

V&V Reference Report

L2 ASCDS Version : 10

Observation 15303 - L2 Version 2
Chandra X-Ray Center

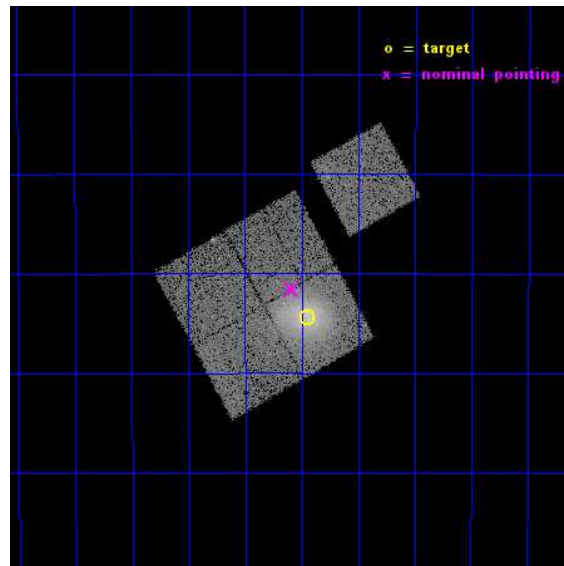
L2 Processing Date : Dec 4 2014

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

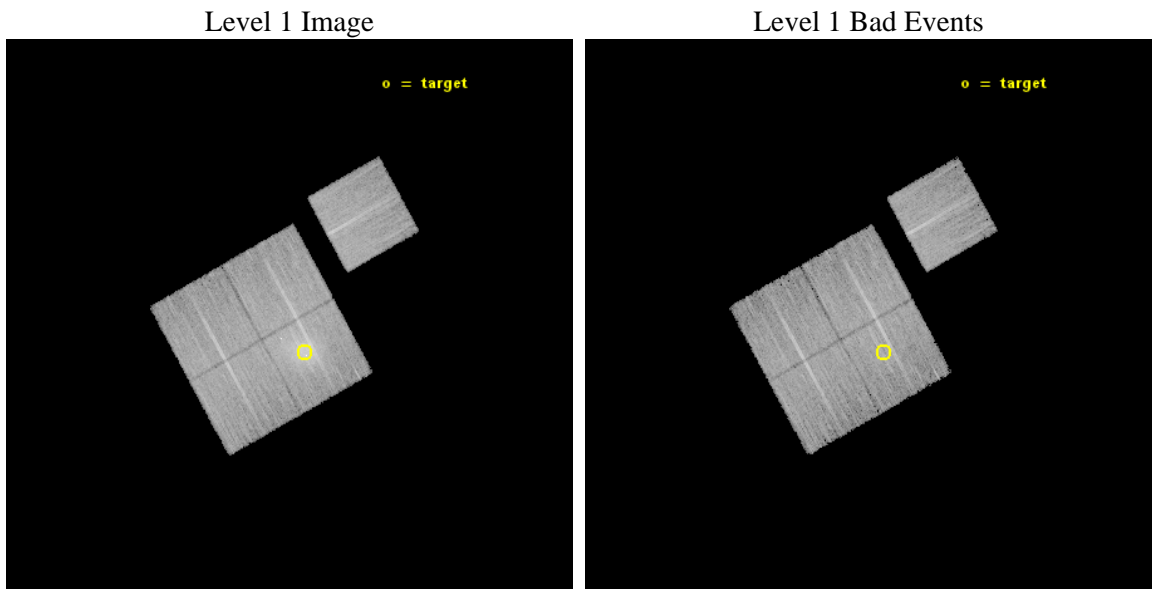
seq_num	801336	Sequence number
obs_id	15303	Observation id
title	Characterizing the Most Massive Clusters in the z	Proposal title
observer	Dr Stephen Murray	Principal investigator
object	G003.90-59.41	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	338.612	Observer's specified target RA [deg]
dec_targ	-37.74	Observer's specified target Dec [deg]
ra_nom	338.64753743132	Nominal RA [deg]
dec_nom	-37.693410028836	Nominal Dec [deg]
roll_nom	60.933660732867	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20084.900154471	Sum of GTIs [s]
liveltime	19822.476147665	Livetime [s]
ontime0	20084.900154471	Sum of GTIs [s]
ontime1	20081.759104073	Sum of GTIs [s]
ontime2	20084.900154471	Sum of GTIs [s]
ontime3	20084.900154471	Sum of GTIs [s]
ontime6	20081.759114146	Sum of GTIs [s]
l2events	80078	Number of level 2 events



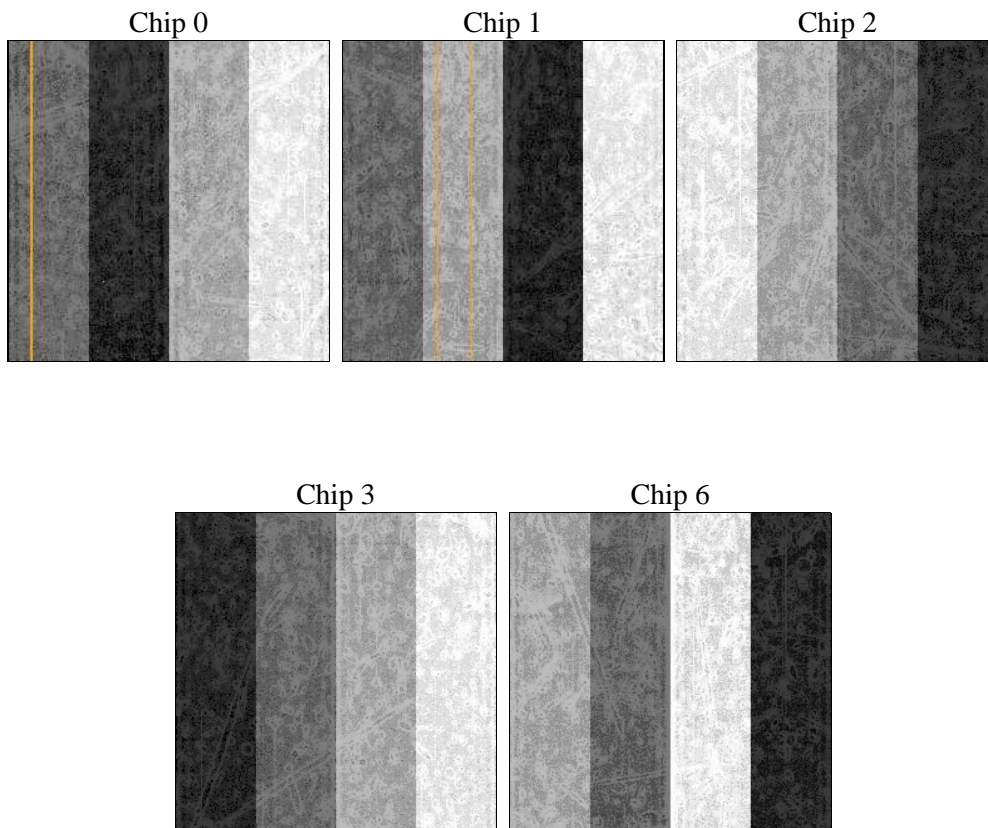
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	20084.900154471	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	20084.900154471	Sum of GTIs [s]
date	2014-12-04T21:52:44	Date and time of file creation	ontime1	20081.759104073	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	20084.900154471	Sum of GTIs [s]
			ontime3	20084.900154471	Sum of GTIs [s]
			ontime6	20081.759114146	Sum of GTIs [s]
			l1events	496341	Number of level 1 events

2.1.4 Events

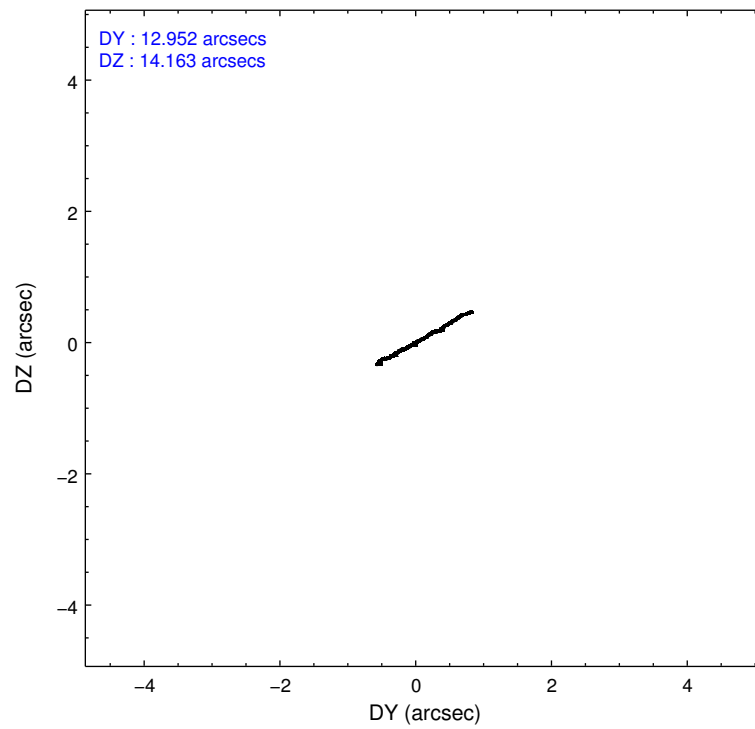
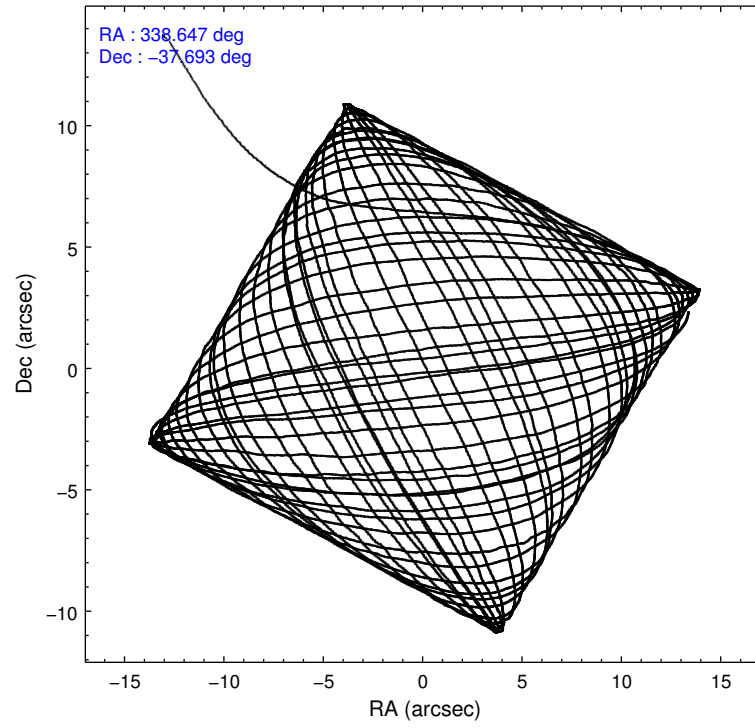
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	88336	91562	97084	121039	98320
rejected events	76623	77749	85198	80467	86524
rejected %	86%	84%	87%	66%	88%

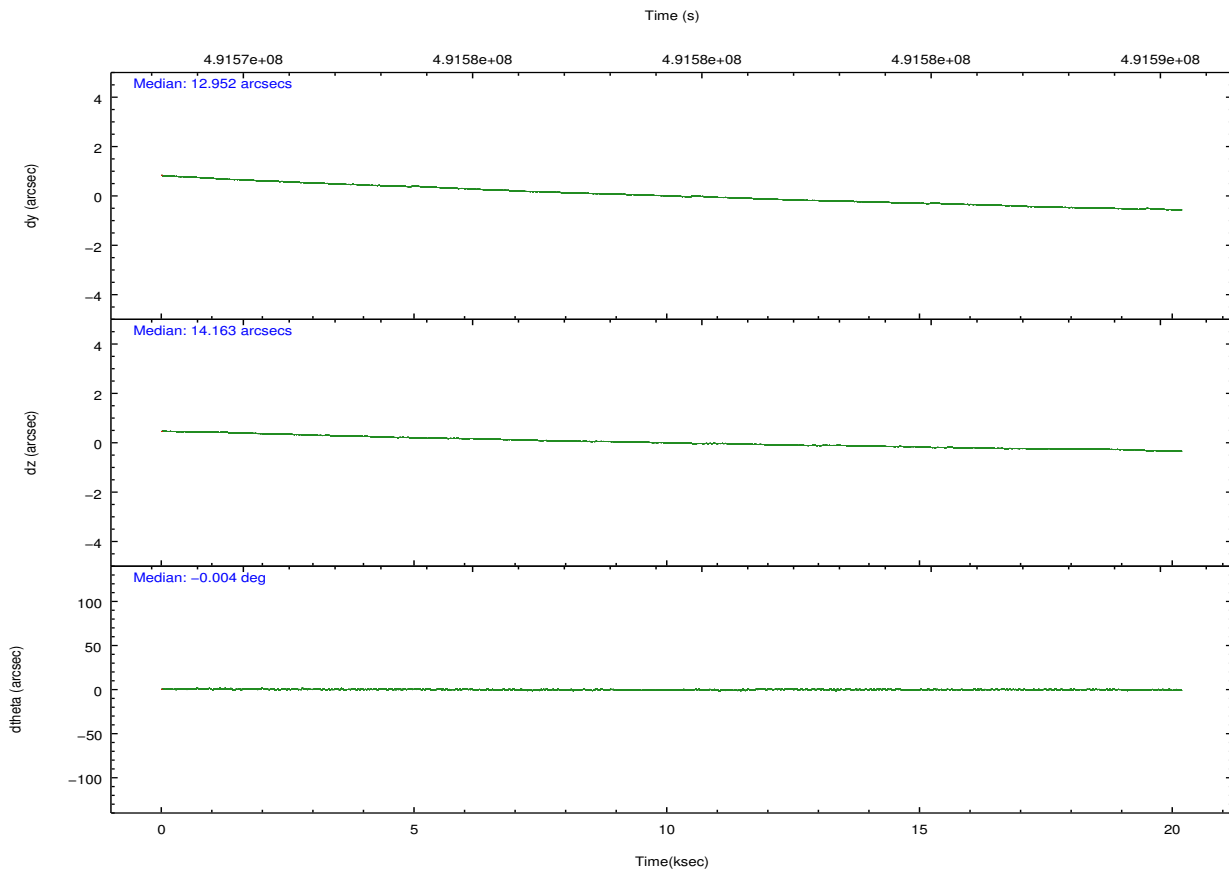
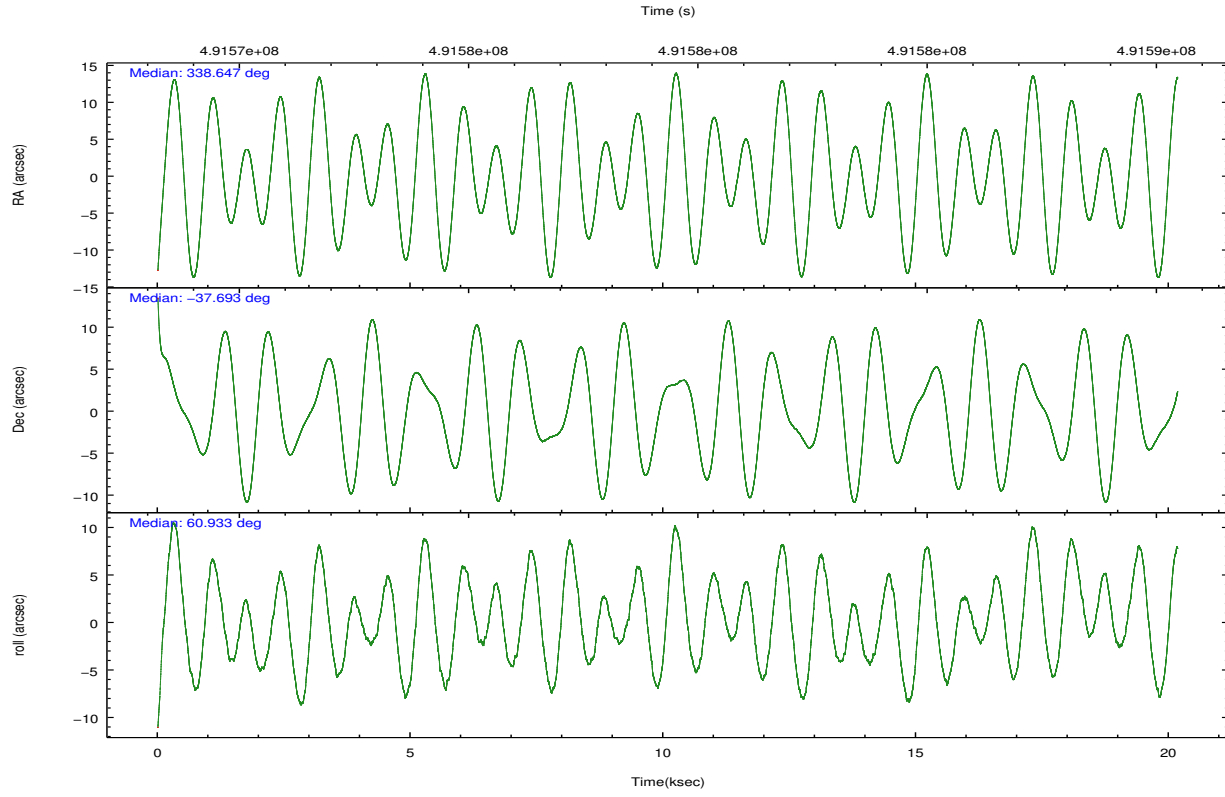
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	4186	5369	4627	27779	3941
	4%	5%	4%	22%	4%
grade 1 events	39	64	47	164	44
	0%	0%	0%	0%	0%
grade 2 events	2803	3204	2729	5470	2701
	3%	3%	2%	4%	2%
grade 3 events	1226	1227	1171	2027	1223
	1%	1%	1%	1%	1%
grade 4 events	1162	1254	1143	2081	1236
	1%	1%	1%	1%	1%
grade 5 events	4574	4864	4376	5317	5074
	5%	5%	4%	4%	5%
grade 6 events	2338	2761	2219	3219	2697
	2%	3%	2%	2%	2%
grade 7 events	72008	72819	80772	74982	81404
	81%	79%	83%	61%	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	338.648237	338.6475374313161	CCD I2 on	Y	Y
[deg] Pointing Dec	-37.720918	-37.69341002883634	CCD I3 on	Y	Y
[deg] Pointing Roll	60.725399	60.93366073286654	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	-225.840463	-225.8433433320239	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.752	-7.749109670905796	CCD S4 on	N	N
[s] Observation start time (MET)	491569435.184000	491568249.70108	CCD S5 on	N	N
Observation start date	2013-07-30T11:02:48	2013-07-30T10:44:09	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	491589435.184000	491590447.61479	On-chip summing requested	N	N
Observation end date	2013-07-30T16:36:08	2013-07-30T16:54:07	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





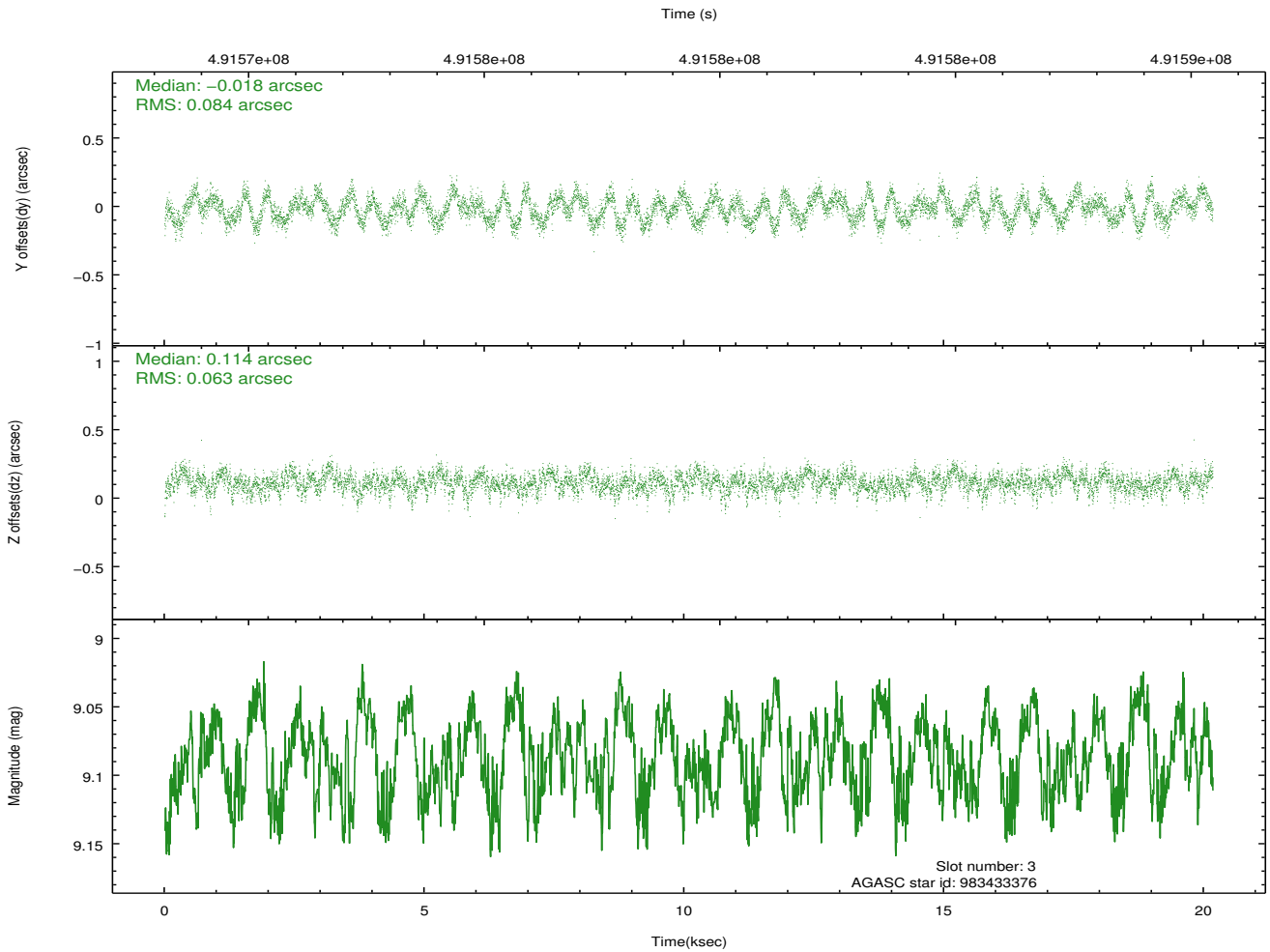
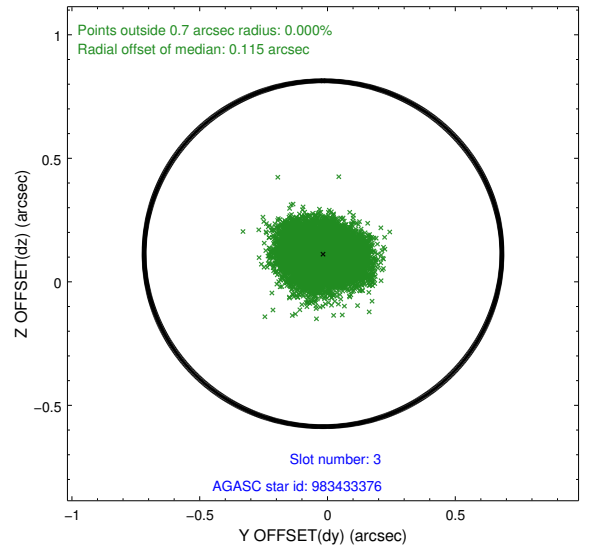
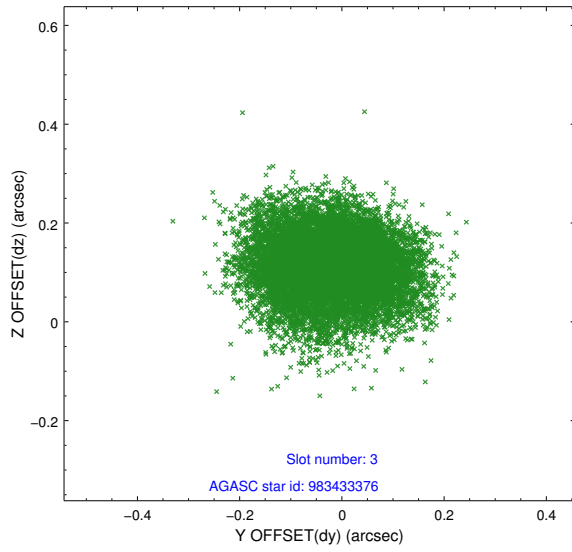
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.13	4921	0.104	-0.070	0.010	0.018	0.000000	0.000000	926.52	-996.89
1	FID		ACIS-I-5	7.12	4921	-0.275	0.083	0.019	0.034	0.000000	0.000000	-1821.93	900.55
2	FID		ACIS-I-6	7.14	4920	0.084	0.056	0.020	0.029	0.000000	0.000000	391.76	1545.31
3	GUIDE	used	983433376	9.09	9834	-0.018	0.114	0.114	0.176	338.939082	-37.440238	1287.09	-231.56
4	GUIDE	used	983434712	9.18	9832	-0.168	-0.206	0.090	0.147	338.908996	-37.173386	2084.51	310.70
5	GUIDE	used	1048183832	7.62	9841	0.116	-0.261	0.061	0.096	338.453292	-38.139600	-1584.54	-256.08
6	GUIDE	used	1048187632	8.52	9838	0.107	0.243	0.094	0.146	338.868127	-38.433041	-1933.42	-1795.31
7	GUIDE	used	1048192896	9.20	9824	-0.056	0.110	0.158	0.232	339.046086	-37.603839	920.43	-785.16

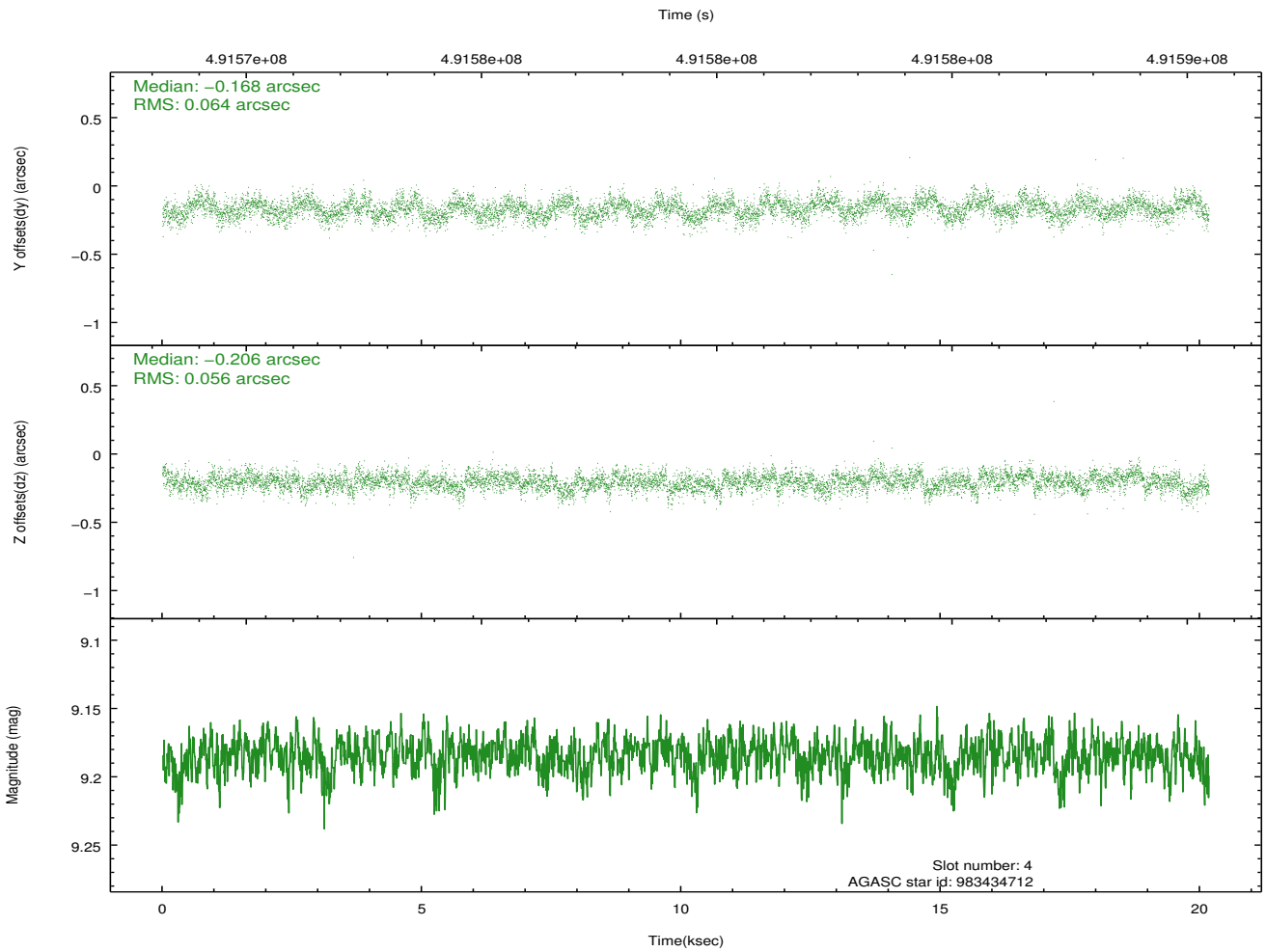
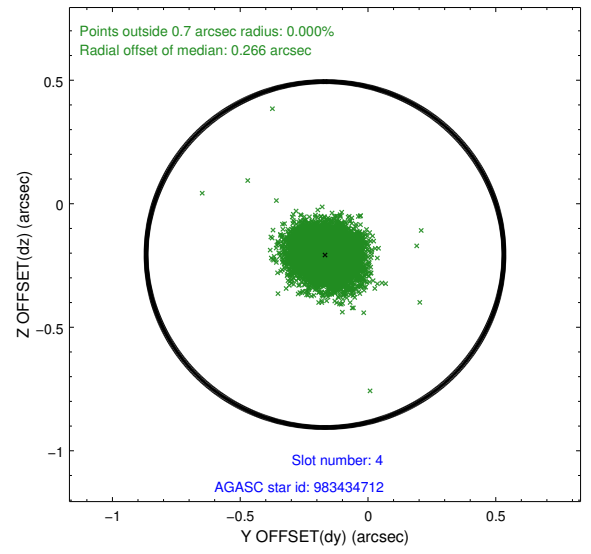
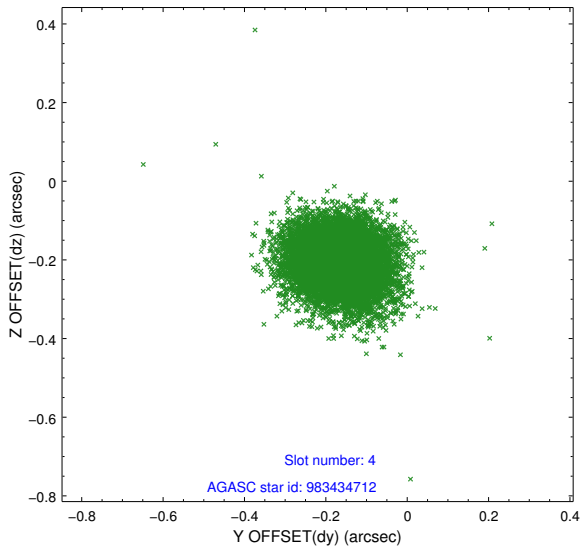
∞

2.4 Star Slots

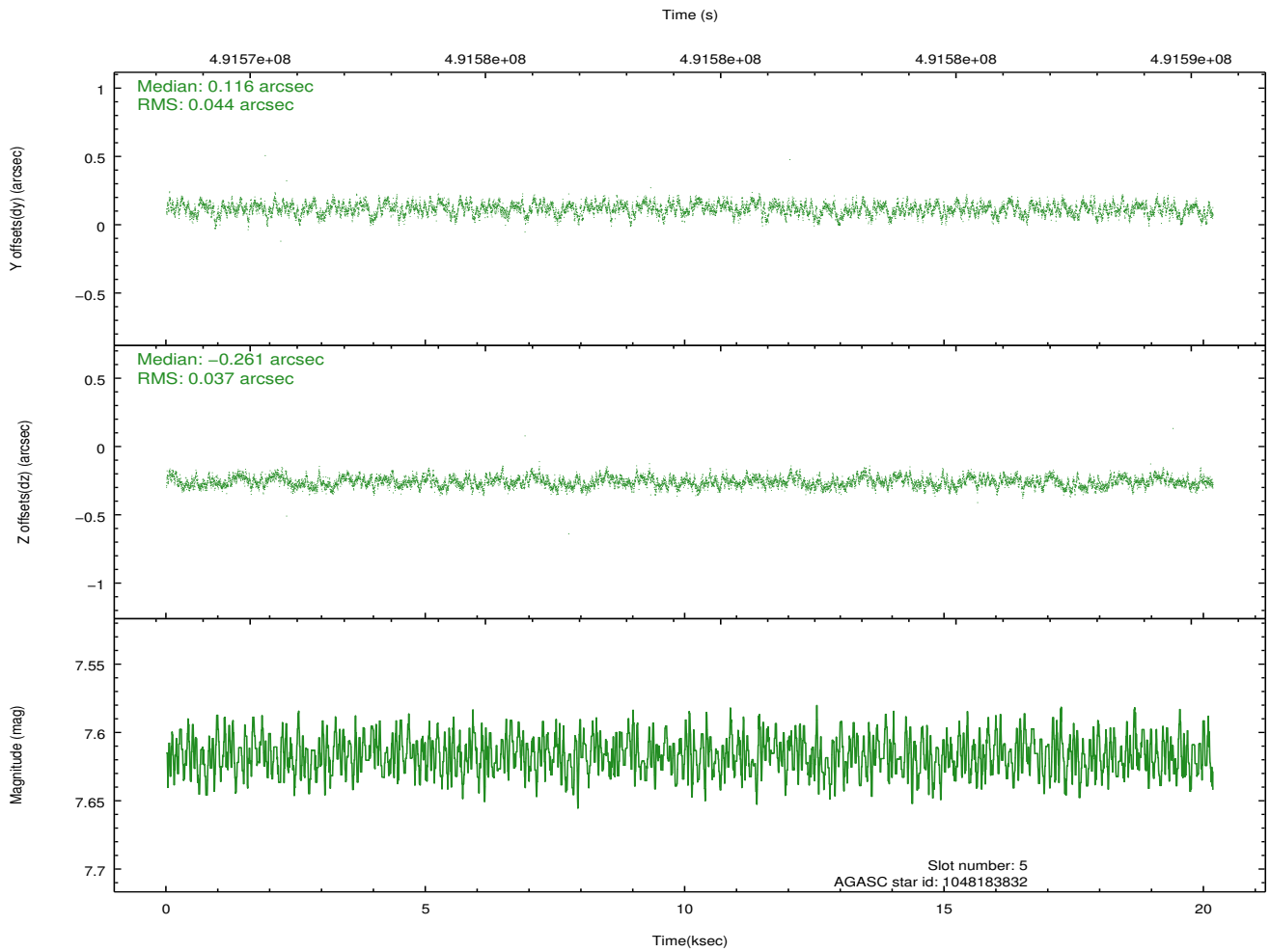
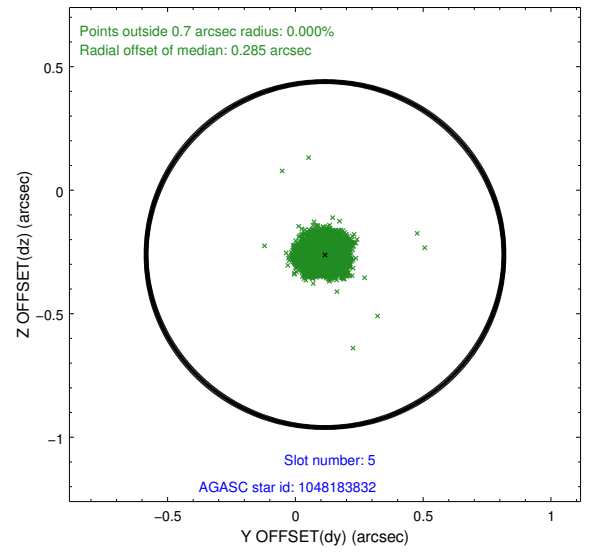
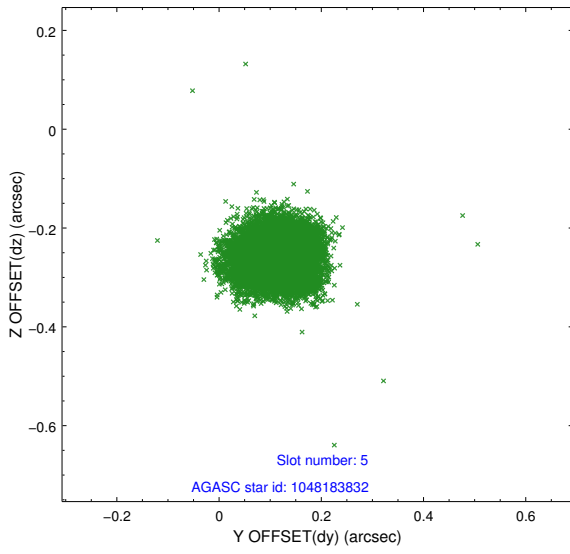
2.4.1 Slot 3



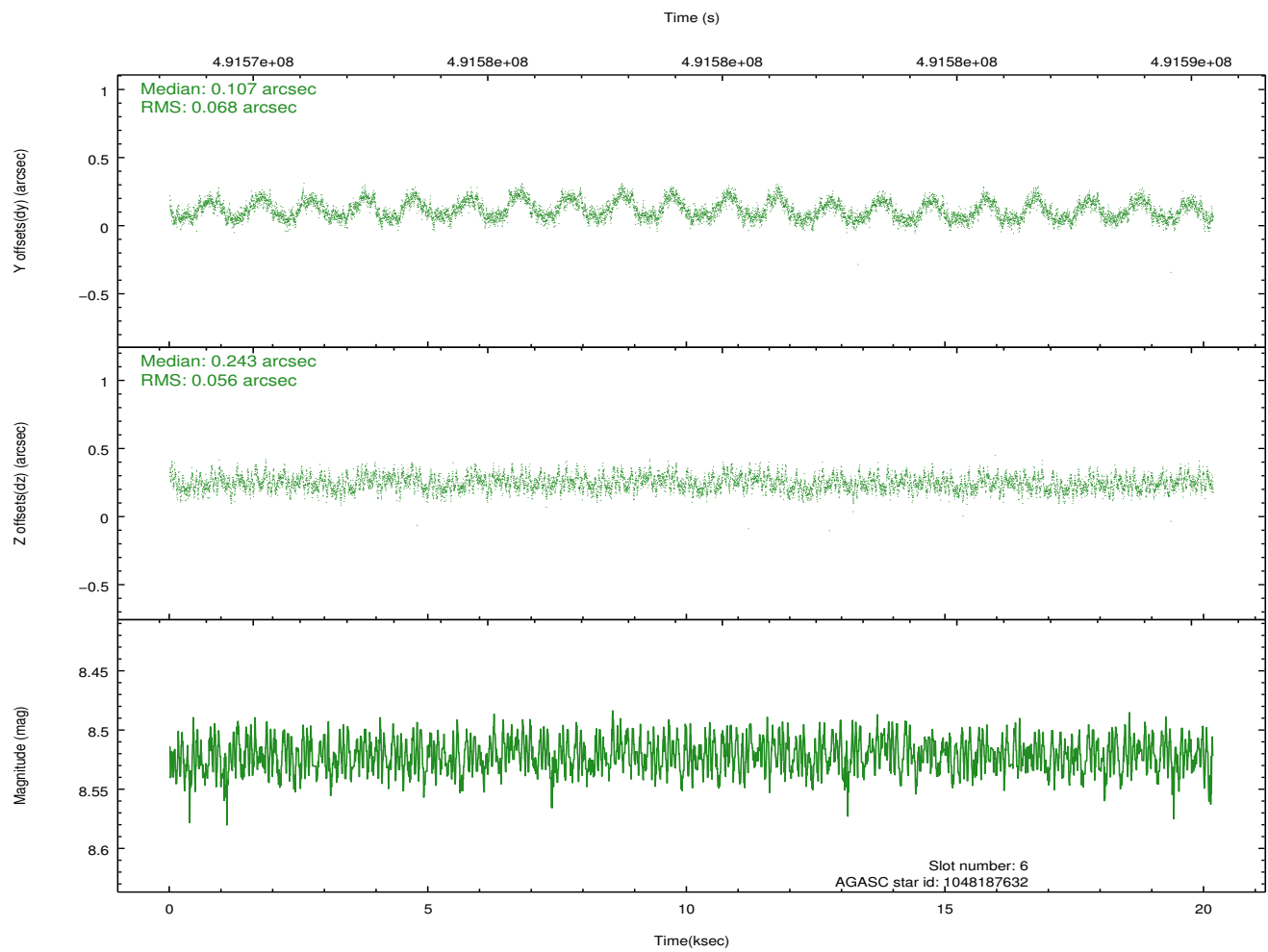
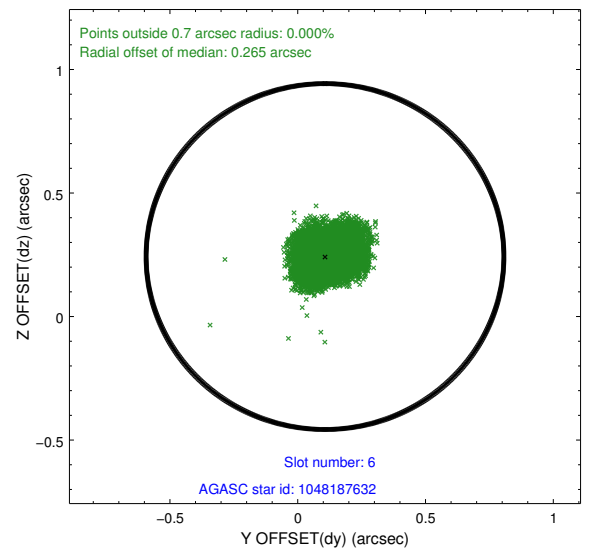
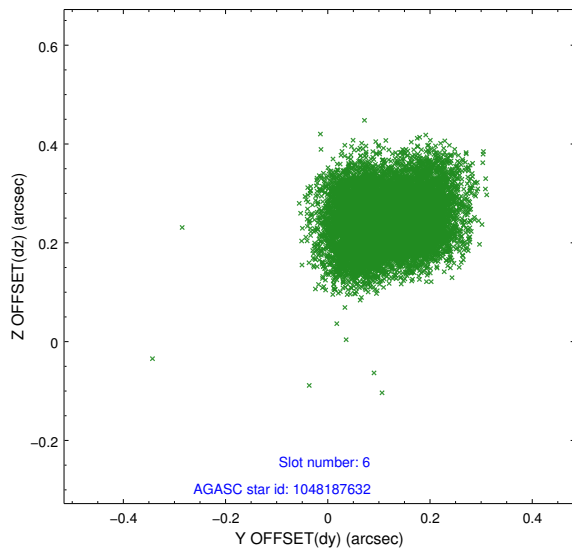
2.4.2 Slot 4



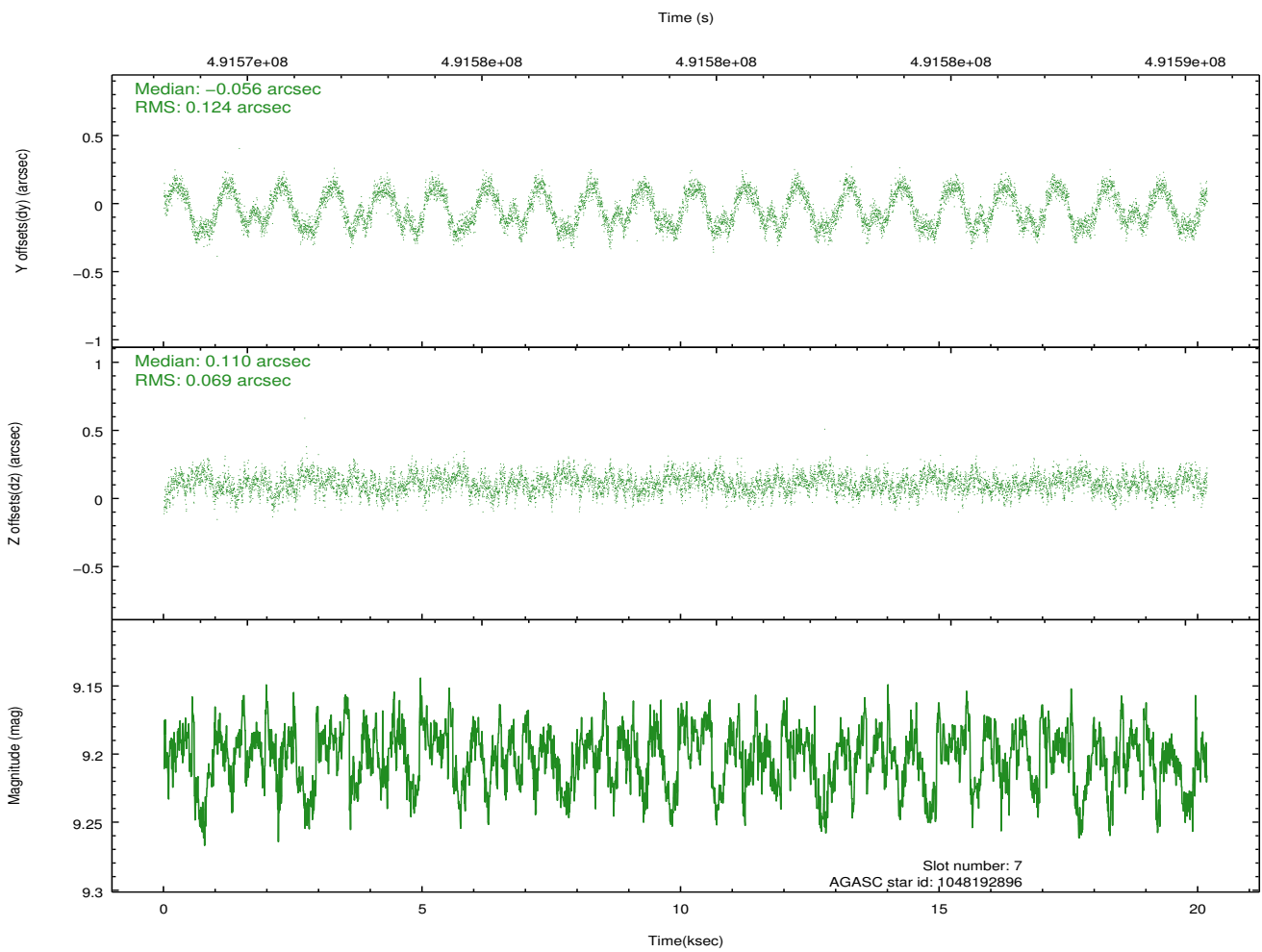
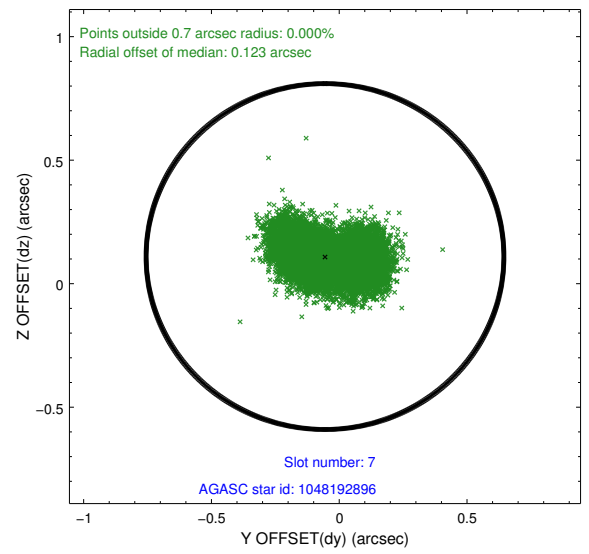
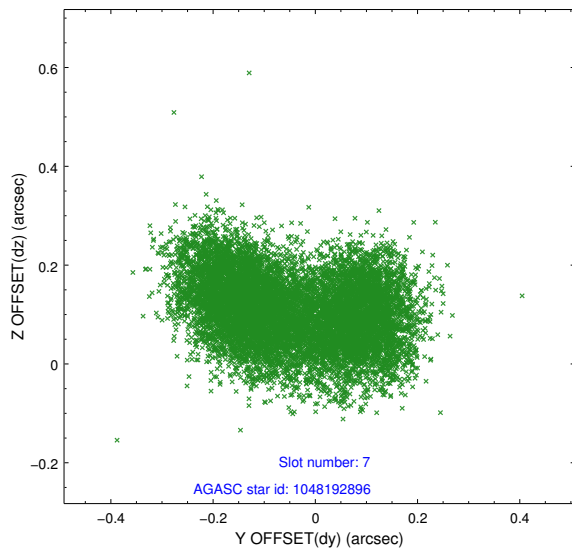
2.4.3 Slot 5



2.4.4 Slot 6

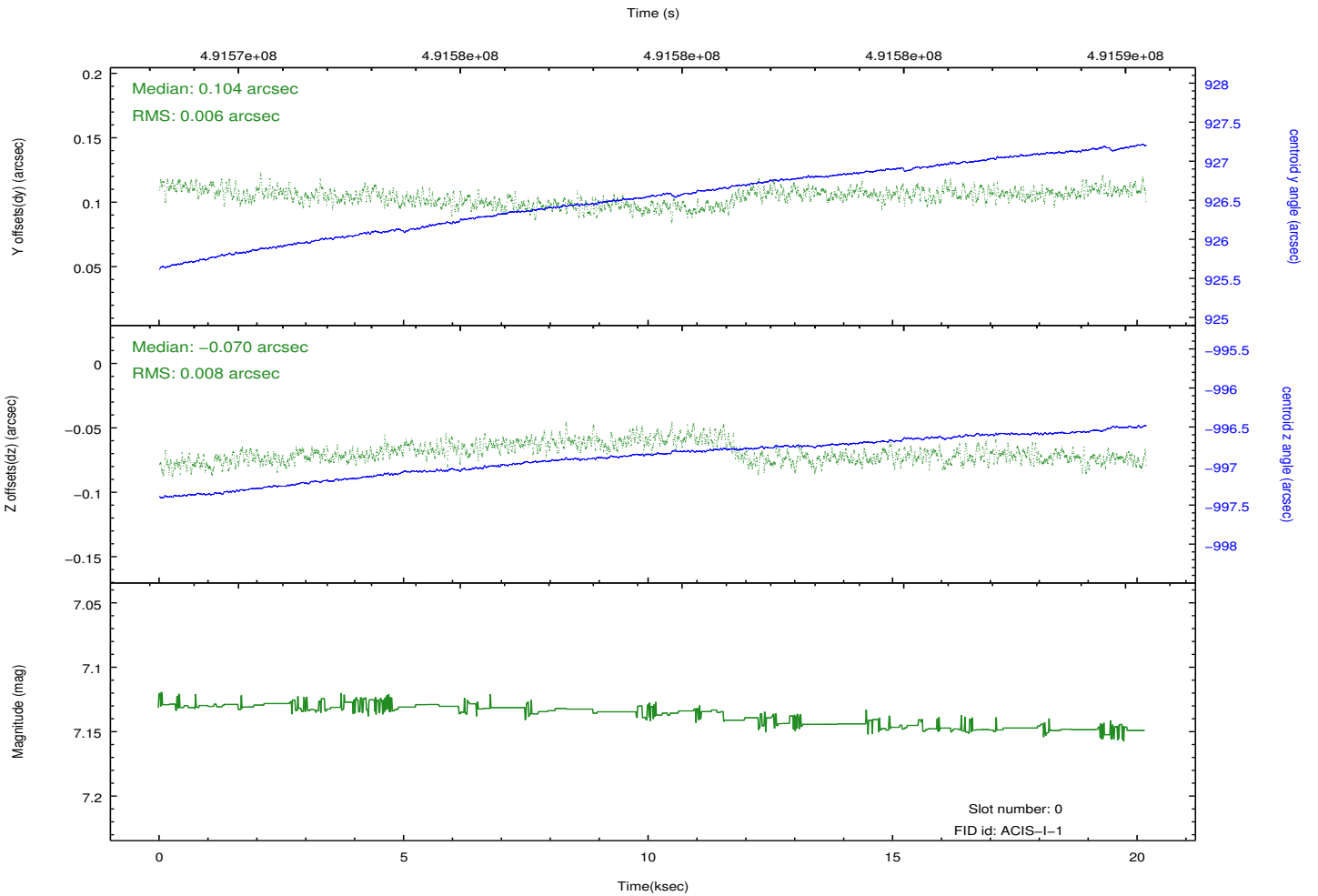
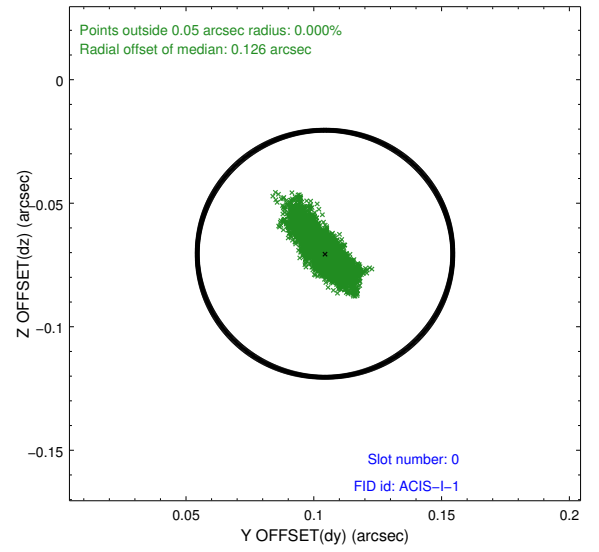
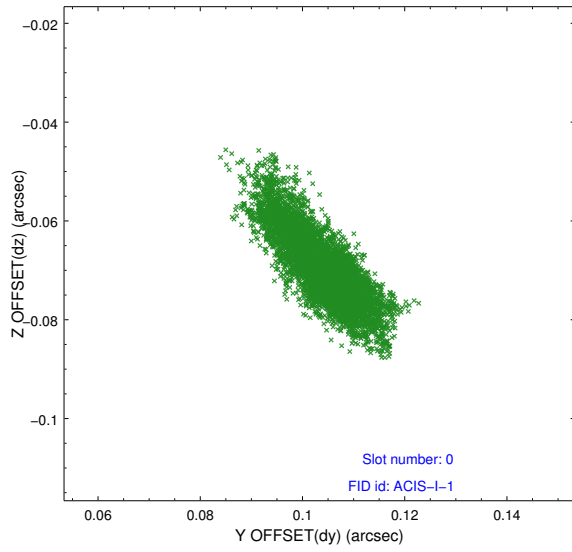


2.4.5 Slot 7

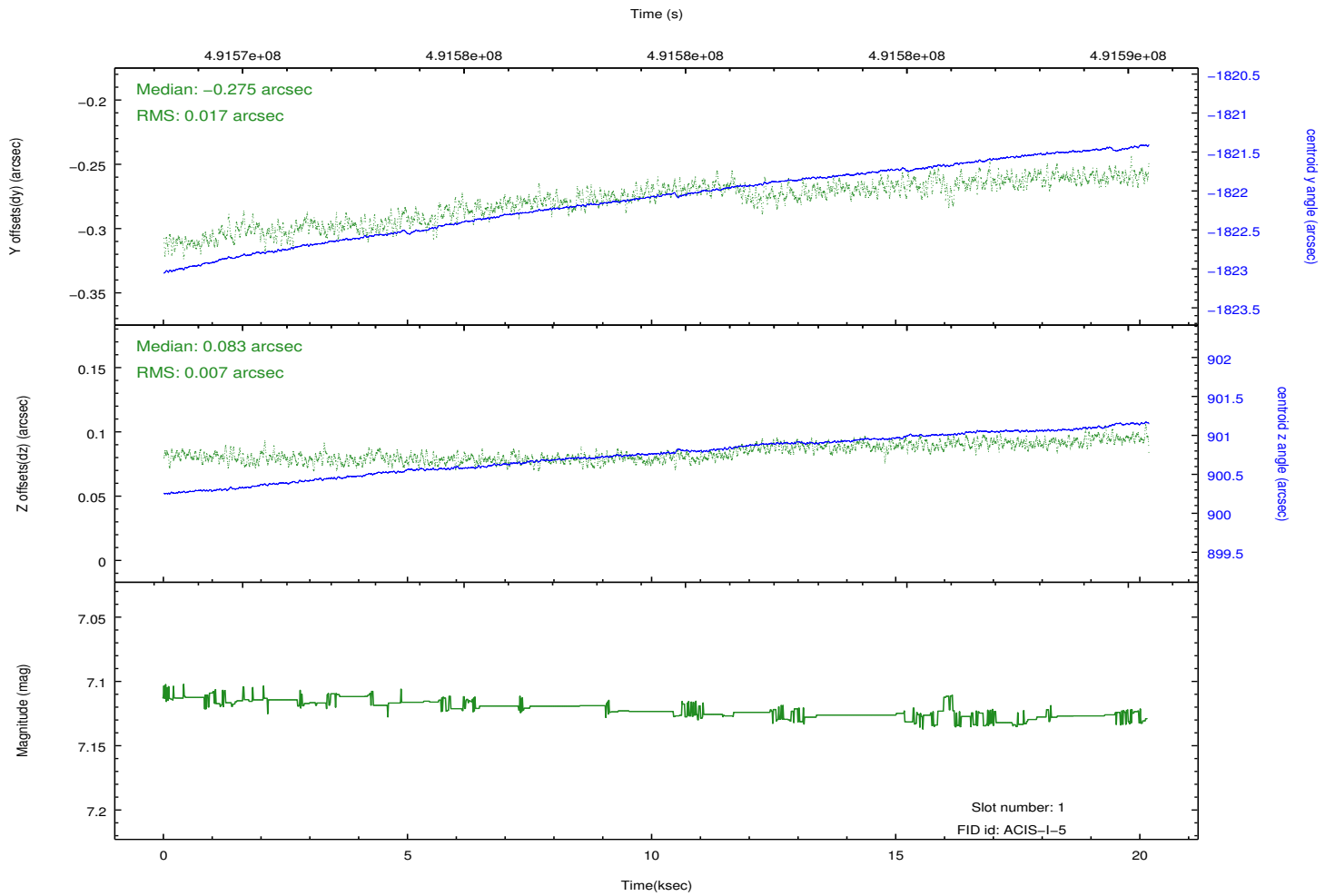
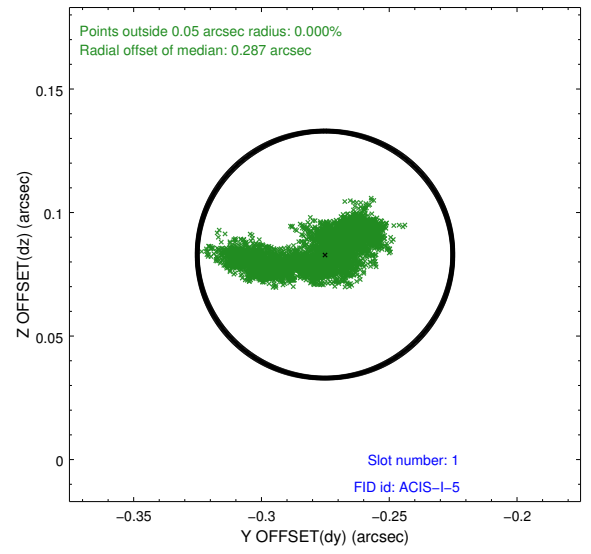
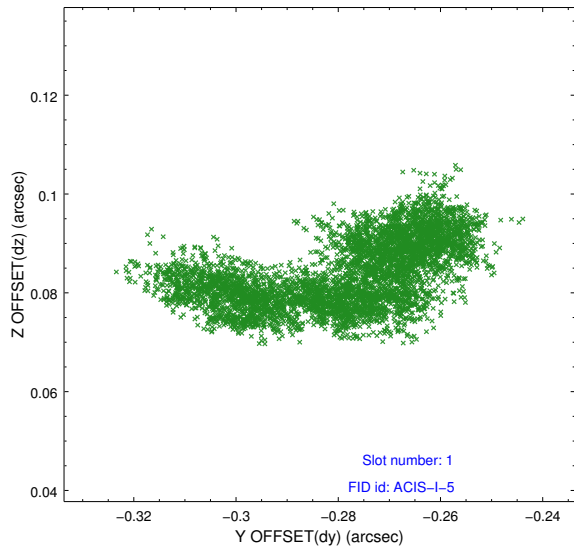


2.5 FID Slots

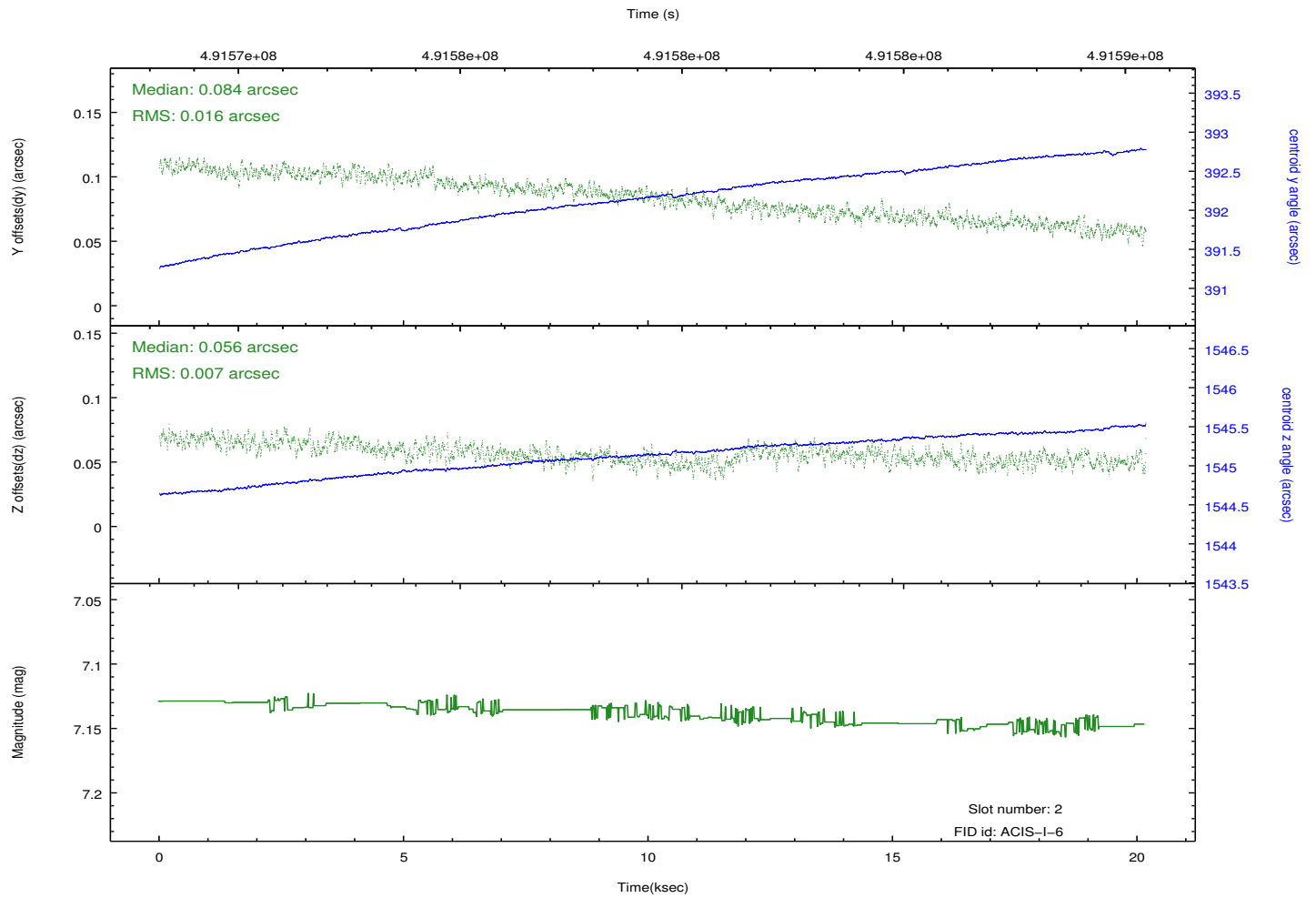
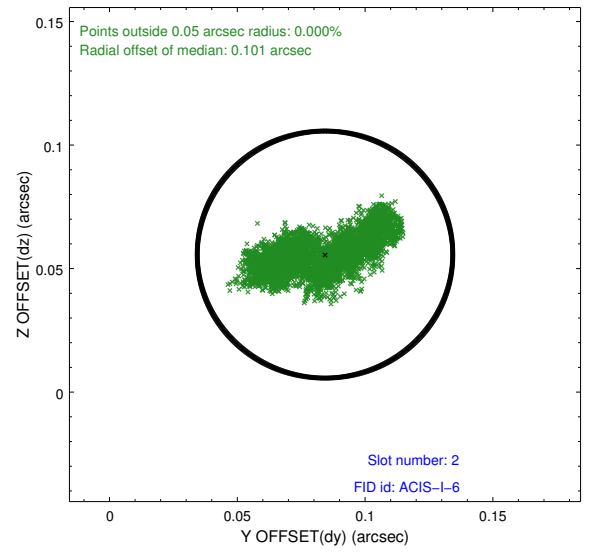
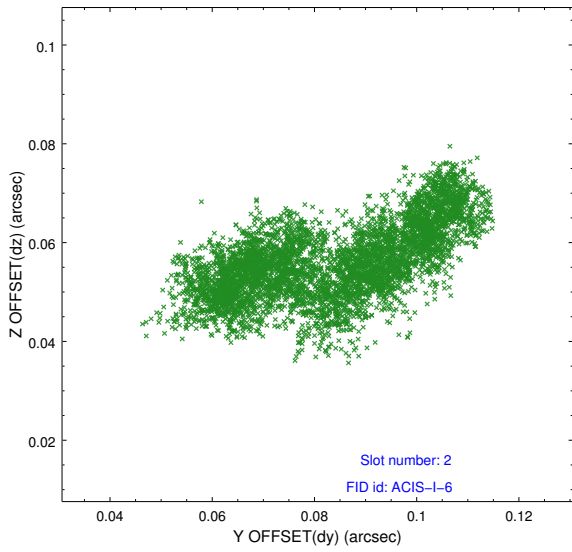
2.5.1 Slot 0



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)	2014.12.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.084900154471

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.