

# 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	16MAY2011 13:15:04
Data source version	SCIA/7.04-U
Processing scope for products	25APR2011 00:00:00 to 26APR2011 00:00:00
Start time of first product within scope	24APR2011 22:45:45
Stop time of last product within scope	26APR2011 00:59:24
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	25APR2011 00:58:01.385	25APR2011 22:50:18.380
1	NADIR	07	09	N/A	25APR2011 00:58:01.385	25APR2011 22:50:18.380
2	NADIR	07	15	N/A	25APR2011 00:58:01.385	25APR2011 22:50:18.380
3	NADIR	07	24	N/A	25APR2011 00:58:01.385	25APR2011 22:50:18.380
4	NADIR	07	55	N/A	25APR2011 00:58:01.385	25APR2011 22:50:18.380
5	LIMB	32	09	~19 km	25APR2011 00:44:50.752	25APR2011 22:55:32.427
6	LIMB	32	09	~22 km	25APR2011 00:44:50.752	25APR2011 22:55:32.427
7	LIMB	32	09	~25 km	25APR2011 00:44:50.752	25APR2011 22:55:32.427
8	LIMB	32	15	~22 km	25APR2011 00:44:50.752	25APR2011 22:55:32.427
9	LIMB	32	15	~25 km	25APR2011 00:44:50.752	25APR2011 22:55:32.427
10	LIMB	32	15	~35 km	25APR2011 00:44:50.752	25APR2011 22:55:32.427

#### 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	#noproc	#cmlpl_drk	#incmpl_drk	Decont
0	<a href="#">SCI_NLC_1CUDPA20110424_223859_000059973101_00418_47846_0477.N1</a>	24APR2011 22:45:45	24APR2011 23:56:14	0	36	30	0	0	1	0	0	
1	<a href="#">SCI_NLC_1CUDPA20110425_001901_000060213101_00419_47847_0483.N1</a>	25APR2011 00:25:58	25APR2011 01:36:13	0	35	31	0	0	1	0	0	
2	<a href="#">SCI_NLC_1CUDPA20110425_015926_000059973101_00420_47848_0480.N1</a>	25APR2011 02:06:12	25APR2011 03:16:41	0	36	30	0	0	1	0	0	
3	<a href="#">SCI_NLC_1CUDPA20110425_033928_000060223101_00421_47849_0481.N1</a>	25APR2011 03:46:26	25APR2011 04:56:40	0	35	31	0	0	1	0	0	
4	<a href="#">SCI_NLC_1CUDPA20110425_051954_000059983101_00422_47850_0484.N1</a>	25APR2011 05:26:39	25APR2011 06:37:08	0	36	30	0	0	1	0	0	
5	<a href="#">SCI_NLC_1CUDPA20110425_065955_000060213101_00423_47851_0487.N1</a>	25APR2011 07:06:53	25APR2011 08:17:08	0	35	31	0	0	1	0	0	

6	SCI_NLC_1CUDPA20110425_084021_000059973101_00424_47852_0488.N1	25APR2011 08:47:07	25APR2011 09:57:36	0	36	30	0	0	1	0	0	
7	SCI_NLC_1CUDPA20110425_102022_000060213101_00425_47853_0490.N1	25APR2011 10:27:20	25APR2011 11:37:35	0	35	31	0	0	1	0	0	
8	SCI_NLC_1CUDPA20110425_120048_000059973101_00426_47854_0495.N1	25APR2011 12:07:34	25APR2011 13:18:03	0	36	30	0	0	1	0	0	
9	SCI_NLC_1CUDPA20110425_134049_000060223101_00427_47855_0498.N1	25APR2011 13:47:47	25APR2011 14:58:02	0	35	31	0	0	1	0	0	
10	SCI_NLC_1CUDPA20110425_152115_000059983101_00428_47856_0500.N1	25APR2011 15:28:01	25APR2011 16:38:30	0	36	30	0	0	1	0	0	
11	SCI_NLC_1CUDPA20110425_170117_000060223101_00429_47857_0501.N1	25APR2011 17:08:15	25APR2011 18:18:41	0	35	31	0	1	1	0	0	
12	SCI_NLC_1CUDPA20110425_184142_000010823101_00430_47858_0502.N1	25APR2011 18:48:29	25APR2011 18:59:17	0	1	8	0	1	1	0	0	
13	SCI_NLC_1CUDPA20110425_203720_000050853101_00431_47859_0505.N1	25APR2011 20:38:15	25APR2011 21:38:57	0	35	23	0	0	2	0	0	
14	SCI_NLC_1CUDPA20110425_220209_000059973102_00001_47860_0507.N1	25APR2011 22:08:56	25APR2011 23:19:25	0	36	30	0	0	1	0	0	
15	SCI_NLC_1CUDPA20110425_234211_000060213102_00002_47861_0509.N1	25APR2011 23:49:09	26APR2011 00:59:24	0	35	31	0	0	1	0	0	

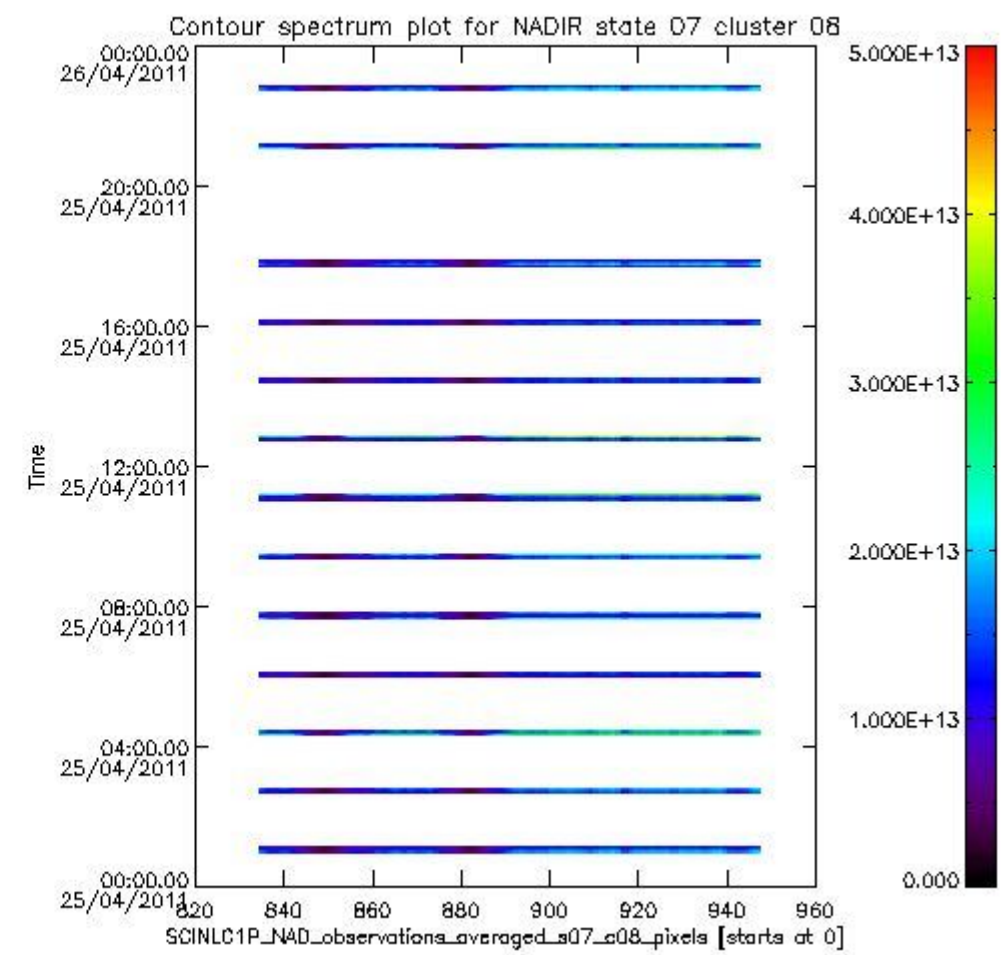
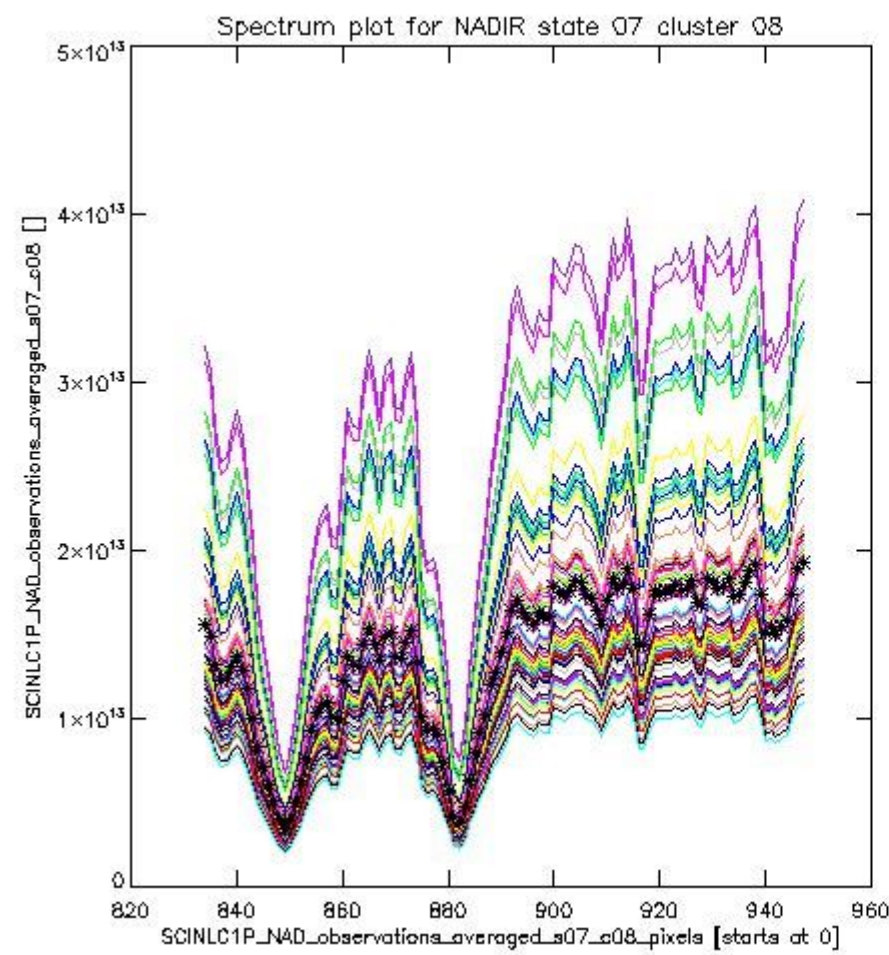
## 1.2 Source packet monitoring

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:

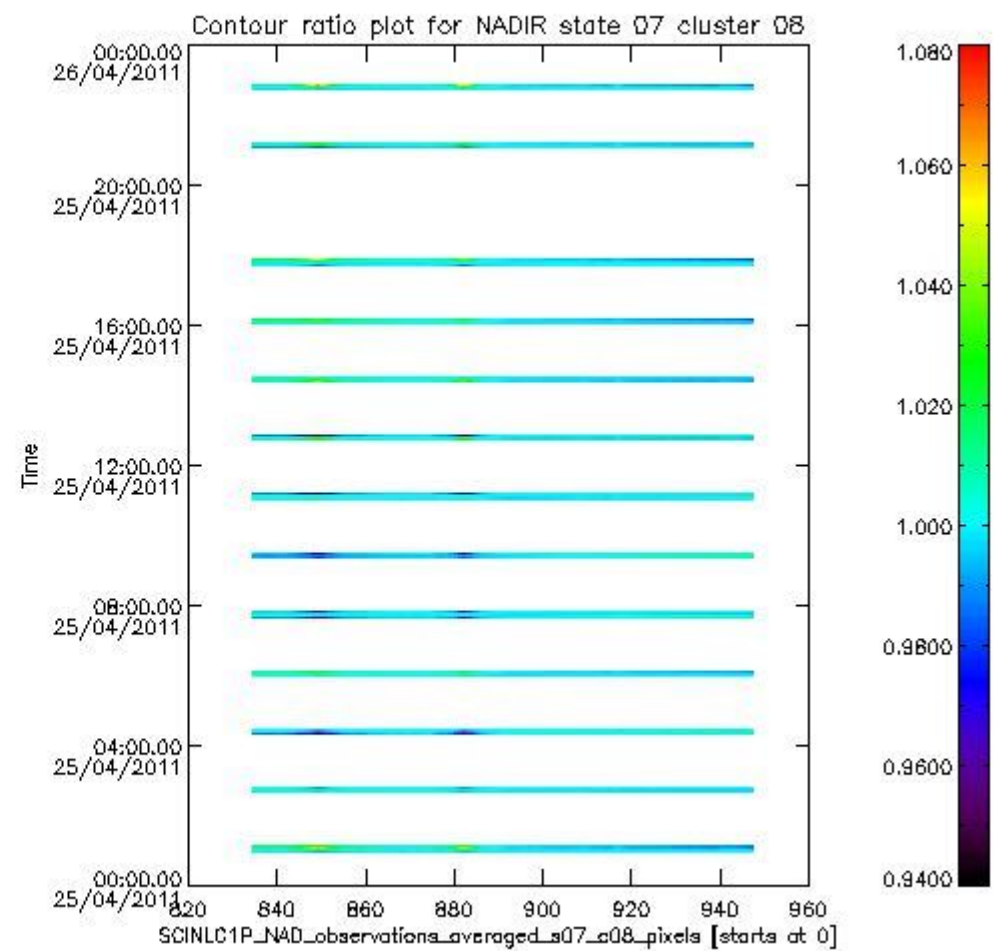
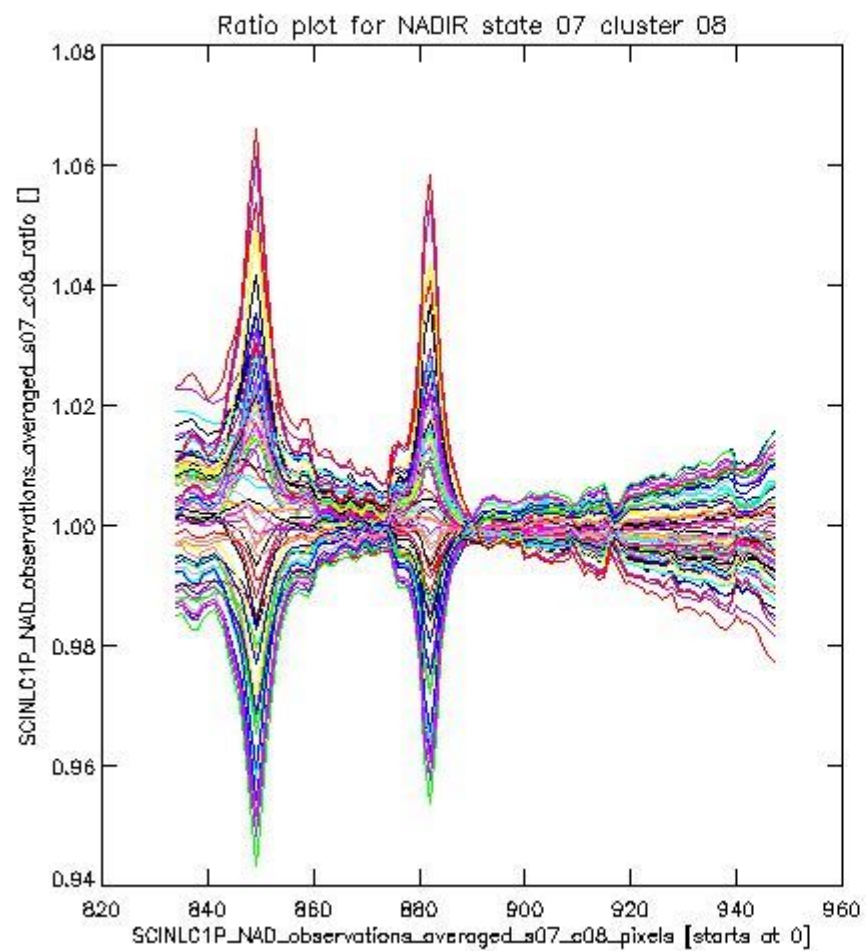
- A plot that shows all calibrated averaged spectra vs. pixel number as 2D-profiles. Each line is an average spectrum for a single state occurrence. For Limb modes, the average is performed on spectra recorded at a specific height. The reference spectrum that is used for comparison is also shown as a 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	25APR2011 00:58:01.385
Start time of last sample	25APR2011 22:50:18.380
Reference period start time	01APR2011 00:40:54.843
Reference period stop time	01APR2011 22:32:56.552
Channel number	2
First pixel number (starts at 0)	834
Last pixel number (starts at 0)	947



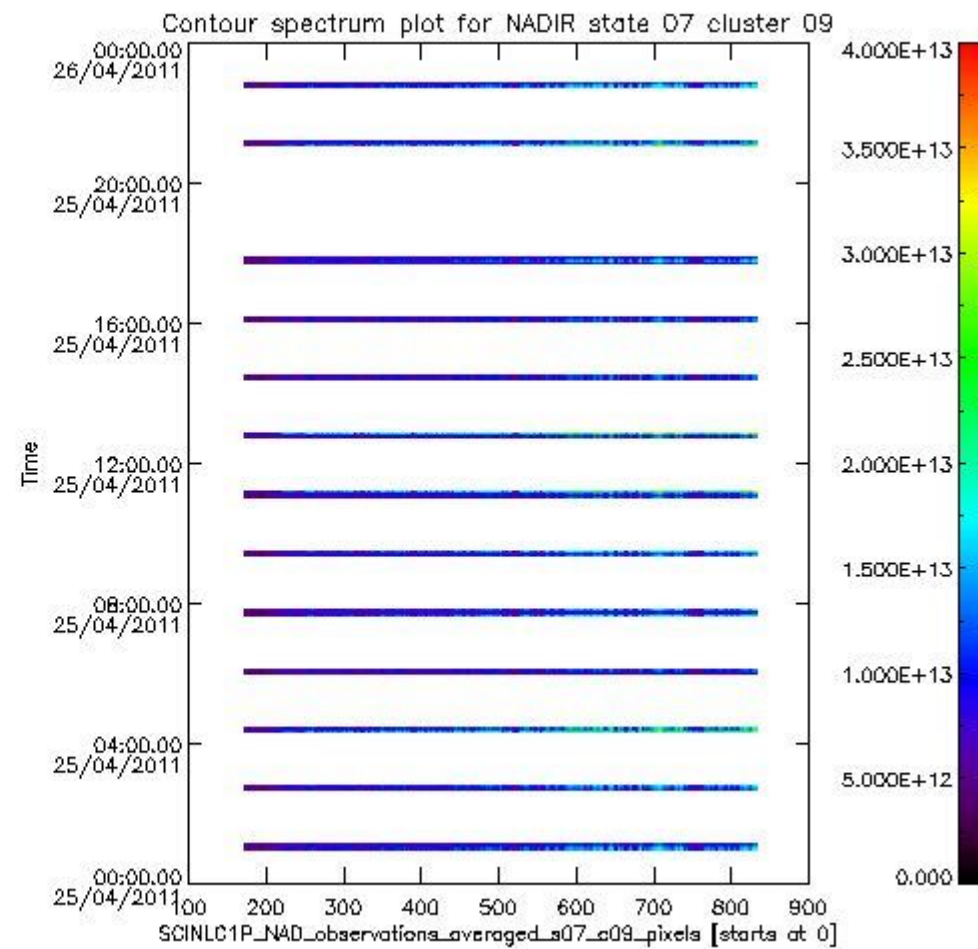
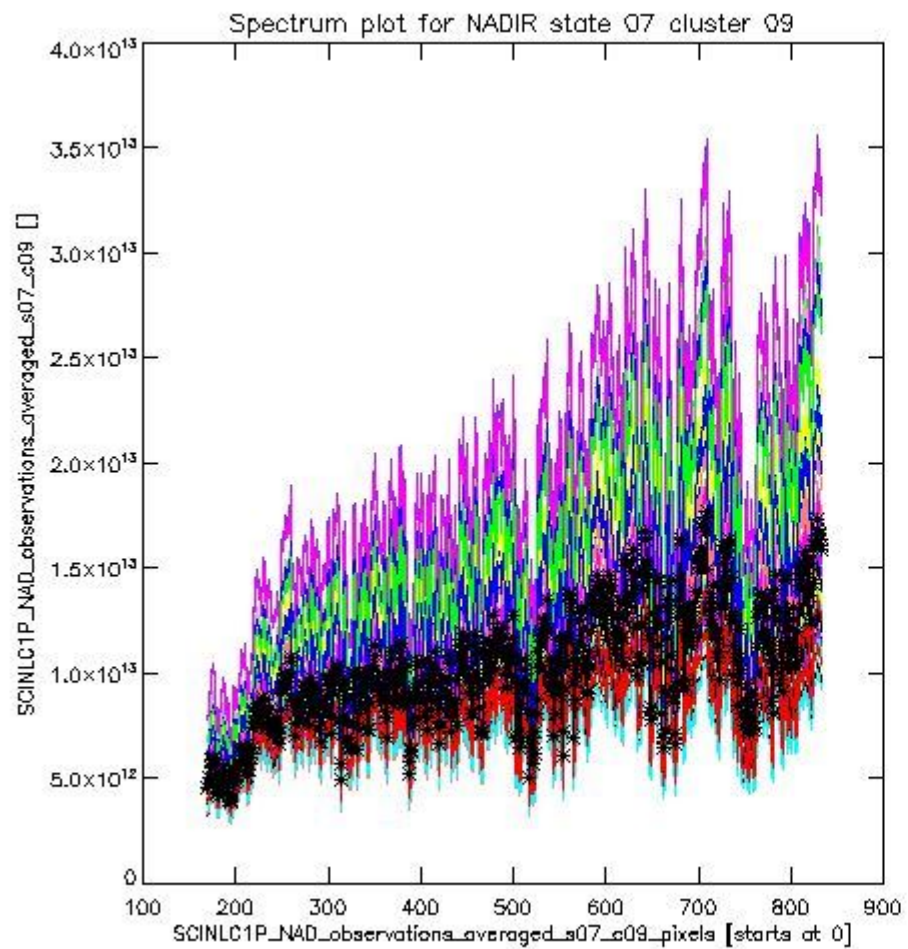
sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_0.PNG



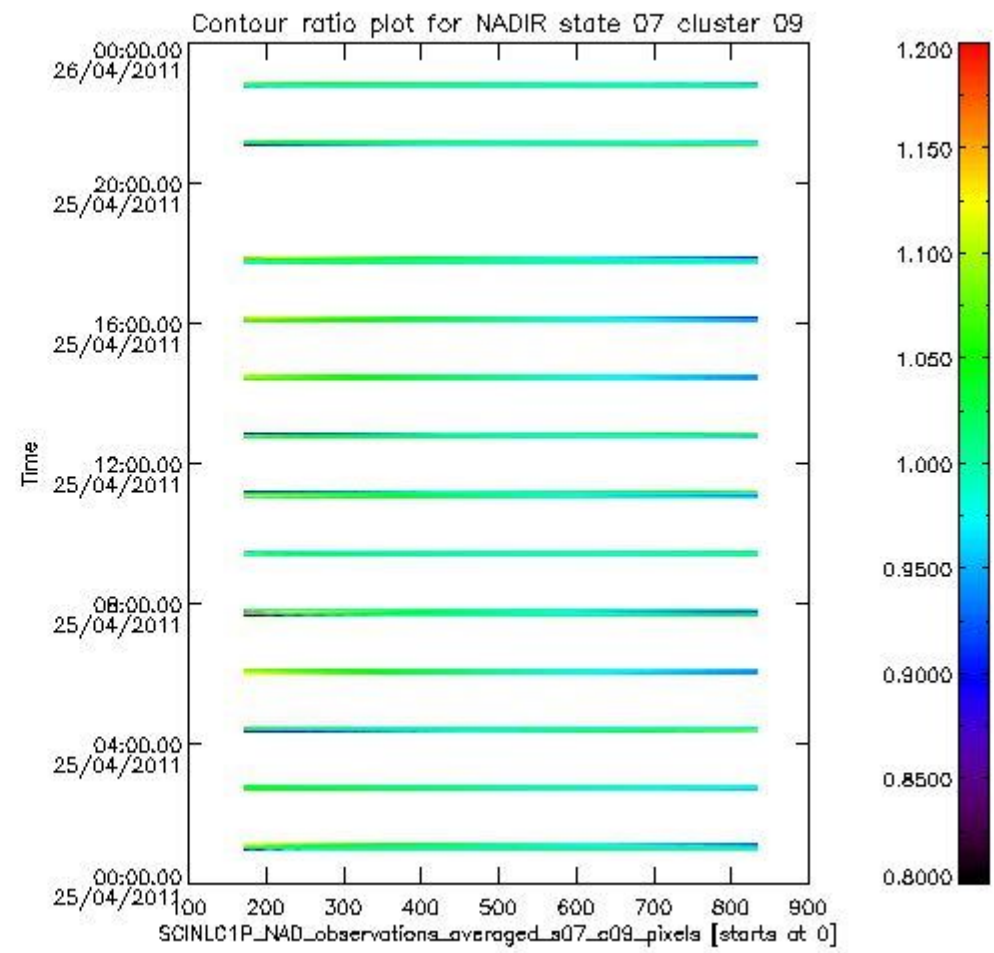
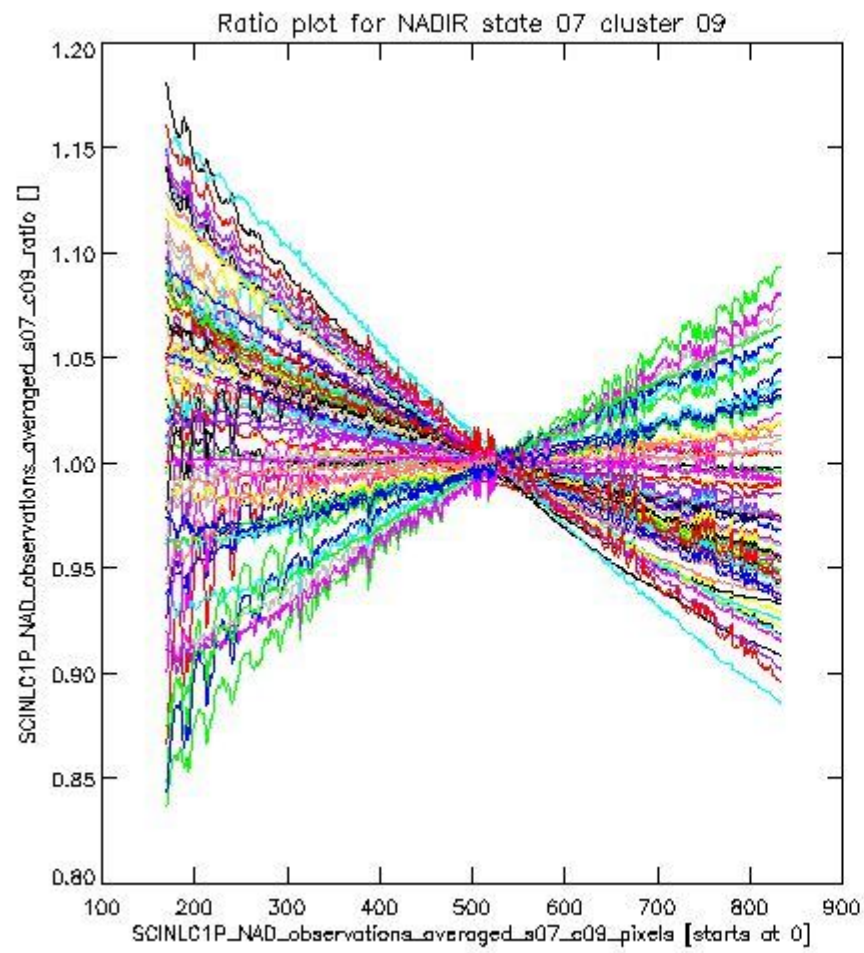
sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_1.PNG

**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	25APR2011 00:58:01.385
Start time of last sample	25APR2011 22:50:18.380
Reference period start time	01APR2011 00:40:54.843
Reference period stop time	01APR2011 22:32:56.552
Channel number	2
First pixel number (starts at 0)	170
Last pixel number (starts at 0)	833



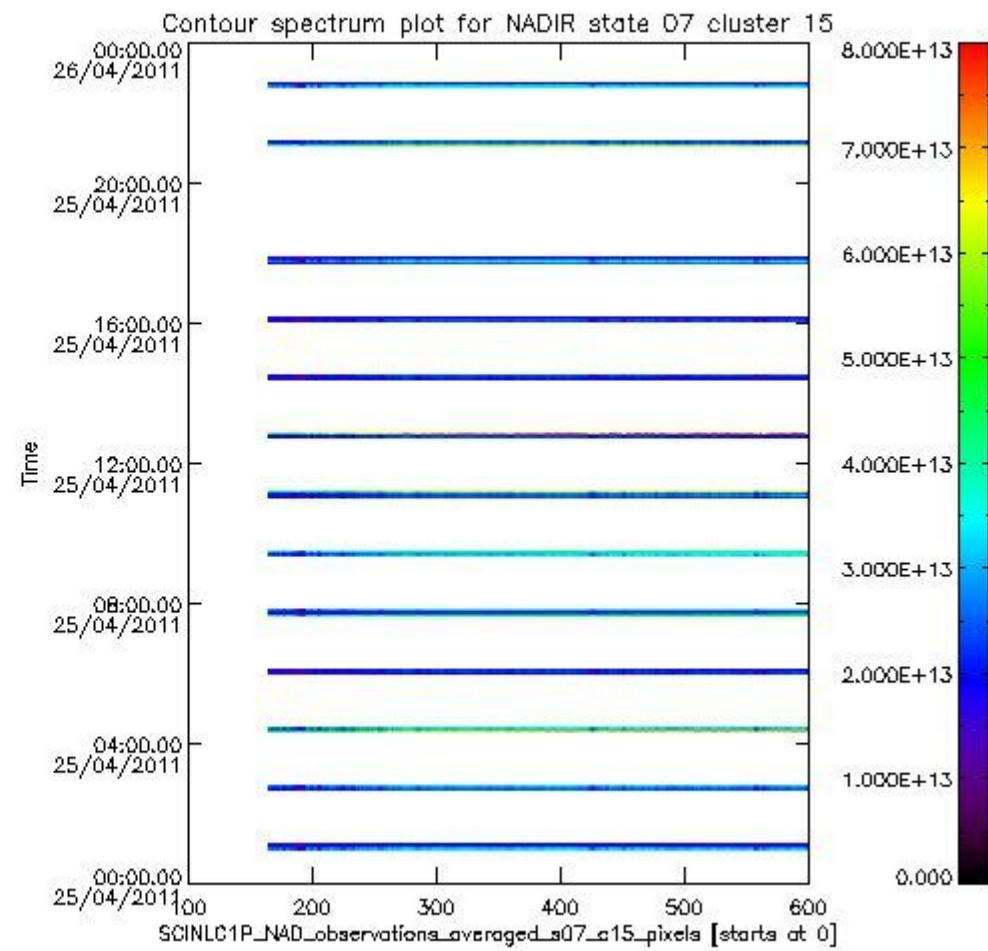
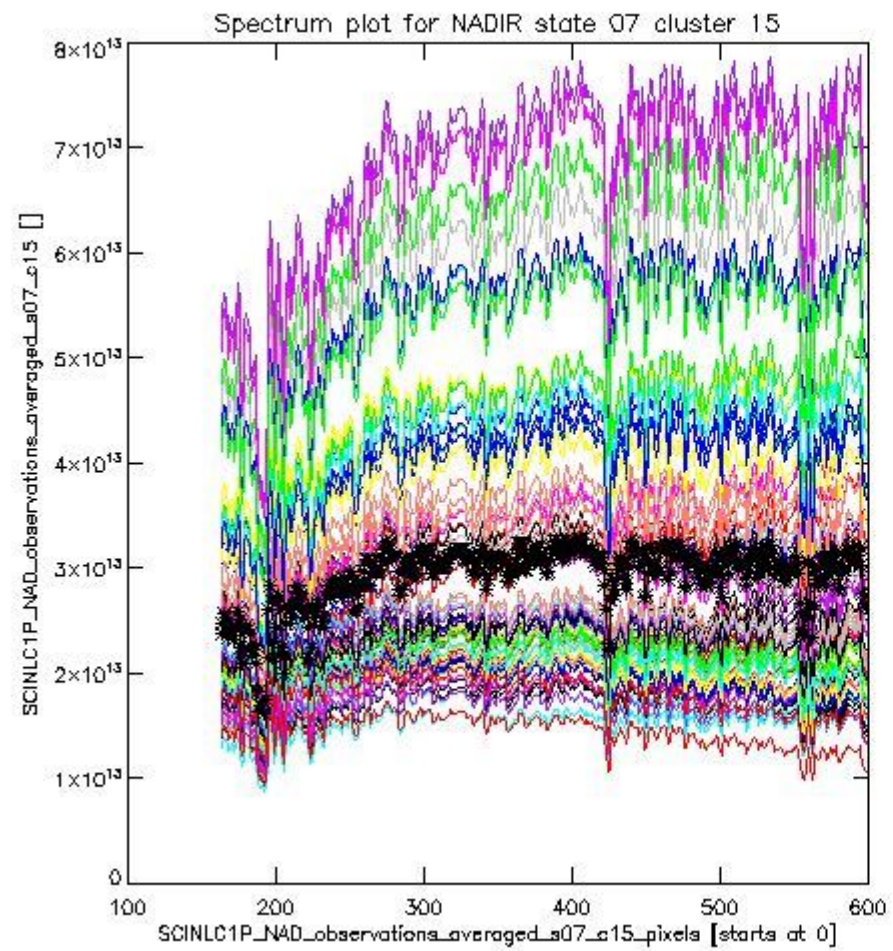
sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_2.PNG



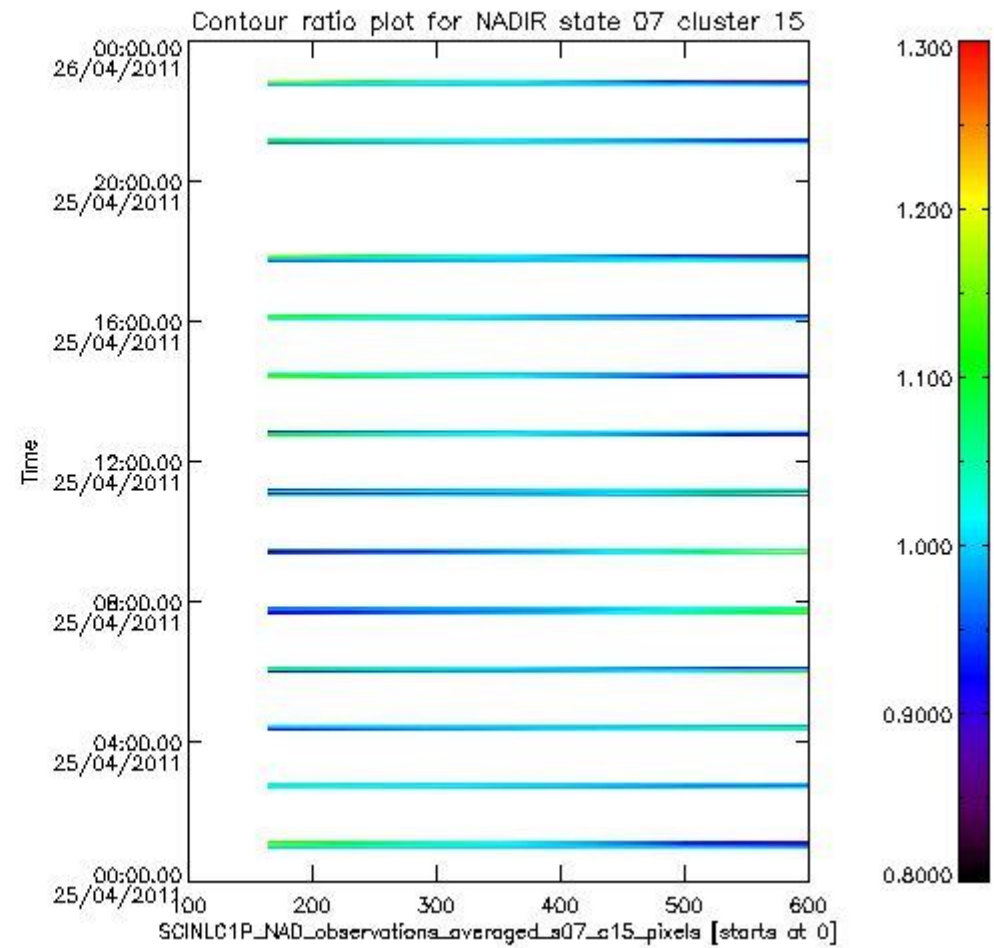
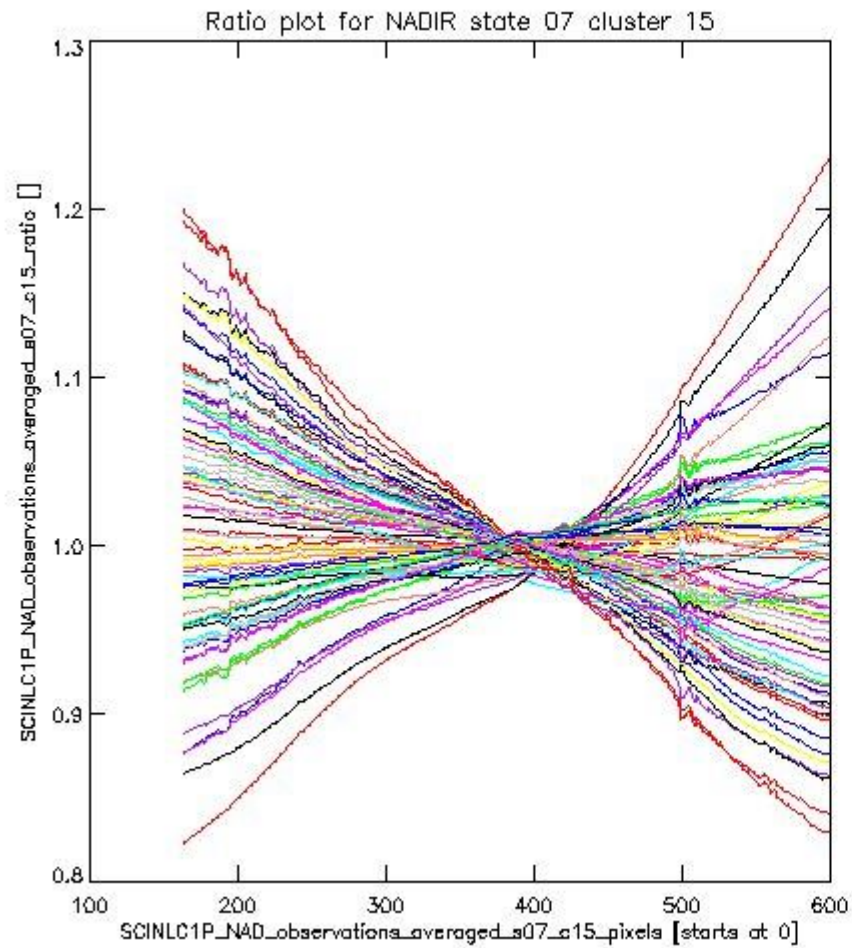
sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_3.PNG

**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	25APR2011 00:58:01.385
Start time of last sample	25APR2011 22:50:18.380
Reference period start time	01APR2011 00:40:54.843
Reference period stop time	01APR2011 22:32:56.552
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\_20110425\_4.PNG

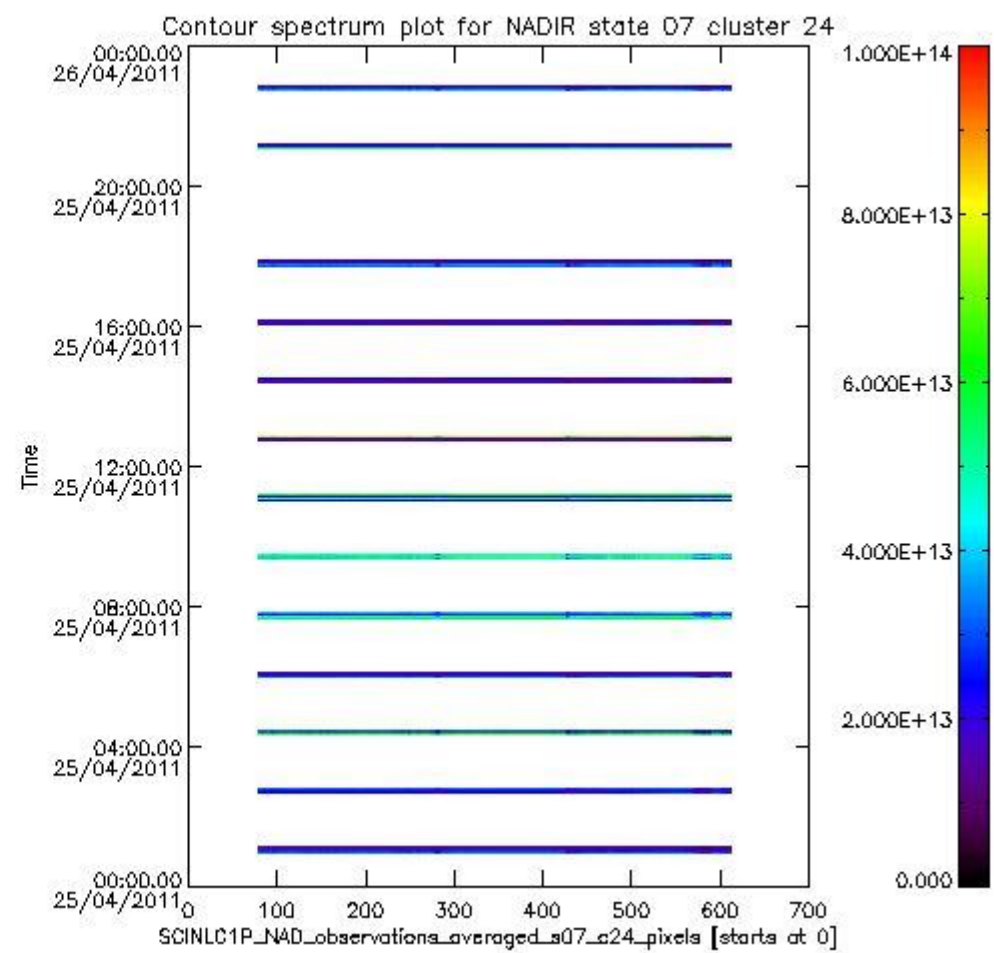
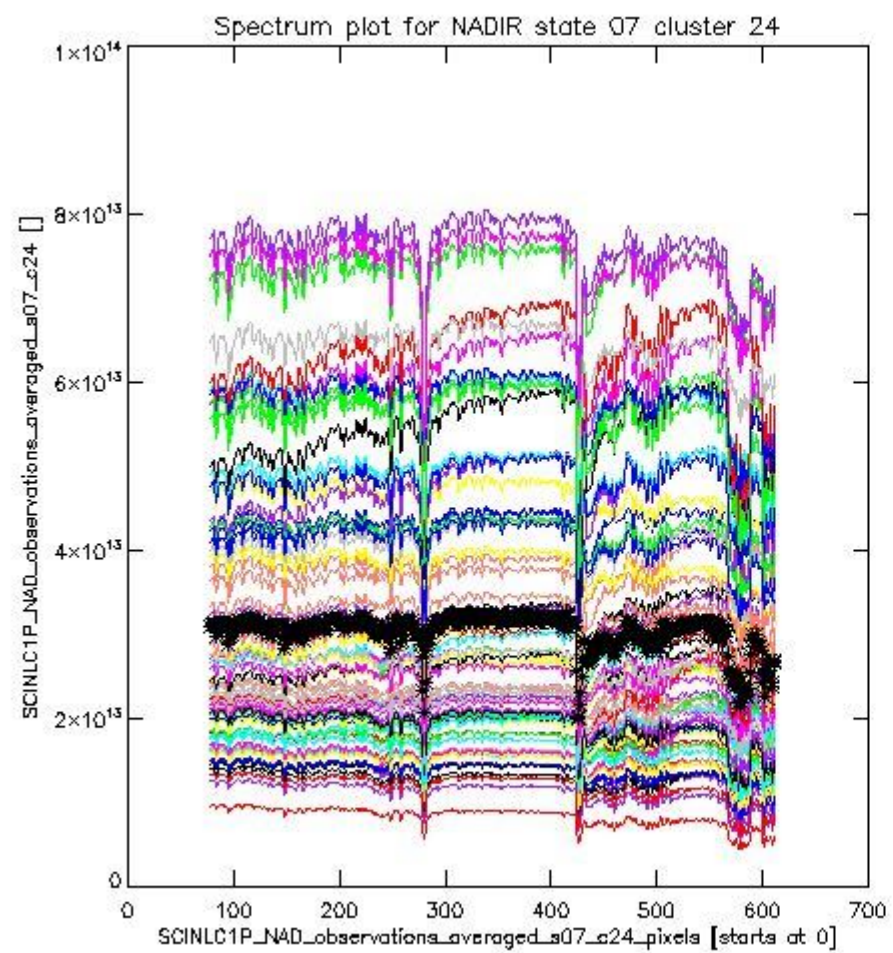


sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_5.PNG

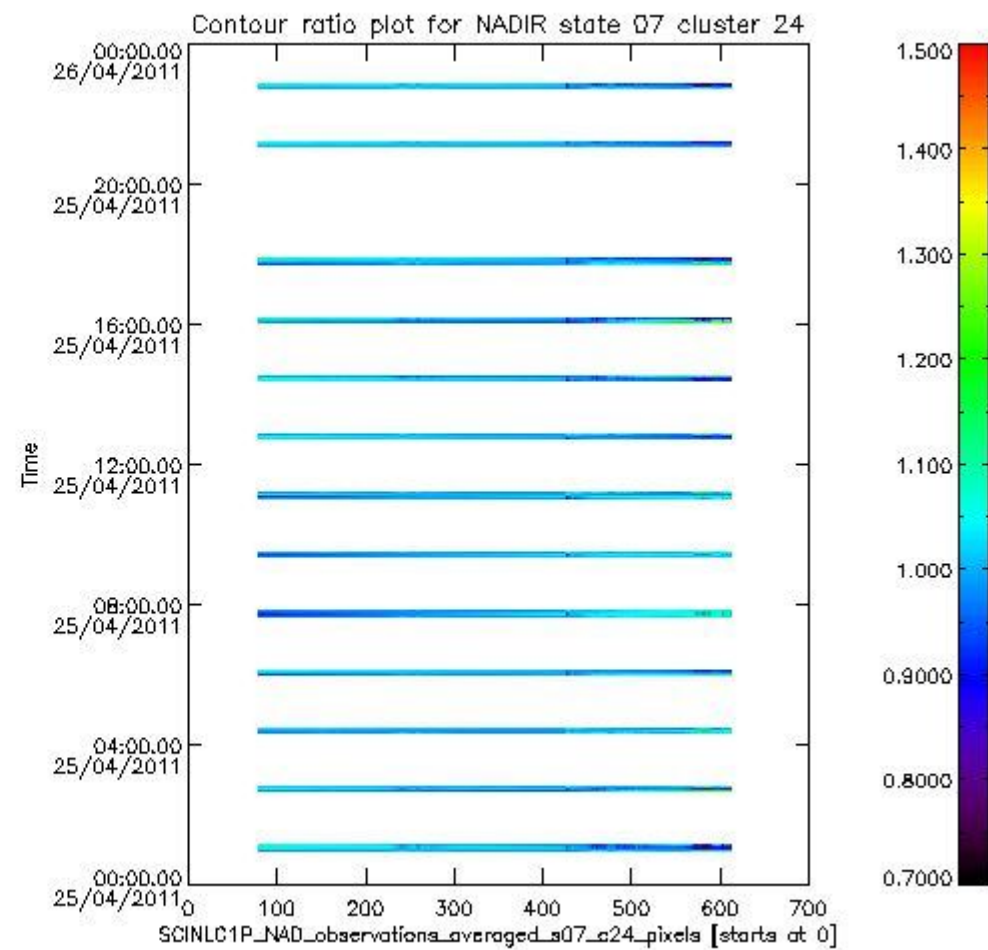
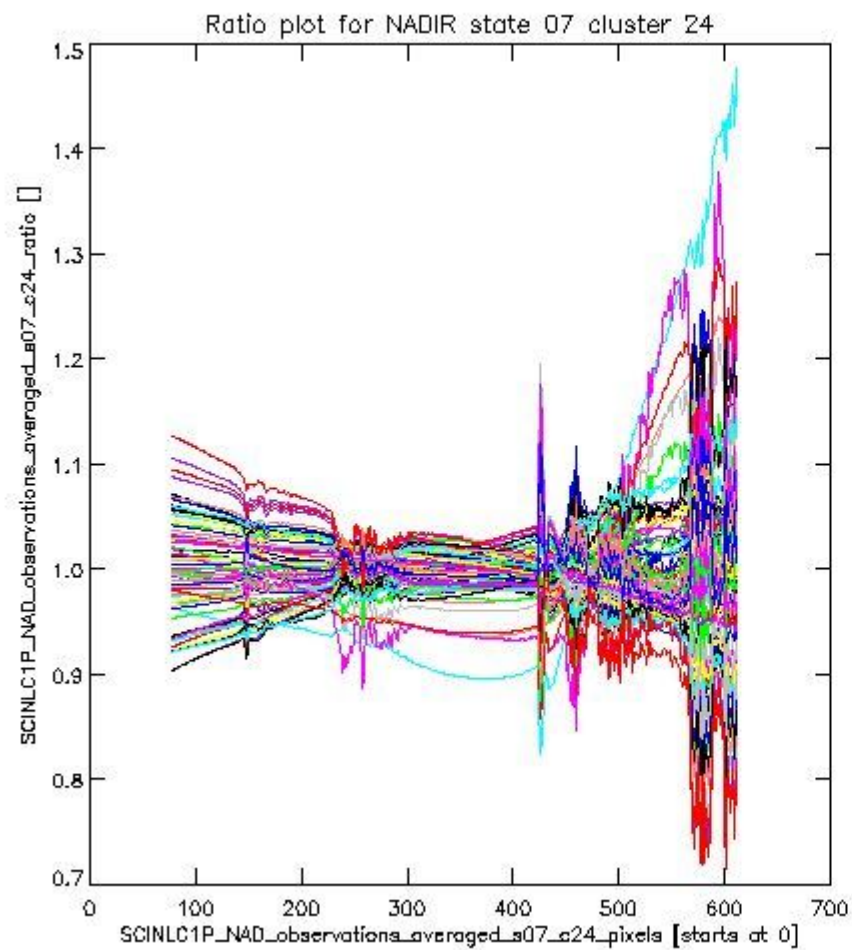
**1.2.4 NADIR state 07 cluster 24** The data for the analysis of NADIR state 07 cluster 24 have the following characteristics:

Item	Value
Start time of first sample	25APR2011 00:58:01.385
Start time of last sample	25APR2011 22:50:18.380
Reference period start time	01APR2011 00:40:54.843
Reference period stop time	01APR2011 22:32:56.552
Channel number	4
First pixel number (starts at 0)	78
Last pixel number (starts at 0)	612





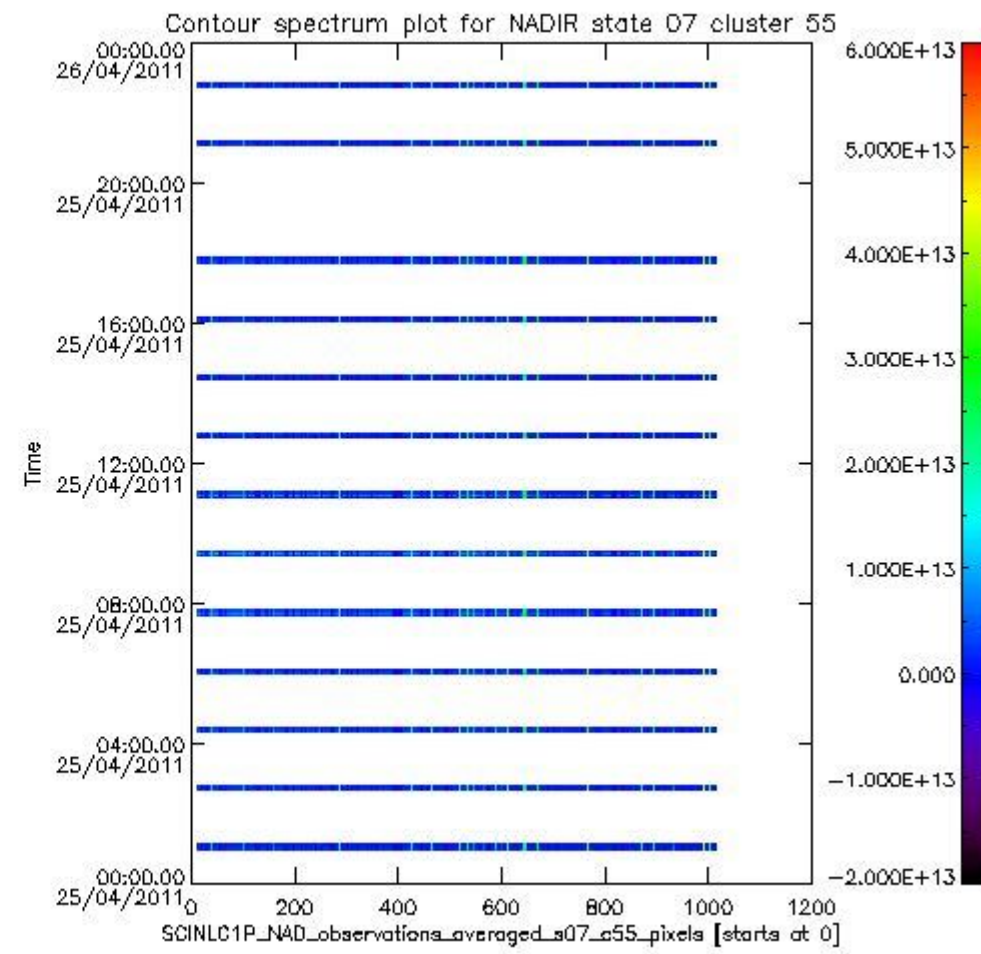
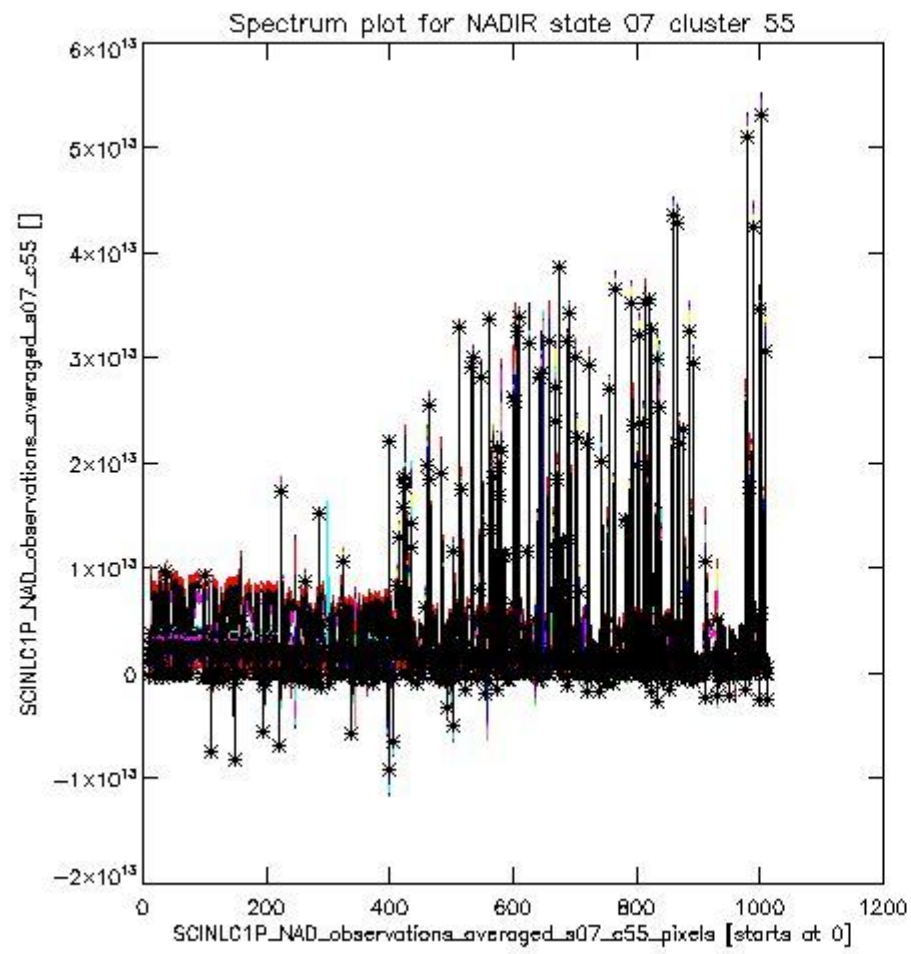
sciamachy\_I1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_6.PNG



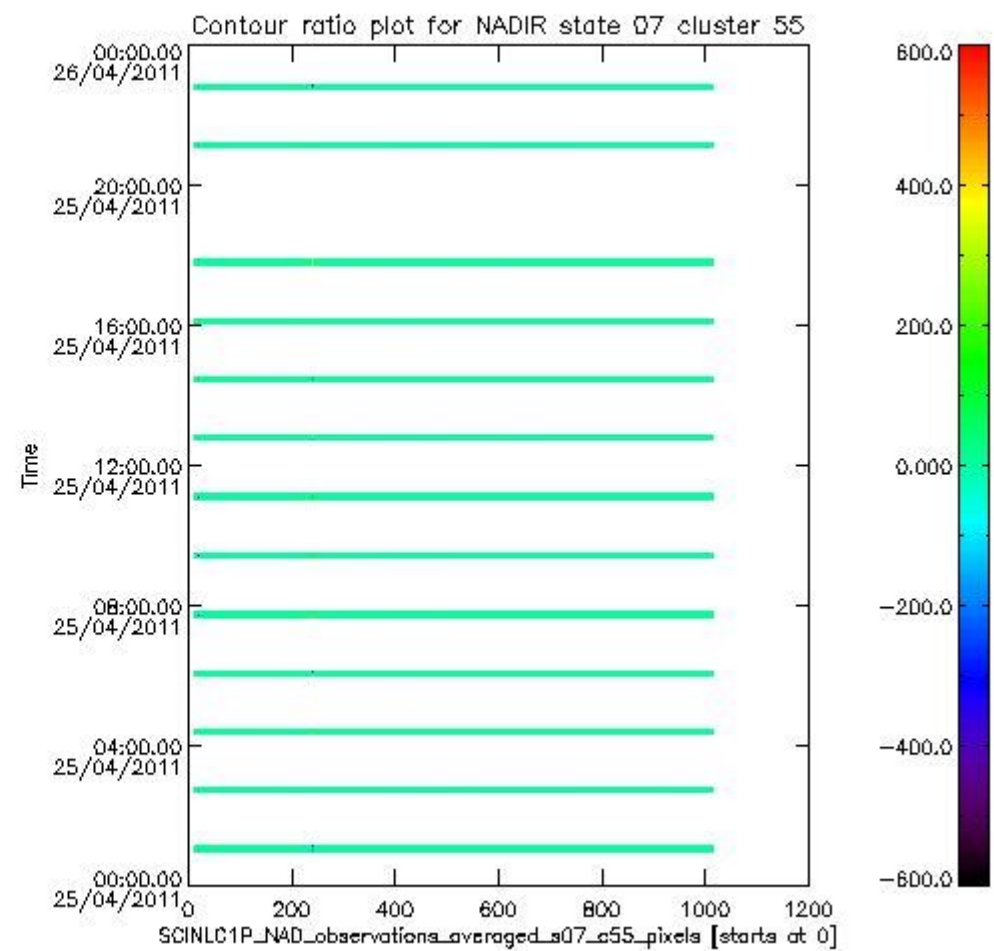
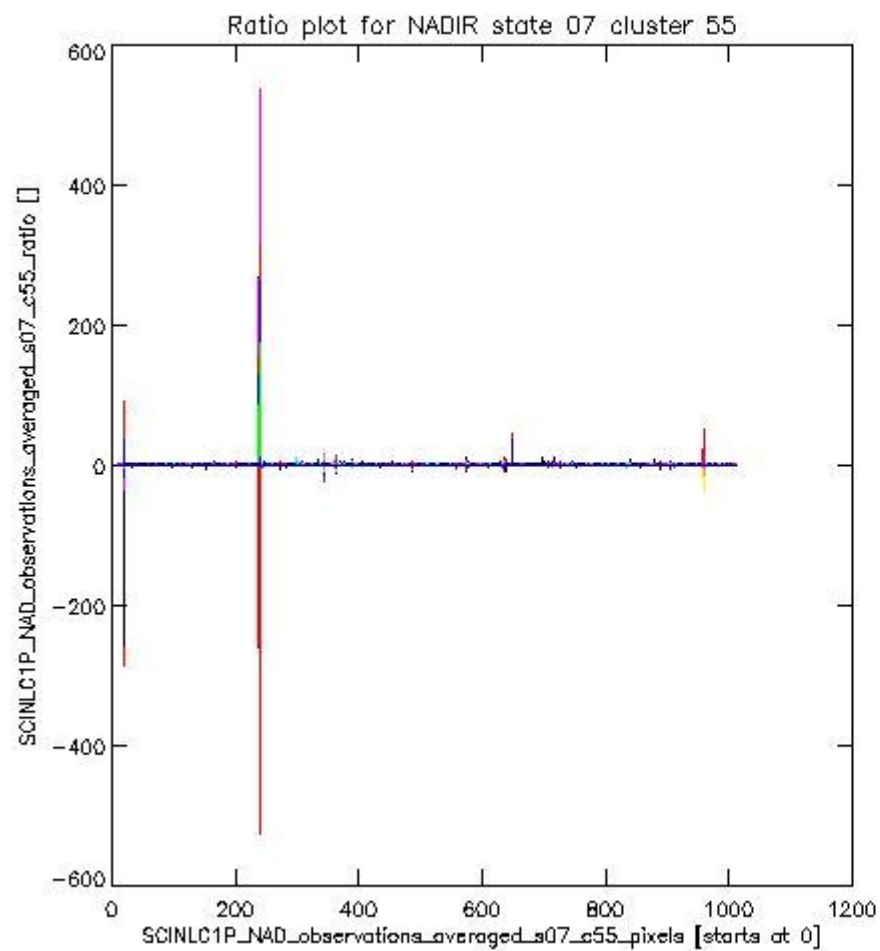
sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_7.PNG

**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	25APR2011 00:58:01.385
Start time of last sample	25APR2011 22:50:18.380
Reference period start time	01APR2011 00:40:54.843
Reference period stop time	01APR2011 22:32:56.552
Channel number	8
First pixel number (starts at 0)	10
Last pixel number (starts at 0)	1013



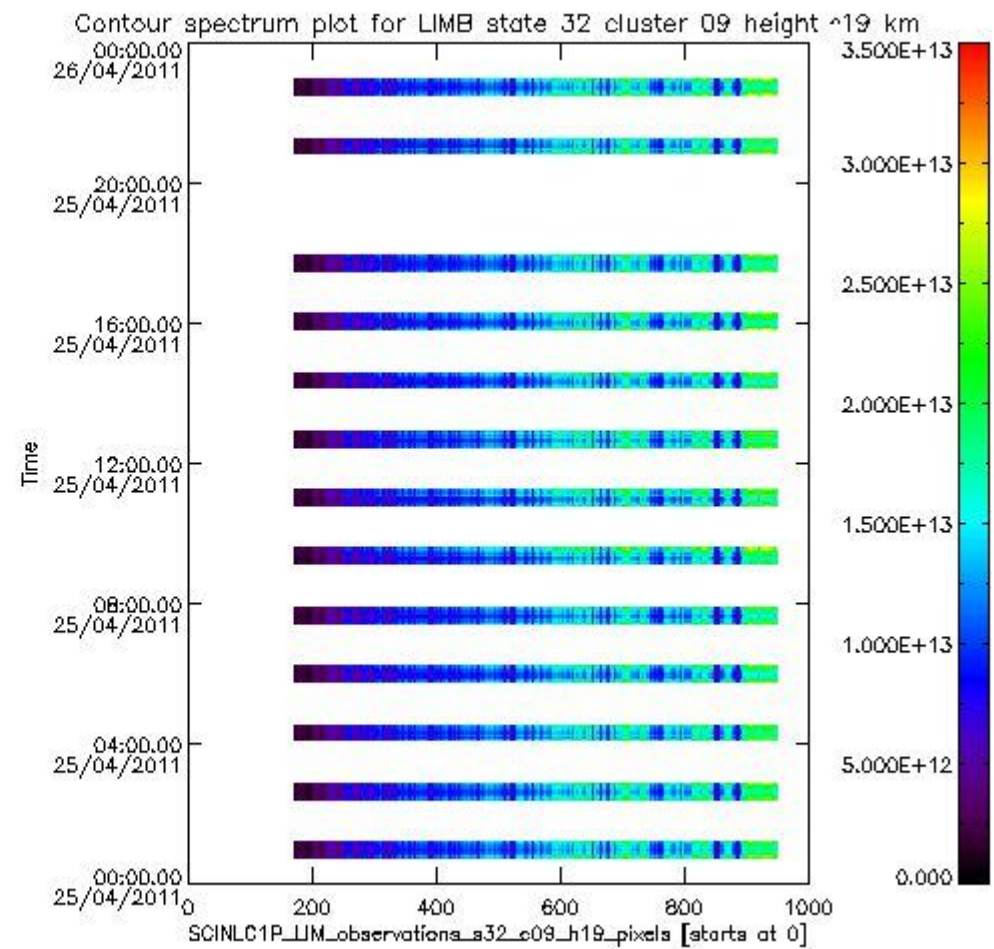
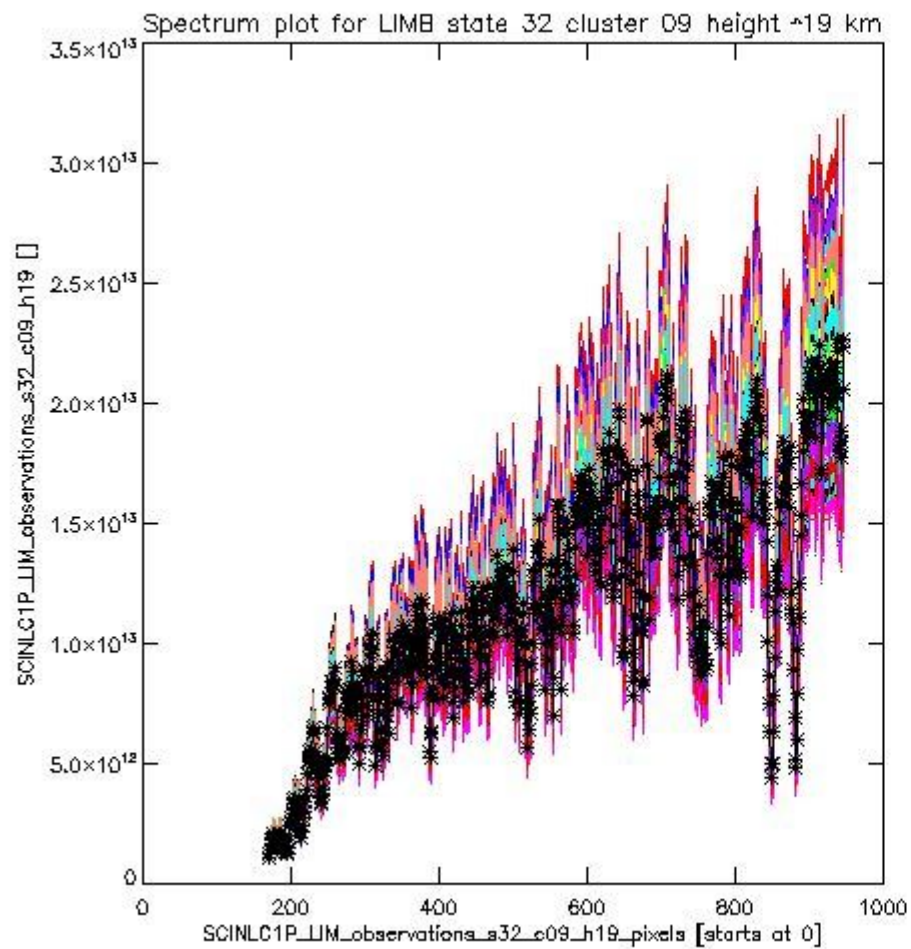
sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_8.PNG



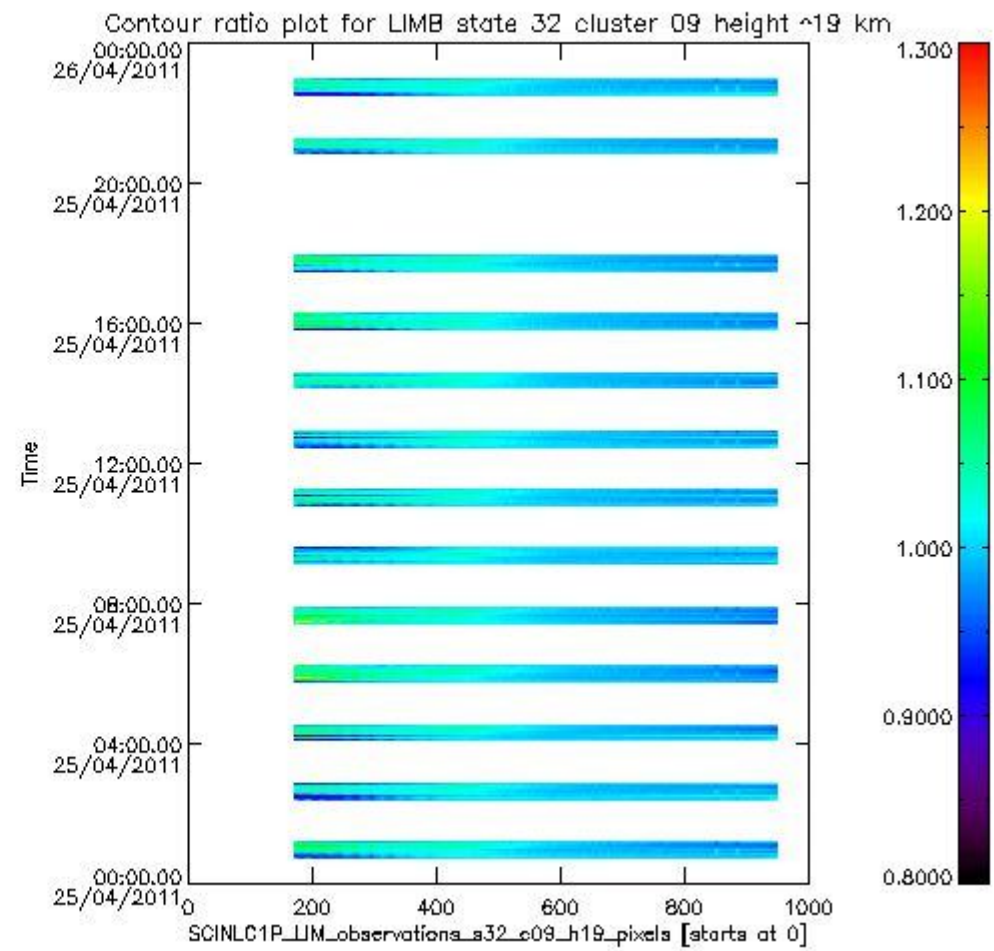
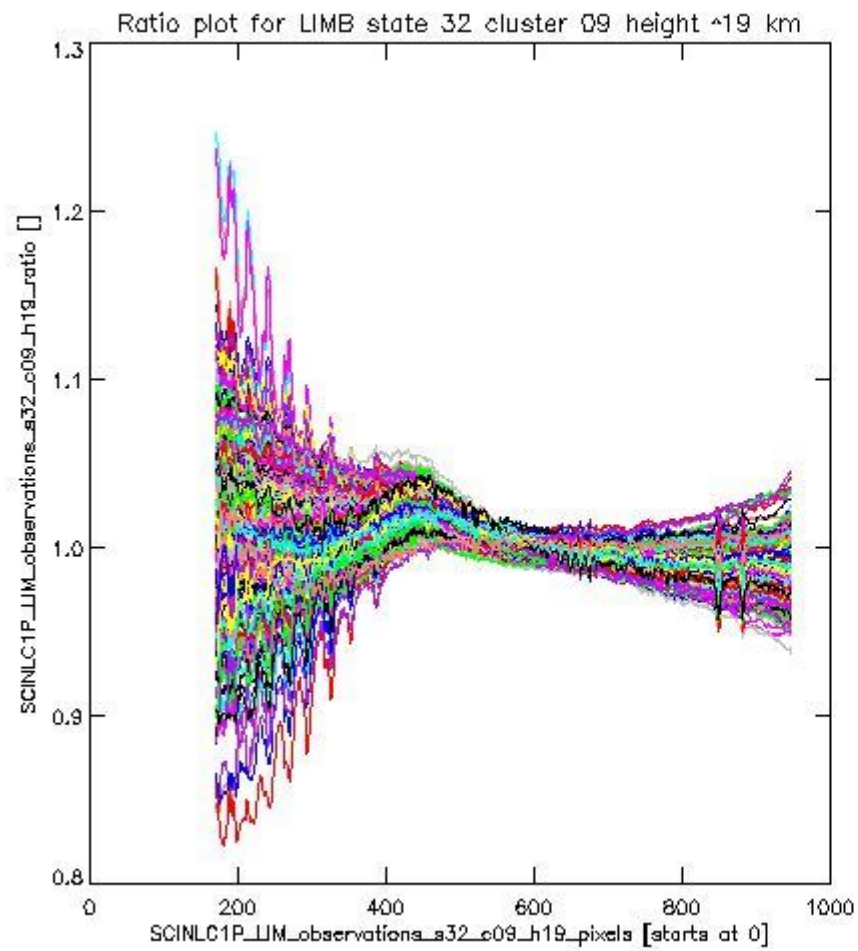
sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_9.PNG

**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	25APR2011 00:44:50.752
Start time of last sample	25APR2011 22:55:32.427
Reference period start time	01APR2011 00:25:41.468
Reference period stop time	01APR2011 22:36:07.853
Channel number	2
First pixel number (starts at 0)	170
Last pixel number (starts at 0)	947



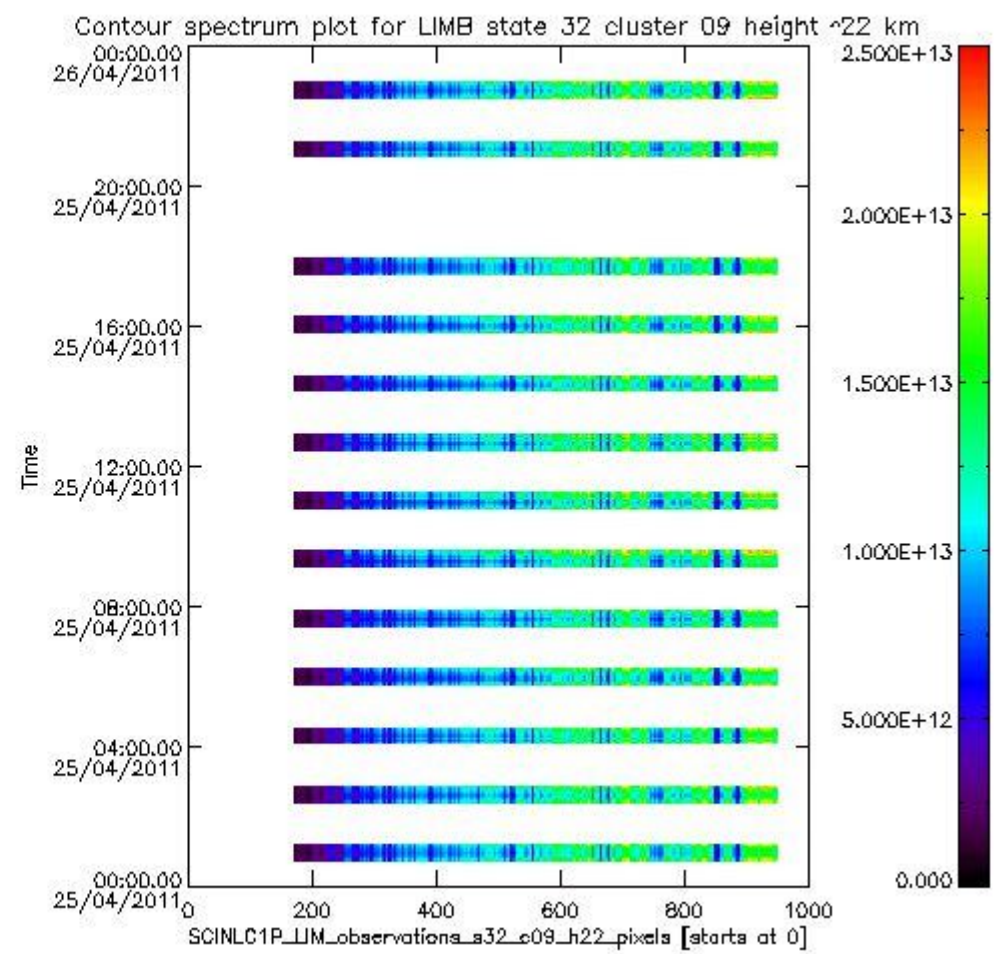
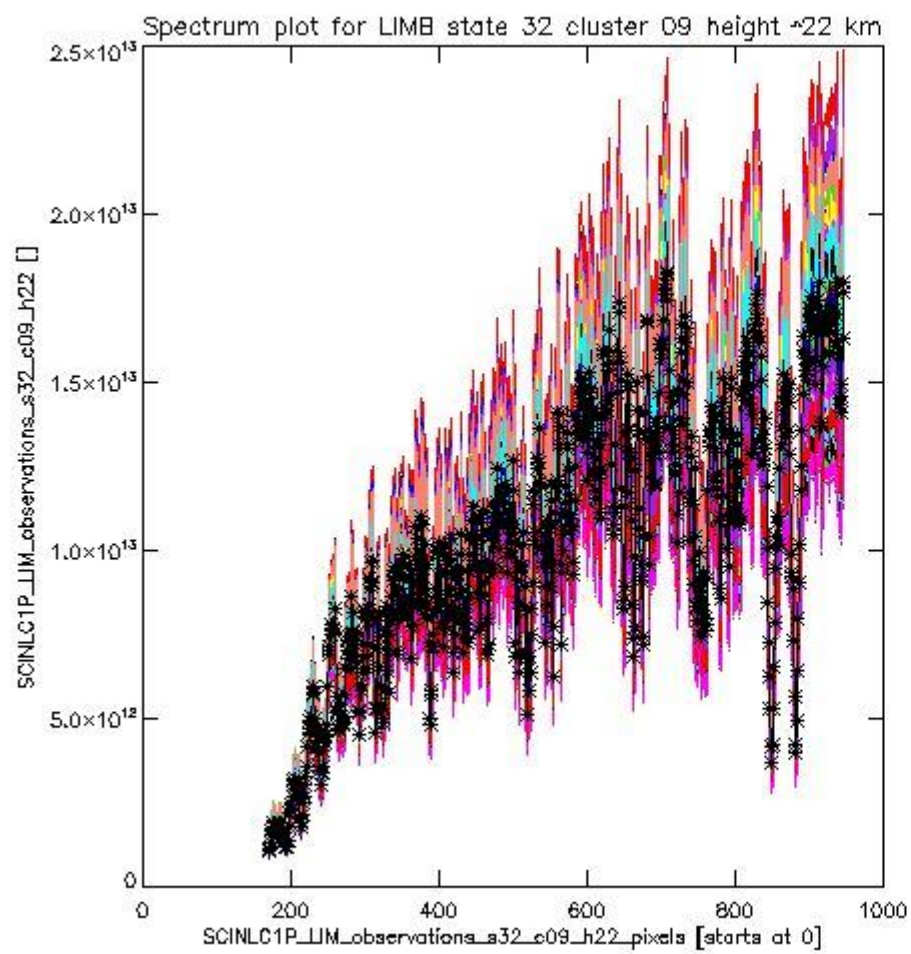
sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_10.PNG



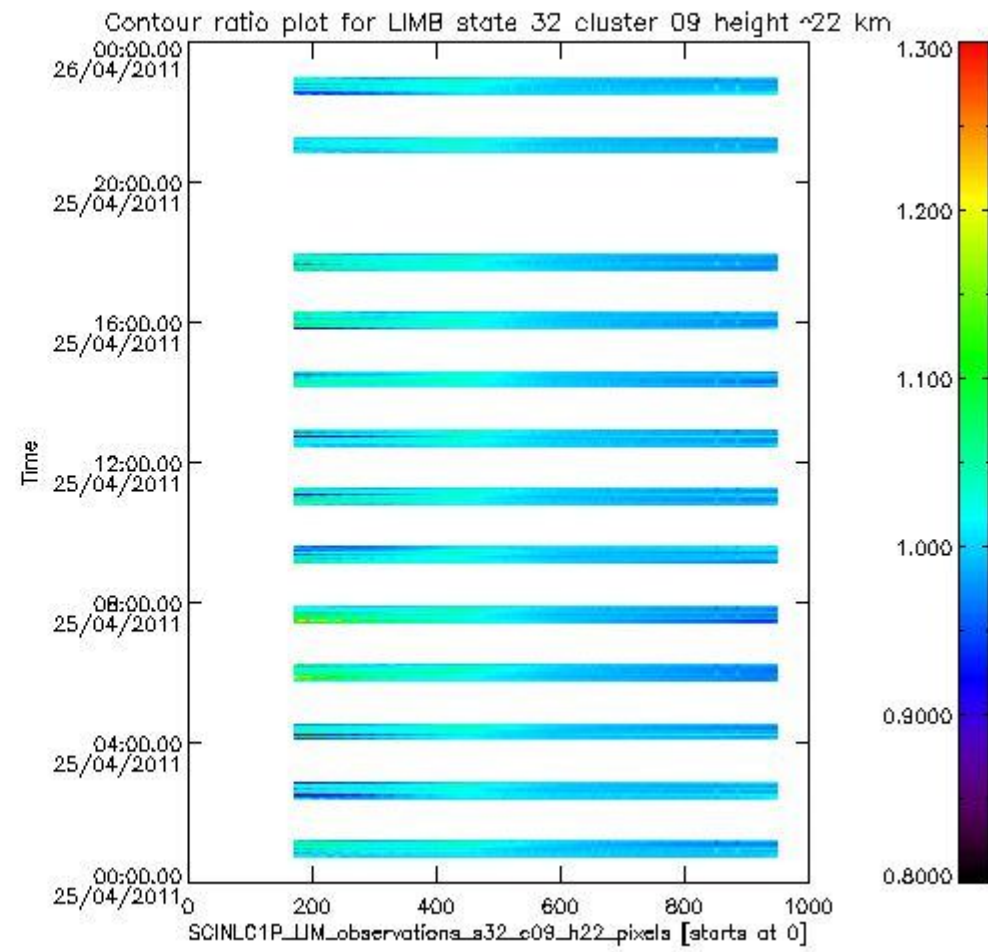
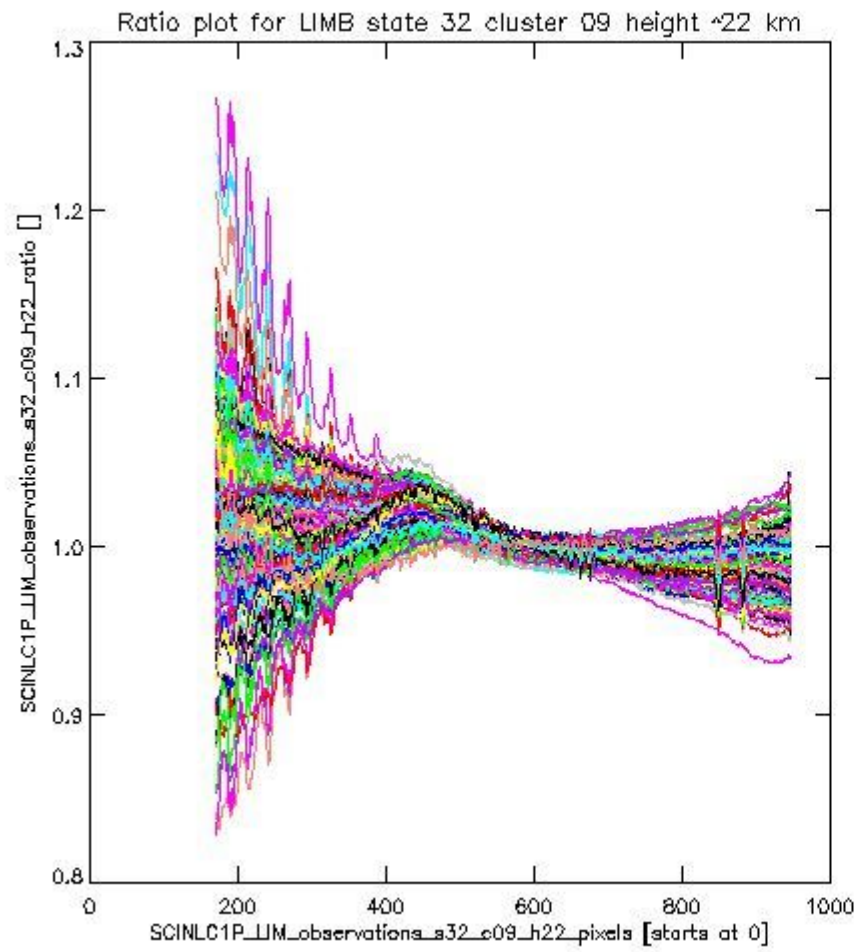
sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_11.PNG

**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	25APR2011 00:44:50.752
Start time of last sample	25APR2011 22:55:32.427
Reference period start time	01APR2011 00:25:41.468
Reference period stop time	01APR2011 22:36:07.853
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\_20110425\_12.PNG

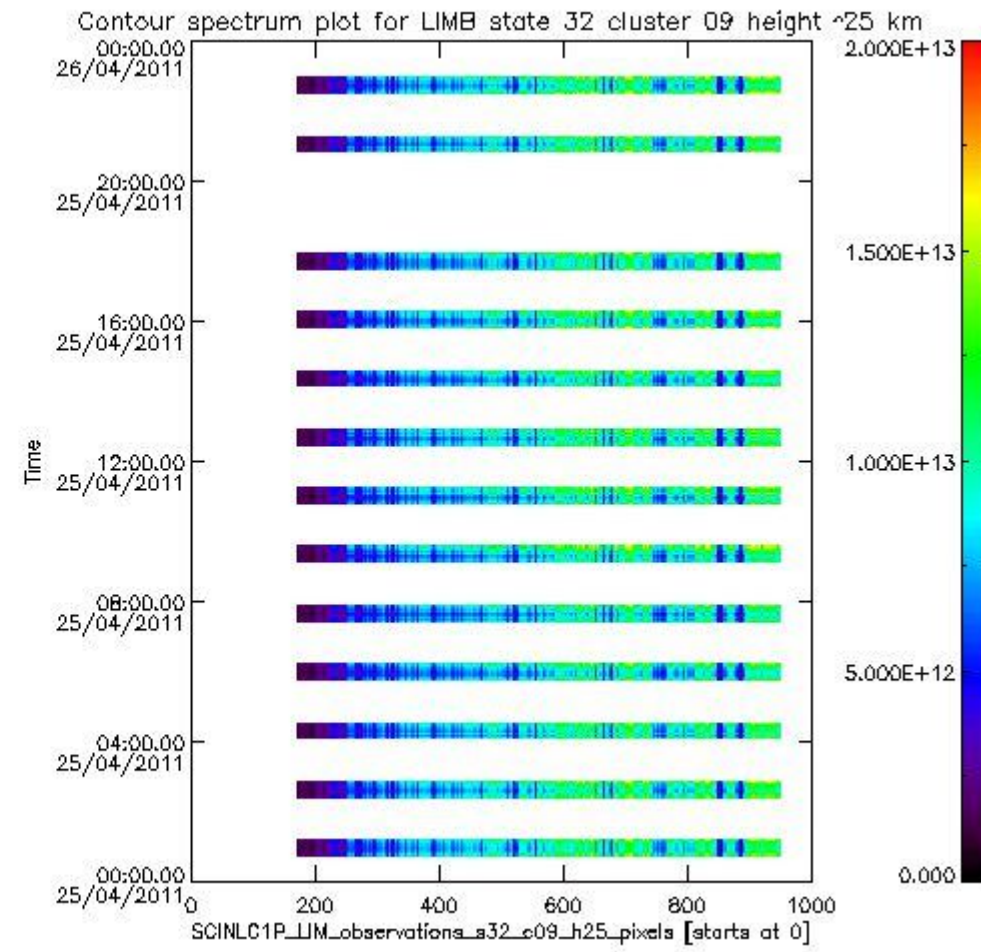
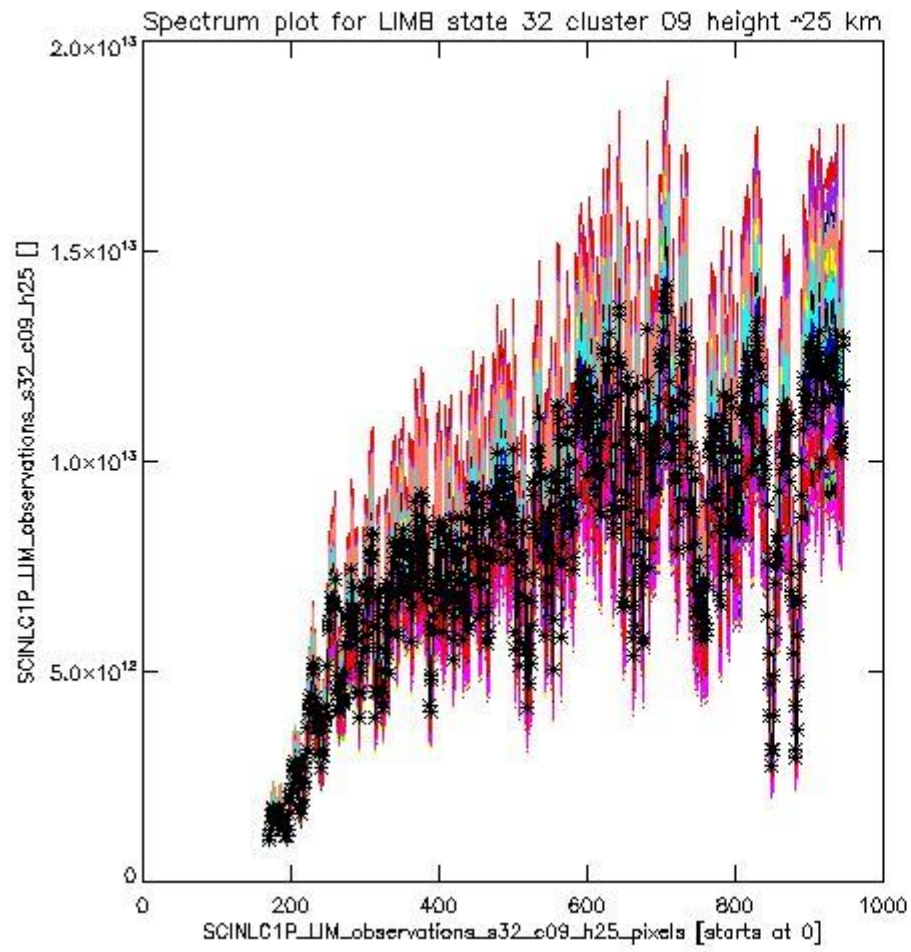


sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_13.PNG

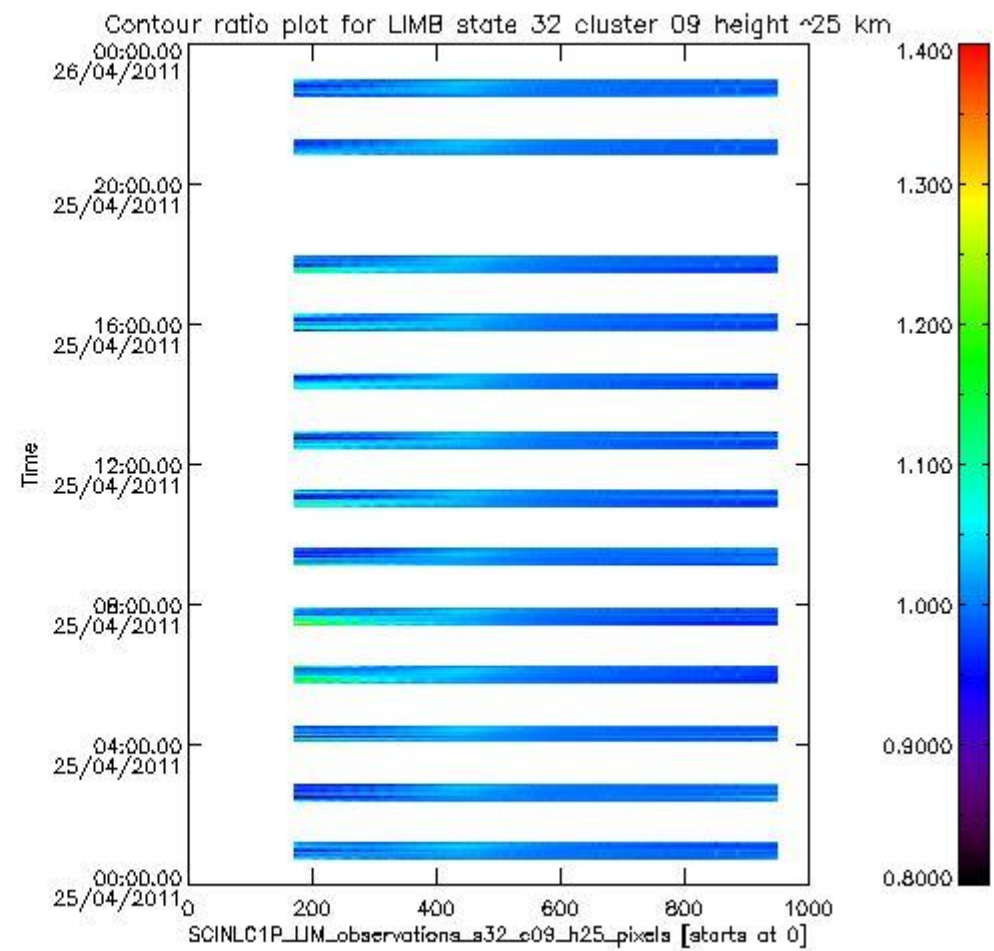
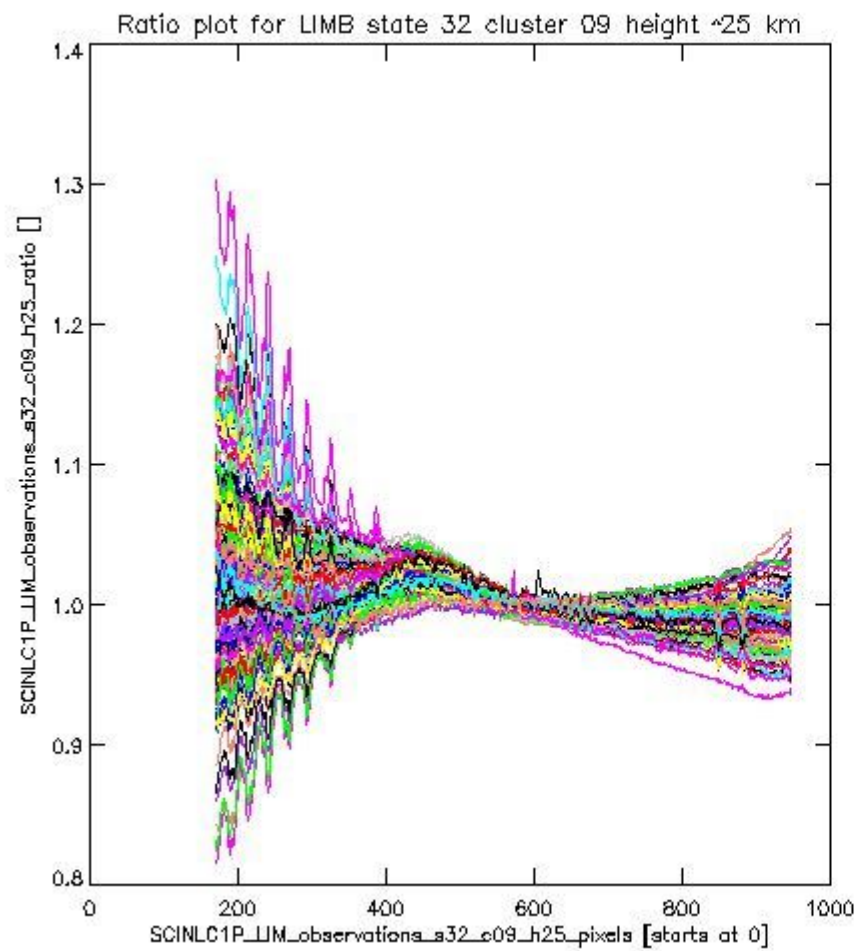
**1.2.8 LIMB state 32 cluster 09 height ~25 km** The data for the analysis of LIMB state 32 cluster 09 height ~25 km have the following characteristics:

Item	Value
Start time of first sample	25APR2011 00:44:50.752
Start time of last sample	25APR2011 22:55:32.427
Reference period start time	01APR2011 00:25:41.468
Reference period stop time	01APR2011 22:36:07.853
Channel number	2
First pixel number (starts at 0)	170
Last pixel number (starts at 0)	947





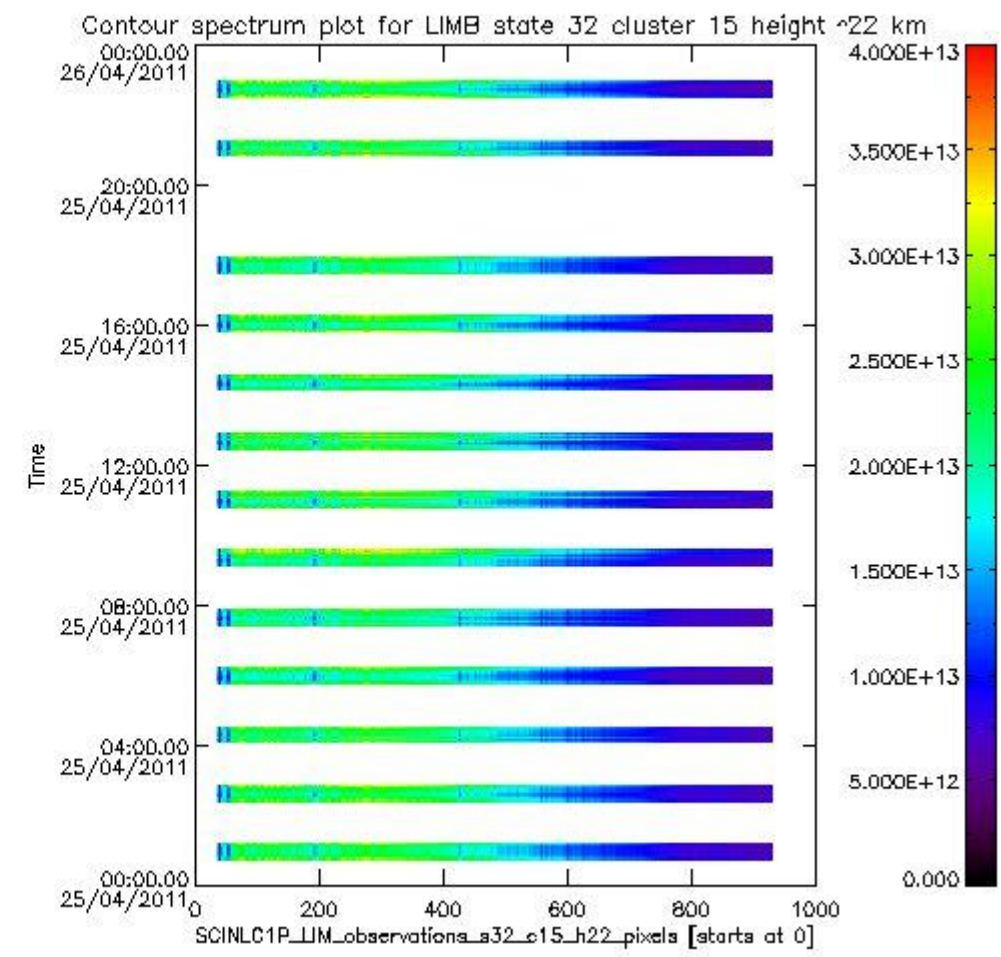
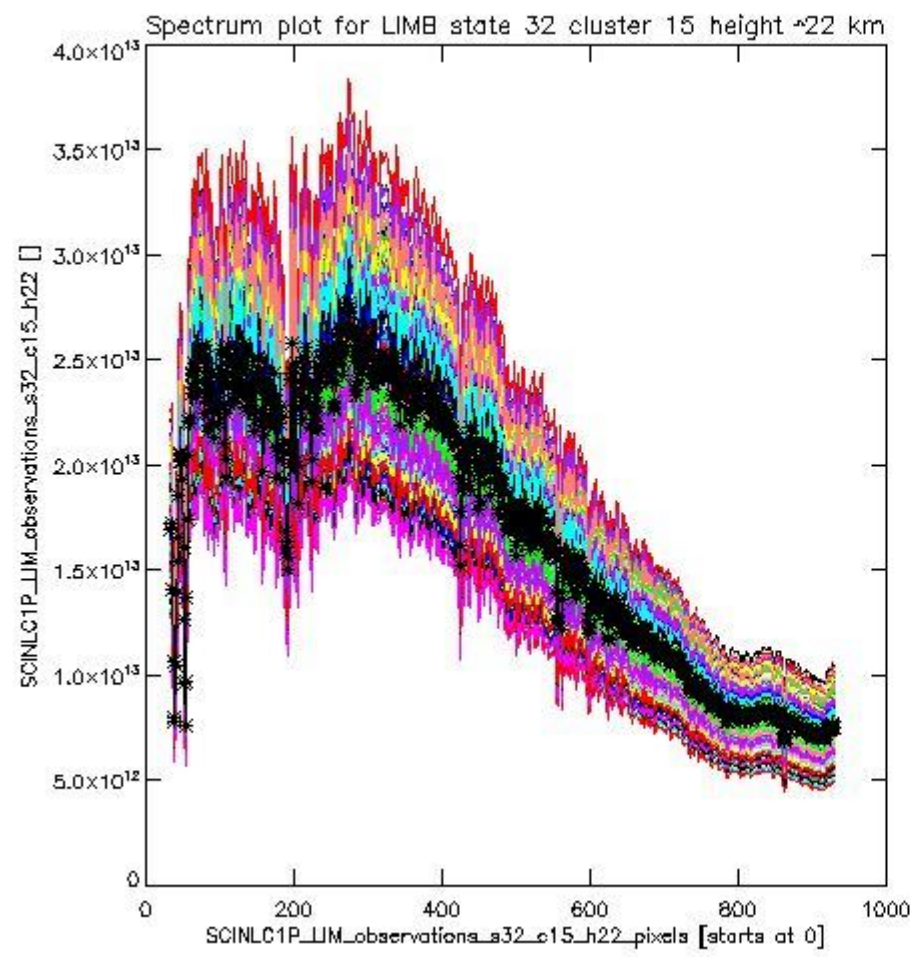
sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_14.PNG



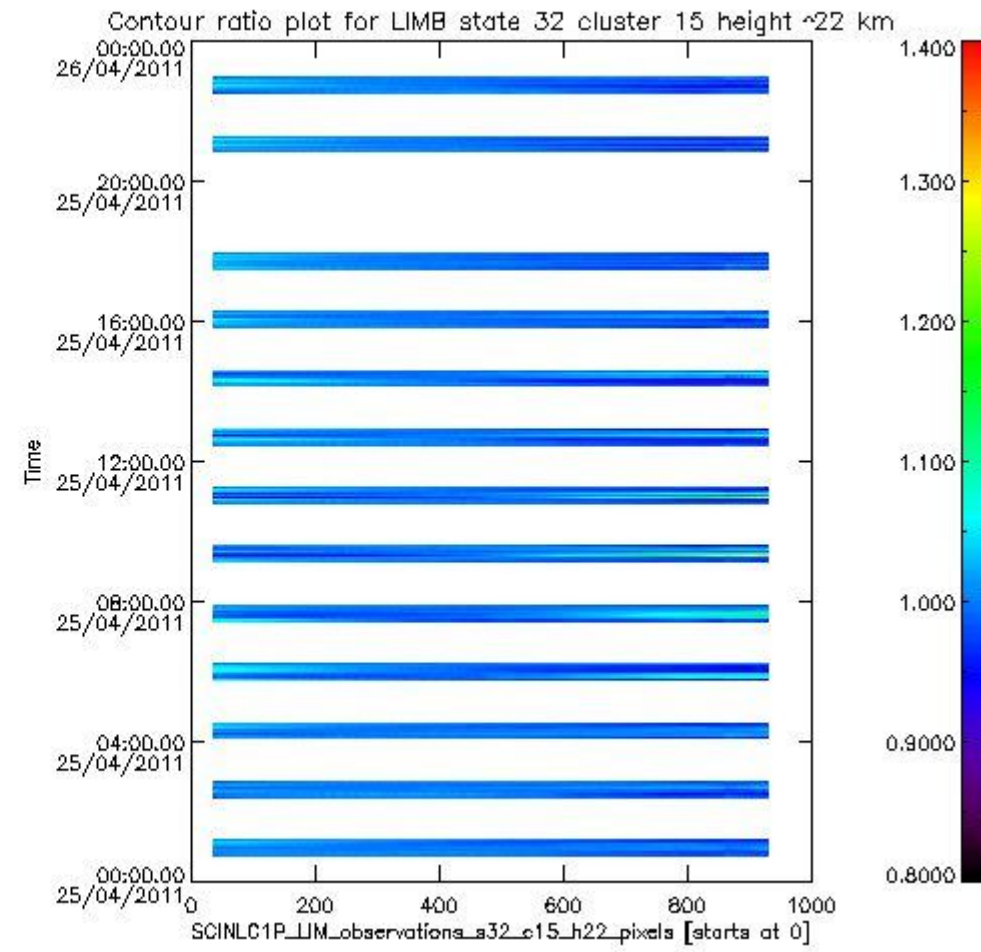
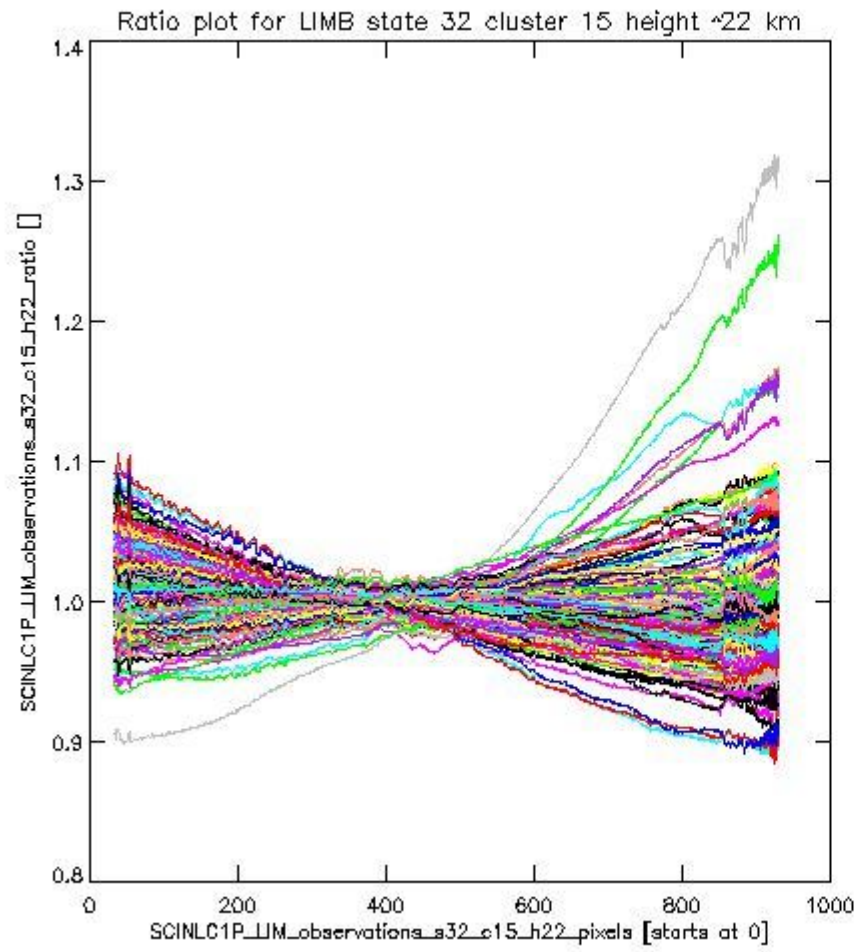
sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_15.PNG

**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	25APR2011 00:44:50.752
Start time of last sample	25APR2011 22:55:32.427
Reference period start time	01APR2011 00:25:41.468
Reference period stop time	01APR2011 22:36:07.853
Channel number	3
First pixel number (starts at 0)	33
Last pixel number (starts at 0)	929



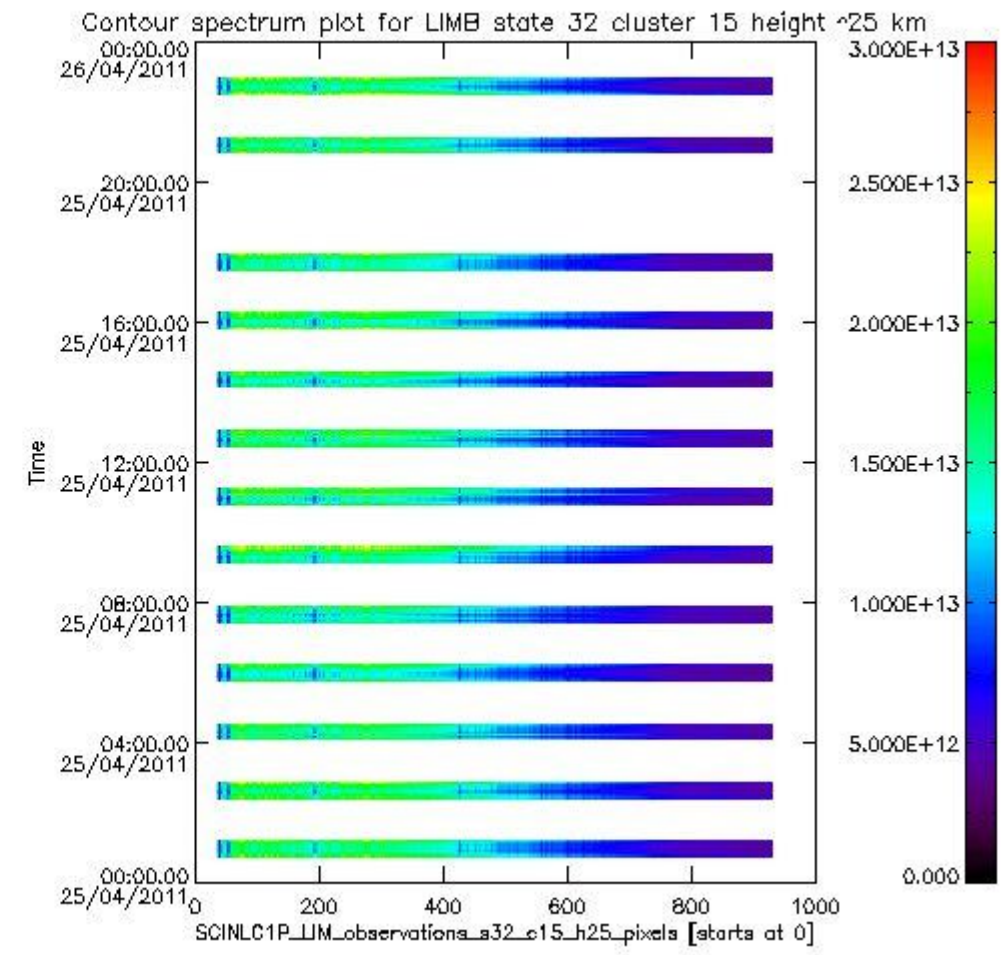
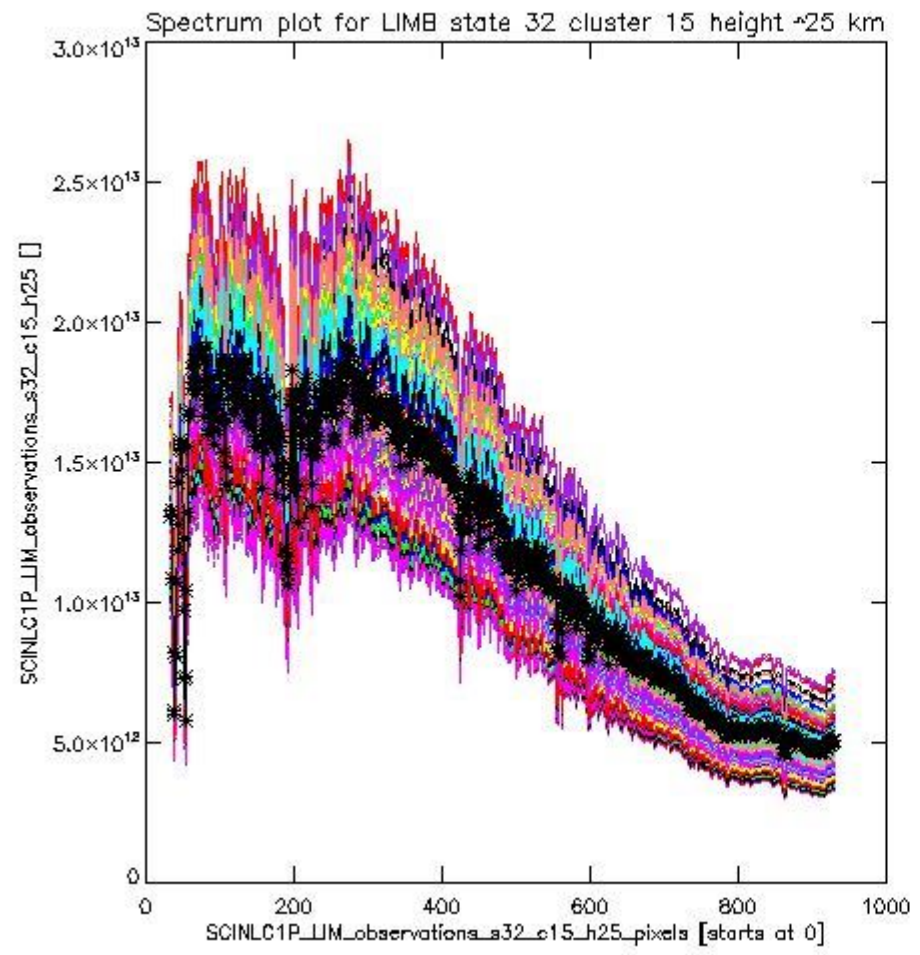
sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_16.PNG



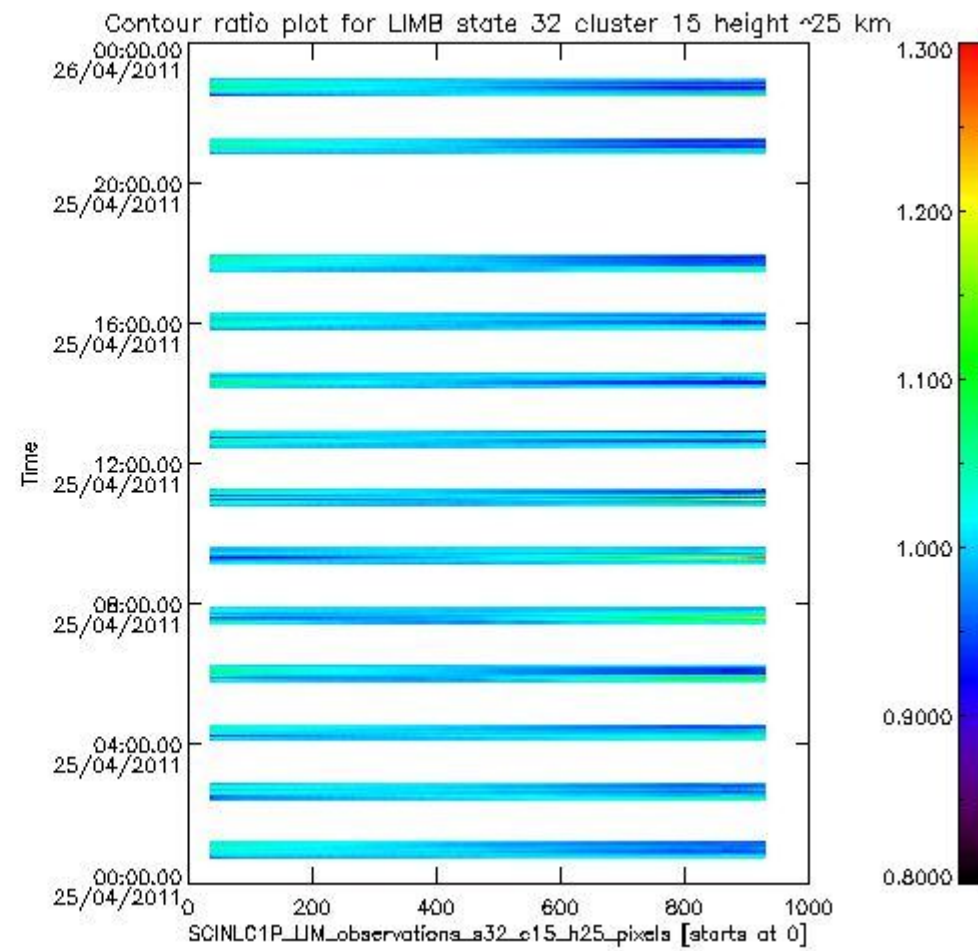
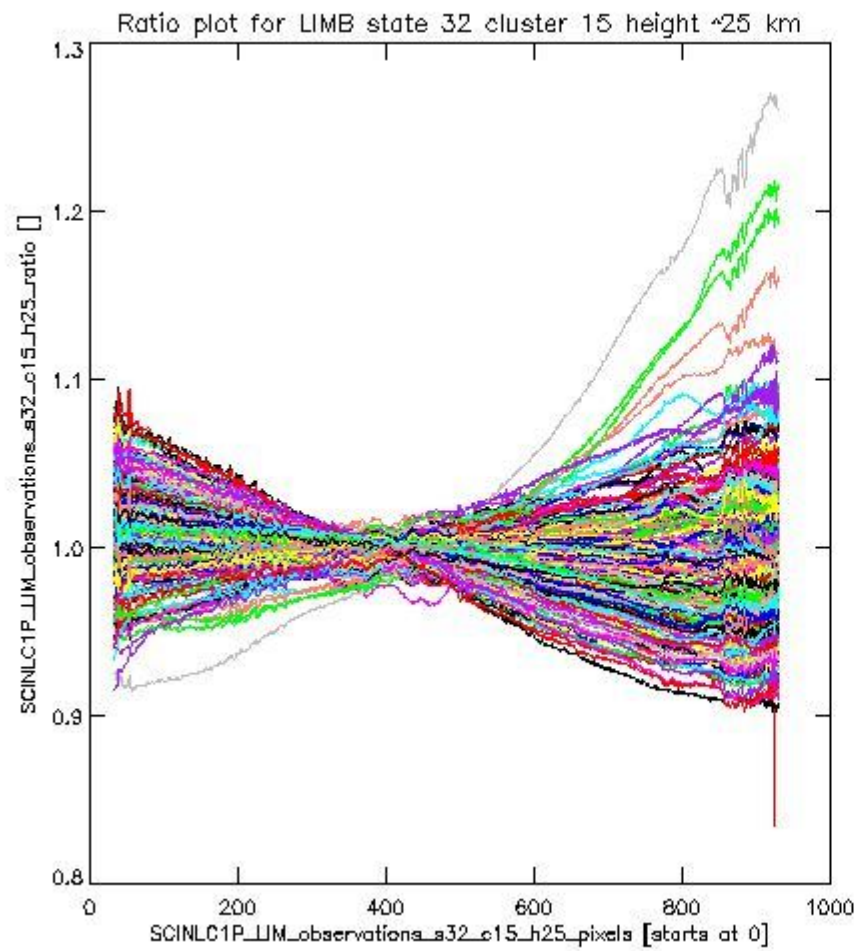
sciamachy\_11b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_17.PNG

**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	25APR2011 00:44:50.752
Start time of last sample	25APR2011 22:55:32.427
Reference period start time	01APR2011 00:25:41.468
Reference period stop time	01APR2011 22:36:07.853
Channel number	3
First pixel number (starts at 0)	33
Last pixel number (starts at 0)	929



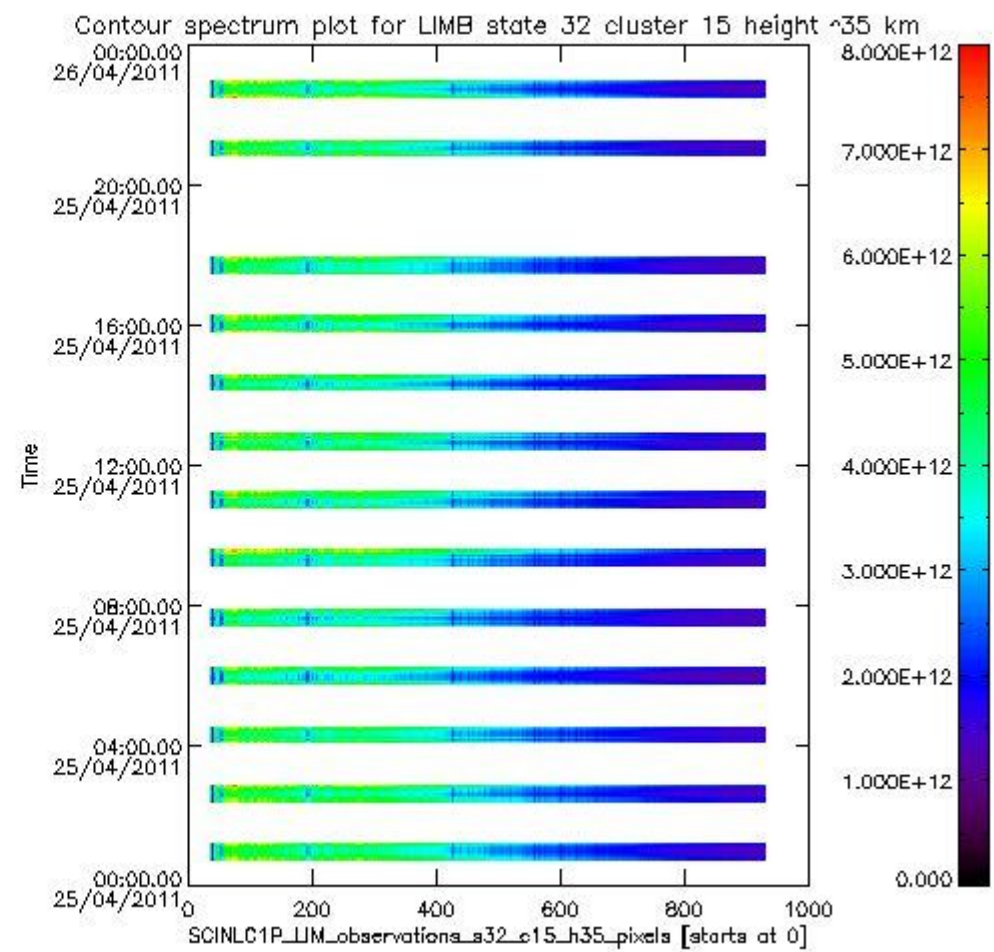
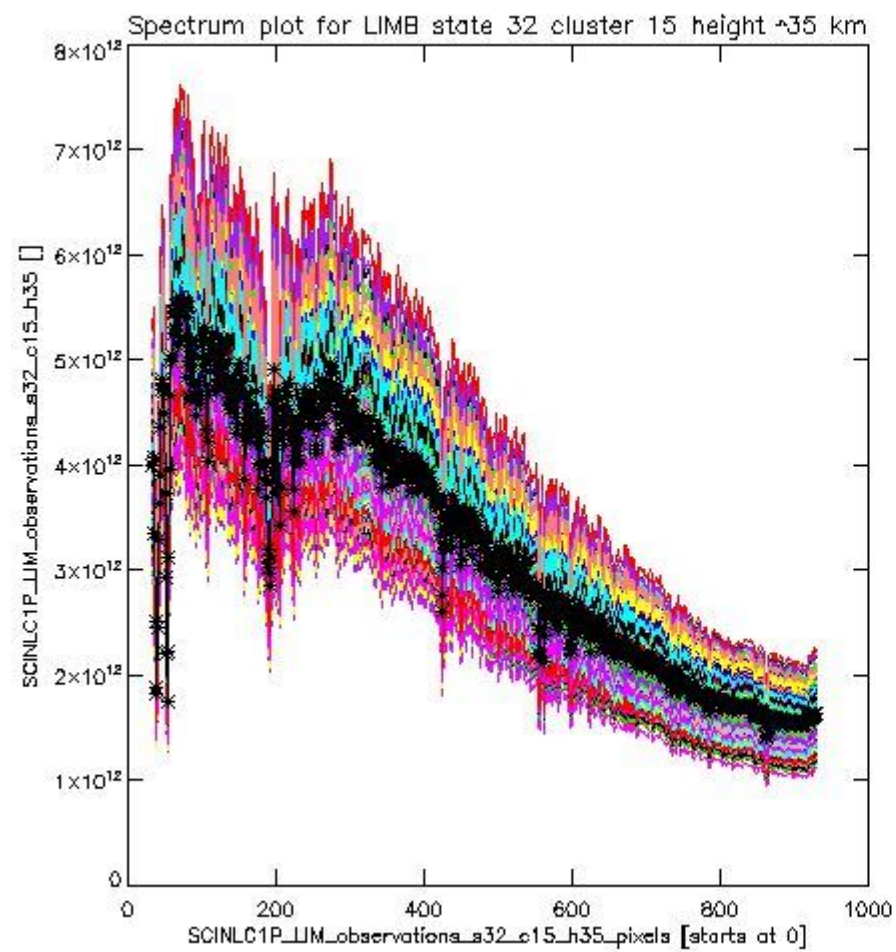
sciamachy\_l1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_18.PNG



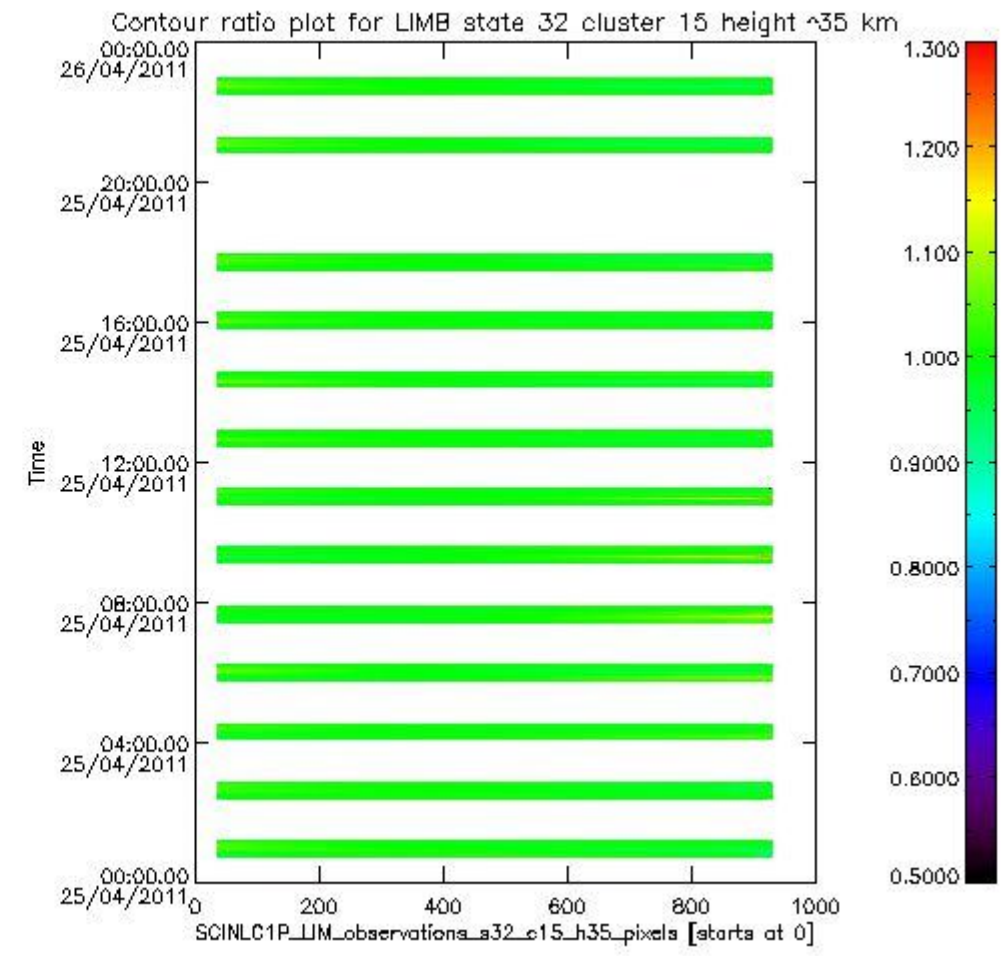
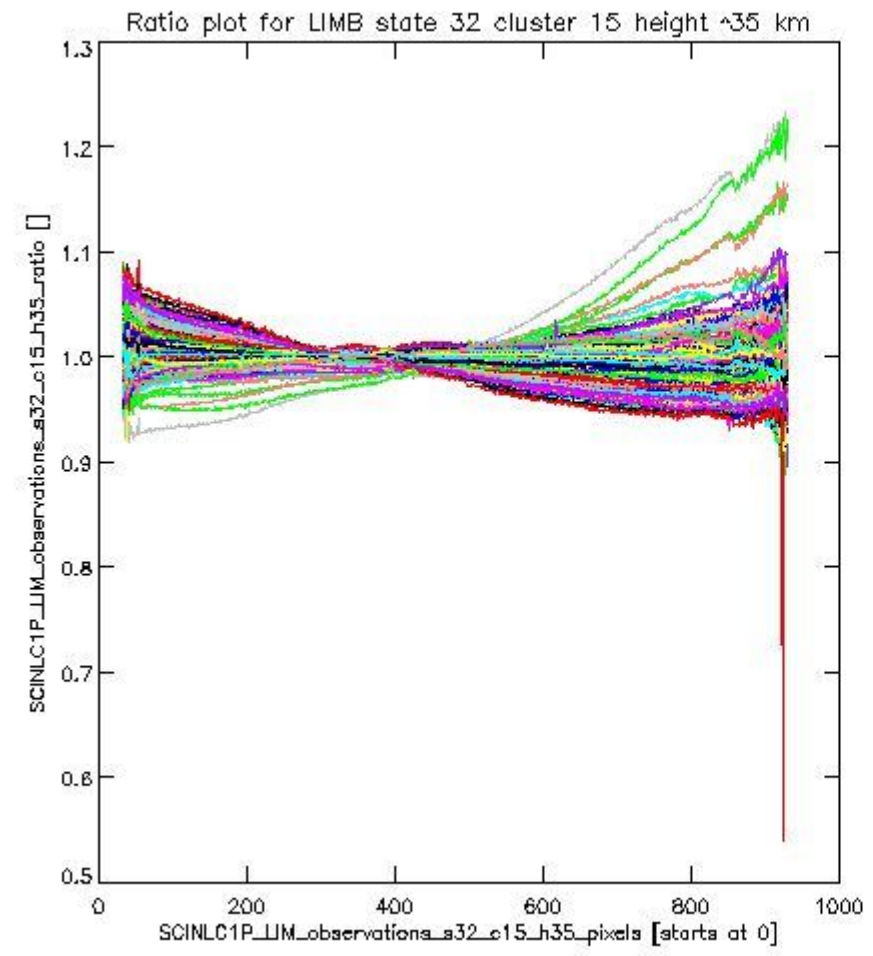
sciamachy\_11b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_19.PNG

**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	25APR2011 00:44:50.752
Start time of last sample	25APR2011 22:55:32.427
Reference period start time	01APR2011 00:25:41.468
Reference period stop time	01APR2011 22:36:07.853
Channel number	3
First pixel number (starts at 0)	33
Last pixel number (starts at 0)	929

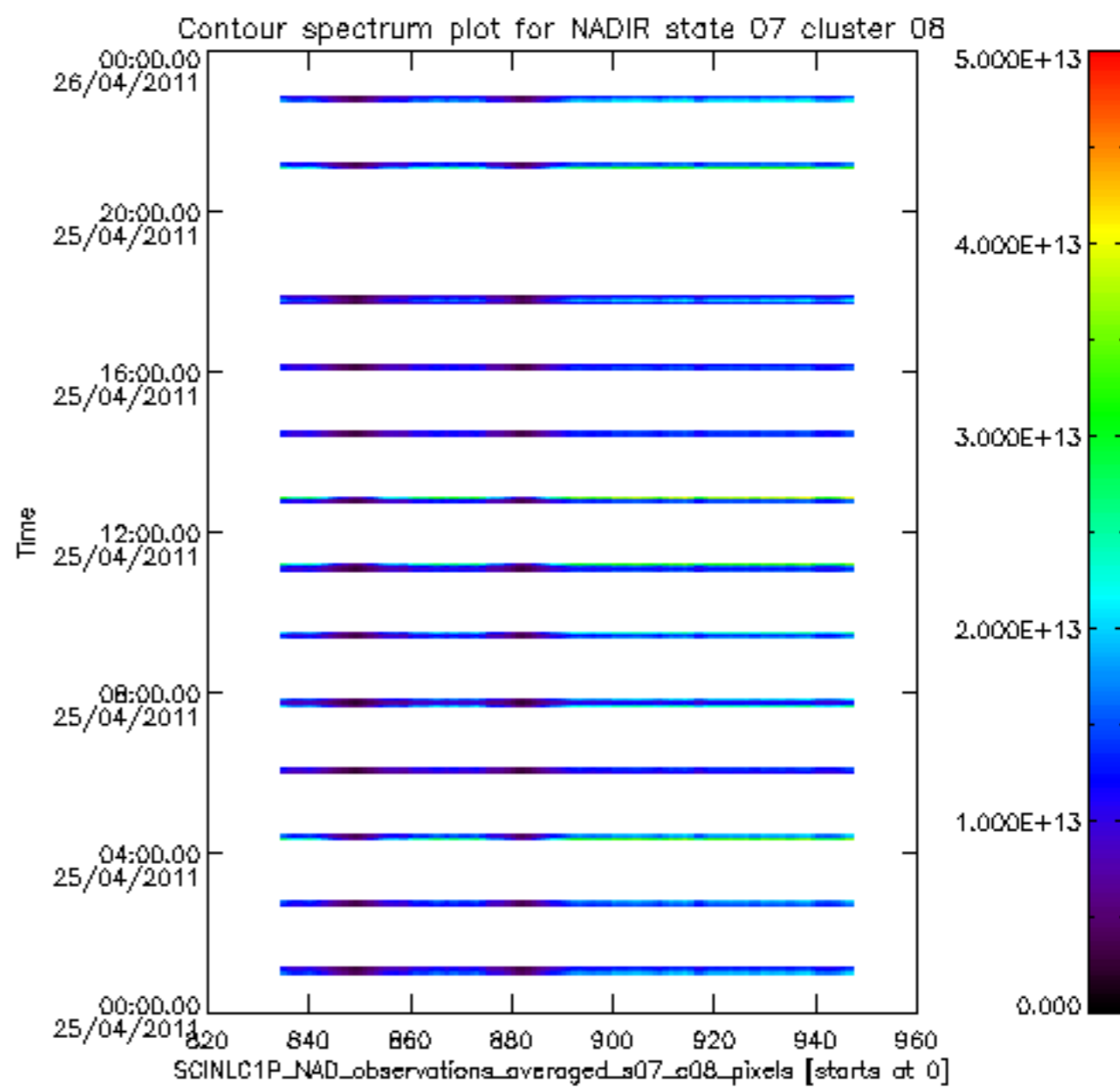
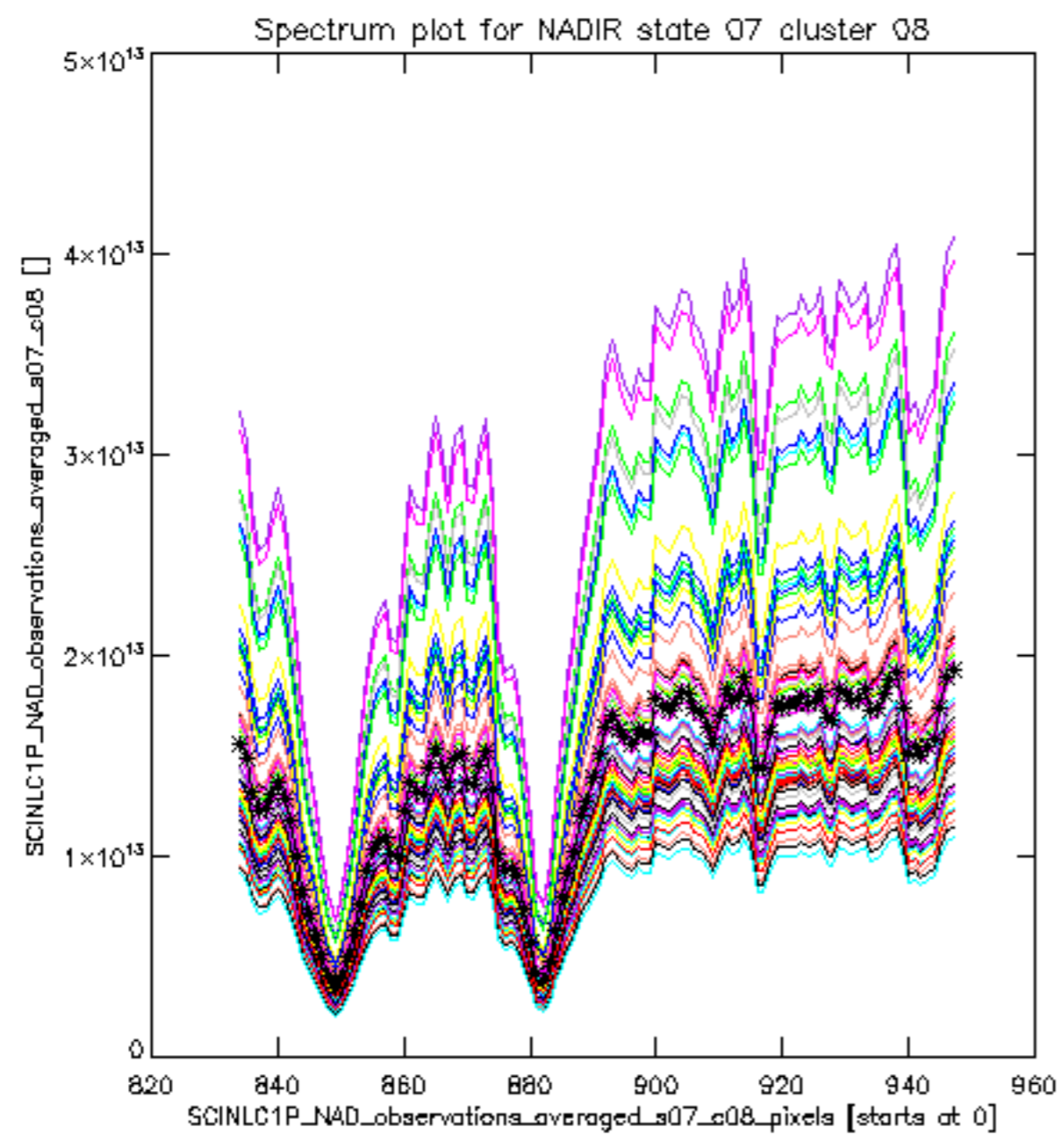


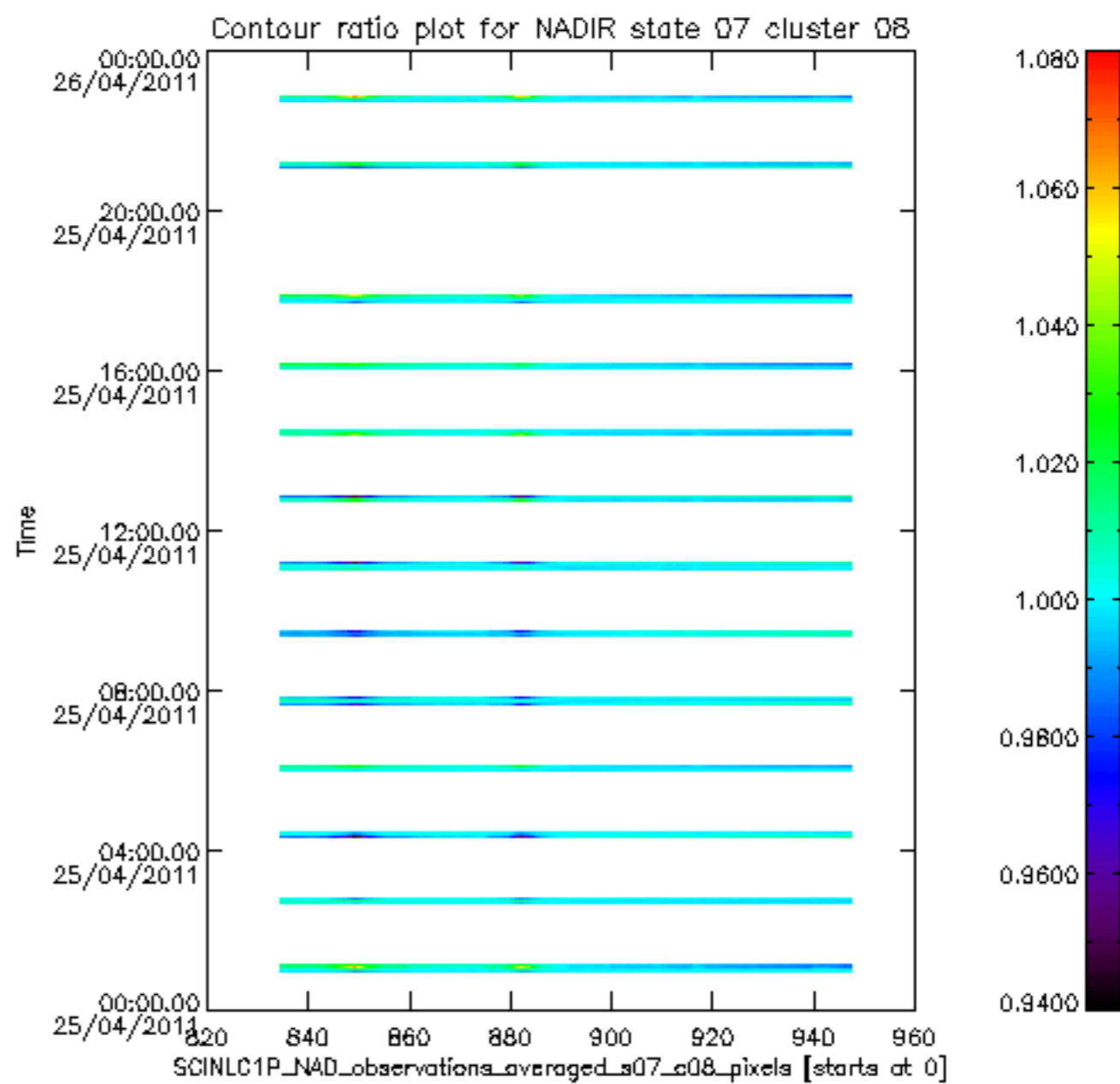
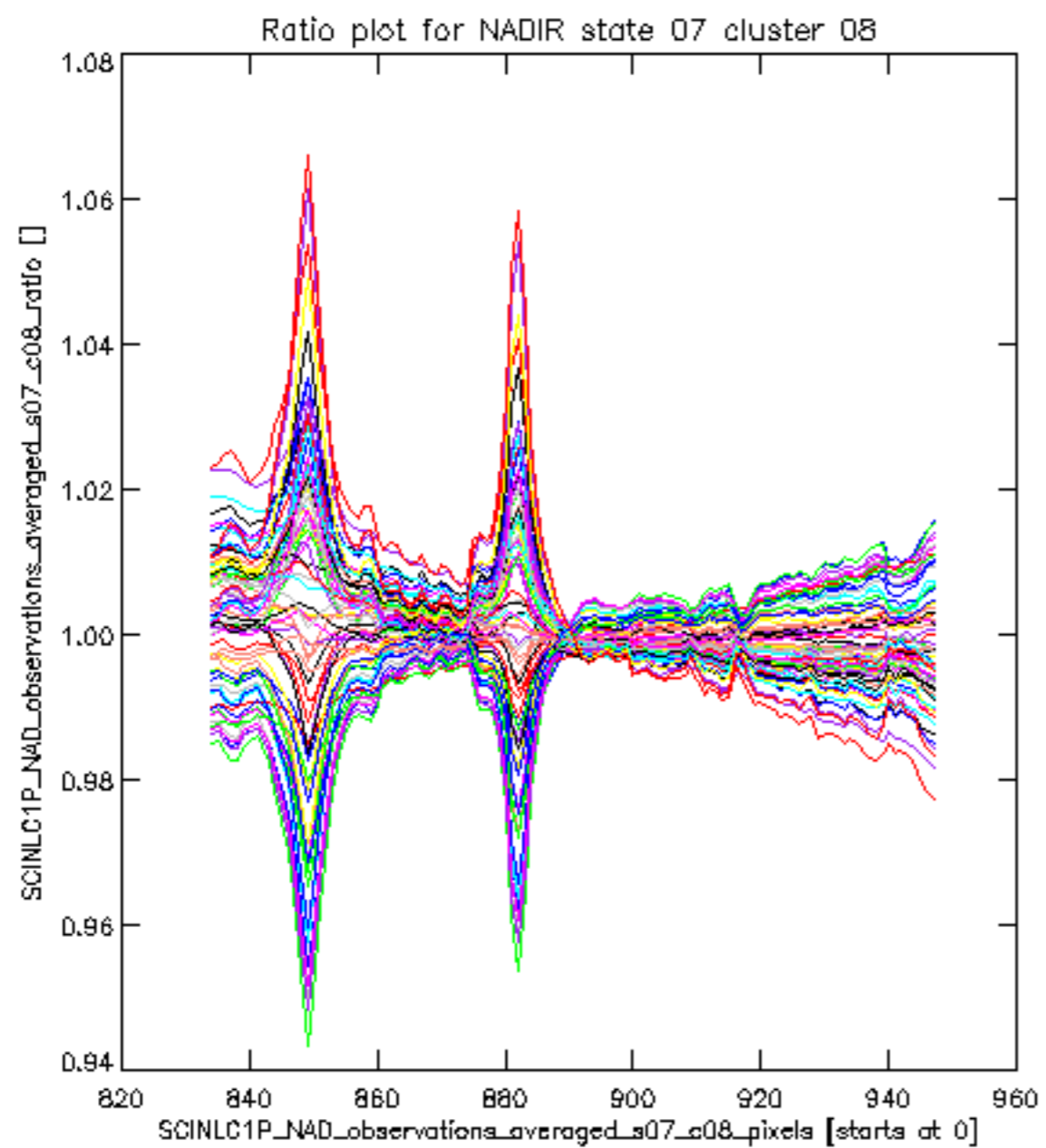
sciamachy\_11b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_20.PNG

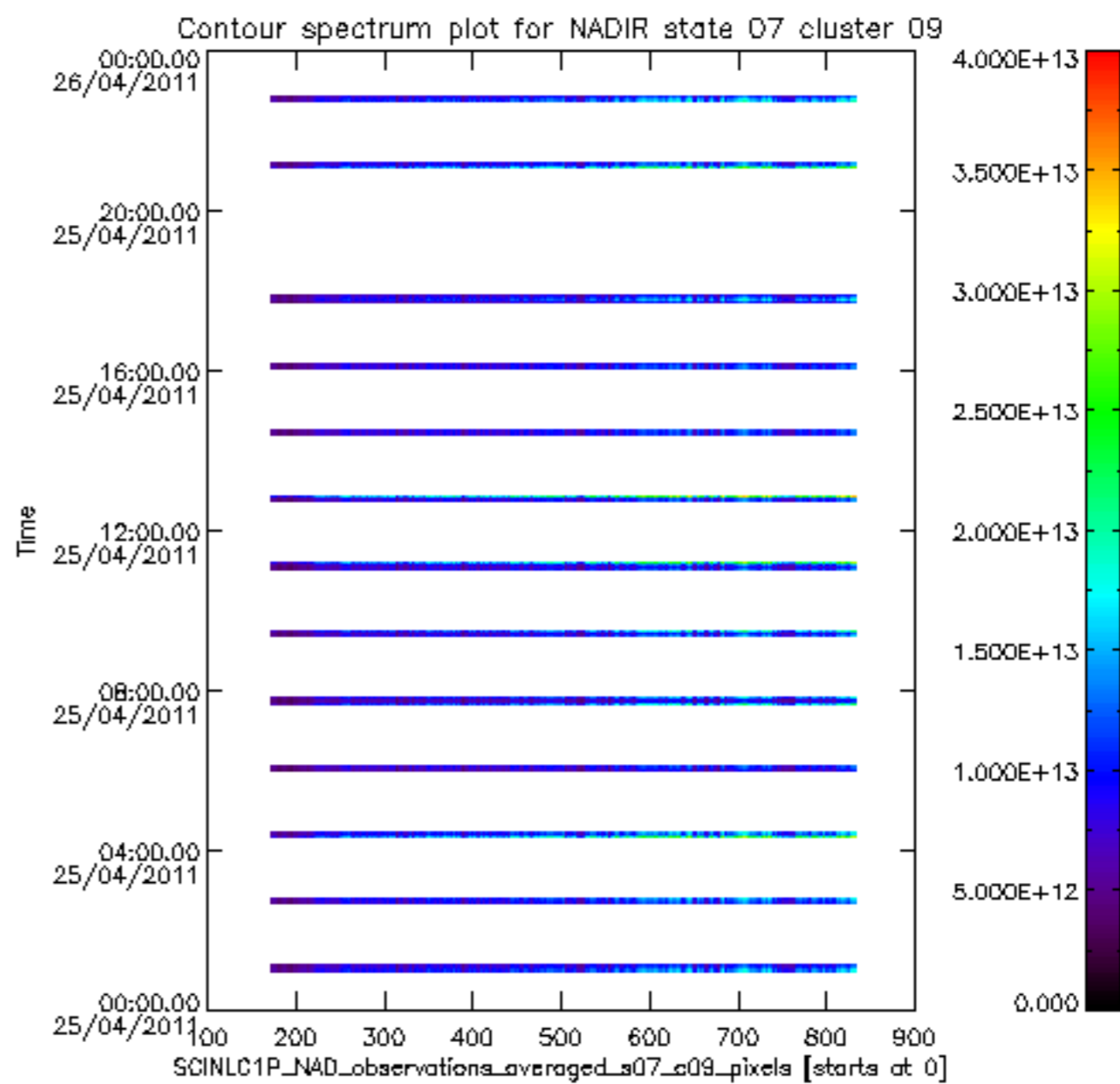
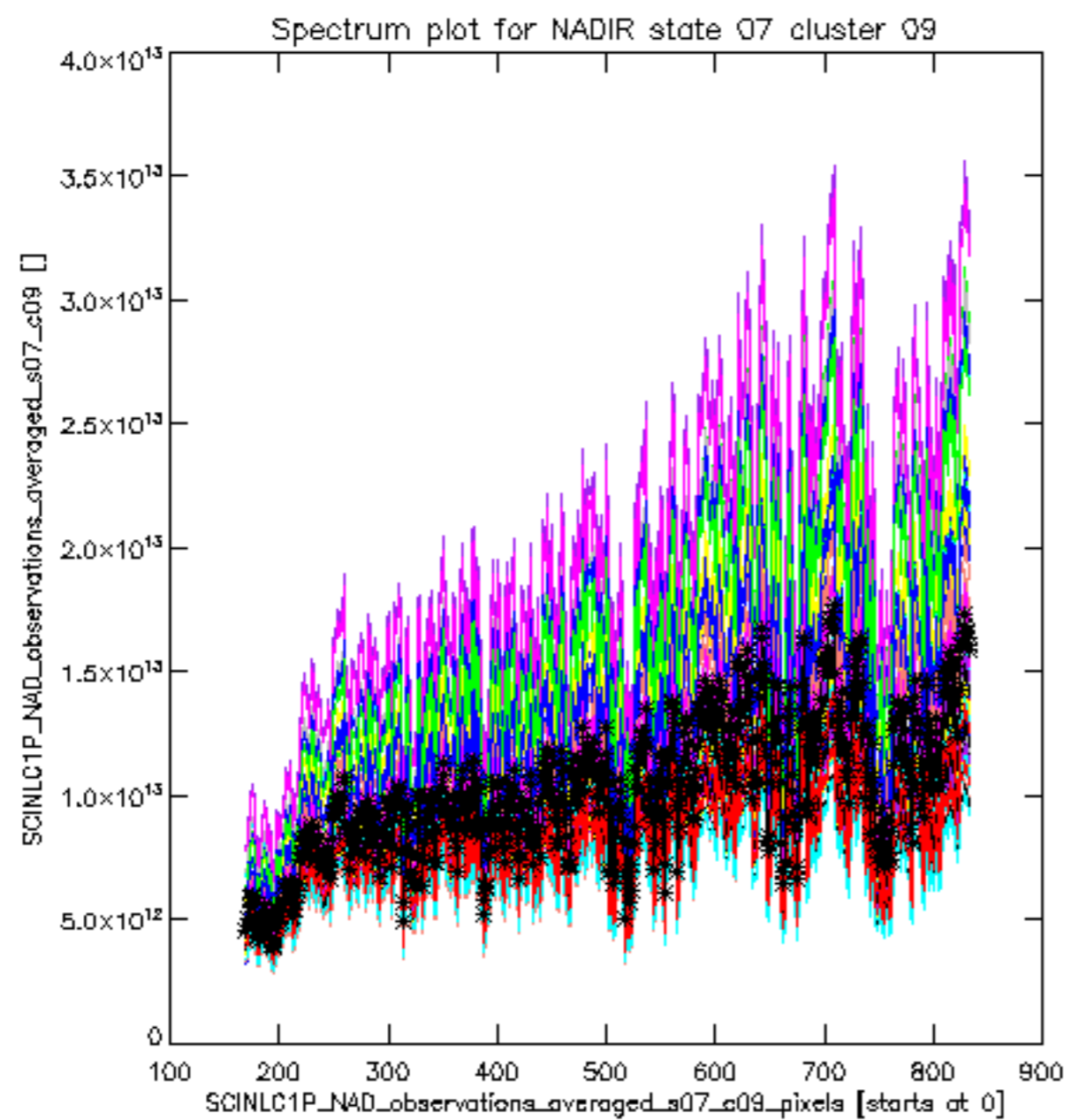


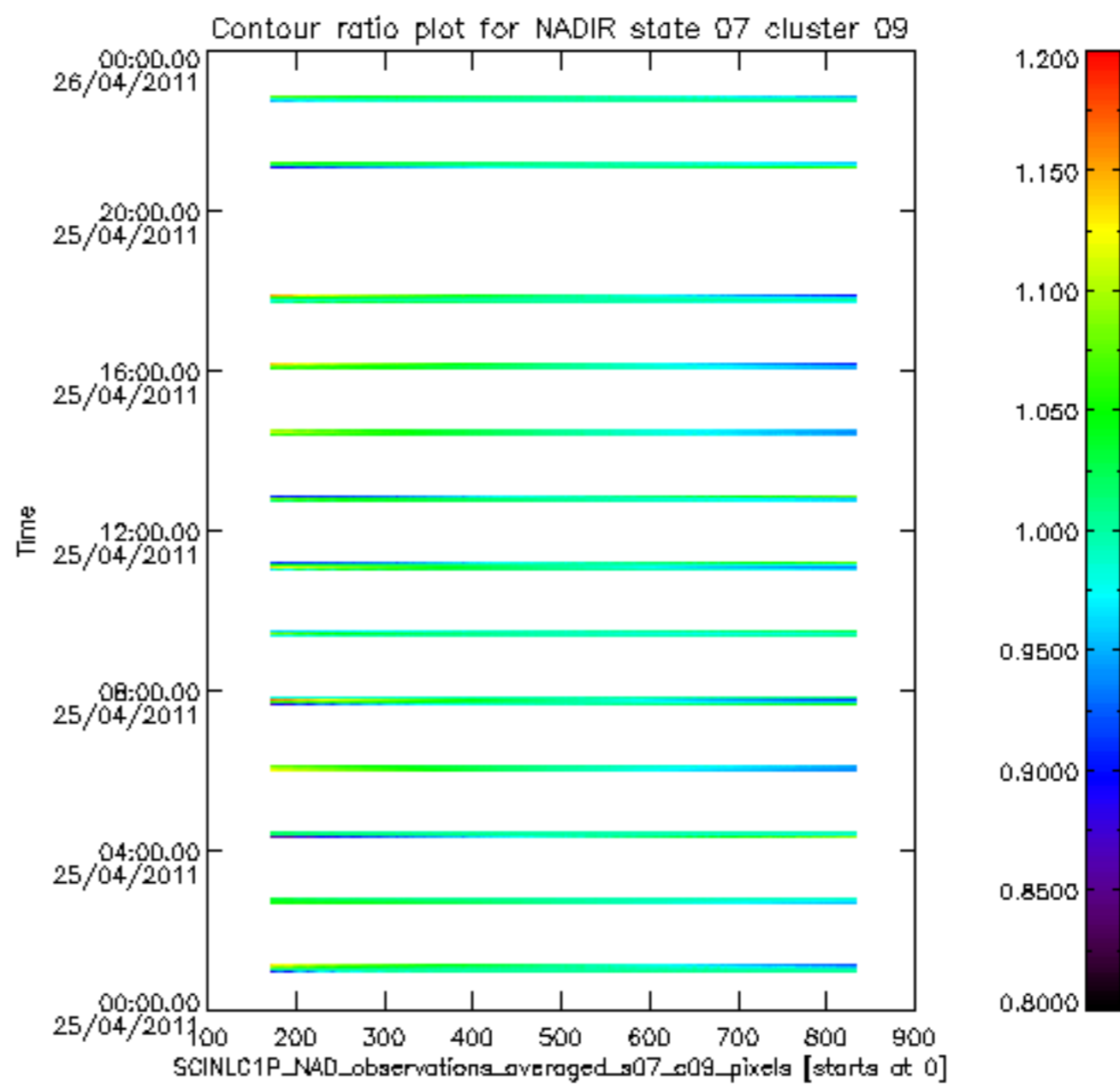
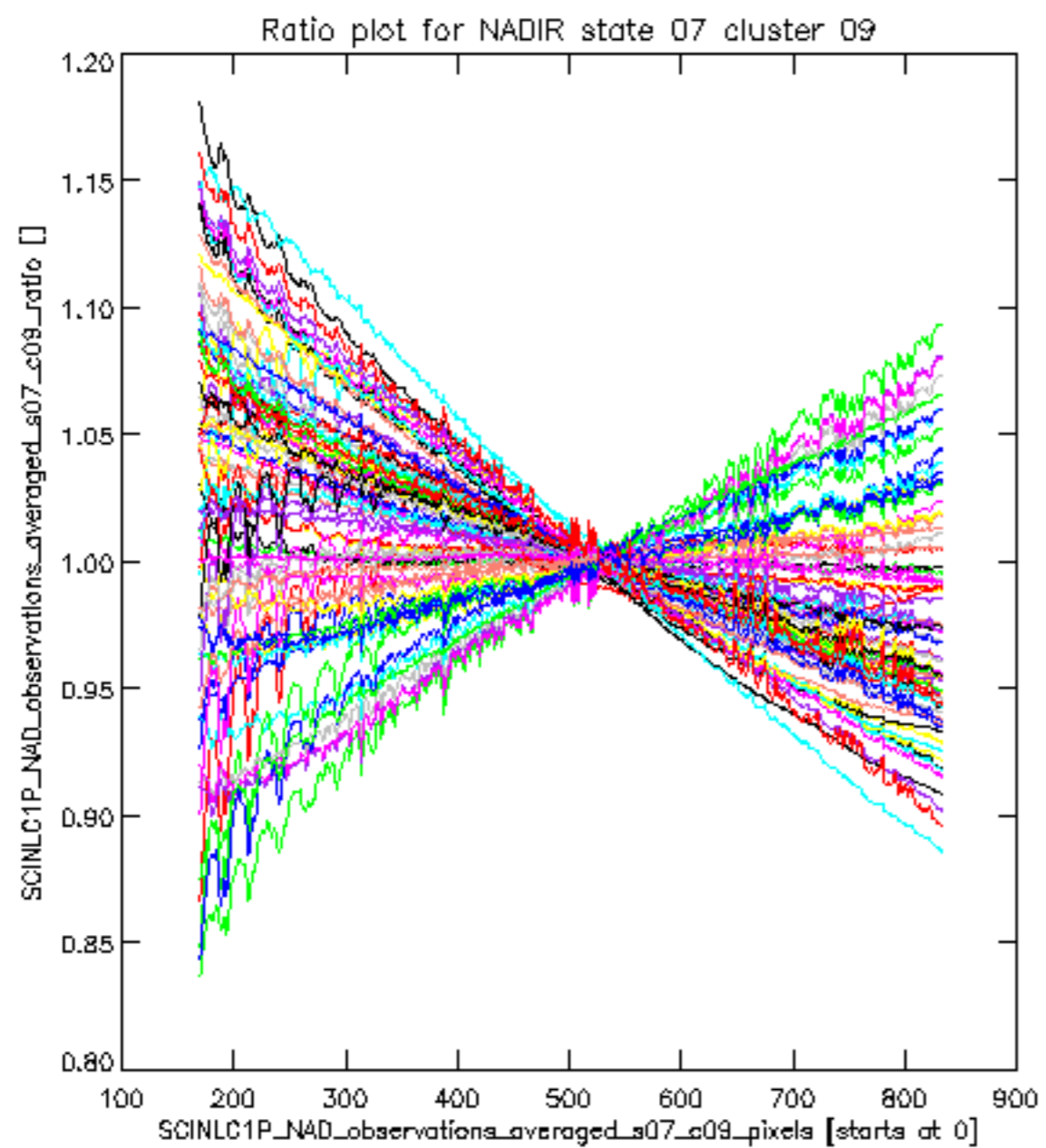
sciamachy\_i1b\_source\_packet\_report\_SCIA\_7\_04\_U\_20110425\_21.PNG

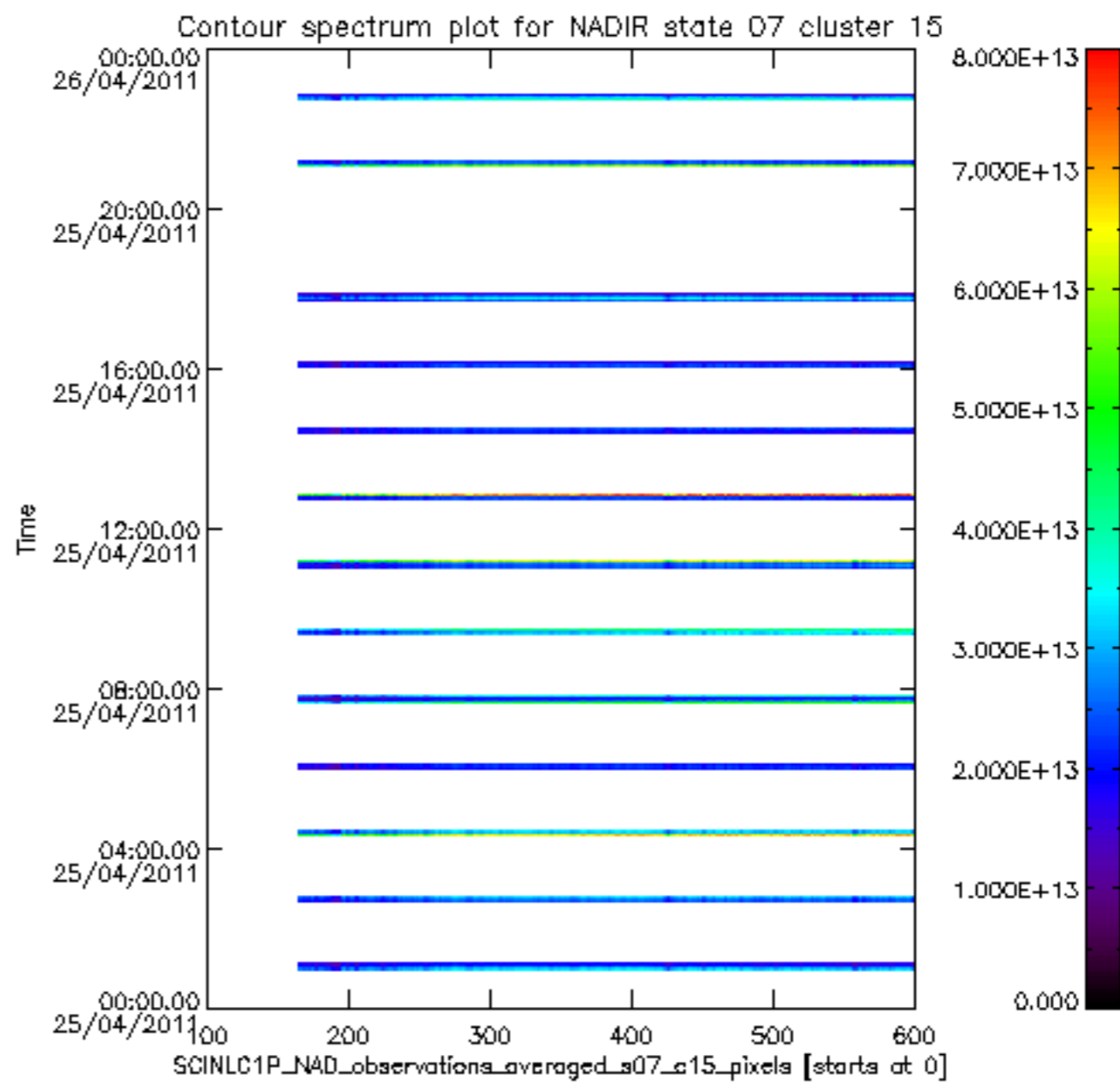
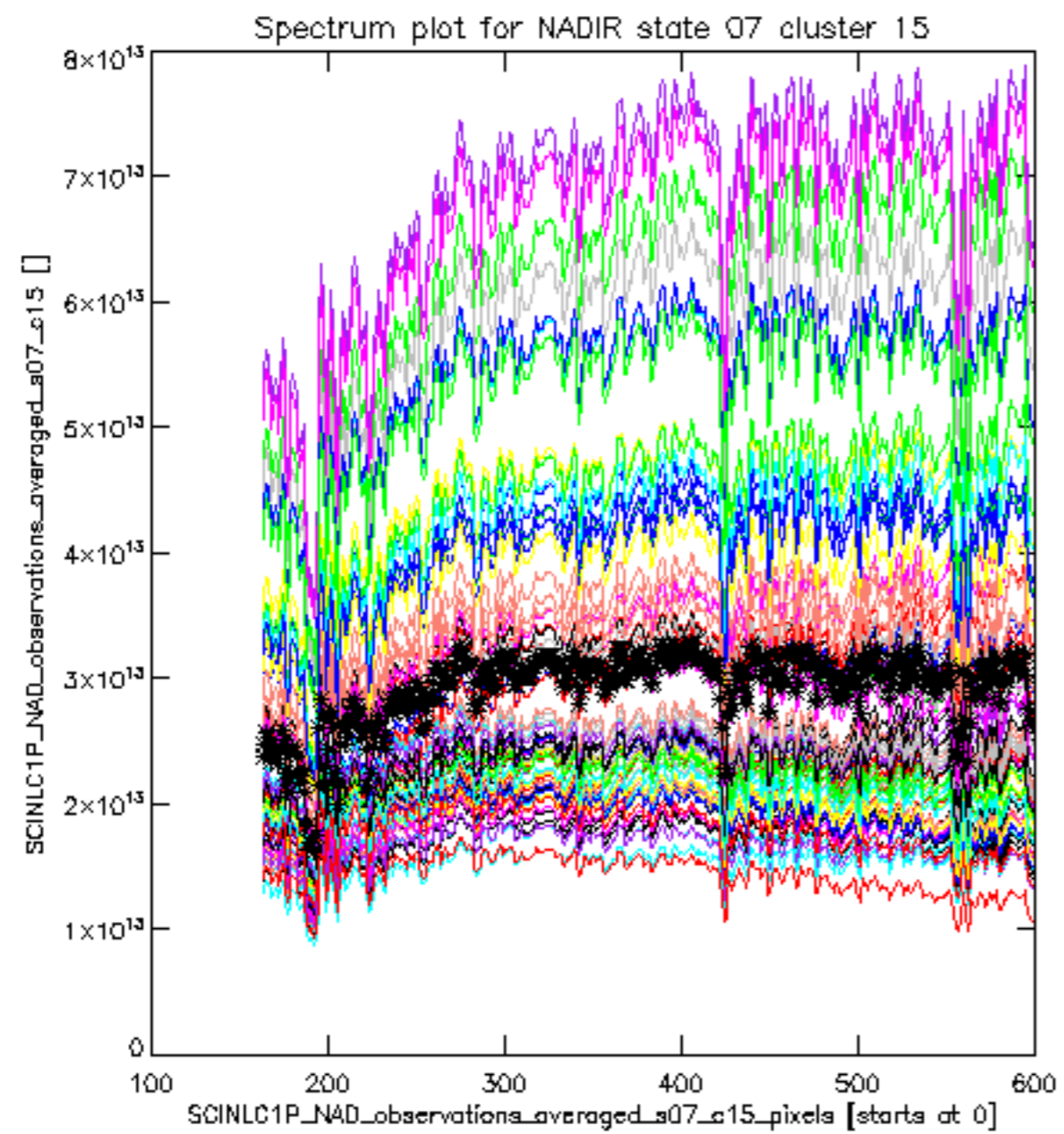


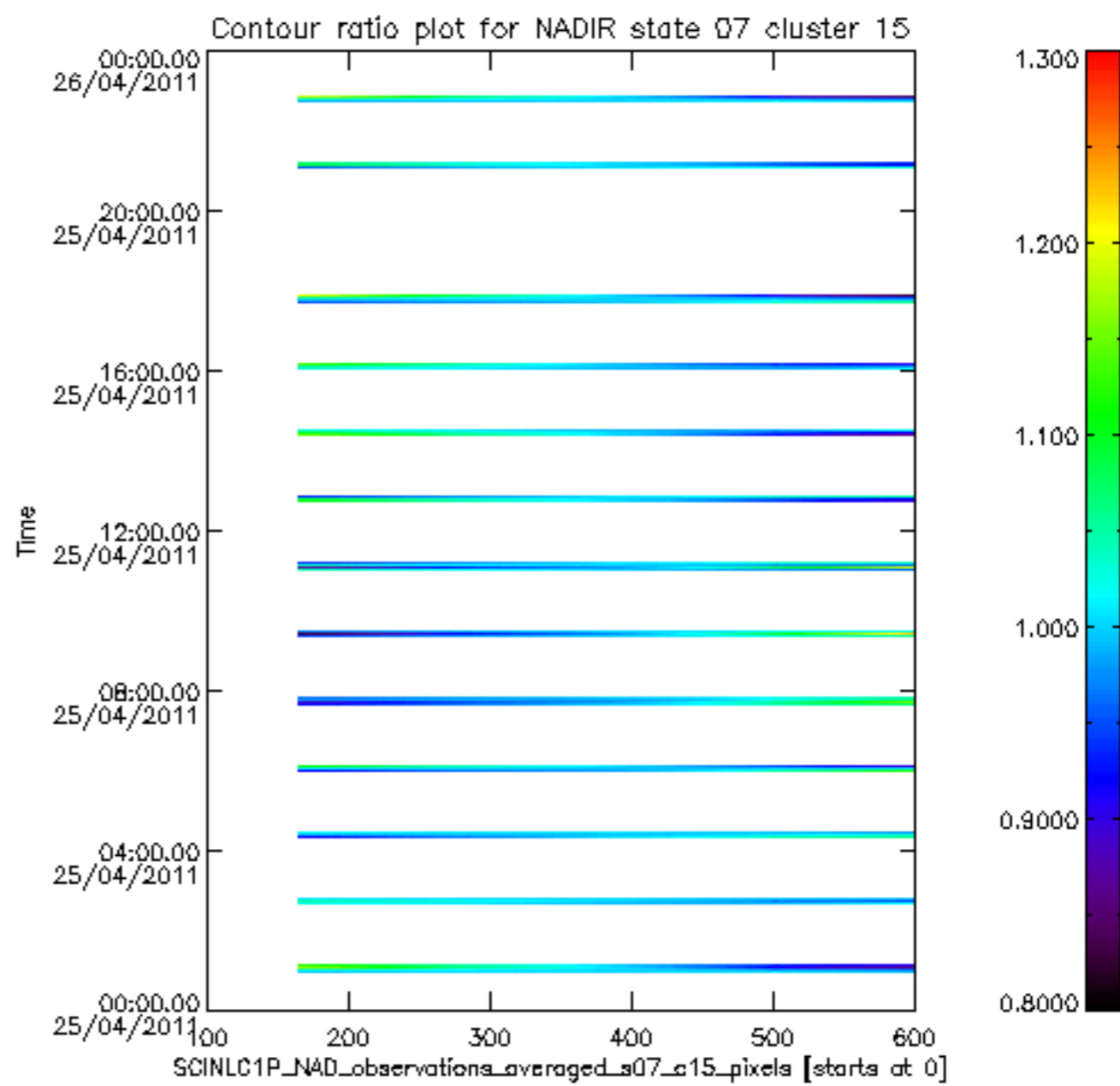
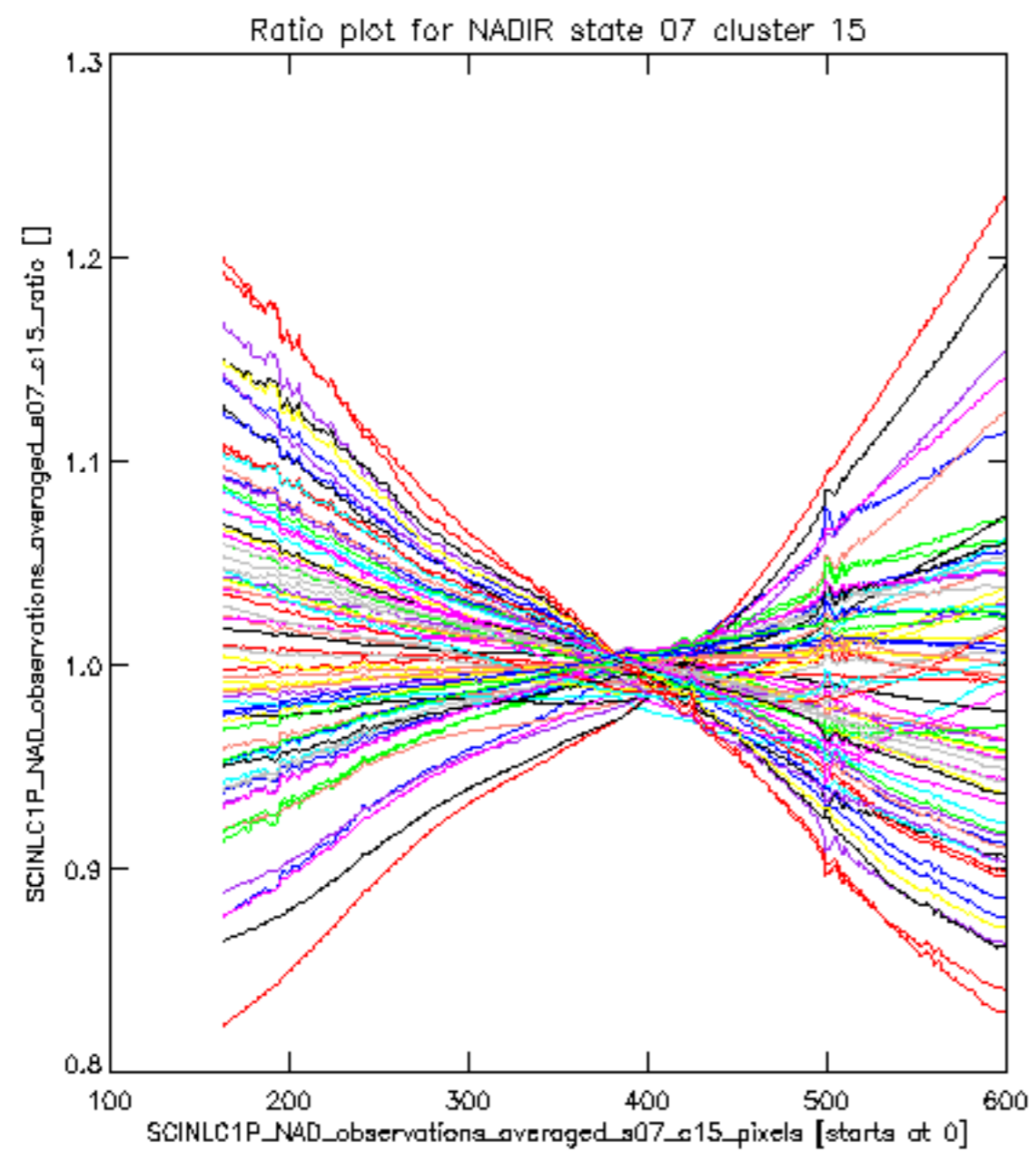


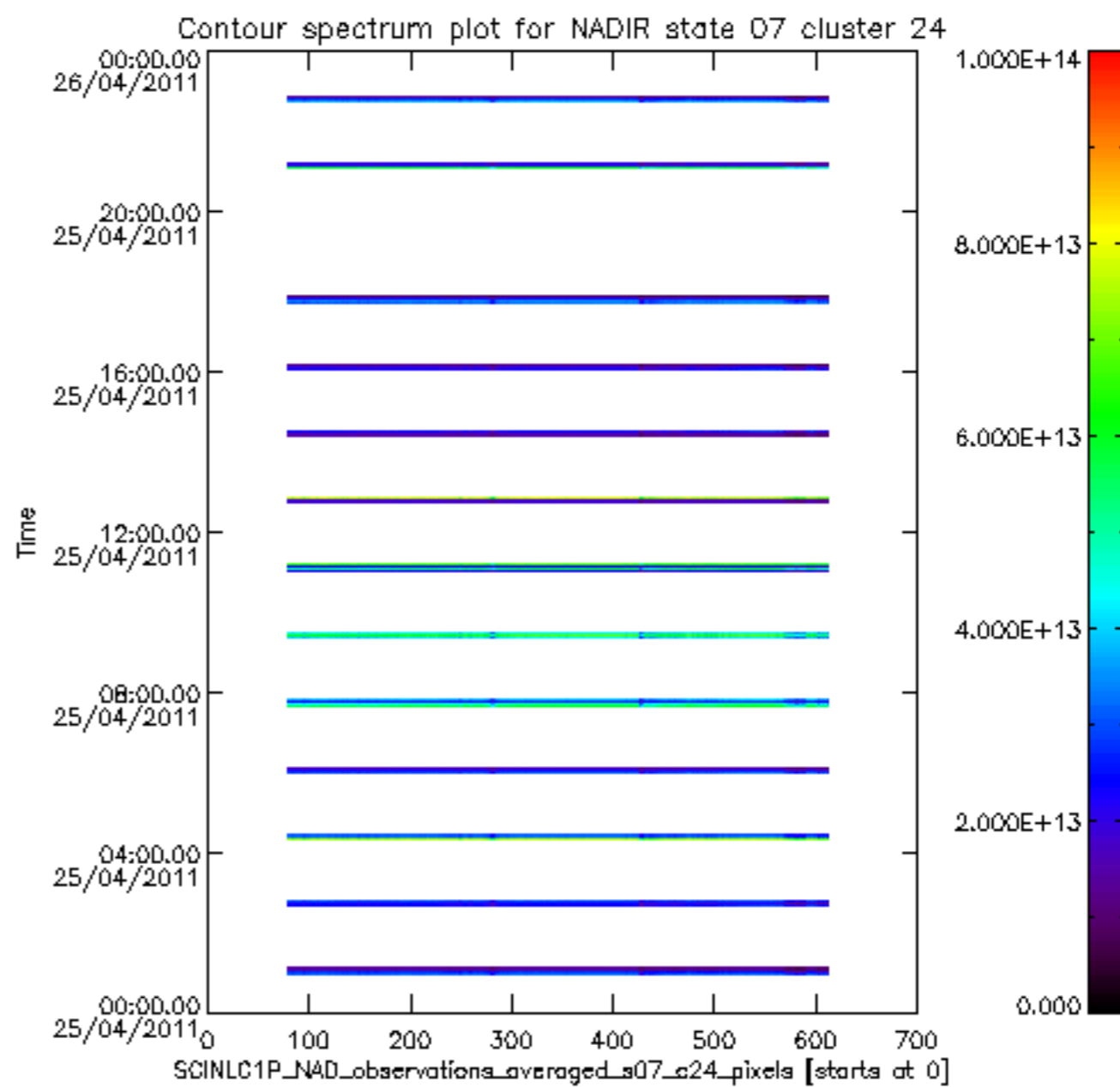
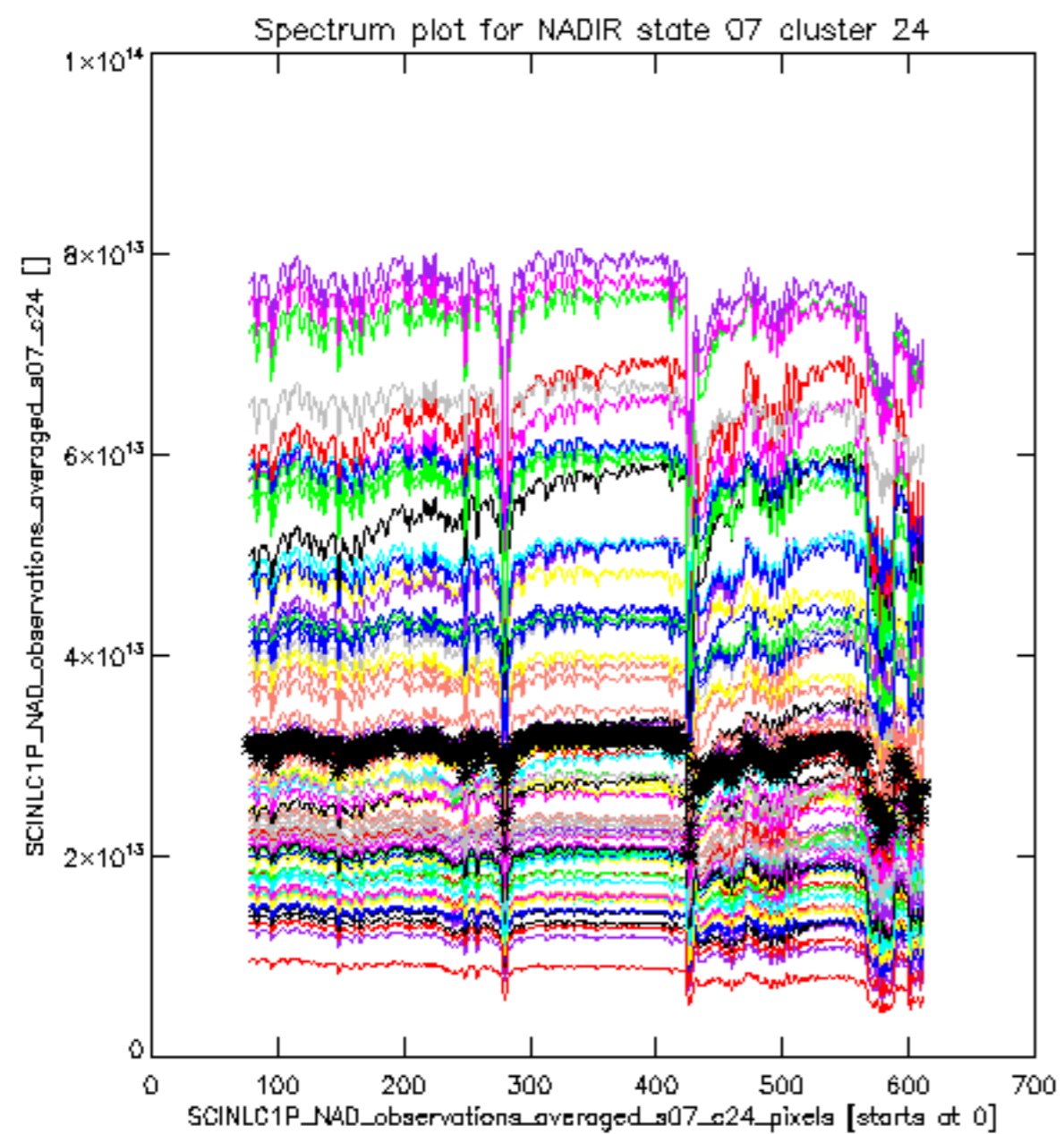


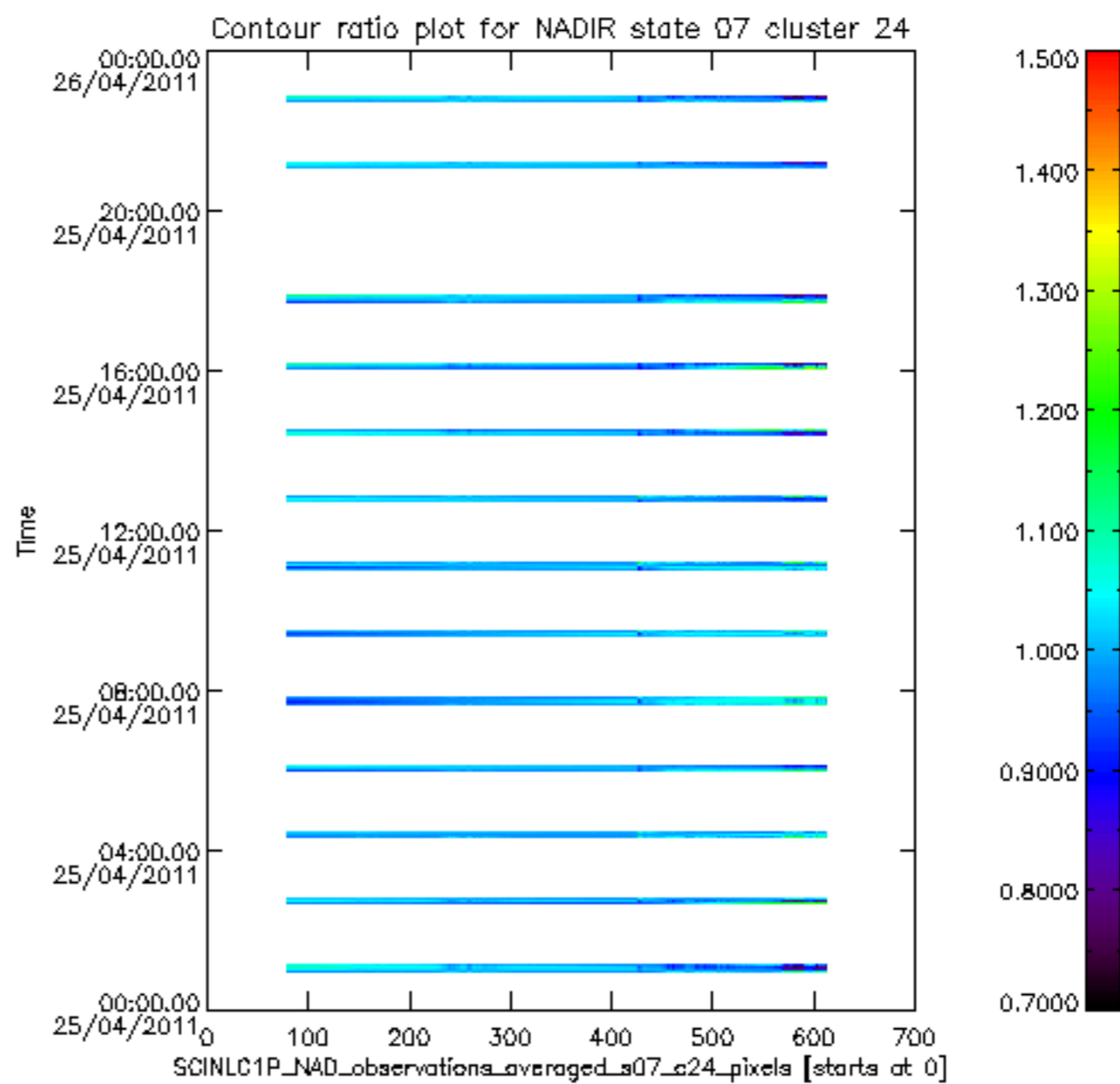
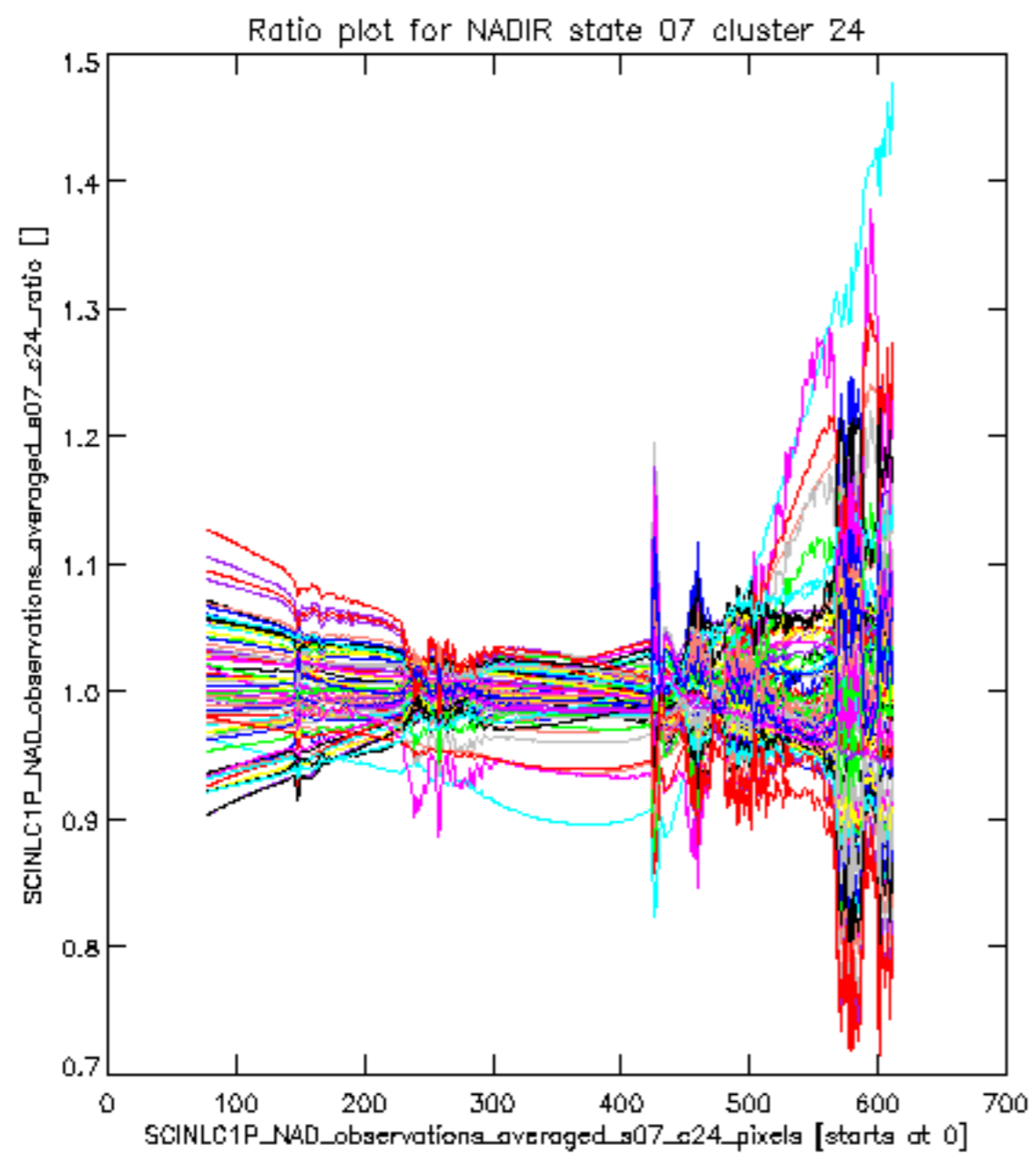






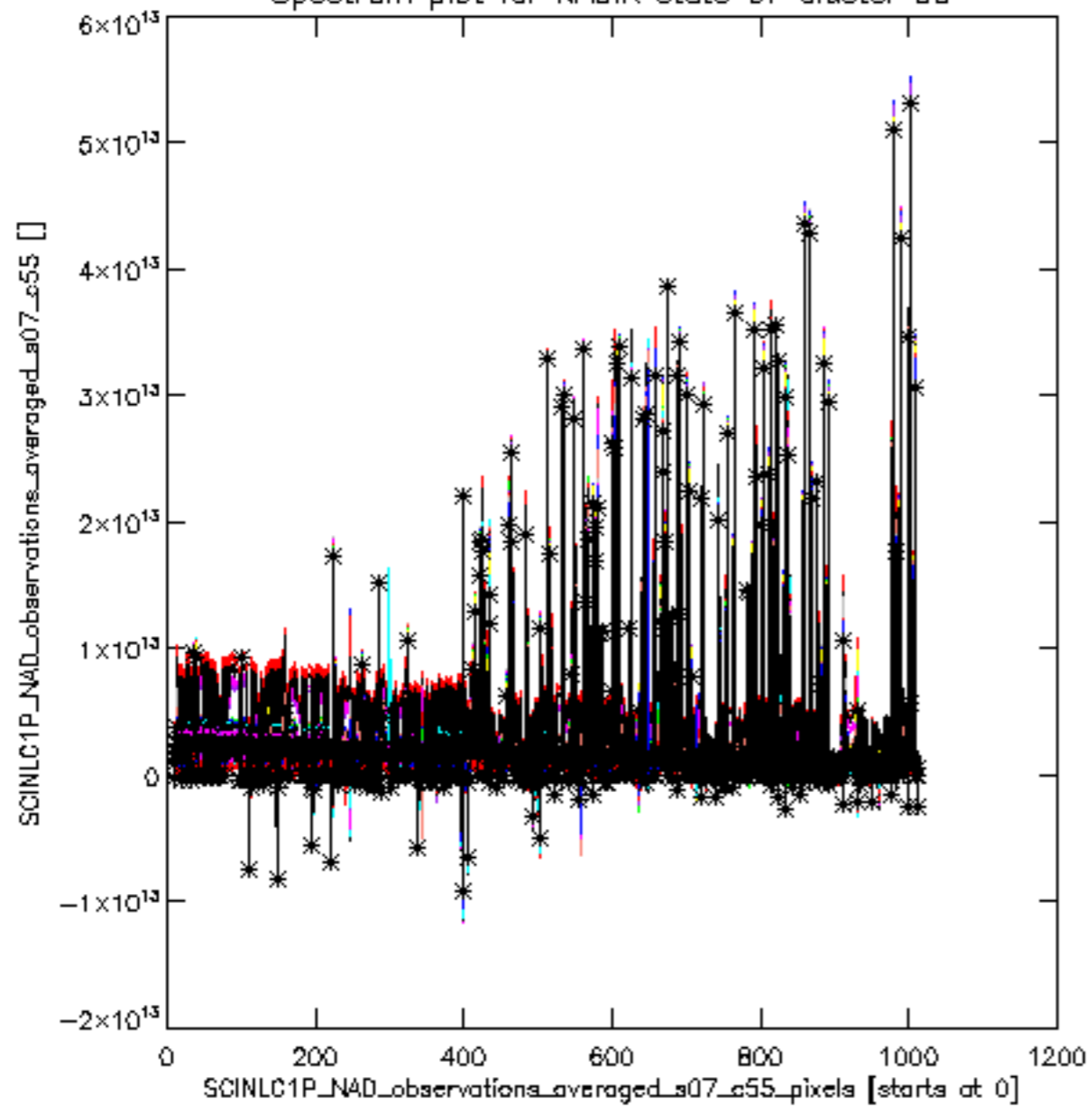








Spectrum plot for NADIR state 07 cluster 55



Contour spectrum plot for NADIR state 07 cluster 55

