

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 6310 - L2 Version 4  
Chandra X-Ray Center

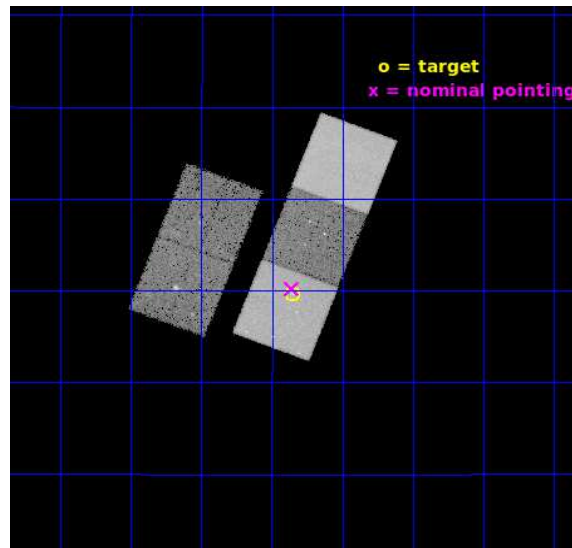
L2 Processing Date : Oct 8 2020

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# 1 Front

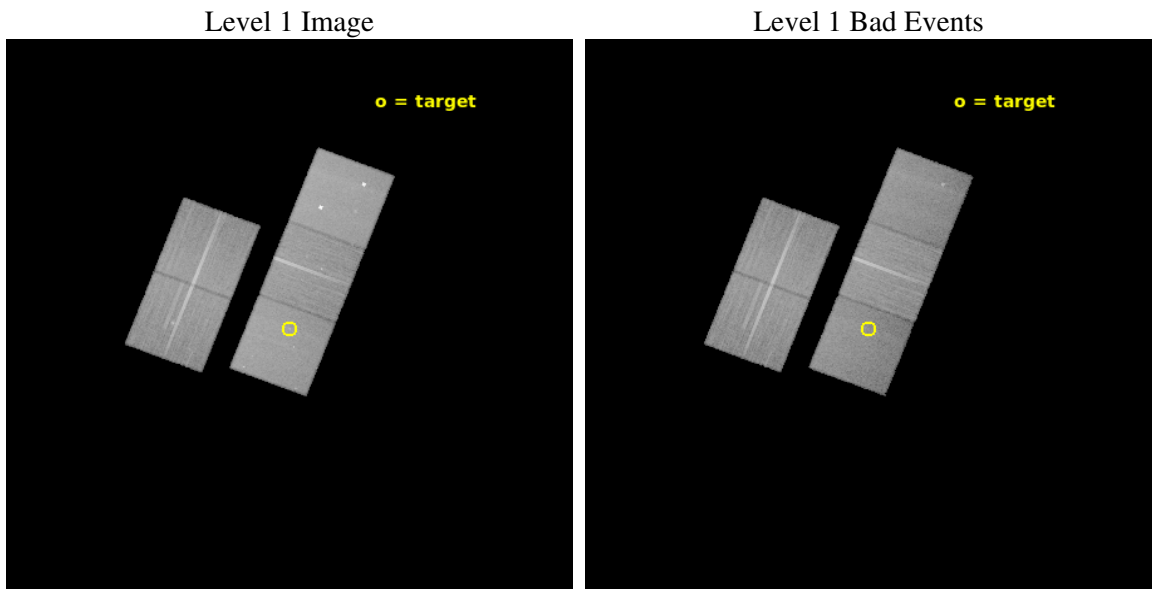
seq_num	701114	Sequence number
obs_id	6310	Observation id
title	The X-ray Jet of the X-ray faint supermassive nuclear black hole in NGC 821	Proposal title
observer	Giuseppina Fabbiano	Principal investigator
object	NGC821	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	32.0875	Observer's specified target RA [deg]
dec_targ	10.99475	Observer's specified target Dec [deg]
ra_nom	32.089374727702	Nominal RA [deg]
dec_nom	11.003564040981	Nominal Dec [deg]
roll_nom	111.06162373817	Nominal Roll [deg]
revision	4	Processing version of data
ontime	32438.3999376	Sum of GTIs [s]
livetime	32014.568361613	Livetime [s]
ontime2	32435.258977324	Sum of GTIs [s]
ontime3	32435.258977324	Sum of GTIs [s]
ontime5	32438.3999376	Sum of GTIs [s]
ontime6	32438.3999376	Sum of GTIs [s]
ontime7	32438.3999376	Sum of GTIs [s]
l2events	285845	Number of level 2 events



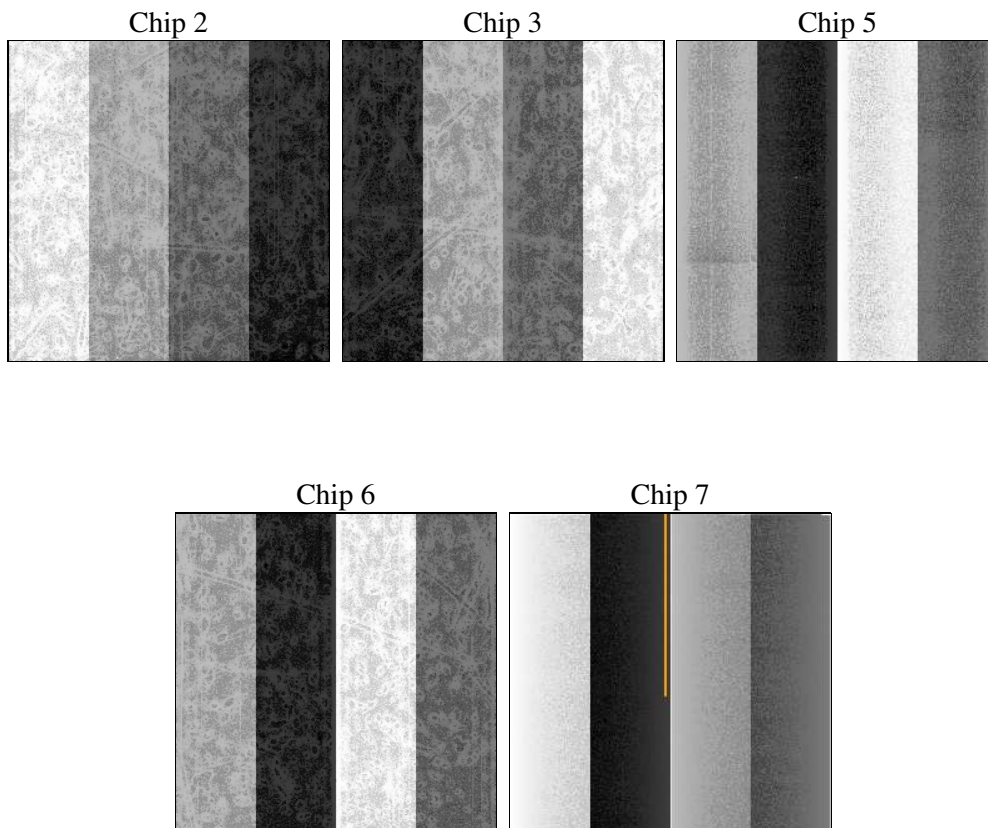
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	32306.888000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	32438.3999376	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime2	32435.258977324	Sum of GTIs [s]
date	2020-10-09T01:09:17	Date and time of file creation	ontime3	32435.258977324	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	32438.3999376	Sum of GTIs [s]
			ontime6	32438.3999376	Sum of GTIs [s]
			ontime7	32438.3999376	Sum of GTIs [s]
			l1events	1187329	Number of level 1 events

### 2.1.4 Events

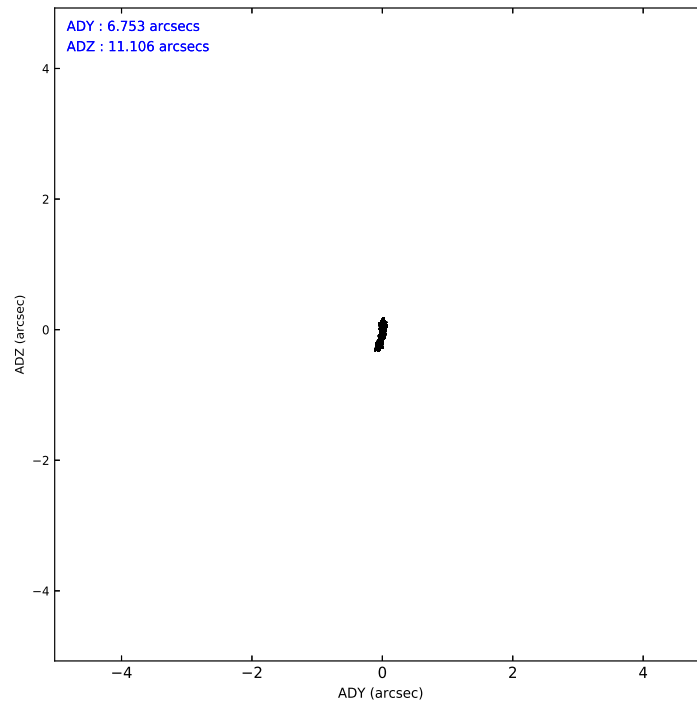
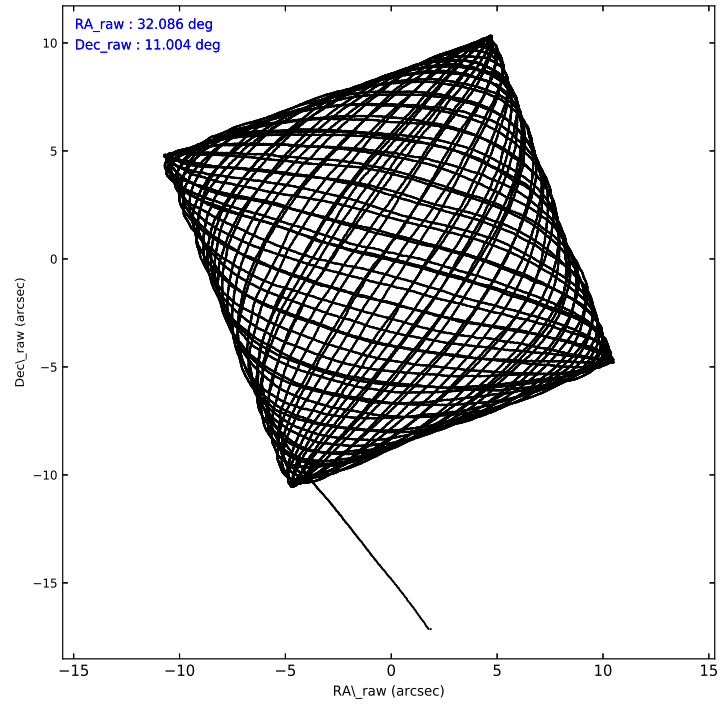
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	216252	207829	301642	221394	240212
rejected events	195932	187885	150576	199698	134229
rejected %	90%	90%	49%	90%	55%

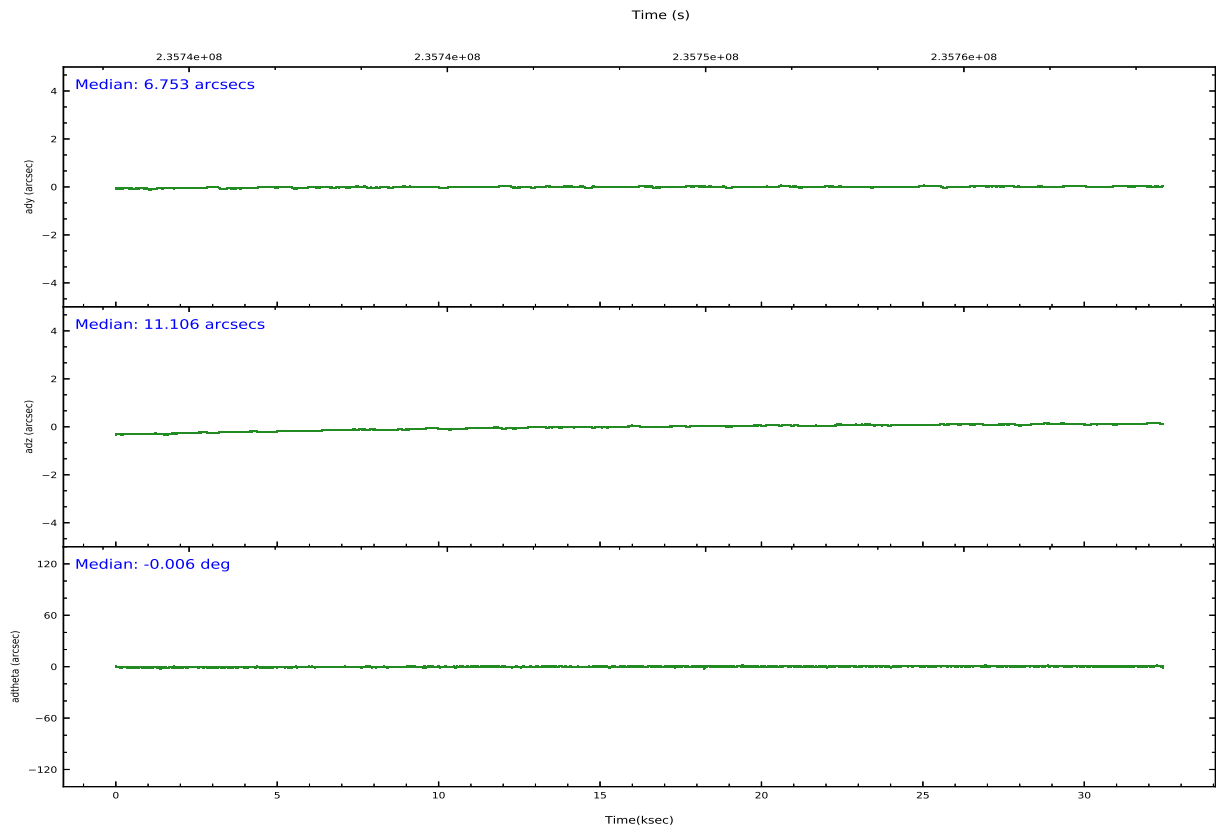
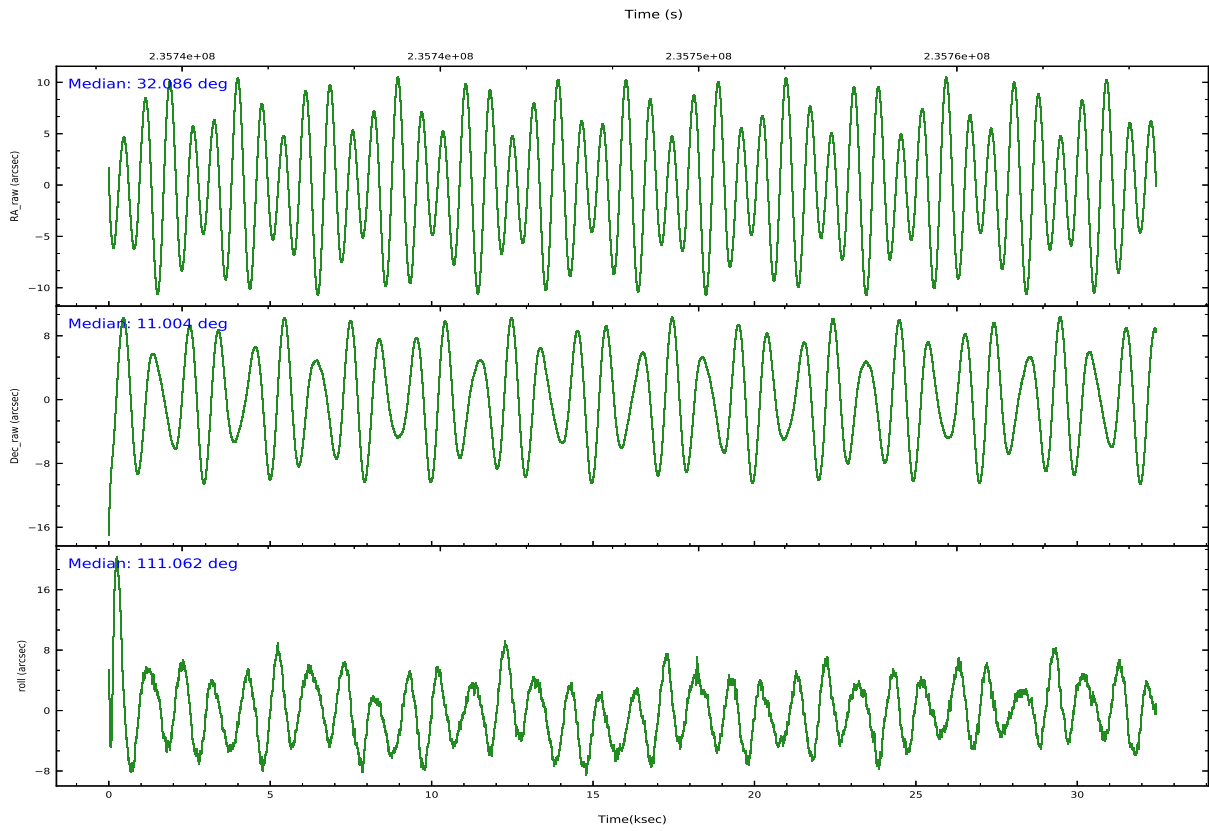
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	7593	7463	20463	7864	9824
	3%	3%	6%	3%	4%
grade 1 events	100	111	956	109	219
	0%	0%	0%	0%	0%
grade 2 events	4738	4356	46379	4740	21888
	2%	2%	15%	2%	9%
grade 3 events	2247	2321	6527	2409	10226
	1%	1%	2%	1%	4%
grade 4 events	2392	2287	6282	2492	10239
	1%	1%	2%	1%	4%
grade 5 events	6812	8466	23652	8597	25647
	3%	4%	7%	3%	10%
grade 6 events	3830	3978	74948	4669	56233
	1%	1%	24%	2%	23%
grade 7 events	188540	178847	122435	190514	105936
	87%	86%	40%	86%	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	32.089374727702	Subarray requested	NONE	NONE
[deg] Pointing Dec	10.987414	11.003564040981	Alternating exposures requested	N	N
[deg] Pointing Roll	110.896198	111.06162373817	[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	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	235733865.184000	235732521.6965			
Observation start date	2005-06-21T09:36:41	2005-06-21T09:15:21			
[s] Observation end time (MET)	235766172.184000	235766399.48555			
Observation end date	2005-06-21T18:35:08	2005-06-21T18:39:59			
Read mode	TIMED	TIMED			

## 2.3 Aspect





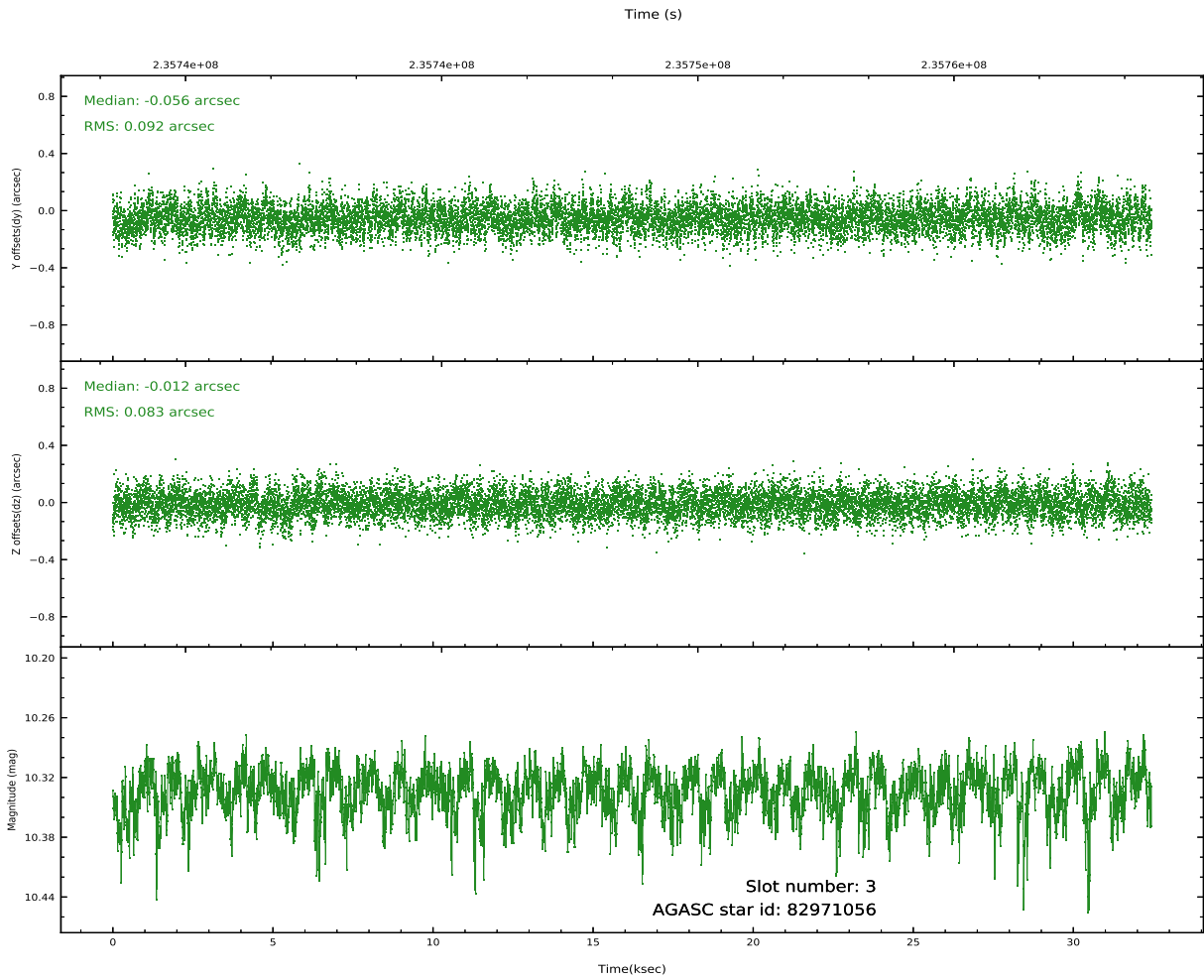
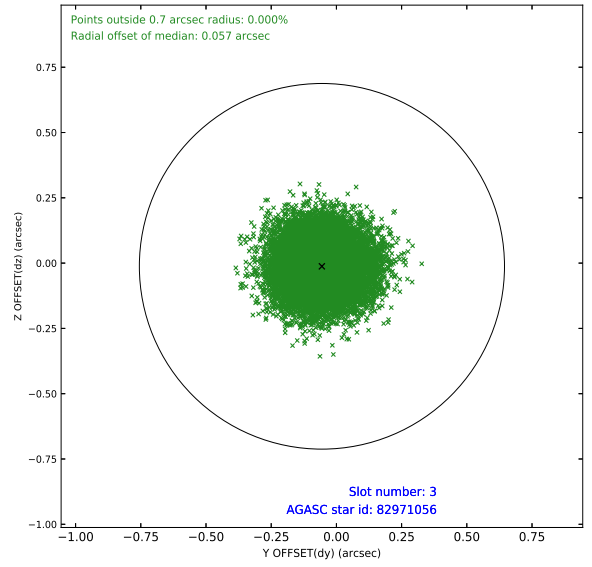
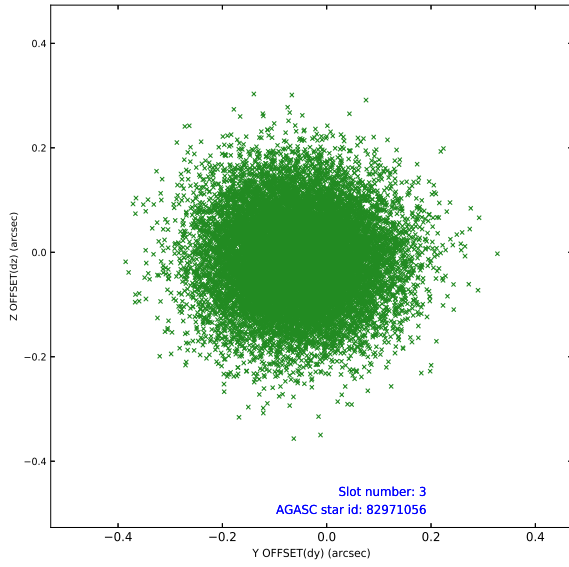
### Slot Statistics

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	7913	1.000	0.002	-0.108	0.009	0.016	0.000000	0.000000	936.56	-1728
1	FID		ACIS-S-4	7.20	7911	1.000	0.097	0.078	0.007	0.011	0.000000	0.000000	2154.07	176
2	FID		ACIS-S-5	7.23	7914	1.000	-0.125	0.043	0.006	0.012	0.000000	0.000000	-1812.39	169
3	GUIDE	used	82971056	10.33	15797	1.000	-0.056	-0.012	0.133	0.213	31.381677	11.249277	1797.75	2056
4	GUIDE	used	82972936	9.47	15819	1.000	0.013	-0.094	0.108	0.168	31.880349	11.323150	1415.59	317
5	GUIDE	used	82976088	10.28	15789	1.000	0.140	-0.170	0.237	0.385	31.548572	10.635312	-476.95	2298
6	GUIDE	used	82976744	9.49	15815	1.000	0.130	0.062	0.108	0.173	32.095784	10.602457	-1279.68	533
7	GUIDE	used	82974960	9.84	15811	1.000	-0.251	0.219	0.156	0.252	31.911636	11.621581	2379.10	-168

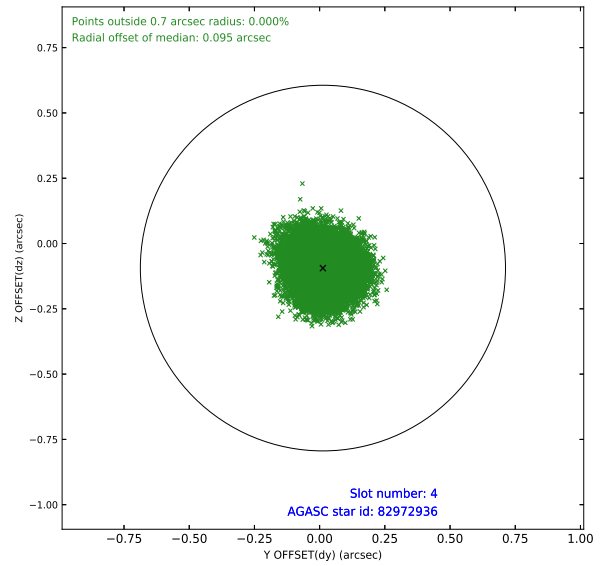
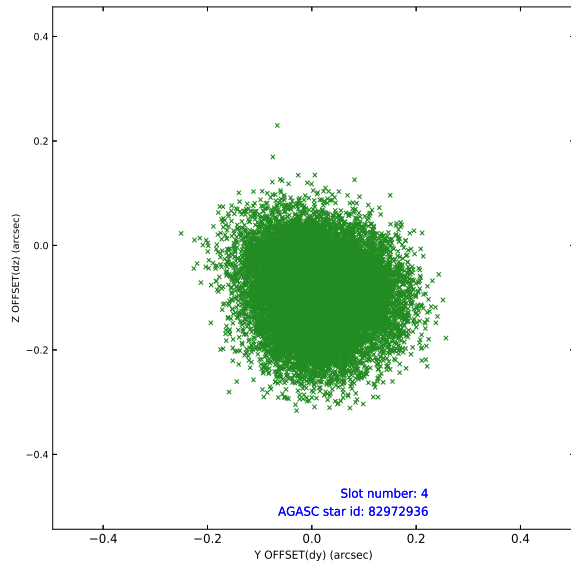
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## 2.4 Star Slots

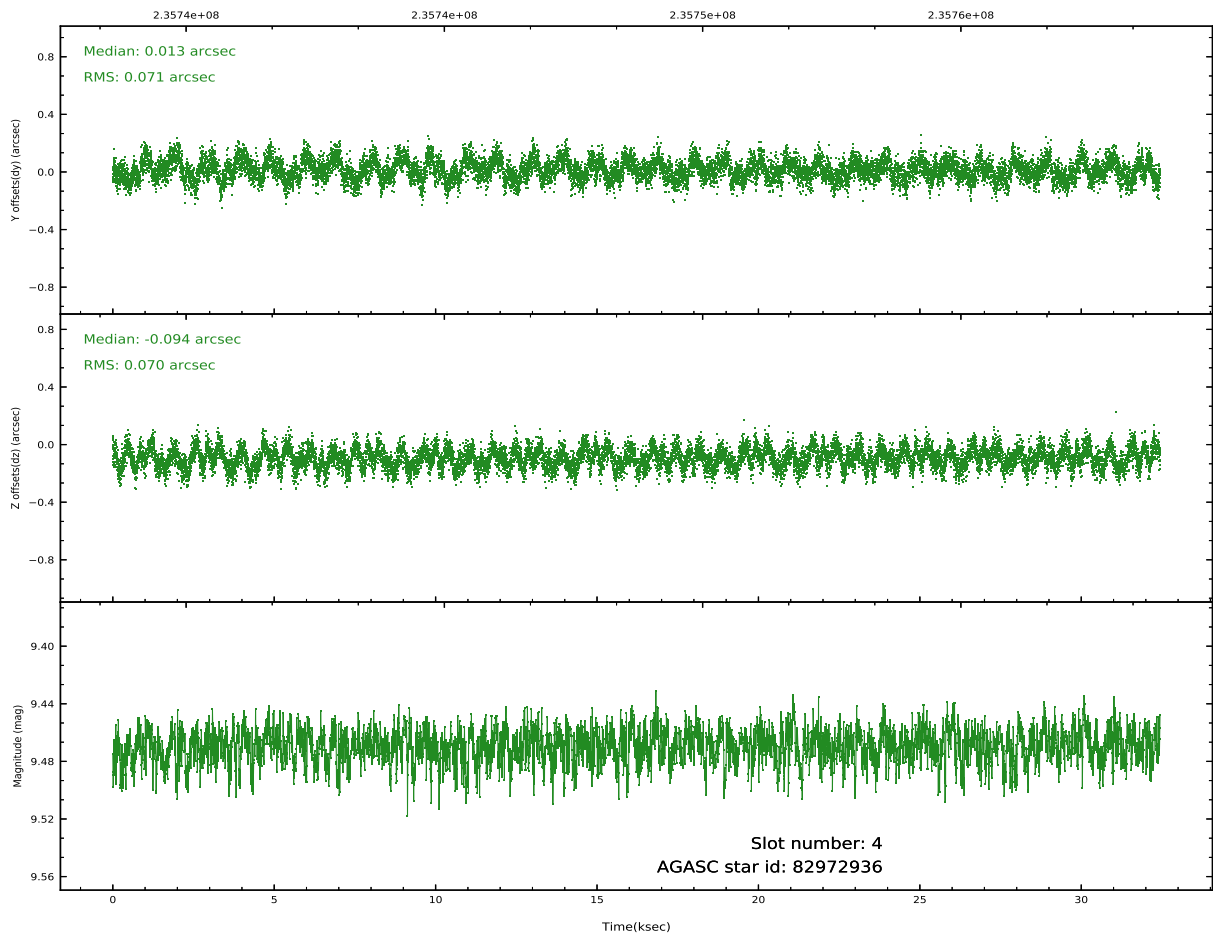
### 2.4.1 Slot 3



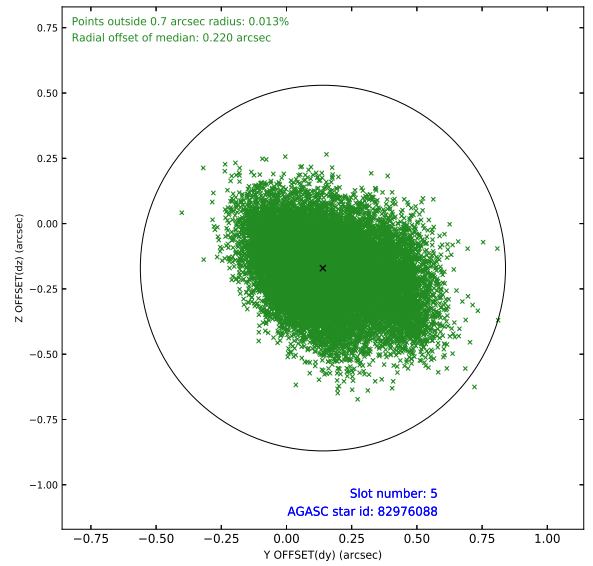
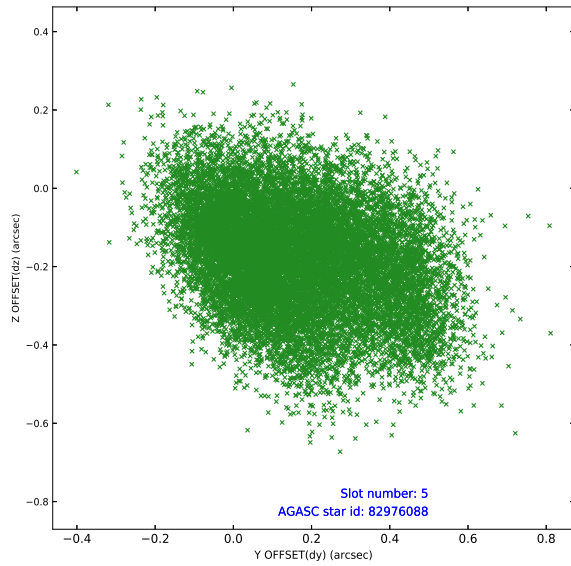
## 2.4.2 Slot 4



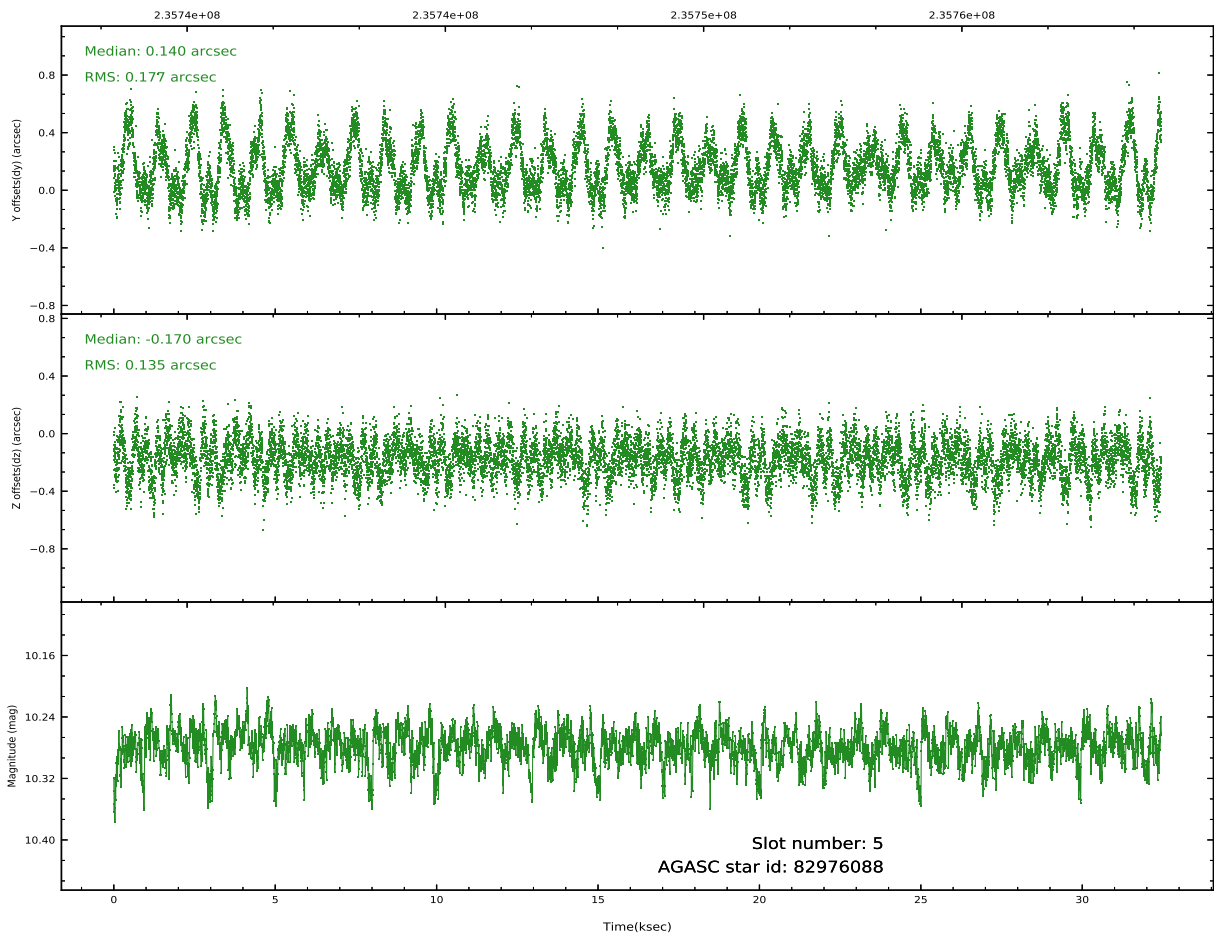
Time (s)



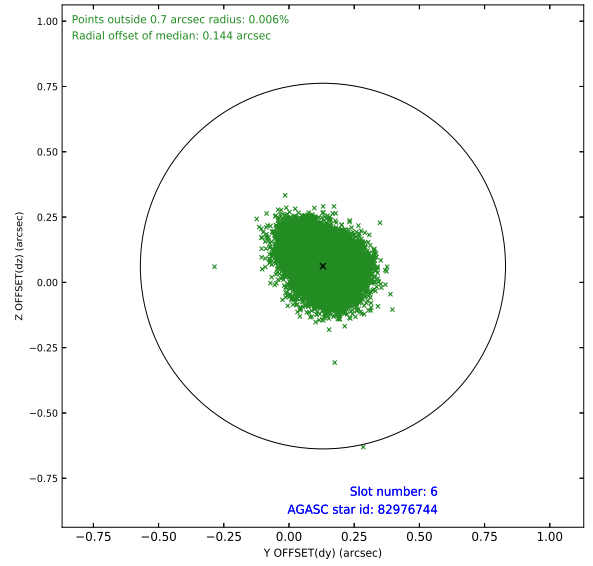
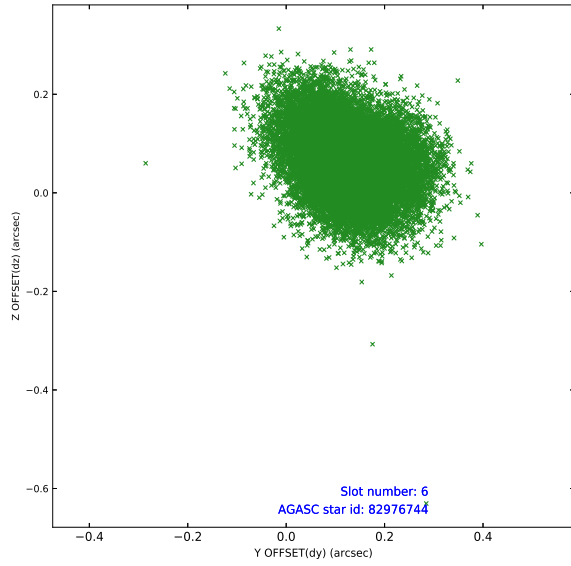
### 2.4.3 Slot 5



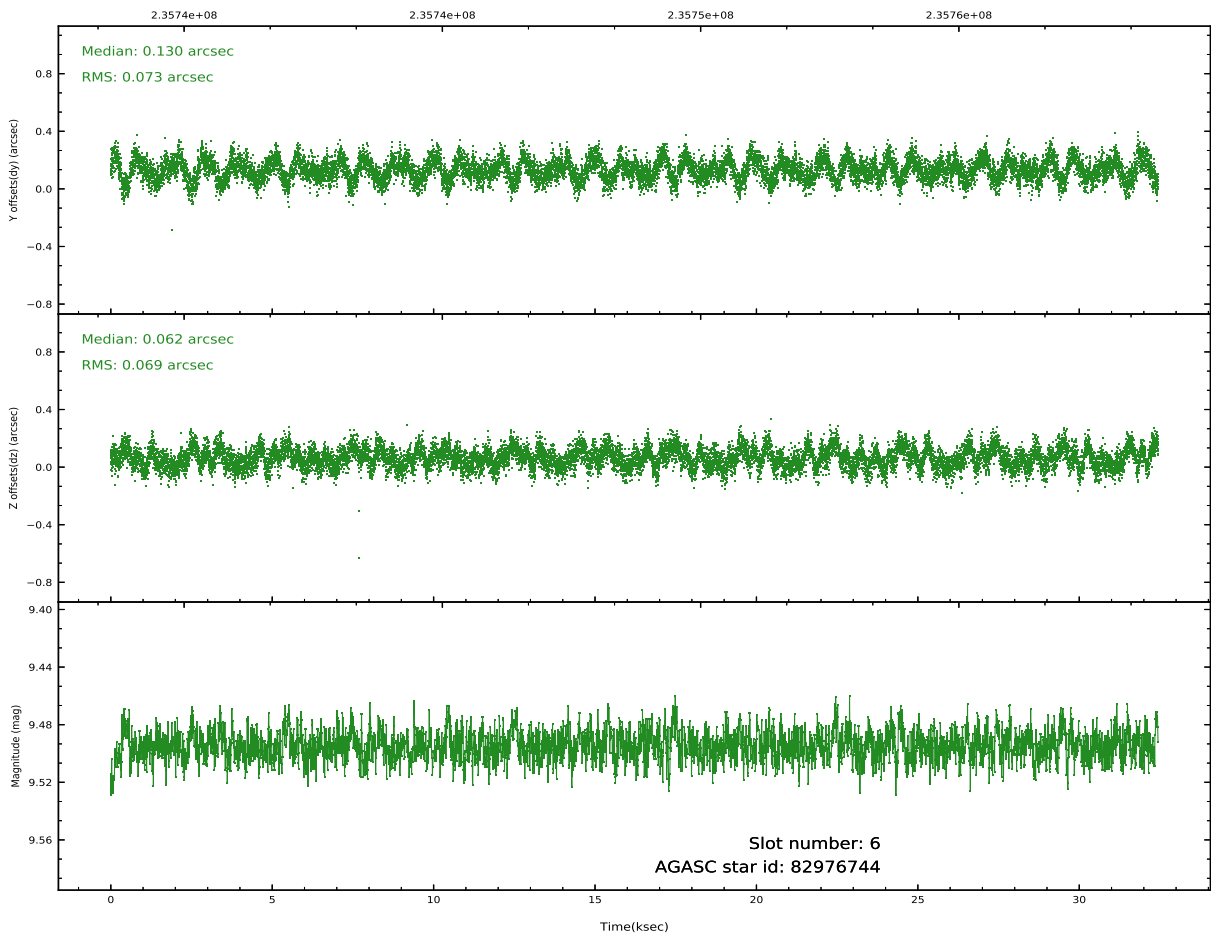
Time (s)



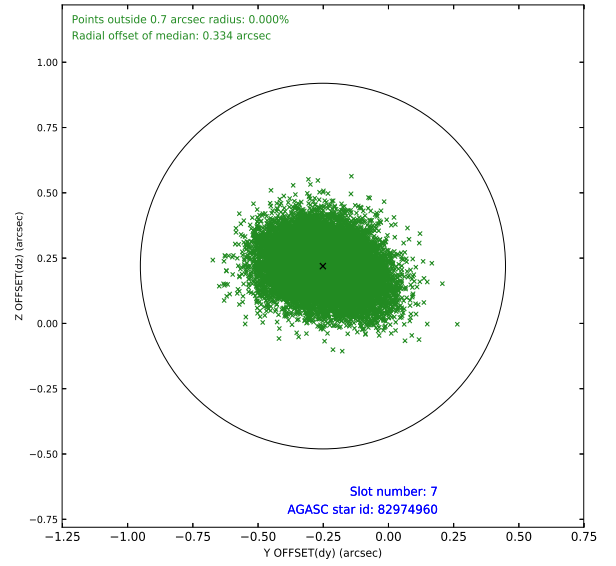
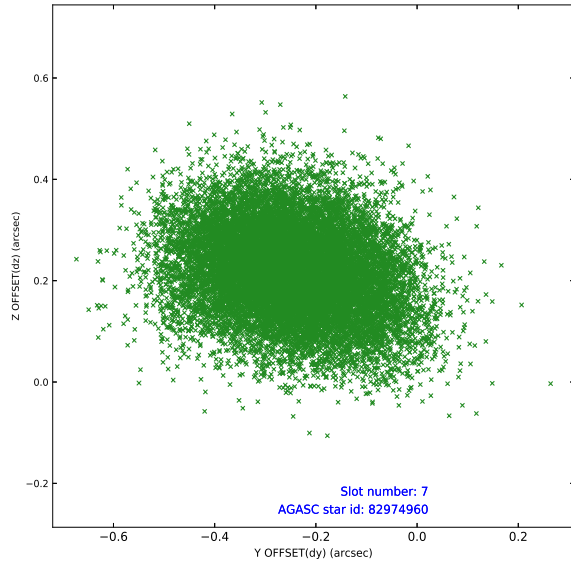
## 2.4.4 Slot 6



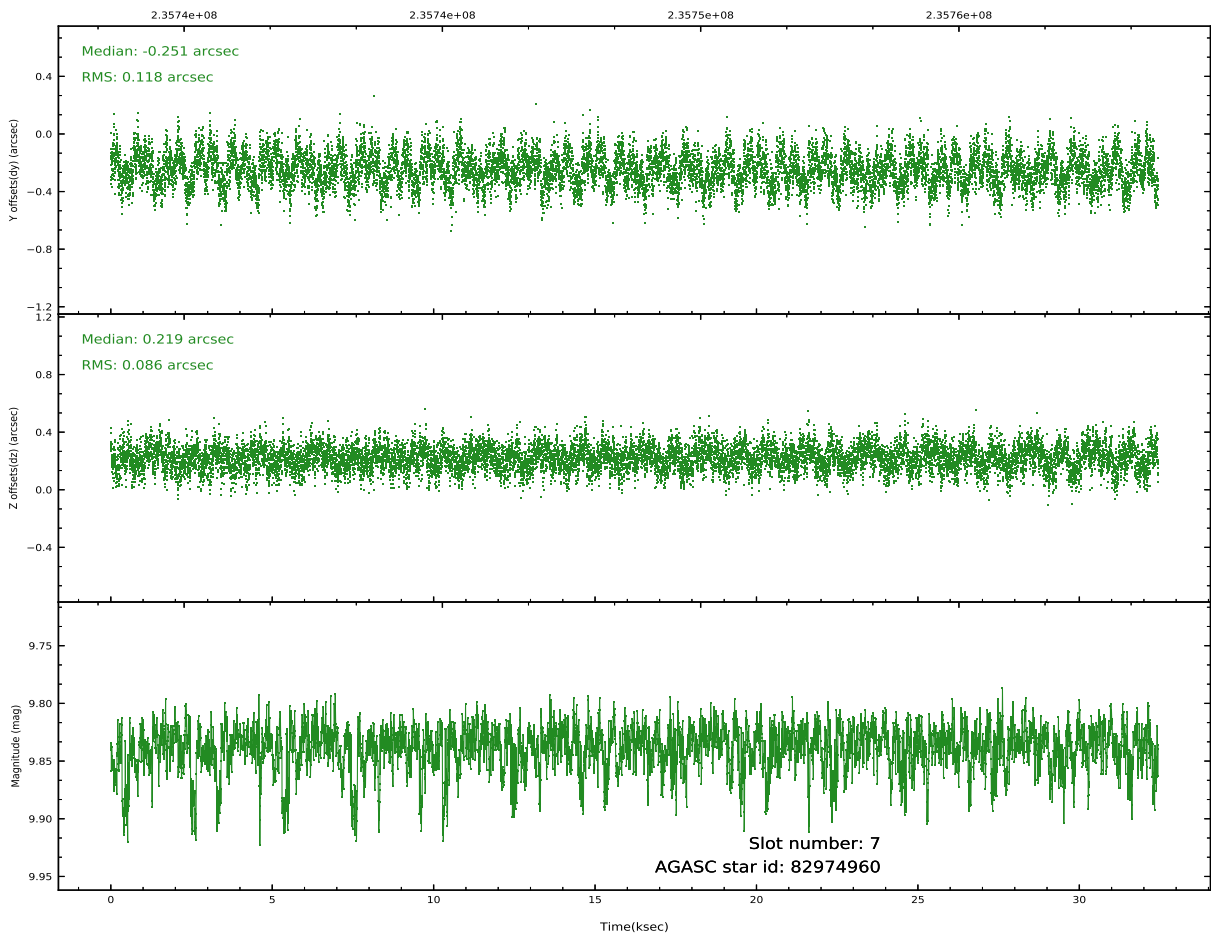
Time (s)



## 2.4.5 Slot 7

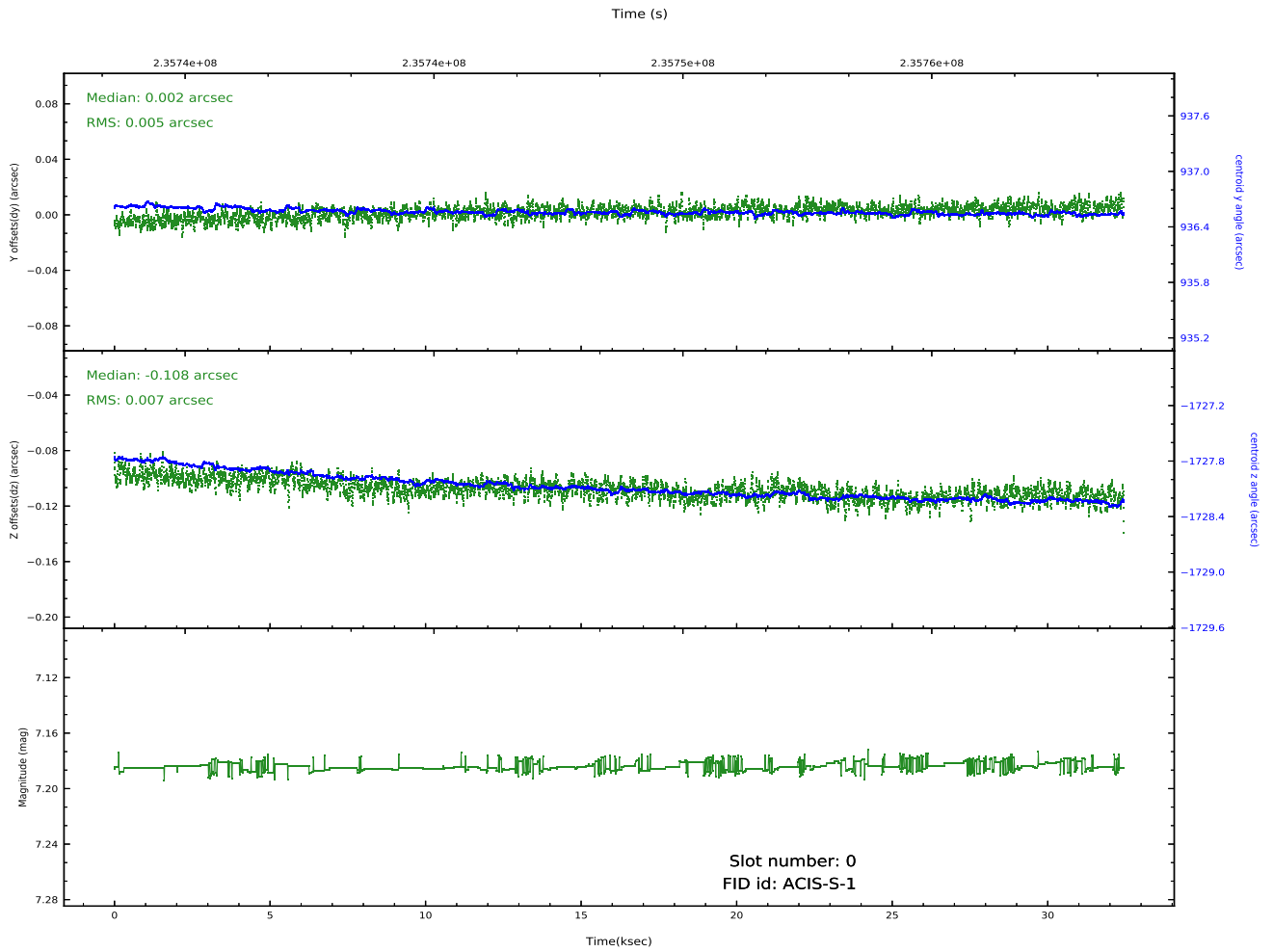
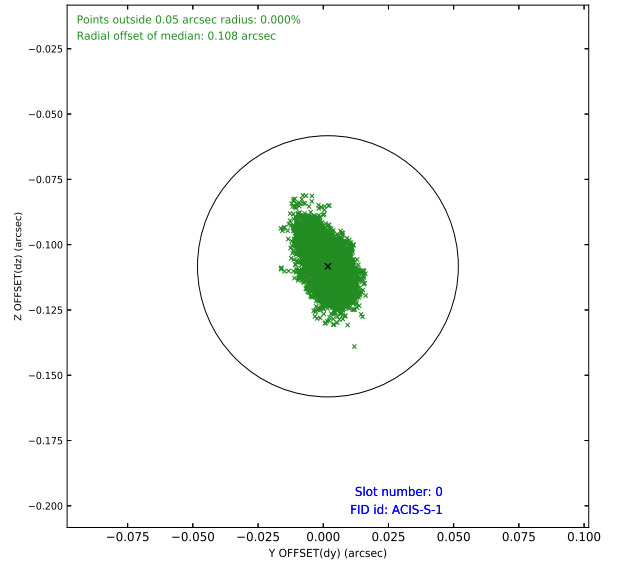
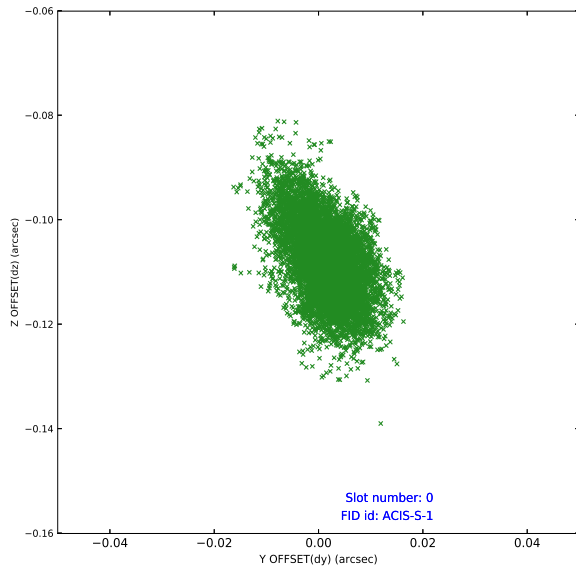


Time (s)

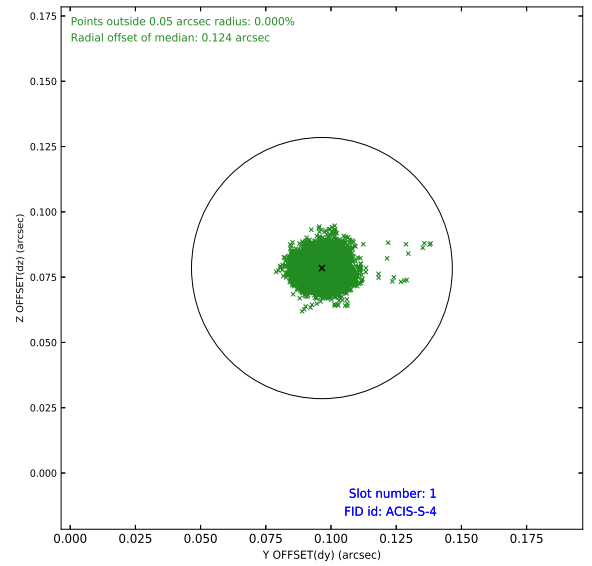
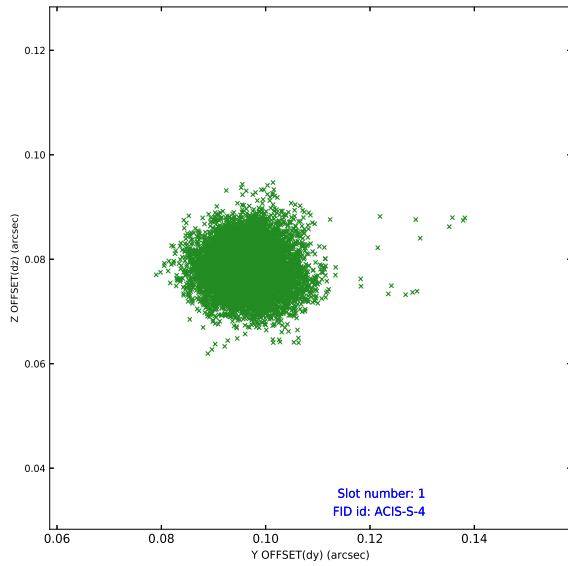


## 2.5 FID Slots

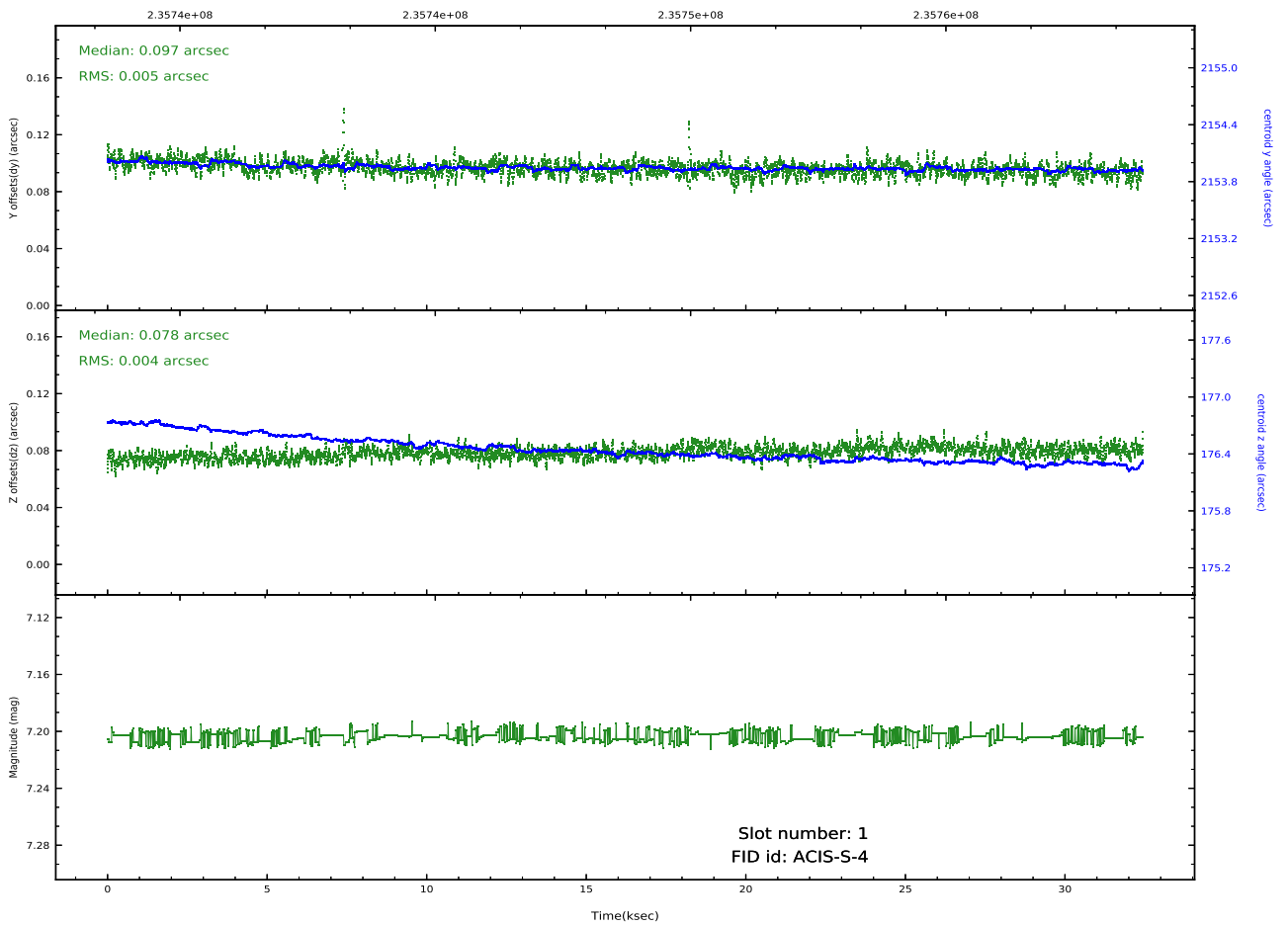
### 2.5.1 Slot 0



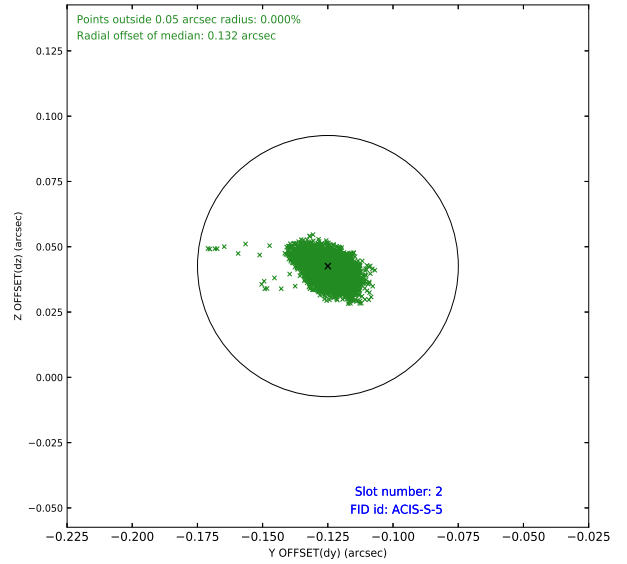
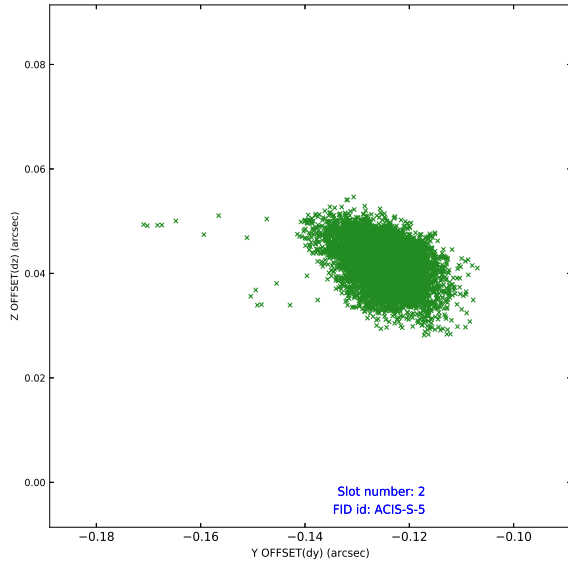
## 2.5.2 Slot 1



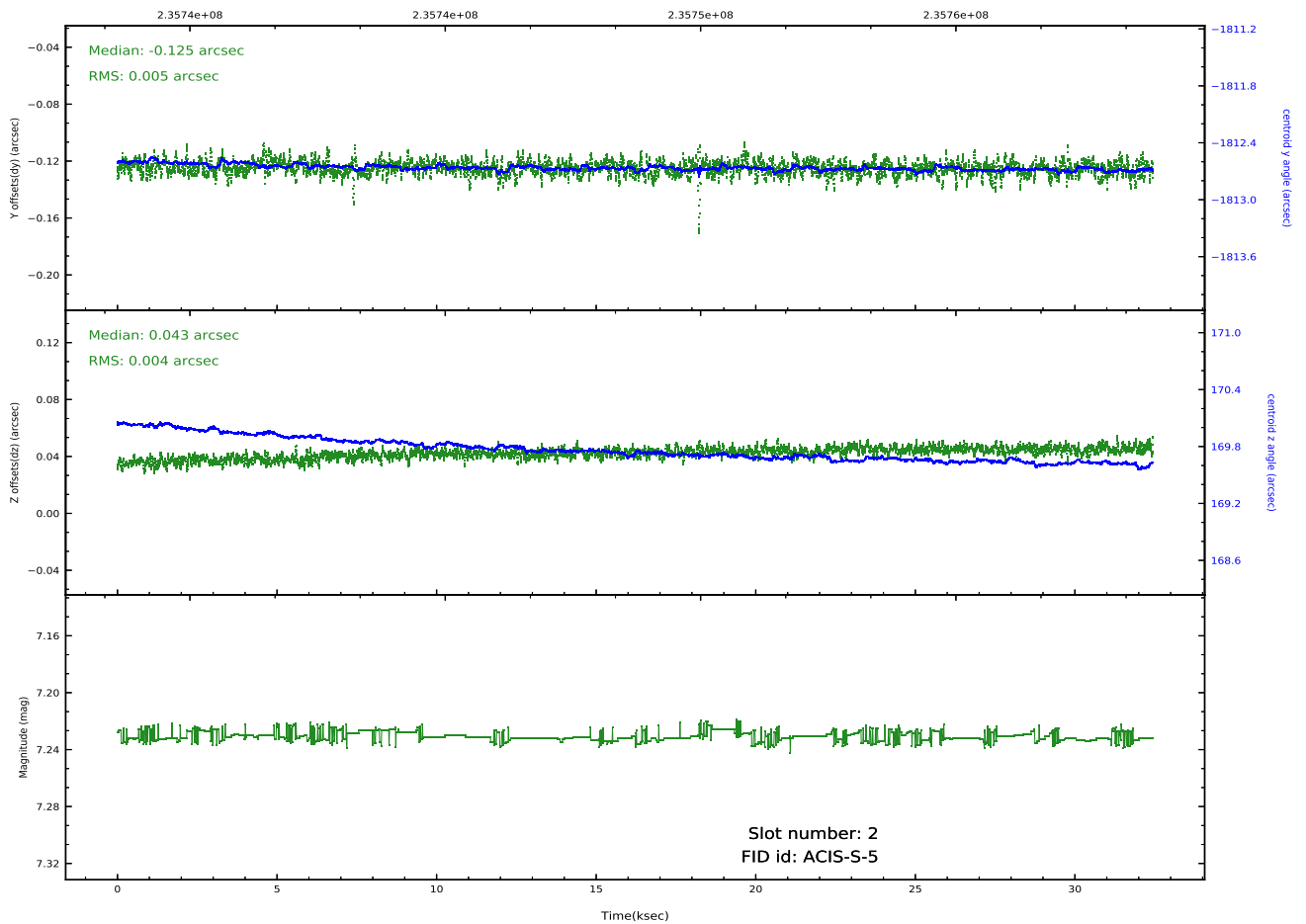
Time (s)



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	32.43839

## A.2 Comments

Joint proposal with NRAO.