

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5701 - L2 Version 5  
Chandra X-Ray Center

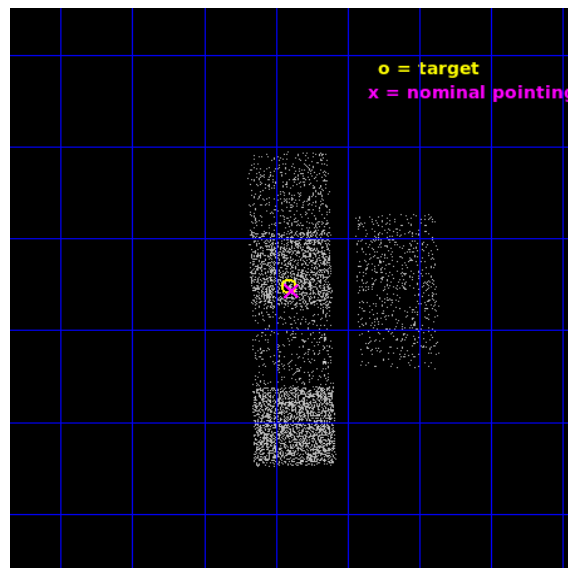
L2 Processing Date : Oct 10 2020

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# 1 Front

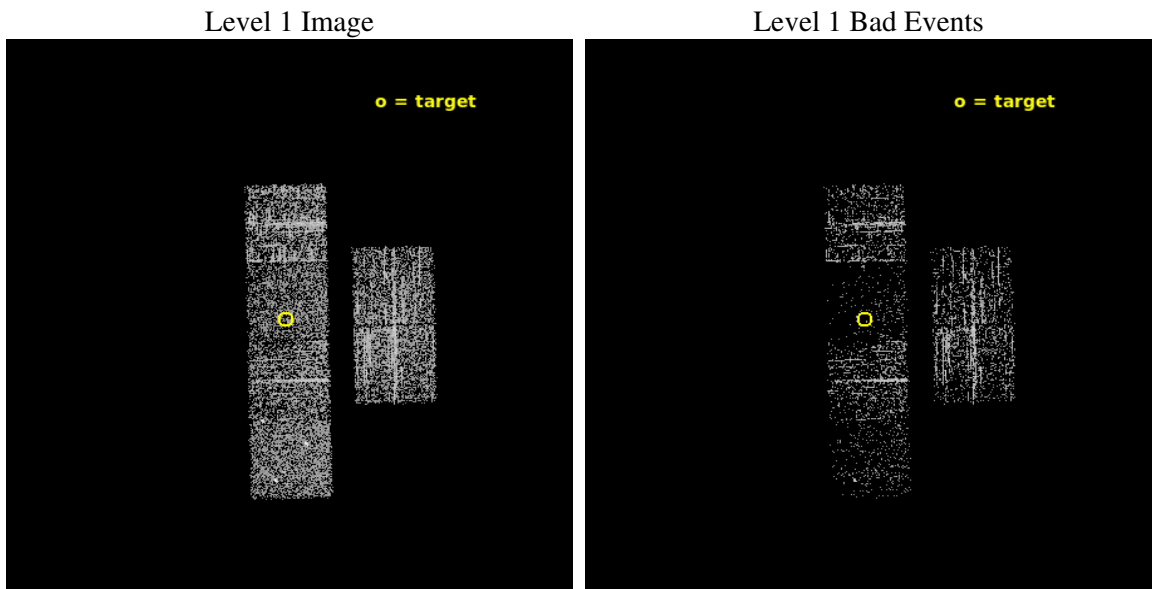
seq_num	701123	Sequence number
obs_id	5701	Observation id
title	A Uniform Chandra Survey of the Brightest and Most Extreme SDSS BALQSOs	Proposal title
observer	Dr. Scott Anderson	Principal investigator
object	QSO J2313+0034	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	348.352083	Observer's specified target RA [deg]
dec_targ	0.579028	Observer's specified target Dec [deg]
ra_nom	348.34705288997	Nominal RA [deg]
dec_nom	0.57174917601704	Nominal Dec [deg]
roll_nom	268.83153731729	Nominal Roll [deg]
revision	5	Processing version of data
ontime	1148.7999957204	Sum of GTIs [s]
livetime	1134.2531984503	Livetime [s]
ontime2	1148.7999957204	Sum of GTIs [s]
ontime3	1148.7999957204	Sum of GTIs [s]
ontime5	1148.7999957204	Sum of GTIs [s]
ontime6	1148.7999957204	Sum of GTIs [s]
ontime7	1148.7999957204	Sum of GTIs [s]
ontime8	1148.7999957204	Sum of GTIs [s]
l2events	6056	Number of level 2 events



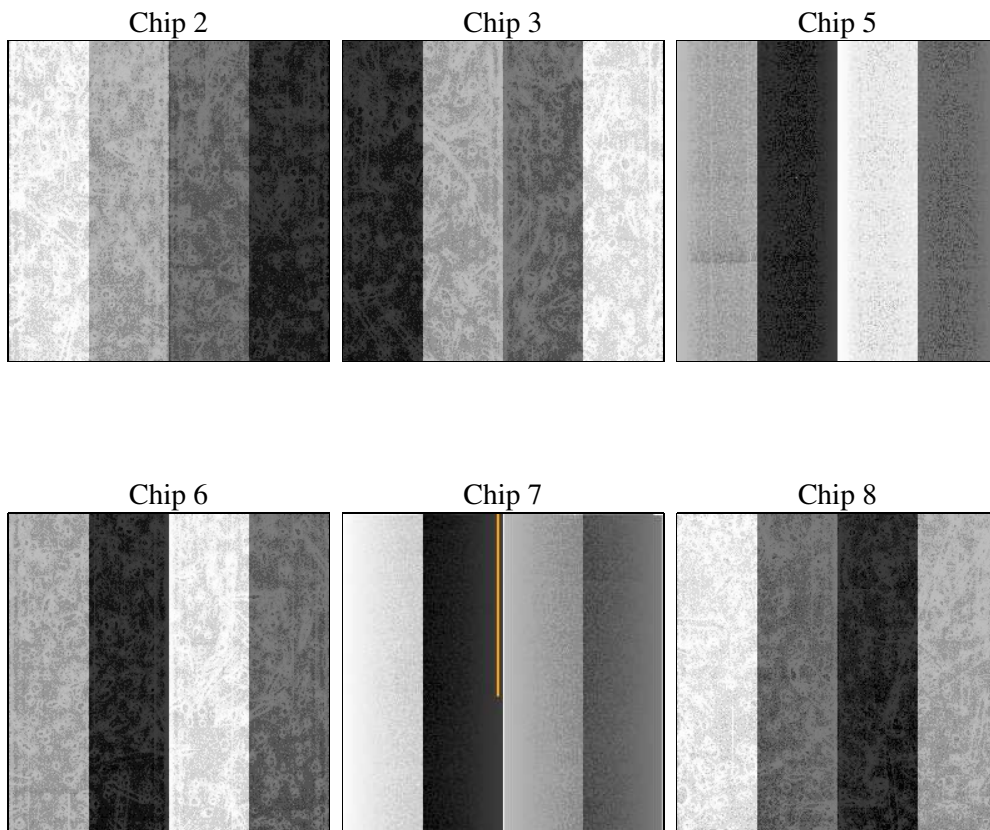
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	1000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	1148.7999957204	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime2	1148.7999957204	Sum of GTIs [s]
date	2020-10-10T13:04:28	Date and time of file creation	ontime3	1148.7999957204	Sum of GTIs [s]
revision	5	Processing version of data	ontime5	1148.7999957204	Sum of GTIs [s]
			ontime6	1148.7999957204	Sum of GTIs [s]
			ontime7	1148.7999957204	Sum of GTIs [s]
			ontime8	1148.7999957204	Sum of GTIs [s]
			l1events	30855	Number of level 1 events

### 2.1.4 Events

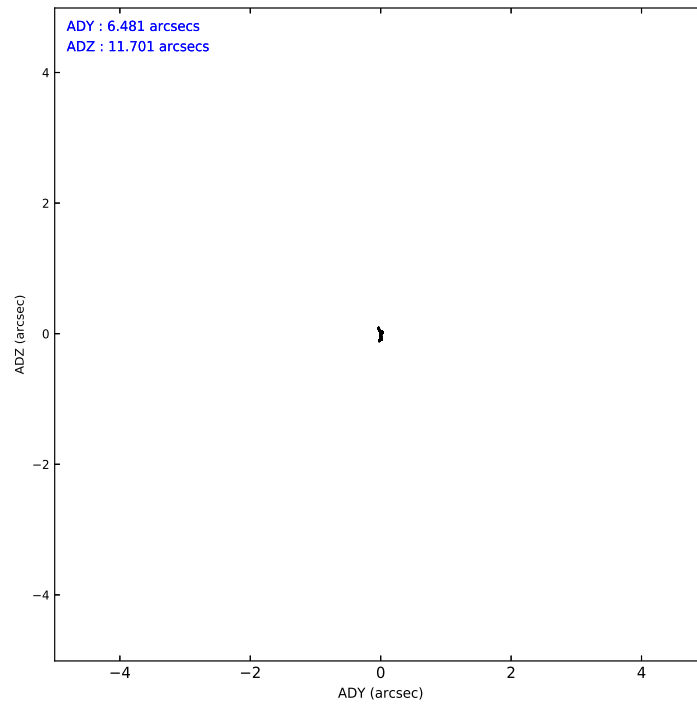
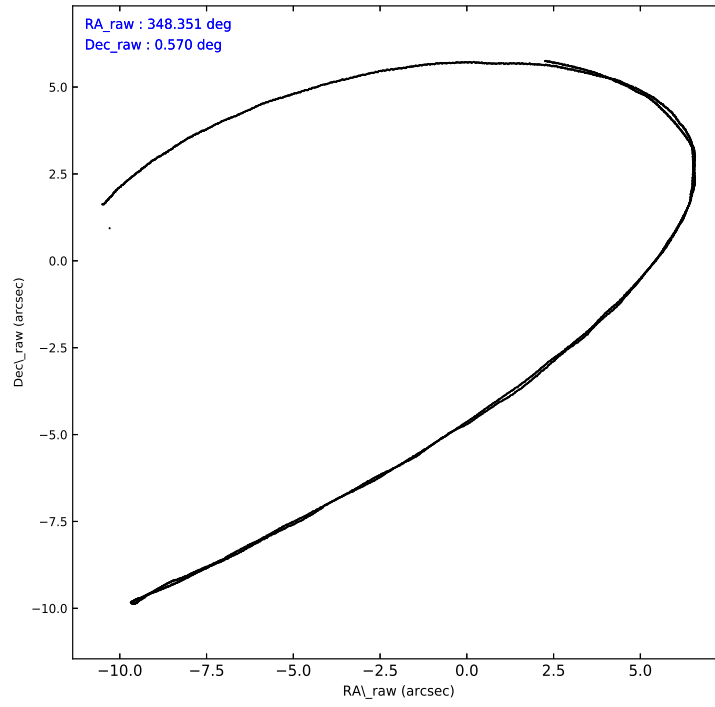
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	6245	5107	5027	4903	3224	6349
rejected events	5781	4646	1918	4422	1275	4846
rejected %	92%	90%	38%	90%	39%	76%

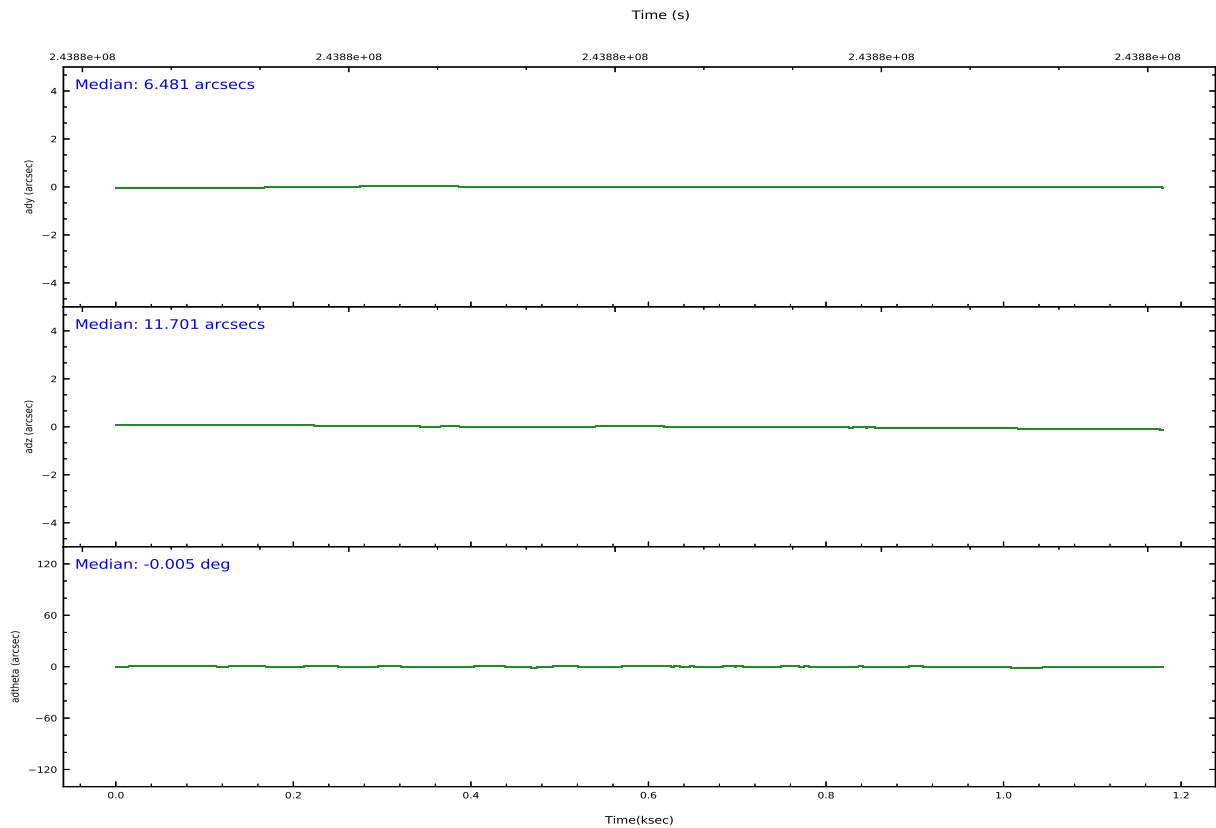
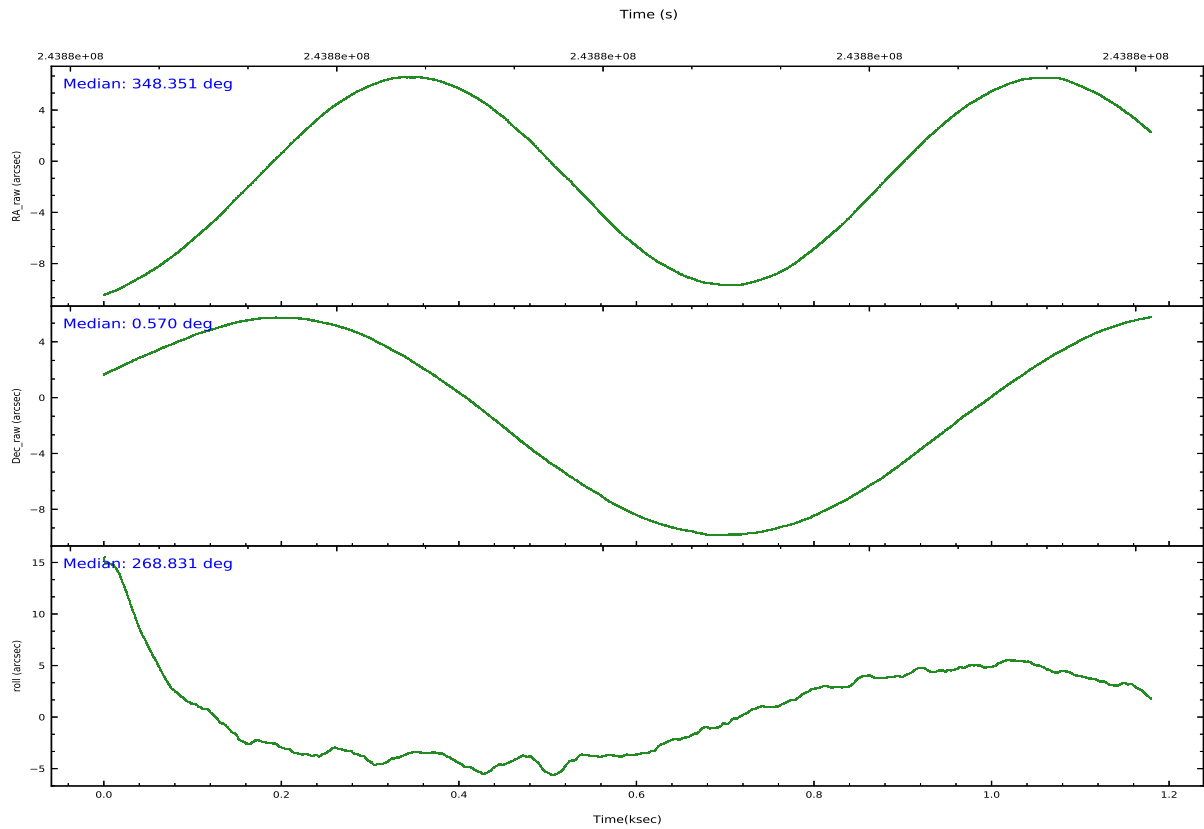
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	187	186	532	215	280	387
	2%	3%	10%	4%	8%	6%
grade 1 events	4	1	12	0	8	1
	0%	0%	0%	0%	0%	0%
grade 2 events	124	118	997	102	481	424
	1%	2%	19%	2%	14%	6%
grade 3 events	40	47	202	66	198	151
	0%	0%	4%	1%	6%	2%
grade 4 events	40	55	153	44	198	145
	0%	1%	3%	0%	6%	2%
grade 5 events	76	101	456	108	300	195
	1%	1%	9%	2%	9%	3%
grade 6 events	73	58	1234	54	799	398
	1%	1%	24%	1%	24%	6%
grade 7 events	5701	4541	1441	4314	960	4648
	91%	88%	28%	87%	29%	73%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-235678	ACIS-235678	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	348.336738	348.34705288997	Subarray requested	NONE	NONE
[deg] Pointing Dec	0.593219	0.57174917601704	Alternating exposures requested	N	N
[deg] Pointing Roll	268.680912	268.83153731729	[s] Primary exposure time	0.000000	3.2
[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)	243881418.184000	243880364.43244			
Observation start date	2005-09-23T16:49:14	2005-09-23T16:32:44			
[s] Observation end time (MET)	243882418.184000	243883113.99506			
Observation end date	2005-09-23T17:05:54	2005-09-23T17:18:33			
Read mode	TIMED	TIMED			

## 2.3 Aspect





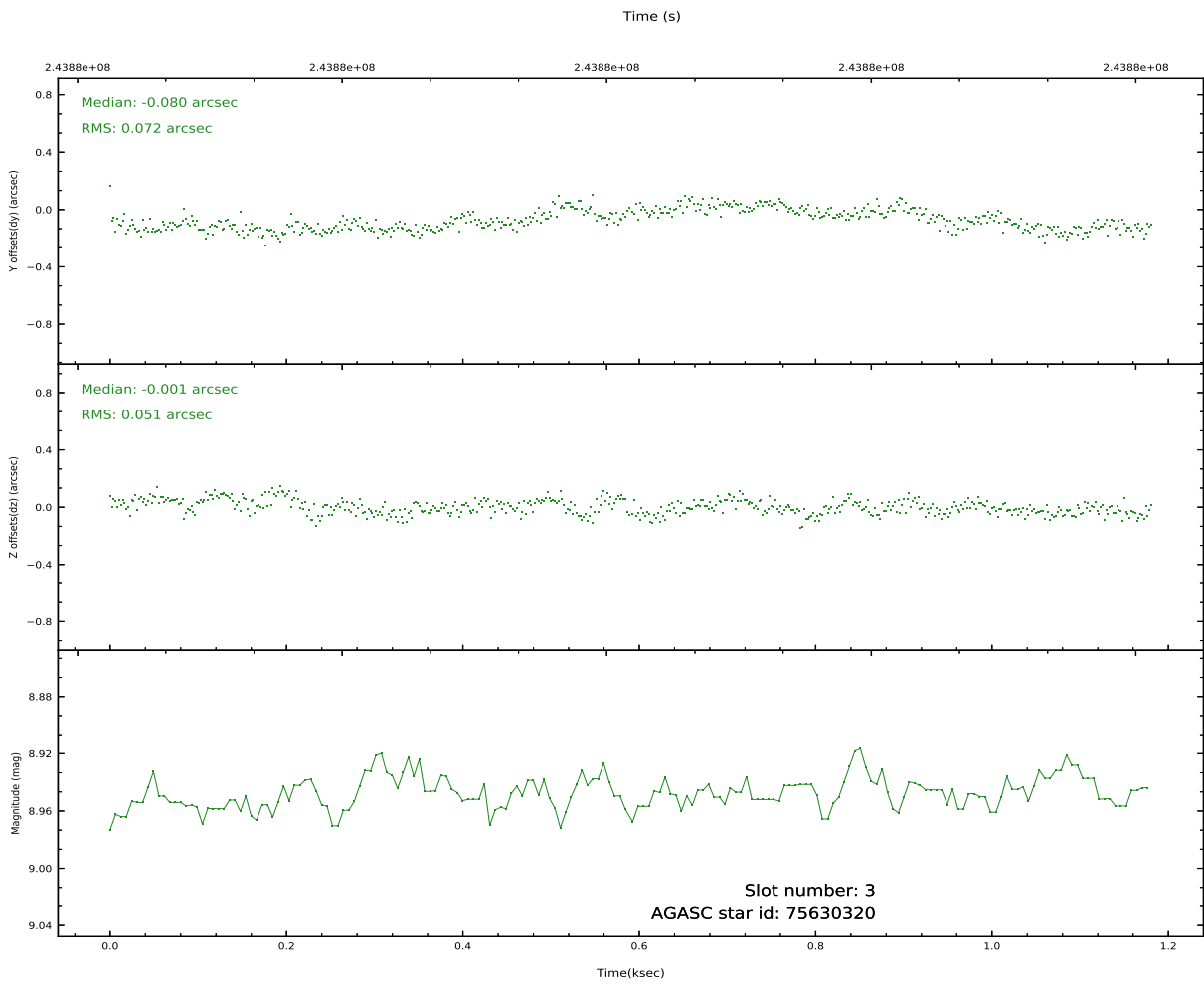
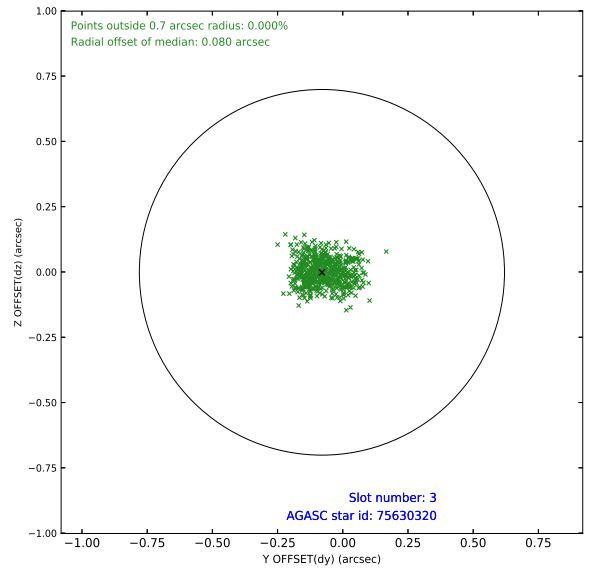
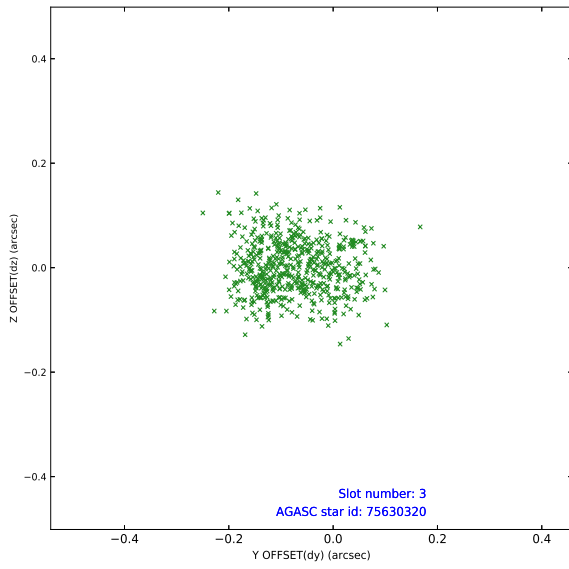
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-2	7.10	288	1.000	-0.074	-0.054	0.006	0.011	0.000000	0.000000	-759.26	-1733
1	FID		ACIS-S-4	7.20	288	1.000	0.135	0.050	0.005	0.009	0.000000	0.000000	2151.63	169
2	FID		ACIS-S-5	7.23	289	1.000	-0.093	0.012	0.006	0.011	0.000000	0.000000	-1804.91	169
3	GUIDE	used	75630320	8.95	576	1.000	-0.080	-0.001	0.094	0.151	347.710960	0.409726	715.22	-2237
4	GUIDE	used	75631400	8.72	577	1.000	0.046	0.009	0.082	0.122	347.939316	0.223451	1366.43	-1403
5	GUIDE	used	75632512	9.44	577	1.000	0.112	0.102	0.106	0.160	348.227941	1.066786	-1691.17	-434
6	GUIDE	used	75632176	8.02	576	1.000	-0.132	-0.085	0.052	0.083	348.586215	1.226122	-2300.62	843
7	GUIDE	used	75633944	9.64	574	1.000	0.049	-0.032	0.118	0.175	348.993380	0.669916	-334.01	2357

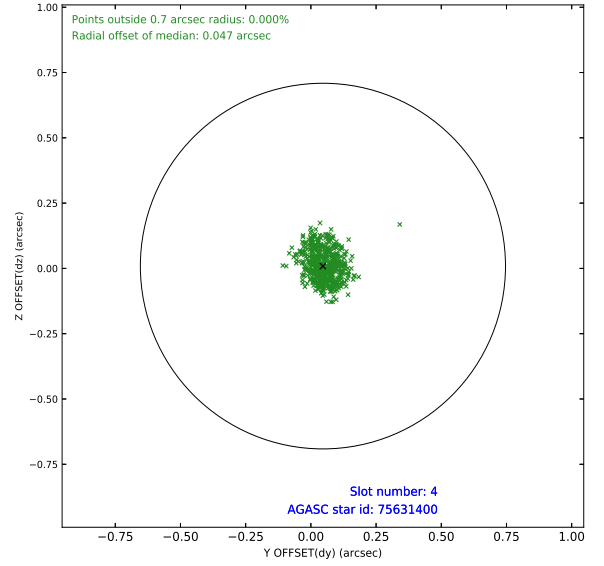
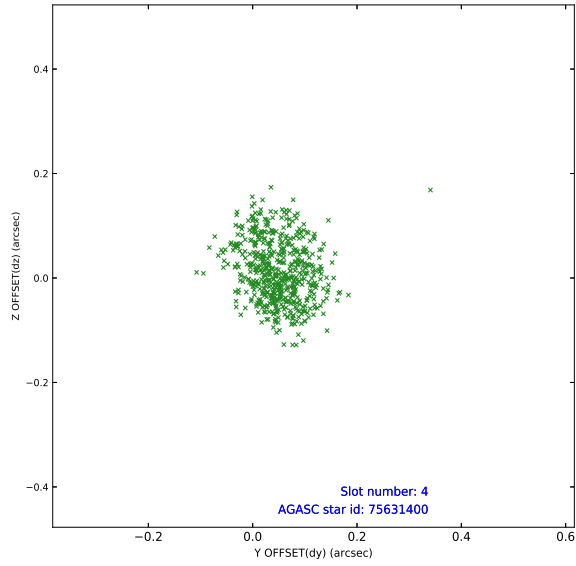
∞

## 2.4 Star Slots

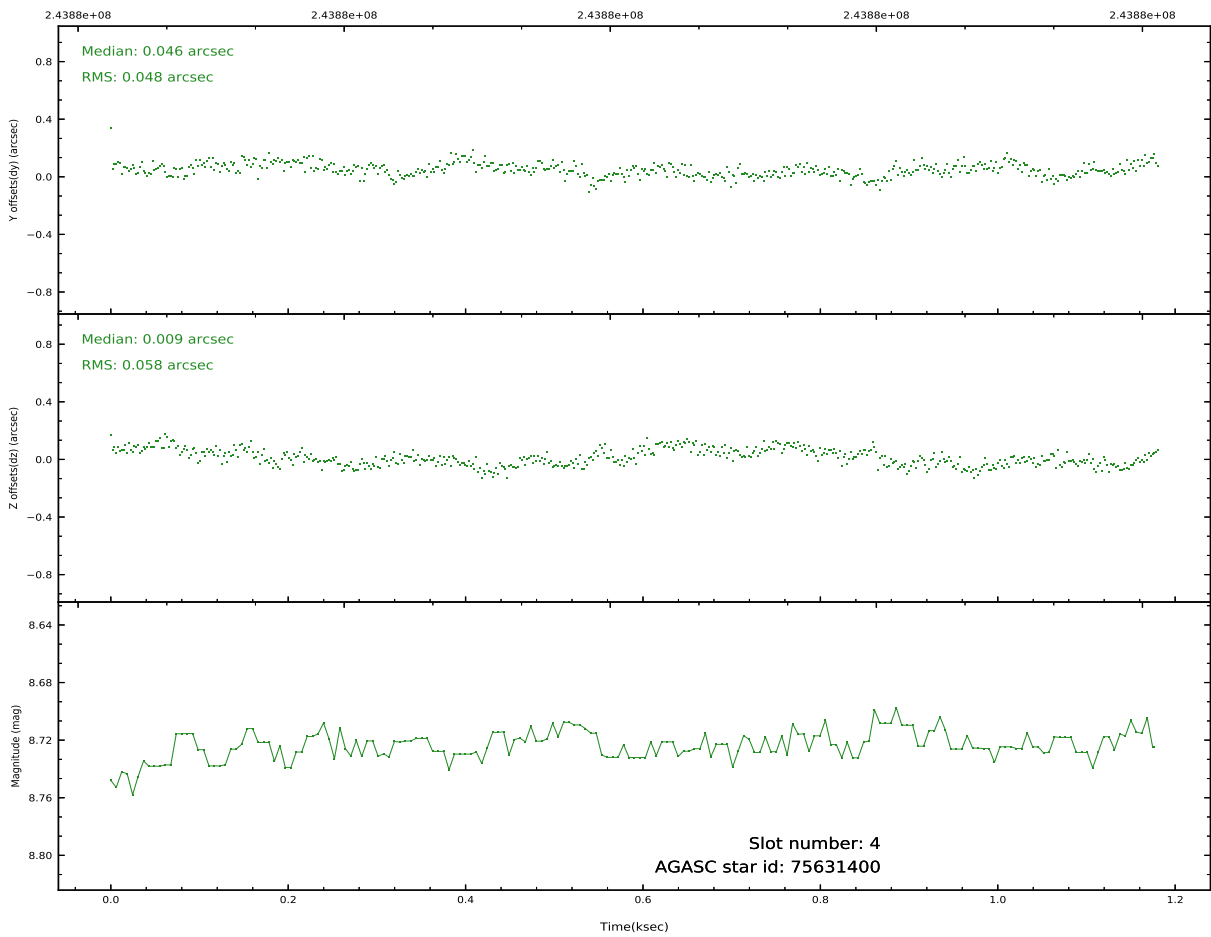
### 2.4.1 Slot 3



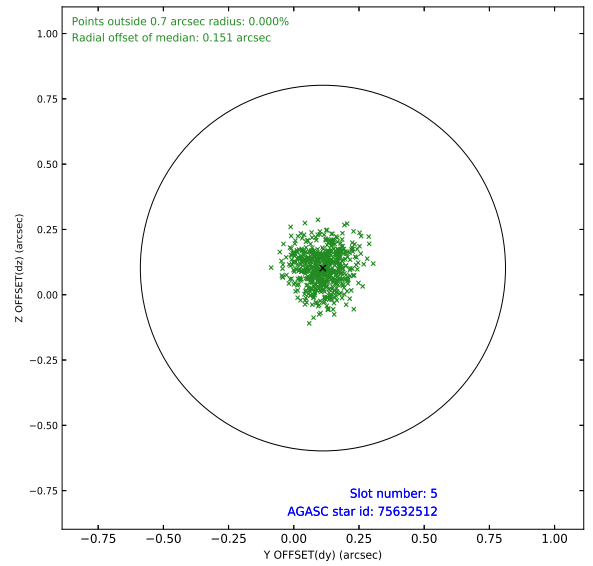
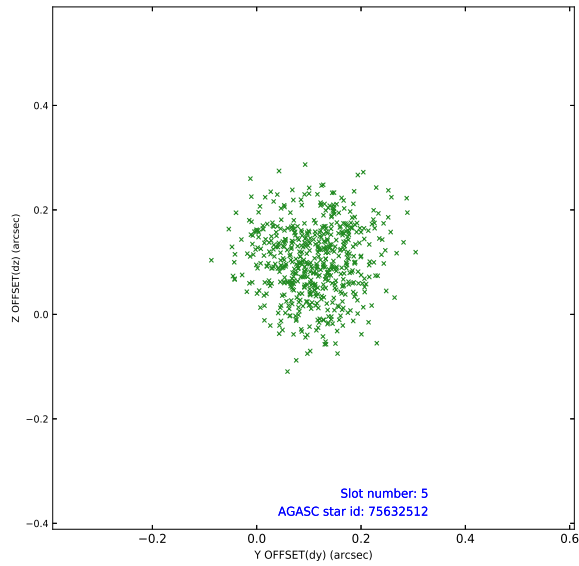
## 2.4.2 Slot 4



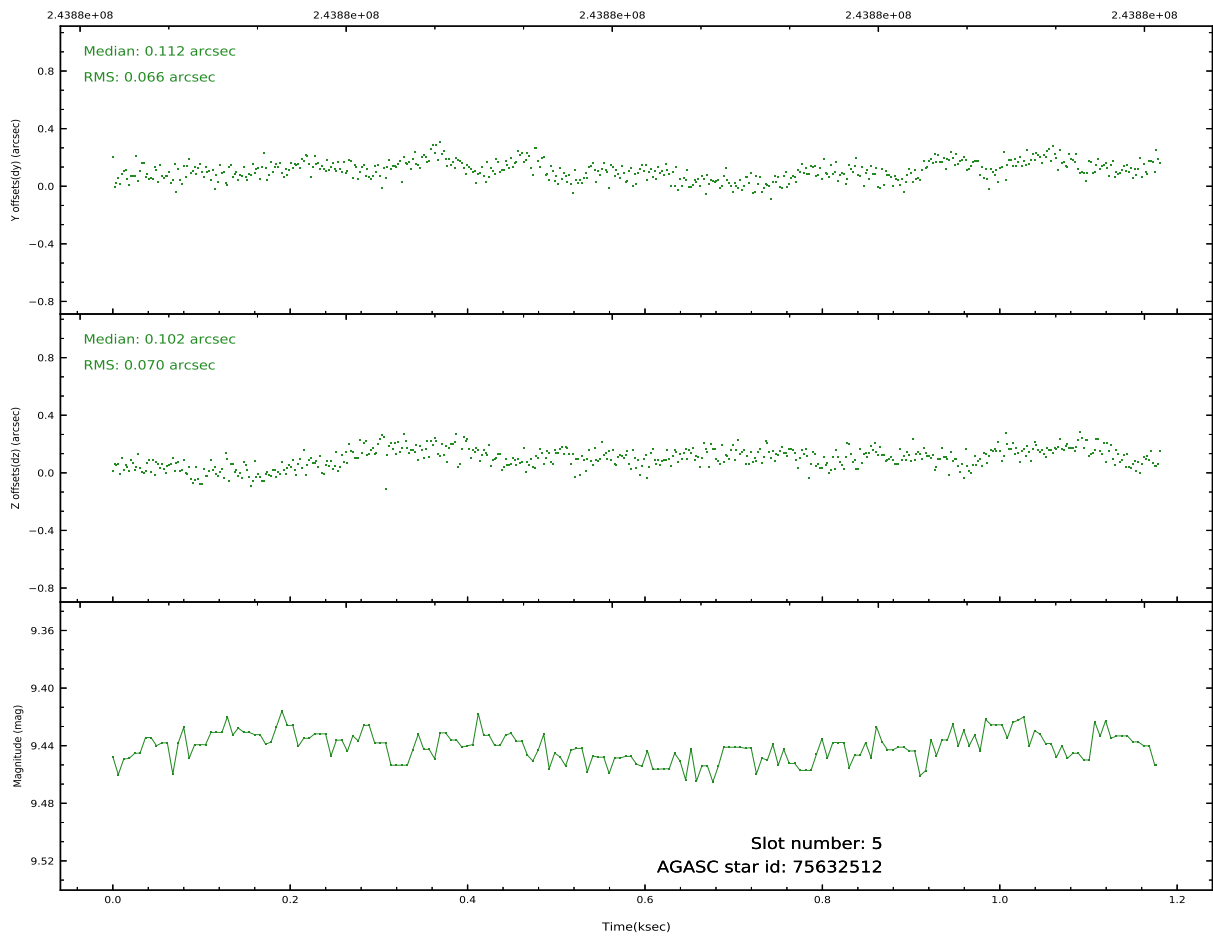
Time (s)



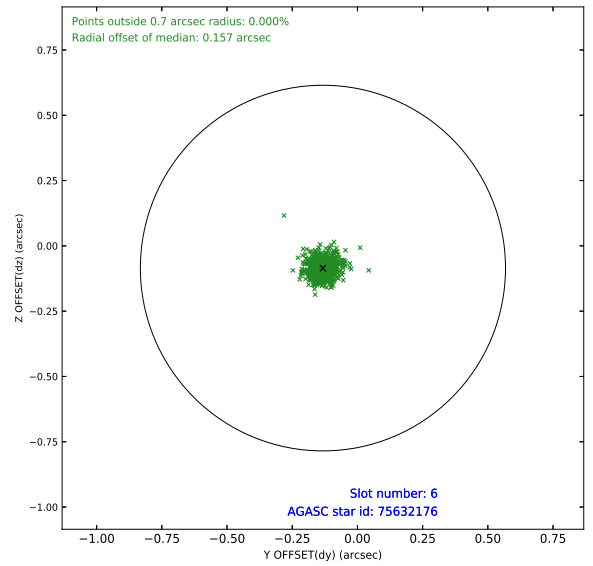
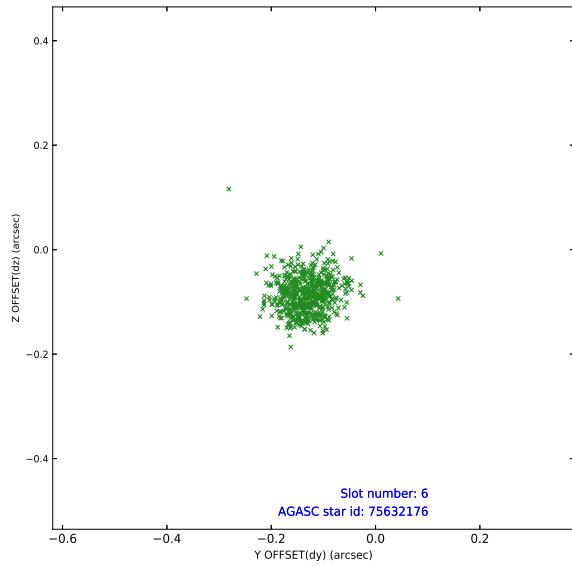
### 2.4.3 Slot 5



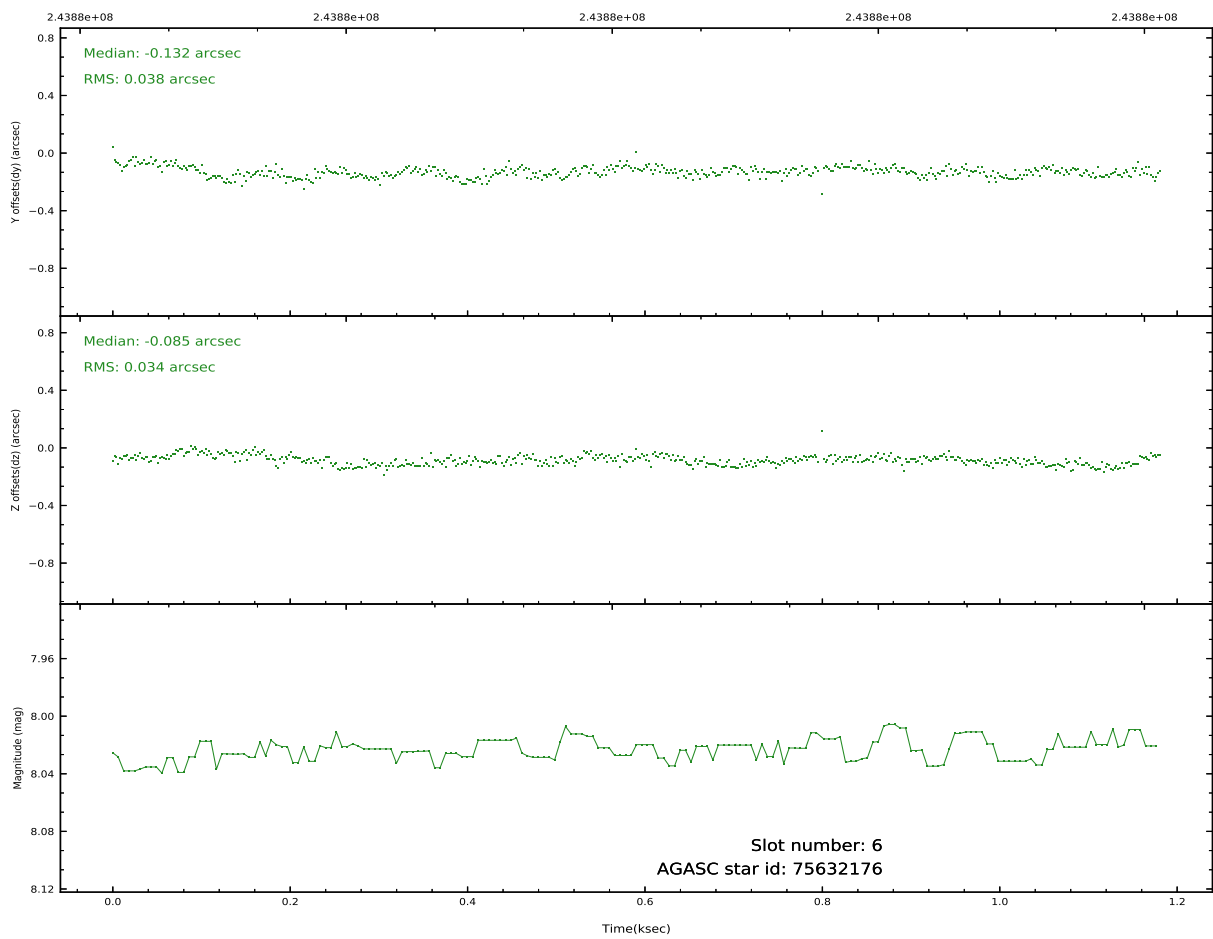
Time (s)



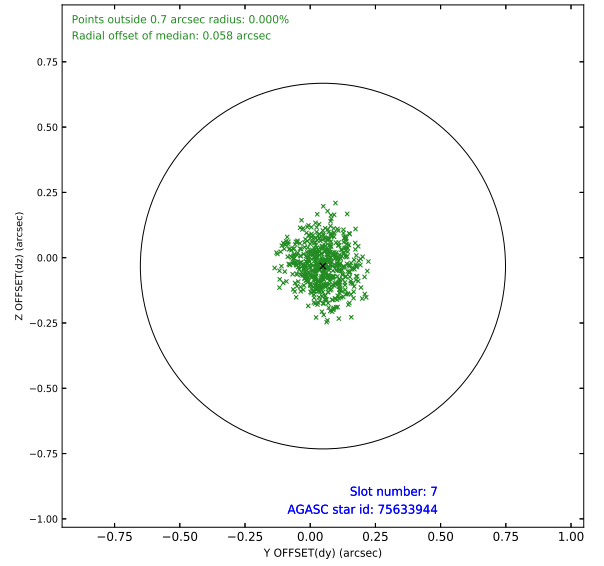
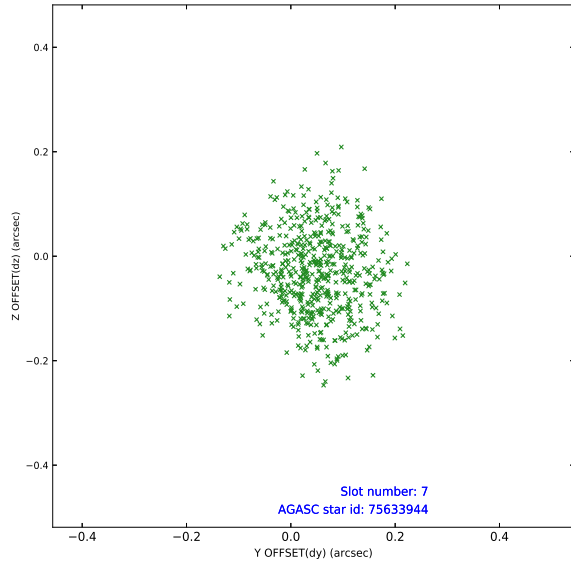
## 2.4.4 Slot 6



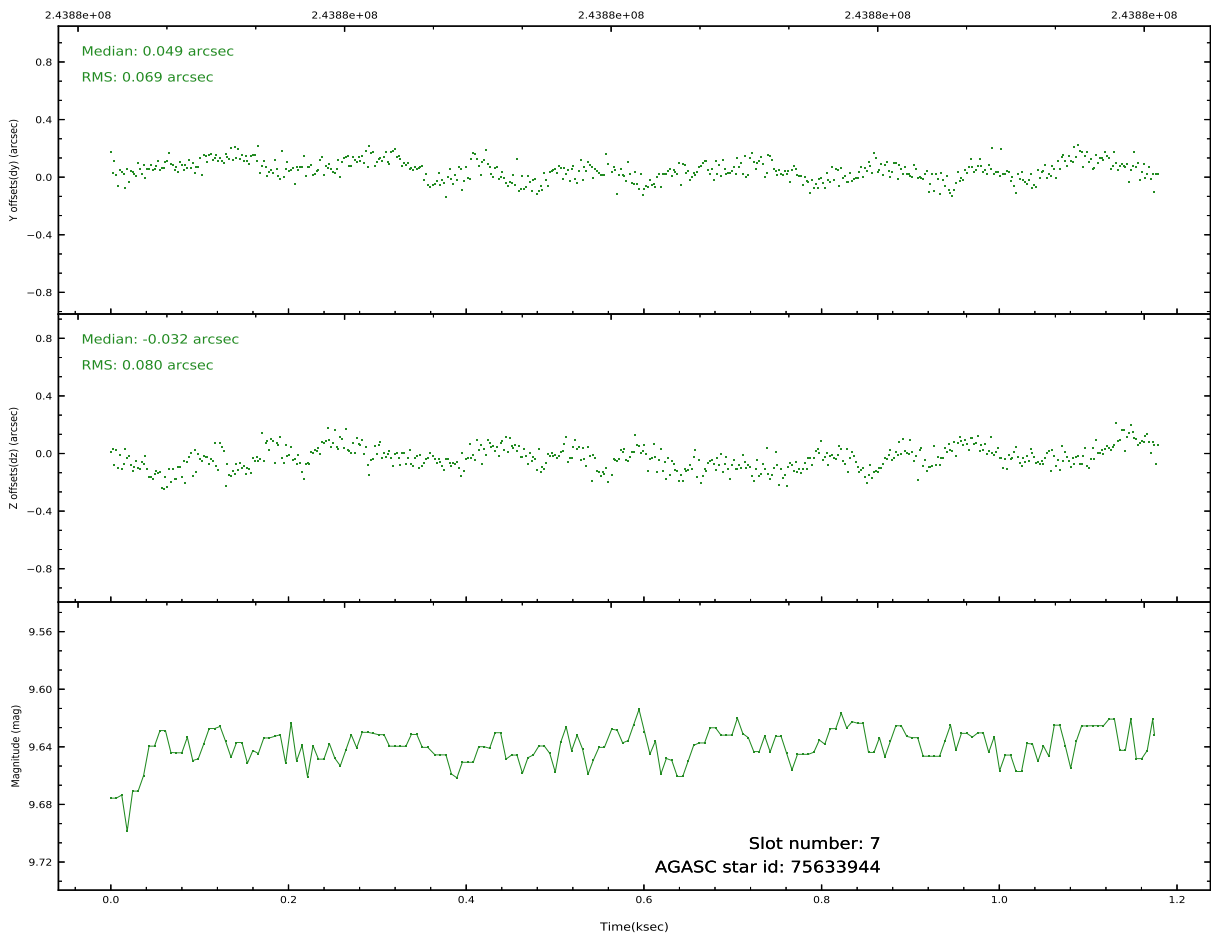
Time (s)



## 2.4.5 Slot 7

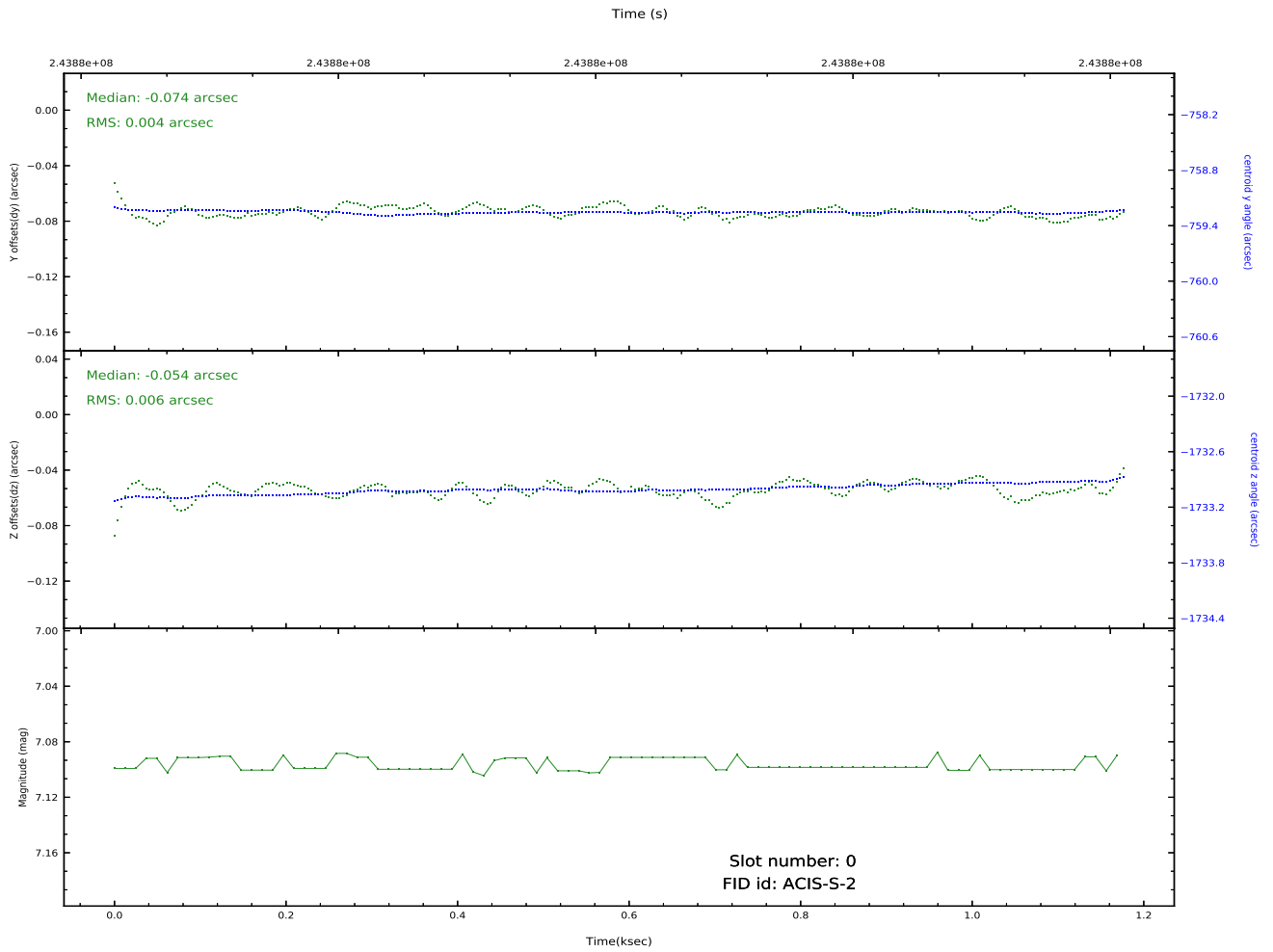
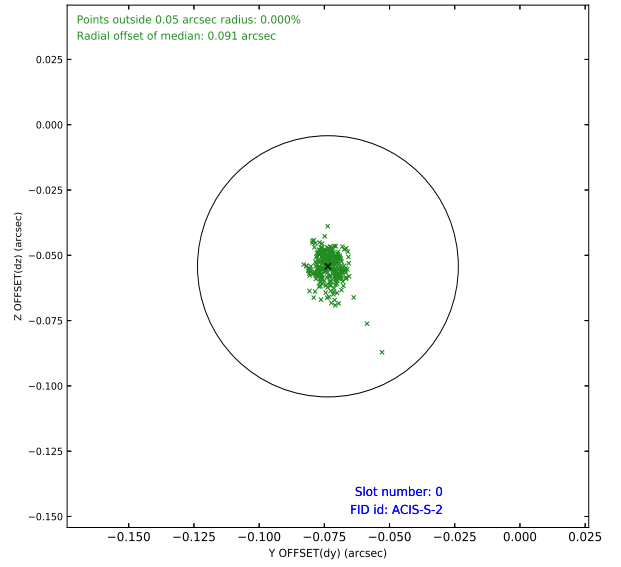
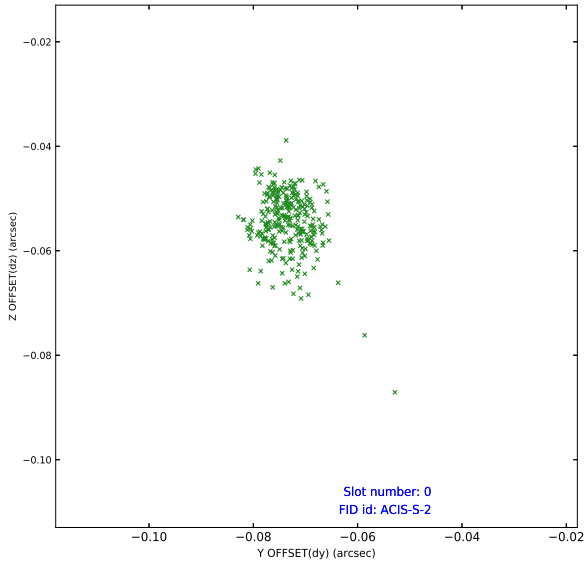


Time (s)

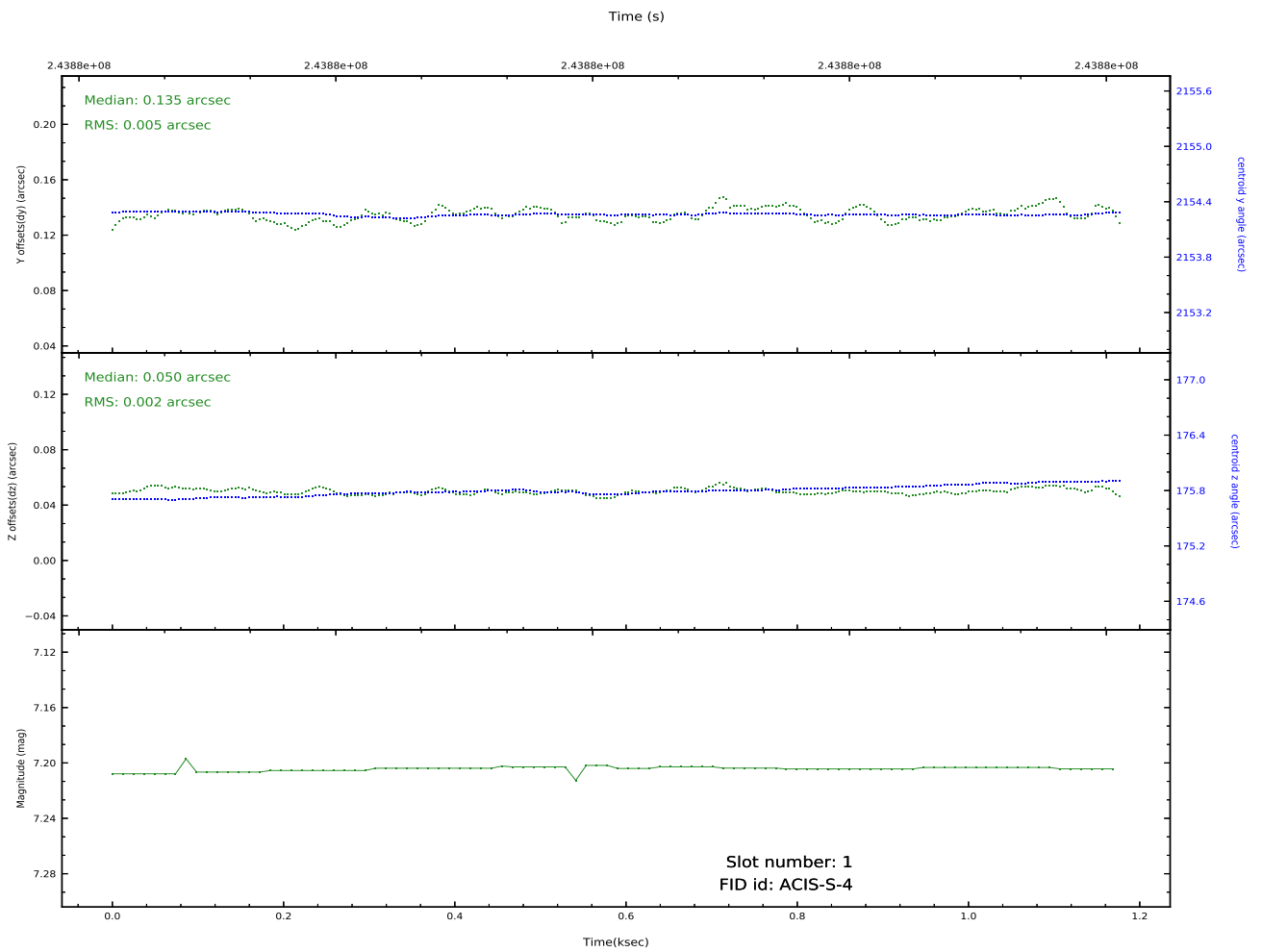
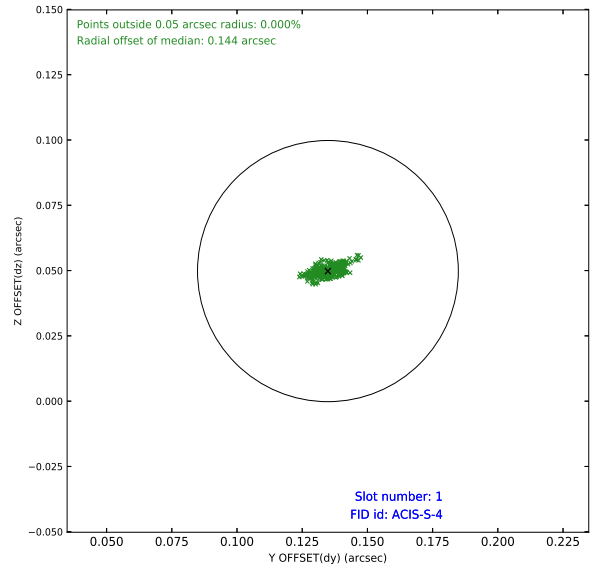
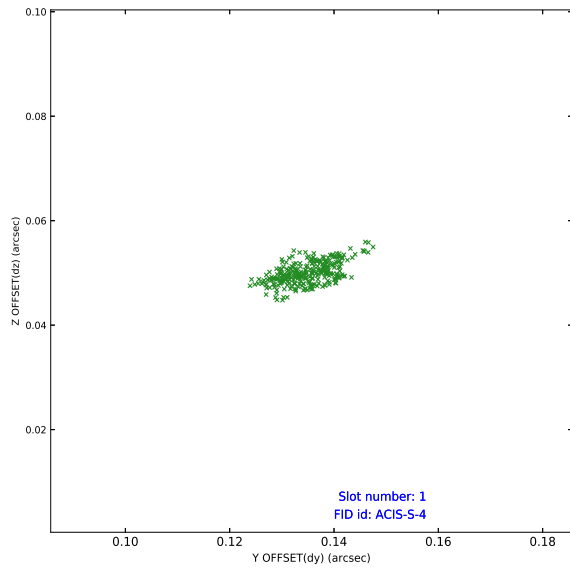


## 2.5 FID Slots

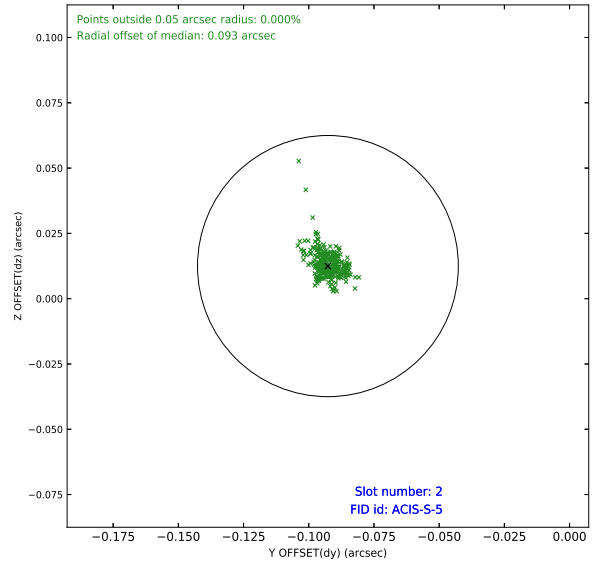
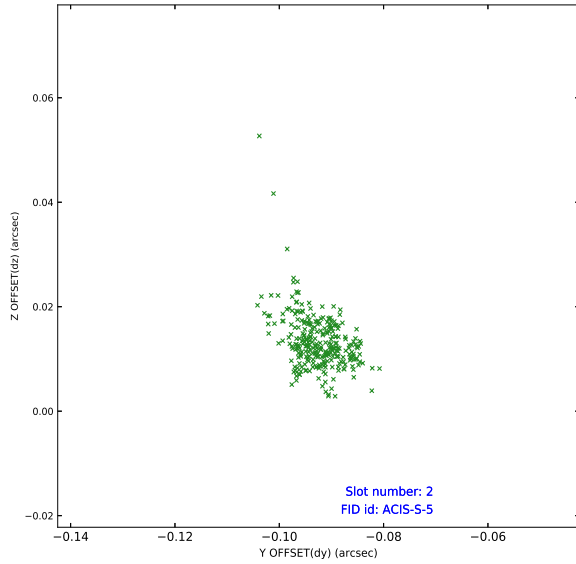
### 2.5.1 Slot 0



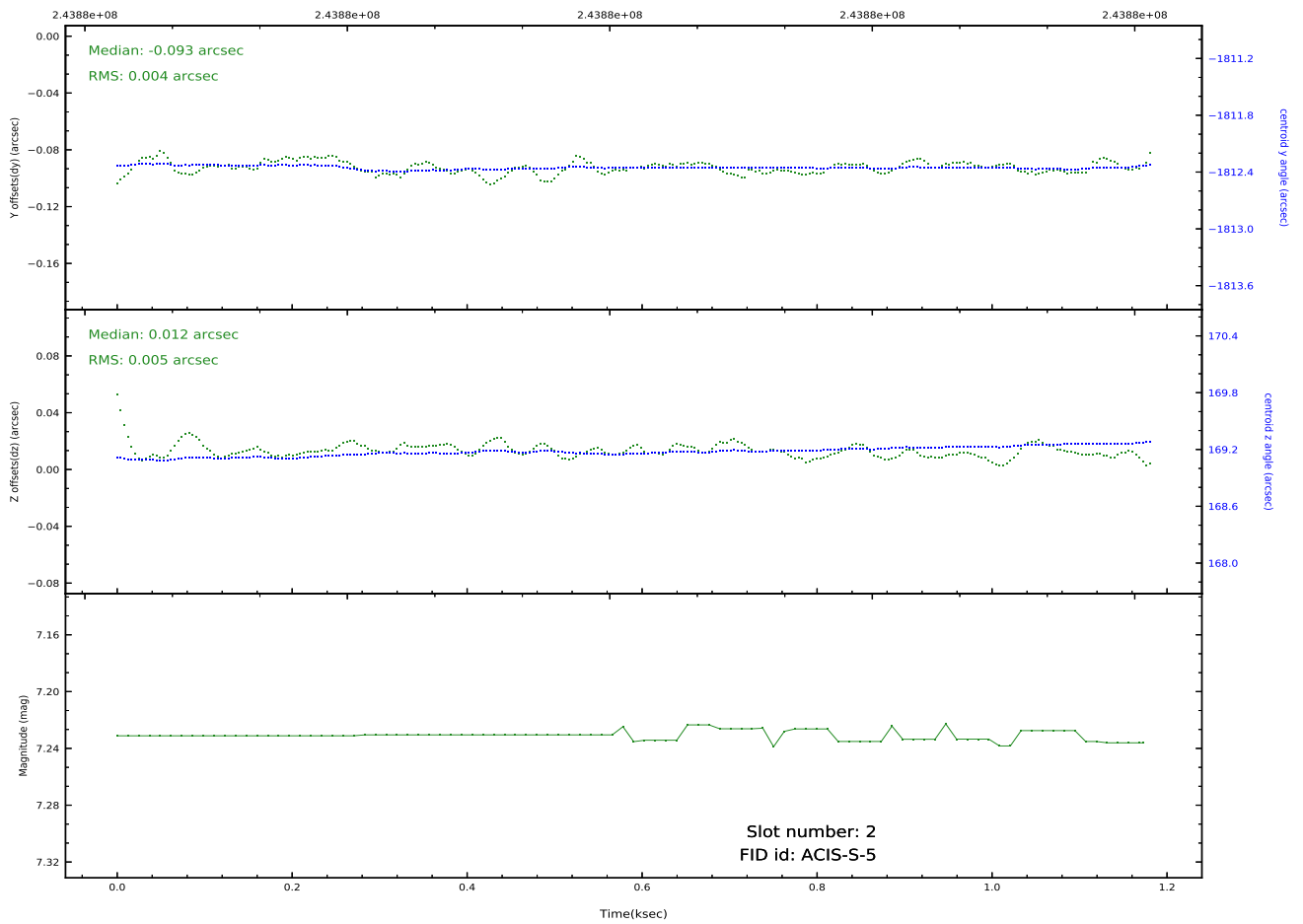
## 2.5.2 Slot 1



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.148799

## A.2 Comments

As a consequence of the DEA-A shutdown anomaly on Sep 15th (DOY258), the reported value of the ACIS FP temperature was ~1.3 degrees warmer than the actual temperature. The value for FP temperature reported in the headers of the Level 2 event file and the Mission Timeline files ARE INCORRECT by this amount for this processing. However, the temperature is corrected in the processing in order to obtain the correct temperature for the CTI correction. So the calibrated data are correct.