

# V&V Reference Report

## L2 ASCDS Version : 10.7.1

Observation 22014 - L2 Version 1  
Chandra X-Ray Center

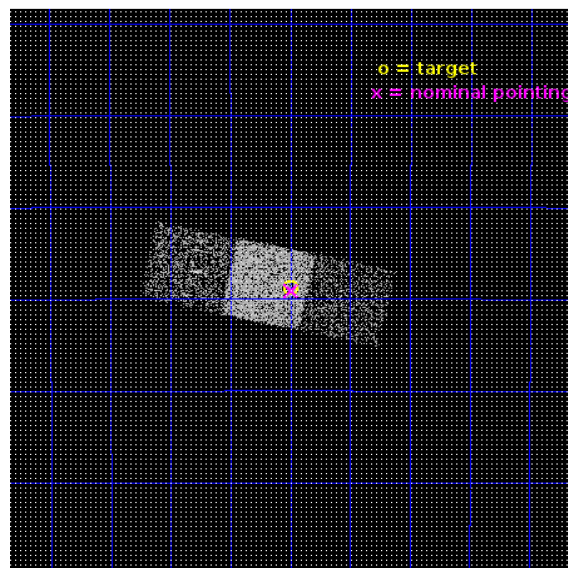
L2 Processing Date : May 13 2019

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# 1 Front

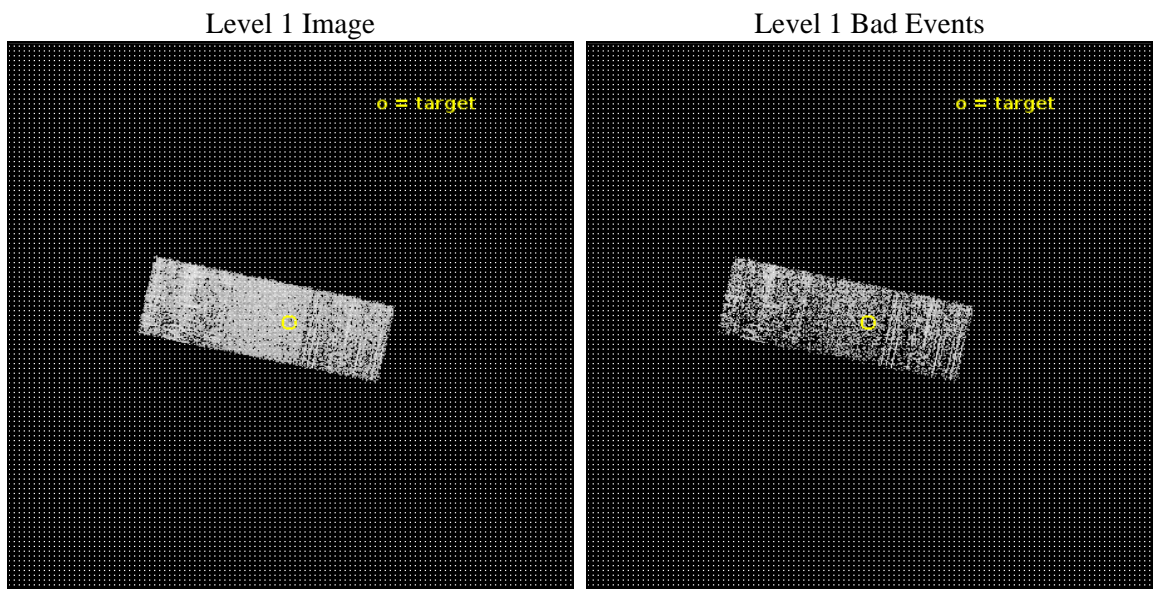
seq_num	703834	Sequence number
obs_id	22014	Observation id
title	Timely Assessment of the X-ray Flux of Newly Discovered Quadruply Lensed Quasars	Proposal title
observer	David Pooley	Principal investigator
object	DES J0405-3308	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	61.499167	Observer's specified target RA [deg]
dec_targ	-33.147417	Observer's specified target Dec [deg]
ra_nom	61.497473115392	Nominal RA [deg]
dec_nom	-33.151862212814	Nominal Dec [deg]
roll_nom	192.15559117487	Nominal Roll [deg]
revision	1	Processing version of data
ontime	1612.000012517	Sum of GTIs [s]
livetime	1590.9380456163	Livetime [s]
ontime6	1611.9774632454	Sum of GTIs [s]
ontime7	1612.000012517	Sum of GTIs [s]
ontime8	1611.9364231825	Sum of GTIs [s]
l2events	9211	Number of level 2 events



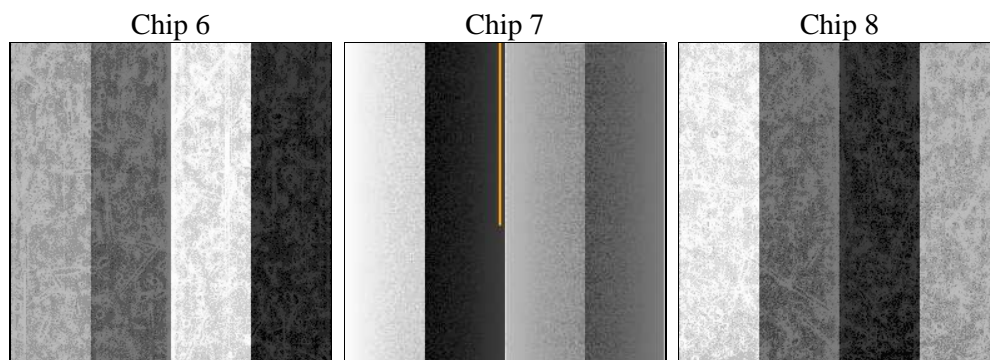
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	1500.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	1612.000012517	Sum of GTIs [s]
caldsver	4.8.2	&#160	ontime6	1611.9774632454	Sum of GTIs [s]
date	2019-05-13T05:43:53	Date and time of file creation	ontime7	1612.000012517	Sum of GTIs [s]
revision	1	Processing version of data	ontime8	1611.9364231825	Sum of GTIs [s]
			l1events	41963	Number of level 1 events

### 2.1.4 Events

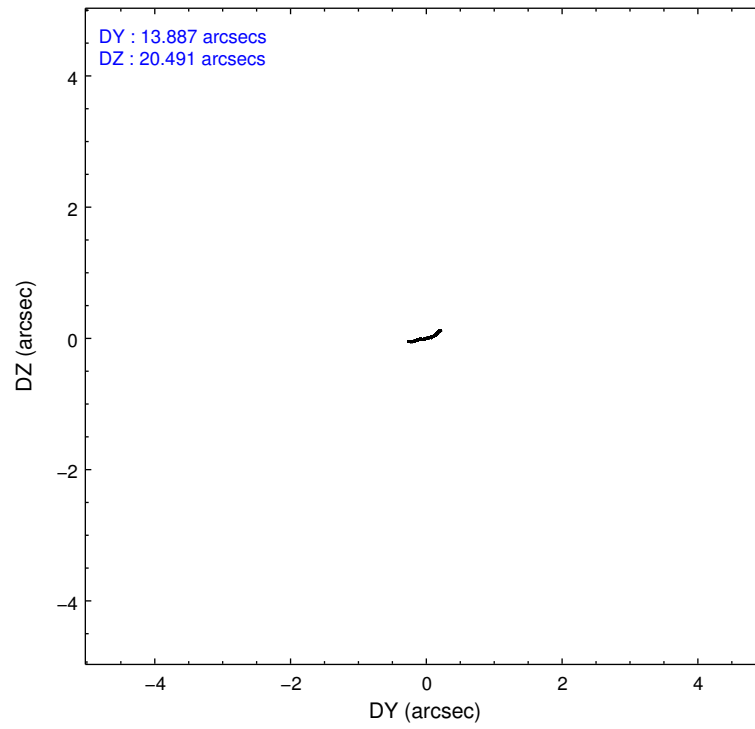
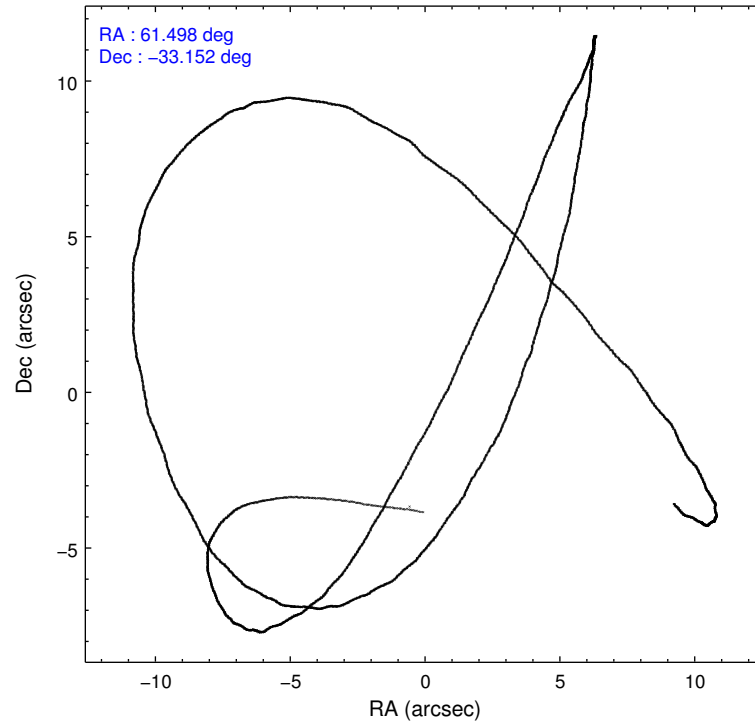
	ccd 6	ccd 7	ccd 8
level 1 events	11385	14961	15617
rejected events	10123	8385	11319
rejected %	88%	56%	72%

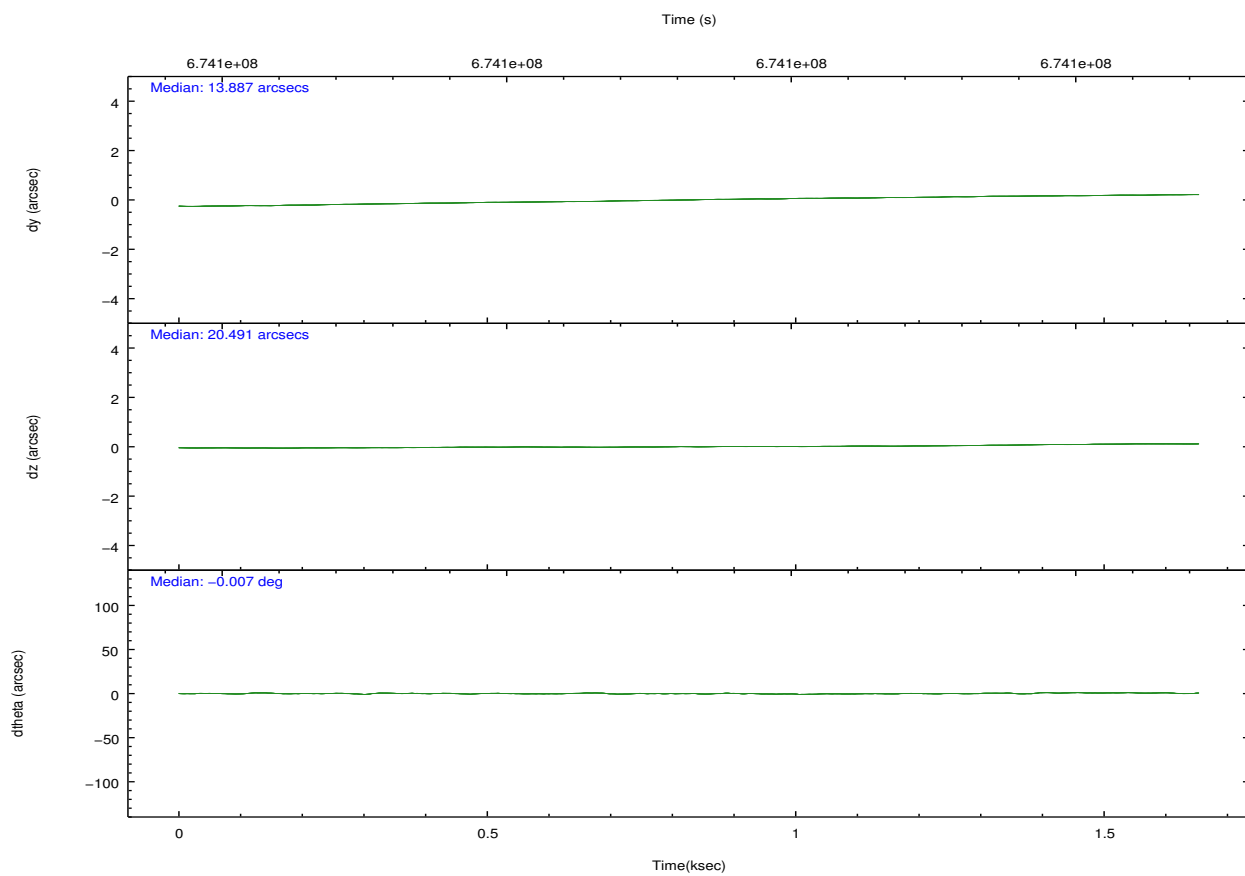
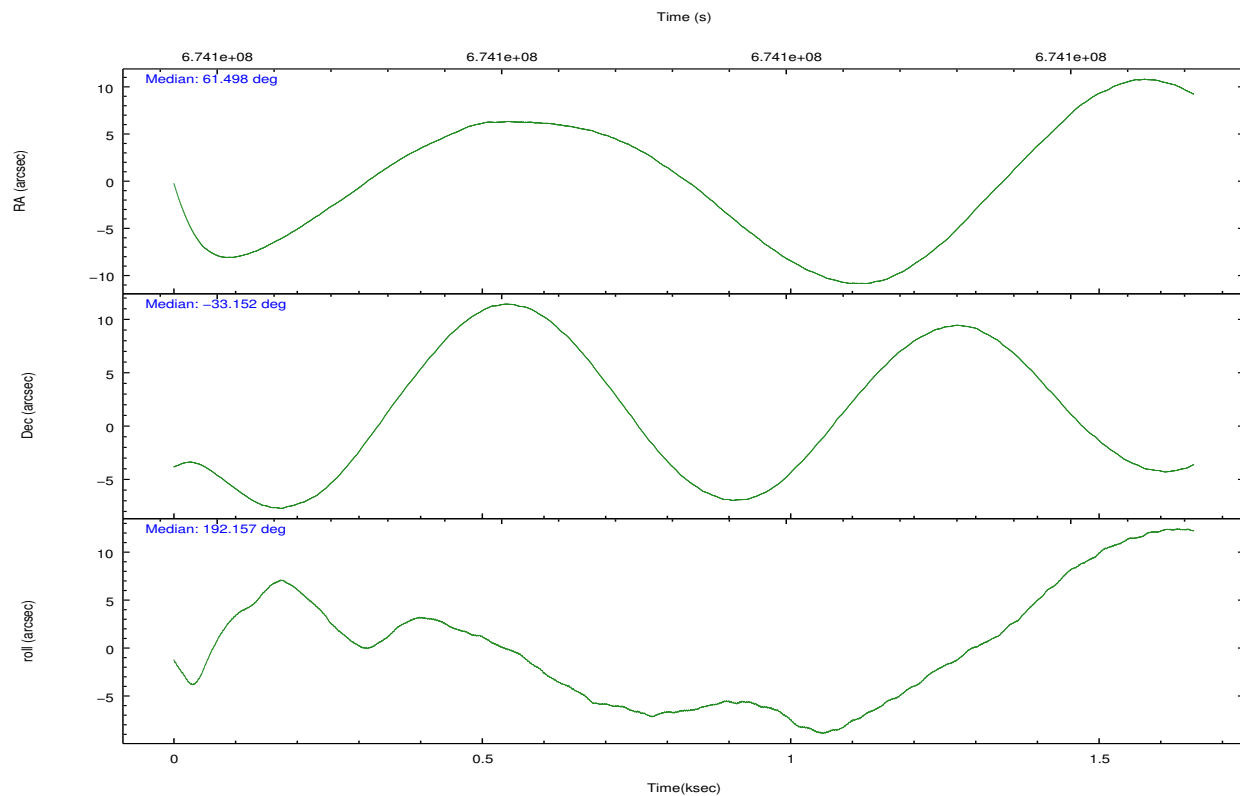
	ccd 6	ccd 7	ccd 8
grade 0 events	427	570	1216
	3%	3%	7%
grade 1 events	8	26	15
	0%	0%	0%
grade 2 events	304	1356	1131
	2%	9%	7%
grade 3 events	120	566	391
	1%	3%	2%
grade 4 events	131	539	370
	1%	3%	2%
grade 5 events	544	1470	860
	4%	9%	5%
grade 6 events	285	3579	1200
	2%	23%	7%
grade 7 events	9566	6855	10434
	84%	45%	66%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-678	ACIS-678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	61.521330	61.4974731153921	CCD I2 on	N	N
[deg] Pointing Dec	-33.132928	-33.151862212814	CCD I3 on	N	N
[deg] Pointing Roll	192.012114	192.1555911748738	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O2	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	O1	Y
[s] Observation start time (MET)	674095632.184000	674094458.43173	CCD S5 on	N	N
Observation start date	2019-05-13T00:46:03	2019-05-13T00:27:38	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	674097132.184000	674098195.58196	On-chip summing requested	N	N
Observation end date	2019-05-13T01:11:03	2019-05-13T01:29:55	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





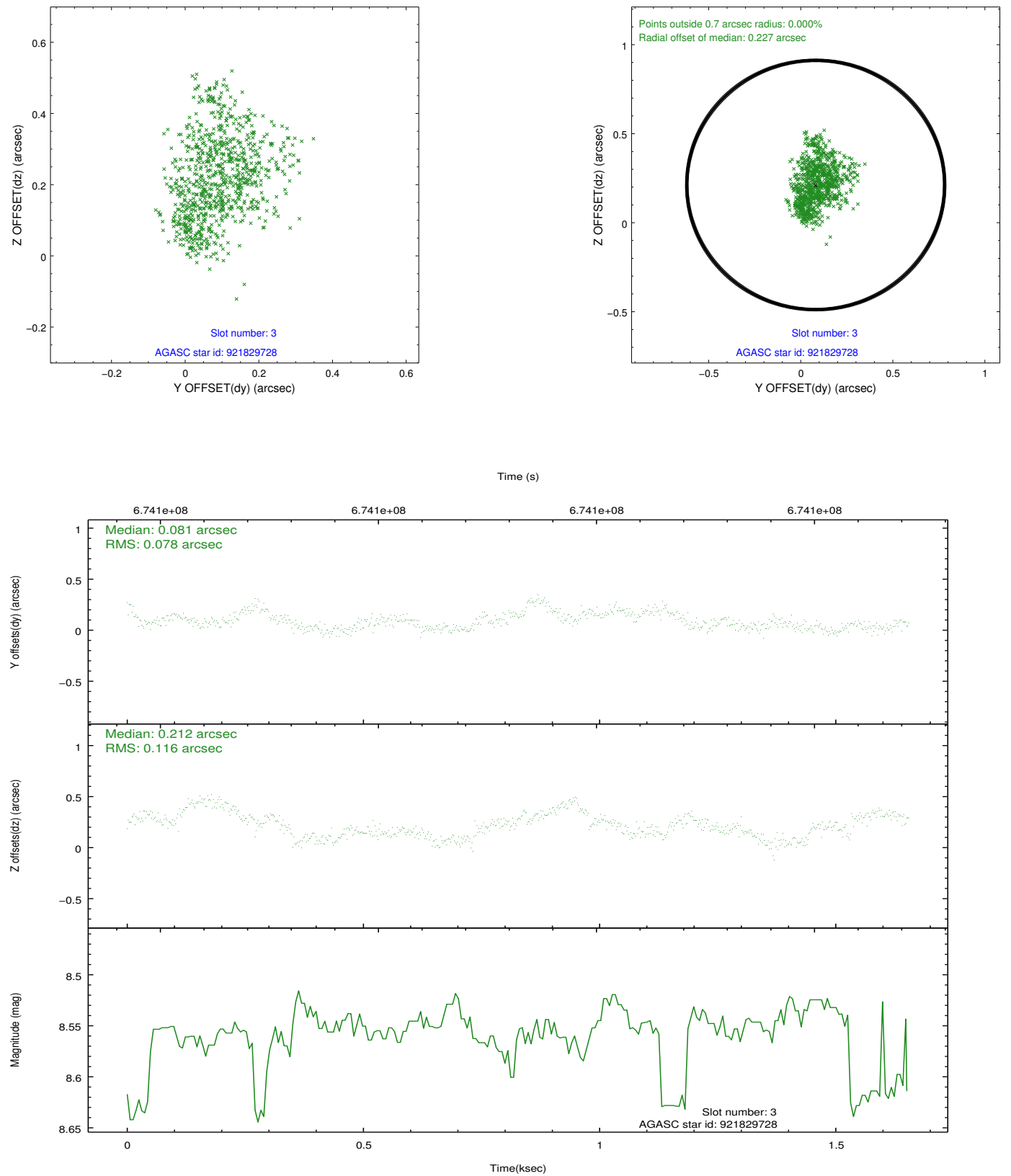
Slot Statistics

pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	6.96	404	1.000	-0.307	-0.158	0.009	0.015	0.000000	0.000000	-767.04	-1742
1	FID		ACIS-S-4	7.09	404	1.000	0.757	0.190	0.007	0.013	0.000000	0.000000	2145.38	162
2	FID		ACIS-S-5	7.06	404	1.000	-0.480	-0.023	0.006	0.010	0.000000	0.000000	-1815.03	160
3	GUIDE	used	921829728	8.55	808	1.000	0.081	0.212	0.154	0.233	61.354769	-32.809682	251.46	-1242
4	GUIDE	used	921830824	9.59	803	1.000	0.053	-0.111	0.224	0.379	60.770050	-32.990104	2114.57	-969
5	GUIDE	used	921833464	8.95	808	1.000	0.164	0.041	0.216	0.406	62.237351	-33.400781	-1899.64	1396
6	GUIDE	used	921835152	9.57	803	1.000	0.003	-0.016	0.175	0.418	62.067819	-33.258159	-1516.35	788
7	GUIDE	used	921838528	9.03	807	1.000	-0.285	-0.171	0.308	0.412	61.352048	-33.575647	826.60	1453

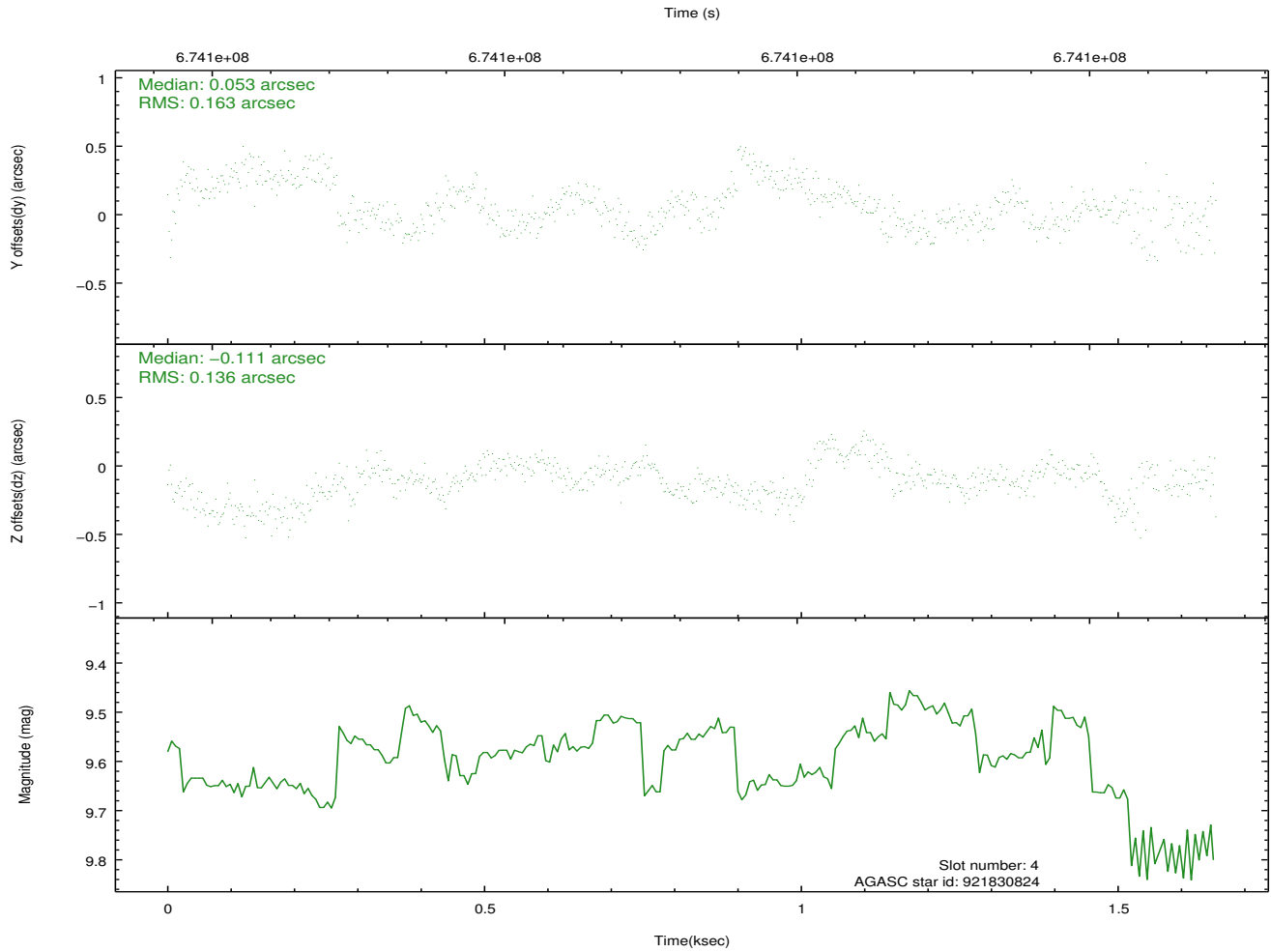
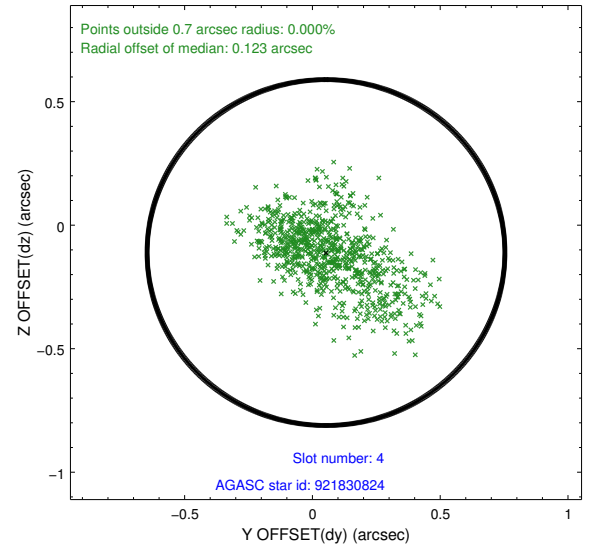
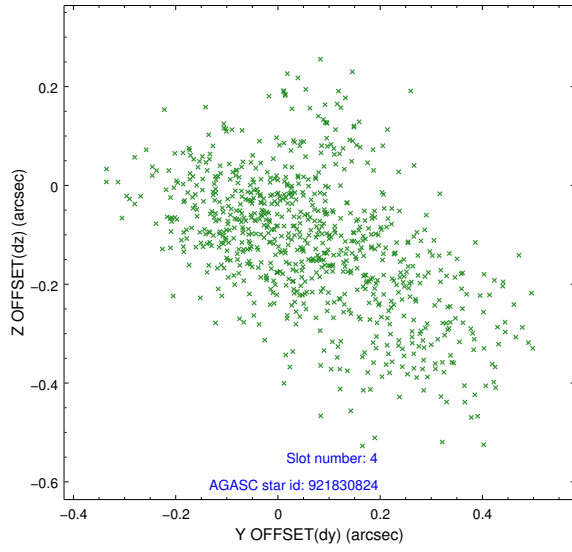


## 2.4 Star Slots

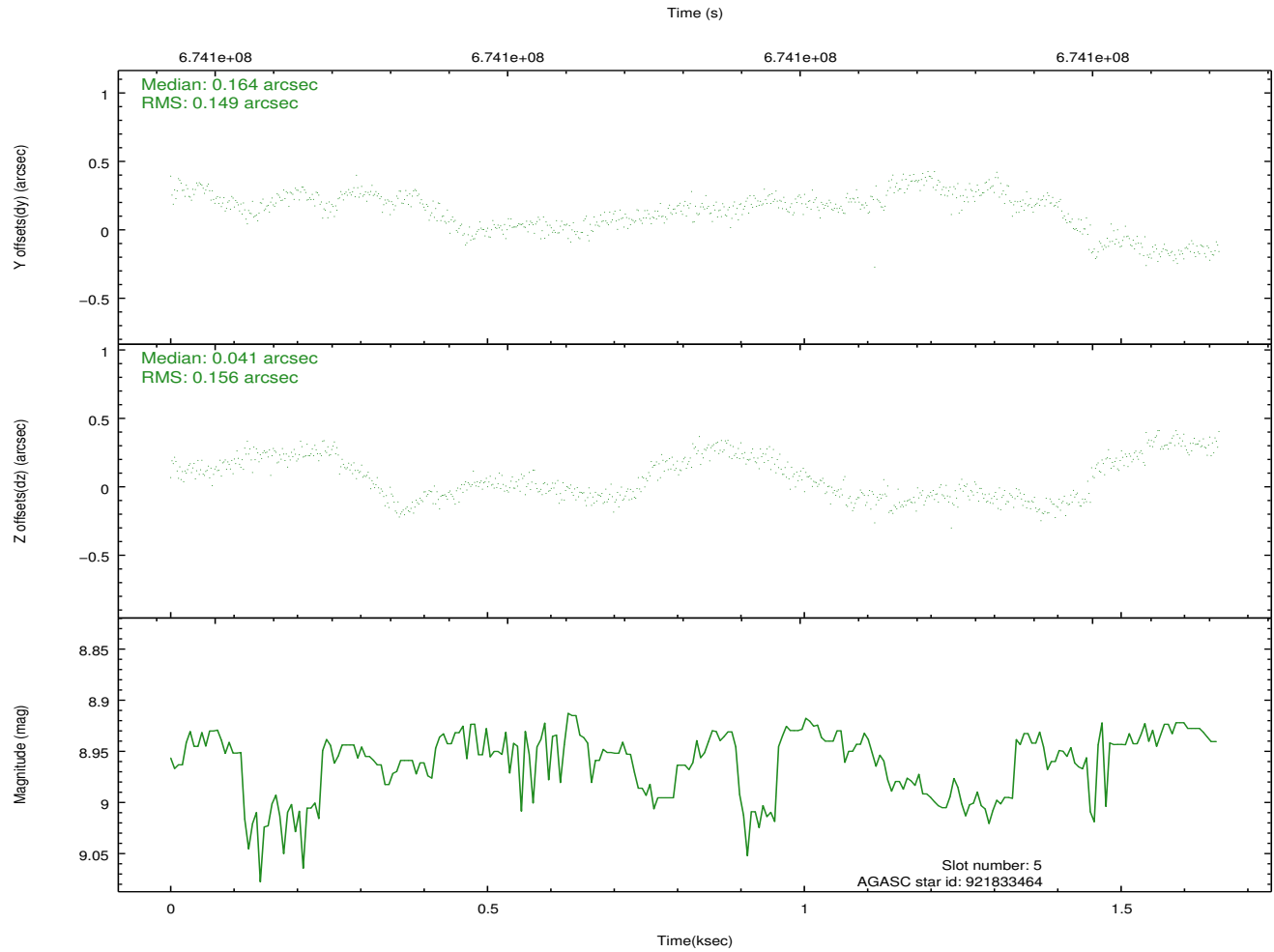
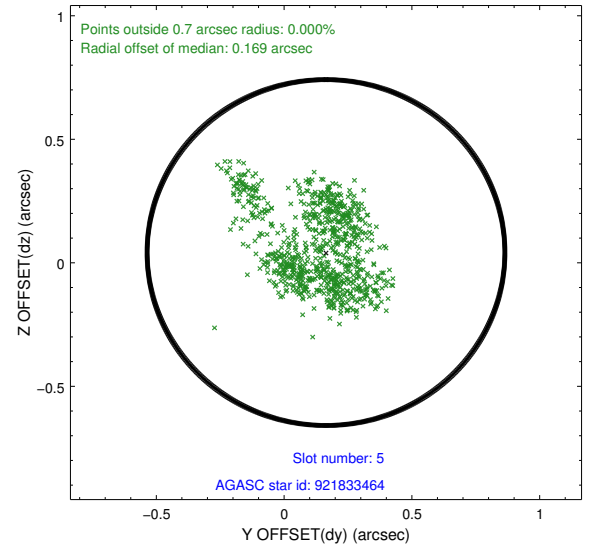
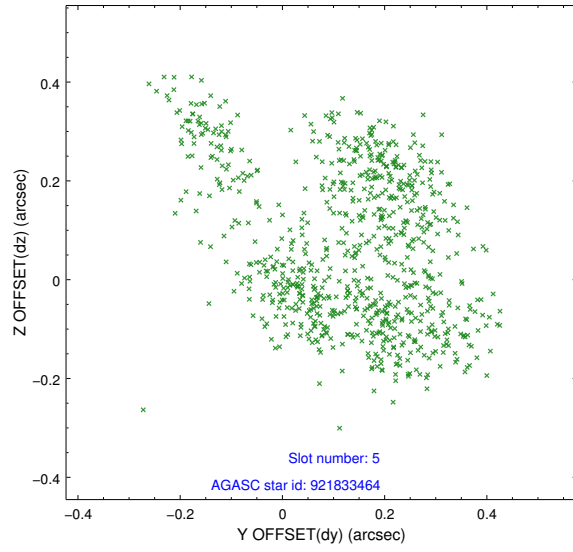
### 2.4.1 Slot 3



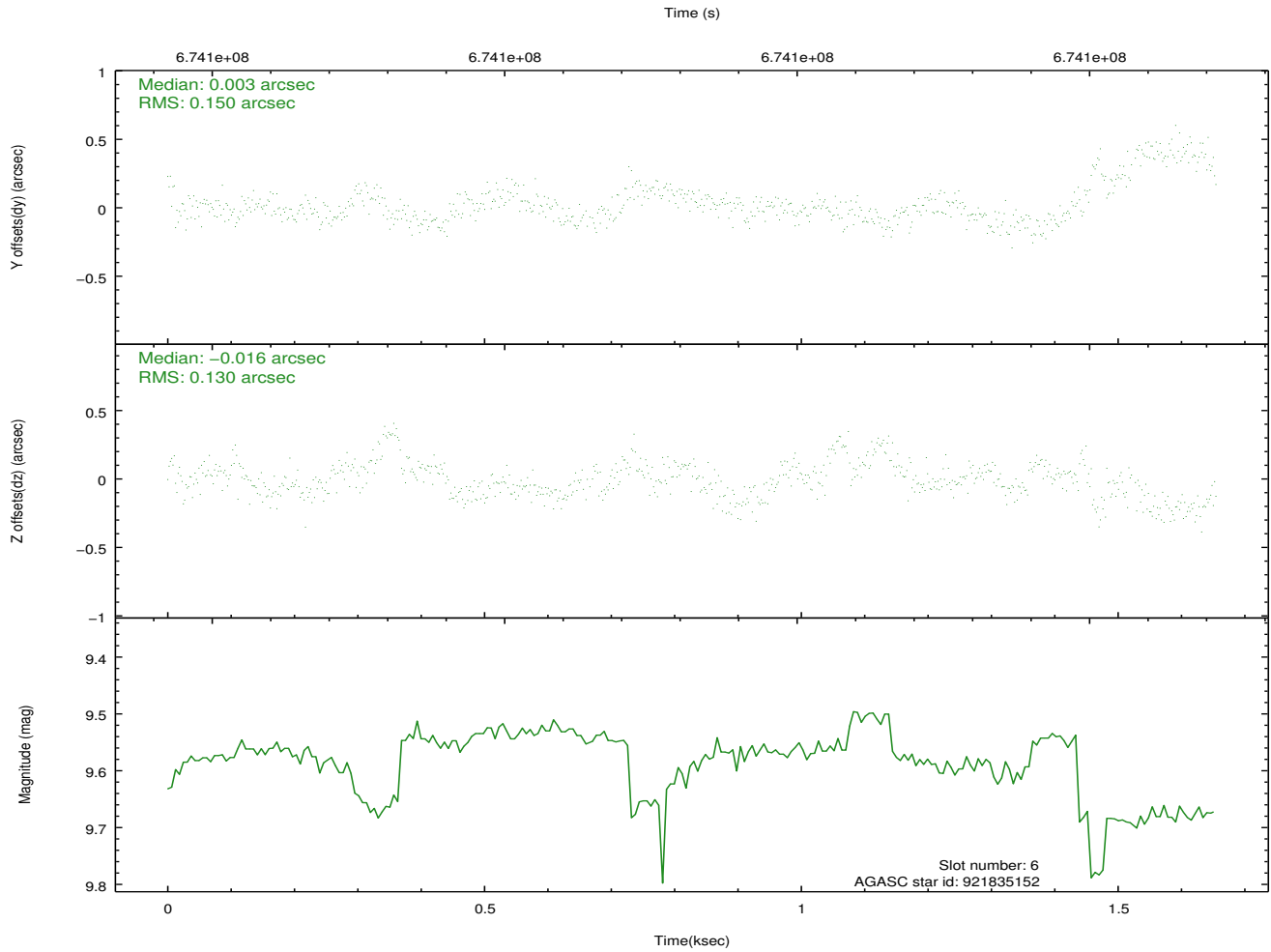
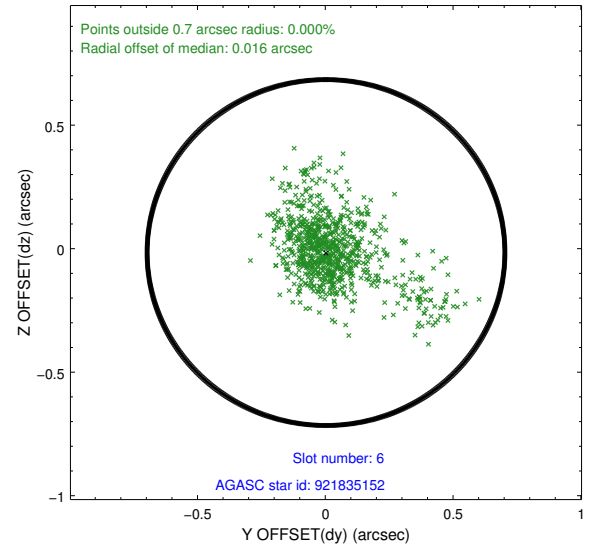
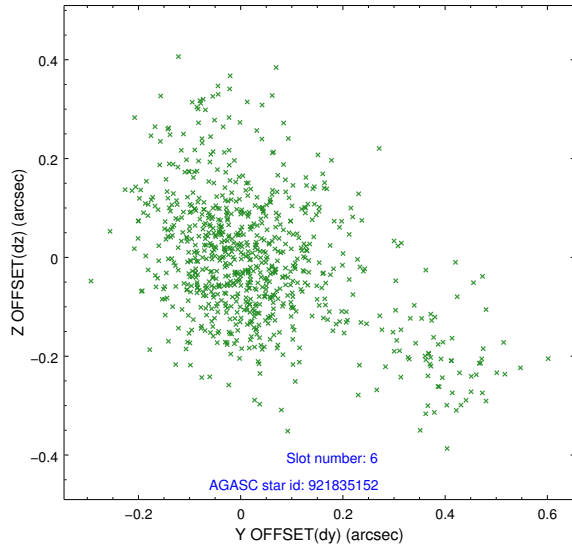
## 2.4.2 Slot 4



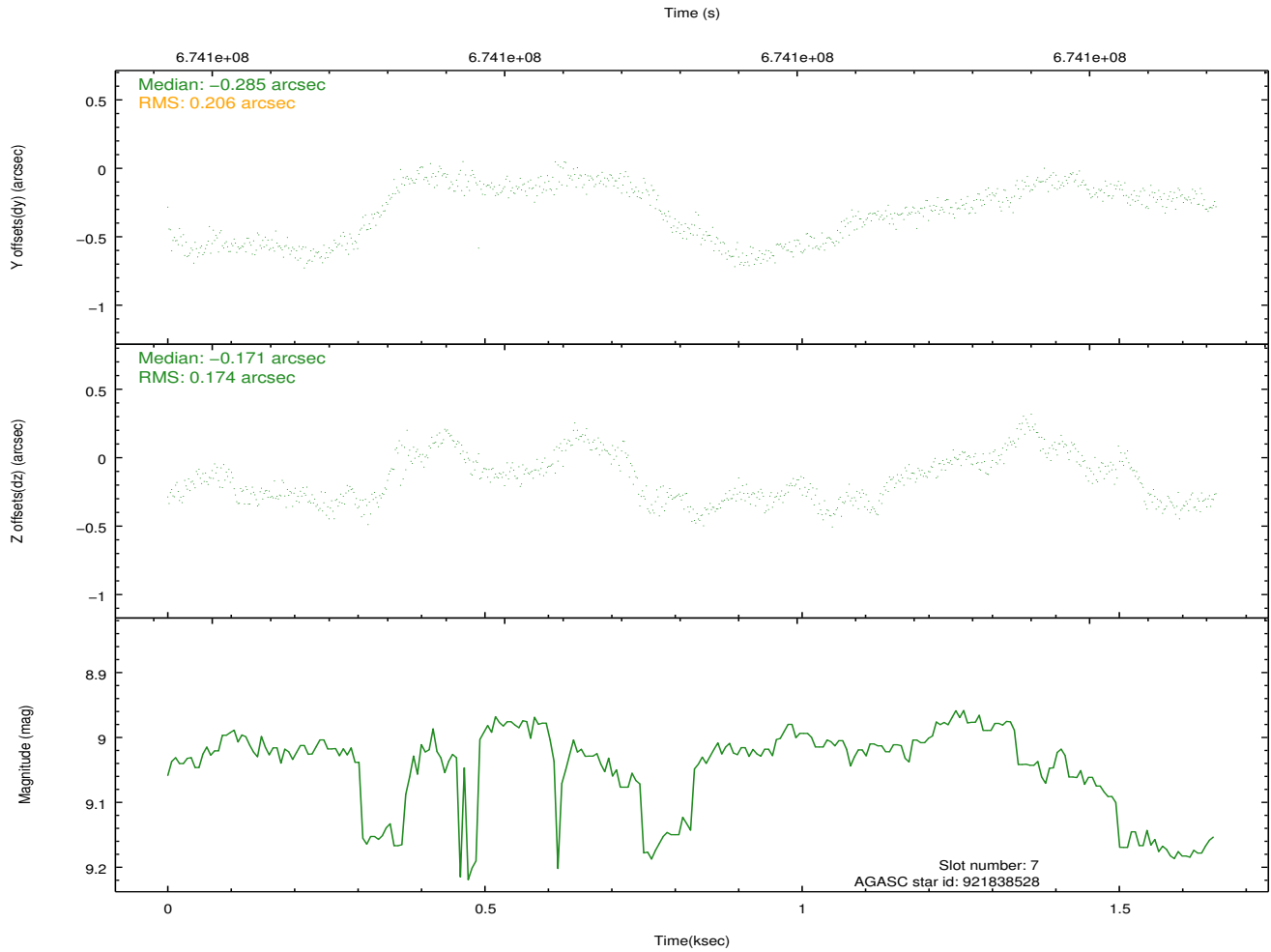
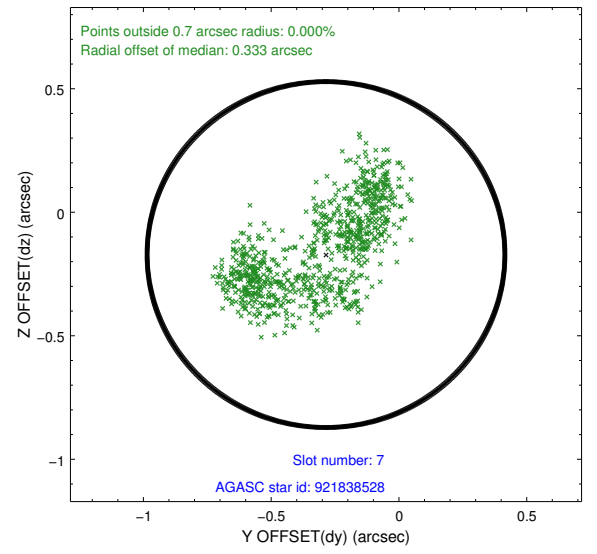
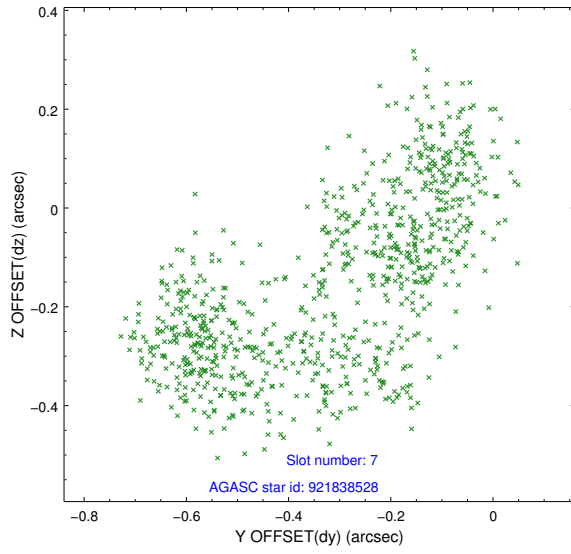
### 2.4.3 Slot 5



## 2.4.4 Slot 6

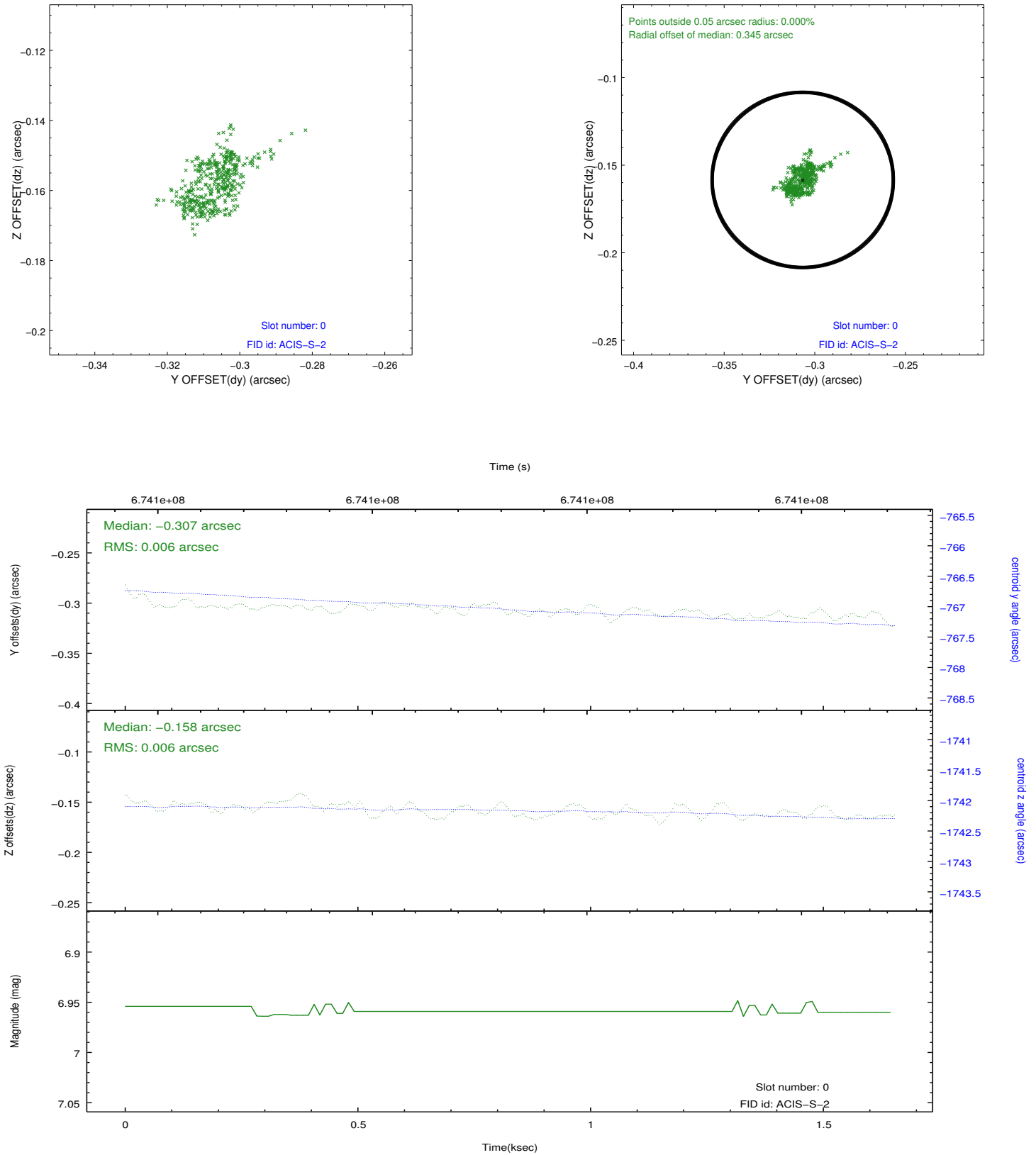


## 2.4.5 Slot 7

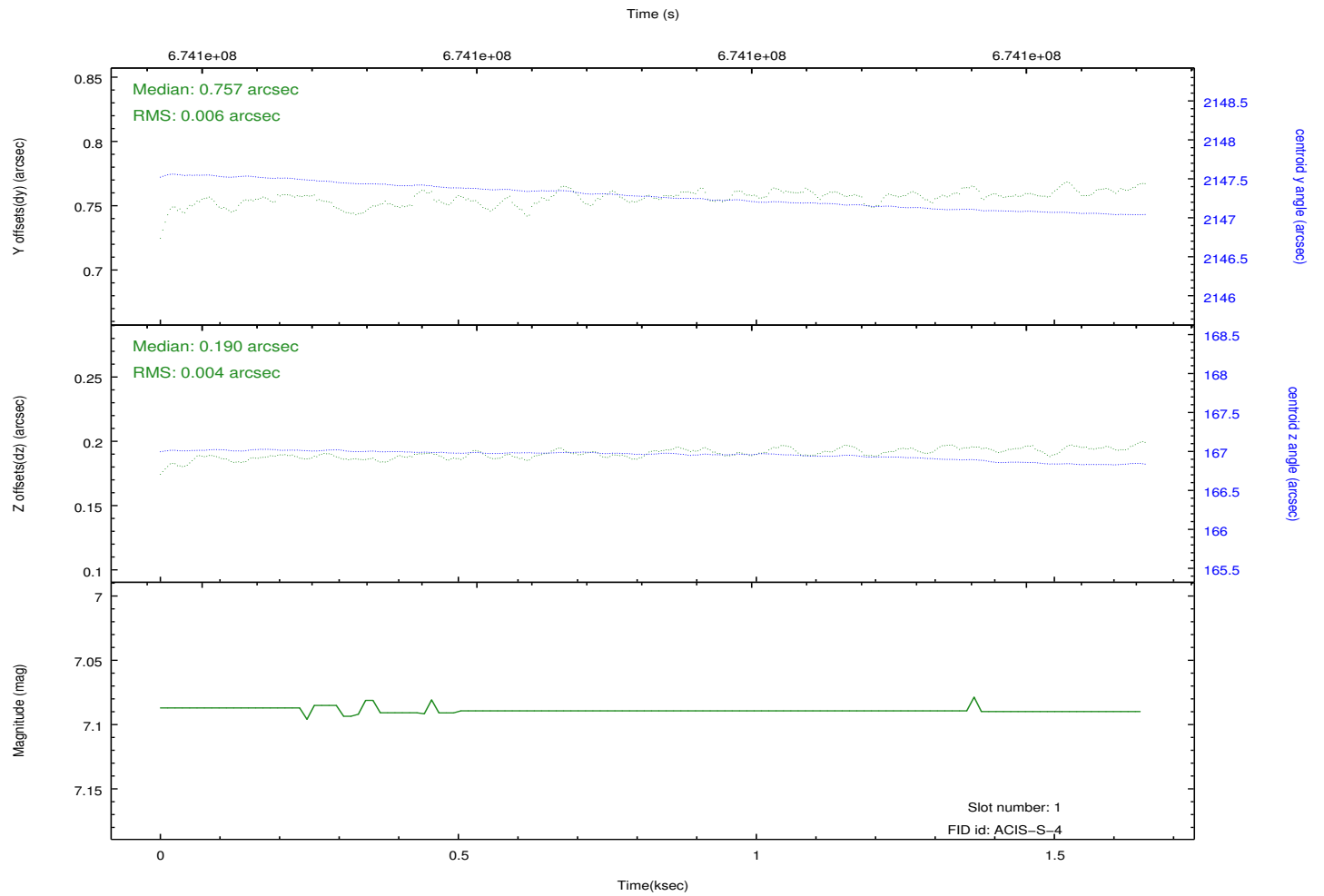
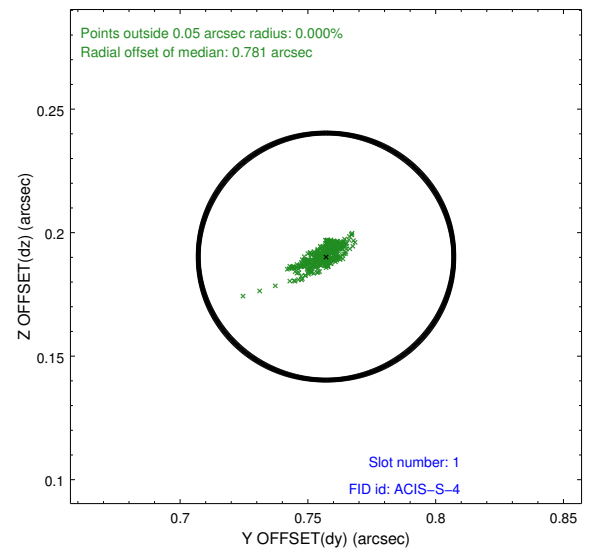
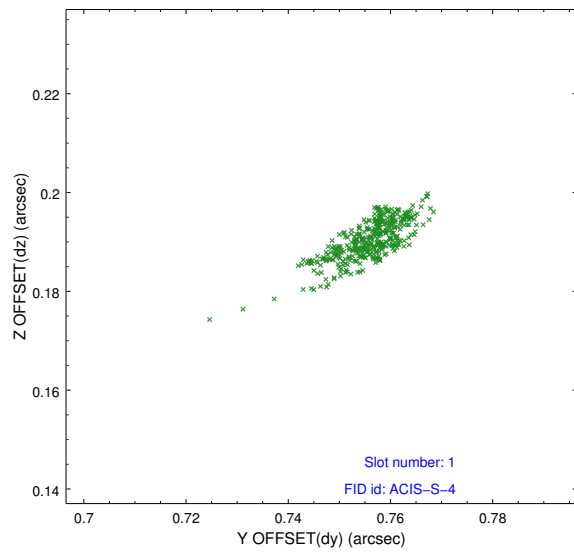


## 2.5 FID Slots

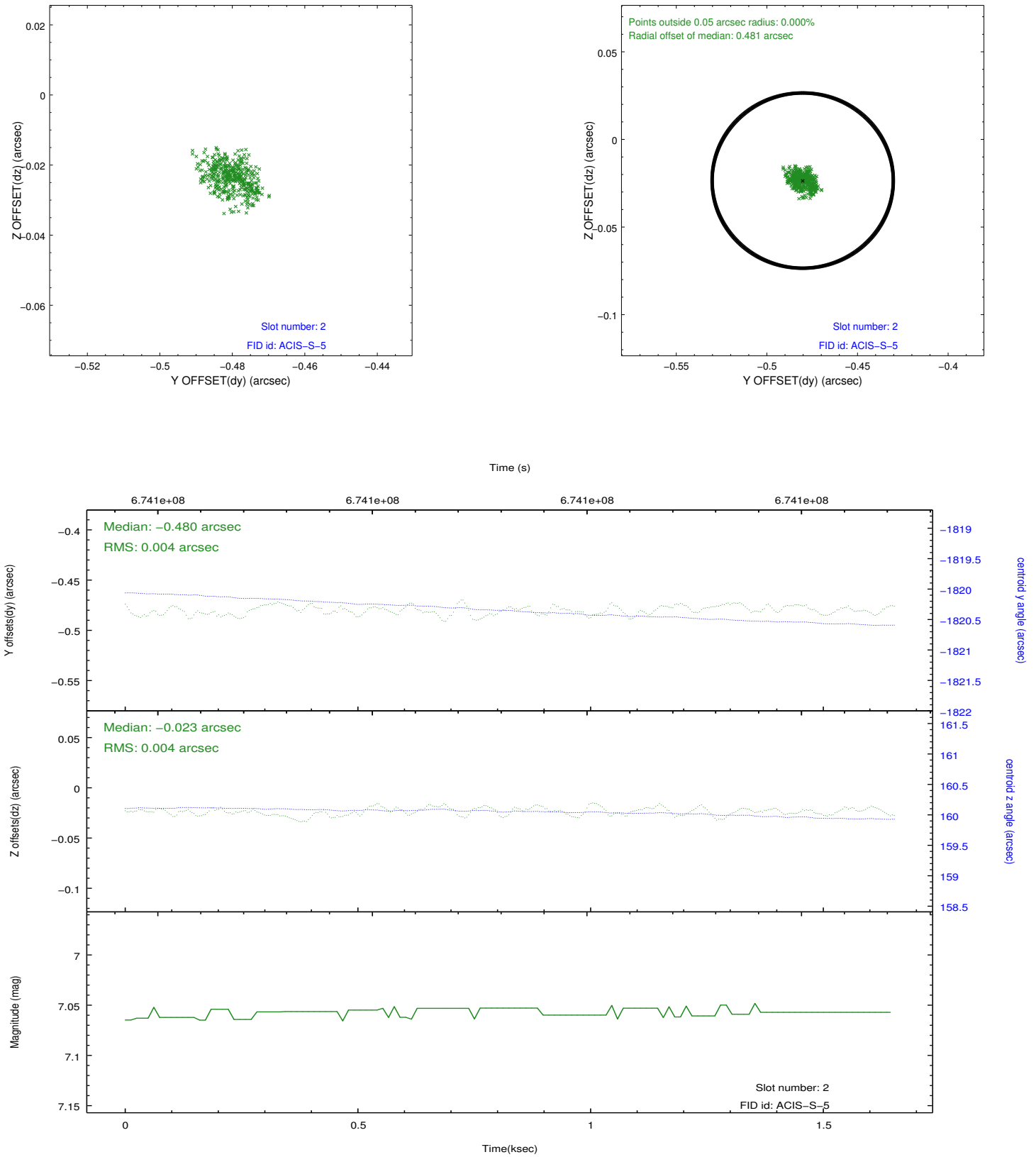
### 2.5.1 Slot 0



## 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)	2019.05.13
V&V Edition	2
V&V Disposition and Status	OK
V&V Charge Time	1.612000012517

## A.2 Comments

Chip CCD\_ID=8 suffers from an unusually large amplitude of streaks of instrumental origin. The user may want to run the CIAO tool 'destreak' on the Level 2 event data. When using destreak, note that setting 'max' to 1, especially for gratings data, may remove a large fraction of the data. Users should check the output 'timefile' to see what percent of the data was removed. See the CIAO help file for more details.