

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 21008 - L2 Version 2  
Chandra X-Ray Center

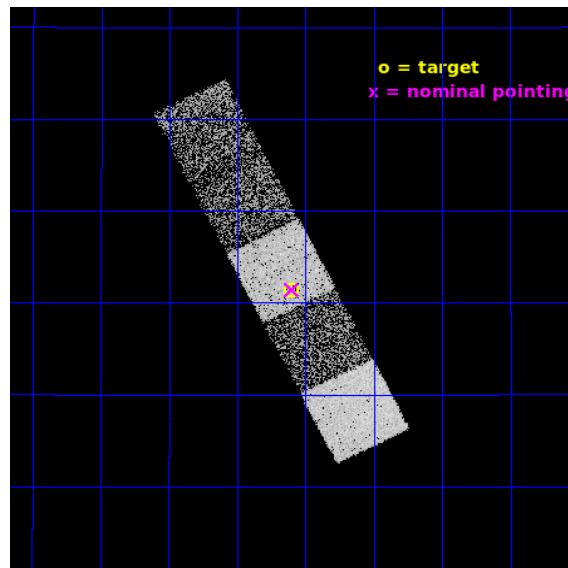
L2 Processing Date : Oct 26 2020

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# 1 Front

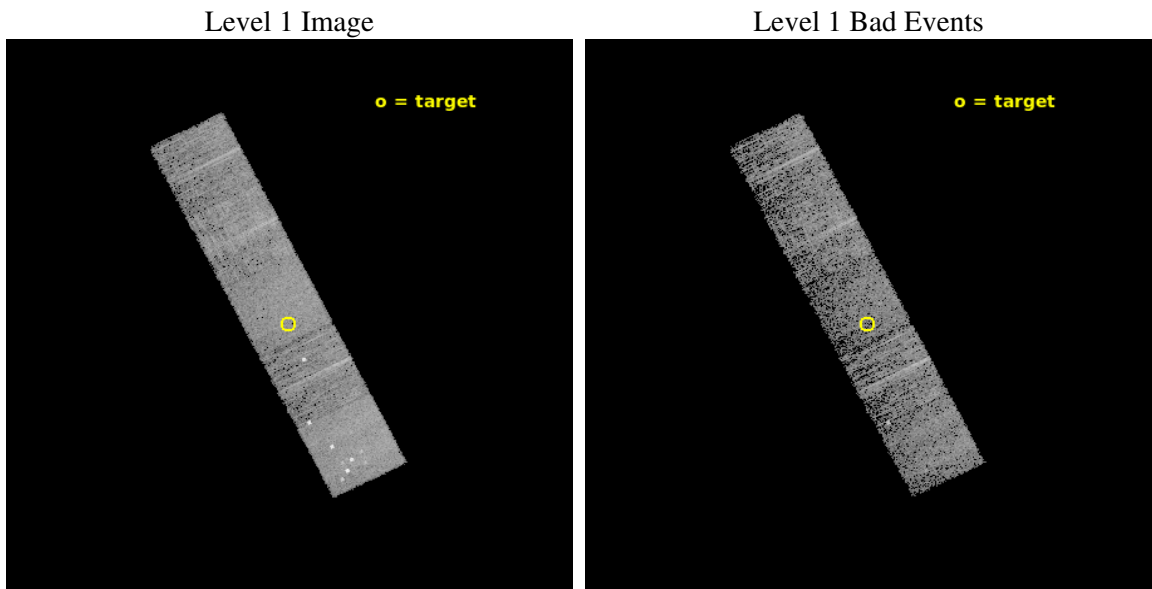
seq_num	703649	Sequence number
obs_id	21008	Observation id
title	LOW SURFACE BRIGHTNESS GALAXIES AND THE BLACK HOLE OCCUPATION FRACTION	Proposal title
observer	Elena Gallo	Principal investigator
object	LSBC F574-08	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	188.150833	Observer's specified target RA [deg]
dec_targ	18.023056	Observer's specified target Dec [deg]
ra_nom	188.1500169312	Nominal RA [deg]
dec_nom	18.023949089711	Nominal Dec [deg]
roll_nom	243.15529452837	Nominal Roll [deg]
revision	2	Processing version of data
ontime	3297.1753112078	Sum of GTIs [s]
livetime	3254.0952884217	Livetime [s]
ontime5	3297.1342712641	Sum of GTIs [s]
ontime6	3297.0932312012	Sum of GTIs [s]
ontime7	3297.1753112078	Sum of GTIs [s]
ontime8	3297.0521912575	Sum of GTIs [s]
ontime9	3297.0111511946	Sum of GTIs [s]
l2events	38168	Number of level 2 events



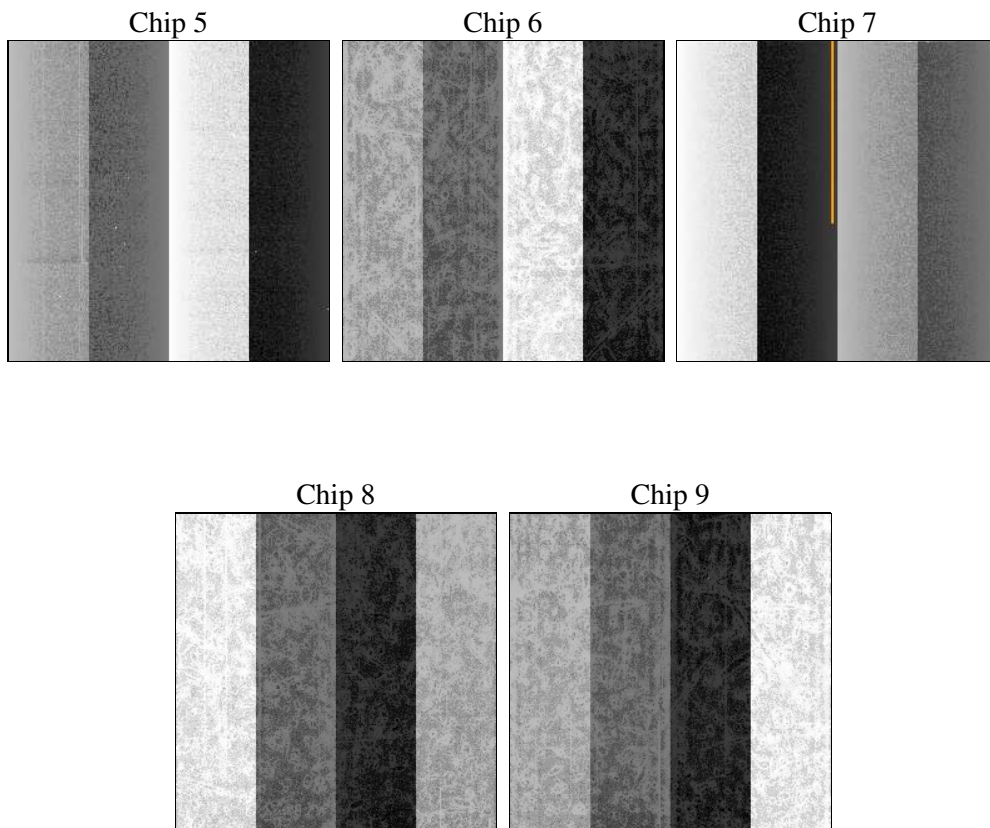
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3249.286000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	3297.1753112078	Sum of GTIs [s]
caldsver	4.9.3	&#160	ontime5	3297.1342712641	Sum of GTIs [s]
date	2020-10-26T10:27:23	Date and time of file creation	ontime6	3297.0932312012	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	3297.1753112078	Sum of GTIs [s]
			ontime8	3297.0521912575	Sum of GTIs [s]
			ontime9	3297.0111511946	Sum of GTIs [s]
			l1events	161725	Number of level 1 events

### 2.1.4 Events

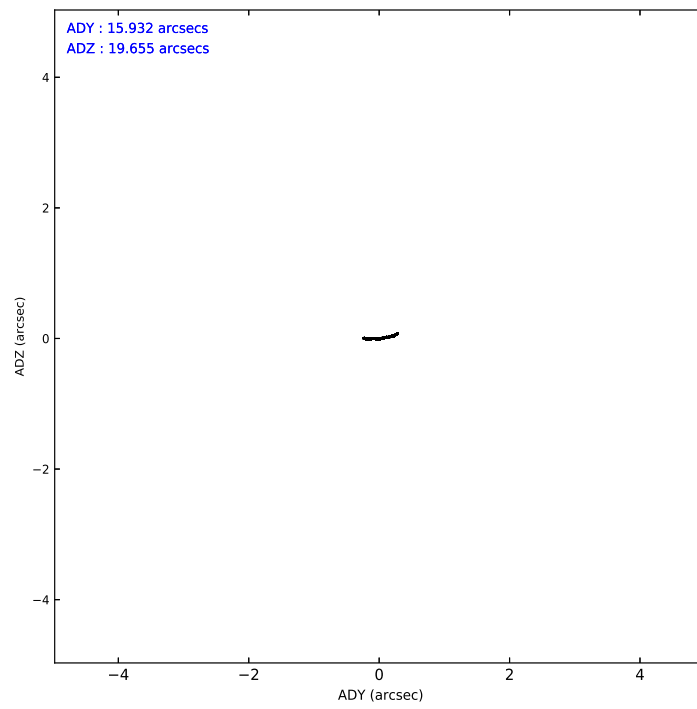
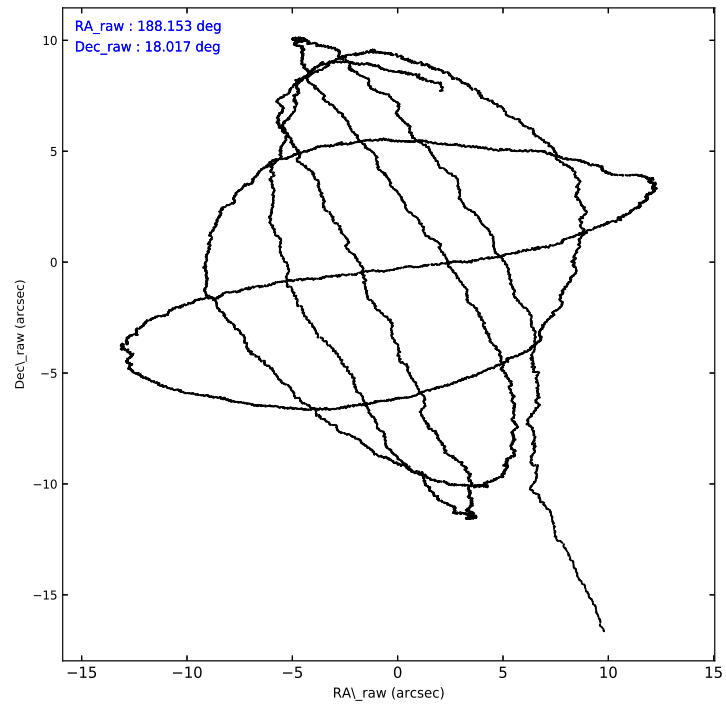
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	44509	27497	31953	32394	25372
rejected events	21252	23800	18358	24507	22450
rejected %	47%	86%	57%	75%	88%

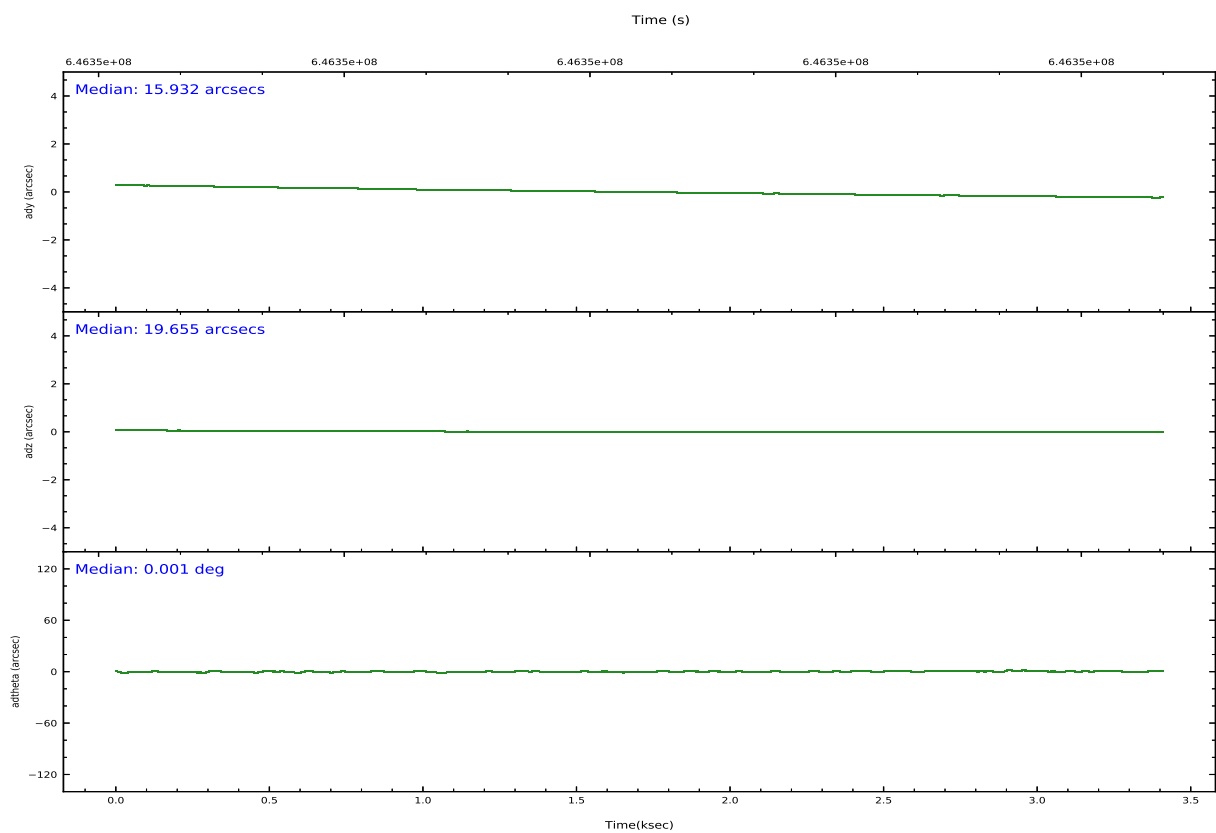
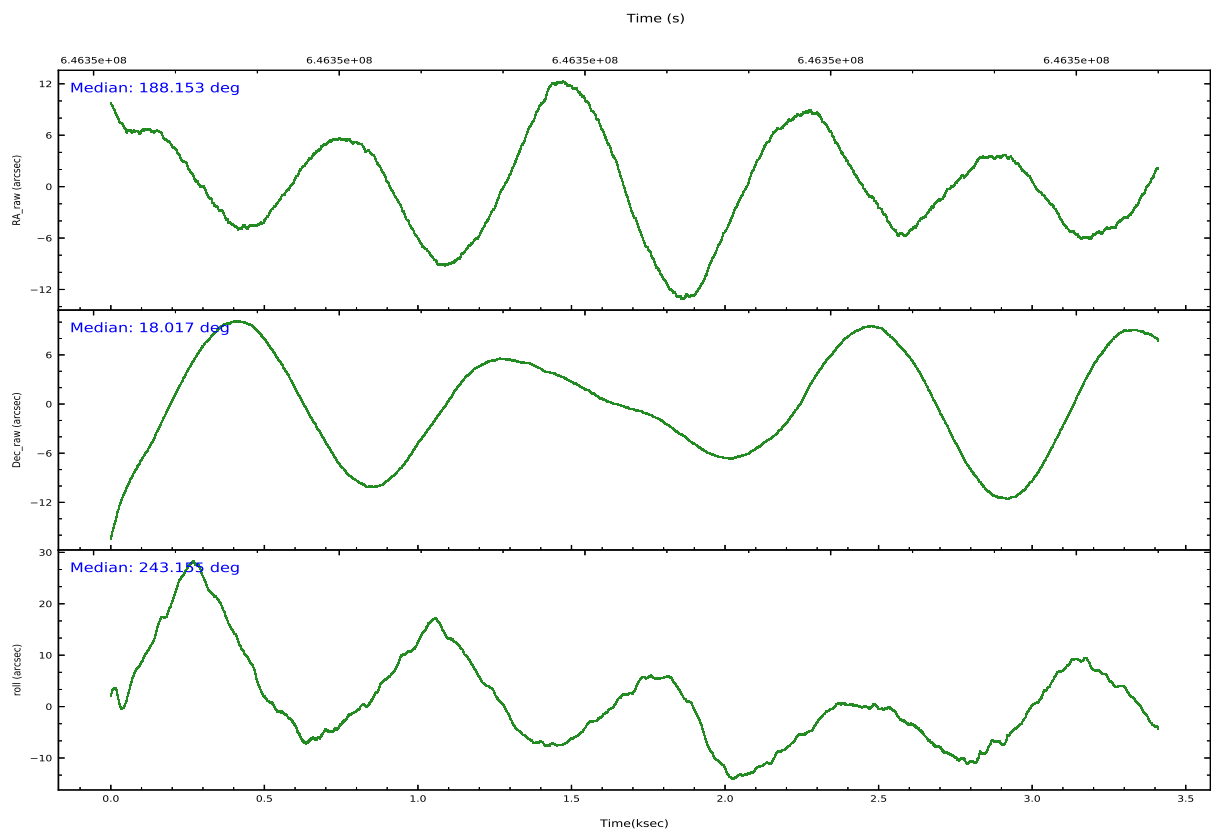
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	4050	1754	1199	2098	911
	9%	6%	3%	6%	3%
grade 1 events	176	6	52	22	21
	0%	0%	0%	0%	0%
grade 2 events	6699	757	2811	2030	757
	15%	2%	8%	6%	2%
grade 3 events	726	215	1080	706	278
	1%	0%	3%	2%	1%
grade 4 events	1015	222	1040	658	239
	2%	0%	3%	2%	0%
grade 5 events	2702	980	2959	1578	1155
	6%	3%	9%	4%	4%
grade 6 events	10788	757	7475	2398	744
	24%	2%	23%	7%	2%
grade 7 events	18353	22806	15337	22904	21267
	41%	82%	47%	70%	83%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-56789	ACIS-56789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	188.151147	188.1500169312	CCD I2 on	N	N
[deg] Pointing Dec	18.044533	18.023949089711	CCD I3 on	N	N
[deg] Pointing Roll	242.999904	243.15529452837	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	646349018.184000	646347777.4236	CCD S5 on	O2	Y
Observation start date	2018-06-25T21:22:29	2018-06-25T21:02:57	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	646352267.184000	646352971.09891	On-chip summing requested	N	N
Observation end date	2018-06-25T22:16:38	2018-06-25T22:29:31	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





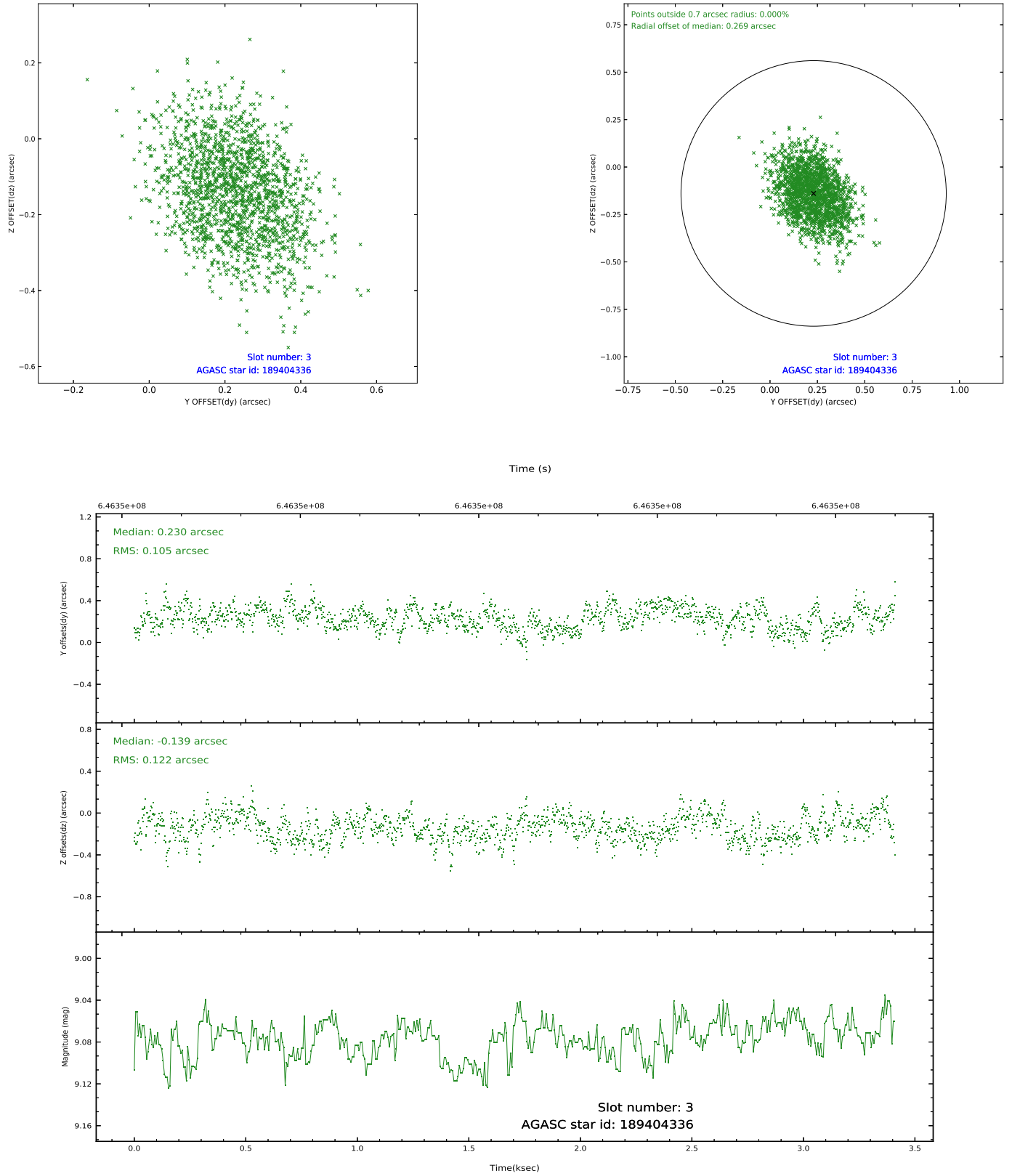
Slot Statistics

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	7.17	832	1.000	-0.043	-0.023	0.006	0.011	0.000000	0.000000	-769.12	-1741
1	FID		ACIS-S-4	7.28	832	1.000	0.140	-0.014	0.008	0.012	0.000000	0.000000	2143.64	165
2	FID		ACIS-S-6	7.42	832	1.000	-0.124	0.044	0.009	0.014	0.000000	0.000000	395.36	804
3	GUIDE	used	189404336	9.08	1664	1.000	0.230	-0.139	0.170	0.274	187.472914	17.909934	1484.32	-1851
4	GUIDE	used	189409592	8.91	1659	1.000	0.060	0.151	0.143	0.242	187.852382	17.693080	1593.59	-339
5	GUIDE	used	189531568	9.84	1664	1.000	-0.094	0.184	0.208	0.343	188.387151	18.558208	-2012.22	-121
6	GUIDE	used	189532264	9.45	1654	1.000	-0.220	0.121	0.251	0.383	188.220402	17.621548	1248.40	903
7	GUIDE	used	189543360	9.09	1660	1.000	0.011	-0.290	0.215	0.333	188.011823	17.663433	1440.56	197

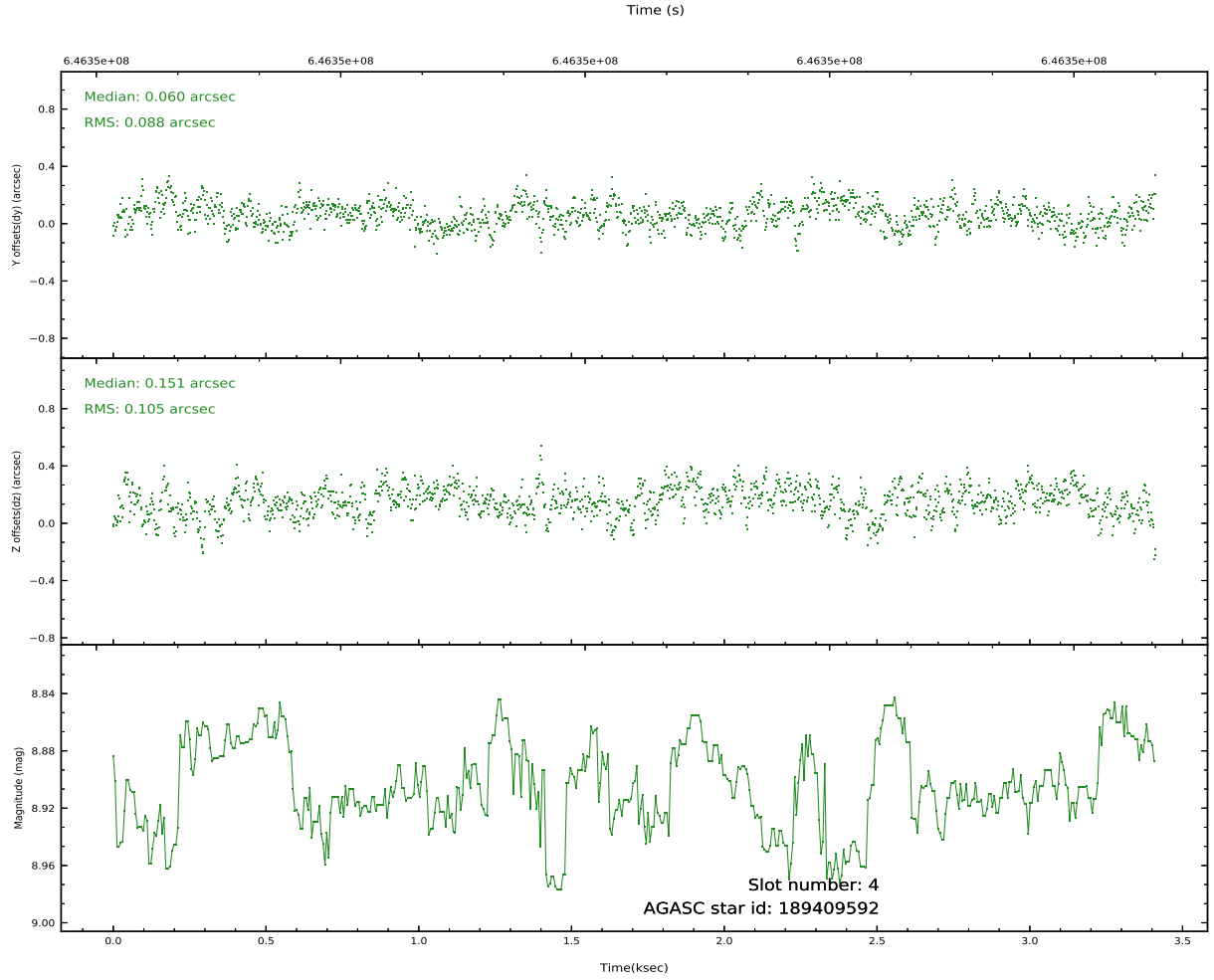
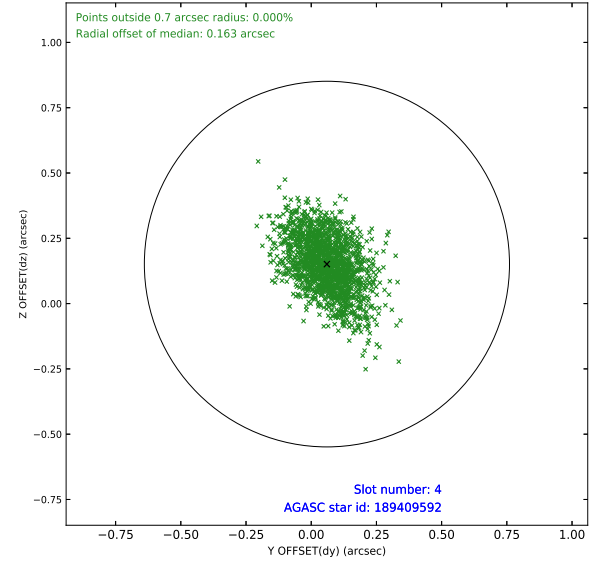
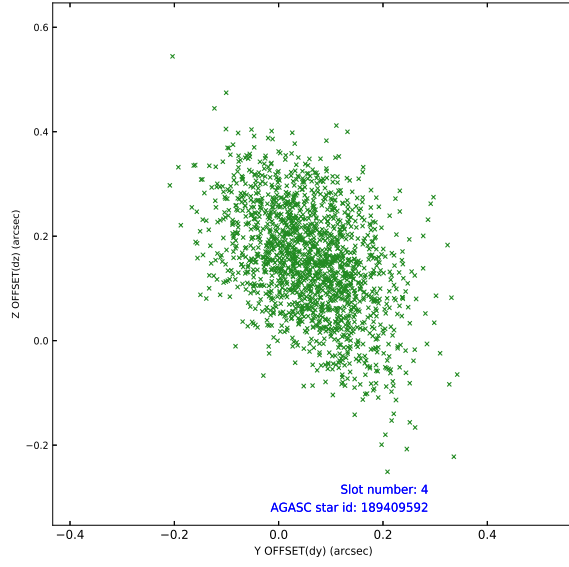


## 2.4 Star Slots

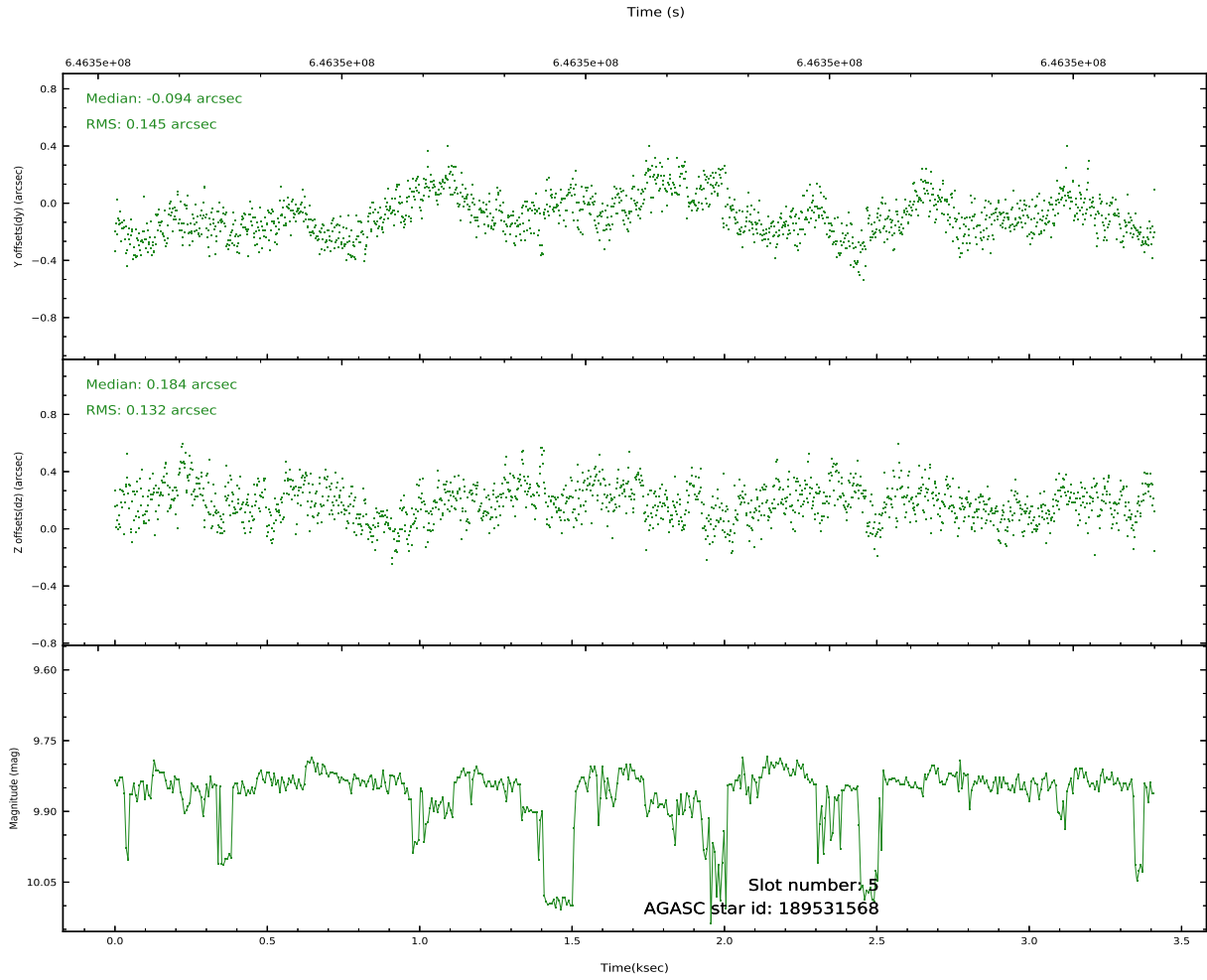
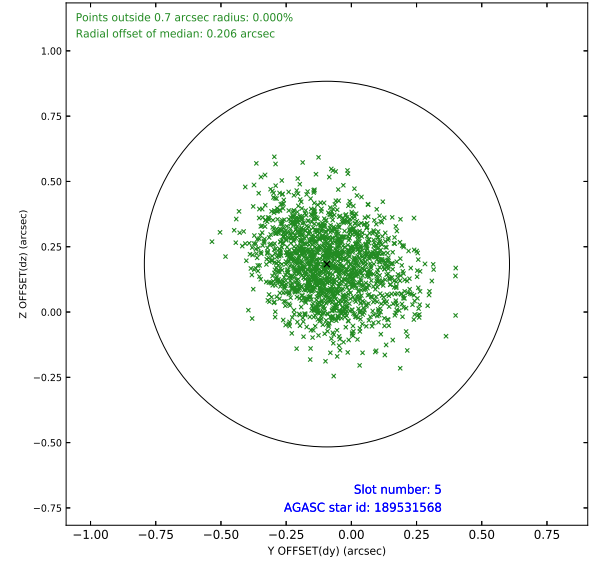
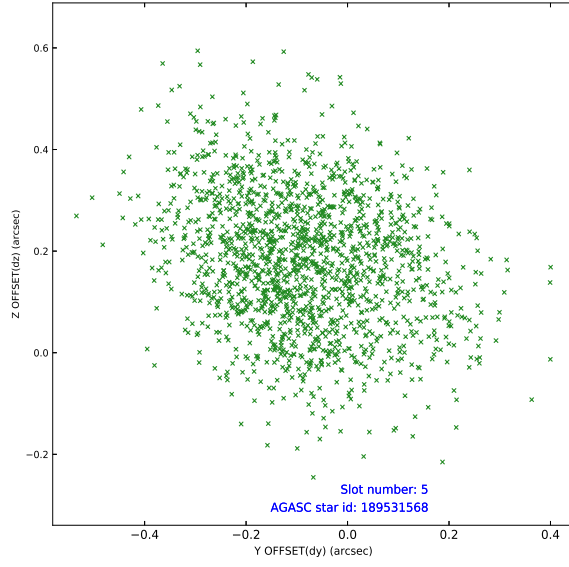
### 2.4.1 Slot 3



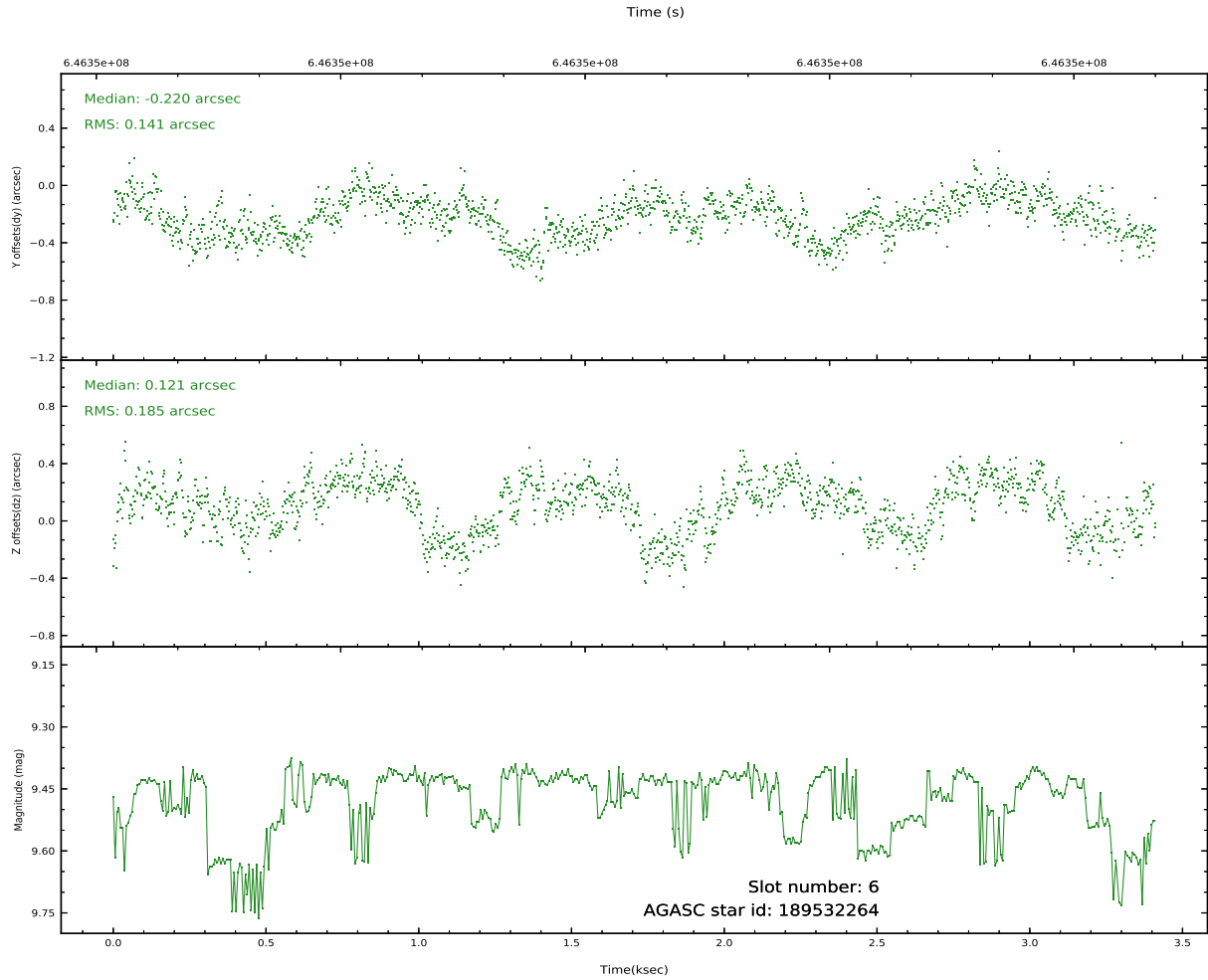
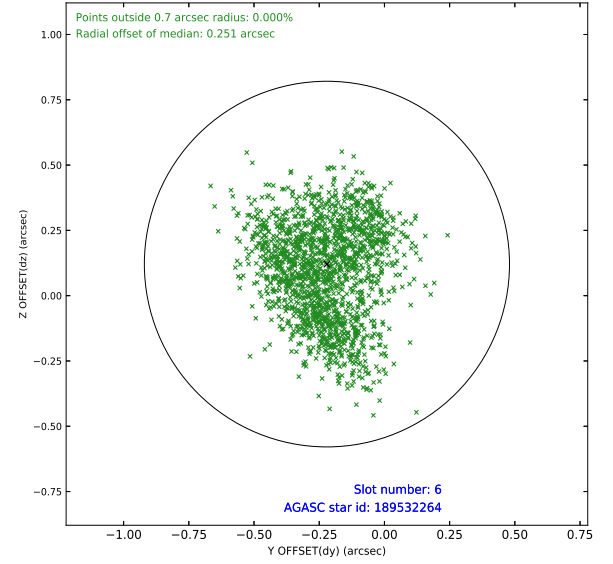
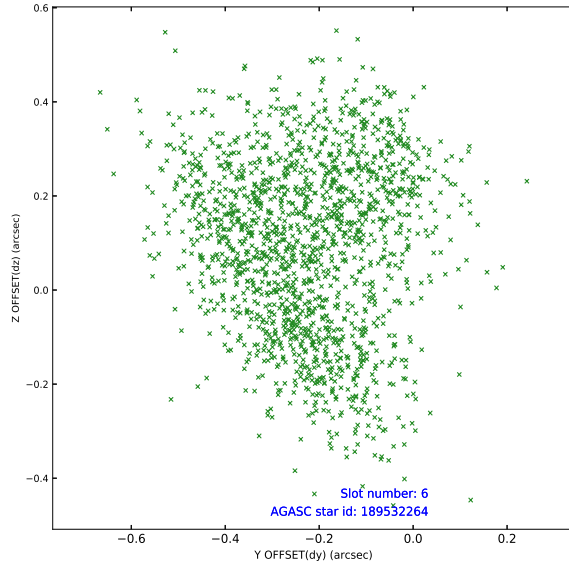
## 2.4.2 Slot 4



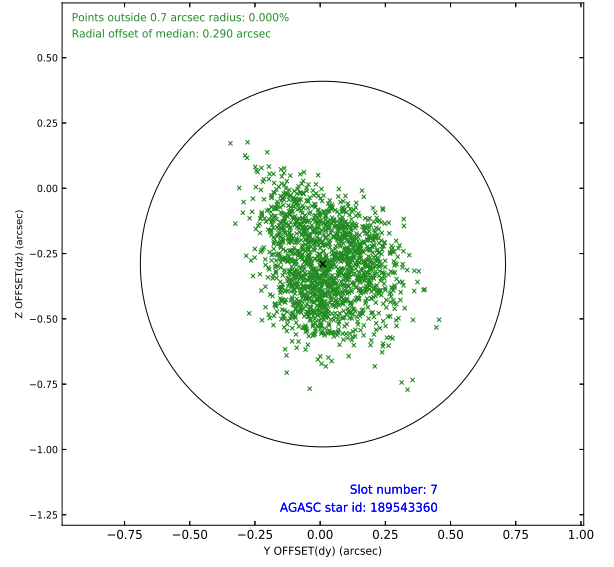
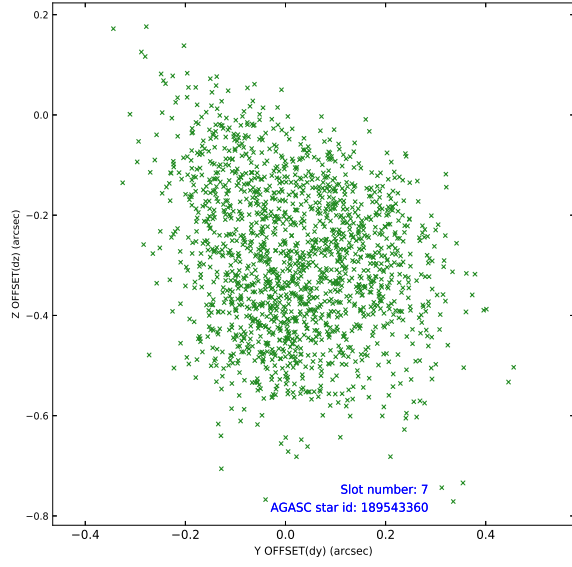
### 2.4.3 Slot 5



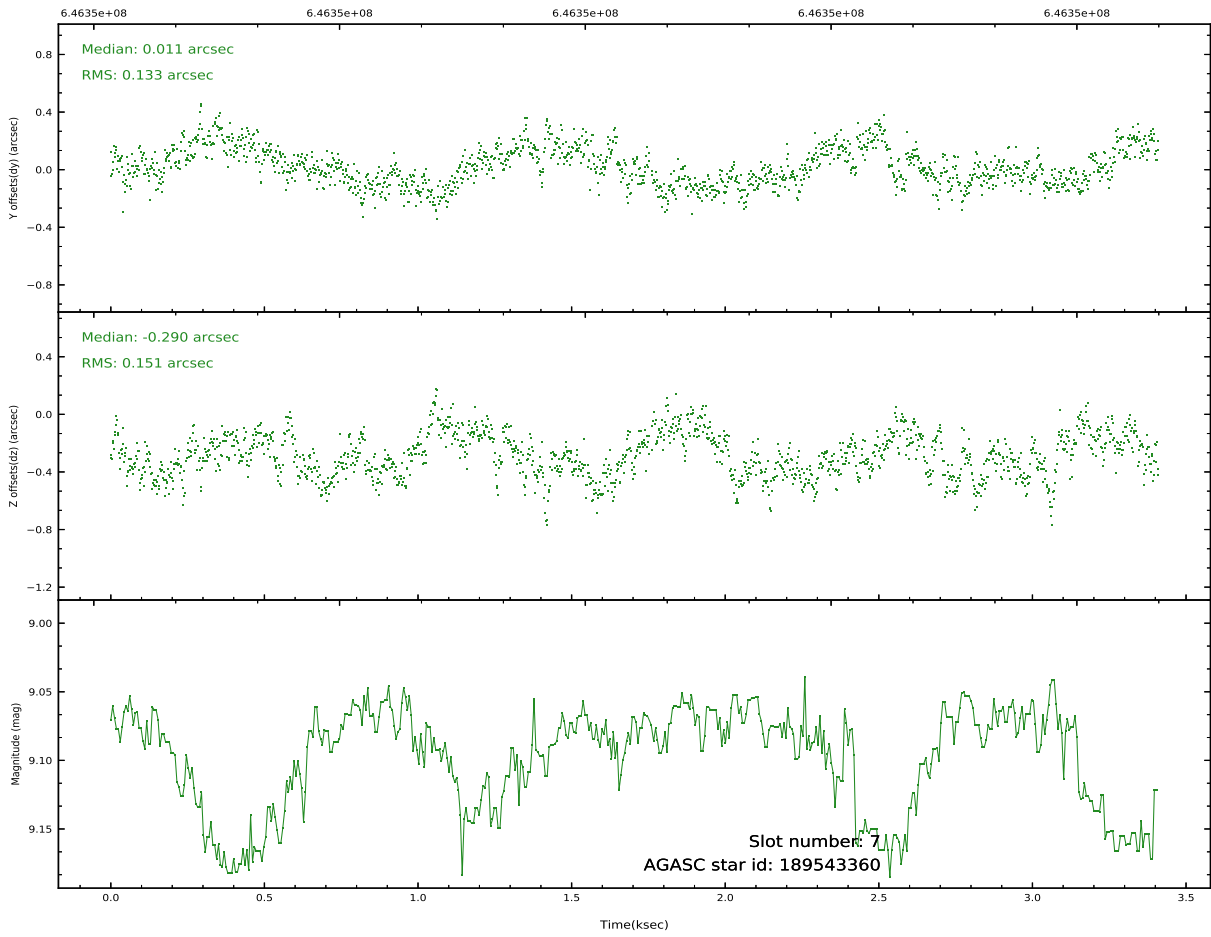
## 2.4.4 Slot 6



## 2.4.5 Slot 7

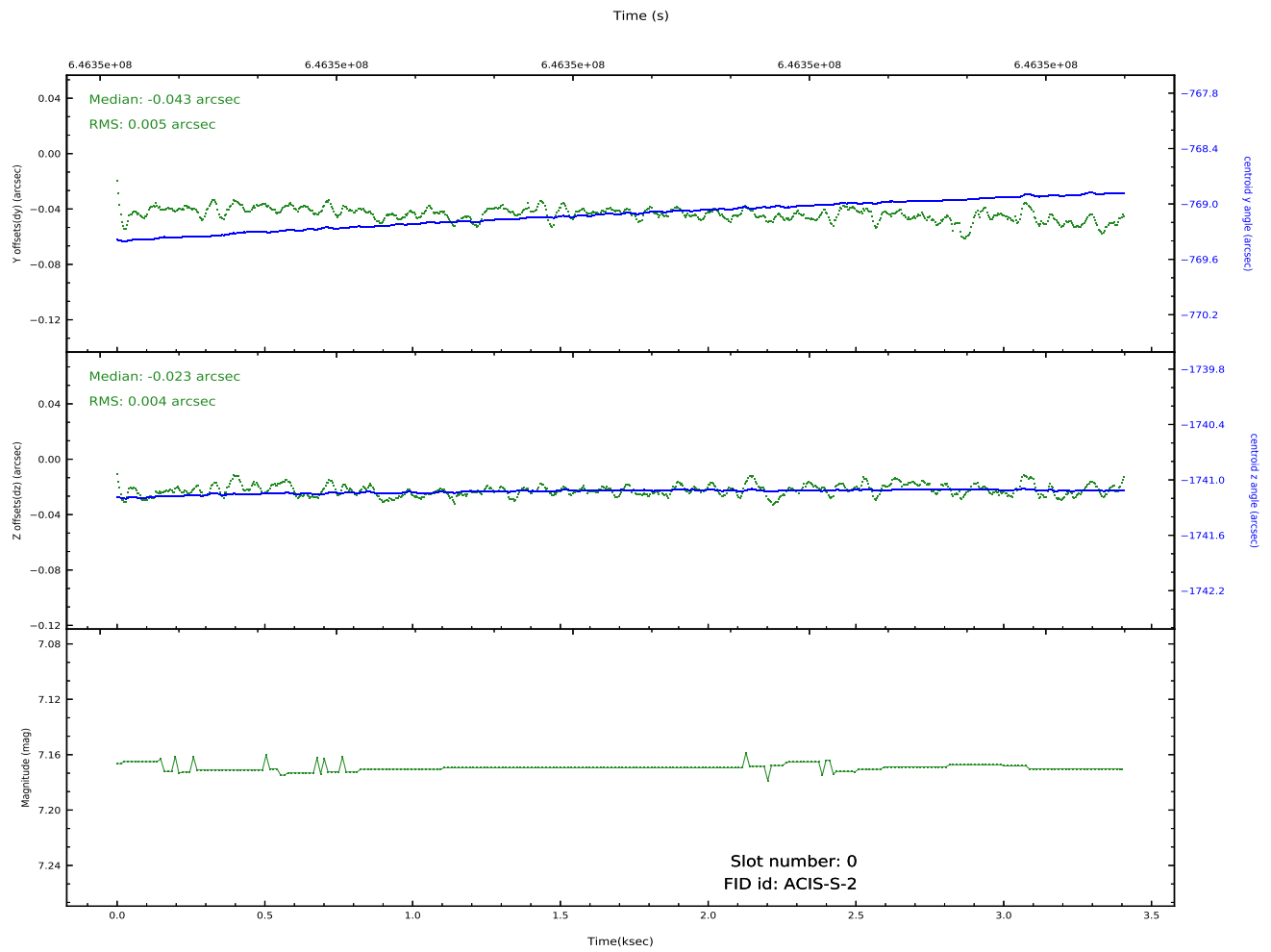
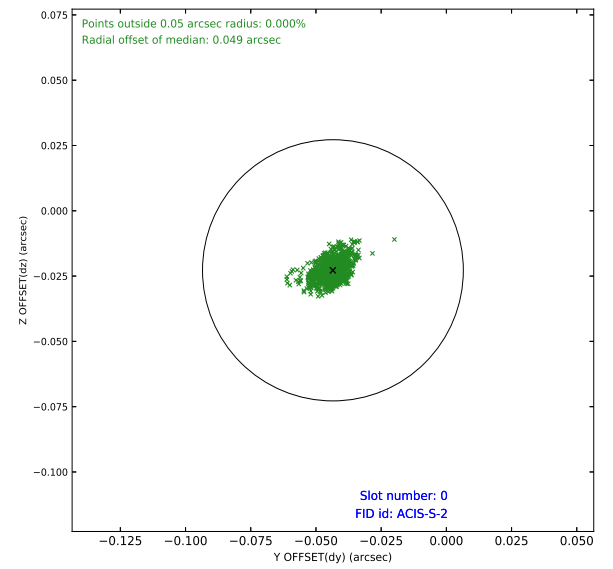
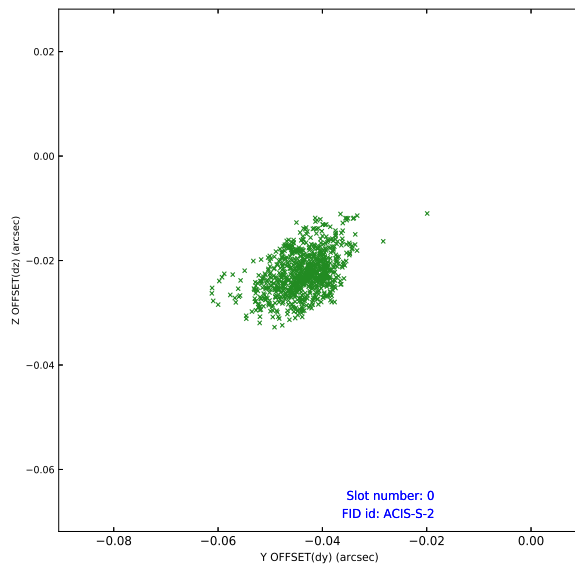


Time (s)

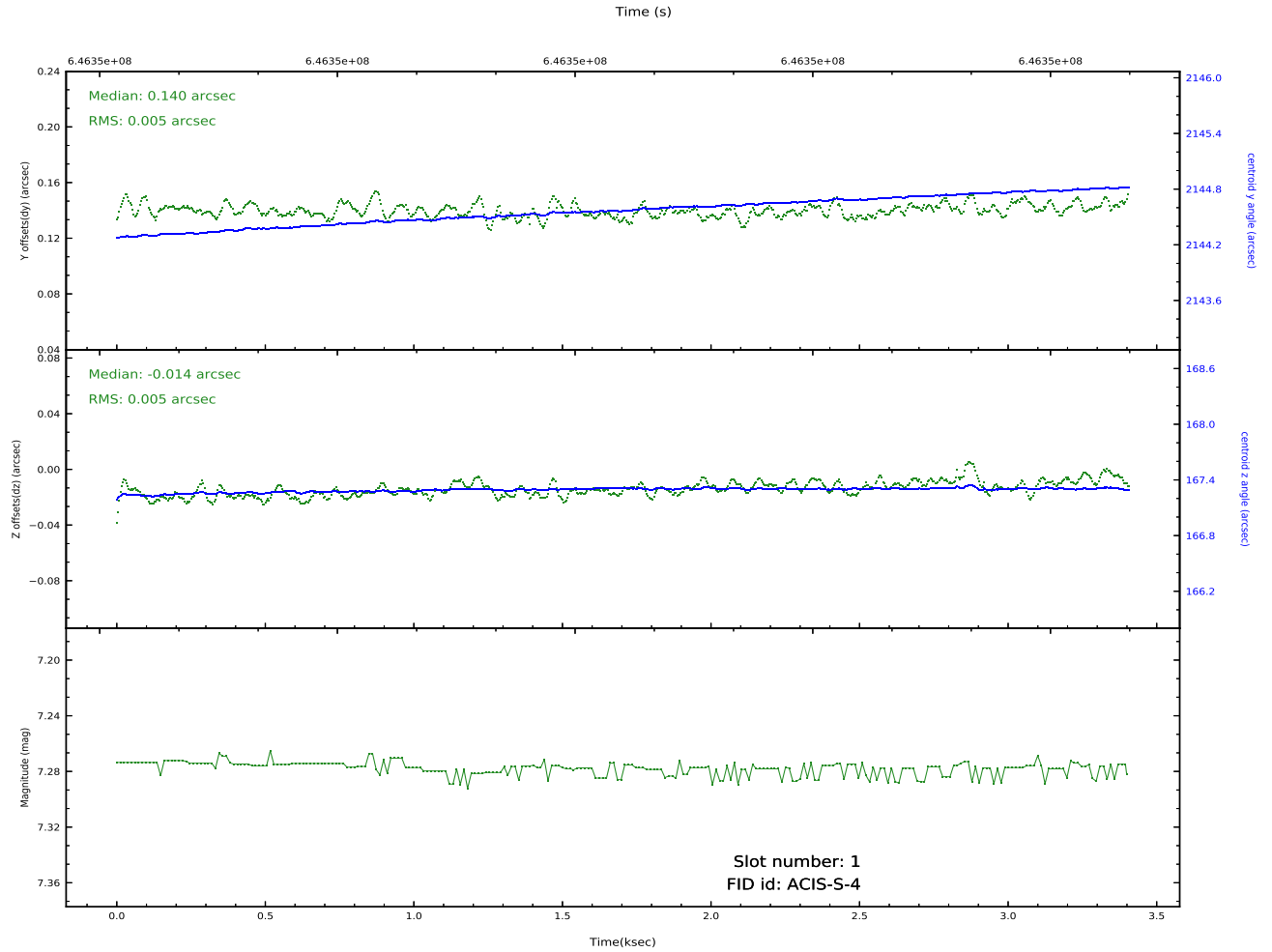
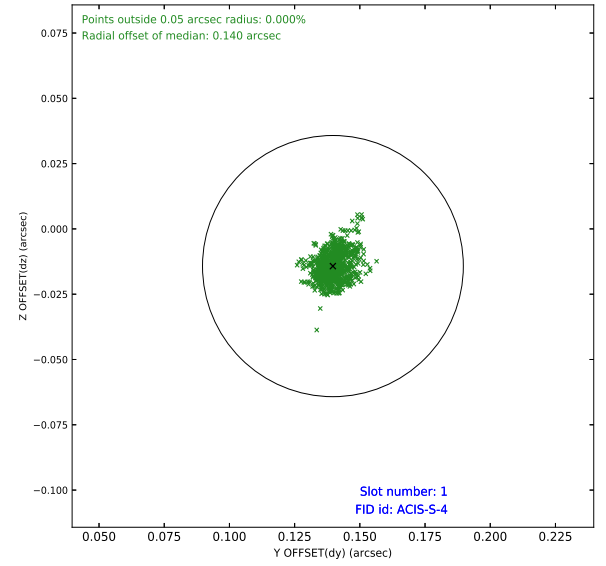
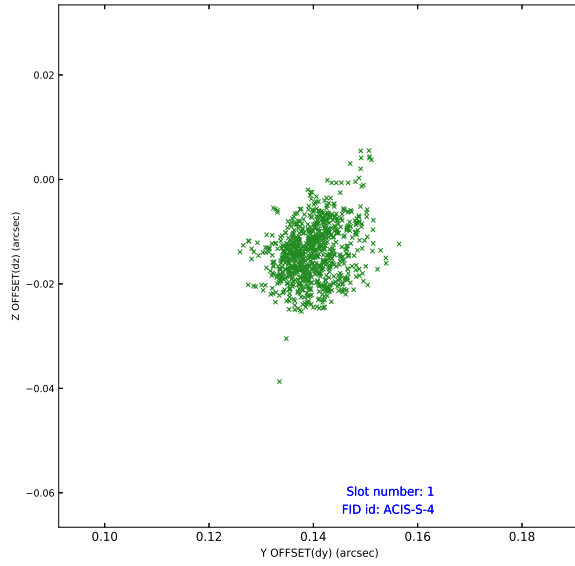


## 2.5 FID Slots

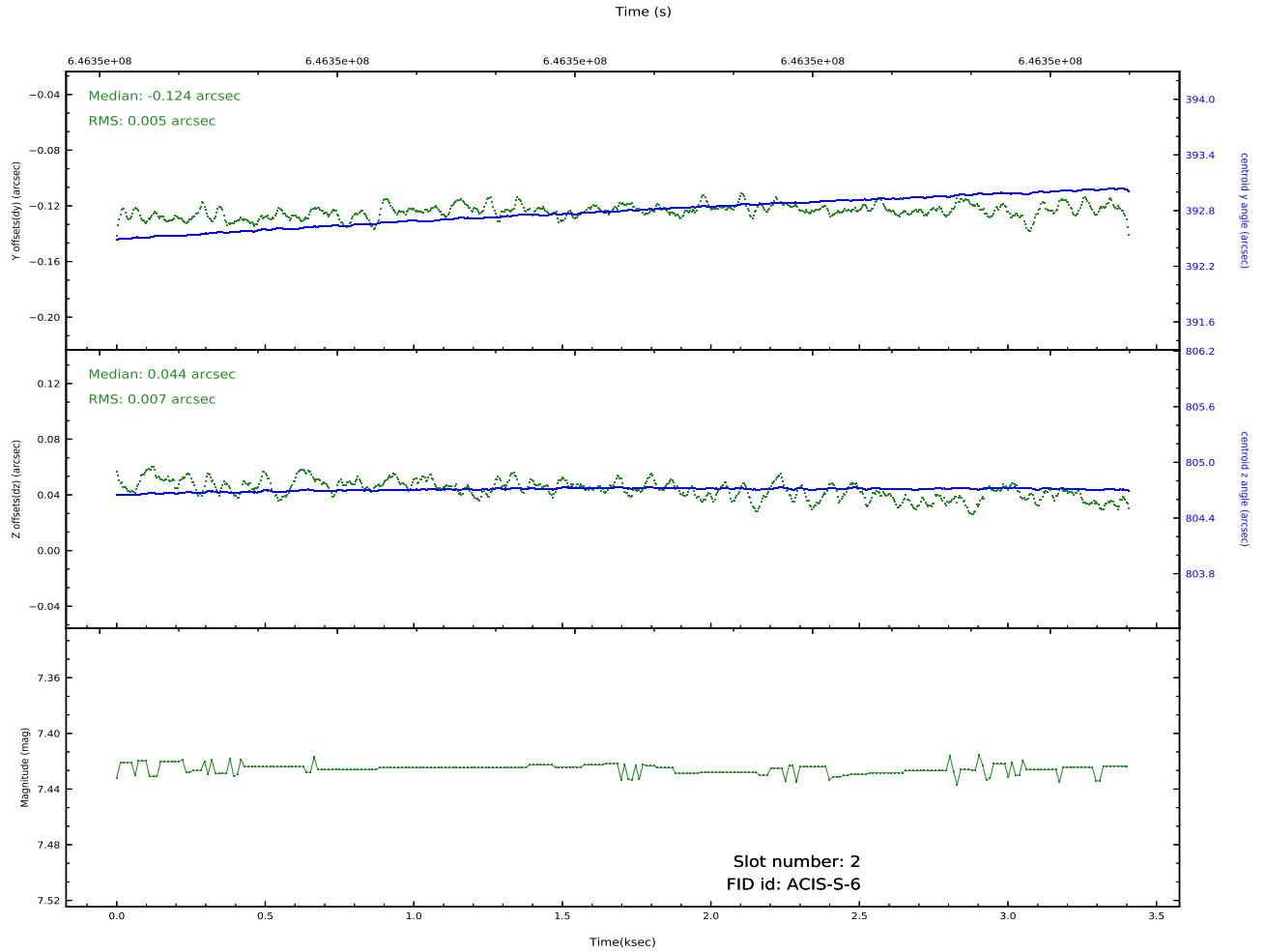
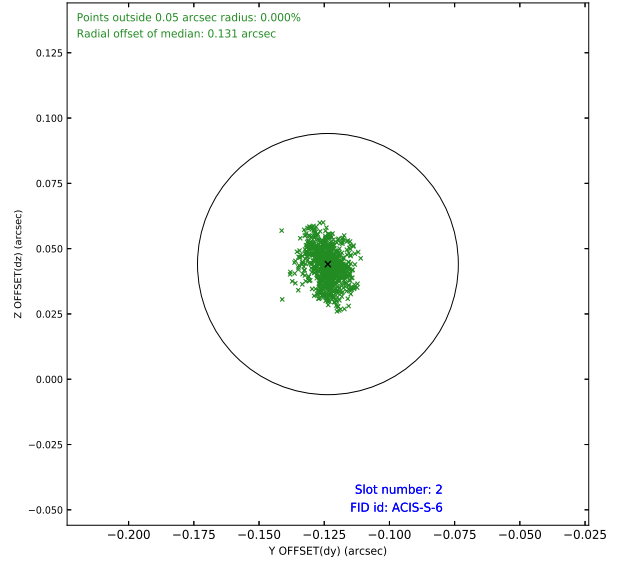
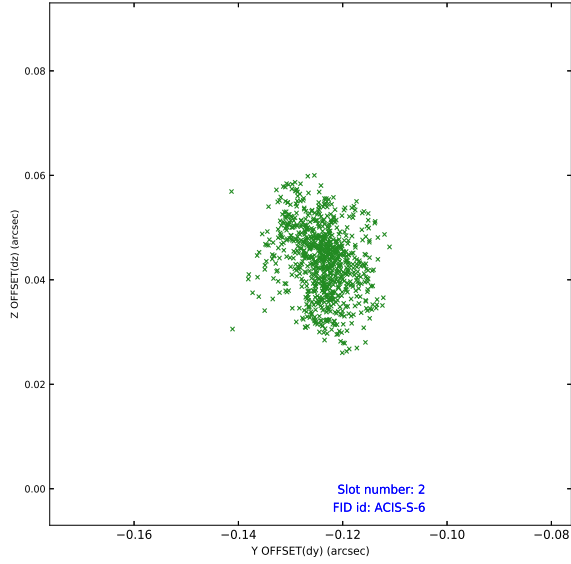
### 2.5.1 Slot 0



## 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)	2020.10.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.2971753118038

### **A.2 Comments**