

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 13622 - L2 Version 3  
Chandra X-Ray Center

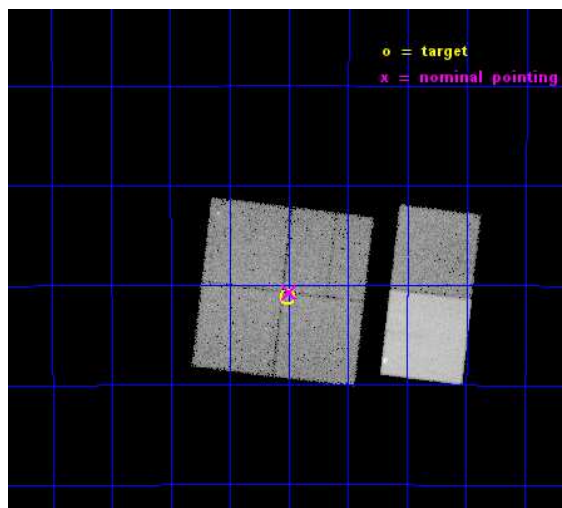
L2 Processing Date : Dec 1 2014

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# 1 Front

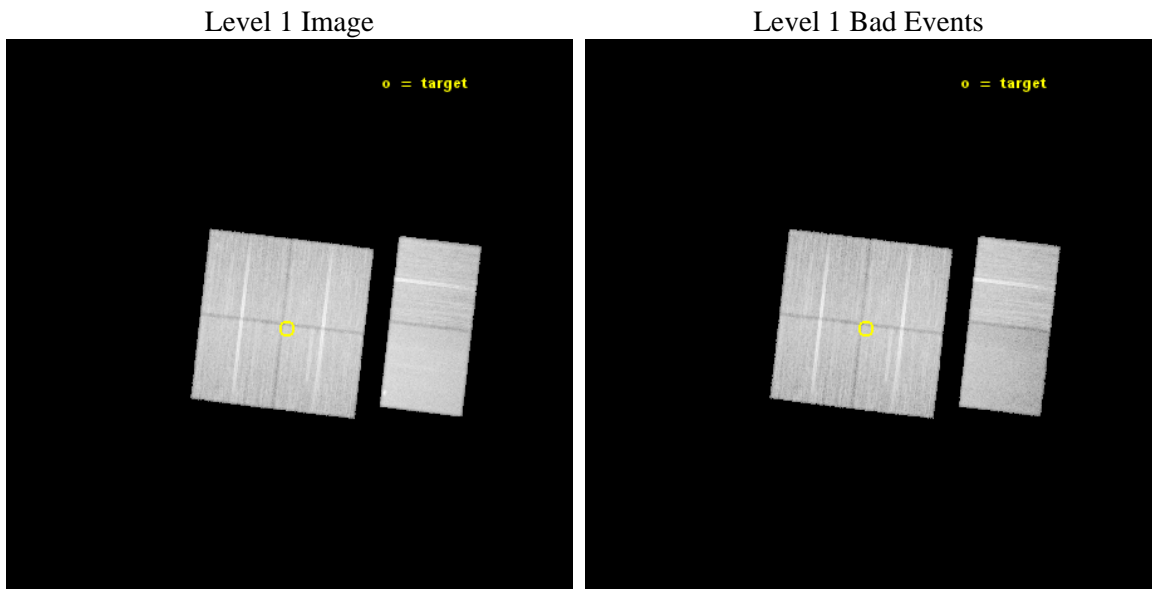
seq_num	200776	Sequence number
obs_id	13622	Observation id
title	The Young 'Cluster of Clusters' NGC 6357: A Carina Complex in the Making?	Proposal title
observer	Dr. Leisa Townsley	Principal investigator
object	G352.90+1.02	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	260.877917	Observer's specified target RA [deg]
dec_targ	-34.352917	Observer's specified target Dec [deg]
ra_nom	260.87393549202	Nominal RA [deg]
dec_nom	-34.345531503742	Nominal Dec [deg]
roll_nom	96.747217937369	Nominal Roll [deg]
revision	3	Processing version of data
ontime	39964.758880854	Sum of GTIs [s]
livetime	39458.701040016	Livetime [s]
ontime0	39967.999851167	Sum of GTIs [s]
ontime1	39967.999851167	Sum of GTIs [s]
ontime2	39964.758880854	Sum of GTIs [s]
ontime3	39964.758880854	Sum of GTIs [s]
ontime6	39964.758880854	Sum of GTIs [s]
ontime7	39967.999851167	Sum of GTIs [s]
l2events	212566	Number of level 2 events



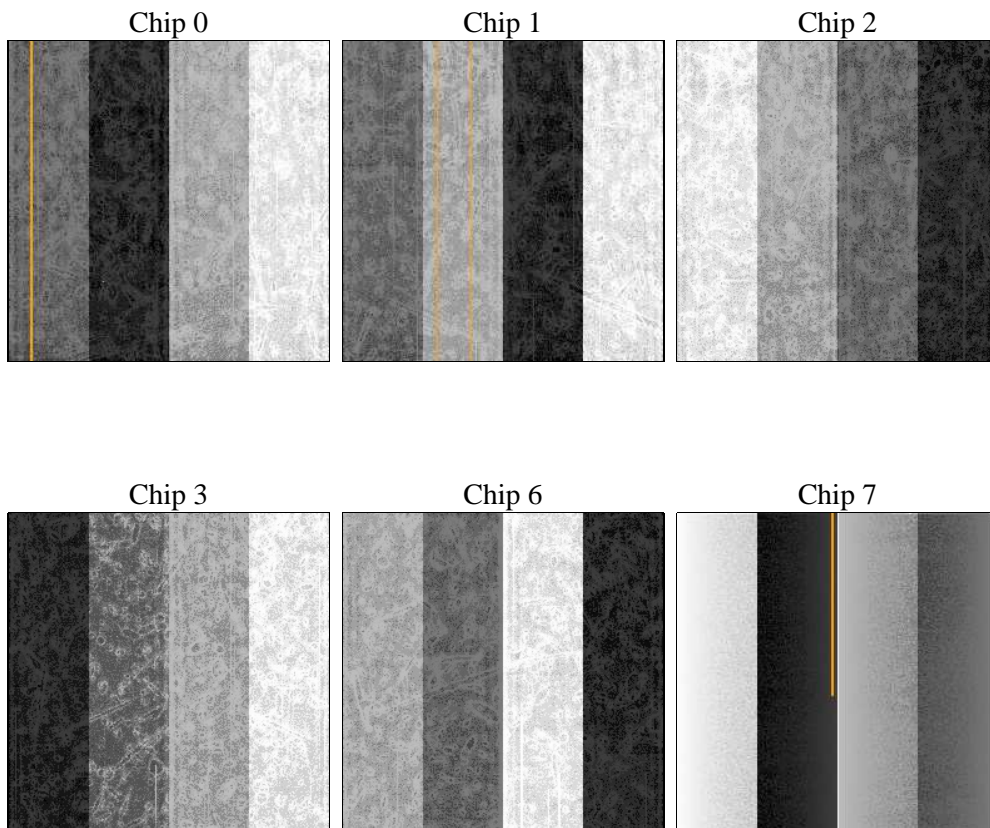
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	39964.758880854	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime0	39967.999851167	Sum of GTIs [s]
date	2014-12-01T19:10:46	Date and time of file creation	ontime1	39967.999851167	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	39964.758880854	Sum of GTIs [s]
			ontime3	39964.758880854	Sum of GTIs [s]
			ontime6	39964.758880854	Sum of GTIs [s]
			ontime7	39967.999851167	Sum of GTIs [s]
			l1events	1205366	Number of level 1 events

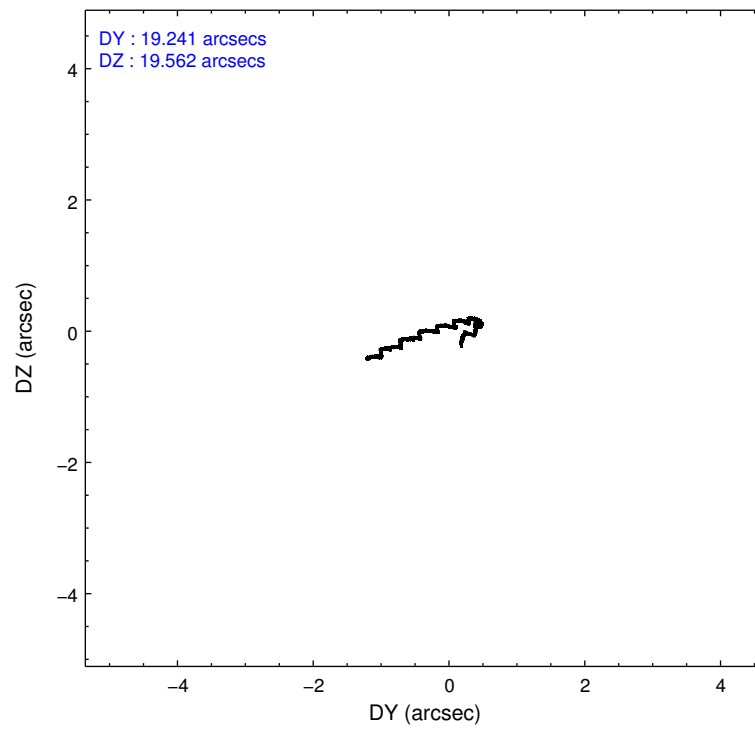
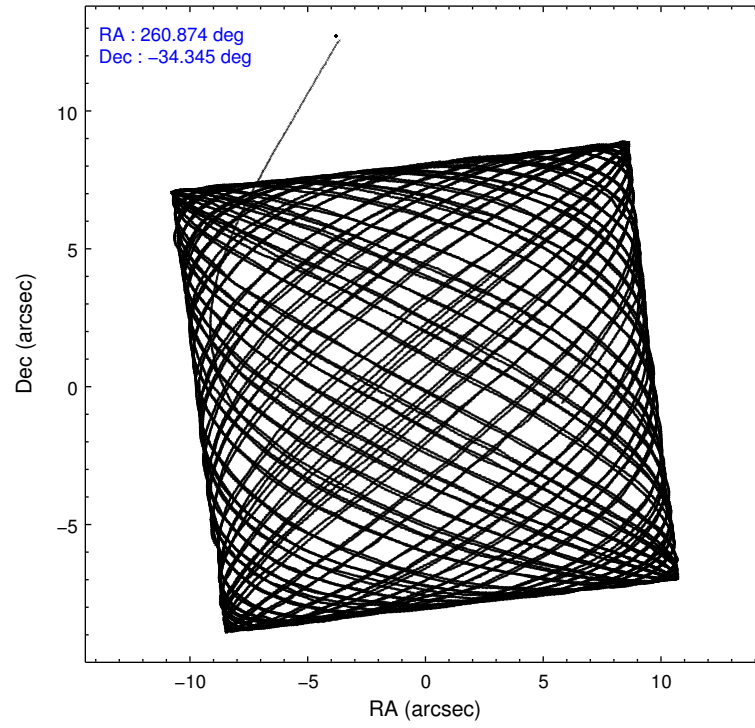
### 2.1.4 Events

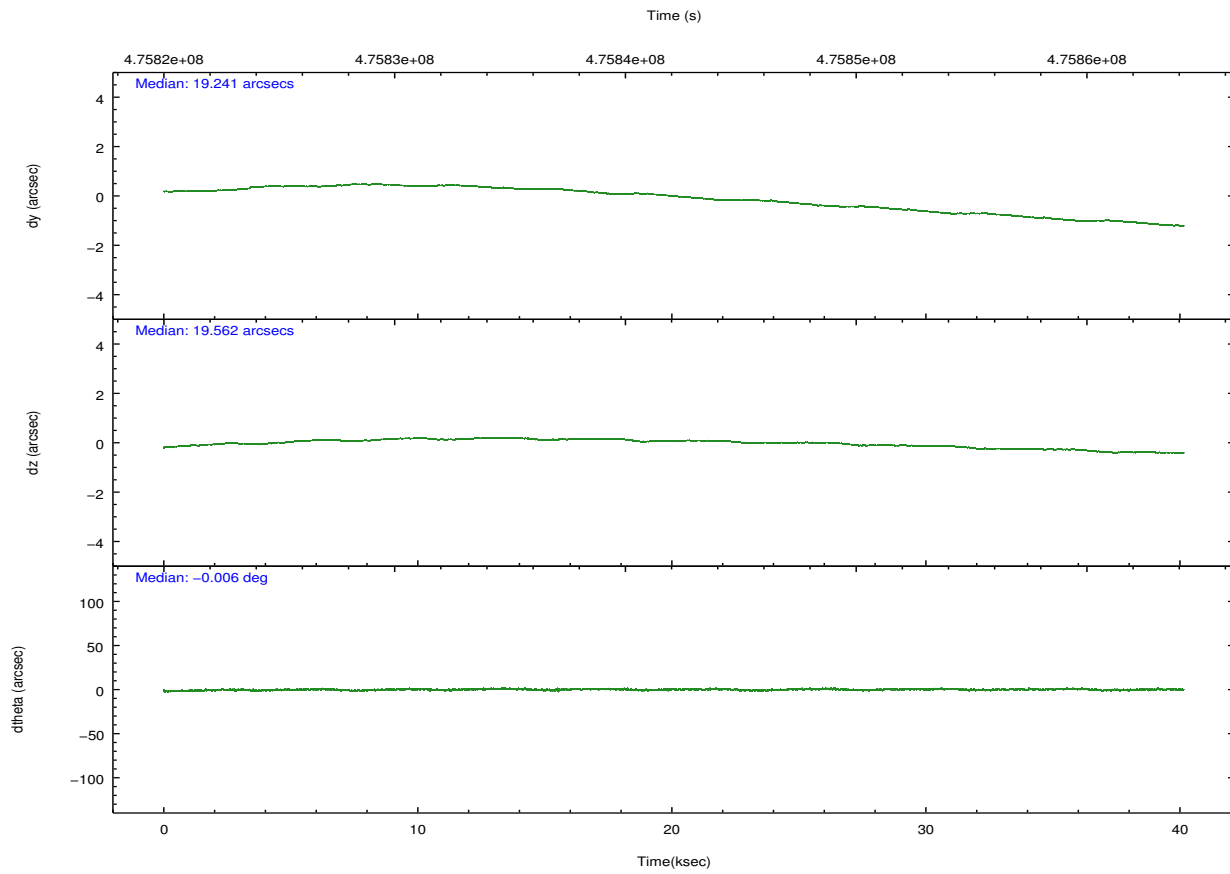
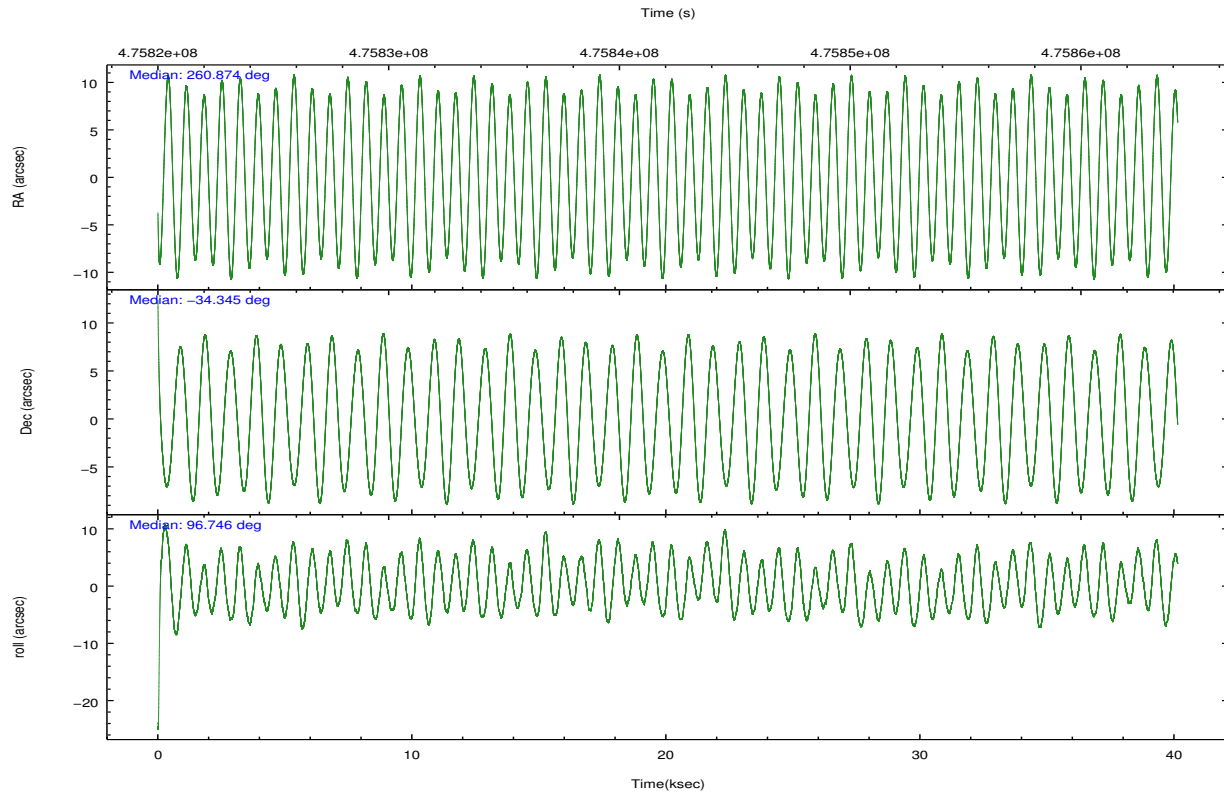
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	182507	183541	205698	194628	207366	231626	grade 0 events	10868	9856	10174	8793	8887	10751
rejected events	156093	157668	180952	171787	182857	120893		5%	5%	4%	4%	4%	4%
rejected %	85%	85%	87%	88%	88%	52%	grade 1 events	132	121	115	138	122	347
								0%	0%	0%	0%	0%	0%
							grade 2 events	6192	5806	5978	4949	5599	23767
								3%	3%	2%	2%	2%	10%
							grade 3 events	2537	2581	2259	2470	2527	9702
								1%	1%	1%	1%	1%	4%
							grade 4 events	2350	2508	2274	2342	2370	9752
								1%	1%	1%	1%	1%	4%
							grade 5 events	7630	8303	7117	9028	8840	24572
								4%	4%	3%	4%	4%	10%
							grade 6 events	4471	5127	4063	4290	5129	56784
								2%	2%	1%	2%	2%	24%
							grade 7 events	148327	149239	173718	162618	173892	95951
								81%	81%	84%	83%	83%	41%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	260.893962	260.8739354920204	CCD I2 on	Y	Y
[deg] Pointing Dec	-34.367494	-34.34553150374153	CCD I3 on	Y	Y
[deg] Pointing Roll	96.549849	96.74721793736869	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O2	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	475822162.184000	475821048.79764	CCD S5 on	N	N
Observation start date	2013-01-29T04:48:15	2013-01-29T04:30:48	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	475862162.184000	475862563.34983	On-chip summing requested	N	N
Observation end date	2013-01-29T15:54:55	2013-01-29T16:02:43	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect





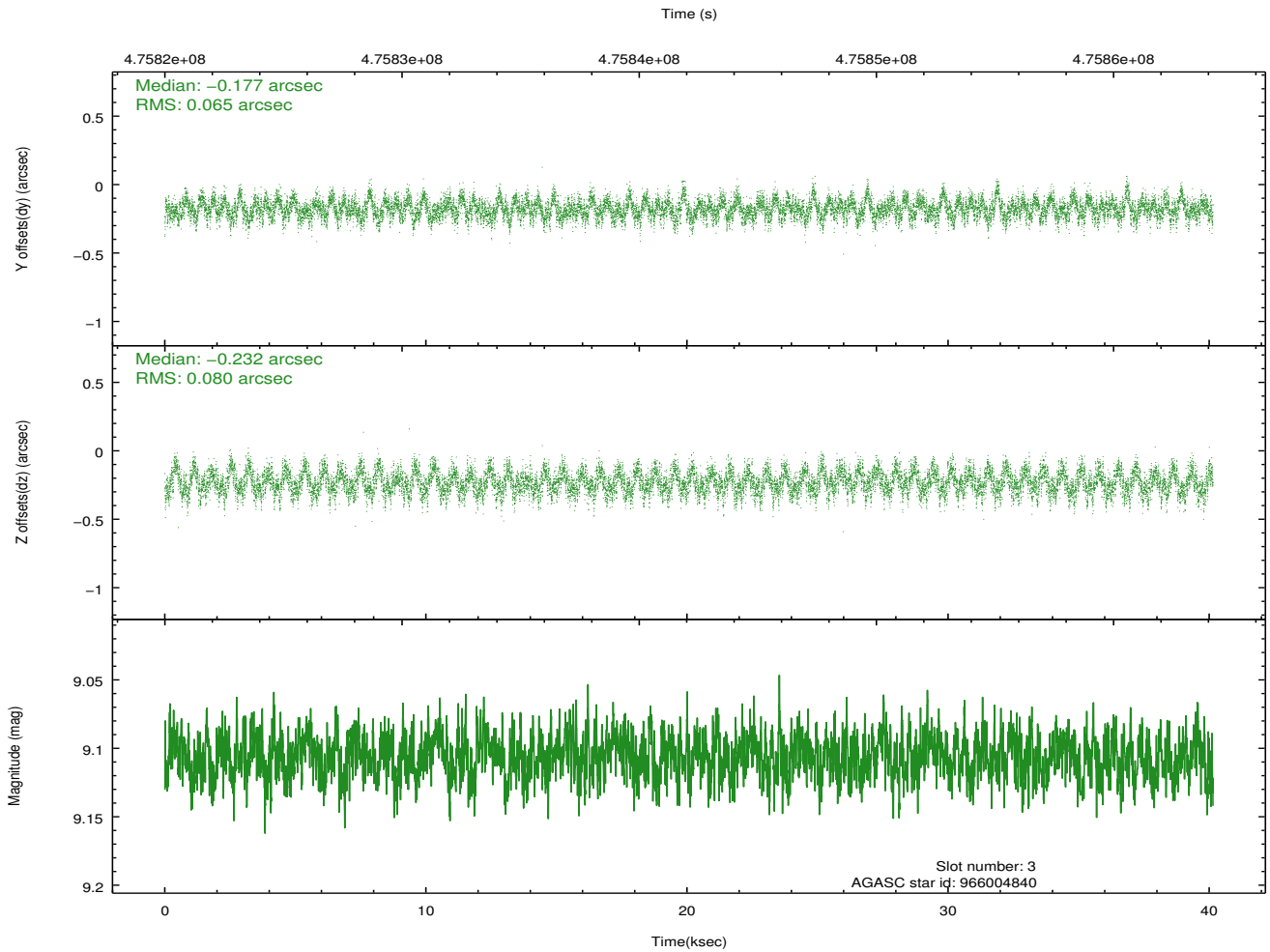
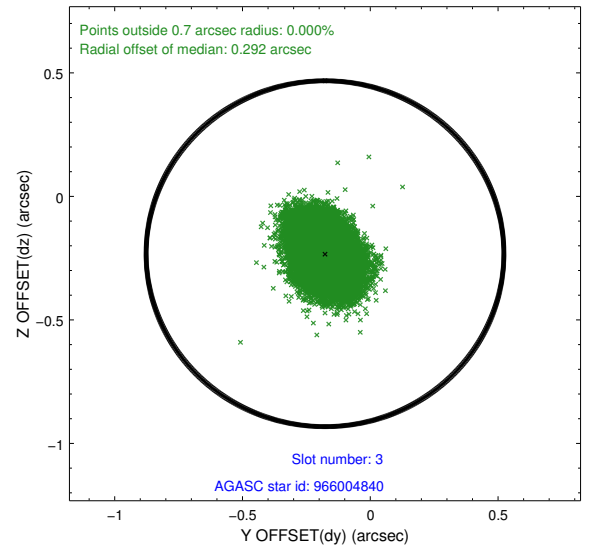
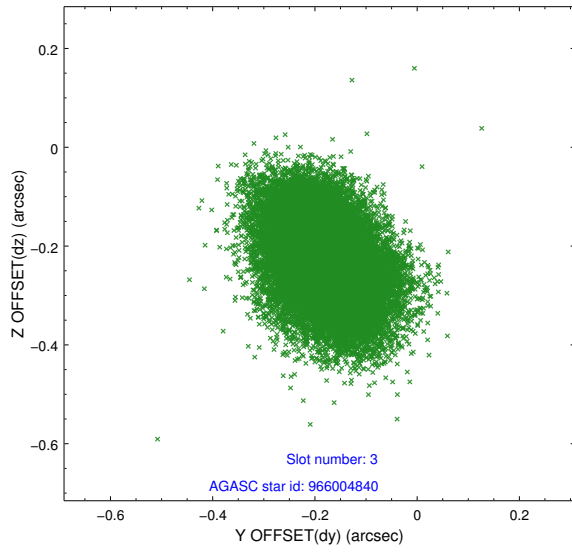
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.06	9790	0.047	-0.008	0.010	0.019	0.000000	0.000000	920.36	-843.19
1	FID		ACIS-I-2	6.97	9788	-0.035	-0.024	0.013	0.022	0.000000	0.000000	-773.80	-849.77
2	FID		ACIS-I-5	7.05	9788	-0.103	0.104	0.009	0.016	0.000000	0.000000	-1828.18	1054.22
3	GUIDE	used	966004840	9.11	19498	-0.177	-0.232	0.111	0.176	260.285639	-34.363805	213.87	1795.14
4	GUIDE	used	967706432	6.75	19582	-0.336	0.202	0.097	0.148	261.306065	-34.429958	-365.62	-1189.25
5	GUIDE	used	967708760	7.42	19582	0.324	0.139	0.072	0.119	261.328301	-34.249213	273.22	-1332.10
6	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
7	GUIDE	used	966003392	9.24	19489	0.183	-0.113	0.126	0.194	260.722091	-33.817335	2026.18	284.92

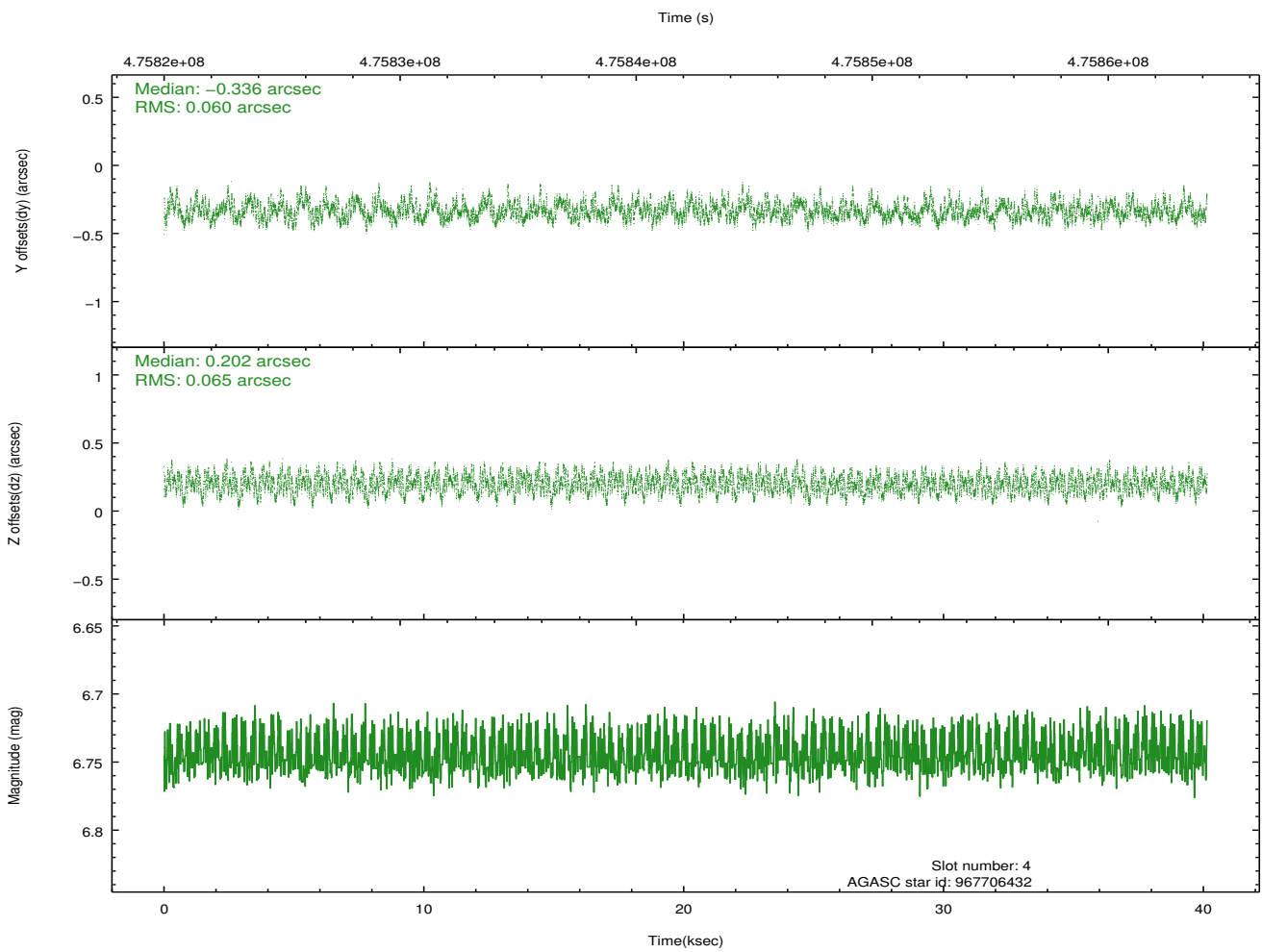
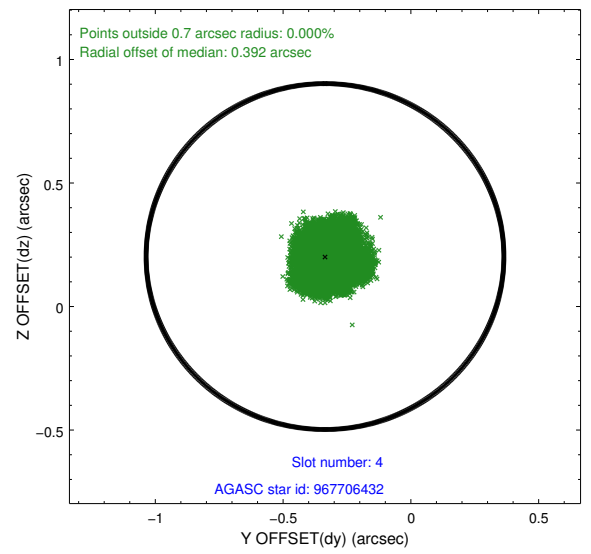
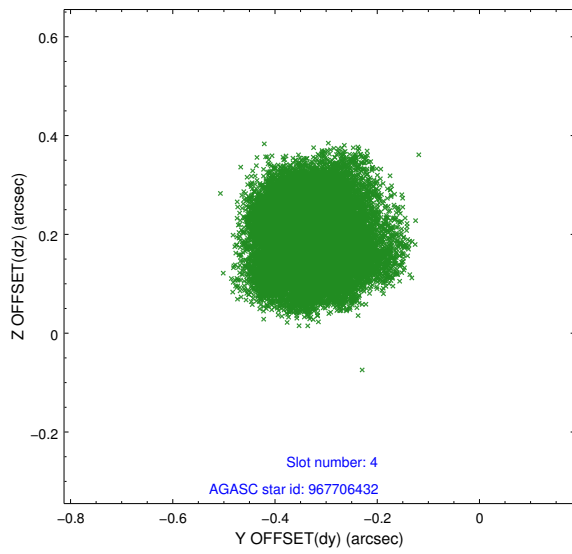
∞

## 2.4 Star Slots

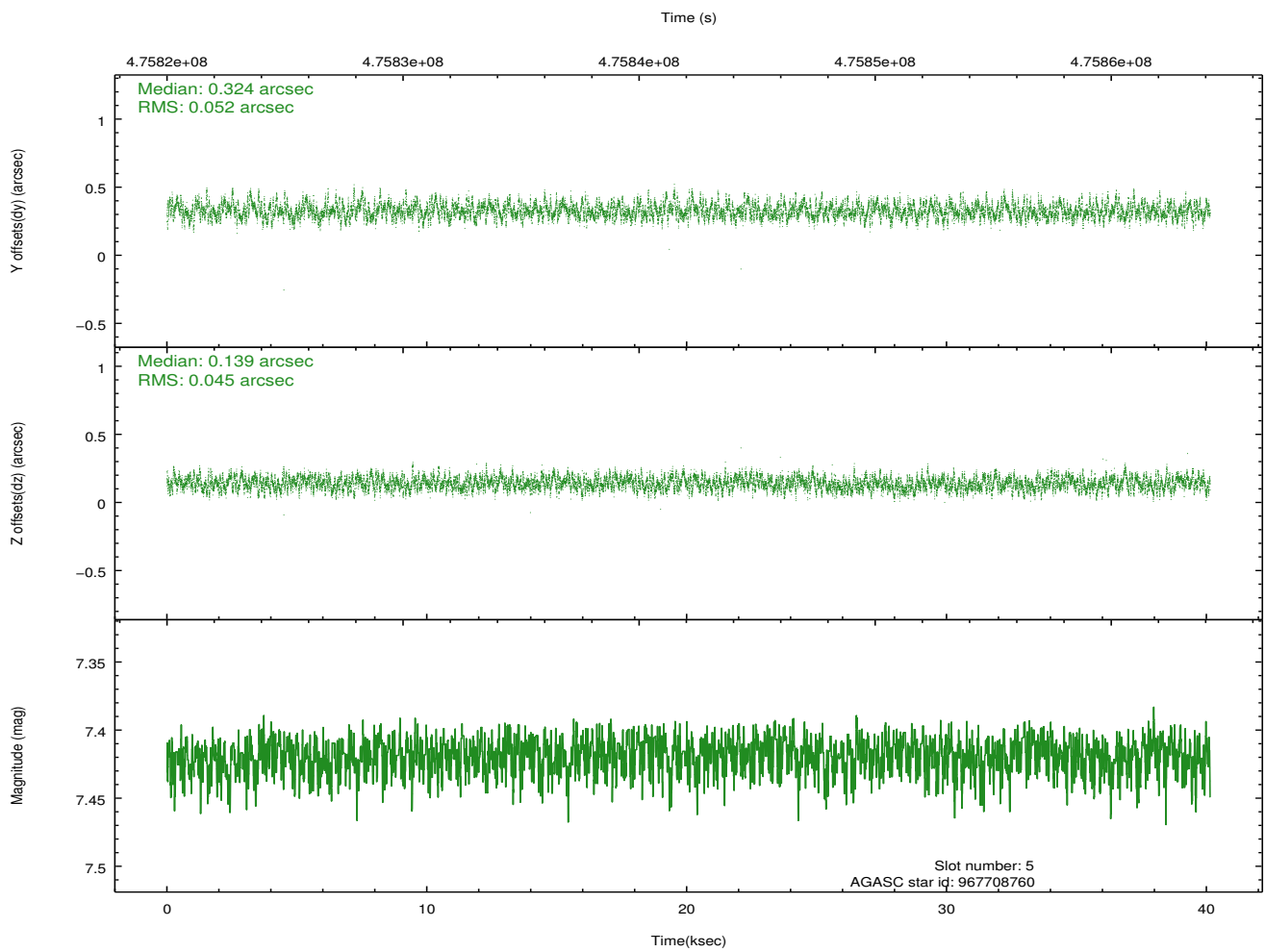
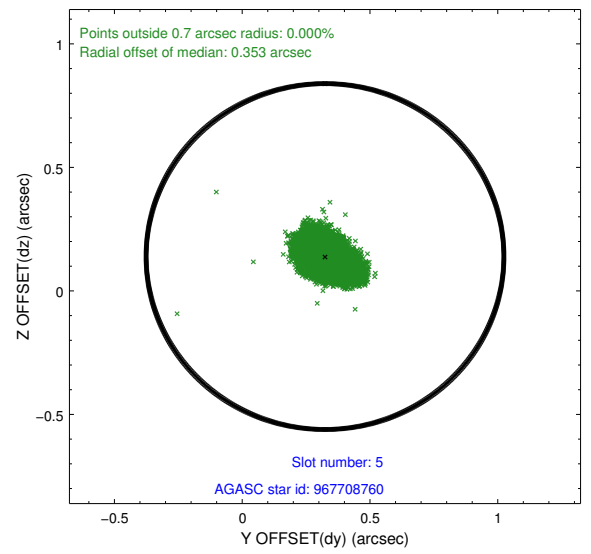
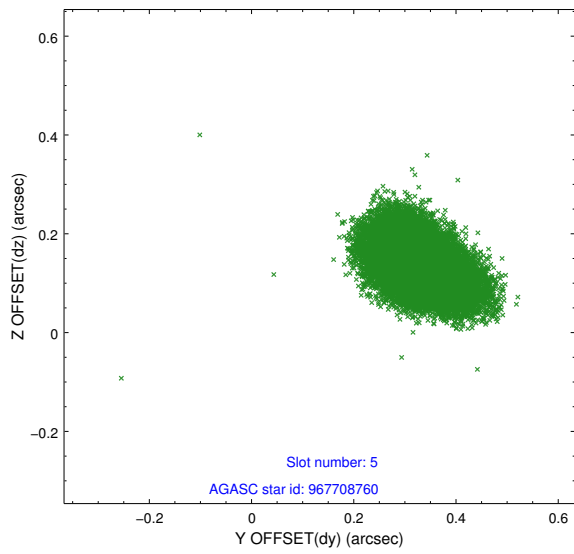
### 2.4.1 Slot 3



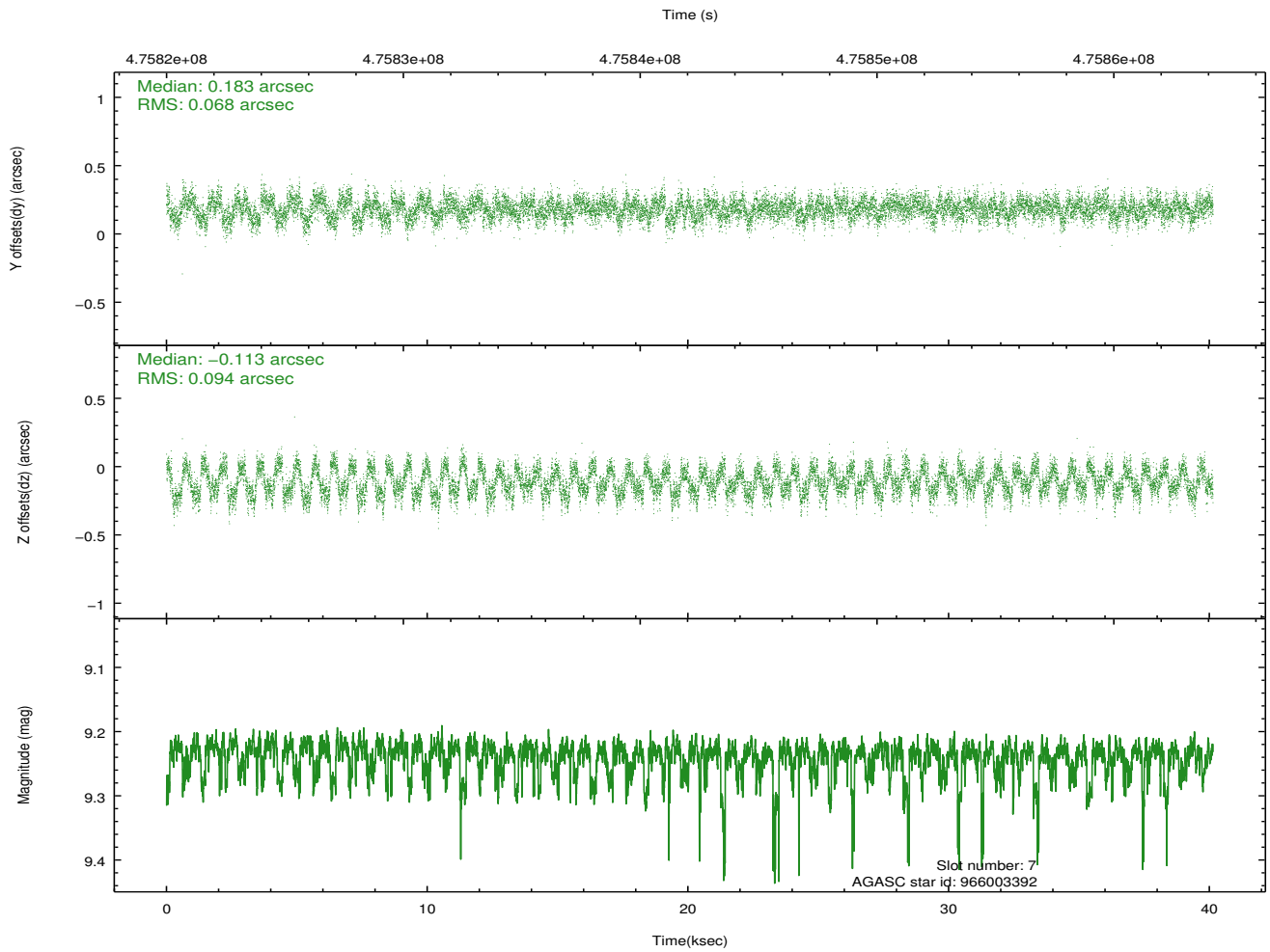
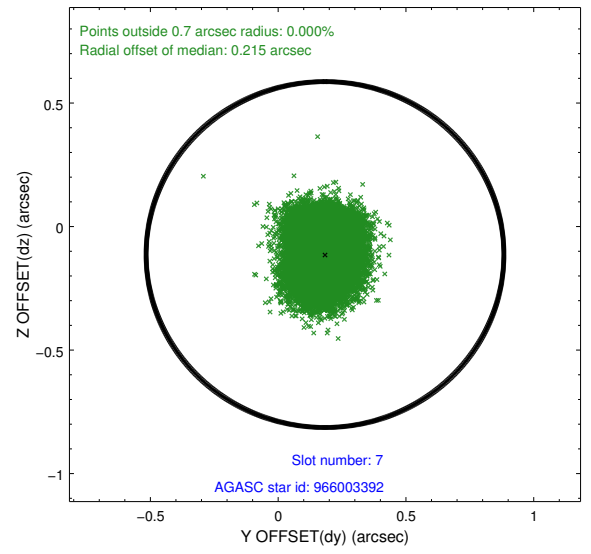
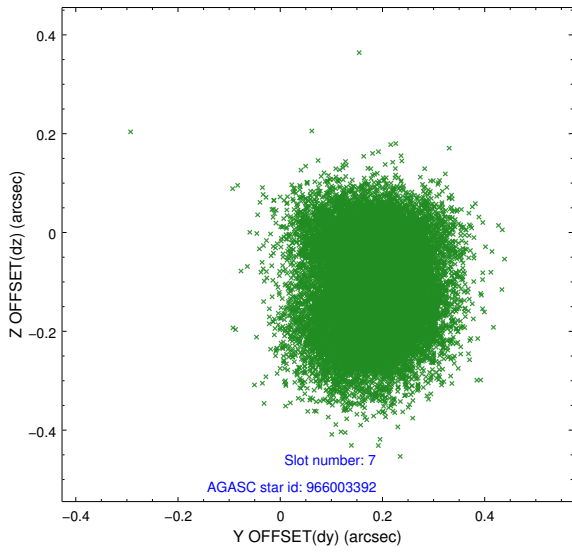
## 2.4.2 Slot 4



### 2.4.3 Slot 5

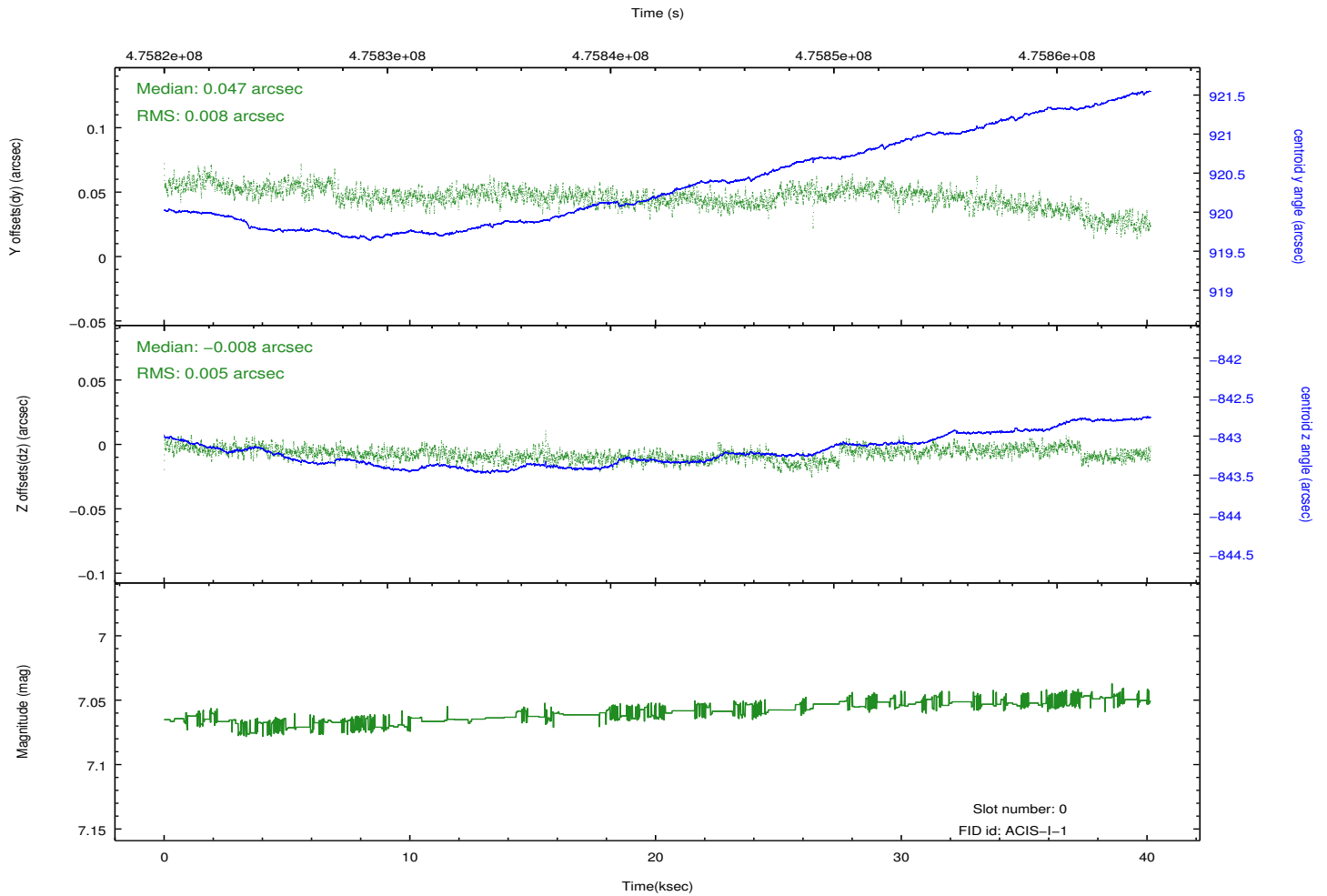
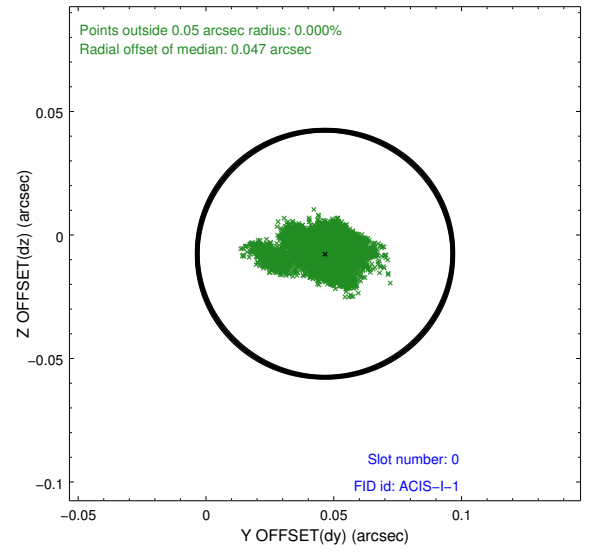
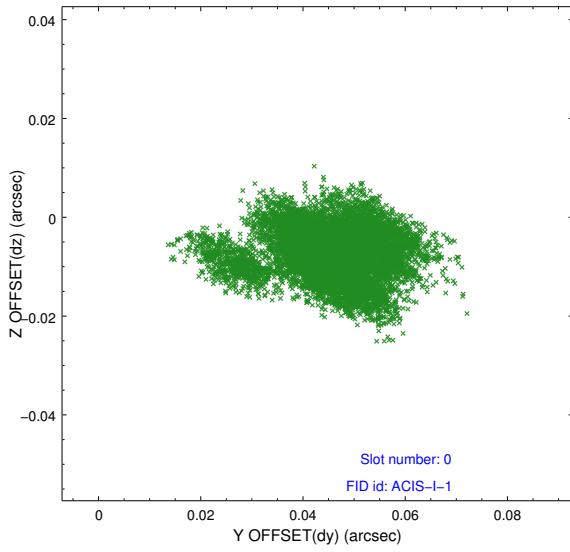


### 2.4.4 Slot 7

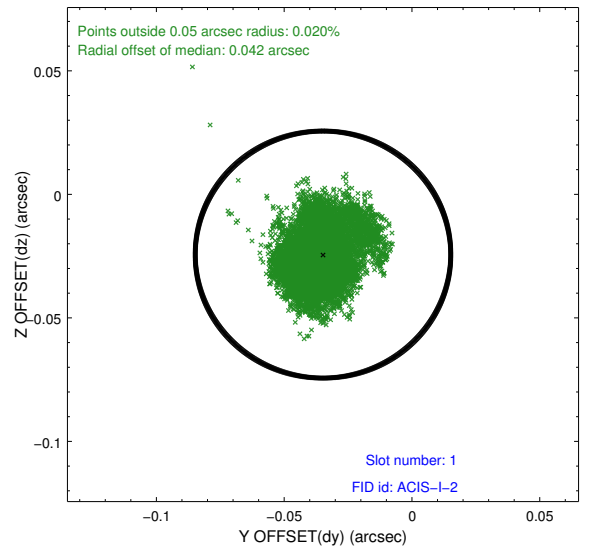
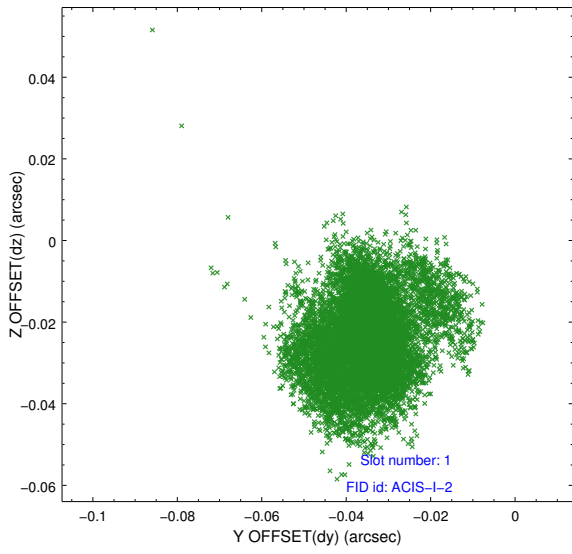


## 2.5 FID Slots

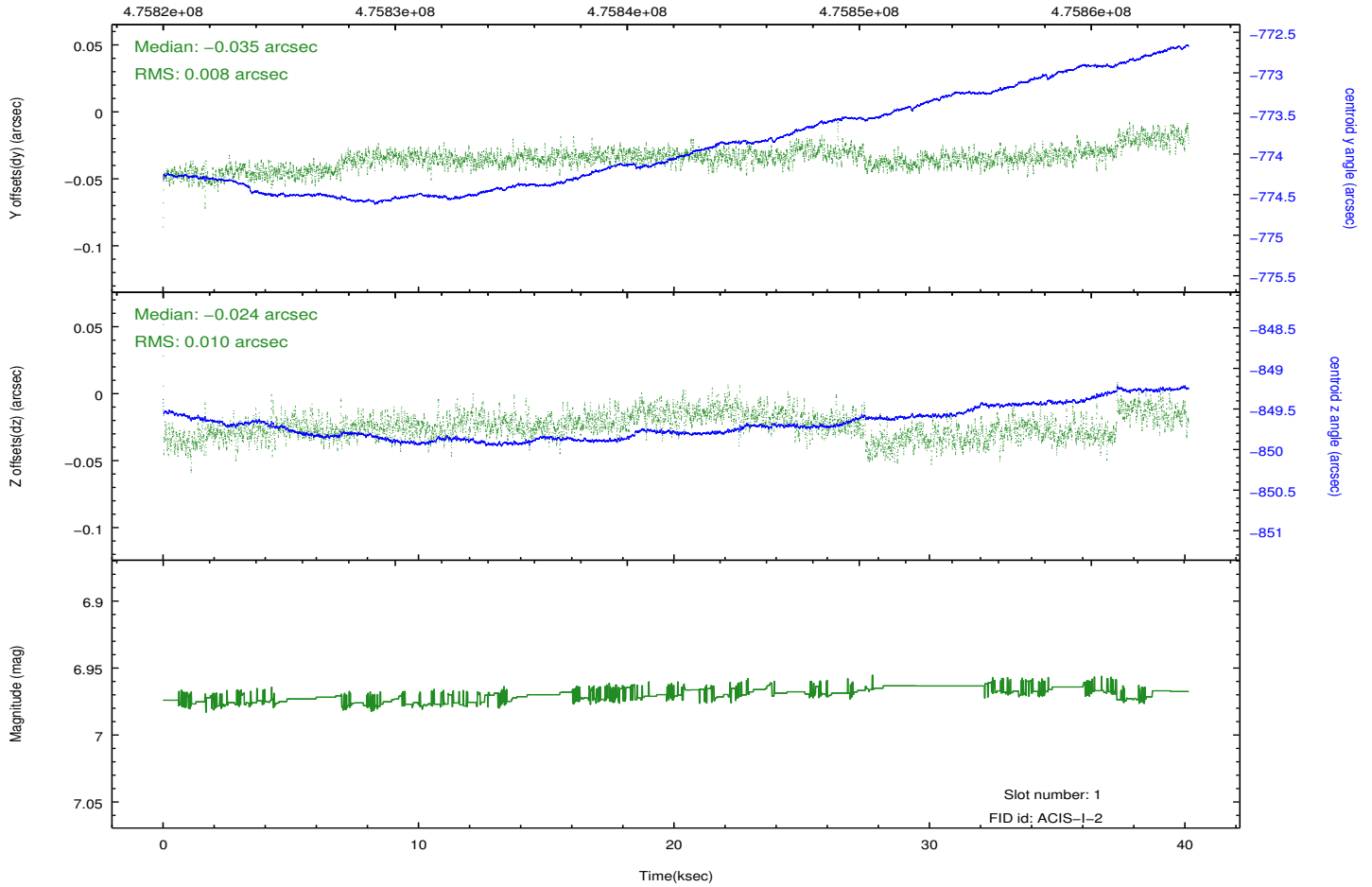
### 2.5.1 Slot 0



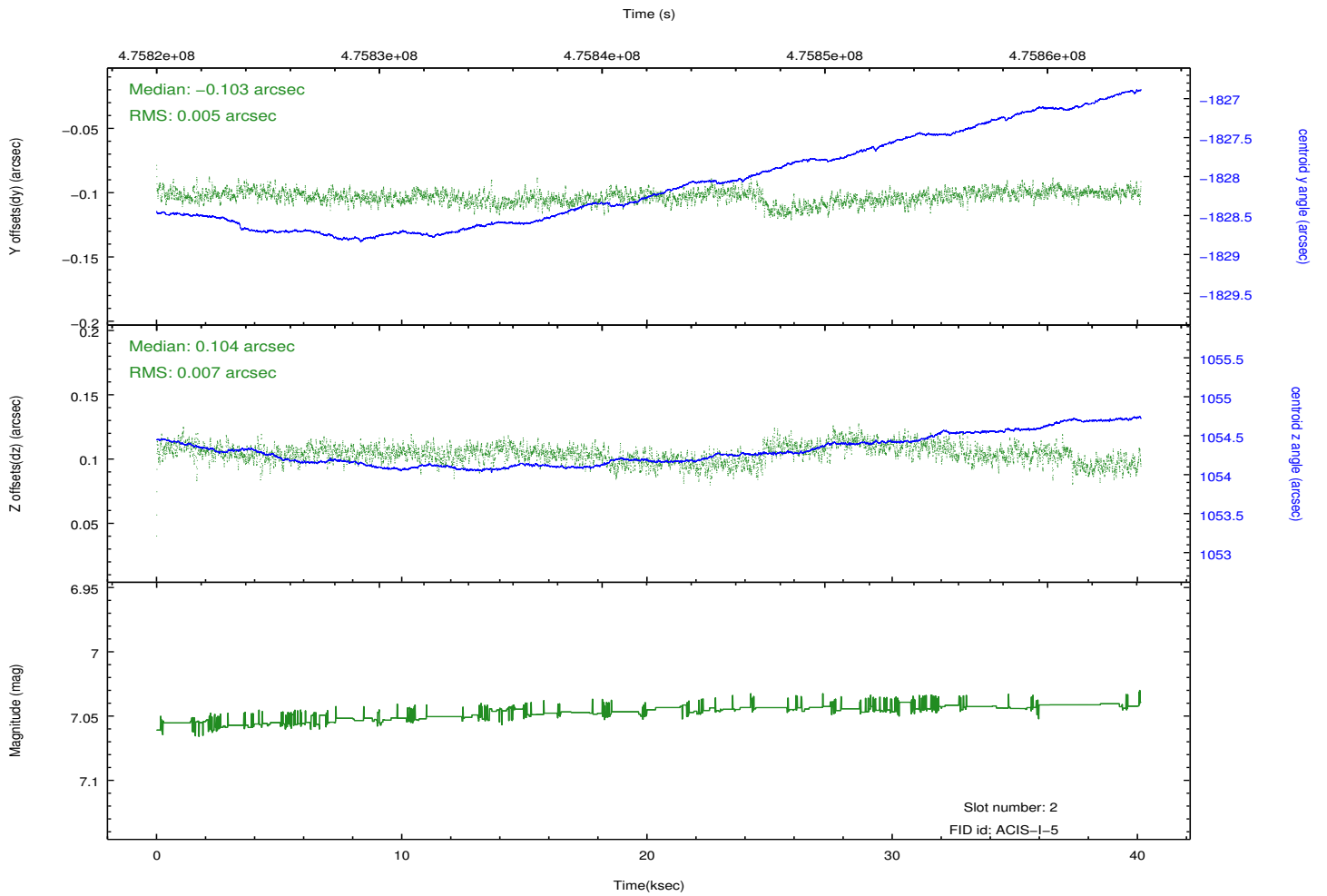
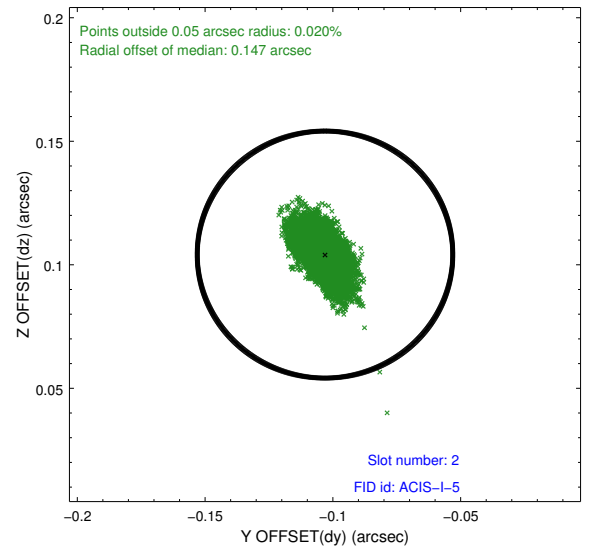
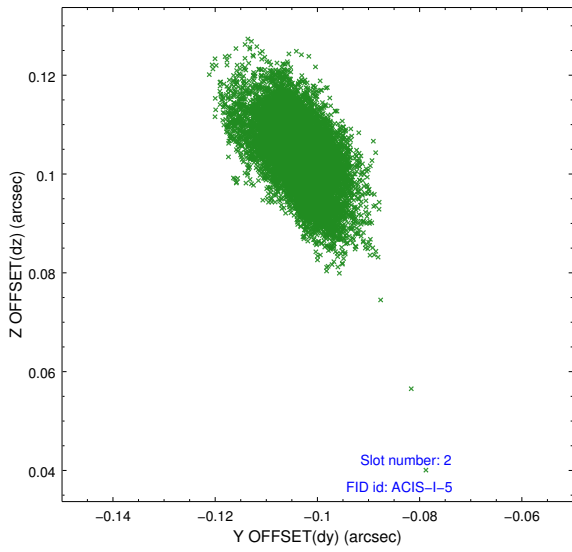
## 2.5.2 Slot 1



Time (s)



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	39.964758880854

## A.2 Comments

The guide star in slot 6 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this star from the solution.

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.