

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 14473 - L2 Version 1  
Chandra X-Ray Center

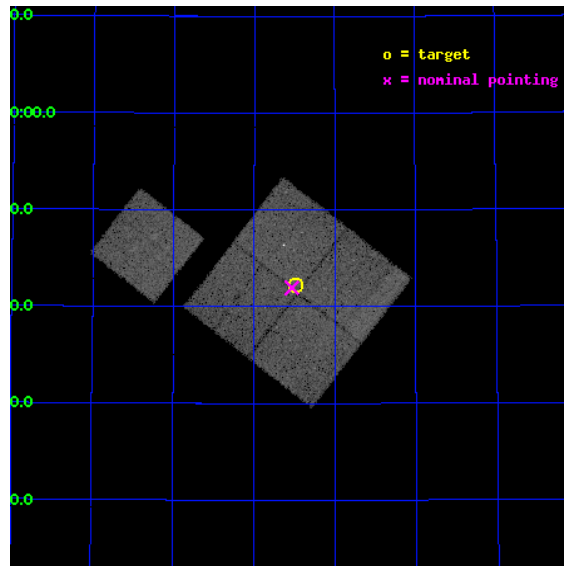
L2 Processing Date : Aug 14 2012

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# 1 Front

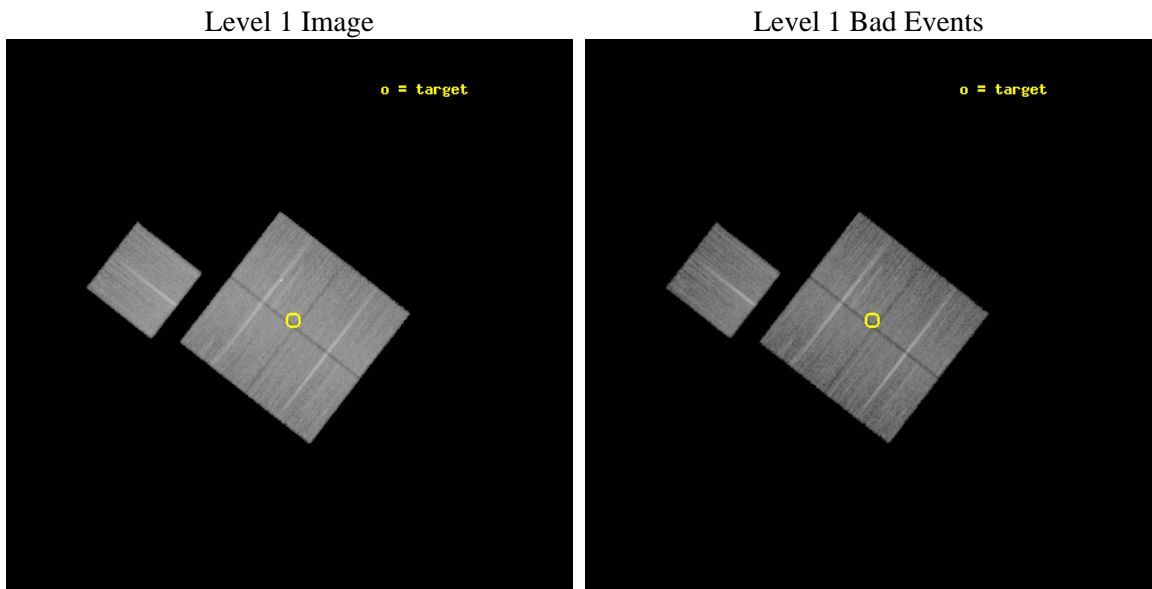
seq_num	801204	Sequence number
obs_id	14473	Observation id
title	No Need for Gas Clumping at the Virial Radius in a Galaxy Group/Cluster?	Proposal title
observer	Dr Philip Humphrey	Principal investigator
object	RXJ1159+5531 Offset 2	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	179.87125	Observer's specified target RA [deg]
dec_targ	55.703806	Observer's specified target Dec [deg]
ra_nom	179.88302948172	Nominal RA [deg]
dec_nom	55.69919079408	Nominal Dec [deg]
roll_nom	307.89894193026	Nominal Roll [deg]
revision	1	Processing version of data
ontime	37583.911546946	Sum of GTIs [s]
livetime	37092.850073712	Livetime [s]
ontime0	37568.083625019	Sum of GTIs [s]
ontime1	37580.688506603	Sum of GTIs [s]
ontime2	37577.588566363	Sum of GTIs [s]
ontime3	37583.911546946	Sum of GTIs [s]
ontime6	37580.606426597	Sum of GTIs [s]
l2events	98016	Number of level 2 events



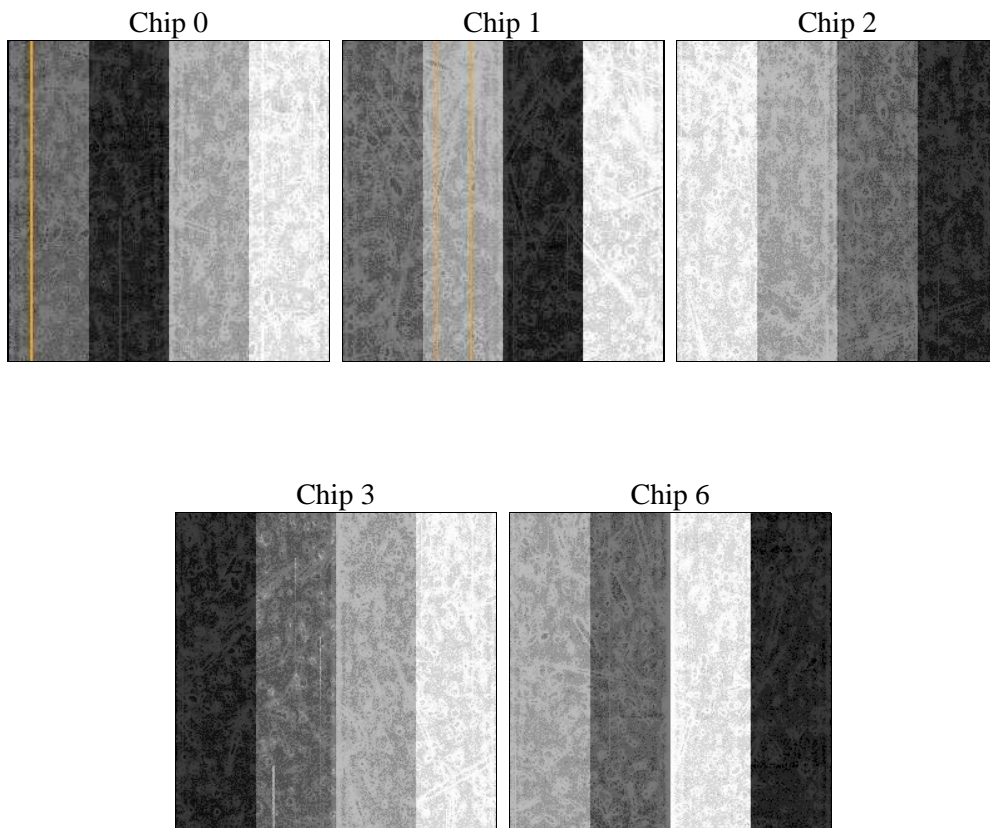
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	37500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	37583.911546946	Sum of GTIs [s]
caldbver	4.5.1.1	&#160	ontime0	37568.083625019	Sum of GTIs [s]
date	2012-08-14T04:19:09	Date and time of file creation	ontime1	37580.688506603	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	37577.588566363	Sum of GTIs [s]
			ontime3	37583.911546946	Sum of GTIs [s]
			ontime6	37580.606426597	Sum of GTIs [s]
			l1events	925235	Number of level 1 events

### 2.1.4 Events

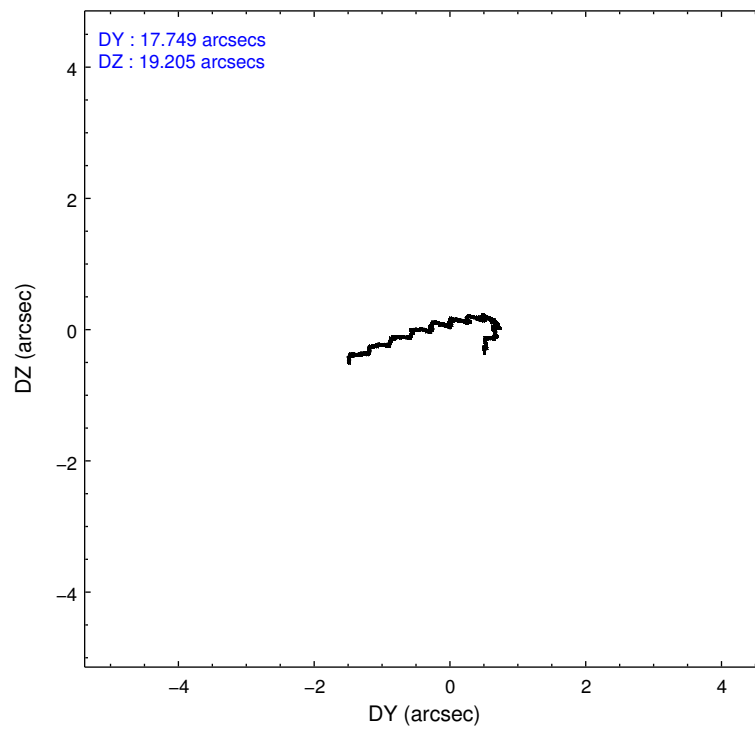
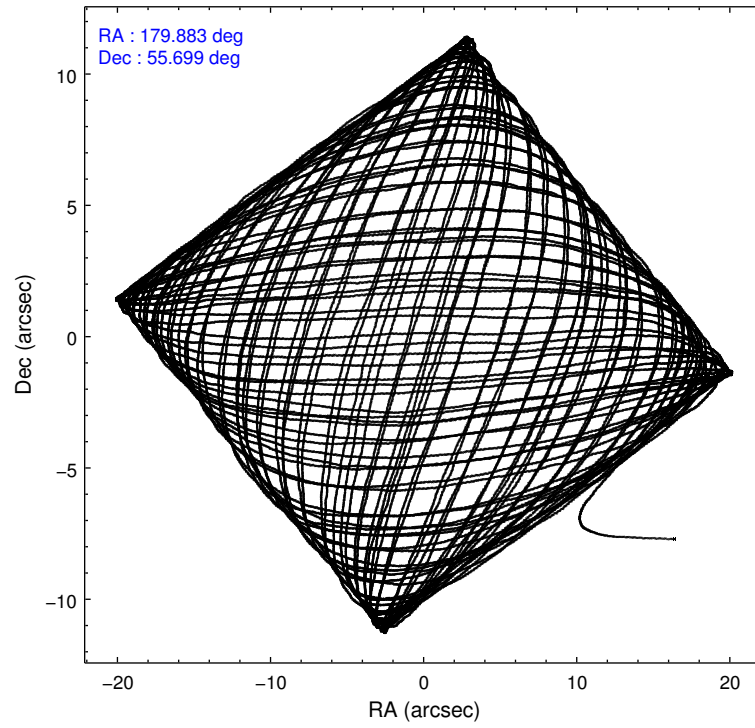
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	176770	180273	187555	189961	190676
rejected events	153634	155225	166107	166360	168000
rejected %	86%	86%	88%	87%	88%

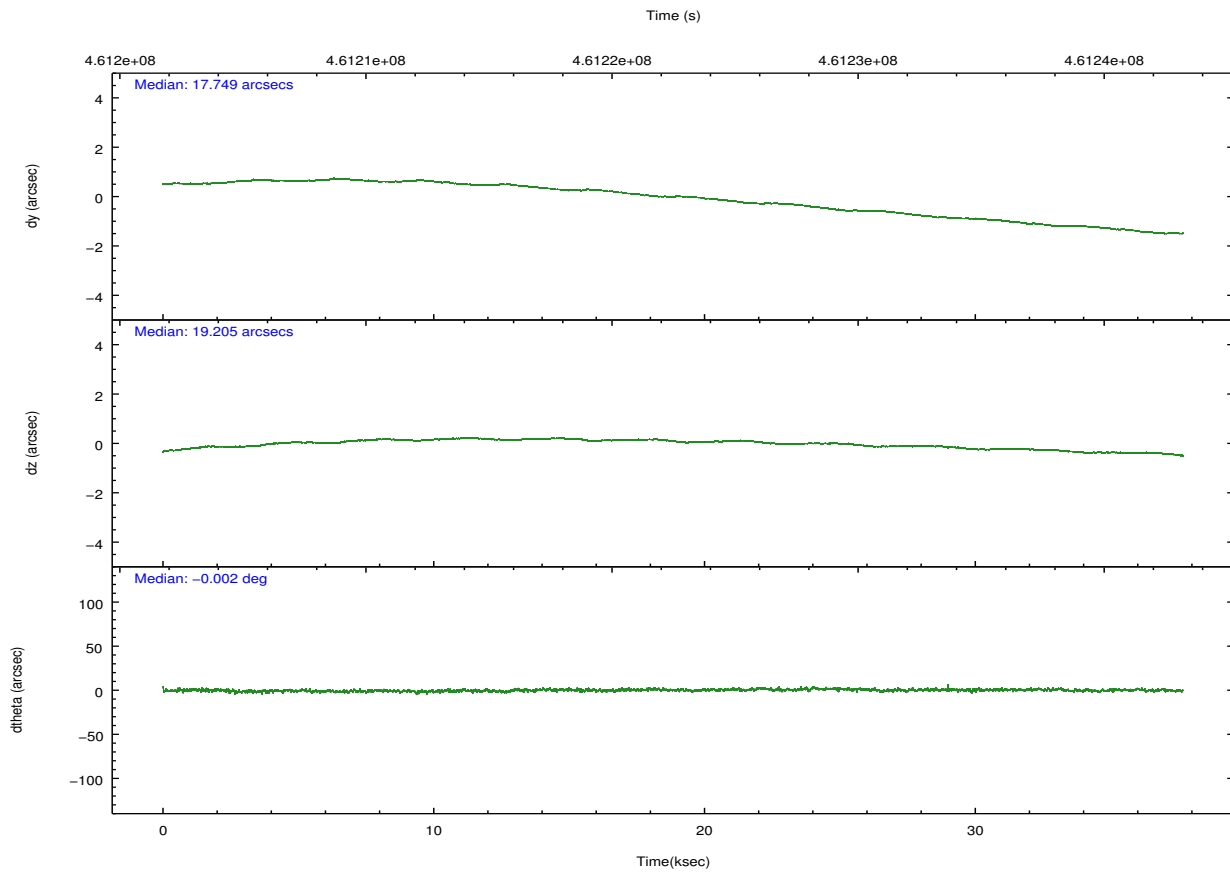
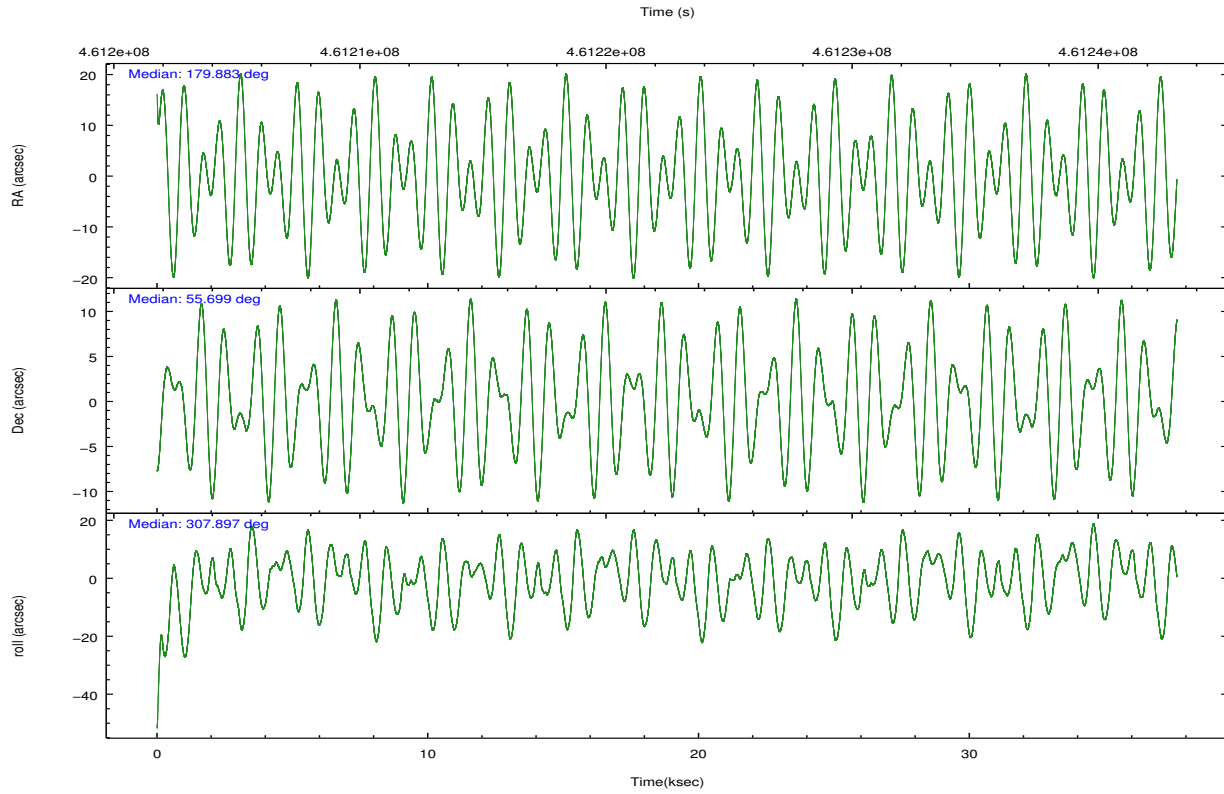
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	8133	8738	7412	9336	7790
	4%	4%	3%	4%	4%
grade 1 events	93	92	126	173	78
	0%	0%	0%	0%	0%
grade 2 events	5743	6160	5301	5055	5069
	3%	3%	2%	2%	2%
grade 3 events	2374	2417	2252	2432	2359
	1%	1%	1%	1%	1%
grade 4 events	2243	2416	2242	2333	2354
	1%	1%	1%	1%	1%
grade 5 events	8772	9584	8328	10247	9509
	4%	5%	4%	5%	4%
grade 6 events	4644	5320	4243	4450	5105
	2%	2%	2%	2%	2%
grade 7 events	144768	145546	157651	155935	158412
	81%	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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	179.837724	179.8830294817151	Subarray requested	NONE	NONE
[deg] Pointing Dec	55.709419	55.69919079407984	Alternating exposures requested	N	N
[deg] Pointing Roll	307.727696	307.8989419302592	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5899487761303			
[mm] SIM translation stage offset	0	-0.002504226799430853			
[s] Observation start time (MET)	461203817.184000	461202744.01213			
Observation start date	2012-08-13T00:09:10	2012-08-12T23:52:24			
[s] Observation end time (MET)	461241317.184000	461242328.48924			
Observation end date	2012-08-13T10:34:10	2012-08-13T10:52:08			
Read mode	TIMED	TIMED			

## 2.3 Aspect



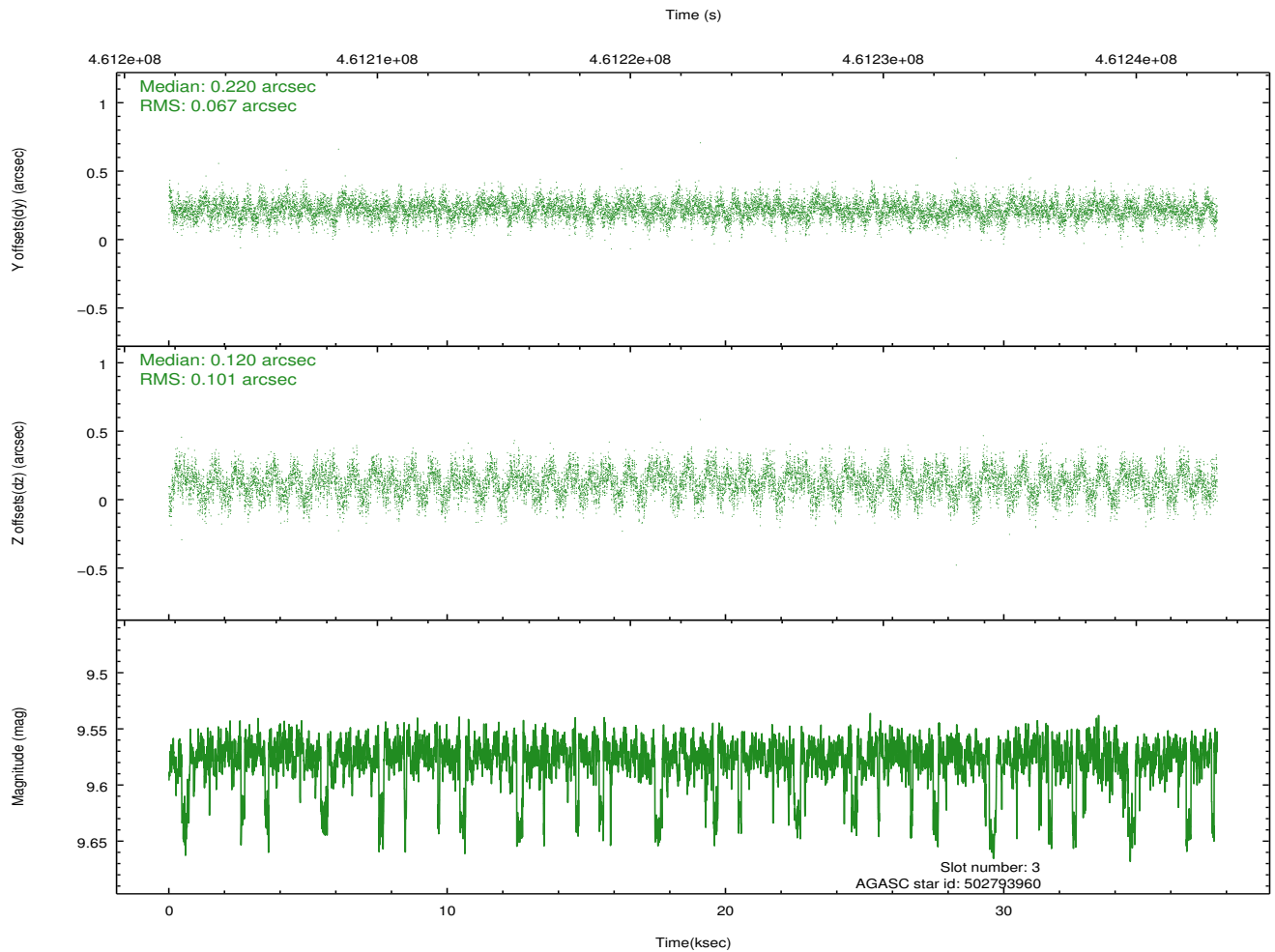
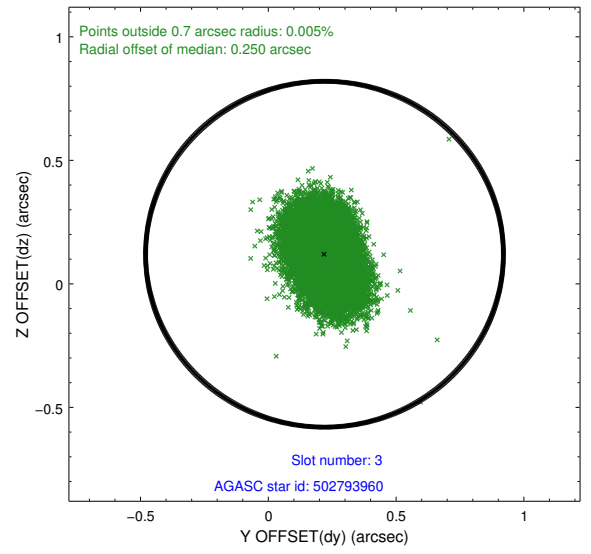
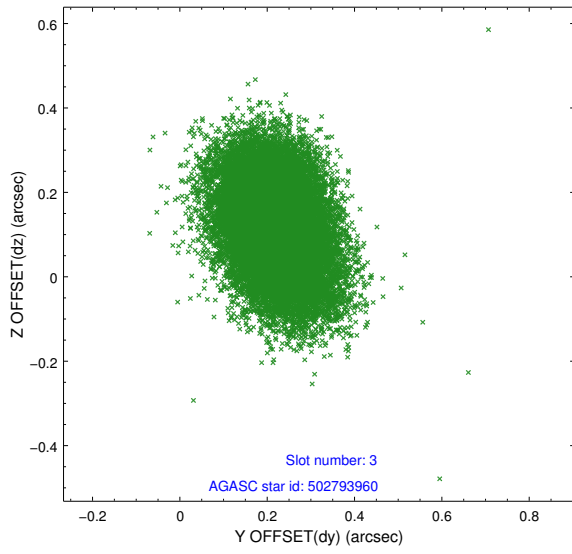


### Slot Statistics

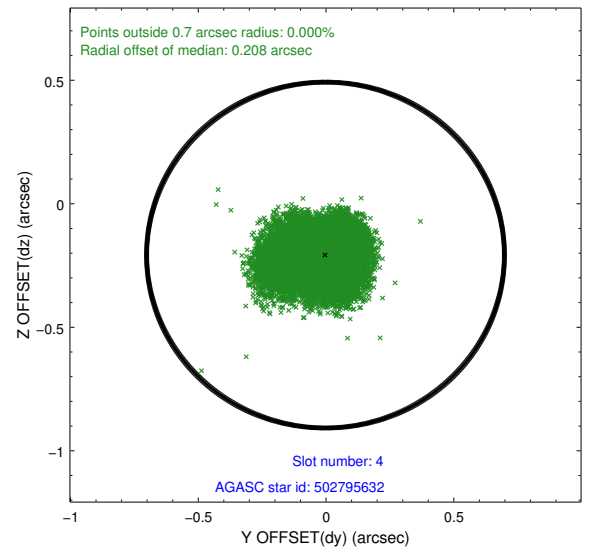
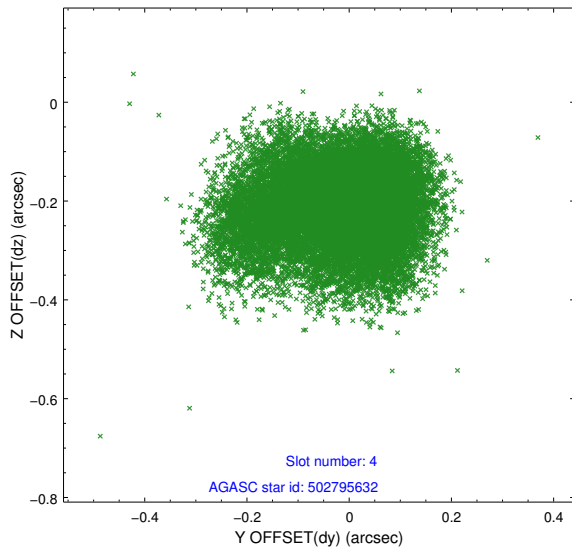
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.04	9186	-0.073	0.040	0.012	0.020	0.000000	0.000000	921.70	-842.79
1	FID	ACIS-I-2	6.96	9185	-0.153	-0.095	0.024	0.031	0.000000	0.000000	-772.45	-849.36
2	FID	ACIS-I-4	6.97	9184	0.133	0.120	0.021	0.042	0.000000	0.000000	2141.79	1057.07
3	GUIDE	502793960	9.58	18343	0.220	0.120	0.129	0.212	179.393376	55.531414	-48.89	-1106.13
4	GUIDE	502795632	9.04	18349	-0.002	-0.208	0.130	0.219	180.454171	55.827001	424.21	1248.31
5	GUIDE	502796064	9.71	18020	-0.032	0.143	0.129	0.208	178.783977	55.701683	-1298.25	-1697.60
6	GUIDE	502796152	9.86	18323	-0.120	-0.003	0.188	0.312	179.678914	56.362878	-2054.48	1189.21
7	GUIDE	502792376	9.87	18290	-0.065	-0.023	0.162	0.261	180.437493	55.132253	2394.79	-291.59

## 2.4 Star Slots

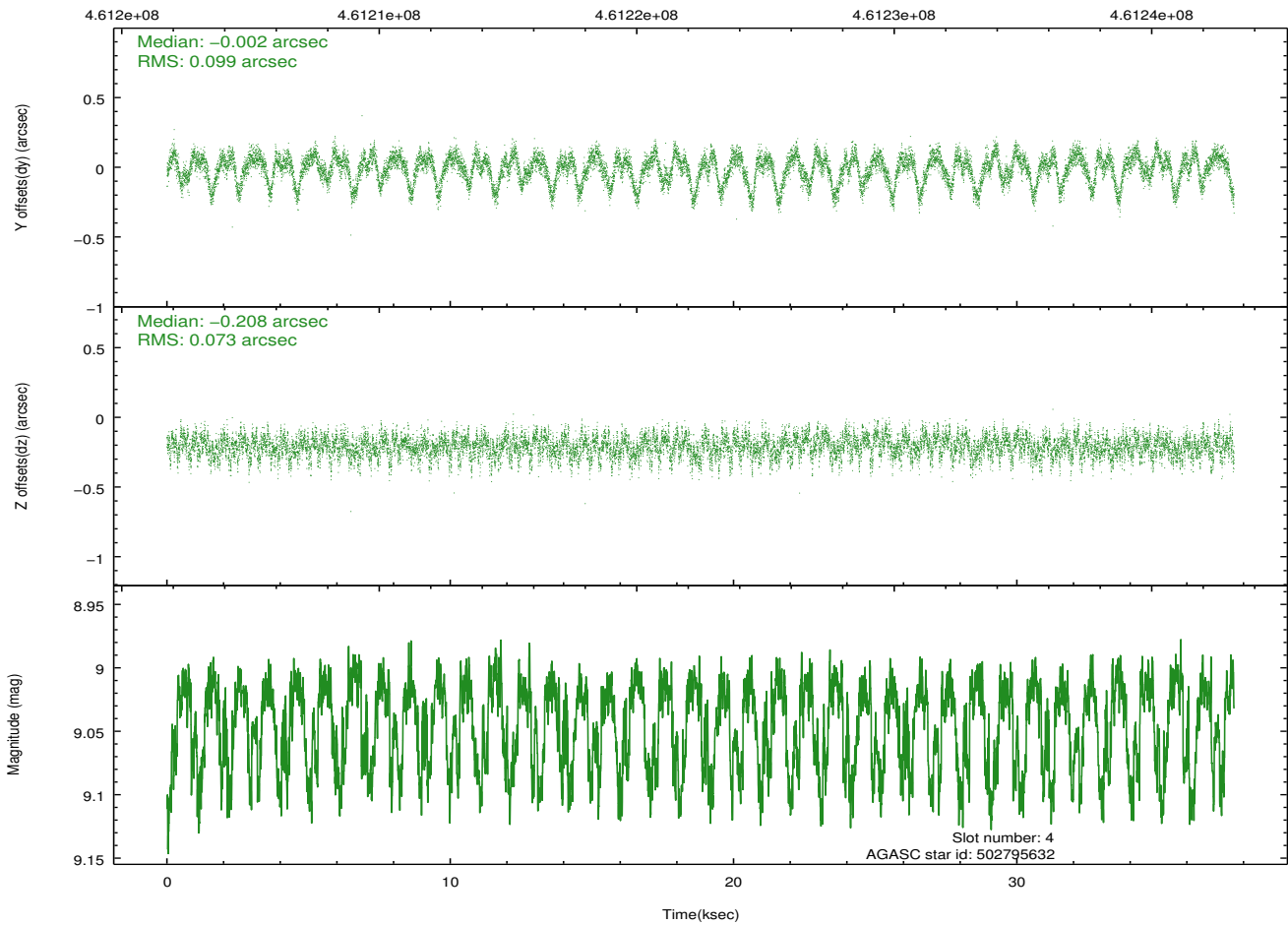
### 2.4.1 Slot 3



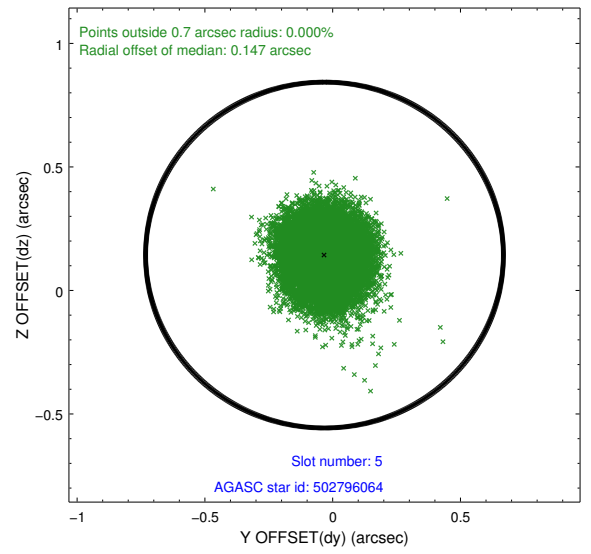
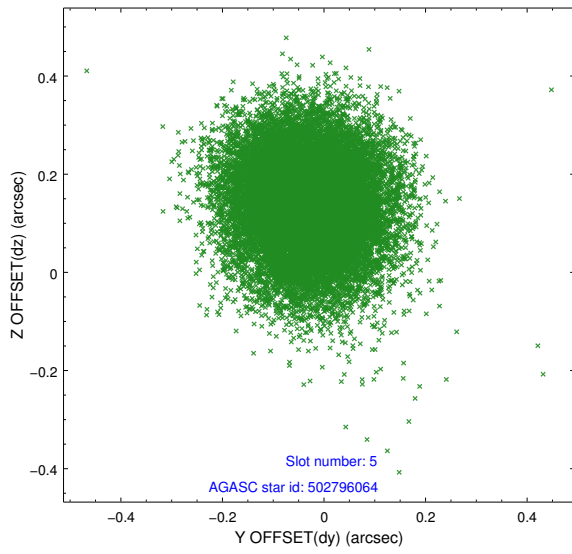
## 2.4.2 Slot 4



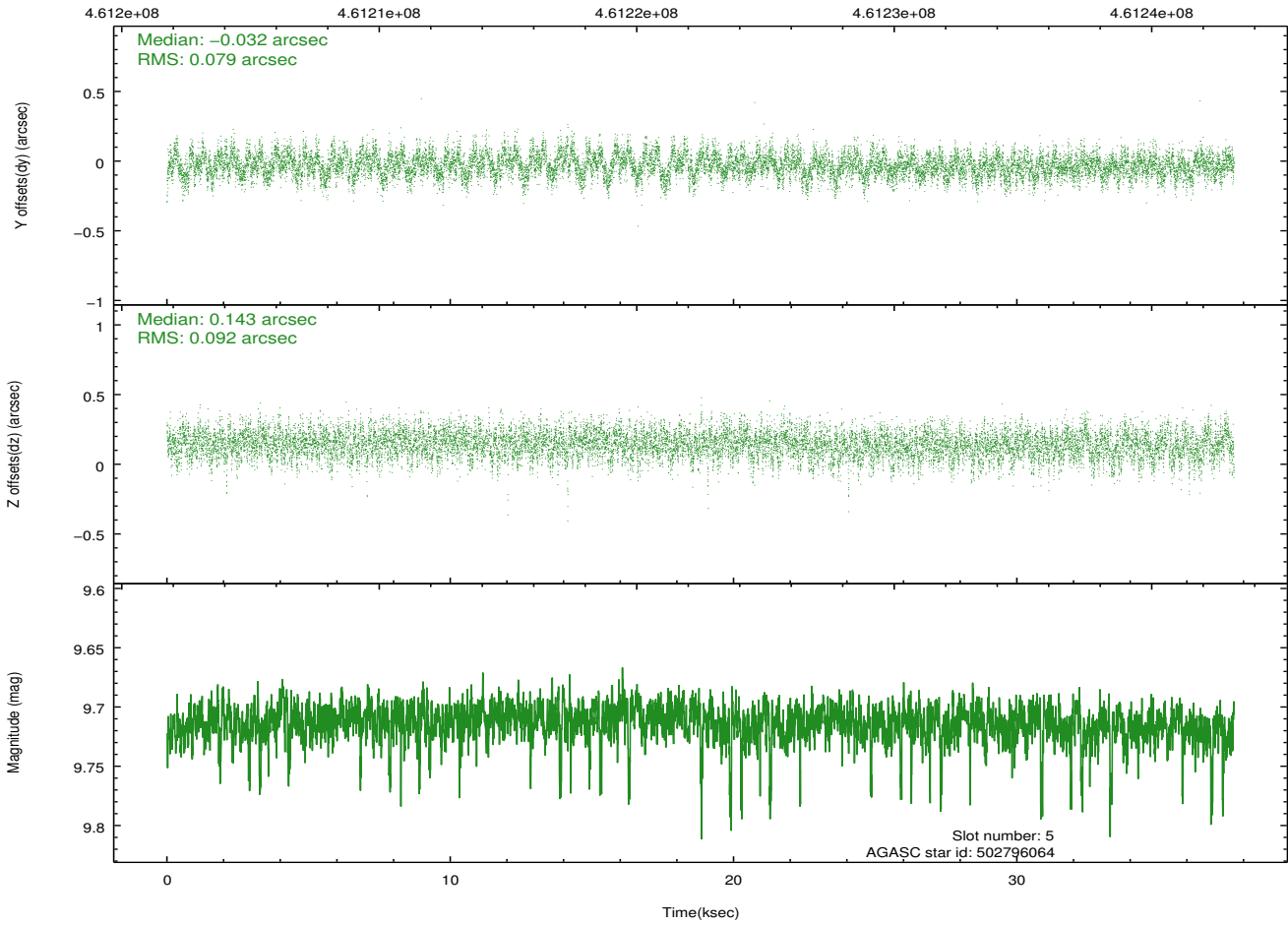
Time (s)



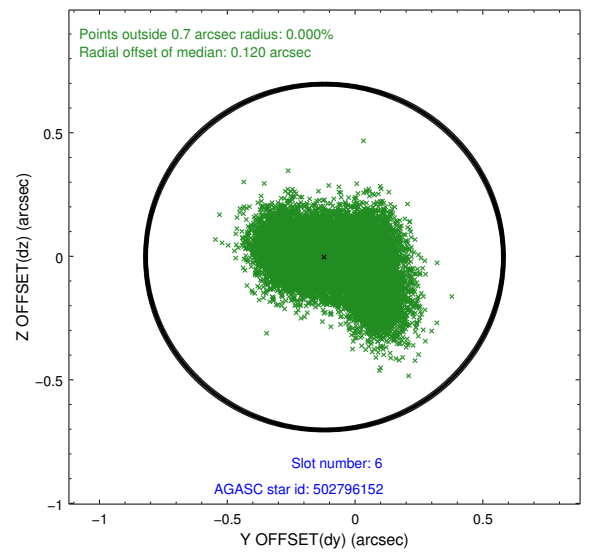
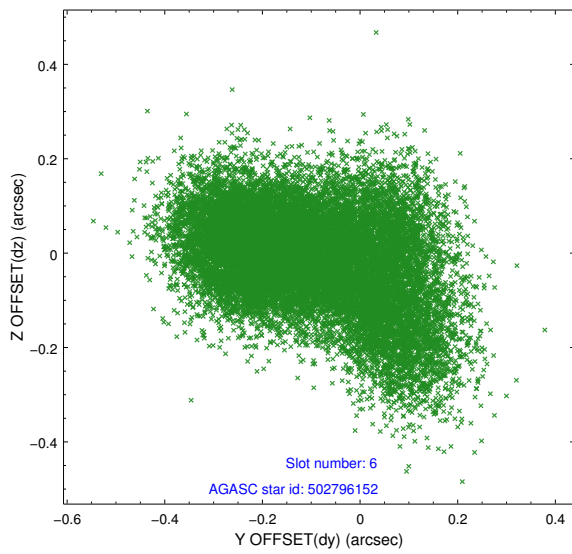
### 2.4.3 Slot 5



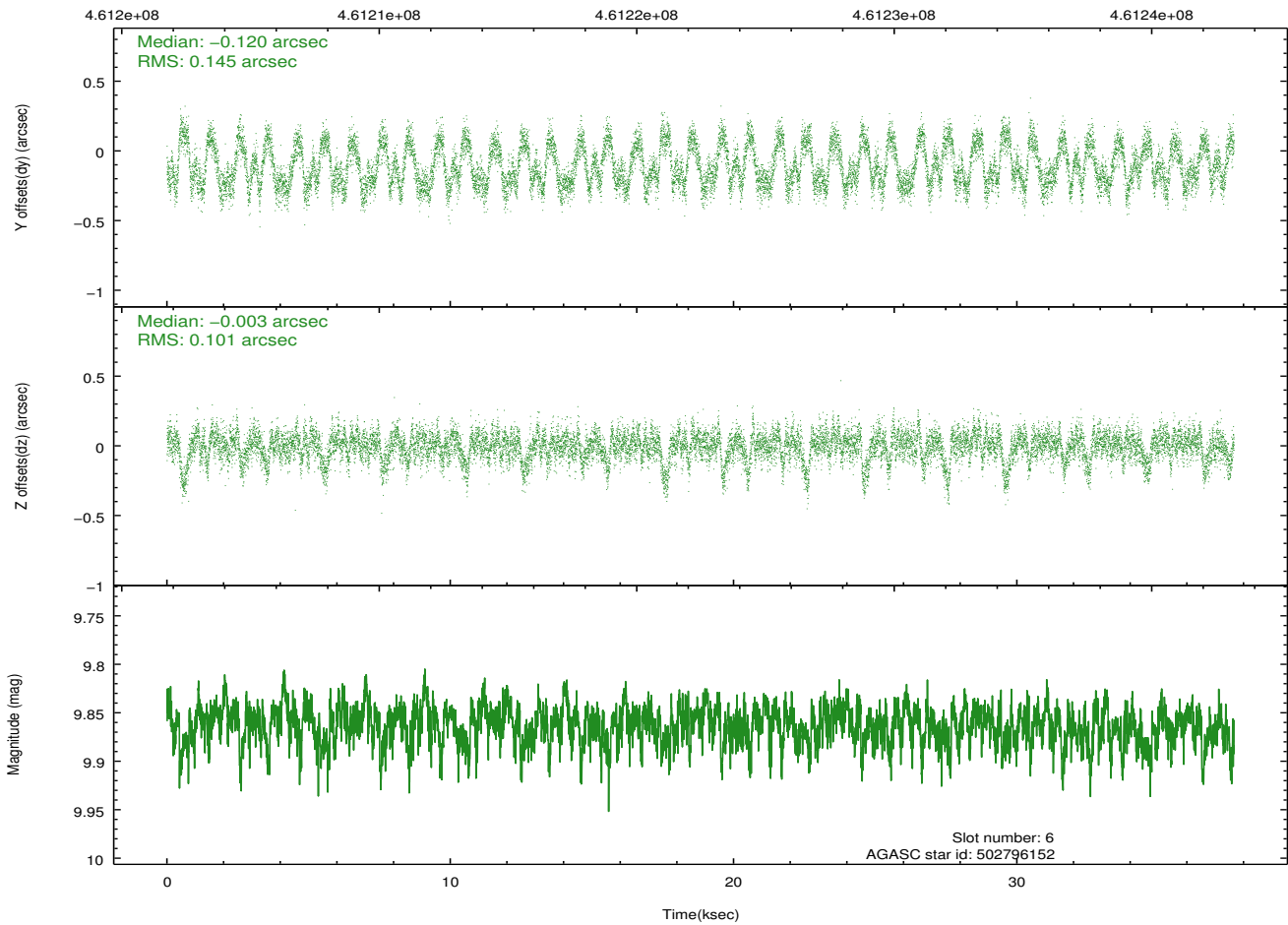
Time (s)



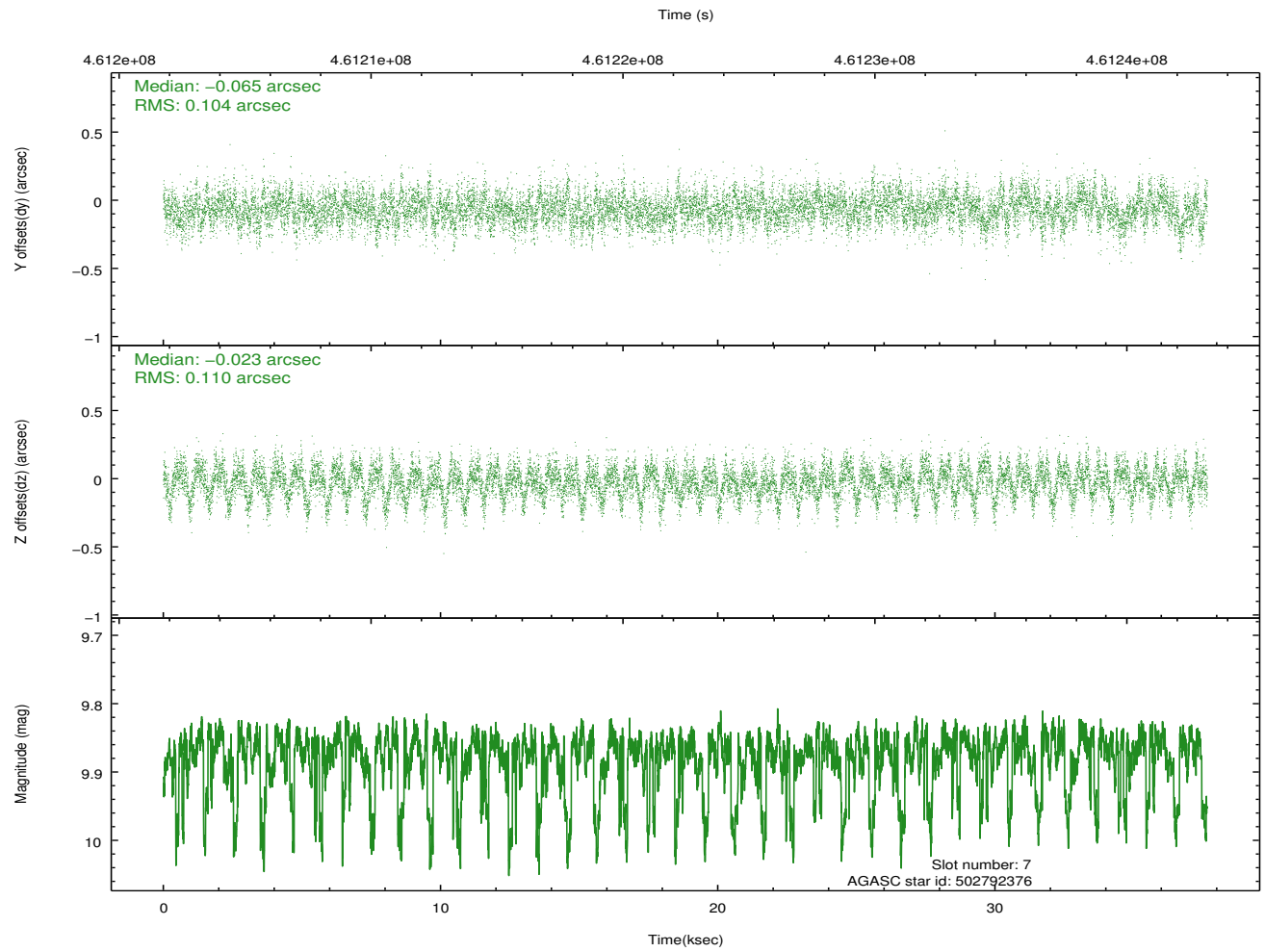
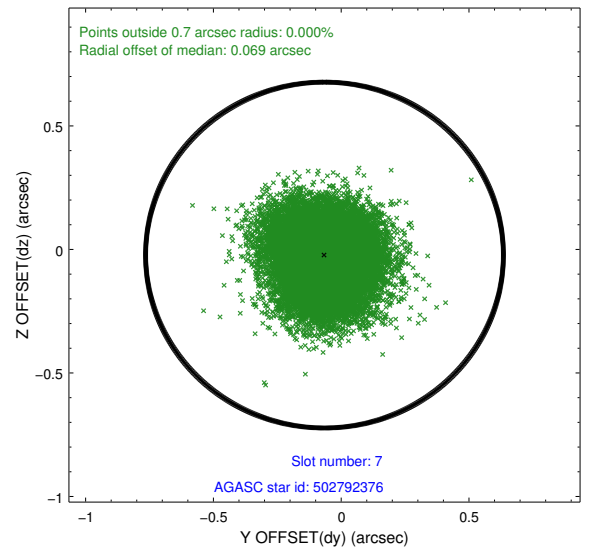
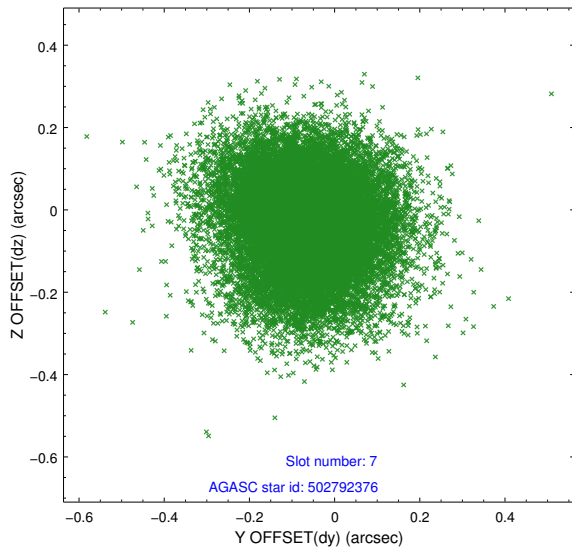
## 2.4.4 Slot 6



Time (s)

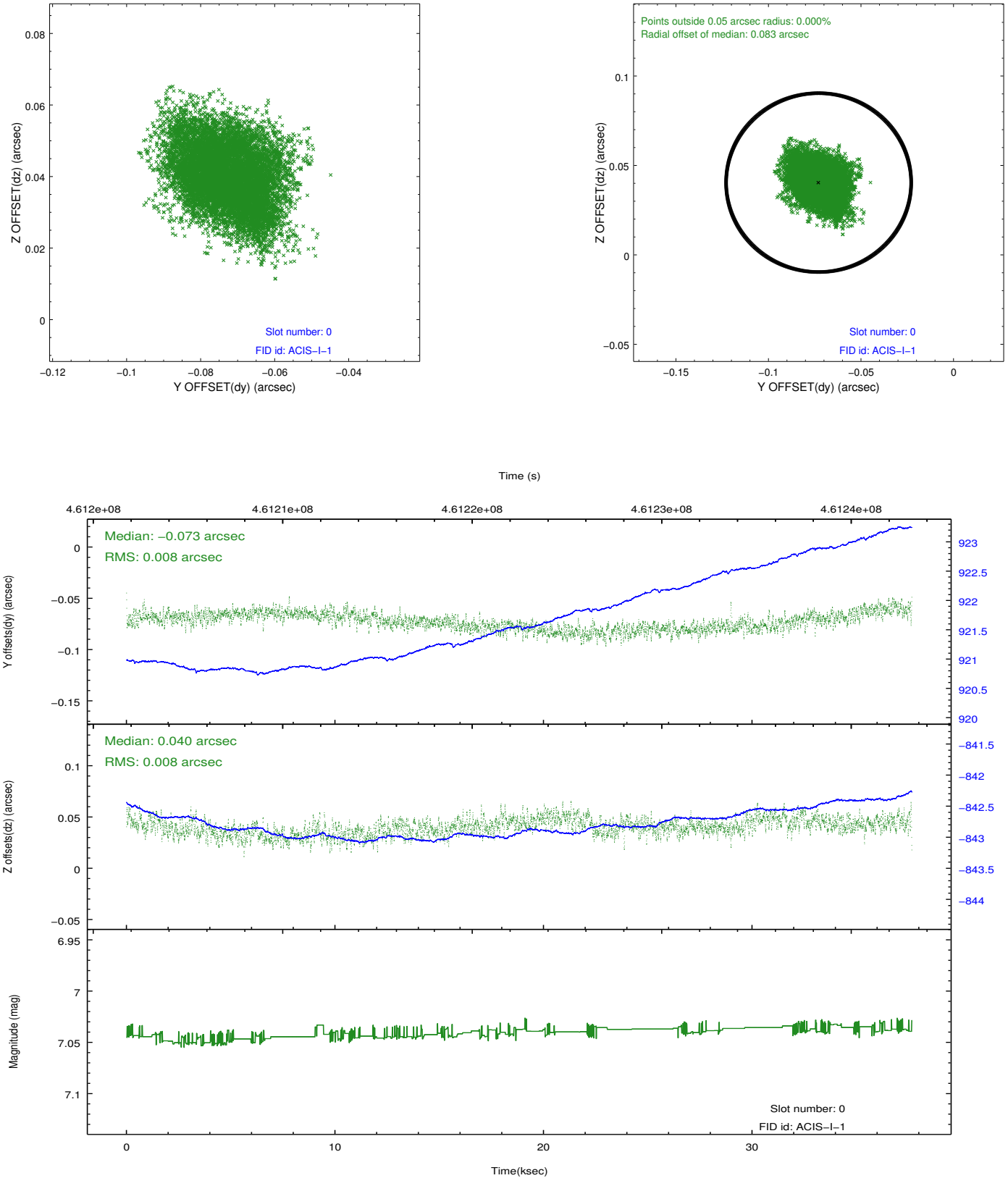


### 2.4.5 Slot 7

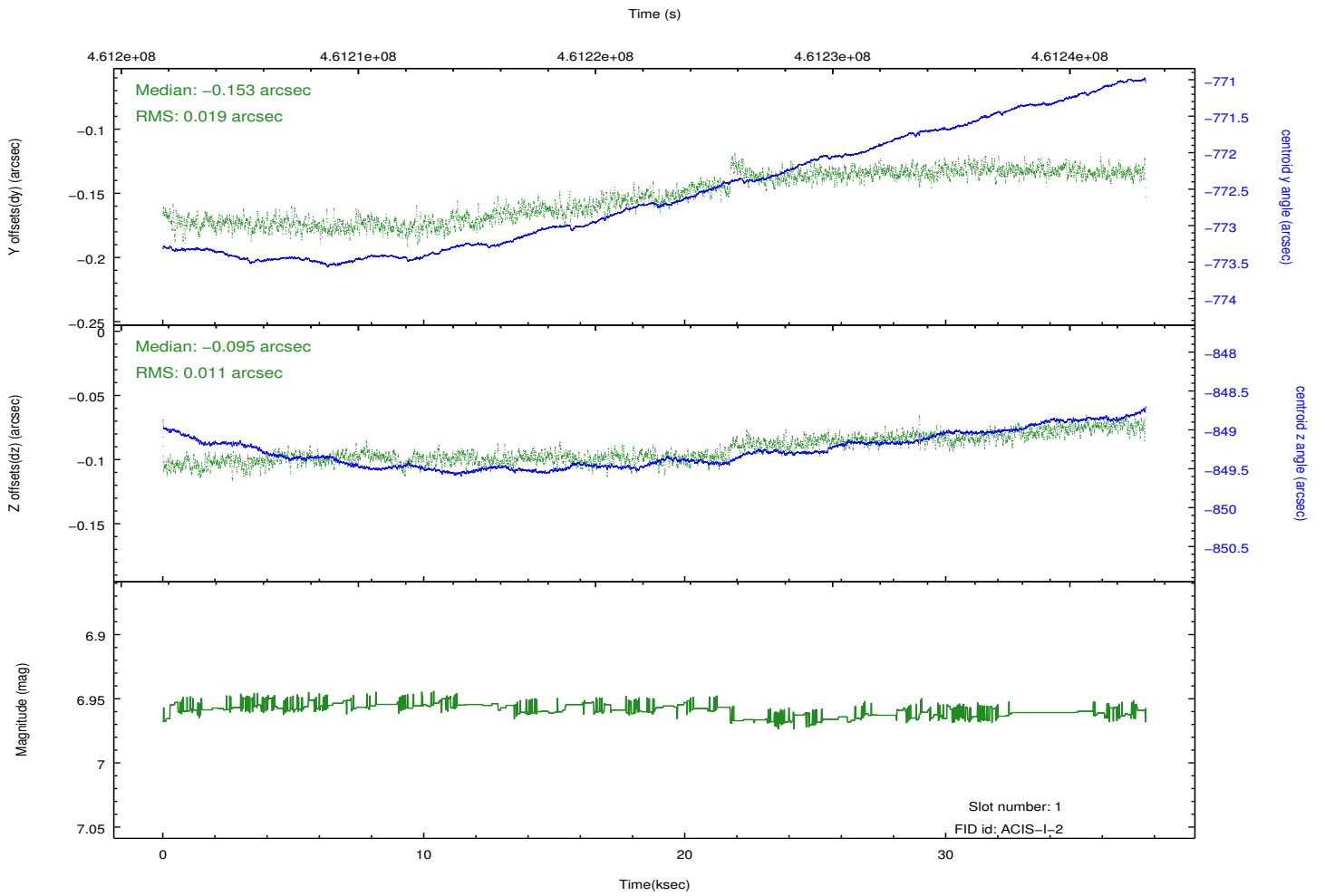
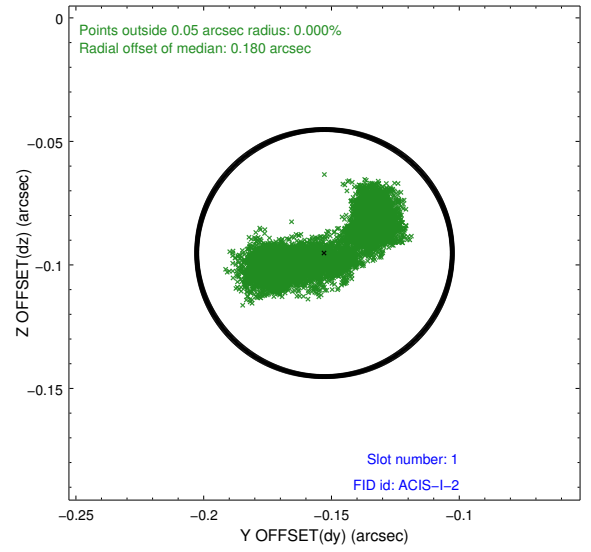
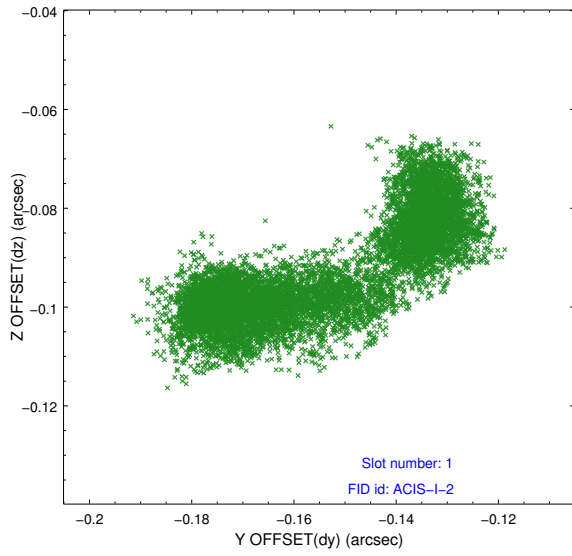


## 2.5 FID Slots

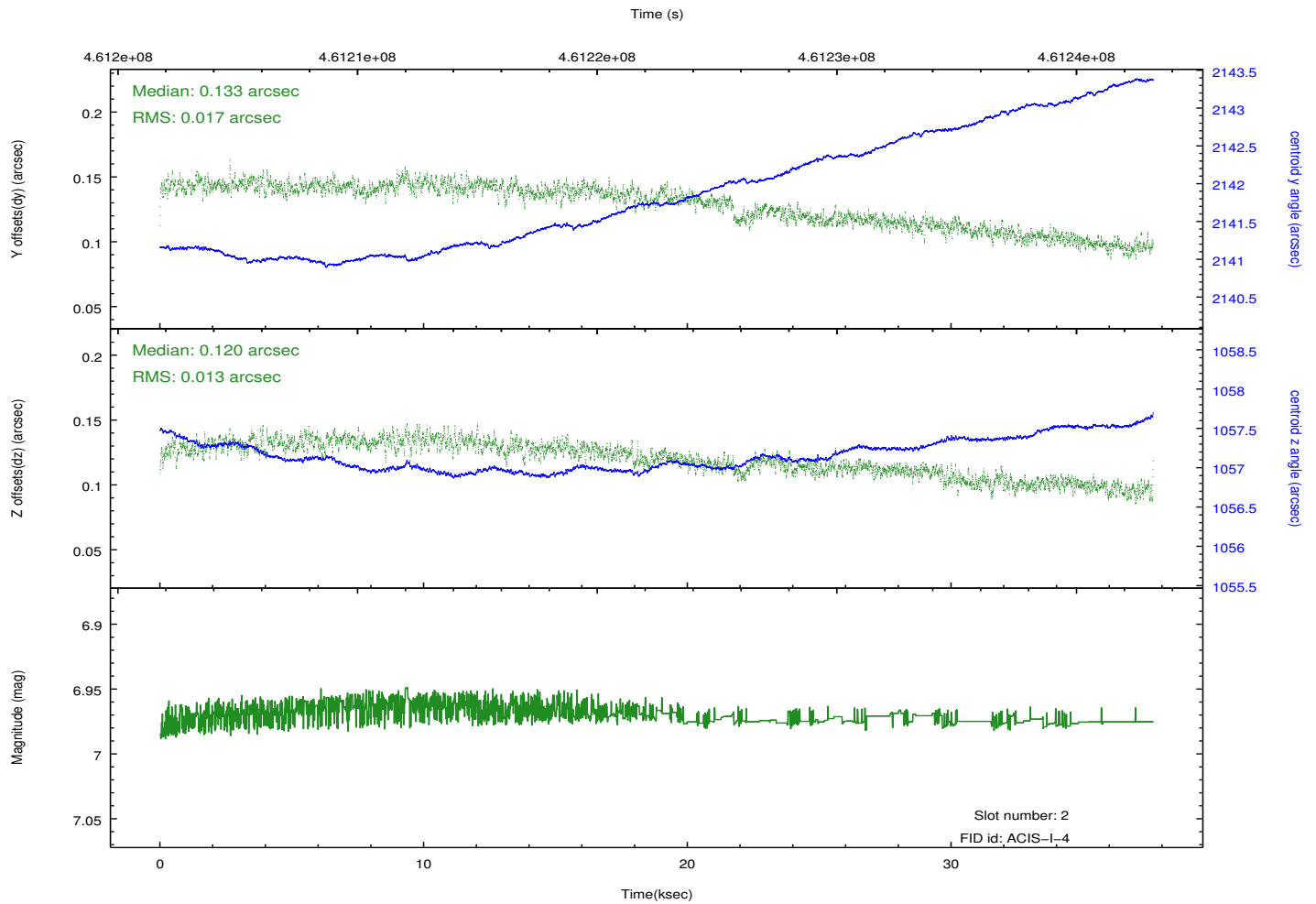
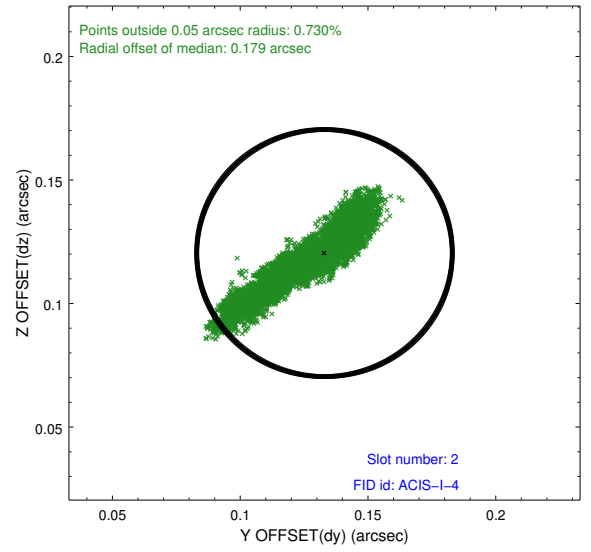
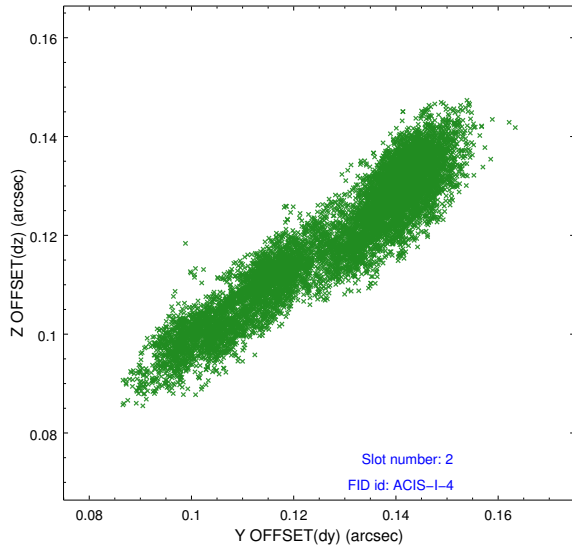
### 2.5.1 Slot 0



## 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)	2012.08.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	37.583911546946

### A.2 Comments