

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 13623 - L2 Version 2  
Chandra X-Ray Center

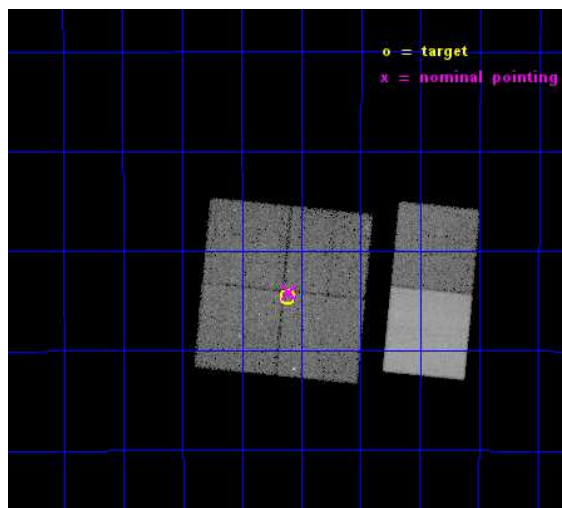
L2 Processing Date : Dec 1 2014

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# 1 Front

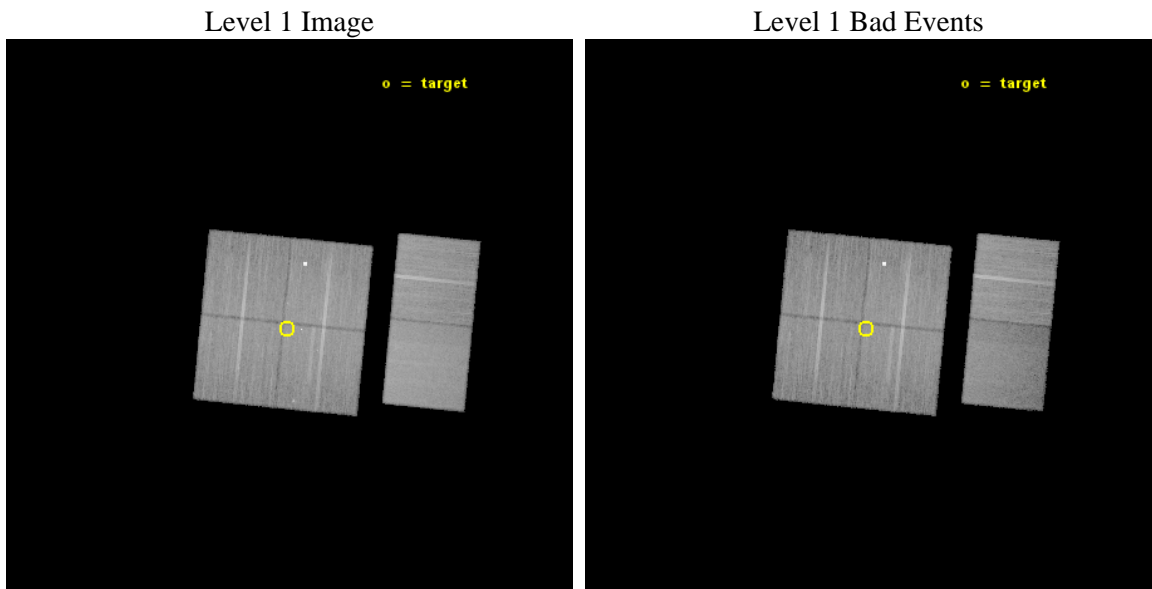
seq_num	200777	Sequence number
obs_id	13623	Observation id
title	The Young 'Cluster of Clusters' NGC 6357: A Carina Complex in the Making?	Proposal title
observer	Dr. Leisa Townsley	Principal investigator
object	G353.08+1.24	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	260.77875	Observer's specified target RA [deg]
dec_targ	-34.076806	Observer's specified target Dec [deg]
ra_nom	260.77496072866	Nominal RA [deg]
dec_nom	-34.069362984234	Nominal Dec [deg]
roll_nom	95.656603284873	Nominal Roll [deg]
revision	2	Processing version of data
ontime	39964.194345653	Sum of GTIs [s]
livetime	39458.1436533	Livetime [s]
ontime0	39967.312276006	Sum of GTIs [s]
ontime1	39967.353316009	Sum of GTIs [s]
ontime2	39967.394356012	Sum of GTIs [s]
ontime3	39964.194345653	Sum of GTIs [s]
ontime6	39967.517476022	Sum of GTIs [s]
ontime7	39967.476436019	Sum of GTIs [s]
l2events	217846	Number of level 2 events



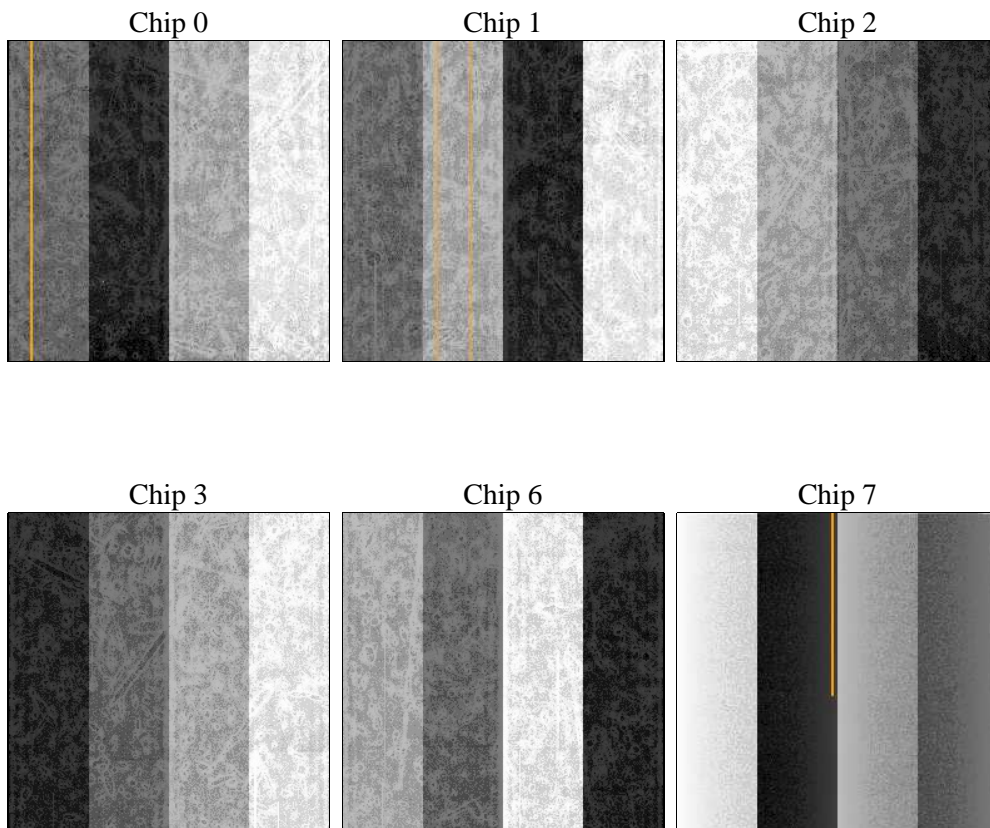
## 2 OBI

### 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	39964.194345653	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	39967.312276006	Sum of GTIs [s]
date	2014-12-01T07:01:12	Date and time of file creation	ontime1	39967.353316009	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	39967.394356012	Sum of GTIs [s]
			ontime3	39964.194345653	Sum of GTIs [s]
			ontime6	39967.517476022	Sum of GTIs [s]
			ontime7	39967.476436019	Sum of GTIs [s]
			l1events	1247978	Number of level 1 events

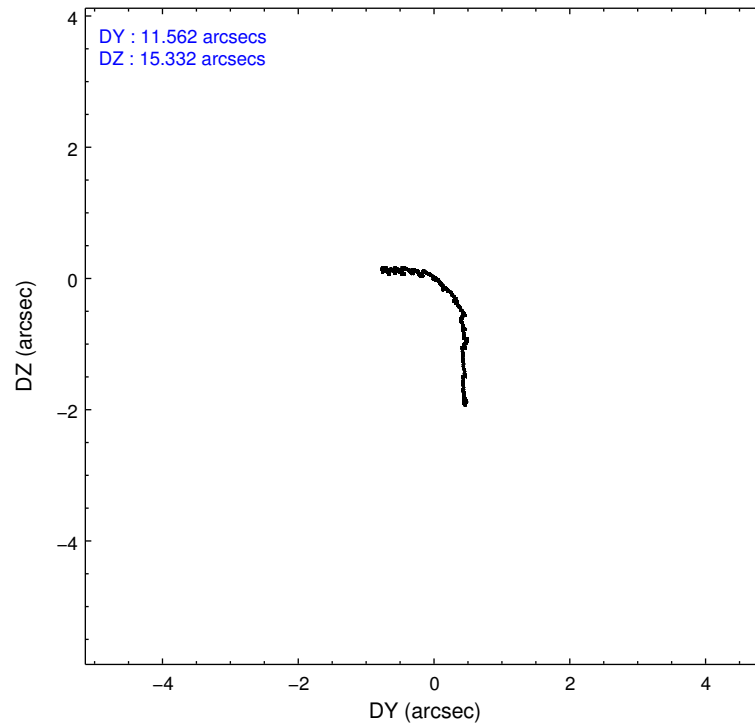
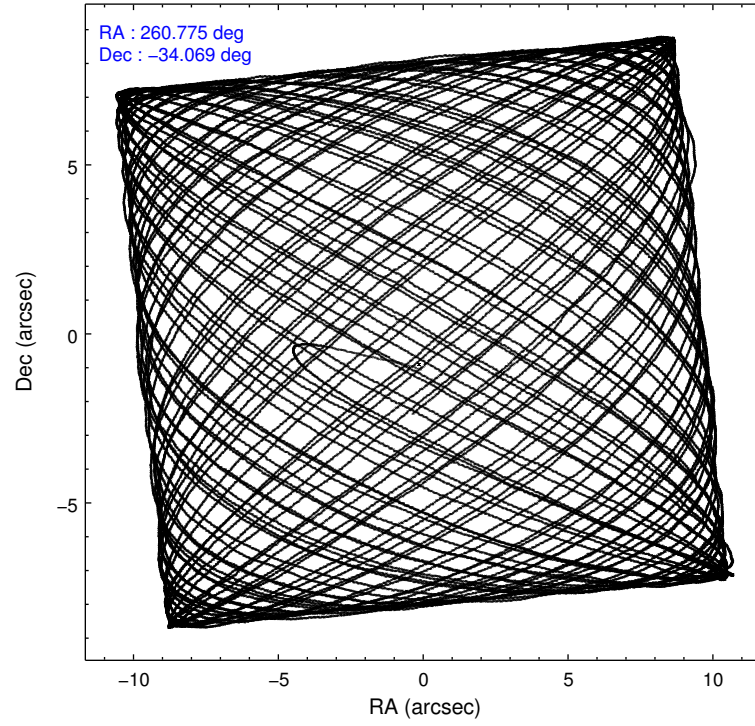
### 2.1.4 Events

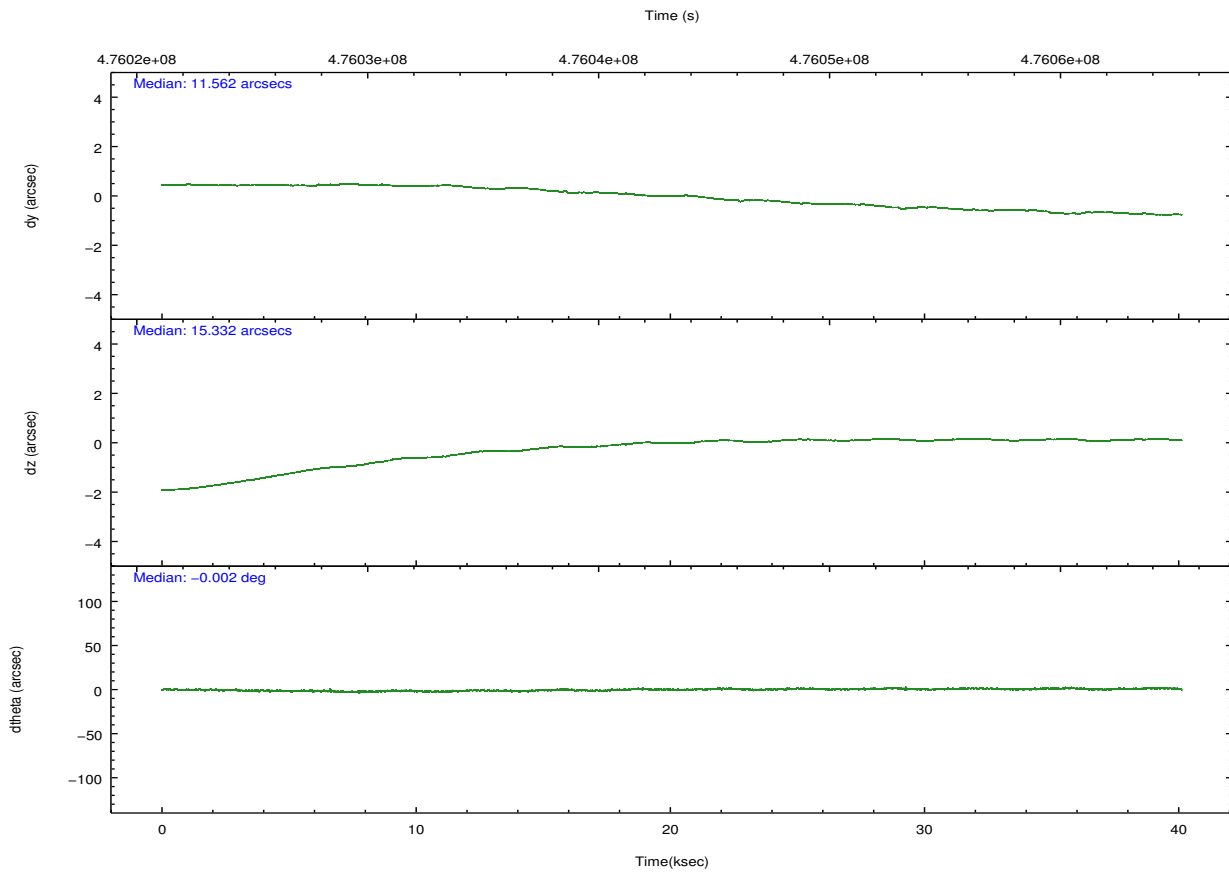
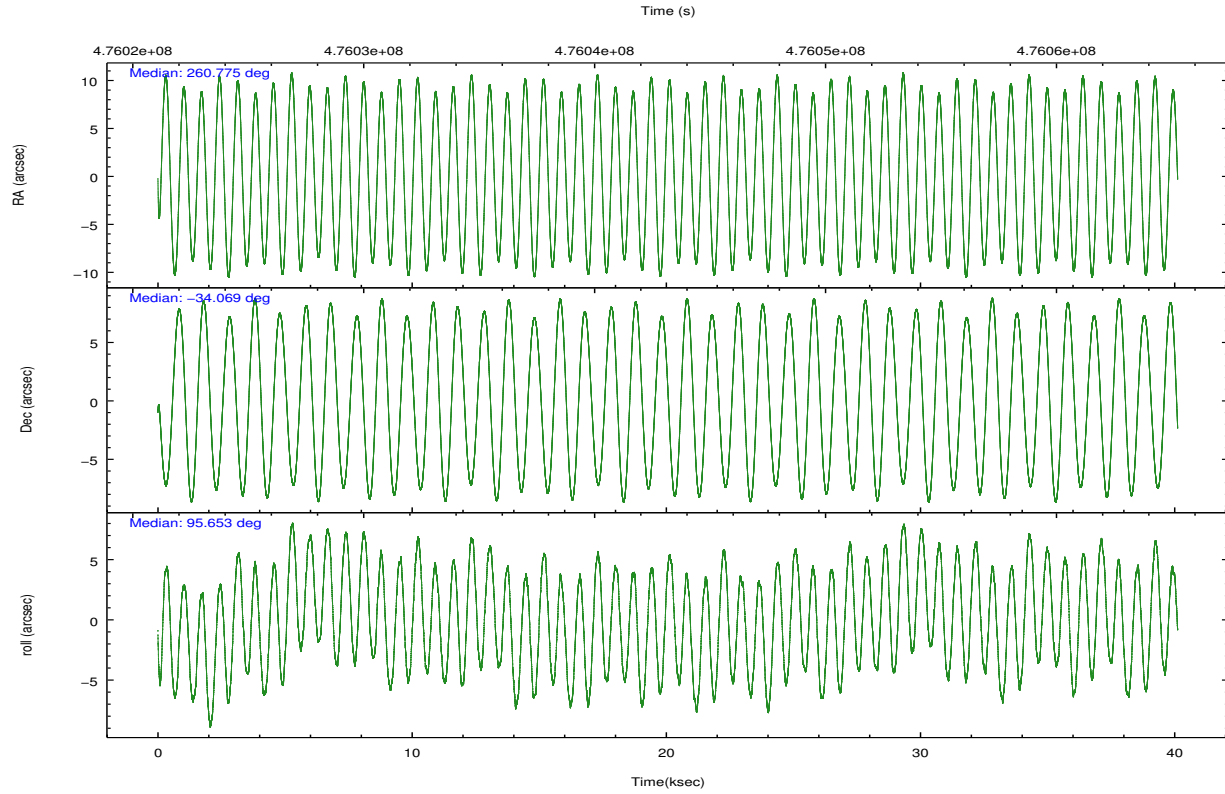
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	187437	191023	225392	199726	210817	233583	grade 0 events	9888	10489	10356	11251	10137	10676
rejected events	162179	164057	200421	173635	184411	122596		5%	5%	4%	5%	4%	4%
rejected %	86%	85%	88%	86%	87%	52%	grade 1 events	95	90	12073	133	116	347
								0%	0%	5%	0%	0%	0%
							grade 2 events	5963	5898	5761	5441	5904	23658
								3%	3%	2%	2%	2%	10%
							grade 3 events	2567	2689	2316	2493	2460	9639
								1%	1%	1%	1%	1%	4%
							grade 4 events	2348	2603	2385	2463	2541	9469
								1%	1%	1%	1%	1%	4%
							grade 5 events	7883	8498	7127	9043	9110	24599
								4%	4%	3%	4%	4%	10%
							grade 6 events	4493	5287	4154	4447	5370	57554
								2%	2%	1%	2%	2%	24%
							grade 7 events	154200	155469	181220	164455	175179	97641
								82%	81%	80%	82%	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	260.794414	260.774960728655	CCD I2 on	Y	Y
[deg] Pointing Dec	-34.091638	-34.06936298423387	CCD I3 on	Y	Y
[deg] Pointing Roll	95.458820	95.65660328487252	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)	476023221.184000	476021955.98343	CCD S5 on	N	N
Observation start date	2013-01-31T12:39:14	2013-01-31T12:19:15	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	476063221.184000	476064270.54821	On-chip summing requested	N	N
Observation end date	2013-01-31T23:45:54	2013-02-01T00:04:30	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect





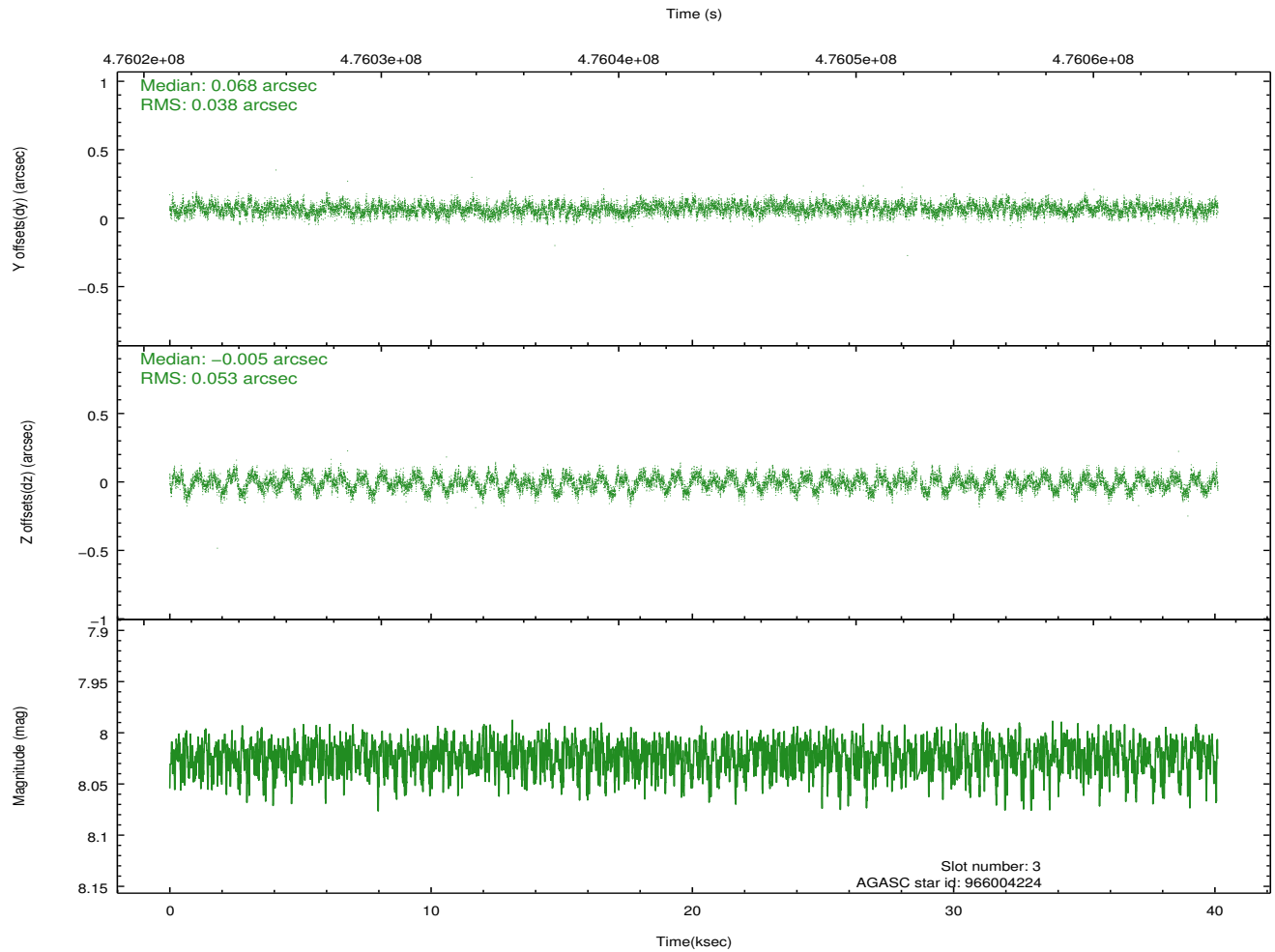
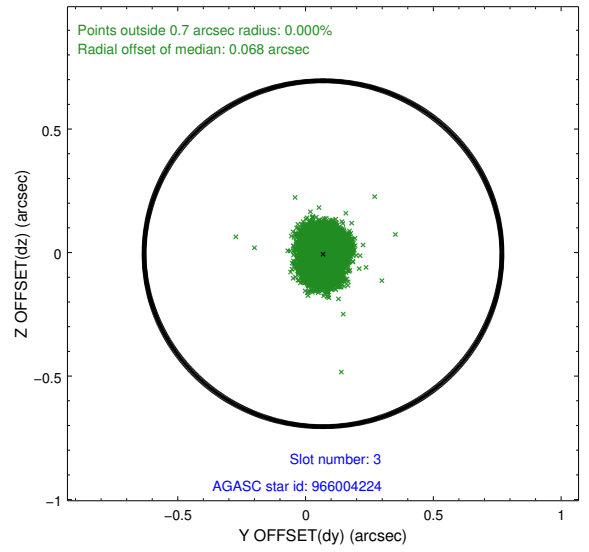
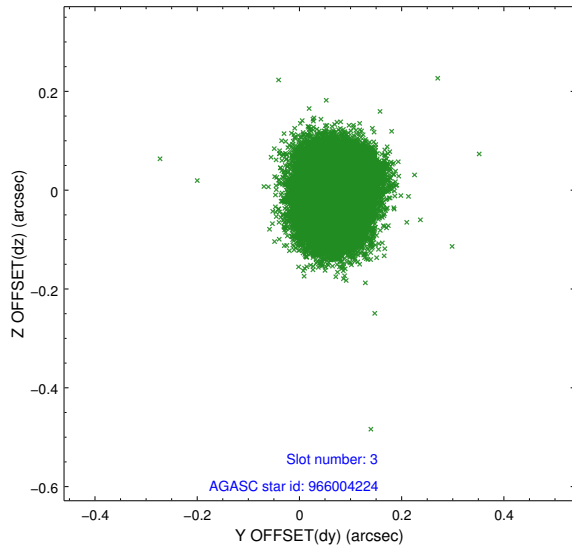
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.16	9786	0.044	-0.041	0.020	0.042	0.000000	0.000000	928.10	-838.63
1	FID		ACIS-I-5	7.15	9786	-0.184	0.049	0.011	0.016	0.000000	0.000000	-1820.24	1058.92
2	FID		ACIS-I-6	7.15	9786	0.048	0.060	0.015	0.037	0.000000	0.000000	393.62	1703.46
3	GUIDE	used	966004224	8.02	19505	0.068	-0.005	0.071	0.108	260.824329	-33.819793	965.93	-181.91
4	GUIDE	used	966004840	9.12	19555	0.209	-0.371	0.099	0.157	260.285639	-34.363805	-835.07	1598.54
5	GUIDE	used	967185672	8.49	19563	-0.229	0.243	0.108	0.189	261.333798	-33.528926	1858.40	-1803.05
6	GUIDE	used	967706432	6.72	19571	-0.467	0.041	0.061	0.096	261.306065	-34.429958	-1360.90	-1396.08
7	GUIDE	used	967708192	8.85	19562	0.417	0.084	0.088	0.141	261.540547	-34.557389	-1887.05	-2041.77

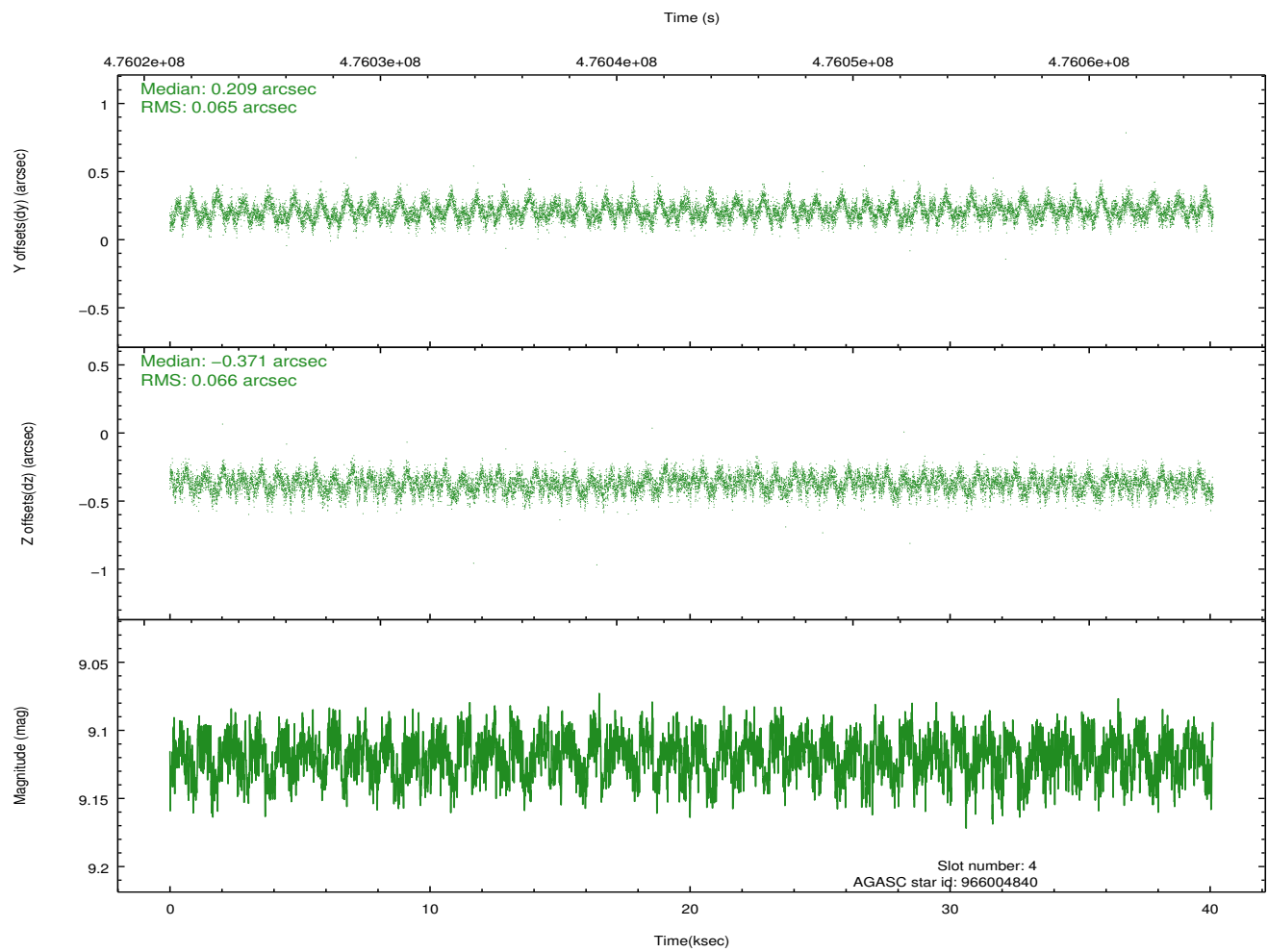
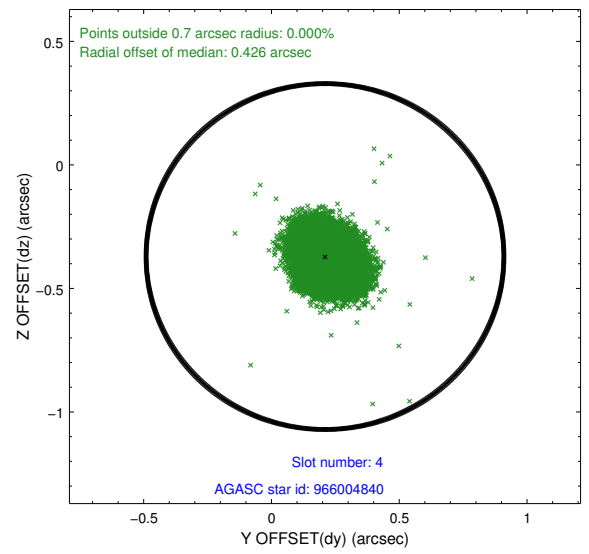
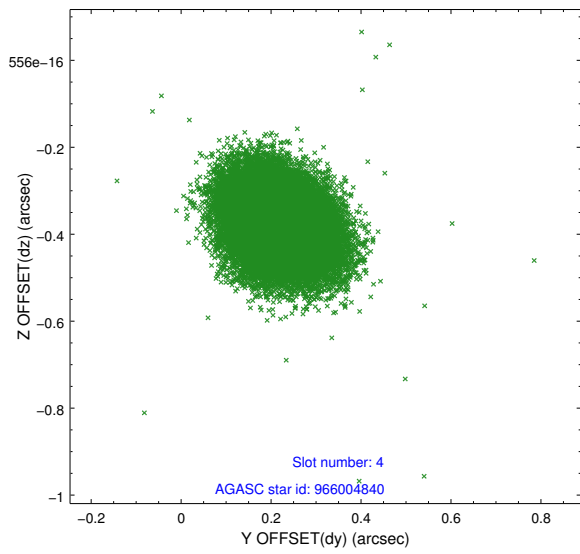
∞

## 2.4 Star Slots

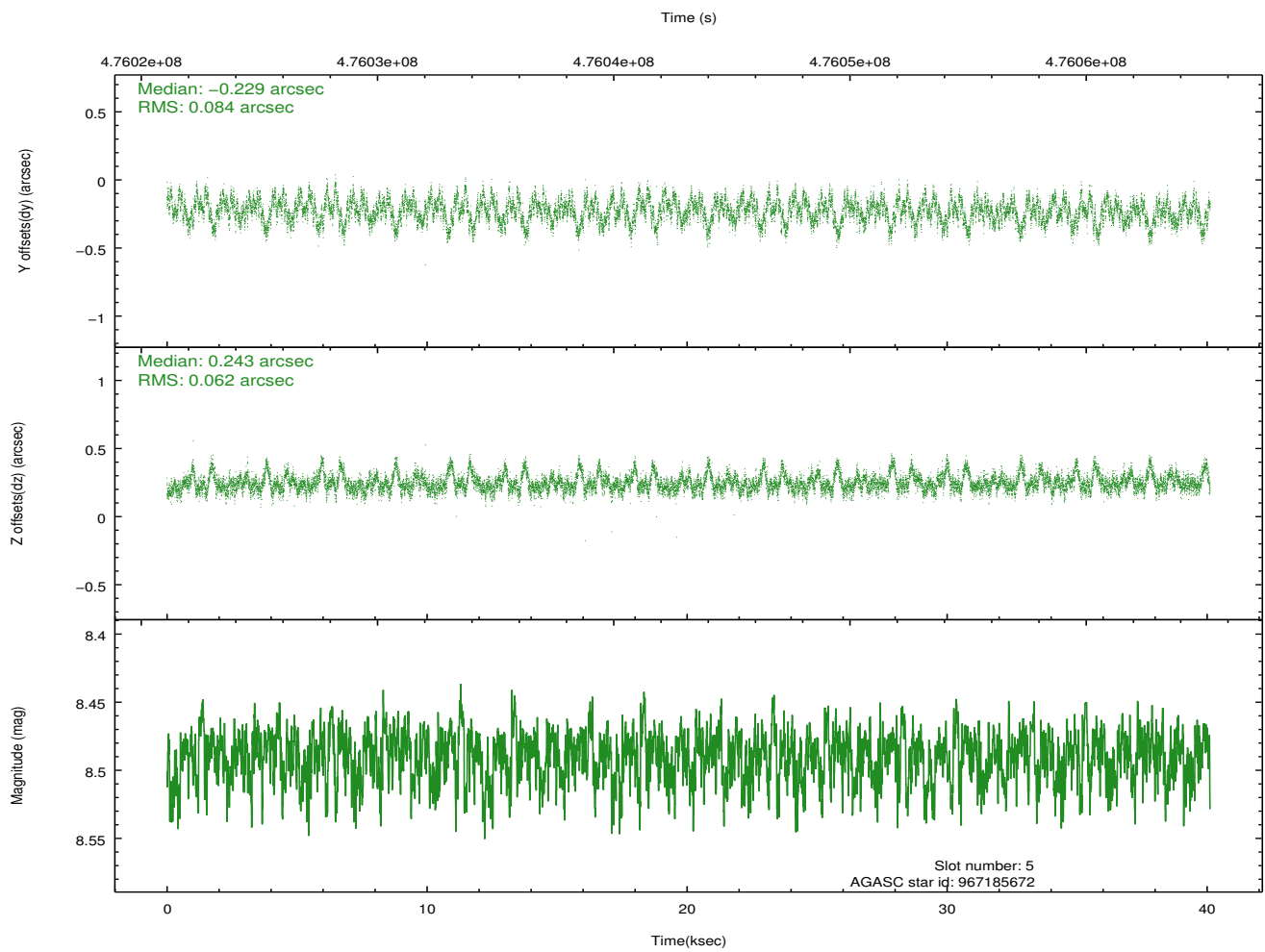
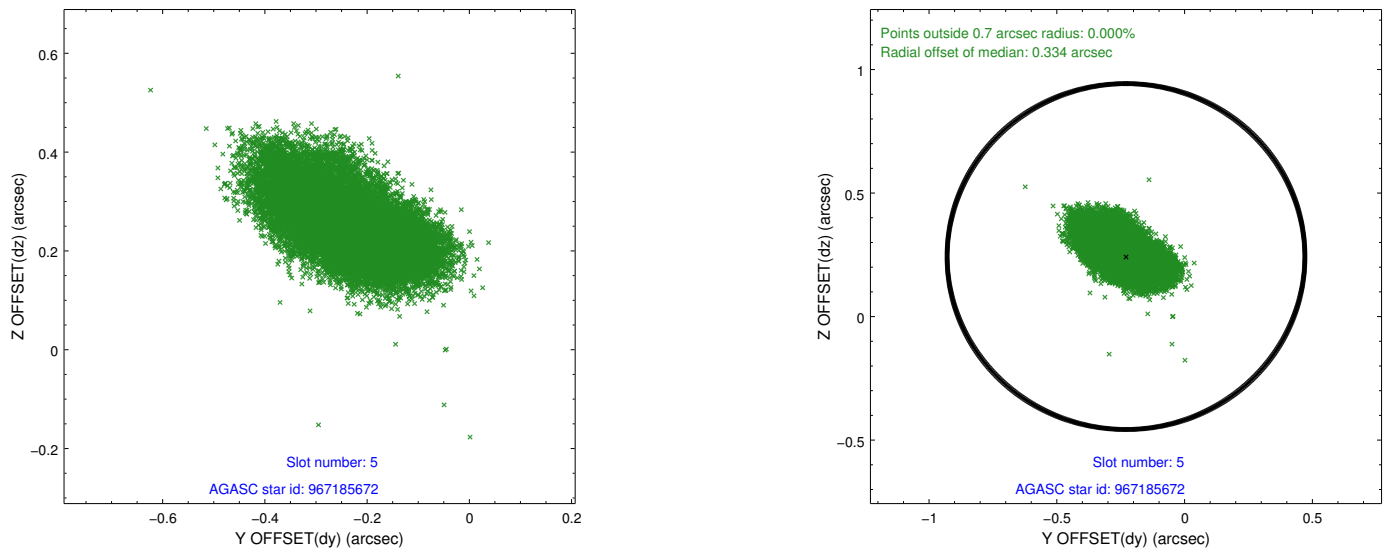
### 2.4.1 Slot 3



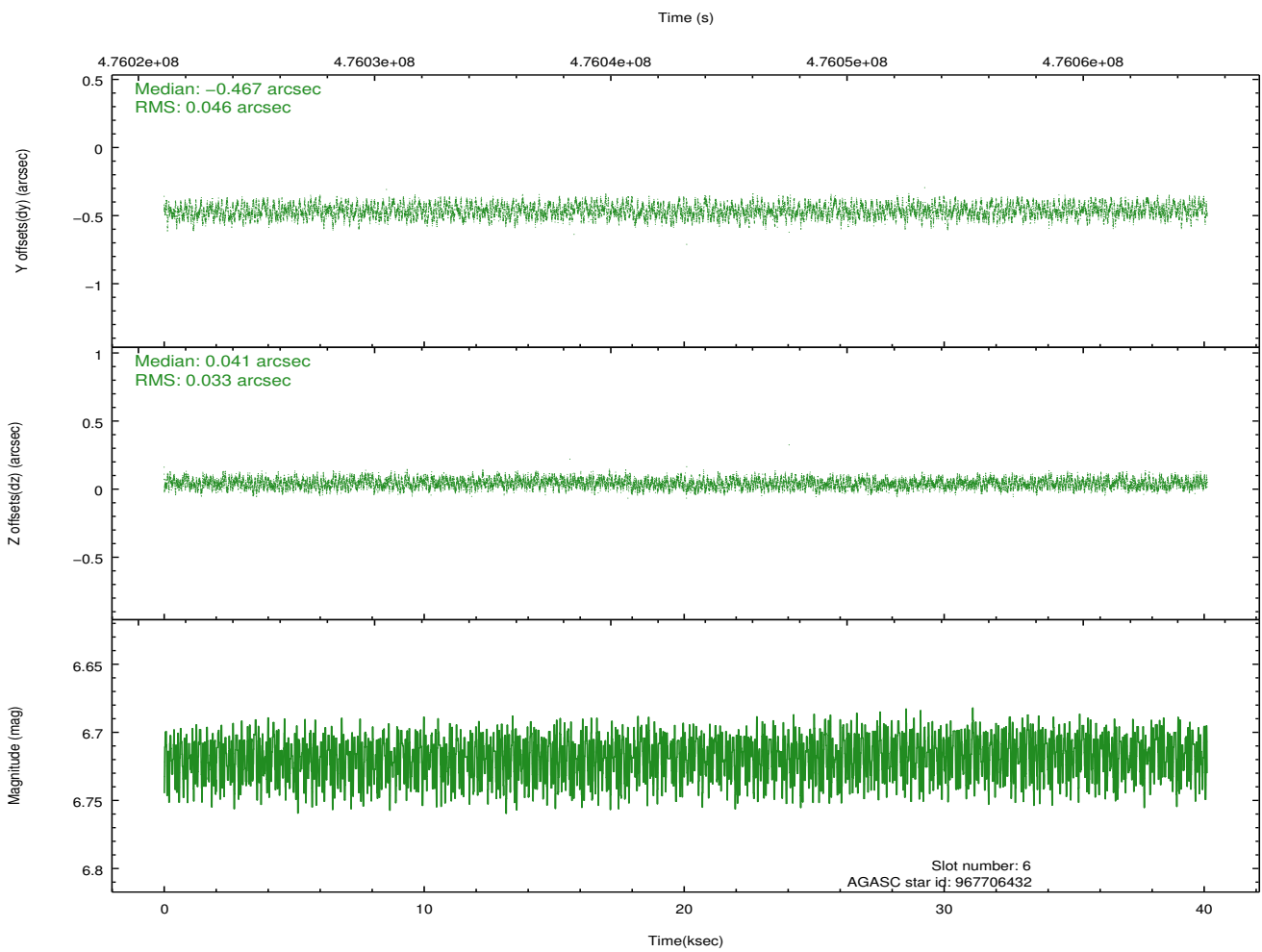
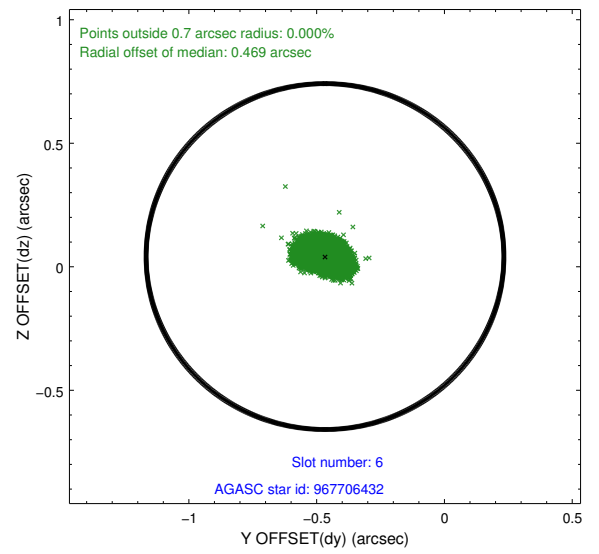
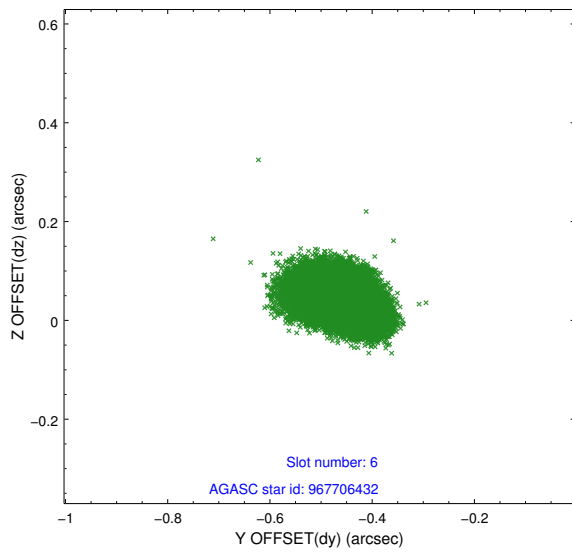
## 2.4.2 Slot 4



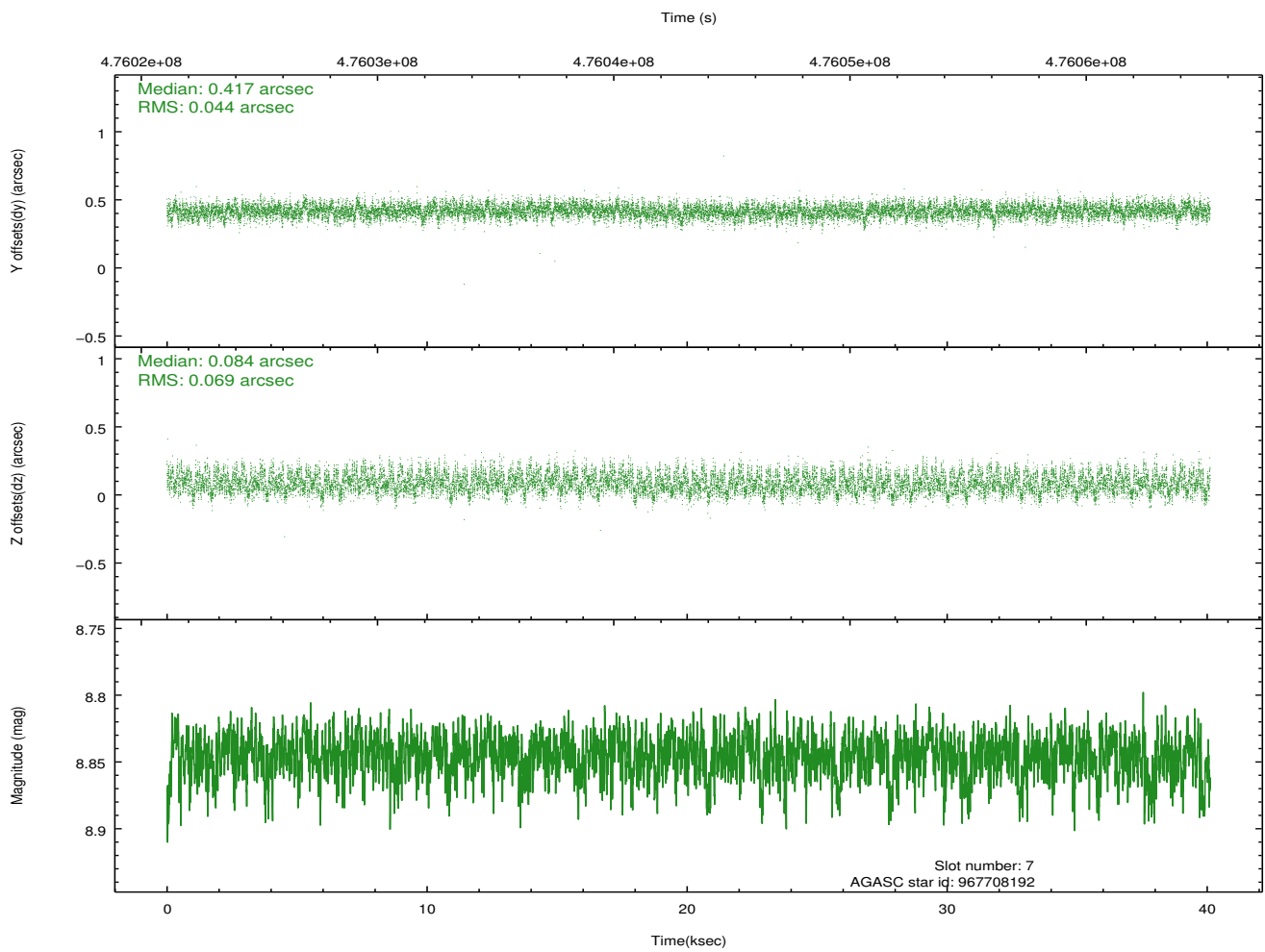
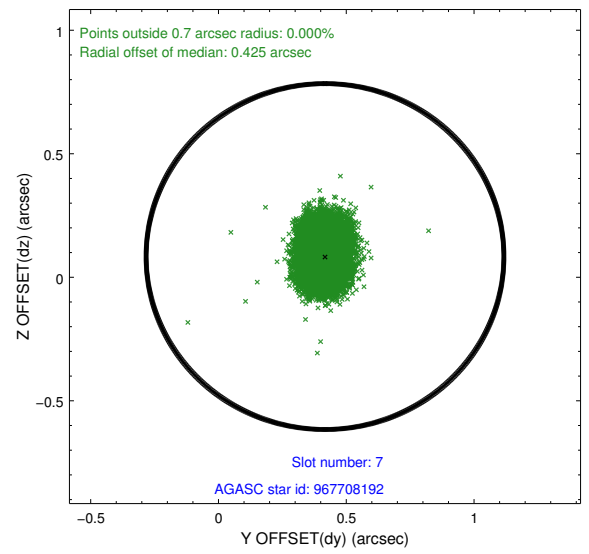
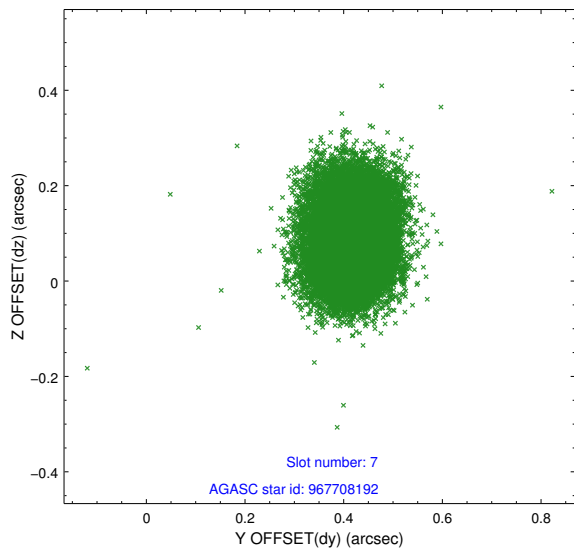
### 2.4.3 Slot 5



## 2.4.4 Slot 6

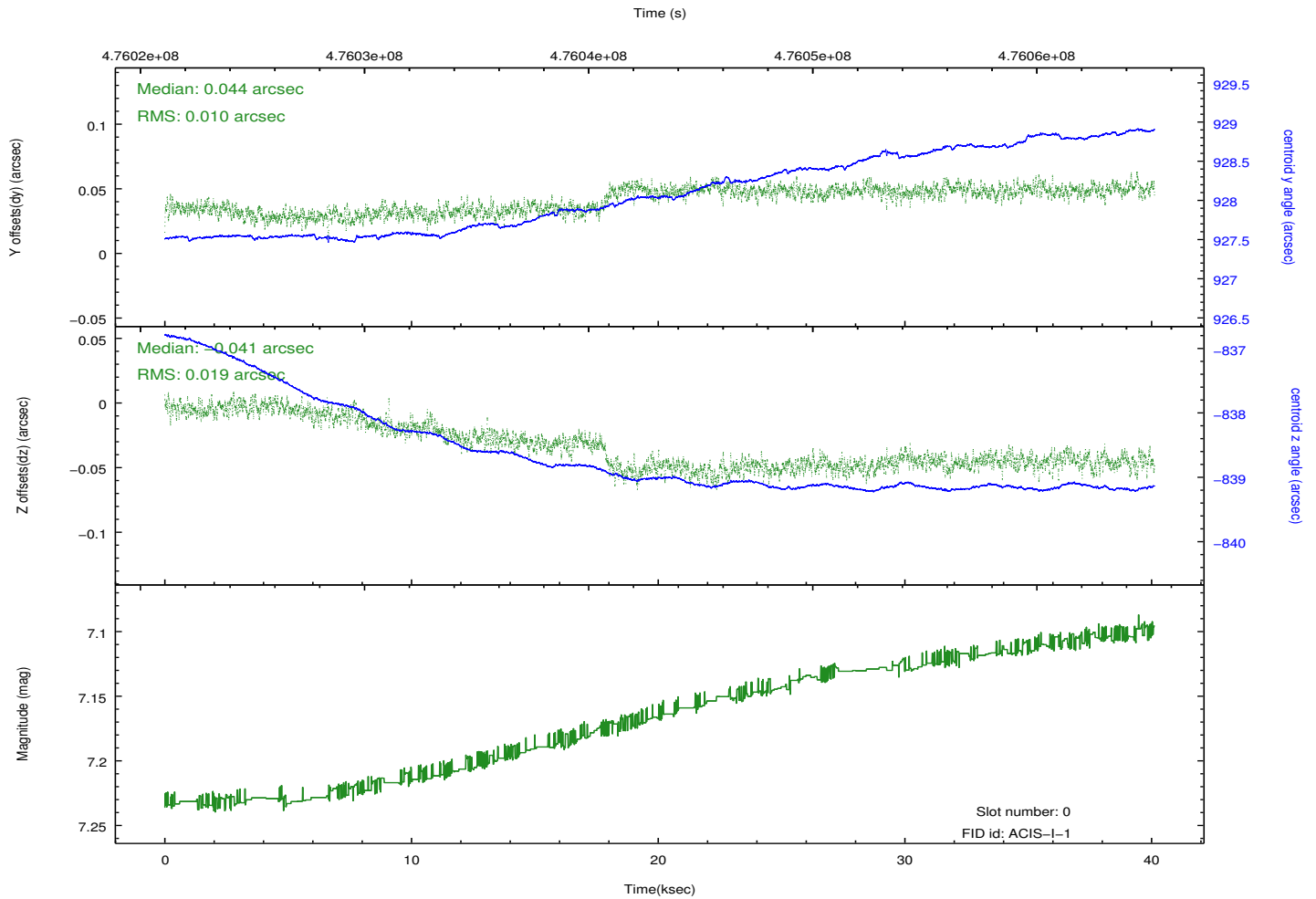
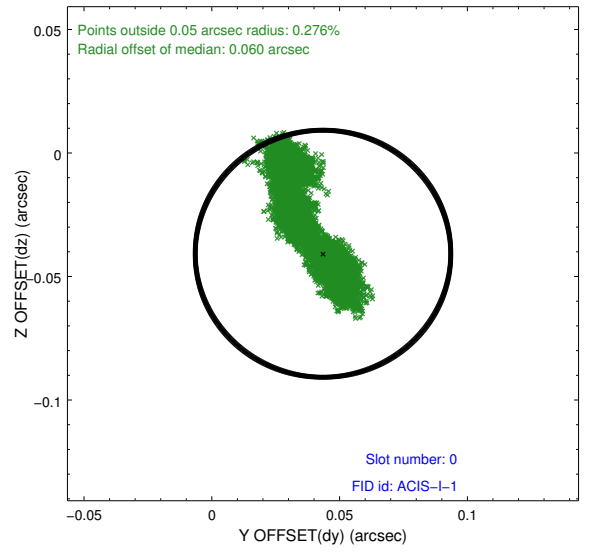
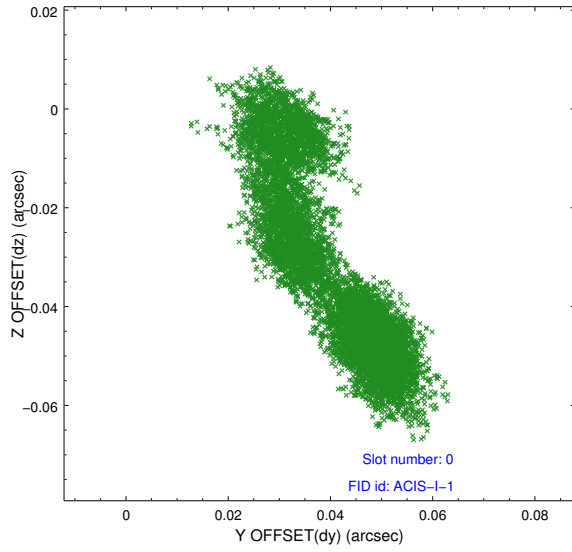


## 2.4.5 Slot 7

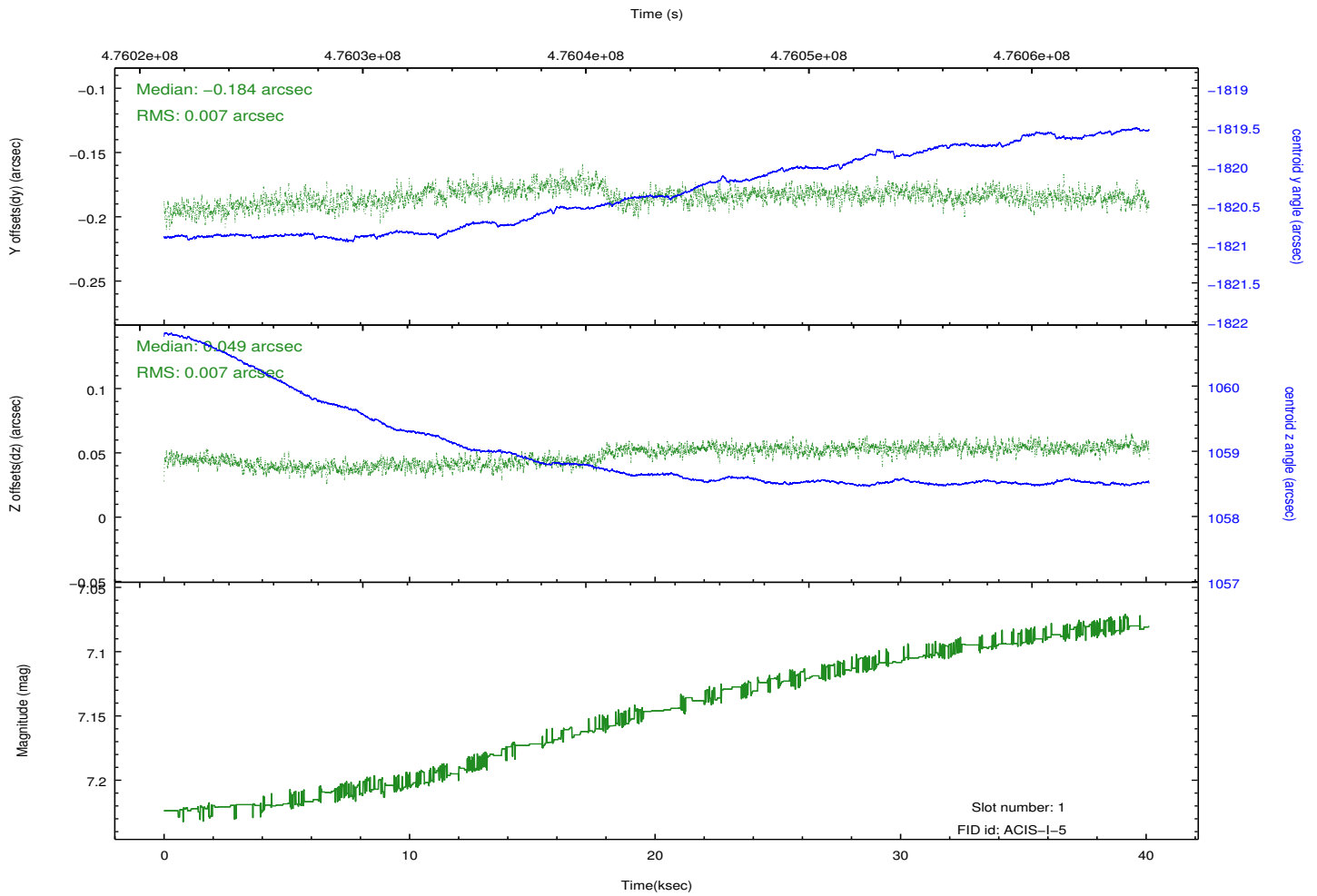
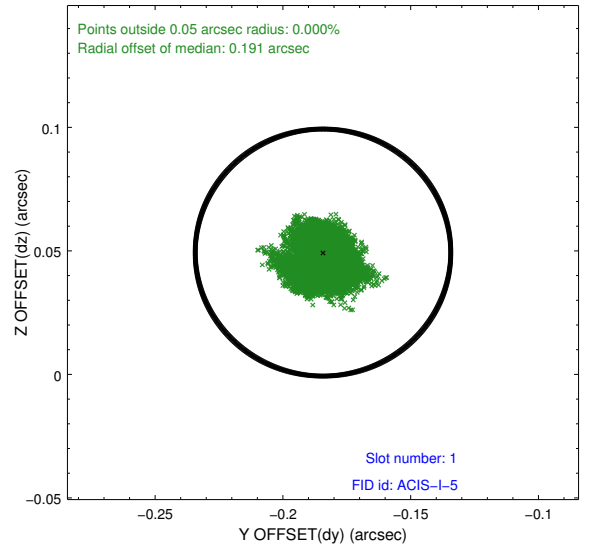
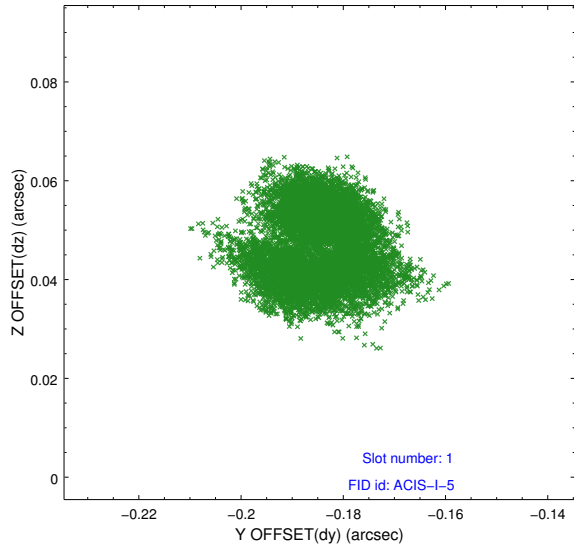


## 2.5 FID Slots

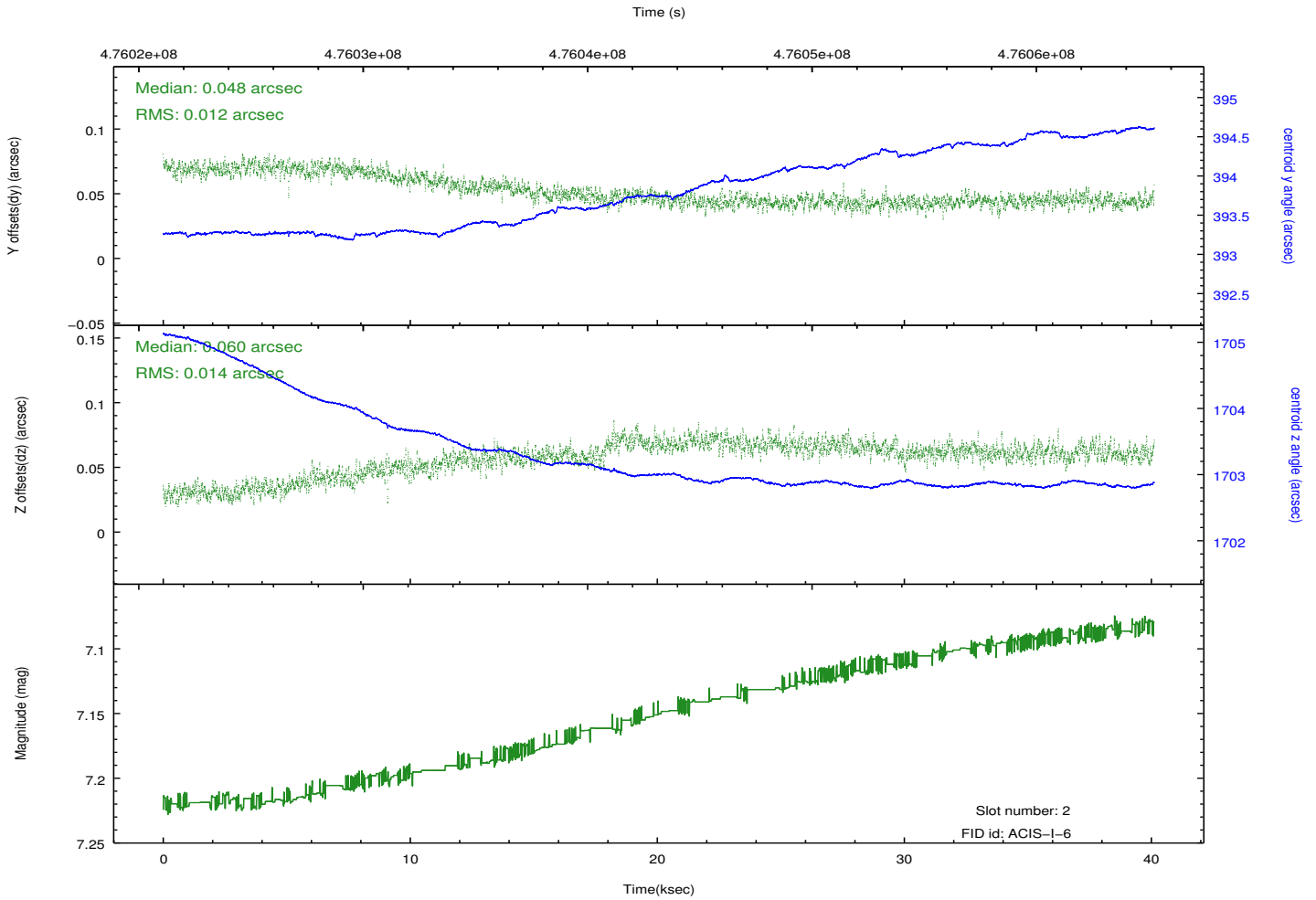
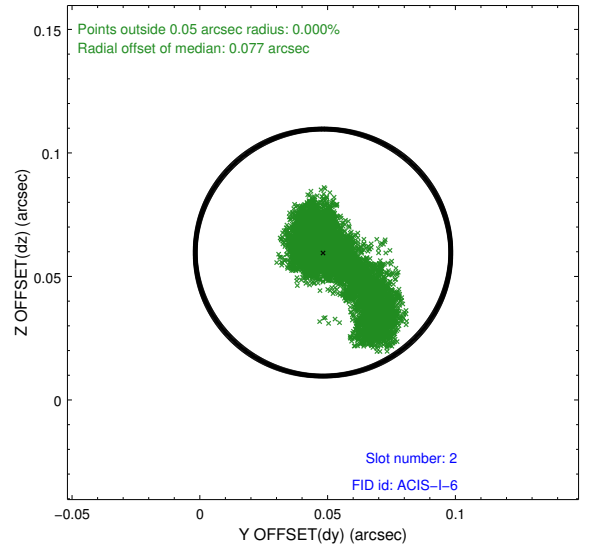
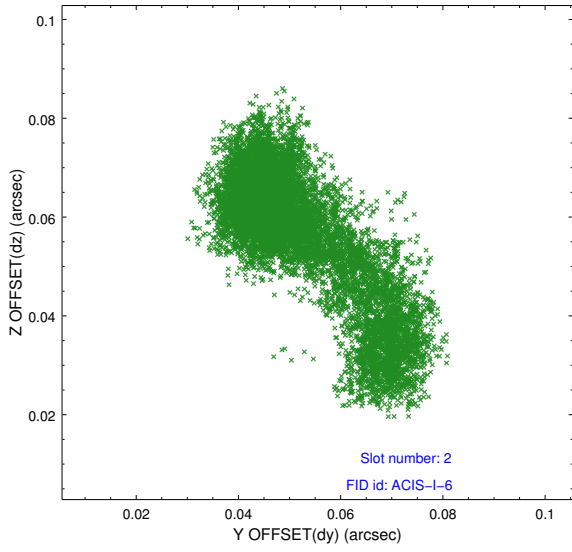
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	39.964194345653

## A.2 Comments

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.