

# V&V Reference Report

## L2 ASCDS Version : 10.5

Observation 18324 - L2 Version 1  
Chandra X-Ray Center

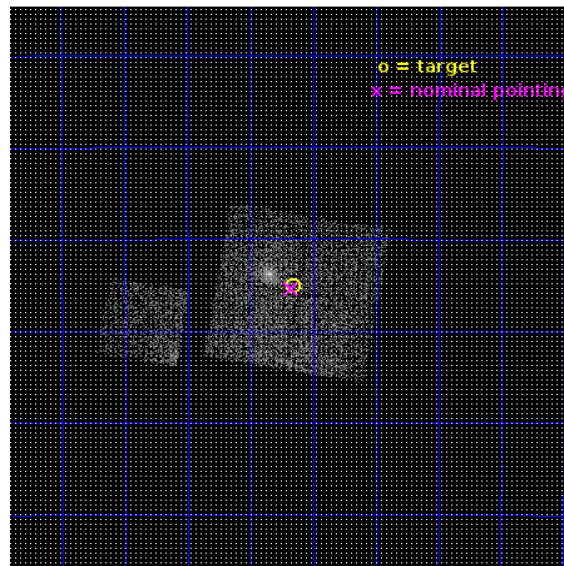
L2 Processing Date : Jul 15 2016

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# 1 Front

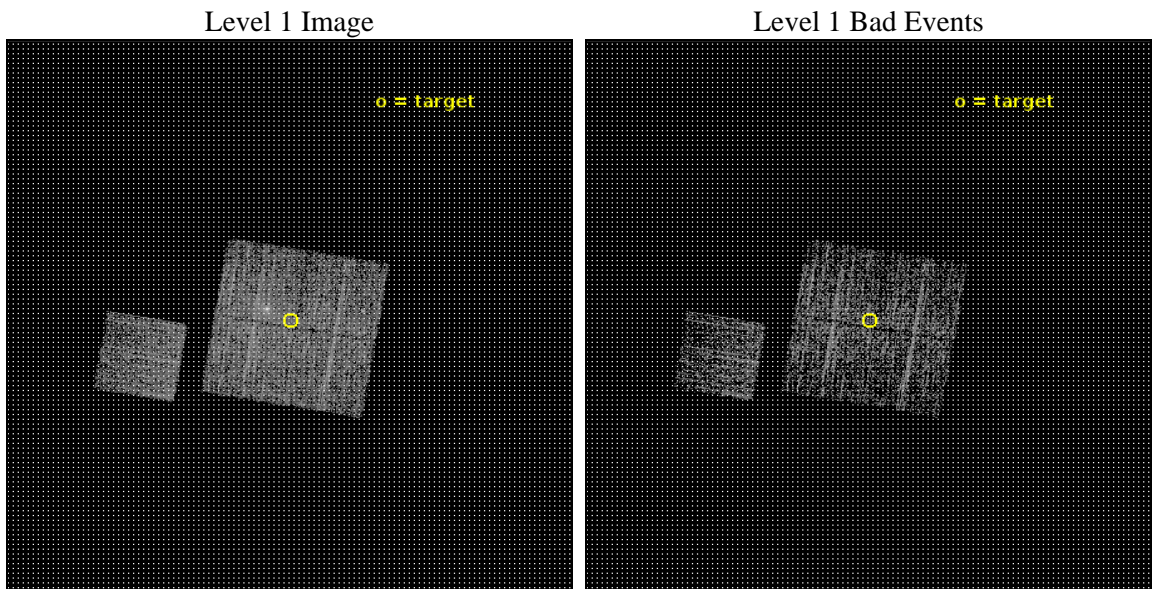
seq_num	300355	Sequence number
obs_id	18324	Observation id
title	X-raying the Galactic center/bulge interface	Proposal title
observer	Q. Daniel Wang	Principal investigator
object	GC-GB interface	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	266.53897	Observer's specified target RA [deg]
dec_targ	-28.75101	Observer's specified target Dec [deg]
ra_nom	266.54322631273	Nominal RA [deg]
dec_nom	-28.756488500945	Nominal Dec [deg]
roll_nom	279.65459232703	Nominal Roll [deg]
revision	1	Processing version of data
ontime	1955.4644606113	Sum of GTIs [s]
livetime	1929.9148778415	Livetime [s]
ontime0	1955.341340661	Sum of GTIs [s]
ontime1	1955.3823806047	Sum of GTIs [s]
ontime2	1955.4234206676	Sum of GTIs [s]
ontime3	1955.4644606113	Sum of GTIs [s]
ontime6	1955.3003005981	Sum of GTIs [s]
l2events	13578	Number of level 2 events



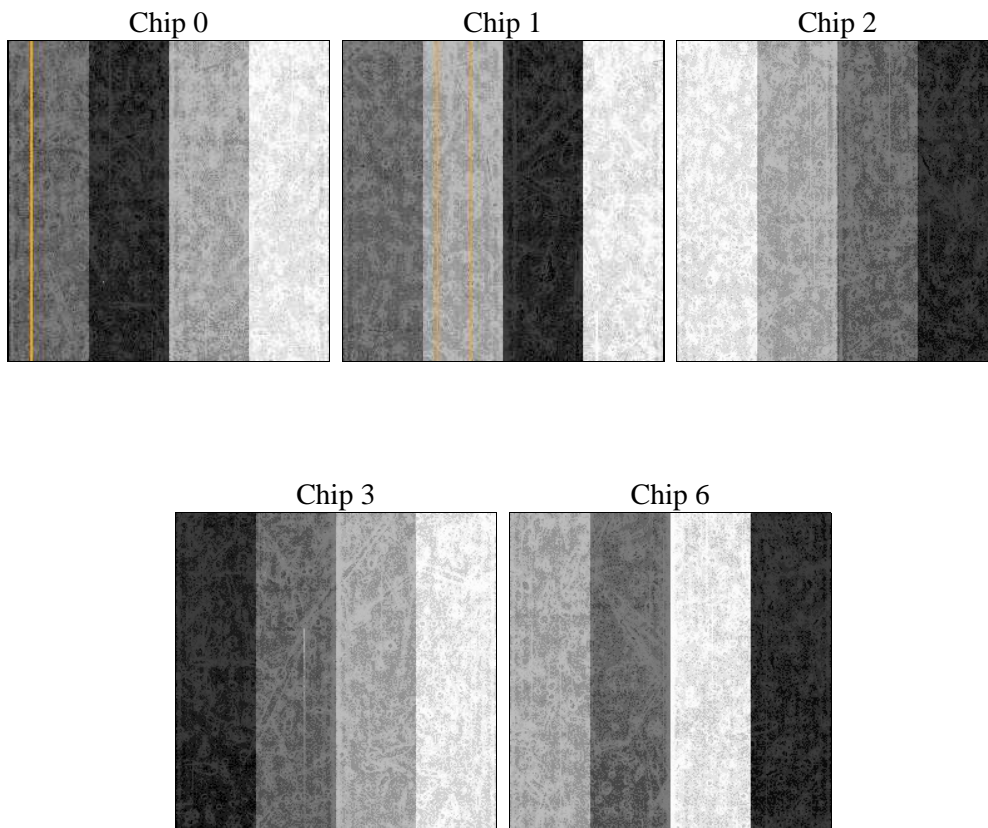
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2180.000000	[s] Scheduled observation exposure time
ascdsver	10.5	Processing system revision	ontime	1955.4644606113	Sum of GTIs [s]
caldbver	4.7.2	&#160	ontime0	1955.341340661	Sum of GTIs [s]
date	2016-07-15T14:33:31	Date and time of file creation	ontime1	1955.3823806047	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	1955.4234206676	Sum of GTIs [s]
			ontime3	1955.4644606113	Sum of GTIs [s]
			ontime6	1955.3003005981	Sum of GTIs [s]
			l1events	65313	Number of level 1 events

### 2.1.4 Events

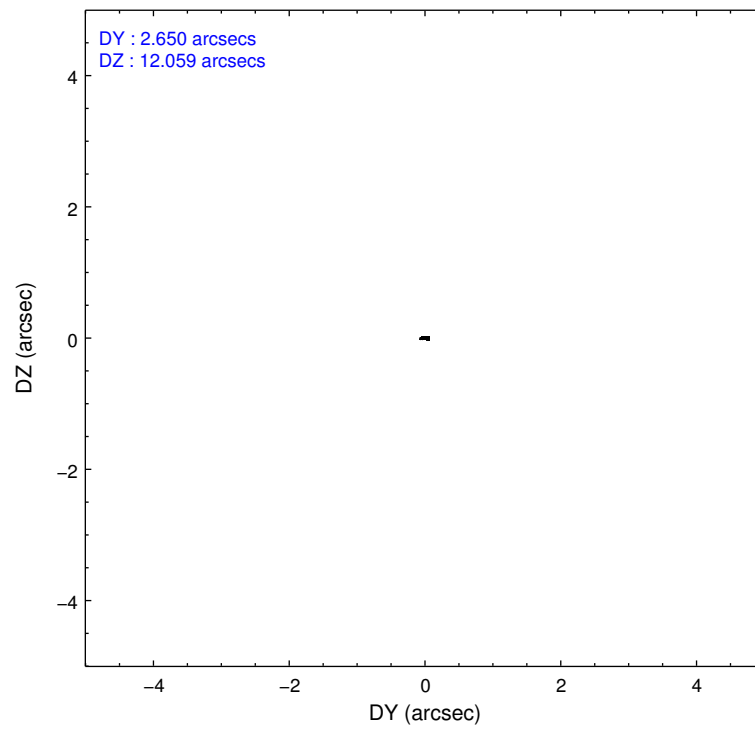
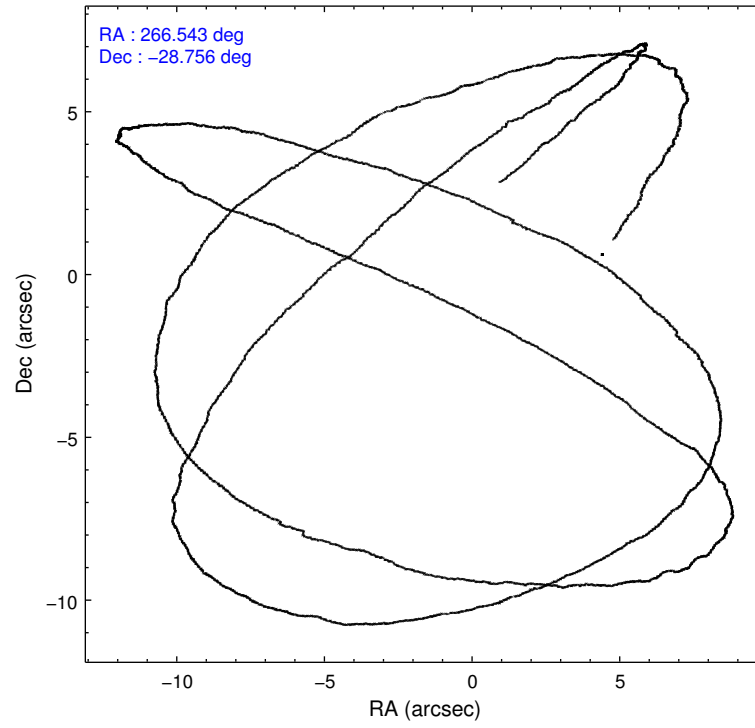
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	12261	12031	14189	14897	11935
rejected events	9190	9538	10723	10739	9863
rejected %	74%	79%	75%	72%	82%

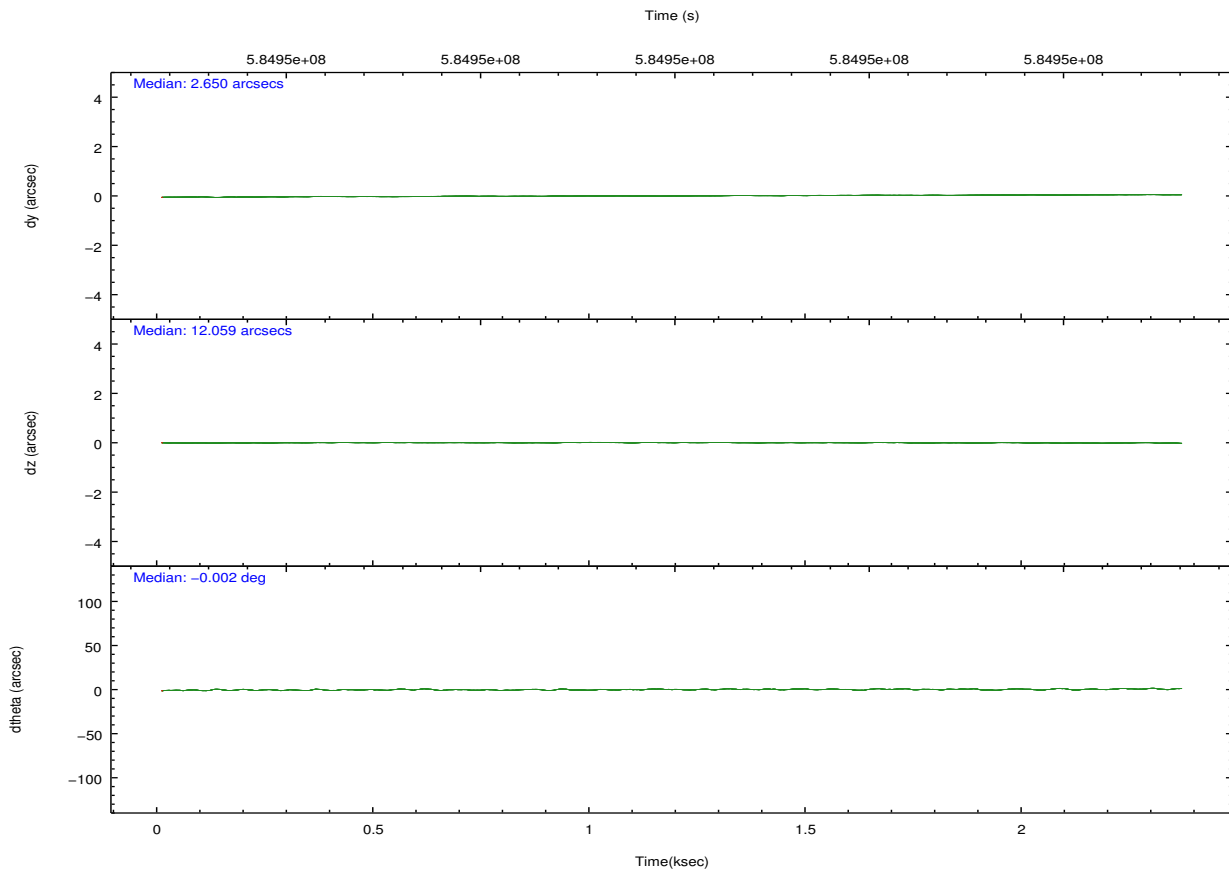
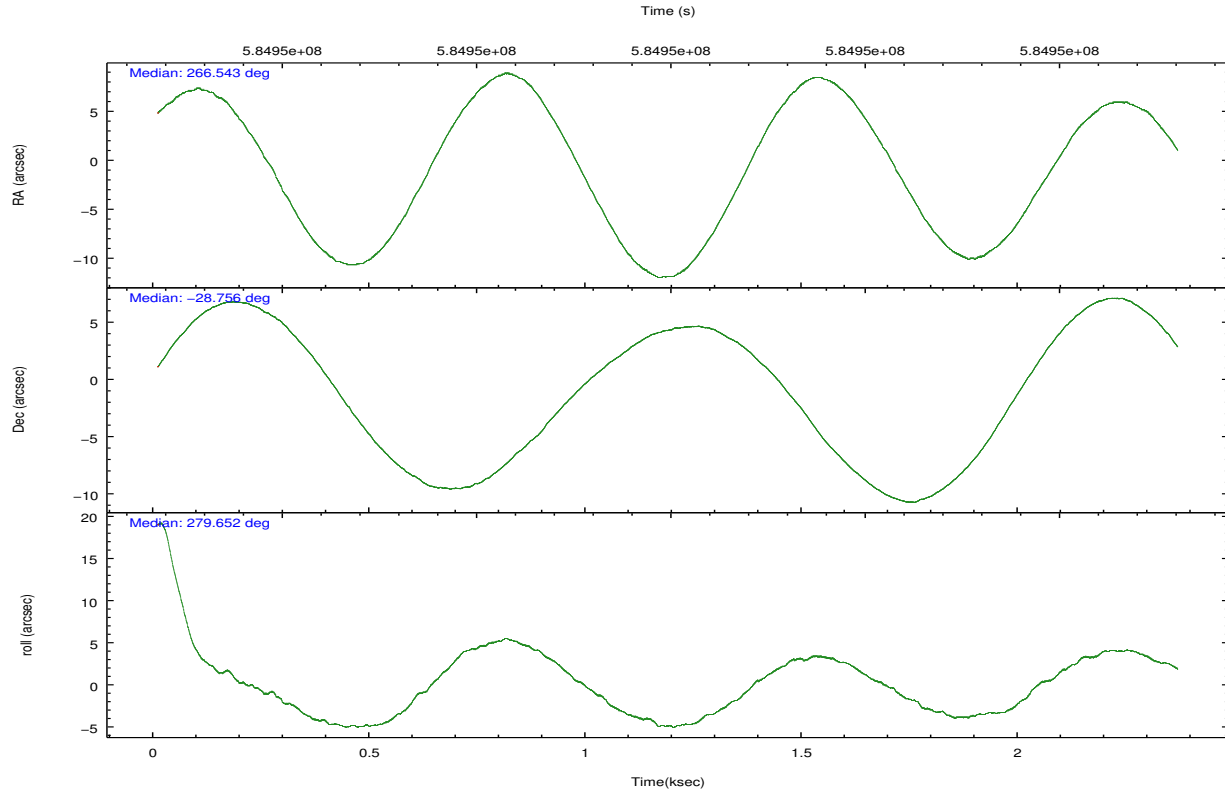
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	1687	1207	2033	2221	982
	13%	10%	14%	14%	8%
grade 1 events	12	8	21	124	7
	0%	0%	0%	0%	0%
grade 2 events	535	484	620	724	420
	4%	4%	4%	4%	3%
grade 3 events	203	185	224	299	172
	1%	1%	1%	2%	1%
grade 4 events	248	211	228	320	153
	2%	1%	1%	2%	1%
grade 5 events	546	626	546	730	625
	4%	5%	3%	4%	5%
grade 6 events	402	408	366	601	349
	3%	3%	2%	4%	2%
grade 7 events	8628	8902	10151	9878	9227
	70%	73%	71%	66%	77%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	266.522830	266.5432263127286	CCD I2 on	Y	Y
[deg] Pointing Dec	-28.735596	-28.7564885009447	CCD I3 on	Y	Y
[deg] Pointing Roll	279.435989	279.6545923270314	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	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	584952000.184000	584951623.76846	CCD S5 on	N	N
Observation start date	2016-07-15T06:38:52	2016-07-15T06:33:43	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	584954180.184000	584954314.39362	On-chip summing requested	N	N
Observation end date	2016-07-15T07:15:12	2016-07-15T07:18:34	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





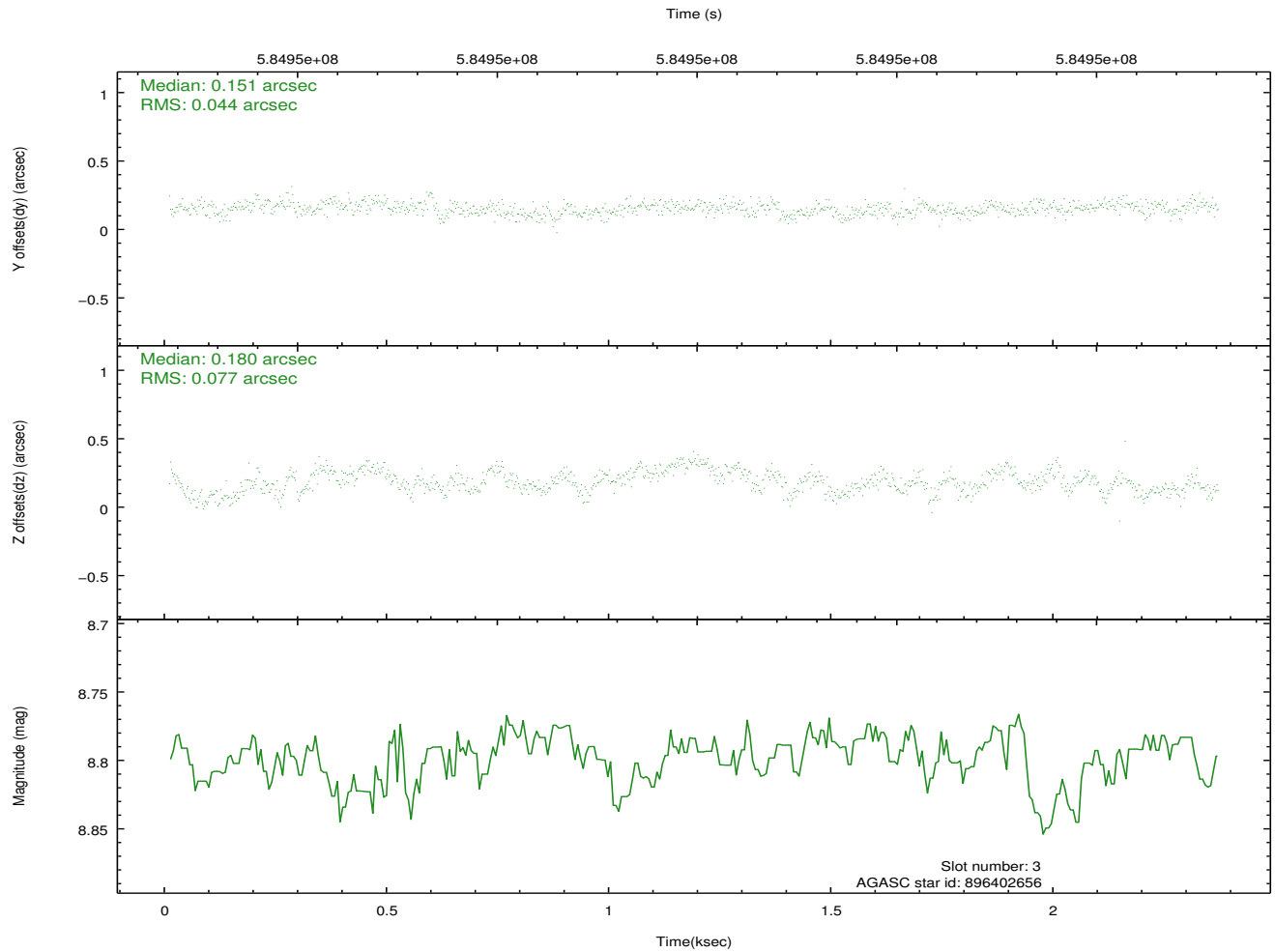
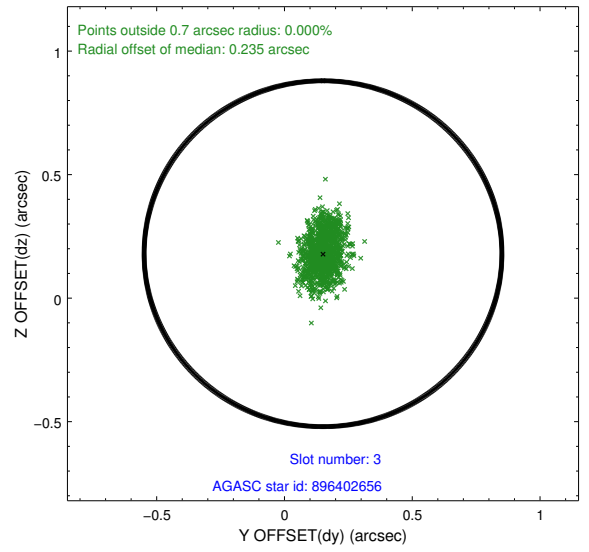
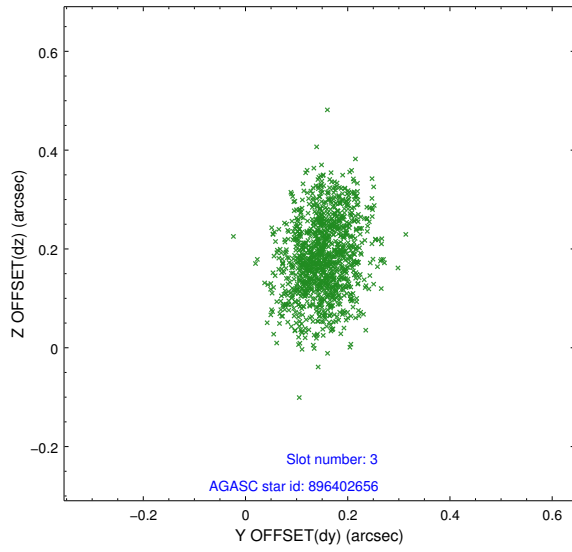
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.24	576	0.068	-0.101	0.007	0.013	0.000000	0.000000	937.22	-835.68
1	FID		ACIS-I-4	7.19	576	0.198	0.062	0.007	0.012	0.000000	0.000000	2158.92	1062.92
2	FID		ACIS-I-5	7.21	576	-0.364	0.110	0.006	0.012	0.000000	0.000000	-1807.67	1063.92
3	GUIDE	used	896402656	8.80	1150	0.151	0.180	0.095	0.152	265.739192	-28.230753	-2190.87	-2155.99
4	GUIDE	used	896540808	7.51	1152	0.094	0.100	0.067	0.107	265.985401	-29.308604	1761.72	-2005.56
5	GUIDE	used	896541576	8.16	1152	-0.277	-0.052	0.082	0.133	267.051055	-28.762912	376.42	1625.21
6	GUIDE	used	896539744	8.30	1152	0.045	0.048	0.080	0.133	266.154264	-28.178023	-2168.40	-824.37
7	GUIDE	used	896533888	7.03	1151	-0.016	-0.278	0.065	0.103	266.666434	-29.392757	2407.27	54.84

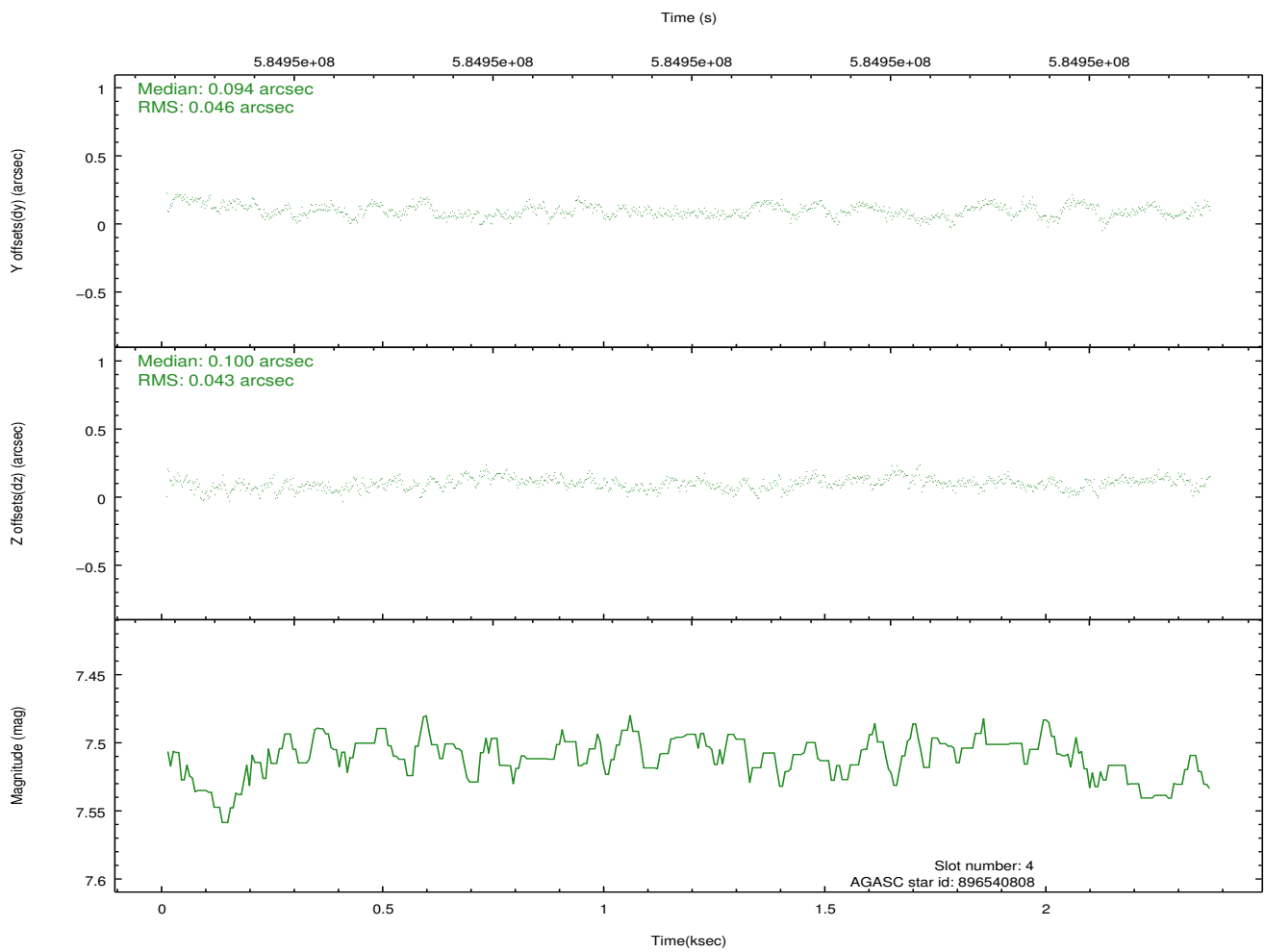
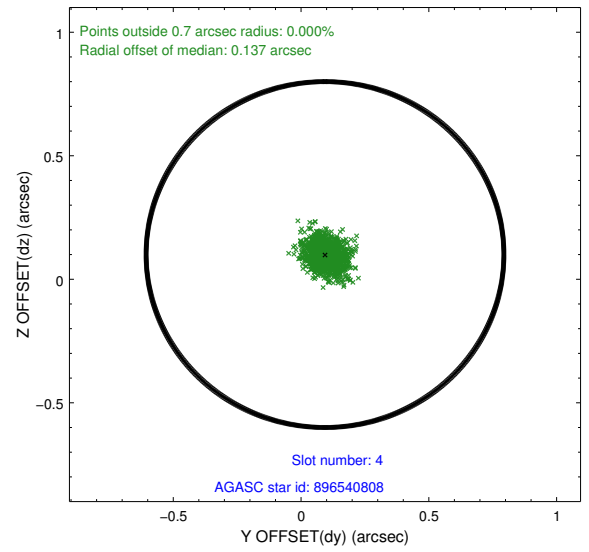
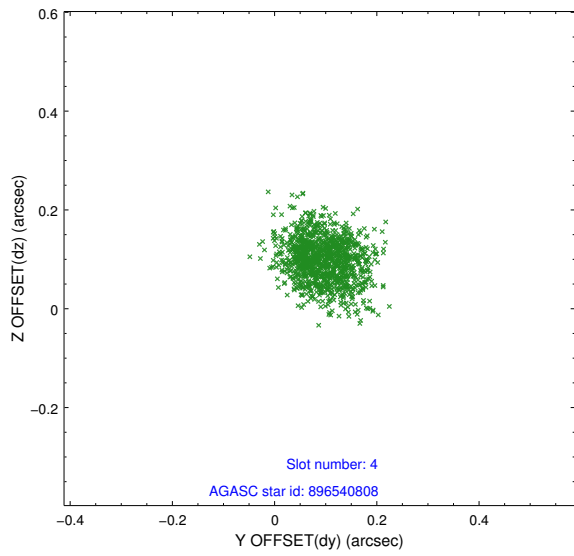
∞

## 2.4 Star Slots

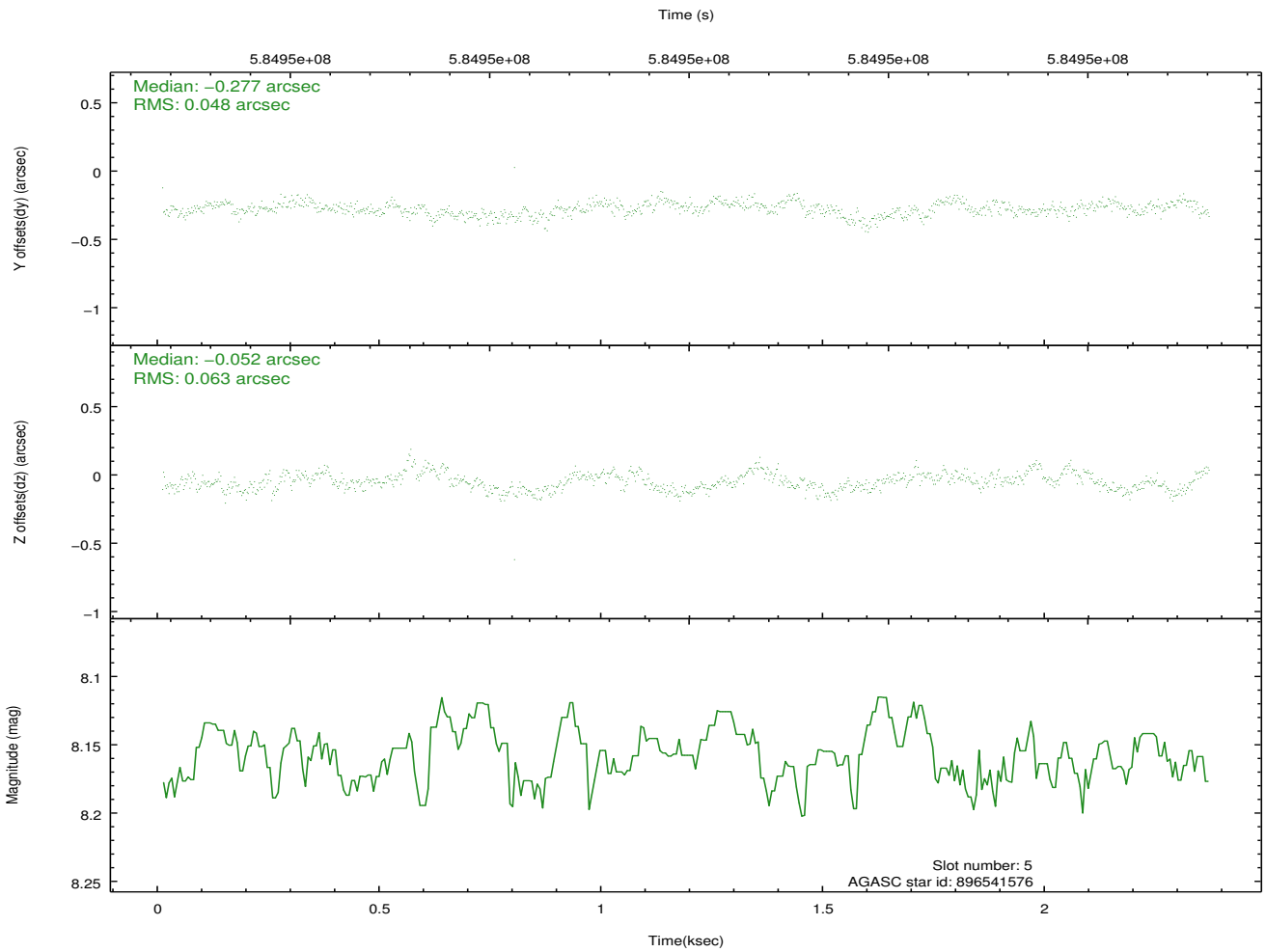
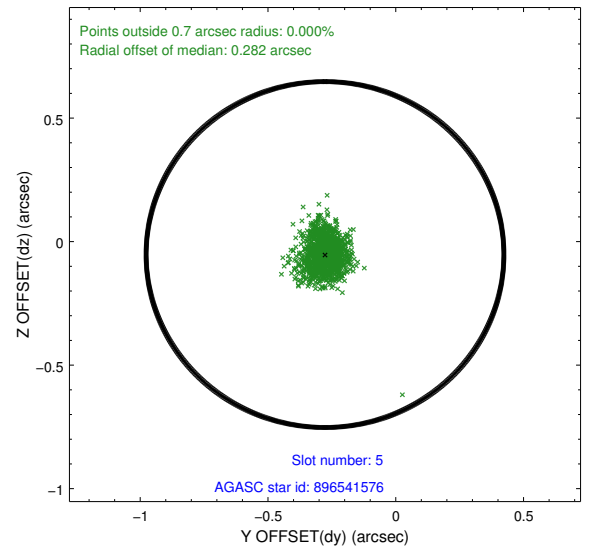
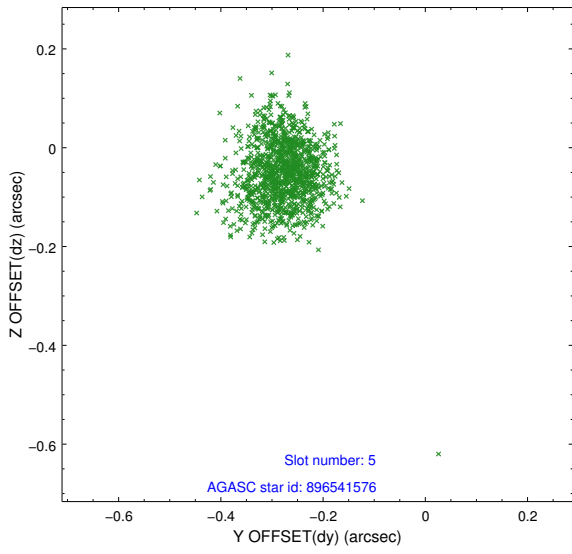
### 2.4.1 Slot 3



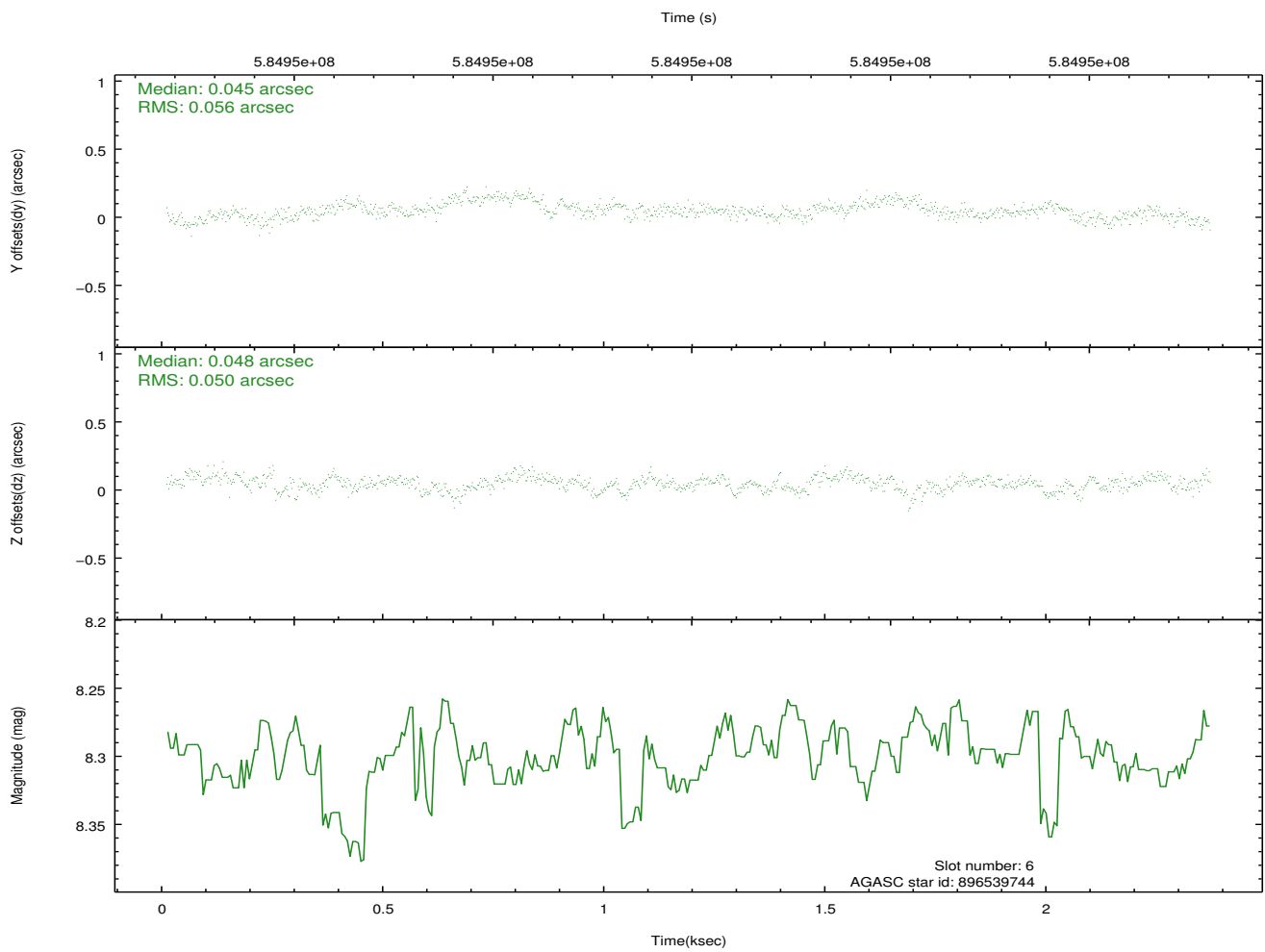
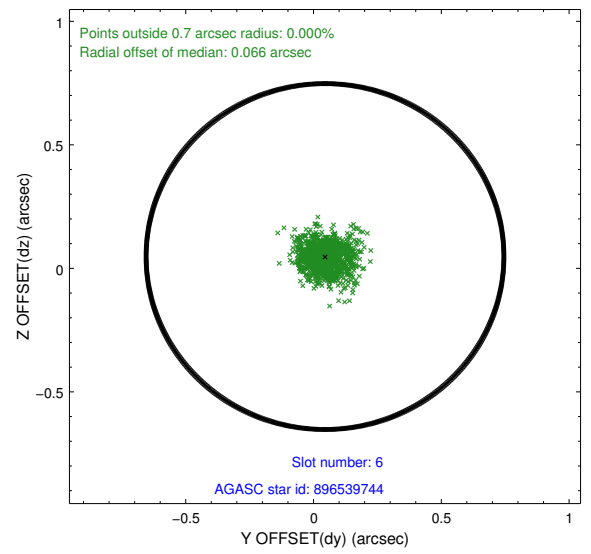
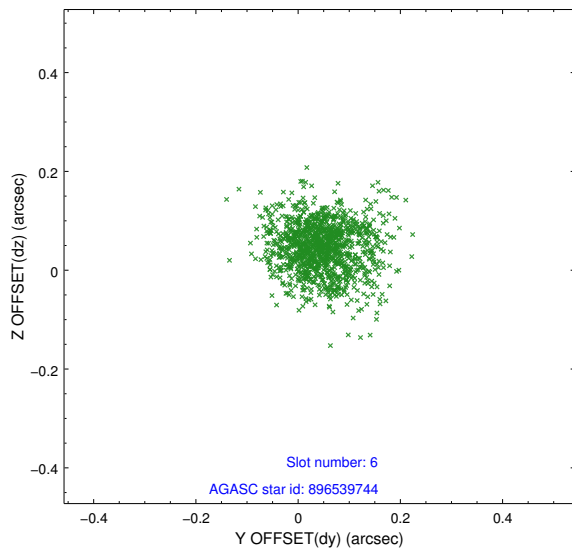
## 2.4.2 Slot 4



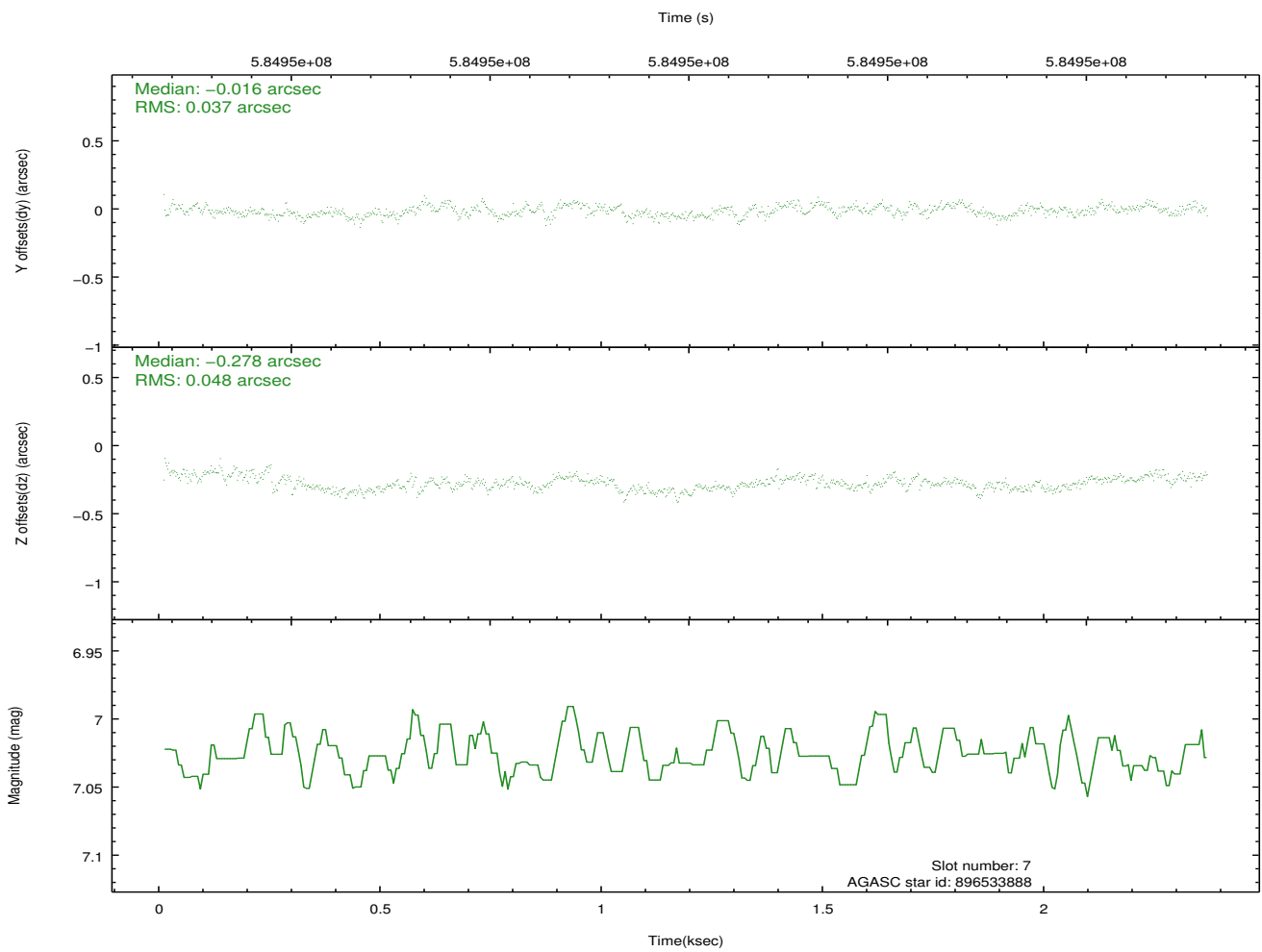
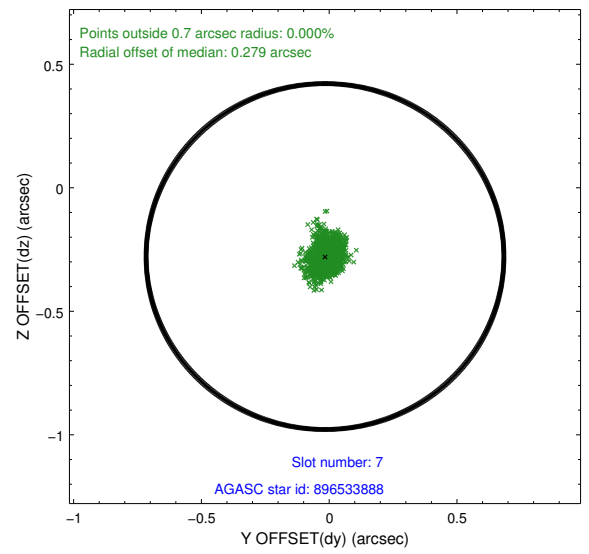
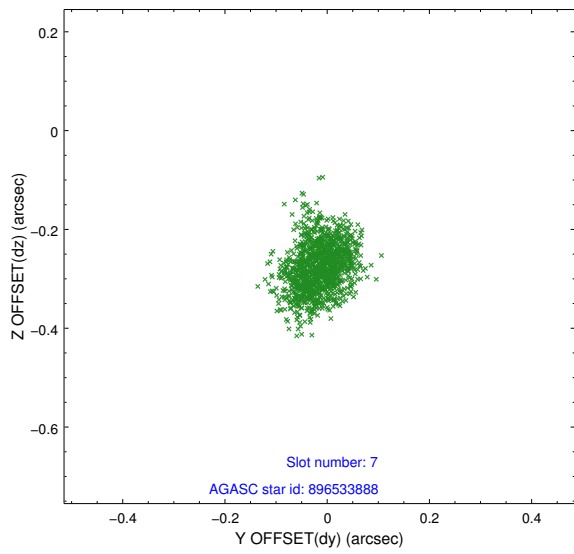
### 2.4.3 Slot 5



## 2.4.4 Slot 6

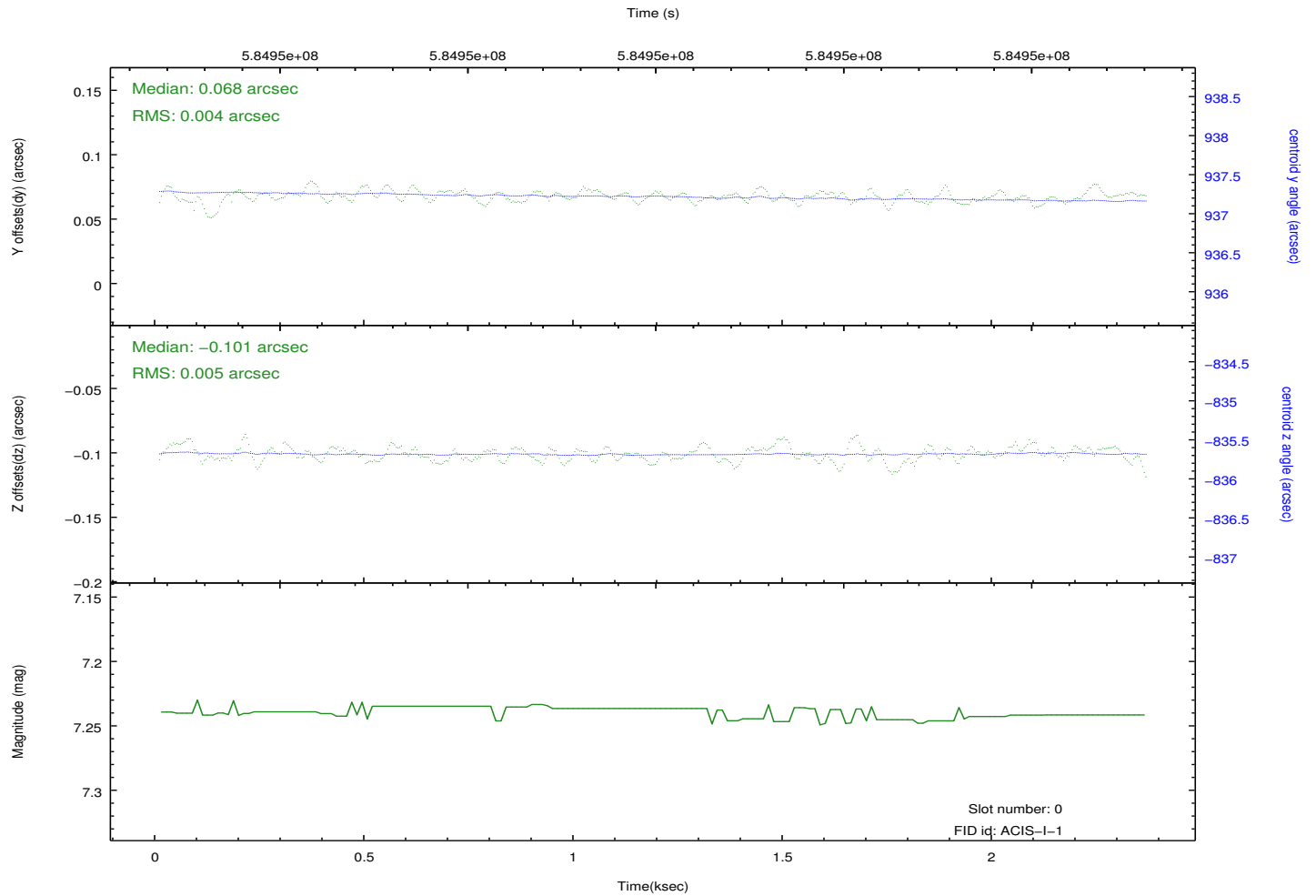
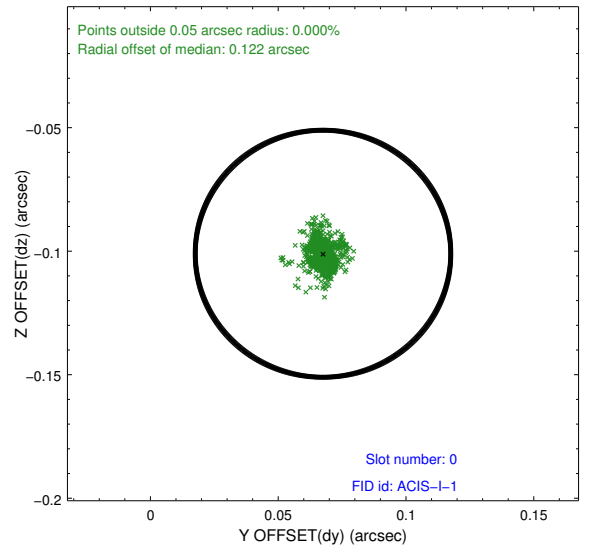
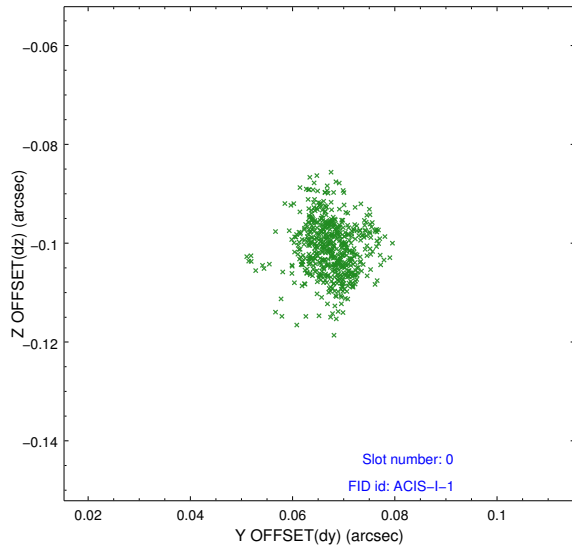


## 2.4.5 Slot 7

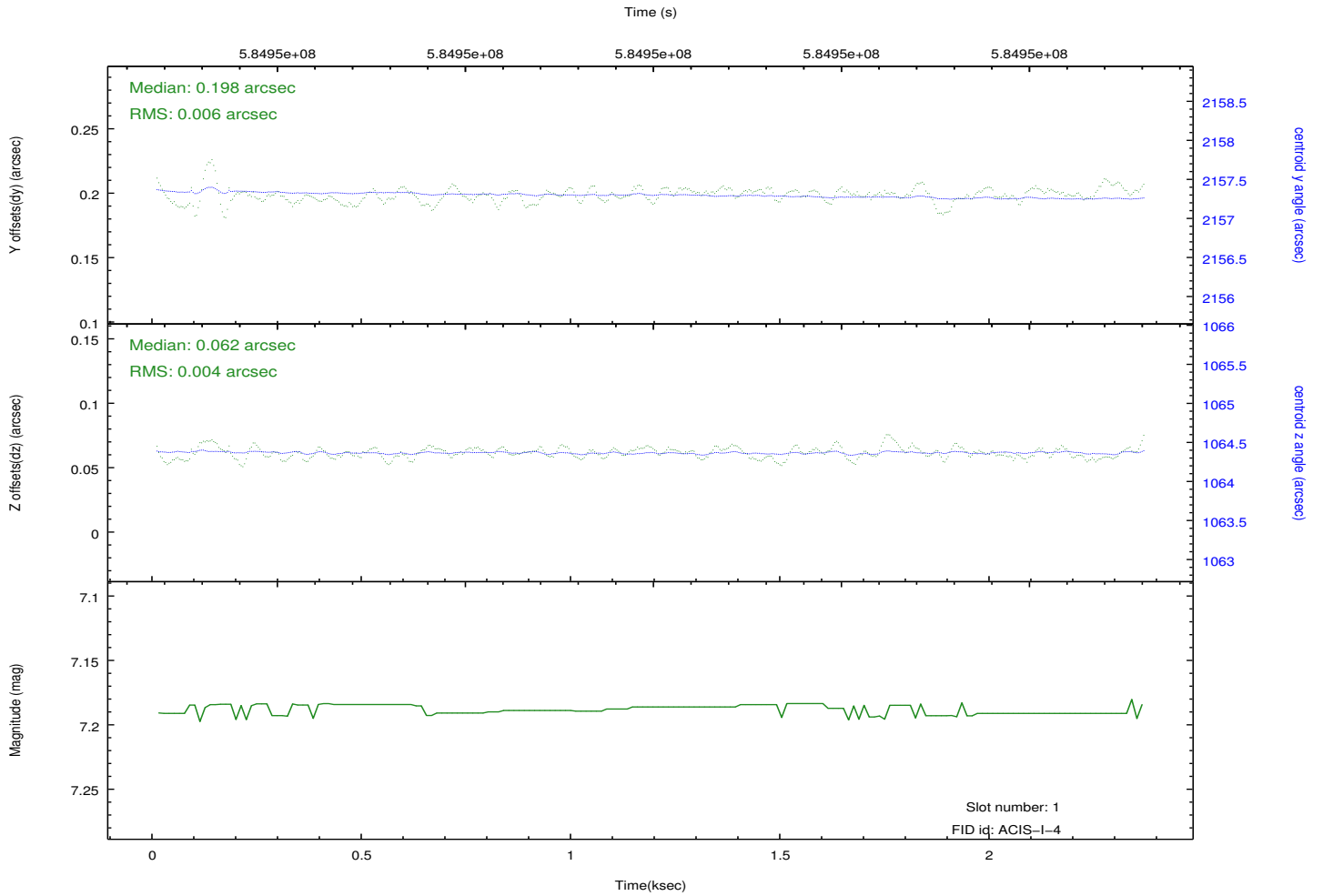
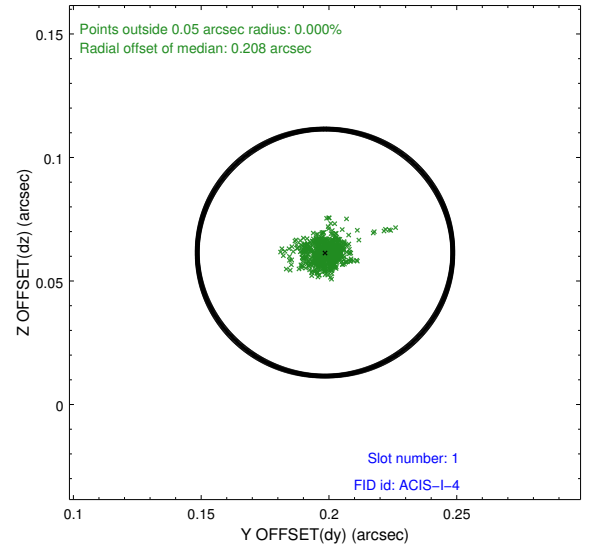
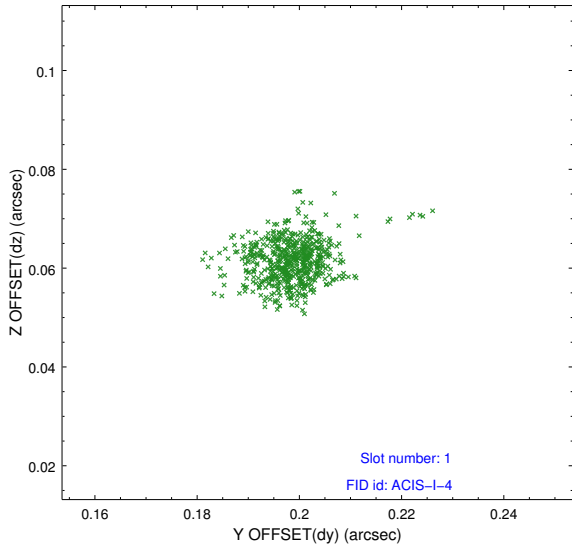


## 2.5 FID Slots

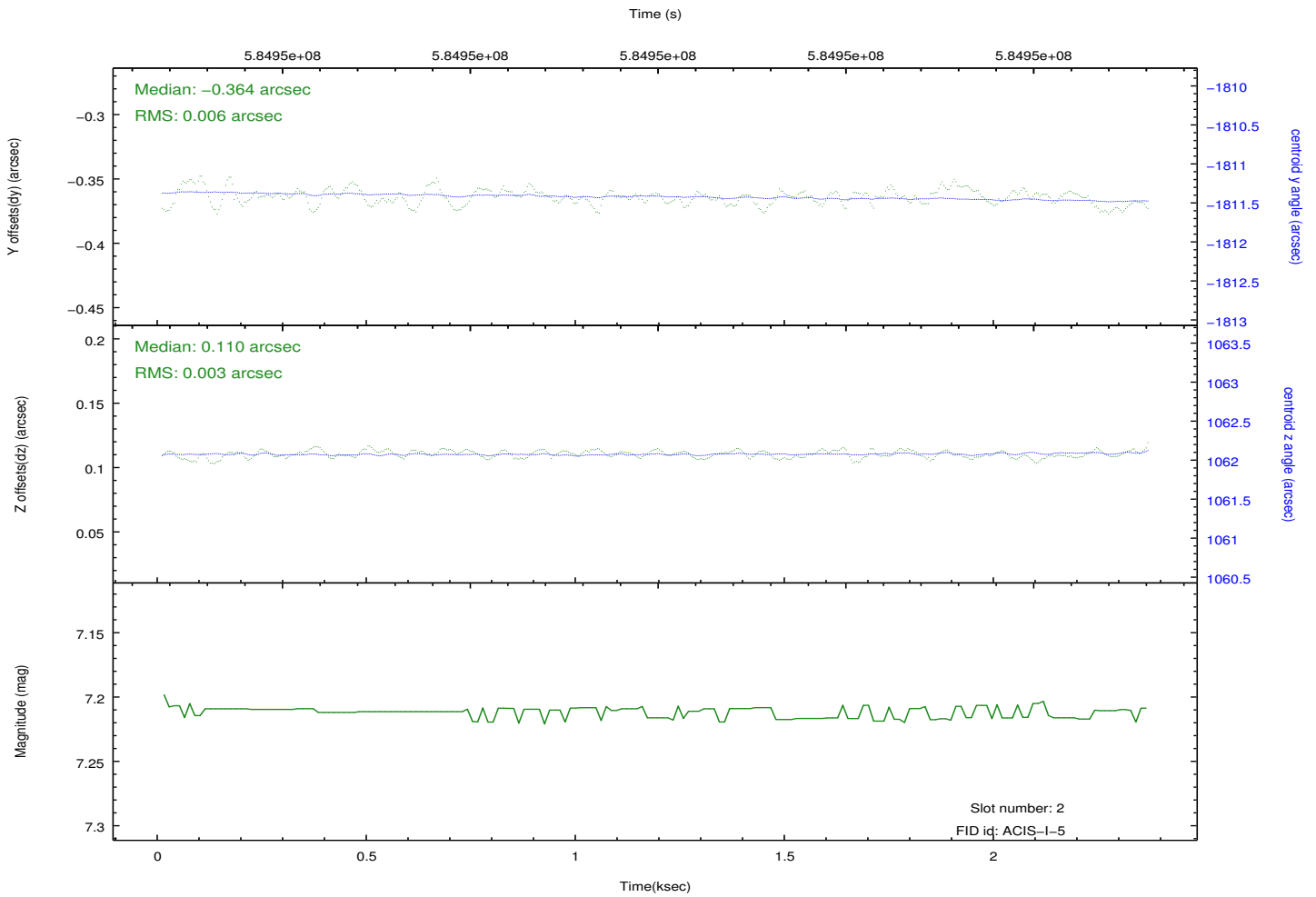
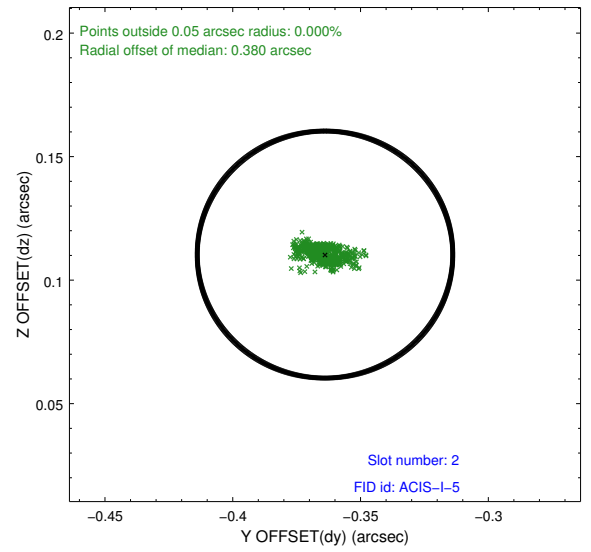
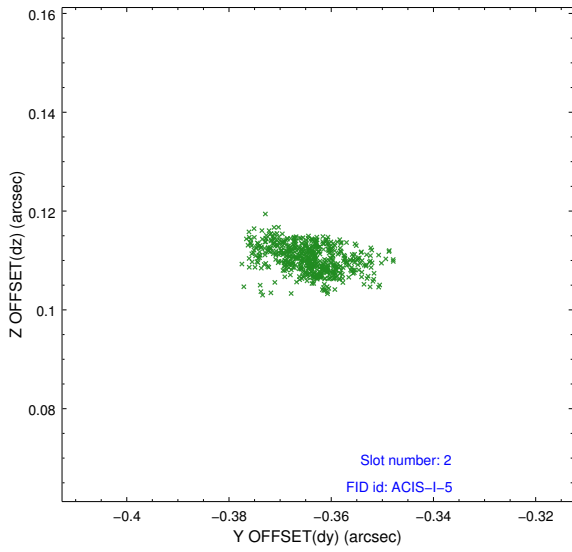
### 2.5.1 Slot 0



## 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)	2016.07.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.9554644606113

### A.2 Comments