

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 6107 - L2 Version 3
Chandra X-Ray Center

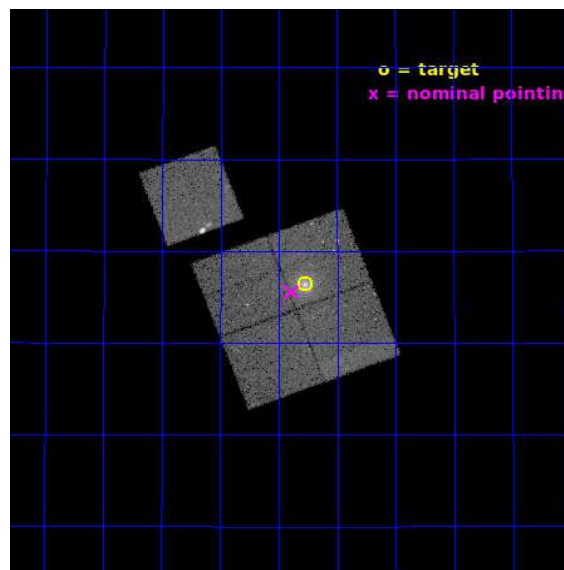
L2 Processing Date : Oct 11 2020

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1 Front

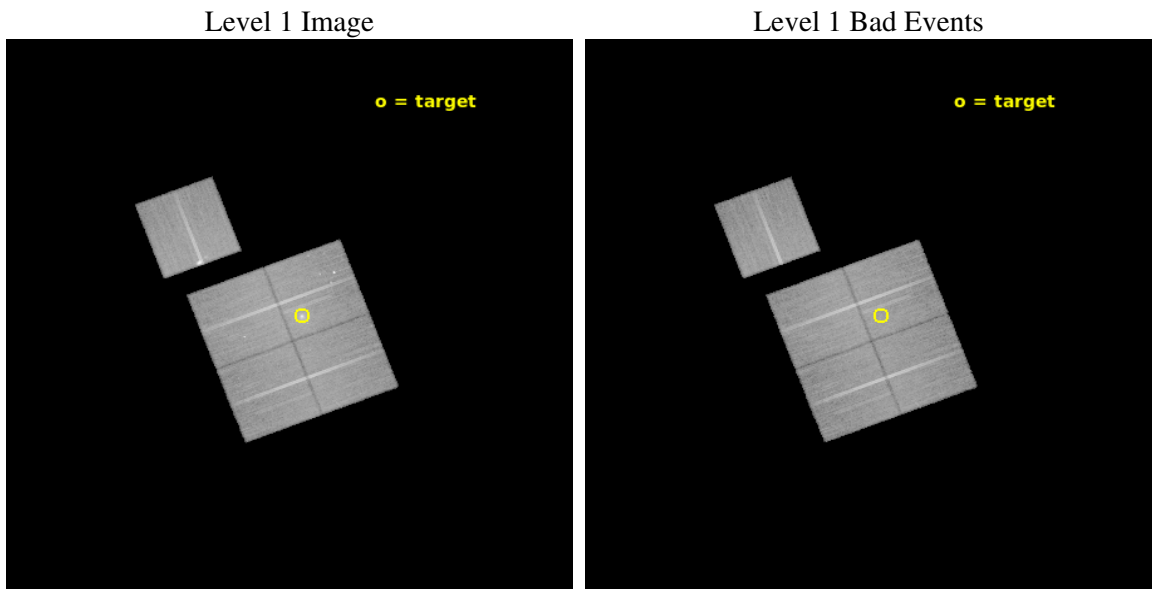
seq_num	800555	Sequence number
obs_id	6107	Observation id
title	Probing dark energy using the X-ray gas mass fraction in dynamically relaxed galaxy clusters	Proposal title
observer	Steve Allen	Principal investigator
object	MACS1720.3+3536	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	260.069583	Observer's specified target RA [deg]
dec_targ	35.607222	Observer's specified target Dec [deg]
ra_nom	260.09685475396	Nominal RA [deg]
dec_nom	35.593266652755	Nominal Dec [deg]
roll_nom	339.18774394061	Nominal Roll [deg]
revision	3	Processing version of data
ontime	34332.41800344	Sum of GTIs [s]
livetime	33883.839687067	Livetime [s]
ontime0	34329.277023137	Sum of GTIs [s]
ontime1	34332.417973489	Sum of GTIs [s]
ontime2	34338.699933946	Sum of GTIs [s]
ontime3	34332.41800344	Sum of GTIs [s]
ontime6	34338.699933946	Sum of GTIs [s]
l2events	123522	Number of level 2 events



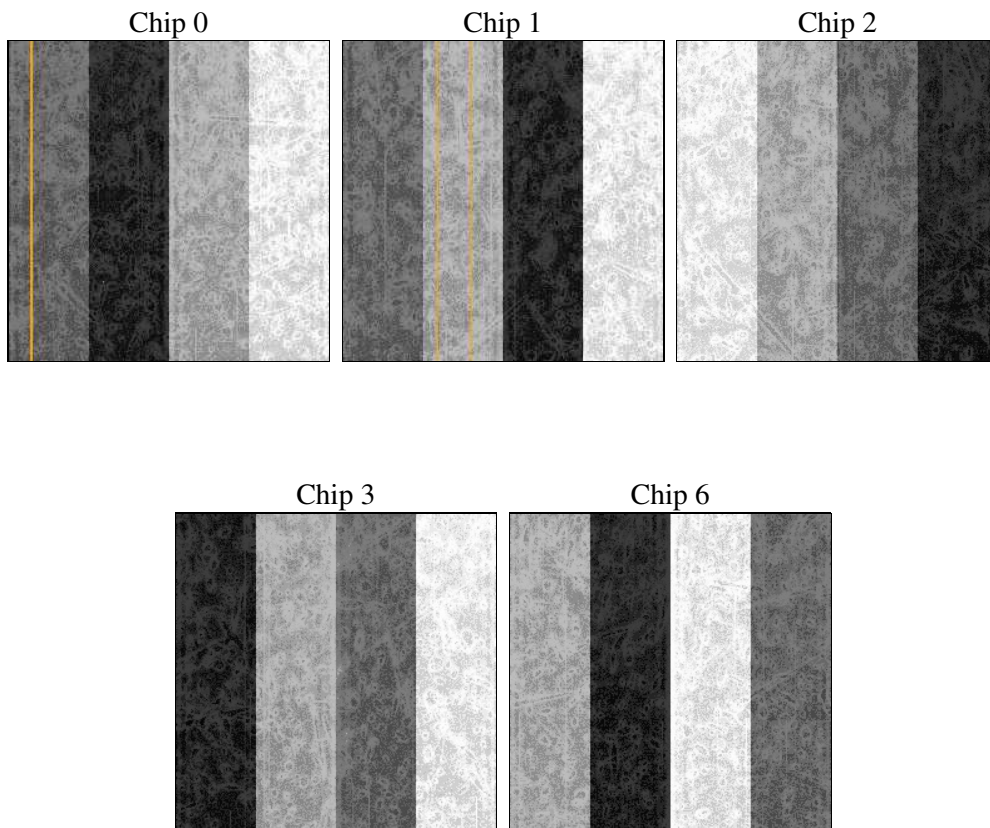
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	2	Obi number	sched_exp_time	34200.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	34332.41800344	Sum of GTIs [s]
caldbver	4.9.2	 	ontime0	34329.277023137	Sum of GTIs [s]
date	2020-10-11T16:29:10	Date and time of file creation	ontime1	34332.417973489	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	34338.699933946	Sum of GTIs [s]
			ontime3	34332.41800344	Sum of GTIs [s]
			ontime6	34338.699933946	Sum of GTIs [s]
			l1events	1191767	Number of level 1 events

2.1.4 Events

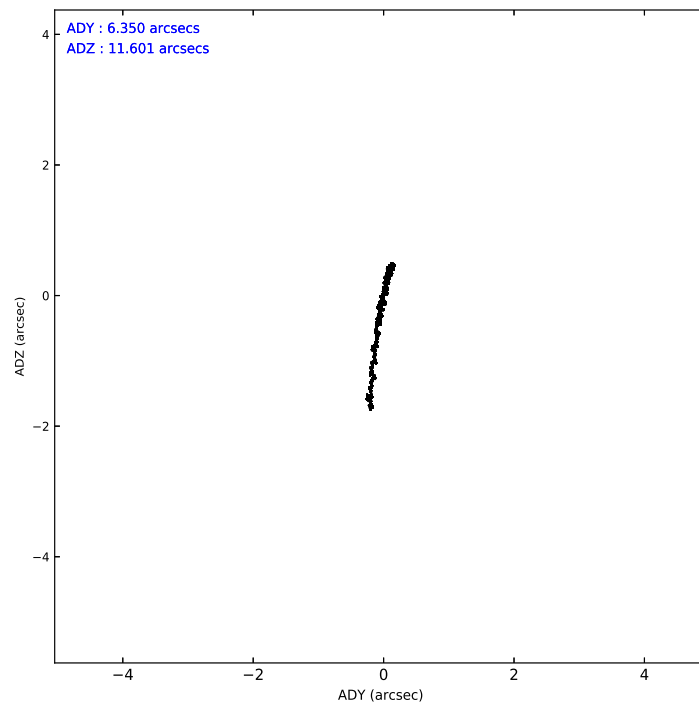
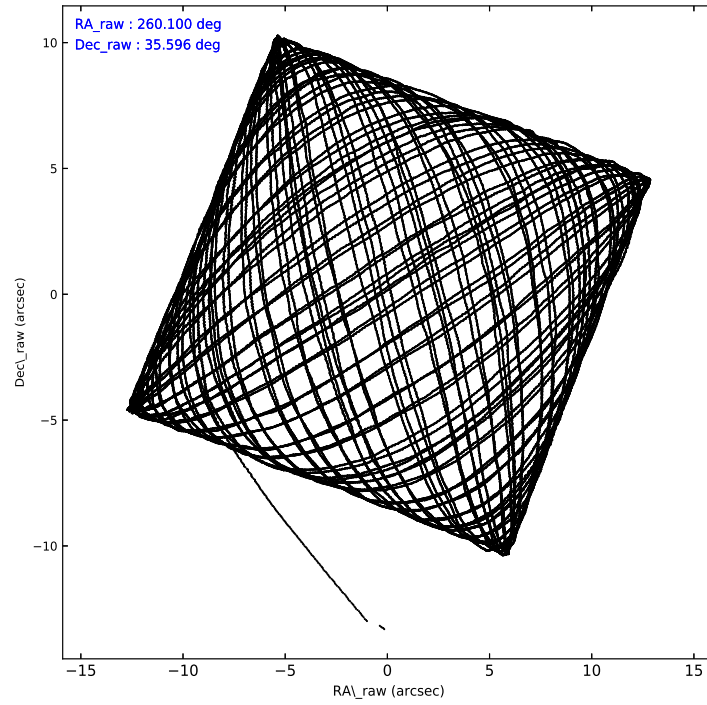
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	221260	223359	253876	254211	239061
rejected events	197675	195821	229679	216651	207293
rejected %	89%	87%	90%	85%	86%

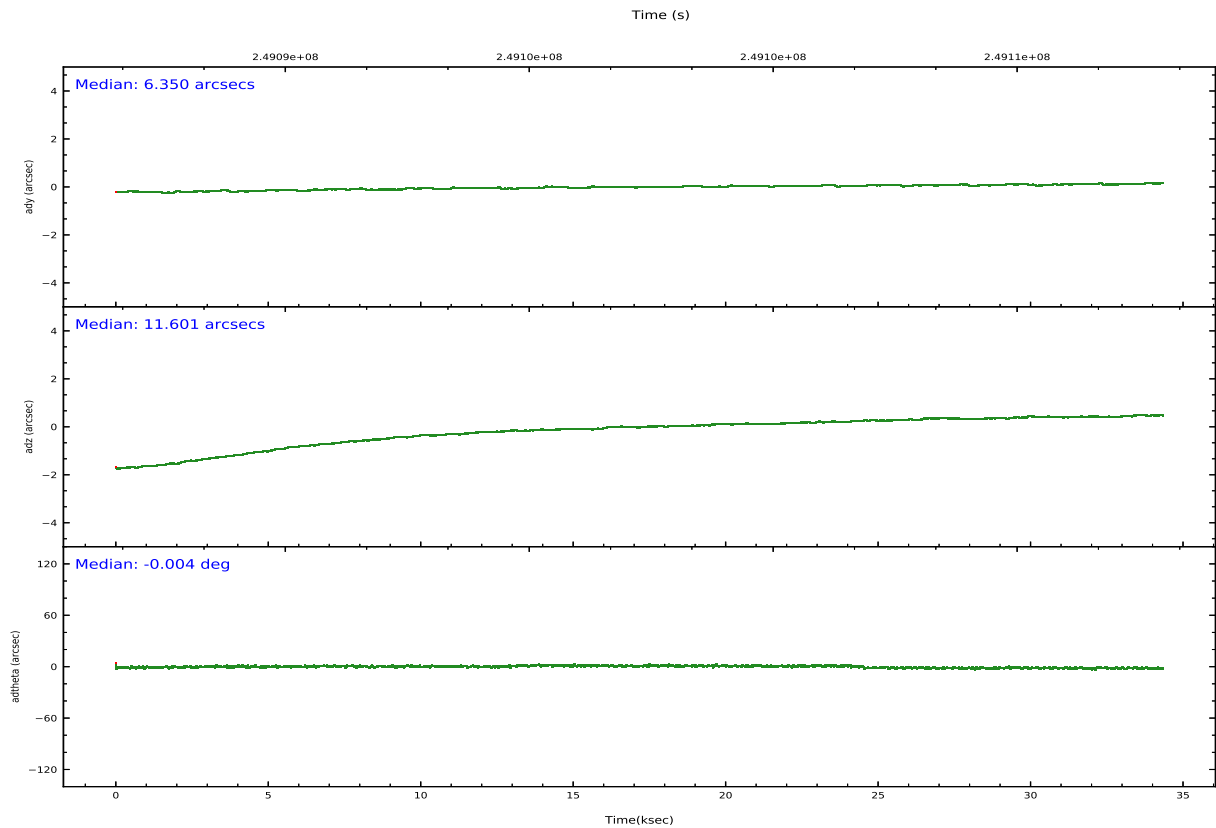
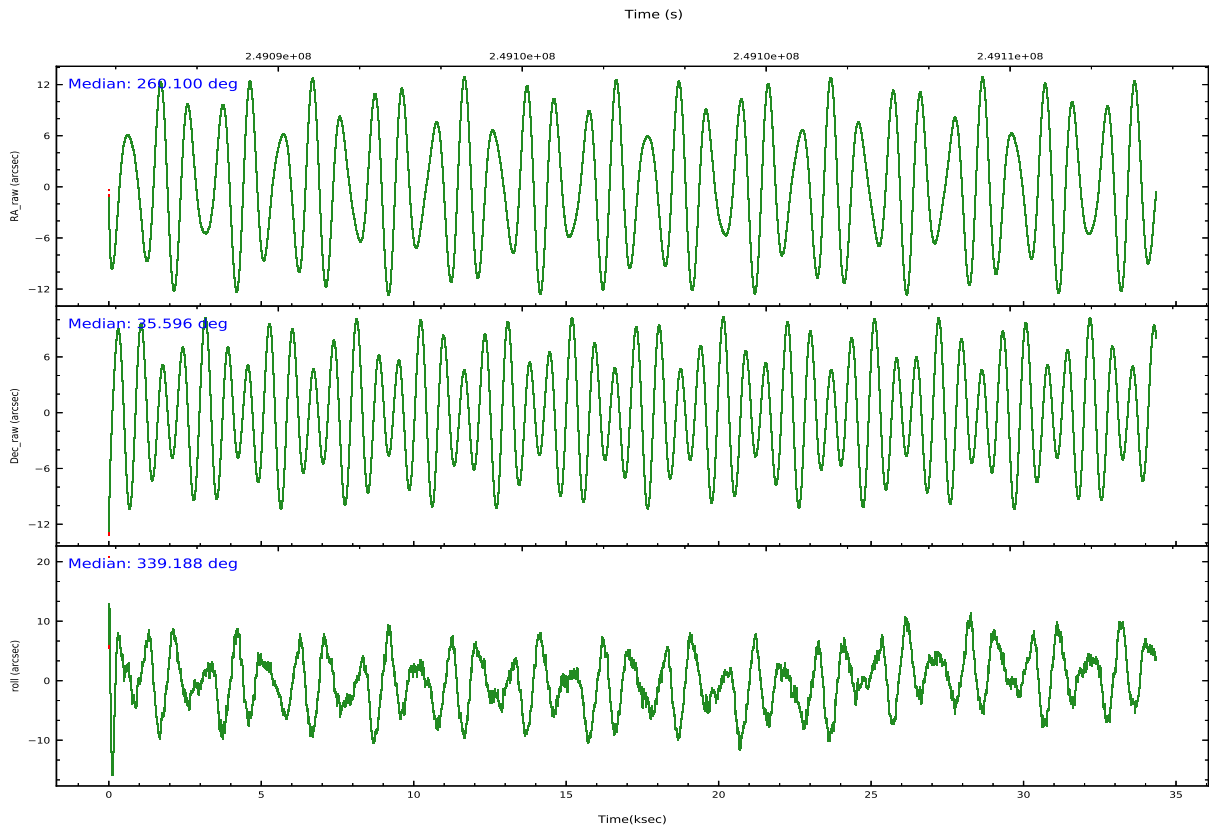
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	8904	10852	9453	21014	15217
	4%	4%	3%	8%	6%
grade 1 events	106	133	138	198	139
	0%	0%	0%	0%	0%
grade 2 events	5481	5987	5567	6254	5970
	2%	2%	2%	2%	2%
grade 3 events	2741	2931	2573	2932	2879
	1%	1%	1%	1%	1%
grade 4 events	2476	2935	2620	3024	2720
	1%	1%	1%	1%	1%
grade 5 events	7938	8991	7570	9523	9349
	3%	4%	2%	3%	3%
grade 6 events	4302	5236	4359	4752	5362
	1%	2%	1%	1%	2%
grade 7 events	189312	186294	221596	206514	197425
	85%	83%	87%	81%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	260.067269	260.09685475396	Subarray requested	NONE	NONE
[deg] Pointing Dec	35.591168	35.593266652755	Alternating exposures requested	N	N
[deg] Pointing Roll	339.001347	339.18774394061	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-229.442463	-229.4438428438578			
[mm] SIM translation stage offset	-4.15	-4.148610159071865			
[s] Observation start time (MET)	249082588.184000	249081384.30963			
Observation start date	2005-11-22T21:35:24	2005-11-22T21:16:24			
[s] Observation end time (MET)	249116788.184000	249117771.81131			
Observation end date	2005-11-23T07:05:24	2005-11-23T07:22:51			
Read mode	TIMED	TIMED			

2.3 Aspect





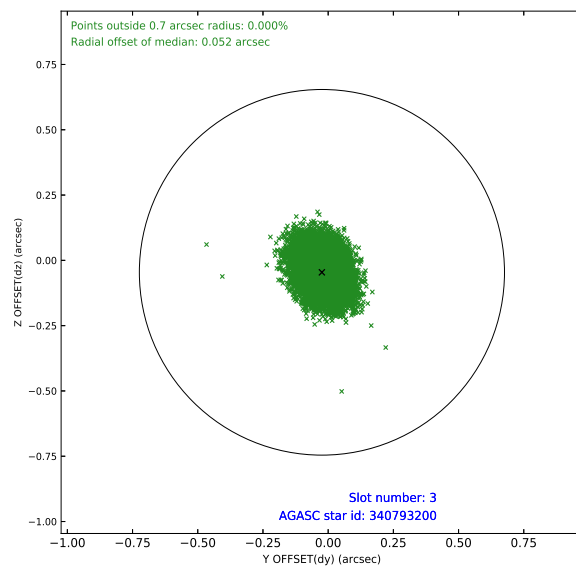
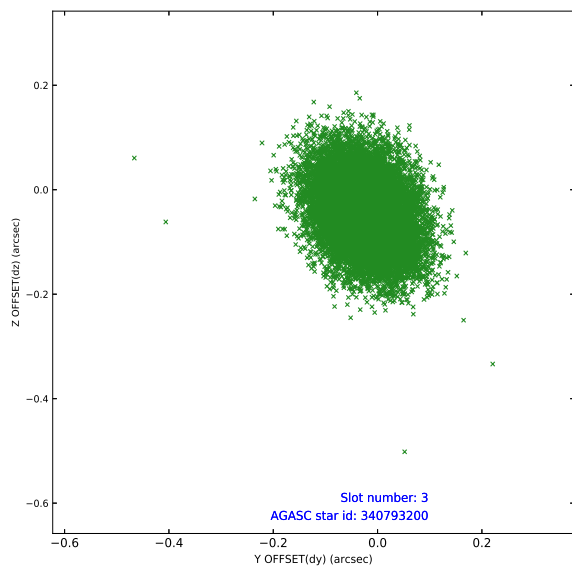
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-2	7.16	8375	1.000	-0.109	-0.146	0.034	0.050	0.000000	0.000000	-761.18	-926
1	FID		ACIS-I-4	7.15	8378	1.000	0.167	0.099	0.011	0.018	0.000000	0.000000	2153.06	980
2	FID		ACIS-I-5	7.22	8378	1.000	-0.161	0.115	0.028	0.045	0.000000	0.000000	-1814.84	977
3	GUIDE	used	340793200	9.38	16741	1.000	-0.024	-0.046	0.083	0.136	260.300981	35.203623	1141.93	-1055
4	GUIDE	used	340795168	7.93	16753	1.000	-0.033	0.045	0.059	0.095	260.116328	35.370994	419.07	-688
5	GUIDE	used	341325128	8.48	16747	1.000	0.024	-0.041	0.066	0.109	260.031346	35.684277	-217.69	275
6	GUIDE	used	341321368	9.25	16743	1.000	0.044	-0.035	0.092	0.151	260.000972	35.687029	-304.15	252
7	GUIDE	used	341325224	8.86	16716	1.000	-0.016	0.077	0.077	0.123	260.448683	35.800602	769.19	1105

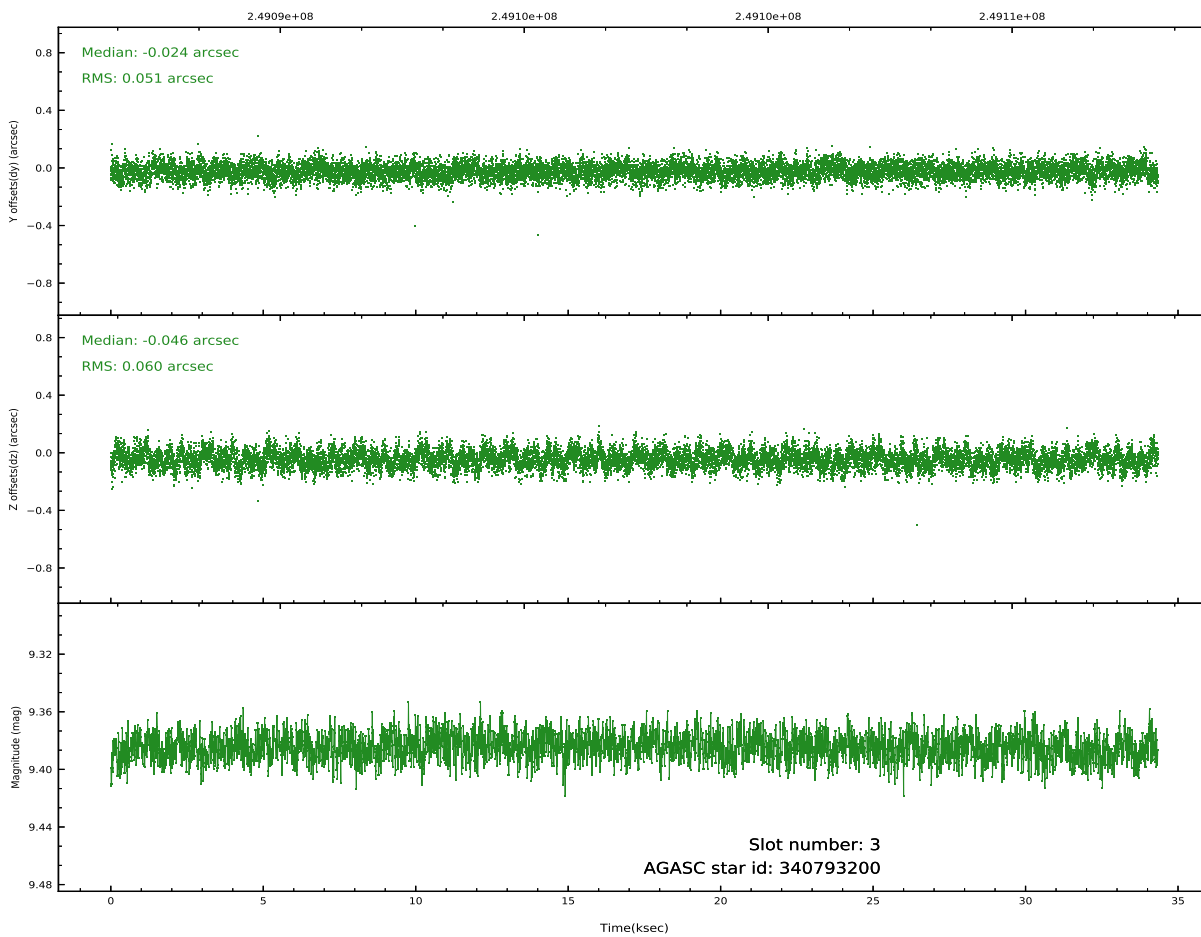
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2.4 Star Slots

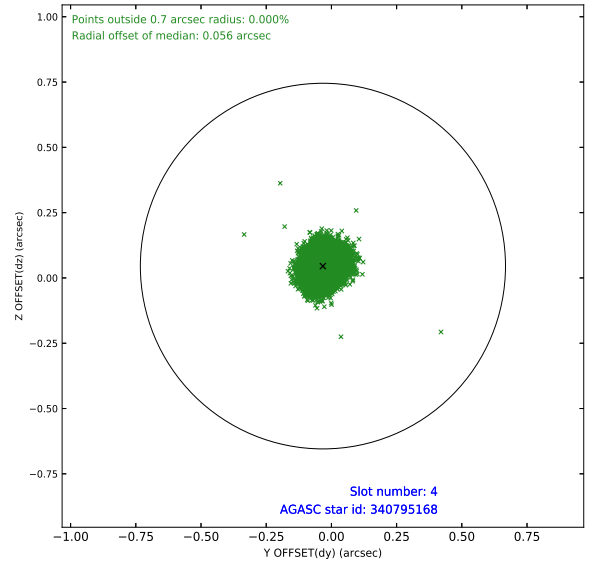
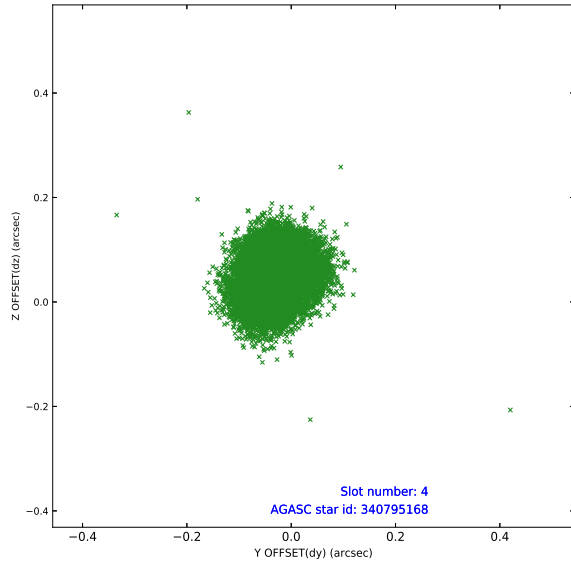
2.4.1 Slot 3



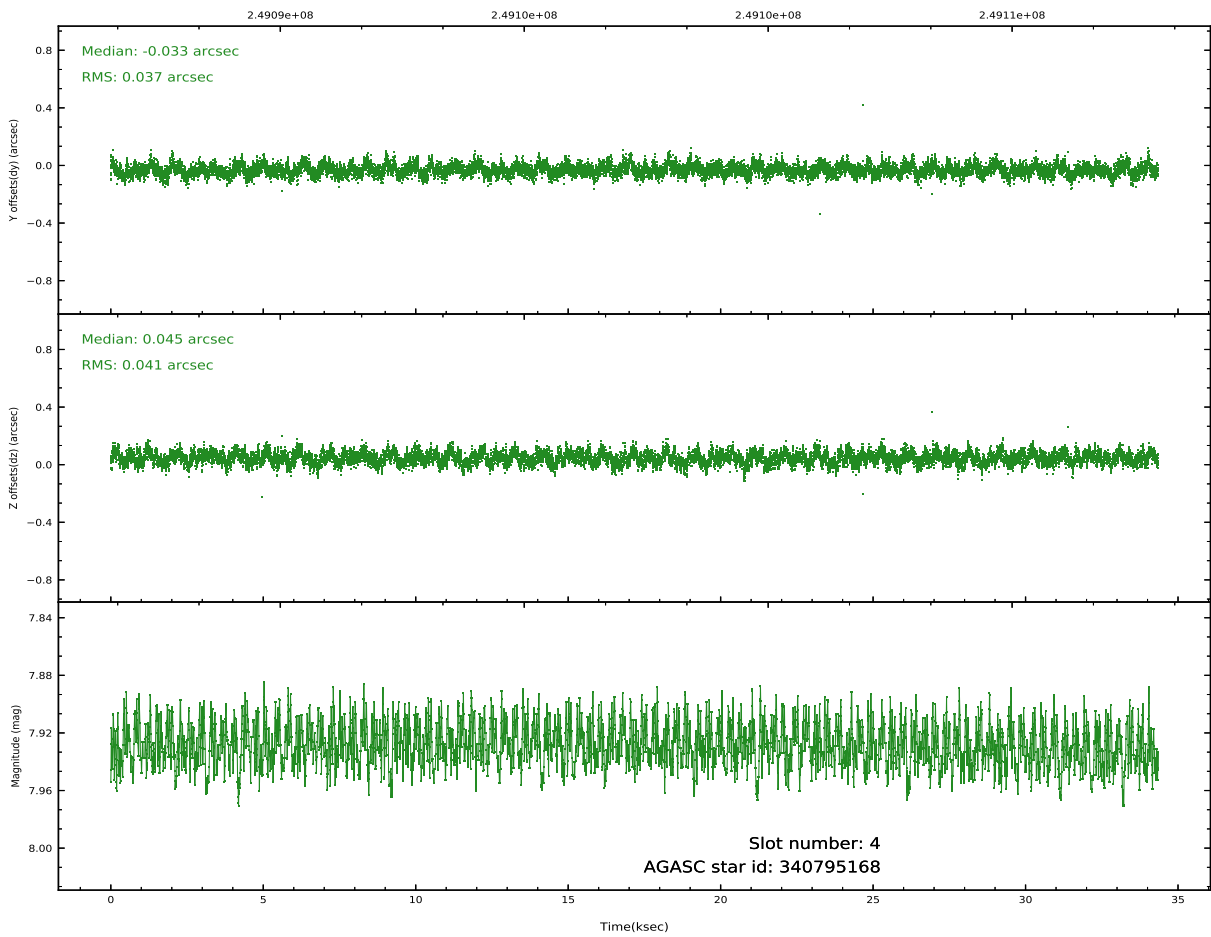
Time (s)



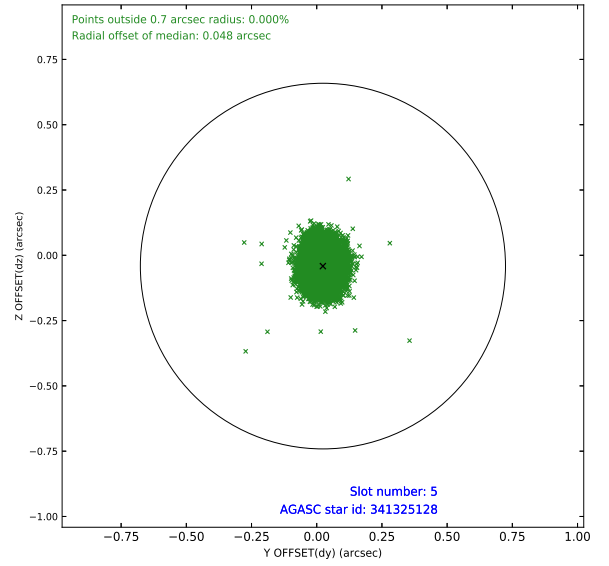
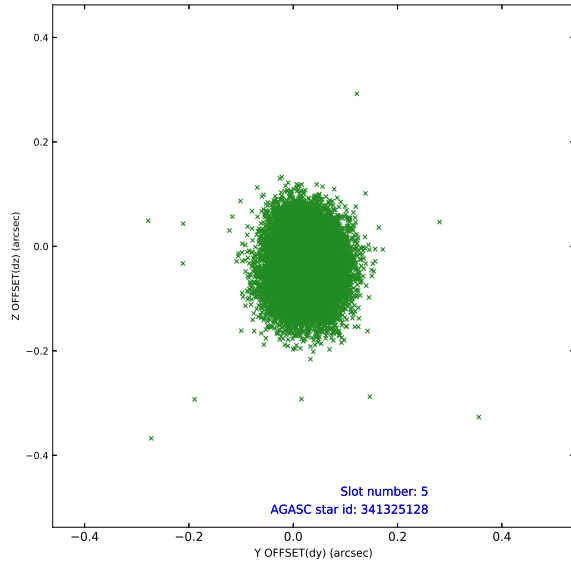
2.4.2 Slot 4



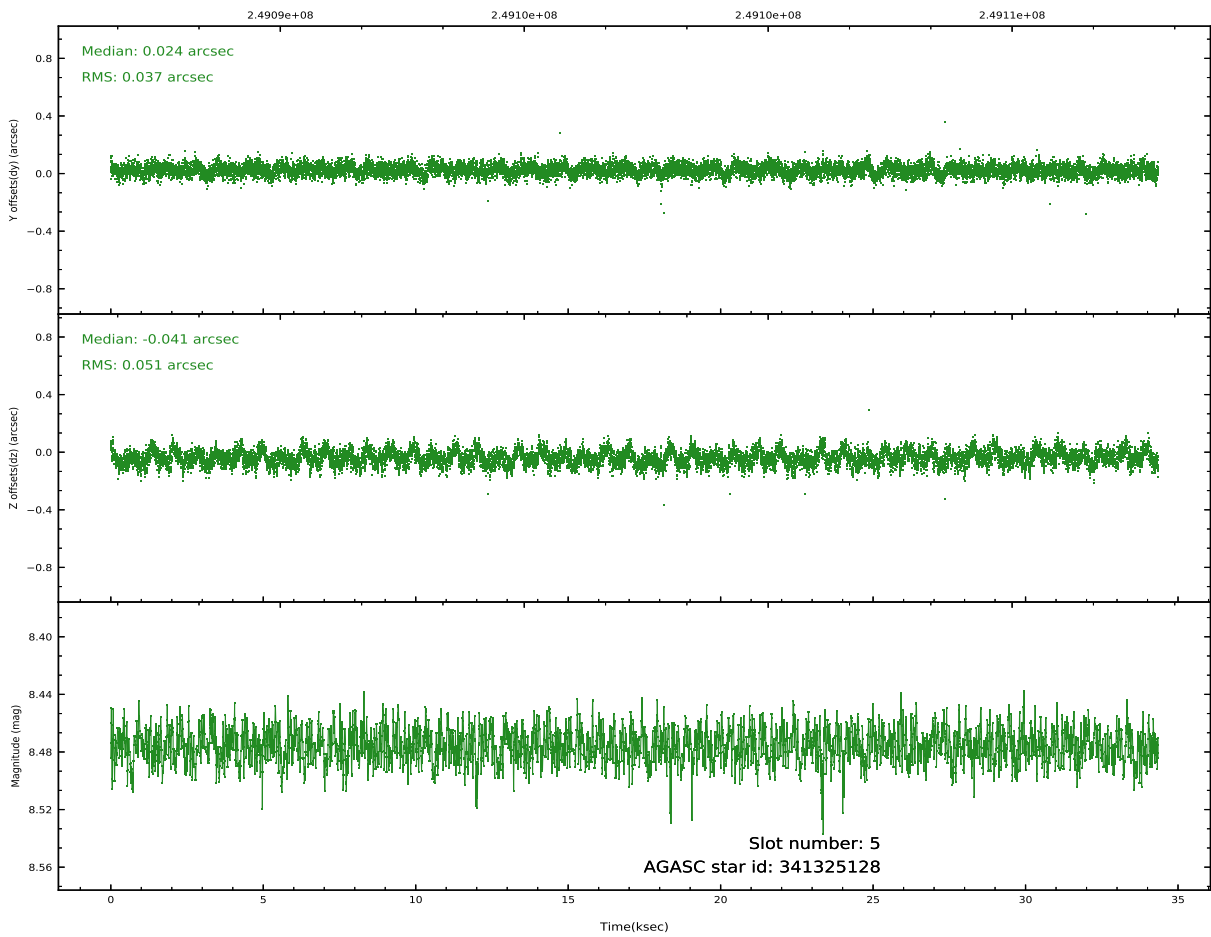
Time (s)



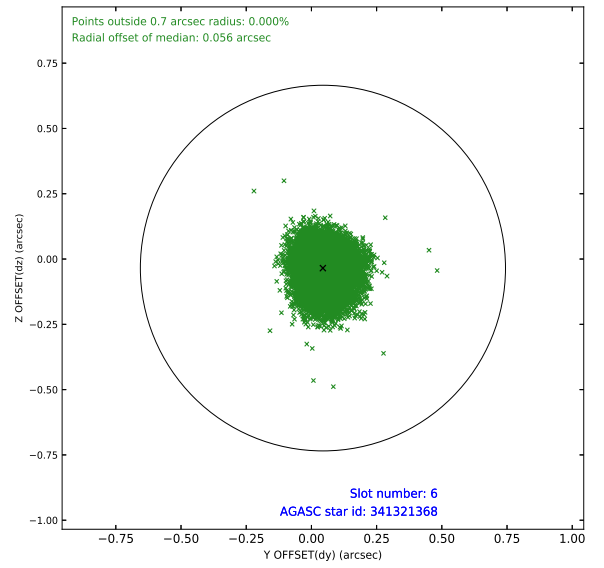
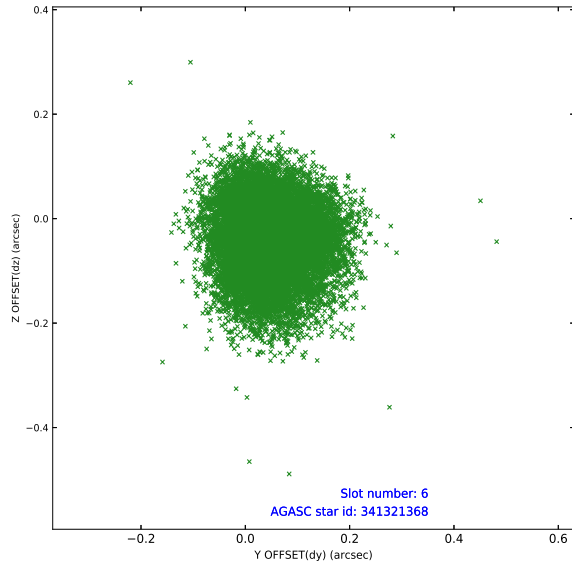
2.4.3 Slot 5



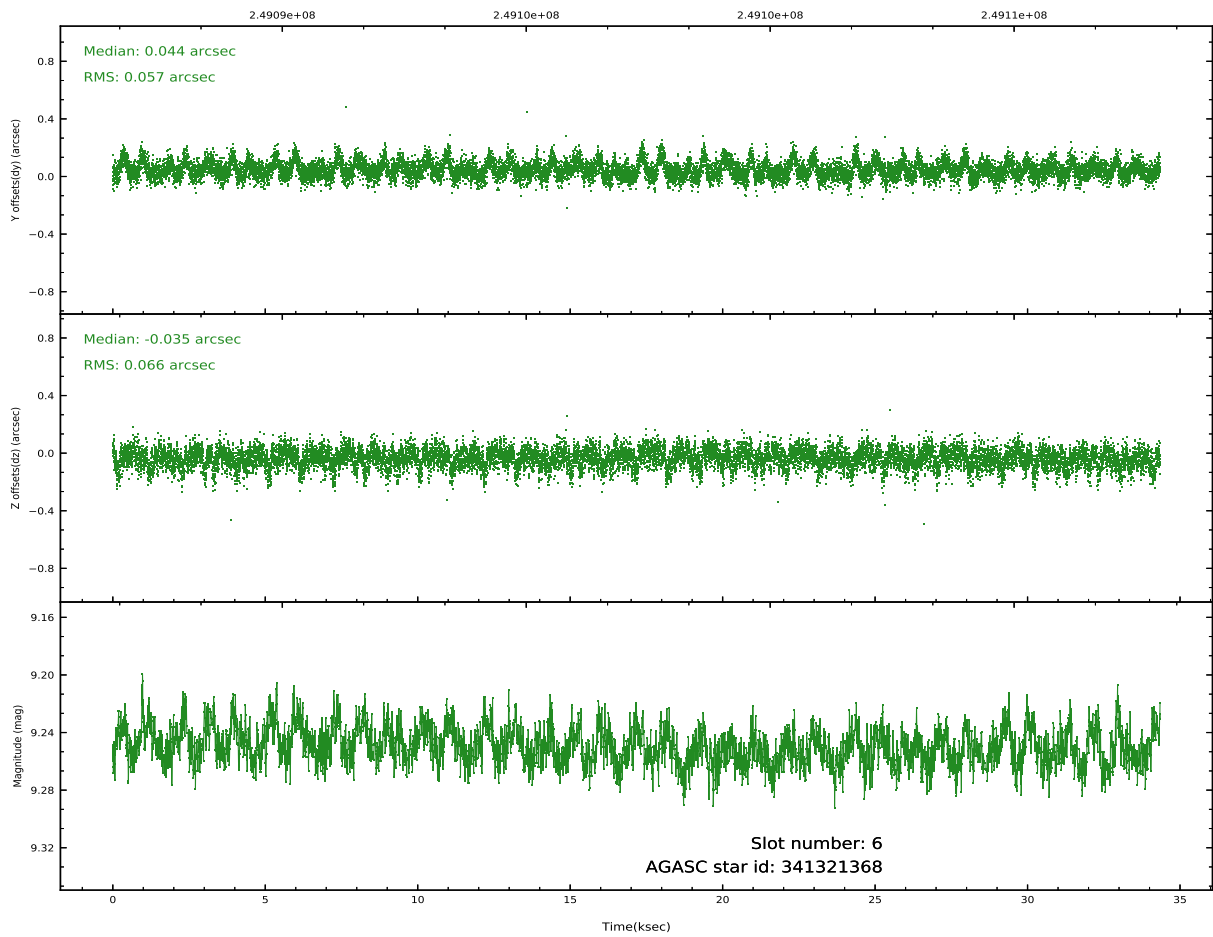
Time (s)



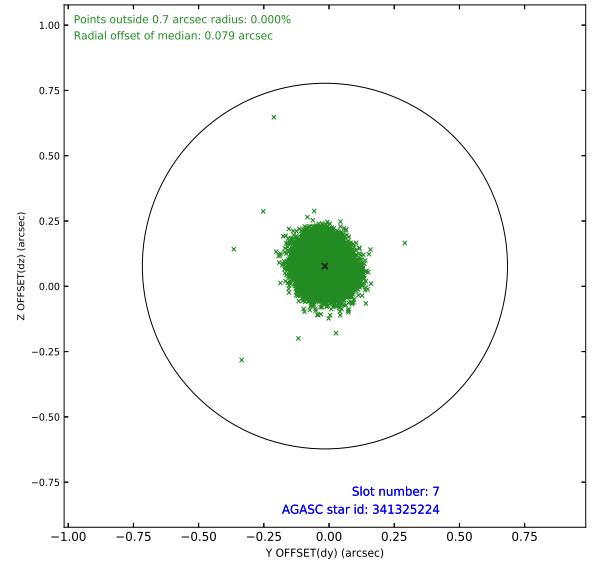
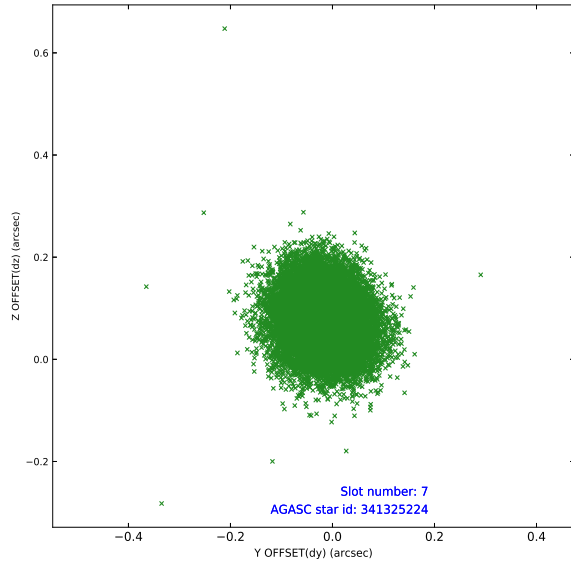
2.4.4 Slot 6



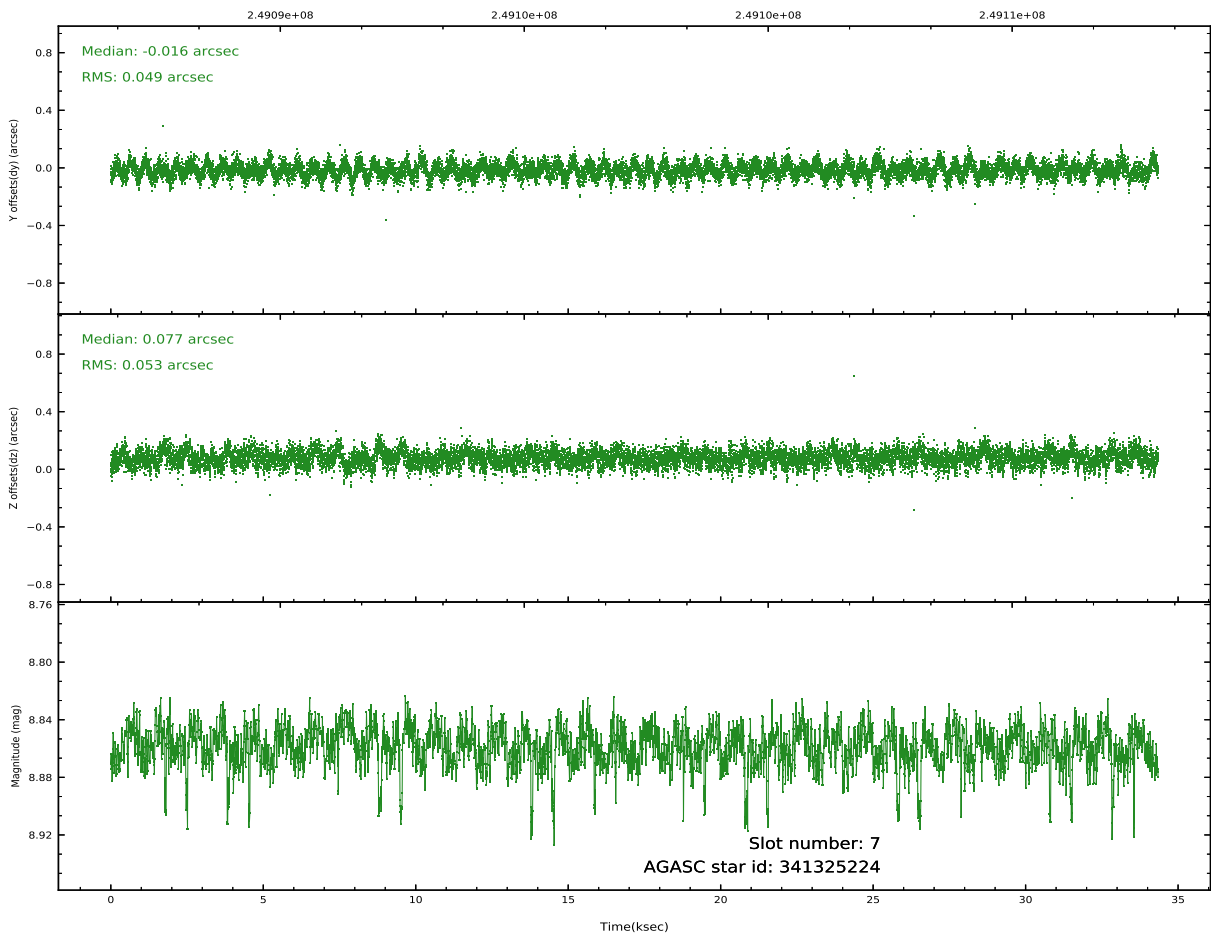
Time (s)



2.4.5 Slot 7

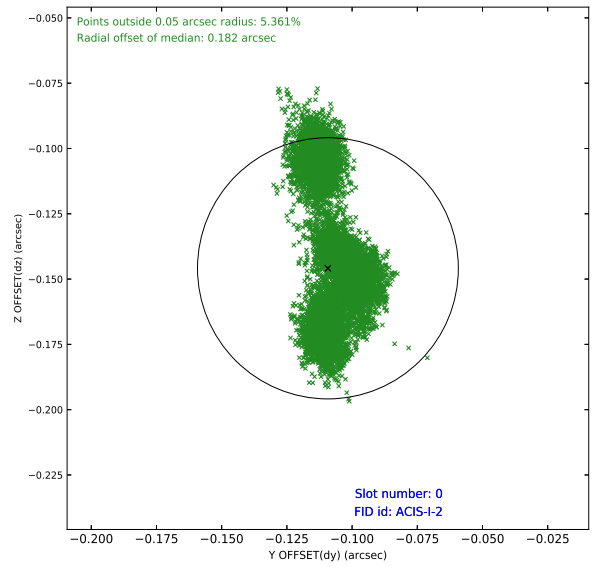
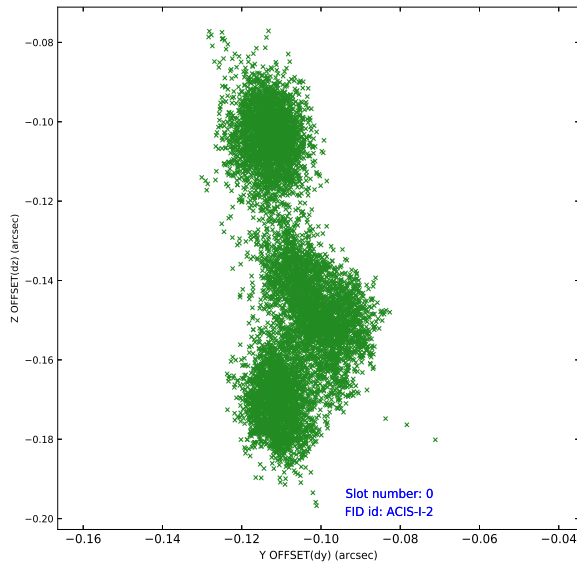


Time (s)

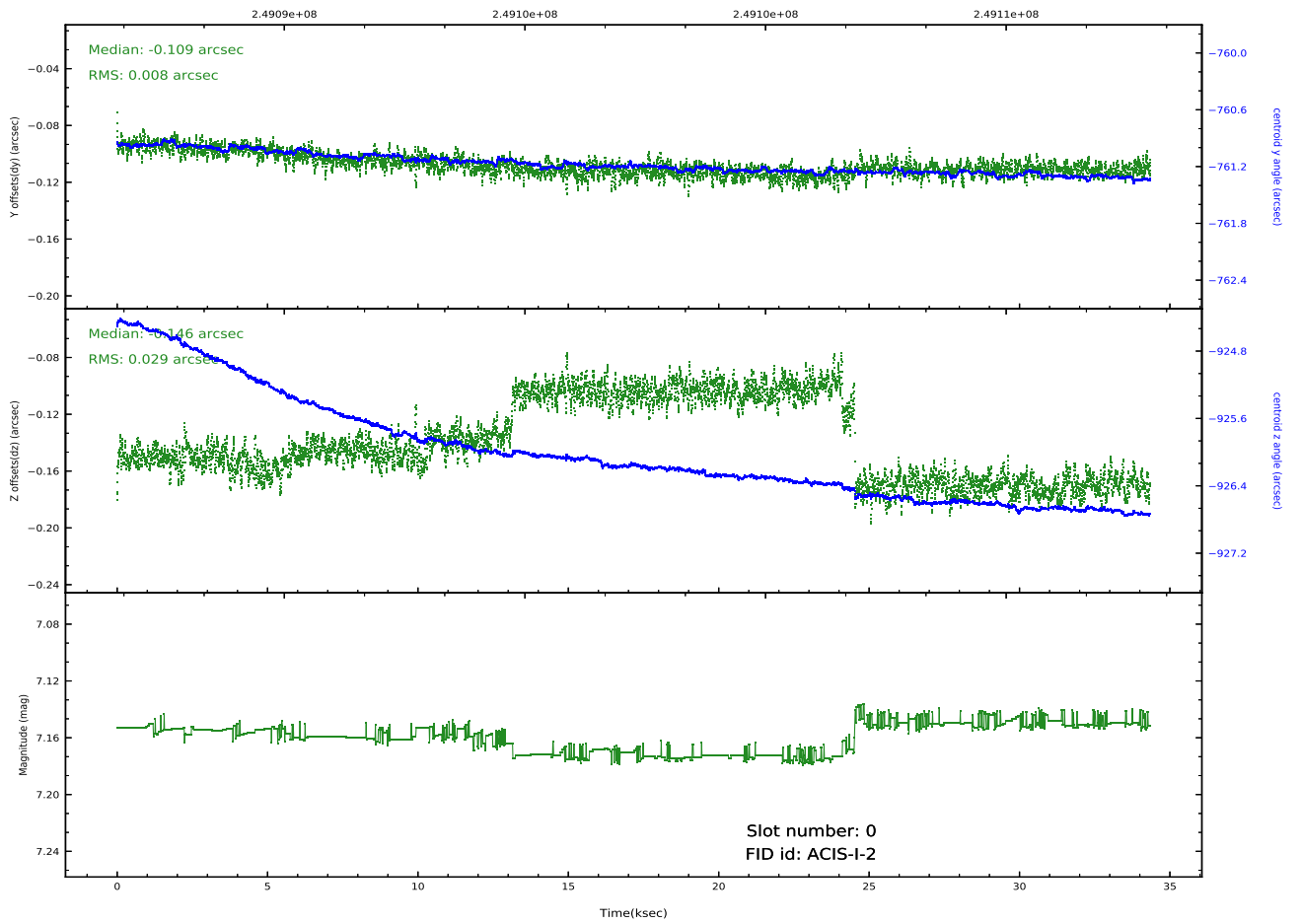


2.5 FID Slots

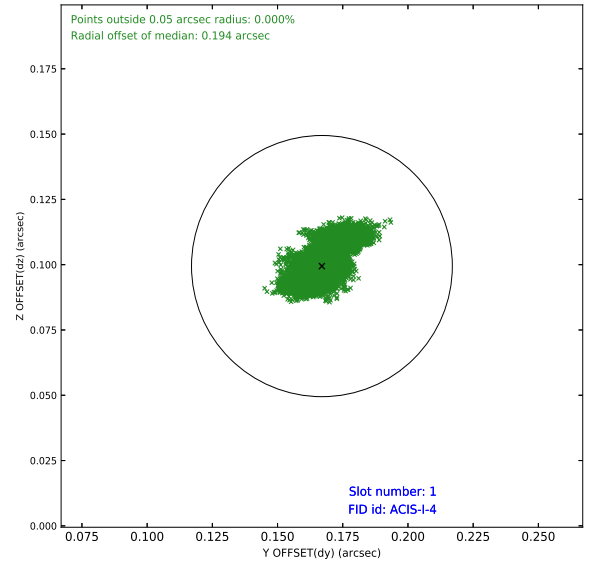
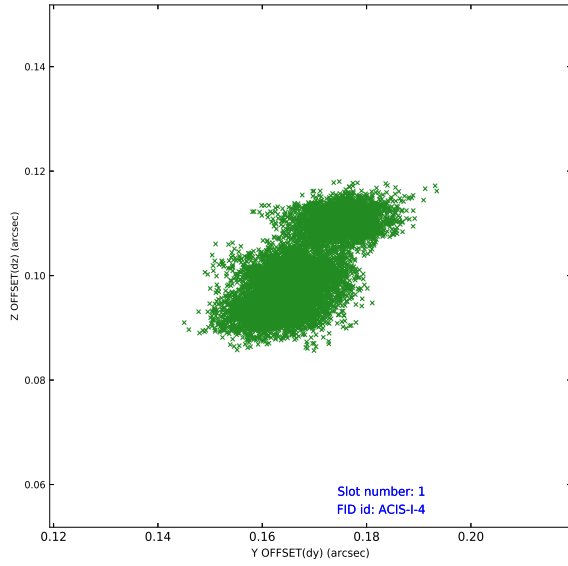
2.5.1 Slot 0



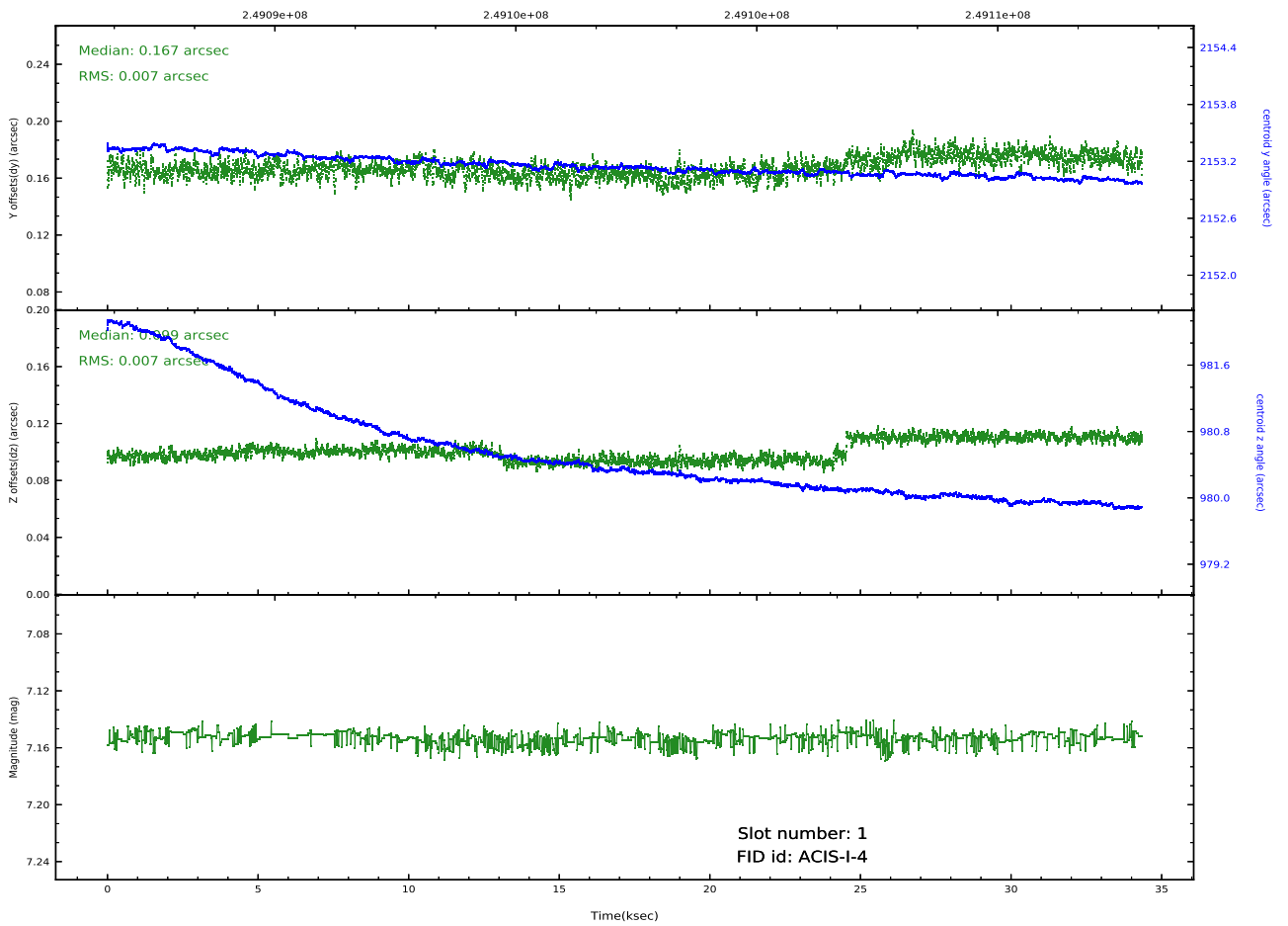
Time (s)



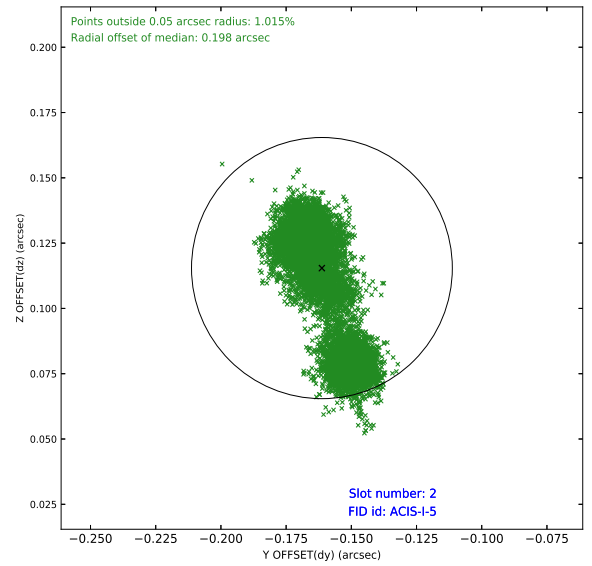
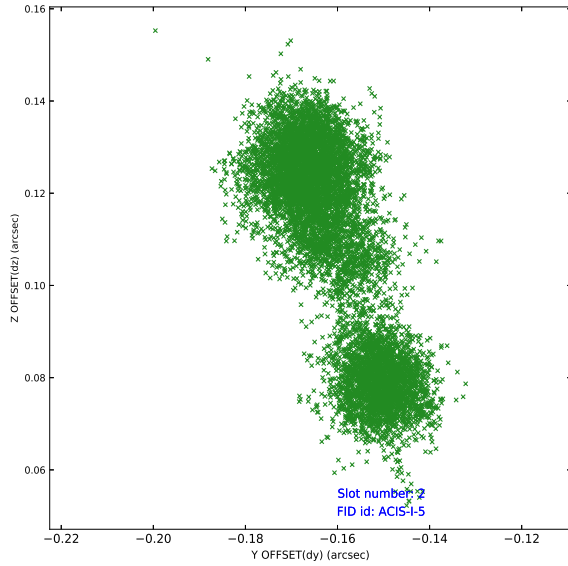
2.5.2 Slot 1



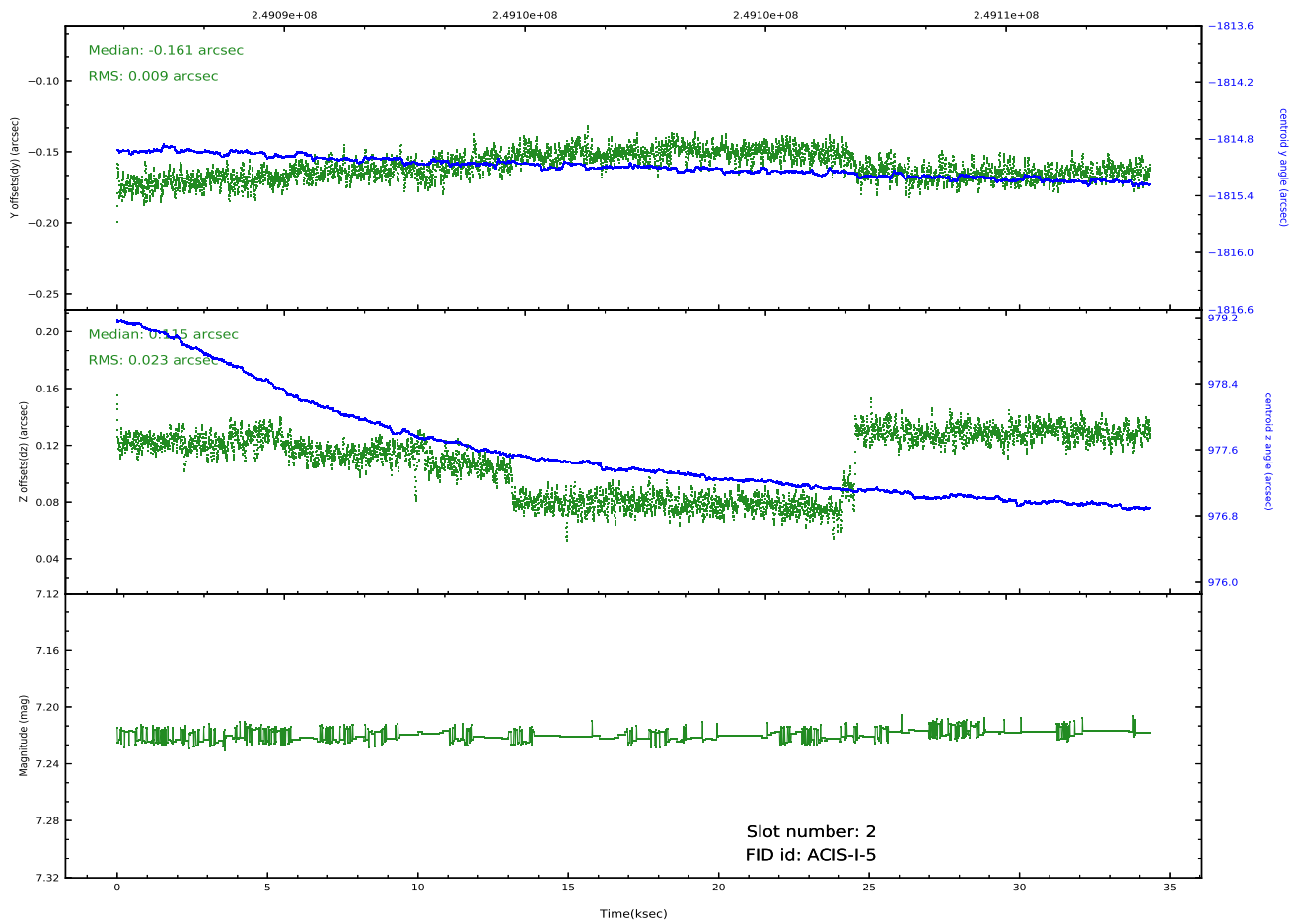
Time (s)



2.5.3 Slot 2



Time (s)



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	34.33241

A.2 Comments