

V&V Reference Report

L2 ASCDS Version : 8.5.1

Observation 15364 - L2 Version 2
Chandra X-Ray Center

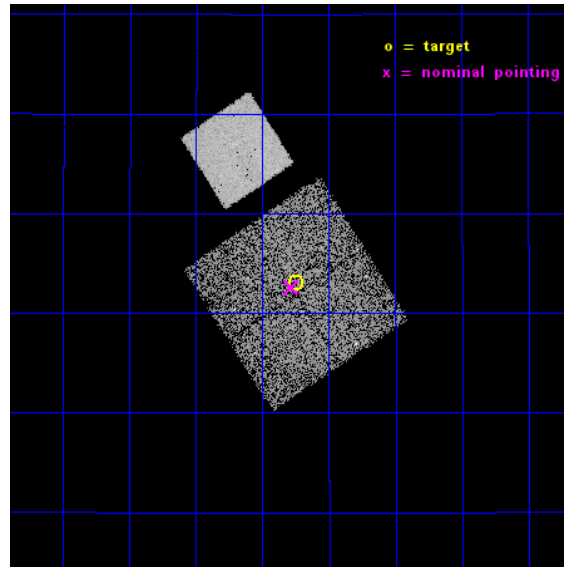
L2 Processing Date : Nov 30 2014

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1 Front

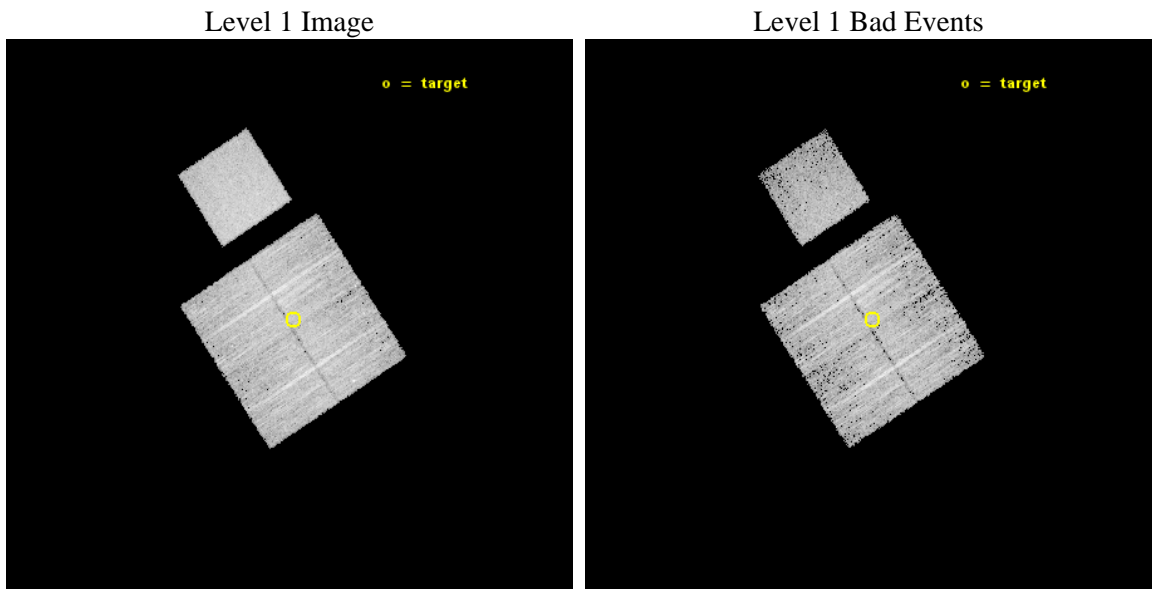
seq_num	502029	Sequence number
obs_id	15364	Observation id
title	Snap-shot survey of galactic gamma-ray sources	Proposal title
observer	Professor Gordon Garmire	Principal investigator
object	PSR B1919+21	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	290.436667	Observer's specified target RA [deg]
dec_targ	21.883944	Observer's specified target Dec [deg]
ra_nom	290.44555213993	Nominal RA [deg]
dec_nom	21.876417245895	Nominal Dec [deg]
roll_nom	326.89805245407	Nominal Roll [deg]
revision	2	Processing version of data
ontime	9773.2184866667	Sum of GTIs [s]
livetime	9645.5241921996	Livetime [s]
ontime0	9773.0953666568	Sum of GTIs [s]
ontime1	9773.1364066601	Sum of GTIs [s]
ontime2	9773.1774466634	Sum of GTIs [s]
ontime3	9773.2184866667	Sum of GTIs [s]
ontime7	9773.25952667	Sum of GTIs [s]
l2events	44893	Number of level 2 events



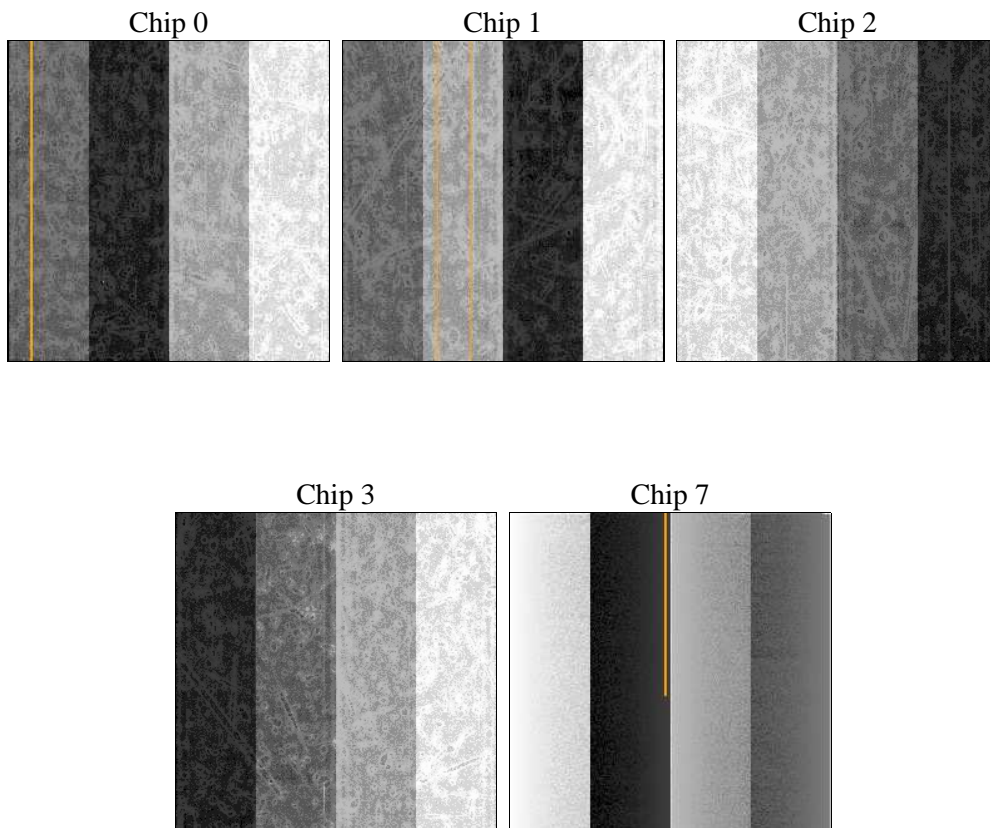
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	9773.2184866667	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	9773.0953666568	Sum of GTIs [s]
date	2014-11-30T05:18:33	Date and time of file creation	ontime1	9773.1364066601	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	9773.1774466634	Sum of GTIs [s]
			ontime3	9773.2184866667	Sum of GTIs [s]
			ontime7	9773.25952667	Sum of GTIs [s]
			l1events	238119	Number of level 1 events

2.1.4 Events

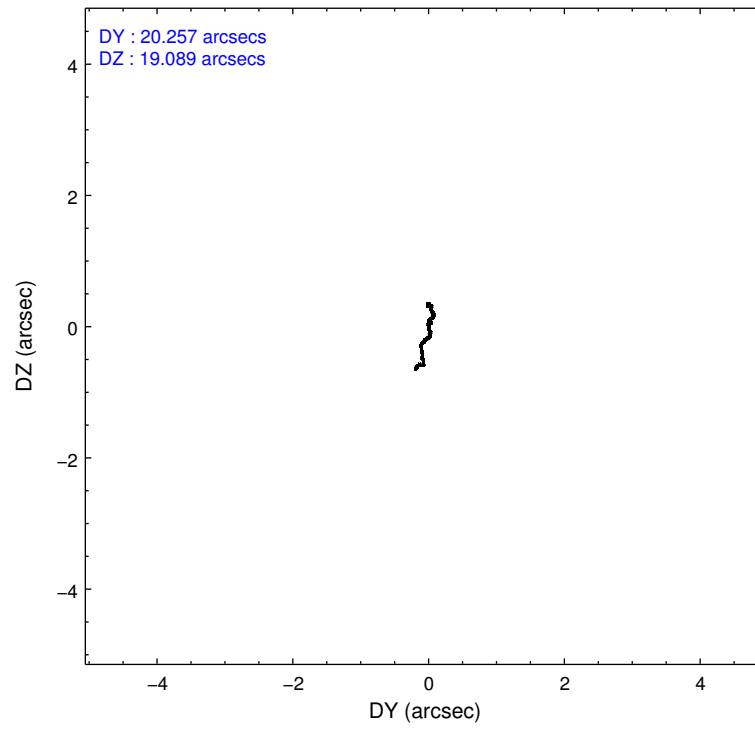
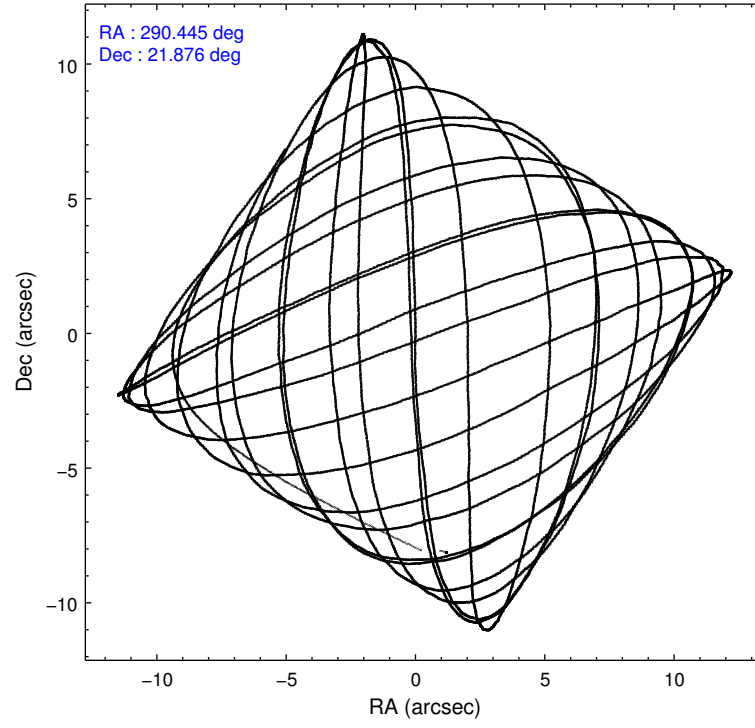
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	43558	44808	46555	47811	55387
rejected events	37565	38593	40994	42138	29375
rejected %	86%	86%	88%	88%	53%

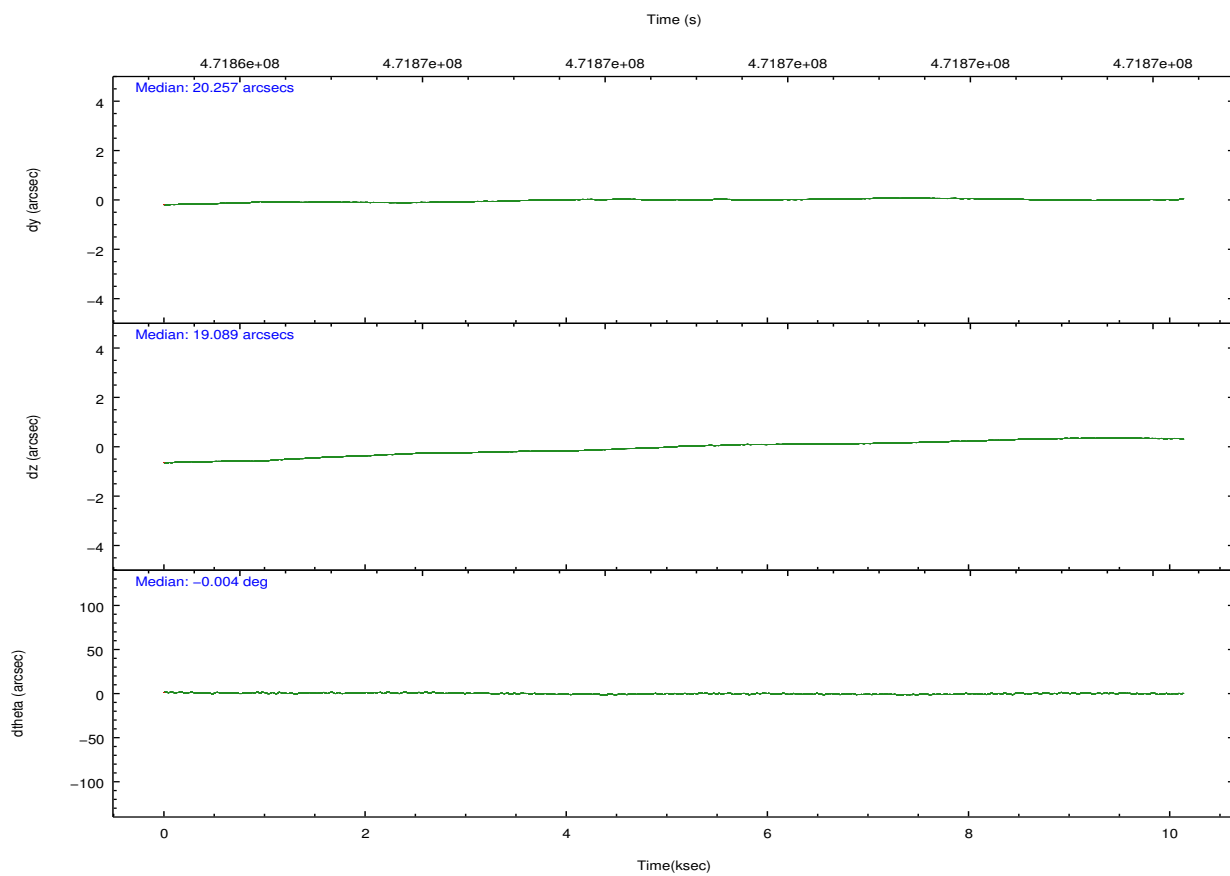
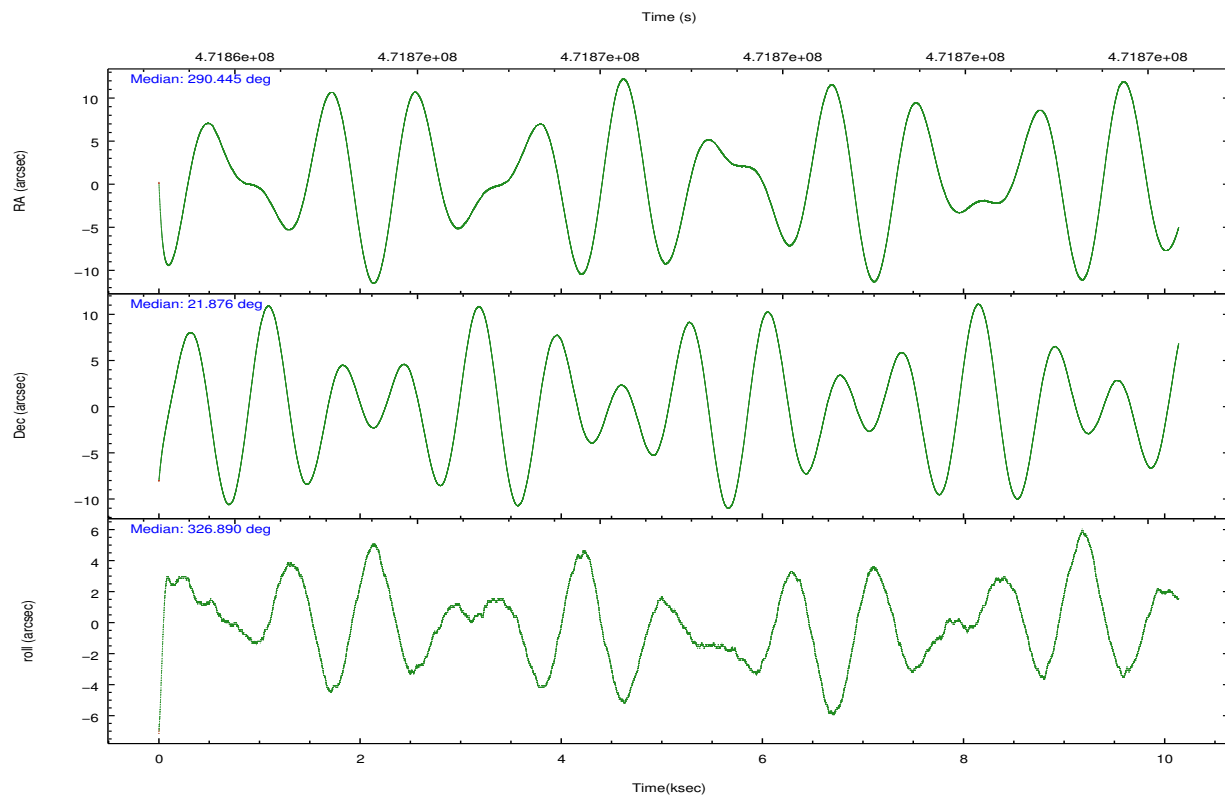
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	2421	2411	2175	2151	2386
	5%	5%	4%	4%	4%
grade 1 events	24	30	23	22	81
	0%	0%	0%	0%	0%
grade 2 events	1376	1371	1316	1260	5472
	3%	3%	2%	2%	9%
grade 3 events	577	602	584	583	2423
	1%	1%	1%	1%	4%
grade 4 events	564	599	510	588	2333
	1%	1%	1%	1%	4%
grade 5 events	1908	2054	1716	2180	5919
	4%	4%	3%	4%	10%
grade 6 events	1061	1235	977	1095	13406
	2%	2%	2%	2%	24%
grade 7 events	35627	36506	39254	39932	23367
	81%	81%	84%	83%	42%

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	290.415986	290.44555213993	CCD I2 on	Y	Y
[deg] Pointing Dec	21.877805	21.87641724589513	CCD I3 on	Y	Y
[deg] Pointing Roll	326.700401	326.8980524540743	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	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	471863820.184000	471862356.10923	CCD S5 on	N	N
Observation start date	2012-12-14T09:15:53	2012-12-14T08:52:36	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	471873820.184000	471874780.1349	On-chip summing requested	N	N
Observation end date	2012-12-14T12:02:33	2012-12-14T12:19:40	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



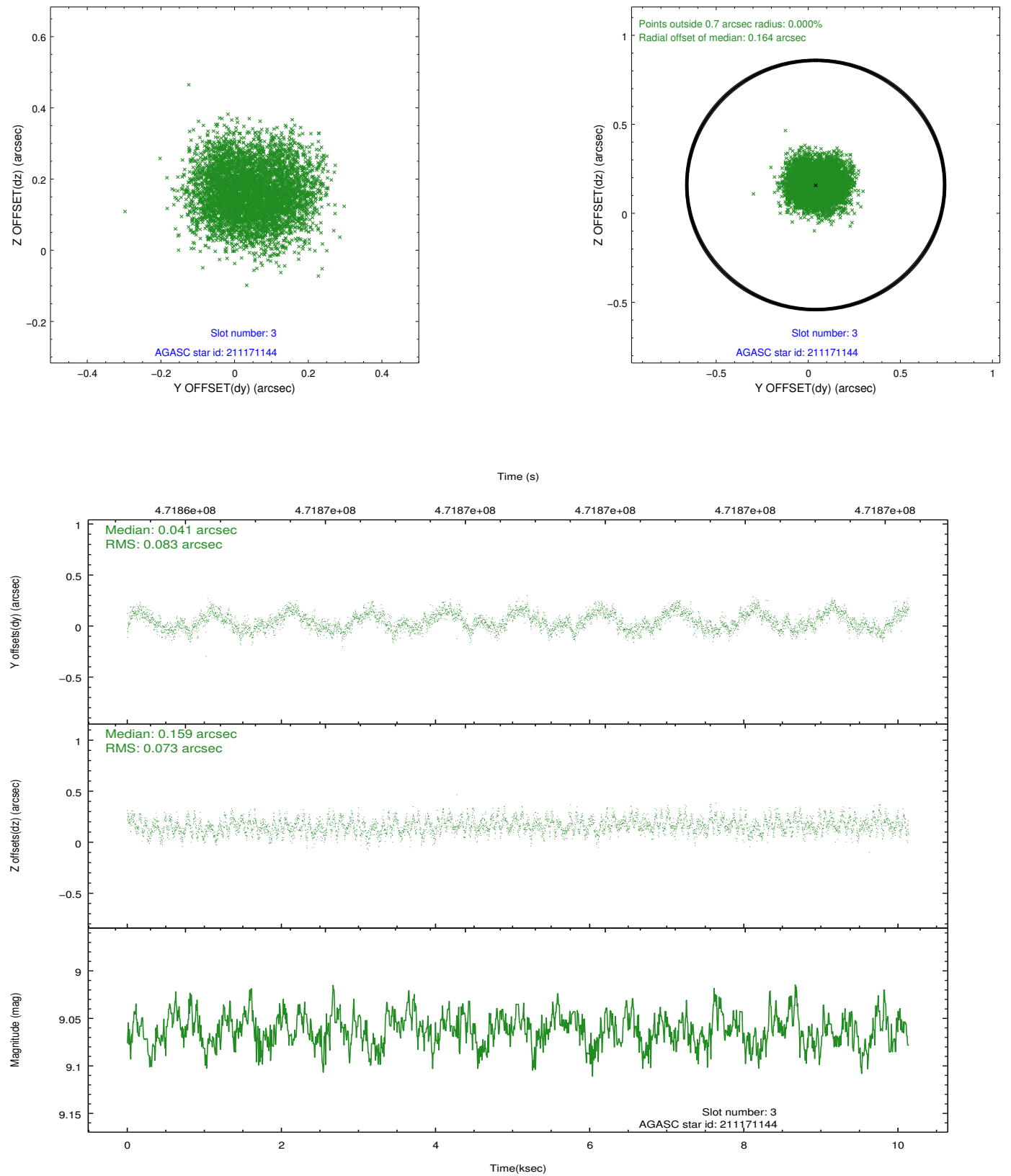


Slot Statistics

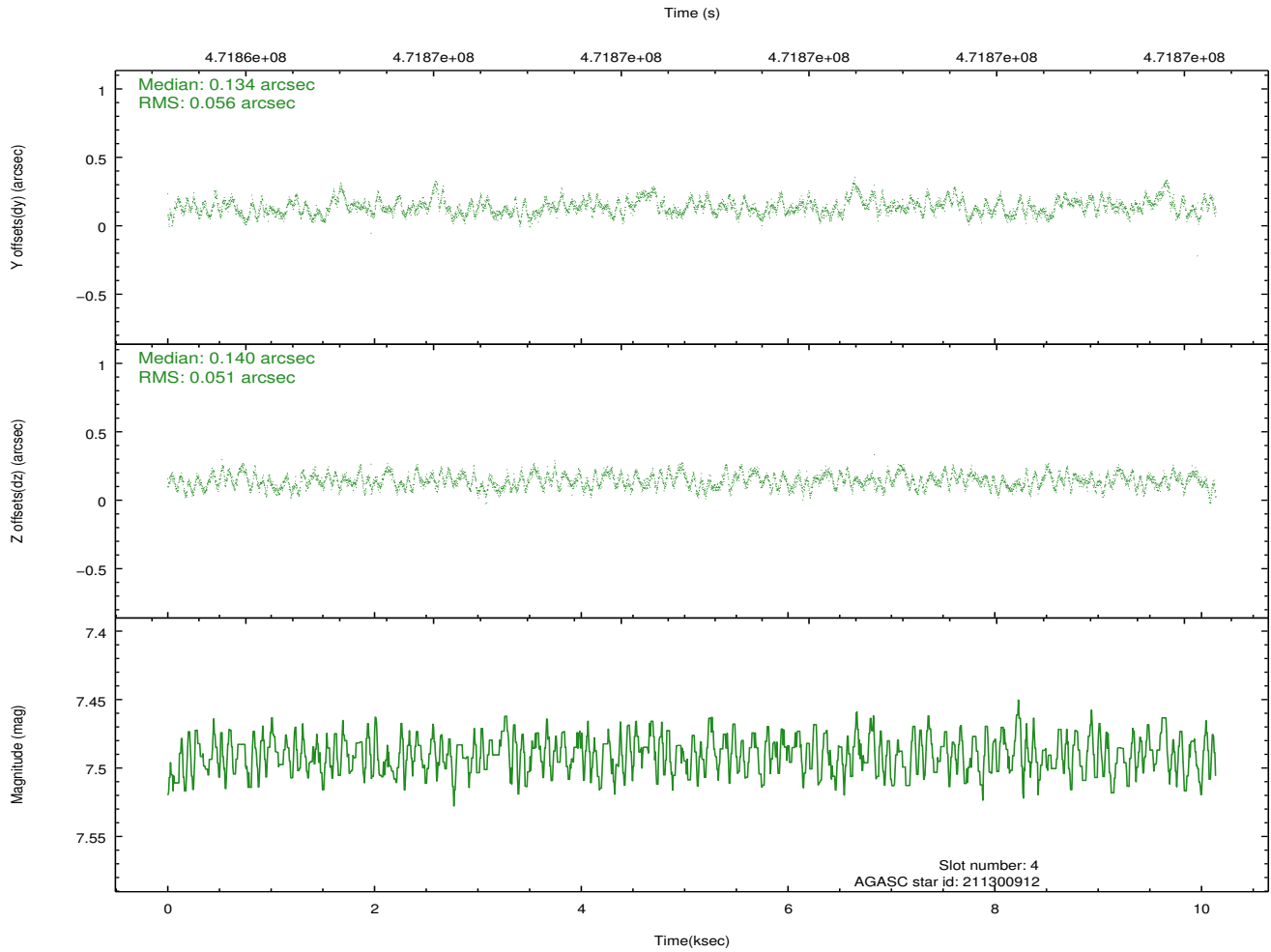
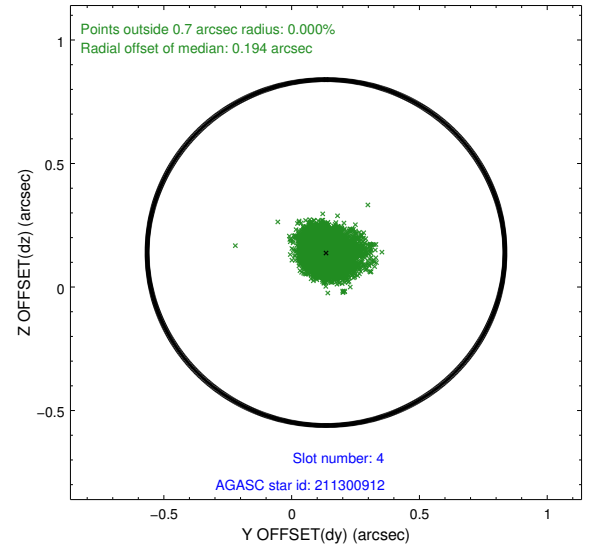
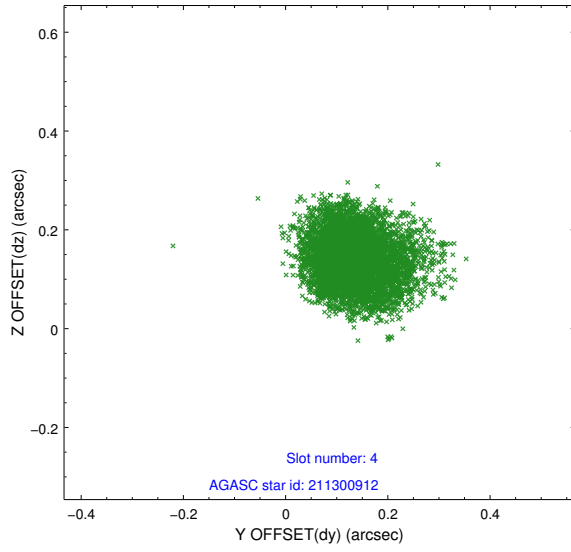
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.07	2474	0.008	0.062	0.013	0.023	0.000000	0.000000	919.12	-842.64
1	FID		ACIS-I-5	7.06	2474	-0.224	0.023	0.013	0.024	0.000000	0.000000	-1829.00	1054.47
2	FID		ACIS-I-6	7.07	2474	0.123	-0.017	0.009	0.017	0.000000	0.000000	384.13	1699.58
3	GUIDE	used	211171144	9.06	4944	0.041	0.159	0.121	0.184	289.950408	21.706889	-964.10	-1366.69
4	GUIDE	used	211300912	7.49	4945	0.134	0.140	0.081	0.125	290.196927	21.811582	-480.83	-600.72
5	GUIDE	used	211303096	8.64	4944	-0.032	-0.037	0.065	0.105	290.428159	21.668177	448.80	-608.22
6	GUIDE	used	278403680	8.27	4945	-0.122	-0.141	0.099	0.155	290.551584	22.536261	-924.56	2228.85
7	GUIDE	used	211298624	9.18	4913	-0.035	-0.121	0.134	0.206	291.073231	21.616979	2351.66	427.72

2.4 Star Slots

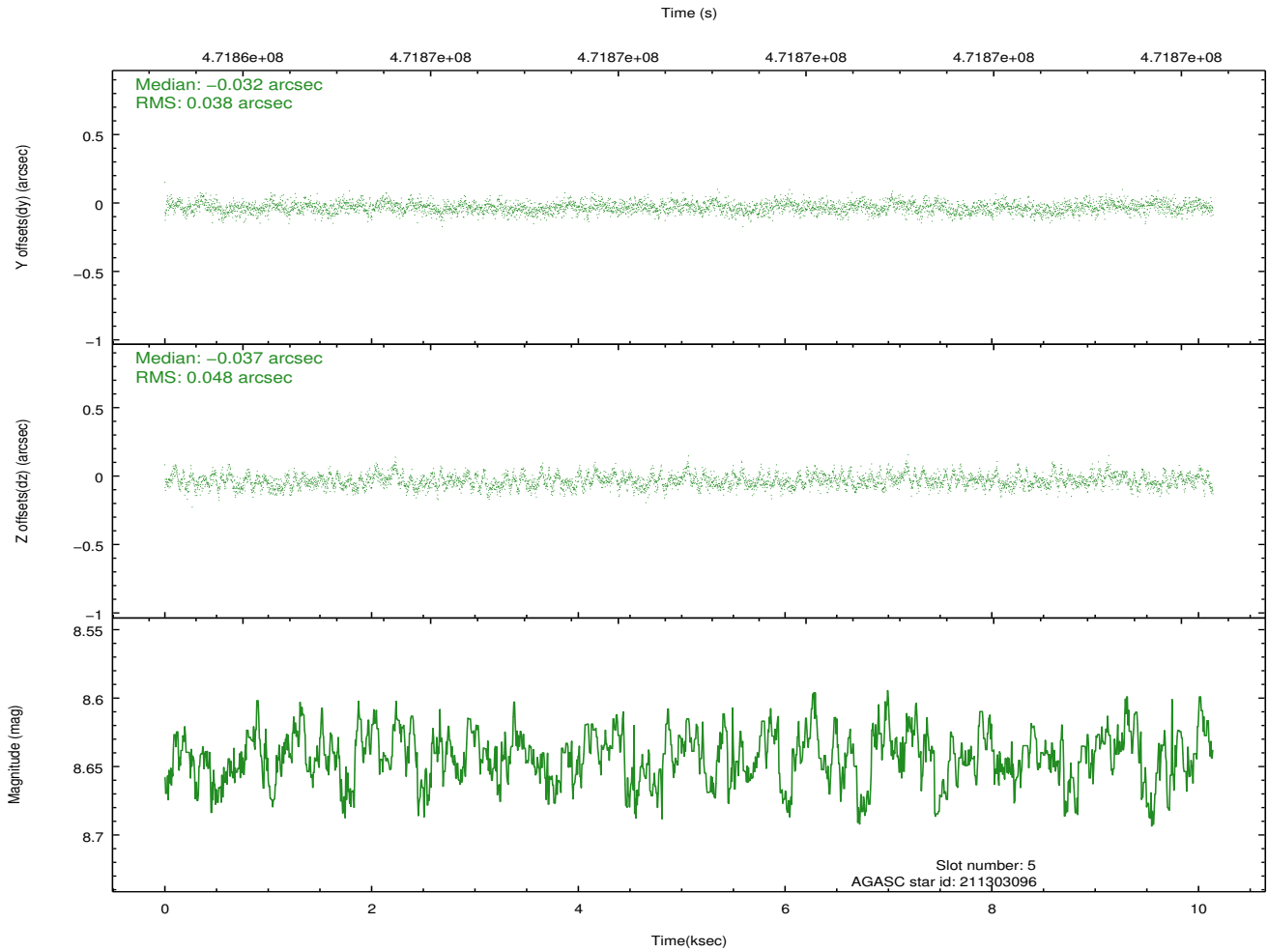
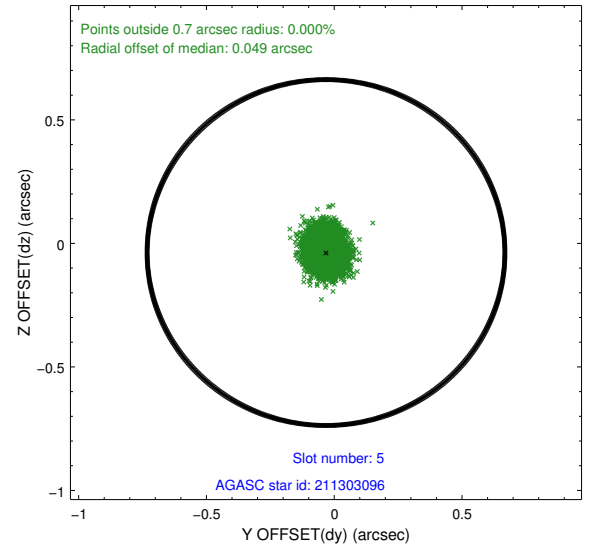
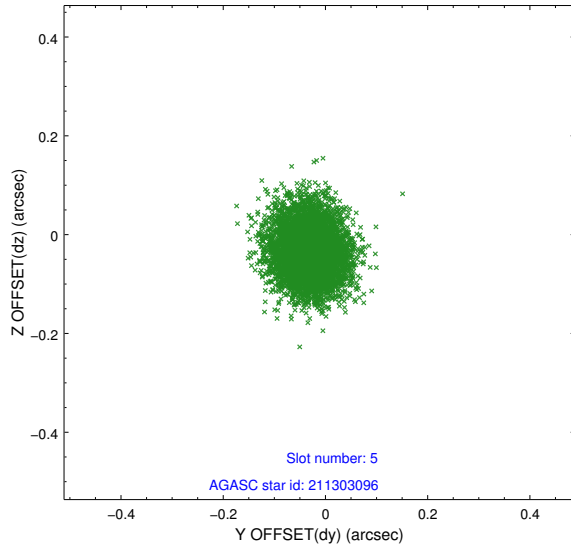
2.4.1 Slot 3



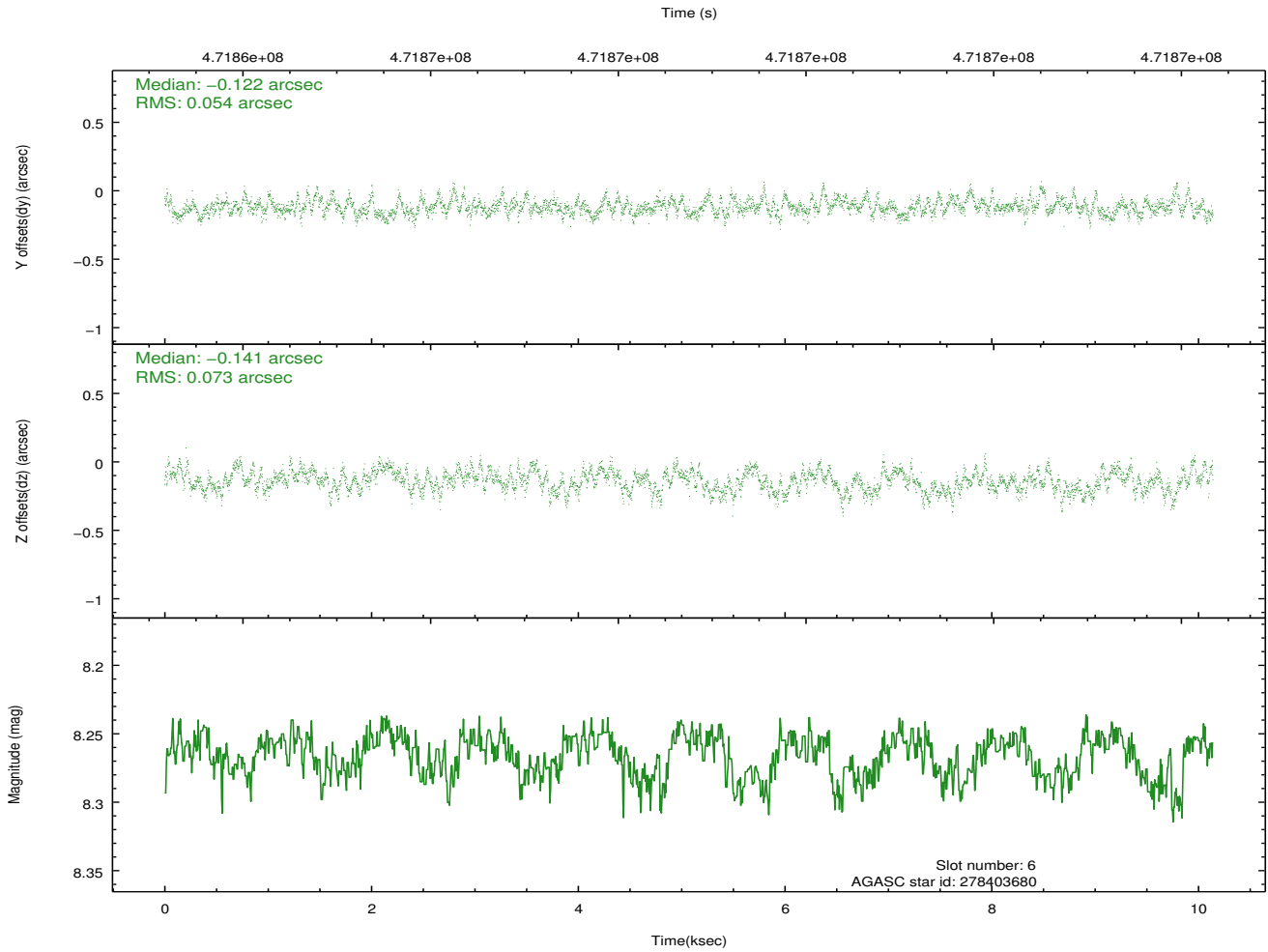
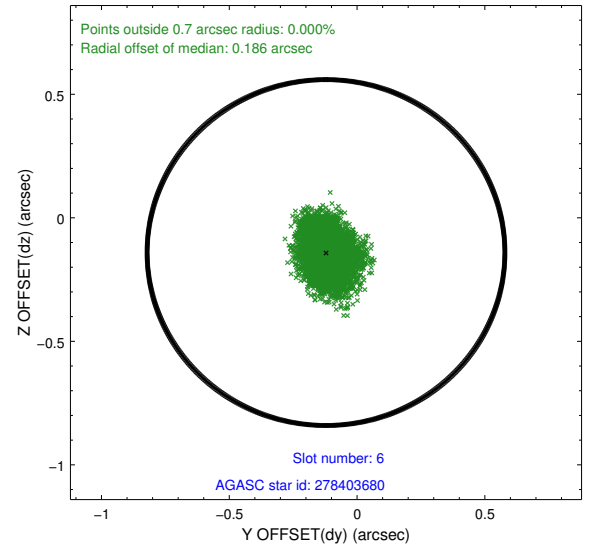
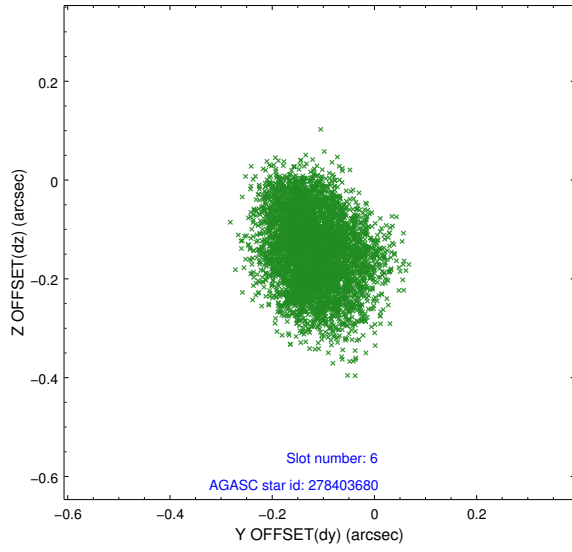
2.4.2 Slot 4



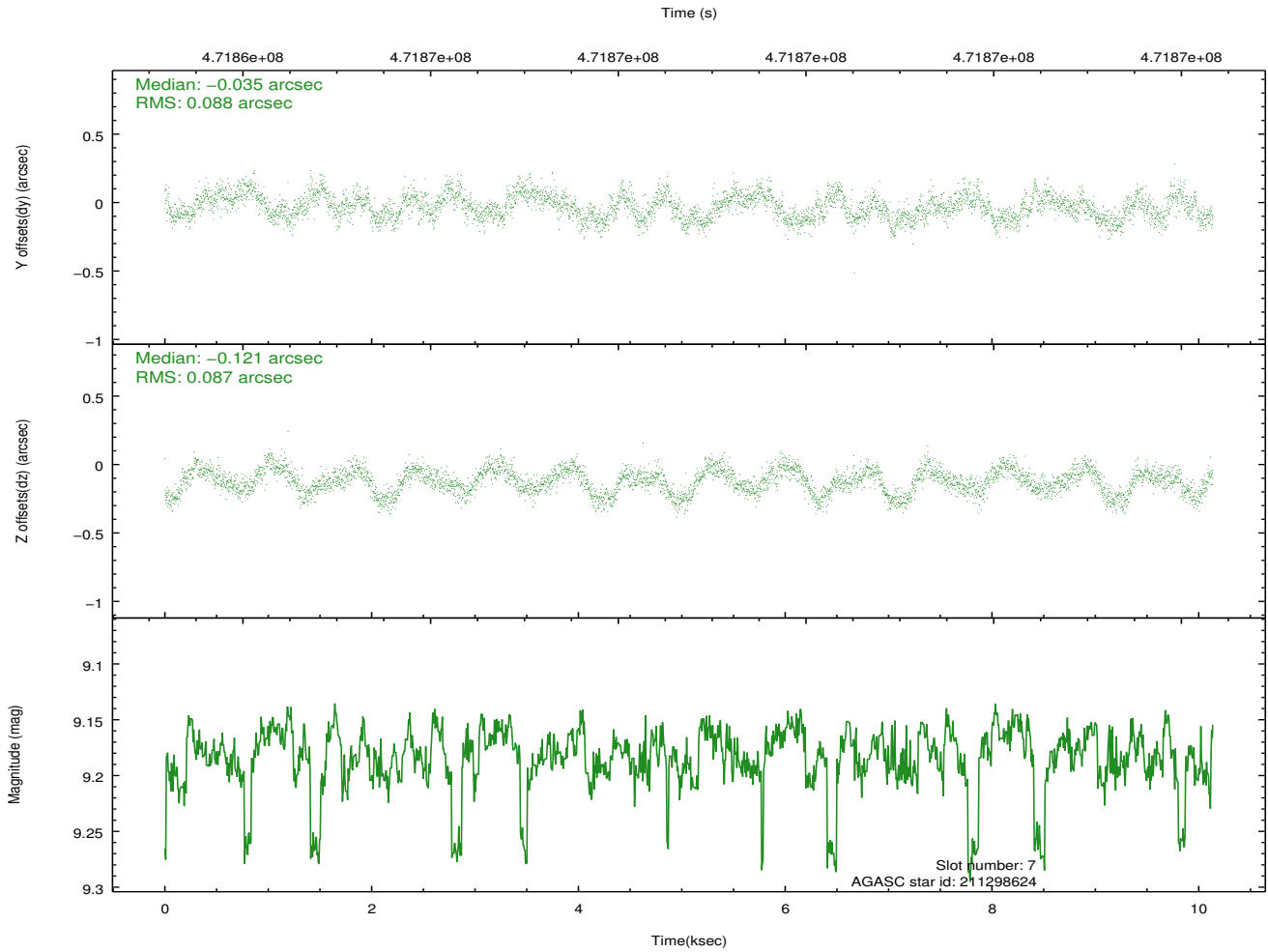
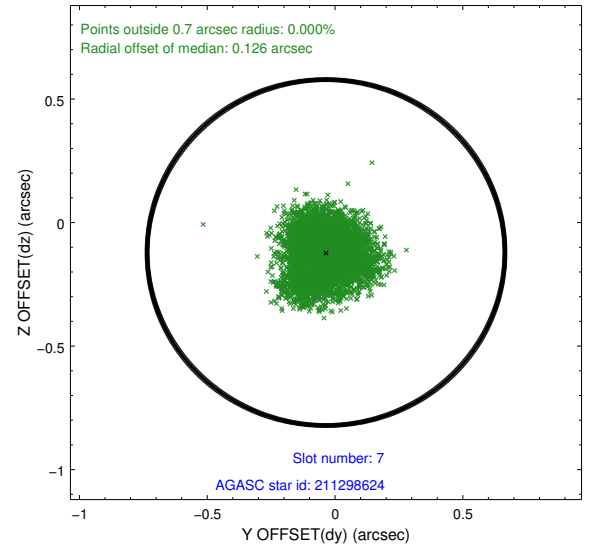
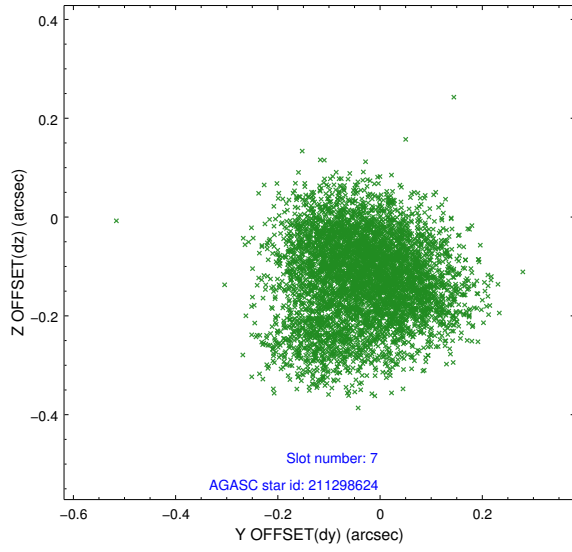
2.4.3 Slot 5



2.4.4 Slot 6

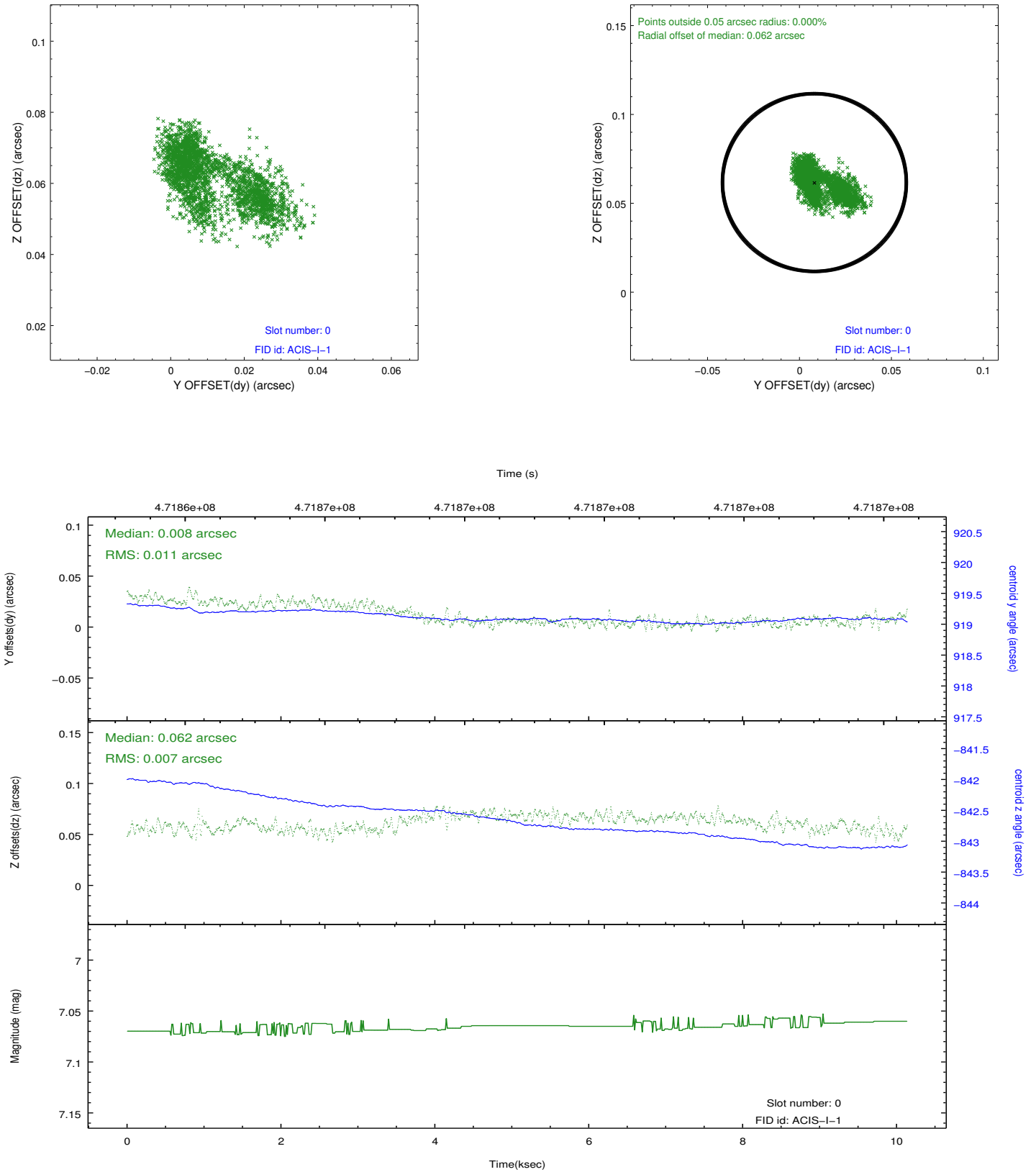


2.4.5 Slot 7

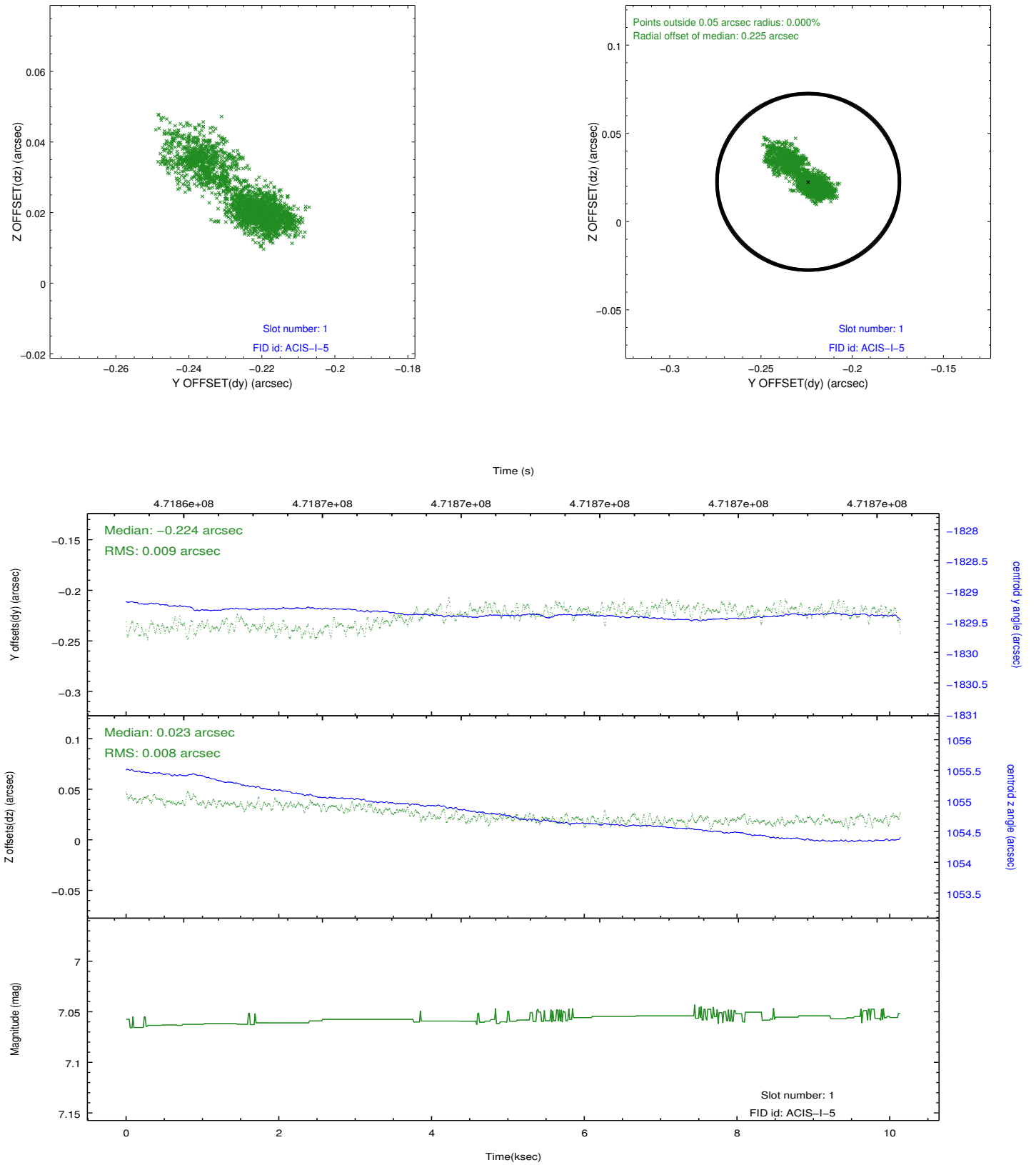


2.5 FID Slots

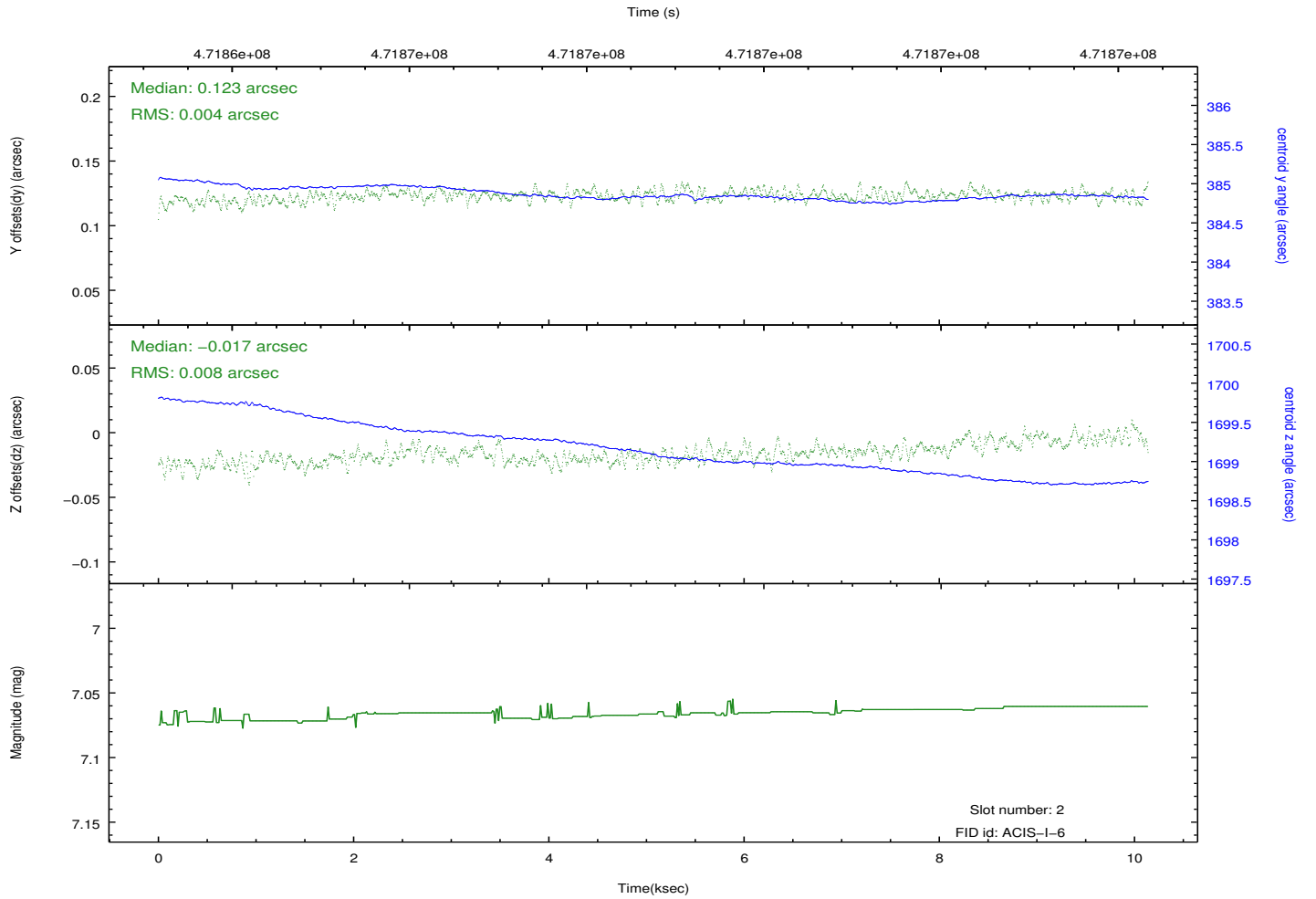
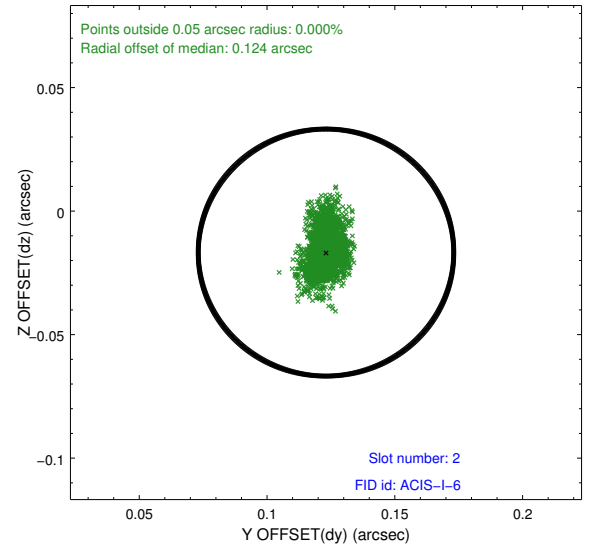
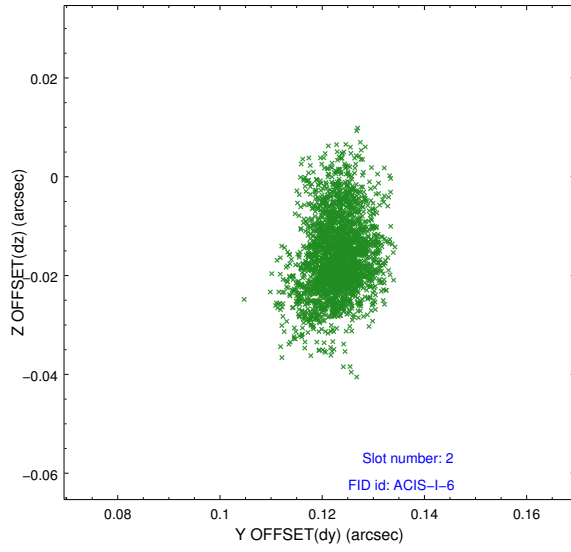
2.5.1 Slot 0



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)	2014.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.7732184866667

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.