

V&V Reference Report

L2 ASCDS Version : 10.6

Observation 20807 - L2 Version 1
Chandra X-Ray Center

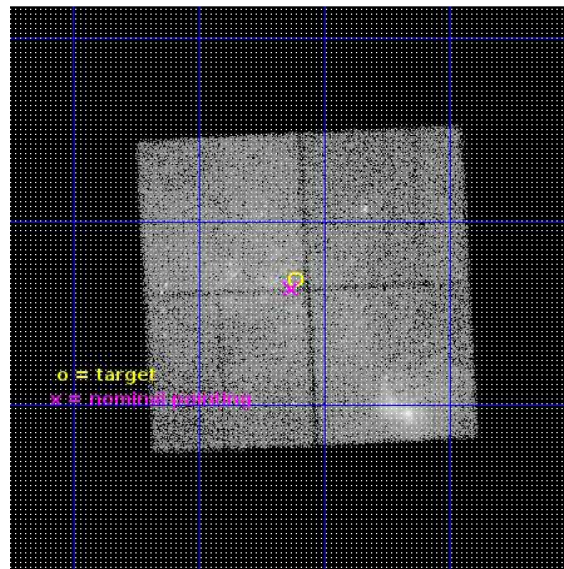
L2 Processing Date : Oct 6 2017

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1 Front

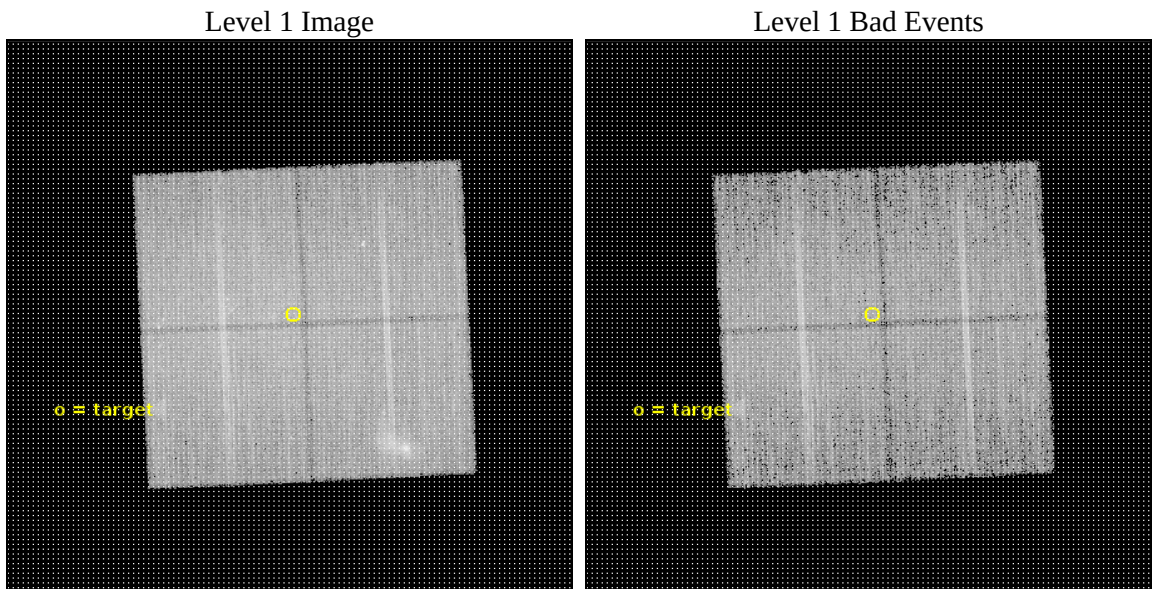
seq_num	901137	Sequence number
obs_id	20807	Observation id
title	Characterizing past outbursts from Sagittarius A*	Proposal title
observer	Ms Maica Clavel	Principal investigator
object	Sgr A complex 2	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	266.529167	Observer's specified target RA [deg]
dec_targ	-28.885972	Observer's specified target Dec [deg]
ra_nom	266.53310799747	Nominal RA [deg]
dec_nom	-28.894490945886	Nominal Dec [deg]
roll_nom	267.210596623	Nominal Roll [deg]
revision	1	Processing version of data
ontime	28082.900216103	Sum of GTIs [s]
livetime	27715.976450449	Livetime [s]
ontime0	28082.900216103	Sum of GTIs [s]
ontime1	28082.900216103	Sum of GTIs [s]
ontime2	28079.759225965	Sum of GTIs [s]
ontime3	28082.900216103	Sum of GTIs [s]
l2events	191597	Number of level 2 events



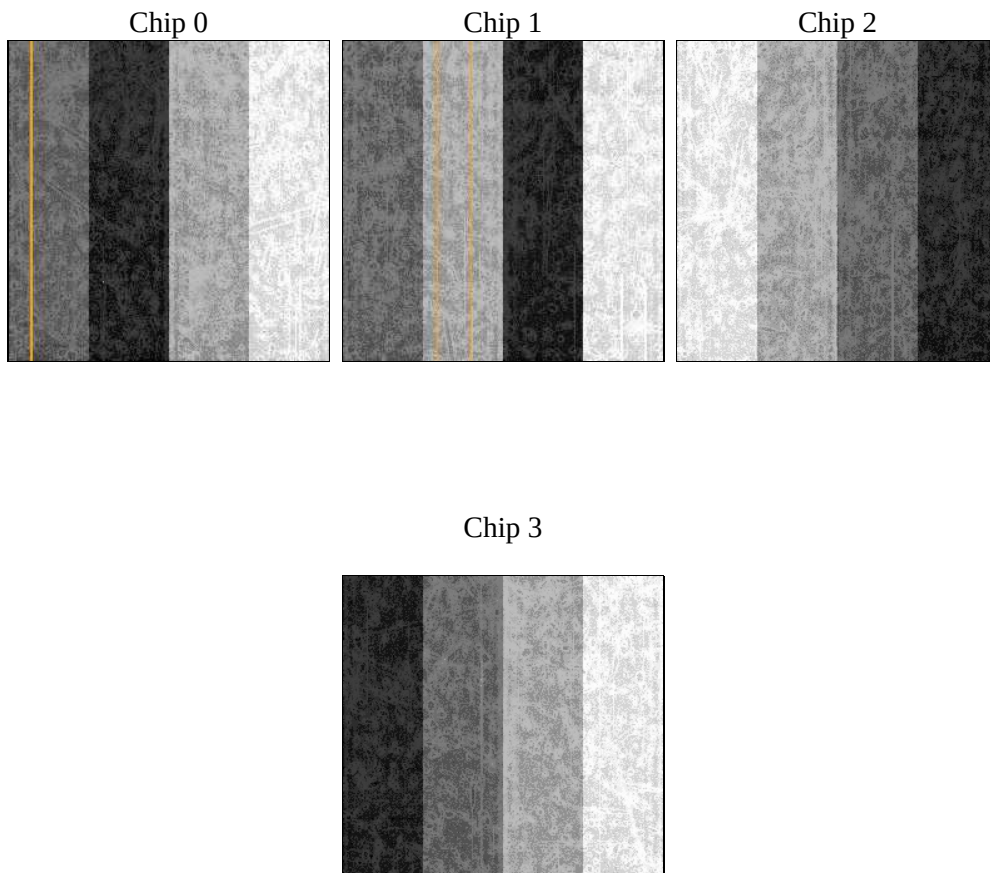
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	28000.000000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	28082.900216103	Sum of GTIs [s]
caldsver	4.7.6	 	ontime0	28082.900216103	Sum of GTIs [s]
date	2017-10-06T06:35:56	Date and time of file creation	ontime1	28082.900216103	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	28079.759225965	Sum of GTIs [s]
			ontime3	28082.900216103	Sum of GTIs [s]
			l1events	833154	Number of level 1 events

2.1.4 Events

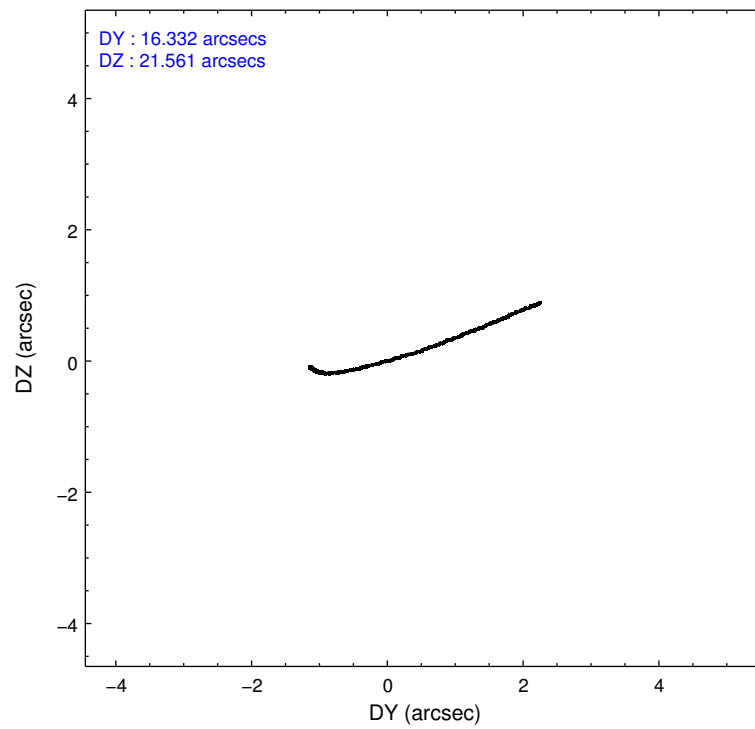
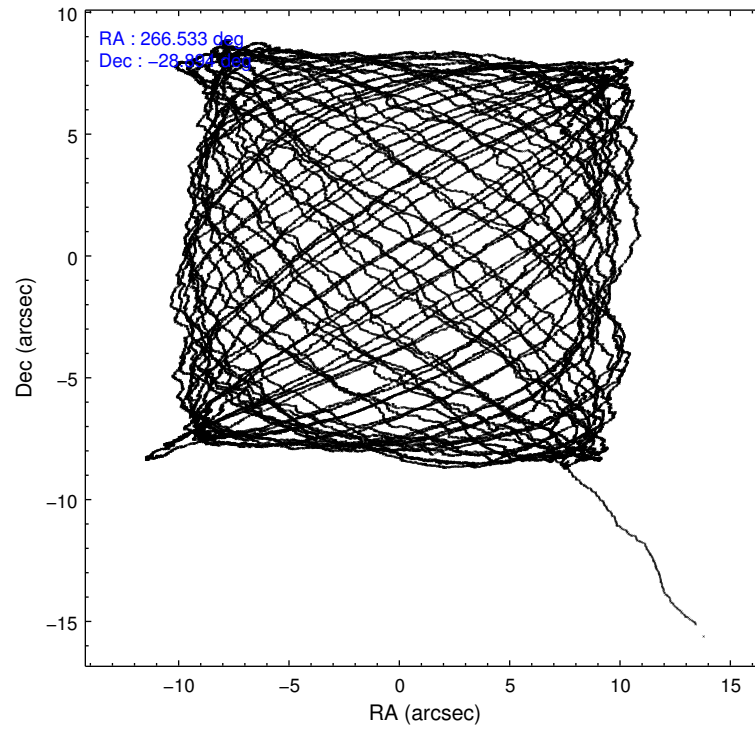
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	211927	191589	212373	217265
rejected events	144497	149962	165704	160071
rejected %	68%	78%	78%	73%

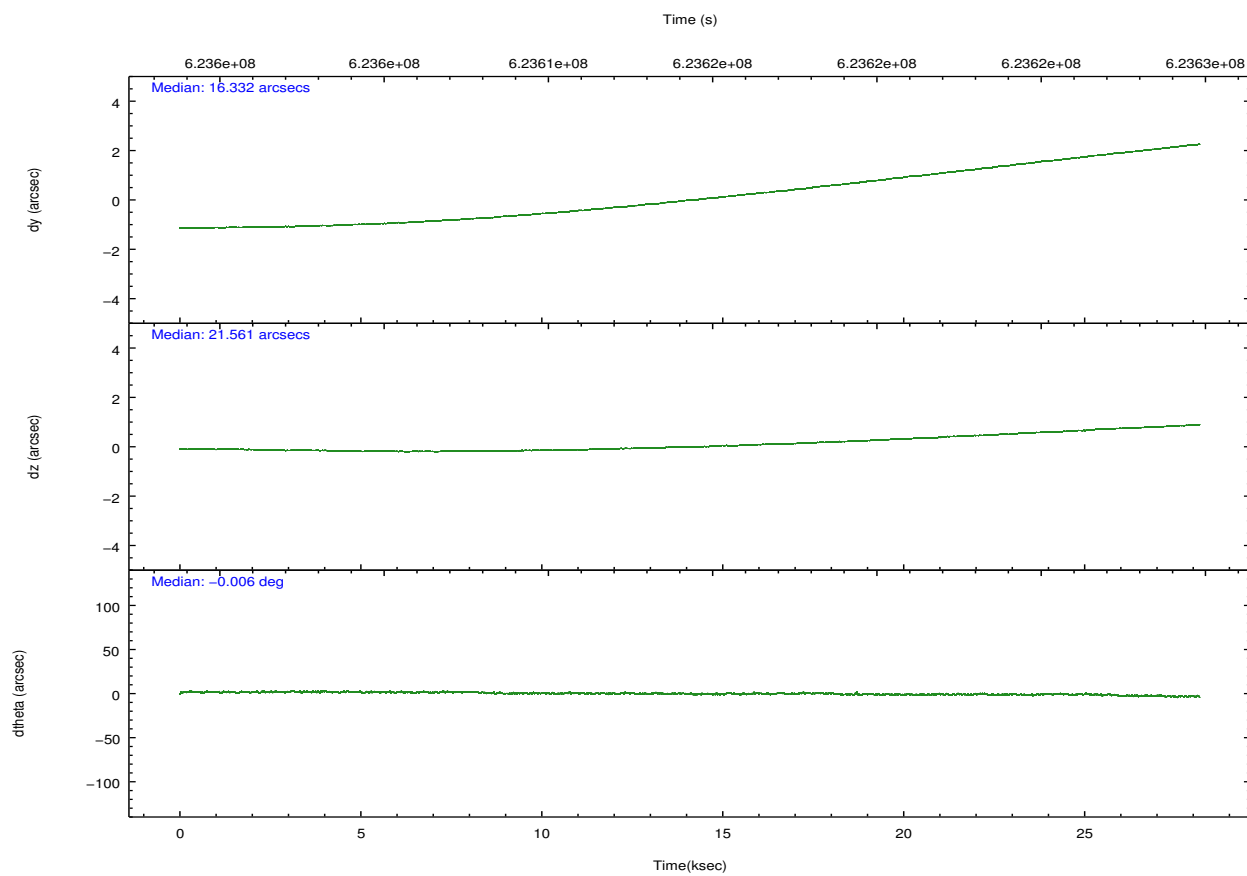
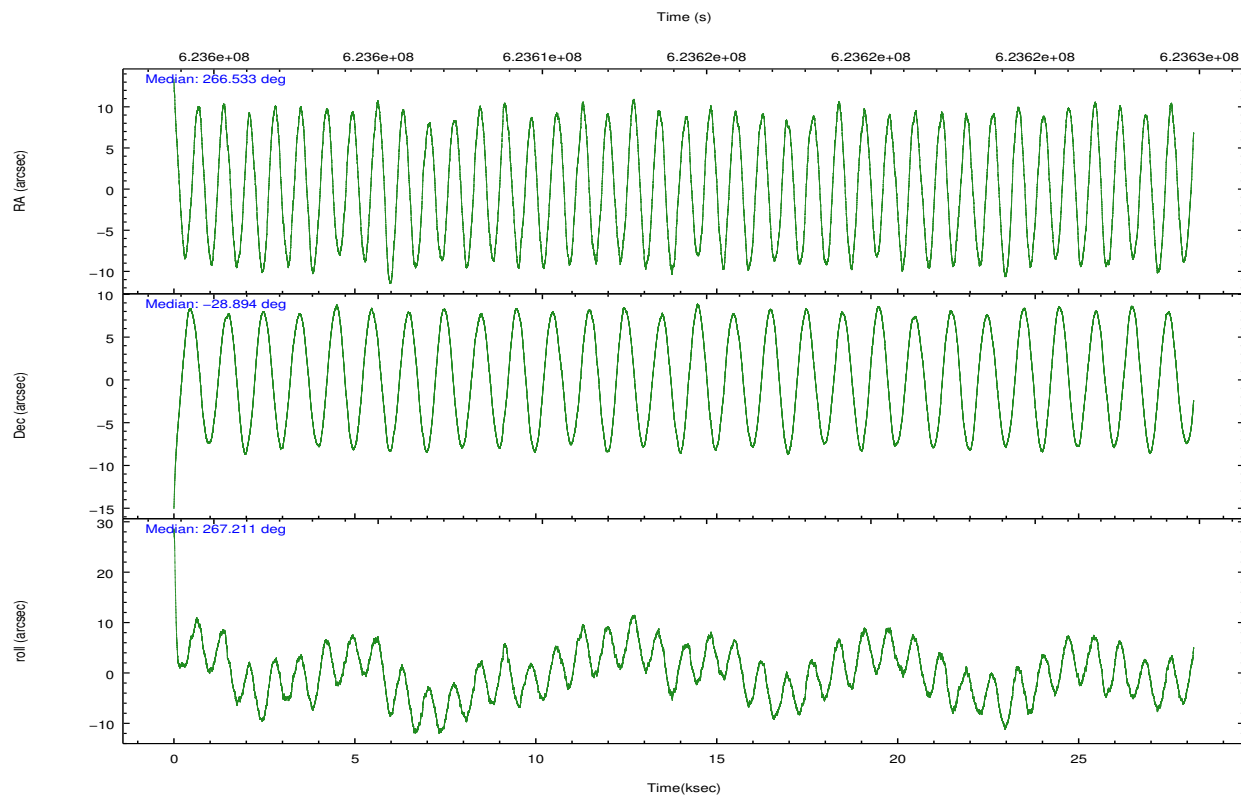
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	38962	20423	25843	34101
	18%	10%	12%	15%
grade 1 events	256	152	216	258
	0%	0%	0%	0%
grade 2 events	12101	8800	8661	9177
	5%	4%	4%	4%
grade 3 events	4357	3118	3217	3791
	2%	1%	1%	1%
grade 4 events	4273	3021	3195	3772
	2%	1%	1%	1%
grade 5 events	8226	8727	7833	9224
	3%	4%	3%	4%
grade 6 events	7739	6273	5759	6359
	3%	3%	2%	2%
grade 7 events	136013	141075	157649	150583
	64%	73%	74%	69%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	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	266.518610	266.5331079974693	Subarray requested	NONE	NONE
[deg] Pointing Dec	-28.869974	-28.89449094588572	Alternating exposures requested	N	N
[deg] Pointing Roll	266.994909	267.2105966229984	[s] Primary exposure time	0.000000	3.1
[s] Window start time (MET)	531187267.184000	531187267.184000			
[s] Window stop time (MET)	562723208.184000	562723208.184000			
[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)	623600388.184000	623599260.74634			
Observation start date	2017-10-05T14:18:39	2017-10-05T14:01:00			
[s] Observation end time (MET)	623628388.184000	623629263.5231			
Observation end date	2017-10-05T22:05:19	2017-10-05T22:21:03			
Read mode	TIMED	TIMED			

2.3 Aspect



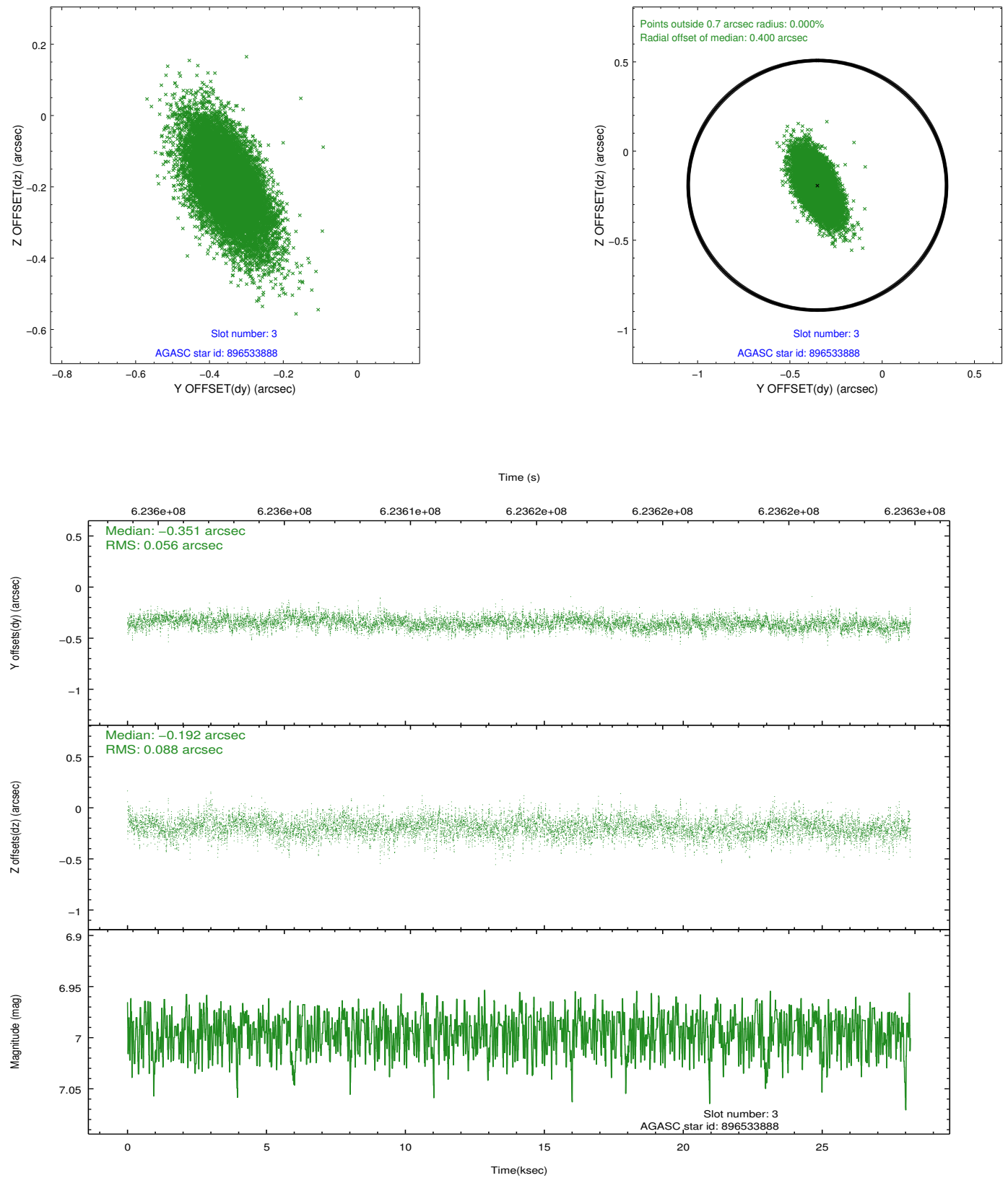


Slot Statistics

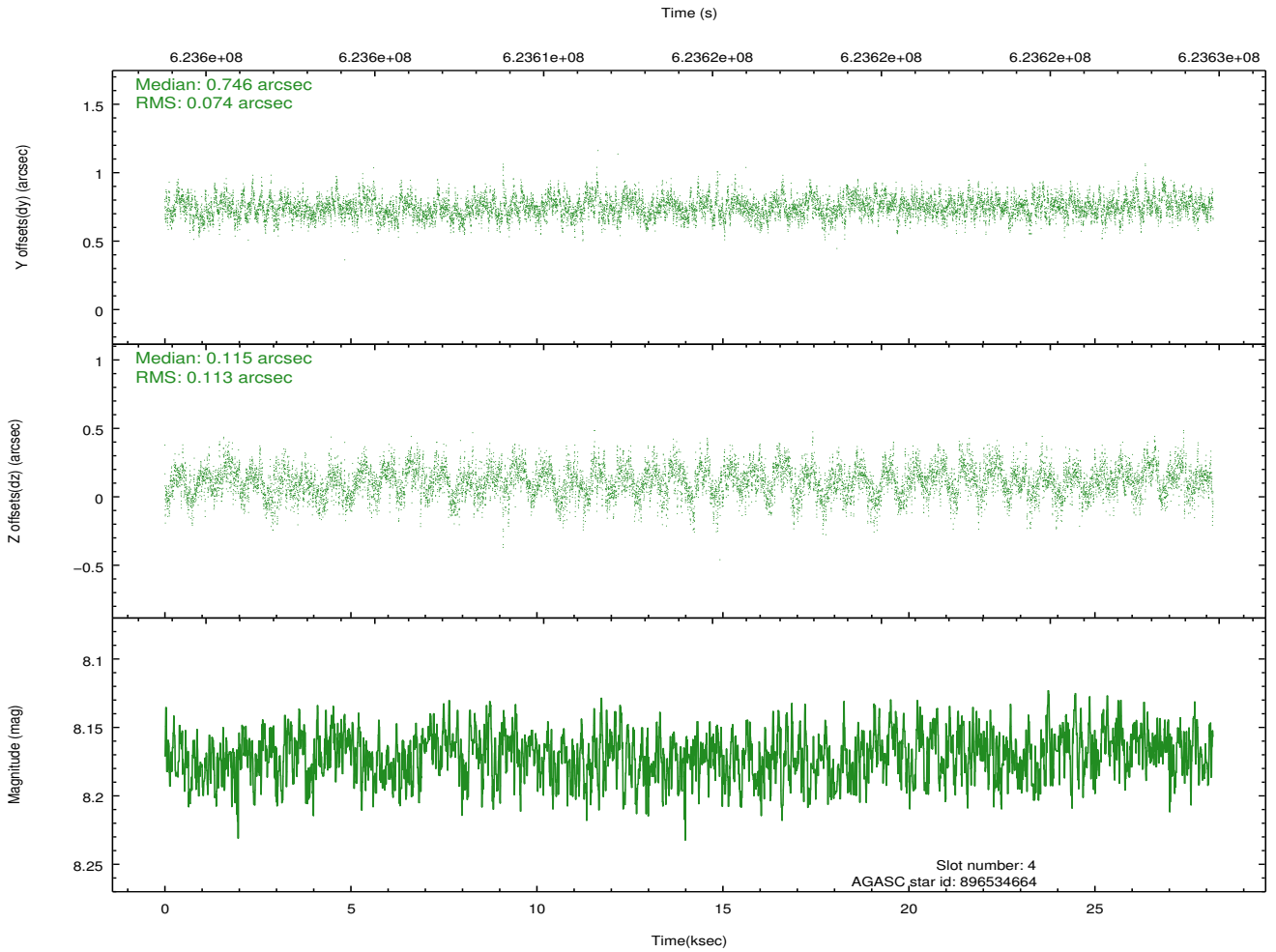
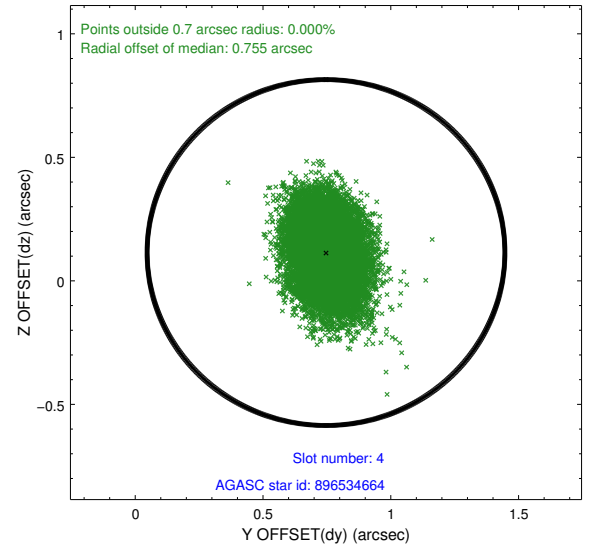
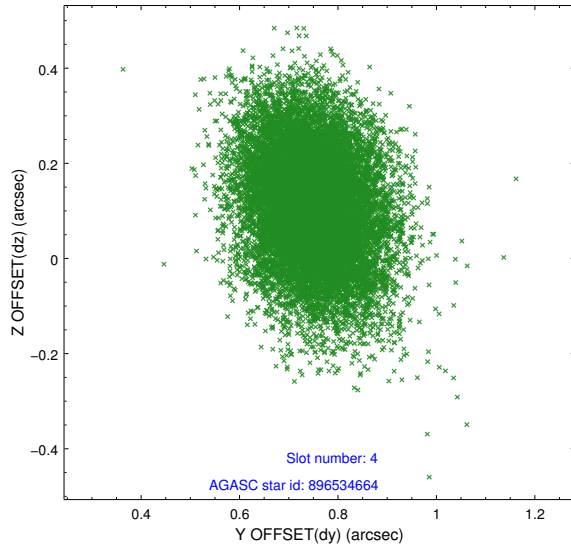
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.09	6872	-0.057	-0.115	0.026	0.052	0.000000	0.000000	922.90	-845.53
1	FID		ACIS-I-4	7.03	6872	0.378	0.132	0.049	0.081	0.000000	0.000000	2143.33	1054.55
2	FID		ACIS-I-5	7.08	6873	-0.422	0.056	0.028	0.049	0.000000	0.000000	-1825.48	1052.17
3	GUIDE	used	896533888	6.99	13740	-0.351	-0.192	0.104	0.196	266.666434	-29.392757	1855.62	561.64
4	GUIDE	used	896534664	8.17	13738	0.746	0.115	0.142	0.238	266.405570	-28.407461	-1642.40	-444.46
5	GUIDE	used	896538696	6.82	13747	-0.152	0.086	0.113	0.205	266.298470	-28.325572	-1919.68	-799.21
6	GUIDE	used	896540808	7.46	13742	0.105	0.182	0.109	0.201	265.985401	-29.308604	1668.95	-1588.38
7	GUIDE	used	896541360	7.70	13742	-0.348	-0.184	0.112	0.203	266.684478	-29.453744	2072.12	629.26

2.4 Star Slots

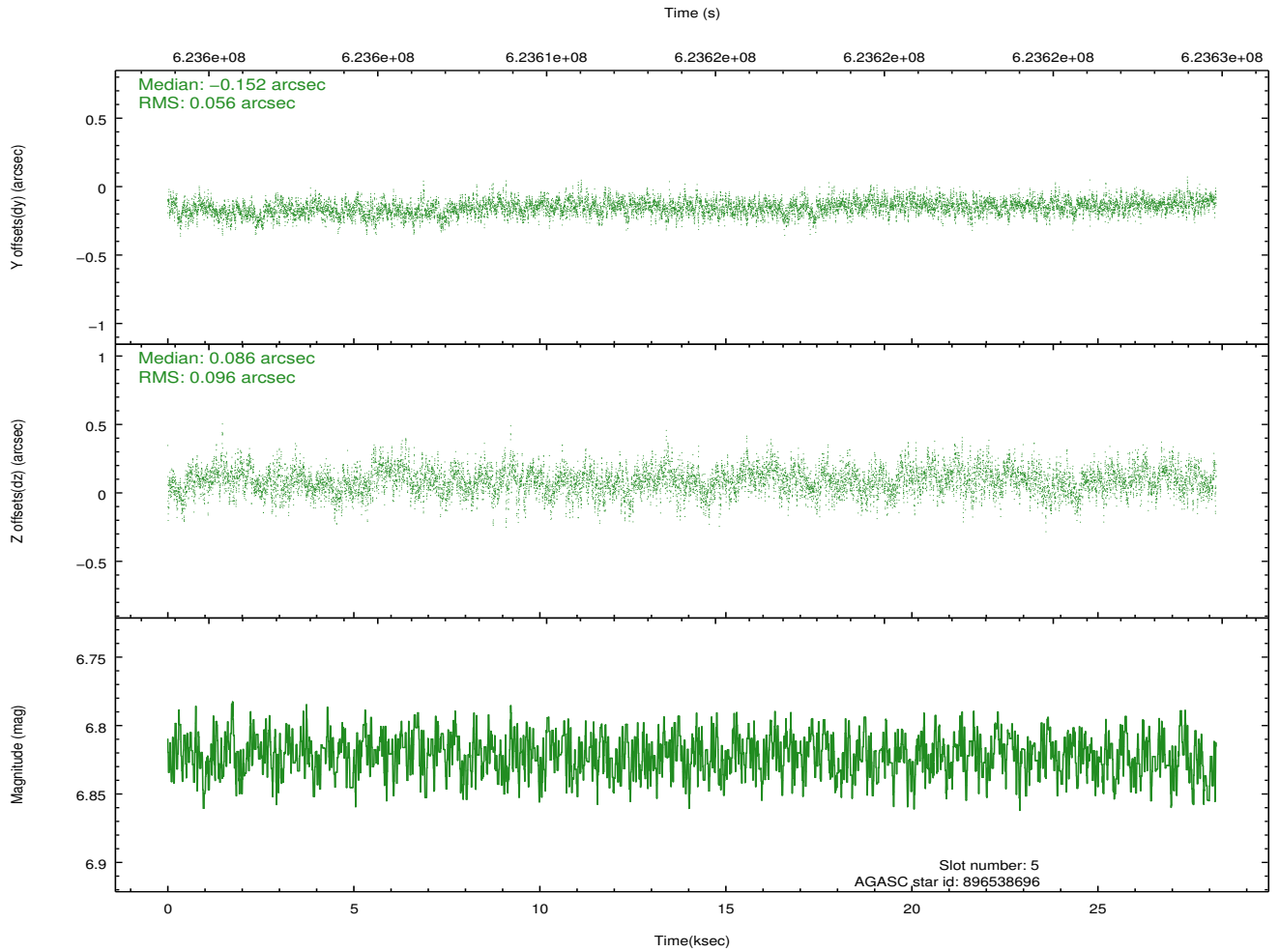
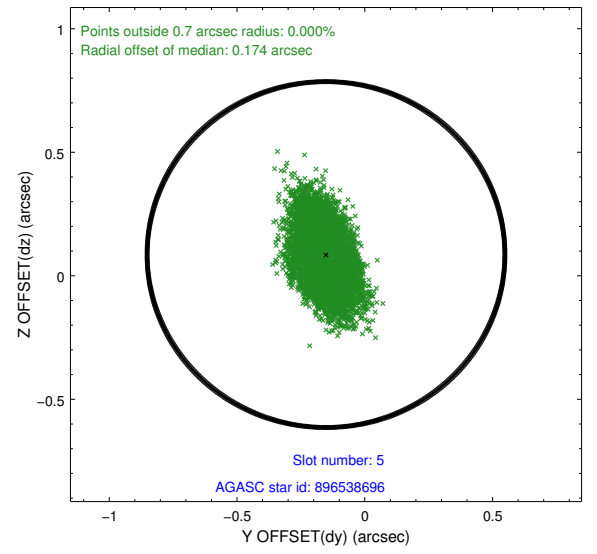
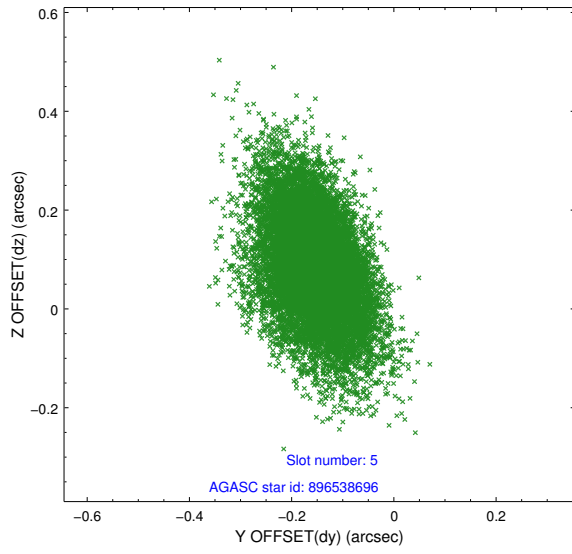
2.4.1 Slot 3



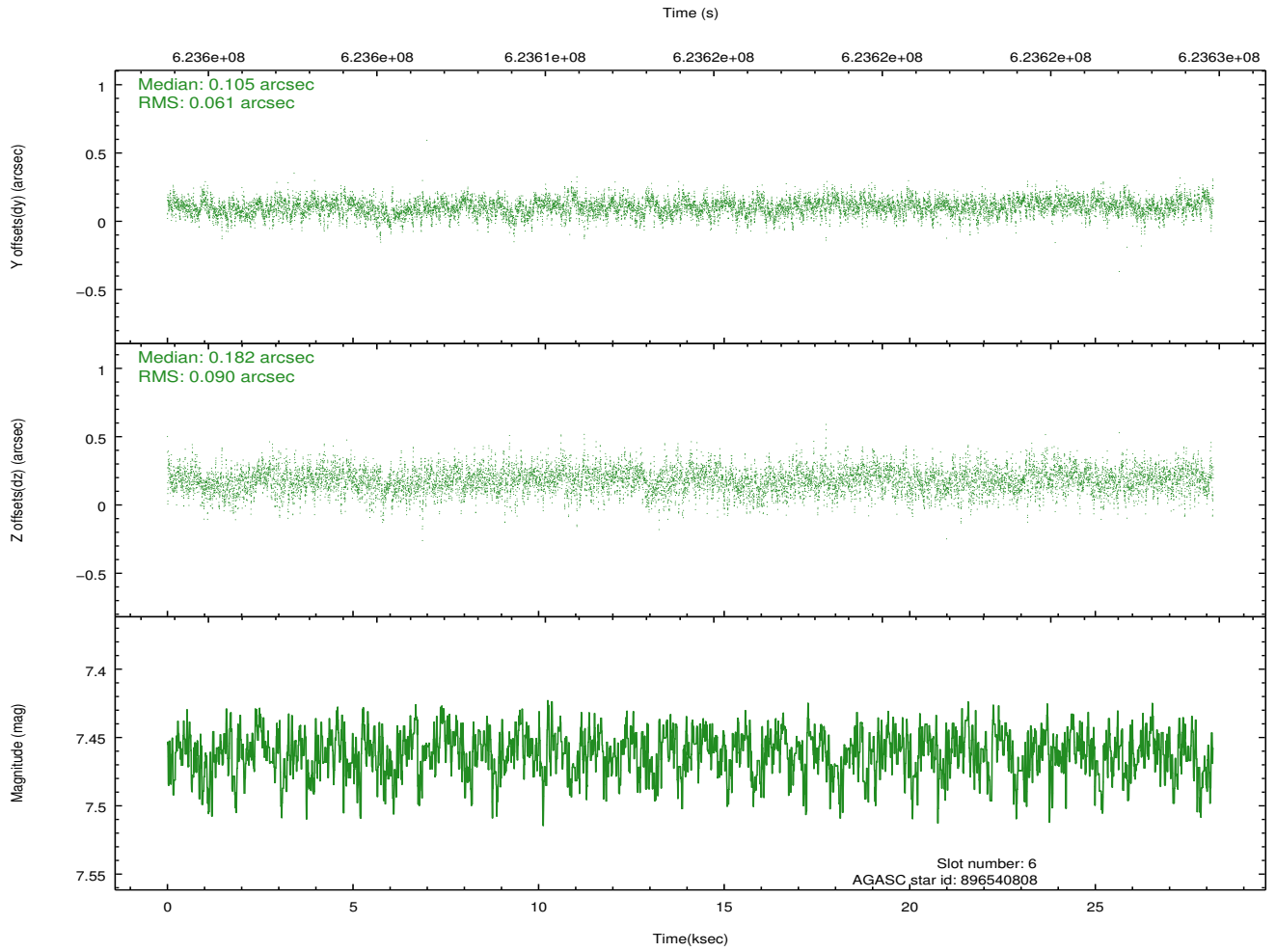
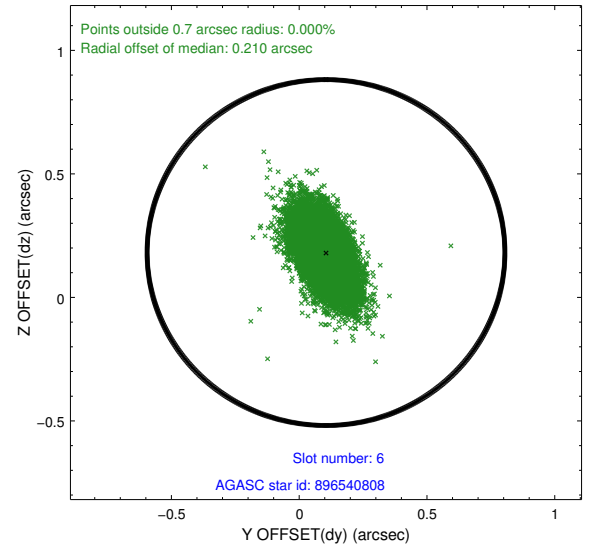
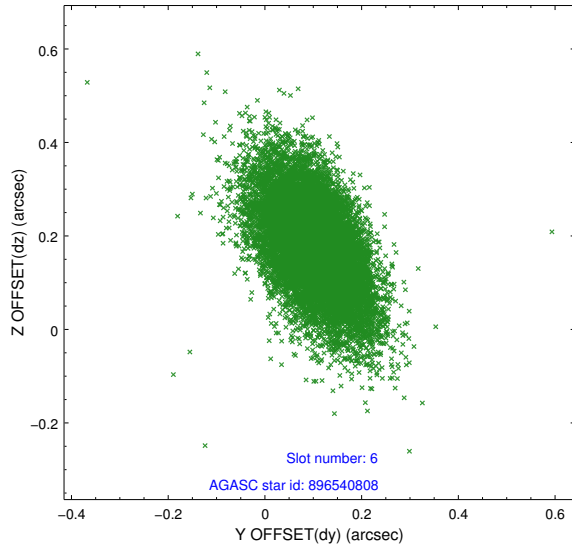
2.4.2 Slot 4



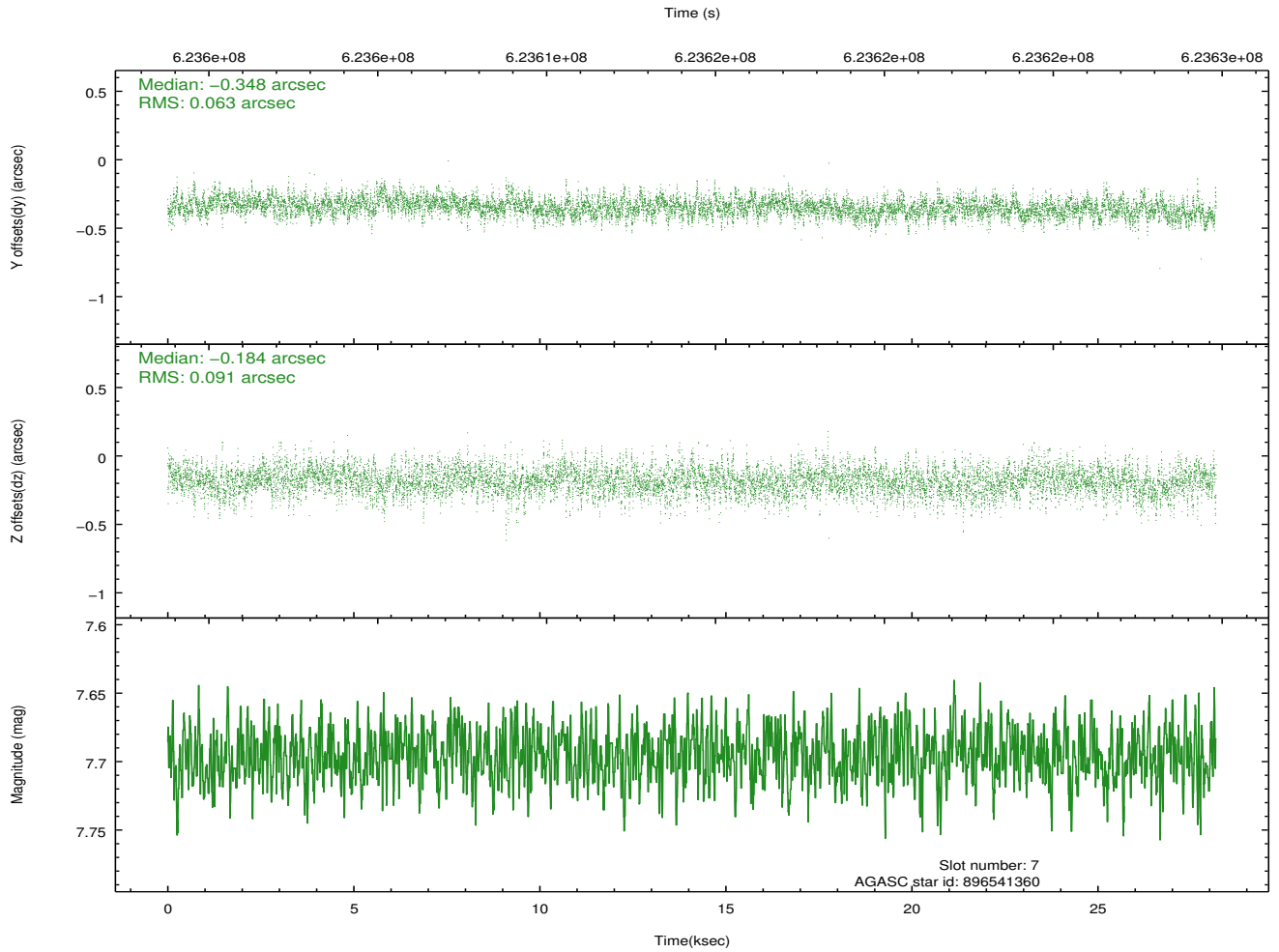
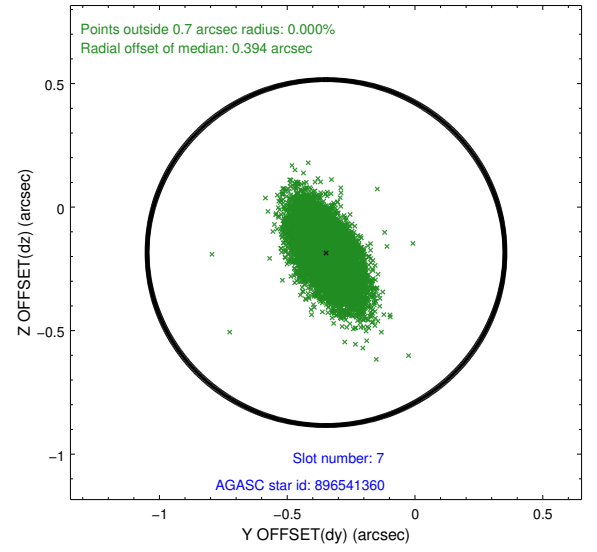
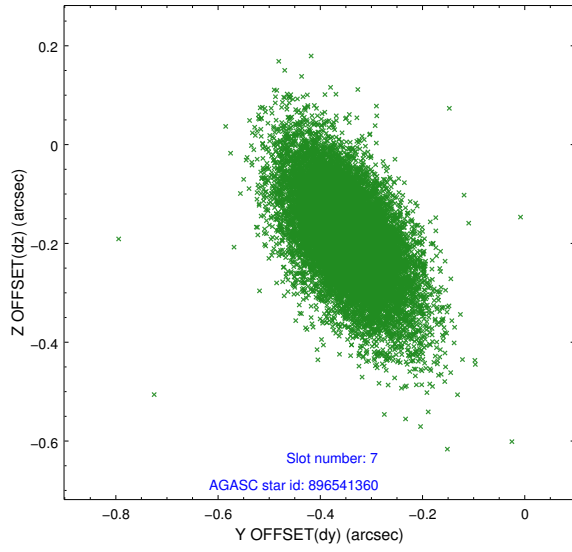
2.4.3 Slot 5



2.4.4 Slot 6

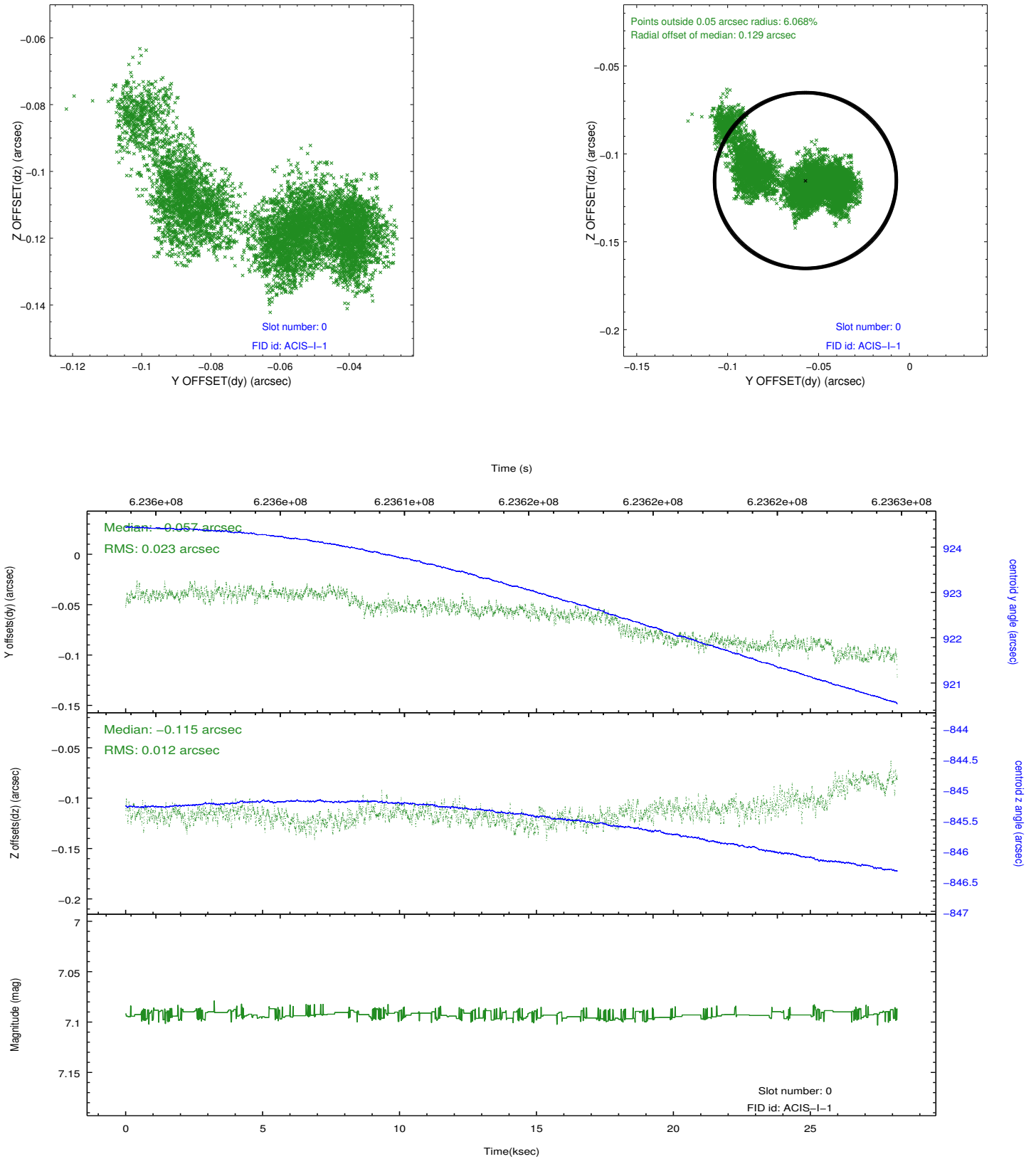


2.4.5 Slot 7

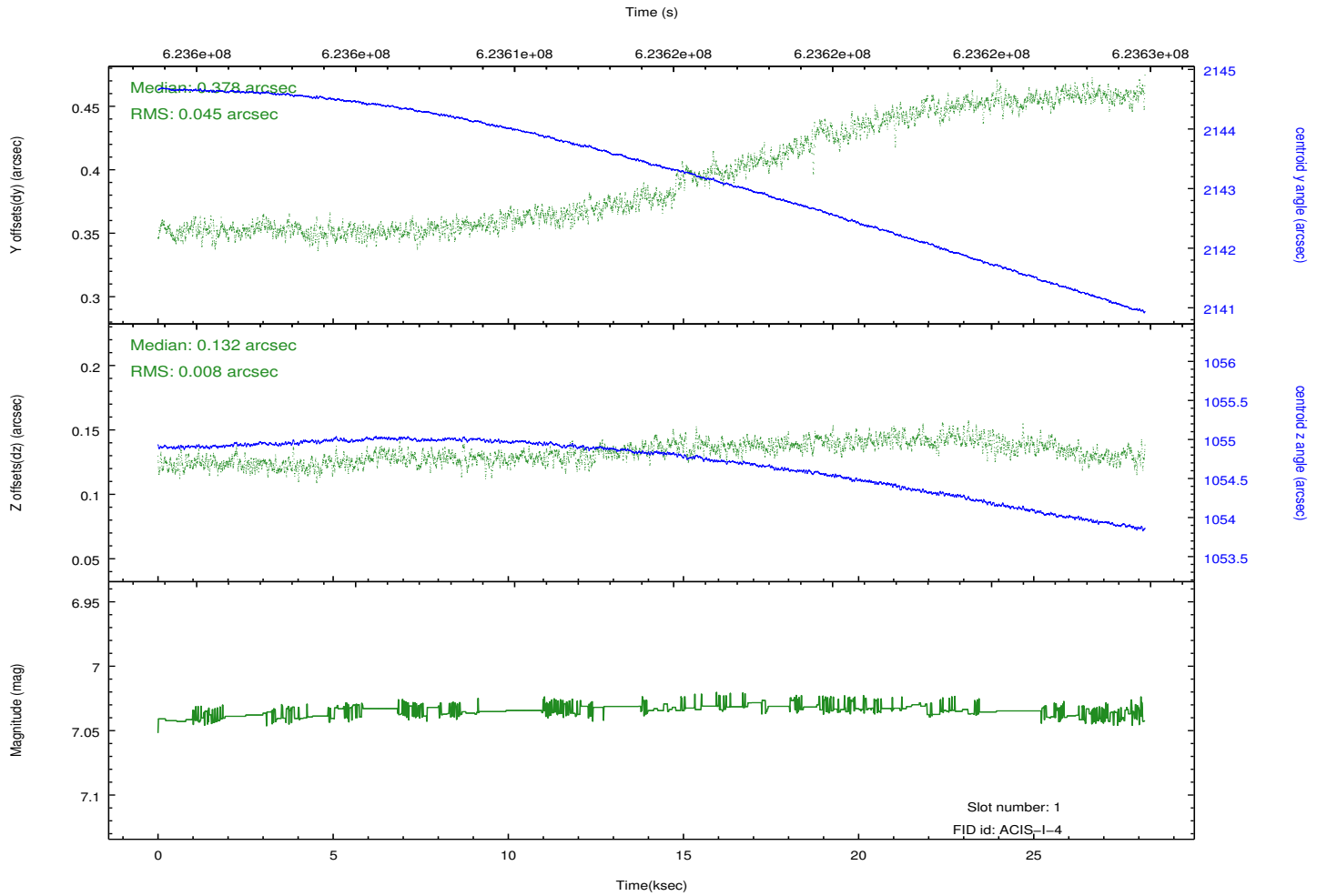
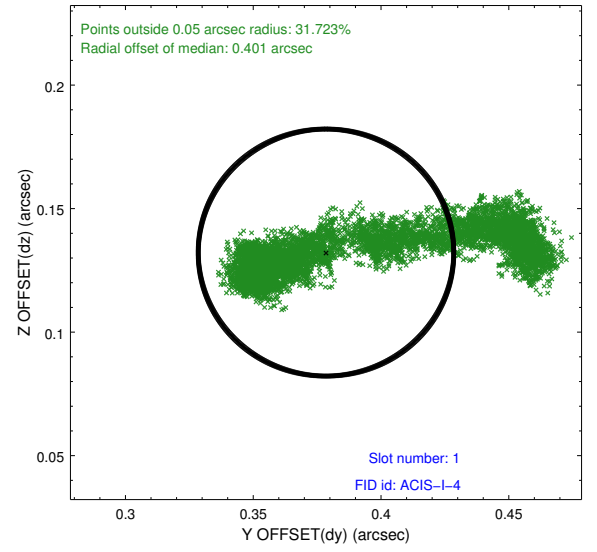
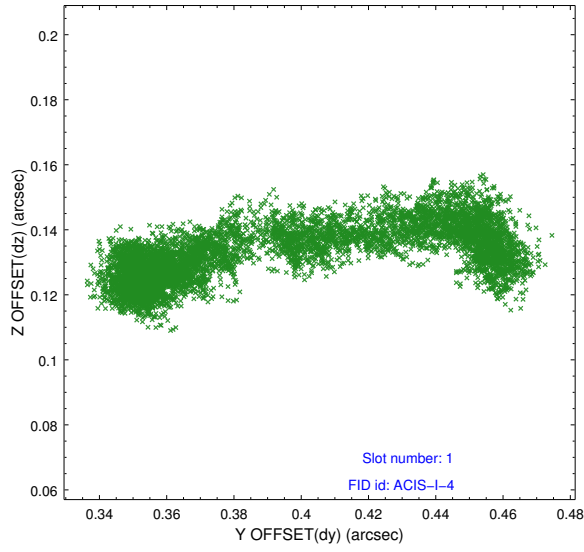


2.5 FID Slots

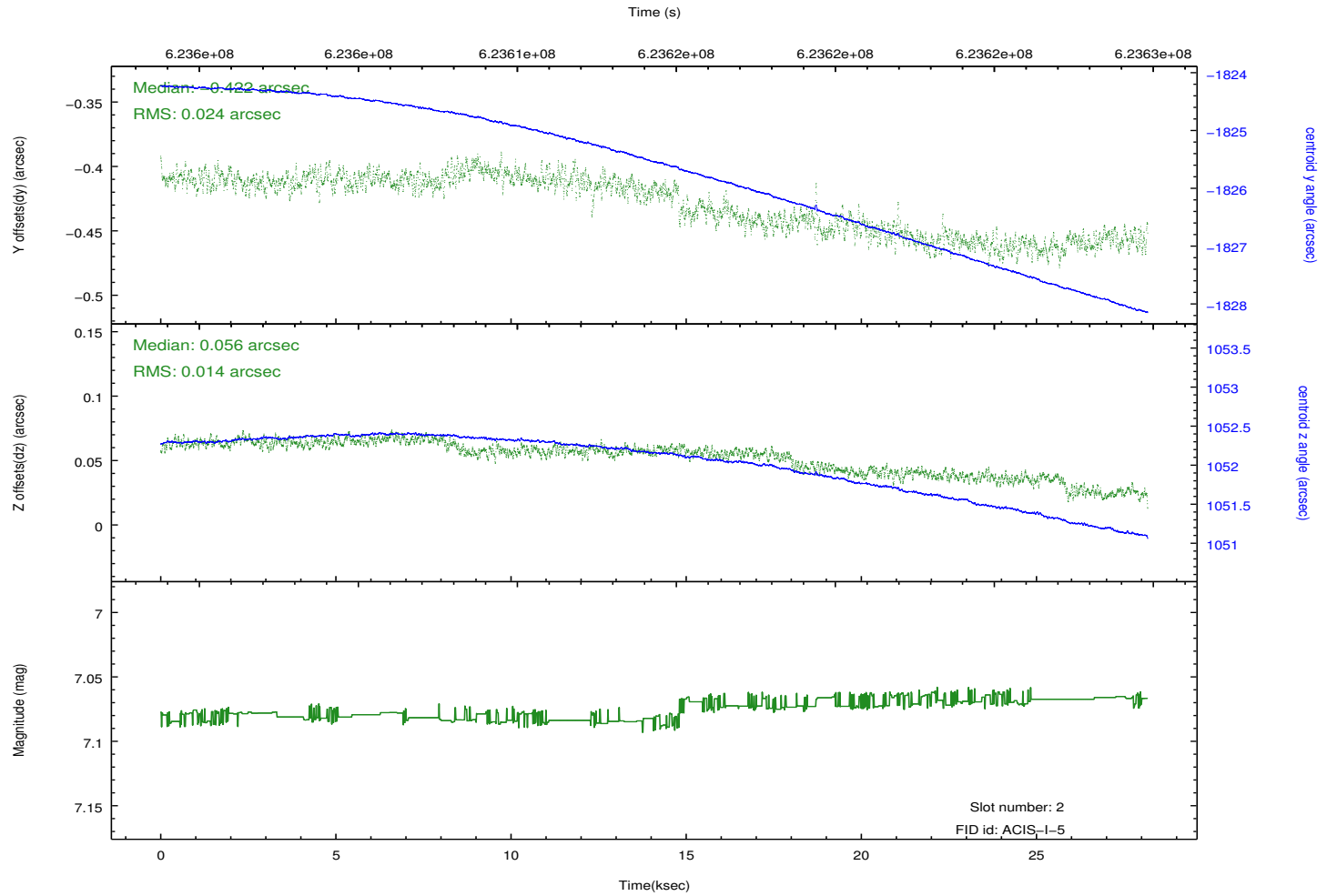
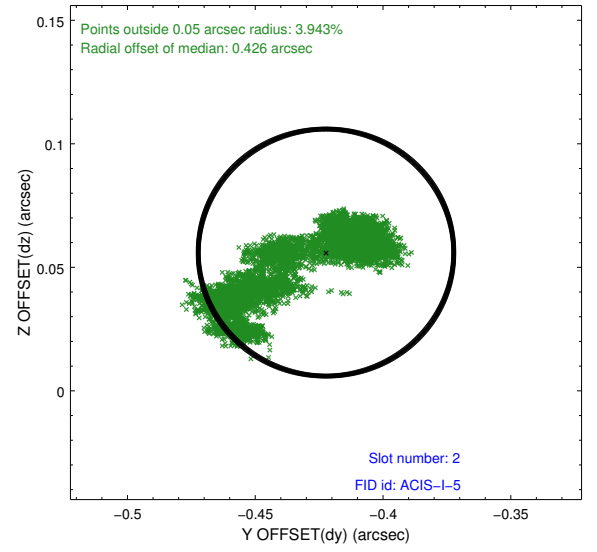
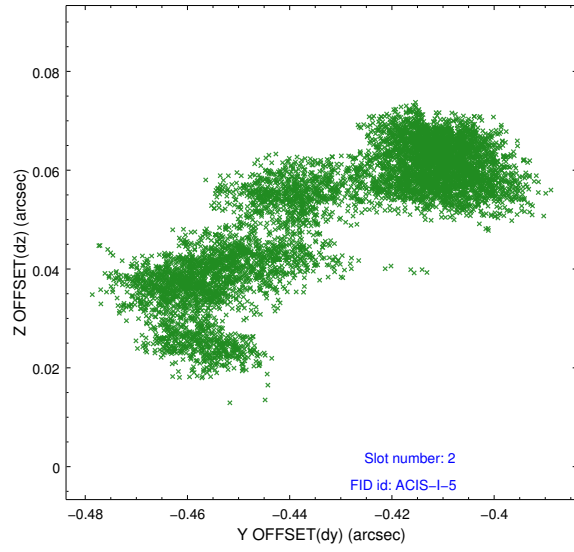
2.5.1 Slot 0



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)	2017.10.06
V&V Edition	2
V&V Disposition and Status	OK
V&V Charge Time	28.082900216103

A.2 Comments

A spatial region of the original bias map for CCD = 0 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original 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. In this case, the bias map for CCD = 0 could not be improved because no suitable data at a compatible temperature and time range are available to use as replacement values. The bias map used in this processing is the original bias map telemetered with the observation.