

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 6413 - L2 Version 3
Chandra X-Ray Center

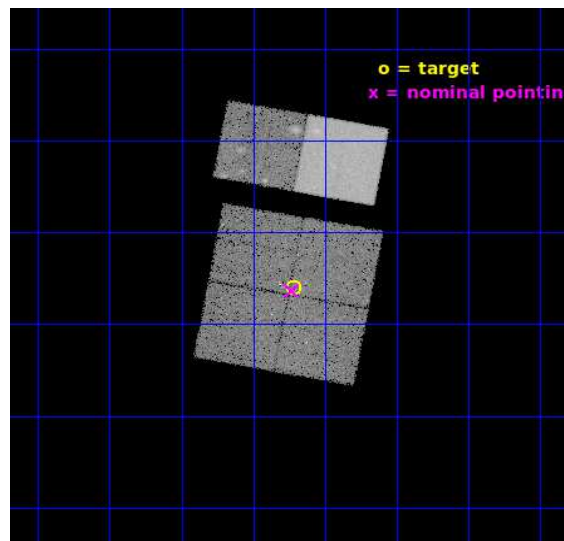
L2 Processing Date : Oct 12 2020

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1 Front

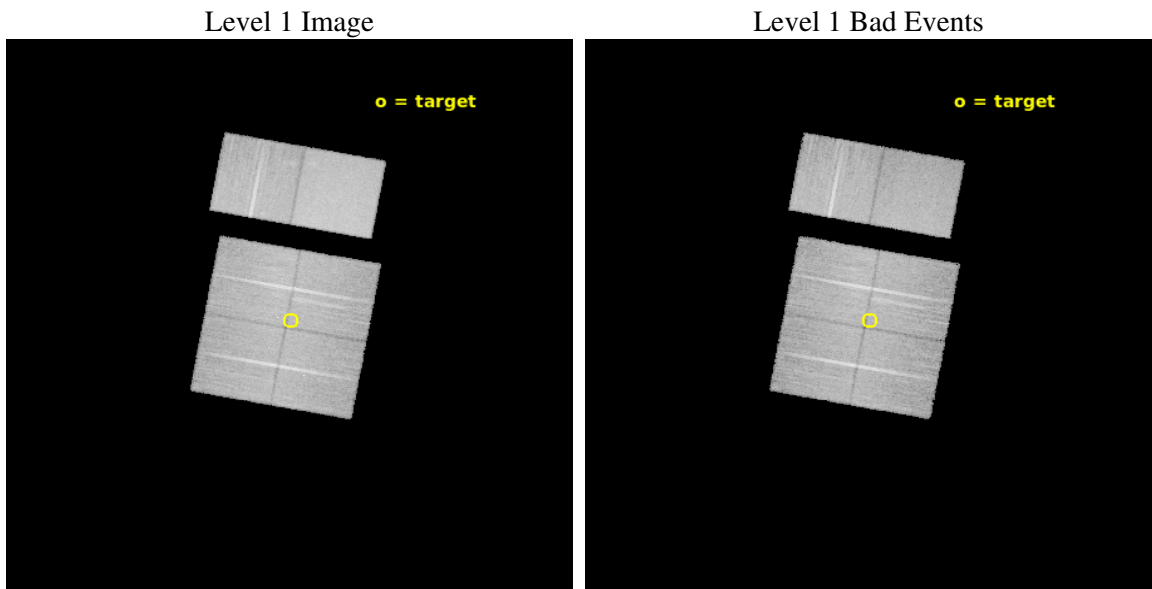
seq_num	200388	Sequence number
obs_id	6413	Observation id
title	CXO Monitoring of V1647 Ori: the X-ray Evolution of Pre-main Sequence Accretion Burst	Proposal title
observer	Joel Kastner	Principal investigator
object	IRAS05436-0007	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	86.554583	Observer's specified target RA [deg]
dec_targ	-0.101389	Observer's specified target Dec [deg]
ra_nom	86.557636050266	Nominal RA [deg]
dec_nom	-0.10591521856905	Nominal Dec [deg]
roll_nom	10.488180113809	Nominal Roll [deg]
revision	3	Processing version of data
ontime	18332.799931705	Sum of GTIs [s]
livetime	18100.658980283	Livetime [s]
ontime0	18332.799931705	Sum of GTIs [s]
ontime1	18332.799931705	Sum of GTIs [s]
ontime2	18329.558951437	Sum of GTIs [s]
ontime3	18332.799931705	Sum of GTIs [s]
ontime6	18332.799931705	Sum of GTIs [s]
ontime7	18332.799931705	Sum of GTIs [s]
l2events	159872	Number of level 2 events



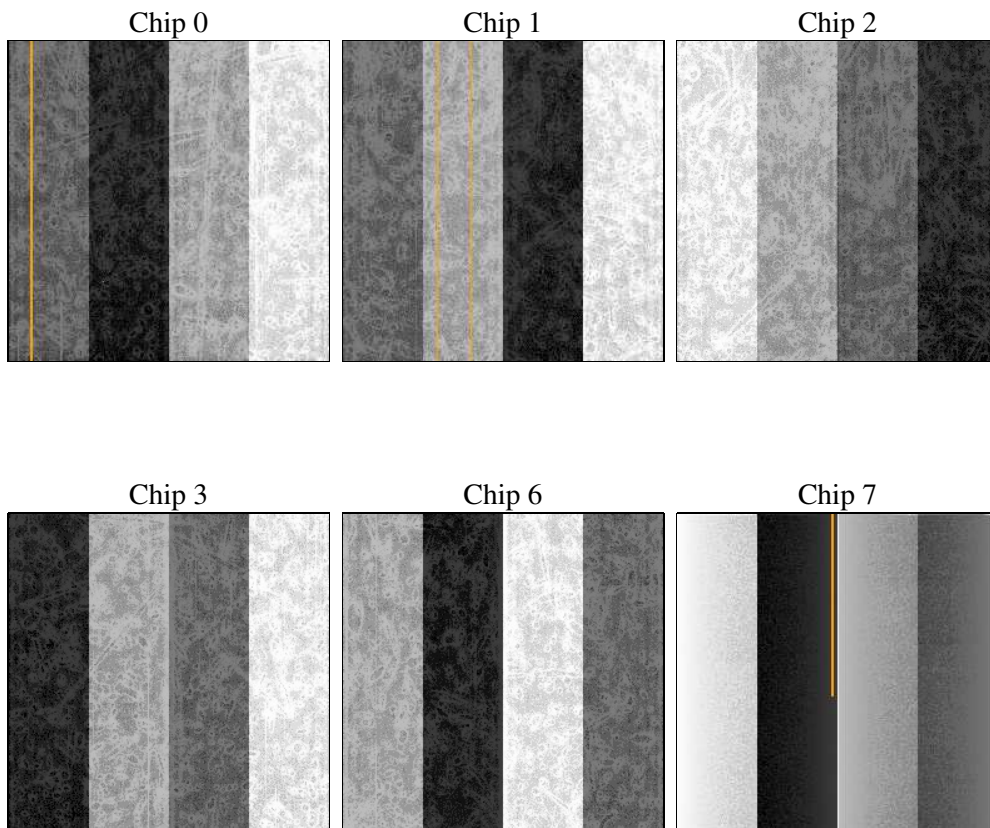
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	18200.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	18332.799931705	Sum of GTIs [s]
caldbver	4.9.2	 	ontime0	18332.799931705	Sum of GTIs [s]
date	2020-10-12T04:44:23	Date and time of file creation	ontime1	18332.799931705	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	18329.558951437	Sum of GTIs [s]
			ontime3	18332.799931705	Sum of GTIs [s]
			ontime6	18332.799931705	Sum of GTIs [s]
			ontime7	18332.799931705	Sum of GTIs [s]
			l1events	952207	Number of level 1 events

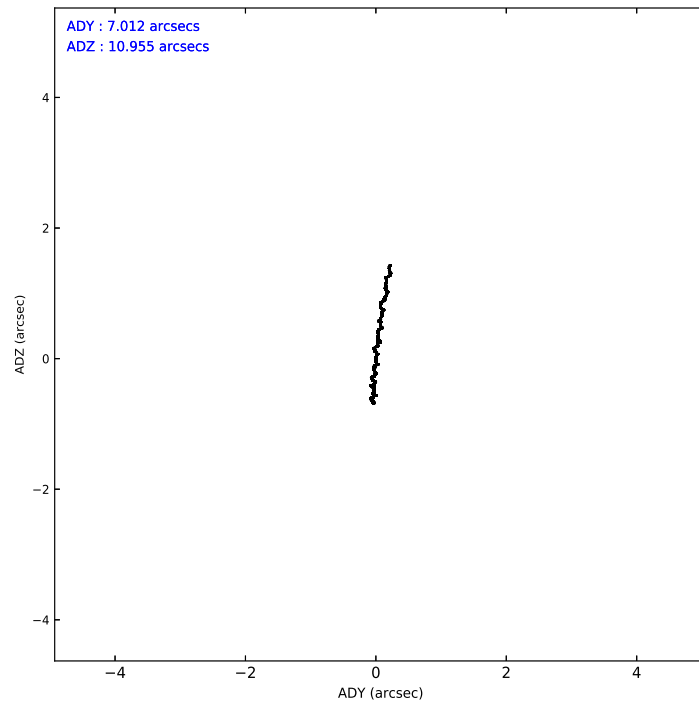
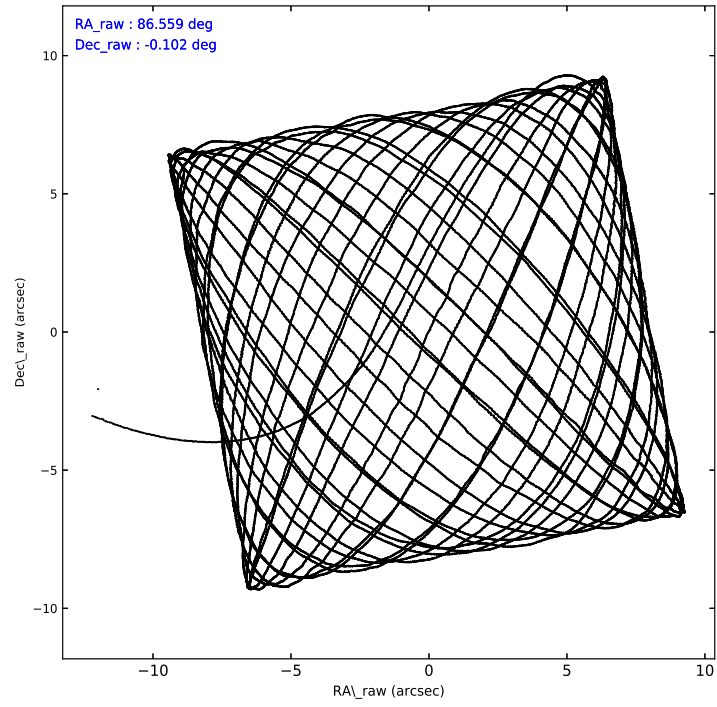
2.1.4 Events

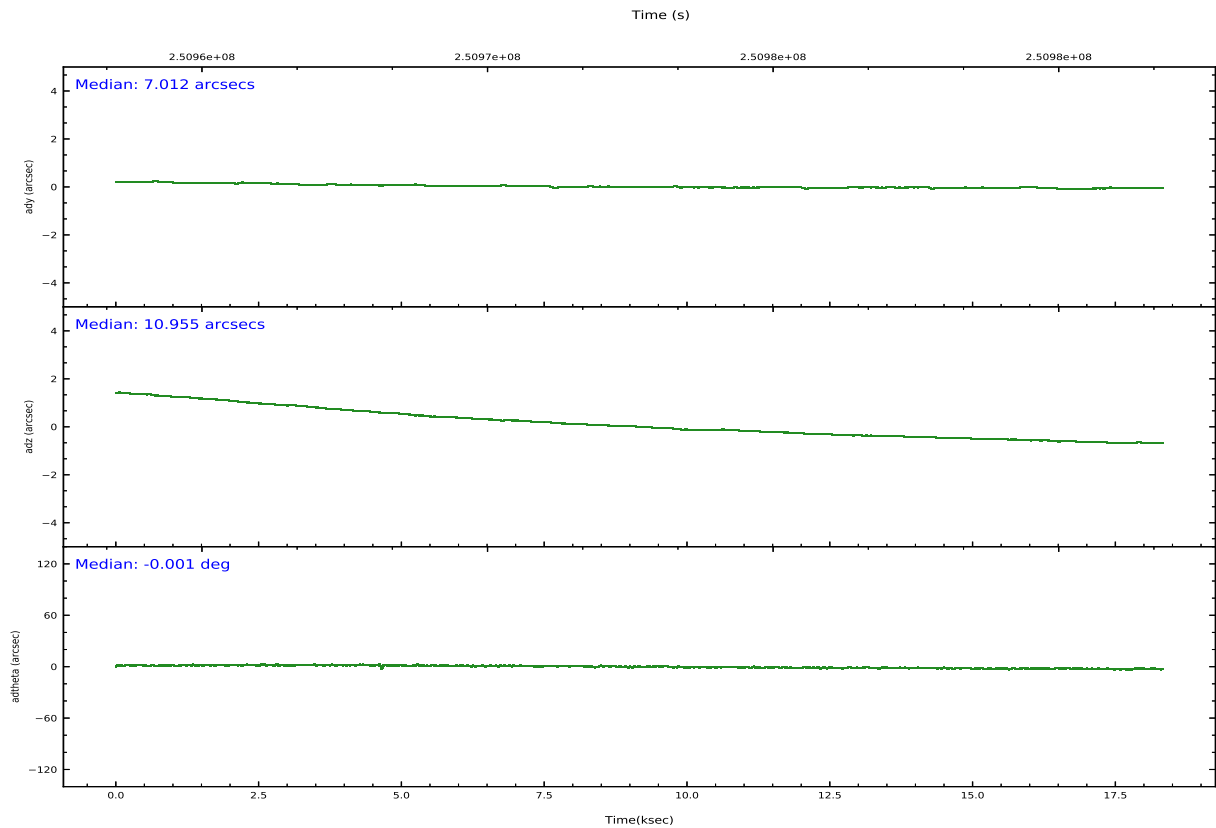
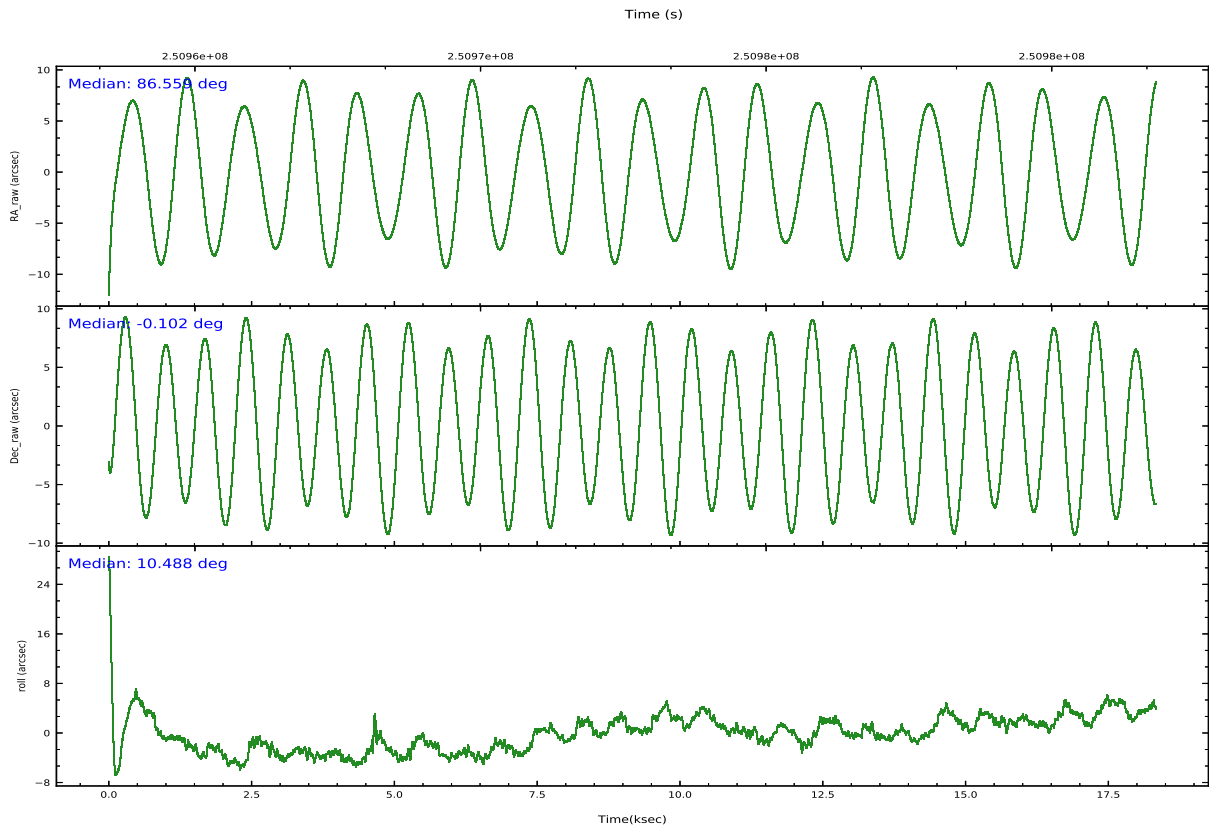
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	139354	138694	157745	145906	162568	207940	grade 0 events	7734	7765	8048	7890	8215	7508
rejected events	121577	119561	139915	128436	143668	123662		5%	5%	5%	5%	5%	3%
rejected %	87%	86%	88%	88%	88%	59%	grade 1 events	91	66	116	100	77	202
								0%	0%	0%	0%	0%	0%
							grade 2 events	3839	4253	3847	3434	4046	17339
								2%	3%	2%	2%	2%	8%
							grade 3 events	1868	2002	1737	1778	1700	7754
								1%	1%	1%	1%	1%	3%
							grade 4 events	1656	1906	1752	1659	1702	7499
								1%	1%	1%	1%	1%	3%
							grade 5 events	6028	6510	5748	6659	7255	19673
								4%	4%	3%	4%	4%	9%
							grade 6 events	3162	3763	2973	3195	3743	46471
								2%	2%	1%	2%	2%	22%
							grade 7 events	114976	112429	133524	121191	135830	101494
								82%	81%	84%	83%	83%	48%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	86.538357	86.557636050266	Subarray requested	NONE	NONE
[deg] Pointing Dec	-0.120257	-0.10591521856905	Alternating exposures requested	N	N
[deg] Pointing Roll	10.286686	10.488180113809	[s] Primary exposure time	0.000000	3.2
[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)	250963629.184000	250962317.82158			
Observation start date	2005-12-14T16:06:05	2005-12-14T15:45:17			
[s] Observation end time (MET)	250981829.184000	250982876.76003			
Observation end date	2005-12-14T21:09:25	2005-12-14T21:27:56			
Read mode	TIMED	TIMED			

2.3 Aspect



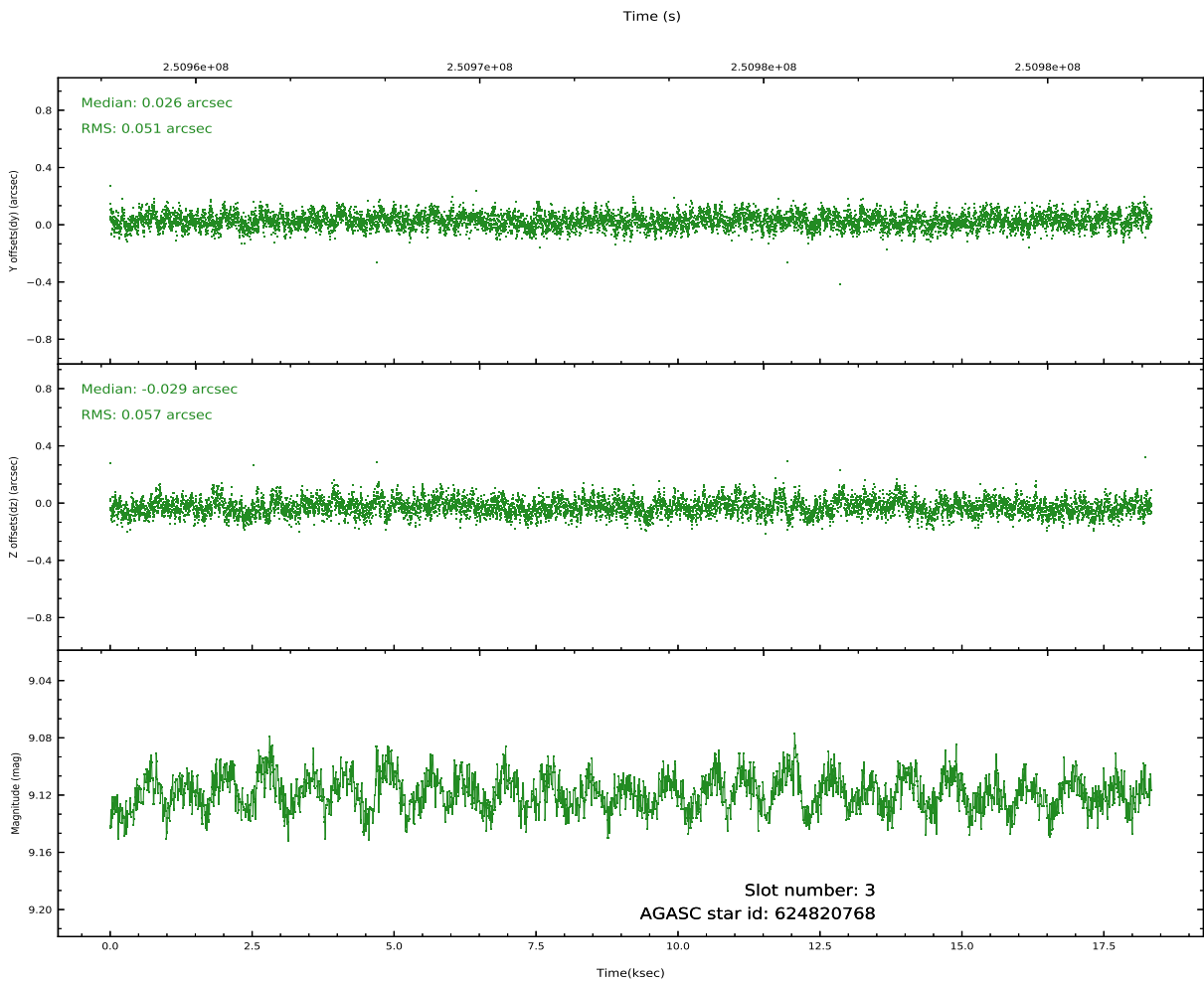
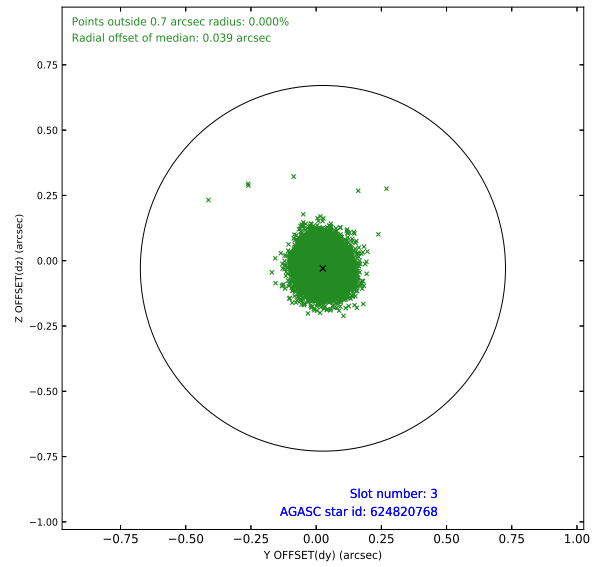
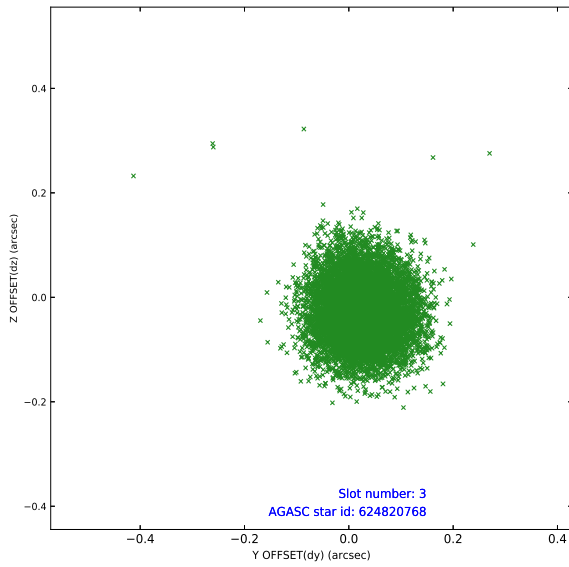


Slot Statistics

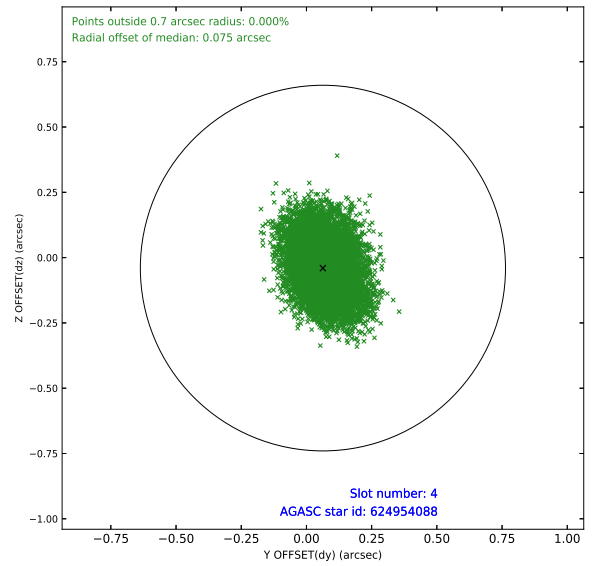
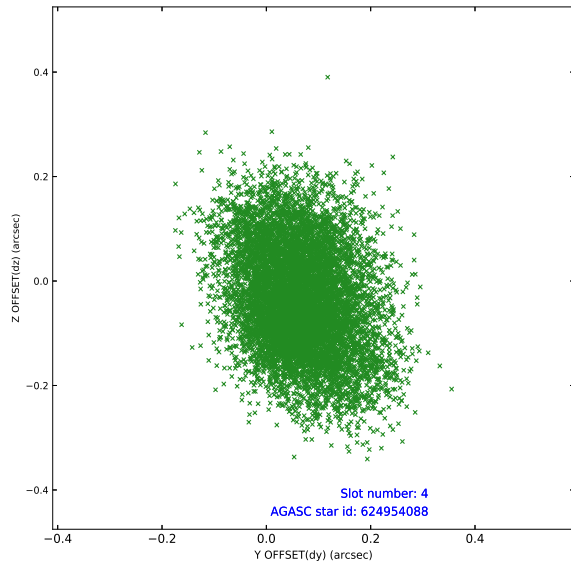
slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-I-1	7.25	4473	1.000	0.043	-0.039	0.018	0.031	0.000000	0.000000	932.67	-834
1	FID		ACIS-I-5	7.23	4473	1.000	-0.196	0.044	0.015	0.023	0.000000	0.000000	-1815.53	1062
2	FID		ACIS-I-6	7.25	4473	1.000	0.062	0.068	0.015	0.031	0.000000	0.000000	398.03	1707
3	GUIDE	used	624820768	9.12	8941	1.000	0.026	-0.029	0.082	0.129	86.202480	-0.061953	-1151.90	422
4	GUIDE	used	624954088	9.59	8937	1.000	0.063	-0.040	0.133	0.218	86.606399	-0.671650	-112.86	-1996
5	GUIDE	used	624955288	9.59	8937	1.000	0.035	-0.082	0.110	0.175	87.070368	-0.669957	1531.76	-2289
6	GUIDE	used	624954400	9.16	8939	1.000	0.002	0.055	0.126	0.205	86.607838	-0.762568	-166.11	-2319
7	GUIDE	used	624953040	8.70	8941	1.000	-0.131	0.098	0.100	0.159	87.231595	-0.668980	2103.68	-2389

2.4 Star Slots

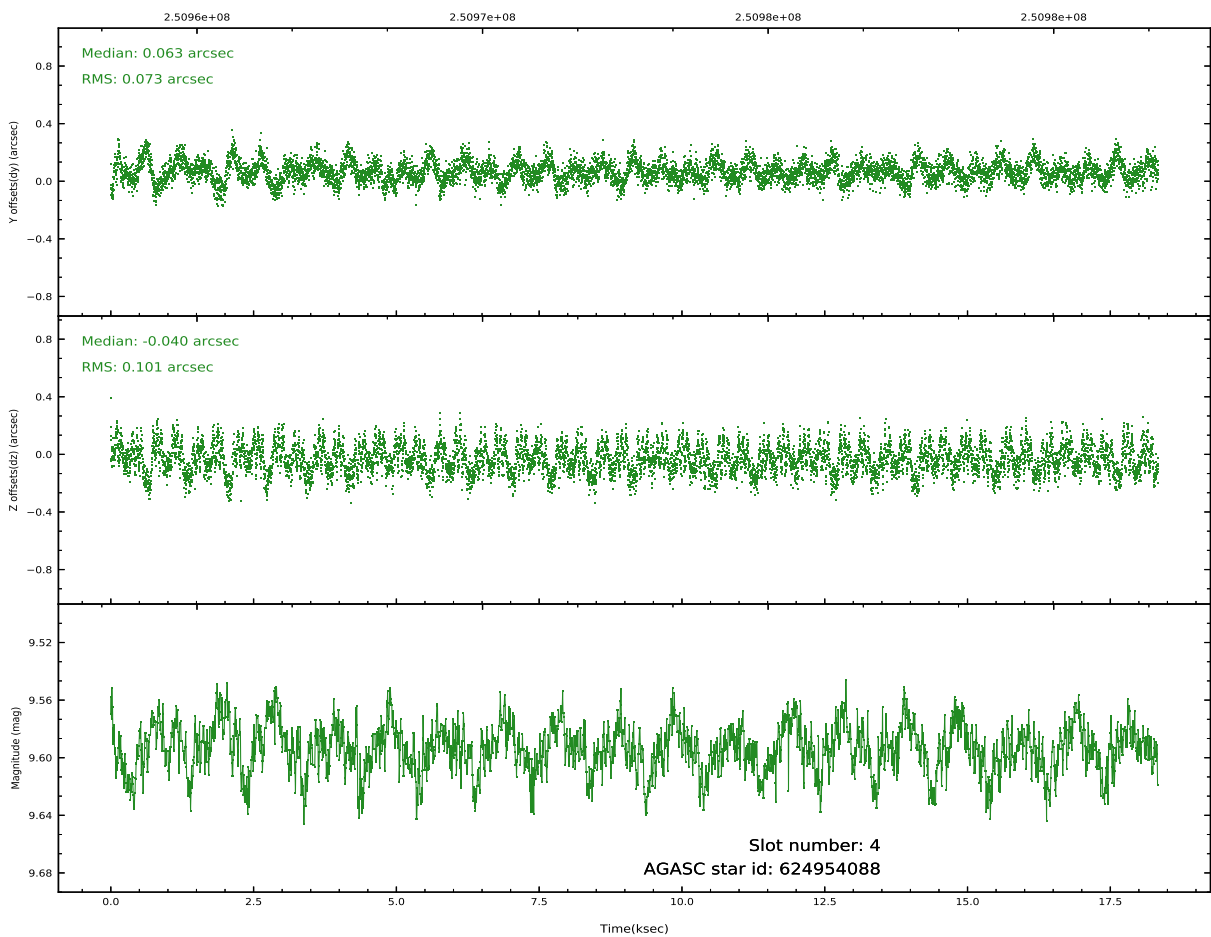
2.4.1 Slot 3



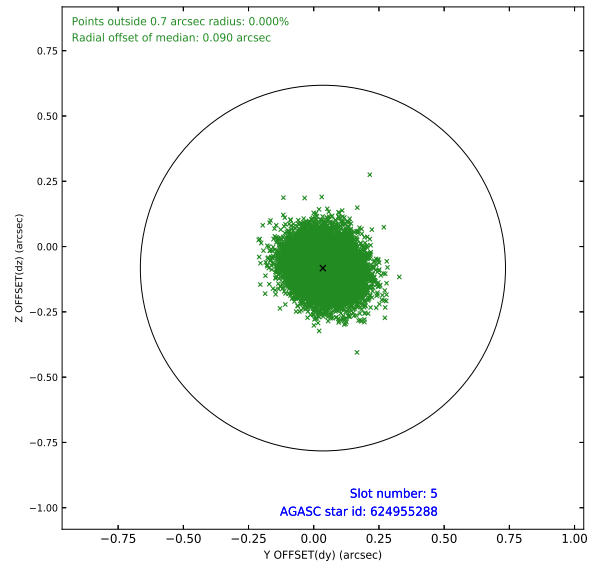
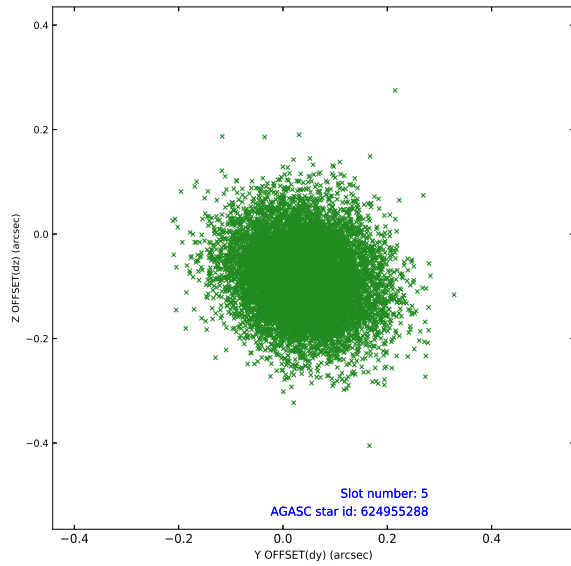
2.4.2 Slot 4



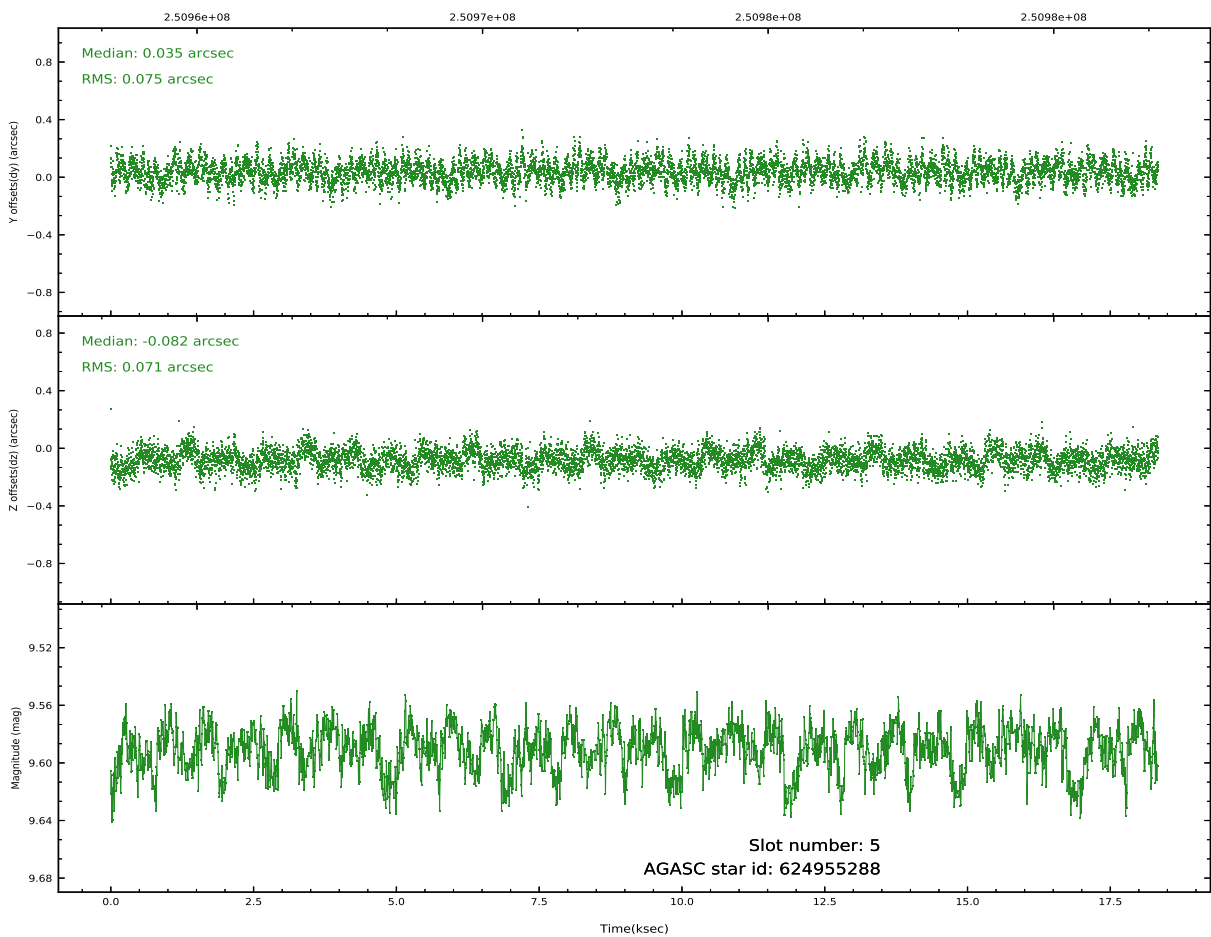
Time (s)



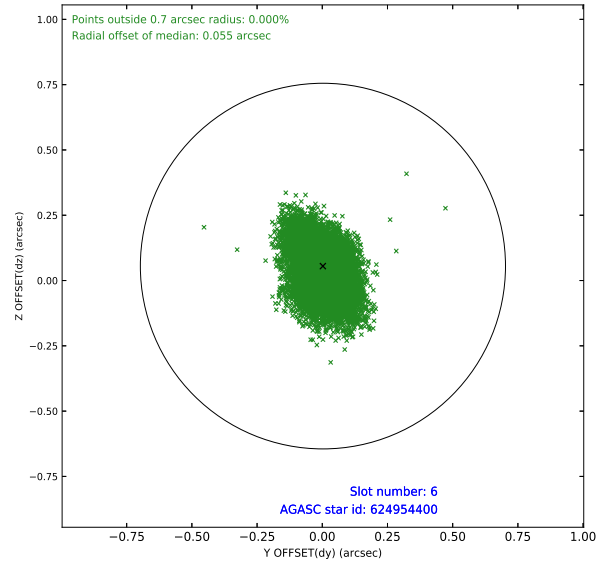
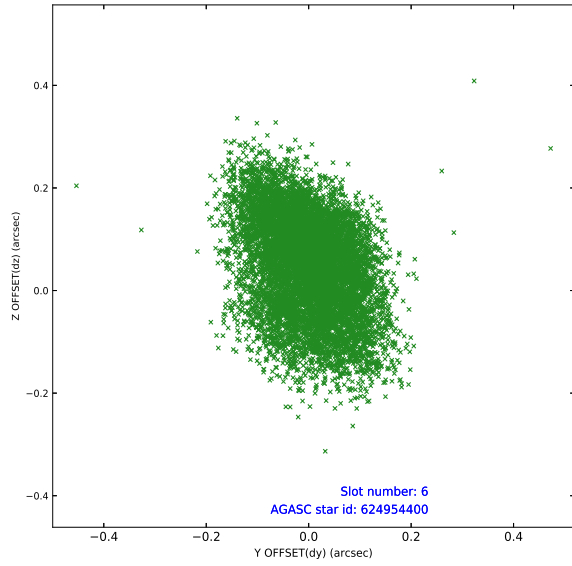
2.4.3 Slot 5



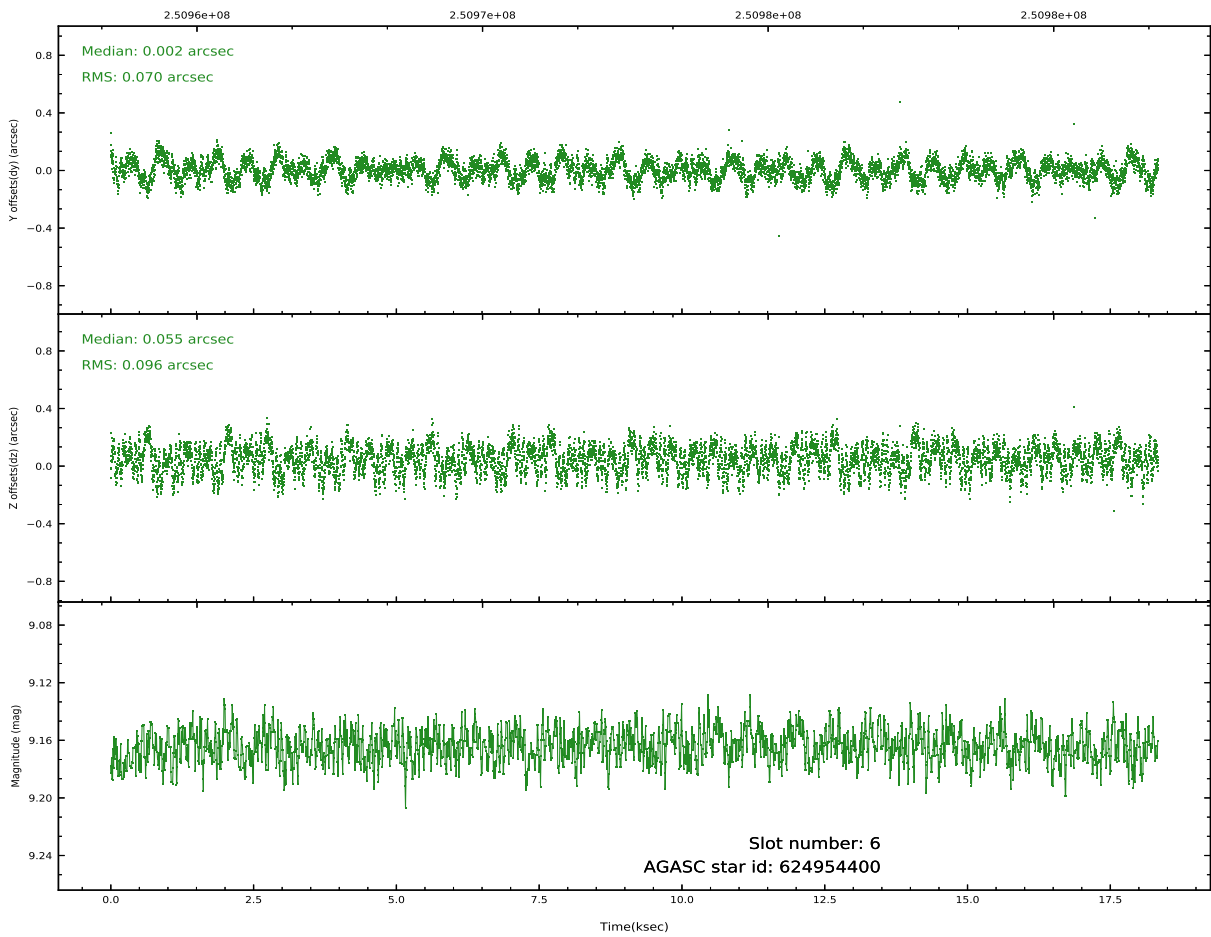
Time (s)



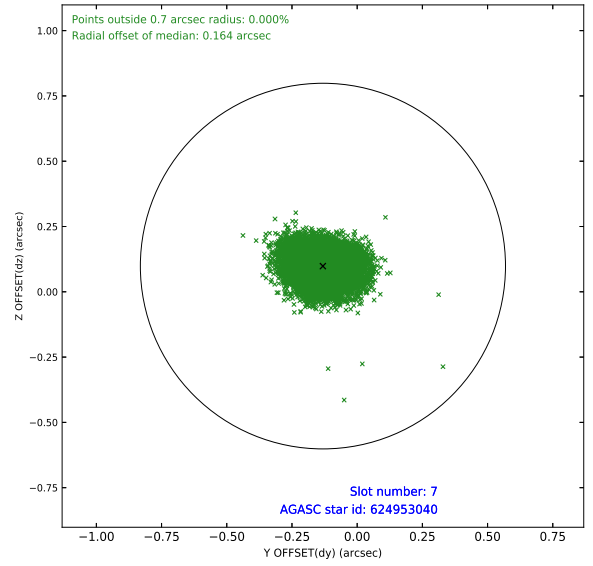
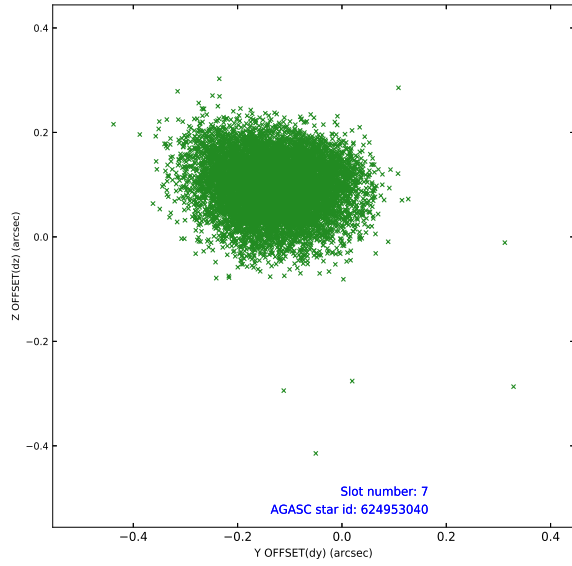
2.4.4 Slot 6



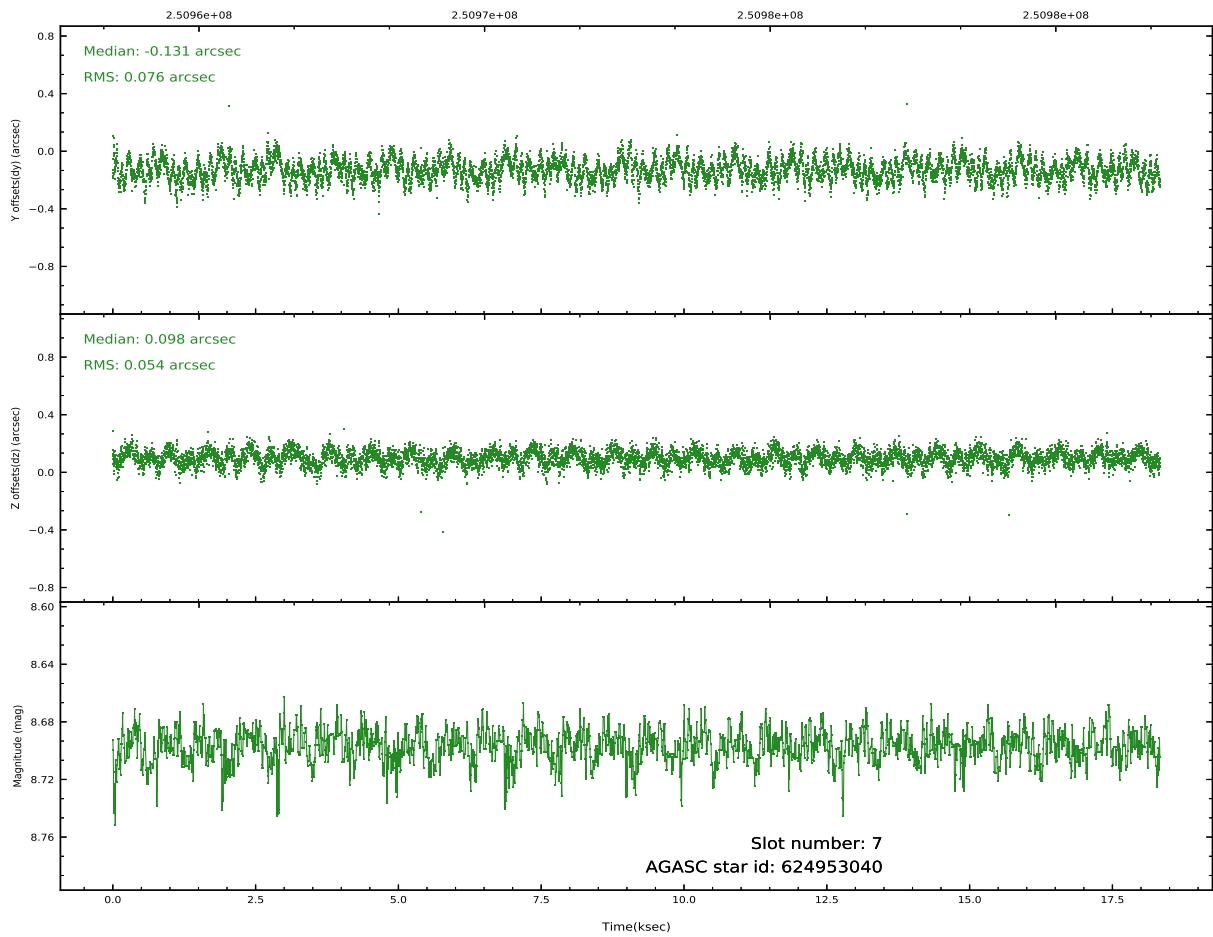
Time (s)



2.4.5 Slot 7

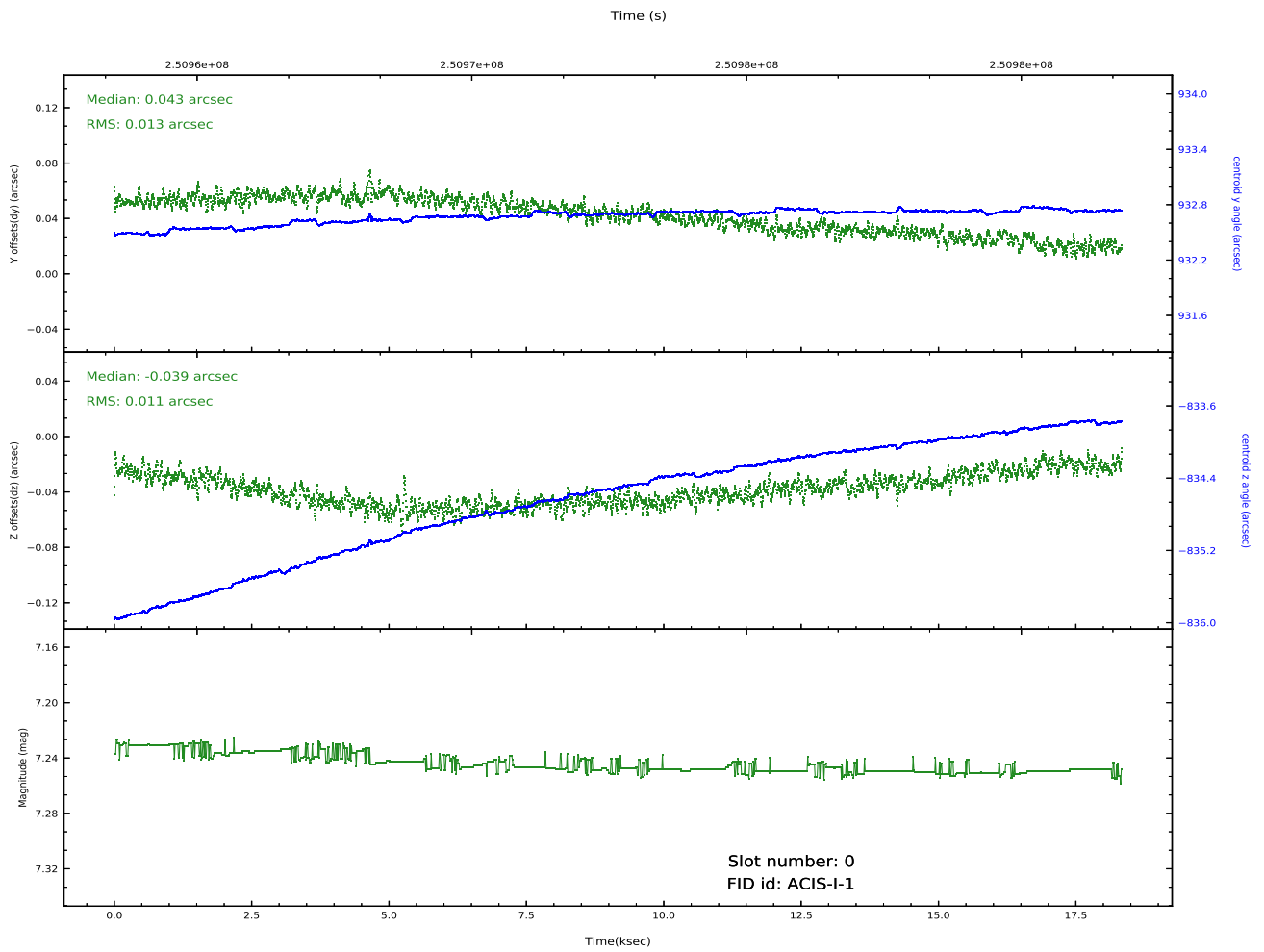
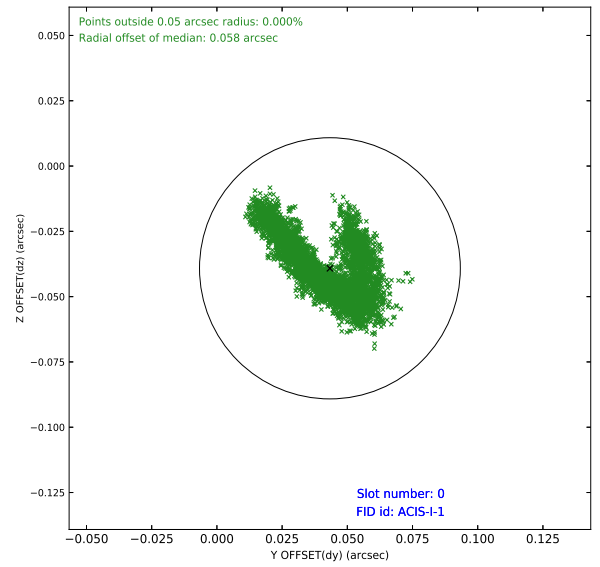
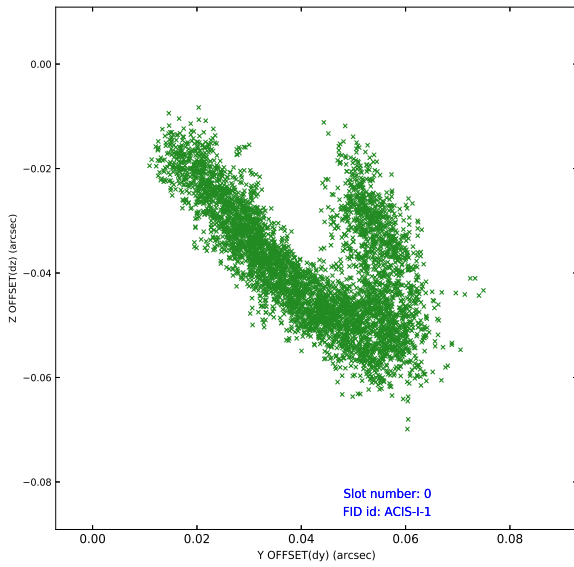


Time (s)

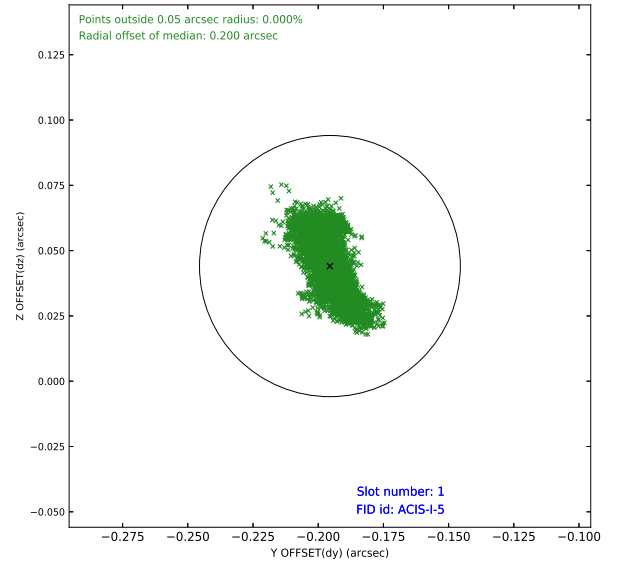
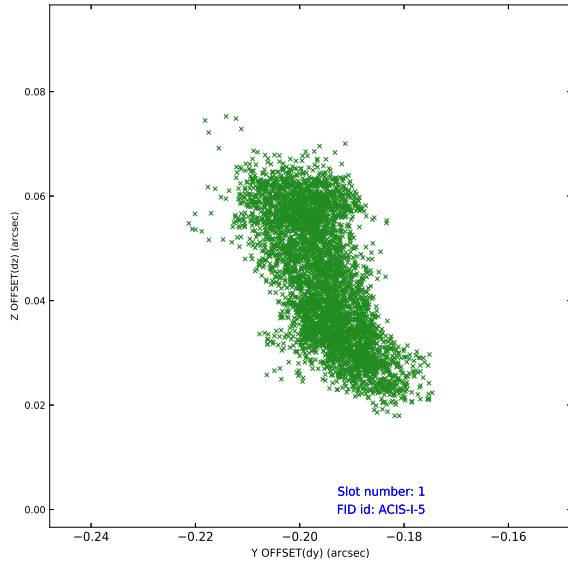


2.5 FID Slots

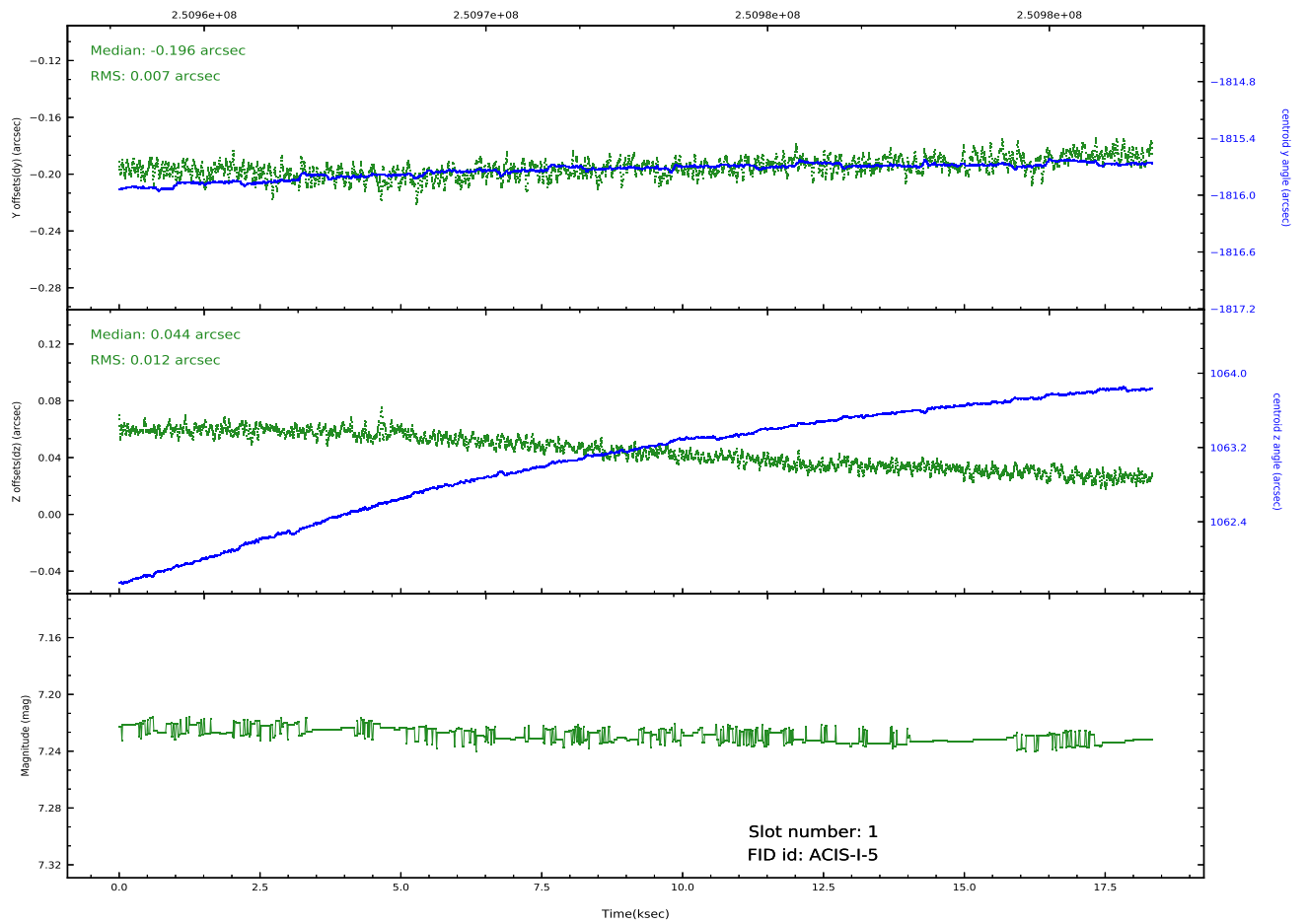
2.5.1 Slot 0



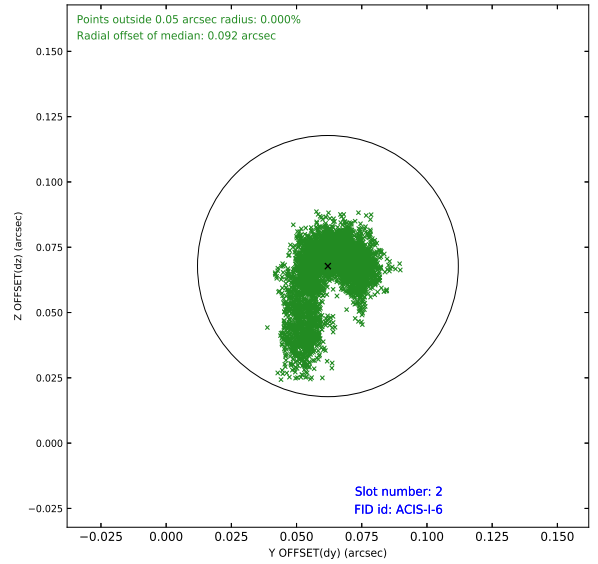
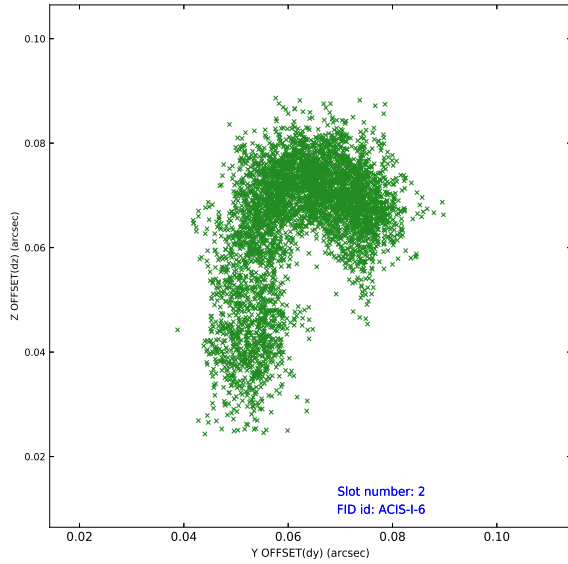
2.5.2 Slot 1



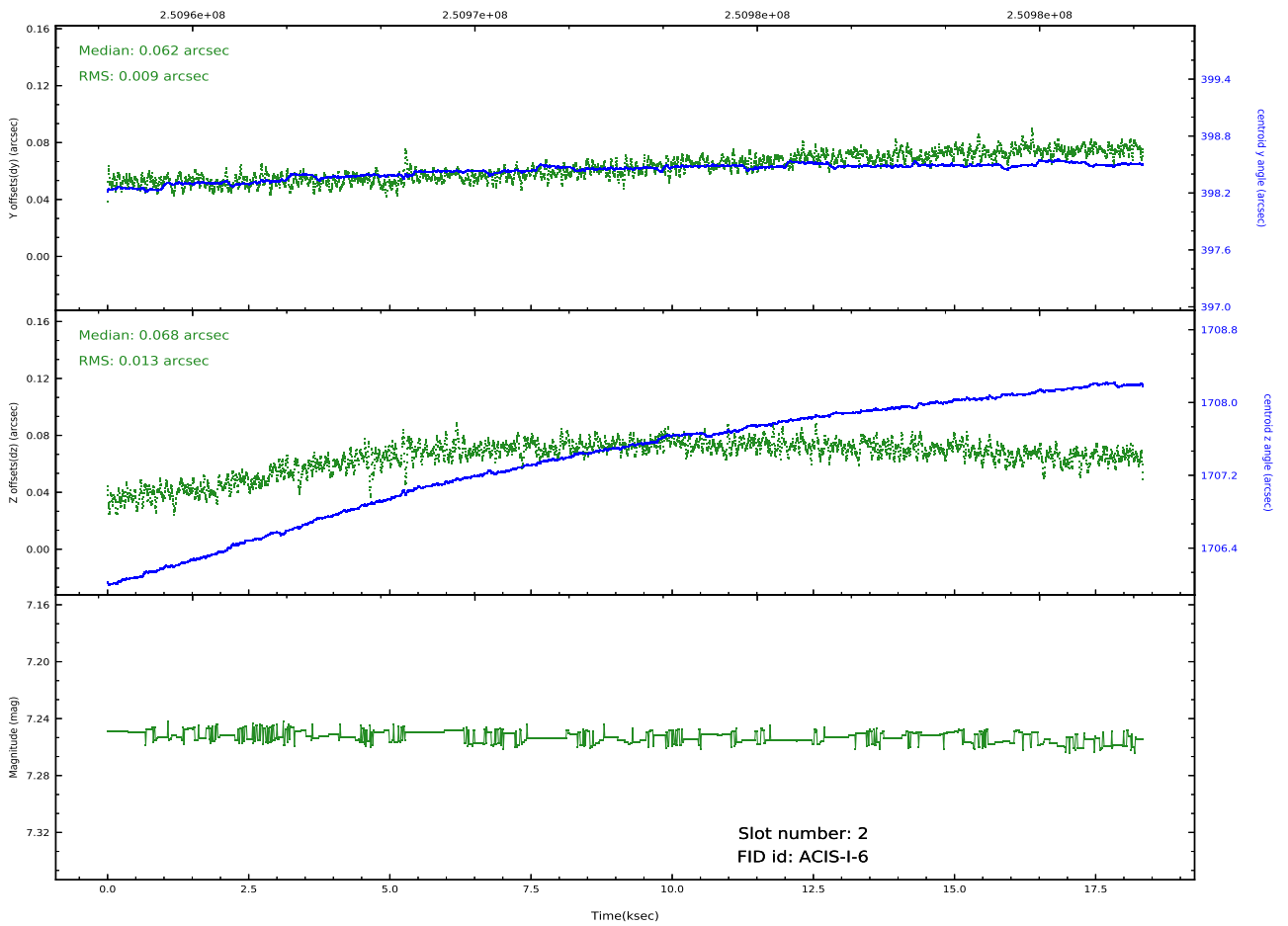
Time (s)



2.5.3 Slot 2



Time (s)



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.13
V&V Edition	1
V&V Disposition and Status	Repr+DD
V&V Charge Time	18.33279

A.2 Comments

The bias map for CCD_ID = 0 suffers from anomalously high bias values in an 'exacto-knife'-shaped area of the bias file. Pixels in the event data that have been bias-corrected by one of the 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. The bias map for CCD_ID = 0 will be recreated to remove this anomaly and the data will be reprocessed.