

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 6172 - L2 Version 4
Chandra X-Ray Center

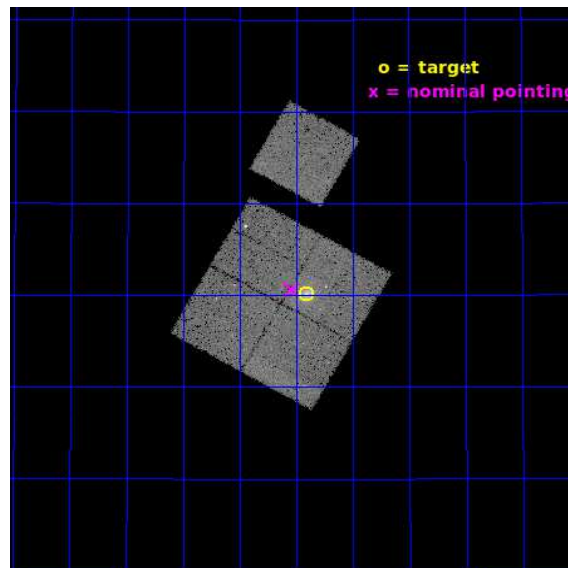
L2 Processing Date : Oct 5 2020

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1 Front

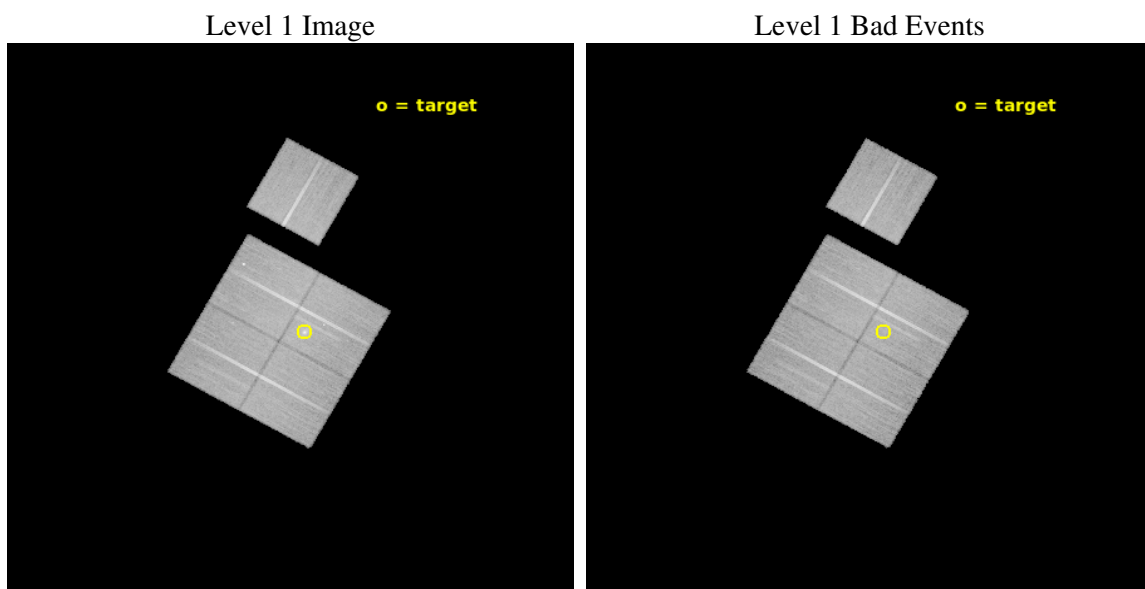
seq_num	800557	Sequence number
obs_id	6172	Observation id
title	Probing dark energy using the X-ray gas mass fraction in dynamically relaxed galaxy clusters	Proposal title
observer	Steve Allen	Principal investigator
object	MACS1621.6+3810	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	245.353333	Observer's specified target RA [deg]
dec_targ	38.168889	Observer's specified target Dec [deg]
ra_nom	245.38489992636	Nominal RA [deg]
dec_nom	38.176936904494	Nominal Dec [deg]
roll_nom	29.409606961497	Nominal Roll [deg]
revision	4	Processing version of data
ontime	30144.277041256	Sum of GTIs [s]
livetime	29750.419869819	Livetime [s]
ontime0	30153.699941993	Sum of GTIs [s]
ontime1	30144.277031243	Sum of GTIs [s]
ontime2	30141.136011153	Sum of GTIs [s]
ontime3	30144.277041256	Sum of GTIs [s]
ontime6	30144.277001381	Sum of GTIs [s]
l2events	87378	Number of level 2 events



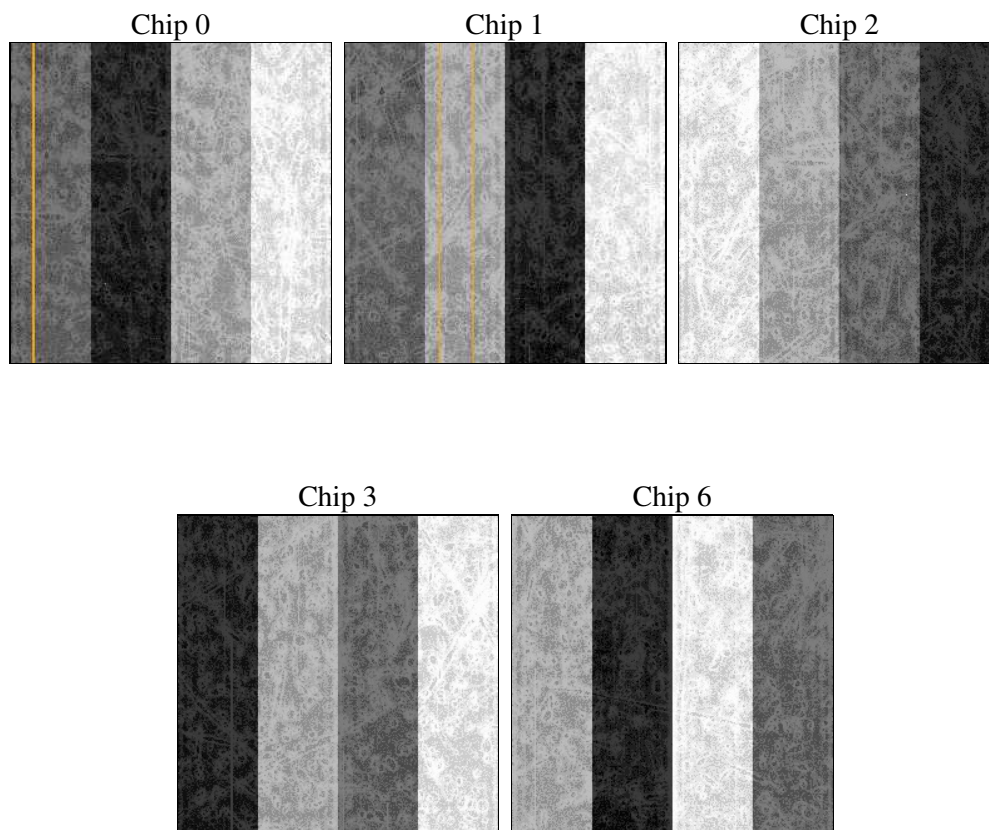
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	30144.277041256	Sum of GTIs [s]
caldsver	4.9.2	 	ontime0	30153.699941993	Sum of GTIs [s]
date	2020-10-05T19:10:28	Date and time of file creation	ontime1	30144.277031243	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	30141.136011153	Sum of GTIs [s]
			ontime3	30144.277041256	Sum of GTIs [s]
			ontime6	30144.277001381	Sum of GTIs [s]
			l1events	984104	Number of level 1 events

2.1.4 Events

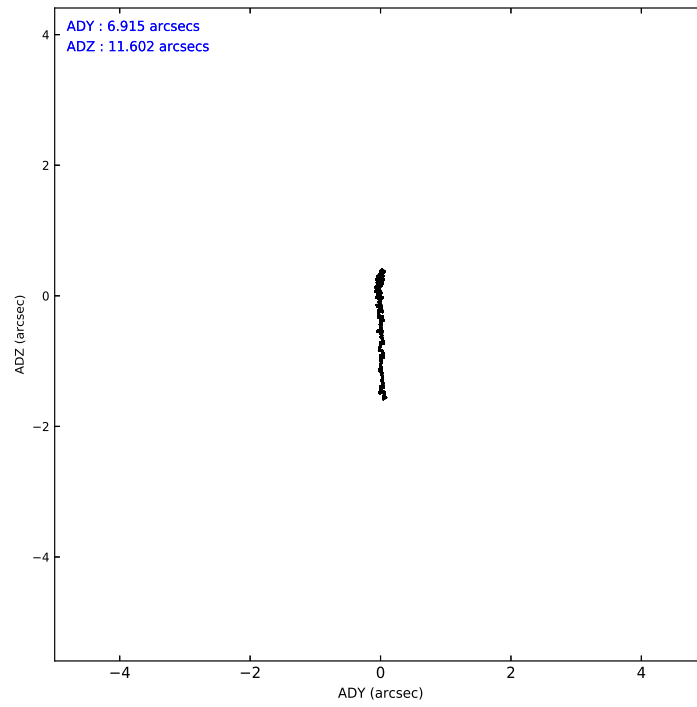
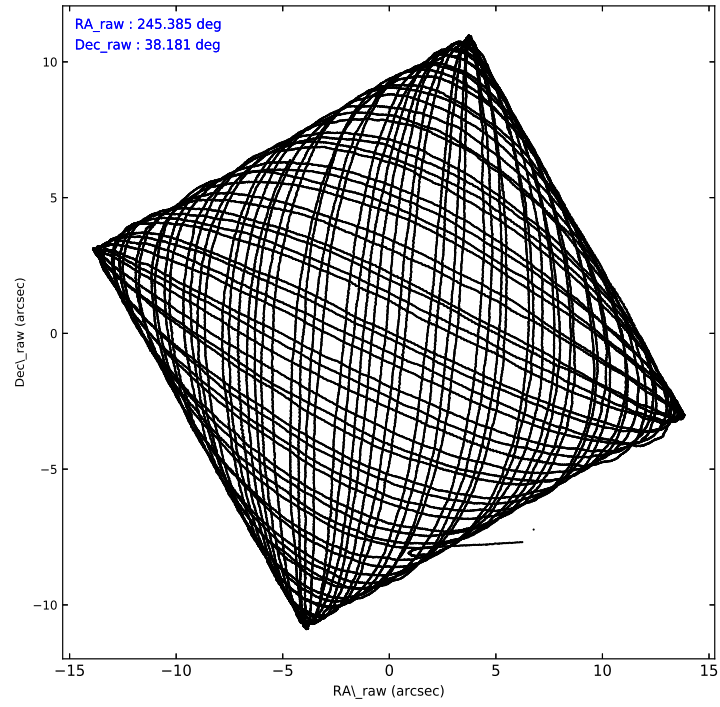
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	182130	189388	211222	205144	196220
rejected events	162579	167726	191394	180823	176802
rejected %	89%	88%	90%	88%	90%

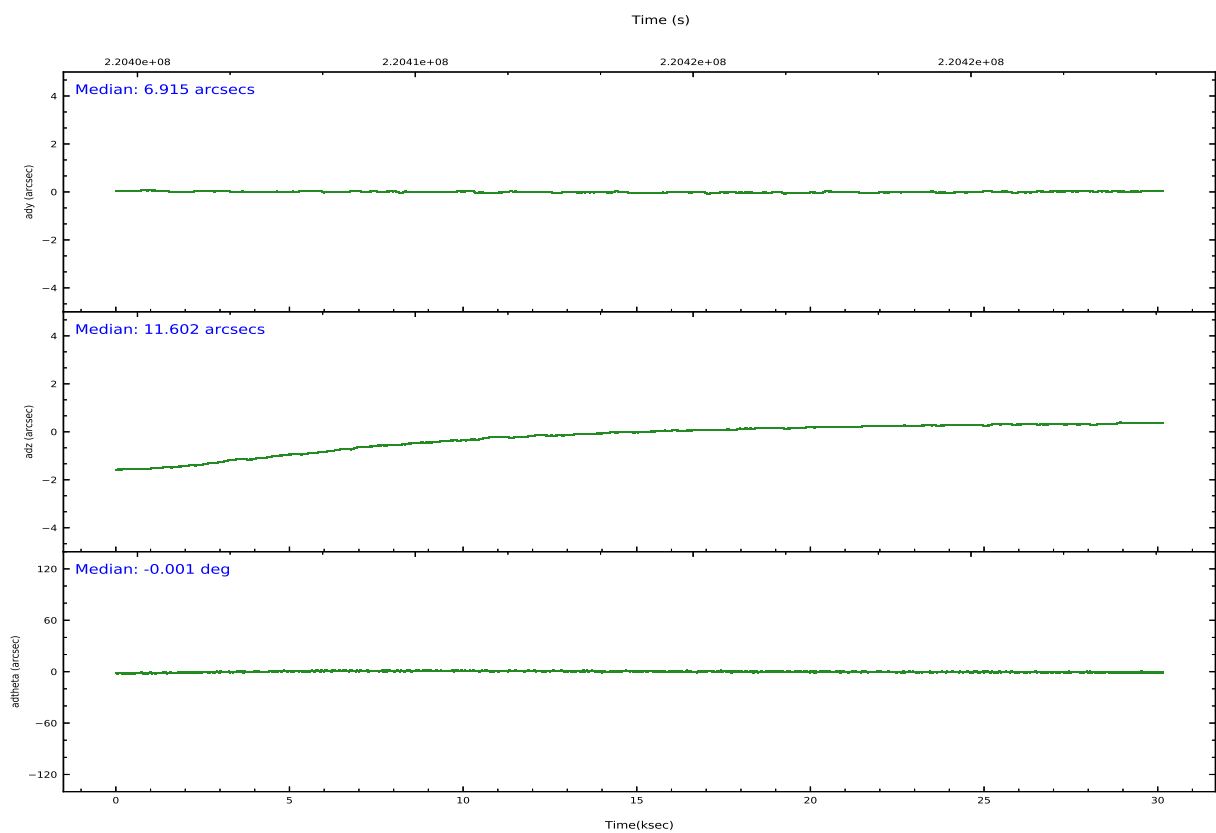
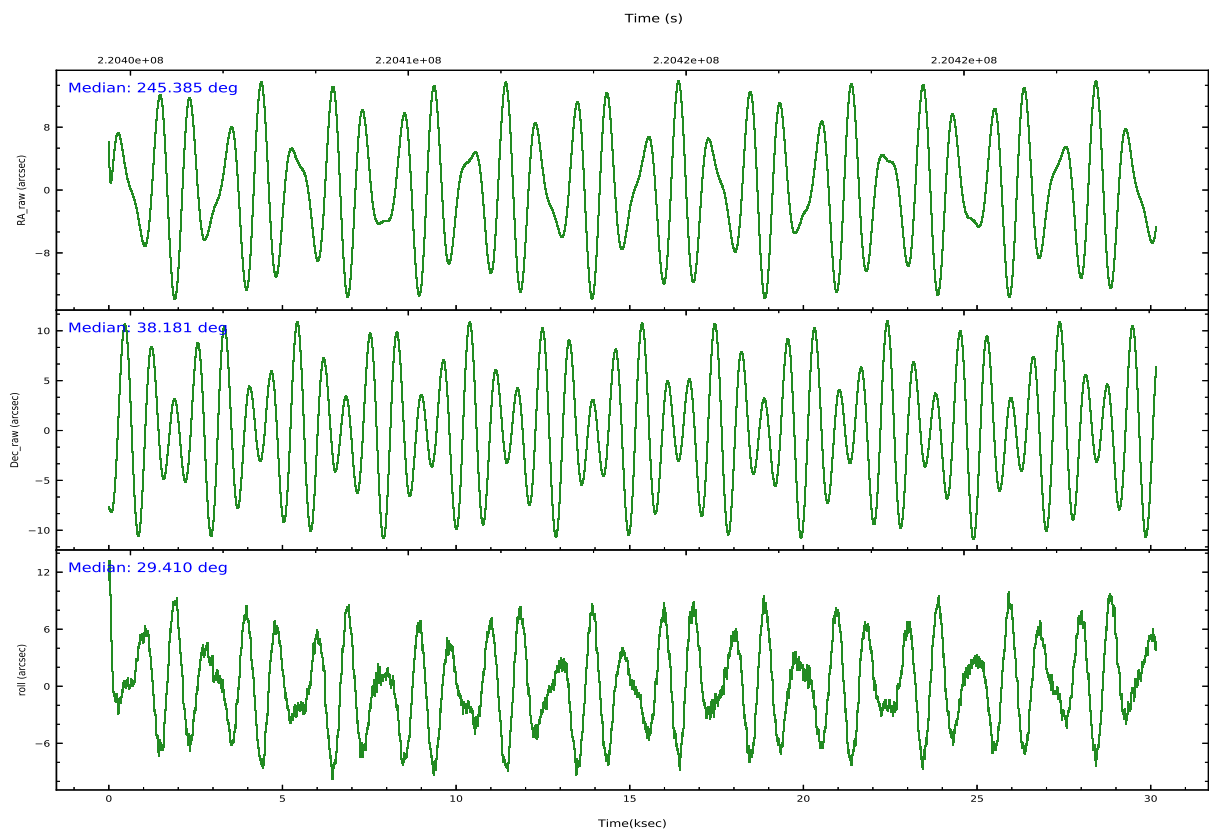
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	6916	7909	7582	11592	6675
	3%	4%	3%	5%	3%
grade 1 events	89	87	106	140	89
	0%	0%	0%	0%	0%
grade 2 events	4634	4713	4613	4435	4259
	2%	2%	2%	2%	2%
grade 3 events	2342	2520	2211	2458	2193
	1%	1%	1%	1%	1%
grade 4 events	2125	2430	2138	2300	2327
	1%	1%	1%	1%	1%
grade 5 events	7038	7274	6561	7877	7668
	3%	3%	3%	3%	3%
grade 6 events	3759	4349	3479	3764	4157
	2%	2%	1%	1%	2%
grade 7 events	155227	160106	184532	172578	168852
	85%	84%	87%	84%	86%

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	245.367504	245.38489992636	Subarray requested	NONE	NONE
[deg] Pointing Dec	38.157168	38.176936904494	Alternating exposures requested	N	N
[deg] Pointing Roll	29.214630	29.409606961497	[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)	220399532.184000	220398390.82578			
Observation start date	2004-12-25T22:04:28	2004-12-25T21:46:30			
[s] Observation end time (MET)	220429532.184000	220430576.85223			
Observation end date	2004-12-26T06:24:28	2004-12-26T06:42:56			
Read mode	TIMED	TIMED			

2.3 Aspect



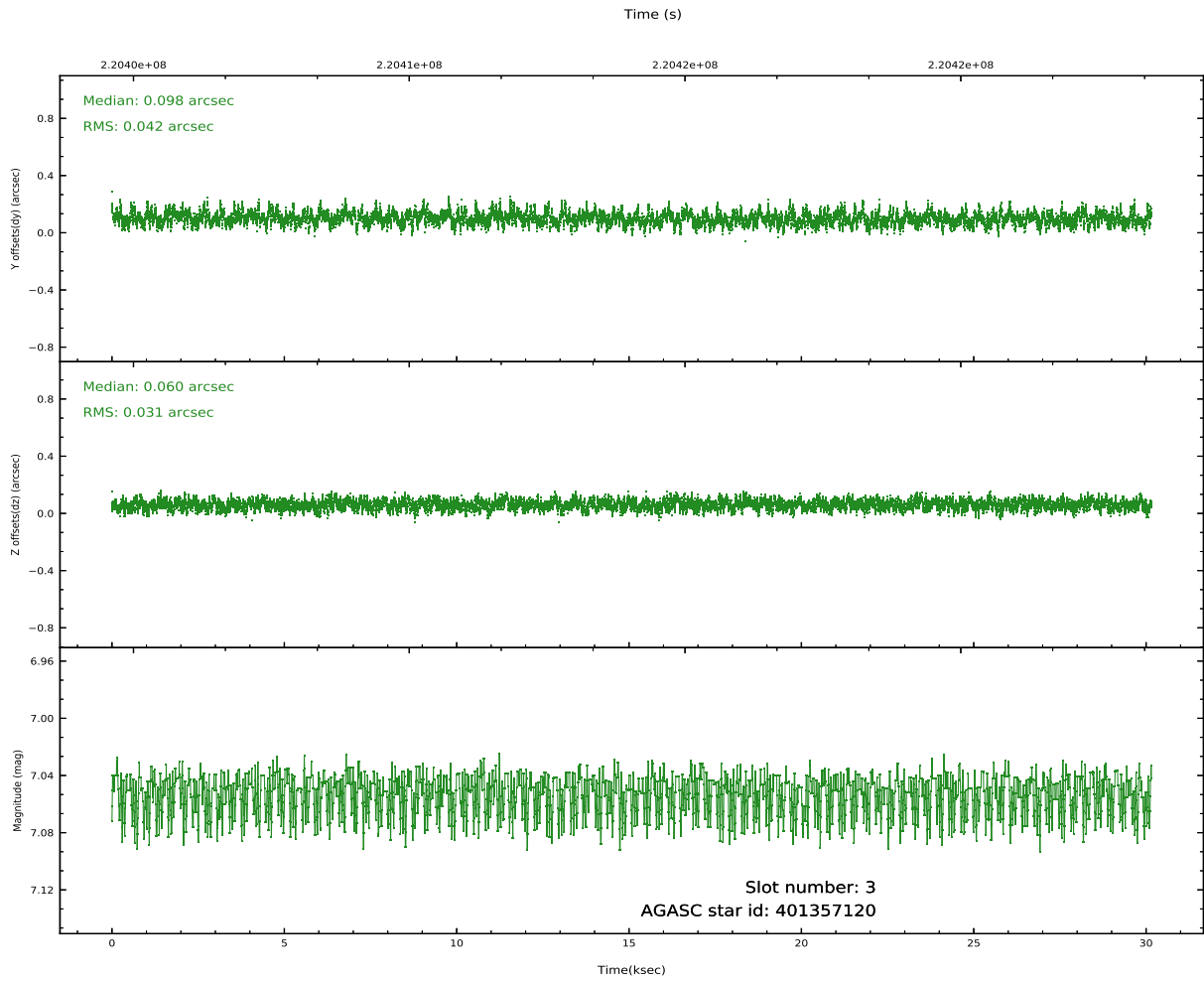
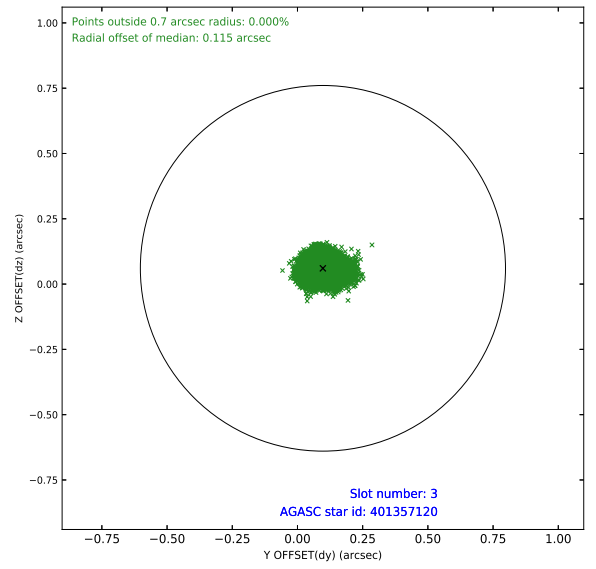
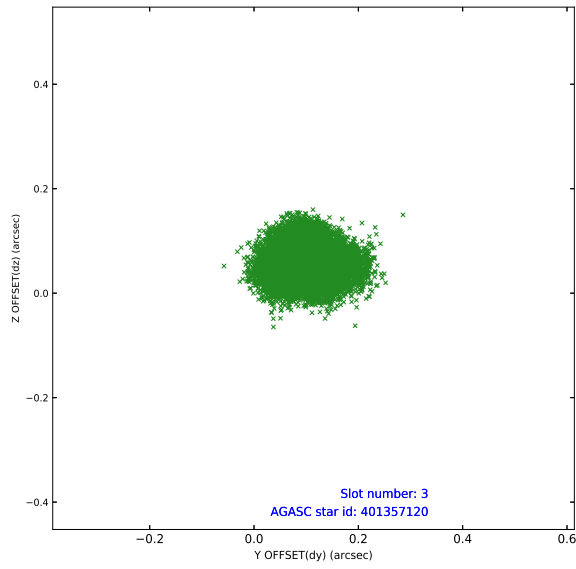


Slot Statistics

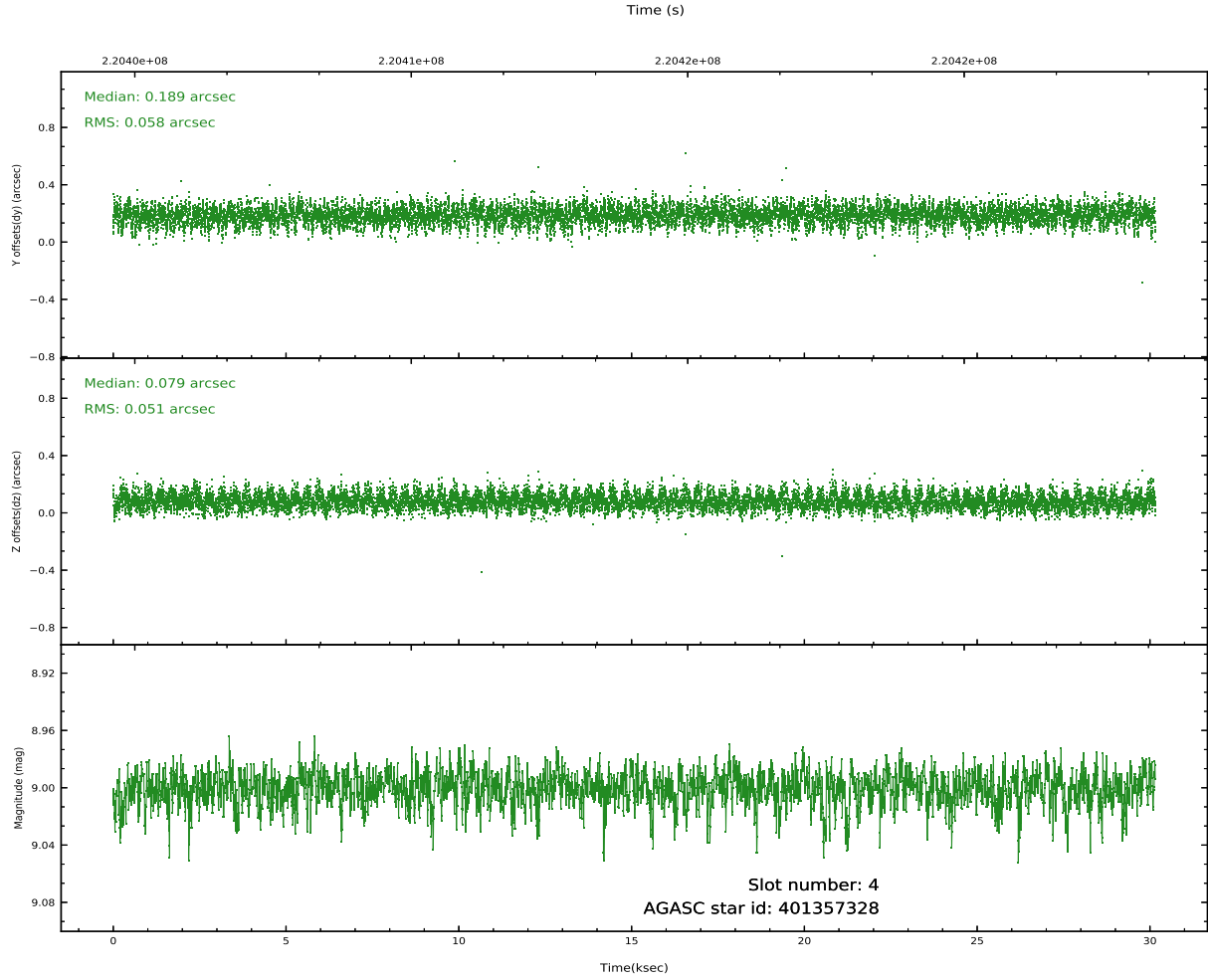
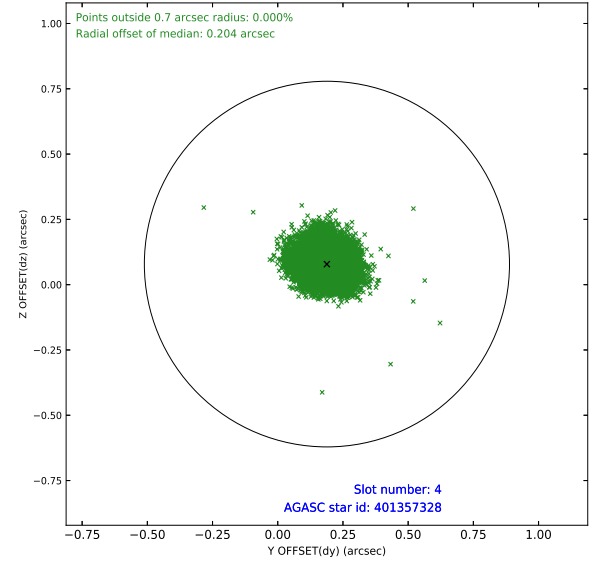
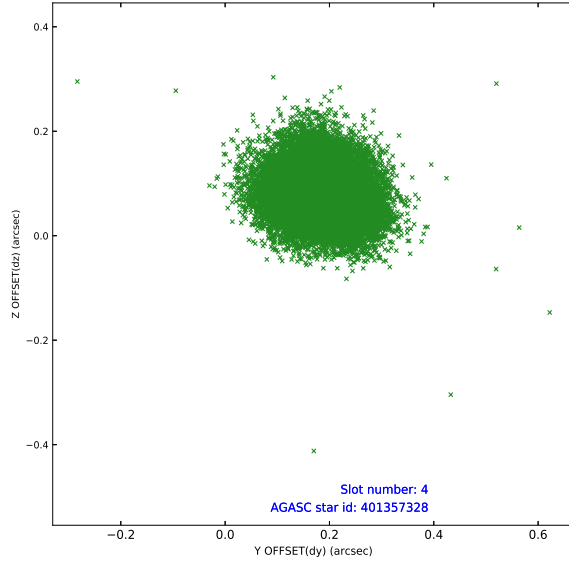
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.24	7355	1.000	0.084	-0.043	0.013	0.019	0.000000	0.000000	932.76	-920
1	FID		ACIS-I-5	7.23	7356	1.000	-0.239	0.080	0.008	0.016	0.000000	0.000000	-1815.60	977
2	FID		ACIS-I-6	7.25	7356	1.000	0.064	0.032	0.012	0.027	0.000000	0.000000	398.24	1622
3	GUIDE	used	401357120	7.05	14710	1.000	0.098	0.060	0.055	0.090	244.752378	37.765715	-2212.65	-370
4	GUIDE	used	401357328	9.00	14701	1.000	0.189	0.079	0.082	0.130	246.205033	38.152914	2067.51	-1160
5	GUIDE	used	401357888	8.51	14710	1.000	0.100	-0.148	0.072	0.120	244.567474	38.275306	-1760.59	1483
6	GUIDE	used	401347064	7.72	14708	1.000	-0.151	0.001	0.042	0.070	245.989801	38.641750	2381.50	674
7	GUIDE	used	401352720	8.06	14709	1.000	-0.234	0.005	0.069	0.111	246.356113	37.910237	2024.55	-2133

2.4 Star Slots

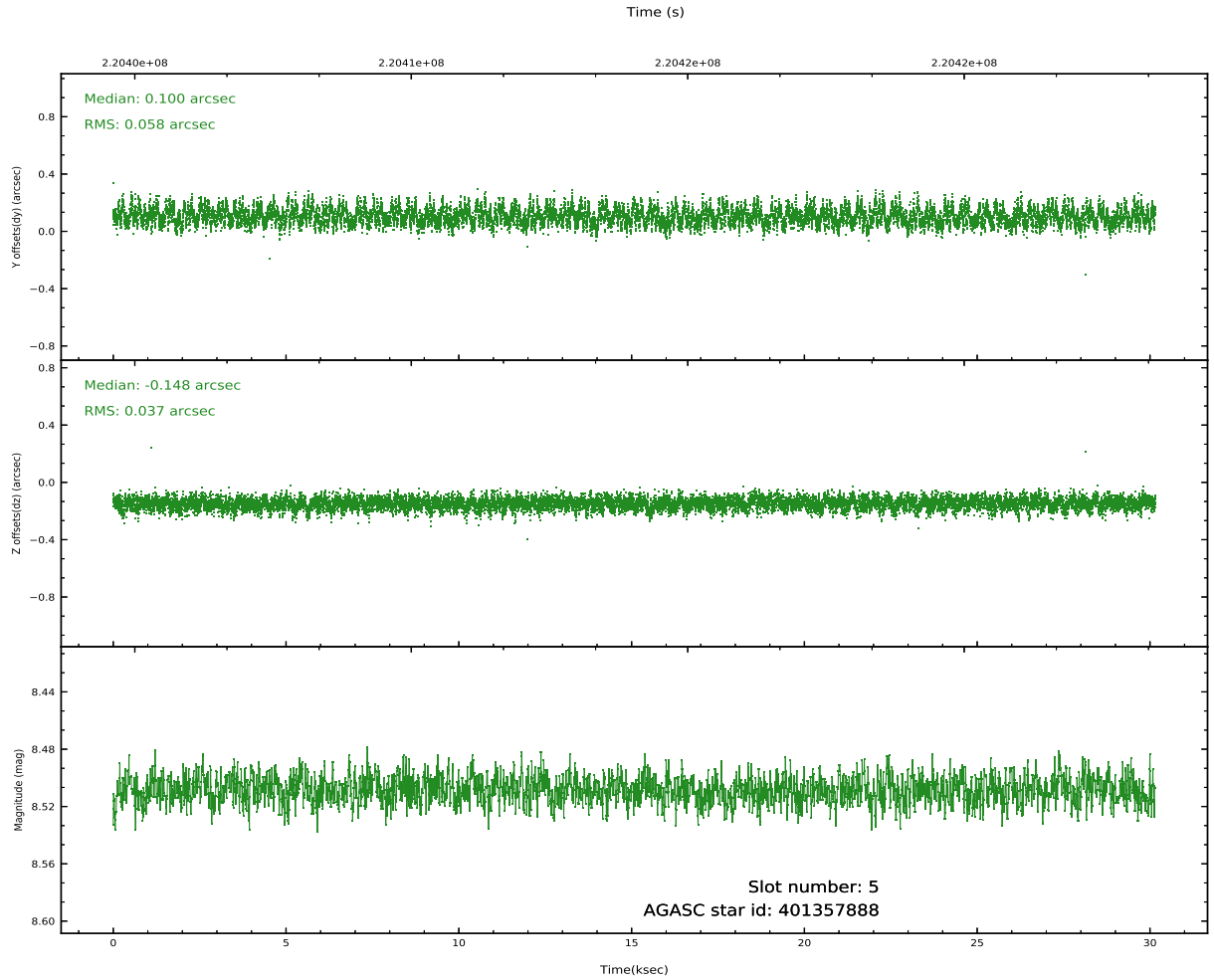
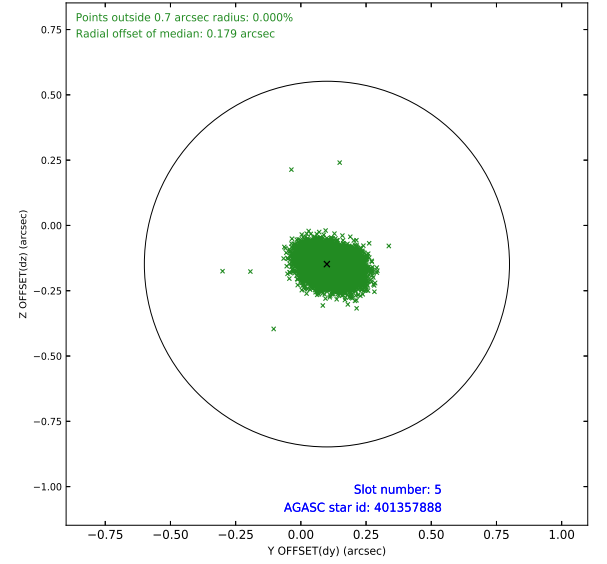
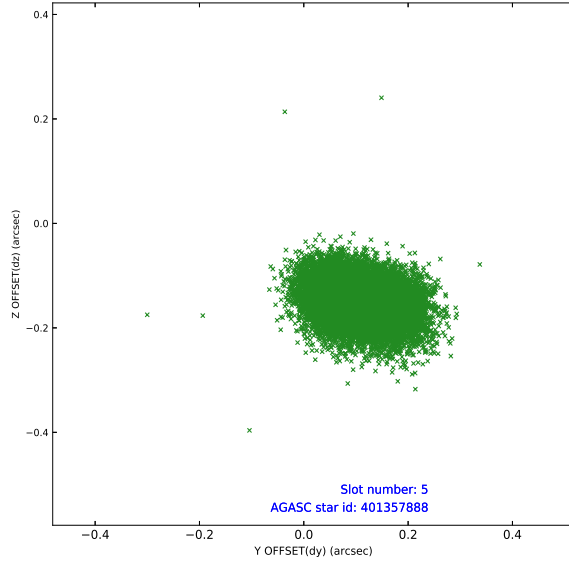
2.4.1 Slot 3



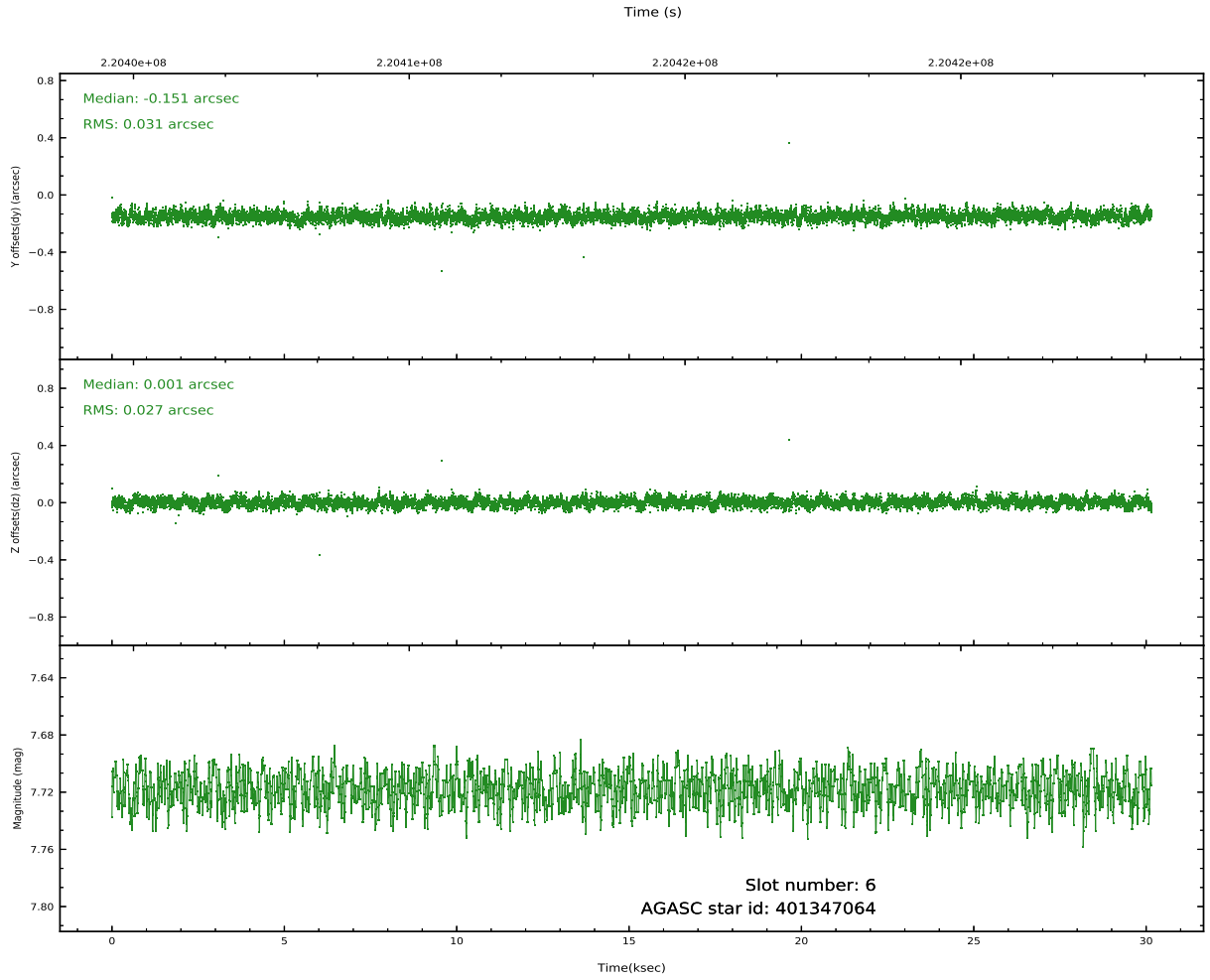
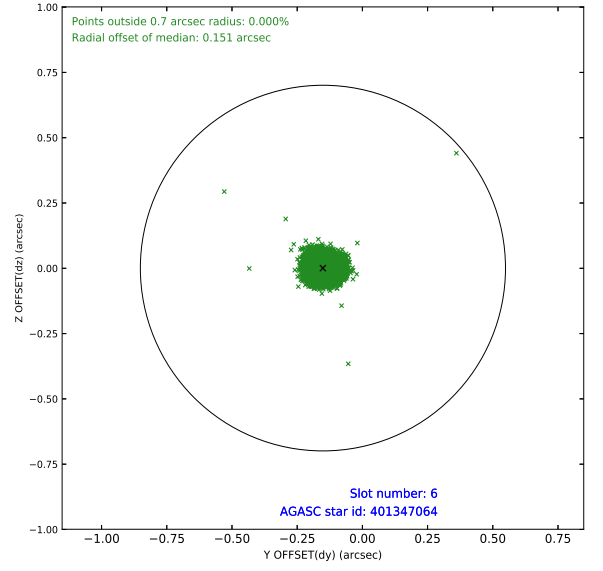
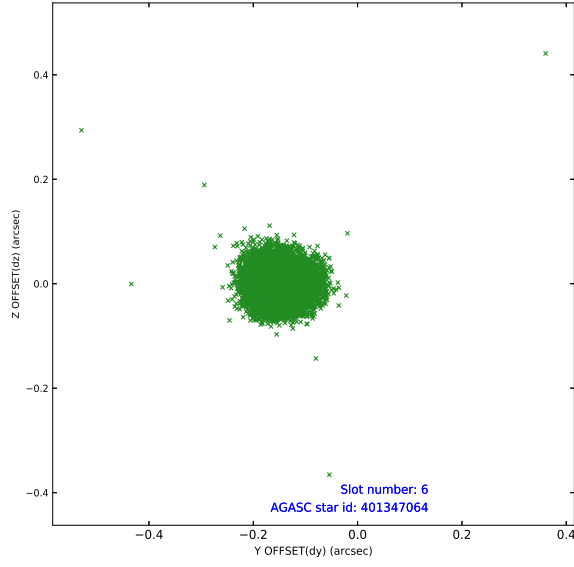
2.4.2 Slot 4



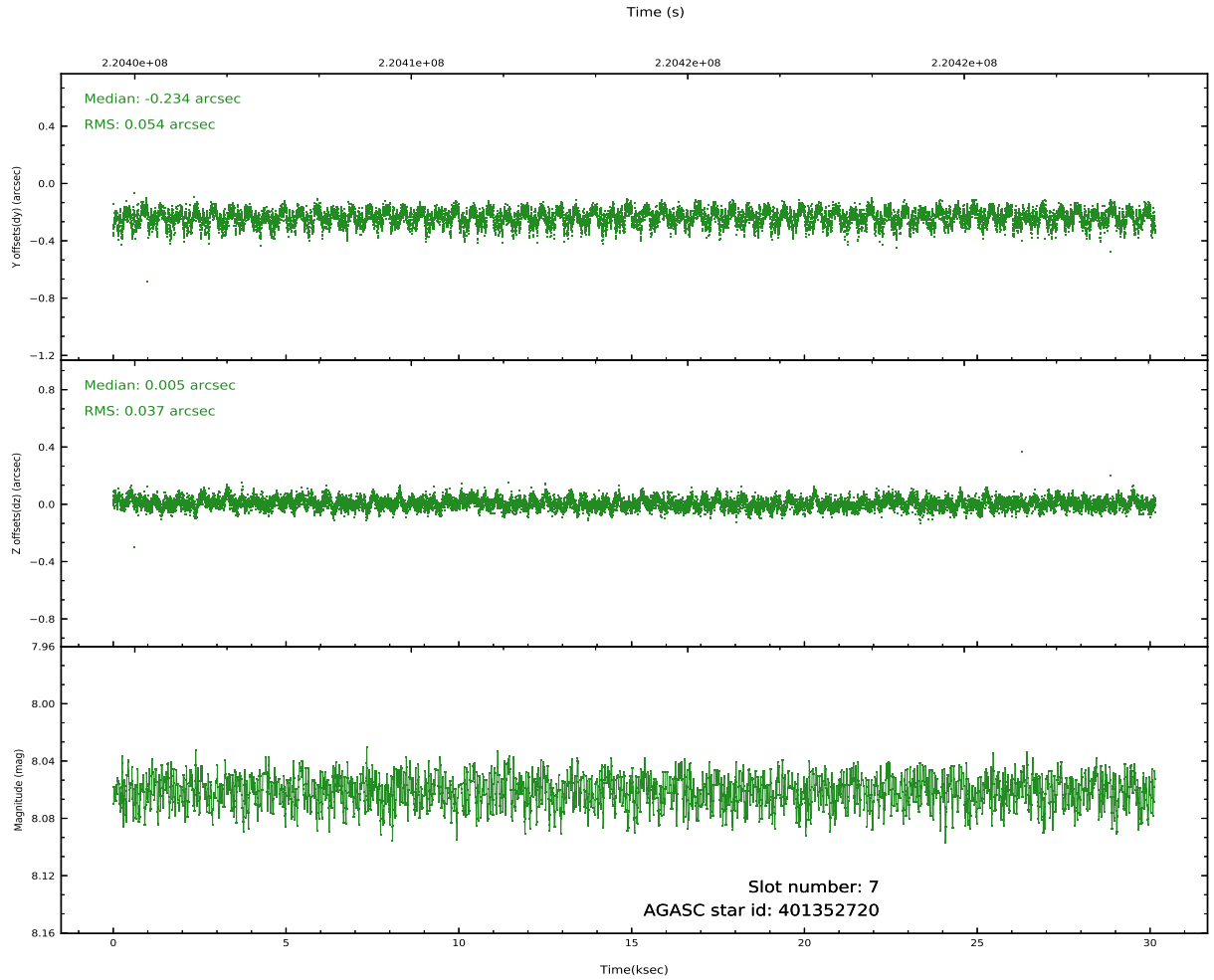
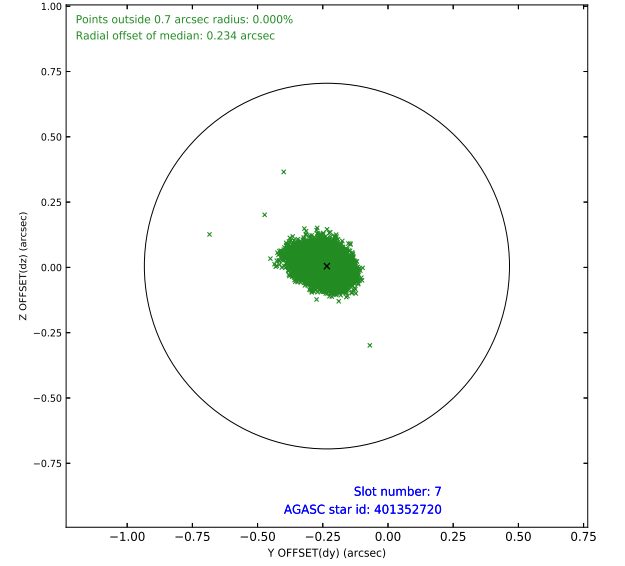
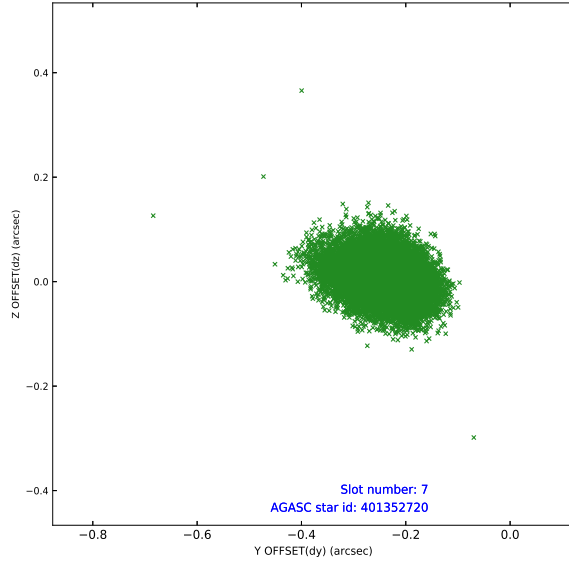
2.4.3 Slot 5



2.4.4 Slot 6

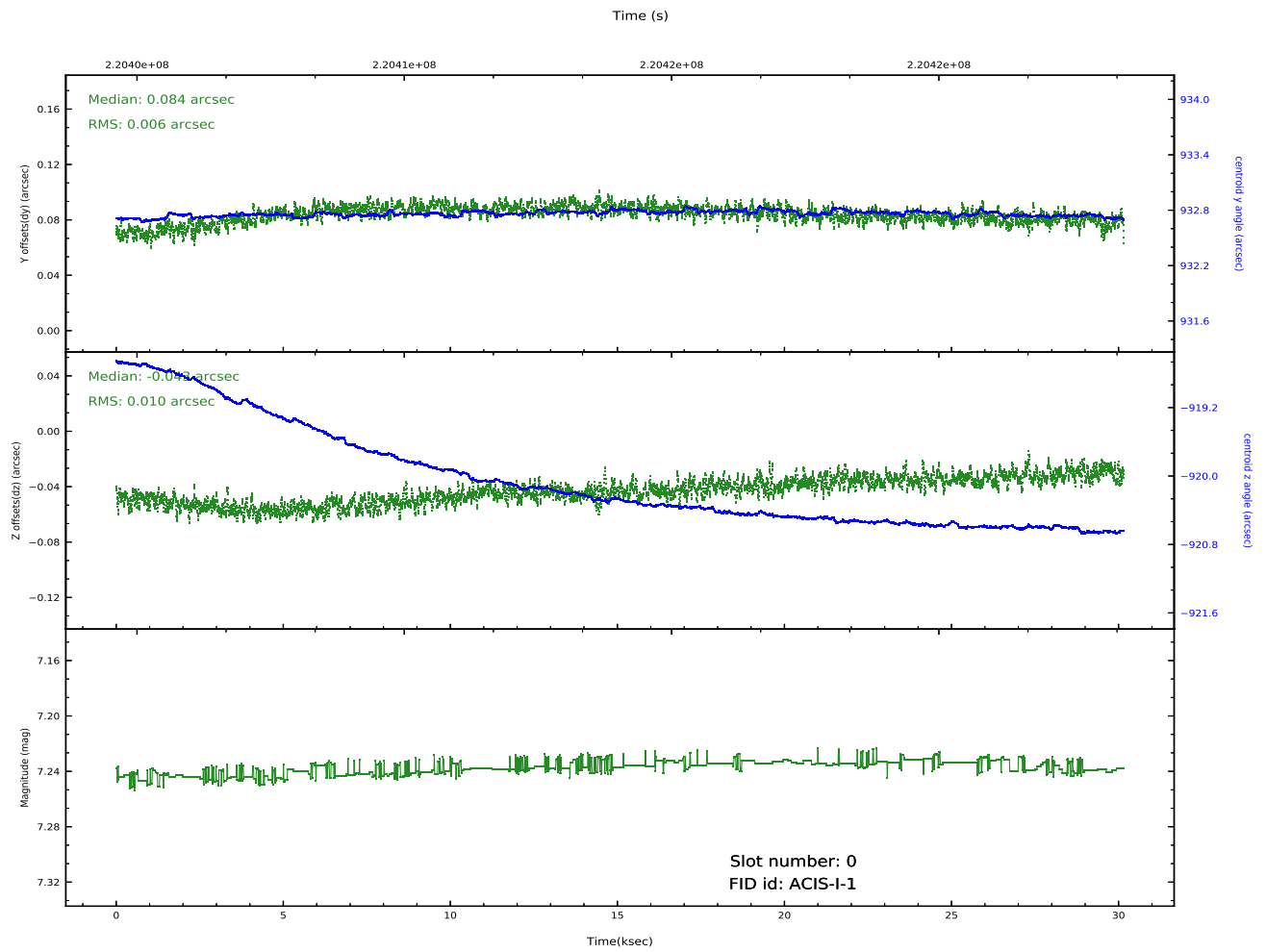
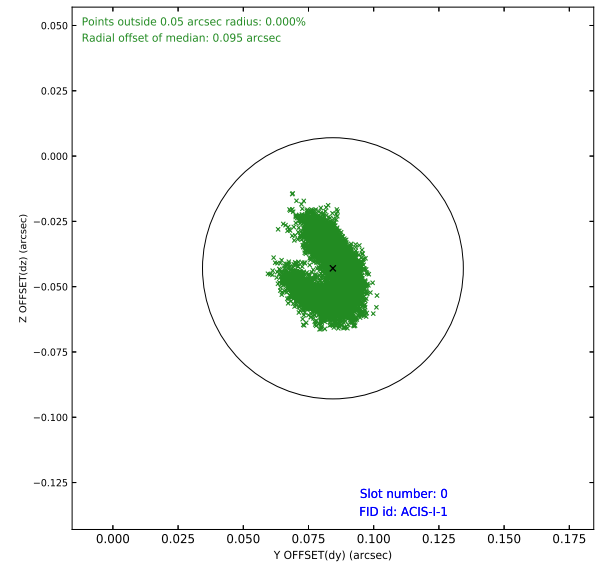
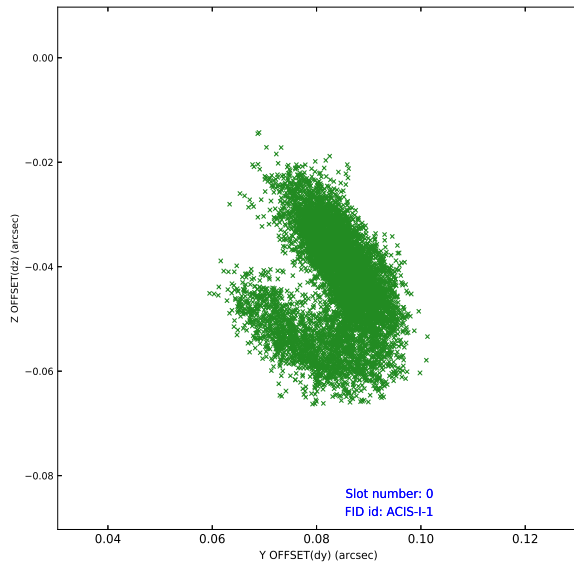


2.4.5 Slot 7

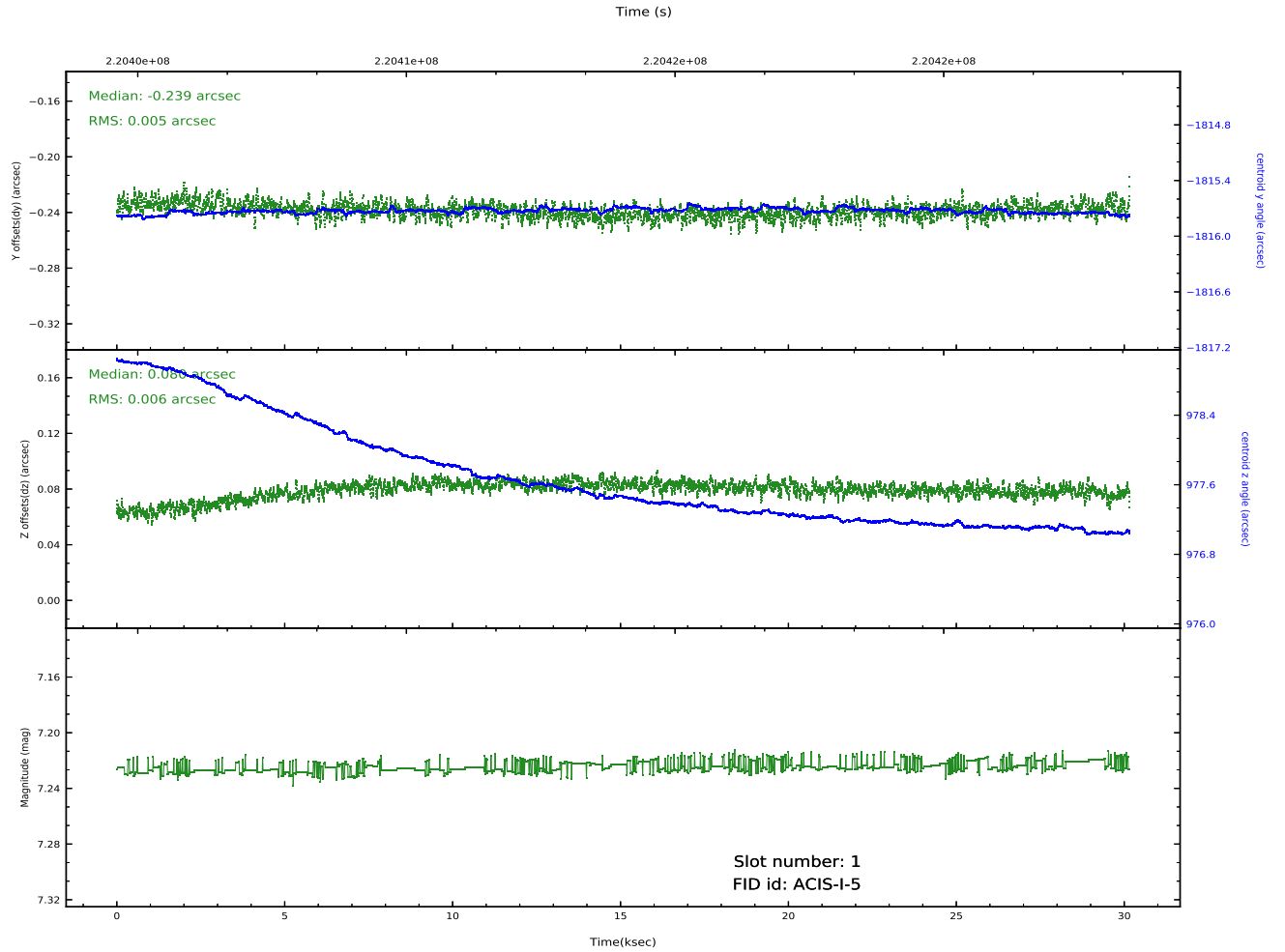
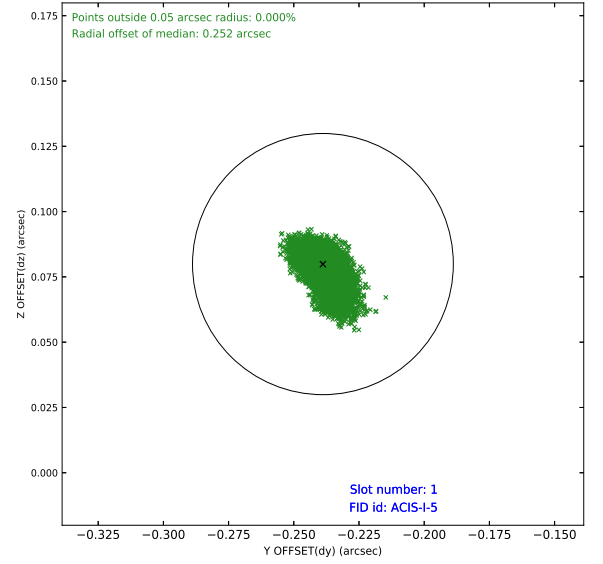
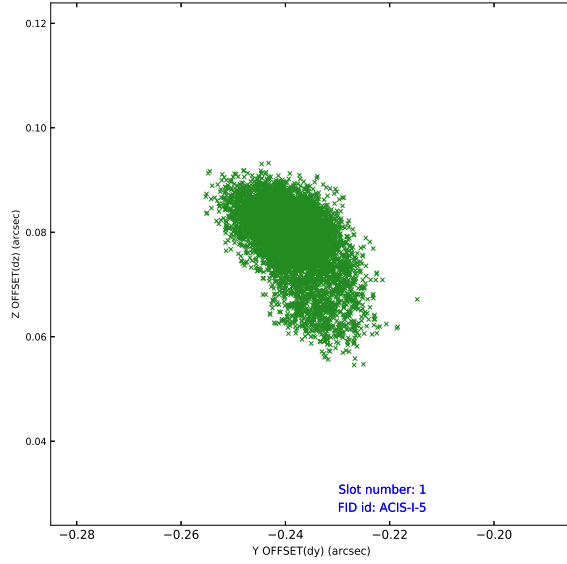


2.5 FID Slots

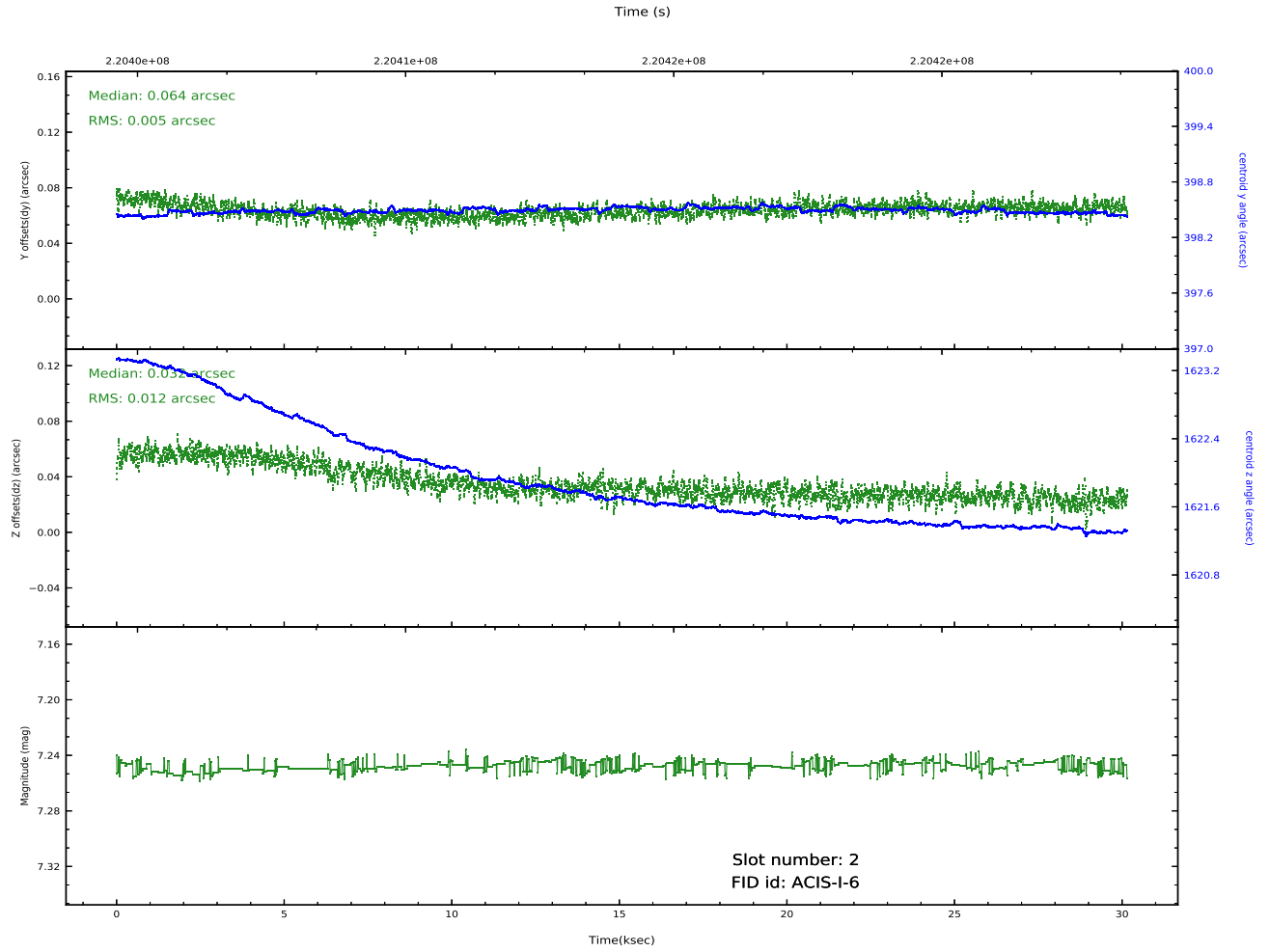
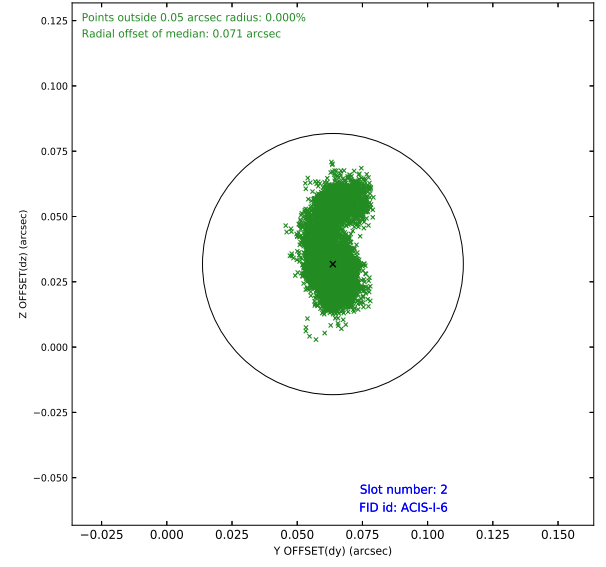
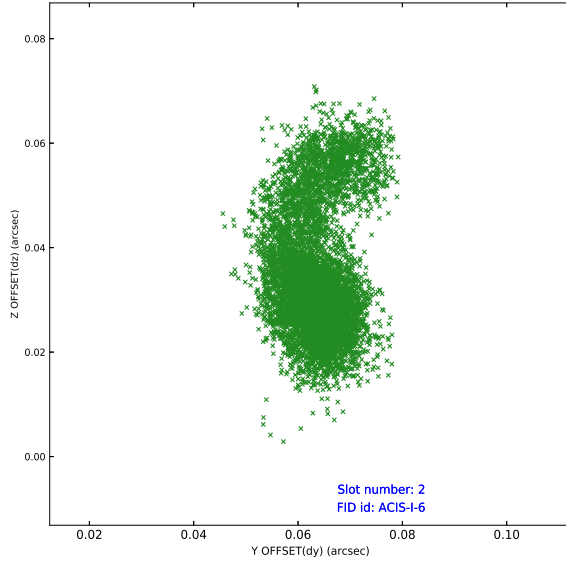
2.5.1 Slot 0



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)	2020.10.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.14427

A.2 Comments