

V&V Reference Report

L2 ASCDS Version : 10.5.2

Observation 17135 - L2 Version 2
Chandra X-Ray Center

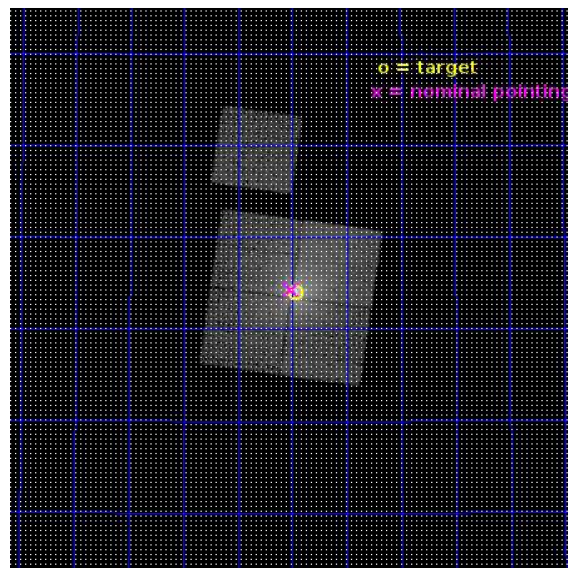
L2 Processing Date : Feb 1 2017

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1 Front

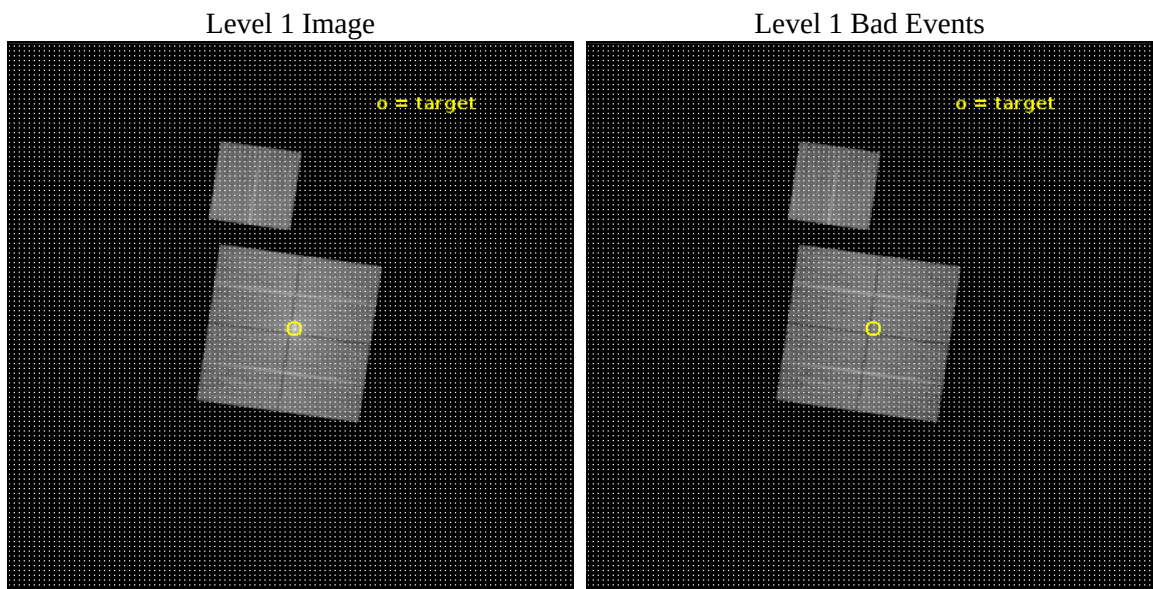
seq_num	703131	Sequence number
obs_id	17135	Observation id
title	The Rise to Power: Half a Billion Years of Intense AGN Activity in the Merging Cluster Cygnus A	Proposal title
observer	Dr. Michael Wise	Principal investigator
object	Cygnus A - Nucleus	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	299.867917	Observer's specified target RA [deg]
dec_targ	40.733889	Observer's specified target Dec [deg]
ra_nom	299.87771434513	Nominal RA [deg]
dec_nom	40.738688869738	Nominal Dec [deg]
roll_nom	8.2022806466431	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20075.600154519	Sum of GTIs [s]
livetime	19813.297659058	Livetime [s]
ontime0	20069.31816411	Sum of GTIs [s]
ontime1	20075.600154519	Sum of GTIs [s]
ontime2	20075.600154519	Sum of GTIs [s]
ontime3	20075.600154519	Sum of GTIs [s]
ontime6	20072.459164262	Sum of GTIs [s]
l2events	162251	Number of level 2 events



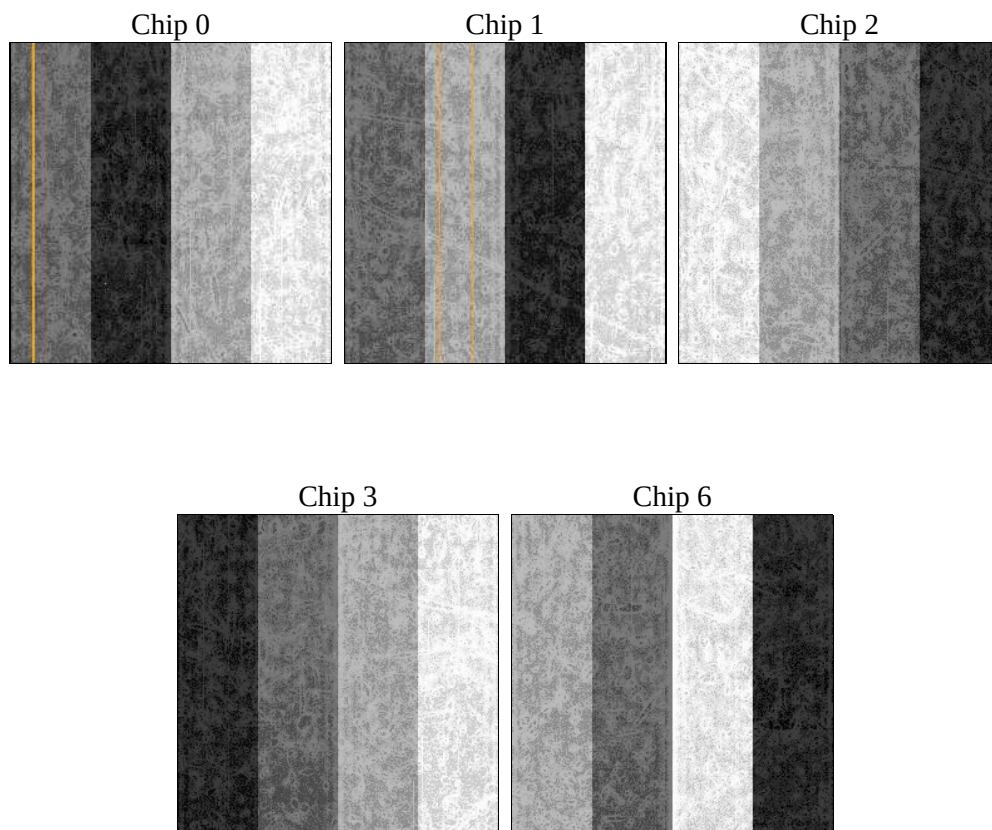
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20012.405000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	20075.600154519	Sum of GTIs [s]
caldsver	4.7.3	 	ontime0	20069.31816411	Sum of GTIs [s]
date	2017-02-01T23:57:17	Date and time of file creation	ontime1	20075.600154519	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	20075.600154519	Sum of GTIs [s]
			ontime3	20075.600154519	Sum of GTIs [s]
			ontime6	20072.459164262	Sum of GTIs [s]
			l1events	789226	Number of level 1 events

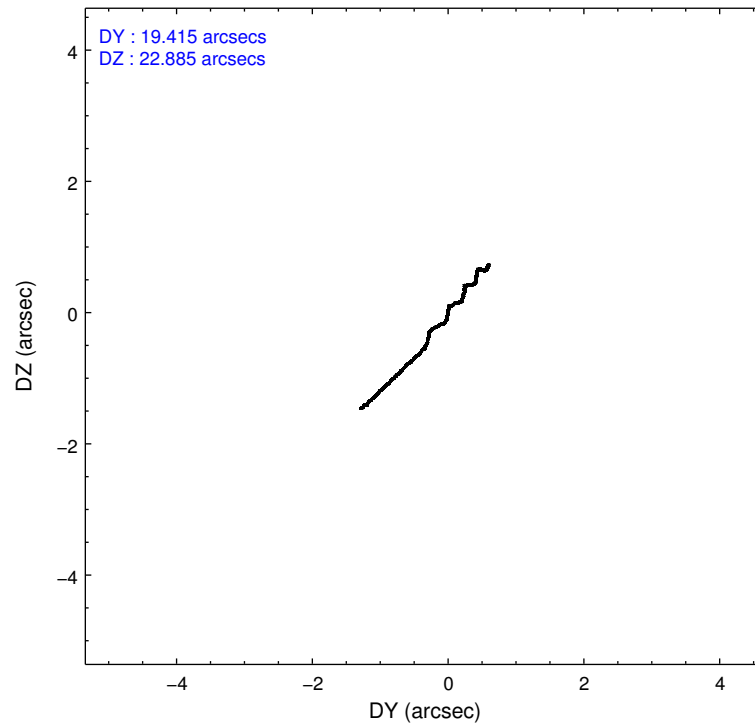
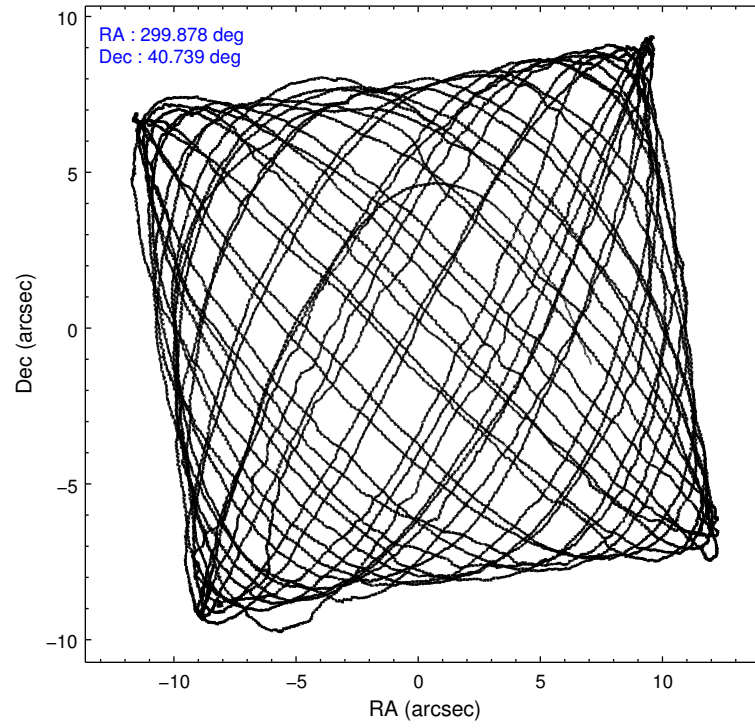
2.1.4 Events

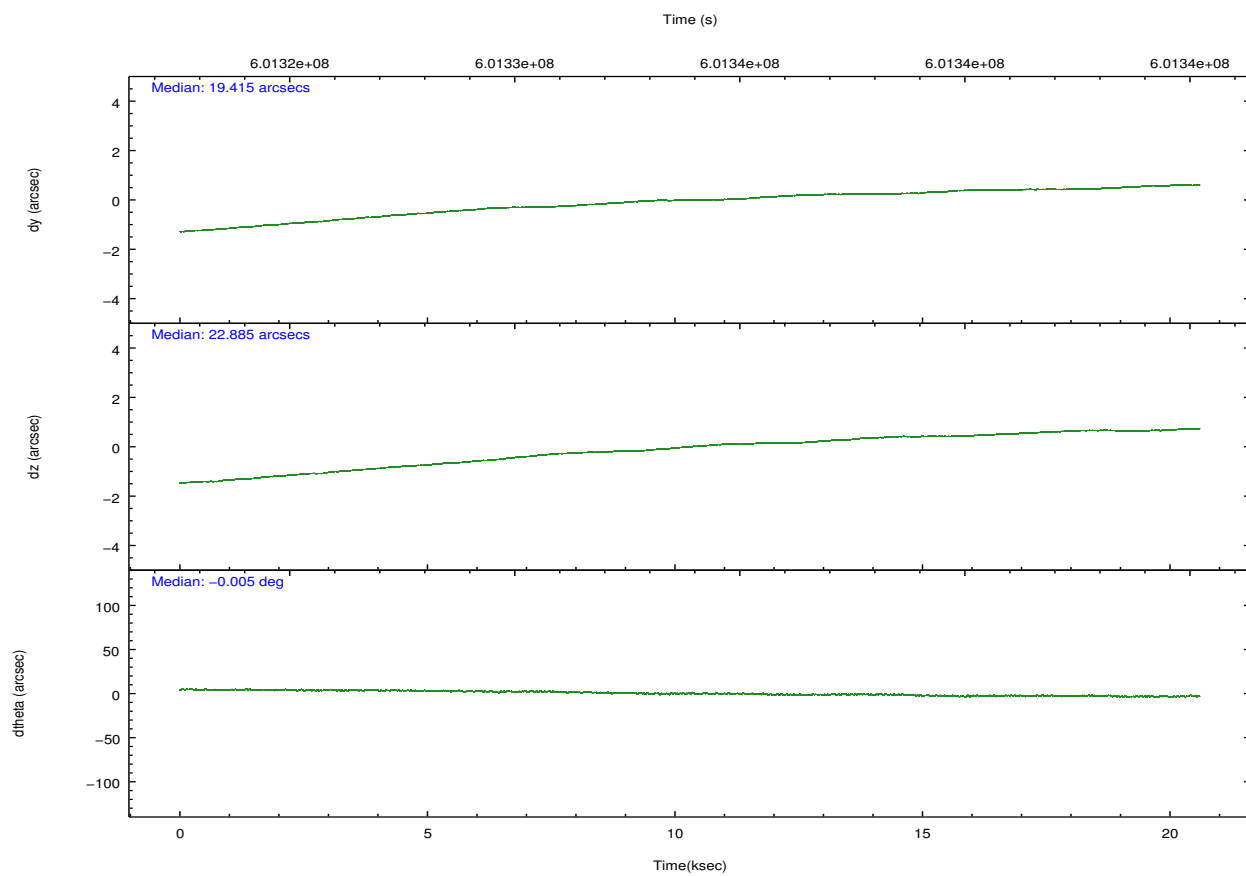
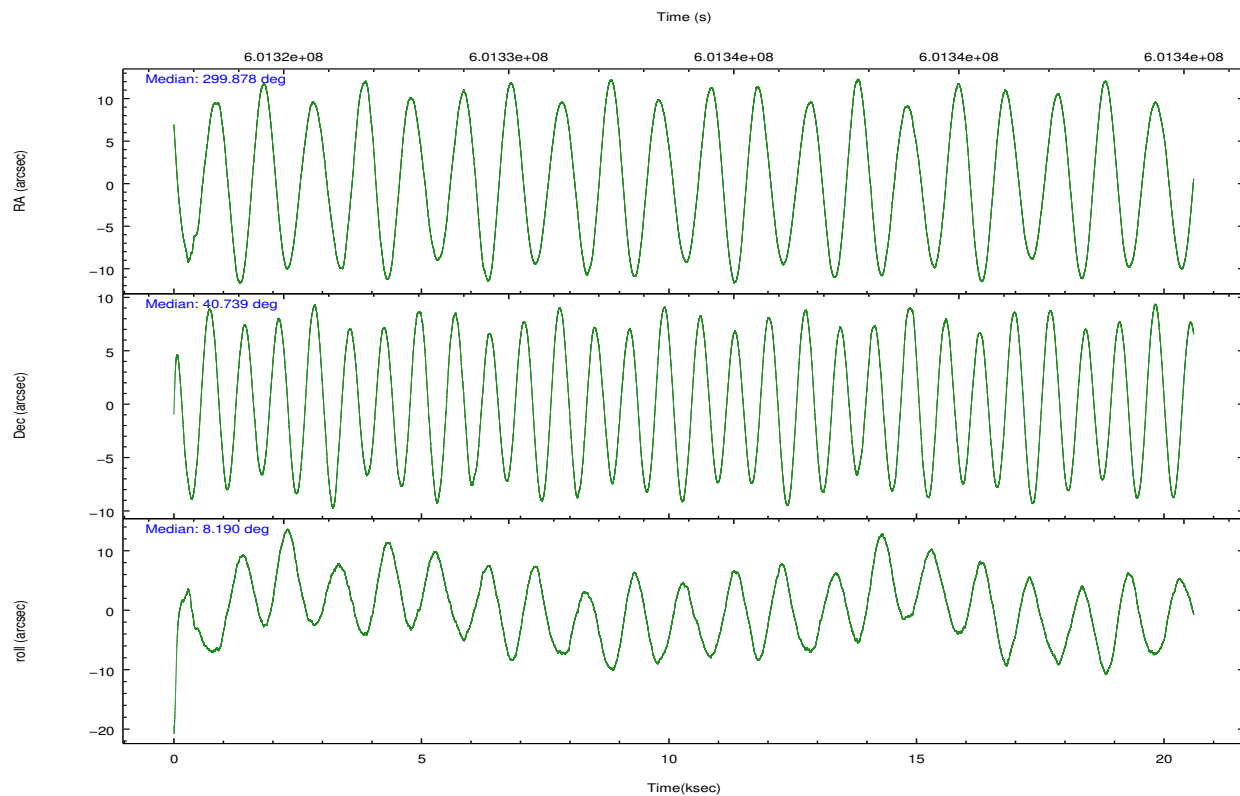
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	135419	147271	166900	199904	139732	grade 0 events	11955	15066	20422	50663	6441
rejected events	111287	118036	132454	126233	122452		8%	10%	12%	25%	4%
rejected %	82%	80%	79%	63%	87%	grade 1 events	100	112	169	593	86
							0%	0%	0%	0%	0%
						grade 2 events	4960	5882	6016	9948	3908
							3%	3%	3%	4%	2%
						grade 3 events	1942	2095	2161	3721	1578
							1%	1%	1%	1%	1%
						grade 4 events	1842	2014	2221	3721	1662
							1%	1%	1%	1%	1%
						grade 5 events	5910	6288	5450	7263	6576
							4%	4%	3%	3%	4%
						grade 6 events	3435	4184	3629	5631	3696
							2%	2%	2%	2%	2%
						grade 7 events	105275	111630	126832	118364	115785
							77%	75%	75%	59%	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	299.849218	299.8777143451273	CCD I2 on	Y	Y
[deg] Pointing Dec	40.721536	40.73868886973825	CCD I3 on	Y	Y
[deg] Pointing Roll	8.012197	8.202280646643096	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)	601324189.184000	601322992.87468	CCD S5 on	N	N
Observation start date	2017-01-20T18:28:40	2017-01-20T18:09:52	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	601344202.184000	601344432.28843	On-chip summing requested	N	N
Observation end date	2017-01-21T00:02:13	2017-01-21T00:07:12	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



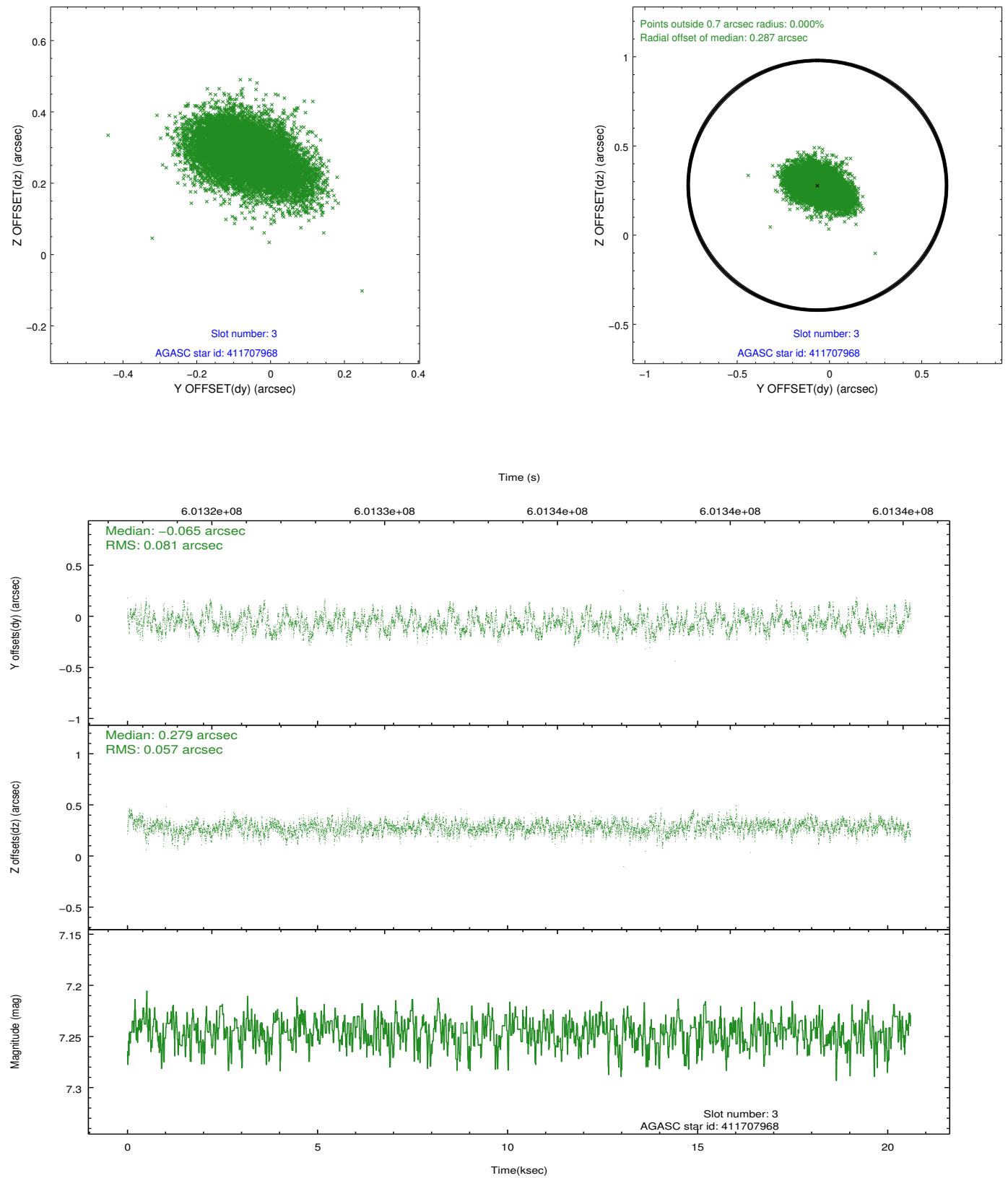


Slot Statistics

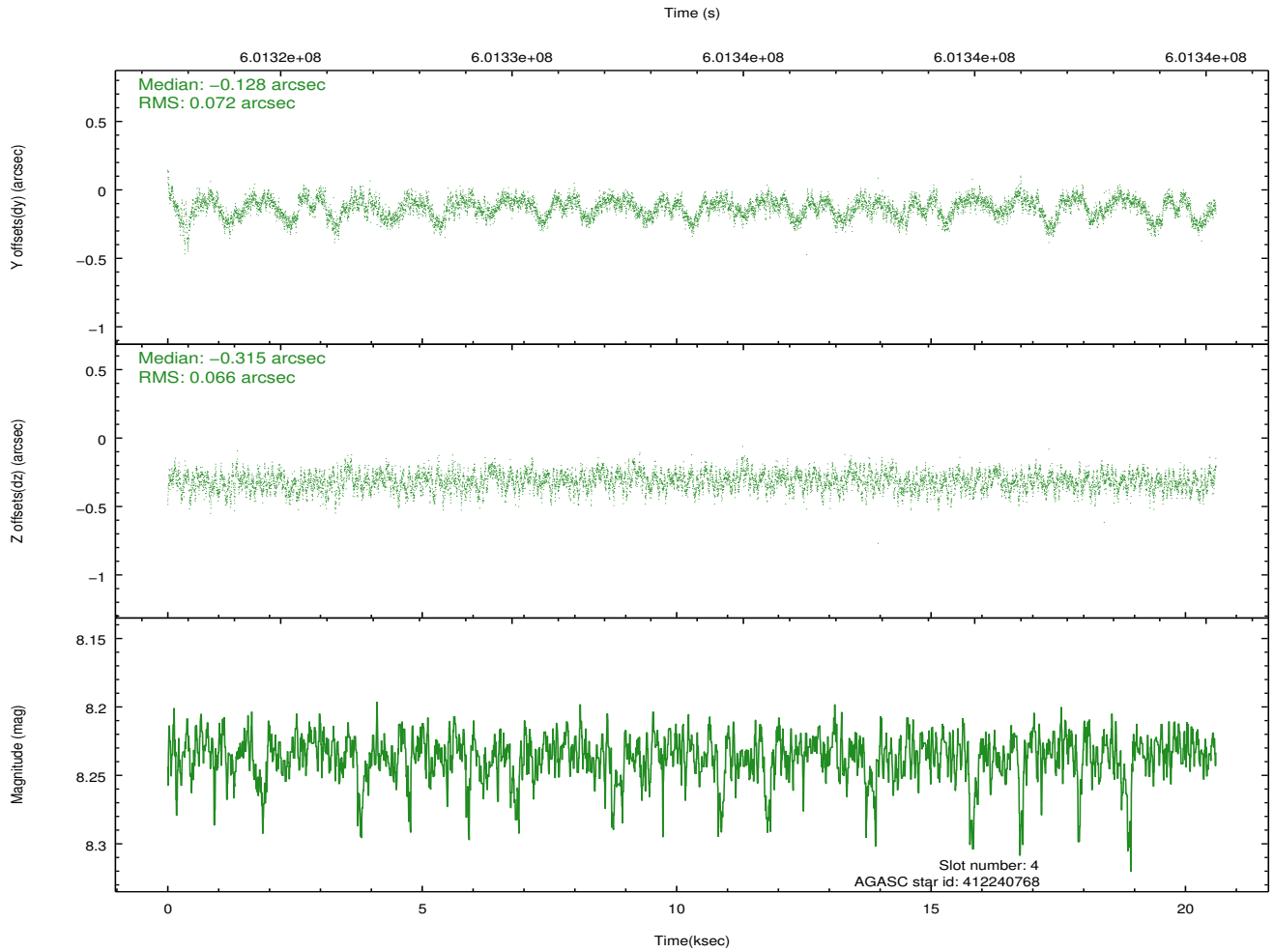
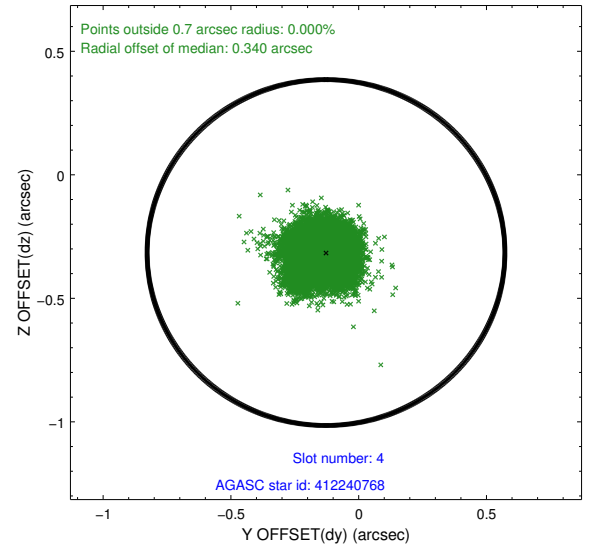
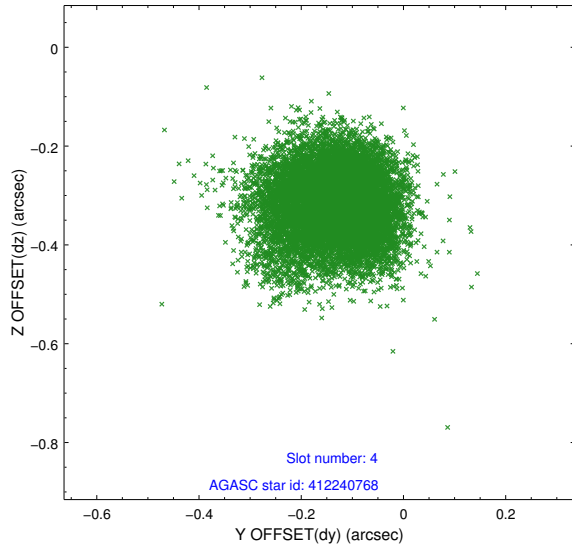
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.12	5025	0.058	0.006	0.045	0.076	0.000000	0.000000	920.15	-846.49
1	FID		ACIS-I-5	7.11	5025	-0.344	0.030	0.016	0.025	0.000000	0.000000	-1828.37	1050.78
2	FID		ACIS-I-6	7.14	5025	0.194	0.036	0.032	0.065	0.000000	0.000000	385.49	1695.63
3	GUIDE	used	411707968	7.25	10049	-0.065	0.279	0.104	0.176	299.509933	40.926839	-810.11	862.35
4	GUIDE	used	412240768	8.24	10044	-0.128	-0.315	0.104	0.167	299.999696	41.280279	683.45	1935.08
5	GUIDE	used	413421016	8.71	10042	-0.101	0.068	0.150	0.234	300.612426	40.446254	1934.25	-1263.60
6	GUIDE	used	413425016	7.99	10046	0.182	-0.084	0.157	0.256	300.758532	40.173167	2204.73	-2290.95
7	GUIDE	used	413929808	8.44	10044	0.116	0.047	0.108	0.181	300.621353	41.348826	2382.90	1954.60

2.4 Star Slots

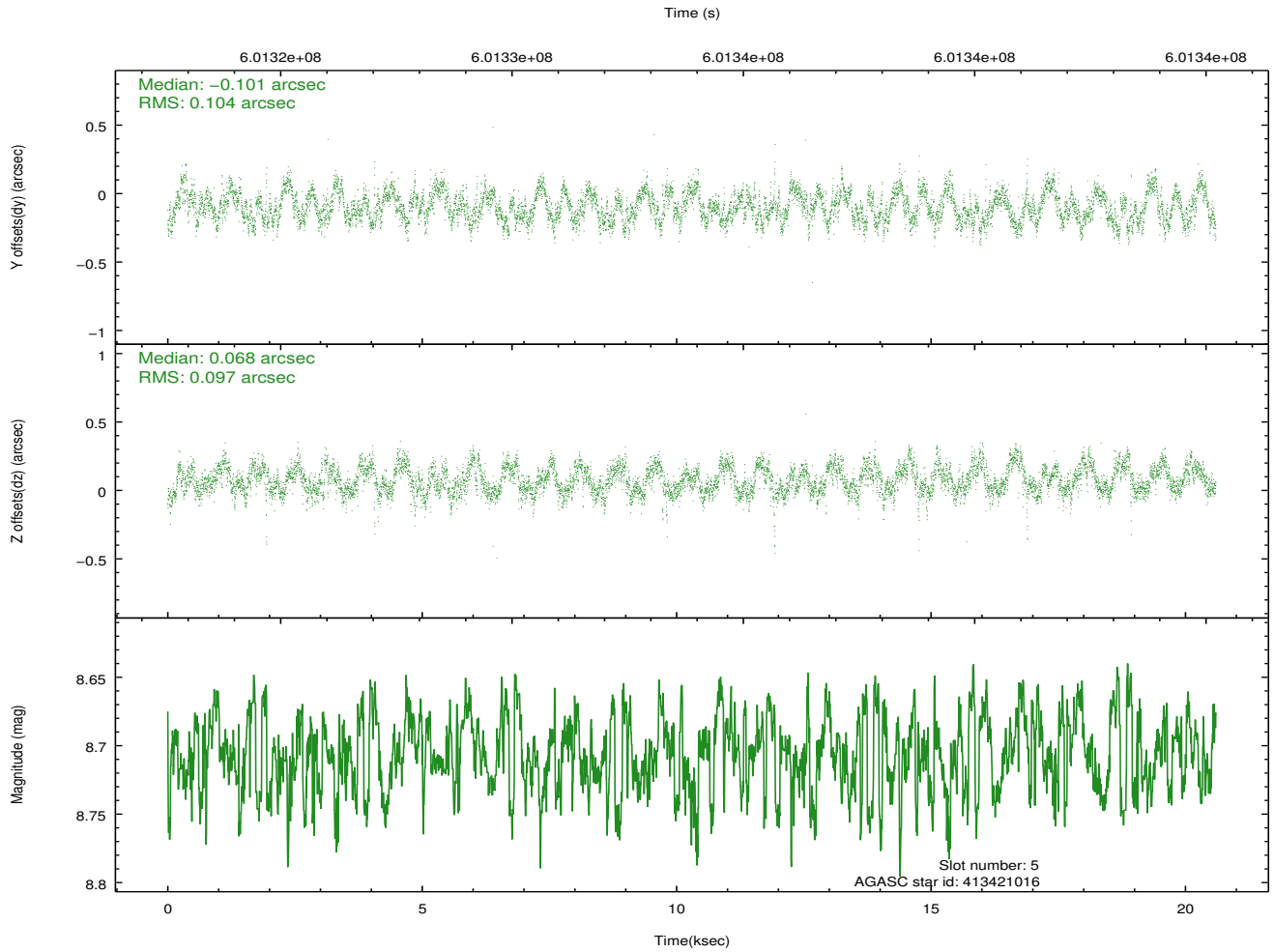
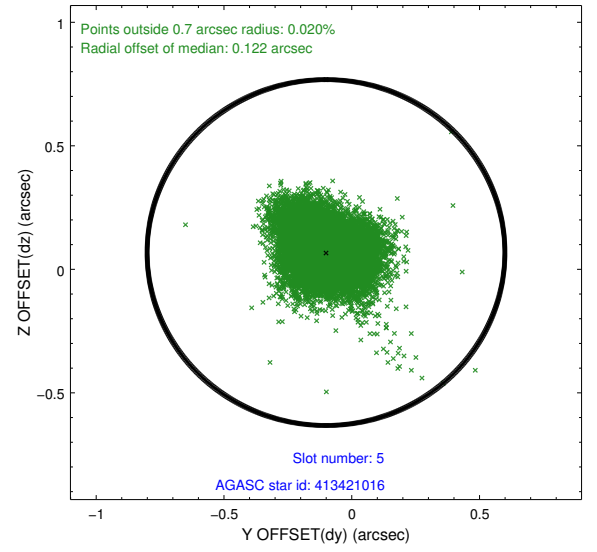
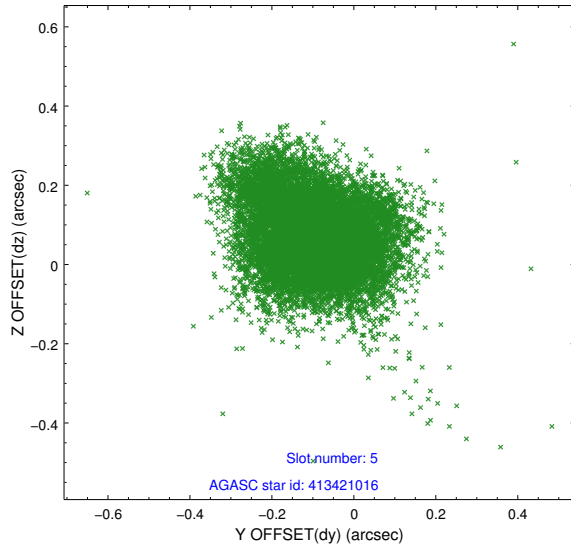
2.4.1 Slot 3



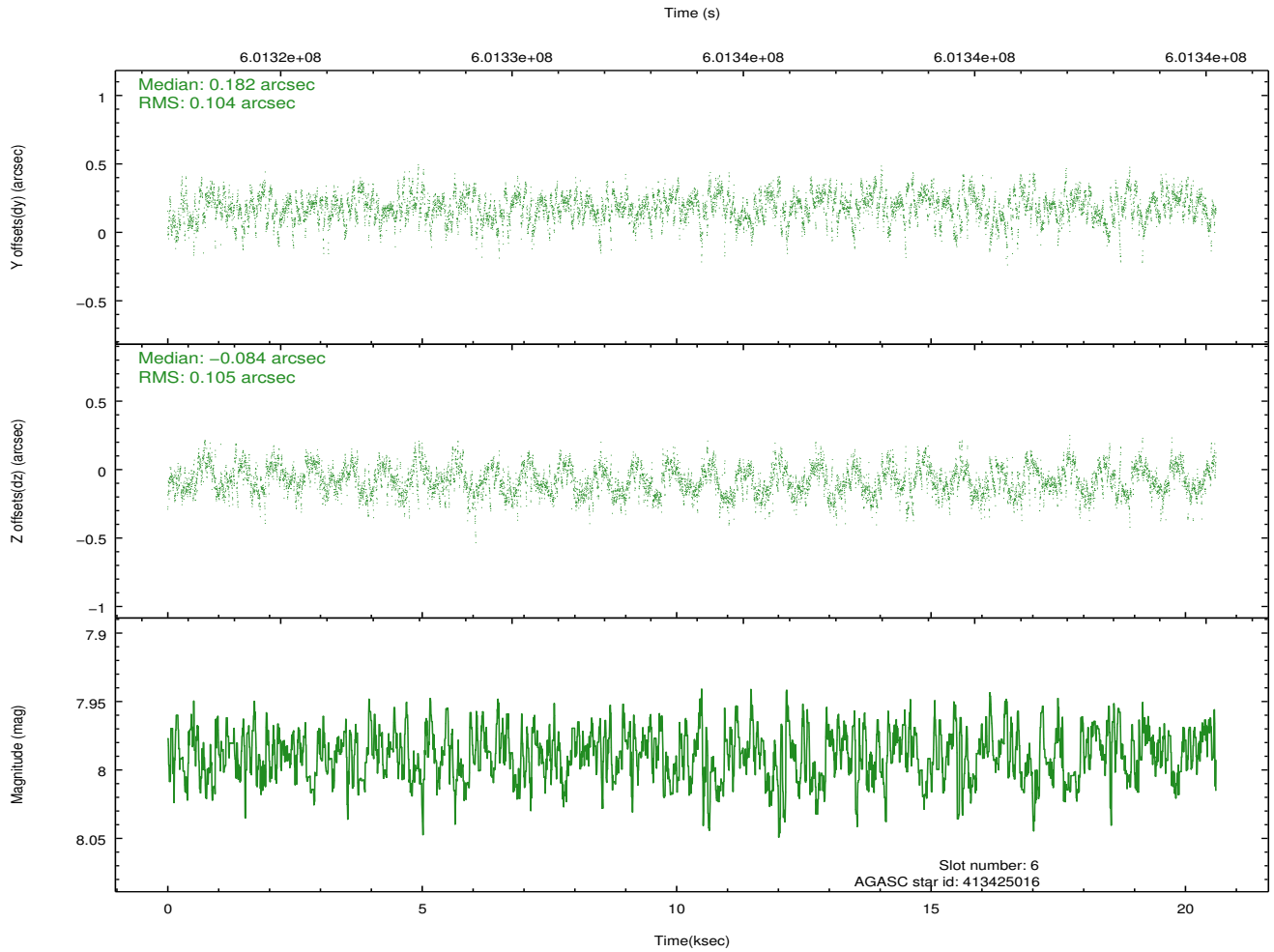
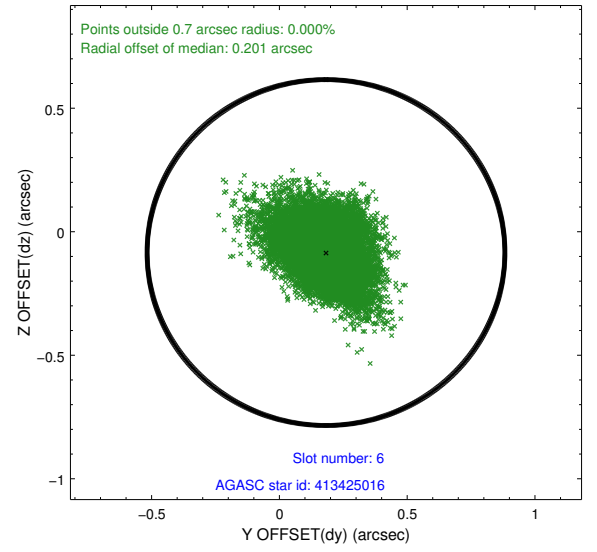
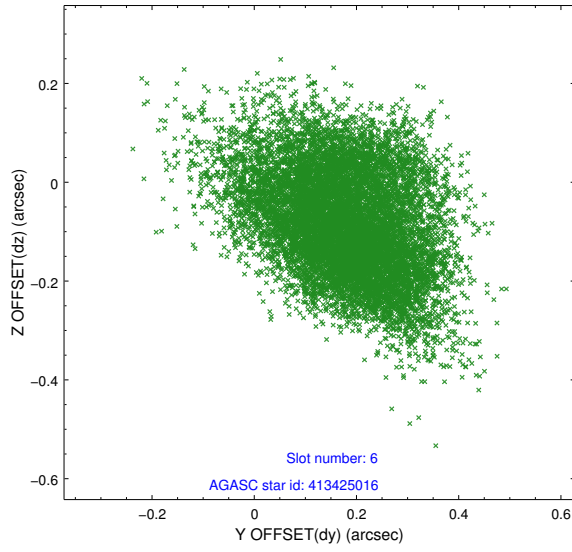
2.4.2 Slot 4



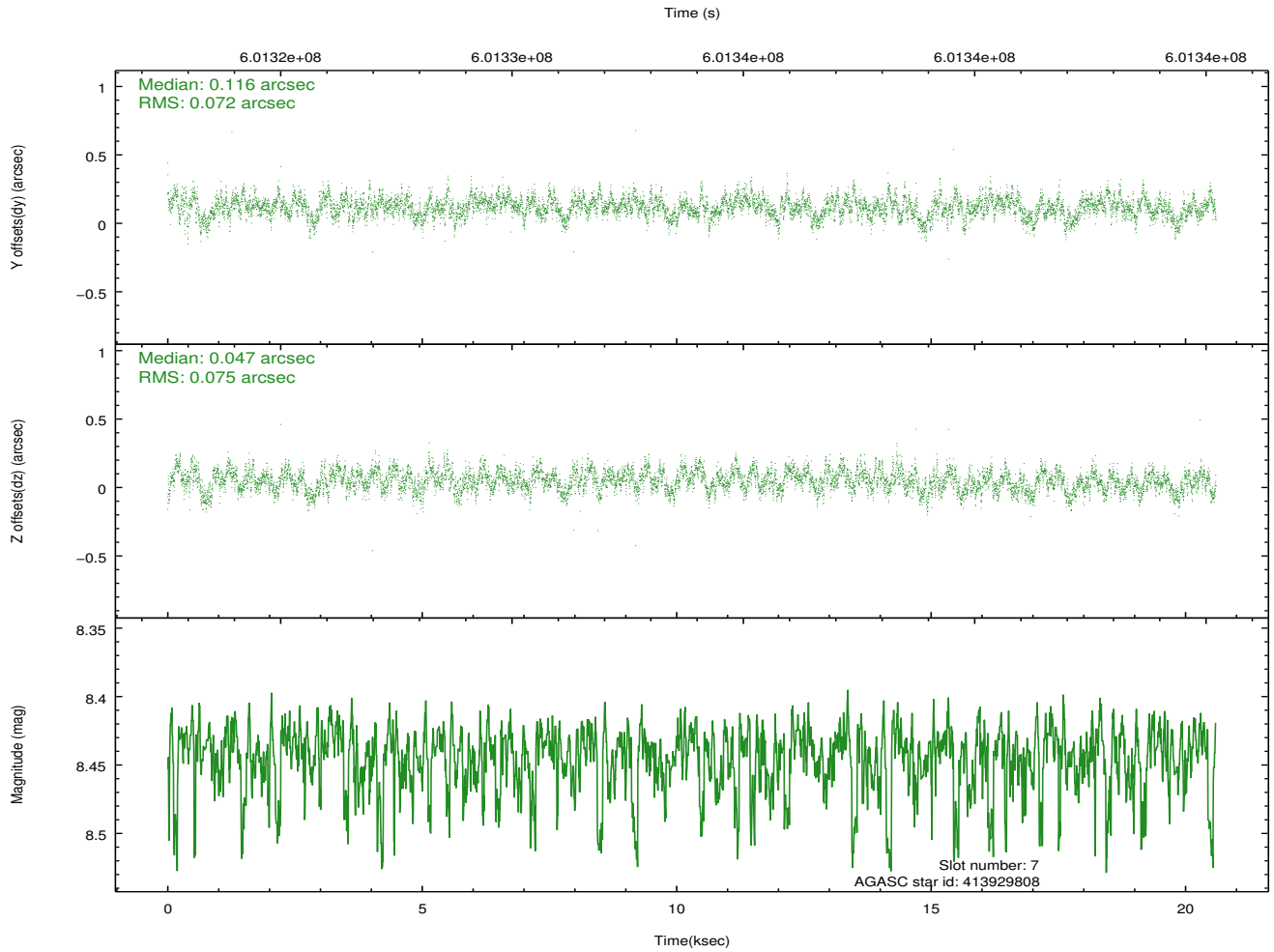
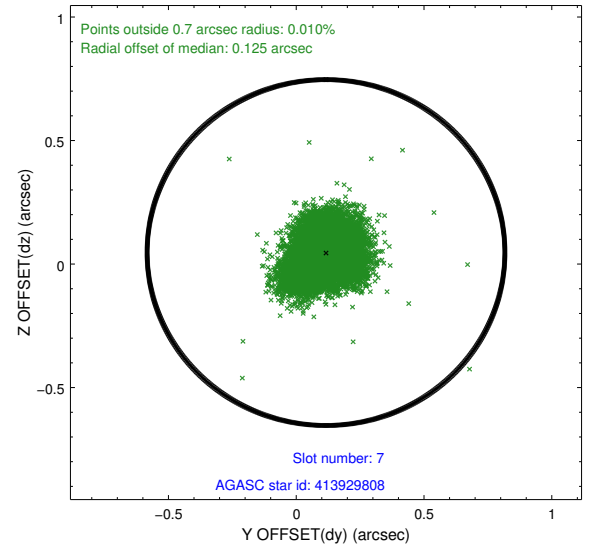
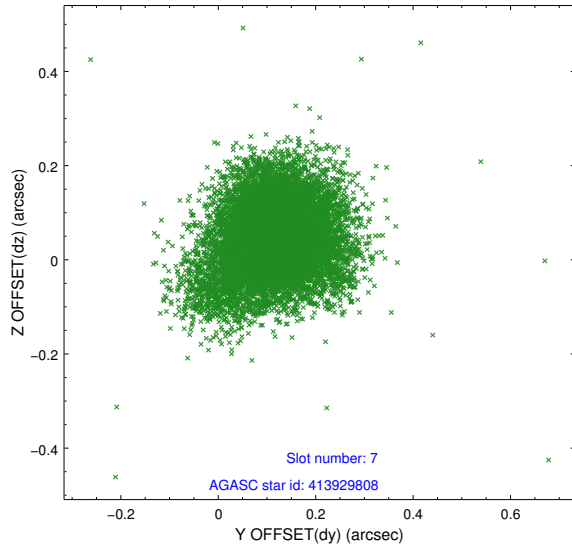
2.4.3 Slot 5



2.4.4 Slot 6

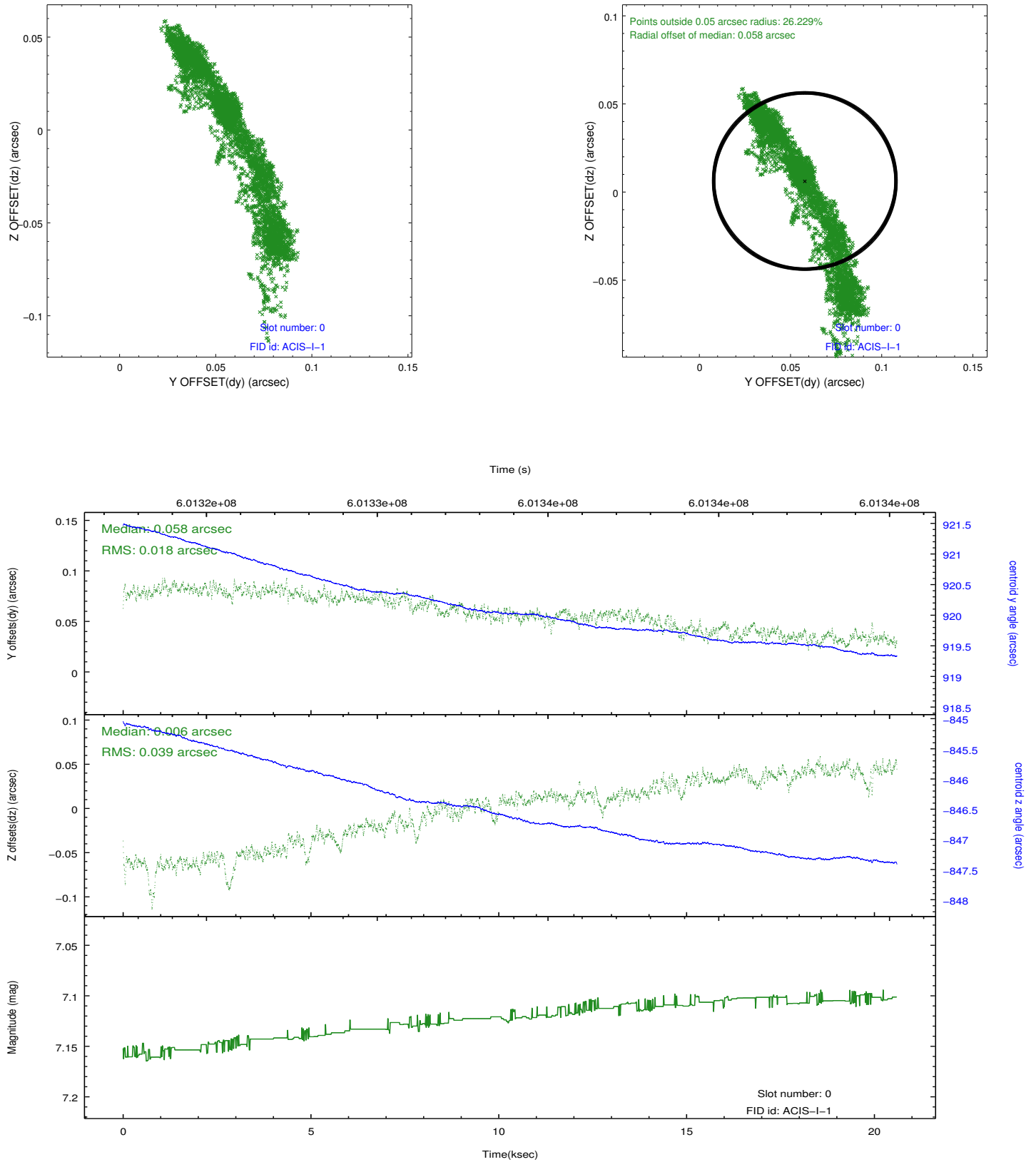


2.4.5 Slot 7

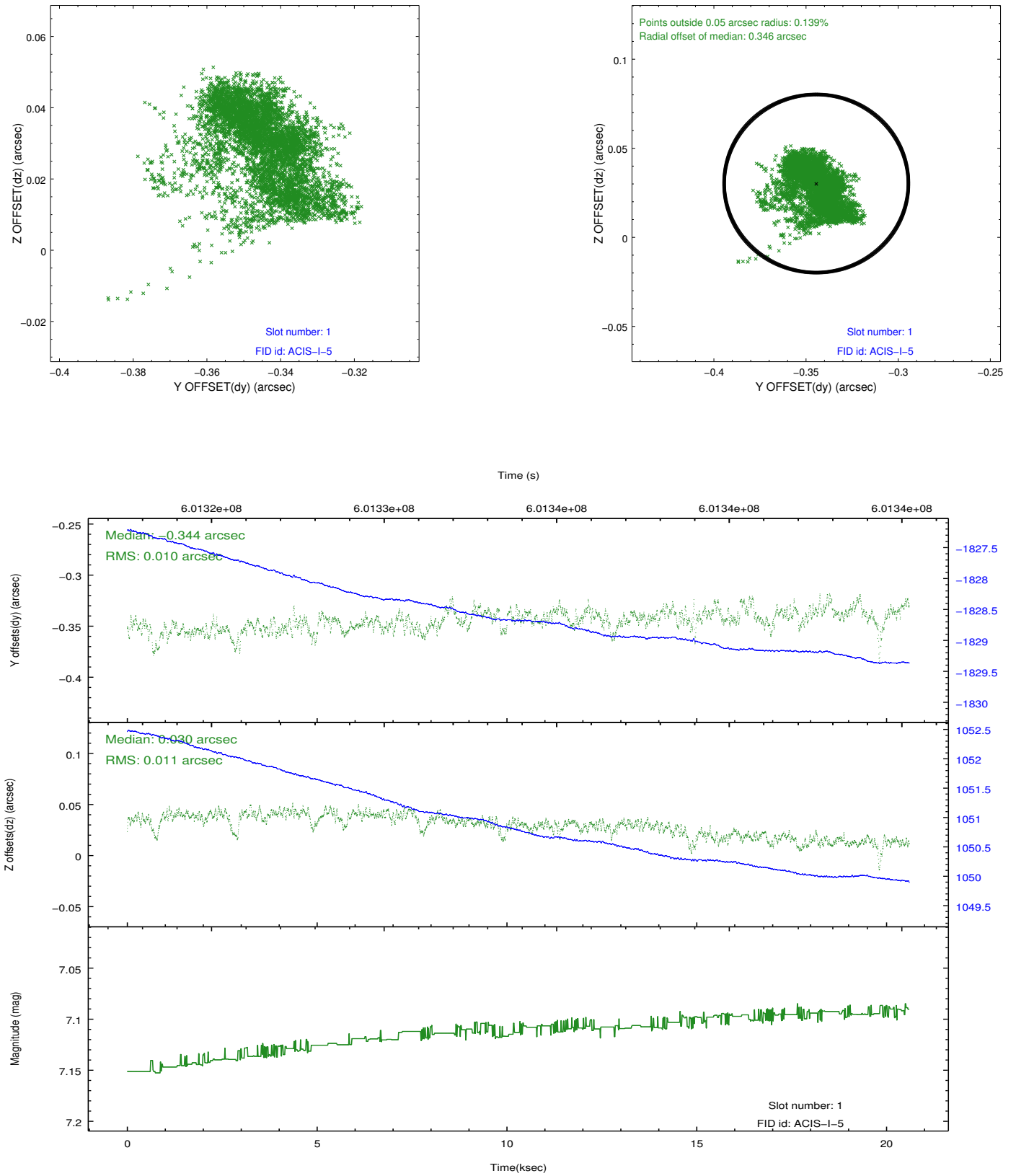


2.5 FID Slots

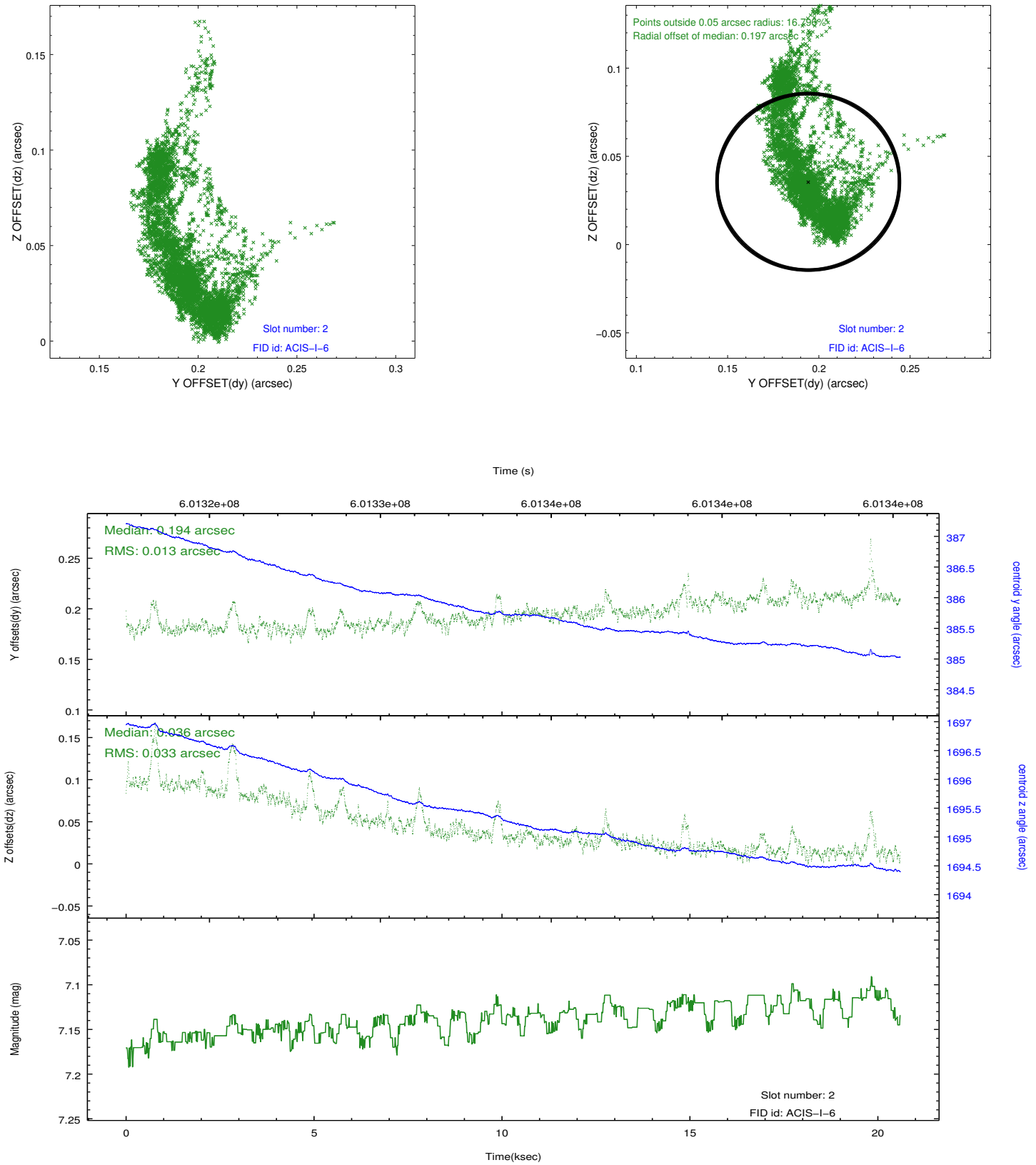
2.5.1 Slot 0



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)	2017.02.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.075600154519

A.2 Comments