# CXCDS DATA PROCESSING

Dong-Woo Kim Data Processing Scientist

# CXCDS SDP

- AP (Automatic Processing)
- REPRO I
- REPRO II
- SAP (Special AP)
- CP (Custom Processing)

# 1<sup>st</sup> E-mail Notification

Date: Thu, 19 Apr 2001 07:05:26 -0400 (EDT) From: Arcops Account To: KIM@cfa.harvard.edu, arcops\_arc@head-cfa.harvard.edu Subject: Your Chandra Observation 600156 Observed

Dear Dr. KIM (KIM@CFA.HARVARD.EDU), This message is to inform you that your observation

SeqNum 600156, Obsid 2022 (NGC 1316)

was observed on Apr 17, 2001.

If no unforeseen problems arise, your data should be **available in 3-4 weeks**. In the meantime, you will be able to monitor its progress by means of our status web tool at

http://asc.harvard.edu/proc\_stat/pst.html

Chandra Data Archive Operations http://asc.harvard.edu/cda/

### **QUICKLOOK E-MAIL** Notification

Date: Fri, 20 Apr 2001 00:05:20 -0400 (EDT)

From: Arcops Account To: KIM@cfa.harvard.edu, arcops\_arc@head-cfa.harvard.edu Subject: QL Images of Your Chandra Observation 600156

Dear Dr. KIM, The data for your Chandra ACIS-S observation of NGC 1316: ObsId 2022, SeqNum 600156 have been received and processed through QuickLook.

The QuickLook results are summarized in one or two im

ages which you may view through your web browser at URL(s):

ftp://asc.harvard.edu/pub/arcftp/.gojpeg/20010420/obs2022-787689.jpg

ftp://asc.harvard.edu/pub/arcftp/.gojpeg/20010420/obs2022\_center-524353.jpg

Please be advised that these images represent only a very preliminary view of your observation. The processing is only preliminary and does not include the screening performed by the complete processing system, so that instruments artifacts may be included. But we trust that this QuickLook preview proves useful to you.

You may reasonably expect notification of availability of the properly **processed results in two to four weeks**. The processing status of Chandra observations may be tracked through the CXC Processing Status page at:

http://asc.harvard.edu/proc\_stat/pst.html

Sincerely,

- Chandra Data Archive Operations

#### **ISSUE E-MAIL**

Date: Fri, 20 Apr 2001 06:05:16 -0400 (EDT)

From: Arcops Account

To: PGREEN@cfa.harvard.edu, arcops\_arc@head-cfa.harvard.edu, dkim@head-cfa.harvard.edu Subject: Processing Issue(s) Associated with your Chandra Observation 700166

Dear Dr. GREEN,

This message is to inform you that for your observation

SeqNum 700166, Obsid 861 (Q2345+007), observed on Jun 27, 2000

the following processing issues have been identified:

Issue No. 87 - Disposition: fixed did not merge in multi-obi observation

Because archive retrieval is not fully implemented in the automatic processing (AP), previously processed data stored in the DB archive may not be automatically retrieved. As a result, if the data of the earlier observation interval (OBI) in multi-obi observations were cleaned from the local cache directory, they would not be merged with later OBI data in the level 2 processing. This requires manual retrieval of necessary data products. The full implementation of data retrieval is being addressed.

### **ISSUE RESOLVED**

Date: Sat, 21 Apr 2001 06:05:19 -0400 (EDT)

From: Arcops Account

To: PGREEN@cfa.harvard.edu, arcops\_arc@head-cfa.harvard.edu, dkim@head-cfa.harvard.edu Subject: Processing Issue(s) Resolved for your Chandra Observation 700166

Dear Dr. GREEN,

This message is to inform you that for your observation

SeqNum 700166, Obsid 861 (Q2345+007), observed on Jun 27, 2000

the following processing issues have been resolved:

Issue No. 87 - Disposition: fixed did not merge in multi-obi observation

Because archive retrieval is not fully implemented in the automatic processing (AP), previously processed data stored in the DB archive may not be automatically retrieved. As a result, if the data of the earlier observation interval (OBI) in multi-obi observations were cleaned from the local cache directory, they would not be merged with later OBI data in the level 2 processing. This requires manual retrieval of necessary data products. The full implementation of data retrieval is being addressed.

# REPROCESSING I

- Done for observations taken between 09/14/1999 and 08/15/2000
   Covers from the 1<sup>st</sup> GTO observation (9/17/1999)
   Ends at the data products processed by CXCDS s/w release R4CU5UP8, a version prepared for reprocessing.
- Pre-GTO : From day 1 (7/23/1999) to 9/14/1999

The input data suffer from many data issues.

Observational parameters – mixed/inconsistent by r/t commanding etc.

→ currently working on cleaning input data and collection consistent obs parameters

# **REPROCESSING II**

- 1. HRC-I
- 2. HRC-S
- 3.HRC-SI
- 4. ACIS CTI (or ER)
- 5. ACIS CC Mode
- 6. ACIS Interleave Mode
- 7. Cal Alignment (ACIS-I)
- 8. CP Only

### 1. HRC-I

Nature of Enhancement: De-gap correction + Accurate absolute position S/W or Calibration Issues: none Total number of obsids involved: 258 Processing Status: 205 obsids done as of 4/20 Estimated Processing Time: 1-2 weeks

51 obsids with the following conditions

Had an error in absolution position (< 2")</li>
AP\_Date < Nov. 7, 2000 and Obs\_Date > Aug. 15, 2000
RP\_Date < Nov, 7, 2000 and Obs\_Date < Dec. 1, 1999</li>

## 2. HRC-S

Nature of Enhancement: Degap + Accurate Absolute position S/W or Calibration Issues: New De-gap map not available Total number of obsids involved: 130 Processing Status: not started Estimated Processing Time: n/a

38 obsids with the following conditions

Had an error in absolution position (< 2")</li>
AP\_Date < Nov. 7, 2000 and Obs\_Date > Aug. 15, 2000
RP\_Date < Nov, 7, 2000 and Obs\_Date < Dec. 1, 1999</li>

## 3. HRC-SI

Nature of Enhancement: fast timing correction S/W or Calibration Issues: U6 to be tested Total number of obsids involved: 12 Processing Status: not started Estimated Processing Time: 1-2 weeks

# 4. ACIS CTI (ER)

Nature of Enhancement: Restore L2 events by fixing s/w bug S/W or Calibration Issues: none Total number of obsids involved: 148 Processing Status: 144 obsids done as of 4/20 Estimated Processing Time:

### 5. ACIS CC mode

Nature of Enhancement: coordinate upgrade + accurate timing S/W or Calibration Issues: U6 to be tested Total number of obsids involved: 35 Processing Status: not started Estimated Processing Time: 1-2 weeks

#### 6. ACIS Interleave Mode

Nature of Enhancement: Dead time correction S/W or Calibration Issues: U6 to be tested Total number of obsids involved: 32 Processing Status: not started Estimated Processing Time: 1-2 weeks

### 7. CAL Alignment (ACIS-I)

Nature of Enhancement: accurate absolute position S/W or Calibration Issues: ready Total number of obsids involved: 7 (+ all ACIS-I) Processing Status: not started Estimated Processing Time: 1-2 weeks

### 8. CP Only

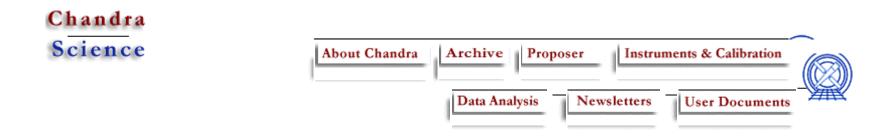
Nature of Enhancement: archive data S/W or Calibration Issues: ready Total number of obsids involved: 13 Processing Status: not started Estimated Processing Time: 2-3 weeks

# DATA PROCESSING ISSUES

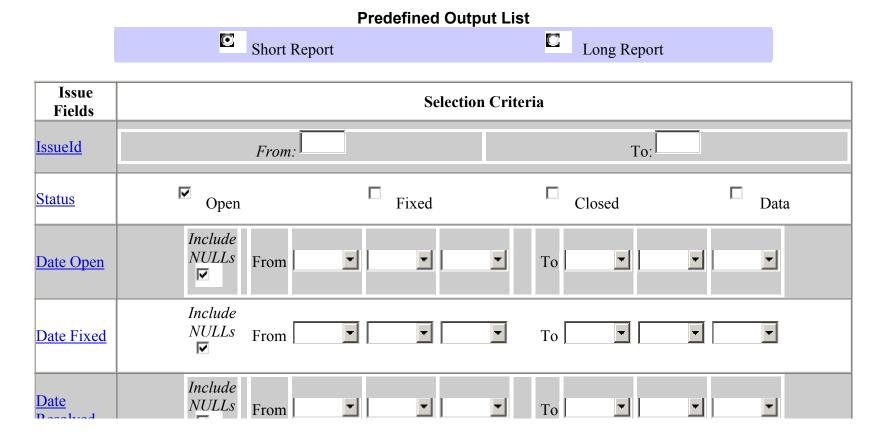
Number of Issues = 95

Status : Open, Fixed, Closed, Data

Category: Pipeline, DB, ARD, Spec, Data



### **Issue Tables**



# Chandra Science

About Chandra	Archive	oser Instrum	nents & Calibration	
	Data Analysis	Newsletters	User Documents	

### **Issue Search Results**

IssueId	Title	Status	Category	No. of Obsids (open)	List of open Obsids	No. of Obsids (resolved)	List of resolved Obsids
<u>90</u>	Guide star/fid light lost during obs	data	DATA	0		3	<u>597, 1888, 2091</u>
<u>91</u>	disk glitch	open	h/w	0		2	<u>2310, 2142</u>
<u>92</u>	wrong version of data products		ap	0		8	<u>121, 169, 359, 425, 426, 882, 922, 931</u>
<u>93</u>	same obsid used in next OR/ER	data	DATA	0		1	<u>1578</u>
<u>94</u>	Dump processed out- of-sequence	data	DATA	0		3	<u>1884, 2429, 1944</u>
<u>95</u>	Corrupted bias value	data	DATA	1	<u>2093</u>	0	

Processing Status Tools and Related Sites

#### Chandra Science

About Chandra	Archive Prop	oser Instru	Instruments & Calibration	
	Data Analysis	Newsletters	User Documents	

IssueId: 90

Title: Guide star/fid light lost during obs

Description: Because of a flight operations issue, some (usually one) guide stars or fiducial lights were lost during the observation. This would prevent from reconstructing good quality aspect data. This problem requires manual intervention either by updating OCAT or removing the bad slot during the data processing.

Status: data

Category: DATA

Version Resolved:

Date Entered: Mar 7 2001 12:00:00:000AM

Date Fixed:

Date Resolved:

Resolved Obsids: 597, 1888, 2091

Open Obsids:

Status OPEN: the issue has been found and await resolution

Status FIXED: There is a software or operational fix to the issue that has not been applied yet to all associated ObsIds. Status CLOSED (Resolved): the fix has been applied to all data and will be applied to all future data; the issue is closed. Status DATA: The data issue stems from data corruption or a commanding error. There will be no software fix. The data will be custom processed with an operational workaround.

NOTE: an issue may have OPEN or FIXED status, while a given obsid with the same issue may have Closed (RESOLVED) status. This happens if the obsid has been reprocessed, while other obsid with the same issue may still be awaiting reprocessing.

Processing Status Tools and Related Sites

This page is maintained by Tom Fine