

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4842 - L2 Version 5  
Chandra X-Ray Center

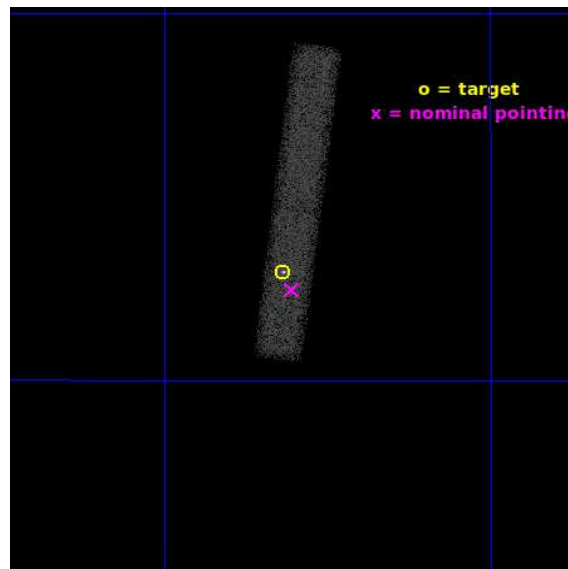
L2 Processing Date : Sep 26 2020

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# 1 Front

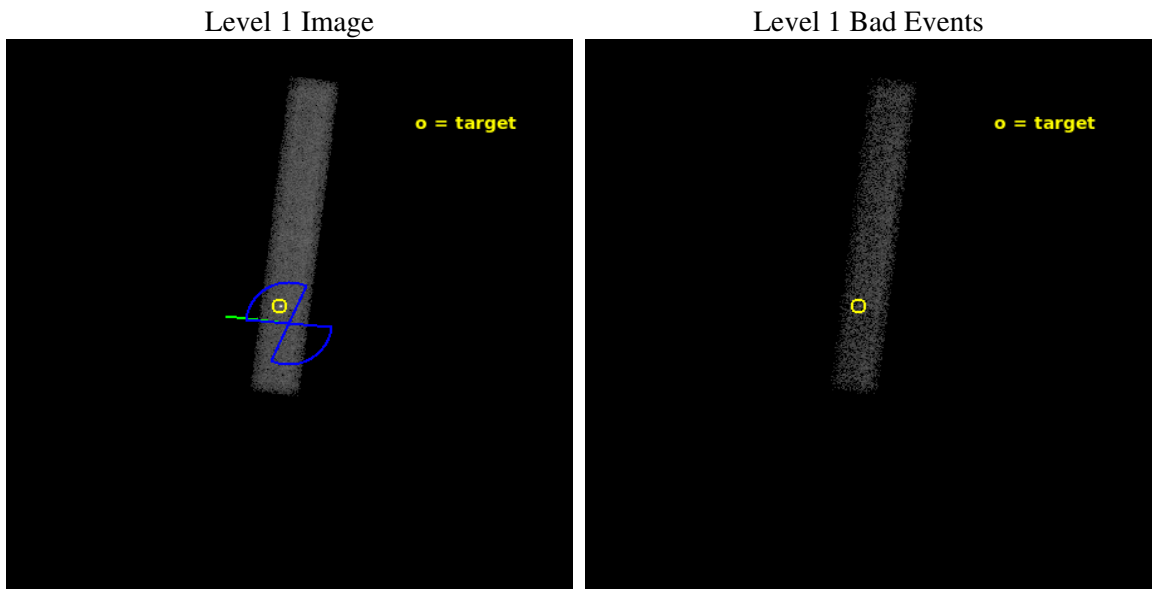
seq_num	700924	Sequence number
obs_id	4842	Observation id
title	The Physics of Relativistic Jets: Chandra Imaging of Extended Jets in Gamma-loud Blazars	Proposal title
observer	Dr. FABRIZIO TAVECCHIO	Principal investigator
object	QSO B0954+556	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	149.409167	Observer's specified target RA [deg]
dec_targ	55.382778	Observer's specified target Dec [deg]
ra_nom	149.40246062706	Nominal RA [deg]
dec_nom	55.374601856124	Nominal Dec [deg]
roll_nom	277.00850434188	Nominal Roll [deg]
revision	5	Processing version of data
ontime	37934.800565243	Sum of GTIs [s]
livetime	34404.861749721	Livetime [s]
ontime7	37934.800565243	Sum of GTIs [s]
l2events	27515	Number of level 2 events



## 2 OBI

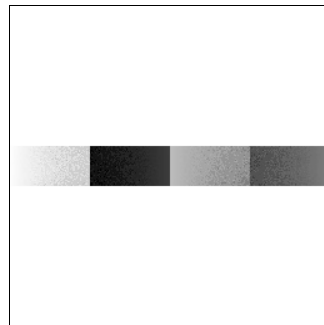
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	37759.797000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	37934.800565243	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime7	37934.800565243	Sum of GTIs [s]
date	2020-09-26T19:49:59	Date and time of file creation	l1events	57357	Number of level 1 events
revision	5	Processing version of data			

### 2.1.4 Events

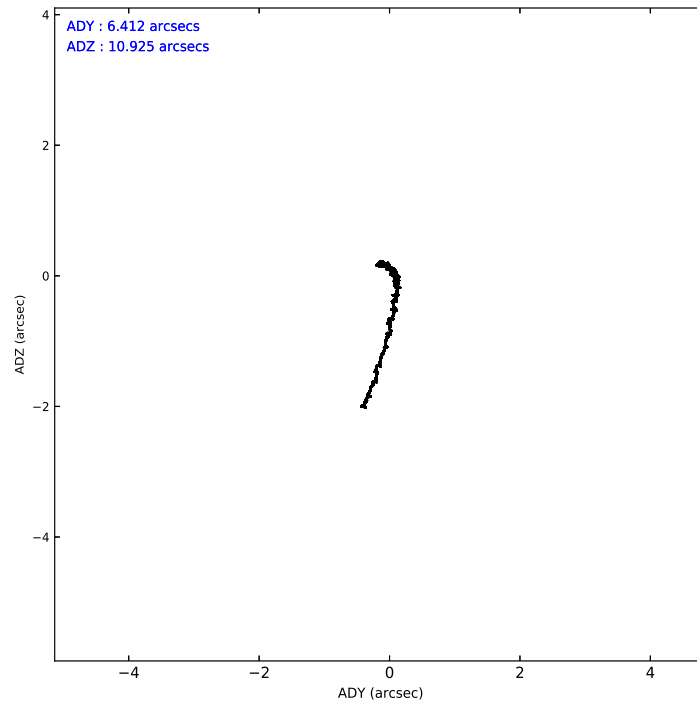
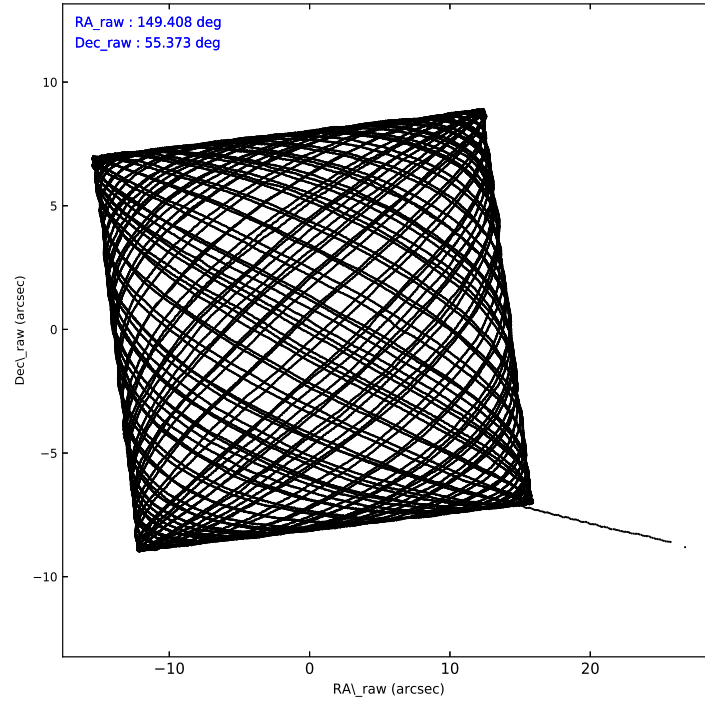
	<b>ccd 7</b>
level 1 events	57357
rejected events	28910
rejected %	50%

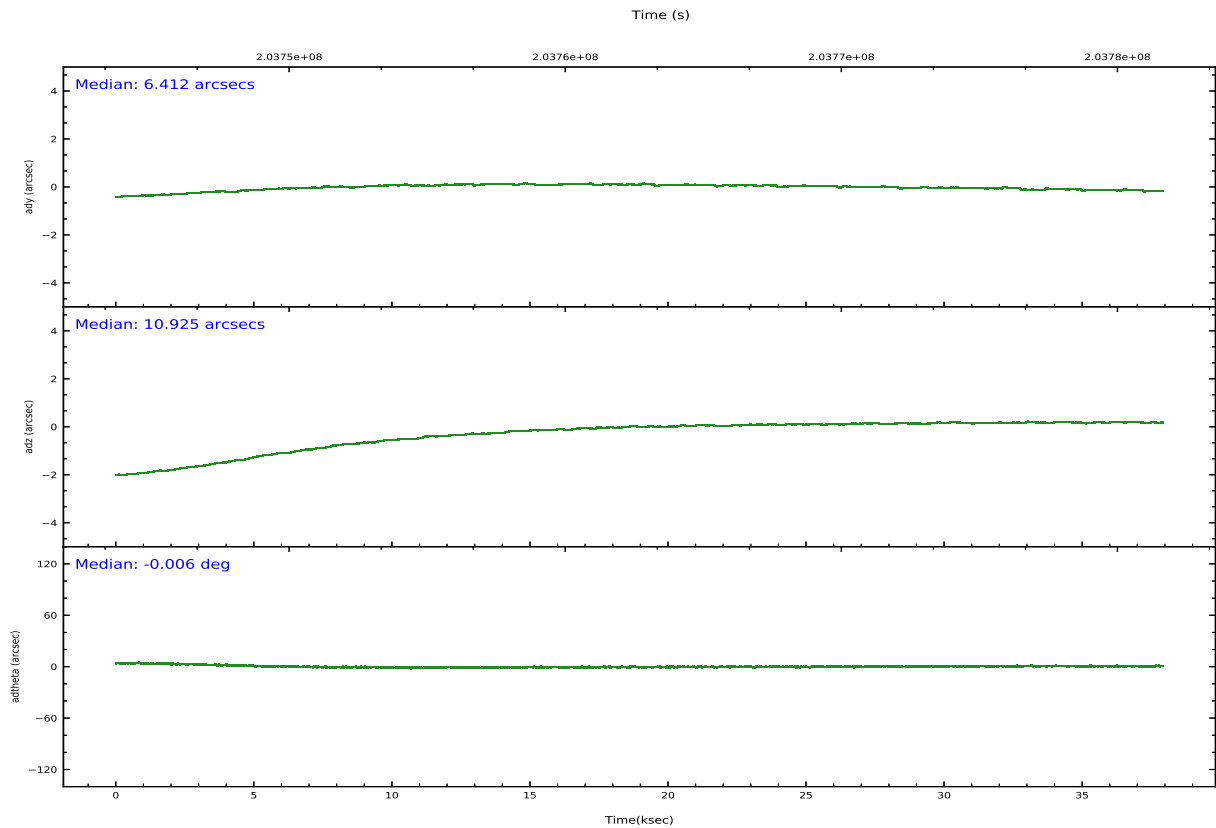
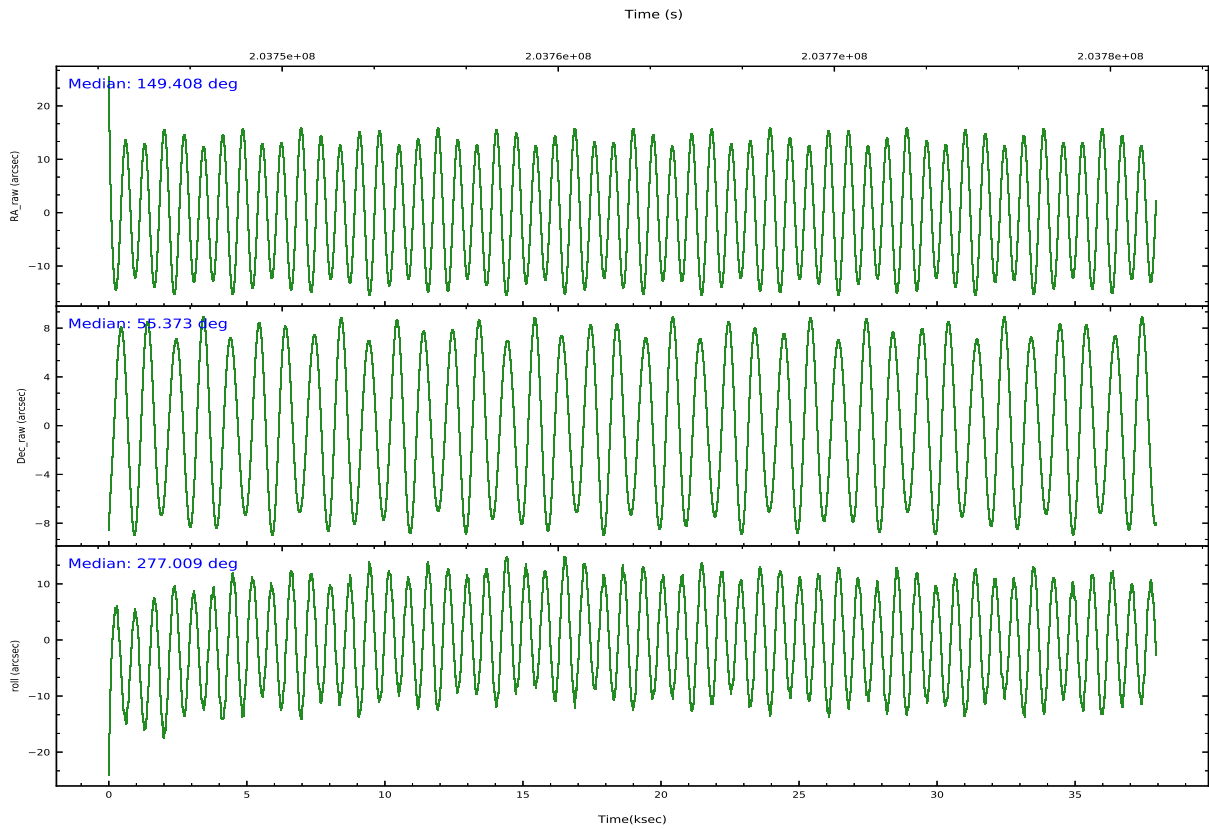
	<b>ccd 7</b>
grade 0 events	4299
	7%
grade 1 events	45
	0%
grade 2 events	5769
	10%
grade 3 events	3704
	6%
grade 4 events	3502
	6%
grade 5 events	4901
	8%
grade 6 events	12104
	21%
grade 7 events	23033
	40%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-7	ACIS-7	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	149.378882	149.40246062706	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	55.394644	55.374601856124	Subarray start row	449	449
[deg] Pointing Roll	276.874007	277.00850434188	Subarray row count	128	128
[deg] Roll angle	150.000000	150.000000	Alternating exposures requested	N	N
[deg] Roll tolerance	55.000000	55.000000	[s] Primary exposure time	0.000000	0.4
Roll constraint allows 180D rotation	Y	Y			
[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)	203743895.184000	203742131.36953			
Observation start date	2004-06-16T03:30:31	2004-06-16T03:02:11			
[s] Observation end time (MET)	203781654.184000	203781876.77129			
Observation end date	2004-06-16T13:59:50	2004-06-16T14:04:36			
Read mode	TIMED	TIMED			

## 2.3 Aspect



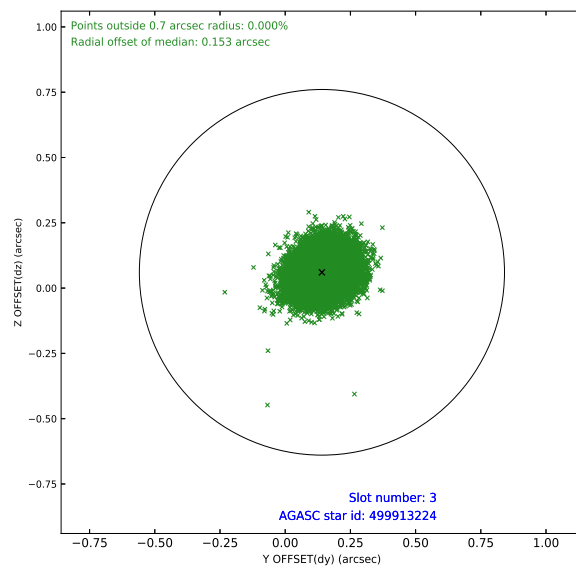
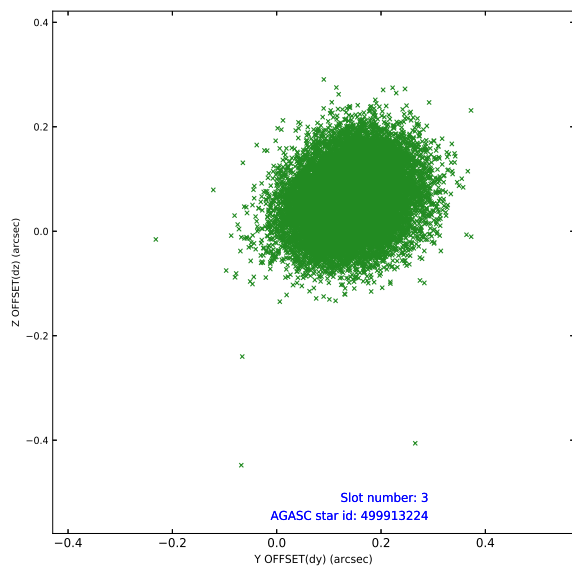


### Slot Statistics

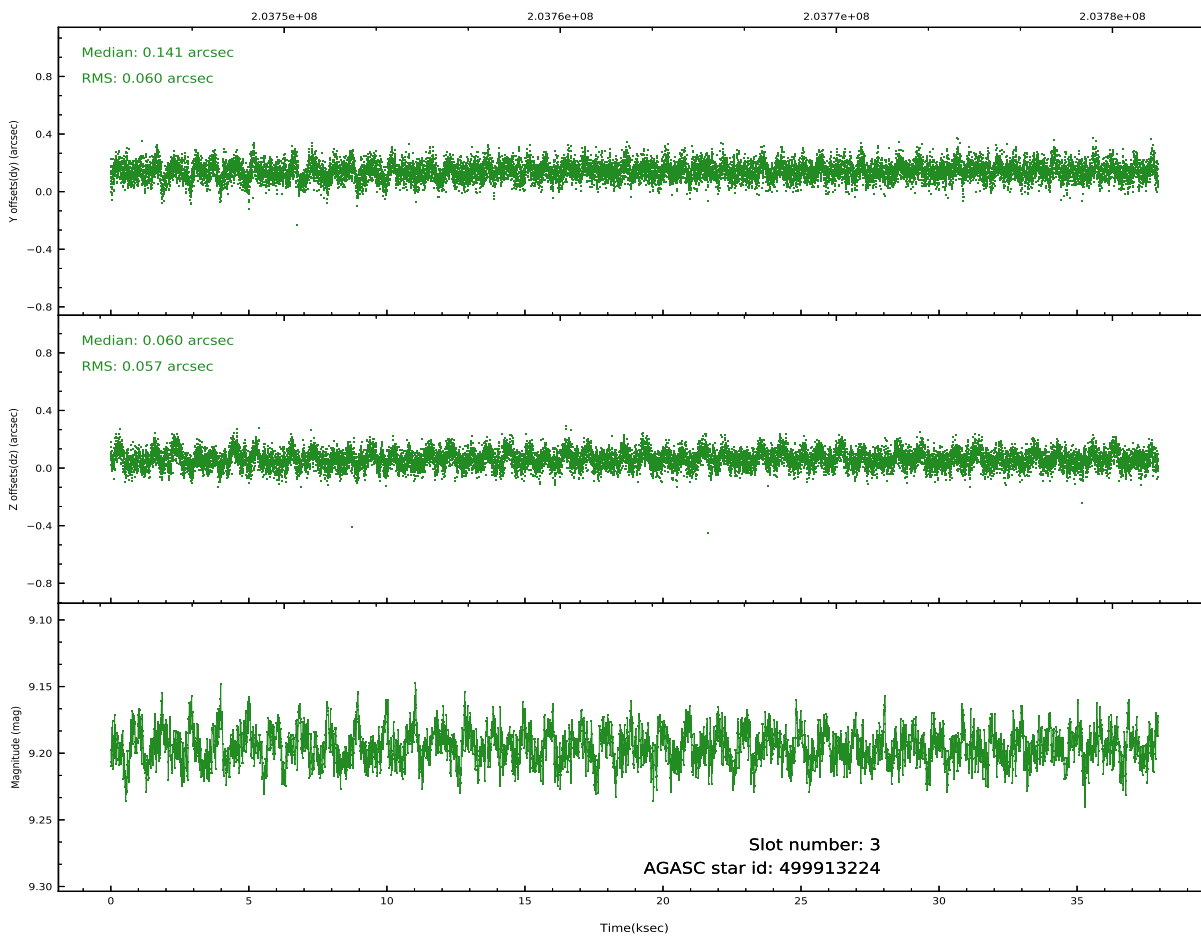
slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-2	7.10	9251	1.000	-0.087	-0.052	0.010	0.027	0.000000	0.000000	-759.16	-1731
1	FID		ACIS-S-4	7.20	9253	1.000	0.140	0.057	0.010	0.019	0.000000	0.000000	2154.28	176
2	FID		ACIS-S-5	7.23	9253	1.000	-0.083	0.005	0.010	0.030	0.000000	0.000000	-1812.02	170
3	GUIDE	used	499913224	9.20	18496	1.000	0.141	0.060	0.088	0.144	149.857129	54.798072	2247.99	729
4	GUIDE	used	500309776	7.96	18503	1.000	-0.120	0.033	0.061	0.092	150.409238	55.585087	-443.22	2164
5	GUIDE	used	500310128	9.21	18494	1.000	0.089	0.156	0.087	0.139	150.281852	55.096051	1278.07	1720
6	GUIDE	used	500310136	8.66	18499	1.000	0.077	-0.124	0.063	0.102	149.694298	55.069248	1239.78	505
7	GUIDE	used	500314248	7.89	18503	1.000	-0.183	-0.127	0.062	0.095	148.413100	55.769248	-1586.15	-1778

## 2.4 Star Slots

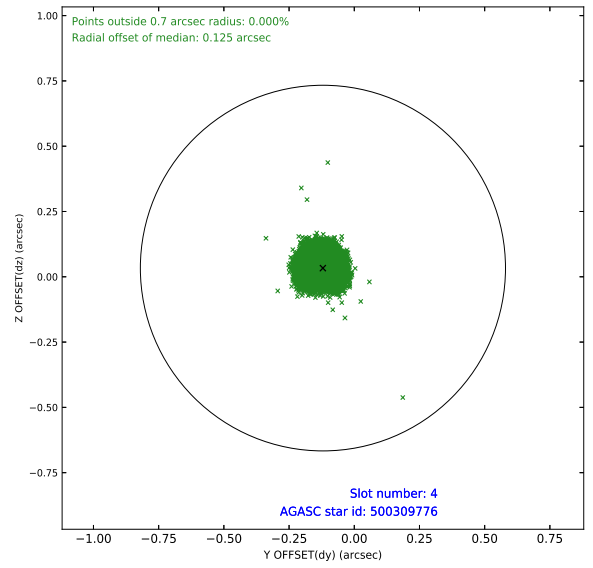
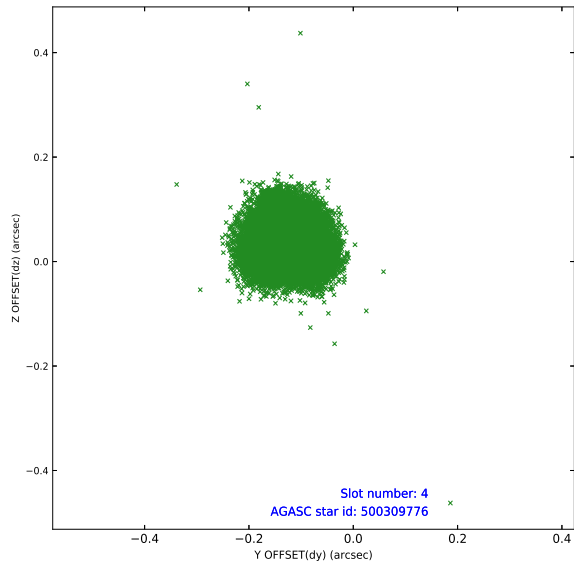
### 2.4.1 Slot 3



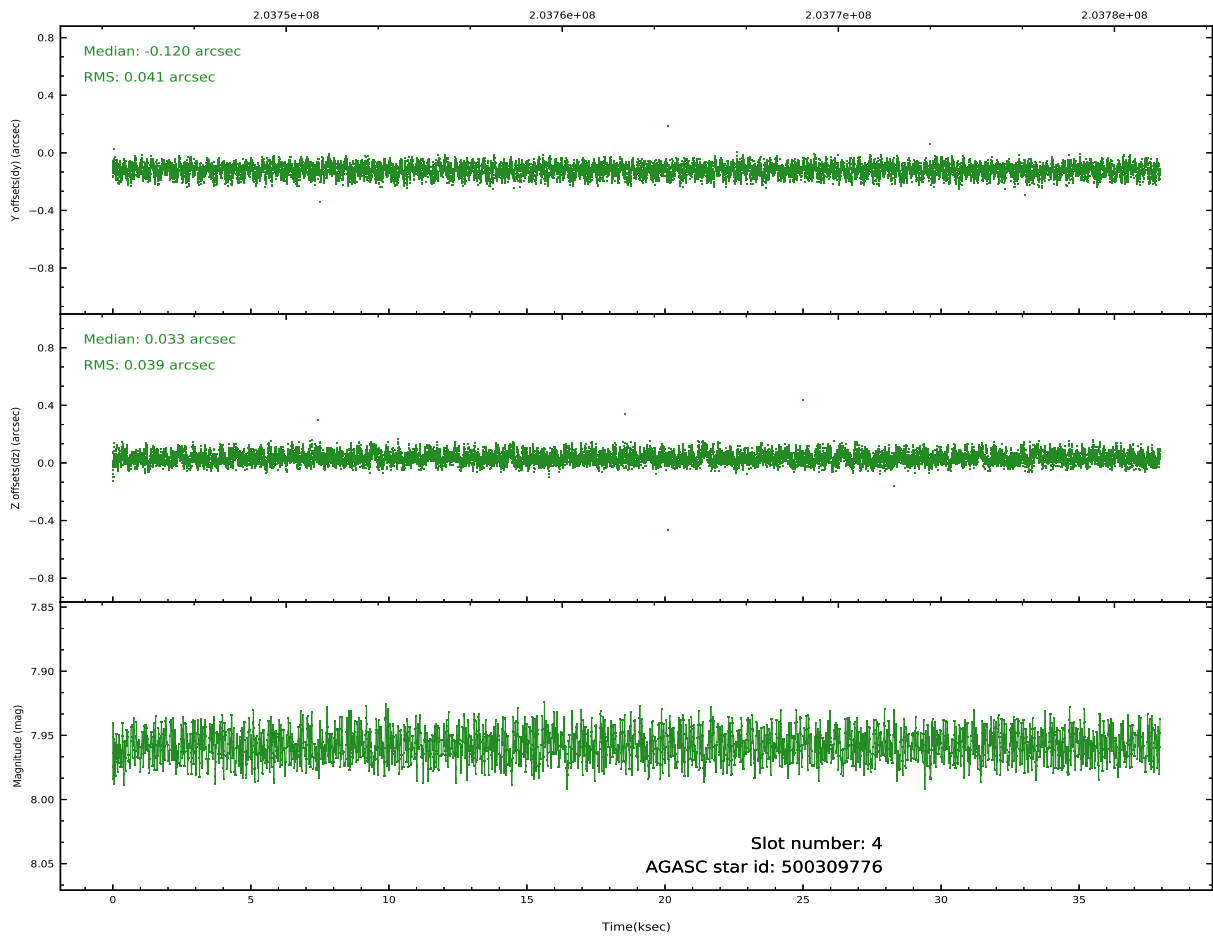
Time (s)



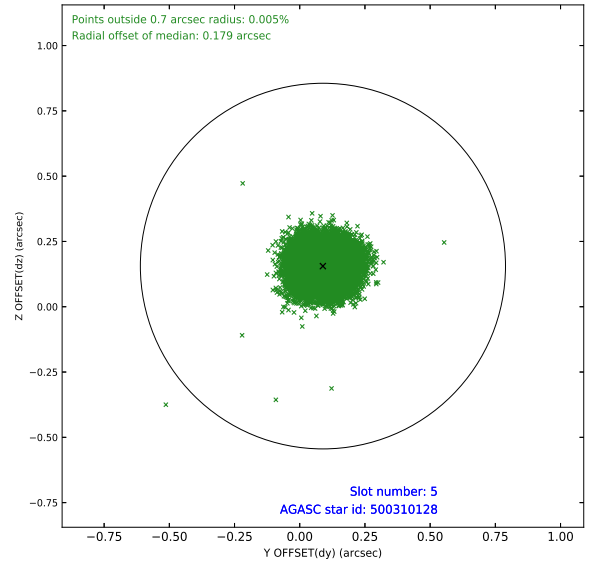
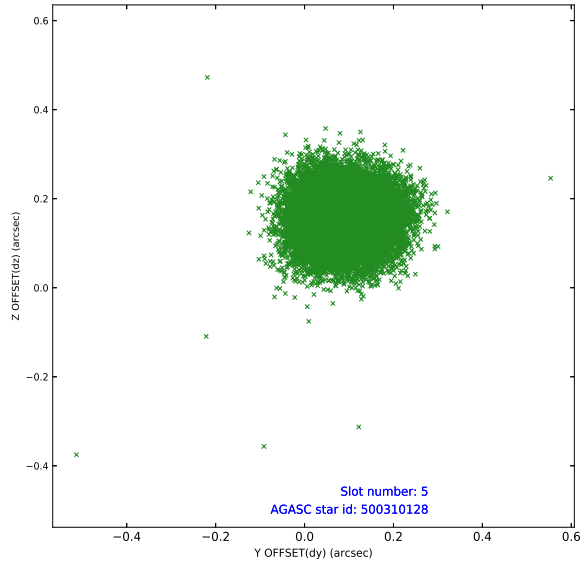
## 2.4.2 Slot 4



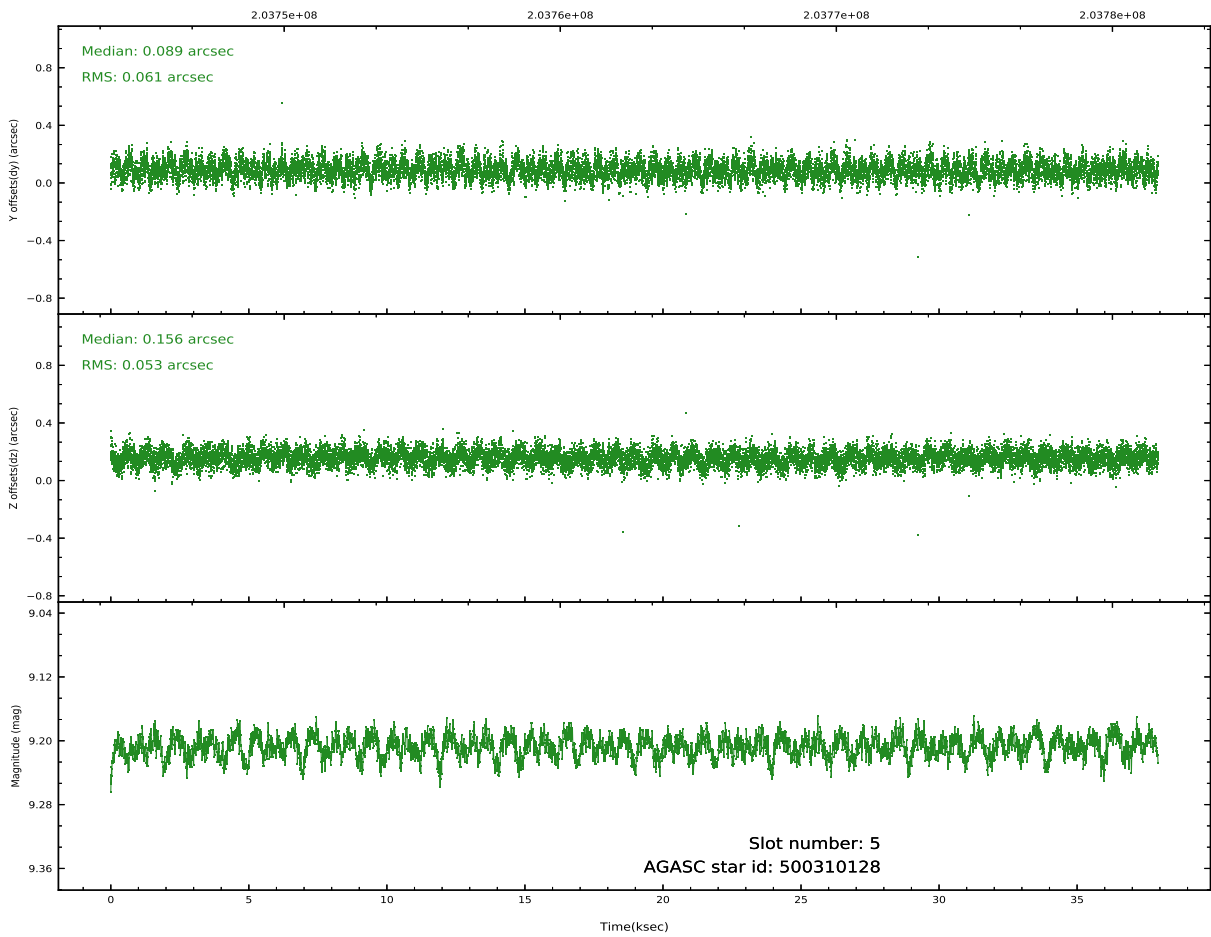
Time (s)



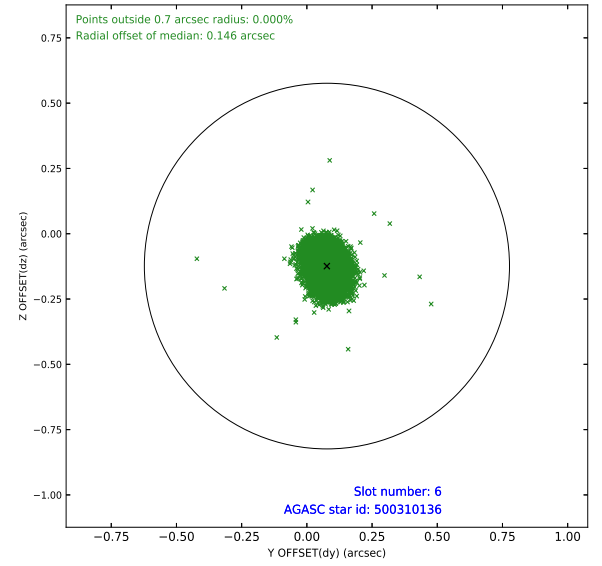
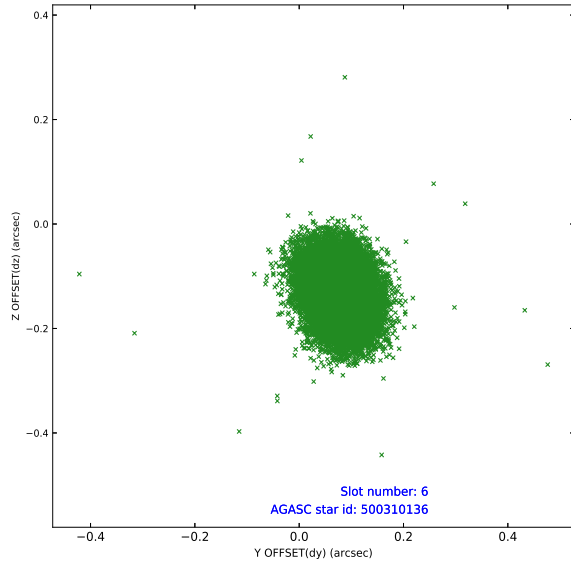
### 2.4.3 Slot 5



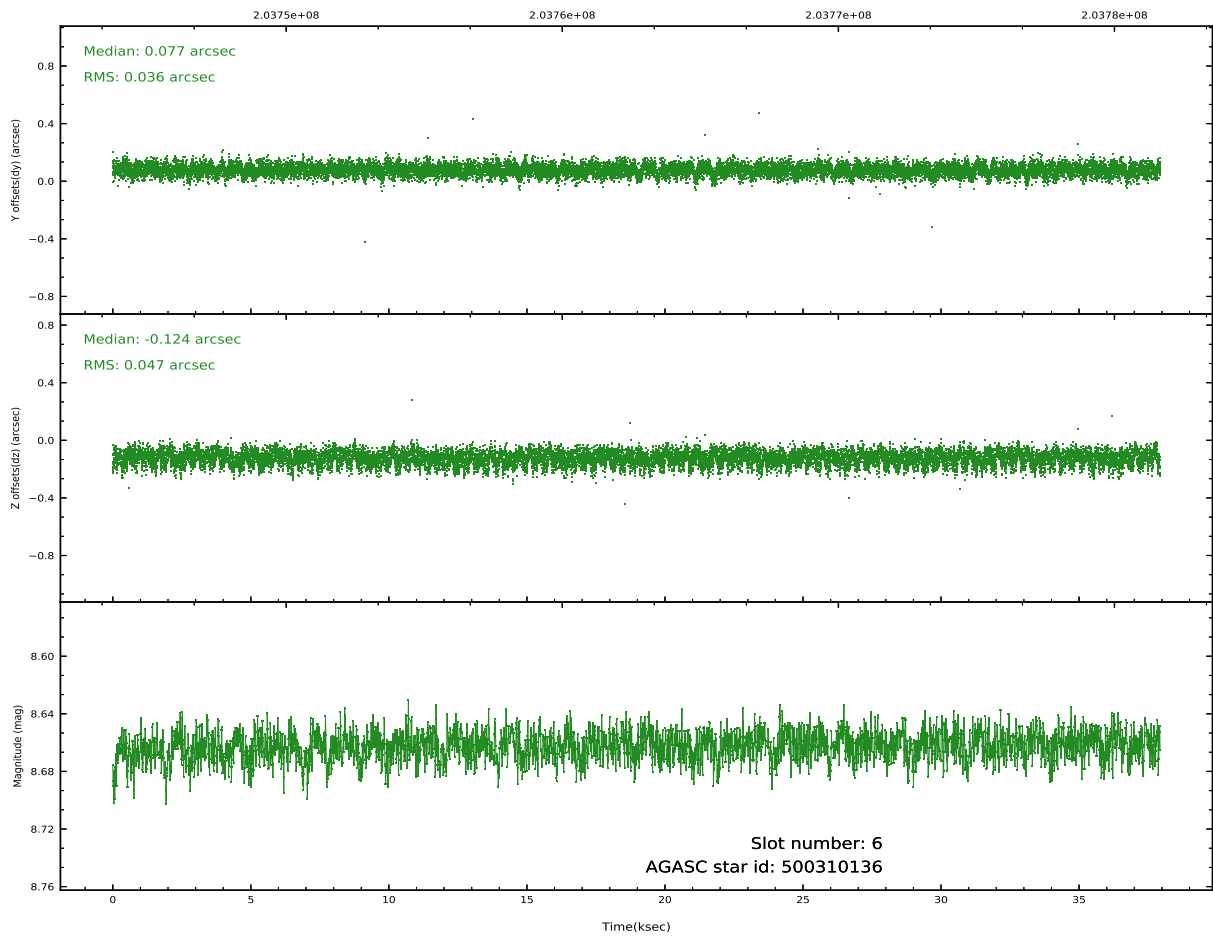
Time (s)



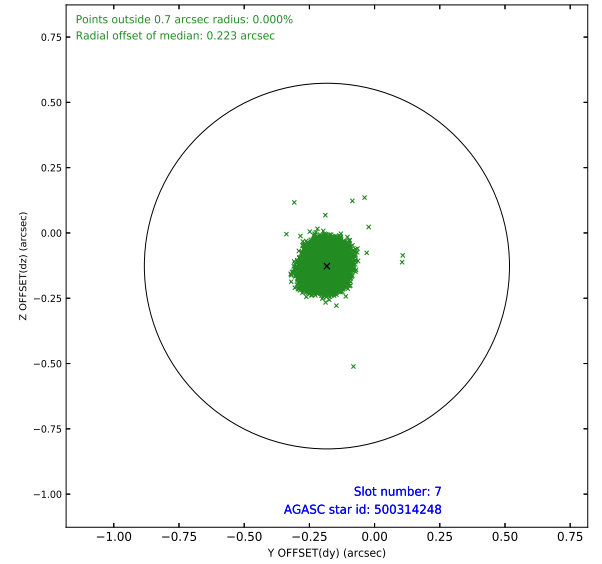
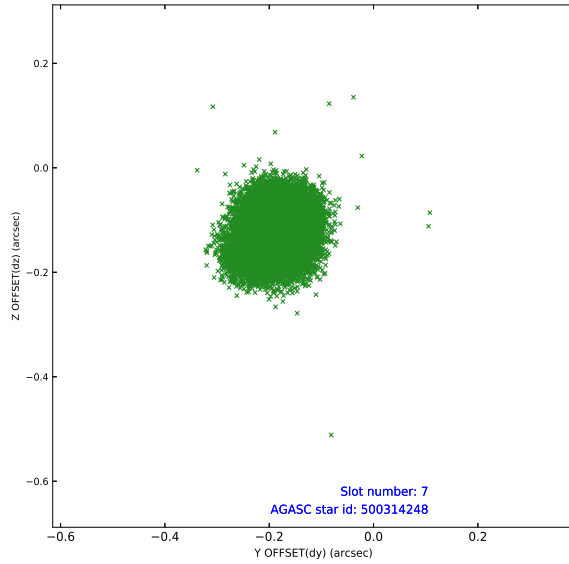
## 2.4.4 Slot 6



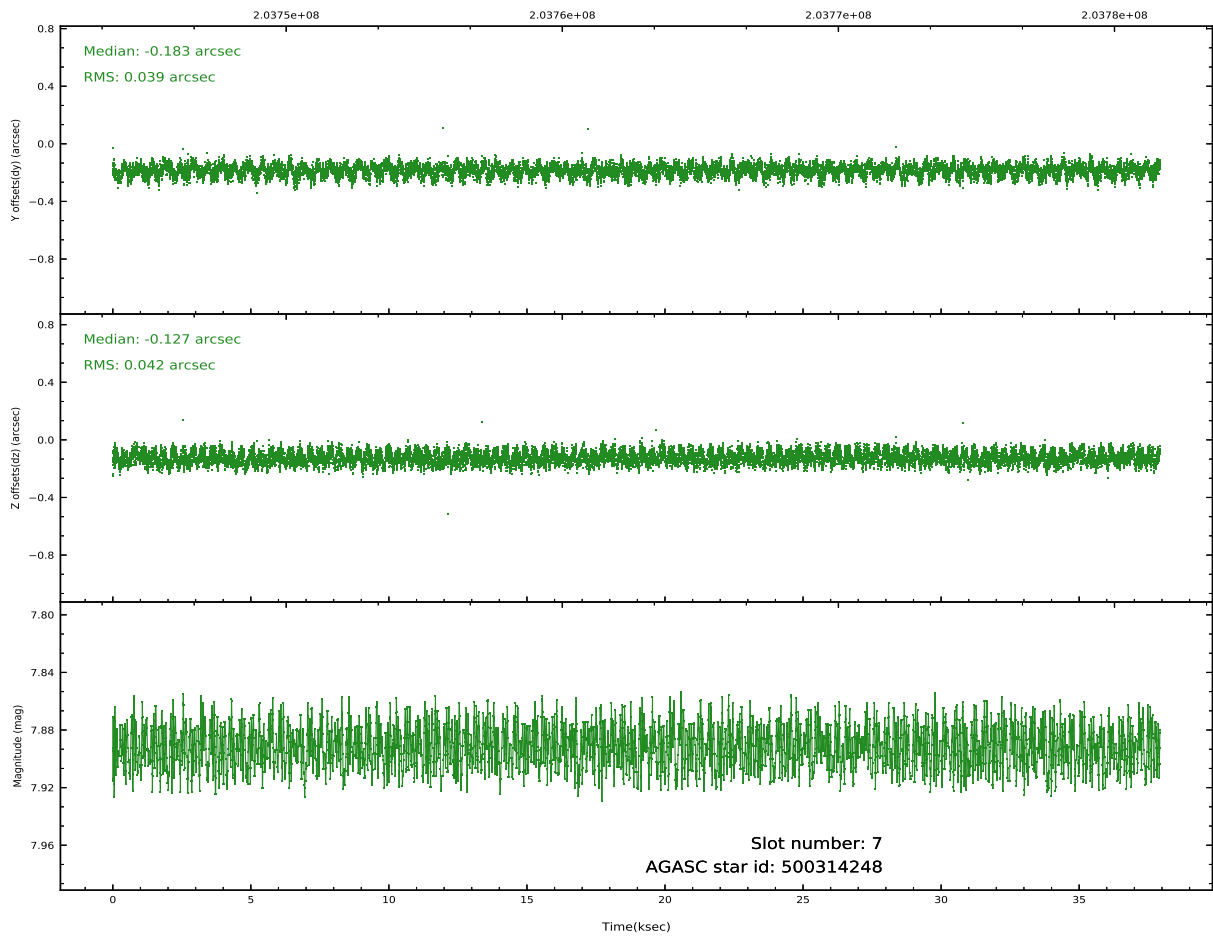
Time (s)



## 2.4.5 Slot 7

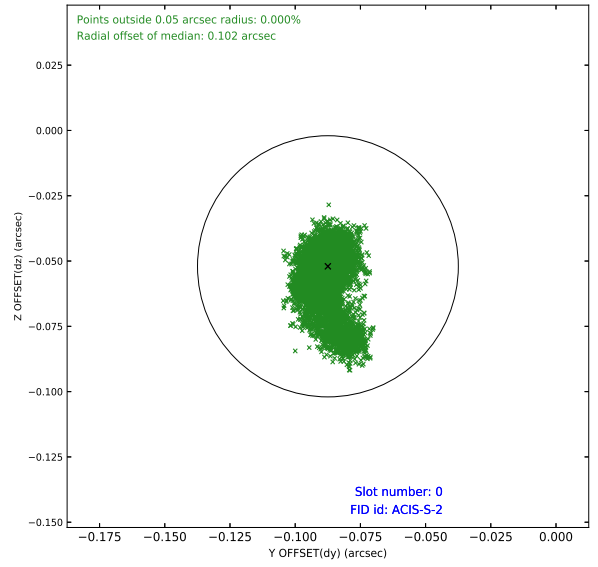
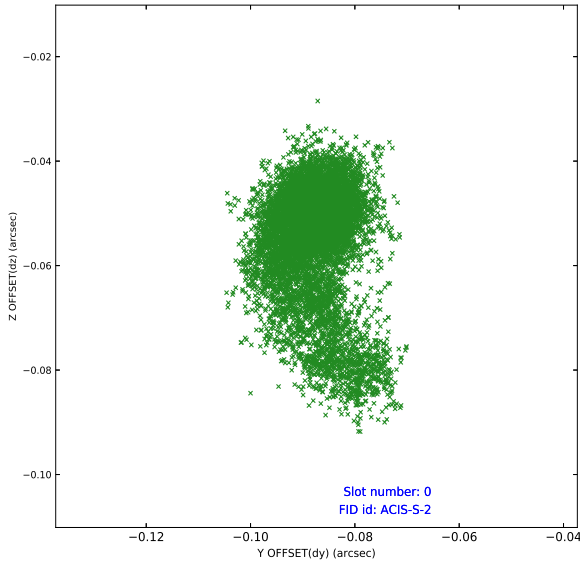


Time (s)

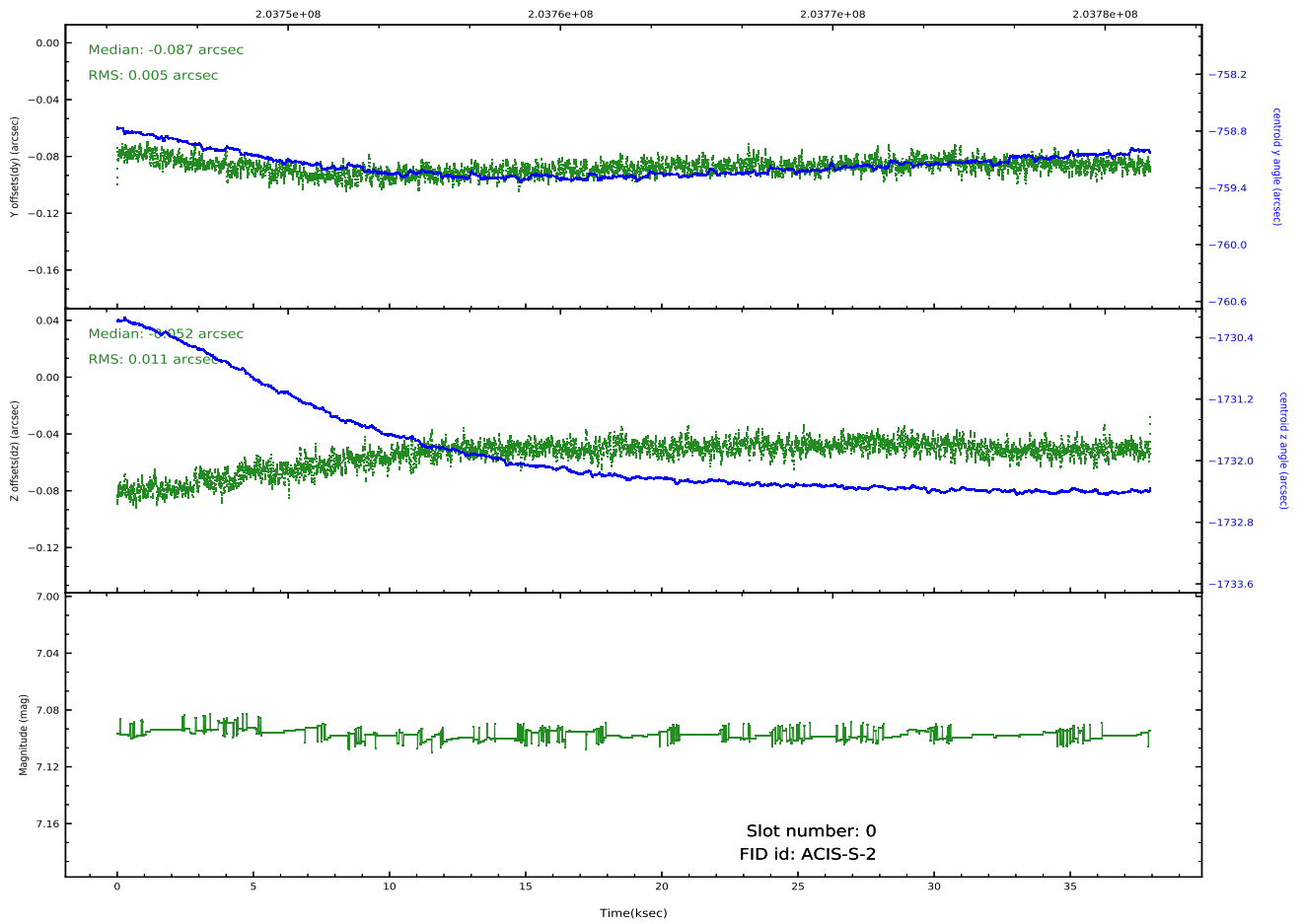


## 2.5 FID Slots

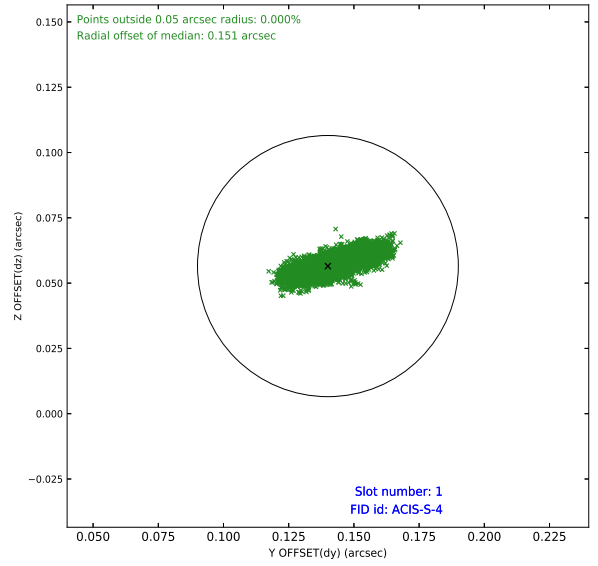
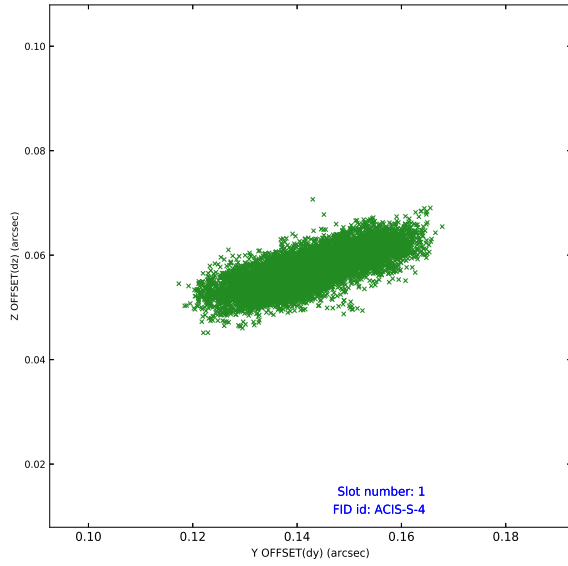
### 2.5.1 Slot 0



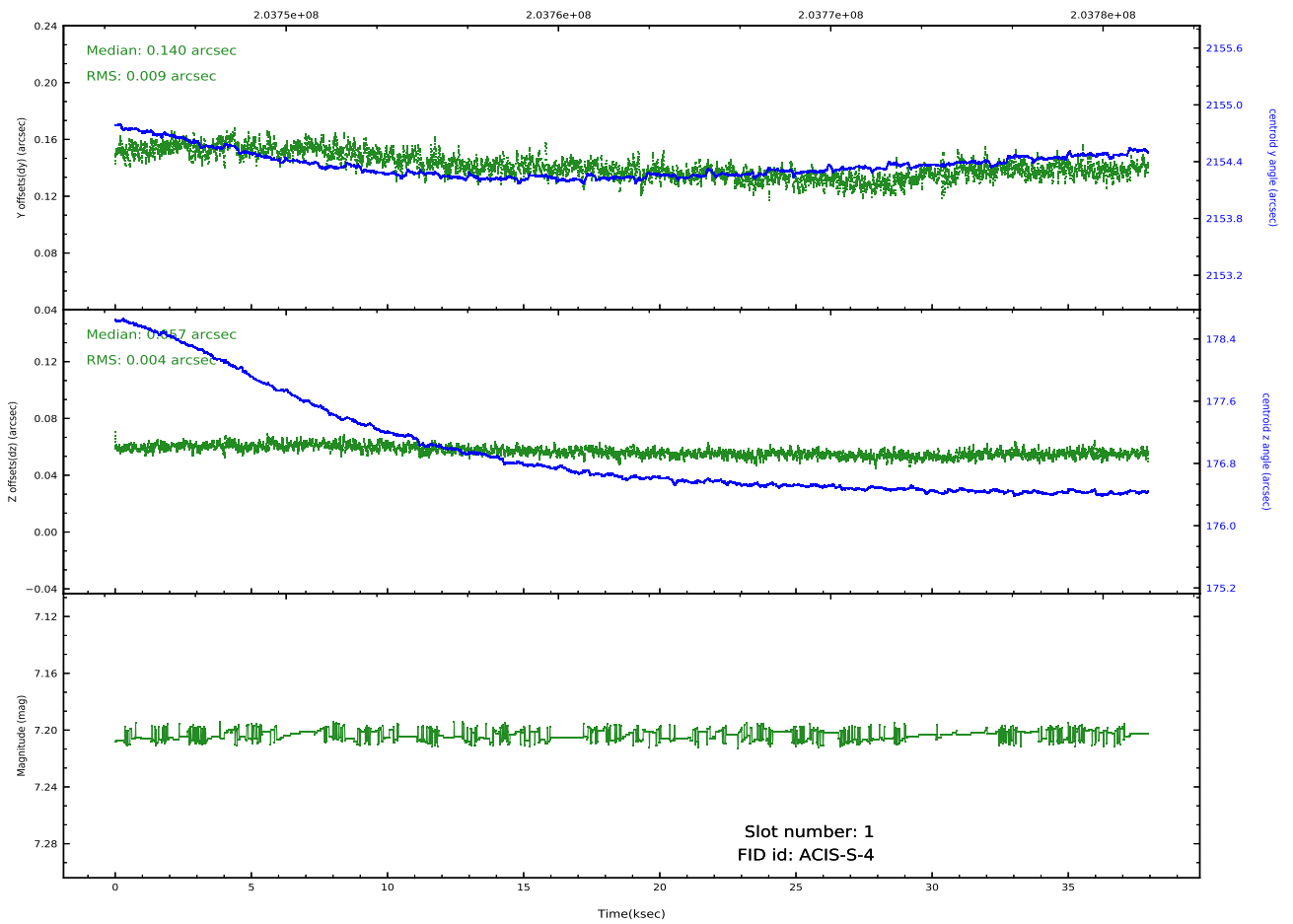
Time (s)



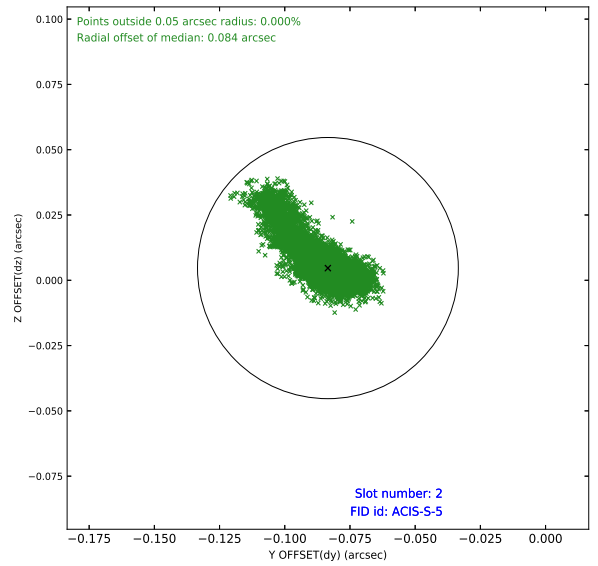
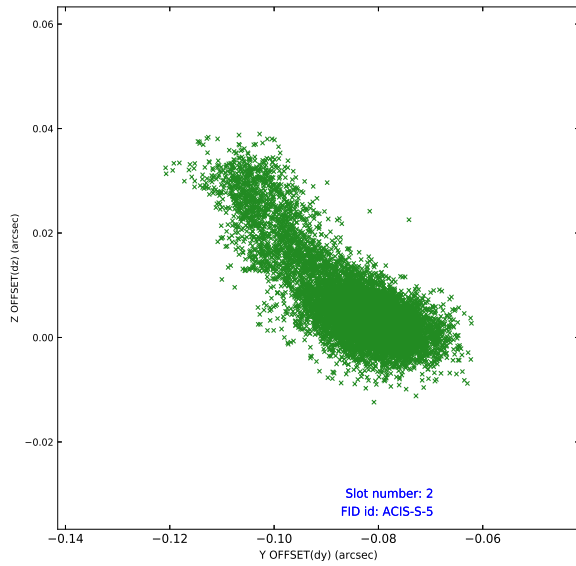
## 2.5.2 Slot 1



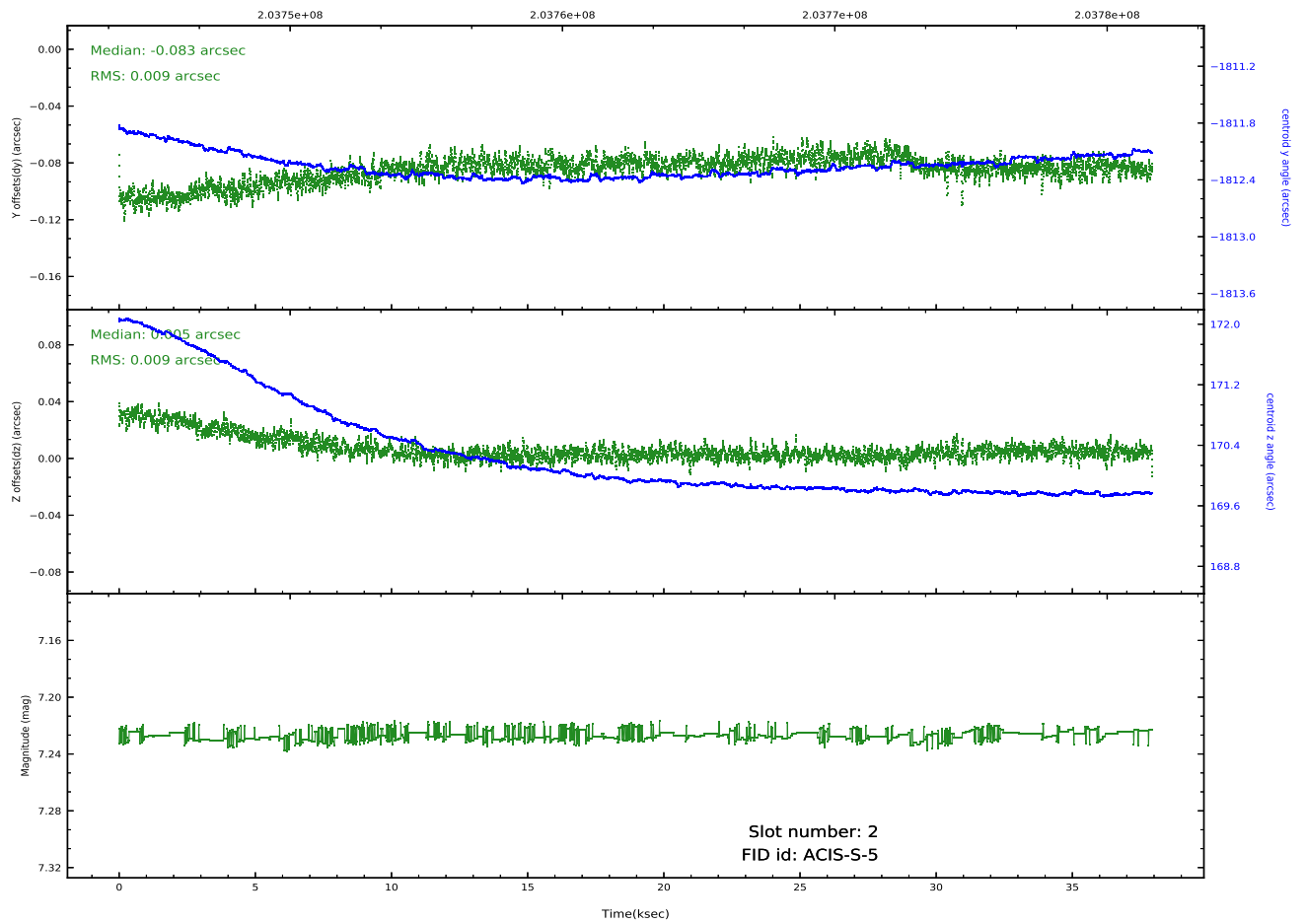
Time (s)



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.09.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	37.934

## A.2 Comments

Joint proposal with HST.

Roll constraint met.