

V&V Reference Report

L2 ASCDS Version : 10

Observation 15138 - L2 Version 2
Chandra X-Ray Center

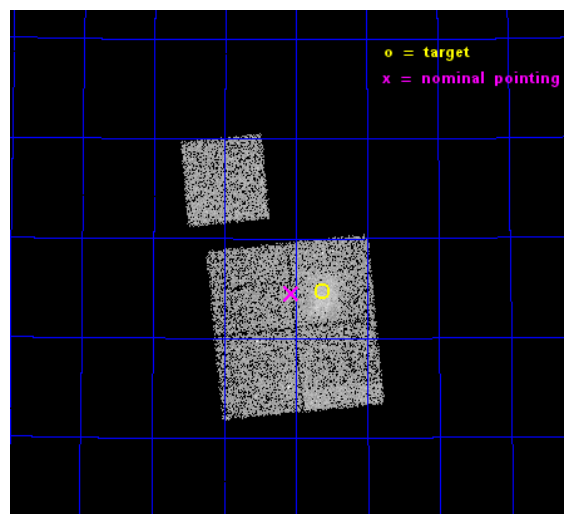
L2 Processing Date : Dec 6 2014

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1 Front

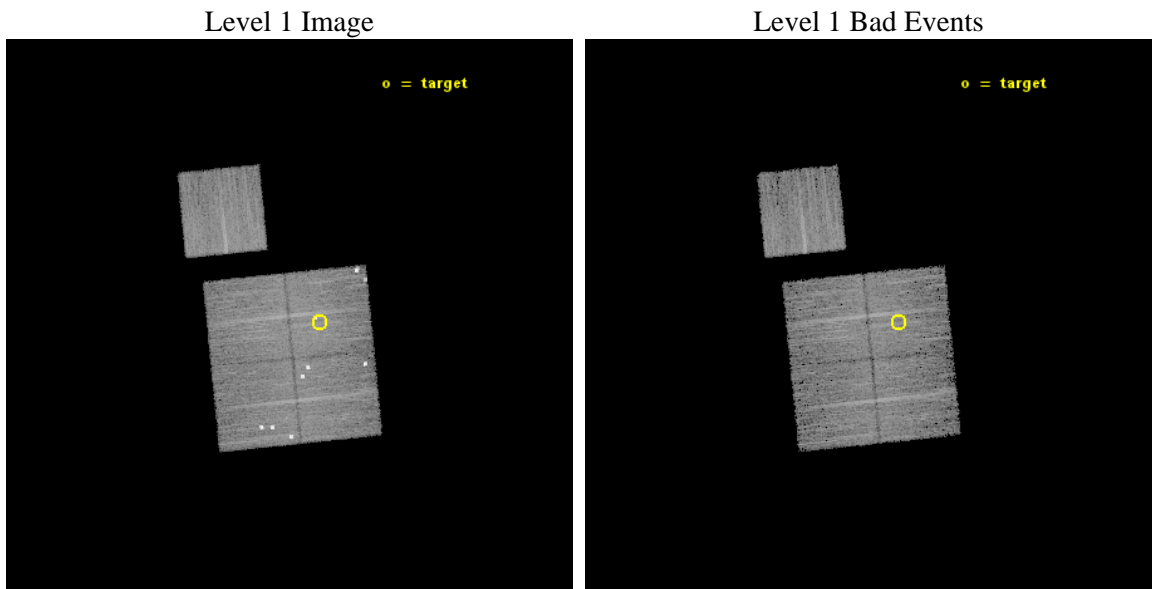
seq_num	801267	Sequence number
obs_id	15138	Observation id
title	A Chandra-Planck Legacy Program for Massive Clusters of Galaxies	P
observer	Dr. Christine Jones	Principal investigator
object	G121.11+57.01	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	194.906667	Observer's specified target RA [deg]
dec_targ	60.078306	Observer's specified target Dec [deg]
ra_nom	195.01558315271	Nominal RA [deg]
dec_nom	60.075167268109	Nominal Dec [deg]
roll_nom	354.2645947025	Nominal Roll [deg]
revision	2	Processing version of data
ontime	13082.000100613	Sum of GTIs [s]
livetime	12911.07413847	Livetime [s]
ontime0	13082.000100613	Sum of GTIs [s]
ontime1	13082.000100613	Sum of GTIs [s]
ontime2	13082.000100613	Sum of GTIs [s]
ontime3	13082.000100613	Sum of GTIs [s]
ontime6	13082.000100613	Sum of GTIs [s]
l2events	35303	Number of level 2 events



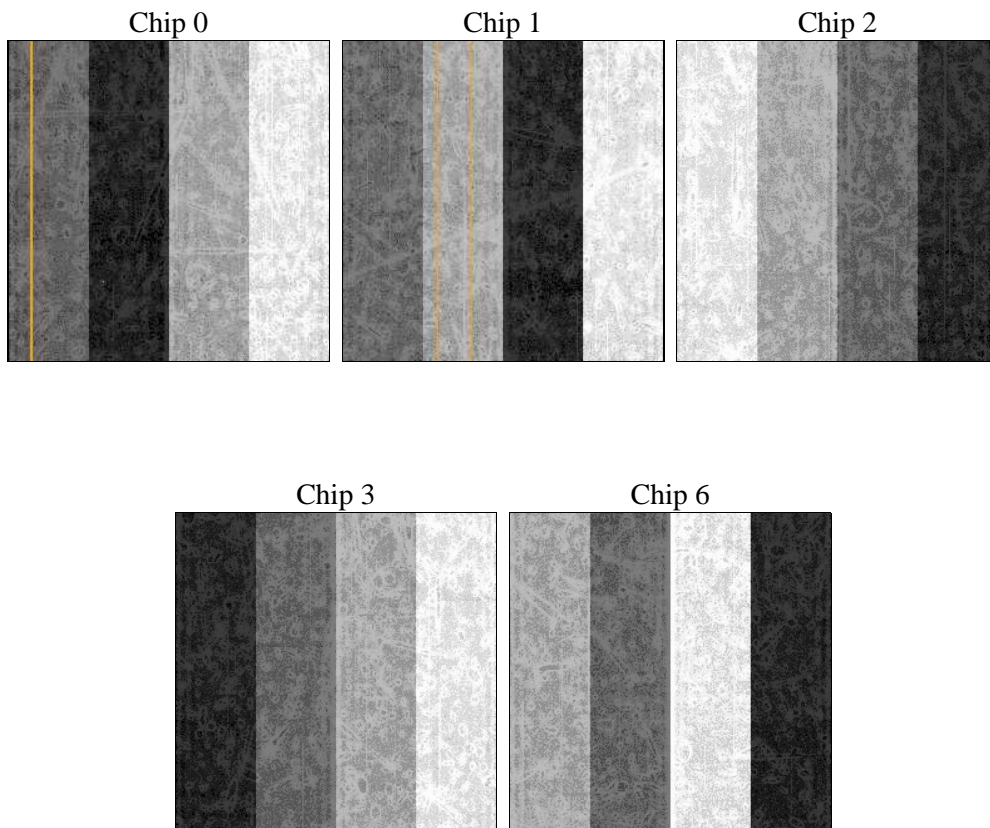
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	13000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	13082.000100613	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	13082.000100613	Sum of GTIs [s]
date	2014-12-07T00:03:02	Date and time of file creation	ontime1	13082.000100613	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	13082.000100613	Sum of GTIs [s]
			ontime3	13082.000100613	Sum of GTIs [s]
			ontime6	13082.000100613	Sum of GTIs [s]
			l1events	359149	Number of level 1 events

2.1.4 Events

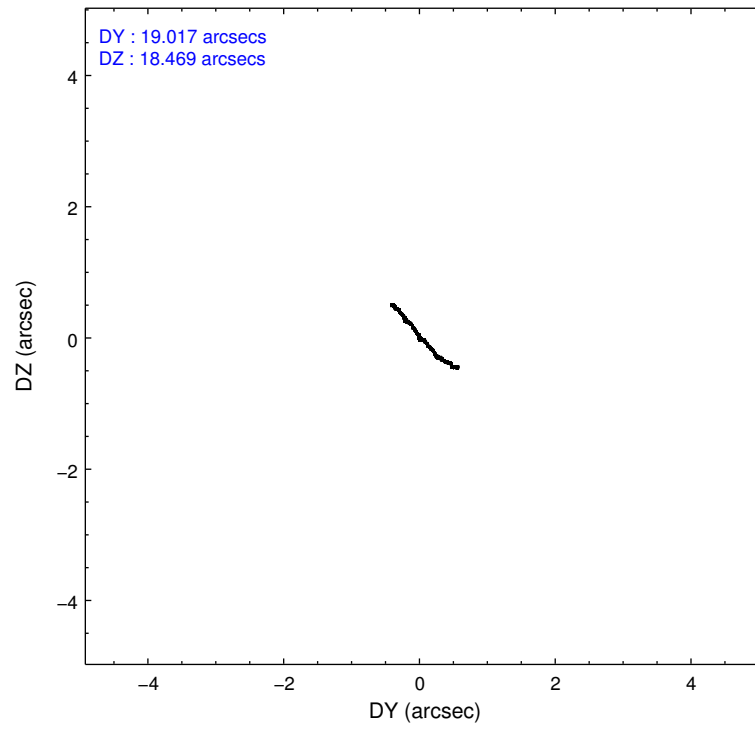
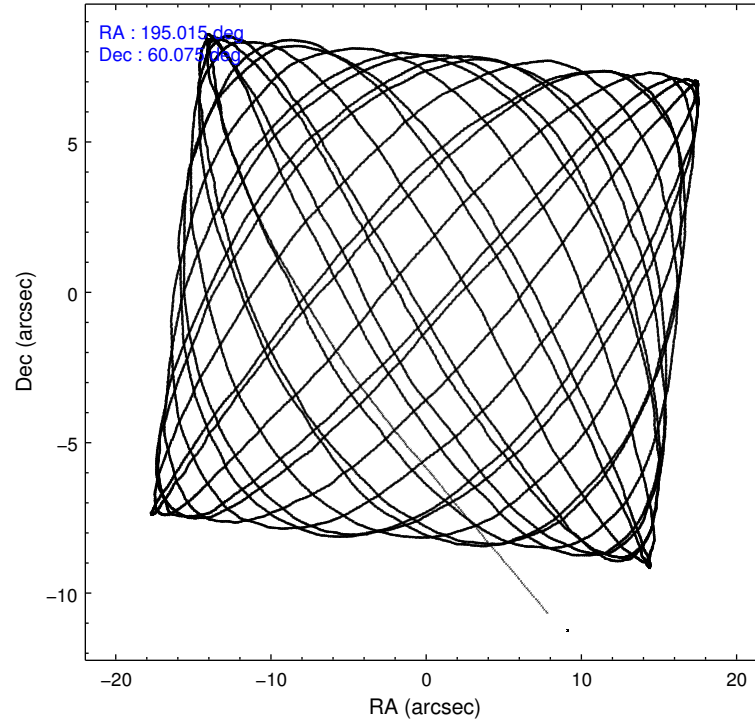
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	72108	73641	66277	78439	68684
rejected events	51728	52768	58008	57198	60259
rejected %	71%	71%	87%	72%	87%

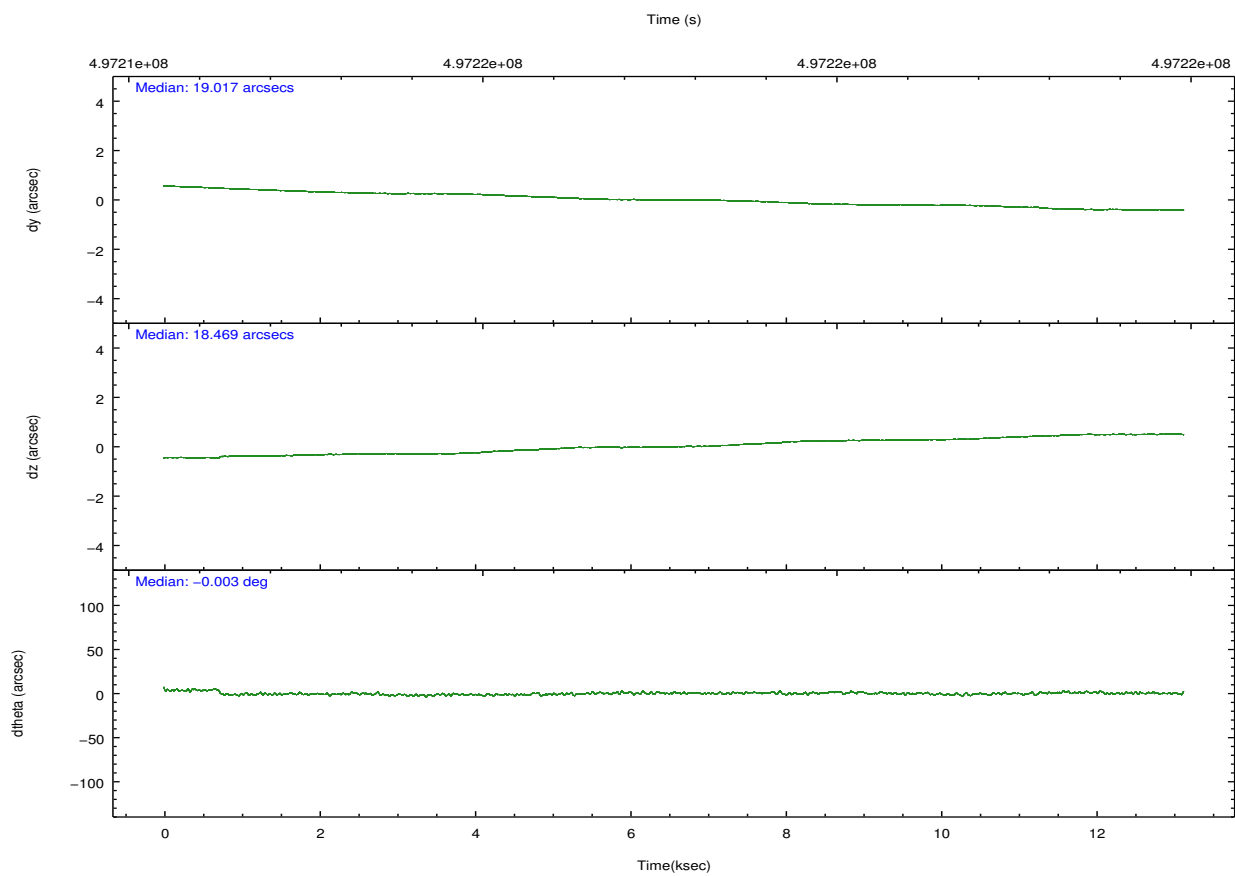
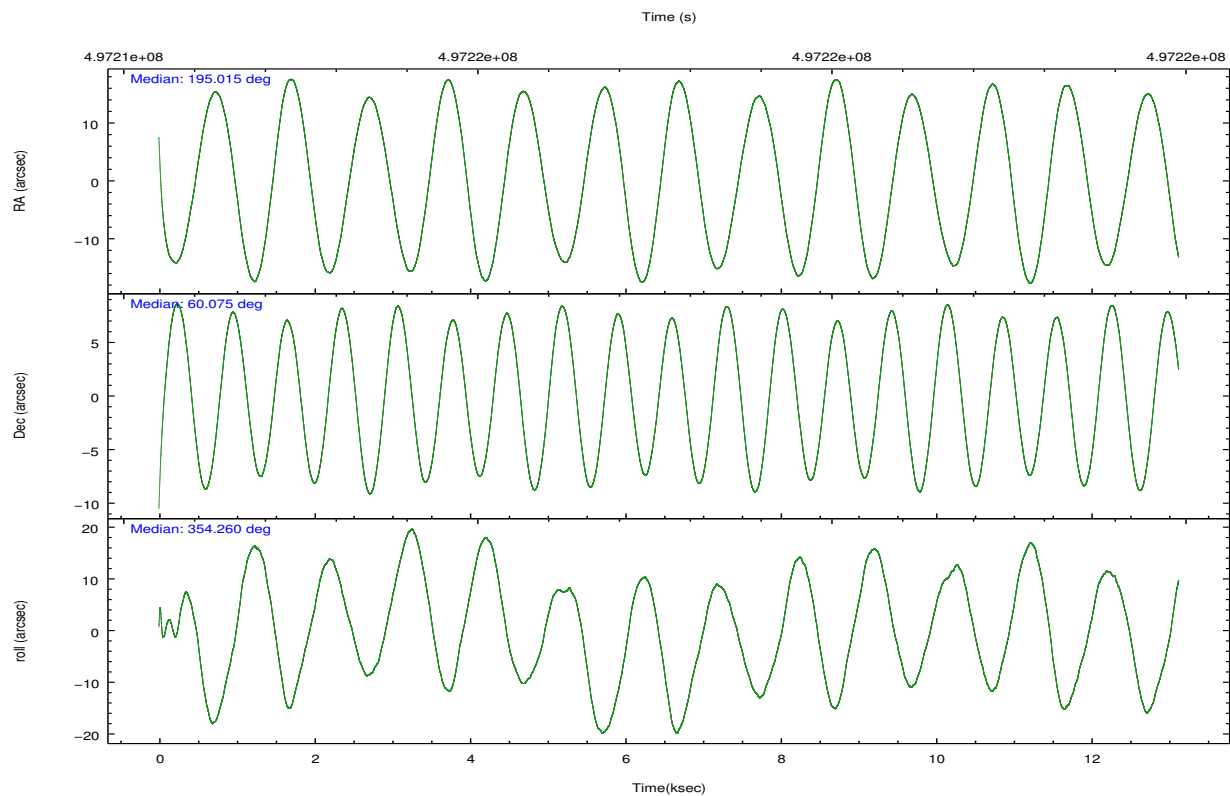
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	11167	15255	3195	9711	3081
	15%	20%	4%	12%	4%
grade 1 events	74	86	43	70	33
	0%	0%	0%	0%	0%
grade 2 events	6126	2186	1969	8313	1978
	8%	2%	2%	10%	2%
grade 3 events	764	839	752	786	820
	1%	1%	1%	1%	1%
grade 4 events	729	856	850	823	787
	1%	1%	1%	1%	1%
grade 5 events	2910	3182	2763	3408	3260
	4%	4%	4%	4%	4%
grade 6 events	1604	1745	1506	1614	1762
	2%	2%	2%	2%	2%
grade 7 events	48734	49492	55199	53714	56963
	67%	67%	83%	68%	82%

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	194.965451	195.015583152705	CCD I2 on	Y	Y
[deg] Pointing Dec	60.063731	60.07516726810852	CCD I3 on	Y	Y
[deg] Pointing Roll	354.099336	354.2645947024987	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)	497211252.184000	497210067.3089	CCD S5 on	N	N
Observation start date	2013-10-03T18:13:05	2013-10-03T17:54:27	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	497224252.184000	497225363.38474	On-chip summing requested	N	N
Observation end date	2013-10-03T21:49:45	2013-10-03T22:09:23	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



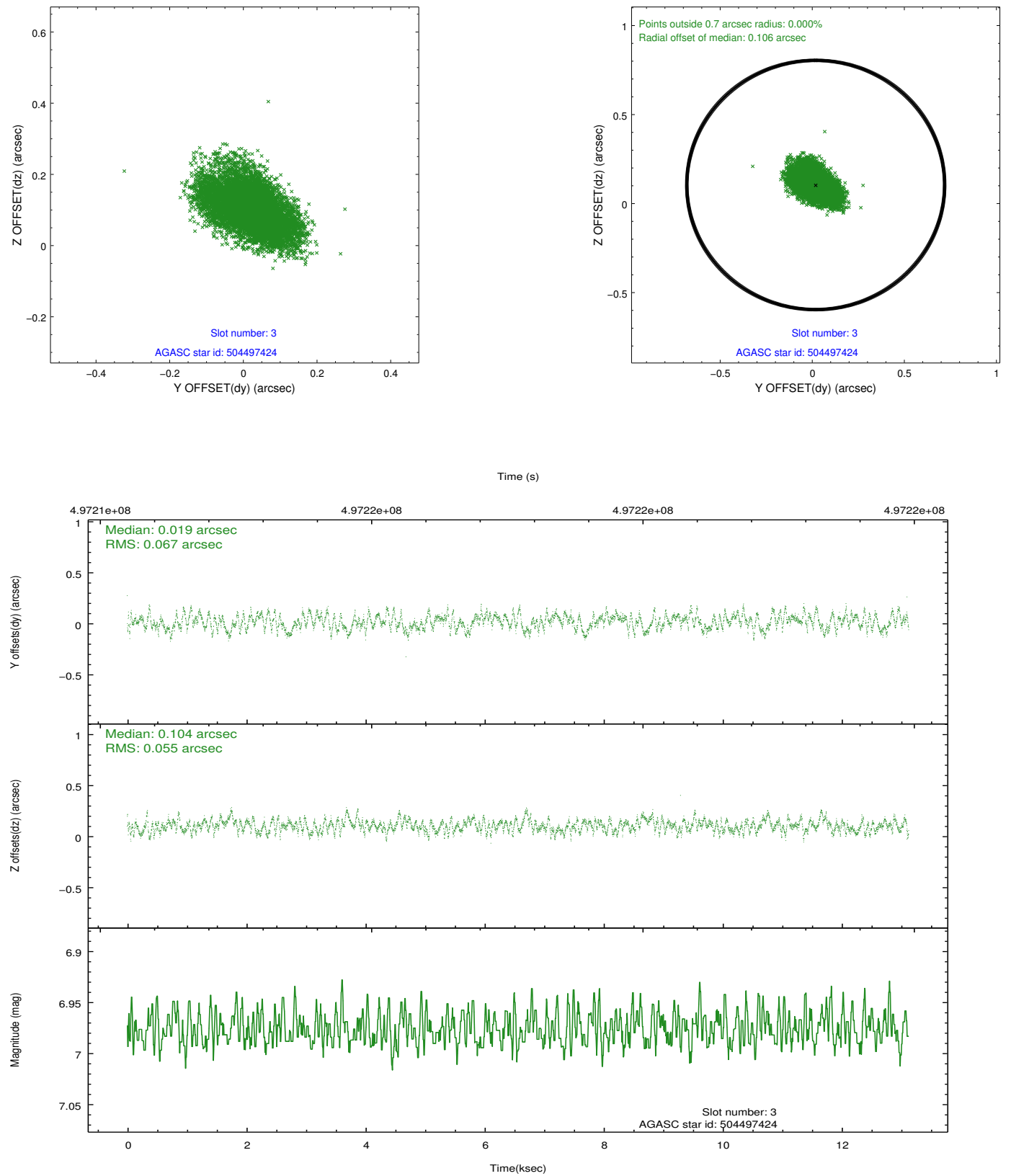


Slot Statistics

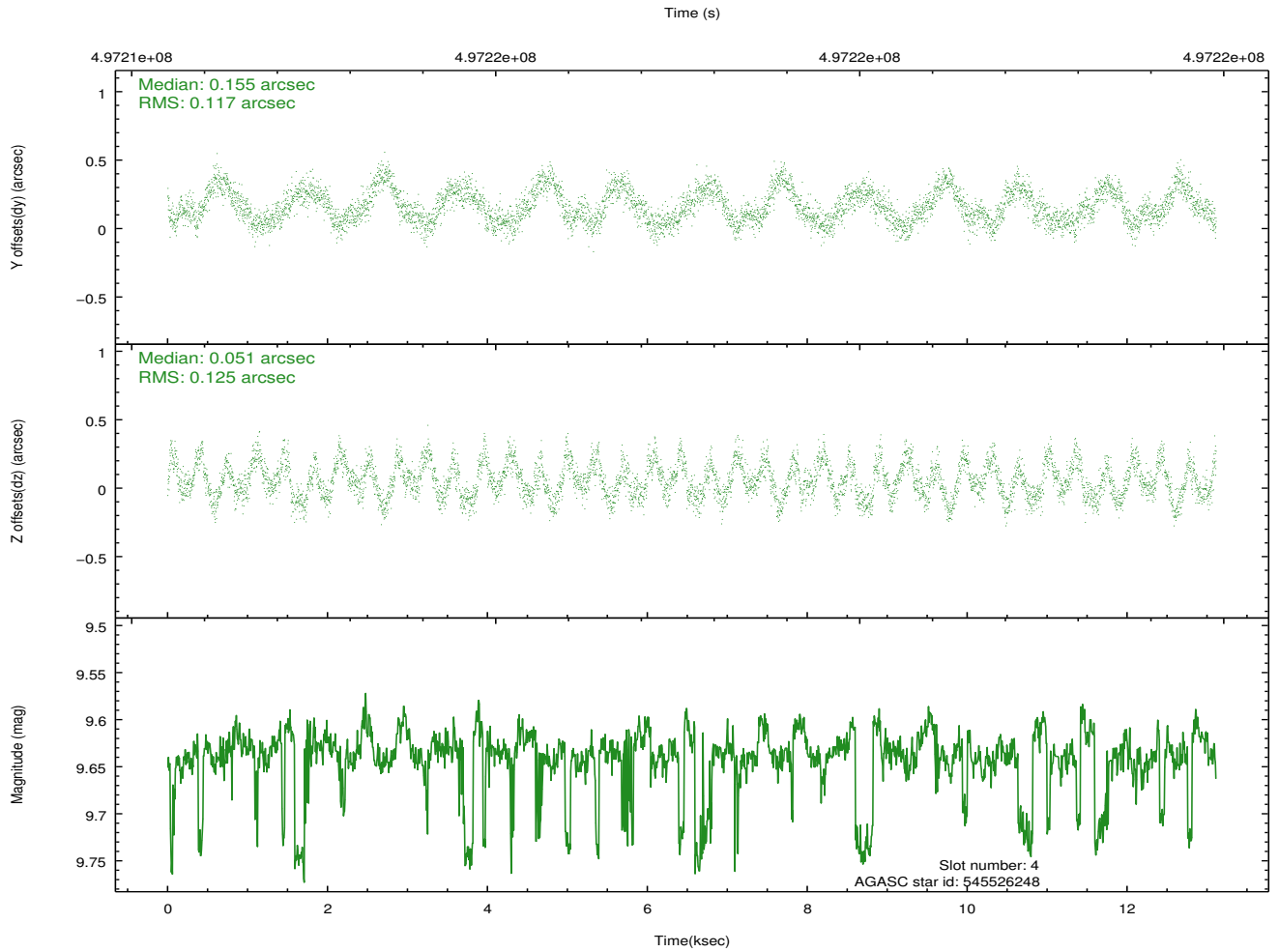
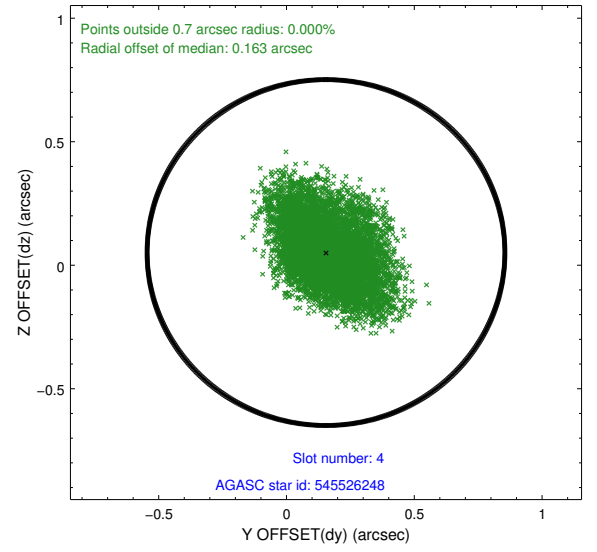
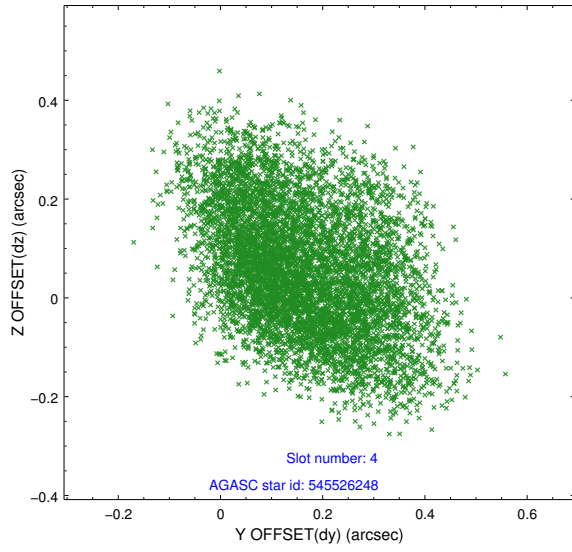
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.07	3202	0.107	-0.056	0.010	0.032	0.000000	0.000000	920.30	-1001.31
1	FID		ACIS-I-2	7.02	3202	-0.292	-0.026	0.011	0.021	0.000000	0.000000	-774.40	-1006.95
2	FID		ACIS-I-4	6.96	3202	0.086	0.149	0.009	0.017	0.000000	0.000000	2139.52	899.46
3	GUIDE	used	504497424	6.98	6405	0.019	0.104	0.092	0.150	195.668426	59.716310	1397.73	-1106.00
4	GUIDE	used	545526248	9.64	6334	0.155	0.051	0.185	0.295	194.017560	60.369441	-1794.52	933.34
5	GUIDE	used	545654864	8.90	6401	0.014	-0.072	0.085	0.141	194.690652	60.293493	-572.42	773.50
6	GUIDE	used	545661376	7.89	6402	-0.183	-0.247	0.078	0.121	195.537275	60.436982	872.00	1445.42
7	GUIDE	used	504371352	8.80	6403	-0.012	0.164	0.089	0.146	194.978456	59.407300	267.68	-2347.67

2.4 Star Slots

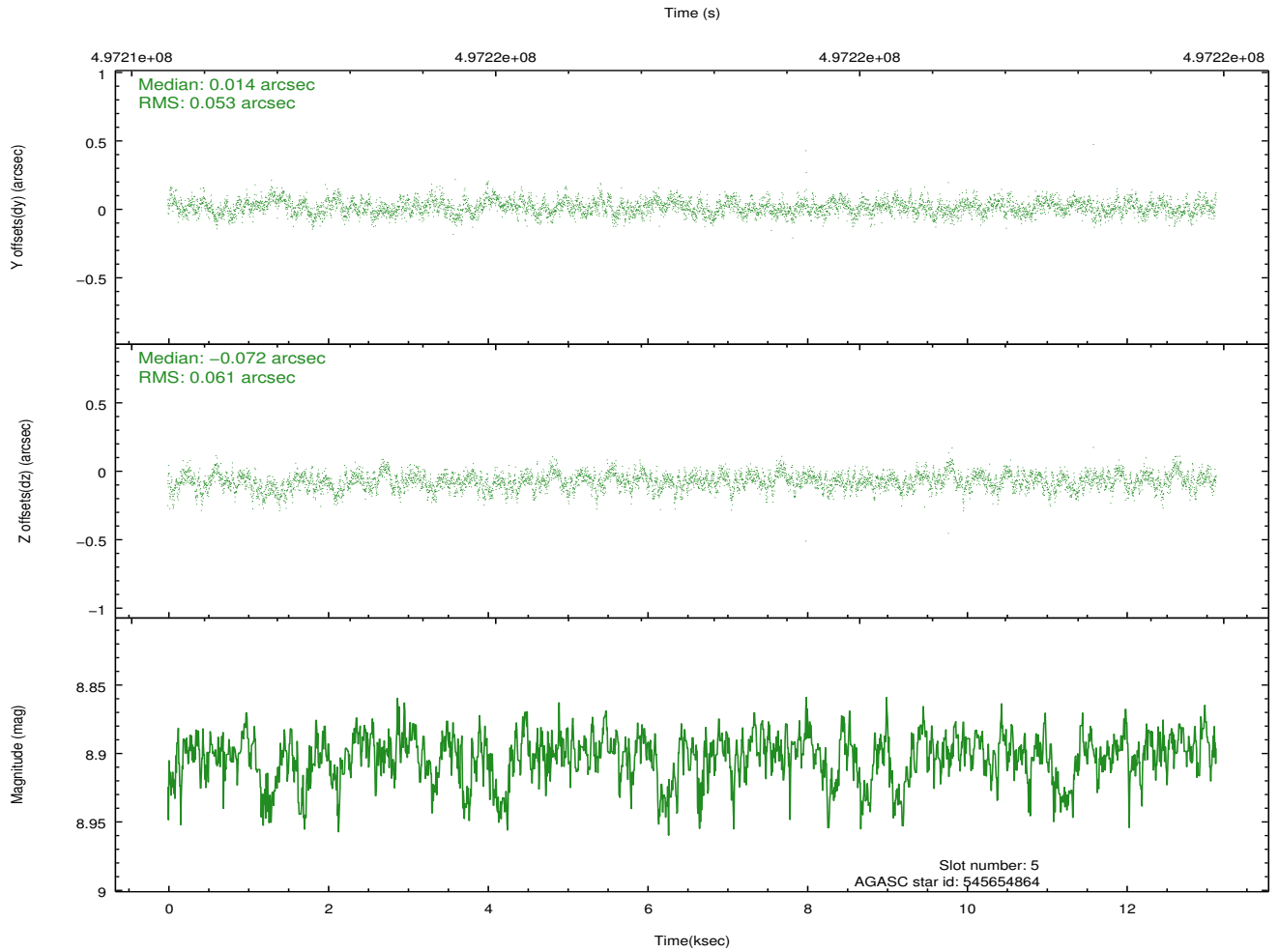
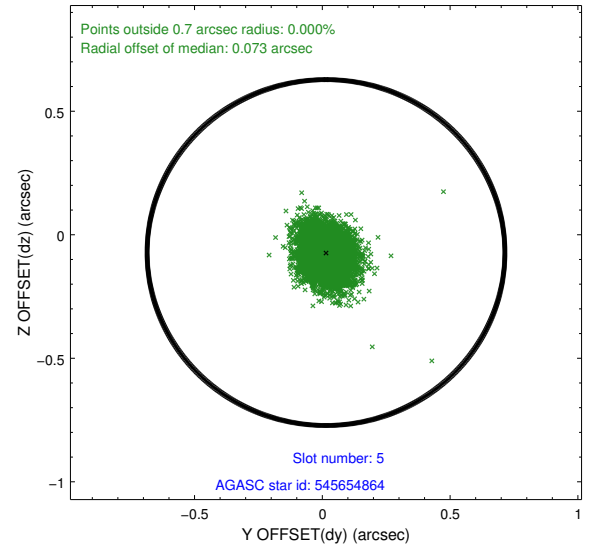
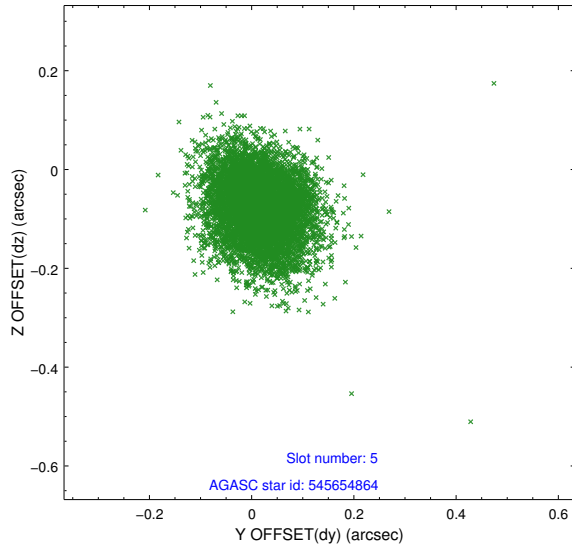
2.4.1 Slot 3



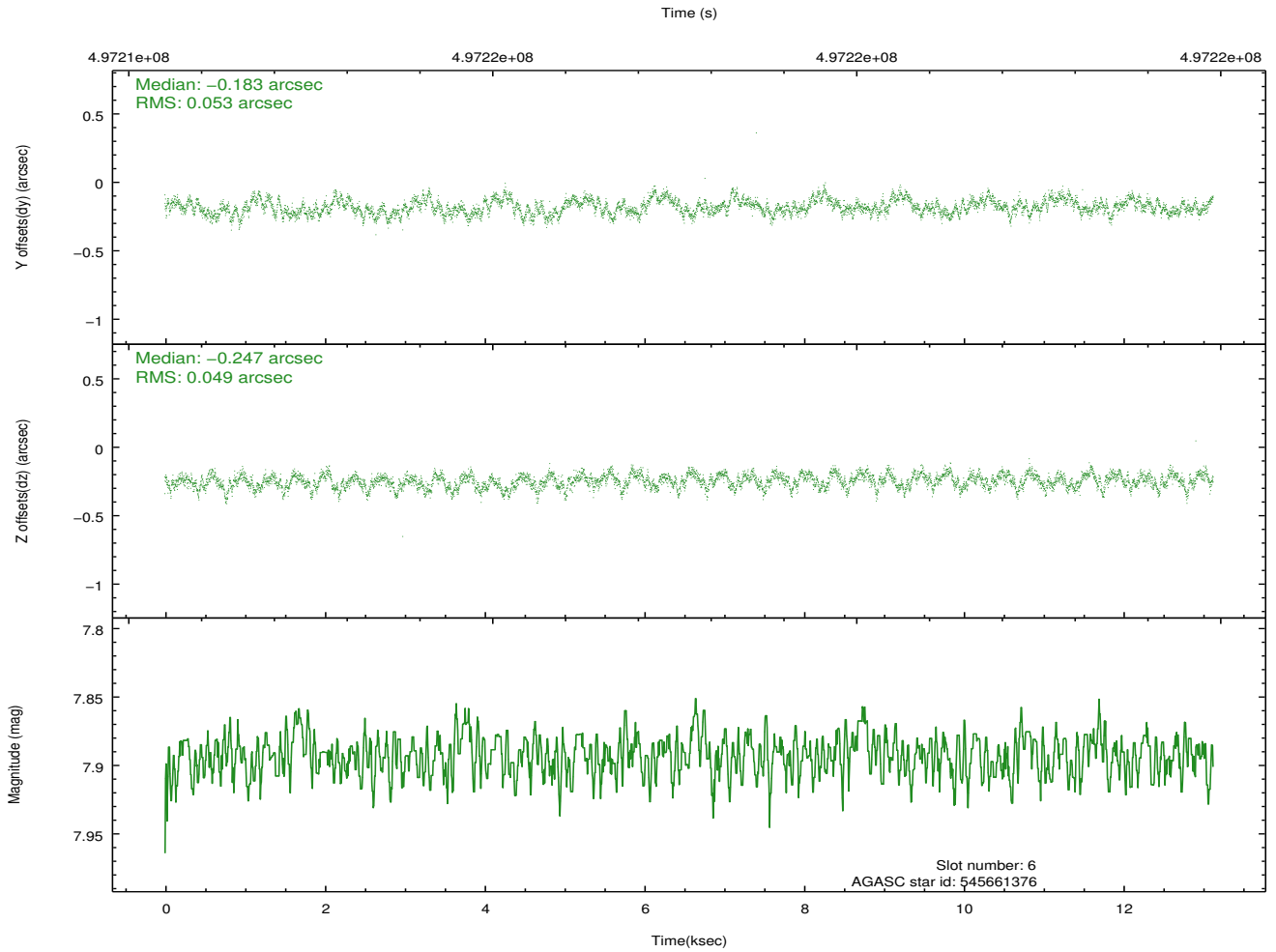
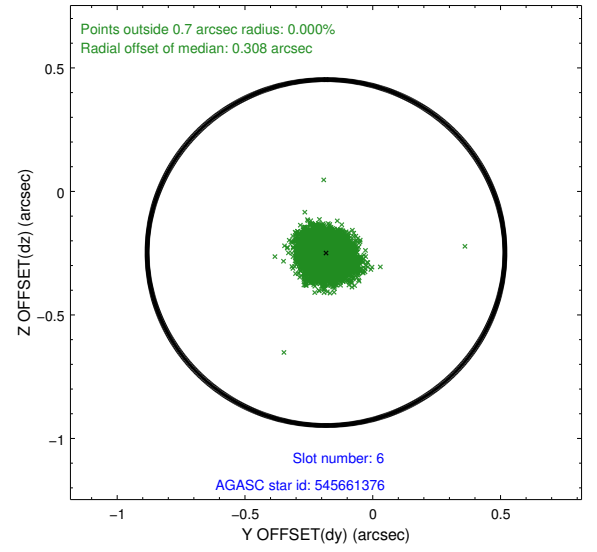
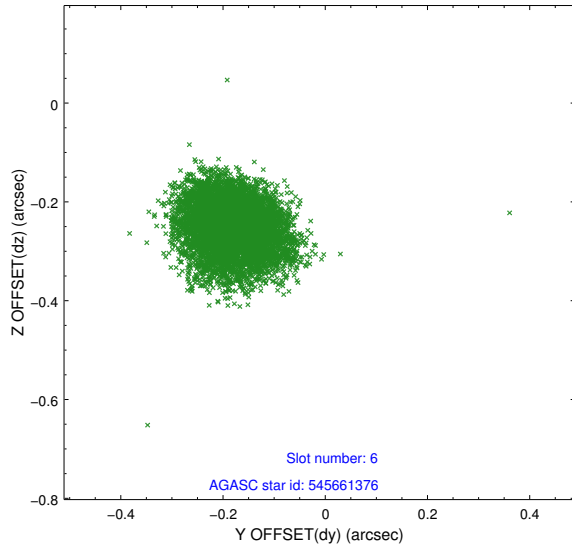
2.4.2 Slot 4



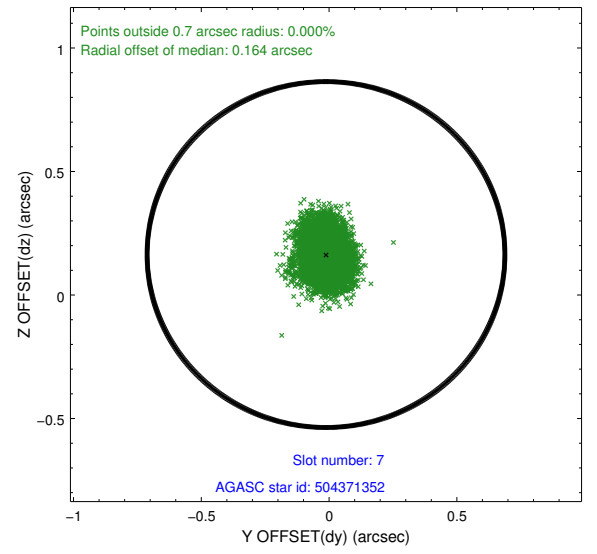
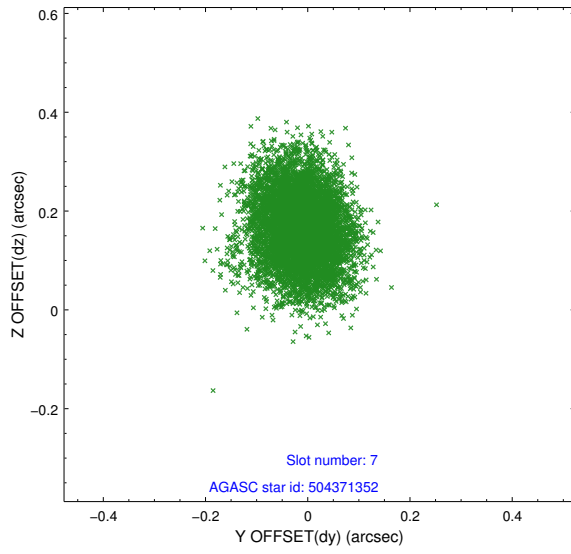
2.4.3 Slot 5



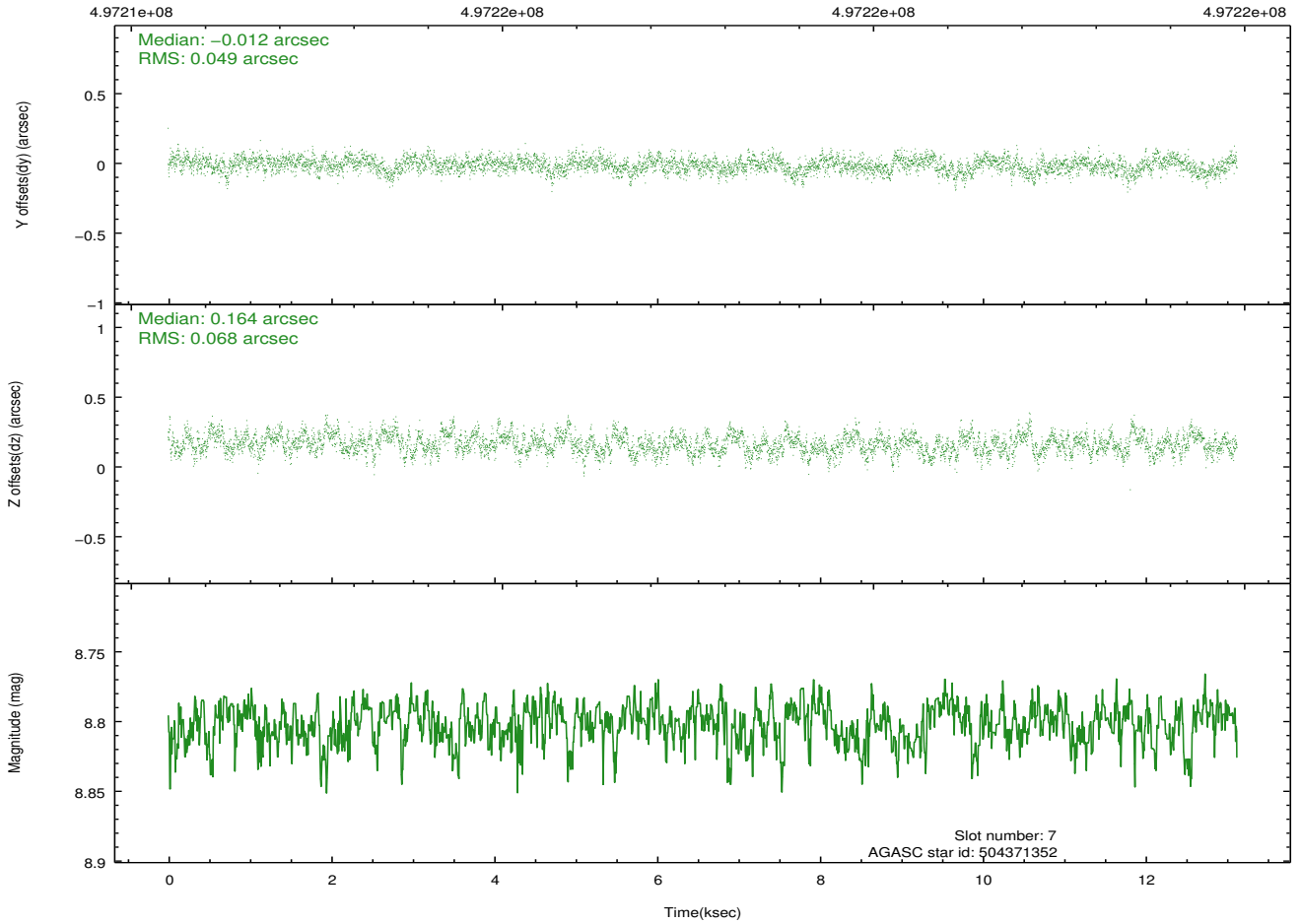
2.4.4 Slot 6



2.4.5 Slot 7

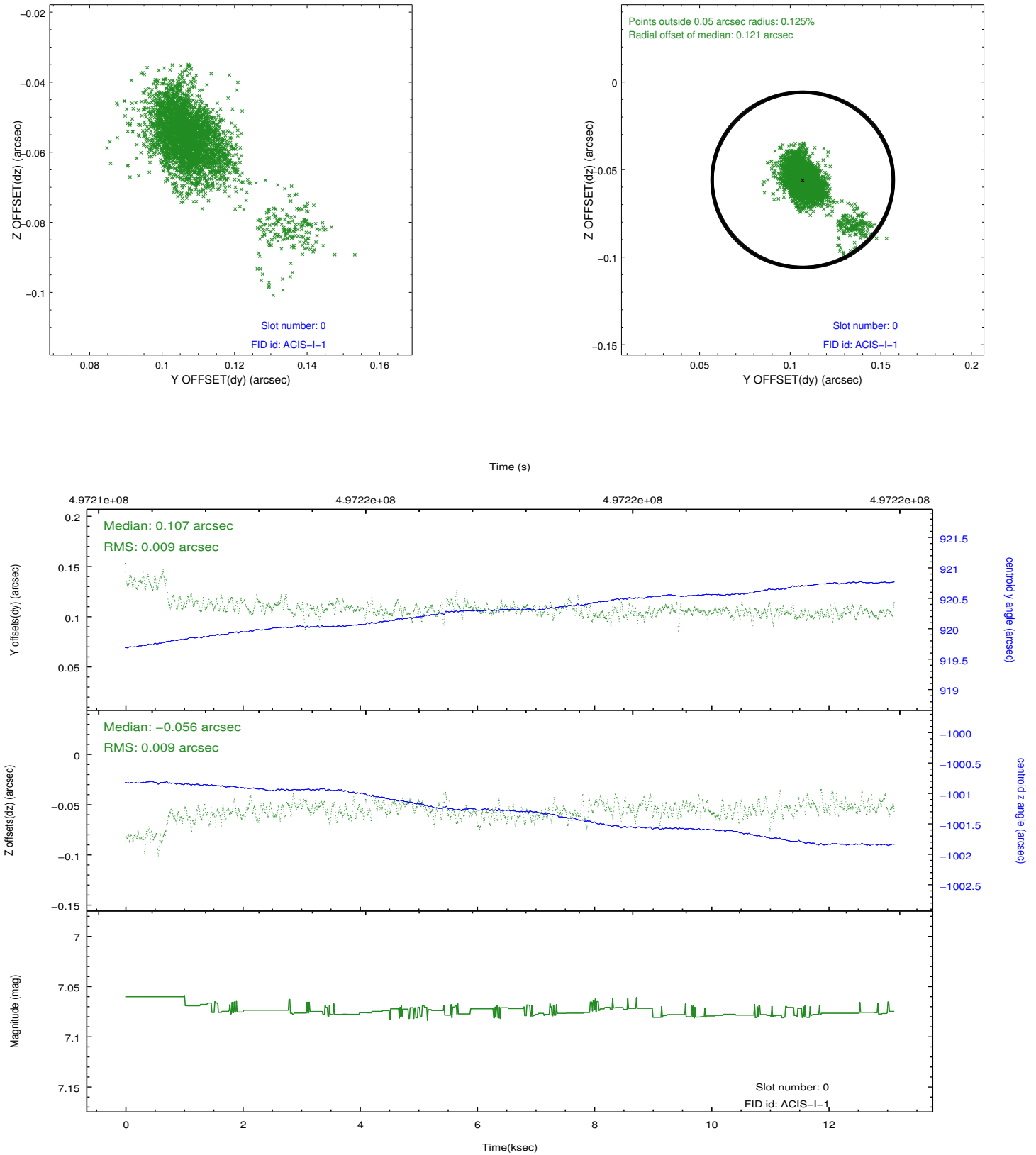


Time (s)

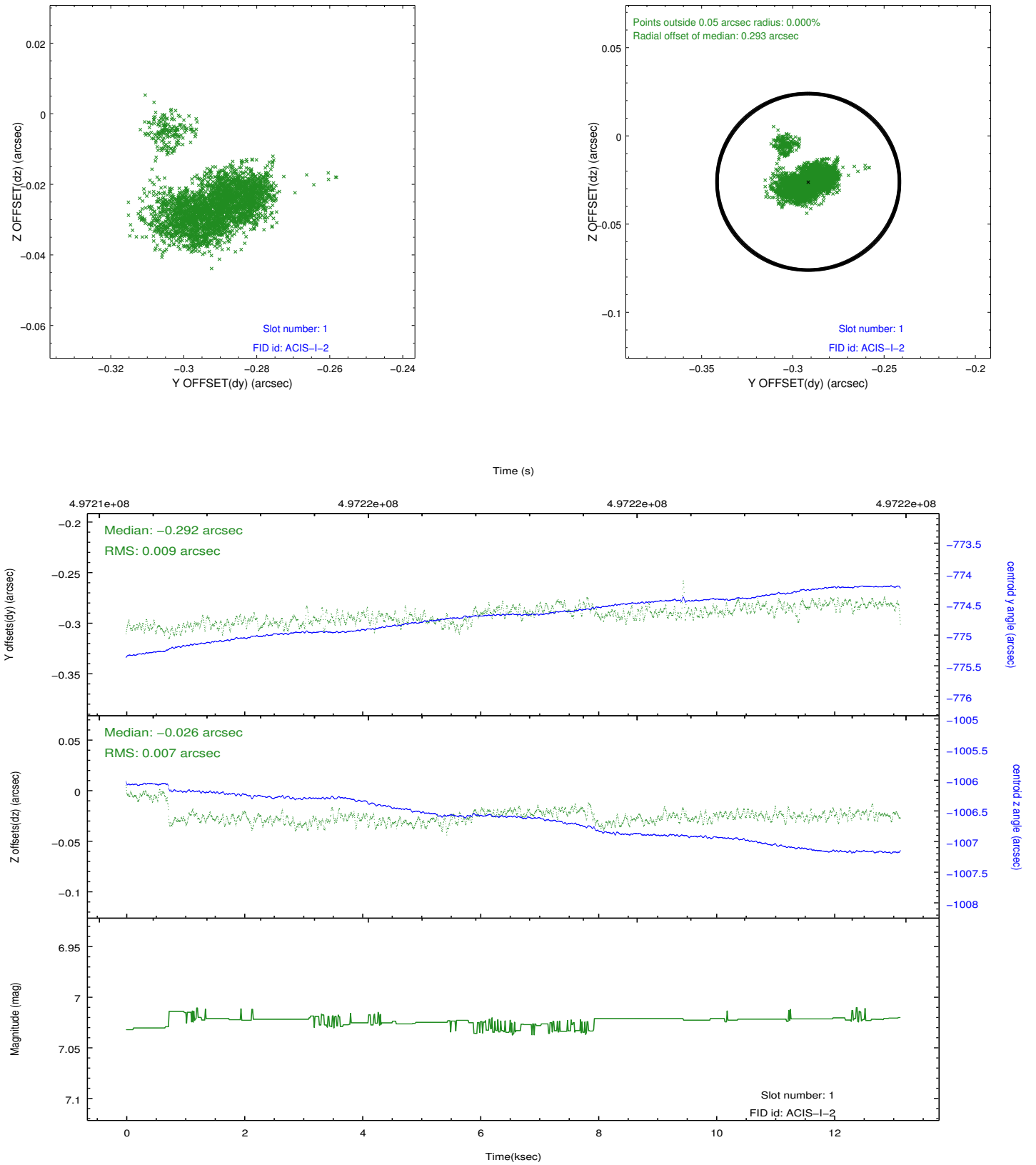


2.5 FID Slots

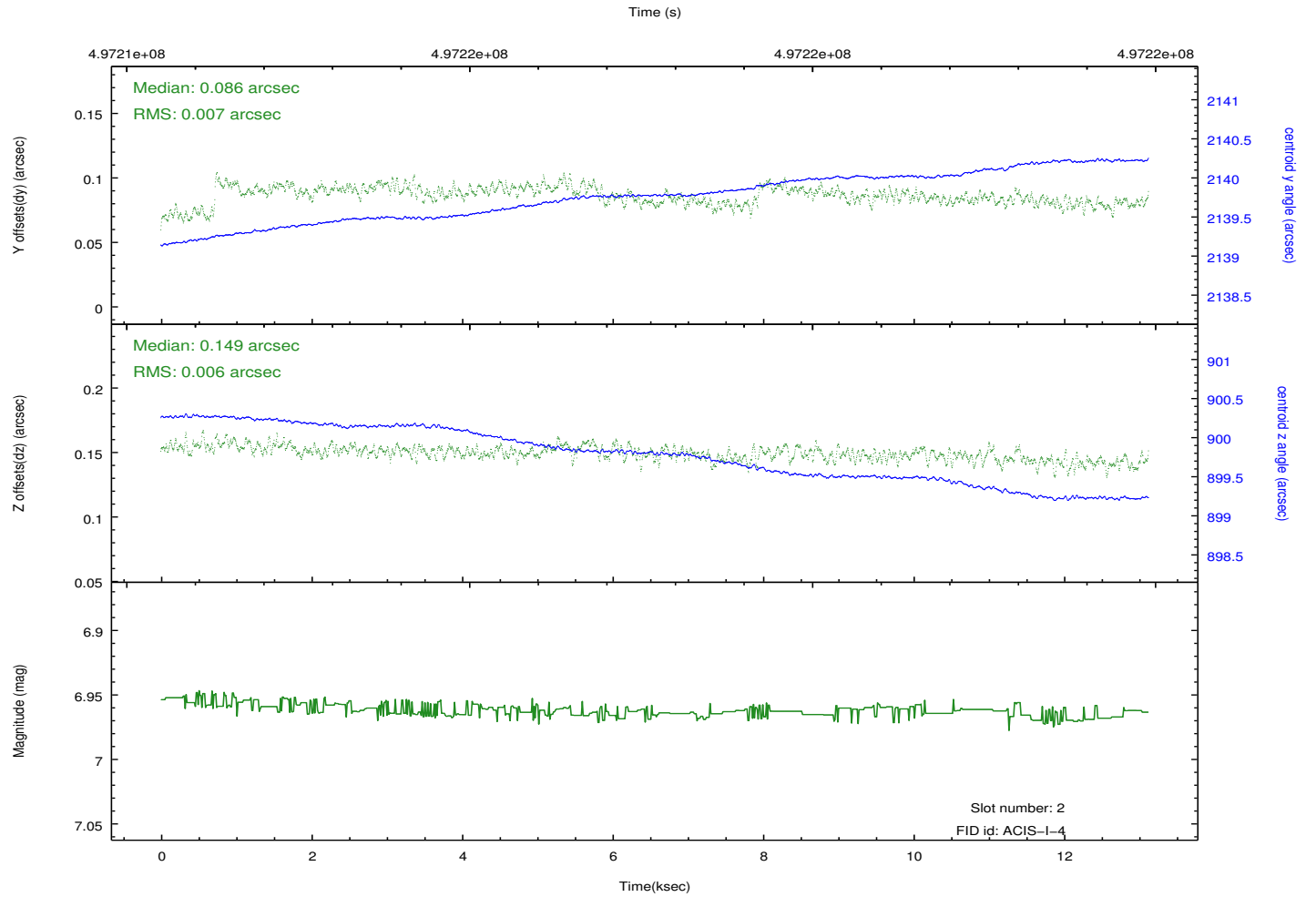
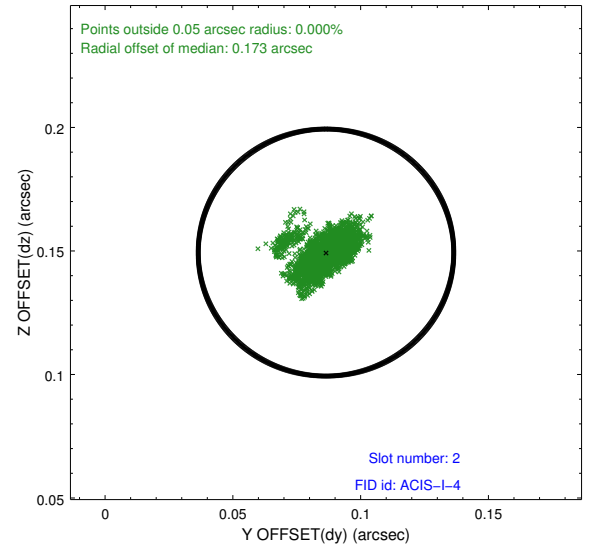
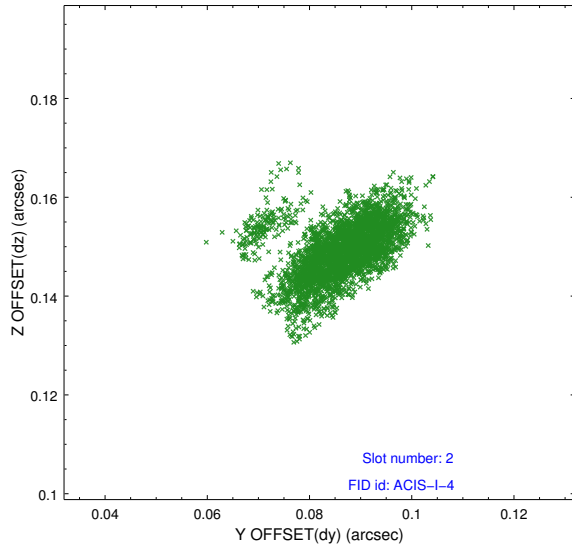
2.5.1 Slot 0



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)	2014.12.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	13.082000100613

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.