

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 9376 - L2 Version 2
Chandra X-Ray Center

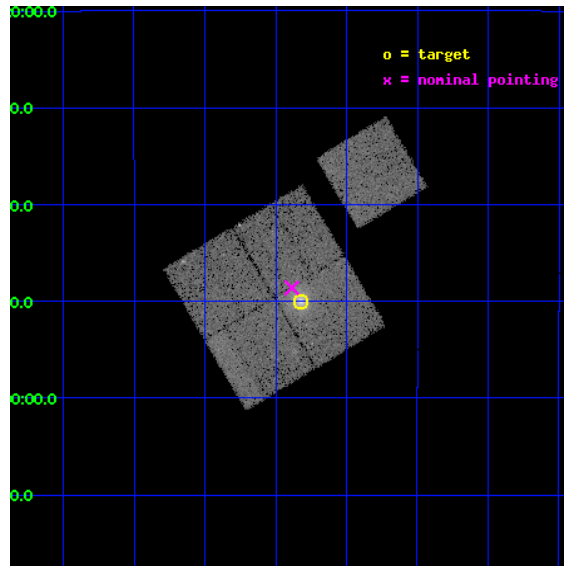
L2 Processing Date : May 22 2012

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

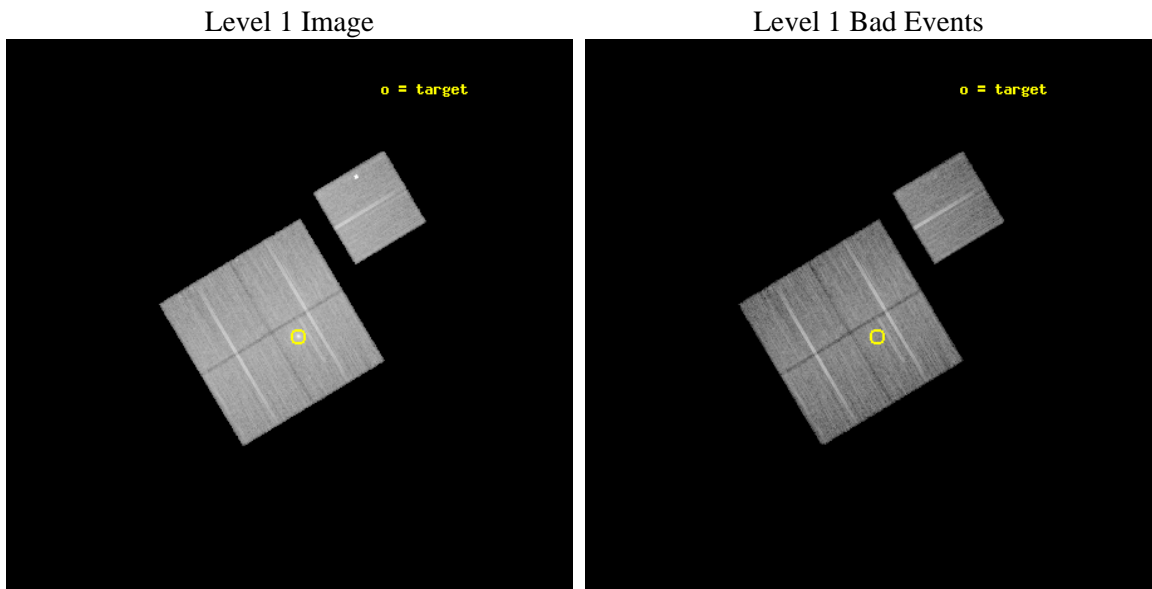
seq_num	800713	Sequence number
obs_id	9376	Observation id
title	Probing Dark Energy with Relaxed Galaxy Clusters	Proposal title
observer	Prof. Steven Allen	Principal investigator
object	MACS0159	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	29.955417	Observer's specified target RA [deg]
dec_targ	-8.833111	Observer's specified target Dec [deg]
ra_nom	29.971413903387	Nominal RA [deg]
dec_nom	-8.8102906210471	Nominal Dec [deg]
roll_nom	59.071917254936	Nominal Roll [deg]
revision	2	Processing version of data
ontime	19765.437107444	Sum of GTIs [s]
livetime	19507.187120532	Livetime [s]
ontime0	19768.454938054	Sum of GTIs [s]
ontime1	19771.636988103	Sum of GTIs [s]
ontime2	19762.255047083	Sum of GTIs [s]
ontime3	19765.437107444	Sum of GTIs [s]
ontime6	19771.554888248	Sum of GTIs [s]
l2events	77867	Number of level 2 events



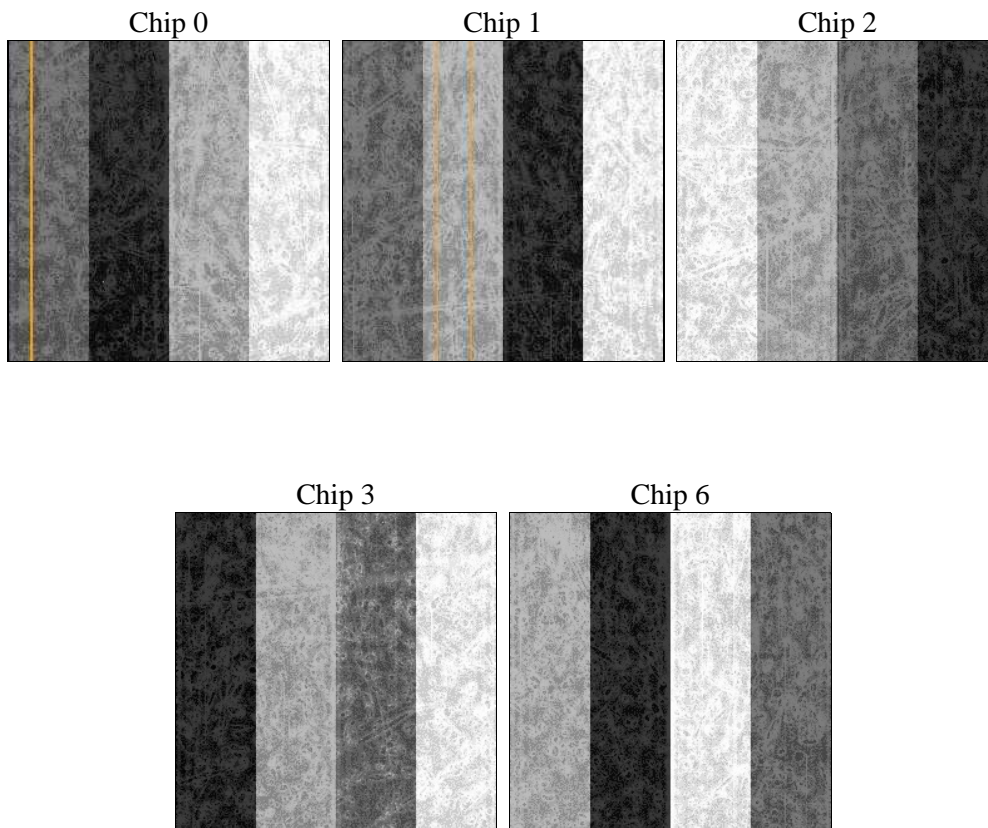
2 OBI

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	8.4.4	Processing system revision	ontime	19765.437107444	Sum of GTIs [s]
caldbver	4.4.9	 	ontime0	19768.454938054	Sum of GTIs [s]
date	2012-05-22T10:08:48	Date and time of file creation	ontime1	19771.636988103	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	19762.255047083	Sum of GTIs [s]
			ontime3	19765.437107444	Sum of GTIs [s]
			ontime6	19771.554888248	Sum of GTIs [s]
			l1events	807385	Number of level 1 events

2.1.4 Events

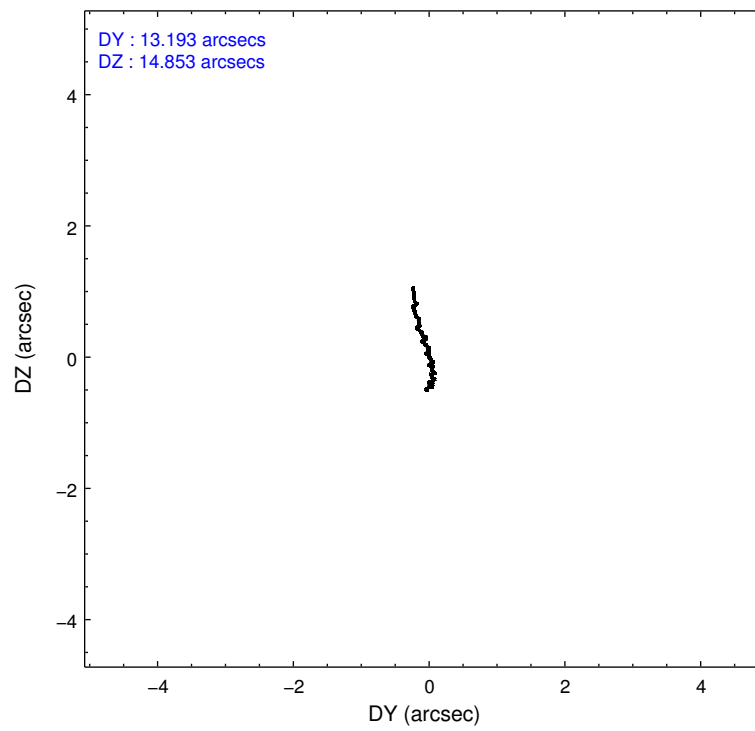
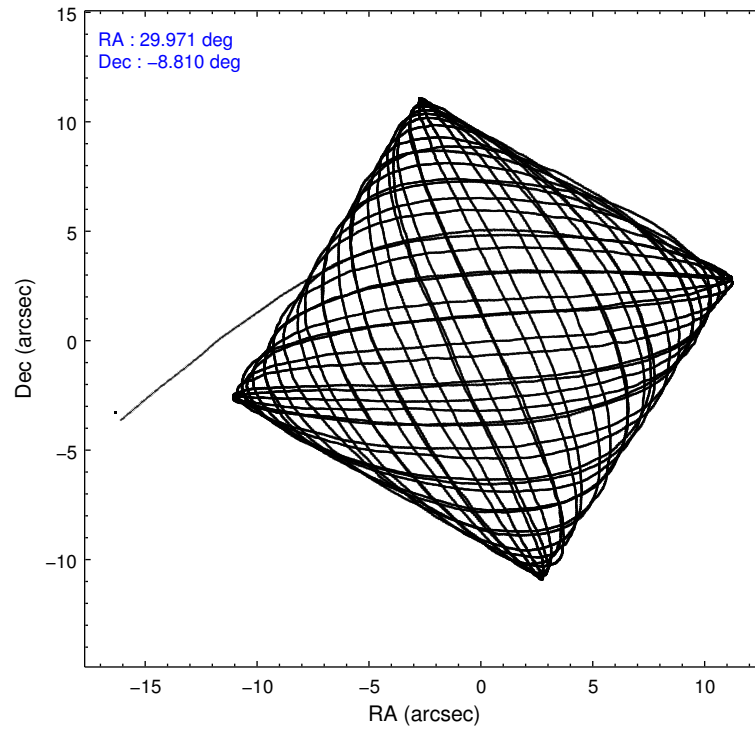
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	149792	153464	169700	169603	164826
rejected events	133389	134918	153407	144922	143155
rejected %	89%	87%	90%	85%	86%

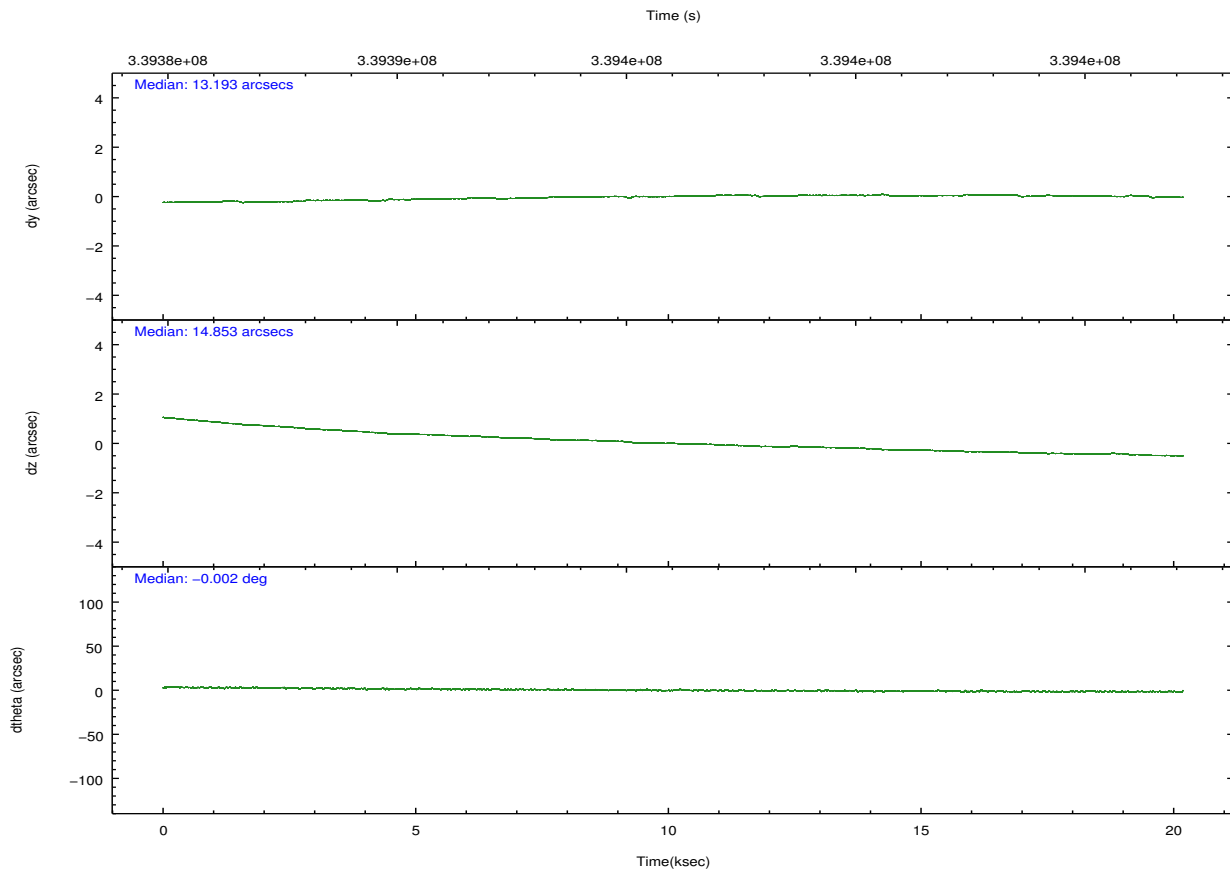
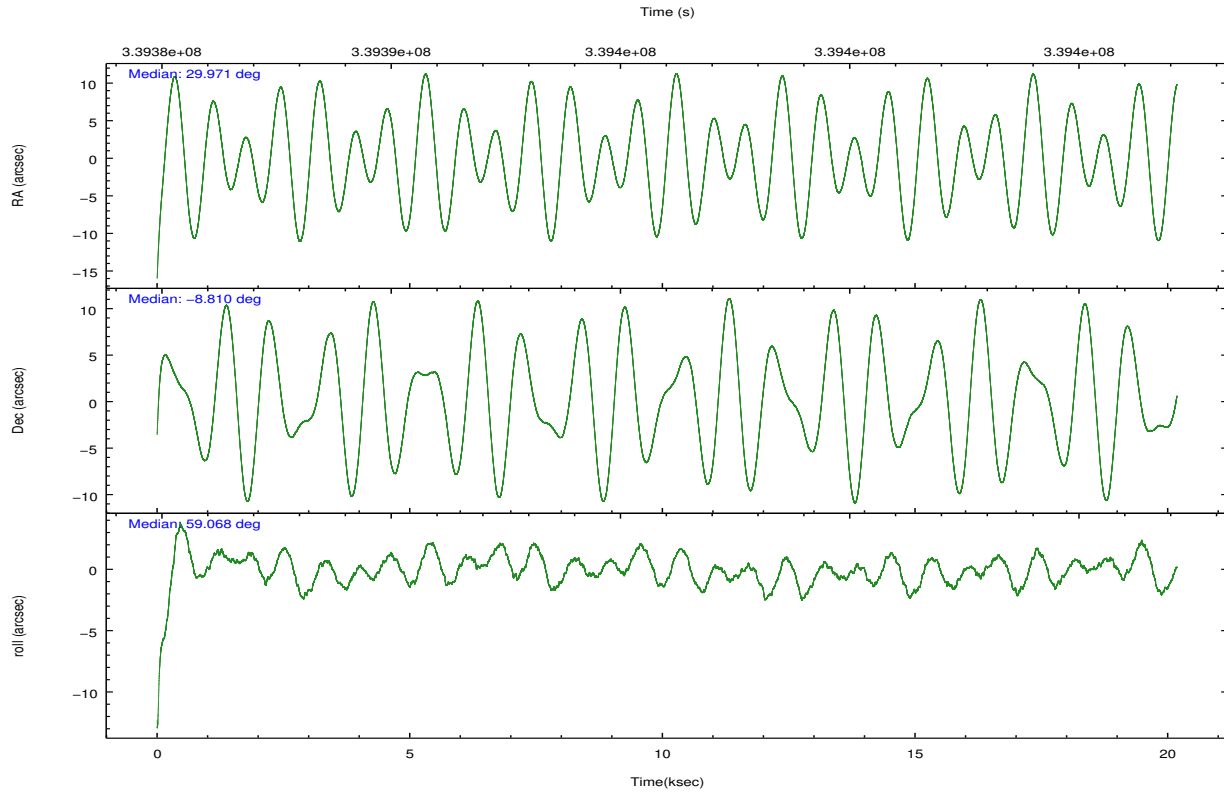
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	5641	6638	5907	12891	10854
	3%	4%	3%	7%	6%
grade 1 events	93	88	96	144	95
	0%	0%	0%	0%	0%
grade 2 events	3999	4267	3909	4389	3753
	2%	2%	2%	2%	2%
grade 3 events	1837	1962	1751	1981	1740
	1%	1%	1%	1%	1%
grade 4 events	1646	1944	1722	2044	1681
	1%	1%	1%	1%	1%
grade 5 events	5682	6492	5369	6793	6700
	3%	4%	3%	4%	4%
grade 6 events	3285	3736	3005	3380	3653
	2%	2%	1%	1%	2%
grade 7 events	127609	128337	147941	137981	136350
	85%	83%	87%	81%	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	29.971082	29.9714139033868	CCD I2 on	Y	Y
[deg] Pointing Dec	-8.837791	-8.81029062104713	CCD I3 on	Y	Y
[deg] Pointing Roll	58.863181	59.07191725493604	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	-229.442463	-229.4463571591594	CCD S3 on	N	N
[mm] SIM translation stage offset	-4.15	-4.146095843770325	CCD S4 on	N	N
[s] Observation start time (MET)	339386104.184000	339384585.38915	CCD S5 on	N	N
Observation start date	2008-10-03T01:53:59	2008-10-03T01:29:45	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	339406104.184000	339406988.30275	On-chip summing requested	N	N
Observation end date	2008-10-03T07:27:19	2008-10-03T07:43:08	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



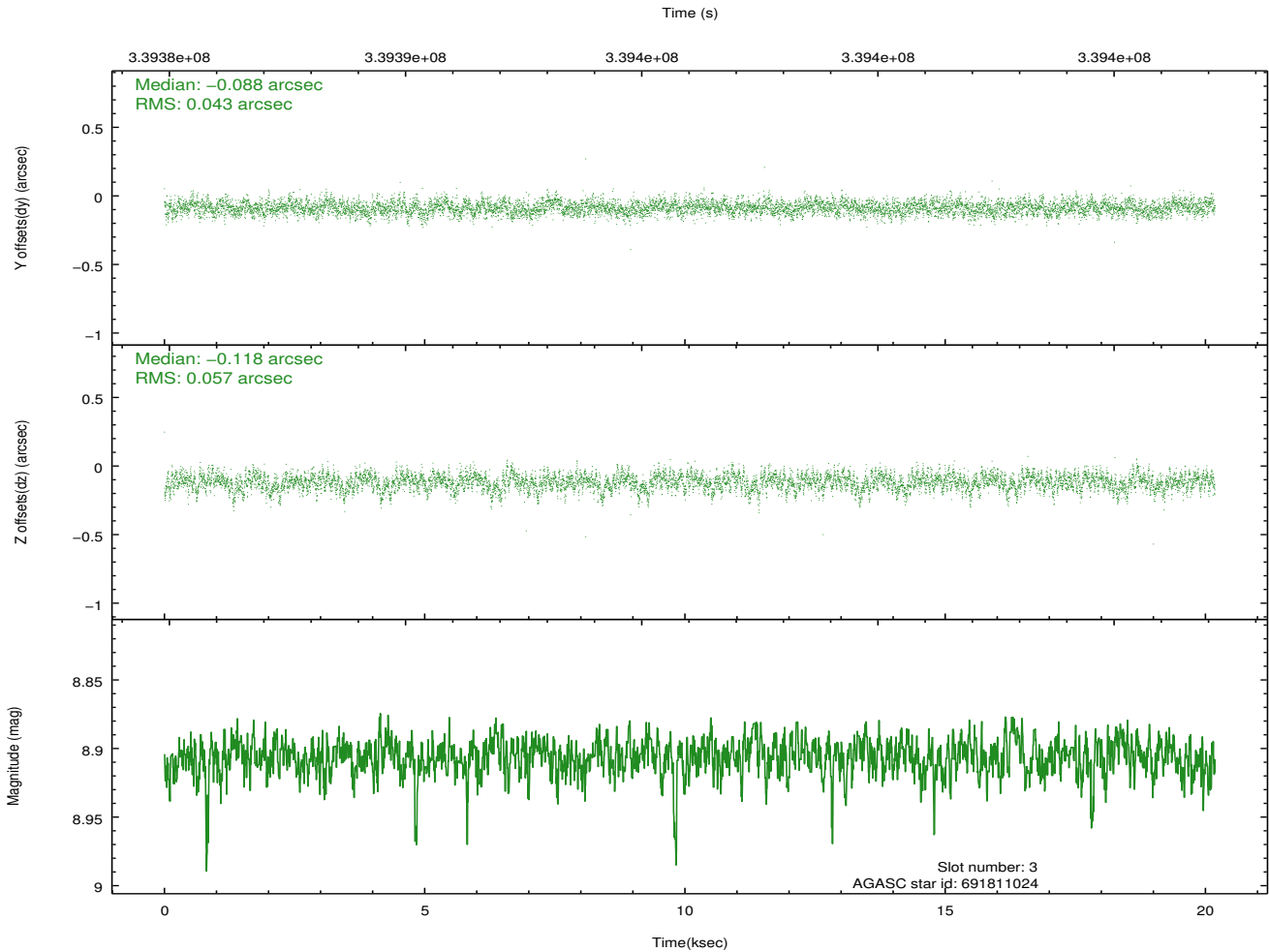
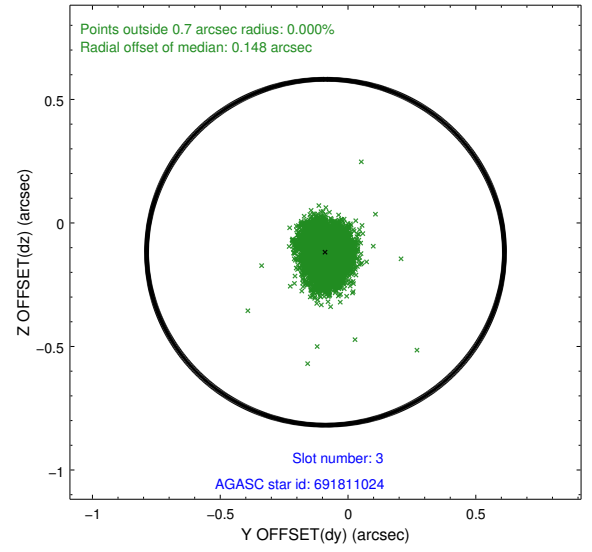
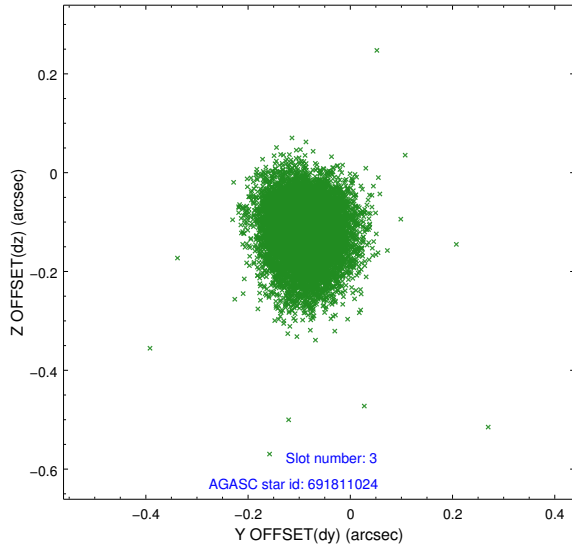


Slot Statistics

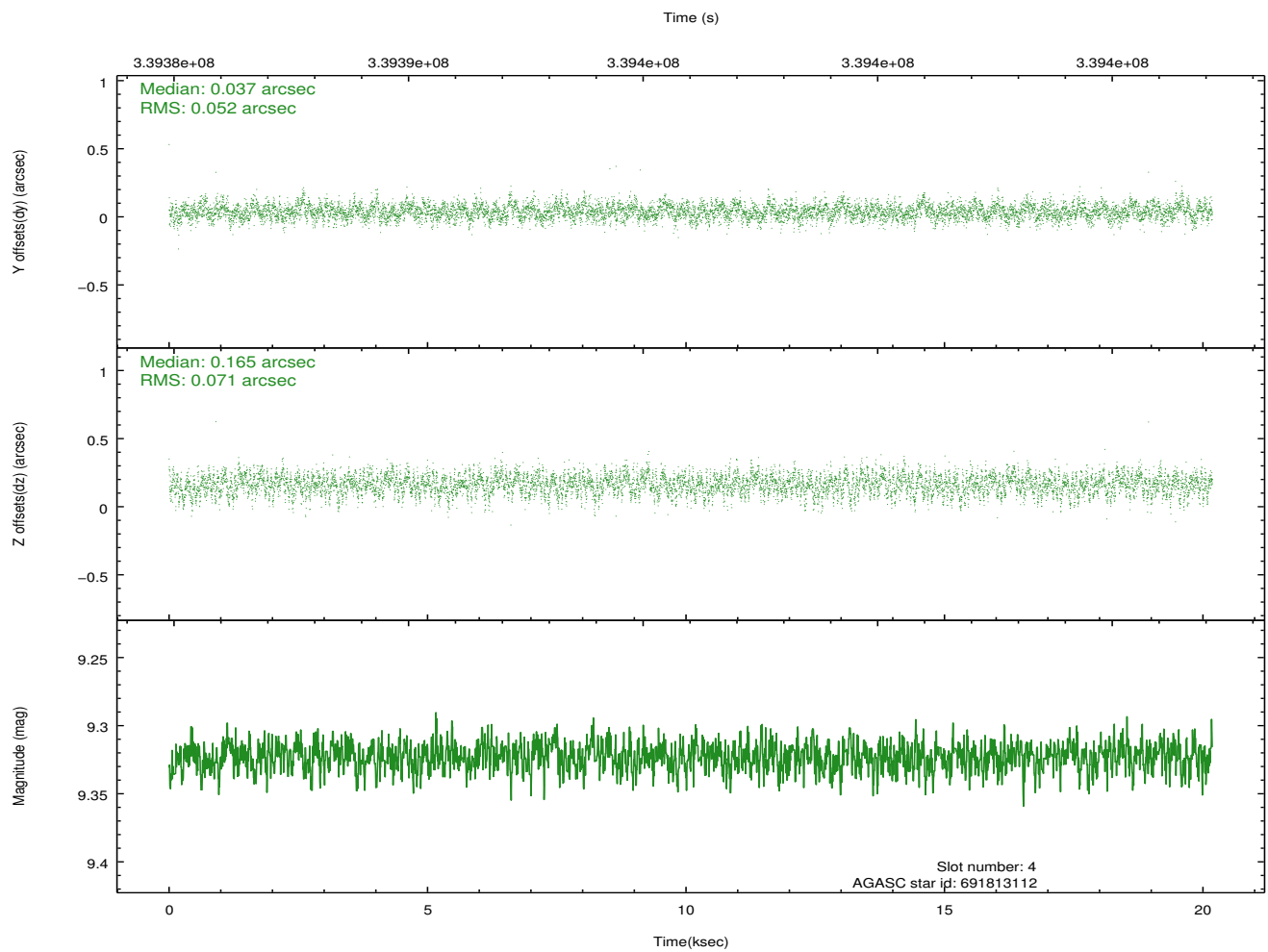
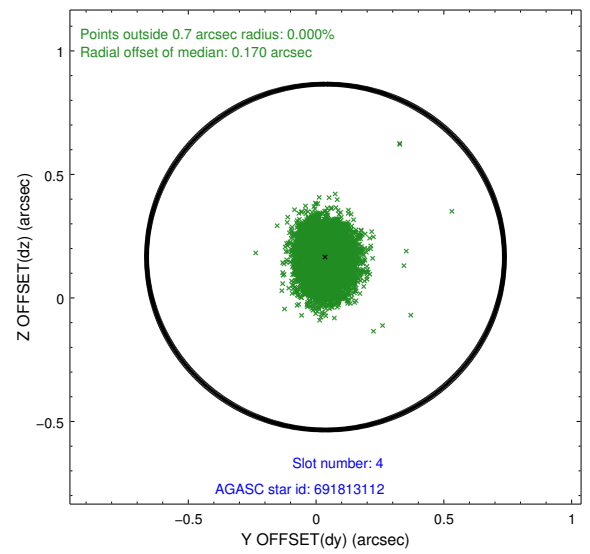
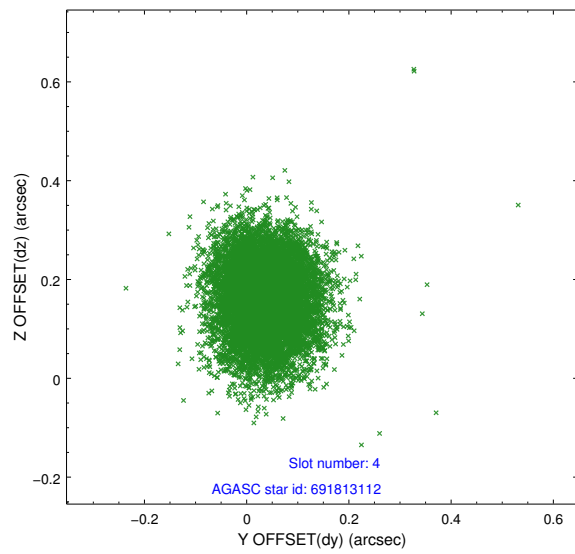
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.02	4922	0.068	-0.022	0.017	0.028	0.000000	0.000000	926.35	-923.61
1	FID	ACIS-I-5	7.02	4923	-0.217	0.072	0.012	0.024	0.000000	0.000000	-1821.94	973.86
2	FID	ACIS-I-6	7.02	4922	0.060	0.018	0.014	0.030	0.000000	0.000000	391.68	1618.52
3	GUIDE	691811024	8.91	9831	-0.088	-0.118	0.074	0.124	29.791583	-8.363095	1132.17	1430.92
4	GUIDE	691813112	9.32	9832	0.037	0.165	0.093	0.152	30.238018	-9.410054	-1272.82	-1876.69
5	GUIDE	691814104	8.88	9839	0.027	0.136	0.100	0.153	30.197239	-9.598726	-1929.63	-2104.07
6	GUIDE	691817096	8.32	9842	-0.099	-0.148	0.081	0.128	29.769058	-8.981725	-815.02	346.53
7	GUIDE	692204744	9.35	9823	0.117	-0.034	0.112	0.189	30.881810	-8.596523	2417.01	-2327.45

2.4 Star Slots

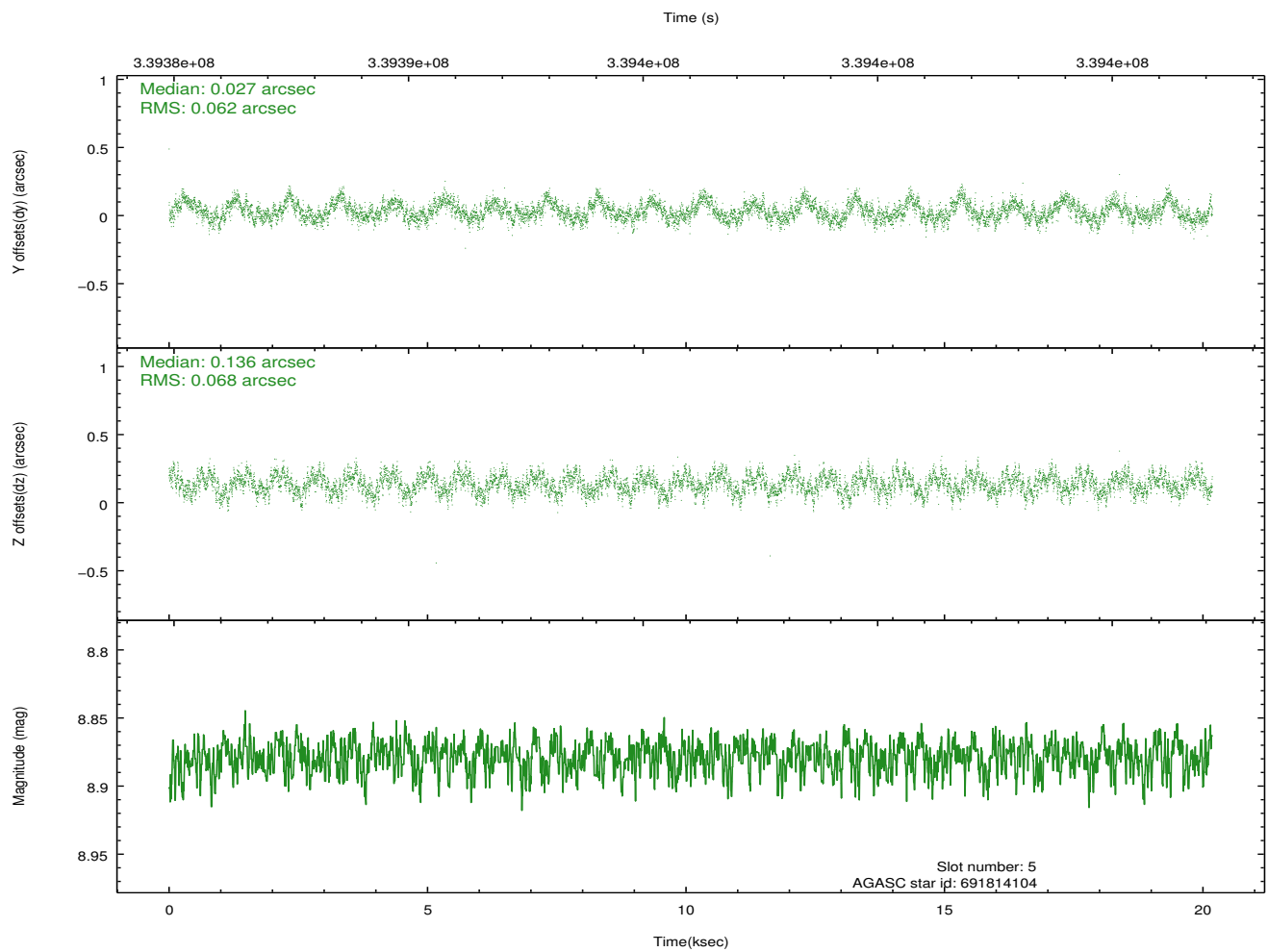
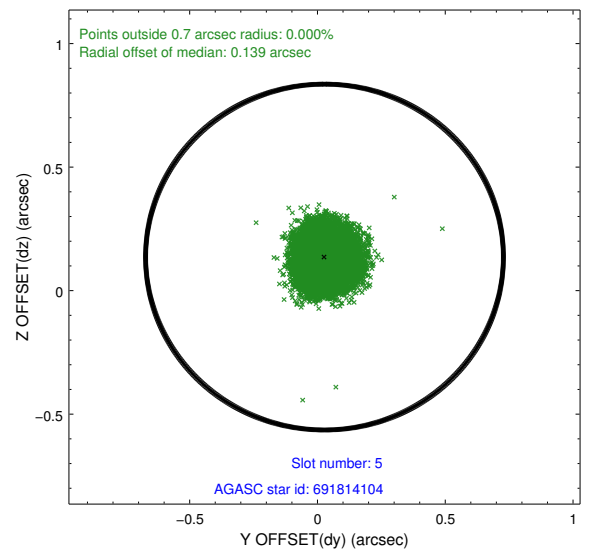
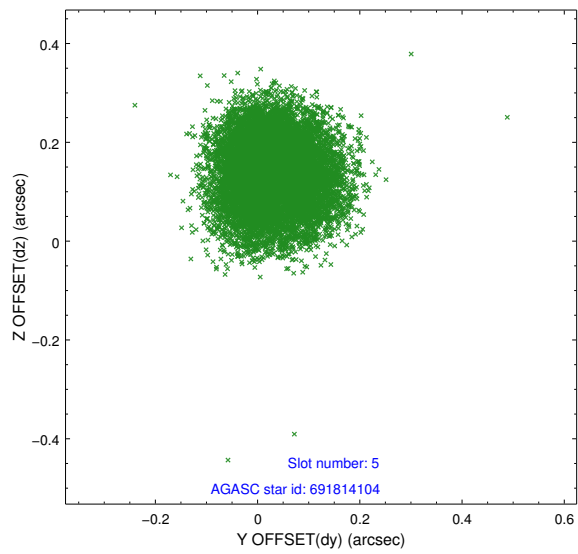
2.4.1 Slot 3



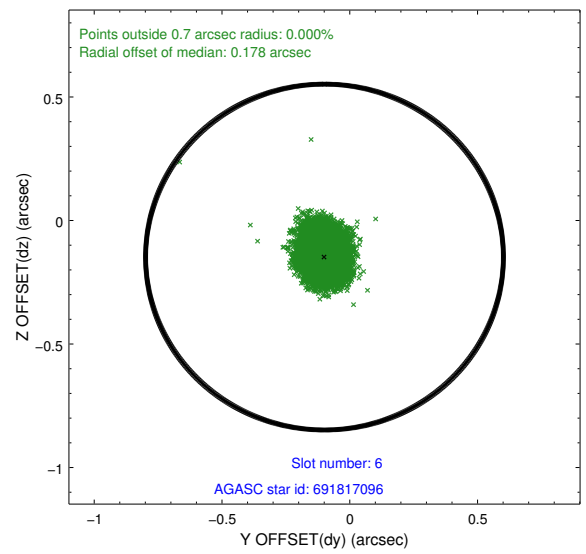
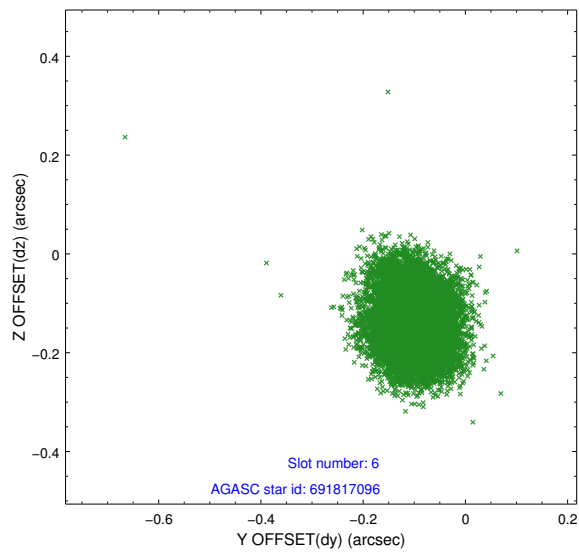
2.4.2 Slot 4



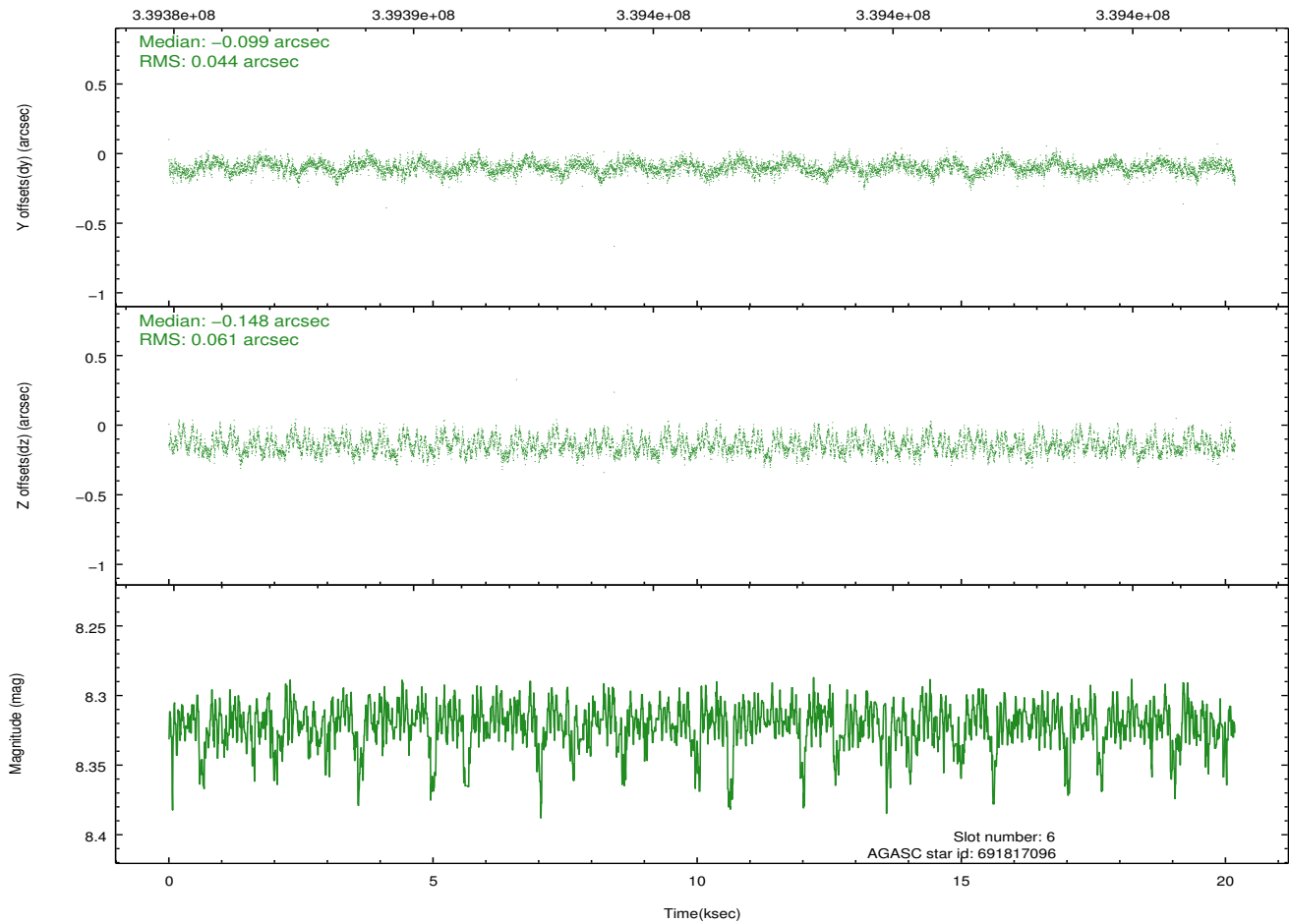
2.4.3 Slot 5



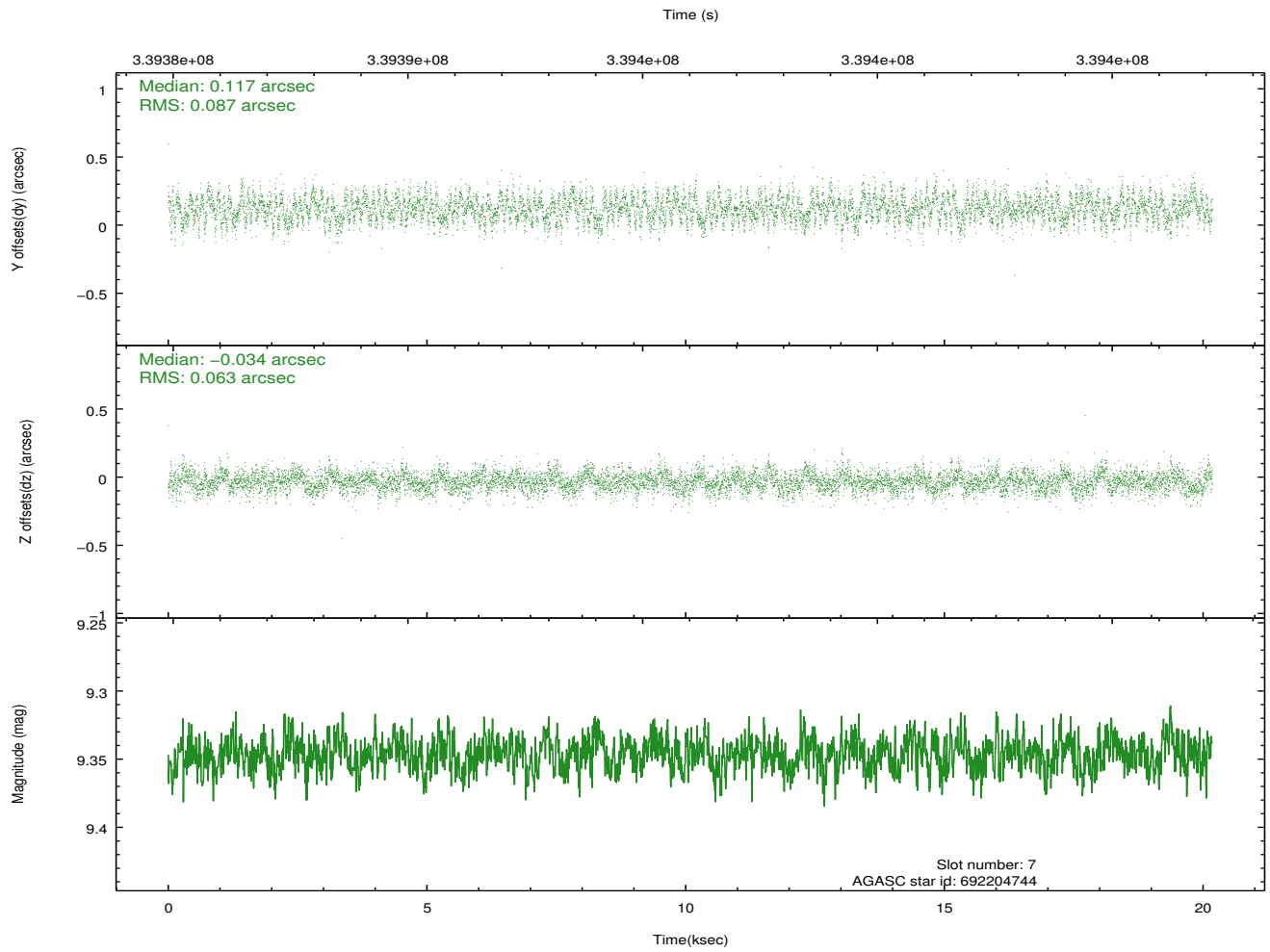
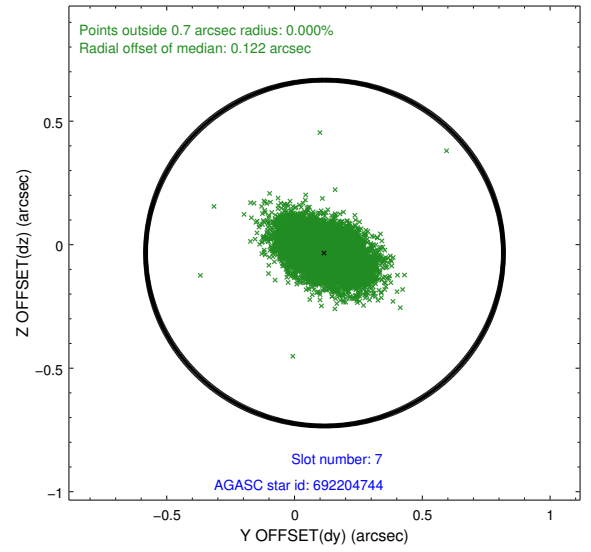
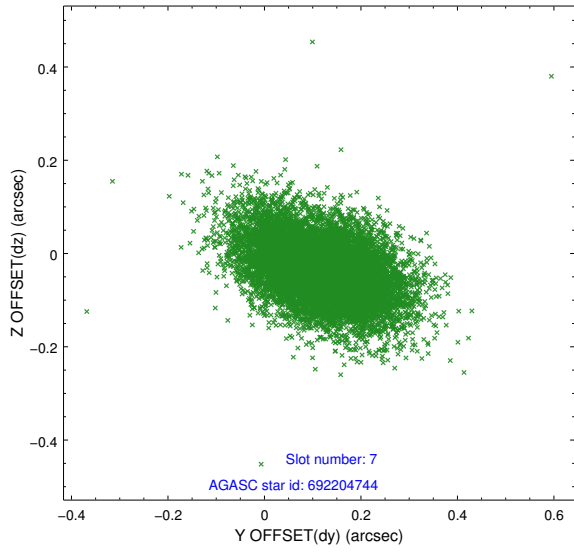
2.4.4 Slot 6



Time (s)

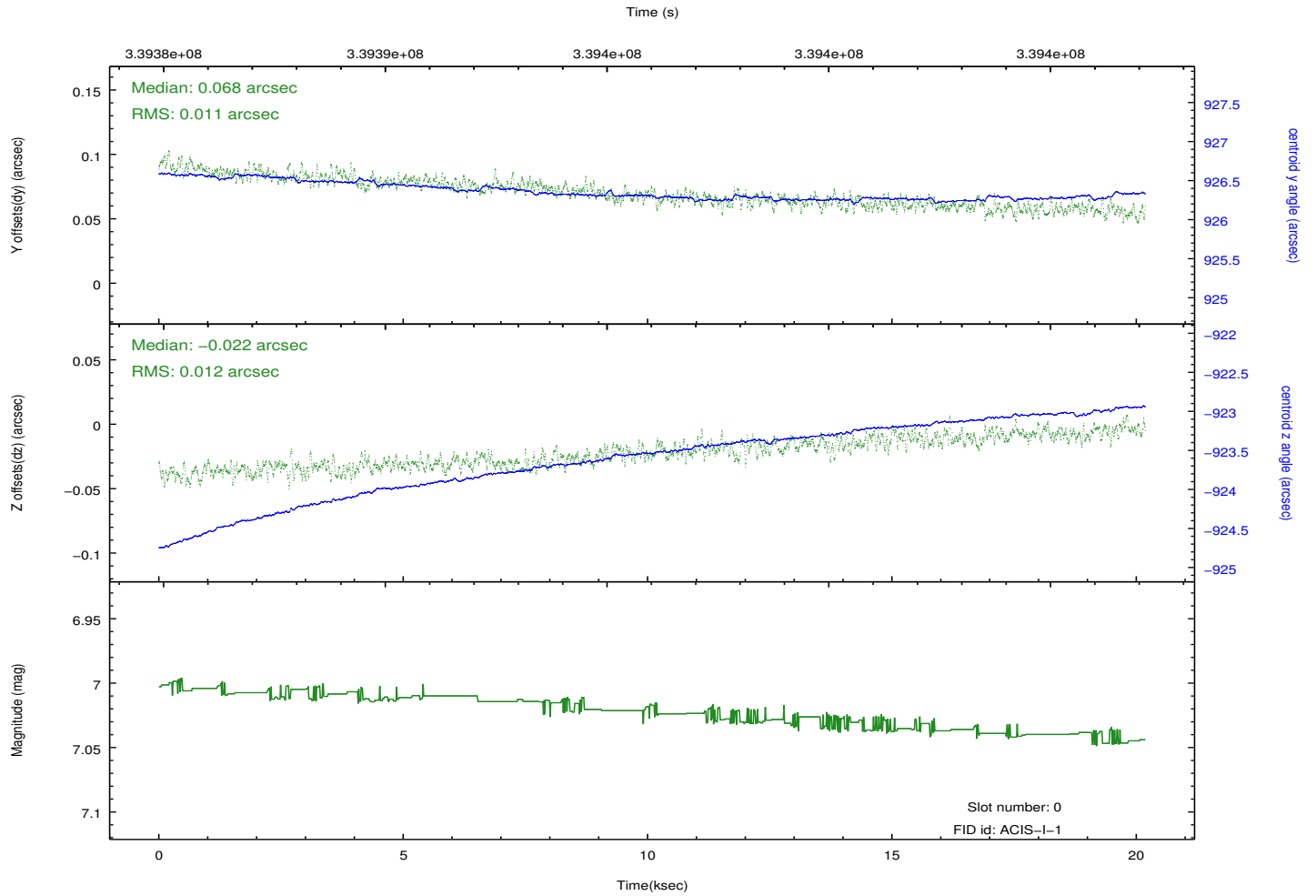
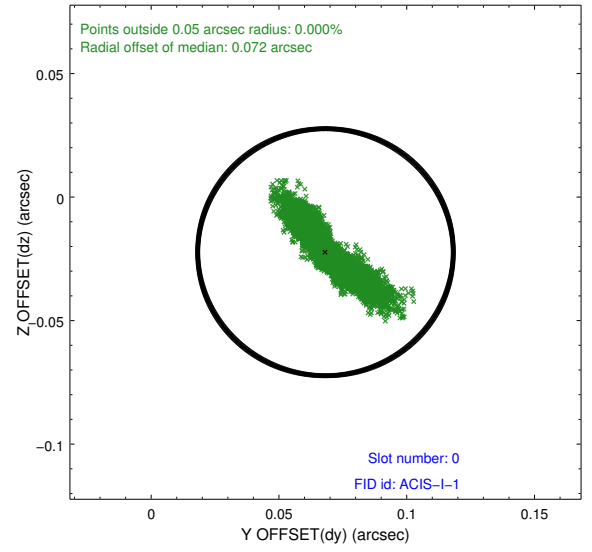
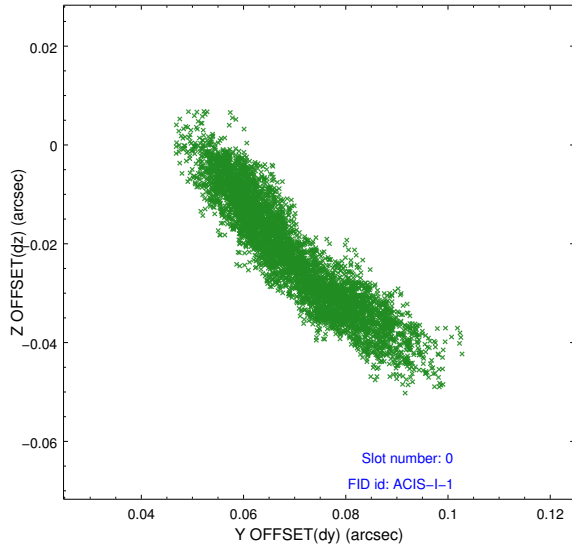


2.4.5 Slot 7

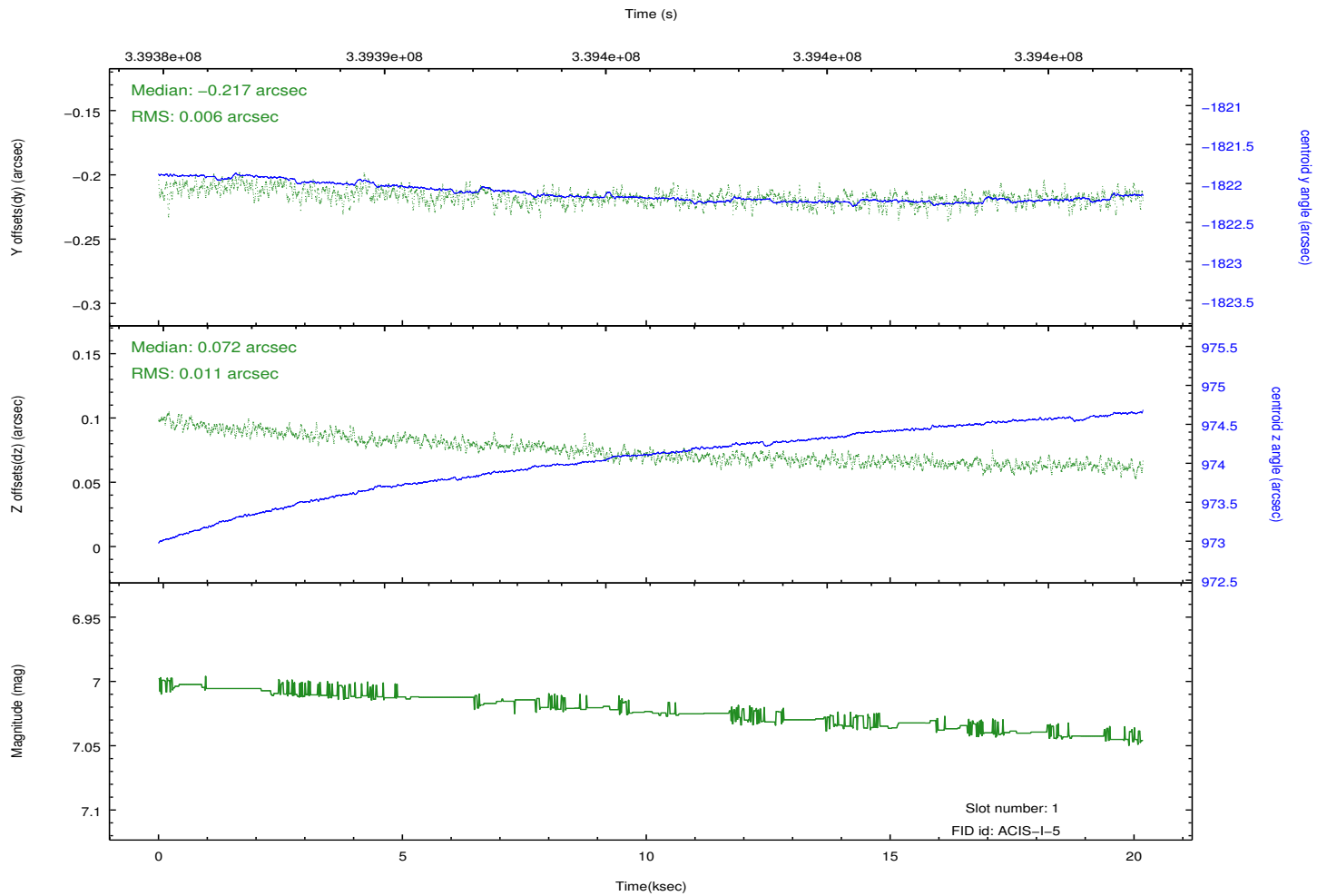
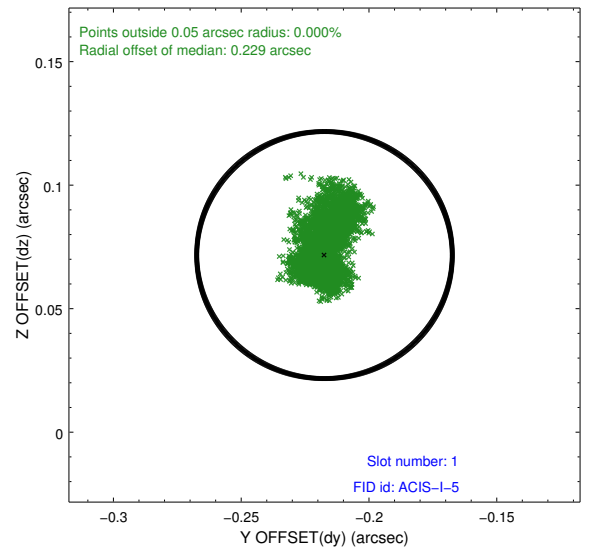
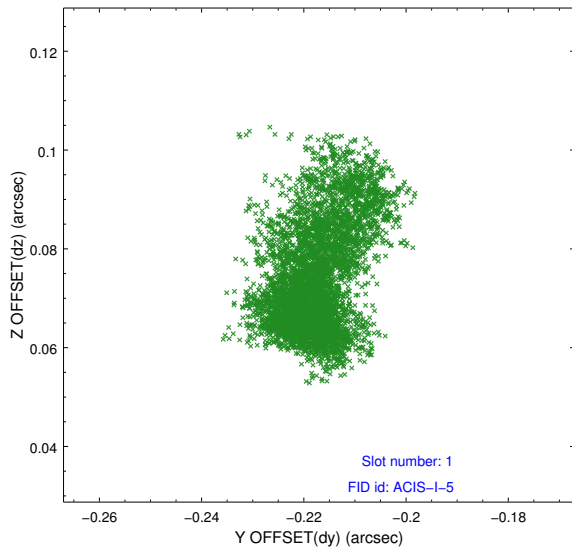


2.5 FID Slots

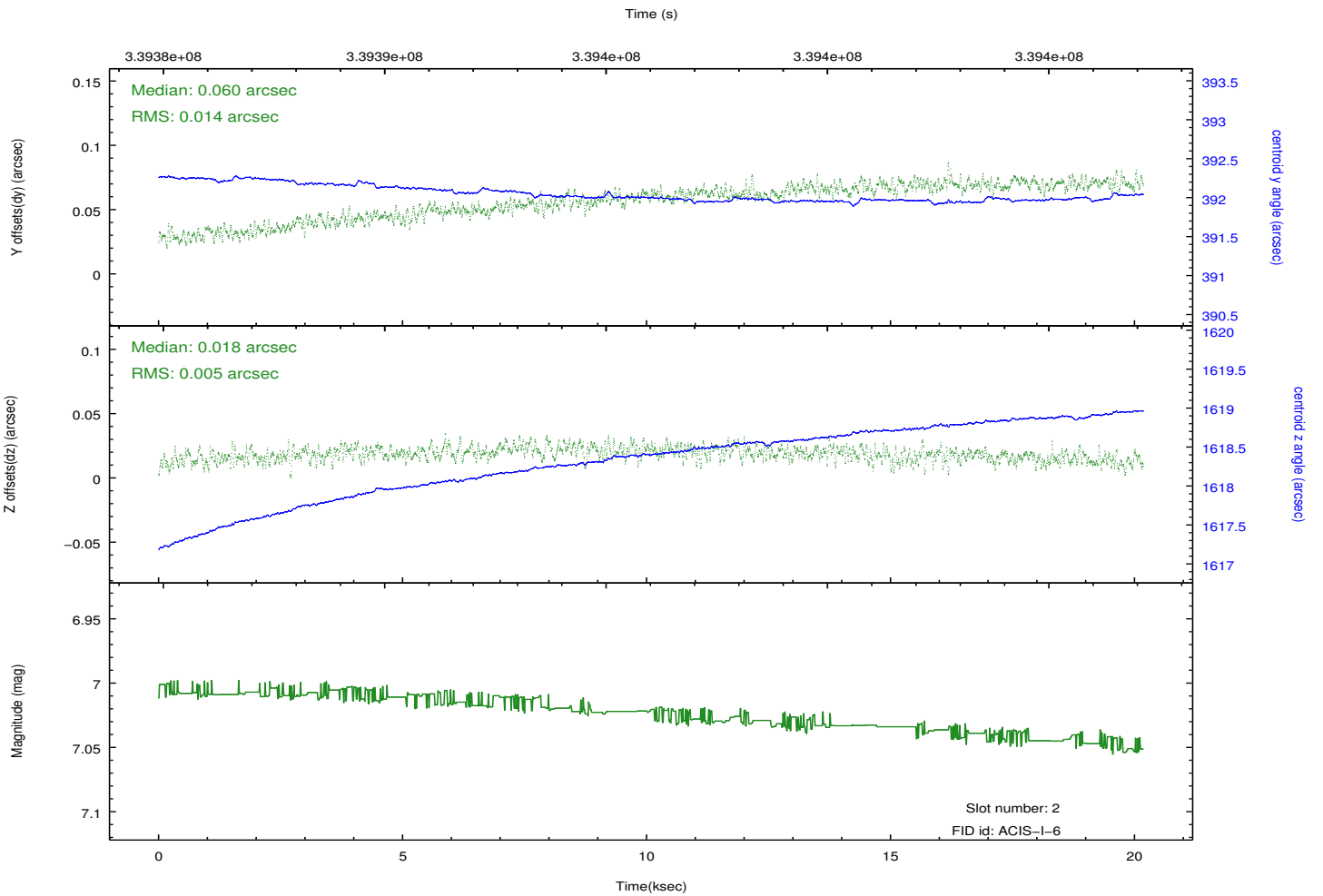
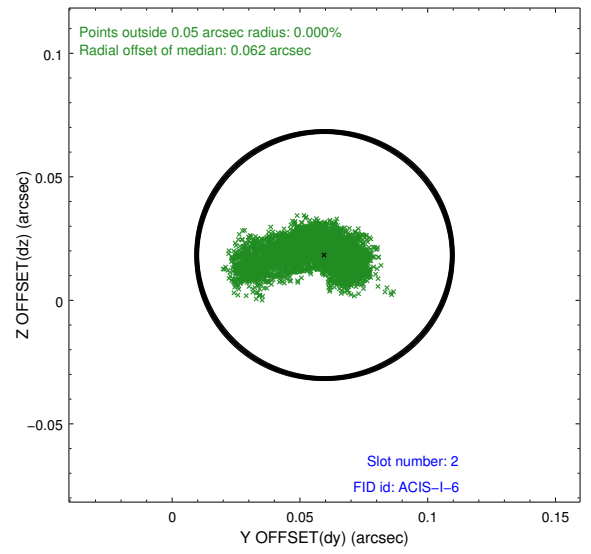
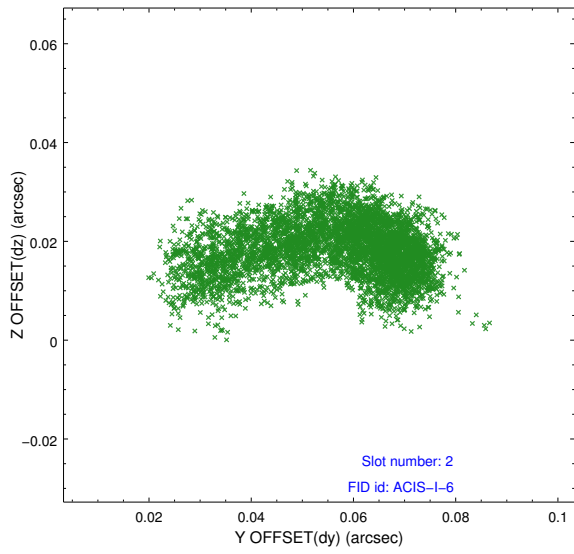
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.05.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.7655181

A.2 Comments