

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 20767 - L2 Version 2  
Chandra X-Ray Center

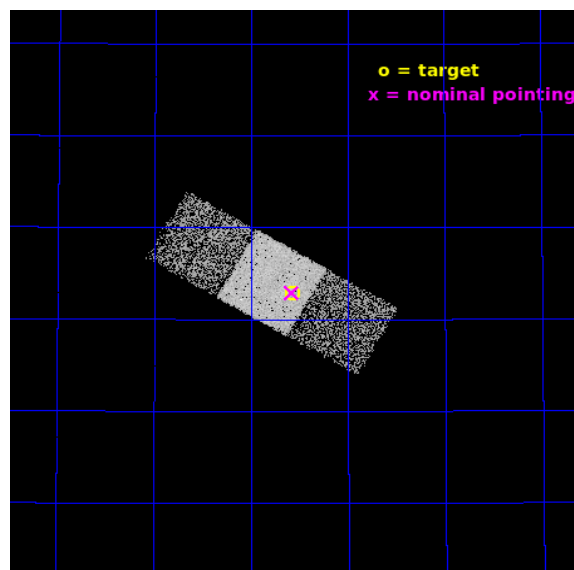
L2 Processing Date : Oct 25 2020

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# 1 Front

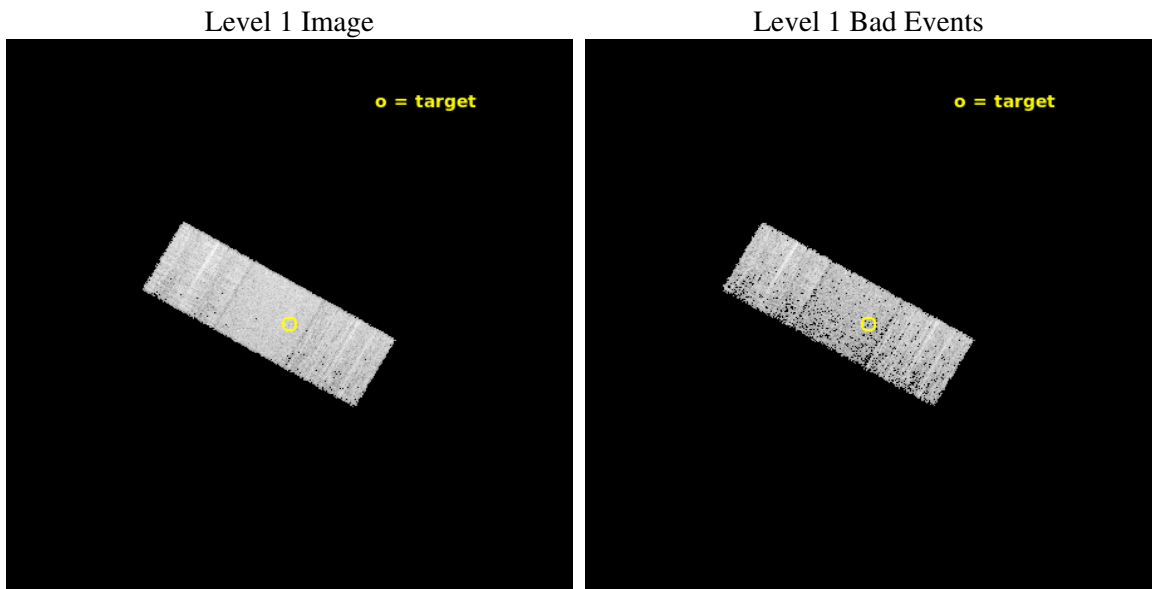
seq_num	703632	Sequence number
obs_id	20767	Observation id
title	A Chandra Snapshot Survey of Extremely Red Quasars from SDSS BOSS and WISE	Proposal title
observer	Gordon Garmire	Principal investigator
object	J1138+4732	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	174.644583	Observer's specified target RA [deg]
dec_targ	47.547222	Observer's specified target Dec [deg]
ra_nom	174.64474672635	Nominal RA [deg]
dec_nom	47.548578405783	Nominal Dec [deg]
roll_nom	210.017714982	Nominal Roll [deg]
revision	2	Processing version of data
ontime	4109.5848084688	Sum of GTIs [s]
livetime	4055.8900575139	Livetime [s]
ontime6	4109.5437685251	Sum of GTIs [s]
ontime7	4109.5848084688	Sum of GTIs [s]
ontime8	4109.5027284622	Sum of GTIs [s]
l2events	22720	Number of level 2 events



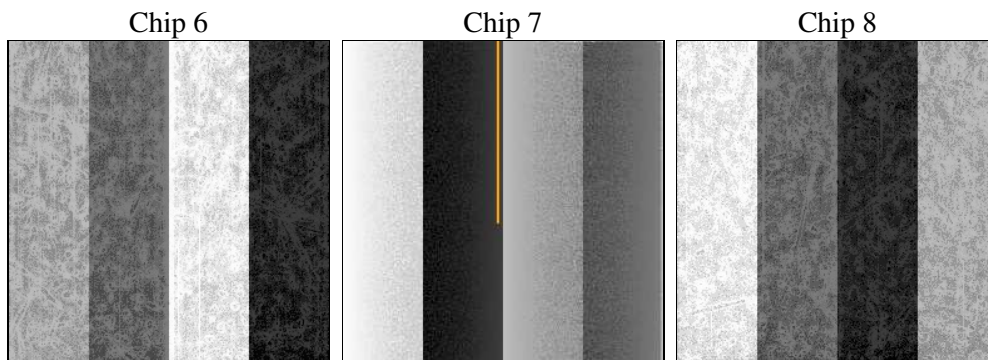
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	4109.5848084688	Sum of GTIs [s]
caldbver	4.9.3	&#160	ontime6	4109.5437685251	Sum of GTIs [s]
date	2020-10-25T12:07:36	Date and time of file creation	ontime7	4109.5848084688	Sum of GTIs [s]
revision	2	Processing version of data	ontime8	4109.5027284622	Sum of GTIs [s]
			l1events	113704	Number of level 1 events

### 2.1.4 Events

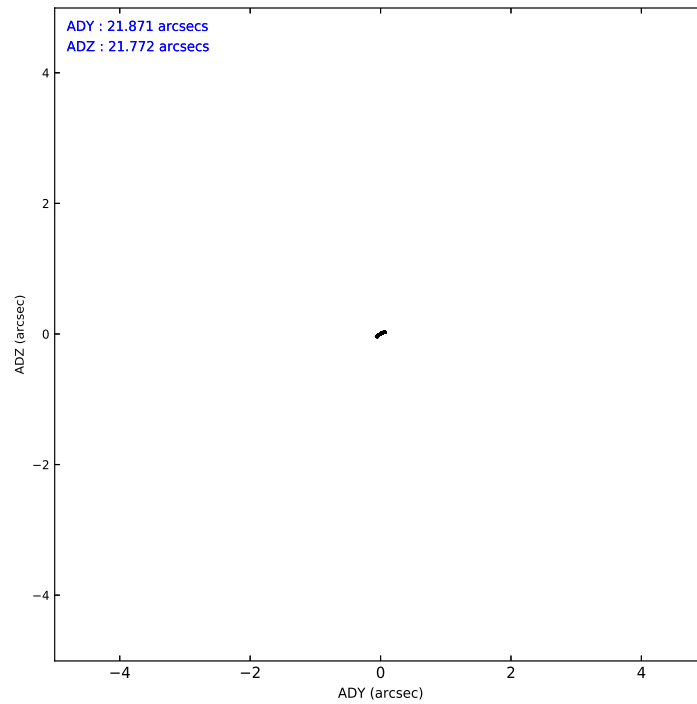
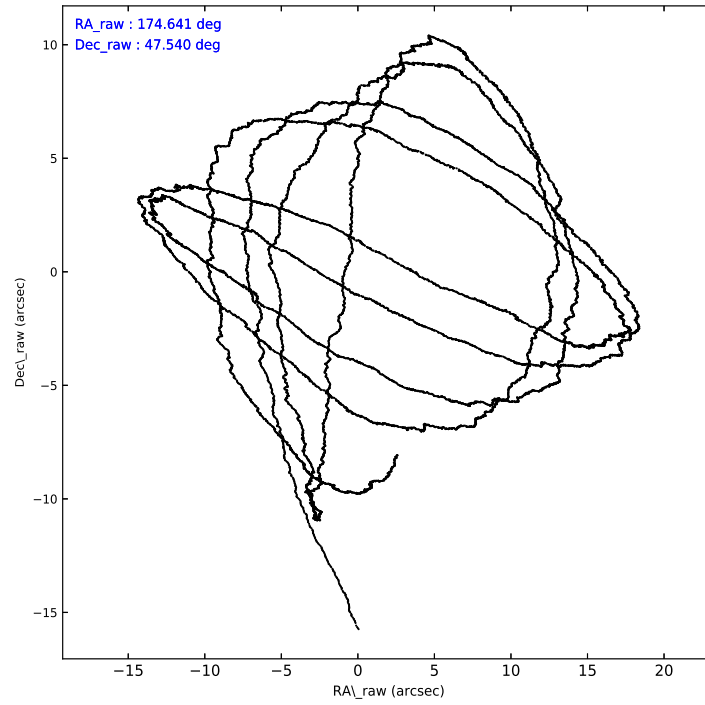
	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
level 1 events	31890	39376	42438
rejected events	28506	22551	31779
rejected %	<b>89%</b>	<b>57%</b>	<b>74%</b>

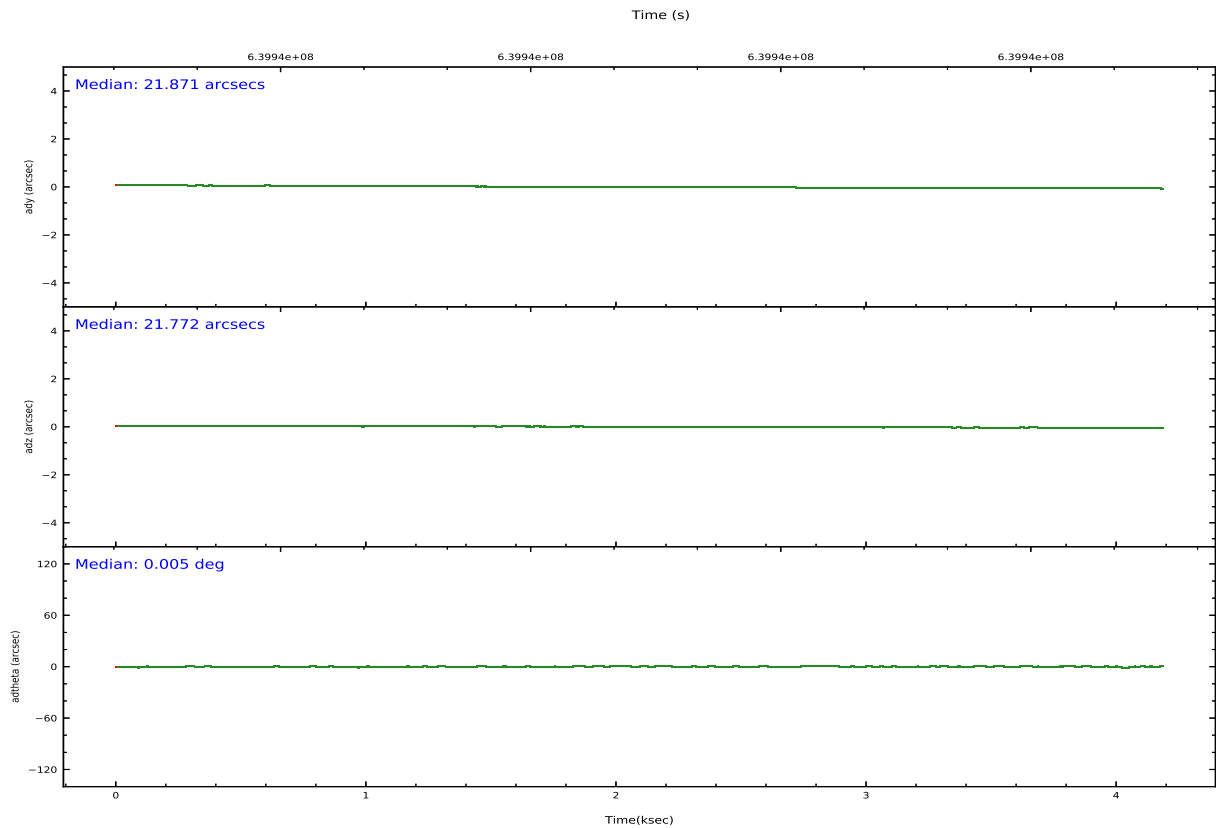
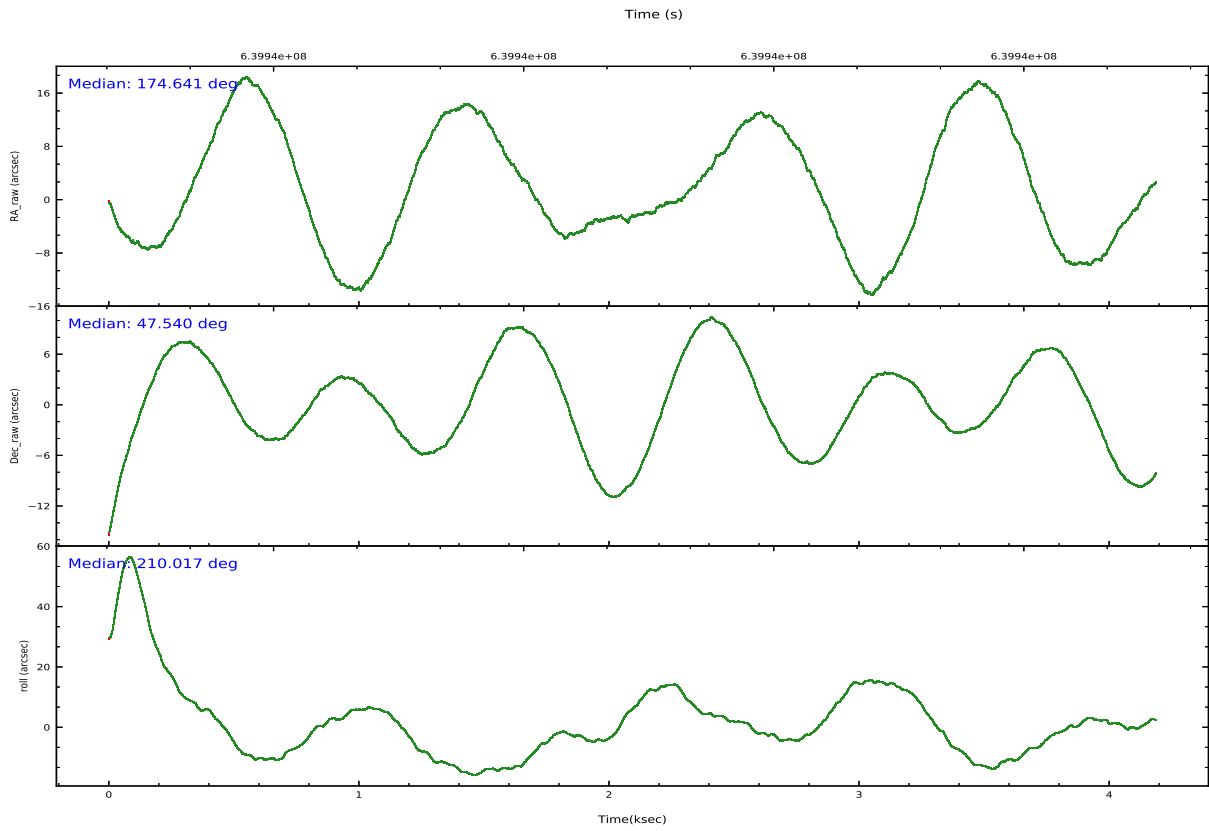
	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
grade 0 events	1042	1390	2743
	3%	3%	6%
grade 1 events	17	62	26
	0%	0%	0%
grade 2 events	875	3459	2726
	2%	8%	6%
grade 3 events	327	1312	1040
	1%	3%	2%
grade 4 events	288	1325	1034
	0%	3%	2%
grade 5 events	1347	3785	2088
	4%	9%	4%
grade 6 events	857	9358	3126
	2%	23%	7%
grade 7 events	27137	18685	29655
	85%	47%	69%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-678	ACIS-678	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	174.661241	174.64474672635	Subarray requested	NONE	NONE
[deg] Pointing Dec	47.563949	47.548578405783	Alternating exposures requested	N	N
[deg] Pointing Roll	209.858634	210.017714982	[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)	639936530.184000	639935684.54459			
Observation start date	2018-04-12T16:07:41	2018-04-12T15:54:44			
[s] Observation end time (MET)	639940530.184000	639941130.88241			
Observation end date	2018-04-12T17:14:21	2018-04-12T17:25:30			
Read mode	TIMED	TIMED			

## 2.3 Aspect





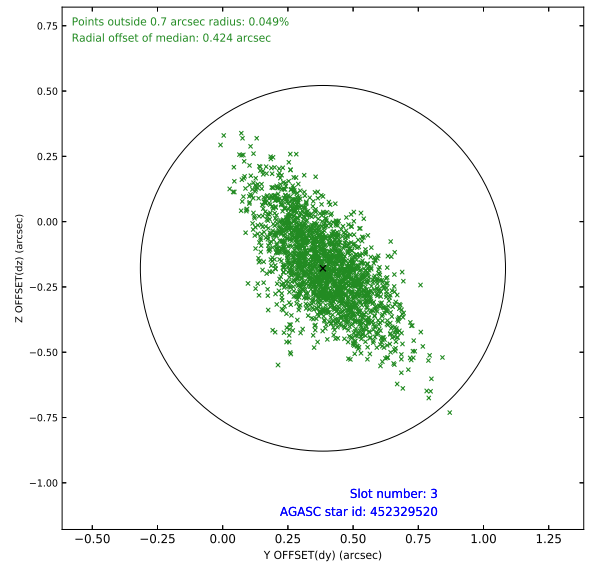
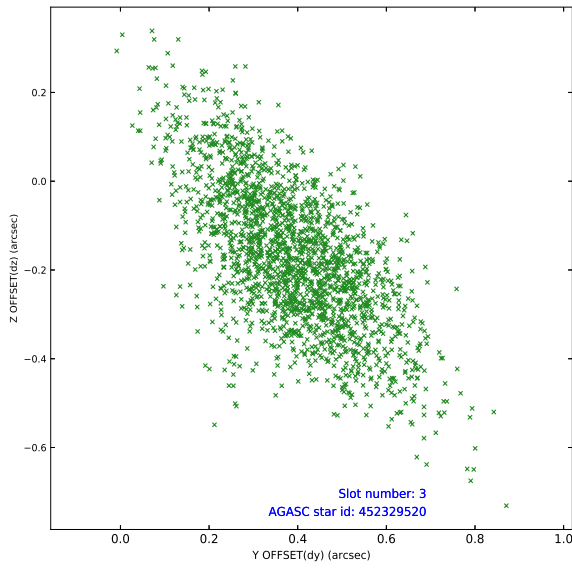
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.11	1021	1.000	0.178	-0.115	0.006	0.011	0.000000	0.000000	-775.13	-1743
1	FID		ACIS-S-4	7.23	1022	1.000	0.053	-0.055	0.005	0.009	0.000000	0.000000	2137.63	163
2	FID		ACIS-S-5	7.22	1022	1.000	-0.263	0.178	0.006	0.010	0.000000	0.000000	-1826.22	159
3	GUIDE	used	452329520	9.13	2042	1.000	0.384	-0.179	0.215	0.389	173.471392	47.819852	2026.10	-2249
4	GUIDE	used	452474496	9.74	2033	1.000	-0.126	0.118	0.193	0.320	175.552399	47.604662	-1954.22	938
5	GUIDE	used	452475360	9.16	2036	1.000	-0.280	-0.047	0.167	0.280	174.583197	46.956026	1254.65	1803
6	GUIDE	used	452477344	9.21	2028	1.000	-0.026	0.260	0.274	0.437	175.098515	48.236709	-2115.67	-1579
7	GUIDE	used	452334752	9.74	2029	1.000	0.040	-0.157	0.325	0.525	173.902233	47.113708	2414.15	471

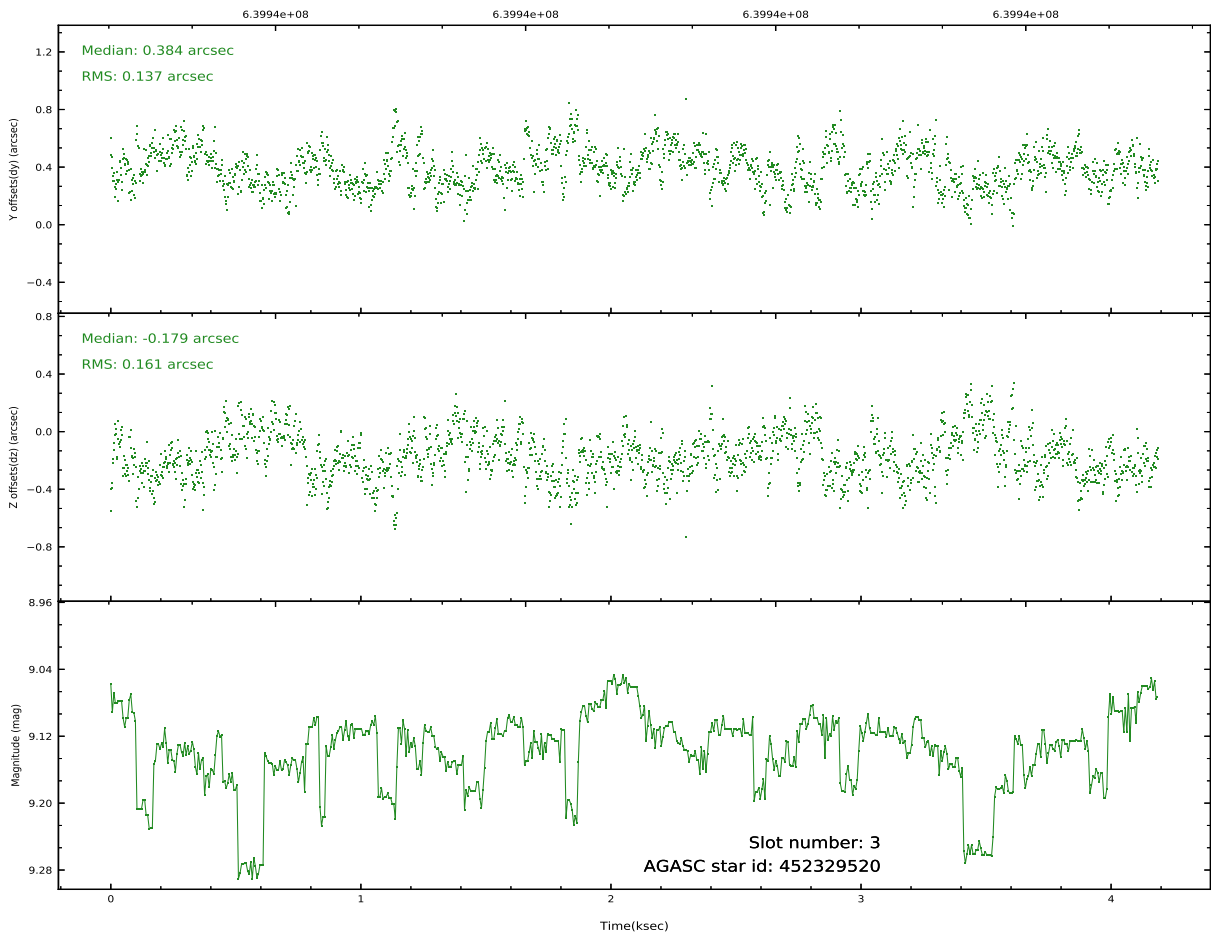
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## 2.4 Star Slots

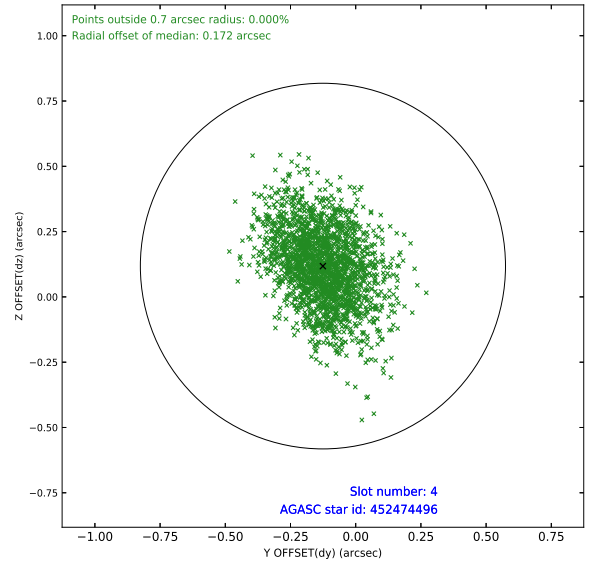
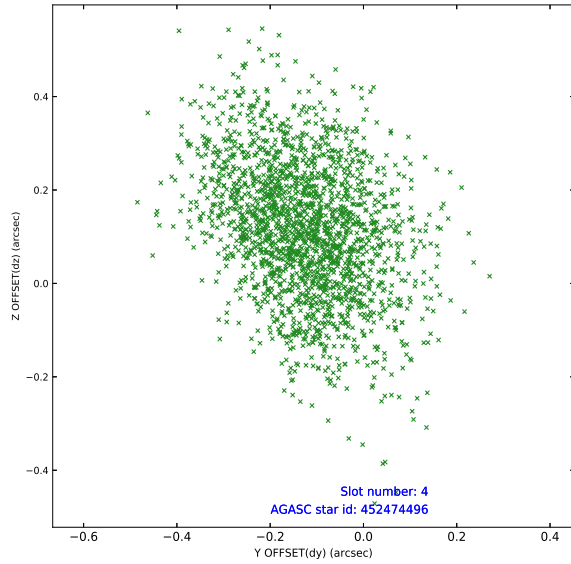
### 2.4.1 Slot 3



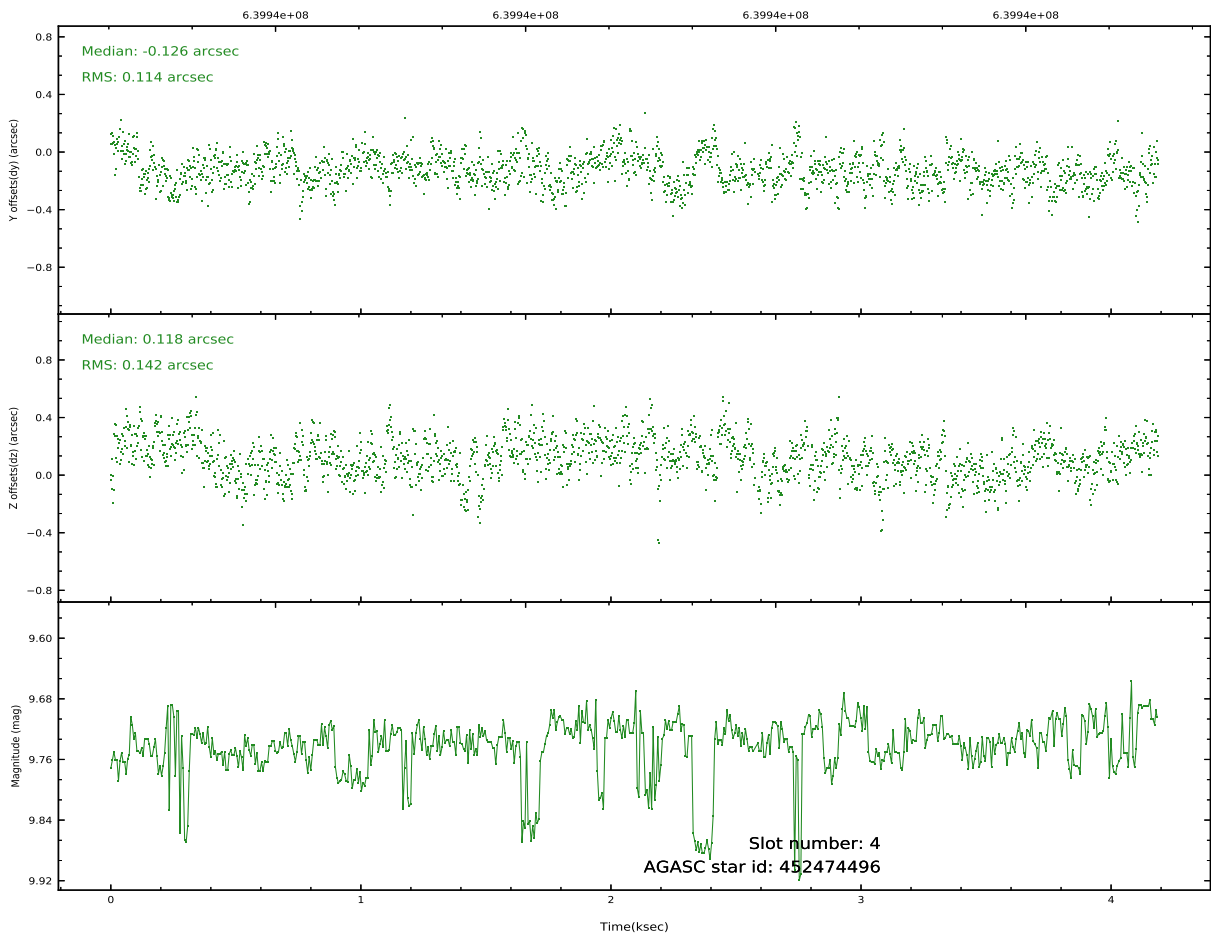
Time (s)



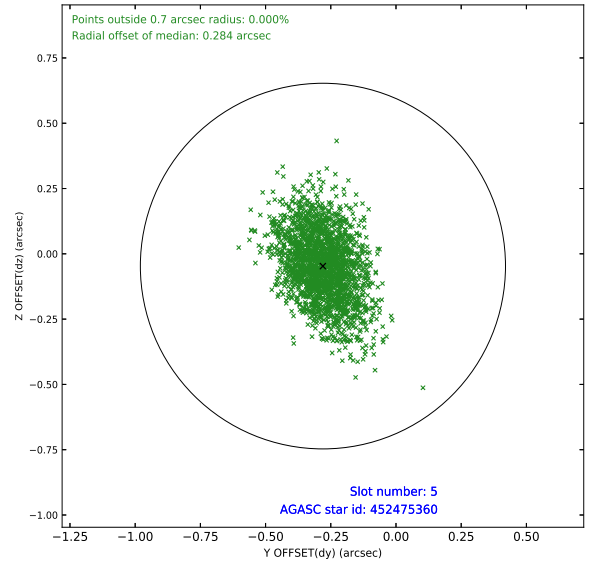
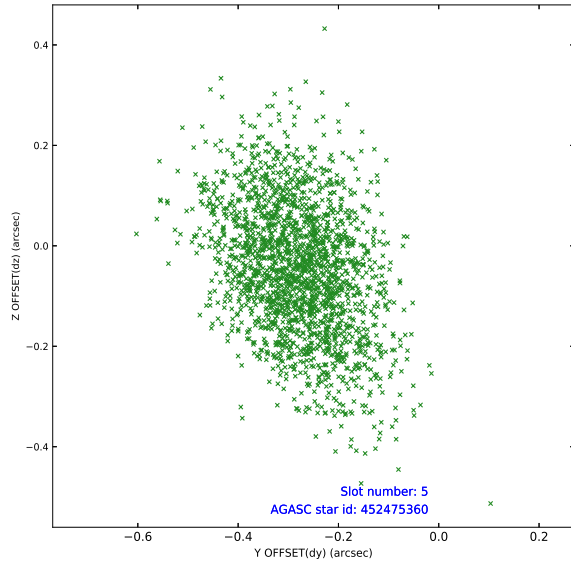
## 2.4.2 Slot 4



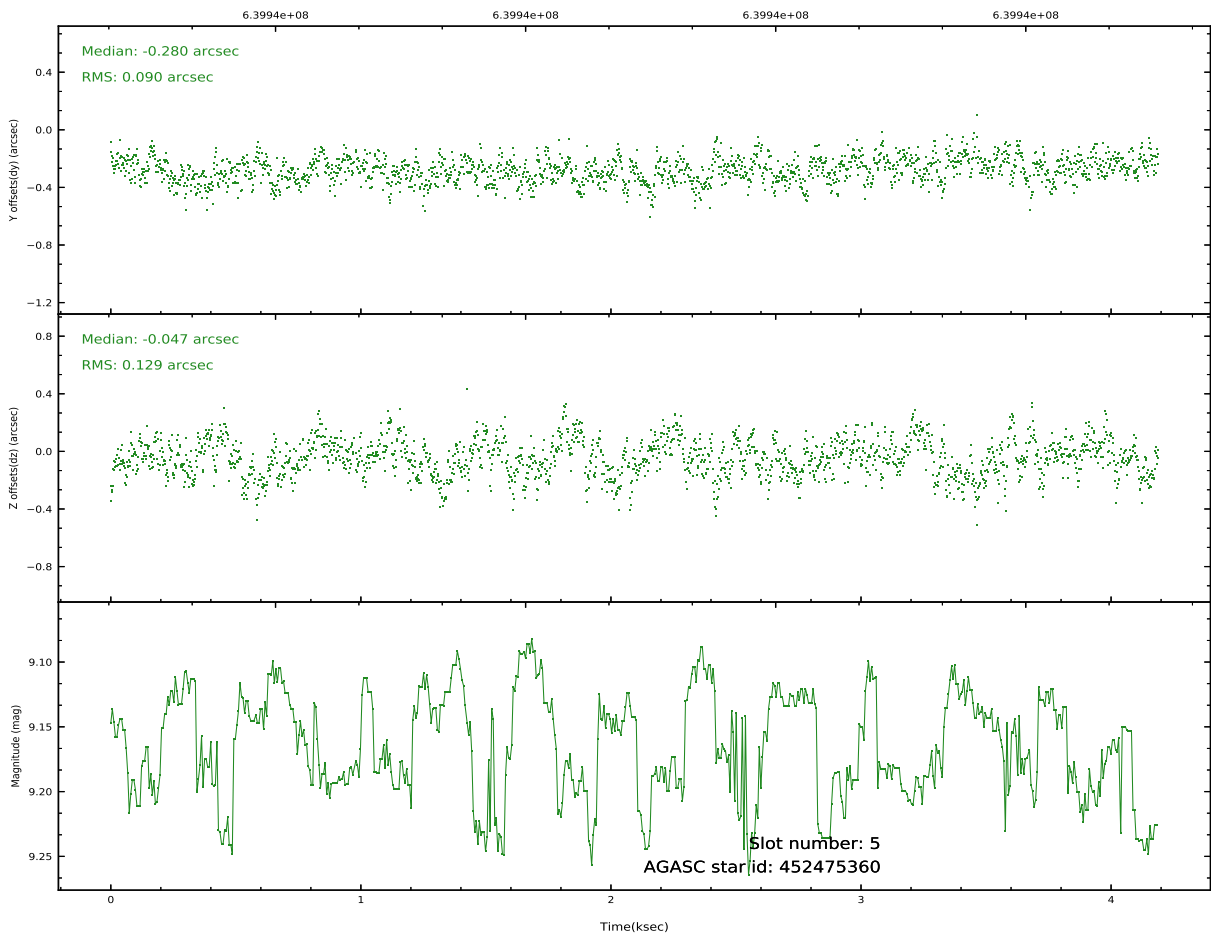
Time (s)



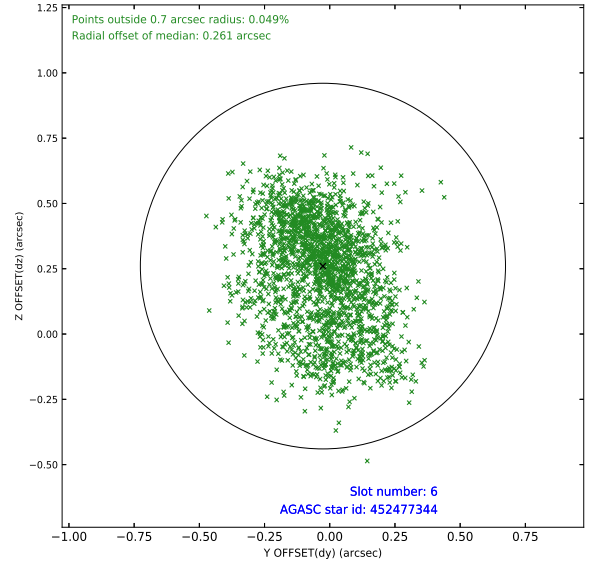
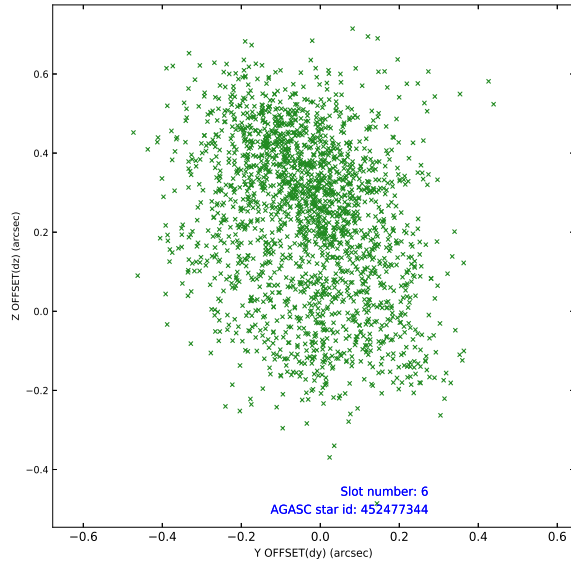
### 2.4.3 Slot 5



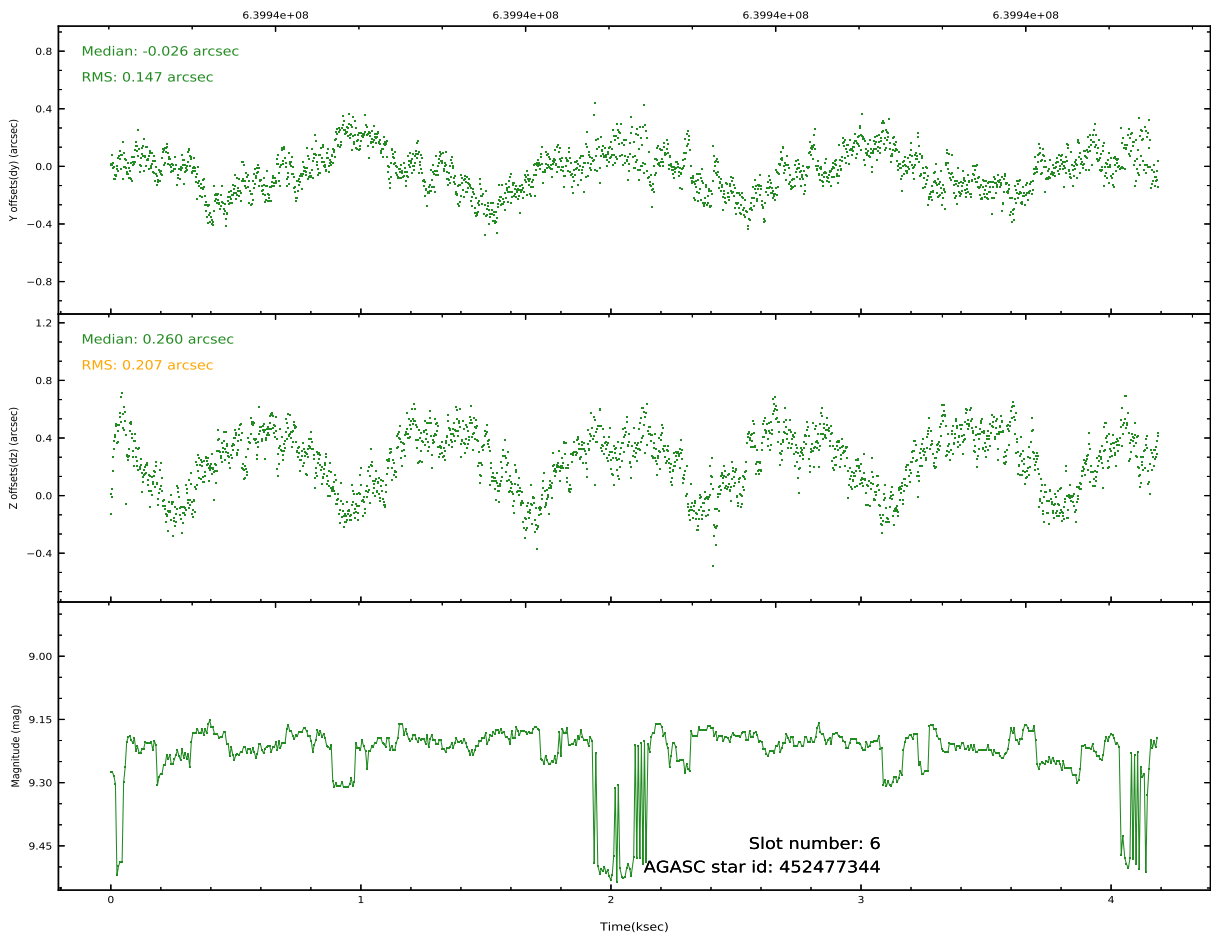
Time (s)



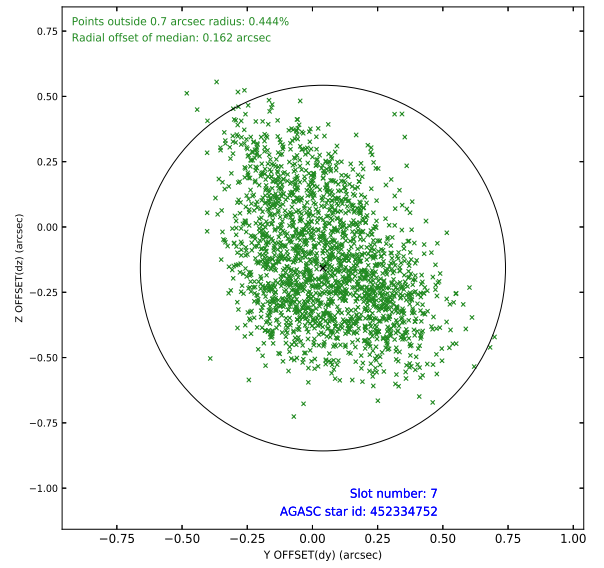
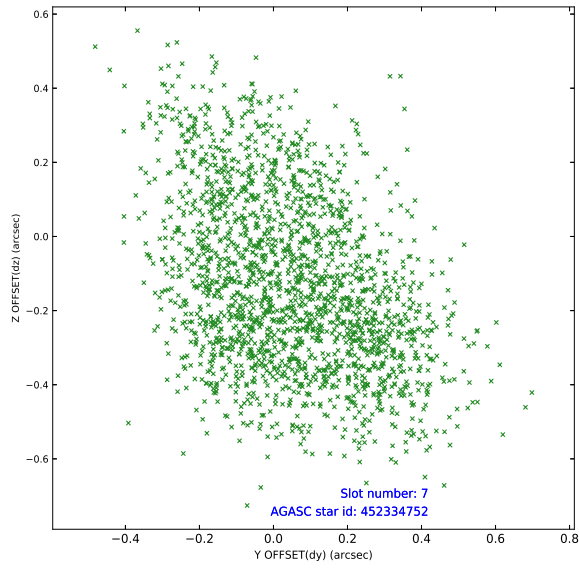
## 2.4.4 Slot 6



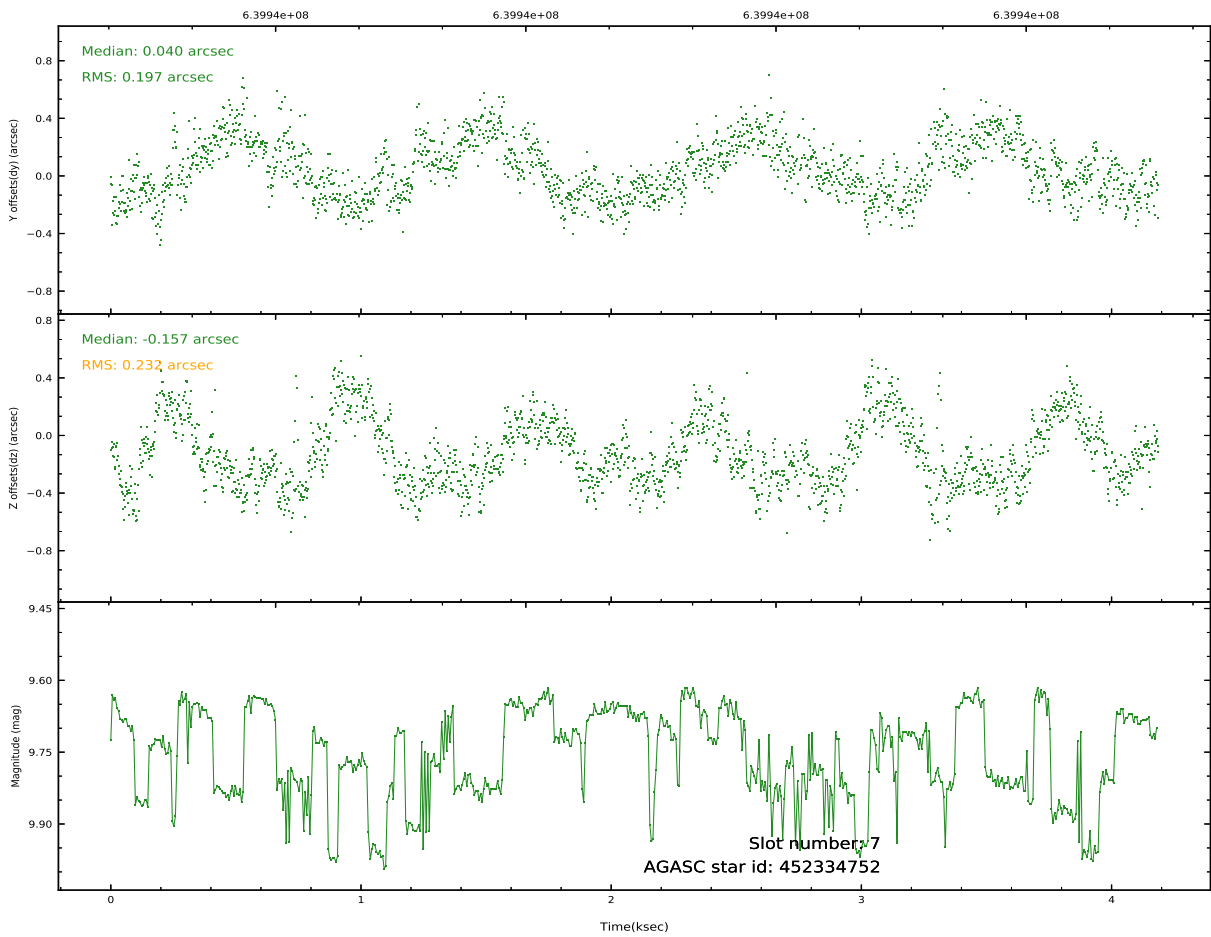
Time (s)



## 2.4.5 Slot 7

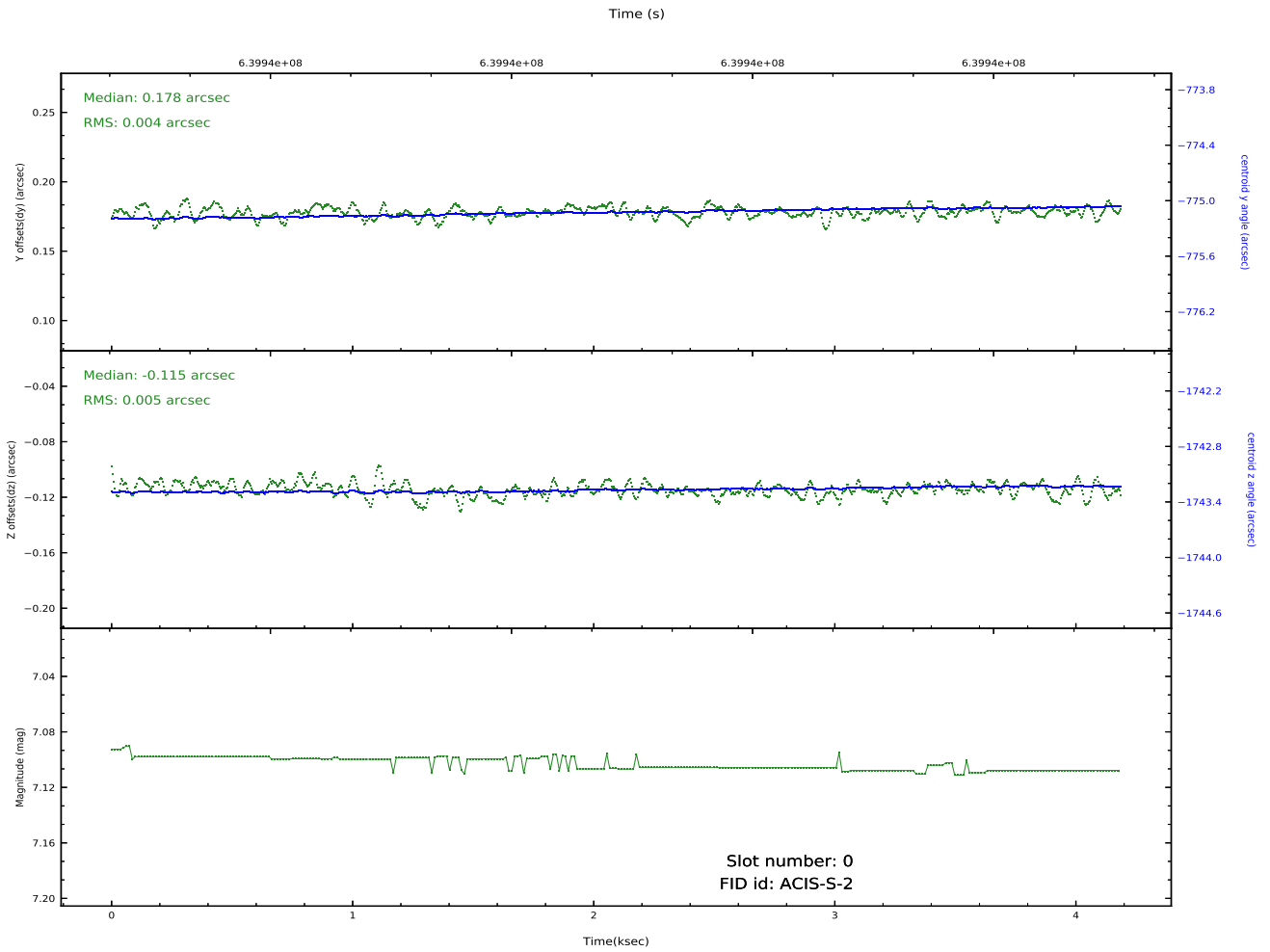
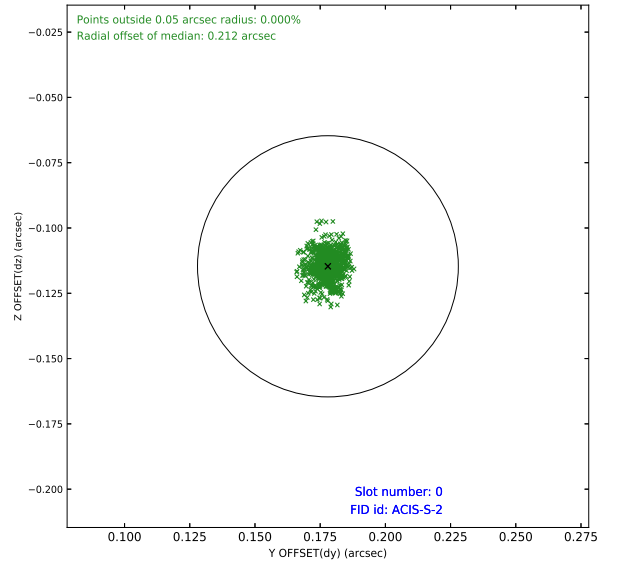
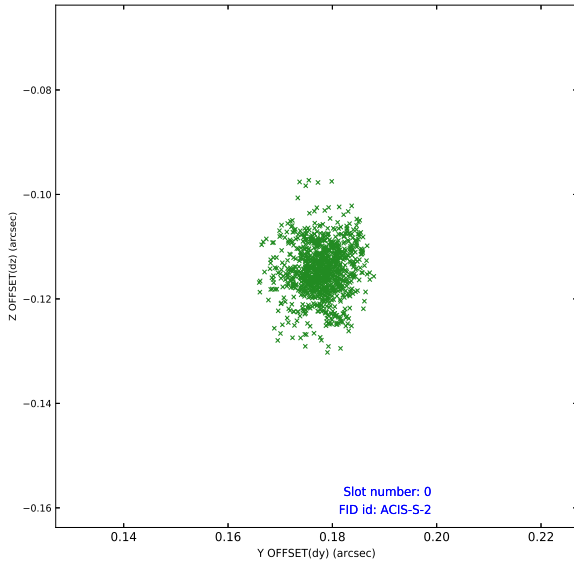


Time (s)

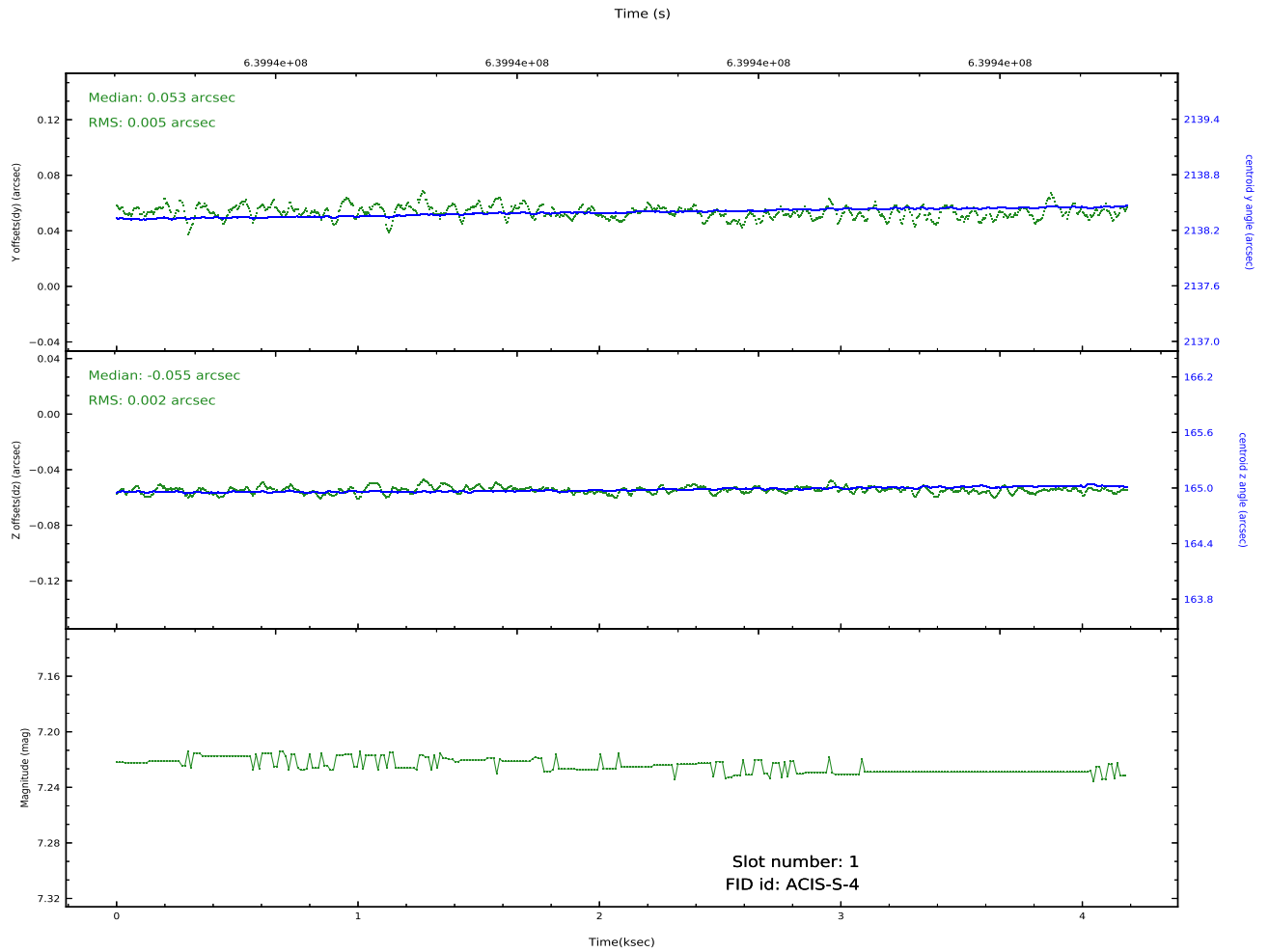
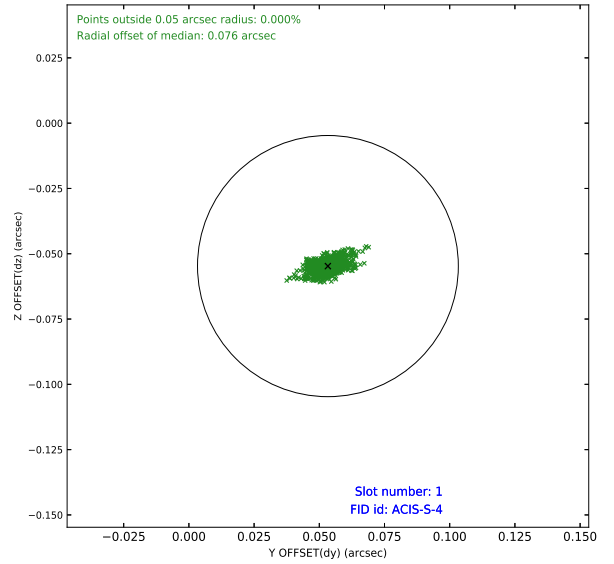
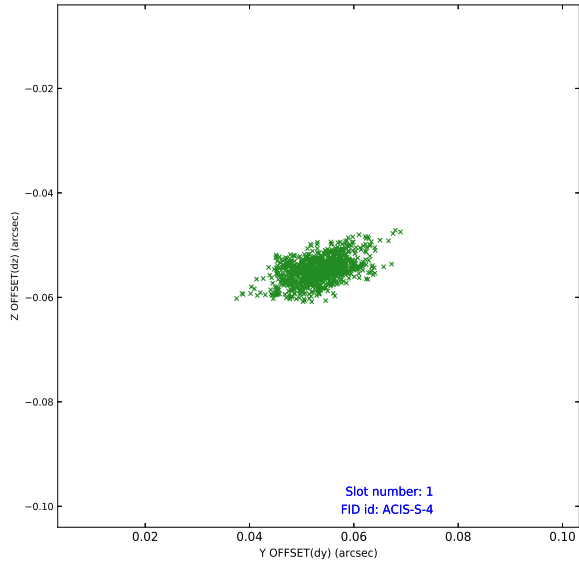


## 2.5 FID Slots

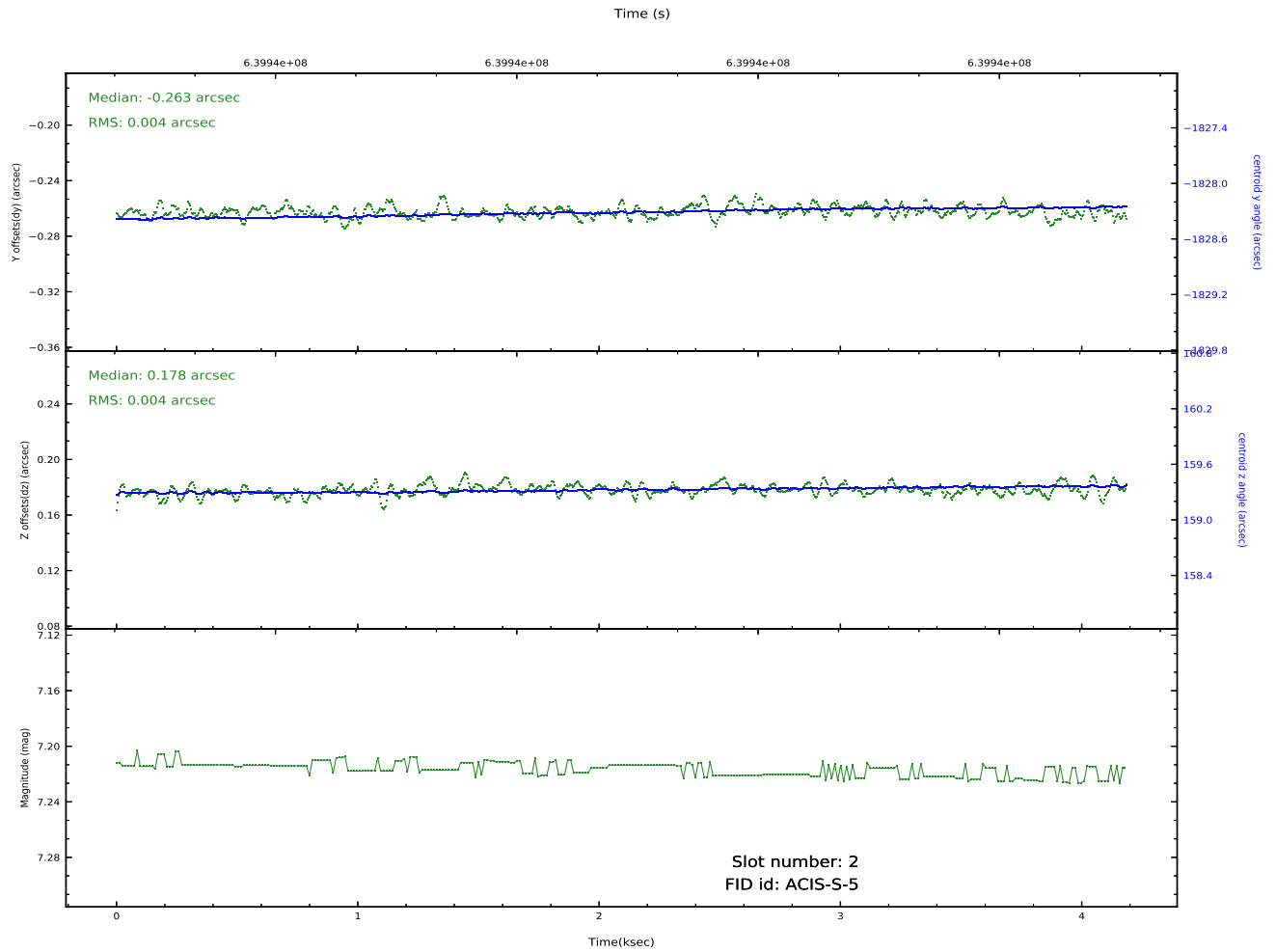
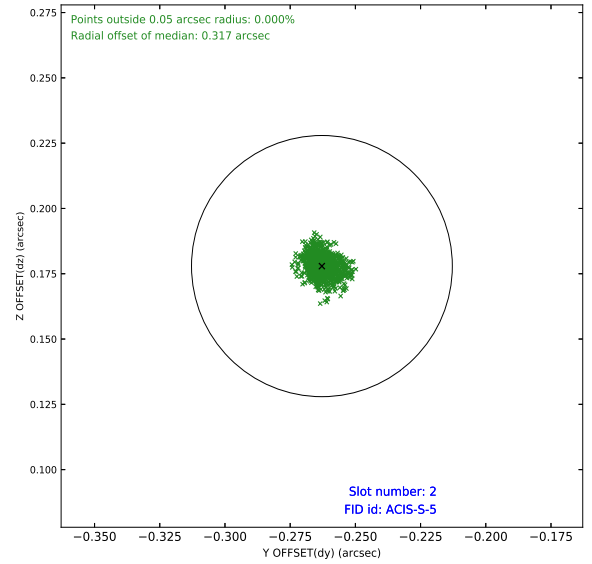
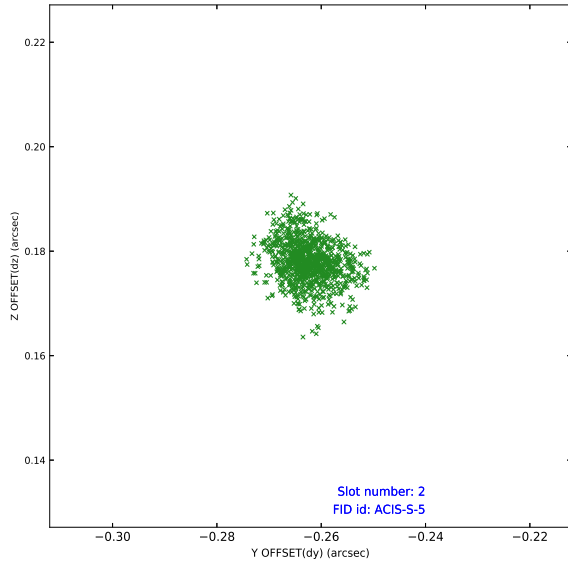
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.1095848081112

## A.2 Comments