

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20939 - L2 Version 3
Chandra X-Ray Center

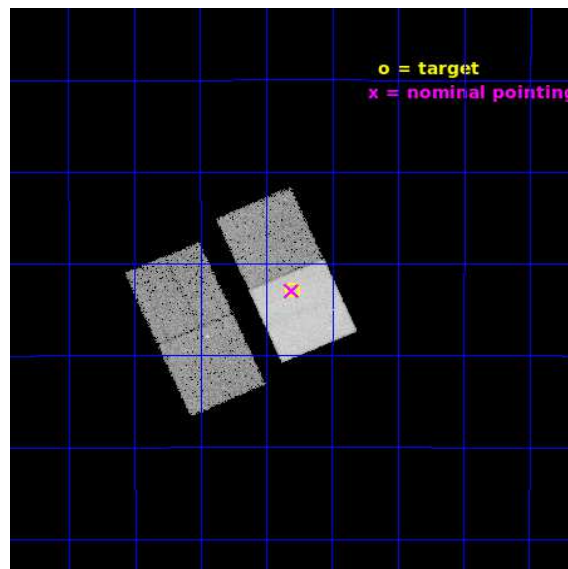
L2 Processing Date : Oct 24 2020

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1 Front

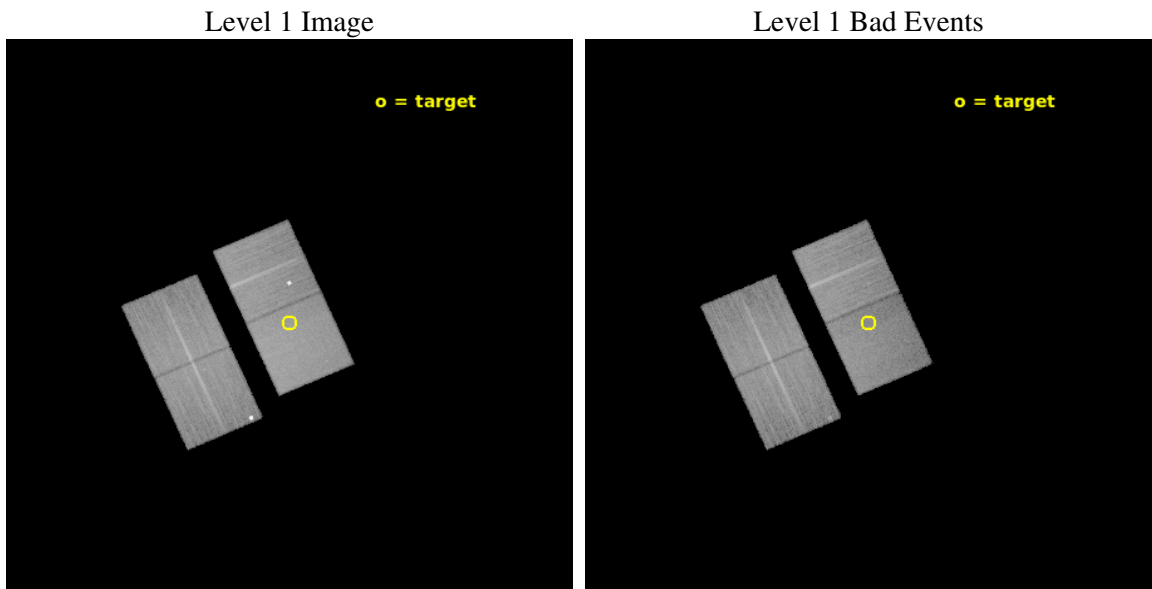
seq_num	402020	Sequence number
obs_id	20939	Observation id
title	GW170817: Tracking the X-ray light curve to study the origin of the emission	Proposal title
observer	Belinda Wilkes	Principal investigator
object	GW170817	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	197.450417	Observer's specified target RA [deg]
dec_targ	-23.381472	Observer's specified target Dec [deg]
ra_nom	197.4512916643	Nominal RA [deg]
dec_nom	-23.382686009375	Nominal Dec [deg]
roll_nom	66.150933214253	Nominal Roll [deg]
revision	3	Processing version of data
ontime	22541.809309125	Sum of GTIs [s]
livetime	22247.283975463	Livetime [s]
ontime2	22541.686189175	Sum of GTIs [s]
ontime3	22541.727229118	Sum of GTIs [s]
ontime6	22541.768269181	Sum of GTIs [s]
ontime7	22541.809309125	Sum of GTIs [s]
l2events	135933	Number of level 2 events



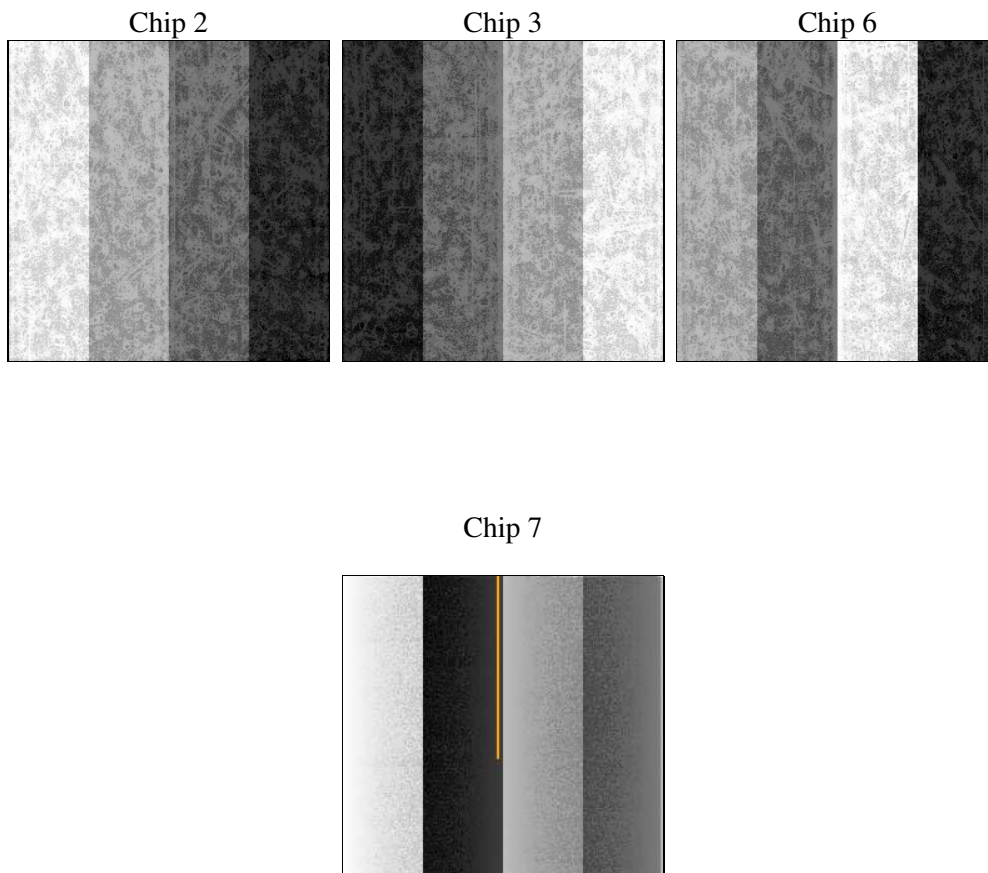
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	22476.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	22541.809309125	Sum of GTIs [s]
caldbver	4.9.3	 	ontime2	22541.686189175	Sum of GTIs [s]
date	2020-10-24T09:00:05	Date and time of file creation	ontime3	22541.727229118	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	22541.768269181	Sum of GTIs [s]
			ontime7	22541.809309125	Sum of GTIs [s]
			l1events	741021	Number of level 1 events

2.1.4 Events

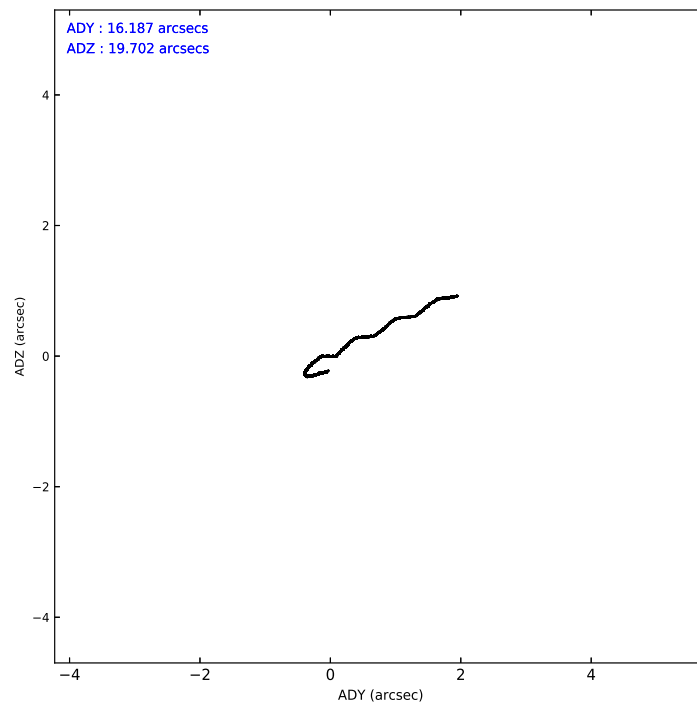
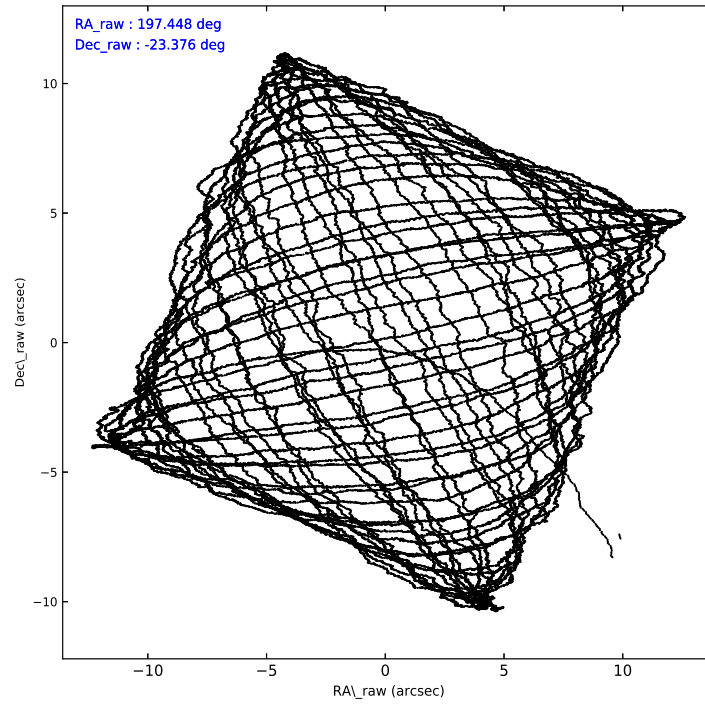
	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	170754	172549	185012	212706
rejected events	153630	145480	159666	119582
rejected %	89%	84%	86%	56%

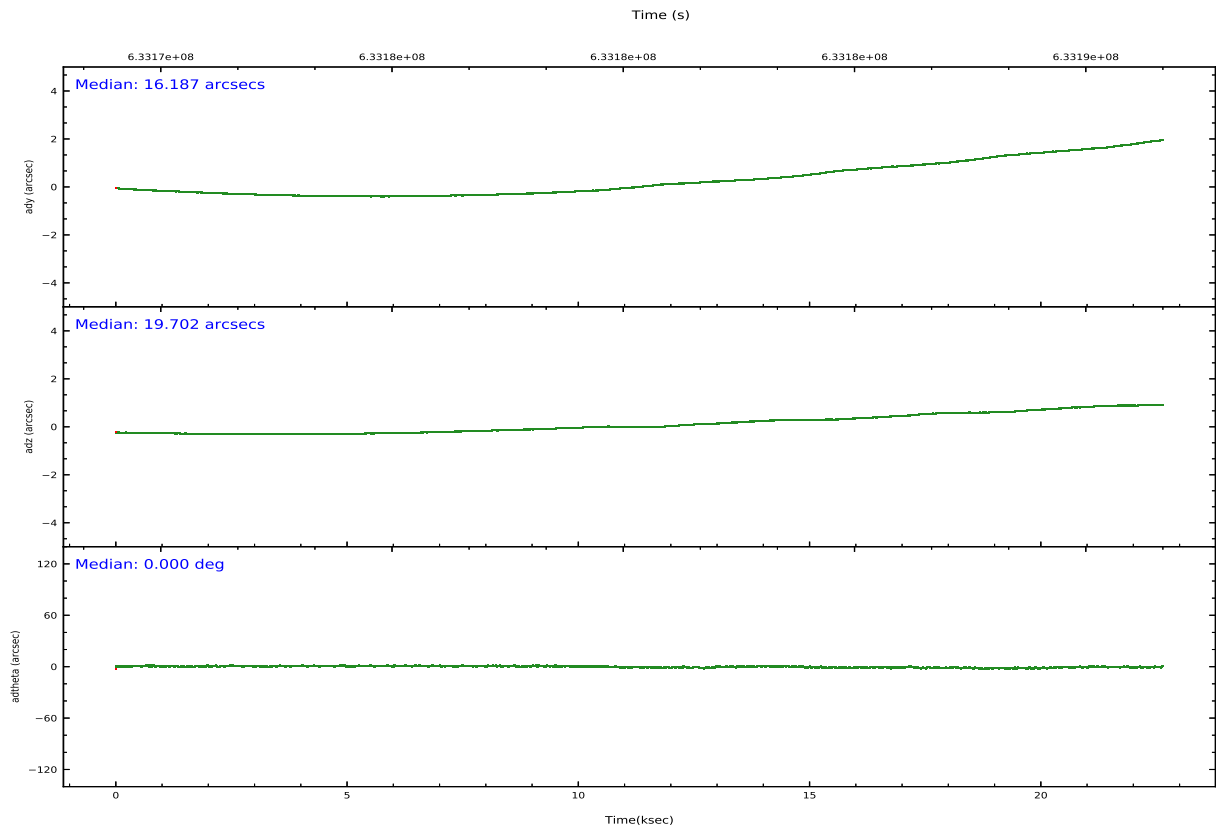
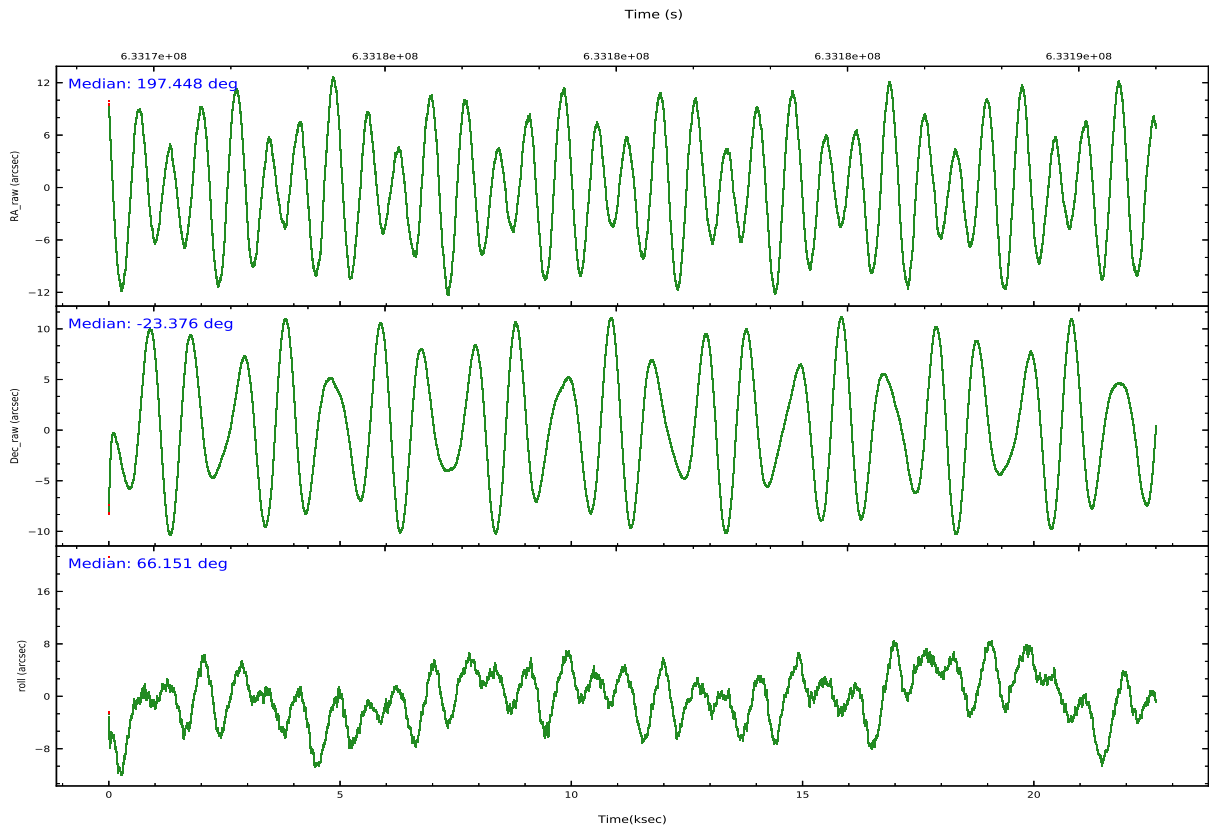
	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	5985	6294	12525	7974
	3%	3%	6%	3%
grade 1 events	75	96	123	289
	0%	0%	0%	0%
grade 2 events	4214	13537	4639	19524
	2%	7%	2%	9%
grade 3 events	1682	1800	1717	7592
	0%	1%	0%	3%
grade 4 events	1740	1882	1743	7239
	1%	1%	0%	3%
grade 5 events	6319	7556	7481	21187
	3%	4%	4%	9%
grade 6 events	3506	3565	4727	50815
	2%	2%	2%	23%
grade 7 events	147233	137819	152057	98086
	86%	79%	82%	46%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-2367	ACIS-2367	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	197.451362	197.4512916643	CCD I2 on	O1	Y
[deg] Pointing Dec	-23.403297	-23.382686009375	CCD I3 on	O2	Y
[deg] Pointing Roll	66.000380	66.150933214253	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	O3	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	N	N
[s] Observation start time (MET)	633169197.184000	633168179.55817	CCD S5 on	N	N
Observation start date	2018-01-24T08:18:48	2018-01-24T08:02:59	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	633191673.184000	633192383.39709	On-chip summing requested	N	N
Observation end date	2018-01-24T14:33:24	2018-01-24T14:46:23	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



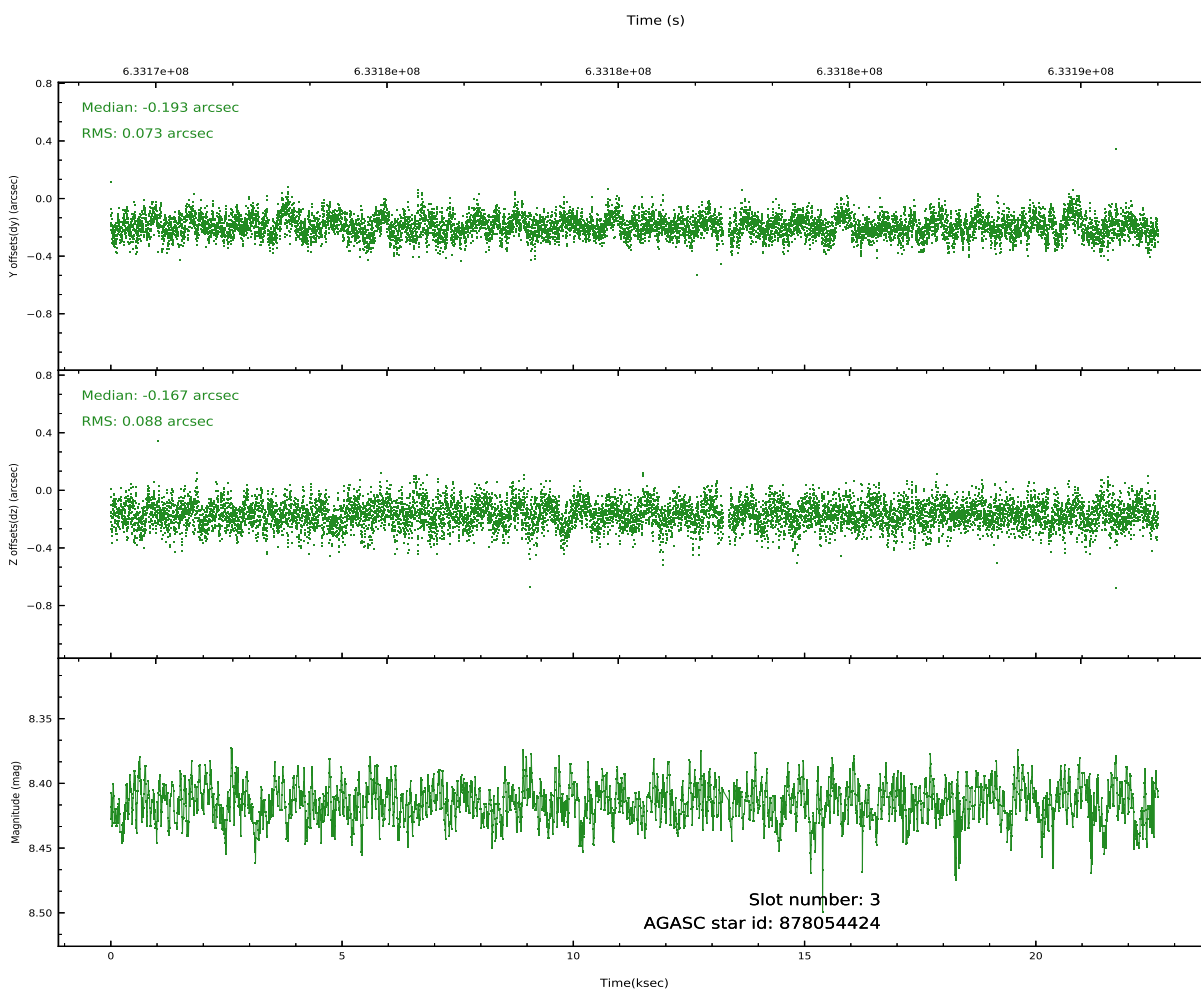
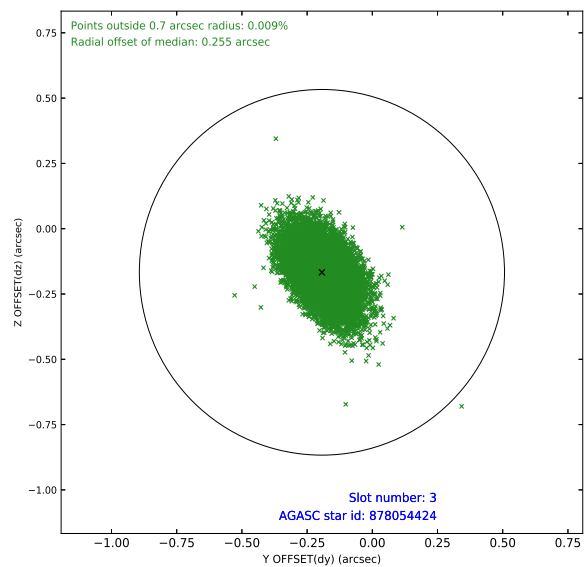
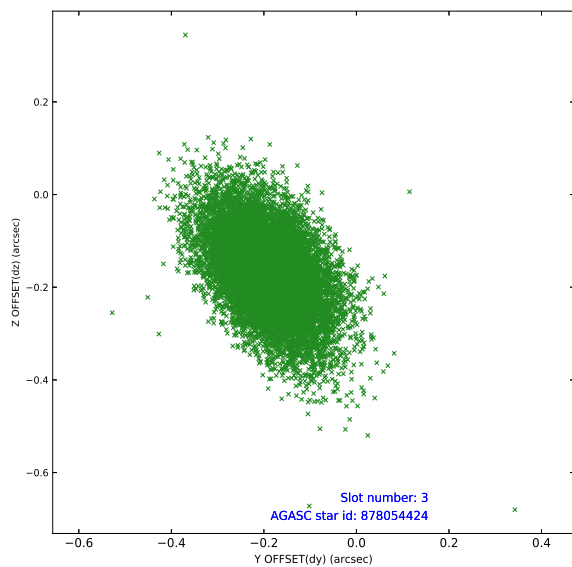


Slot Statistics

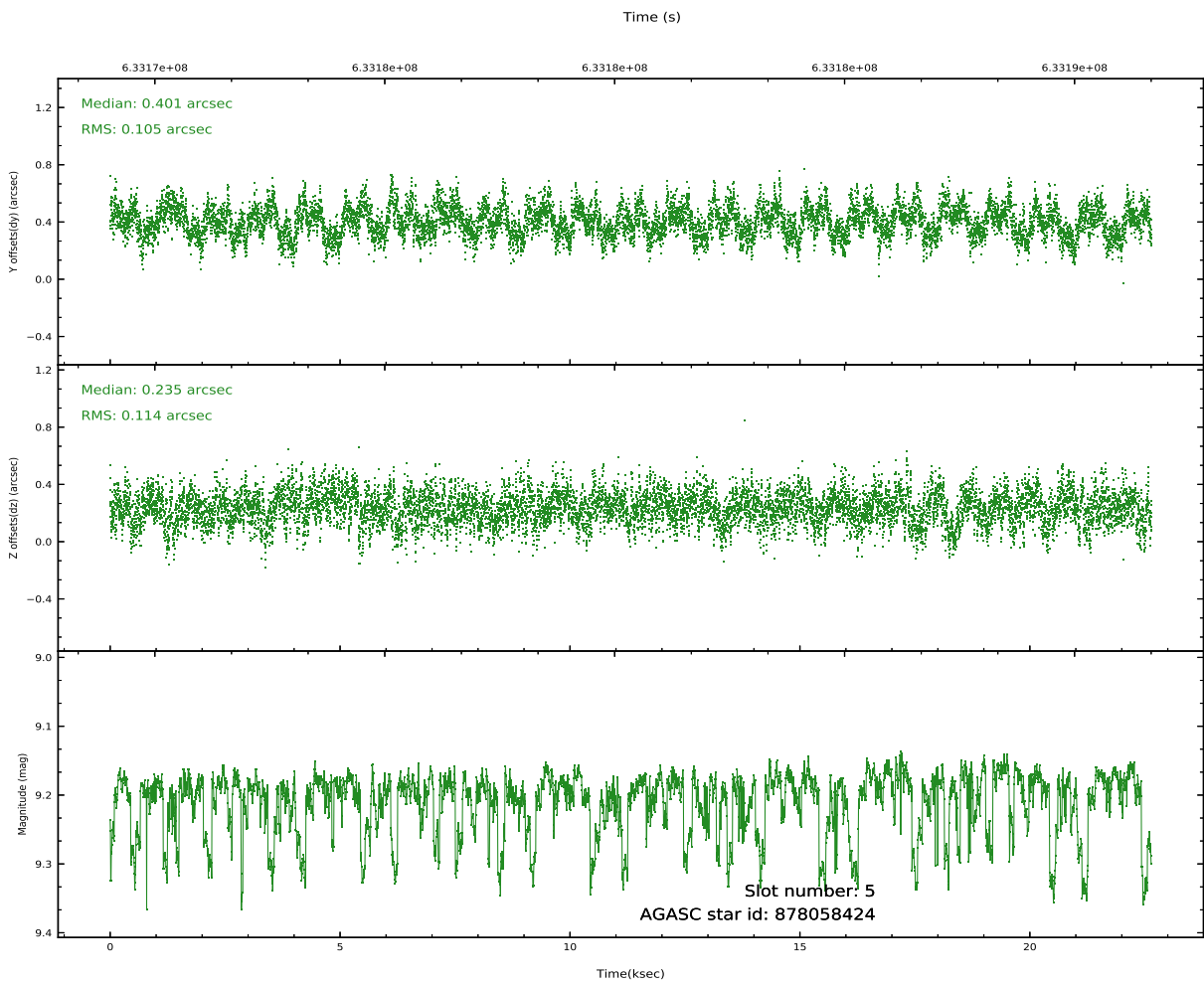
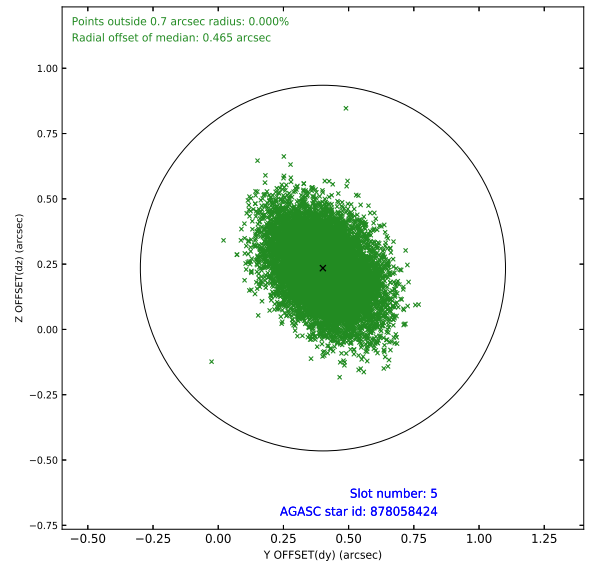
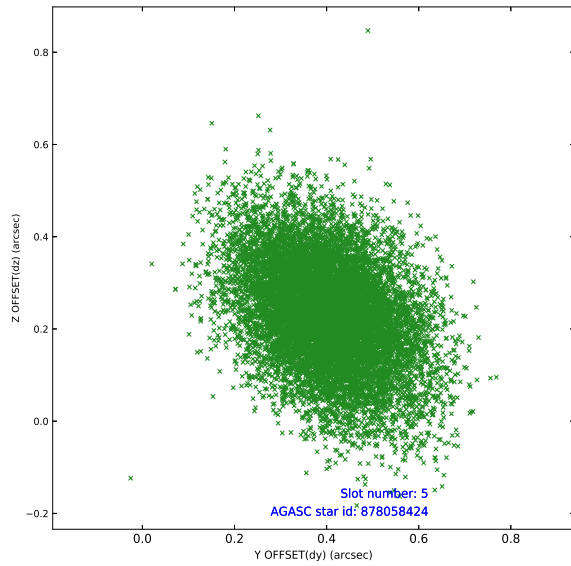
slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-1	7.14	5524	1.000	0.143	-0.049	0.028	0.049	0.000000	0.000000	926.49	-1737
1	FID		ACIS-S-2	7.05	5524	1.000	-0.135	0.033	0.025	0.033	0.000000	0.000000	-769.61	-1741
2	FID		ACIS-S-4	7.16	5523	1.000	-0.036	0.021	0.017	0.023	0.000000	0.000000	2143.67	166
3	GUIDE	used	878054424	8.41	10978	1.000	-0.193	-0.167	0.117	0.201	197.311680	-23.210058	446.92	704
4	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
5	GUIDE	used	878058424	9.20	11035	1.000	0.401	0.235	0.164	0.272	197.645163	-24.009629	-1734.85	-1469
6	GUIDE	used	878061480	7.95	11041	1.000	-0.364	-0.297	0.125	0.225	197.360027	-22.852260	1687.83	1083
7	GUIDE	used	878056592	8.74	11035	1.000	0.153	0.229	0.144	0.253	197.586702	-23.861101	-1324.27	-1076

2.4 Star Slots

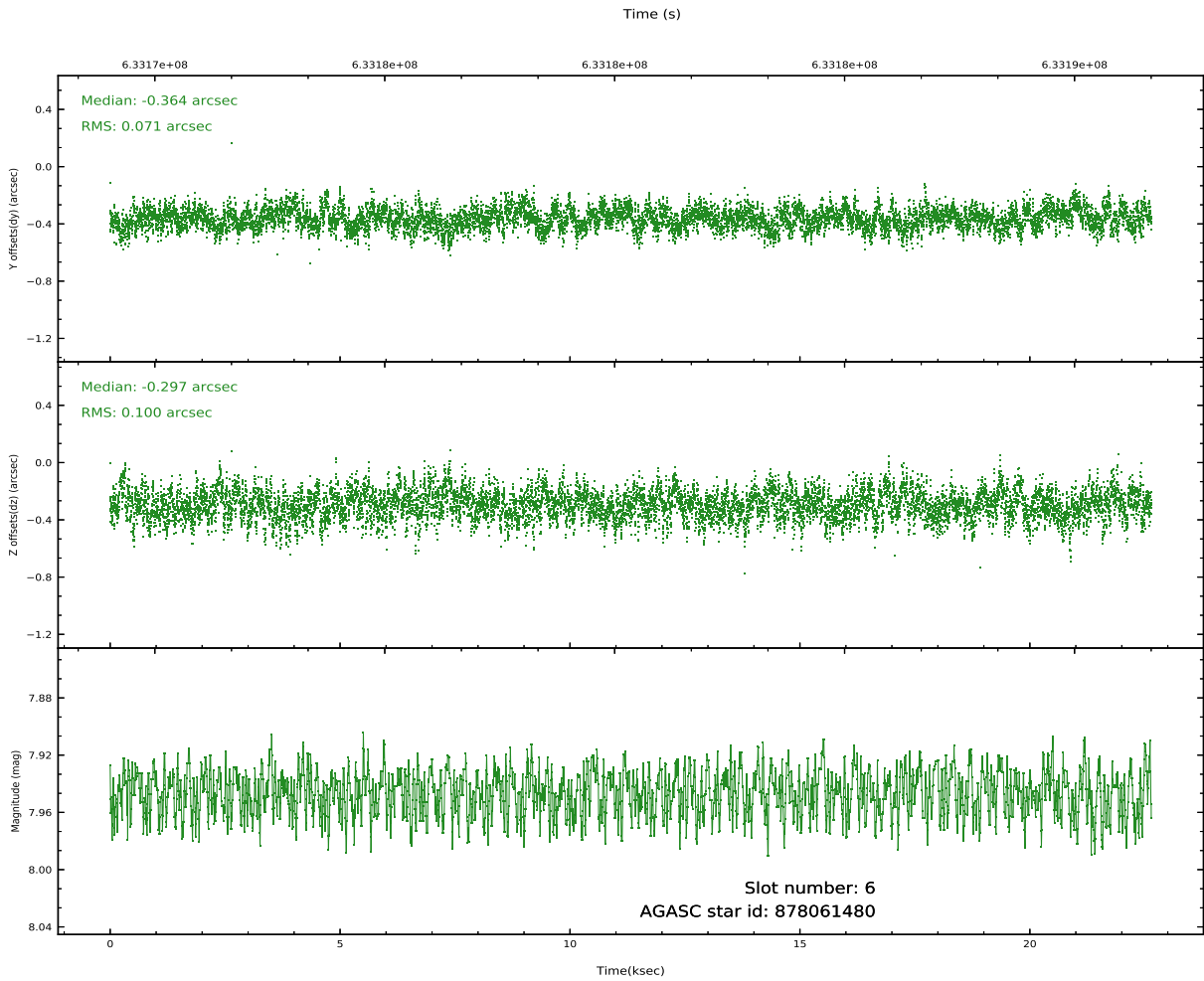
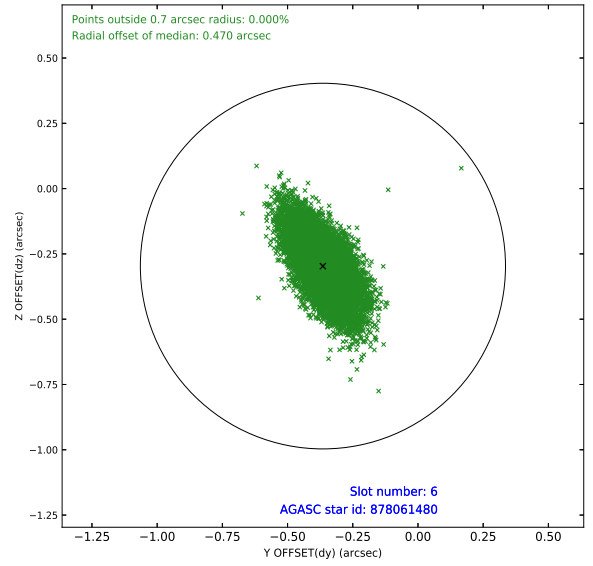
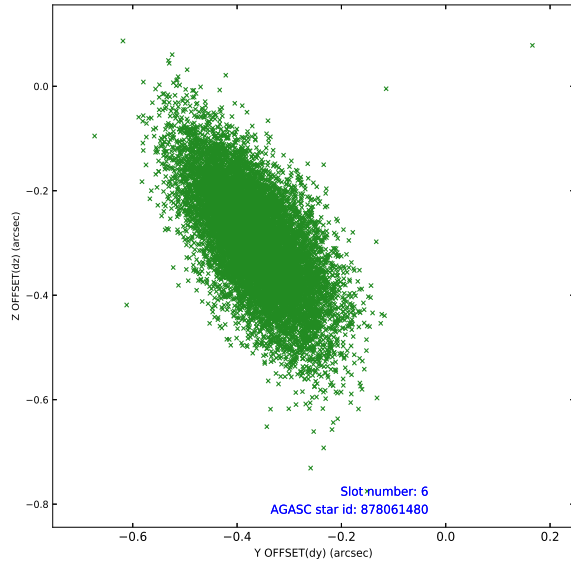
2.4.1 Slot 3



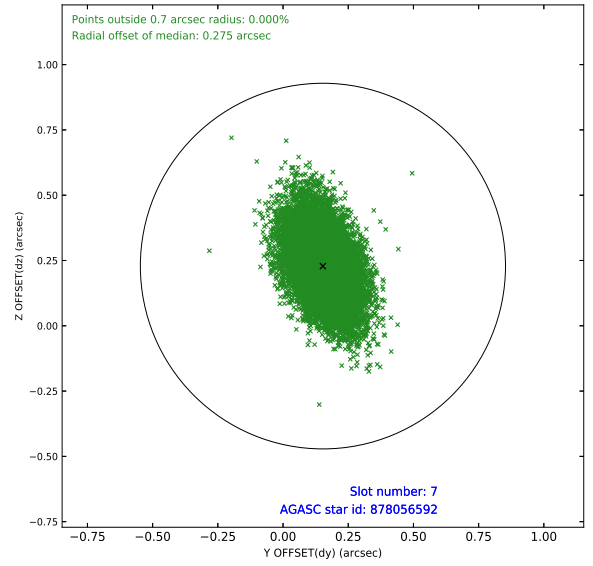
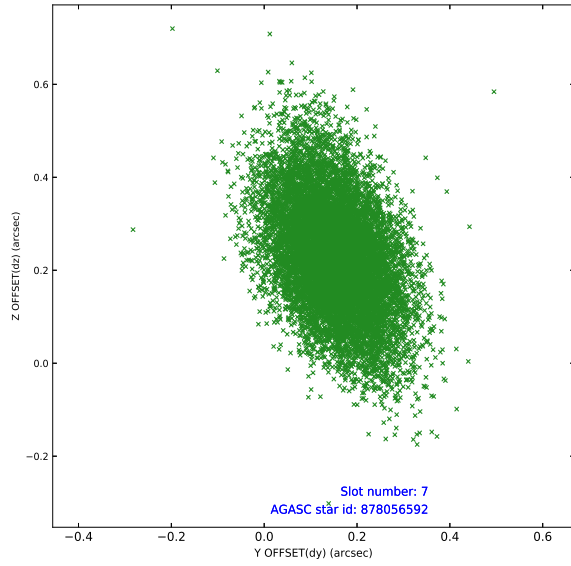
2.4.2 Slot 5



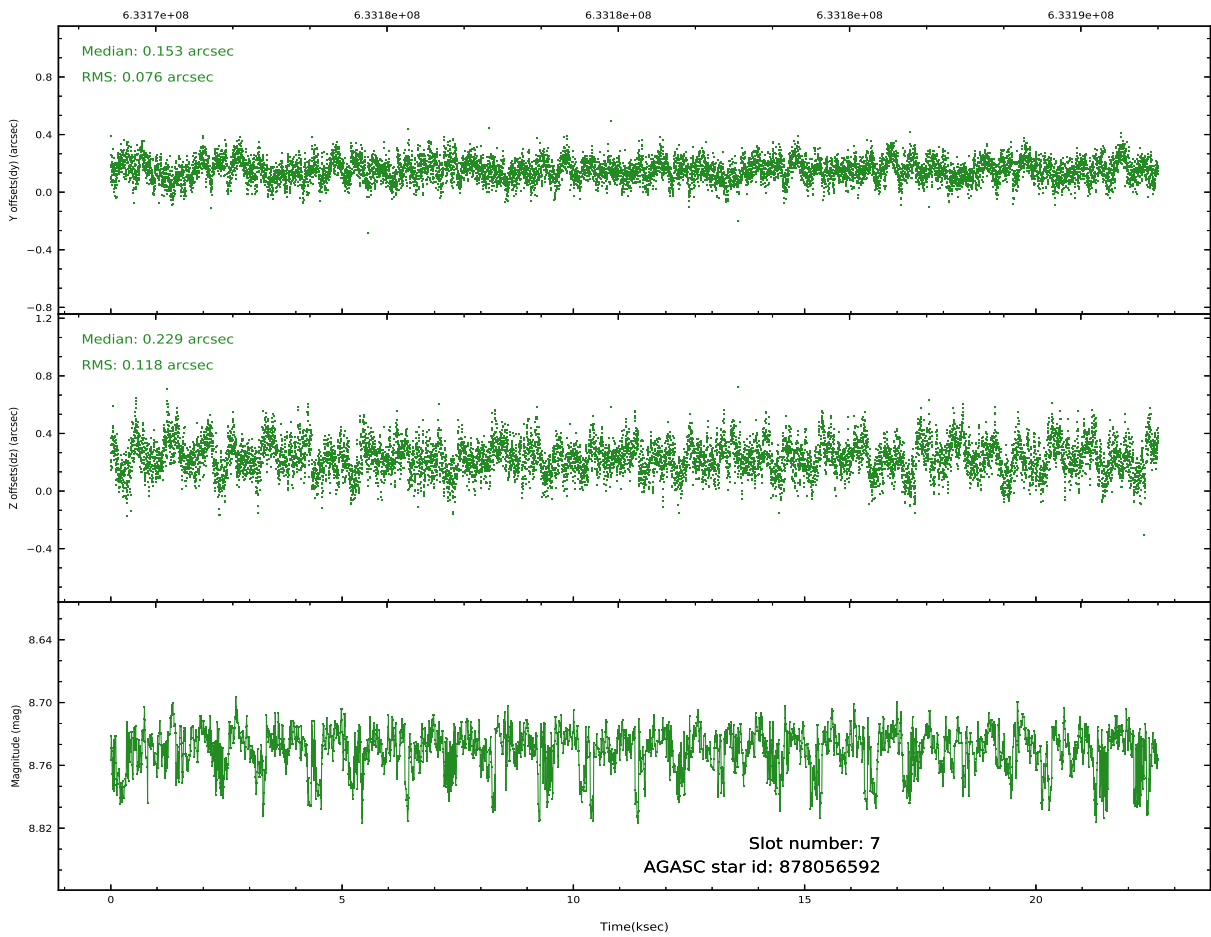
2.4.3 Slot 6



2.4.4 Slot 7

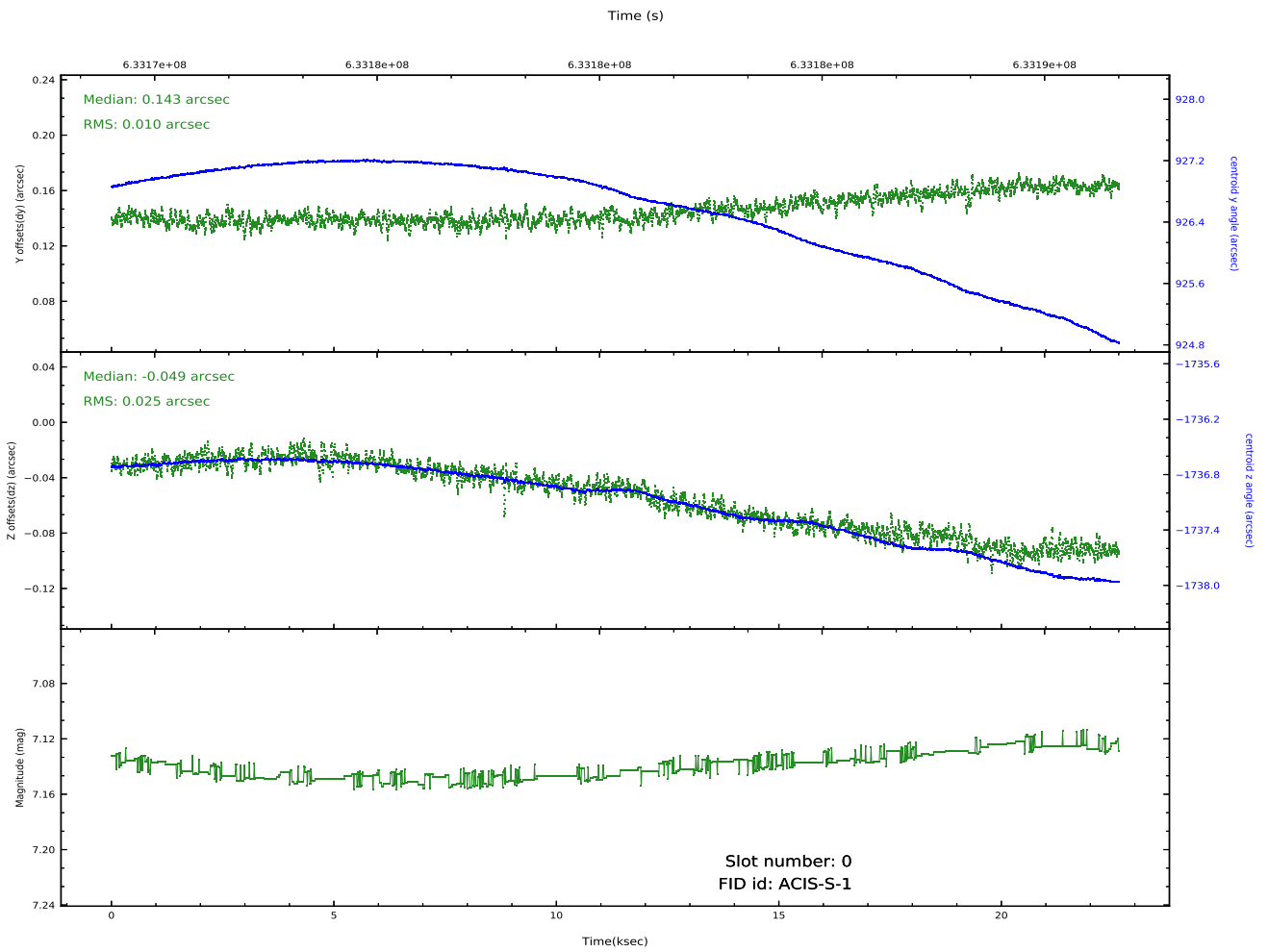
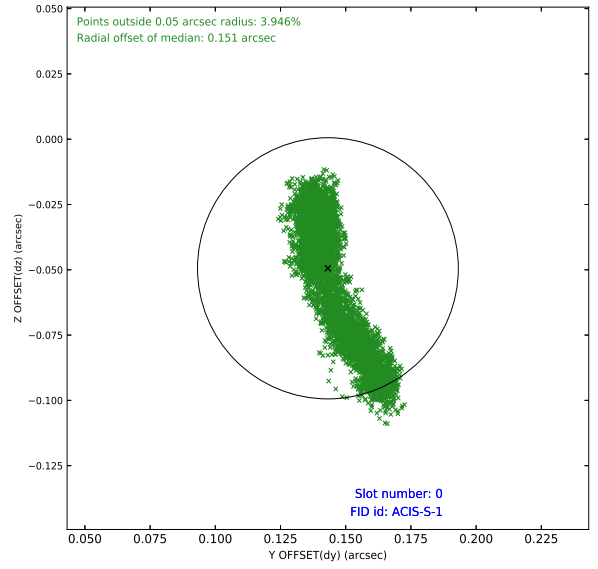
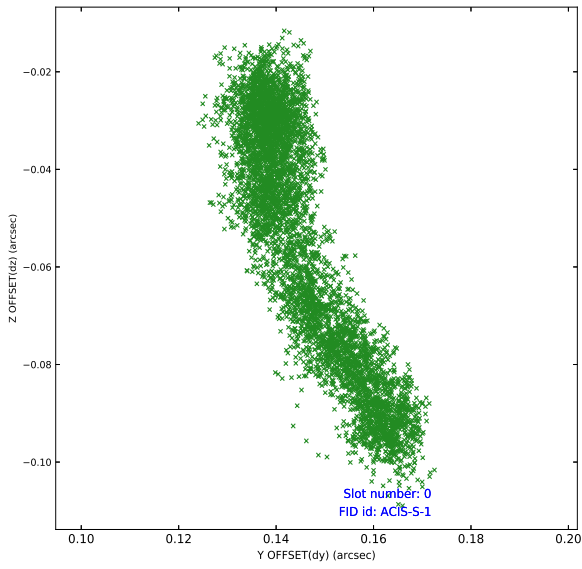


Time (s)

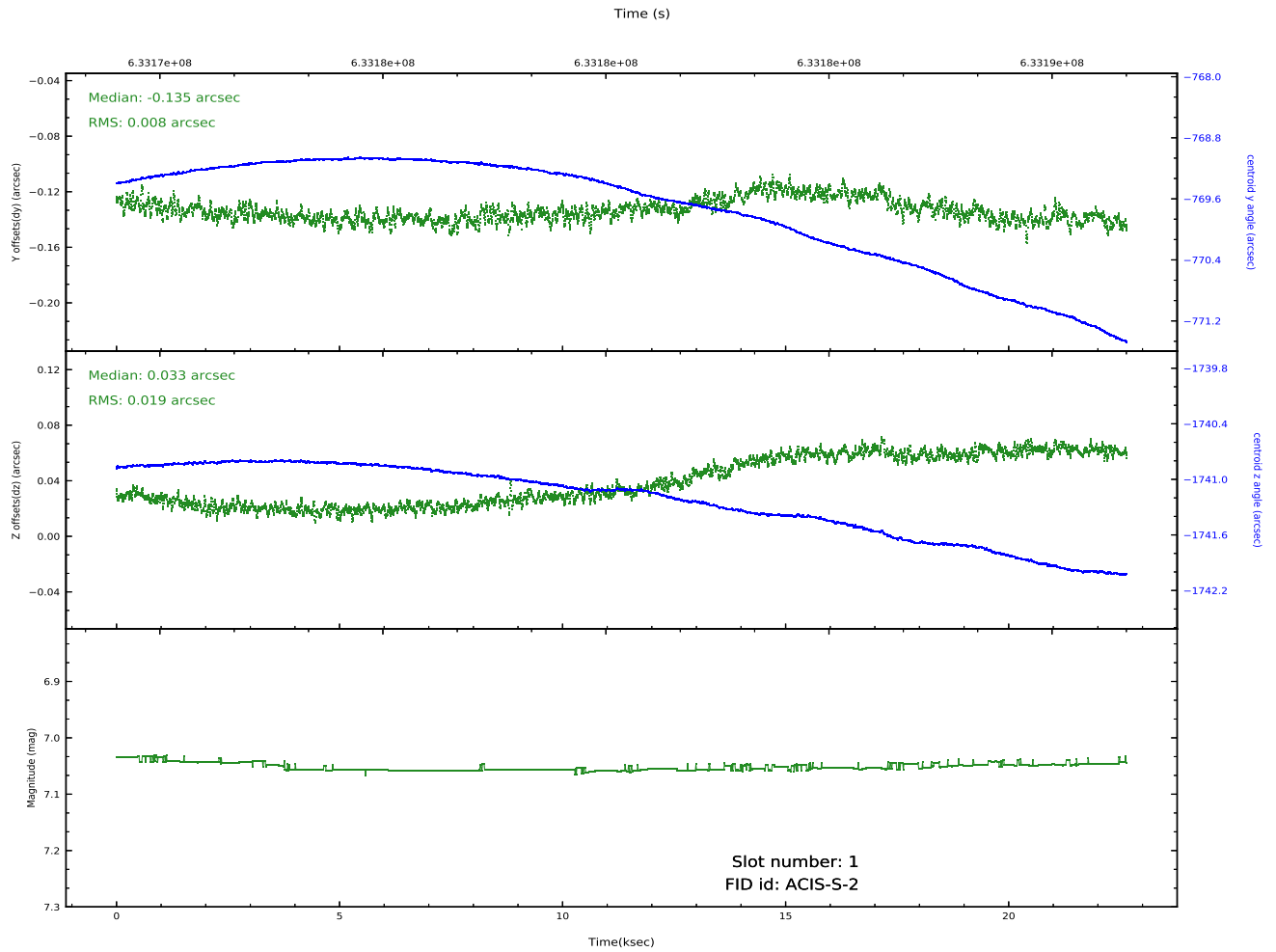
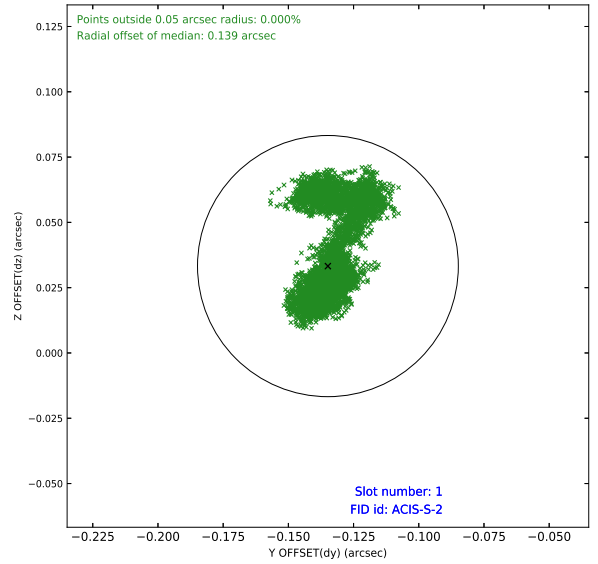
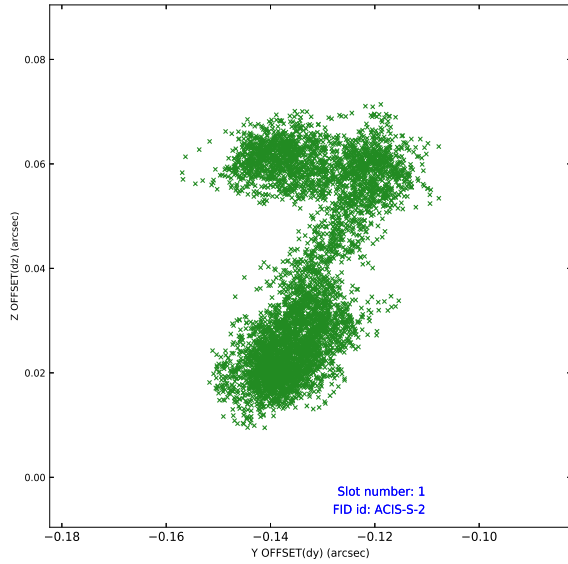


2.5 FID Slots

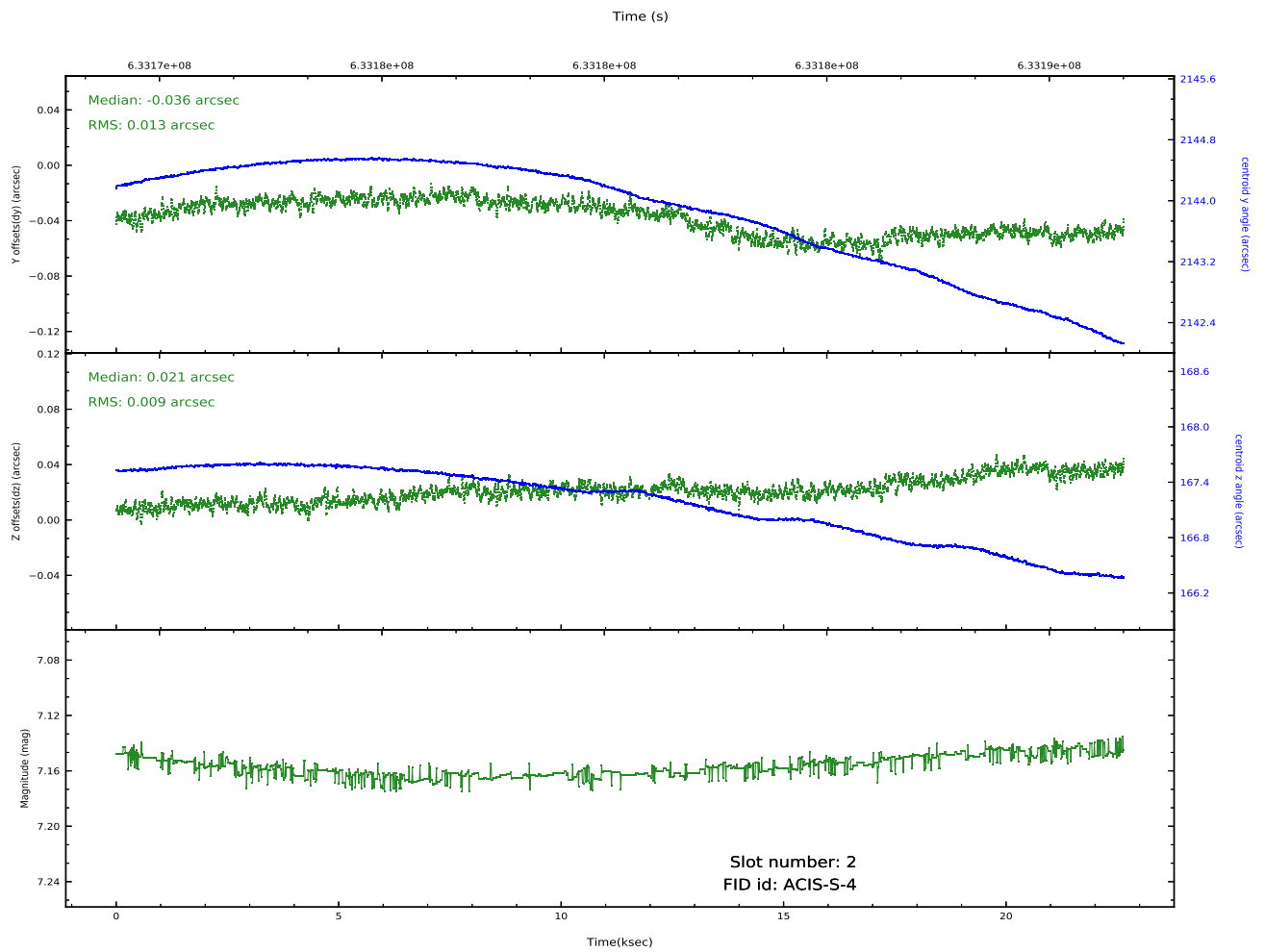
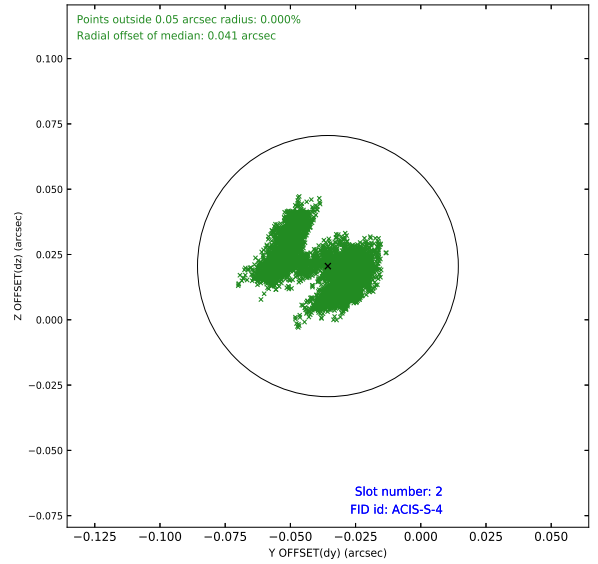
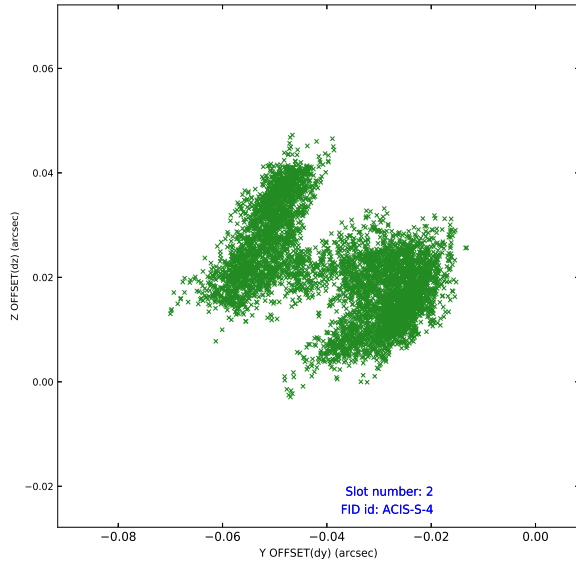
2.5.1 Slot 0



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)	2020.10.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	22.541809309006

A.2 Comments

The guide star in slot 4 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.