

V&V Reference Report

L2 ASCDS Version : 10

Observation 15174 - L2 Version 2
Chandra X-Ray Center

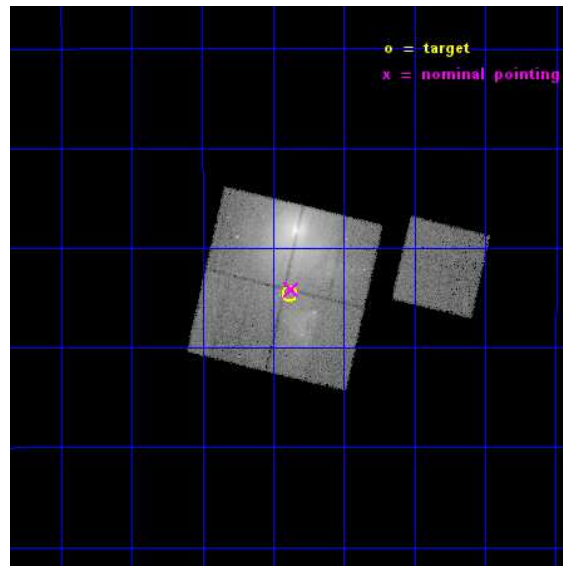
L2 Processing Date : Dec 5 2014

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1 Front

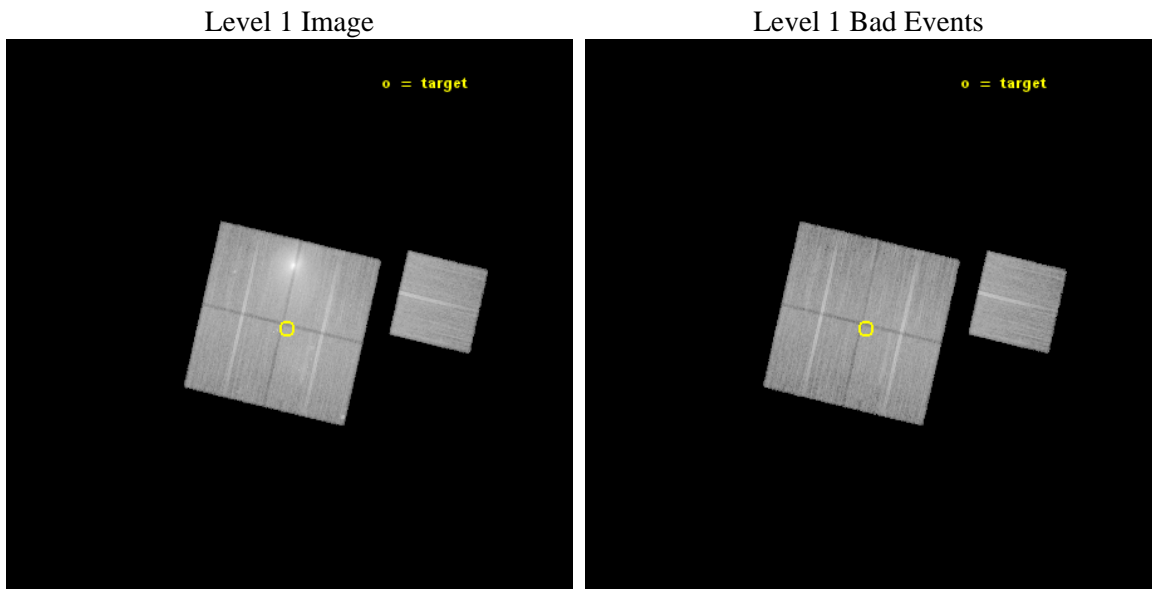
seq_num	801301	Sequence number
obs_id	15174	Observation id
title	Tracing a merger from start to finish in Abell 85	Proposal title
observer	Prof. Steven Allen	Principal investigator
object	Abell 85	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	10.471913	Observer's specified target RA [deg]
dec_targ	-9.409453	Observer's specified target Dec [deg]
ra_nom	10.467746363722	Nominal RA [deg]
dec_nom	-9.40249537996	Nominal Dec [deg]
roll_nom	103.20801553416	Nominal Roll [deg]
revision	2	Processing version of data
ontime	40076.718247354	Sum of GTIs [s]
livetime	39553.086419402	Livetime [s]
ontime0	40083.000308275	Sum of GTIs [s]
ontime1	40079.859288037	Sum of GTIs [s]
ontime2	40079.859297931	Sum of GTIs [s]
ontime3	40076.718247354	Sum of GTIs [s]
ontime6	40076.718257725	Sum of GTIs [s]
l2events	339834	Number of level 2 events



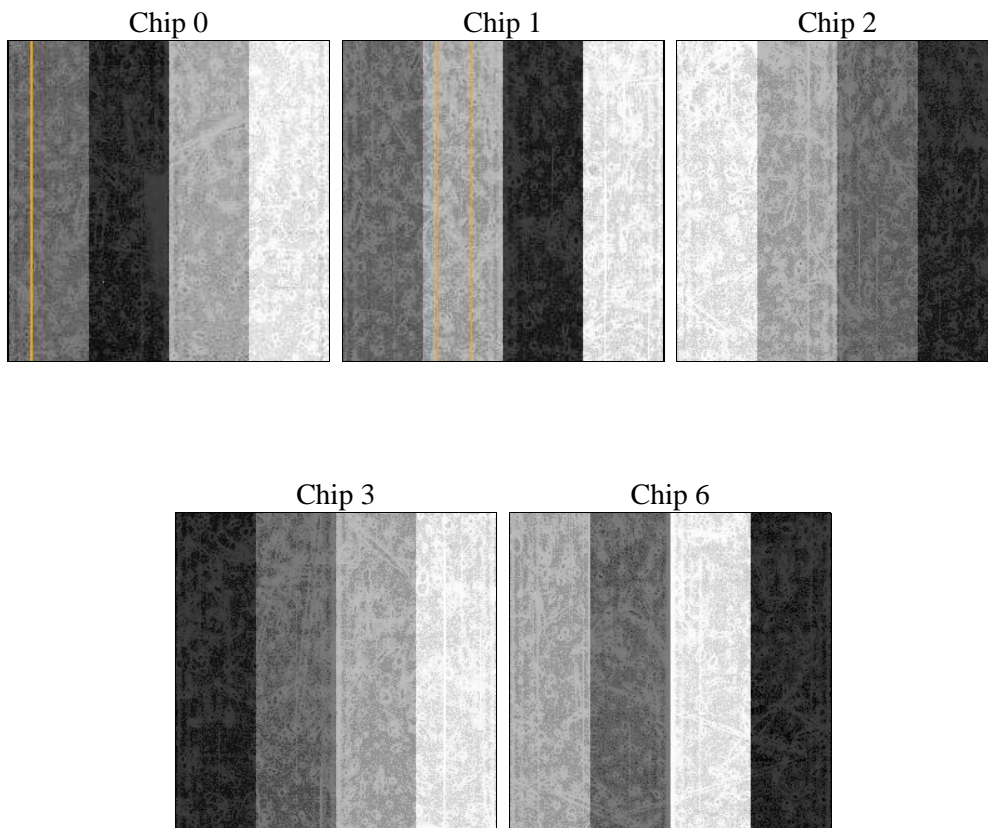
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	40076.718247354	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	40083.000308275	Sum of GTIs [s]
date	2014-12-06T03:16:26	Date and time of file creation	ontime1	40079.859288037	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	40079.859297931	Sum of GTIs [s]
			ontime3	40076.718247354	Sum of GTIs [s]
			ontime6	40076.718257725	Sum of GTIs [s]
			l1events	1193223	Number of level 1 events

2.1.4 Events

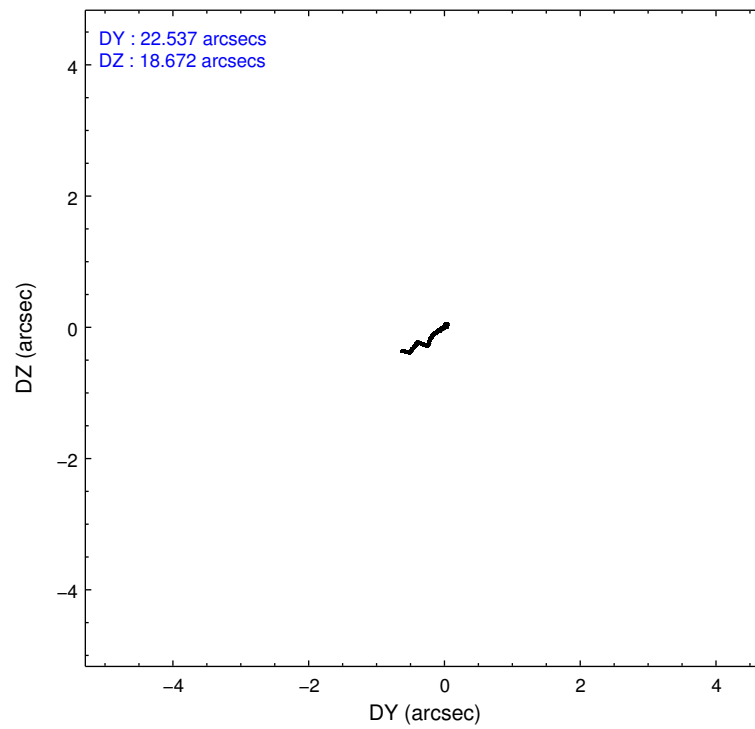
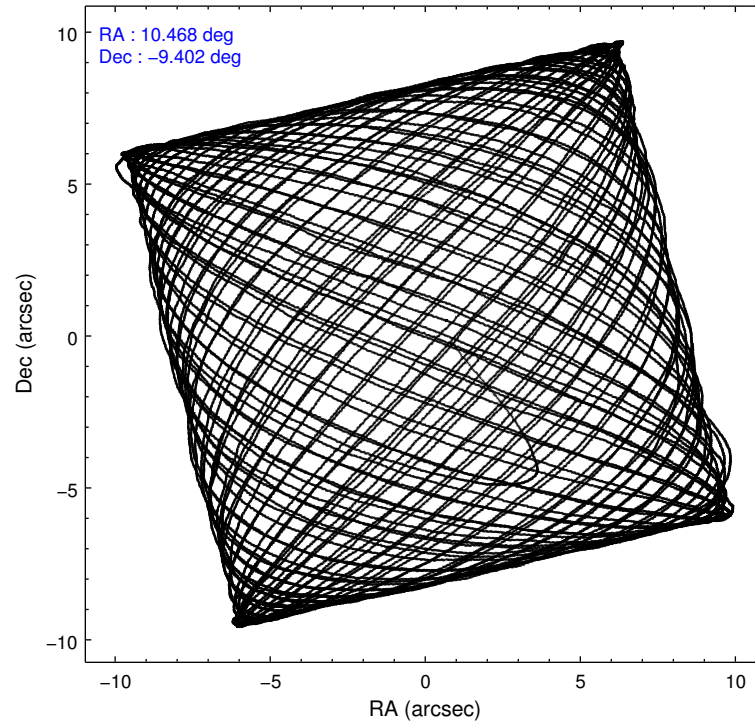
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	301207	186727	296422	213305	195562
rejected events	154227	149998	171460	167993	170030
rejected %	51%	80%	57%	78%	86%

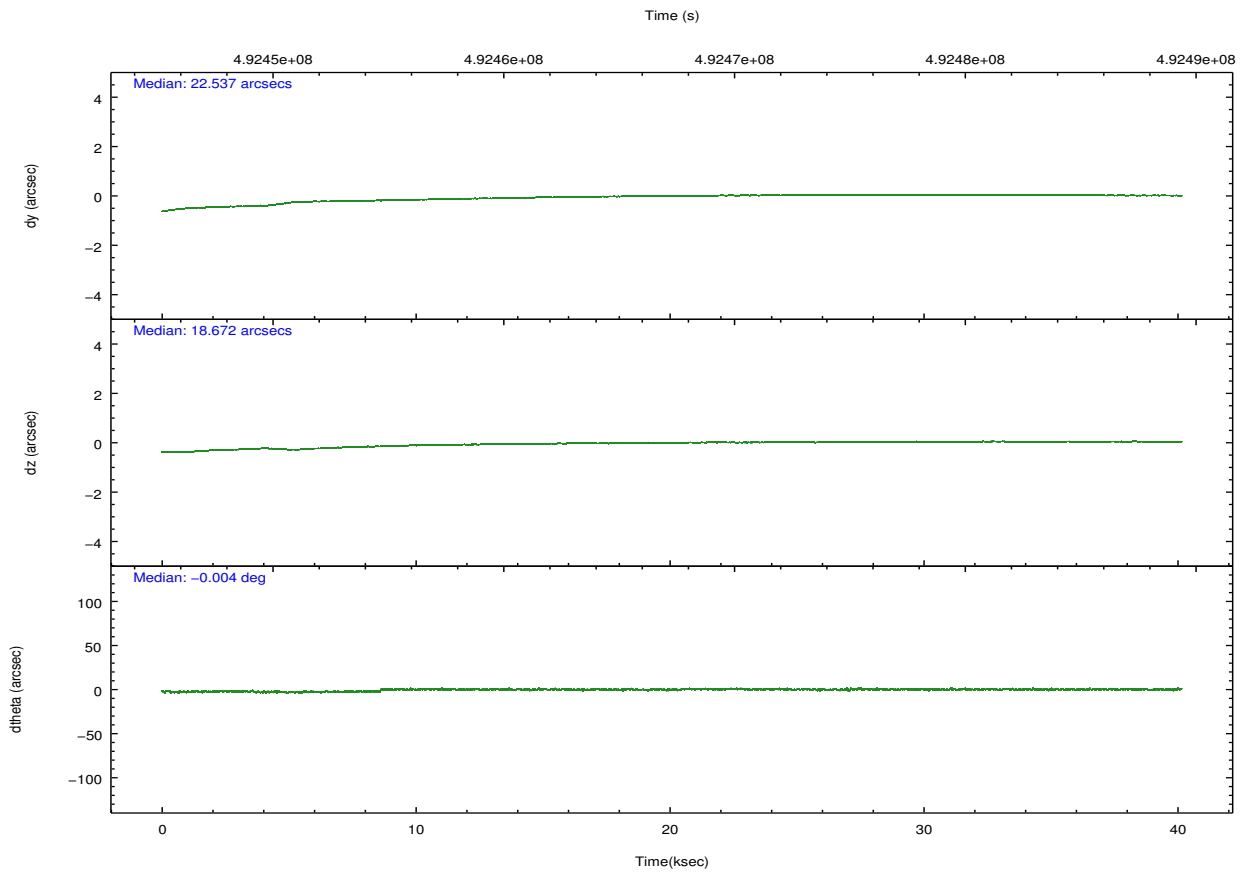
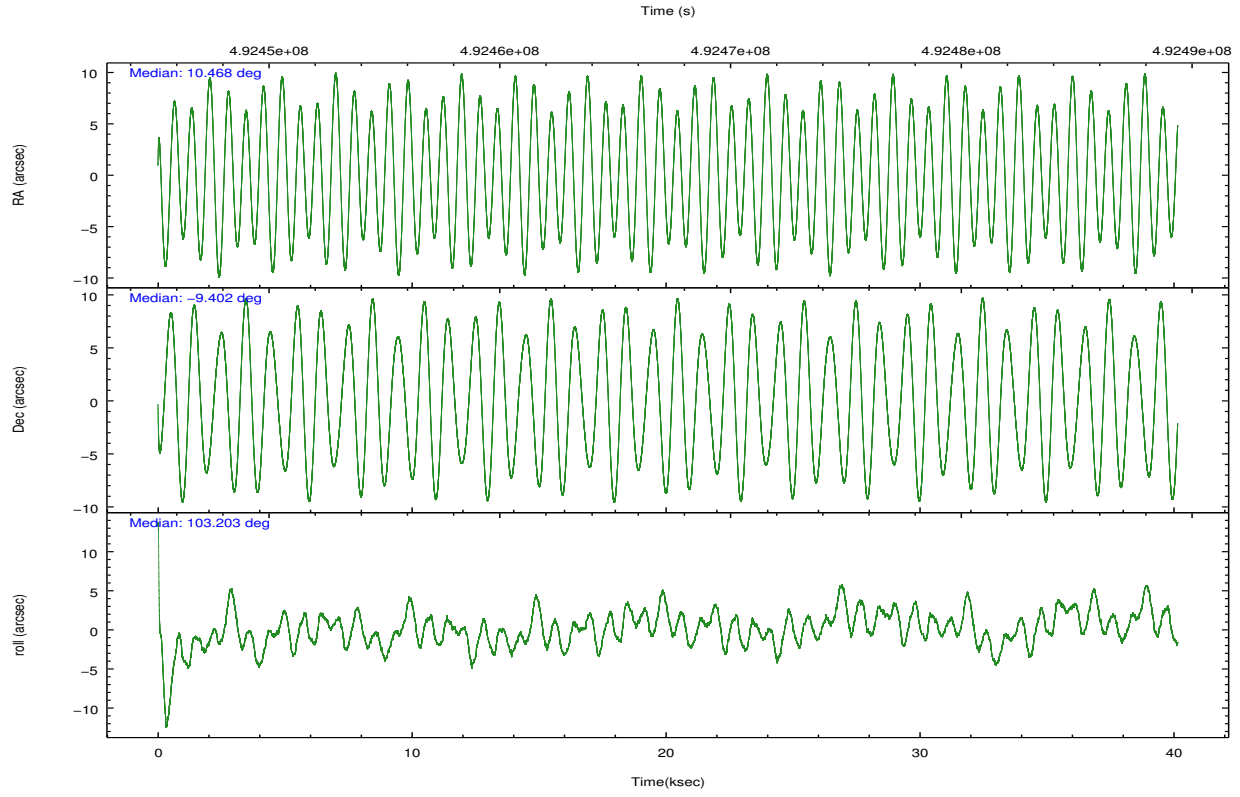
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	106818	18030	90075	26912	9647
	35%	9%	30%	12%	4%
grade 1 events	439	137	393	183	99
	0%	0%	0%	0%	0%
grade 2 events	18945	7278	16325	7185	5479
	6%	3%	5%	3%	2%
grade 3 events	6423	2810	5610	2989	2491
	2%	1%	1%	1%	1%
grade 4 events	6369	2864	5595	2946	2503
	2%	1%	1%	1%	1%
grade 5 events	9651	9933	9107	10667	9992
	3%	5%	3%	5%	5%
grade 6 events	8455	5751	7376	5288	5420
	2%	3%	2%	2%	2%
grade 7 events	144107	139924	161941	157135	159931
	47%	74%	54%	73%	81%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	10.486921	10.46774636372176	CCD I2 on	Y	Y
[deg] Pointing Dec	-9.422456	-9.402495379959985	CCD I3 on	Y	Y
[deg] Pointing Roll	103.002460	103.2080155341568	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	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	492447344.184000	492446253.98641	CCD S5 on	N	N
Observation start date	2013-08-09T14:54:37	2013-08-09T14:37:33	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	492487344.184000	492488391.2262	On-chip summing requested	N	N
Observation end date	2013-08-10T02:01:17	2013-08-10T02:19:51	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





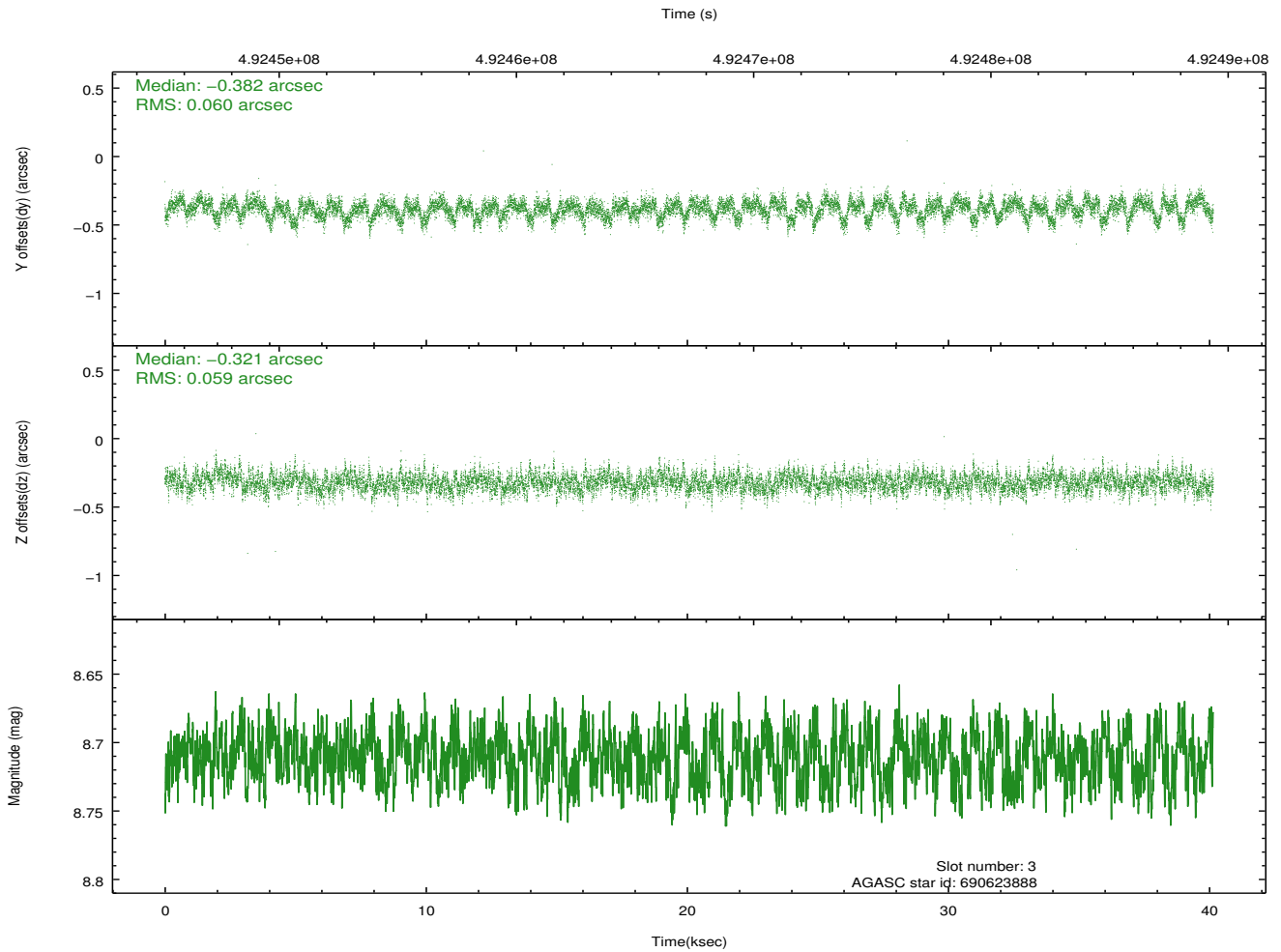
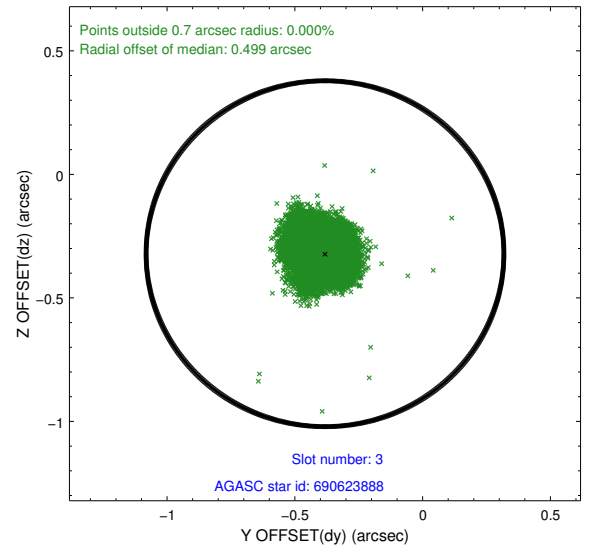
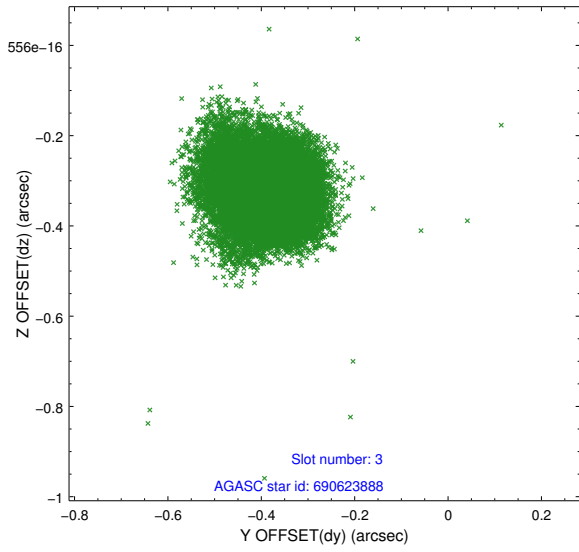
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.11	9793	-0.051	-0.005	0.011	0.050	0.000000	0.000000	916.78	-842.28
1	FID		ACIS-I-4	7.05	9794	0.324	0.051	0.010	0.040	0.000000	0.000000	2137.14	1057.63
2	FID		ACIS-I-5	7.09	9792	-0.372	0.025	0.010	0.028	0.000000	0.000000	-1831.58	1055.32
3	GUIDE	used	690623888	8.71	19573	-0.382	-0.321	0.088	0.147	10.089843	-9.212040	1054.33	1204.58
4	GUIDE	used	690625160	8.89	19577	0.025	-0.230	0.102	0.160	10.224219	-9.960066	-1676.45	1343.05
5	GUIDE	used	690632656	9.24	19573	0.126	-0.182	0.166	0.288	10.397747	-9.674983	-814.74	513.13
6	GUIDE	used	690636928	9.26	19536	0.262	0.381	0.162	0.247	11.054156	-9.568424	-966.13	-1842.88
7	GUIDE	used	690637960	6.82	19588	-0.032	0.342	0.088	0.144	10.711431	-9.921690	-1930.63	-370.64

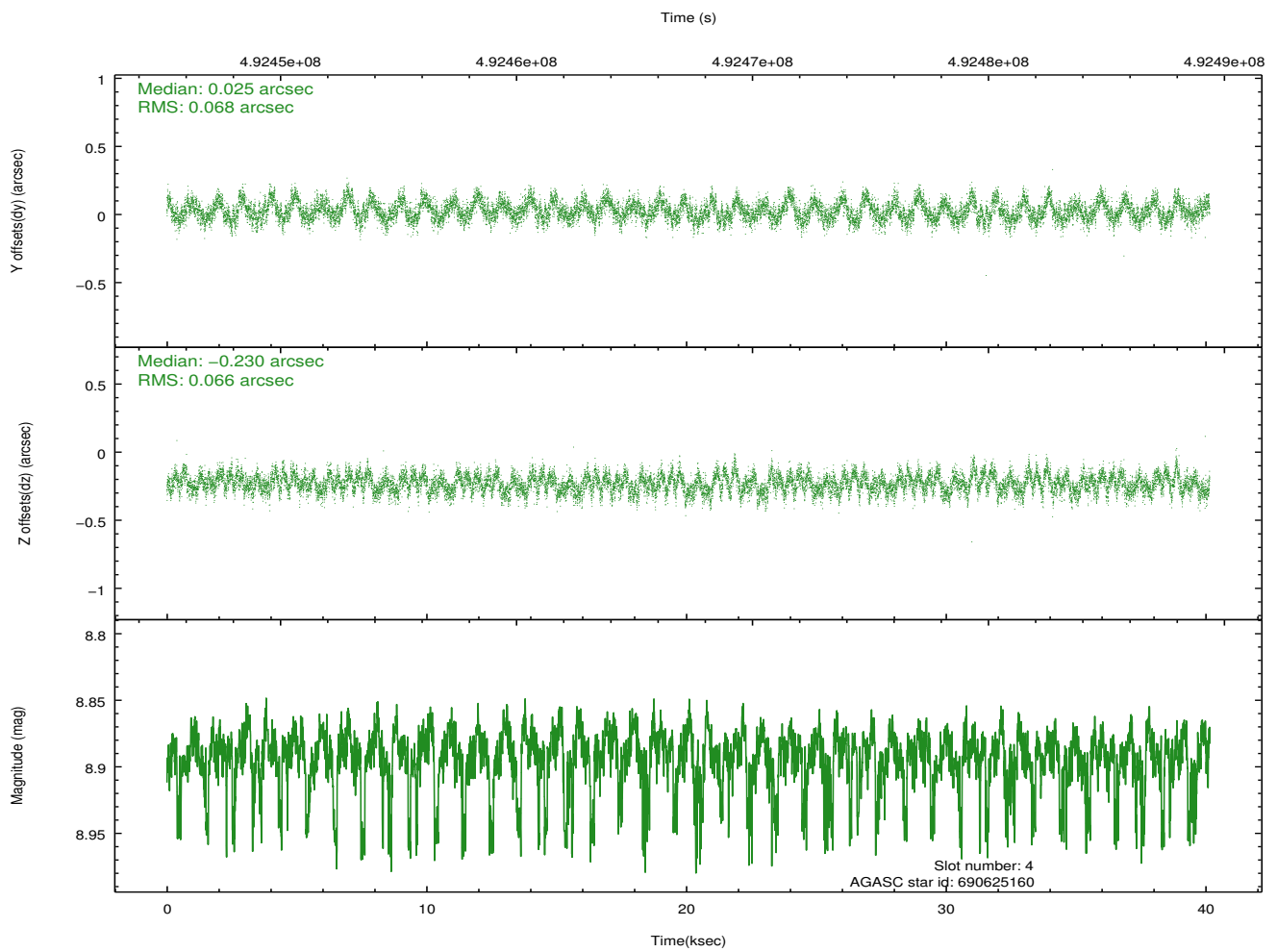
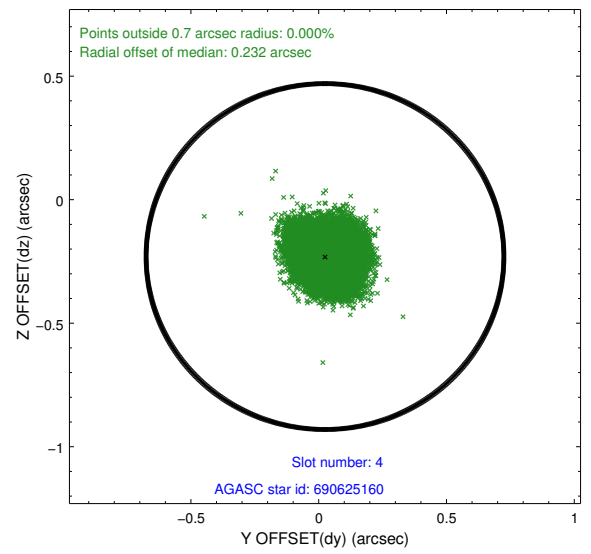
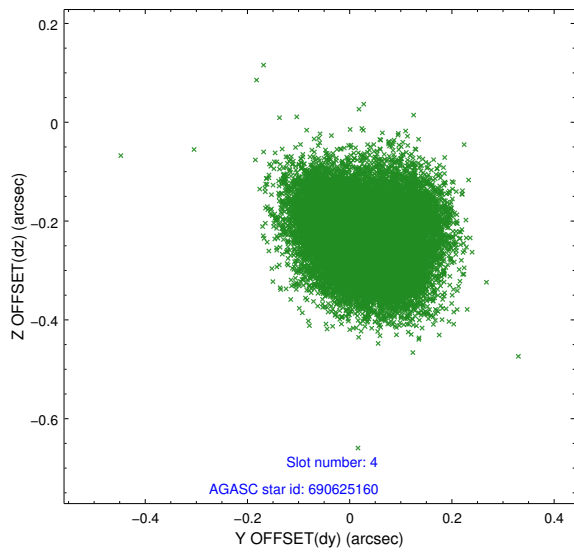
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2.4 Star Slots

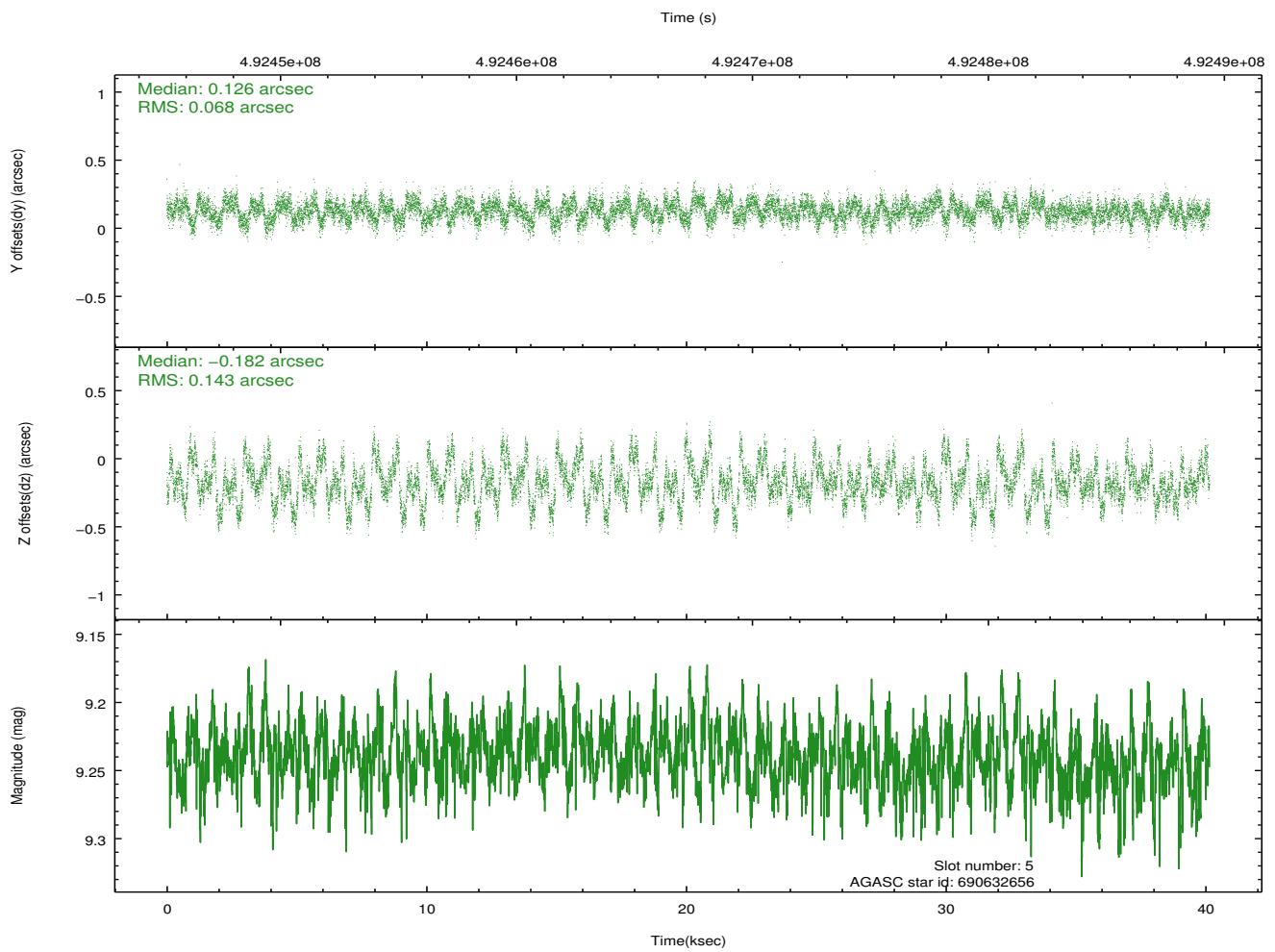
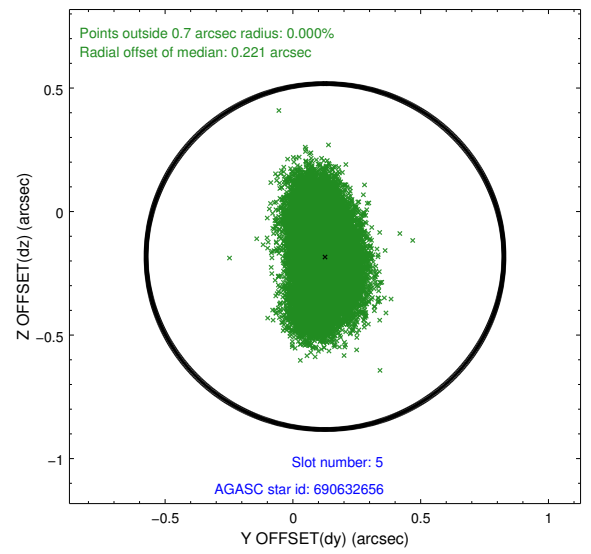
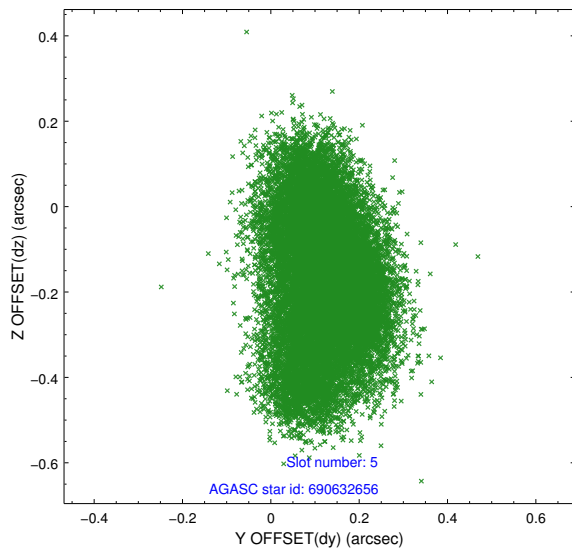
2.4.1 Slot 3



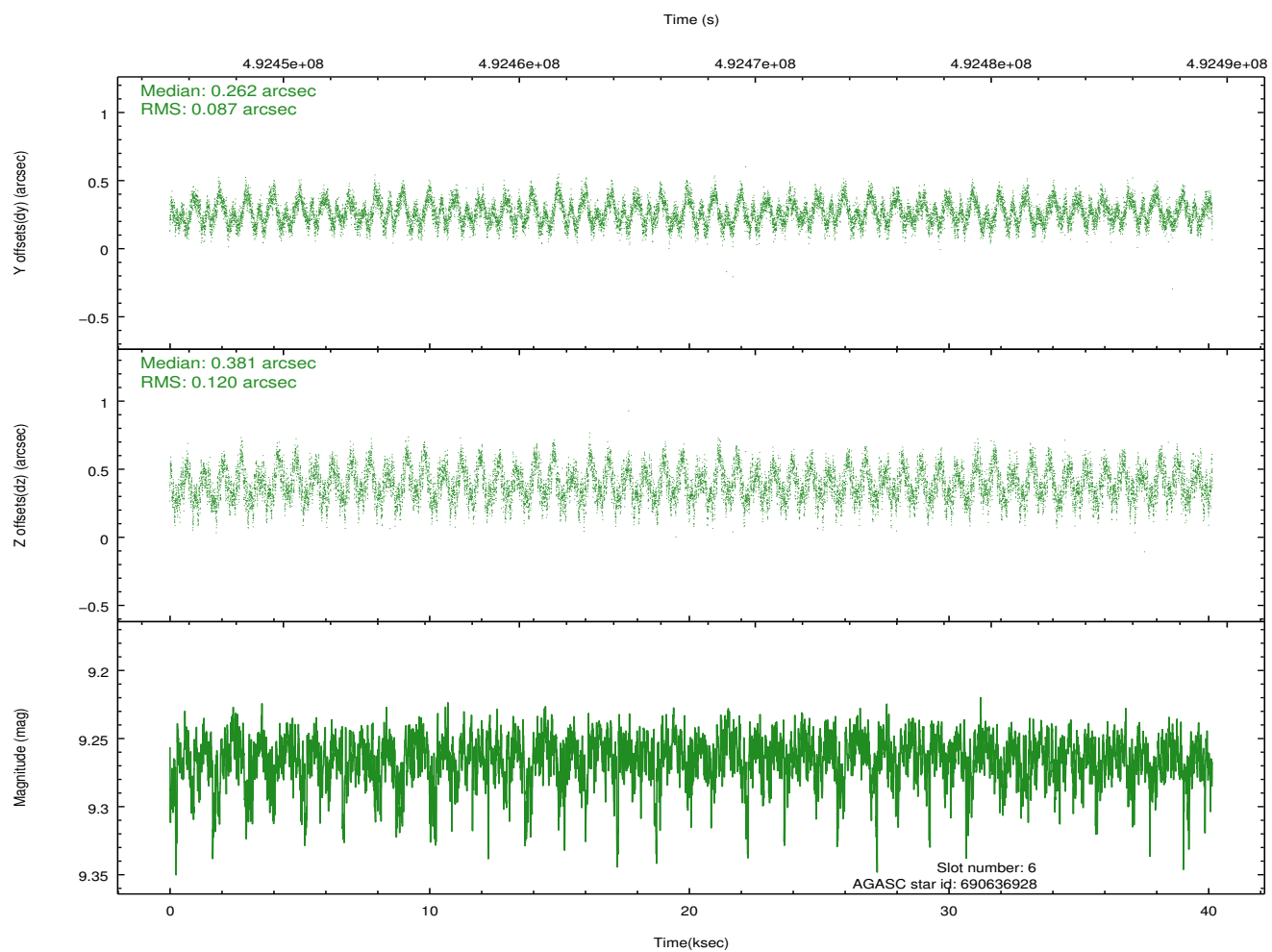
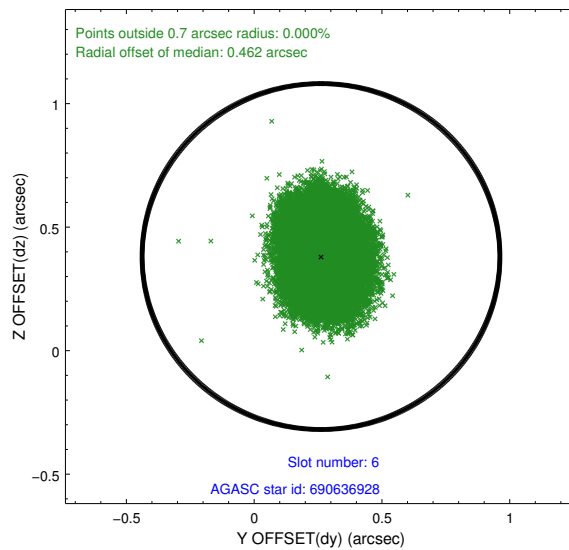
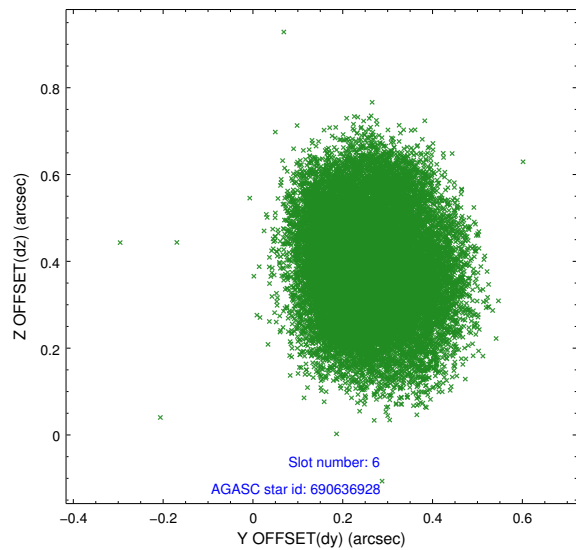
2.4.2 Slot 4



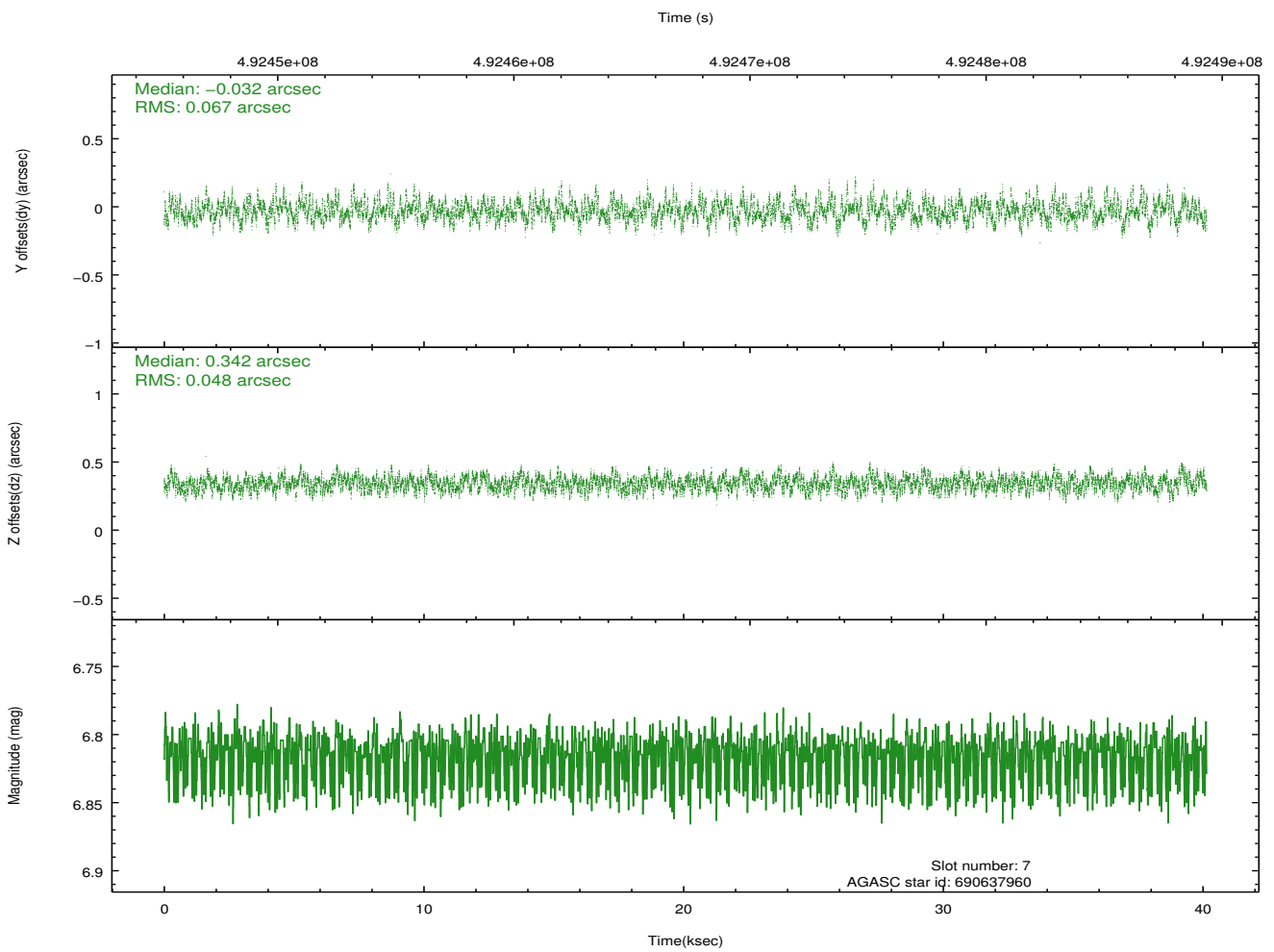
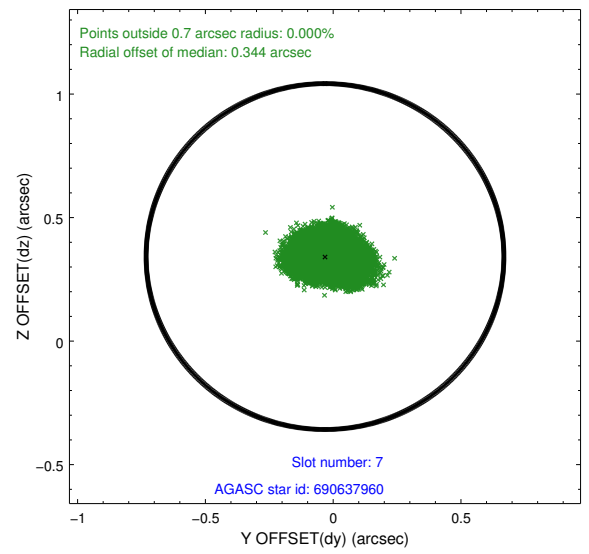
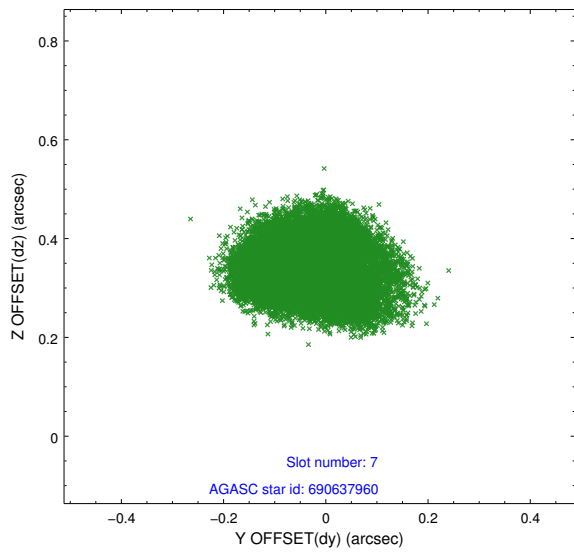
2.4.3 Slot 5



2.4.4 Slot 6

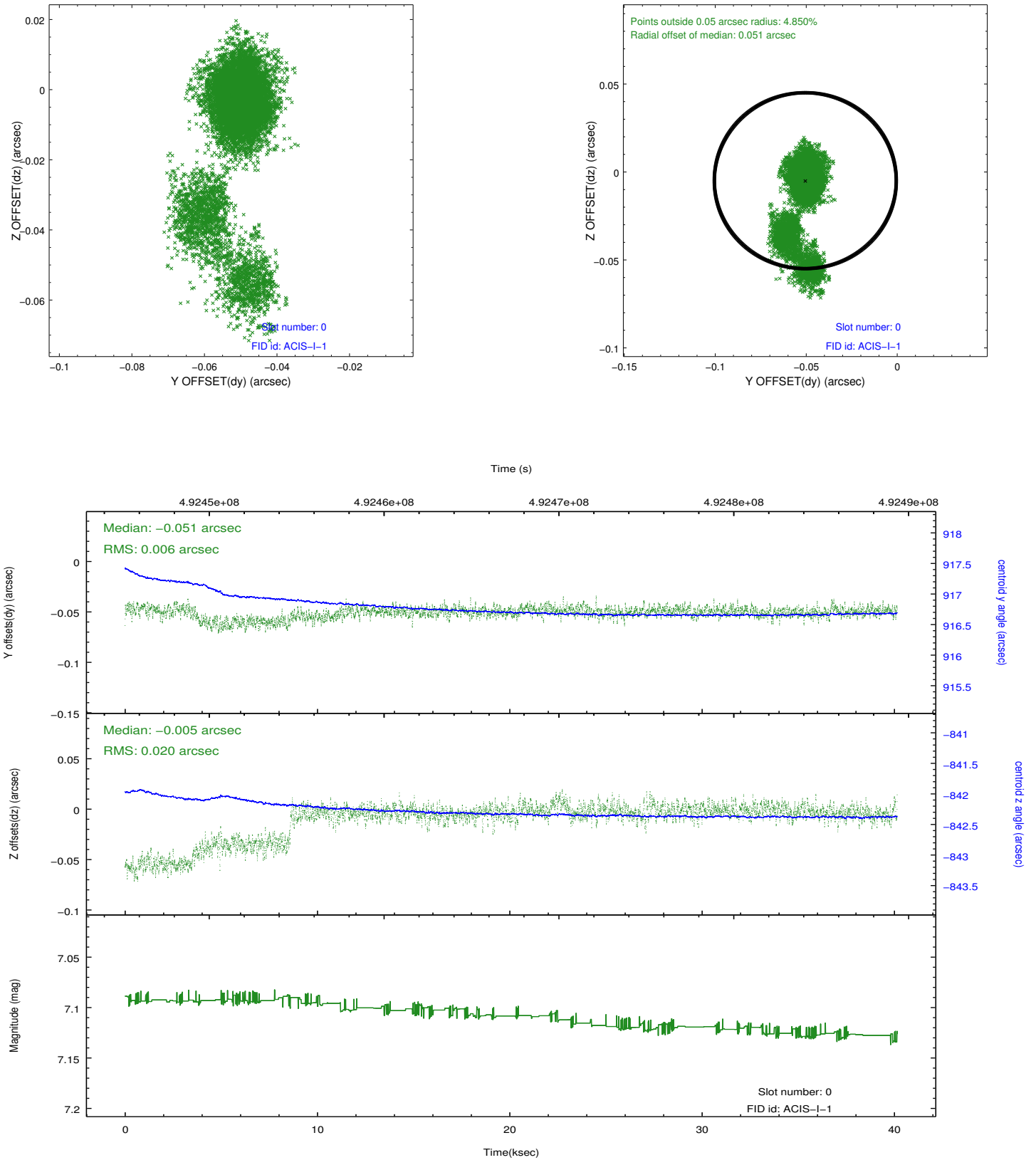


2.4.5 Slot 7

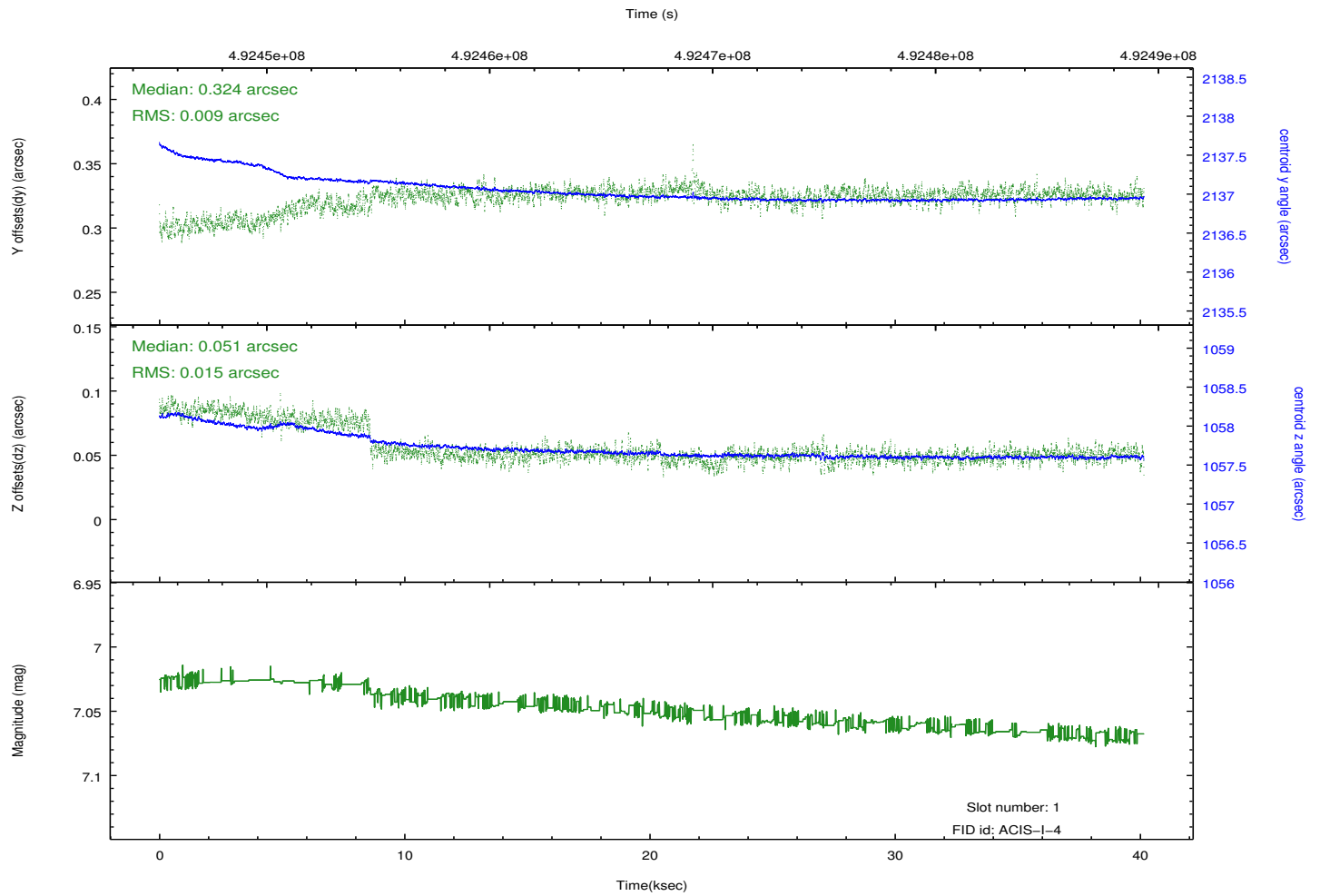
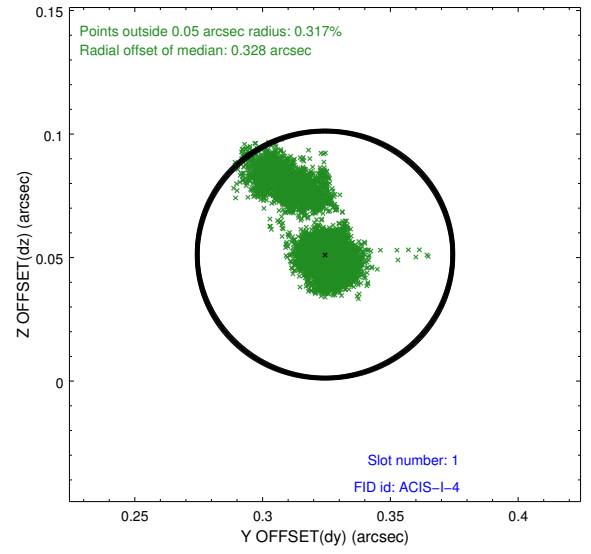
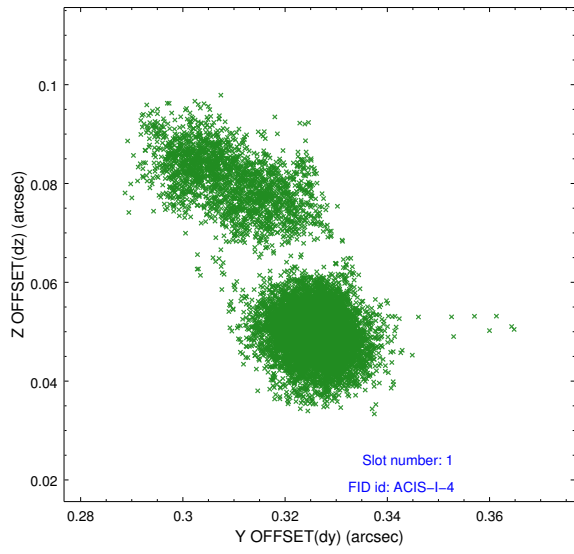


2.5 FID Slots

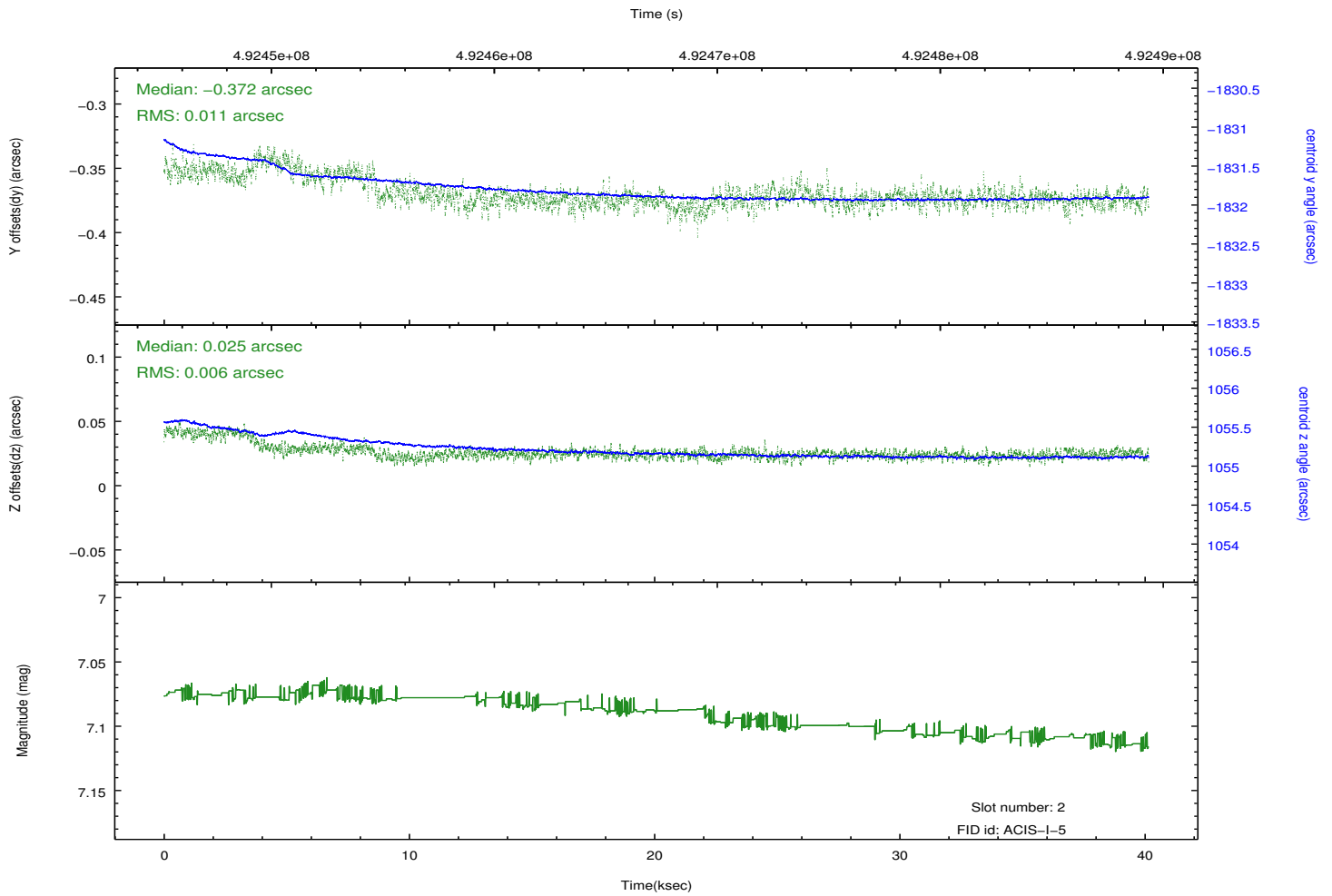
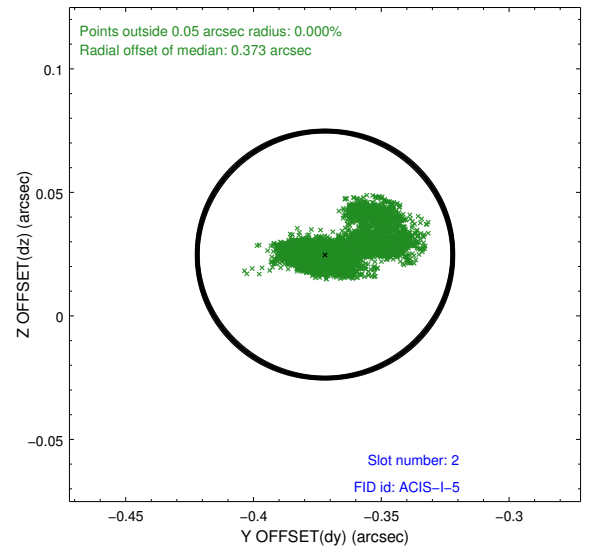
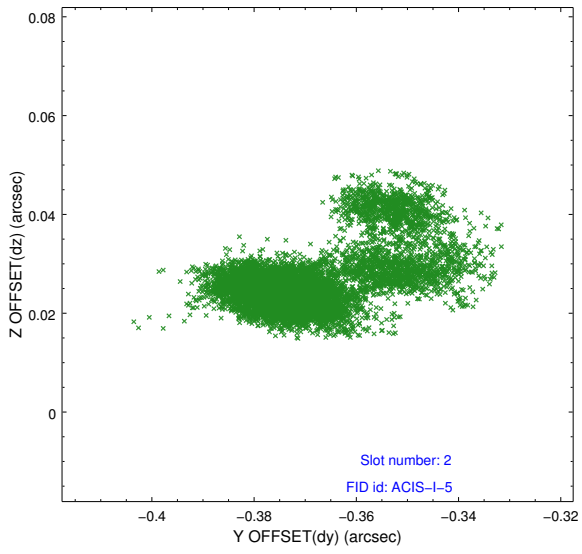
2.5.1 Slot 0



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)	2014.12.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.076718247354

A.2 Comments

Joint proposal with Suzaku.

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.