

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12271 - L2 Version 2
Chandra X-Ray Center

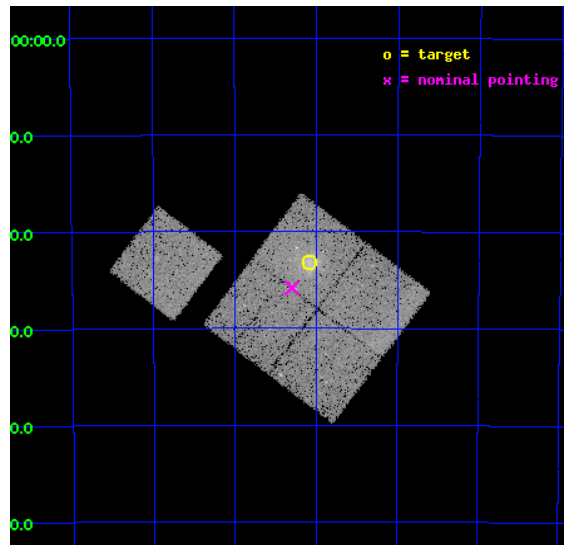
L2 Processing Date : Feb 4 2012

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1 Front

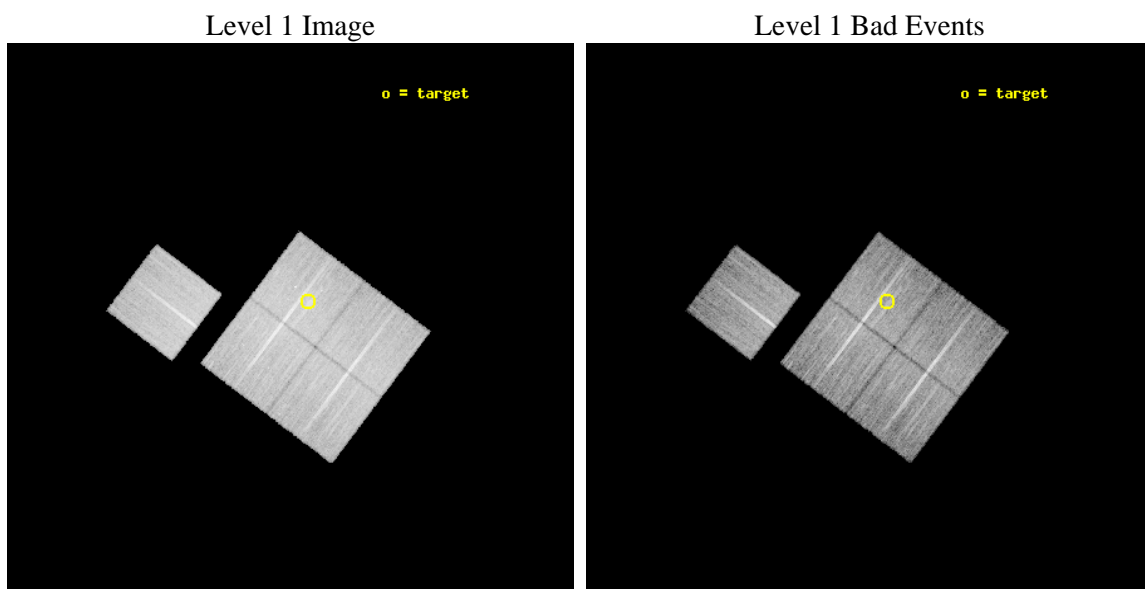
seq_num	800990	Sequence number
obs_id	12271	Observation id
title	Chandra Observations of the ACT Sample of SZE-Selected Galaxy Clusters	Proposal title
observer	Prof John Hughes	Principal investigator
object	ACT J0707-5522	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	106.769583	Observer's specified target RA [deg]
dec_targ	-55.385694	Observer's specified target Dec [deg]
ra_nom	106.82456795923	Nominal RA [deg]
dec_nom	-55.430217760289	Nominal Dec [deg]
roll_nom	307.07932004859	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20050.342206001	Sum of GTIs [s]
livetime	19788.369724233	Livetime [s]
ontime0	20053.360076249	Sum of GTIs [s]
ontime1	20053.401116252	Sum of GTIs [s]
ontime2	20050.301185906	Sum of GTIs [s]
ontime3	20050.342206001	Sum of GTIs [s]
ontime6	20053.319036245	Sum of GTIs [s]
l2events	73113	Number of level 2 events



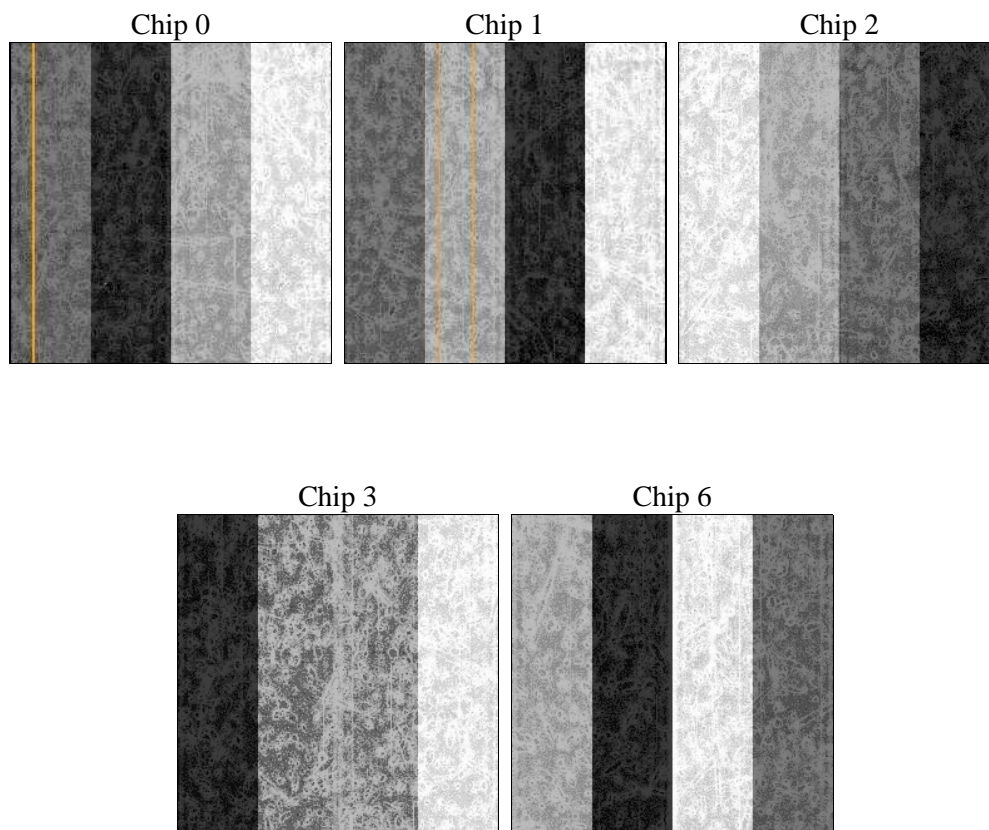
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.854000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	20050.342206001	Sum of GTIs [s]
caldbver	4.4.7	 	ontime0	20053.360076249	Sum of GTIs [s]
date	2012-02-04T20:26:34	Date and time of file creation	ontime1	20053.401116252	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	20050.301185906	Sum of GTIs [s]
			ontime3	20050.342206001	Sum of GTIs [s]
			ontime6	20053.319036245	Sum of GTIs [s]
			l1events	715751	Number of level 1 events

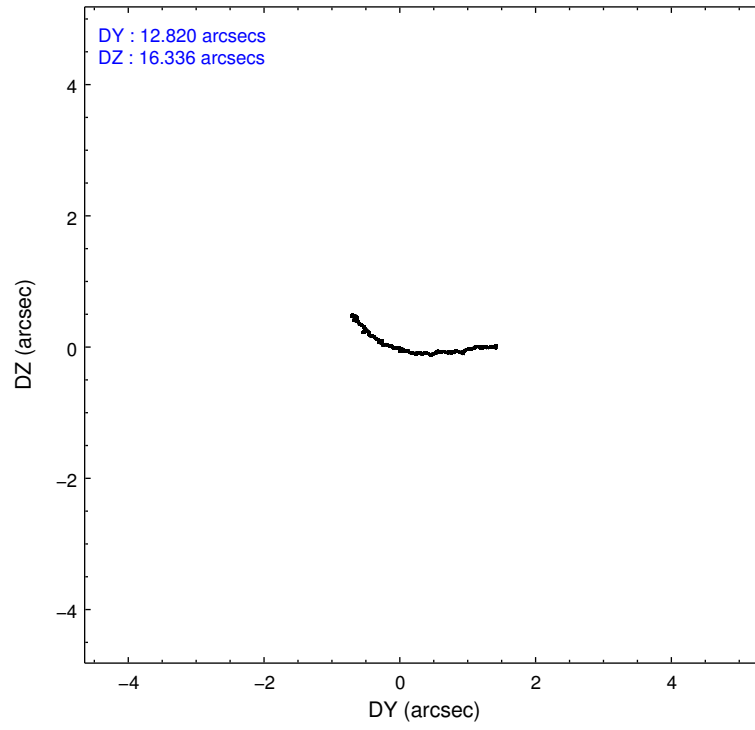
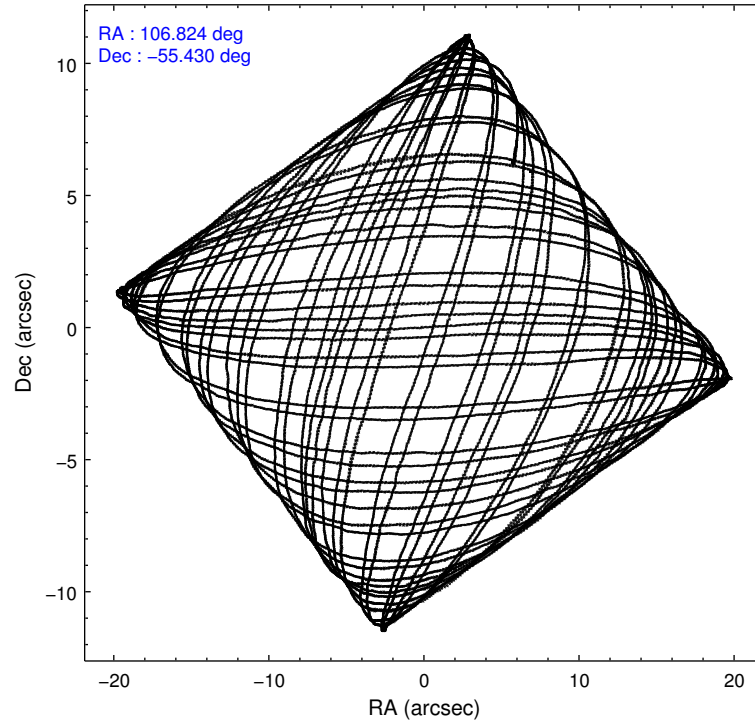
2.1.4 Events

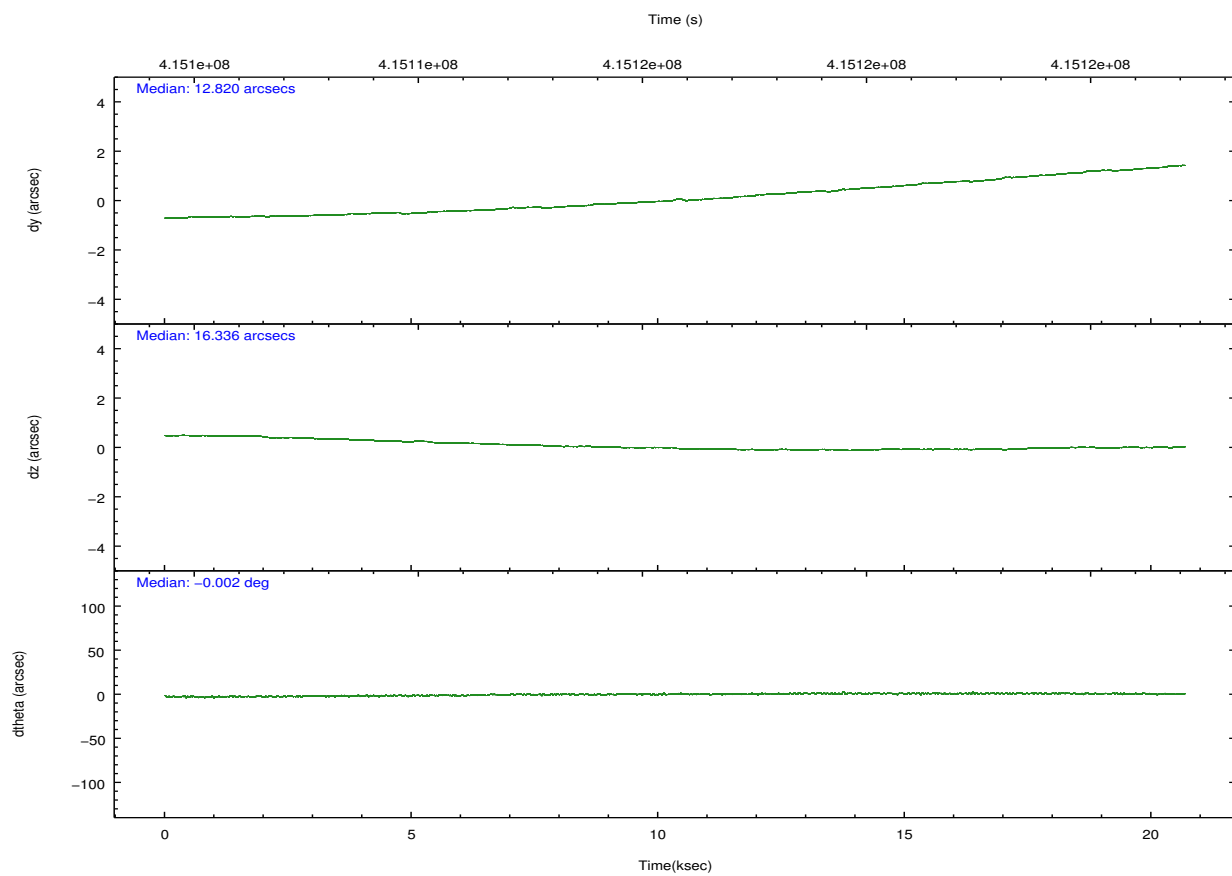
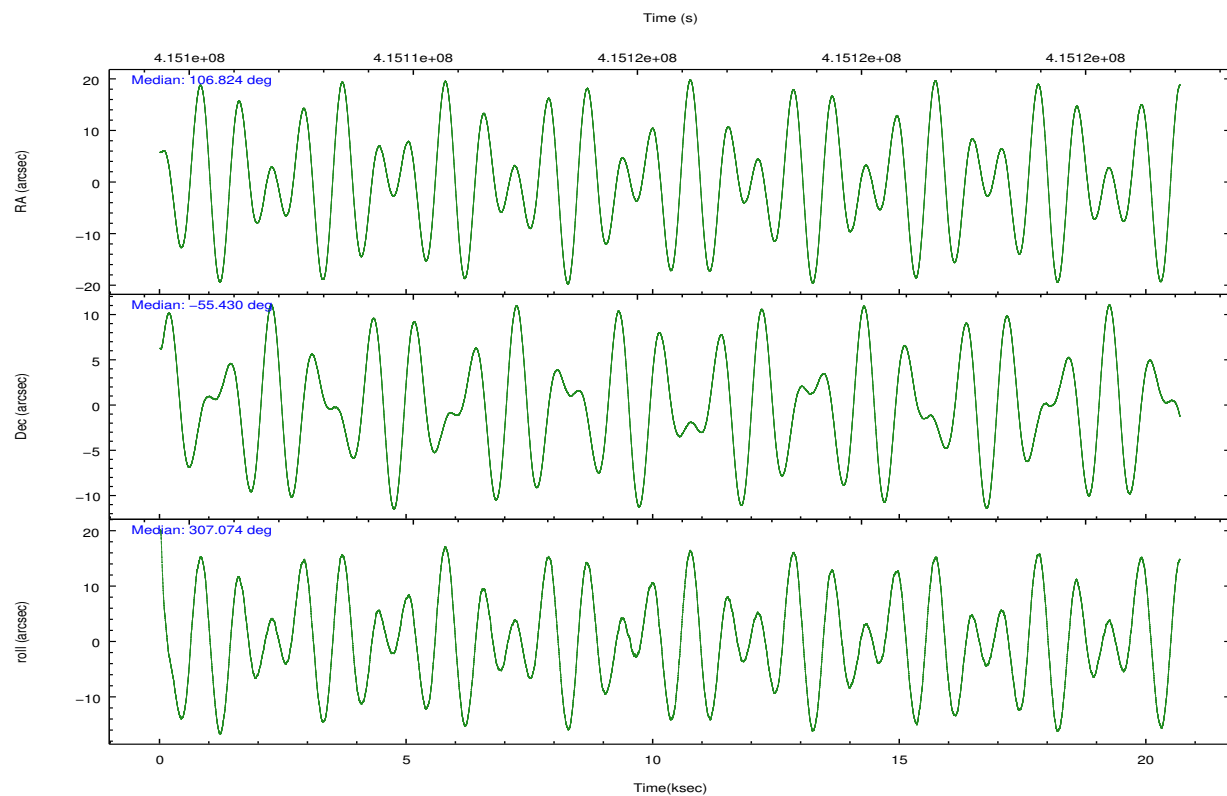
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	134887	135914	148917	149210	146823	grade 0 events	5706	6438	5816	8892	5599
rejected events	118573	117779	132618	129645	130457		4%	4%	3%	5%	3%
rejected %	87%	86%	89%	86%	88%	grade 1 events	79	81	71	99	71
							0%	0%	0%	0%	0%
						grade 2 events	4031	4388	4100	3842	3582
							2%	3%	2%	2%	2%
						grade 3 events	1778	1854	1676	1813	1716
							1%	1%	1%	1%	1%
						grade 4 events	1641	1799	1621	1785	1709
							1%	1%	1%	1%	1%
						grade 5 events	6128	6402	5784	6779	6557
							4%	4%	3%	4%	4%
						grade 6 events	3160	3661	3093	3240	3763
							2%	2%	2%	2%	2%
						grade 7 events	112364	111291	126756	122760	123826
							83%	81%	85%	82%	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	106.779870	106.8245679592304	CCD I2 on	Y	Y
[deg] Pointing Dec	-55.419636	-55.43021776028907	CCD I3 on	Y	Y
[deg] Pointing Roll	306.833818	307.0793200485853	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	-225.792463	-225.7829997647864	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.8	-7.809453238143249	CCD S4 on	N	N
[s] Observation start time (MET)	415106067.184000	415104890.83736	CCD S5 on	N	N
Observation start date	2011-02-26T11:13:21	2011-02-26T10:54:50	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	415126068.184000	415126302.57597	On-chip summing requested	N	N
Observation end date	2011-02-26T16:46:42	2011-02-26T16:51:42	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



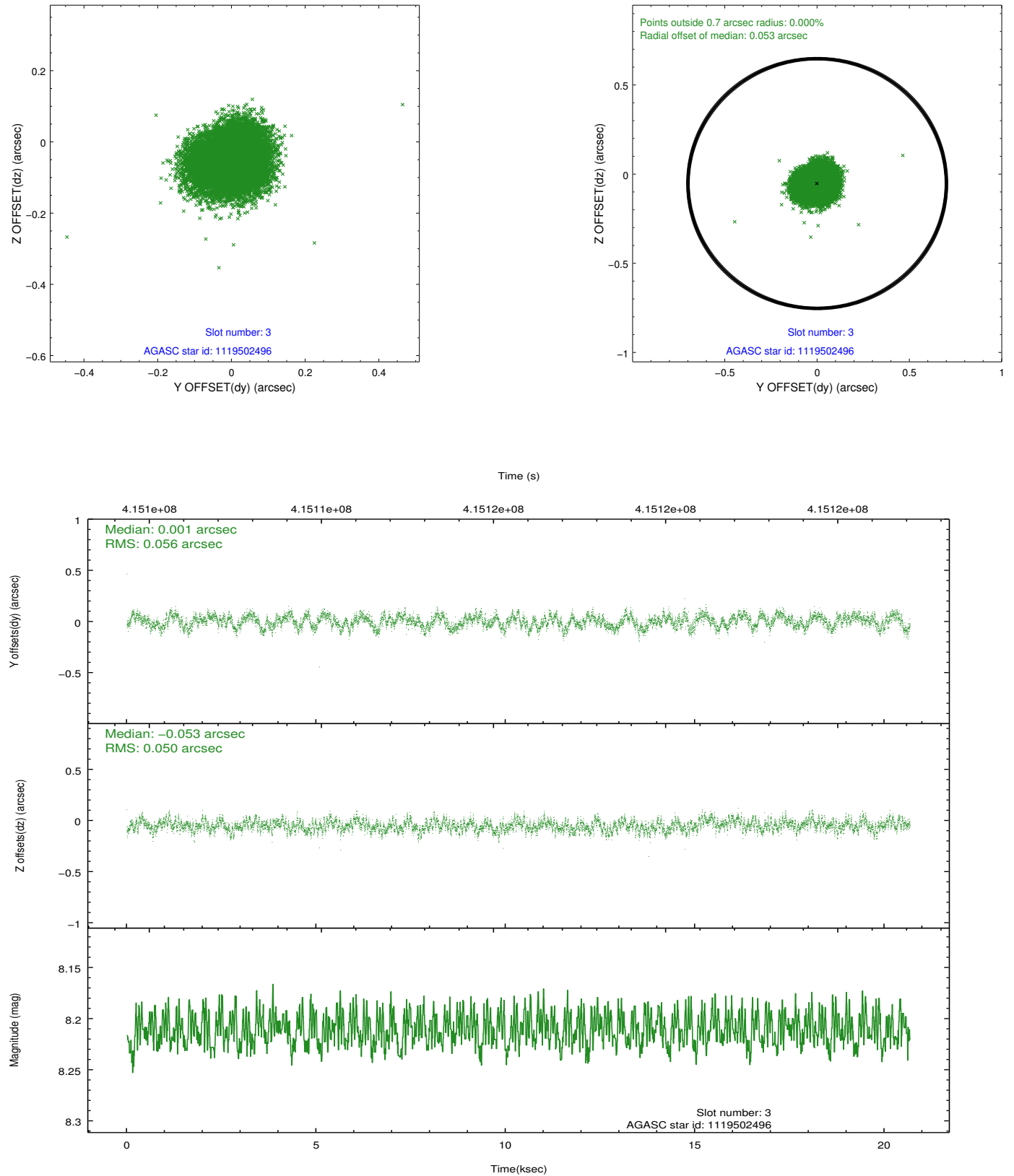


Slot Statistics

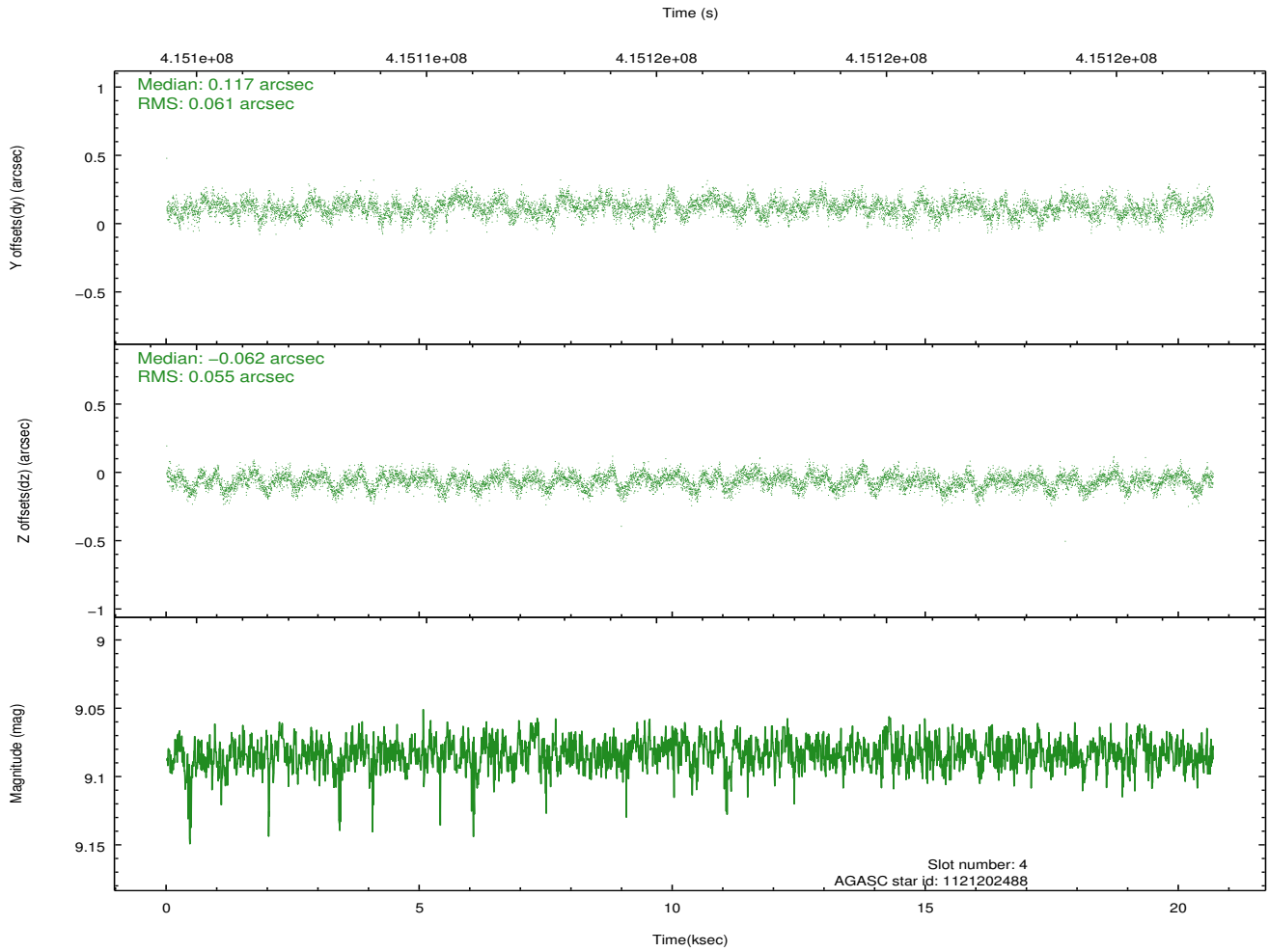
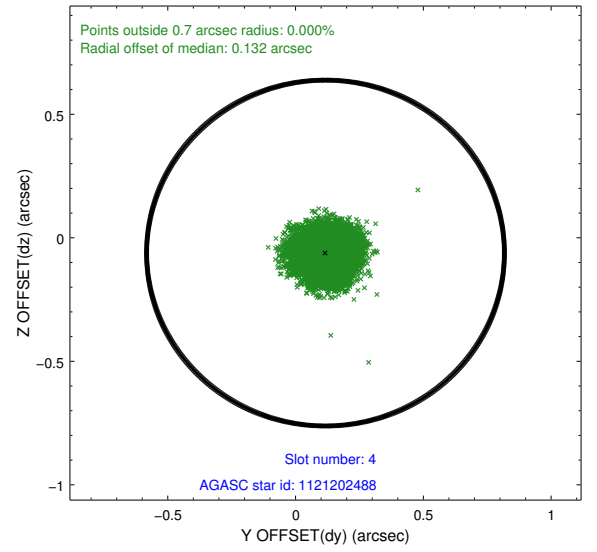
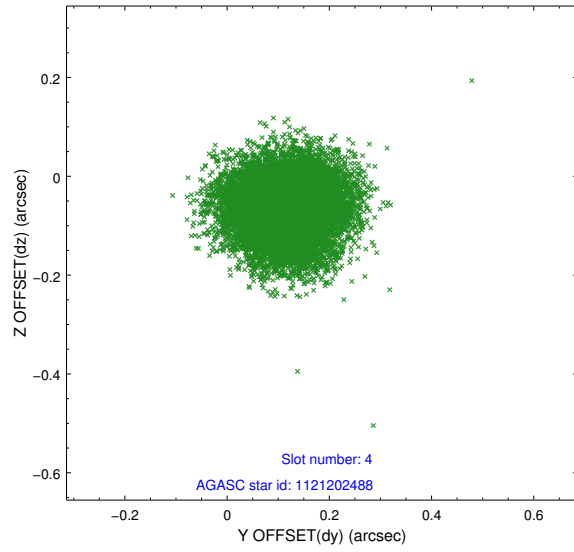
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.01	5043	0.116	-0.081	0.021	0.032	0.000000	0.000000	926.54	-1000.45
1	FID	ACIS-I-5	7.01	5044	-0.230	0.107	0.034	0.062	0.000000	0.000000	-1821.84	897.08
2	FID	ACIS-I-6	7.02	5044	0.024	0.044	0.019	0.038	0.000000	0.000000	391.79	1541.74
3	GUIDE	1119502496	8.21	10087	0.001	-0.053	0.081	0.124	105.813507	-55.504374	-925.49	-1768.04
4	GUIDE	1121202488	9.08	10074	0.117	-0.062	0.089	0.139	108.194737	-55.599781	2267.83	1896.89
5	GUIDE	1121204656	8.22	10085	0.028	-0.166	0.065	0.106	106.690356	-55.007268	-1298.32	741.99
6	GUIDE	1119497880	9.32	10076	-0.159	0.309	0.118	0.181	106.441896	-56.222255	1908.79	-2274.03
7	GUIDE	1121203176	9.00	10082	0.016	-0.027	0.080	0.130	108.340759	-55.571247	2370.28	2194.17

2.4 Star Slots

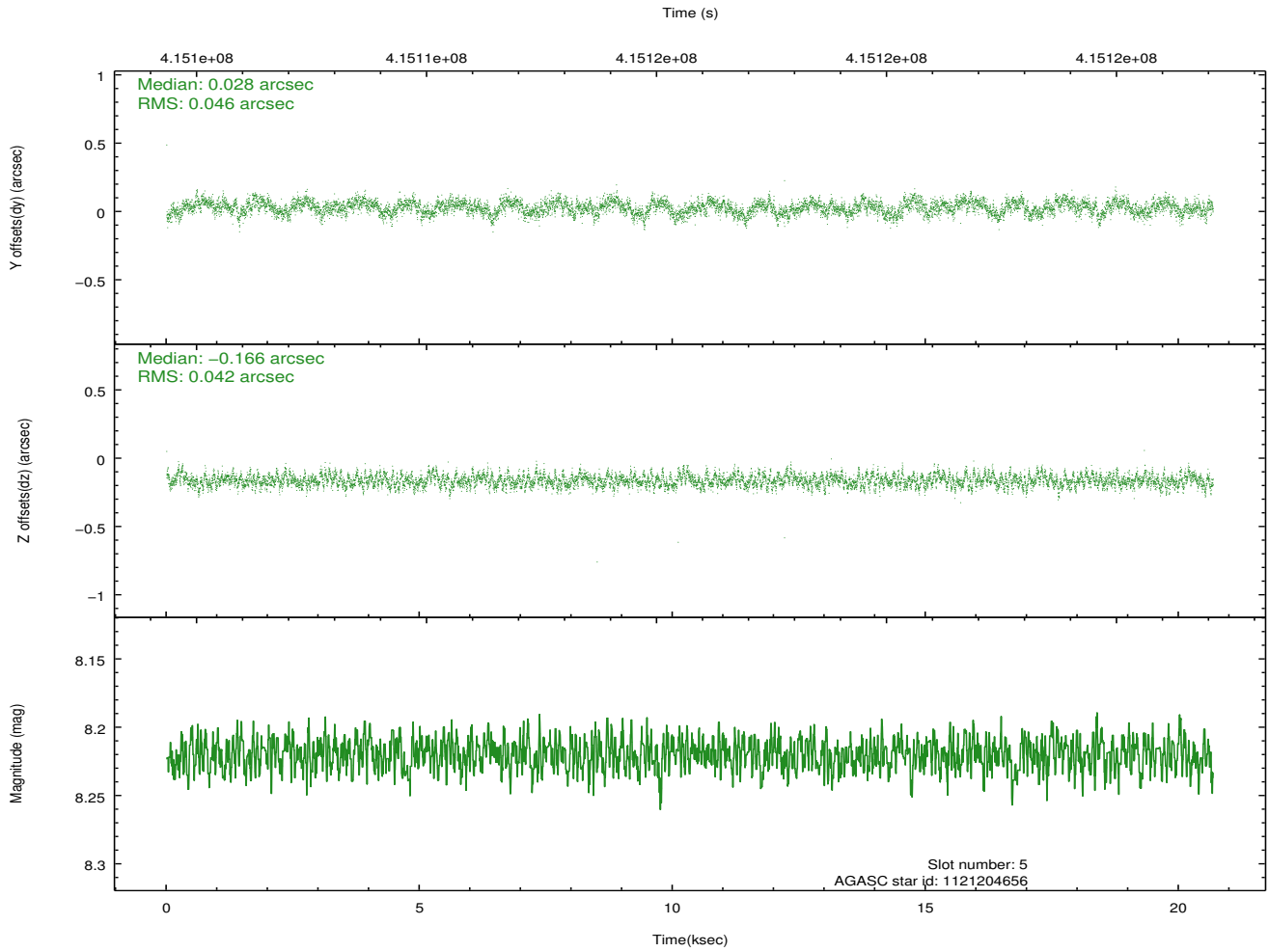
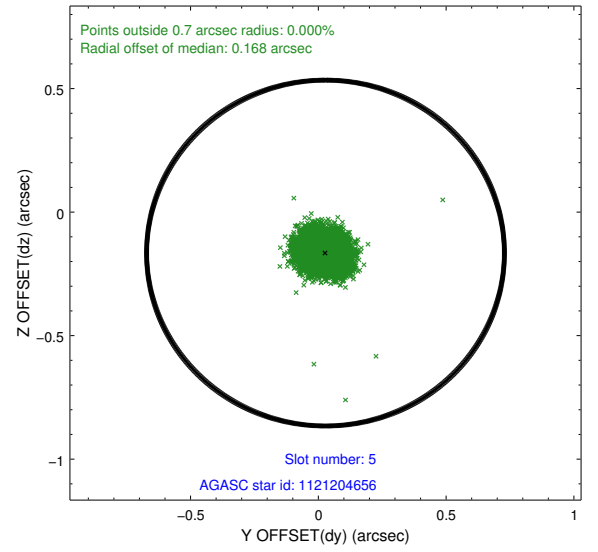
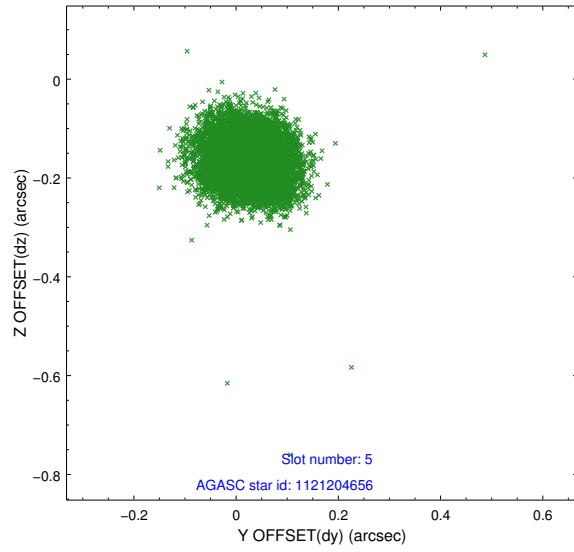
2.4.1 Slot 3



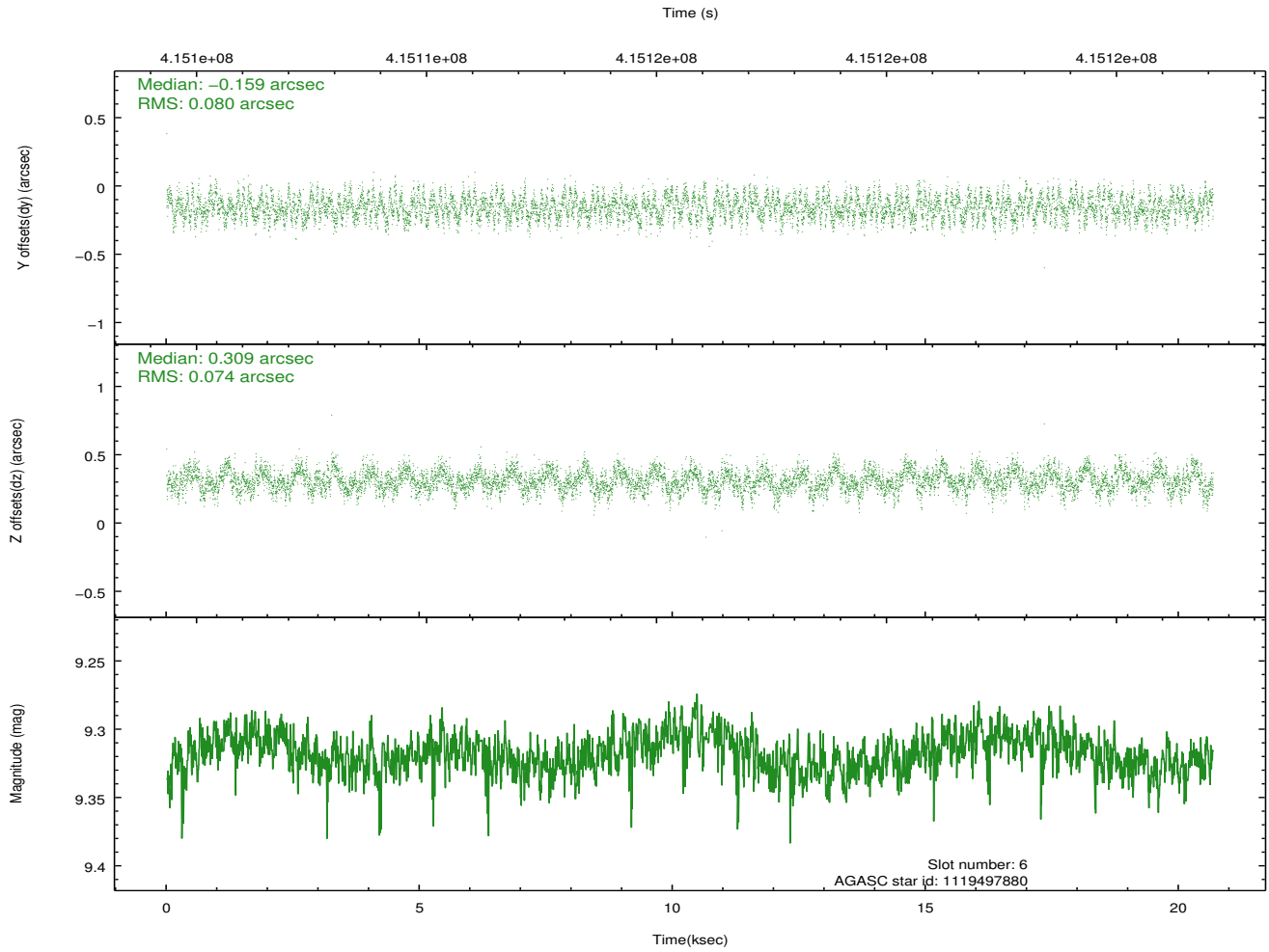
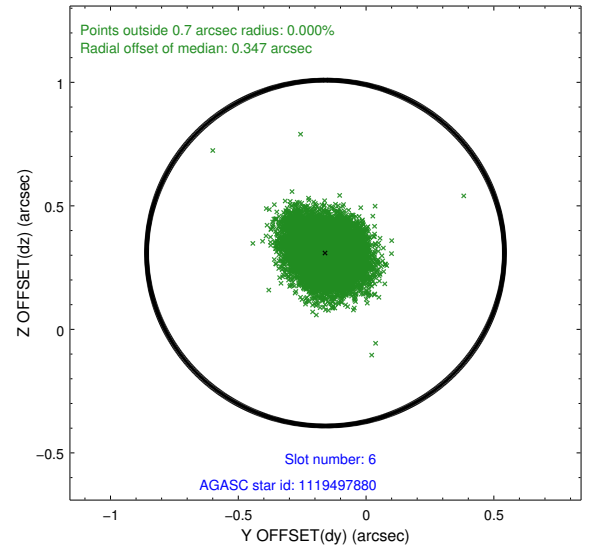
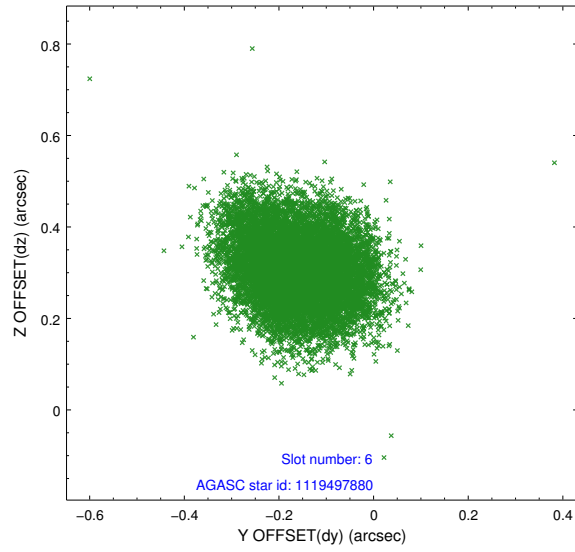
2.4.2 Slot 4



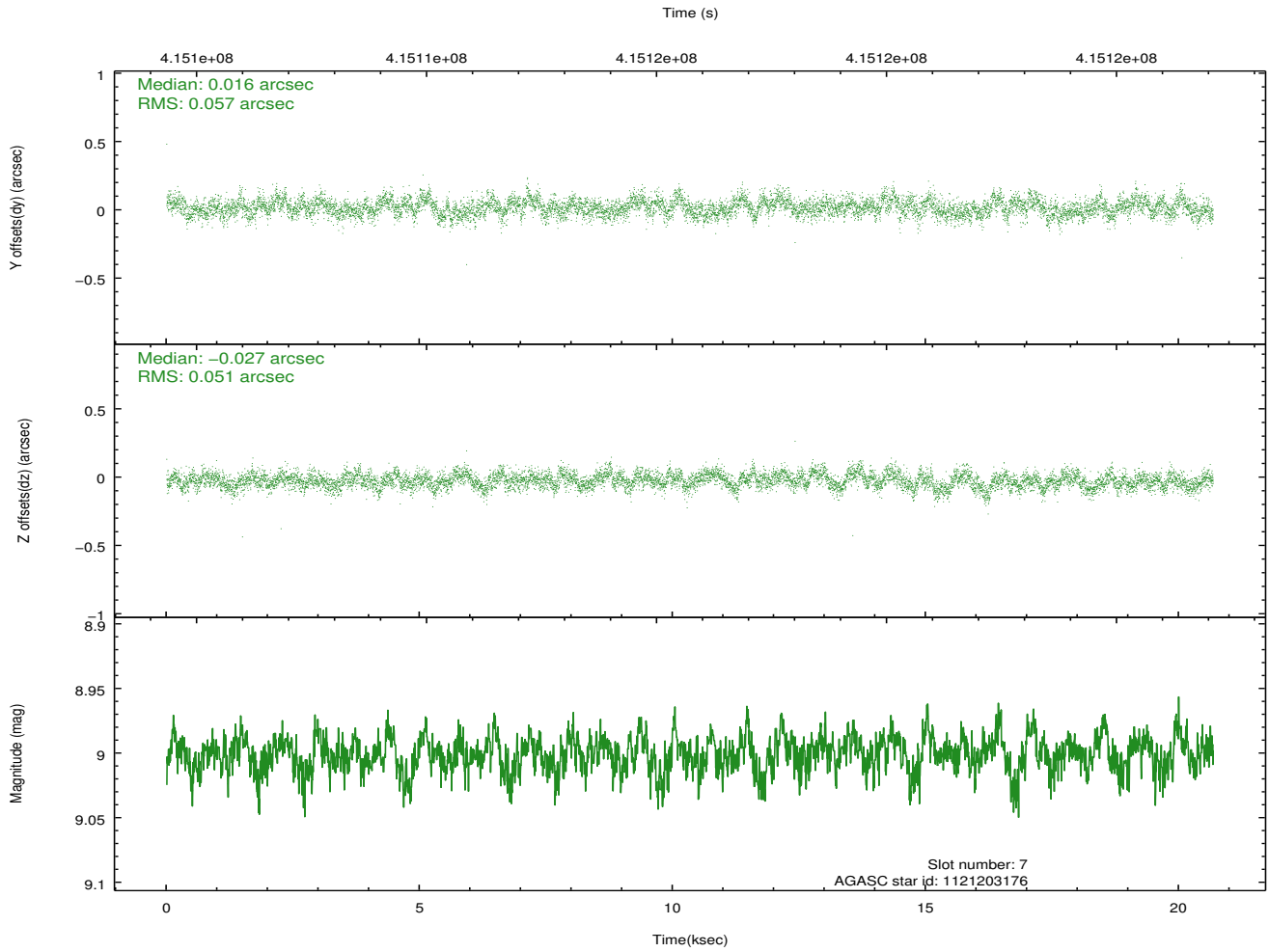
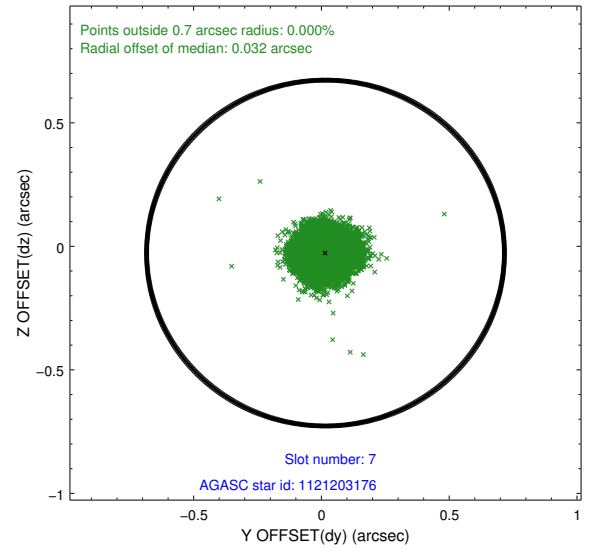
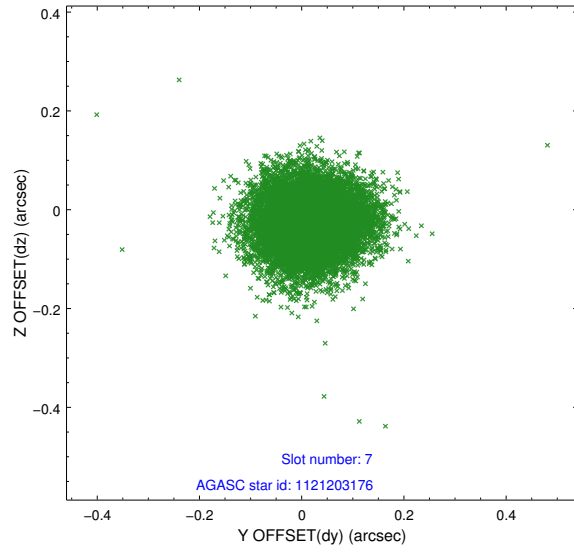
2.4.3 Slot 5



2.4.4 Slot 6

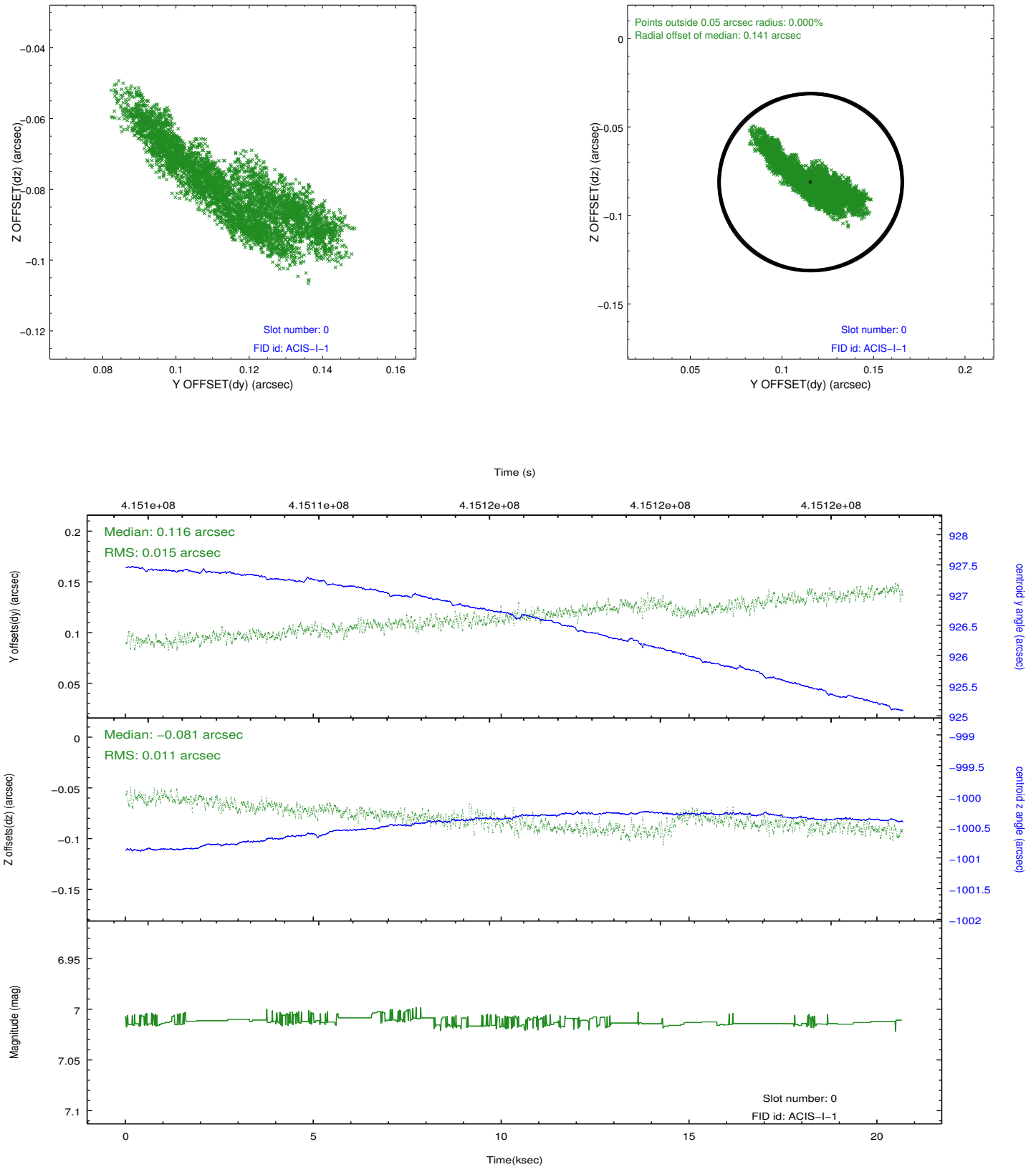


2.4.5 Slot 7

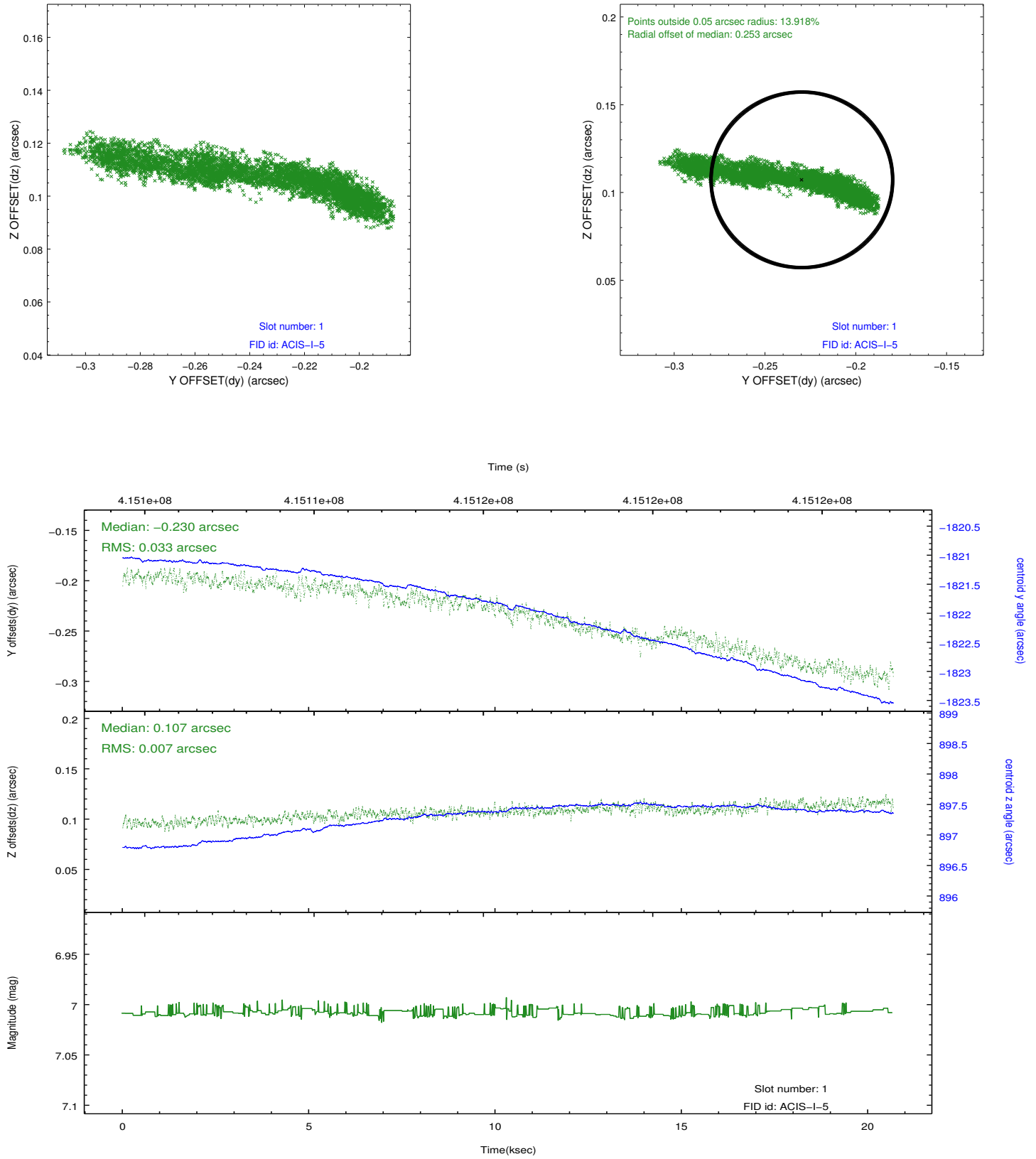


2.5 FID Slots

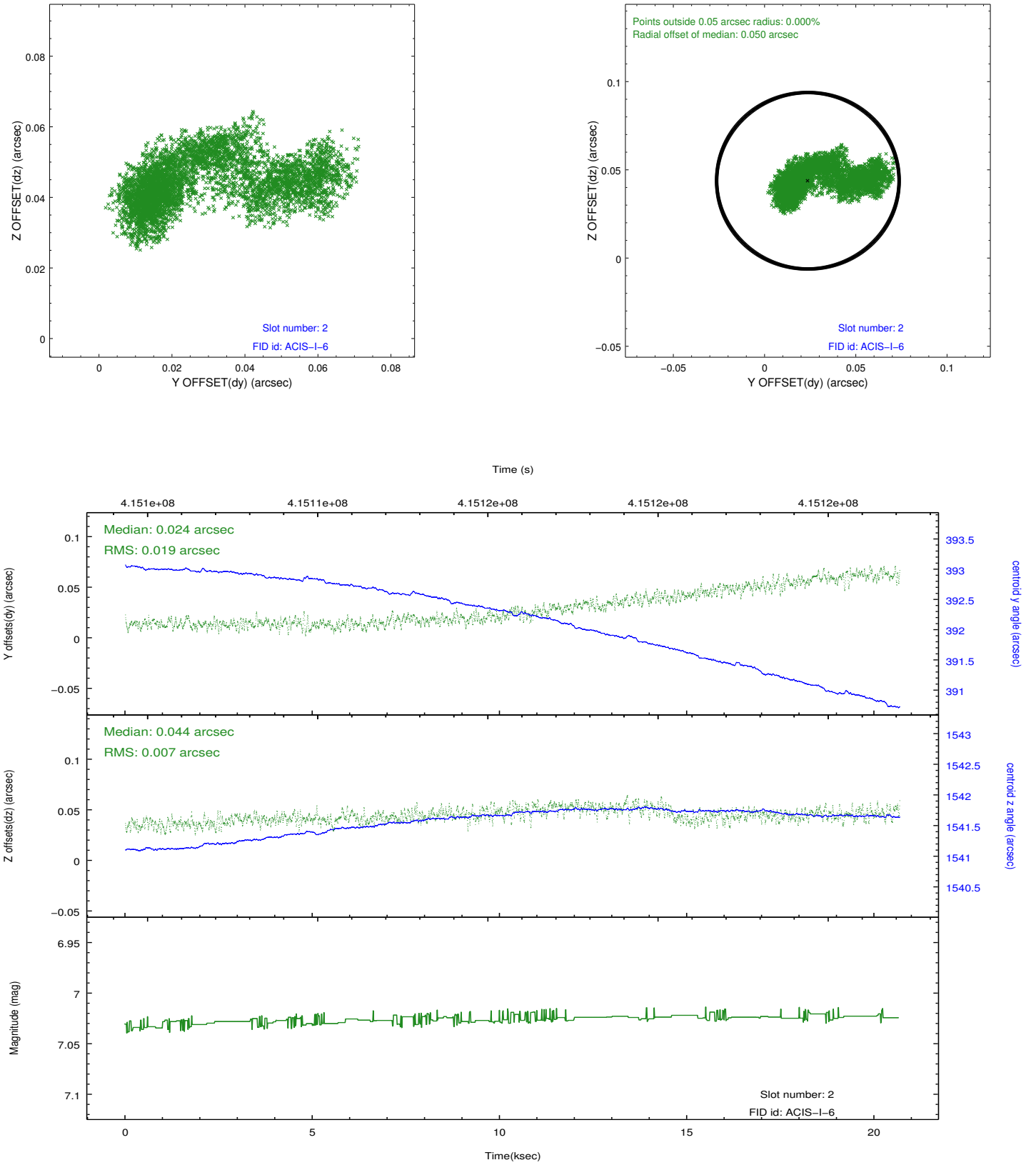
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.02.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.050342203259

A.2 Comments

The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSER algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.