

V&V Reference Report

L2 ASCDS Version : 10

Observation 14820 - L2 Version 2
Chandra X-Ray Center

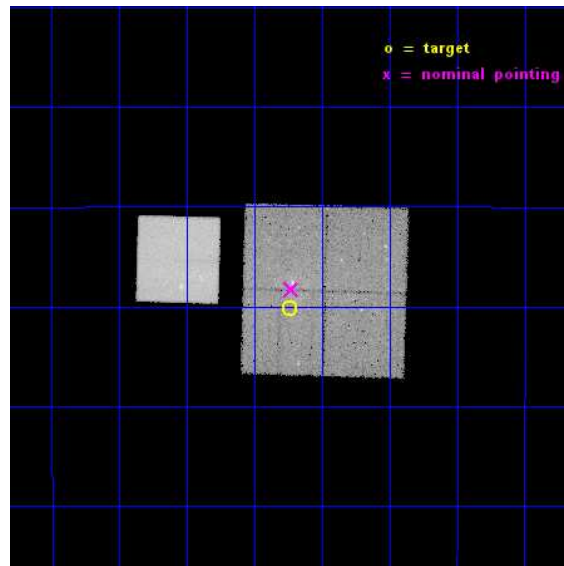
L2 Processing Date : Dec 6 2014

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

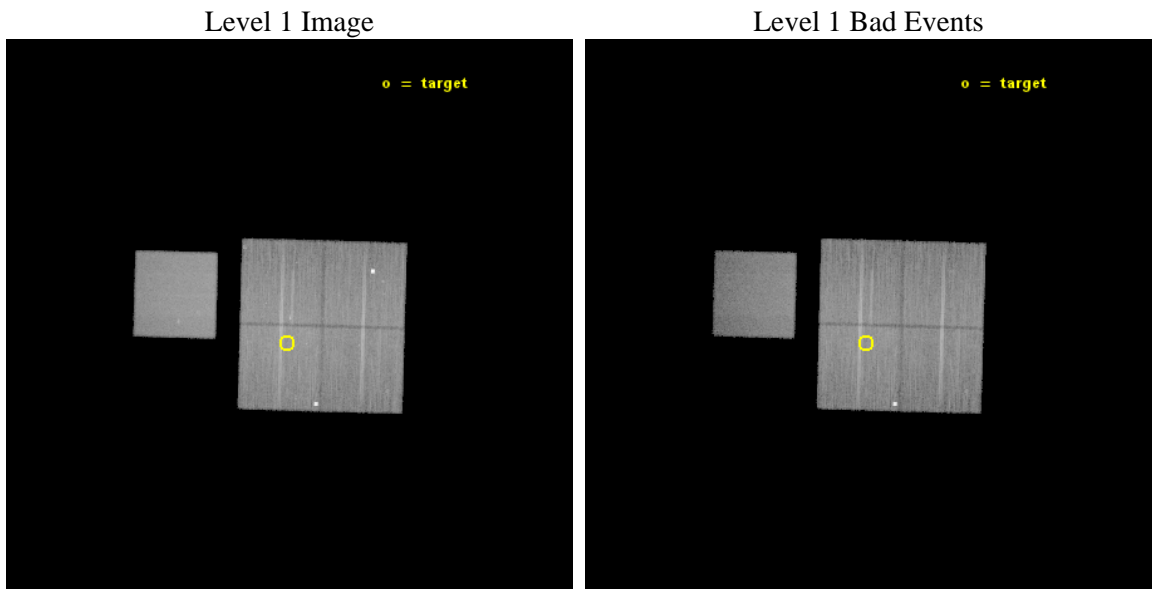
seq_num	501948	Sequence number
obs_id	14820	Observation id
title	HESS J1809-193 and PSR J1809-1917: TeV - X-ray Connection	Proposal
observer	Dr. George Pavlov	Principal investigator
object	HESS J1809-193	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	272.434167	Observer's specified target RA [deg]
dec_targ	-19.335444	Observer's specified target Dec [deg]
ra_nom	272.43153439577	Nominal RA [deg]
dec_nom	-19.304855555407	Nominal Dec [deg]
roll_nom	271.60781451767	Nominal Roll [deg]
revision	2	Processing version of data
ontime	47364.90036428	Sum of GTIs [s]
livetime	46746.043071488	Livetime [s]
ontime0	47364.90036428	Sum of GTIs [s]
ontime1	47364.90036428	Sum of GTIs [s]
ontime2	47364.90036428	Sum of GTIs [s]
ontime3	47358.618373811	Sum of GTIs [s]
ontime7	47364.90036428	Sum of GTIs [s]
l2events	245503	Number of level 2 events



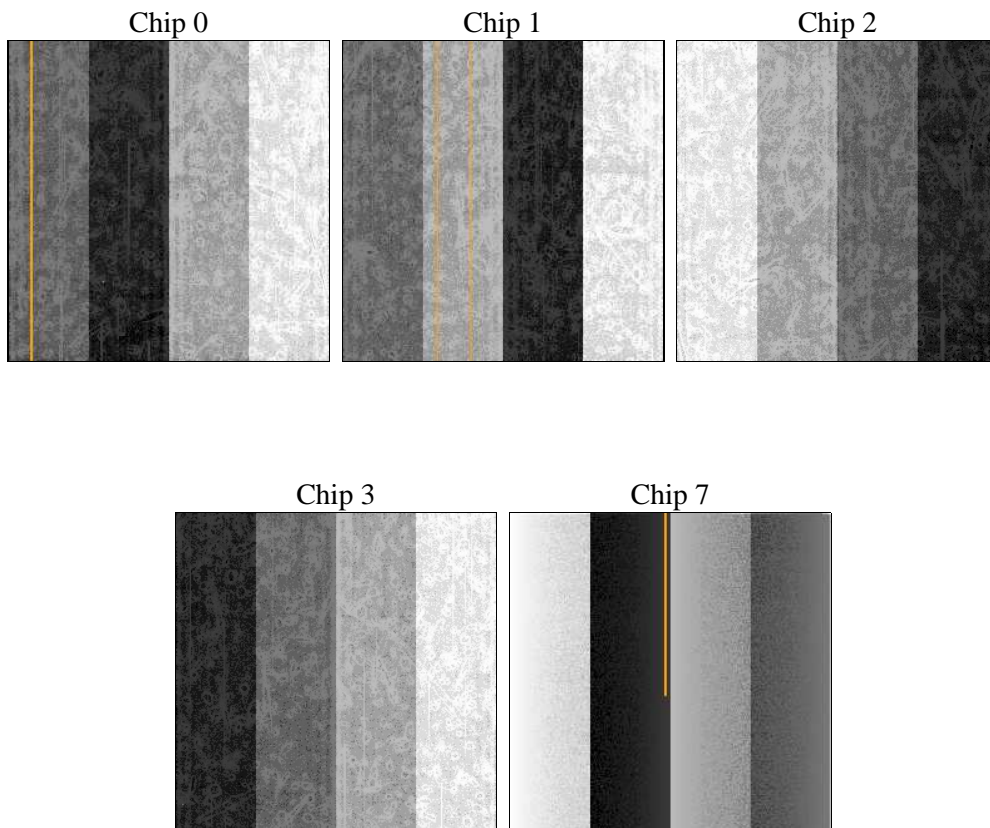
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	47295.484000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	47364.90036428	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	47364.90036428	Sum of GTIs [s]
date	2014-12-06T23:53:02	Date and time of file creation	ontime1	47364.90036428	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	47364.90036428	Sum of GTIs [s]
			ontime3	47358.618373811	Sum of GTIs [s]
			ontime7	47364.90036428	Sum of GTIs [s]
			l1events	1206434	Number of level 1 events

2.1.4 Events

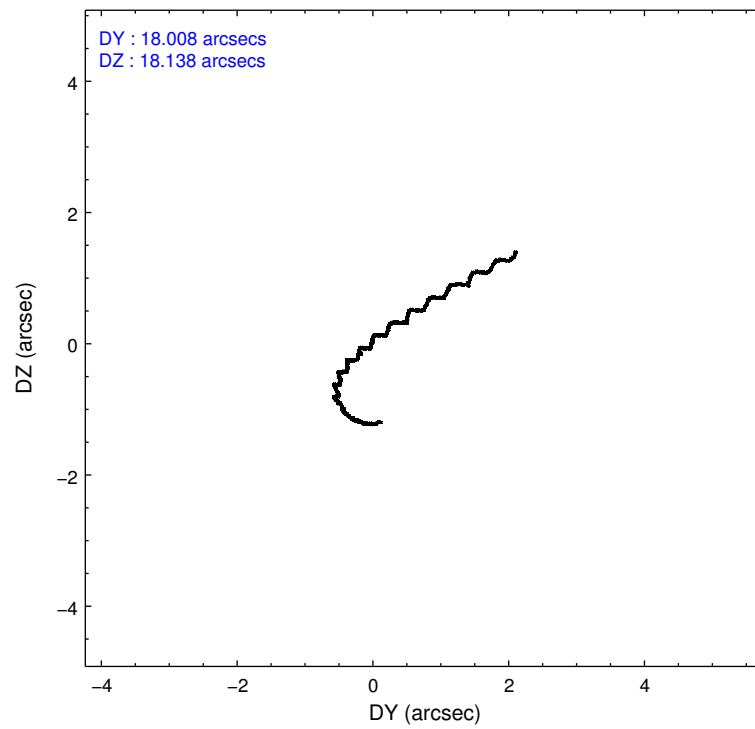
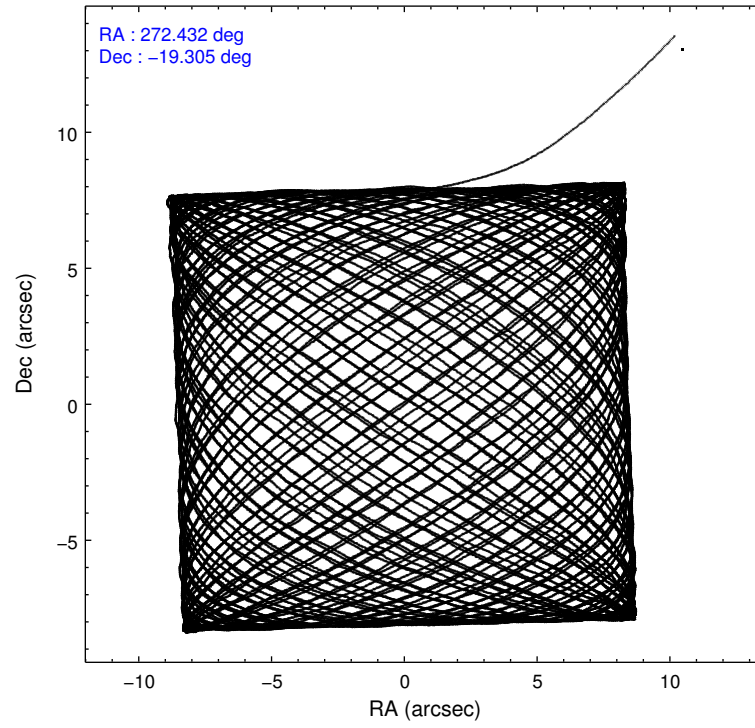
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	213168	234937	257764	231019	269546
rejected events	179976	186860	220528	196367	136720
rejected %	84%	79%	85%	85%	50%

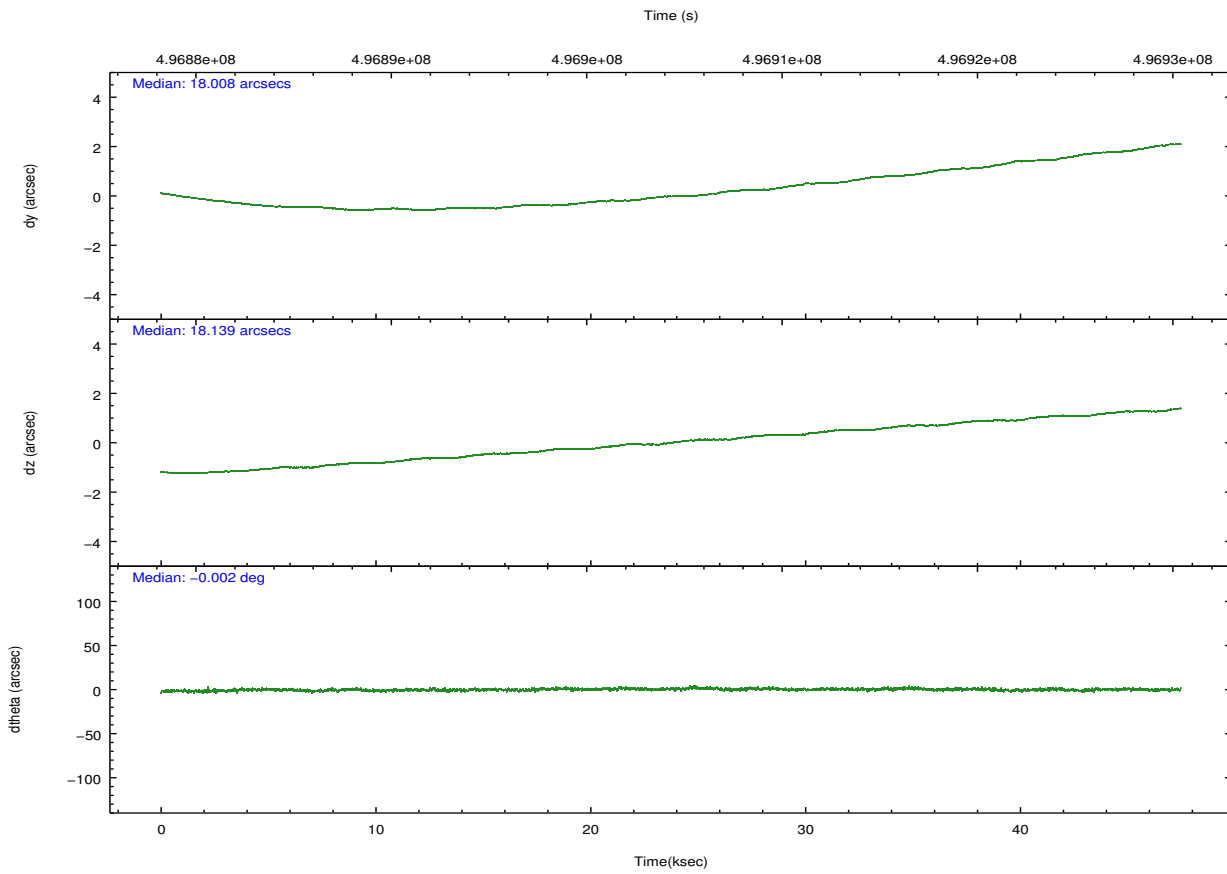
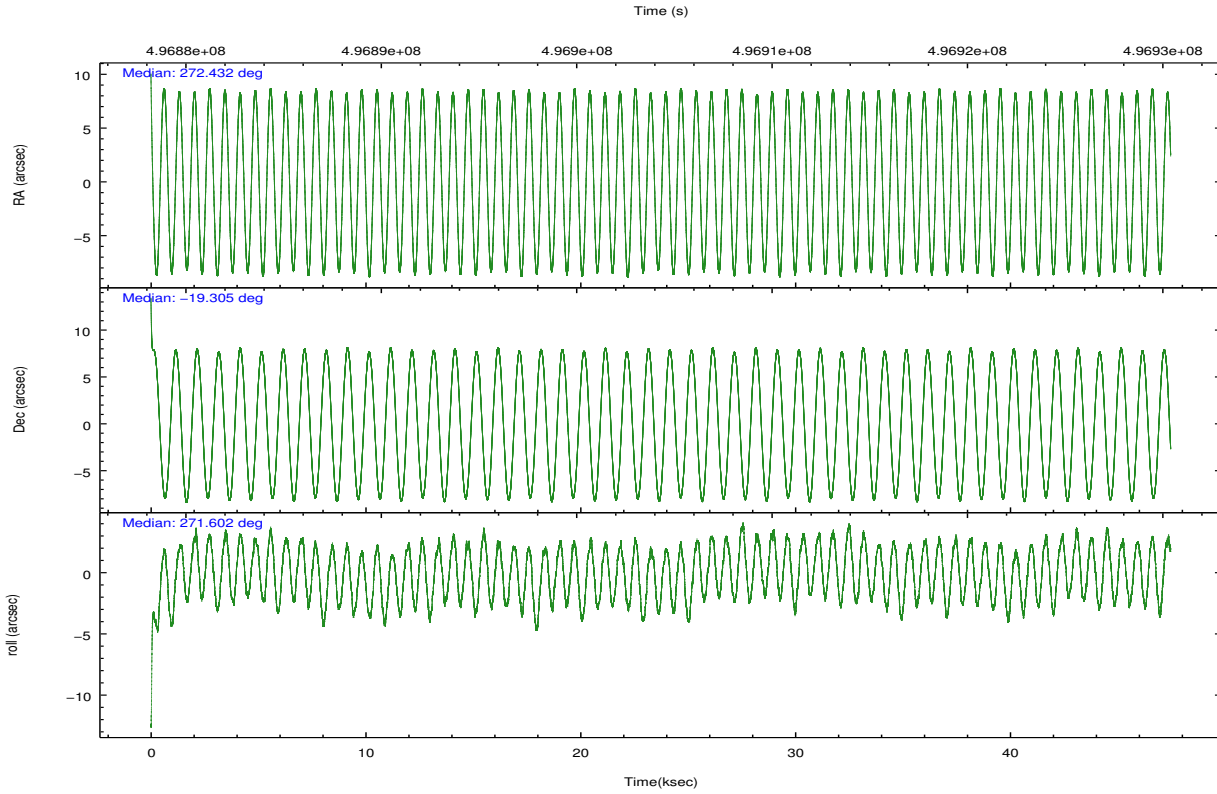
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	14549	28571	17895	16719	14278
	6%	12%	6%	7%	5%
grade 1 events	128	180	10409	169	440
	0%	0%	4%	0%	0%
grade 2 events	7704	7307	7929	6715	29400
	3%	3%	3%	2%	10%
grade 3 events	2962	3009	2947	2908	11517
	1%	1%	1%	1%	4%
grade 4 events	2595	3103	2993	2912	11394
	1%	1%	1%	1%	4%
grade 5 events	8614	9535	8105	10098	27092
	4%	4%	3%	4%	10%
grade 6 events	5382	6091	5473	5399	66248
	2%	2%	2%	2%	24%
grade 7 events	171234	177141	202013	186099	109177
	80%	75%	78%	80%	40%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01237	ACIS-01237	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	272.416169	272.4315343957702	CCD I2 on	Y	Y
[deg] Pointing Dec	-19.281516	-19.30485555540707	CCD I3 on	Y	Y
[deg] Pointing Roll	271.394054	271.6078145176693	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	-225.695463	-225.7050559904381	CCD S3 on	O1	Y
[mm] SIM translation stage offset	-7.897	-7.88739701249159	CCD S4 on	N	N
[s] Observation start time (MET)	496880737.184000	496879718.50337	CCD S5 on	N	N
Observation start date	2013-09-29T22:24:30	2013-09-29T22:08:38	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	496928032.184000	496928267.11852	On-chip summing requested	N	N
Observation end date	2013-09-30T11:32:45	2013-09-30T11:37:47	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





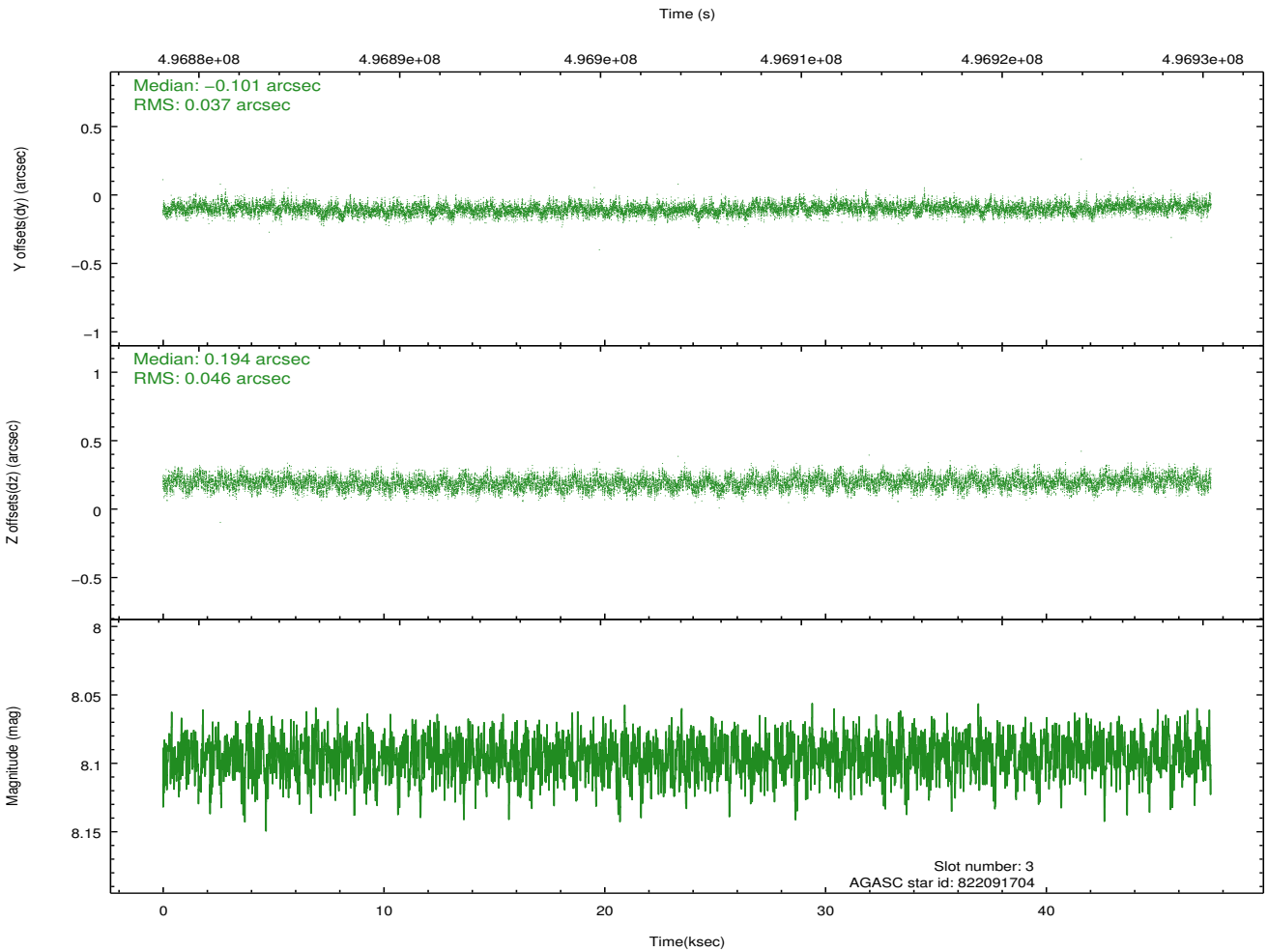
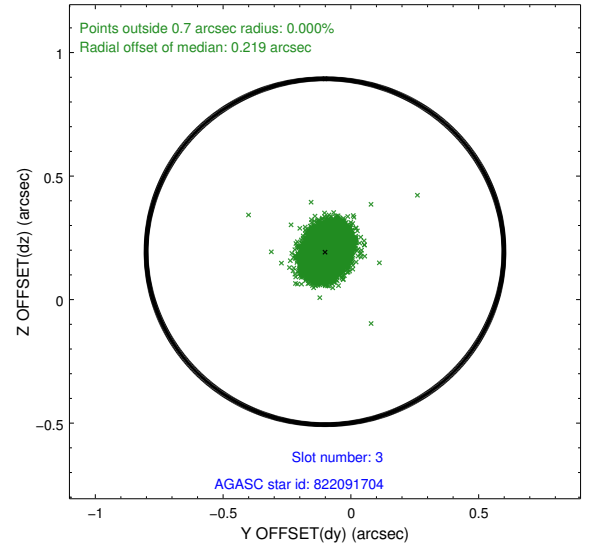
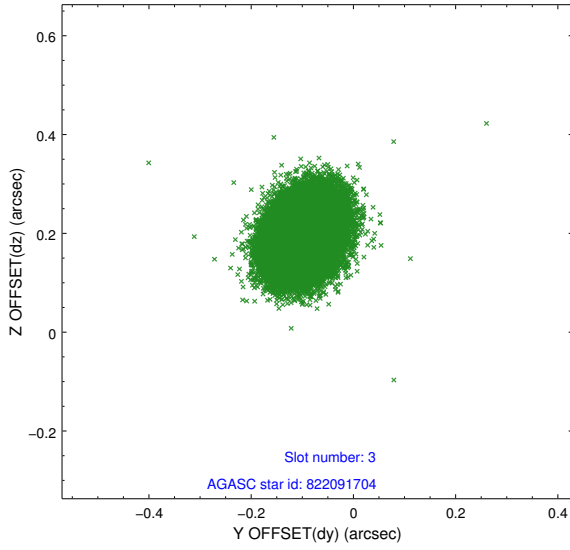
Slot Statistics

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	11578	0.127	-0.152	0.021	0.044	0.000000	0.000000	921.04	-1003.90
1	FID		ACIS-I-2	7.06	11578	-0.300	0.021	0.016	0.028	0.000000	0.000000	-773.90	-1009.14
2	FID		ACIS-I-4	7.01	11575	0.076	0.196	0.013	0.020	0.000000	0.000000	2140.42	897.24
3	GUIDE	used	822091704	8.09	23151	-0.101	0.194	0.063	0.101	272.220028	-18.943658	-1231.39	-637.91
4	GUIDE	used	822096760	8.04	23149	-0.187	-0.092	0.065	0.103	272.830526	-19.438690	601.65	1392.49
5	GUIDE	used	822100176	8.54	23138	0.157	-0.118	0.087	0.137	272.112888	-19.868886	2090.59	-1077.78
6	GUIDE	used	822098736	8.51	23043	0.334	-0.058	0.086	0.137	272.269355	-19.875225	2125.76	-548.73
7	GUIDE	used	822088160	6.43	23155	-0.205	0.076	0.049	0.085	272.729284	-18.869551	-1455.51	1102.42

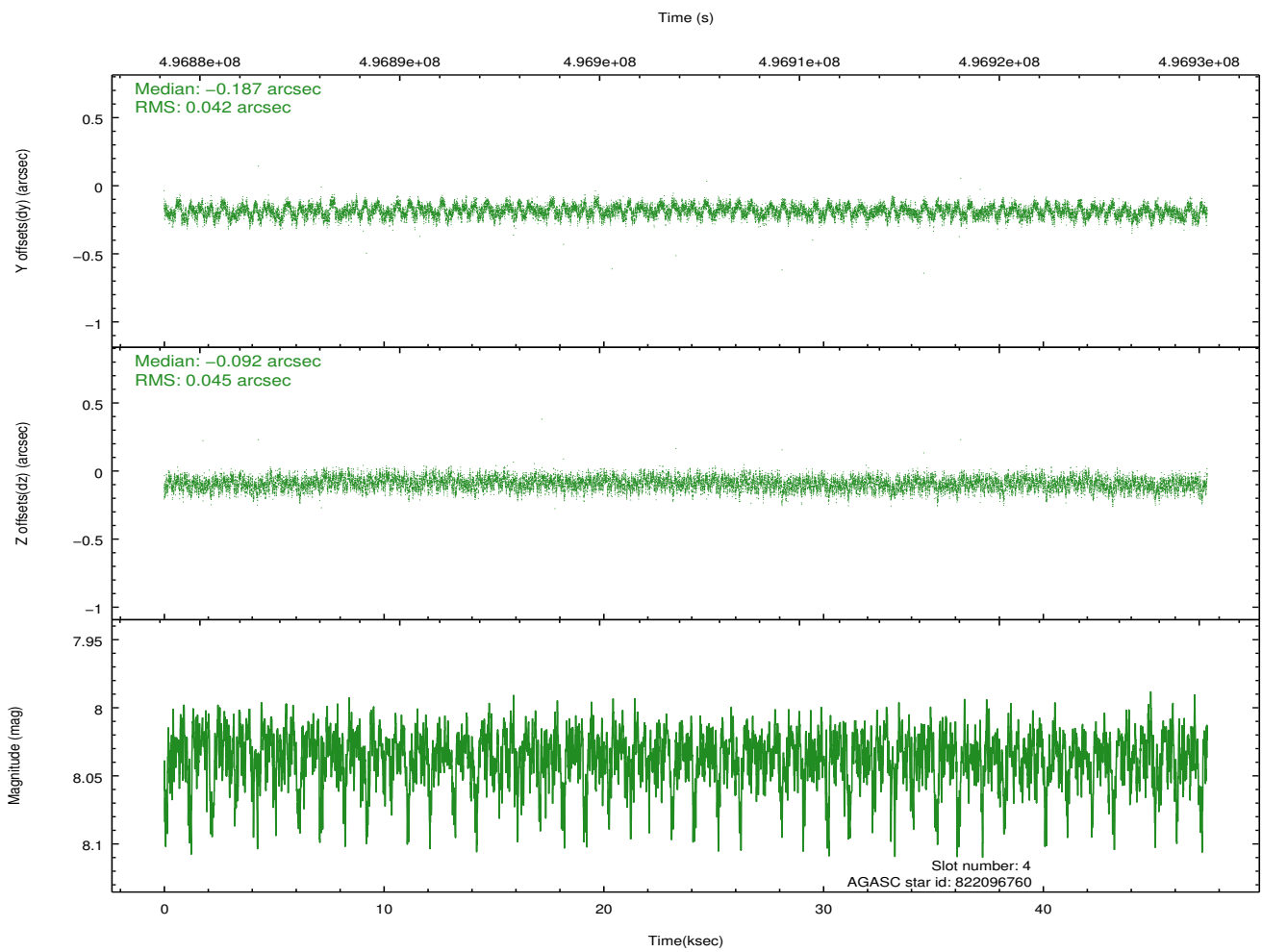
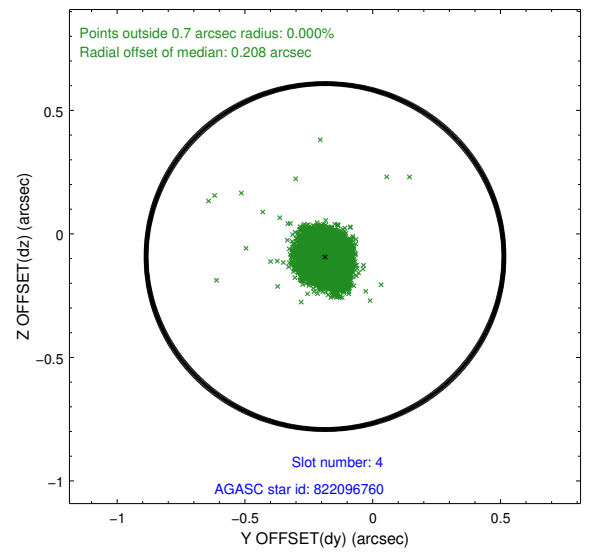
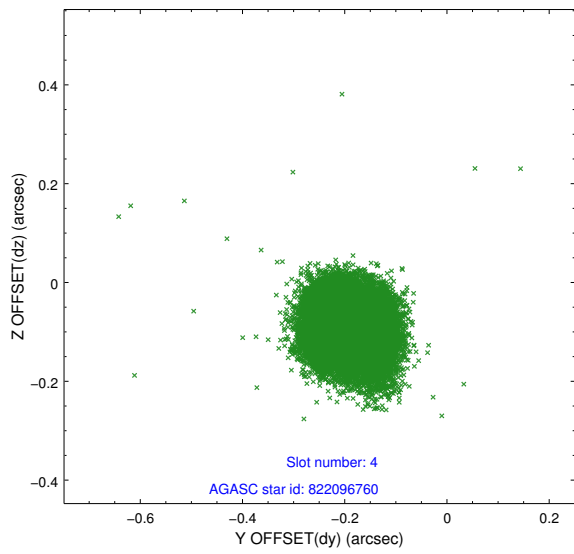
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2.4 Star Slots

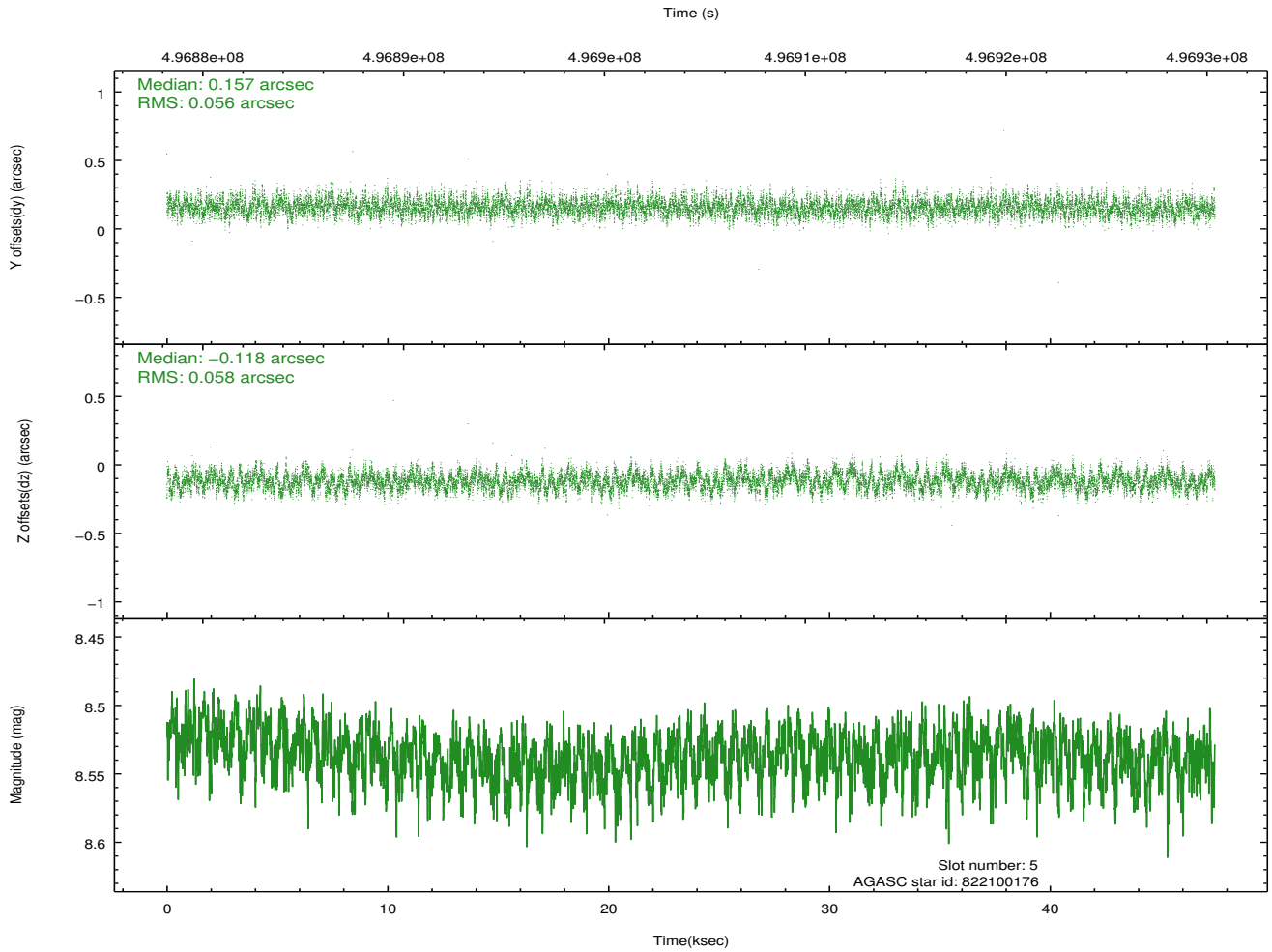
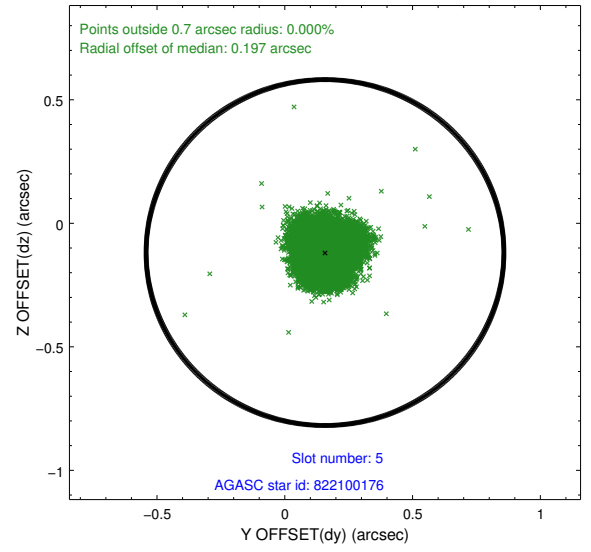
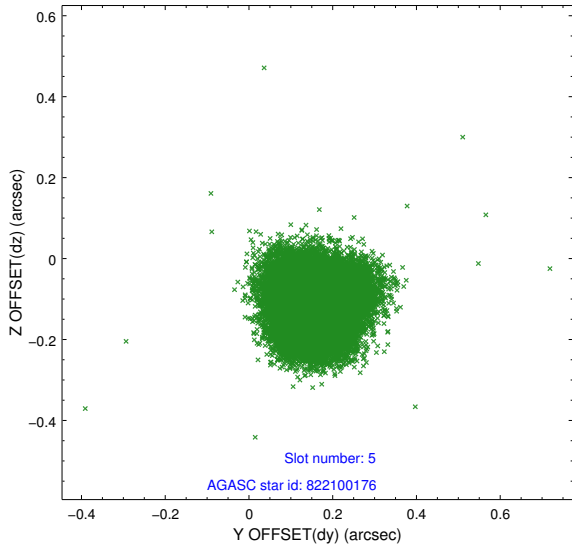
2.4.1 Slot 3



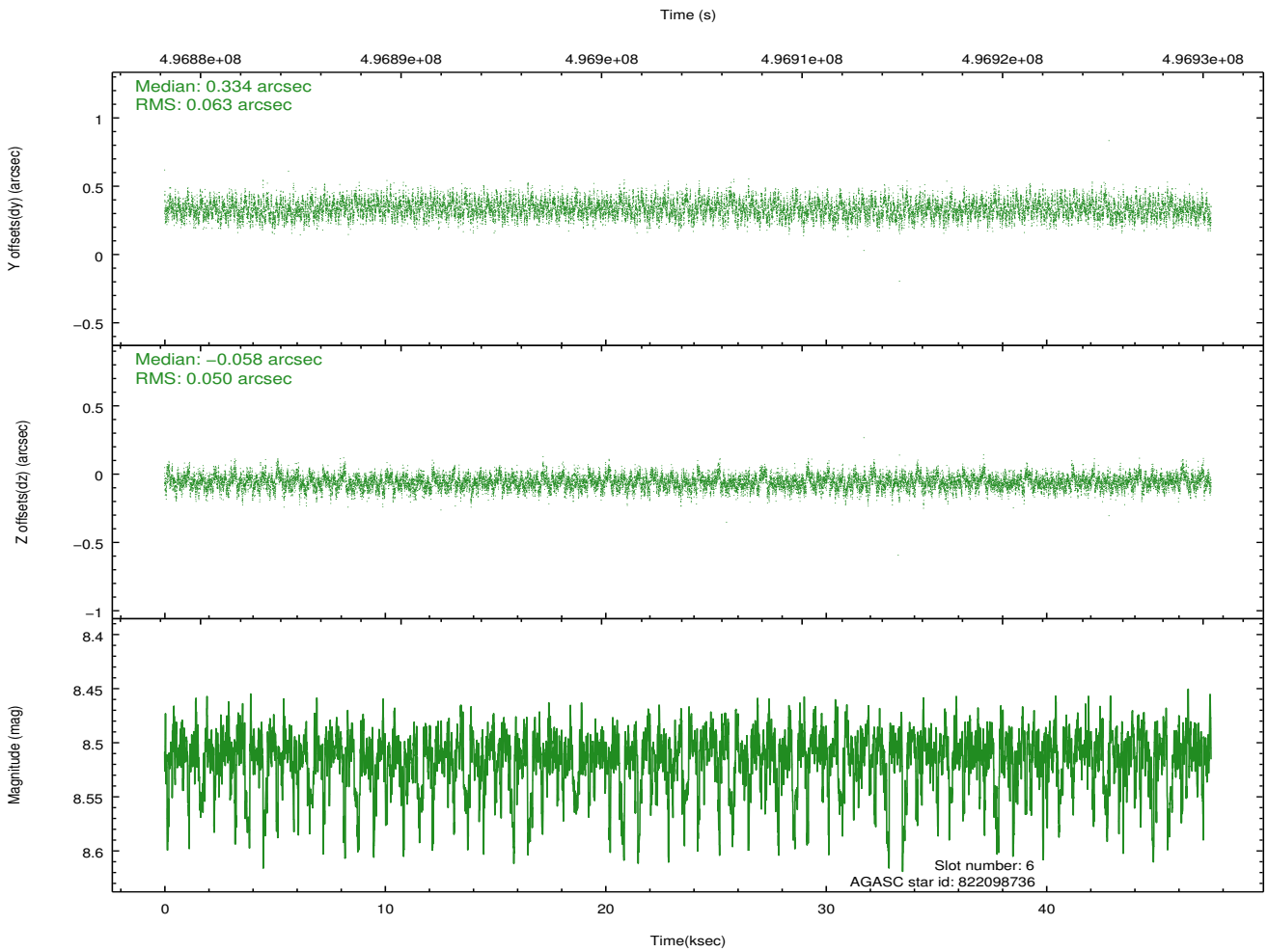
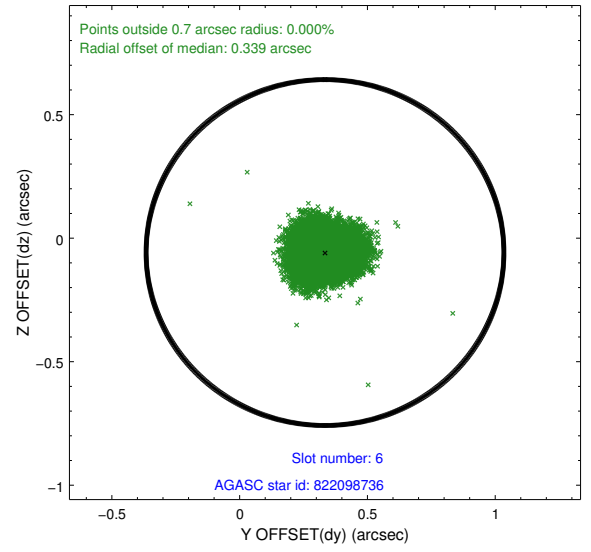
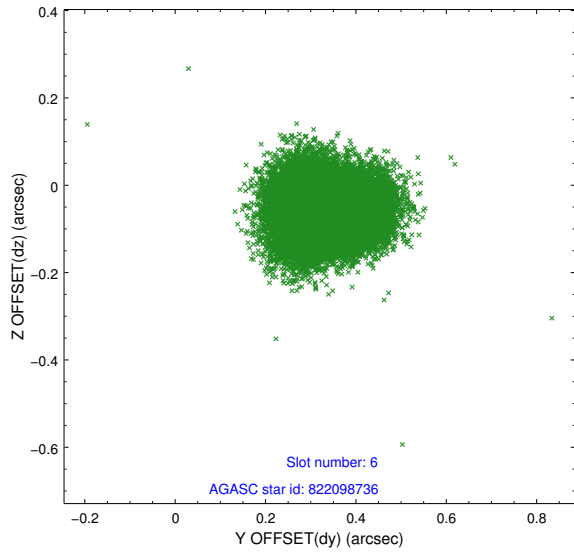
2.4.2 Slot 4



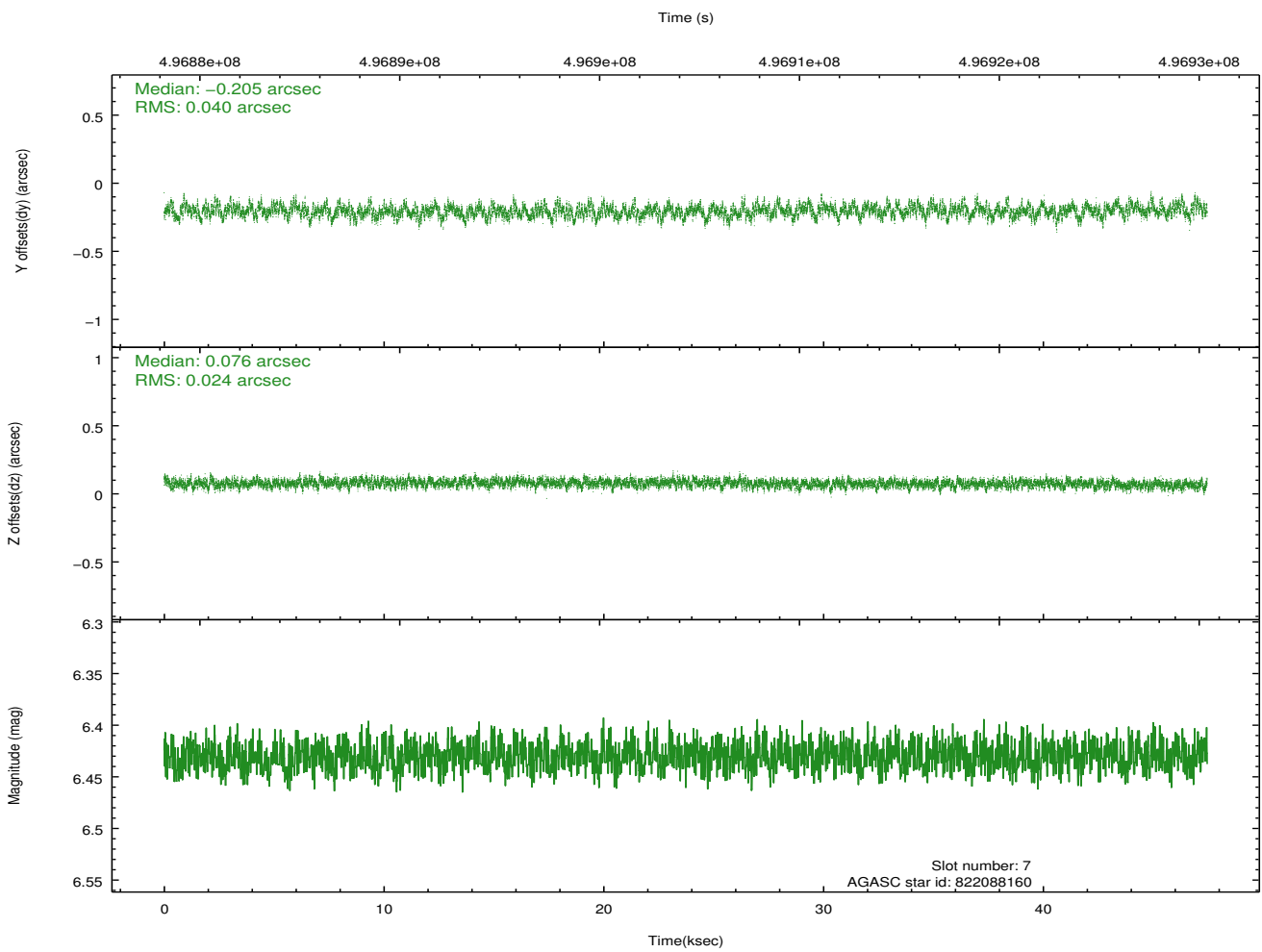
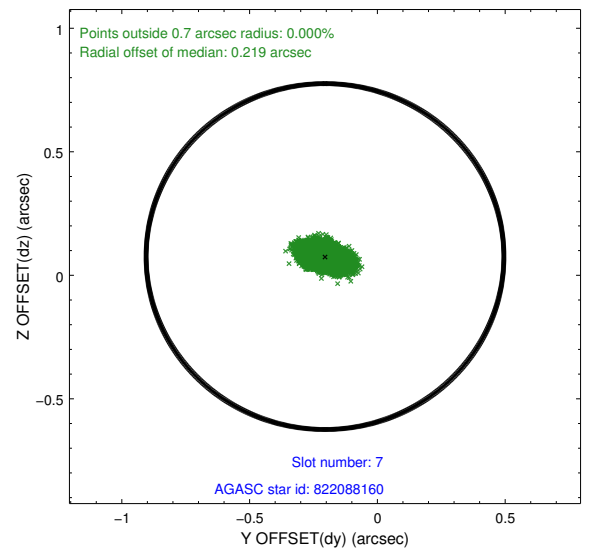
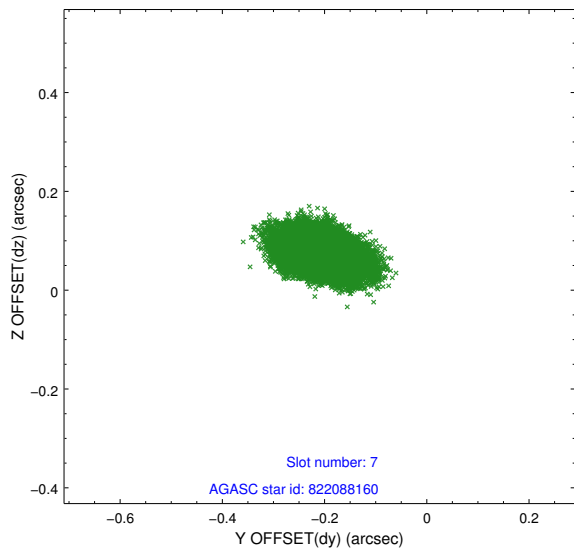
2.4.3 Slot 5



2.4.4 Slot 6

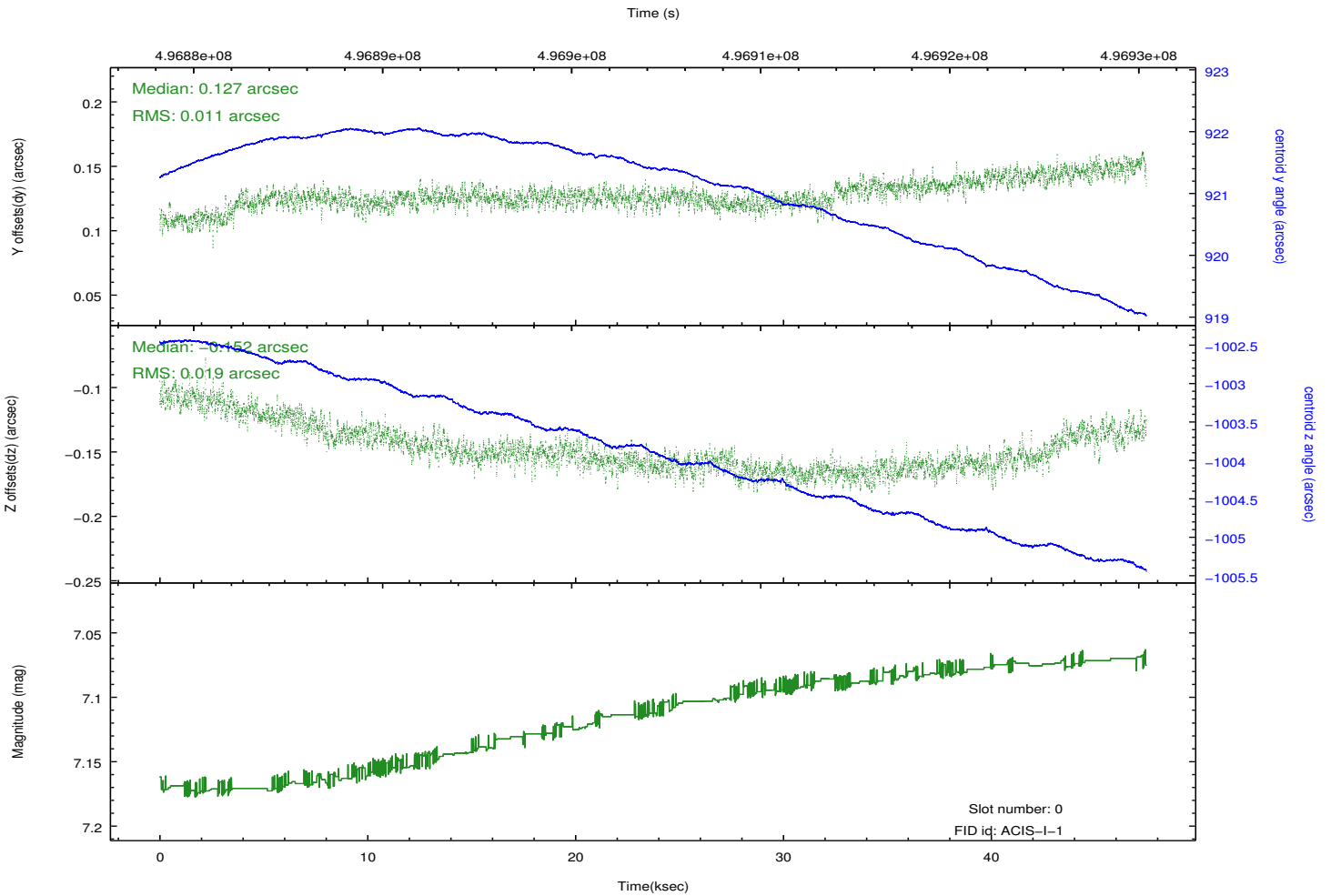
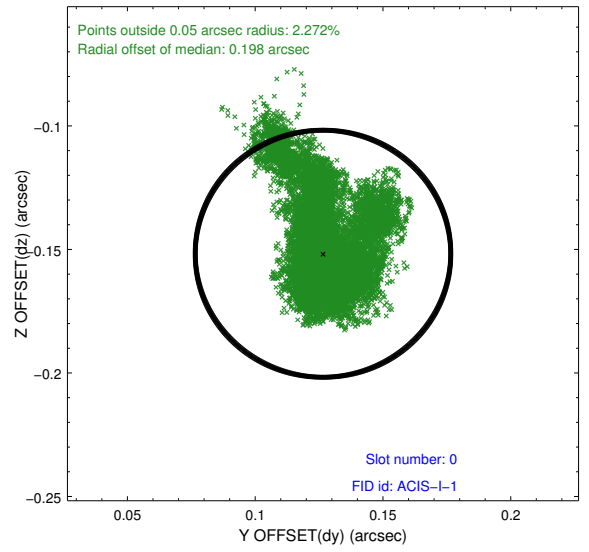
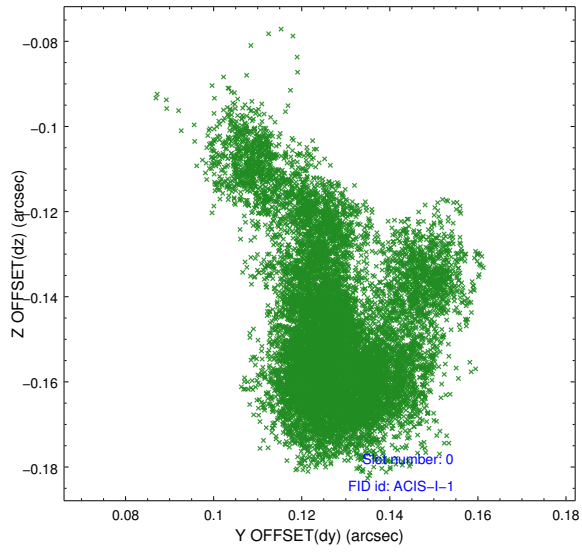


2.4.5 Slot 7

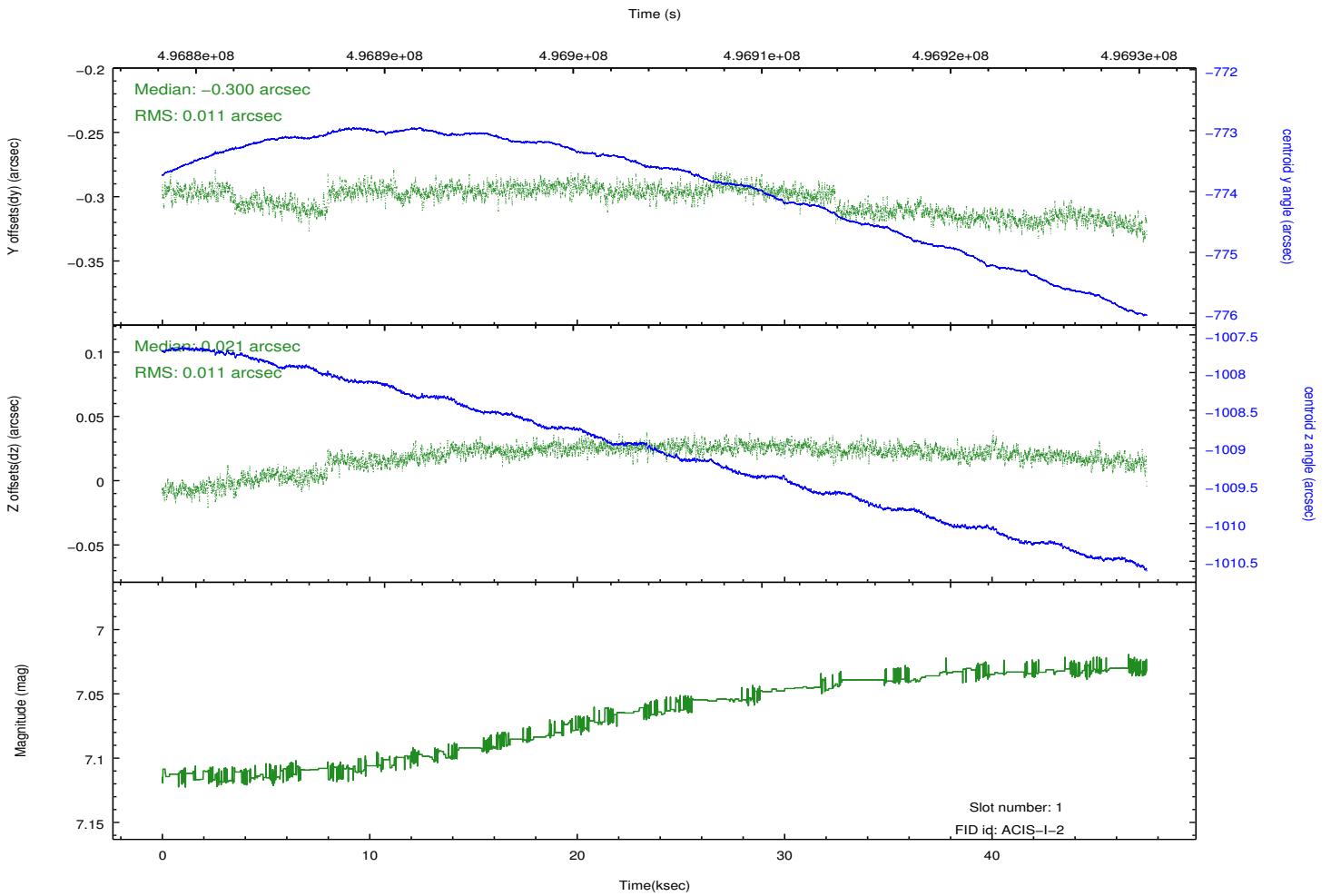
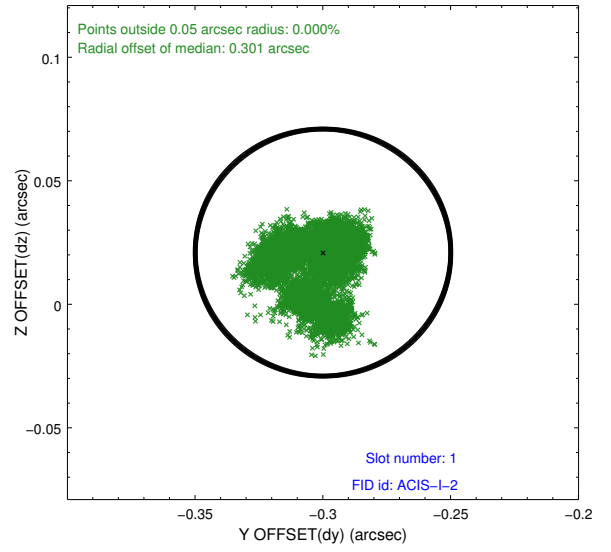
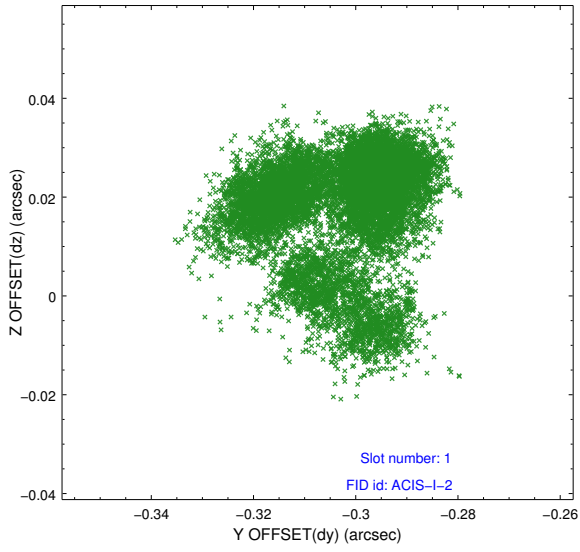


2.5 FID Slots

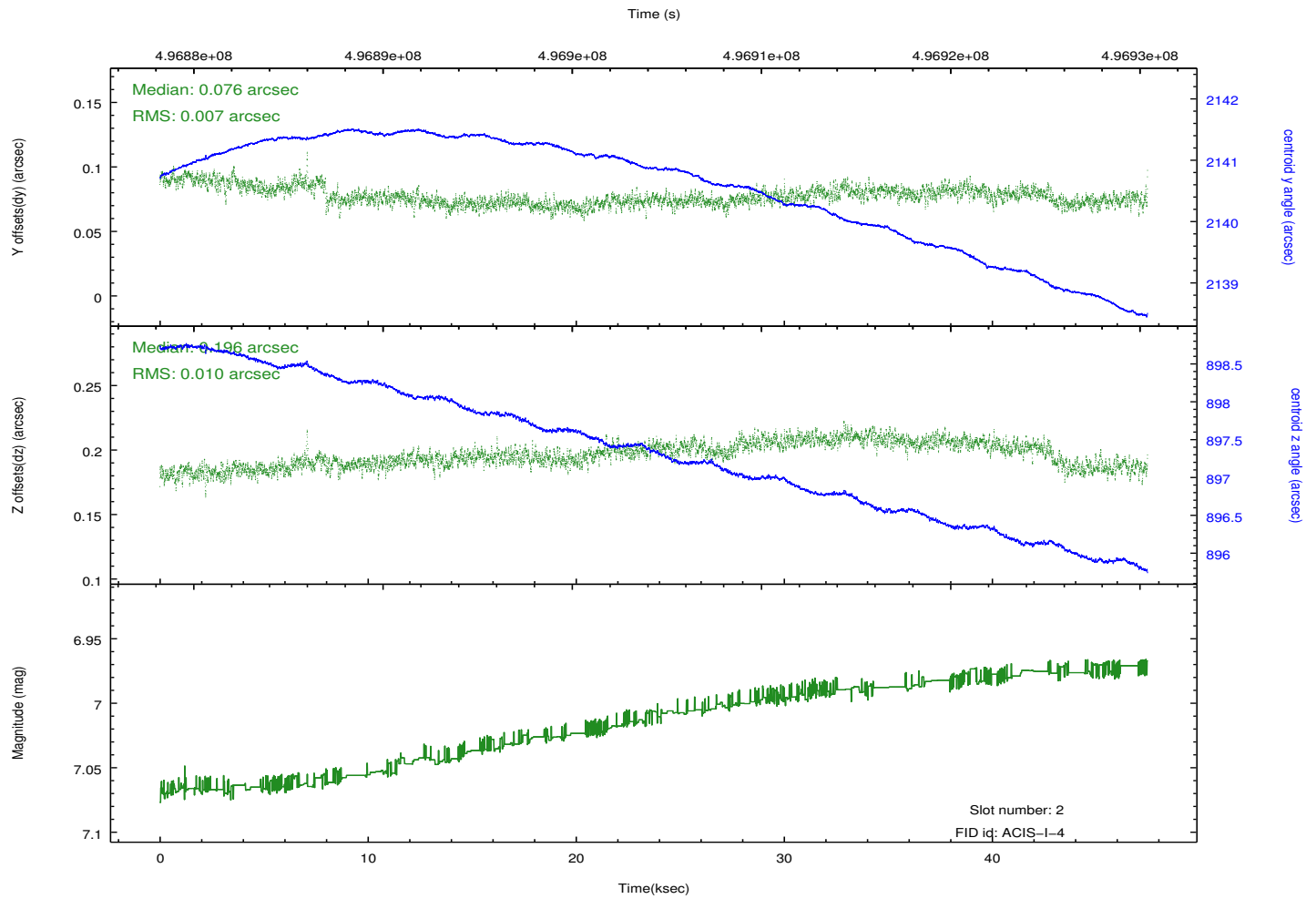
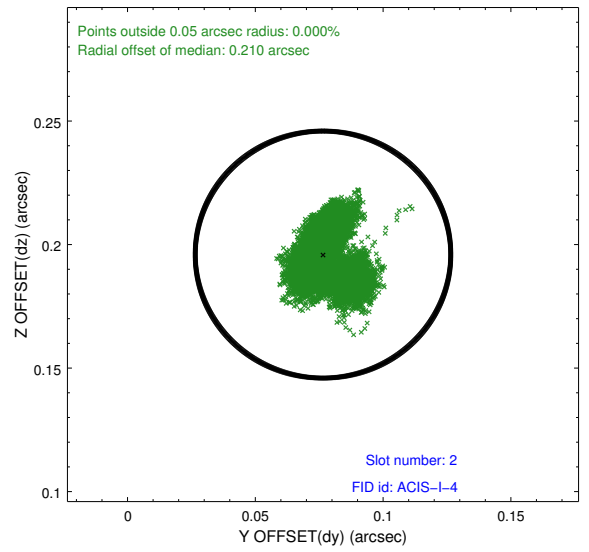
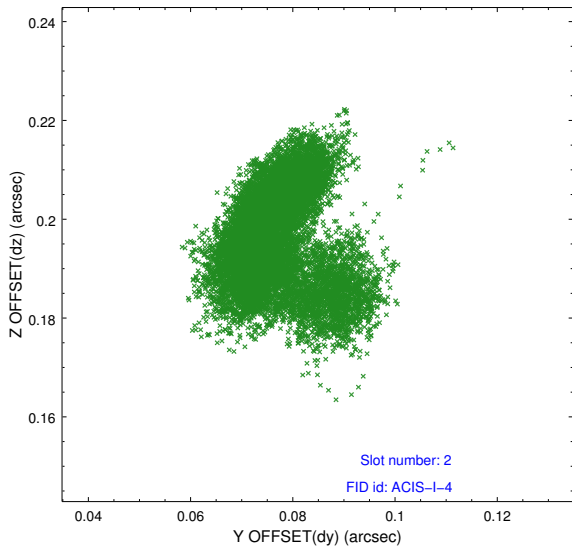
2.5.1 Slot 0



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	47.36490036428

A.2 Comments

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.