

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 6314 - L2 Version 4  
Chandra X-Ray Center

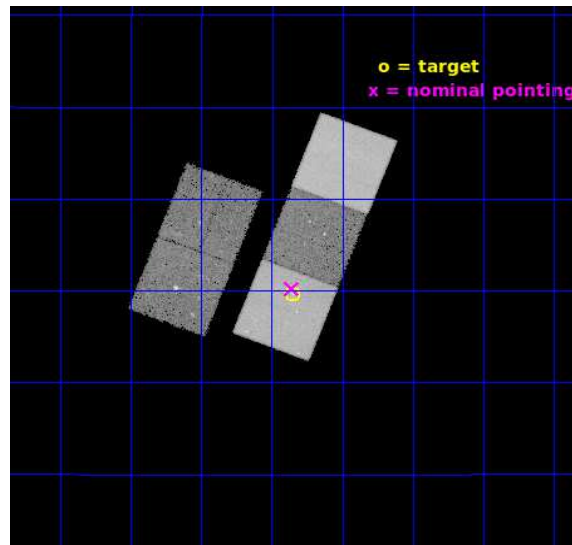
L2 Processing Date : Oct 8 2020

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# 1 Front

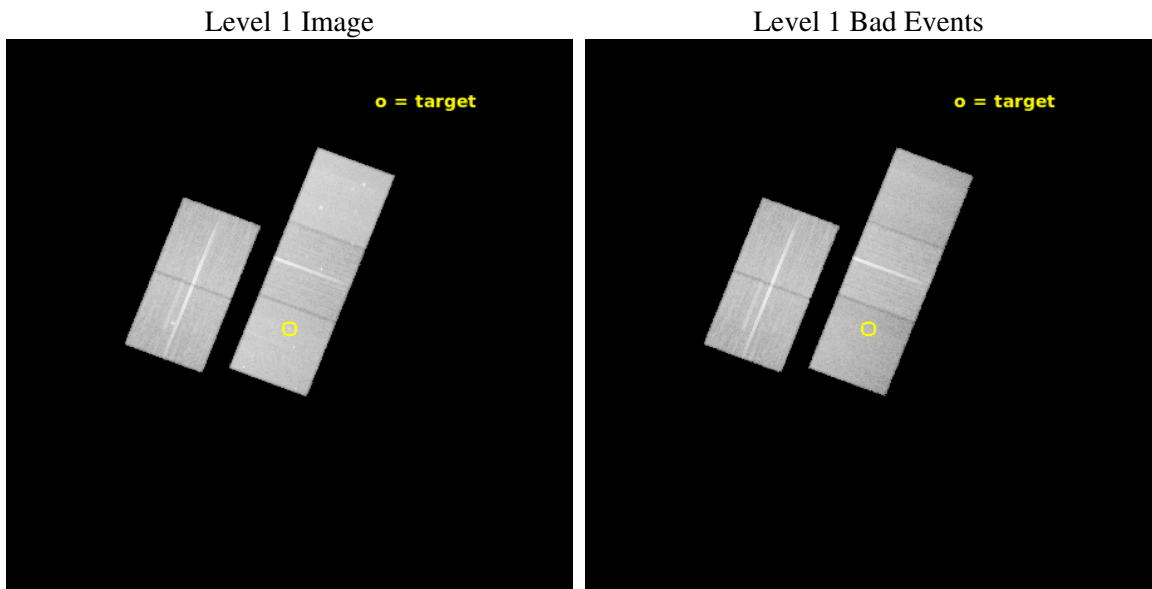
seq_num	701114	Sequence number
obs_id	6314	Observation id
title	The X-ray Jet of the X-ray faint supermassive nuclear black hole in NGC 821	Proposal title
observer	Giuseppina Fabbiano	Principal investigator
object	NGC821	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	32.0875	Observer's specified target RA [deg]
dec_targ	10.99475	Observer's specified target Dec [deg]
ra_nom	32.089330803857	Nominal RA [deg]
dec_nom	11.0036073579	Nominal Dec [deg]
roll_nom	111.06165585175	Nominal Roll [deg]
revision	4	Processing version of data
ontime	40129.499922812	Sum of GTIs [s]
livetime	39605.178463412	Livetime [s]
ontime2	40123.217992306	Sum of GTIs [s]
ontime3	40120.076982141	Sum of GTIs [s]
ontime5	40129.499922812	Sum of GTIs [s]
ontime6	40120.077002138	Sum of GTIs [s]
ontime7	40129.499922812	Sum of GTIs [s]
l2events	350600	Number of level 2 events



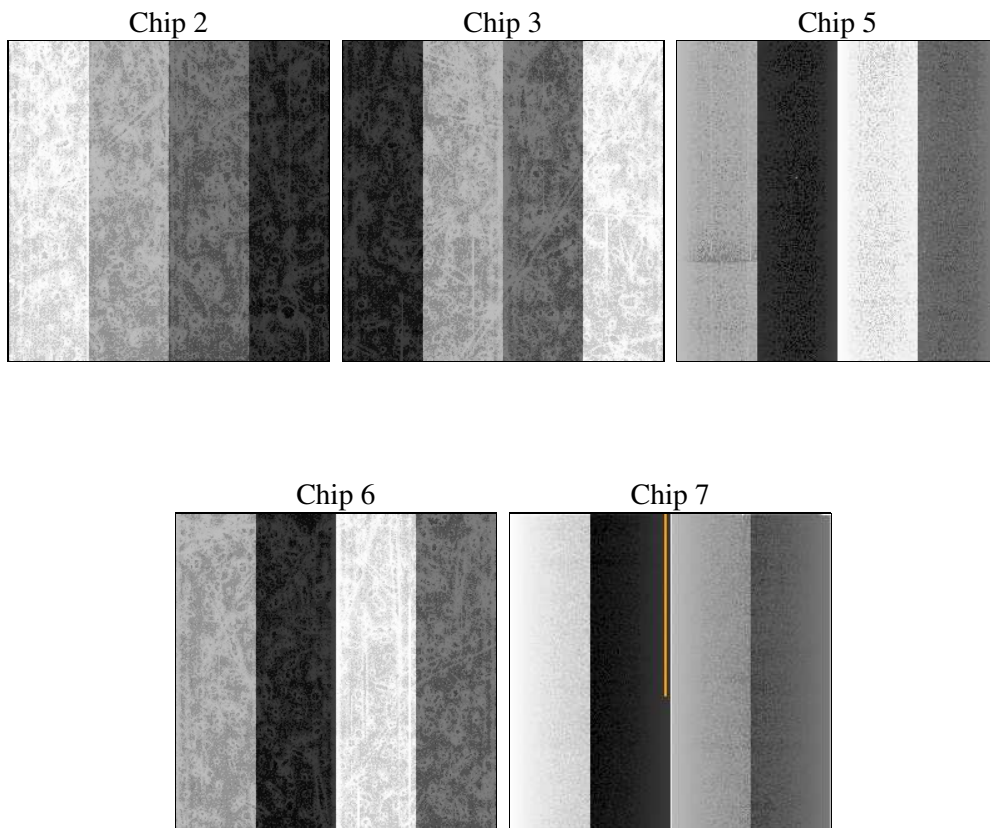
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	40129.499922812	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime2	40123.217992306	Sum of GTIs [s]
date	2020-10-09T01:09:44	Date and time of file creation	ontime3	40120.076982141	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	40129.499922812	Sum of GTIs [s]
			ontime6	40120.077002138	Sum of GTIs [s]
			ontime7	40129.499922812	Sum of GTIs [s]
			l1events	1421021	Number of level 1 events

### 2.1.4 Events

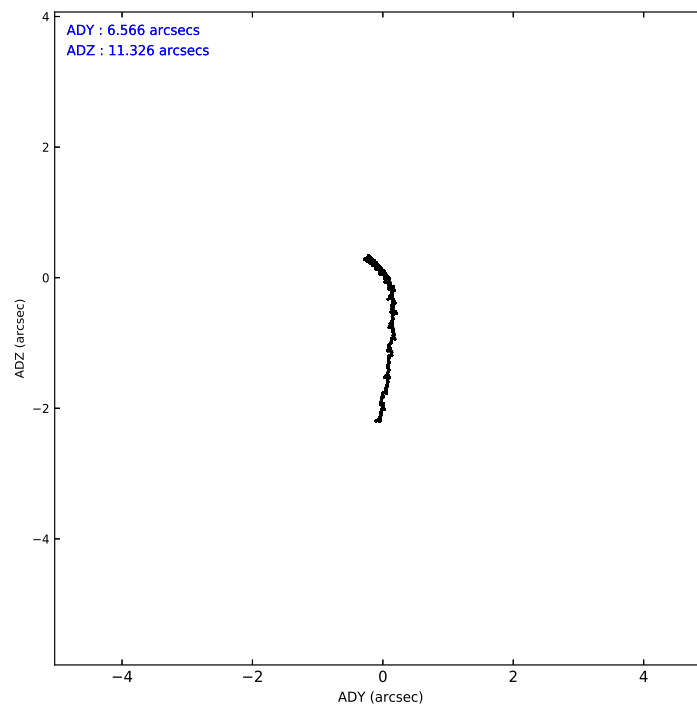
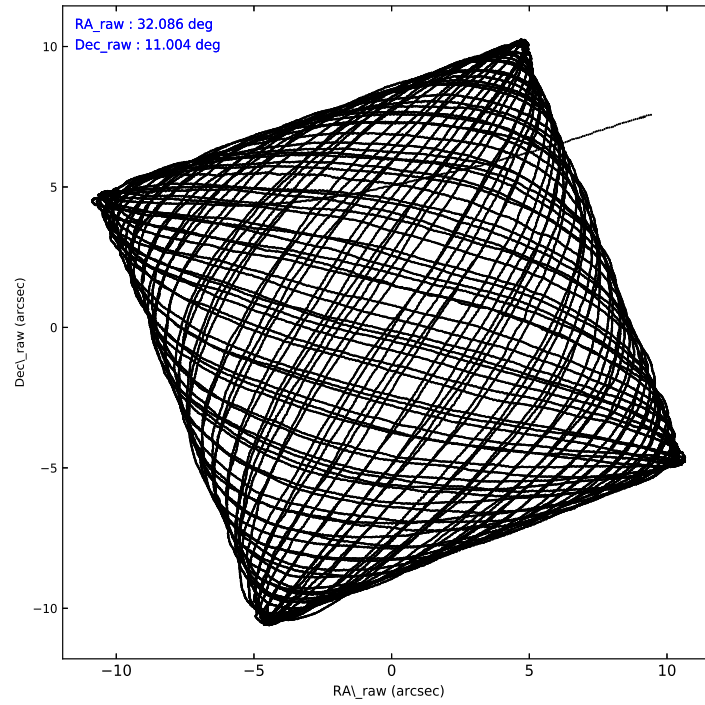
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	263760	252847	348636	266303	289475
rejected events	238717	228107	181199	239665	159770
rejected %	90%	90%	51%	89%	55%

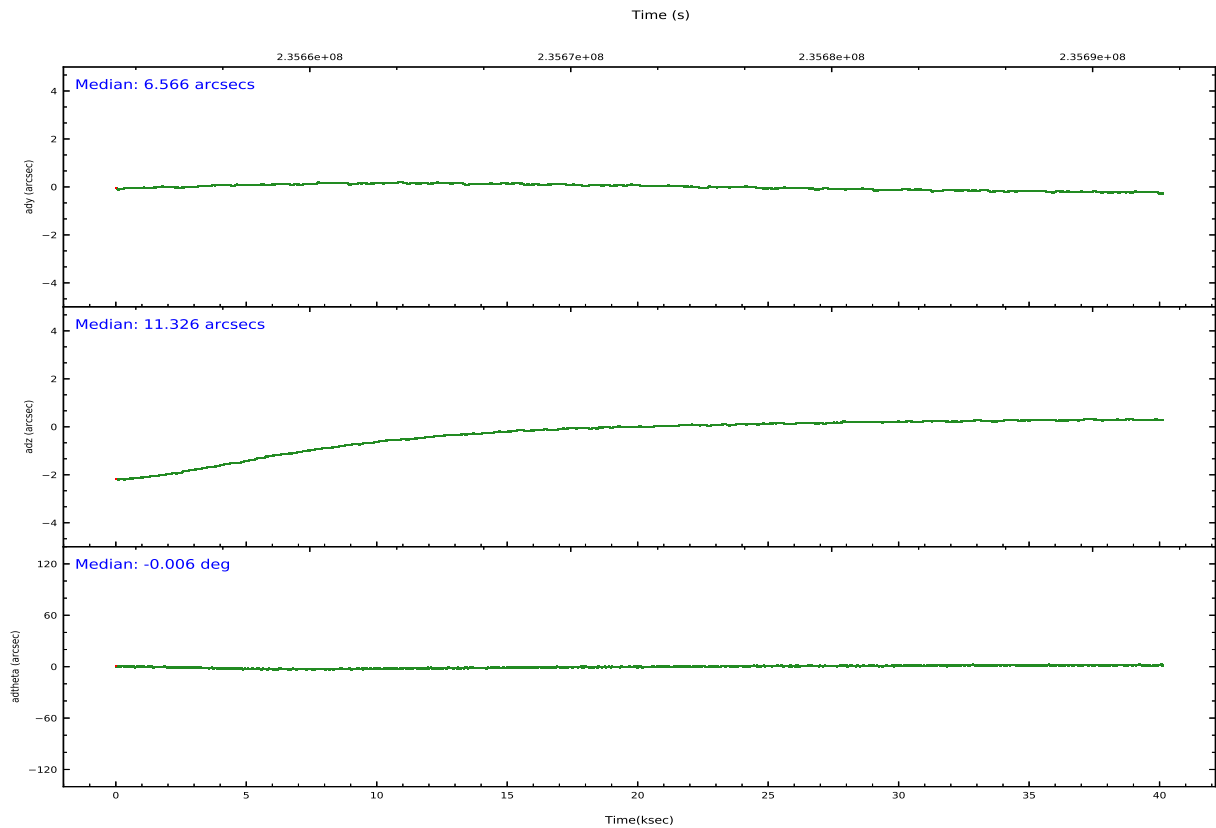
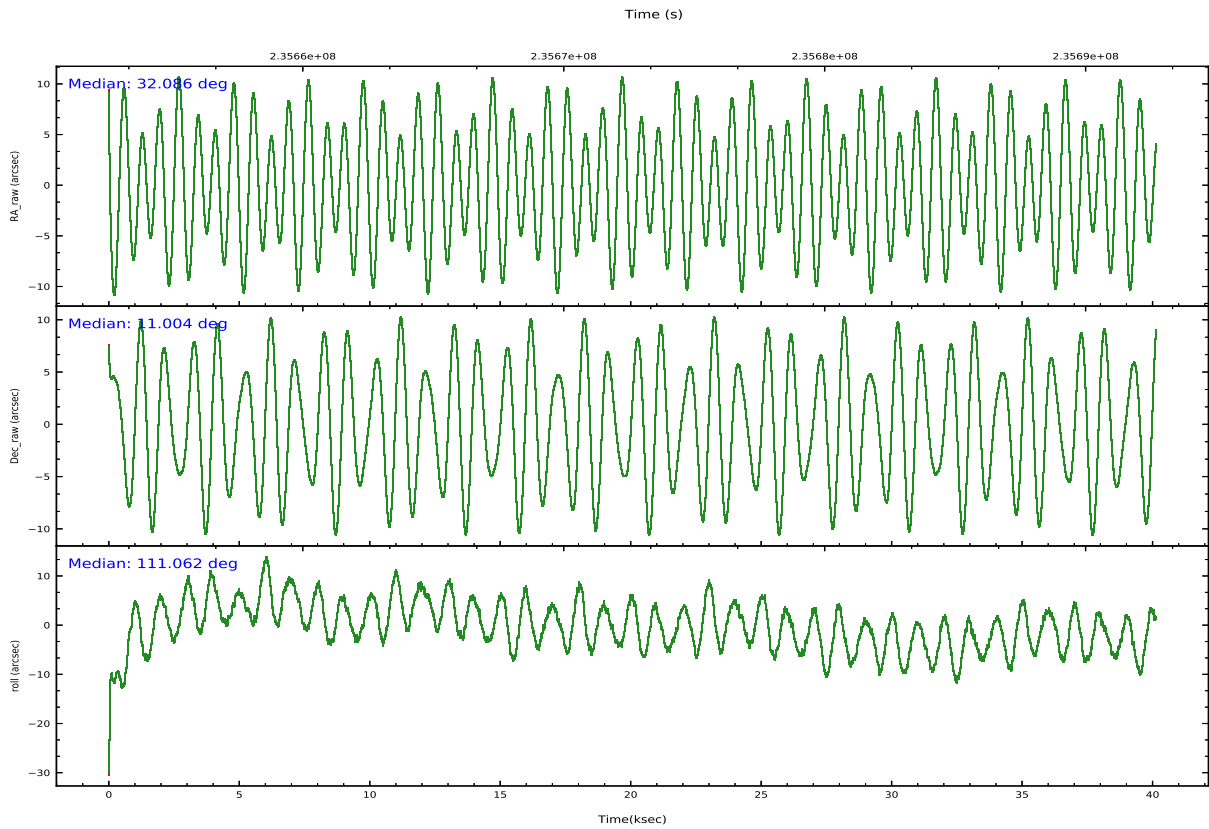
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	9141	9205	12777	9434	11595
	3%	3%	3%	3%	4%
grade 1 events	124	143	400	119	240
	0%	0%	0%	0%	0%
grade 2 events	5893	5203	49970	5859	26376
	2%	2%	14%	2%	9%
grade 3 events	2789	2815	7796	2950	12542
	1%	1%	2%	1%	4%
grade 4 events	2751	2846	7510	3024	12056
	1%	1%	2%	1%	4%
grade 5 events	8403	10292	28382	10662	30630
	3%	4%	8%	4%	10%
grade 6 events	4714	4864	90900	5592	68289
	1%	1%	26%	2%	23%
grade 7 events	229945	217479	150901	228663	127747
	87%	86%	43%	85%	44%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-23567	ACIS-23567	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	32.107433	32.089330803857	Subarray requested	NONE	NONE
[deg] Pointing Dec	10.987414	11.0036073579	Alternating exposures requested	N	N
[deg] Pointing Roll	110.896198	111.06165585175	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	235652703.184000	235651553.86781			
Observation start date	2005-06-20T11:03:59	2005-06-20T10:45:53			
[s] Observation end time (MET)	235692703.184000	235693634.21973			
Observation end date	2005-06-20T22:10:39	2005-06-20T22:27:14			
Read mode	TIMED	TIMED			

## 2.3 Aspect





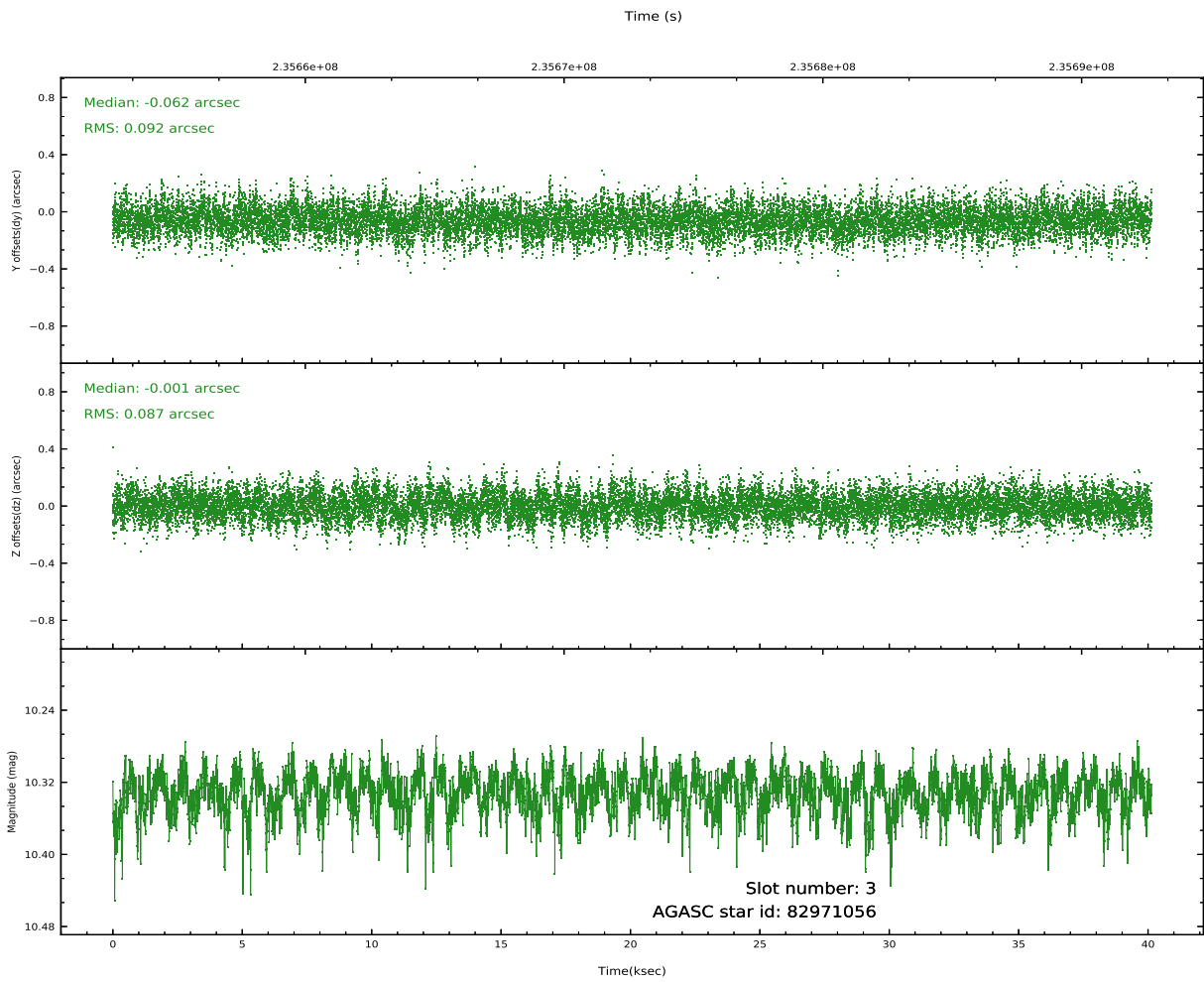
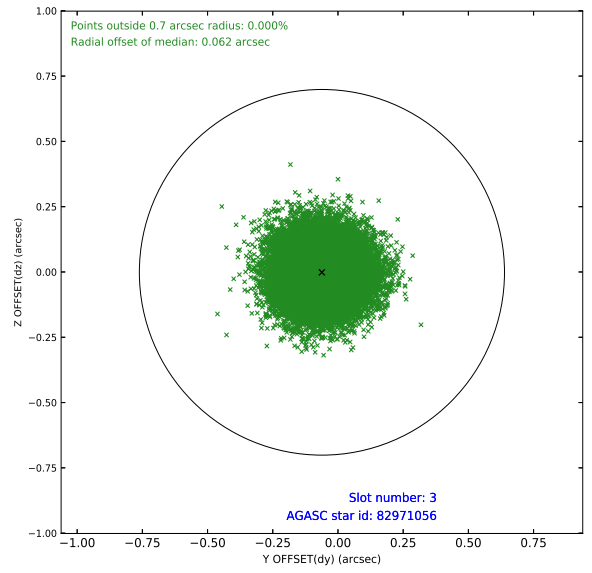
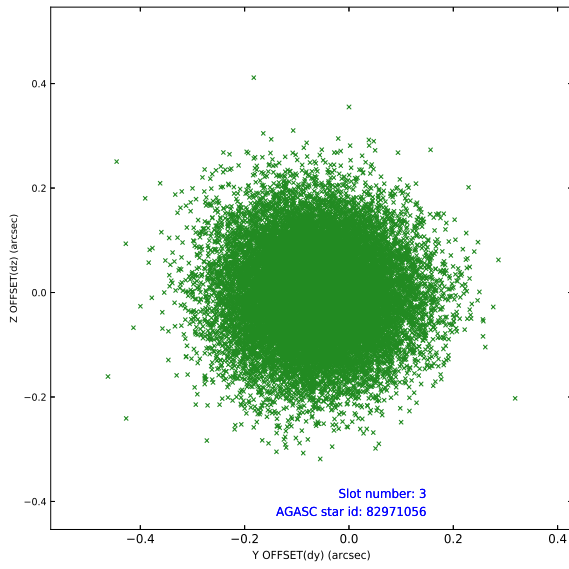
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.18	9790	1.000	0.002	-0.114	0.015	0.069	0.000000	0.000000	936.75	-1727
1	FID		ACIS-S-4	7.20	9790	1.000	0.101	0.082	0.013	0.051	0.000000	0.000000	2154.25	176
2	FID		ACIS-S-5	7.23	9790	1.000	-0.131	0.044	0.011	0.024	0.000000	0.000000	-1812.25	169
3	GUIDE	used	82971056	10.33	19561	1.000	-0.062	-0.001	0.136	0.219	31.381677	11.249277	1797.75	2056
4	GUIDE	used	82972936	9.46	19561	1.000	0.034	-0.120	0.122	0.194	31.880349	11.323150	1415.58	317
5	GUIDE	used	82976088	10.27	19552	1.000	0.137	-0.141	0.260	0.406	31.548572	10.635312	-476.96	2298
6	GUIDE	used	82976744	9.49	19561	1.000	0.118	0.054	0.108	0.173	32.095784	10.602457	-1279.69	533
7	GUIDE	used	82974960	9.84	19555	1.000	-0.241	0.212	0.160	0.256	31.911636	11.621581	2379.12	-168

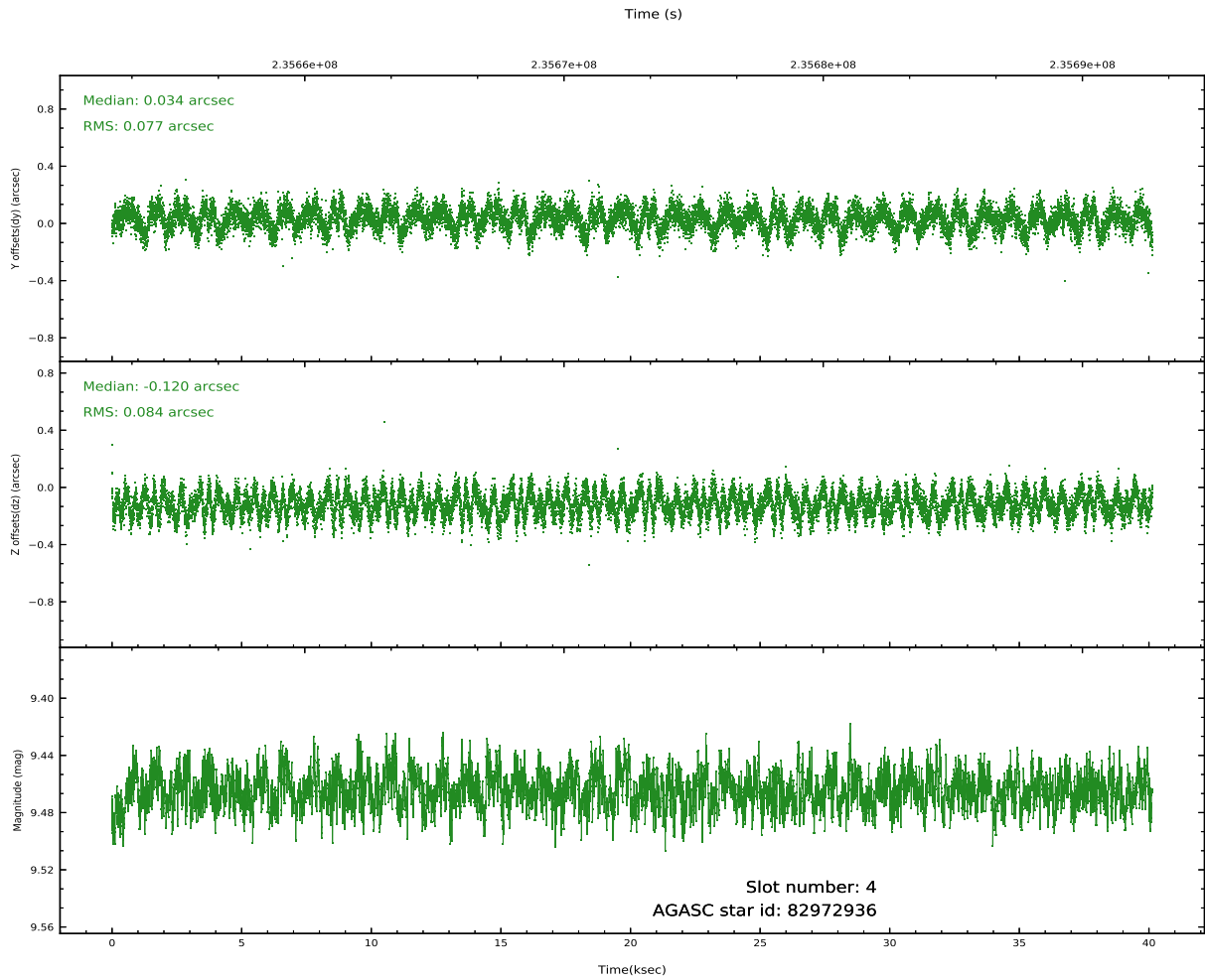
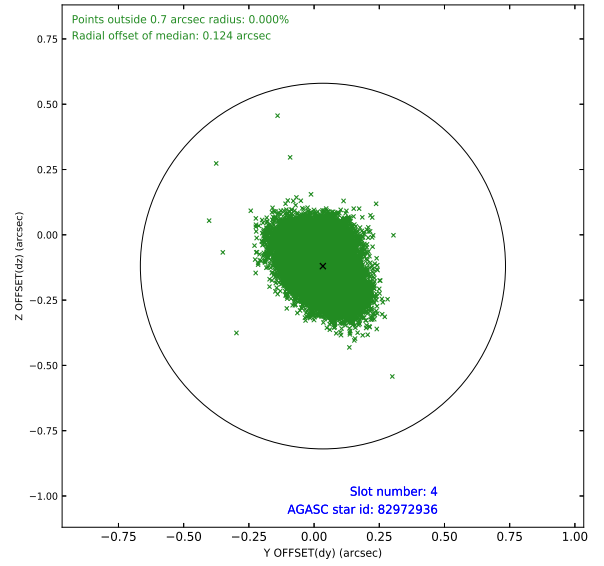
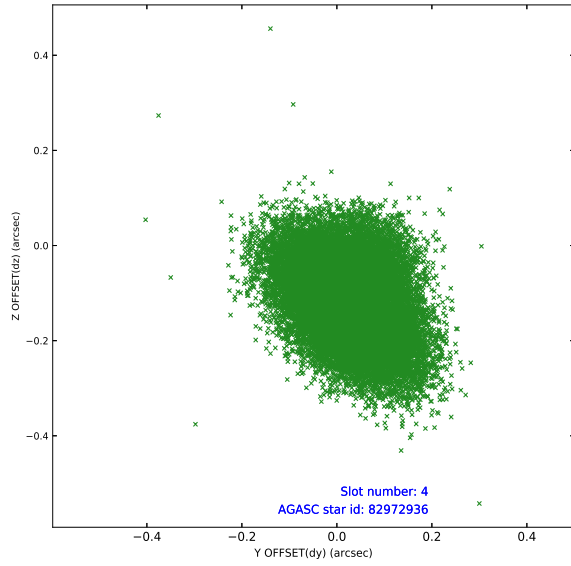
∞

## 2.4 Star Slots

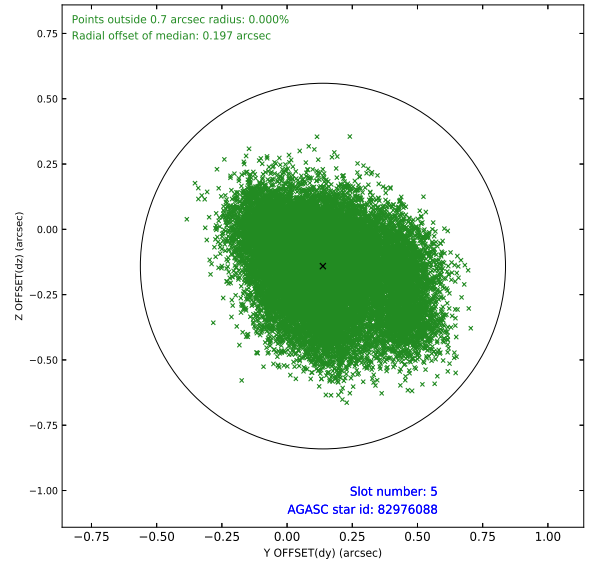
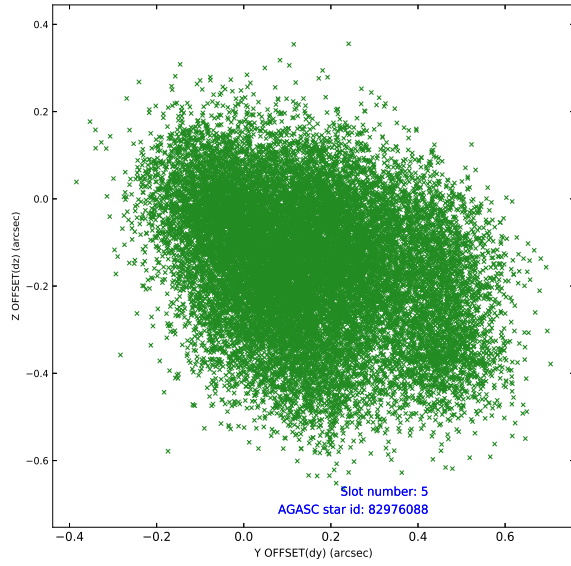
### 2.4.1 Slot 3



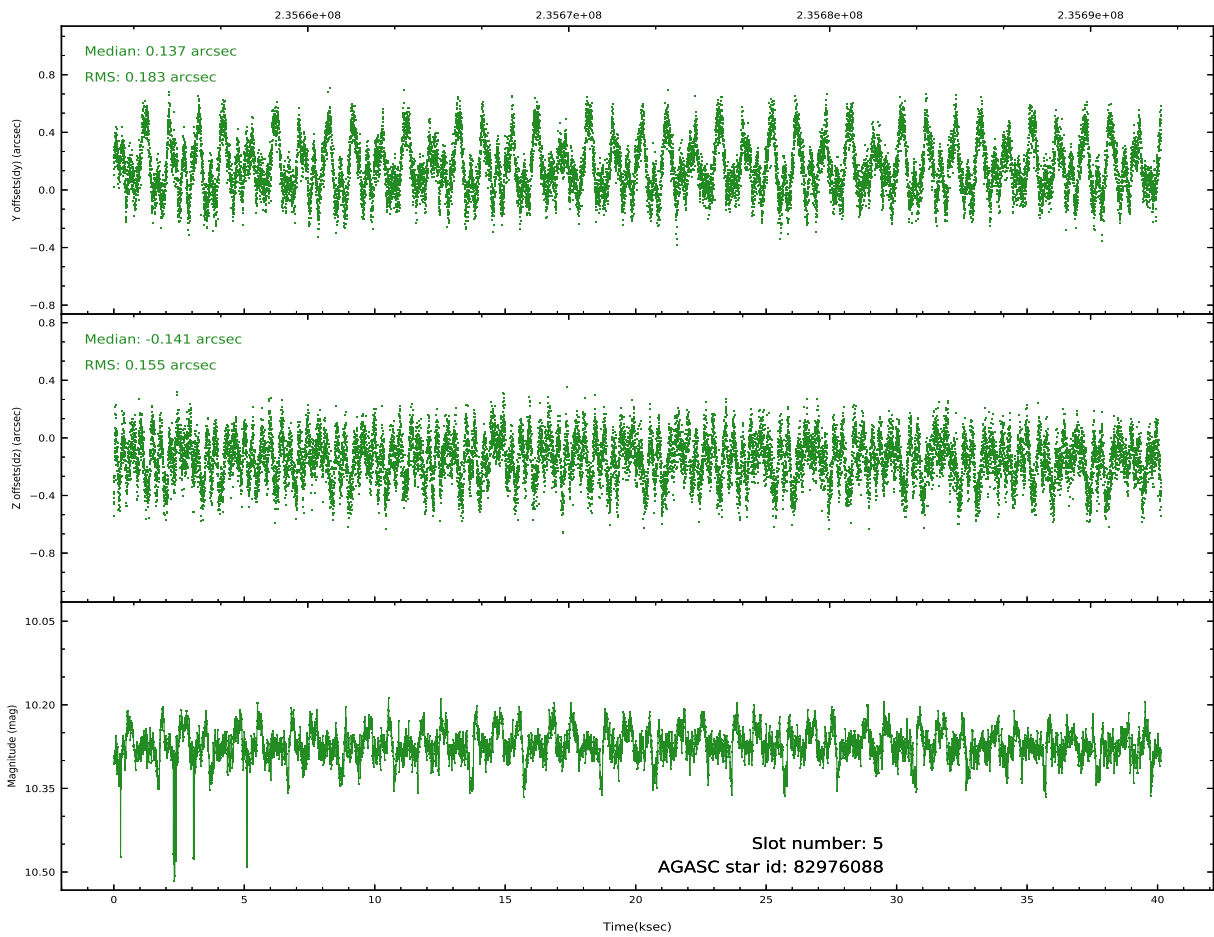
## 2.4.2 Slot 4



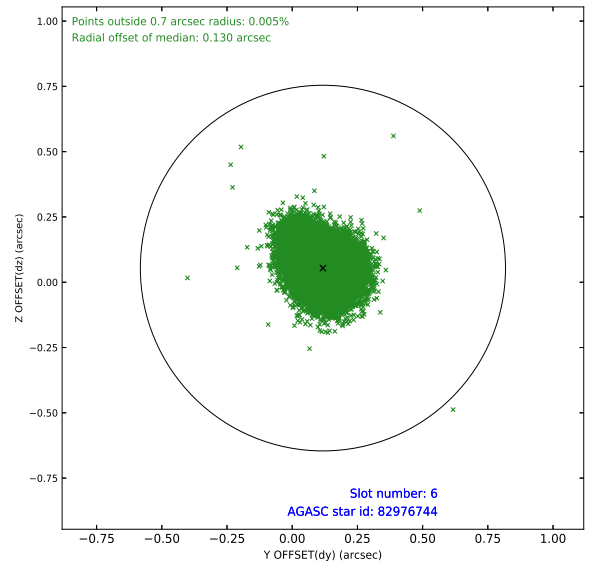
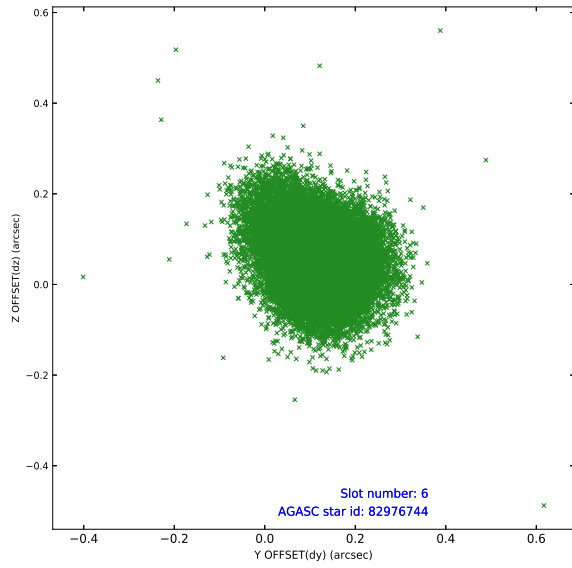
### 2.4.3 Slot 5



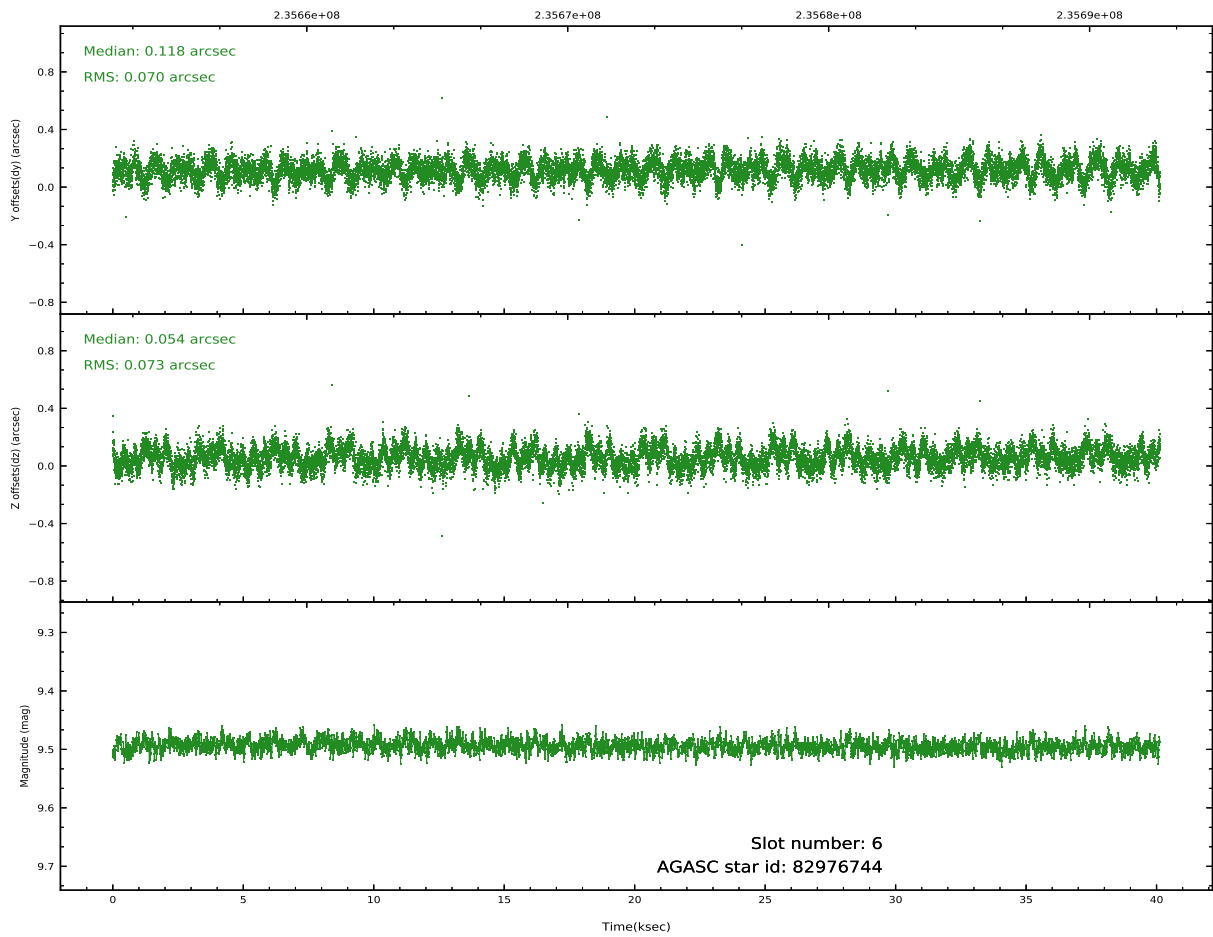
Time (s)



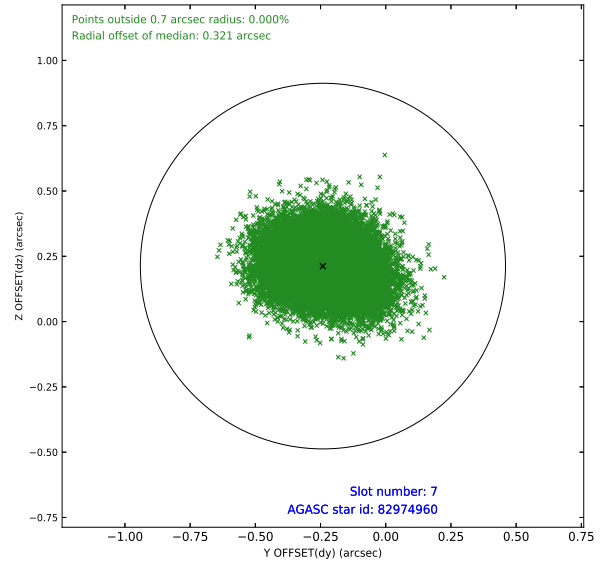
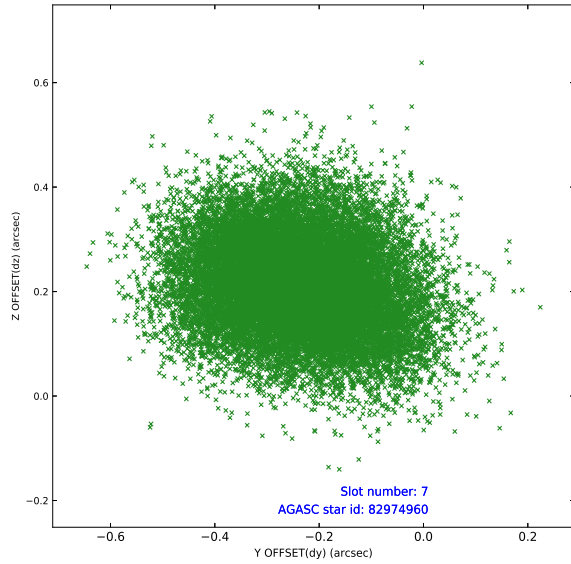
## 2.4.4 Slot 6



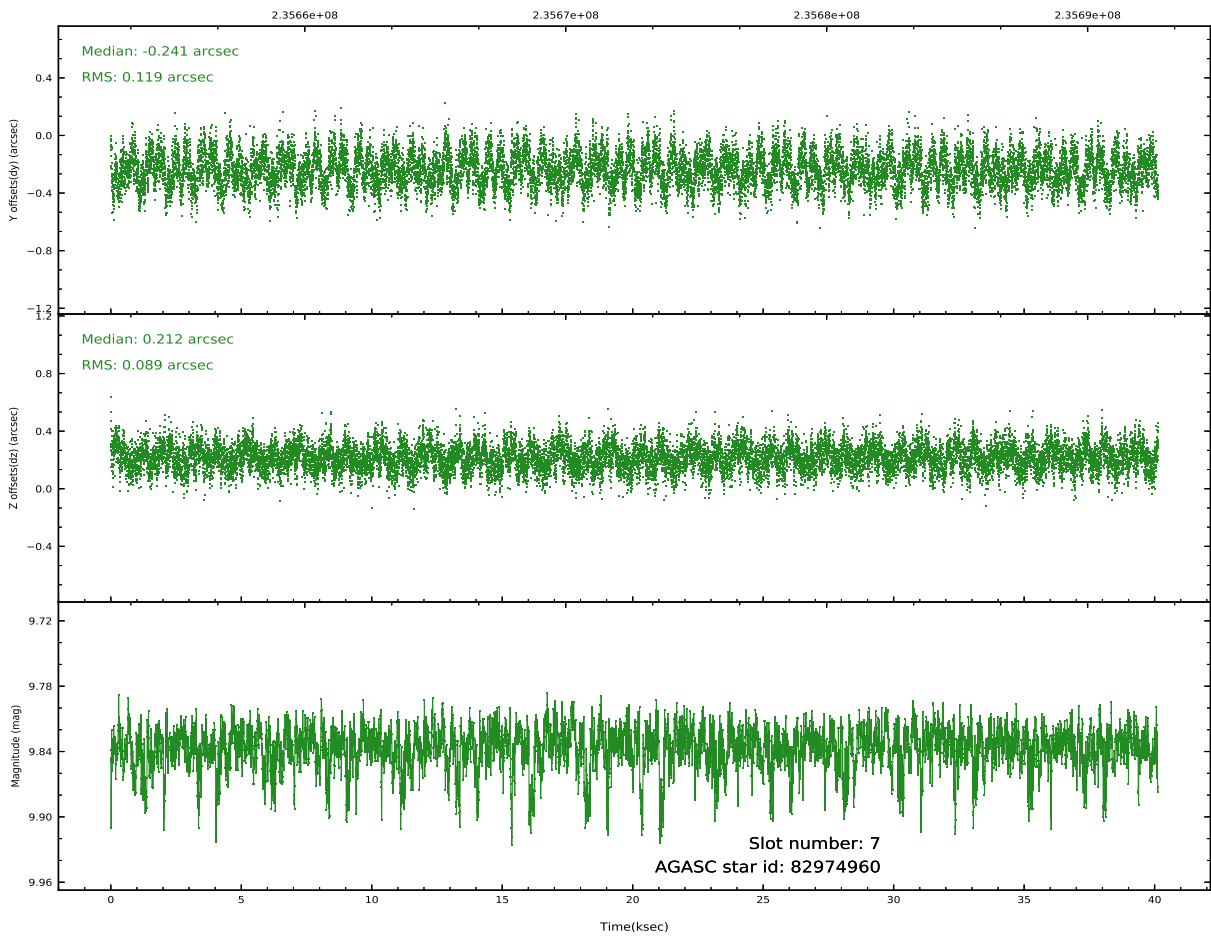
Time (s)



## 2.4.5 Slot 7

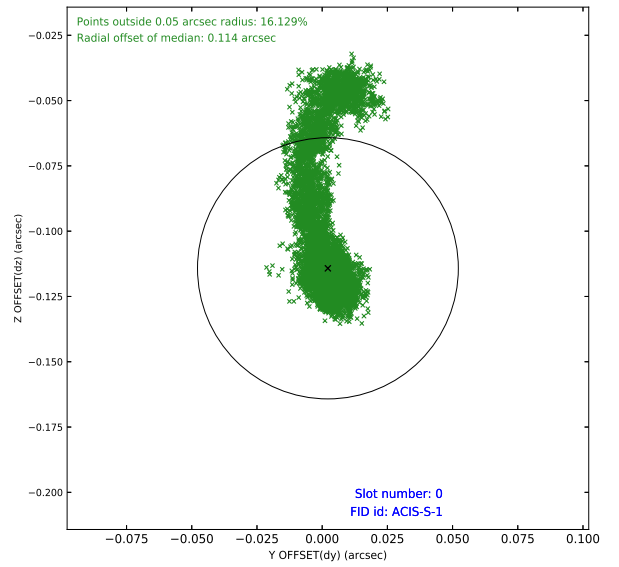
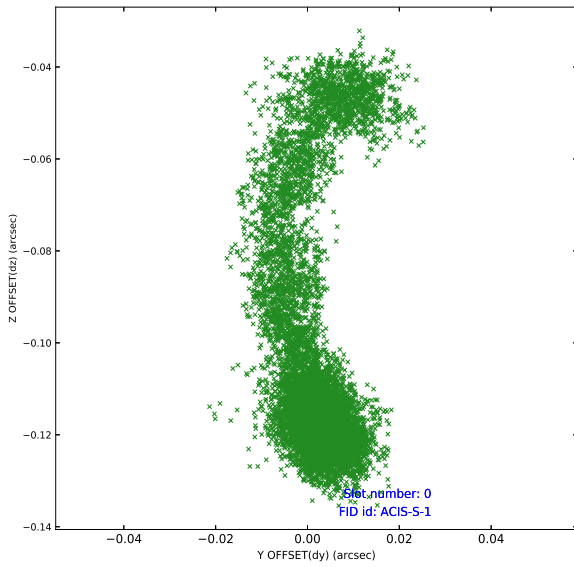


Time (s)

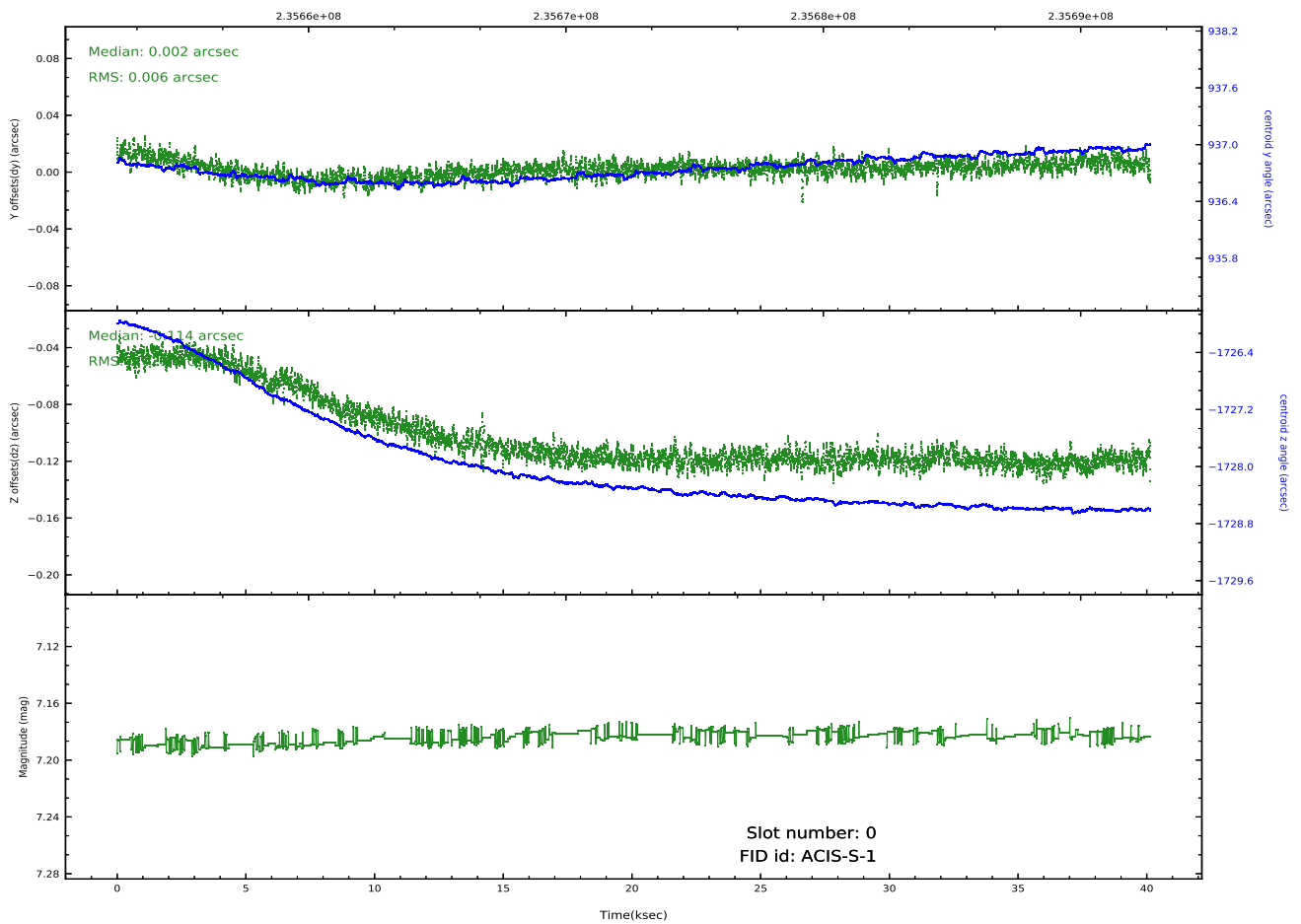


## 2.5 FID Slots

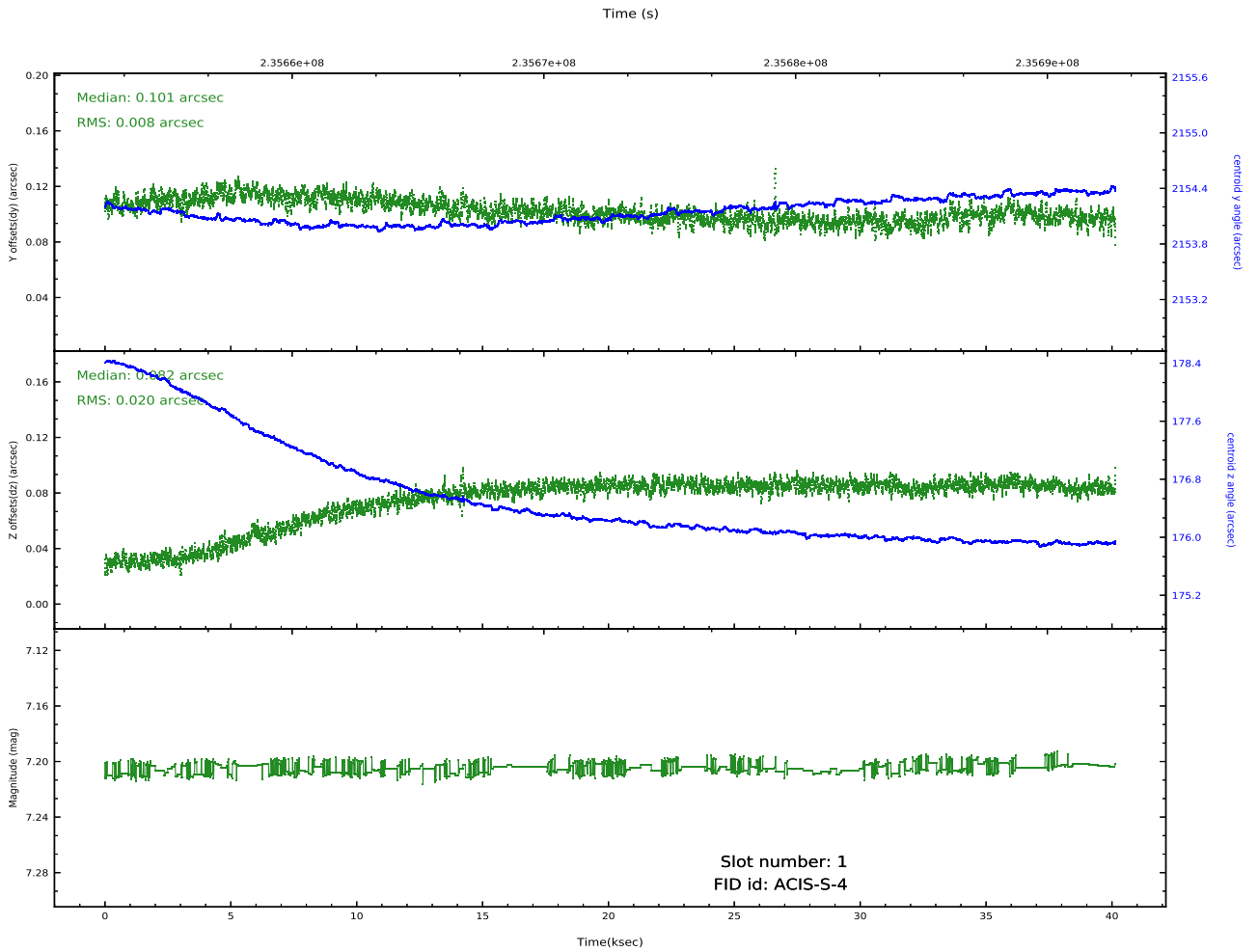
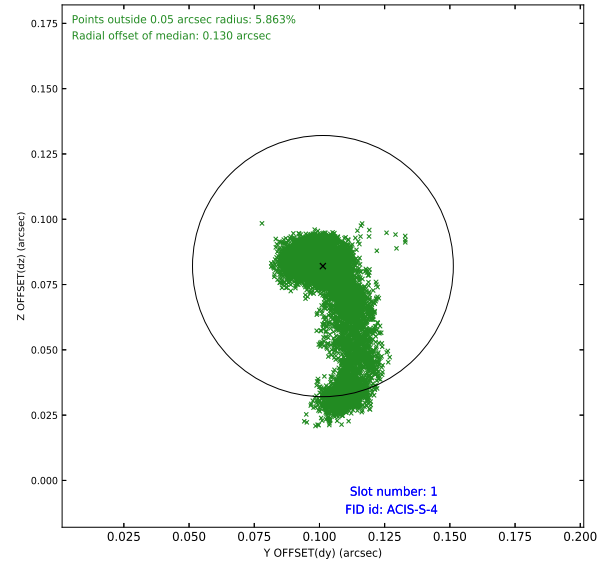
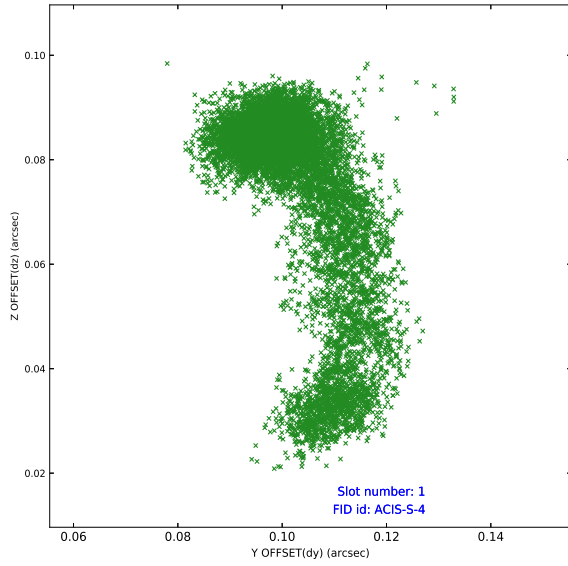
### 2.5.1 Slot 0



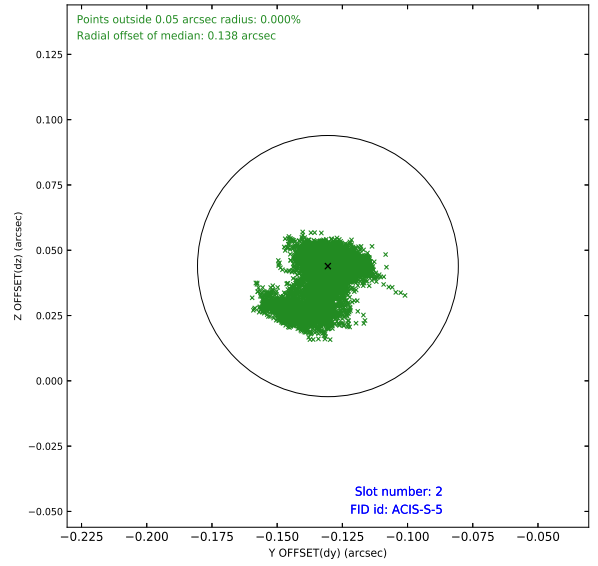
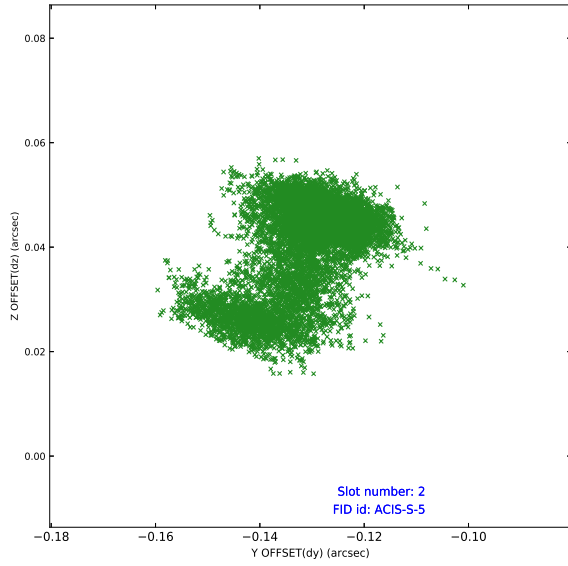
Time (s)



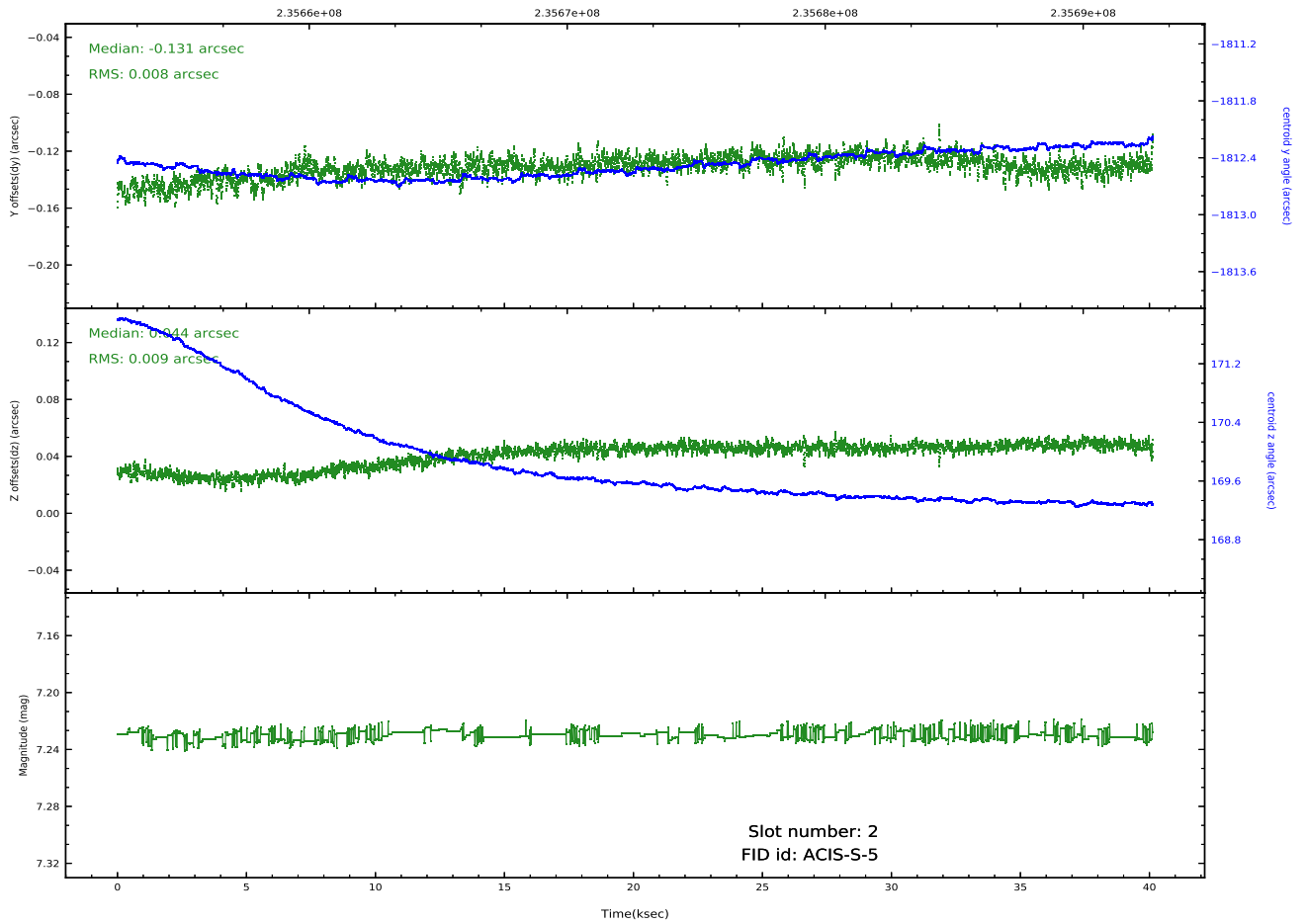
## 2.5.2 Slot 1



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.12949

## A.2 Comments

Joint Proposal: NRAO