

# V&V Reference Report

## L2 ASCDS Version : 10.2.4

Observation 16230 - L2 Version 1  
Chandra X-Ray Center

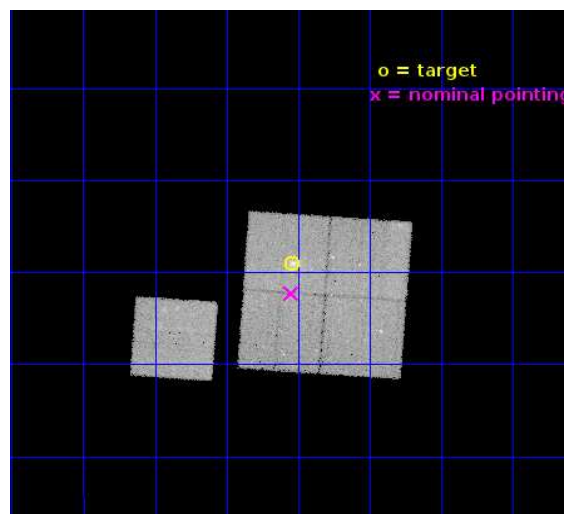
L2 Processing Date : Sep 28 2014

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# 1 Front

seq_num	801414	Sequence number
obs_id	16230	Observation id
title	Chandra Observations of a Complete Sample of SZE Clusters from ACT	&#160
observer	Prof. John Hughes	Principal investigator
object	ACT-CL_J2154-0049	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	328.635	Observer's specified target RA [deg]
dec_targ	-0.816778	Observer's specified target Dec [deg]
ra_nom	328.63693864947	Nominal RA [deg]
dec_nom	-0.87123678657491	Nominal Dec [deg]
roll_nom	274.02764496069	Nominal Roll [deg]
revision	1	Processing version of data
ontime	64773.76938957	Sum of GTIs [s]
livetime	63927.45240674	Livetime [s]
ontime0	64770.5052194	Sum of GTIs [s]
ontime1	64770.546259403	Sum of GTIs [s]
ontime2	64767.446198821	Sum of GTIs [s]
ontime3	64773.76938957	Sum of GTIs [s]
ontime6	64773.605229616	Sum of GTIs [s]
l2events	172277	Number of level 2 events

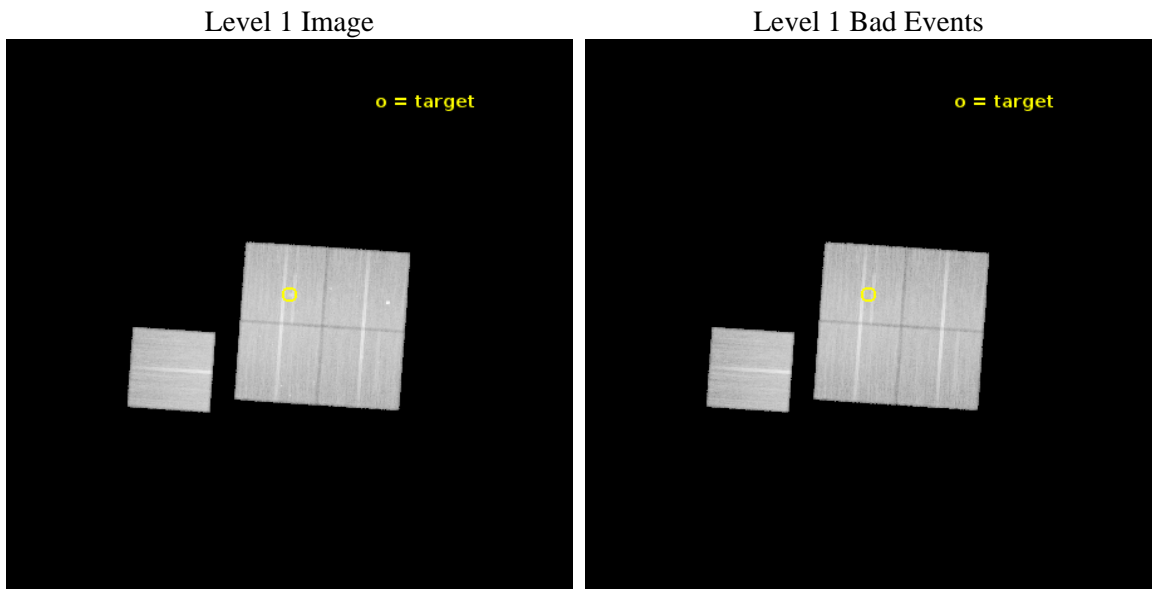




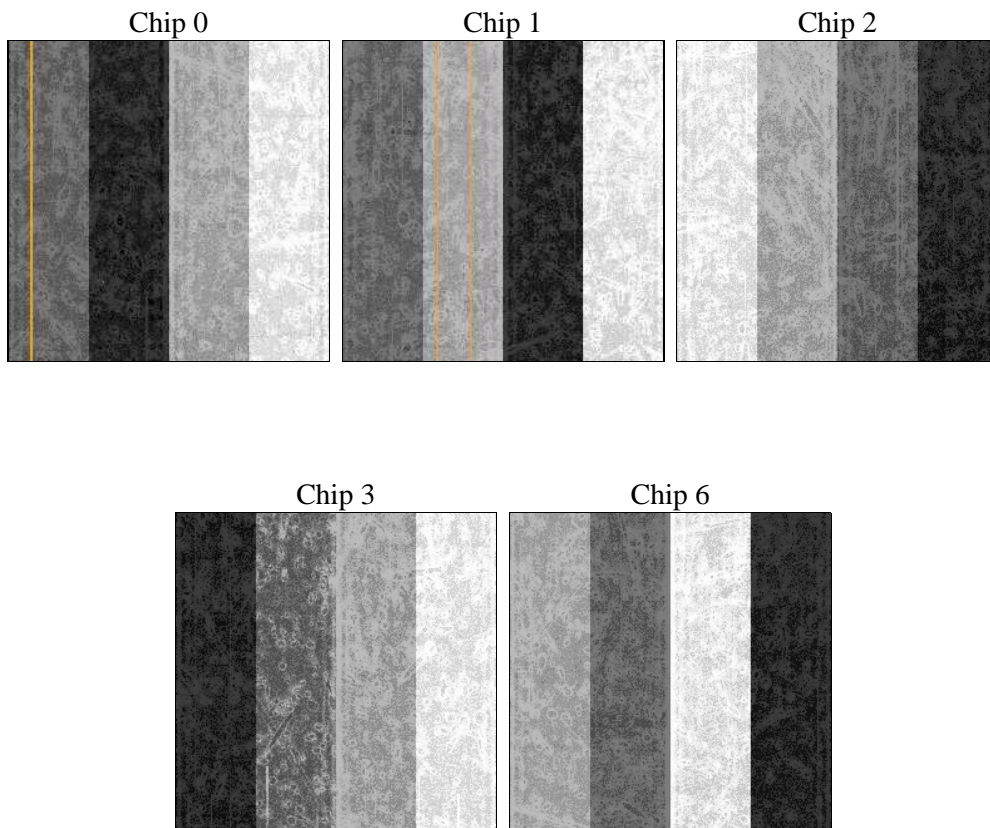
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	65000.814000	[s] Scheduled observation exposure time
ascdsver	10.2.4	Processing system revision	ontime	64773.76938957	Sum of GTIs [s]
caldsver	4.6.3	&#160	ontime0	64770.5052194	Sum of GTIs [s]
date	2014-09-28T20:10:26	Date and time of file creation	ontime1	64770.546259403	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	64767.446198821	Sum of GTIs [s]
			ontime3	64773.76938957	Sum of GTIs [s]
			ontime6	64773.605229616	Sum of GTIs [s]
			l1events	1644938	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	309251	317609	339965	337907	340206
rejected events	269600	272277	301574	297022	299838
rejected %	87%	85%	88%	87%	88%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	13622	17515	13919	15676	13759
	4%	5%	4%	4%	4%
grade 1 events	239	195	181	205	164
	0%	0%	0%	0%	0%
grade 2 events	9701	9687	9137	8771	9000
	3%	3%	2%	2%	2%
grade 3 events	4100	4128	3823	4066	4029
	1%	1%	1%	1%	1%
grade 4 events	3899	4170	3900	4130	3999
	1%	1%	1%	1%	1%
grade 5 events	15482	16643	14919	17787	17030
	5%	5%	4%	5%	5%
grade 6 events	8330	9832	7612	8242	9582
	2%	3%	2%	2%	2%
grade 7 events	253878	255439	286474	279030	282643
	82%	80%	84%	82%	83%

## 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	328.621409	328.6369386494696	CCD I2 on	Y	Y
[deg] Pointing Dec	-0.848416	-0.87123678657491	CCD I3 on	Y	Y
[deg] Pointing Roll	273.818715	274.0276449606915	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	-225.792463	-225.785514080088	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.8	-7.806938922841681	CCD S4 on	N	N
[s] Observation start time (MET)	528162039.184000	528161371.84025	CCD S5 on	N	N
Observation start date	2014-09-26T23:39:32	2014-09-26T23:29:31	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	528227040.184000	528227274.73141	On-chip summing requested	N	N
Observation end date	2014-09-27T17:42:53	2014-09-27T17:47:54	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect

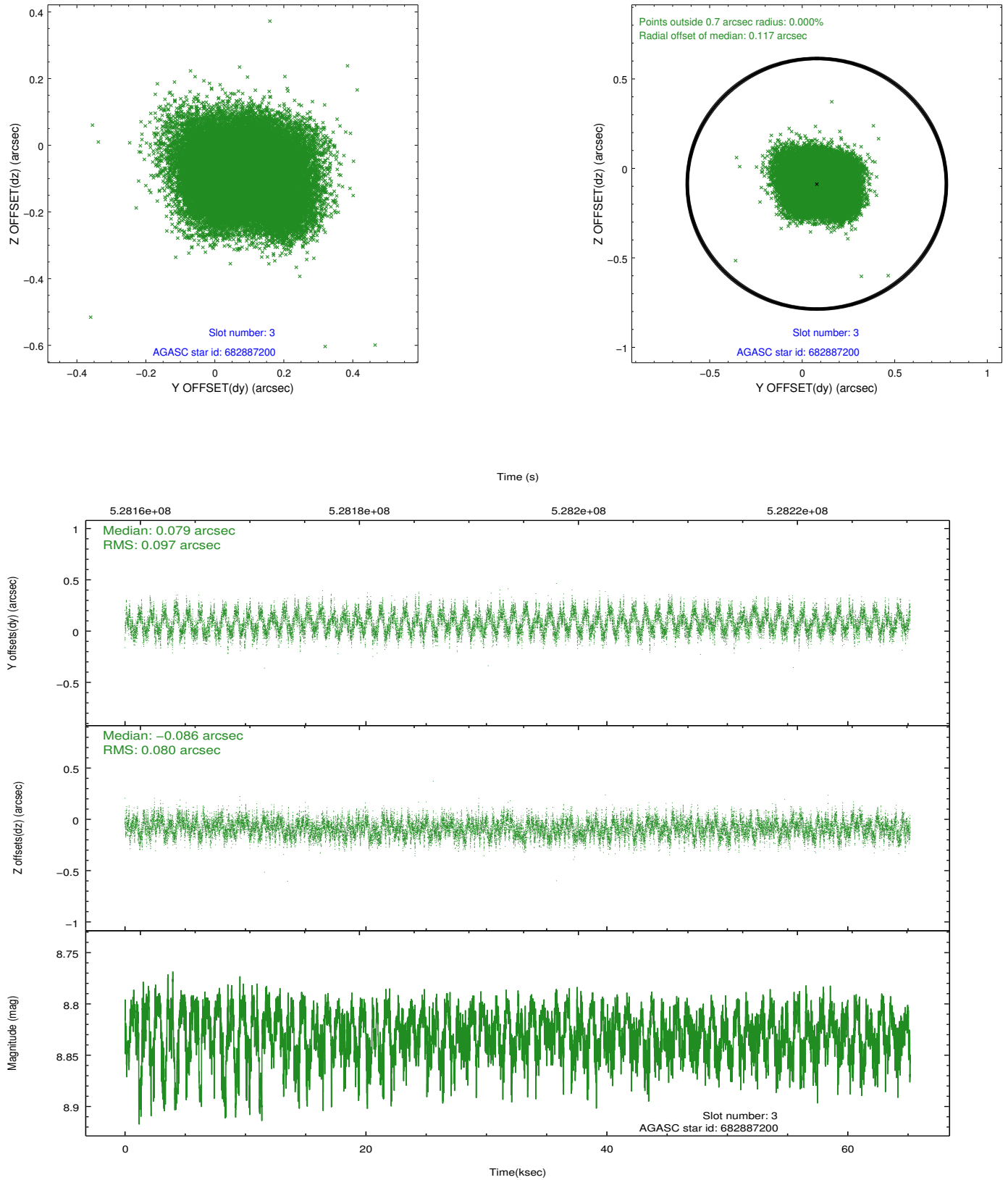


### Slot Statistics

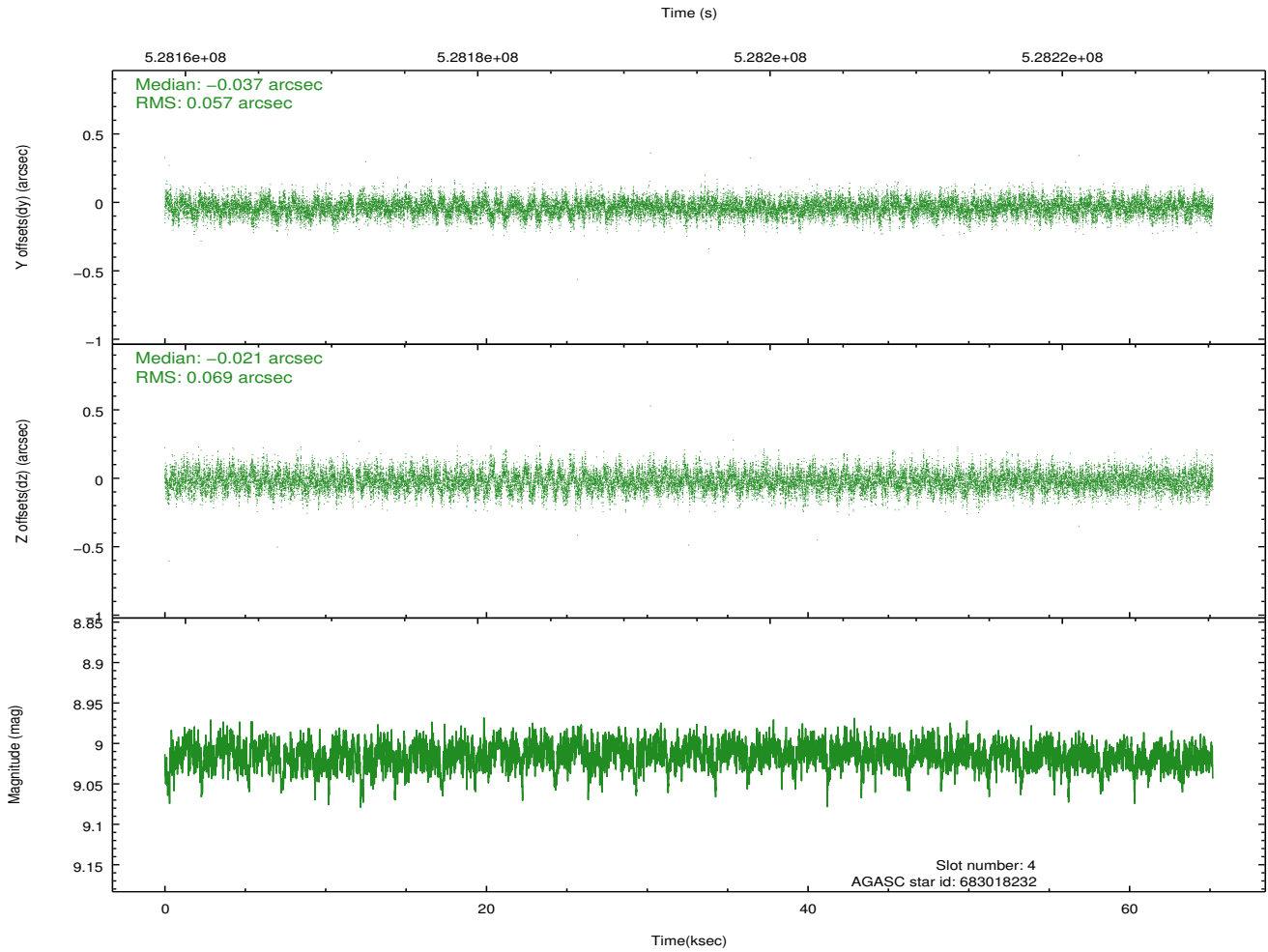
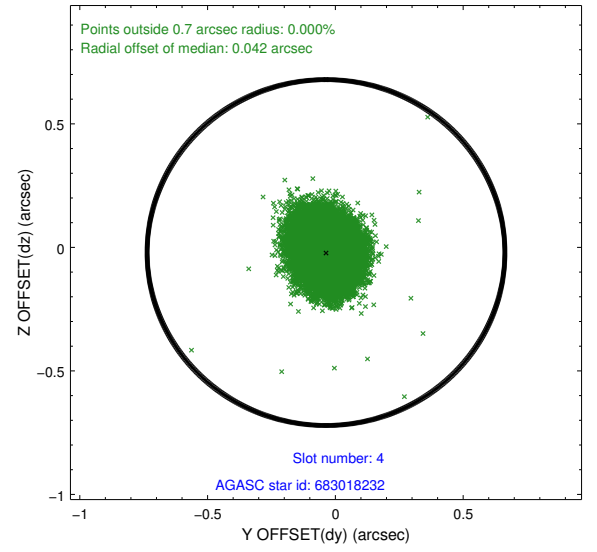
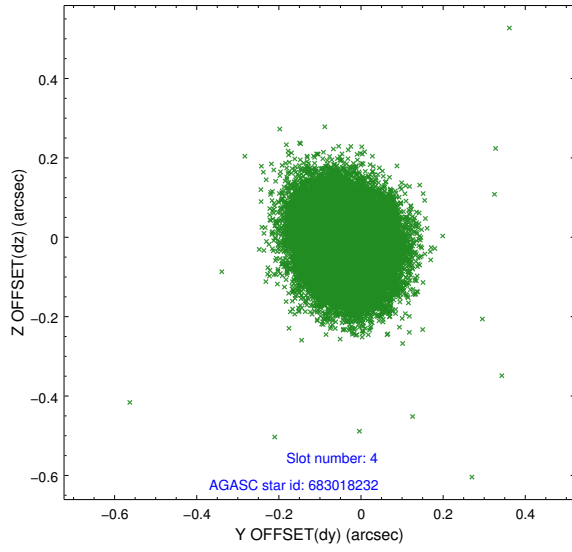
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.20	15900	0.157	-0.129	0.028	0.059	0.000000	0.000000	915.01	-1004.33
1	FID	ACIS-I-5	7.19	15898	-0.397	0.097	0.014	0.027	0.000000	0.000000	-1833.73	893.32
2	FID	ACIS-I-6	7.20	15899	0.152	0.102	0.033	0.049	0.000000	0.000000	380.53	1537.83
3	GUIDE	682887200	8.83	31779	0.079	-0.086	0.136	0.211	328.019764	-1.285037	1425.36	-2264.55
4	GUIDE	683018232	9.01	31713	-0.037	-0.021	0.095	0.156	328.254160	-1.157896	1024.36	-1392.73
5	GUIDE	683019688	8.76	31779	-0.004	0.026	0.086	0.139	328.237363	-1.086798	765.02	-1436.36
6	GUIDE	683021704	9.00	31777	-0.001	0.083	0.104	0.170	329.107154	-0.679863	-488.82	1785.32
7	GUIDE	683022080	8.77	31781	-0.038	-0.000	0.092	0.146	328.834762	-0.485532	-1252.21	853.70

## 2.4 Star Slots

### 2.4.1 Slot 3

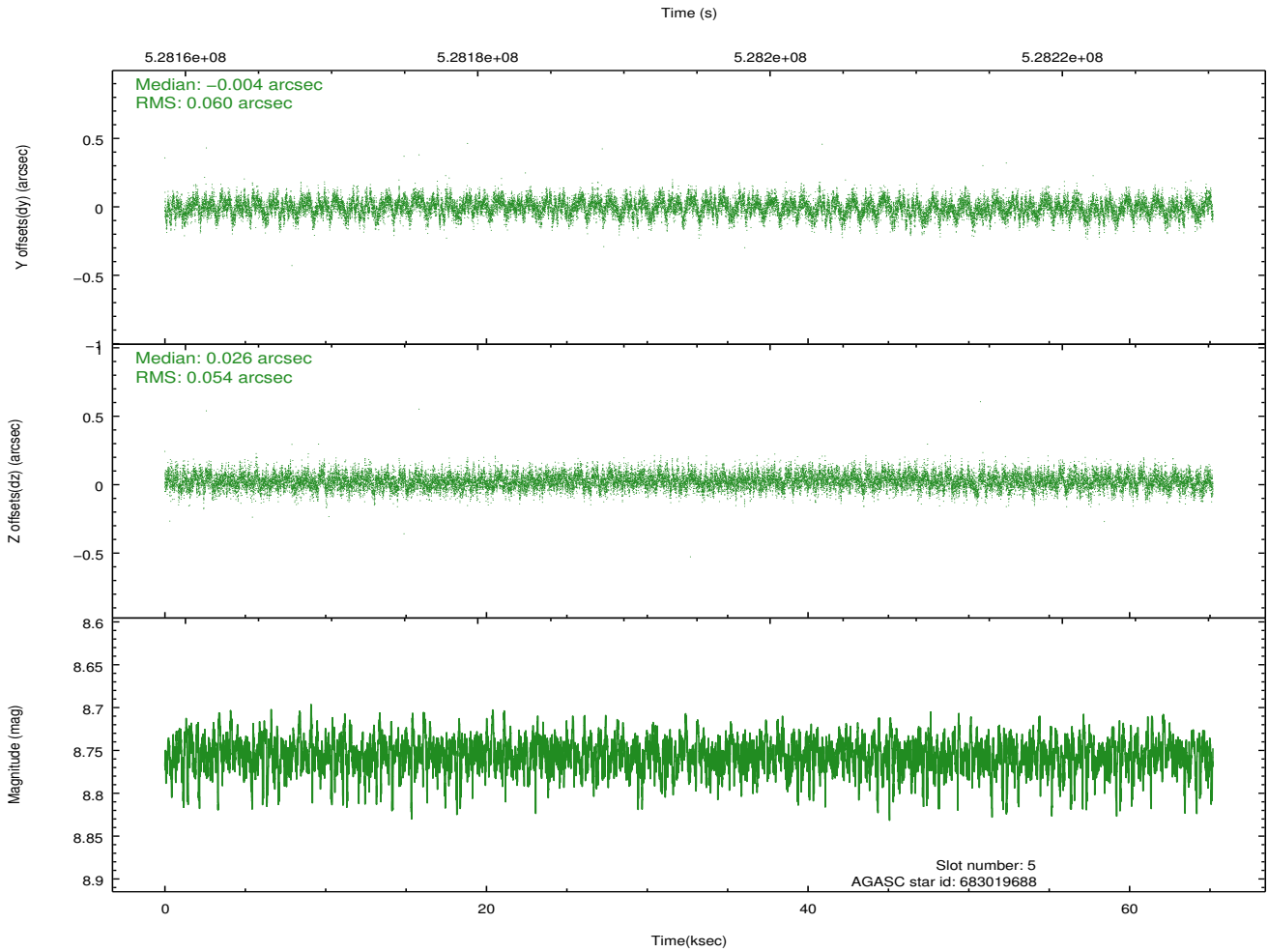
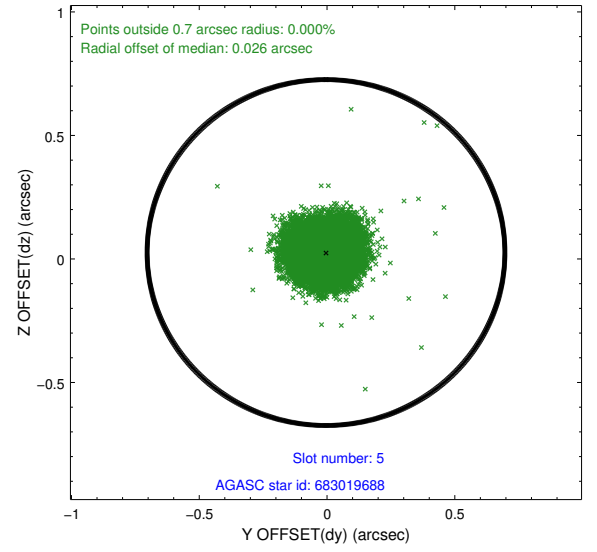
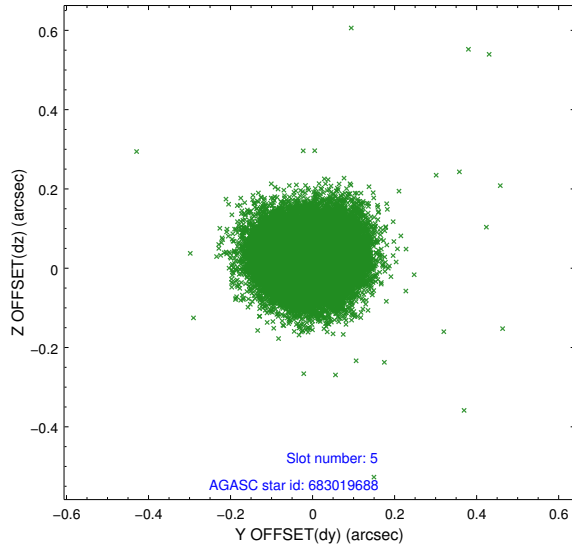


## 2.4.2 Slot 4

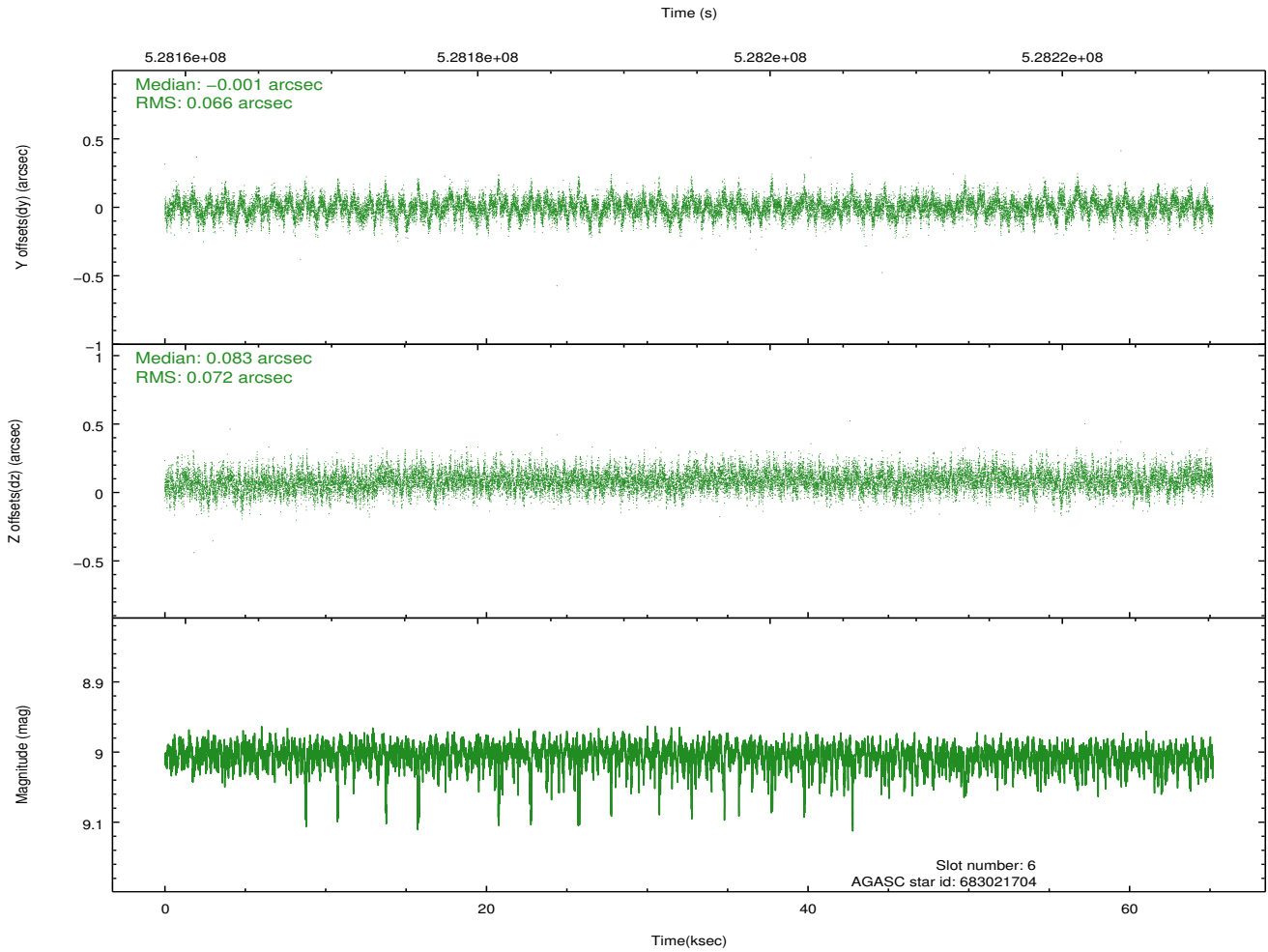
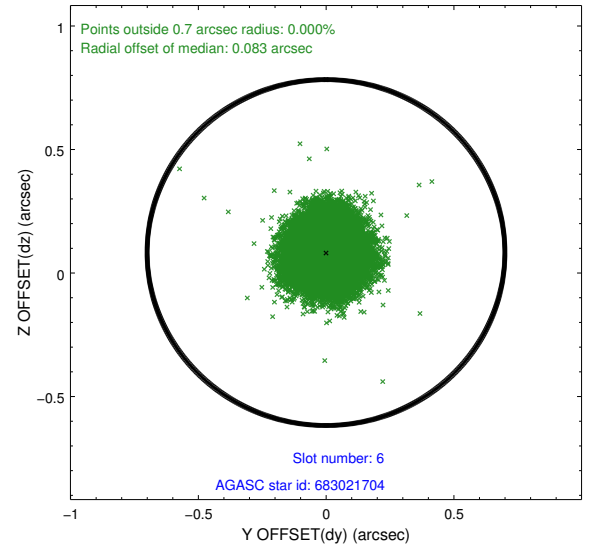
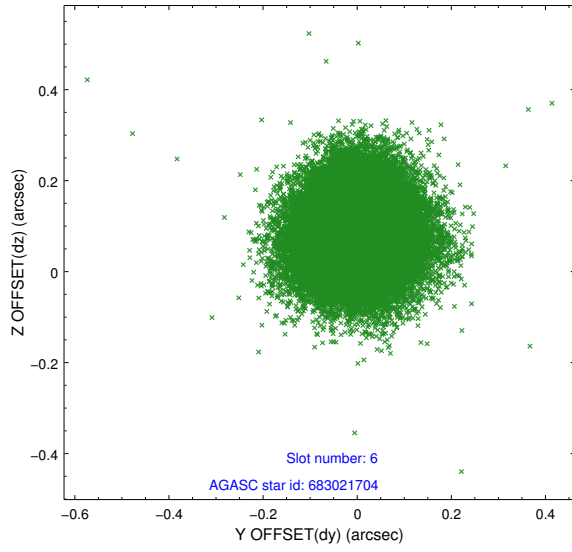




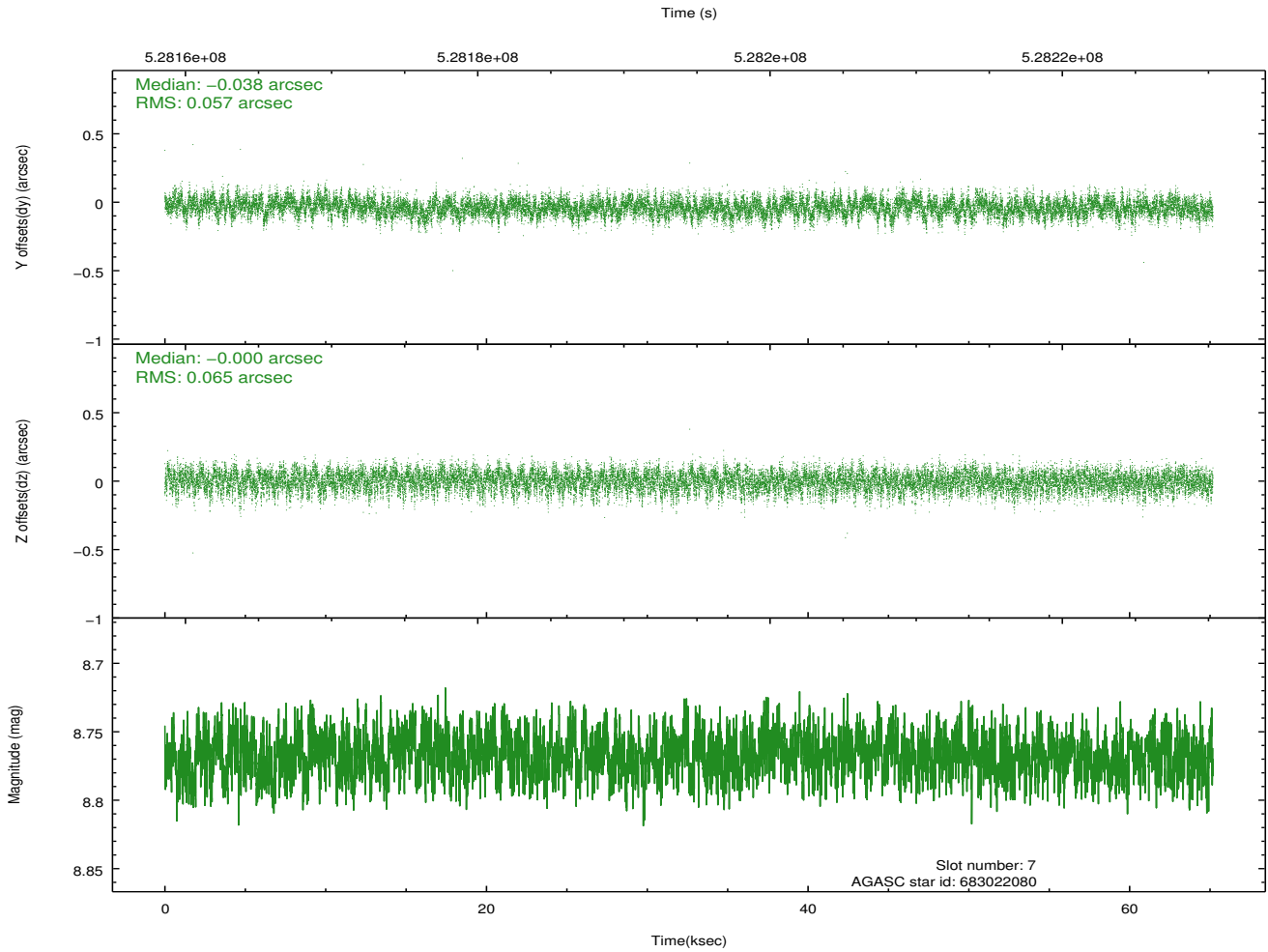
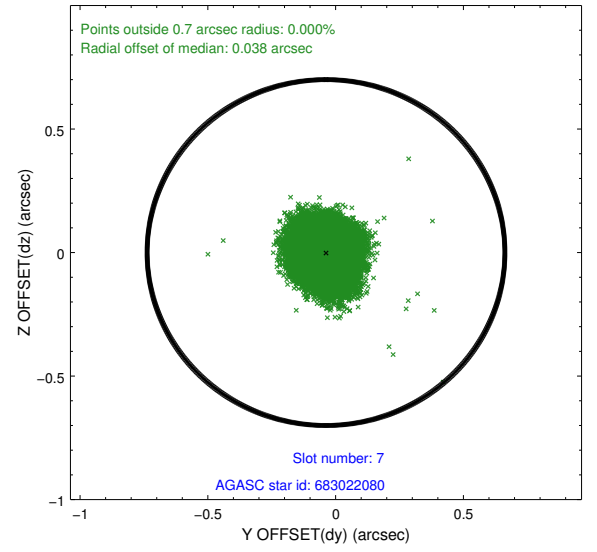
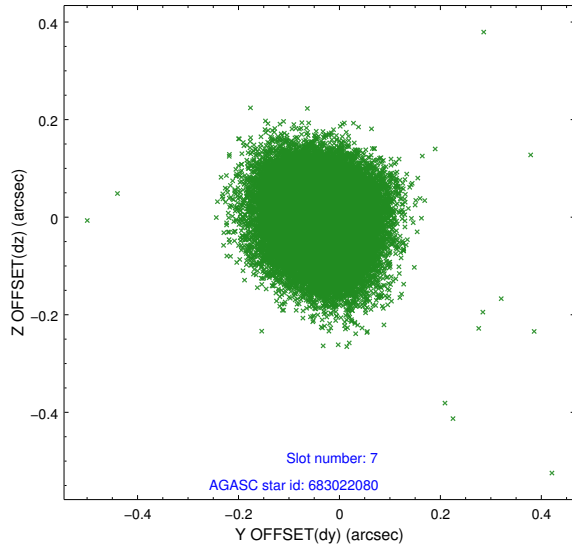
### 2.4.3 Slot 5



## 2.4.4 Slot 6

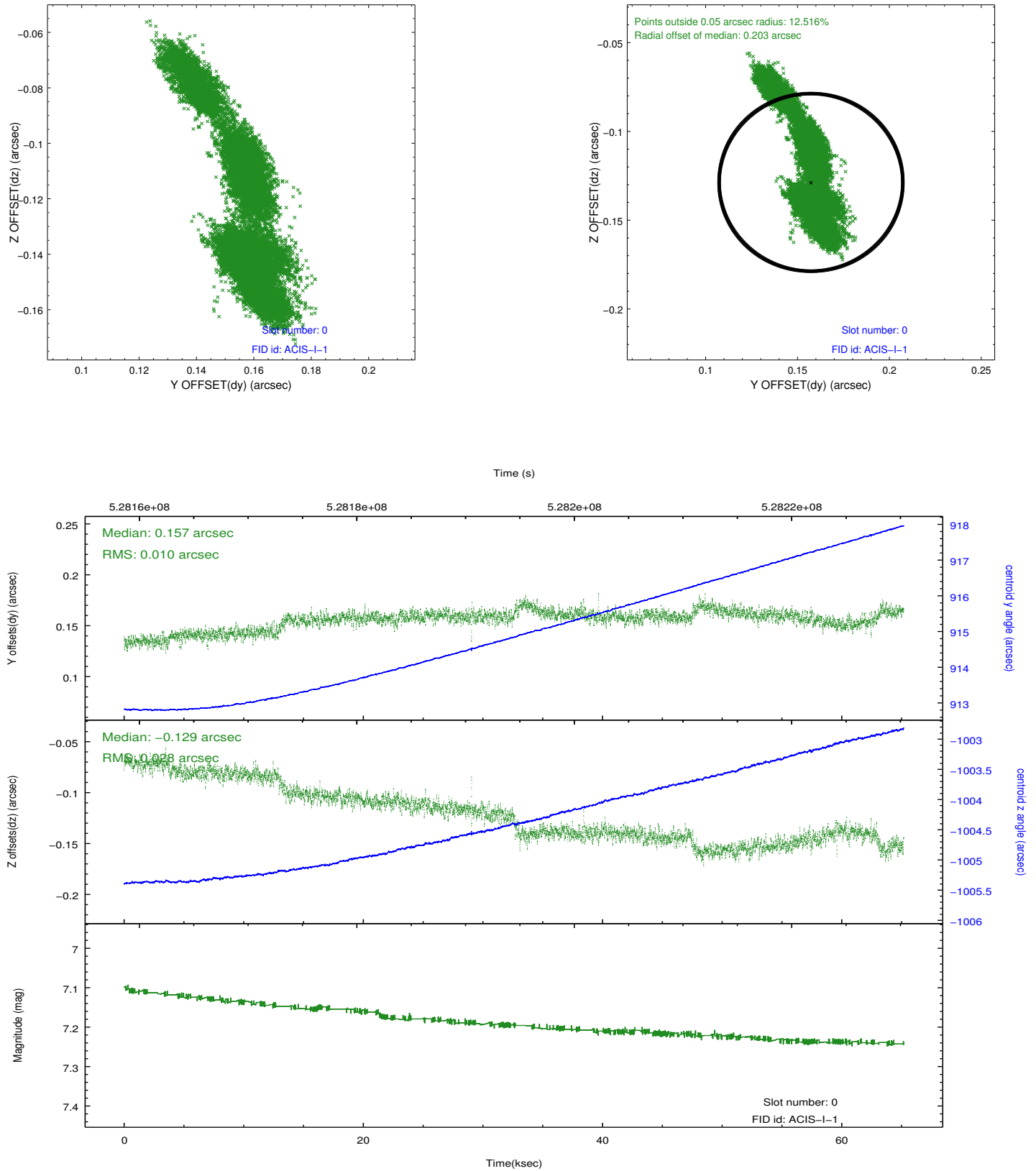


## 2.4.5 Slot 7

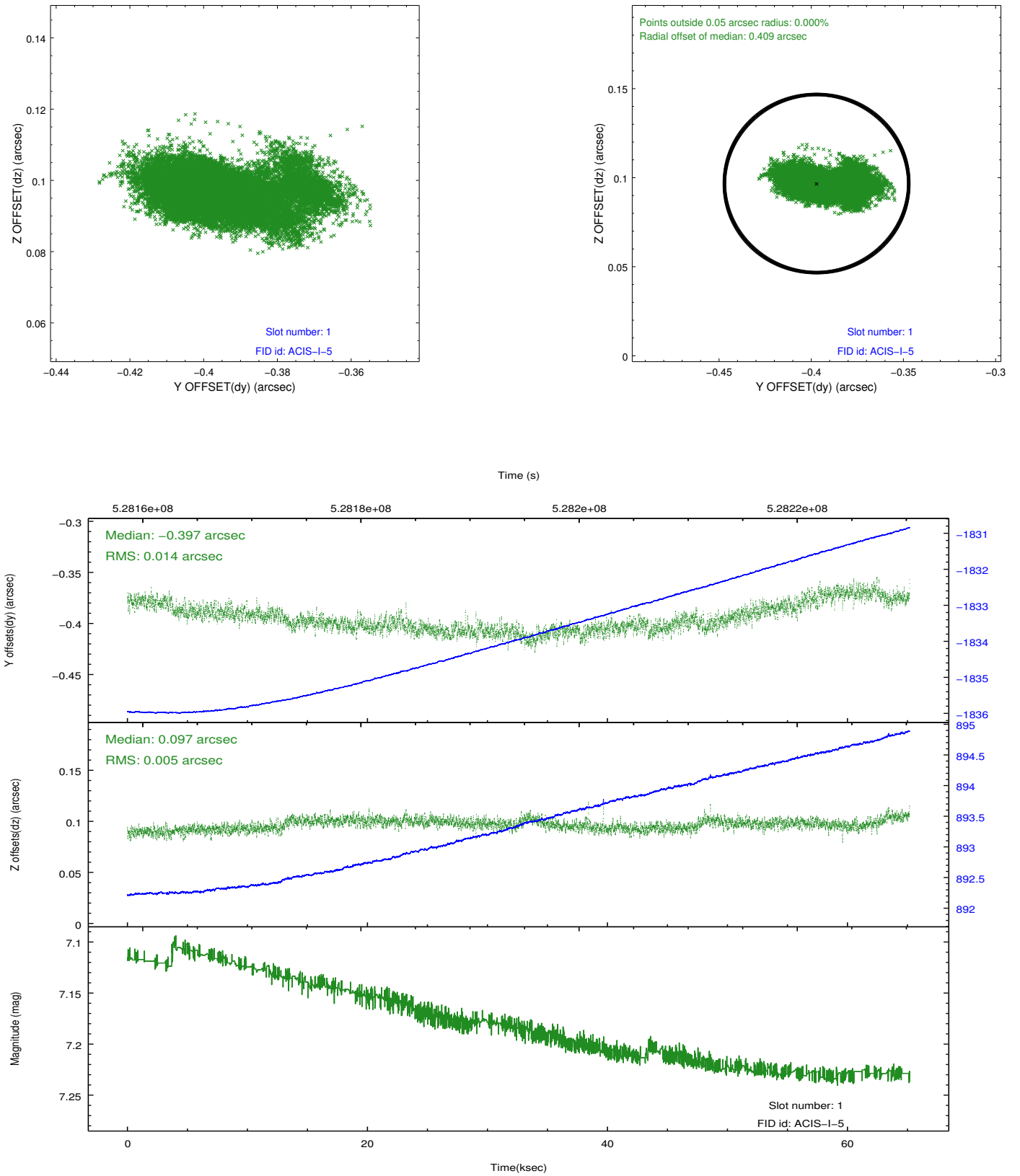


## 2.5 FID Slots

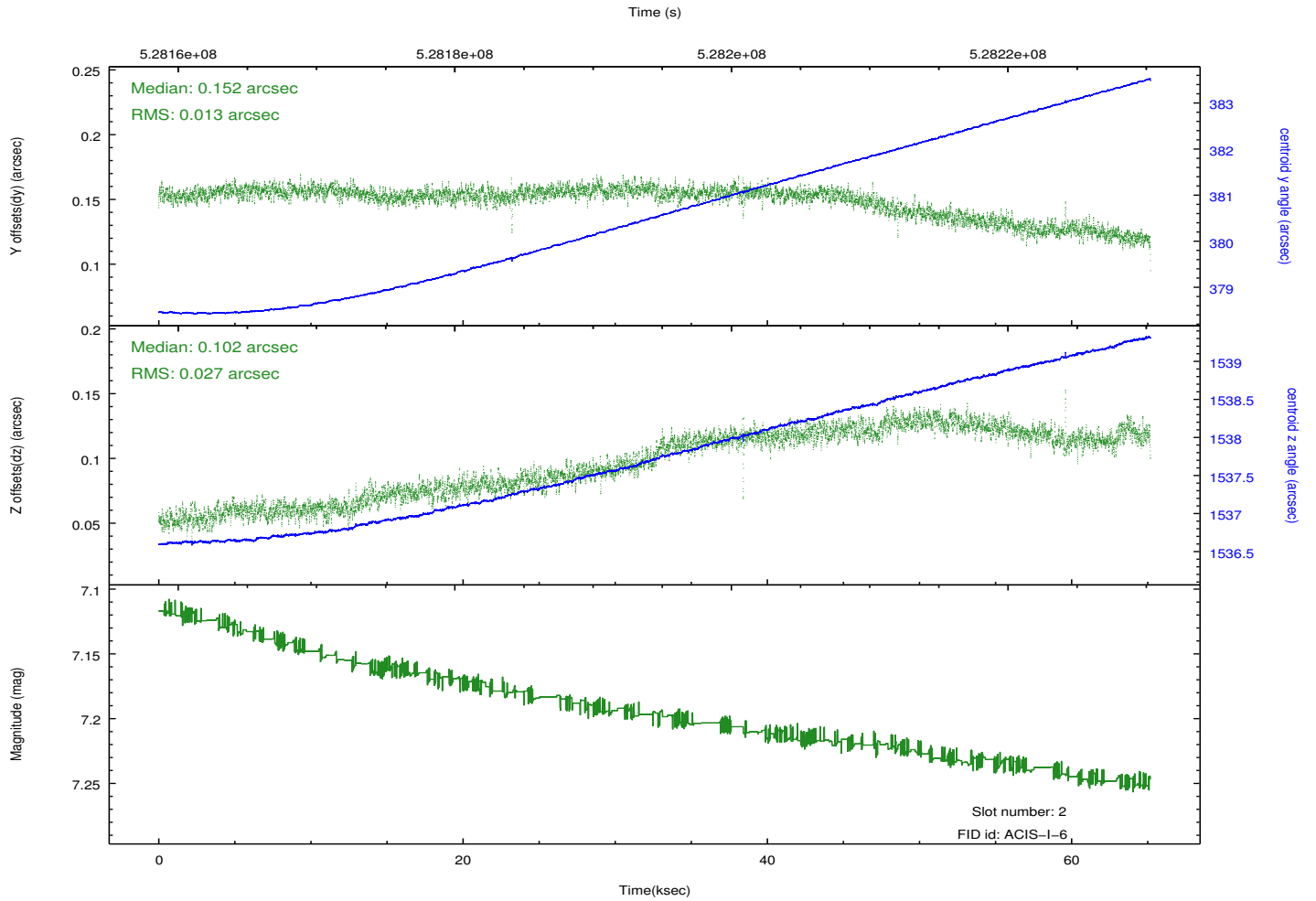
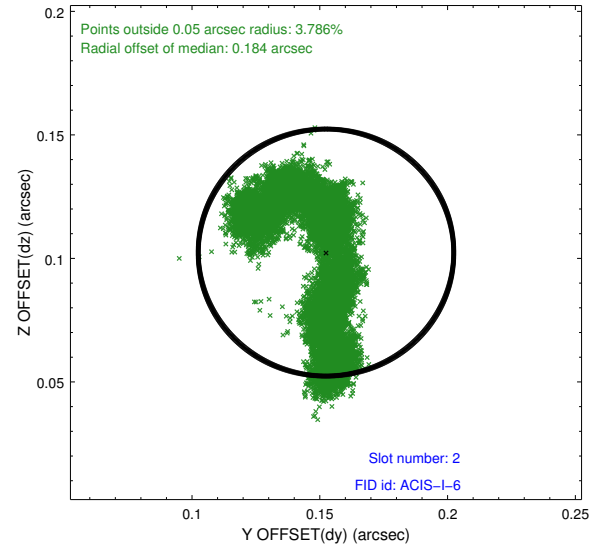
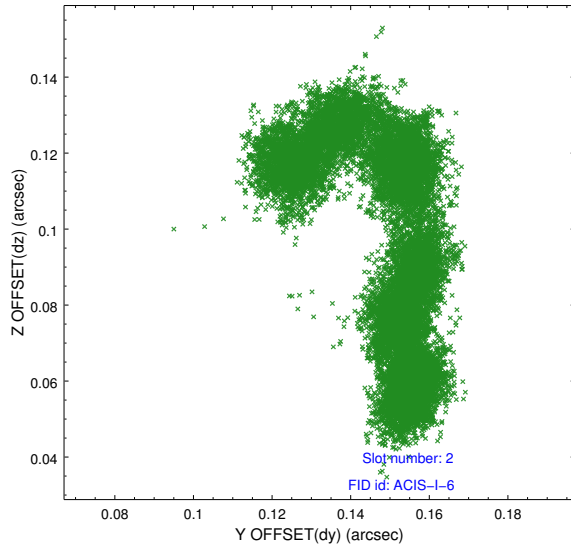
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2014.09.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	64.77376938957

### A.2 Comments