

V&V Reference Report

L2 ASCDS Version : 10.6

Observation 19566 - L2 Version 2
Chandra X-Ray Center

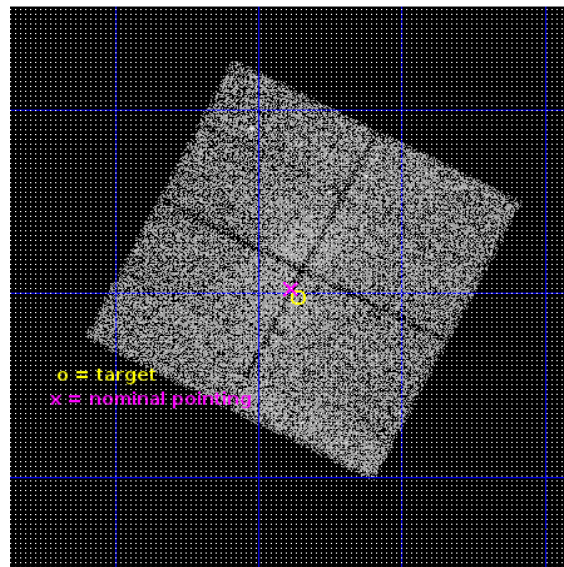
L2 Processing Date : Nov 22 2017

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1 Front

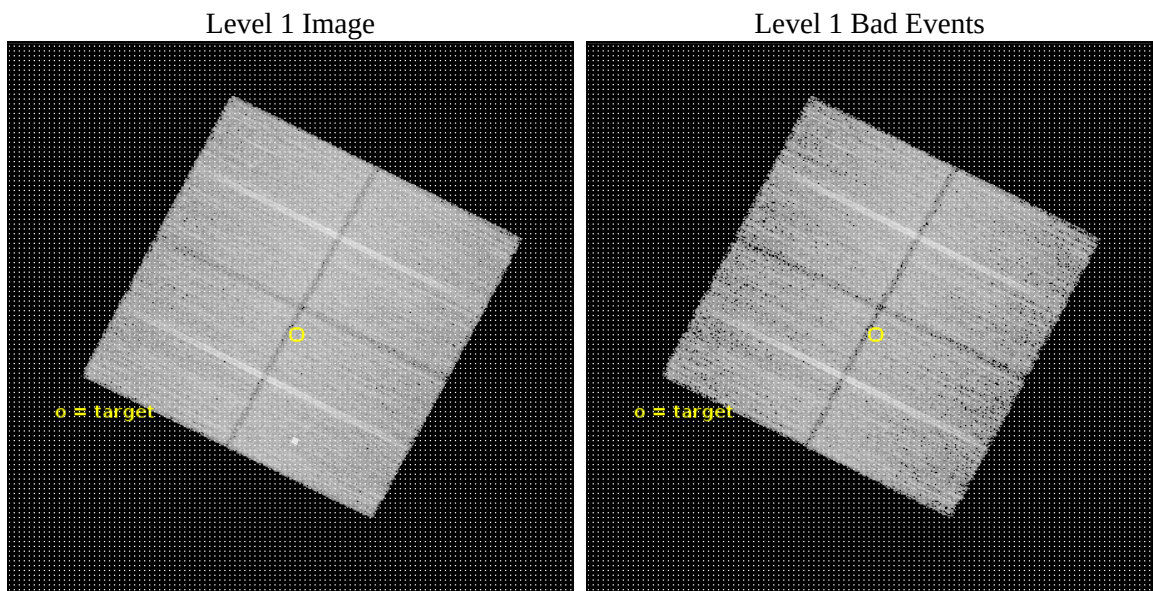
seq_num	801659	Sequence number
obs_id	19566	Observation id
title	A Violent merger in the cluster PLCKESZ G200.9-28.2: Relic formation caught in action?	Proposal title
observer	Daniel Wik	Principal investigator
object	PLCKESZ G200.9-28.2	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	72.589954	Observer's specified target RA [deg]
dec_targ	-3.004375	Observer's specified target Dec [deg]
ra_nom	72.59620305217	Nominal RA [deg]
dec_nom	-2.9957805490546	Nominal Dec [deg]
roll_nom	27.209012510692	Nominal Roll [deg]
revision	2	Processing version of data
ontime	25075.859132767	Sum of GTIs [s]
livetime	24748.224572618	Livetime [s]
ontime0	25066.435931802	Sum of GTIs [s]
ontime1	25075.859132767	Sum of GTIs [s]
ontime2	25072.718082428	Sum of GTIs [s]
ontime3	25079.000193	Sum of GTIs [s]
l2events	68779	Number of level 2 events



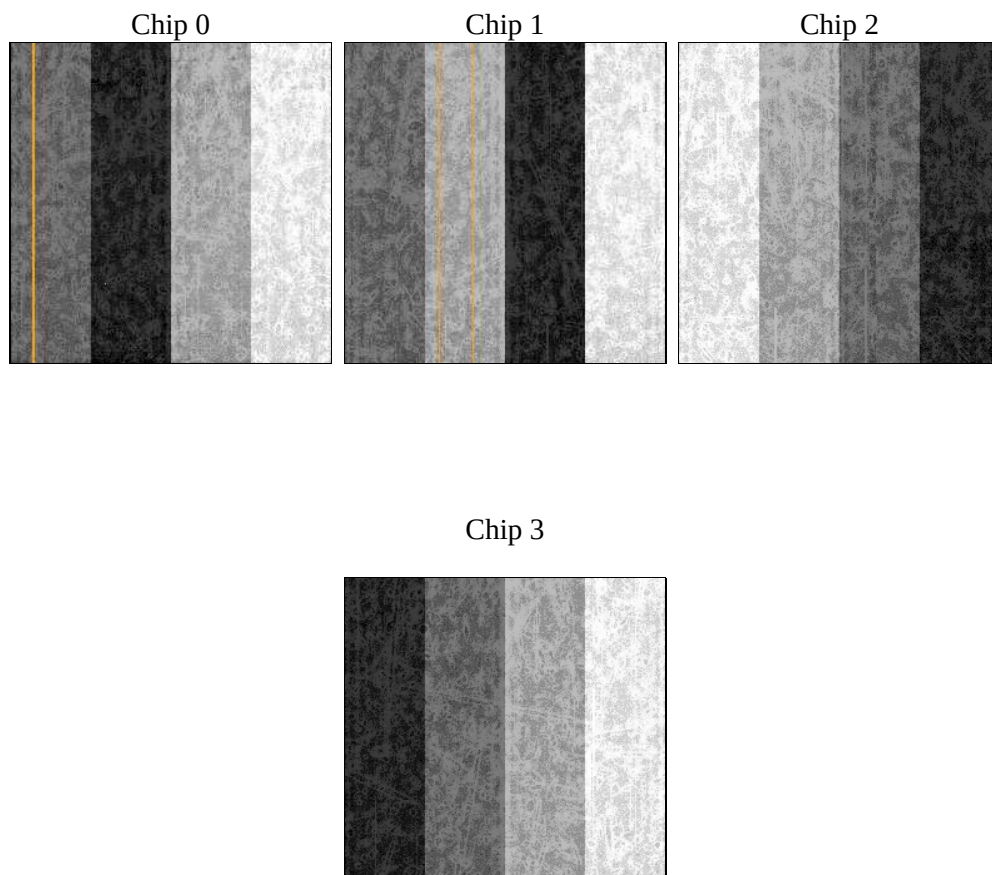
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	25000.000000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	25075.859132767	Sum of GTIs [s]
caldsver	4.7.6	 	ontime0	25066.435931802	Sum of GTIs [s]
date	2017-11-22T17:32:17	Date and time of file creation	ontime1	25075.859132767	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	25072.718082428	Sum of GTIs [s]
			ontime3	25079.000193	Sum of GTIs [s]
			l1events	698645	Number of level 1 events

2.1.4 Events

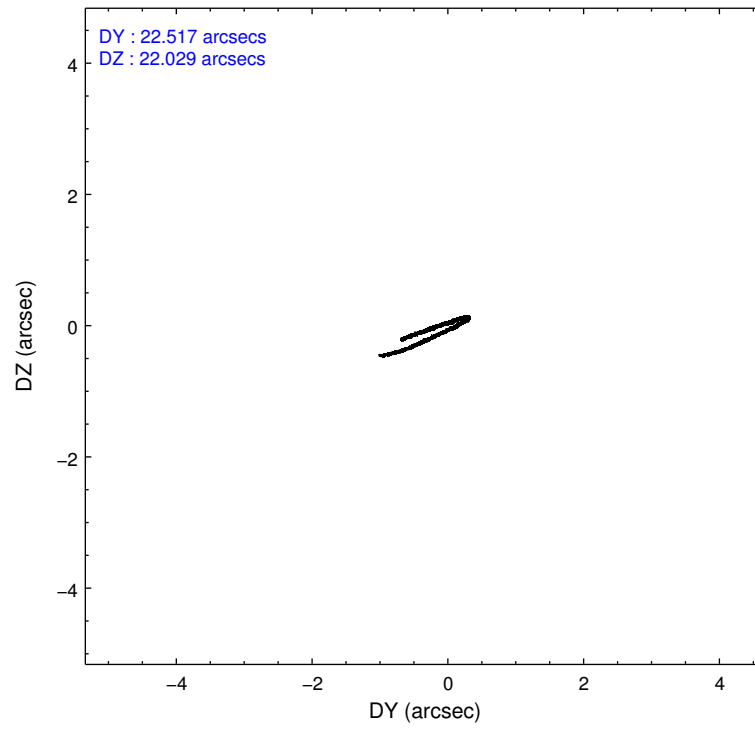
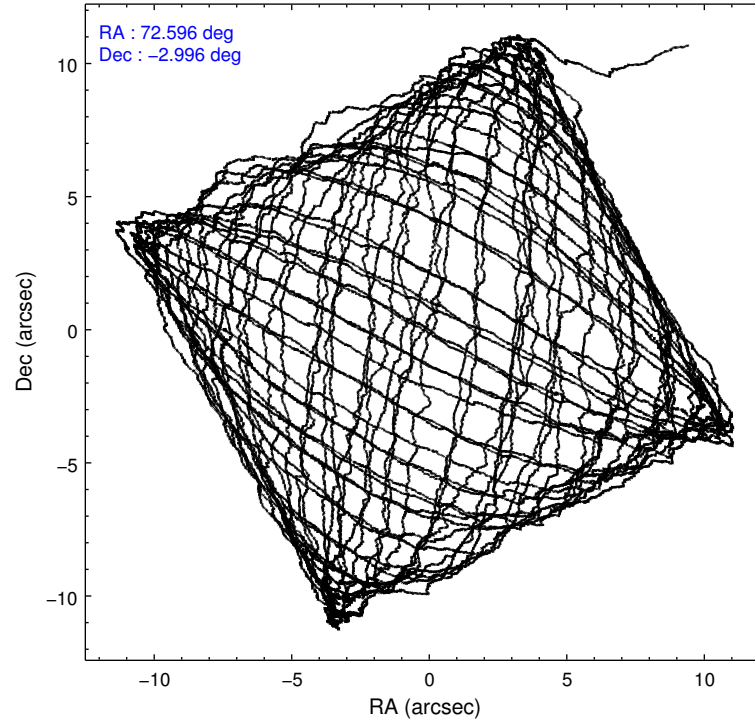
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	166257	171028	183772	177588
rejected events	145699	147594	163577	158685
rejected %	87%	86%	89%	89%

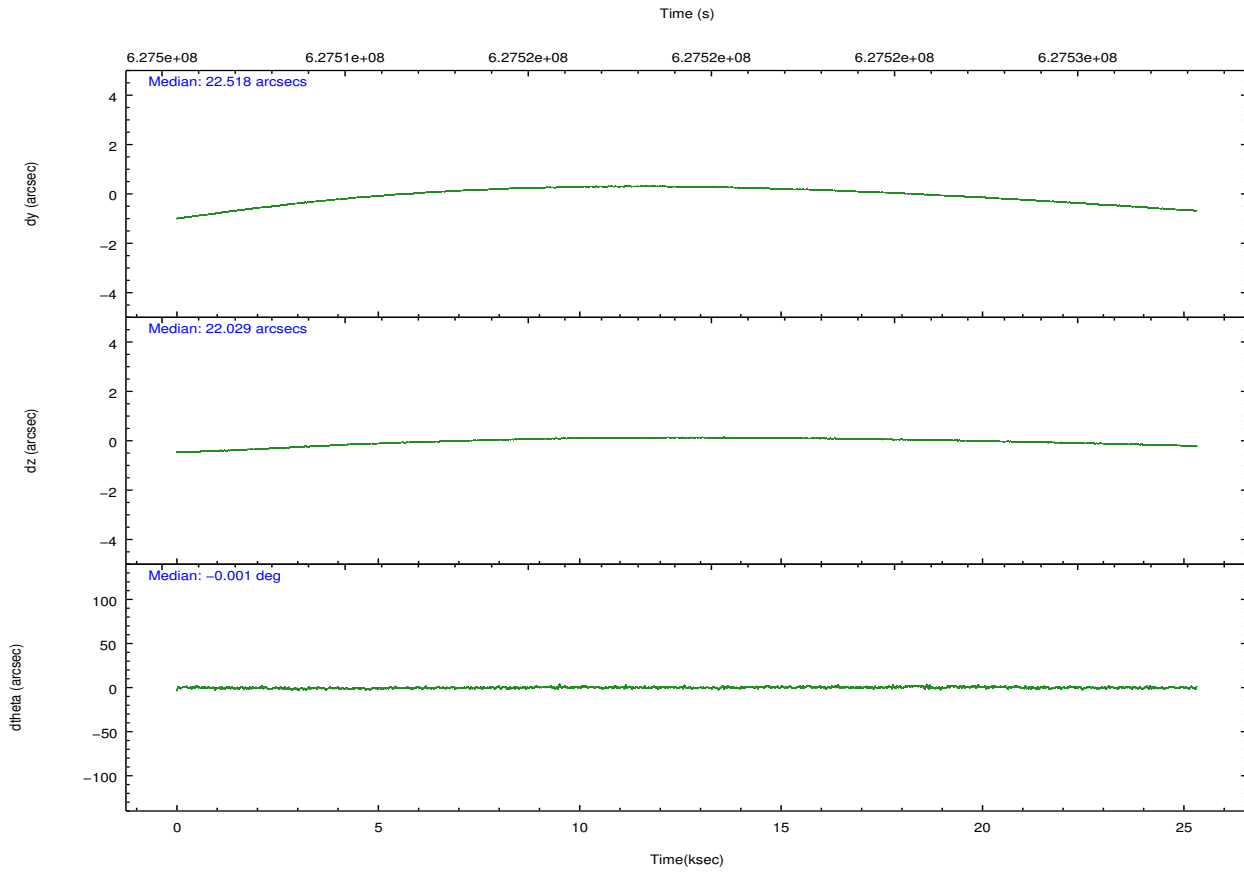
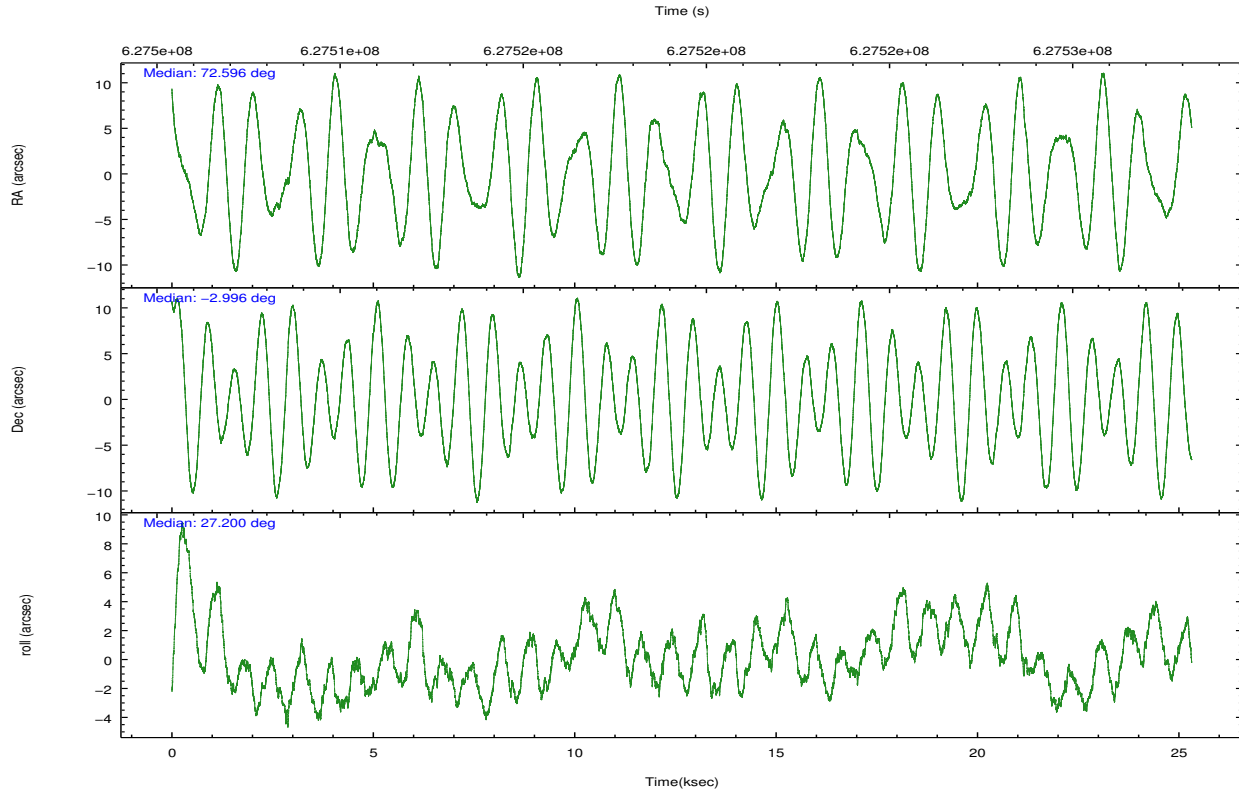
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	7239	8849	7688	6652
	4%	5%	4%	3%
grade 1 events	91	86	112	91
	0%	0%	0%	0%
grade 2 events	4955	5374	4648	4227
	2%	3%	2%	2%
grade 3 events	2106	2089	1953	1966
	1%	1%	1%	1%
grade 4 events	1976	2010	1917	2021
	1%	1%	1%	1%
grade 5 events	7718	7873	7088	8438
	4%	4%	3%	4%
grade 6 events	4284	5114	3994	4040
	2%	2%	2%	2%
grade 7 events	137888	139633	156372	150153
	82%	81%	85%	84%

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	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	72.581302	72.59620305217013	CCD I2 on	Y	Y
[deg] Pointing Dec	-3.019056	-2.995780549054642	CCD I3 on	Y	Y
[deg] Pointing Roll	26.999545	27.20901251069188	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	N	N
[mm] SIM translation stage pos	-239.442463	-239.4407604828604	CCD S3 on	O1	N
[mm] SIM translation stage offset	5.85	5.848307479930696	CCD S4 on	N	N
[s] Observation start time (MET)	627506982.184000	627506032.58787	CCD S5 on	N	N
Observation start date	2017-11-19T19:28:33	2017-11-19T19:13:52	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	627531982.184000	627532549.33943	On-chip summing requested	N	N
Observation end date	2017-11-20T02:25:13	2017-11-20T02:35:49	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



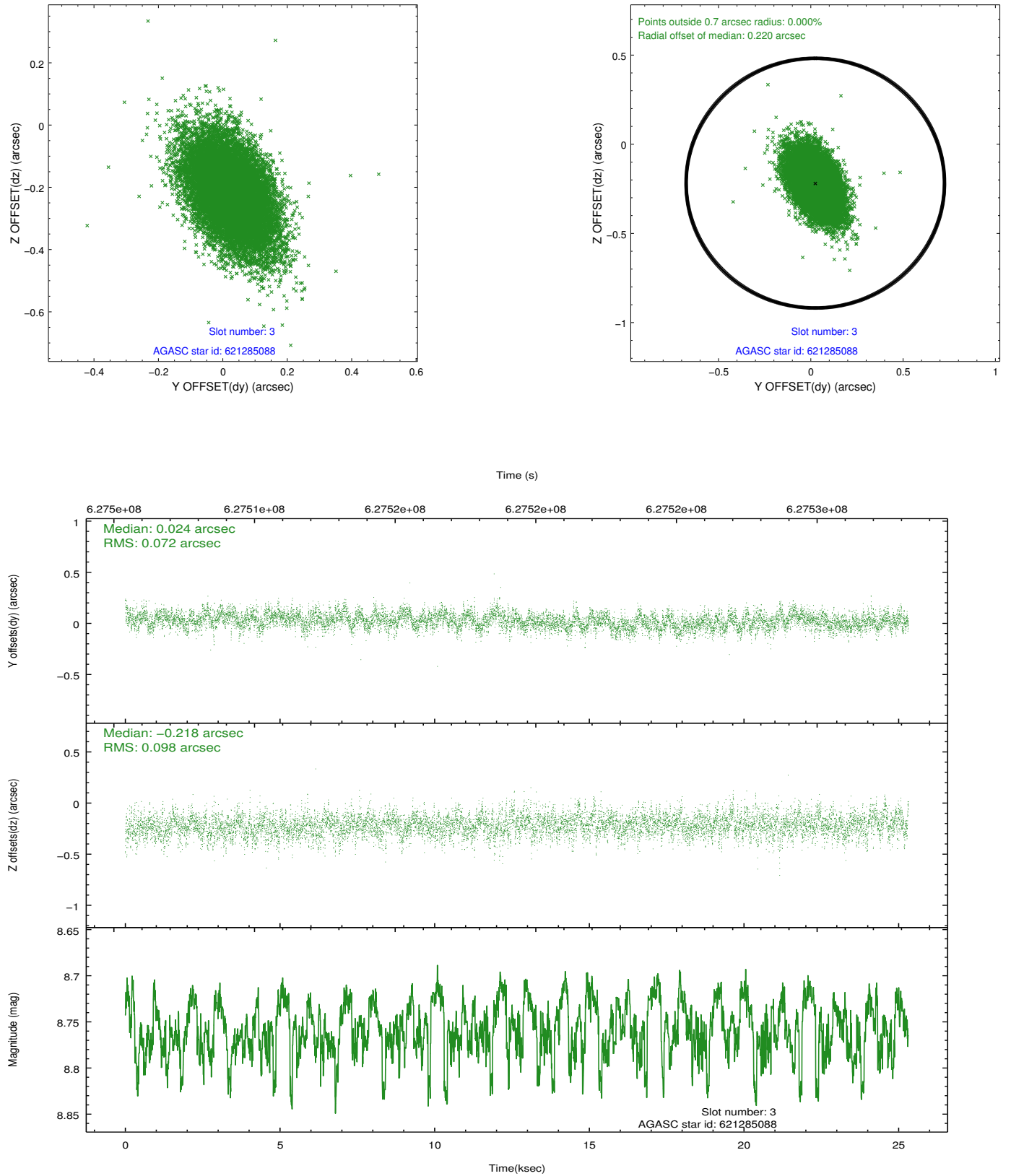


Slot Statistics

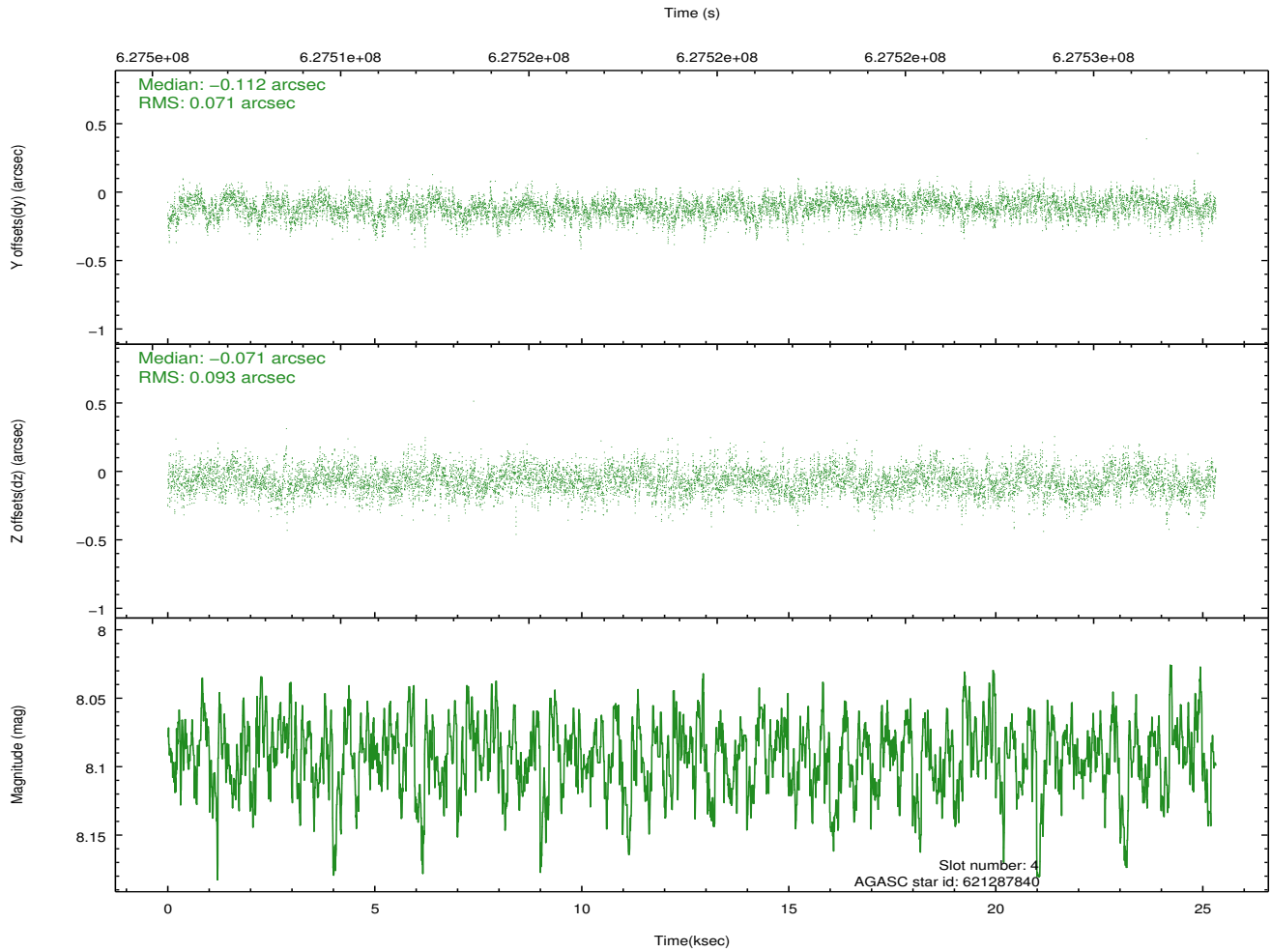
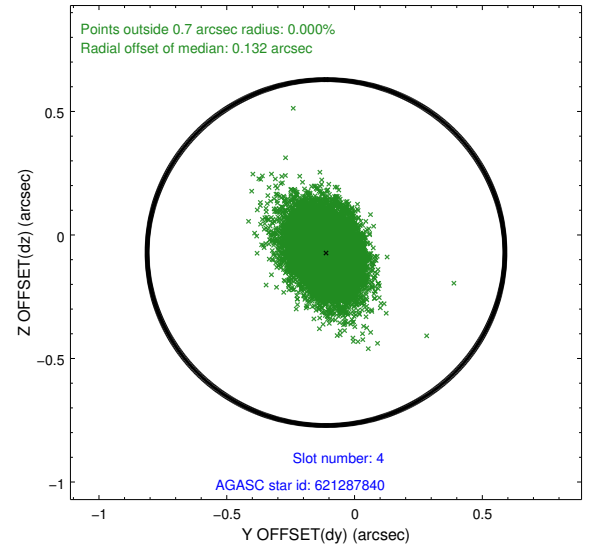
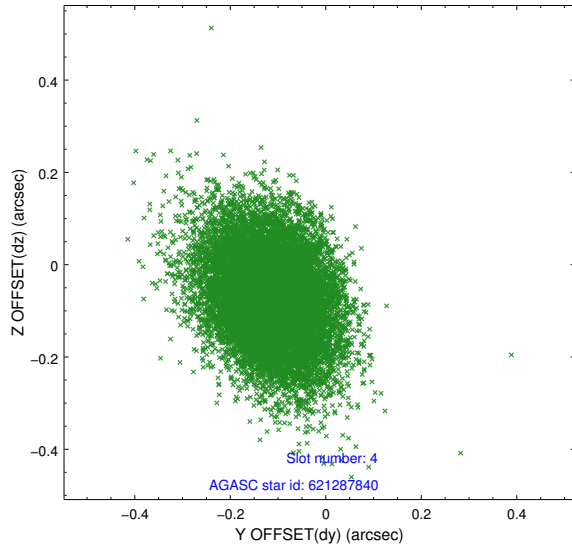
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-2	7.16	6175	-0.371	-0.221	0.016	0.054	0.000000	0.000000	-777.31	-732.87
1	FID		ACIS-I-4	7.24	6175	0.433	0.179	0.014	0.041	0.000000	0.000000	2137.55	1173.64
2	FID		ACIS-I-6	7.24	6175	-0.163	0.103	0.011	0.019	0.000000	0.000000	382.86	1816.65
3	GUIDE	used	621285088	8.76	12335	0.024	-0.218	0.125	0.221	72.185532	-2.636590	-643.56	1872.32
4	GUIDE	used	621287840	8.09	12344	-0.112	-0.071	0.122	0.205	72.904853	-2.949814	1149.85	-305.80
5	GUIDE	used	621289504	8.89	12341	-0.036	0.198	0.138	0.239	73.076403	-3.394128	972.97	-2010.83
6	GUIDE	used	621817120	8.68	12339	0.481	0.711	0.133	0.220	72.343289	-3.782403	-2008.20	-2060.23
7	GUIDE	used	621284808	8.61	12339	-0.355	-0.617	0.126	0.219	72.478666	-2.477405	555.92	1904.38

2.4 Star Slots

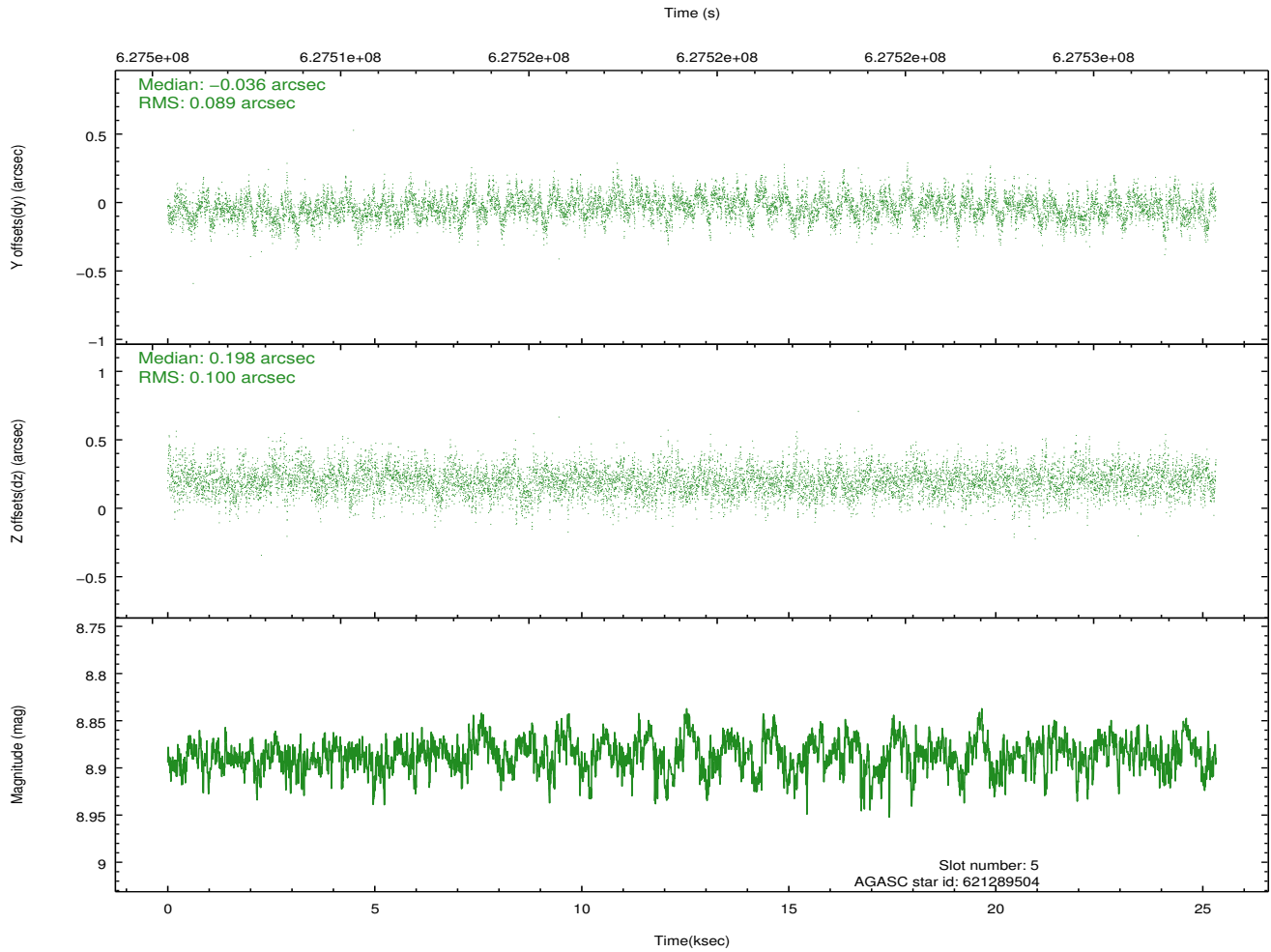
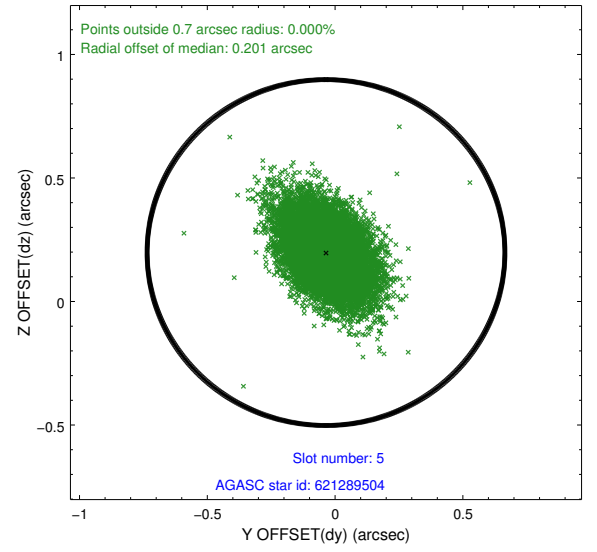
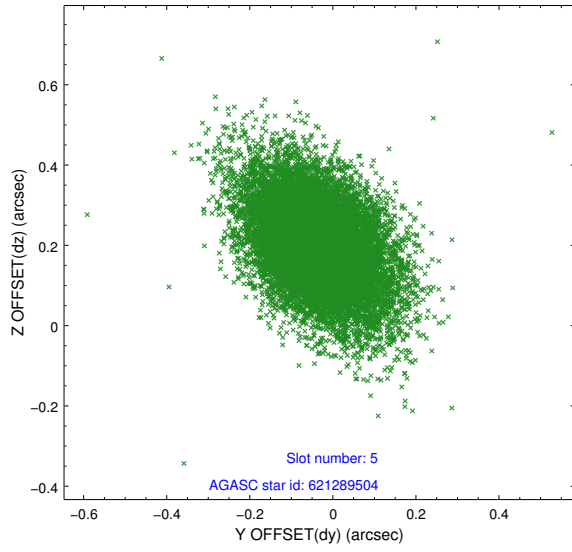
2.4.1 Slot 3



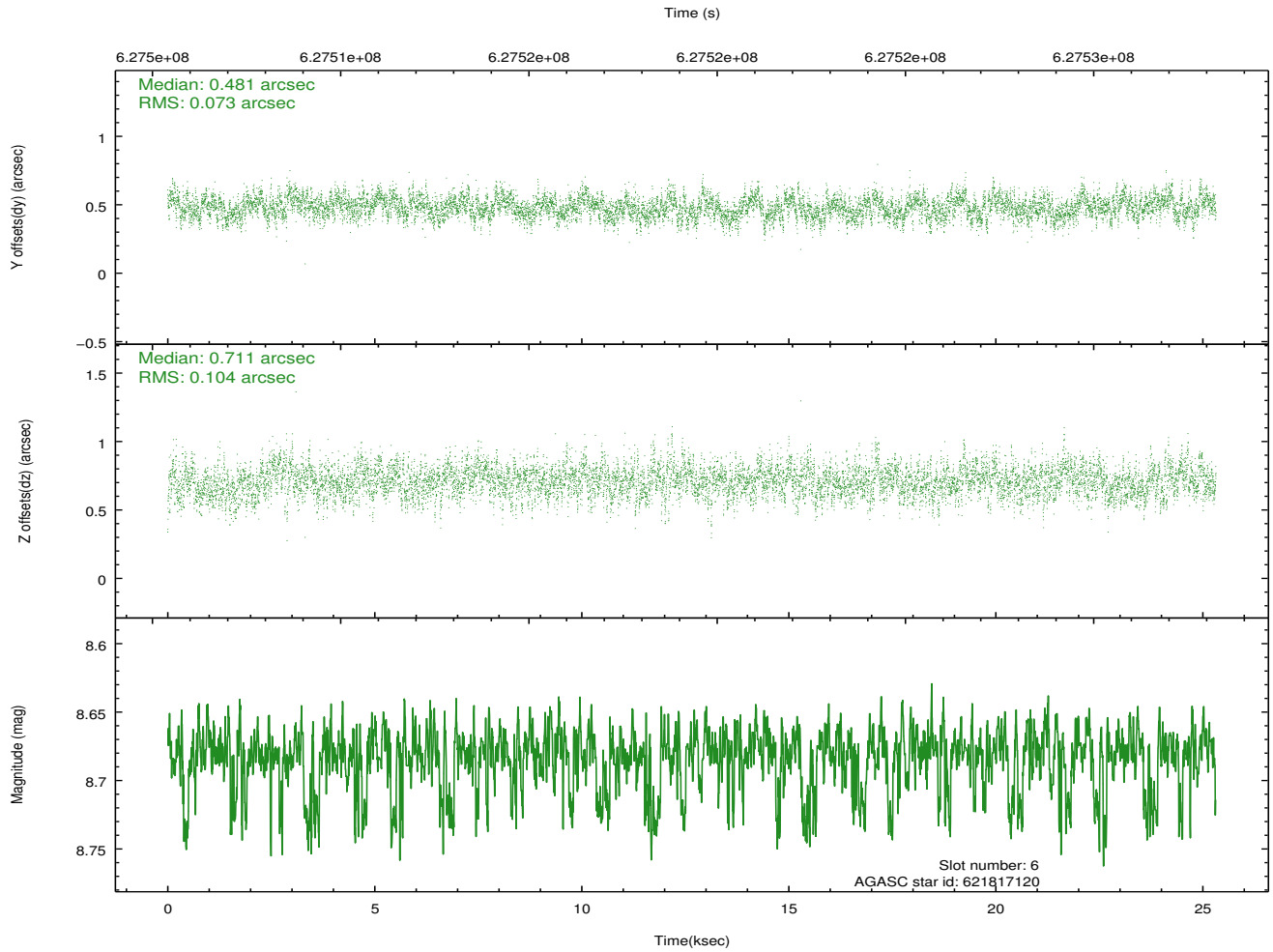
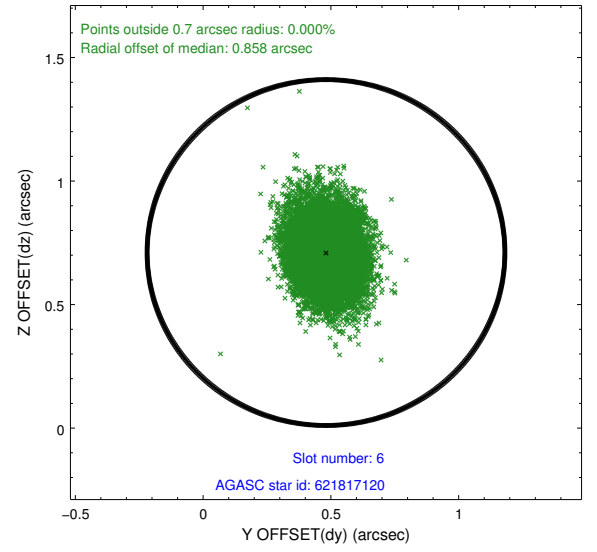
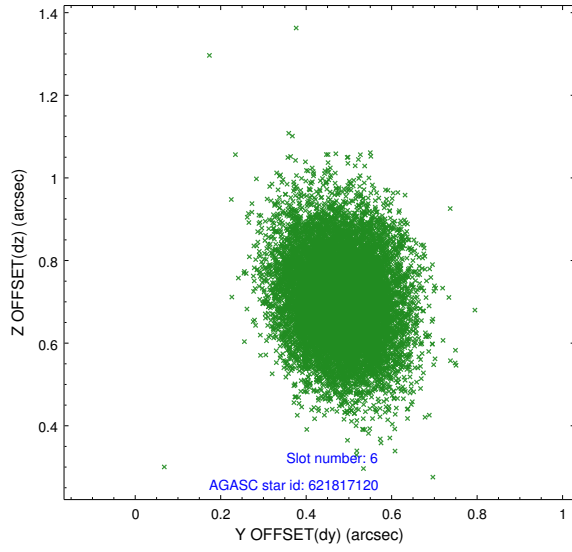
2.4.2 Slot 4



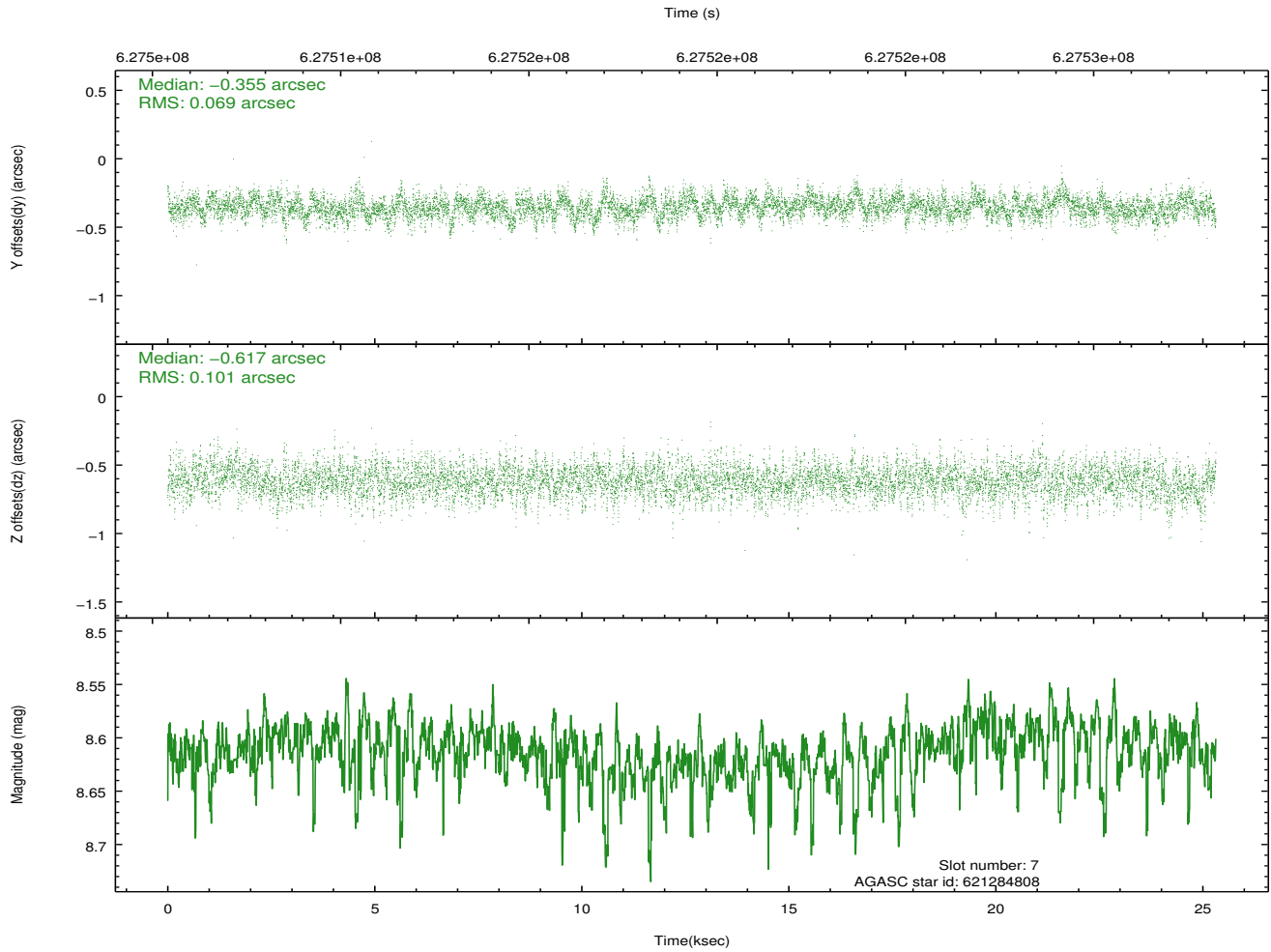
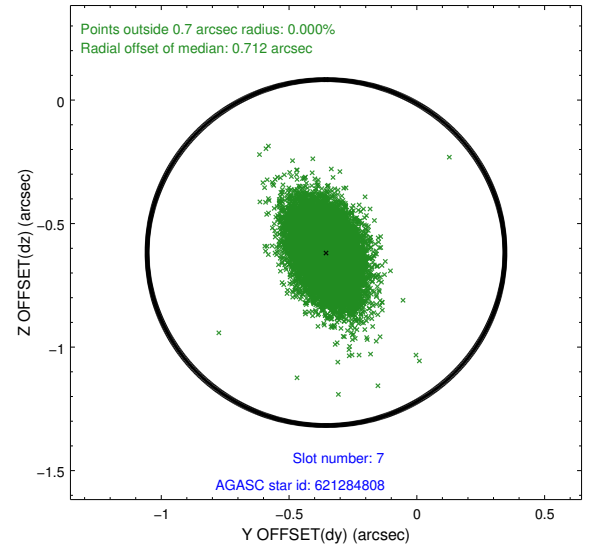
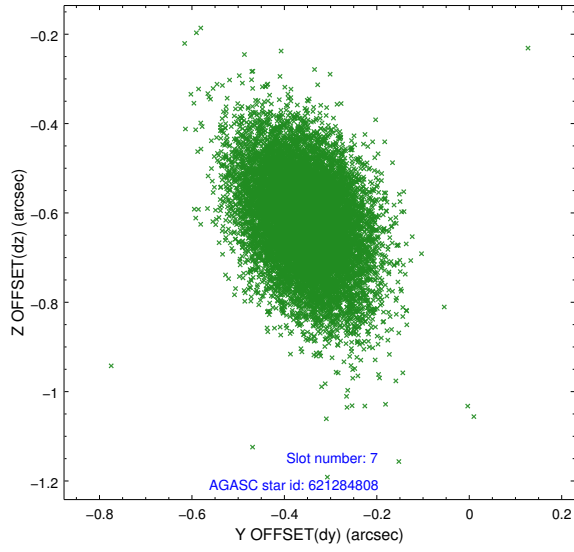
2.4.3 Slot 5



2.4.4 Slot 6

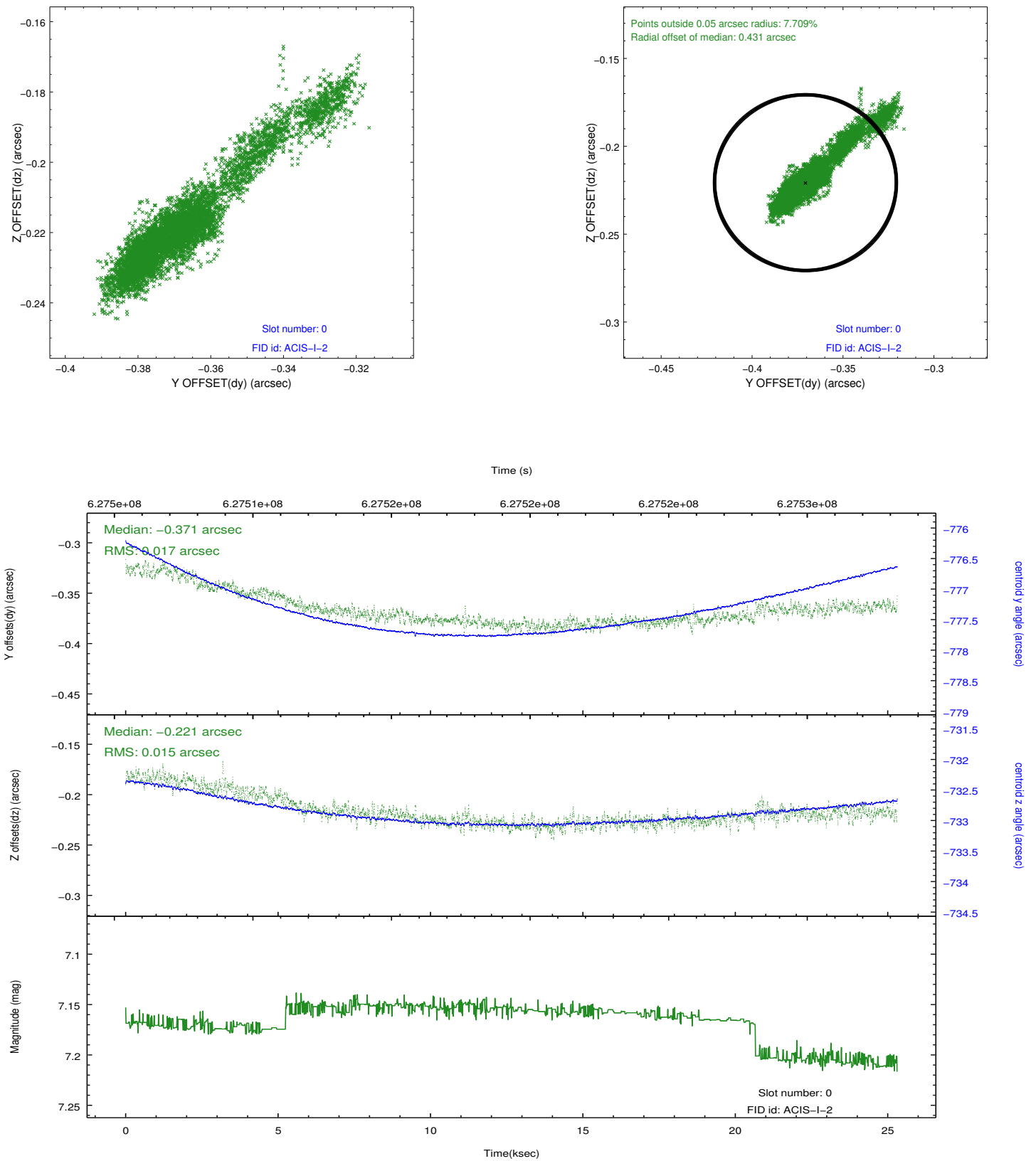


2.4.5 Slot 7

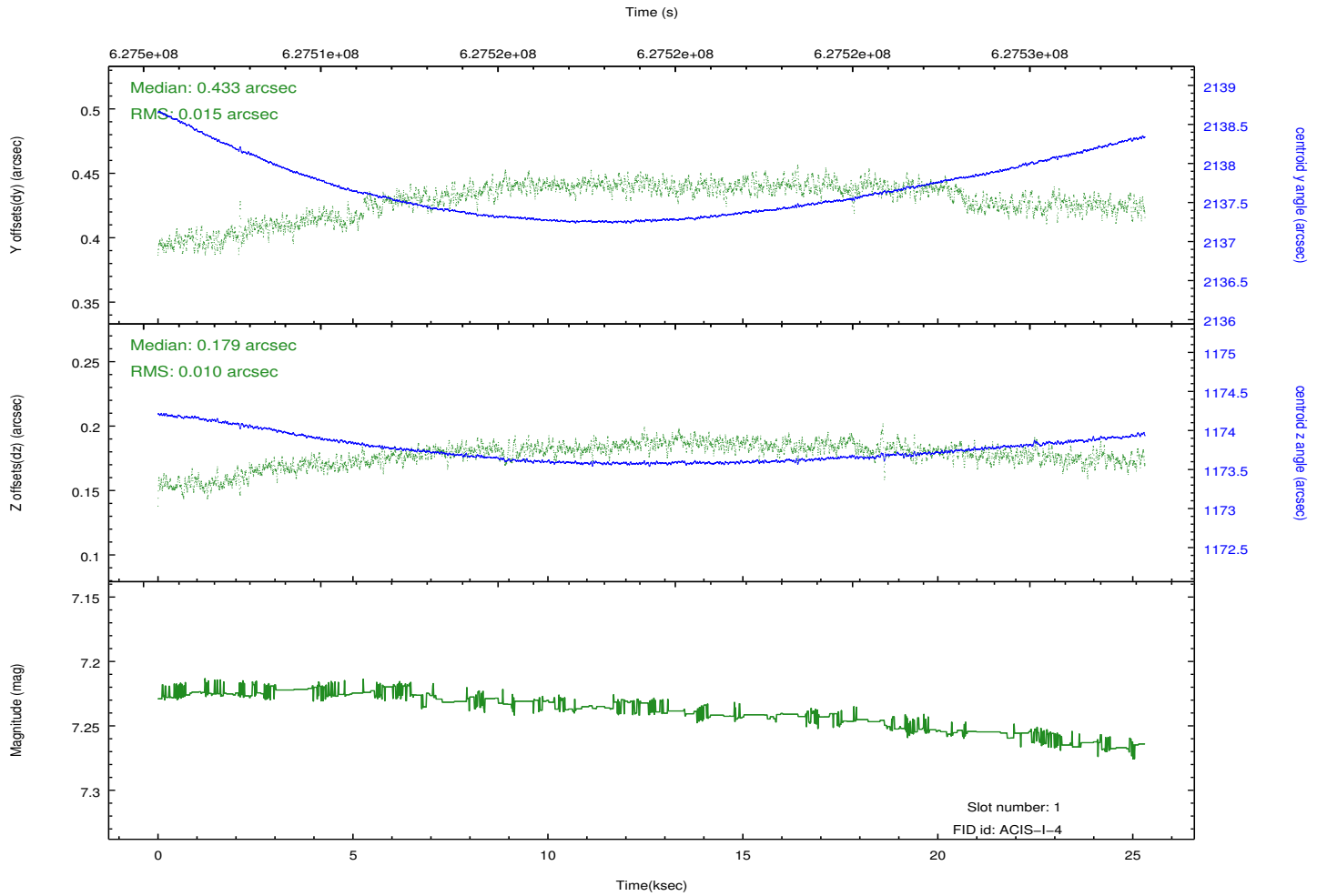
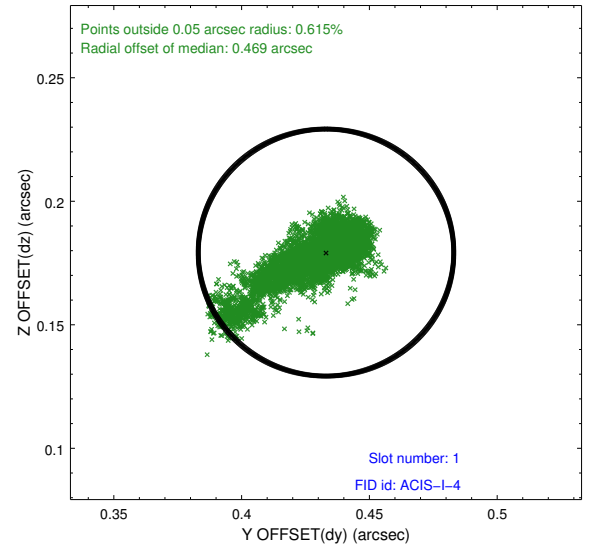
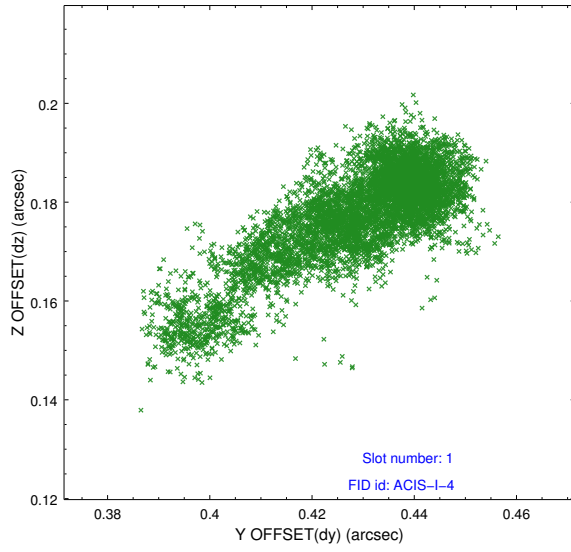


2.5 FID Slots

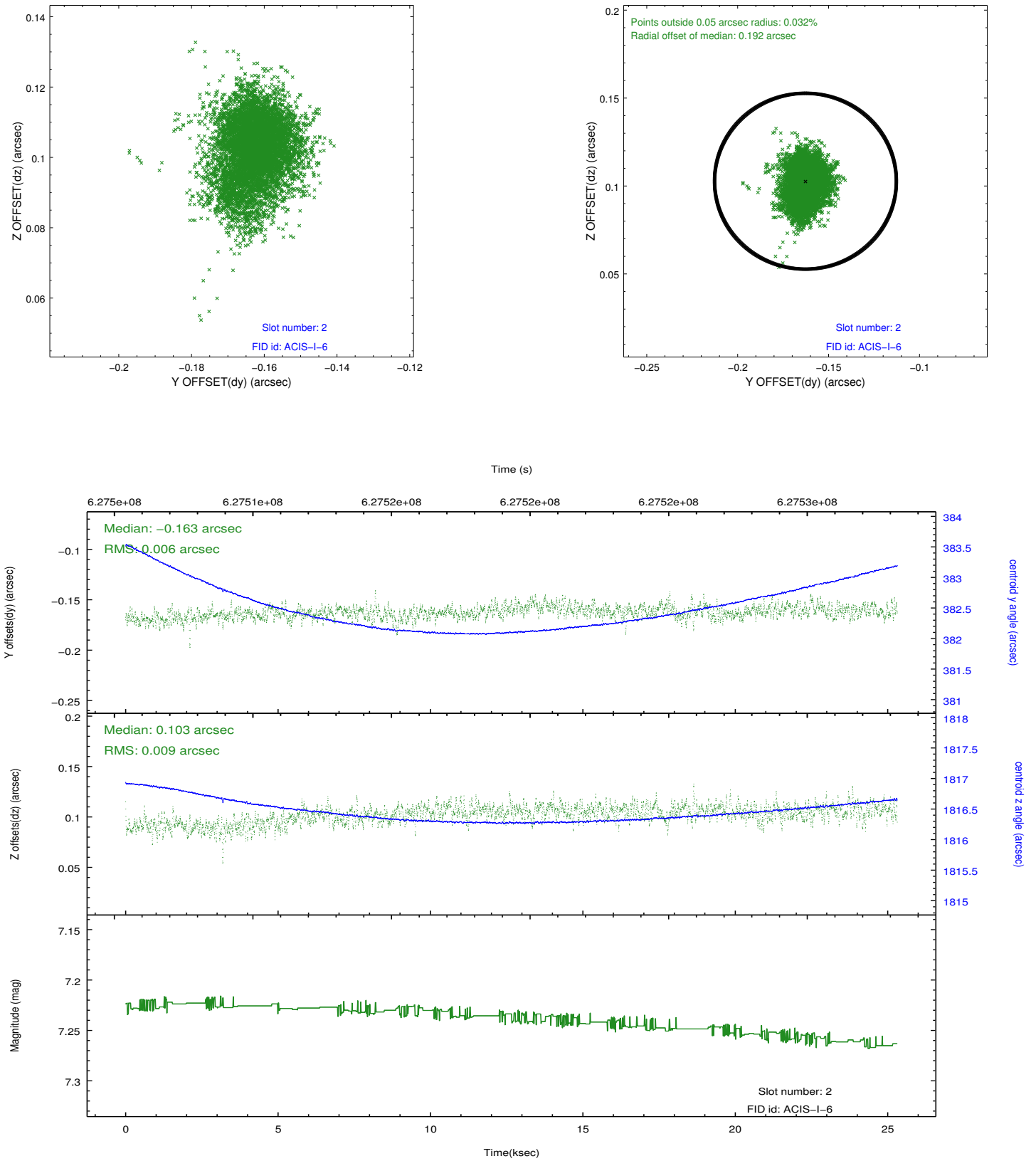
2.5.1 Slot 0



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)	2017.11.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.075859132767

A.2 Comments

One optional chip was dropped.

A spatial region of the original bias map for CCD = 2 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. The bias map for CCD = 2 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords: (72.67324,-2.83890), (72.67192,-2.83635), (72.54774,-2.90014), (72.54905,-2.90268).