

V&V Reference Report

L2 ASCDS Version : 10.2.2

Observation 16618 - L2 Version 2
Chandra X-Ray Center

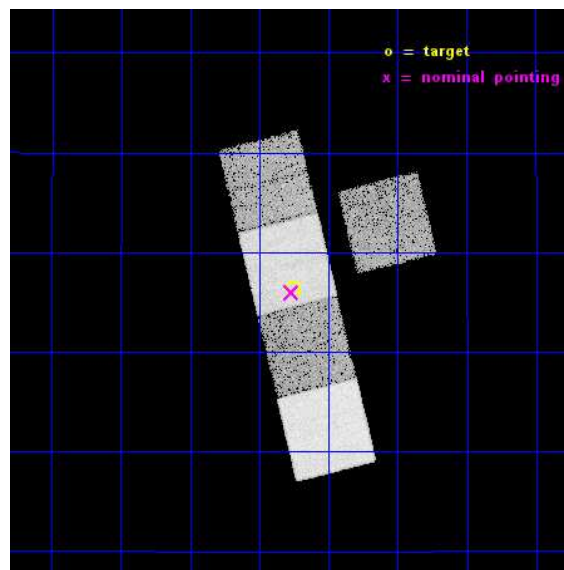
L2 Processing Date : Dec 11 2014

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1 Front

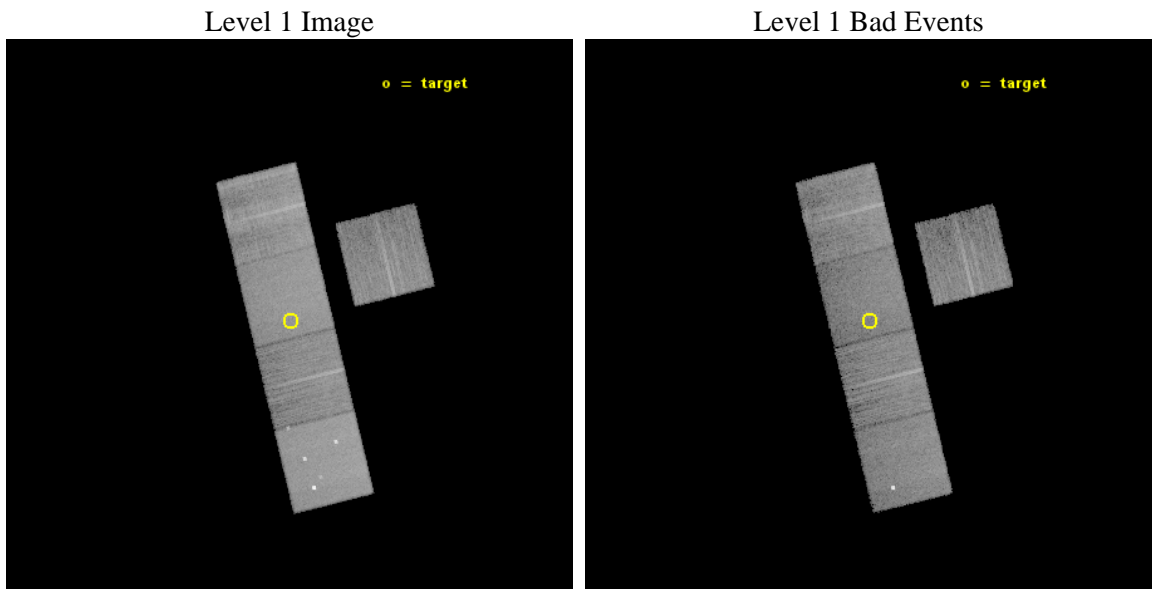
seq_num	502271	Sequence number
obs_id	16618	Observation id
title	Late-time X-rays to constrain the true energy, jet geometry and burst environment of a GRB from the early Universe (z~6)	Proposal tit
observer	Dr Raffaella Margutti	Principal investigator
object	GRB140515A	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	186.064583	Observer's specified target RA [deg]
dec_targ	15.104611	Observer's specified target Dec [deg]
ra_nom	186.06694837575	Nominal RA [deg]
dec_nom	15.099802041151	Nominal Dec [deg]
roll_nom	256.15599222017	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20063.200154305	Sum of GTIs [s]
livetime	19801.059673975	Livetime [s]
ontime3	20063.200154305	Sum of GTIs [s]
ontime5	20063.200154305	Sum of GTIs [s]
ontime6	20063.200154305	Sum of GTIs [s]
ontime7	20063.200154305	Sum of GTIs [s]
ontime8	20063.200154305	Sum of GTIs [s]
l2events	158338	Number of level 2 events



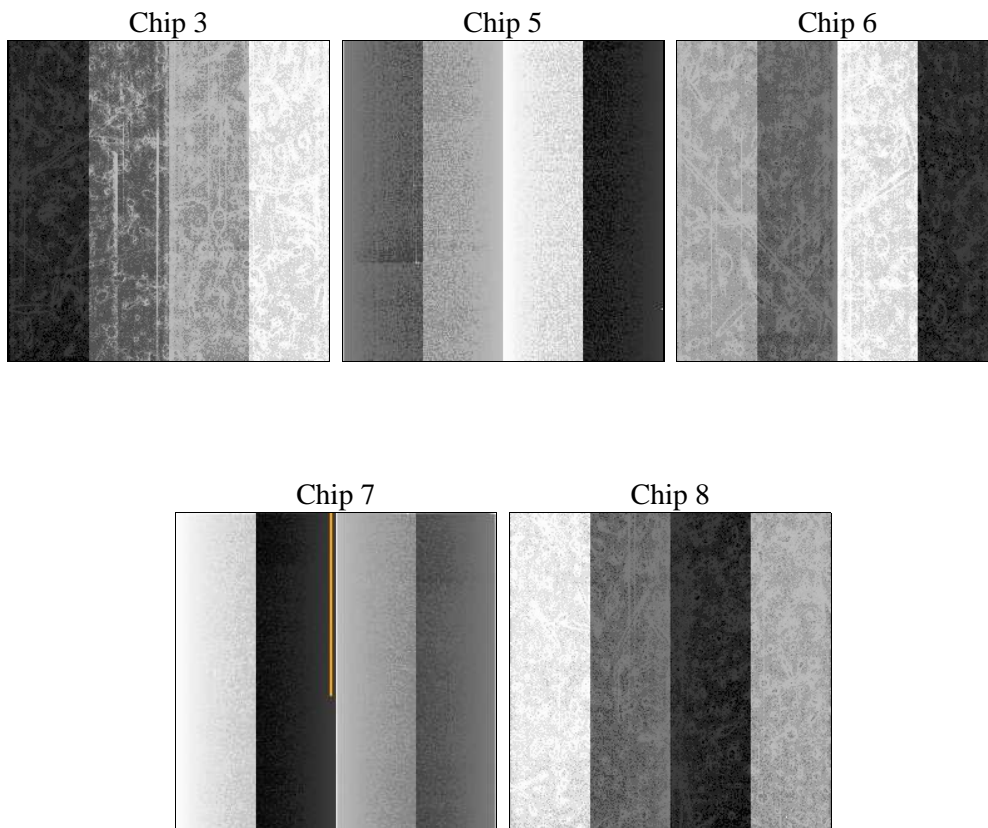
2 OBI

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	10.3.1	Processing system revision	ontime	20063.200154305	Sum of GTIs [s]
caldbver	4.6.4	 	ontime3	20063.200154305	Sum of GTIs [s]
date	2014-12-11T22:18:45	Date and time of file creation	ontime5	20063.200154305	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	20063.200154305	Sum of GTIs [s]
			ontime7	20063.200154305	Sum of GTIs [s]
			ontime8	20063.200154305	Sum of GTIs [s]
			l1events	610808	Number of level 1 events

2.1.4 Events

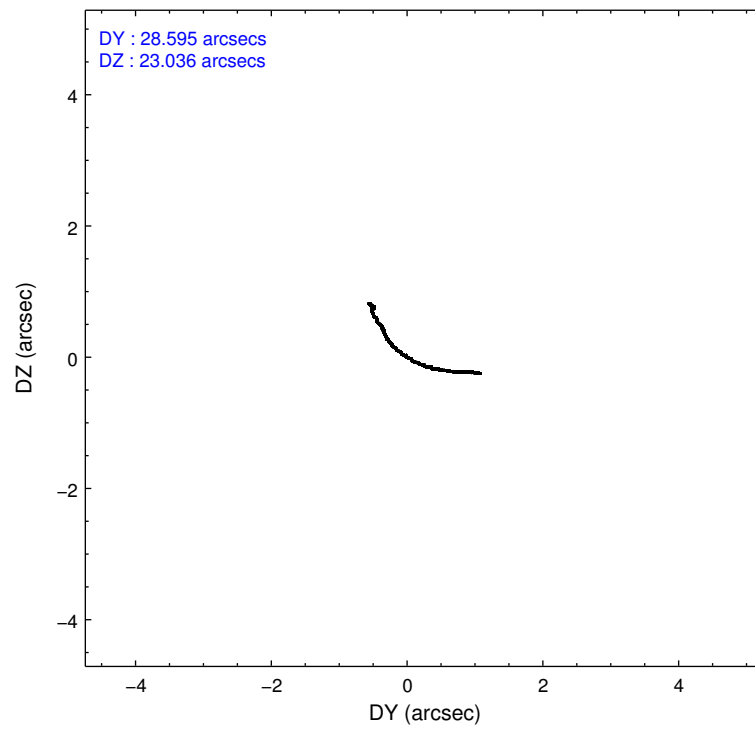
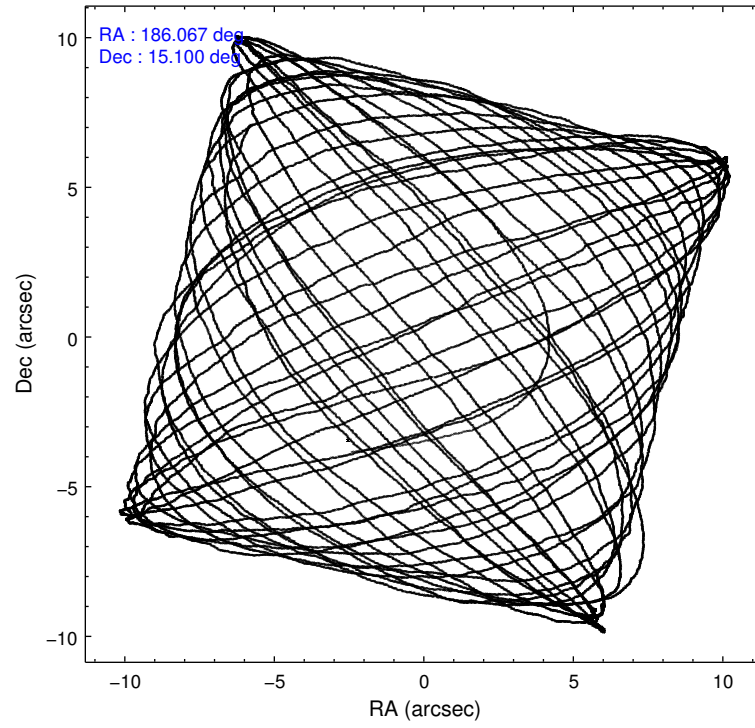
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	88991	168038	94751	128962	130066
rejected events	78289	86909	83154	72875	94308
rejected %	87%	51%	87%	56%	72%

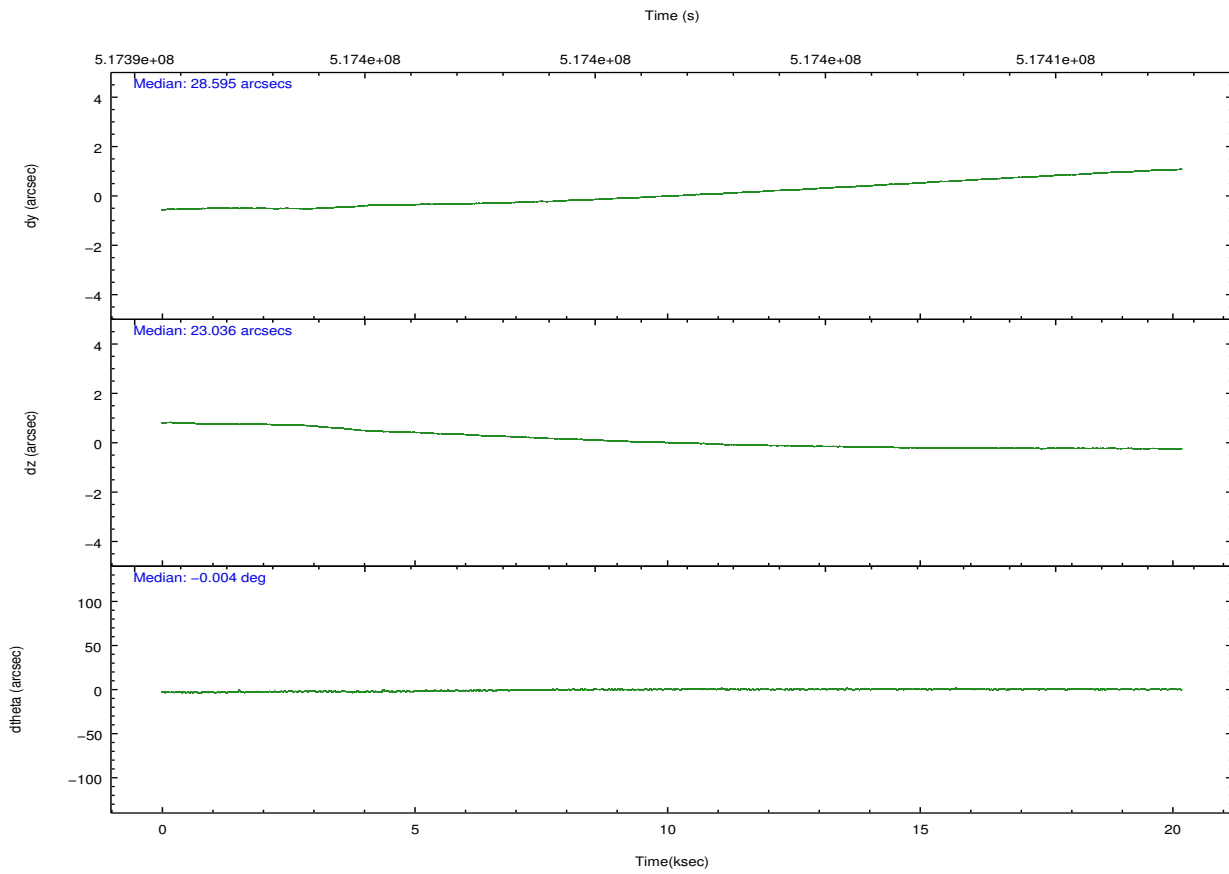
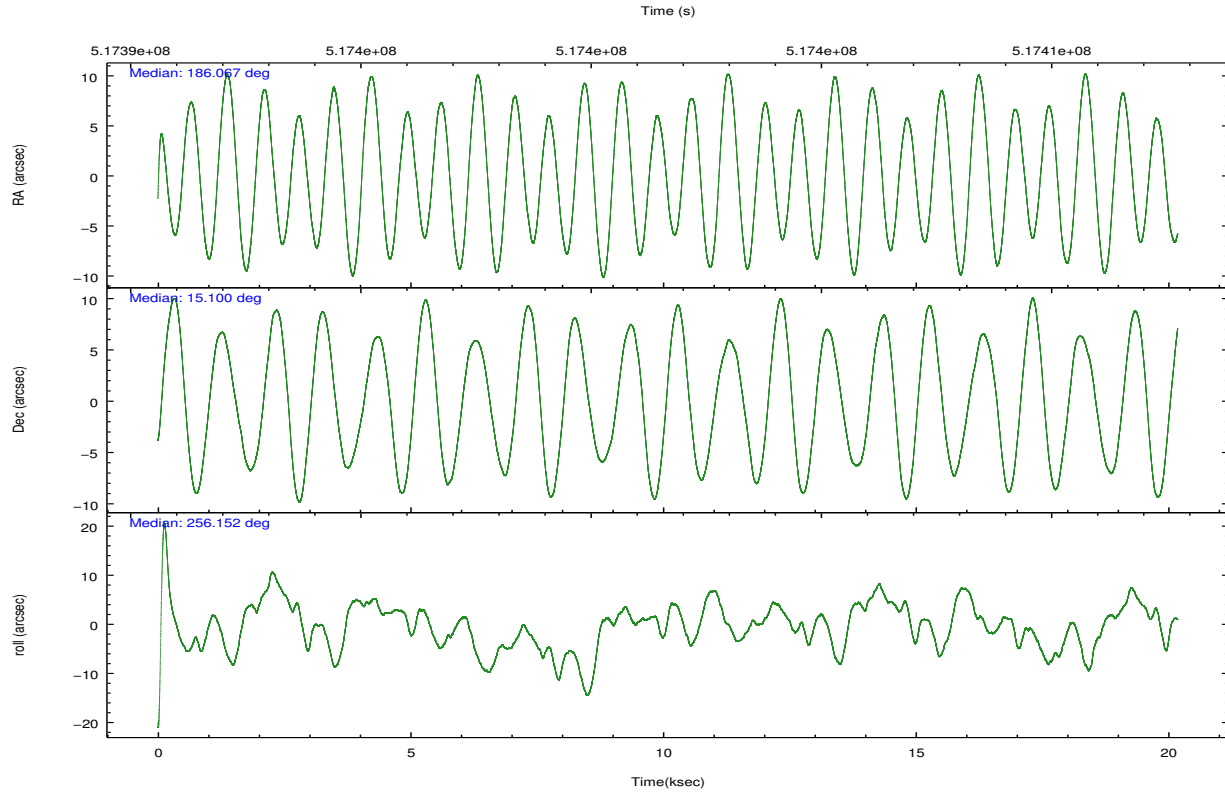
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	3777	10560	3936	5087	10425
	4%	6%	4%	3%	8%
grade 1 events	36	280	51	139	104
	0%	0%	0%	0%	0%
grade 2 events	2392	24513	2627	11545	8508
	2%	14%	2%	8%	6%
grade 3 events	1146	2631	1167	4785	3688
	1%	1%	1%	3%	2%
grade 4 events	1129	2524	1207	4833	3392
	1%	1%	1%	3%	2%
grade 5 events	5054	12075	4984	13854	7198
	5%	7%	5%	10%	5%
grade 6 events	2263	40908	2662	29844	9751
	2%	24%	2%	23%	7%
grade 7 events	73194	74547	78117	58875	87000
	82%	44%	82%	45%	66%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-35678	ACIS-35678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	186.058705	186.0669483757501	CCD I2 on	N	N
[deg] Pointing Dec	15.125955	15.09980204115056	CCD I3 on	O1	Y
[deg] Pointing Roll	256.001531	256.1559922201712	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	517391759.184000	517390718.39352	CCD S5 on	N	N
Observation start date	2014-05-25T07:54:52	2014-05-25T07:38:38	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	517411759.184000	517413174.09476	On-chip summing requested	N	N
Observation end date	2014-05-25T13:28:12	2014-05-25T13:52:54	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





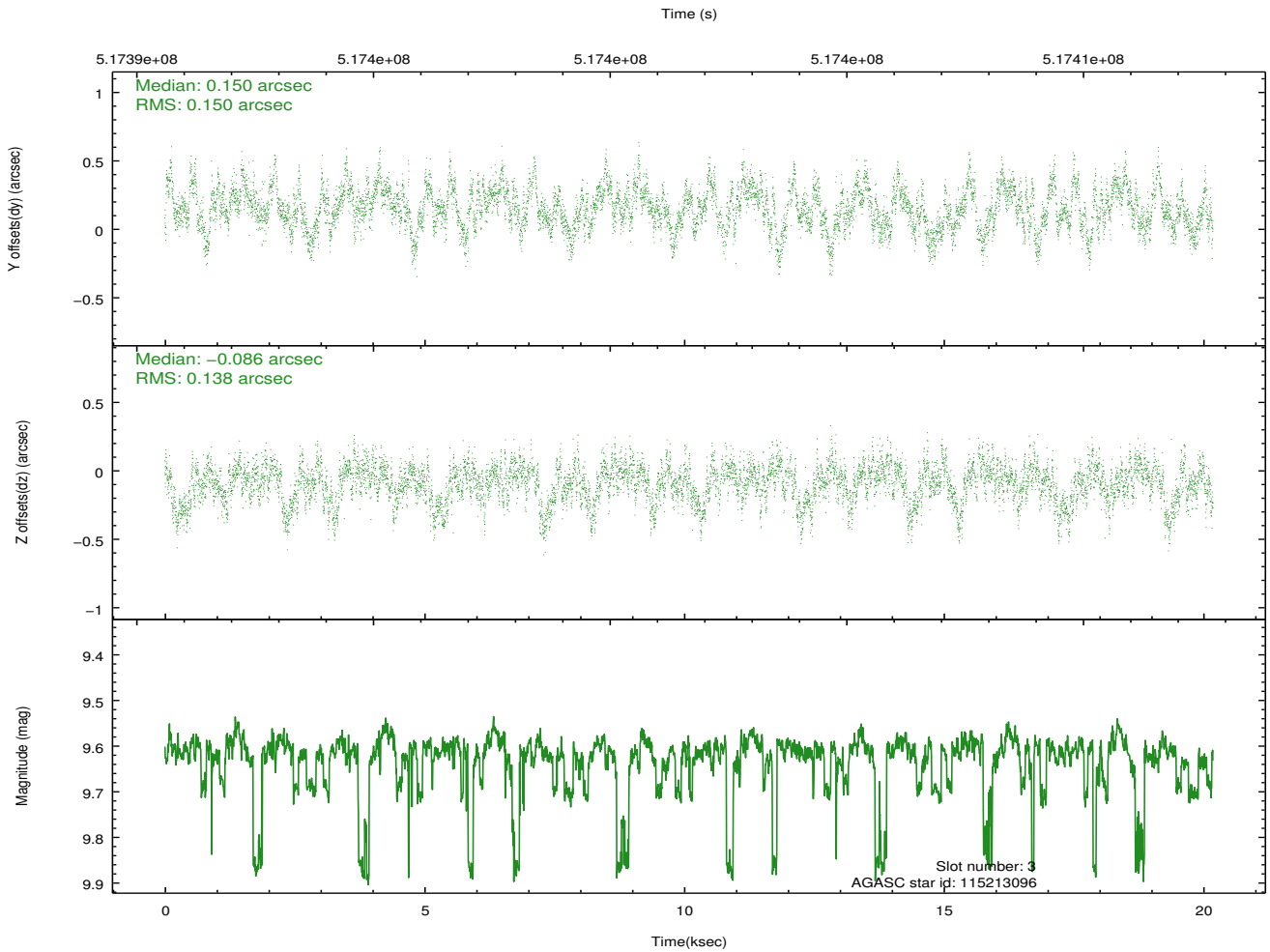
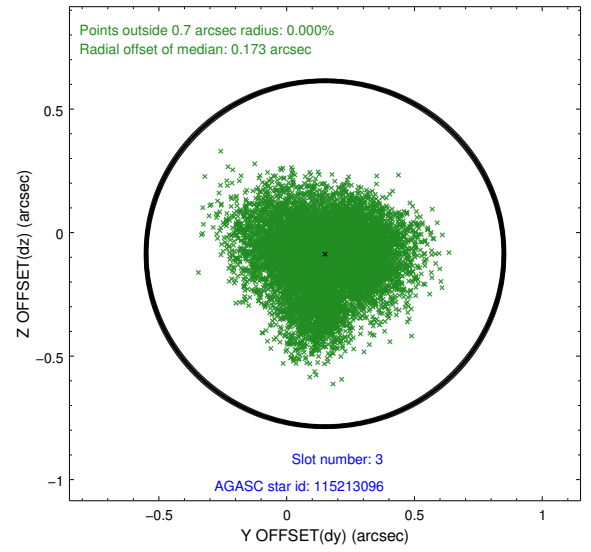
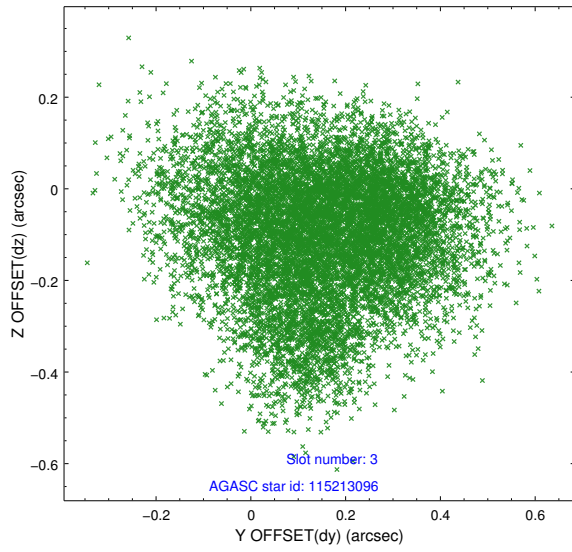
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.94	4923	-0.187	-0.052	0.014	0.021	0.000000	0.000000	-782.23	-1744.76
1	FID		ACIS-S-4	7.02	4922	0.389	0.105	0.008	0.013	0.000000	0.000000	2131.54	163.68
2	FID		ACIS-S-5	7.06	4923	-0.232	-0.046	0.015	0.025	0.000000	0.000000	-1834.88	157.42
3	GUIDE	used	115213096	9.62	9669	0.150	-0.086	0.221	0.346	185.485027	14.844352	1466.11	-1691.35
4	GUIDE	used	189401024	8.67	9846	0.045	0.084	0.124	0.201	185.977630	15.617765	-1649.39	-701.06
5	GUIDE	used	189419264	9.67	9829	0.151	0.378	0.223	0.424	185.669302	15.669954	-1573.72	-1781.06
6	GUIDE	used	115344416	7.90	9844	-0.227	-0.383	0.145	0.219	186.624628	14.572004	1455.63	2394.42
7	GUIDE	used	189402160	9.61	9594	-0.158	0.058	0.257	0.433	186.723517	15.477538	-1789.16	1931.30

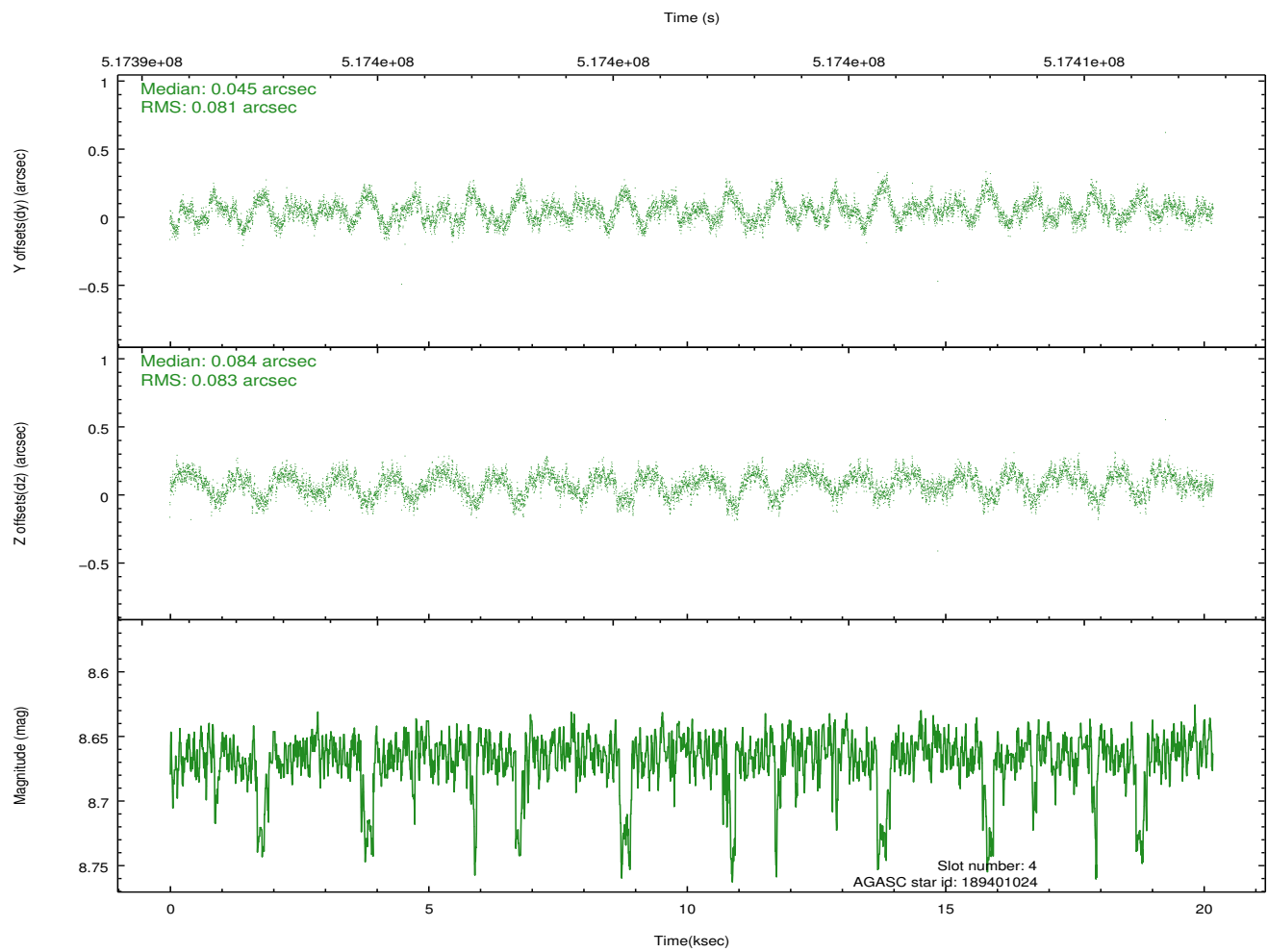
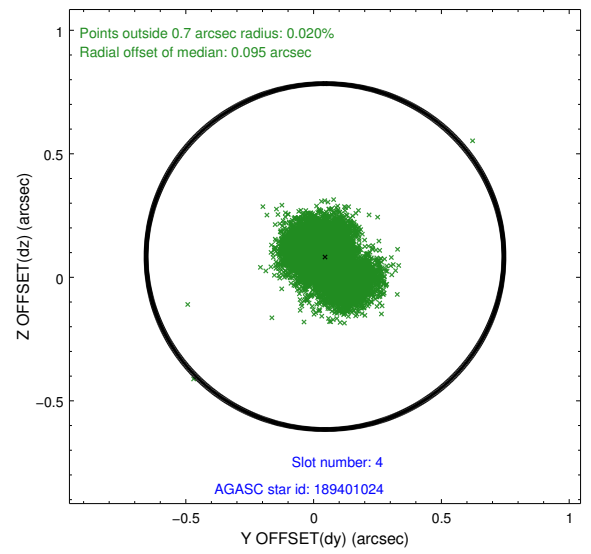
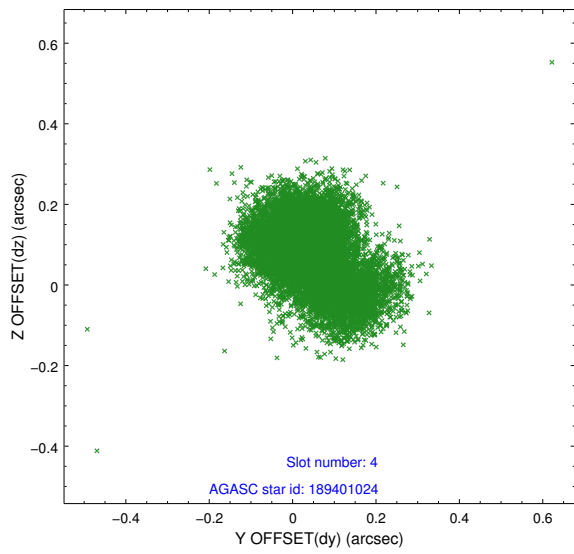
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2.4 Star Slots

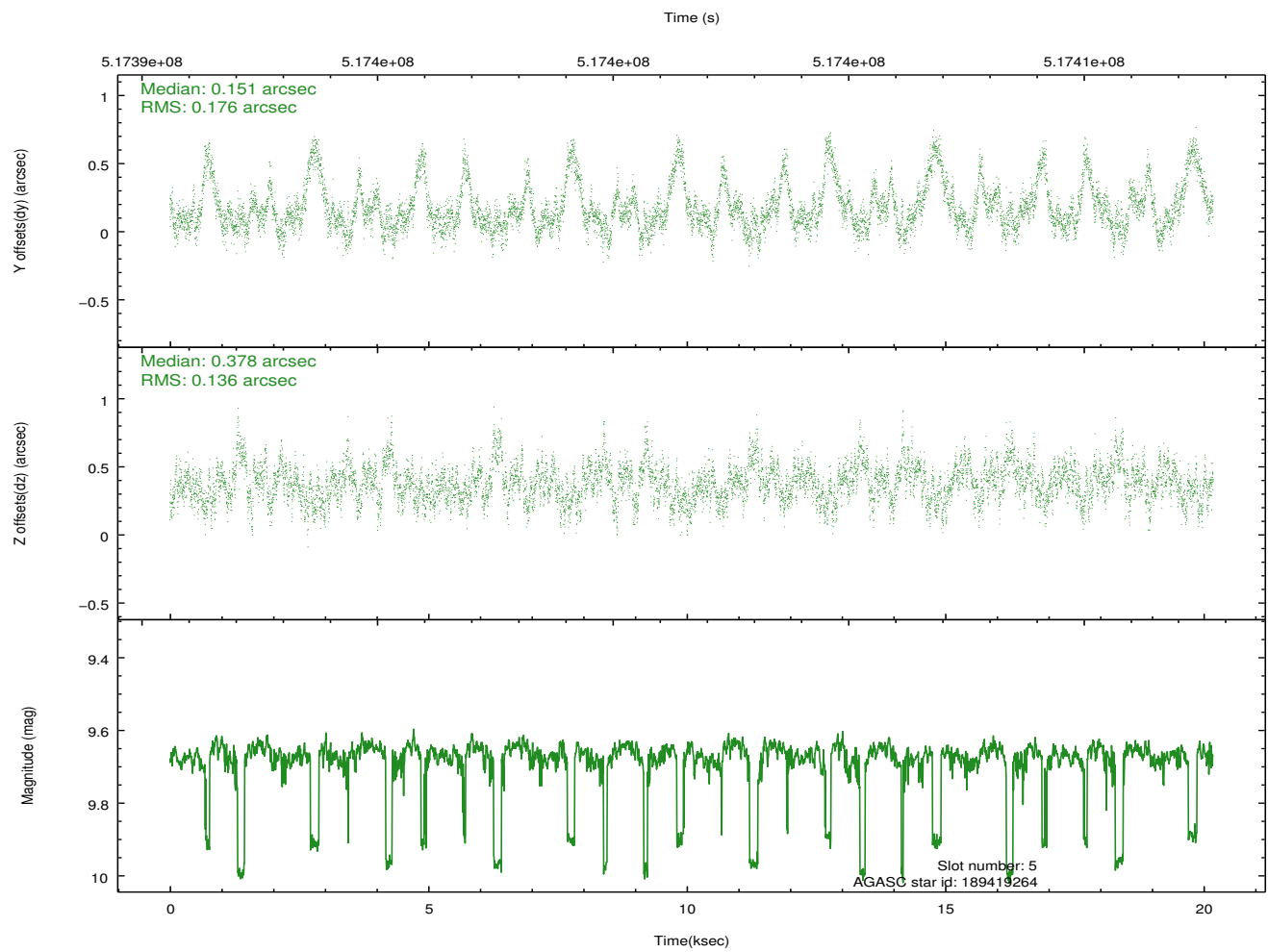
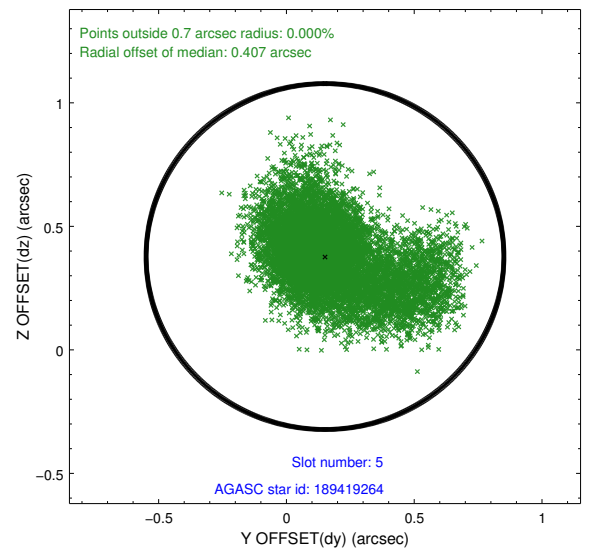
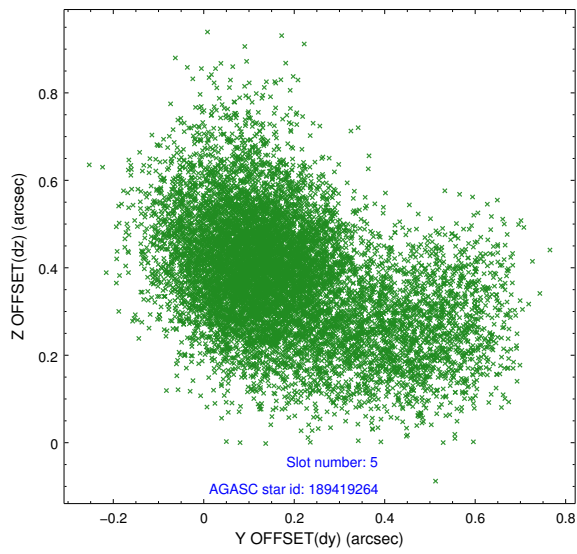
2.4.1 Slot 3



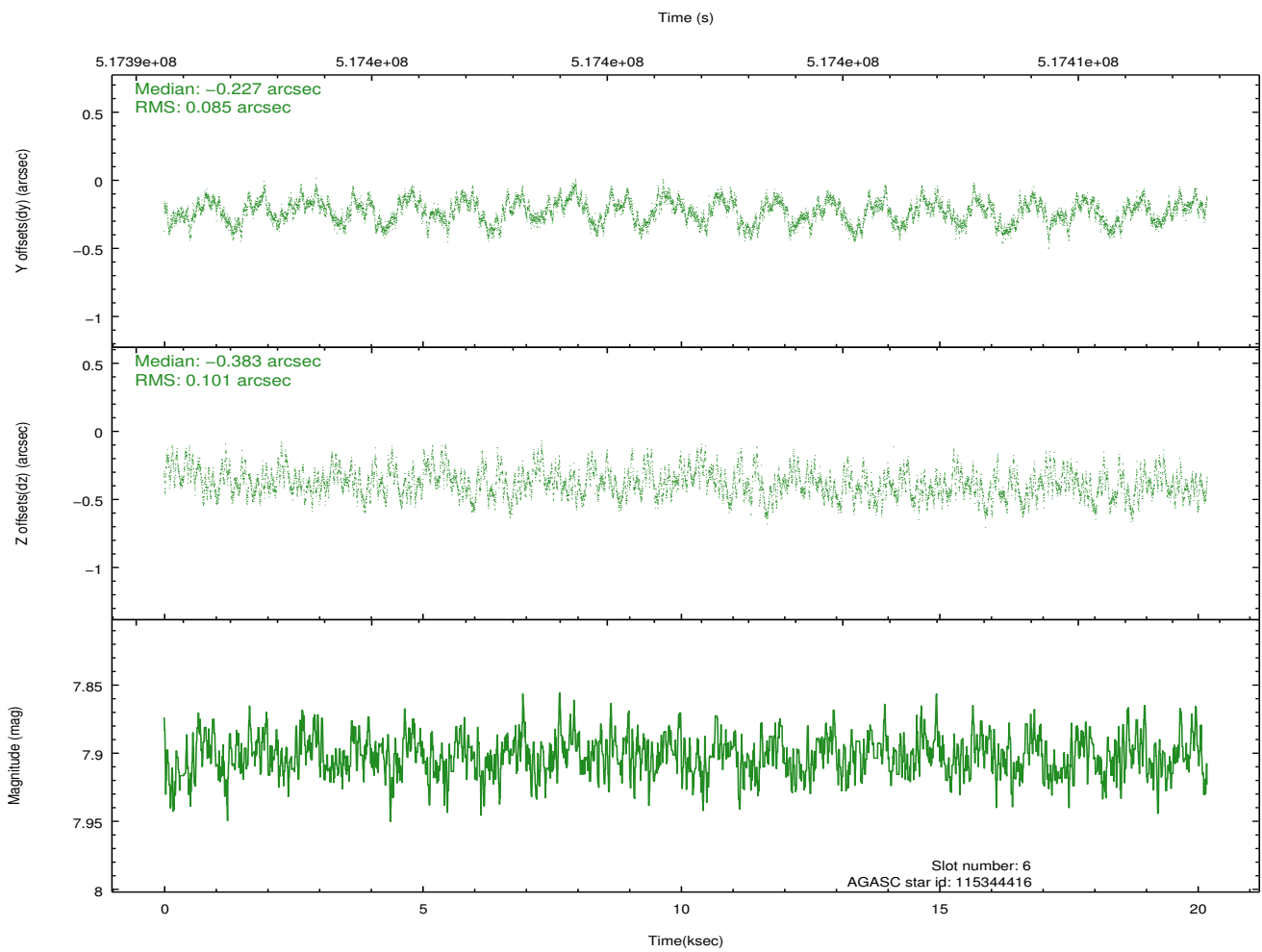
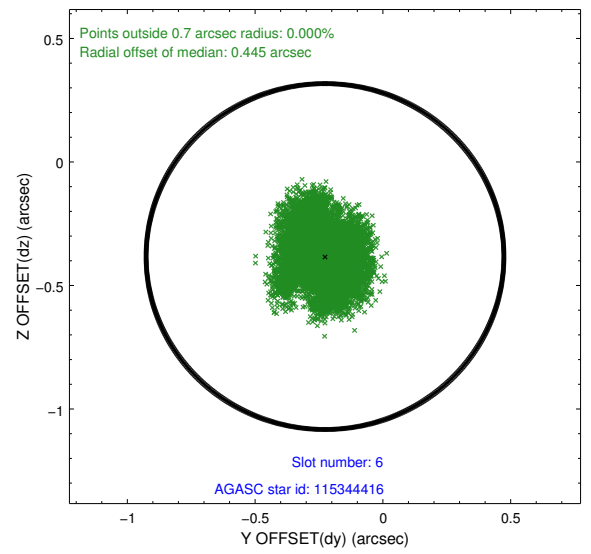
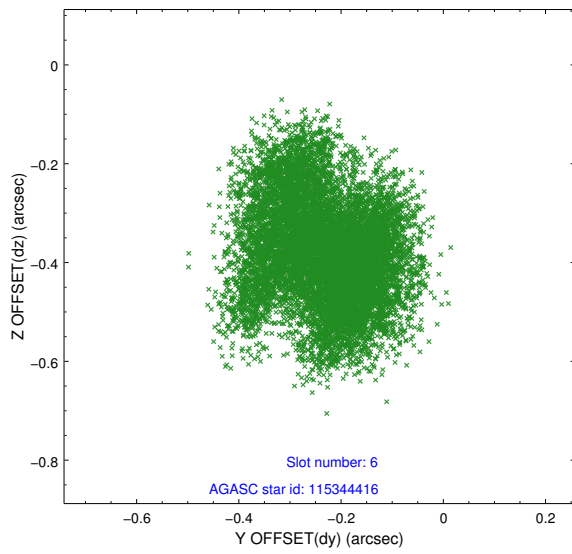
2.4.2 Slot 4



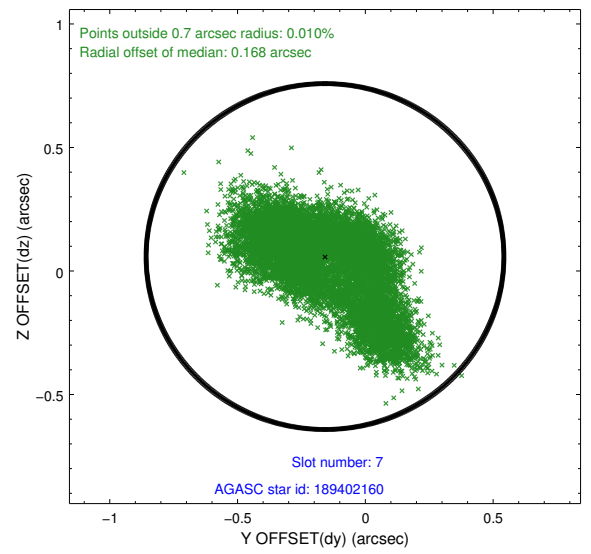
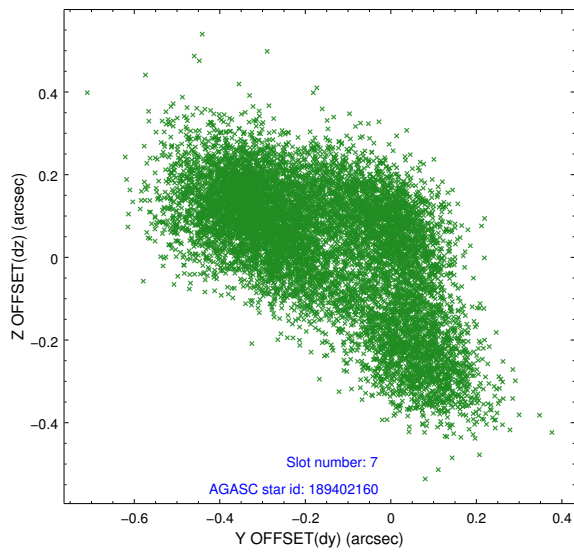
2.4.3 Slot 5



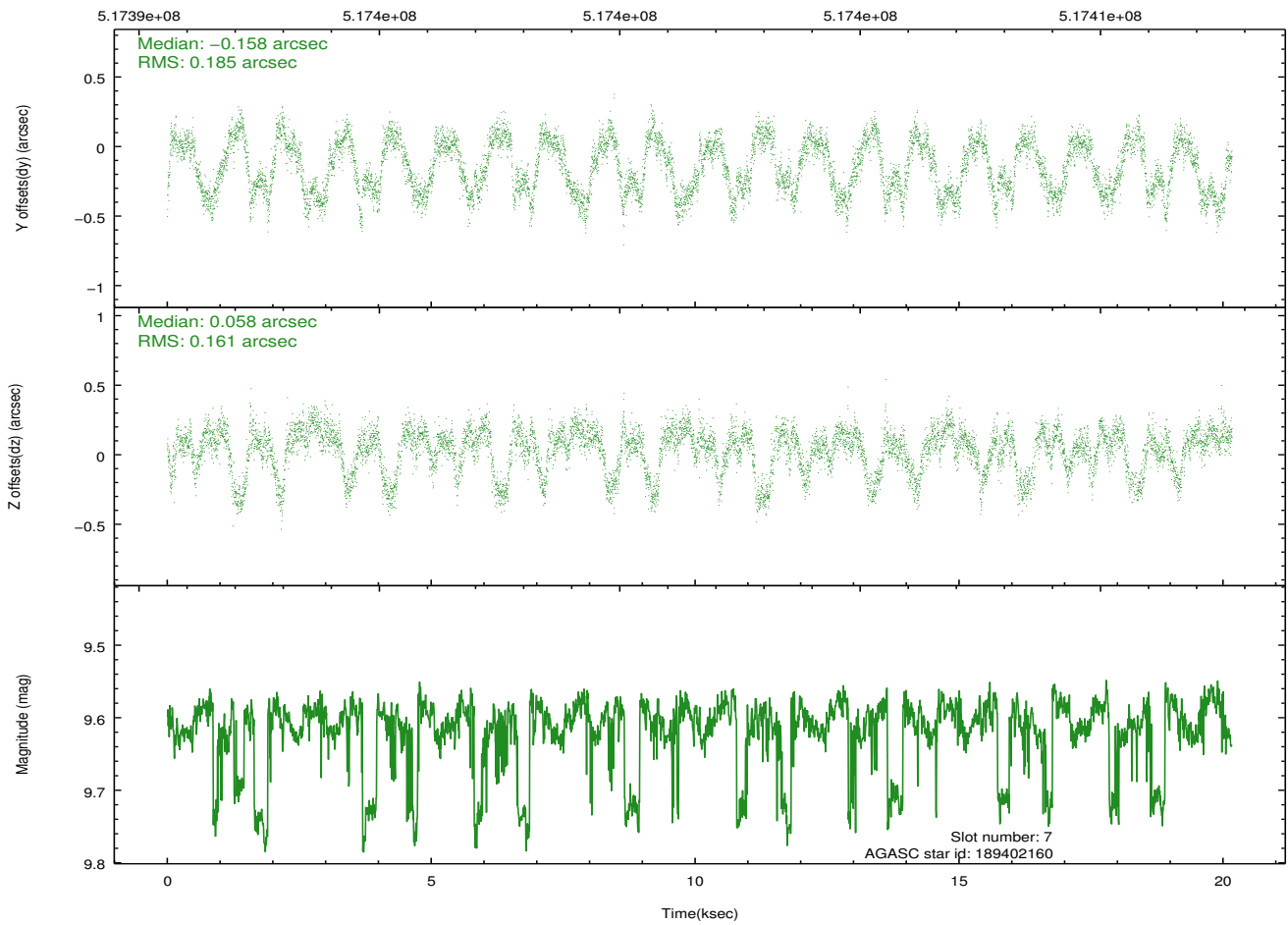
2.4.4 Slot 6



2.4.5 Slot 7

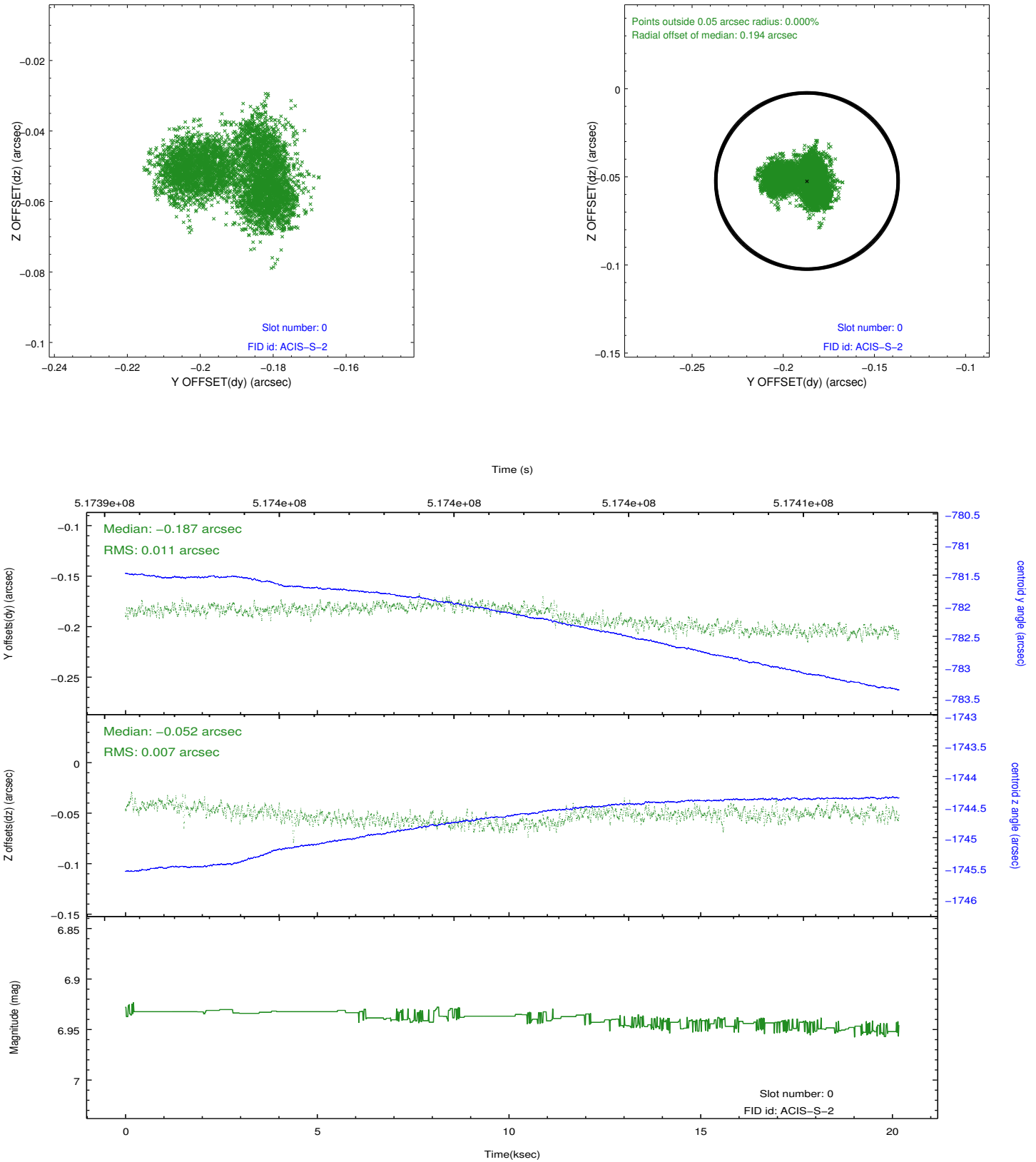


Time (s)

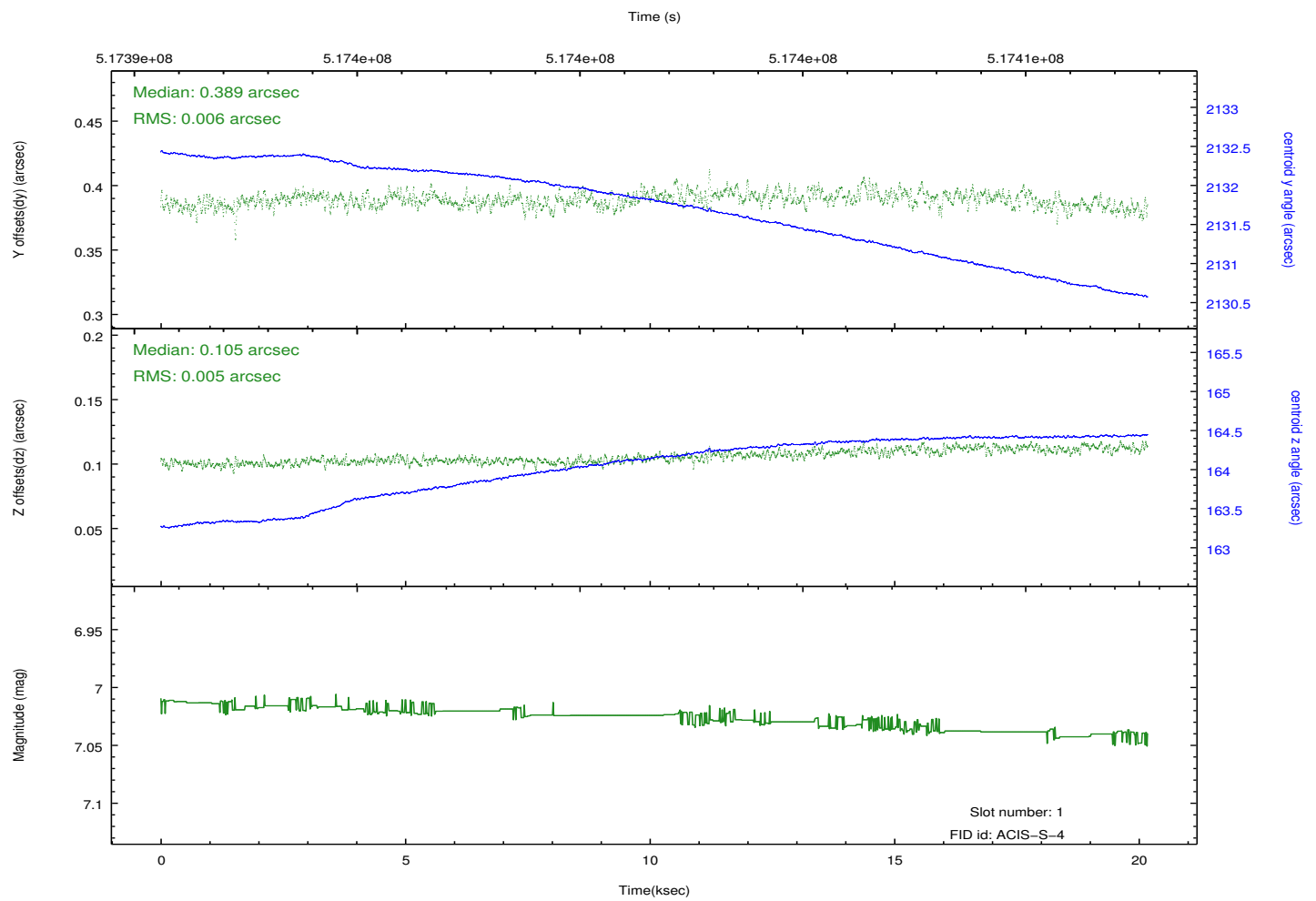
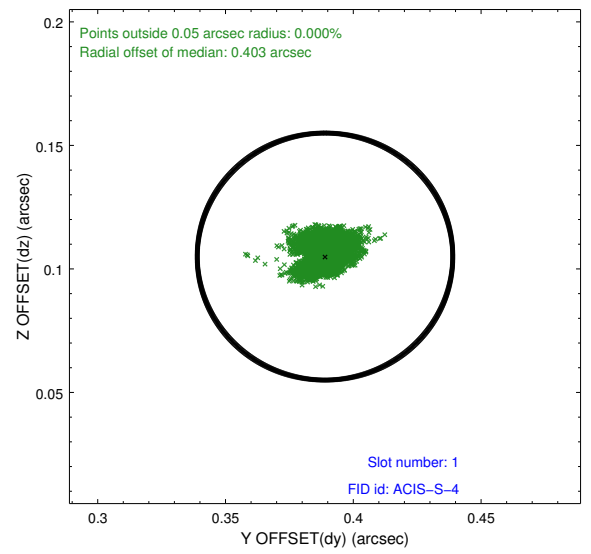
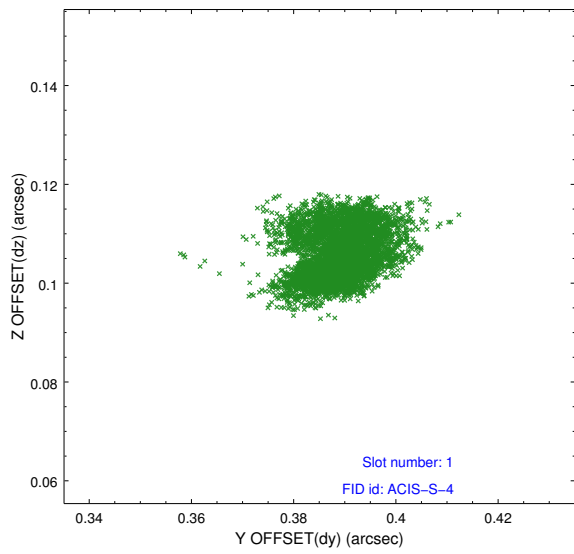


2.5 FID Slots

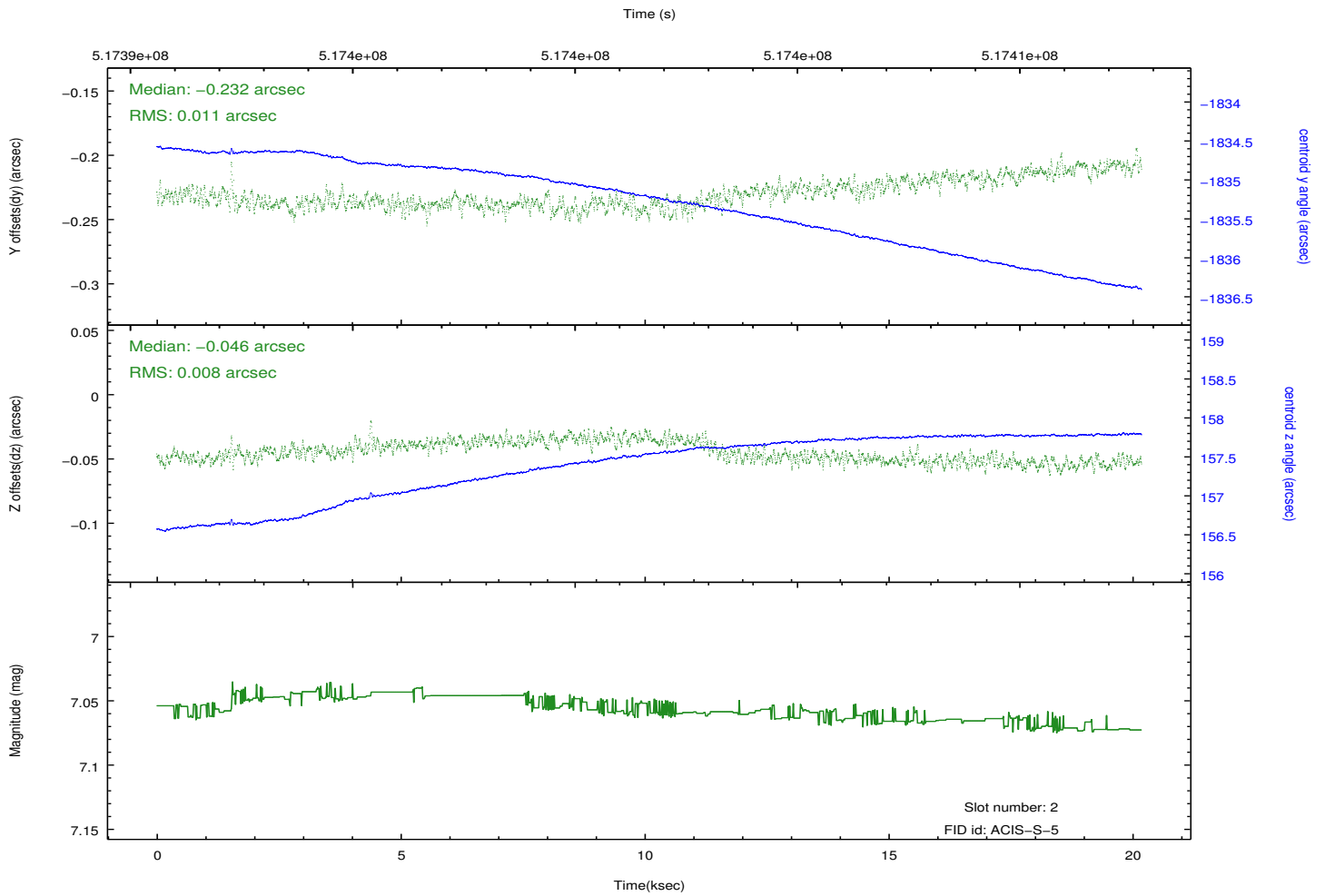
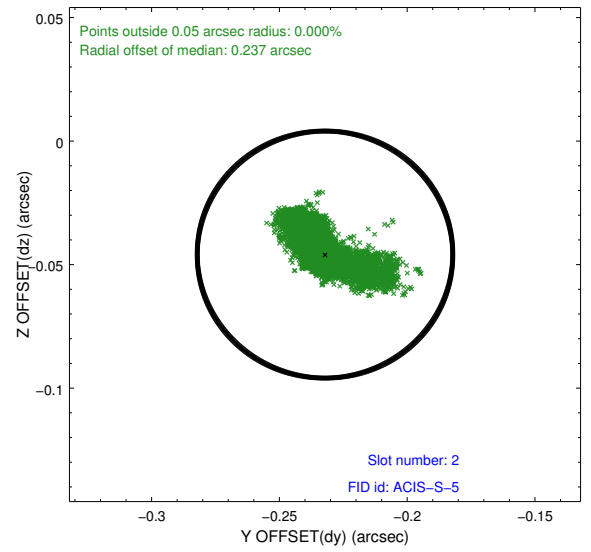
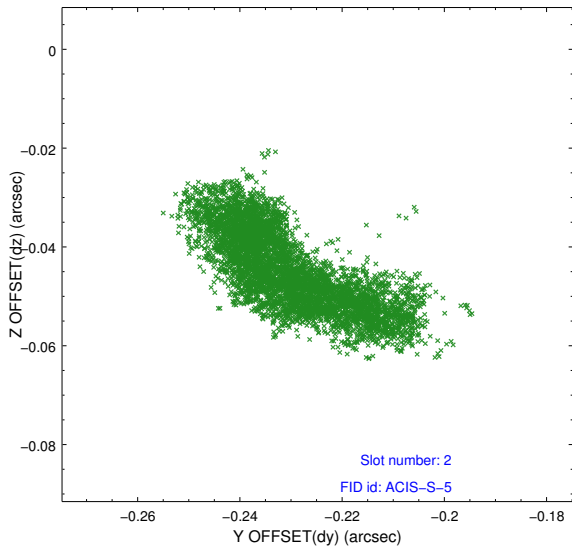
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.063200154305

A.2 Comments

The slot 1 radial offset of 0.403 arcsec is acceptable.

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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.