

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20524 - L2 Version 2
Chandra X-Ray Center

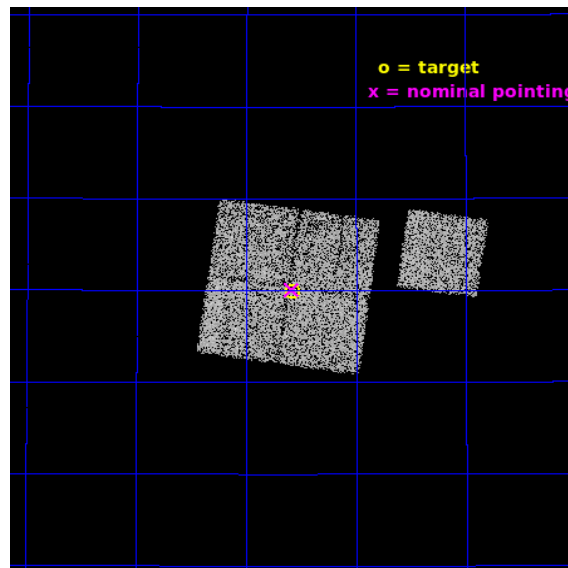
L2 Processing Date : Oct 26 2020

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1 Front

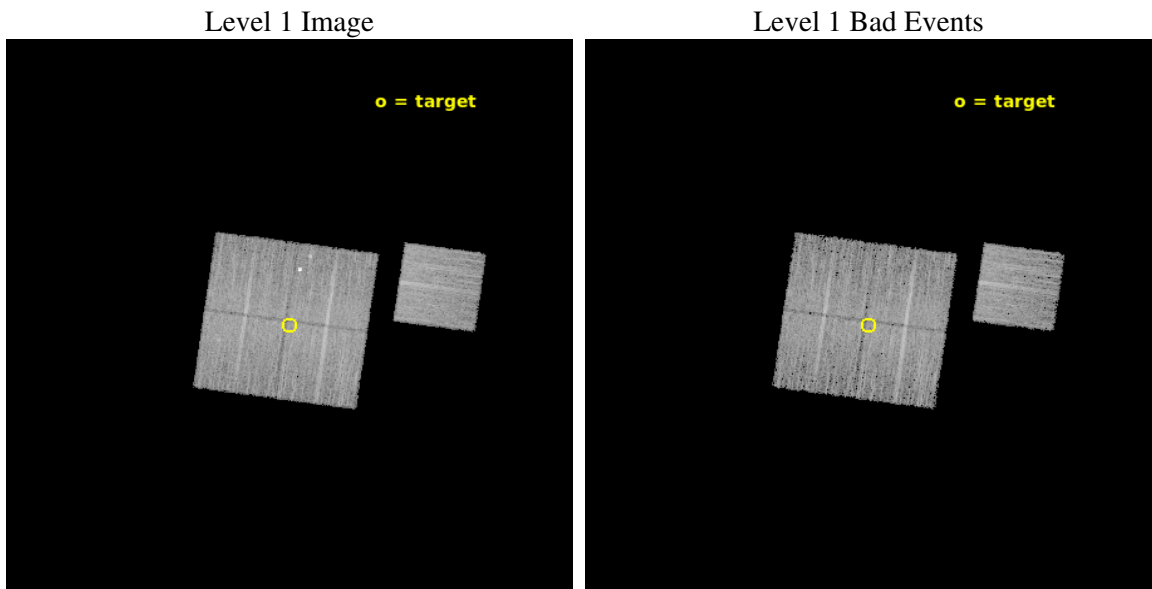
seq_num	801738	Sequence number
obs_id	20524	Observation id
title	Unravelling gas clumping in the outskirts of the Perseus cluster	P
observer	Stephen Walker	Principal investigator
object	Perseus r200 S	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	49.644583	Observer's specified target RA [deg]
dec_targ	40.164556	Observer's specified target Dec [deg]
ra_nom	49.646215789638	Nominal RA [deg]
dec_nom	40.167913837665	Nominal Dec [deg]
roll_nom	98.0455535028	Nominal Roll [deg]
revision	2	Processing version of data
ontime	8066.2000621557	Sum of GTIs [s]
livetime	7960.8092200936	Livetime [s]
ontime0	8066.2000621557	Sum of GTIs [s]
ontime1	8063.0590320826	Sum of GTIs [s]
ontime2	8066.2000621557	Sum of GTIs [s]
ontime3	8066.2000621557	Sum of GTIs [s]
ontime6	8066.2000621557	Sum of GTIs [s]
l2events	28718	Number of level 2 events



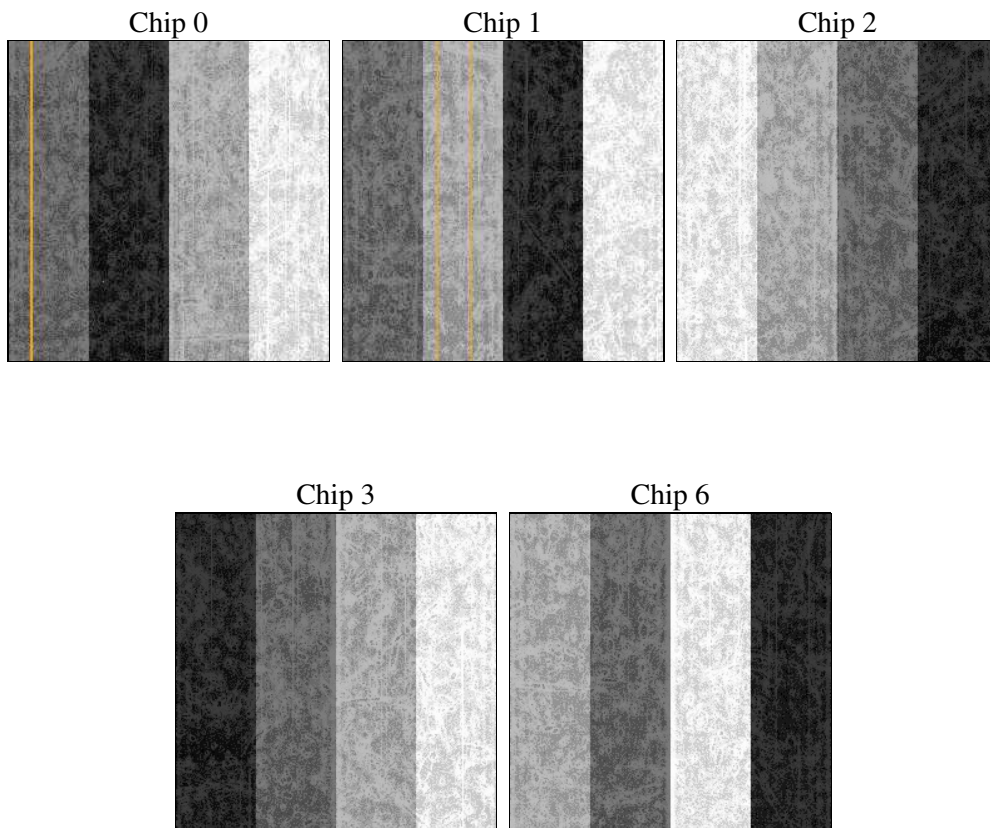
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	8000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	8066.2000621557	Sum of GTIs [s]
caldsver	4.9.3	 	ontime0	8066.2000621557	Sum of GTIs [s]
date	2020-10-26T21:37:10	Date and time of file creation	ontime1	8063.0590320826	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	8066.2000621557	Sum of GTIs [s]
			ontime3	8066.2000621557	Sum of GTIs [s]
			ontime6	8066.2000621557	Sum of GTIs [s]
			l1events	313187	Number of level 1 events

2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	59170	59713	64711	63663	65930
rejected events	52386	52043	55348	57297	59160
rejected %	88%	87%	85%	90%	89%

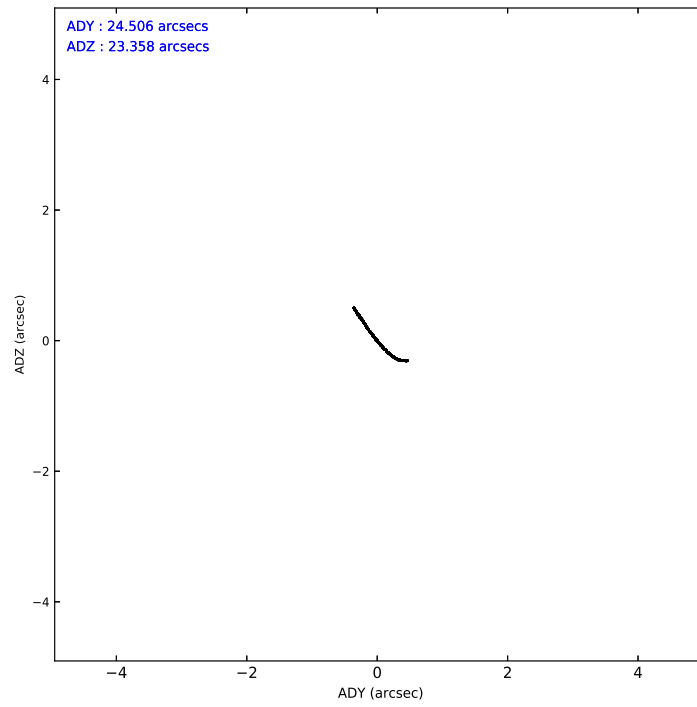
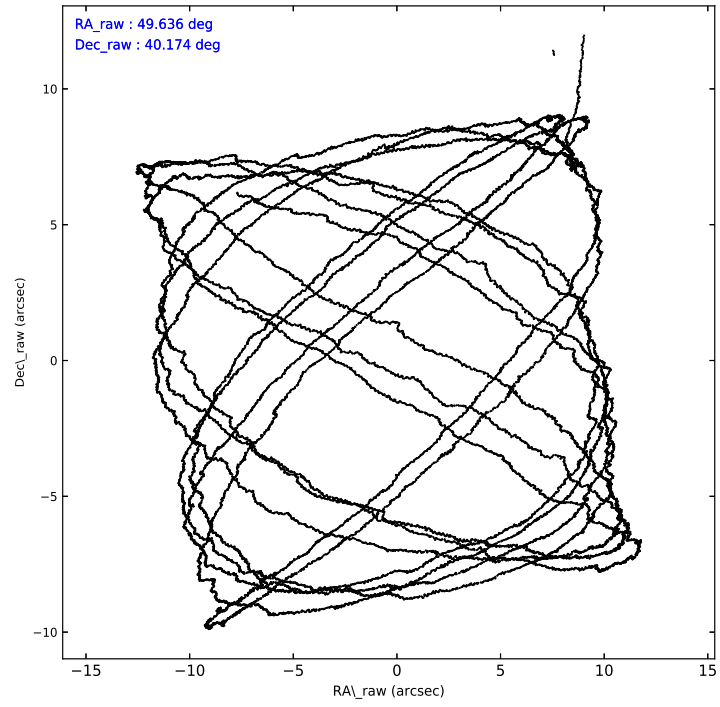
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	2311	2440	2658	2167	2036
	3%	4%	4%	3%	3%
grade 1 events	38	33	51	39	22
	0%	0%	0%	0%	0%
grade 2 events	1656	2105	4091	1418	1722
	2%	3%	6%	2%	2%
grade 3 events	677	694	603	686	674
	1%	1%	0%	1%	1%
grade 4 events	658	690	678	658	627
	1%	1%	1%	1%	0%
grade 5 events	2525	2644	2348	2878	2579
	4%	4%	3%	4%	3%
grade 6 events	1489	1747	1339	1439	1725
	2%	2%	2%	2%	2%
grade 7 events	49816	49360	52943	54378	56545
	84%	82%	81%	85%	85%

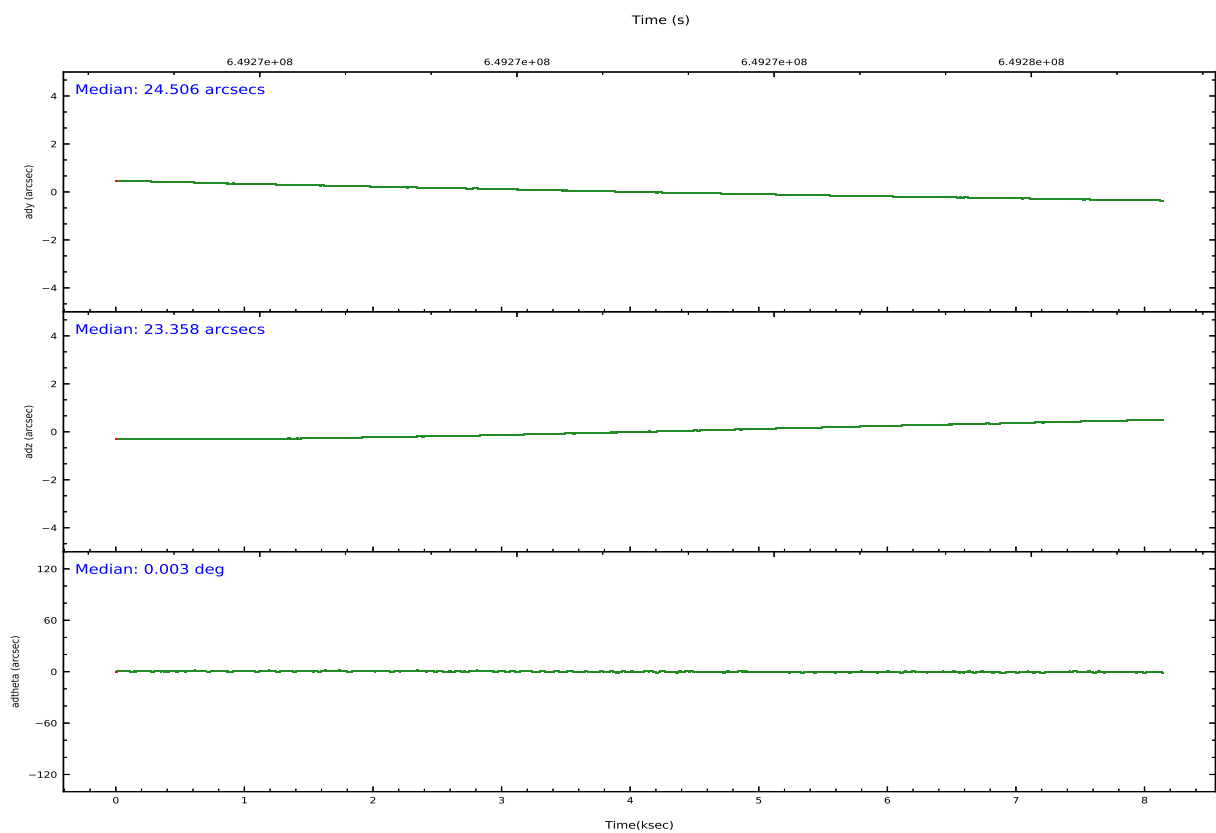
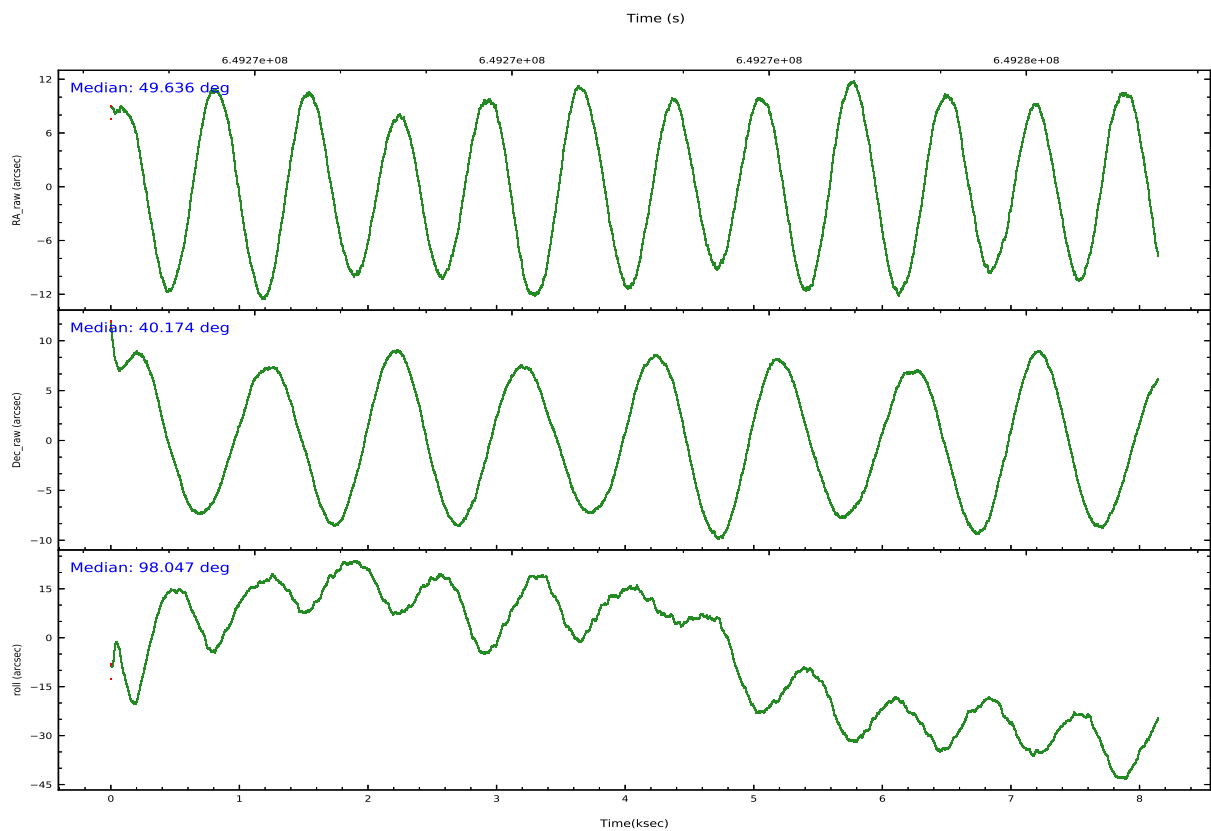
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-01236	ACIS-01236
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	49.658438	49.646215789638
[deg] Pointing Dec	40.152148	40.167913837665
[deg] Pointing Roll	97.824517	98.0455535028
[mm] SIM focus pos	-0.782348	-0.7809083437167272
[mm] SIM defocus	0	0.001439871863259334
[mm] SIM translation stage pos	-233.592463	-233.5874344608287
[mm] SIM translation stage offset	0	-0.005018542100998502
[s] Observation start time (MET)	649269025.184000	649267898.0465699
Observation start date	2018-07-29T16:29:16	2018-07-29T16:11:38
[s] Observation end time (MET)	649277025.184000	649277884.62217
Observation end date	2018-07-29T18:42:36	2018-07-29T18:58:04
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar version number	8	8
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	Y	Y
CCD I1 on	Y	Y
CCD I2 on	Y	Y
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	O1	Y
CCD S3 on	N	N
CCD S4 on	N	N
CCD S5 on	N	N
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



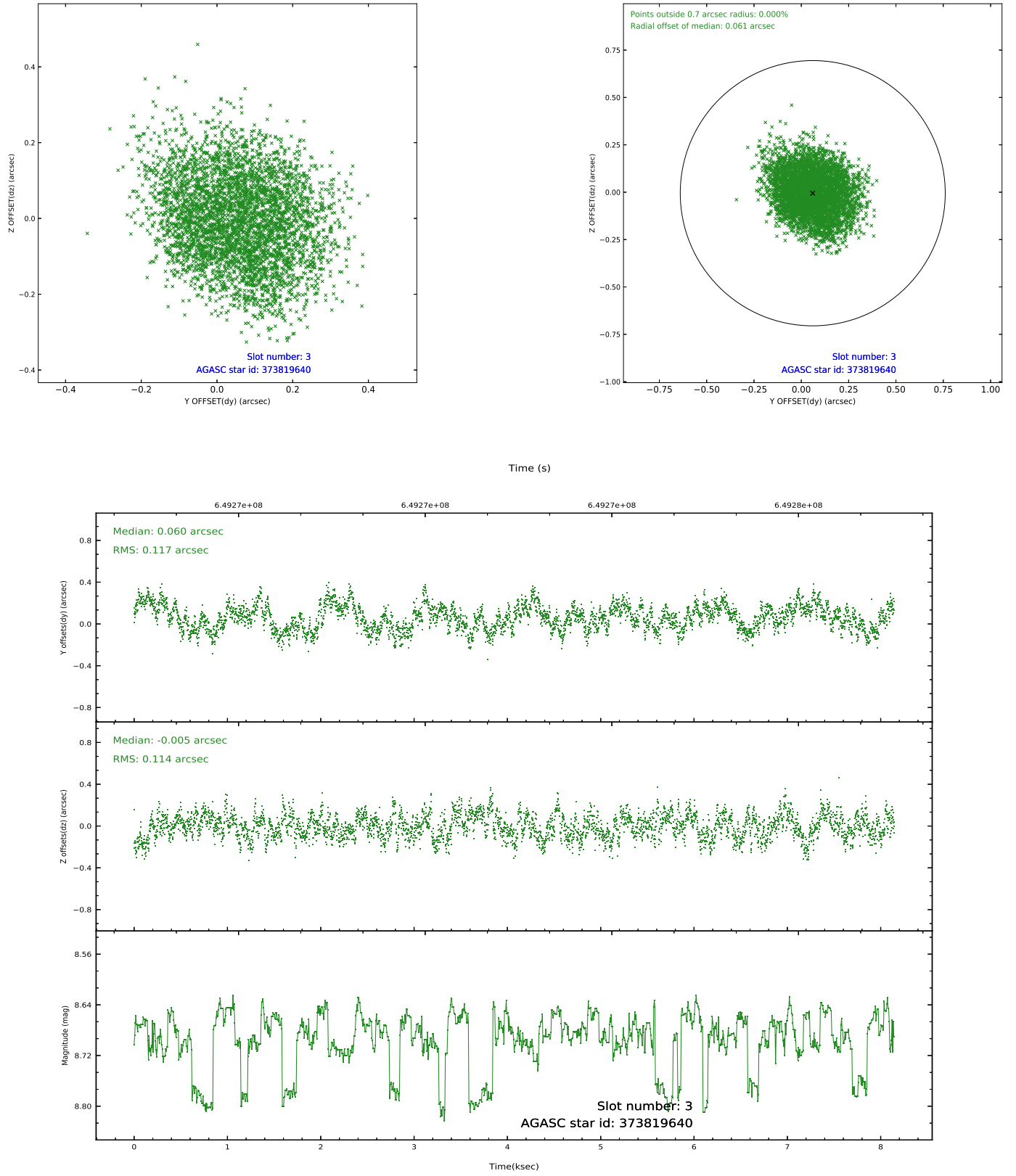


Slot Statistics

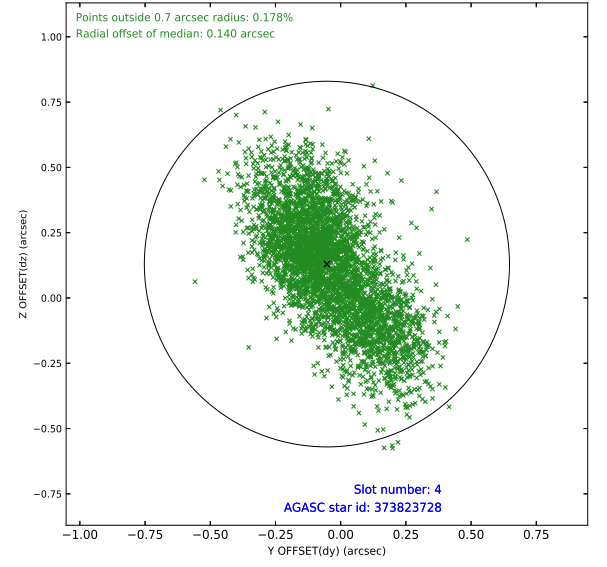
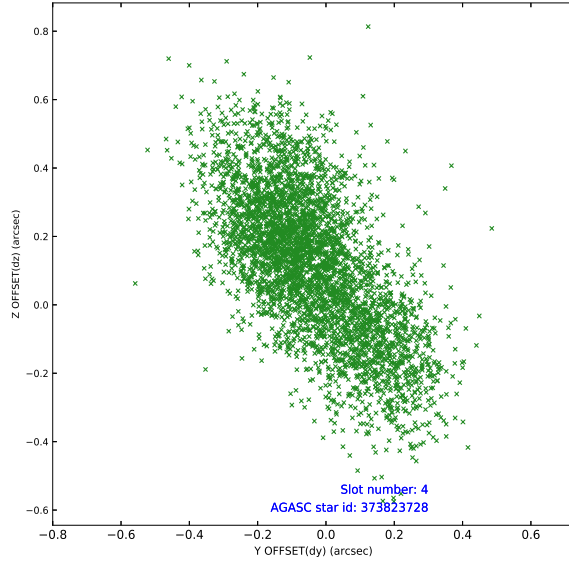
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.23	1987	1.000	0.224	-0.075	0.015	0.023	0.000000	0.000000	914.82	-847
1	FID		ACIS-I-5	7.21	1987	1.000	-0.322	0.207	0.011	0.019	0.000000	0.000000	-1833.30	1050
2	FID		ACIS-I-6	7.24	1987	1.000	0.008	-0.060	0.008	0.012	0.000000	0.000000	379.61	1695
3	GUIDE	used	373819640	8.69	3972	1.000	0.060	-0.005	0.178	0.268	49.498748	39.727343	-1455.10	646
4	GUIDE	used	373823728	9.59	3942	1.000	-0.053	0.130	0.278	0.482	49.603565	40.676740	1891.03	-108
5	GUIDE	used	373828368	9.46	3967	1.000	-0.146	-0.217	0.211	0.334	49.507374	40.699462	2006.36	139
6	GUIDE	used	373831072	9.38	3961	1.000	0.185	0.061	0.218	0.395	49.776828	40.594328	1533.74	-536
7	GUIDE	used	373831808	8.85	3963	1.000	-0.056	0.045	0.134	0.222	49.325689	40.033510	-296.52	966

2.4 Star Slots

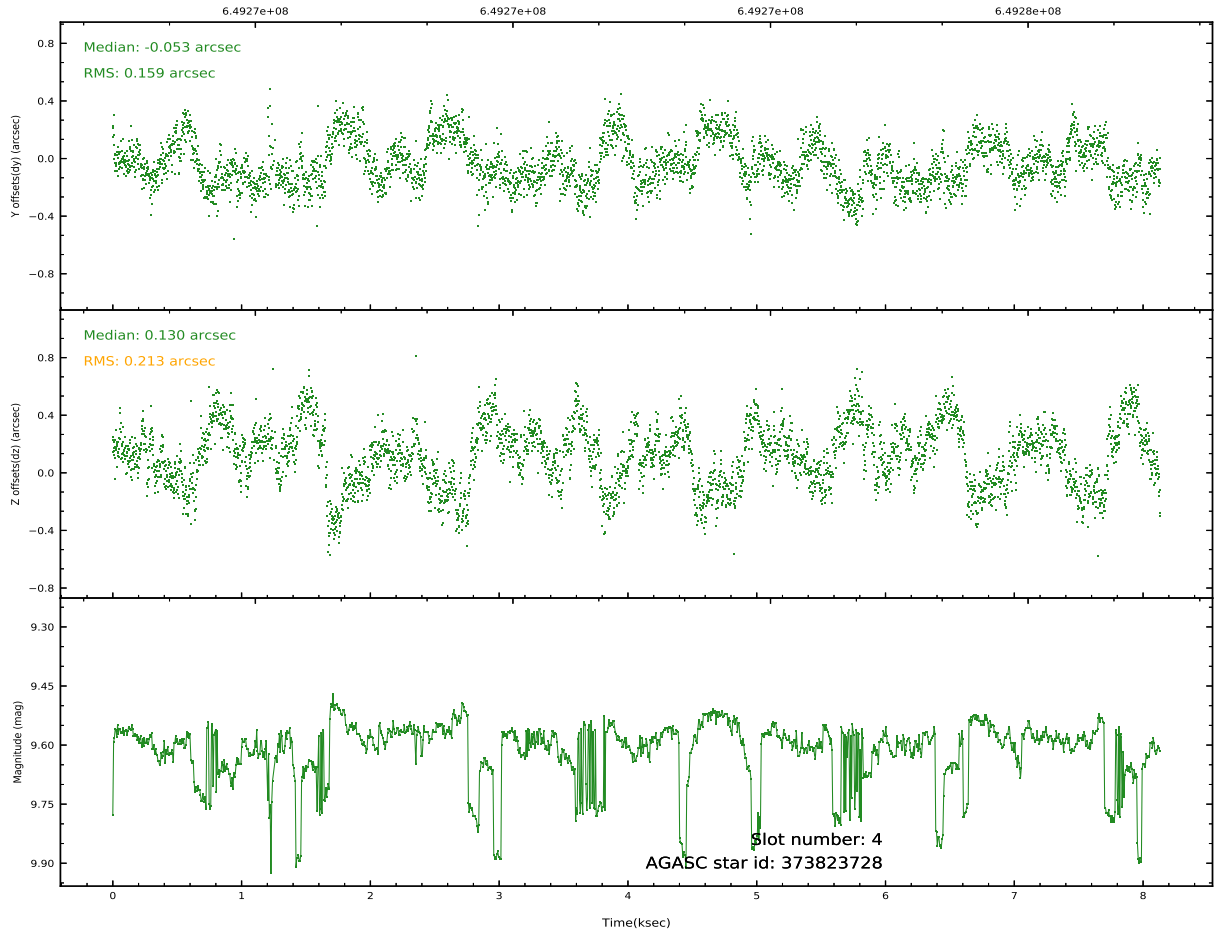
2.4.1 Slot 3



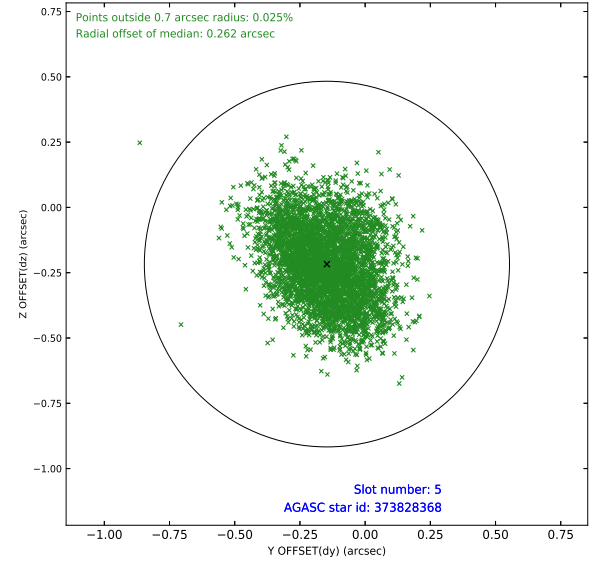
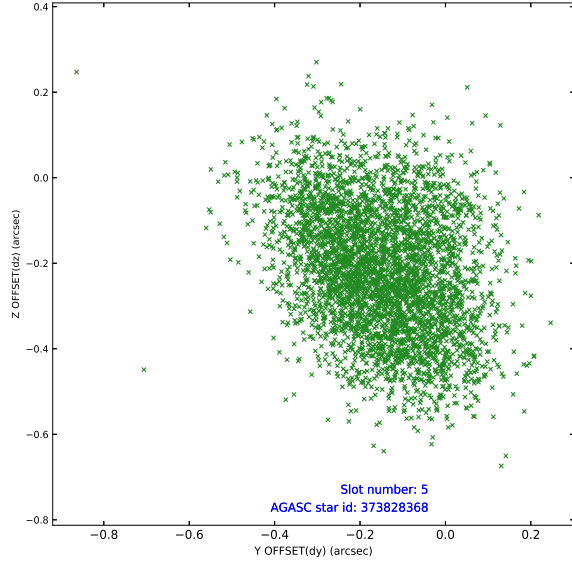
2.4.2 Slot 4



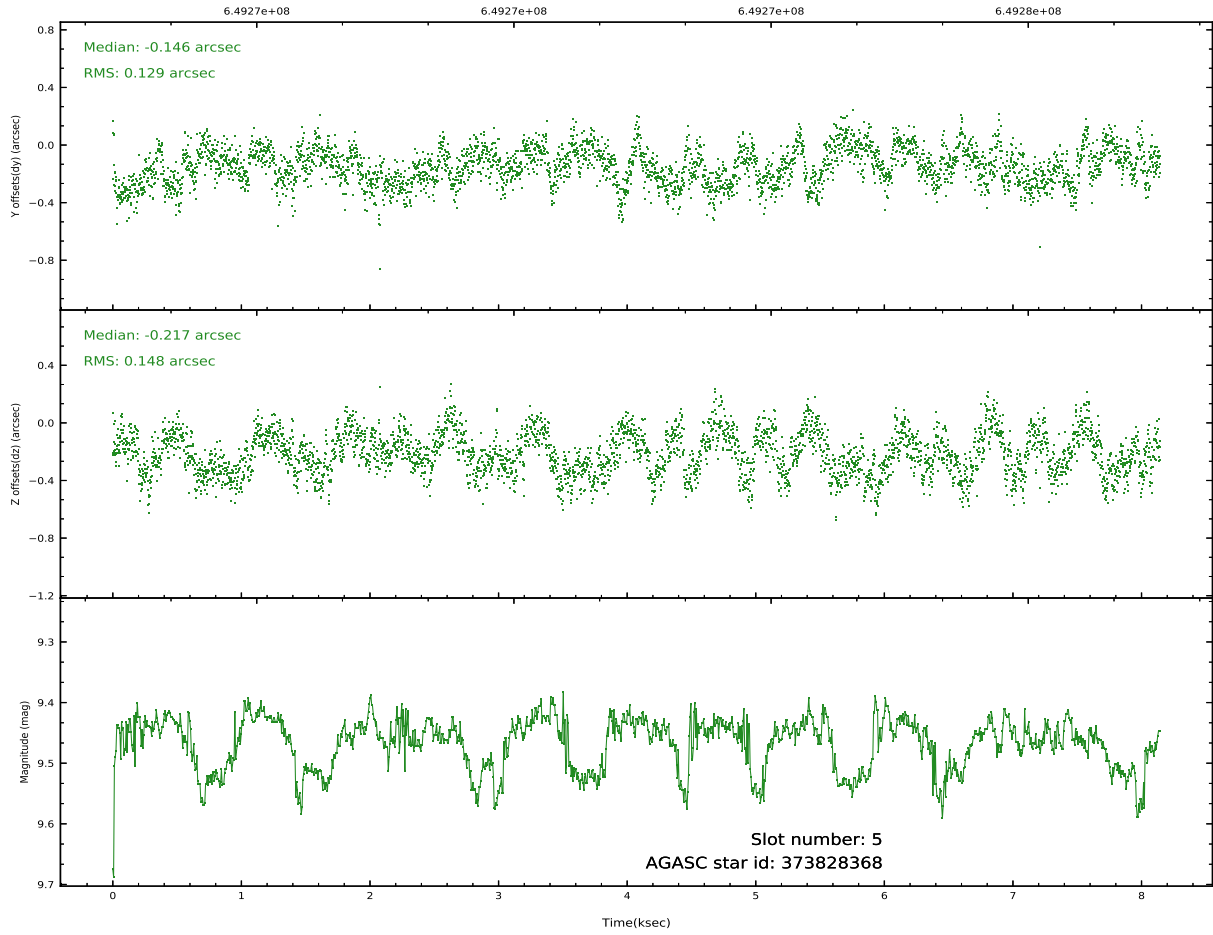
Time (s)



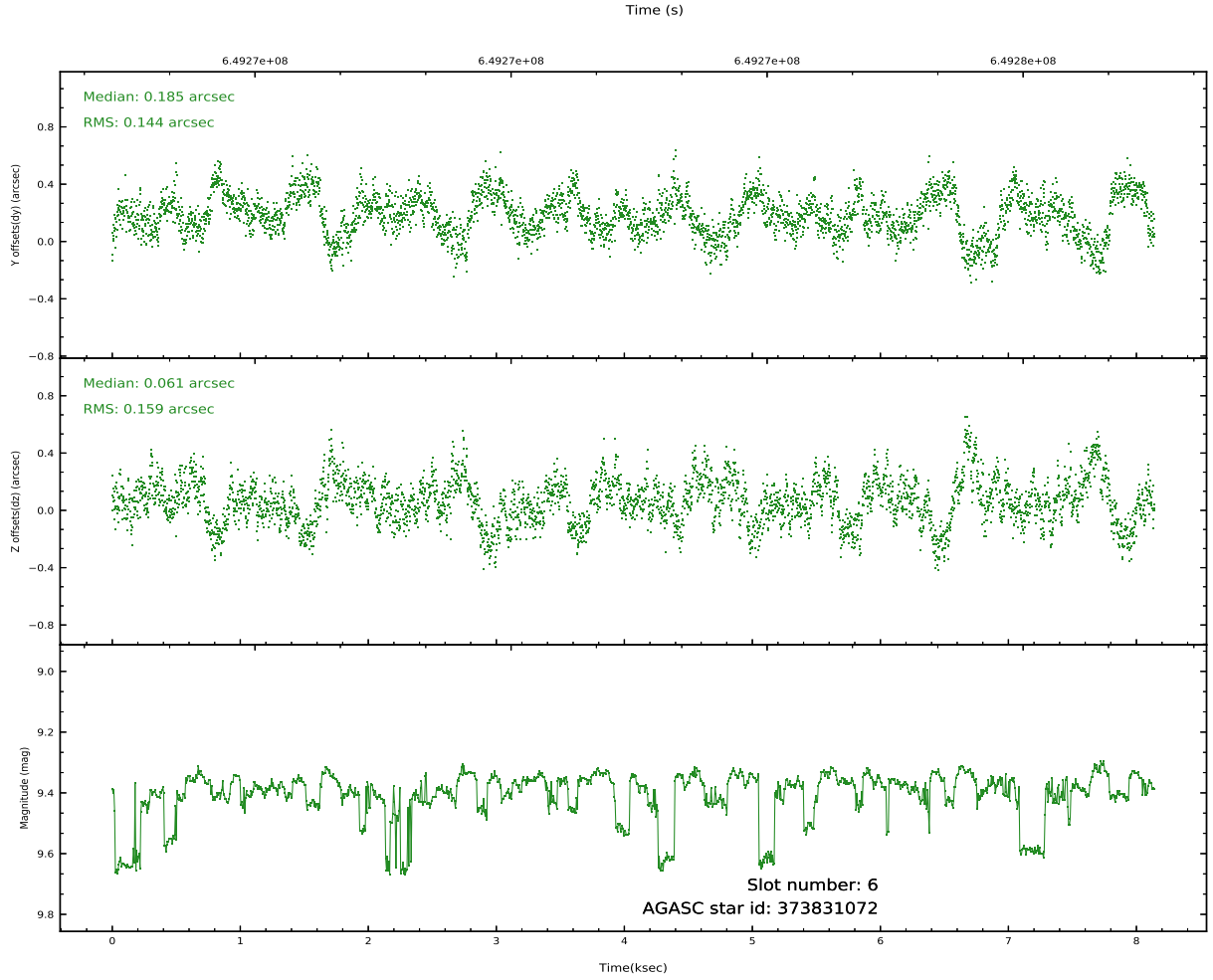
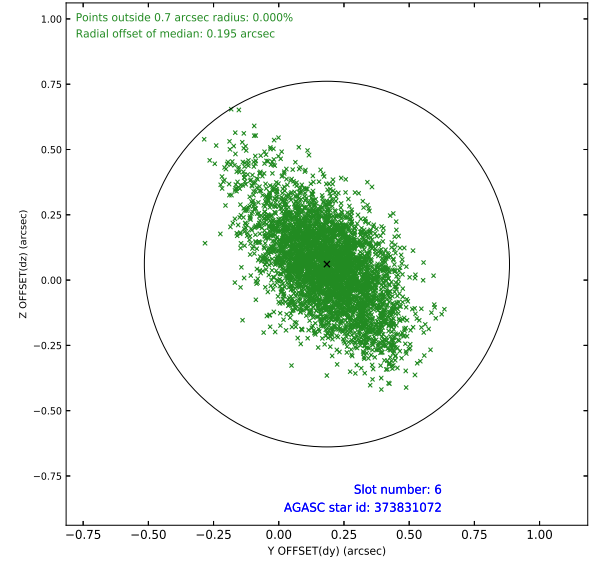
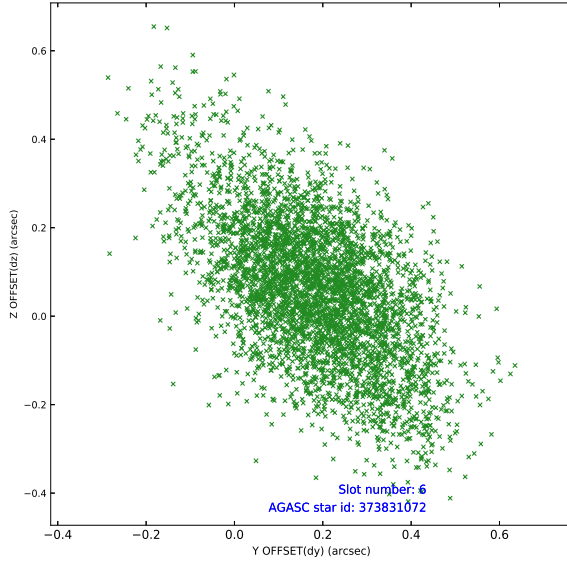
2.4.3 Slot 5



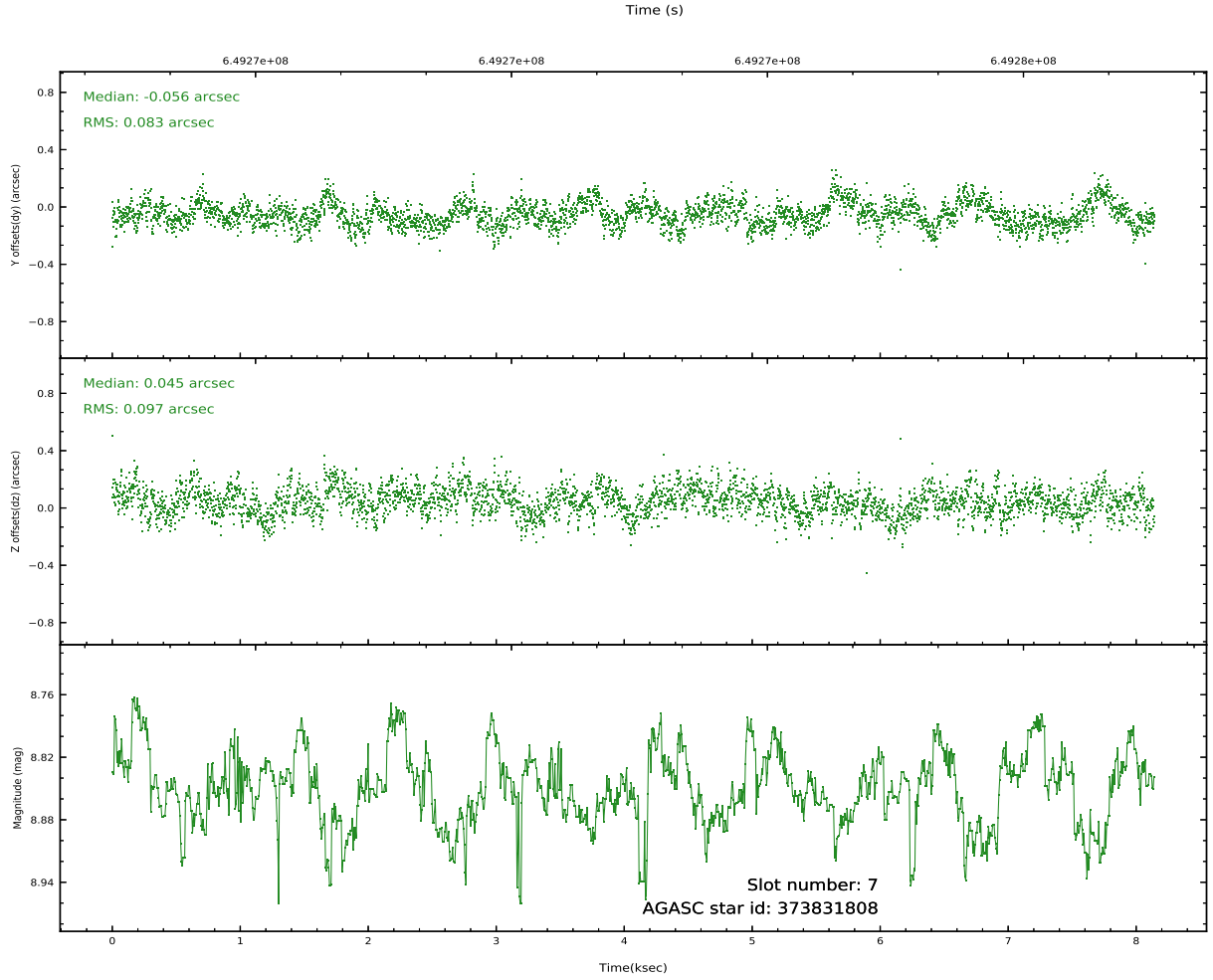
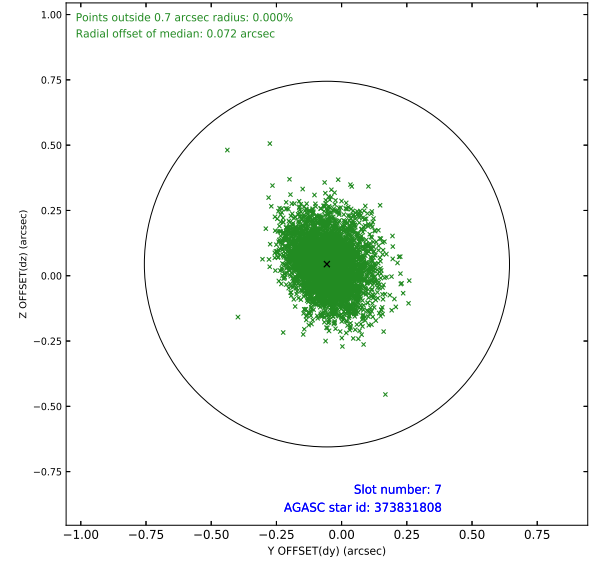
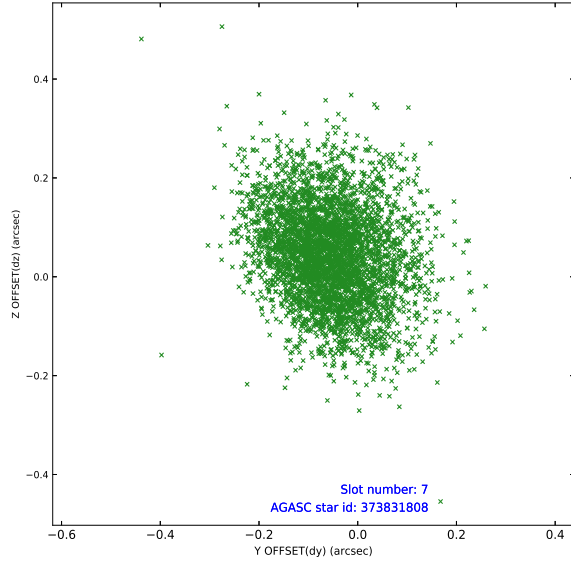
Time (s)



2.4.4 Slot 6

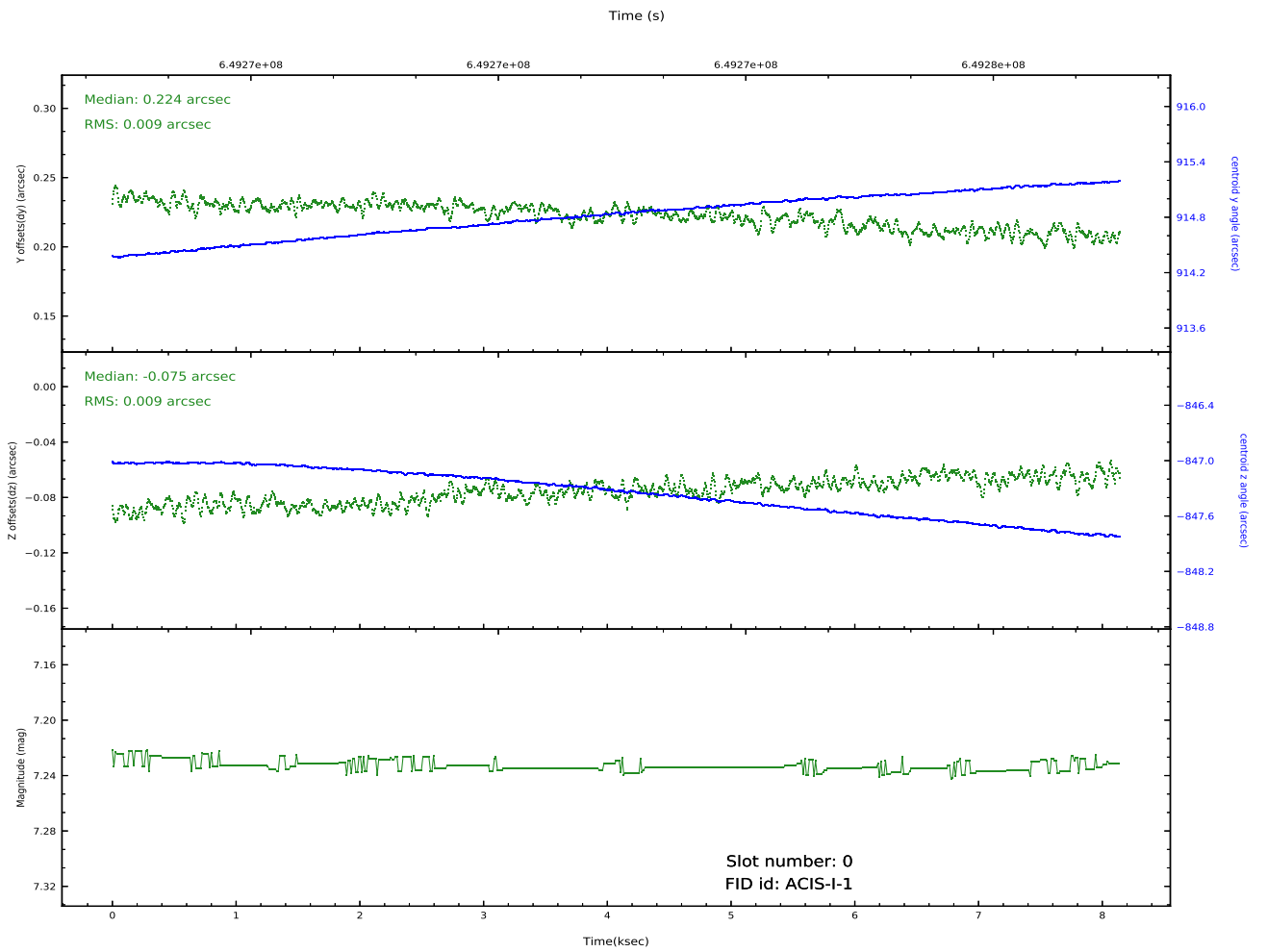
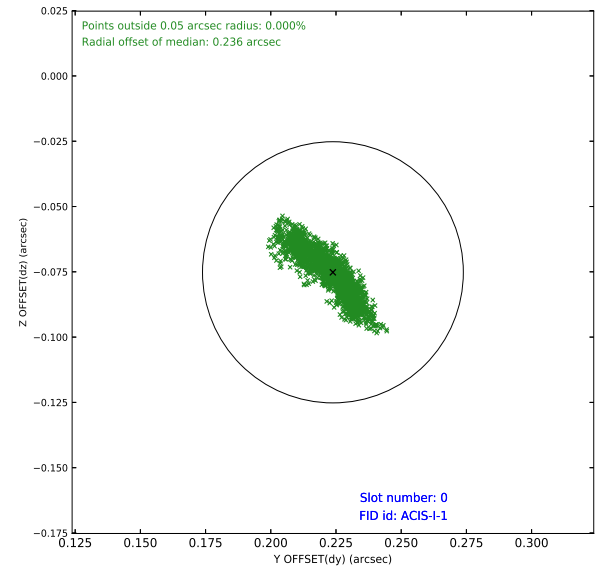
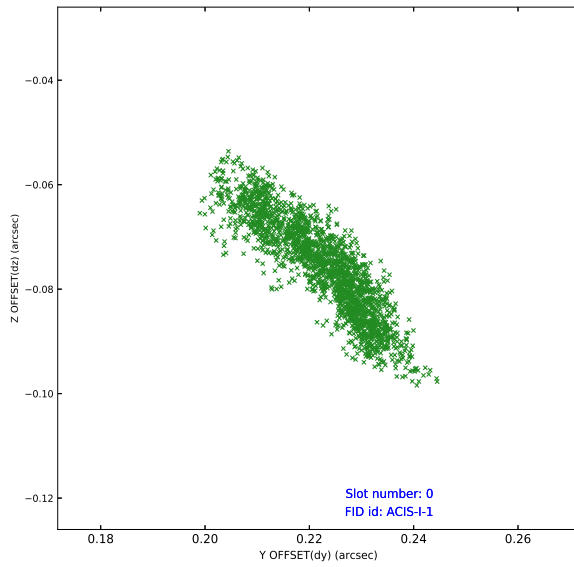


2.4.5 Slot 7

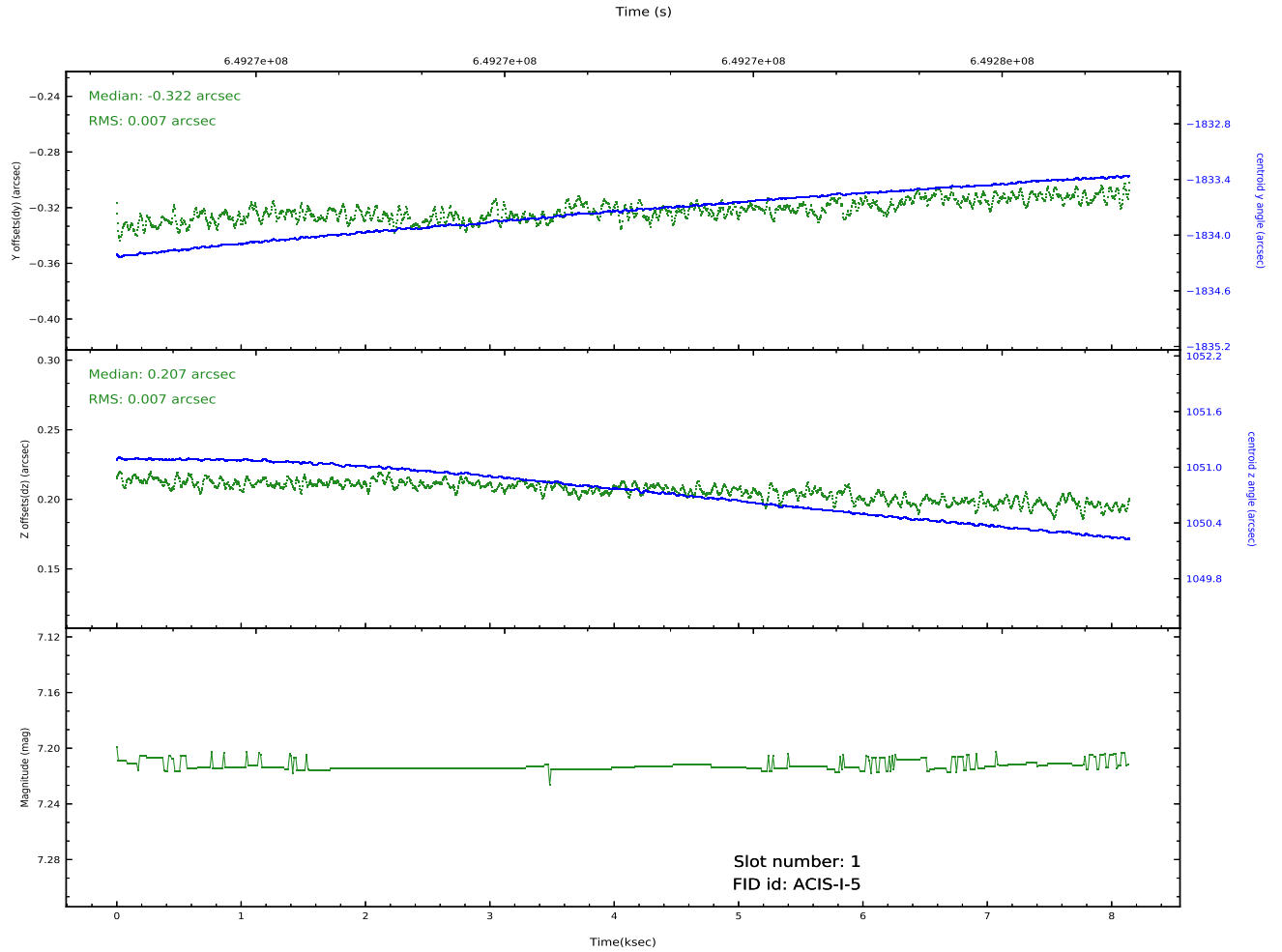
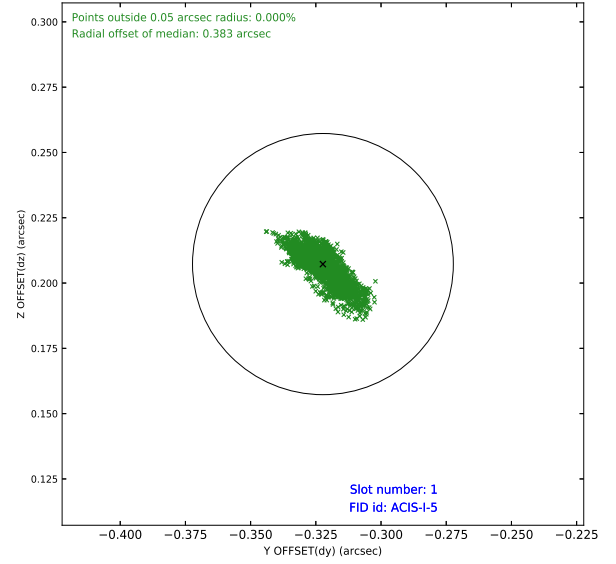
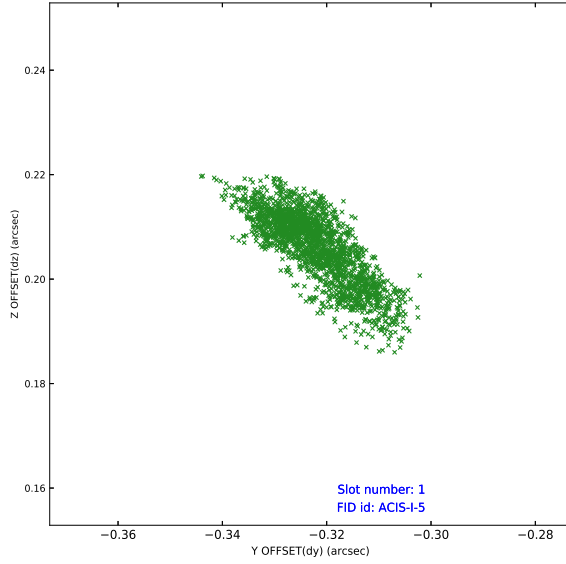


2.5 FID Slots

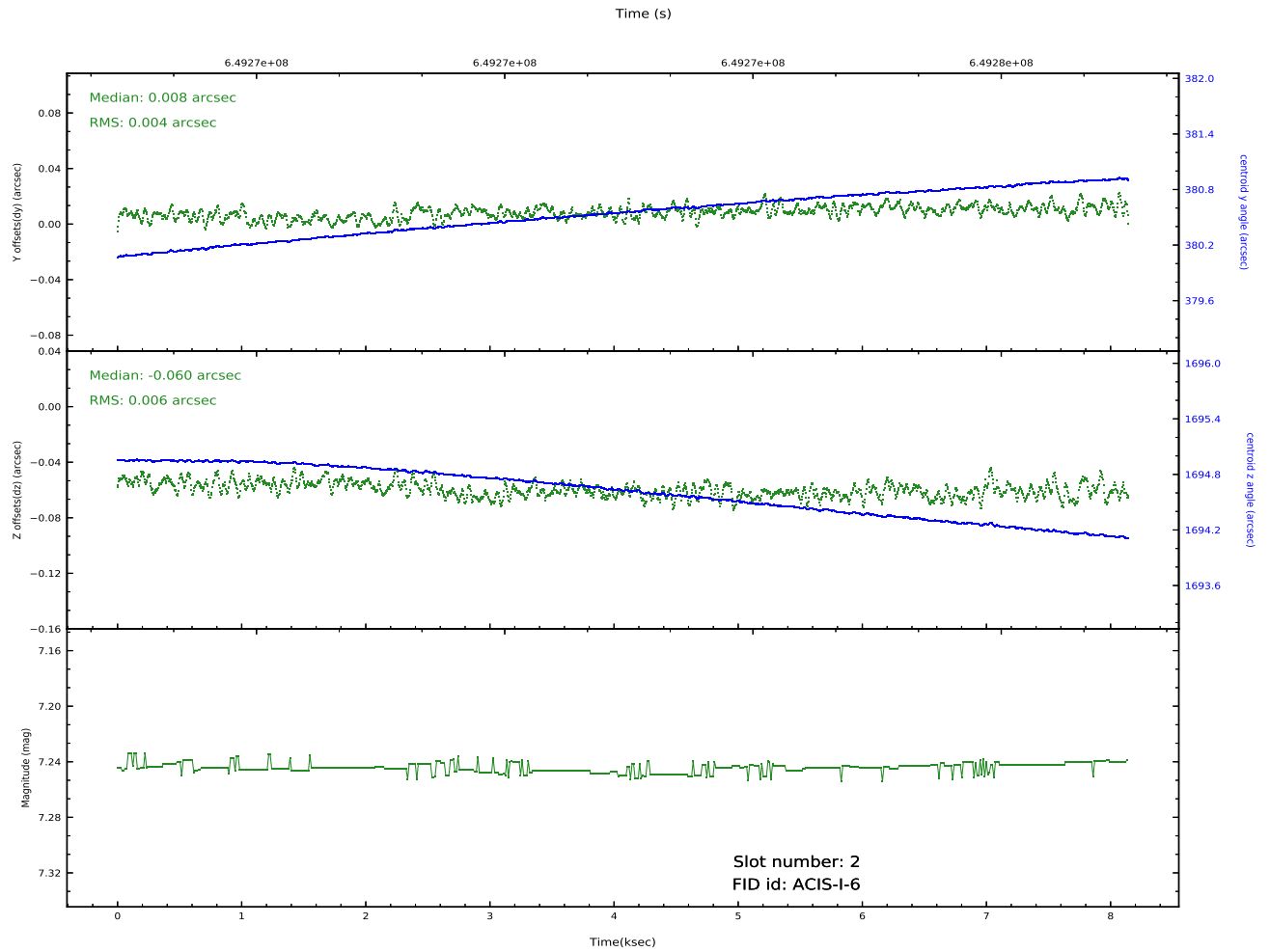
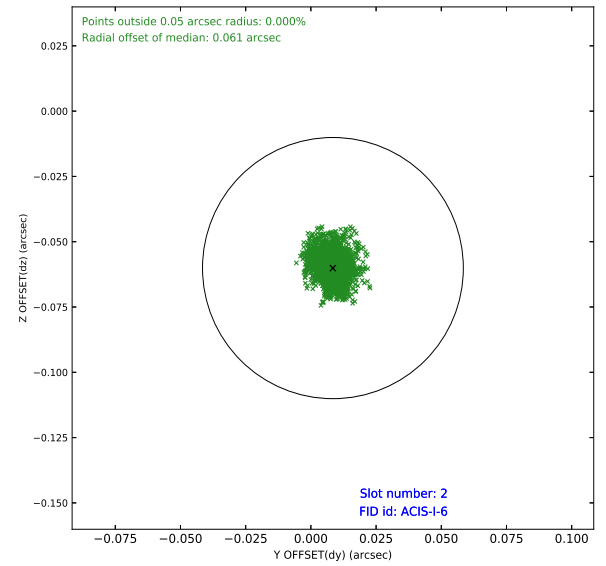
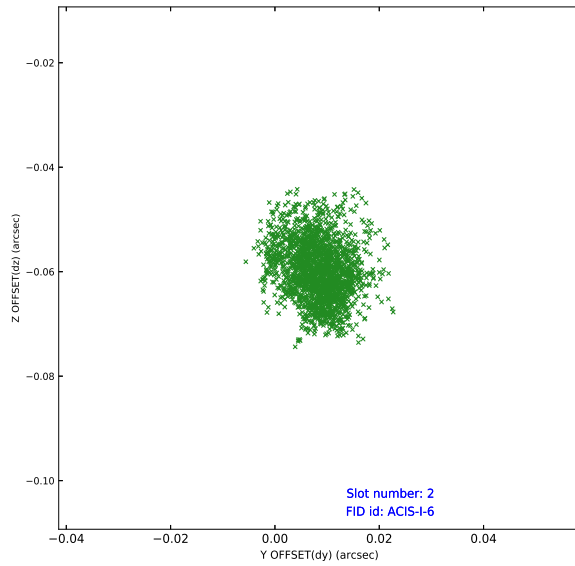
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.0662000621557

A.2 Comments