

V&V Reference Report

L2 ASCDS Version : 10.1.1

Observation 15106 - L2 Version 2
Chandra X-Ray Center

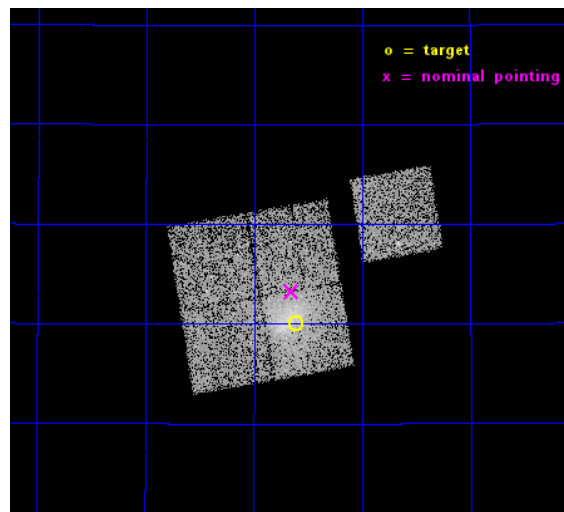
L2 Processing Date : Dec 8 2014

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

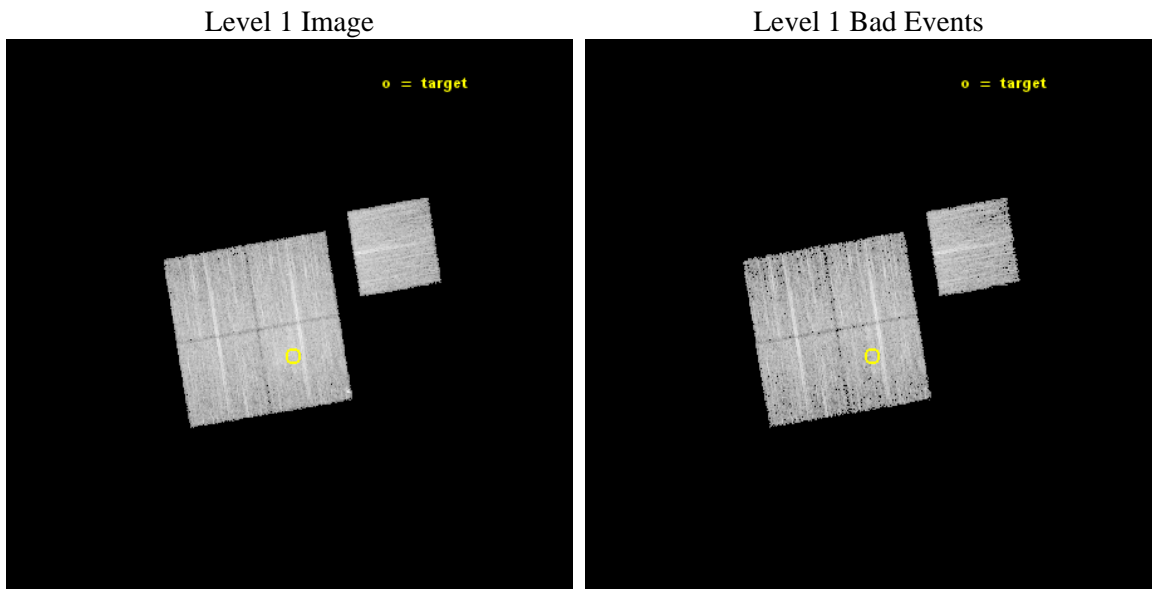
seq_num	801235	Sequence number
obs_id	15106	Observation id
title	A Chandra-Planck Legacy Program for Massive Clusters of Galaxies	P
observer	Dr. Christine Jones	Principal investigator
object	G172.88+65.32	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	167.904583	Observer's specified target RA [deg]
dec_targ	40.833861	Observer's specified target Dec [deg]
ra_nom	167.91354697507	Nominal RA [deg]
dec_nom	40.887891039828	Nominal Dec [deg]
roll_nom	80.492568460985	Nominal Roll [deg]
revision	2	Processing version of data
ontime	11725.936308682	Sum of GTIs [s]
livetime	11572.7283183	Livetime [s]
ontime0	11725.813188672	Sum of GTIs [s]
ontime1	11725.854228675	Sum of GTIs [s]
ontime2	11722.754218459	Sum of GTIs [s]
ontime3	11725.936308682	Sum of GTIs [s]
ontime6	11725.772148669	Sum of GTIs [s]
l2events	36476	Number of level 2 events



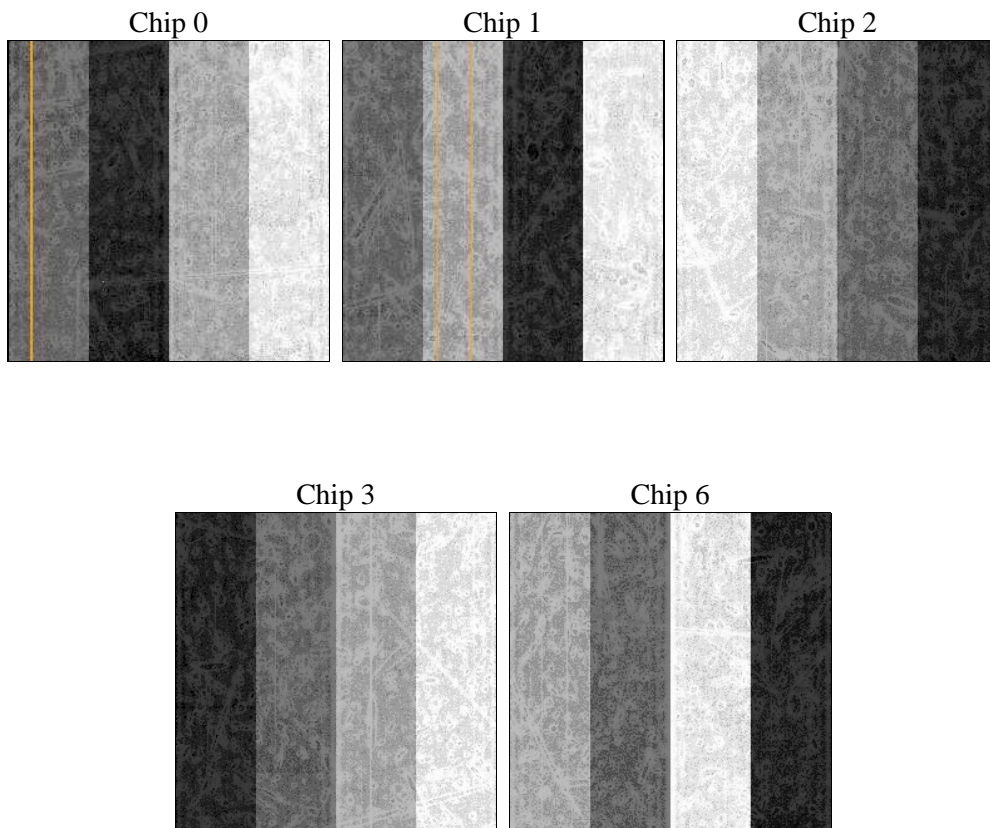
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	11953.271000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	11725.936308682	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	11725.813188672	Sum of GTIs [s]
date	2014-12-08T12:11:55	Date and time of file creation	ontime1	11725.854228675	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	11722.754218459	Sum of GTIs [s]
			ontime3	11725.936308682	Sum of GTIs [s]
			ontime6	11725.772148669	Sum of GTIs [s]
			l1events	281250	Number of level 1 events

2.1.4 Events

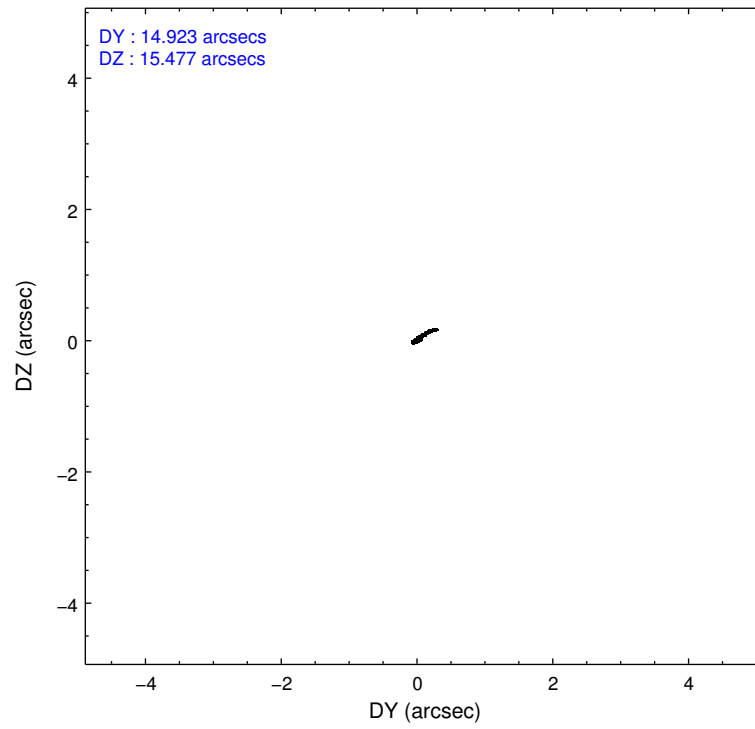
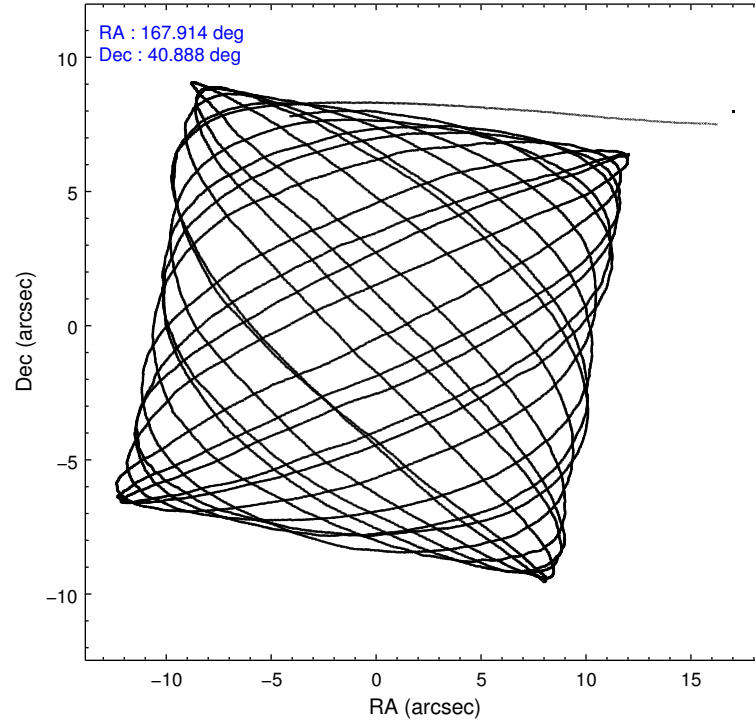
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	52141	52310	58889	61440	56470
rejected events	45162	44631	51593	48165	49824
rejected %	86%	85%	87%	78%	88%

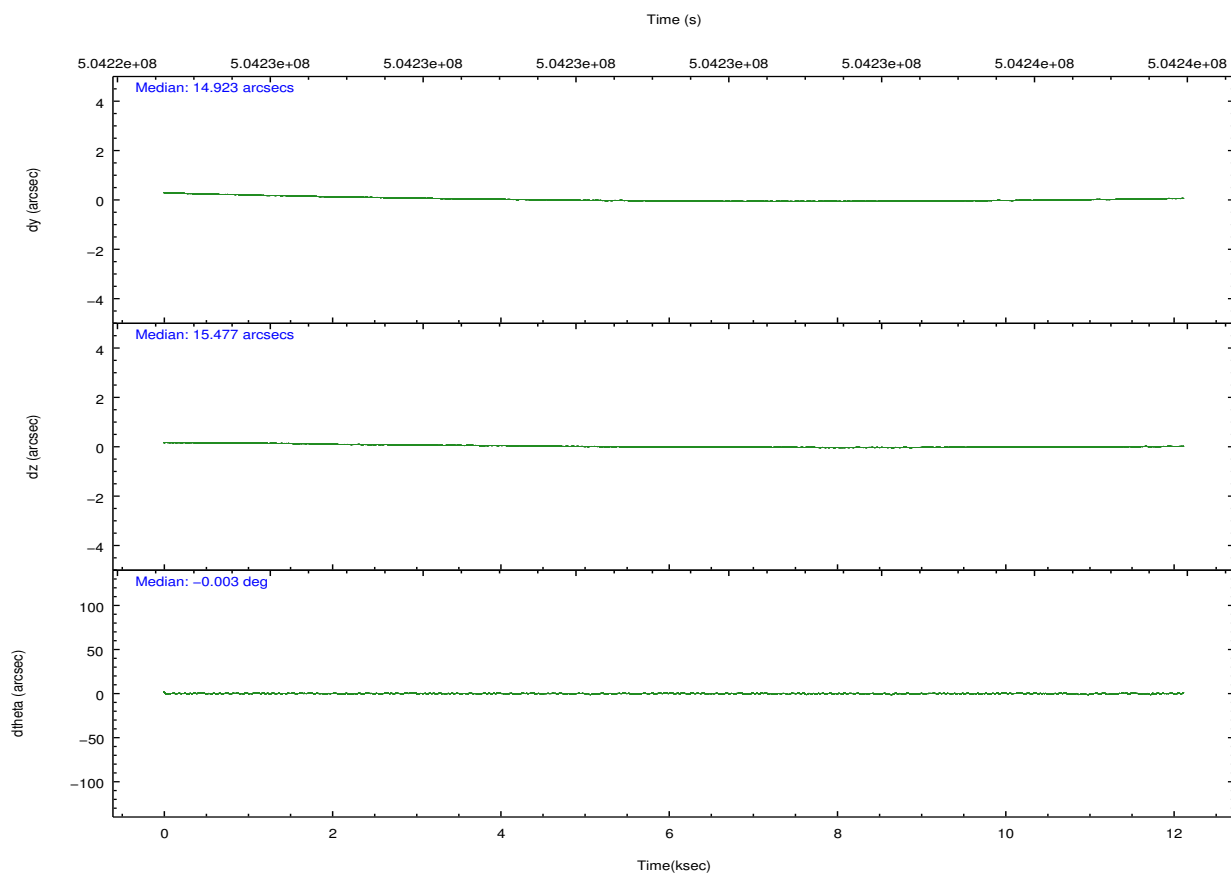
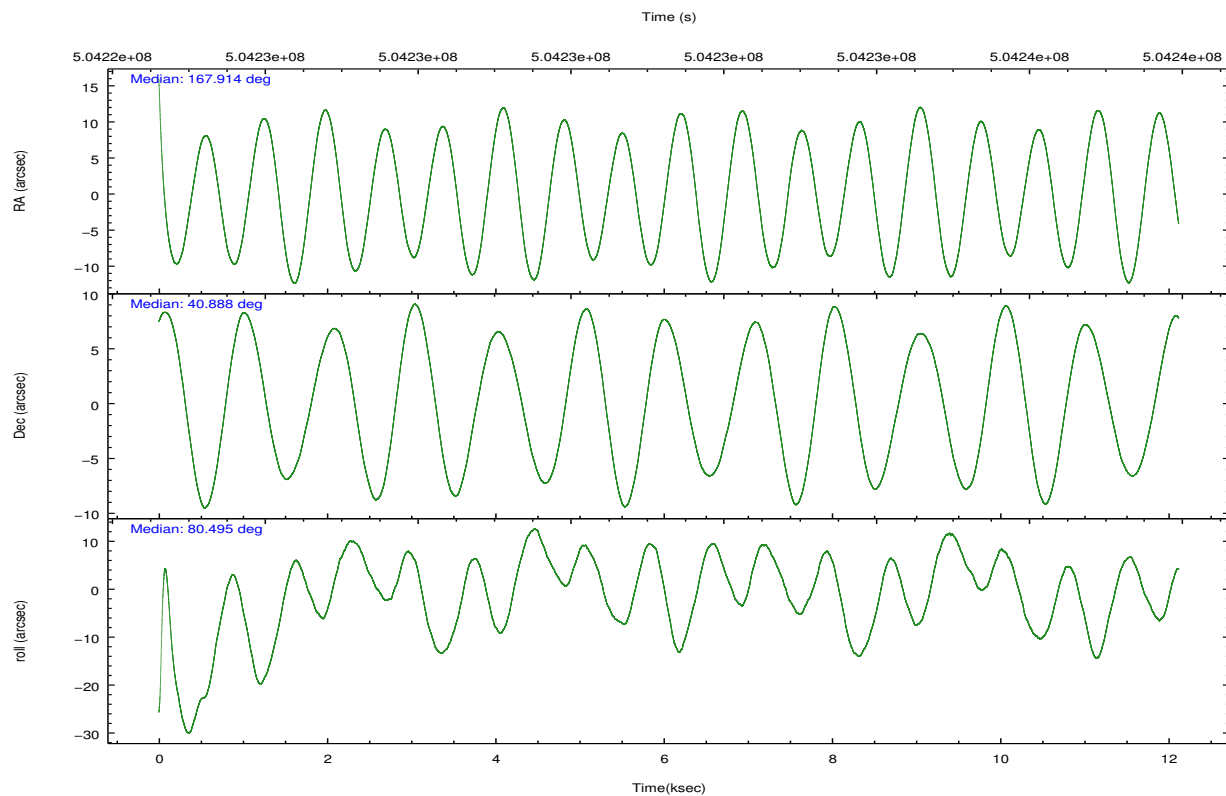
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	2565	2871	3050	7926	2229
	4%	5%	5%	12%	3%
grade 1 events	25	20	28	37	28
	0%	0%	0%	0%	0%
grade 2 events	1612	1723	1479	2070	1461
	3%	3%	2%	3%	2%
grade 3 events	663	694	671	885	628
	1%	1%	1%	1%	1%
grade 4 events	700	711	712	898	668
	1%	1%	1%	1%	1%
grade 5 events	2500	2745	2471	3022	2799
	4%	5%	4%	4%	4%
grade 6 events	1442	1685	1386	1505	1663
	2%	3%	2%	2%	2%
grade 7 events	42634	41861	49092	45097	46994
	81%	80%	83%	73%	83%

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	167.926415	167.9135469750674	CCD I2 on	Y	Y
[deg] Pointing Dec	40.862150	40.88789103982751	CCD I3 on	Y	Y
[deg] Pointing Roll	80.275487	80.49256846098486	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	-225.8458576473255	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.75	-7.746595355604228	CCD S4 on	N	N
[s] Observation start time (MET)	504225377.184000	504224511.69318	CCD S5 on	N	N
Observation start date	2013-12-23T22:35:10	2013-12-23T22:21:51	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	504237331.184000	504237565.5814	On-chip summing requested	N	N
Observation end date	2013-12-24T01:54:24	2013-12-24T01:59:25	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



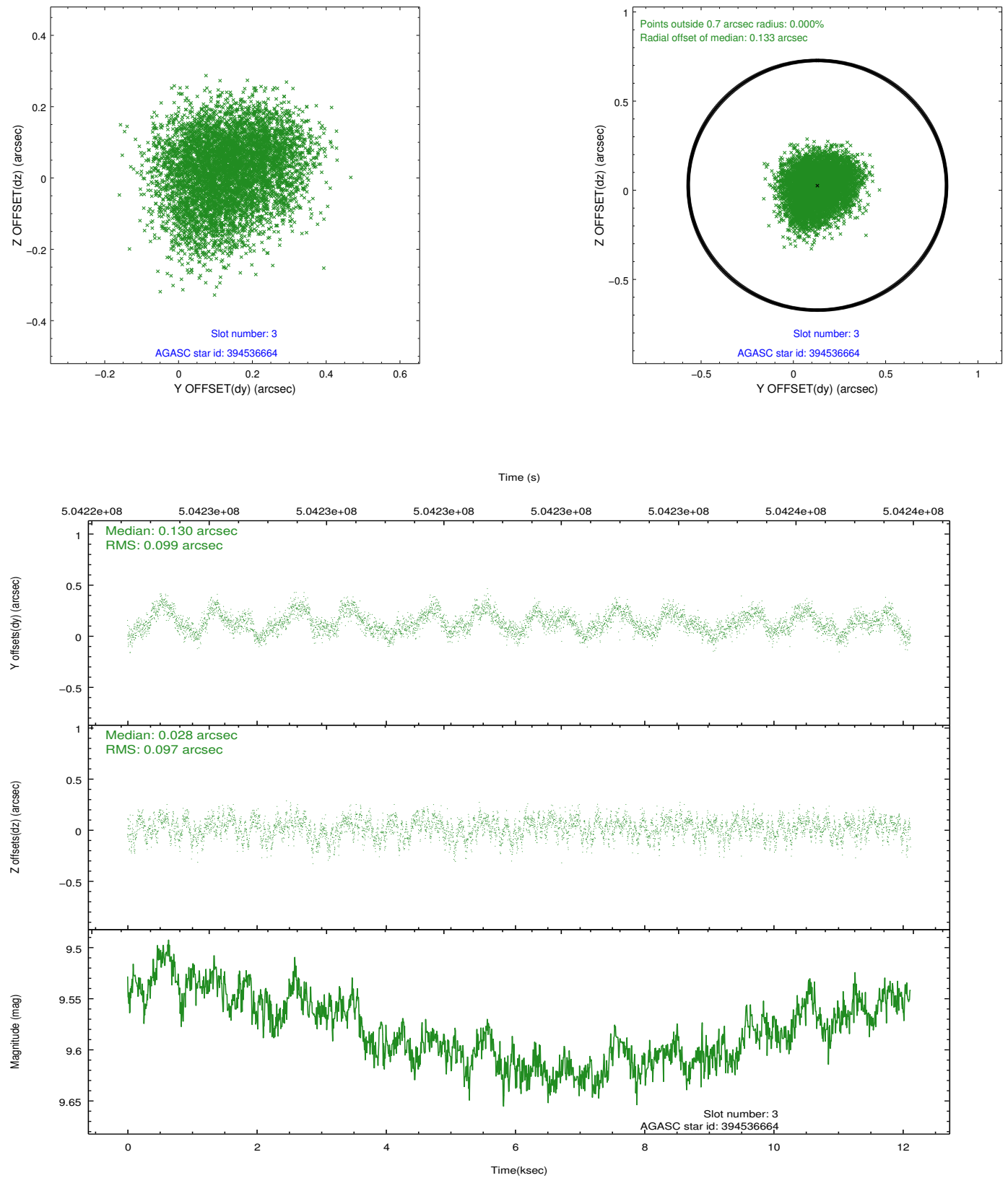


Slot Statistics

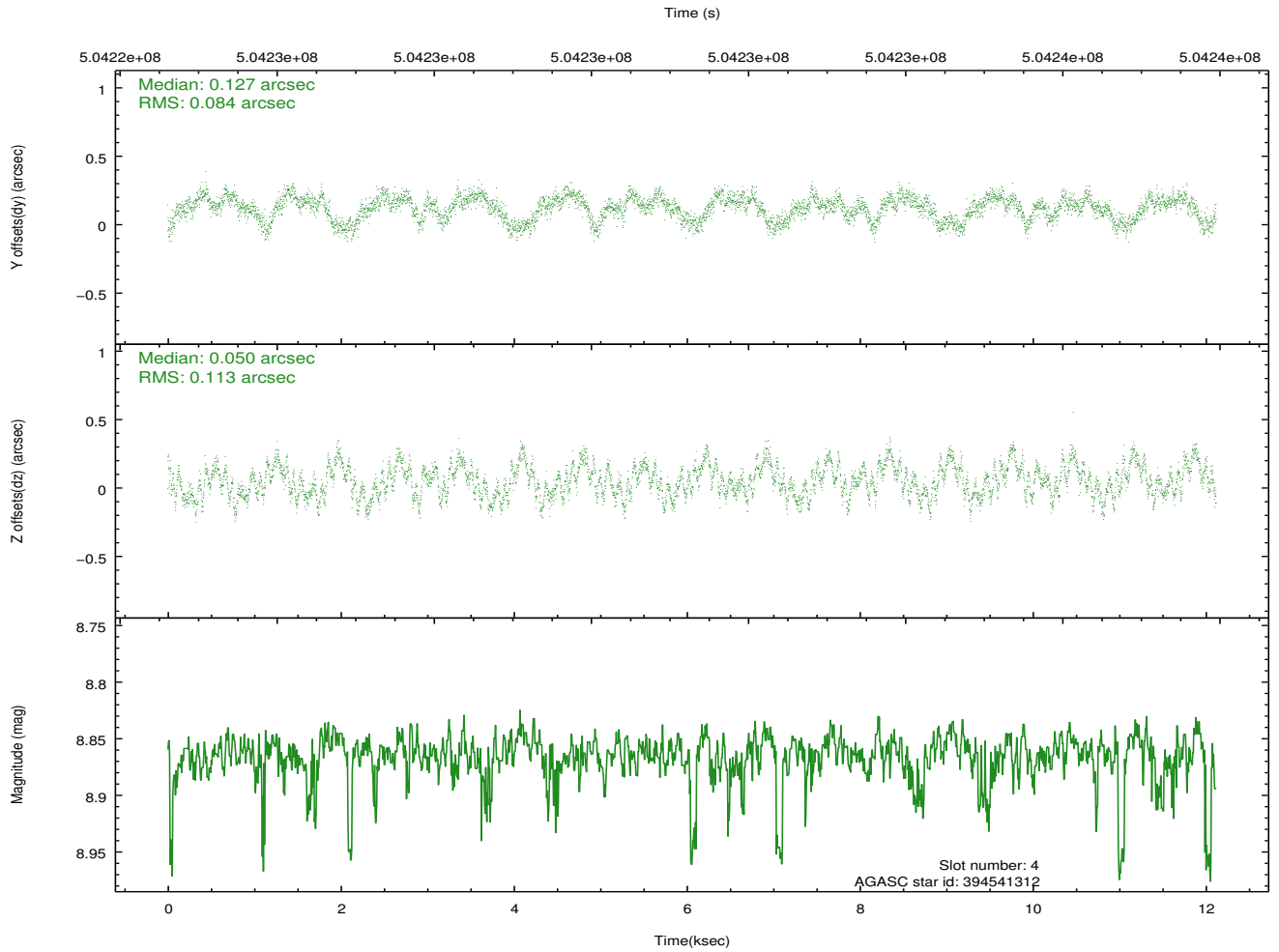
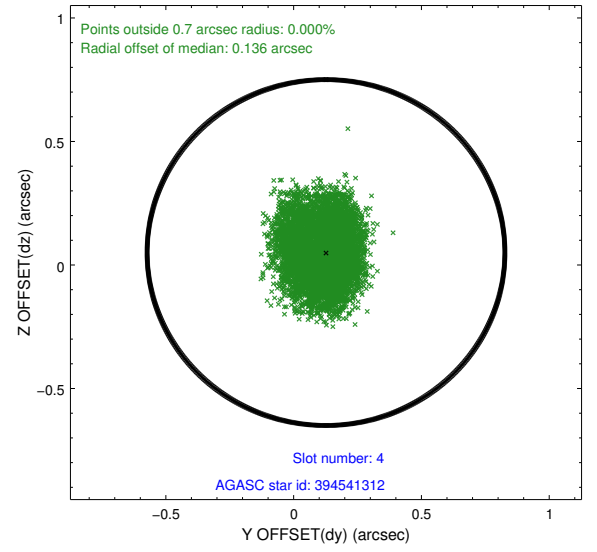
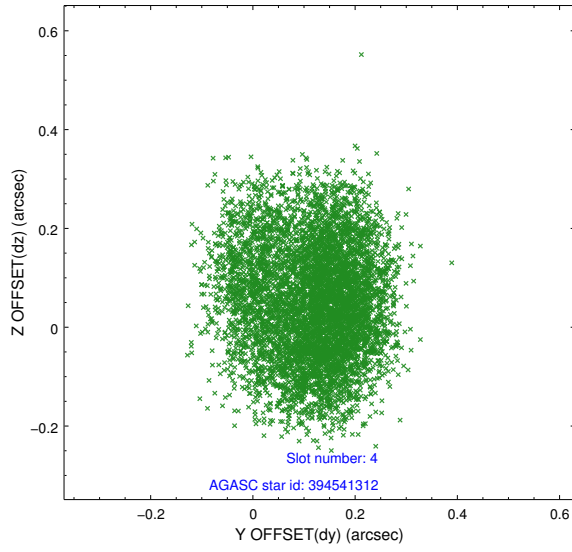
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.23	2956	0.156	-0.142	0.008	0.014	0.000000	0.000000	924.54	-998.27
1	FID		ACIS-I-5	7.23	2955	-0.348	0.106	0.007	0.011	0.000000	0.000000	-1823.88	899.15
2	FID		ACIS-I-6	7.24	2956	0.101	0.108	0.007	0.012	0.000000	0.000000	389.53	1544.17
3	GUIDE	used	394536664	9.58	5902	0.130	0.028	0.152	0.229	167.975457	40.752410	-366.46	-198.37
4	GUIDE	used	394541312	8.86	5909	0.127	0.050	0.153	0.234	168.142879	40.534286	-1062.65	-782.30
5	GUIDE	used	394543232	10.15	5871	-0.092	0.267	0.211	0.357	168.583896	41.162779	1373.94	-1572.10
6	GUIDE	used	394543368	8.99	5912	-0.265	-0.621	0.117	0.186	167.243177	41.175692	806.44	2016.93
7	GUIDE	used	394541528	9.89	5908	0.086	0.348	0.332	0.483	168.166391	40.515204	-1118.72	-857.42

2.4 Star Slots

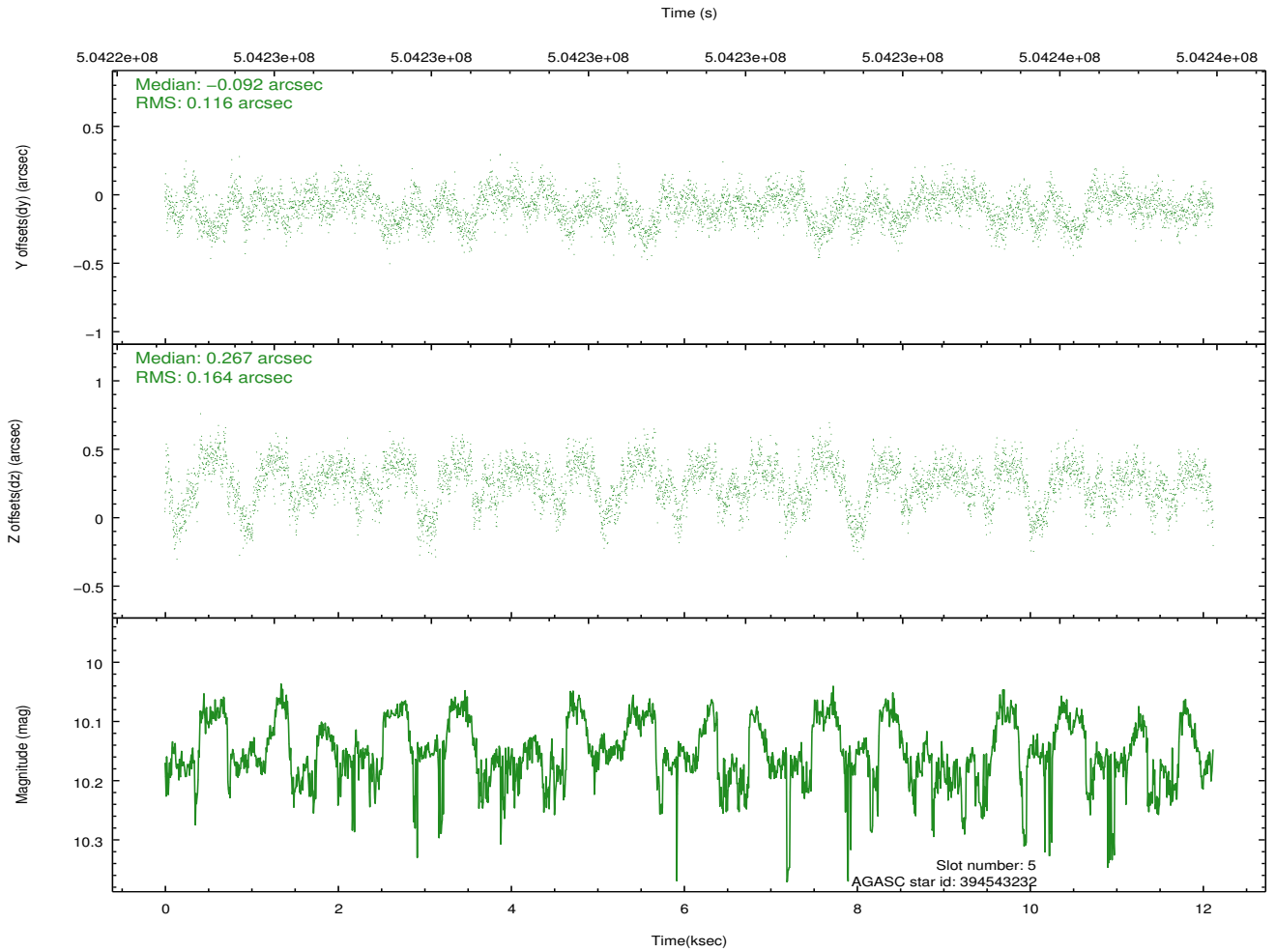
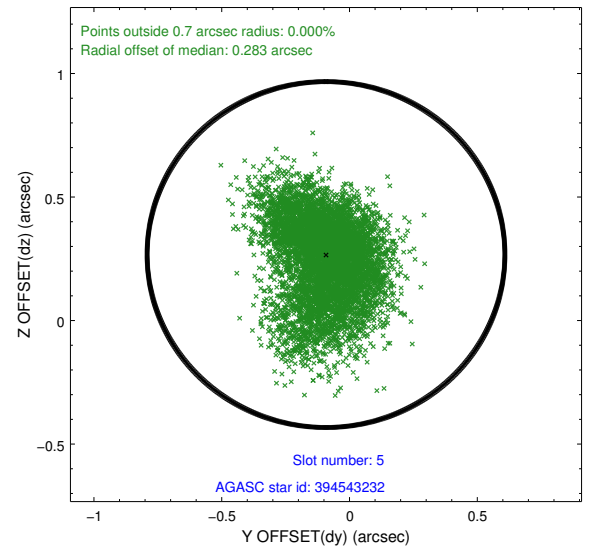
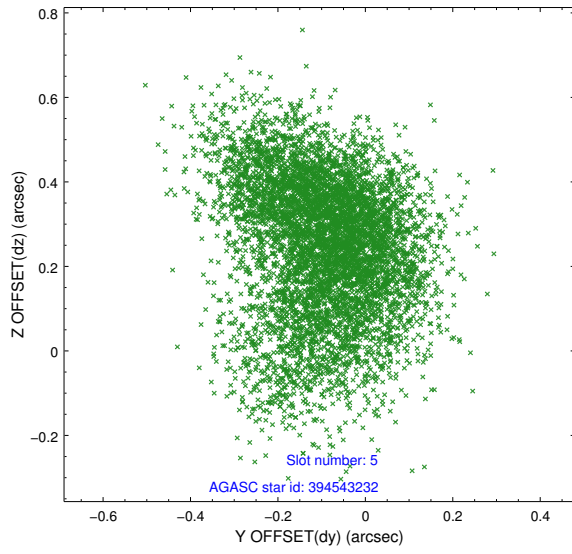
2.4.1 Slot 3



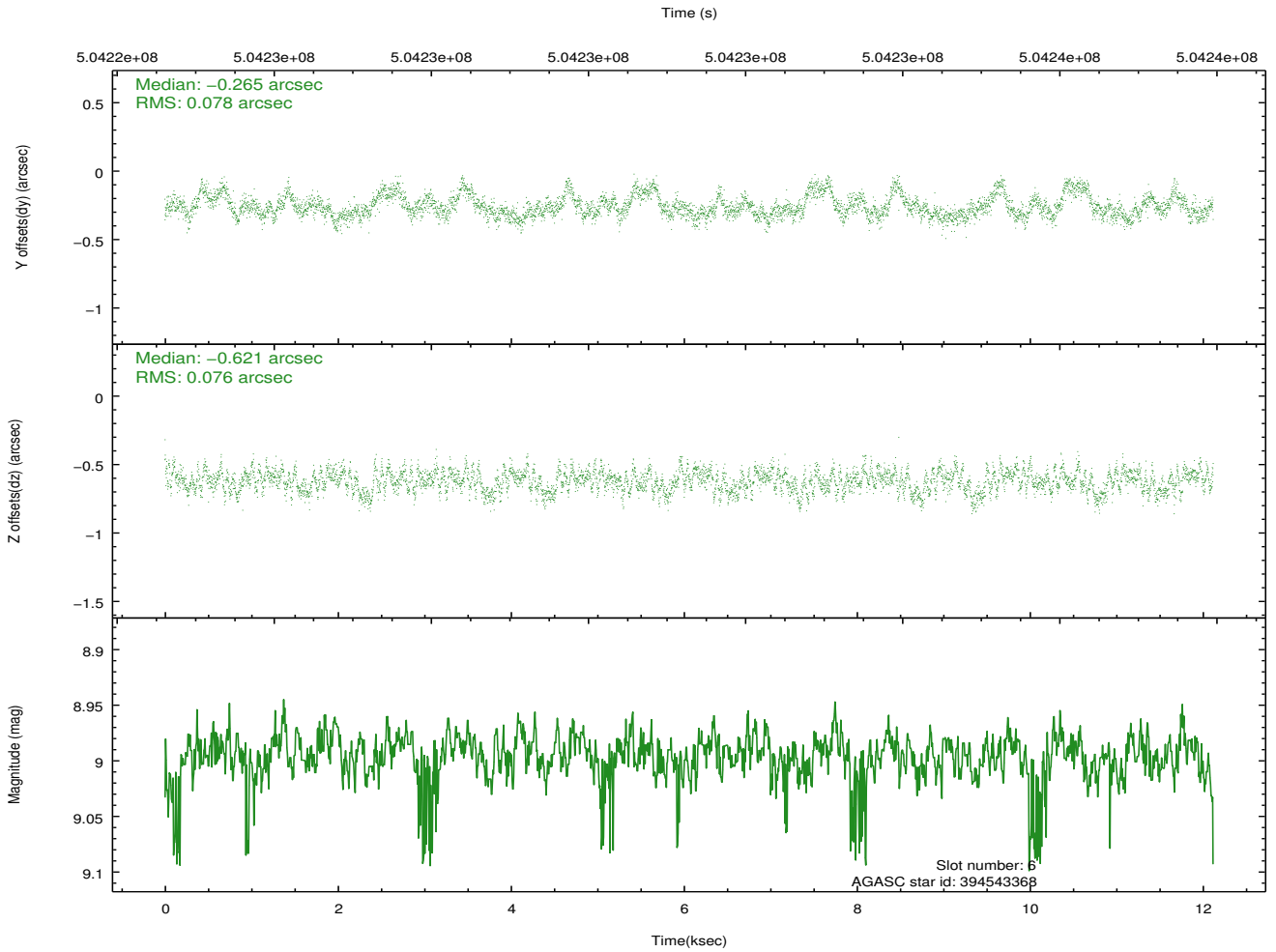
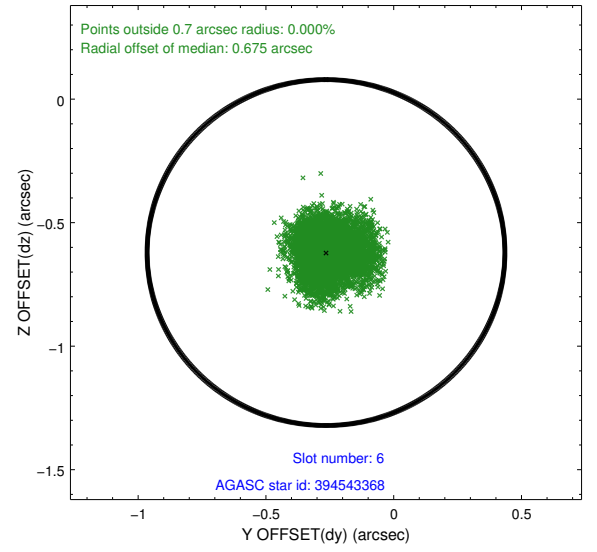
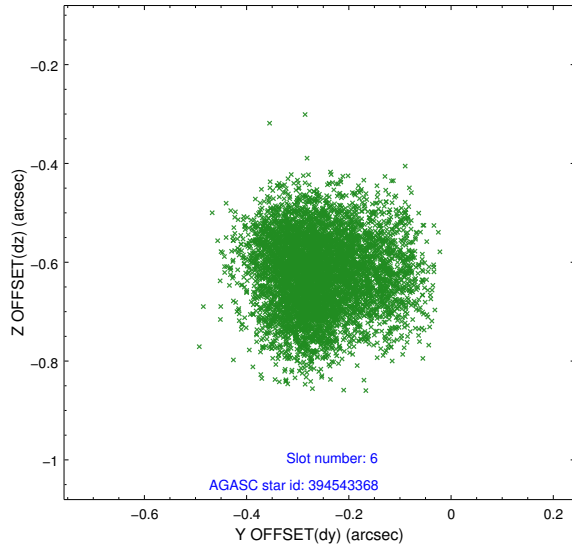
2.4.2 Slot 4



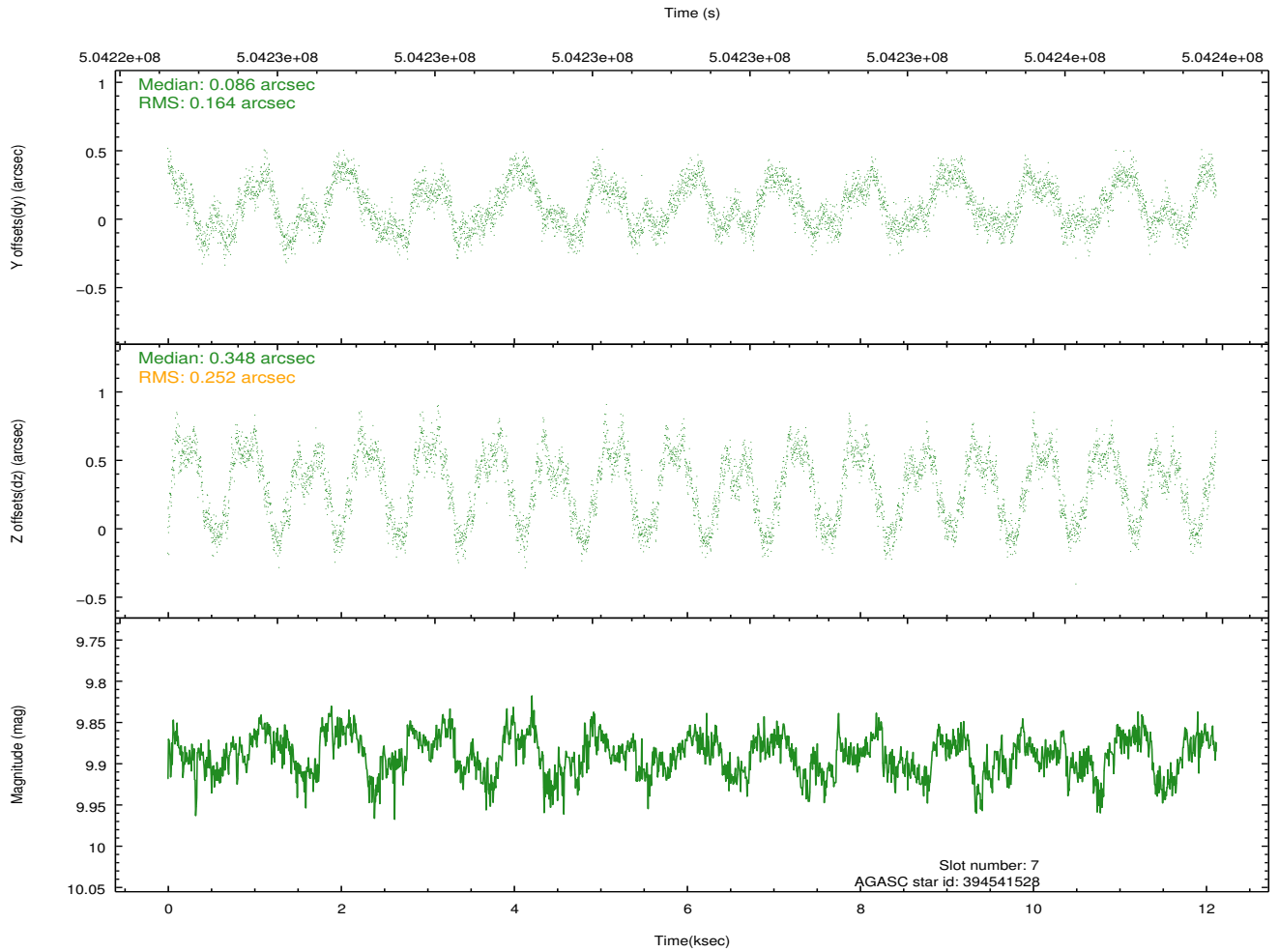
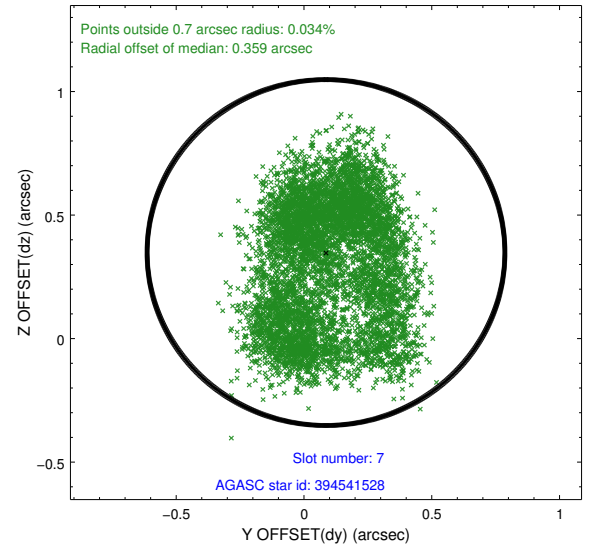
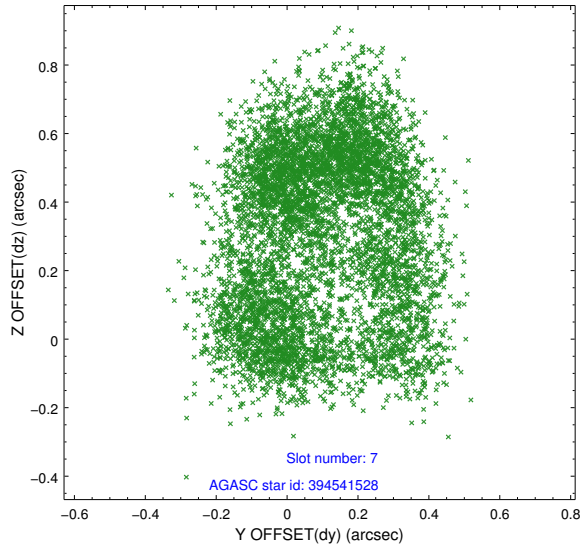
2.4.3 Slot 5



2.4.4 Slot 6

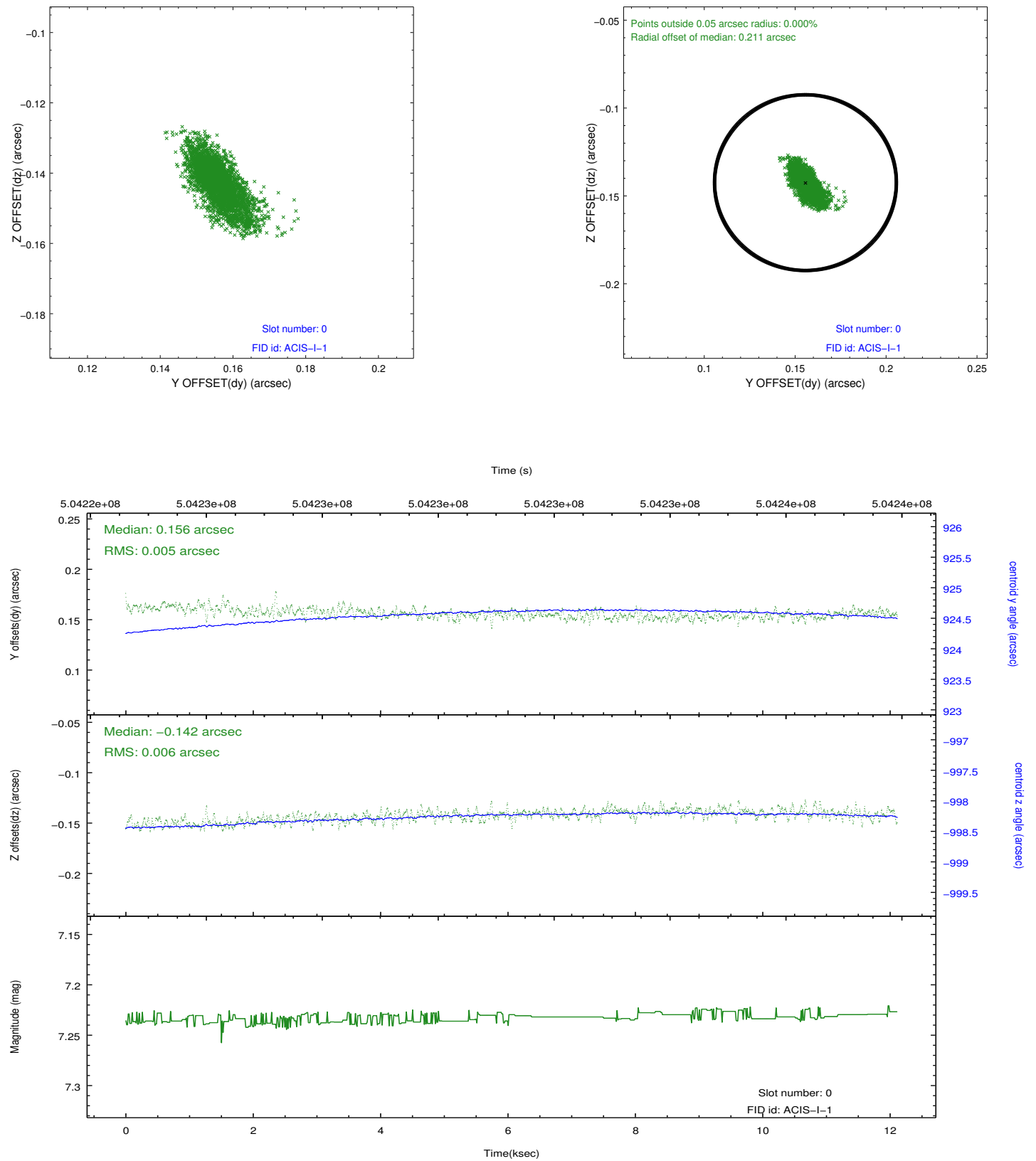


2.4.5 Slot 7

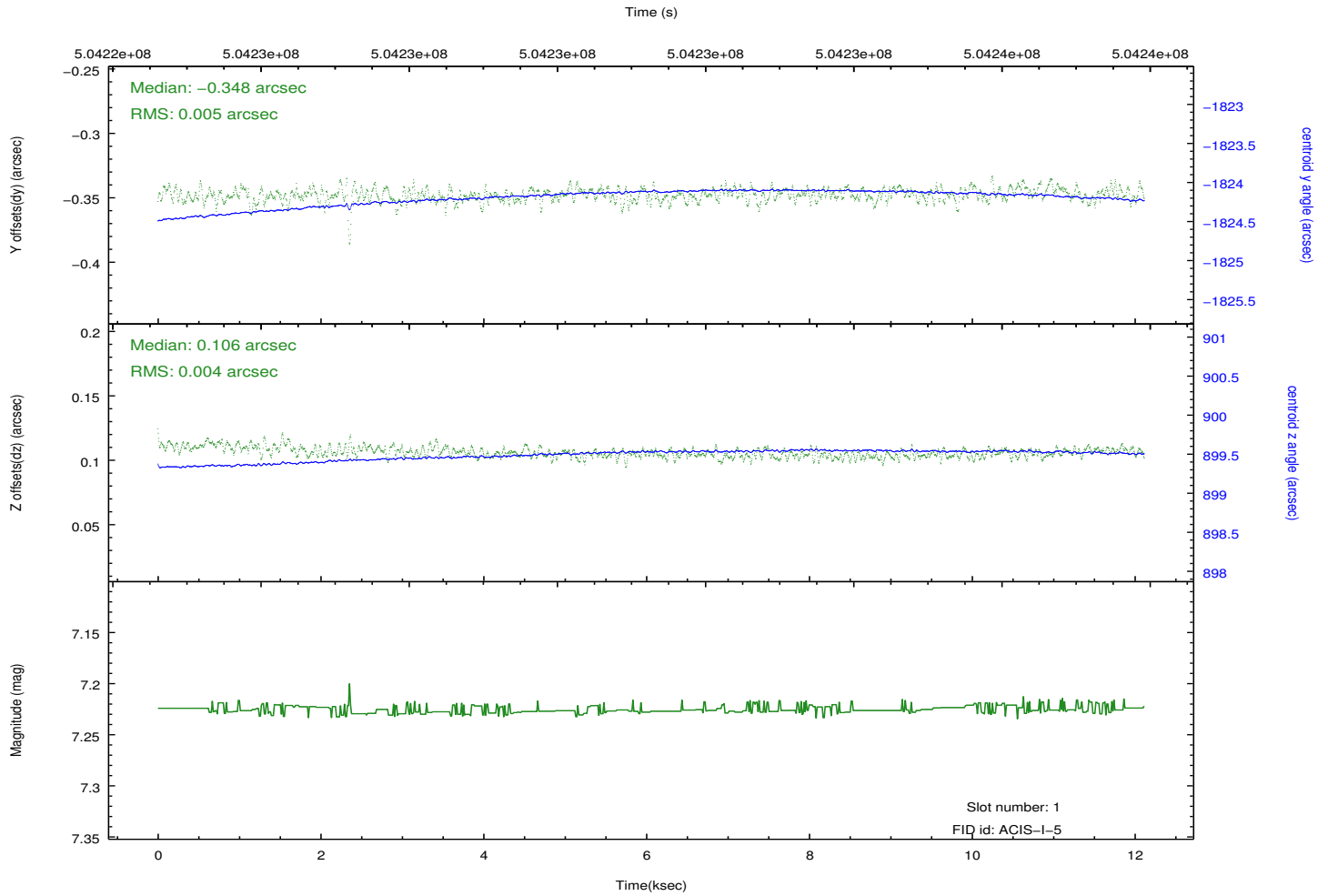
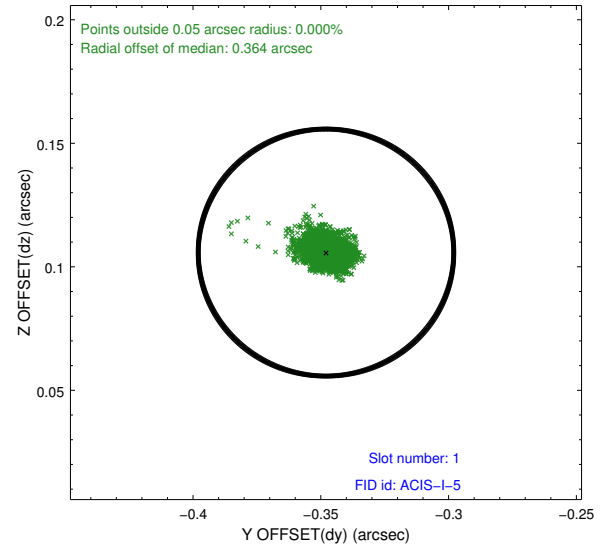
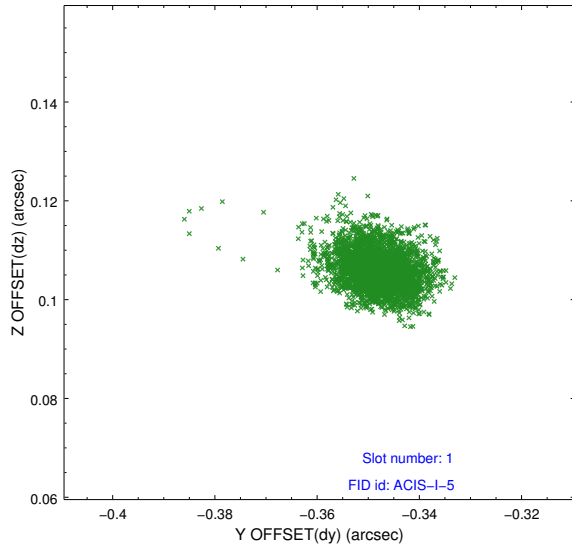


2.5 FID Slots

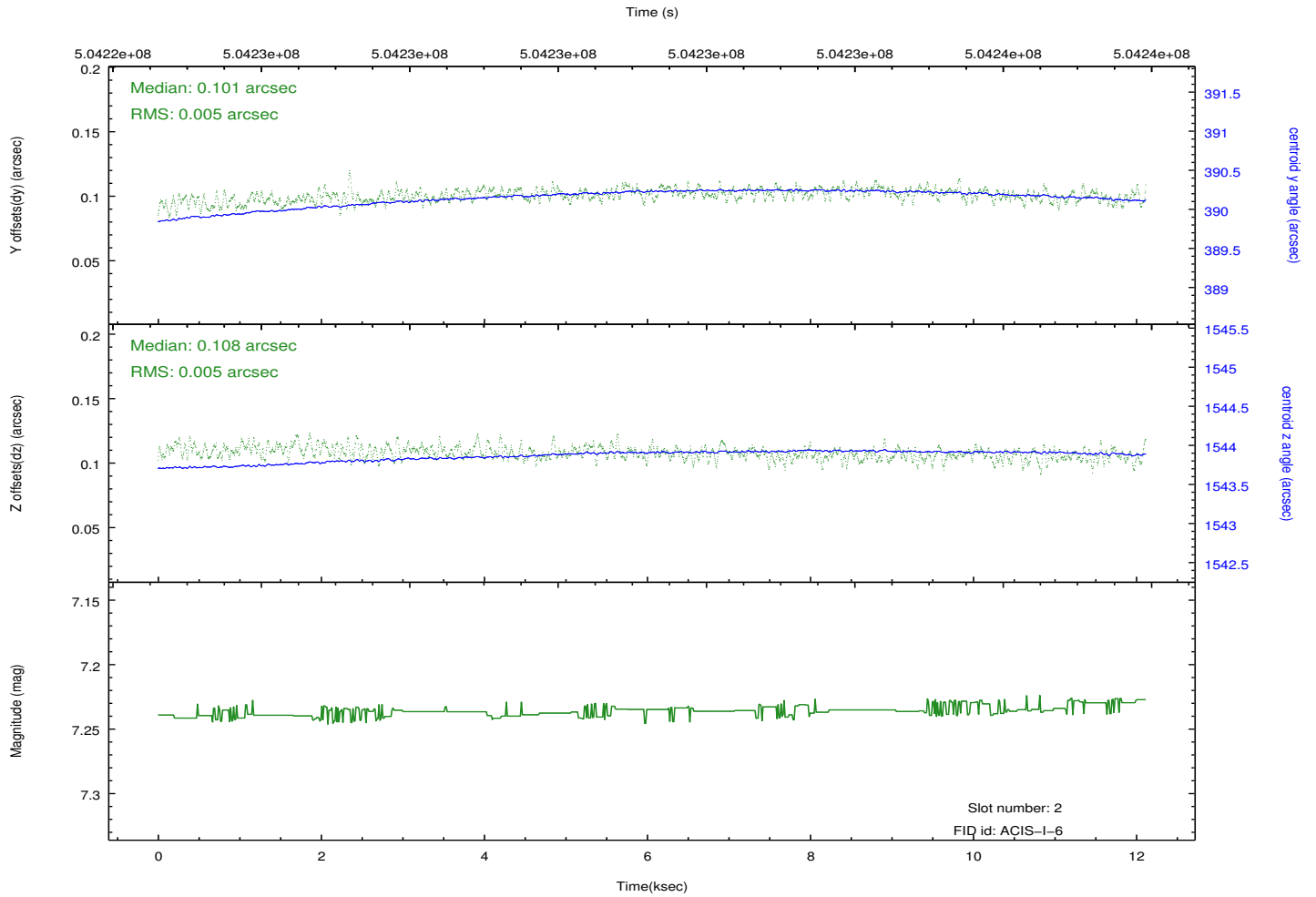
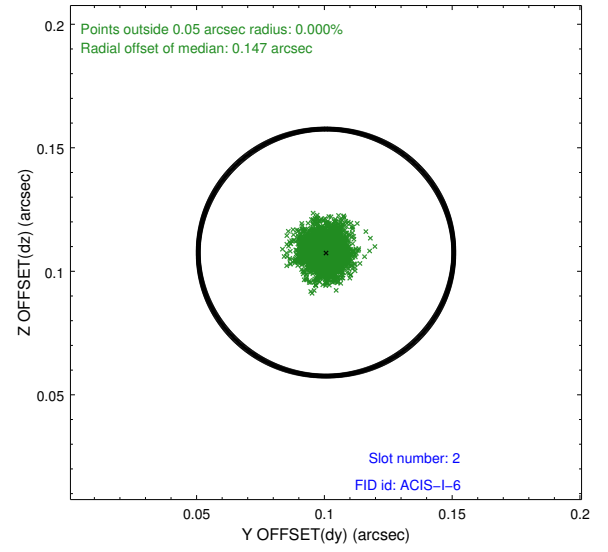
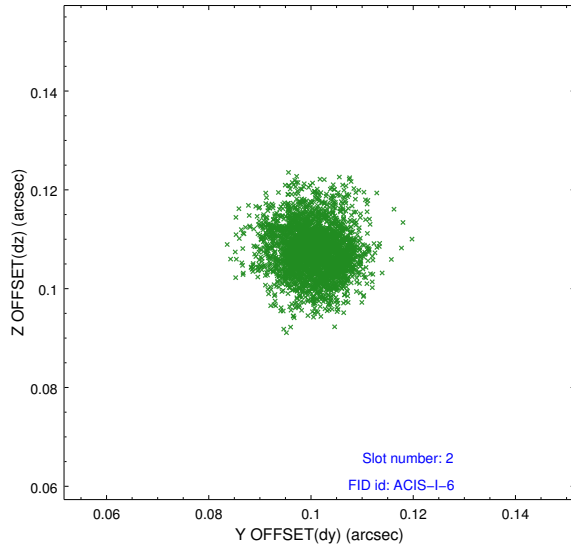
2.5.1 Slot 0



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	11.725936308682

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.