

V&V Reference Report

L2 ASCDS Version : 10.6.4

Observation 21136 - L2 Version 1
Chandra X-Ray Center

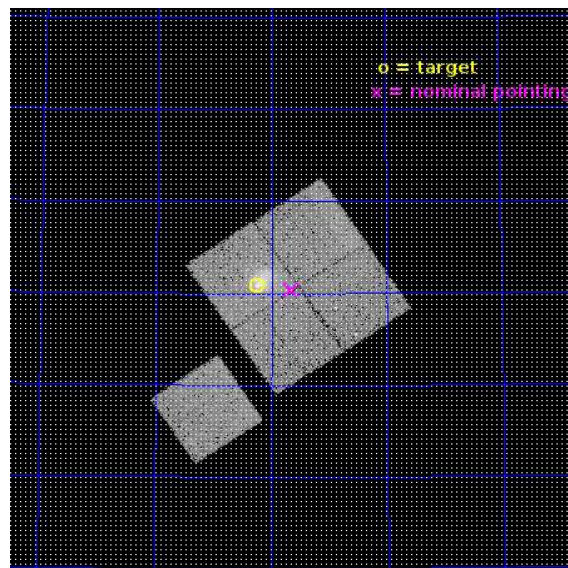
L2 Processing Date : Jul 28 2018

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1 Front

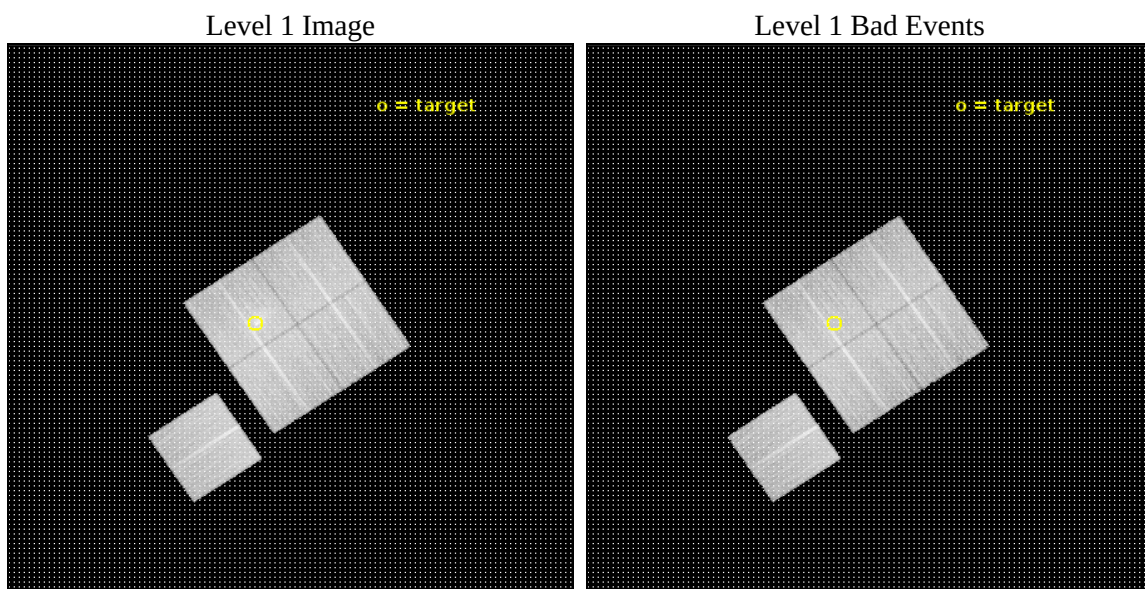
seq_num	801762	Sequence number
obs_id	21136	Observation id
title	Shock structure, the electron-ion equilibration timescale and the disintegrating cool core in A2146	Proposal title
observer	Helen Russell	Principal investigator
object	Abell 2146	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	239.06125	Observer's specified target RA [deg]
dec_targ	66.346917	Observer's specified target Dec [deg]
ra_nom	238.91336380489	Nominal RA [deg]
dec_nom	66.340241697651	Nominal Dec [deg]
roll_nom	236.34419693608	Nominal Roll [deg]
revision	1	Processing version of data
ontime	22034.509852886	Sum of GTIs [s]
livetime	21746.612760088	Livetime [s]
ontime0	22034.386732936	Sum of GTIs [s]
ontime1	22034.42777288	Sum of GTIs [s]
ontime2	22031.327822566	Sum of GTIs [s]
ontime3	22034.509852886	Sum of GTIs [s]
ontime6	22031.204732656	Sum of GTIs [s]
l2events	89174	Number of level 2 events



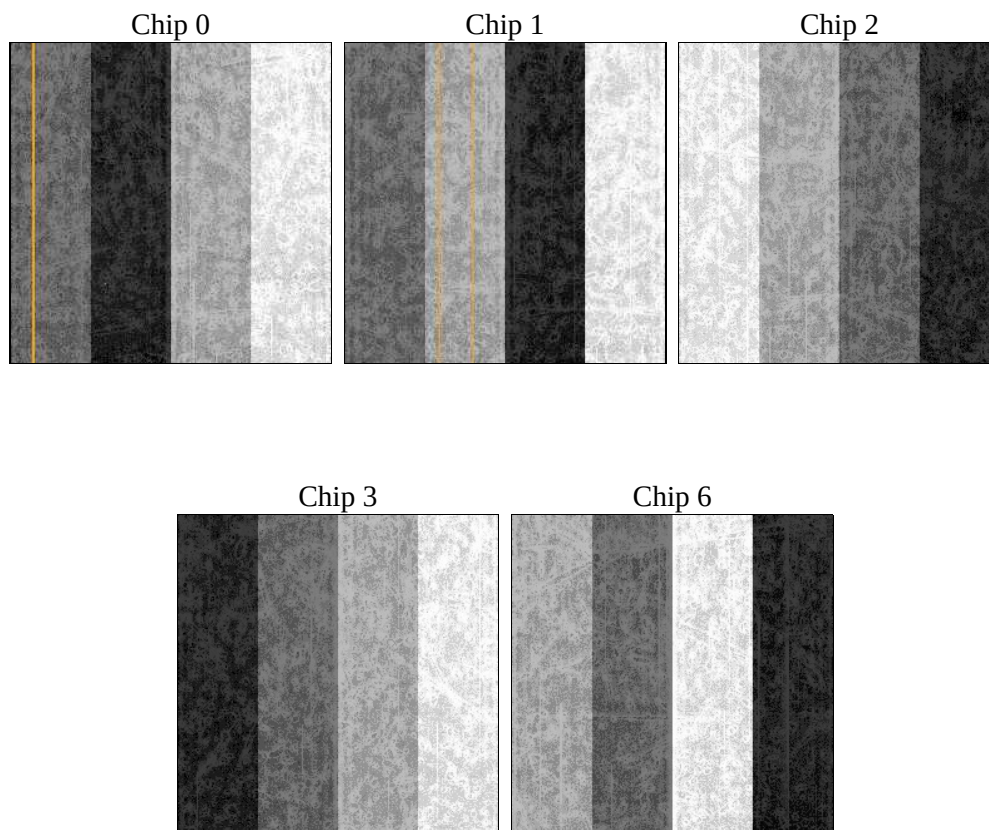
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	22000.000000	[s] Scheduled observation exposure time
ascdsver	10.6.4	Processing system revision	ontime	22034.509852886	Sum of GTIs [s]
caldsver	4.7.8	 	ontime0	22034.386732936	Sum of GTIs [s]
date	2018-07-28T20:58:03	Date and time of file creation	ontime1	22034.42777288	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	22031.327822566	Sum of GTIs [s]
			ontime3	22034.509852886	Sum of GTIs [s]
			ontime6	22031.204732656	Sum of GTIs [s]
			l1events	816363	Number of level 1 events

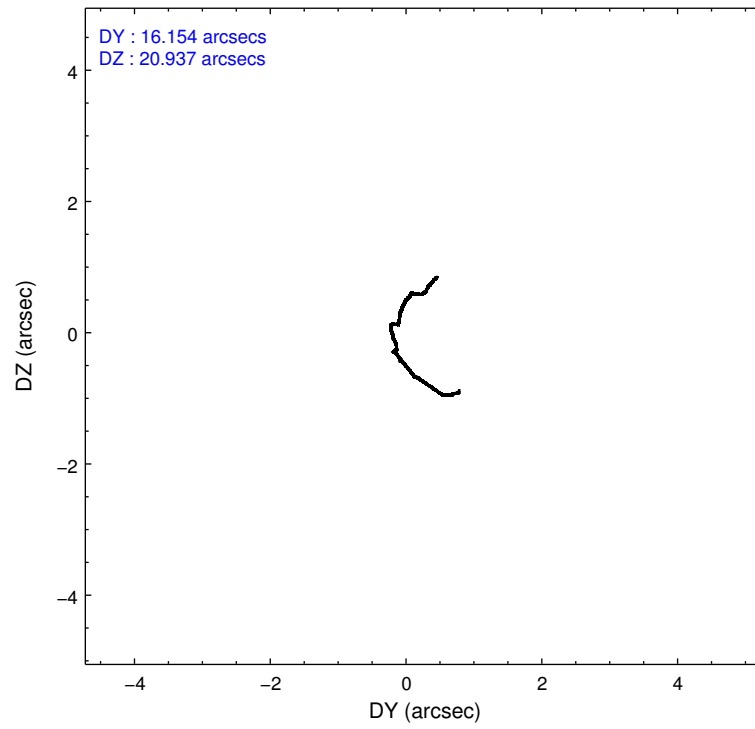
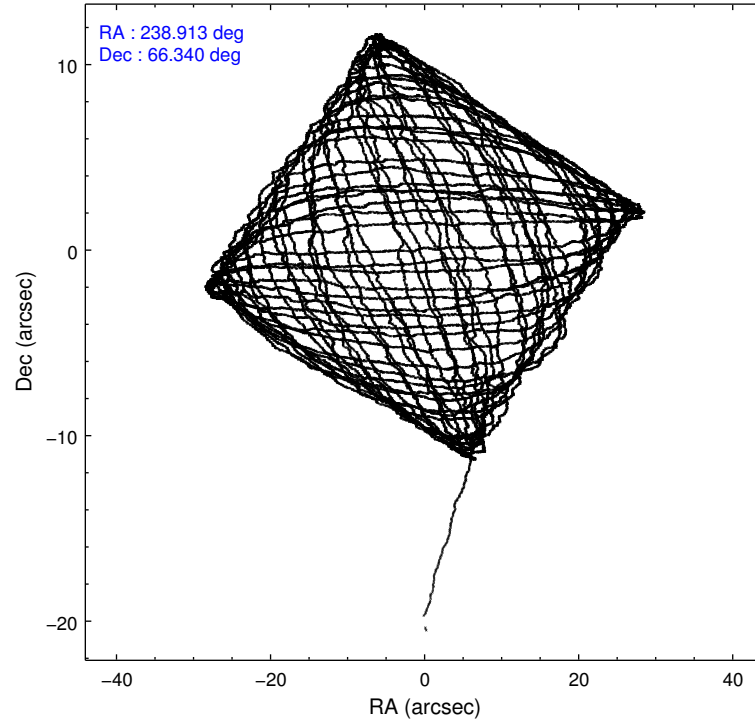
2.1.4 Events

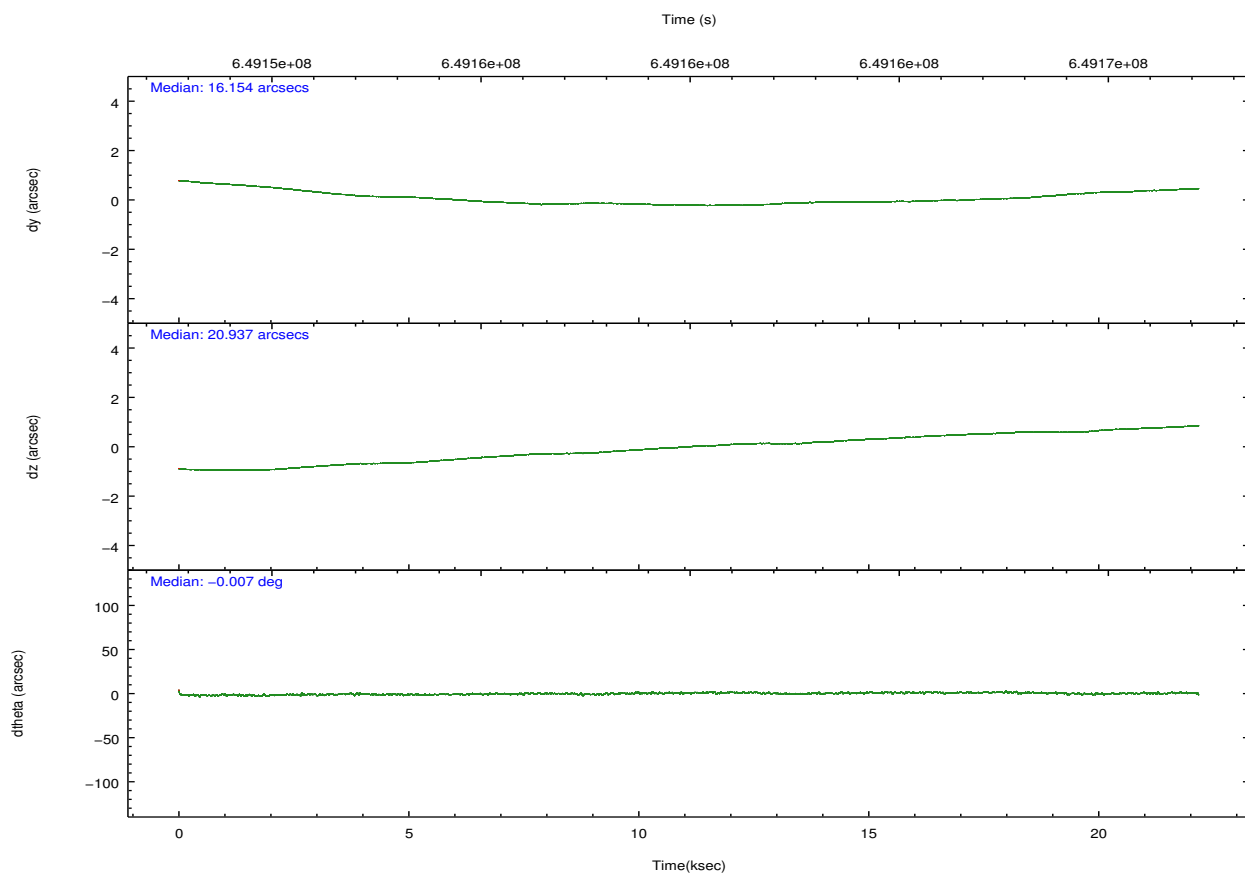
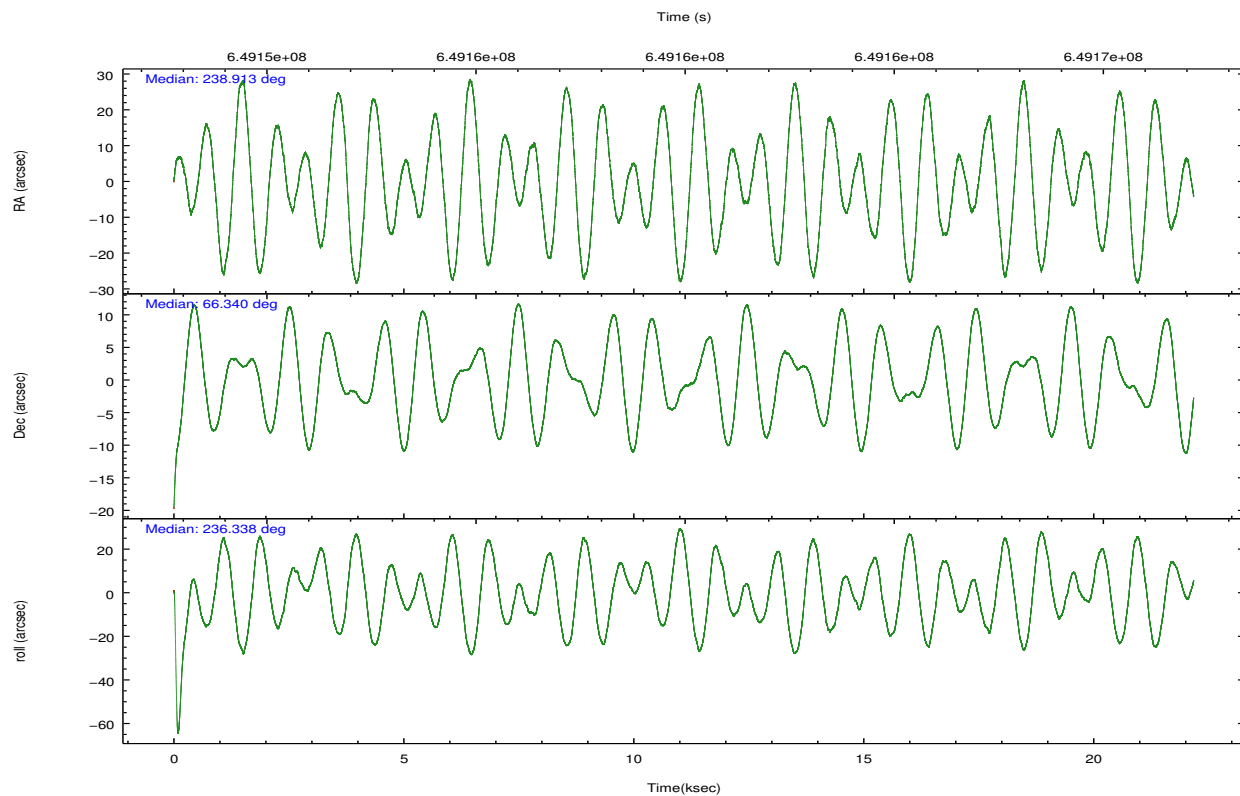
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	155450	156327	168539	173016	163031	grade 0 events	6767	6817	6231	14821	6078
rejected events	136453	135691	150556	144787	144466		4%	4%	3%	8%	3%
rejected %	87%	86%	89%	83%	88%	grade 1 events	100	85	94	163	83
							0%	0%	0%	0%	0%
						grade 2 events	4798	5435	4563	4983	4391
							3%	3%	2%	2%	2%
						grade 3 events	1881	1914	1748	2160	1805
							1%	1%	1%	1%	1%
						grade 4 events	1712	1939	1818	2239	1799
							1%	1%	1%	1%	1%
						grade 5 events	6969	7462	6653	8115	7342
							4%	4%	3%	4%	4%
						grade 6 events	3869	4561	3657	4071	4522
							2%	2%	2%	2%	2%
						grade 7 events	129354	128114	143775	136464	137011
							83%	81%	85%	78%	84%

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	238.917486	238.9133638048907	CCD I2 on	Y	Y
[deg] Pointing Dec	66.367823	66.34024169765081	CCD I3 on	Y	Y
[deg] Pointing Roll	236.131700	236.3441969360828	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)	649149042.184000	649147969.45197	CCD S5 on	N	N
Observation start date	2018-07-28T07:09:33	2018-07-28T06:52:49	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	649171042.184000	649171685.90337	On-chip summing requested	N	N
Observation end date	2018-07-28T13:16:13	2018-07-28T13:28:05	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



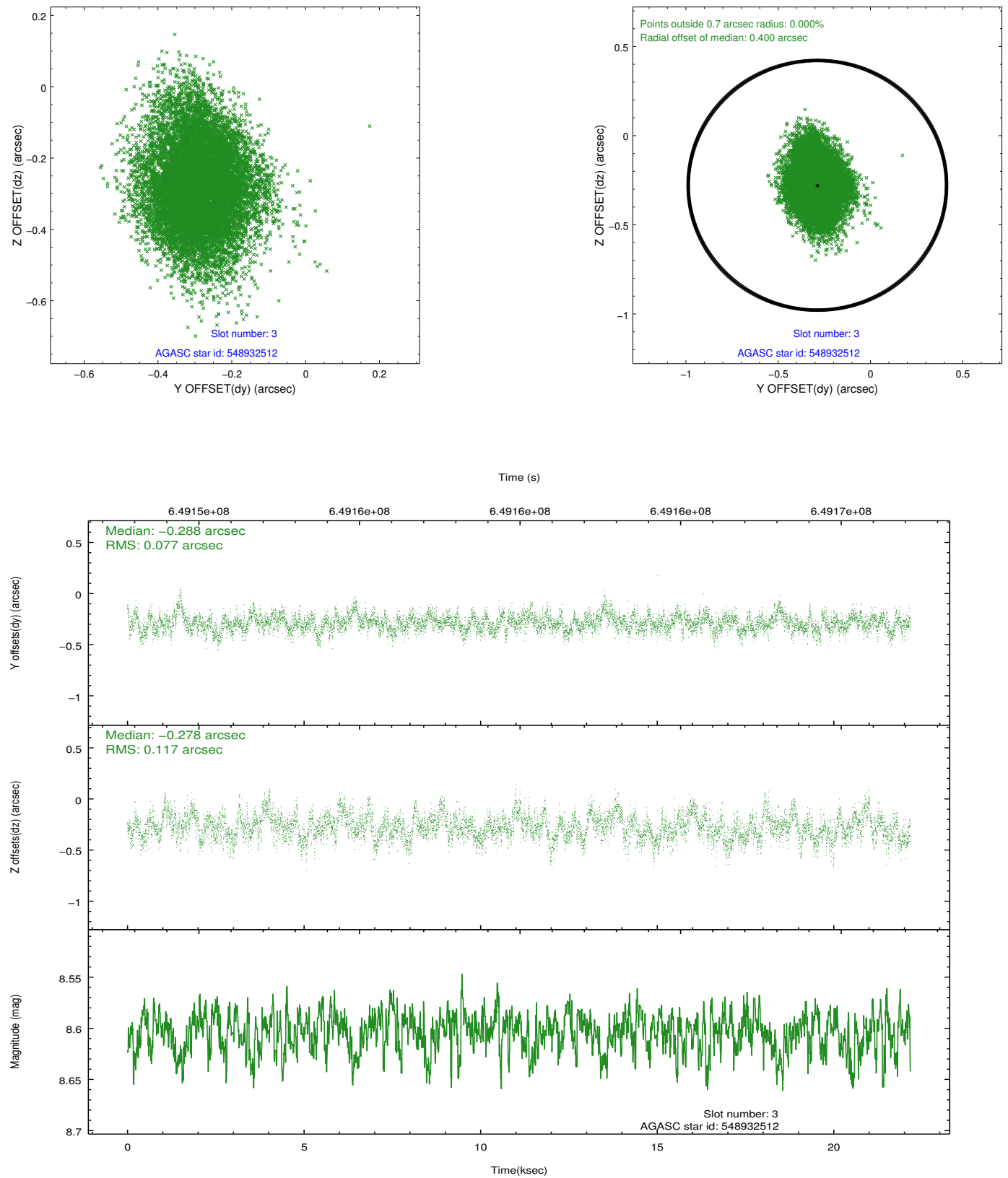


Slot Statistics

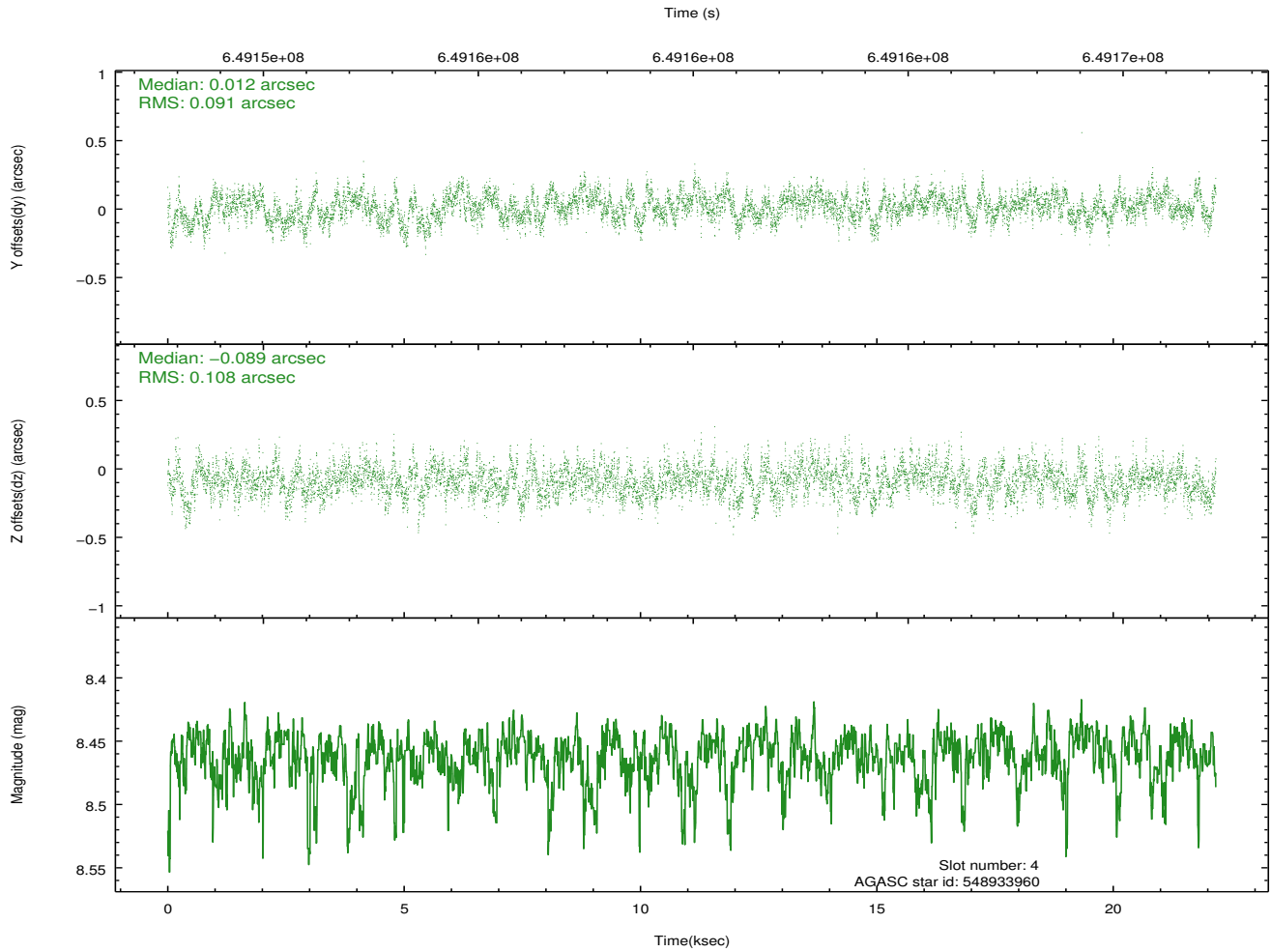
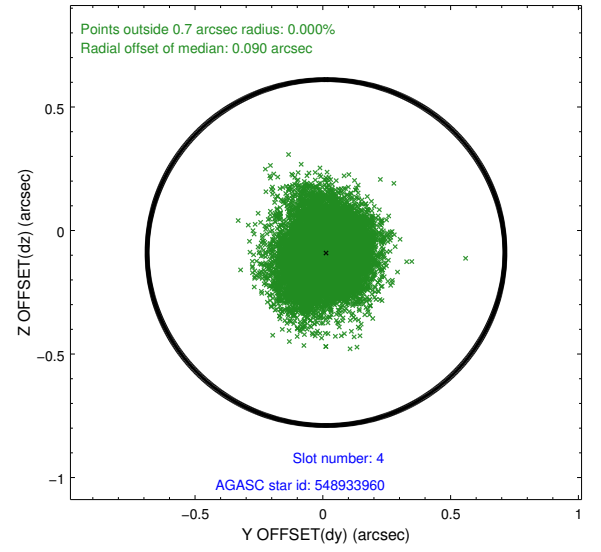
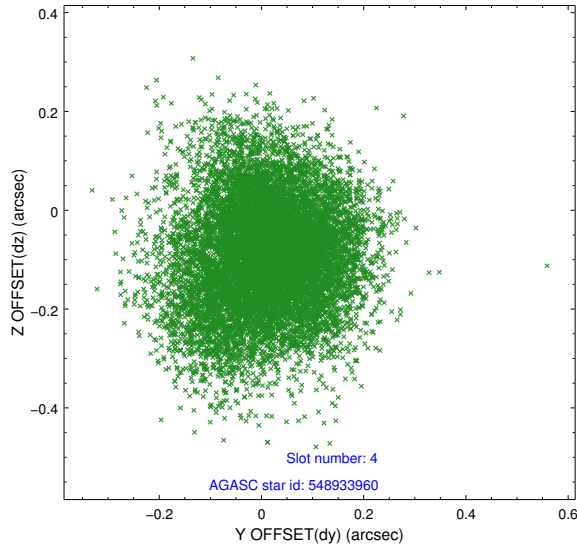
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.15	5408	1.000	-0.061	-0.110	0.023	0.052	0.000000	0.000000	923.19	-844
1	FID		ACIS-I-4	7.08	5408	1.000	0.403	0.127	0.020	0.056	0.000000	0.000000	2143.64	1055
2	FID		ACIS-I-5	7.13	5408	1.000	-0.442	0.053	0.013	0.041	0.000000	0.000000	-1825.15	1053
3	GUIDE	used	548932512	8.60	10802	1.000	-0.288	-0.278	0.149	0.246	239.727627	66.054972	268.39	1606
4	GUIDE	used	548933960	8.46	10811	1.000	0.012	-0.089	0.152	0.245	237.671184	66.428675	804.50	-1620
5	GUIDE	used	548937184	9.84	10800	1.000	0.349	0.191	0.387	0.549	238.771821	66.565432	-474.18	-569
6	GUIDE	used	548939872	10.21	10663	1.000	-0.108	0.357	0.434	0.656	238.964867	66.978384	-1862.29	-1169
7	GUIDE	used	549850840	9.29	10804	1.000	0.019	-0.177	0.218	0.340	241.038865	66.468628	-2043.34	2300

2.4 Star Slots

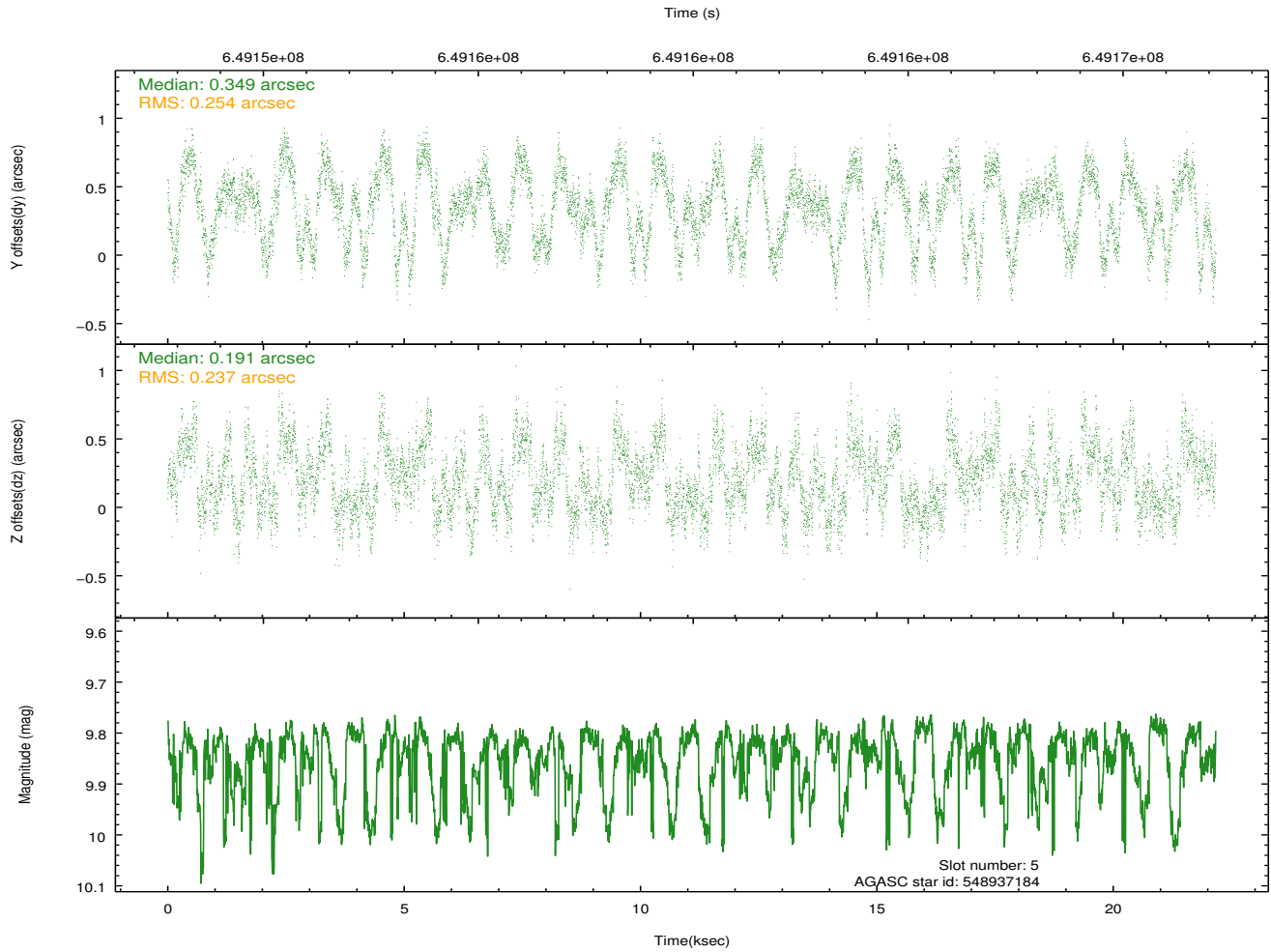
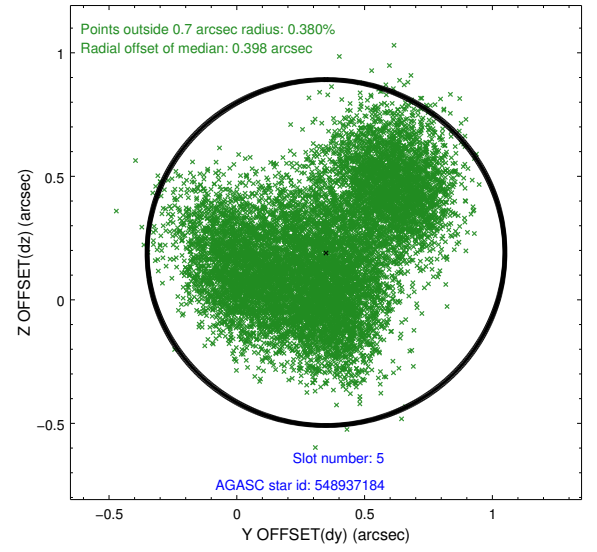
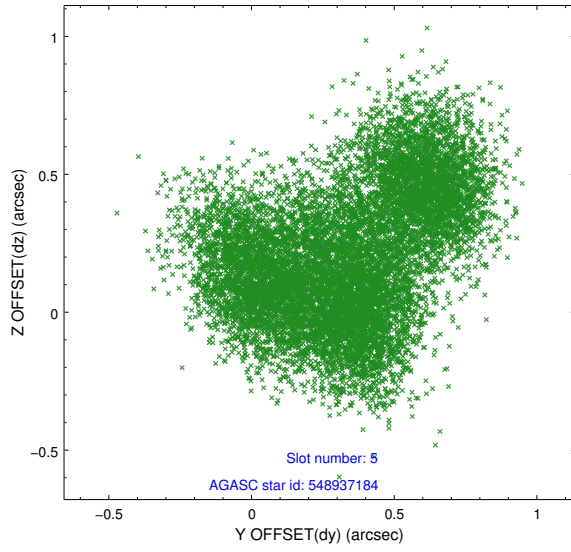
2.4.1 Slot 3



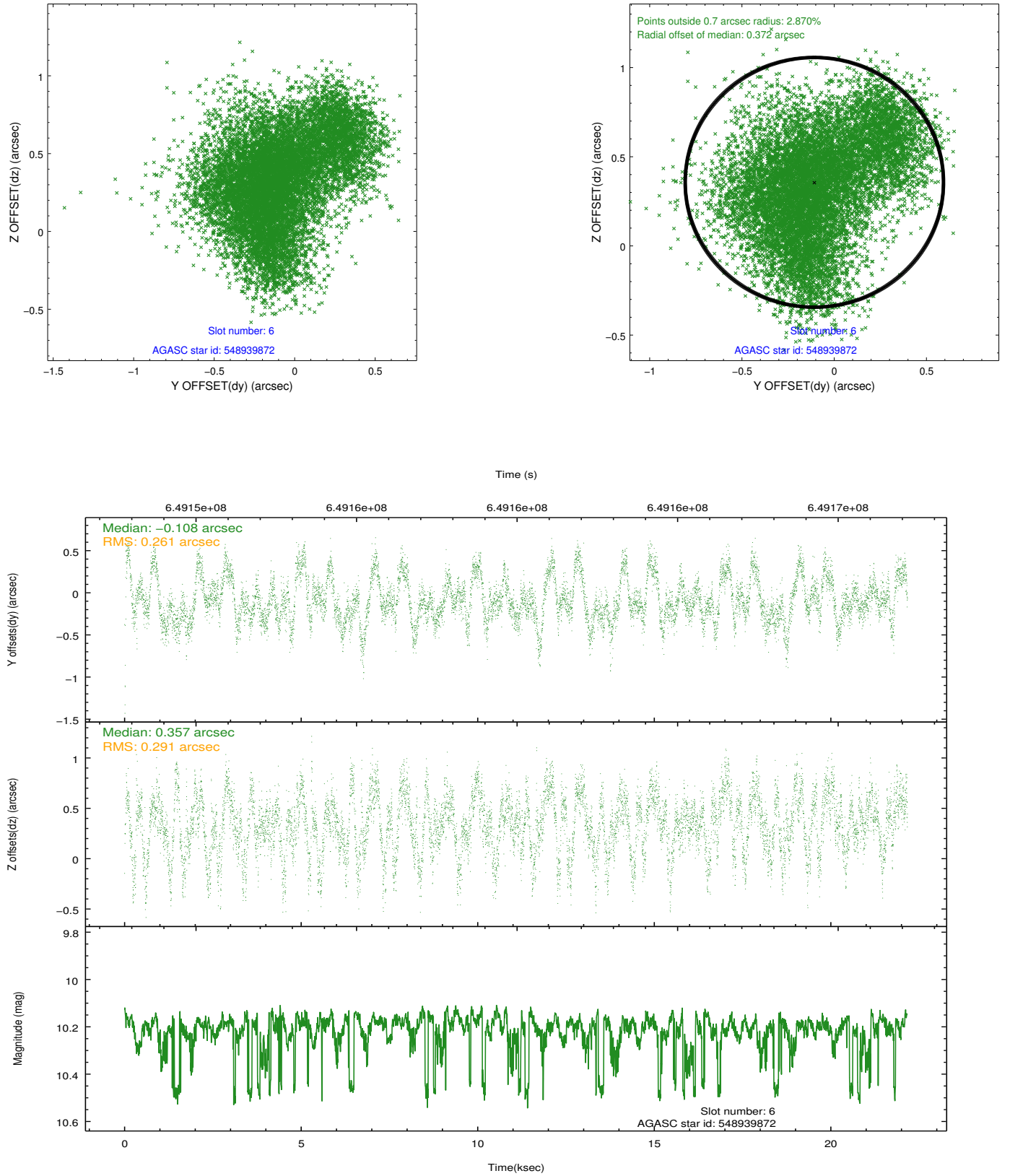
2.4.2 Slot 4



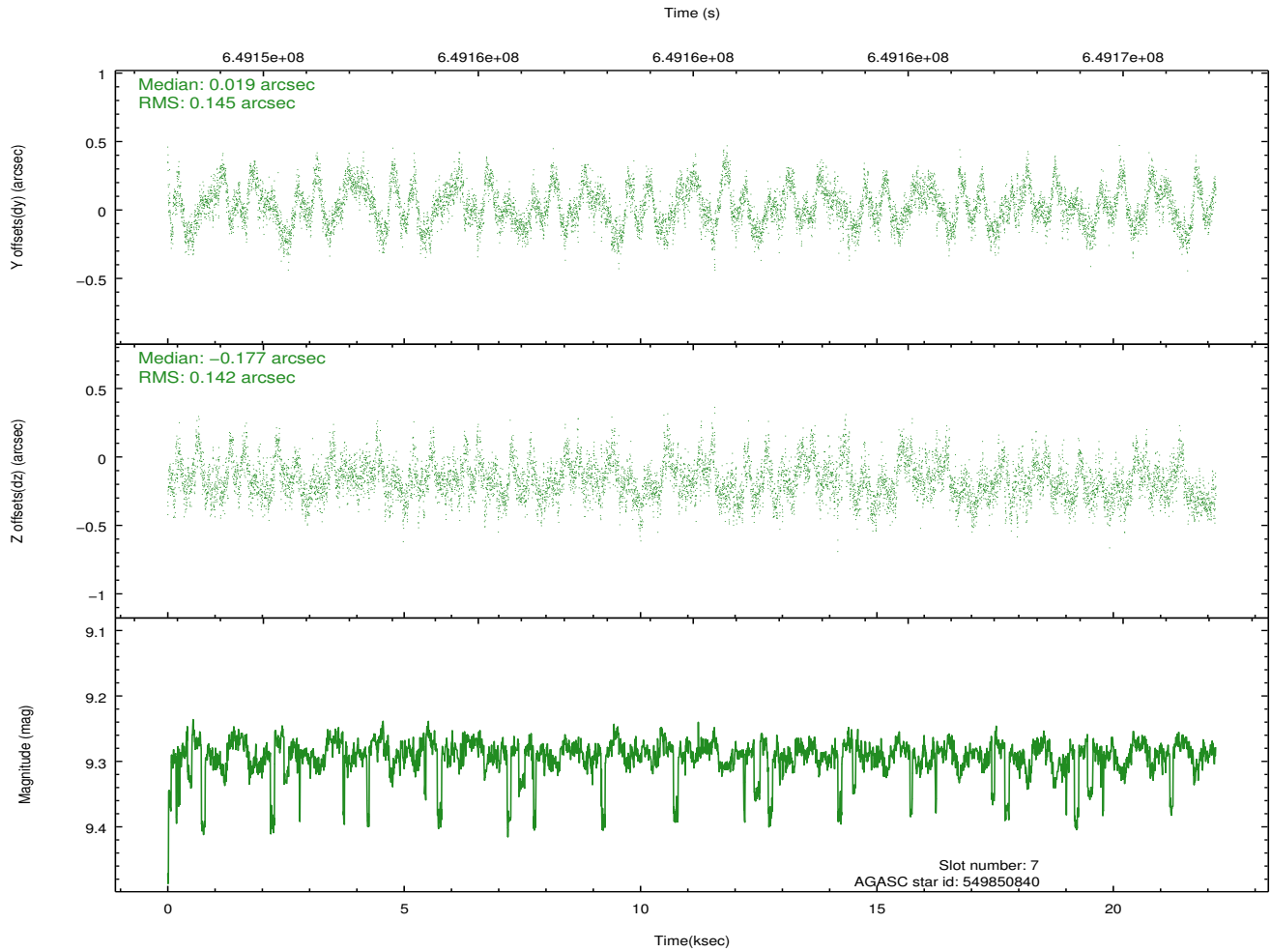
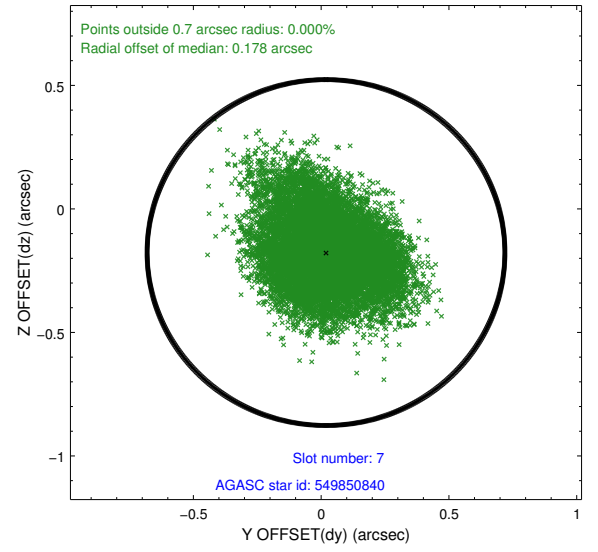
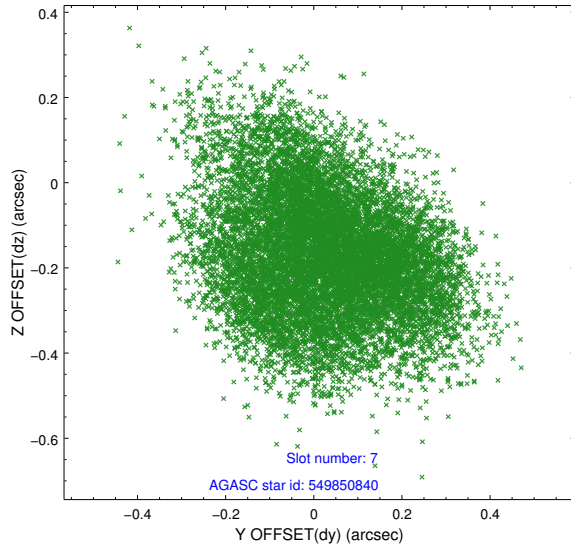
2.4.3 Slot 5



2.4.4 Slot 6

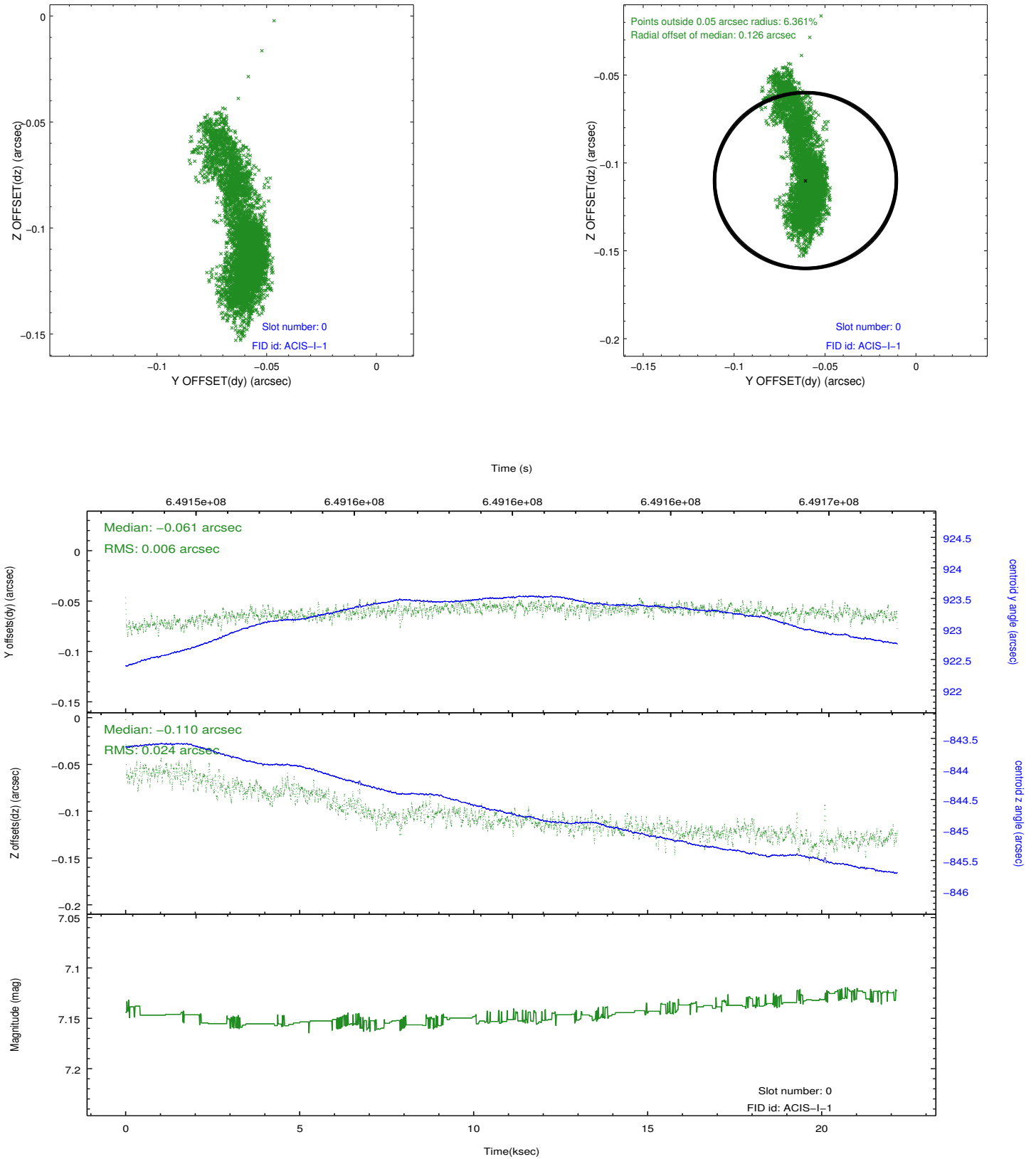


2.4.5 Slot 7

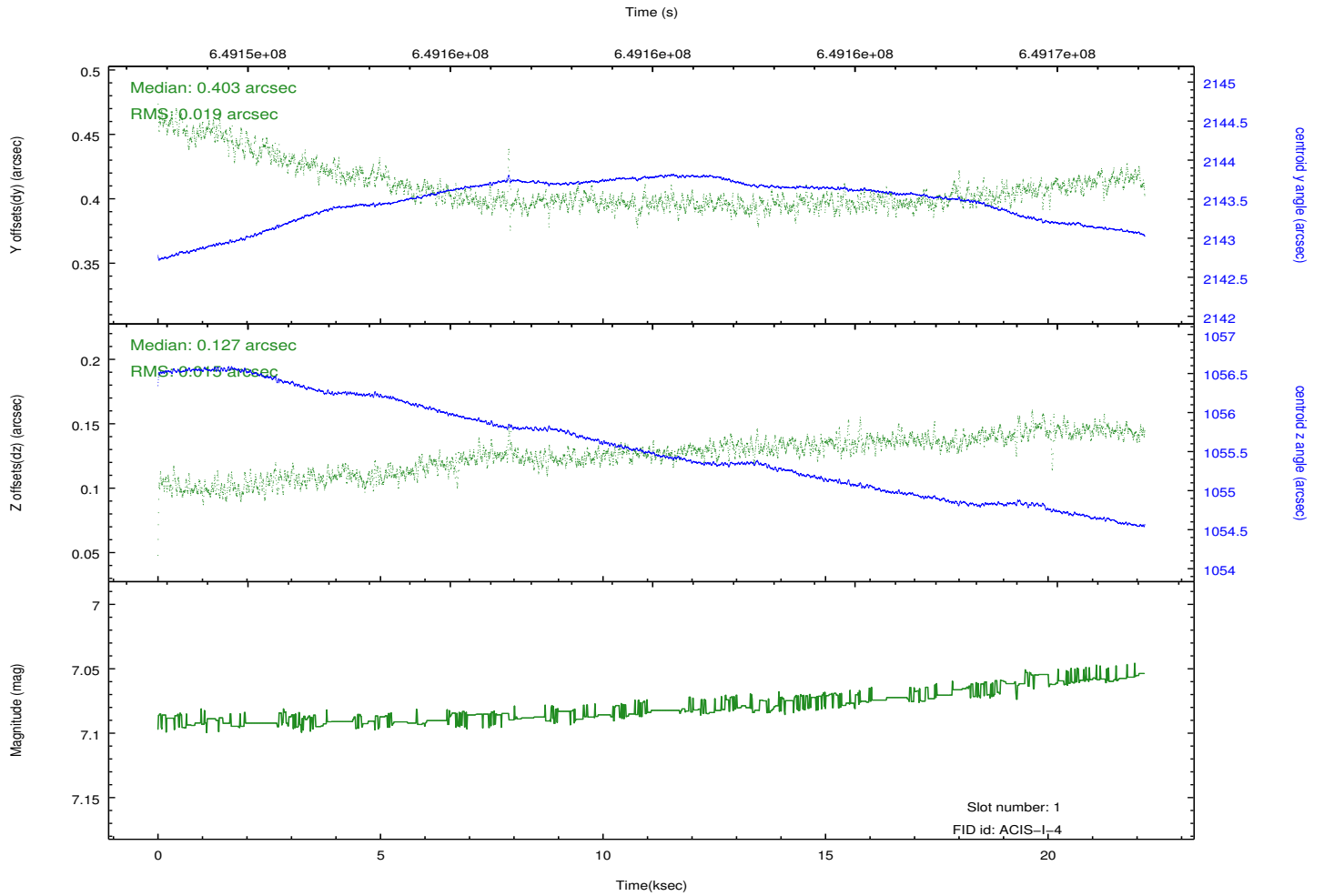
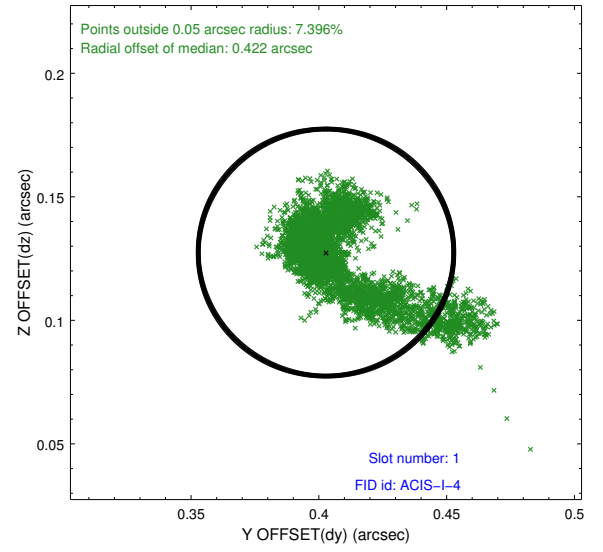
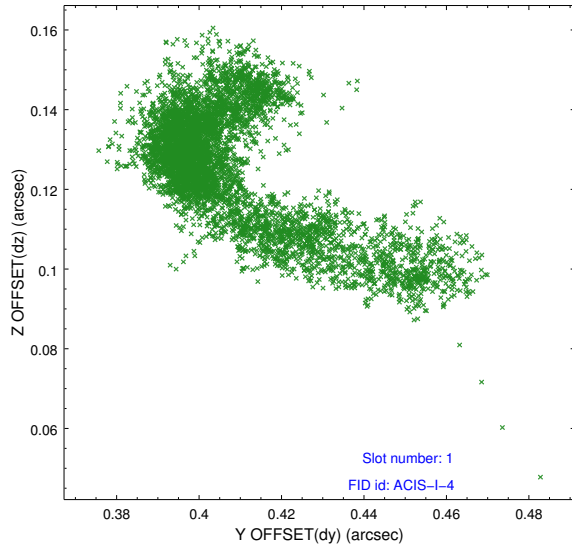


2.5 FID Slots

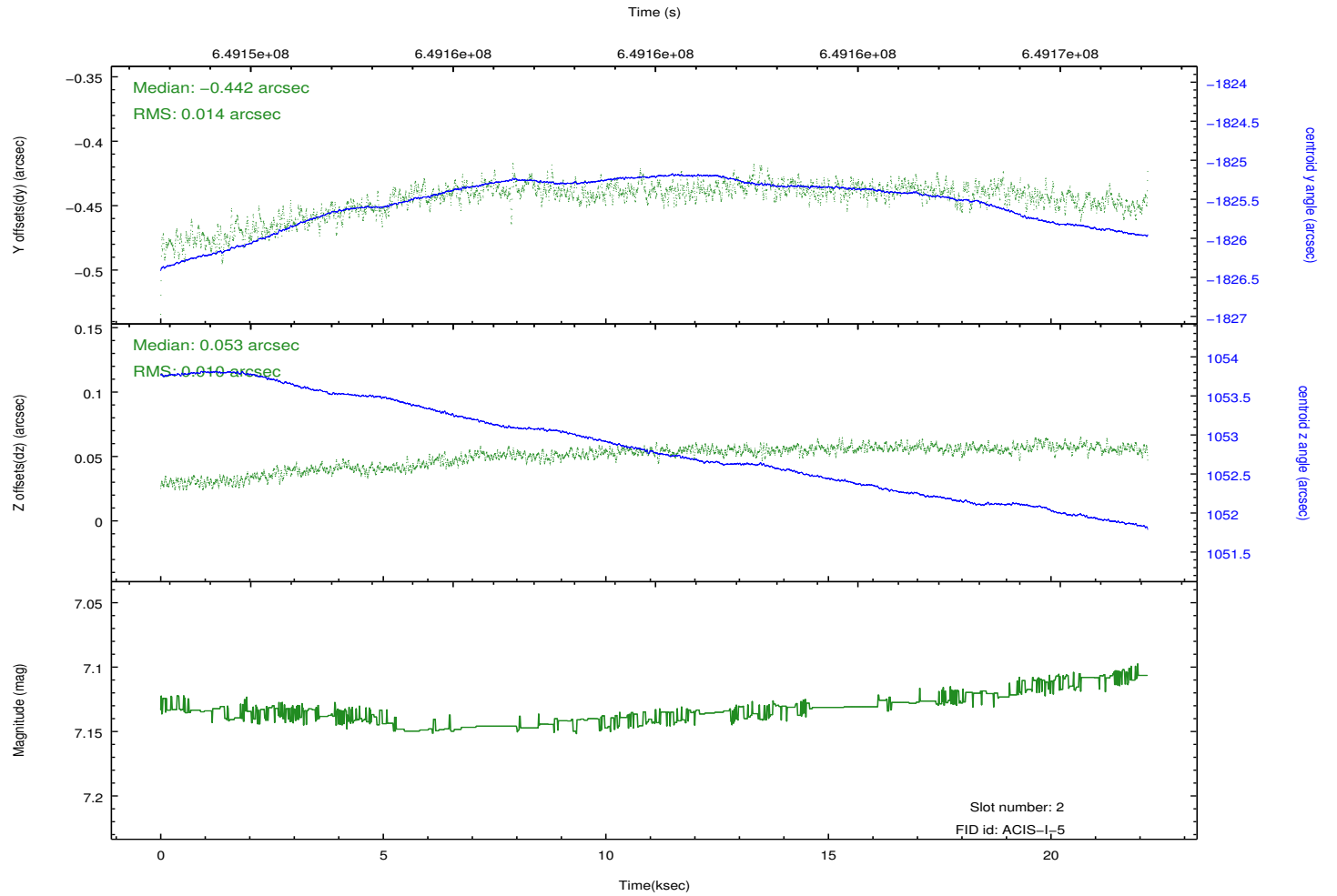
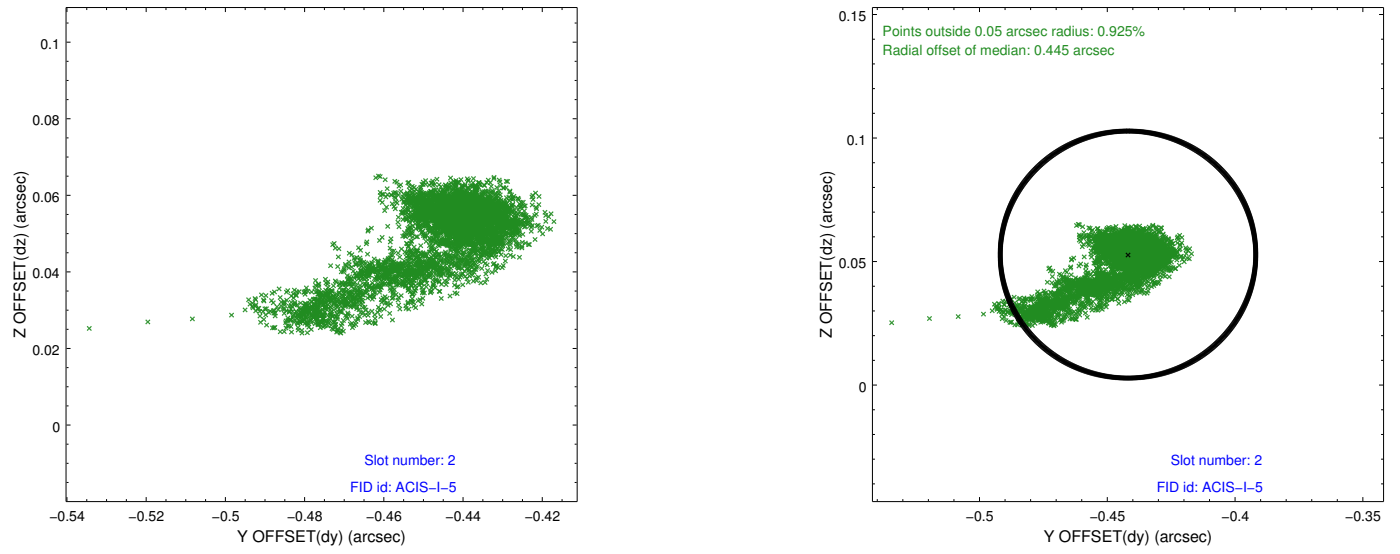
2.5.1 Slot 0



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)	2018.07.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	22.034509852886

A.2 Comments