

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 15315 - L2 Version 3
Chandra X-Ray Center

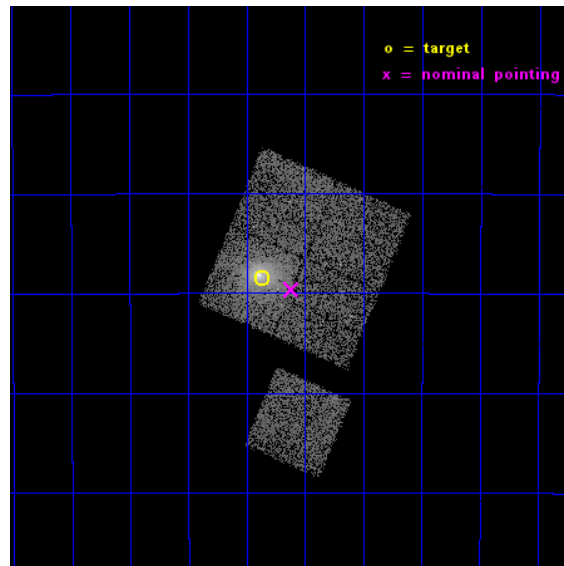
L2 Processing Date : Dec 3 2014

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 7	12
2.5	FID Slots	13
2.5.1	Slot 0	13
2.5.2	Slot 1	14
2.5.3	Slot 2	15
A	Summary	16
A.1	Status	16
A.2	Comments	16

1 Front

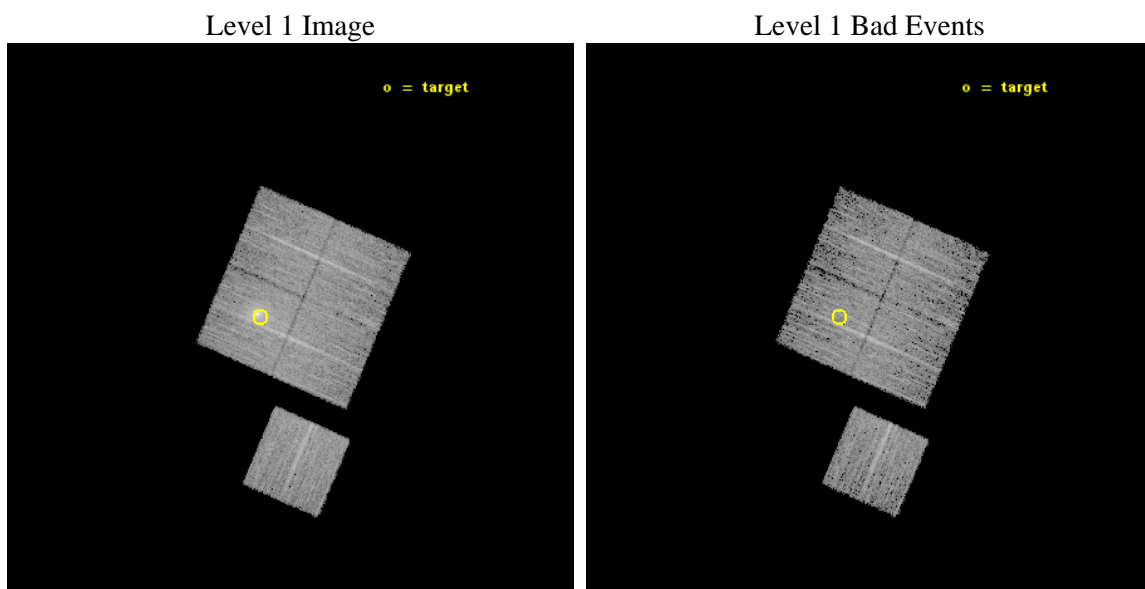
seq_num	801348	Sequence number
obs_id	15315	Observation id
title	Characterizing the Most Massive Clusters in the z	Proposal title
observer	Dr Stephen Murray	Principal investigator
object	G241.77-24.00	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	91.46625	Observer's specified target RA [deg]
dec_targ	-35.307306	Observer's specified target Dec [deg]
ra_nom	91.404110431399	Nominal RA [deg]
dec_nom	-35.327005055753	Nominal Dec [deg]
roll_nom	203.23611710211	Nominal Roll [deg]
revision	3	Processing version of data
ontime	10083.373066425	Sum of GTIs [s]
livetime	9951.6263740412	Livetime [s]
ontime0	10083.249946415	Sum of GTIs [s]
ontime1	10083.290986419	Sum of GTIs [s]
ontime2	10083.332026422	Sum of GTIs [s]
ontime3	10083.373066425	Sum of GTIs [s]
ontime6	10083.208906412	Sum of GTIs [s]
l2events	37425	Number of level 2 events



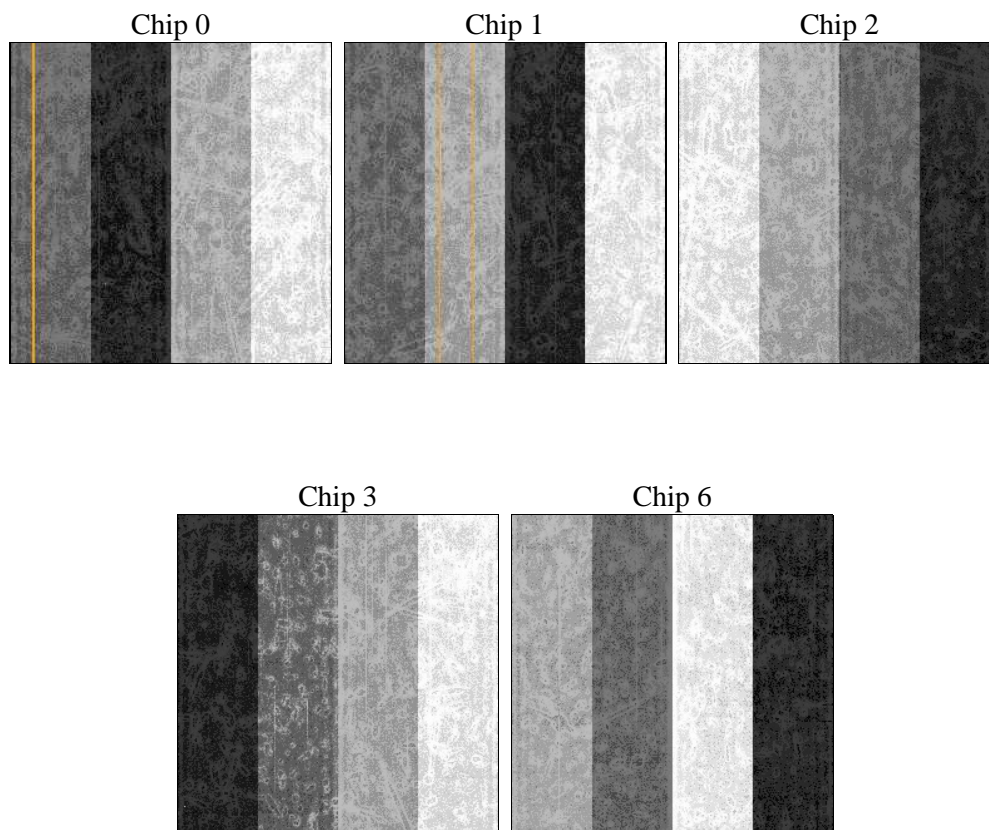
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	10083.373066425	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	10083.249946415	Sum of GTIs [s]
date	2014-12-03T23:31:27	Date and time of file creation	ontime1	10083.290986419	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	10083.332026422	Sum of GTIs [s]
			ontime3	10083.373066425	Sum of GTIs [s]
			ontime6	10083.208906412	Sum of GTIs [s]
			l1events	242354	Number of level 1 events

2.1.4 Events

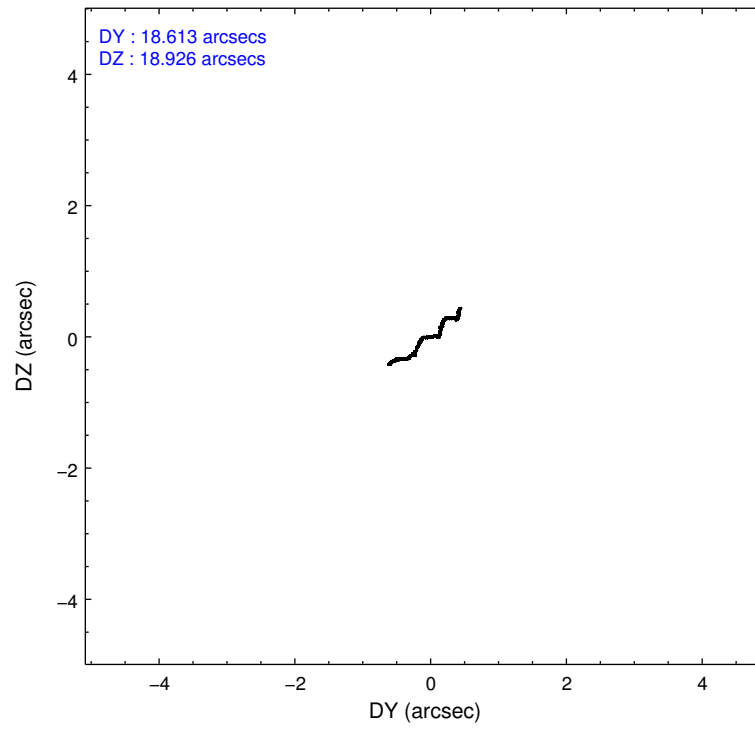
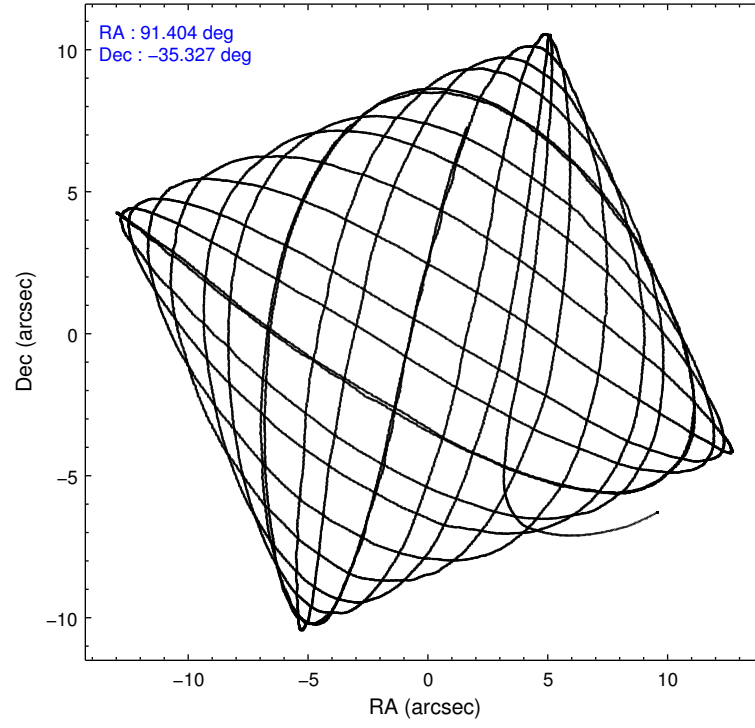
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	43518	43944	48606	58710	47576
rejected events	37579	36993	42497	41120	41719
rejected %	86%	84%	87%	70%	87%

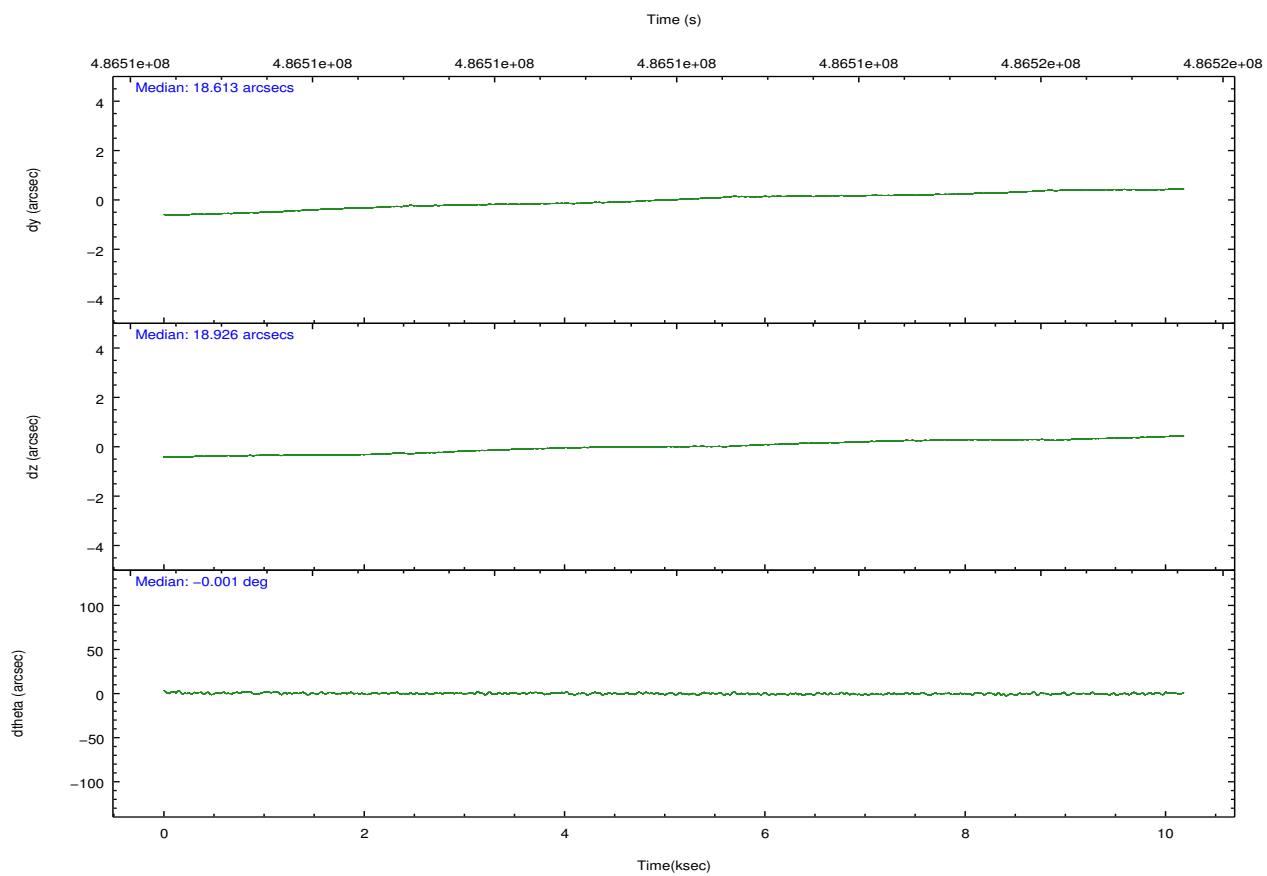
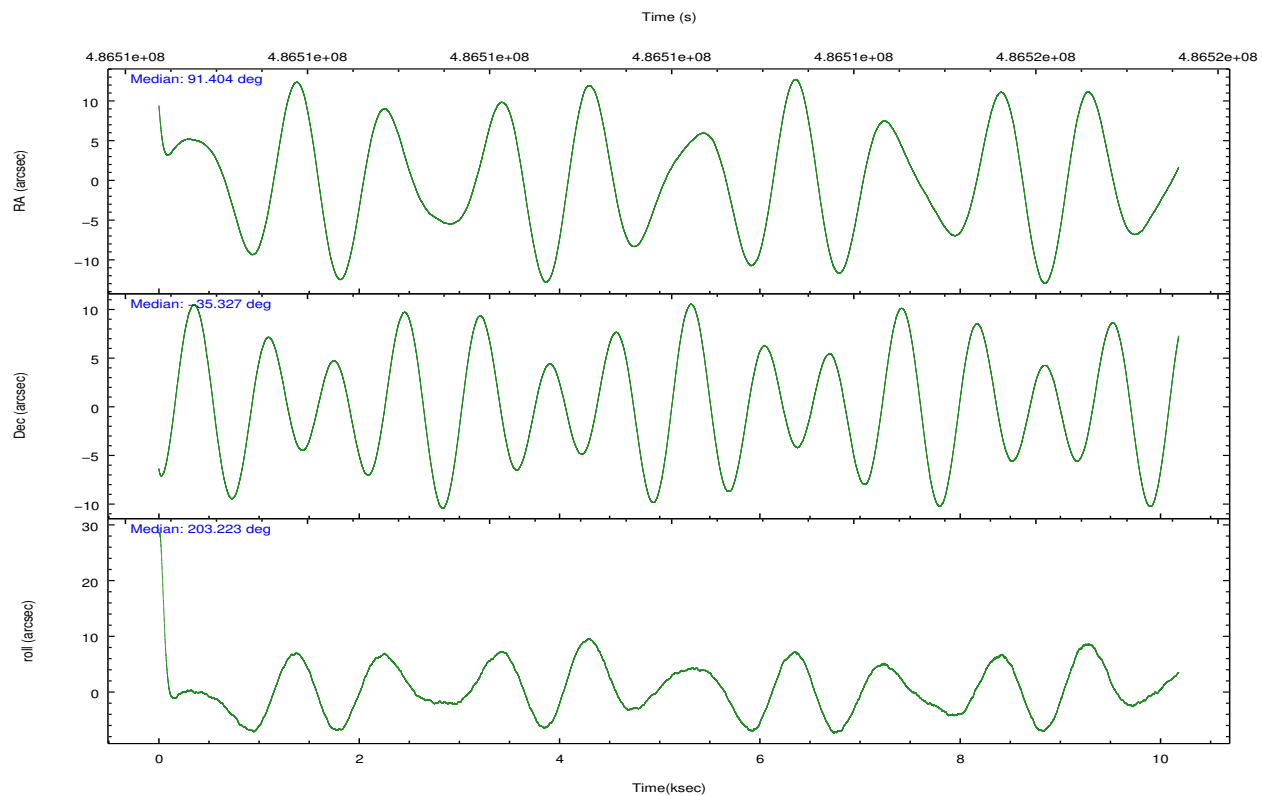
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	2190	2559	2399	11759	2101
	5%	5%	4%	20%	4%
grade 1 events	33	31	29	58	27
	0%	0%	0%	0%	0%
grade 2 events	1452	1714	1428	2428	1329
	3%	3%	2%	4%	2%
grade 3 events	648	631	540	983	589
	1%	1%	1%	1%	1%
grade 4 events	530	630	587	983	599
	1%	1%	1%	1%	1%
grade 5 events	2292	2461	2151	2662	2569
	5%	5%	4%	4%	5%
grade 6 events	1125	1419	1159	1452	1242
	2%	3%	2%	2%	2%
grade 7 events	35248	34499	40313	38385	39120
	80%	78%	82%	65%	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	91.424154	91.40411043139865	CCD I2 on	Y	Y
[deg] Pointing Dec	-35.304891	-35.32700505575281	CCD I3 on	Y	Y
[deg] Pointing Roll	203.038993	203.2361171021114	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	-225.8458576473255	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.752	-7.746595355604228	CCD S4 on	N	N
[s] Observation start time (MET)	486507062.184000	486506001.4634	CCD S5 on	N	N
Observation start date	2013-06-01T20:49:55	2013-06-01T20:33:21	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	486517062.184000	486517880.70154	On-chip summing requested	N	N
Observation end date	2013-06-01T23:36:35	2013-06-01T23:51:20	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



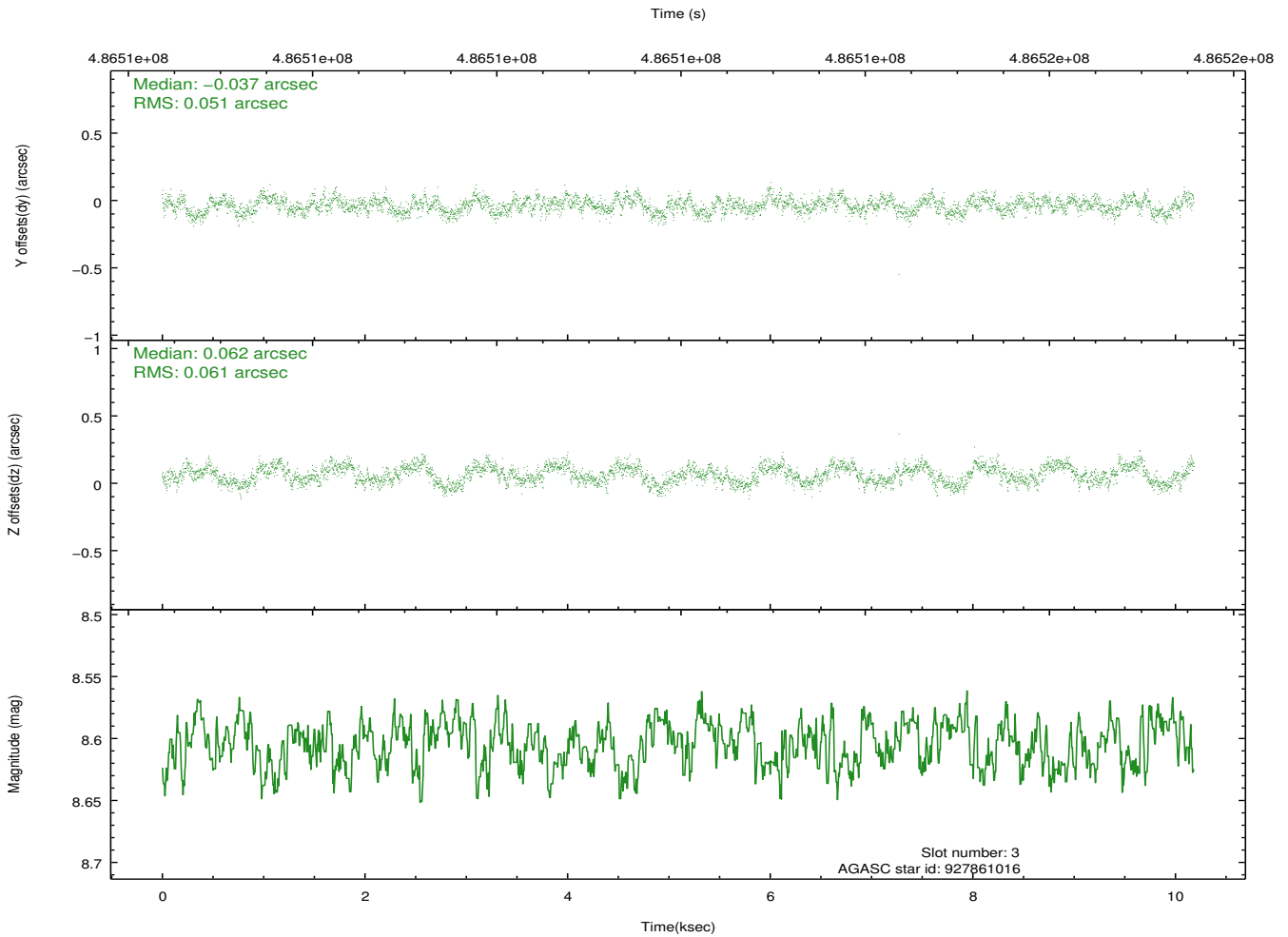
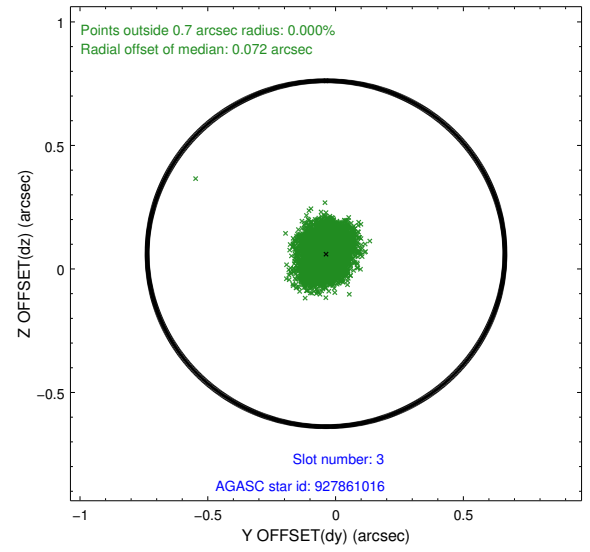
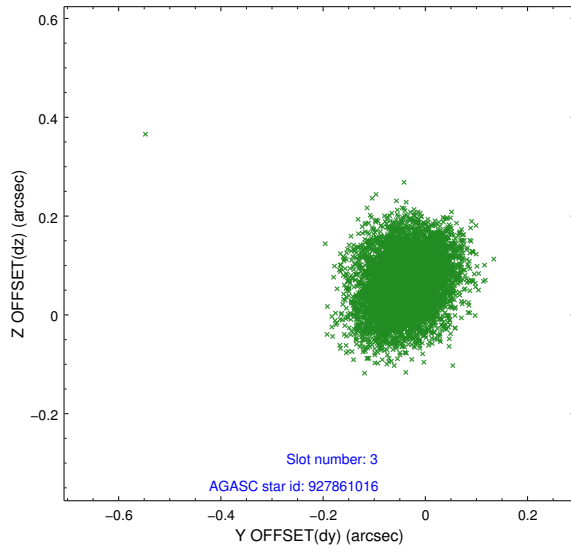


Slot Statistics

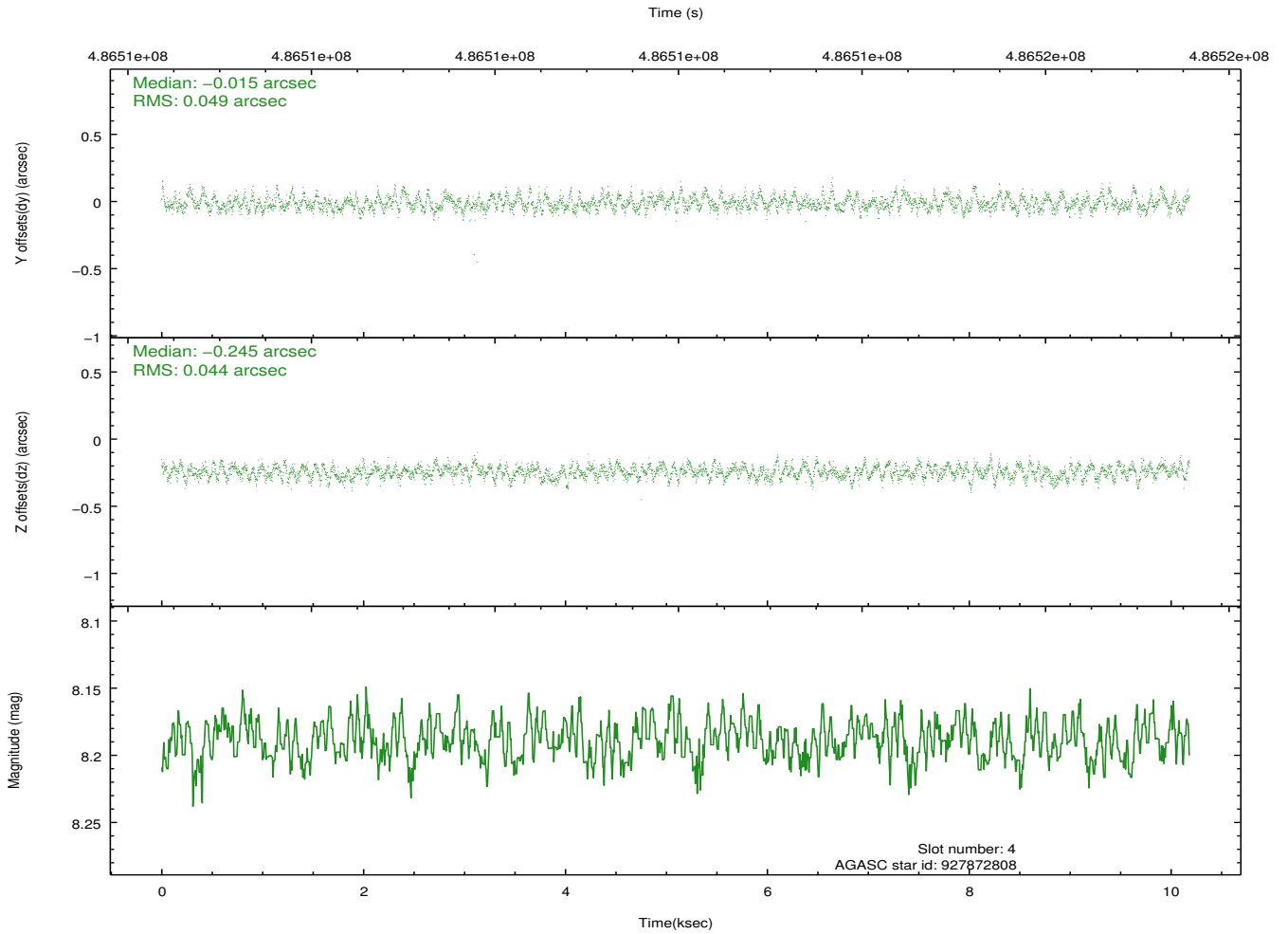
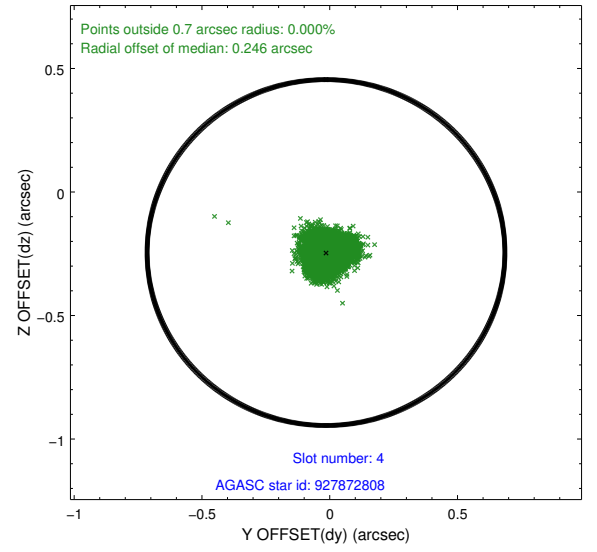
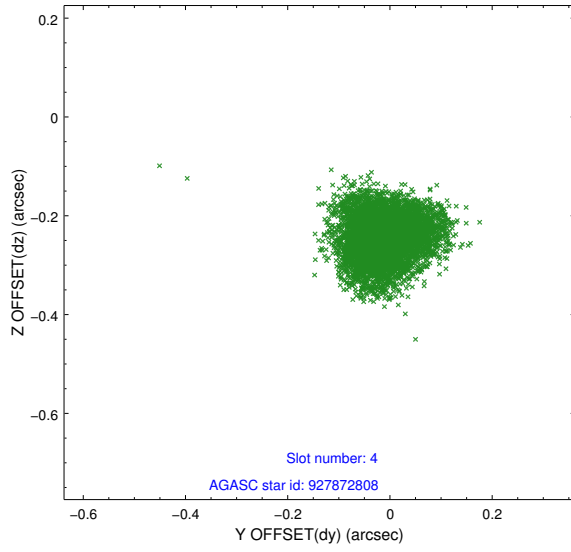
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	BAD		ACIS-I-4	6.97	2303	-0.089	0.255	0.062	0.092	0.000000	0.000000	2140.11	899.44
1	FID		ACIS-I-5	7.04	2484	-0.209	-0.025	0.012	0.021	0.000000	0.000000	-1826.90	896.28
2	FID		ACIS-I-6	7.06	2484	0.146	0.073	0.012	0.021	0.000000	0.000000	385.78	1540.67
3	GUIDE	used	927861016	8.60	4967	-0.037	0.062	0.086	0.131	90.996996	-35.118457	897.02	-1105.01
4	GUIDE	used	927872808	8.19	4967	-0.015	-0.245	0.071	0.111	91.871506	-35.224616	-1321.87	252.03
5	GUIDE	used	927872816	8.51	4964	0.111	-0.010	0.078	0.130	91.602635	-34.723224	-1304.49	-1719.00
6	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
7	GUIDE	used	927874824	6.96	4967	-0.061	0.193	0.053	0.084	91.923027	-34.639966	-2294.78	-1620.52

2.4 Star Slots

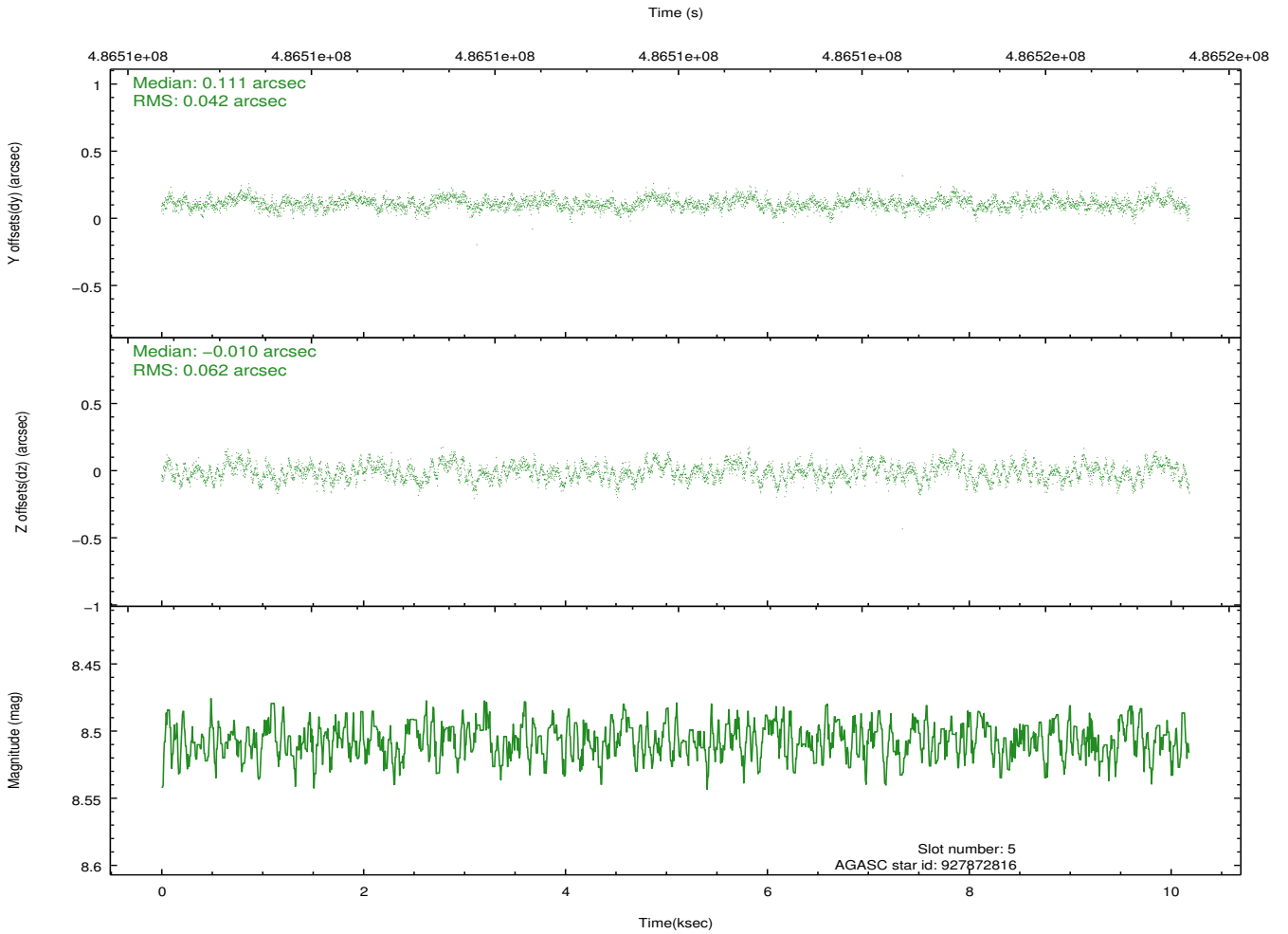
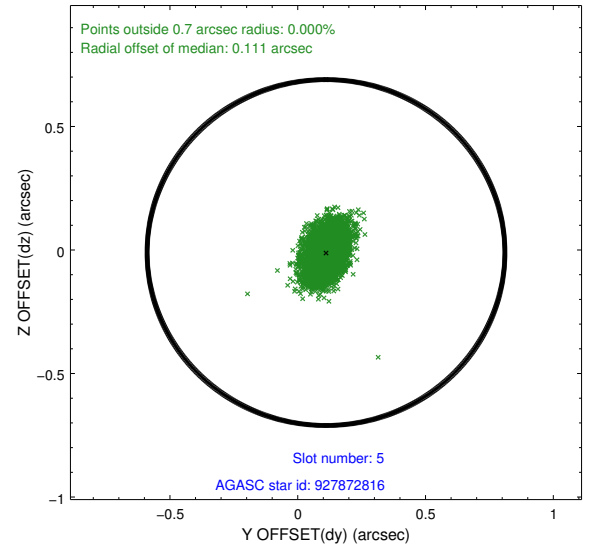
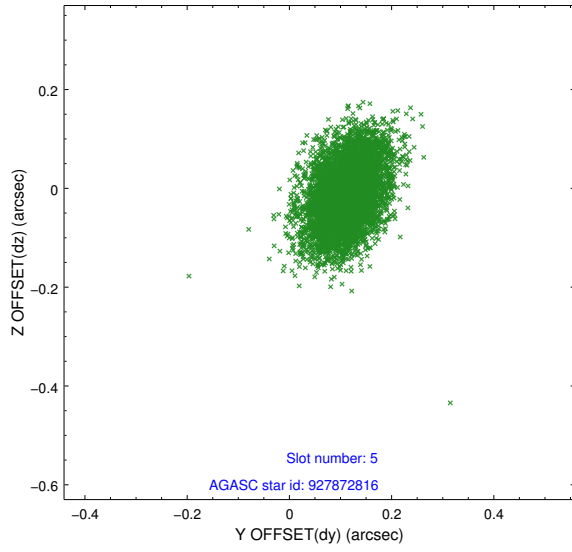
2.4.1 Slot 3



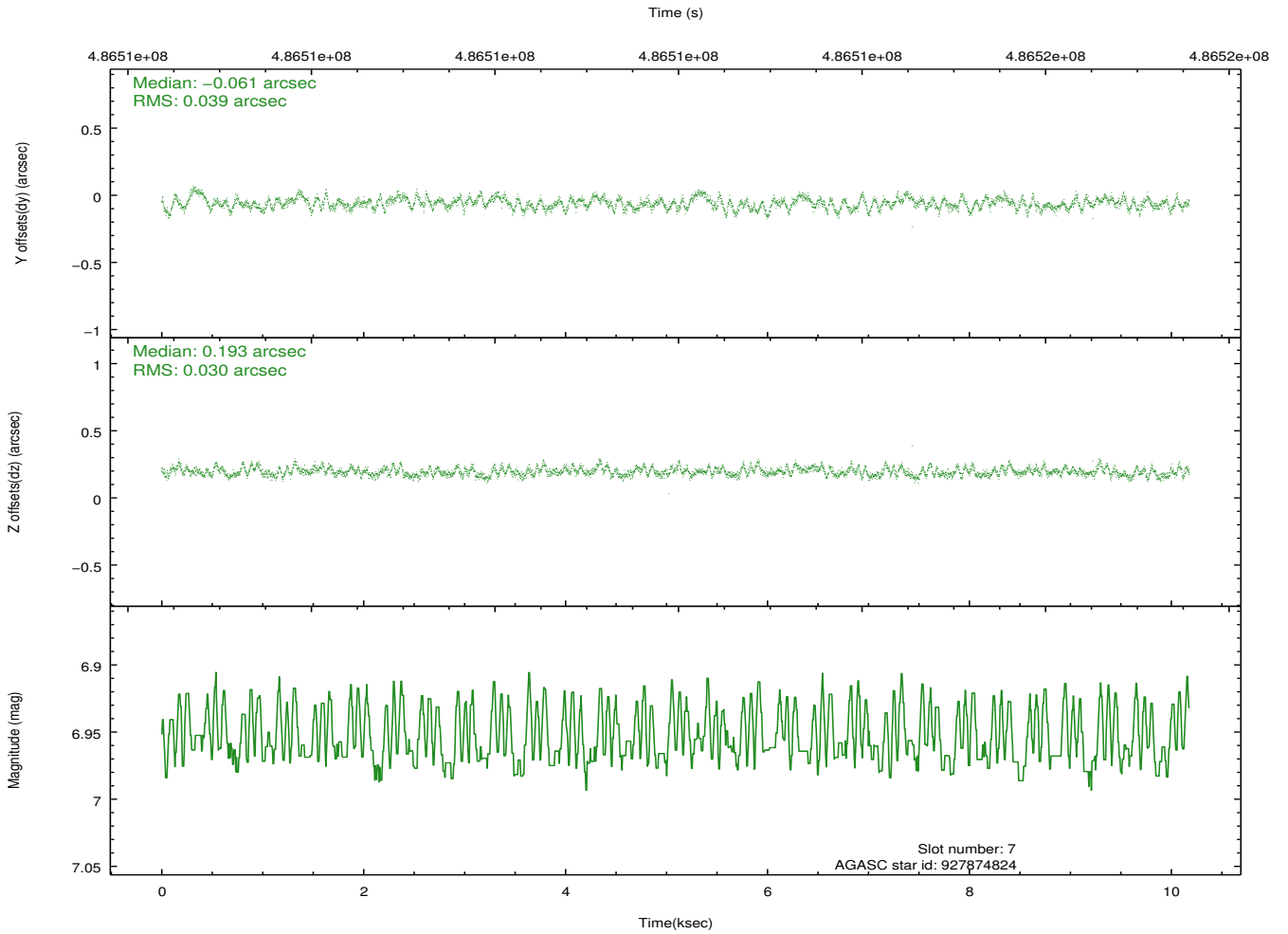
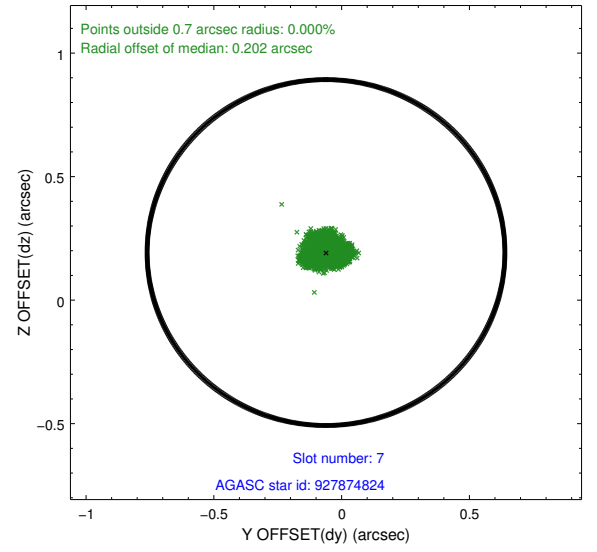
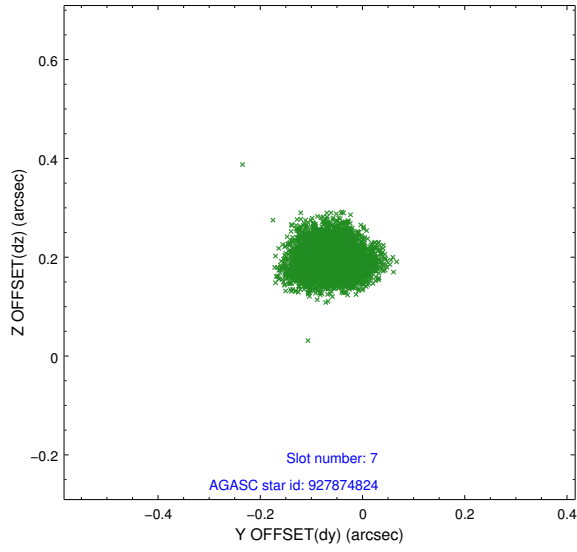
2.4.2 Slot 4



2.4.3 Slot 5

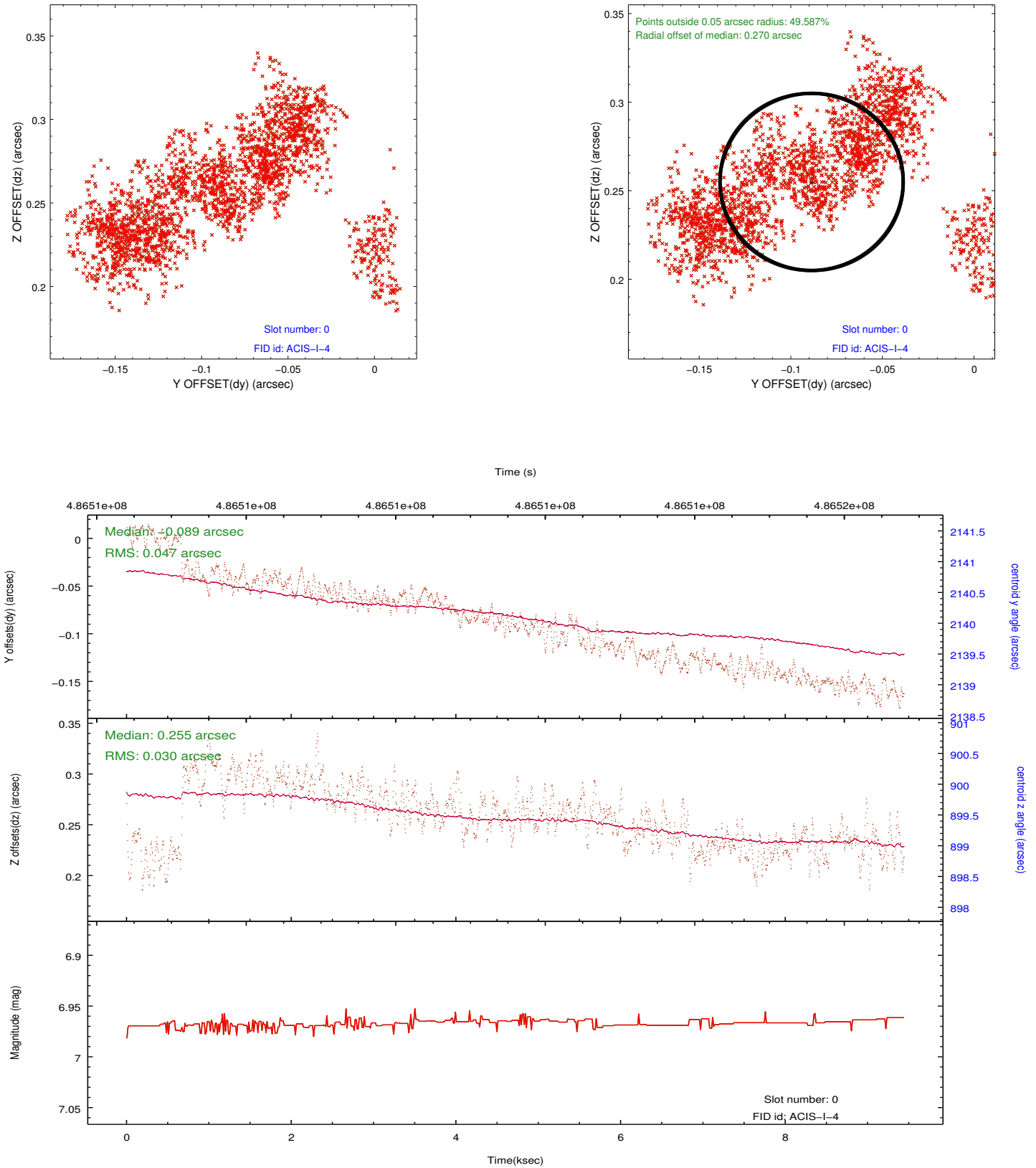


2.4.4 Slot 7

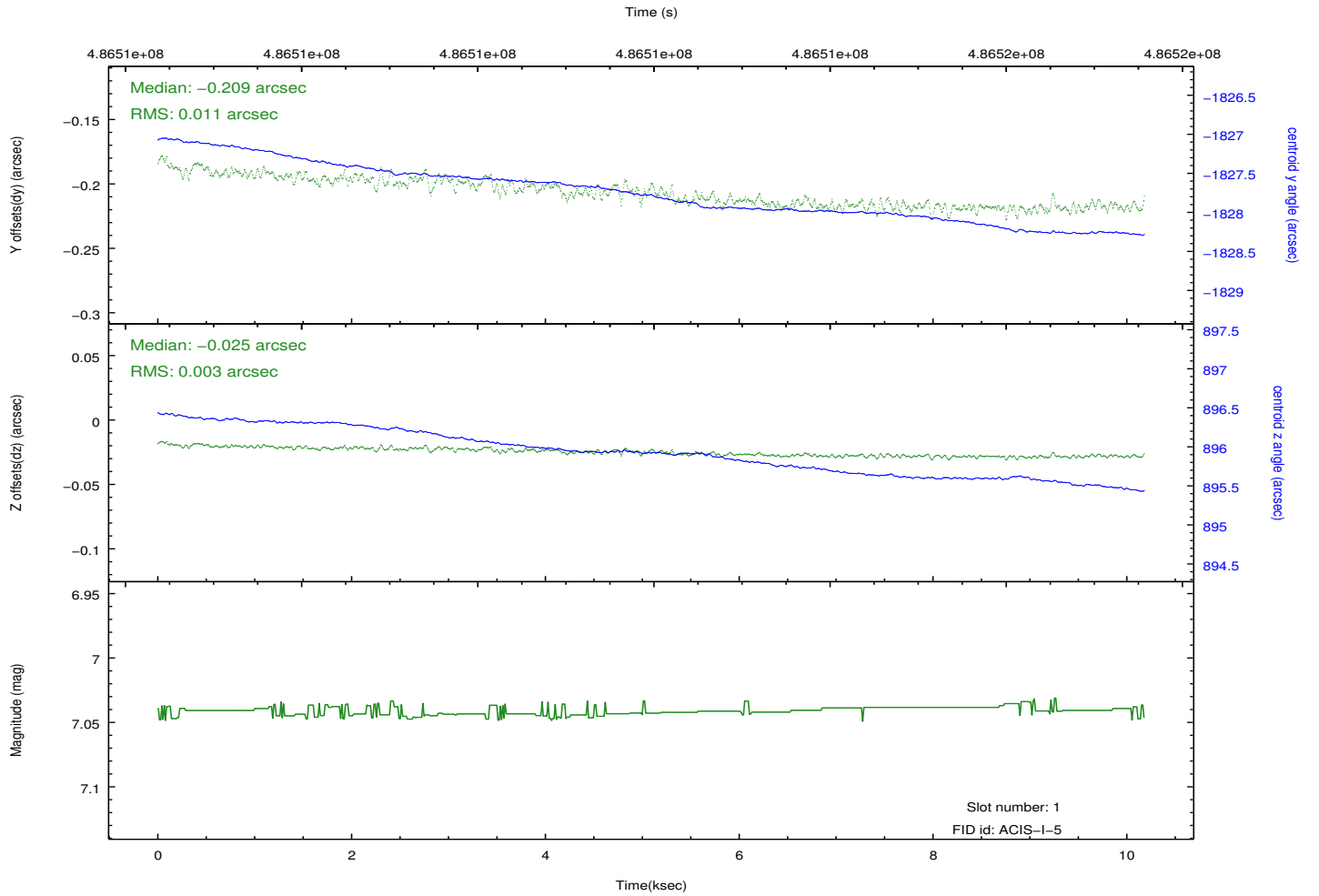
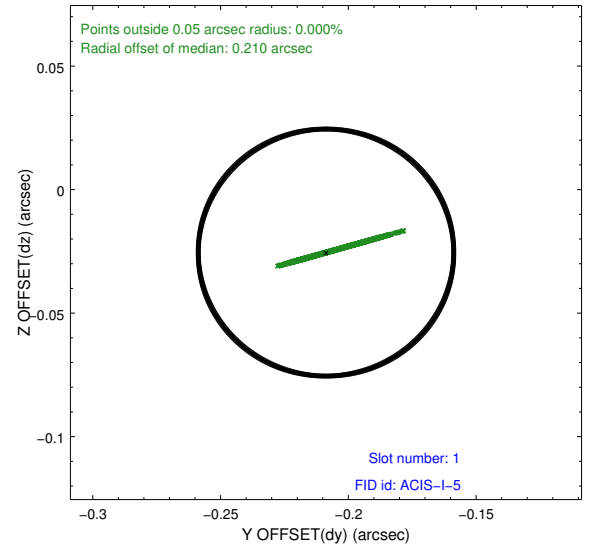
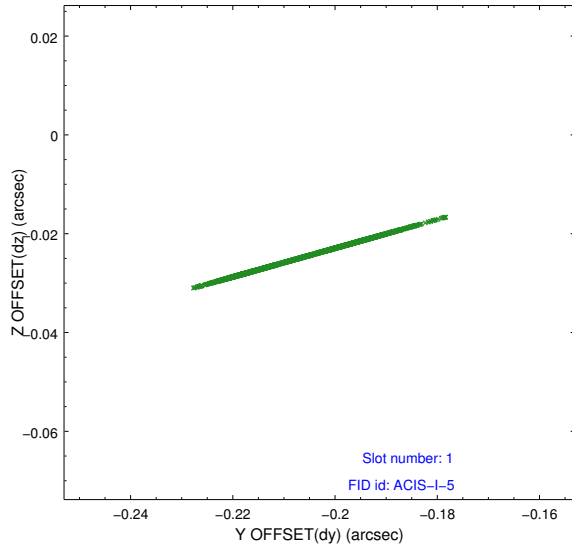


2.5 FID Slots

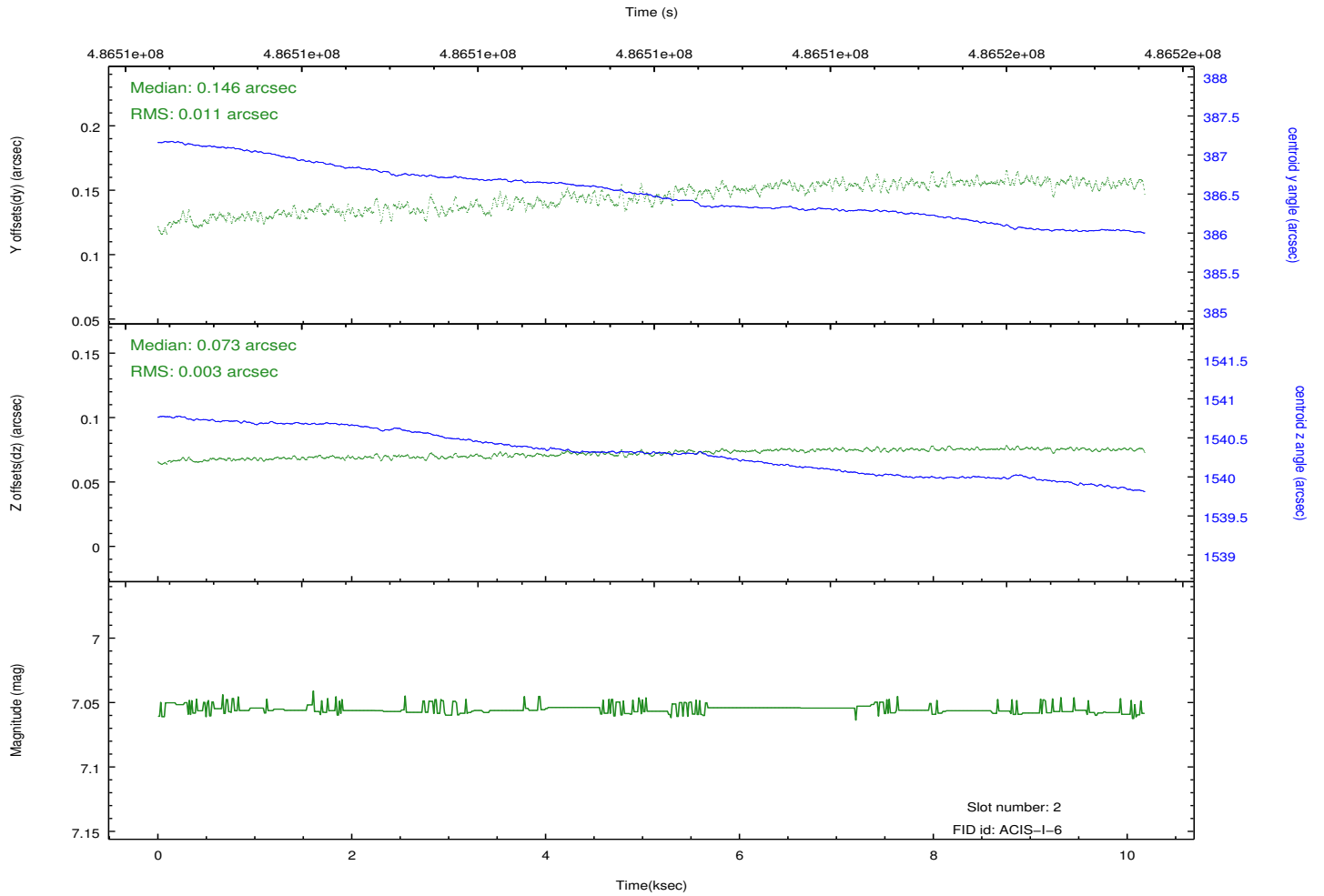
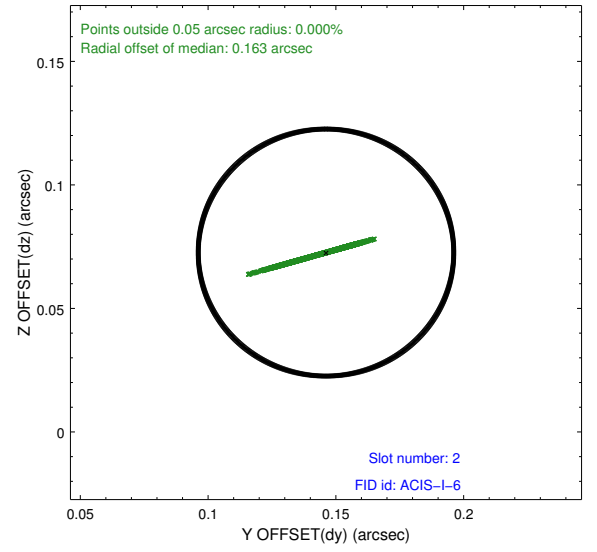
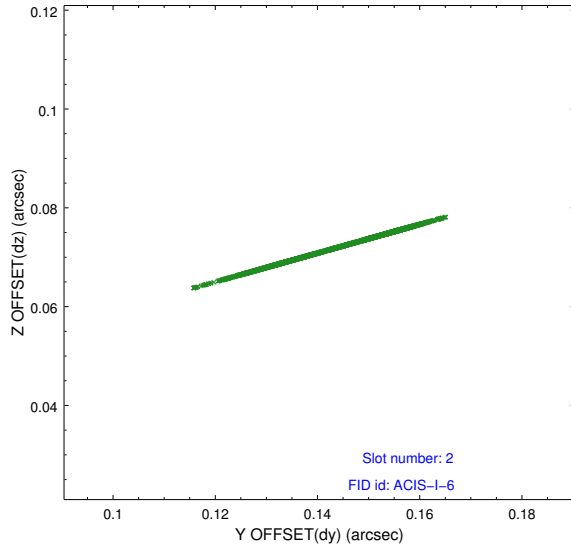
2.5.1 Slot 0



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	10.083373066425

A.2 Comments

The guide star in slot 6 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this star from the solution.

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.