

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 6291 - L2 Version 4  
Chandra X-Ray Center

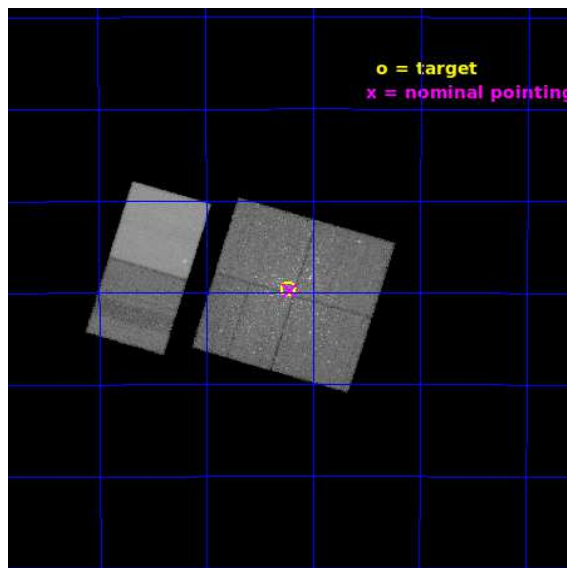
L2 Processing Date : Oct 9 2020

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# 1 Front

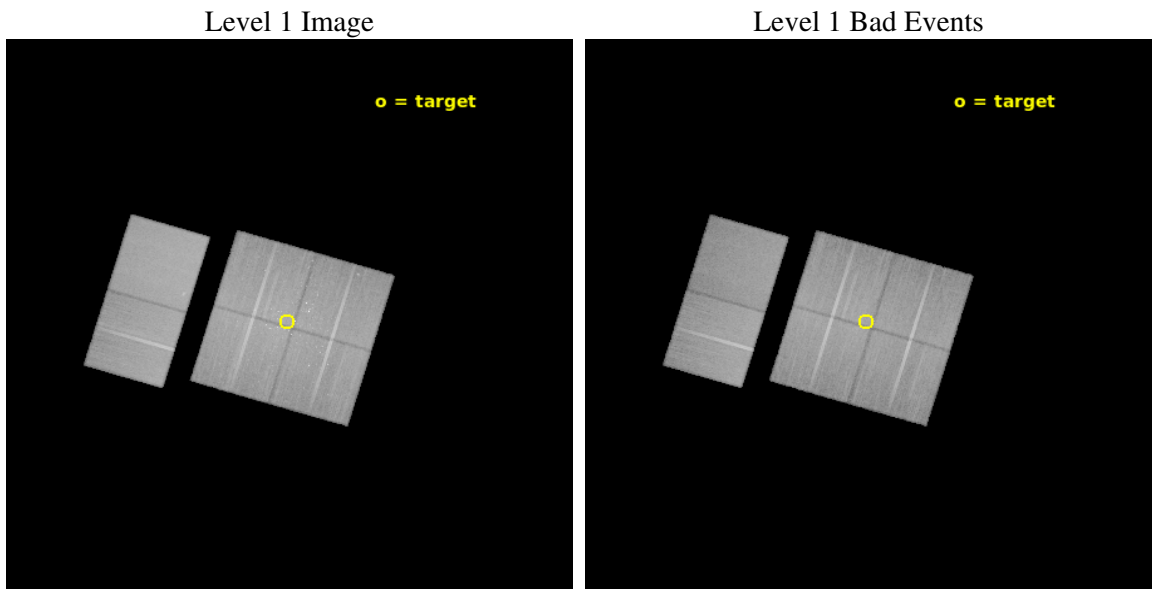
seq_num	200307	Sequence number
obs_id	6291	Observation id
title	Star formation in the young star cluster NGC 6231	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	NGC 6231	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	253.559167	Observer's specified target RA [deg]
dec_targ	-41.826806	Observer's specified target Dec [deg]
ra_nom	253.55391610648	Nominal RA [deg]
dec_nom	-41.830222738583	Nominal Dec [deg]
roll_nom	286.73696232872	Nominal Roll [deg]
revision	4	Processing version of data
ontime	44953.558842212	Sum of GTIs [s]
livetime	44384.329812368	Livetime [s]
ontime0	44956.799832523	Sum of GTIs [s]
ontime1	44956.799832523	Sum of GTIs [s]
ontime2	44953.558842242	Sum of GTIs [s]
ontime3	44953.558842212	Sum of GTIs [s]
ontime6	44956.799832523	Sum of GTIs [s]
ontime7	44956.799832523	Sum of GTIs [s]
l2events	463033	Number of level 2 events



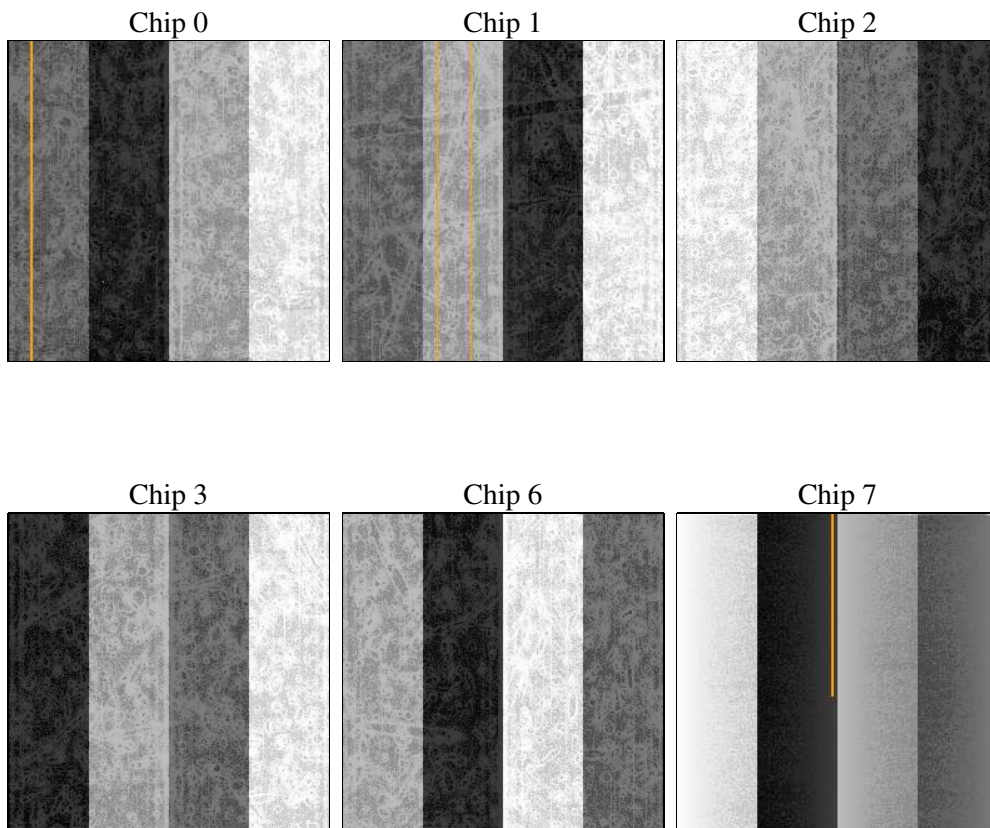
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	45000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	44953.558842212	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime0	44956.799832523	Sum of GTIs [s]
date	2020-10-09T12:51:16	Date and time of file creation	ontime1	44956.799832523	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	44953.558842242	Sum of GTIs [s]
			ontime3	44953.558842212	Sum of GTIs [s]
			ontime6	44956.799832523	Sum of GTIs [s]
			ontime7	44956.799832523	Sum of GTIs [s]
			l1events	2250702	Number of level 1 events

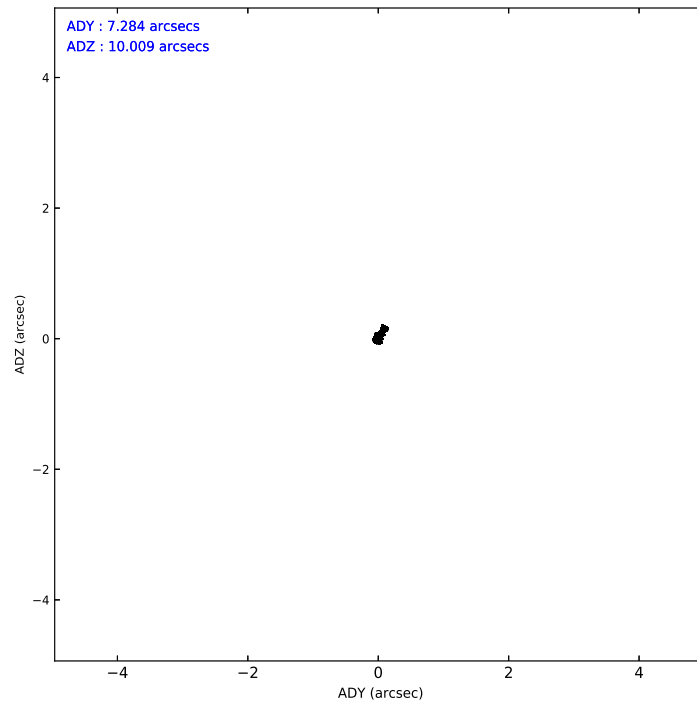
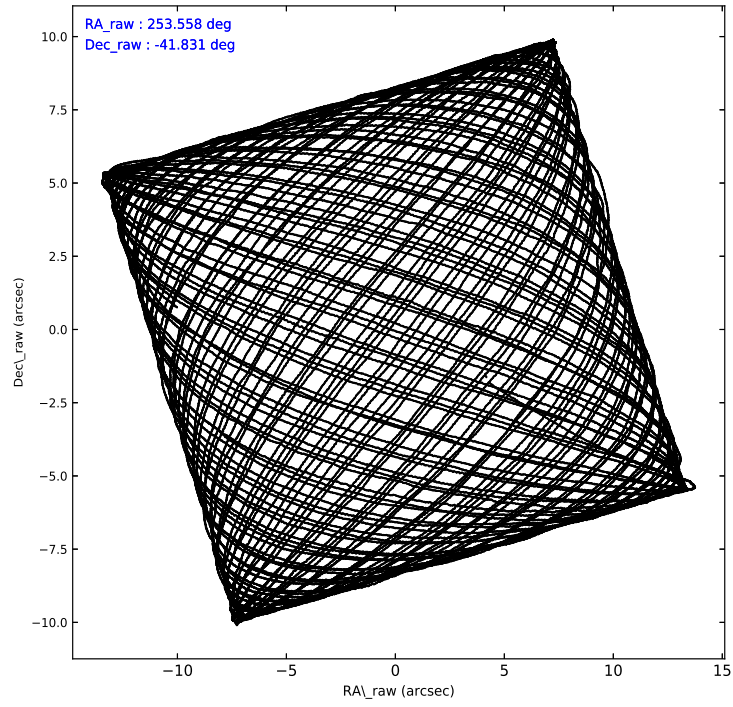
### 2.1.4 Events

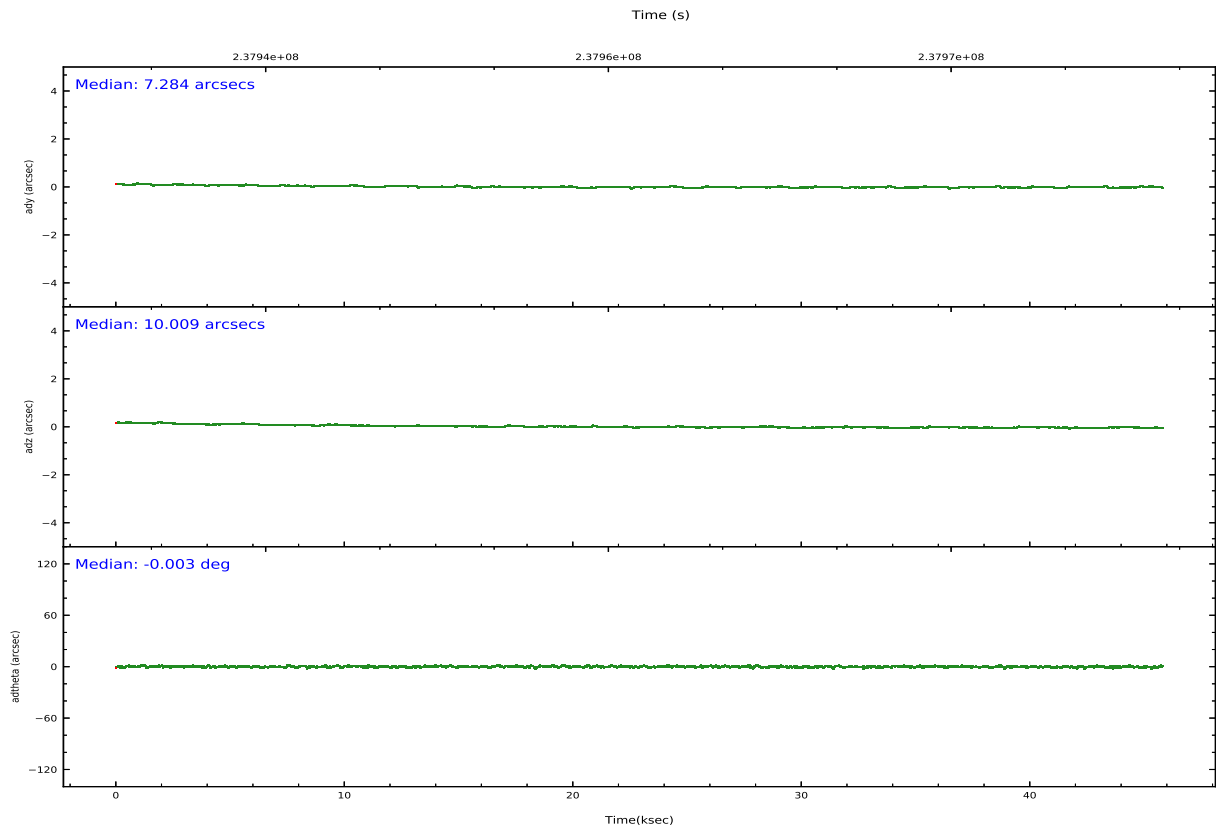
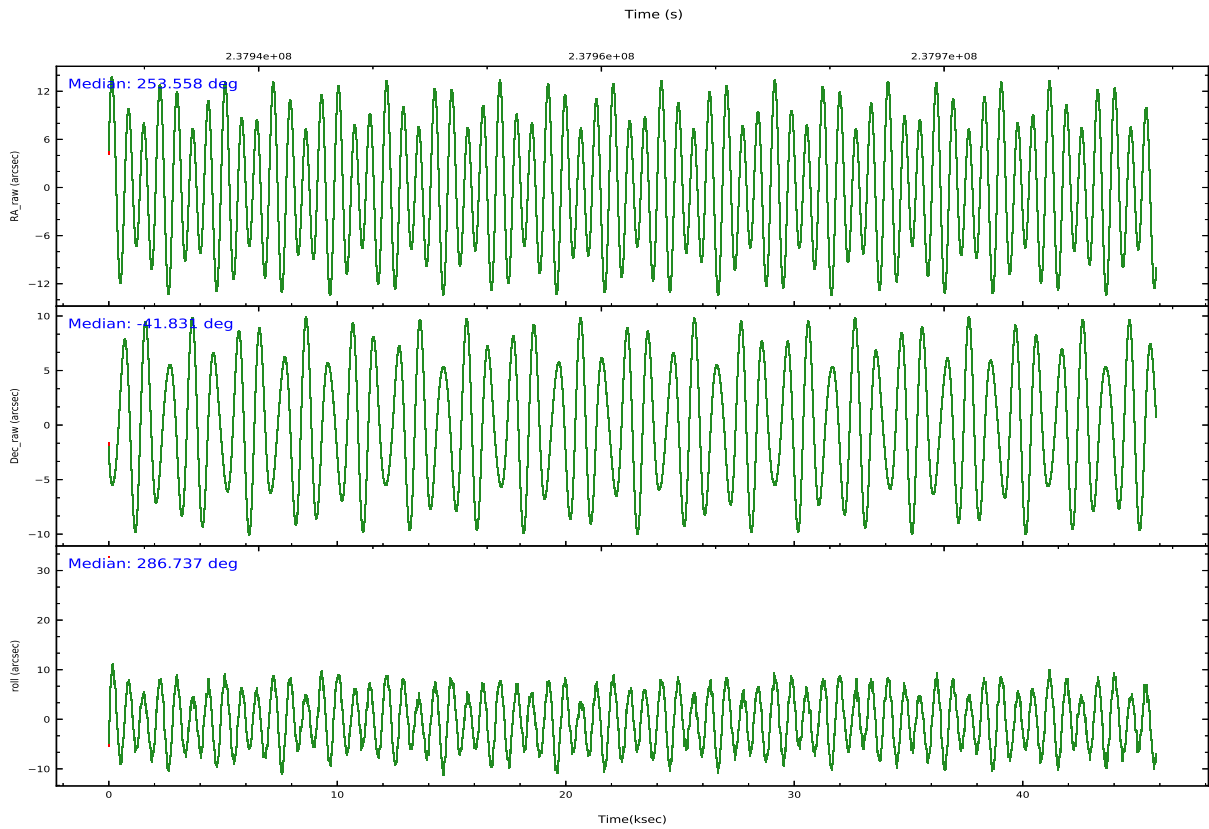
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	335996	348075	378240	373423	377955	437013	grade 0 events	32014	33777	37229	33241	22234	18550
rejected events	270078	277096	307065	307505	322762	247224		9%	9%	9%	8%	5%	4%
rejected %	80%	79%	81%	82%	85%	56%	grade 1 events	254	252	325	302	202	512
								0%	0%	0%	0%	0%	0%
							grade 2 events	15493	16651	15359	14481	15278	39699
								4%	4%	4%	3%	4%	9%
							grade 3 events	4186	4500	4011	4092	3692	16929
								1%	1%	1%	1%	0%	3%
							grade 4 events	3877	4378	4887	4147	3699	16468
								1%	1%	1%	1%	0%	3%
							grade 5 events	12481	13070	12387	14186	14643	40141
								3%	3%	3%	3%	3%	9%
							grade 6 events	10350	11682	9702	9967	10295	98171
								3%	3%	2%	2%	2%	22%
							grade 7 events	257341	263765	294340	293007	307912	206543
								76%	75%	77%	78%	81%	47%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	253.531627	253.55391610648	Subarray requested	NONE	NONE
[deg] Pointing Dec	-41.812733	-41.830222738583	Alternating exposures requested	N	N
[deg] Pointing Roll	286.516010	286.73696232872	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	237934279.184000	237932992.30963			
Observation start date	2005-07-16T20:50:15	2005-07-16T20:29:52			
[s] Observation end time (MET)	237979279.184000	237979695.41176			
Observation end date	2005-07-17T09:20:15	2005-07-17T09:28:15			
Read mode	TIMED	TIMED			

## 2.3 Aspect





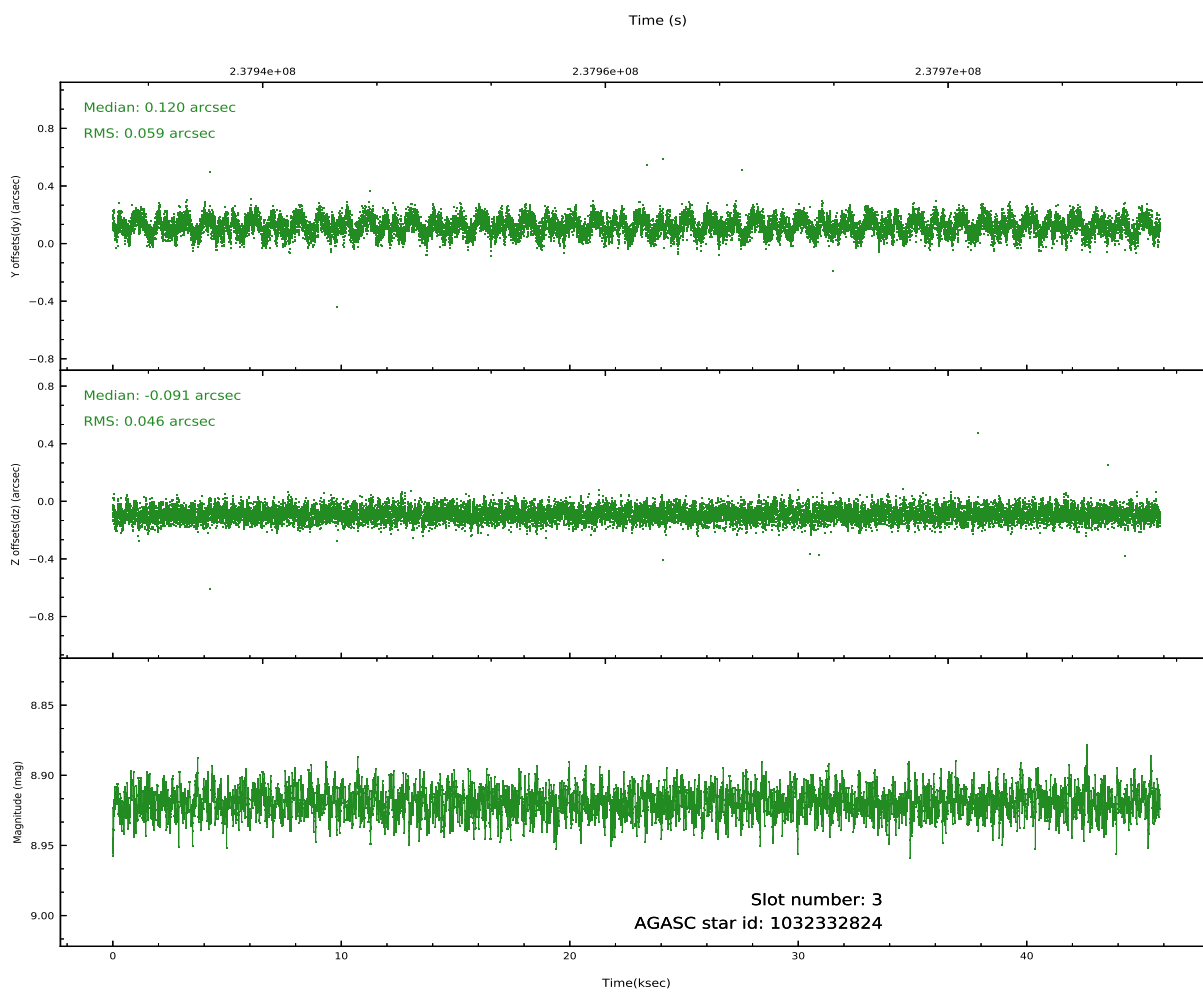
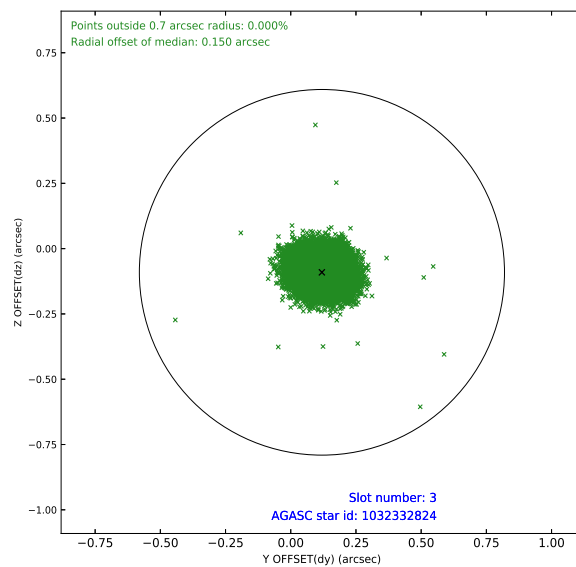
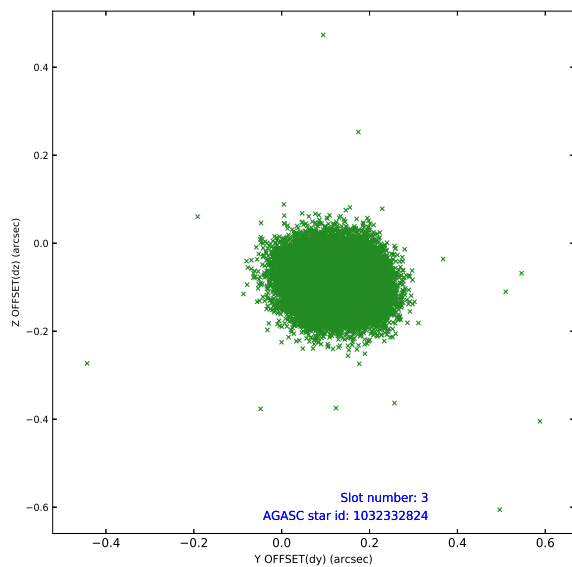
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.24	11181	1.000	-0.035	-0.011	0.011	0.019	0.000000	0.000000	932.35	-833
1	FID		ACIS-I-4	7.18	11181	1.000	0.189	0.048	0.011	0.017	0.000000	0.000000	2152.60	1066
2	FID		ACIS-I-5	7.23	11179	1.000	-0.253	0.034	0.008	0.014	0.000000	0.000000	-1815.89	1064
3	GUIDE	used	1032332824	8.92	22350	1.000	0.120	-0.091	0.080	0.125	253.226957	-42.348581	1620.98	-1325
4	GUIDE	used	1032340976	7.81	22355	1.000	-0.008	0.116	0.050	0.080	254.202894	-41.913283	865.14	1619
5	GUIDE	used	1032343488	6.94	22361	1.000	0.013	-0.071	0.049	0.077	252.725884	-41.830381	-543.18	-2093
6	GUIDE	used	1031816088	7.77	22359	1.000	-0.057	0.106	0.082	0.143	254.188586	-41.154482	-1759.43	2379
7	GUIDE	used	1032343792	8.31	22355	1.000	-0.074	-0.054	0.077	0.123	252.506015	-41.621252	-1429.38	-2454

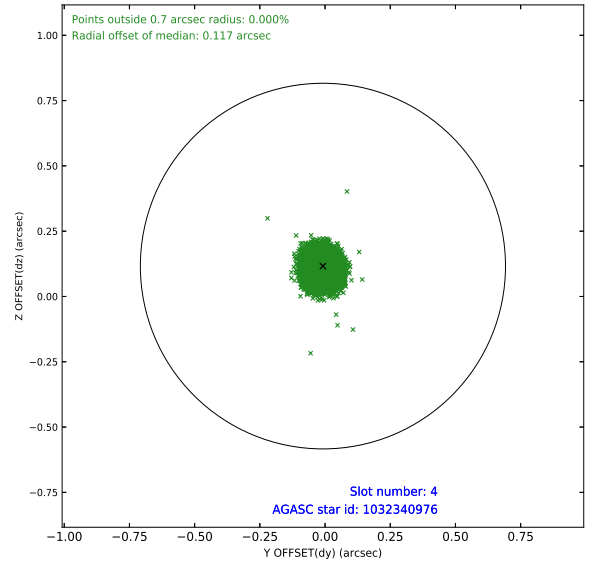
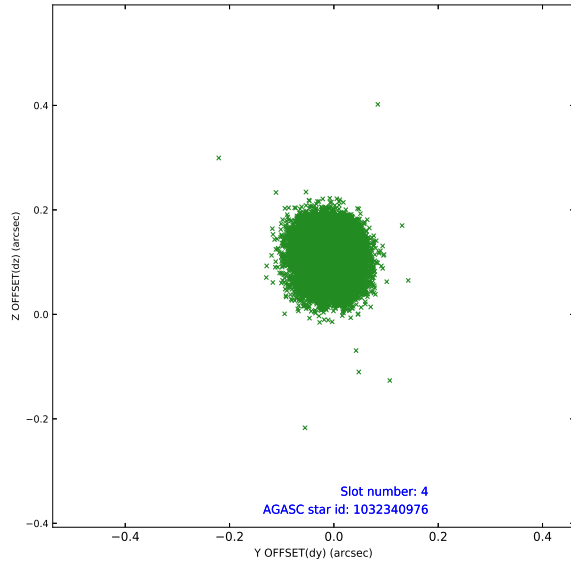
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## 2.4 Star Slots

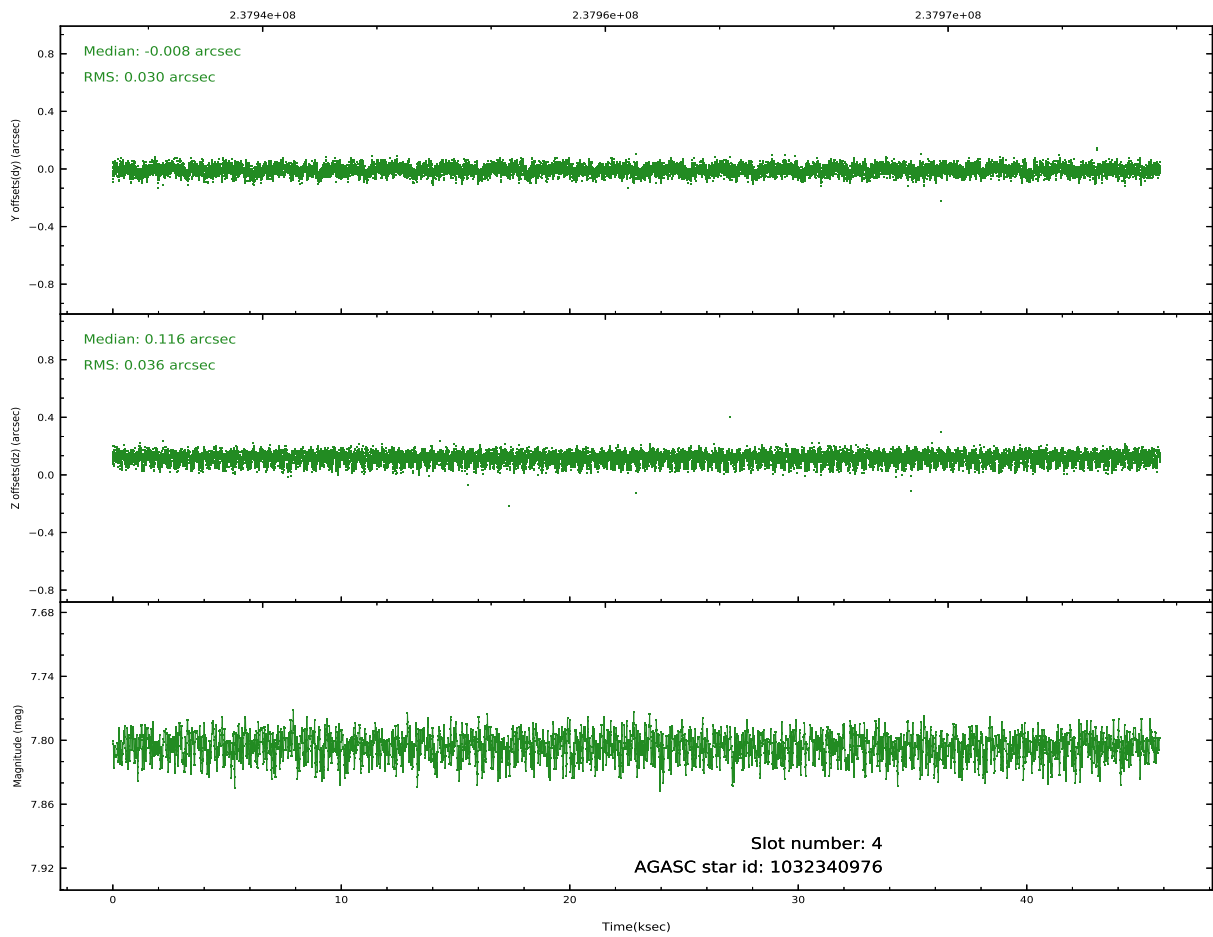
### 2.4.1 Slot 3



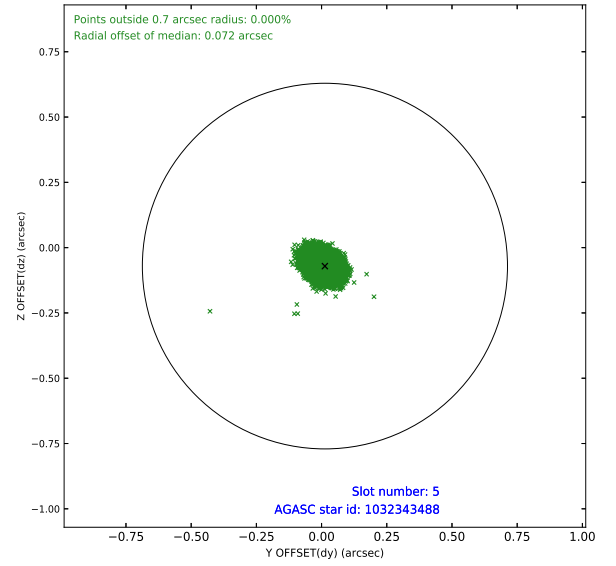
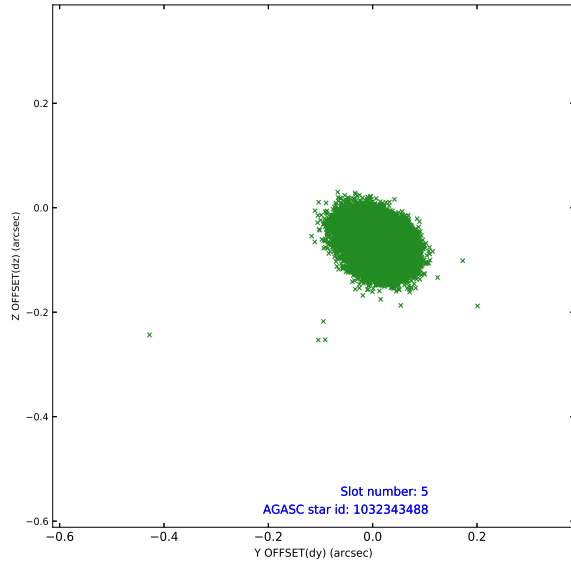
## 2.4.2 Slot 4



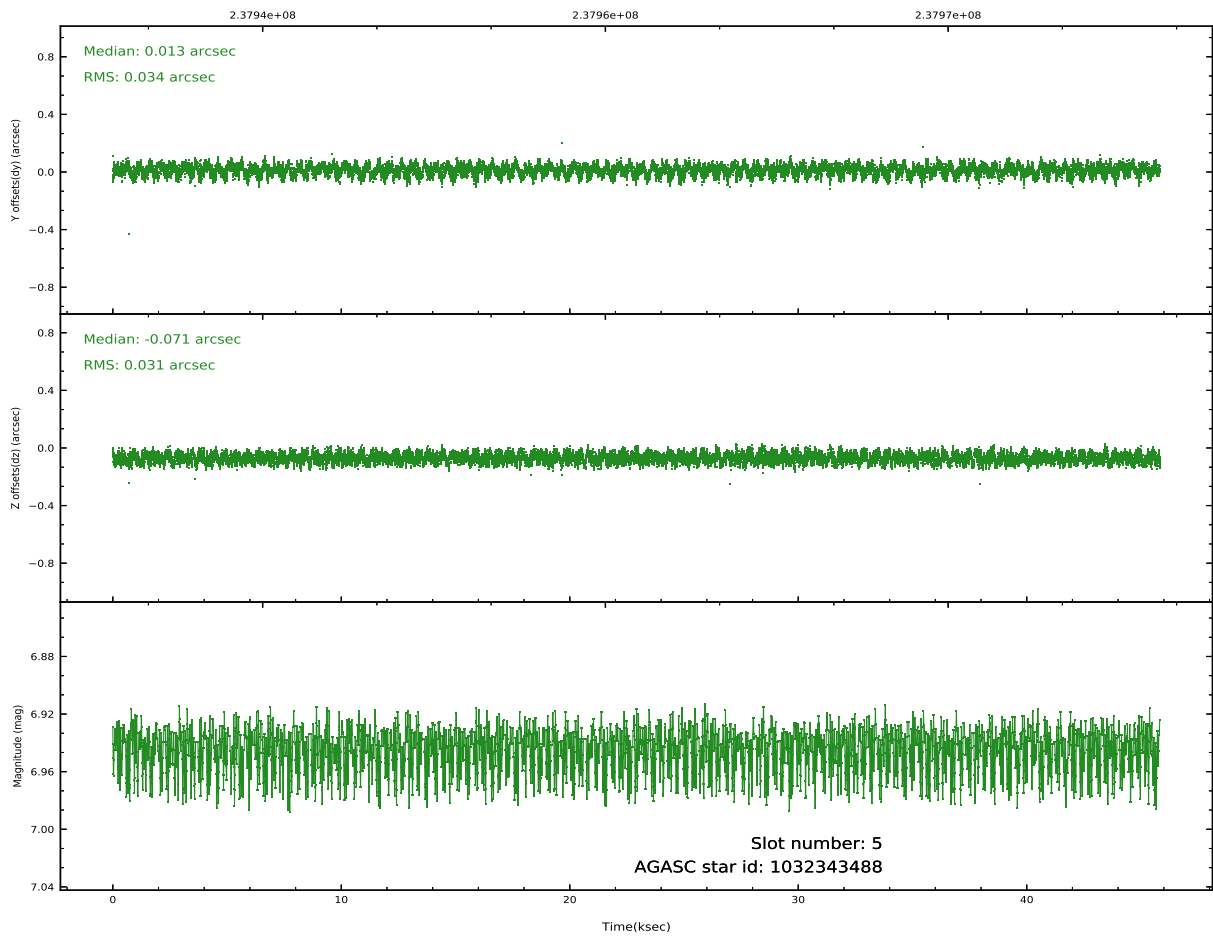
Time (s)



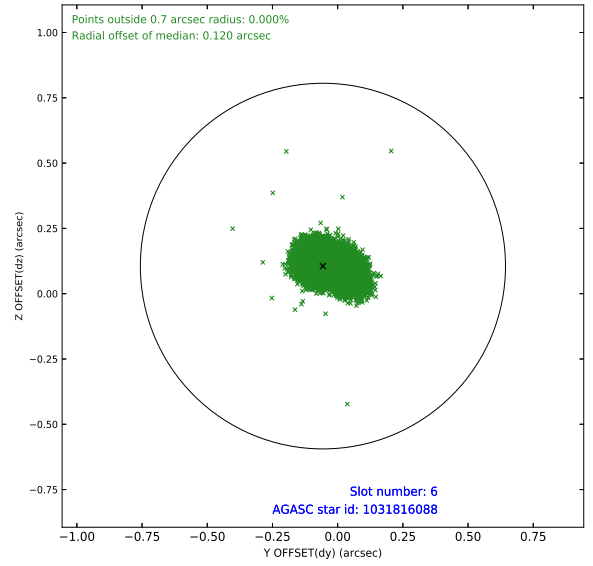
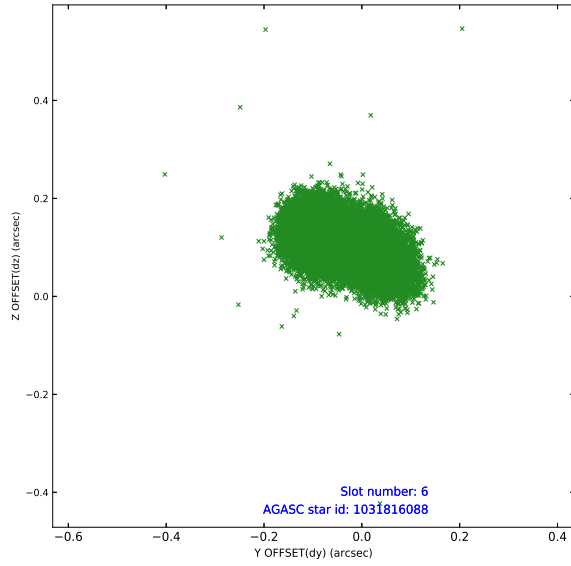
### 2.4.3 Slot 5



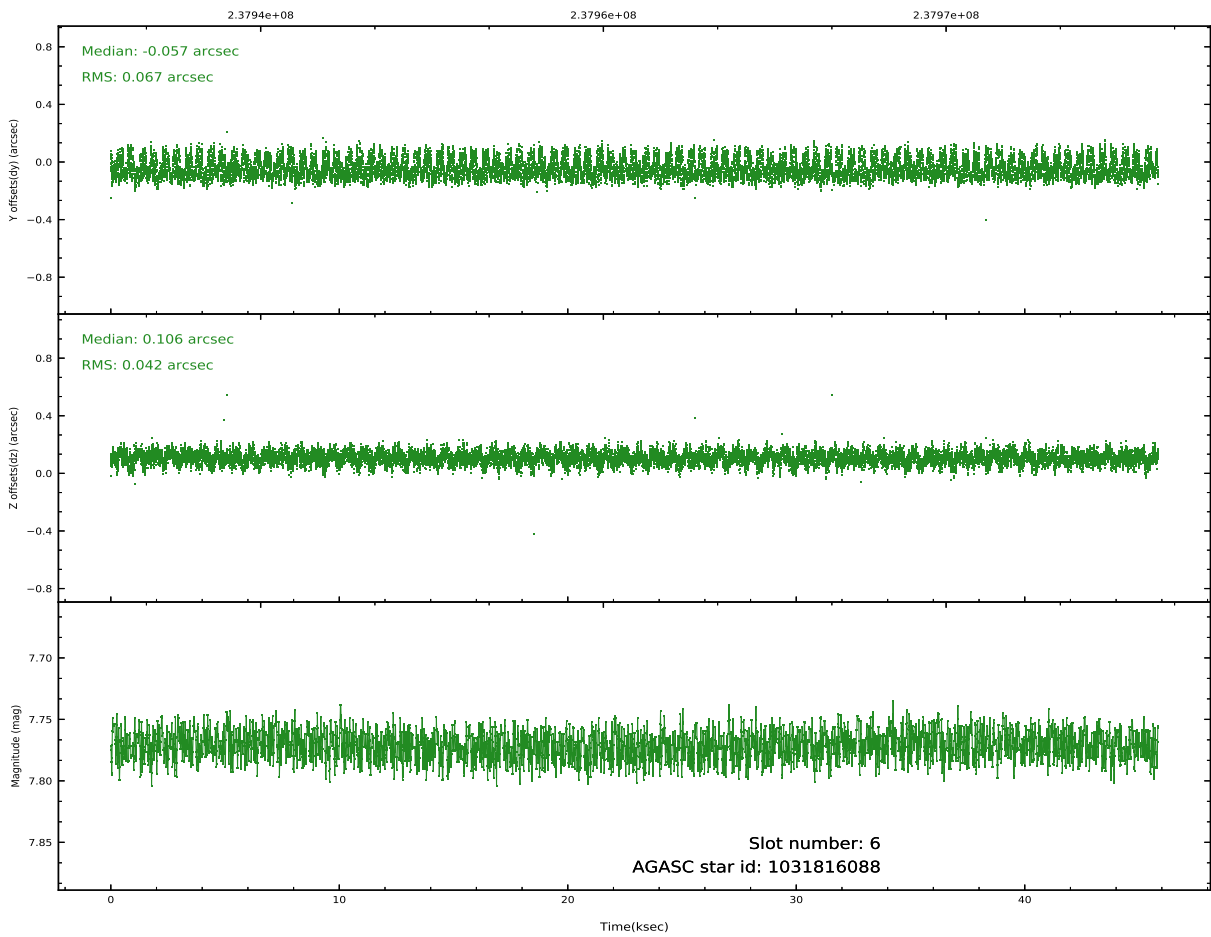
Time (s)



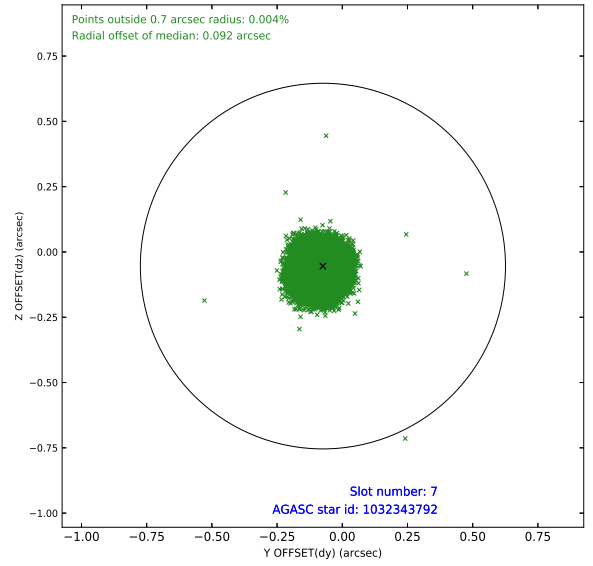
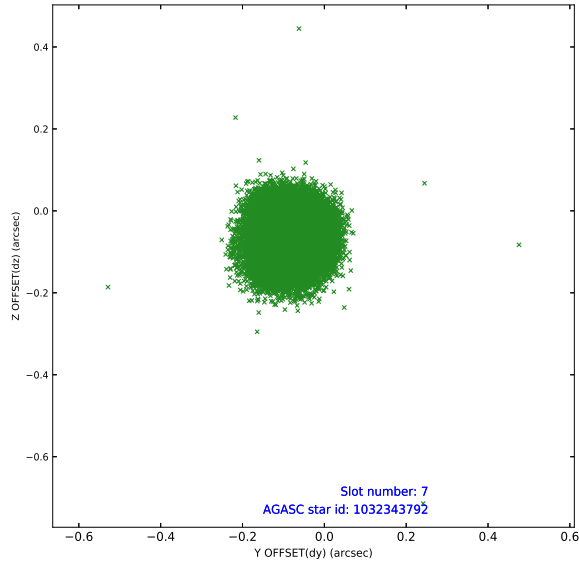
## 2.4.4 Slot 6



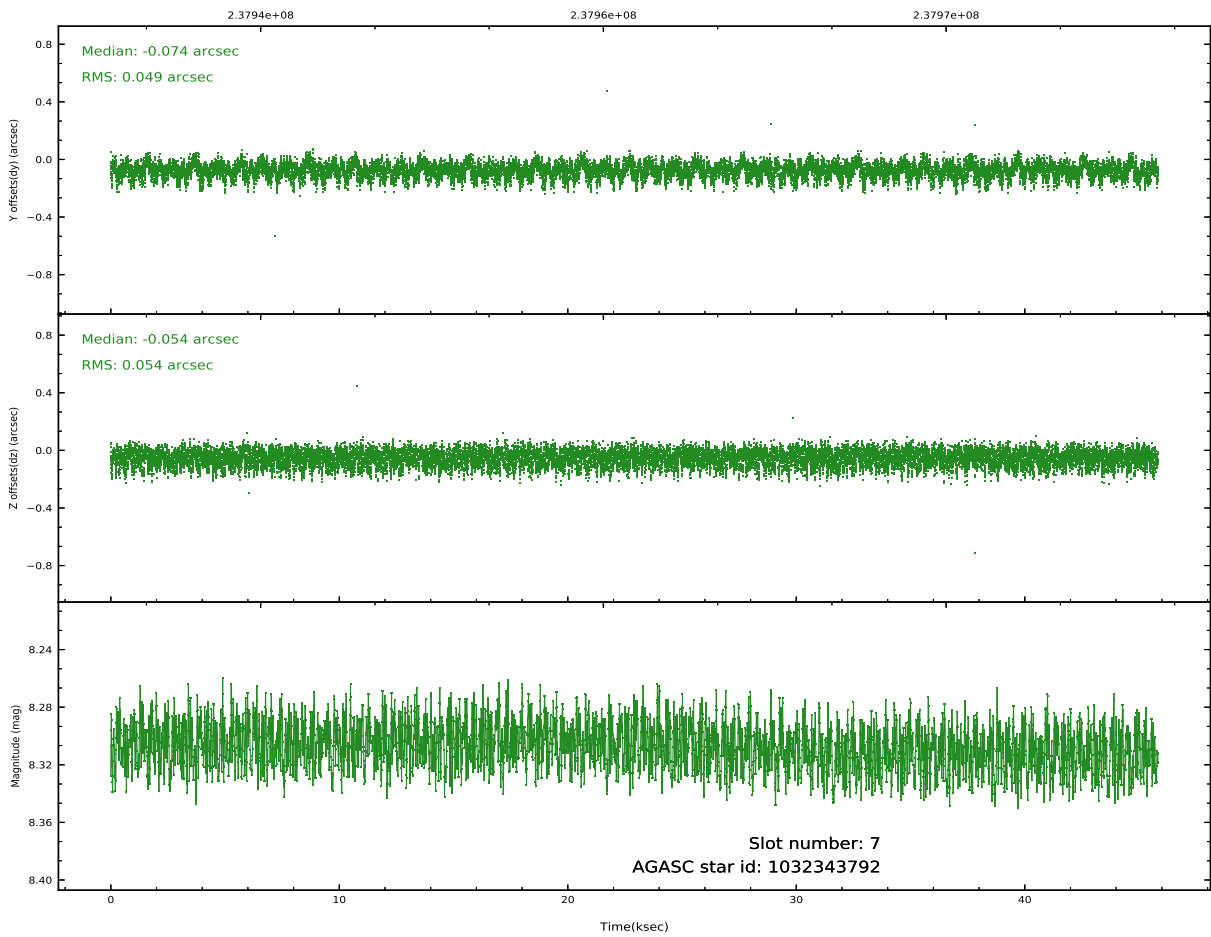
Time (s)



## 2.4.5 Slot 7

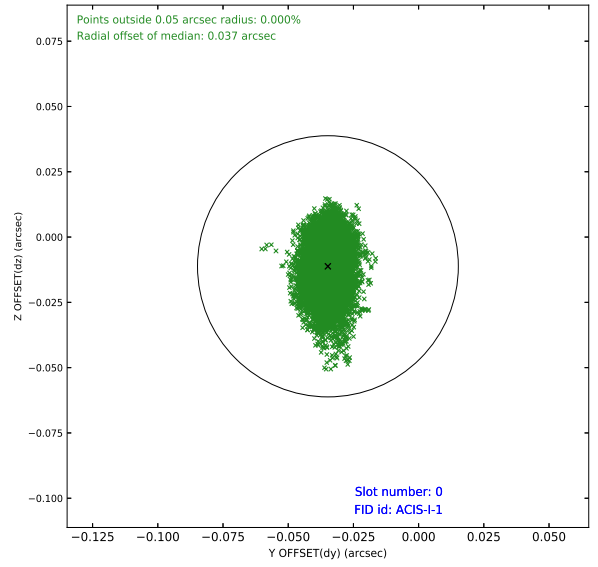
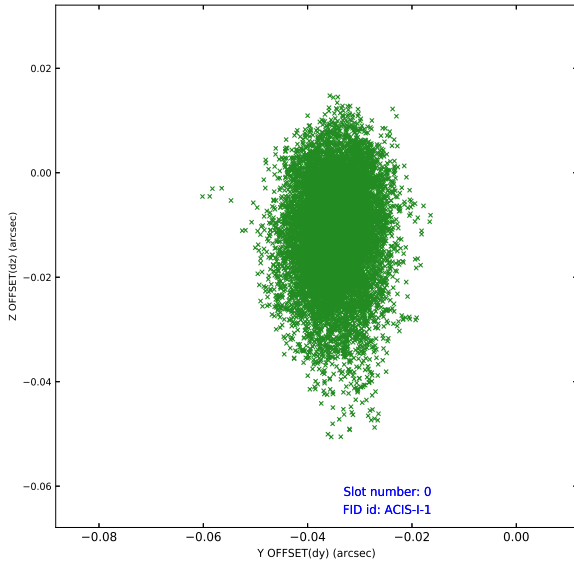


Time (s)

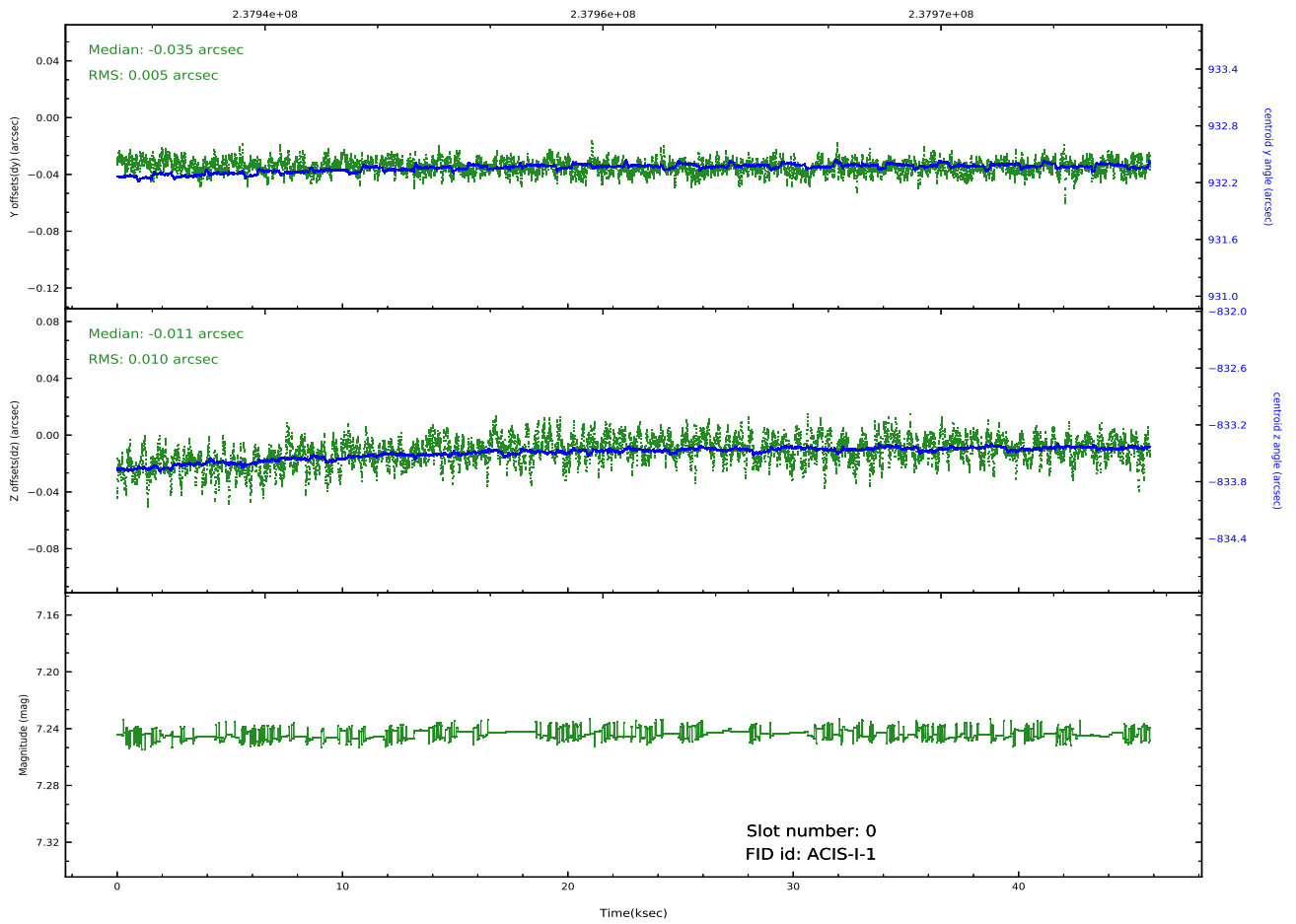


## 2.5 FID Slots

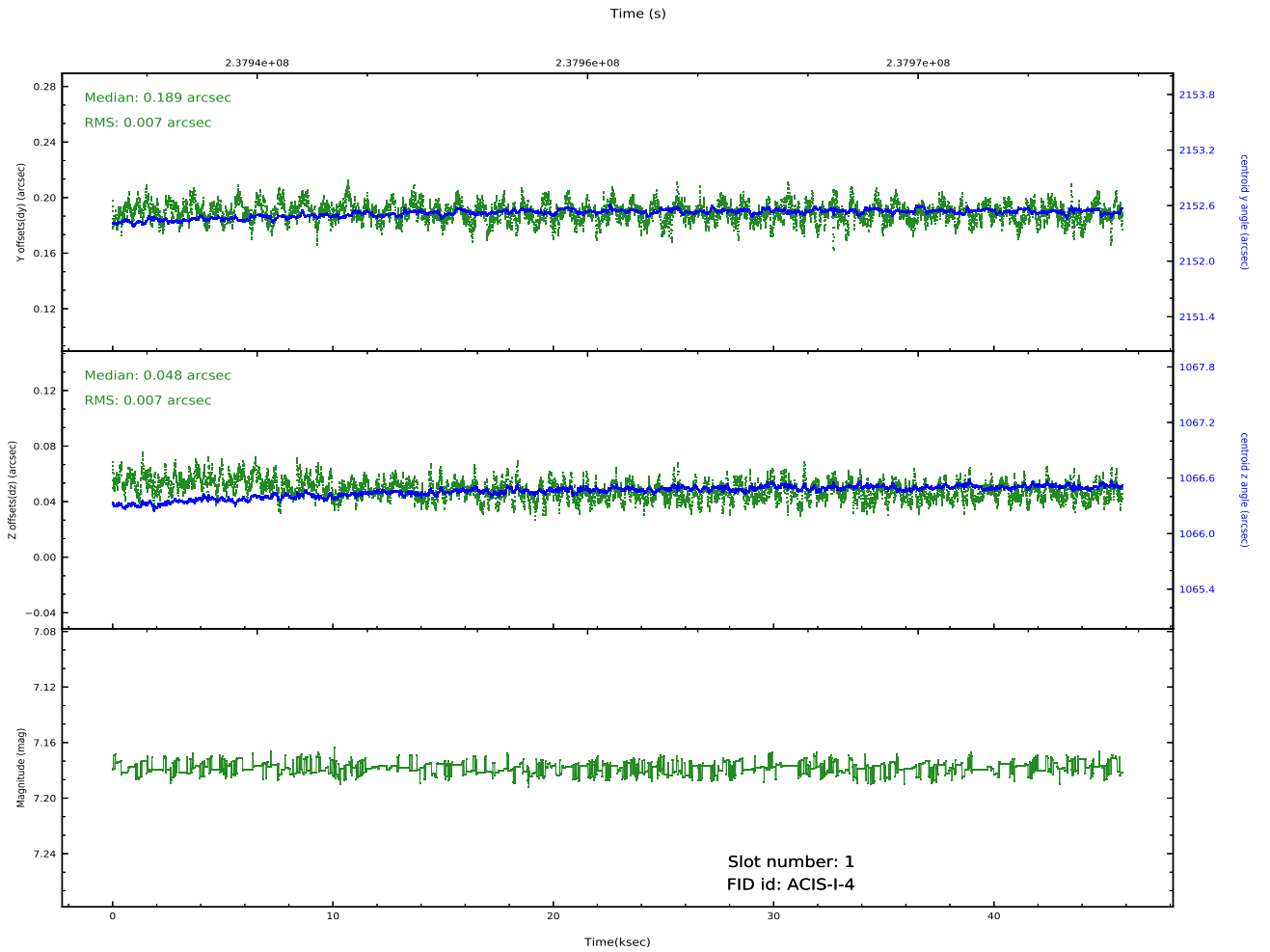
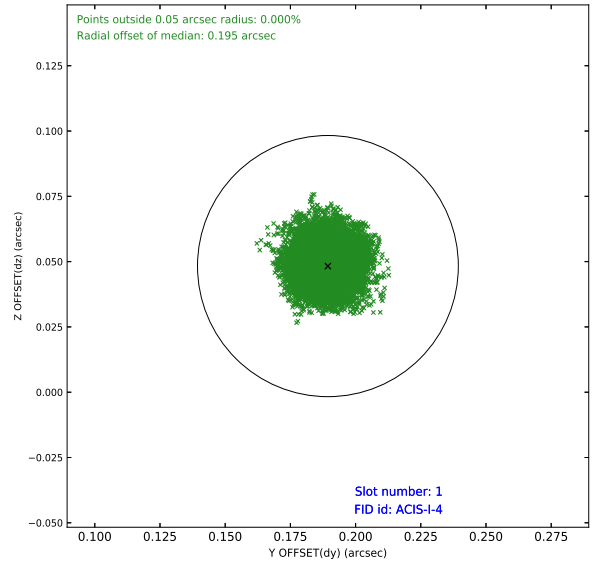
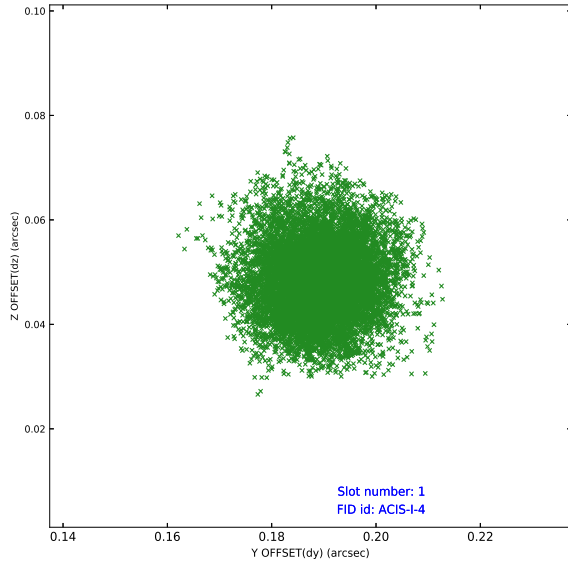
### 2.5.1 Slot 0



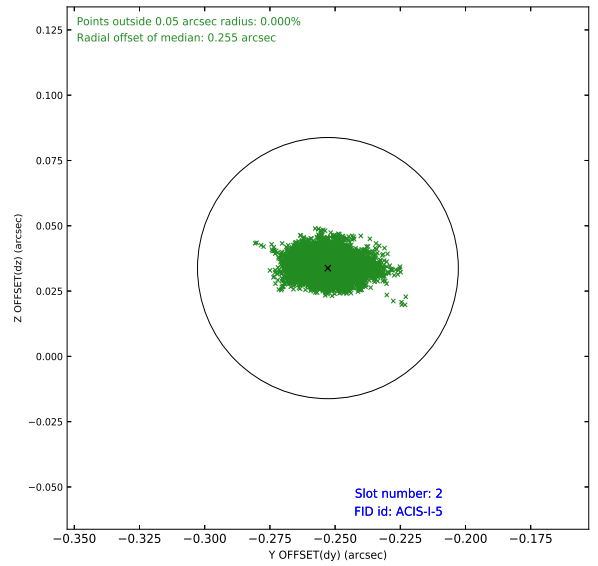
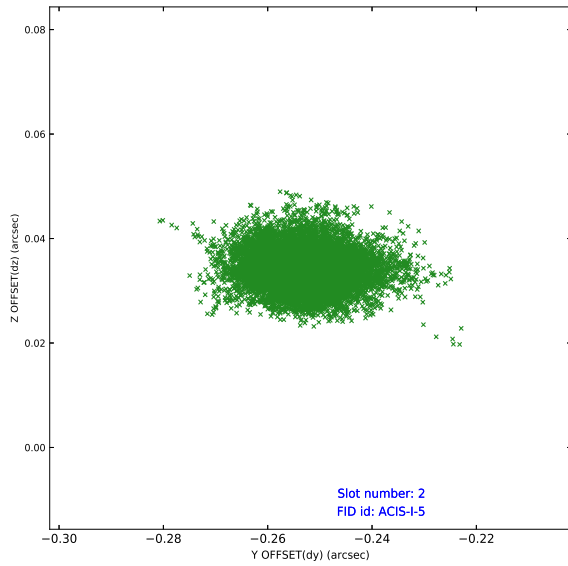
Time (s)



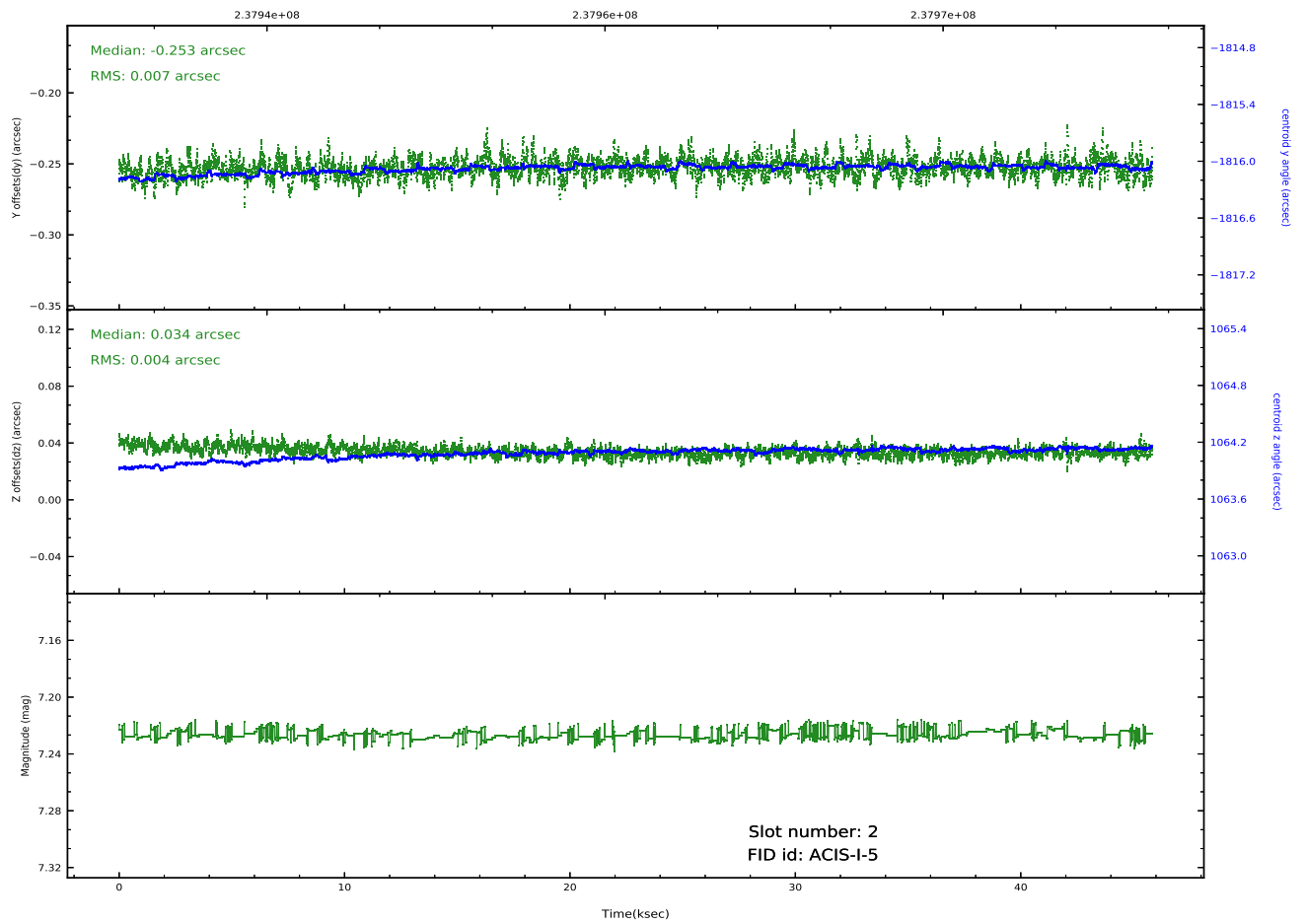
## 2.5.2 Slot 1



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	44.95355

## A.2 Comments