

# V&V Reference Report

## L2 ASCDS Version : 10.3.1

Observation 16153 - L2 Version 1  
Chandra X-Ray Center

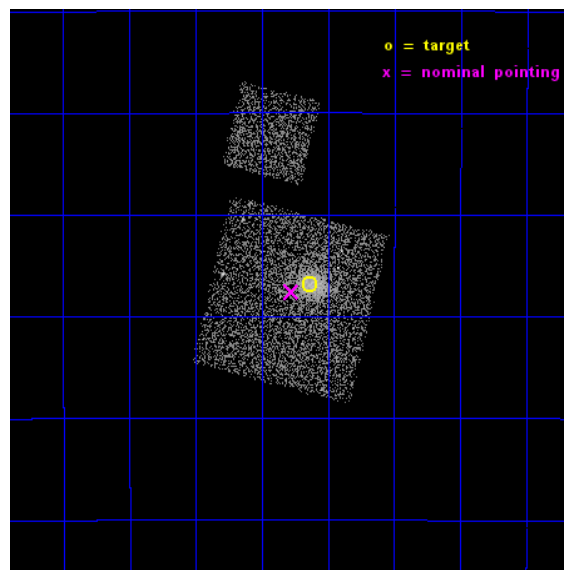
L2 Processing Date : Dec 6 2014

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# 1 Front

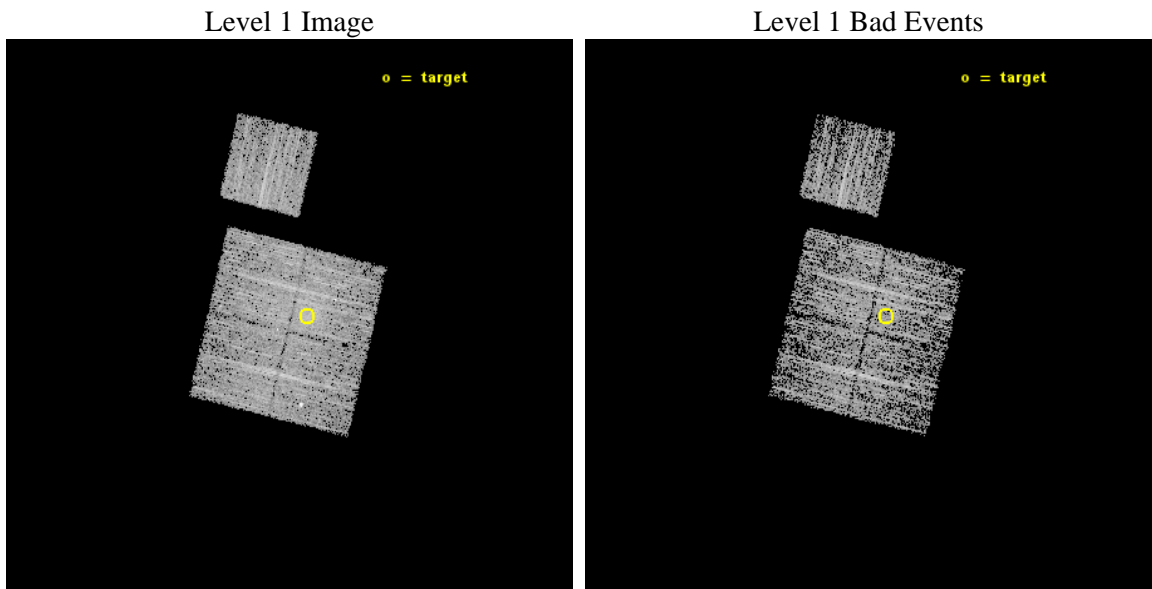
seq_num	801406	Sequence number
obs_id	16153	Observation id
title	Setting the Scale: Supporting precision cluster cosmology with Chandra observations of low-z lensing clusters	Proposal title
observer	Dr Adam Mantz	Principal investigator
object	RXJ0530.6-2226	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	82.66	Observer's specified target RA [deg]
dec_targ	-22.448306	Observer's specified target Dec [deg]
ra_nom	82.693929055927	Nominal RA [deg]
dec_nom	-22.459711717181	Nominal Dec [deg]
roll_nom	13.682514871262	Nominal Roll [deg]
revision	1	Processing version of data
ontime	5126.3209263682	Sum of GTIs [s]
livetime	5059.3417695227	Livetime [s]
ontime0	5126.1978063583	Sum of GTIs [s]
ontime1	5126.2388463616	Sum of GTIs [s]
ontime2	5126.2798863649	Sum of GTIs [s]
ontime3	5126.3209263682	Sum of GTIs [s]
ontime6	5126.156766355	Sum of GTIs [s]
l2events	12281	Number of level 2 events



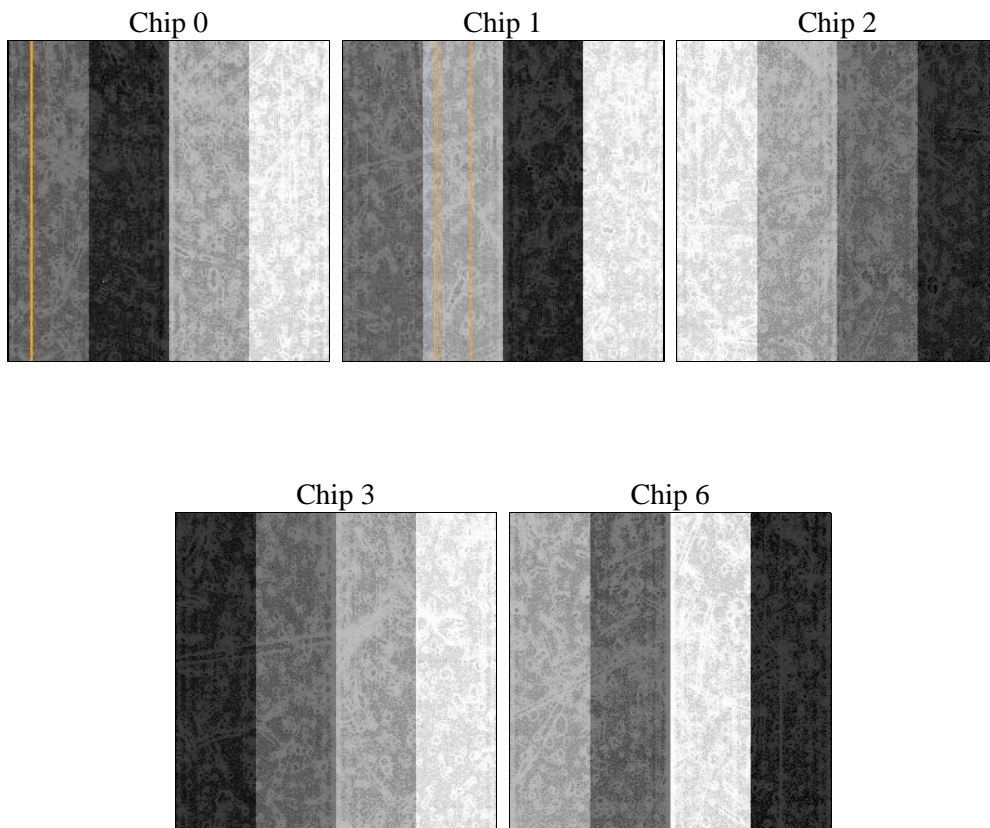
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	5126.3209263682	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime0	5126.1978063583	Sum of GTIs [s]
date	2014-12-06T20:13:09	Date and time of file creation	ontime1	5126.2388463616	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	5126.2798863649	Sum of GTIs [s]
			ontime3	5126.3209263682	Sum of GTIs [s]
			ontime6	5126.156766355	Sum of GTIs [s]
			l1events	104409	Number of level 1 events

### 2.1.4 Events

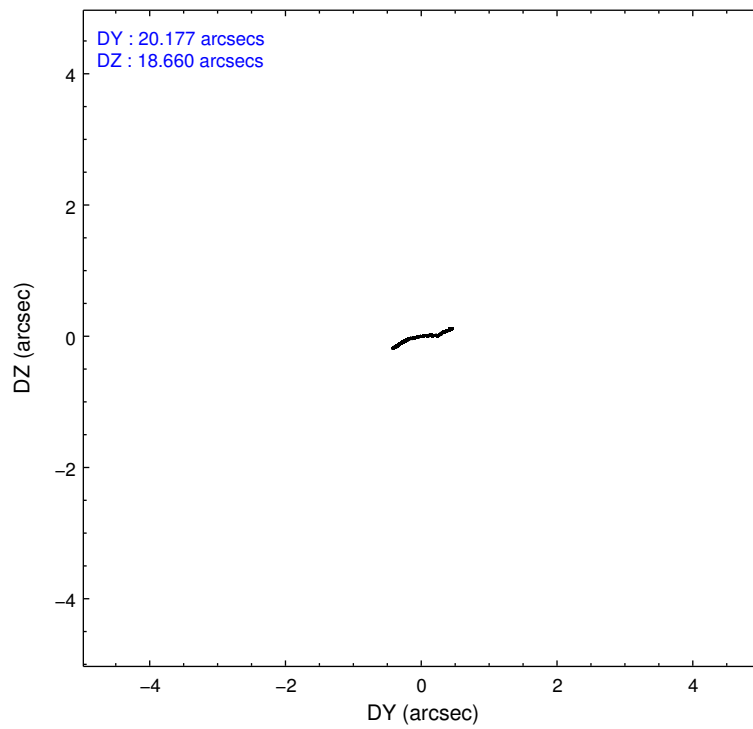
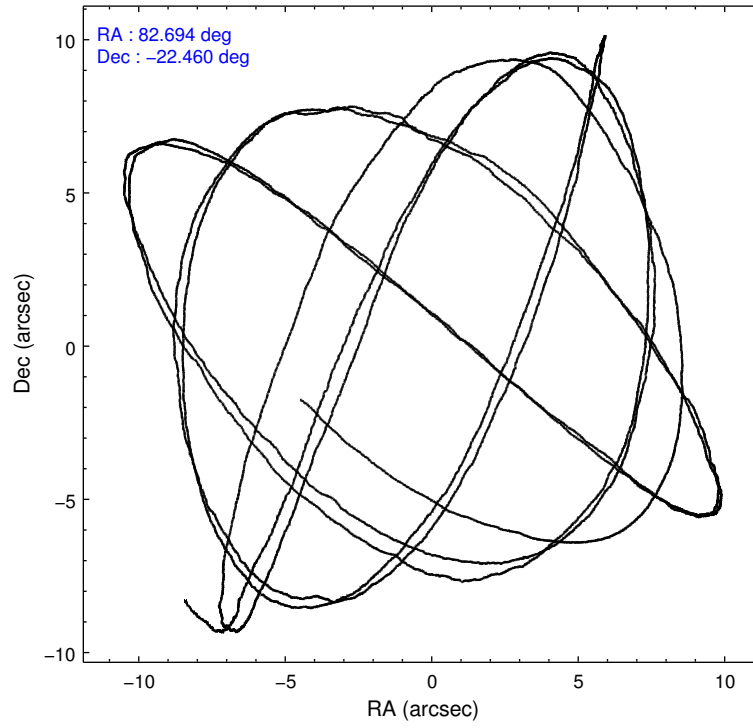
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	19453	19511	22525	22965	19955
rejected events	16967	16297	19980	18659	17642
rejected %	87%	83%	88%	81%	88%

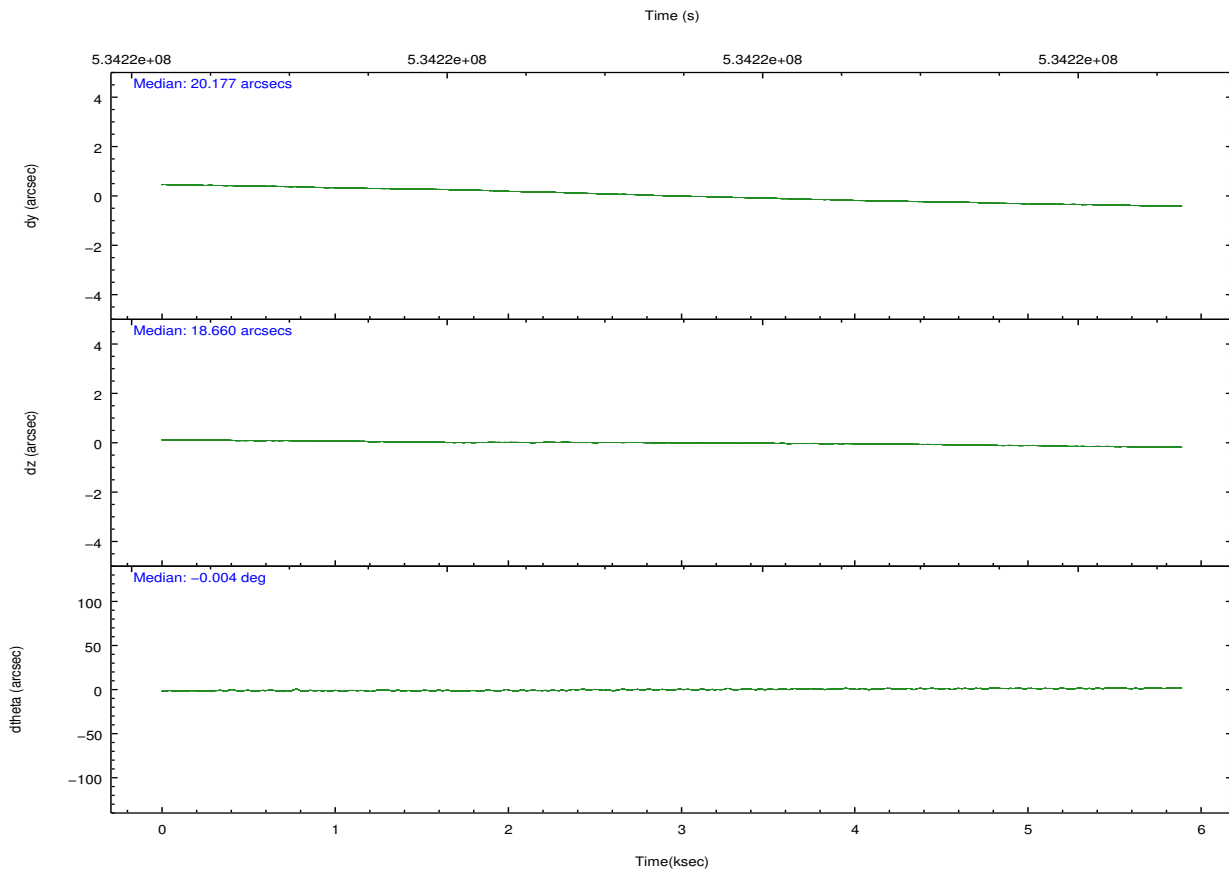
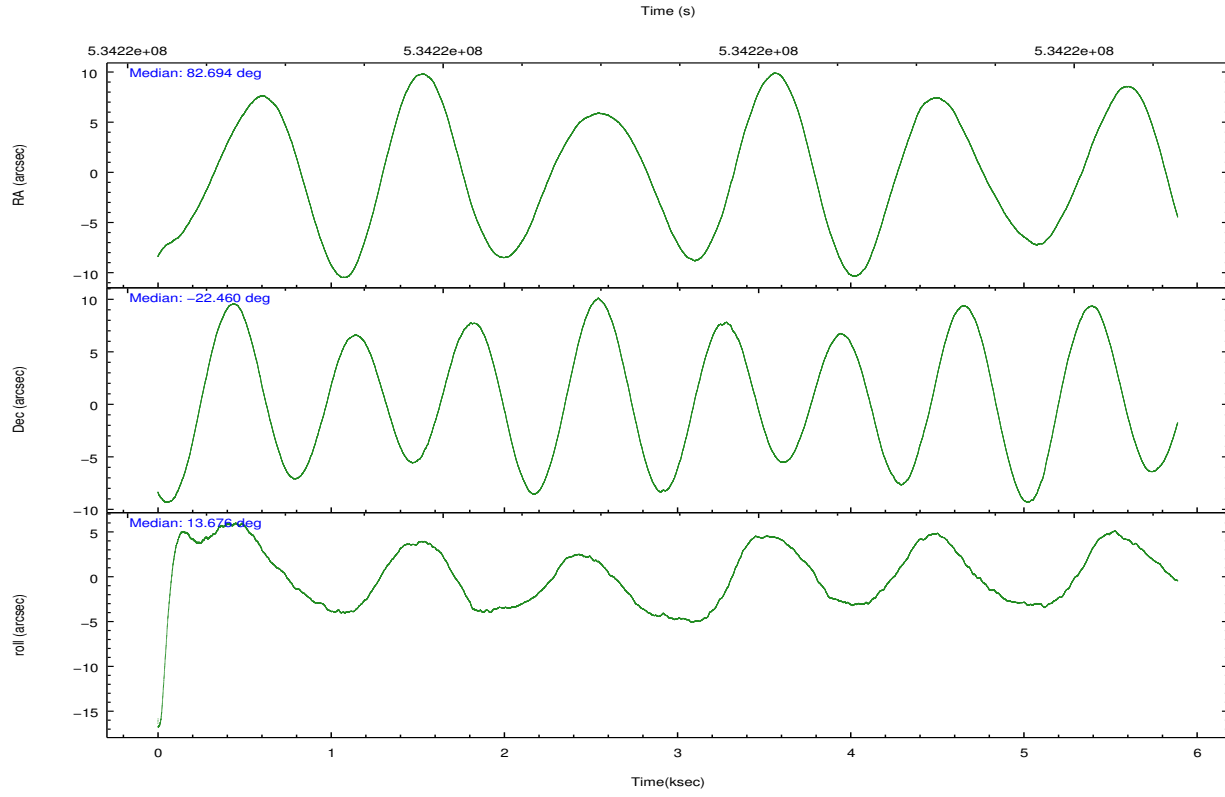
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	1013	1597	1109	2500	861
	5%	8%	4%	10%	4%
grade 1 events	13	14	14	25	12
	0%	0%	0%	0%	0%
grade 2 events	624	617	567	738	542
	3%	3%	2%	3%	2%
grade 3 events	228	267	232	303	231
	1%	1%	1%	1%	1%
grade 4 events	230	236	252	311	212
	1%	1%	1%	1%	1%
grade 5 events	717	704	578	764	698
	3%	3%	2%	3%	3%
grade 6 events	393	500	388	459	469
	2%	2%	1%	1%	2%
grade 7 events	16235	15576	19385	17865	16930
	83%	79%	86%	77%	84%

## 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	82.672360	82.69392905592699	CCD I2 on	Y	Y
[deg] Pointing Dec	-22.478822	-22.45971171718087	CCD I3 on	Y	Y
[deg] Pointing Roll	13.465579	13.68251487126205	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)	534217367.184000	534215951.85198	CCD S5 on	N	N
Observation start date	2014-12-06T01:41:40	2014-12-06T01:19:11	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	534222367.184000	534223161.70238	On-chip summing requested	N	N
Observation end date	2014-12-06T03:05:00	2014-12-06T03:19:21	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



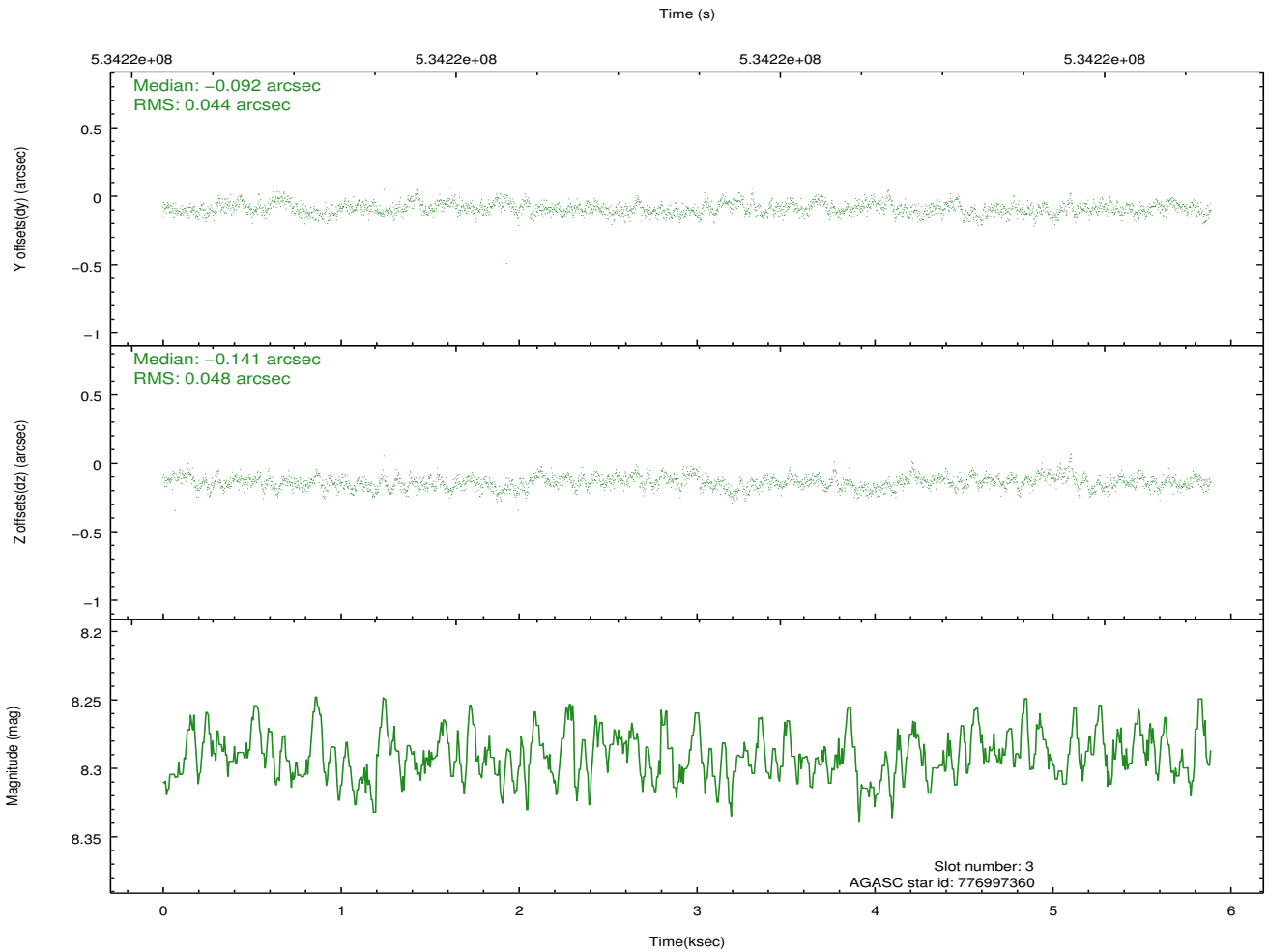
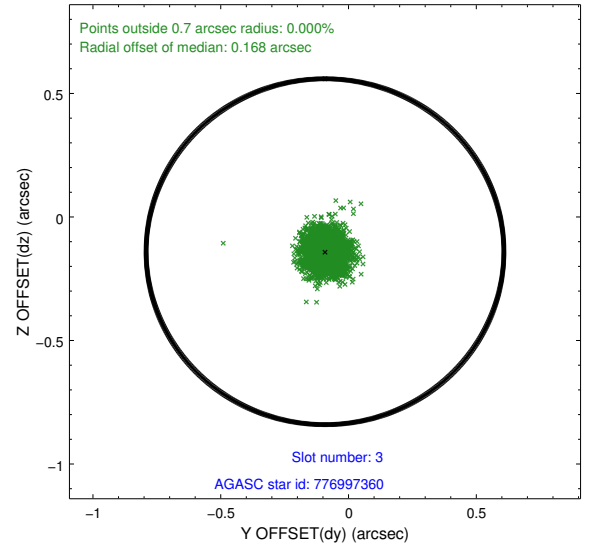
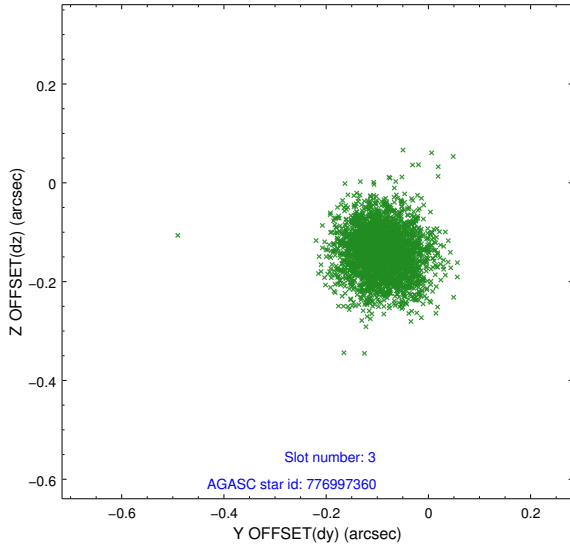


### Slot Statistics

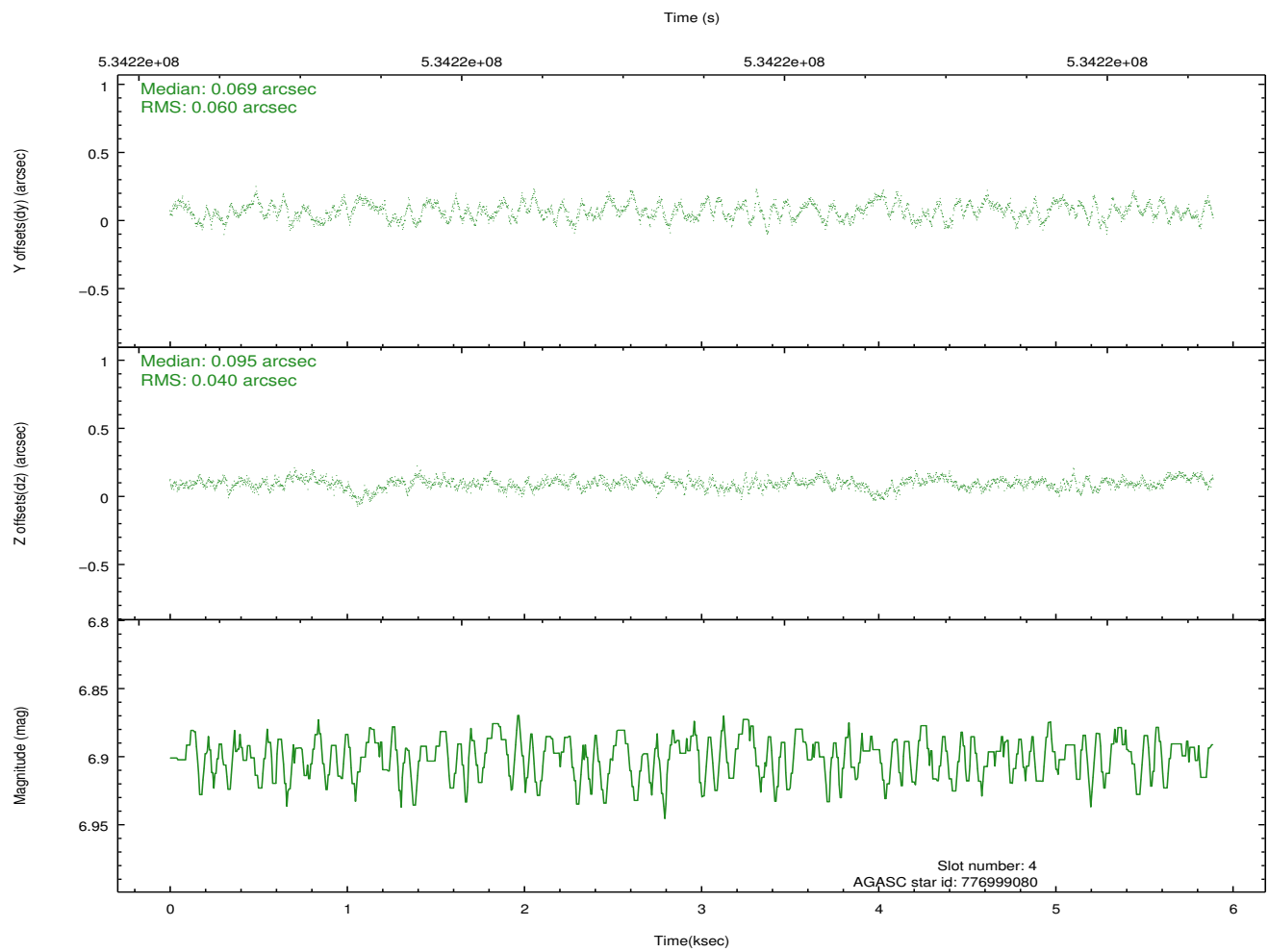
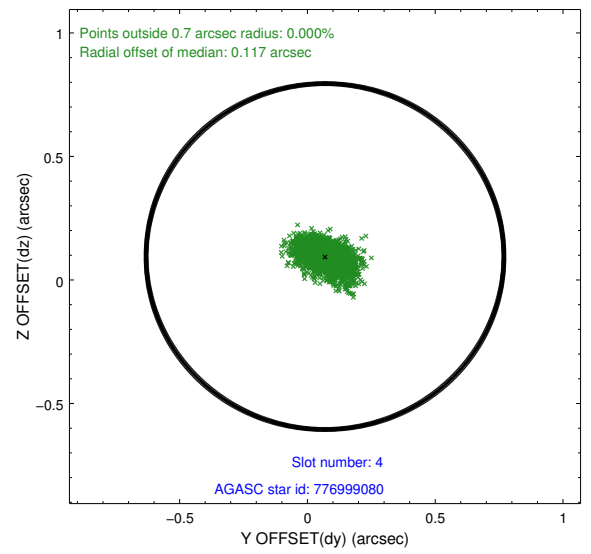
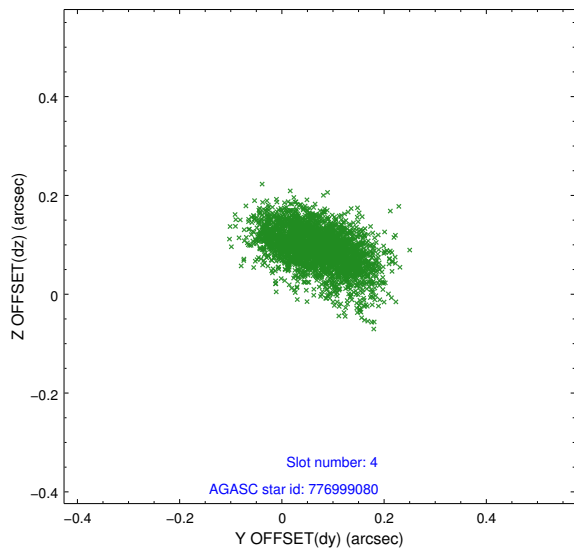
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.20	1437	0.029	0.049	0.007	0.012	0.000000	0.000000	919.18	-842.26
1	FID		ACIS-I-5	7.19	1437	-0.263	0.031	0.006	0.011	0.000000	0.000000	-1828.73	1054.62
2	FID		ACIS-I-6	7.20	1437	0.143	-0.010	0.007	0.011	0.000000	0.000000	383.65	1700.29
3	GUIDE	used	776997360	8.29	2874	-0.092	-0.141	0.069	0.112	83.019032	-22.226967	1334.20	611.07
4	GUIDE	used	776999080	6.90	2874	0.069	0.095	0.076	0.126	82.087611	-22.433925	-1856.27	609.47
5	GUIDE	used	848833240	8.73	2874	0.061	0.125	0.105	0.192	83.498697	-22.926190	2287.78	-2211.00
6	GUIDE	used	777006968	8.60	2870	-0.049	-0.195	0.083	0.134	83.229061	-21.752088	2419.62	2107.07
7	GUIDE	used	848834560	9.36	2873	0.017	0.117	0.125	0.207	83.474326	-22.735088	2374.63	-1522.94

## 2.4 Star Slots

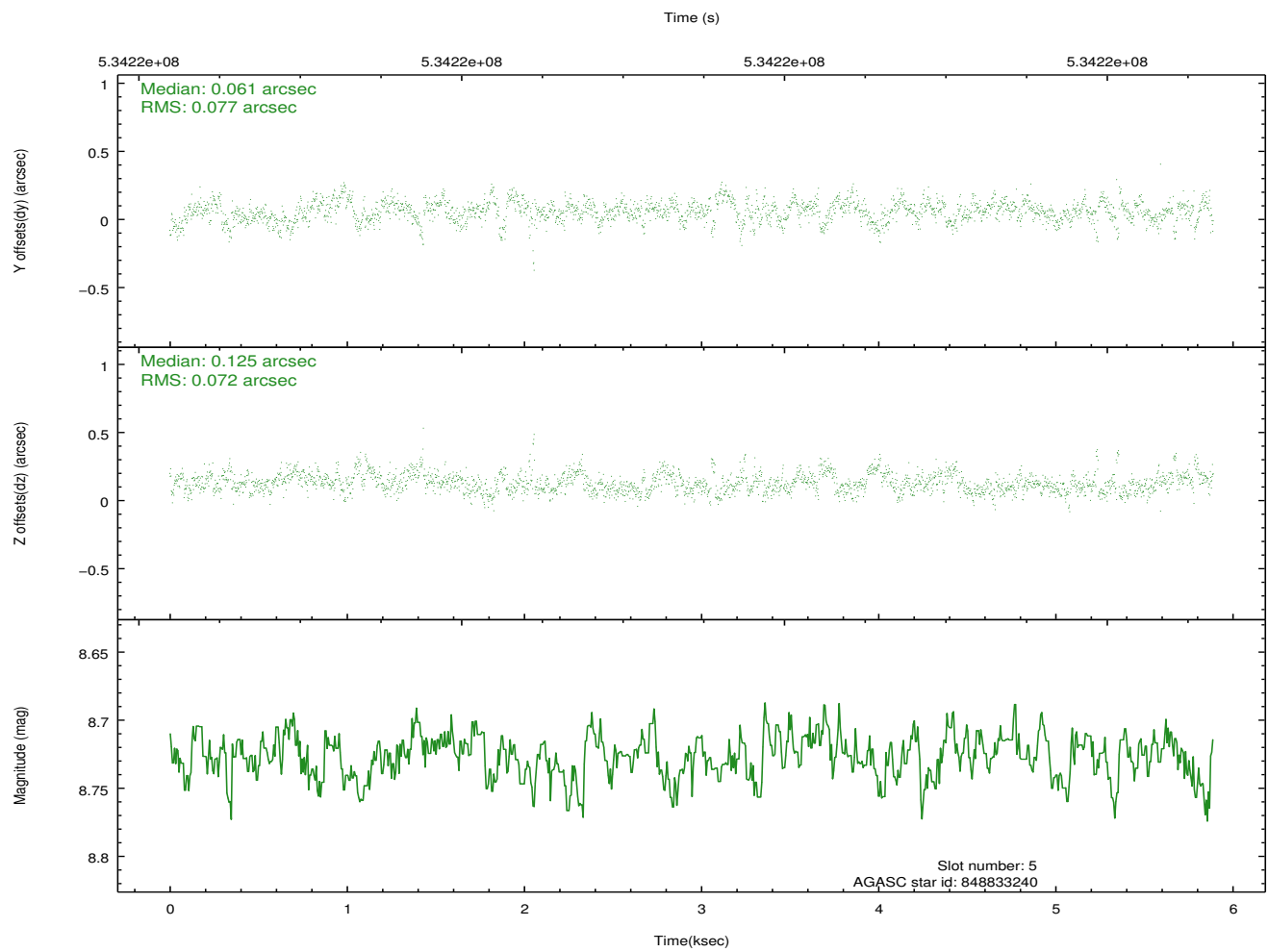
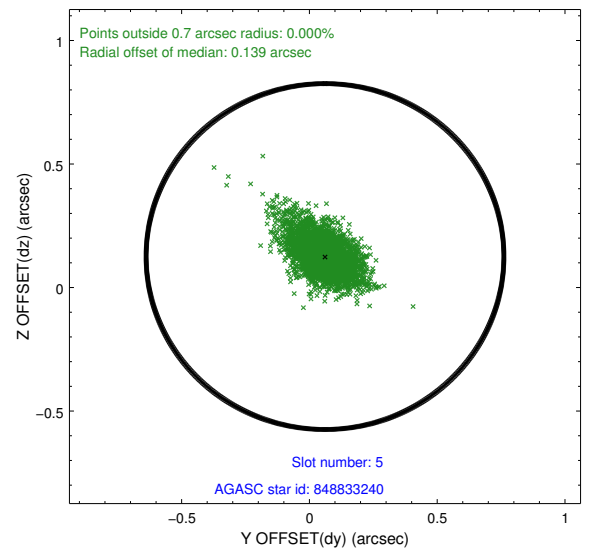
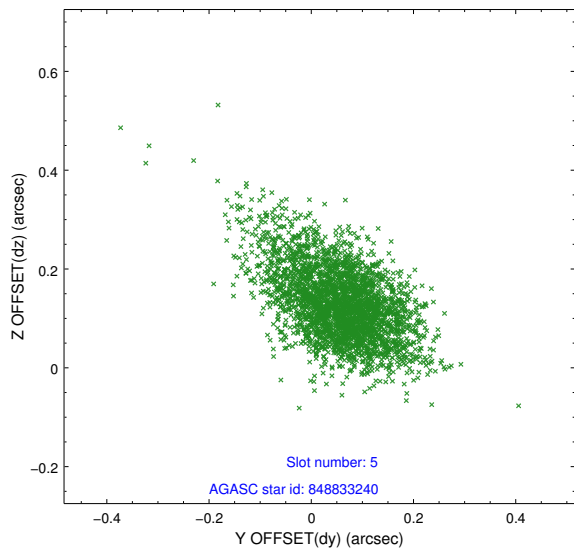
### 2.4.1 Slot 3



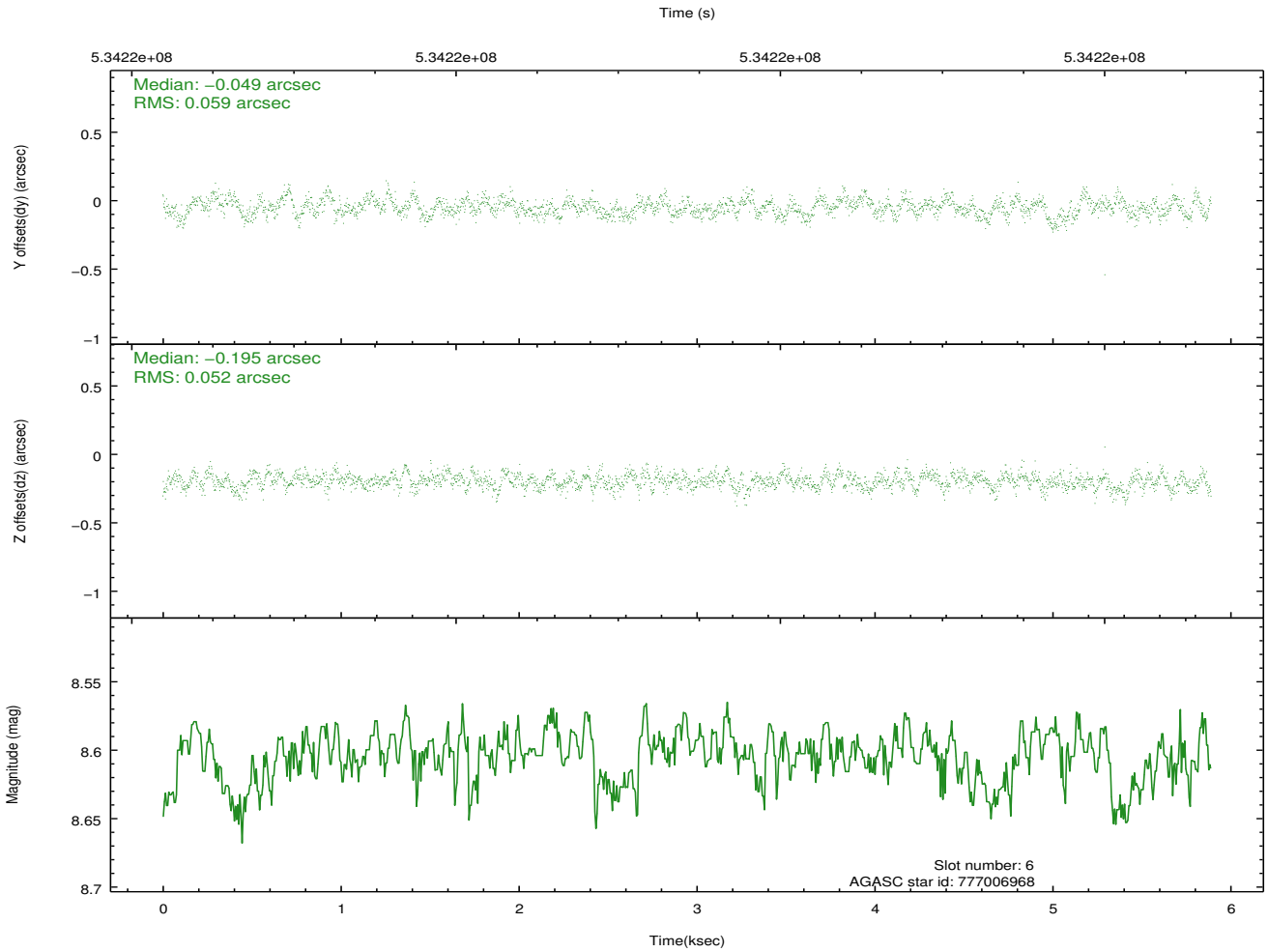
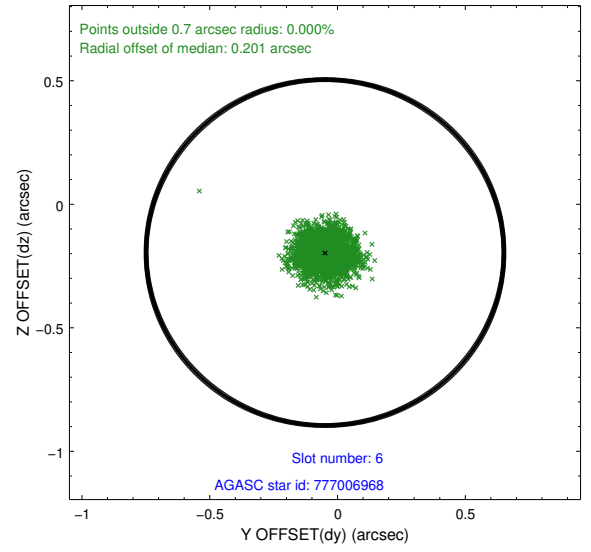
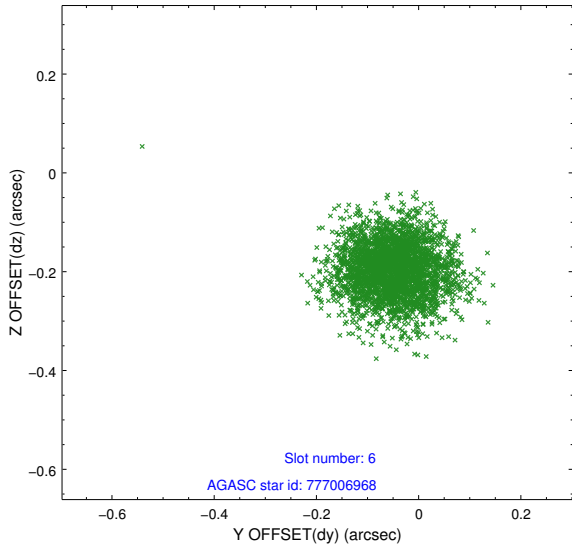
## 2.4.2 Slot 4



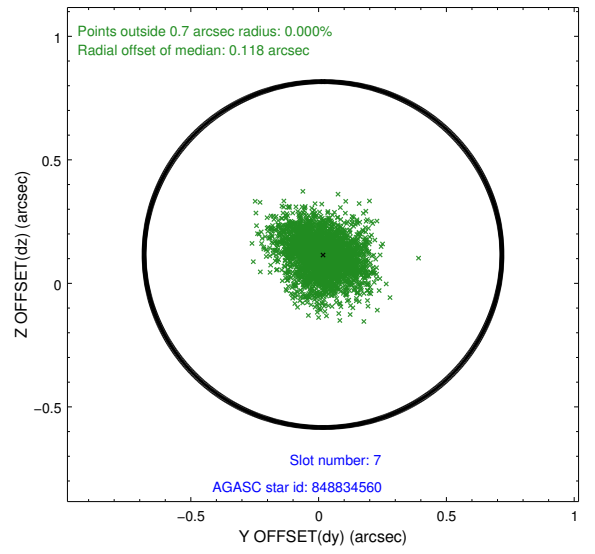
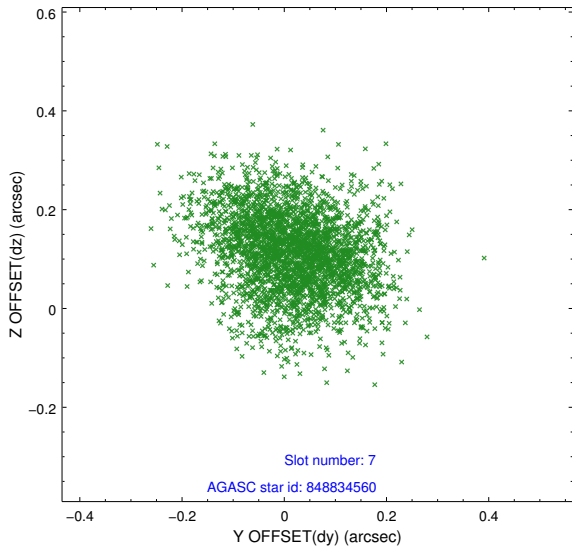
### 2.4.3 Slot 5



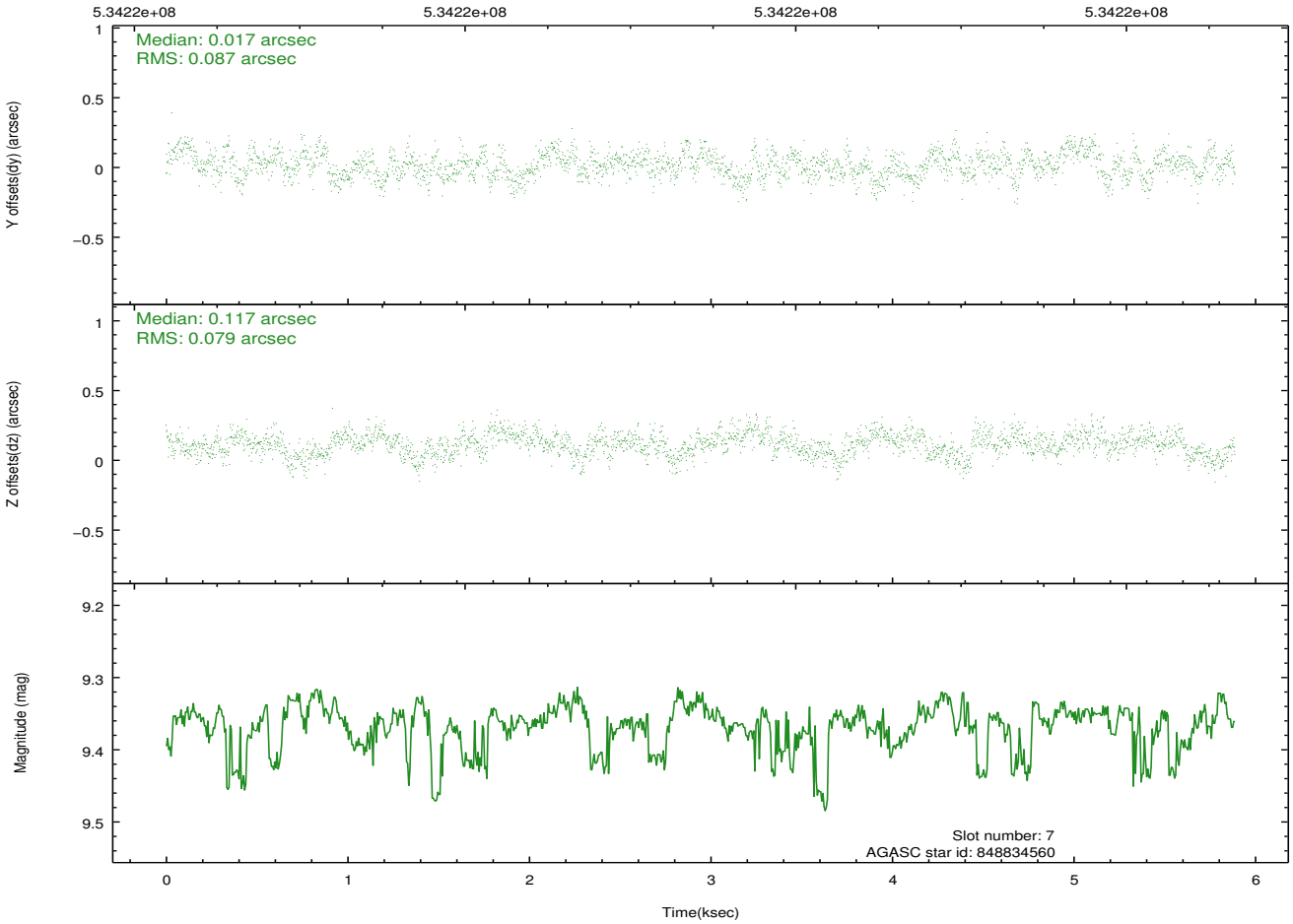
### 2.4.4 Slot 6



### 2.4.5 Slot 7

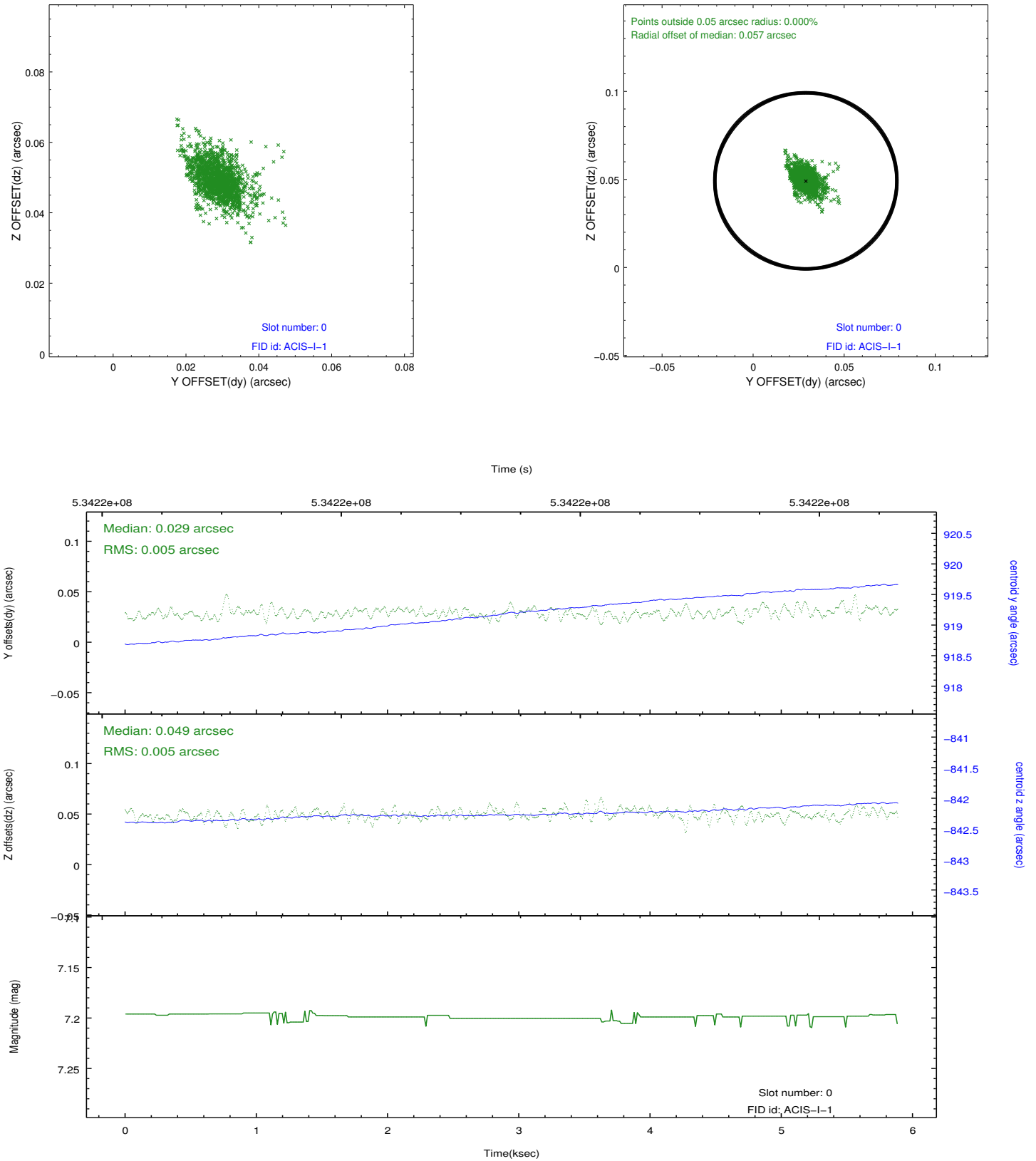


Time (s)

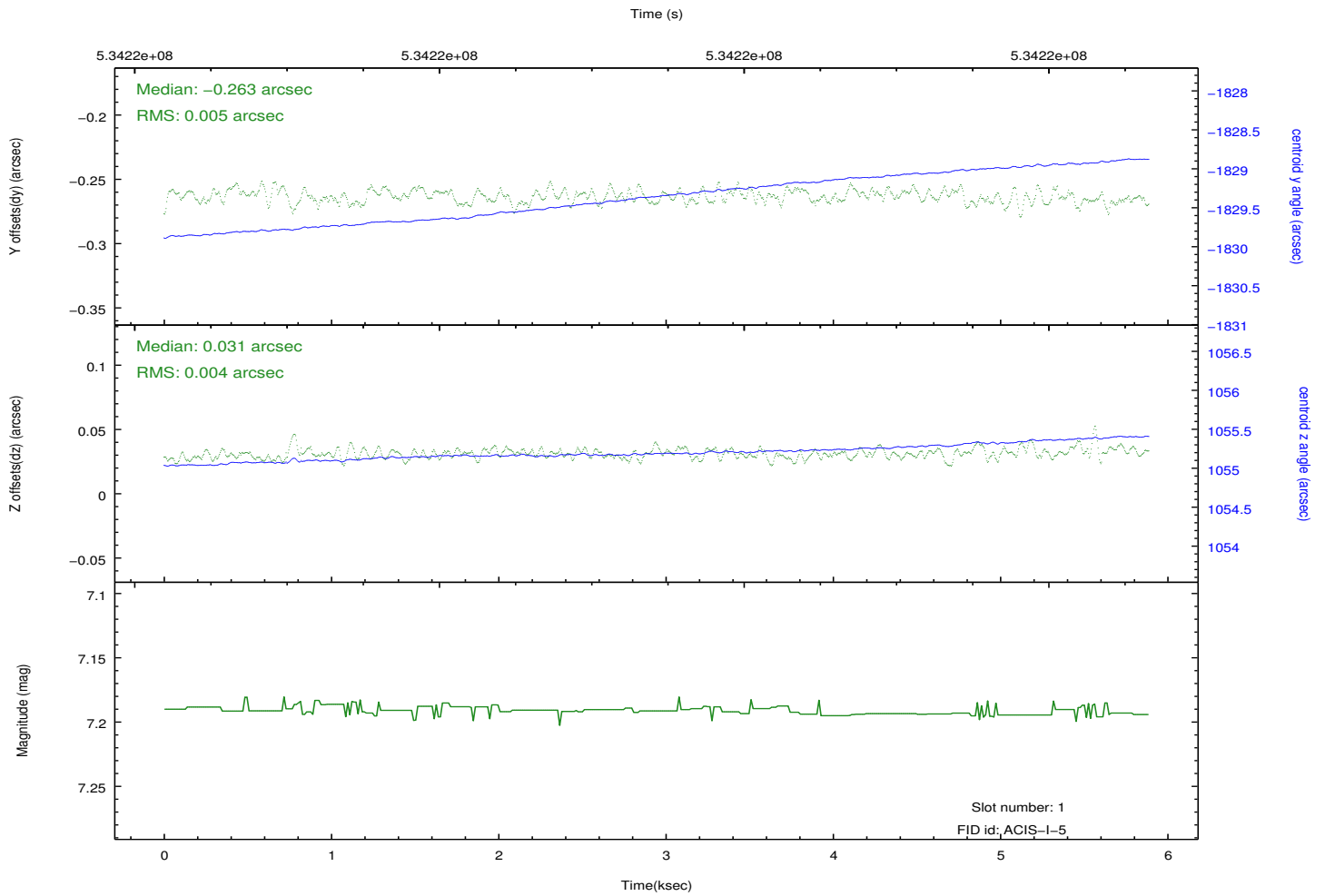
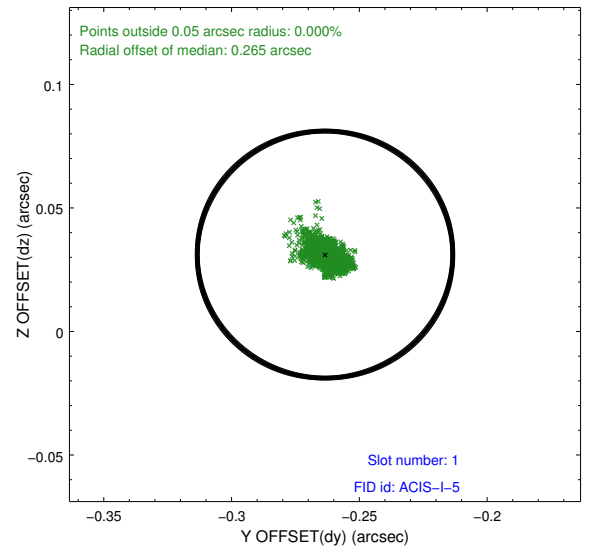
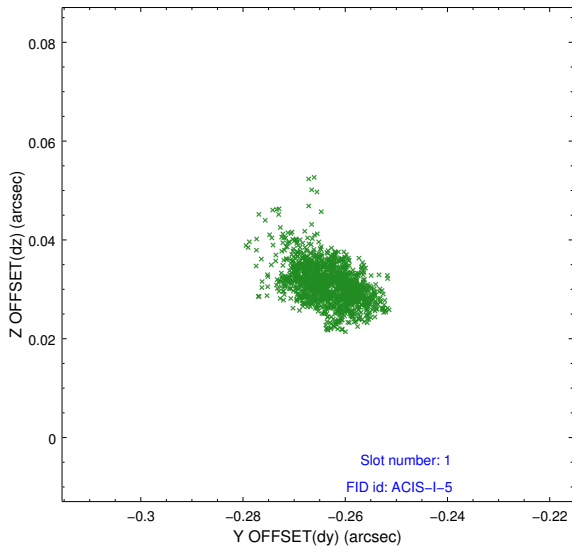


## 2.5 FID Slots

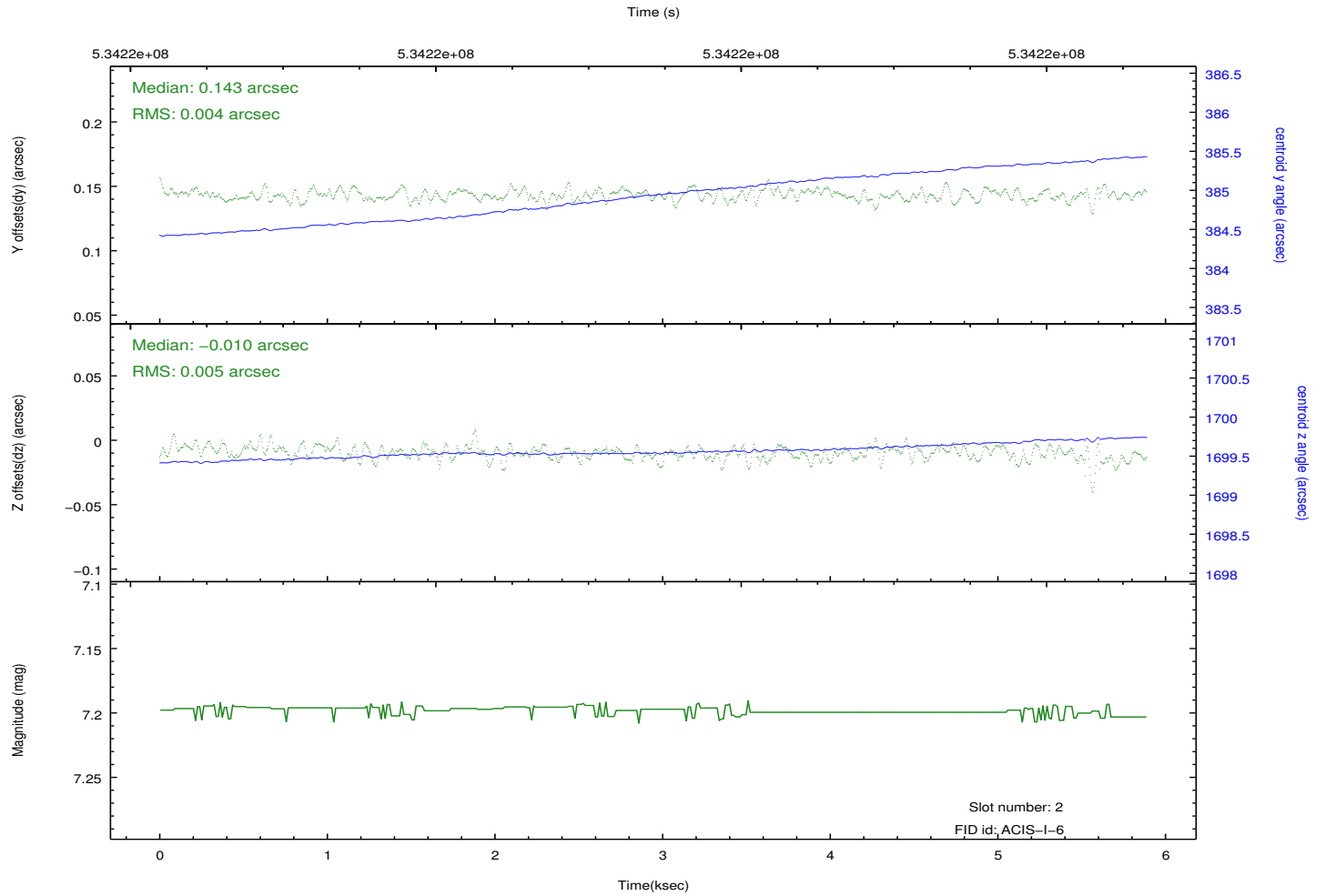
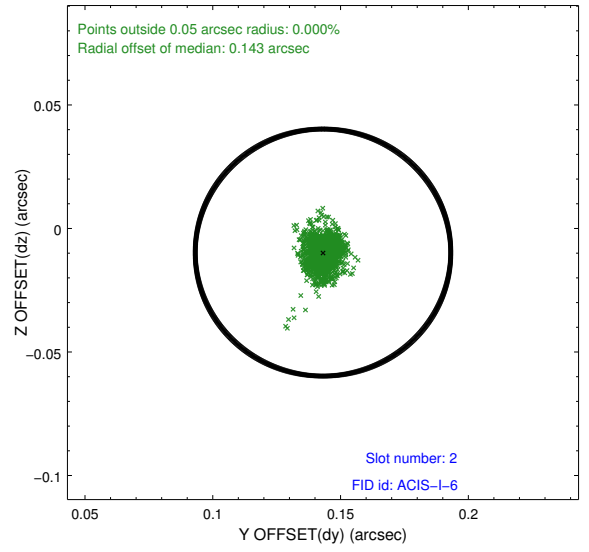
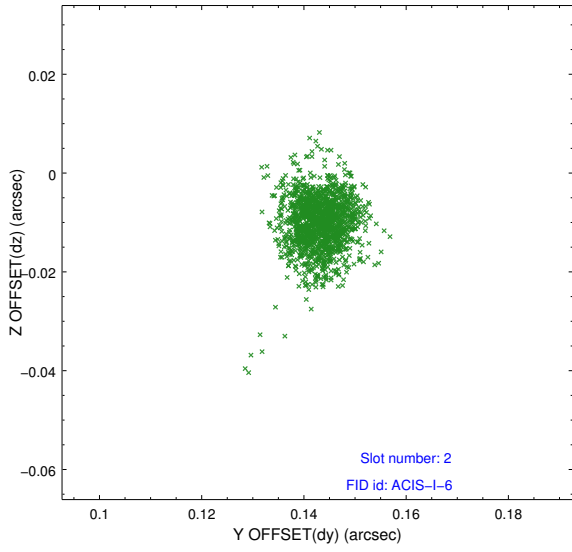
### 2.5.1 Slot 0



## 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)	2014.12.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.1263209263682

## A.2 Comments