

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 19759 - L2 Version 3  
Chandra X-Ray Center

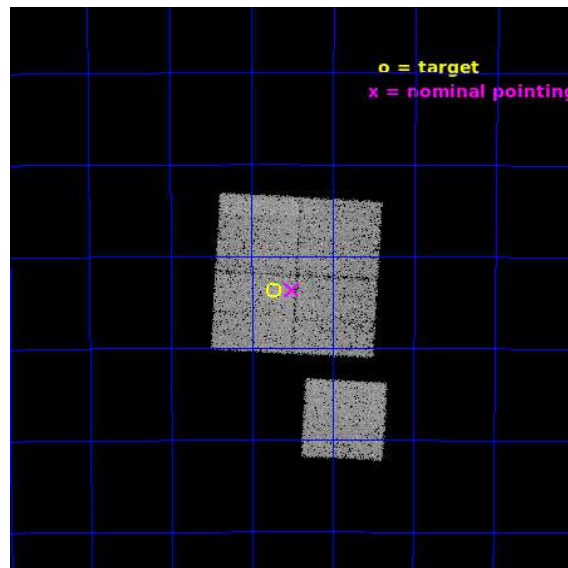
L2 Processing Date : Oct 24 2020

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# 1 Front

seq_num	801696	Sequence number
obs_id	19759	Observation id
title	A Chandra Survey of high-redshift ( $0.7 < z < 0.8$ ) clusters selected in the 100 deg <sup>2</sup> SPT-Pol Deep Field	Proposal title
observer	Gordon Garmire	Principal investigator
object	SPT-CLJ2328-5533	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	352.182083	Observer's specified target RA [deg]
dec_targ	-55.561	Observer's specified target Dec [deg]
ra_nom	352.1262202087	Nominal RA [deg]
dec_nom	-55.560802343999	Nominal Dec [deg]
roll_nom	183.13935040783	Nominal Roll [deg]
revision	3	Processing version of data
ontime	19060.801358223	Sum of GTIs [s]
livetime	18811.75795612	Livetime [s]
ontime0	19060.678228378	Sum of GTIs [s]
ontime1	19063.860318542	Sum of GTIs [s]
ontime2	19054.478217721	Sum of GTIs [s]
ontime3	19060.801358223	Sum of GTIs [s]
ontime6	19063.778238535	Sum of GTIs [s]
l2events	65480	Number of level 2 events

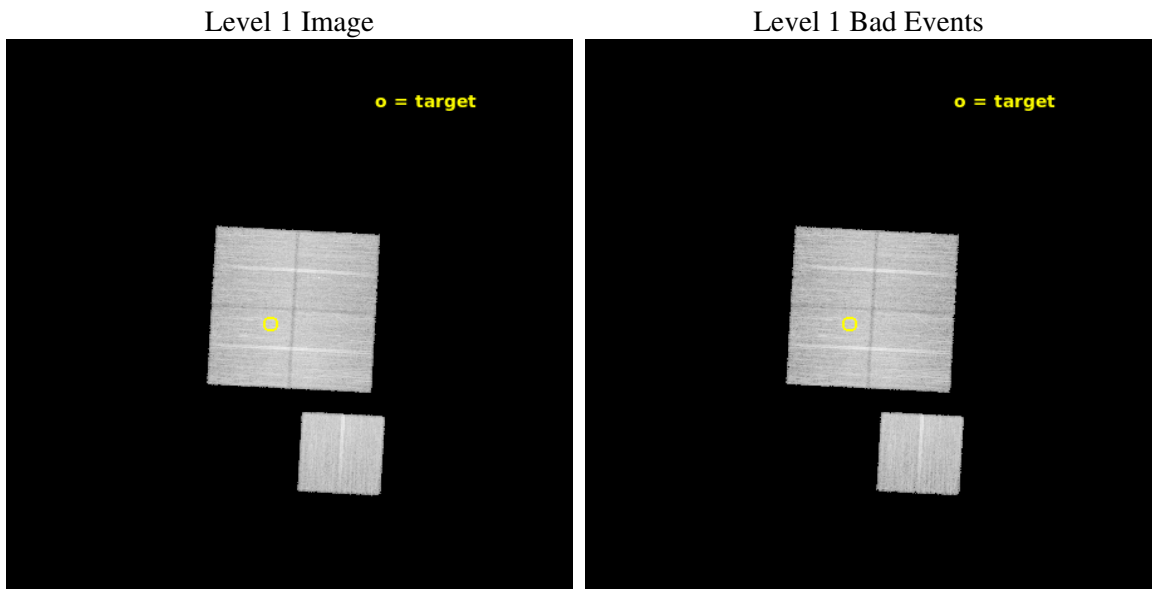




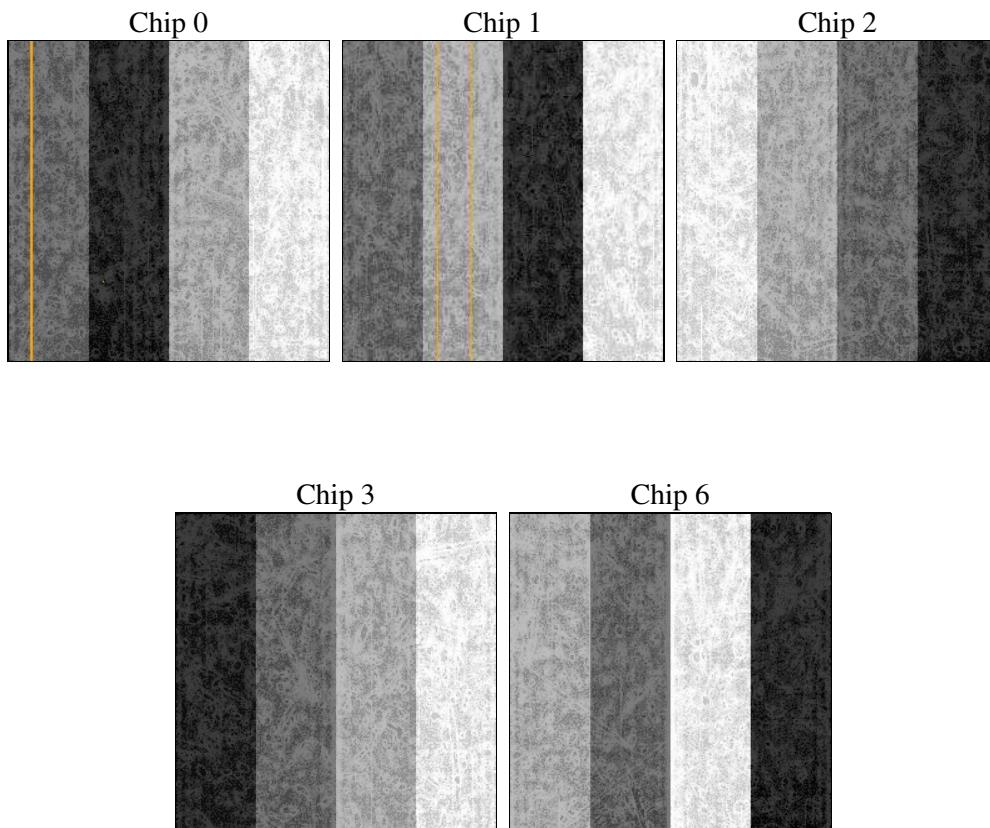
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	19000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	19060.801358223	Sum of GTIs [s]
caldsver	4.9.3	&#160	ontime0	19060.678228378	Sum of GTIs [s]
date	2020-10-25T01:54:24	Date and time of file creation	ontime1	19063.860318542	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	19054.478217721	Sum of GTIs [s]
			ontime3	19060.801358223	Sum of GTIs [s]
			ontime6	19063.778238535	Sum of GTIs [s]
			l1events	703463	Number of level 1 events

### 2.1.4 Events

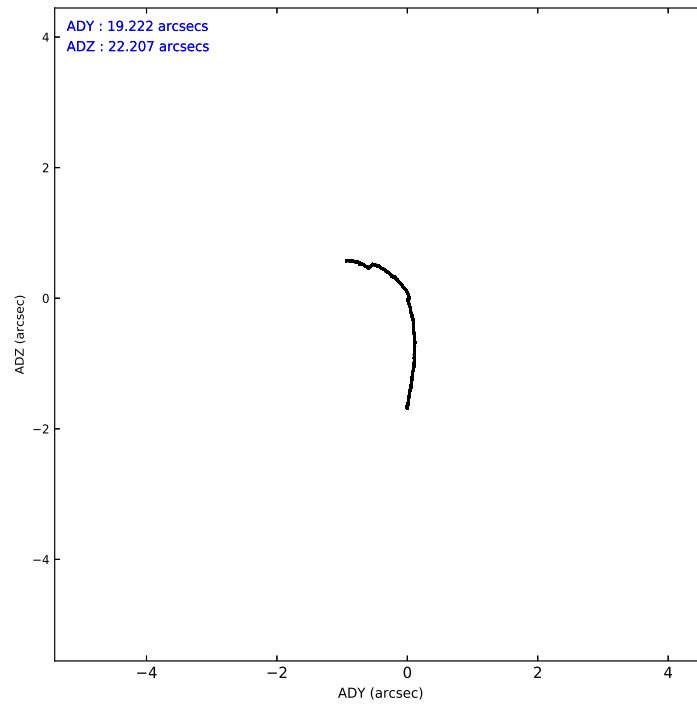
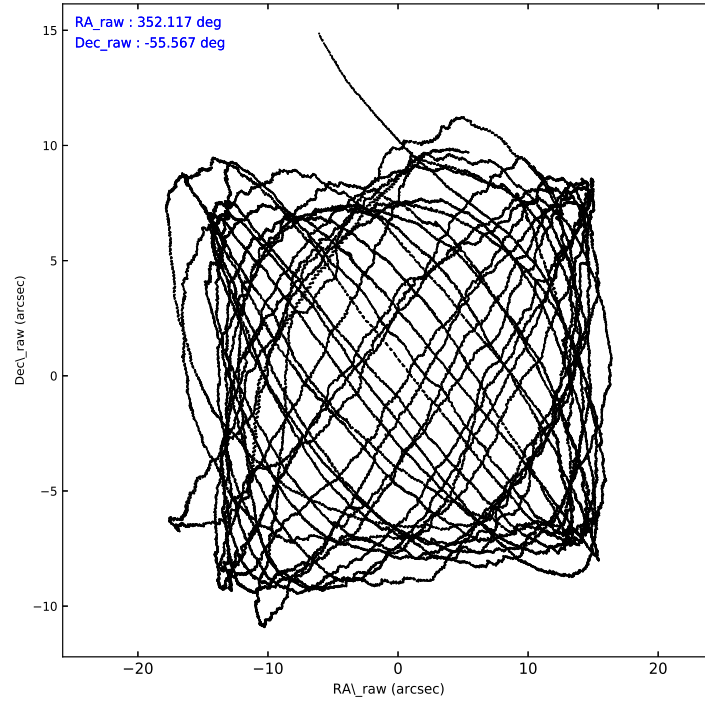
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	129936	134815	149286	143069	146357
rejected events	114430	118030	134354	128270	130764
rejected %	88%	87%	89%	89%	89%

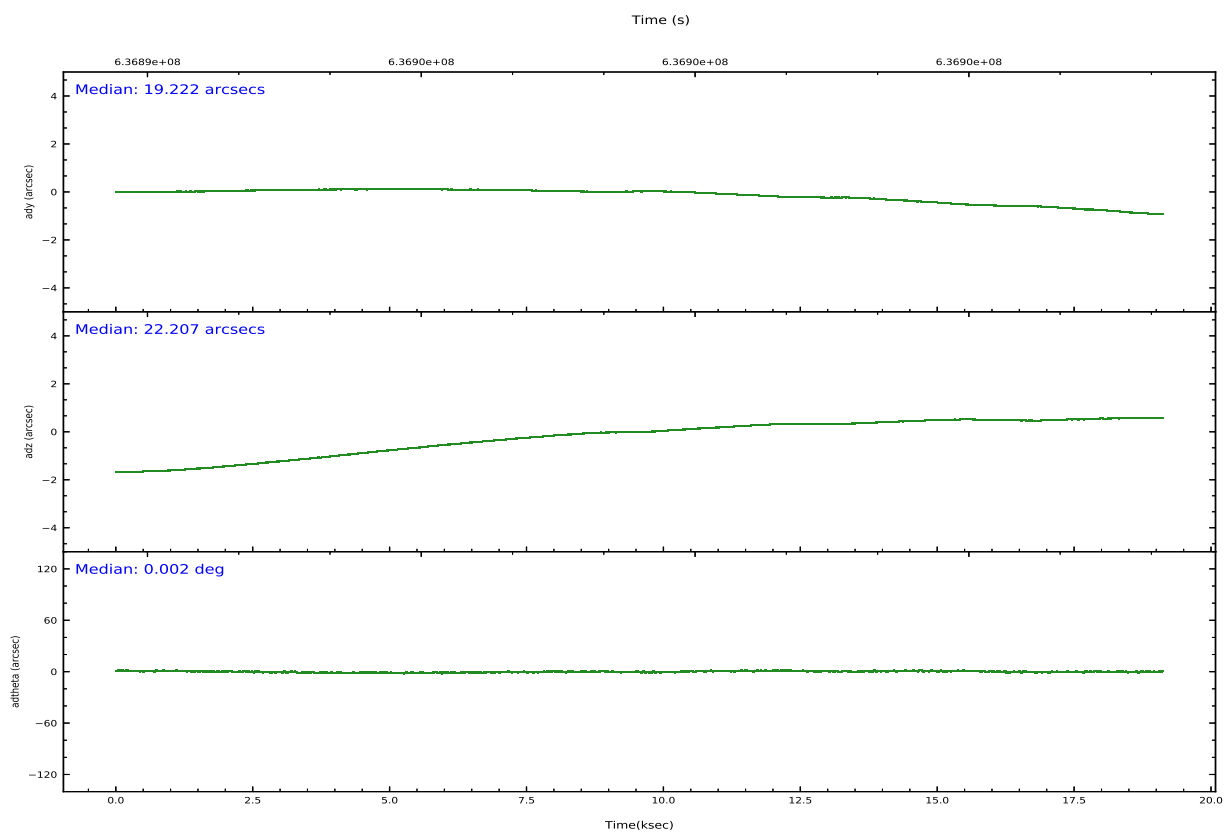
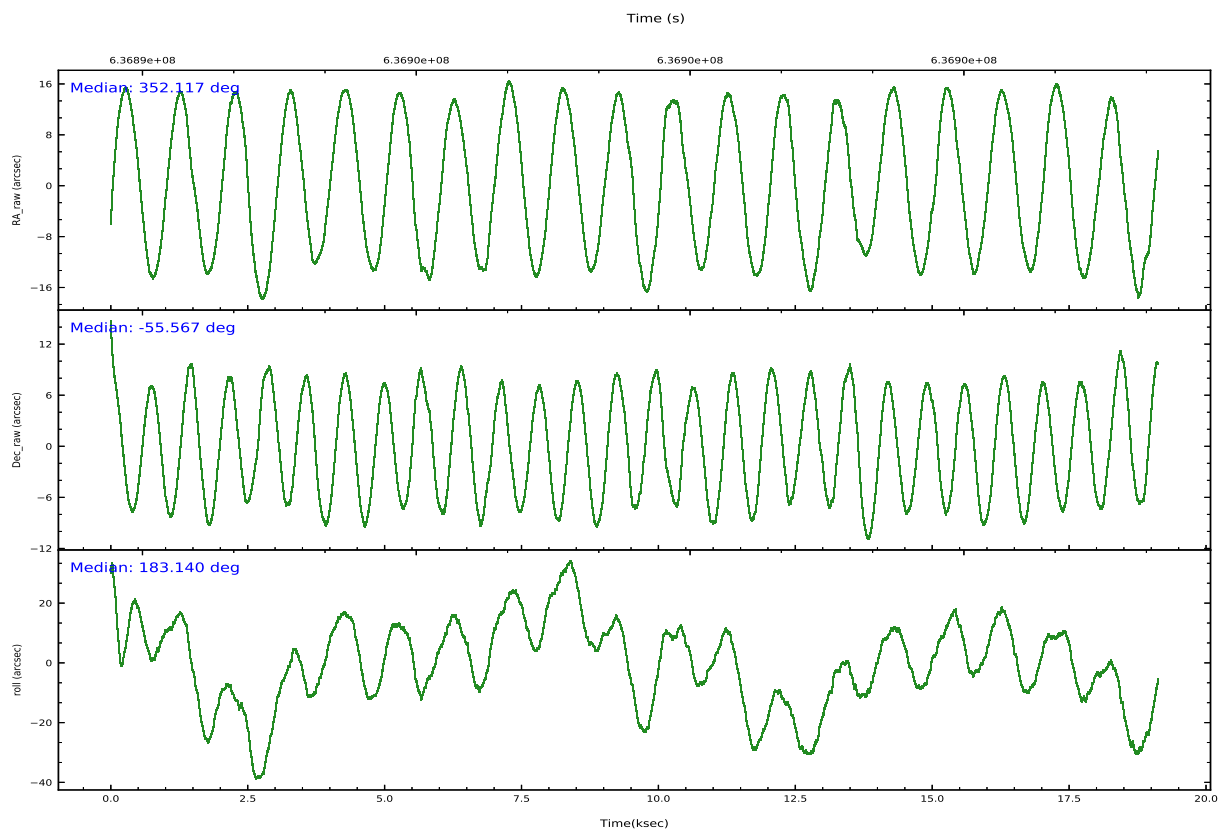
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	5199	5463	5281	5445	4867
	4%	4%	3%	3%	3%
grade 1 events	59	61	86	74	61
	0%	0%	0%	0%	0%
grade 2 events	3983	4522	3563	3200	3842
	3%	3%	2%	2%	2%
grade 3 events	1581	1580	1514	1534	1489
	1%	1%	1%	1%	1%
grade 4 events	1450	1455	1512	1523	1445
	1%	1%	1%	1%	0%
grade 5 events	5699	5980	5287	6556	6194
	4%	4%	3%	4%	4%
grade 6 events	3303	3775	3070	3103	3954
	2%	2%	2%	2%	2%
grade 7 events	108662	111979	128973	121634	124505
	83%	83%	86%	85%	85%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	352.157823	352.1262202087	CCD I2 on	Y	Y
[deg] Pointing Dec	-55.552210	-55.560802343999	CCD I3 on	Y	Y
[deg] Pointing Roll	182.979991	183.13935040783	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-230.082463	-230.0900218763587	CCD S3 on	N	N
[mm] SIM translation stage offset	-3.51	-3.502431126570968	CCD S4 on	N	N
[s] Observation start time (MET)	636889548.184000	636888439.82734	CCD S5 on	N	N
Observation start date	2018-03-08T09:44:39	2018-03-08T09:27:19	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	636908548.184000	636909288.32856	On-chip summing requested	N	N
Observation end date	2018-03-08T15:01:19	2018-03-08T15:14:48	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



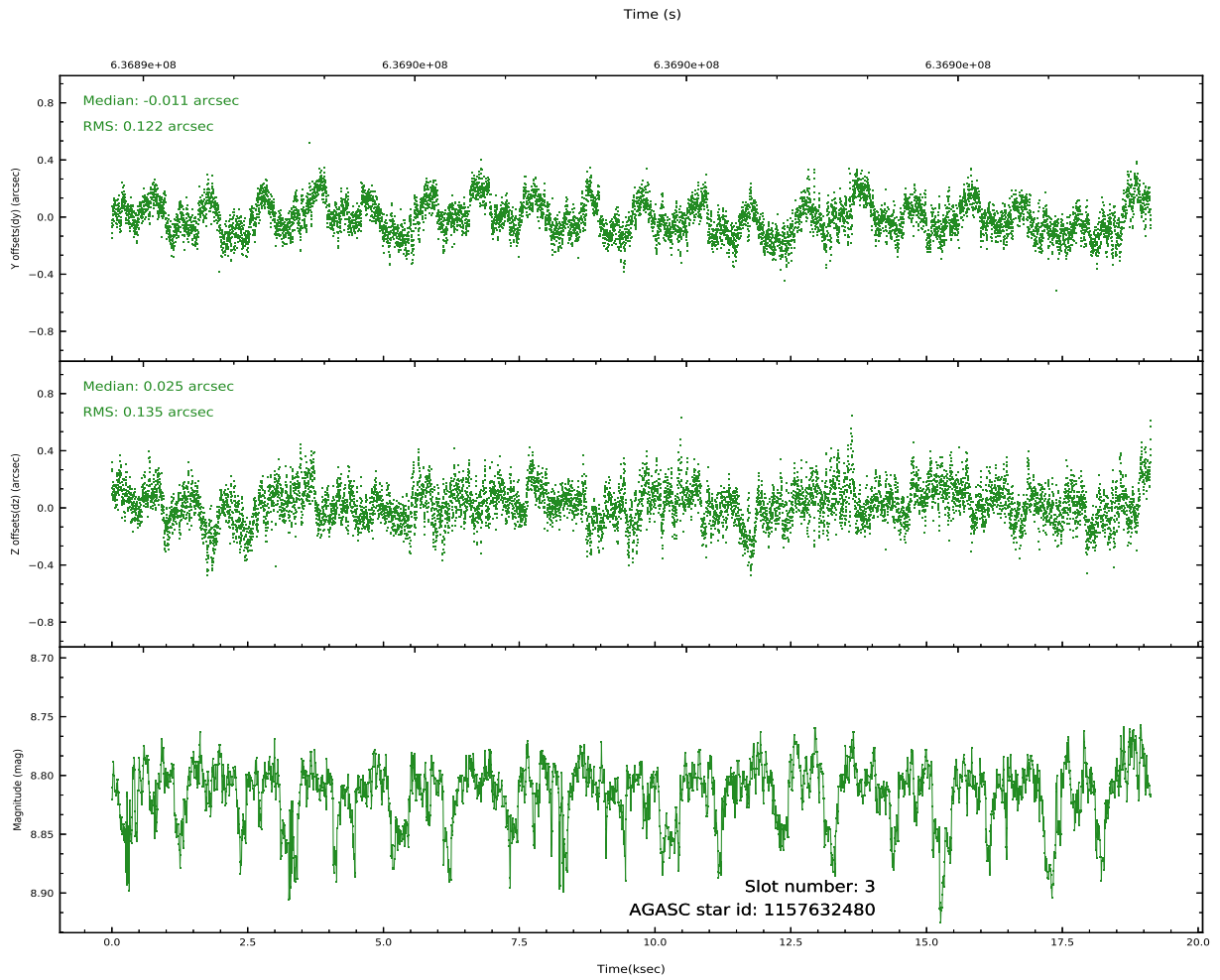
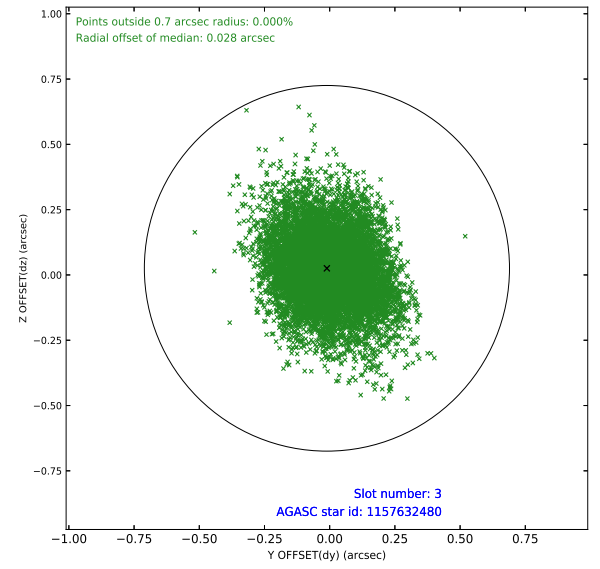
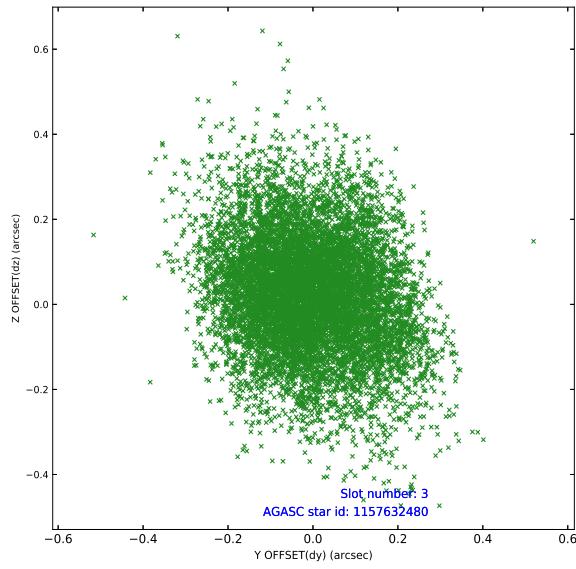


Slot Statistics

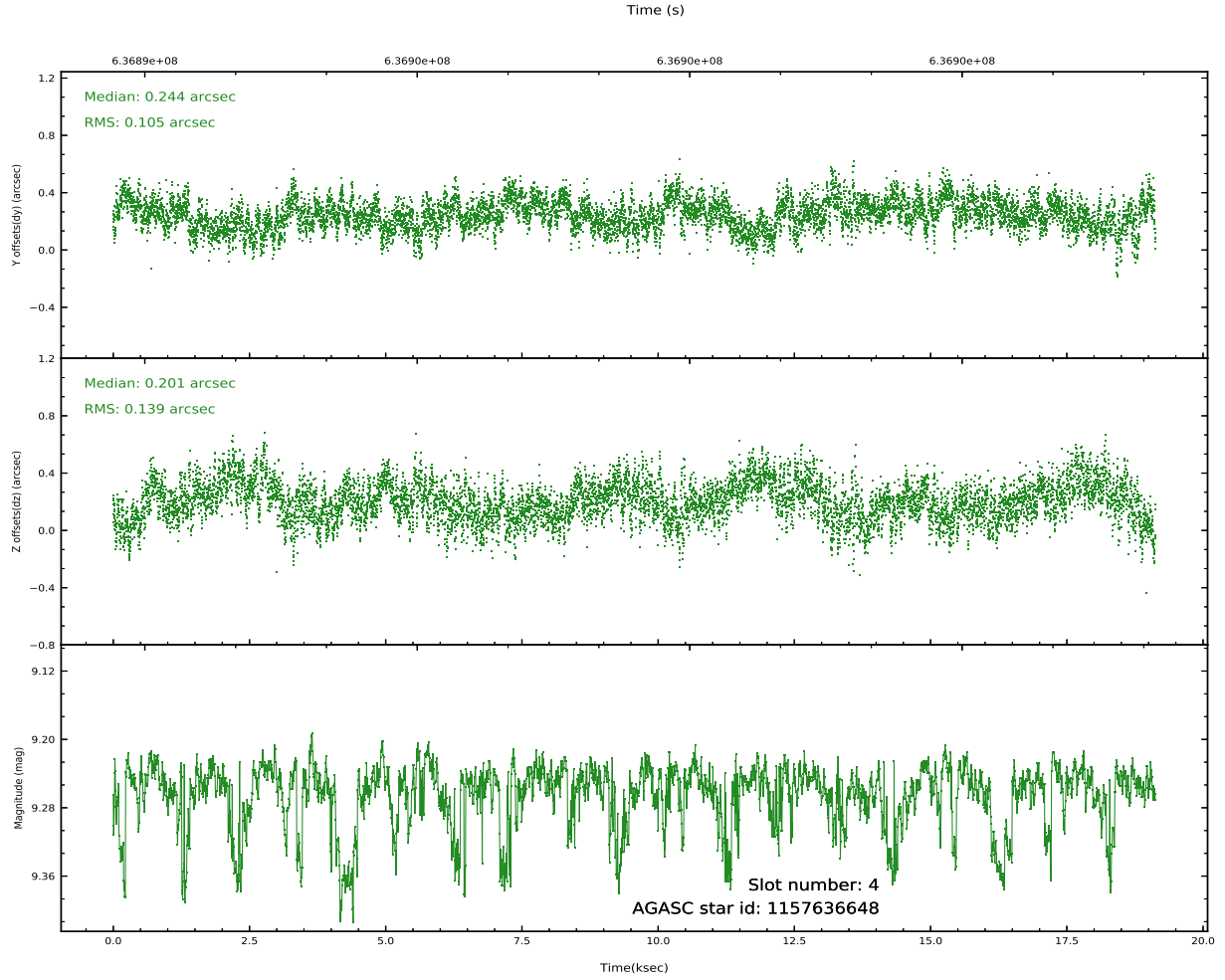
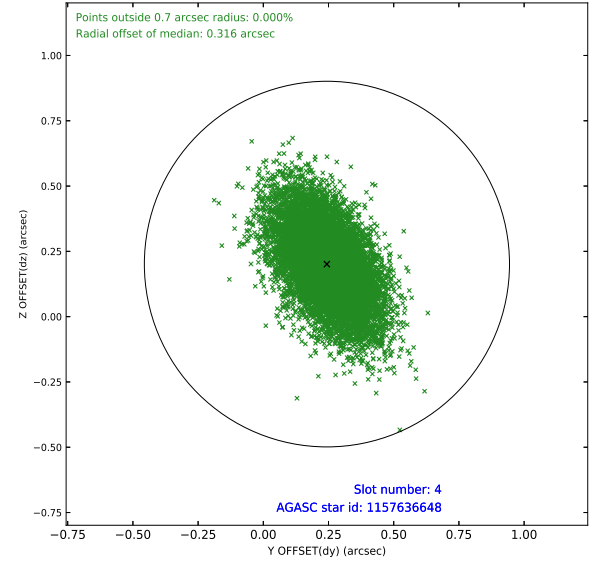
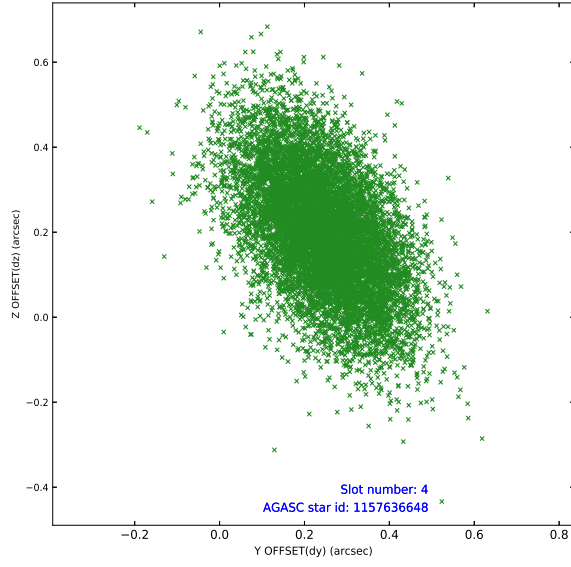
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.23	4665	1.000	0.235	-0.117	0.017	0.028	0.000000	0.000000	920.39	-917
1	FID		ACIS-I-5	7.22	4663	1.000	-0.329	0.207	0.011	0.019	0.000000	0.000000	-1828.04	980
2	FID		ACIS-I-6	7.21	4665	1.000	0.005	-0.021	0.018	0.027	0.000000	0.000000	385.66	1624
3	GUIDE	used	1157632480	8.81	9321	1.000	-0.011	0.025	0.193	0.314	351.345933	-54.970769	1567.76	-2167
4	GUIDE	used	1157636648	9.26	9318	1.000	0.244	0.201	0.182	0.313	353.192393	-54.996097	-2235.82	-1872
5	GUIDE	used	1158025216	9.67	9319	1.000	-0.184	-0.258	0.252	0.407	351.544585	-55.935031	1306.50	1317
6	GUIDE	used	1158024208	9.38	9319	1.000	-0.054	0.031	0.188	0.316	352.192707	-55.850277	-15.54	1075
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0

## 2.4 Star Slots

### 2.4.1 Slot 3

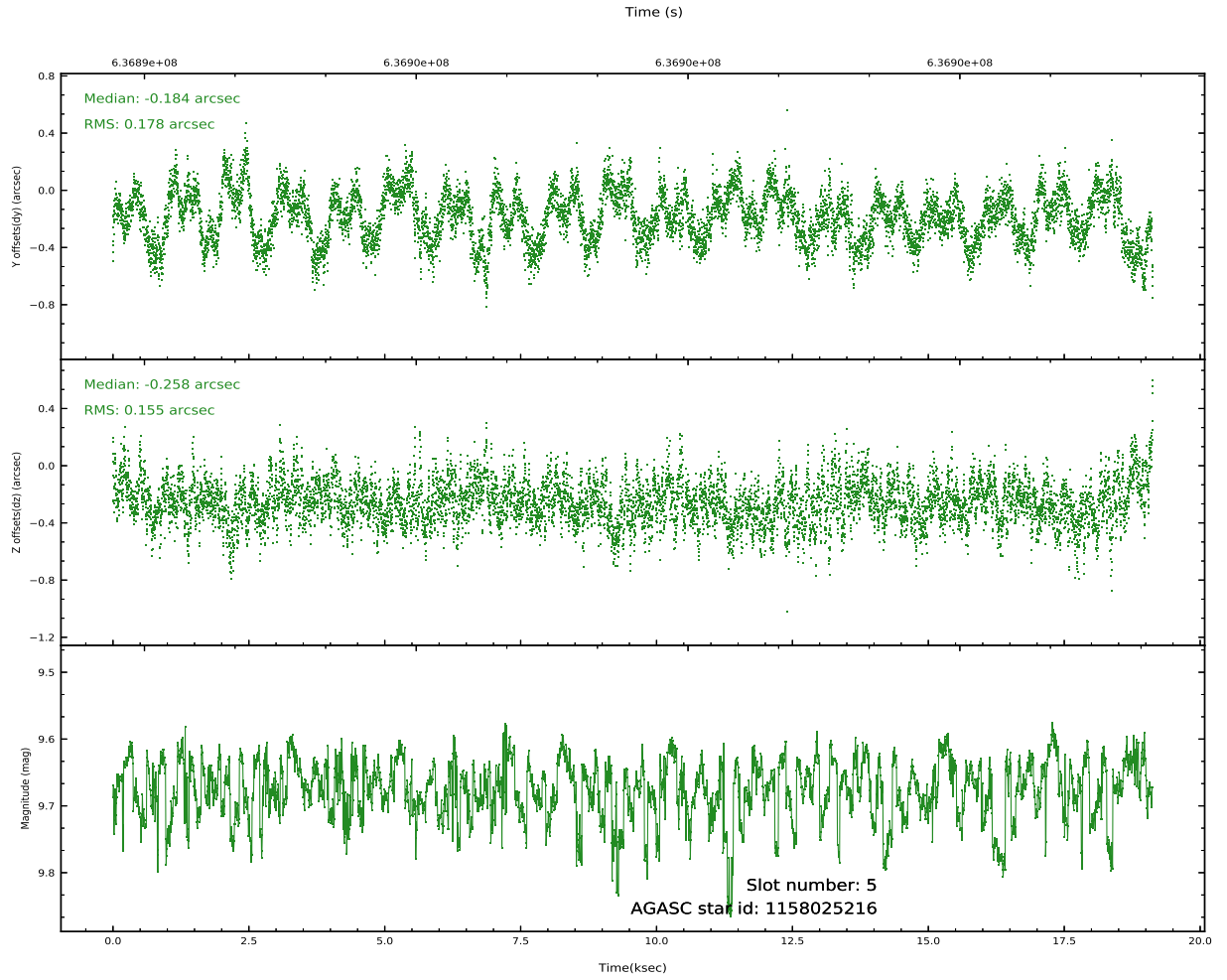
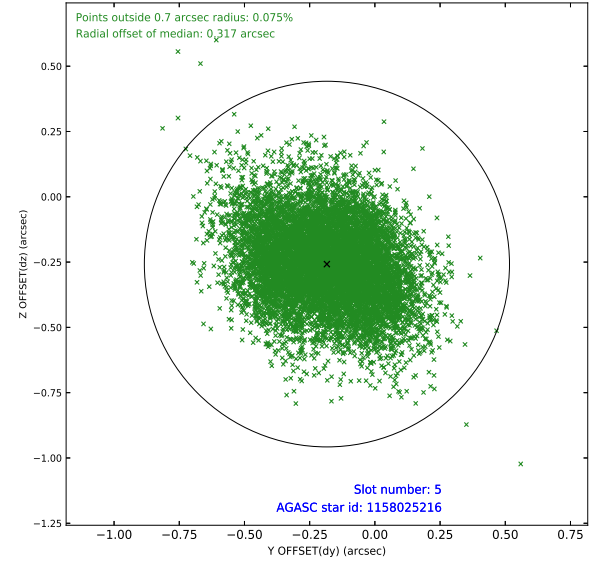
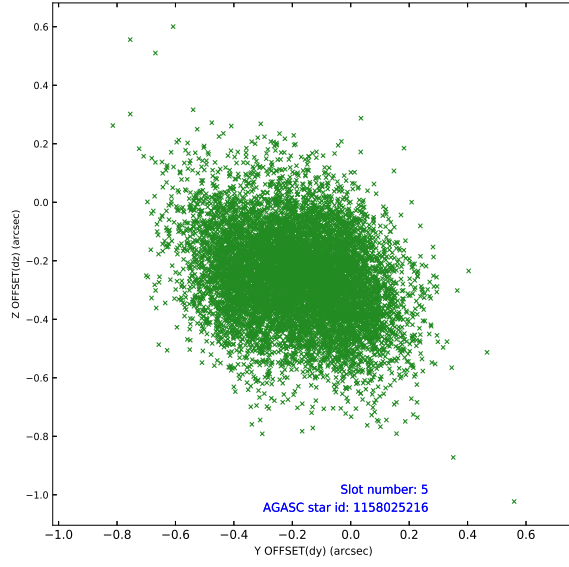


## 2.4.2 Slot 4

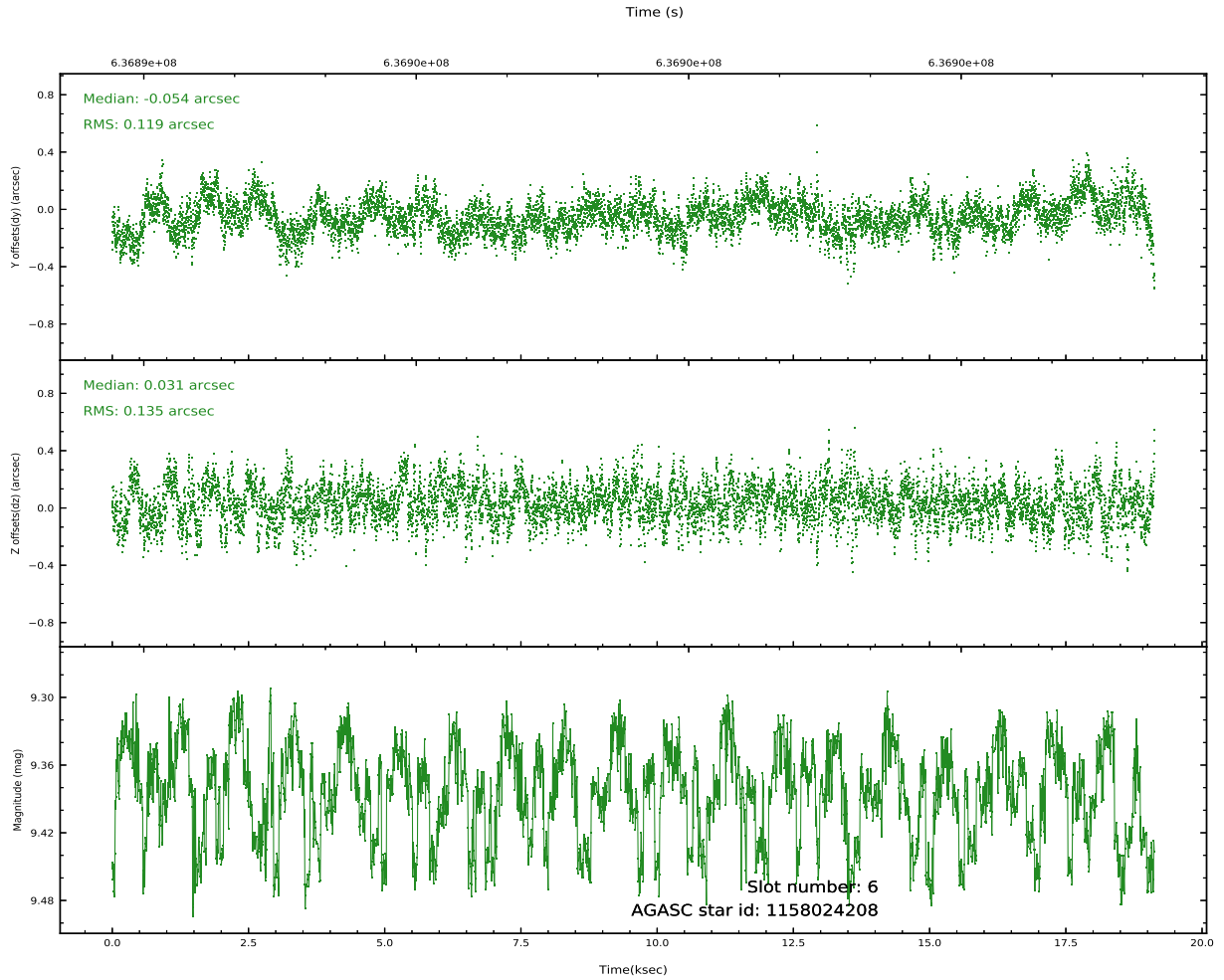
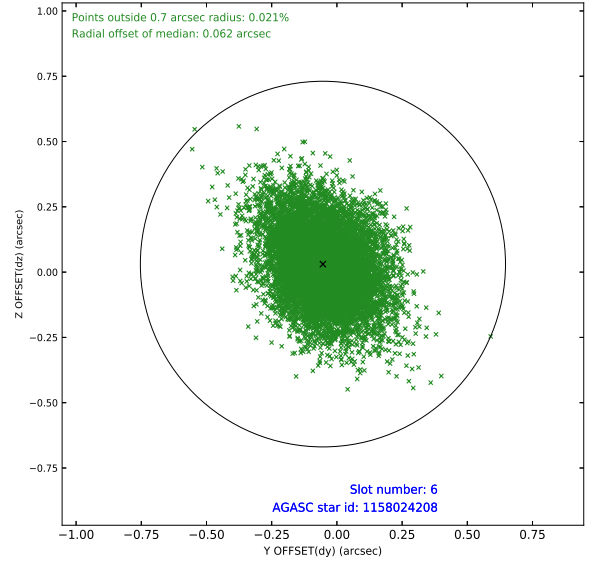
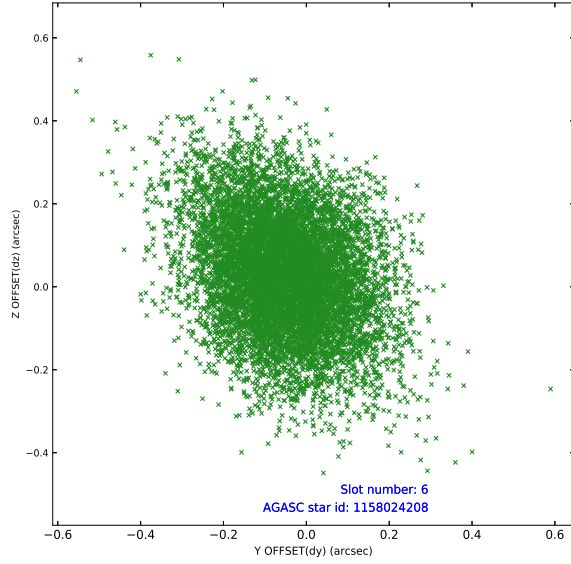




### 2.4.3 Slot 5

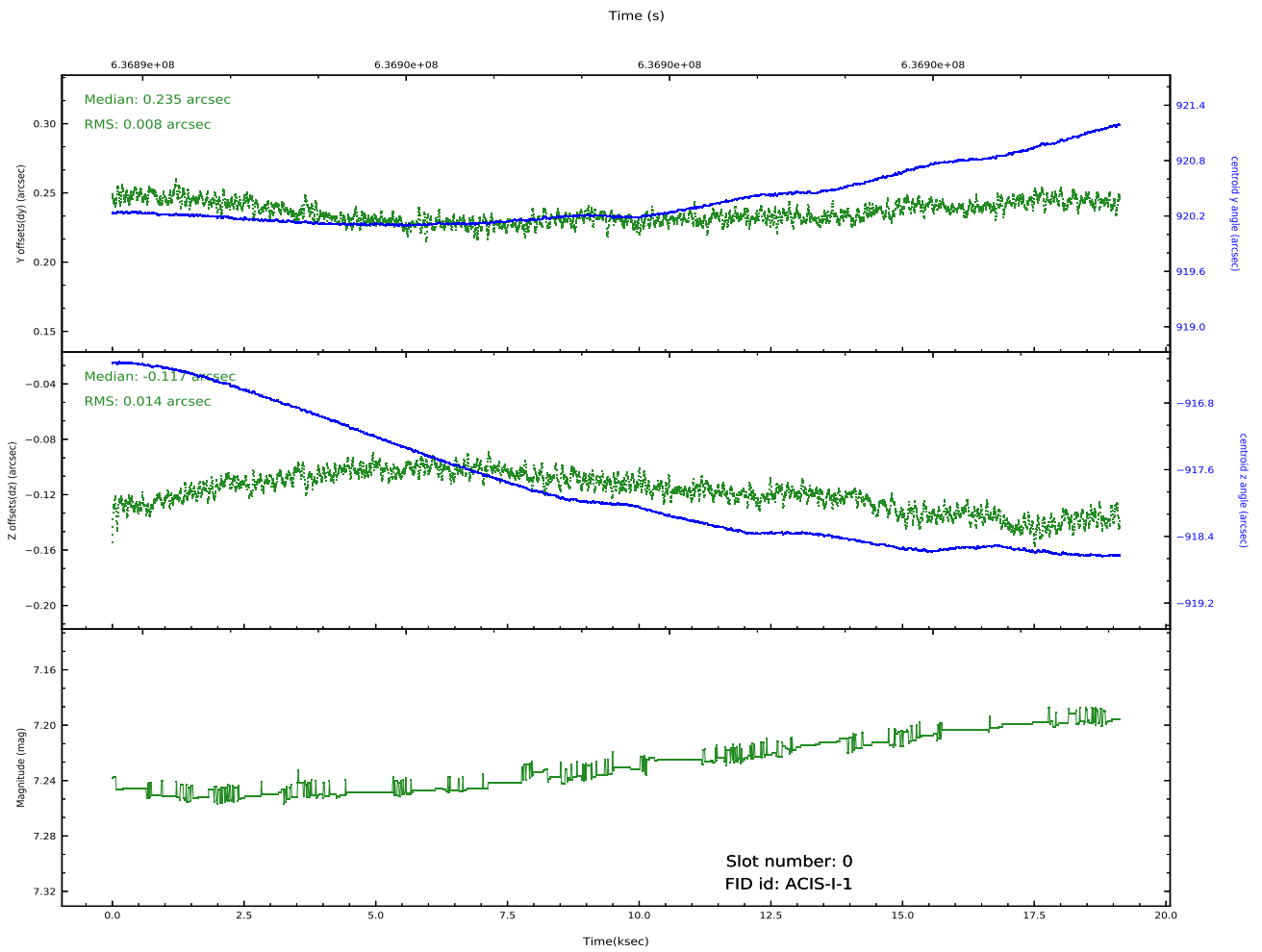
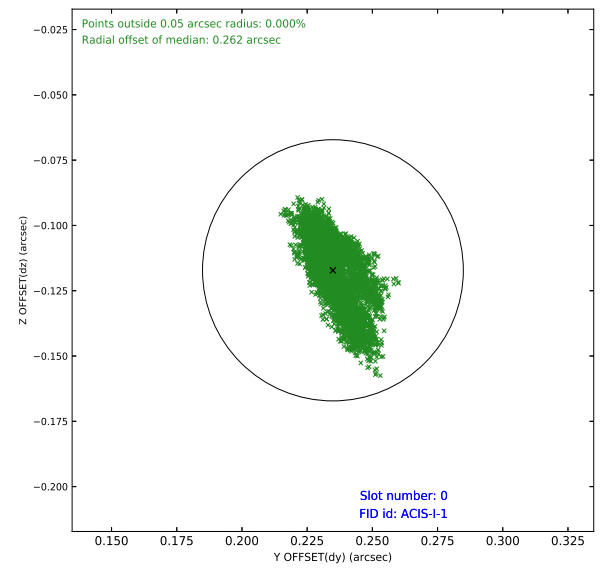
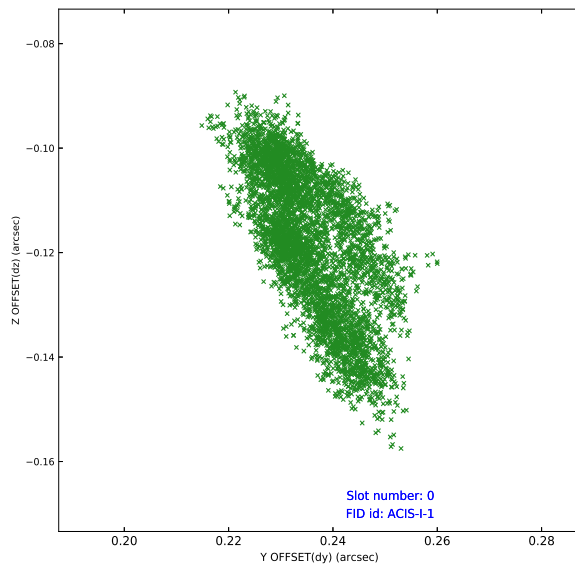


## 2.4.4 Slot 6

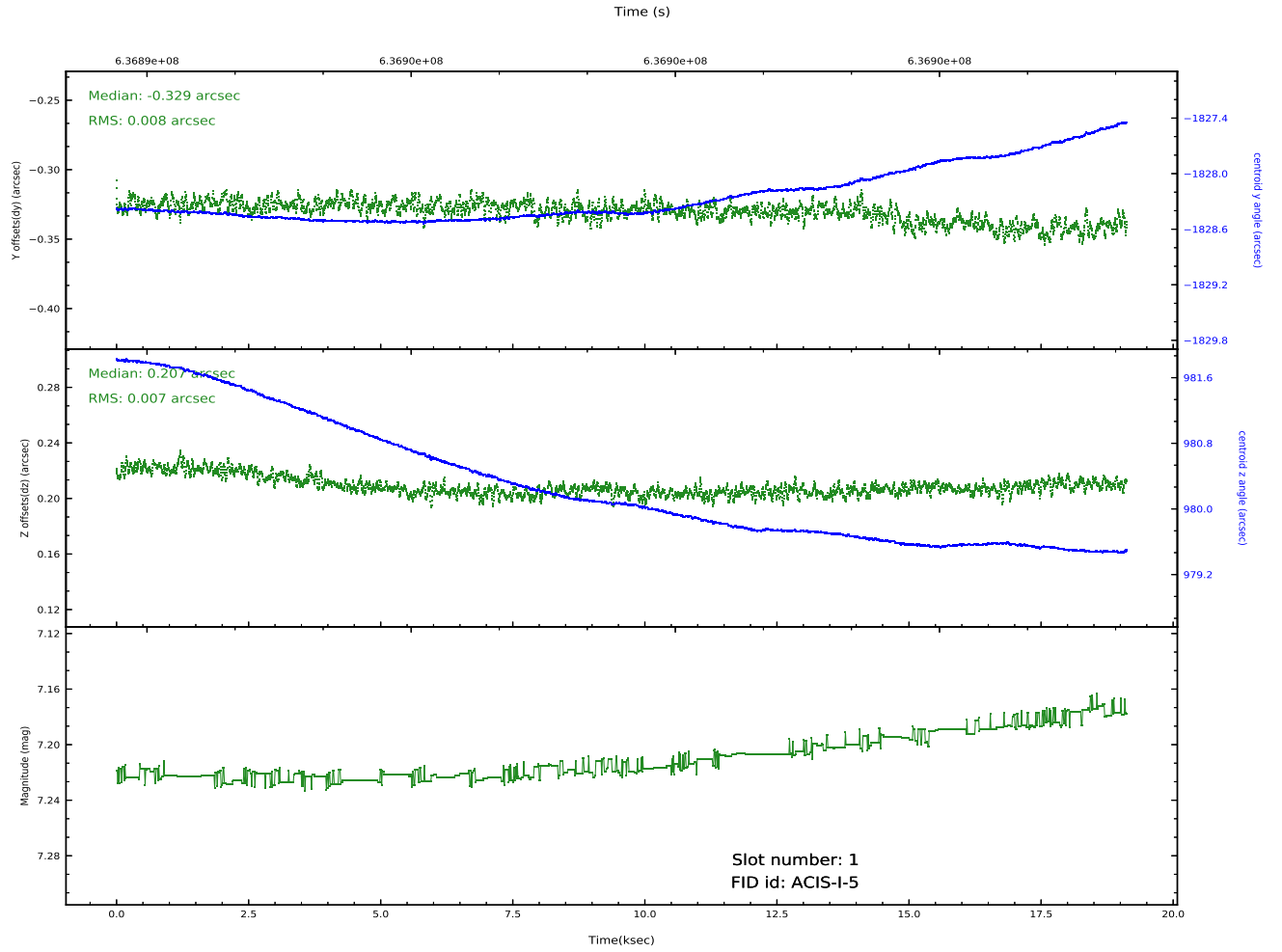
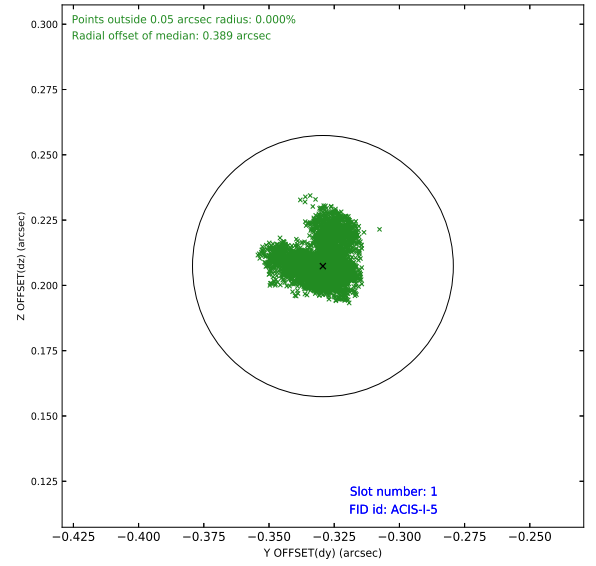
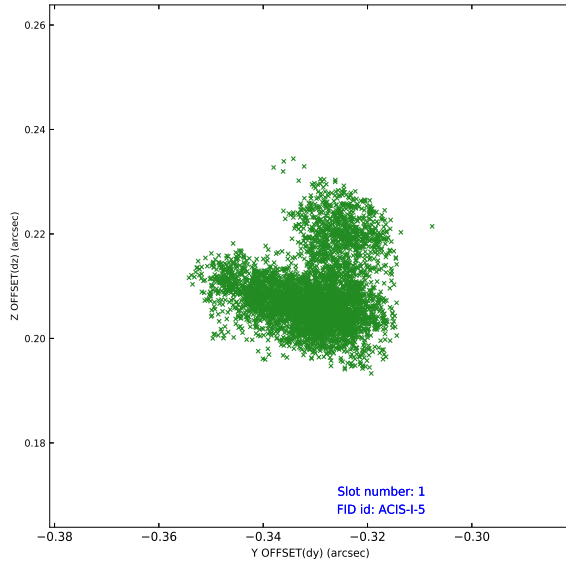


## 2.5 FID Slots

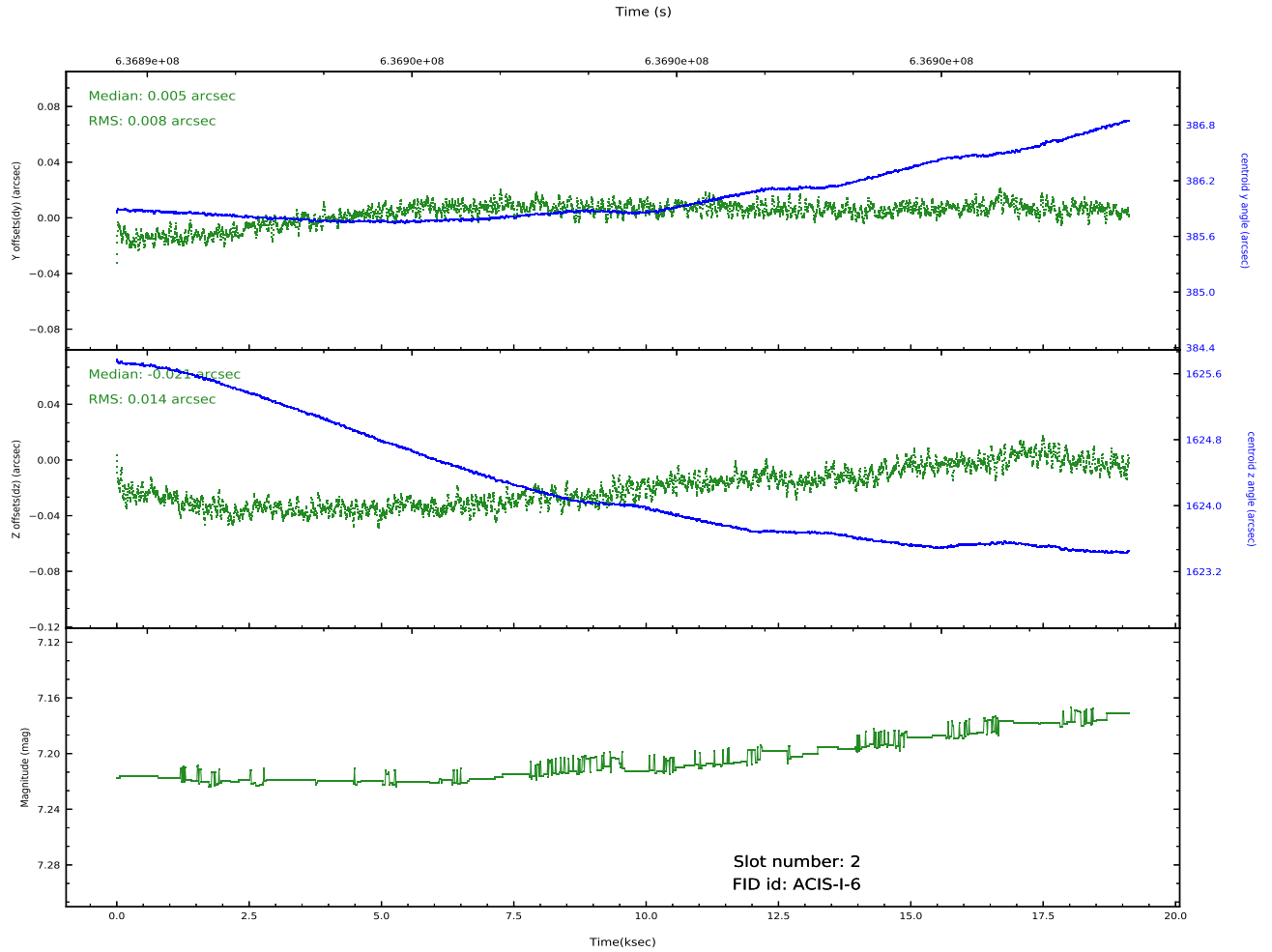
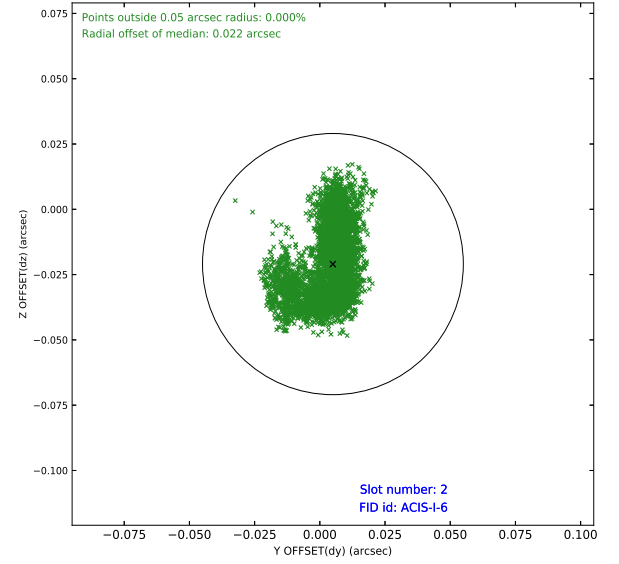
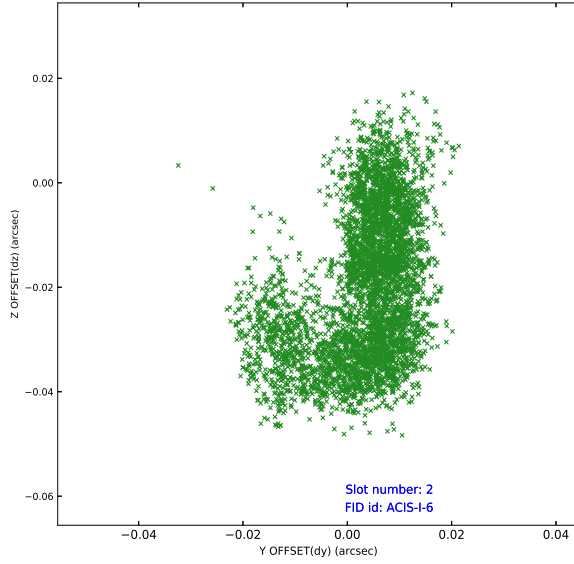
### 2.5.1 Slot 0



## 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	19.060801358104

### A.2 Comments

The guide star in slot 7 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this slot from the solution.