

V&V Reference Report

L2 ASCDS Version : 10.8

Observation 22264 - L2 Version 1
Chandra X-Ray Center

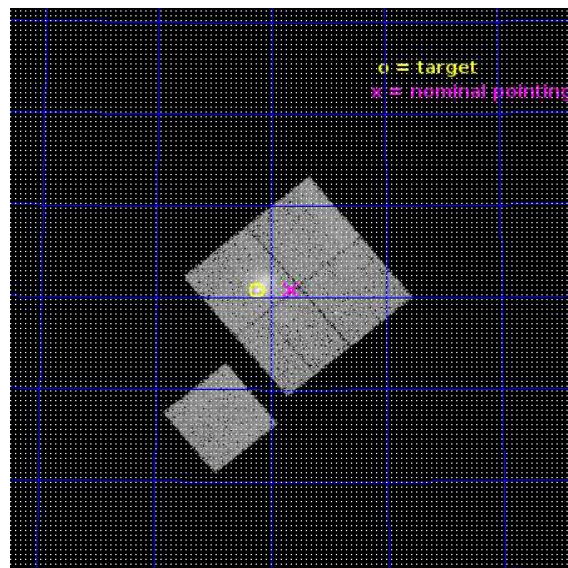
L2 Processing Date : Jun 29 2019

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1 Front

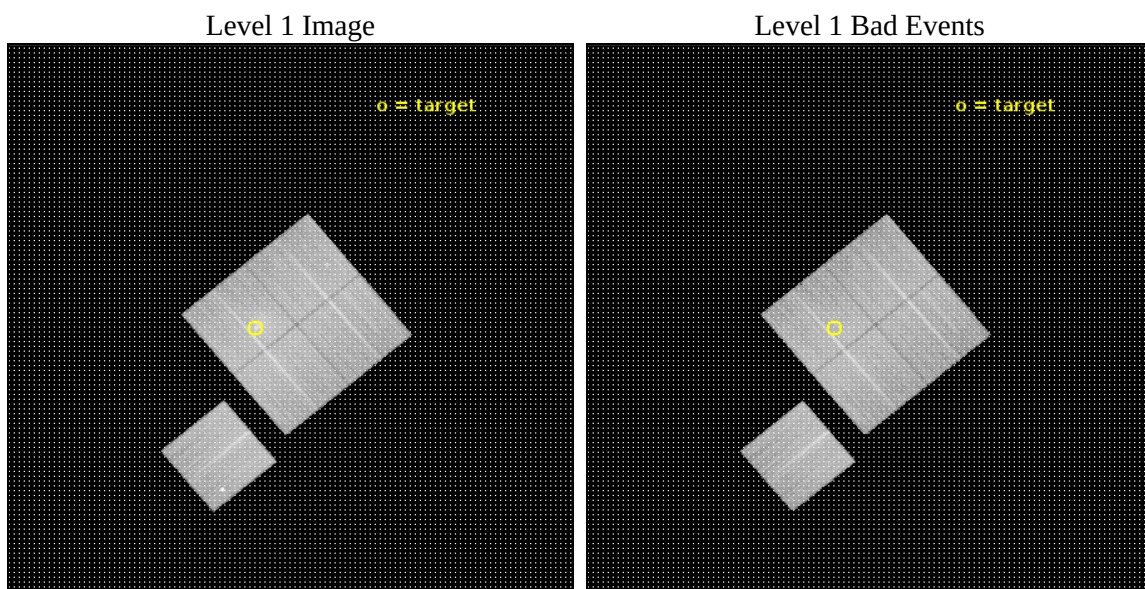
seq_num	801762	Sequence number
obs_id	22264	Observation id
title	Shock structure, the electron-ion equilibration timescale and the disintegrating cool core in A2146	Proposal title
observer	Helen Russell	Principal investigator
object	Abell 2146	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	239.06125	Observer's specified target RA [deg]
dec_targ	66.346917	Observer's specified target Dec [deg]
ra_nom	238.91201911112	Nominal RA [deg]
dec_nom	66.348374064866	Nominal Dec [deg]
roll_nom	230.34542847551	Nominal Roll [deg]
revision	1	Processing version of data
ontime	22062.65915966	Sum of GTIs [s]
livetime	21774.394275446	Livetime [s]
ontime0	22065.800169826	Sum of GTIs [s]
ontime1	22062.65912962	Sum of GTIs [s]
ontime2	22065.800169826	Sum of GTIs [s]
ontime3	22062.65915966	Sum of GTIs [s]
ontime6	22059.51812923	Sum of GTIs [s]
l2events	92405	Number of level 2 events



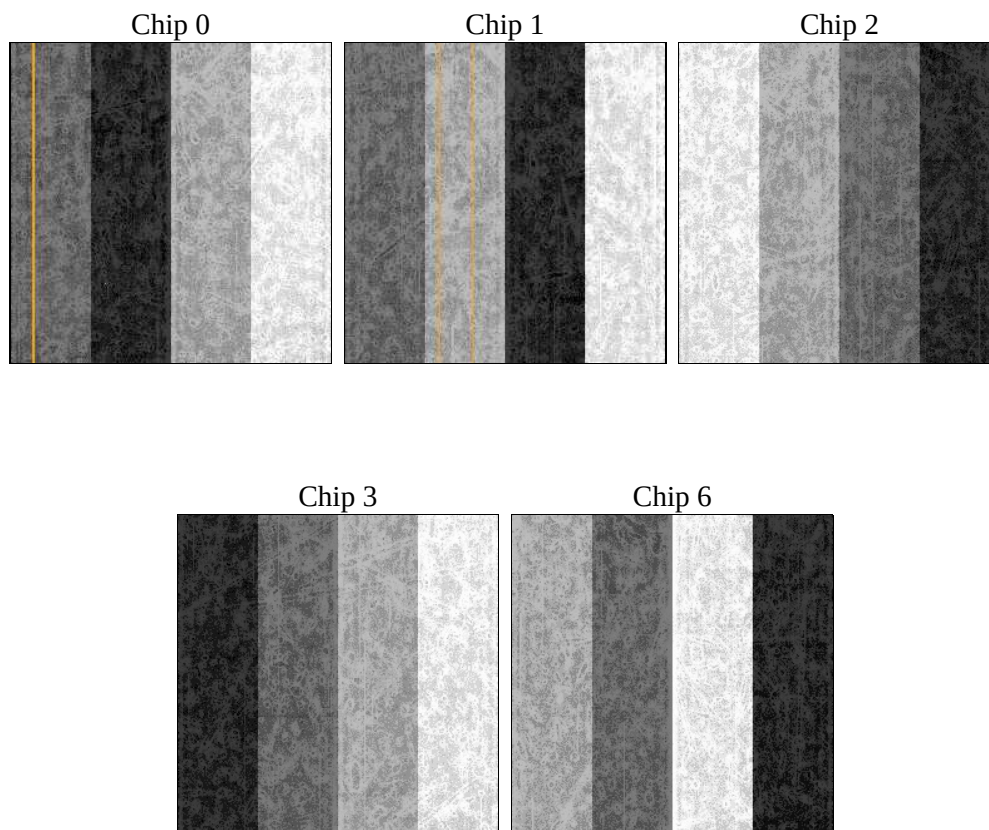
2 OBI

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	10.8	Processing system revision	ontime	22062.65915966	Sum of GTIs [s]
caldsver	4.8.3	 	ontime0	22065.800169826	Sum of GTIs [s]
date	2019-06-29T14:55:38	Date and time of file creation	ontime1	22062.65912962	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	22065.800169826	Sum of GTIs [s]
			ontime3	22062.65915966	Sum of GTIs [s]
			ontime6	22059.51812923	Sum of GTIs [s]
			l1events	826276	Number of level 1 events

2.1.4 Events

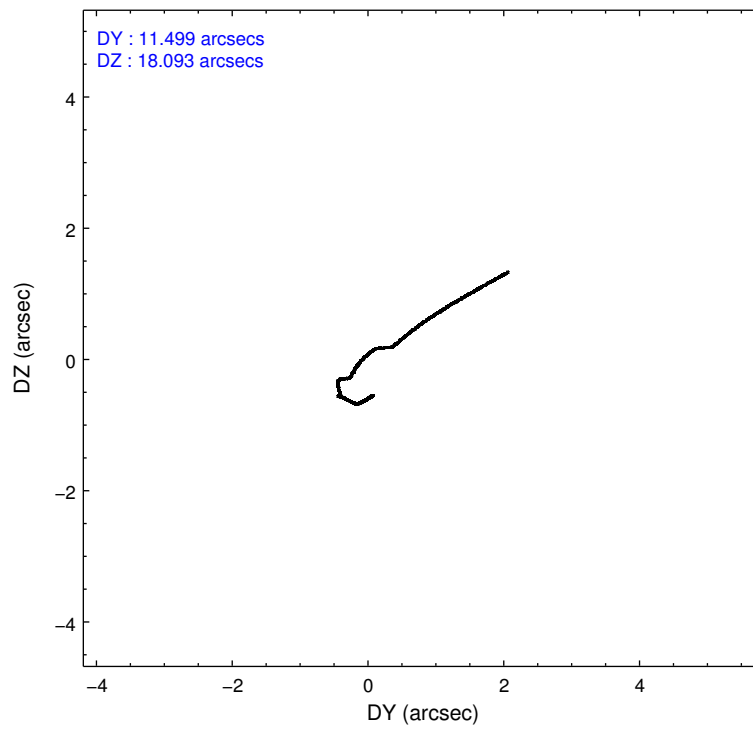
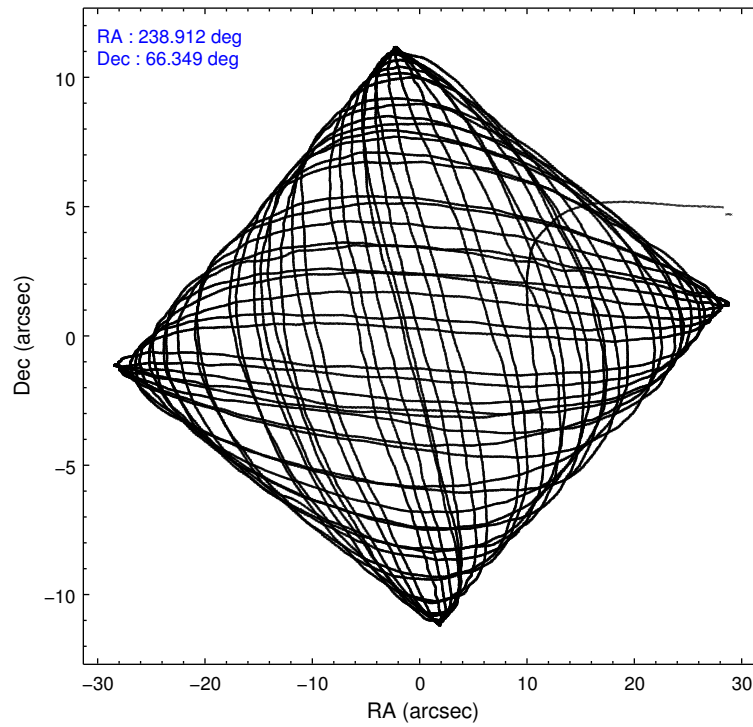
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	151441	158578	168119	174953	173185
rejected events	131571	136705	148937	146605	150862
rejected %	86%	86%	88%	83%	87%

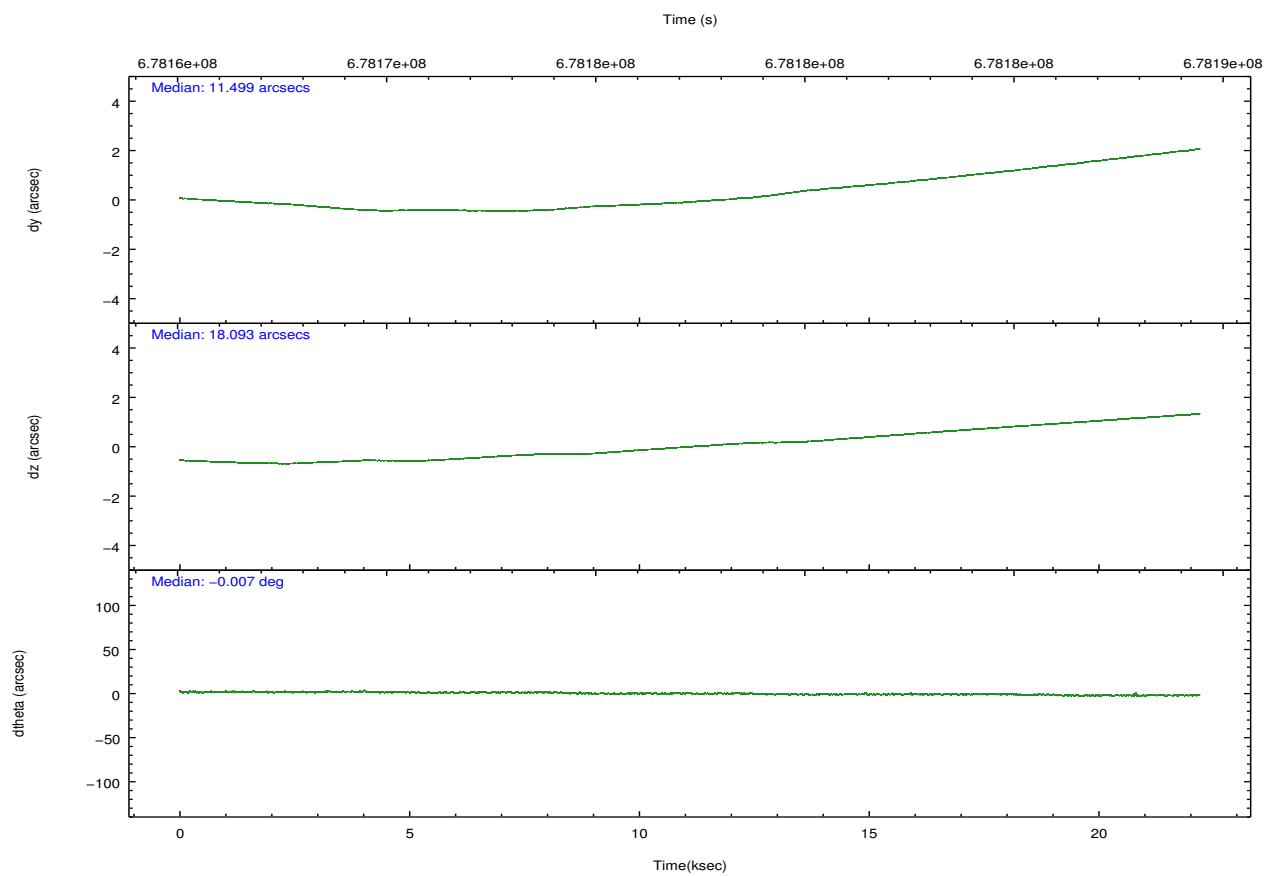
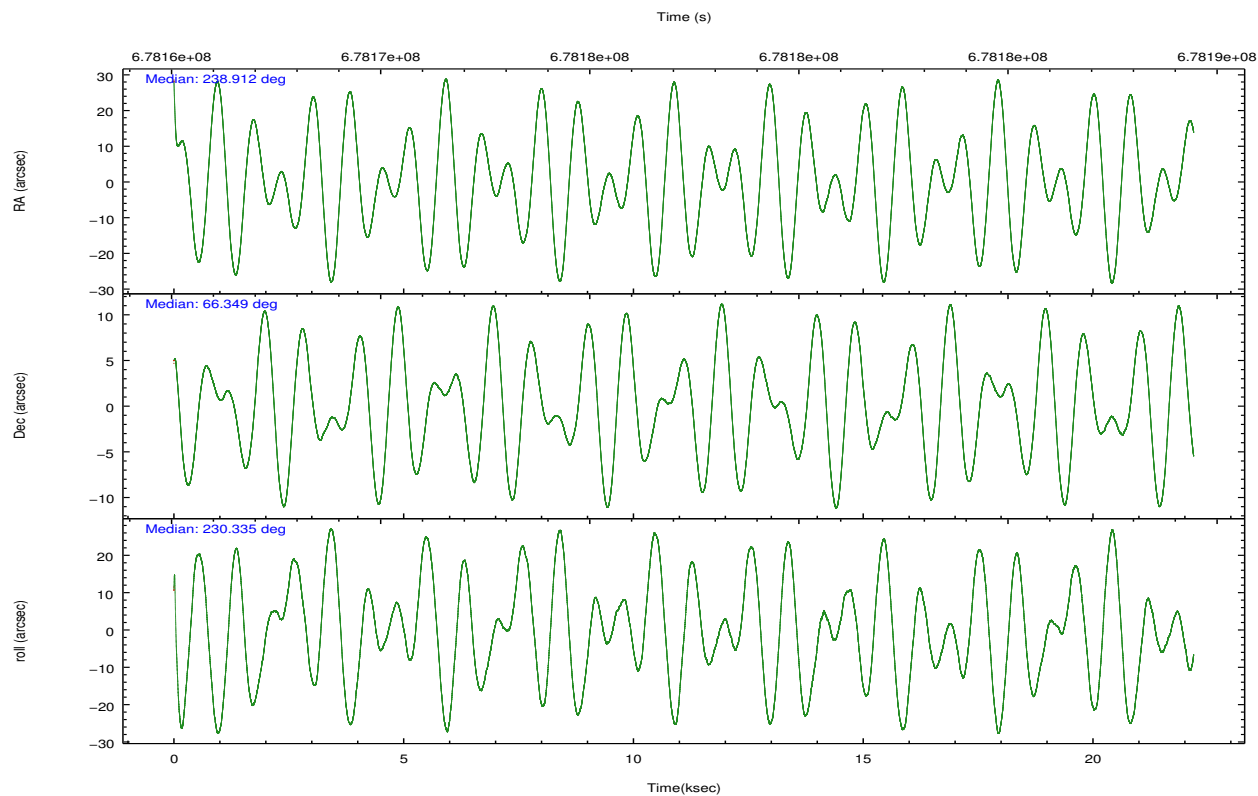
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	6898	7667	6601	14539	9510
	4%	4%	3%	8%	5%
grade 1 events	89	102	94	153	108
	0%	0%	0%	0%	0%
grade 2 events	5000	5504	4847	5203	4521
	3%	3%	2%	2%	2%
grade 3 events	1996	1979	1940	2304	1937
	1%	1%	1%	1%	1%
grade 4 events	1868	2003	1910	2137	1907
	1%	1%	1%	1%	1%
grade 5 events	7612	7636	7317	8518	7945
	5%	4%	4%	4%	4%
grade 6 events	4113	4726	3887	4169	4459
	2%	2%	2%	2%	2%
grade 7 events	123865	128961	141523	137930	142798
	81%	81%	84%	78%	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	238.923282	238.9120191111224	CCD I2 on	Y	Y
[deg] Pointing Dec	66.375607	66.34837406486639	CCD I3 on	Y	Y
[deg] Pointing Roll	230.126397	230.3454284755083	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)	678166330.184000	678165130.86336	CCD S5 on	N	N
Observation start date	2019-06-29T03:31:01	2019-06-29T03:12:10	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	678188330.184000	678189463.33982	On-chip summing requested	N	N
Observation end date	2019-06-29T09:37:41	2019-06-29T09:57:43	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



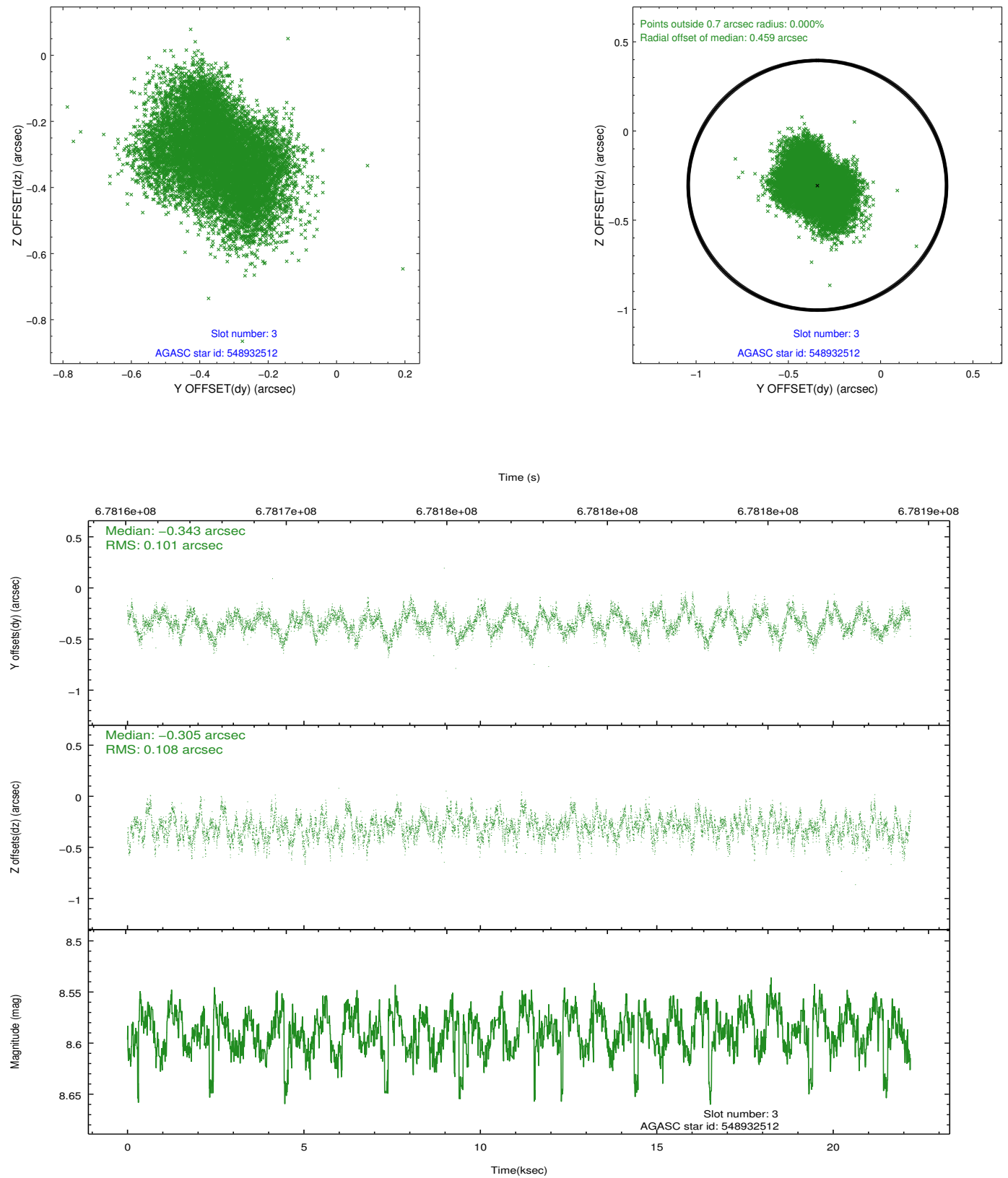


Slot Statistics

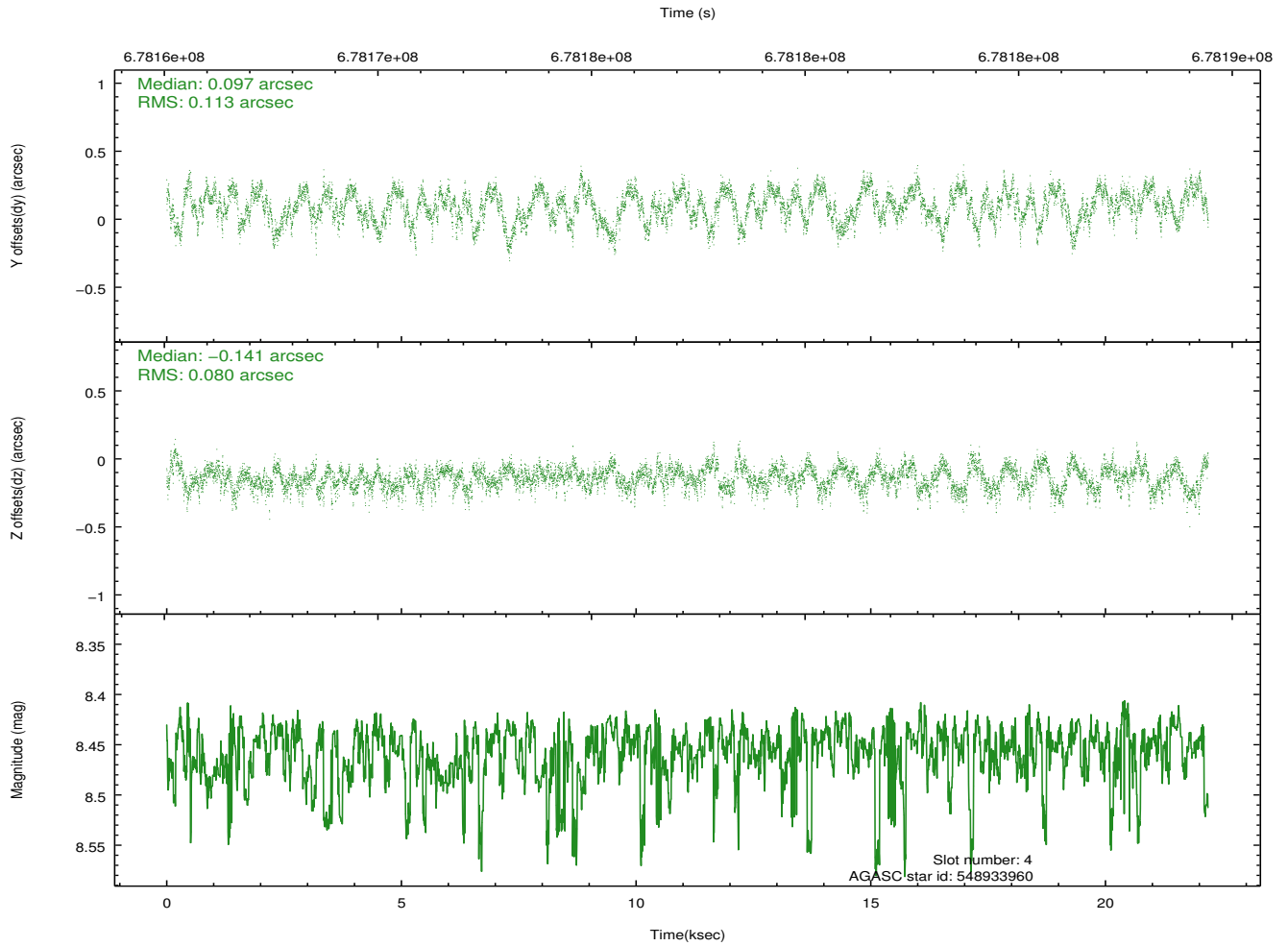
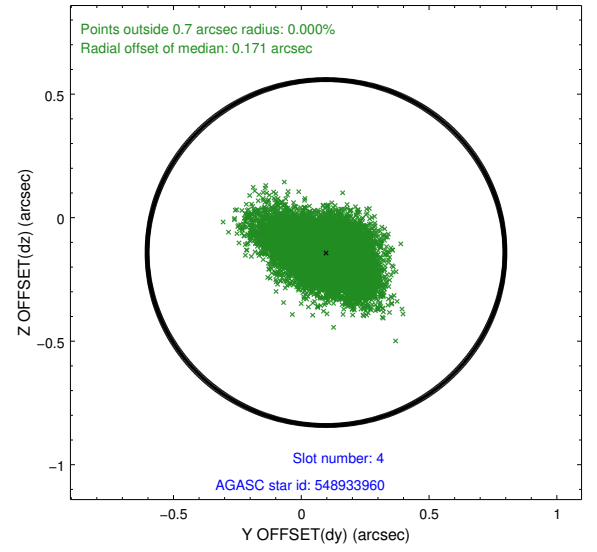
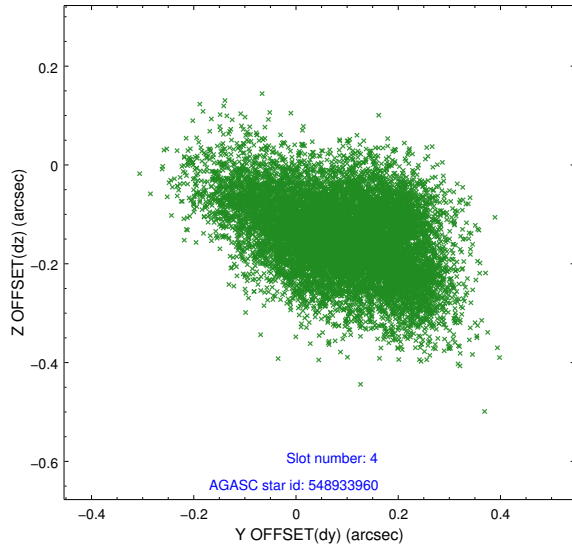
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.09	5413	1.000	0.087	-0.044	0.024	0.057	0.000000	0.000000	927.88	-841
1	FID		ACIS-I-5	7.08	5411	1.000	-0.438	0.024	0.011	0.020	0.000000	0.000000	-1820.83	1055
2	FID		ACIS-I-6	7.08	5413	1.000	0.256	0.091	0.027	0.052	0.000000	0.000000	393.21	1700
3	GUIDE	used	548932512	8.59	10808	1.000	-0.343	-0.305	0.161	0.246	239.727627	66.054972	126.07	1636
4	GUIDE	used	548933960	8.46	10823	1.000	0.097	-0.141	0.146	0.241	237.671184	66.428675	997.00	-1516
5	GUIDE	used	548937184	9.82	10786	1.000	0.287	0.184	0.254	0.393	238.771821	66.565432	-384.79	-604
6	GUIDE	used	548939872	10.21	10697	1.000	-0.065	0.235	0.328	0.517	238.964867	66.978384	-1702.39	-1346
7	GUIDE	used	549850840	9.27	10809	1.000	0.027	0.011	0.209	0.353	241.038865	66.468628	-2245.54	2086

2.4 Star Slots

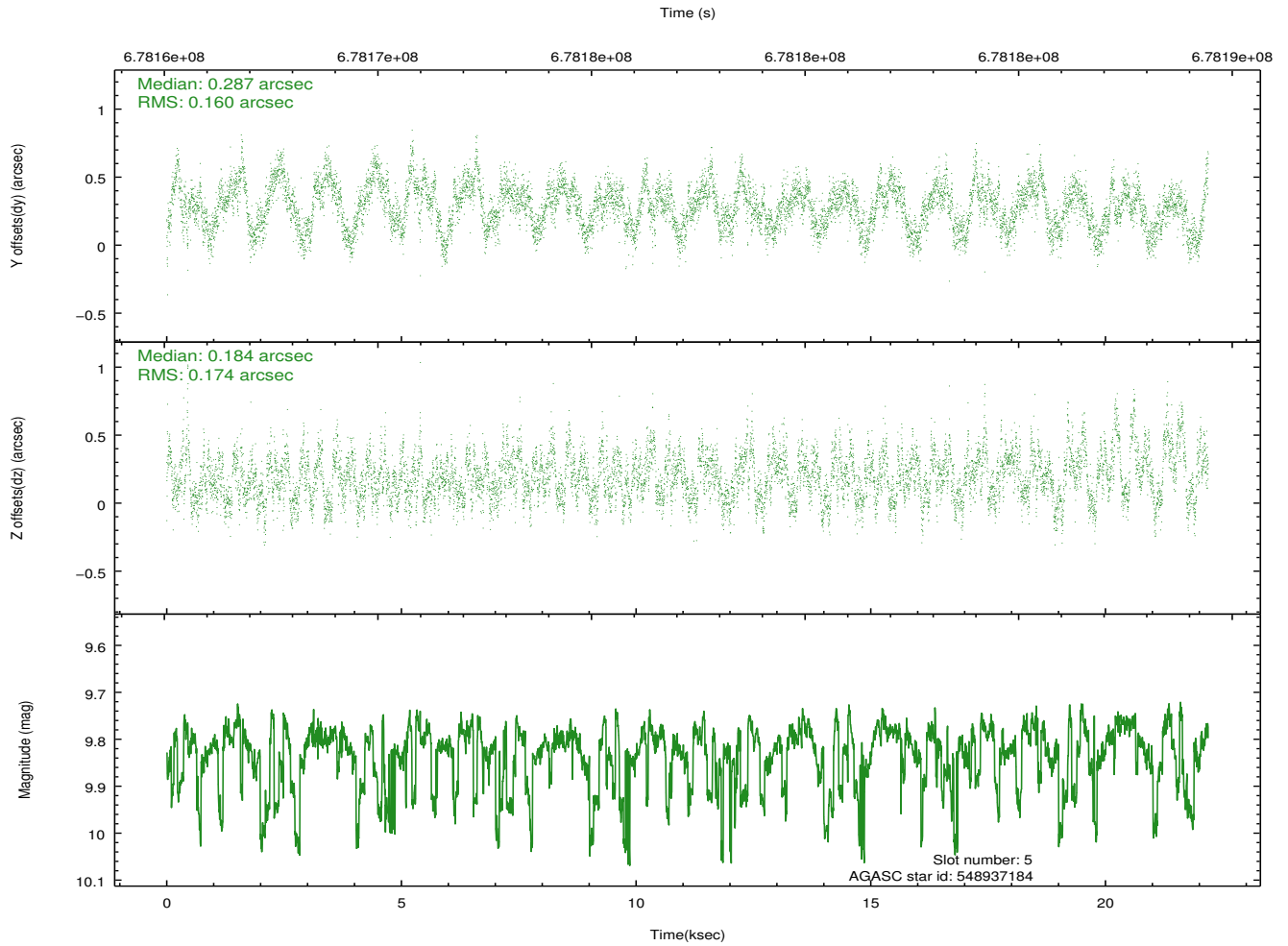
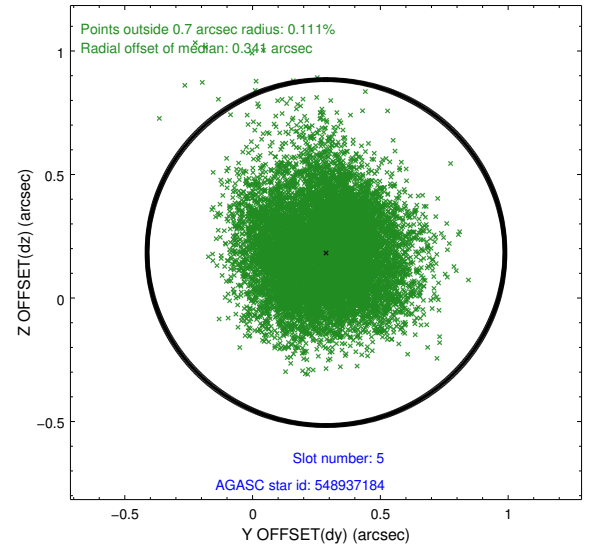
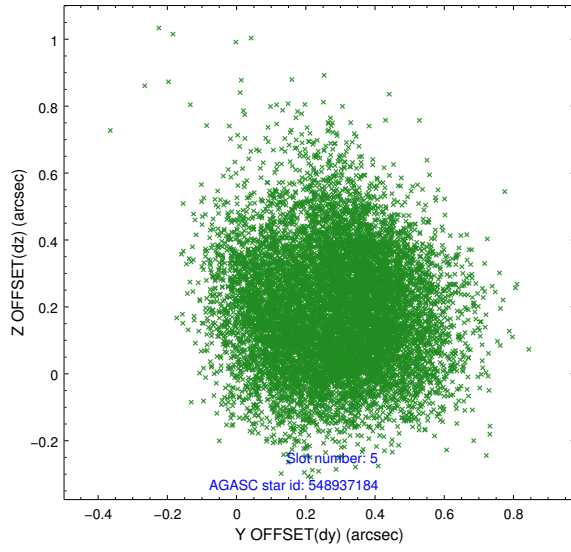
2.4.1 Slot 3



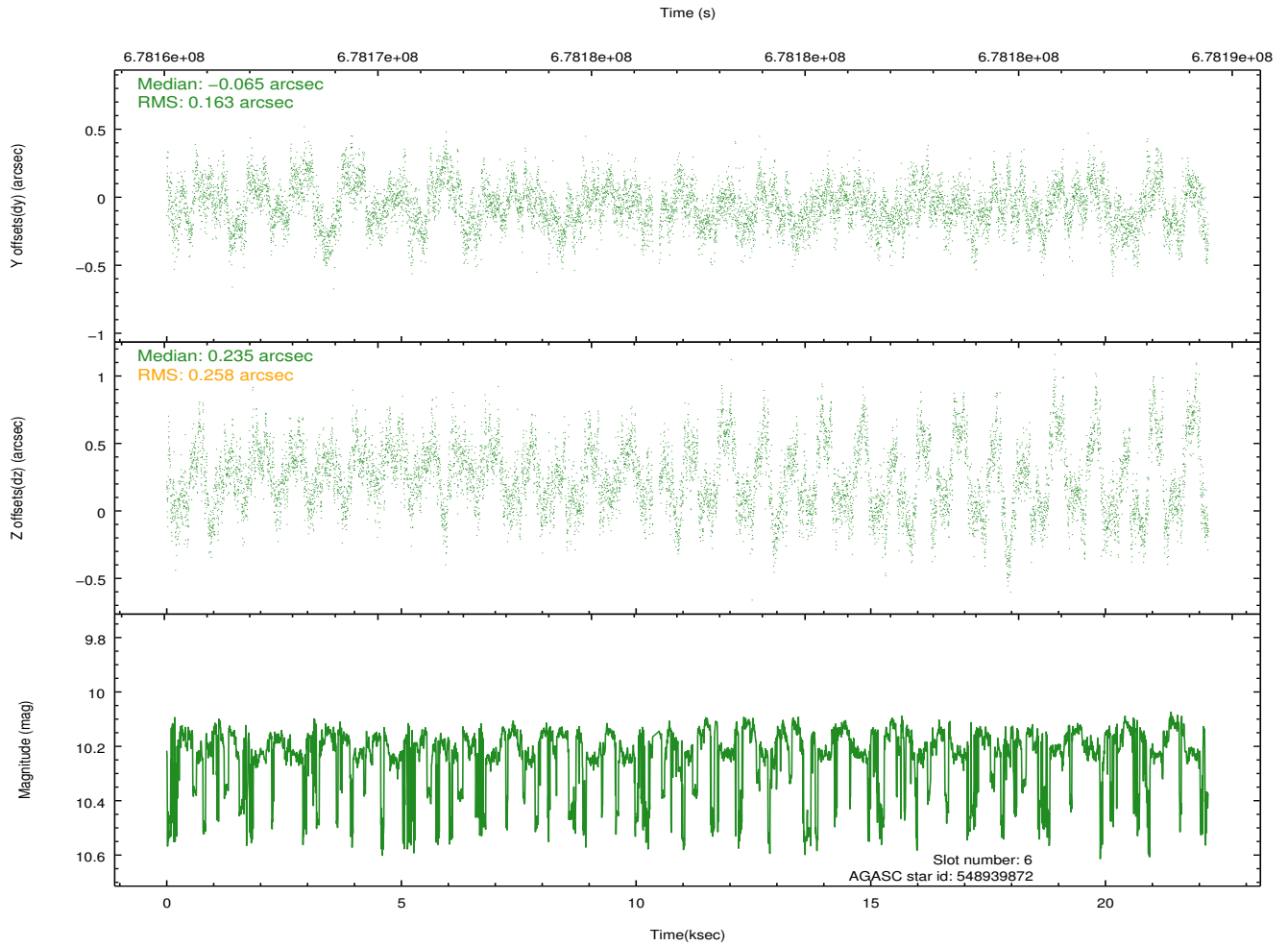
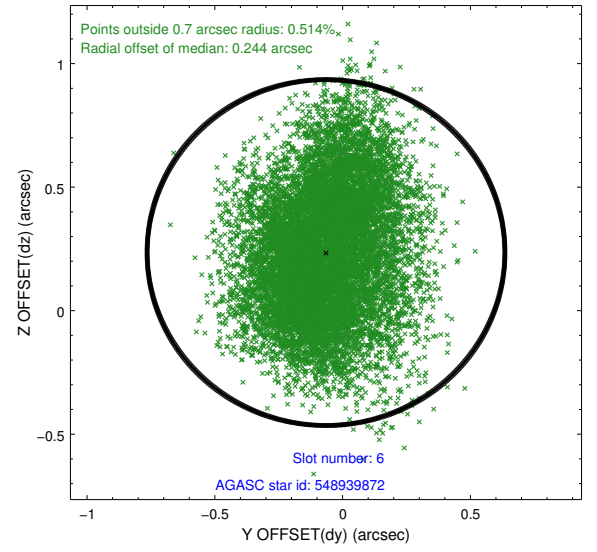
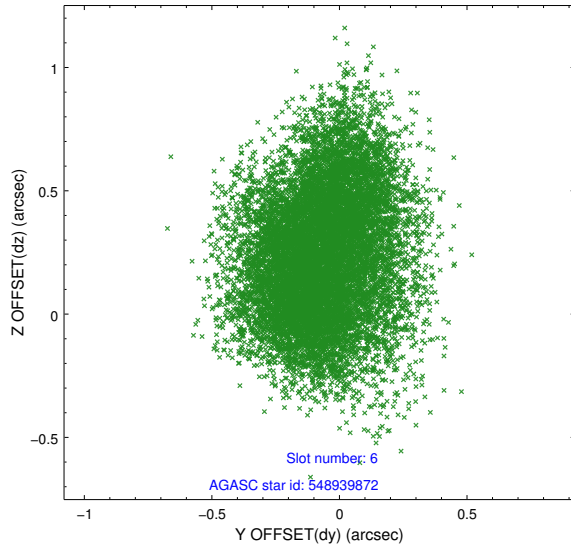
2.4.2 Slot 4



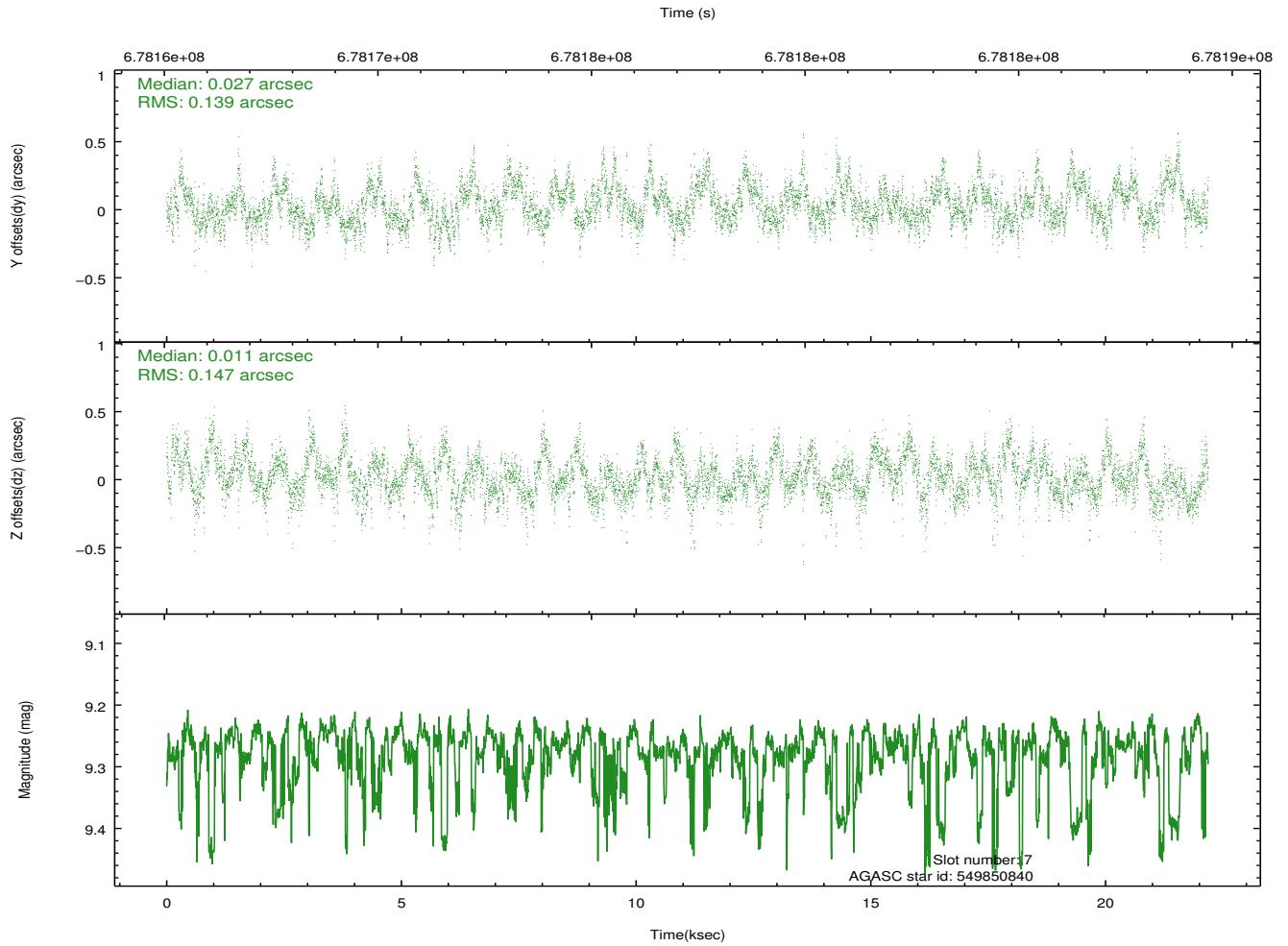
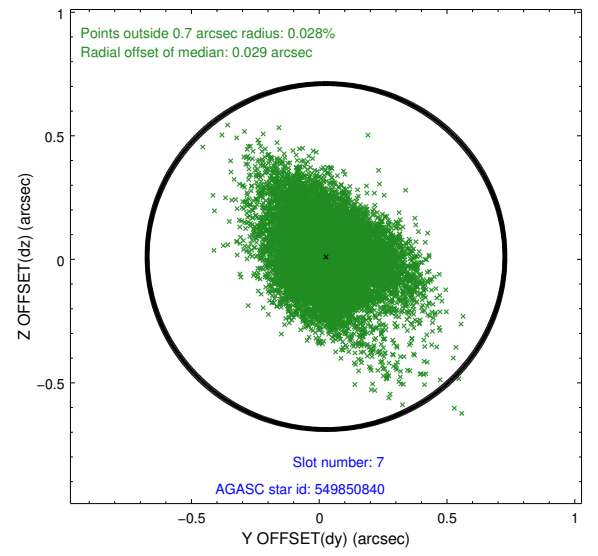
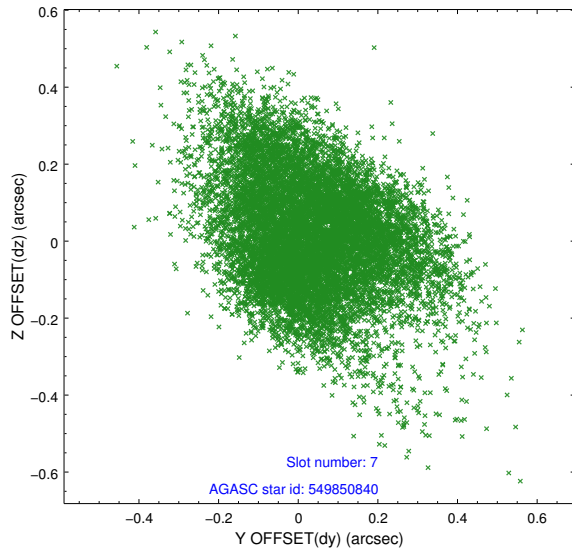
2.4.3 Slot 5



2.4.4 Slot 6

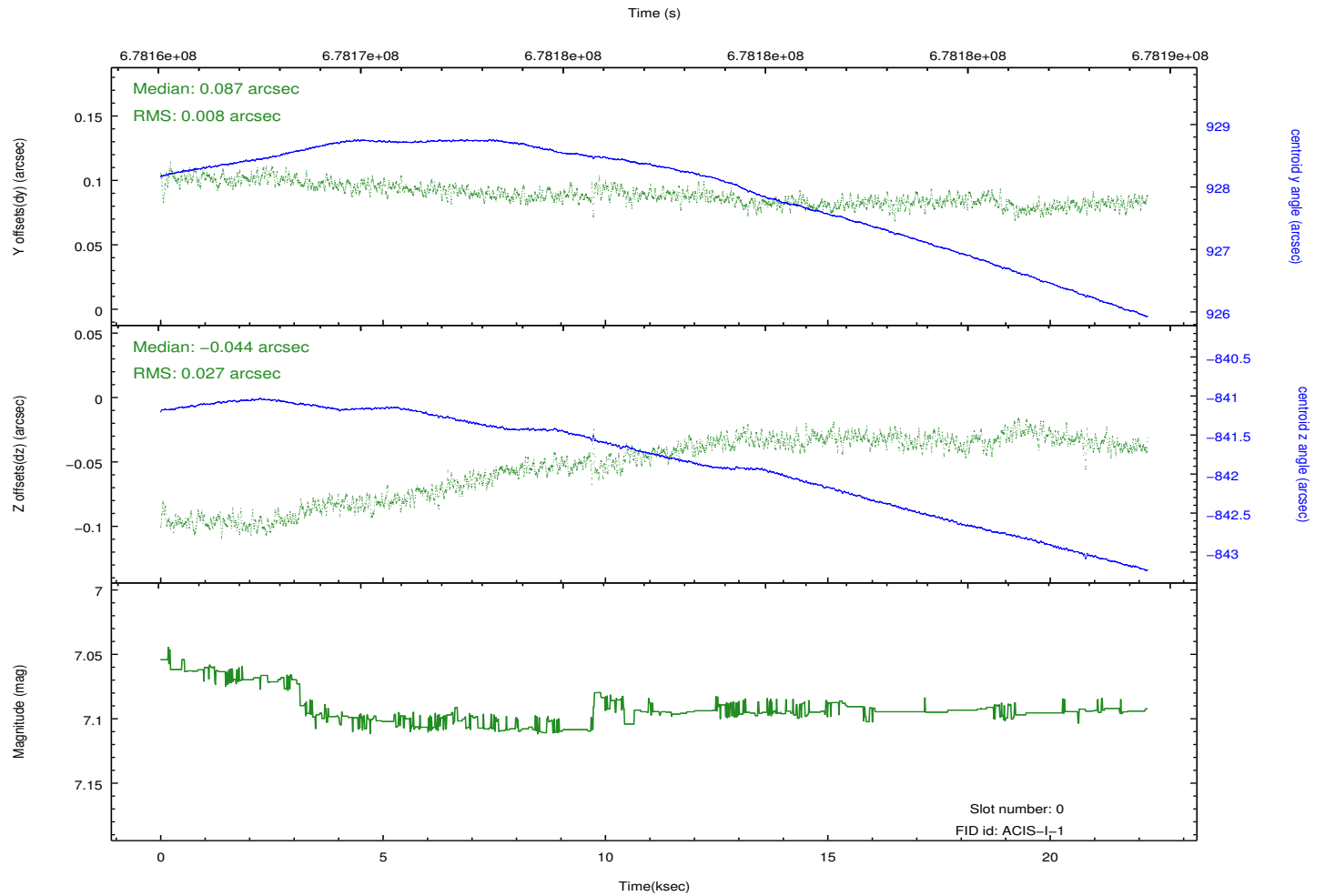
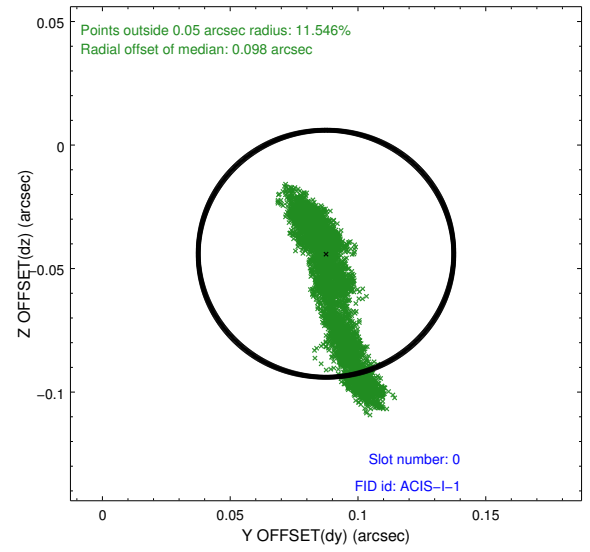
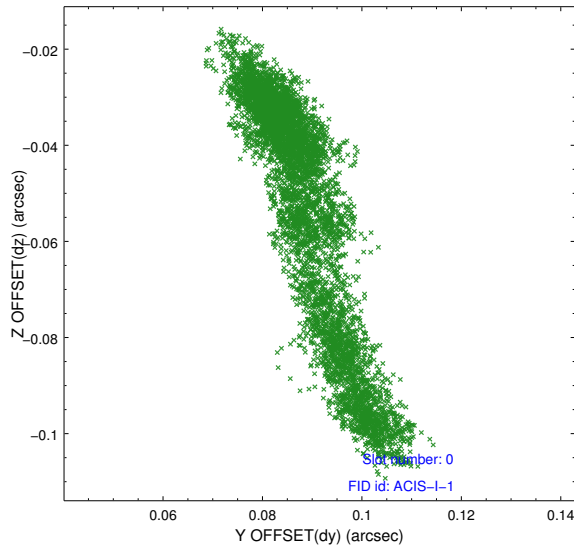


2.4.5 Slot 7

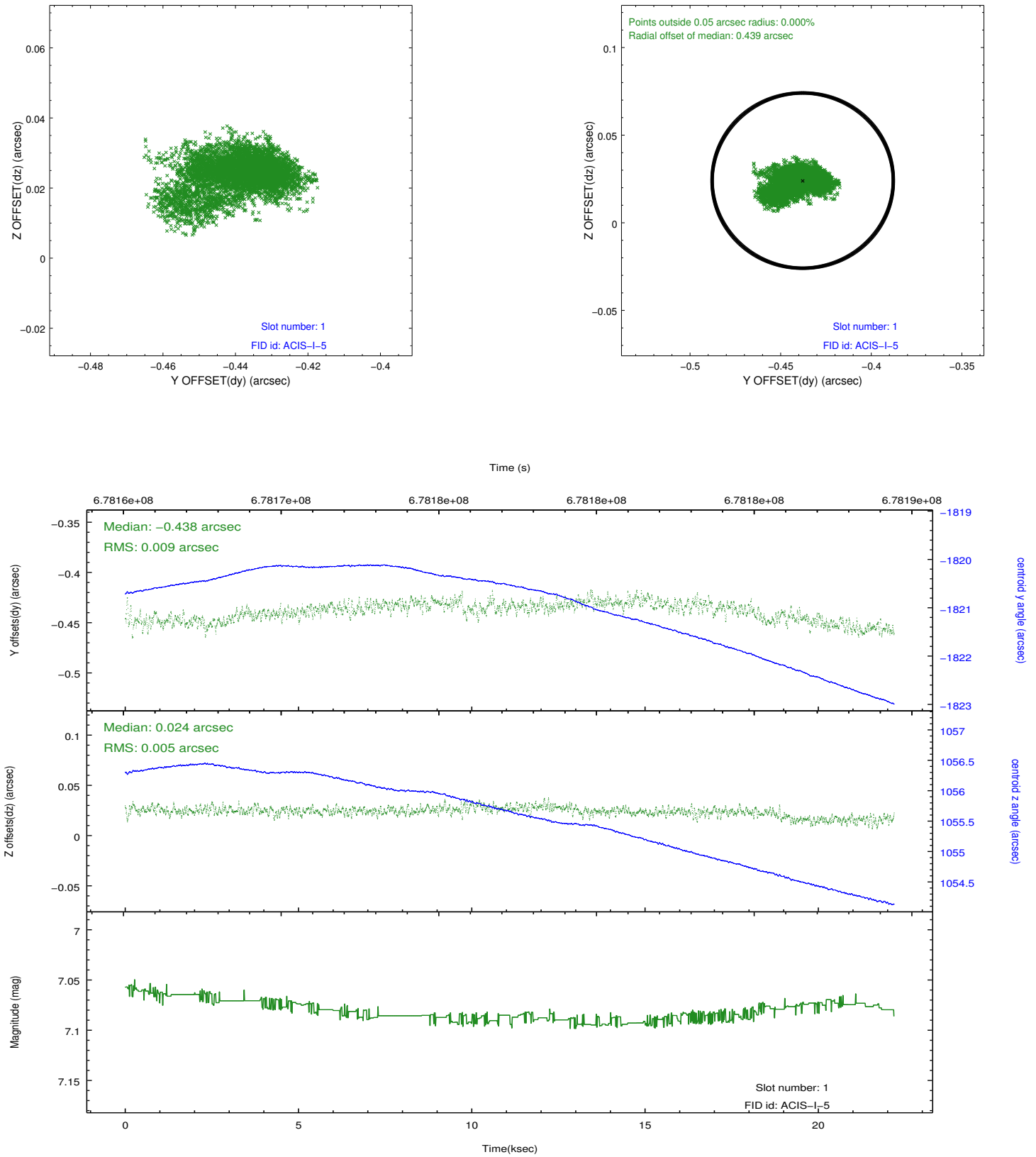


2.5 FID Slots

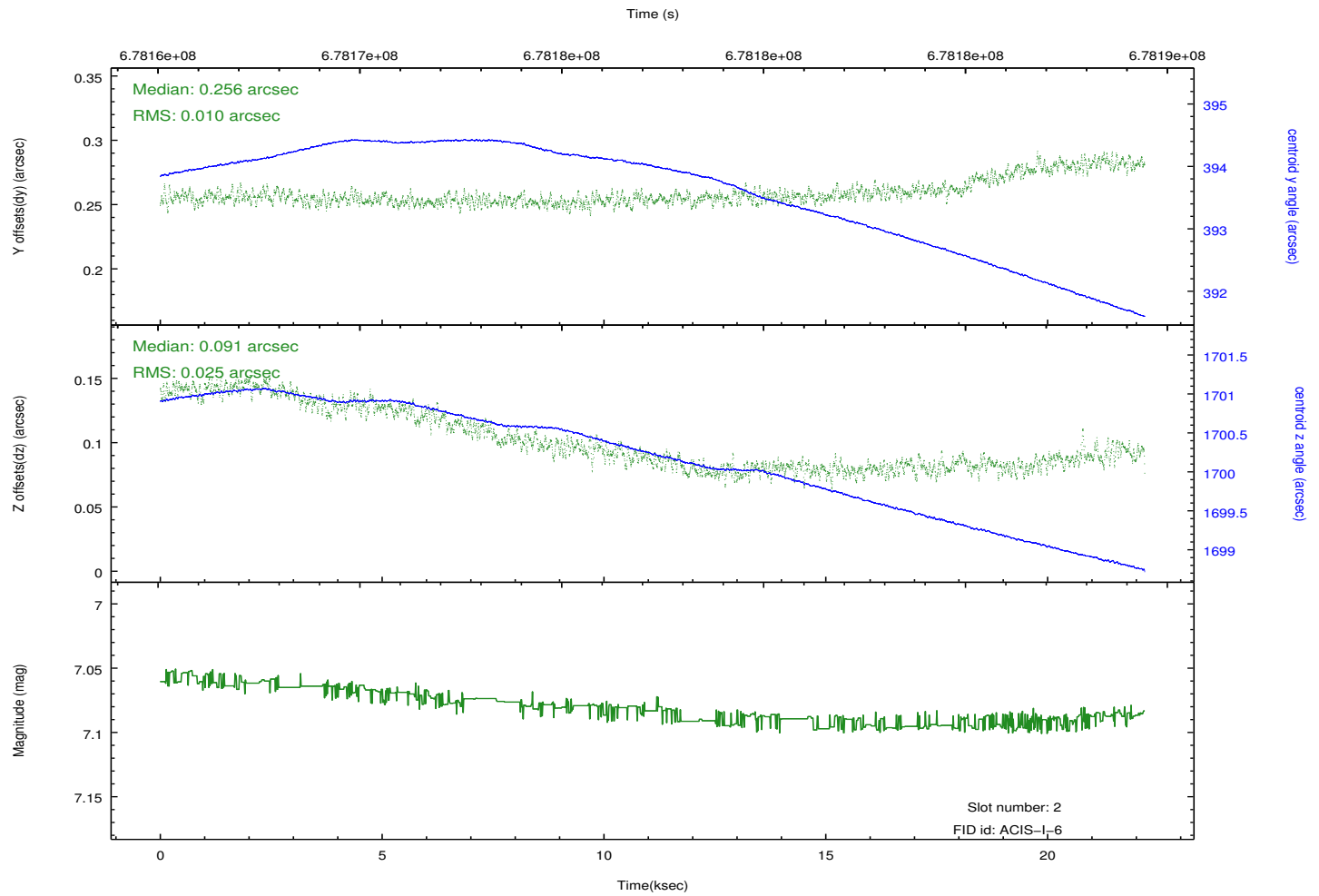
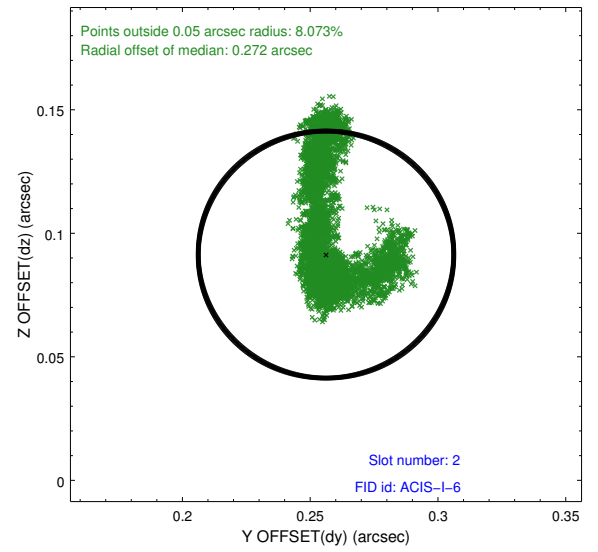
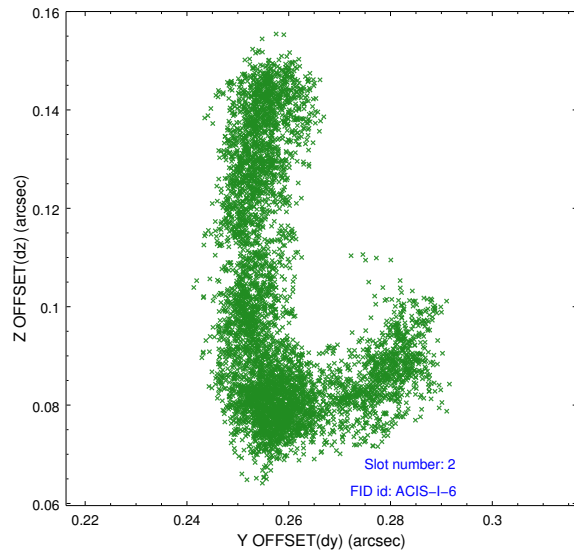
2.5.1 Slot 0



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)	2019.06.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	22.06265915966

A.2 Comments