

V&V Reference Report

L2 ASCDS Version : 10.1.1

Observation 15121 - L2 Version 2
Chandra X-Ray Center

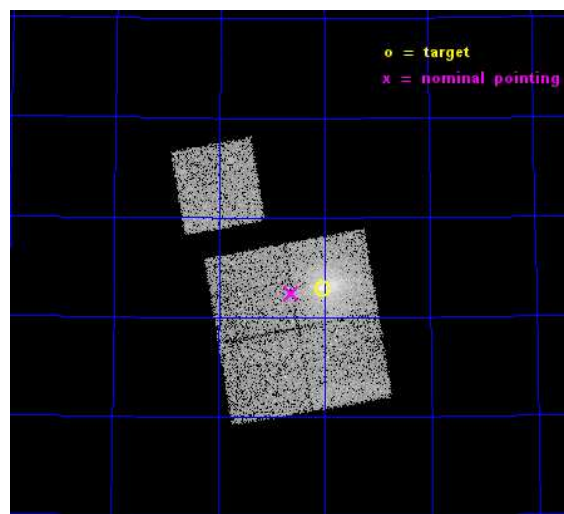
L2 Processing Date : Dec 9 2014

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1 Front

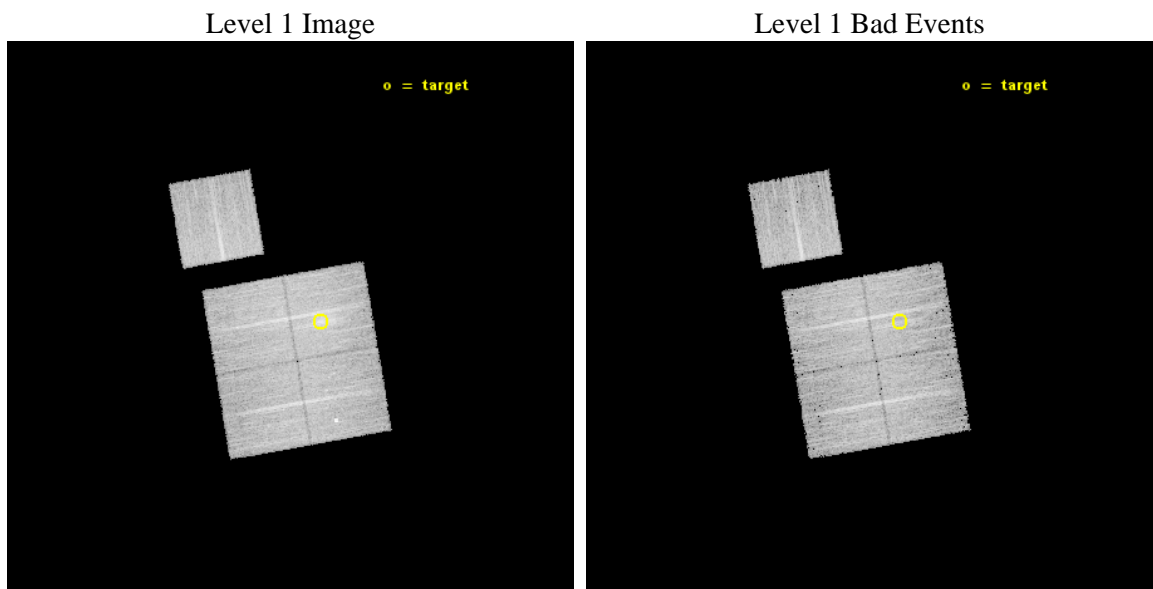
seq_num	801250	Sequence number
obs_id	15121	Observation id
title	A Chandra-Planck Legacy Program for Massive Clusters of Galaxies	P
observer	Dr. Christine Jones	Principal investigator
object	G098.95+24.86	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	283.511	Observer's specified target RA [deg]
dec_targ	68.381	Observer's specified target Dec [deg]
ra_nom	283.65742311786	Nominal RA [deg]
dec_nom	68.373883216054	Nominal Dec [deg]
roll_nom	350.07254865499	Nominal Roll [deg]
revision	2	Processing version of data
ontime	16079.659163356	Sum of GTIs [s]
livetime	15869.566578714	Livetime [s]
ontime0	16082.800123692	Sum of GTIs [s]
ontime1	16076.518193007	Sum of GTIs [s]
ontime2	16082.800123692	Sum of GTIs [s]
ontime3	16079.659163356	Sum of GTIs [s]
ontime6	16079.659153283	Sum of GTIs [s]
l2events	51214	Number of level 2 events



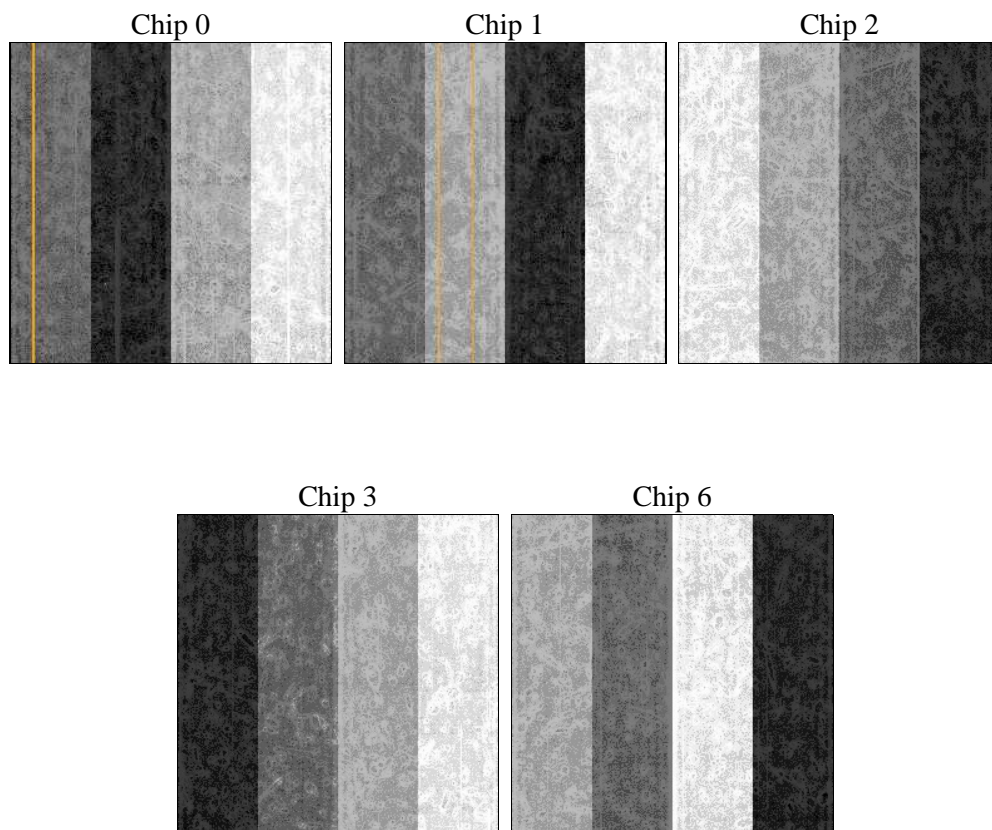
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	16000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	16079.659163356	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	16082.800123692	Sum of GTIs [s]
date	2014-12-09T09:13:41	Date and time of file creation	ontime1	16076.518193007	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	16082.800123692	Sum of GTIs [s]
			ontime3	16079.659163356	Sum of GTIs [s]
			ontime6	16079.659153283	Sum of GTIs [s]
			l1events	387451	Number of level 1 events

2.1.4 Events

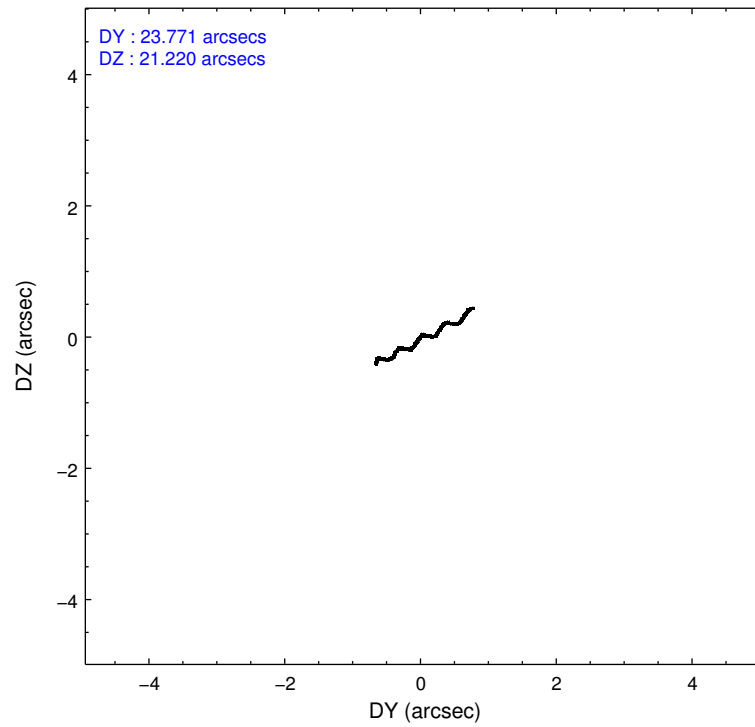
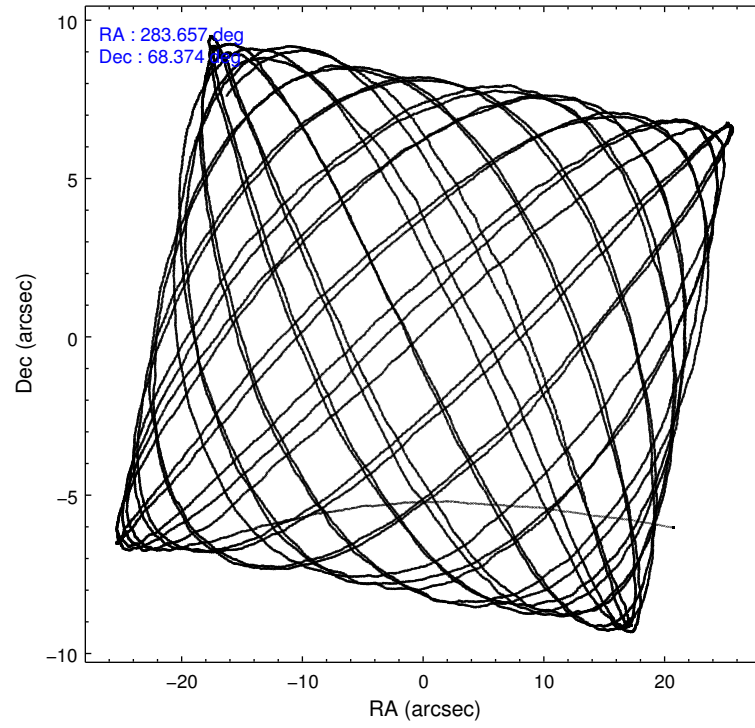
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	70892	73240	79926	86601	76792
rejected events	61401	61454	70119	67324	67044
rejected %	86%	83%	87%	77%	87%

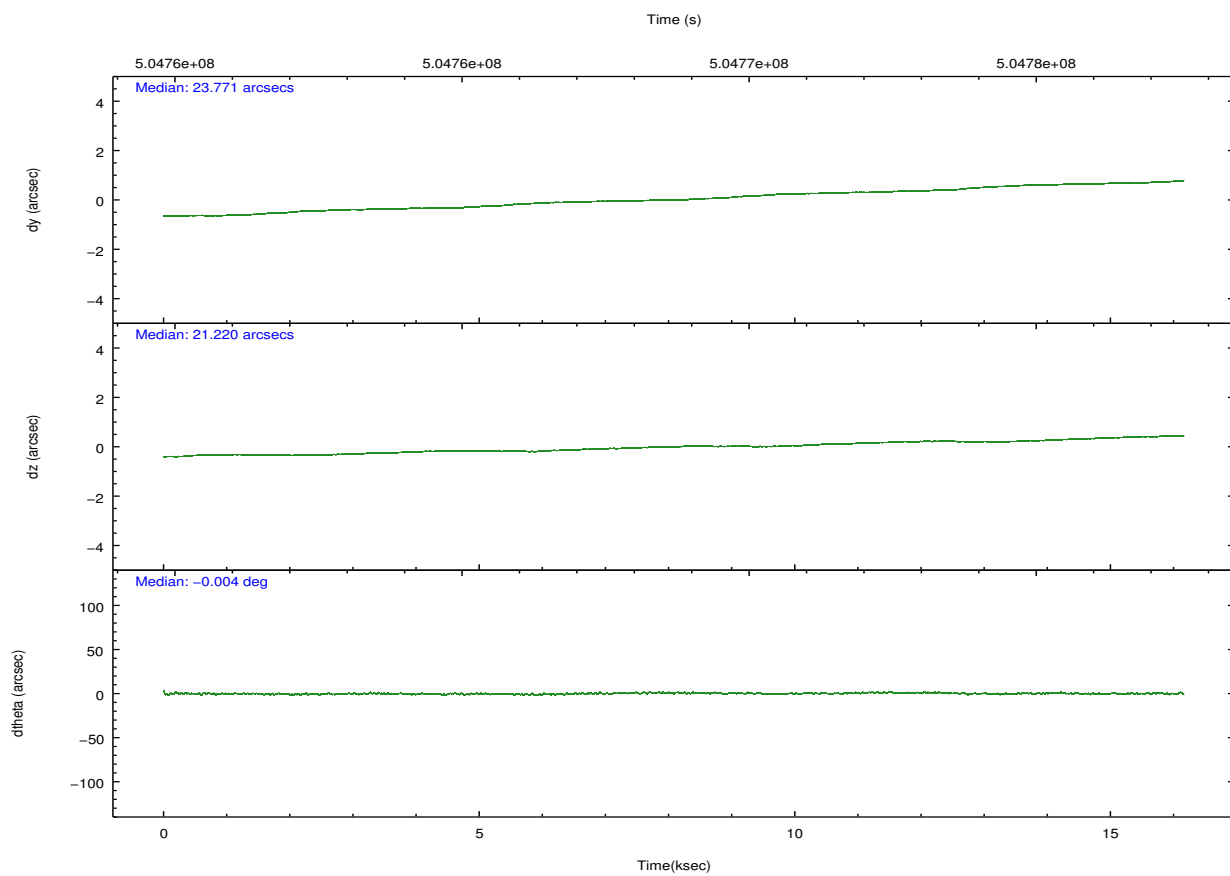
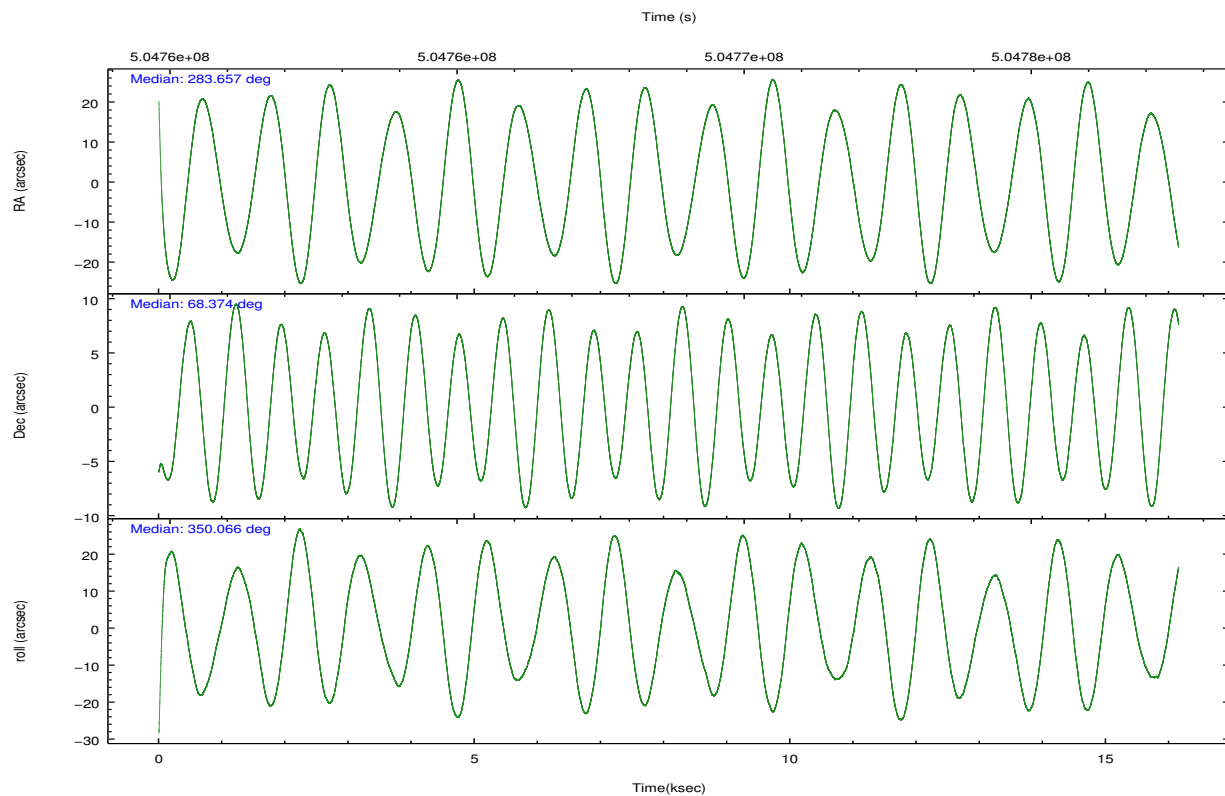
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	3413	4928	3699	11382	3362
	4%	6%	4%	13%	4%
grade 1 events	39	54	49	93	31
	0%	0%	0%	0%	0%
grade 2 events	2372	2589	2349	3157	2248
	3%	3%	2%	3%	2%
grade 3 events	934	1053	953	1306	939
	1%	1%	1%	1%	1%
grade 4 events	881	1006	940	1260	1008
	1%	1%	1%	1%	1%
grade 5 events	3750	3946	3697	4320	4058
	5%	5%	4%	4%	5%
grade 6 events	1892	2212	1867	2176	2193
	2%	3%	2%	2%	2%
grade 7 events	57611	57452	66372	62907	62953
	81%	78%	83%	72%	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	283.587499	283.65742311786	CCD I2 on	Y	Y
[deg] Pointing Dec	68.364329	68.37388321605395	CCD I3 on	Y	Y
[deg] Pointing Roll	349.928870	350.0725486549923	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	-225.842463	-225.8433433320239	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.75	-7.749109670905796	CCD S4 on	N	N
[s] Observation start time (MET)	504760770.184000	504759799.01012	CCD S5 on	N	N
Observation start date	2013-12-30T03:18:23	2013-12-30T03:03:19	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	504776770.184000	504777713.9611	On-chip summing requested	N	N
Observation end date	2013-12-30T07:45:03	2013-12-30T08:01:53	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



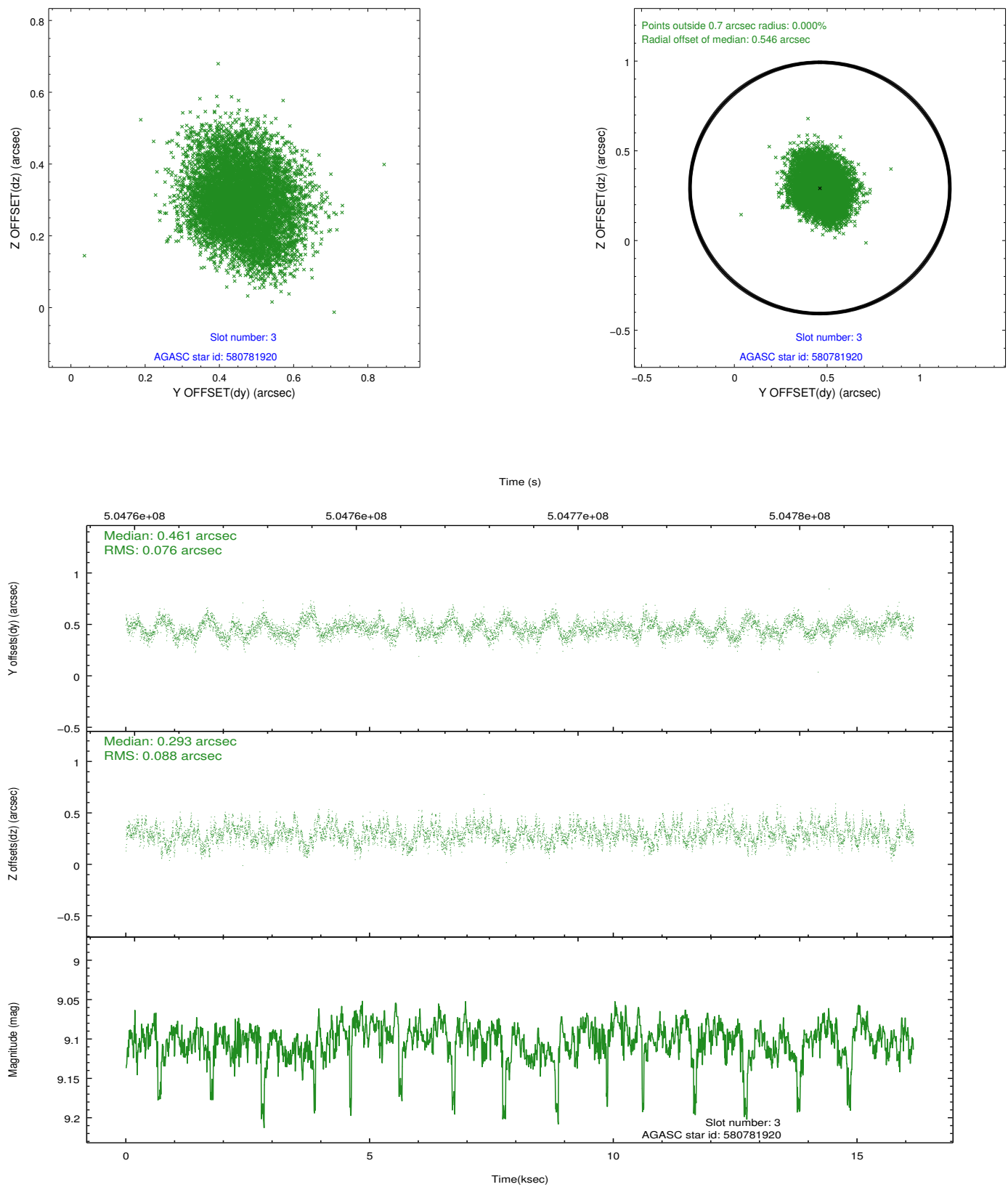


Slot Statistics

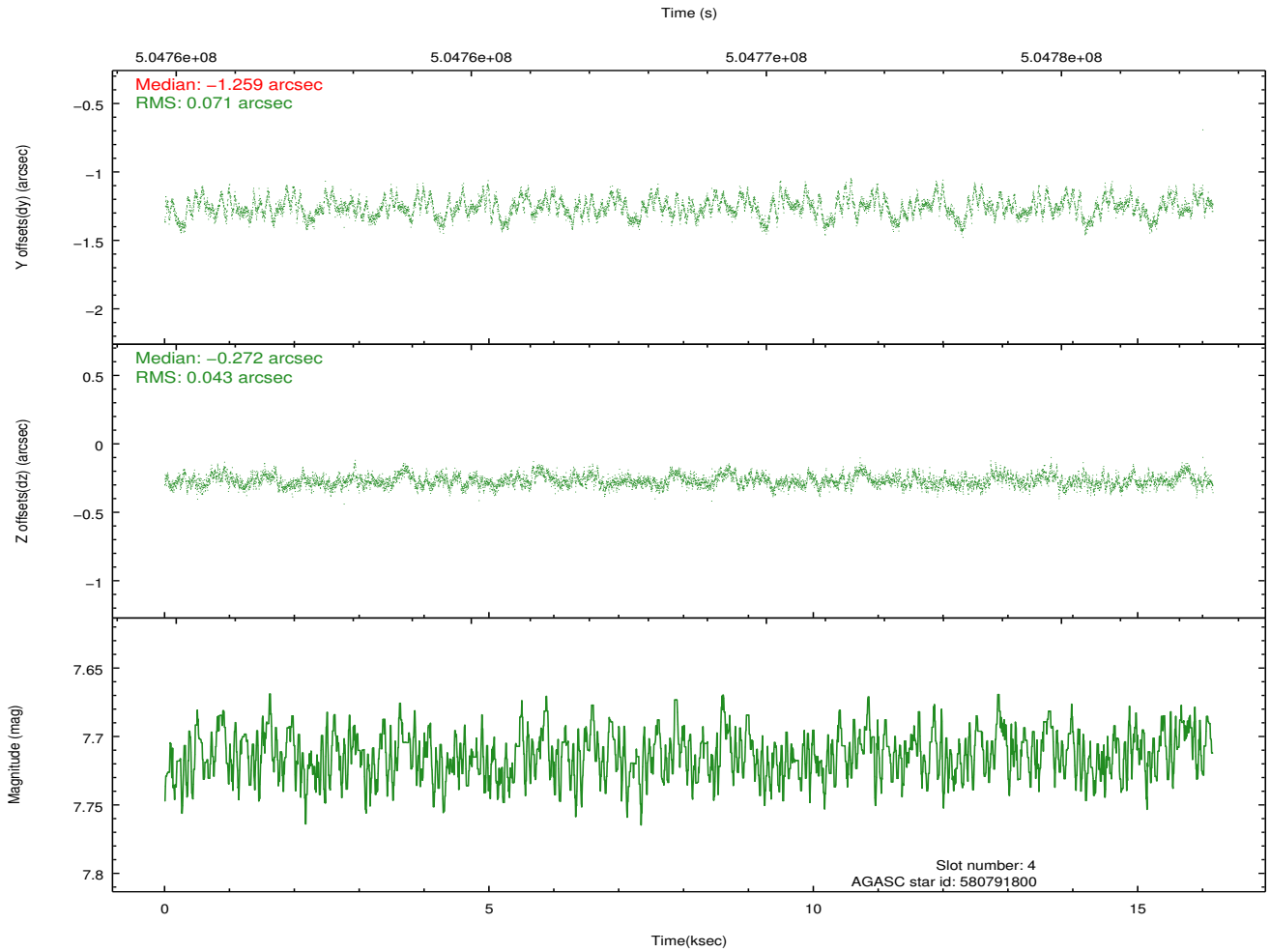
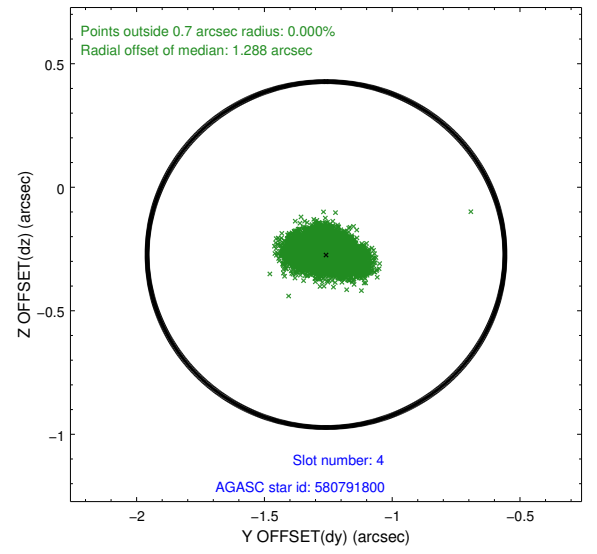
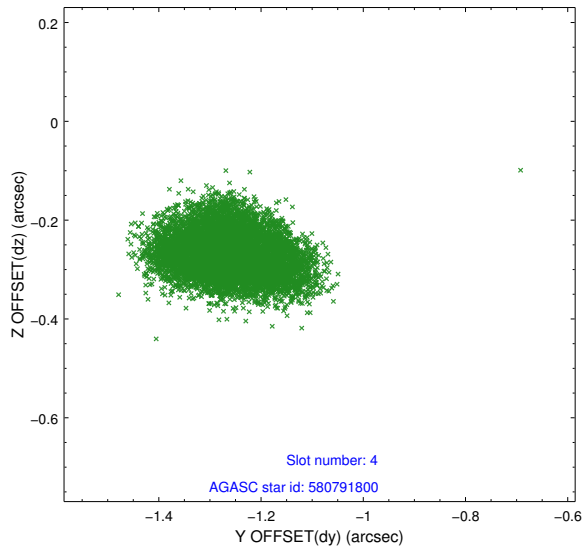
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.04	3941	0.078	-0.164	0.012	0.018	0.000000	0.000000	915.38	-1004.17
1	FID		ACIS-I-4	6.95	3941	0.241	0.101	0.009	0.015	0.000000	0.000000	2135.22	896.74
2	FID		ACIS-I-5	7.02	3940	-0.417	0.134	0.010	0.018	0.000000	0.000000	-1832.84	893.81
3	GUIDE	used	580781920	9.10	7880	0.461	0.293	0.125	0.197	282.217259	68.596227	-1921.06	527.28
4	GUIDE	used	580791800	7.71	7881	-1.259	-0.272	0.089	0.145	284.205240	68.292381	853.28	-106.96
5	GUIDE	used	580792264	8.98	7870	0.377	0.411	0.107	0.168	283.762008	67.832866	568.95	-1841.27
6	GUIDE	used	580793224	8.96	7877	0.424	-0.019	0.146	0.215	284.861073	67.795001	2062.29	-1697.21
7	GUIDE	used	580794080	8.01	7880	0.000	-0.414	0.078	0.130	284.693780	68.950915	1037.19	2341.74

2.4 Star Slots

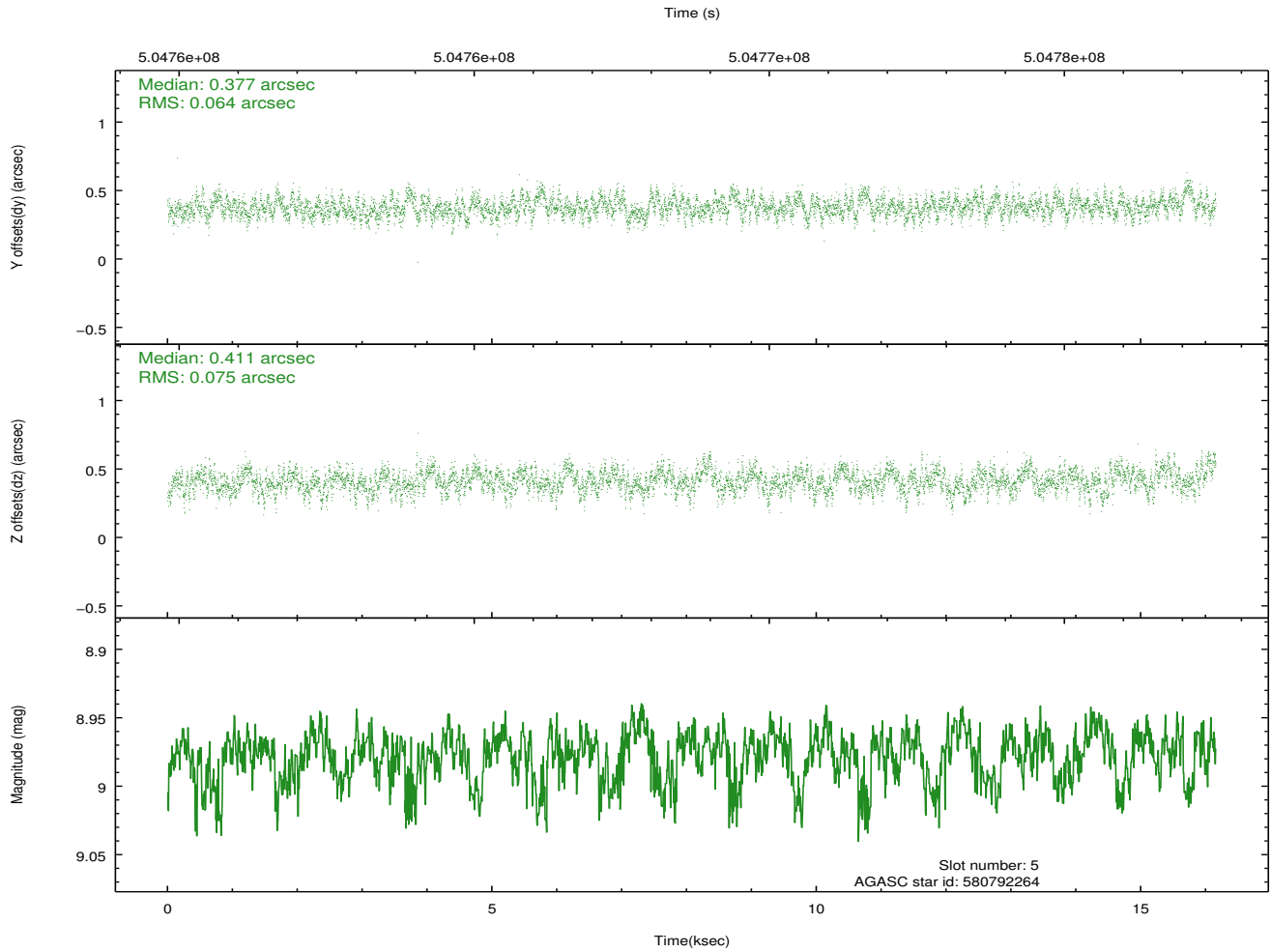
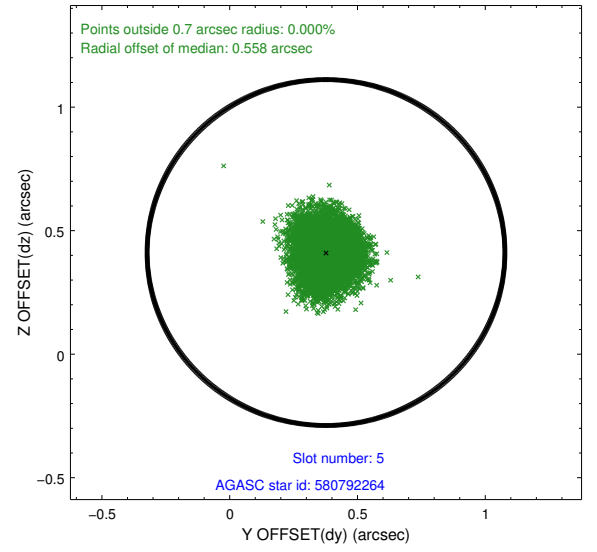
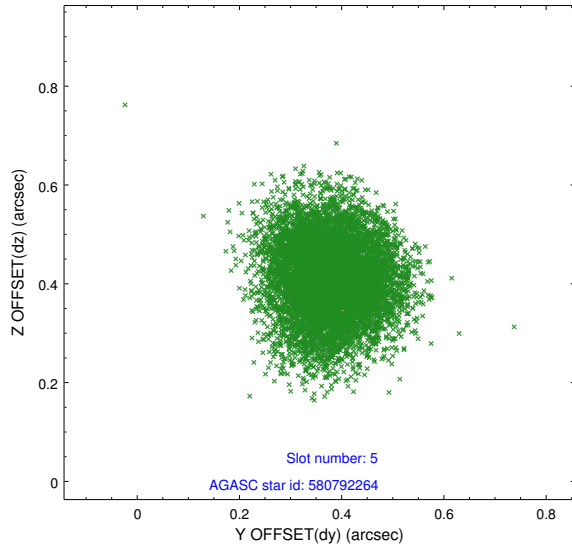
2.4.1 Slot 3



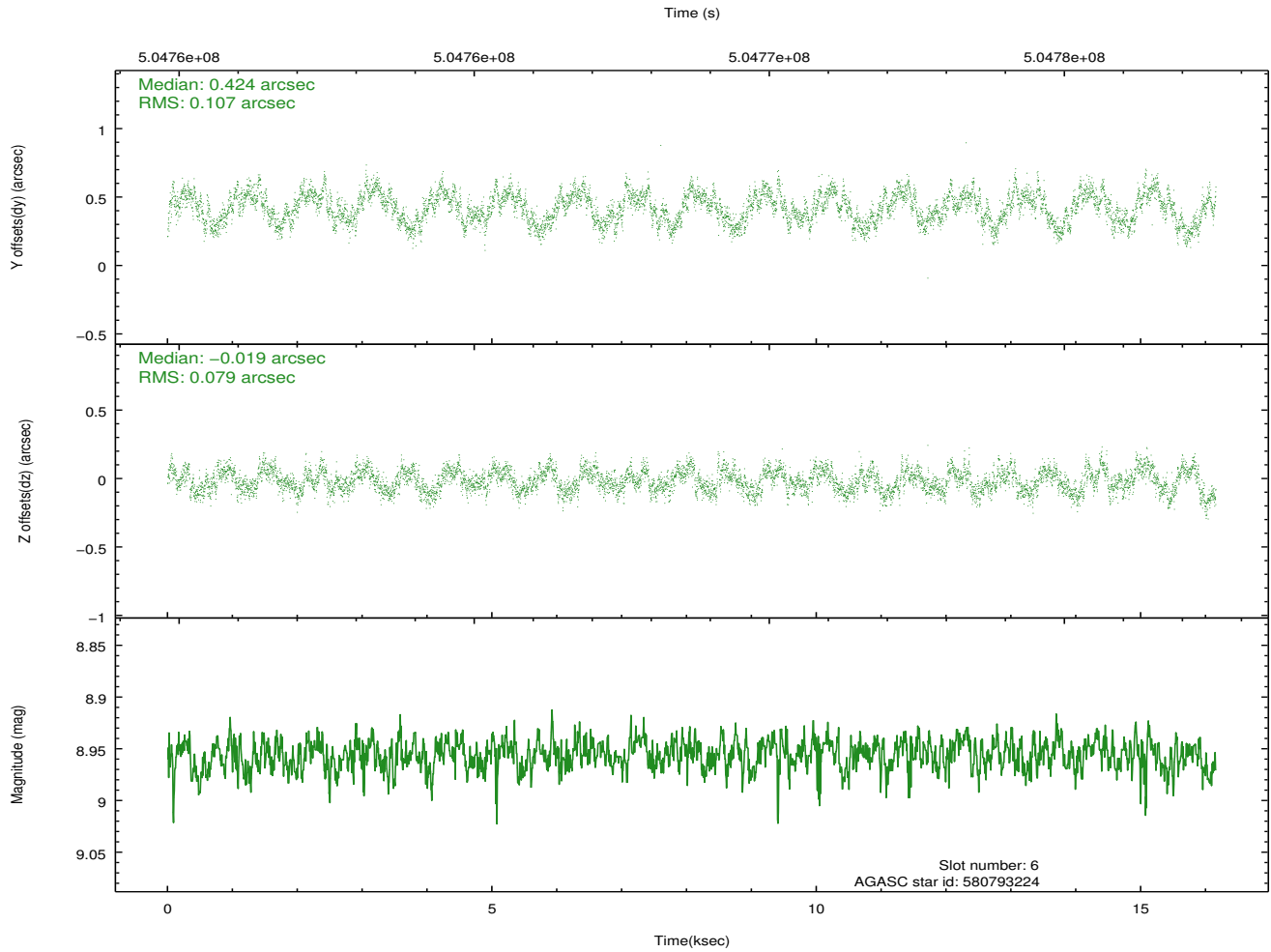
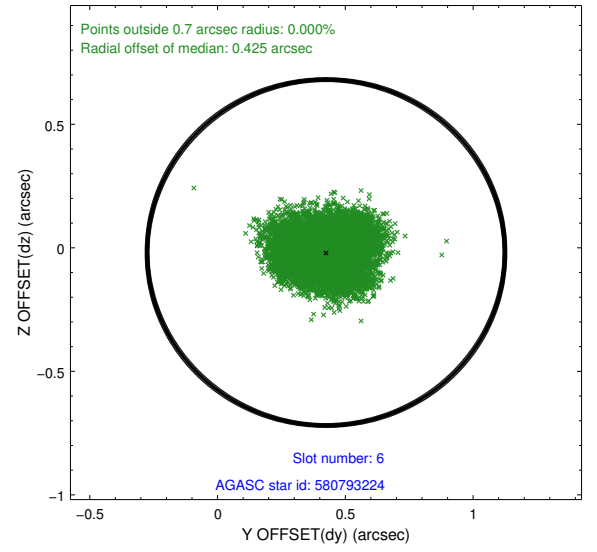
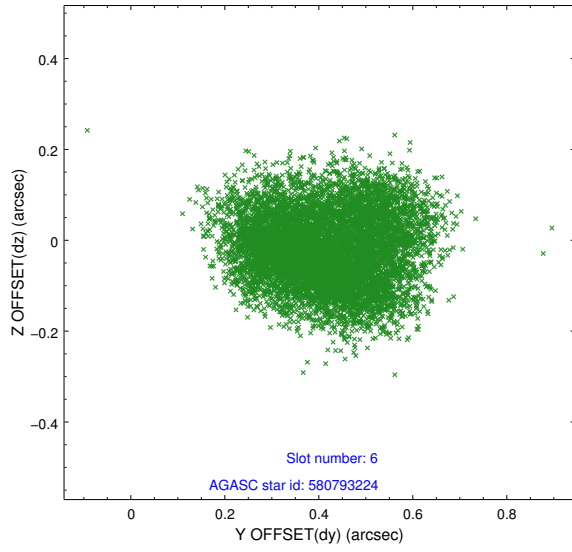
2.4.2 Slot 4



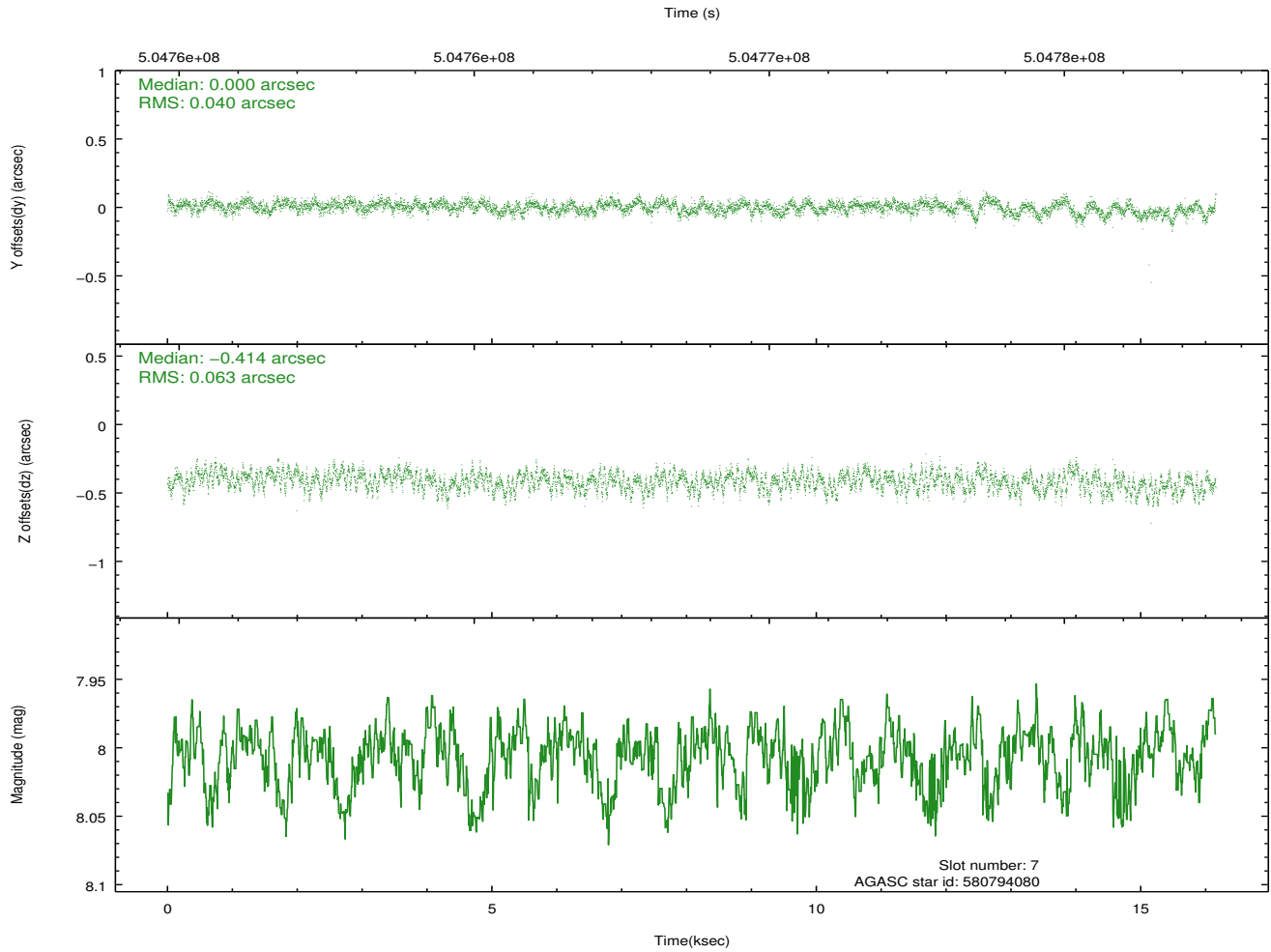
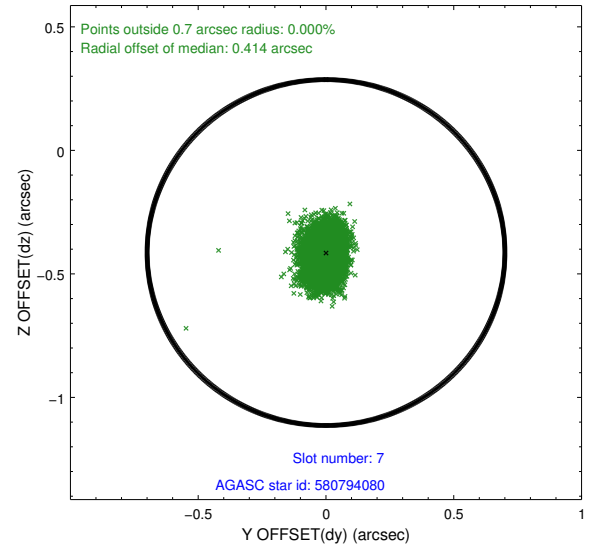
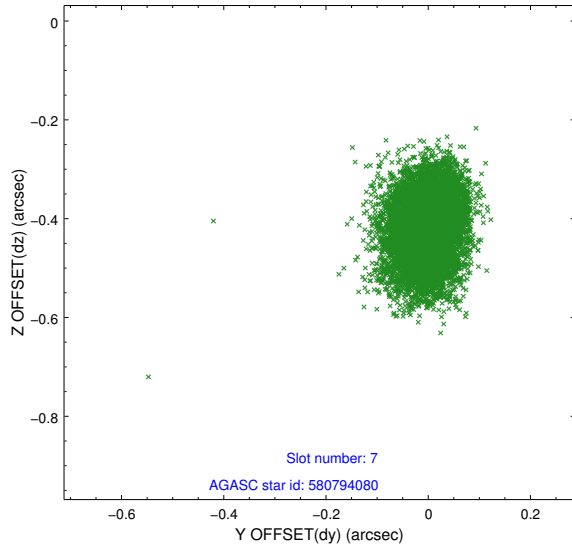
2.4.3 Slot 5



2.4.4 Slot 6

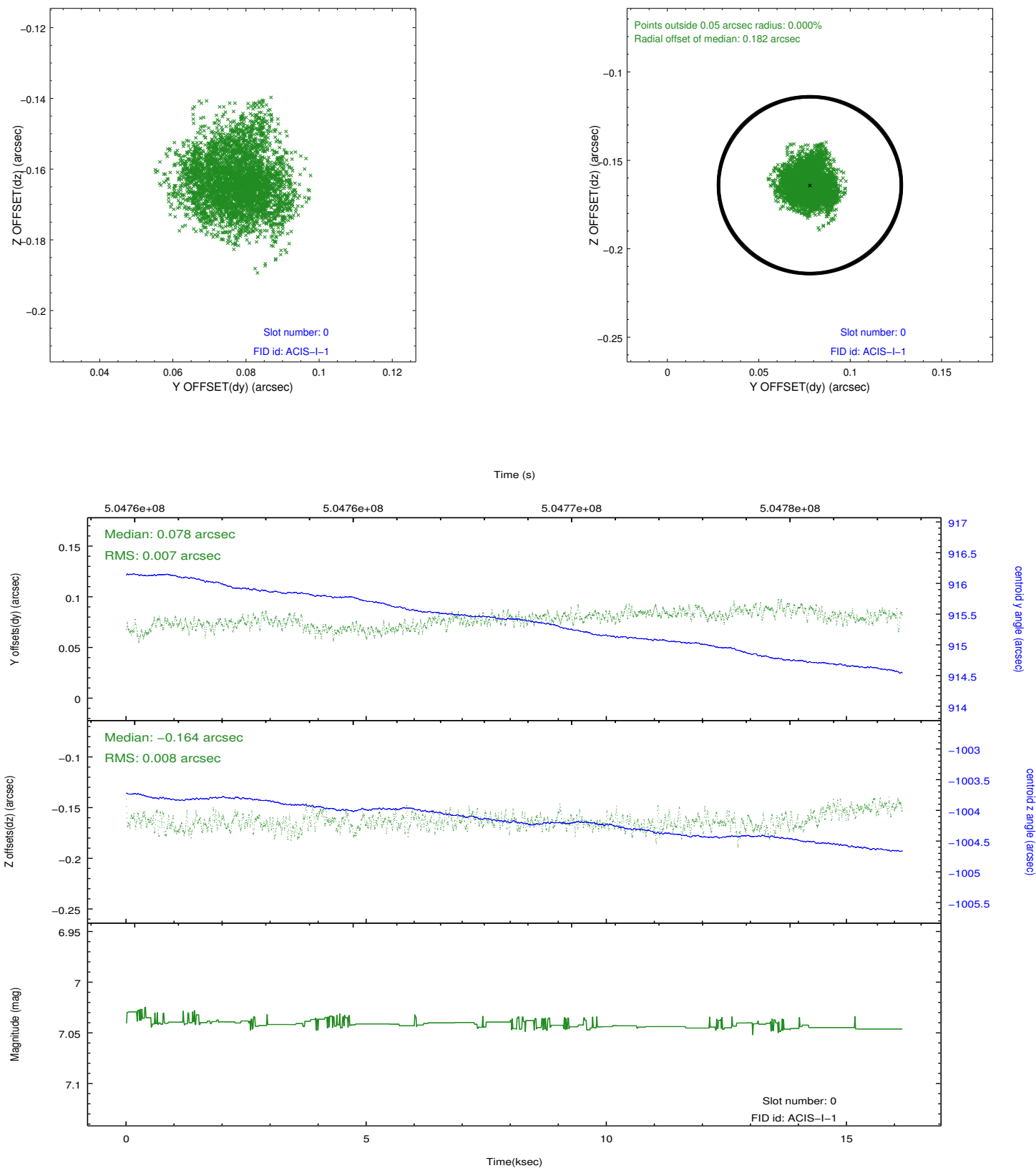


2.4.5 Slot 7

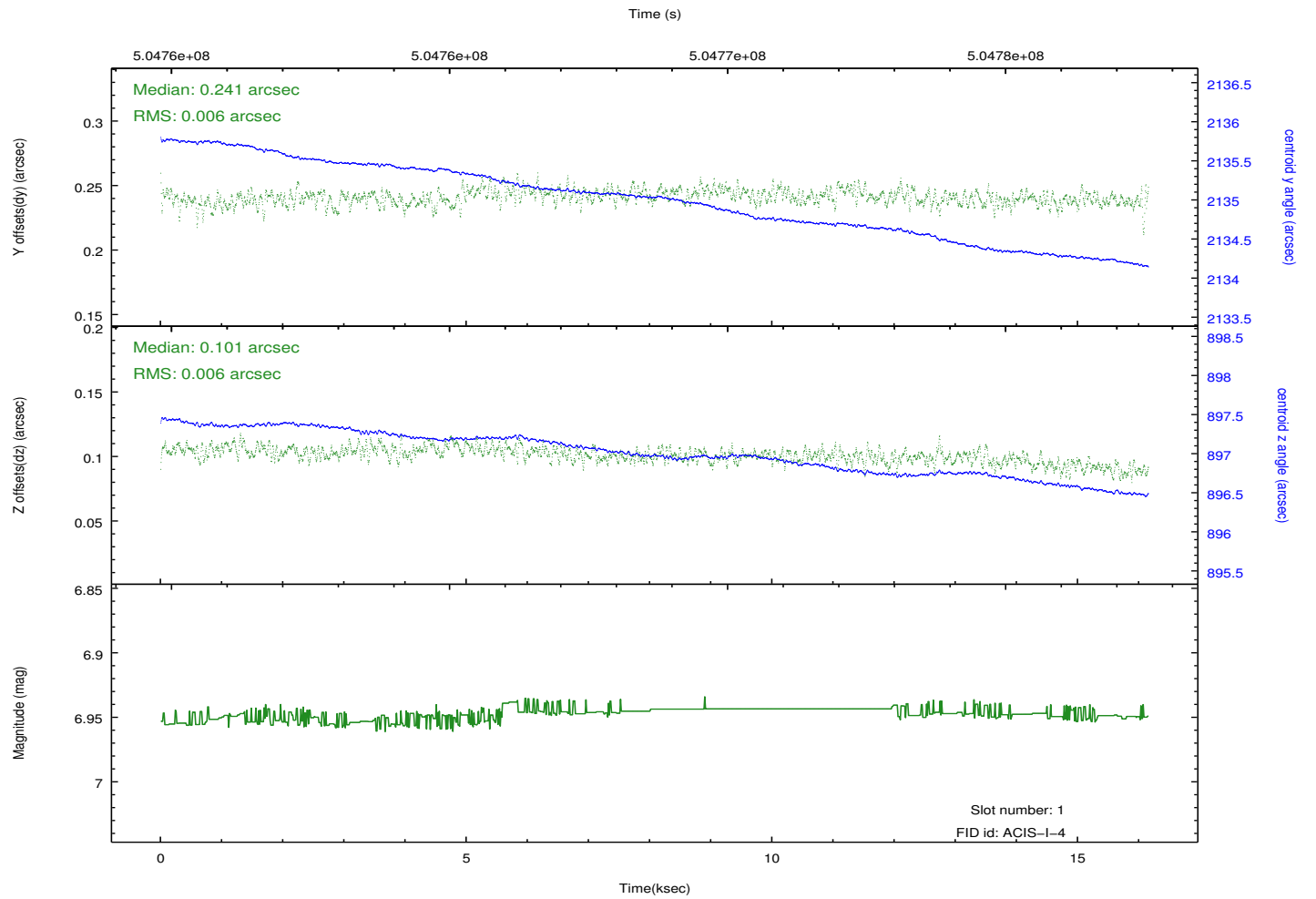
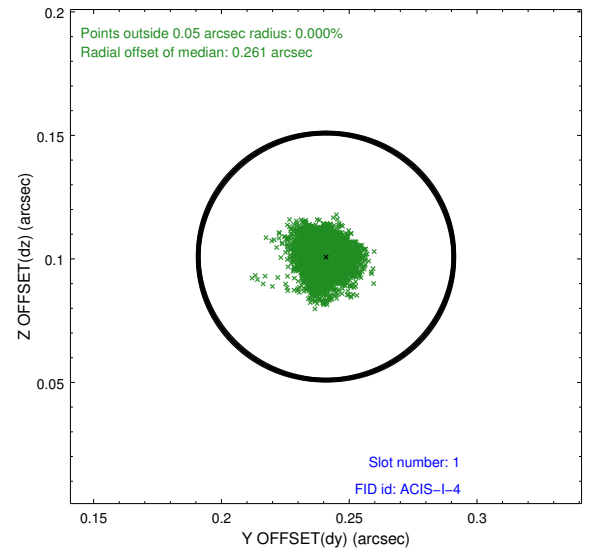
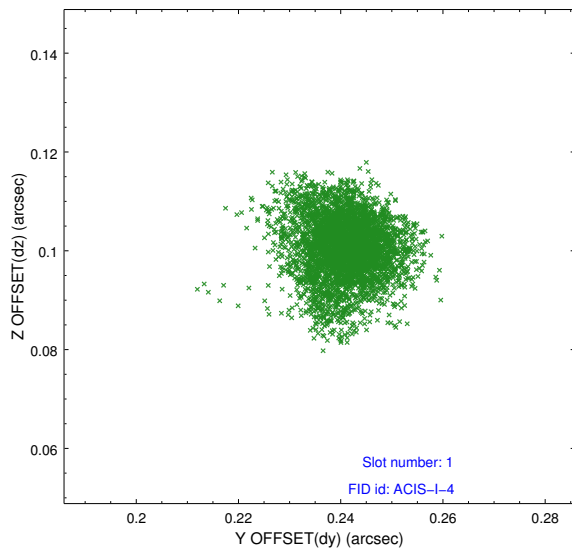


2.5 FID Slots

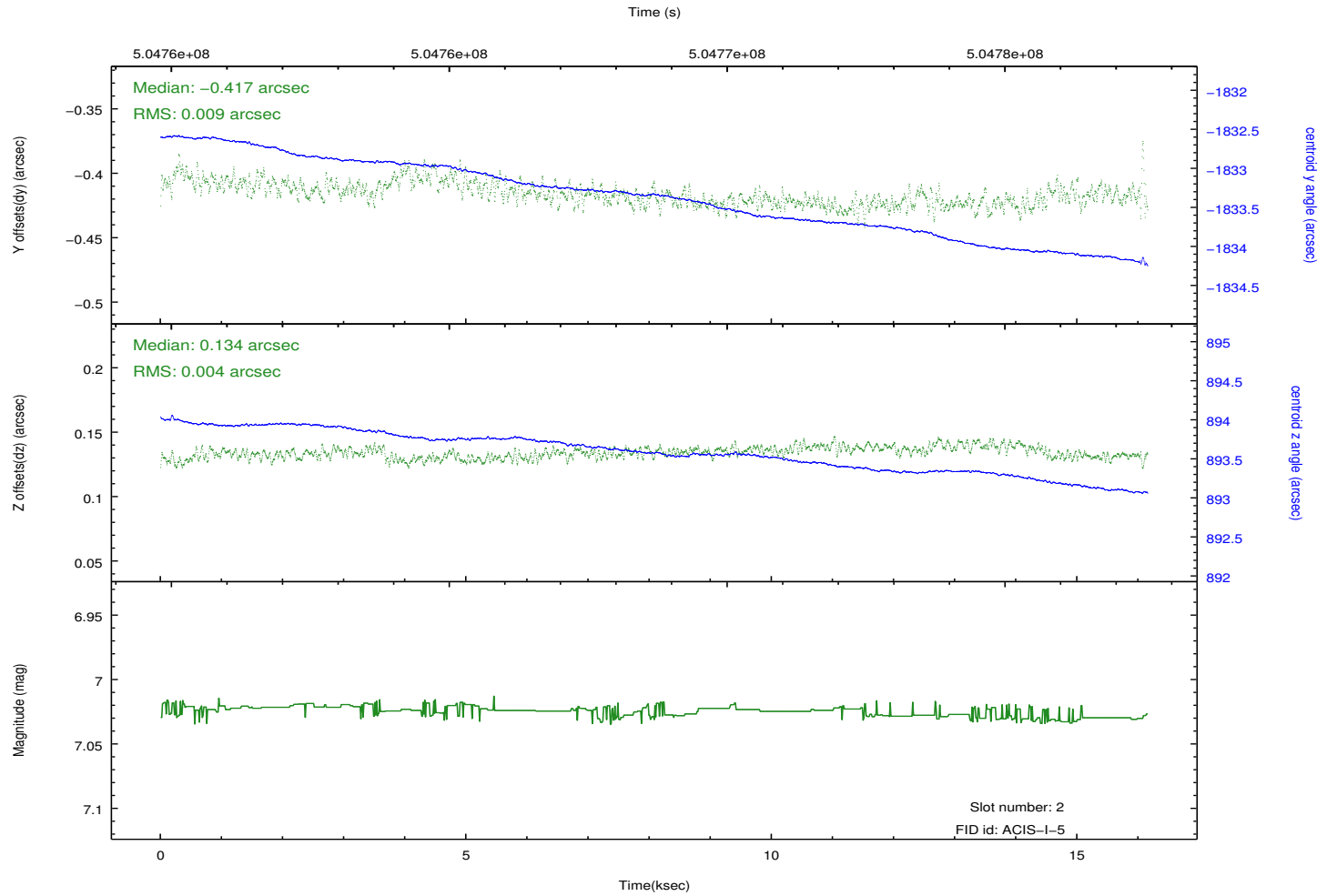
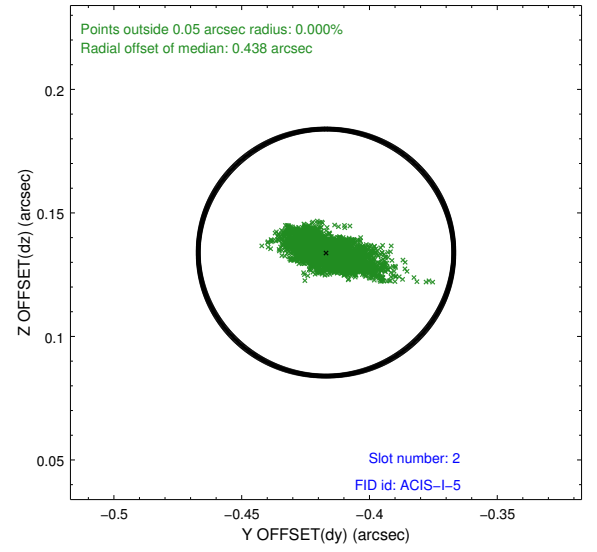
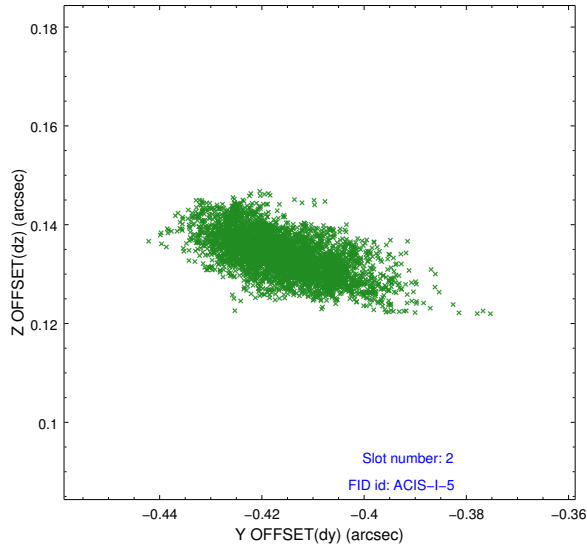
2.5.1 Slot 0



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)	2014.12.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	16.079659163356

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.