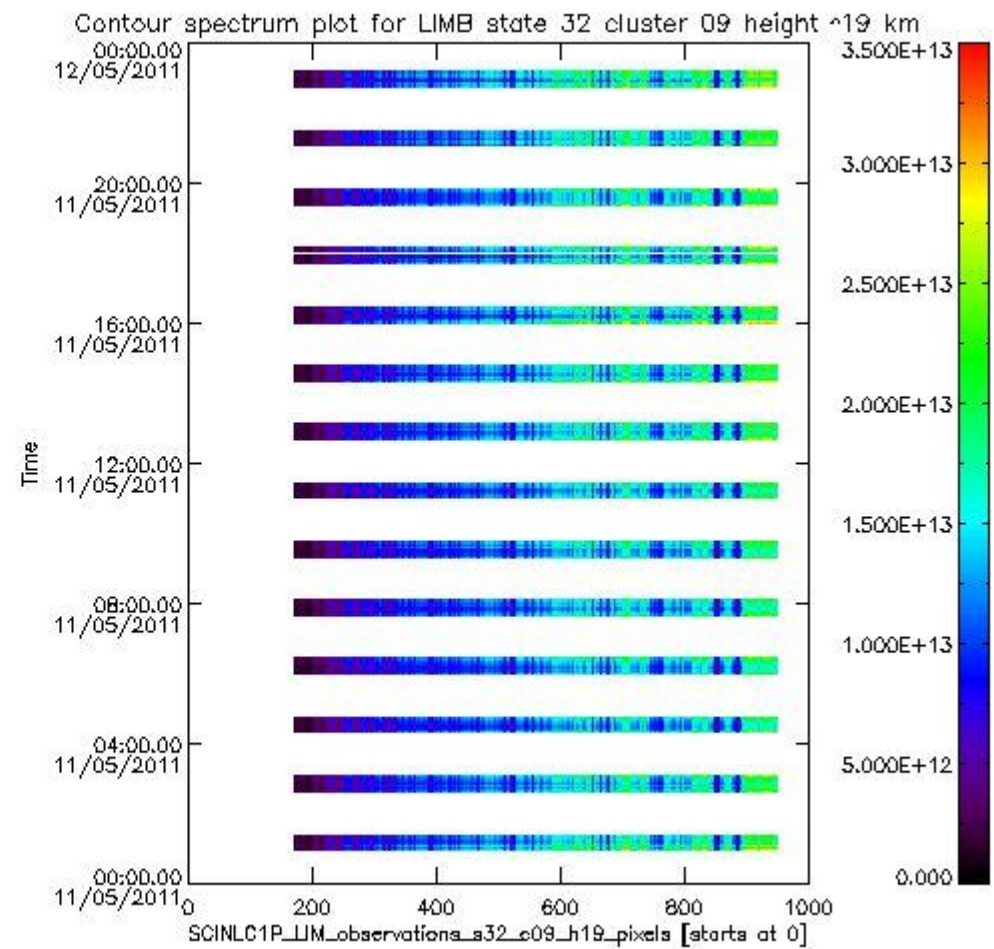
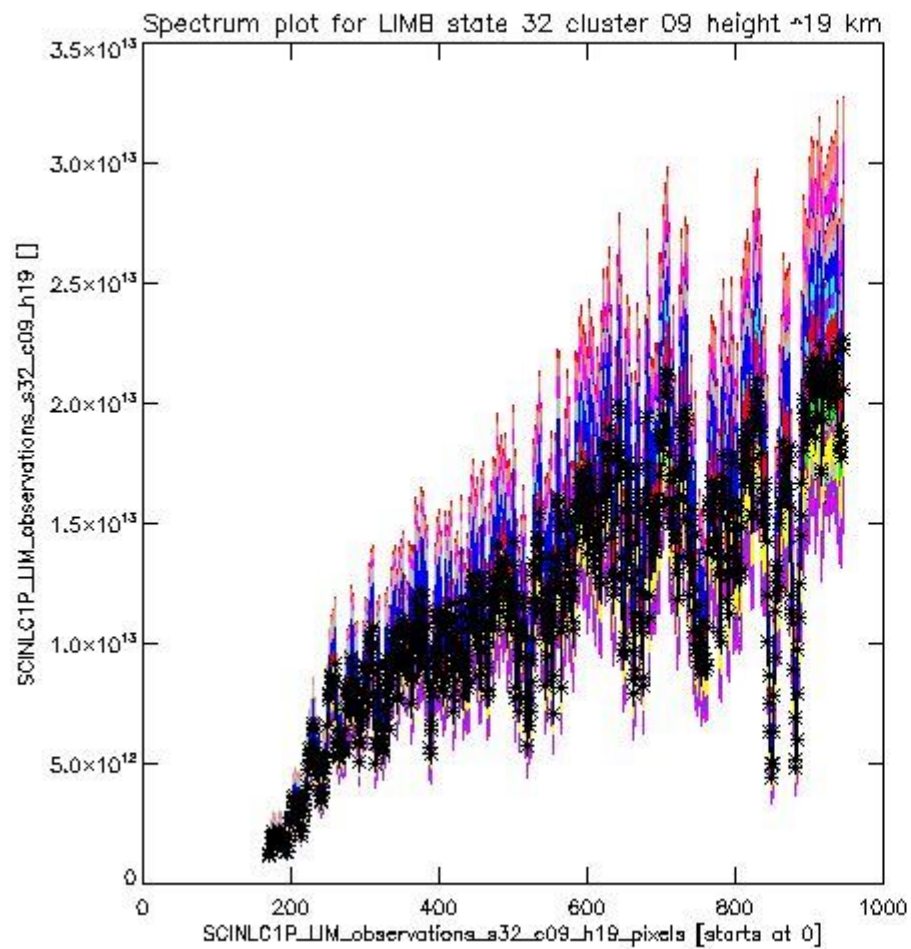
sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110511\_8.PNG



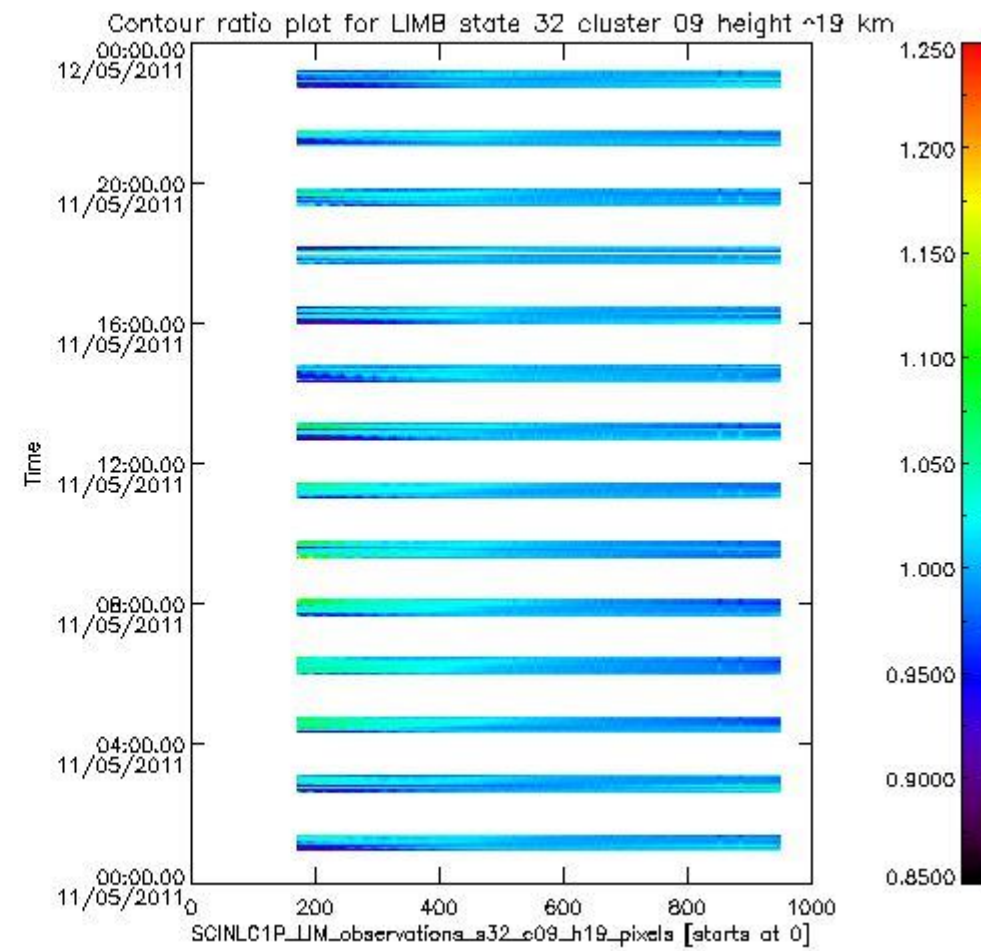
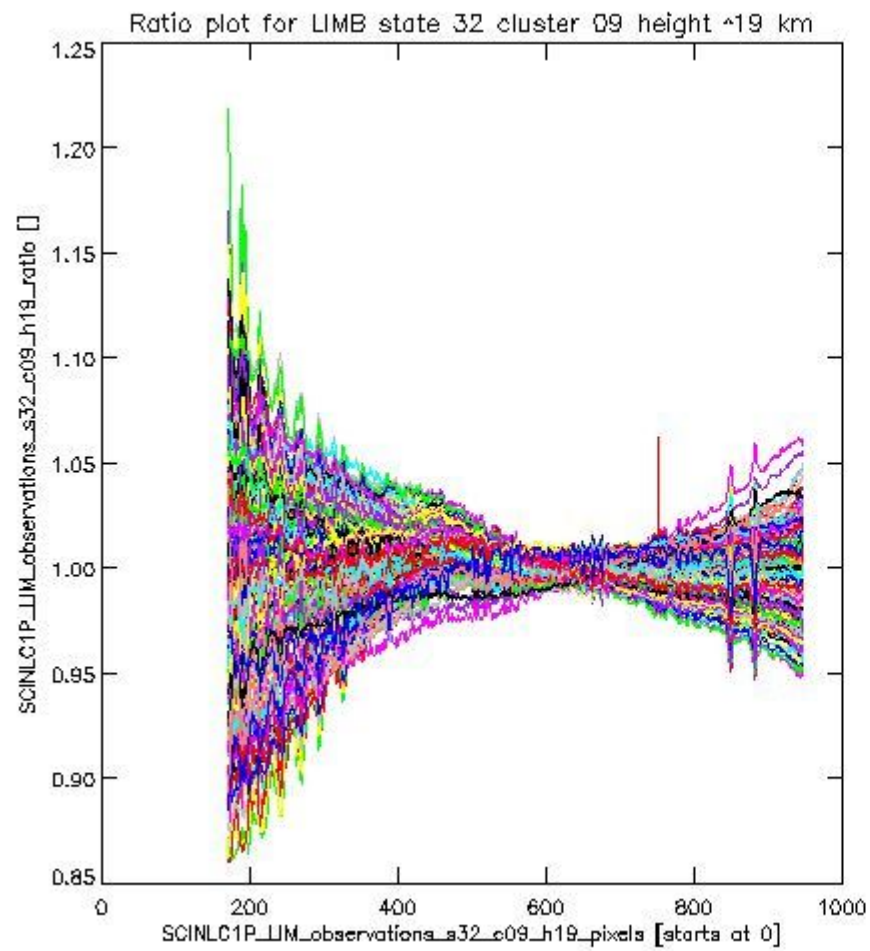
sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110511\_9.PNG

**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	11MAY2011 00:57:15.856
Start time of last sample	11MAY2011 23:07:58.452
Reference period start time	11APR2011 00:58:17.656
Reference period stop time	10MAY2011 23:44:56.226
Channel number	2
First pixel number (starts at 0)	170
Last pixel number (starts at 0)	947



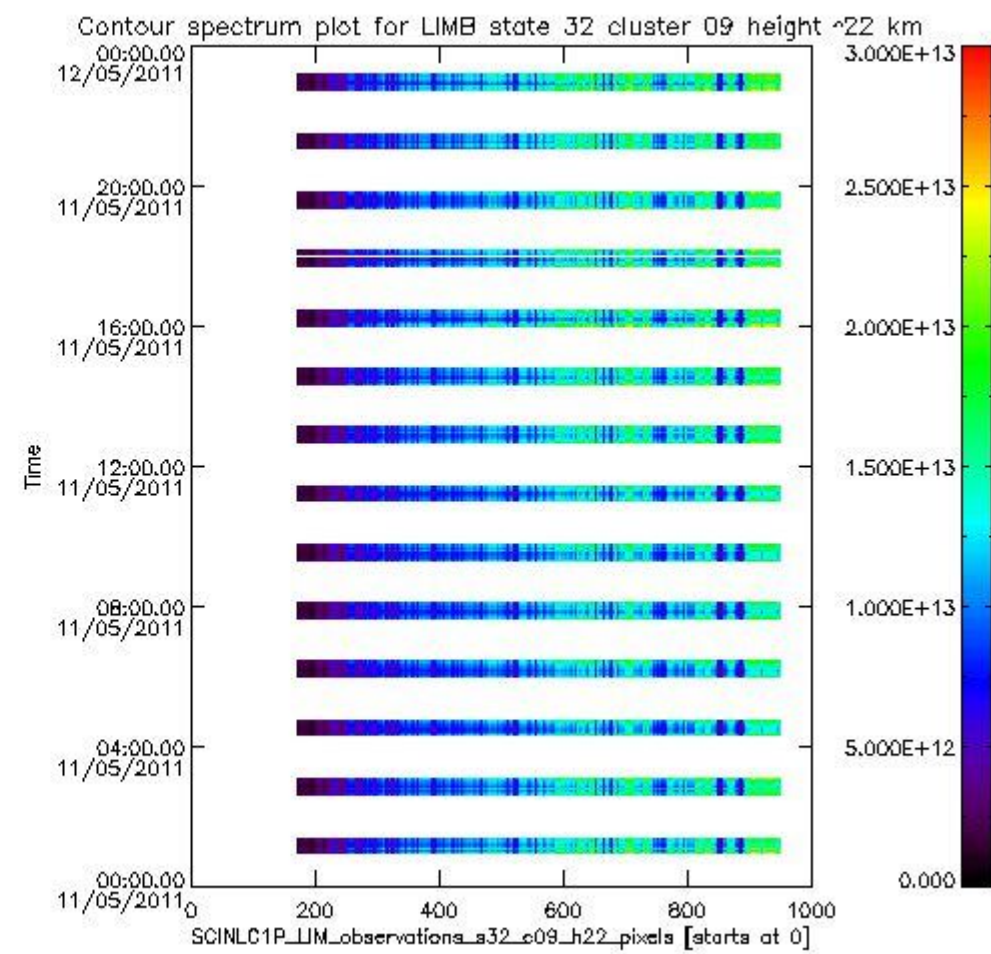
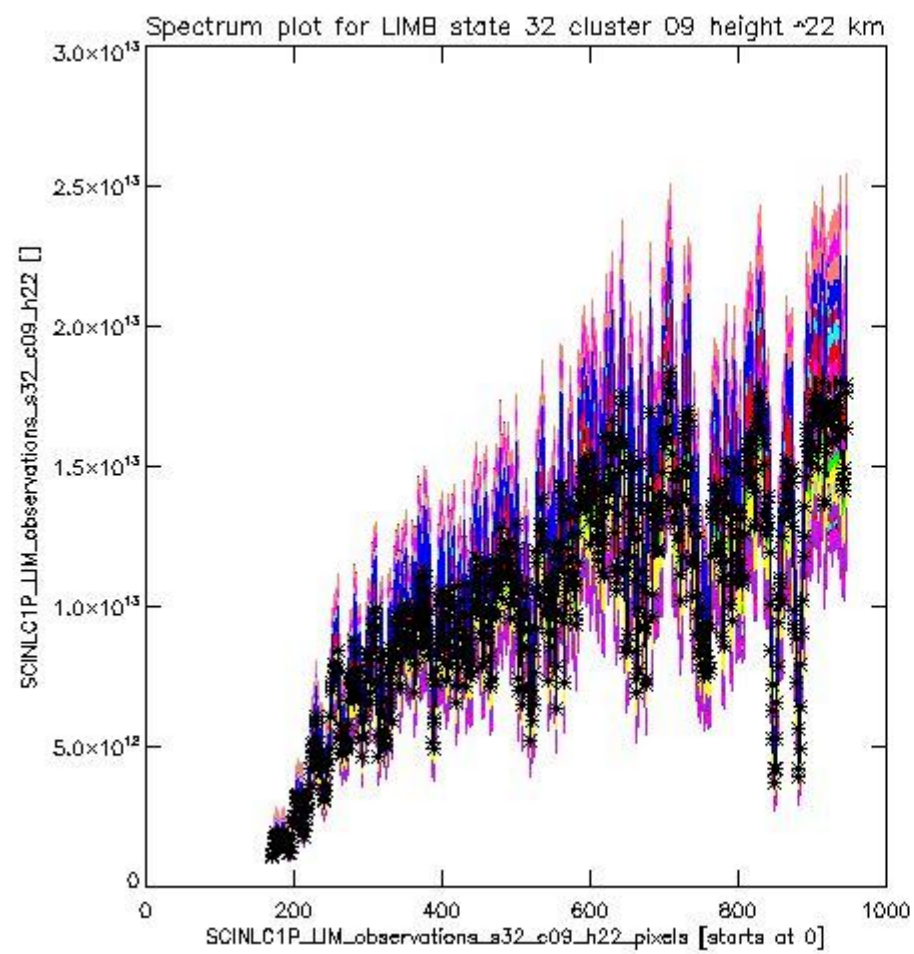
sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110511\_10.PNG



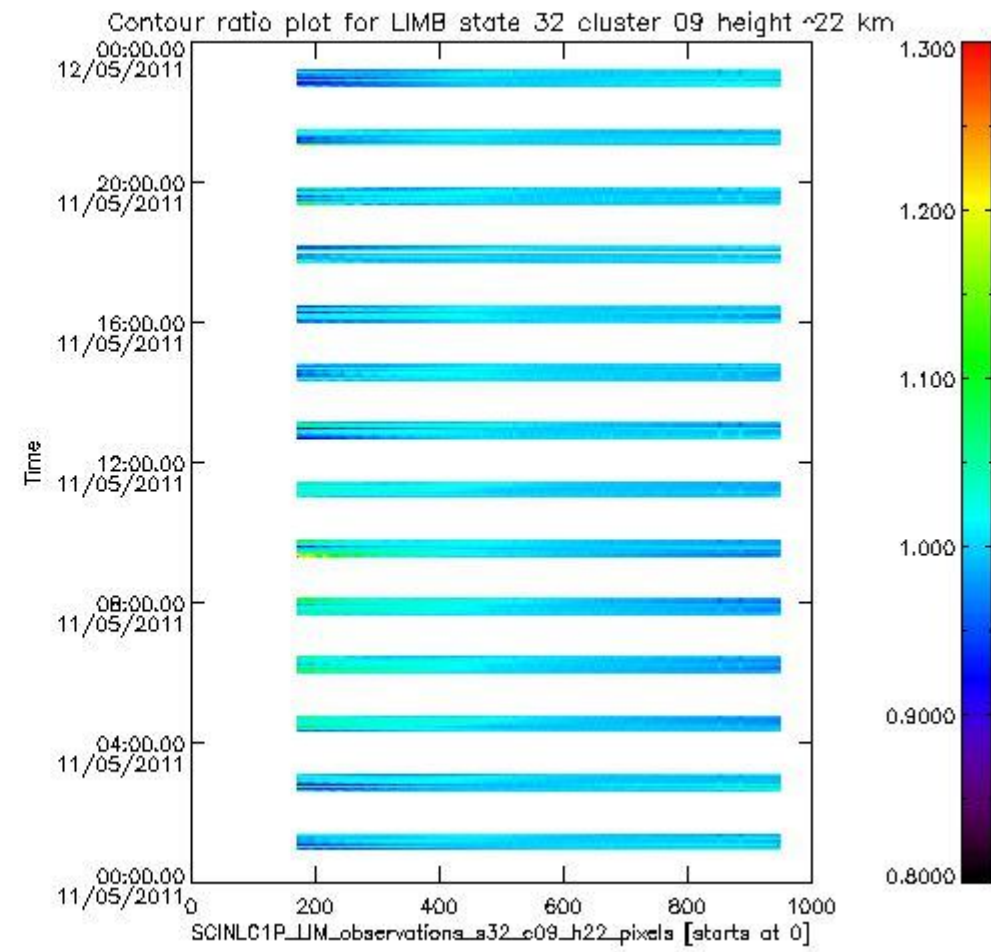
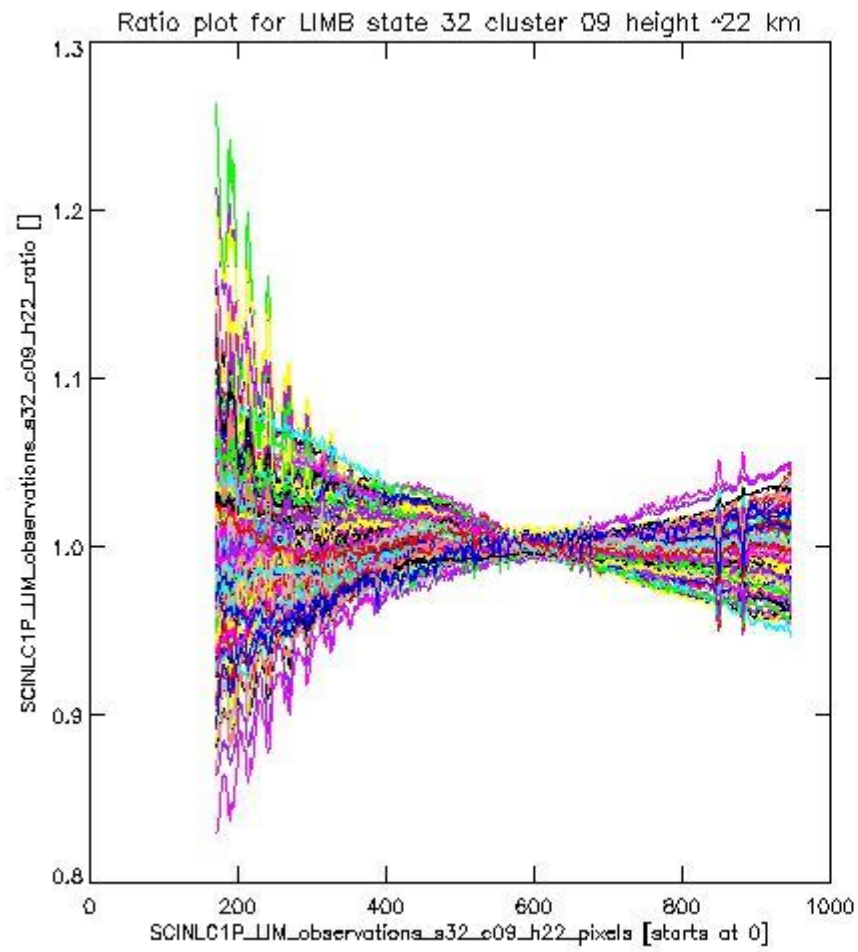
sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110511\_11.PNG

**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	11MAY2011 00:57:15.856
Start time of last sample	11MAY2011 23:07:58.452
Reference period start time	11APR2011 00:58:17.656
Reference period stop time	10MAY2011 23:44:56.226
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\_20110511\_12.PNG

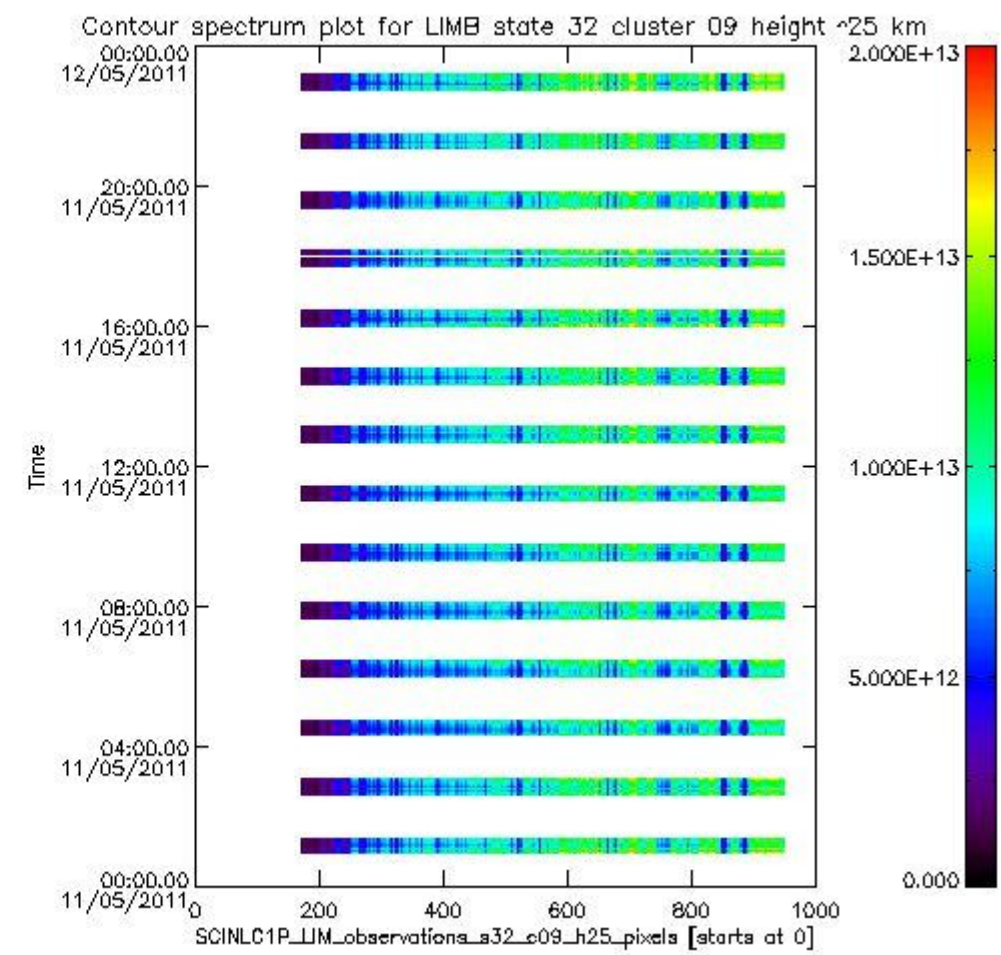
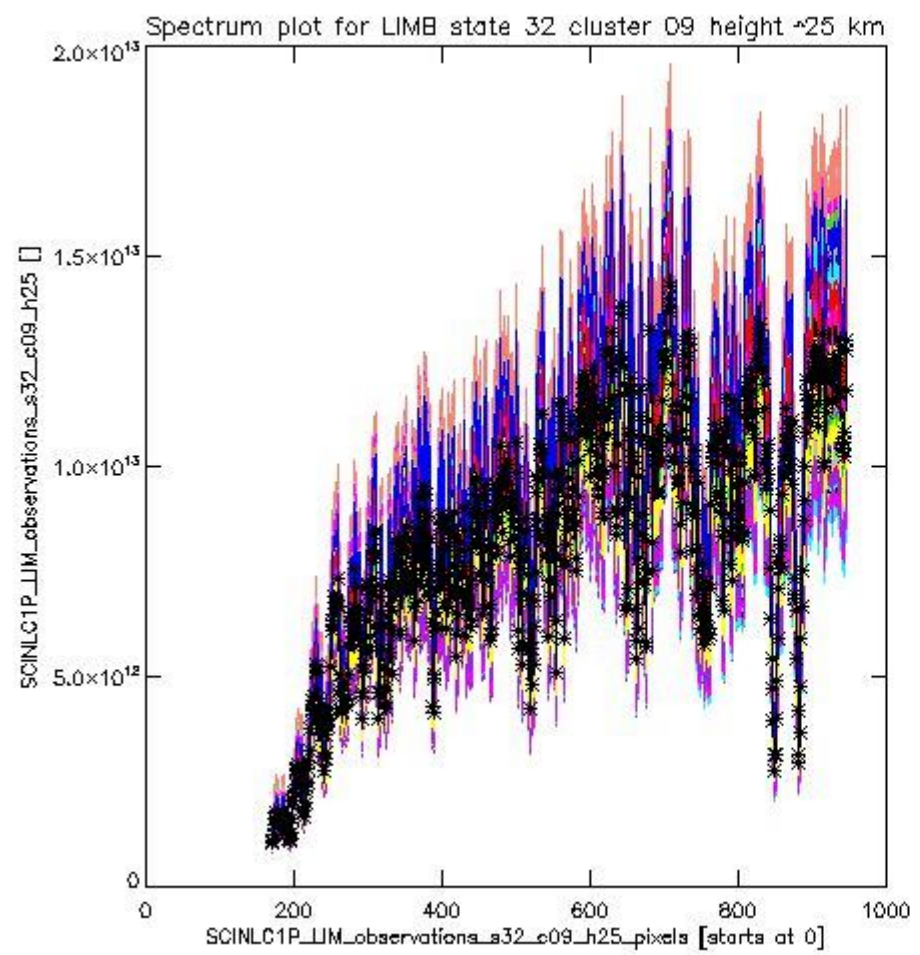


sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110511\_13.PNG

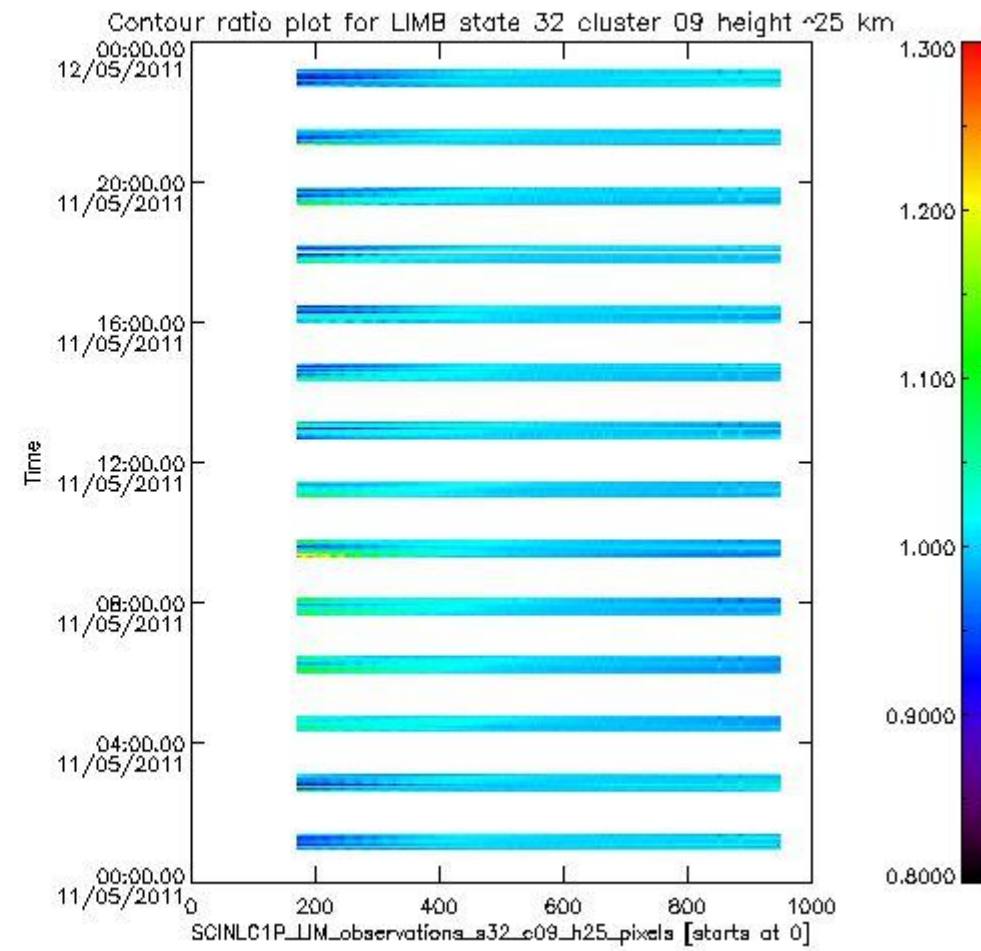
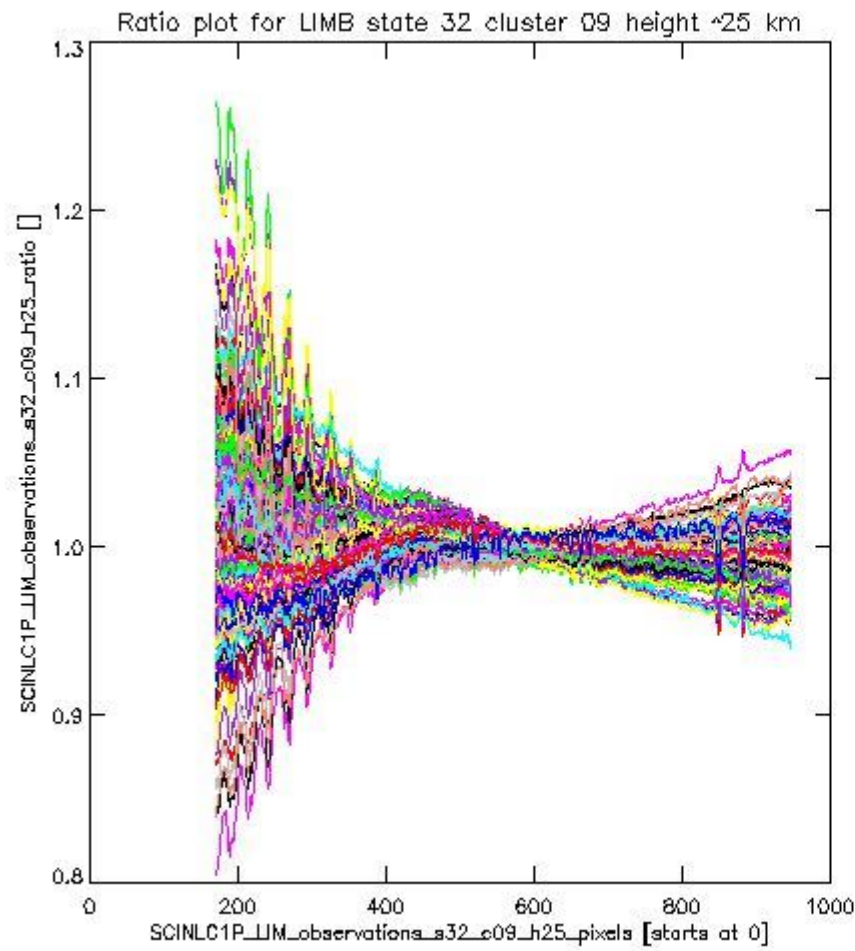
**1.2.8 LIMB state 32 cluster 09 height ~25 km** The data for the analysis of LIMB state 32 cluster 09 height ~25 km have the following characteristics:

Item	Value
Start time of first sample	11MAY2011 00:57:15.856
Start time of last sample	11MAY2011 23:07:58.452
Reference period start time	11APR2011 00:58:17.656
Reference period stop time	10MAY2011 23:44:56.226
Channel number	2
First pixel number (starts at 0)	170
Last pixel number (starts at 0)	947





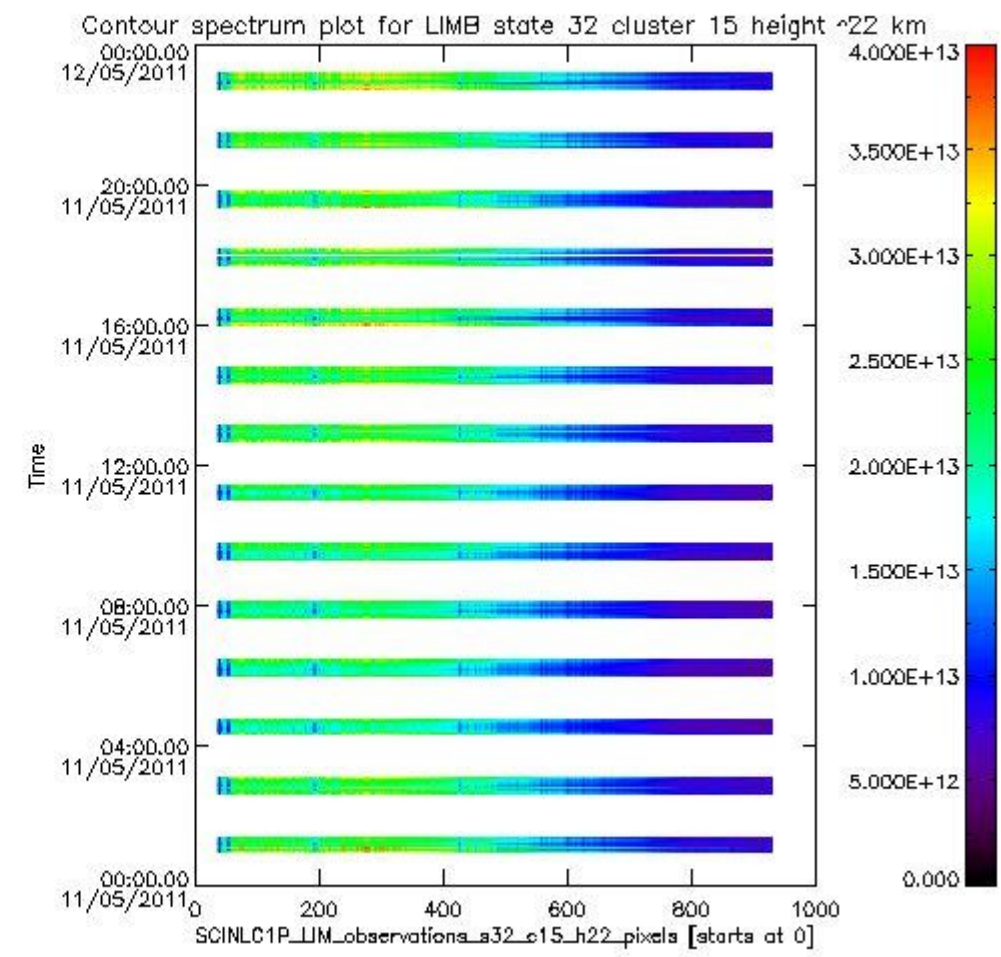
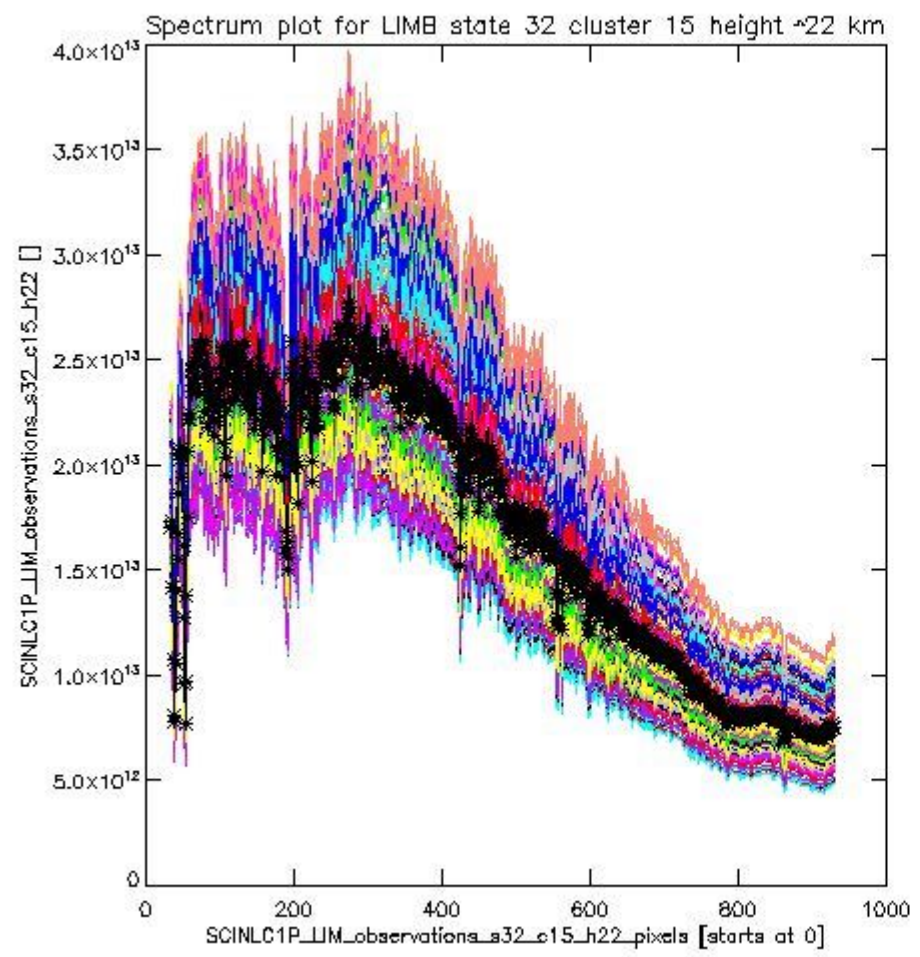
sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110511\_14.PNG



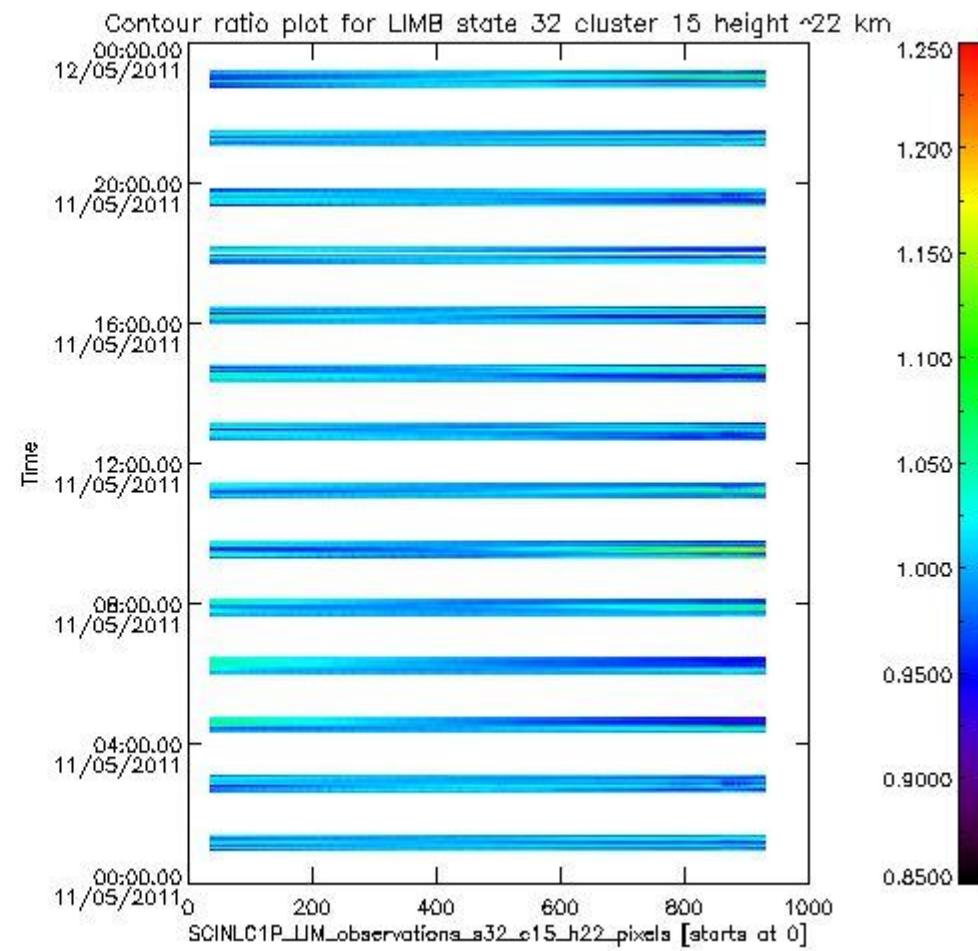
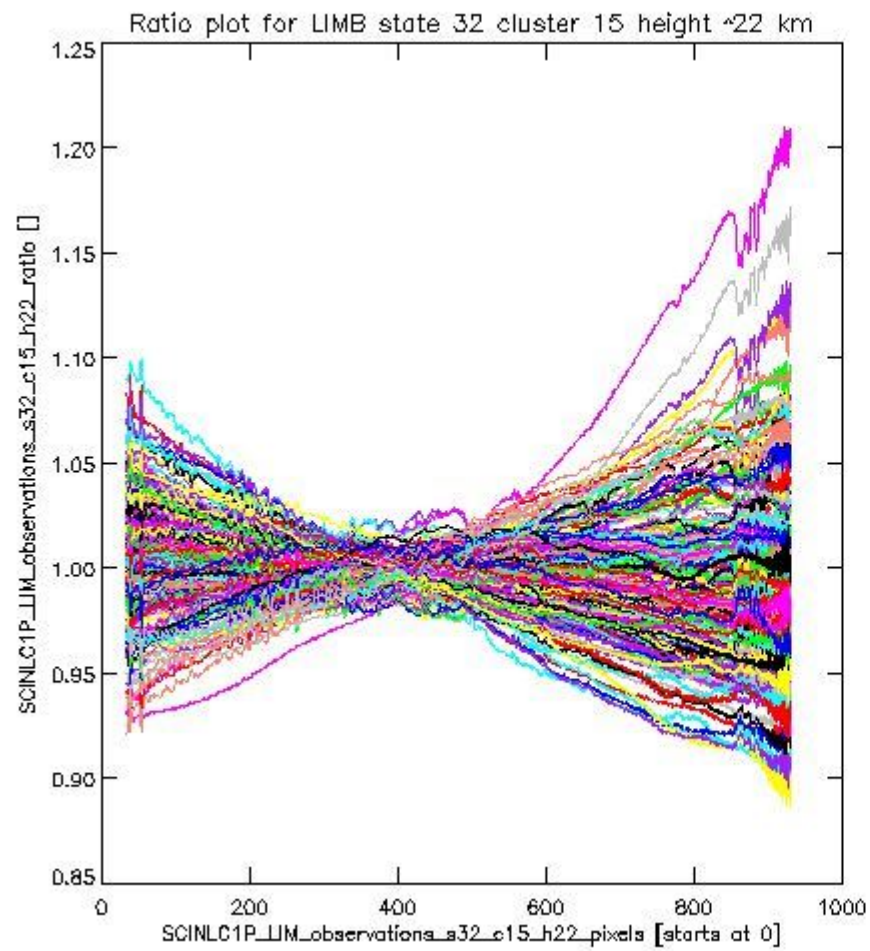
sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110511\_15.PNG

**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	11MAY2011 00:57:15.856
Start time of last sample	11MAY2011 23:07:58.452
Reference period start time	11APR2011 00:58:17.656
Reference period stop time	10MAY2011 23:44:56.226
Channel number	3
First pixel number (starts at 0)	33
Last pixel number (starts at 0)	929



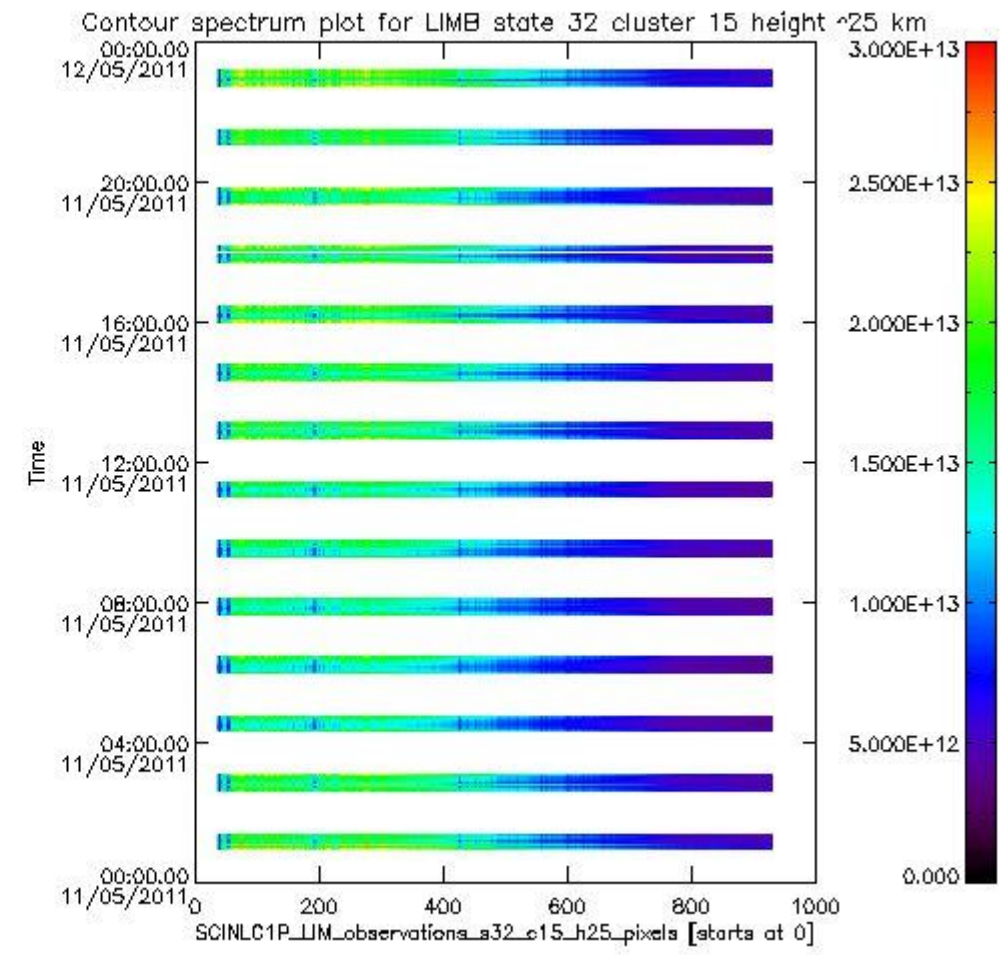
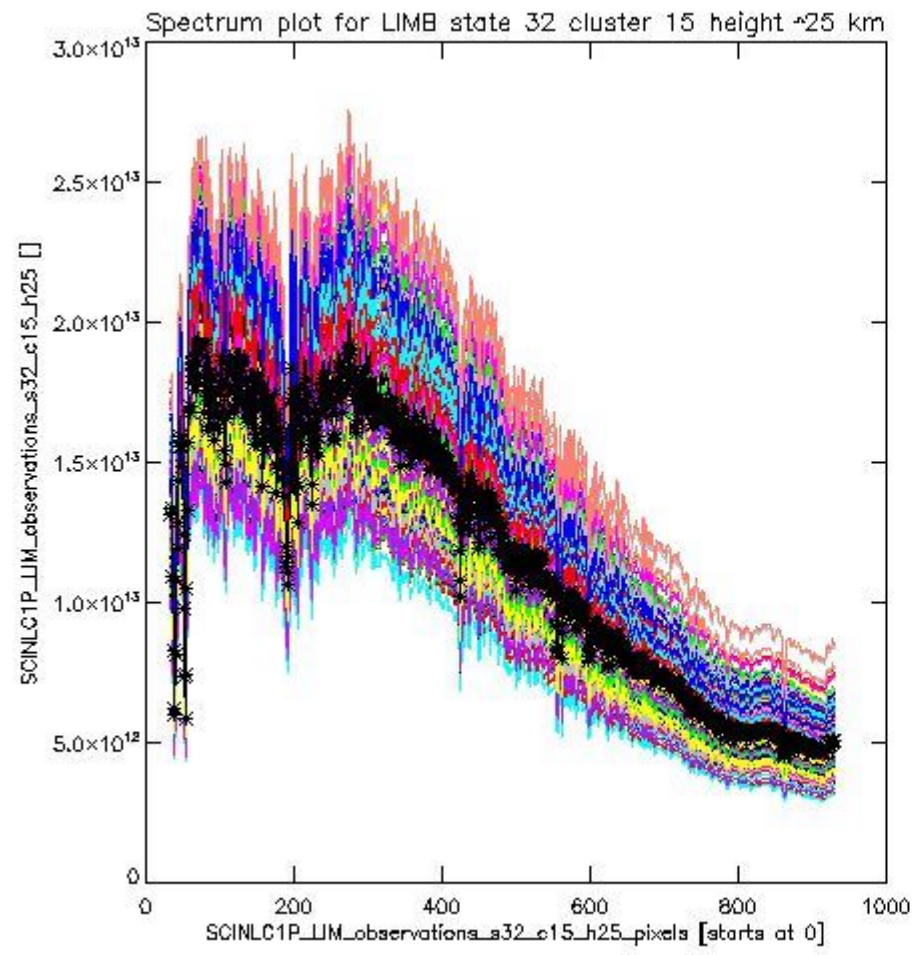
sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110511\_16.PNG



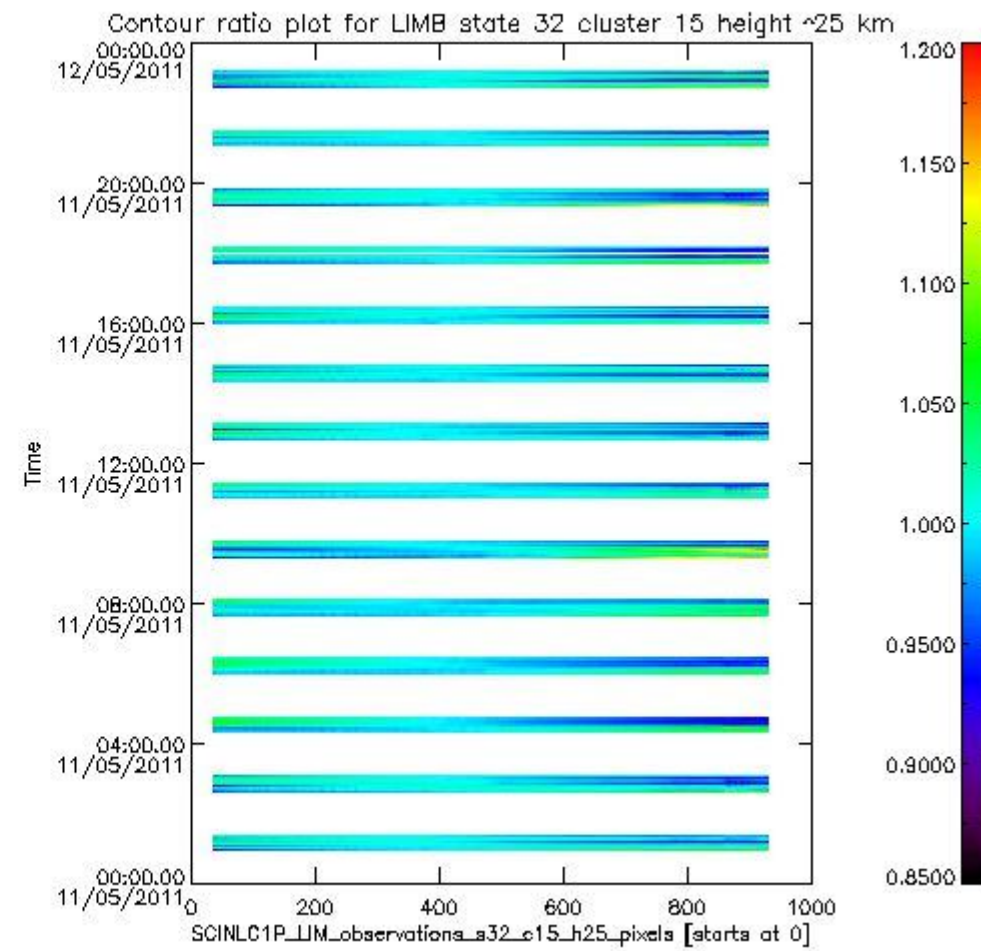
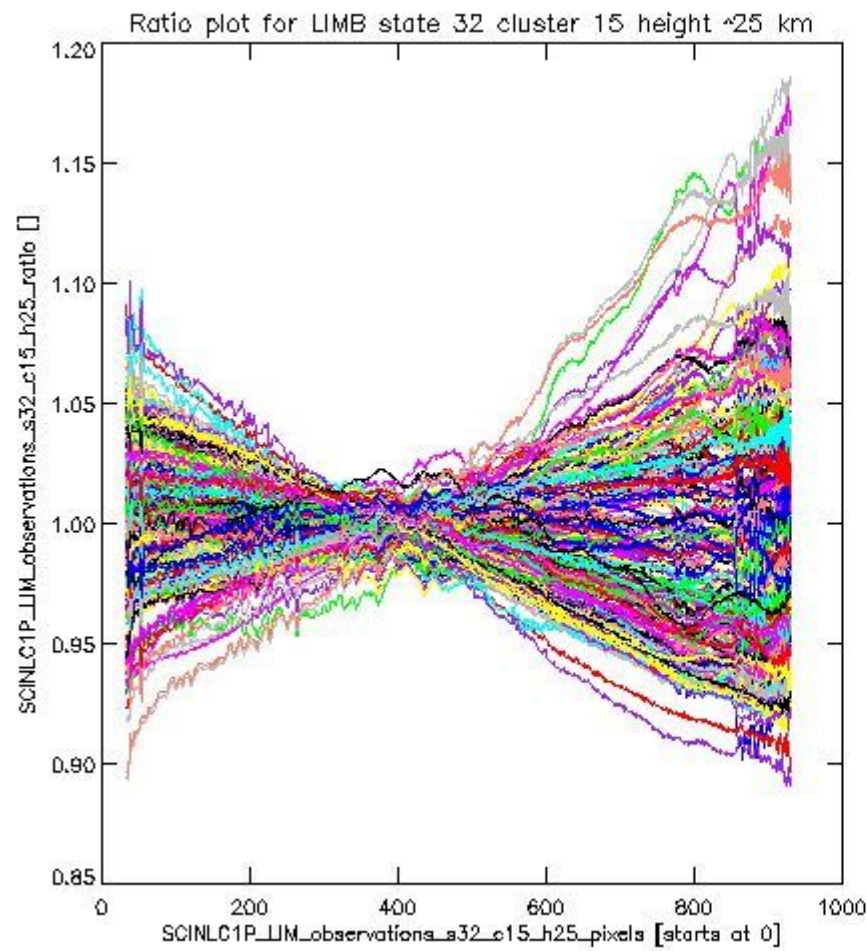
sciamachy\_11b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110511\_17.PNG

**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	11MAY2011 00:57:15.856
Start time of last sample	11MAY2011 23:07:58.452
Reference period start time	11APR2011 00:58:17.656
Reference period stop time	10MAY2011 23:44:56.226
Channel number	3
First pixel number (starts at 0)	33
Last pixel number (starts at 0)	929



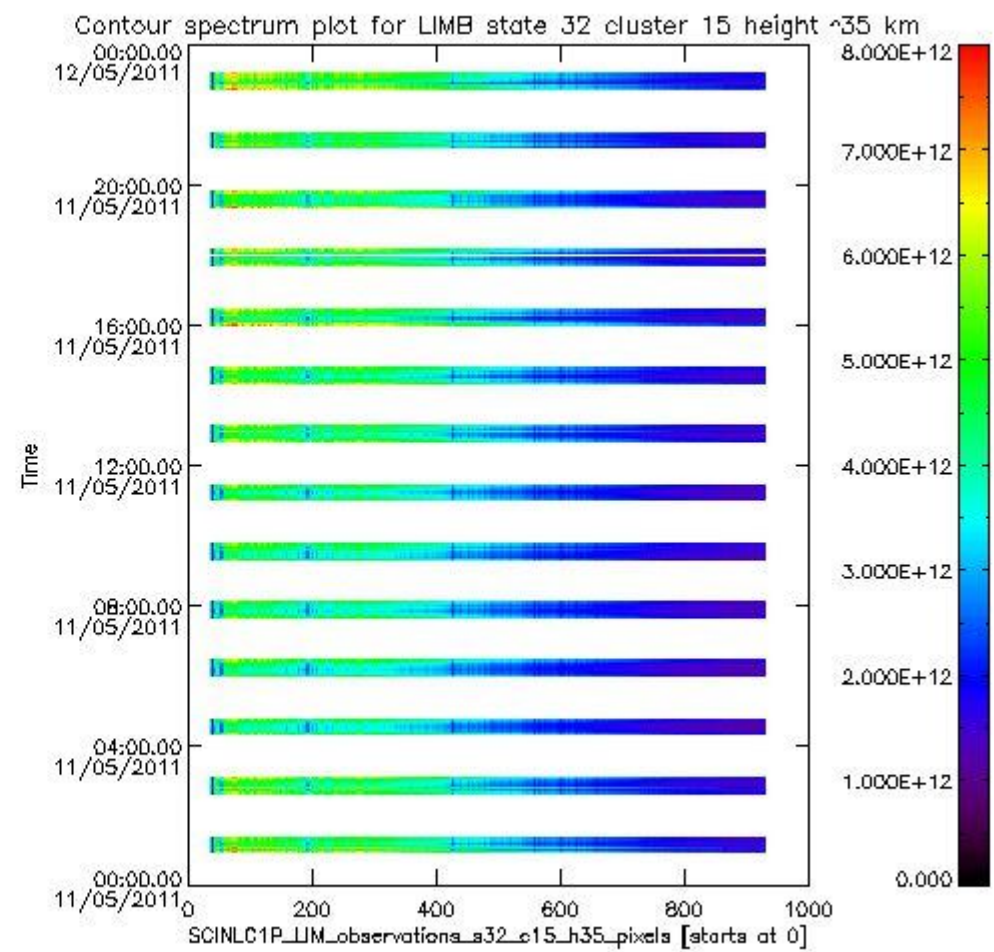
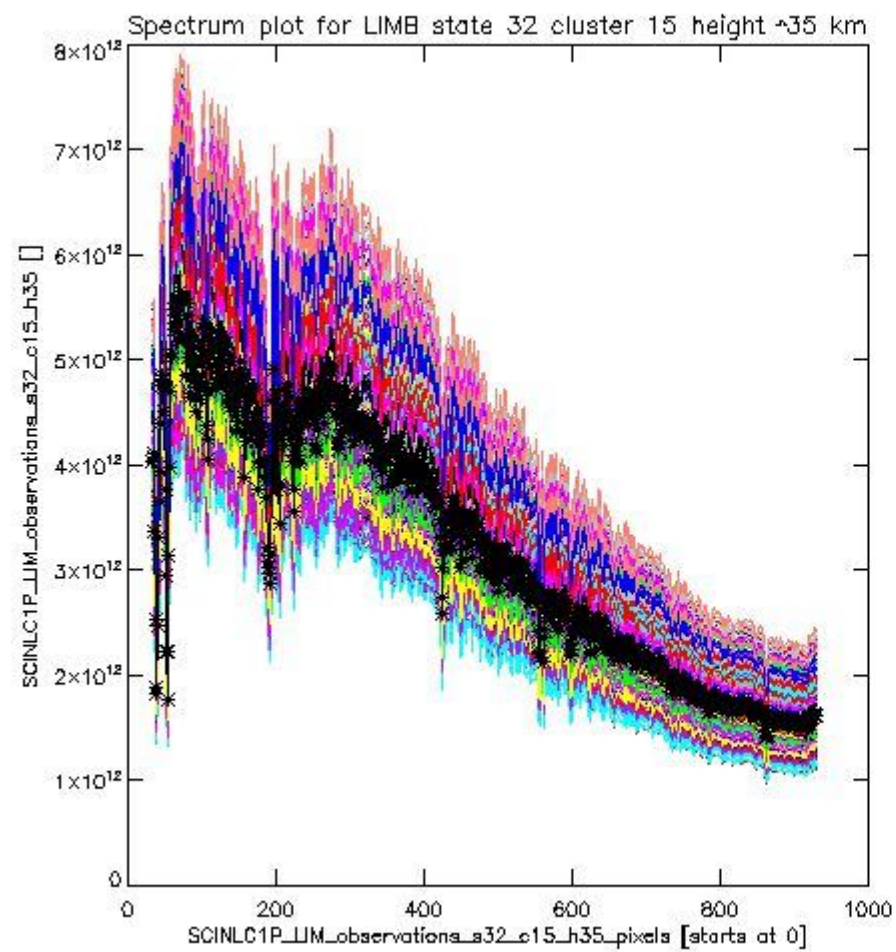
sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110511\_18.PNG

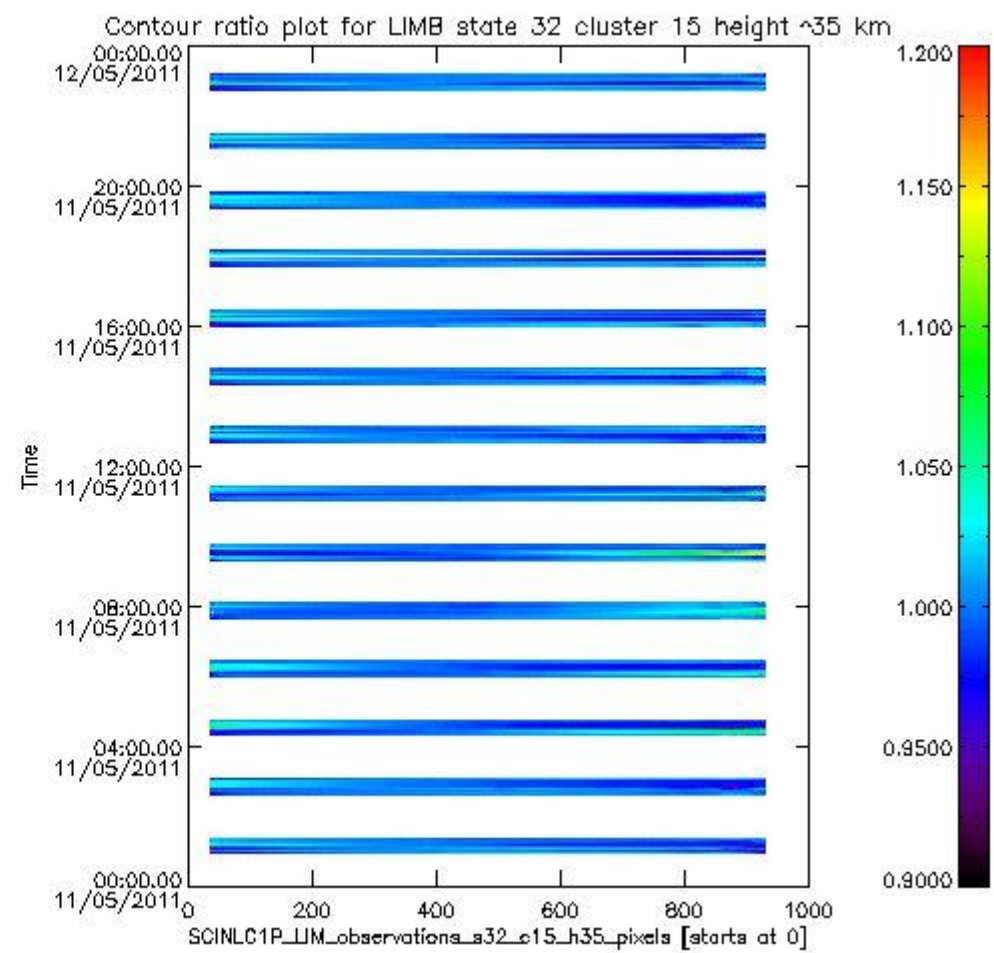
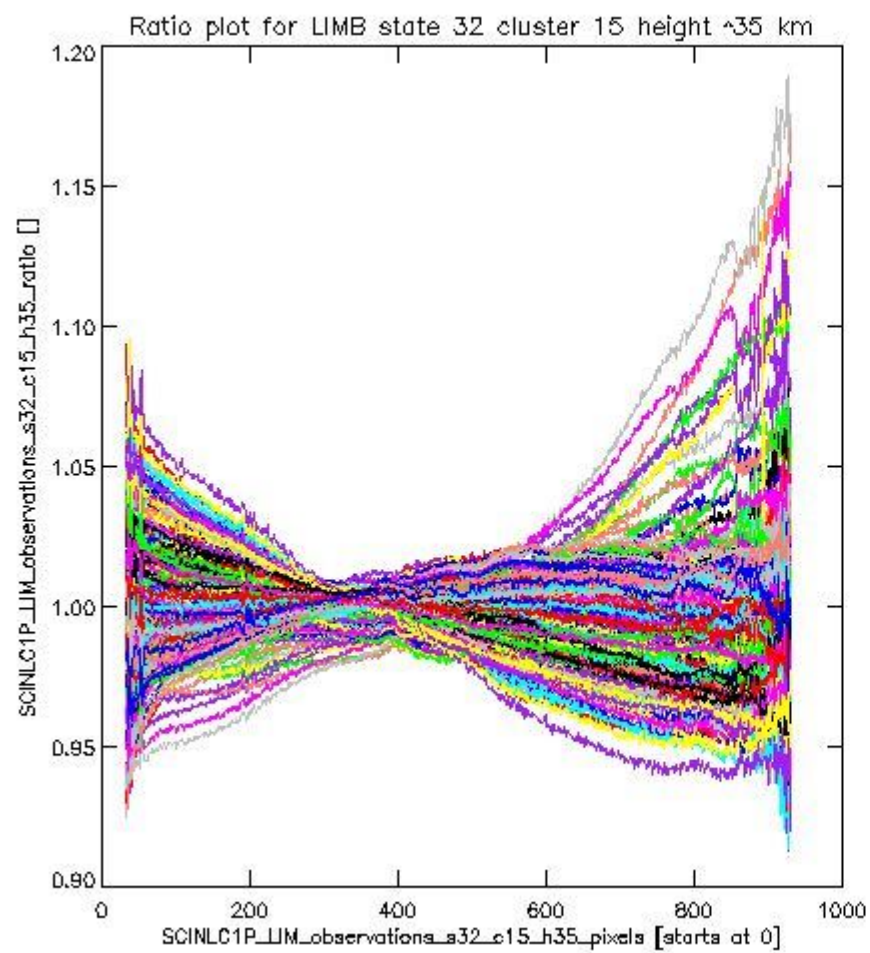


sciamachy\_11b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110511\_19.PNG

**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:

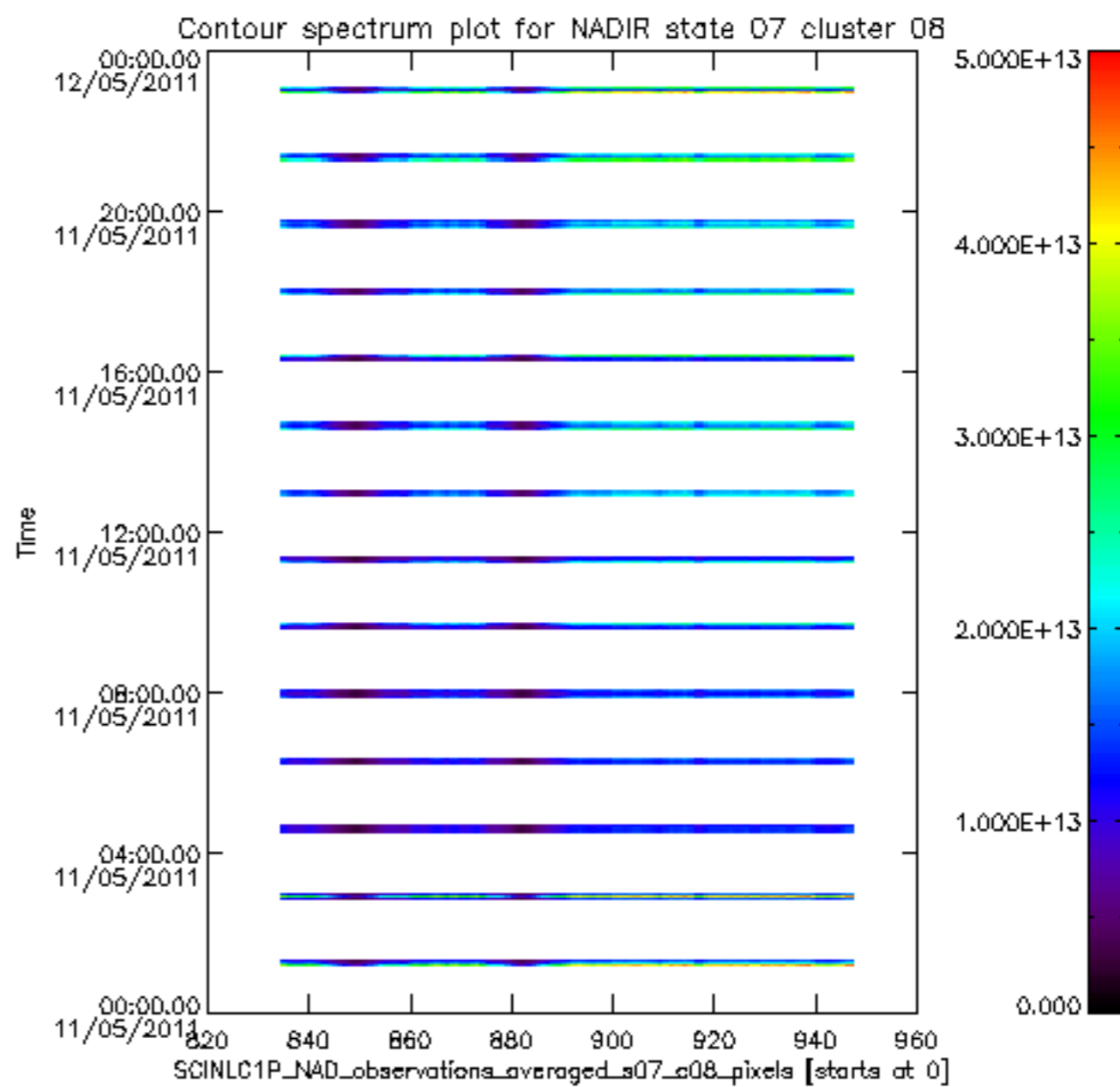
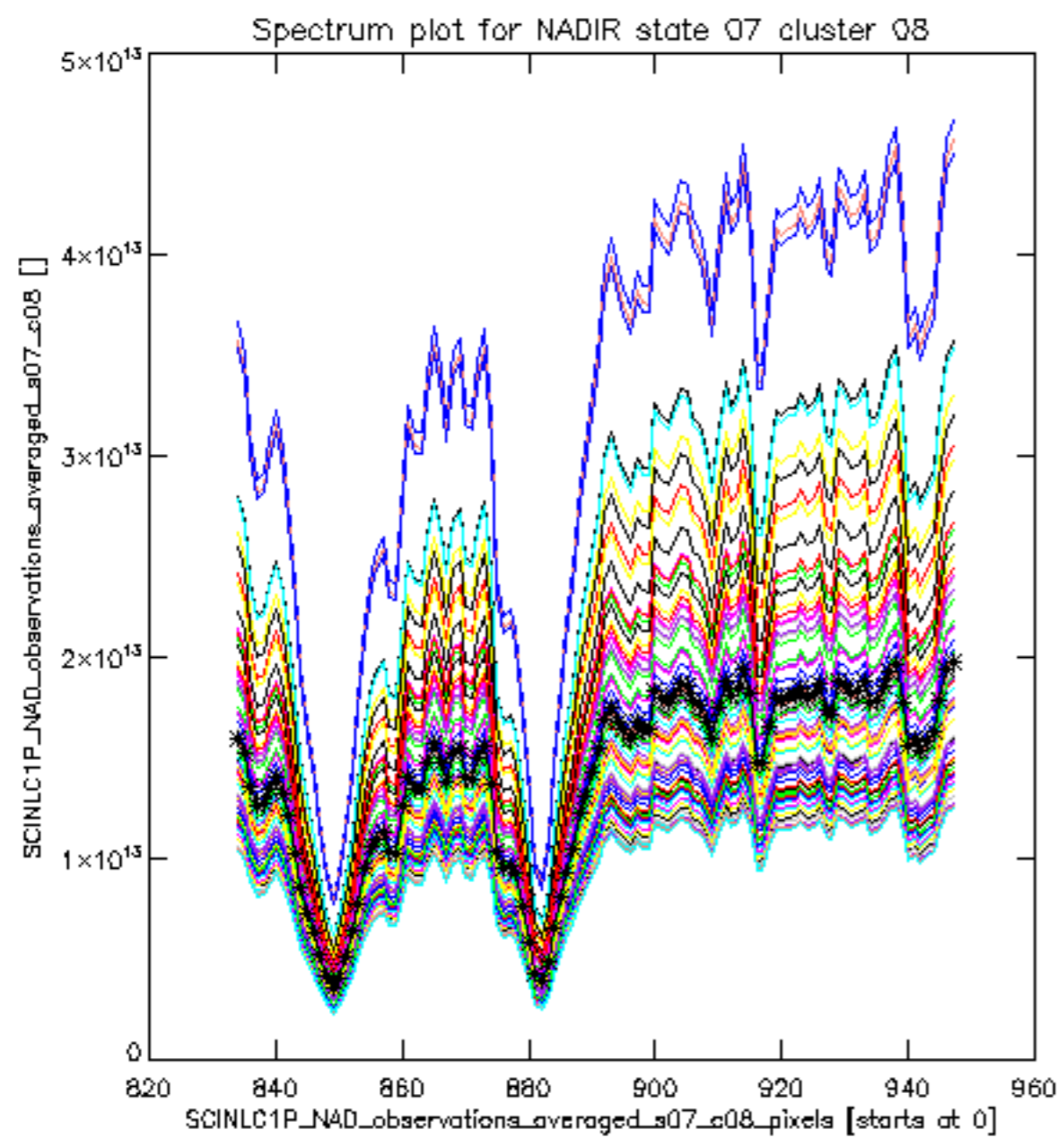
Item	Value
Start time of first sample	11MAY2011 00:57:15.856
Start time of last sample	11MAY2011 23:07:58.452
Reference period start time	11APR2011 00:58:17.656
Reference period stop time	10MAY2011 23:44:56.226
Channel number	3
First pixel number (starts at 0)	33
Last pixel number (starts at 0)	929

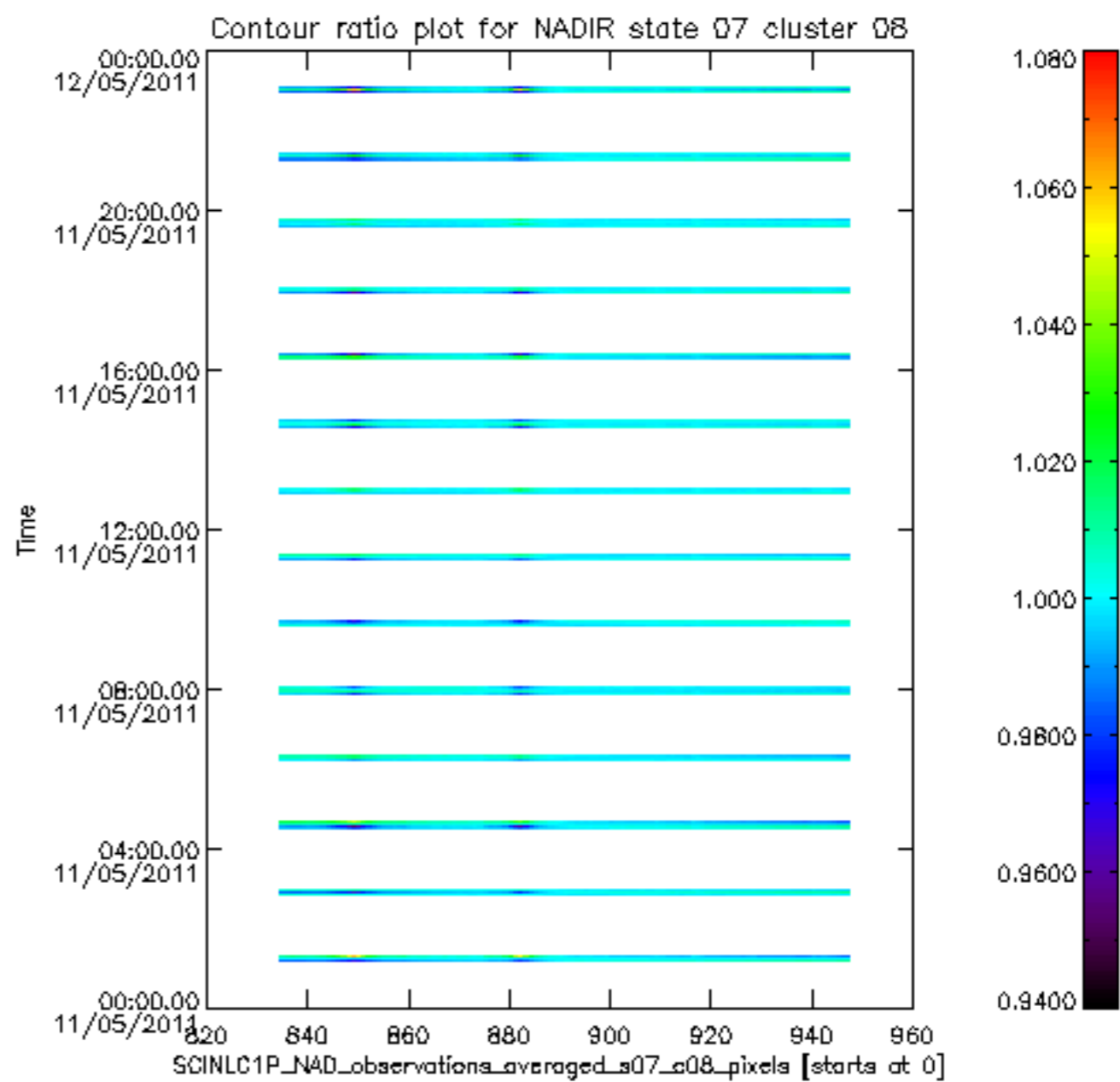
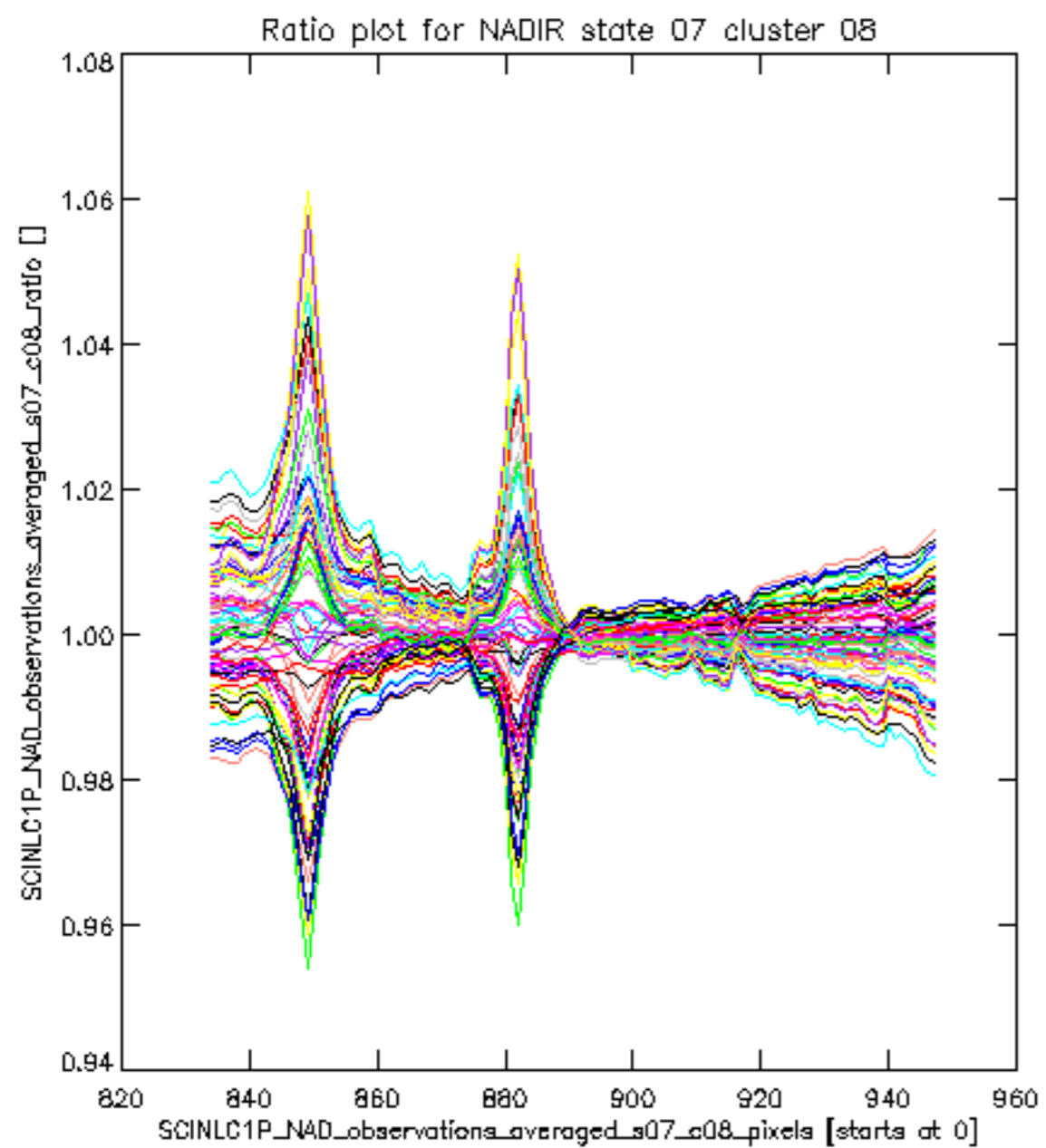


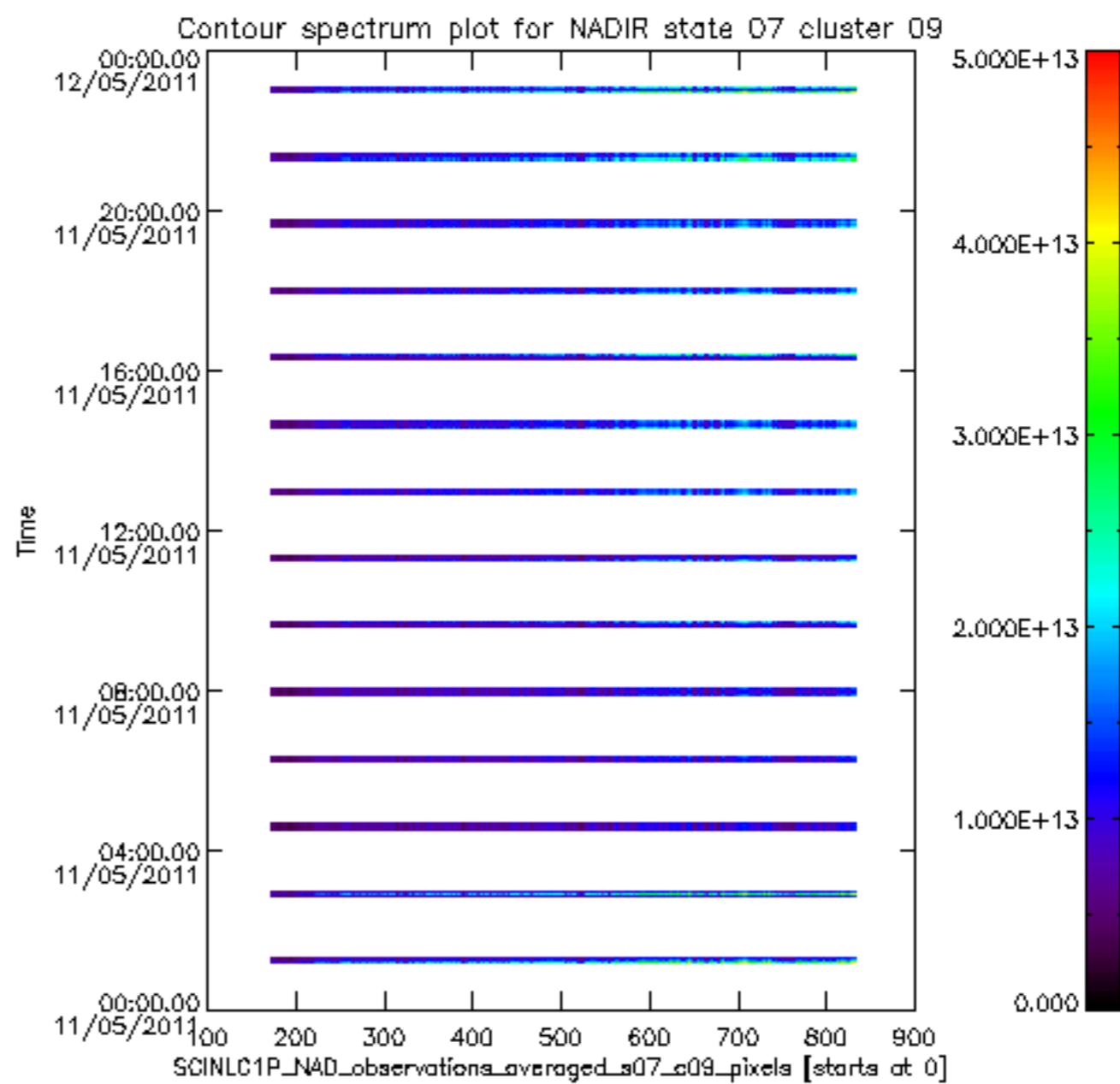
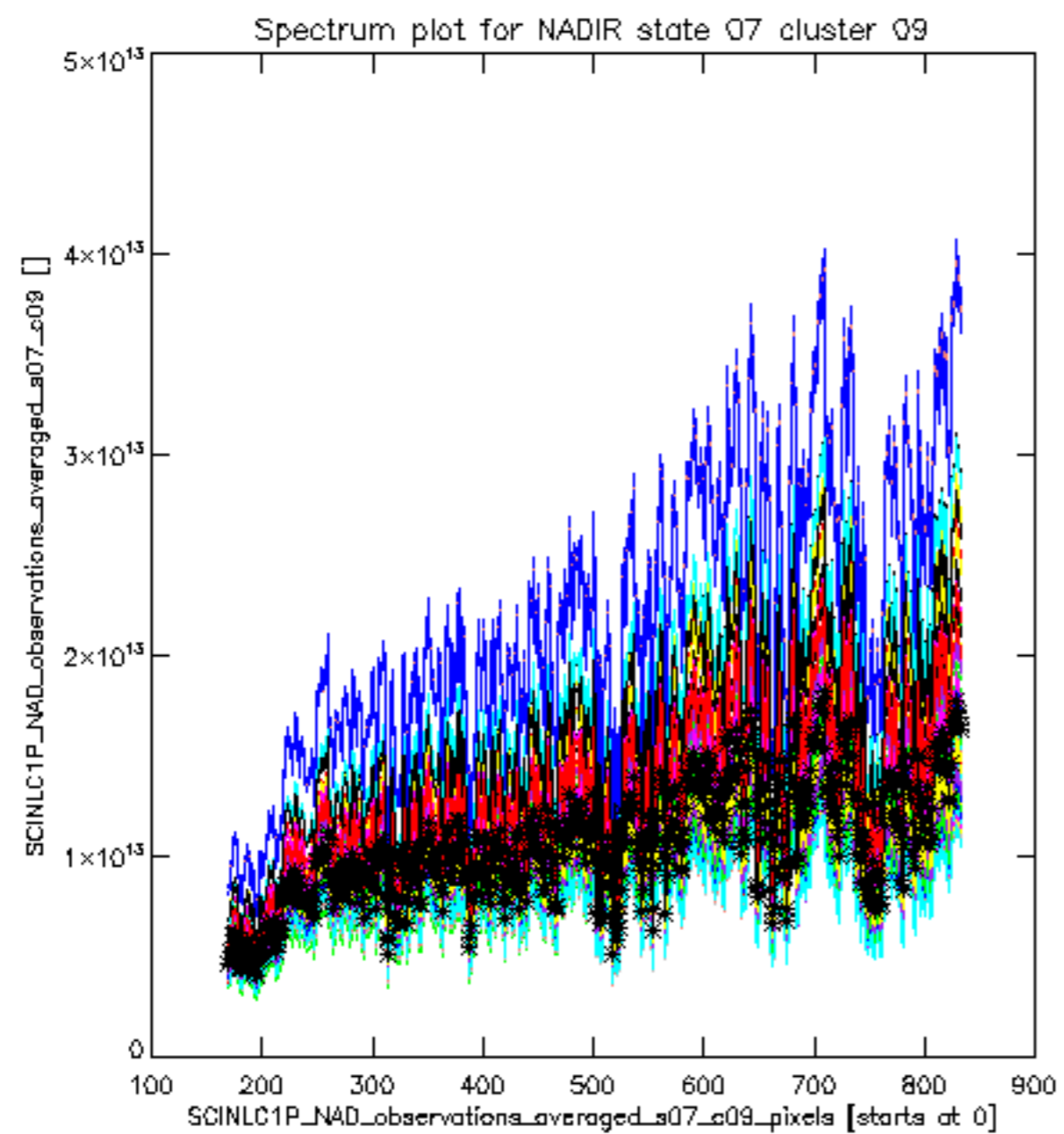


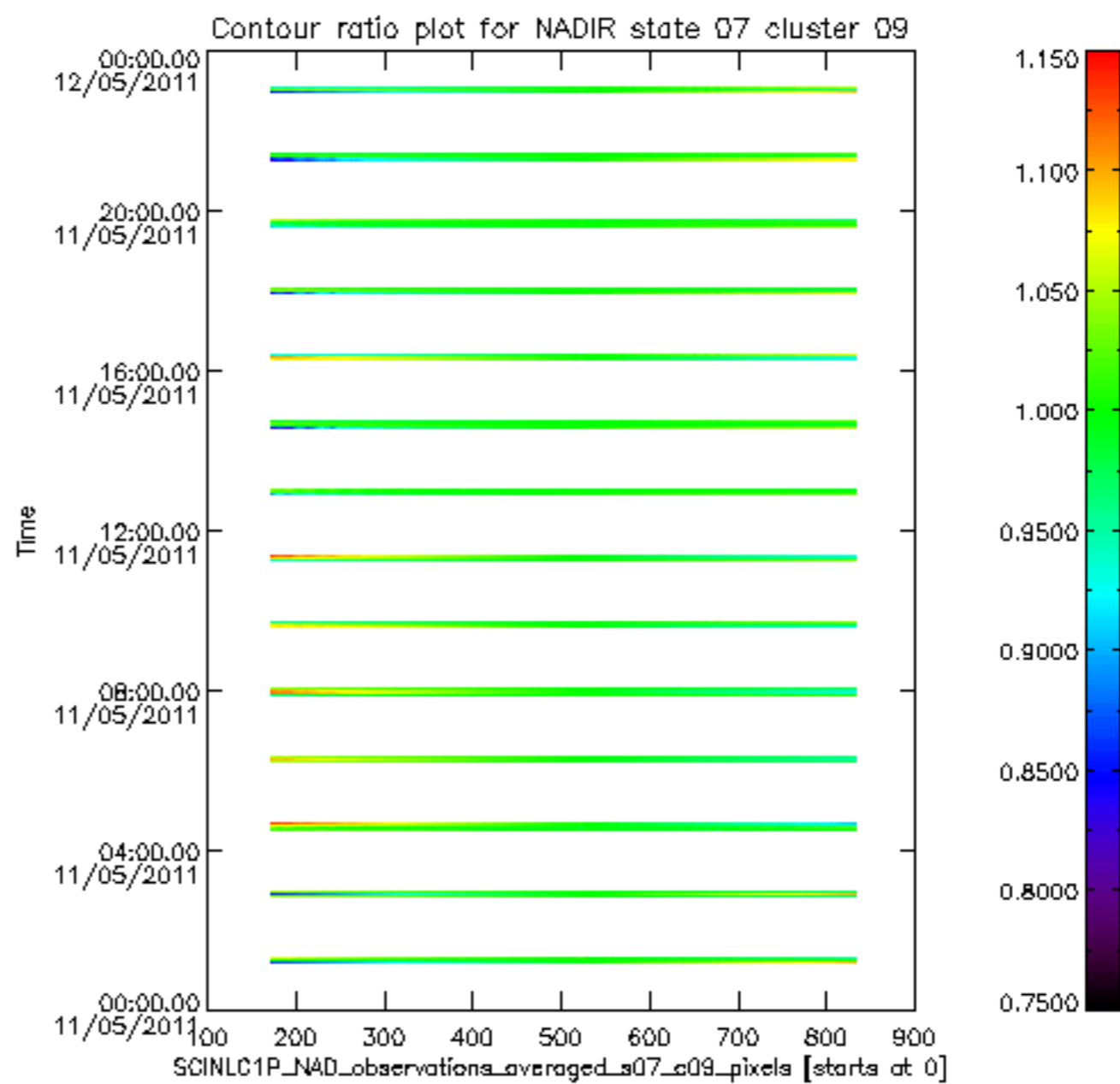
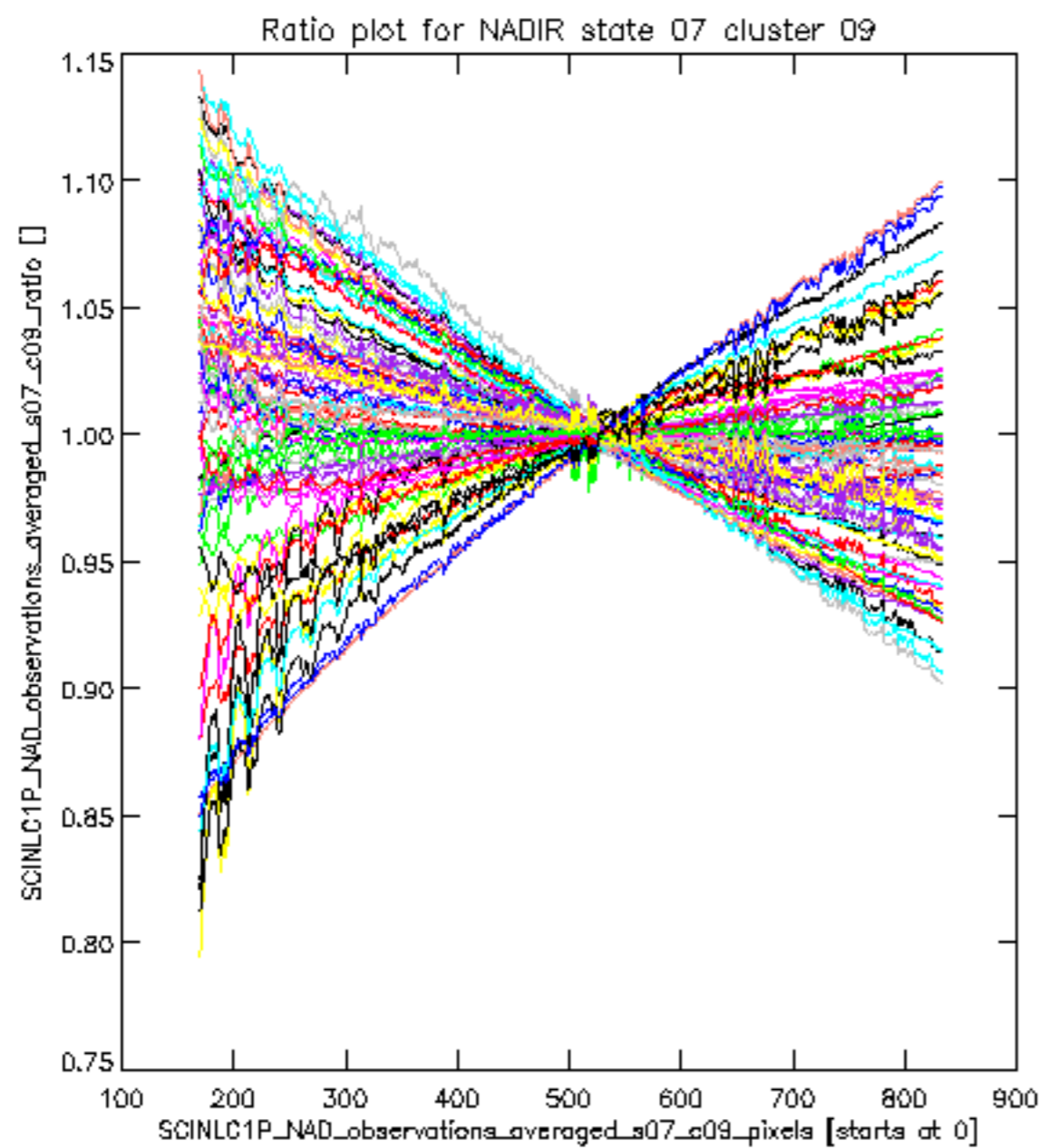
sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110511\_21.PNG

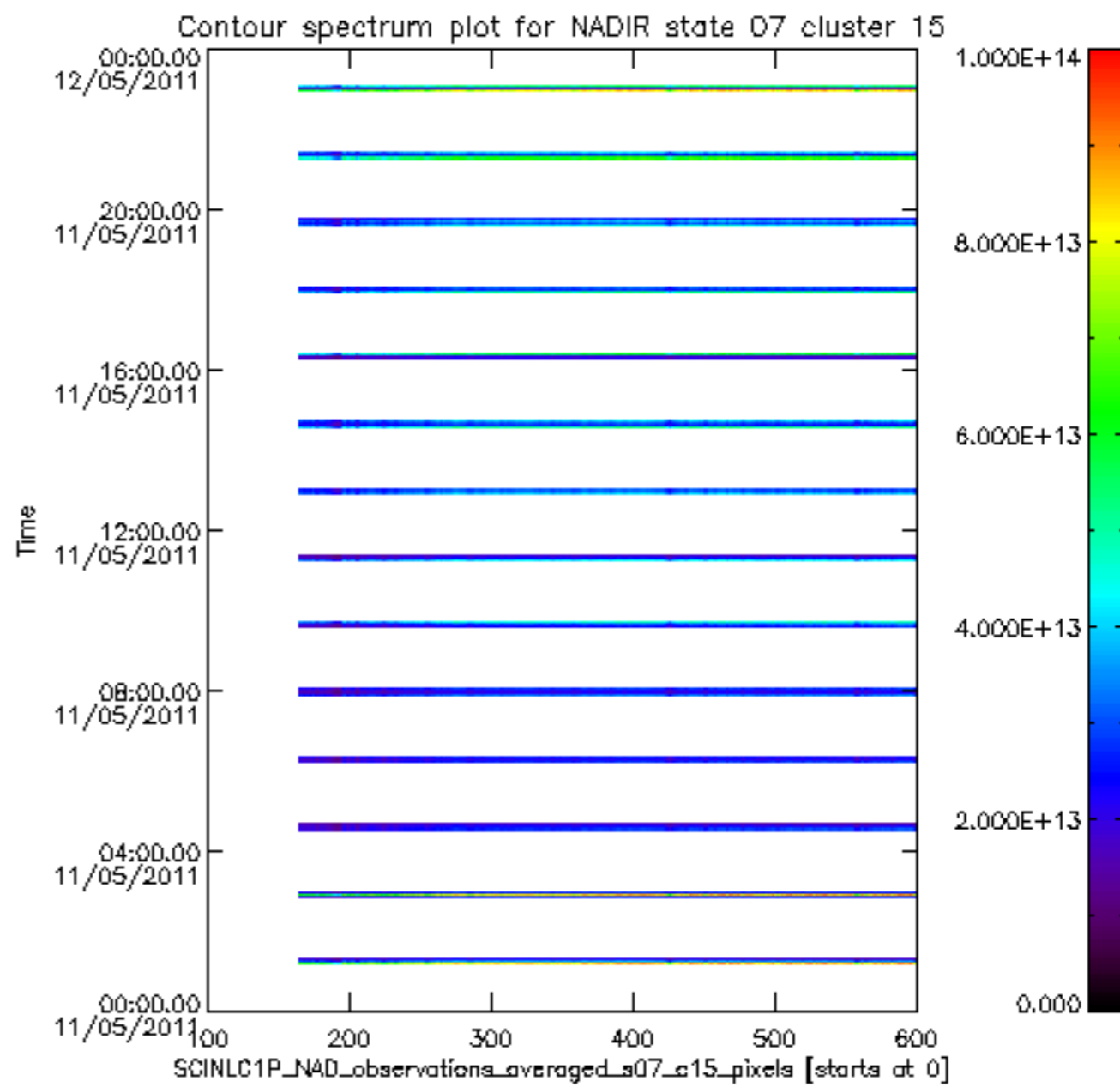
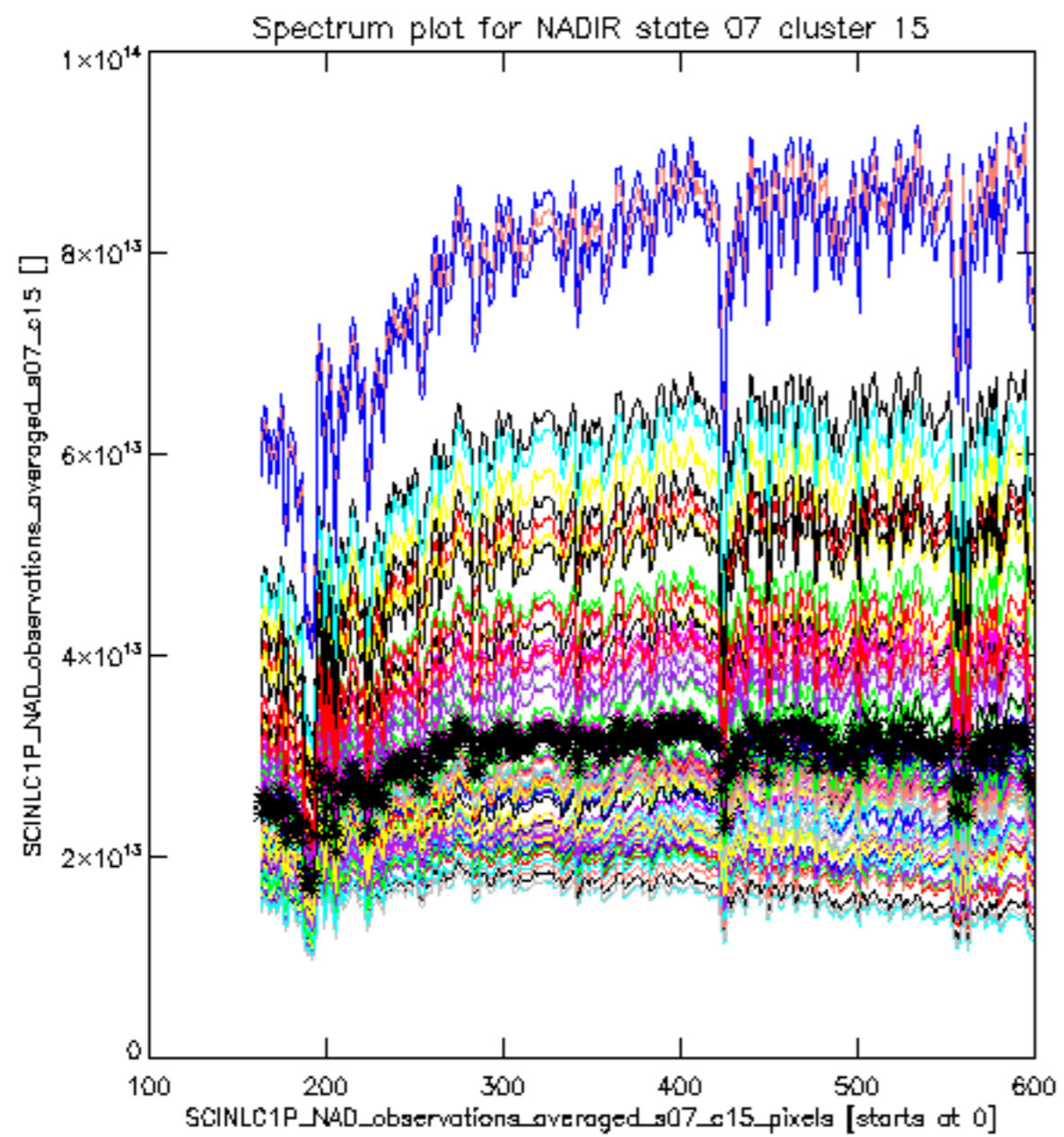


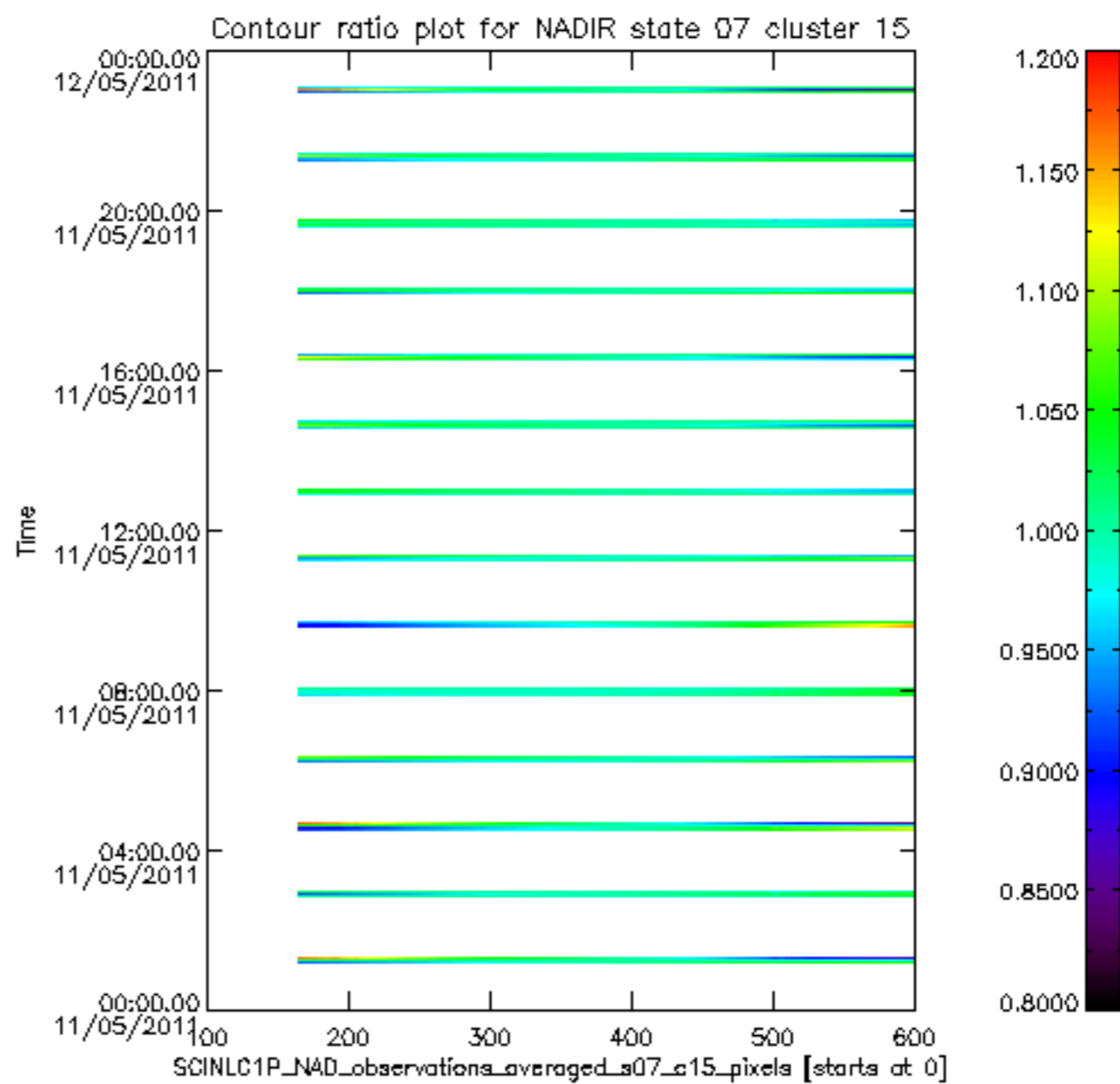
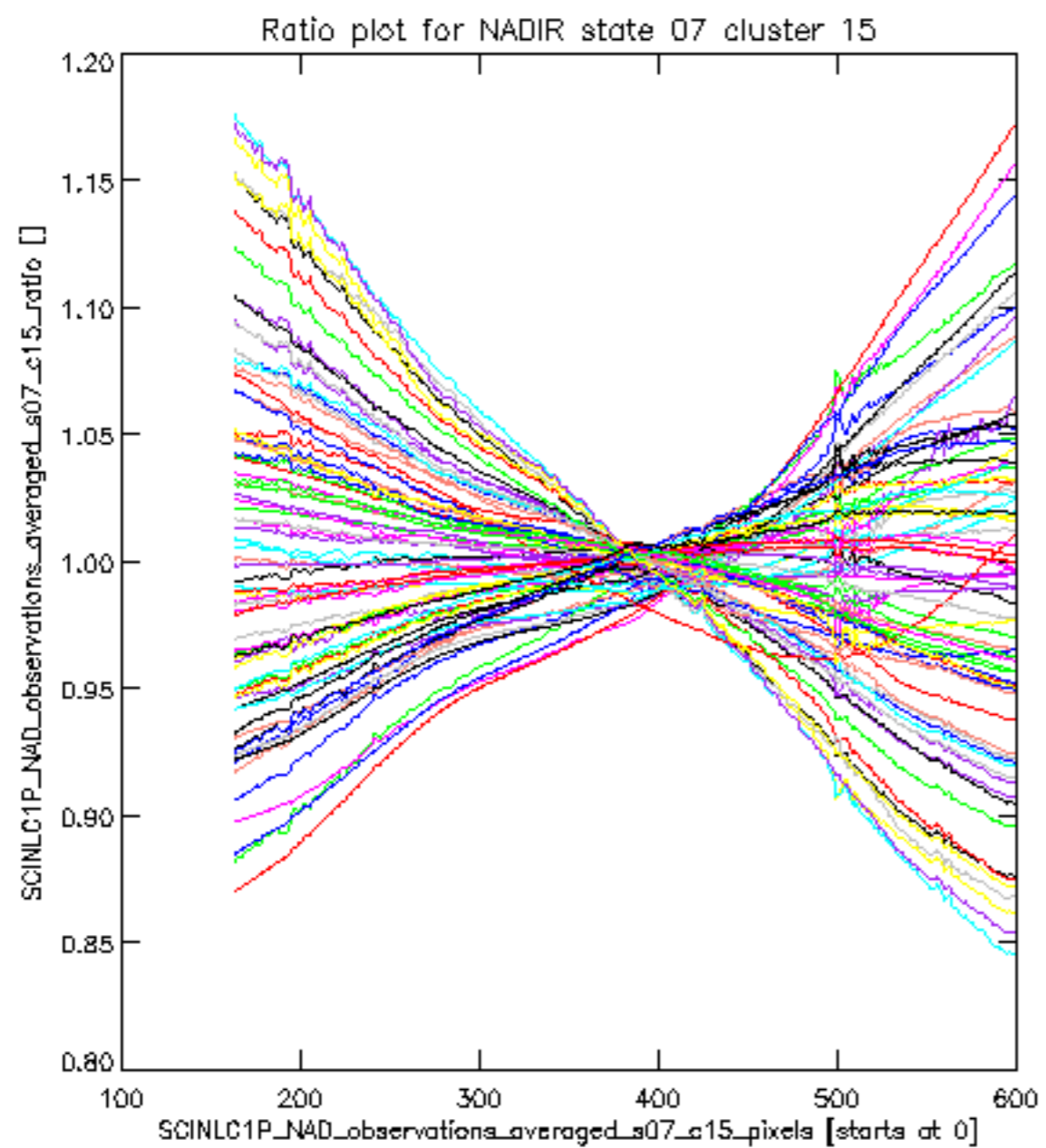


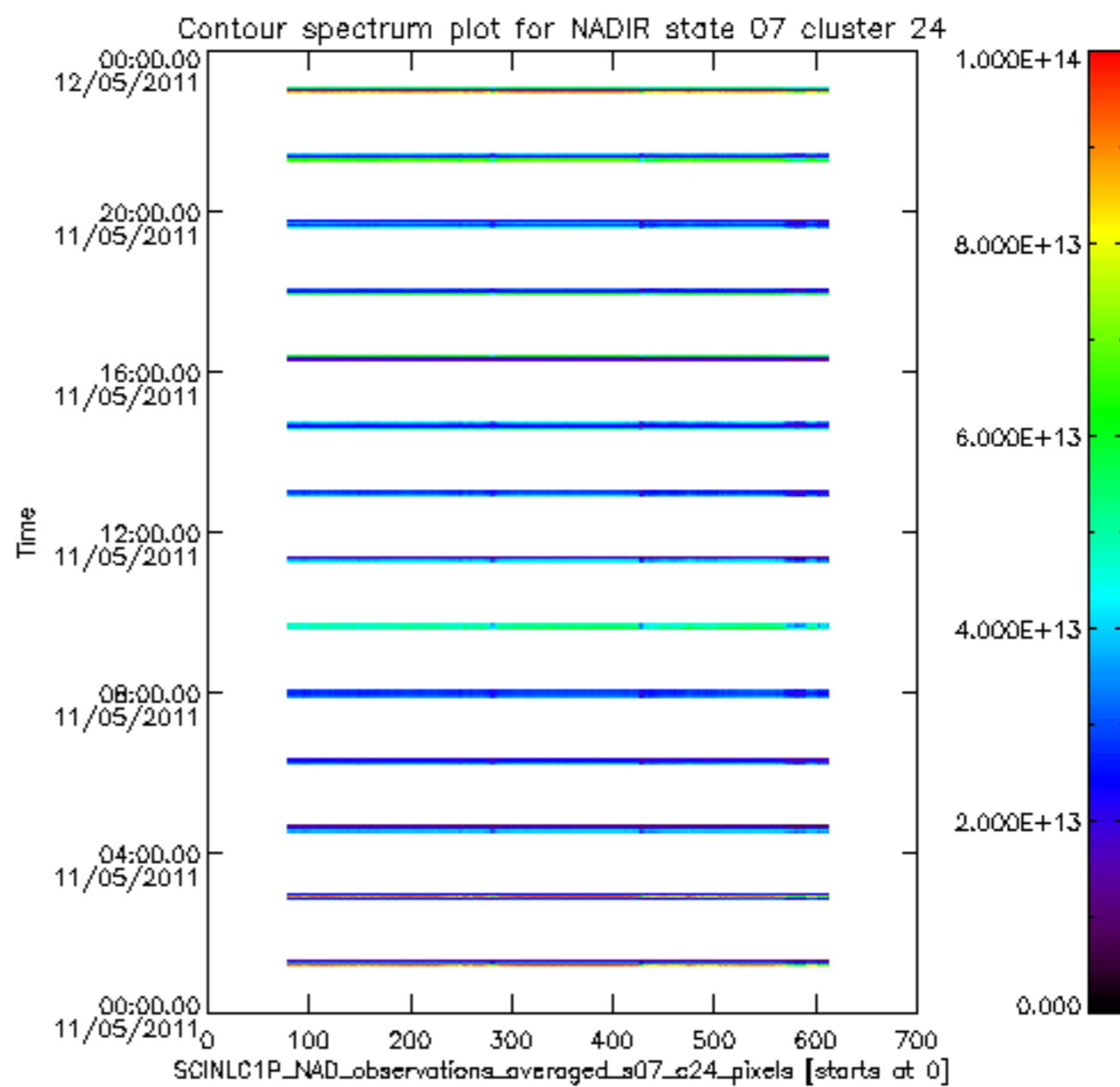
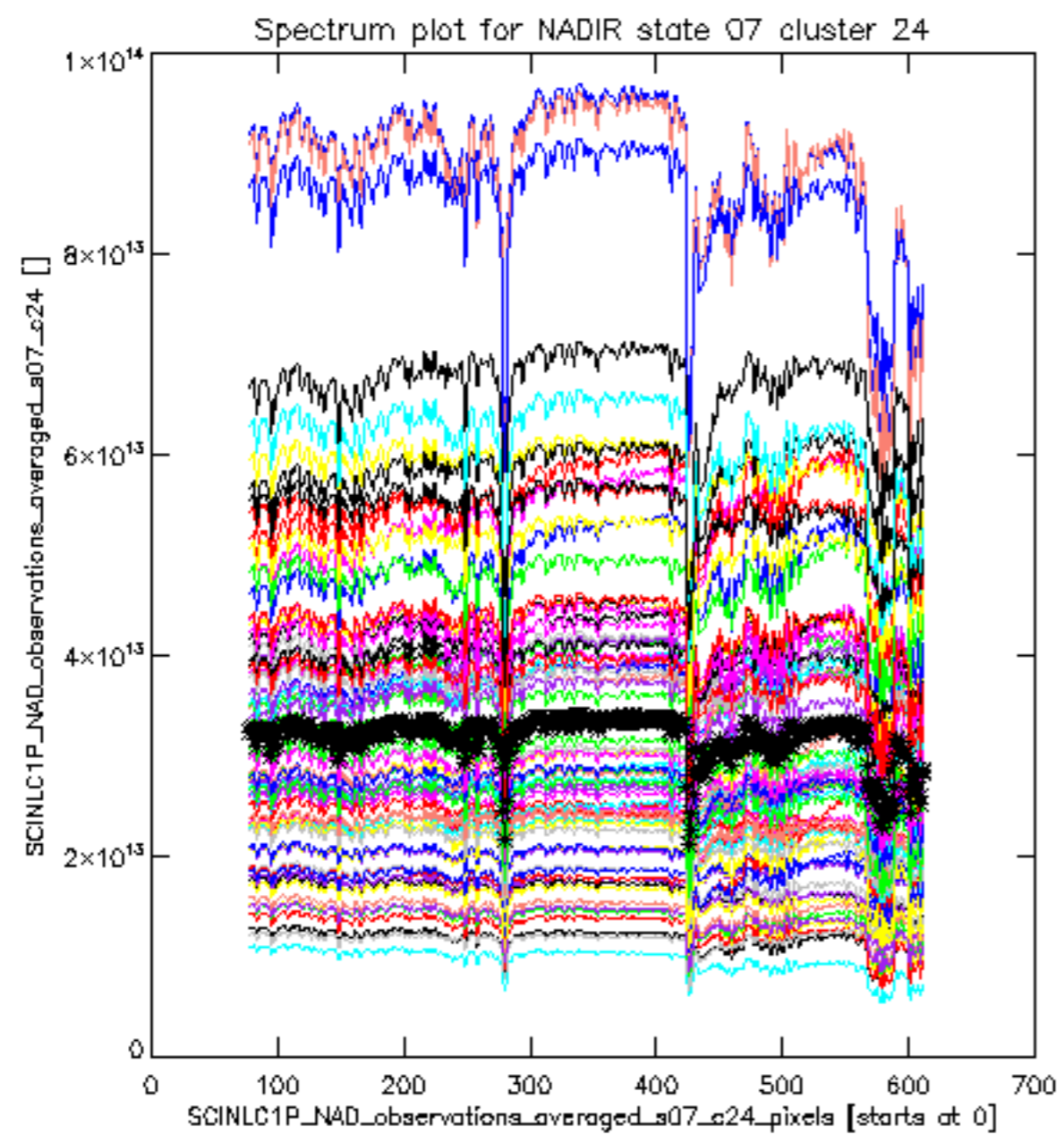


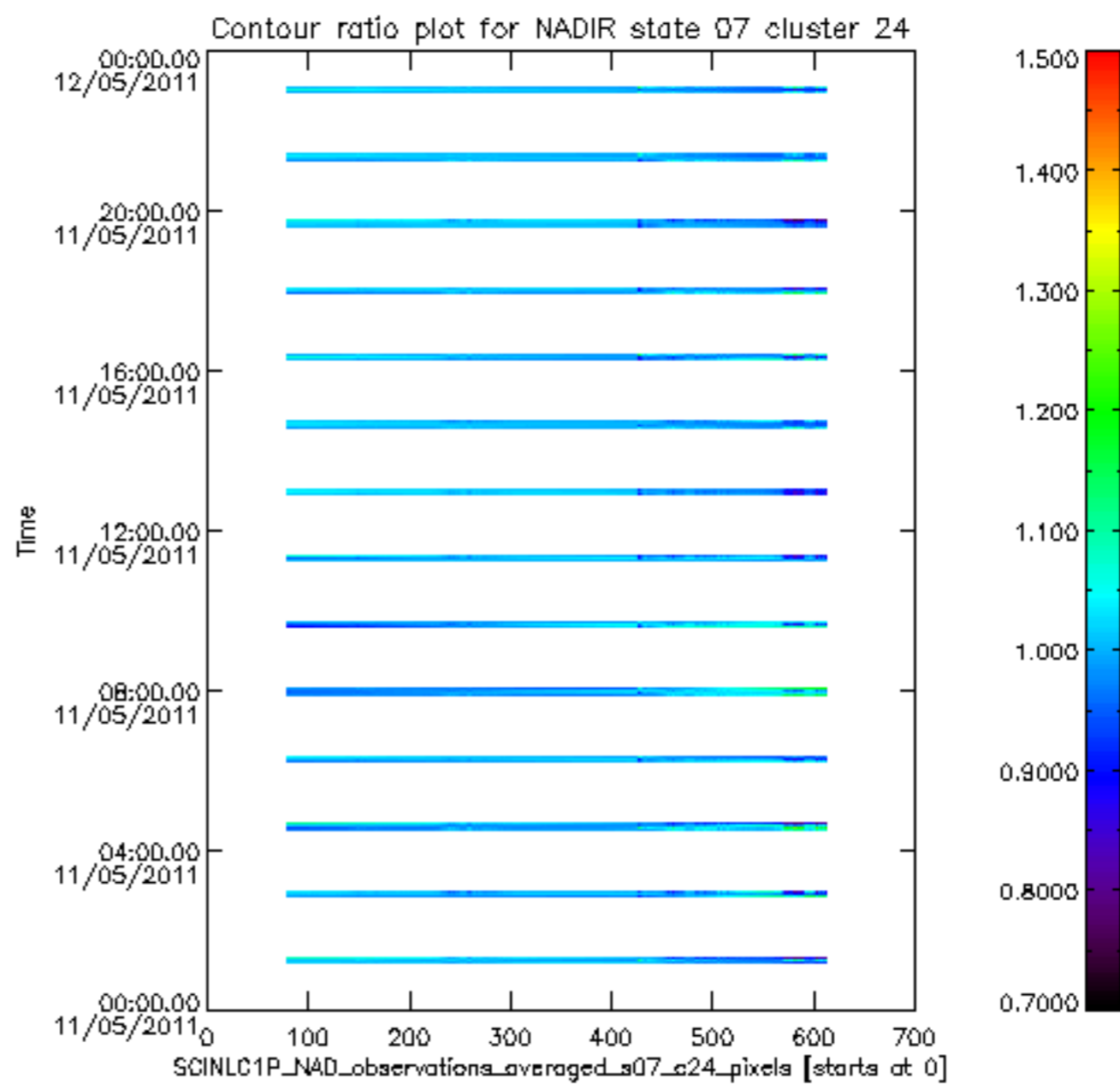
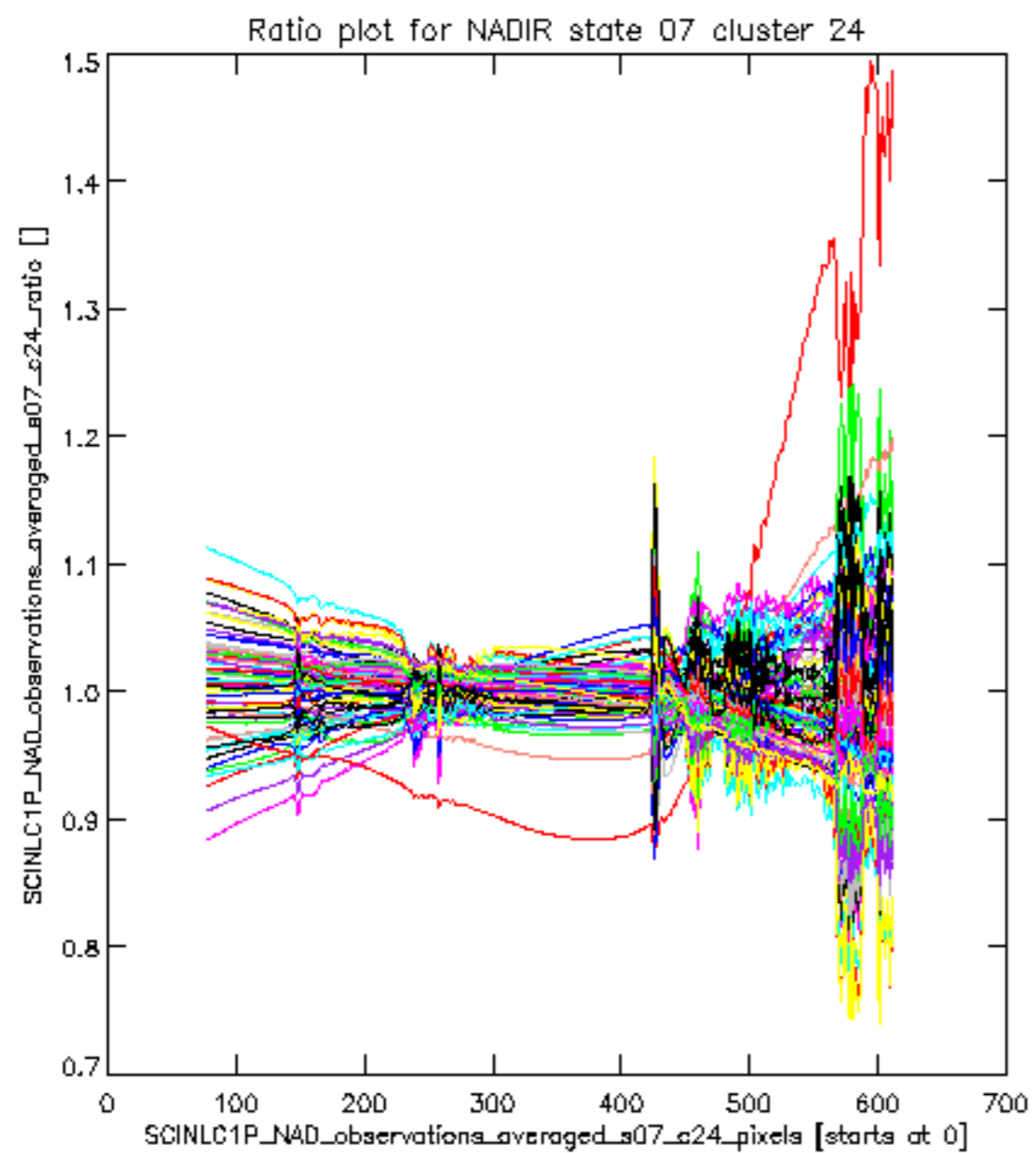






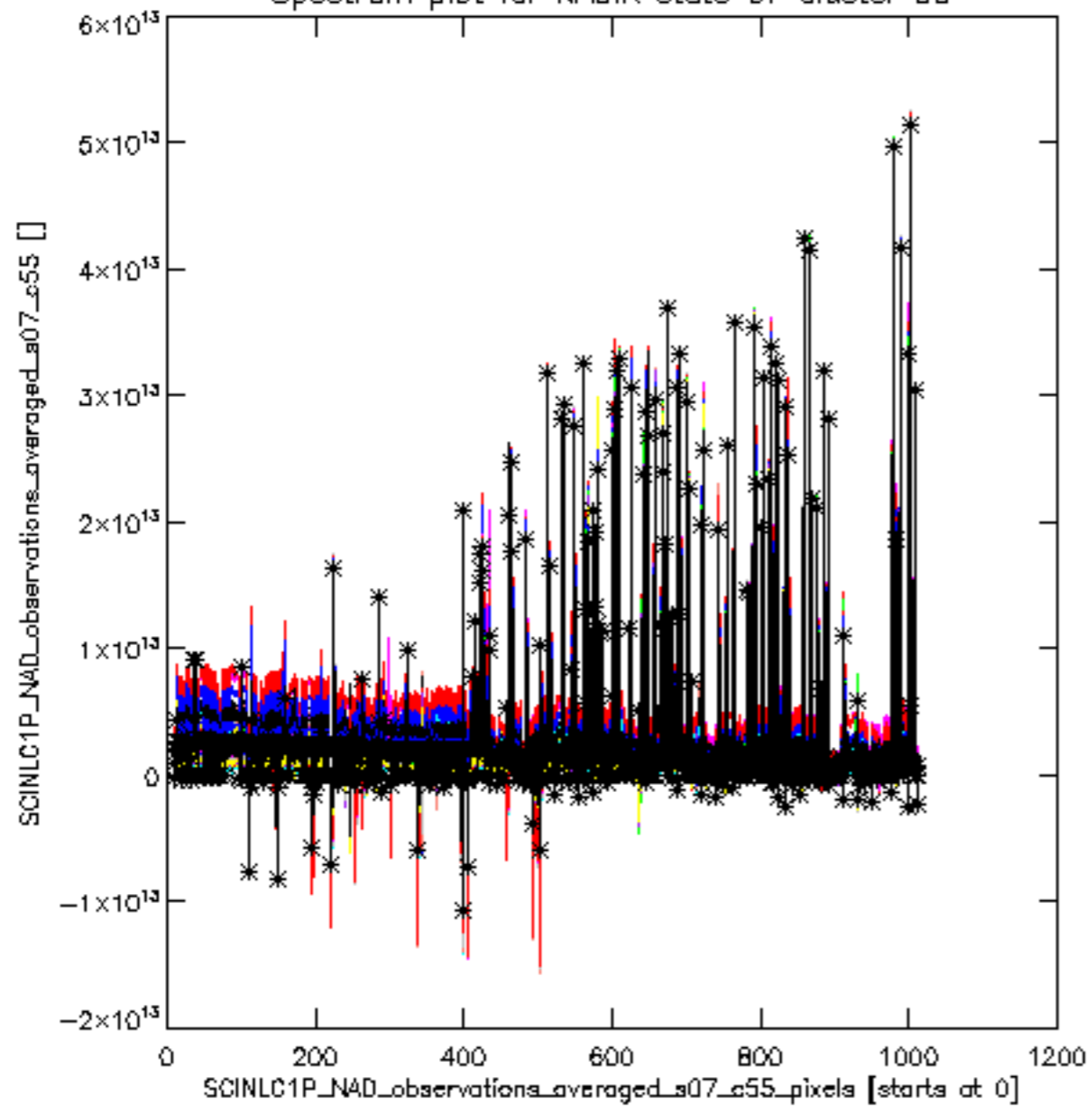








Spectrum plot for NADIR state 07 cluster 55



Contour spectrum plot for NADIR state 07 cluster 55

