

# V&V Reference Report

## L2 ASCDS Version : 8.1.1

Observation 1480 - L2 Version 4  
Chandra X-Ray Center

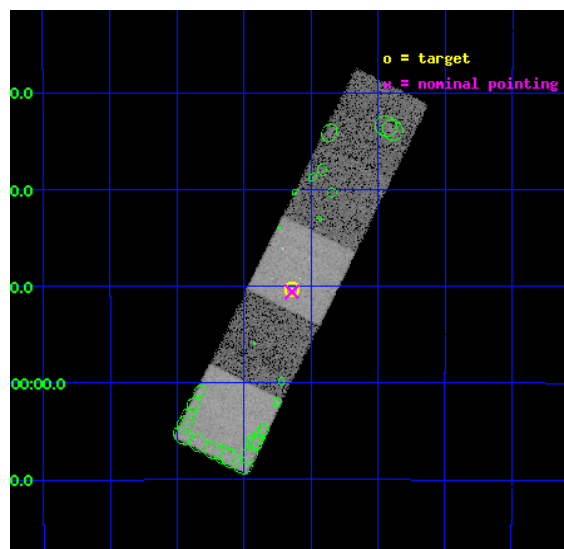
L2 Processing Date : Jul 10 2010

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 4 . . . . .	9
2.4.2	Slot 5 . . . . .	10
2.4.3	Slot 6 . . . . .	11
2.4.4	Slot 7 . . . . .	12
2.5	FID Slots . . . . .	13
2.5.1	Slot 0 . . . . .	13
2.5.2	Slot 1 . . . . .	14
2.5.3	Slot 2 . . . . .	15
<b>3</b>	<b>Point Sources</b>	<b>16</b>
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

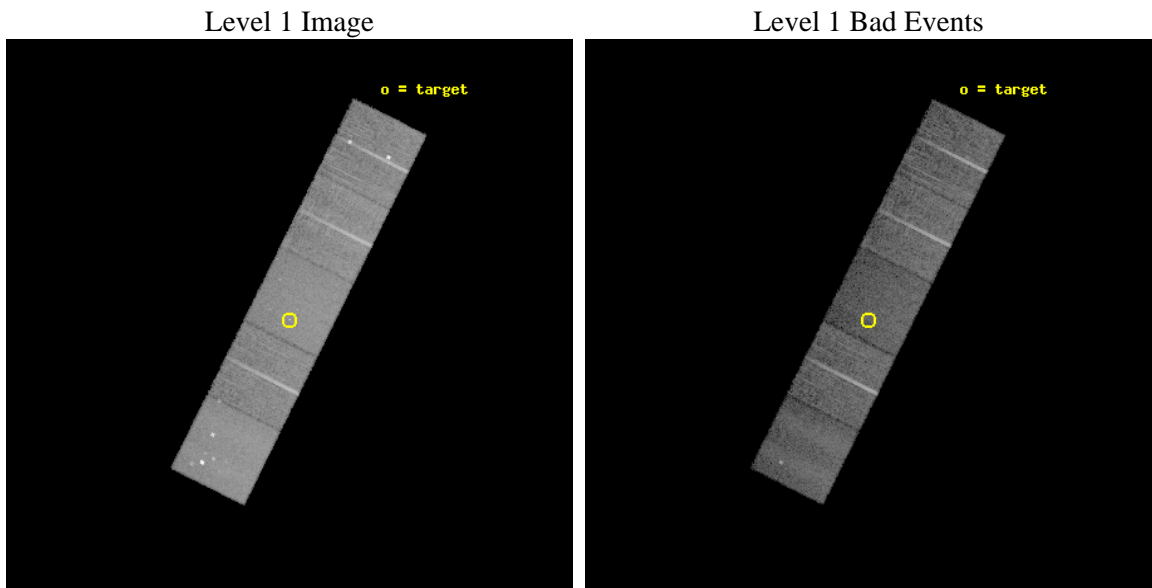
seq_num	200056	Sequence number
obs_id	1480	Observation id
title	SHOCKED STELLAR WINDS IN PLANETARY NEBULAE	Proposal title
observer	Prof. You-Hua Chu	Principal investigator
object	NGC 7293	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	337.410417	Observer's specified target RA
dec_targ	-20.838333	Observer's specified target Dec
ra_nom	337.41075507082	Nominal RA
dec_nom	-20.843323378043	Nominal Dec
roll_nom	296.49675273748	Nominal Roll
revision	4	Processing version of data
ontime	11163.705123991	Sum of GTIs [s]
livetime	11022.343567735	Livetime [s]
ontime5	11163.664083987	Sum of GTIs [s]
ontime6	11163.623043984	Sum of GTIs [s]
ontime7	11163.705123991	Sum of GTIs [s]
ontime8	11166.822964199	Sum of GTIs [s]
ontime9	11160.300003774	Sum of GTIs [s]
l2events	120938	Number of level 2 events



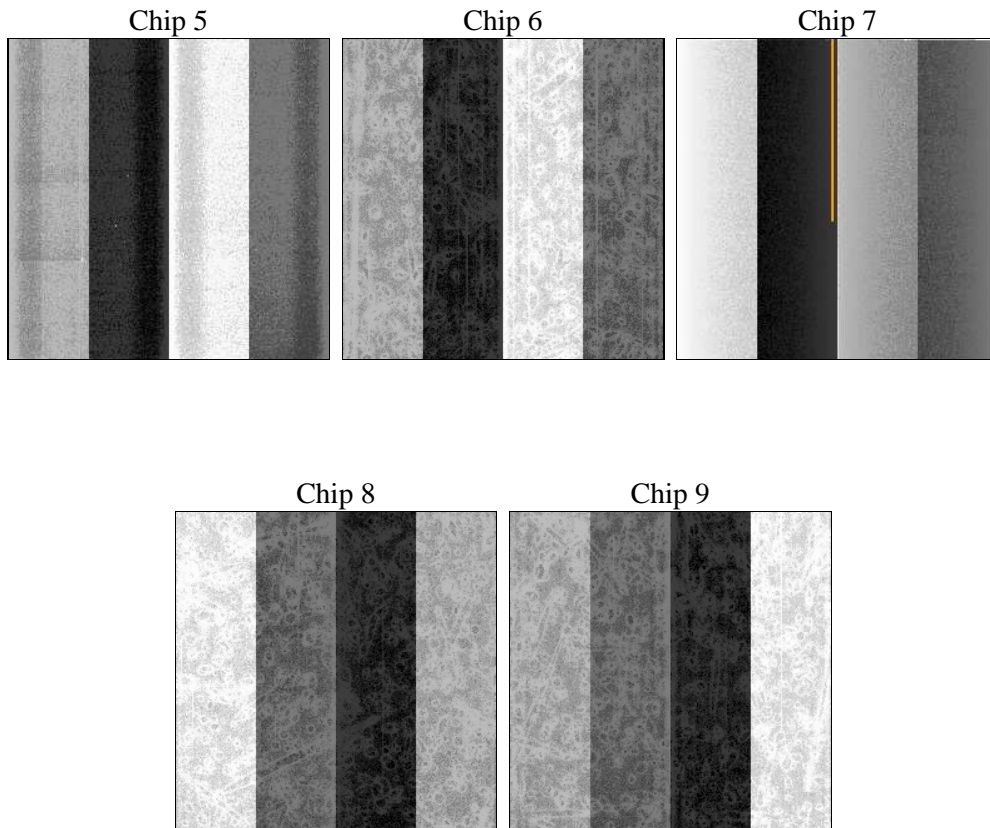
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	12000.000000	Scheduled observation exposure time
ascdsver	8.1.1	ASCDS version number	ontime	11163.705123991	Sum of GTIs [s]
caldbver	4.1.4	&#160	ontime5	11163.664083987	Sum of GTIs [s]
date	2009-11-24T11:17:58	Date and time of file creation	ontime6	11163.623043984	Sum of GTIs [s]
revision	3	Processing version of data	ontime7	11163.705123991	Sum of GTIs [s]
			ontime8	11166.822964199	Sum of GTIs [s]
			ontime9	11160.300003774	Sum of GTIs [s]
			l1events	548509	Number of level 1 events

### 2.1.4 Events

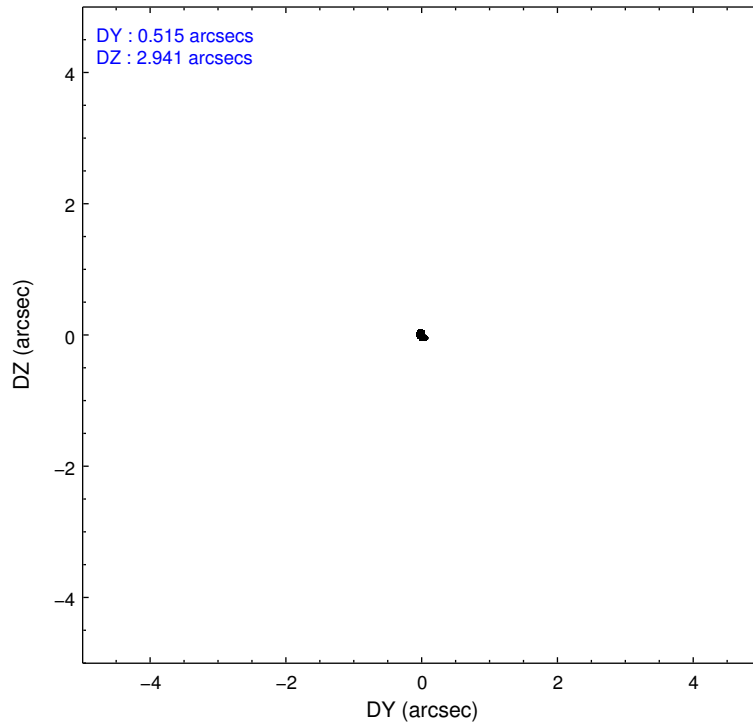
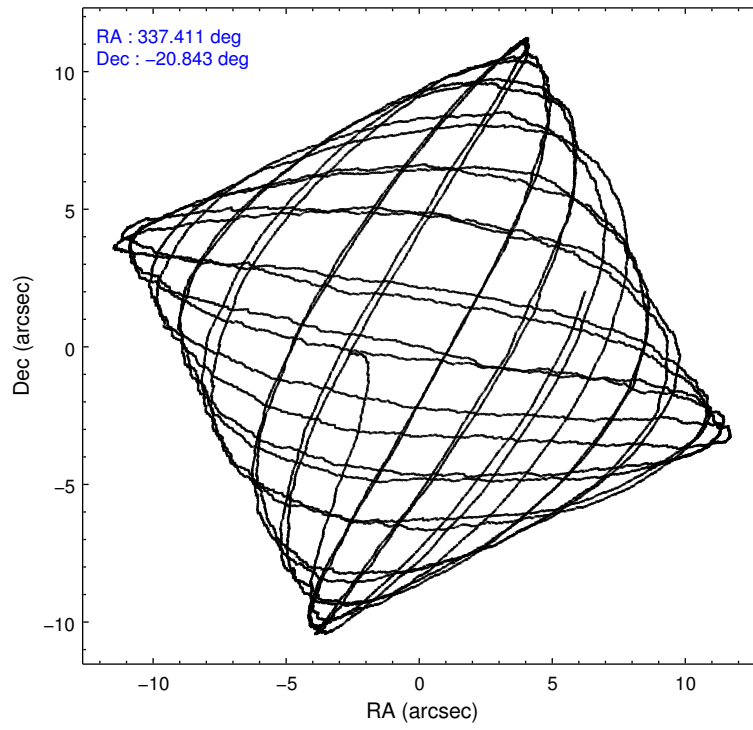
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	130592	95721	108401	113562	100233
rejected events	68923	86265	62311	94175	83774
rejected %	52%	90%	57%	82%	83%

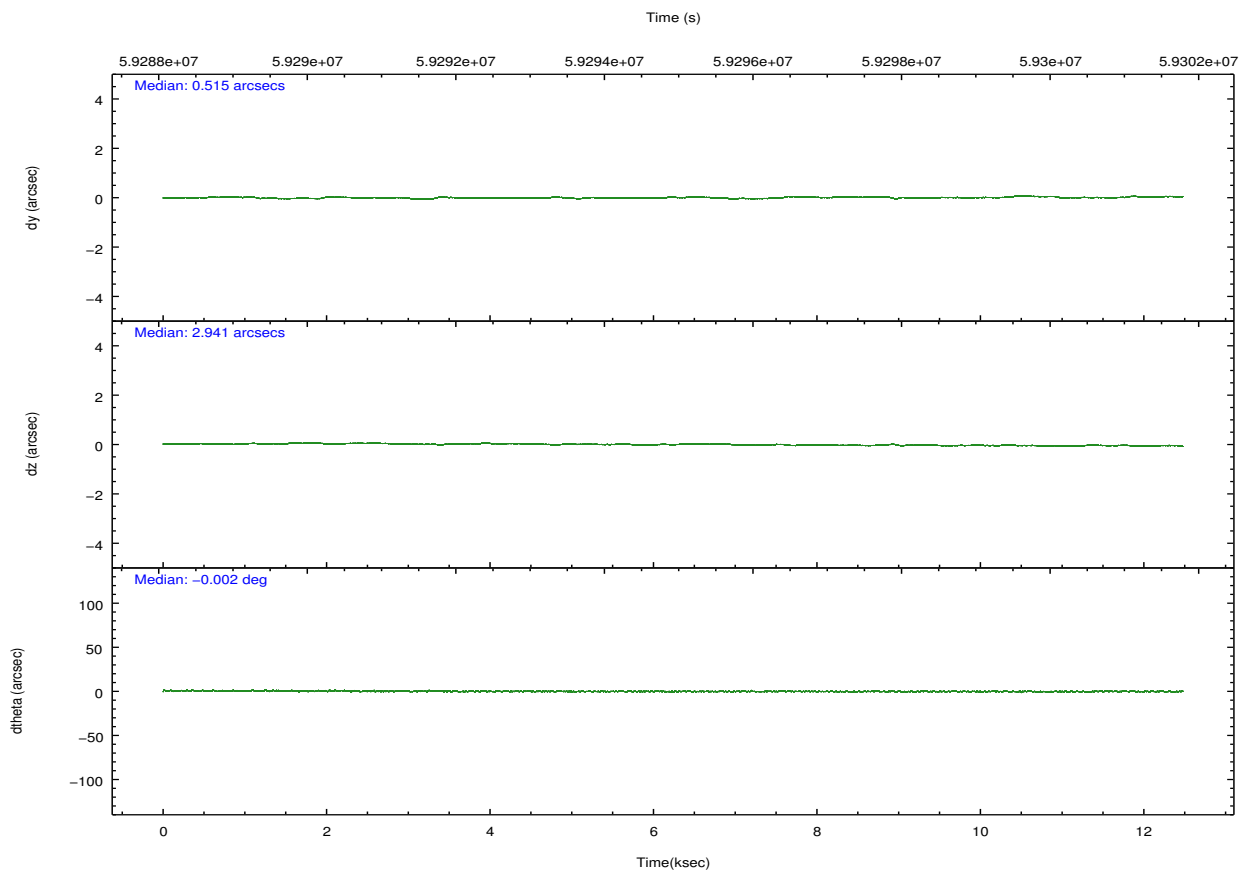
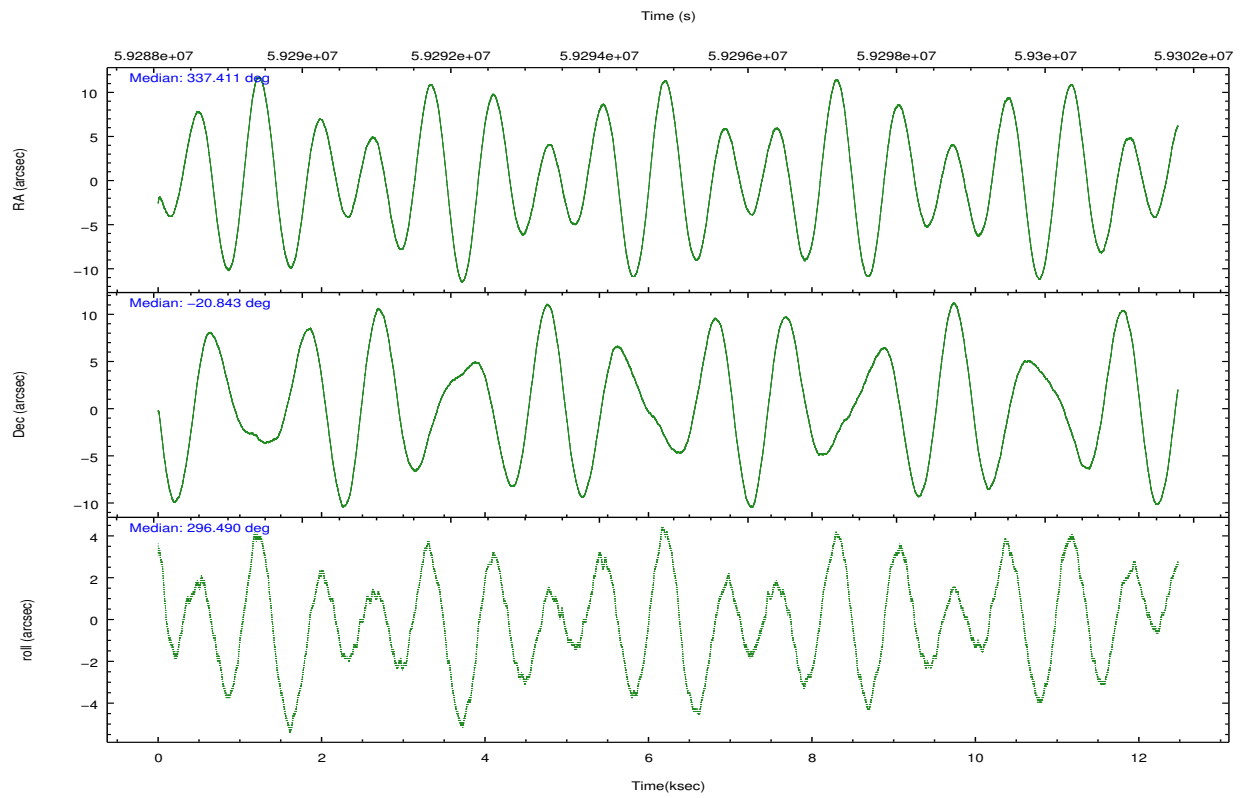
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	9606	1944	3585	4654	4447
	7%	2%	3%	4%	4%
grade 1 events	331	20	64	40	26
	0%	0%	0%	0%	0%
grade 2 events	14759	3736	9481	6188	8340
	11%	3%	8%	5%	8%
grade 3 events	2876	570	2920	1513	572
	2%	0%	2%	1%	0%
grade 4 events	2199	587	2691	1401	545
	1%	0%	2%	1%	0%
grade 5 events	4480	1978	5950	2635	2008
	3%	2%	5%	2%	2%
grade 6 events	32244	2621	27421	5645	2565
	24%	2%	25%	4%	2%
grade 7 events	64097	84265	56289	91486	81730
	49%	88%	51%	80%	81%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-56789	ACIS-56789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	337.386216	337.4107550708185	Subarray requested	NONE	NONE
Pointing Dec	-20.827958	-20.84332337804346	Alternating exposures requested	N	N
Pointing Roll	296.331396	296.4967527374775	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.1425803651734			
SIM translation stage offset (mm)	0	0.01005778216563158			
Observation start time	59289162.184000	59288380.935967			
Observation start date	1999-11-18T05:11:38	1999-11-18T04:59:40			
Observation end time	59301162.184000	59301520.923941			
Observation end date	1999-11-18T08:31:38	1999-11-18T08:38:40			
Read mode	TIMED	TIMED			

## 2.3 Aspect



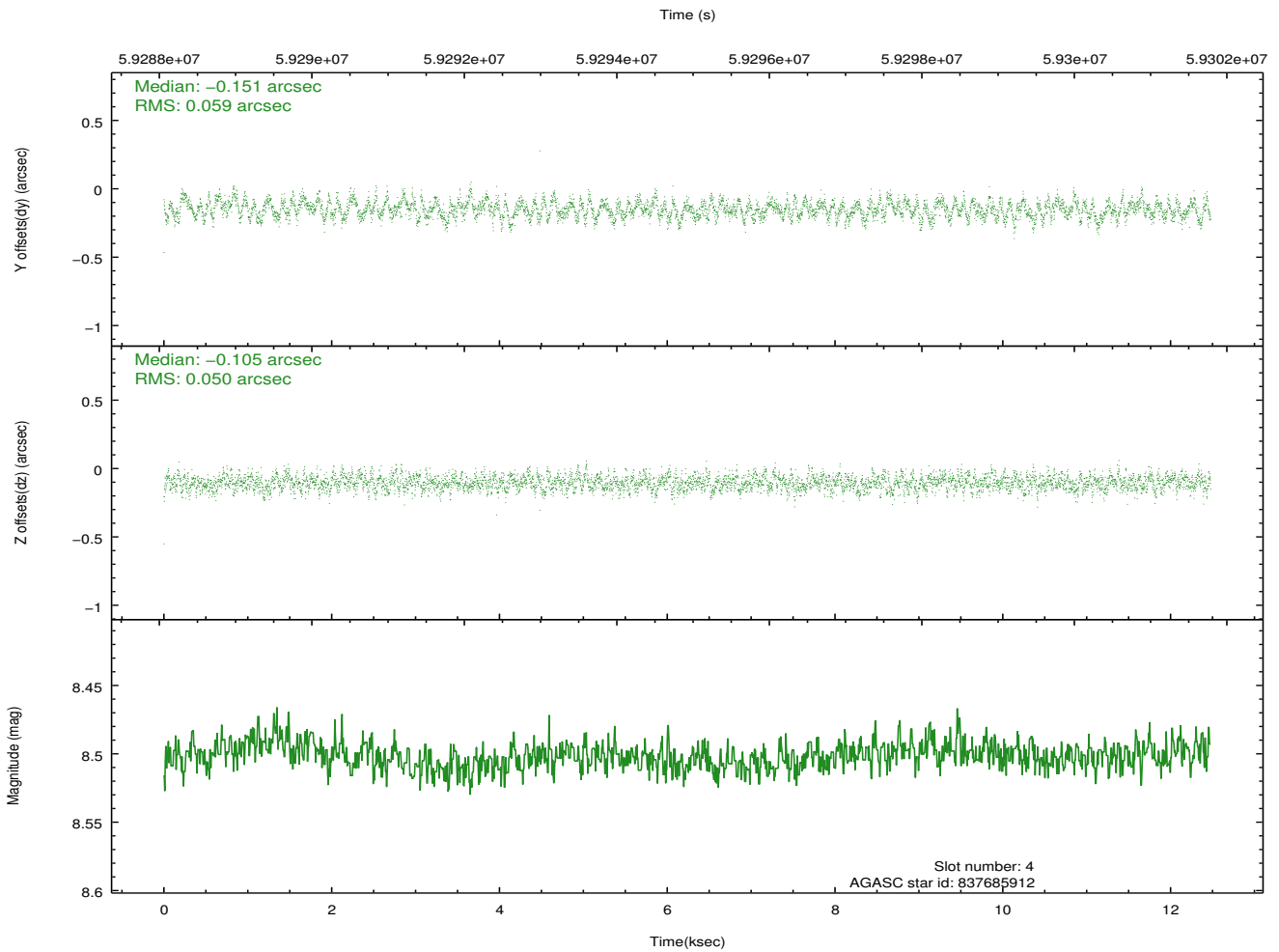
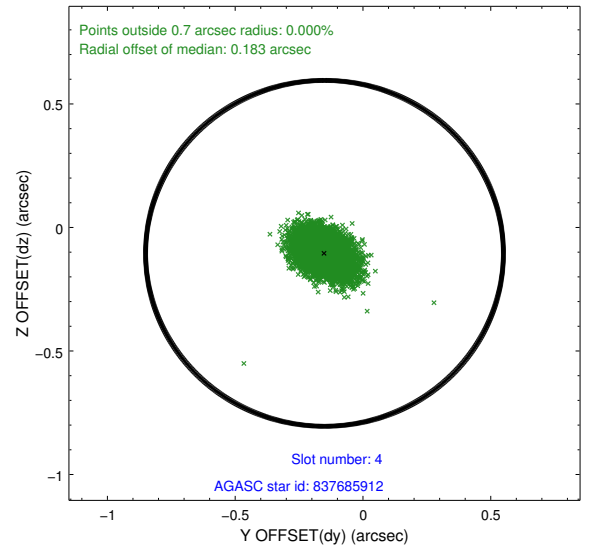
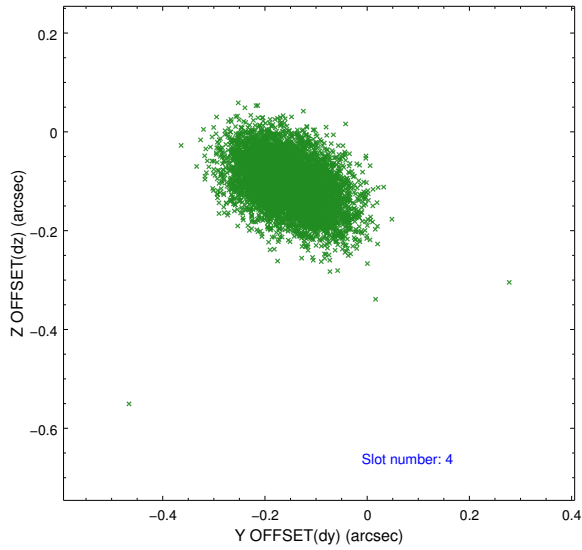


### Slot Statistics

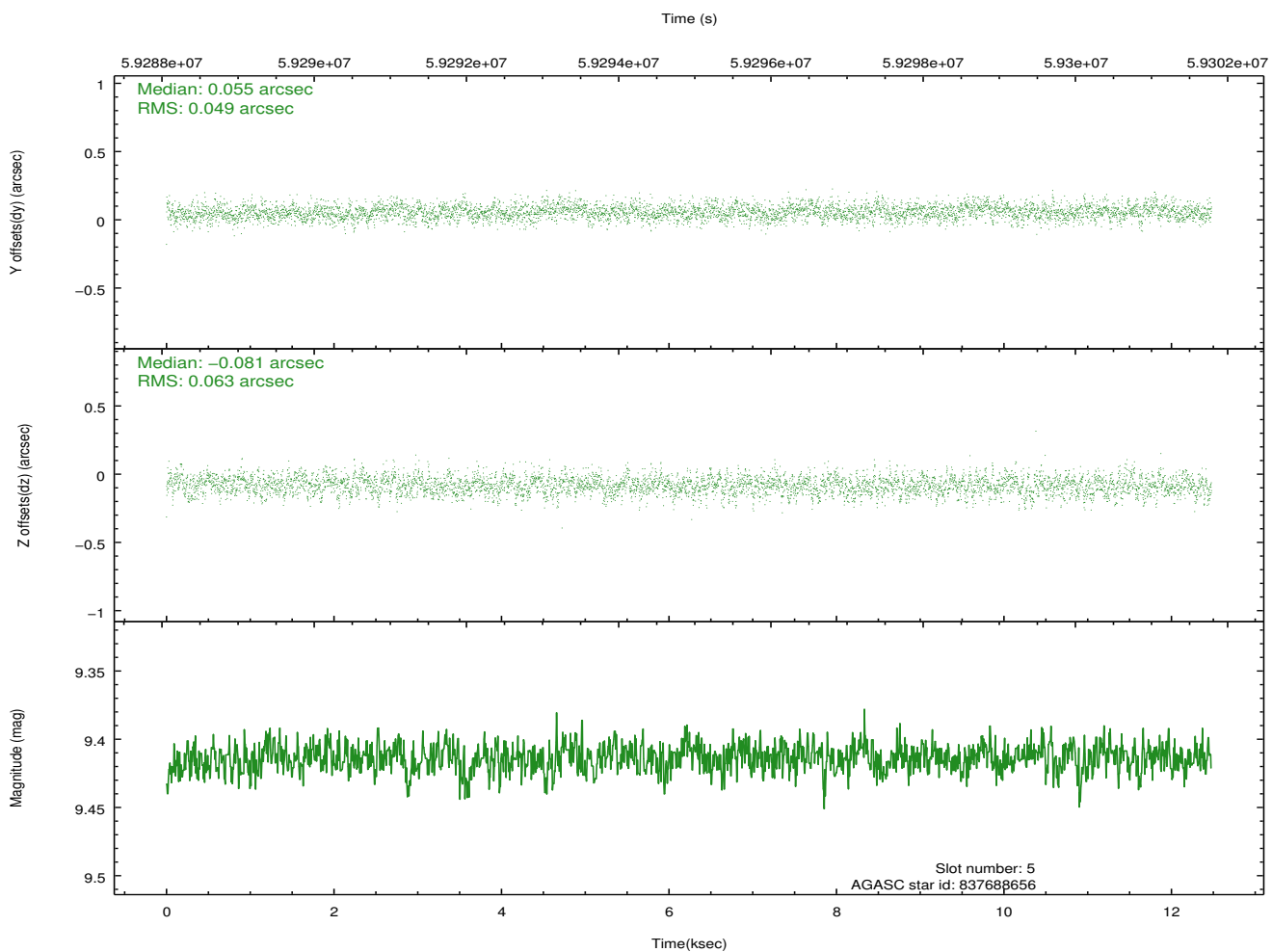
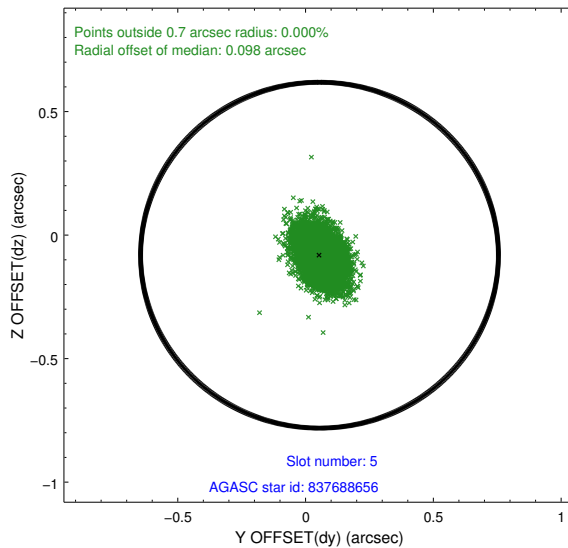
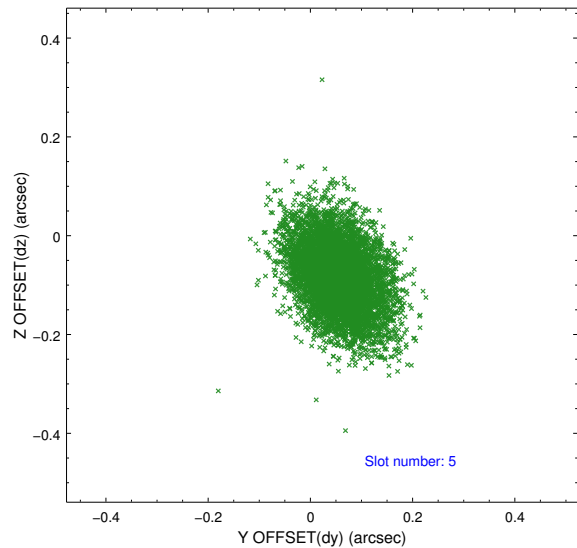
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	6086	-0.000	-0.015	0.009	0.018	0.000000	0.000000	-753.15	-1723.93
1	FID	ACIS-S-4	7.22	6084	0.045	0.005	0.012	0.028	0.000000	0.000000	2160.18	184.35
2	FID	ACIS-S-5	7.24	6086	-0.075	0.019	0.010	0.018	0.000000	0.000000	-1805.85	178.31
3	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
4	GUIDE	837685912	8.50	6085	-0.151	-0.105	0.082	0.135	337.276797	-20.408873	-1515.96	337.92
5	GUIDE	837688656	9.41	6080	0.055	-0.081	0.083	0.141	337.295219	-21.231018	1165.07	-917.28
6	GUIDE	837693112	9.77	6083	0.001	0.080	0.097	0.162	337.289315	-20.768729	-335.43	-197.97
7	GUIDE	837686440	10.01	6078	0.098	0.107	0.129	0.209	338.100150	-20.711147	694.05	2338.91

## 2.4 Star Slots

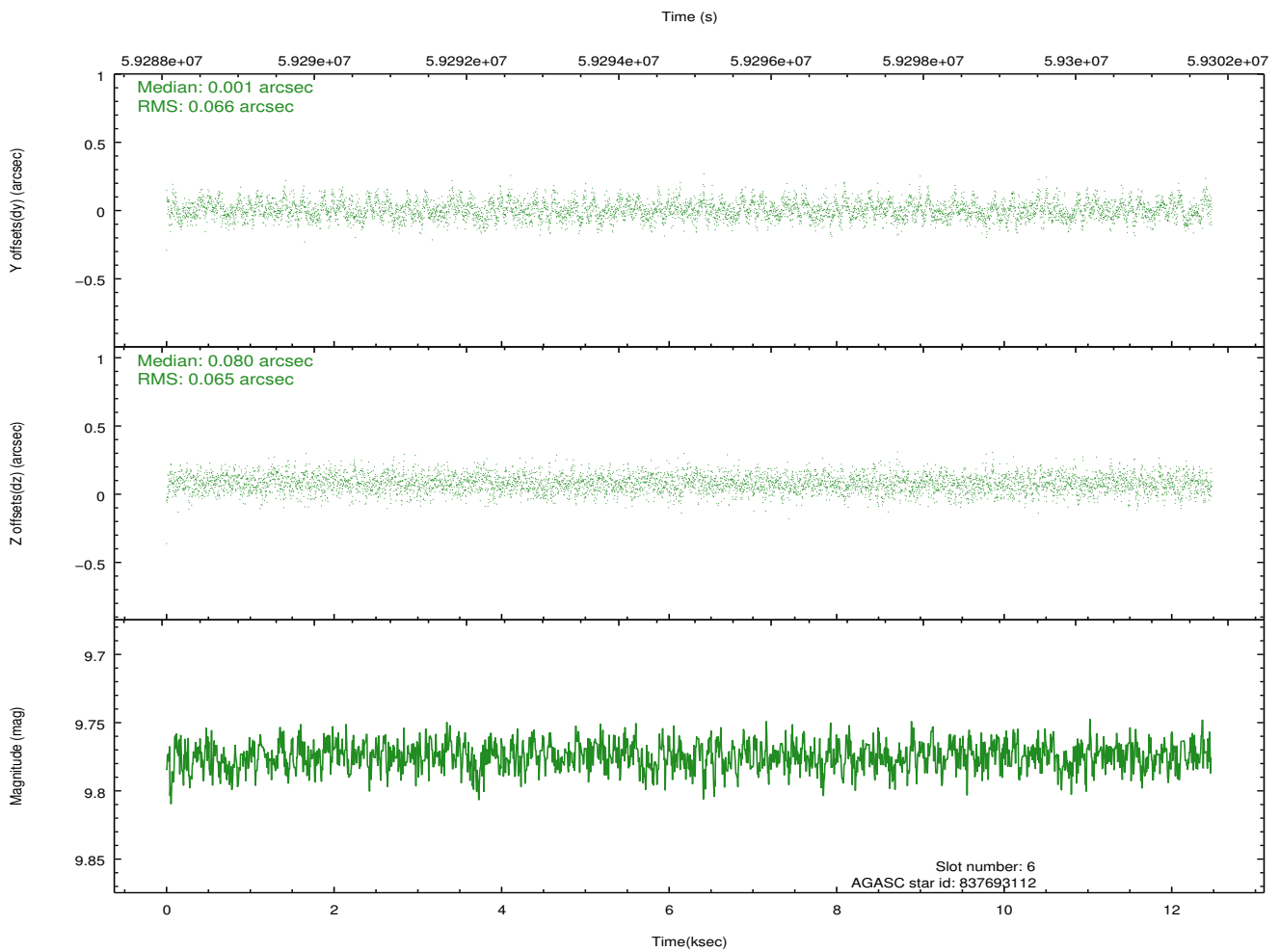
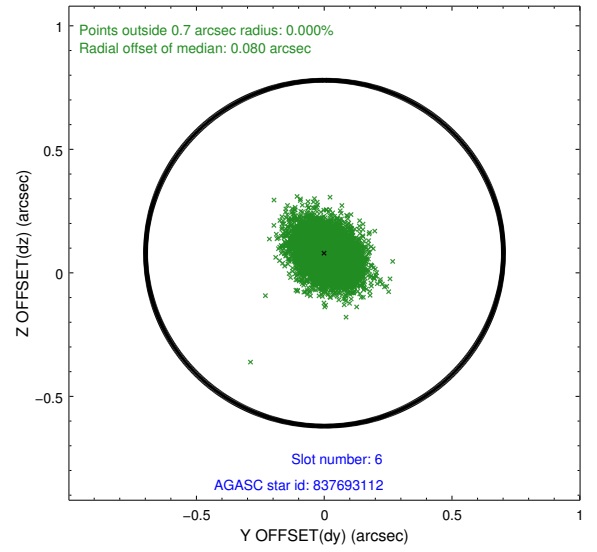
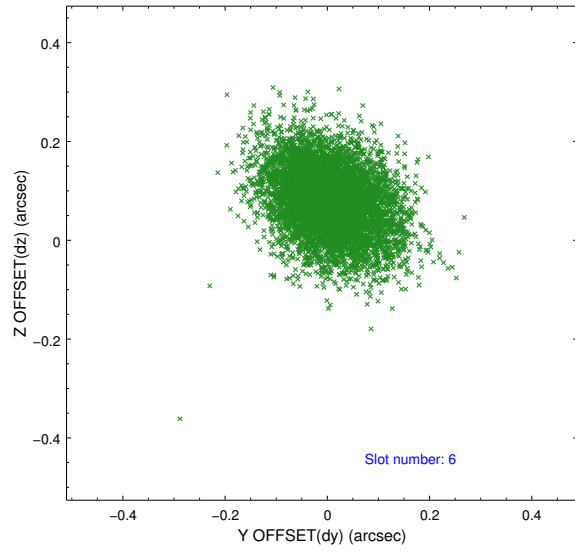
### 2.4.1 Slot 4



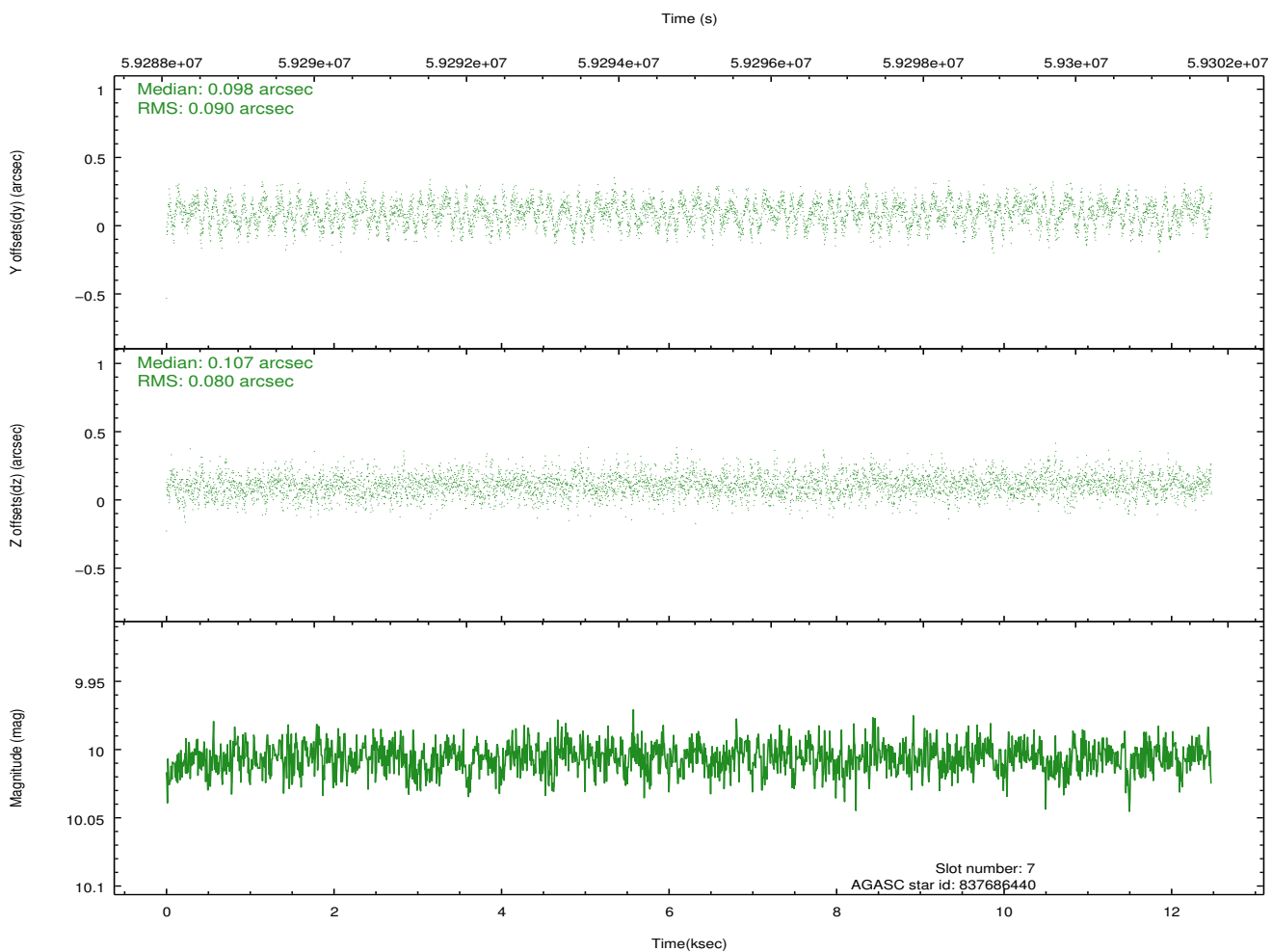
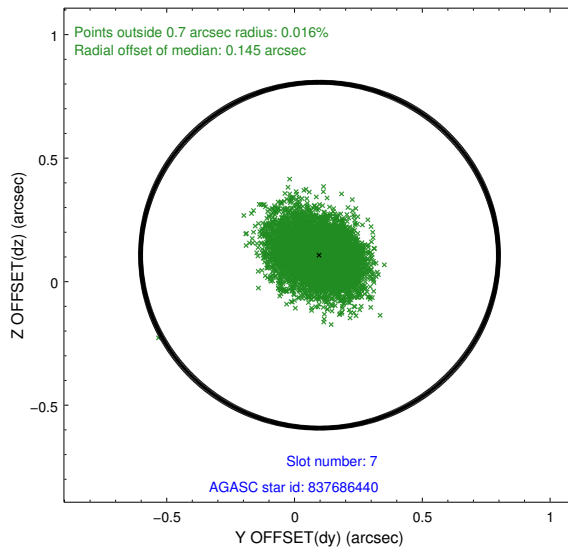
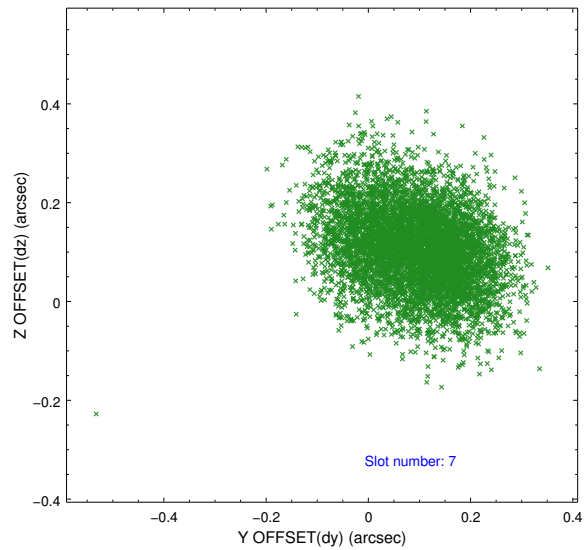
## 2.4.2 Slot 5



### 2.4.3 Slot 6

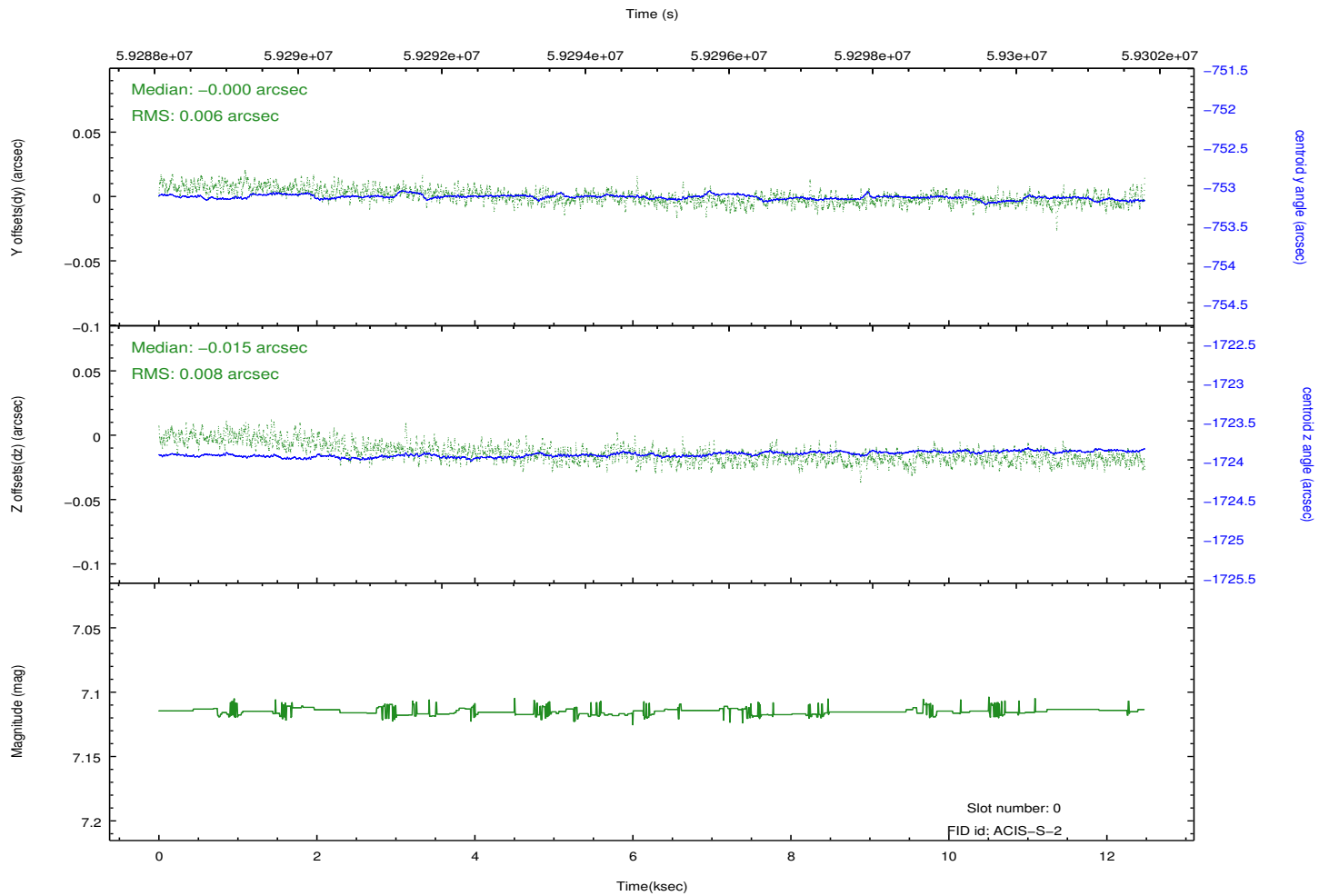
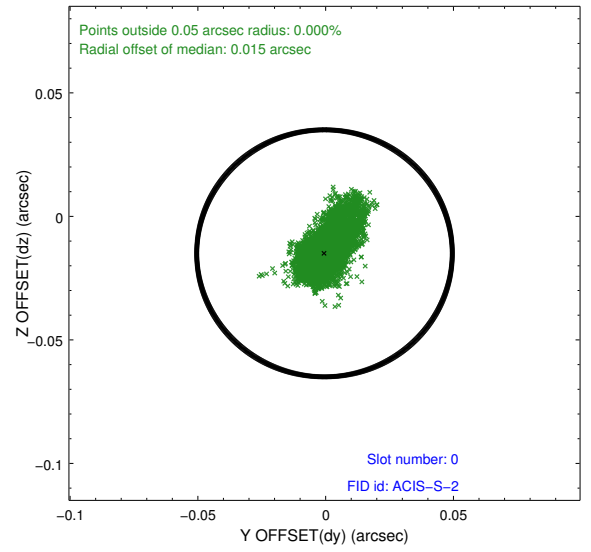
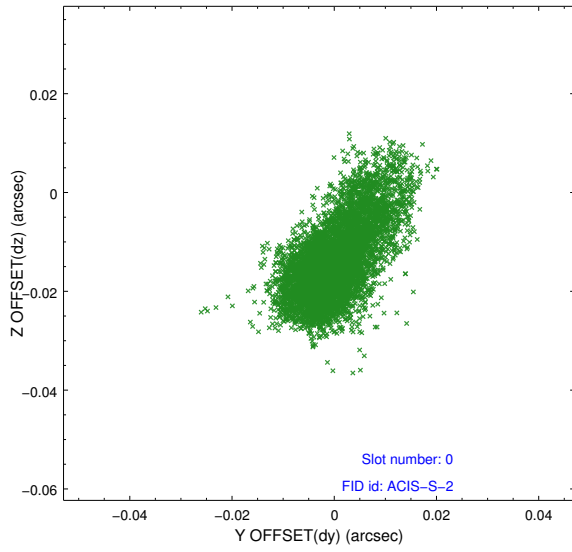


## 2.4.4 Slot 7

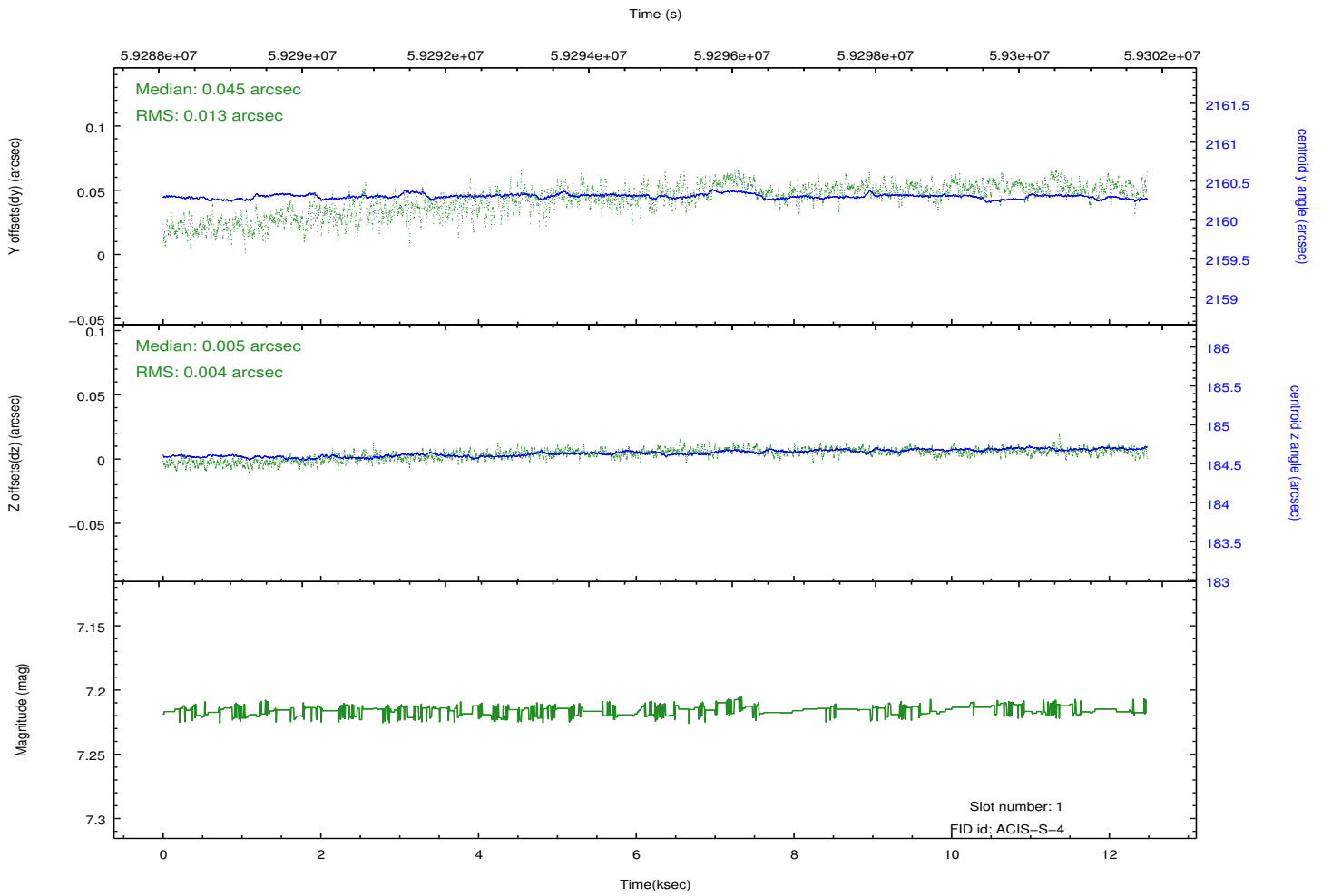
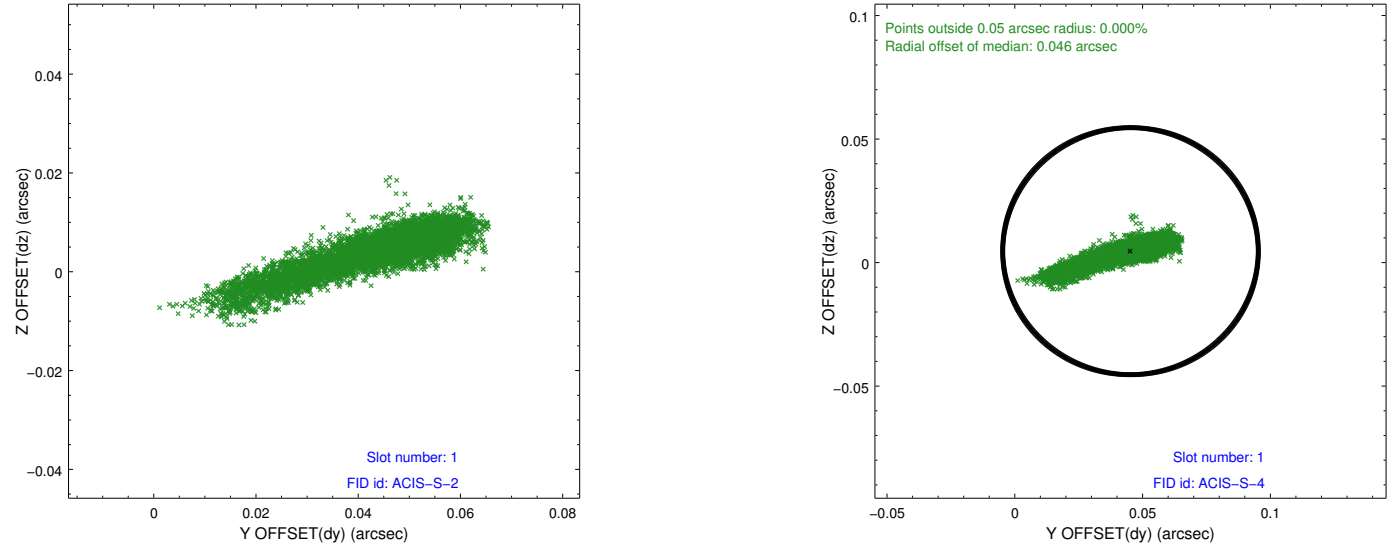


## 2.5 FID Slots

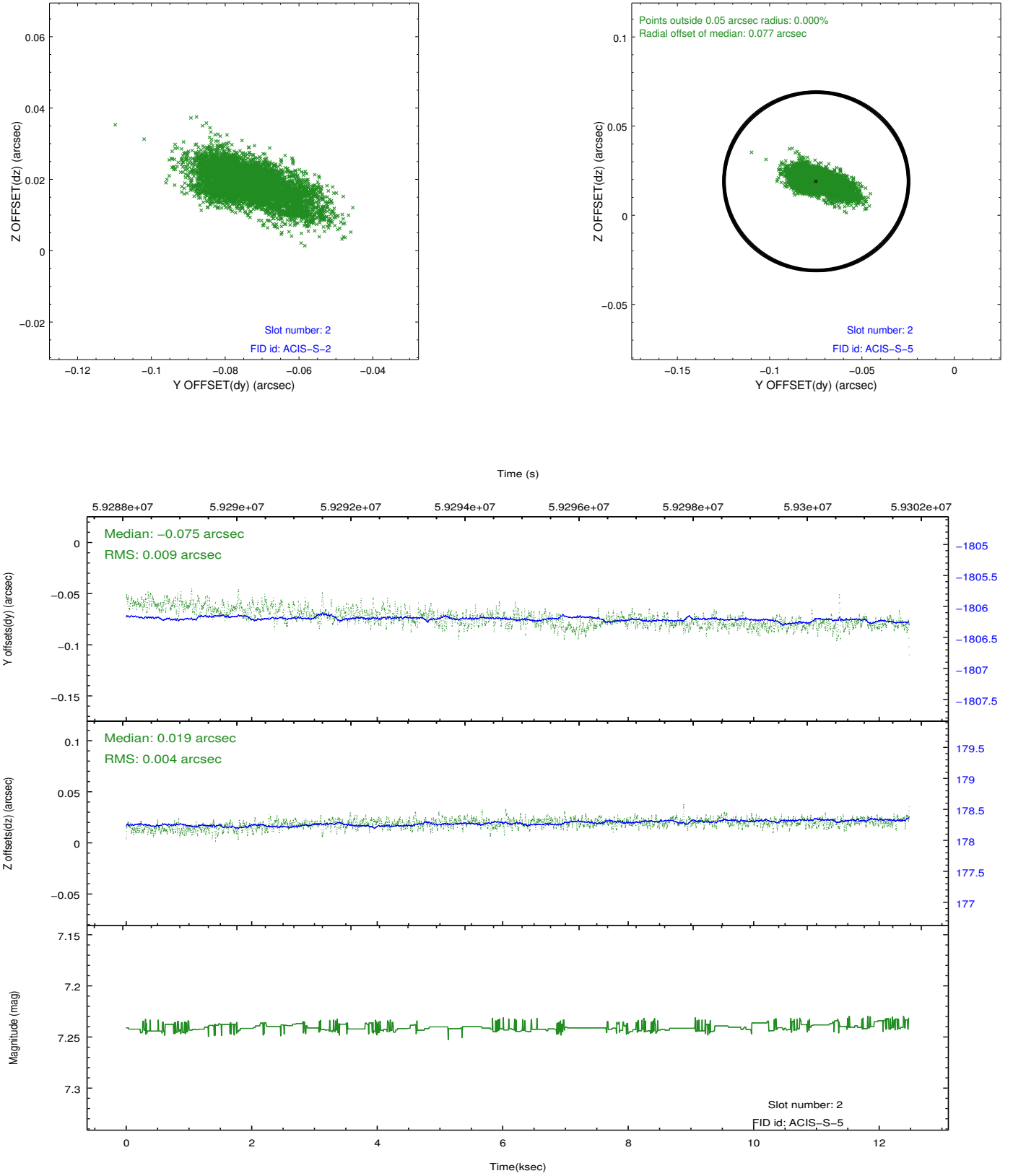
### 2.5.1 Slot 0



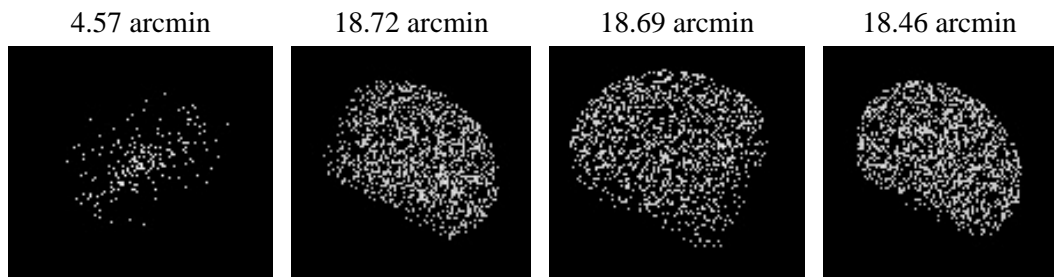
## 2.5.2 Slot 1



### 2.5.3 Slot 2



### 3 Point Sources



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.07.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	11.145

## A.2 Comments

High radiation environment during this observation.

===

No guide star in slot 3 was planned for this observation.

===

Charge time for this ObsId remains at original value of 11.145 ks, although with the current processing the charge time would have been 11.164 ksec.

===

The focal plane temperature is approximately -110 C during this observation. This reprocessing of the data applies no CTI correction because none is available for this temperature at present.

The ACIS CTI correction has not been calibrated at this temperature, because it was early in the mission, and ACIS had not yet been lowered to the standard -119.7 C. Both front and back illuminated chips are affected. However a T\_GAIN correction has been applied to the BI chips (ACIS-5 and ACIS-7) data included here.

The ACIS spectral response calibration is less accurate at these warmer temperatures than it is at -119.7 C. Users whose science objectives depend on the most accurate spectral response (ie: fitting line-rich spectra) may notice an effect. Users whose science objectives do not depend on the most accurate spectral response should not notice an effect.