

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 19641 - L2 Version 2
Chandra X-Ray Center

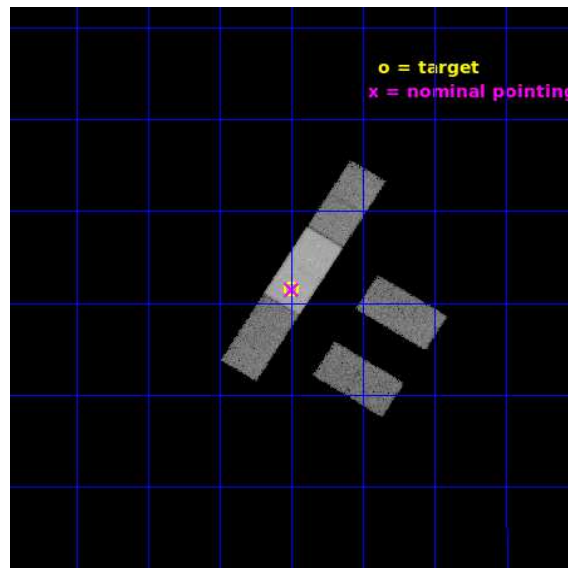
L2 Processing Date : Oct 24 2020

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1 Front

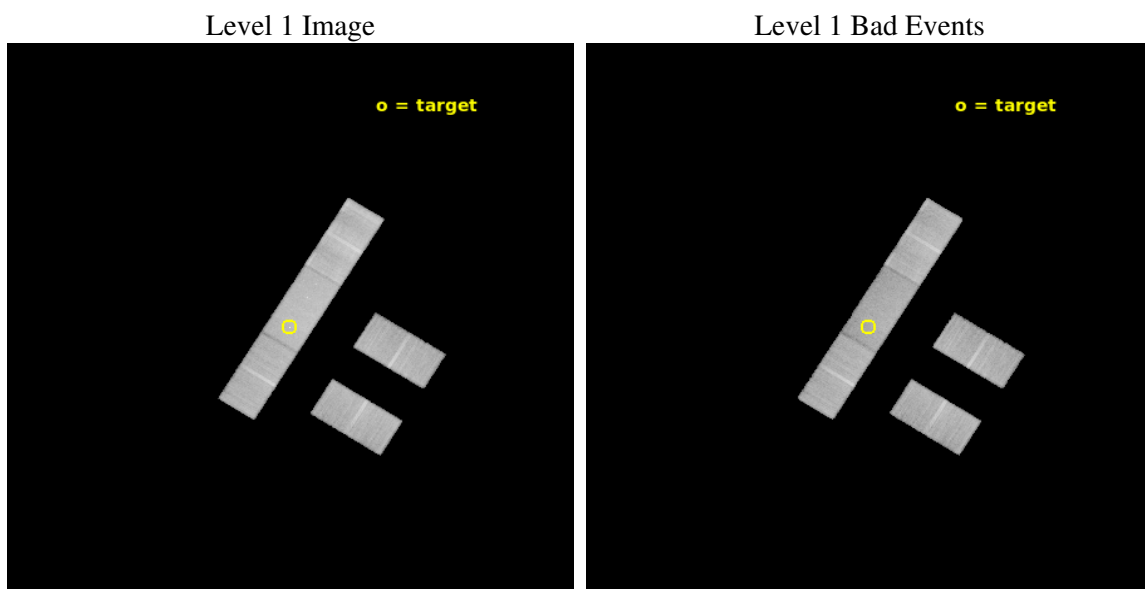
seq_num	703438	Sequence number
obs_id	19641	Observation id
title	MEASURING THE INNERMOST STABLE ORBIT USING MICROLENSING OF THE FE K LINE	Proposal title
observer	George Chartas	Principal investigator
object	Q2237+0305	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	340.12625	Observer's specified target RA [deg]
dec_targ	3.358	Observer's specified target Dec [deg]
ra_nom	340.12440393518	Nominal RA [deg]
dec_nom	3.3575326057073	Nominal Dec [deg]
roll_nom	301.88313764908	Nominal Roll [deg]
revision	2	Processing version of data
ontime	35059.002340198	Sum of GTIs [s]
livetime	34232.587406571	Livetime [s]
ontime2	35058.838180184	Sum of GTIs [s]
ontime3	35058.920260191	Sum of GTIs [s]
ontime6	35058.961300254	Sum of GTIs [s]
ontime7	35059.002340198	Sum of GTIs [s]
ontime8	35055.397170067	Sum of GTIs [s]
l2events	132172	Number of level 2 events



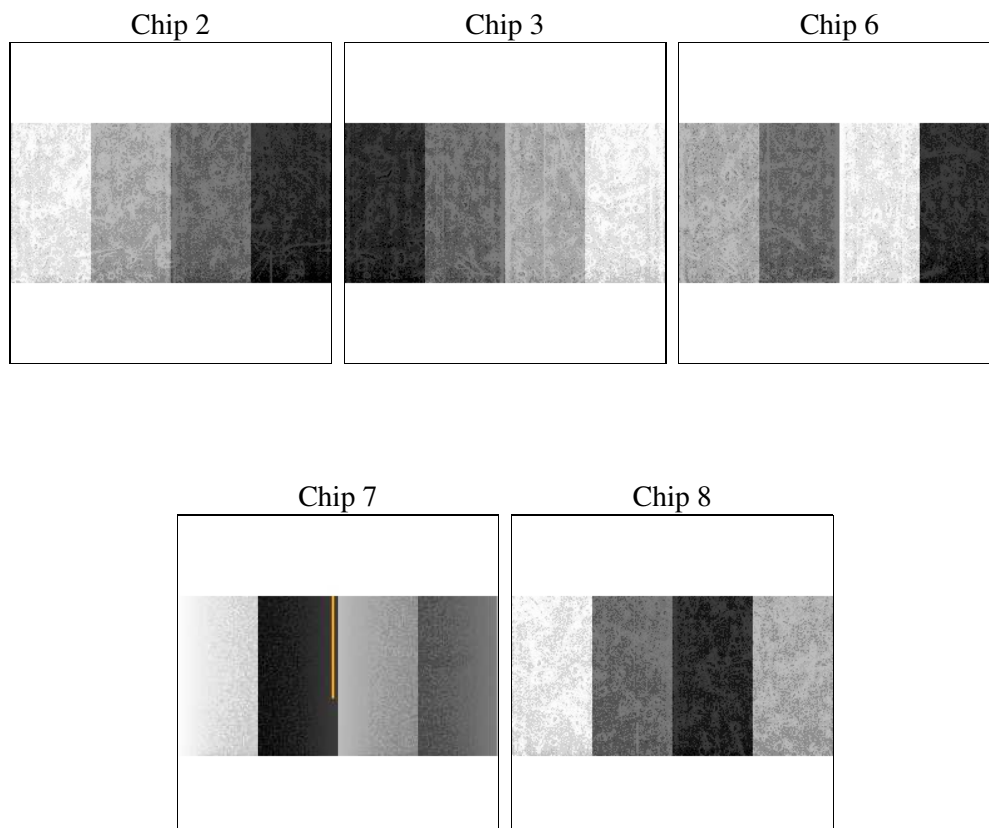
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	35000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	35059.002340198	Sum of GTIs [s]
caldsver	4.9.3	 	ontime2	35058.838180184	Sum of GTIs [s]
date	2020-10-24T07:10:14	Date and time of file creation	ontime3	35058.920260191	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	35058.961300254	Sum of GTIs [s]
			ontime7	35059.002340198	Sum of GTIs [s]
			ontime8	35055.397170067	Sum of GTIs [s]
			l1events	775791	Number of level 1 events

2.1.4 Events

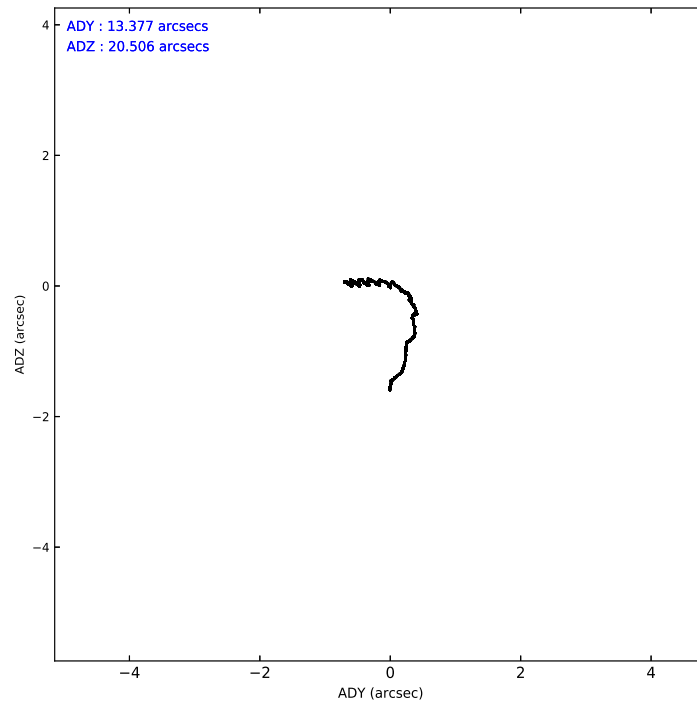
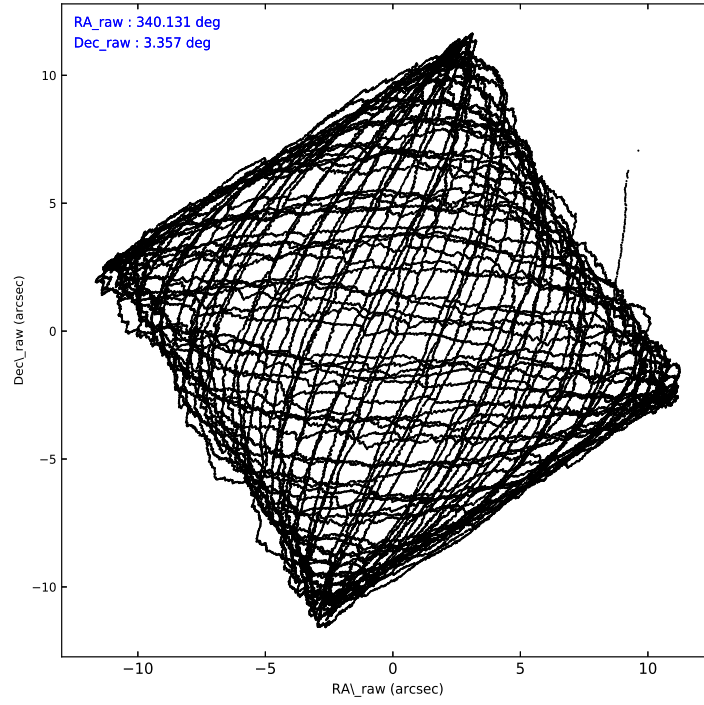
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	135825	132733	141866	174279	191088
rejected events	120860	117768	125889	95318	140733
rejected %	88%	88%	88%	54%	73%

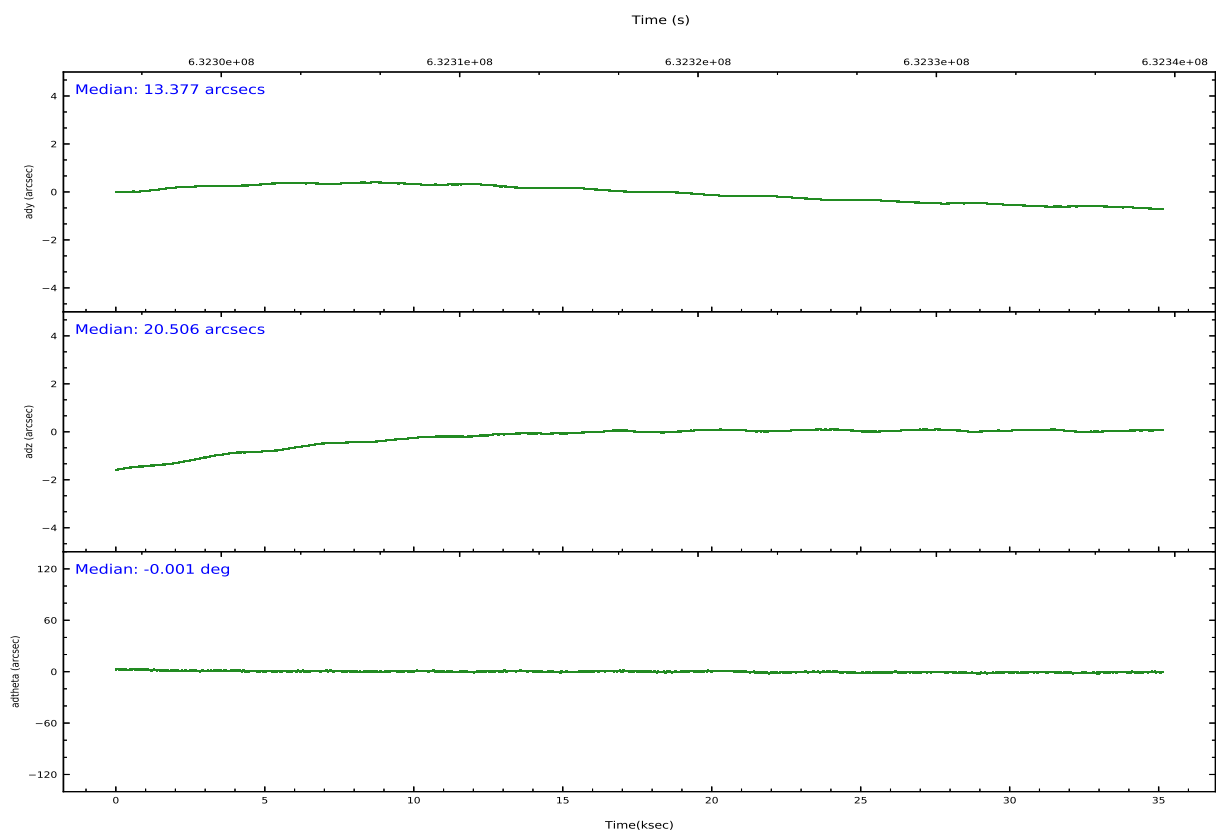
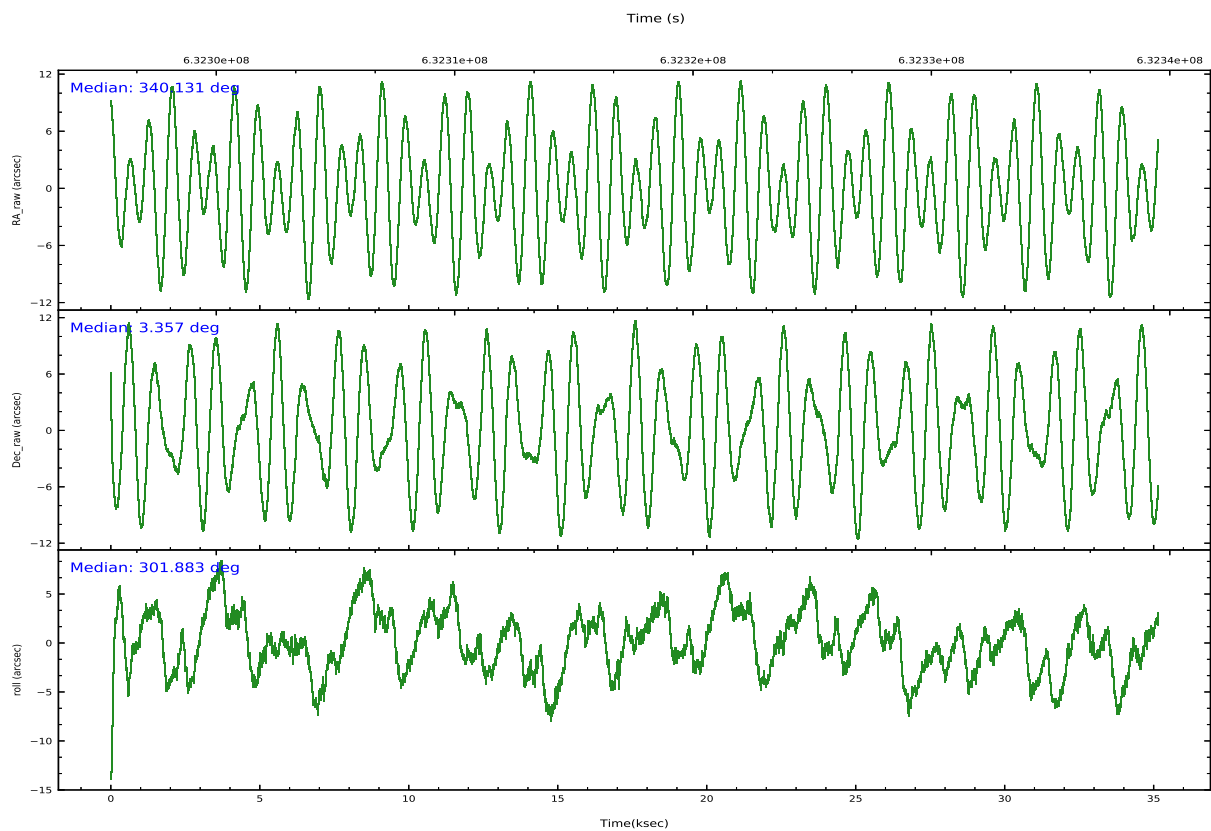
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	5090	5247	4966	7566	14342
	3%	3%	3%	4%	7%
grade 1 events	61	65	64	278	109
	0%	0%	0%	0%	0%
grade 2 events	3531	3157	3578	16806	12051
	2%	2%	2%	9%	6%
grade 3 events	1721	1810	1890	7486	5121
	1%	1%	1%	4%	2%
grade 4 events	1872	1828	1936	7314	4950
	1%	1%	1%	4%	2%
grade 5 events	5045	6217	6355	17962	9312
	3%	4%	4%	10%	4%
grade 6 events	2752	2923	3610	39799	13917
	2%	2%	2%	22%	7%
grade 7 events	115753	111486	119467	77068	131286
	85%	83%	84%	44%	68%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	340.107003	340.12440393518	CCD I2 on	O1	Y
[deg] Pointing Dec	3.370001	3.3575326057073	CCD I3 on	O2	Y
[deg] Pointing Roll	301.733127	301.88313764908	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O4	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	O3	Y
[s] Observation start time (MET)	632300610.184000	632299147.60702	CCD S5 on	N	N
Observation start date	2018-01-14T07:02:21	2018-01-14T06:39:07	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	632335610.184000	632336932.69674	On-chip summing requested	N	N
Observation end date	2018-01-14T16:45:41	2018-01-14T17:08:52	Subarray requested	CUSTOM	1/2
Read mode	TIMED	TIMED	Subarray start row	257	257
			Subarray row count	512	512
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.7

2.3 Aspect



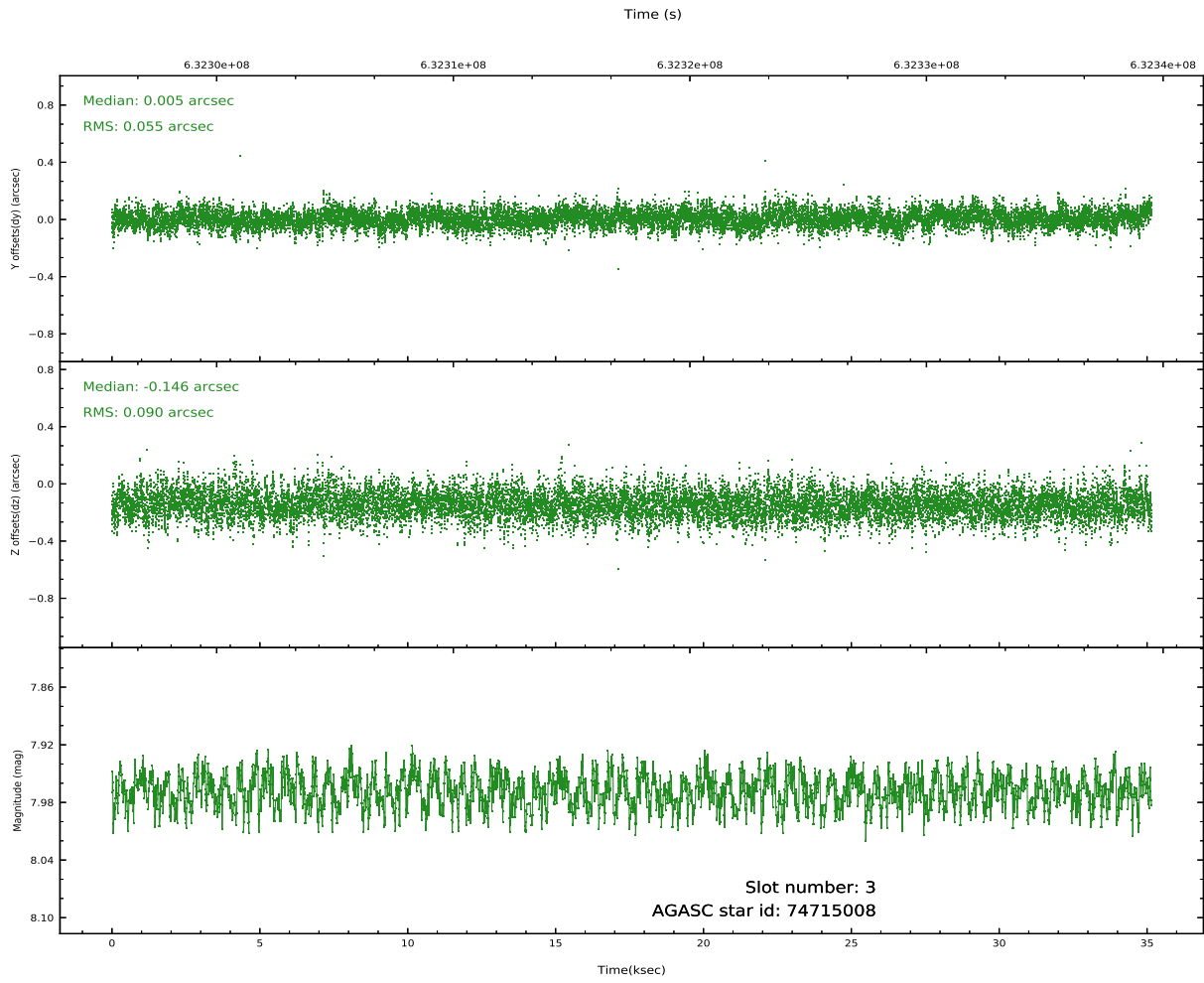
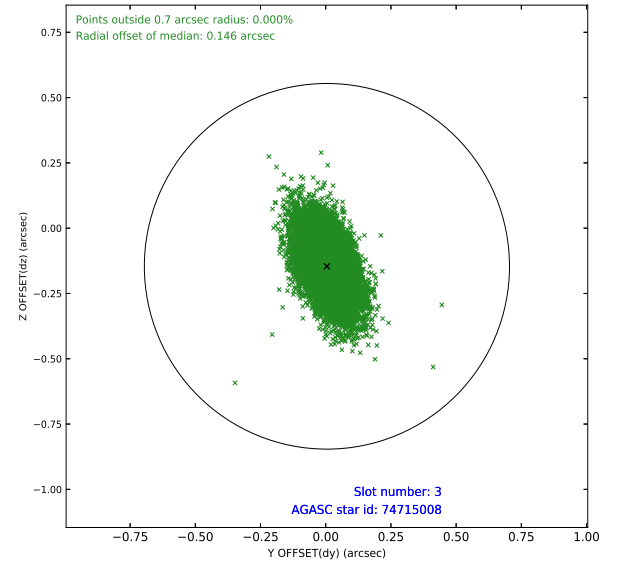
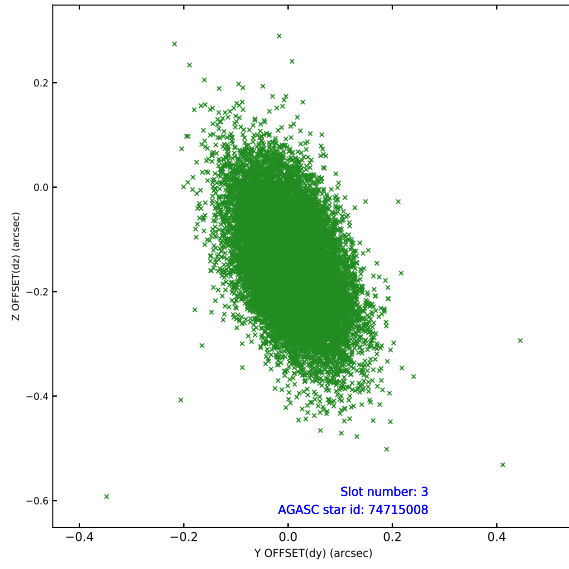


Slot Statistics

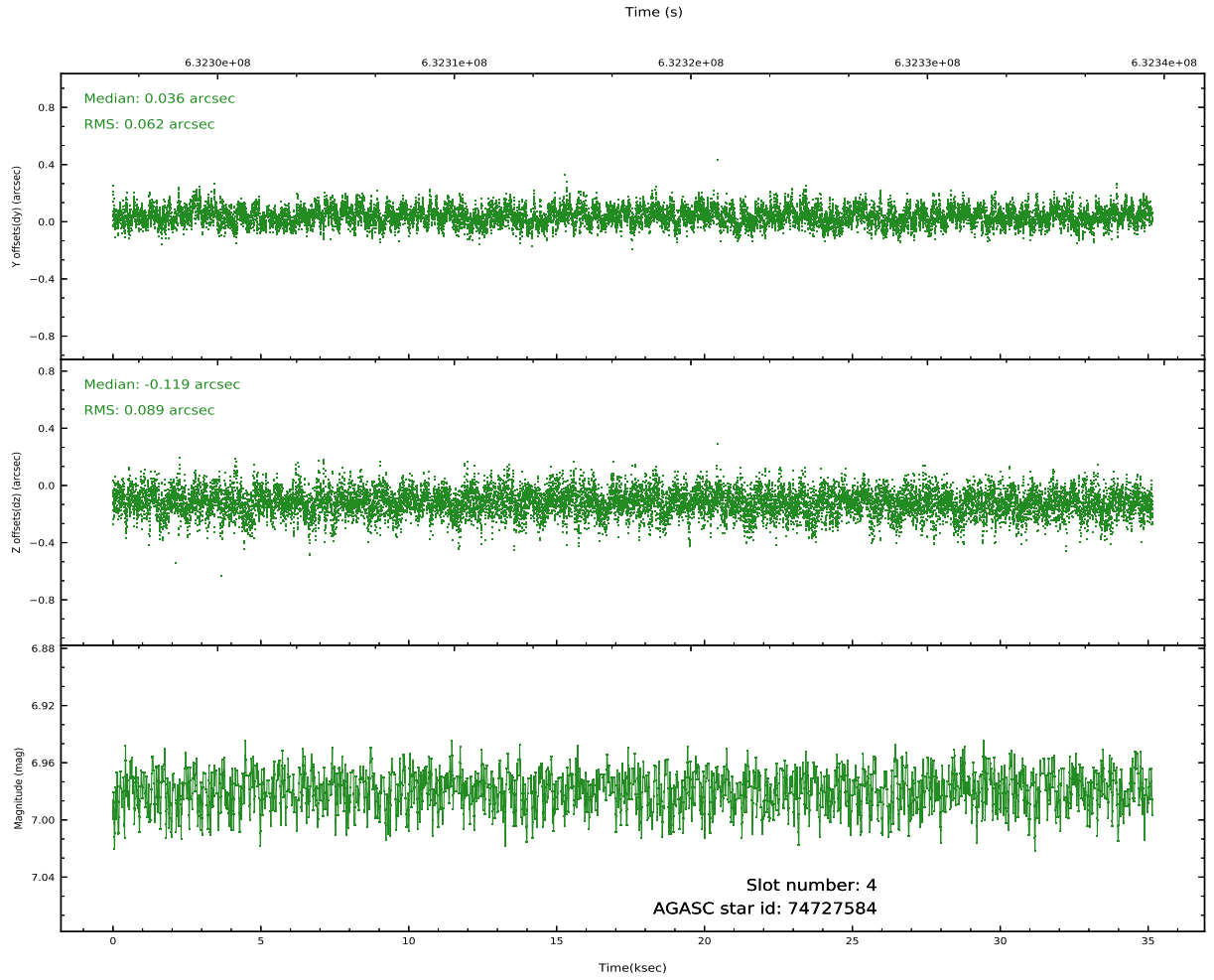
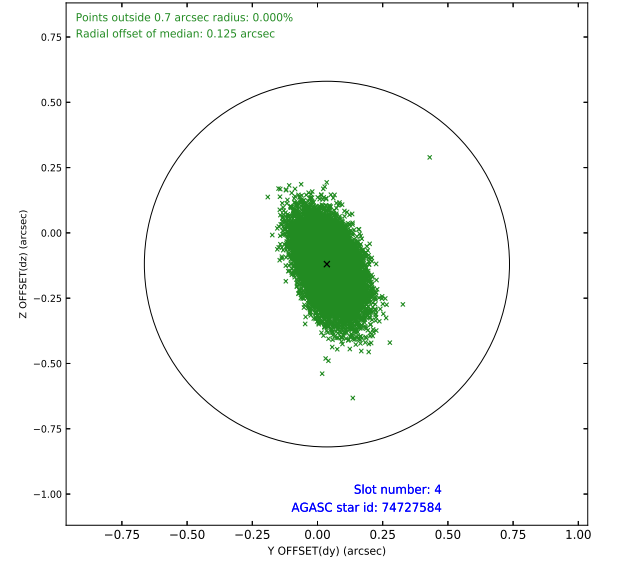
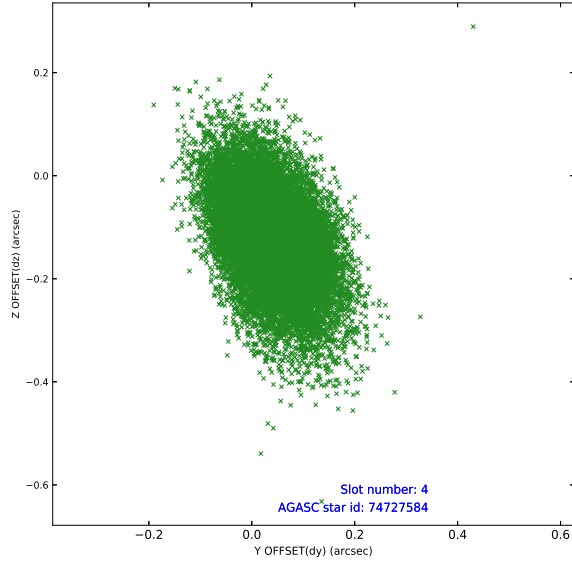
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.11	8574	1.000	0.218	-0.130	0.015	0.045	0.000000	0.000000	929.89	-1737
1	FID		ACIS-S-4	7.14	8574	1.000	0.076	-0.008	0.016	0.041	0.000000	0.000000	2147.31	166
2	FID		ACIS-S-5	7.13	8574	1.000	-0.319	0.152	0.026	0.039	0.000000	0.000000	-1819.34	160
3	GUIDE	used	74715008	7.97	17141	1.000	0.005	-0.146	0.107	0.195	339.956848	3.242441	107.00	-700
4	GUIDE	used	74727584	6.98	17148	1.000	0.036	-0.119	0.110	0.196	339.633744	3.463732	-1181.51	-1268
5	GUIDE	used	74854992	8.25	17140	1.000	0.061	0.031	0.110	0.197	340.342808	3.603730	-269.97	1162
6	GUIDE	used	74855640	8.83	17127	1.000	0.125	0.056	0.117	0.213	340.341123	3.746937	-711.46	1430
7	GUIDE	used	74855160	9.22	17124	1.000	-0.227	0.181	0.163	0.290	340.321337	4.258359	-2315.20	2337

2.4 Star Slots

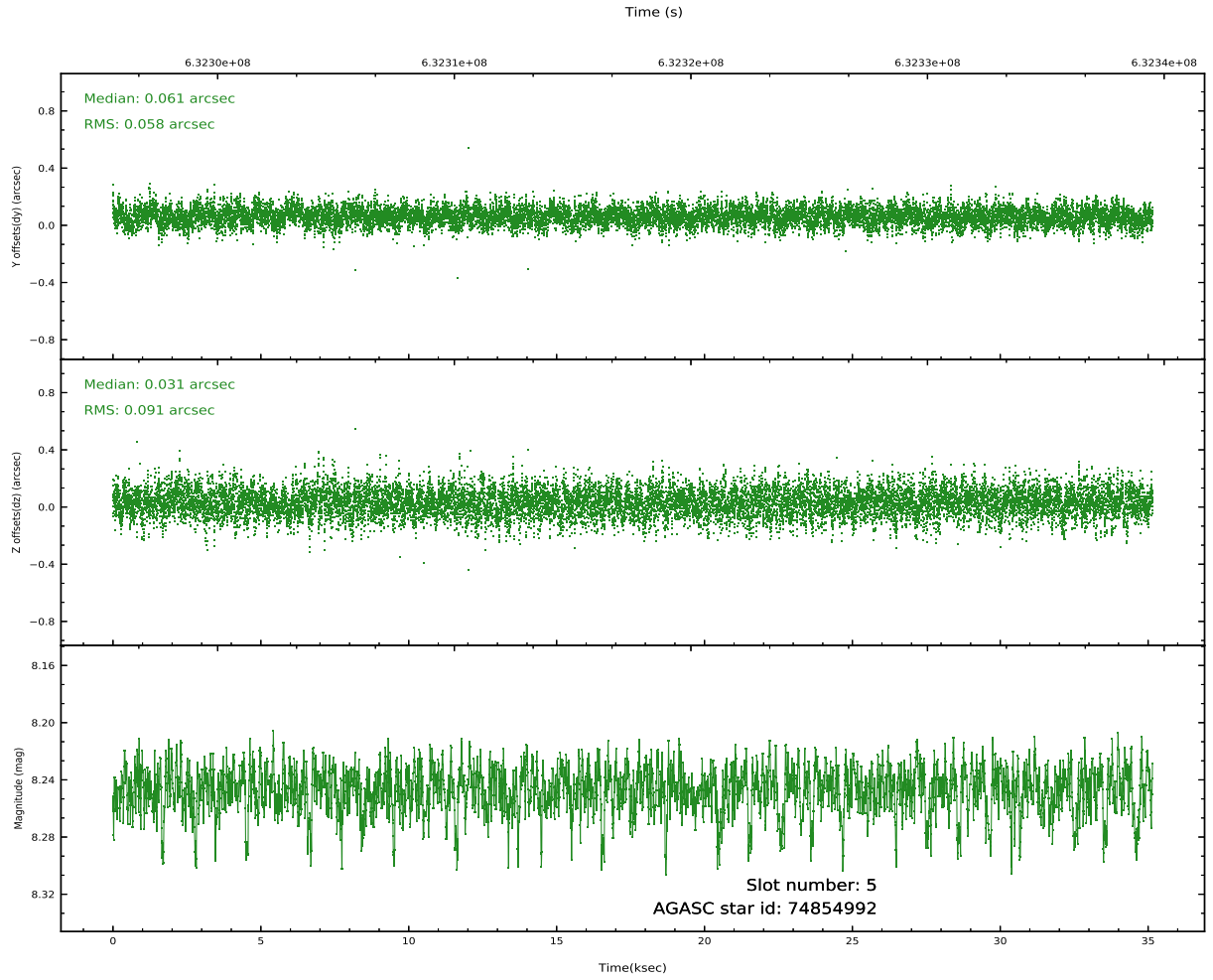
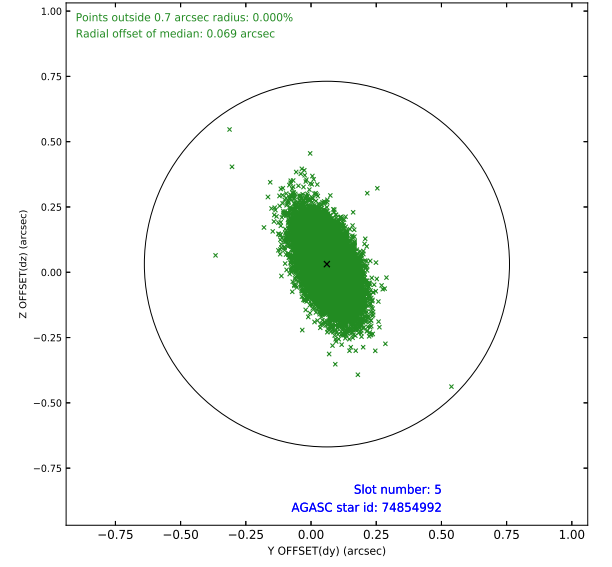
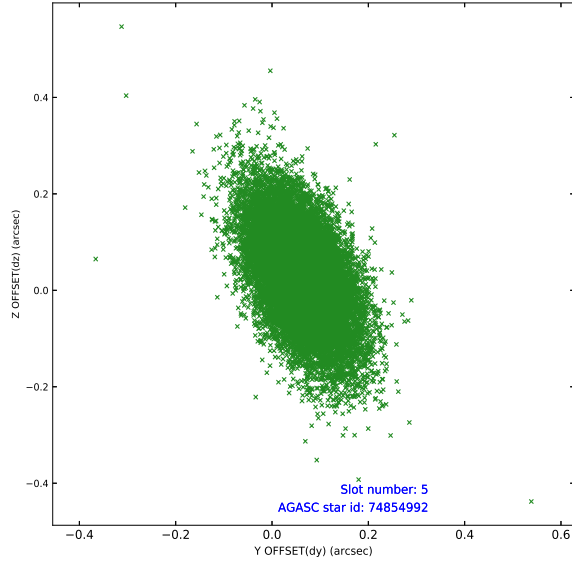
2.4.1 Slot 3



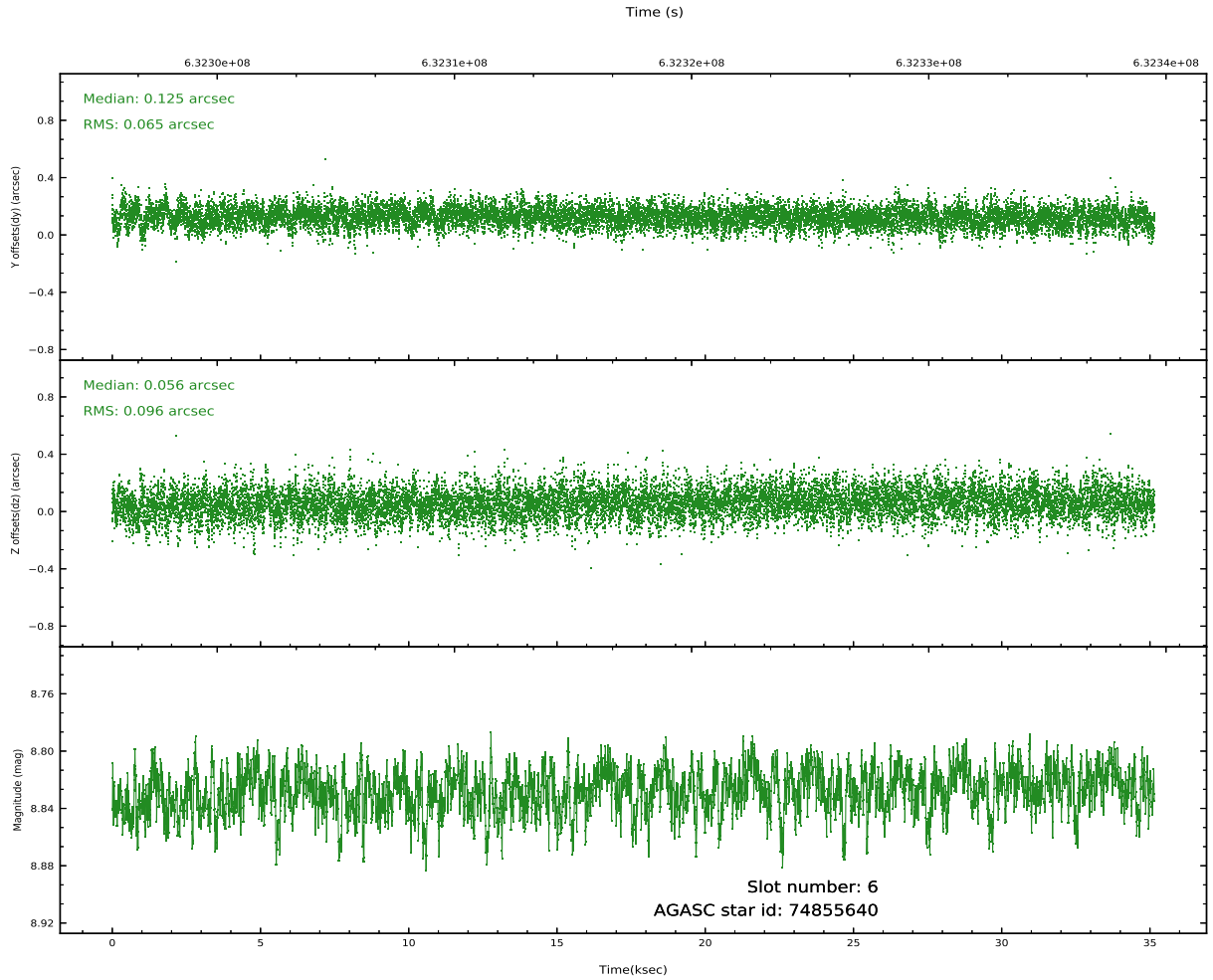
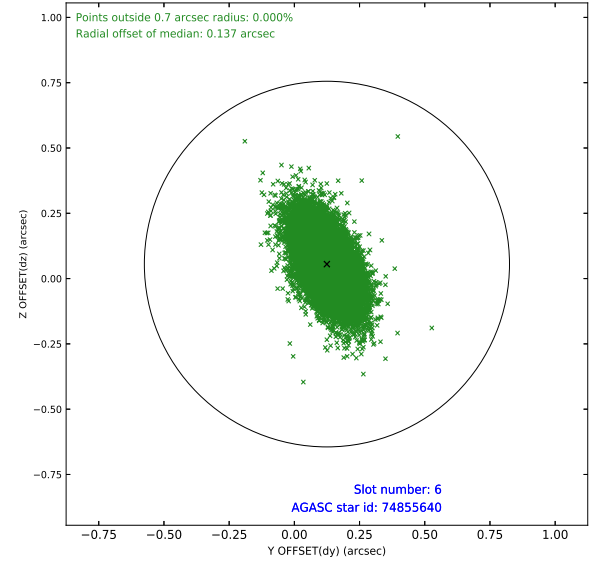
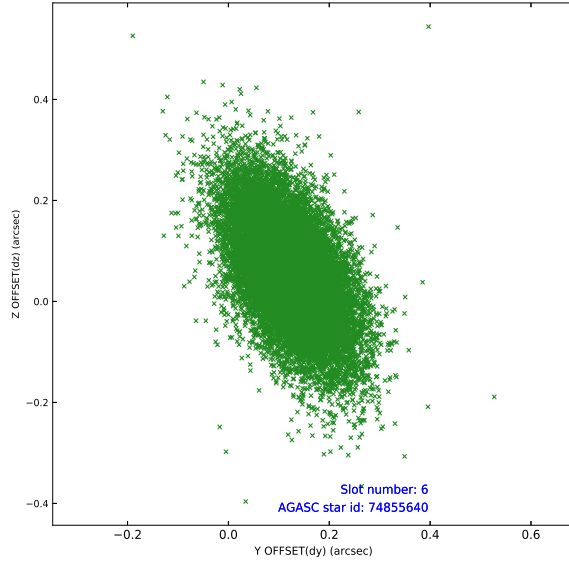
2.4.2 Slot 4



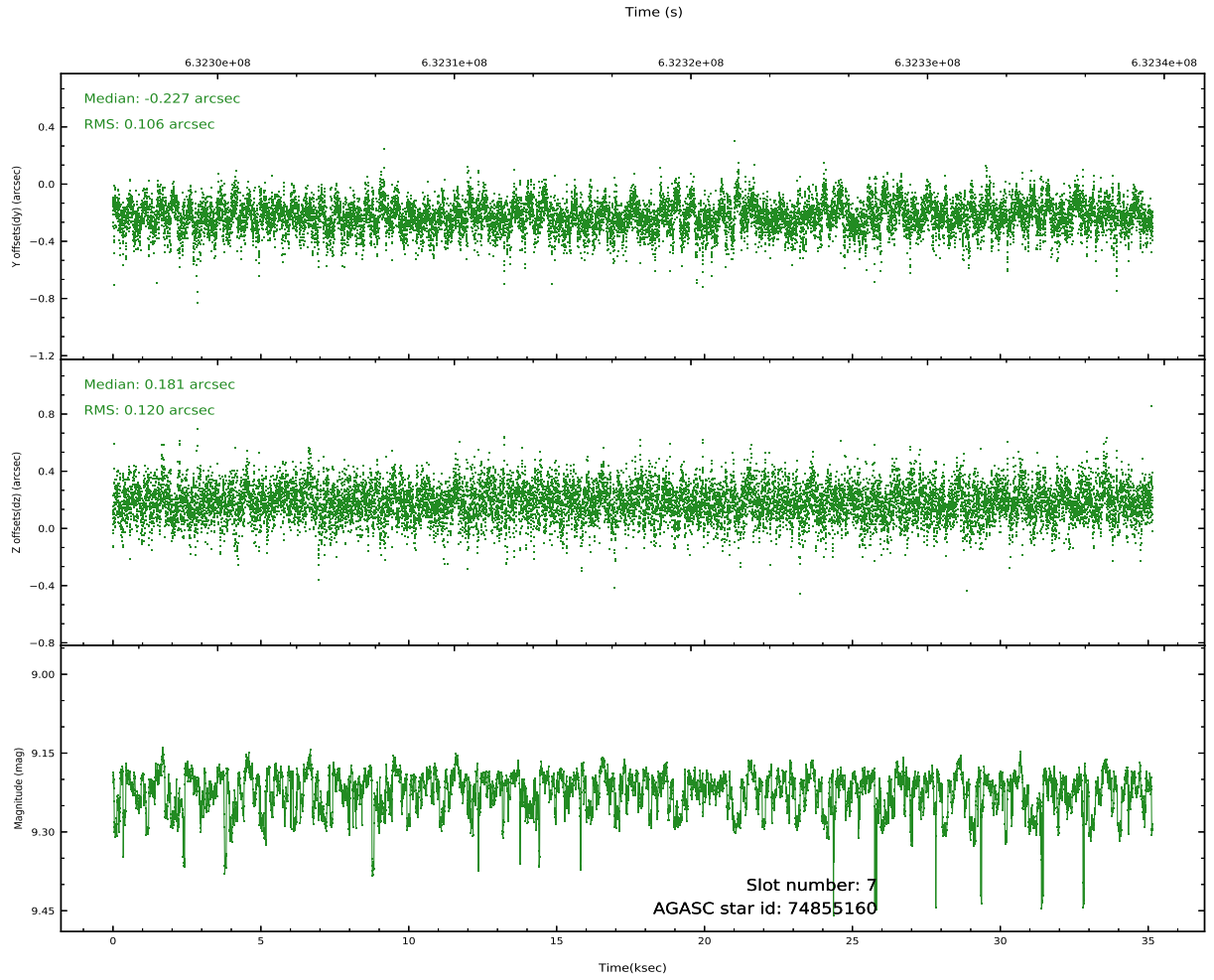
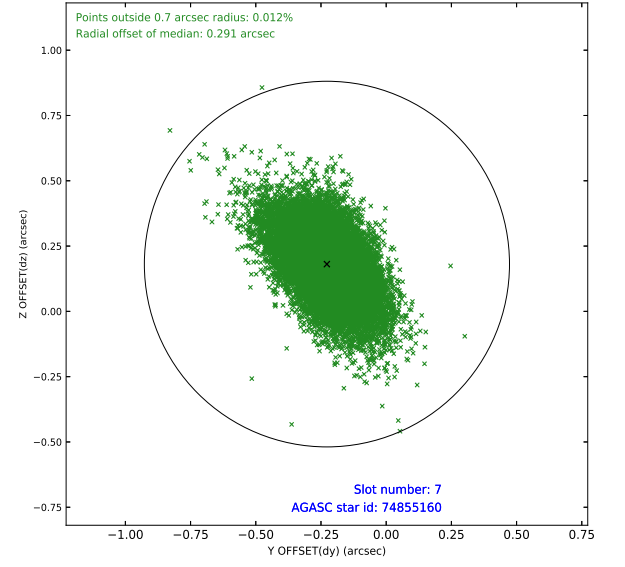
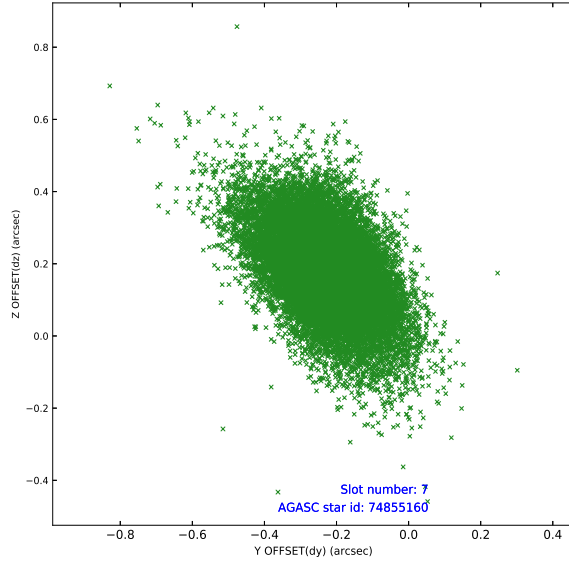
2.4.3 Slot 5



2.4.4 Slot 6

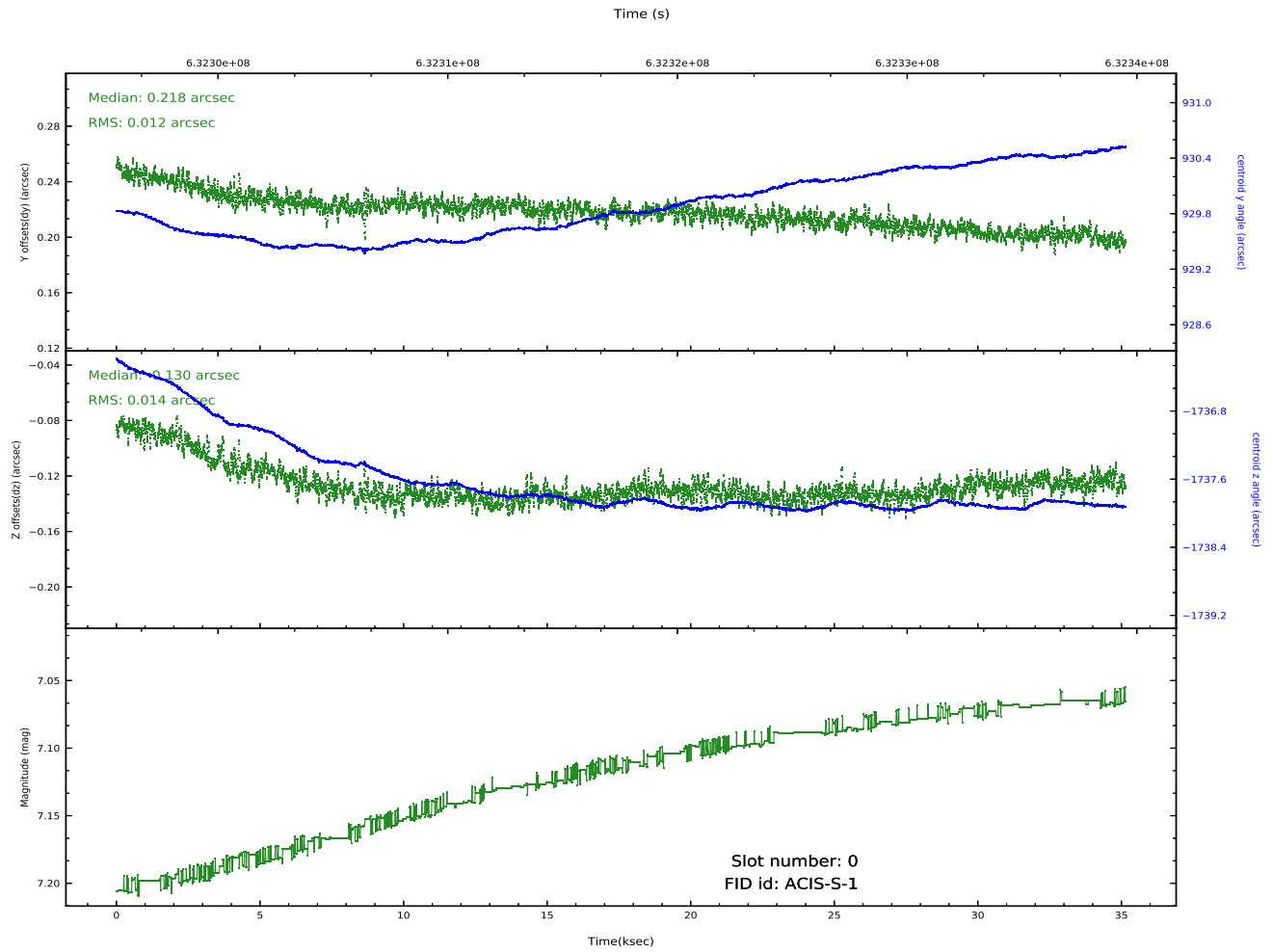
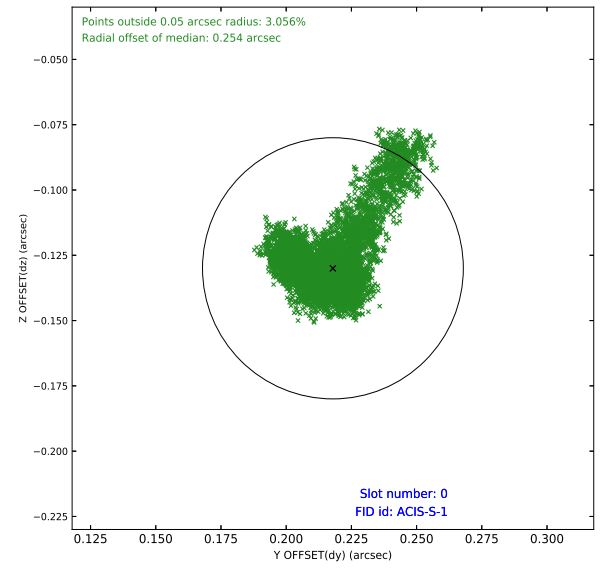
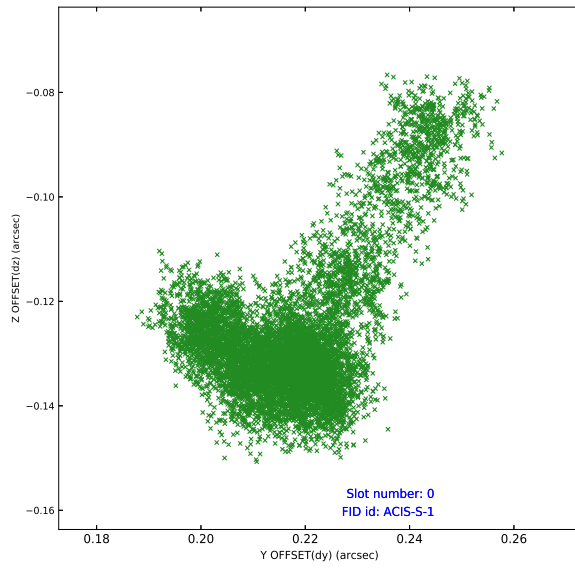


2.4.5 Slot 7

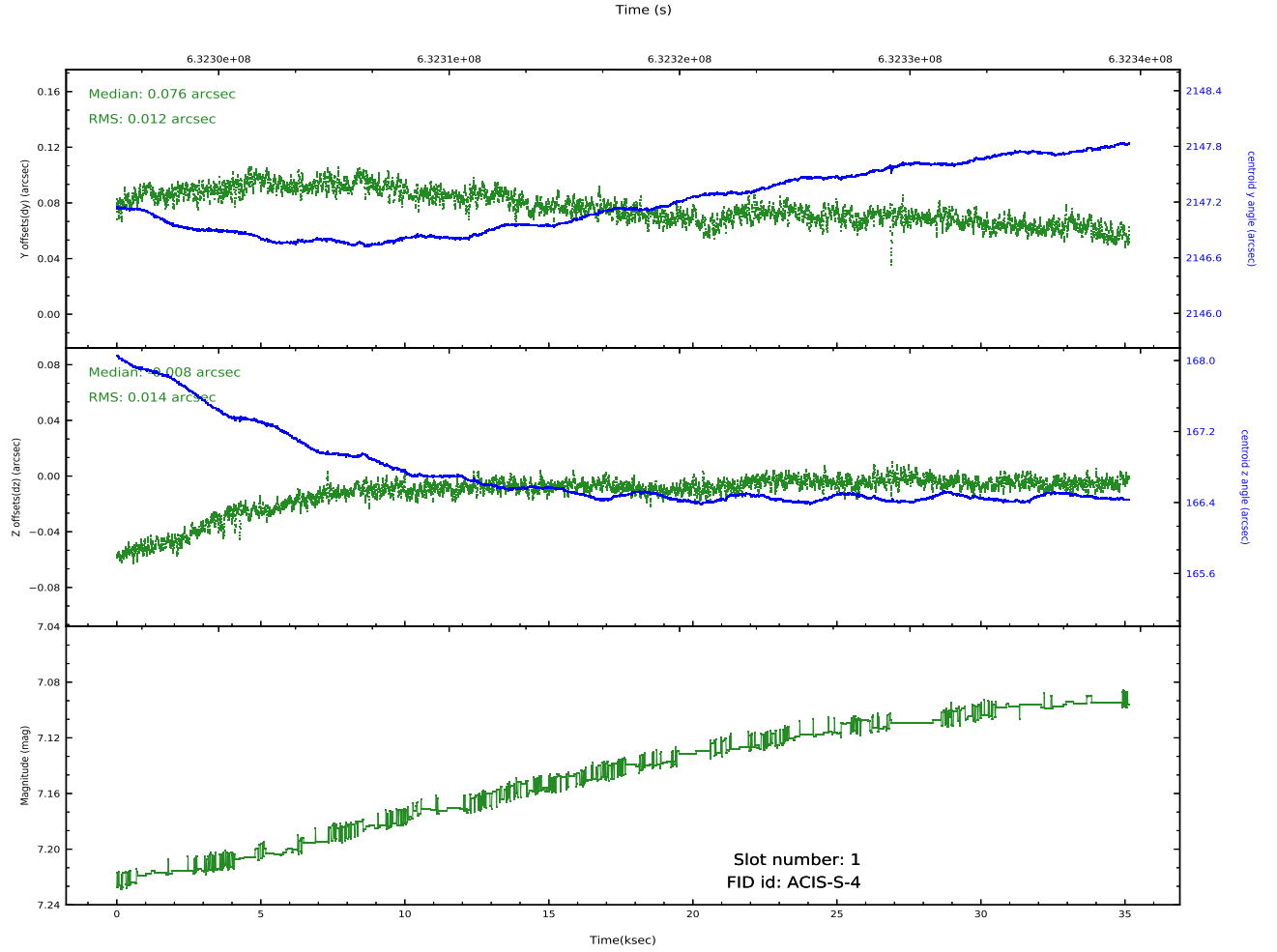
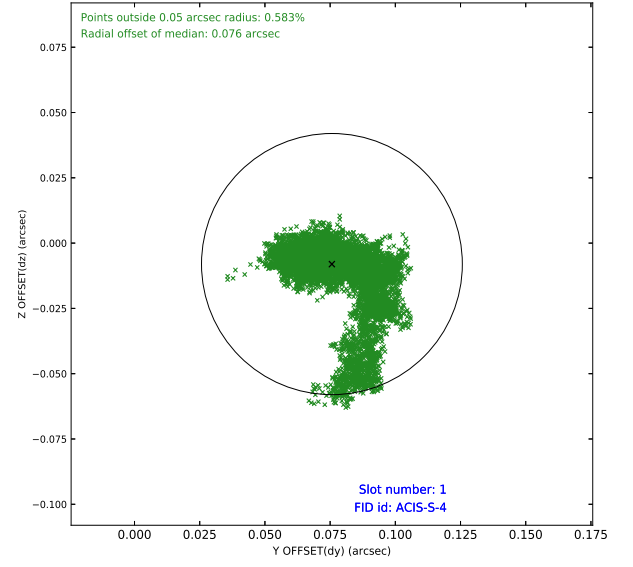
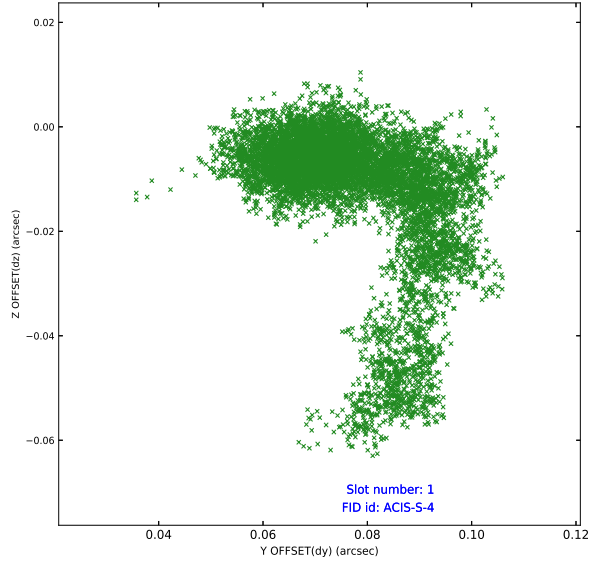


2.5 FID Slots

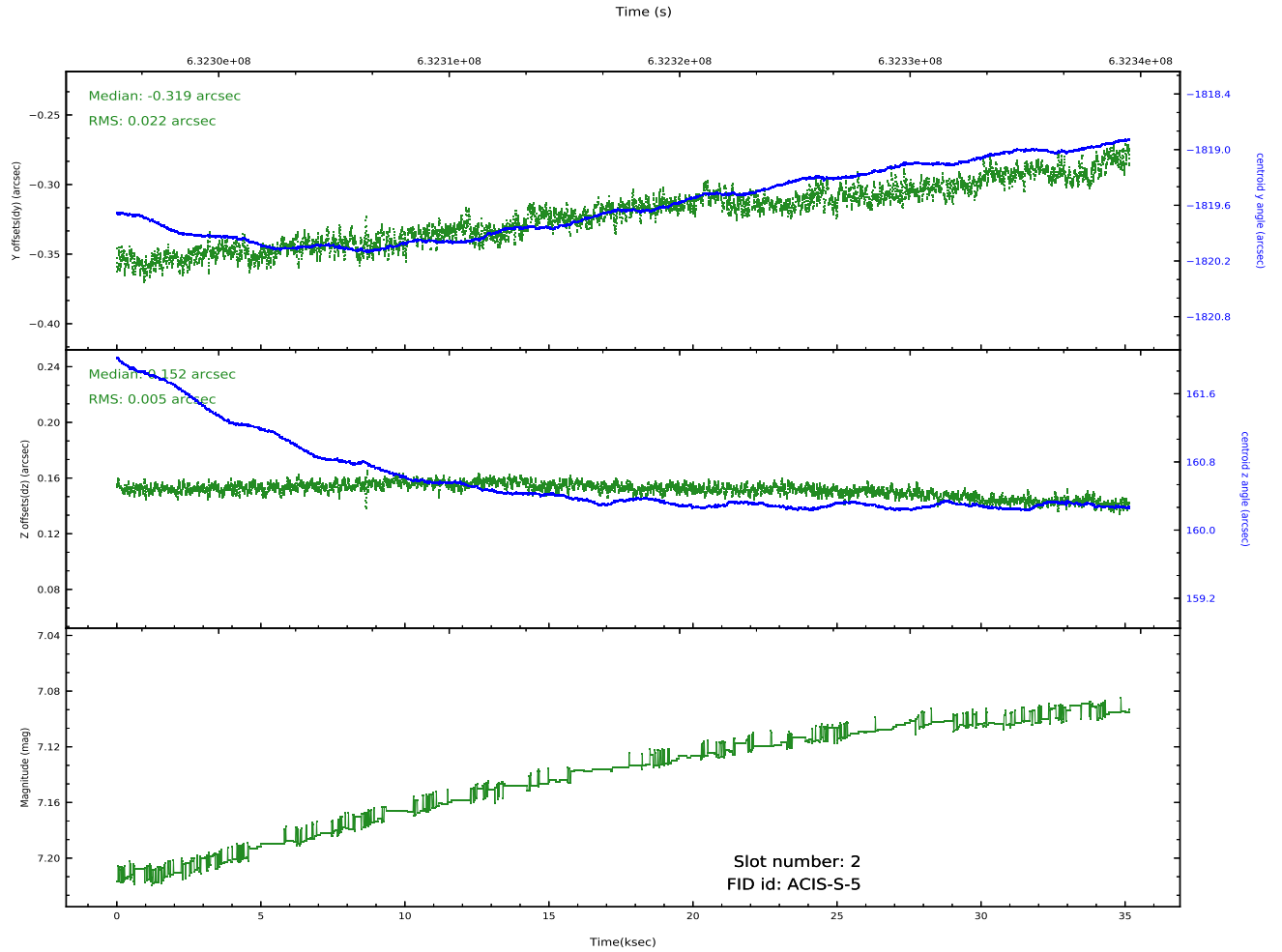
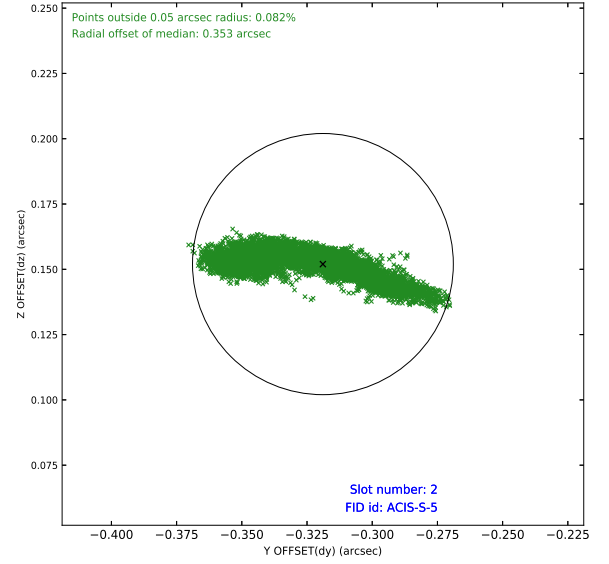
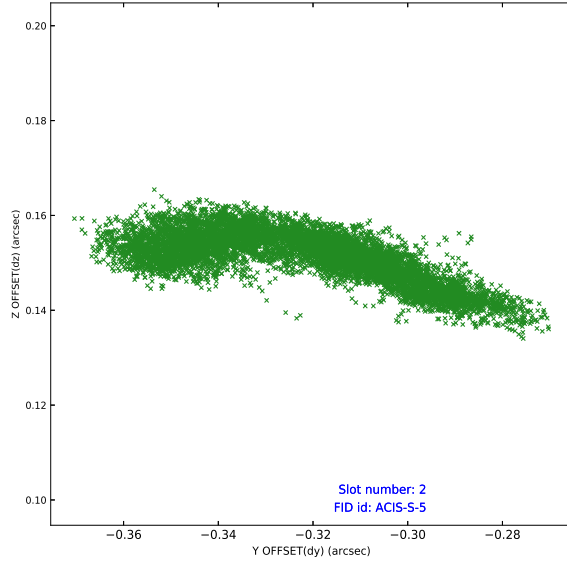
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	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	35.059002335906

A.2 Comments