

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 13116 - L2 Version 2  
Chandra X-Ray Center

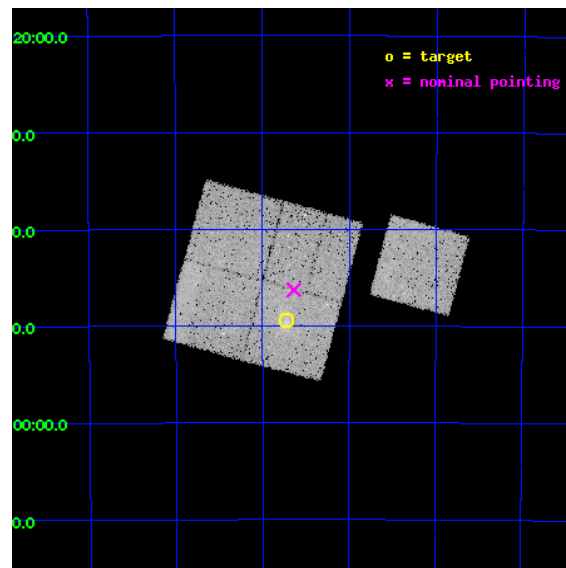
L2 Processing Date : Jul 2 2012

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# 1 Front

seq_num	800983	Sequence number
obs_id	13116	Observation id
title	Chandra Observations of the ACT Sample of SZE-Selected Galaxy Clusters	Proposal title
observer	Prof. John Hughes	Principal investigator
object	ACT J0559-5249	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	89.93	Observer's specified target RA [deg]
dec_targ	-52.824194	Observer's specified target Dec [deg]
ra_nom	89.909487235129	Nominal RA [deg]
dec_nom	-52.77121425766	Nominal Dec [deg]
roll_nom	105.1923452637	Nominal Roll [deg]
revision	2	Processing version of data
ontime	24778.102735221	Sum of GTIs [s]
livetime	24454.358581612	Livetime [s]
ontime0	24774.838684738	Sum of GTIs [s]
ontime1	24778.020655215	Sum of GTIs [s]
ontime2	24778.061695218	Sum of GTIs [s]
ontime3	24778.102735221	Sum of GTIs [s]
ontime6	24774.79758513	Sum of GTIs [s]
l2events	85175	Number of level 2 events

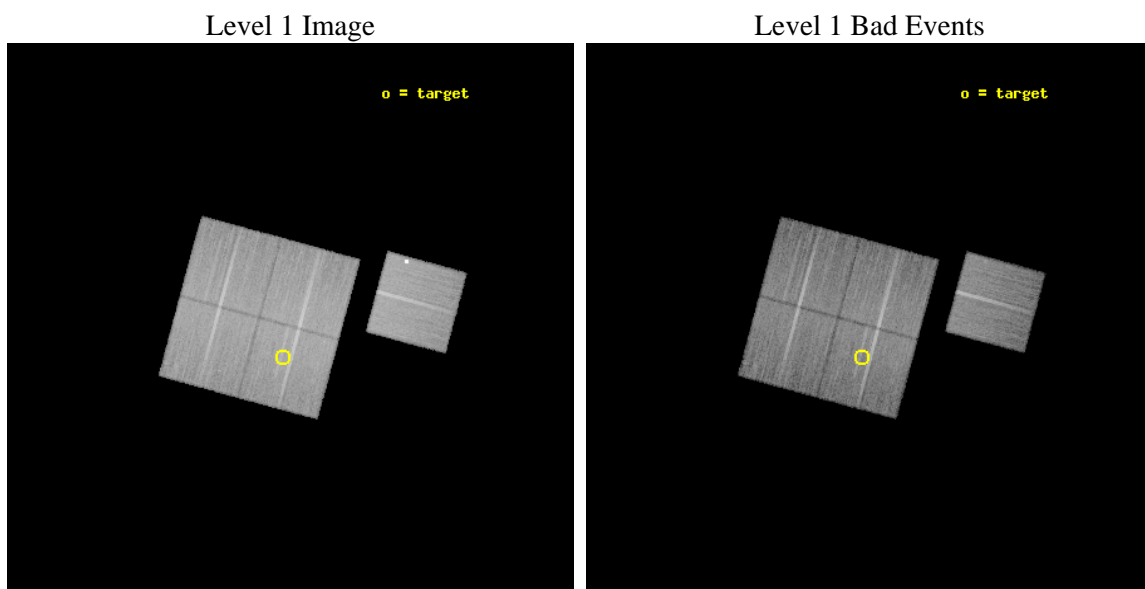




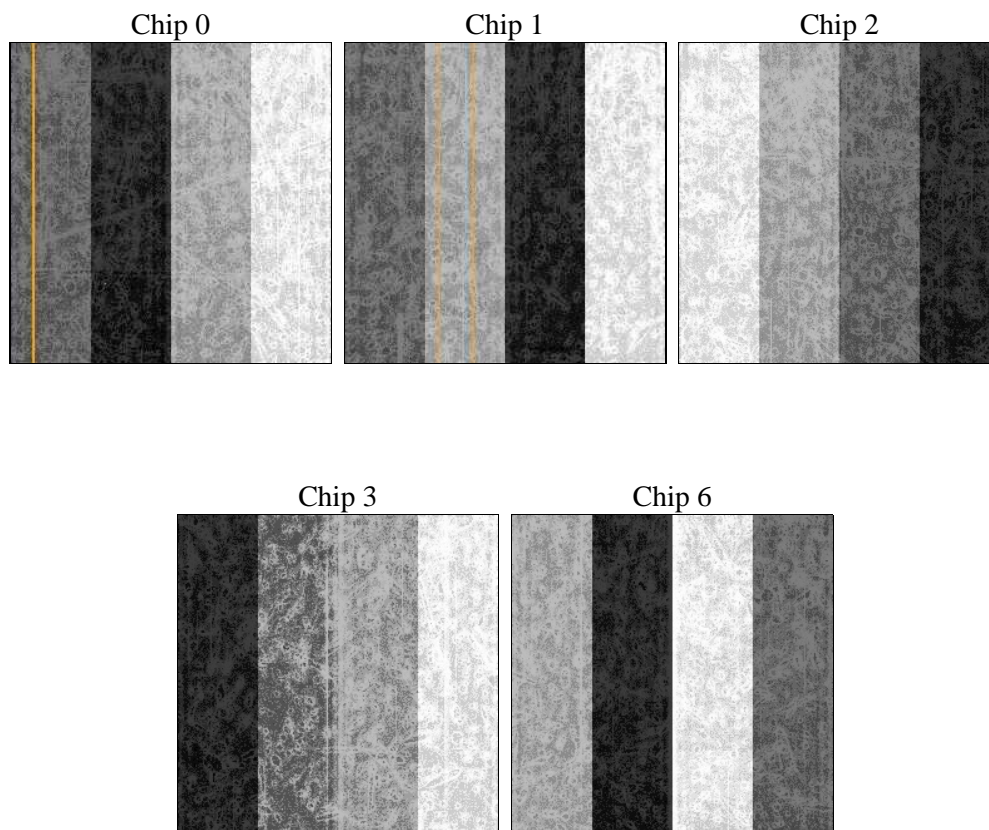
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	25000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	24778.102735221	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime0	24774.838684738	Sum of GTIs [s]
date	2012-07-02T18:37:01	Date and time of file creation	ontime1	24778.020655215	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	24778.061695218	Sum of GTIs [s]
			ontime3	24778.102735221	Sum of GTIs [s]
			ontime6	24774.79758513	Sum of GTIs [s]
			l1events	899782	Number of level 1 events

### 2.1.4 Events

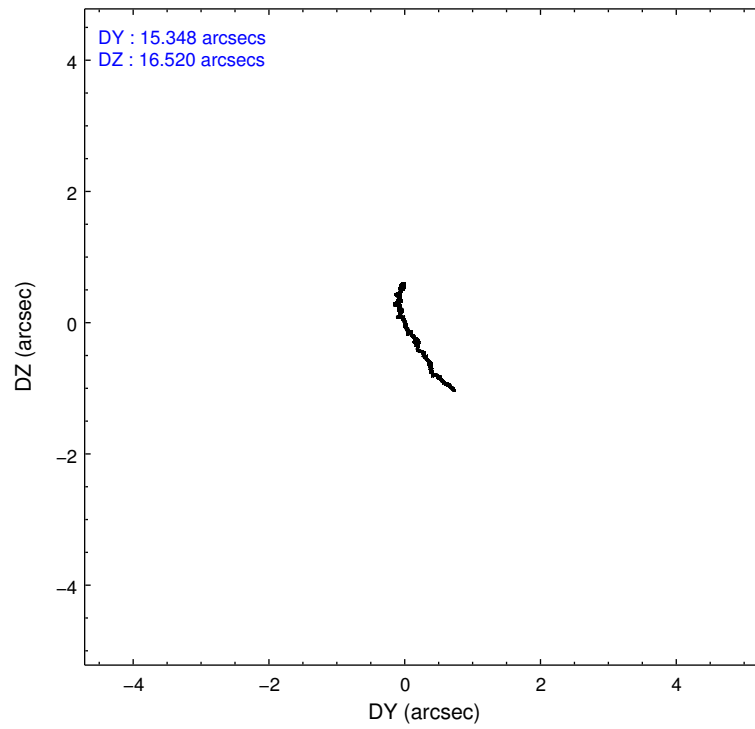
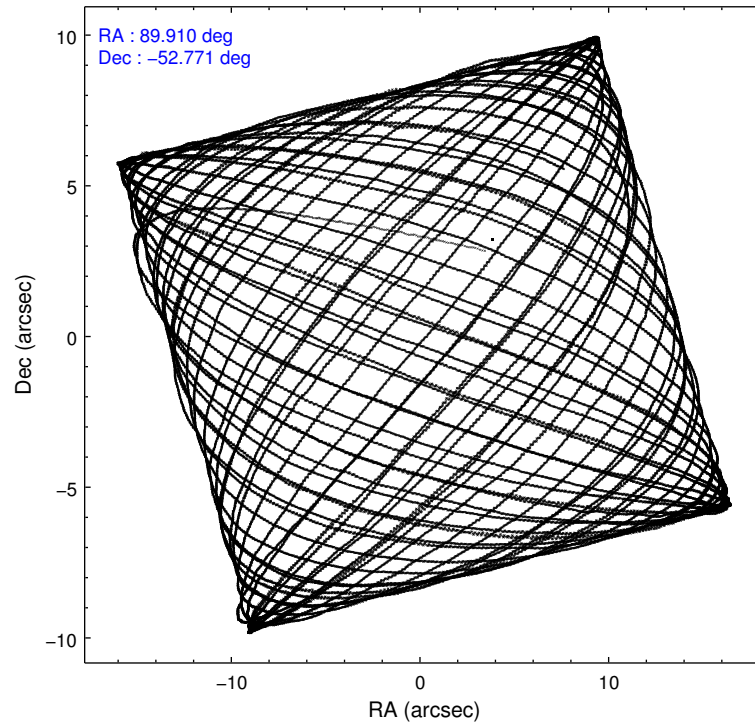
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	168411	172323	189566	178366	191116
rejected events	148446	150083	170156	158176	163654
rejected %	88%	87%	89%	88%	85%

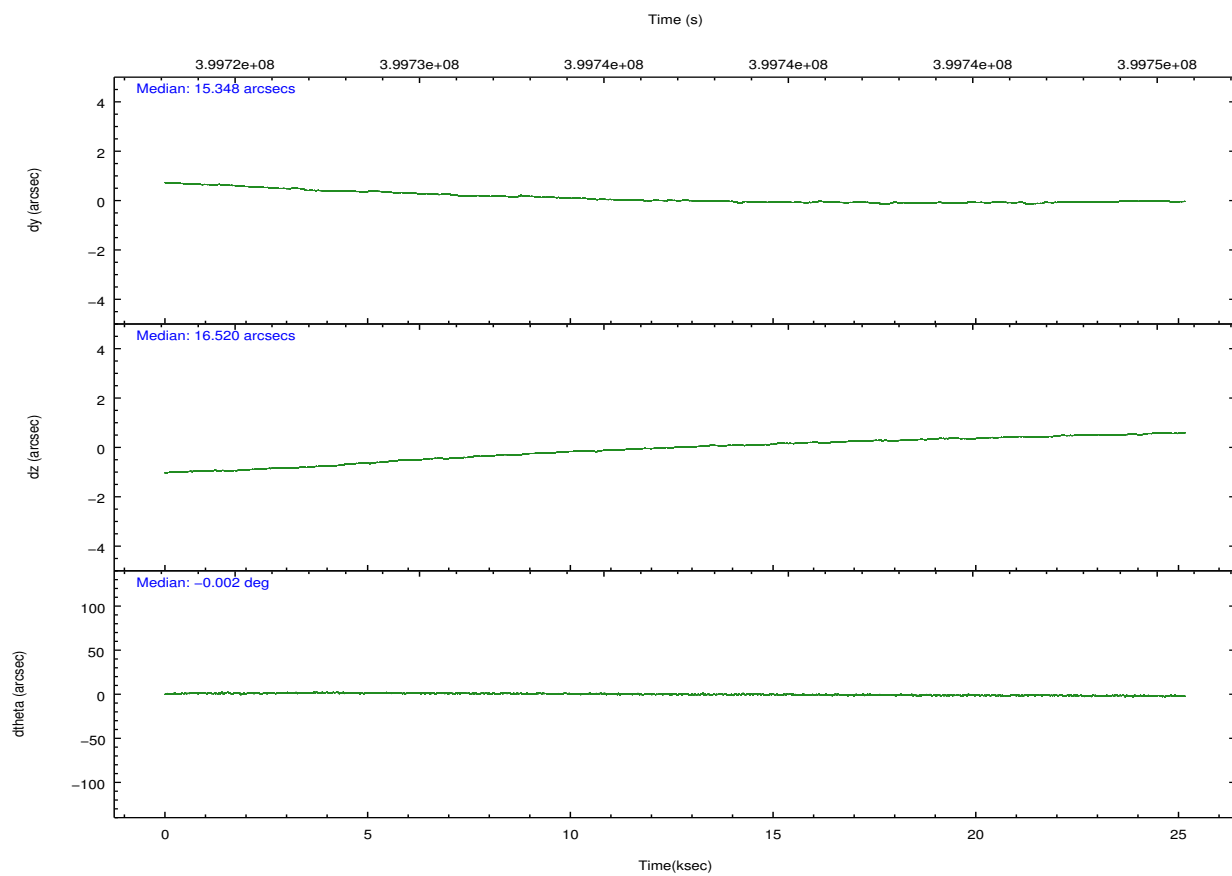
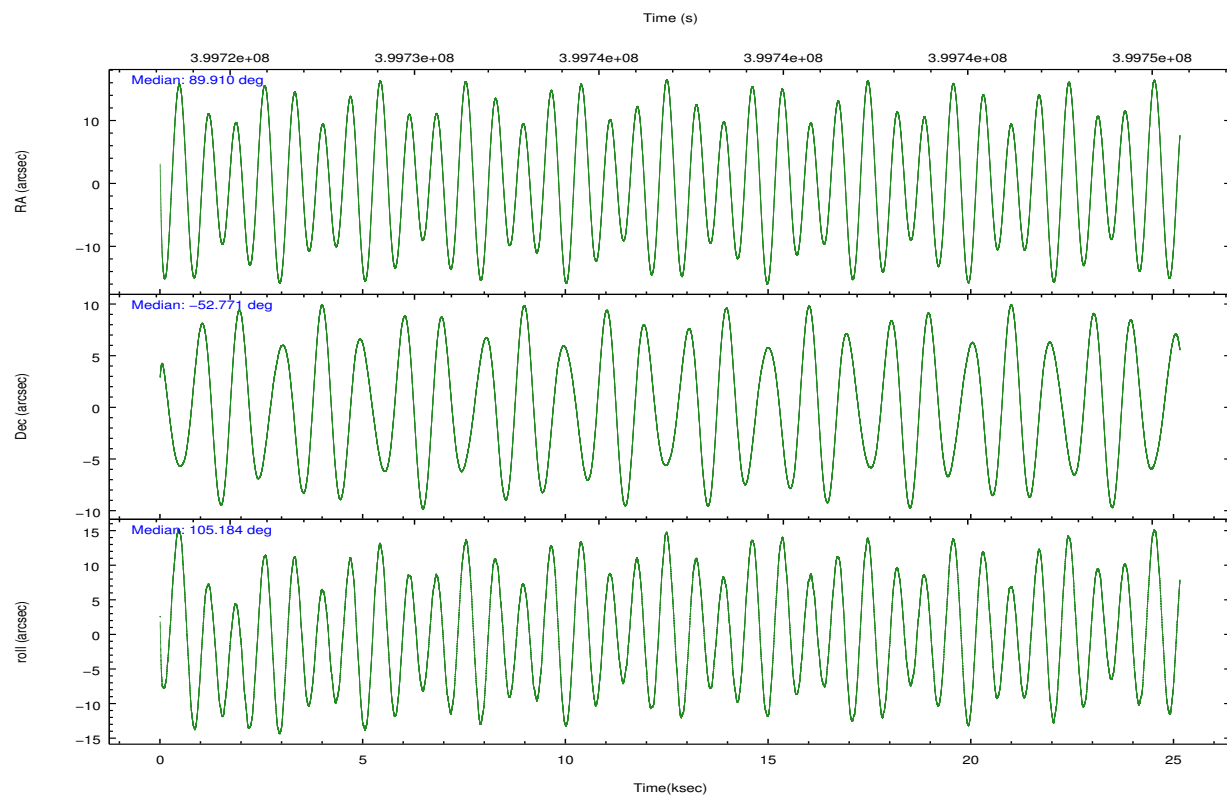
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	6807	7811	7037	7701	6948
	4%	4%	3%	4%	3%
grade 1 events	91	98	125	142	97
	0%	0%	0%	0%	0%
grade 2 events	5054	5305	4742	4362	11954
	3%	3%	2%	2%	6%
grade 3 events	2254	2288	1949	2064	2097
	1%	1%	1%	1%	1%
grade 4 events	1975	2107	1961	2125	2075
	1%	1%	1%	1%	1%
grade 5 events	7510	7924	6855	8516	8082
	4%	4%	3%	4%	4%
grade 6 events	3882	4731	3725	3941	4391
	2%	2%	1%	2%	2%
grade 7 events	140838	142059	163172	149515	155472
	83%	82%	86%	83%	81%

## 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	89.941892	89.90948723512923	CCD I2 on	Y	Y
[deg] Pointing Dec	-52.790520	-52.77121425765999	CCD I3 on	Y	Y
[deg] Pointing Roll	105.009466	105.192345263704	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)	399724512.184000	399723472.51951	CCD S5 on	N	N
Observation start date	2010-09-01T10:34:06	2010-09-01T10:17:52	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	399749512.184000	399750675.50841	On-chip summing requested	N	N
Observation end date	2010-09-01T17:30:46	2010-09-01T17:51:15	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



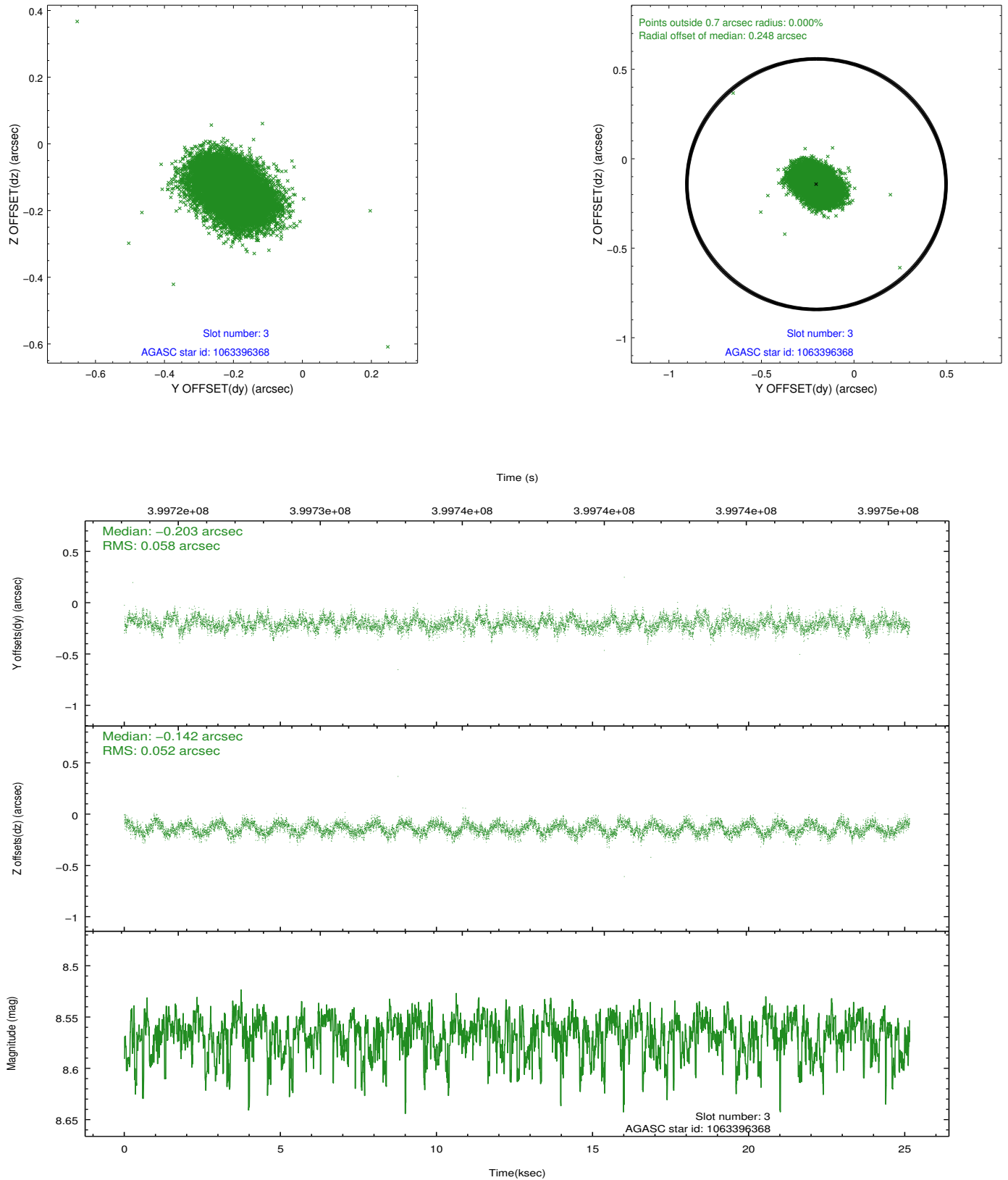


### Slot Statistics

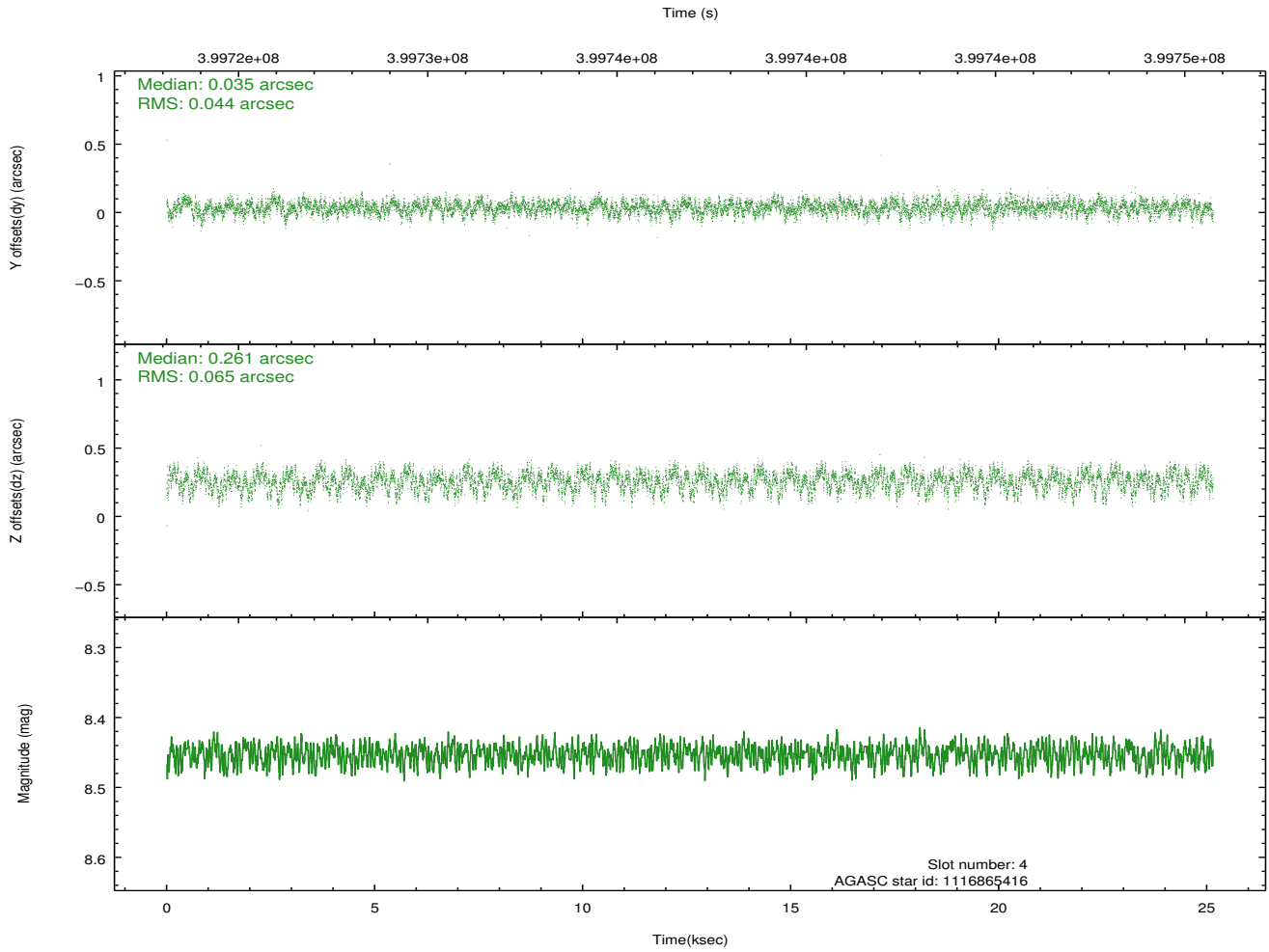
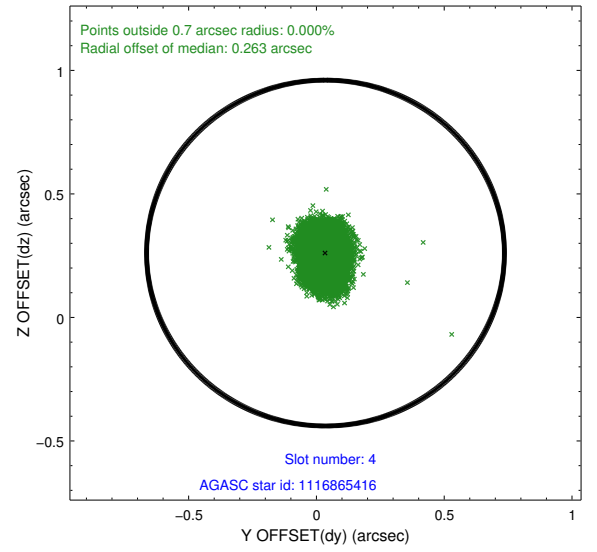
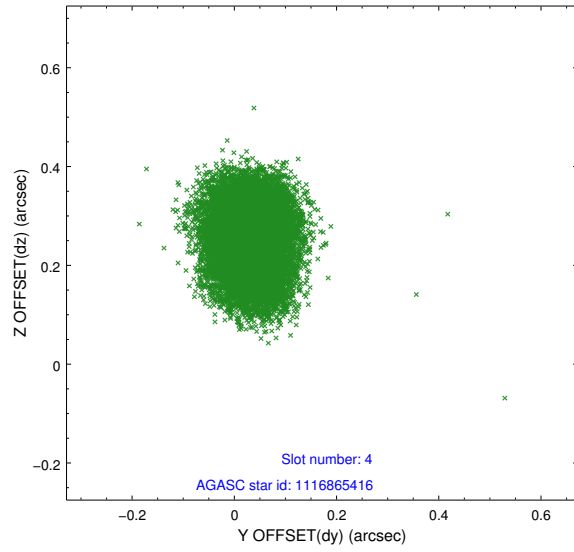
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.04	6135	0.134	-0.076	0.024	0.043	0.000000	0.000000	923.98	-1000.40
1	FID	ACIS-I-5	7.03	6134	-0.279	0.117	0.015	0.020	0.000000	0.000000	-1824.50	897.18
2	FID	ACIS-I-6	7.06	6134	0.055	0.032	0.018	0.033	0.000000	0.000000	389.28	1541.76
3	GUIDE	1063396368	8.57	12220	-0.203	-0.142	0.084	0.132	90.045624	-52.177781	2071.18	-791.92
4	GUIDE	1116865416	8.45	12265	0.035	0.261	0.084	0.135	91.050005	-52.893639	-999.10	-2223.14
5	GUIDE	1063398424	8.70	12262	0.038	0.131	0.092	0.150	90.754923	-52.113929	1877.88	-2363.73
6	GUIDE	1116743352	9.20	12255	0.075	-0.213	0.111	0.185	89.141412	-53.569099	-2273.37	2381.05
7	GUIDE	1116740176	9.38	12256	0.056	-0.033	0.107	0.182	89.520403	-53.532421	-2348.77	1564.10

## 2.4 Star Slots

### 2.4.1 Slot 3

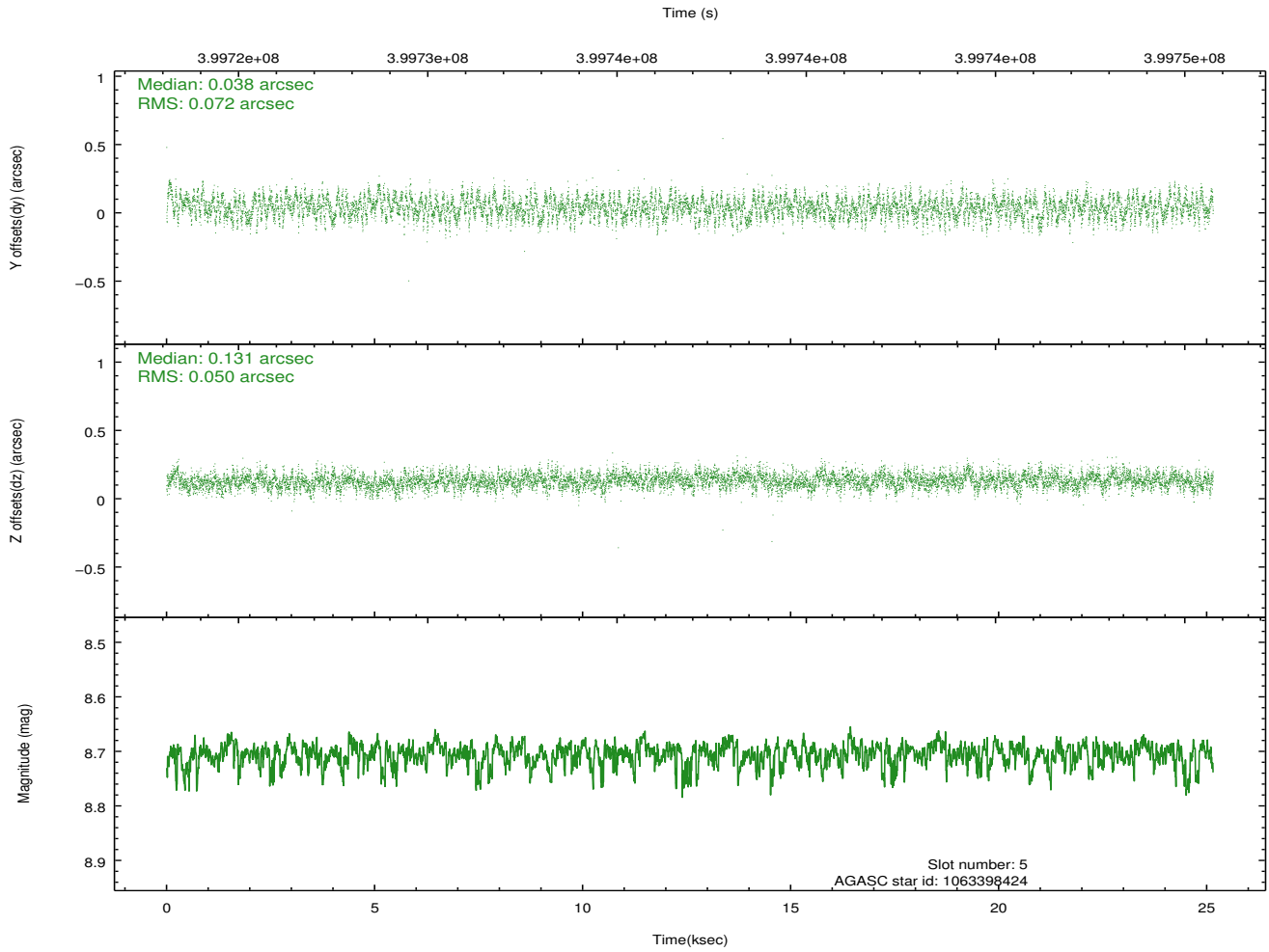
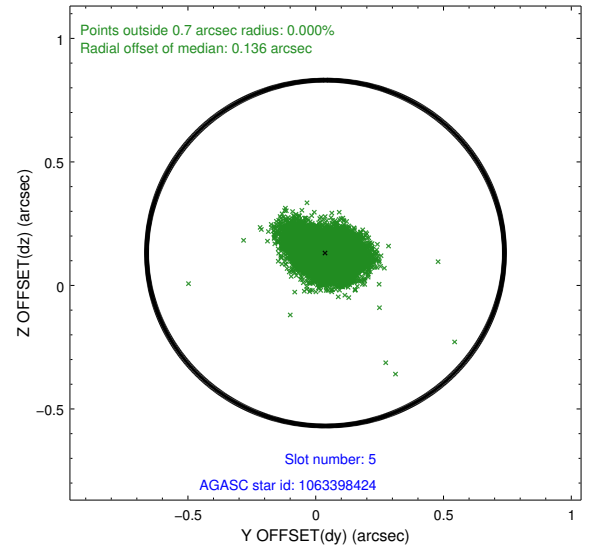
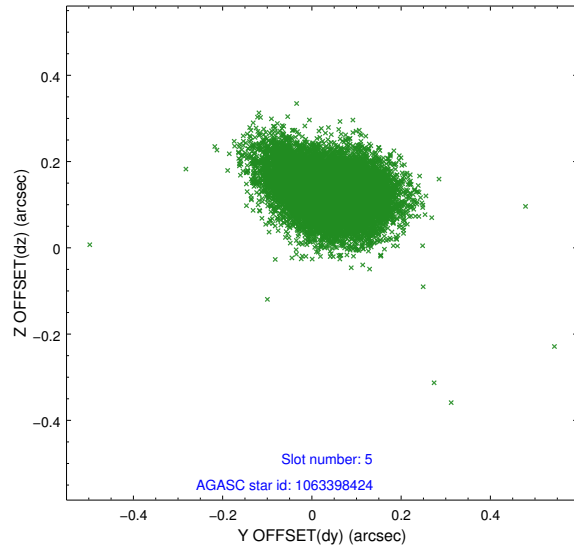


## 2.4.2 Slot 4

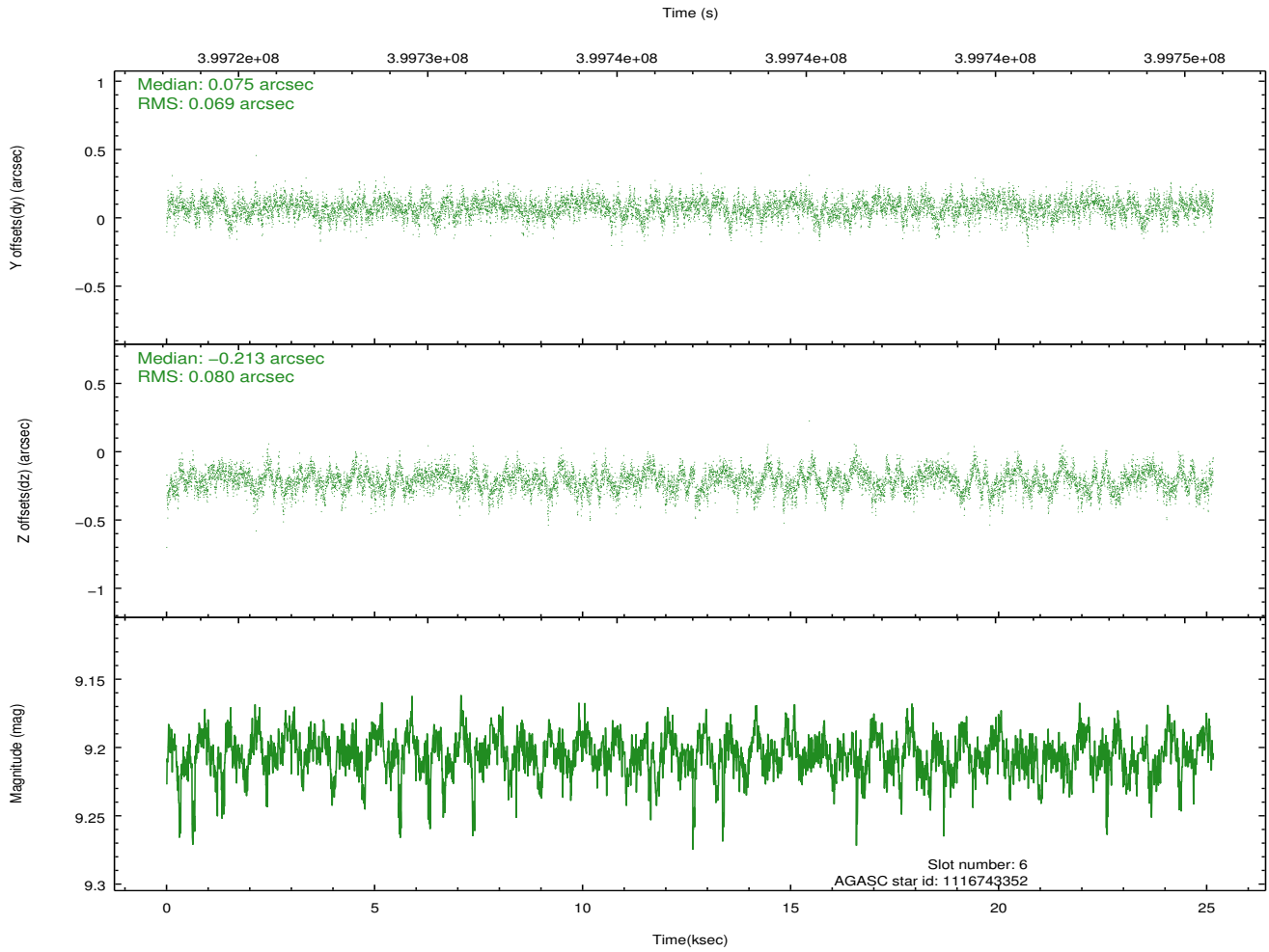
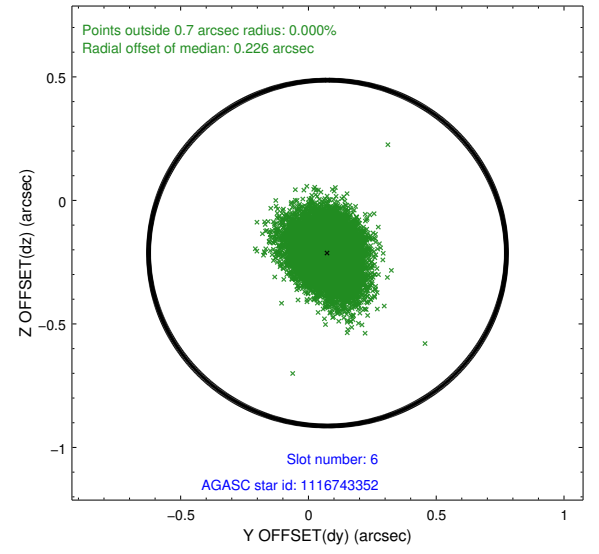
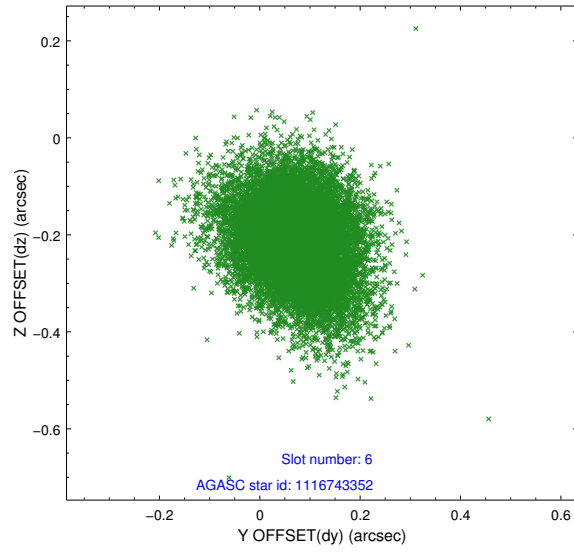




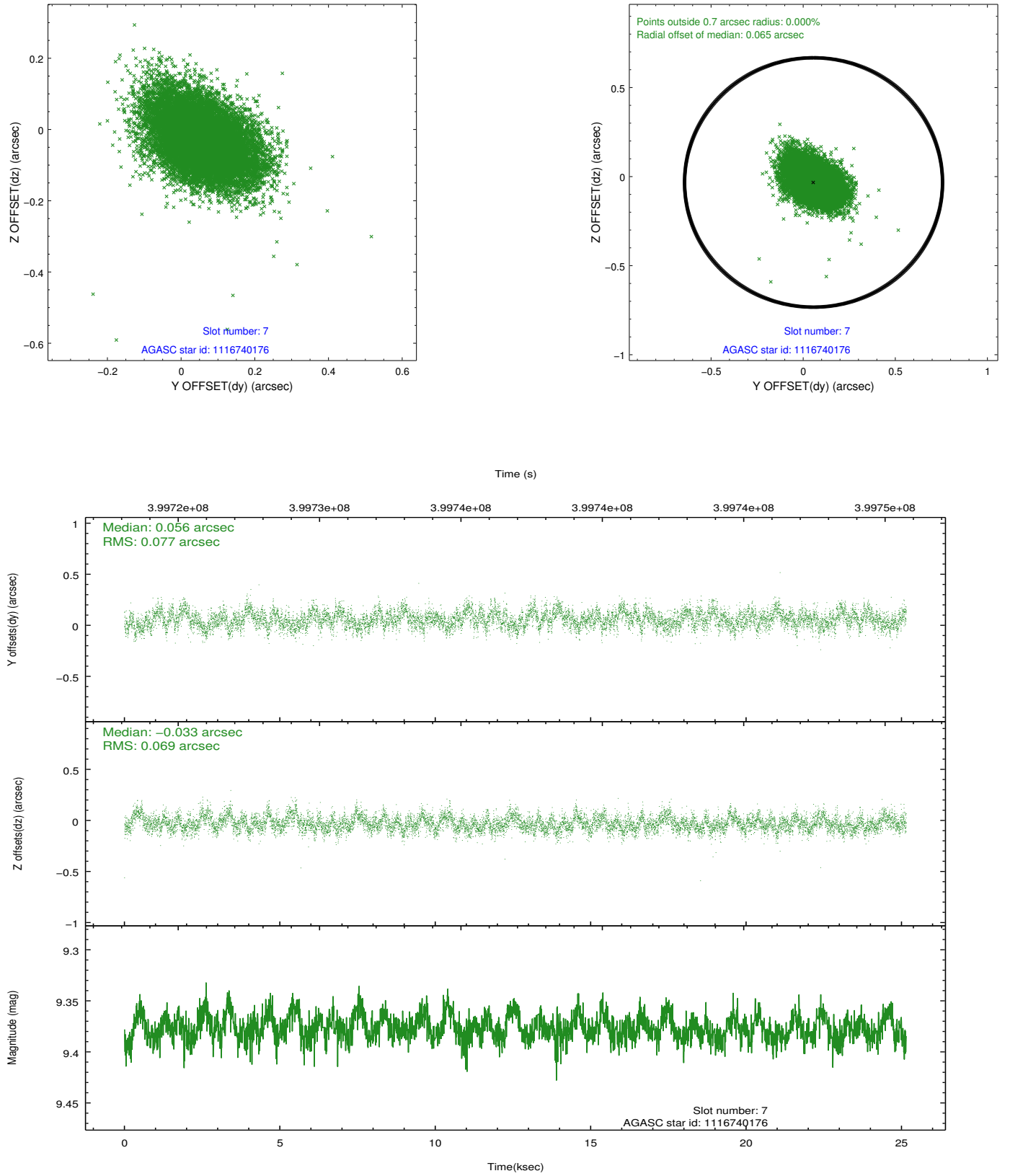
### 2.4.3 Slot 5



## 2.4.4 Slot 6

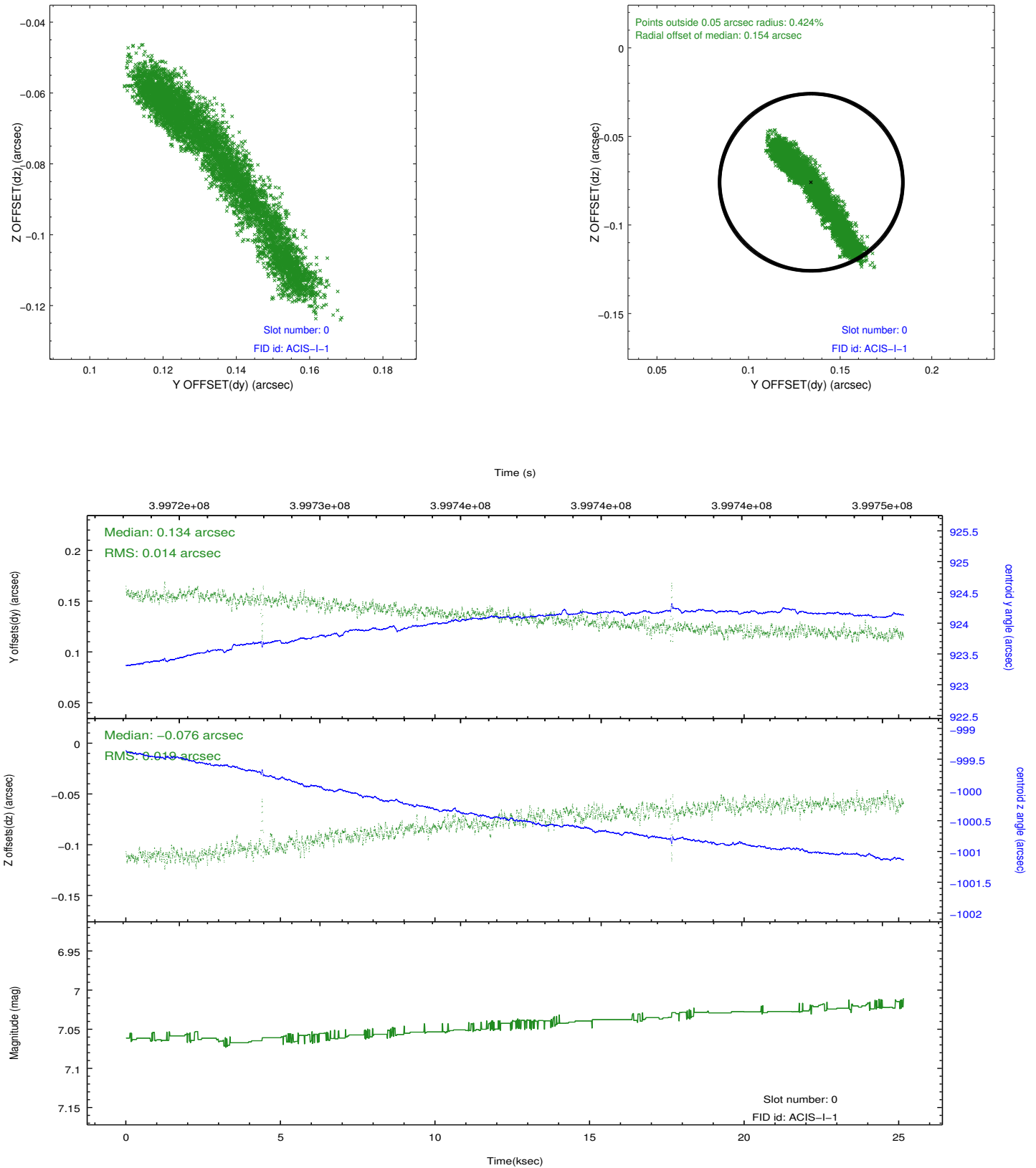


## 2.4.5 Slot 7

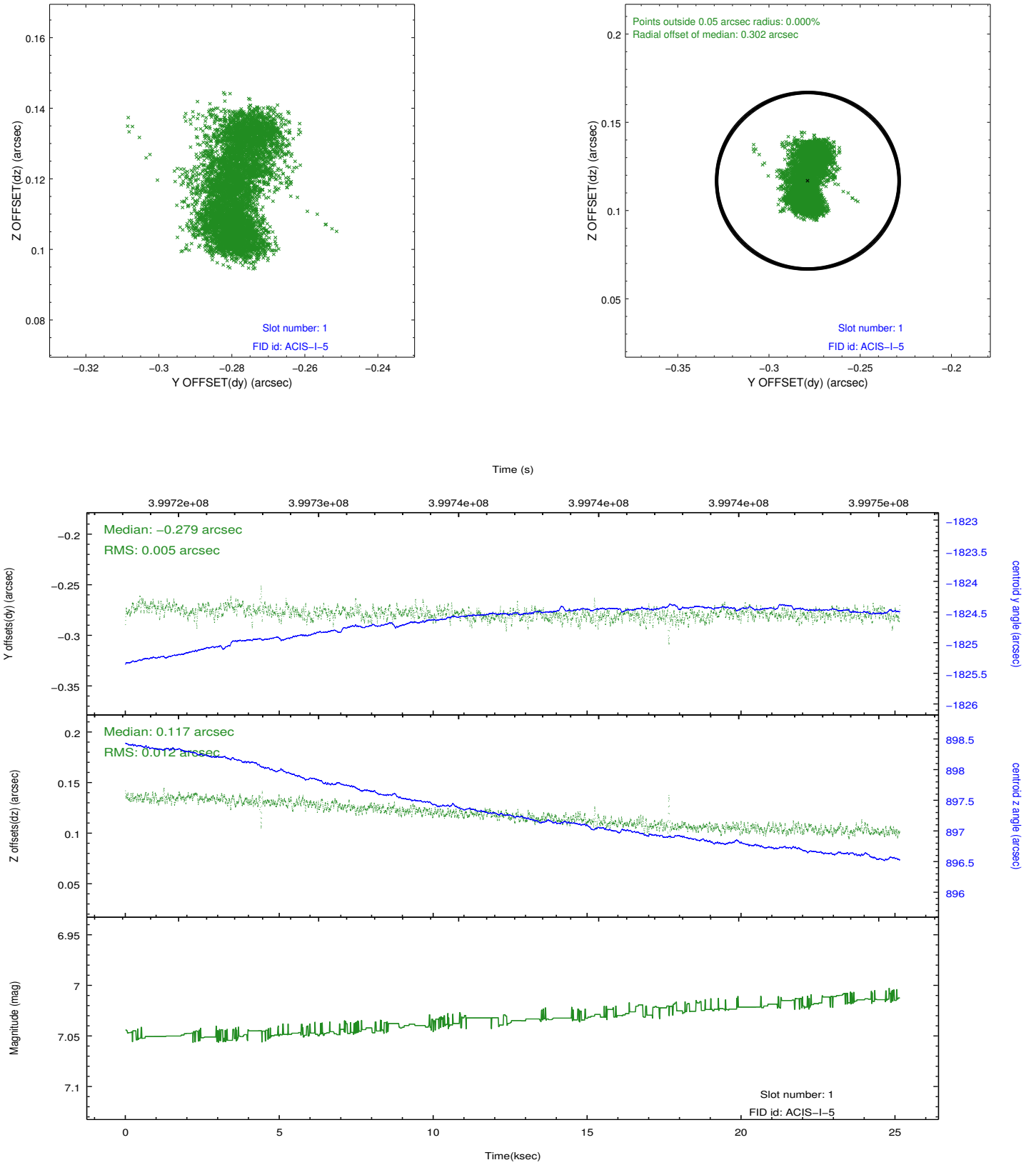


## 2.5 FID Slots

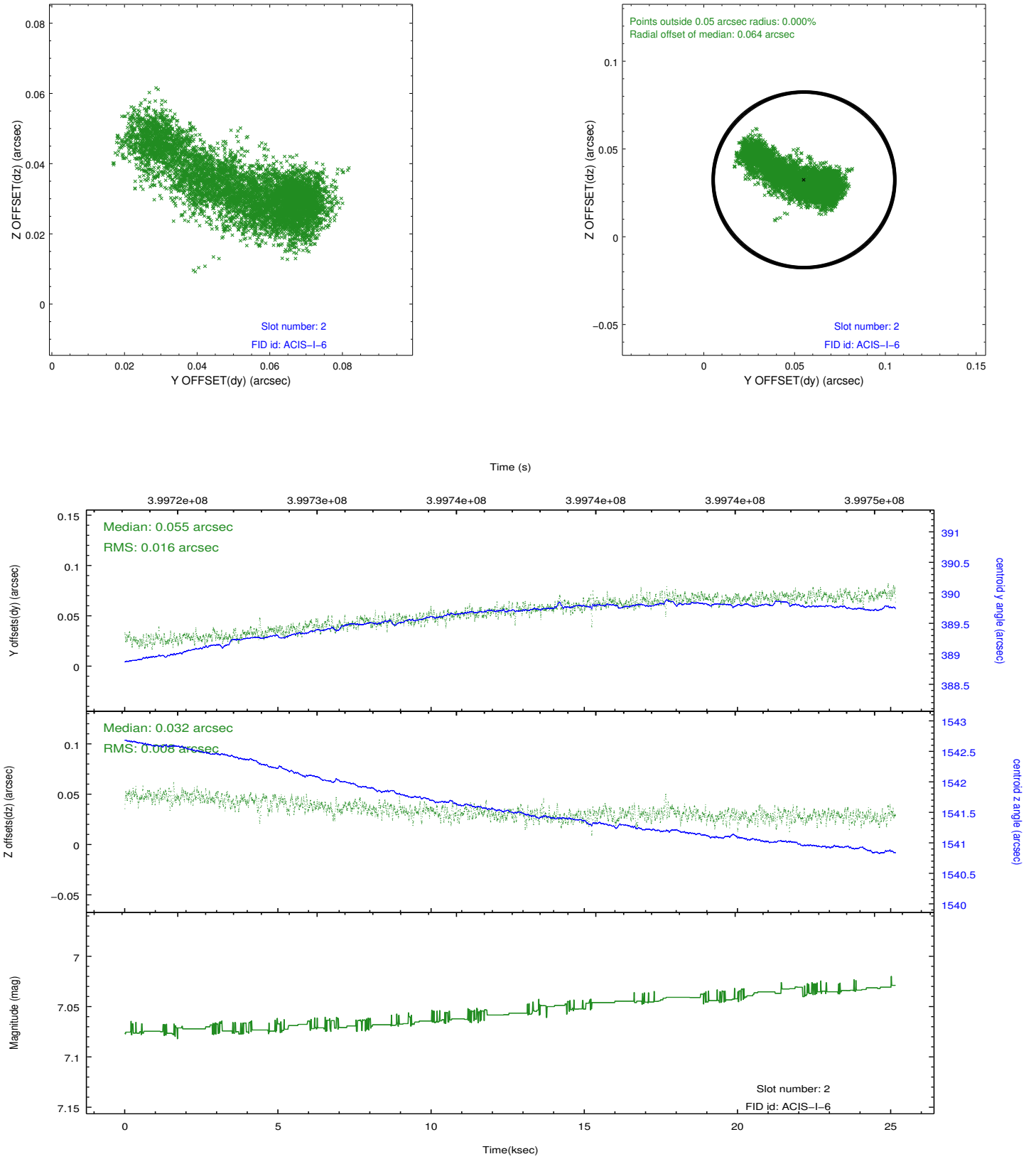
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## **A Summary**

### **A.1 Status**

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.07.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	24.778102737904

### **A.2 Comments**