

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 14675 - L2 Version 2
Chandra X-Ray Center

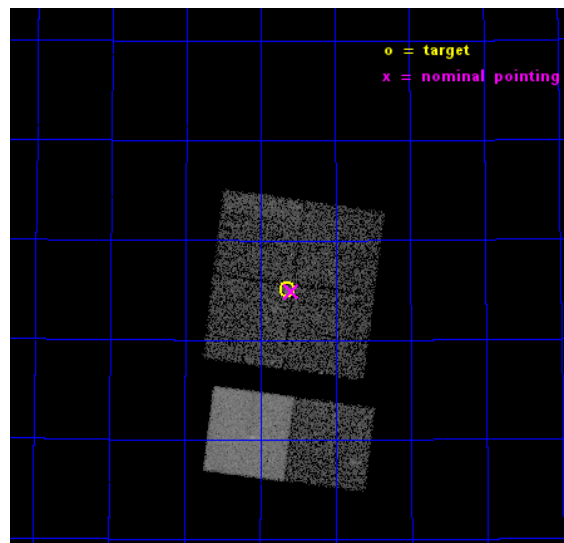
L2 Processing Date : Dec 2 2014

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1 Front

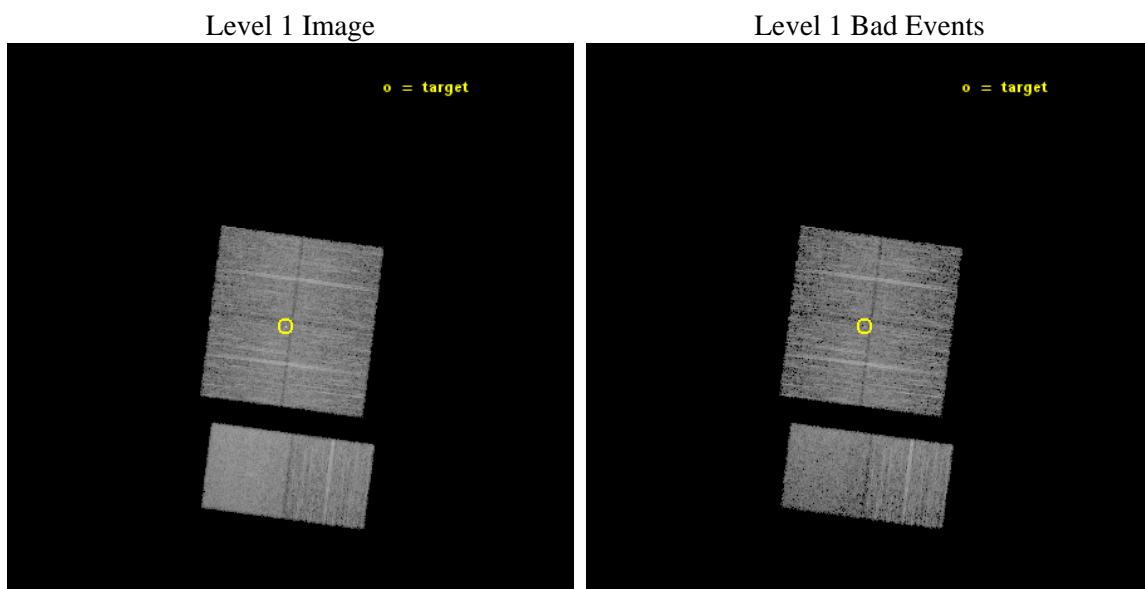
seq_num	401508	Sequence number
obs_id	14675	Observation id
title	Broad-band X-ray study of Ultraluminous X-ray sources with Chandra, XMM-Newton and NuSTAR	Proposal title
observer	Prof. Fiona Harrison	Principal investigator
object	NGC 5204	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	202.410833	Observer's specified target RA [deg]
dec_targ	58.418333	Observer's specified target Dec [deg]
ra_nom	202.39681040509	Nominal RA [deg]
dec_nom	58.414906565204	Nominal Dec [deg]
roll_nom	187.41137721292	Nominal Roll [deg]
revision	2	Processing version of data
ontime	9971.199962914	Sum of GTIs [s]
livetime	9844.9386250478	Livetime [s]
ontime0	9971.199962914	Sum of GTIs [s]
ontime1	9971.199962914	Sum of GTIs [s]
ontime2	9971.199962914	Sum of GTIs [s]
ontime3	9971.199962914	Sum of GTIs [s]
ontime6	9971.199962914	Sum of GTIs [s]
ontime7	9971.199962914	Sum of GTIs [s]
l2events	58723	Number of level 2 events



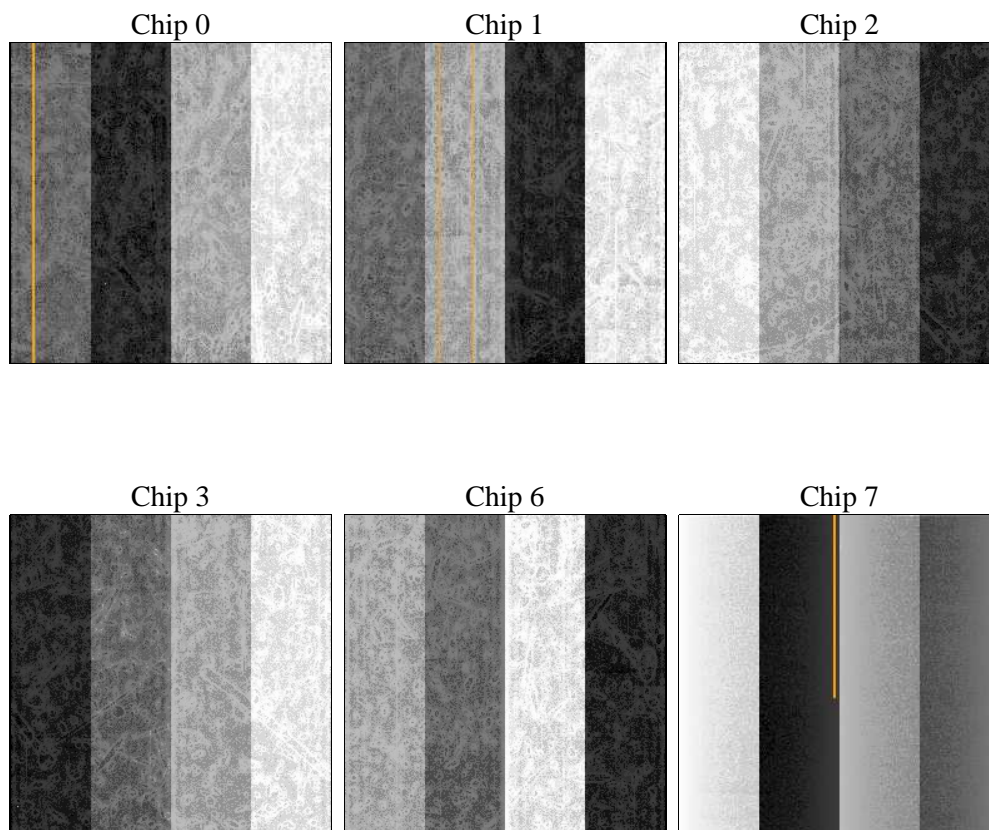
2 OBI

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	9971.199962914	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	9971.199962914	Sum of GTIs [s]
date	2014-12-02T21:48:16	Date and time of file creation	ontime1	9971.199962914	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	9971.199962914	Sum of GTIs [s]
			ontime3	9971.199962914	Sum of GTIs [s]
			ontime6	9971.199962914	Sum of GTIs [s]
			ontime7	9971.199962914	Sum of GTIs [s]
			l1events	324880	Number of level 1 events

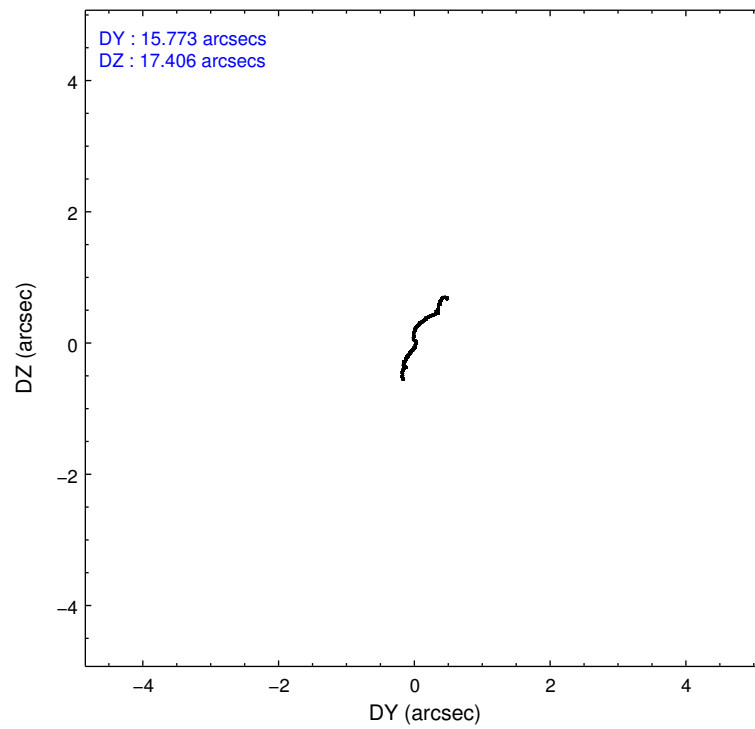
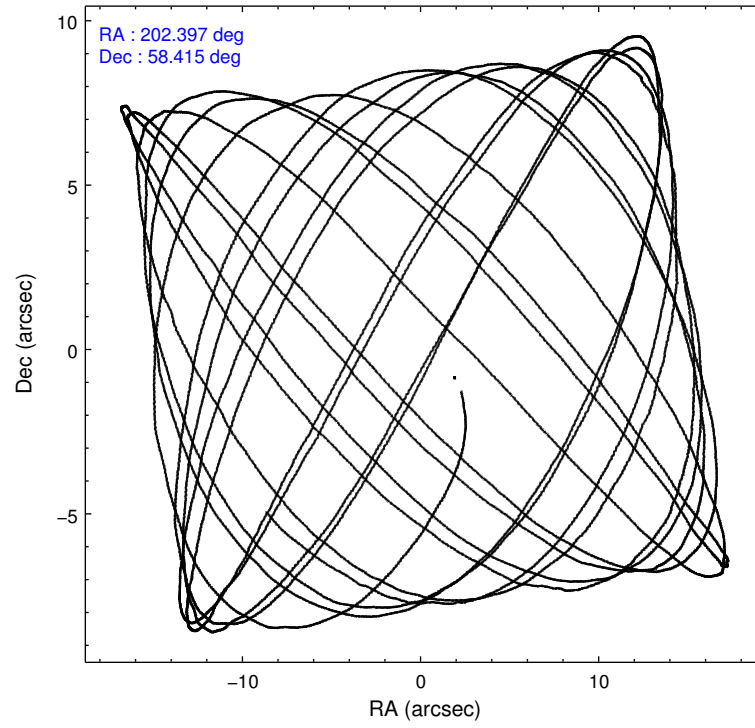
2.1.4 Events

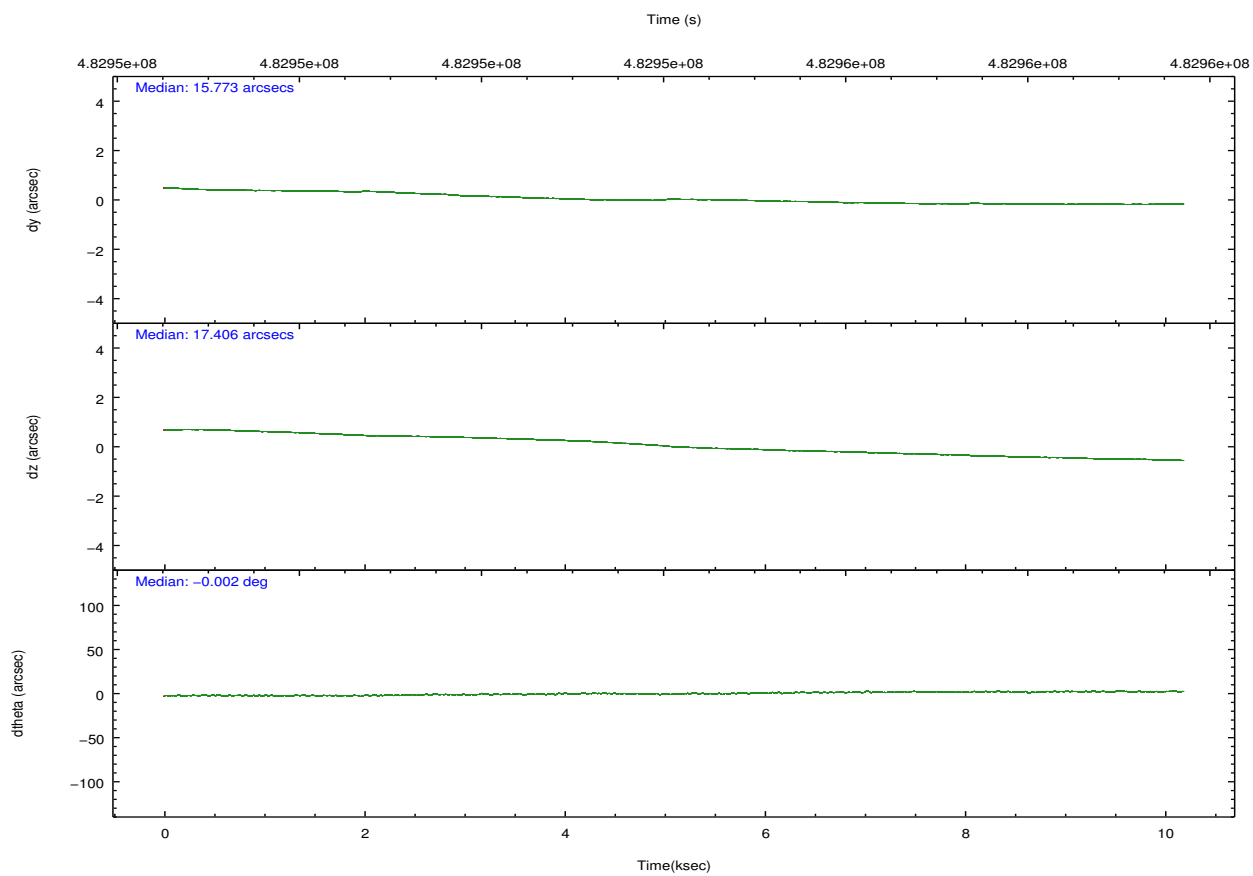
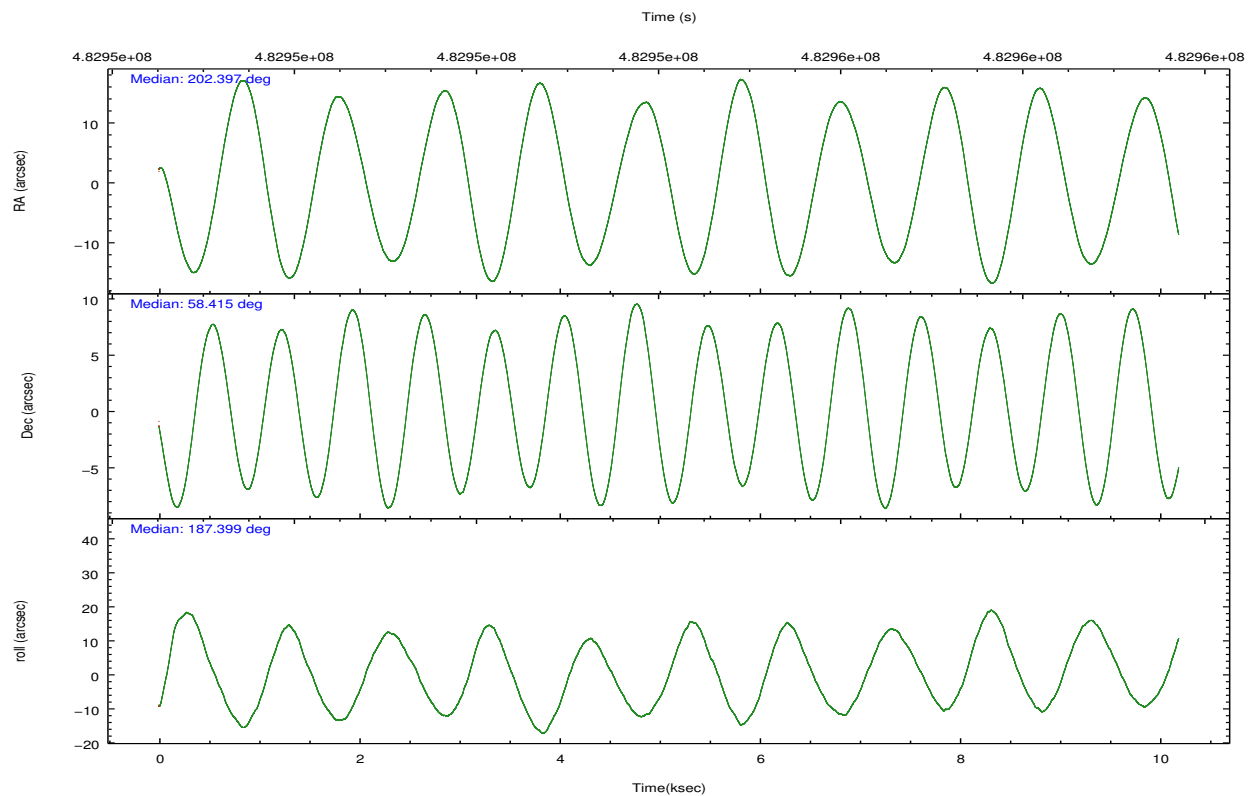
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	46504	47060	53902	51656	54693	71065	grade 0 events	2170	2560	2219	2921	2272	2882
rejected events	40321	40010	47781	44616	48101	39741		4%	5%	4%	5%	4%	4%
rejected %	86%	85%	88%	86%	87%	55%	grade 1 events	33	30	37	74	30	88
								0%	0%	0%	0%	0%	0%
							grade 2 events	1580	1655	1463	1433	1510	6352
								3%	3%	2%	2%	2%	8%
							grade 3 events	617	666	623	672	643	2730
								1%	1%	1%	1%	1%	3%
							grade 4 events	602	700	621	727	684	2690
								1%	1%	1%	1%	1%	3%
							grade 5 events	2394	2493	2308	2739	2902	7373
								5%	5%	4%	5%	5%	10%
							grade 6 events	1219	1473	1196	1288	1484	16682
								2%	3%	2%	2%	2%	23%
							grade 7 events	37889	37483	45435	41802	45168	32268
								81%	79%	84%	80%	82%	45%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	202.438400	202.3968104050925	CCD I2 on	Y	Y
[deg] Pointing Dec	58.431745	58.41490656520398	CCD I3 on	Y	Y
[deg] Pointing Roll	187.167265	187.4113772129169	CCD S0 on	N	N
[s] Window start time (MET)	470707267.184000	470707267.184000	CCD S1 on	N	N
[s] Window stop time (MET)	486345667.184000	486345667.184000	CCD S2 on	O1	Y
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S3 on	O2	Y
[mm] SIM defocus	0	0.001439871863259334	CCD S4 on	N	N
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S5 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	Number of optional ACIS chips dropped	0	0
[s] Observation start time (MET)	482949203.184000	482948203.20801	On-chip summing requested	N	N
Observation start date	2013-04-21T16:32:16	2013-04-21T16:16:43	Subarray requested	NONE	NONE
[s] Observation end time (MET)	482959203.184000	482959754.95864	Alternating exposures requested	N	N
Observation end date	2013-04-21T19:18:56	2013-04-21T19:29:14	[s] Primary exposure time	0.000000	3.2
Read mode	TIMED	TIMED			

2.3 Aspect



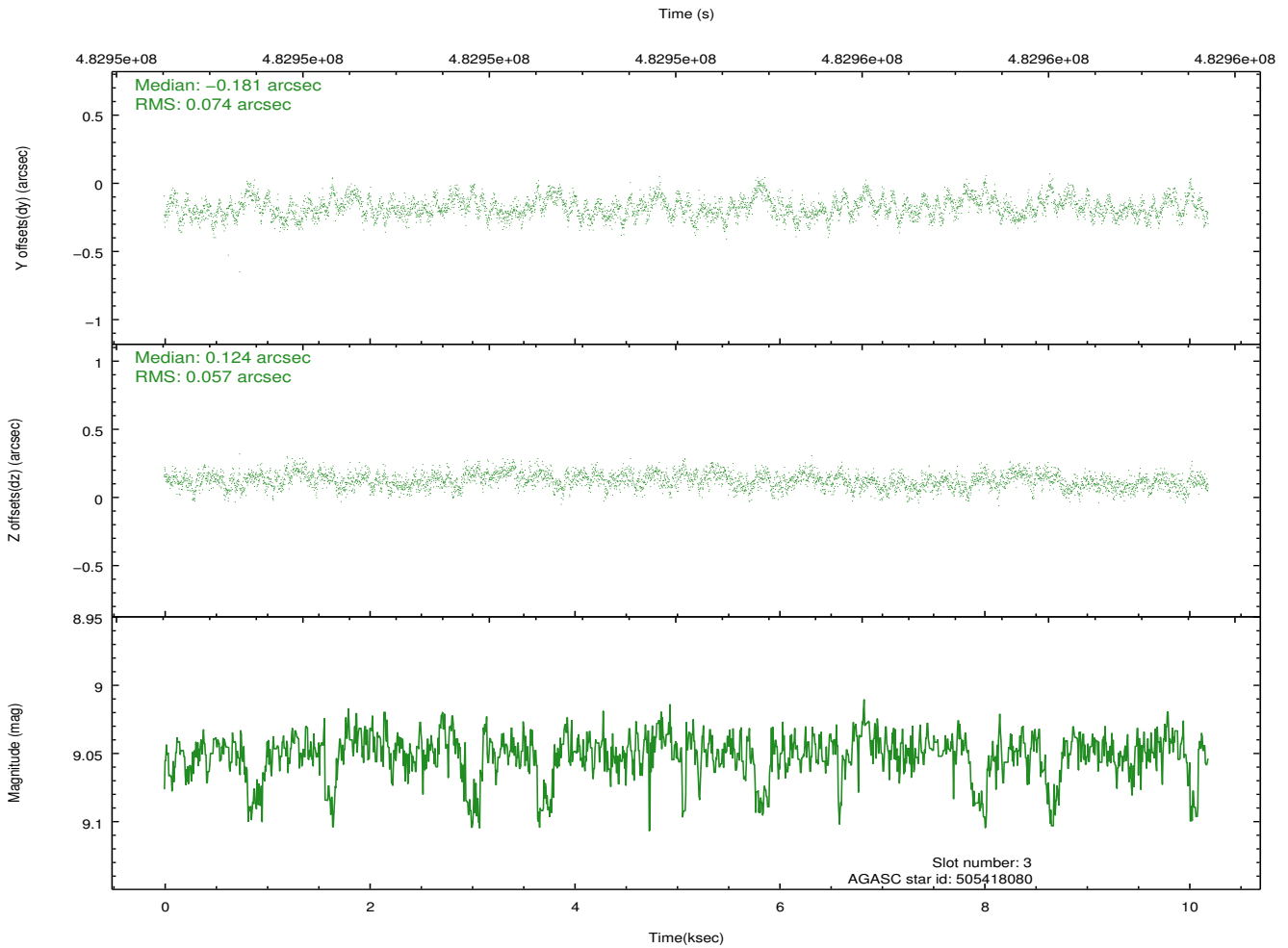
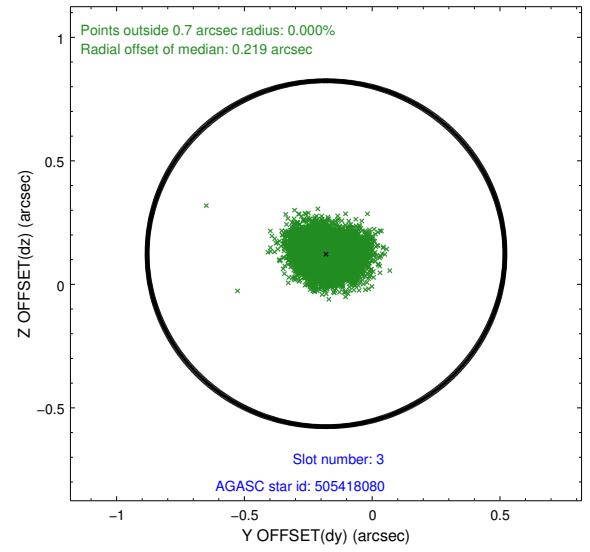
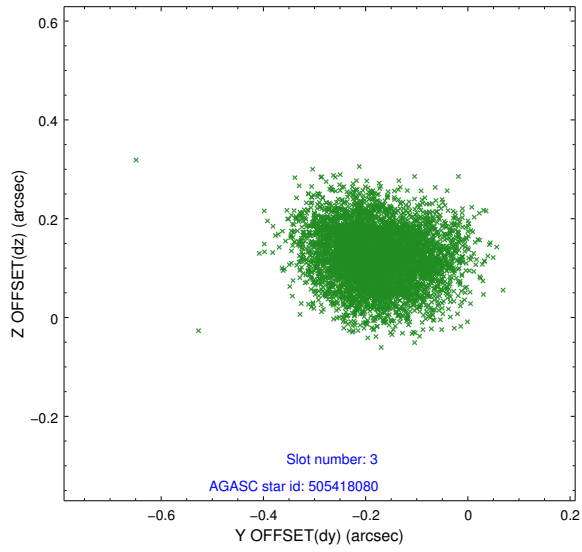


Slot Statistics

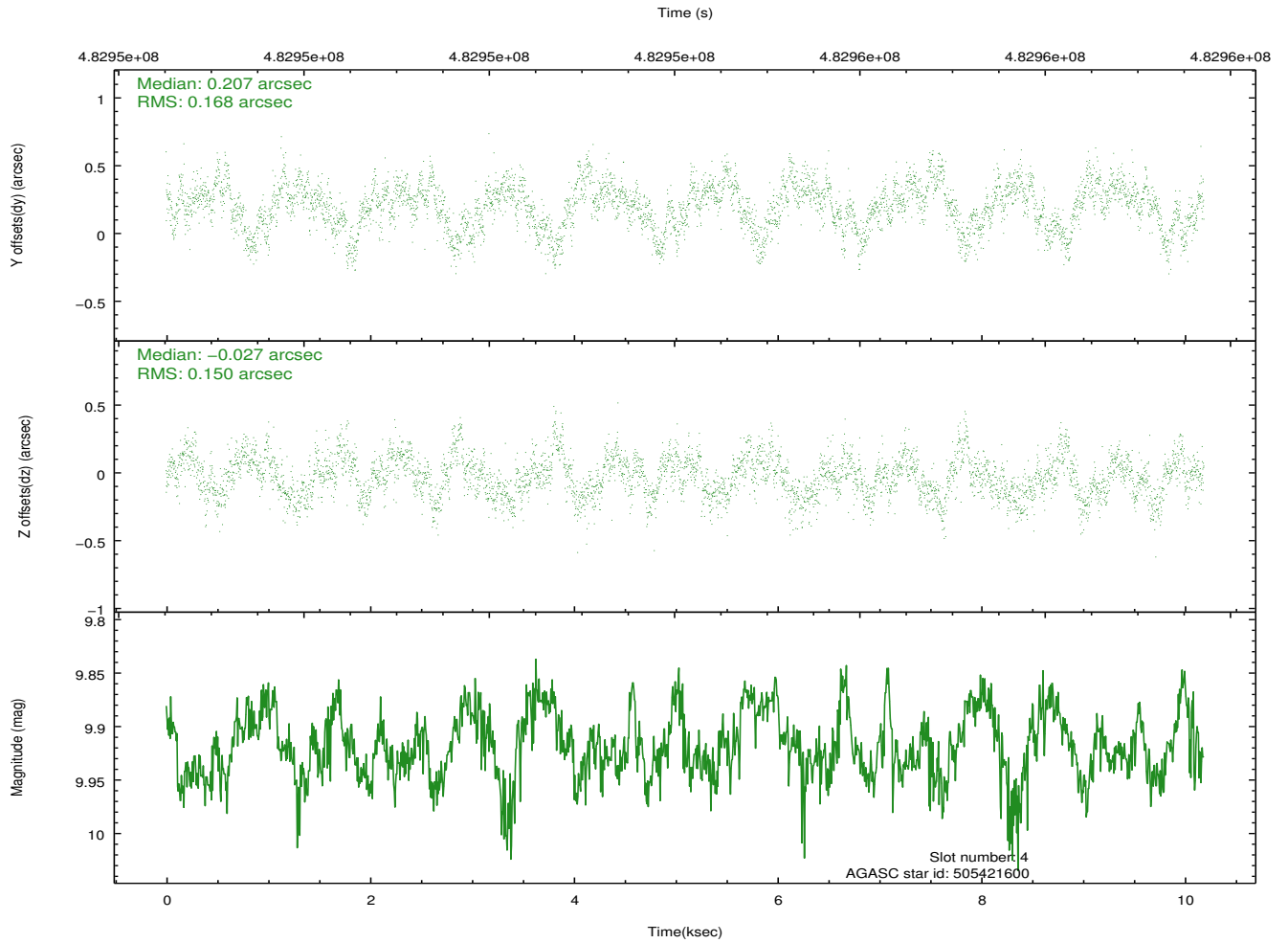
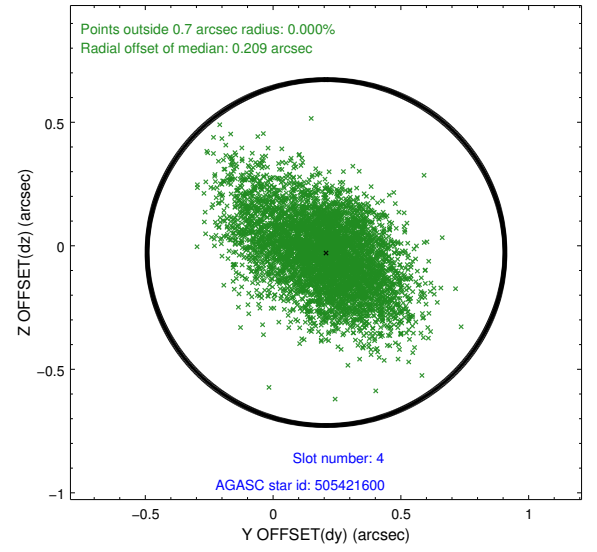
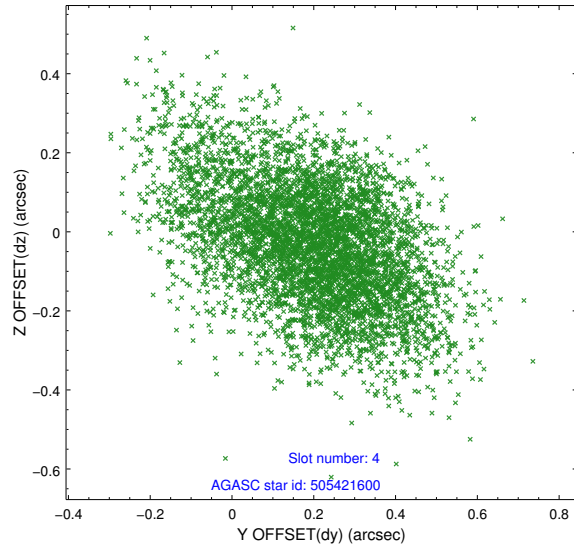
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.06	2486	0.039	0.028	0.030	0.042	0.000000	0.000000	923.64	-841.11
1	FID		ACIS-I-5	7.06	2486	-0.195	0.059	0.011	0.015	0.000000	0.000000	-1824.41	1056.17
2	FID		ACIS-I-6	7.06	2486	0.061	-0.014	0.022	0.032	0.000000	0.000000	388.66	1701.18
3	GUIDE	used	505418080	9.05	4968	-0.181	0.124	0.101	0.160	201.533017	58.898788	1459.82	-1889.23
4	GUIDE	used	505421600	9.92	4960	0.207	-0.027	0.235	0.402	201.131329	58.972124	2162.08	-2256.34
5	GUIDE	used	505421936	8.83	4967	-0.073	-0.074	0.104	0.164	201.854843	57.887820	1352.02	1798.39
6	GUIDE	used	505421968	8.17	4969	-0.019	-0.090	0.075	0.120	202.022601	58.209270	882.62	694.28
7	GUIDE	used	505422344	8.62	4969	0.072	0.070	0.092	0.148	202.767077	57.846963	-362.43	2166.13

2.4 Star Slots

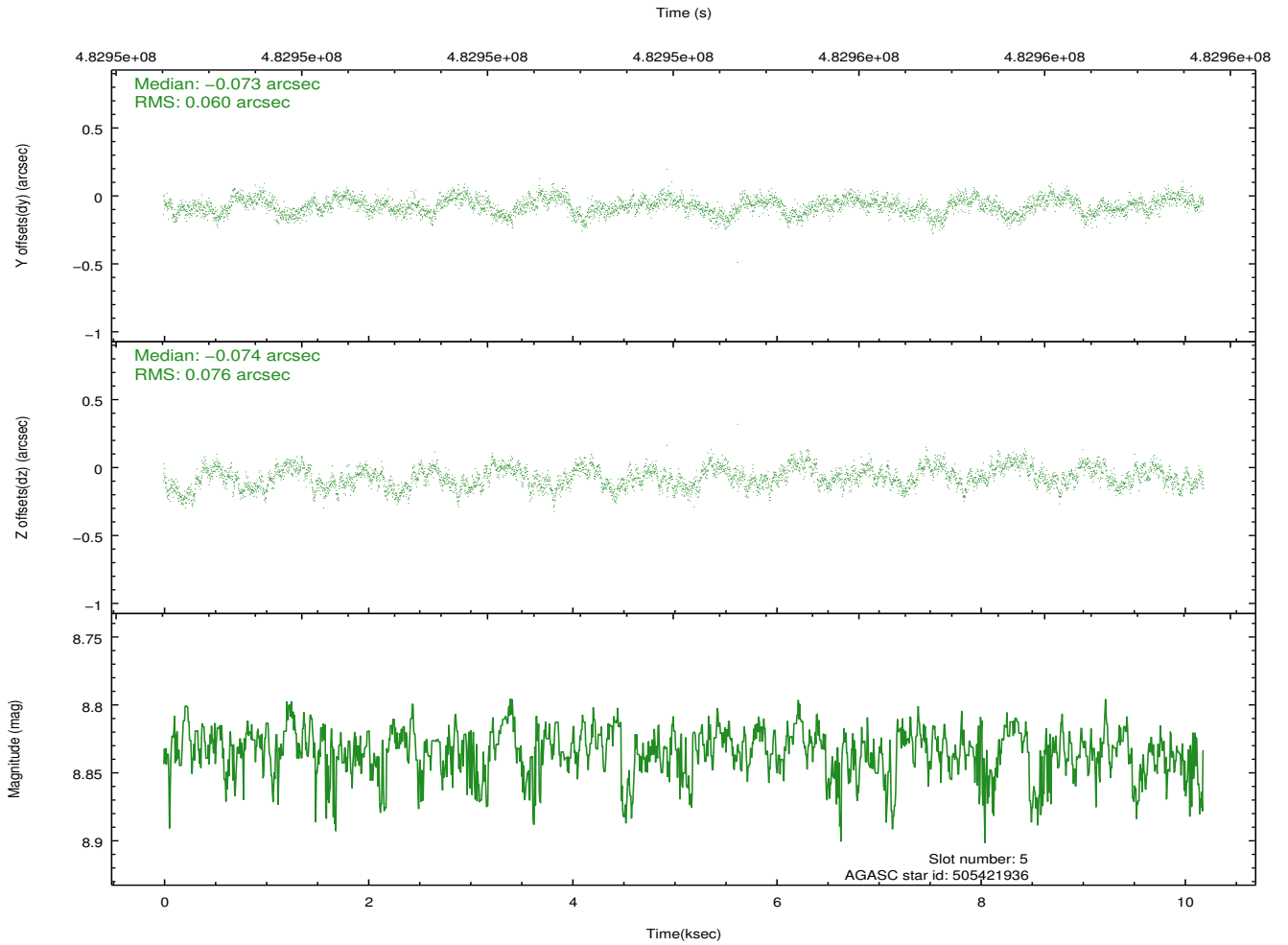
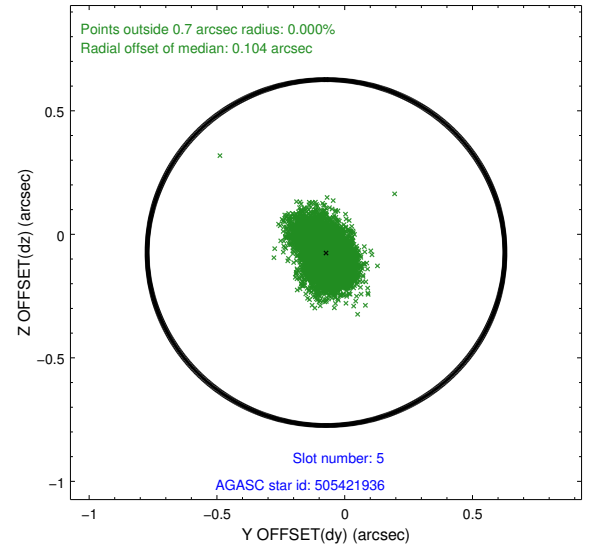
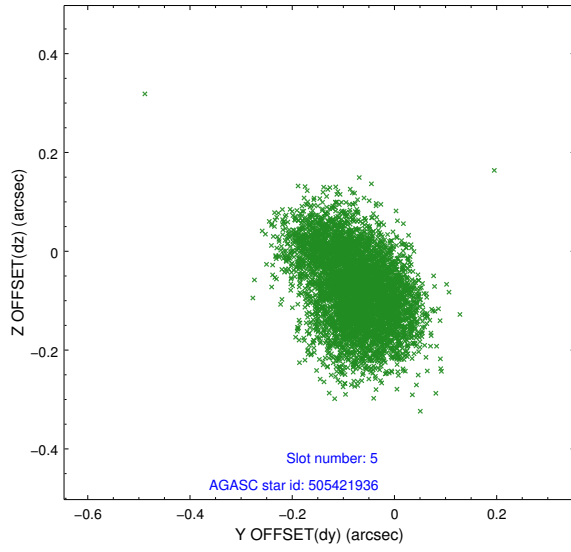
2.4.1 Slot 3



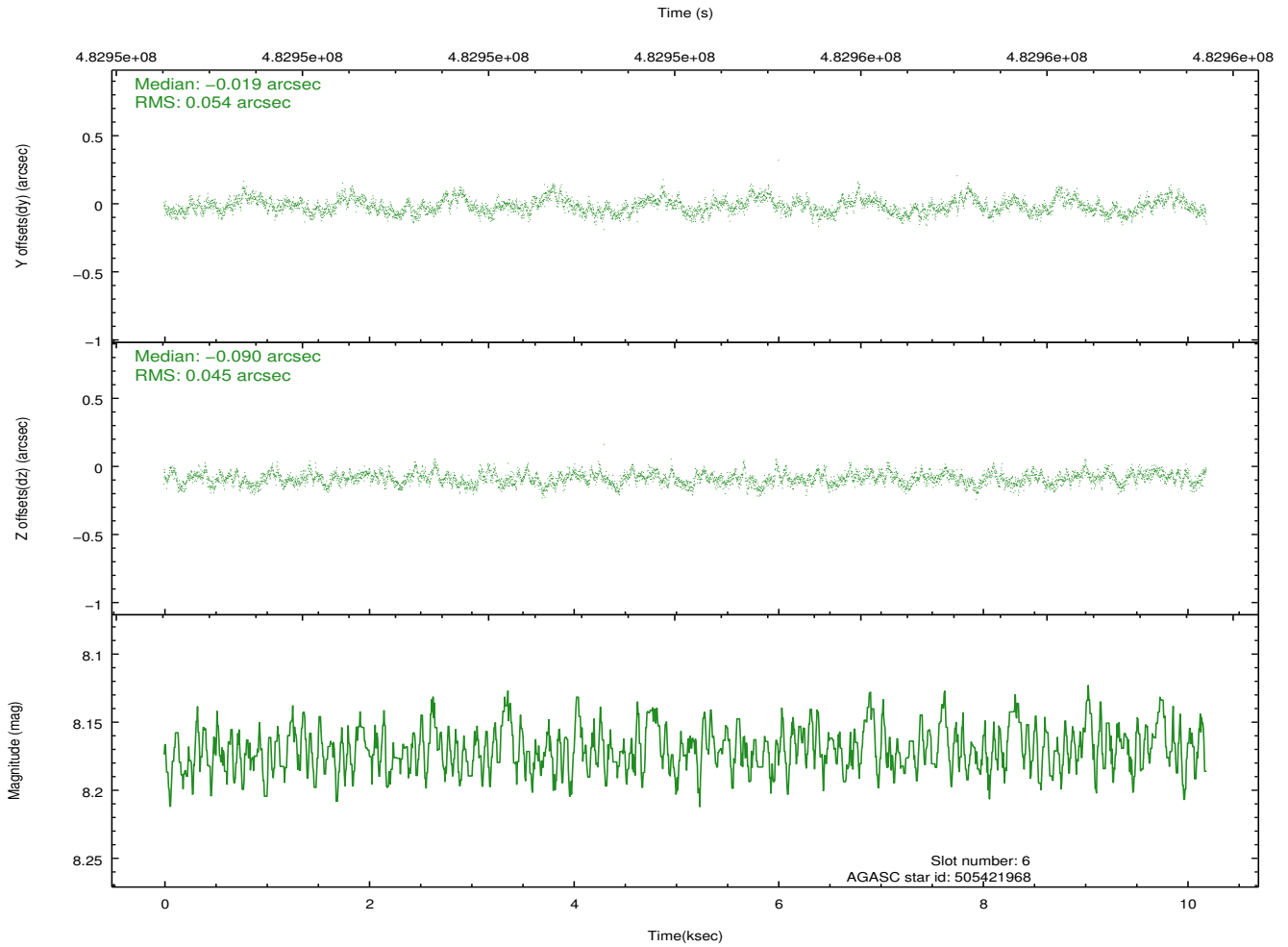
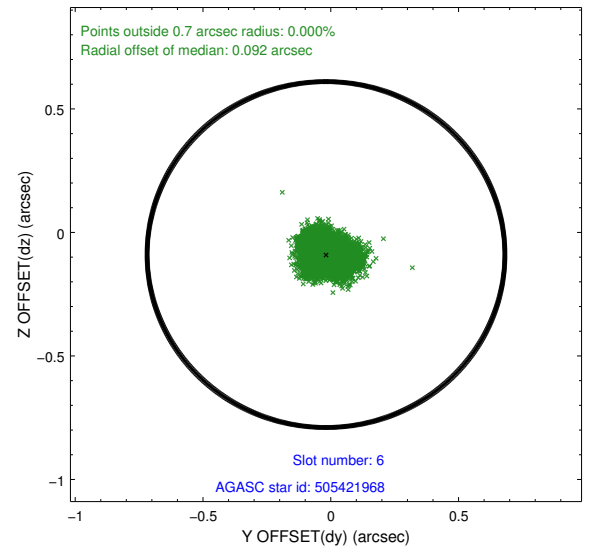
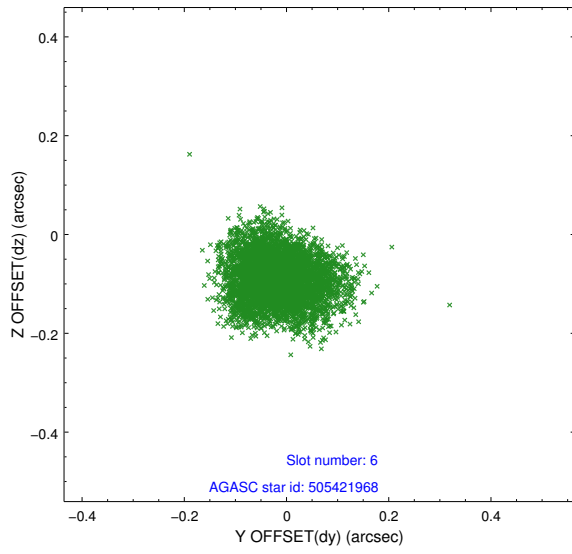
2.4.2 Slot 4



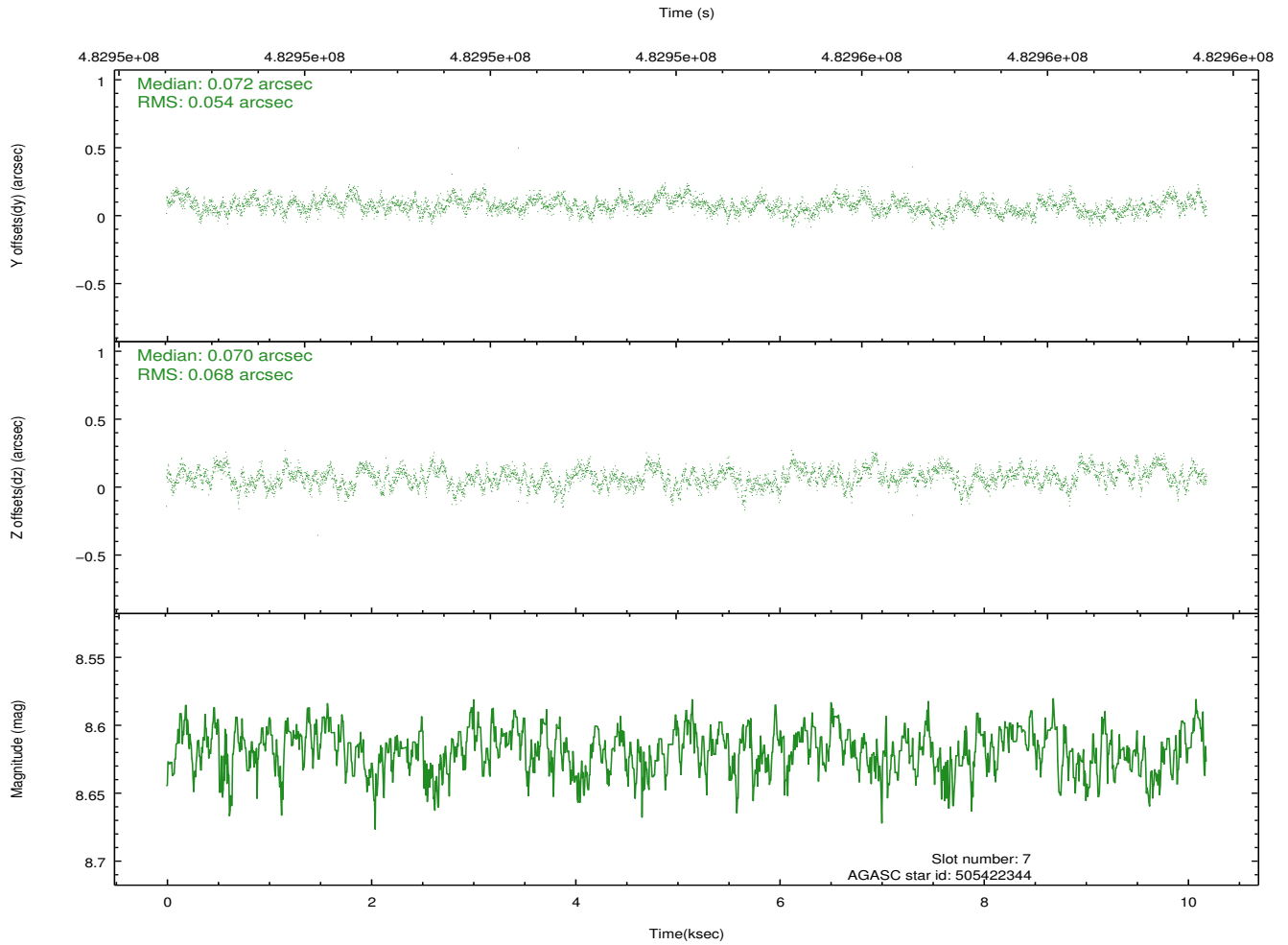
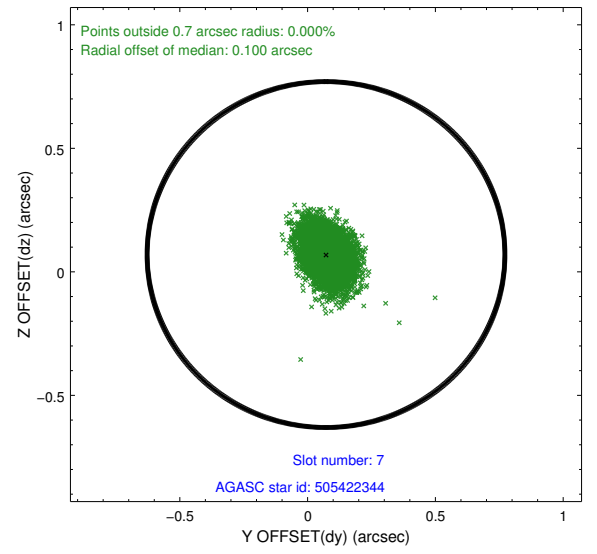
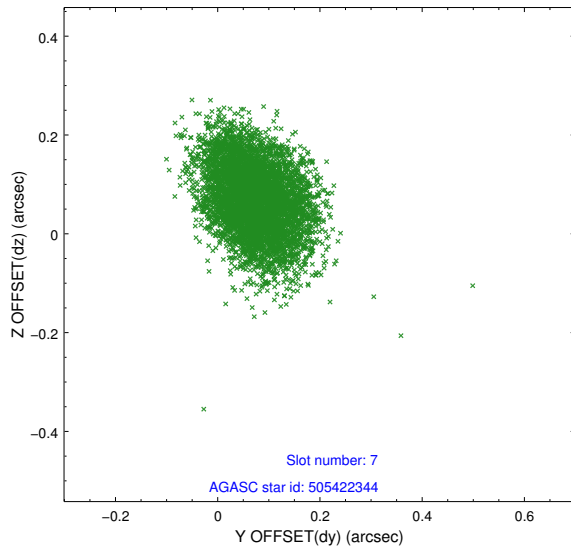
2.4.3 Slot 5



2.4.4 Slot 6

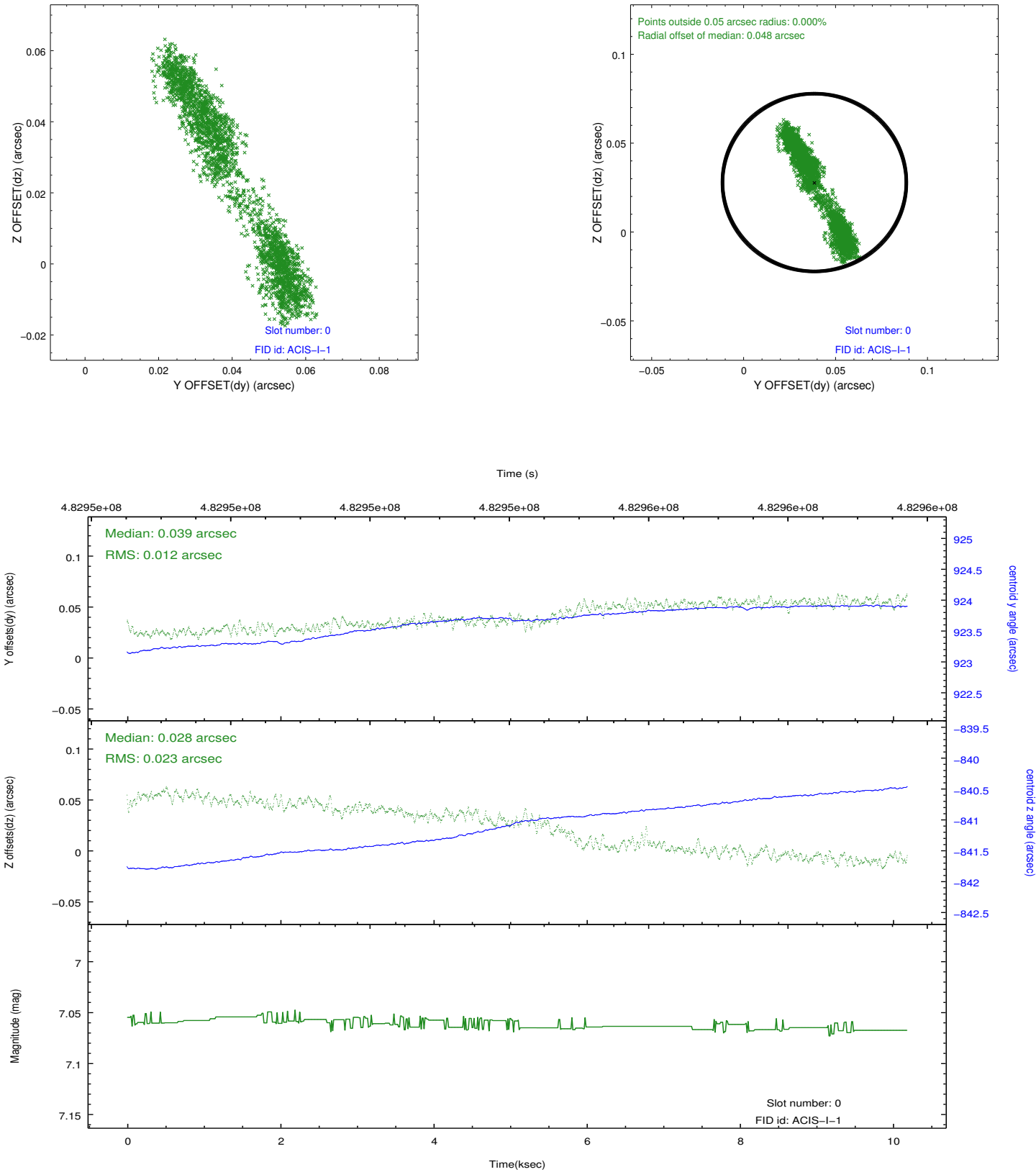


2.4.5 Slot 7

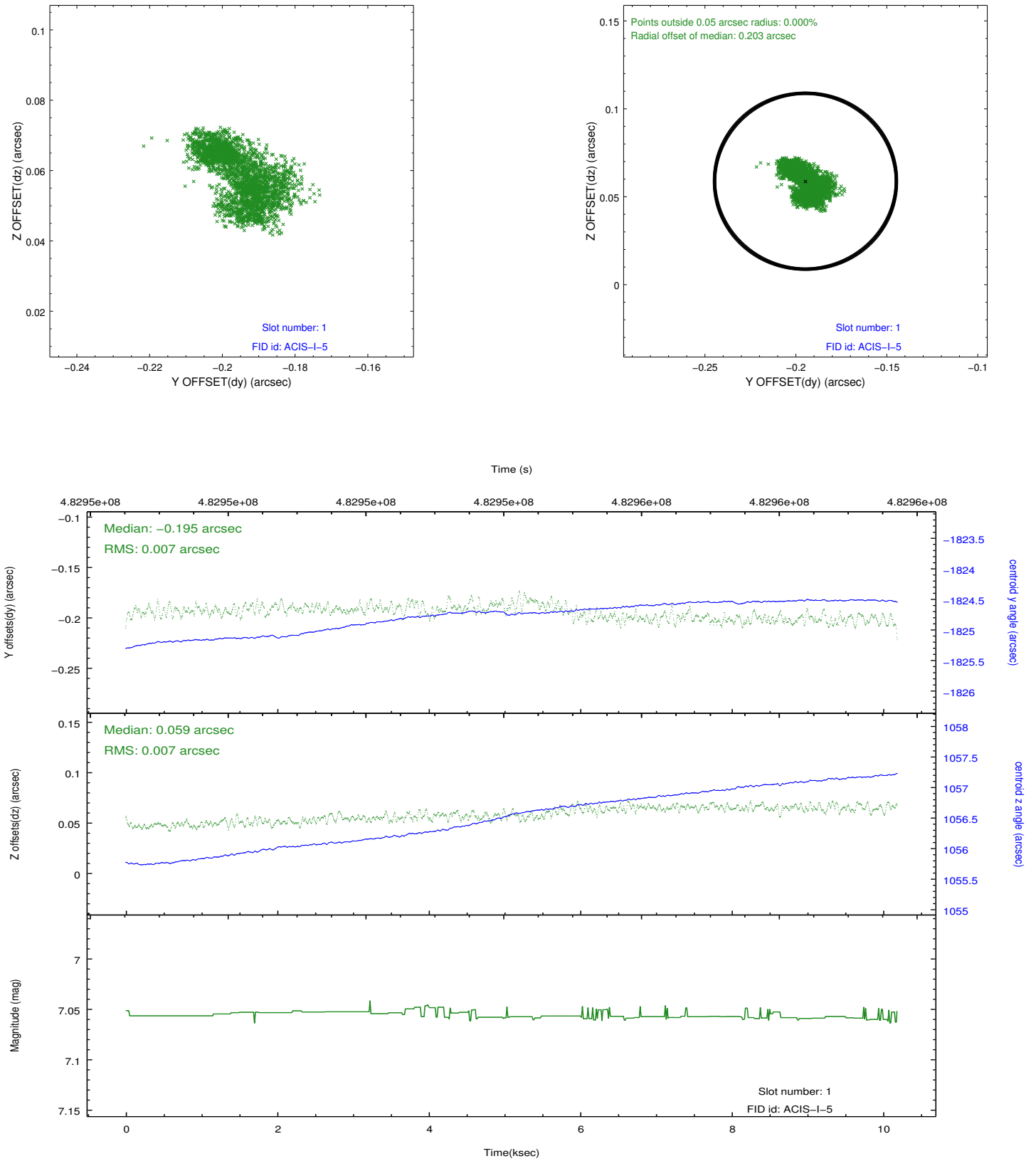


2.5 FID Slots

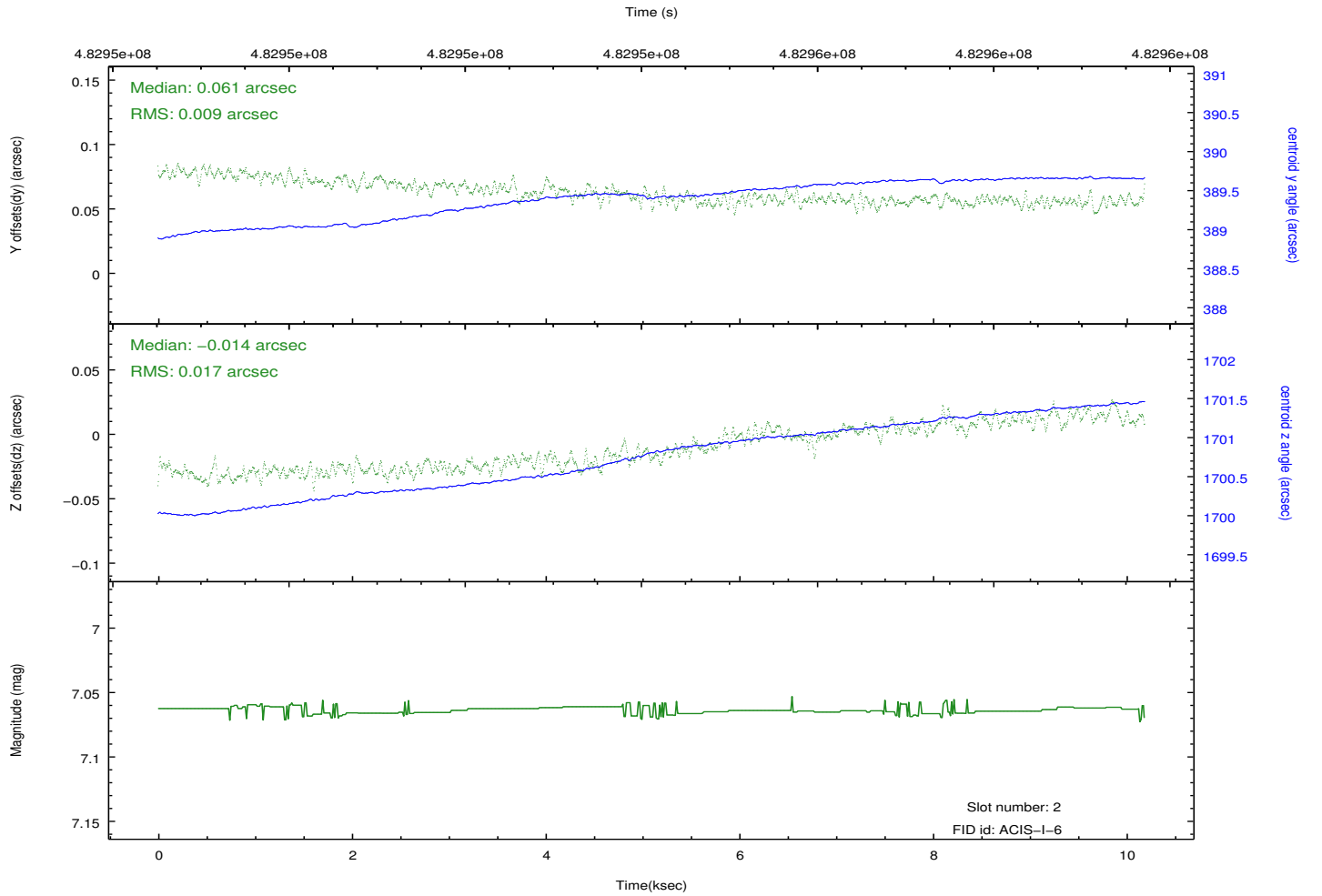
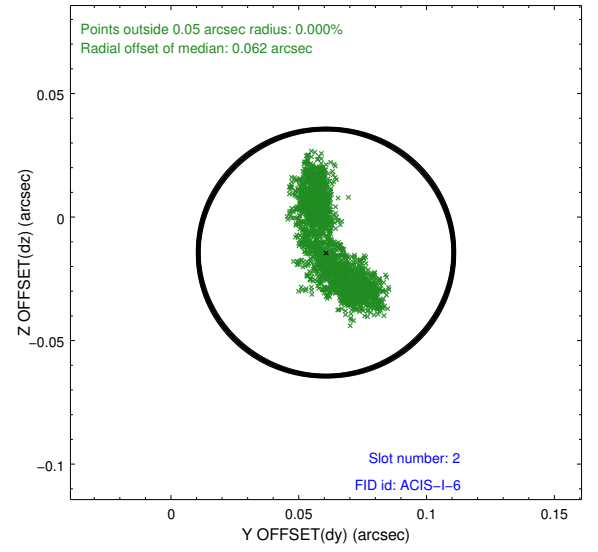
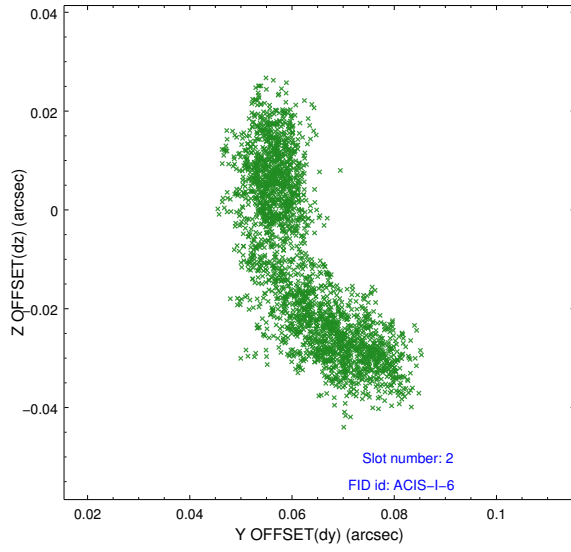
2.5.1 Slot 0



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)	2014.12.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.971199962914

A.2 Comments

Observation coordinated with XMM.

Window preference met.

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.