

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 19357 - L2 Version 2
Chandra X-Ray Center

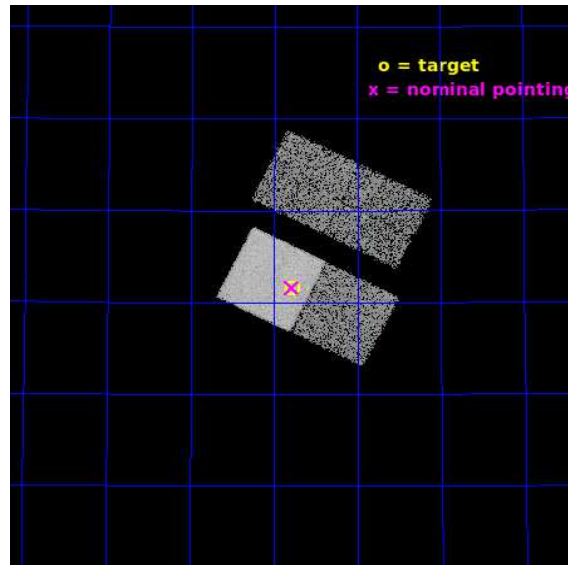
L2 Processing Date : Oct 25 2020

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1 Front

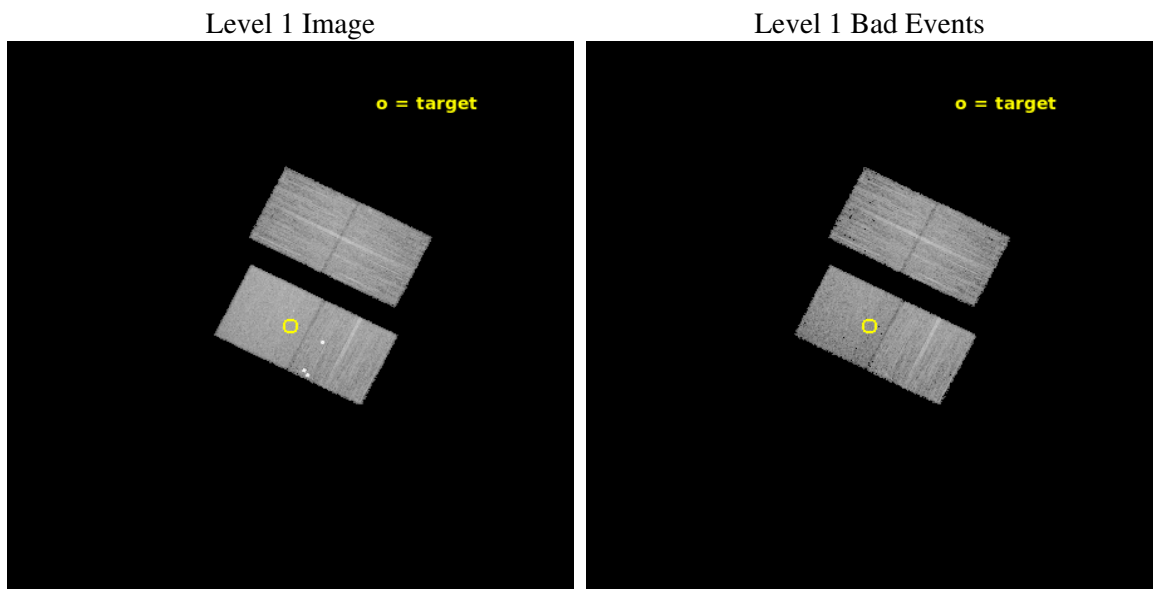
seq_num	601314	Sequence number
obs_id	19357	Observation id
title	A Statistically Complete High Resolution Chandra and Radio (eMERLIN) Survey of the Palomar Nearby Galaxies Sample	Proposal title
observer	Ian McHardy	Principal investigator
object	NGC 3738	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	173.94625	Observer's specified target RA [deg]
dec_targ	54.525556	Observer's specified target Dec [deg]
ra_nom	173.94702392348	Nominal RA [deg]
dec_nom	54.527061443331	Nominal Dec [deg]
roll_nom	206.5987361713	Nominal Roll [deg]
revision	2	Processing version of data
ontime	9464.2521072626	Sum of GTIs [s]
livetime	9340.5946860002	Livetime [s]
ontime2	9464.1289873123	Sum of GTIs [s]
ontime3	9464.170027256	Sum of GTIs [s]
ontime6	9464.2110673189	Sum of GTIs [s]
ontime7	9464.2521072626	Sum of GTIs [s]
l2events	56781	Number of level 2 events



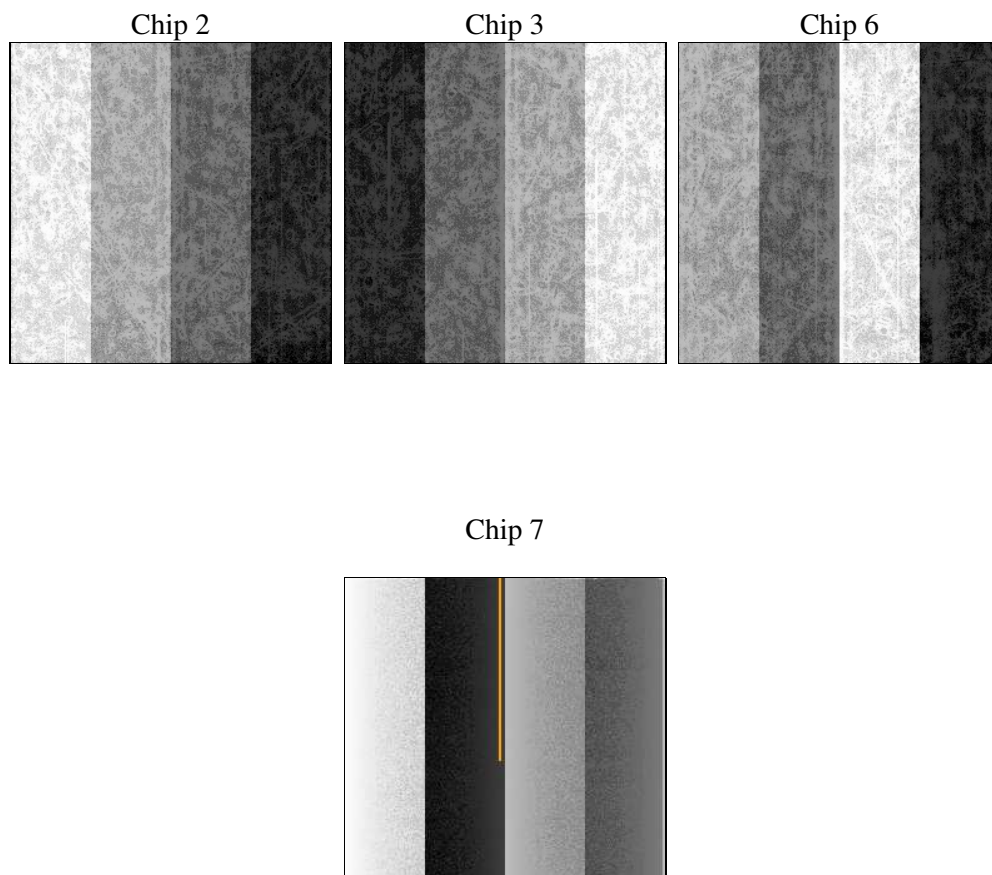
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	9400.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	9464.2521072626	Sum of GTIs [s]
caldsver	4.9.3	 	ontime2	9464.1289873123	Sum of GTIs [s]
date	2020-10-25T11:45:04	Date and time of file creation	ontime3	9464.170027256	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	9464.2110673189	Sum of GTIs [s]
			ontime7	9464.2521072626	Sum of GTIs [s]
			l1events	320178	Number of level 1 events

2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	73587	71251	84422	90918
rejected events	66604	64265	68030	51787
rejected %	90%	90%	80%	56%

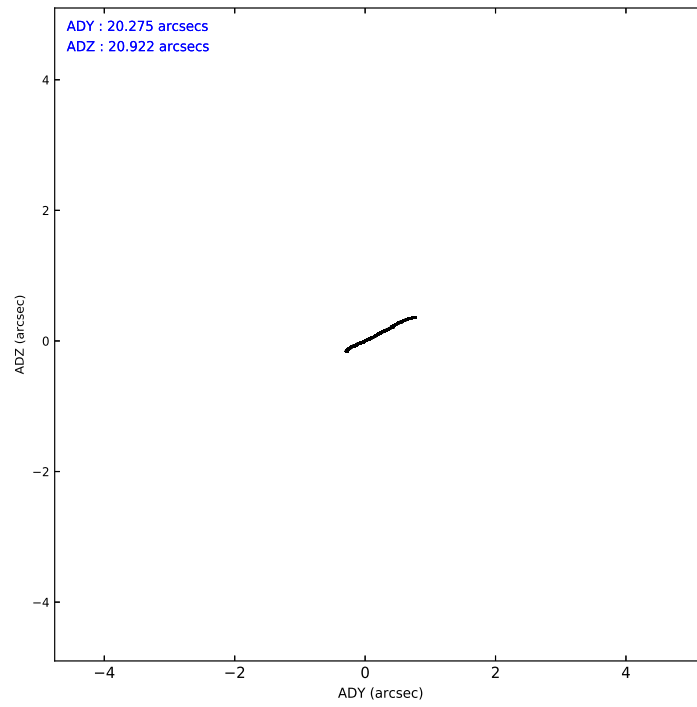
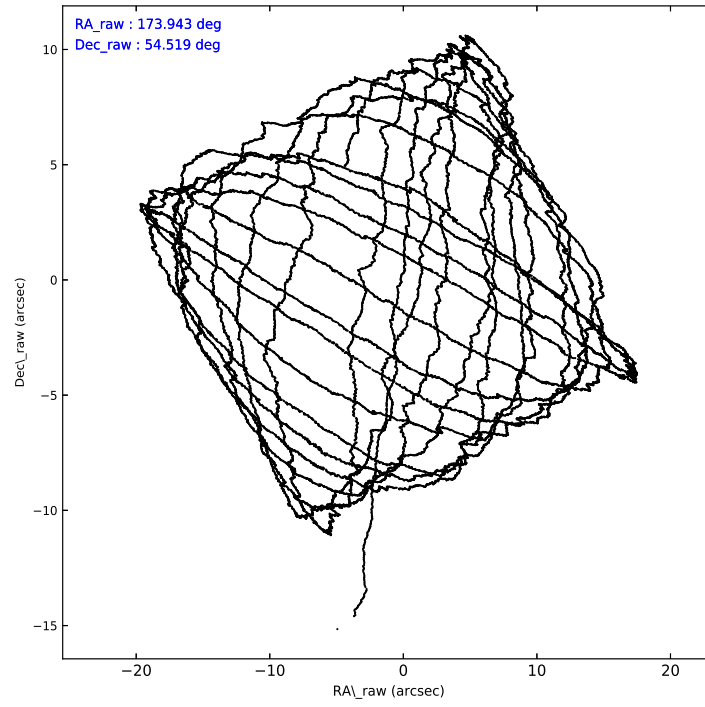
	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	2556	2362	10572	3260
	3%	3%	12%	3%
grade 1 events	51	30	122	126
	0%	0%	0%	0%
grade 2 events	1618	1592	2351	7947
	2%	2%	2%	8%
grade 3 events	715	717	660	3150
	0%	1%	0%	3%
grade 4 events	672	728	661	3117
	0%	1%	0%	3%
grade 5 events	2514	3138	3009	8804
	3%	4%	3%	9%
grade 6 events	1425	1594	2158	21672
	1%	2%	2%	23%
grade 7 events	64036	61090	64889	42842
	87%	85%	76%	47%

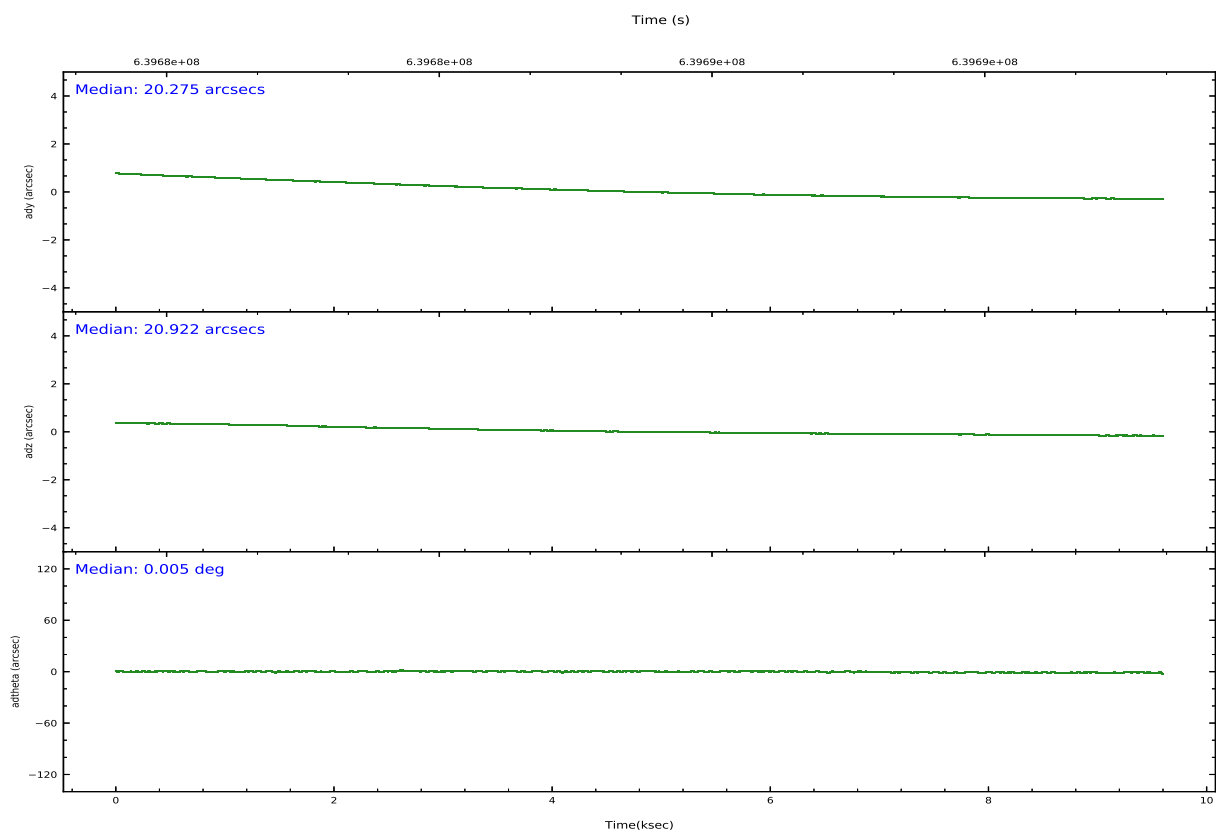
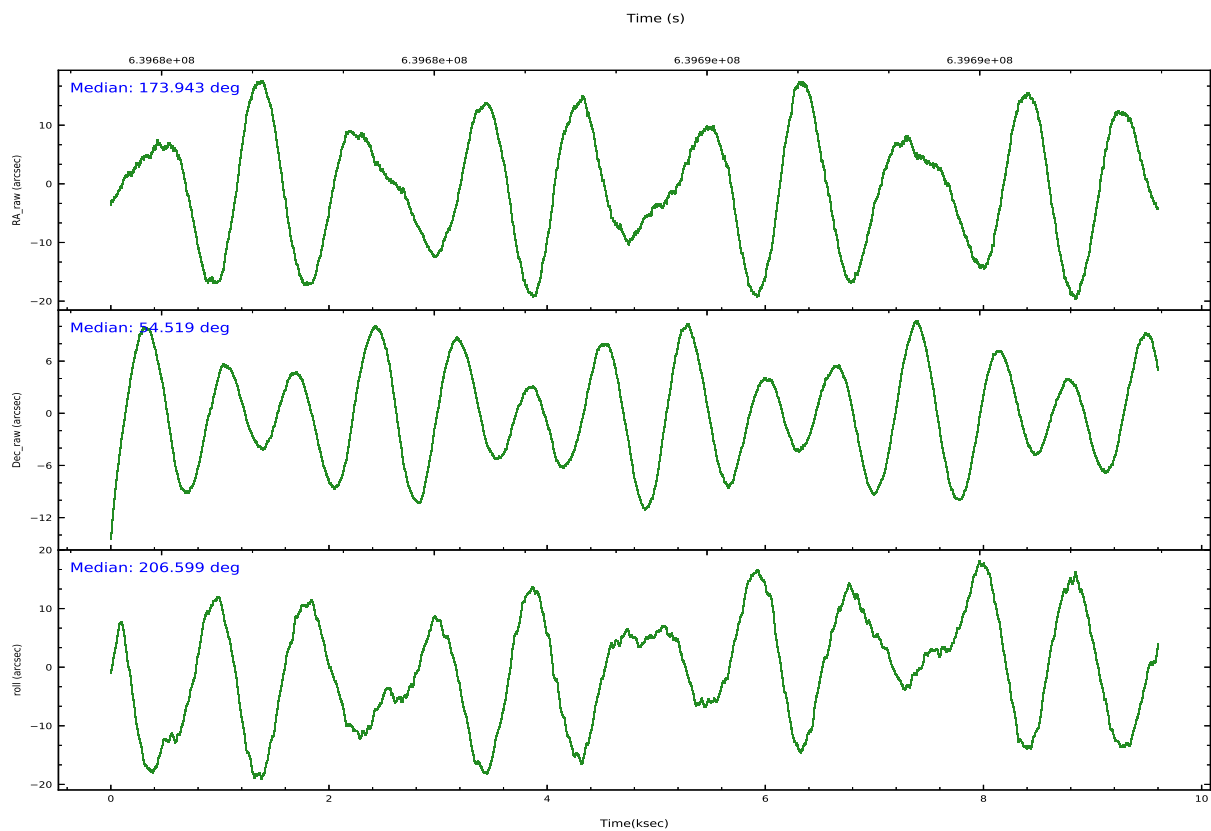
2.2 Compared Parameters

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	173.967994	173.94702392348
[deg] Pointing Dec	54.542114	54.527061443331
[deg] Pointing Roll	206.430813	206.5987361713
[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)	639682236.184000	639681345.12957
Observation start date	2018-04-09T17:29:27	2018-04-09T17:15:45
[s] Observation end time (MET)	639691636.184000	639692502.2552299
Observation end date	2018-04-09T20:06:07	2018-04-09T20:21:42
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



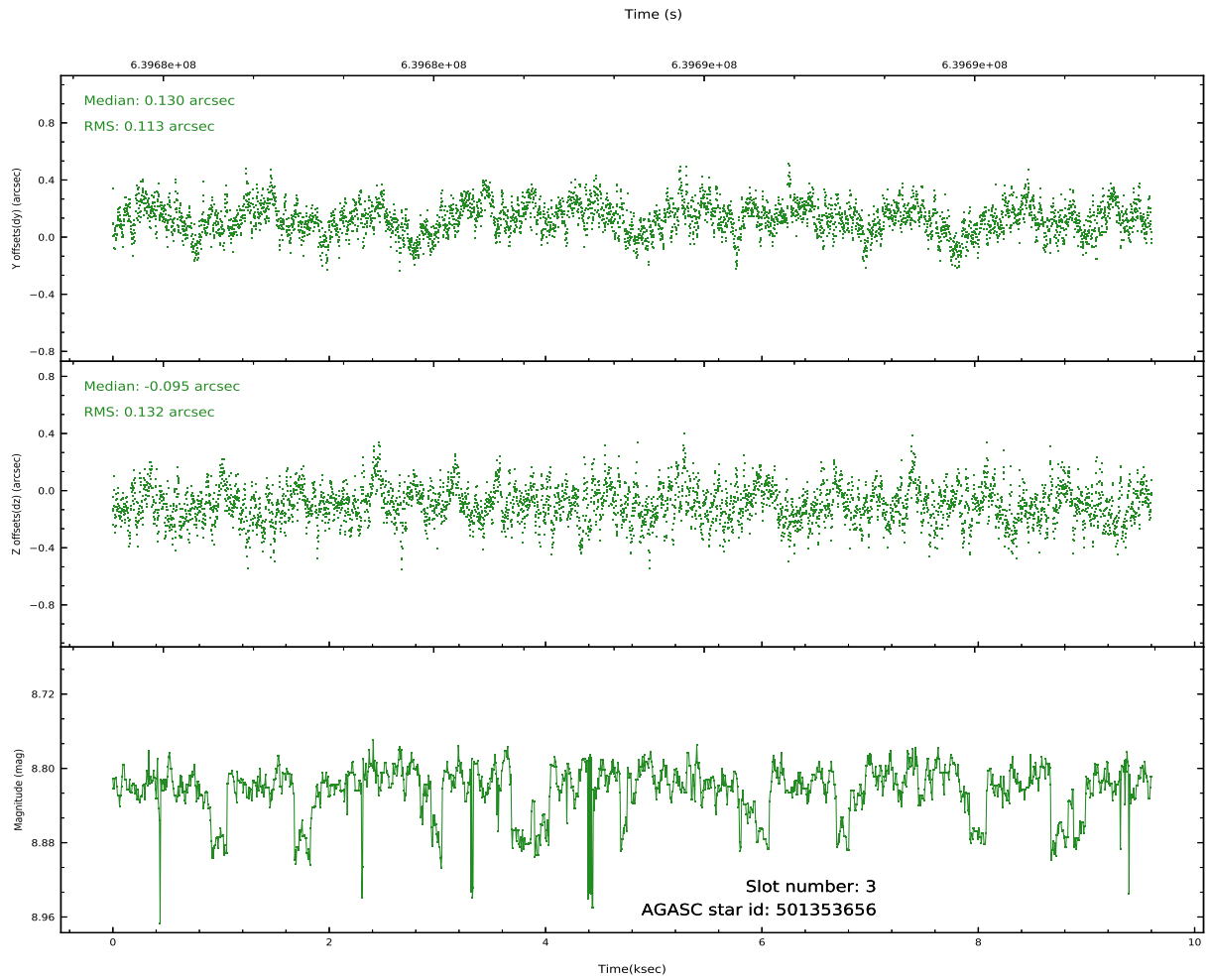
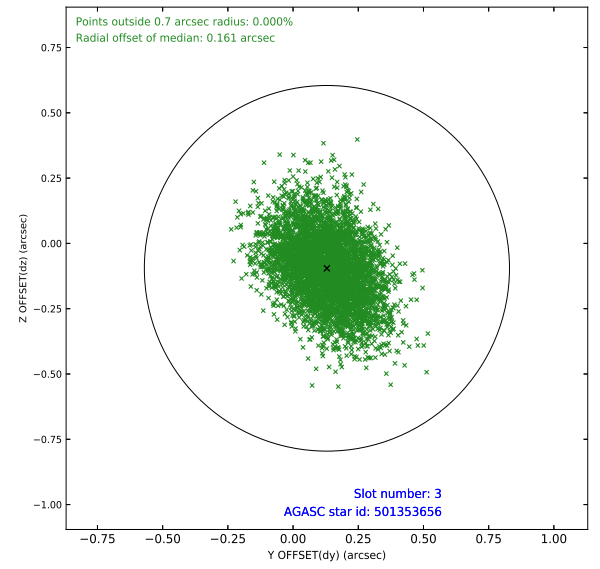
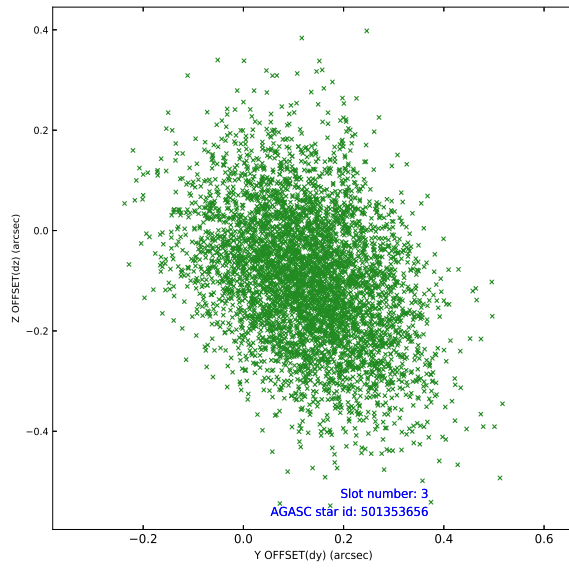


Slot Statistics

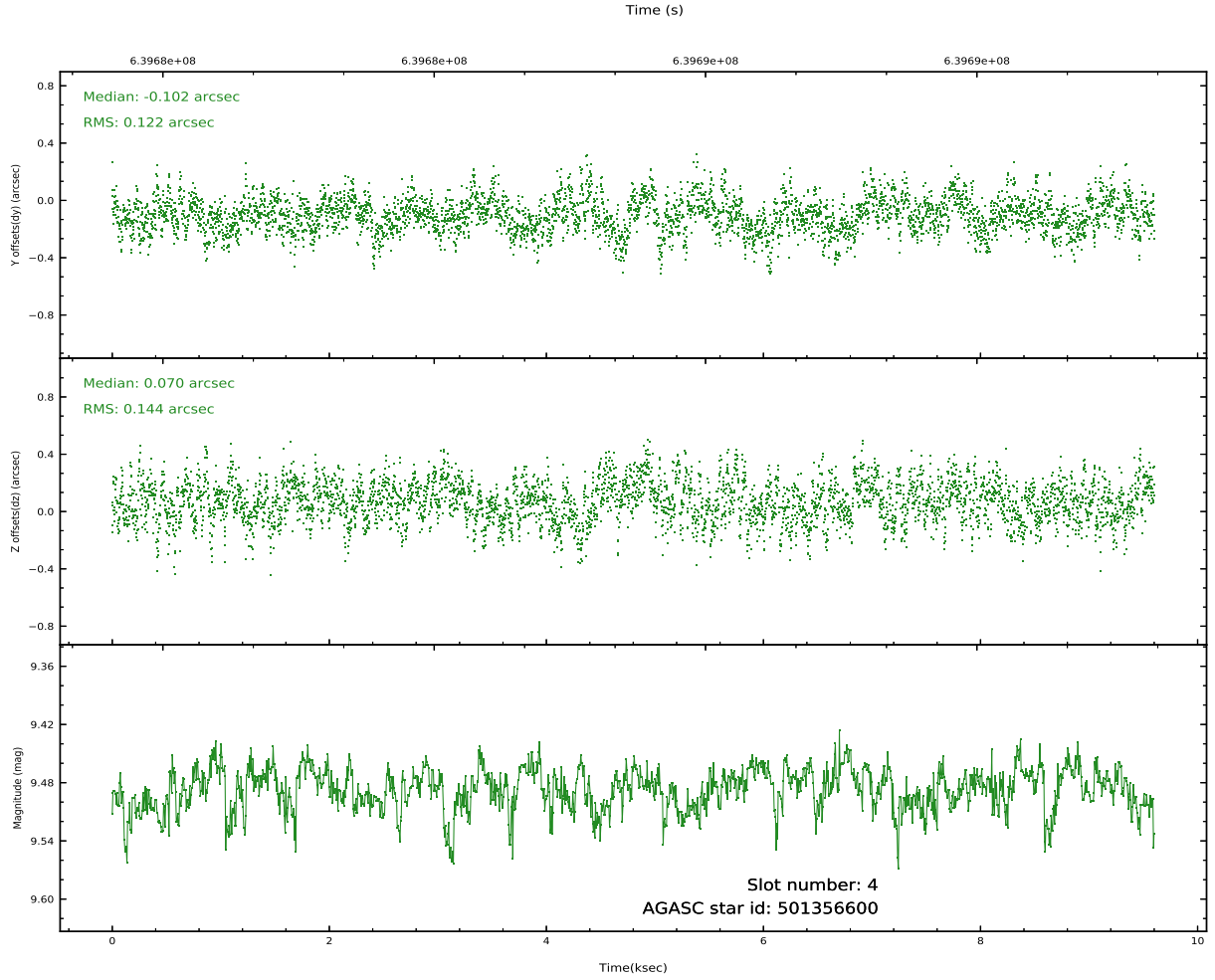
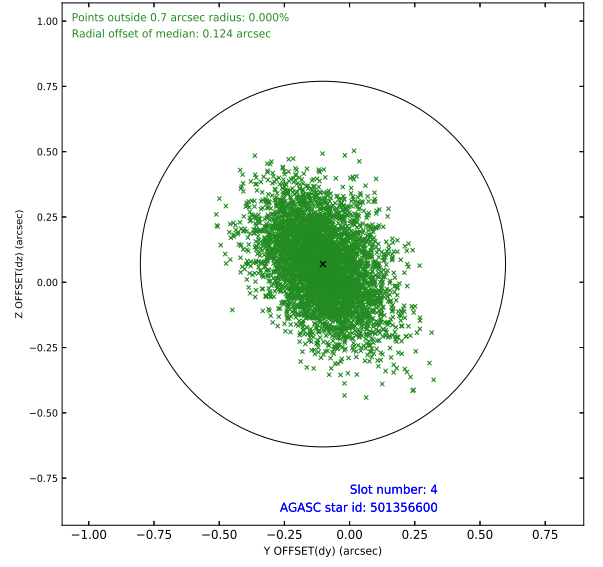
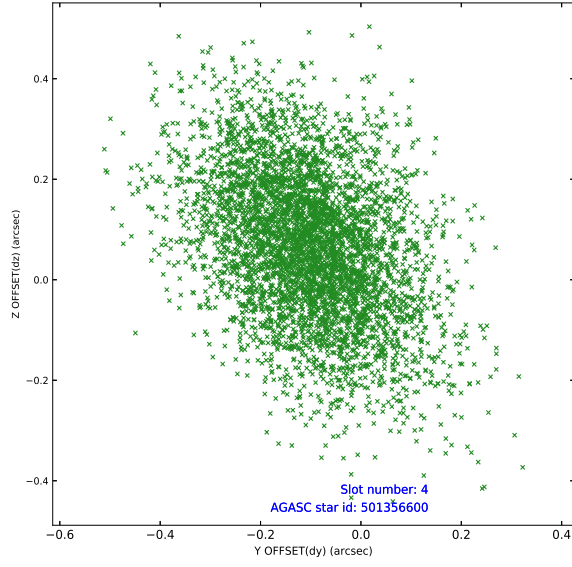
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.15	2342	1.000	0.107	-0.122	0.017	0.026	0.000000	0.000000	-773.63	-1742
1	FID		ACIS-S-4	7.27	2342	1.000	0.124	-0.020	0.017	0.031	0.000000	0.000000	2139.69	165
2	FID		ACIS-S-5	7.26	2342	1.000	-0.266	0.147	0.012	0.022	0.000000	0.000000	-1825.85	160
3	GUIDE	used	501353656	8.82	4678	1.000	0.130	-0.095	0.184	0.303	172.895428	54.737519	1676.33	-1637
4	GUIDE	used	501356600	9.49	4676	1.000	-0.102	0.070	0.199	0.335	173.257601	54.441957	1491.24	-345
5	GUIDE	used	502272048	8.07	4682	1.000	0.101	-0.061	0.162	0.275	173.533620	53.776055	2054.59	2056
6	GUIDE	used	502272912	9.46	4677	1.000	-0.089	0.011	0.202	0.328	173.784173	54.345996	660.79	460
7	GUIDE	used	502276712	9.15	4679	1.000	-0.036	0.084	0.164	0.290	173.909635	53.889652	1156.90	2049

2.4 Star Slots

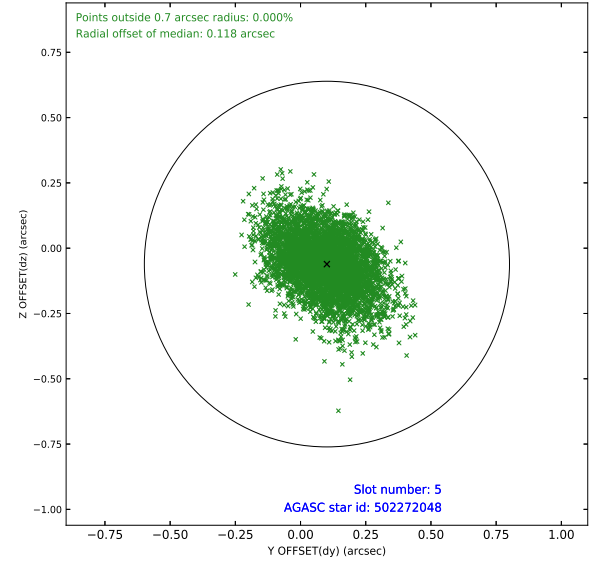
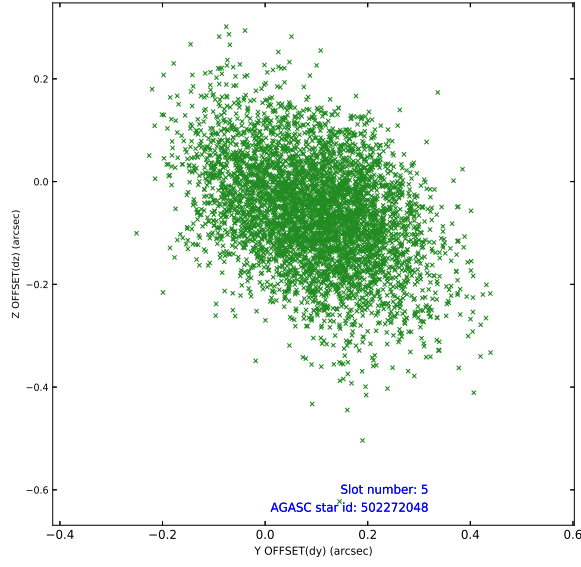
2.4.1 Slot 3



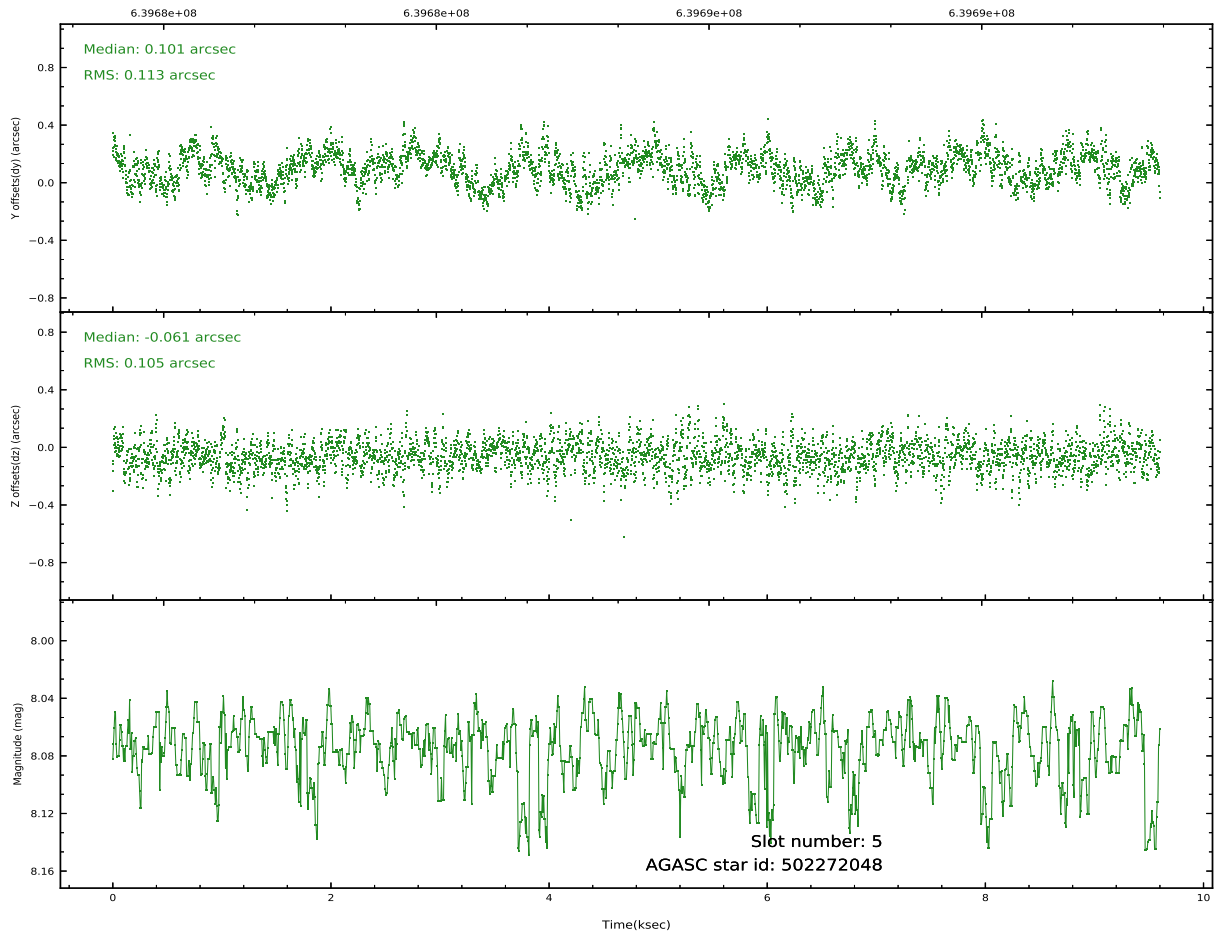
2.4.2 Slot 4



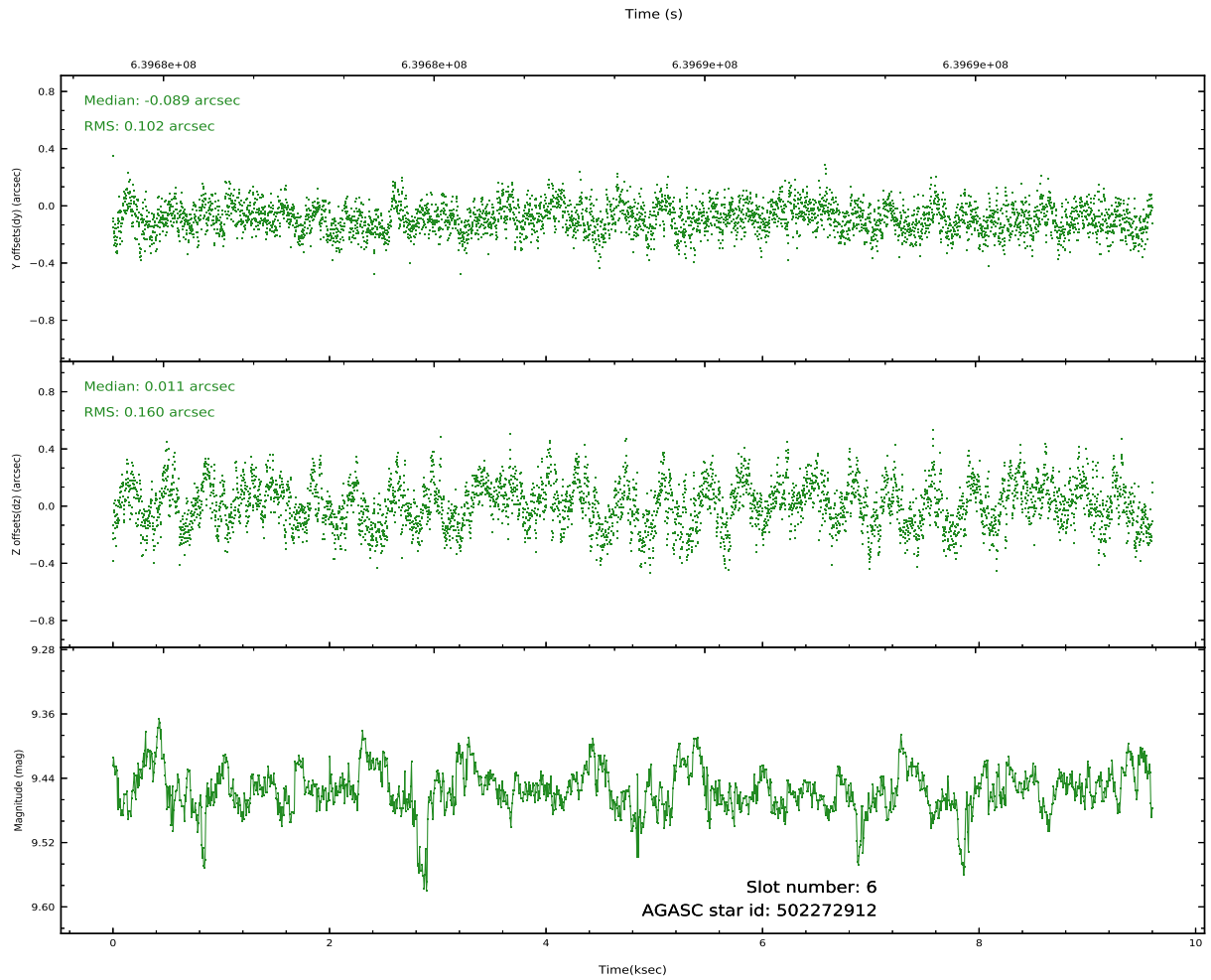
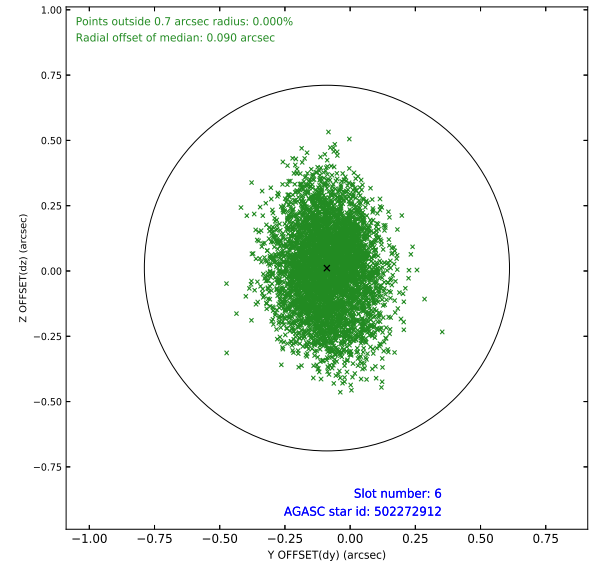
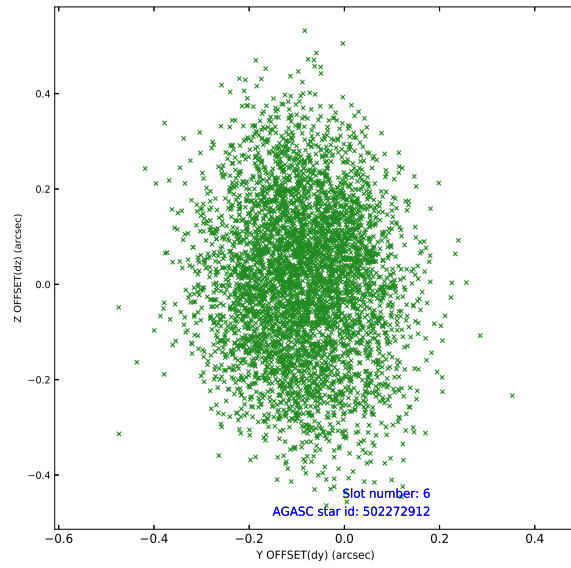
2.4.3 Slot 5



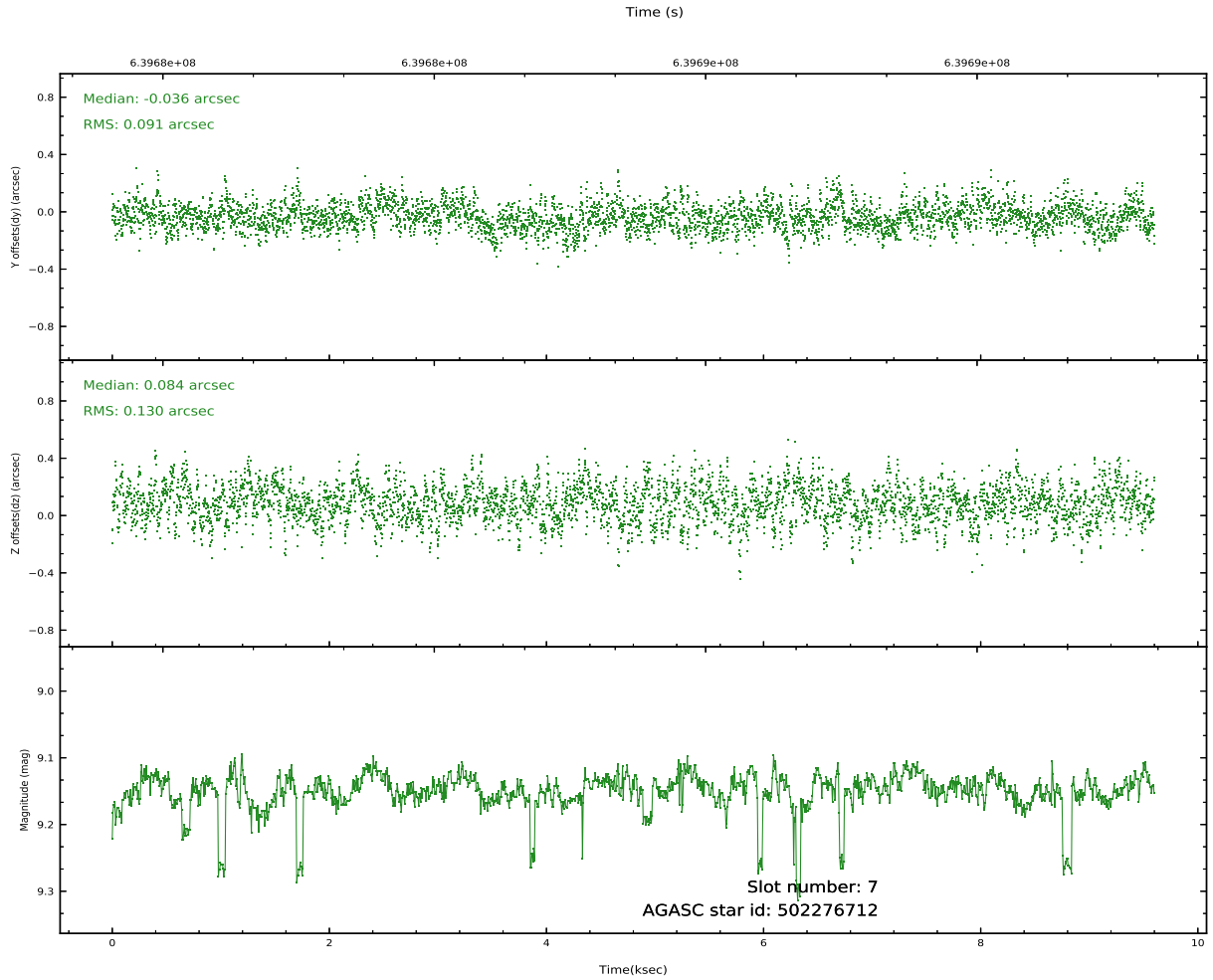
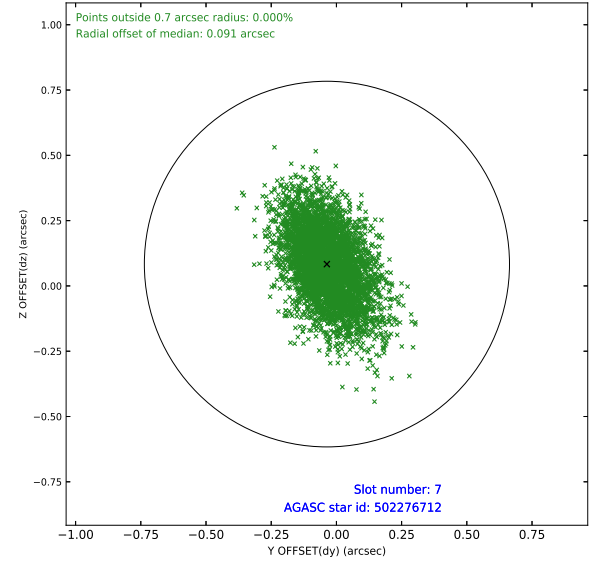
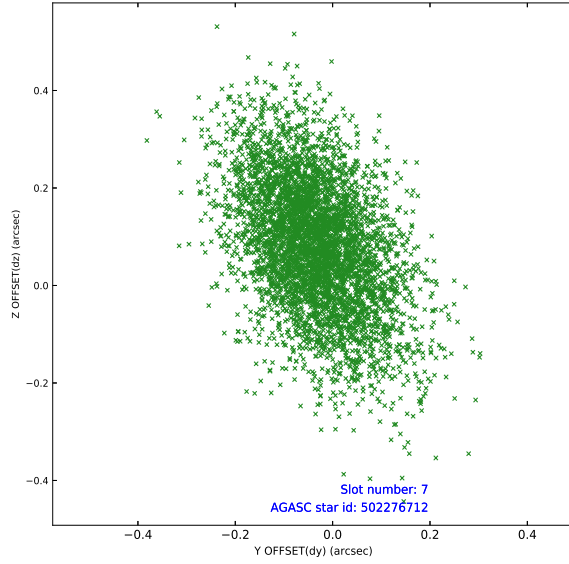
Time (s)



2.4.4 Slot 6

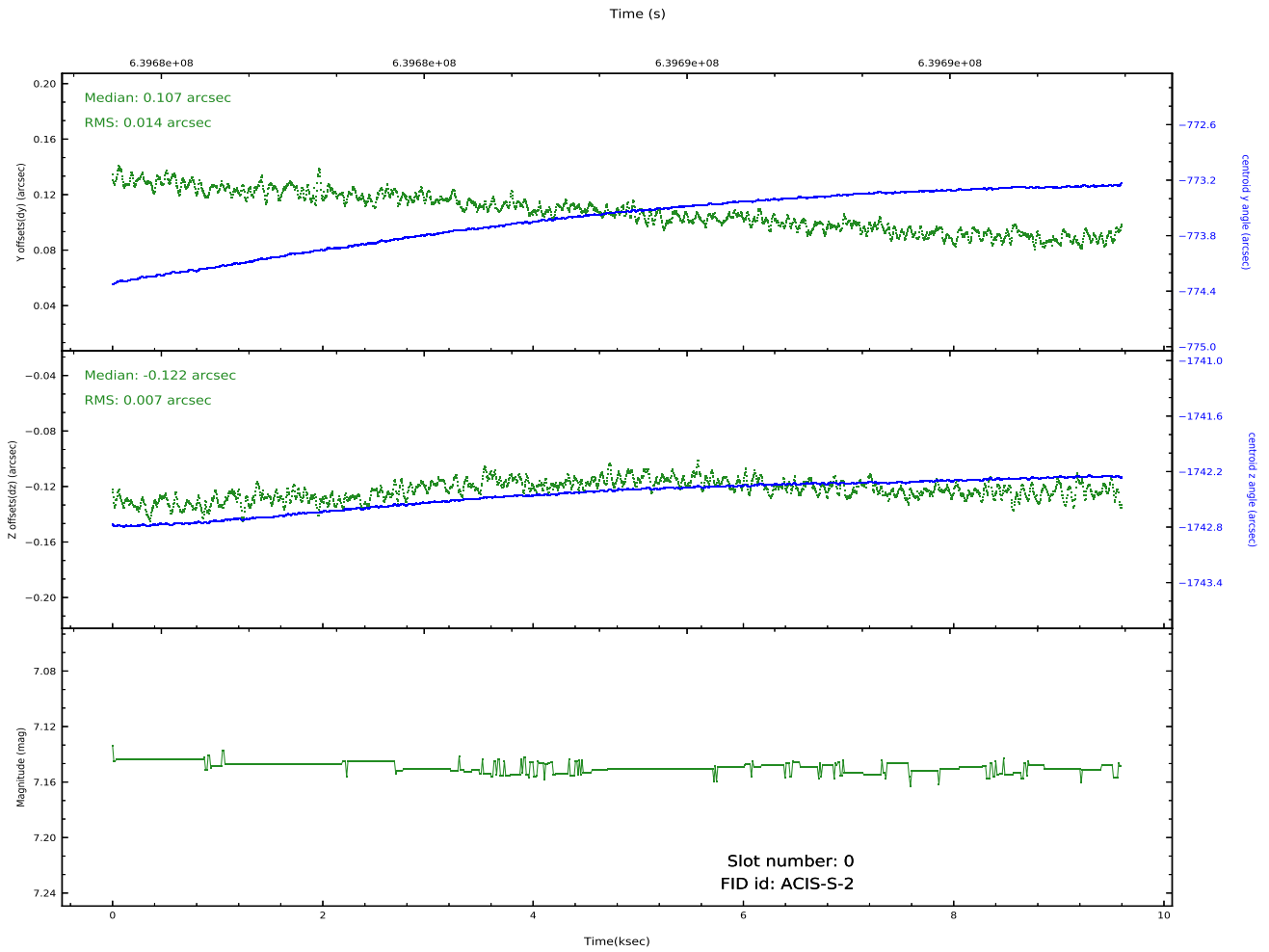
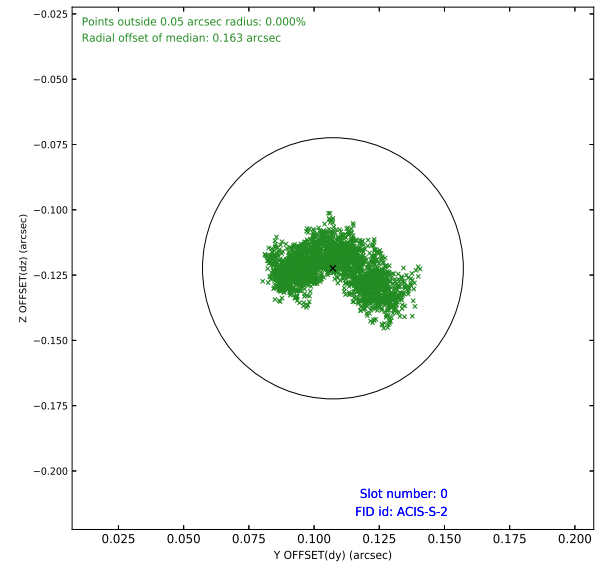
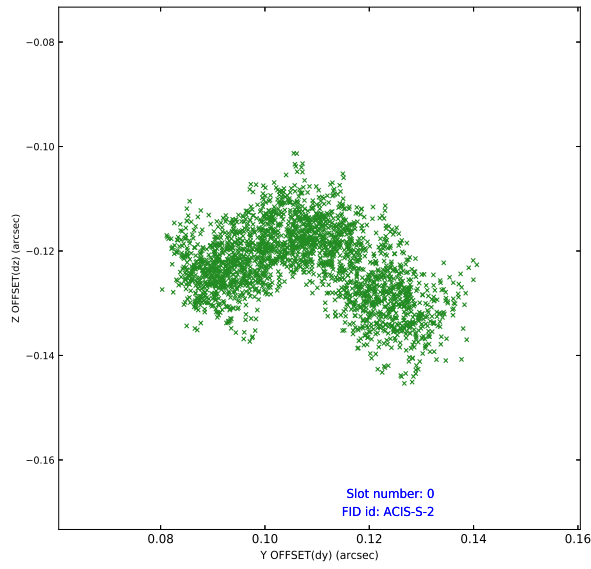


2.4.5 Slot 7

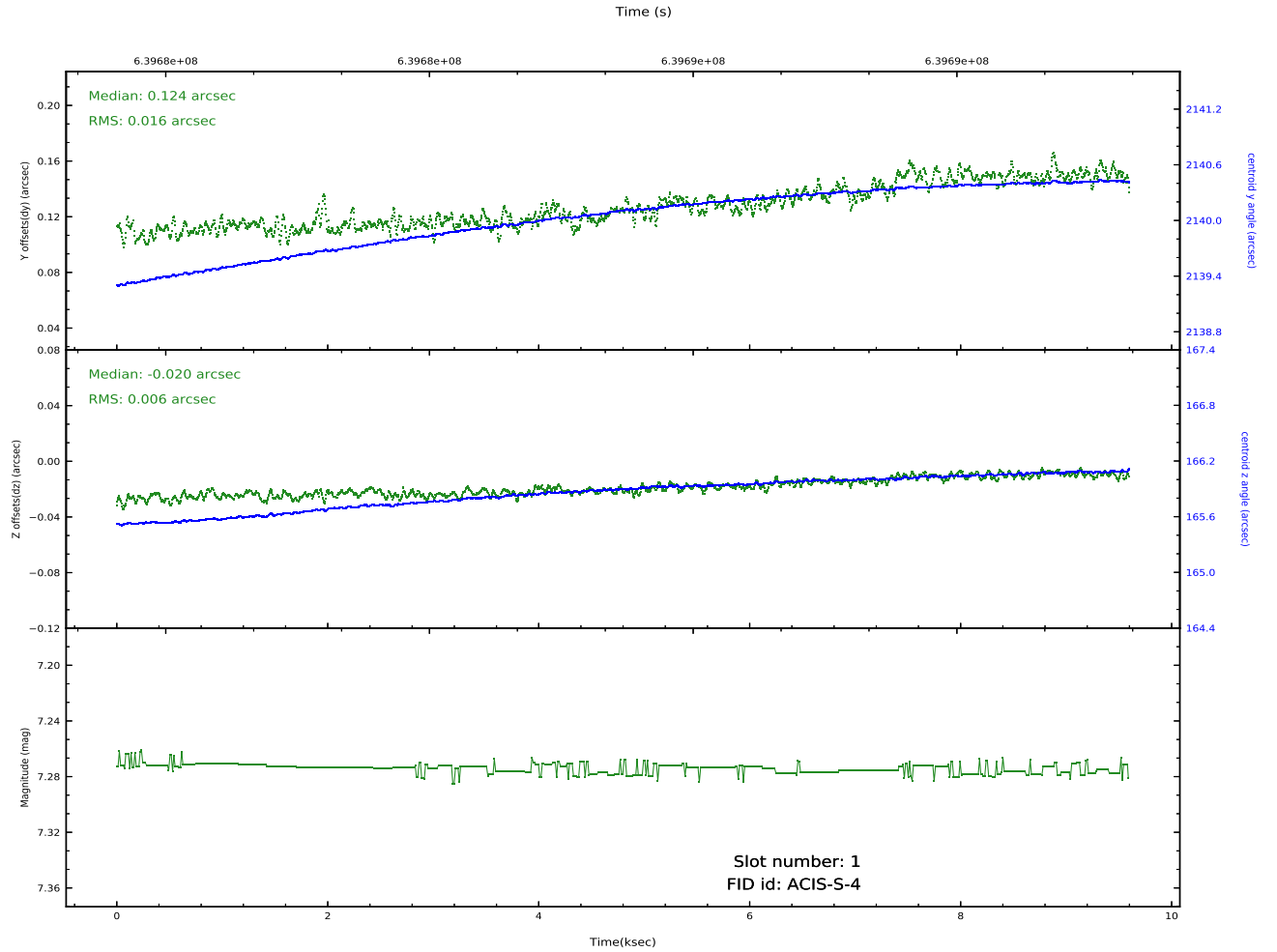
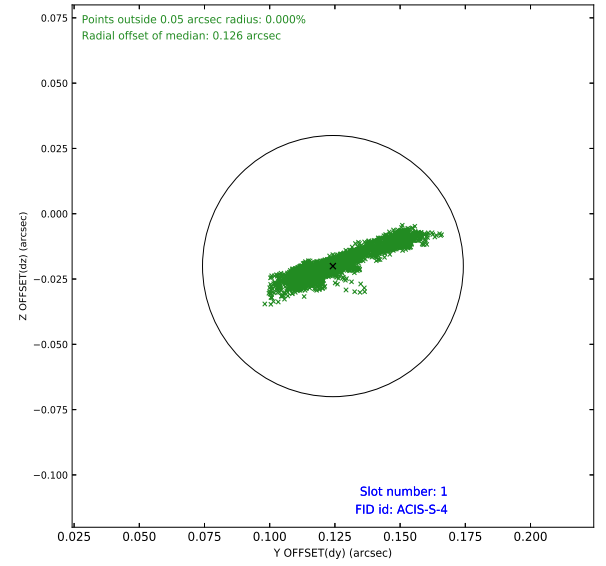
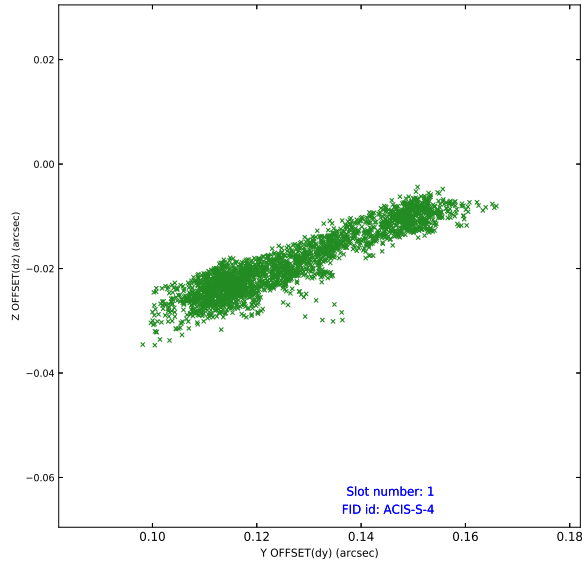


2.5 FID Slots

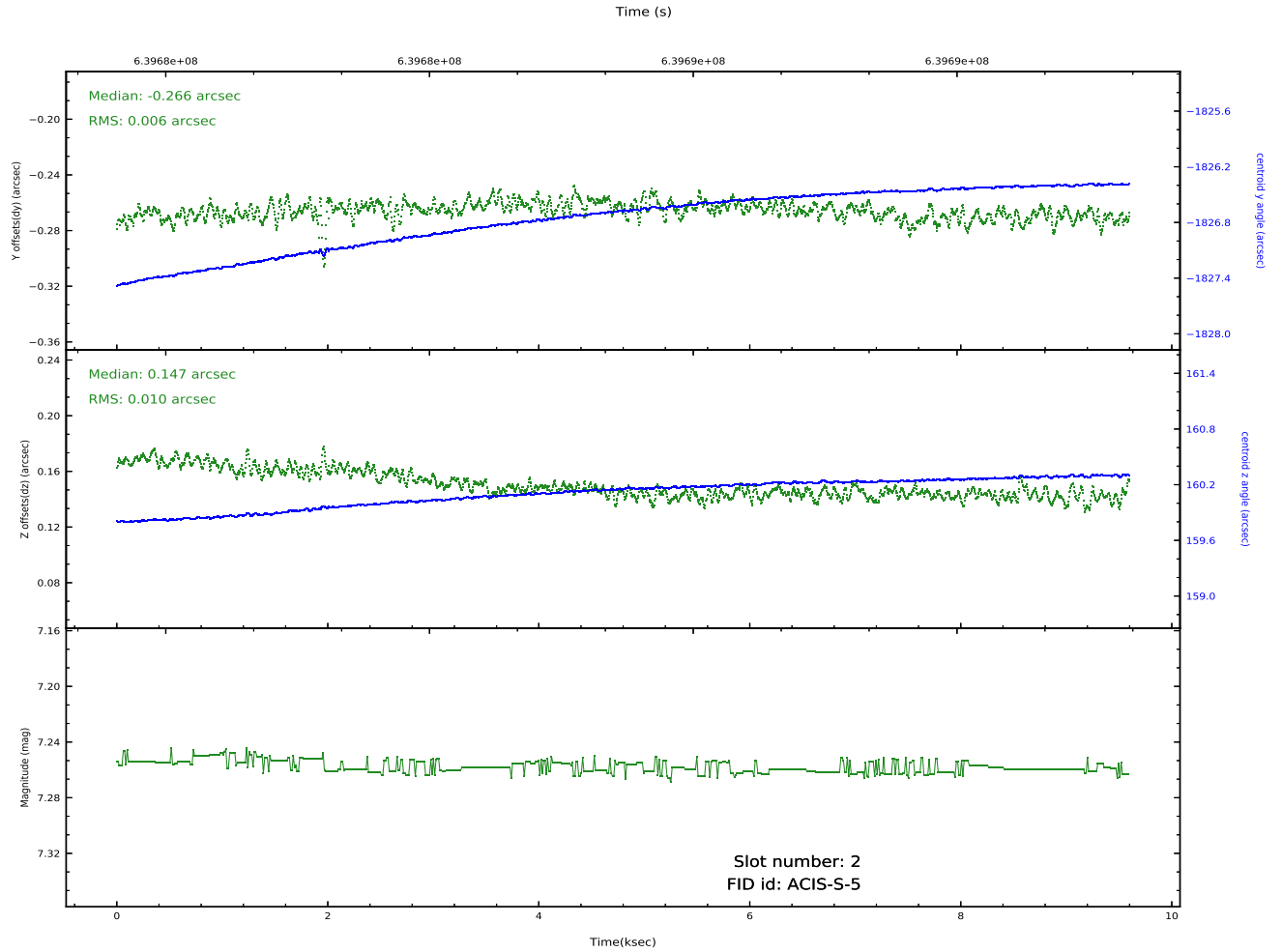
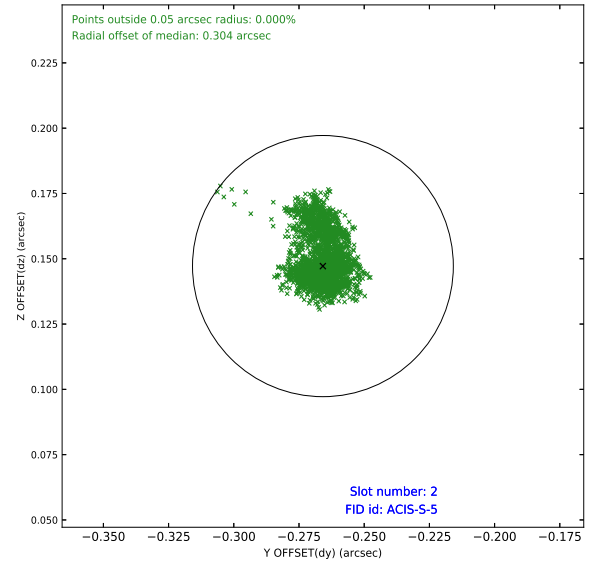
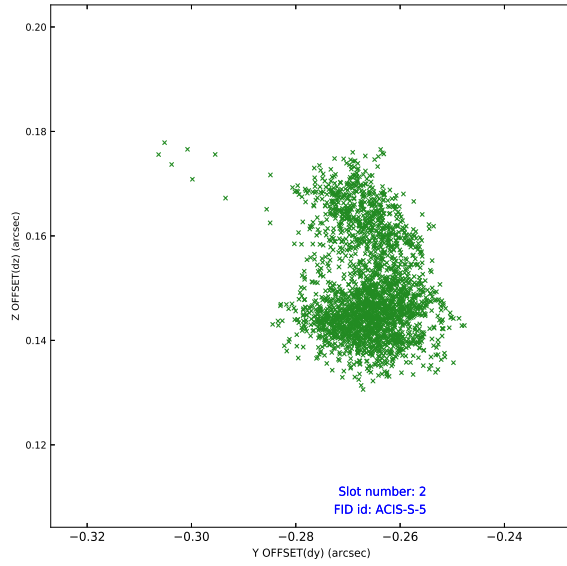
2.5.1 Slot 0



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	9.4642521121502

A.2 Comments

A spatial region of the original bias map for CCD = 6 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 = 6 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.