

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 12476 - L2 Version 2  
Chandra X-Ray Center

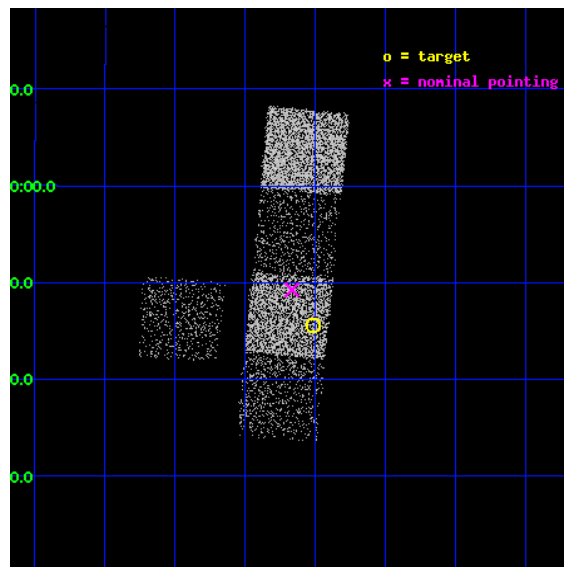
L2 Processing Date : Feb 6 2012

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# 1 Front

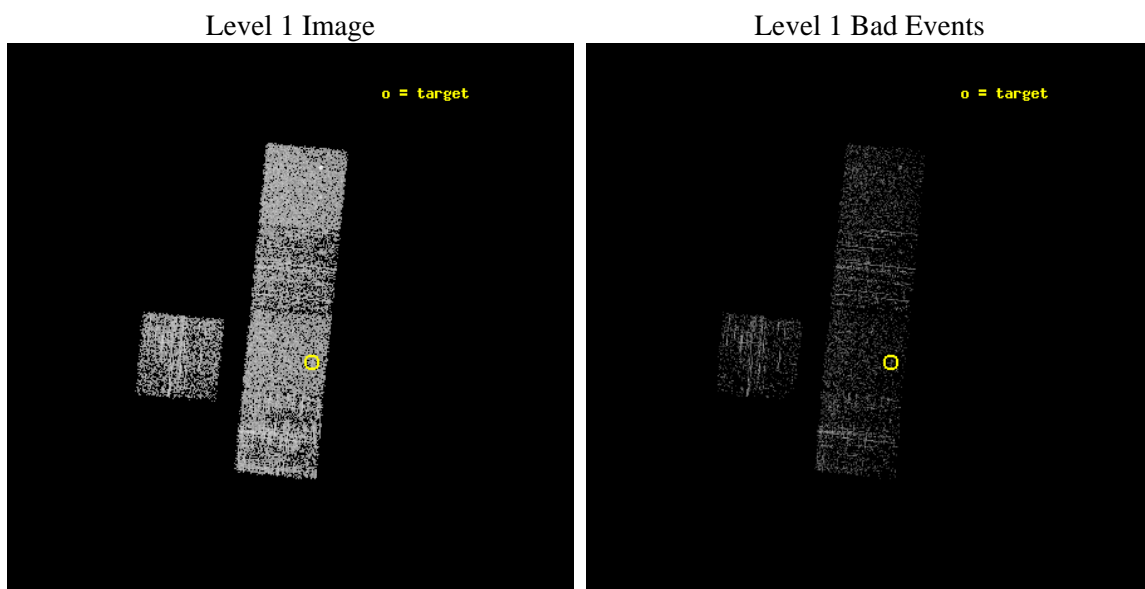
seq_num	401217	Sequence number
obs_id	12476	Observation id
title	The Nearest and Brightest Quiescent Low Mass X-ray Binaries	Propos
observer	Prof. Robert Rutledge	Principal investigator
object	1RXS J144701.1+114536	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	221.754583	Observer's specified target RA [deg]
dec_targ	11.76	Observer's specified target Dec [deg]
ra_nom	221.7916844922	Nominal RA [deg]
dec_nom	11.821022891273	Nominal Dec [deg]
roll_nom	95.627022598402	Nominal Roll [deg]
revision	2	Processing version of data
ontime	1035.4000079632	Sum of GTIs [s]
livetime	1021.8717446087	Livetime [s]
ontime3	1035.4000079632	Sum of GTIs [s]
ontime5	1035.4000079632	Sum of GTIs [s]
ontime6	1035.4000079632	Sum of GTIs [s]
ontime7	1035.4000079632	Sum of GTIs [s]
ontime8	1035.4000079632	Sum of GTIs [s]
l2events	11117	Number of level 2 events



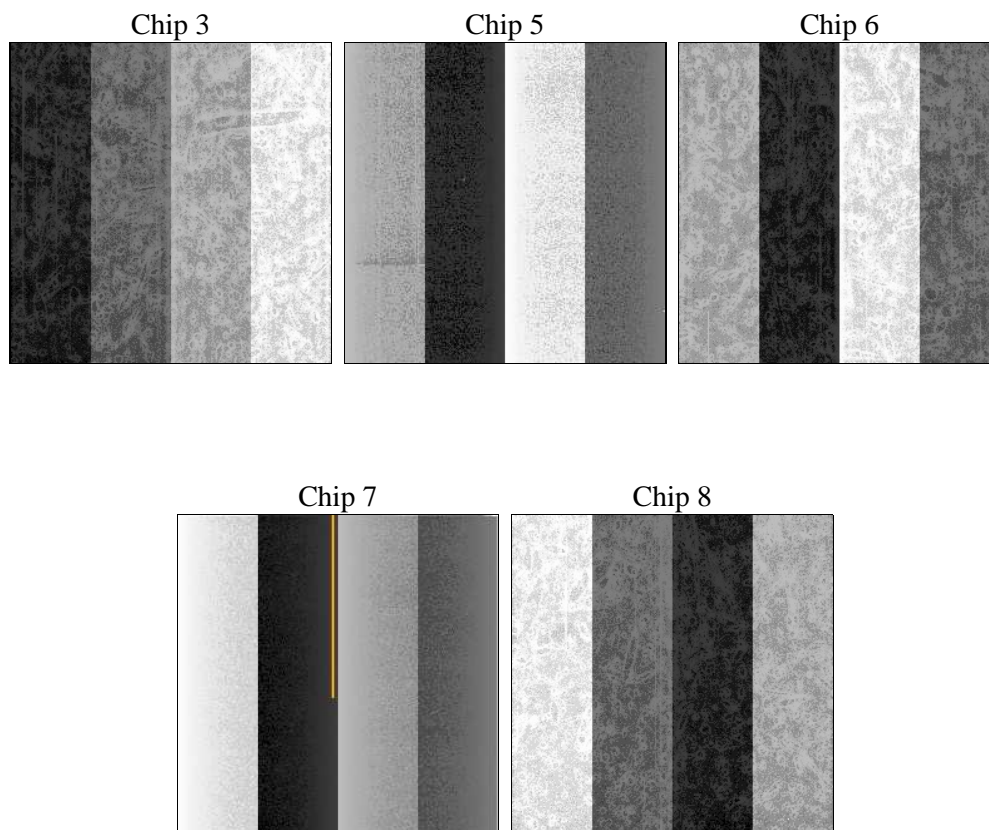
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	1000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	1035.4000079632	Sum of GTIs [s]
caldbver	4.4.7	&#160	ontime3	1035.4000079632	Sum of GTIs [s]
date	2012-02-06T06:22:36	Date and time of file creation	ontime5	1035.4000079632	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	1035.4000079632	Sum of GTIs [s]
			ontime7	1035.4000079632	Sum of GTIs [s]
			ontime8	1035.4000079632	Sum of GTIs [s]
			l1events	43281	Number of level 1 events

### 2.1.4 Events

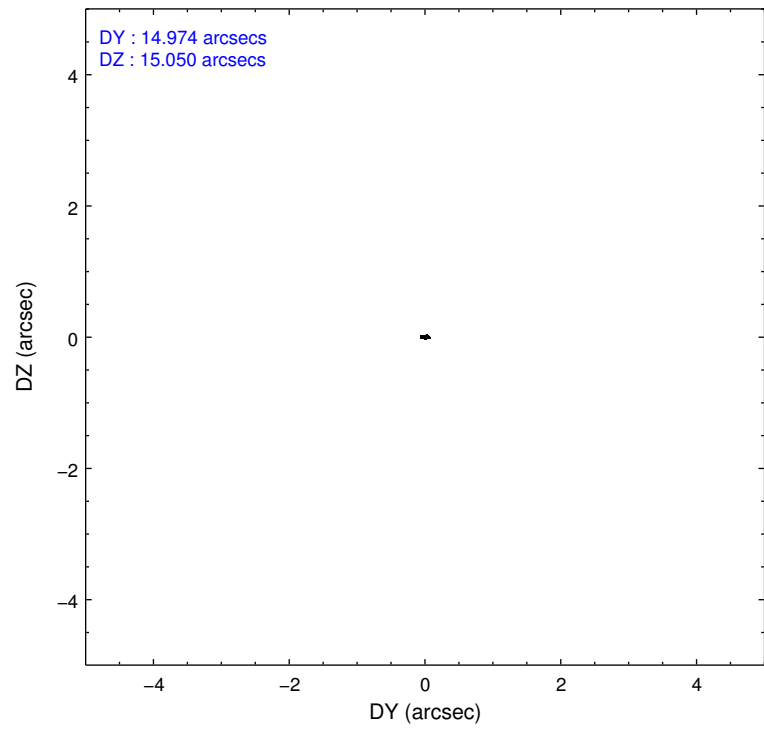
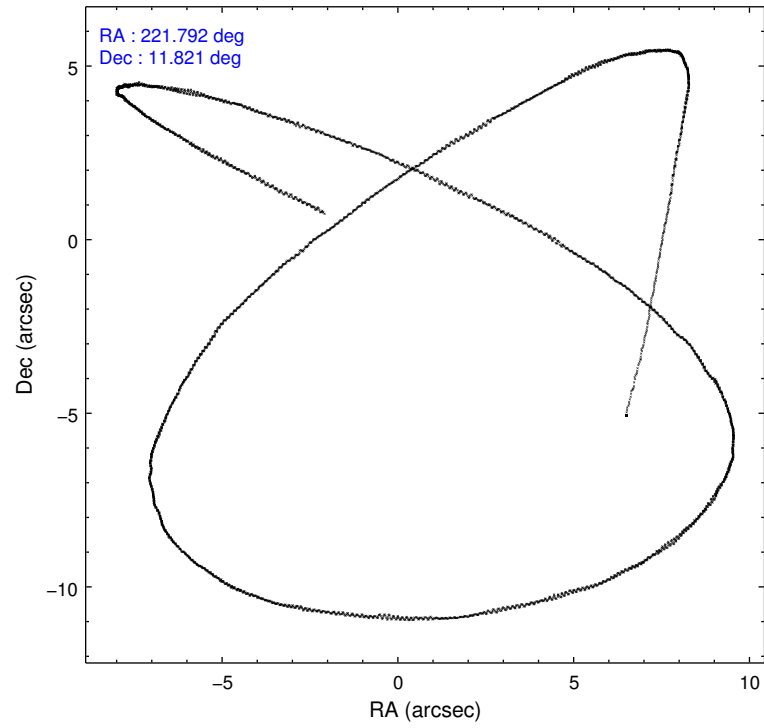
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	6865	10955	7062	9042	9357
rejected events	6148	5523	6275	5021	6505
rejected %	89%	50%	88%	55%	69%

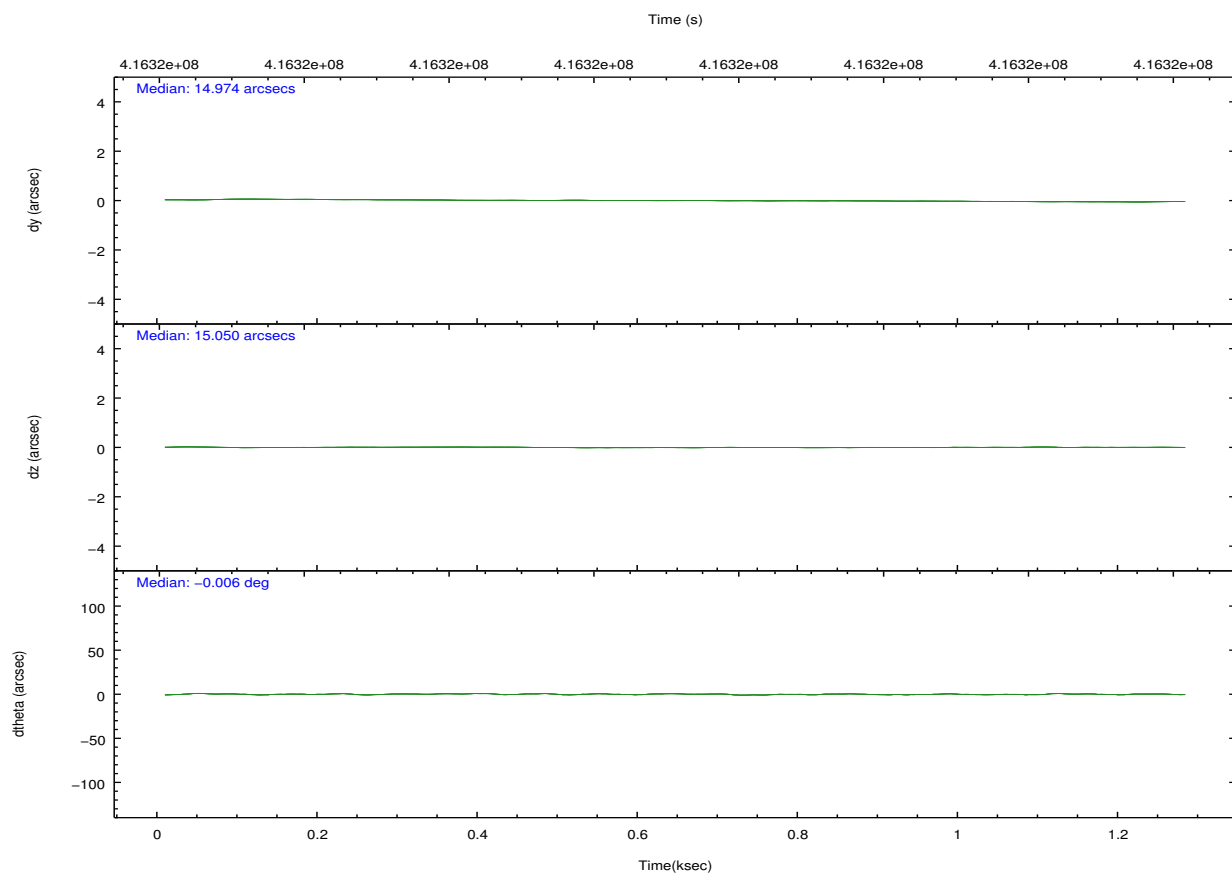
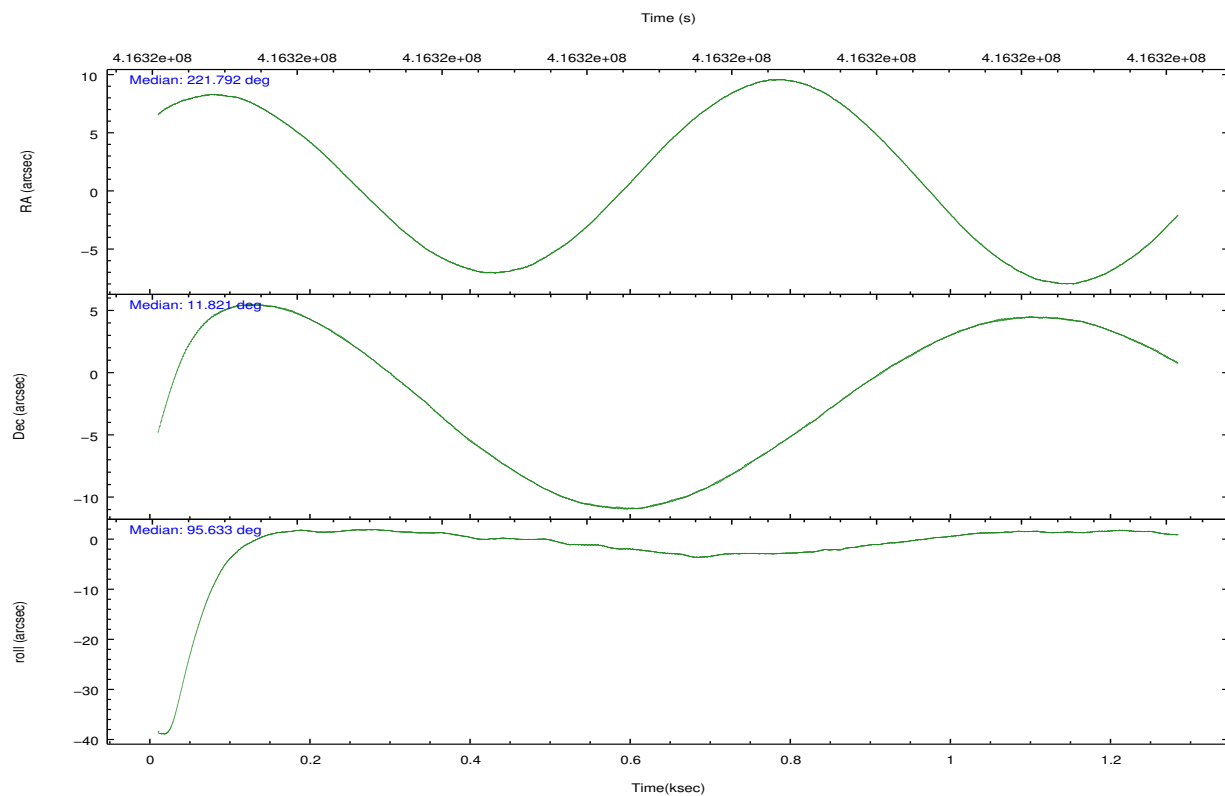
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	271	574	286	406	877
	3%	5%	4%	4%	9%
grade 1 events	5	63	2	11	9
	0%	0%	0%	0%	0%
grade 2 events	159	1677	170	841	638
	2%	15%	2%	9%	6%
grade 3 events	74	180	76	334	353
	1%	1%	1%	3%	3%
grade 4 events	70	184	78	318	300
	1%	1%	1%	3%	3%
grade 5 events	348	839	373	921	441
	5%	7%	5%	10%	4%
grade 6 events	146	2851	185	2154	693
	2%	26%	2%	23%	7%
grade 7 events	5792	4587	5892	4057	6046
	84%	41%	83%	44%	64%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-35678	ACIS-35678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	221.808431	221.7916844922046	CCD I2 on	N	N
[deg] Pointing Dec	11.798703	11.82102289127333	CCD I3 on	O1	Y
[deg] Pointing Roll	95.467355	95.62702259840194	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	416316157.184000	416315171.95004	CCD S5 on	N	N
Observation start date	2011-03-12T11:21:31	2011-03-12T11:06:11	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	416317157.184000	416317591.97517	On-chip summing requested	N	N
Observation end date	2011-03-12T11:38:11	2011-03-12T11:46:31	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





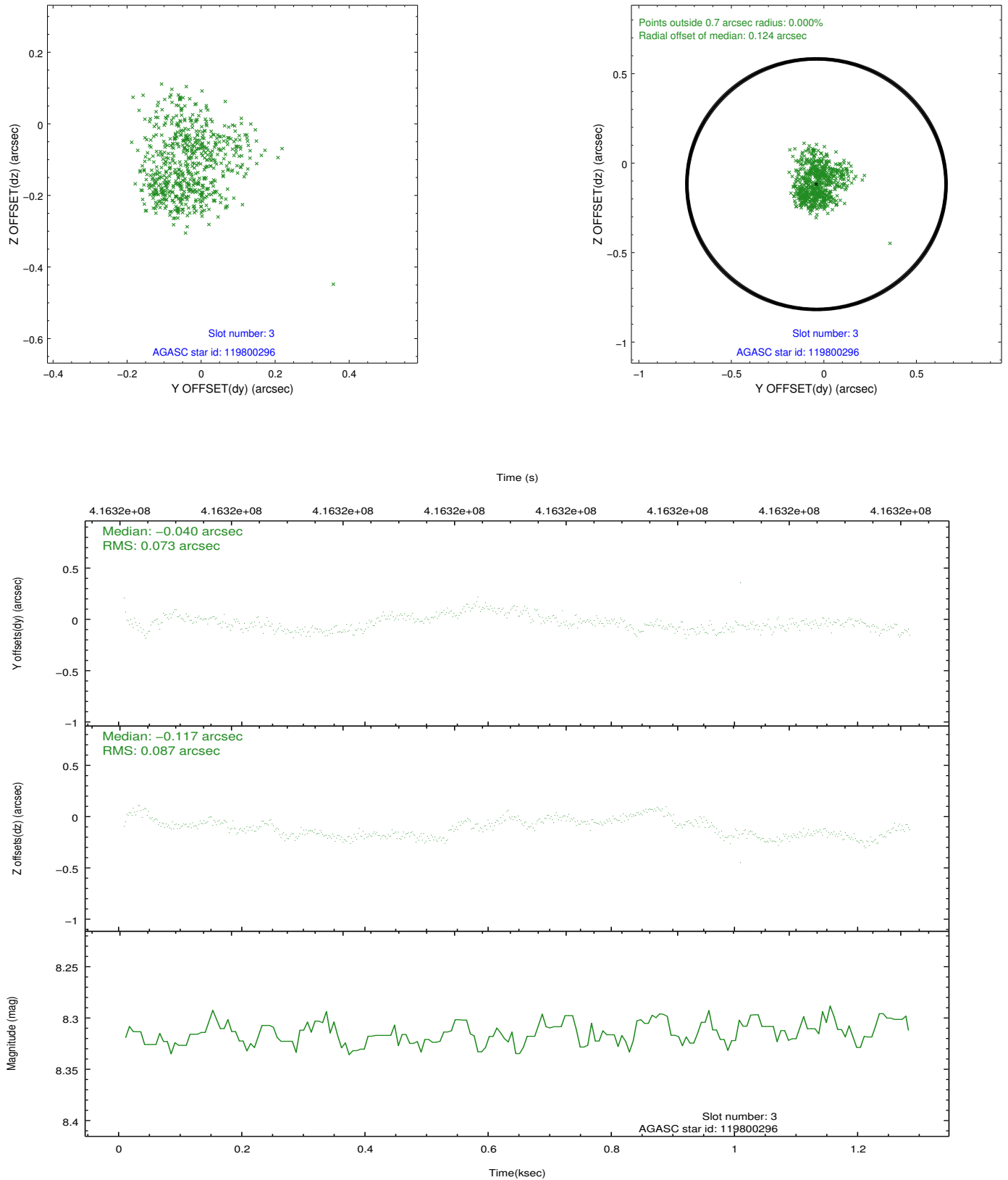
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.02	311	0.056	-0.048	0.006	0.011	0.000000	0.000000	928.17	-1732.10
1	FID	ACIS-S-5	7.06	311	-0.149	0.022	0.006	0.010	0.000000	0.000000	-1818.15	160.09
2	FID	ACIS-S-6	7.18	311	0.073	0.038	0.007	0.011	0.000000	0.000000	388.04	810.00
3	GUIDE	119800296	8.32	623	-0.040	-0.117	0.122	0.187	221.741295	11.477278	-1130.30	345.86
4	GUIDE	119801088	8.08	623	0.042	0.118	0.078	0.115	221.910913	11.357167	-1619.69	-207.92
5	GUIDE	119802920	8.77	623	-0.268	0.005	0.087	0.137	221.439875	11.939791	626.59	1243.12
6	GUIDE	119804376	9.04	622	0.143	0.177	0.103	0.165	221.588225	11.184628	-2126.12	986.90
7	GUIDE	119804736	8.91	622	0.123	-0.179	0.093	0.158	221.791409	11.430746	-1317.95	186.98

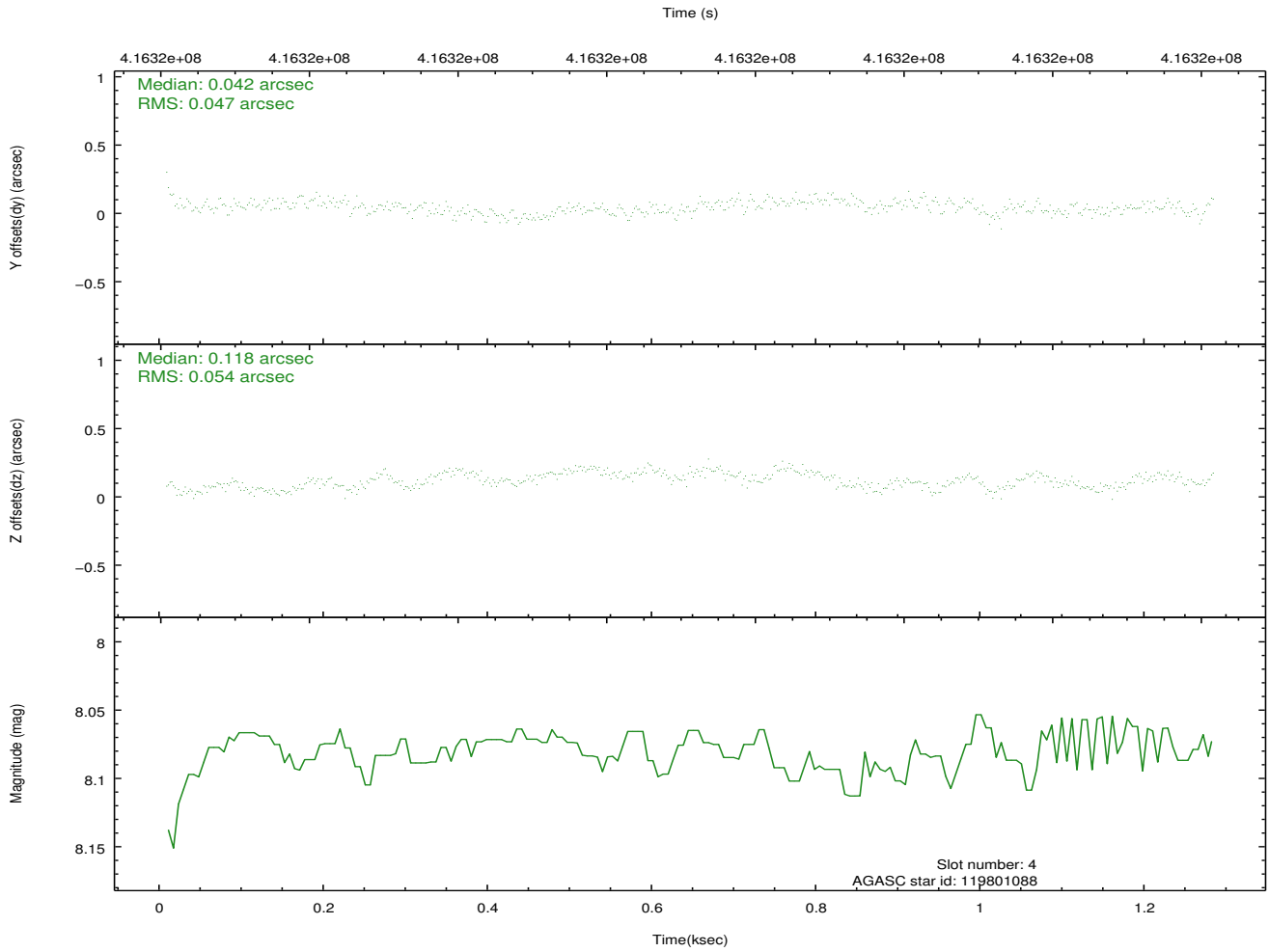
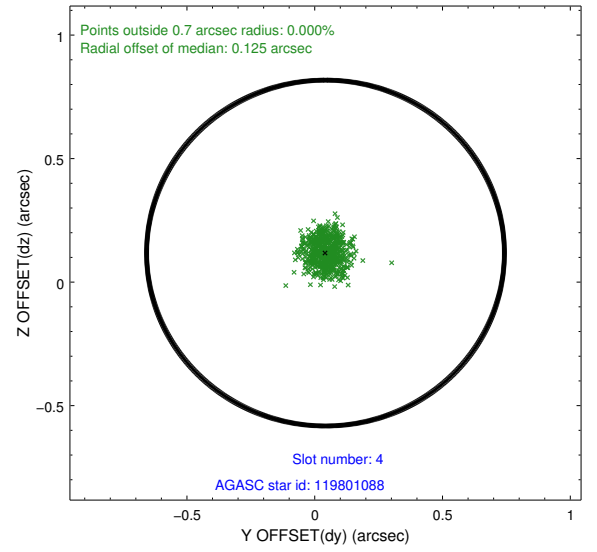
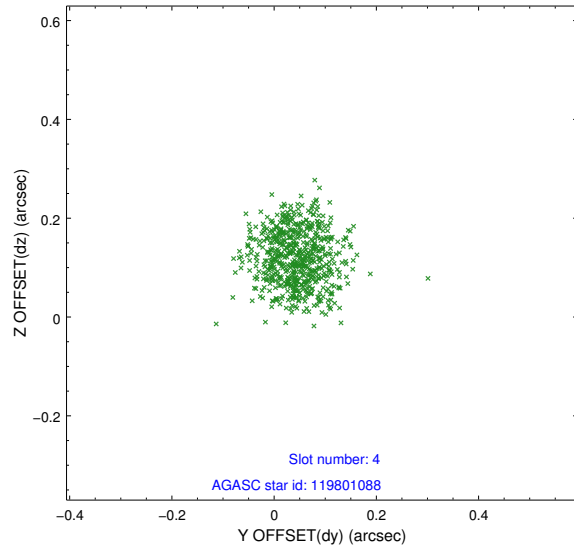


## 2.4 Star Slots

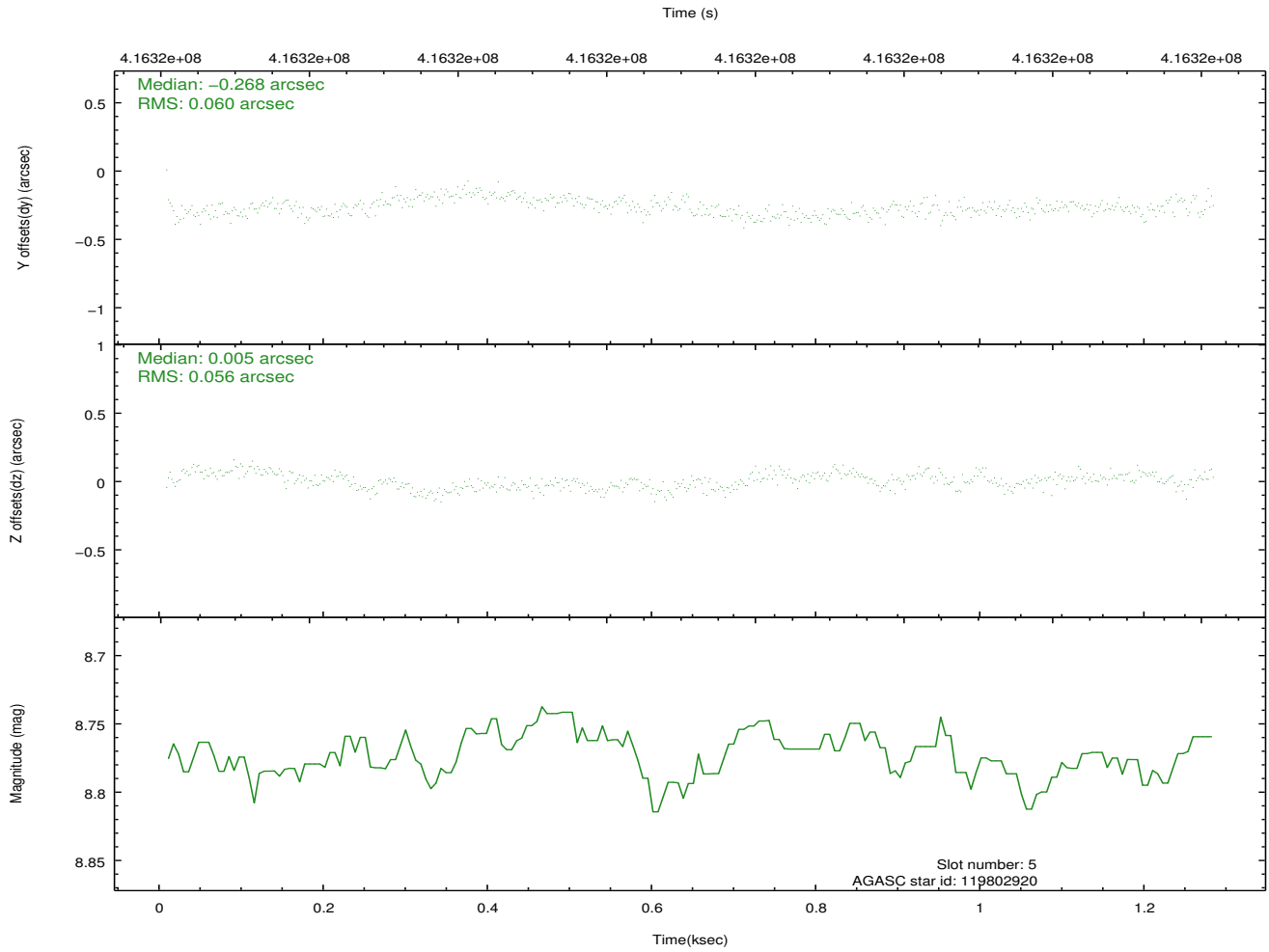
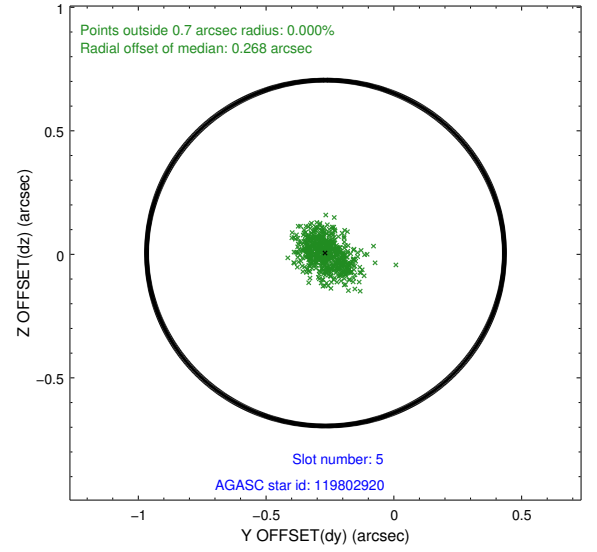
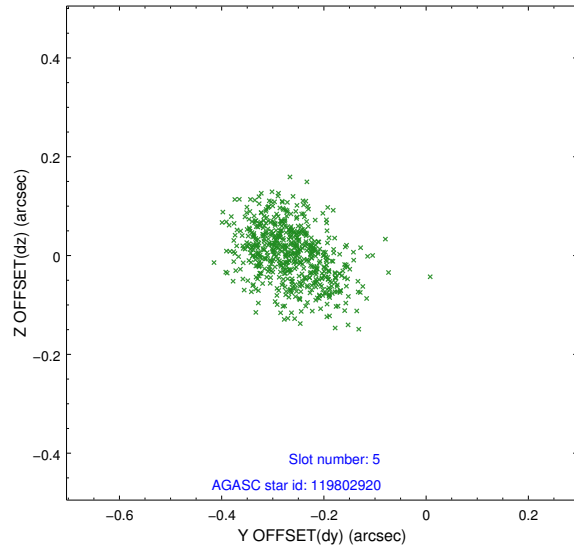
### 2.4.1 Slot 3



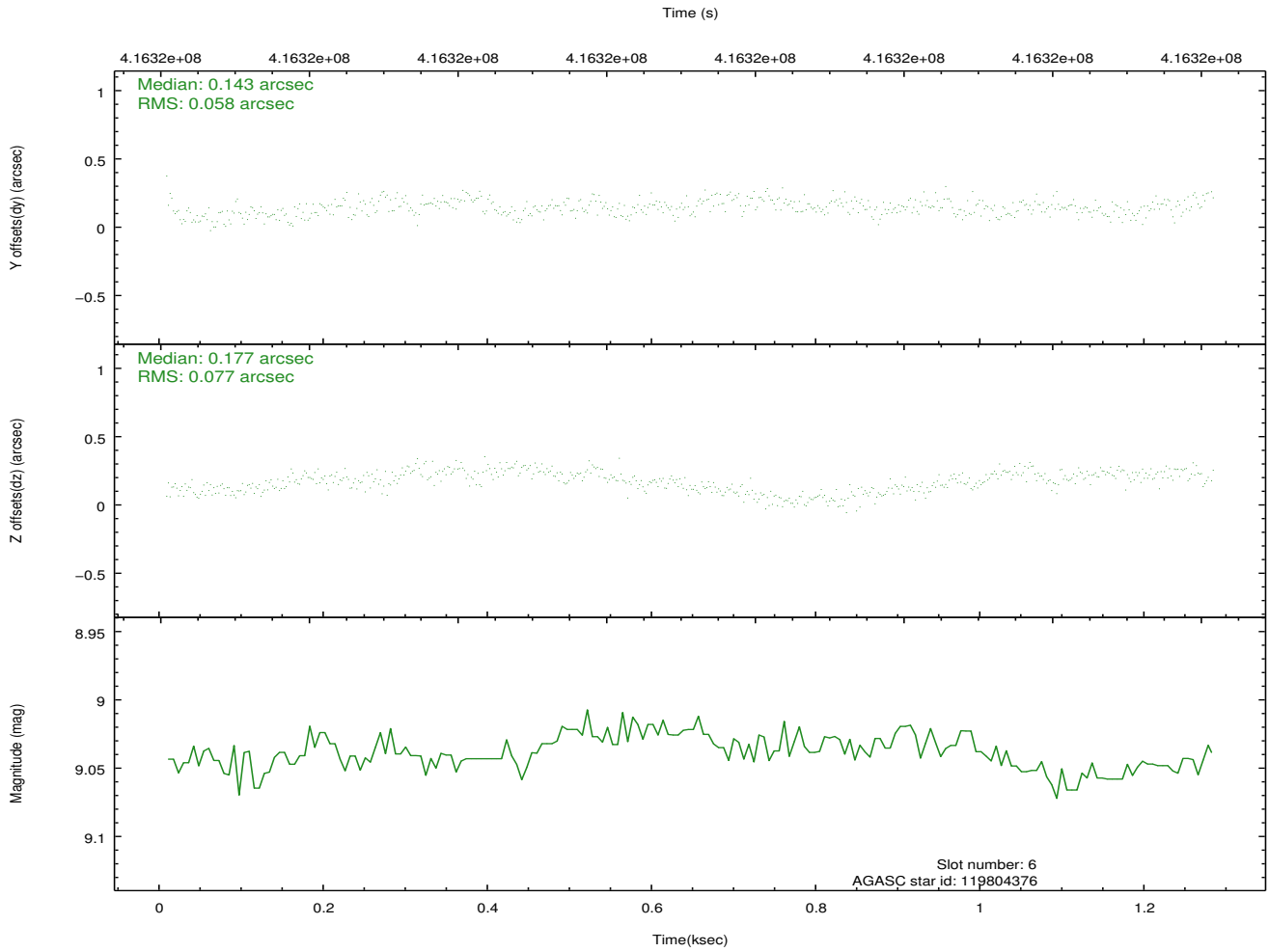
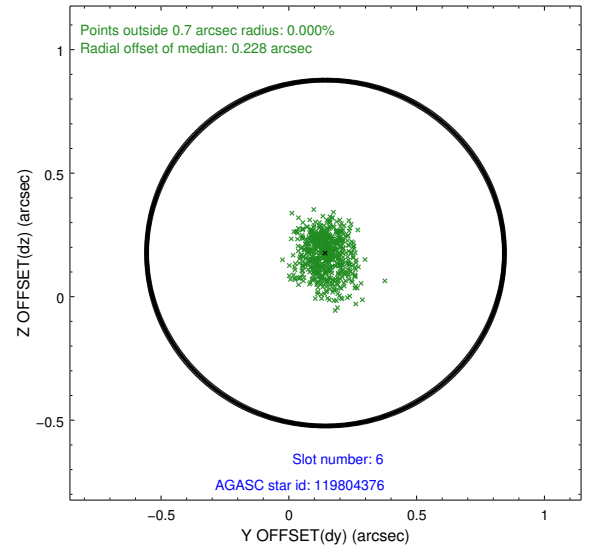
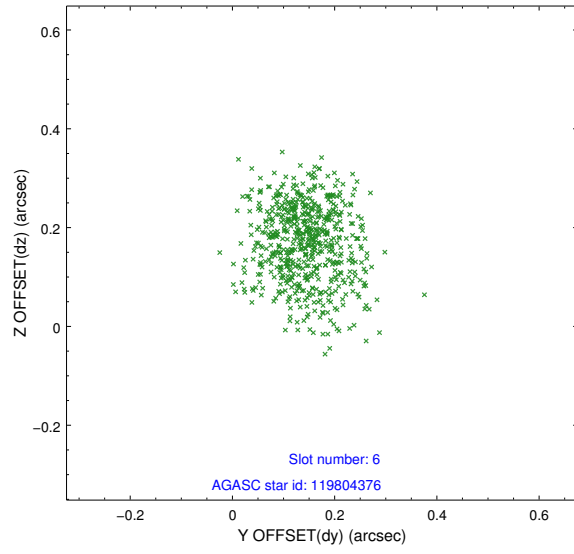
## 2.4.2 Slot 4



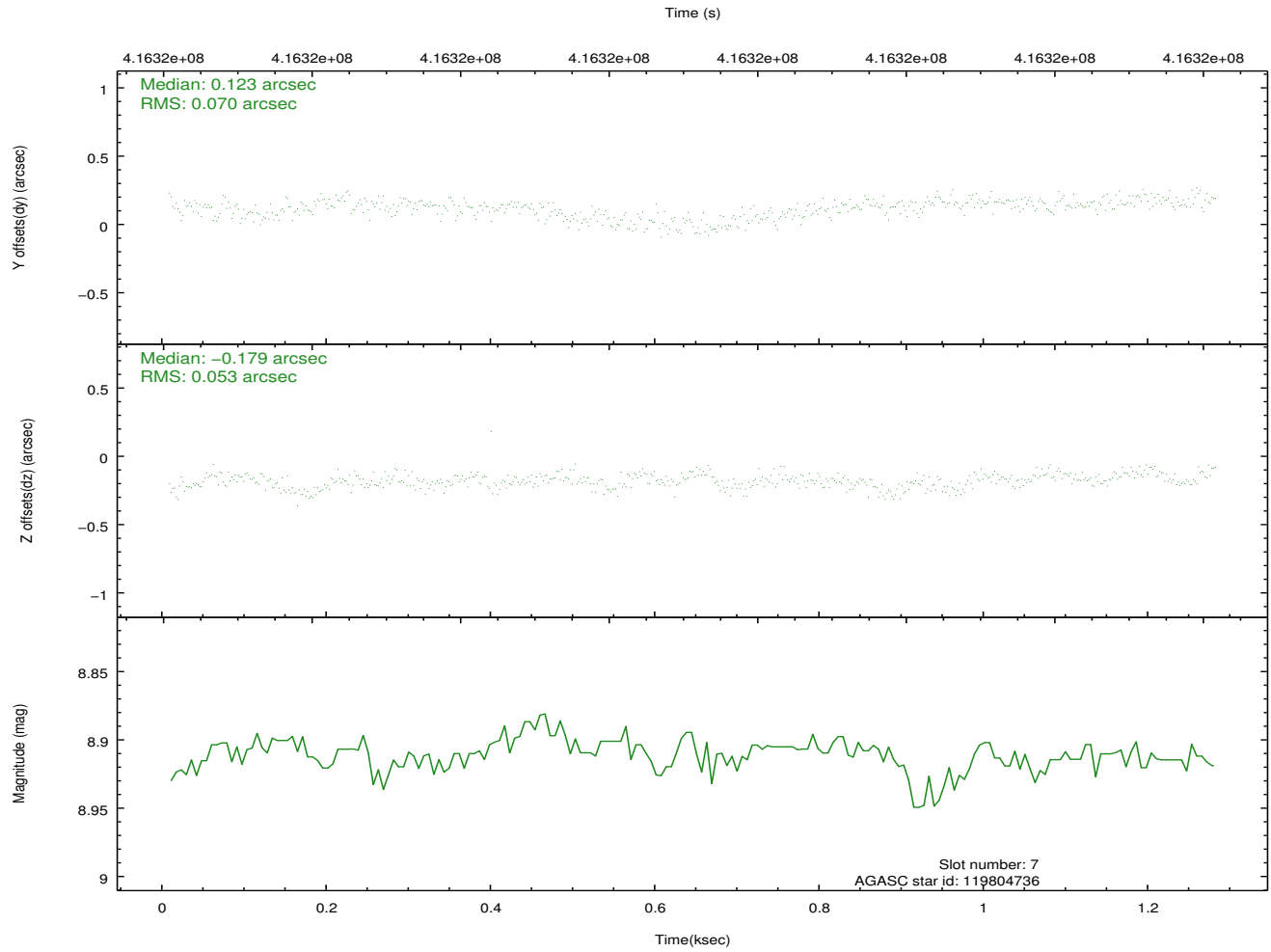
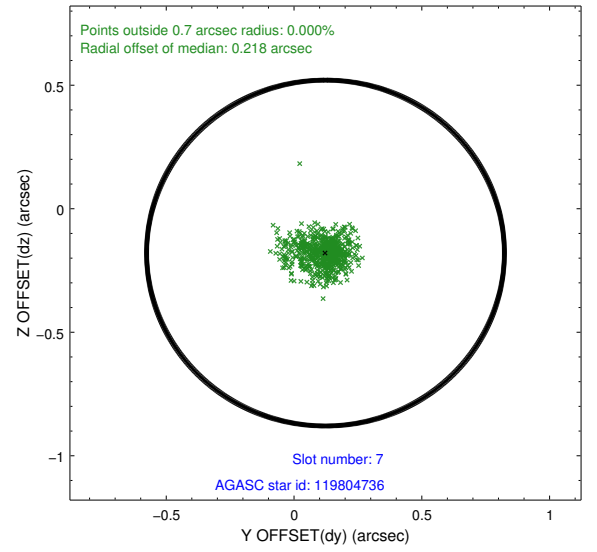
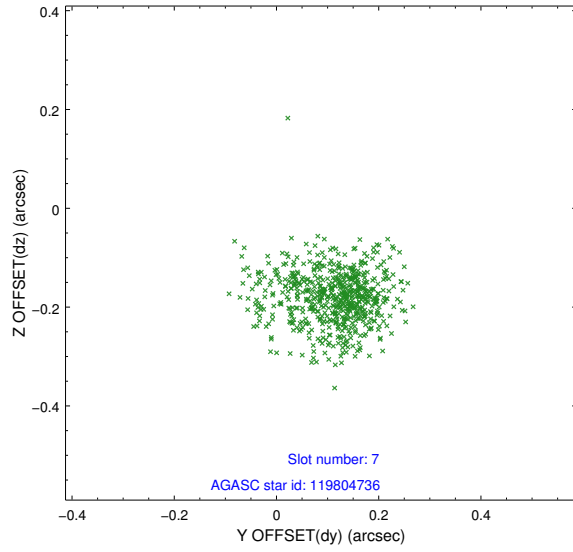
### 2.4.3 Slot 5



## 2.4.4 Slot 6

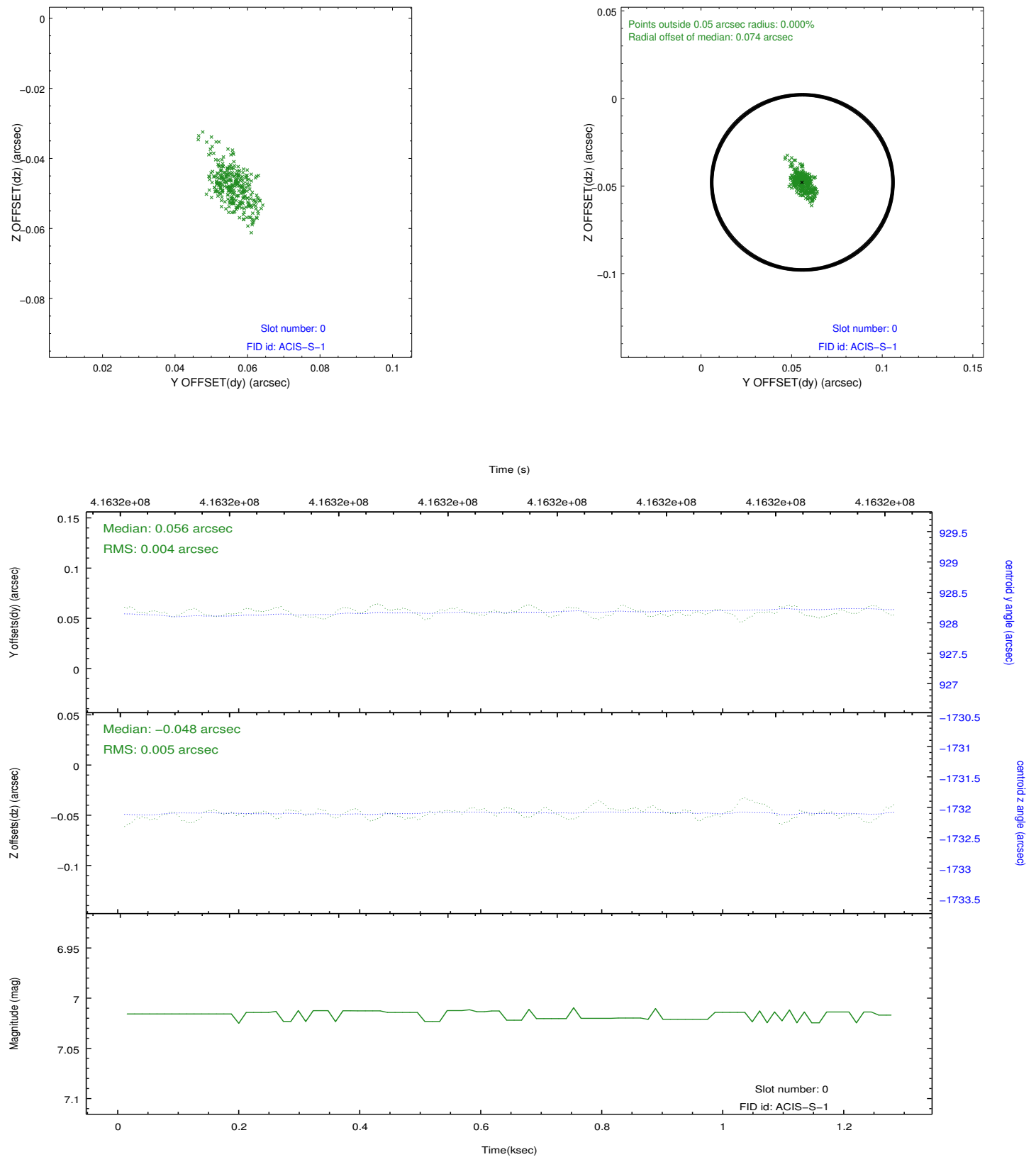


## 2.4.5 Slot 7

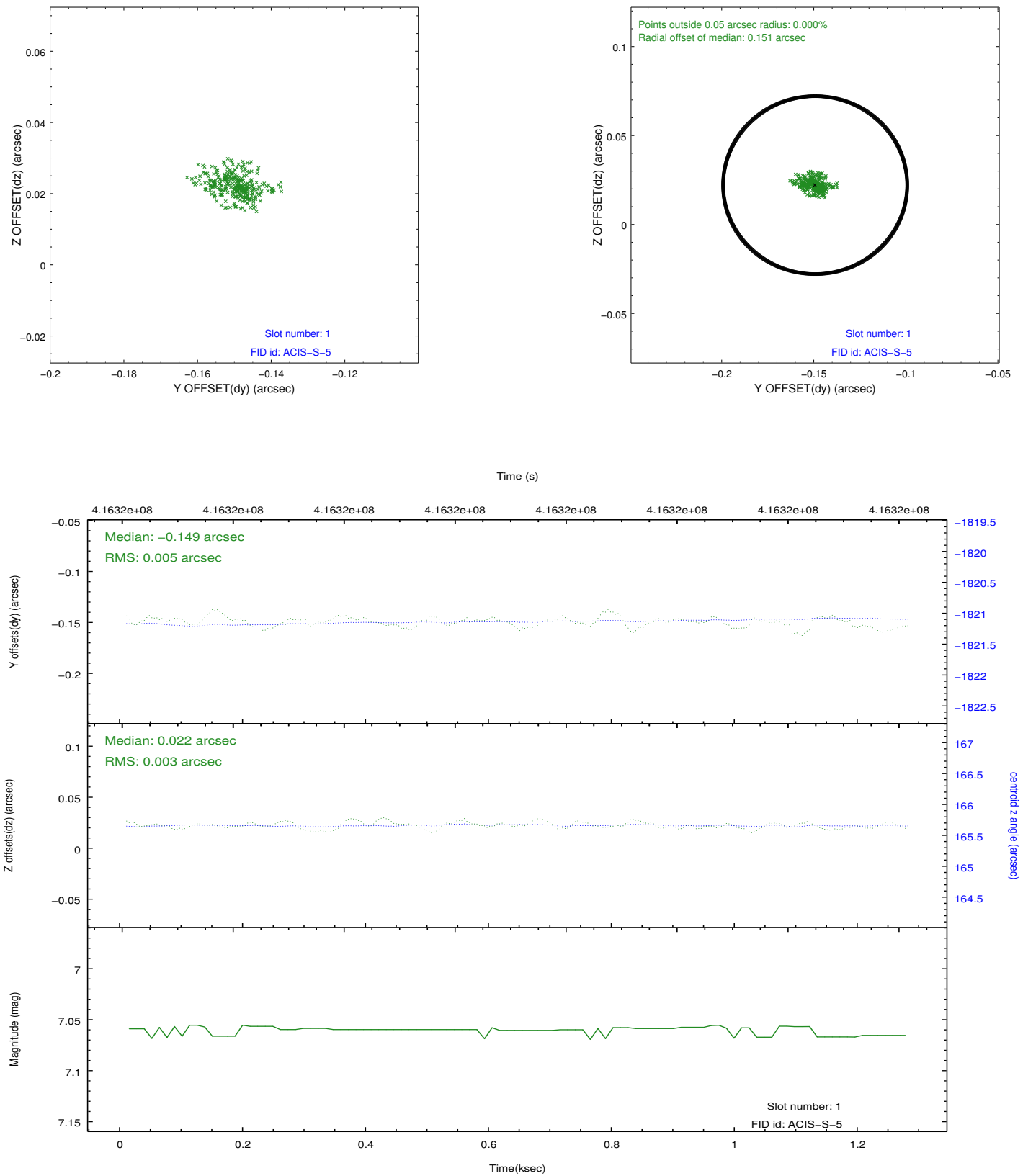


## 2.5 FID Slots

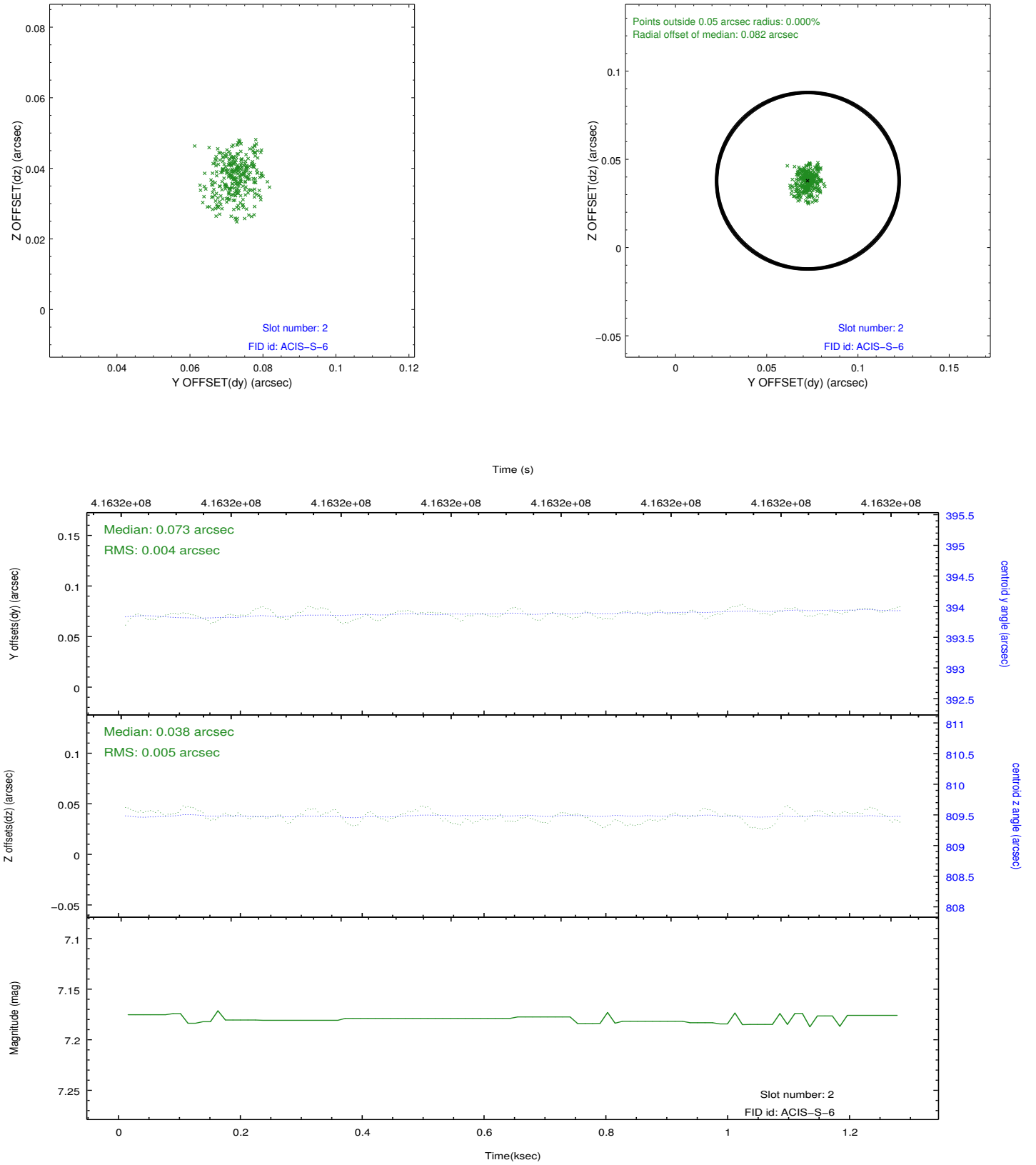
### 2.5.1 Slot 0



## 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)	2012.02.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.0354000079632

## A.2 Comments

The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSER algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.