

# V&V Reference Report

## L2 ASCDS Version : 10.8.1

Observation 22913 - L2 Version 1  
Chandra X-Ray Center

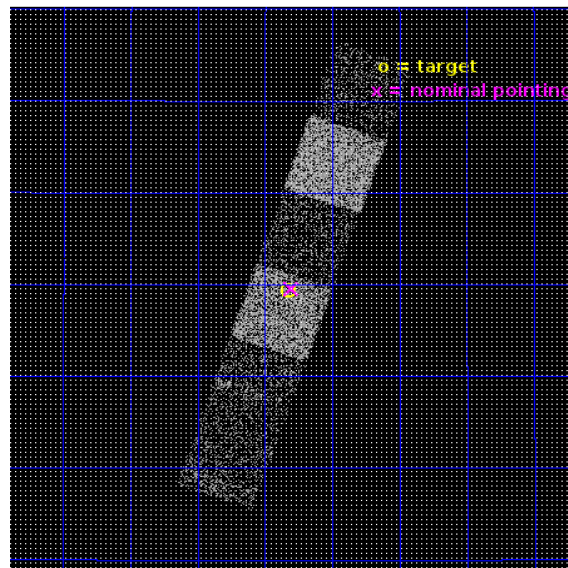
L2 Processing Date : Nov 17 2019

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# 1 Front

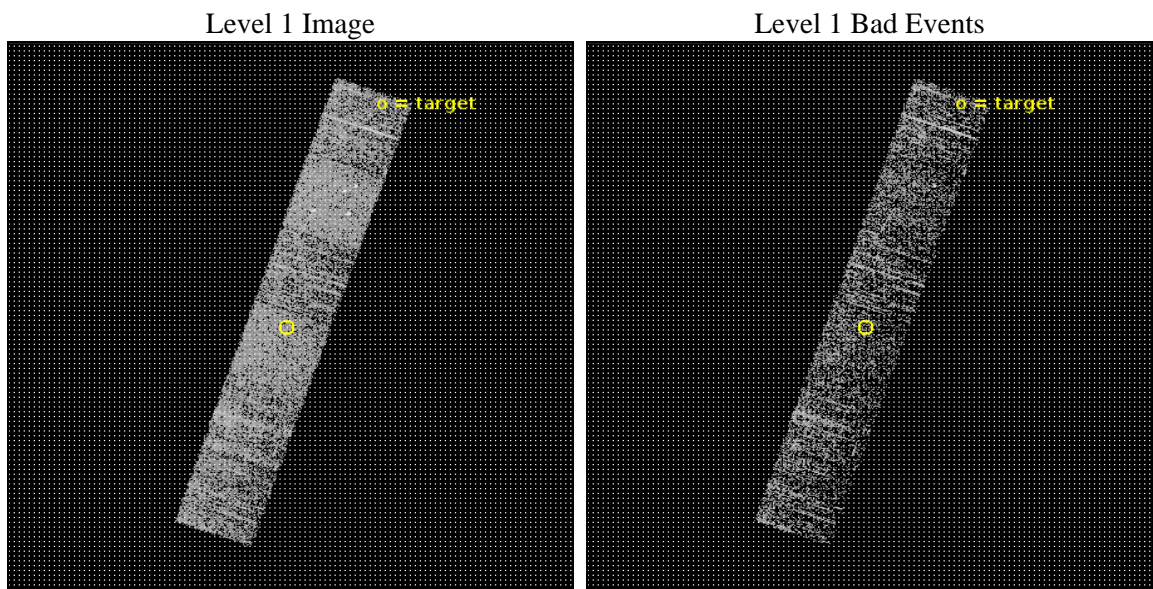
seq_num	100191	Sequence number
obs_id	22913	Observation id
title	Exoplanet evaporation in the only known young 4-planet system	Prop
observer	Katja Poppenhaeager	Principal investigator
object	V1298 Tau	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	61.331667	Observer's specified target RA [deg]
dec_targ	20.157	Observer's specified target Dec [deg]
ra_nom	61.325920279049	Nominal RA [deg]
dec_nom	20.159127762139	Nominal Dec [deg]
roll_nom	109.15969460129	Nominal Roll [deg]
revision	1	Processing version of data
ontime	1048.5851278305	Sum of GTIs [s]
livetime	1035.3073115598	Livetime [s]
ontime4	1048.6261677742	Sum of GTIs [s]
ontime5	1048.5440877676	Sum of GTIs [s]
ontime6	1045.2620267868	Sum of GTIs [s]
ontime7	1048.5851278305	Sum of GTIs [s]
ontime8	1048.462007761	Sum of GTIs [s]
ontime9	1048.4209678173	Sum of GTIs [s]
l2events	13711	Number of level 2 events



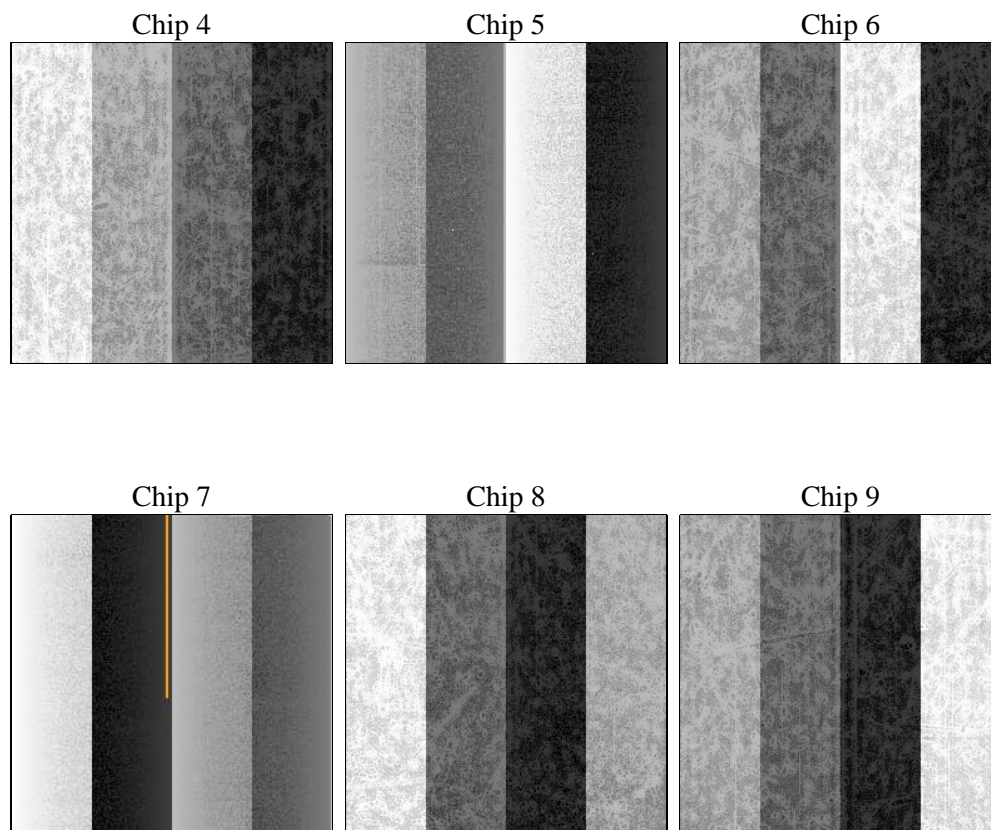
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	1100.000000	[s] Scheduled observation exposure time
ascdsver	10.8.1	Processing system revision	ontime	1048.5851278305	Sum of GTIs [s]
caldsver	4.8.4.2	&#160	ontime4	1048.6261677742	Sum of GTIs [s]
date	2019-11-17T22:54:36	Date and time of file creation	ontime5	1048.5440877676	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	1045.2620267868	Sum of GTIs [s]
			ontime7	1048.5851278305	Sum of GTIs [s]
			ontime8	1048.462007761	Sum of GTIs [s]
			ontime9	1048.4209678173	Sum of GTIs [s]
			l1events	61099	Number of level 1 events

### 2.1.4 Events

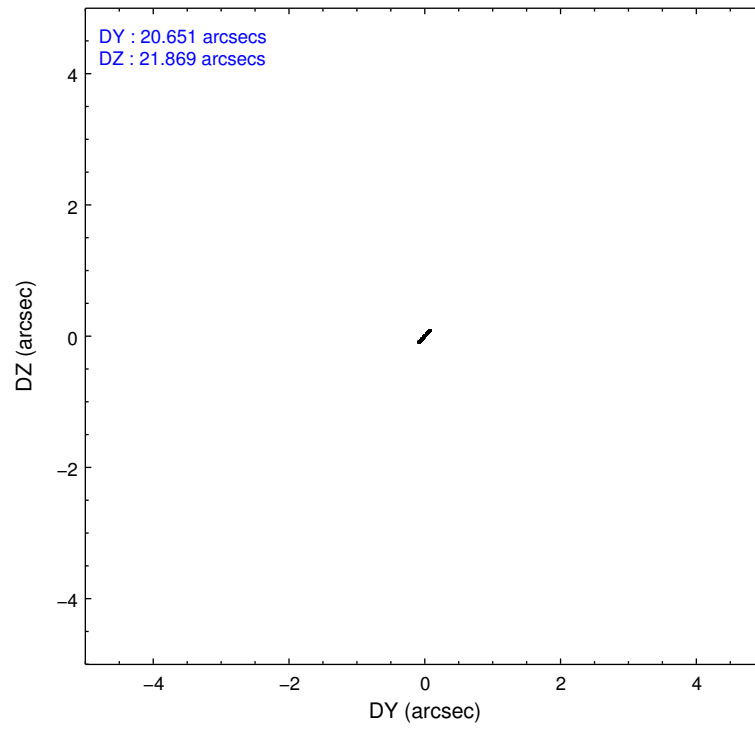
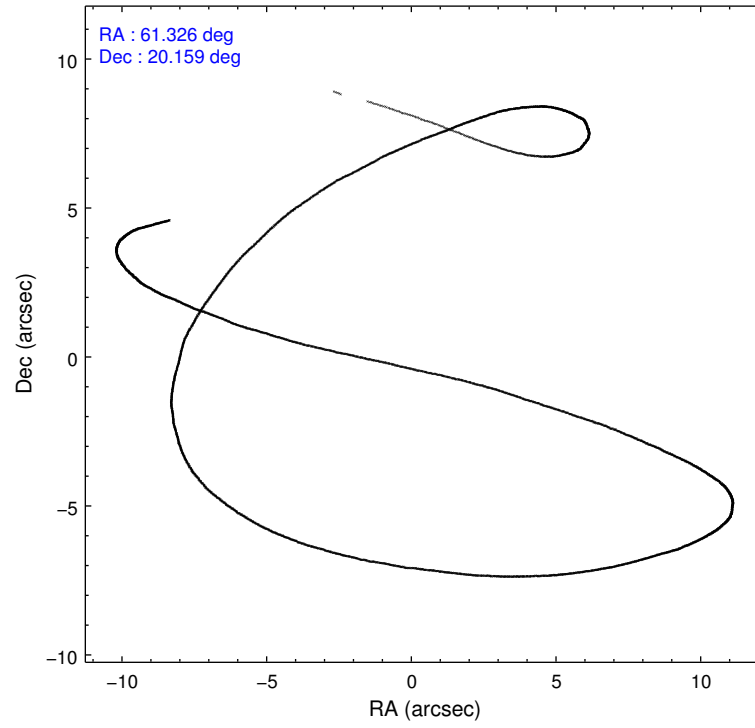
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	10109	13829	8441	10831	10091	7798
rejected events	9153	6974	7533	6100	7489	6817
rejected %	90%	50%	89%	56%	74%	87%

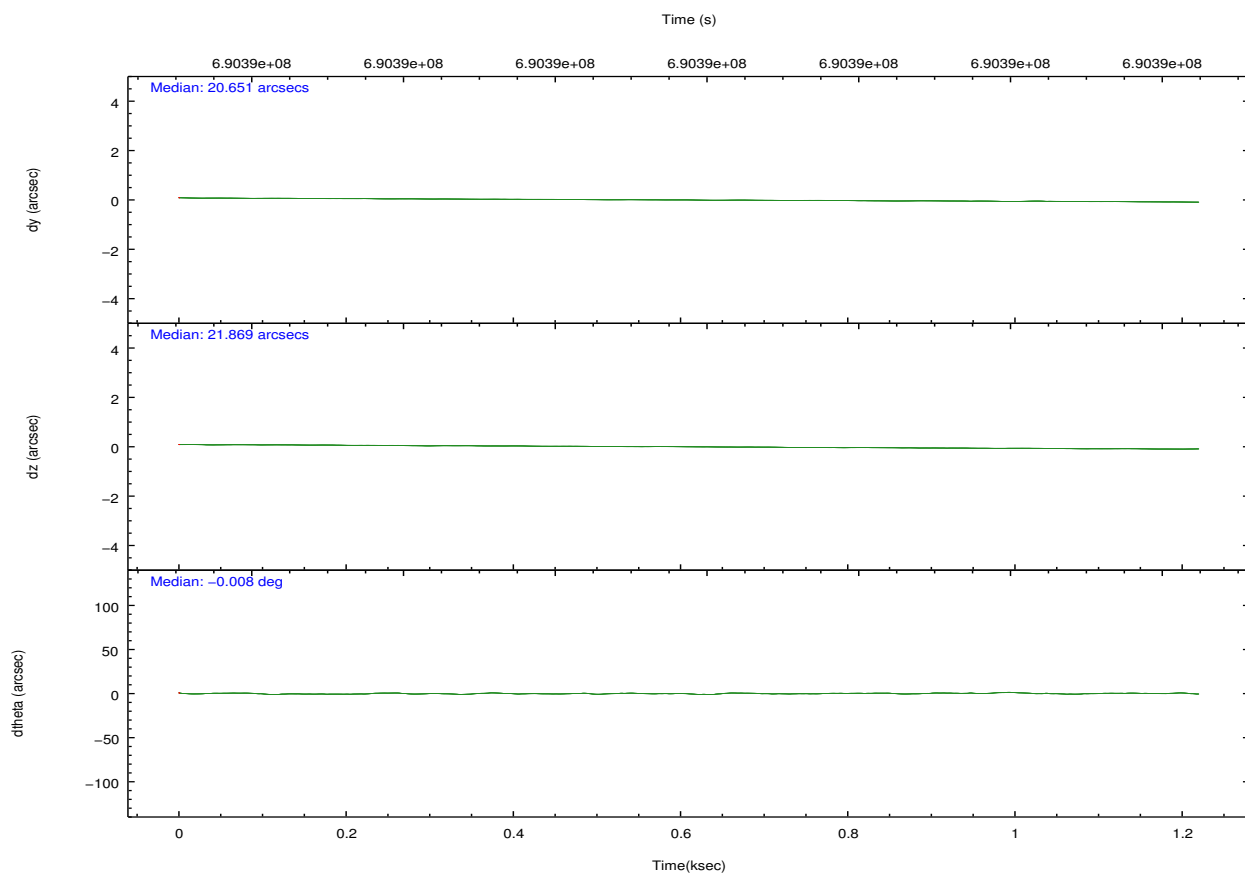
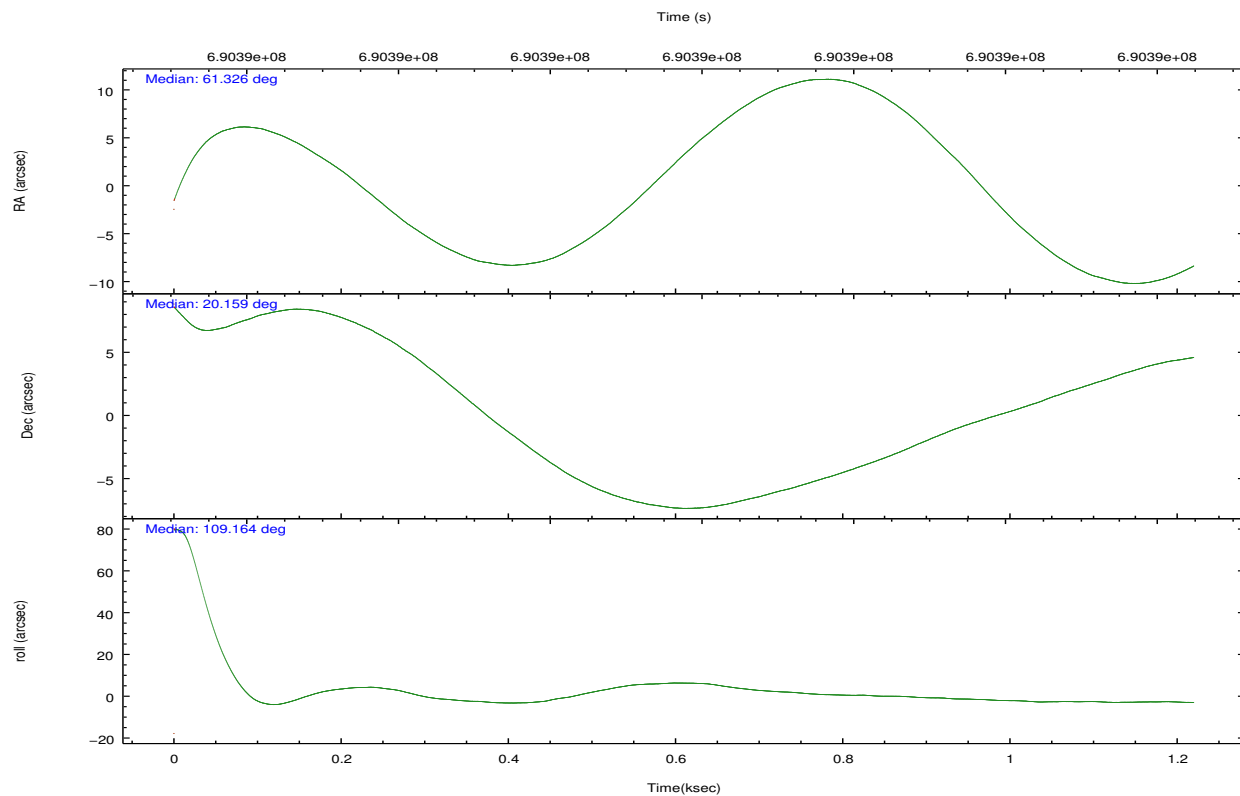
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	341	1222	281	395	811	369
	3%	8%	3%	3%	8%	4%
grade 1 events	10	36	3	27	9	5
	0%	0%	0%	0%	0%	0%
grade 2 events	263	1984	231	1013	564	216
	2%	14%	2%	9%	5%	2%
grade 3 events	95	171	81	361	286	100
	0%	1%	0%	3%	2%	1%
grade 4 events	105	177	80	356	264	106
	1%	1%	0%	3%	2%	1%
grade 5 events	417	913	391	1058	565	405
	4%	6%	4%	9%	5%	5%
grade 6 events	153	3327	240	2626	686	196
	1%	24%	2%	24%	6%	2%
grade 7 events	8725	5999	7134	4995	6906	6401
	86%	43%	84%	46%	68%	82%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	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	61.348513	61.32592027904851	CCD I2 on	N	N
[deg] Pointing Dec	20.141125	20.15912776213883	CCD I3 on	N	N
[deg] Pointing Roll	108.994201	109.1596946012945	CCD S0 on	O1	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O5	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	O4	Y
[s] Observation start time (MET)	690389712.184000	690388324.76141	CCD S5 on	O2	Y
Observation start date	2019-11-17T14:54:03	2019-11-17T14:32:04	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	690390812.184000	690391759.53662	On-chip summing requested	N	N
Observation end date	2019-11-17T15:12:23	2019-11-17T15:29:19	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect





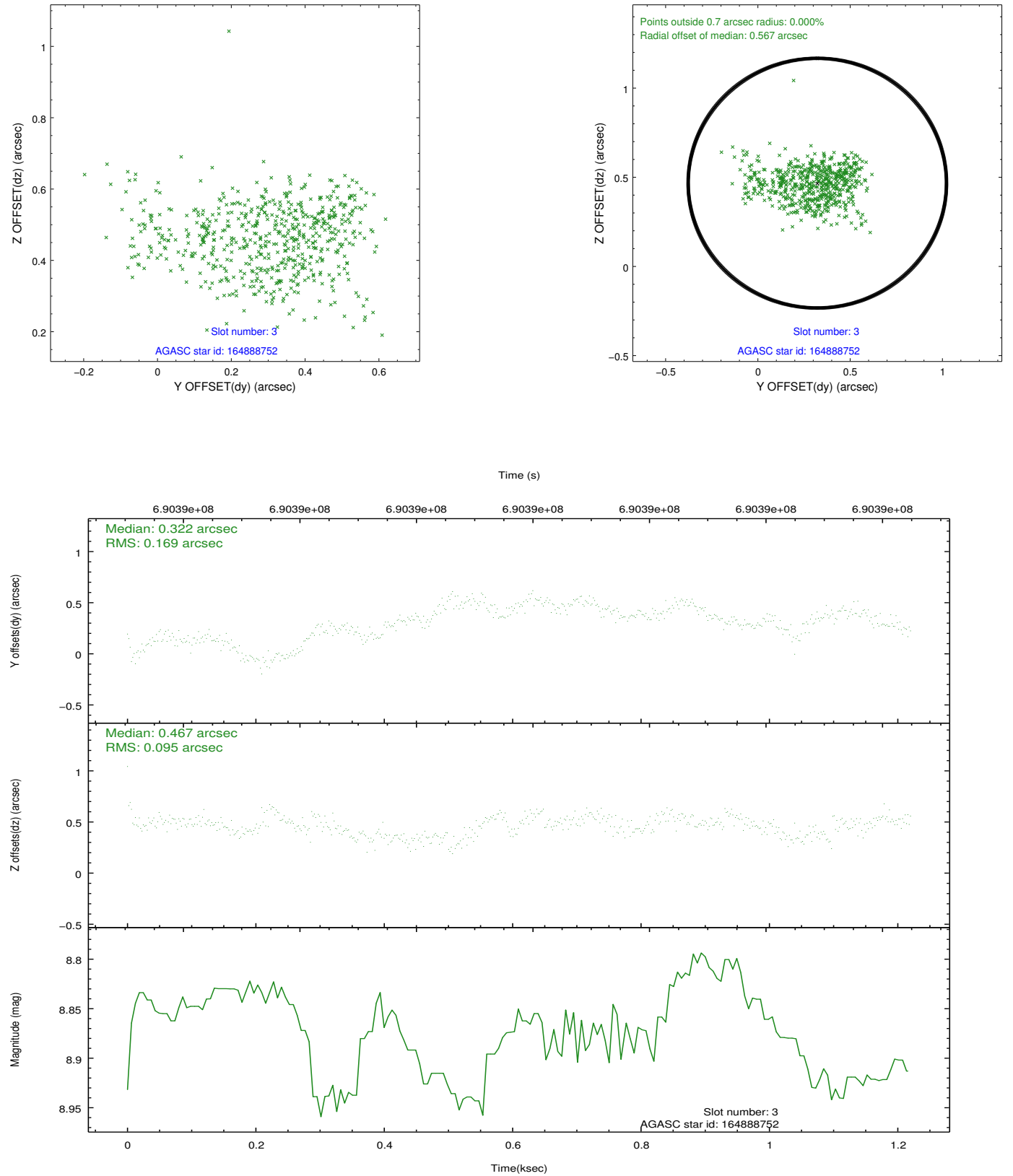
Slot Statistics

pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.15	298	1.000	0.176	-0.108	0.007	0.014	0.000000	0.000000	922.51	-1739
1	FID		ACIS-S-5	7.16	298	1.000	-0.478	0.050	0.006	0.010	0.000000	0.000000	-1824.20	152
2	FID		ACIS-S-6	7.34	298	1.000	0.280	0.069	0.008	0.014	0.000000	0.000000	382.12	803
3	GUIDE	used	164888752	8.87	595	1.000	0.322	0.467	0.197	0.363	61.568386	19.874602	-1150.24	-391
4	GUIDE	used	164890352	8.96	594	1.000	-0.195	-0.335	0.140	0.260	61.028629	19.972872	-222.83	1219
5	GUIDE	used	164895520	8.59	596	1.000	-0.136	-0.149	0.169	0.281	61.309800	20.139312	34.39	127
6	GUIDE	used	165424488	7.69	596	1.000	0.130	0.259	0.150	0.363	61.549381	20.668253	1573.16	-1257
7	GUIDE	used	165425792	9.39	583	1.000	-0.093	-0.196	0.261	0.422	61.078004	20.679214	2130.13	227

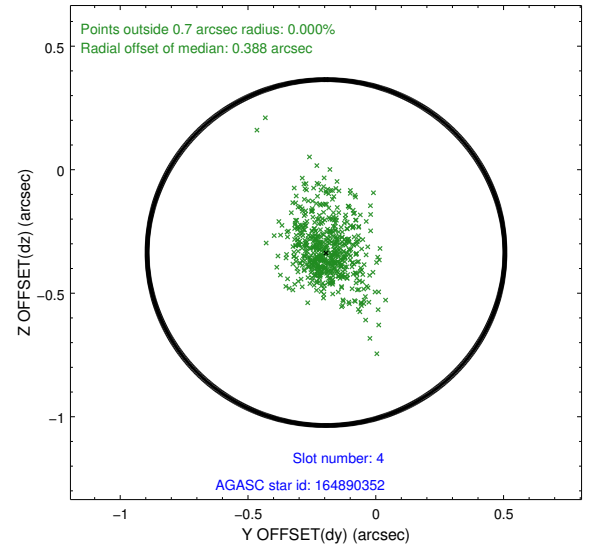
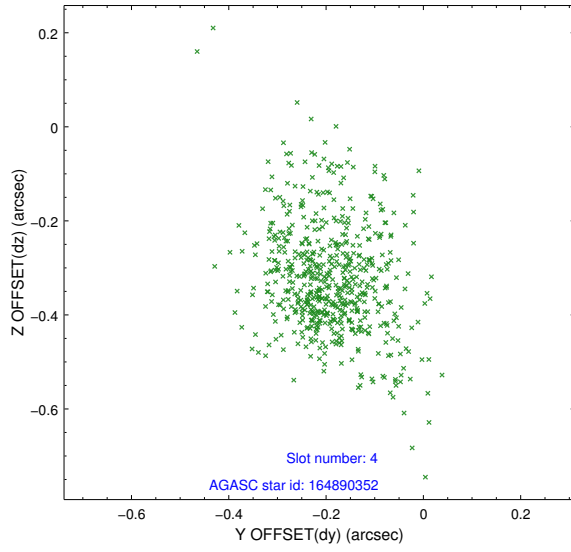


## 2.4 Star Slots

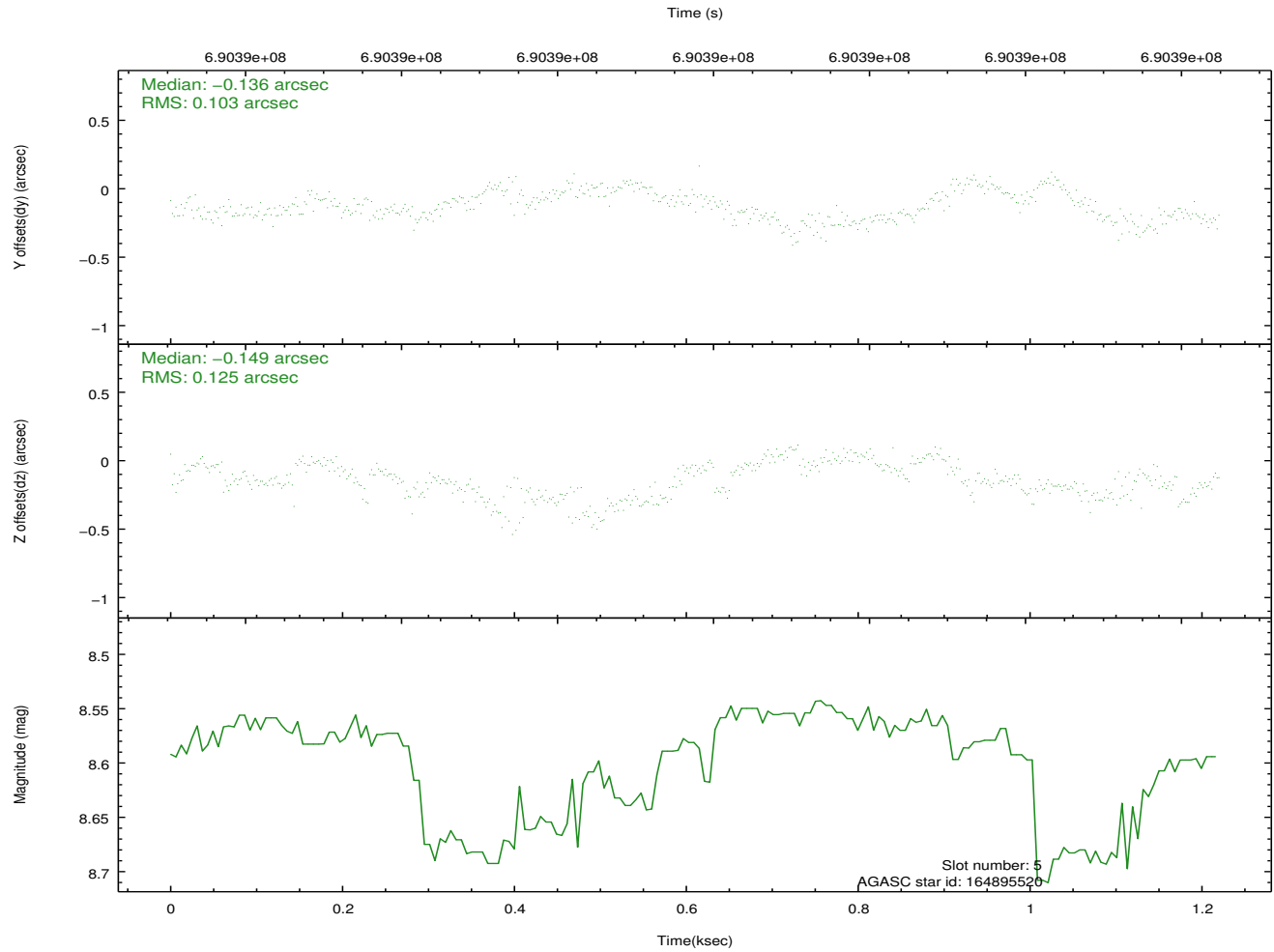
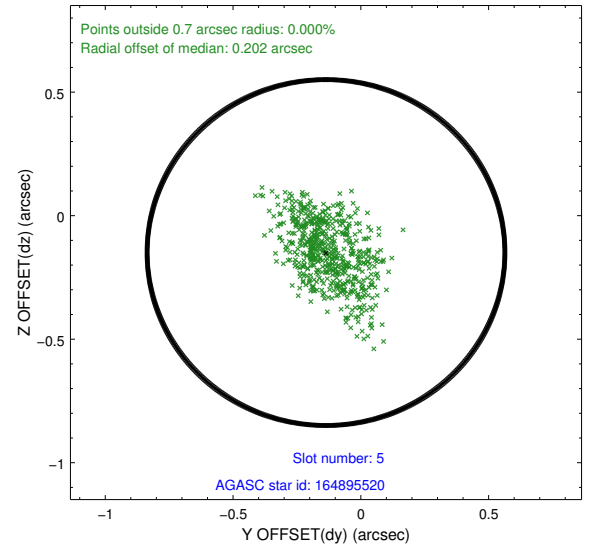
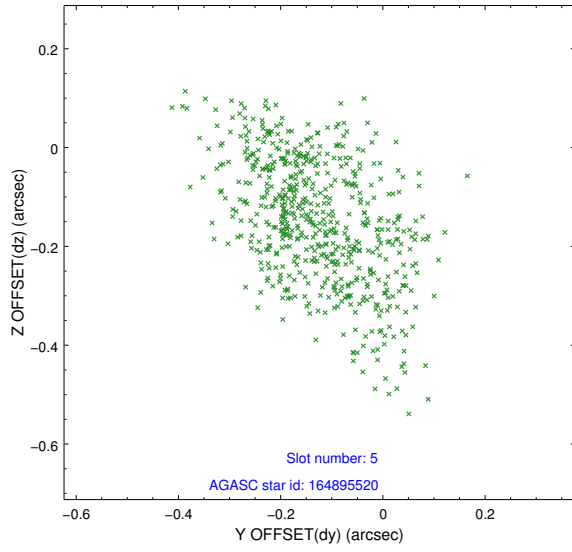
### 2.4.1 Slot 3



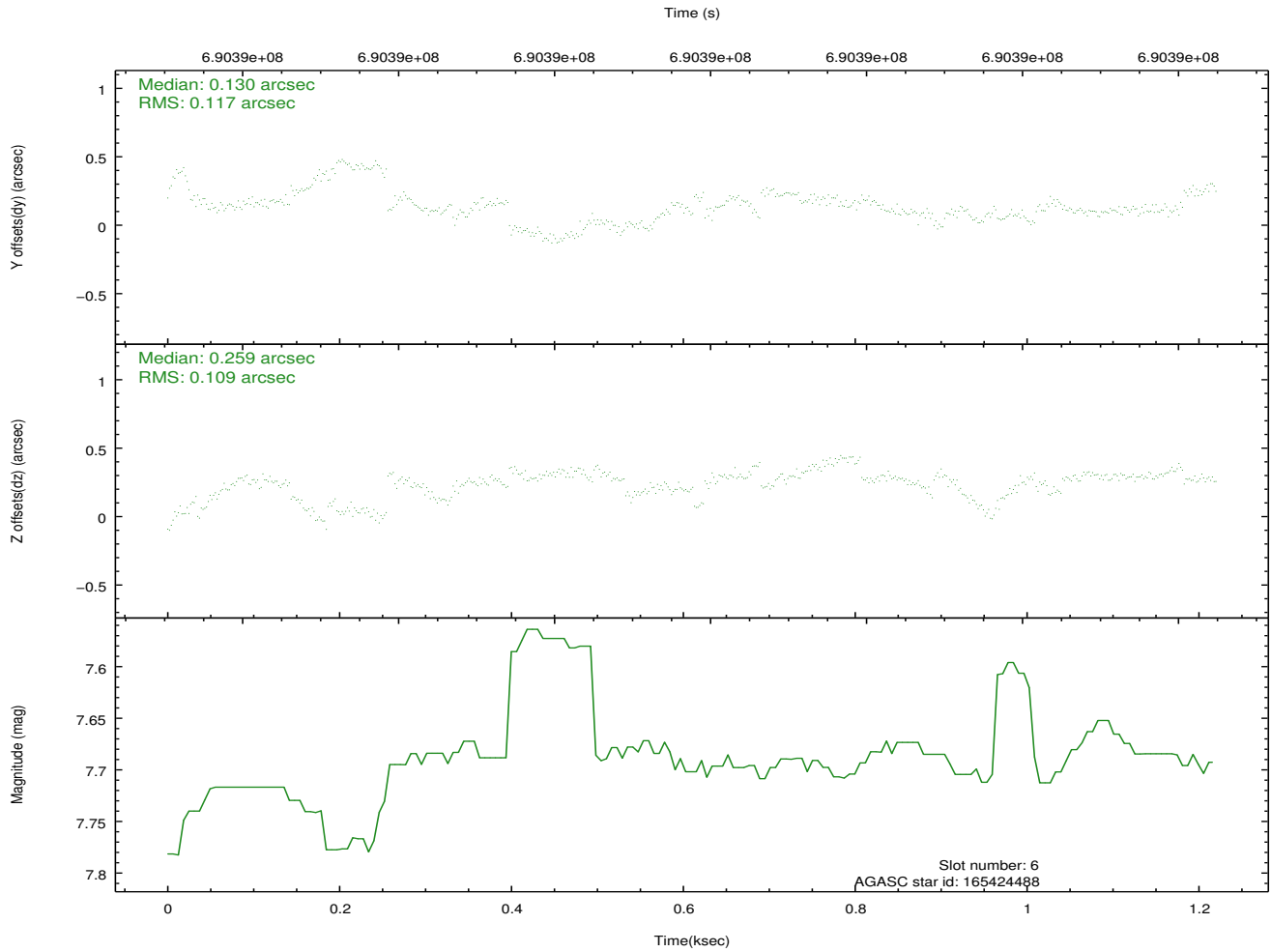
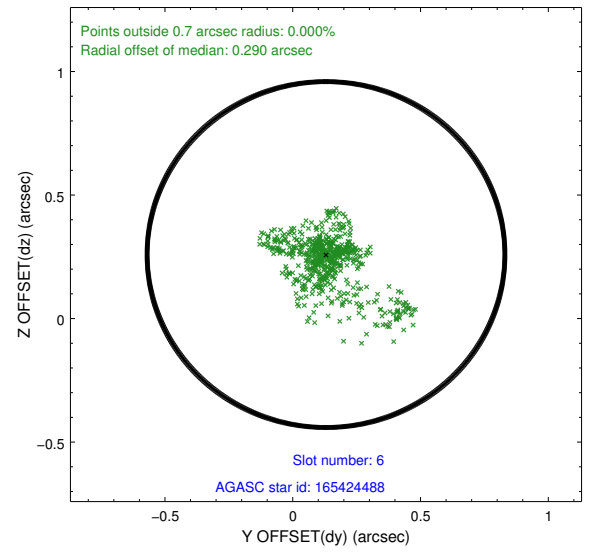
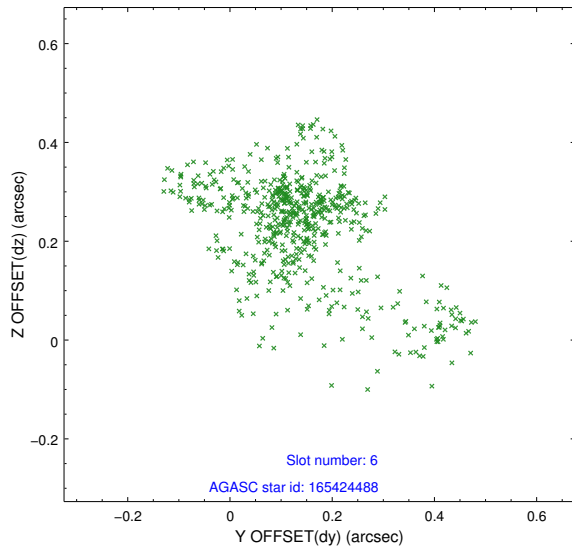
## 2.4.2 Slot 4



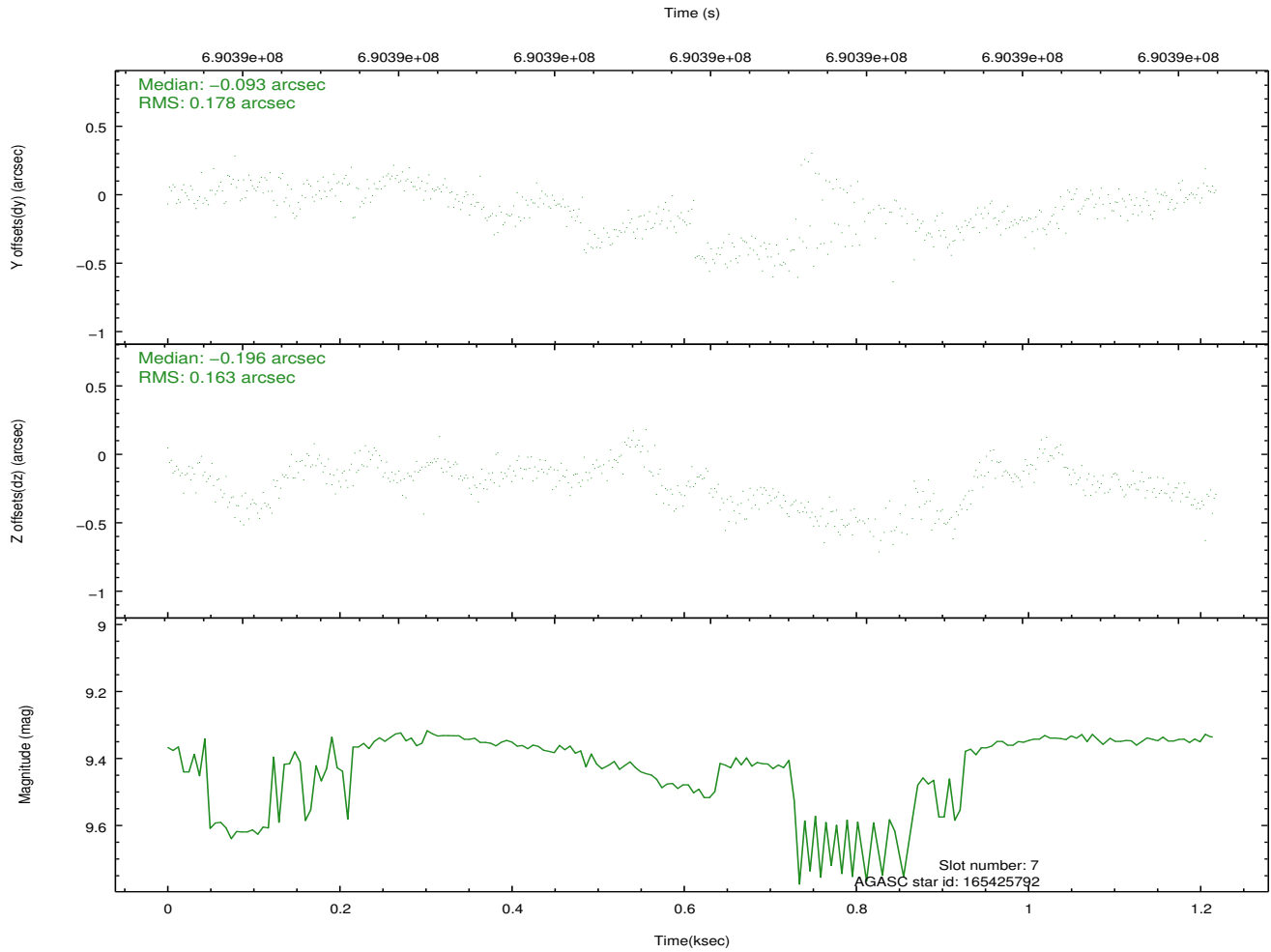
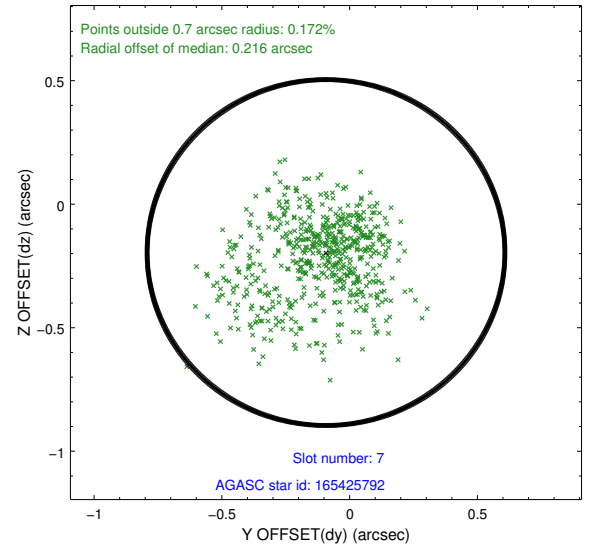
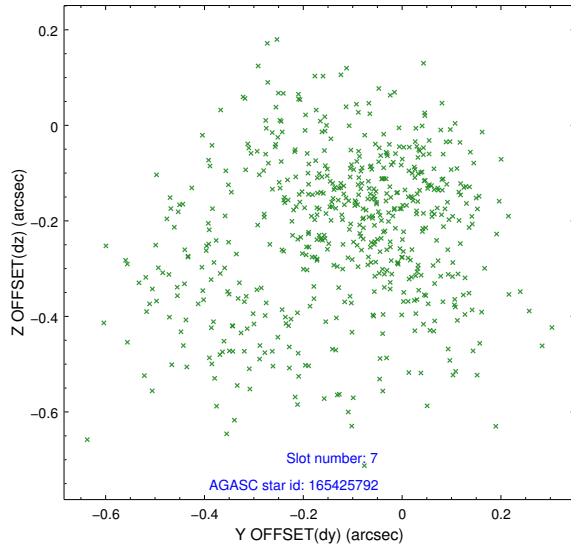
### 2.4.3 Slot 5



## 2.4.4 Slot 6

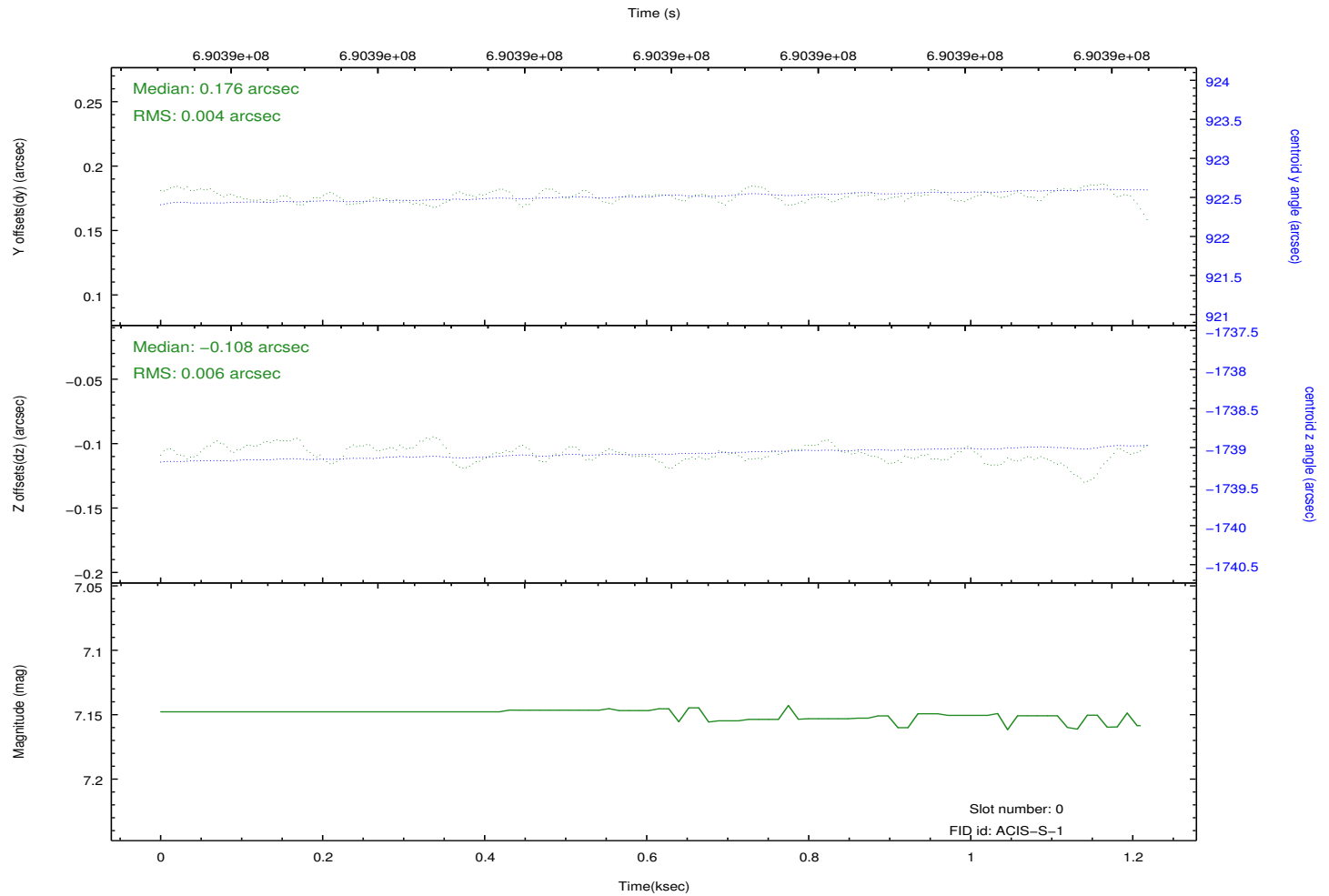
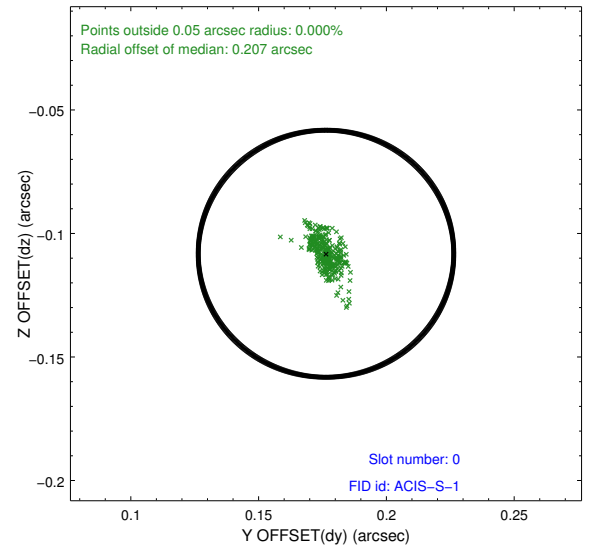
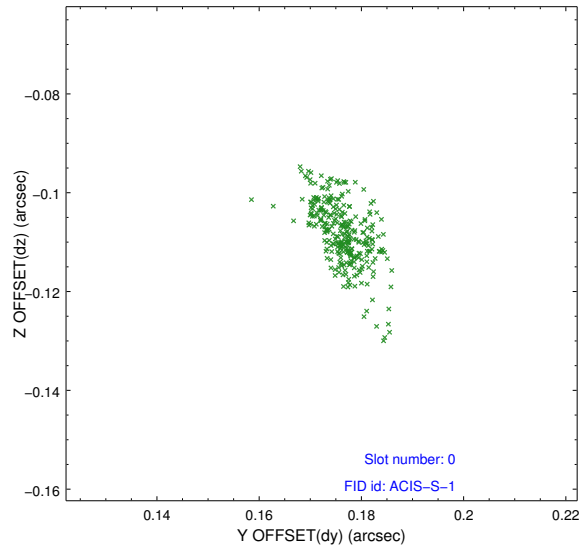


## 2.4.5 Slot 7

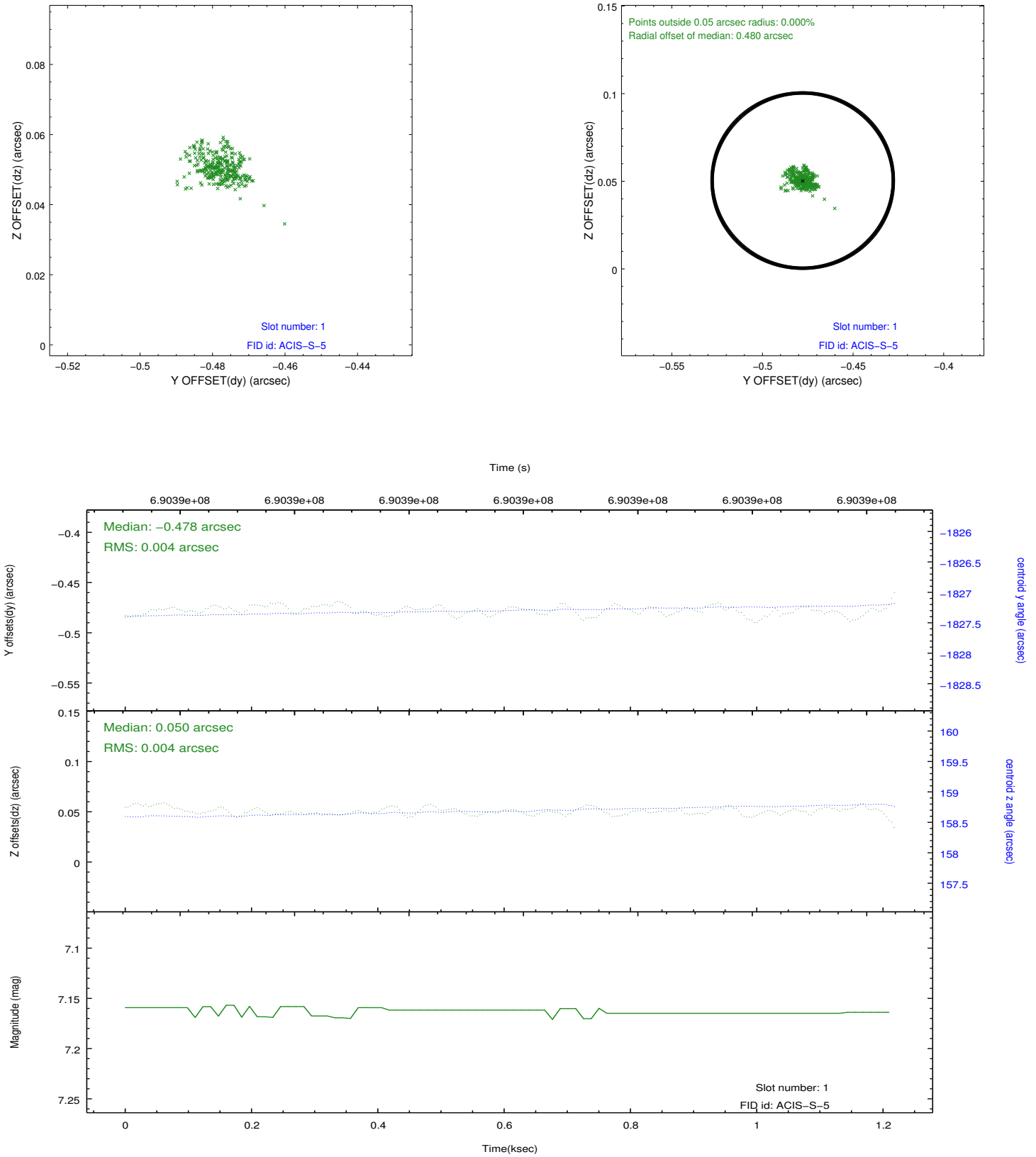


## 2.5 FID Slots

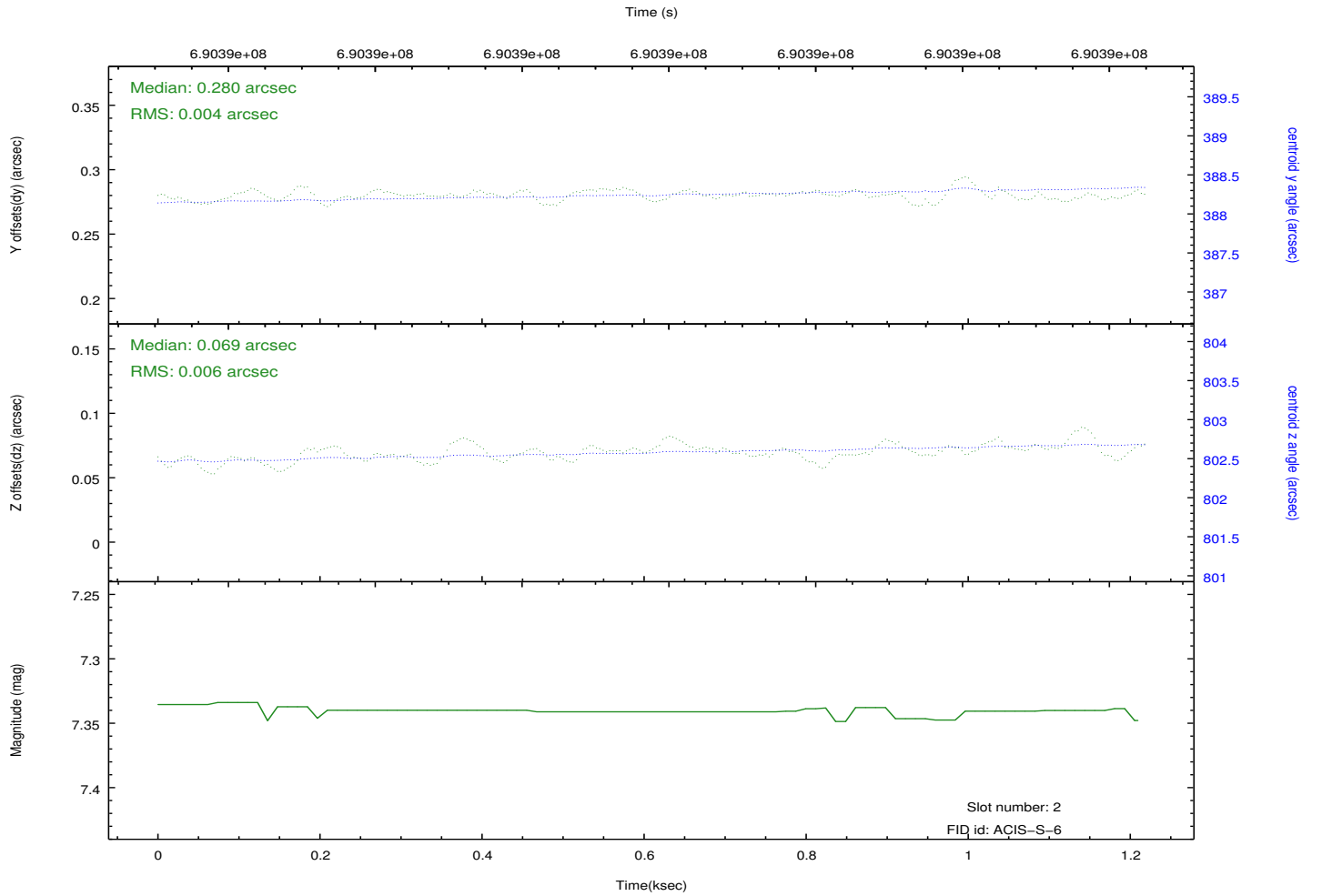
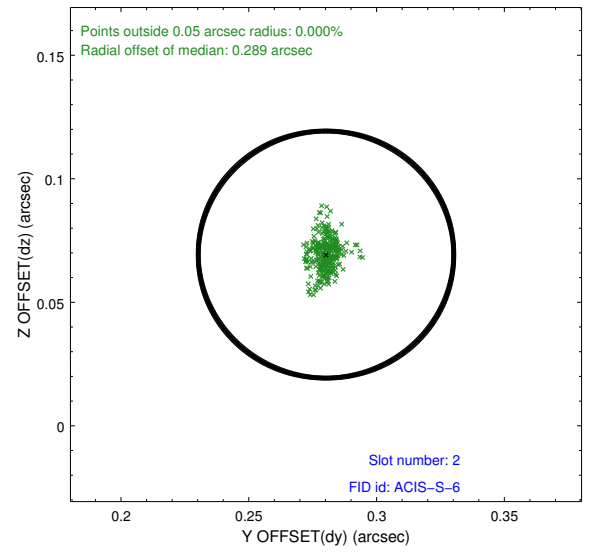
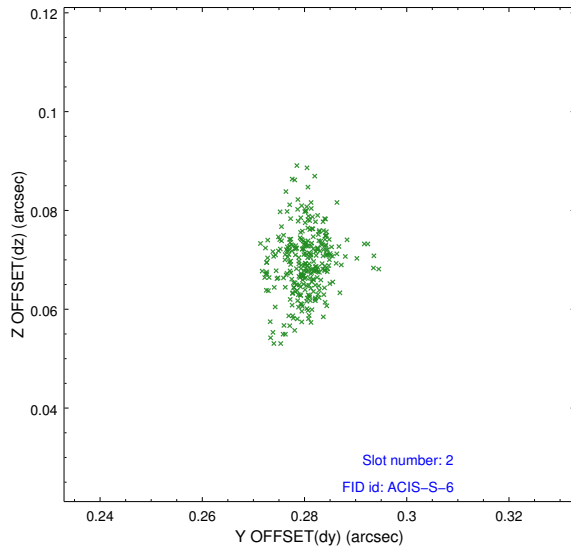
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2





# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2019.11.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.0485851278305

## A.2 Comments

A few artifacts of chip=8 streaking remain in level 2 event file. These can probably be removed by running destreak again in CIA0. The artifacts do not affect the target chip.