

V&V Reference Report

L2 ASCDS Version : 10.5.1.1

Observation 17139 - L2 Version 1
Chandra X-Ray Center

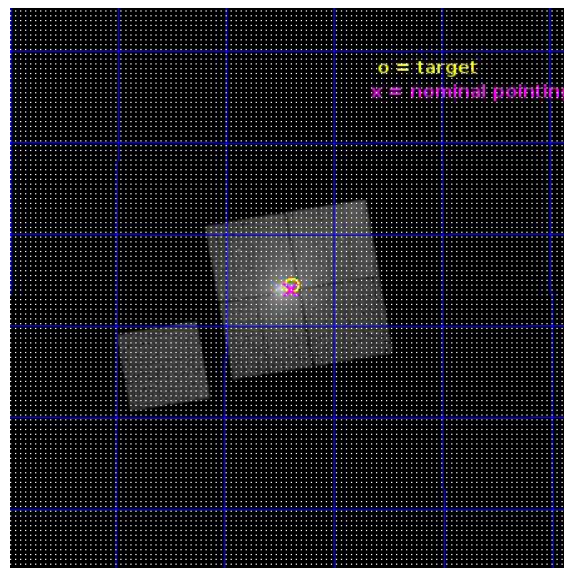
L2 Processing Date : Sep 17 2016

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1 Front

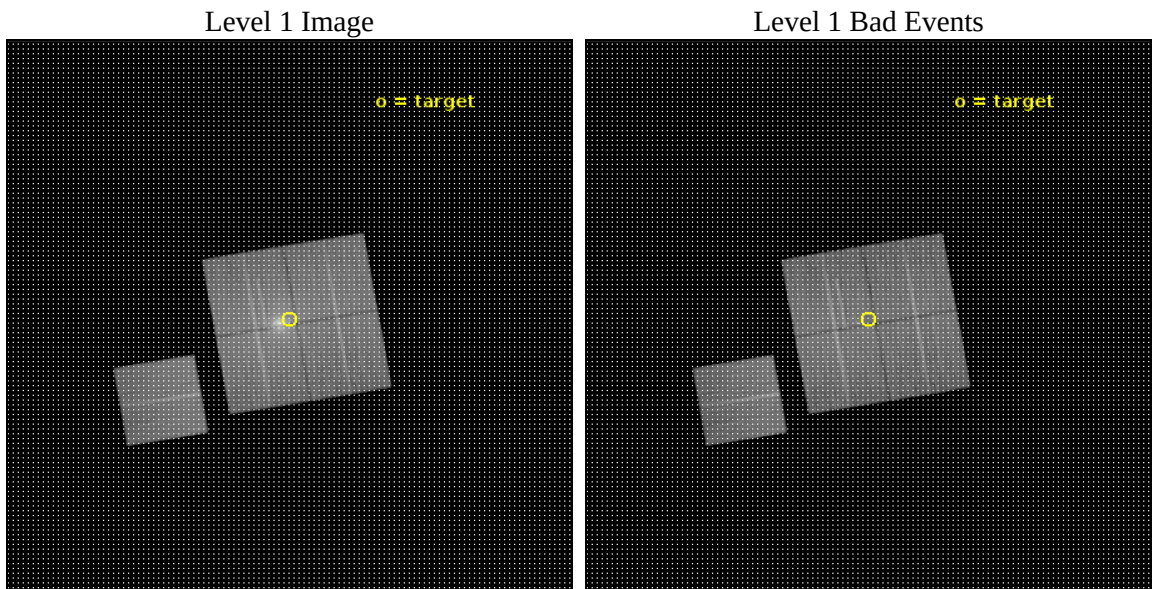
seq_num	703132	Sequence number
obs_id	17139	Observation id
title	The Rise to Power: Half a Billion Years of Intense AGN Activity in the Merging Cluster Cygnus A	Proposal title
observer	Dr. Michael Wise	Principal investigator
object	Cygnus A - W Hotspot	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	299.845	Observer's specified target RA [deg]
dec_targ	40.740361	Observer's specified target Dec [deg]
ra_nom	299.84738179522	Nominal RA [deg]
dec_nom	40.733287764821	Nominal Dec [deg]
roll_nom	260.20712601805	Nominal Roll [deg]
revision	1	Processing version of data
ontime	40038.970514059	Sum of GTIs [s]
livetime	39515.831888032	Livetime [s]
ontime0	40038.84739399	Sum of GTIs [s]
ontime1	40042.029484272	Sum of GTIs [s]
ontime2	40042.070524335	Sum of GTIs [s]
ontime3	40038.970514059	Sum of GTIs [s]
ontime6	40041.947404265	Sum of GTIs [s]
l2events	327009	Number of level 2 events



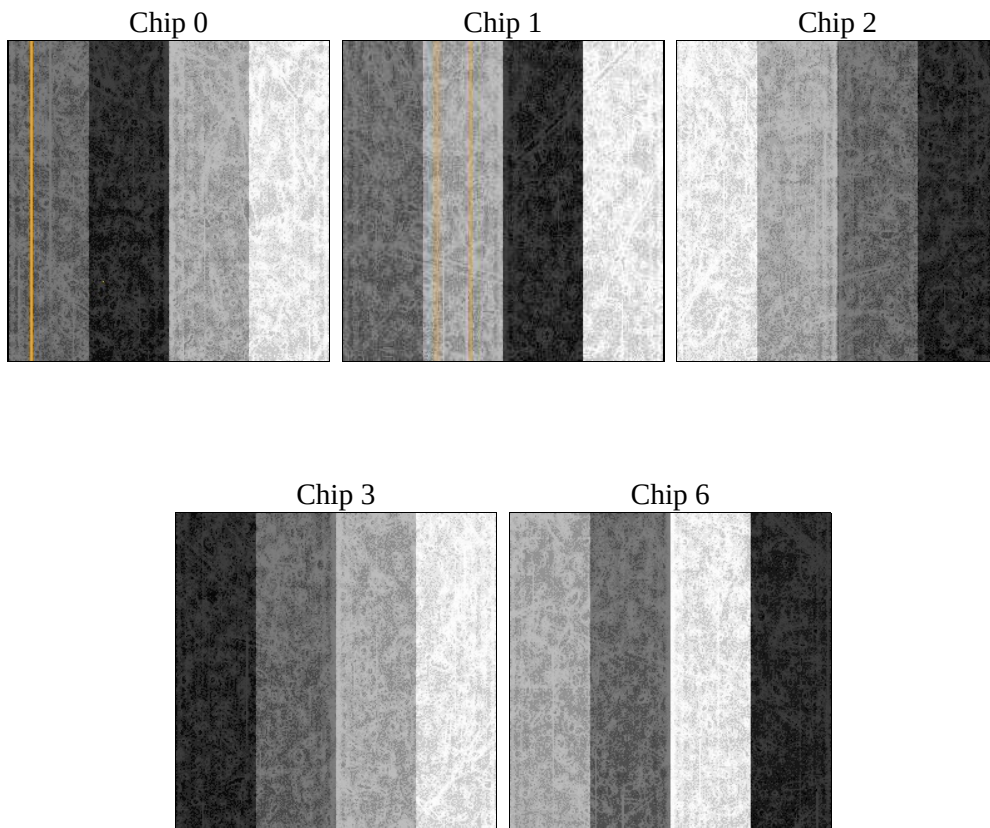
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.1.1	Processing system revision	ontime	40038.970514059	Sum of GTIs [s]
caldsver	4.7.2	 	ontime0	40038.84739399	Sum of GTIs [s]
date	2016-09-17T15:23:39	Date and time of file creation	ontime1	40042.029484272	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	40042.070524335	Sum of GTIs [s]
			ontime3	40038.970514059	Sum of GTIs [s]
			ontime6	40041.947404265	Sum of GTIs [s]
			l1events	1532915	Number of level 1 events

2.1.4 Events

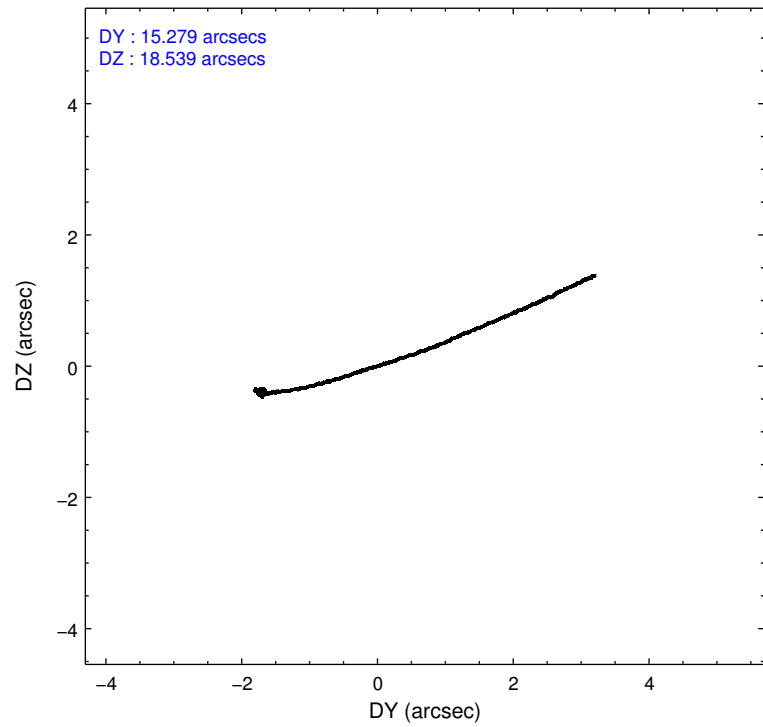
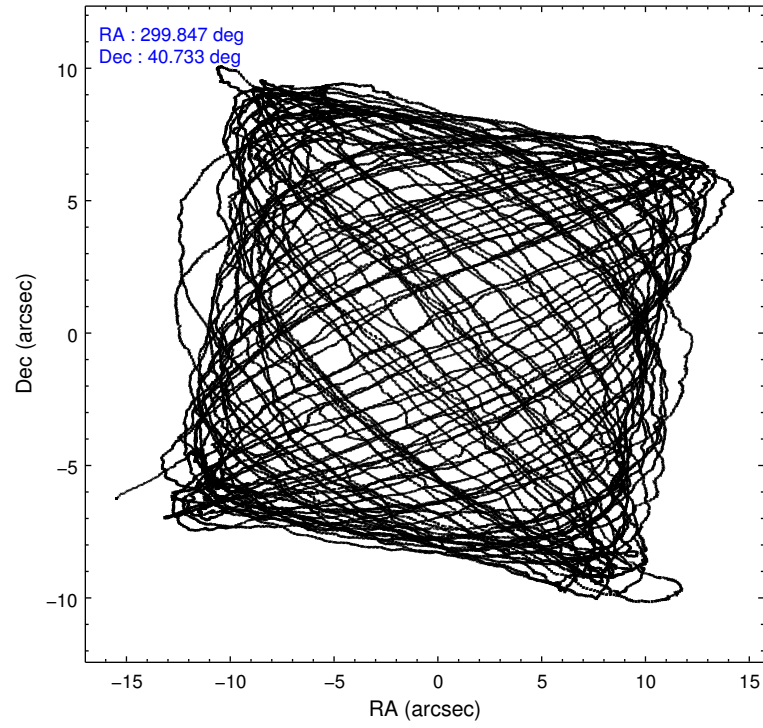
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	262596	294876	319332	385804	270307
rejected events	219786	222004	244452	247773	239234
rejected %	83%	75%	76%	64%	88%

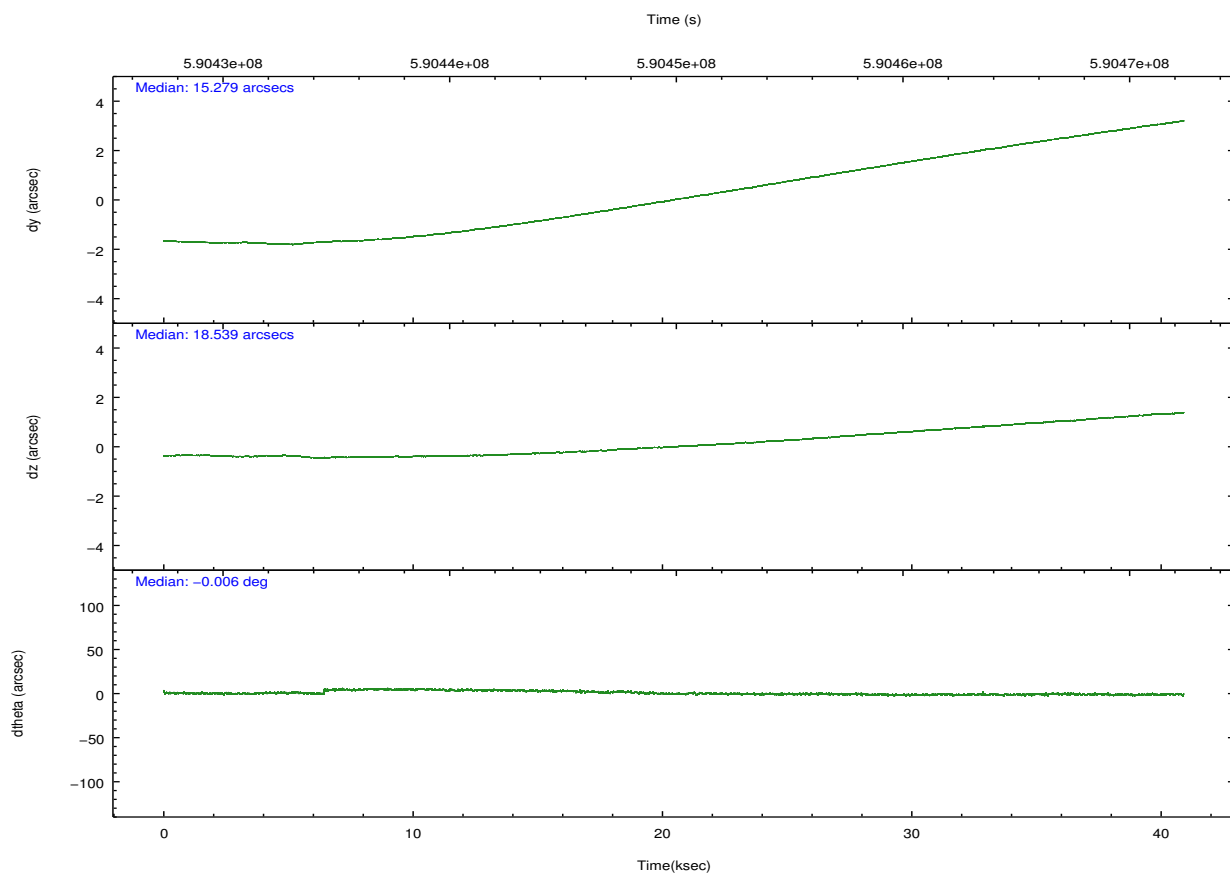
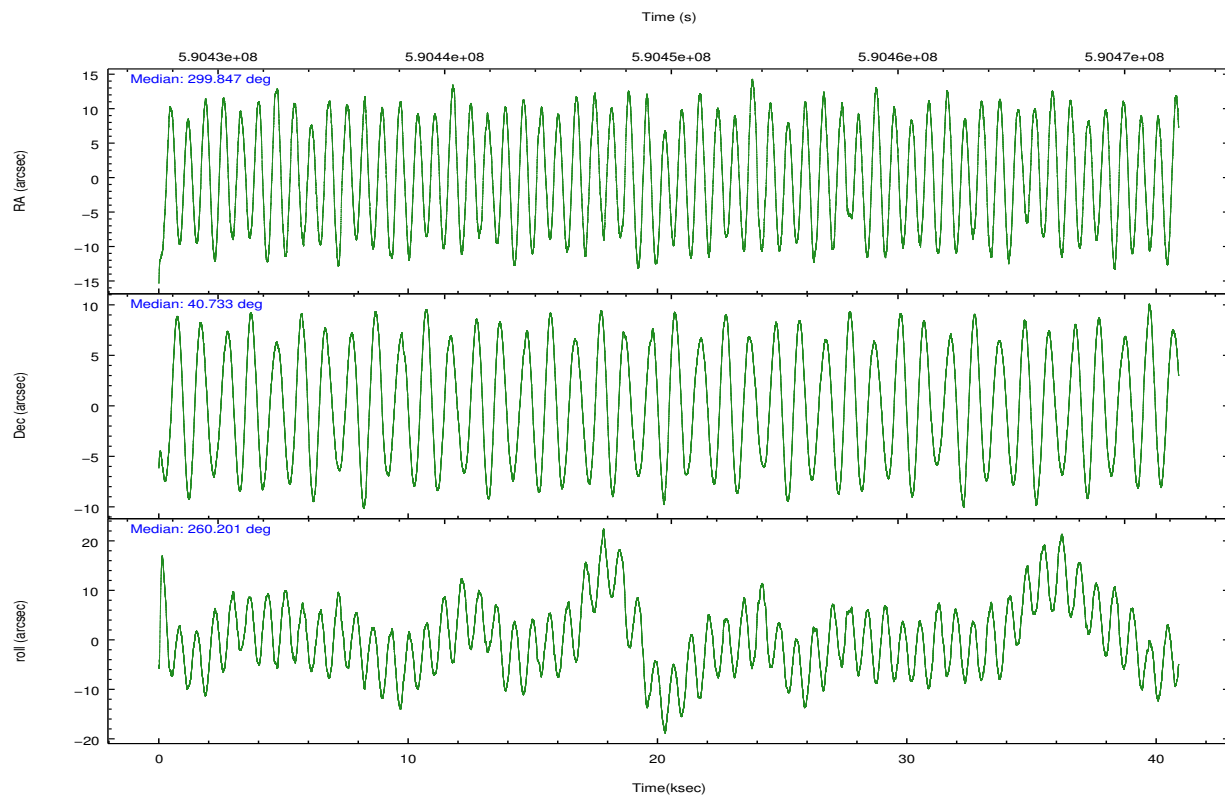
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	20050	41757	46924	94703	10820
	7%	14%	14%	24%	4%
grade 1 events	185	241	361	1150	131
	0%	0%	0%	0%	0%
grade 2 events	9116	13387	11831	18312	7152
	3%	4%	3%	4%	2%
grade 3 events	3592	4618	4455	7100	2989
	1%	1%	1%	1%	1%
grade 4 events	3292	4445	4590	7102	3006
	1%	1%	1%	1%	1%
grade 5 events	11540	12566	10910	14153	12574
	4%	4%	3%	3%	4%
grade 6 events	6764	8678	7091	10838	7110
	2%	2%	2%	2%	2%
grade 7 events	208057	209184	233170	232446	226525
	79%	70%	73%	60%	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	299.834680	299.847381795223	CCD I2 on	Y	Y
[deg] Pointing Dec	40.759161	40.7332877648213	CCD I3 on	Y	Y
[deg] Pointing Roll	260.006739	260.2071260180478	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	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	590430344.184000	590428512.73325	CCD S5 on	N	N
Observation start date	2016-09-16T16:24:36	2016-09-16T15:55:12	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	590470344.184000	590471581.18572	On-chip summing requested	N	N
Observation end date	2016-09-17T03:31:16	2016-09-17T03:53:01	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



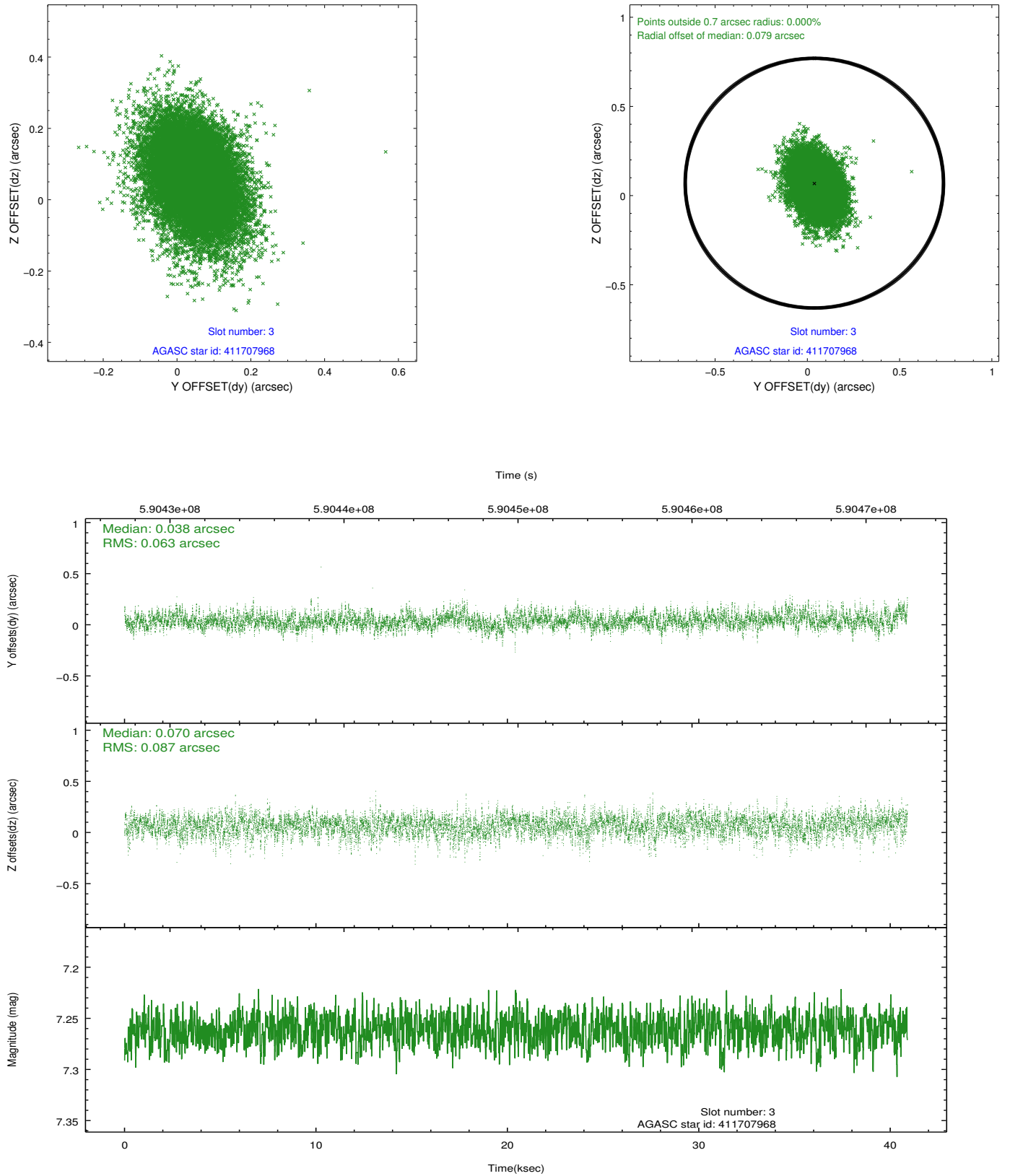


Slot Statistics

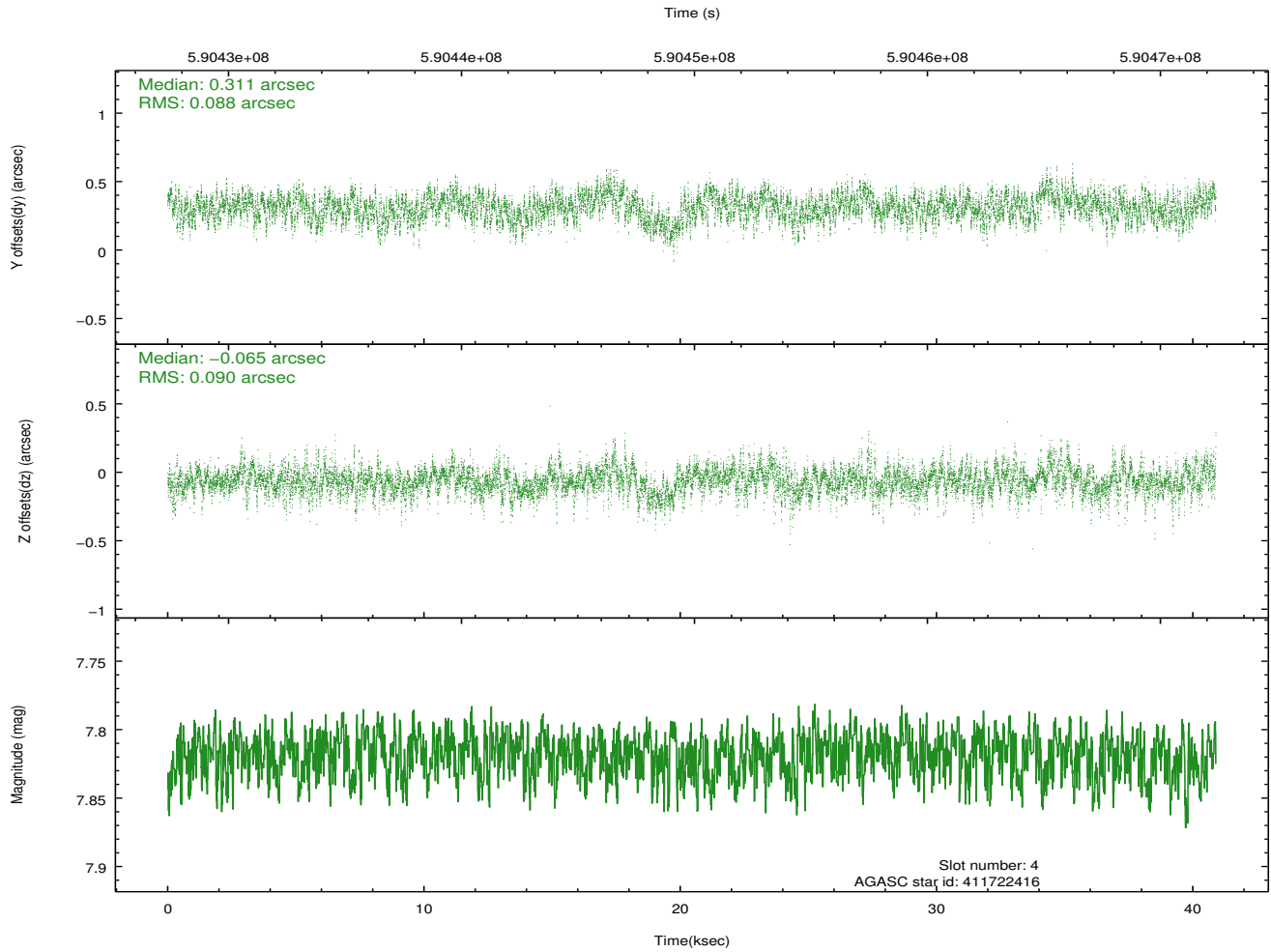
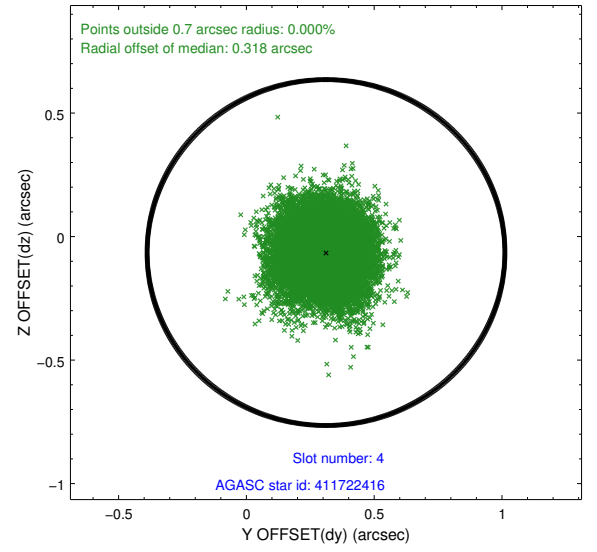
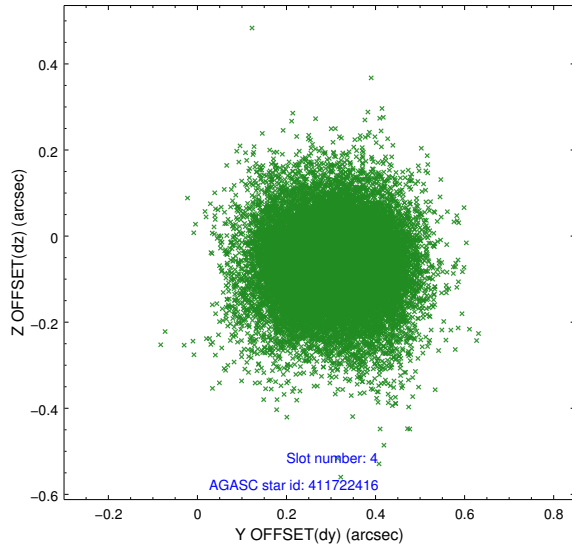
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.16	9976	-0.036	-0.047	0.024	0.047	0.000000	0.000000	923.97	-842.42
1	FID		ACIS-I-4	7.11	9973	0.403	0.073	0.036	0.076	0.000000	0.000000	2144.37	1057.58
2	FID		ACIS-I-5	7.15	9976	-0.469	0.045	0.022	0.051	0.000000	0.000000	-1824.56	1055.19
3	GUIDE	used	411707968	7.26	19949	0.038	0.070	0.110	0.192	299.509933	40.926839	-442.63	-974.42
4	GUIDE	used	411722416	7.82	19946	0.311	-0.065	0.132	0.222	298.936507	40.391736	1718.56	-2197.50
5	GUIDE	used	412240768	8.28	19945	0.046	0.195	0.113	0.193	299.999696	41.280279	-1925.00	114.30
6	GUIDE	used	413425232	8.58	19944	-0.170	-0.320	0.114	0.206	300.417382	40.029012	2304.59	2037.58
7	GUIDE	used	413937088	8.00	19946	-0.225	0.133	0.109	0.194	300.780094	41.277874	-2296.63	2192.99

2.4 Star Slots

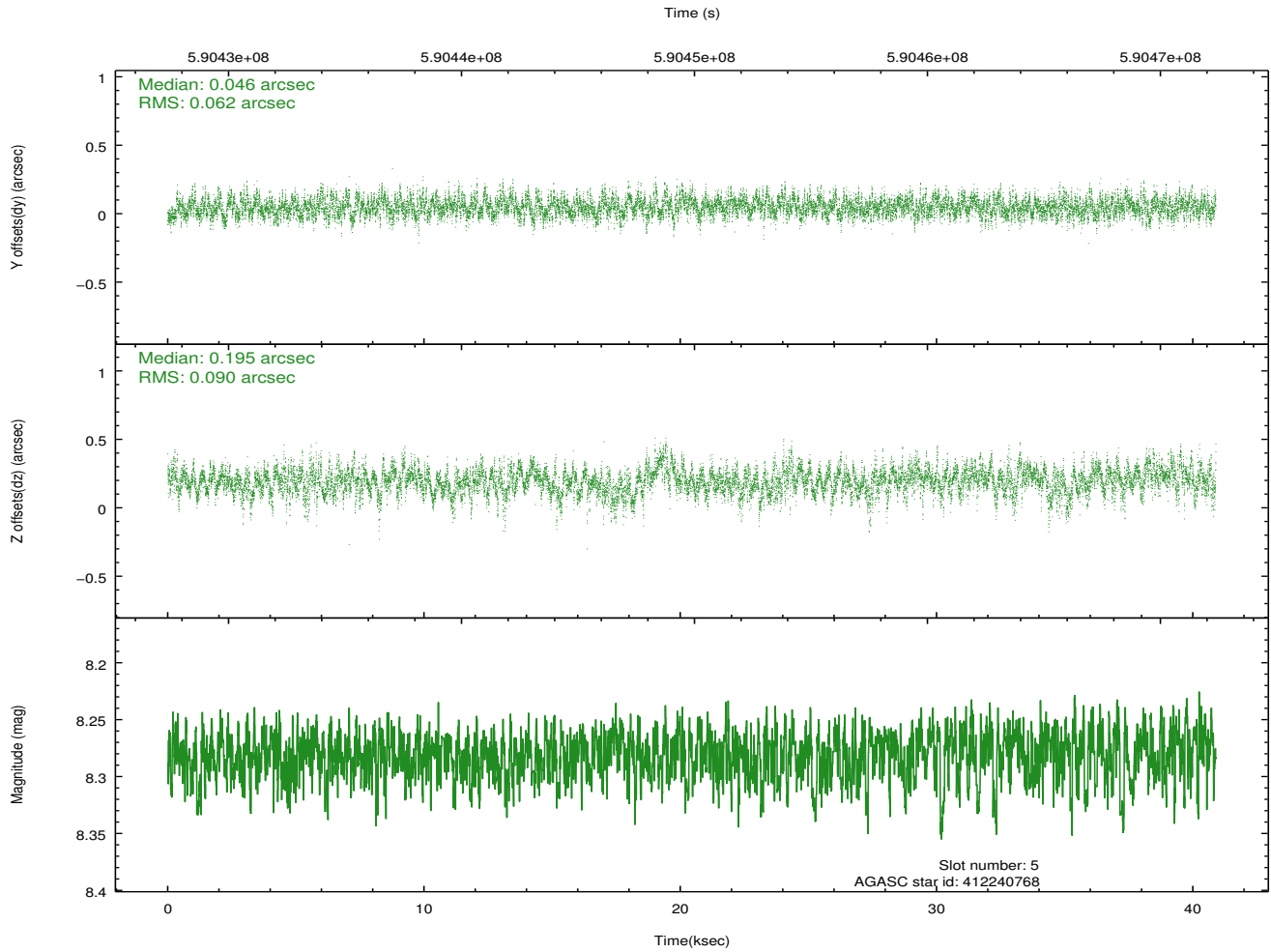
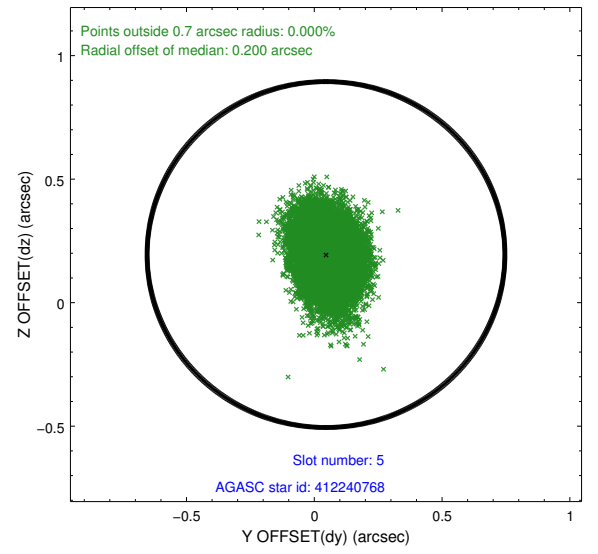
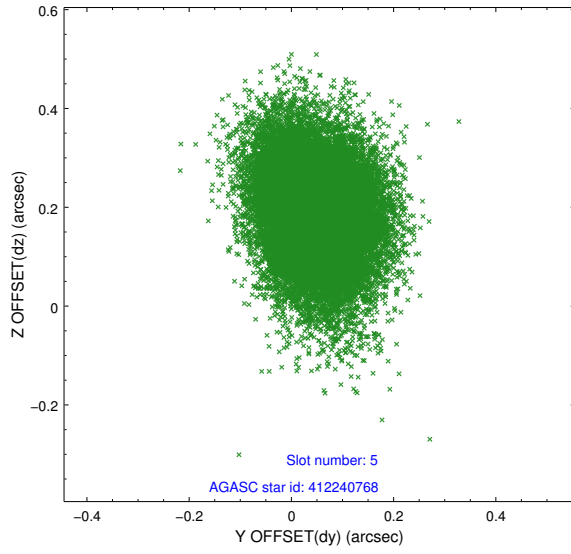
2.4.1 Slot 3



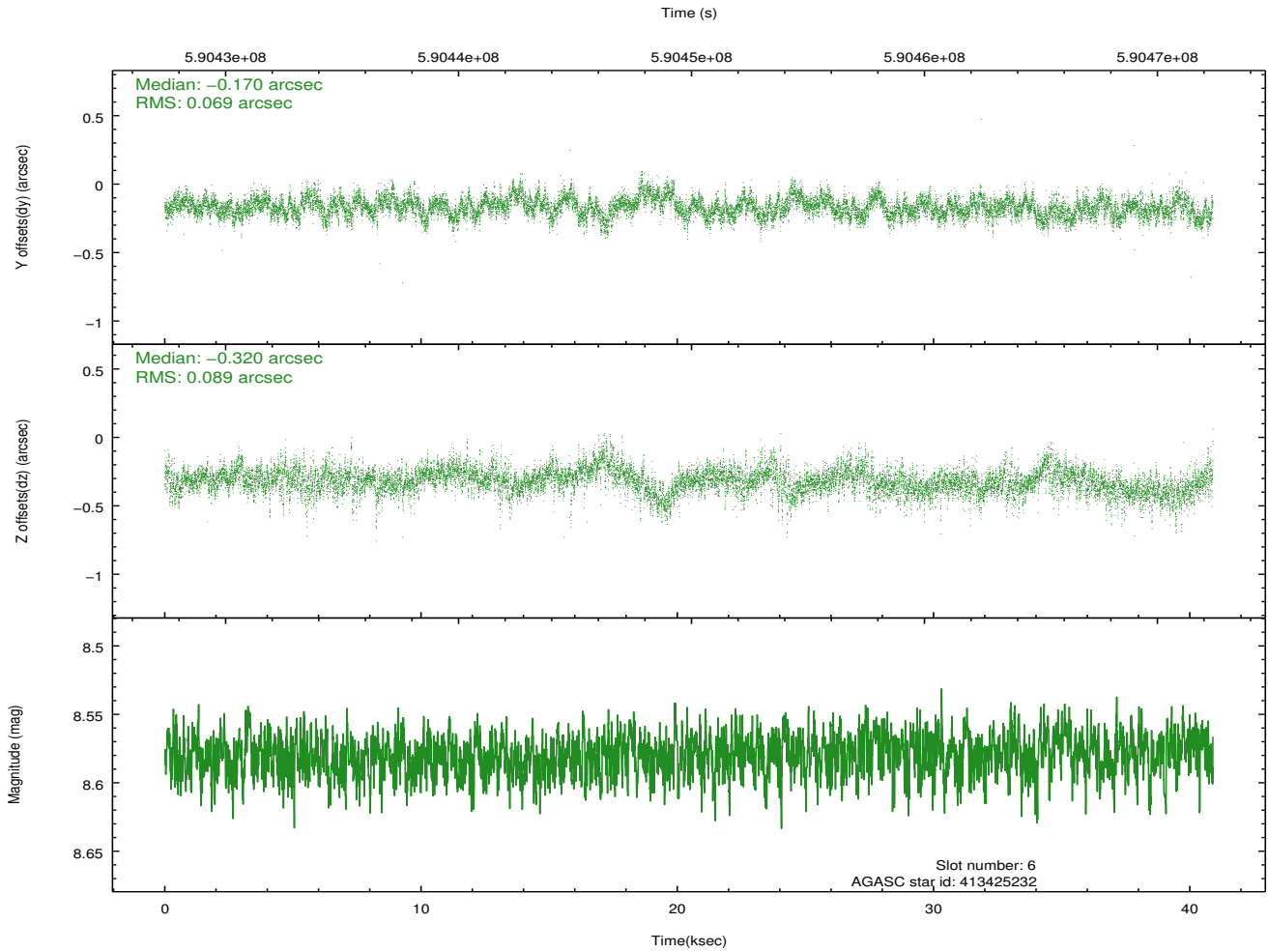
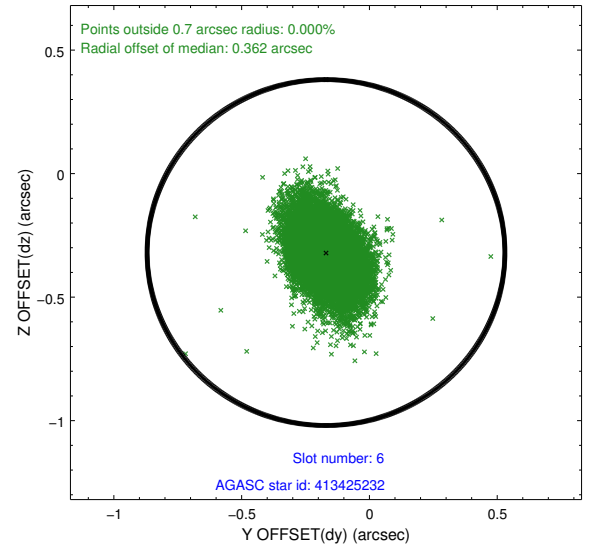
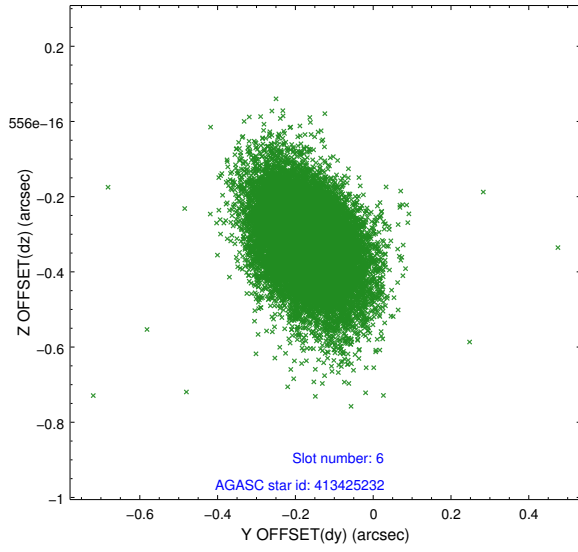
2.4.2 Slot 4



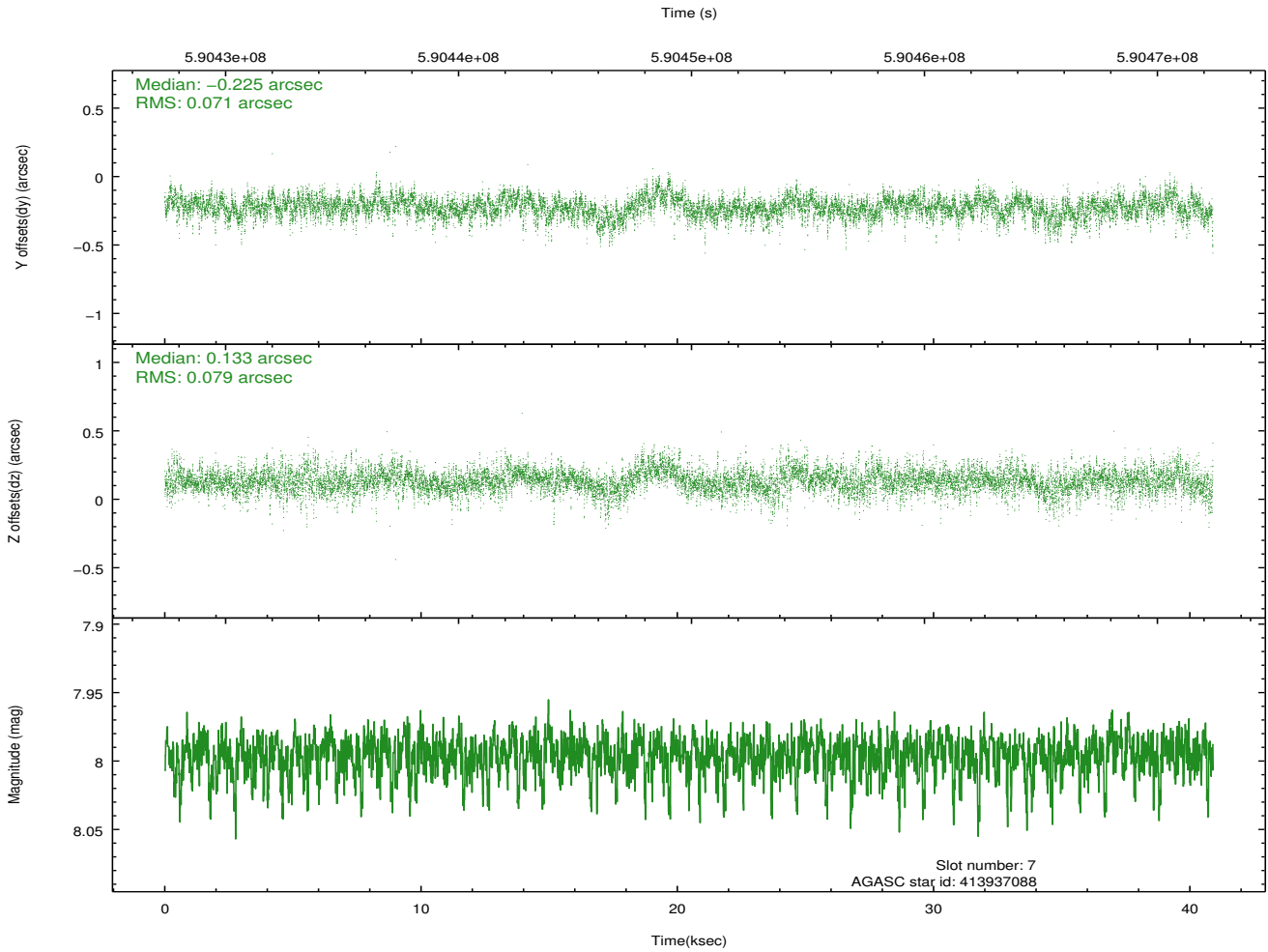
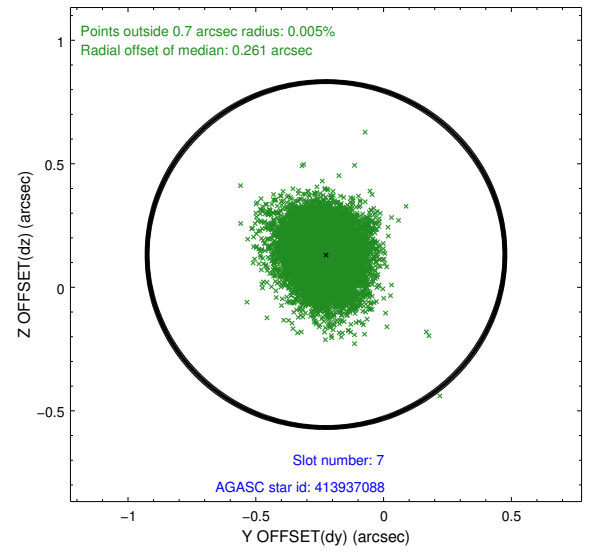
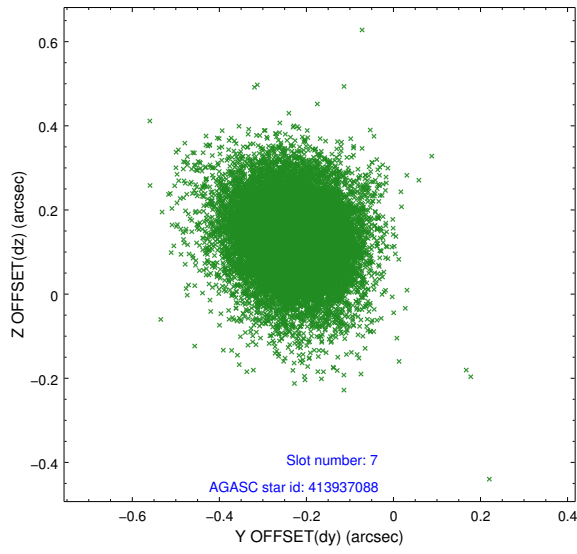
2.4.3 Slot 5



2.4.4 Slot 6

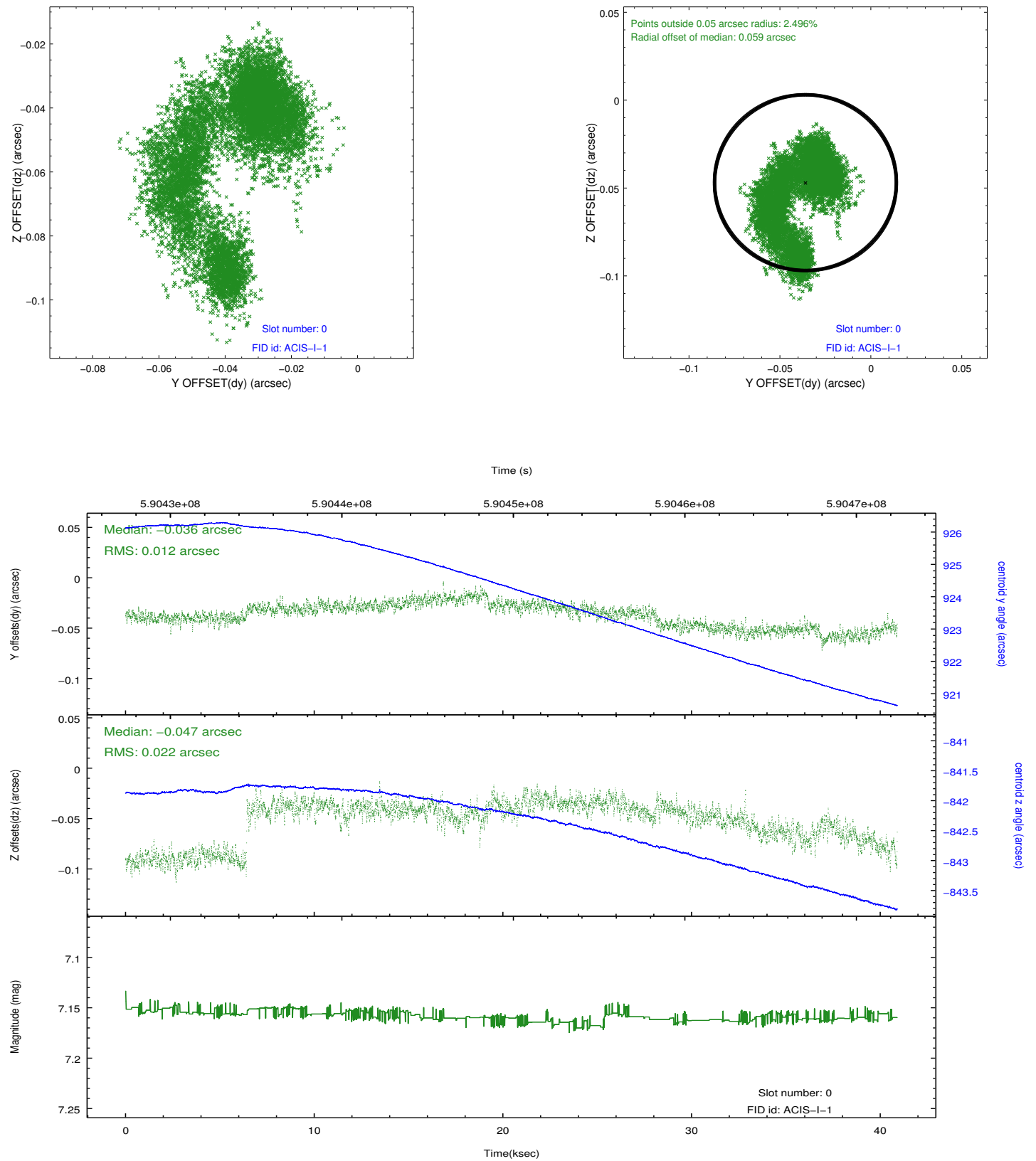


2.4.5 Slot 7

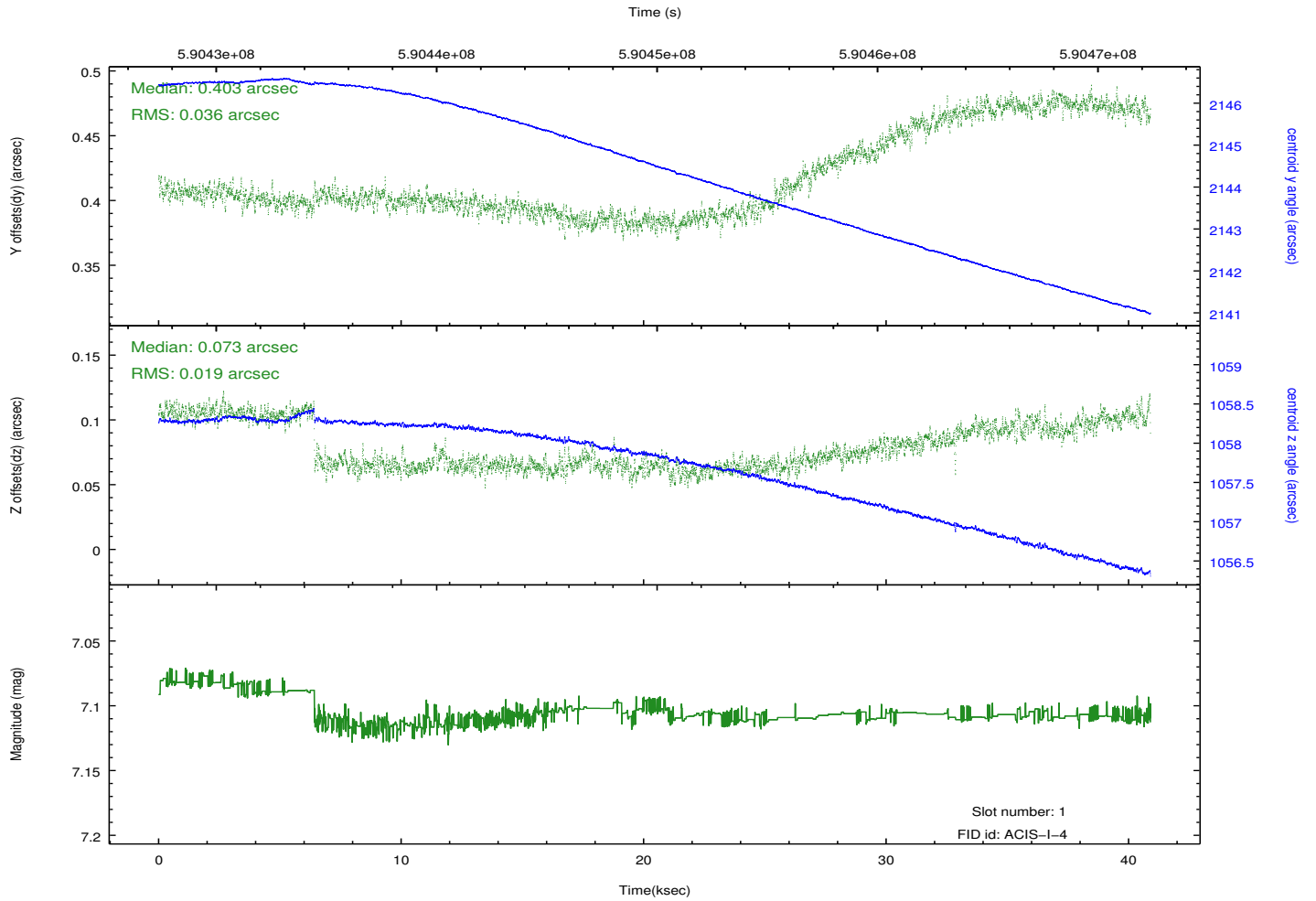
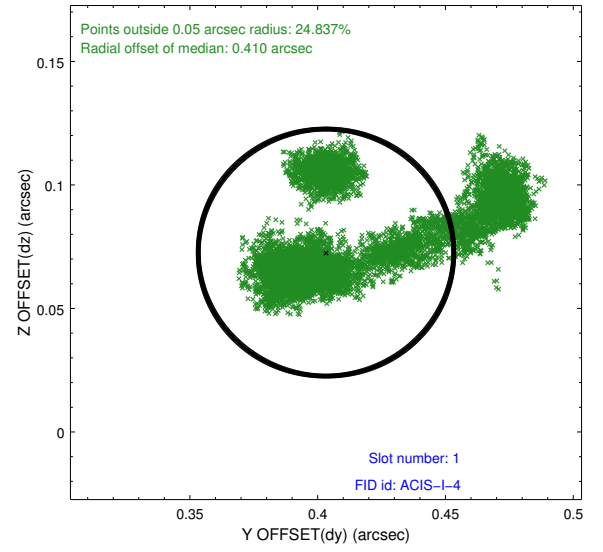
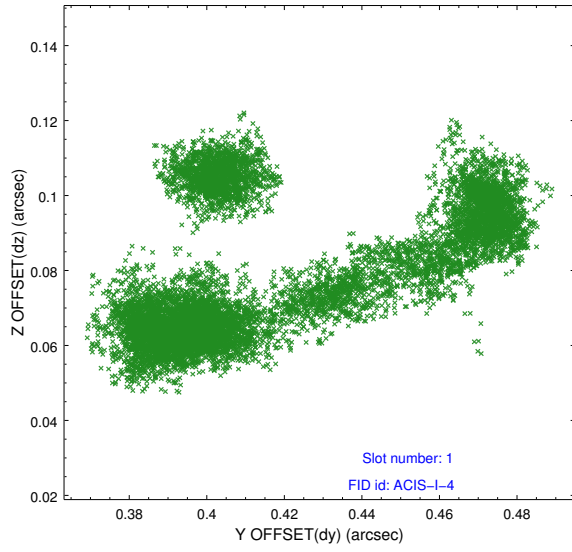


2.5 FID Slots

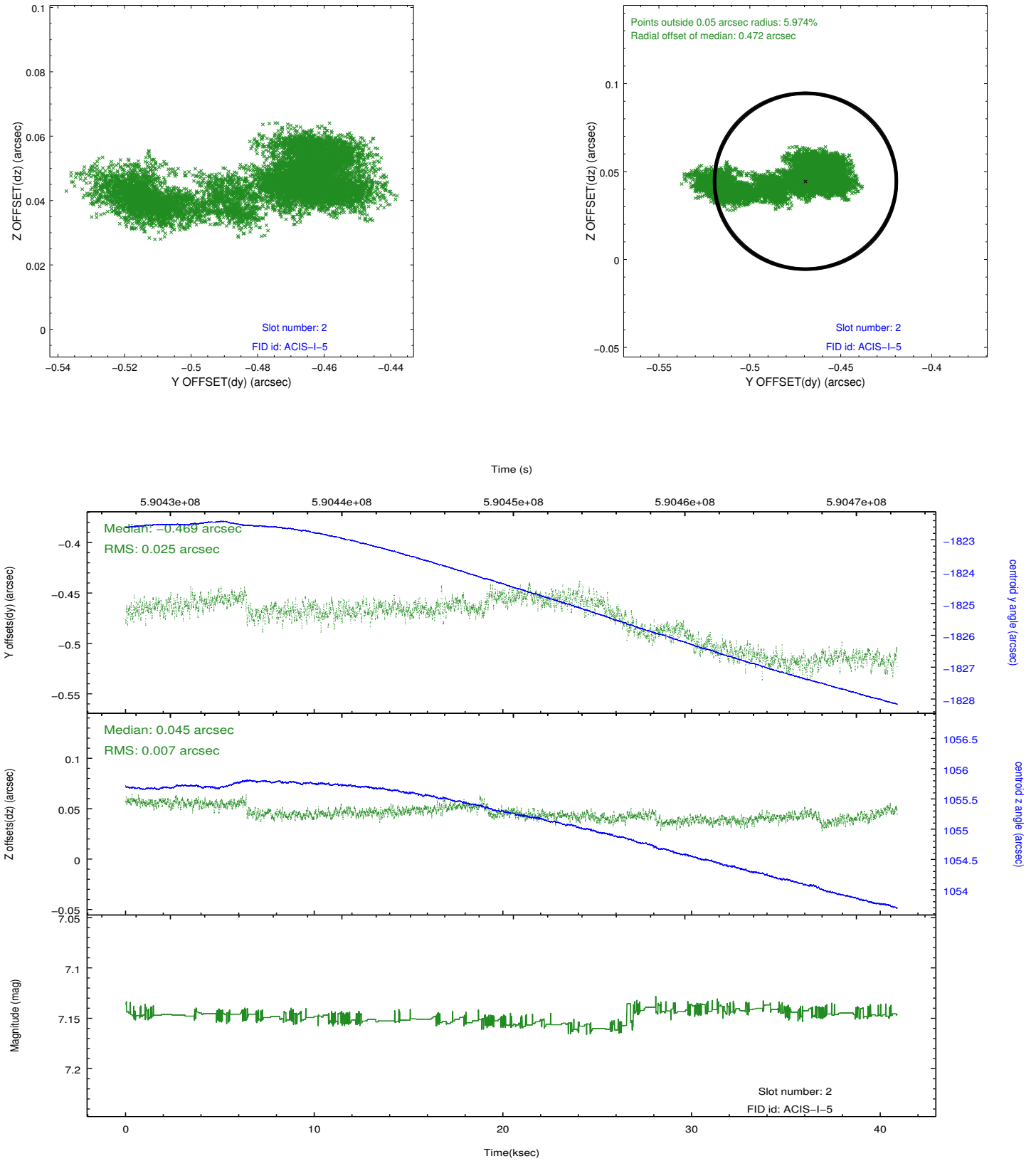
2.5.1 Slot 0



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)	2016.09.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.038970514059

A.2 Comments