

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 20764 - L2 Version 2  
Chandra X-Ray Center

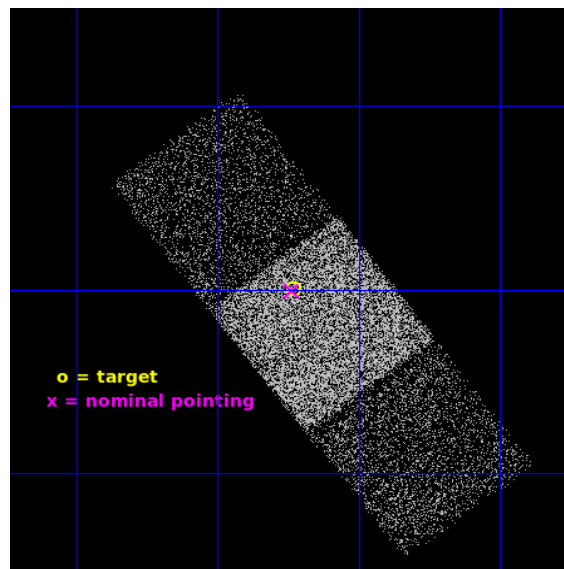
L2 Processing Date : Oct 24 2020

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# 1 Front

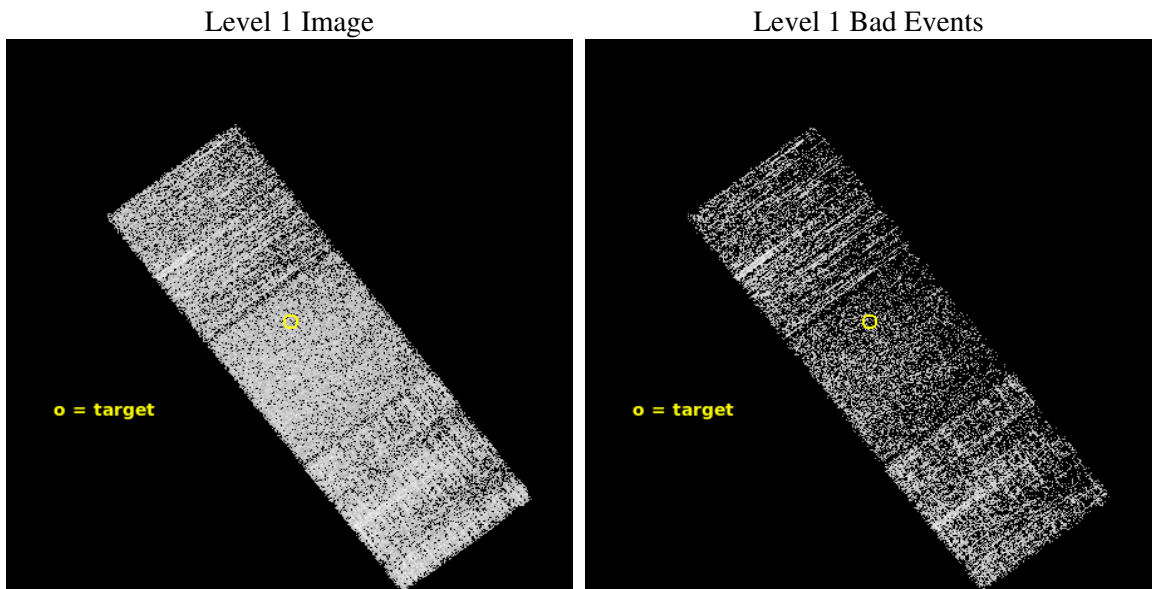
seq_num	703629	Sequence number
obs_id	20764	Observation id
title	A Chandra Snapshot Survey of Extremely Red Quasars from SDSS BOSS and WISE	Proposal title
observer	Gordon Garmire	Principal investigator
object	J1542+1020	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	235.682917	Observer's specified target RA [deg]
dec_targ	10.33375	Observer's specified target Dec [deg]
ra_nom	235.68424743612	Nominal RA [deg]
dec_nom	10.33253092167	Nominal Dec [deg]
roll_nom	52.859874771899	Nominal Roll [deg]
revision	2	Processing version of data
ontime	4112.6916683912	Sum of GTIs [s]
livetime	4058.9563240241	Livetime [s]
ontime6	4112.6506284475	Sum of GTIs [s]
ontime7	4112.6916683912	Sum of GTIs [s]
ontime8	4112.6095883846	Sum of GTIs [s]
l2events	22277	Number of level 2 events



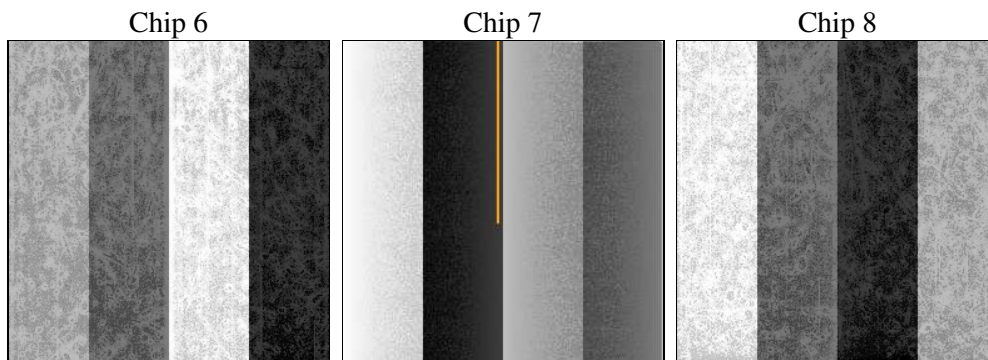
## 2 OBI

### 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	4112.6916683912	Sum of GTIs [s]
caldbver	4.9.3	&#160	ontime6	4112.6506284475	Sum of GTIs [s]
date	2020-10-24T05:02:58	Date and time of file creation	ontime7	4112.6916683912	Sum of GTIs [s]
revision	2	Processing version of data	ontime8	4112.6095883846	Sum of GTIs [s]
			l1events	107331	Number of level 1 events

### 2.1.4 Events

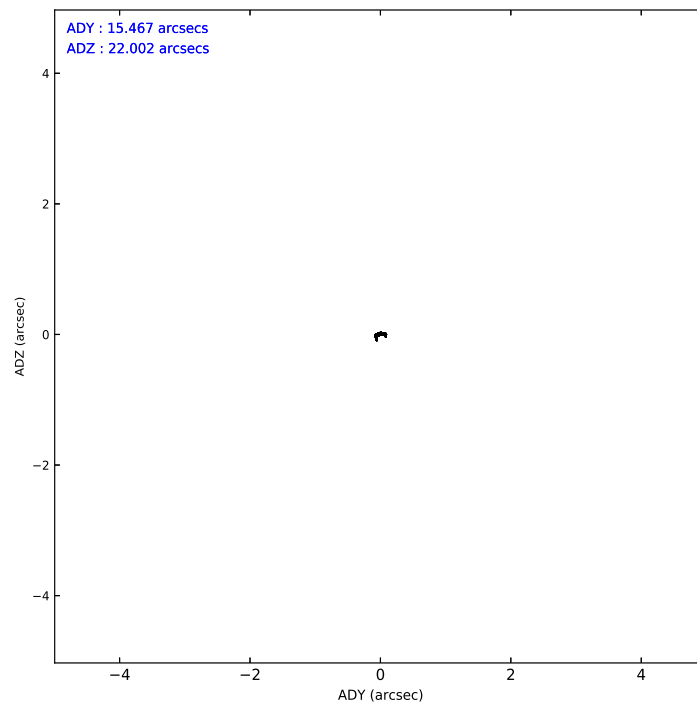
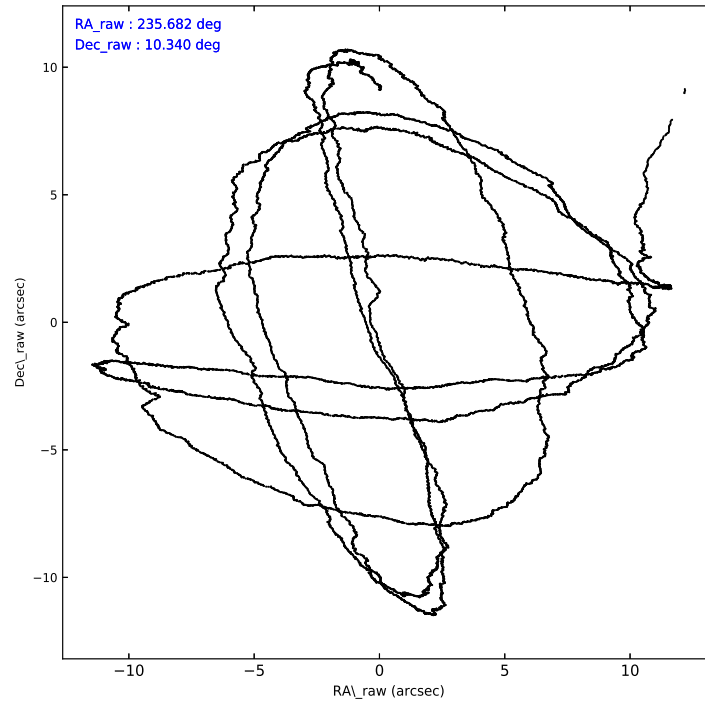
	ccd 6	ccd 7	ccd 8
level 1 events	28965	36746	41620
rejected events	25562	20576	30169
rejected %	88%	55%	72%

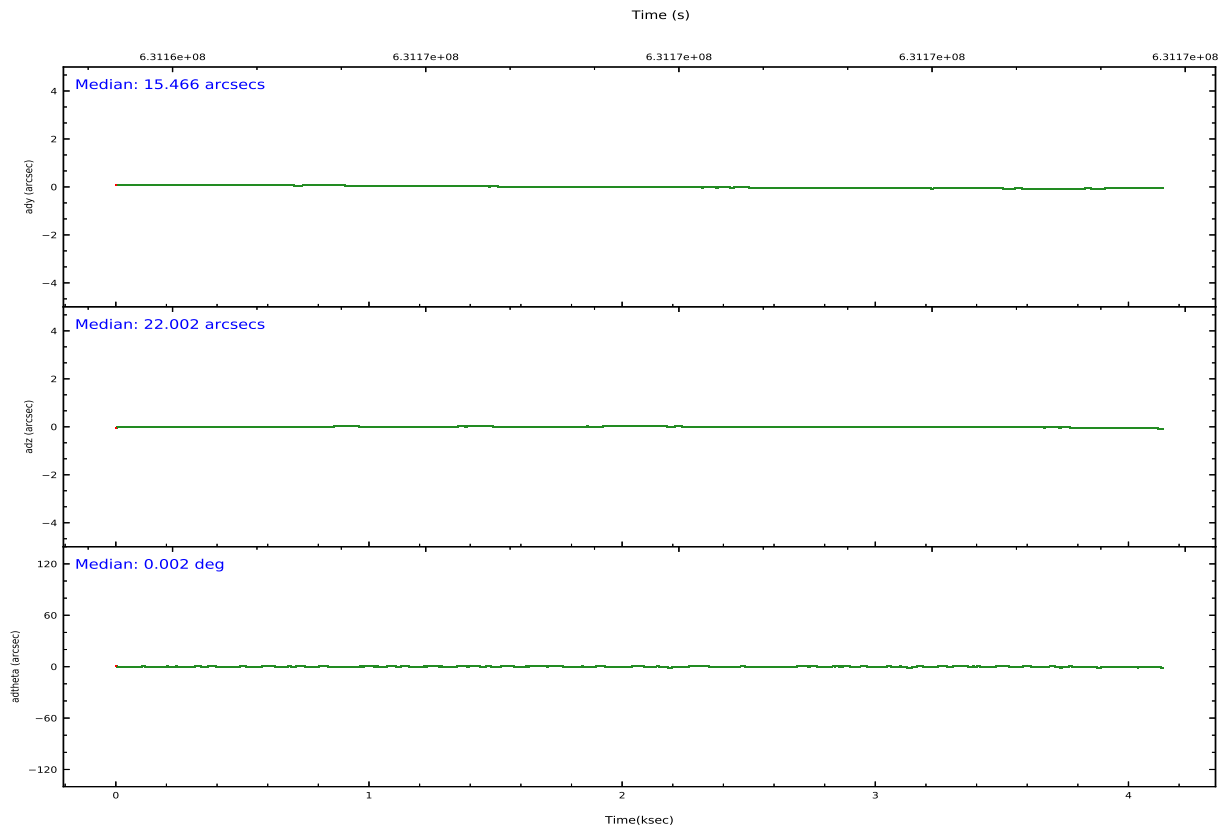
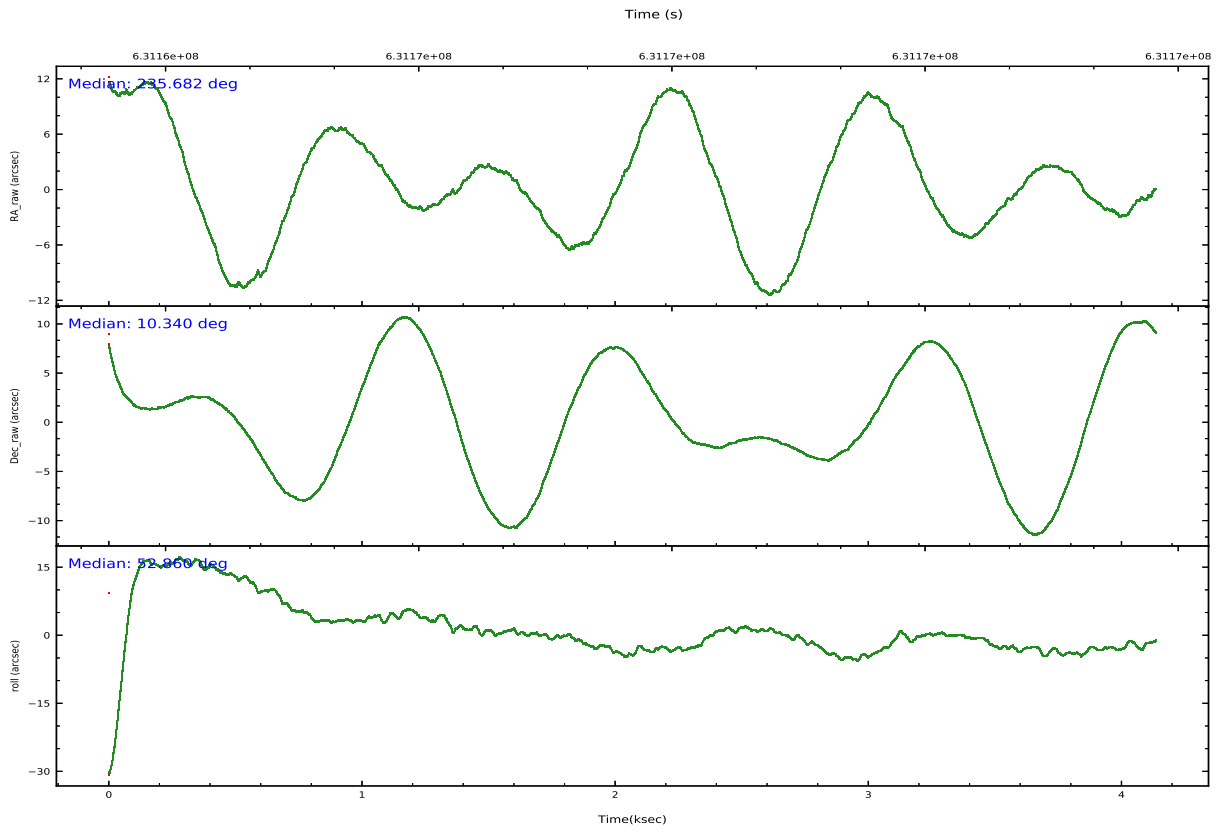
	ccd 6	ccd 7	ccd 8
grade 0 events	1204	1438	3229
	4%	3%	7%
grade 1 events	21	47	27
	0%	0%	0%
grade 2 events	783	3423	2898
	2%	9%	6%
grade 3 events	332	1288	1080
	1%	3%	2%
grade 4 events	360	1323	1058
	1%	3%	2%
grade 5 events	1397	3687	2106
	4%	10%	5%
grade 6 events	733	8730	3193
	2%	23%	7%
grade 7 events	24135	16810	28029
	83%	45%	67%

## 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	235.678733	235.68424743612	Subarray requested	NONE	NONE
[deg] Pointing Dec	10.312566	10.33253092167	Alternating exposures requested	N	N
[deg] Pointing Roll	52.708543	52.859874771899	[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	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	631164913.184000	631163626.91522			
Observation start date	2018-01-01T03:34:04	2018-01-01T03:13:46			
[s] Observation end time (MET)	631168913.184000	631169733.35308			
Observation end date	2018-01-01T04:40:44	2018-01-01T04:55:33			
Read mode	TIMED	TIMED			

## 2.3 Aspect





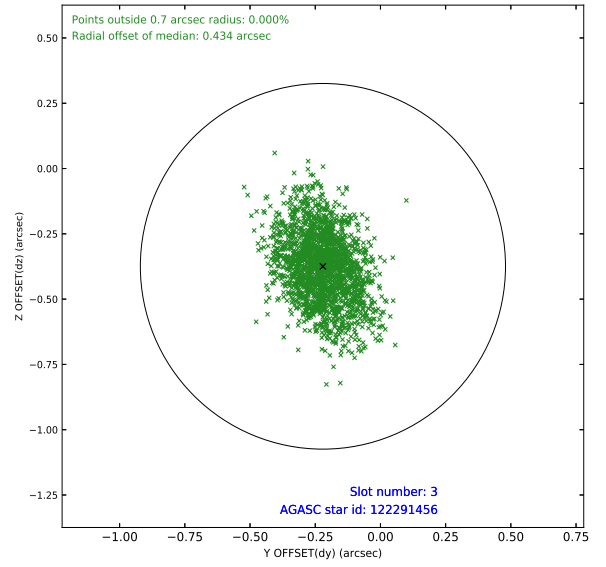
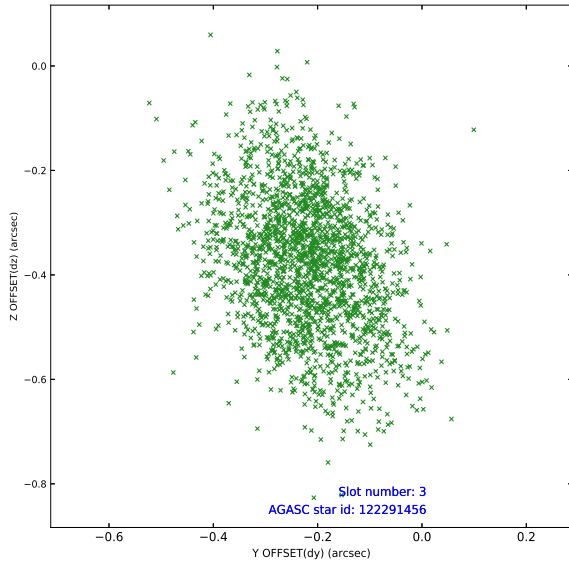
### Slot Statistics

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-1	7.04	1010	1.000	0.224	-0.108	0.007	0.011	0.000000	0.000000	927.59	-1739
1	FID		ACIS-S-4	7.07	1010	1.000	0.045	-0.028	0.007	0.011	0.000000	0.000000	2145.88	163
2	FID		ACIS-S-5	7.06	1010	1.000	-0.295	0.149	0.007	0.012	0.000000	0.000000	-1819.65	159
3	GUIDE	used	122291456	9.06	2016	1.000	-0.221	-0.374	0.169	0.281	235.498040	11.060177	1754.02	2138
4	GUIDE	used	122297616	7.64	2018	1.000	-0.172	-0.136	0.116	0.212	235.496743	10.570204	348.27	1075
5	GUIDE	used	122430136	7.87	2017	1.000	0.218	0.175	0.138	0.243	235.566126	9.650843	-2137.74	-1124
6	GUIDE	used	122430352	8.89	2017	1.000	0.266	0.238	0.139	0.235	235.678477	9.519365	-2273.08	-1729
7	GUIDE	used	122430880	8.32	2015	1.000	-0.091	0.108	0.125	0.218	236.127589	10.824042	2426.04	-147

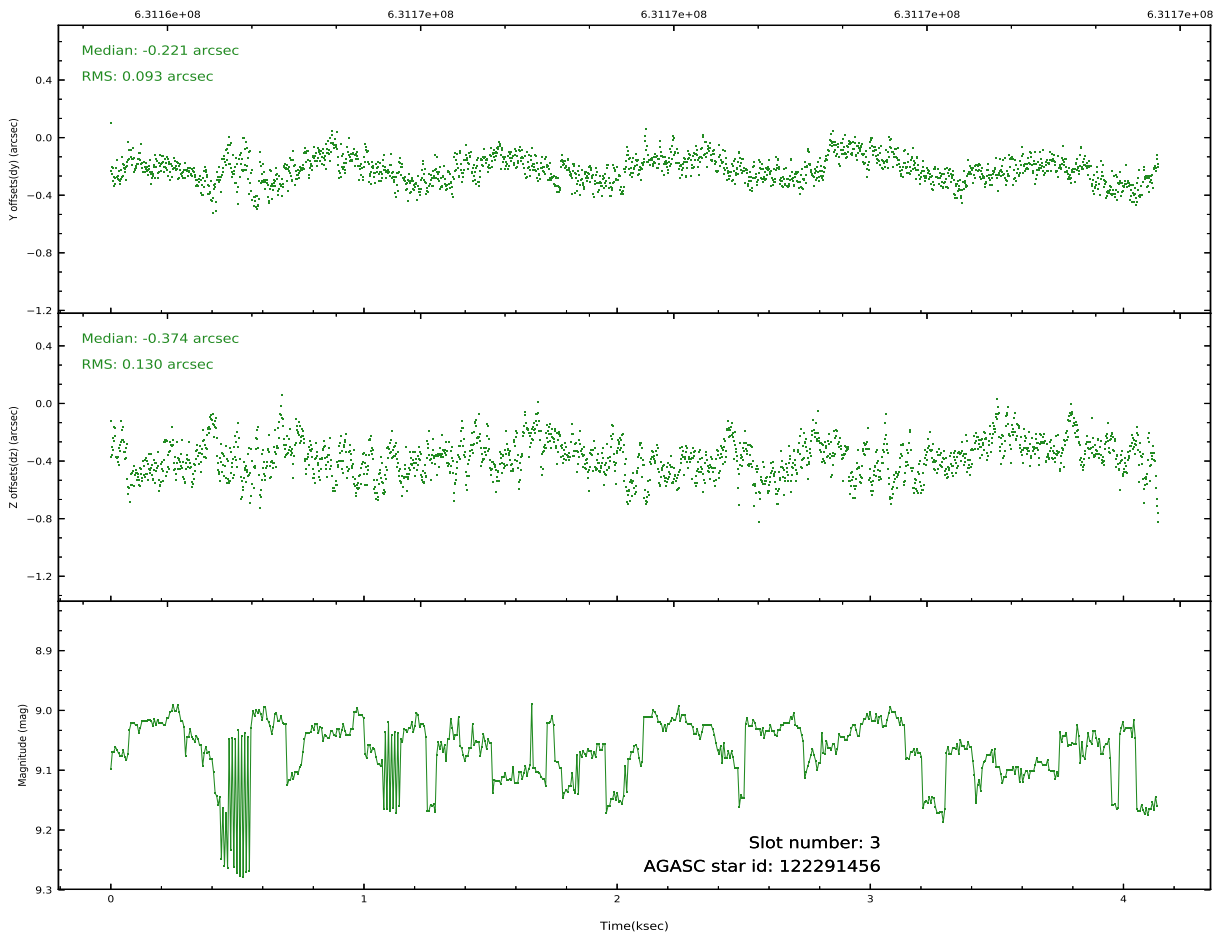
∞

## 2.4 Star Slots

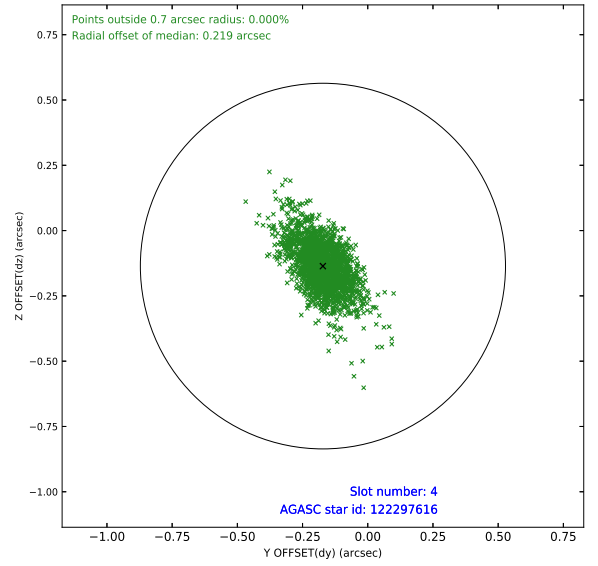
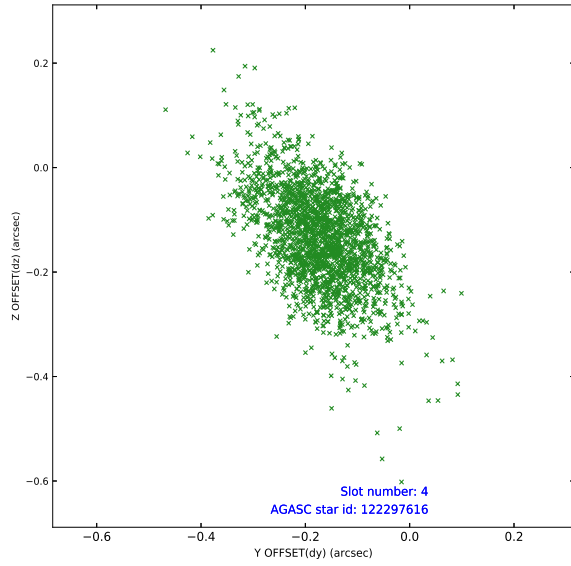
### 2.4.1 Slot 3



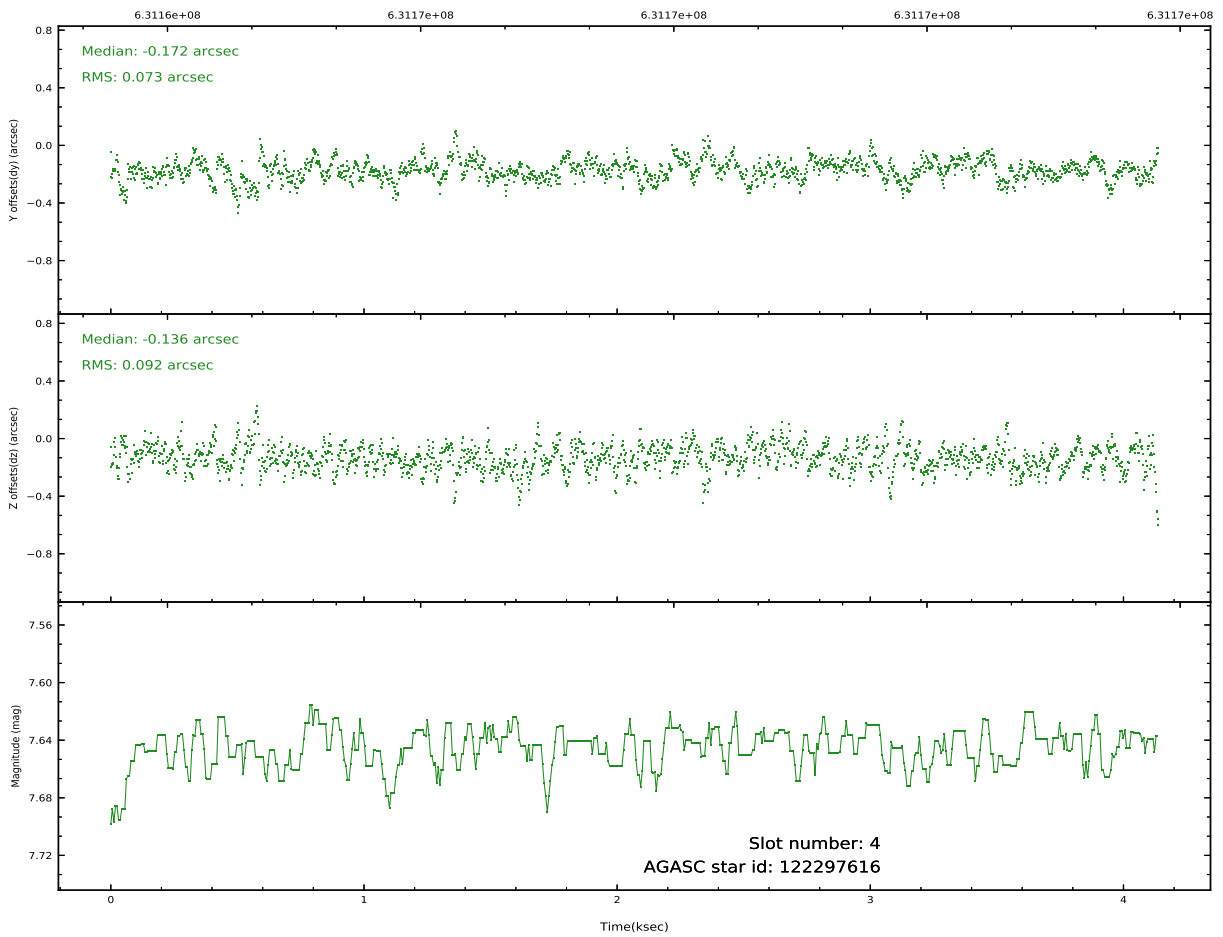
Time (s)



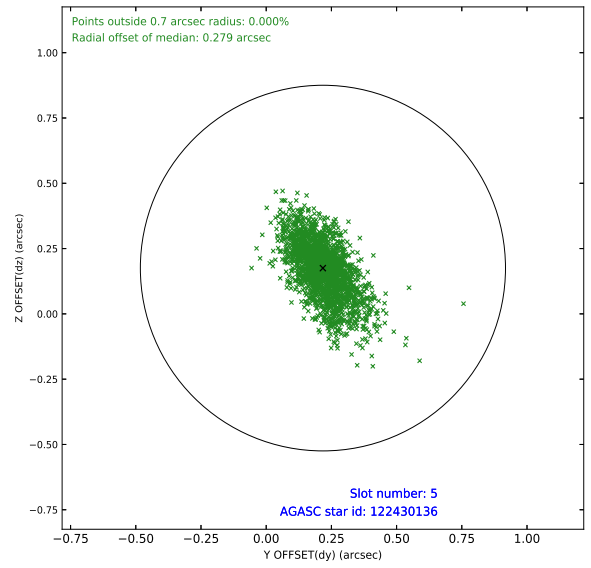
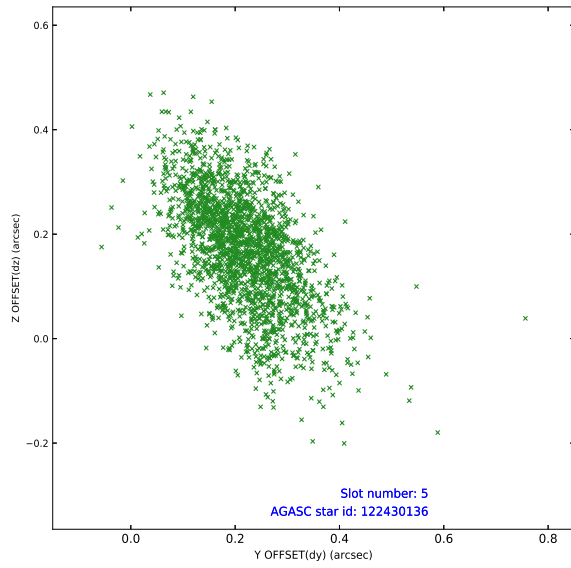
## 2.4.2 Slot 4



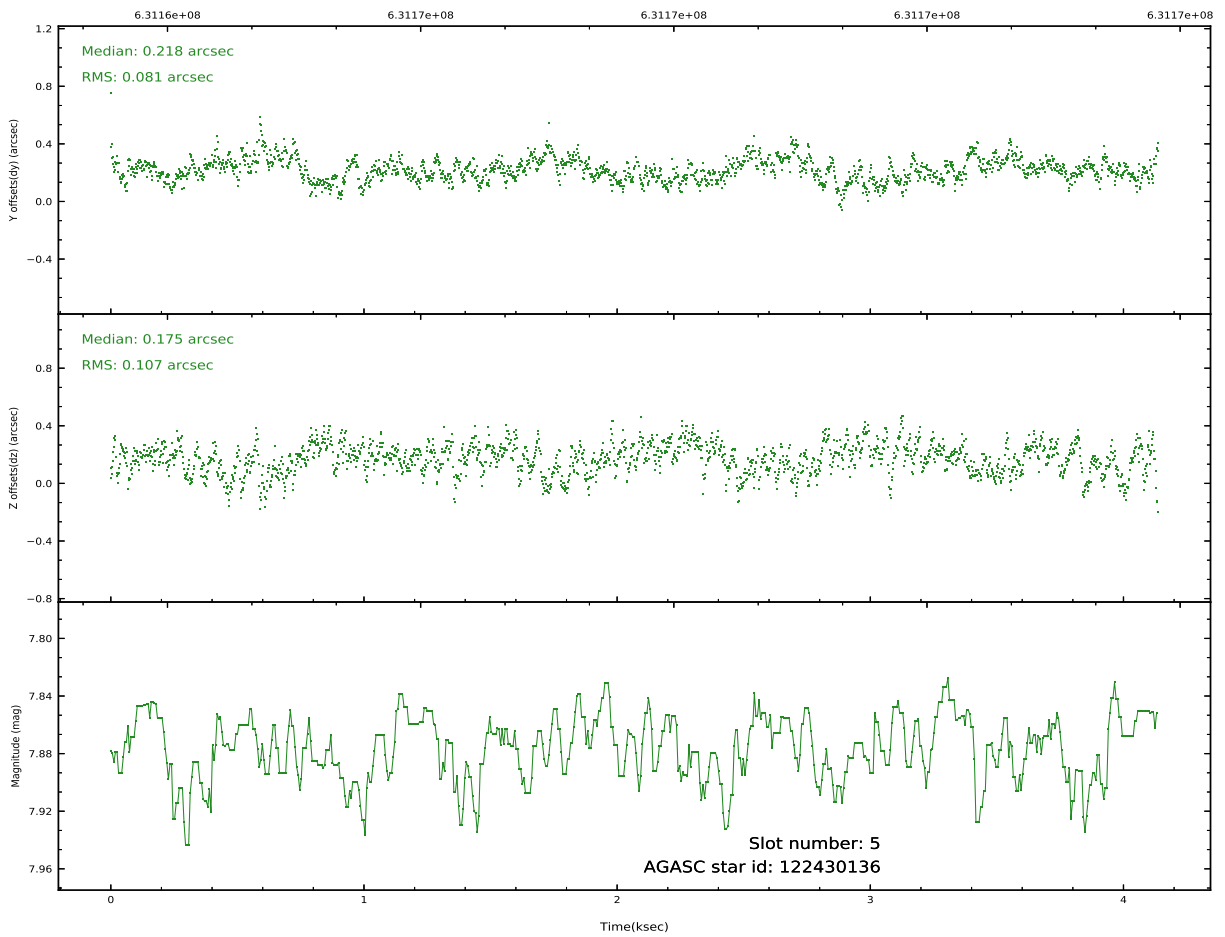
Time (s)



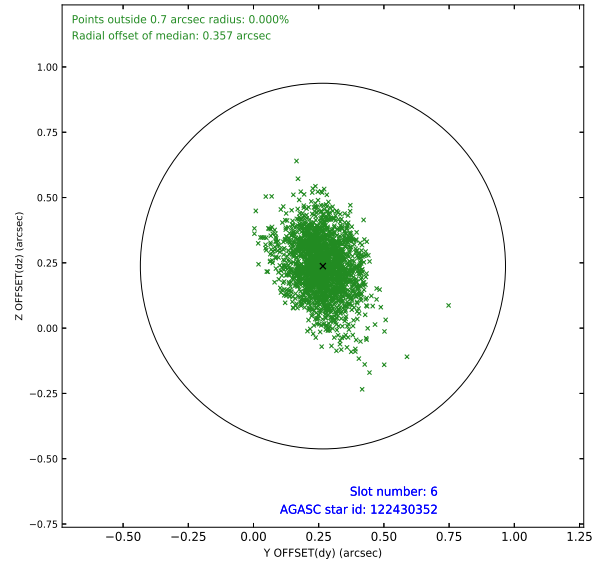
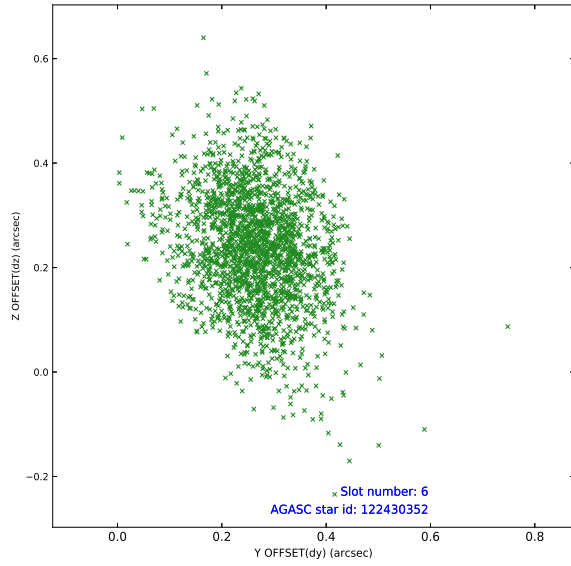
### 2.4.3 Slot 5



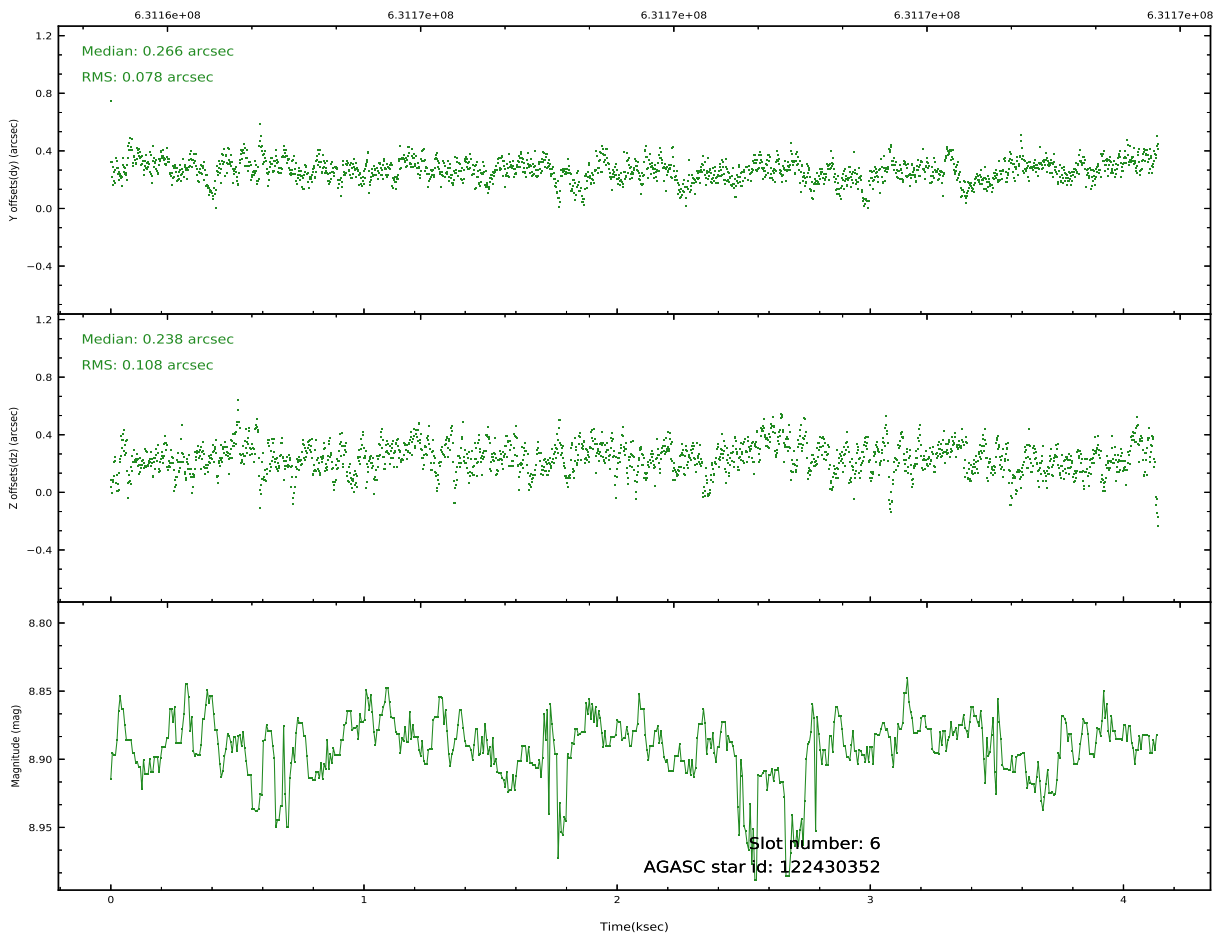
Time (s)



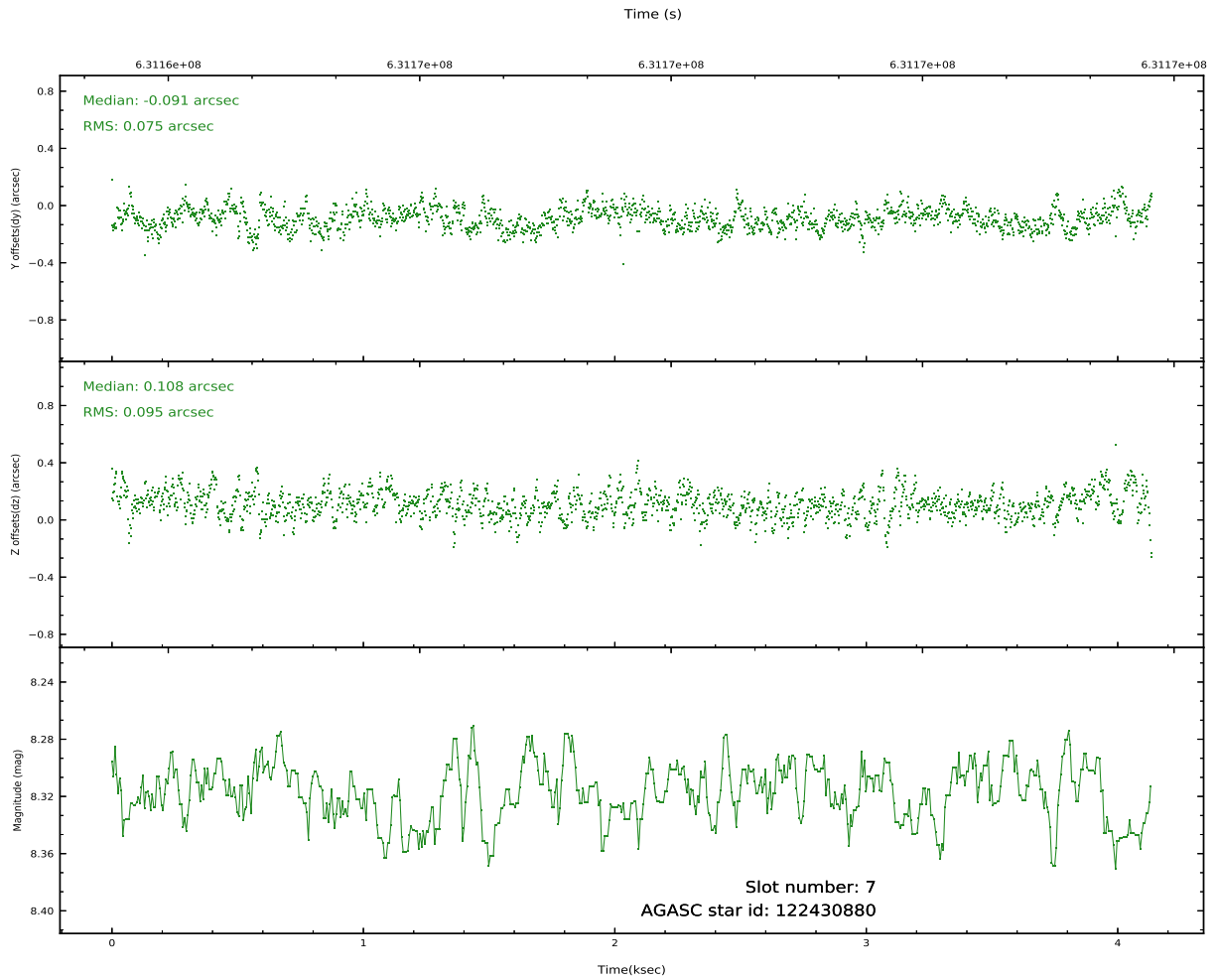
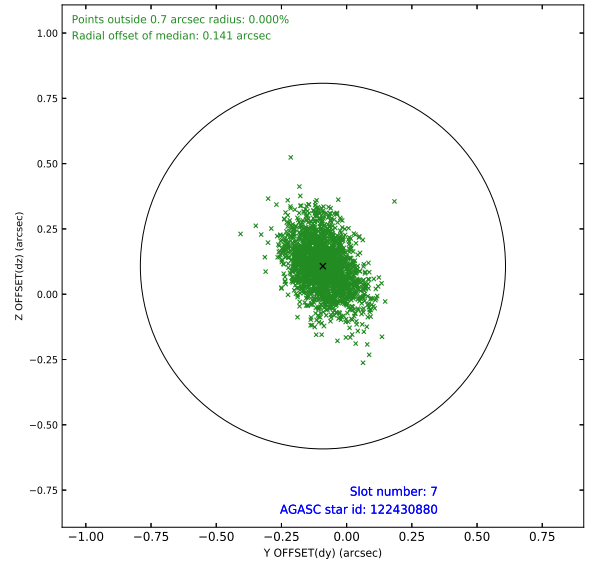
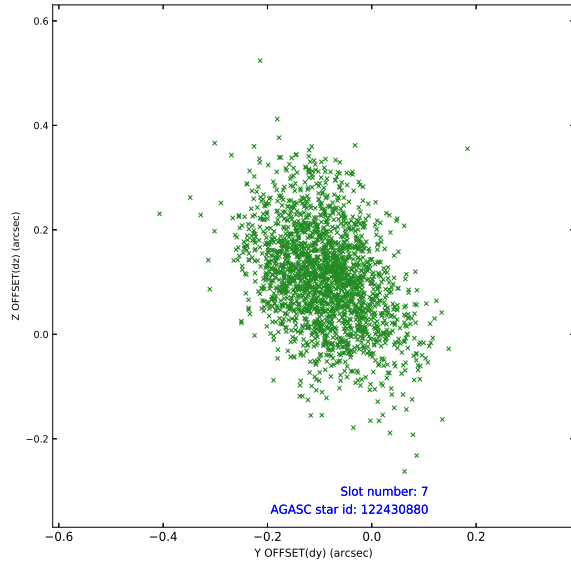
## 2.4.4 Slot 6



Time (s)

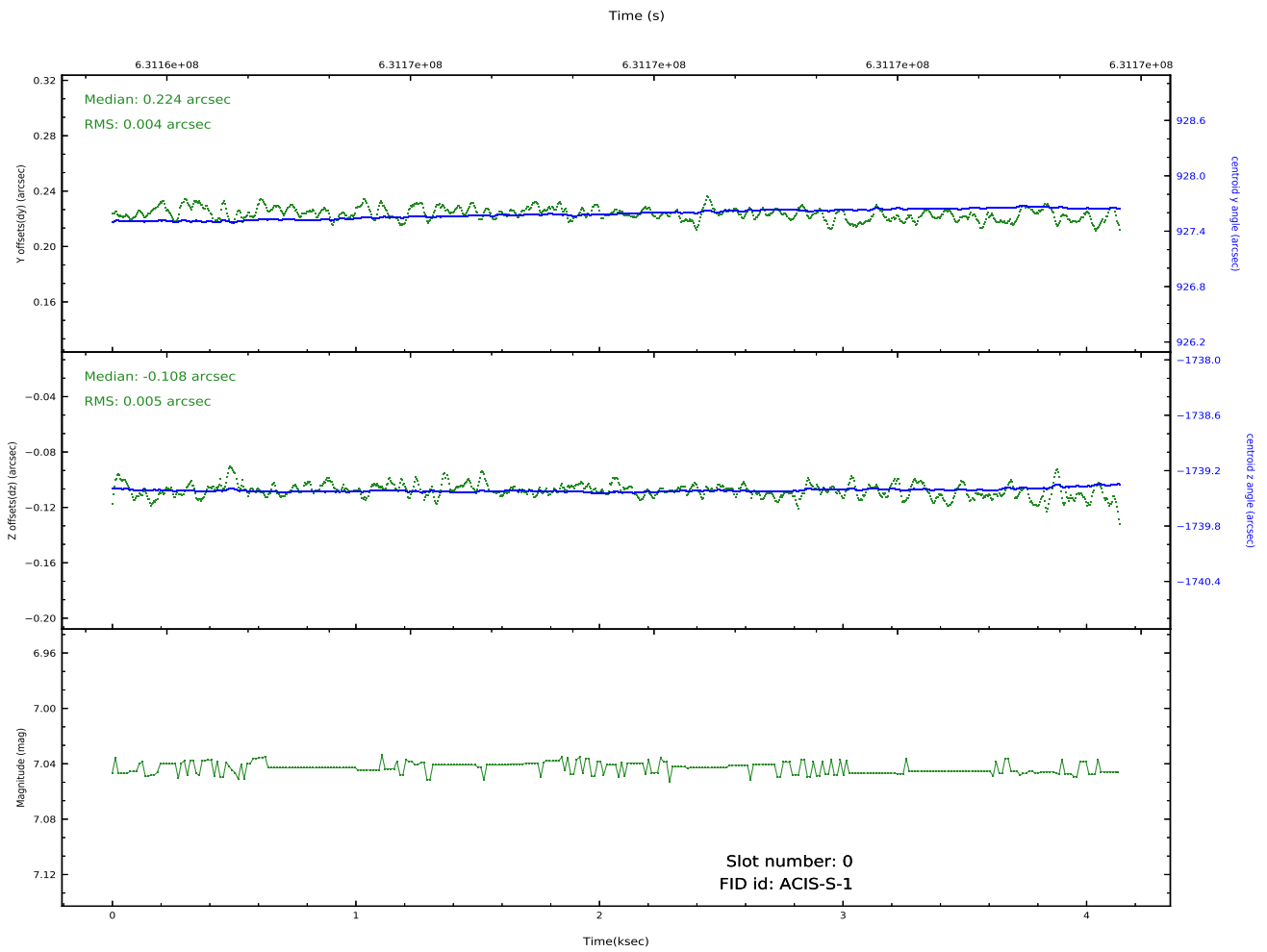
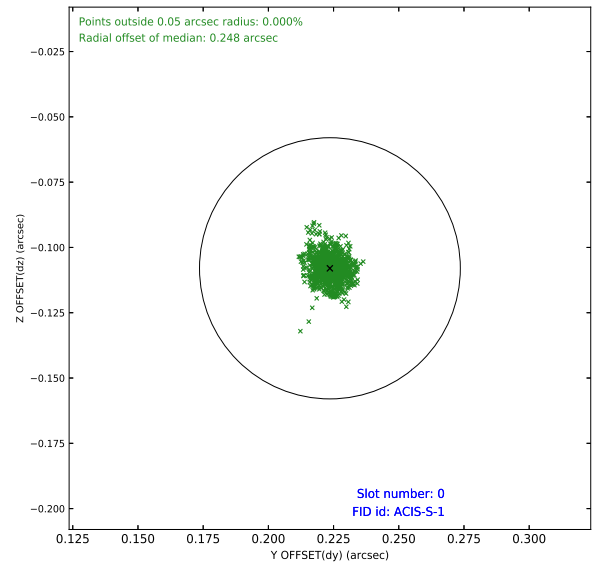
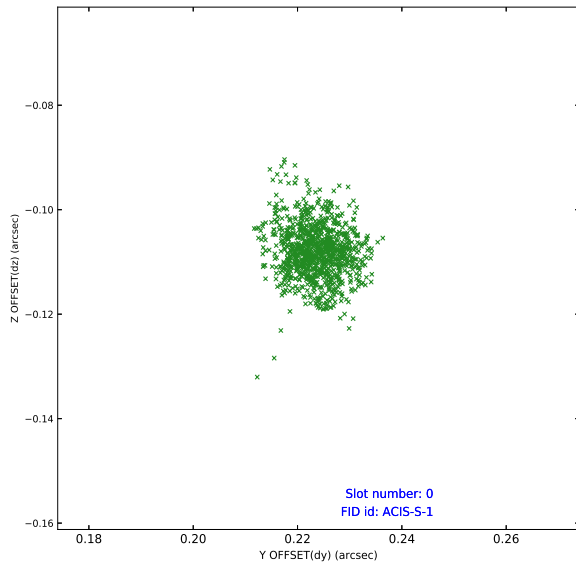


## 2.4.5 Slot 7

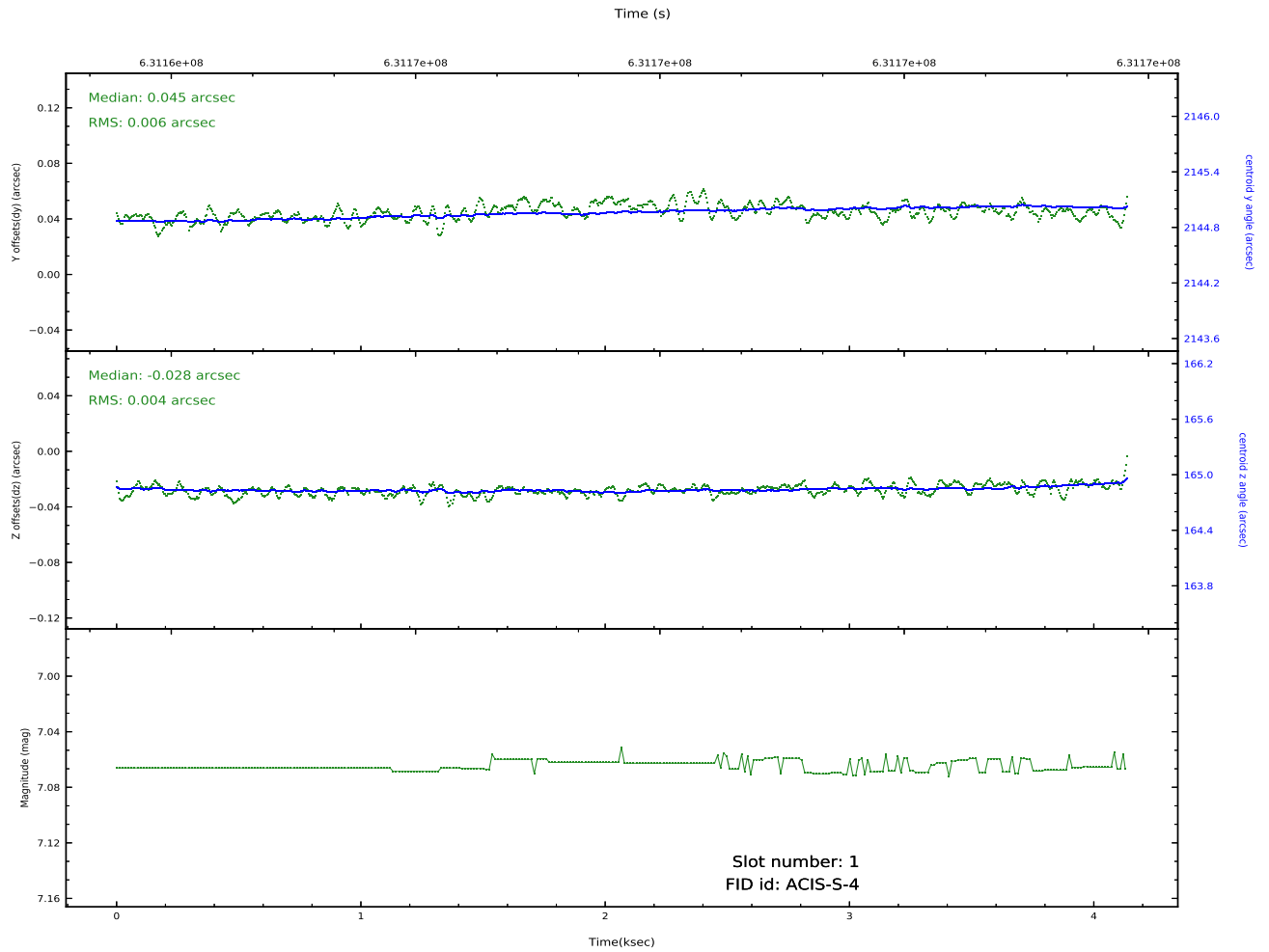
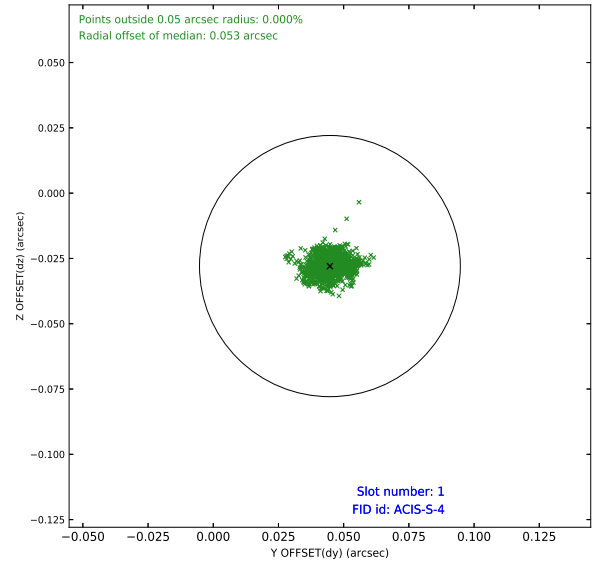
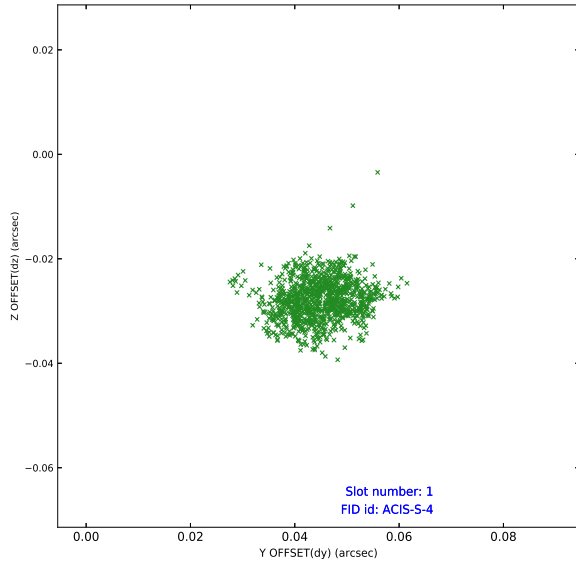


## 2.5 FID Slots

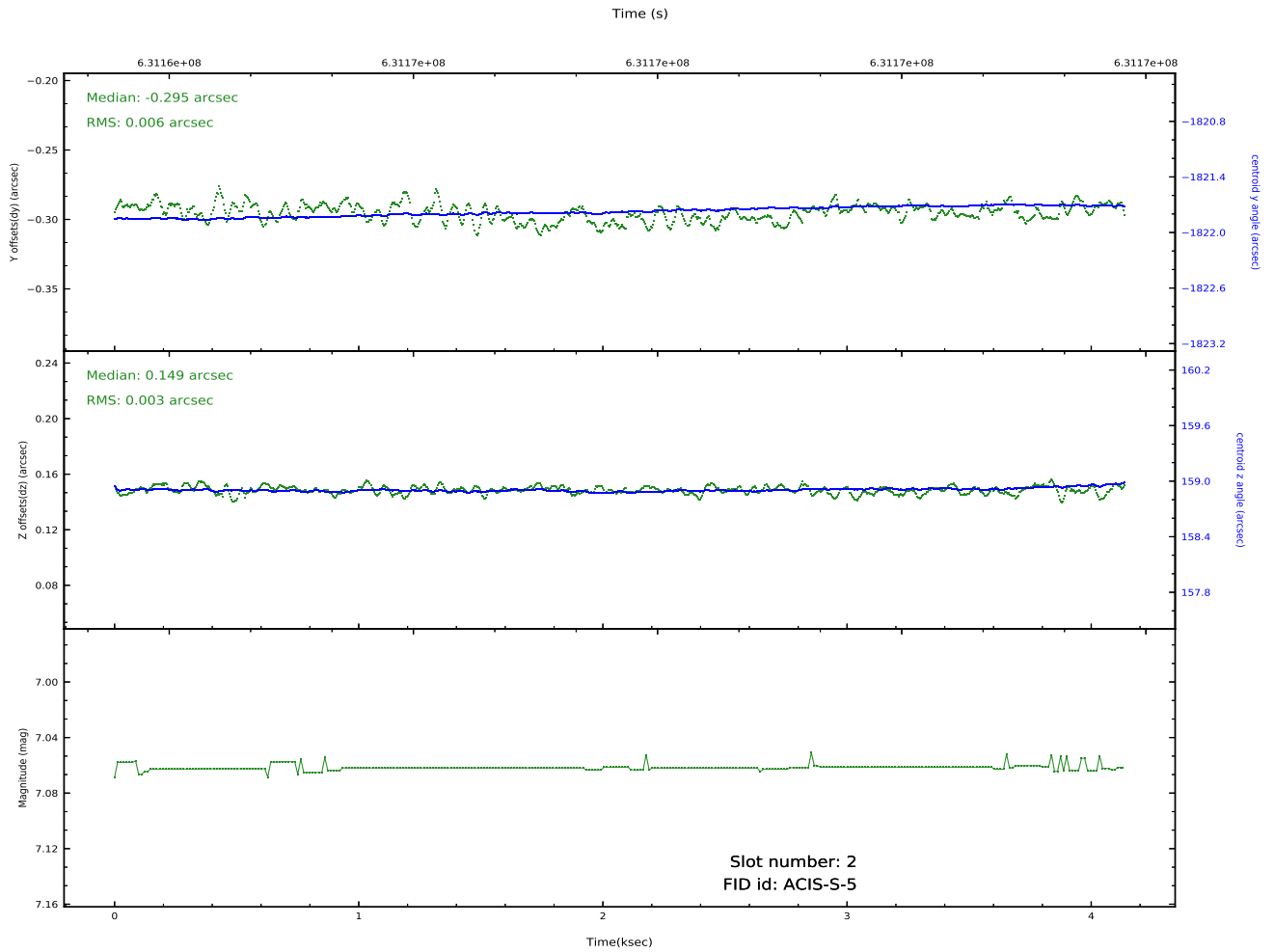
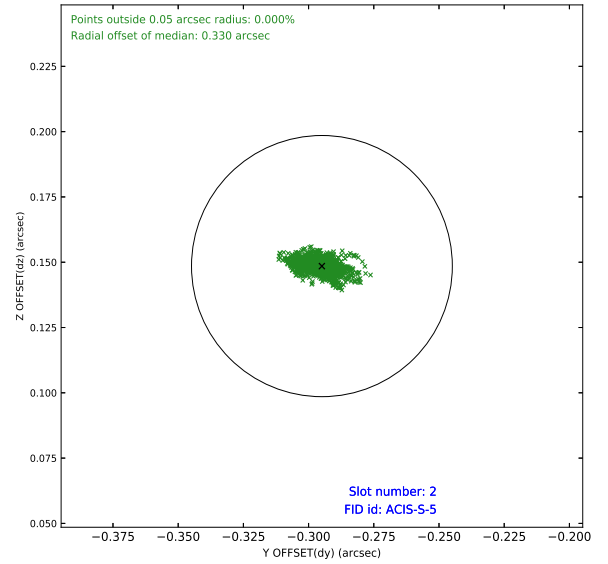
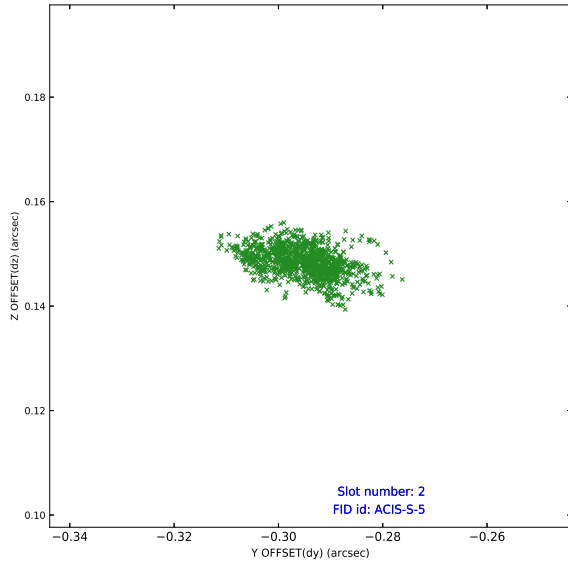
### 2.5.1 Slot 0



## 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)	2020.10.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.112691672802

## A.2 Comments