

# V&V Reference Report

## L2 ASCDS Version : 10.5.2

Observation 18630 - L2 Version 1  
Chandra X-Ray Center

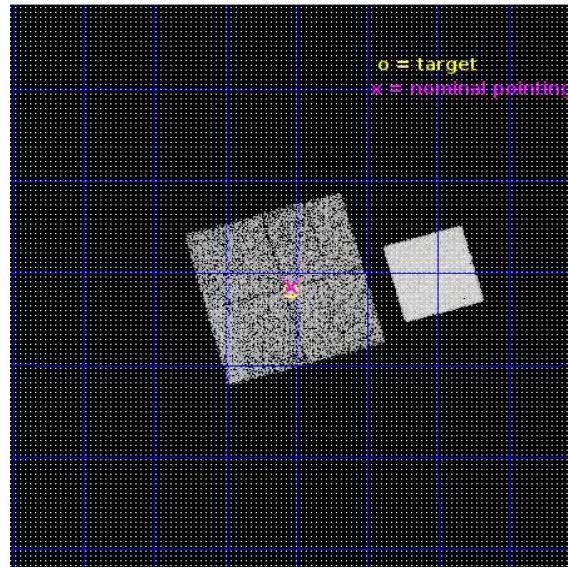
L2 Processing Date : Nov 9 2016

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# 1 Front

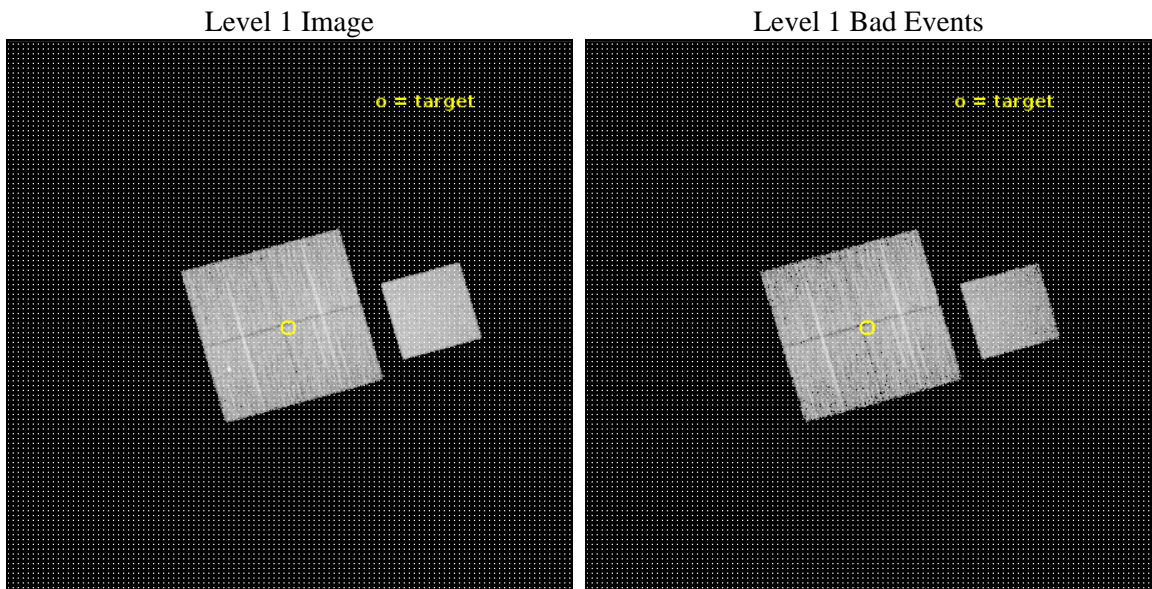
seq_num	801638	Sequence number
obs_id	18630	Observation id
title	Lensing Calibration of the Evolution of Cluster Scaling Relations for eROSITA	Proposal title
observer	Peter Predehl	Principal investigator
object	CODEX 47981	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	130.009583	Observer's specified target RA [deg]
dec_targ	8.634389	Observer's specified target Dec [deg]
ra_nom	130.0085369622	Nominal RA [deg]
dec_nom	8.6424486314421	Nominal Dec [deg]
roll_nom	74.077713652693	Nominal Roll [deg]
revision	1	Processing version of data
ontime	9048.5534543991	Sum of GTIs [s]
livetime	8930.3274420692	Livetime [s]
ontime0	9048.4303343296	Sum of GTIs [s]
ontime1	9048.4713743925	Sum of GTIs [s]
ontime2	9048.5124143362	Sum of GTIs [s]
ontime3	9048.5534543991	Sum of GTIs [s]
ontime7	9048.5944943428	Sum of GTIs [s]
l2events	58341	Number of level 2 events



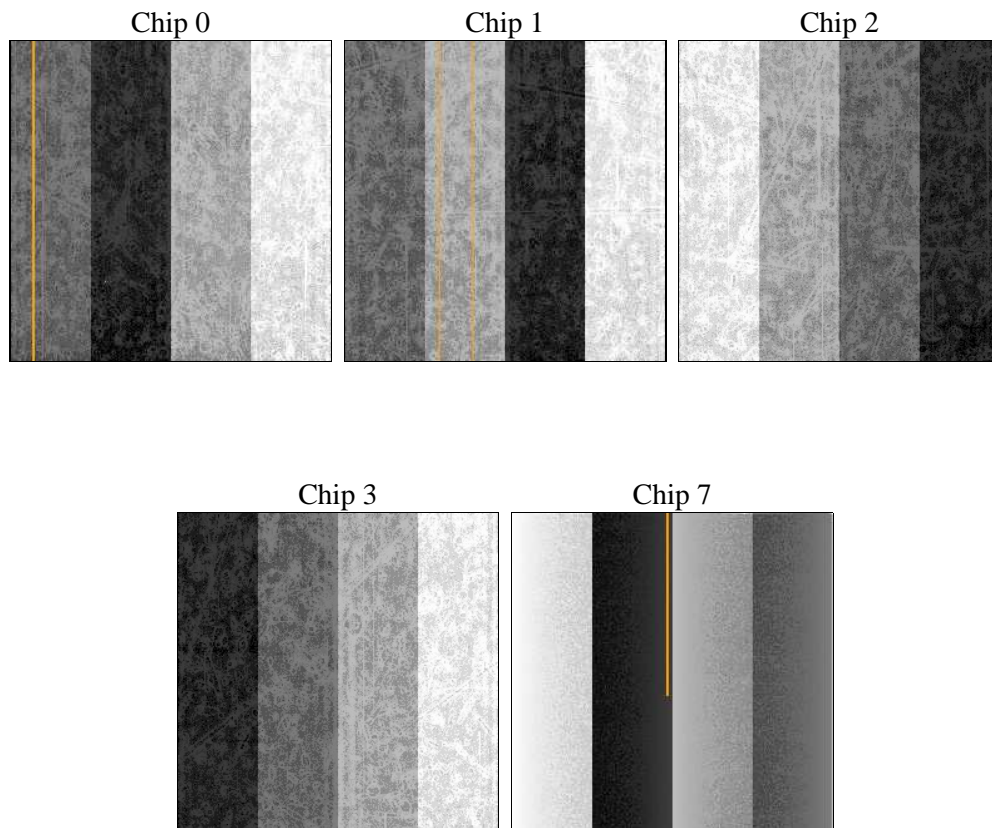
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	9000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	9048.5534543991	Sum of GTIs [s]
caldsver	4.7.2	&#160	ontime0	9048.4303343296	Sum of GTIs [s]
date	2016-11-09T16:54:44	Date and time of file creation	ontime1	9048.4713743925	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	9048.5124143362	Sum of GTIs [s]
			ontime3	9048.5534543991	Sum of GTIs [s]
			ontime7	9048.5944943428	Sum of GTIs [s]
			l1events	316210	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	56111	57113	62106	60646	80234
rejected events	49170	48397	55117	53660	45165
rejected %	87%	84%	88%	88%	56%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	2344	3580	2534	2723	2960
	4%	6%	4%	4%	3%
grade 1 events	27	25	35	45	98
	0%	0%	0%	0%	0%
grade 2 events	1761	1945	1696	1483	7464
	3%	3%	2%	2%	9%
grade 3 events	775	773	683	718	2860
	1%	1%	1%	1%	3%
grade 4 events	677	790	737	700	2857
	1%	1%	1%	1%	3%
grade 5 events	2697	2790	2486	3054	8306
	4%	4%	4%	5%	10%
grade 6 events	1386	1628	1340	1363	18941
	2%	2%	2%	2%	23%
grade 7 events	46444	45582	52595	50560	36748
	82%	79%	84%	83%	45%

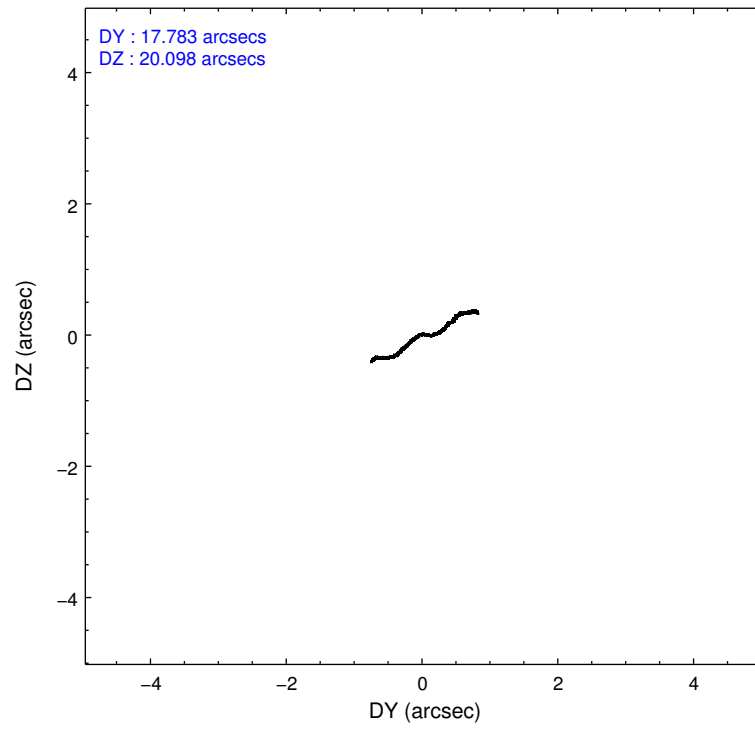
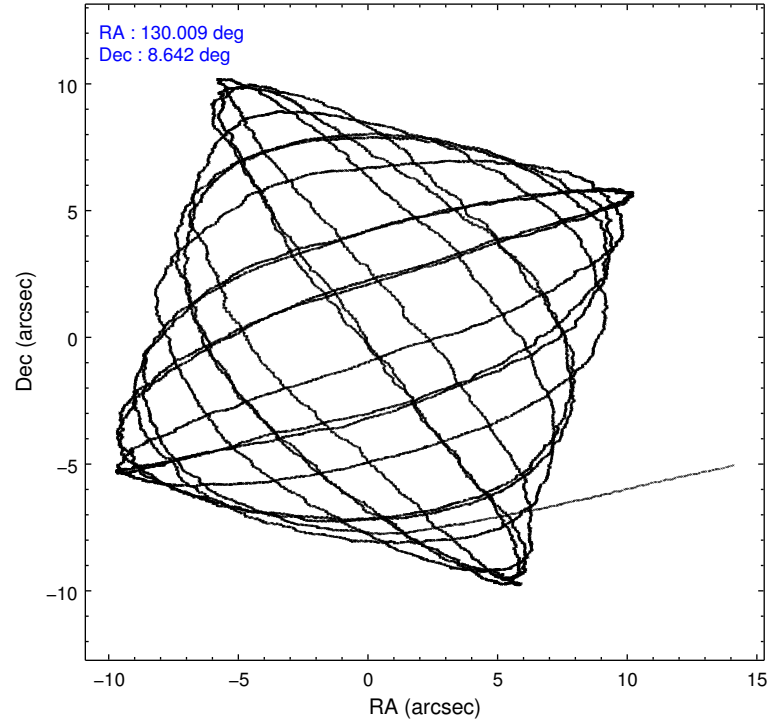


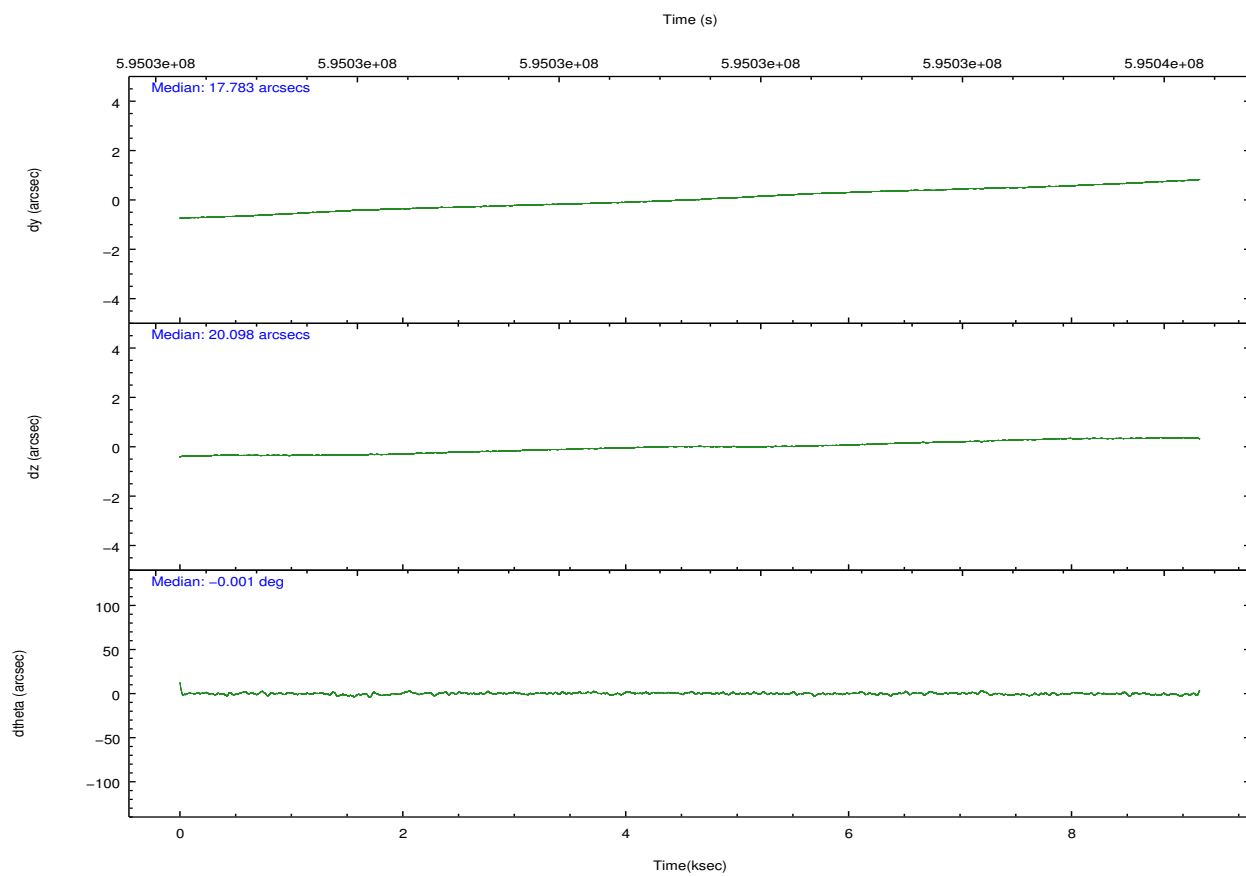
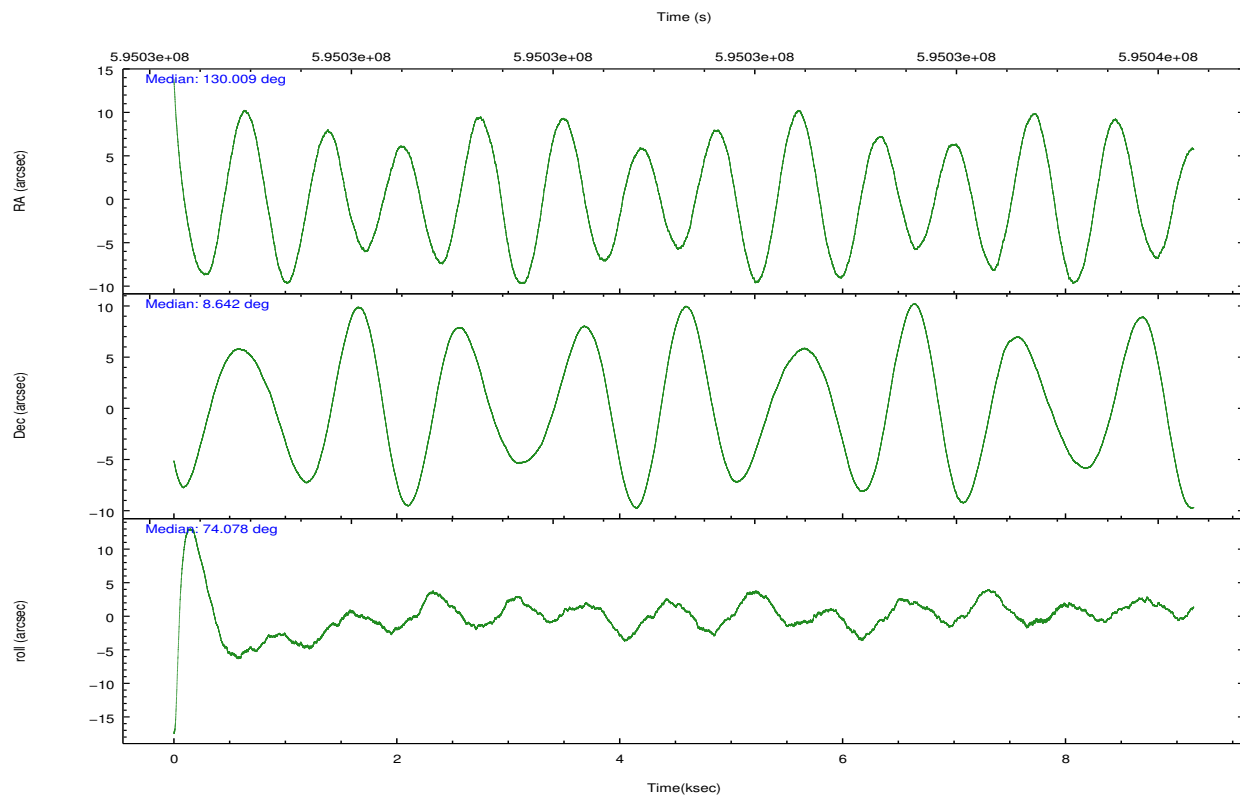
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-01237	ACIS-01237
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	130.015442	130.008536962203
[deg] Pointing Dec	8.615729	8.642448631442106
[deg] Pointing Roll	73.868038	74.07771365269338
[mm] SIM focus pos	-0.782348	-0.7809083437167272
[mm] SIM defocus	0	0.001439871863259334
[mm] SIM translation stage pos	-233.592463	-233.5874344608287
[mm] SIM translation stage offset	0	-0.005018542100998502
[s] Observation start time (MET)	595026872.184000	595025776.8856699
Observation start date	2016-11-08T21:13:24	2016-11-08T20:56:16
[s] Observation end time (MET)	595035872.184000	595036732.59881
Observation end date	2016-11-08T23:43:24	2016-11-08T23:58:52
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	Y	Y
CCD I1 on	Y	Y
CCD I2 on	Y	Y
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	N	N
CCD S3 on	O1	Y
CCD S4 on	N	N
CCD S5 on	N	N
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



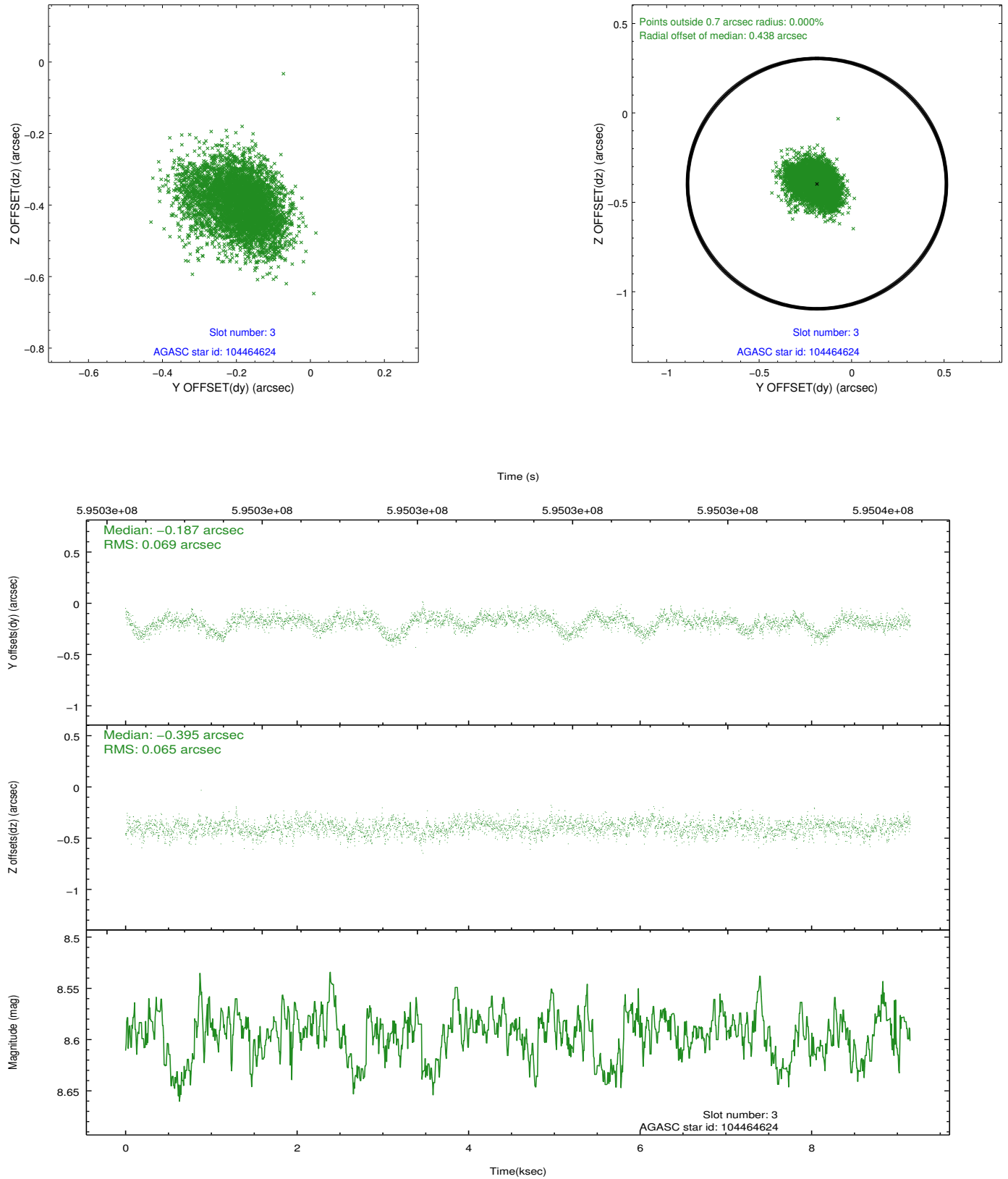


### Slot Statistics

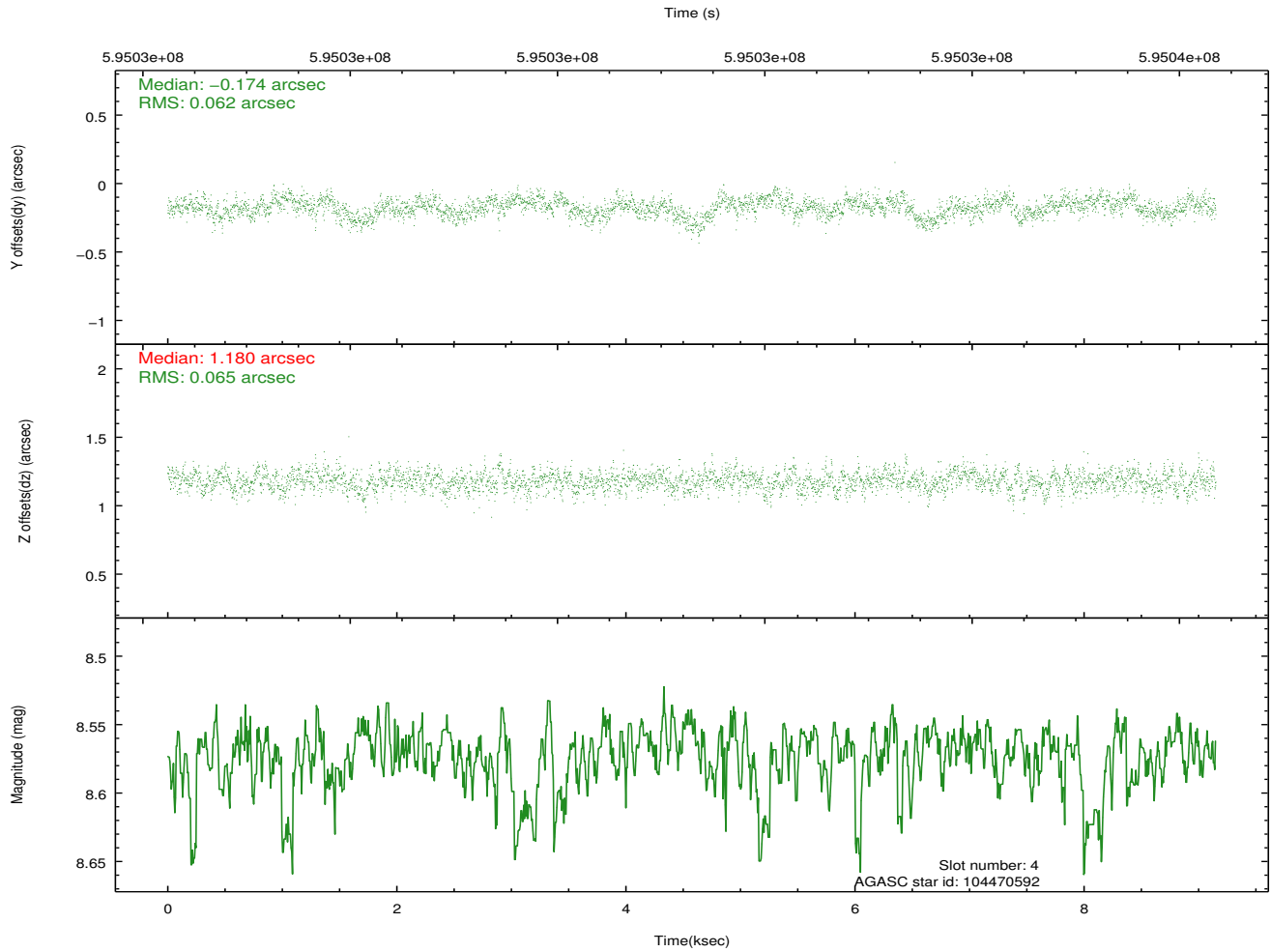
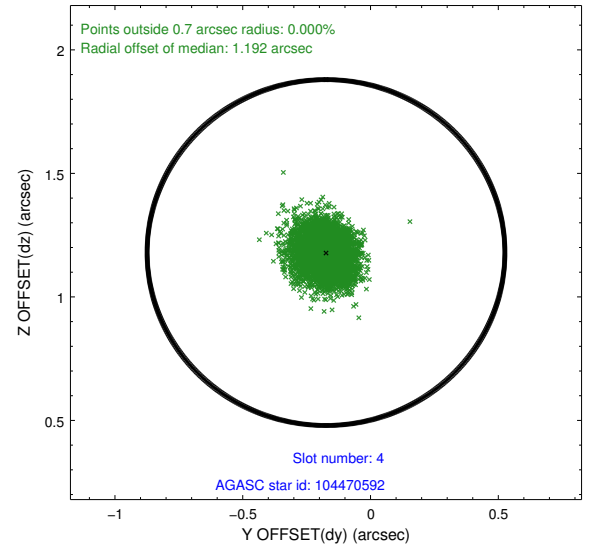
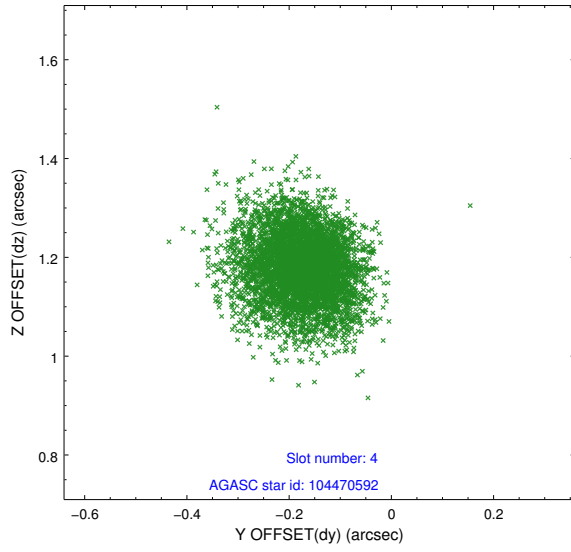
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.12	2231	-0.068	-0.005	0.020	0.032	0.000000	0.000000	921.47	-843.84
1	FID		ACIS-I-2	7.03	2231	-0.292	-0.162	0.014	0.021	0.000000	0.000000	-772.51	-850.69
2	FID		ACIS-I-4	7.07	2231	0.263	0.235	0.019	0.031	0.000000	0.000000	2141.46	1055.87
3	GUIDE	used	104464624	8.59	4462	-0.187	-0.395	0.102	0.168	129.622859	9.281907	1916.62	2006.51
4	GUIDE	used	104470592	8.57	4464	-0.174	1.180	0.094	0.154	129.827848	8.907033	822.22	934.38
5	GUIDE	used	104474920	8.35	4460	0.605	-0.085	0.092	0.152	129.551945	8.167239	-2008.42	1138.89
6	GUIDE	used	104476640	8.75	4459	0.501	-0.231	0.119	0.209	129.262903	8.231078	-2072.94	2192.17
7	GUIDE	used	105000536	9.03	4462	-0.738	-0.463	0.130	0.203	129.658317	9.399506	2357.31	2003.13

## 2.4 Star Slots

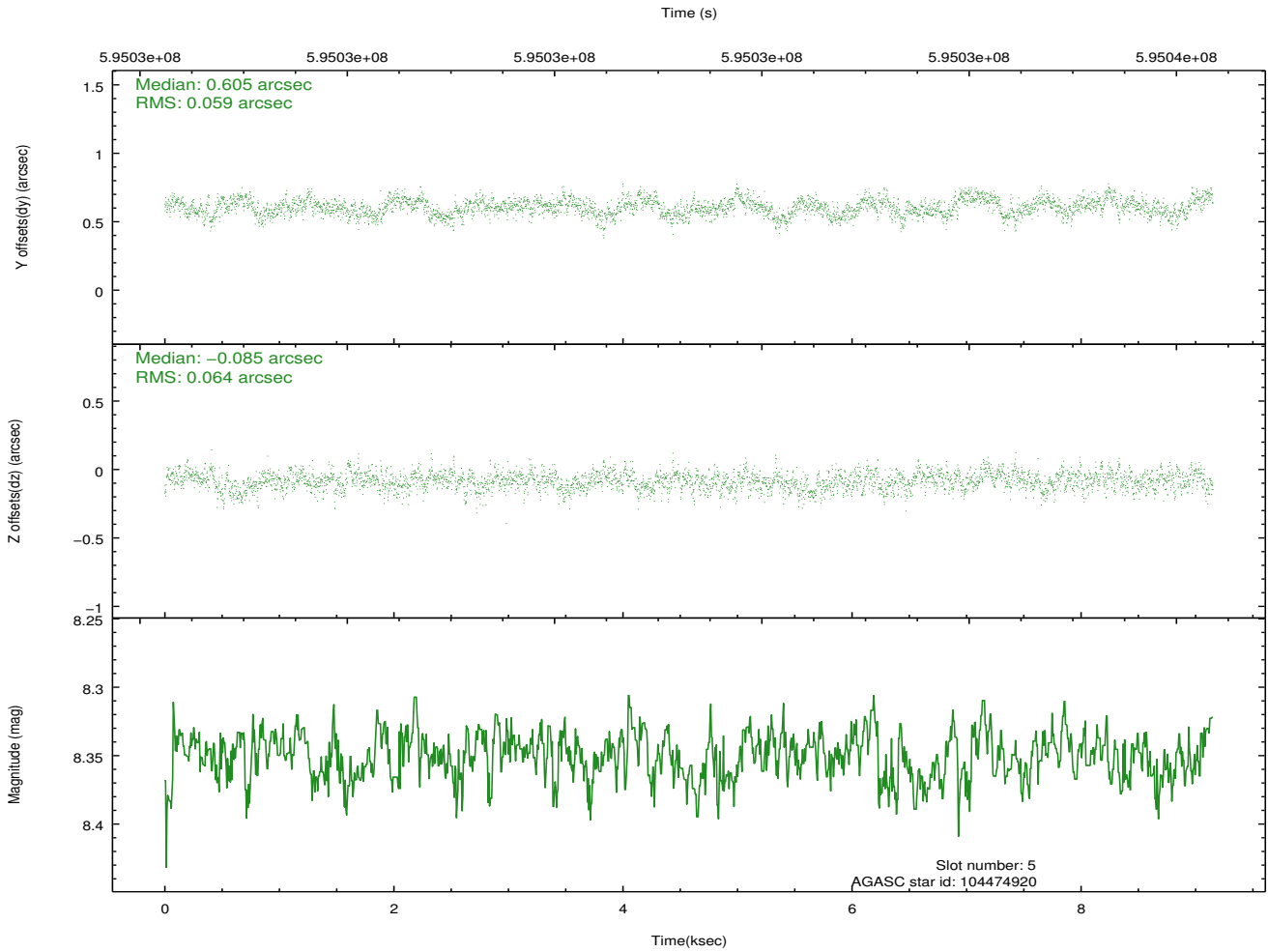
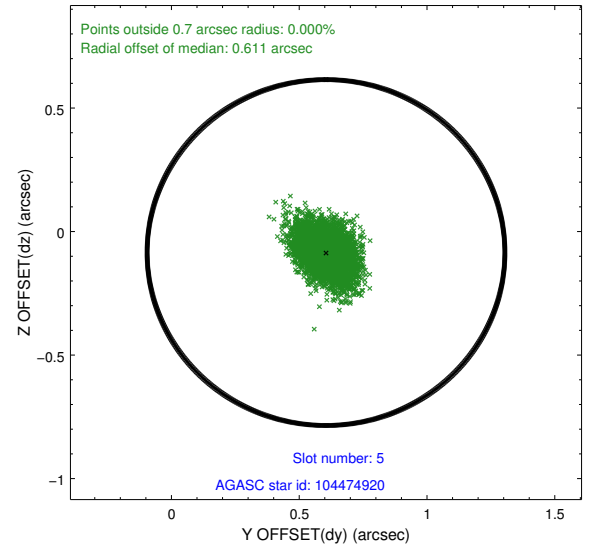
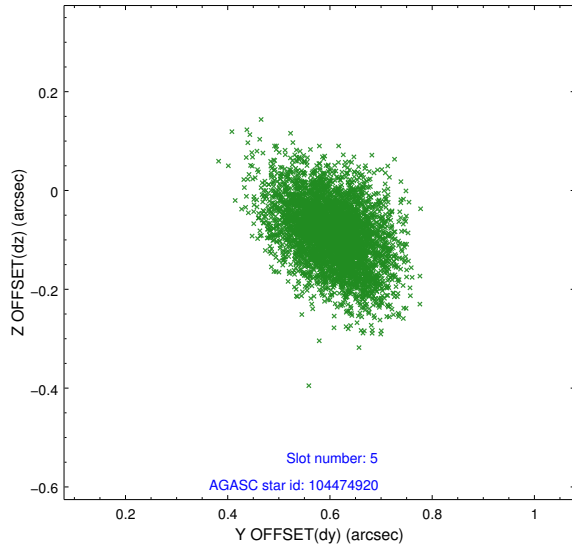
### 2.4.1 Slot 3



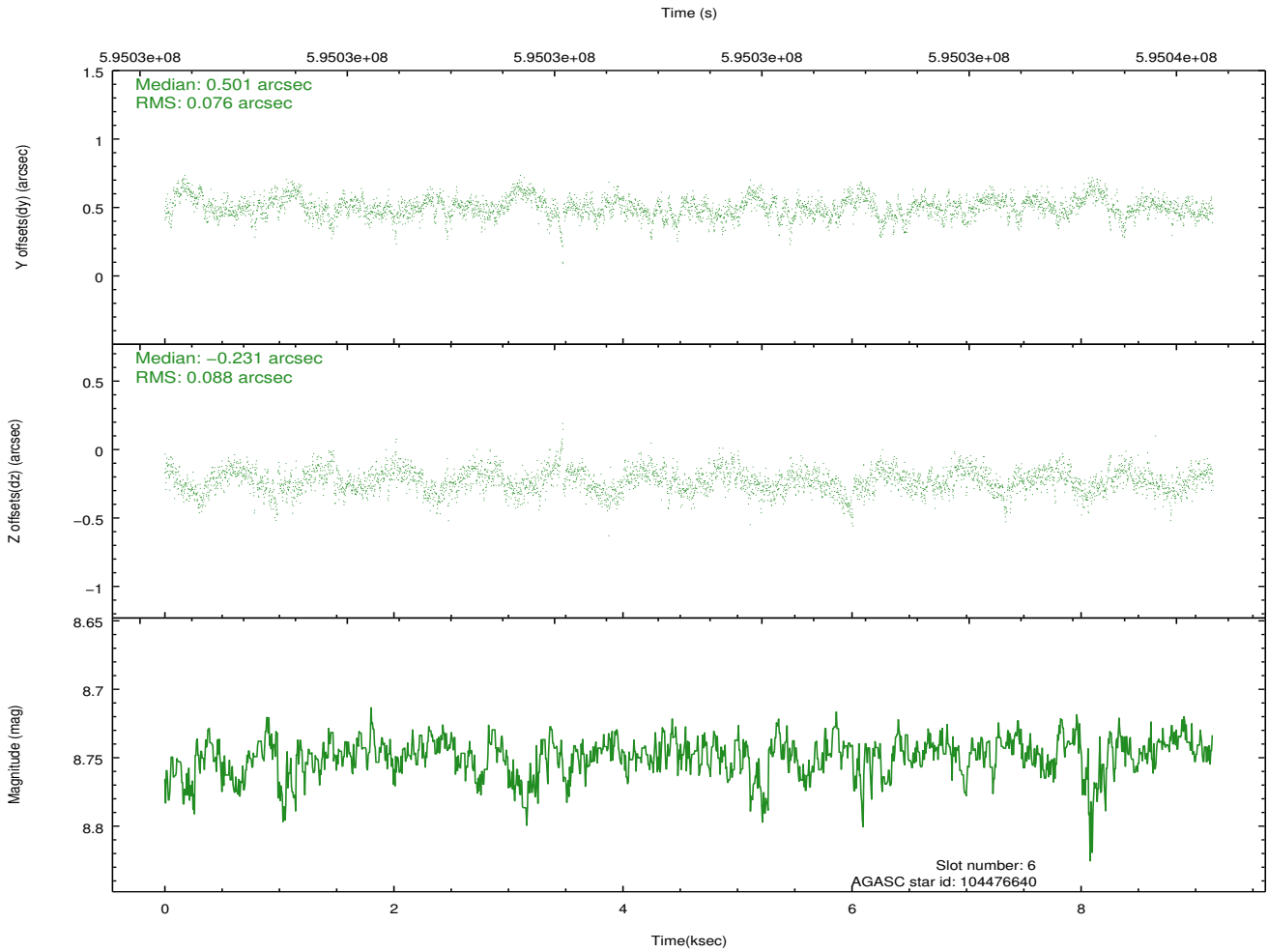
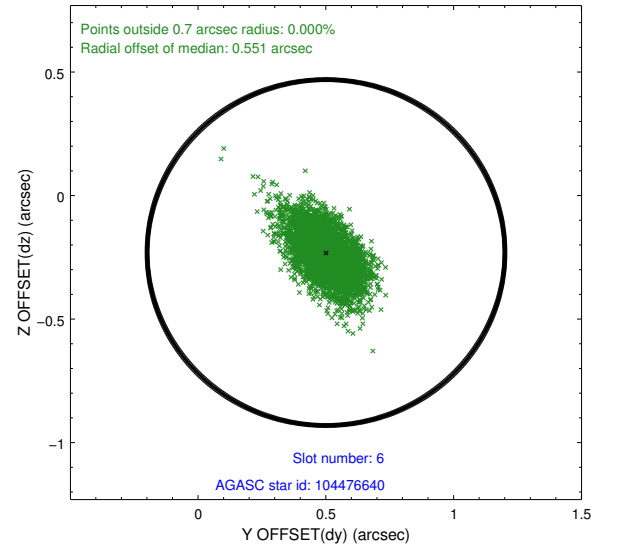
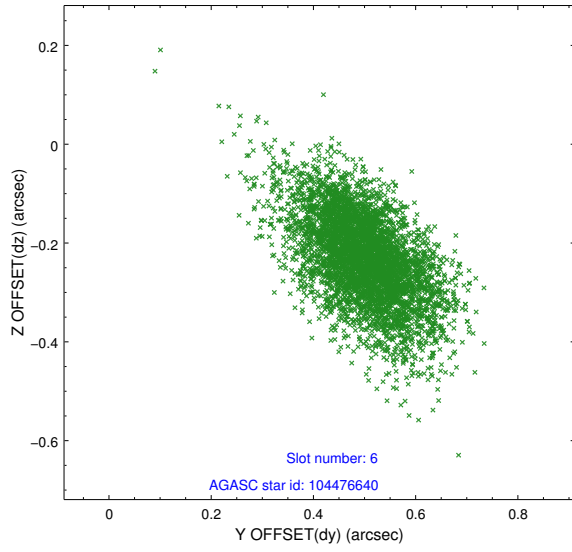
## 2.4.2 Slot 4



### 2.4.3 Slot 5

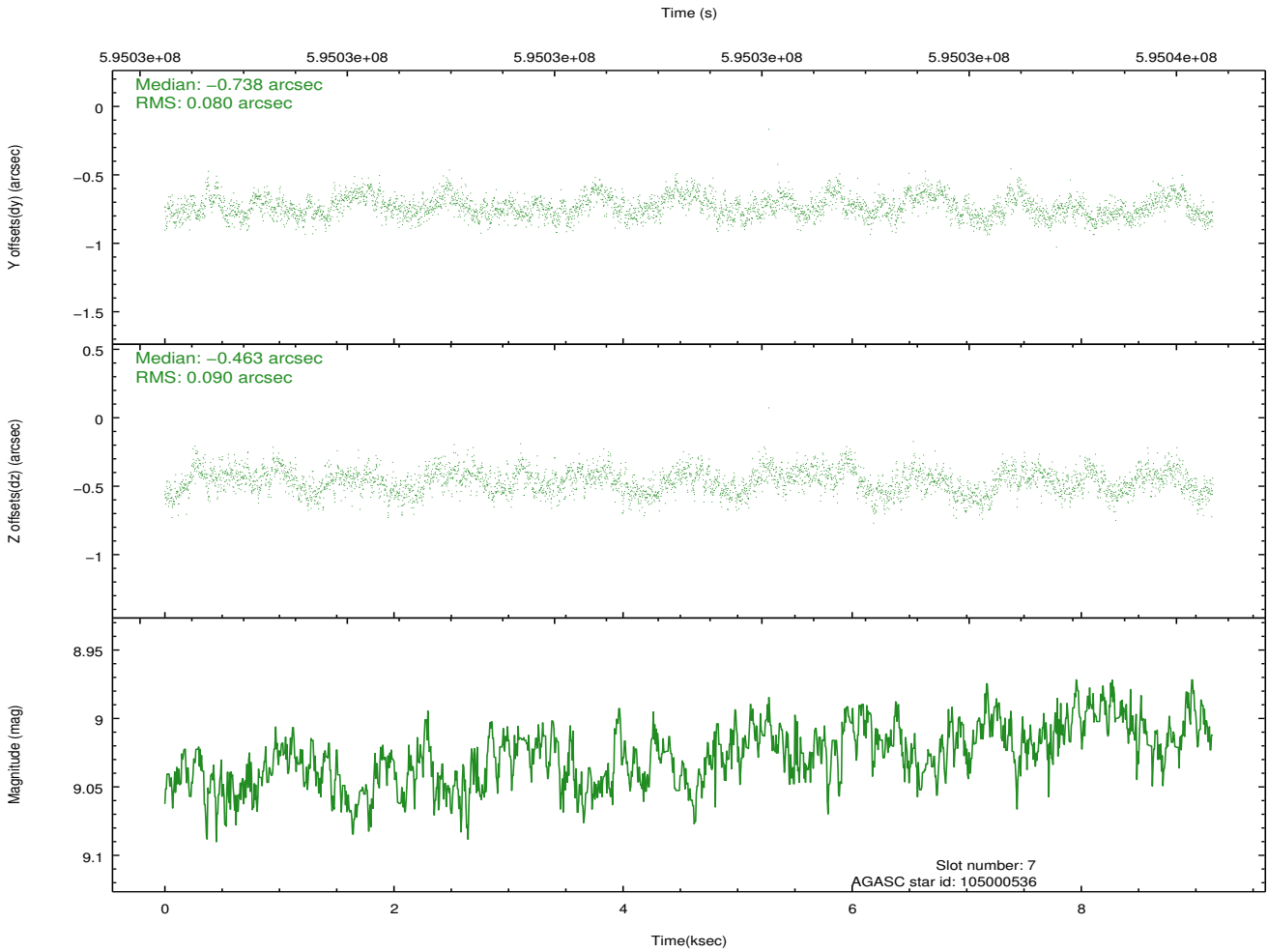
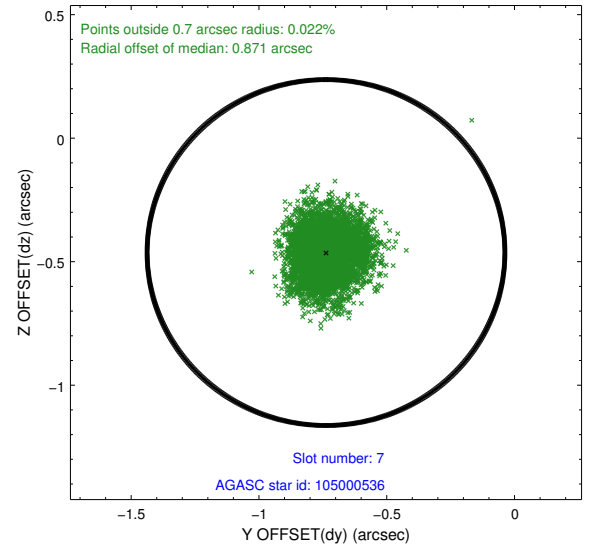
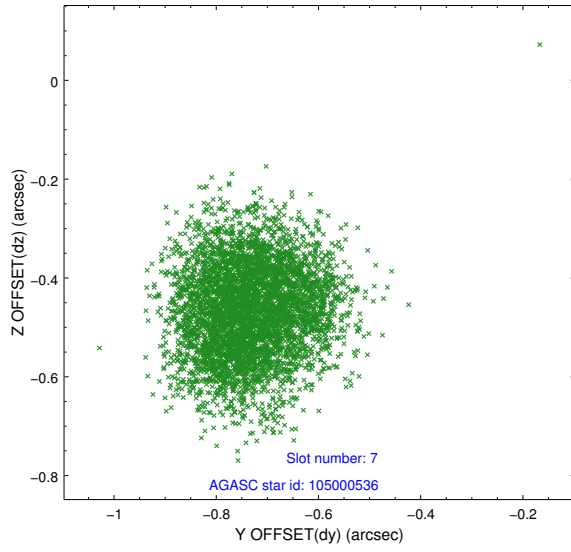


## 2.4.4 Slot 6



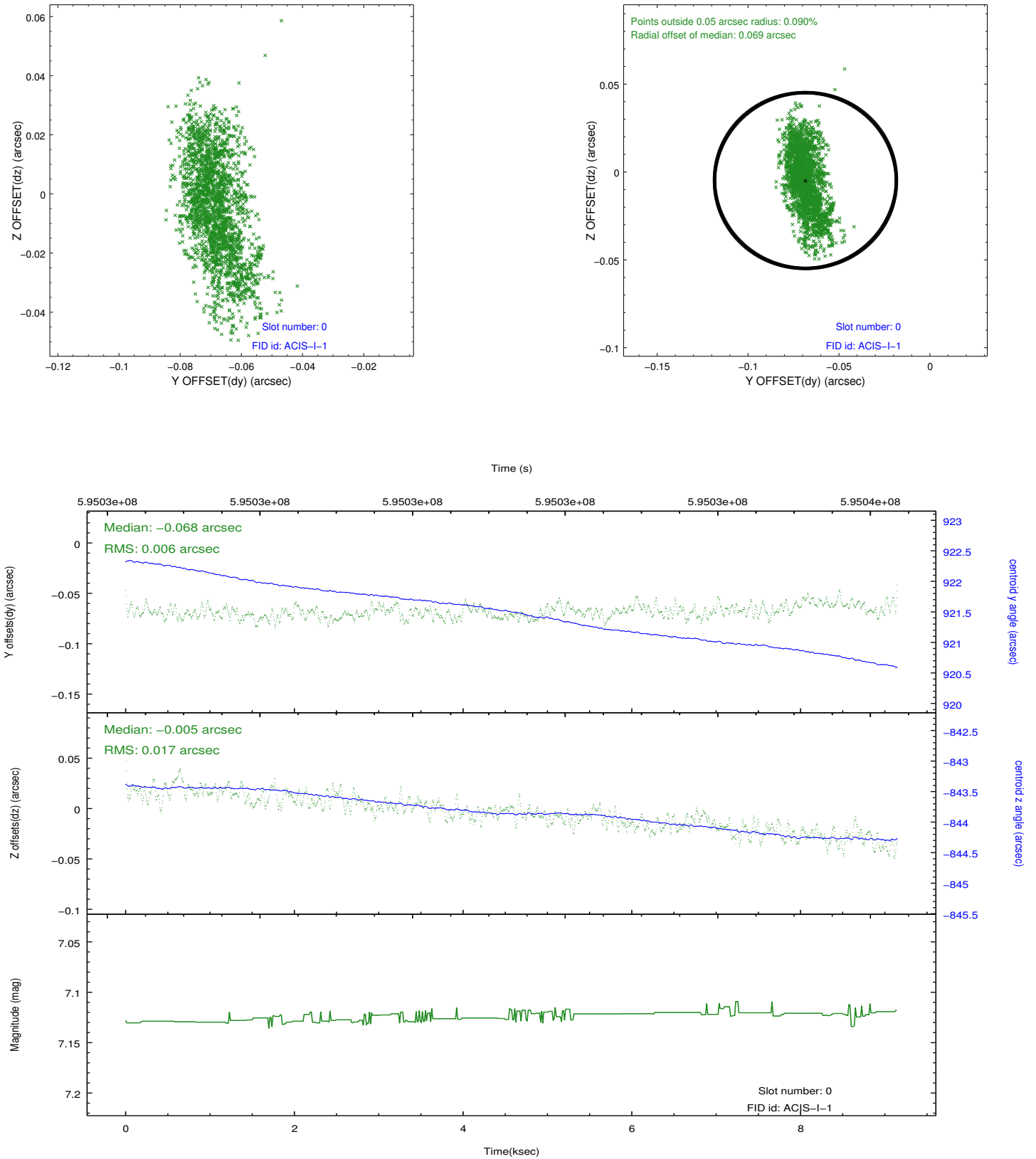


## 2.4.5 Slot 7

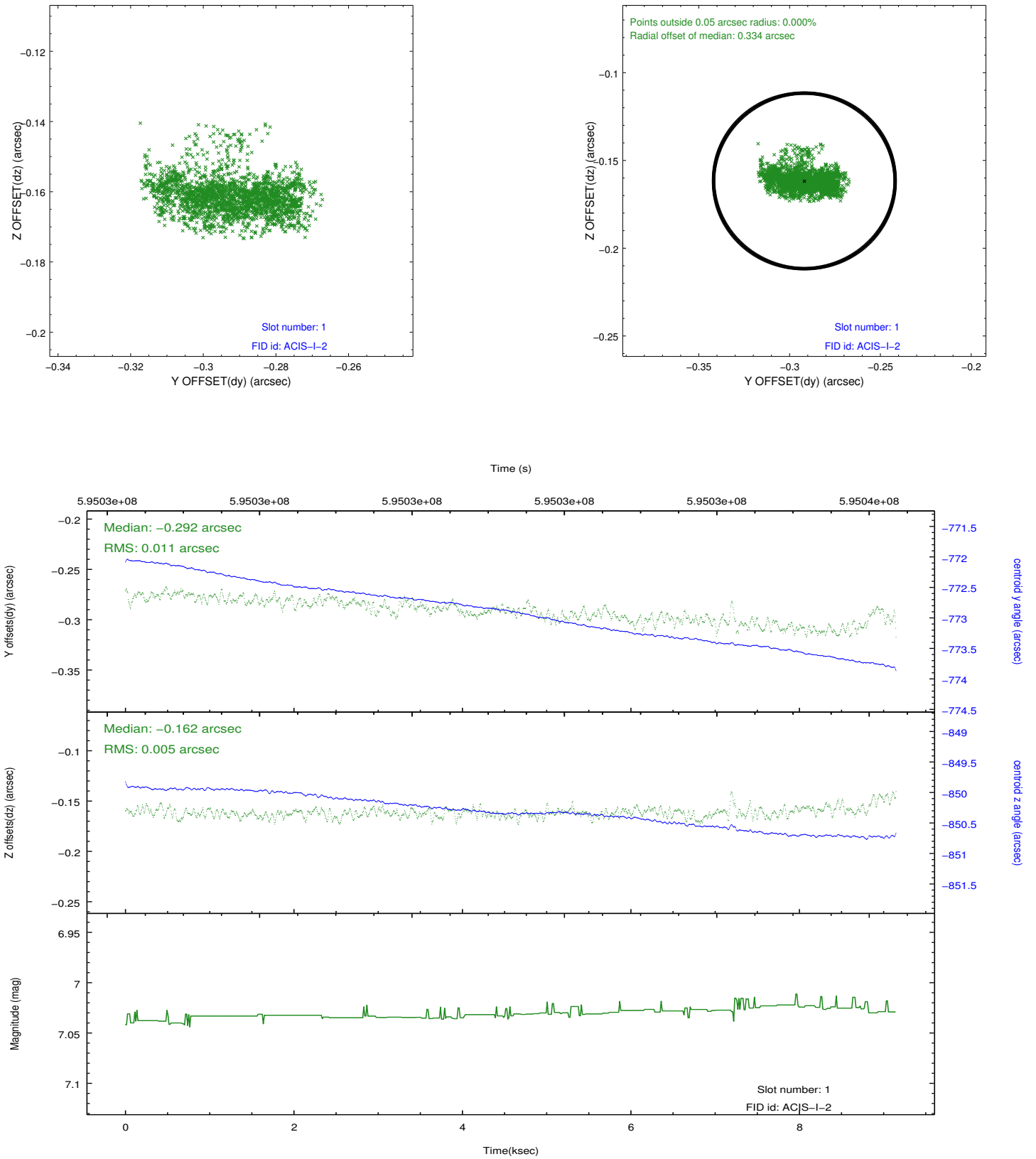


## 2.5 FID Slots

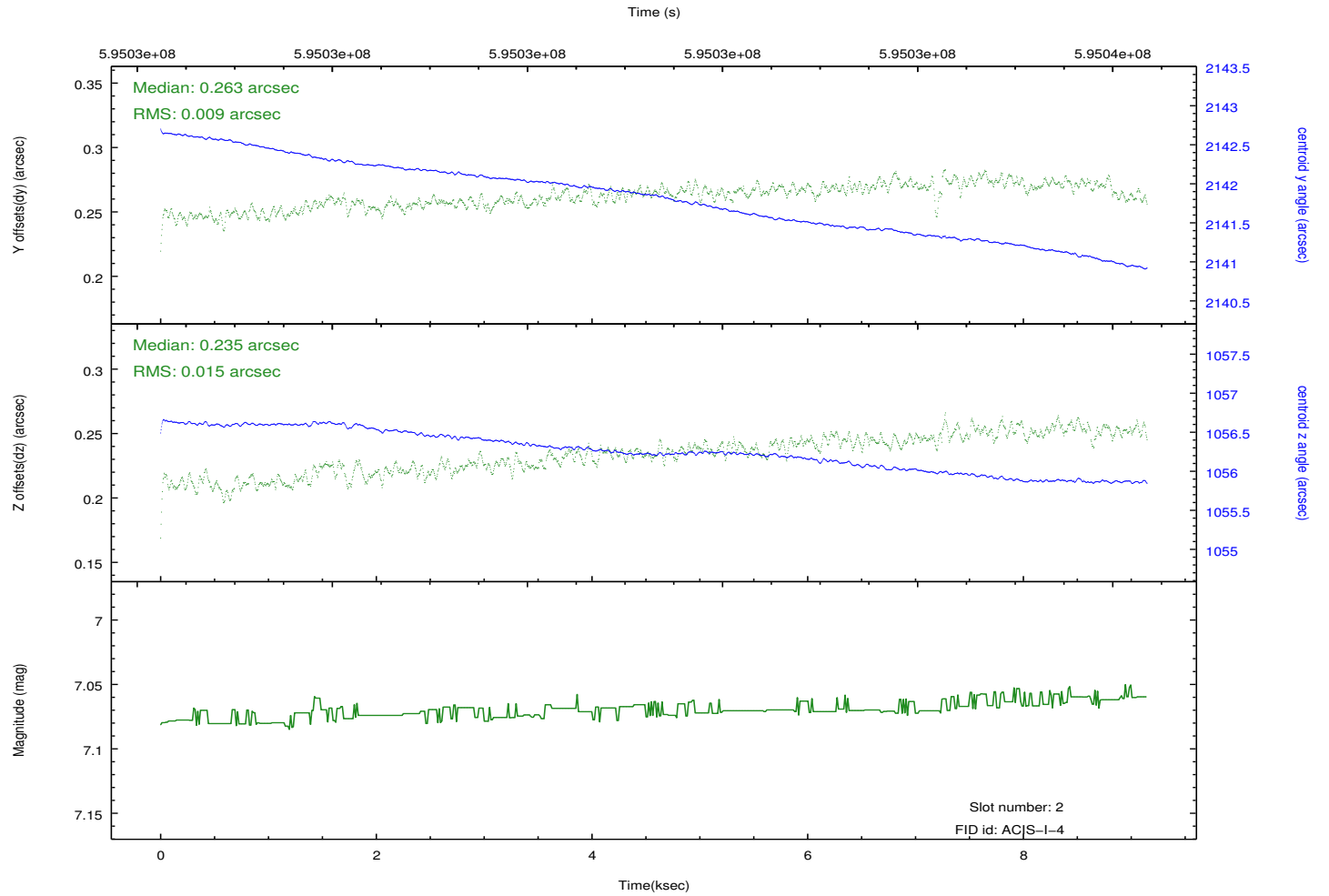
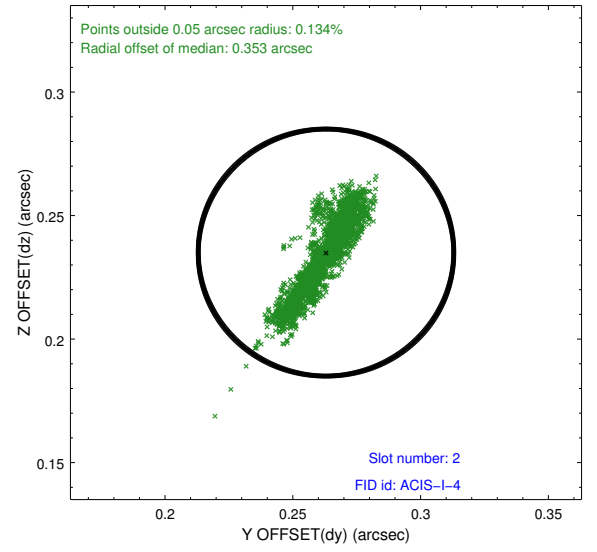
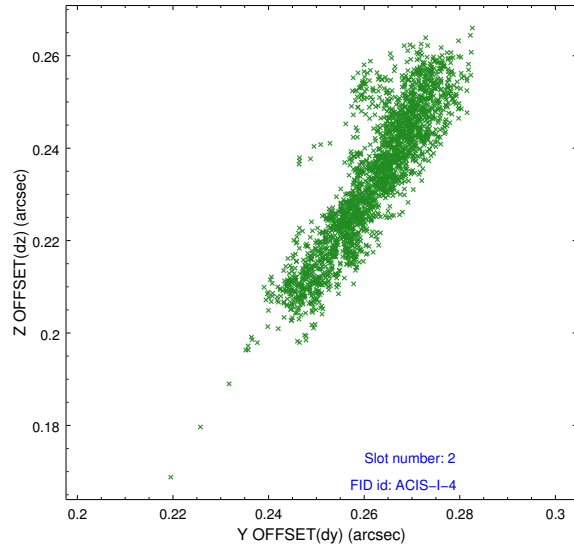
### 2.5.1 Slot 0



## 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)	2016.11.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.0485534543991

### **A.2 Comments**