

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4490 - L2 Version 4  
Chandra X-Ray Center

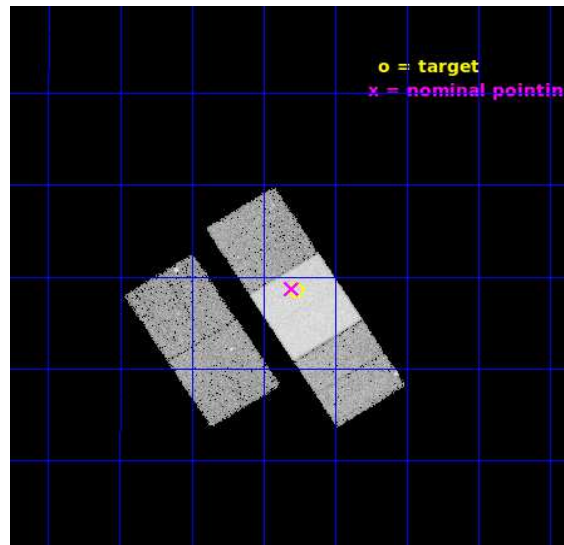
L2 Processing Date : Oct 5 2020

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# 1 Front

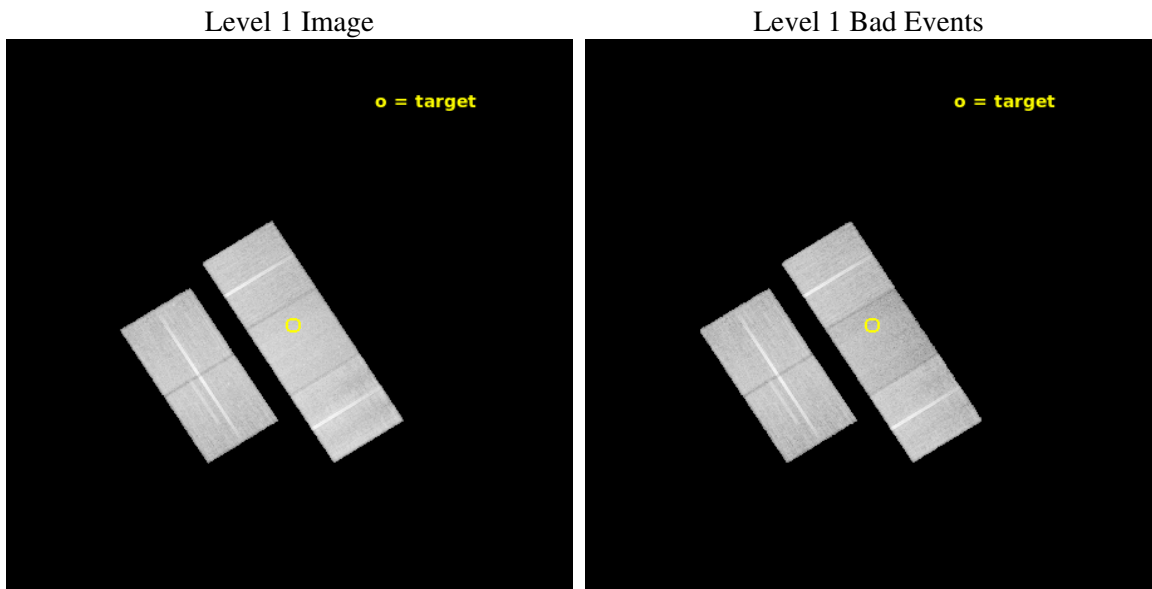
seq_num	200259	Sequence number
obs_id	4490	Observation id
title	SHOCKS AND X-RAYS IN PROTOSTELLAR JETS	Proposal title
observer	Prof. Manuel Guedel	Principal investigator
object	HH111	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	87.9425	Observer's specified target RA [deg]
dec_targ	2.80825	Observer's specified target Dec [deg]
ra_nom	87.950142063307	Nominal RA [deg]
dec_nom	2.8116904595141	Nominal Dec [deg]
roll_nom	57.612951359541	Nominal Roll [deg]
revision	4	Processing version of data
ontime	29177.19994387	Sum of GTIs [s]
livetime	28795.978346662	Livetime [s]
ontime2	29174.058953643	Sum of GTIs [s]
ontime3	29174.058963627	Sum of GTIs [s]
ontime6	29177.19994387	Sum of GTIs [s]
ontime7	29177.19994387	Sum of GTIs [s]
ontime8	29174.058953613	Sum of GTIs [s]
l2events	156262	Number of level 2 events



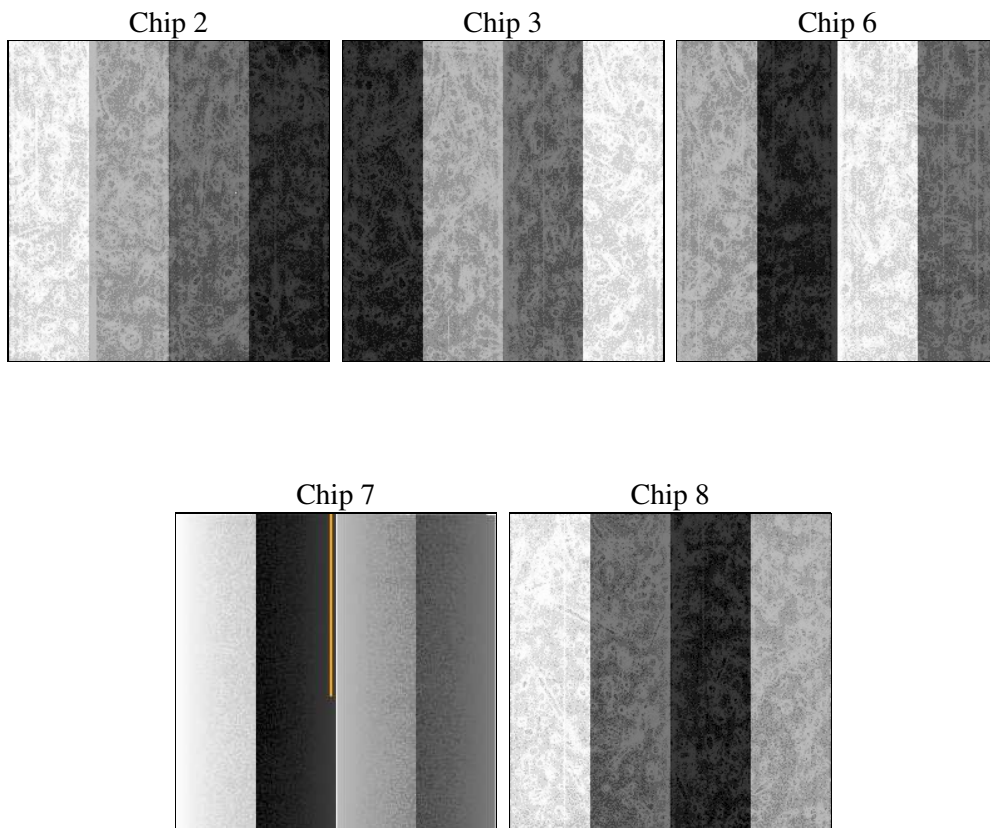
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	29000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	29177.19994387	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime2	29174.058953643	Sum of GTIs [s]
date	2020-10-05T06:22:58	Date and time of file creation	ontime3	29174.058963627	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	29177.19994387	Sum of GTIs [s]
			ontime7	29177.19994387	Sum of GTIs [s]
			ontime8	29174.058953613	Sum of GTIs [s]
			l1events	1028086	Number of level 1 events

### 2.1.4 Events

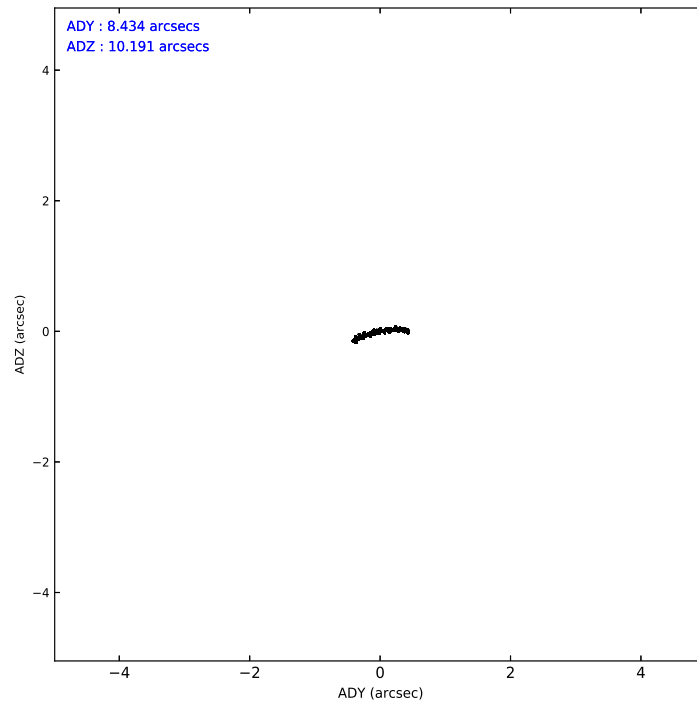
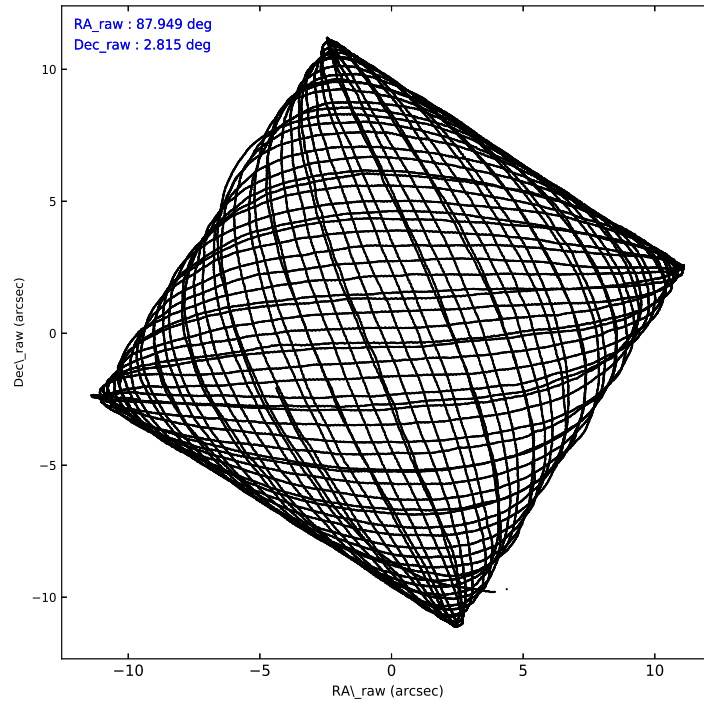
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	192523	190350	192962	208278	243973
rejected events	174797	173122	174053	114763	189047
rejected %	90%	90%	90%	55%	77%

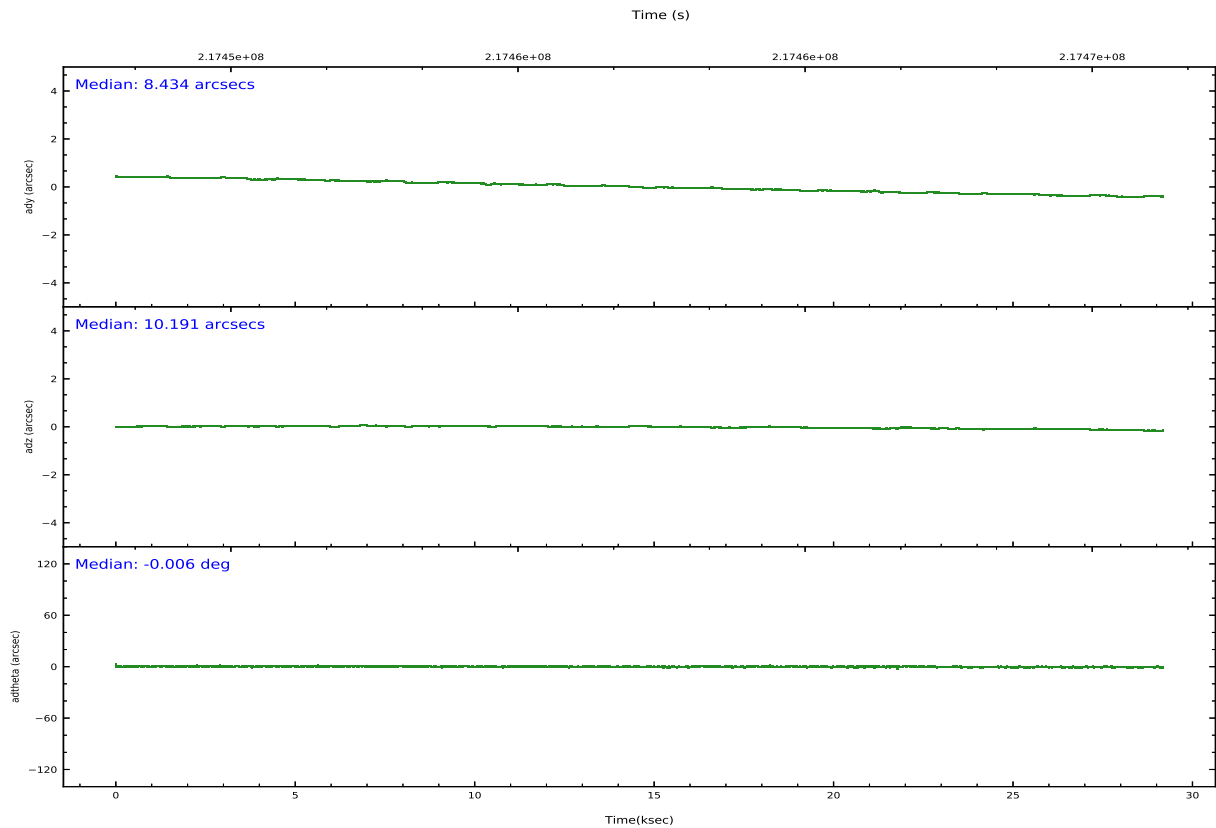
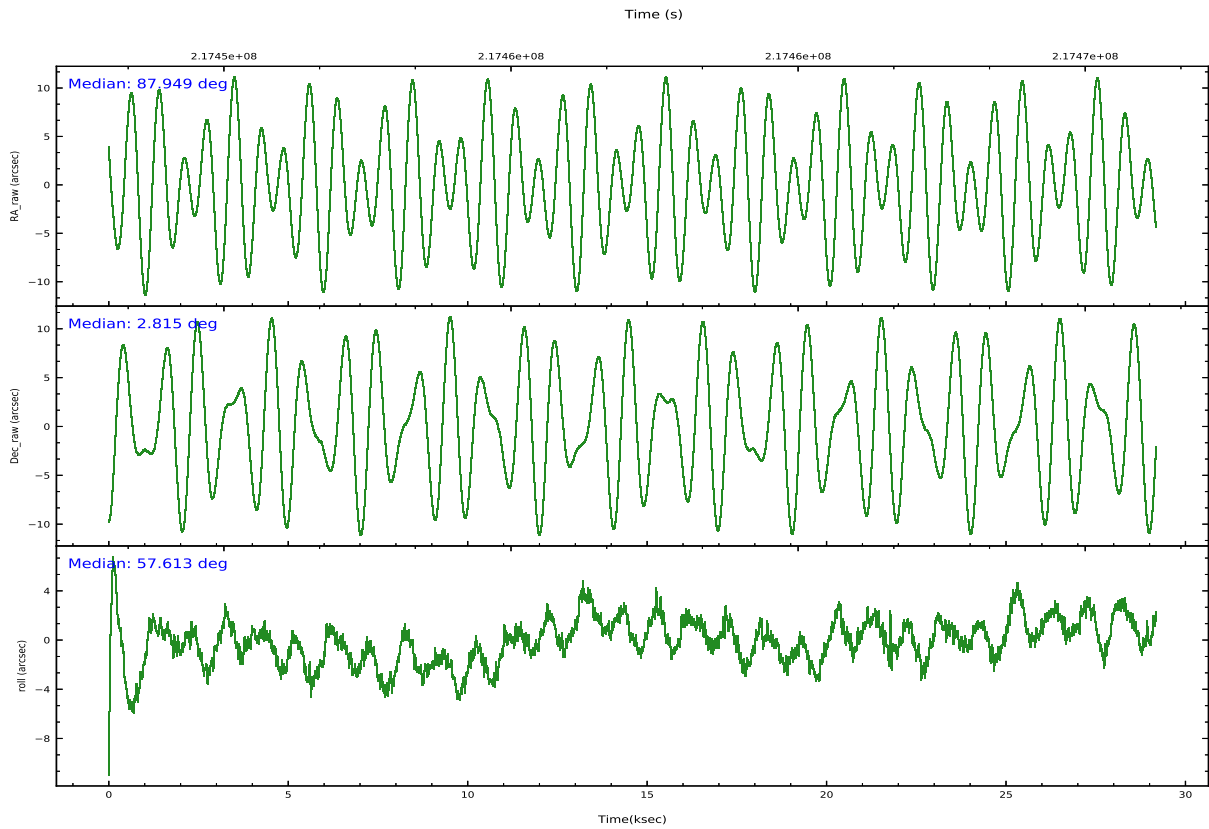
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	6428	5899	6445	7952	16405
	3%	3%	3%	3%	6%
grade 1 events	86	83	89	193	181
	0%	0%	0%	0%	0%
grade 2 events	4082	3689	4108	18712	12156
	2%	1%	2%	8%	4%
grade 3 events	1990	1988	2185	8741	6002
	1%	1%	1%	4%	2%
grade 4 events	2060	2086	2116	8837	5521
	1%	1%	1%	4%	2%
grade 5 events	6110	7309	7727	22060	10702
	3%	3%	4%	10%	4%
grade 6 events	3205	3604	4094	49488	15032
	1%	1%	2%	23%	6%
grade 7 events	168562	165692	166198	92295	177974
	87%	87%	86%	44%	72%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-23678	ACIS-23678	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	87.948271	87.950142063307	Subarray requested	NONE	NONE
[deg] Pointing Dec	2.788162	2.8116904595141	Alternating exposures requested	N	N
[deg] Pointing Roll	57.456273	57.612951359541	[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)	217444976.184000	217443950.16787			
Observation start date	2004-11-21T17:21:52	2004-11-21T17:05:50			
[s] Observation end time (MET)	217473976.184000	217474602.79425			
Observation end date	2004-11-22T01:25:12	2004-11-22T01:36:42			
Read mode	TIMED	TIMED			

## 2.3 Aspect





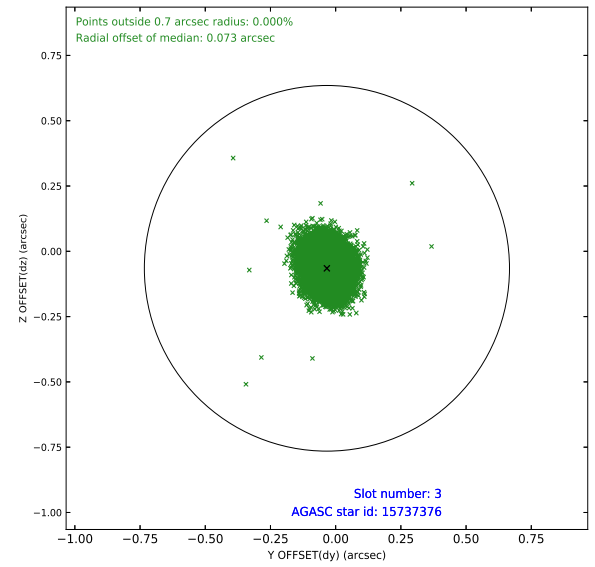
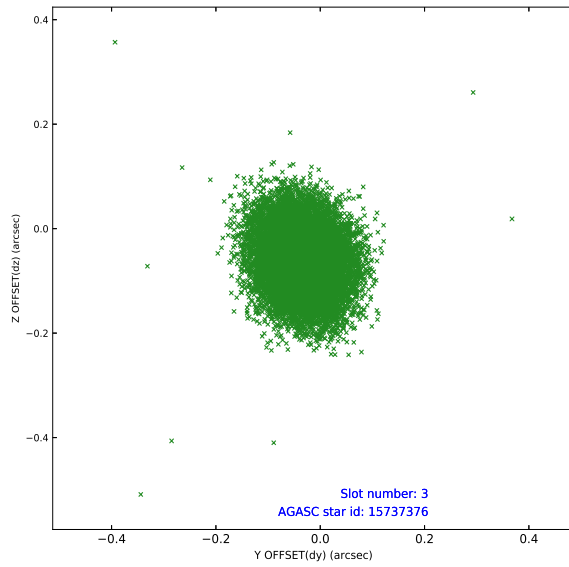
### Slot Statistics

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	7.19	7117	1.000	0.059	-0.071	0.007	0.012	0.000000	0.000000	934.90	-1727
1	FID		ACIS-S-5	7.24	7118	1.000	-0.152	0.020	0.014	0.021	0.000000	0.000000	-1814.30	170
2	FID		ACIS-S-6	7.35	7117	1.000	0.070	0.063	0.014	0.021	0.000000	0.000000	400.34	814
3	GUIDE	used	15737376	9.04	14231	1.000	-0.034	-0.065	0.077	0.124	87.780635	3.502000	1842.60	1890
4	GUIDE	used	15739072	9.43	14227	1.000	-0.016	-0.101	0.101	0.160	87.795739	3.450449	1715.40	1744
5	GUIDE	used	15860064	9.31	14230	1.000	0.069	0.008	0.101	0.161	88.180470	2.417450	-674.84	-1421
6	GUIDE	used	15860696	8.43	14228	1.000	0.013	0.038	0.062	0.099	88.242141	3.048017	1357.22	-387
7	GUIDE	used	15860168	8.26	14229	1.000	-0.039	0.118	0.067	0.104	88.277505	2.831756	769.81	-913

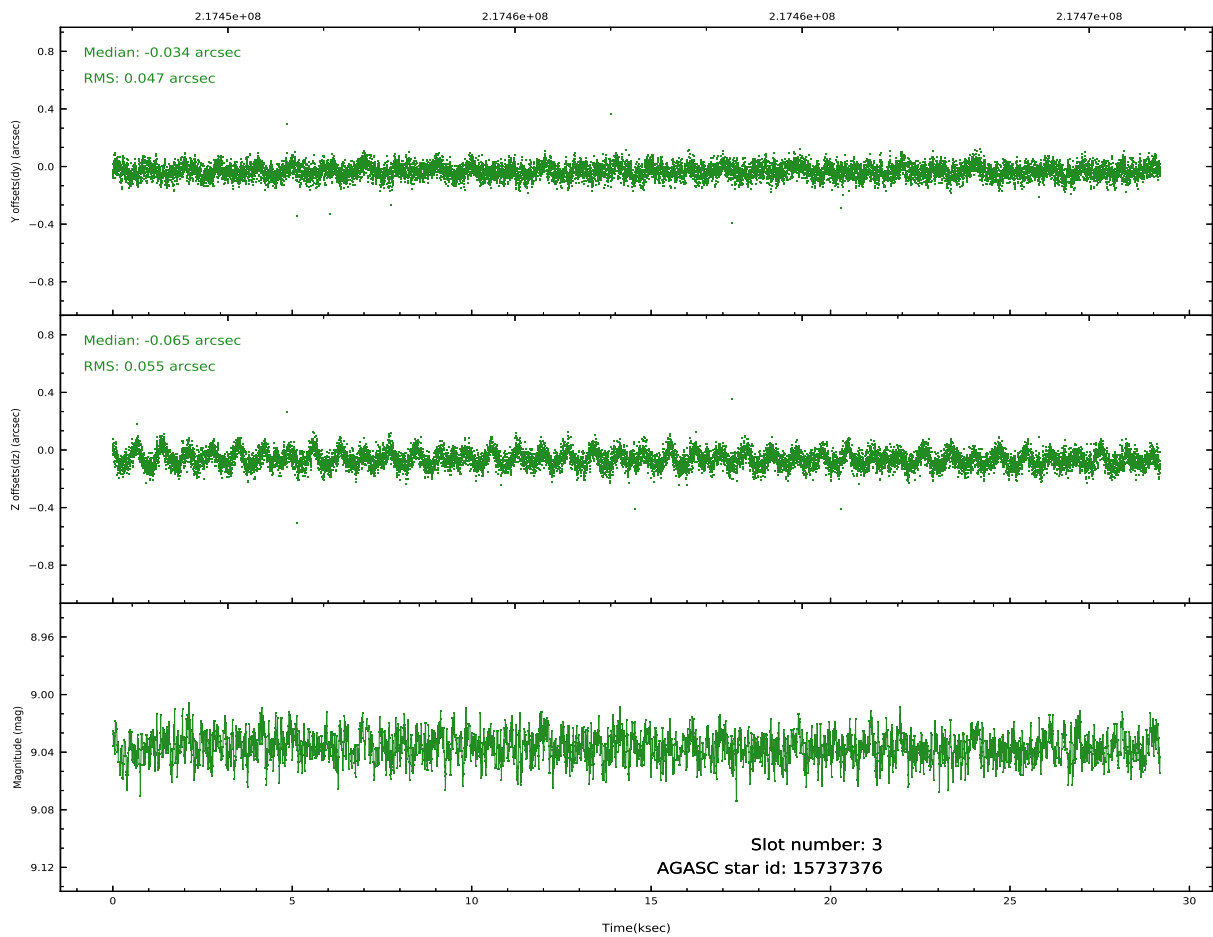
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## 2.4 Star Slots

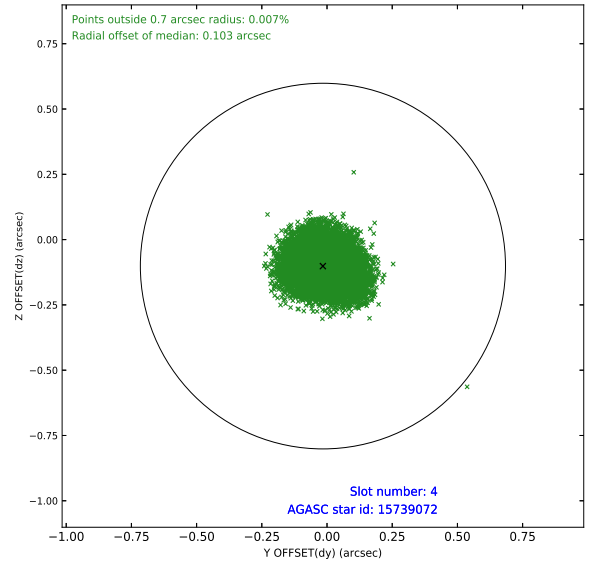
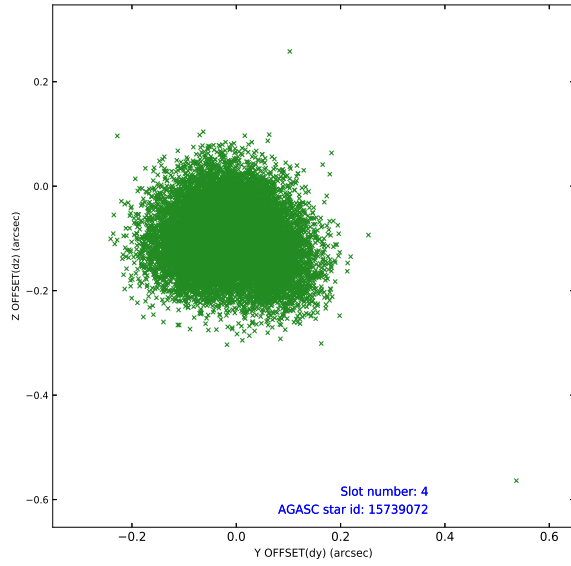
### 2.4.1 Slot 3



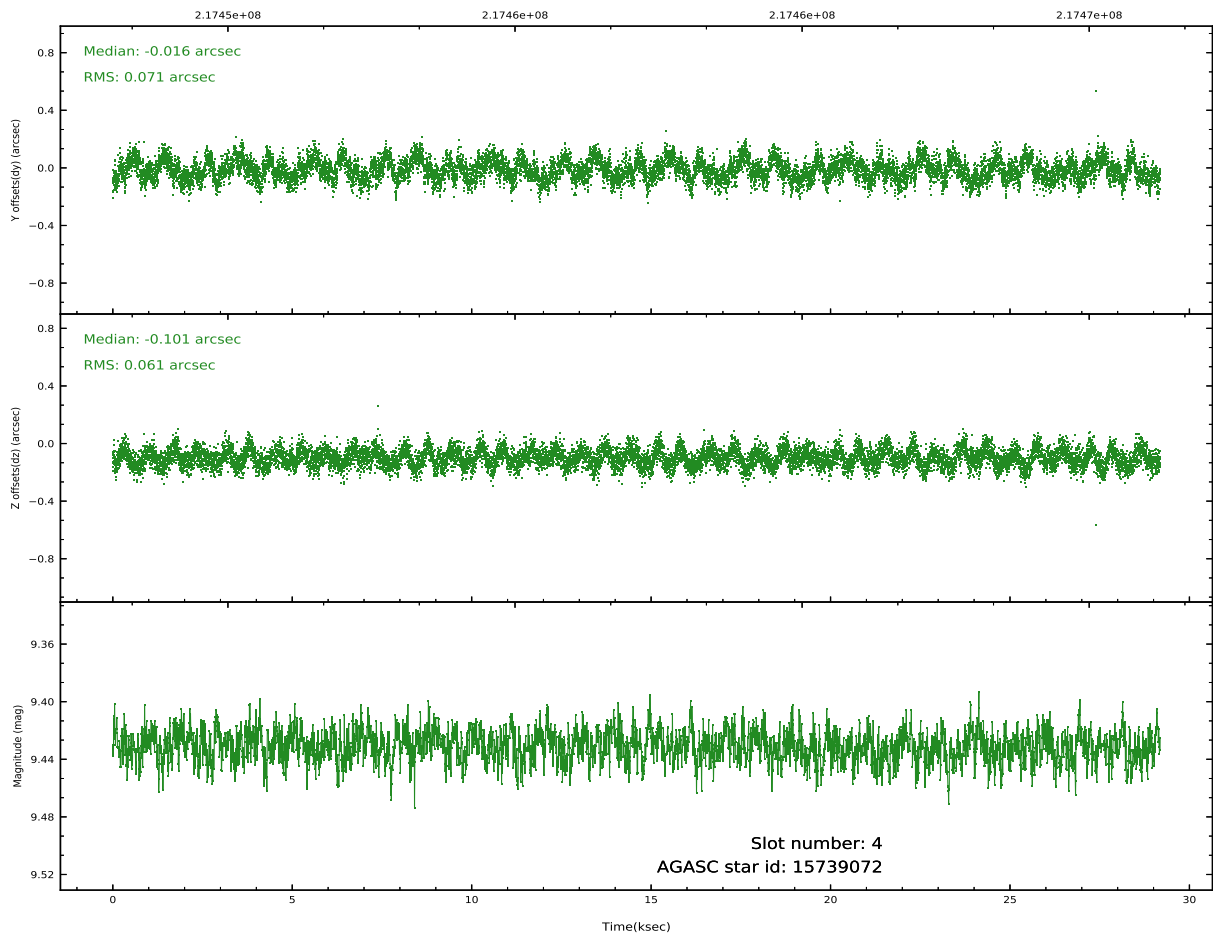
Time (s)



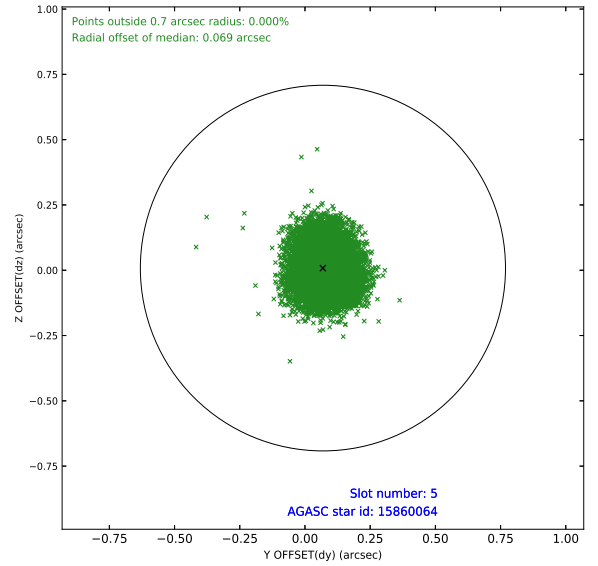
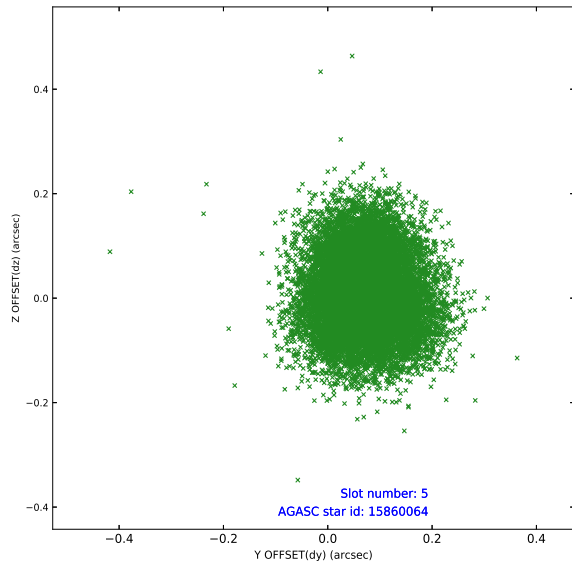
## 2.4.2 Slot 4



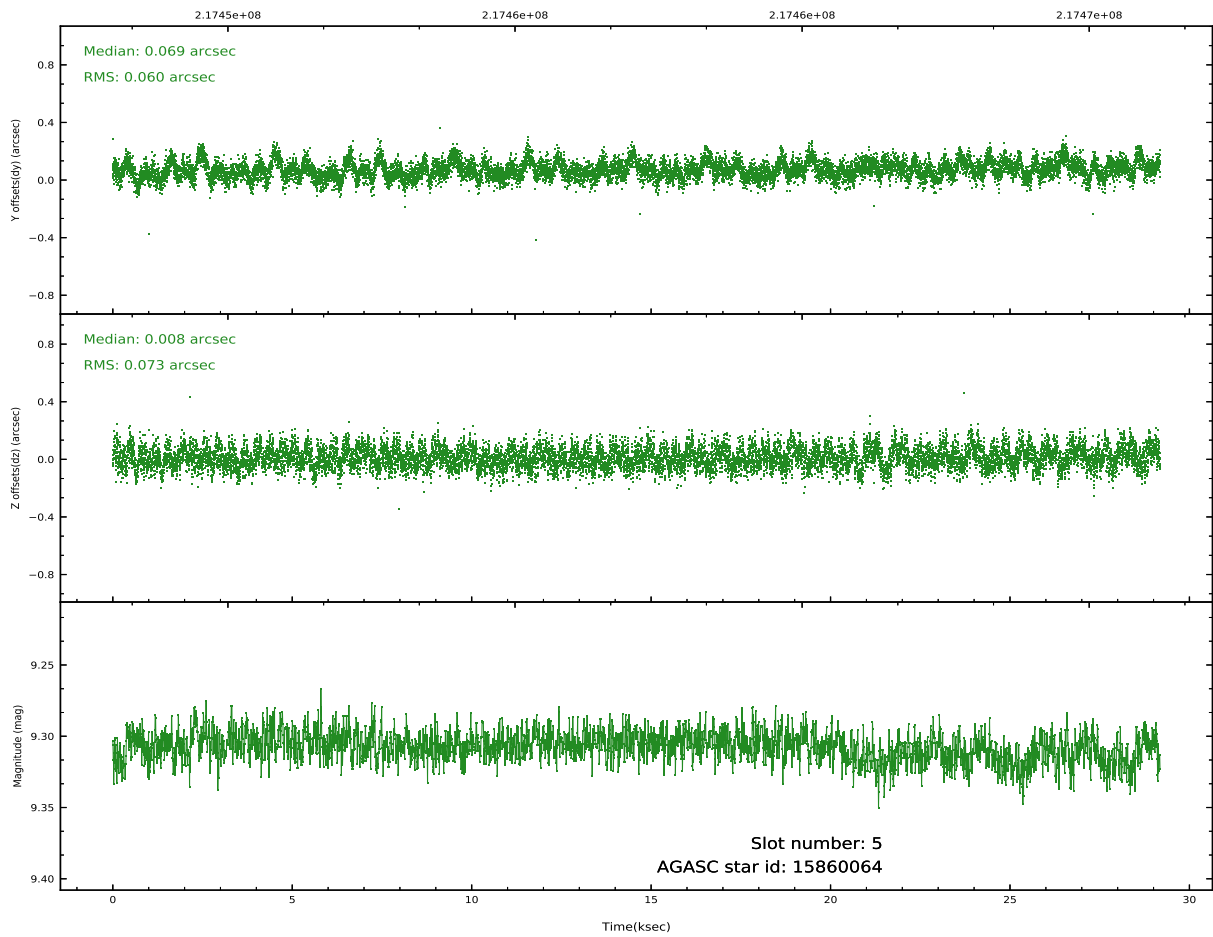
Time (s)



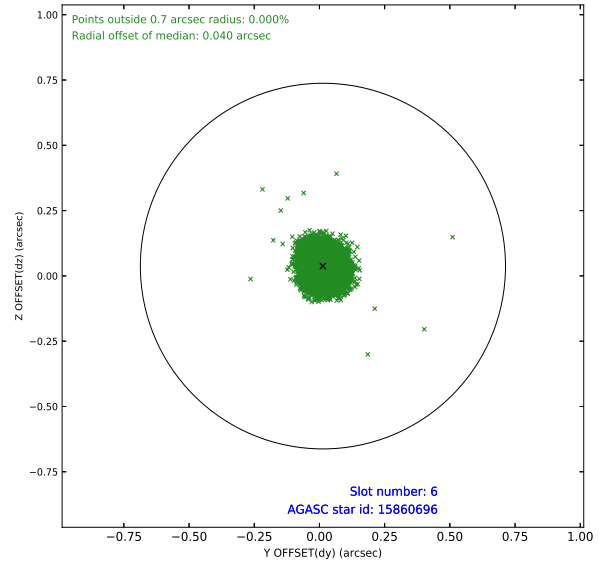
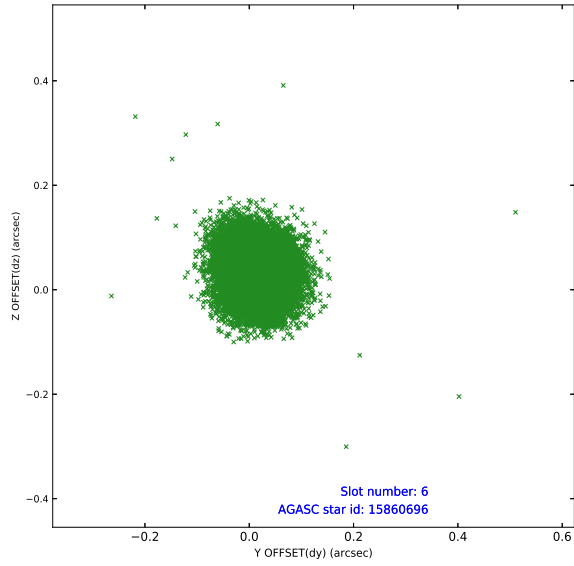
### 2.4.3 Slot 5



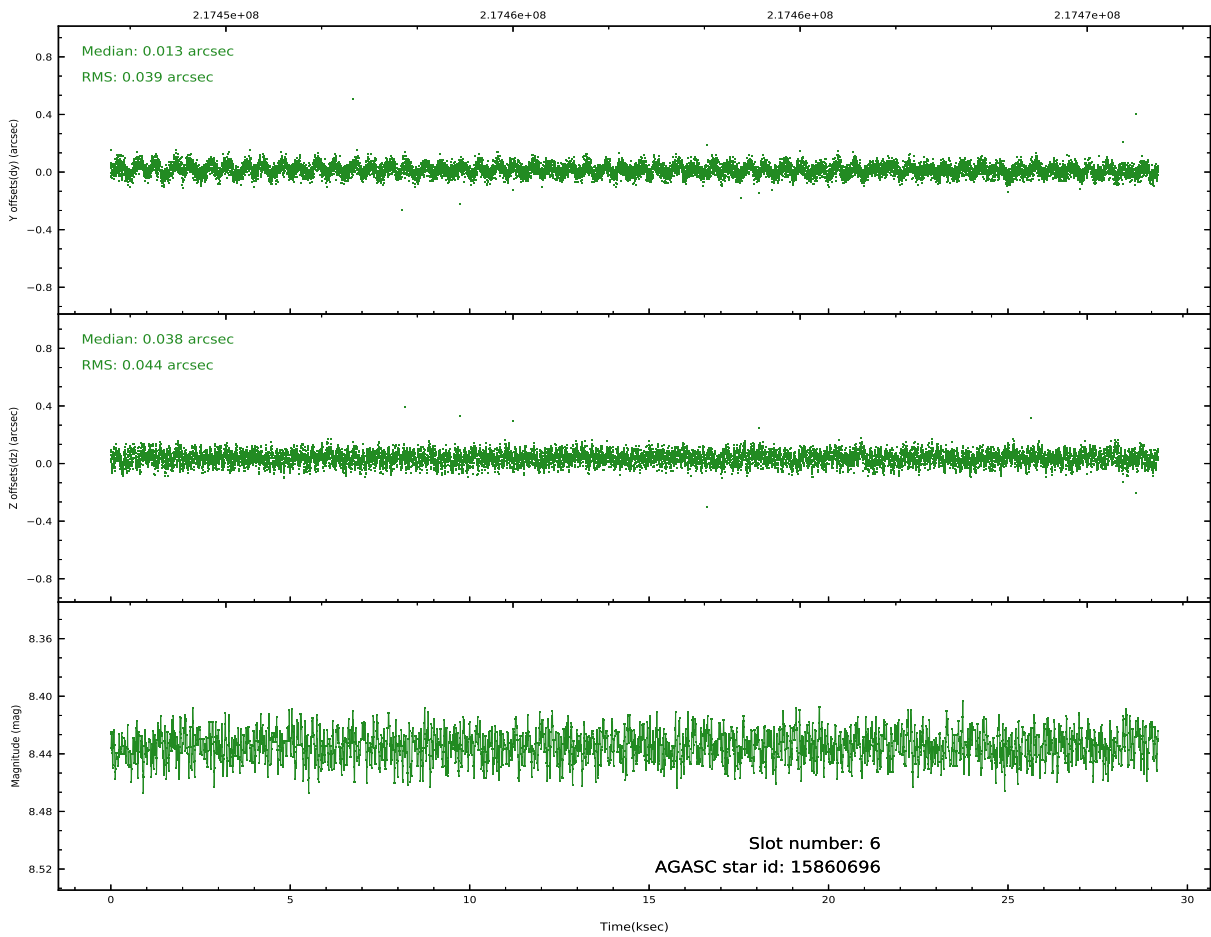
Time (s)



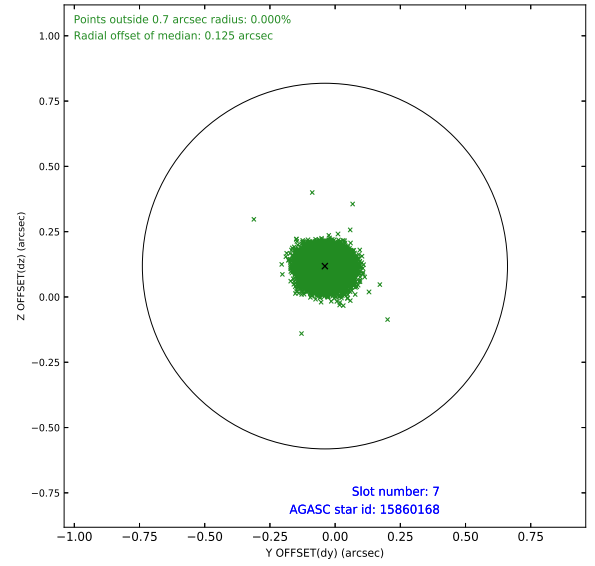
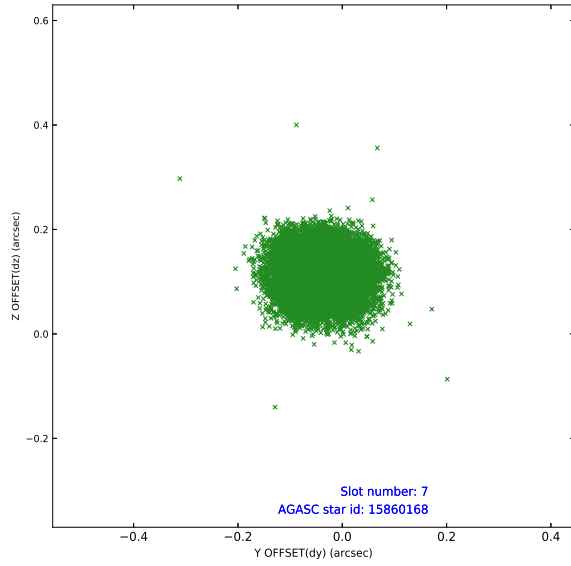
## 2.4.4 Slot 6



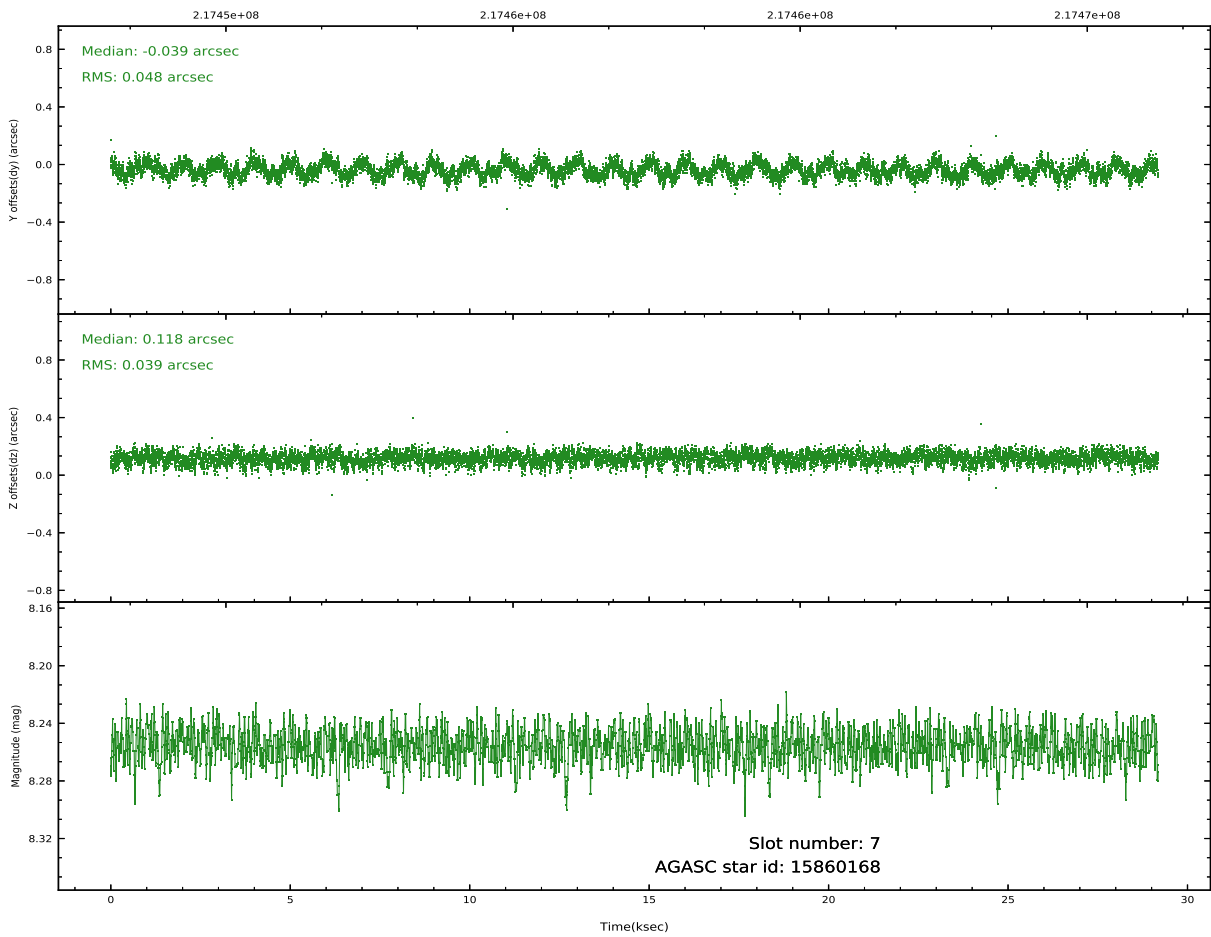
Time (s)



## 2.4.5 Slot 7

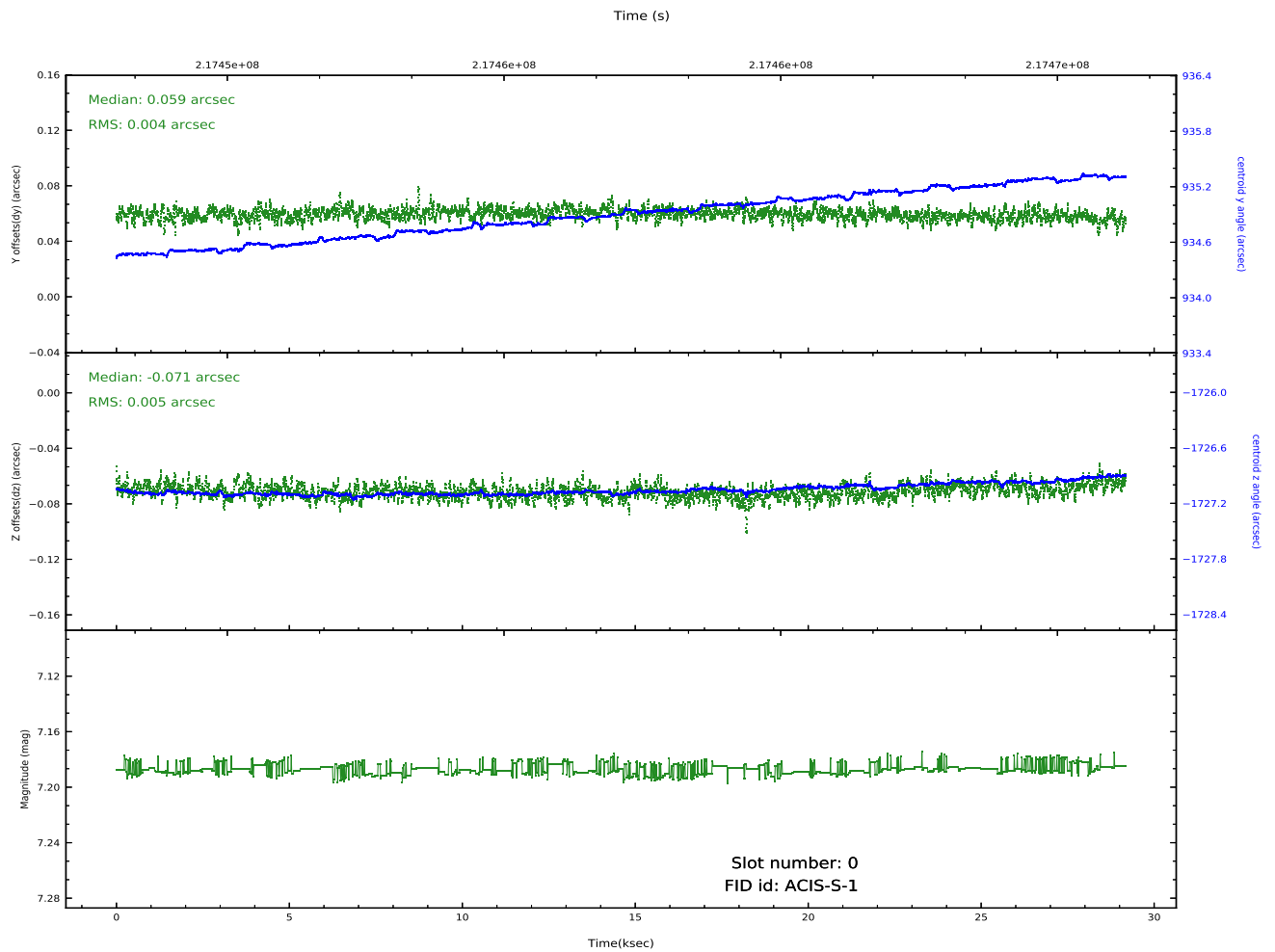
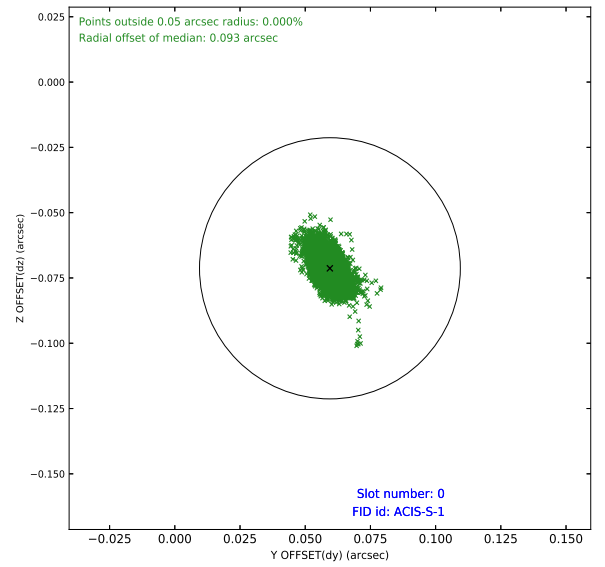
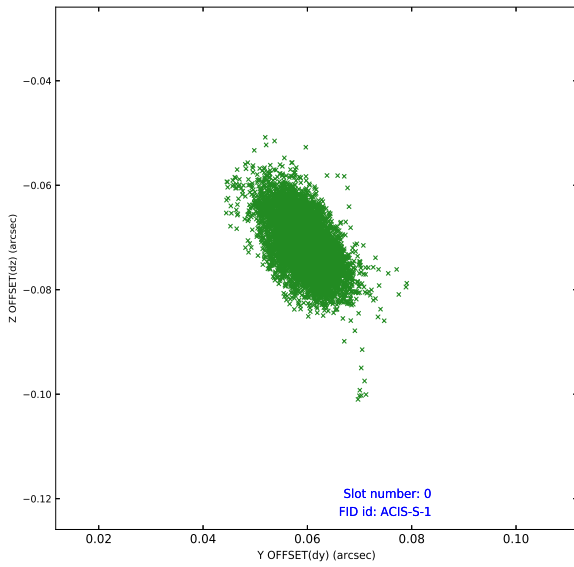


Time (s)

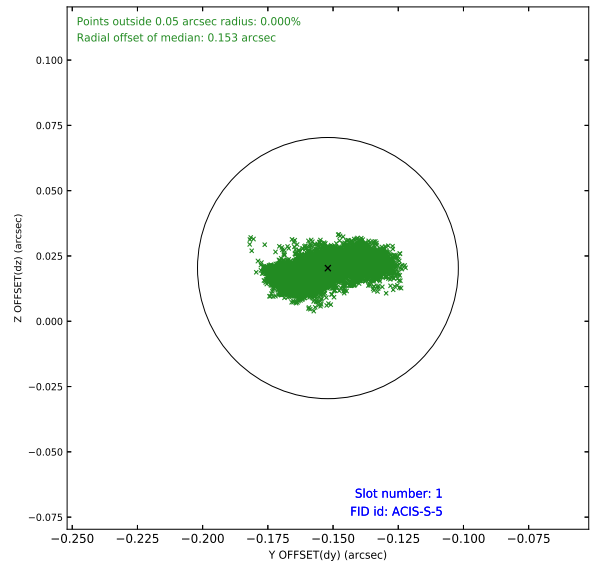
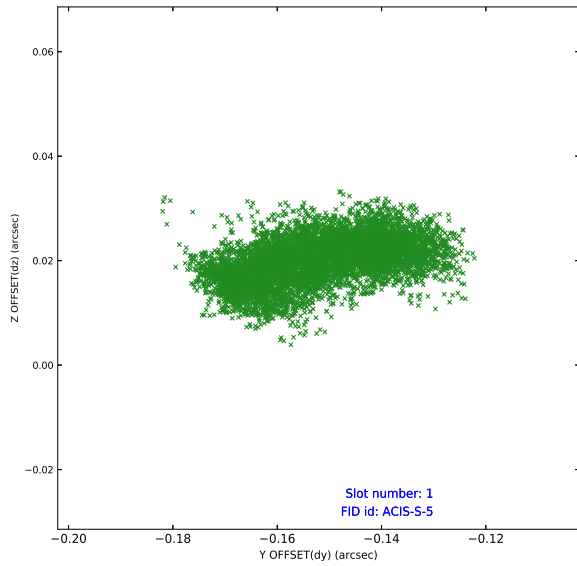


## 2.5 FID Slots

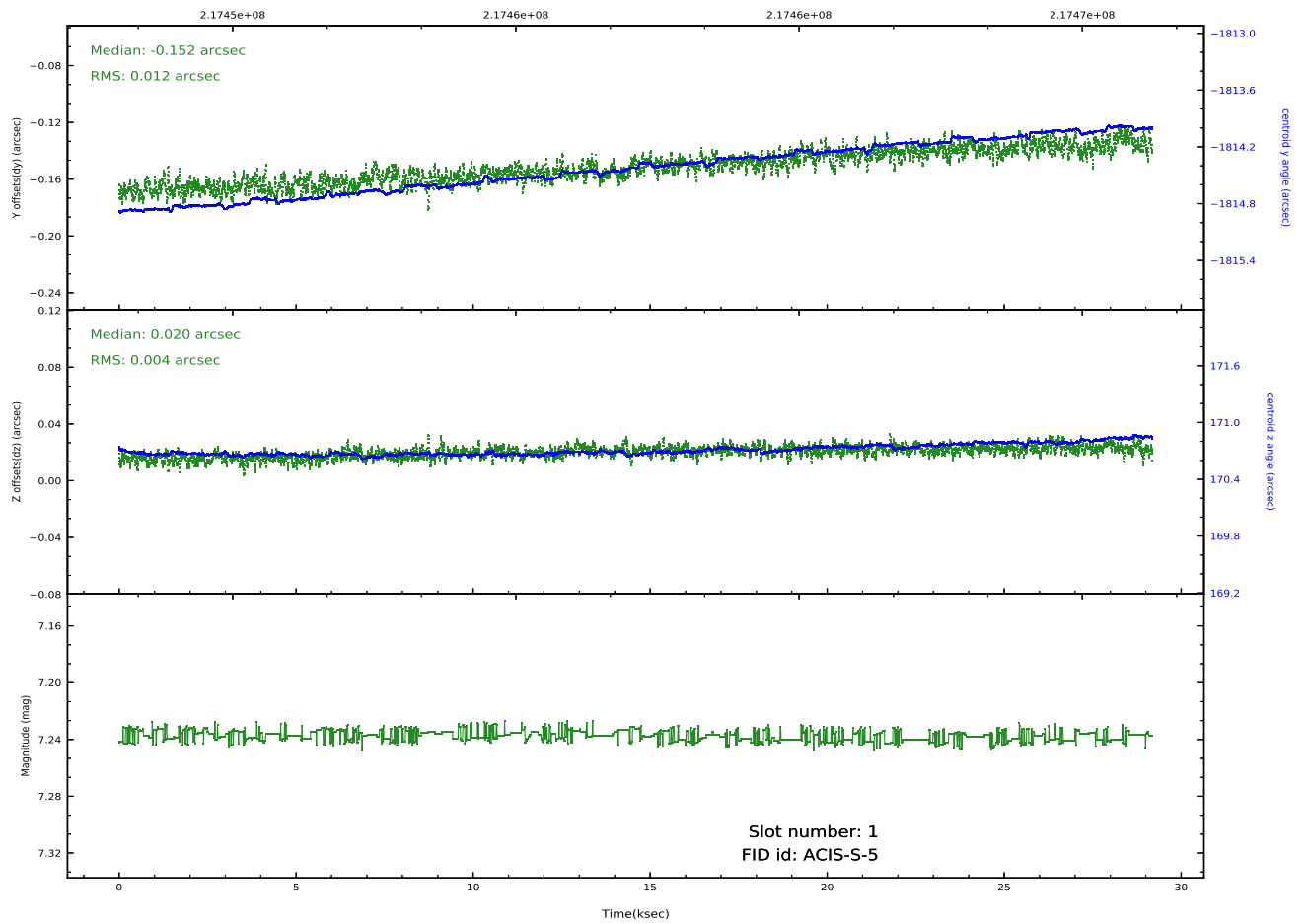
### 2.5.1 Slot 0



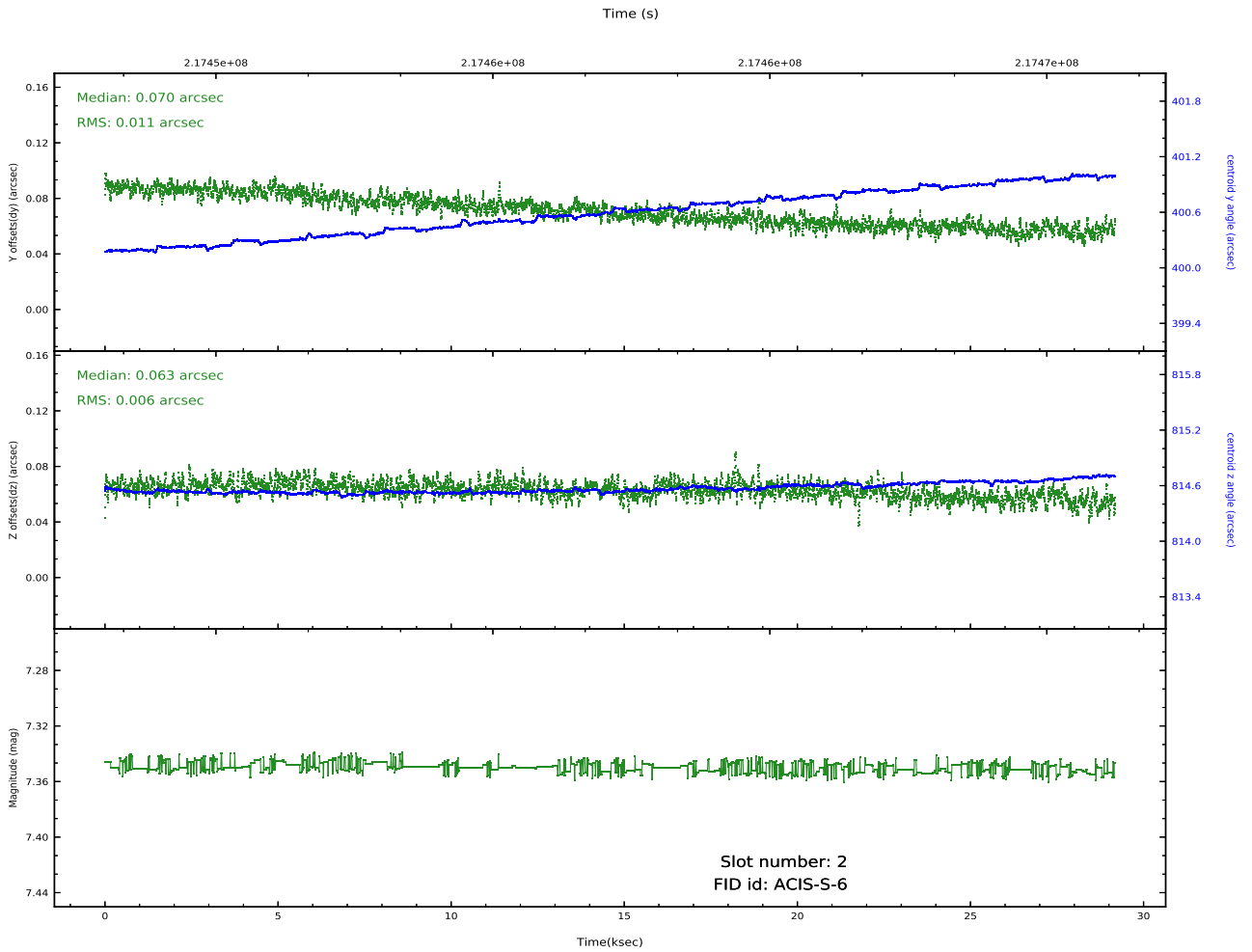
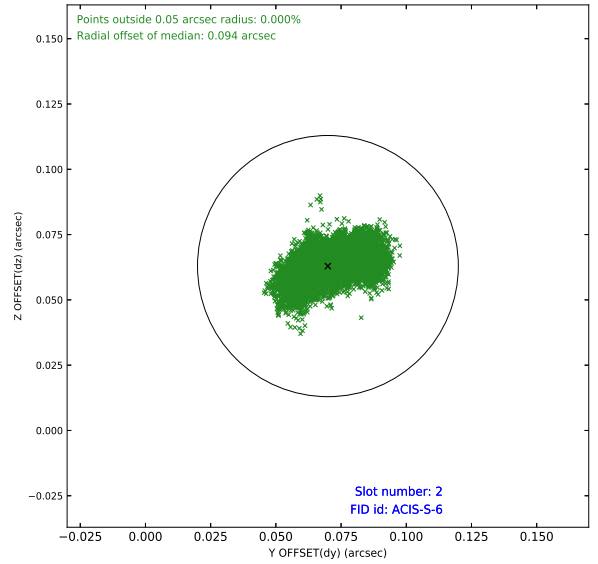
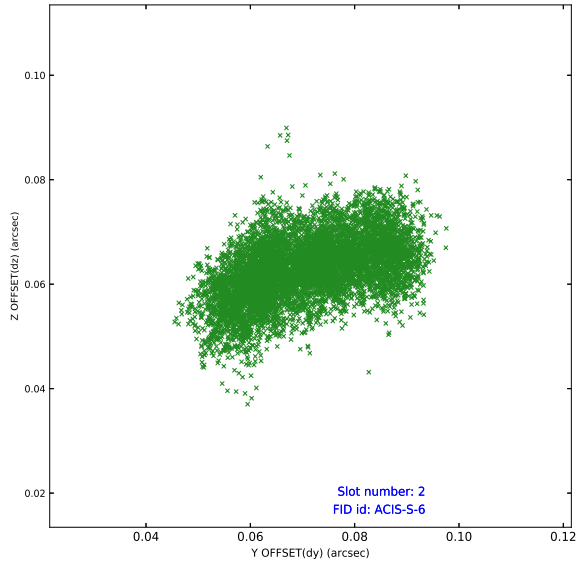
## 2.5.2 Slot 1



Time (s)



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.177

## A.2 Comments