

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 19534 - L2 Version 2
Chandra X-Ray Center

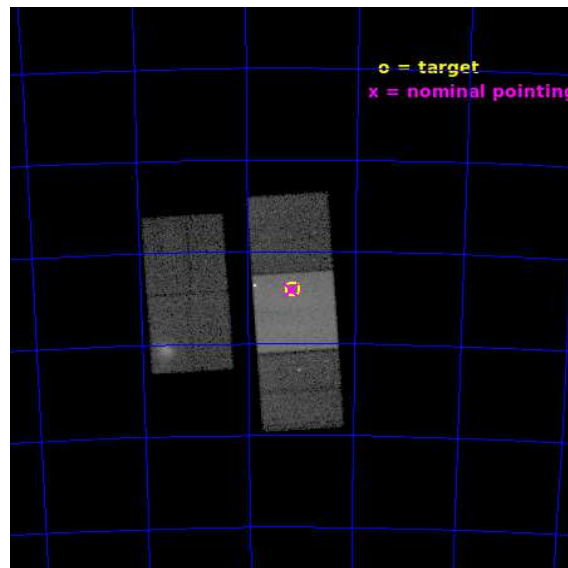
L2 Processing Date : Oct 24 2020

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

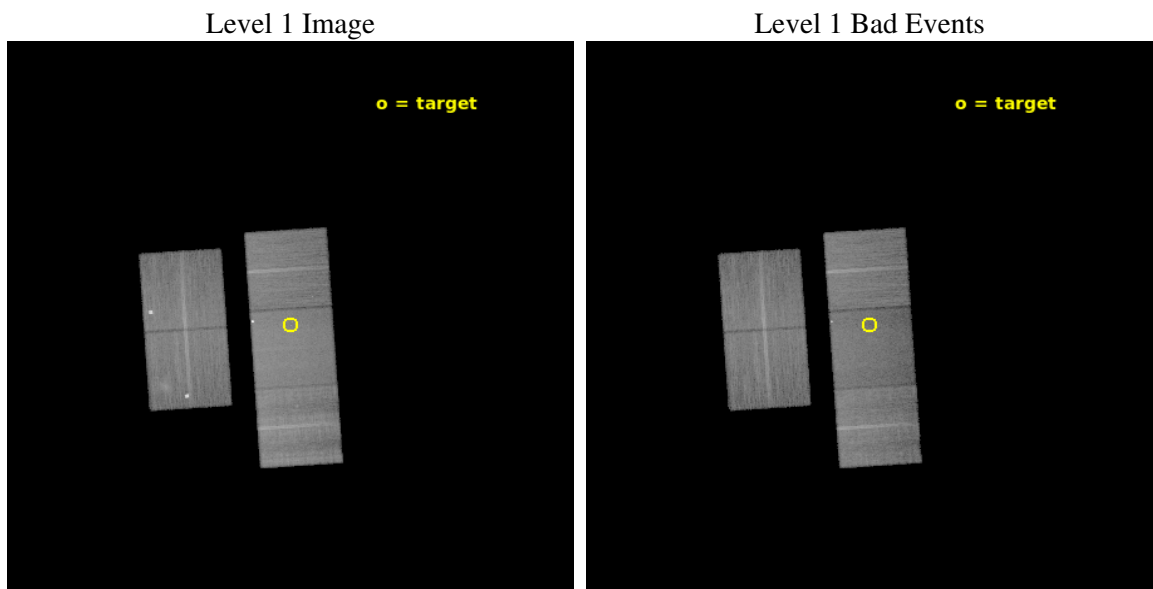
seq_num	703382	Sequence number
obs_id	19534	Observation id
title	Chandra Observations of the Most Extreme Hard X-ray Sources in the NuSTAR Serendipitous Survey	Proposal title
observer	George Lansbury	Principal investigator
object	NuSTARJ151253-8124.3	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	228.225	Observer's specified target RA [deg]
dec_targ	-81.401667	Observer's specified target Dec [deg]
ra_nom	228.23562673914	Nominal RA [deg]
dec_nom	-81.402776585718	Nominal Dec [deg]
roll_nom	86.192640322762	Nominal Roll [deg]
revision	2	Processing version of data
ontime	27053.700208187	Sum of GTIs [s]
livetime	26700.223698323	Livetime [s]
ontime2	27053.700208187	Sum of GTIs [s]
ontime3	27053.700208187	Sum of GTIs [s]
ontime6	27053.700208187	Sum of GTIs [s]
ontime7	27053.700208187	Sum of GTIs [s]
ontime8	27053.700208187	Sum of GTIs [s]
l2events	195715	Number of level 2 events



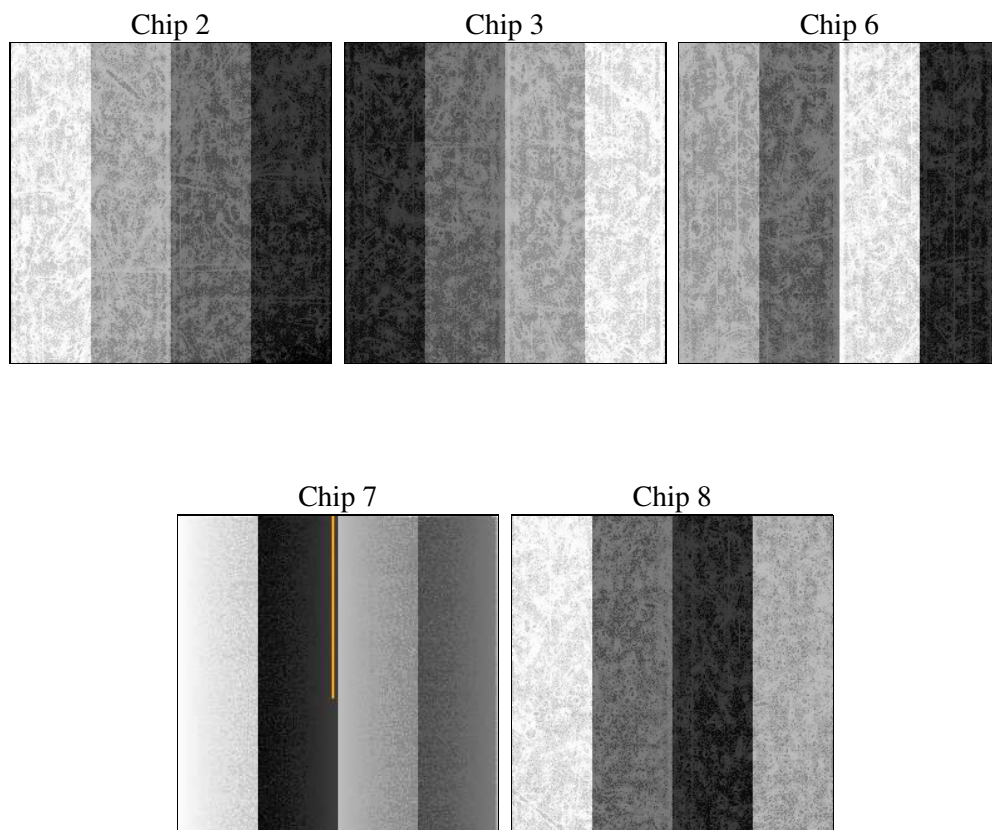
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	27000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	27053.700208187	Sum of GTIs [s]
caldsver	4.9.3	 	ontime2	27053.700208187	Sum of GTIs [s]
date	2020-10-24T15:12:18	Date and time of file creation	ontime3	27053.700208187	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	27053.700208187	Sum of GTIs [s]
			ontime7	27053.700208187	Sum of GTIs [s]
			ontime8	27053.700208187	Sum of GTIs [s]
			l1events	1162895	Number of level 1 events

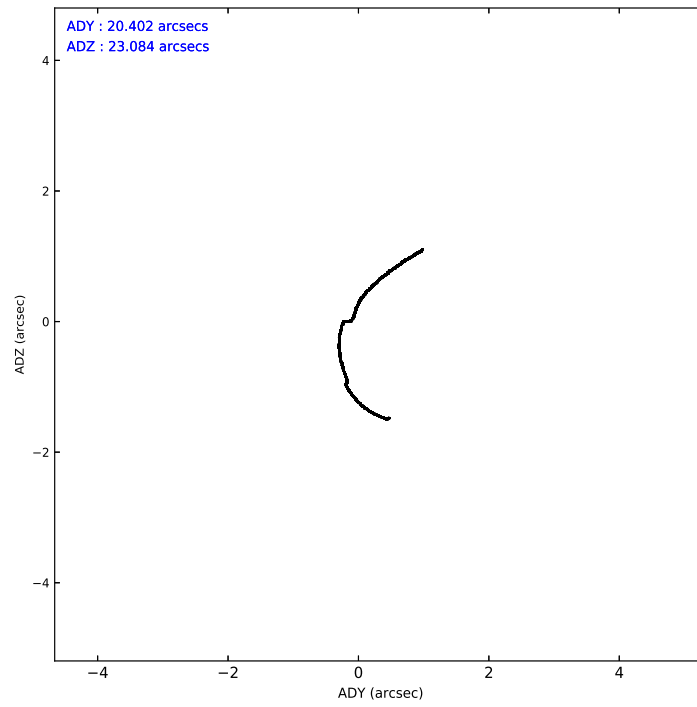
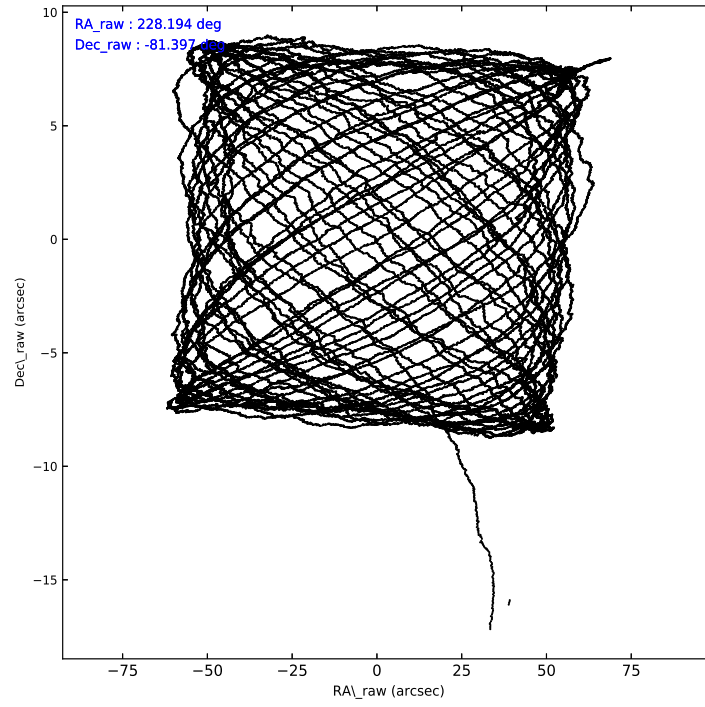
2.1.4 Events

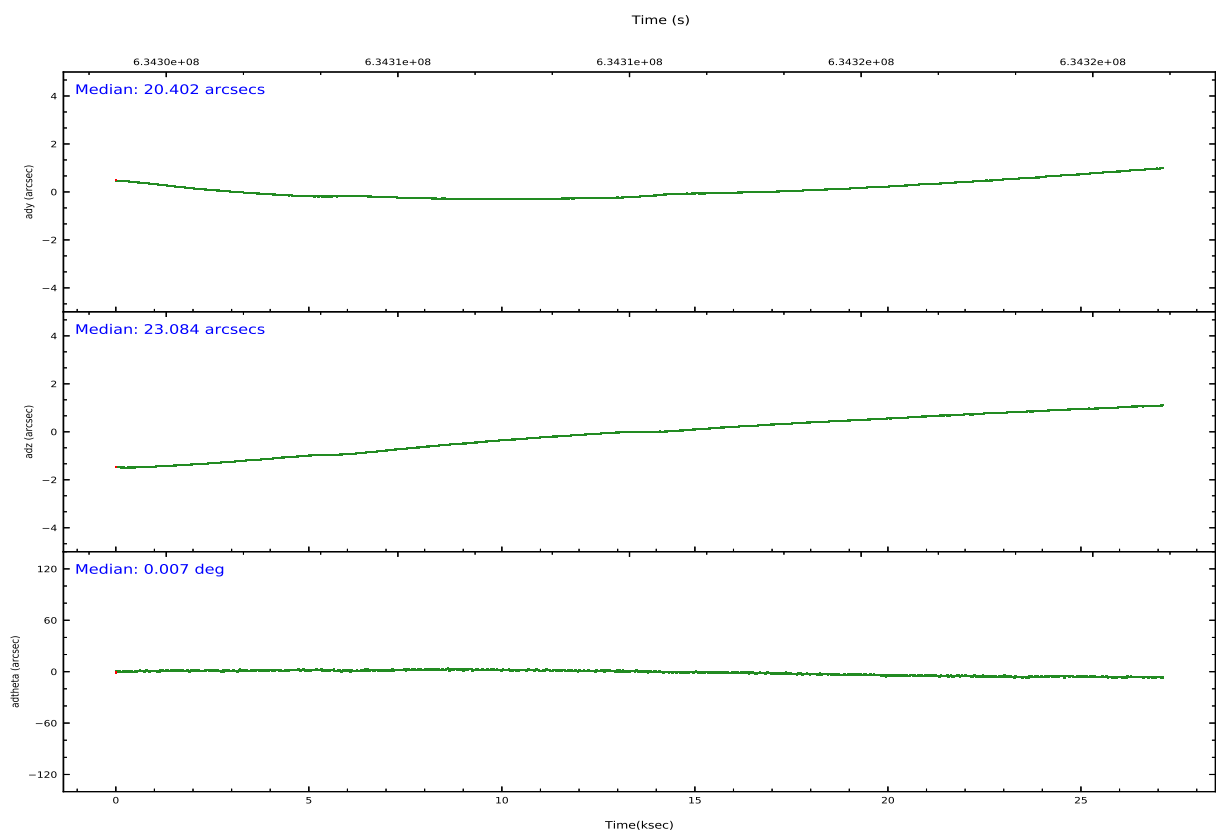
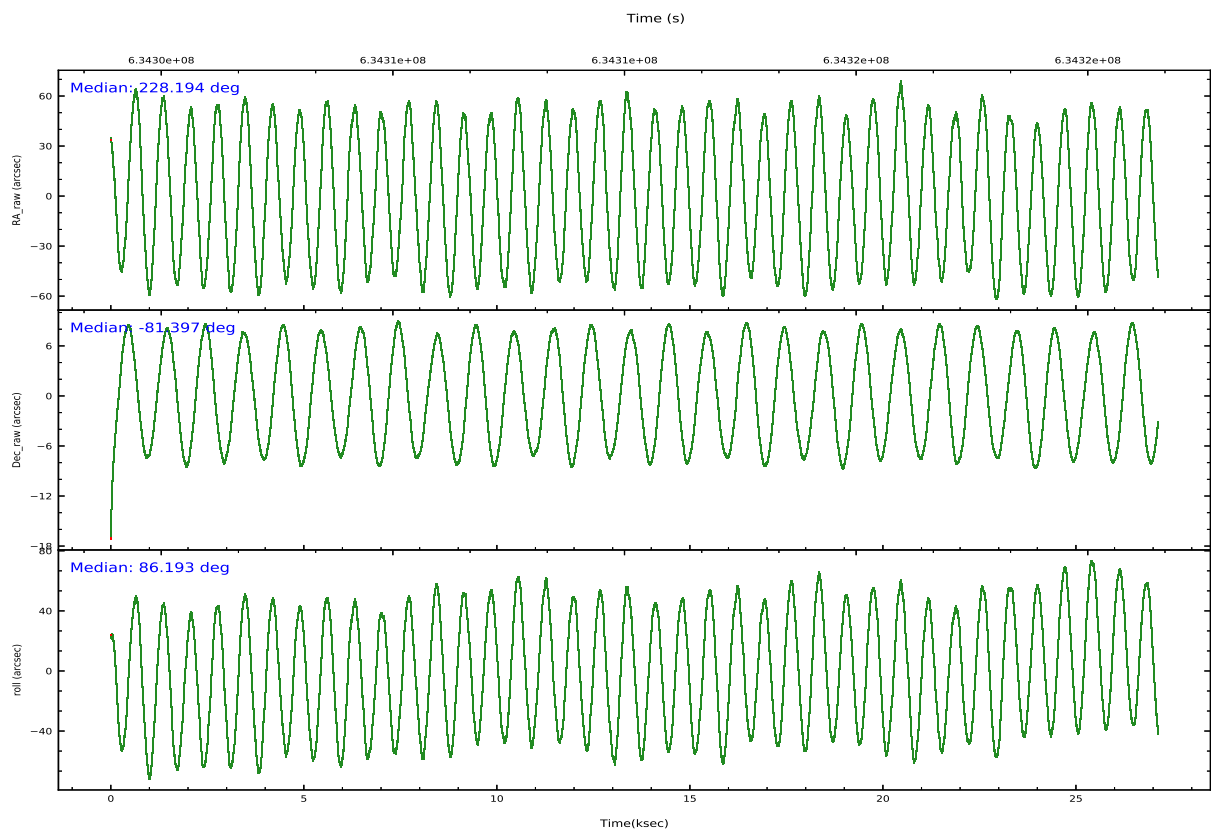
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	212710	214202	208437	263450	264096	grade 0 events	15273	14446	6981	10723	19894
rejected events	184340	181181	185723	145374	194695		7%	6%	3%	4%	7%
rejected %	86%	84%	89%	55%	73%	grade 1 events	132	117	94	495	189
							0%	0%	0%	0%	0%
						grade 2 events	4876	9431	5947	25260	16597
							2%	4%	2%	9%	6%
						grade 3 events	1995	2191	2044	9806	7165
							0%	1%	0%	3%	2%
						grade 4 events	2079	2316	2103	9309	6709
							0%	1%	1%	3%	2%
						grade 5 events	7180	8982	8855	25074	13567
							3%	4%	4%	9%	5%
						grade 6 events	4157	4643	5644	63010	19061
							1%	2%	2%	23%	7%
						grade 7 events	177018	172076	176769	119773	180914
							83%	80%	84%	45%	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	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	228.277858	228.23562673914	CCD I2 on	O1	Y
[deg] Pointing Dec	-81.420815	-81.402776585718	CCD I3 on	Y	Y
[deg] Pointing Roll	86.130813	86.192640322762	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	Y	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	Y	Y
[s] Observation start time (MET)	634298824.184000	634297696.82467	CCD S5 on	N	N
Observation start date	2018-02-06T10:05:55	2018-02-06T09:48:16	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	634325824.184000	634326878.57639	On-chip summing requested	N	N
Observation end date	2018-02-06T17:35:55	2018-02-06T17:54:38	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



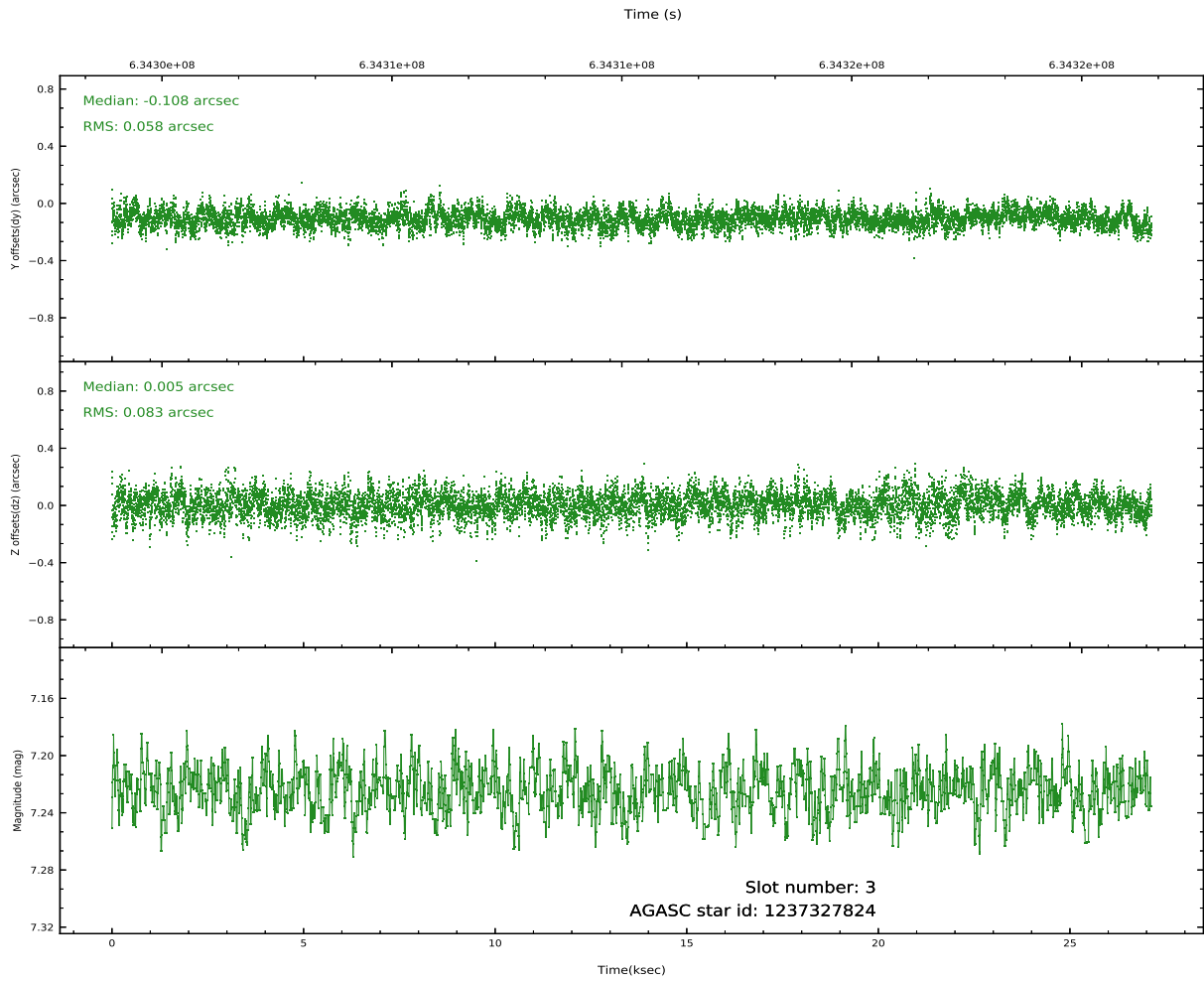
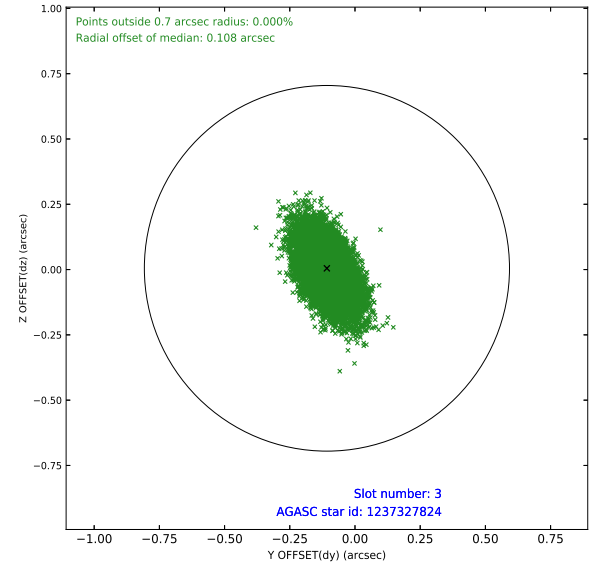
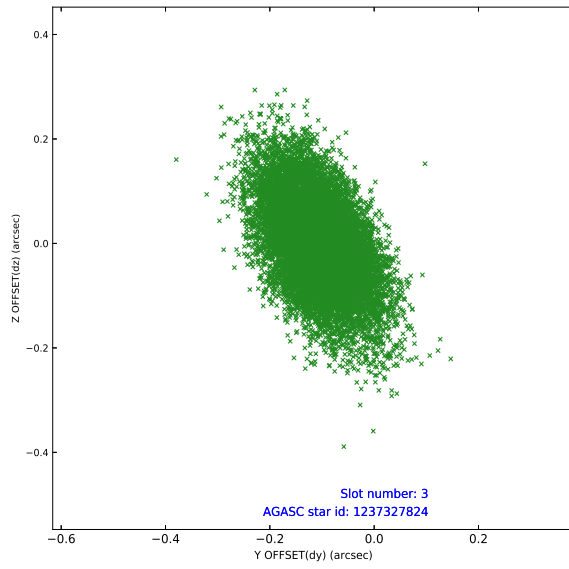


Slot Statistics

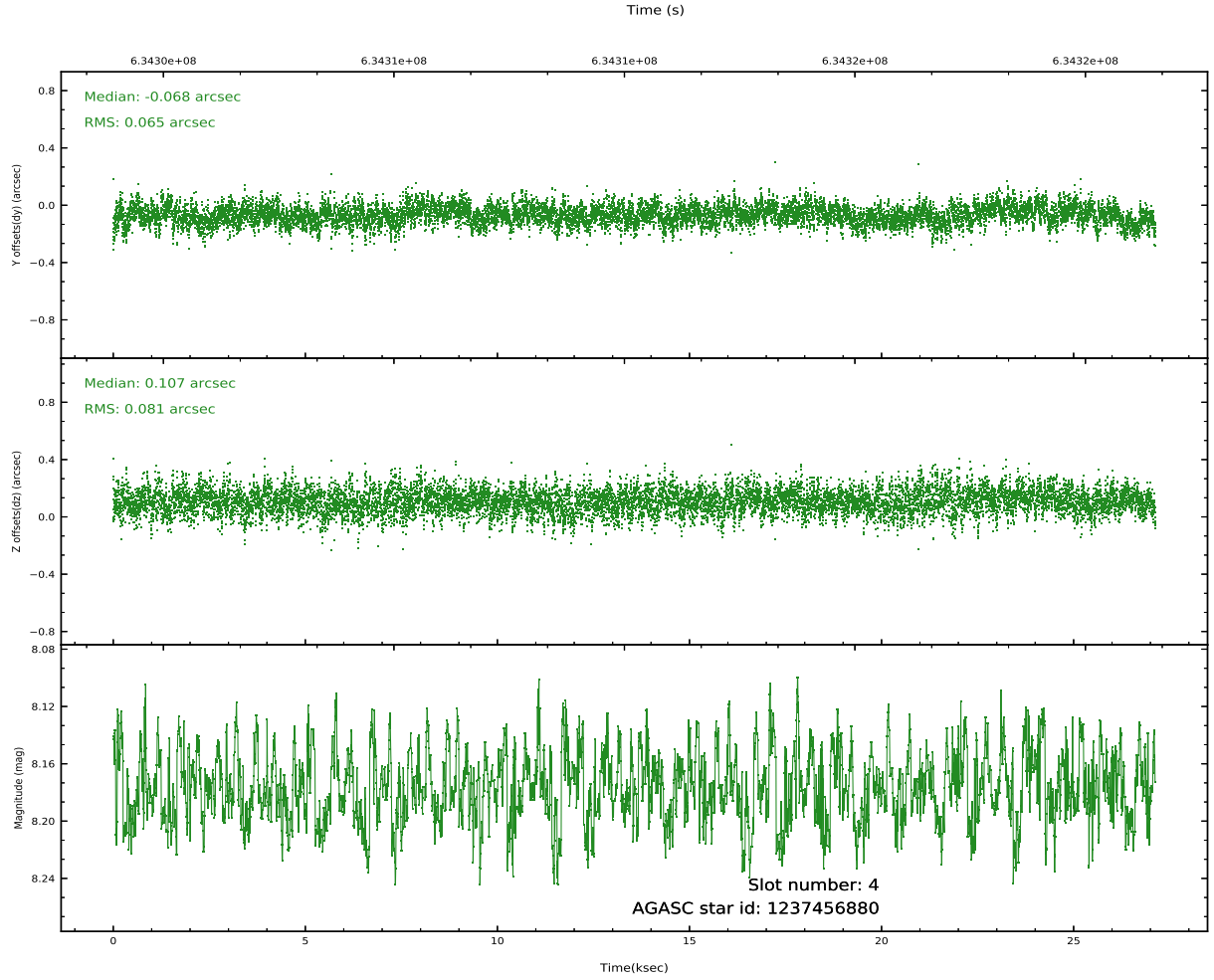
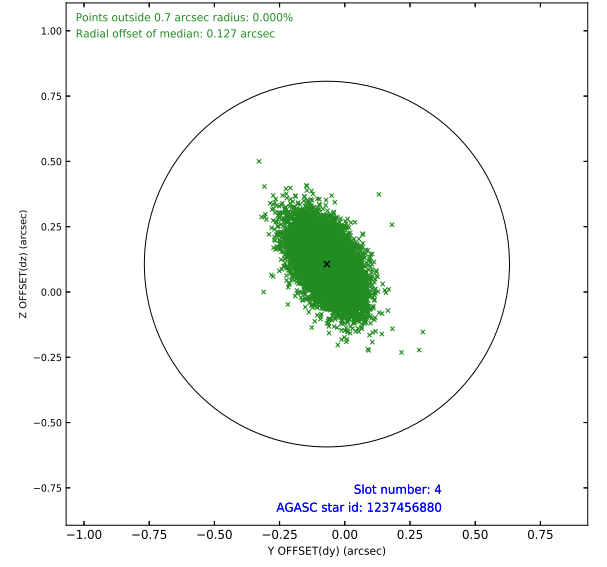
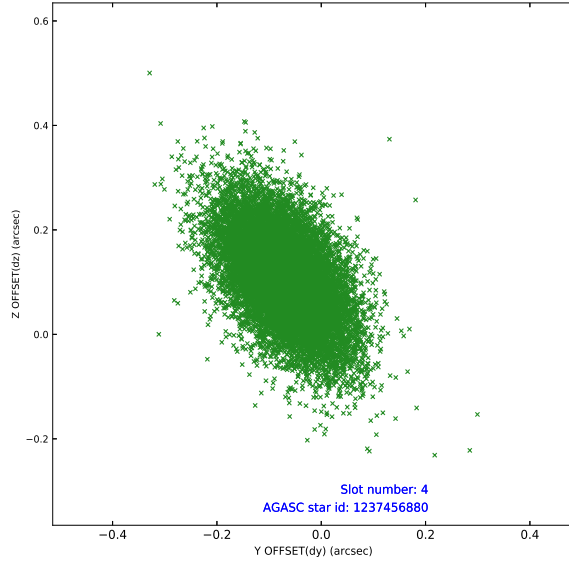
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-4	7.15	6618	1.000	0.166	0.015	0.014	0.034	0.000000	0.000000	2139.91	163
1	FID		ACIS-S-5	7.16	6617	1.000	-0.137	0.028	0.013	0.031	0.000000	0.000000	-1826.45	157
2	FID		ACIS-S-6	7.32	6618	1.000	-0.057	-0.028	0.013	0.021	0.000000	0.000000	387.97	801
3	GUIDE	used	1237327824	7.22	13233	1.000	-0.108	0.005	0.103	0.184	229.768866	-81.243141	683.14	-772
4	GUIDE	used	1237456880	8.18	13230	1.000	-0.068	0.107	0.107	0.188	230.940090	-81.241463	709.74	-1414
5	GUIDE	used	1237462376	9.14	13141	1.000	0.142	0.136	0.168	0.274	231.587073	-81.706012	-956.70	-1786
6	GUIDE	used	1237320848	8.27	13221	1.000	-0.007	-0.130	0.150	0.249	223.324537	-81.850625	-1821.89	2406
7	GUIDE	used	1237330440	8.69	13222	1.000	0.043	-0.118	0.145	0.238	228.748185	-80.763026	2380.14	-110

2.4 Star Slots

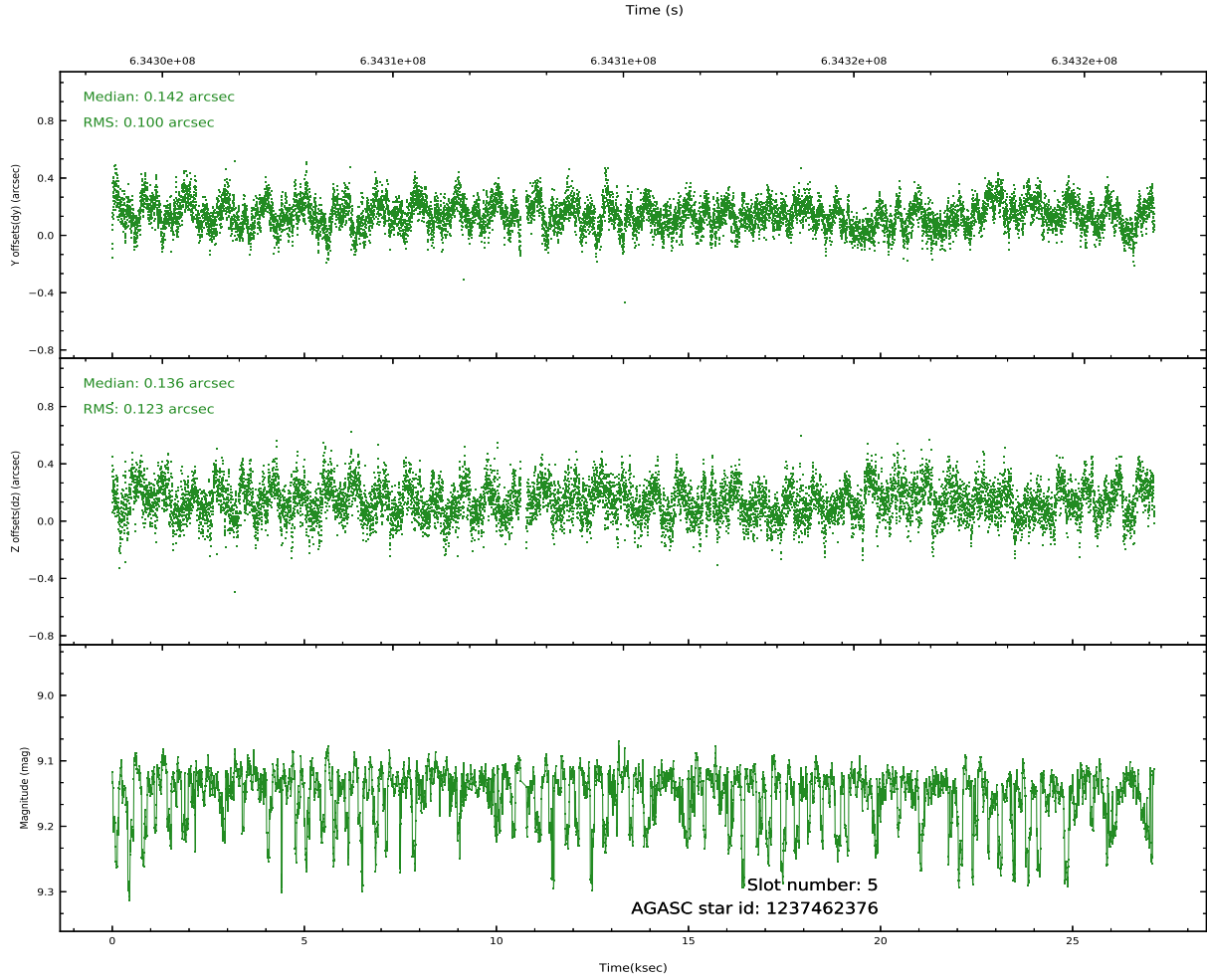
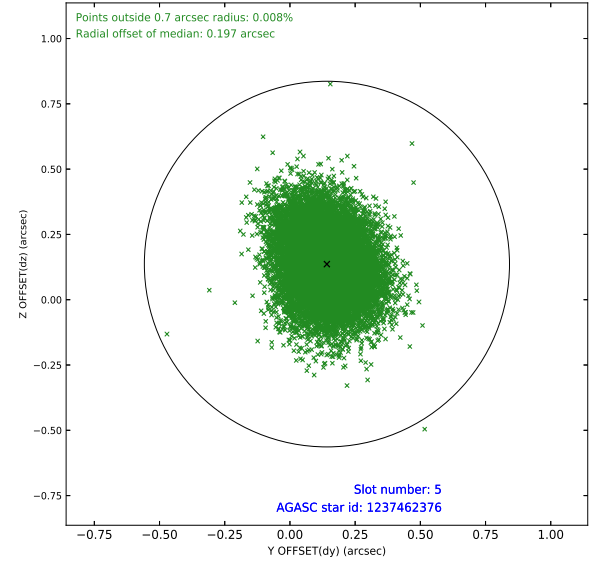
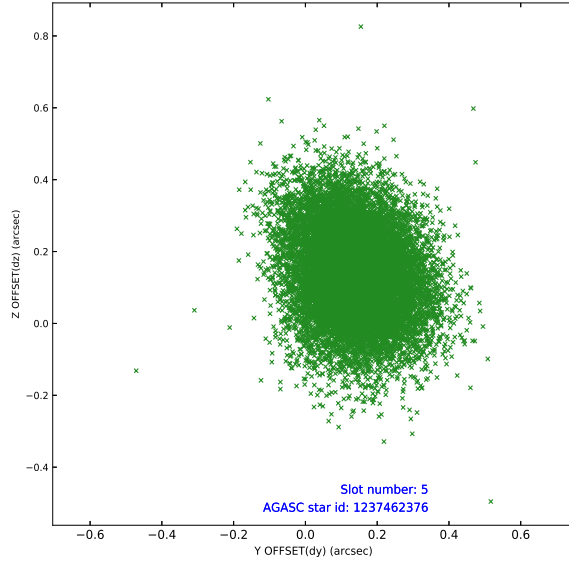
2.4.1 Slot 3



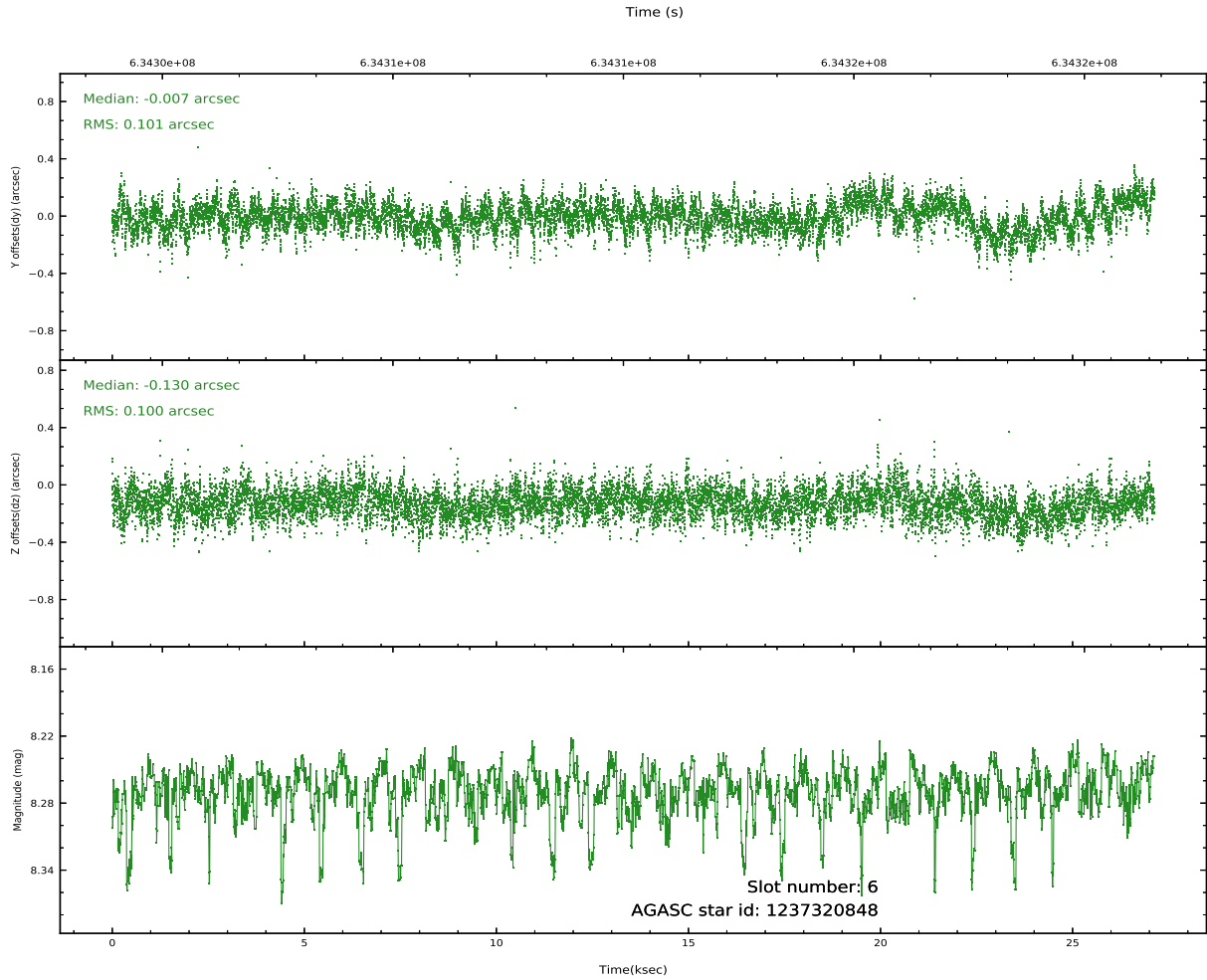
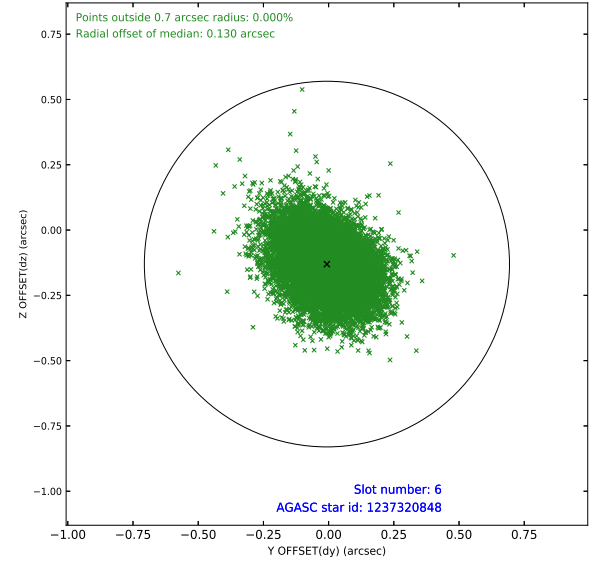
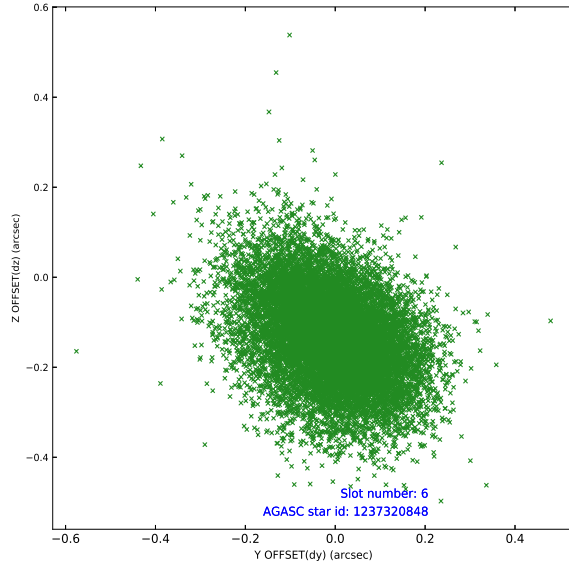
2.4.2 Slot 4



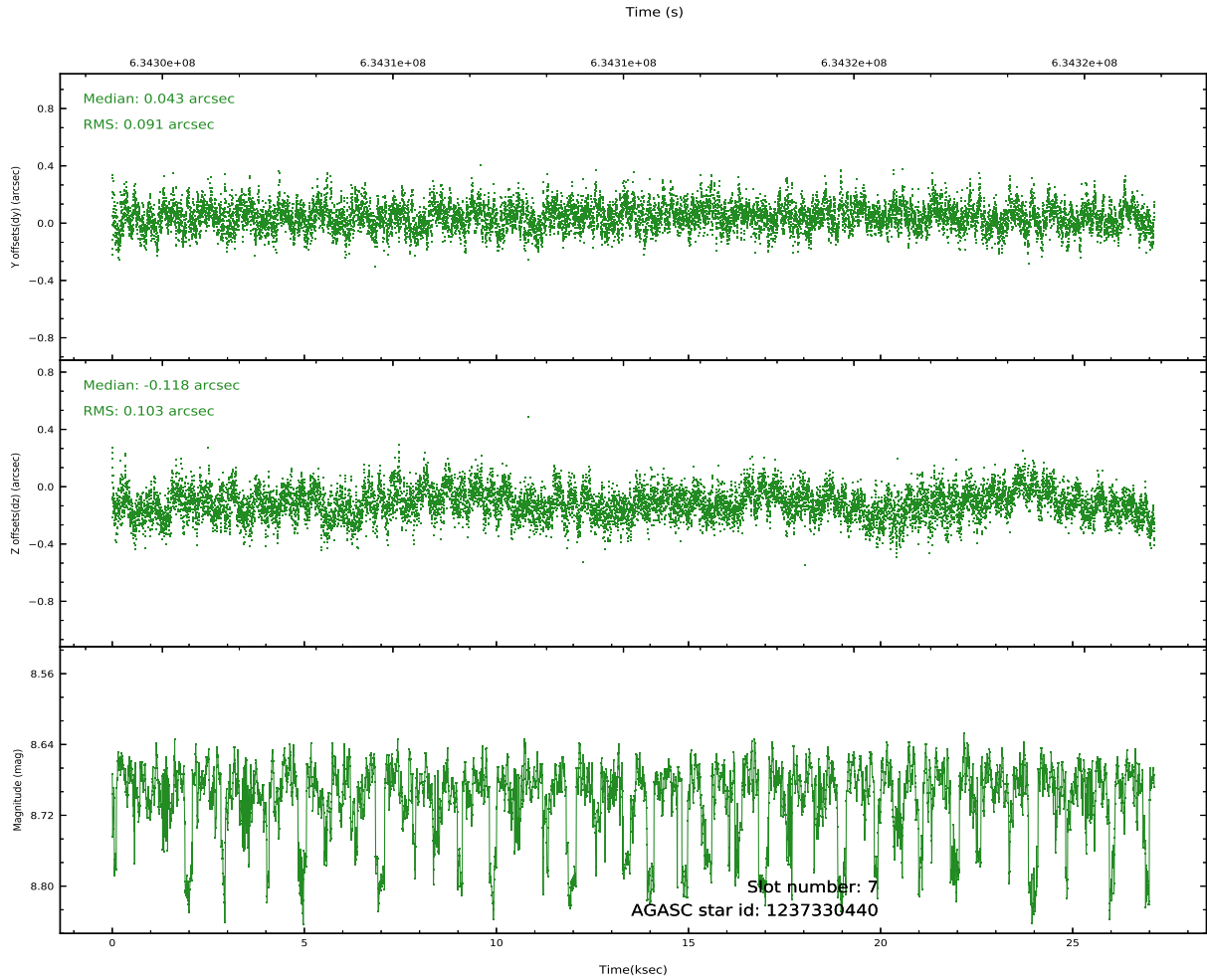
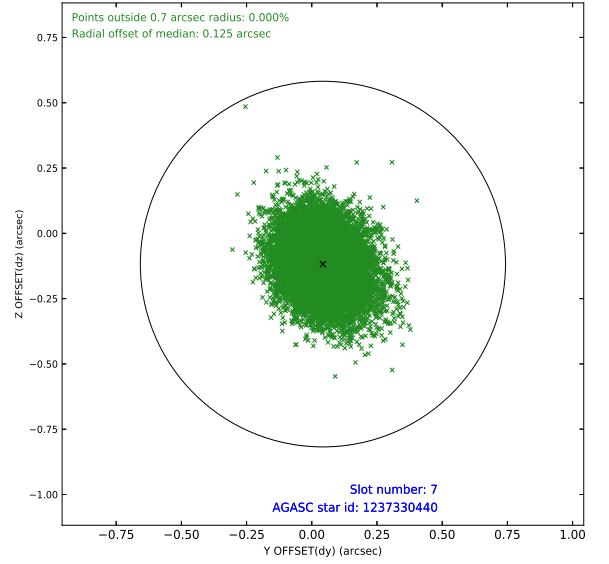
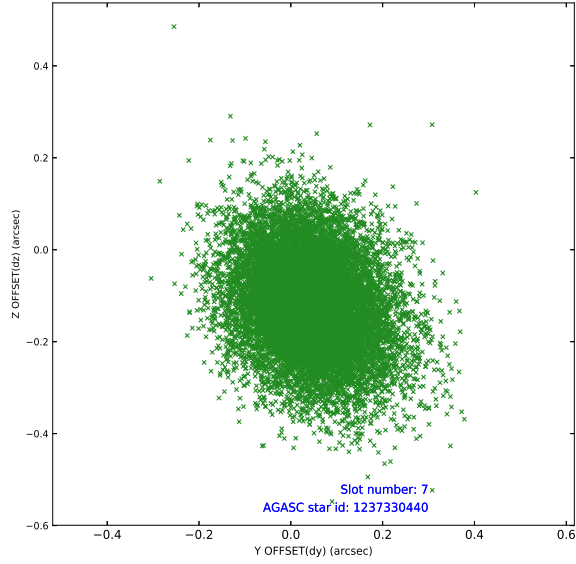
2.4.3 Slot 5



2.4.4 Slot 6

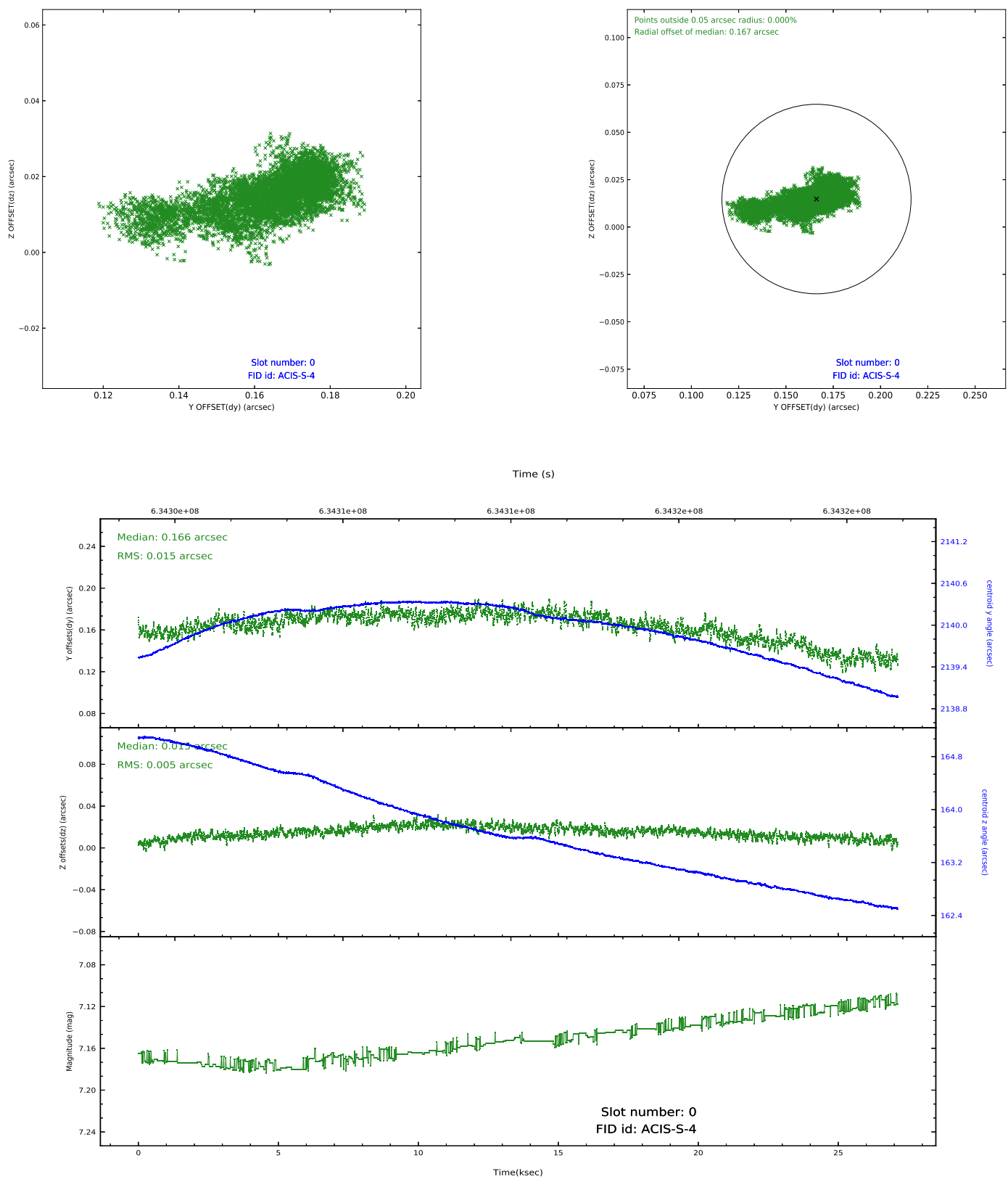


2.4.5 Slot 7

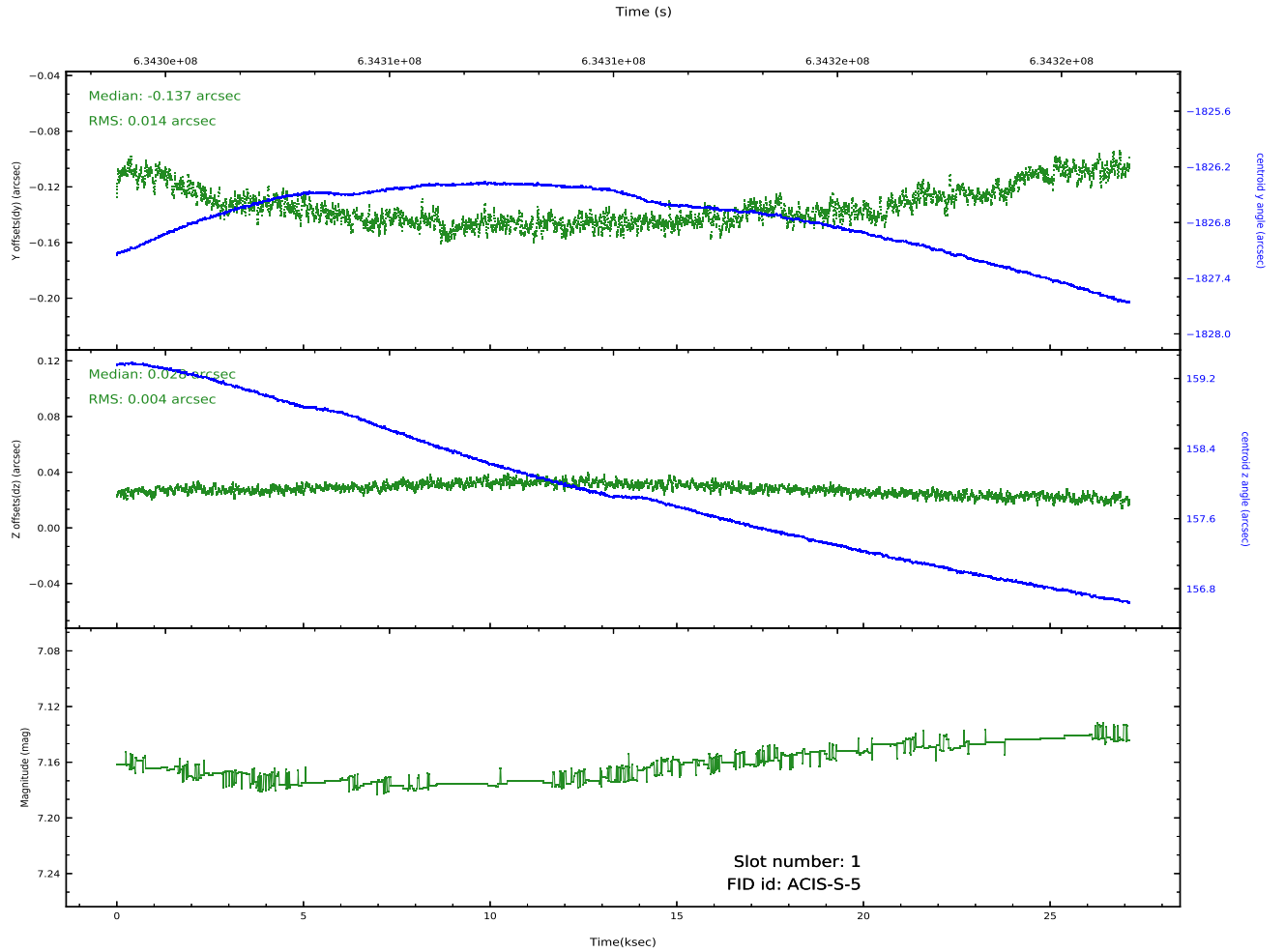
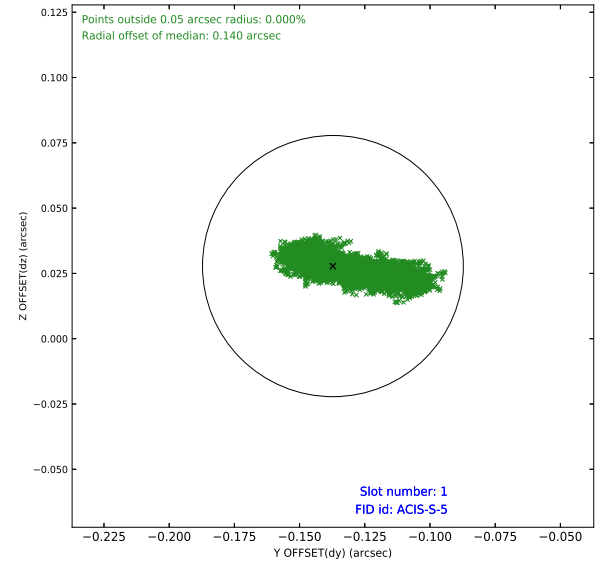
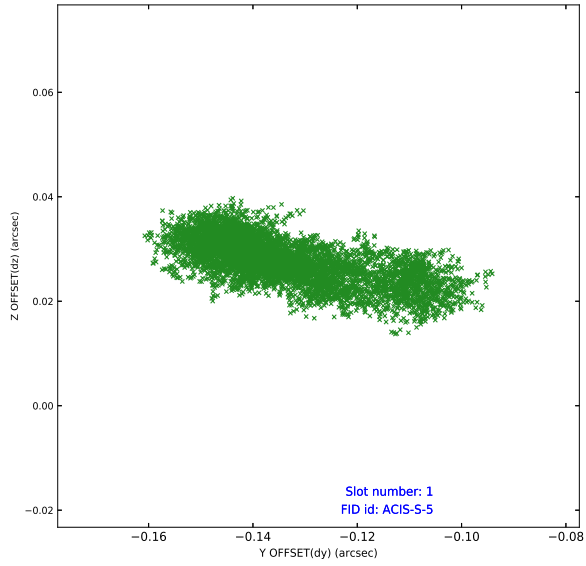


2.5 FID Slots

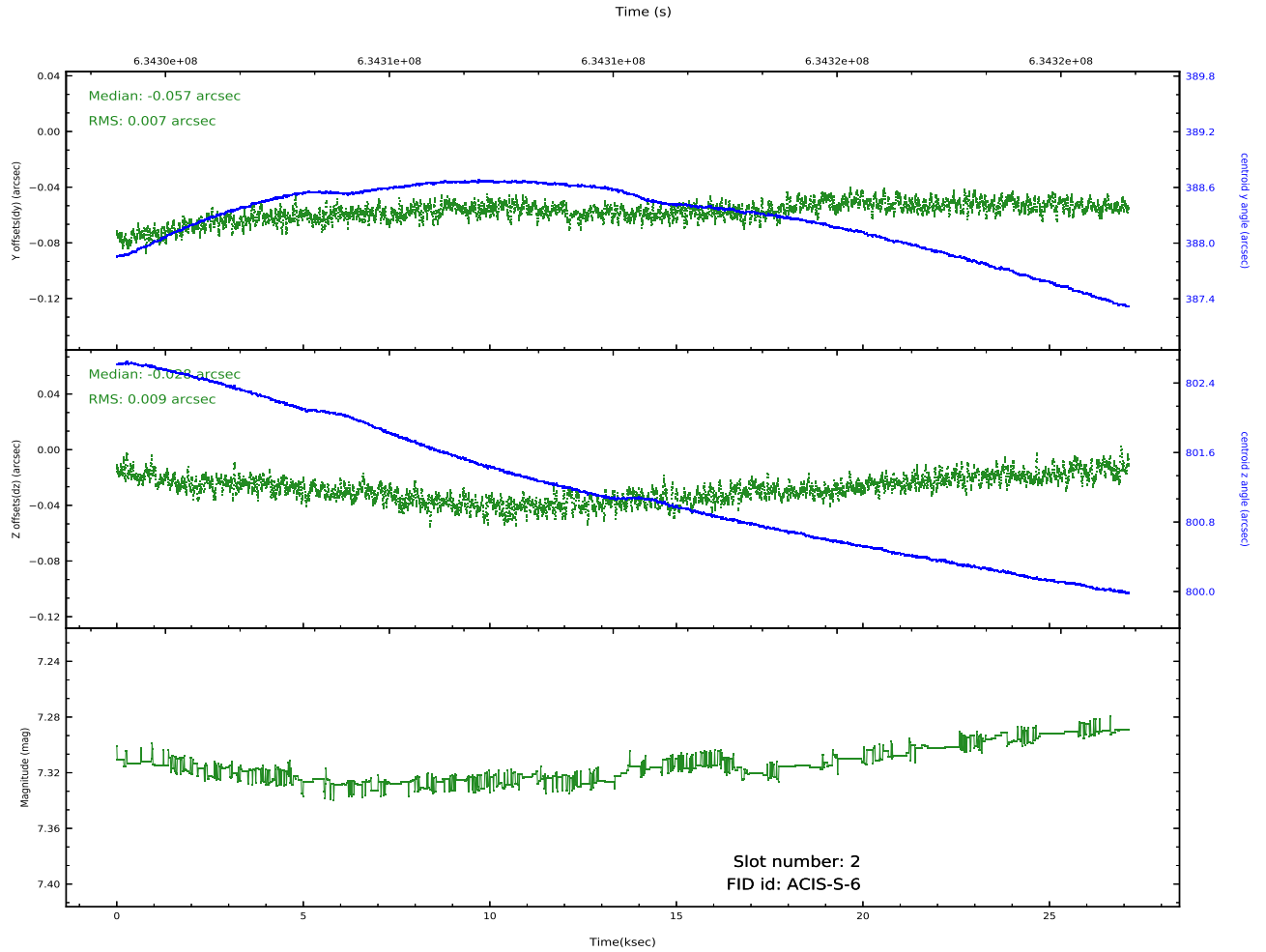
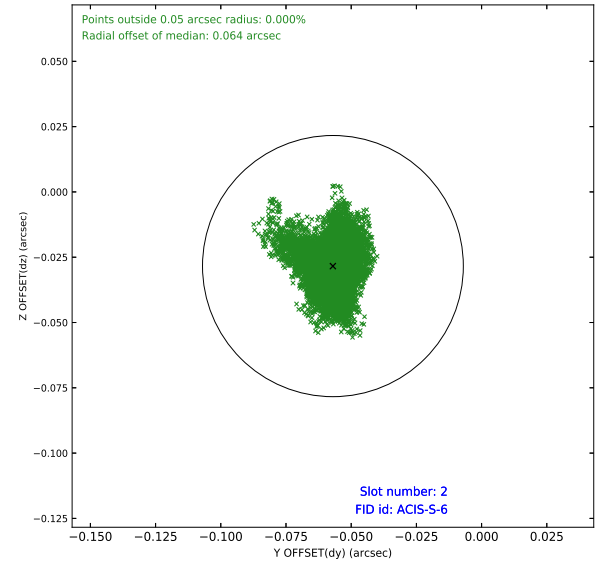
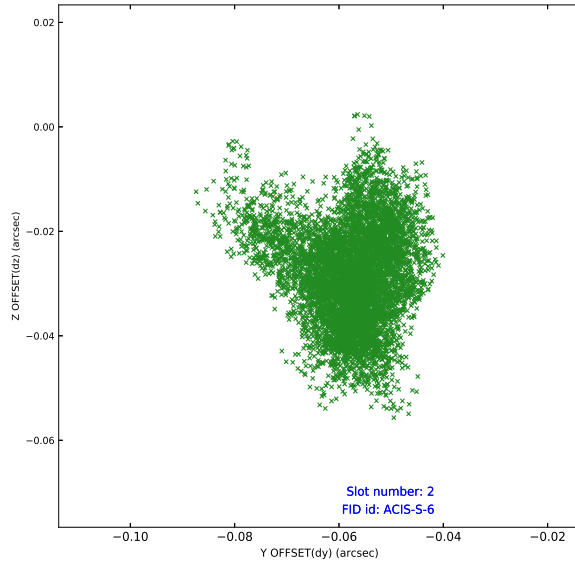
2.5.1 Slot 0



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	27.053700208187

A.2 Comments