

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4659 - L2 Version 4  
Chandra X-Ray Center

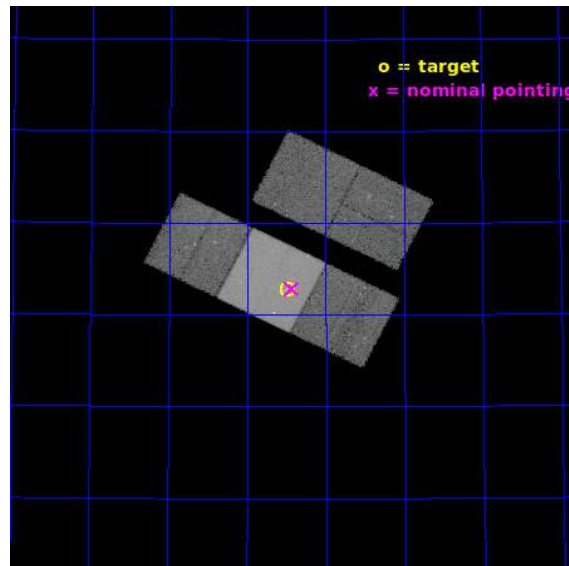
L2 Processing Date : Sep 24 2020

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# 1 Front

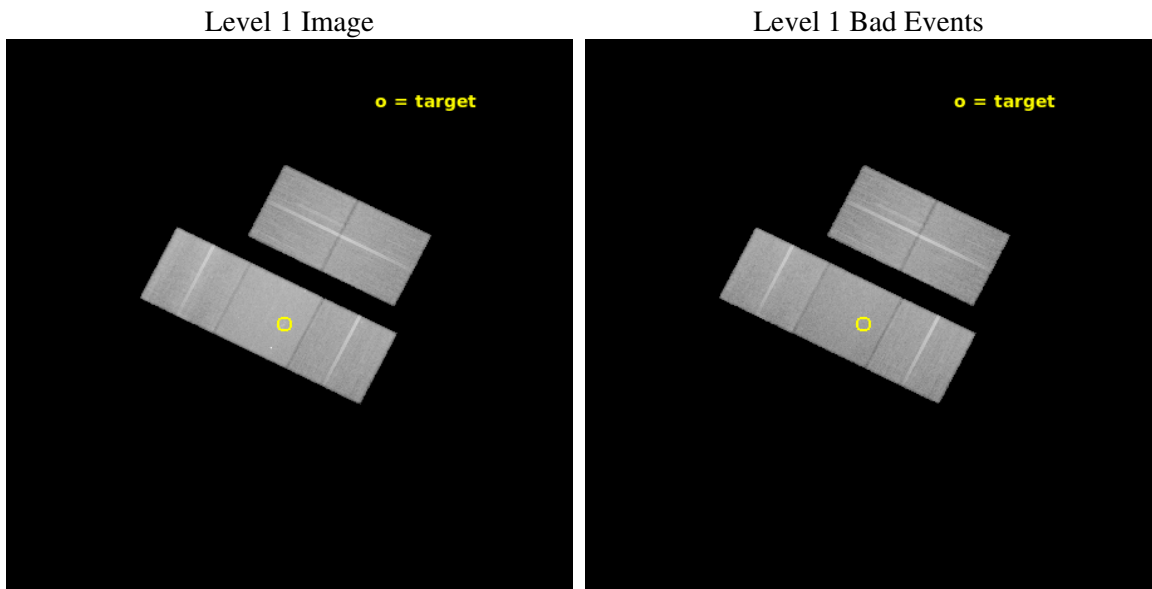
seq_num	500478	Sequence number
obs_id	4659	Observation id
title	In-depth Study of the Nearest Collapsars	Proposal title
observer	Professor Shri Kulkarni	Principal investigator
object	SN2004C	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	171.87375	Observer's specified target RA [deg]
dec_targ	56.880028	Observer's specified target Dec [deg]
ra_nom	171.85787922989	Nominal RA [deg]
dec_nom	56.880895620019	Nominal Dec [deg]
roll_nom	206.71130528439	Nominal Roll [deg]
revision	4	Processing version of data
ontime	40172.899922729	Sum of GTIs [s]
livetime	39648.011410379	Livetime [s]
ontime2	40172.899922729	Sum of GTIs [s]
ontime3	40172.899922729	Sum of GTIs [s]
ontime6	40172.899922729	Sum of GTIs [s]
ontime7	40172.899922729	Sum of GTIs [s]
ontime8	40166.61796236	Sum of GTIs [s]
l2events	268670	Number of level 2 events



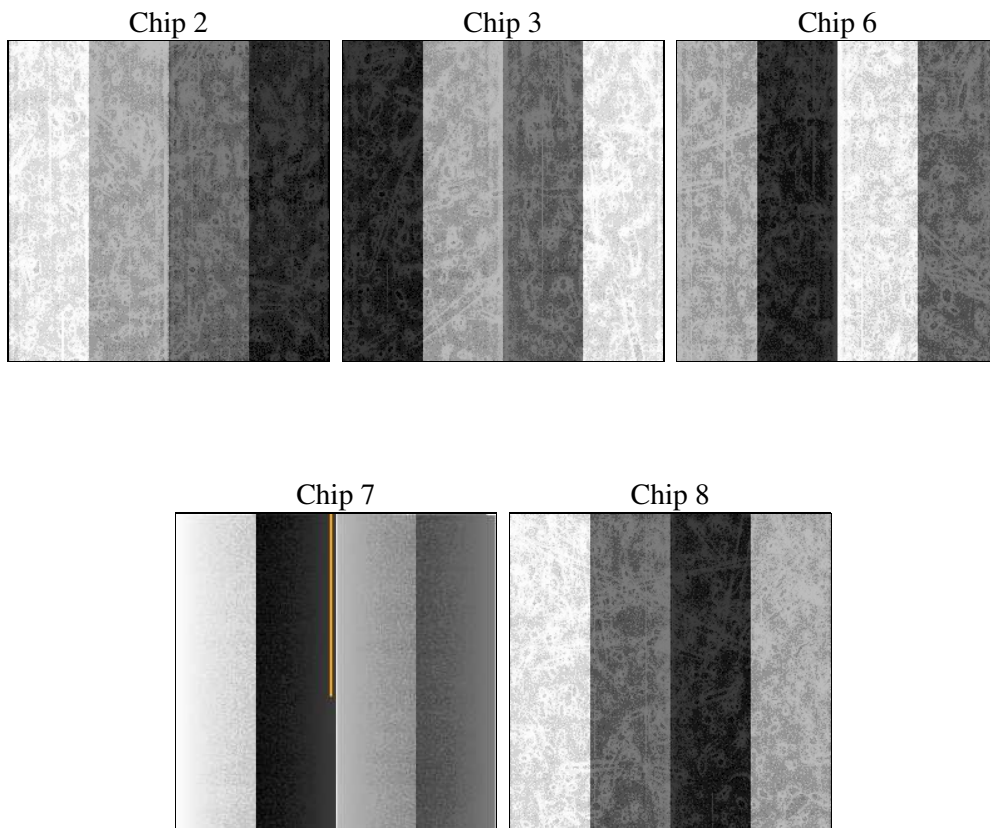
## 2 OBI

### 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	40172.899922729	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime2	40172.899922729	Sum of GTIs [s]
date	2020-09-25T01:33:45	Date and time of file creation	ontime3	40172.899922729	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	40172.899922729	Sum of GTIs [s]
			ontime7	40172.899922729	Sum of GTIs [s]
			ontime8	40166.61796236	Sum of GTIs [s]
			l1events	1564387	Number of level 1 events

### 2.1.4 Events

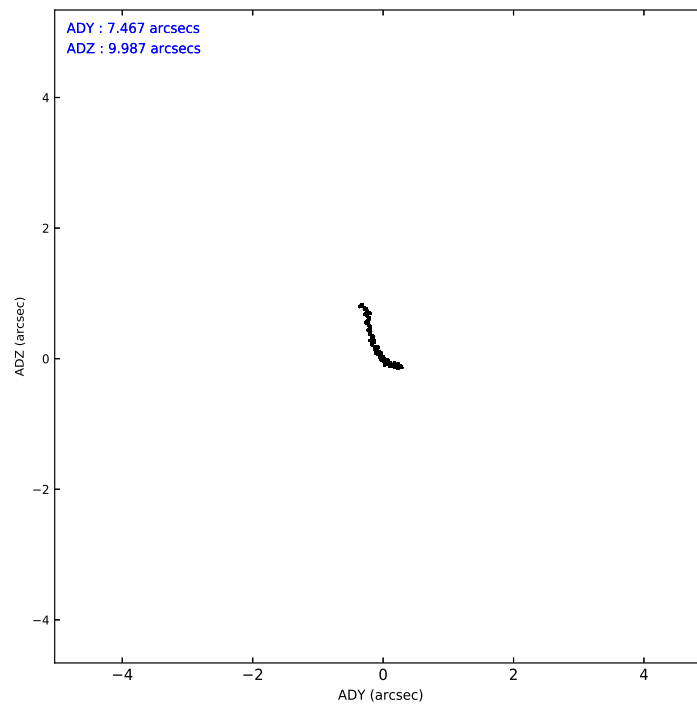
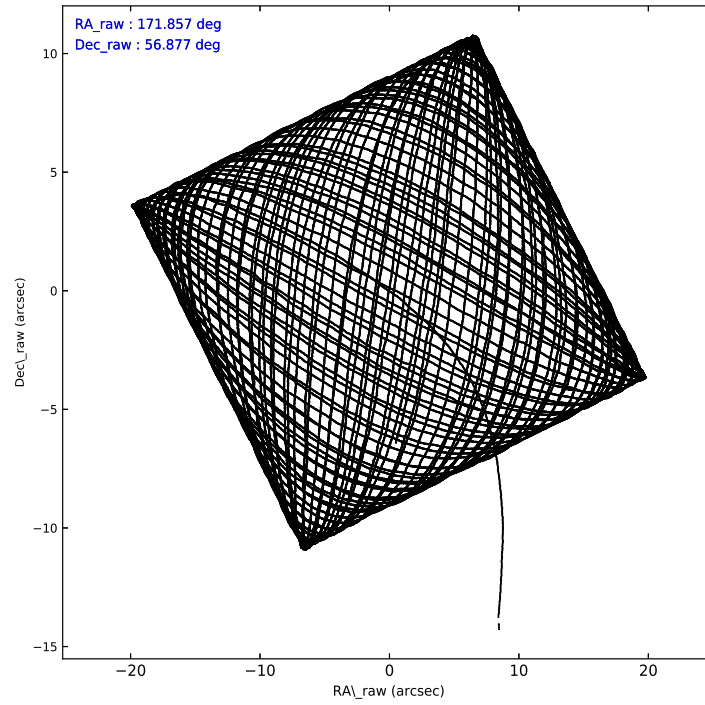
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	267214	275582	284345	380124	357122
rejected events	234991	244153	251345	223544	283369
rejected %	87%	88%	88%	58%	79%

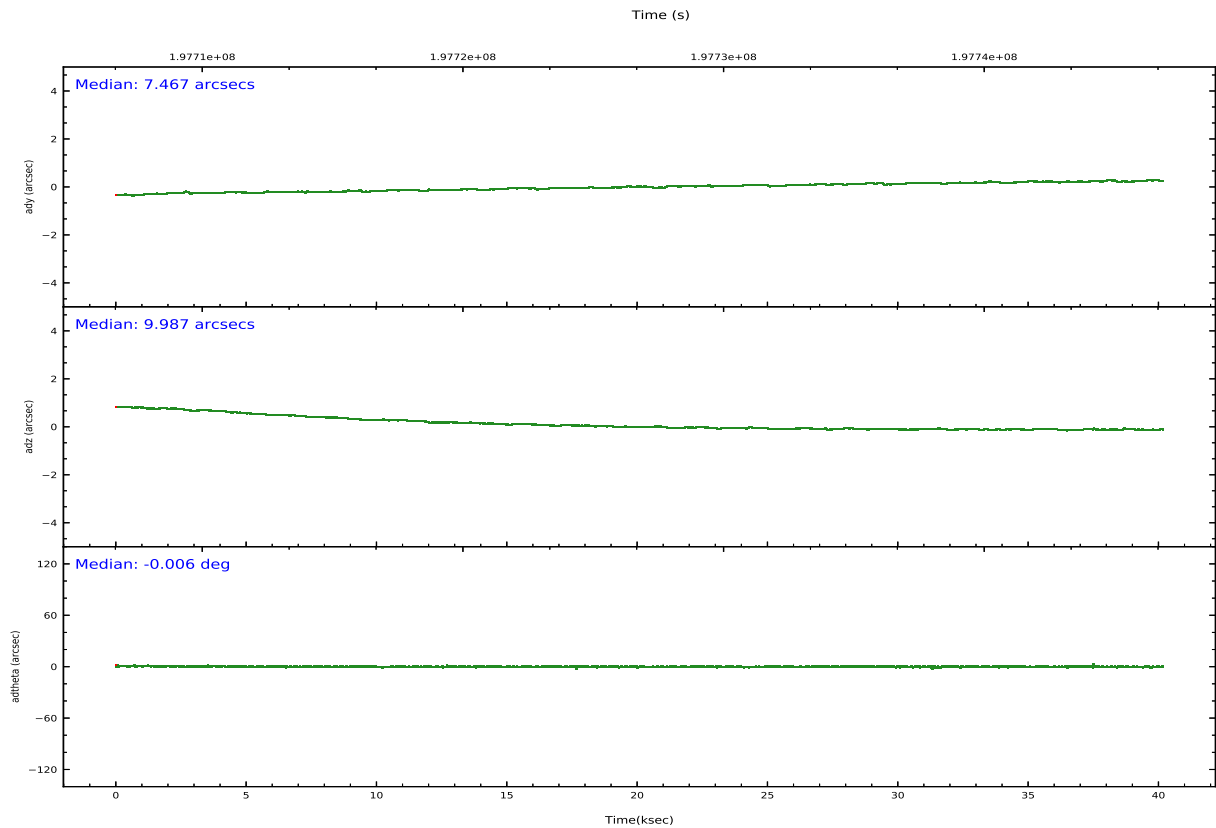
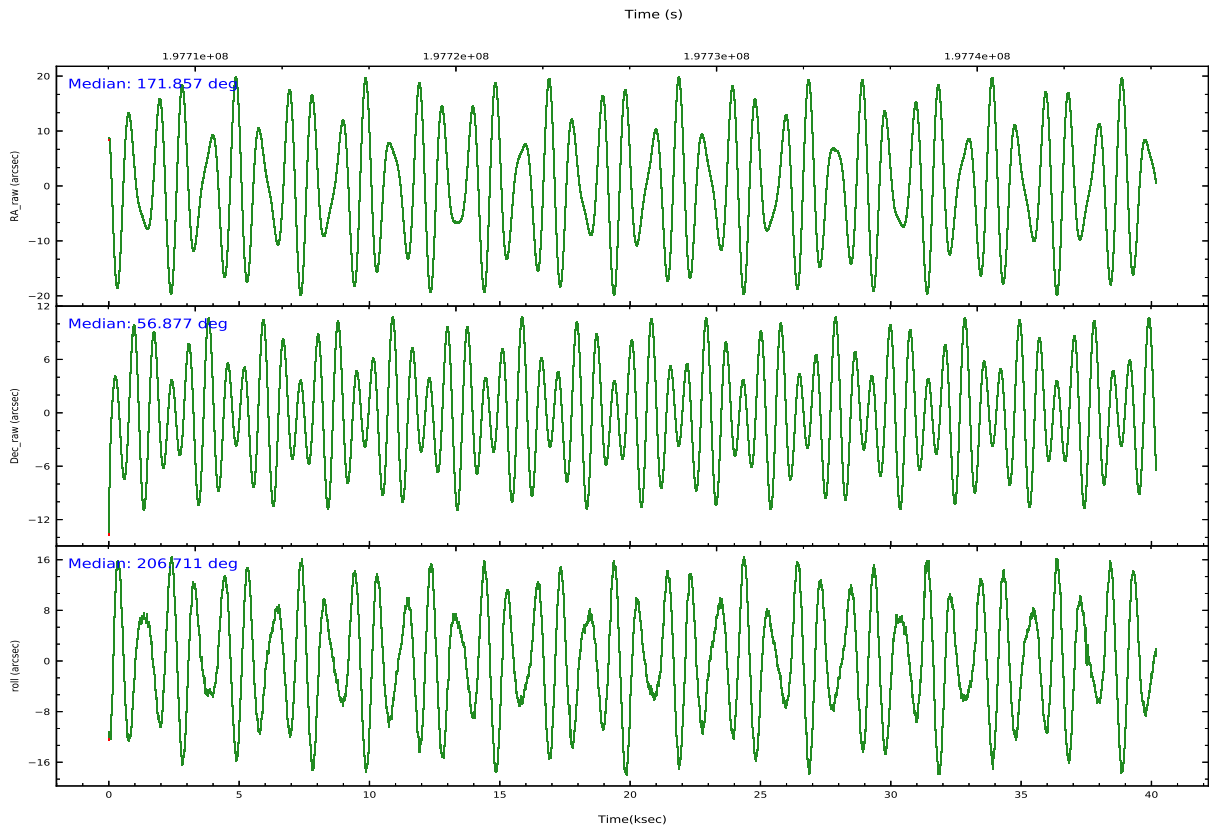
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	14447	13544	13099	15102	23817
	5%	4%	4%	3%	6%
grade 1 events	154	175	138	374	236
	0%	0%	0%	0%	0%
grade 2 events	6592	6268	7030	31762	16372
	2%	2%	2%	8%	4%
grade 3 events	3084	3236	3325	14190	7935
	1%	1%	1%	3%	2%
grade 4 events	3038	3107	3154	14241	7294
	1%	1%	1%	3%	2%
grade 5 events	10654	12367	12945	36423	17279
	3%	4%	4%	9%	4%
grade 6 events	5388	5567	6670	83068	18953
	2%	2%	2%	21%	5%
grade 7 events	223857	231318	237984	184964	265236
	83%	83%	83%	48%	74%

## 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	171.883581	171.85787922989	Subarray requested	NONE	NONE
[deg] Pointing Dec	56.900227	56.880895620019	Alternating exposures requested	N	N
[deg] Pointing Roll	206.534459	206.71130528439	[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)	197706863.184000	197705633.96565			
Observation start date	2004-04-07T06:33:19	2004-04-07T06:13:53			
[s] Observation end time (MET)	197746863.184000	197747391.44248			
Observation end date	2004-04-07T17:39:59	2004-04-07T17:49:51			
Read mode	TIMED	TIMED			

## 2.3 Aspect





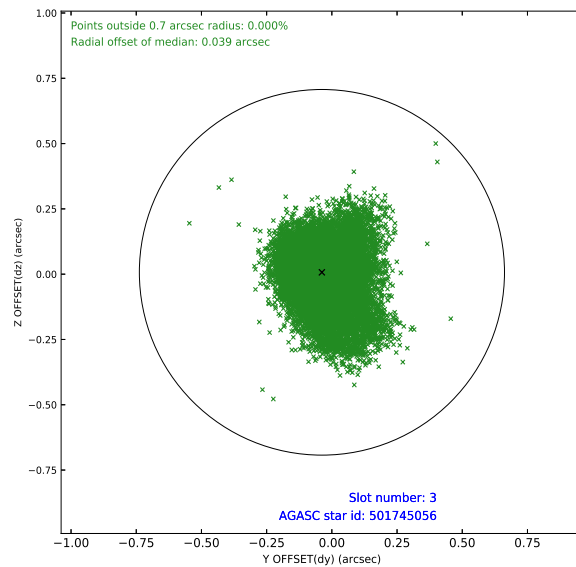
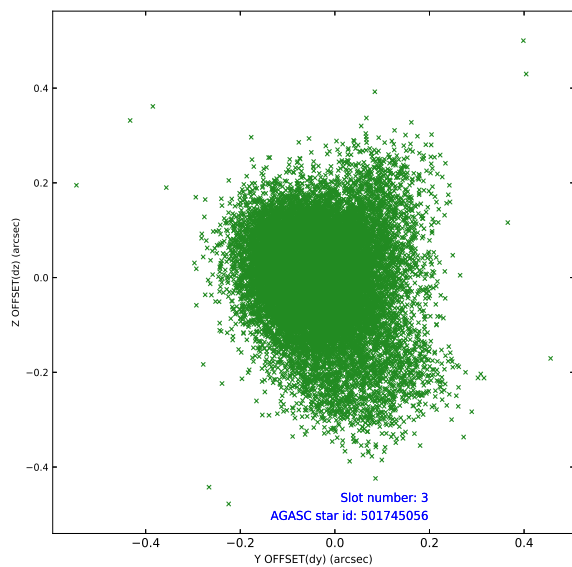
### Slot Statistics

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	9801	1.000	-0.072	-0.057	0.009	0.015	0.000000	0.000000	-760.23	-1731
1	FID		ACIS-S-4	7.20	9800	1.000	0.141	0.050	0.009	0.016	0.000000	0.000000	2153.19	177
2	FID		ACIS-S-5	7.23	9800	1.000	-0.100	0.016	0.014	0.023	0.000000	0.000000	-1813.14	170
3	GUIDE	used	501745056	9.45	19581	1.000	-0.038	0.007	0.131	0.250	173.013273	57.050098	-2228.01	489
4	GUIDE	used	501745560	6.85	19594	1.000	0.147	-0.100	0.082	0.134	170.455367	57.074858	2206.99	-1836
5	GUIDE	used	501746360	8.30	19570	1.000	0.015	0.093	0.063	0.102	171.888954	56.575508	513.29	1050
6	GUIDE	used	501747008	7.39	19598	1.000	-0.106	0.085	0.074	0.116	172.678253	56.746380	-1160.17	1188
7	GUIDE	used	501748320	9.53	19588	1.000	-0.029	-0.078	0.100	0.163	170.966165	57.350324	865.07	-2255

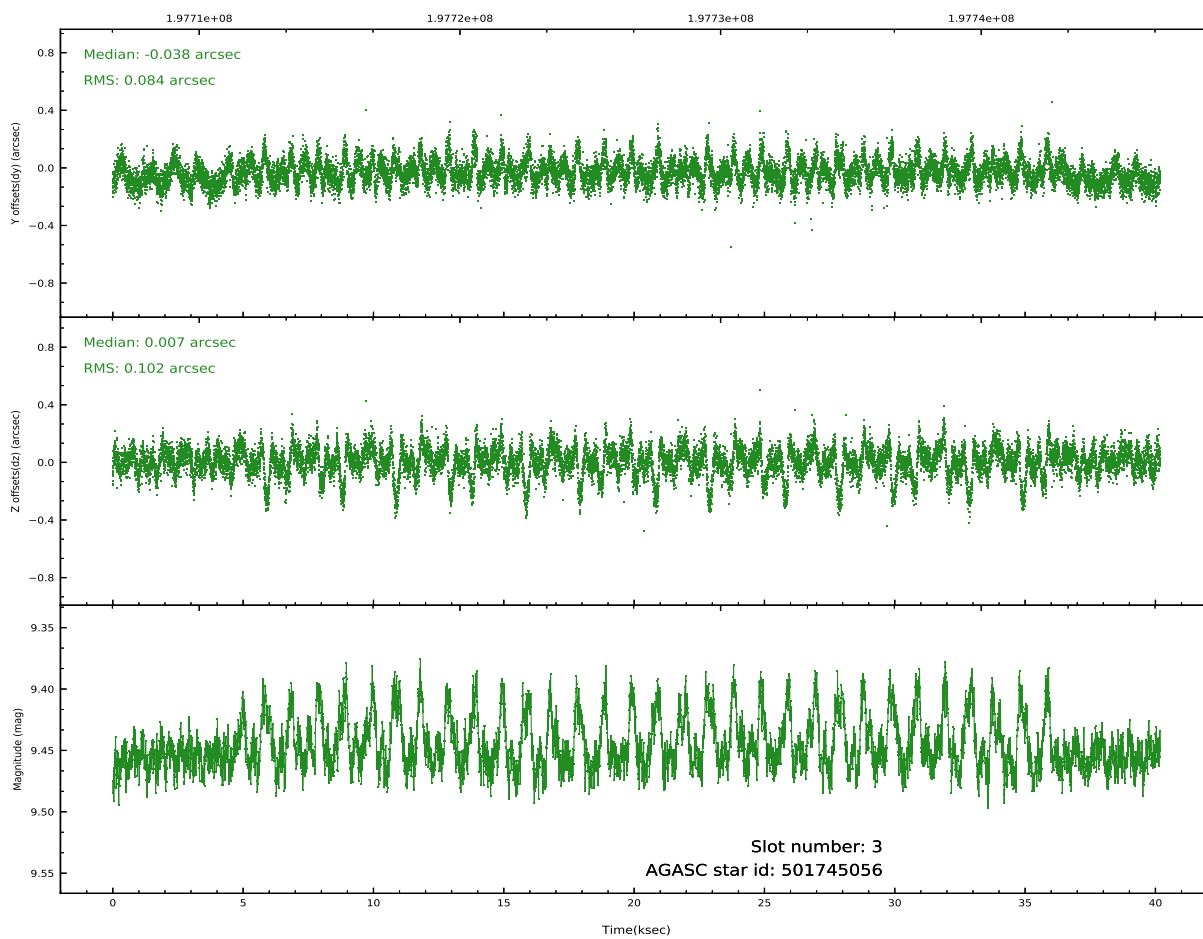
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## 2.4 Star Slots

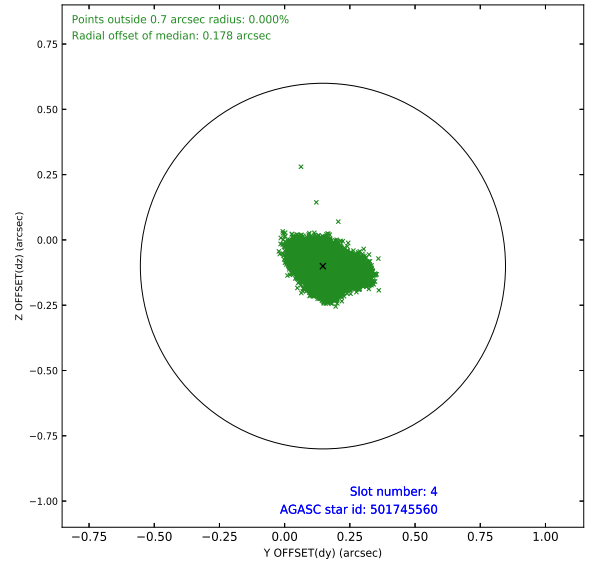
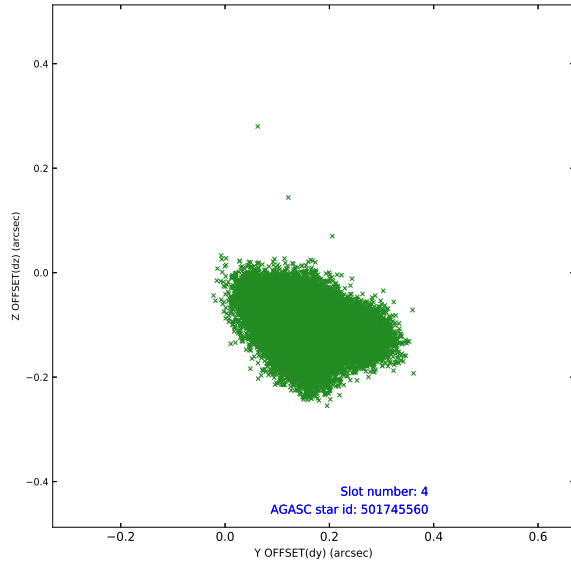
### 2.4.1 Slot 3



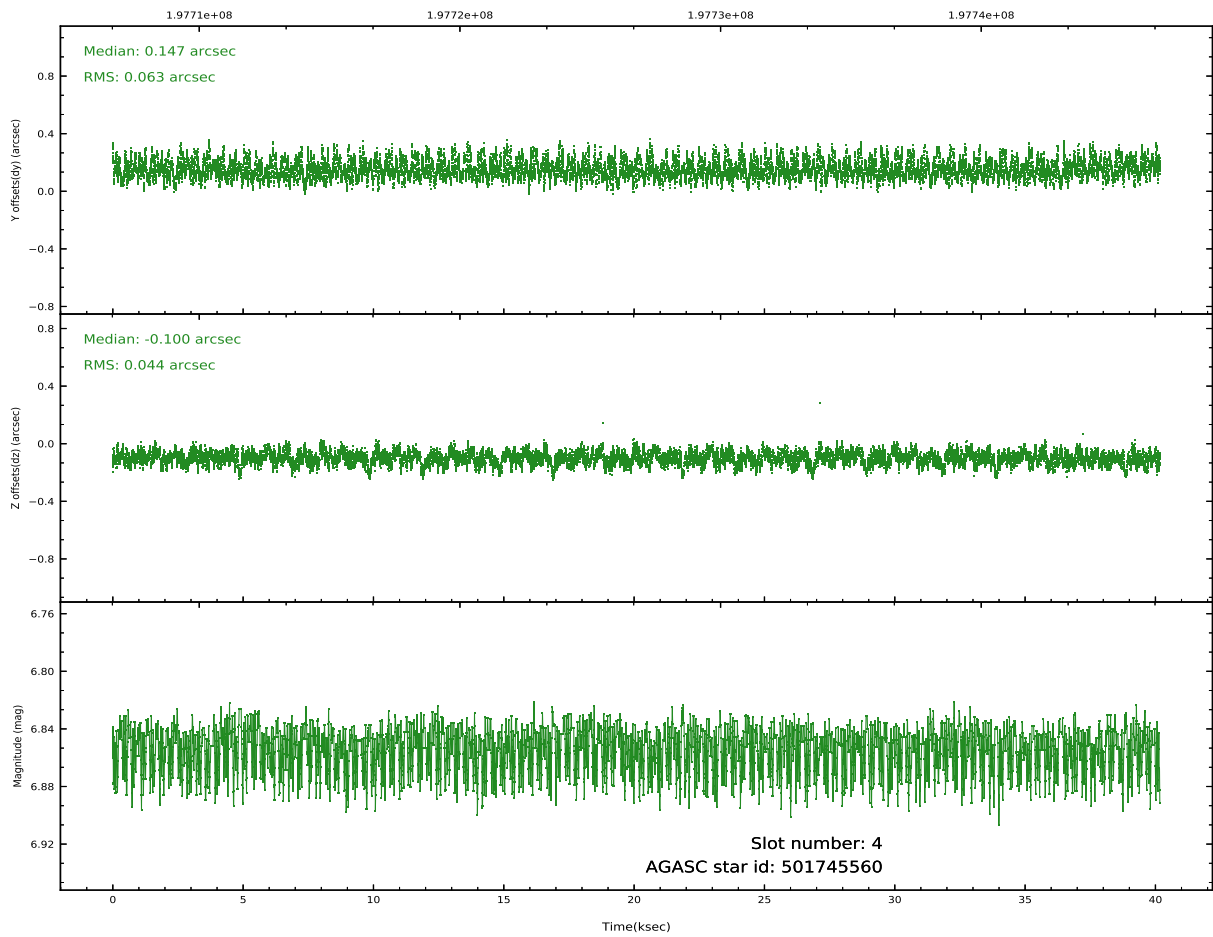
Time (s)



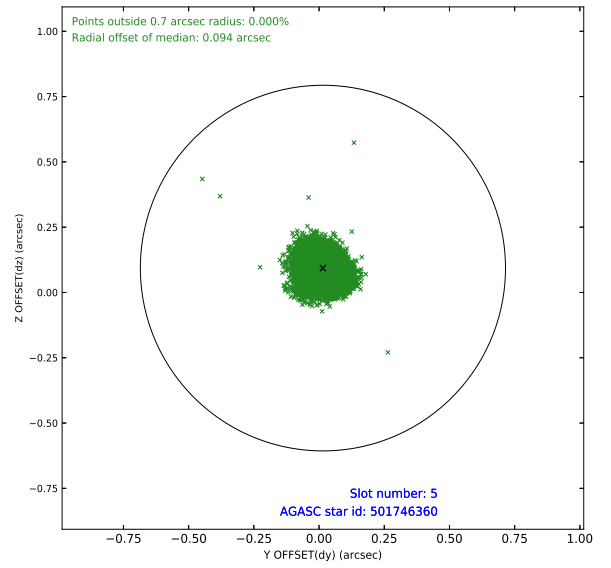
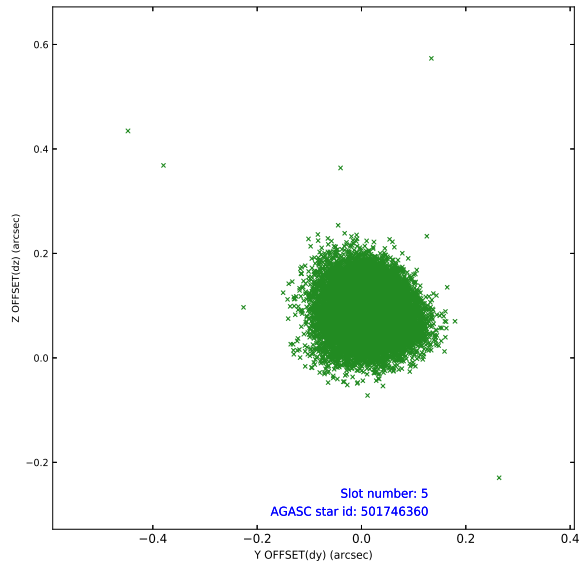
## 2.4.2 Slot 4



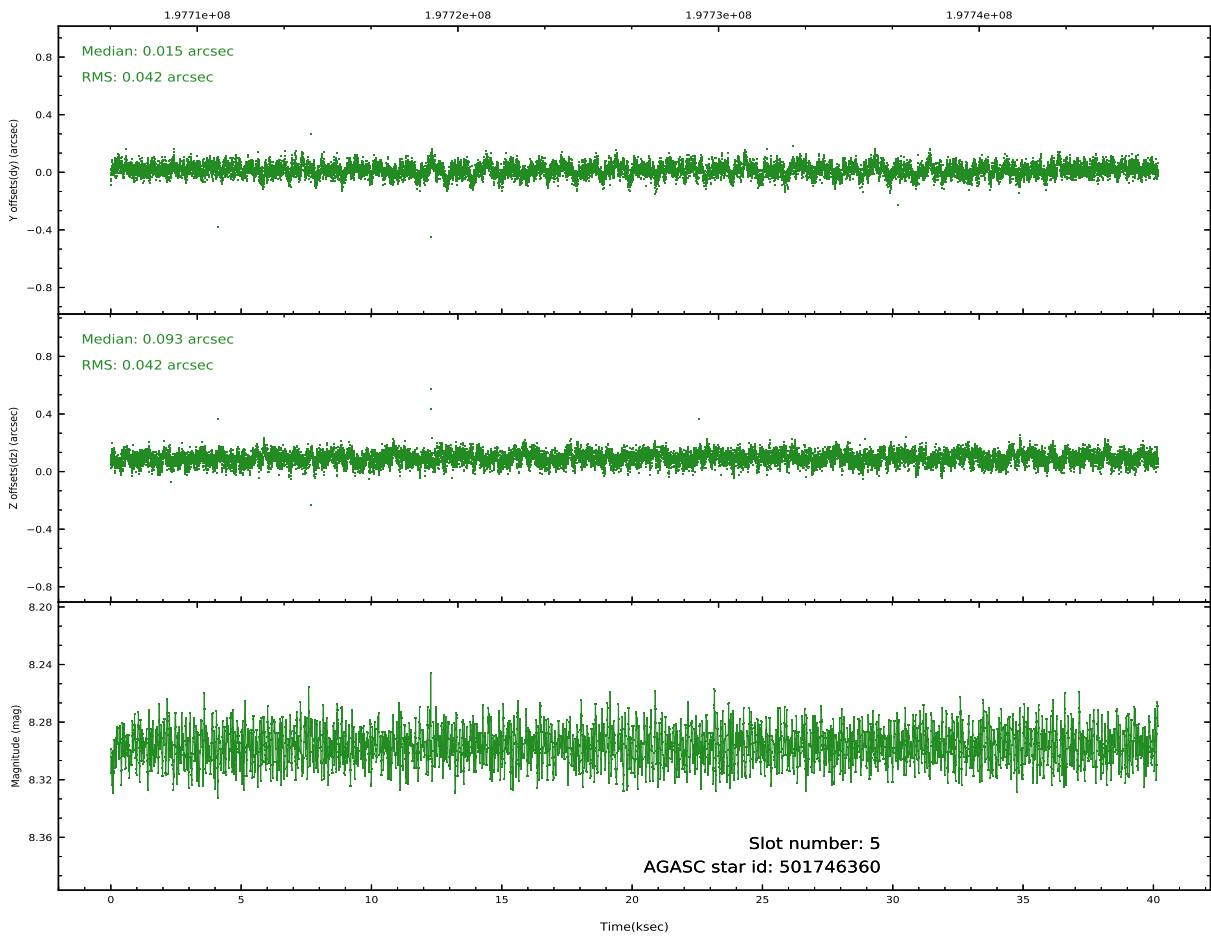
Time (s)



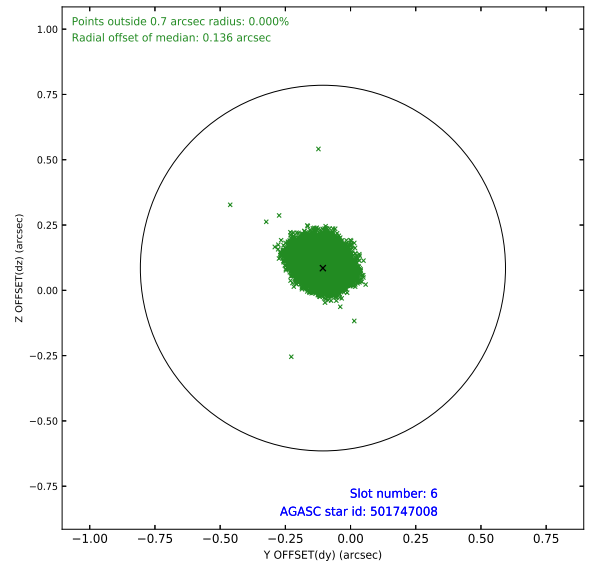
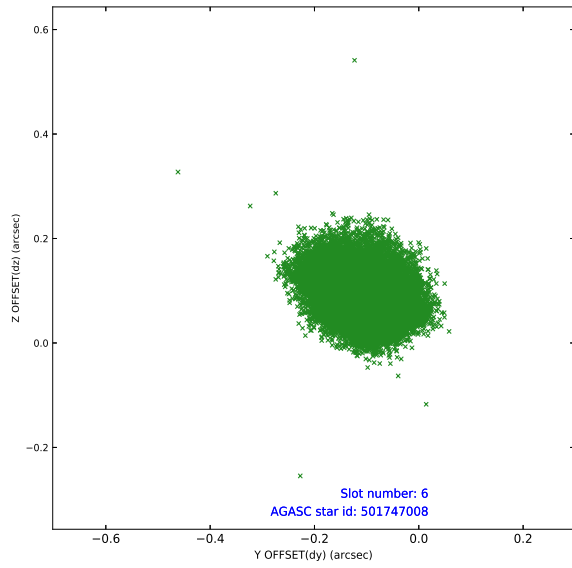
### 2.4.3 Slot 5



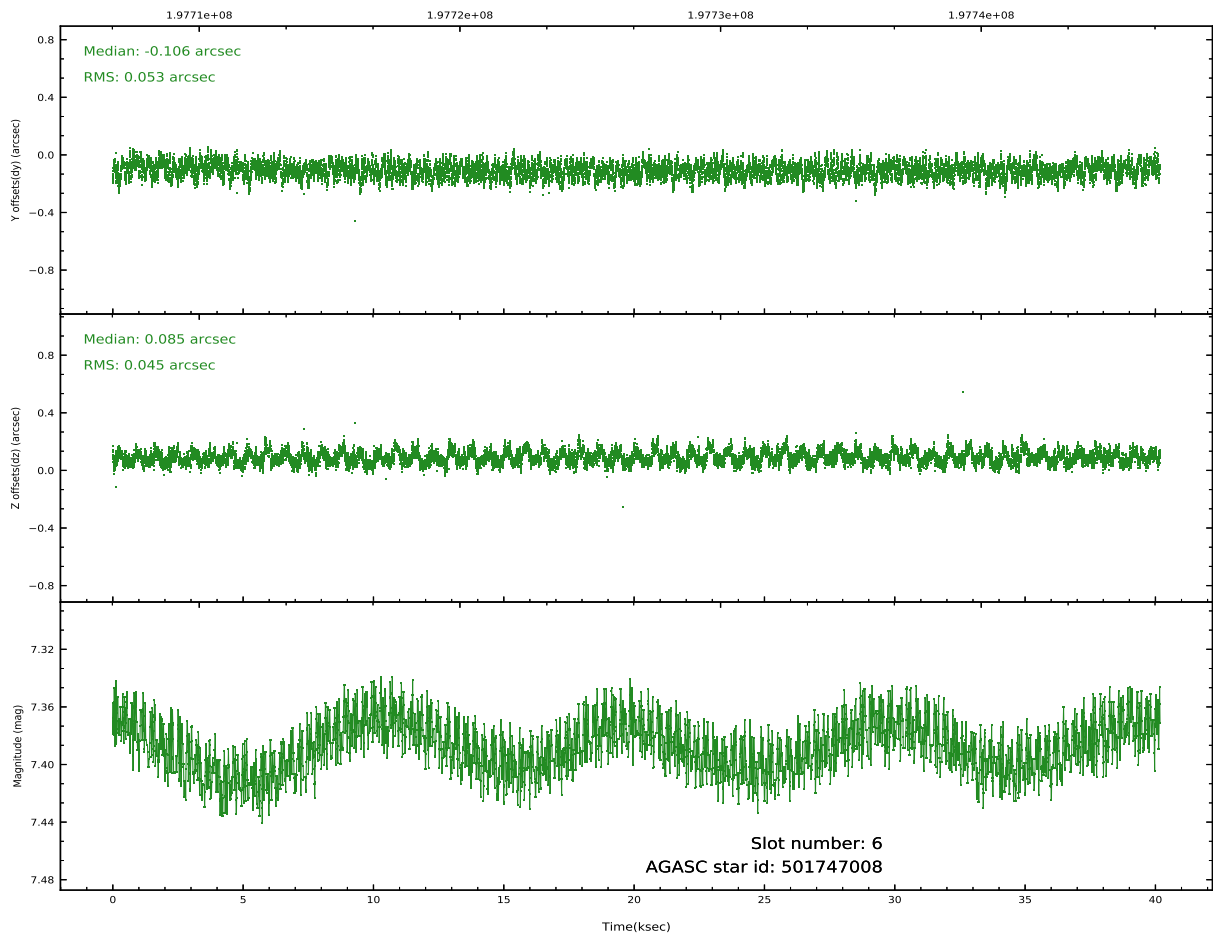
Time (s)



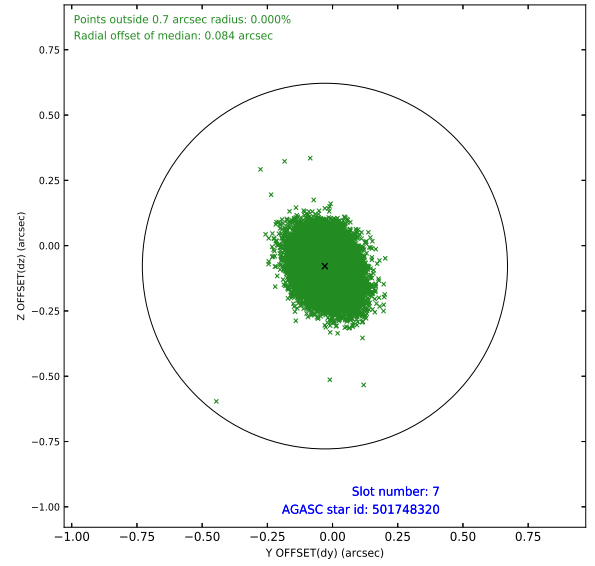
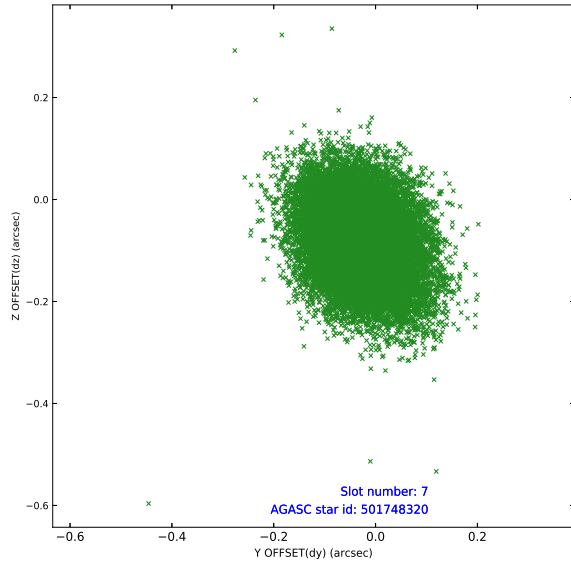
## 2.4.4 Slot 6



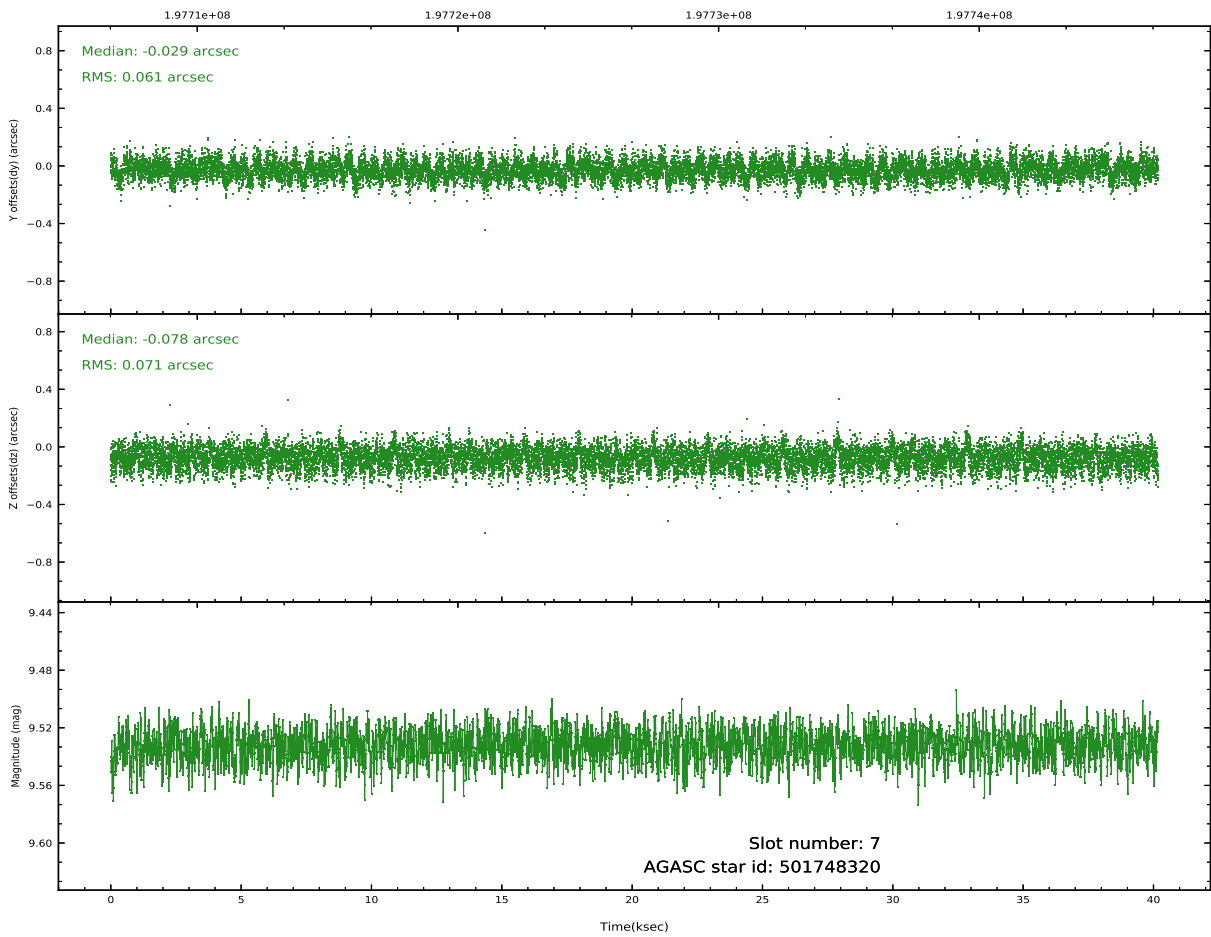
Time (s)



## 2.4.5 Slot 7

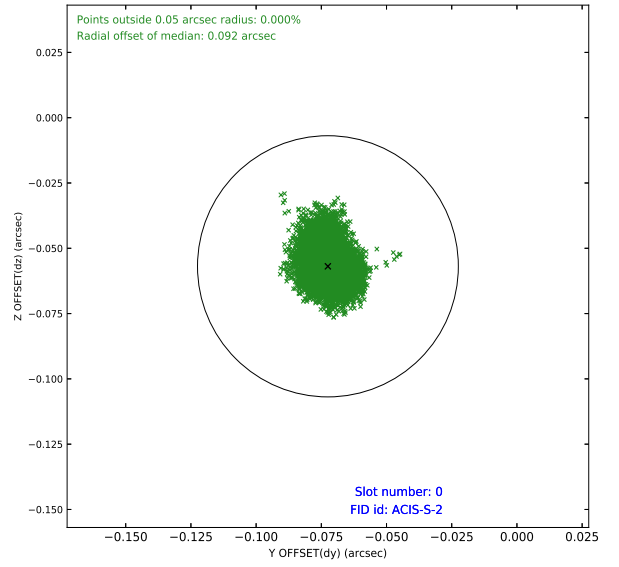
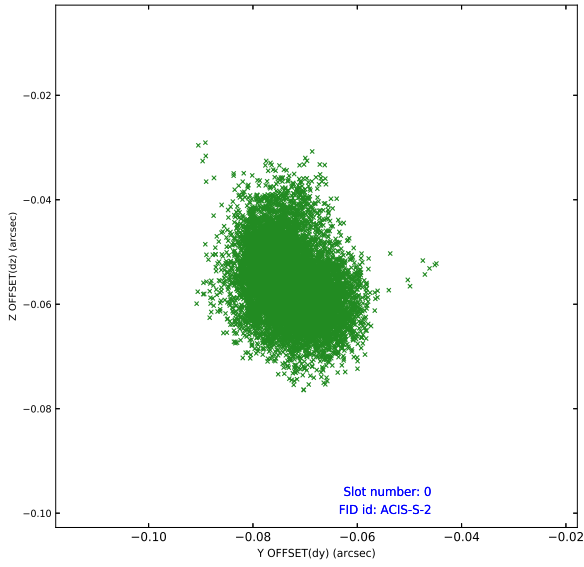


Time (s)

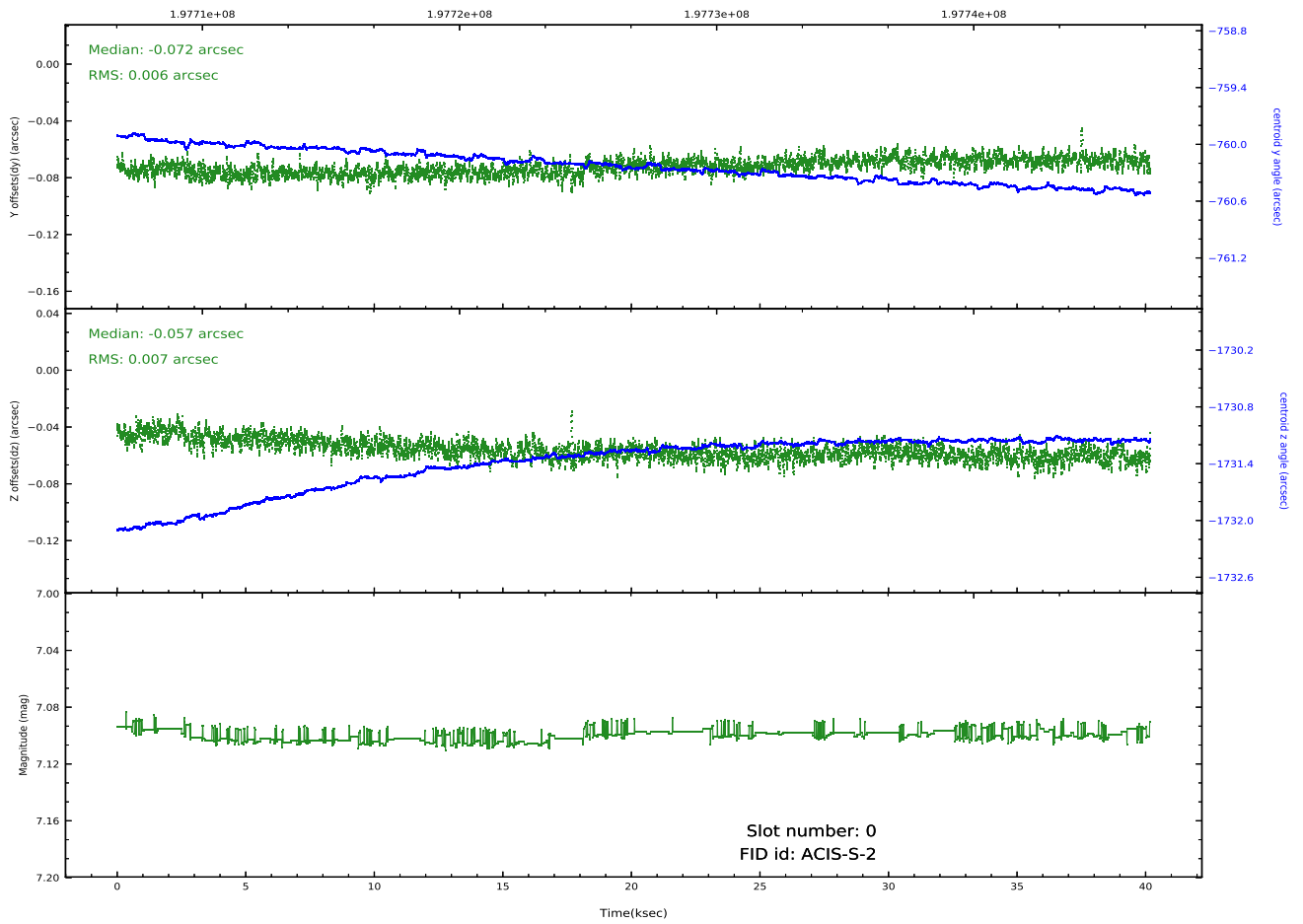


## 2.5 FID Slots

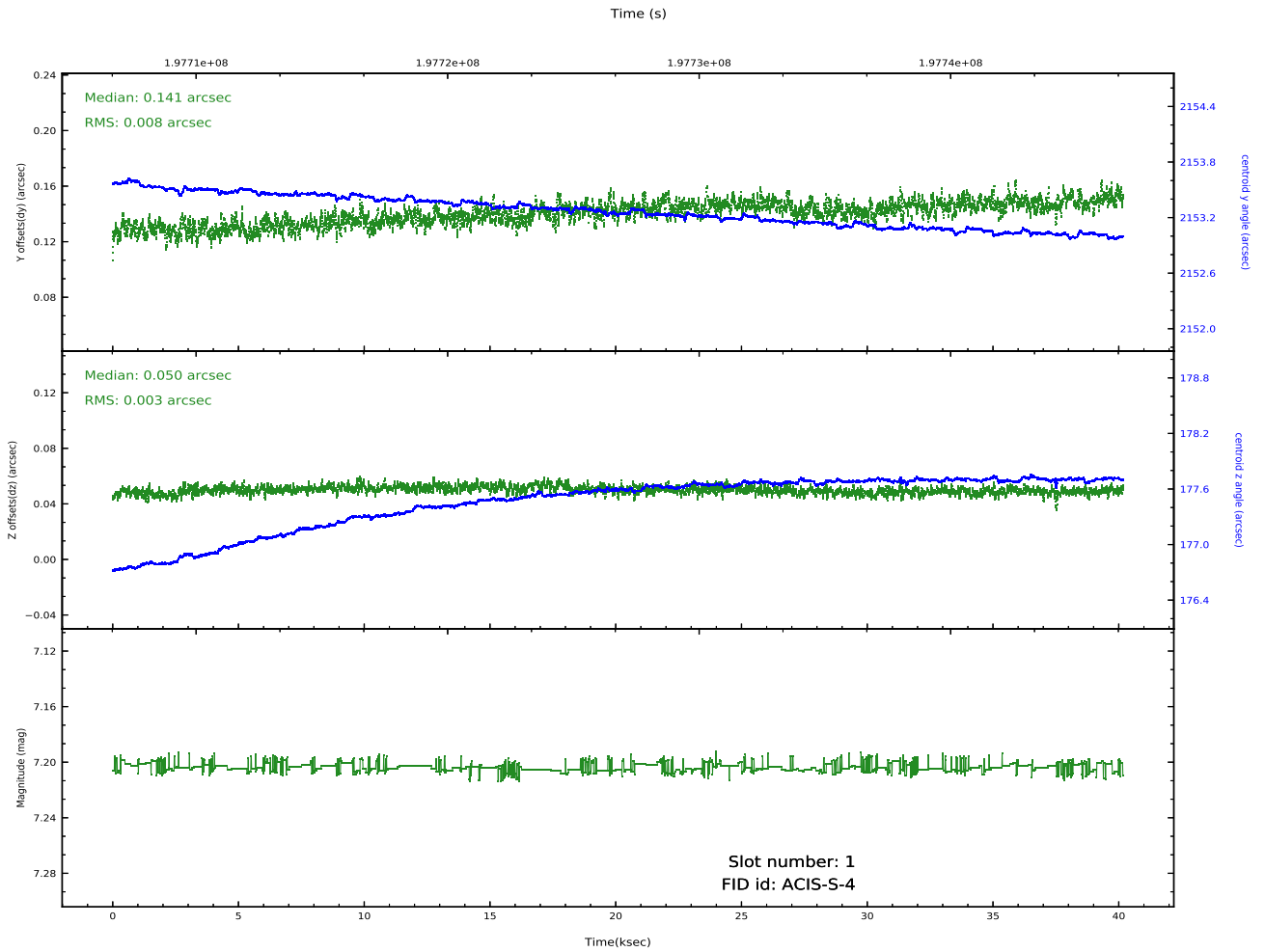
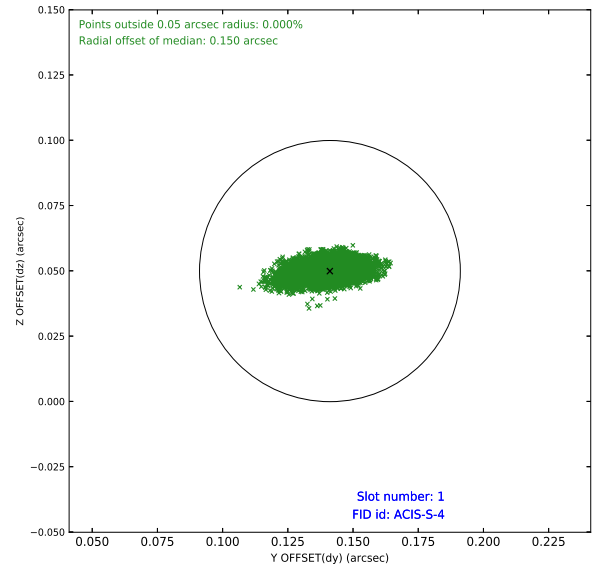
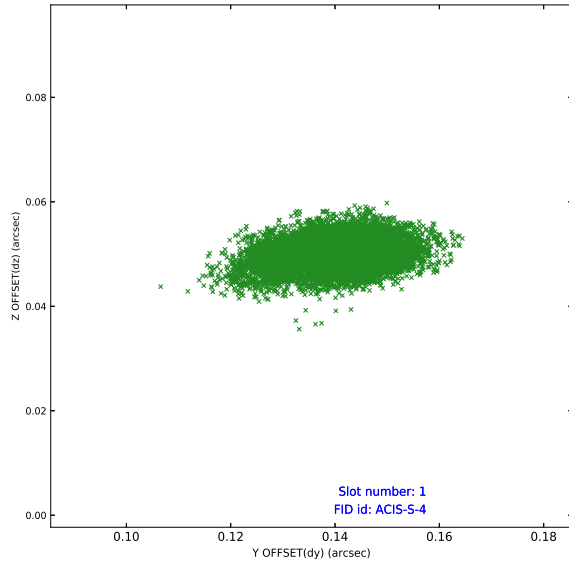
### 2.5.1 Slot 0



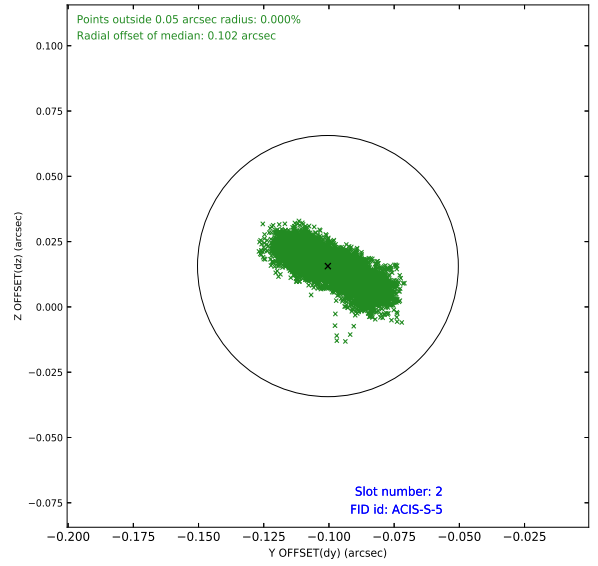
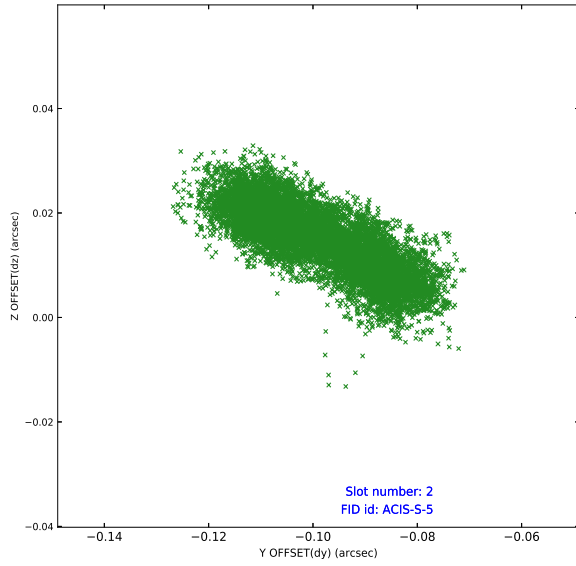
Time (s)



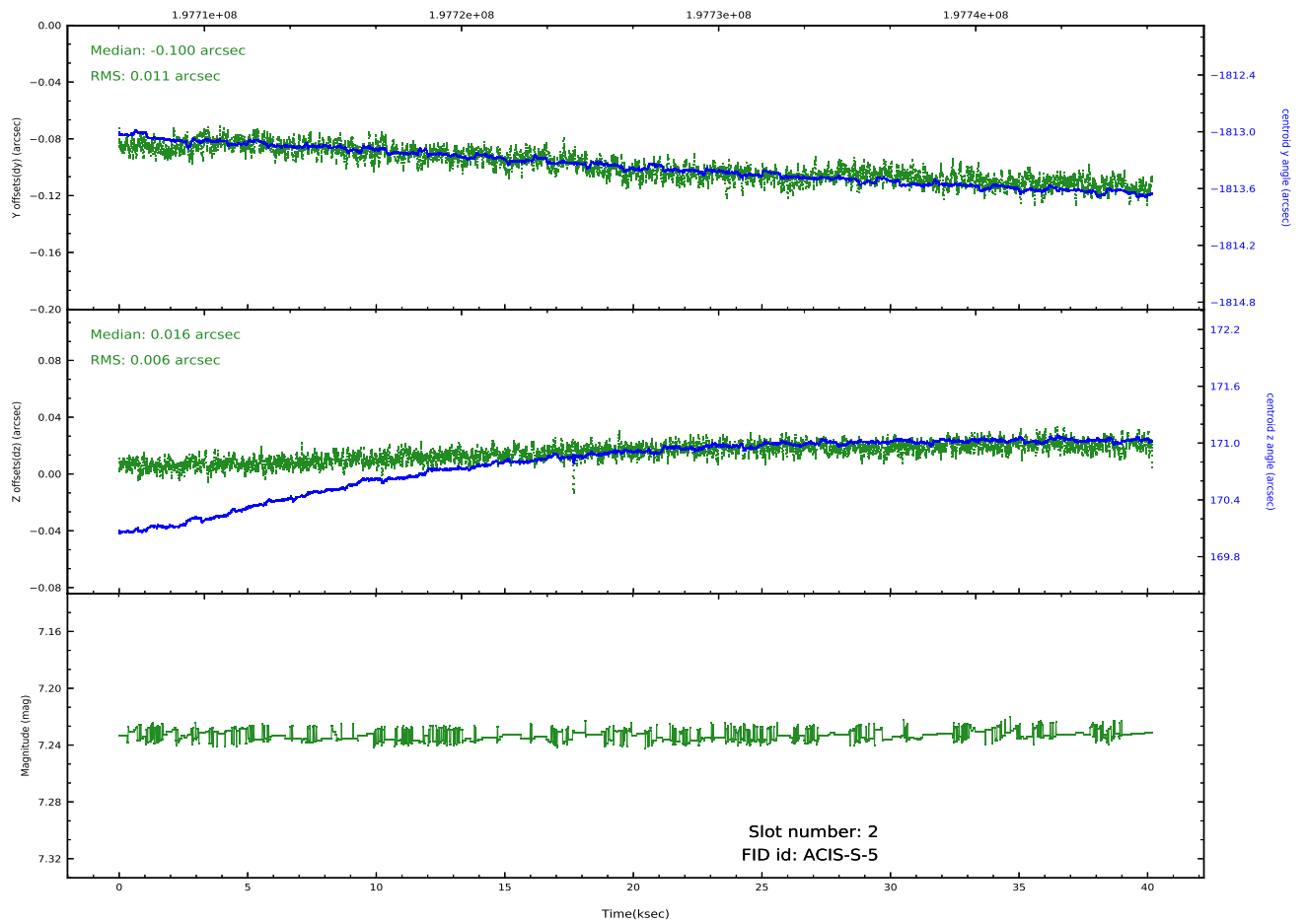
## 2.5.2 Slot 1



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.09.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.172

## A.2 Comments