

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 19367 - L2 Version 2
Chandra X-Ray Center

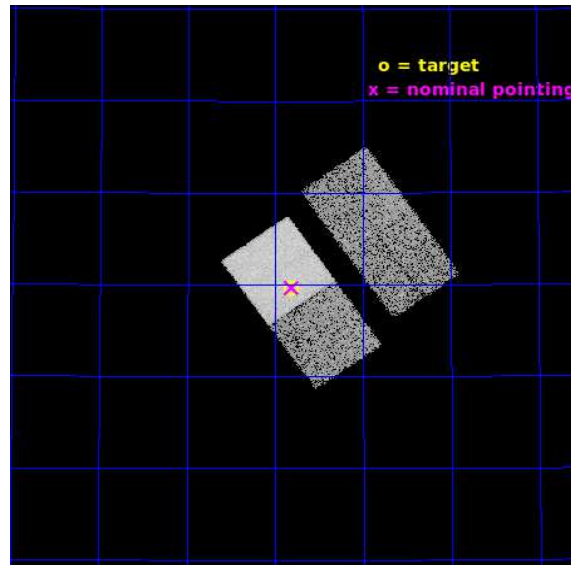
L2 Processing Date : Oct 25 2020

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1 Front

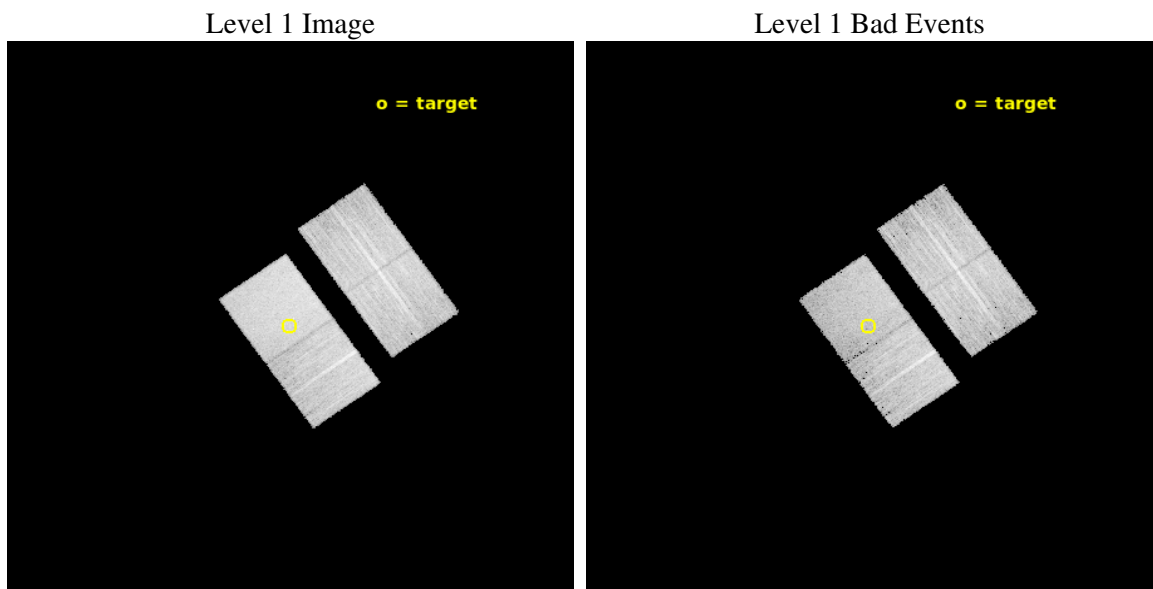
seq_num	601324	Sequence number
obs_id	19367	Observation id
title	A Statistically Complete High Resolution Chandra and Radio (eMERLIN) Survey of the Palomar Nearby Galaxies Sample	Proposal title
observer	Ian McHardy	Principal investigator
object	NGC 3953	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	178.454167	Observer's specified target RA [deg]
dec_targ	52.326528	Observer's specified target Dec [deg]
ra_nom	178.45273140274	Nominal RA [deg]
dec_nom	52.327942564439	Nominal Dec [deg]
roll_nom	234.81612874842	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10877.178864717	Sum of GTIs [s]
livetime	10735.060515187	Livetime [s]
ontime2	10877.055744767	Sum of GTIs [s]
ontime3	10877.096784711	Sum of GTIs [s]
ontime6	10877.137824774	Sum of GTIs [s]
ontime7	10877.178864717	Sum of GTIs [s]
l2events	65559	Number of level 2 events



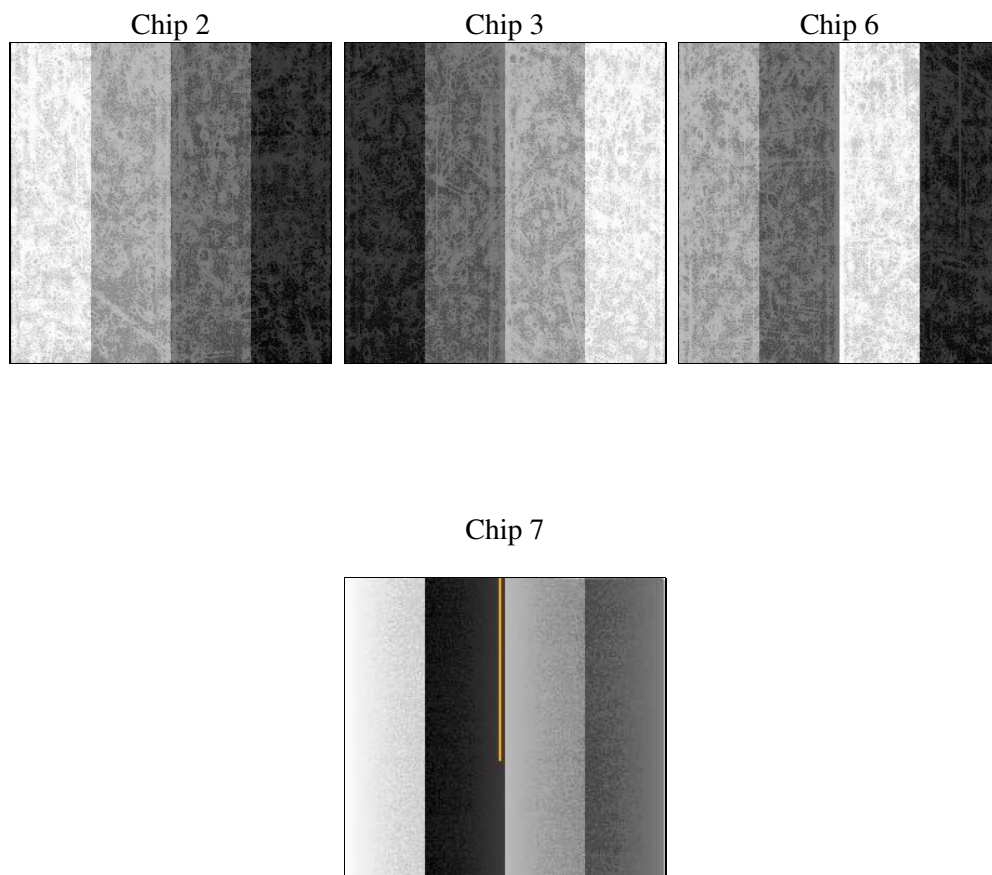
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10804.228000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	10877.178864717	Sum of GTIs [s]
caldsver	4.9.3	 	ontime2	10877.055744767	Sum of GTIs [s]
date	2020-10-26T00:12:09	Date and time of file creation	ontime3	10877.096784711	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	10877.137824774	Sum of GTIs [s]
			ontime7	10877.178864717	Sum of GTIs [s]
			l1events	339141	Number of level 1 events

2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	79466	77463	80407	101805
rejected events	70862	69018	71412	57150
rejected %	89%	89%	88%	56%

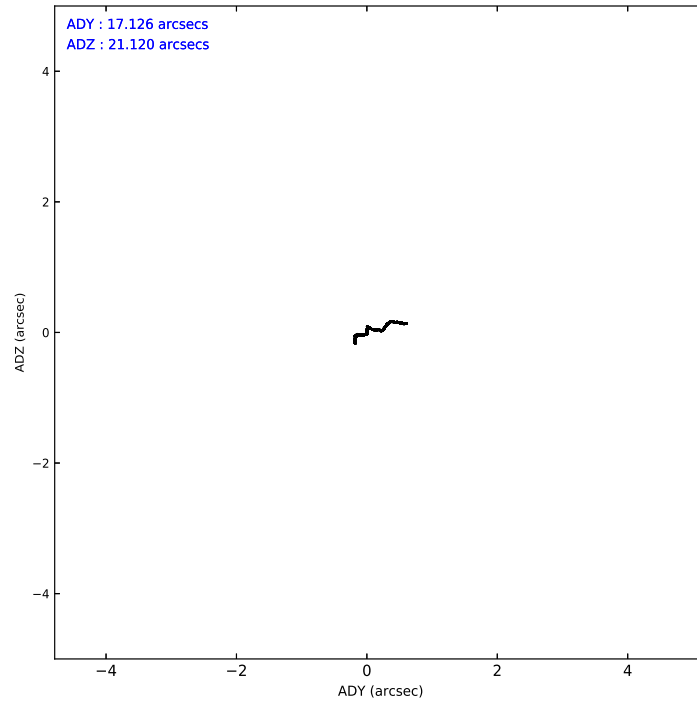
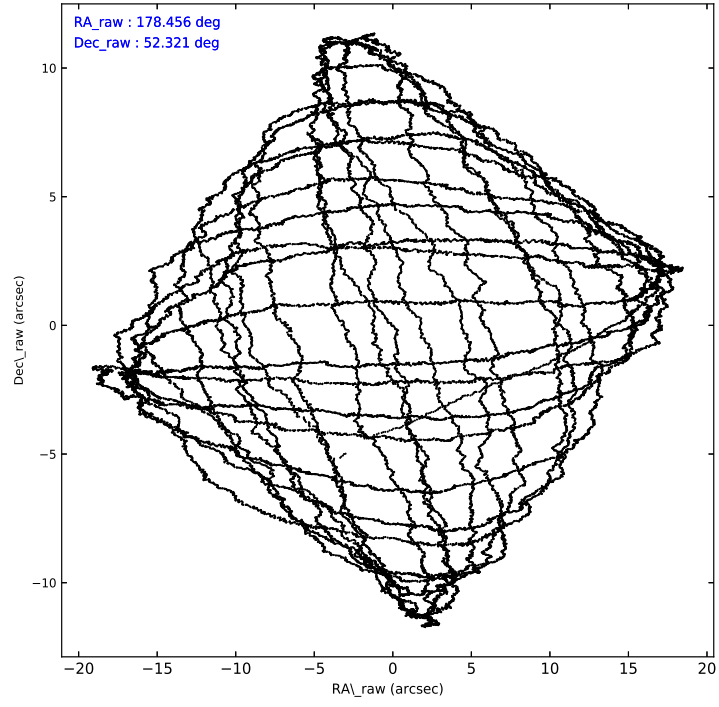
	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	2963	3186	2969	3794
	3%	4%	3%	3%
grade 1 events	52	39	32	162
	0%	0%	0%	0%
grade 2 events	2312	1812	2090	9521
	2%	2%	2%	9%
grade 3 events	876	852	913	3602
	1%	1%	1%	3%
grade 4 events	837	870	906	3474
	1%	1%	1%	3%
grade 5 events	3049	3551	3794	10163
	3%	4%	4%	9%
grade 6 events	1618	1727	2121	24275
	2%	2%	2%	23%
grade 7 events	67759	65426	67582	46814
	85%	84%	84%	45%

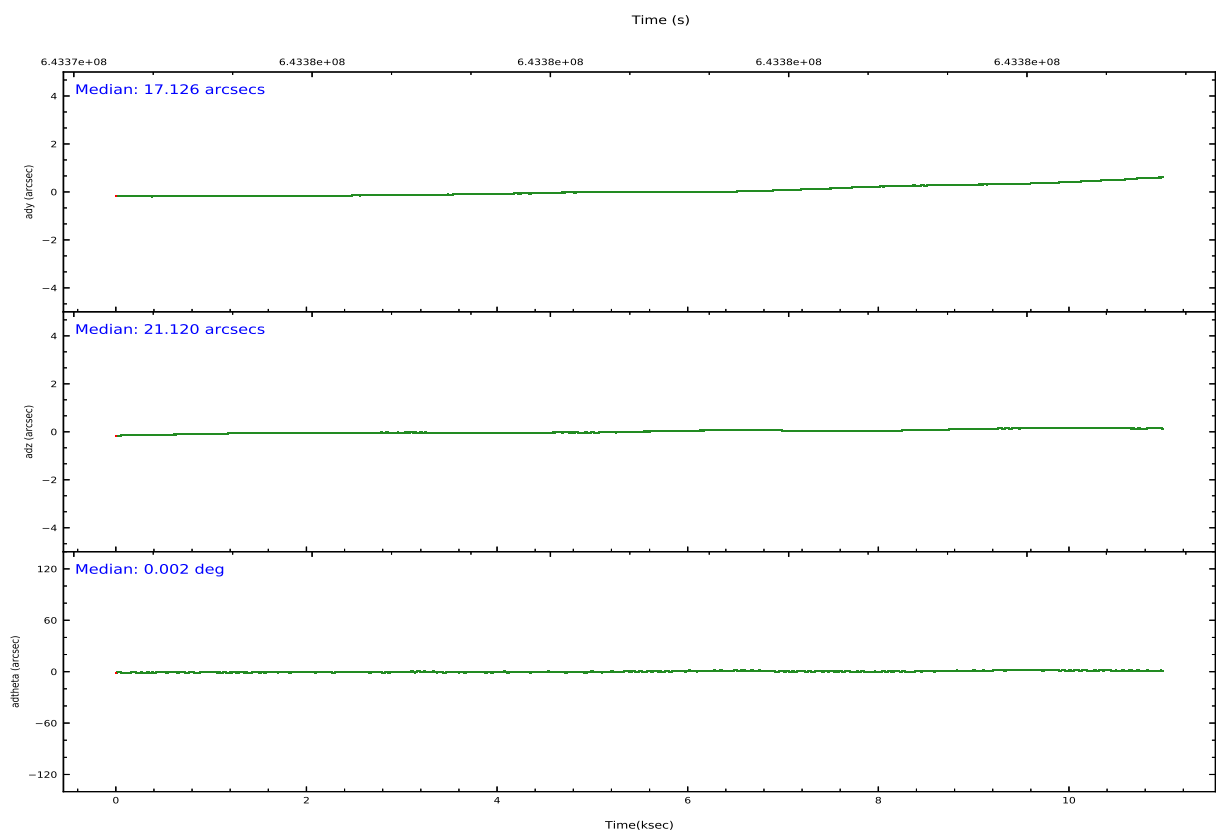
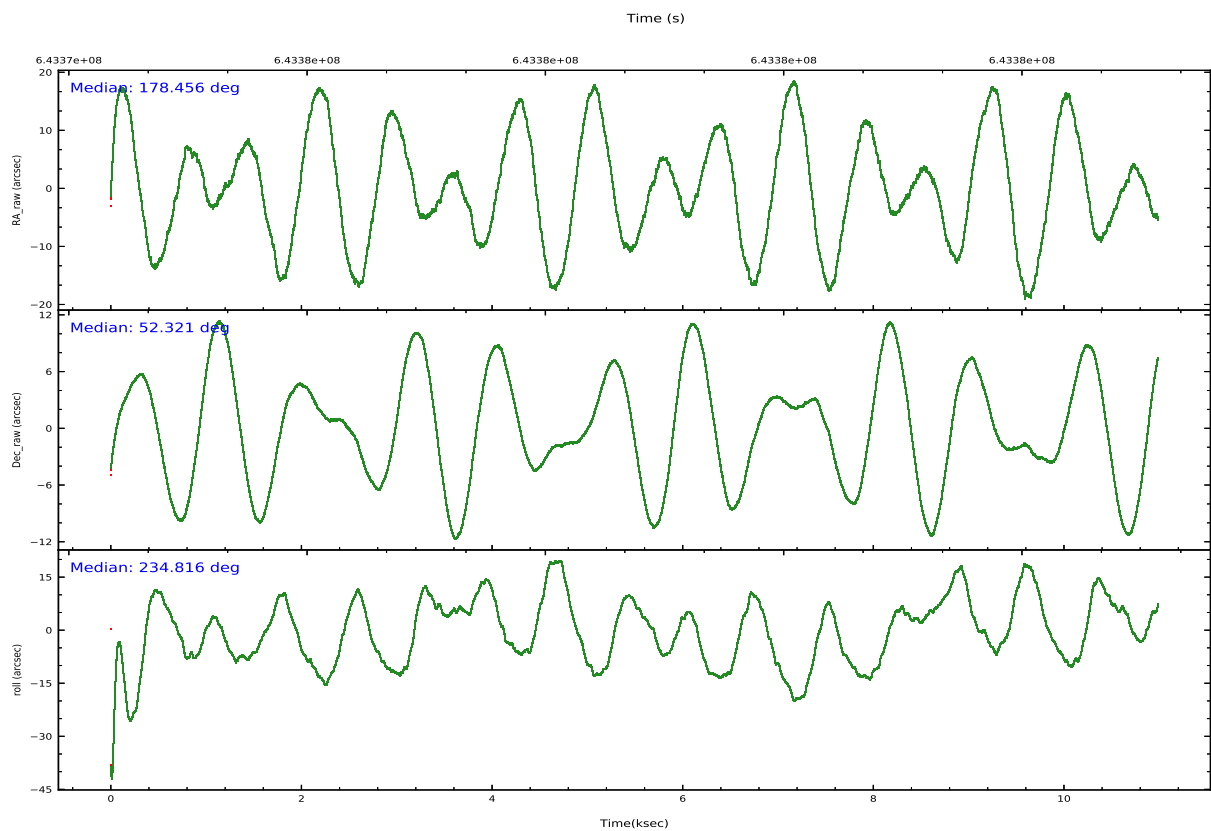
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-2367	ACIS-2367
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	178.459725	178.45273140274
[deg] Pointing Dec	52.347677	52.327942564439
[deg] Pointing Roll	234.657739	234.81612874842
[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)	643373124.184000	643372212.4975899
Observation start date	2018-05-22T10:44:15	2018-05-22T10:30:12
[s] Observation end time (MET)	643383928.184000	643384780.02333
Observation end date	2018-05-22T13:44:19	2018-05-22T13:59:40
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar version number	8	8
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

2.3 Aspect



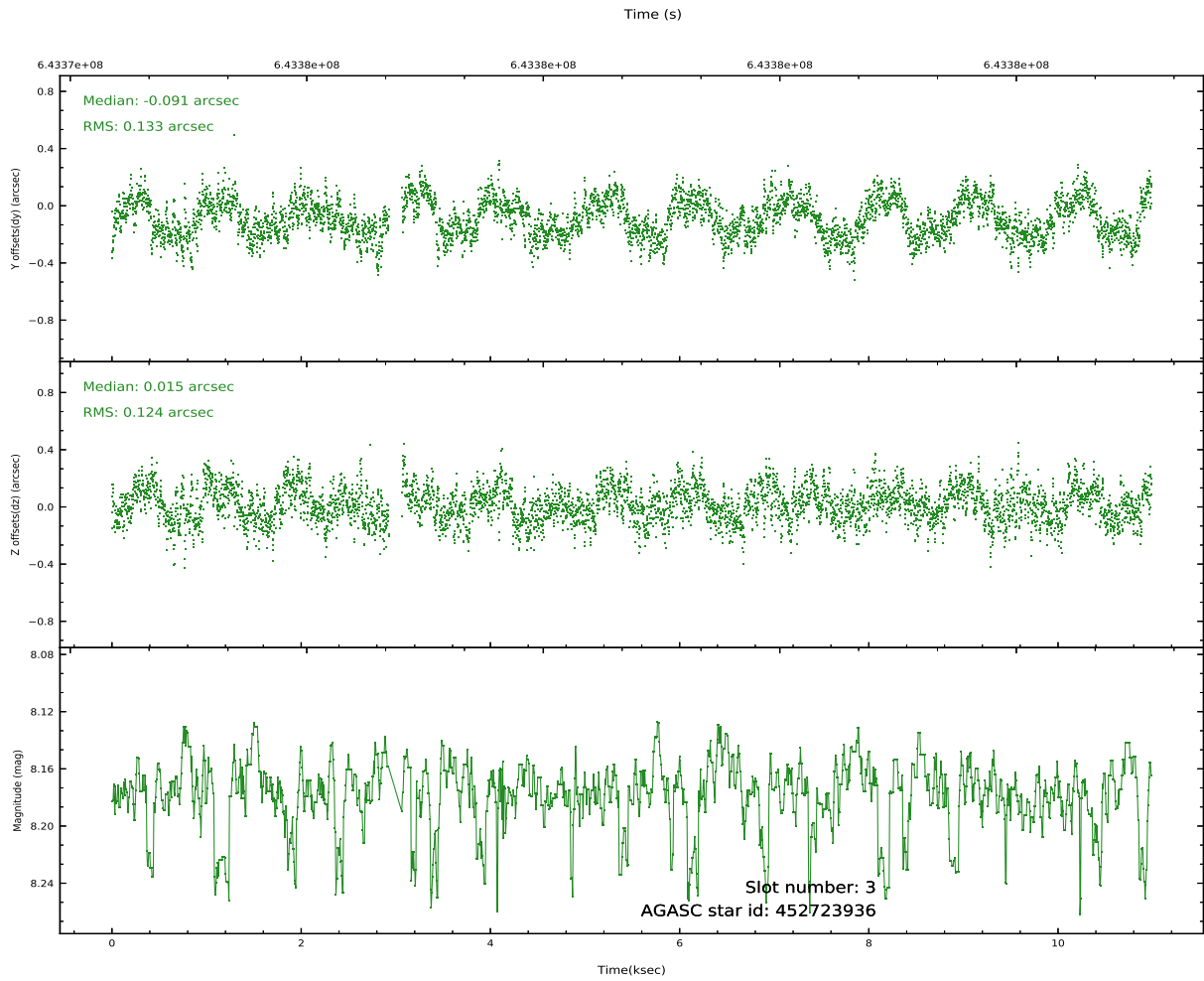
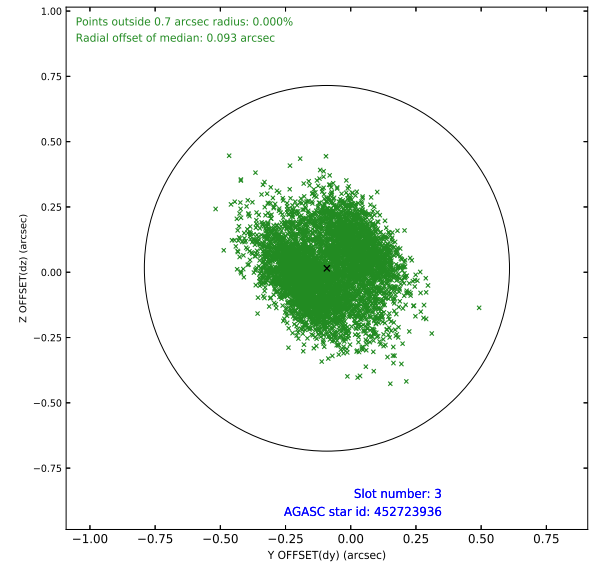
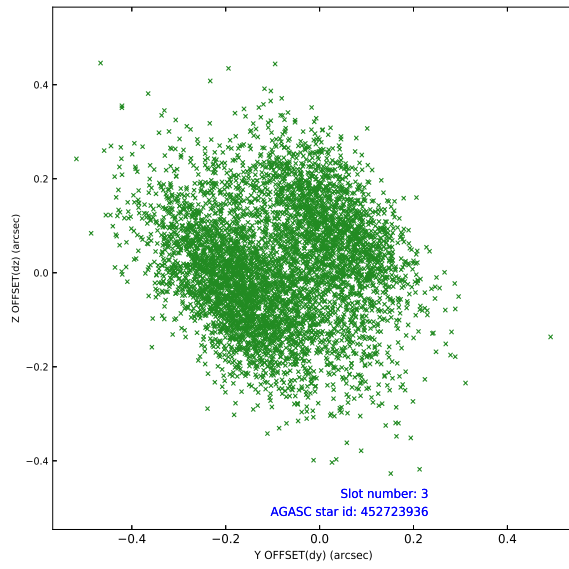


Slot Statistics

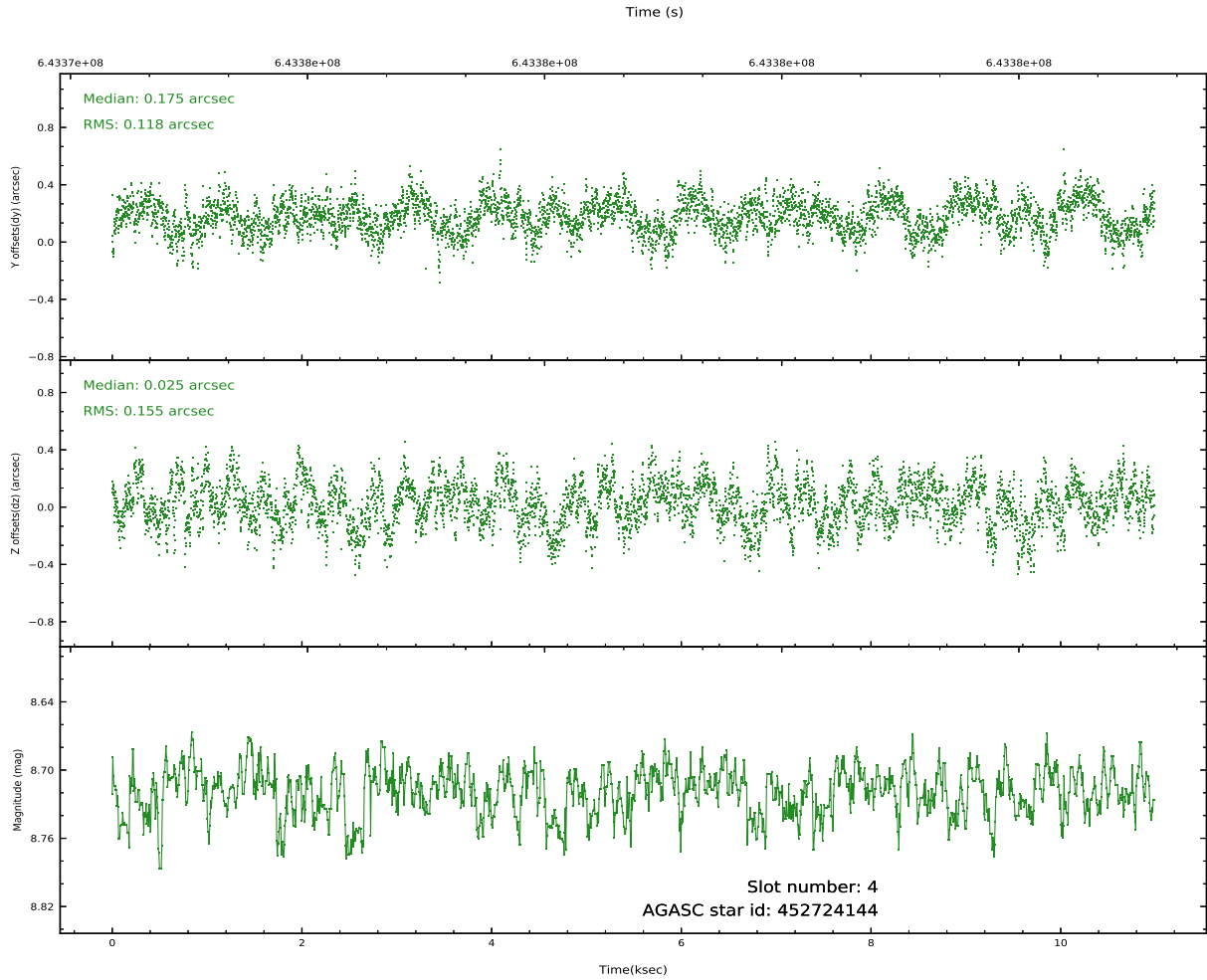
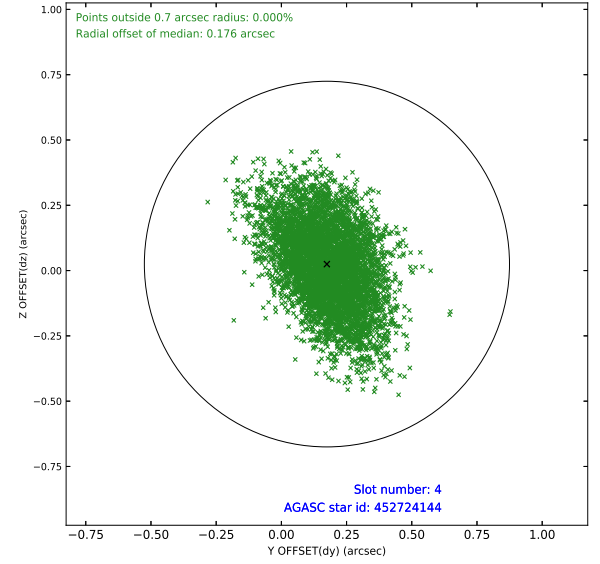
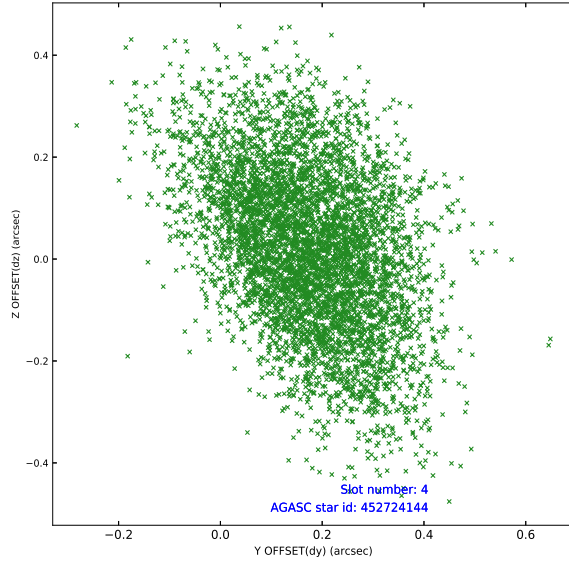
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.02	2681	1.000	0.113	-0.072	0.011	0.018	0.000000	0.000000	-770.30	-1742
1	FID		ACIS-S-4	7.12	2681	1.000	0.098	-0.034	0.007	0.013	0.000000	0.000000	2142.96	165
2	FID		ACIS-S-5	7.11	2680	1.000	-0.241	0.115	0.012	0.022	0.000000	0.000000	-1822.69	159
3	GUIDE	used	452723936	8.18	5287	1.000	-0.091	0.015	0.197	0.295	178.759050	51.956024	765.11	1357
4	GUIDE	used	452724144	8.72	5359	1.000	0.175	0.025	0.204	0.343	177.940604	51.991497	1709.20	-198
5	GUIDE	used	452725176	9.91	5234	1.000	0.121	0.011	0.299	0.478	177.983743	52.322712	677.34	-803
6	GUIDE	used	502268072	10.15	5280	1.000	-0.081	-0.150	0.273	0.464	177.458150	52.521677	746.30	-2160
7	GUIDE	used	502405416	9.58	5348	1.000	-0.178	0.120	0.286	0.470	179.648809	52.584345	-2216.34	1617

2.4 Star Slots

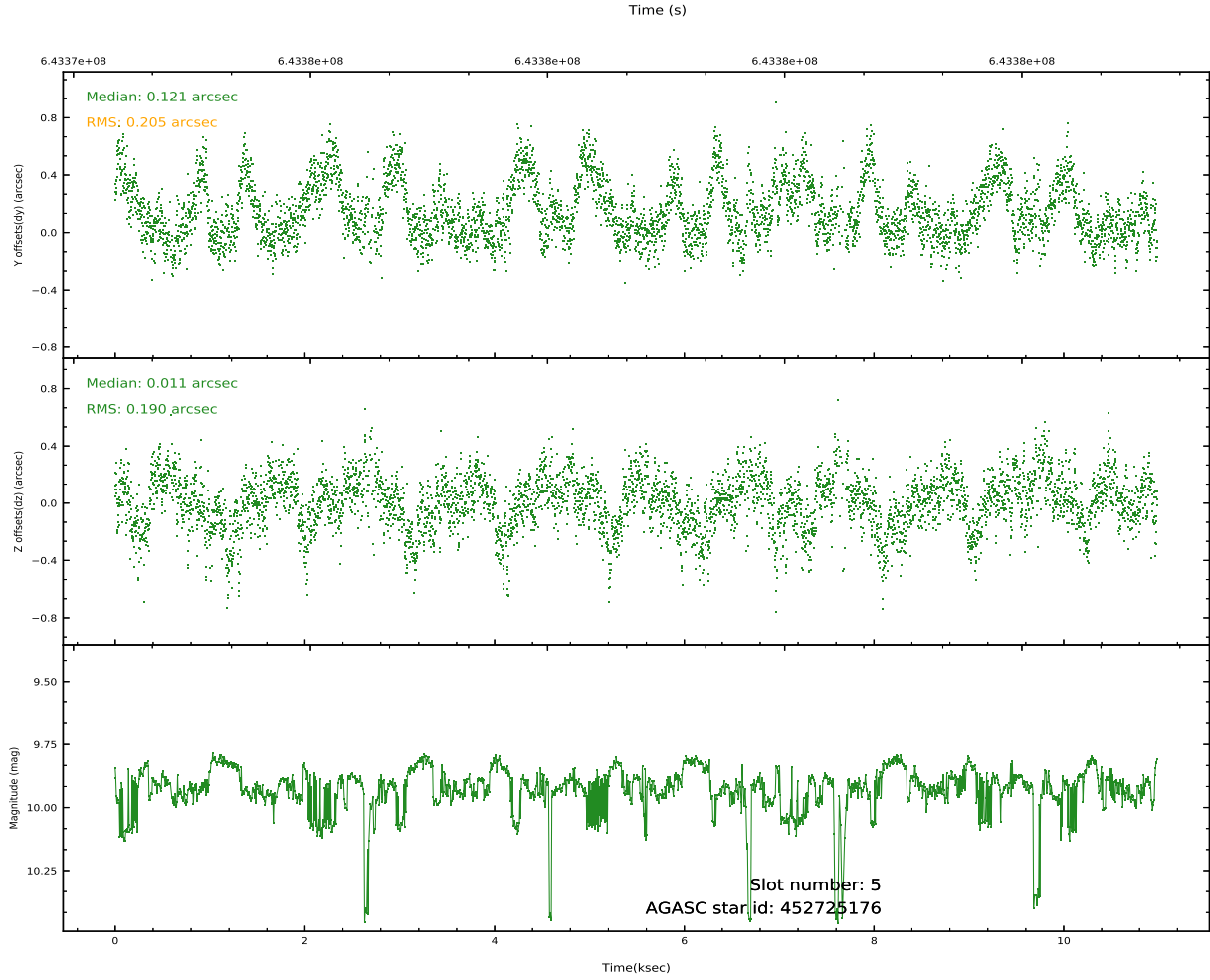
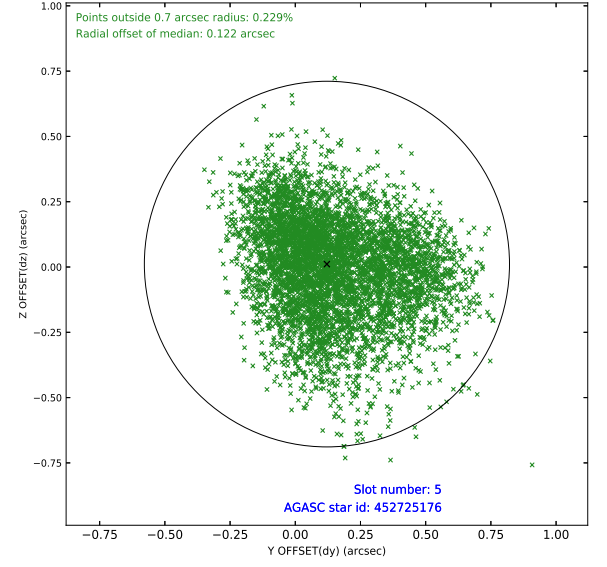
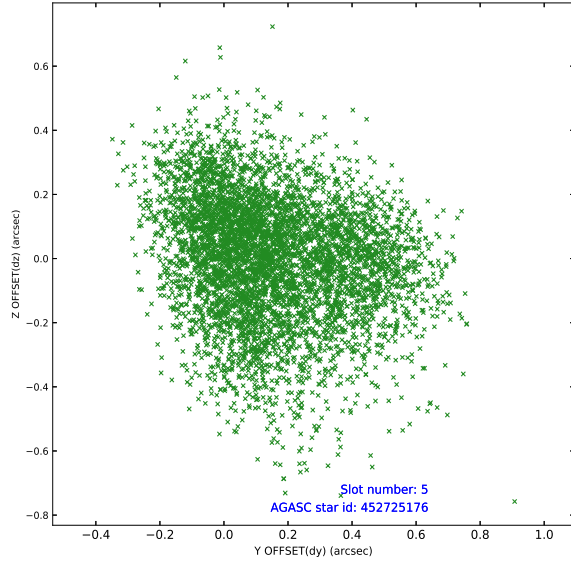
2.4.1 Slot 3



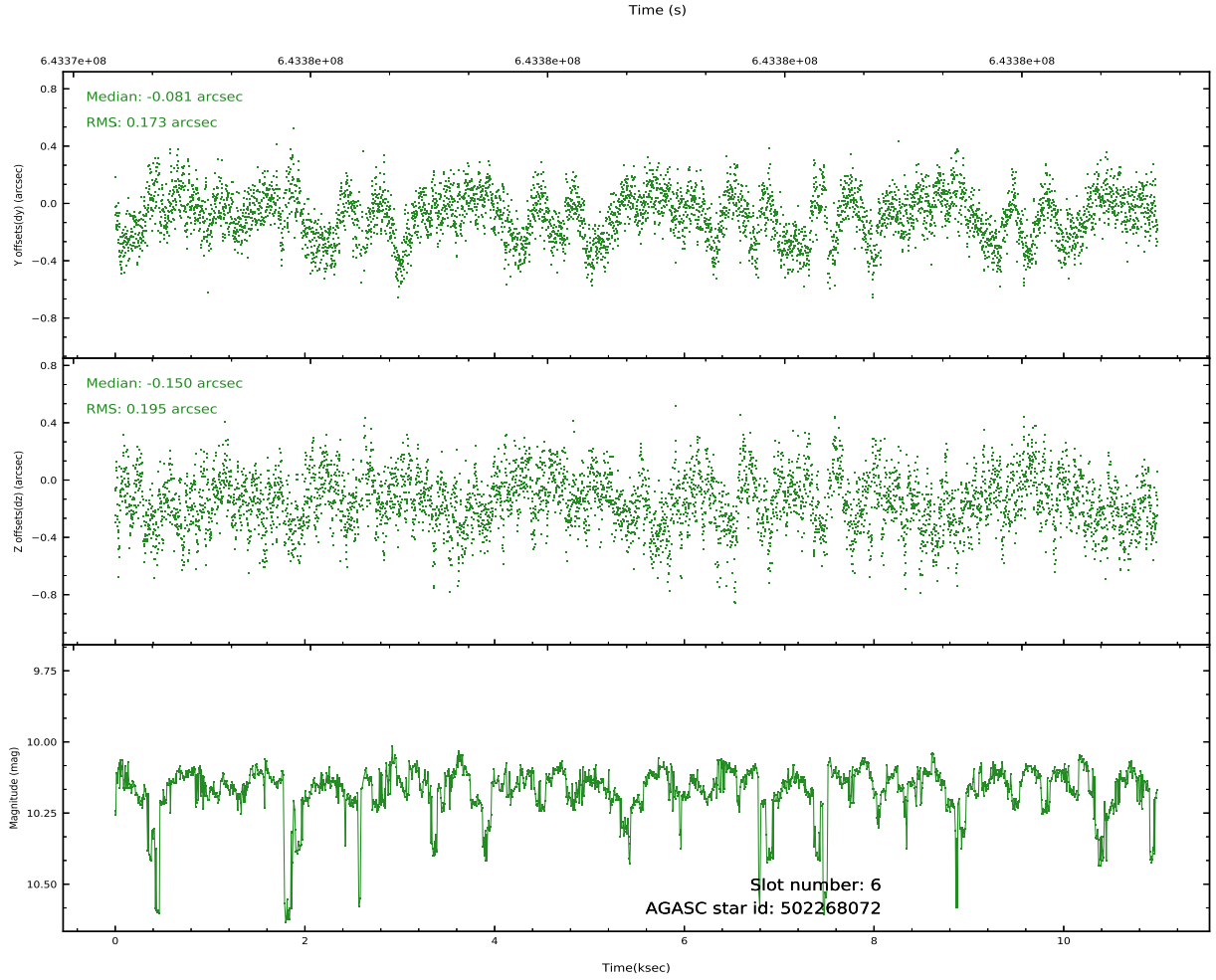
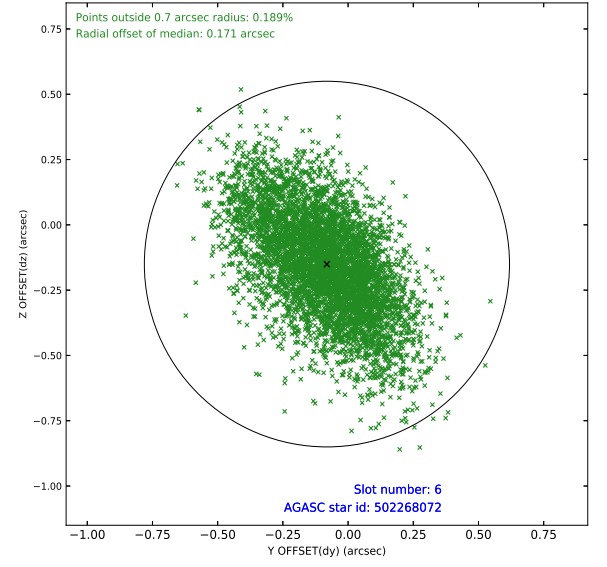
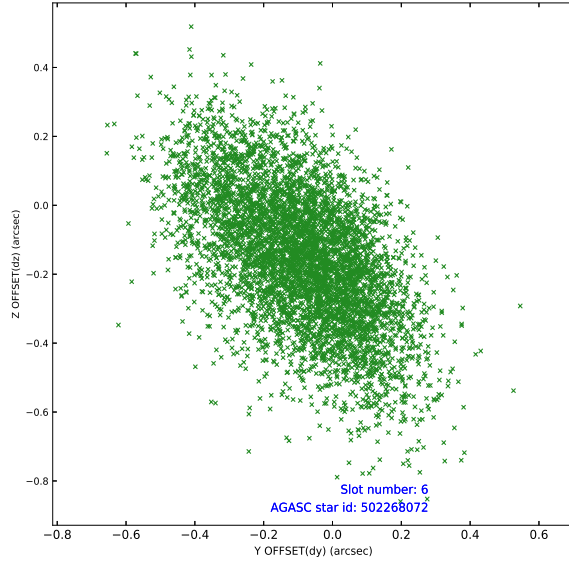
2.4.2 Slot 4



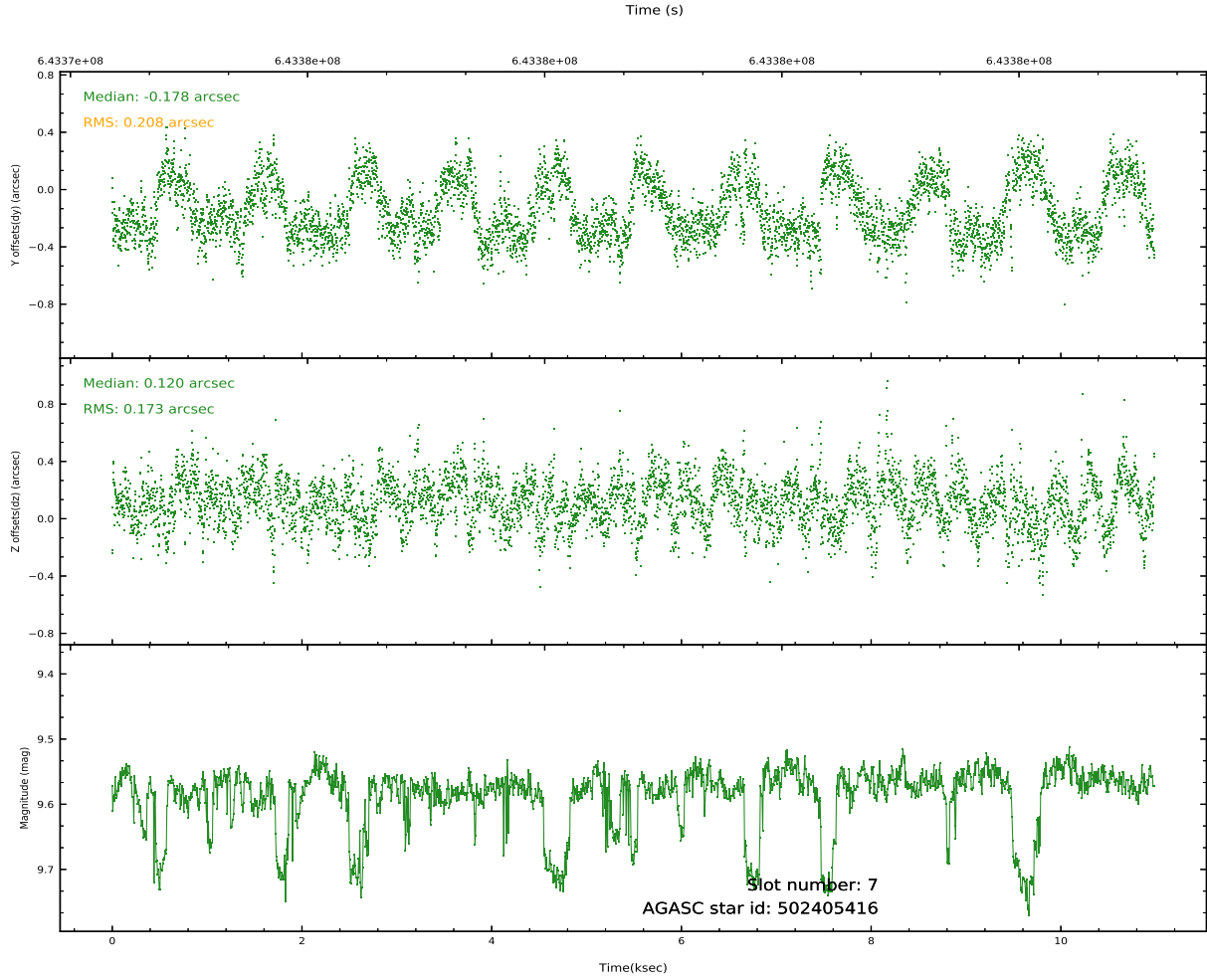
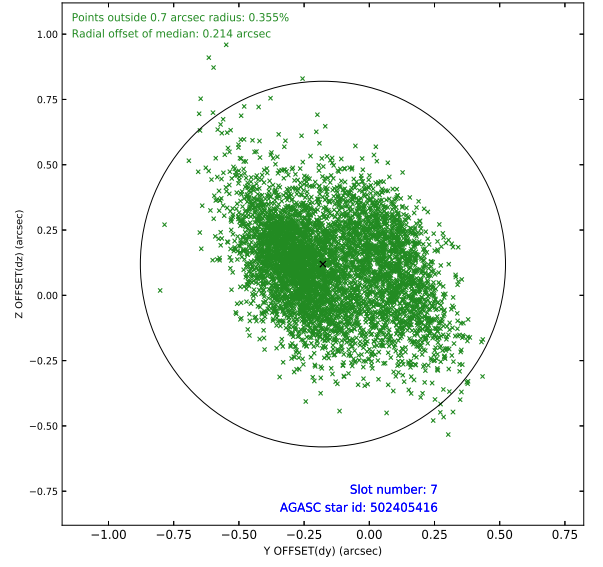
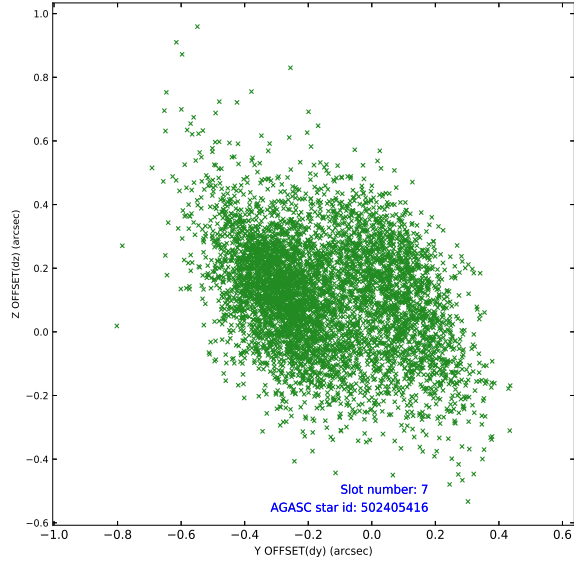
2.4.3 Slot 5



2.4.4 Slot 6

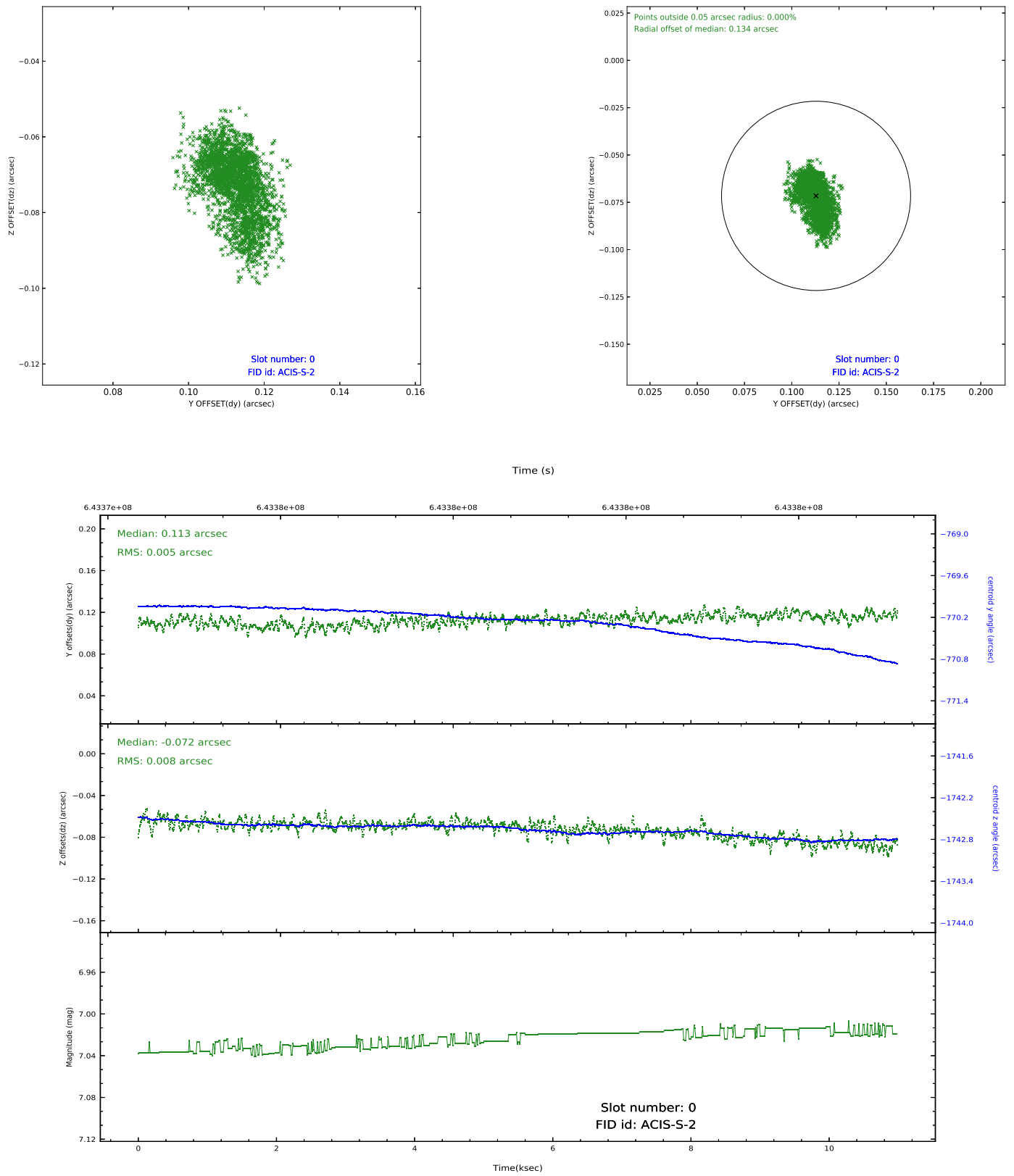


2.4.5 Slot 7

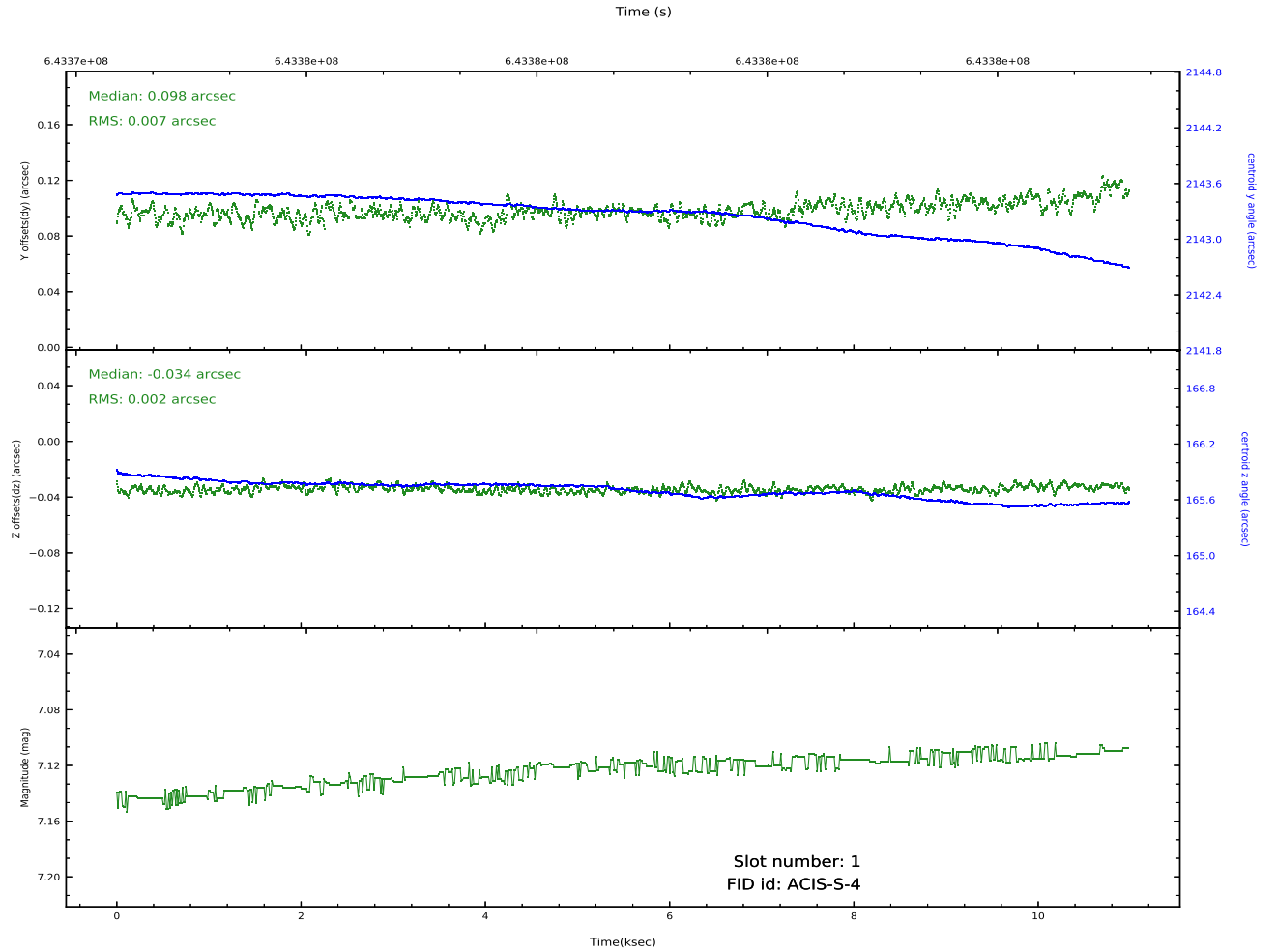
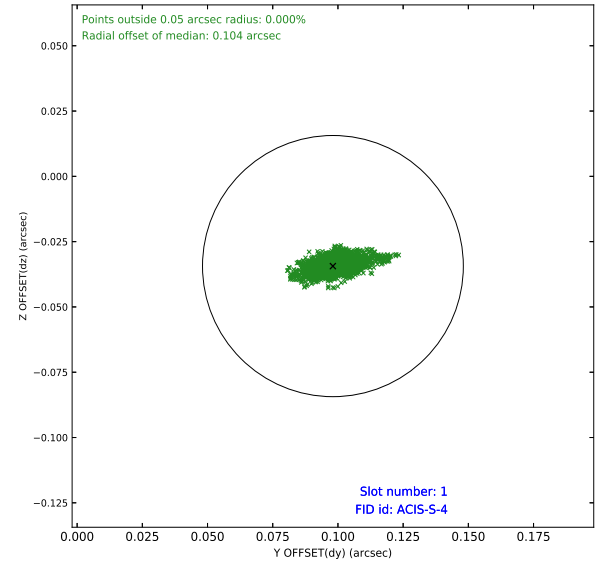
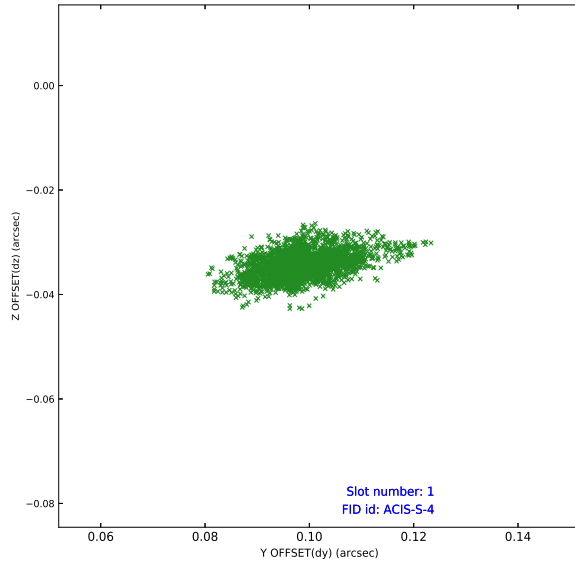


2.5 FID Slots

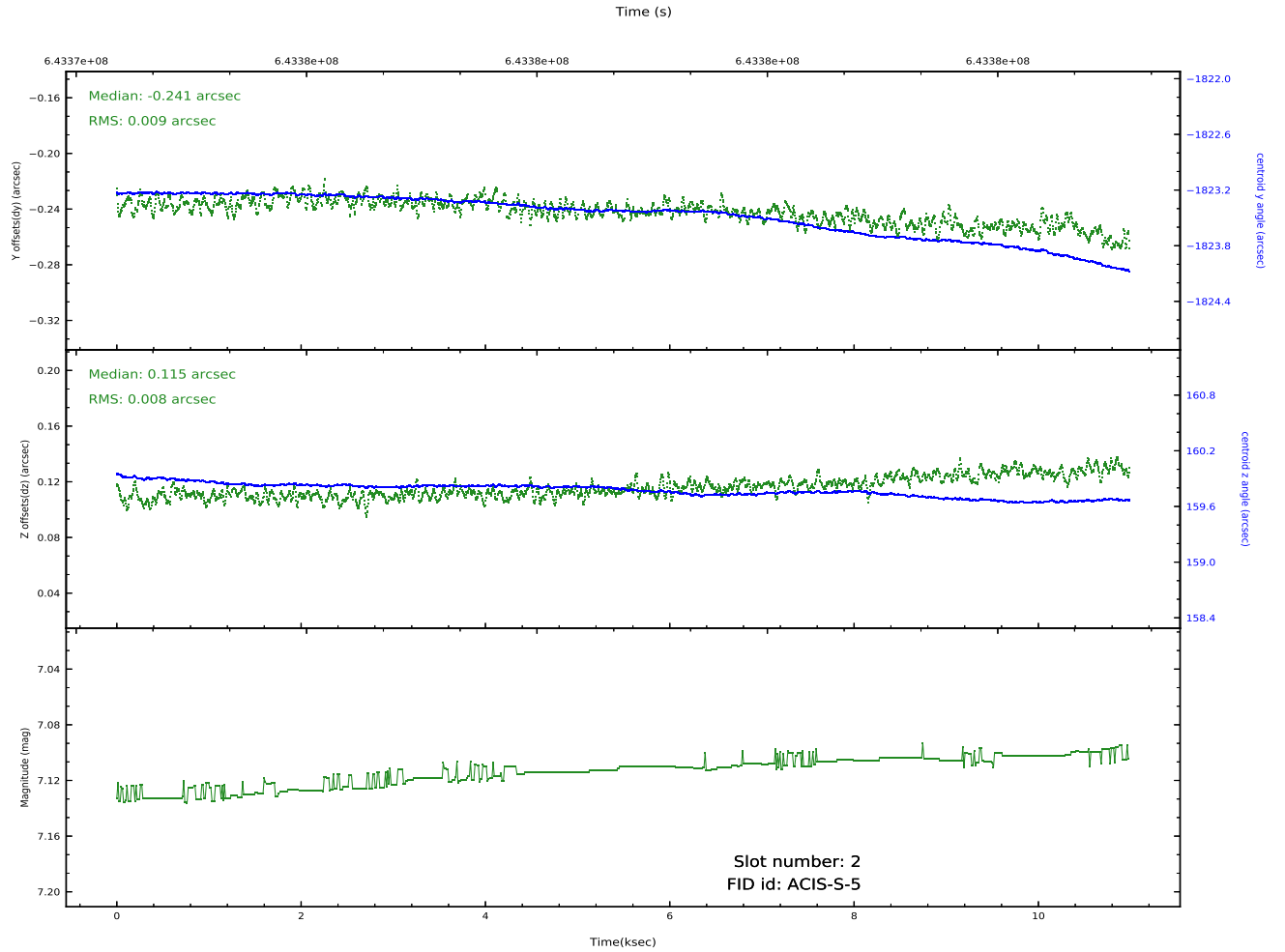
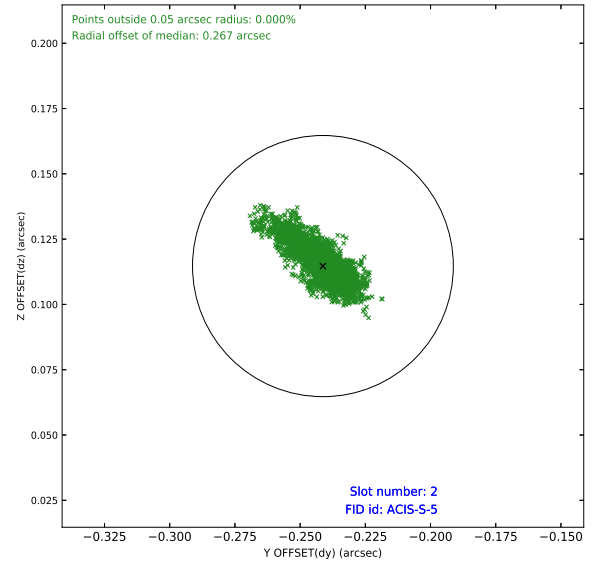
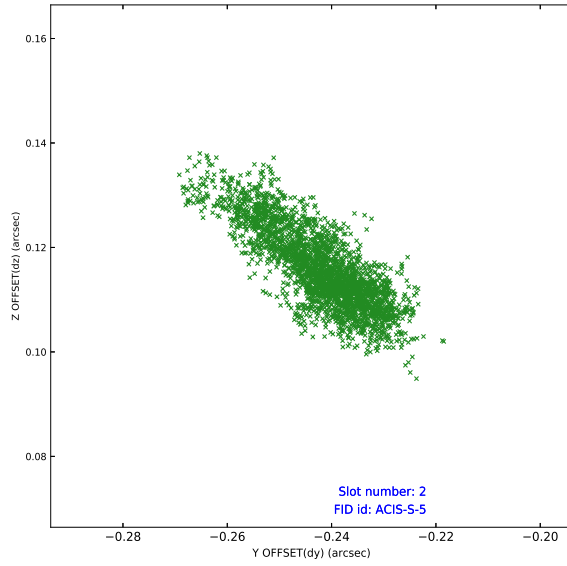
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.877178860545

A.2 Comments

A spatial region of the original bias map for CCD = 2 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. In this case, the bias map for CCD = 2 could not be improved because no suitable data at a compatible temperature and time range are available to use as replacement values. The bias map used in this processing is the original bias map telemetered with the observation.