

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12704 - L2 Version 2
Chandra X-Ray Center

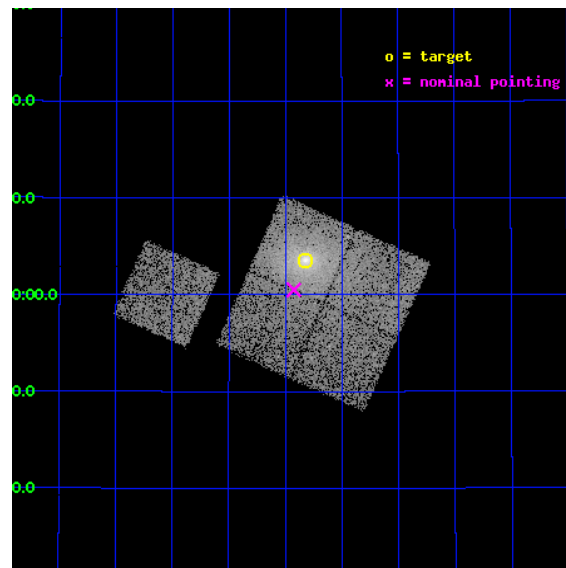
L2 Processing Date : Feb 7 2012

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1 Front

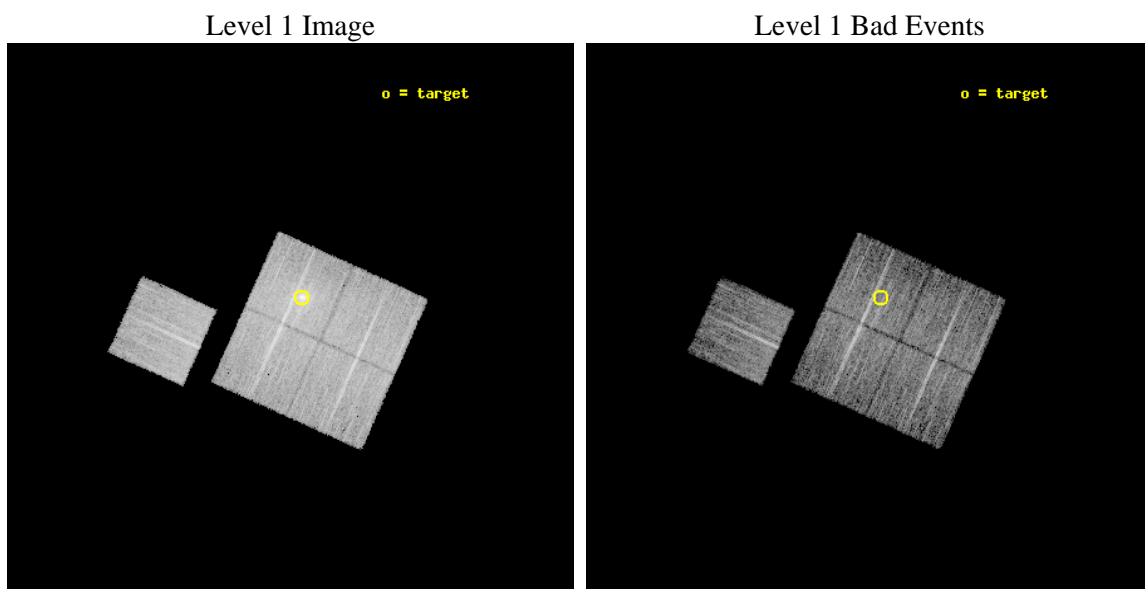
seq_num	702340	Sequence number
obs_id	12704	Observation id
title	Chandra Observations of 4C+37.11: A Binary Black Hole in a Fossil Group	Proposal title
observer	Dr Stephen Murray	Principal investigator
object	4C+37.11	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	61.455	Observer's specified target RA [deg]
dec_targ	38.058889	Observer's specified target Dec [deg]
ra_nom	61.48110385153	Nominal RA [deg]
dec_nom	38.0085309408	Nominal Dec [deg]
roll_nom	294.19778414538	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10124.477177024	Sum of GTIs [s]
livetime	9992.1934291744	Livetime [s]
ontime0	10133.900077939	Sum of GTIs [s]
ontime1	10130.759107649	Sum of GTIs [s]
ontime2	10133.900077939	Sum of GTIs [s]
ontime3	10124.477177024	Sum of GTIs [s]
ontime6	10133.900077939	Sum of GTIs [s]
l2events	50777	Number of level 2 events



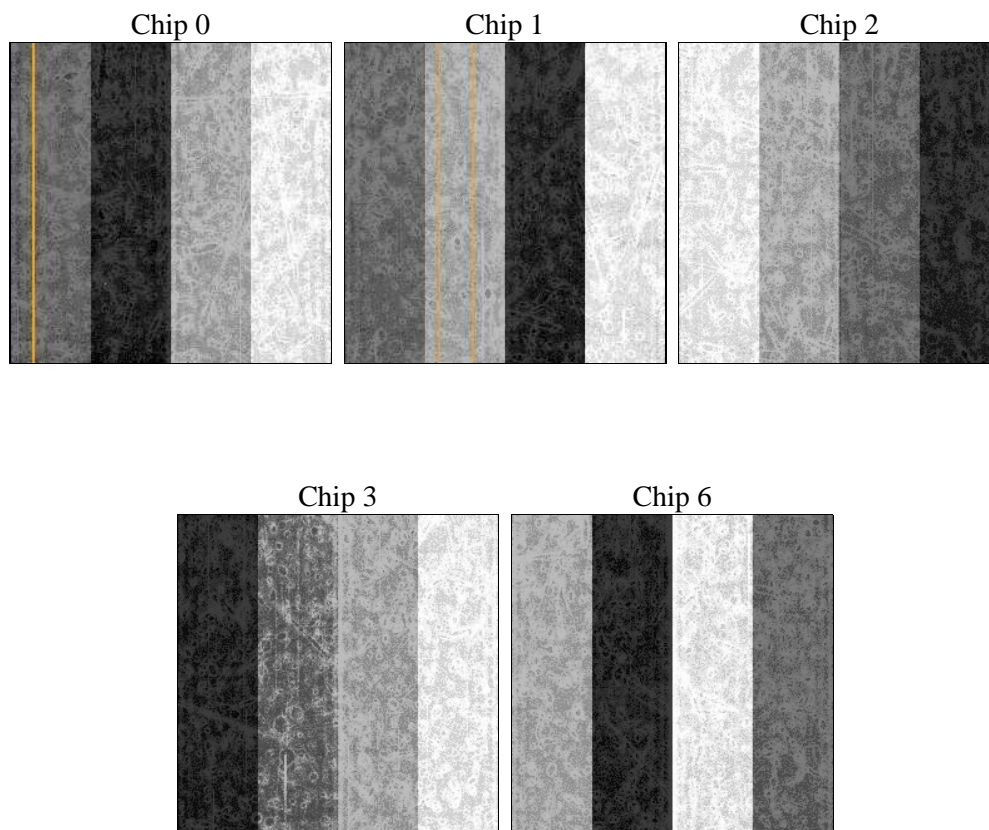
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10076.171000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	10124.477177024	Sum of GTIs [s]
caldbver	4.4.7	 	ontime0	10133.900077939	Sum of GTIs [s]
date	2012-02-07T13:43:58	Date and time of file creation	ontime1	10130.759107649	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	10133.900077939	Sum of GTIs [s]
			ontime3	10124.477177024	Sum of GTIs [s]
			ontime6	10133.900077939	Sum of GTIs [s]
			l1events	333650	Number of level 1 events

2.1.4 Events

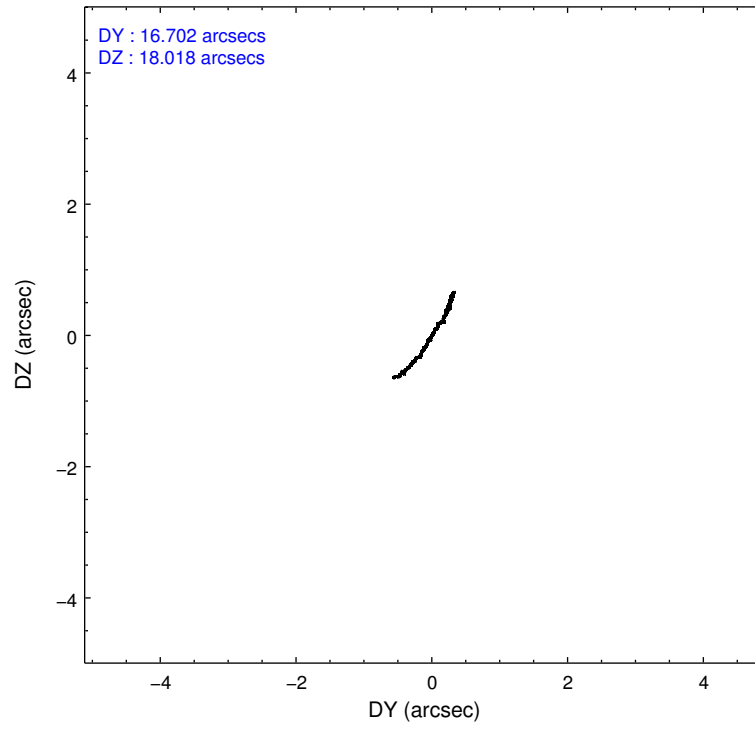
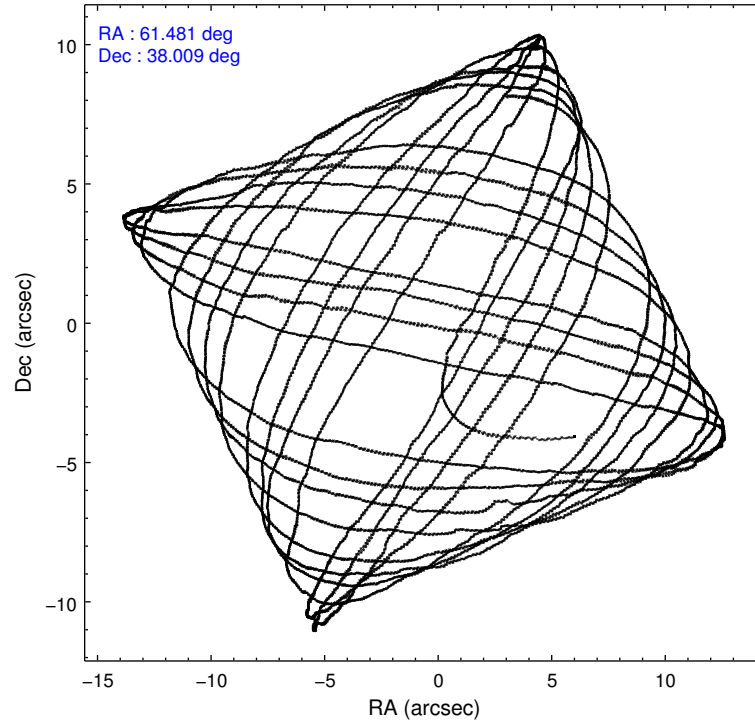
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	60380	64843	65020	79854	63553
rejected events	52573	54122	56777	56569	56181
rejected %	87%	83%	87%	70%	88%

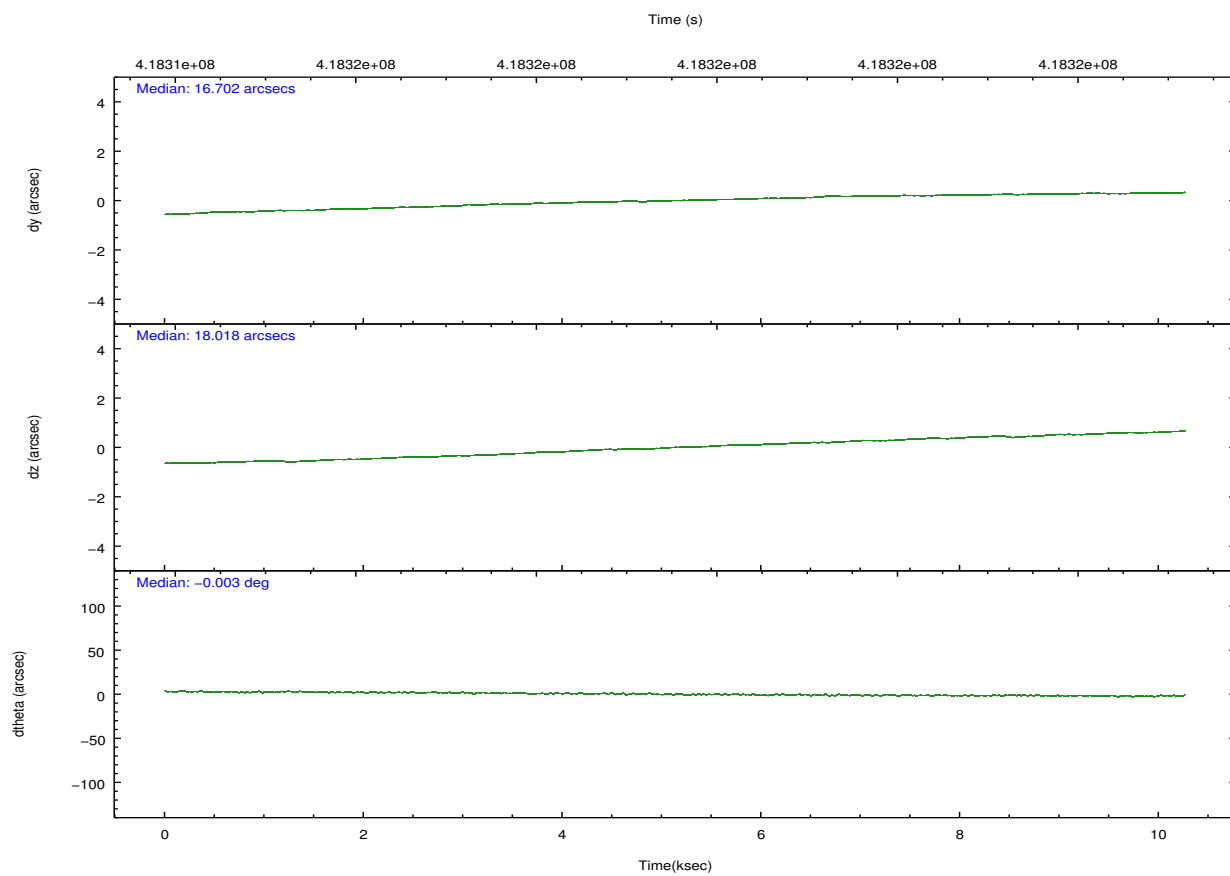
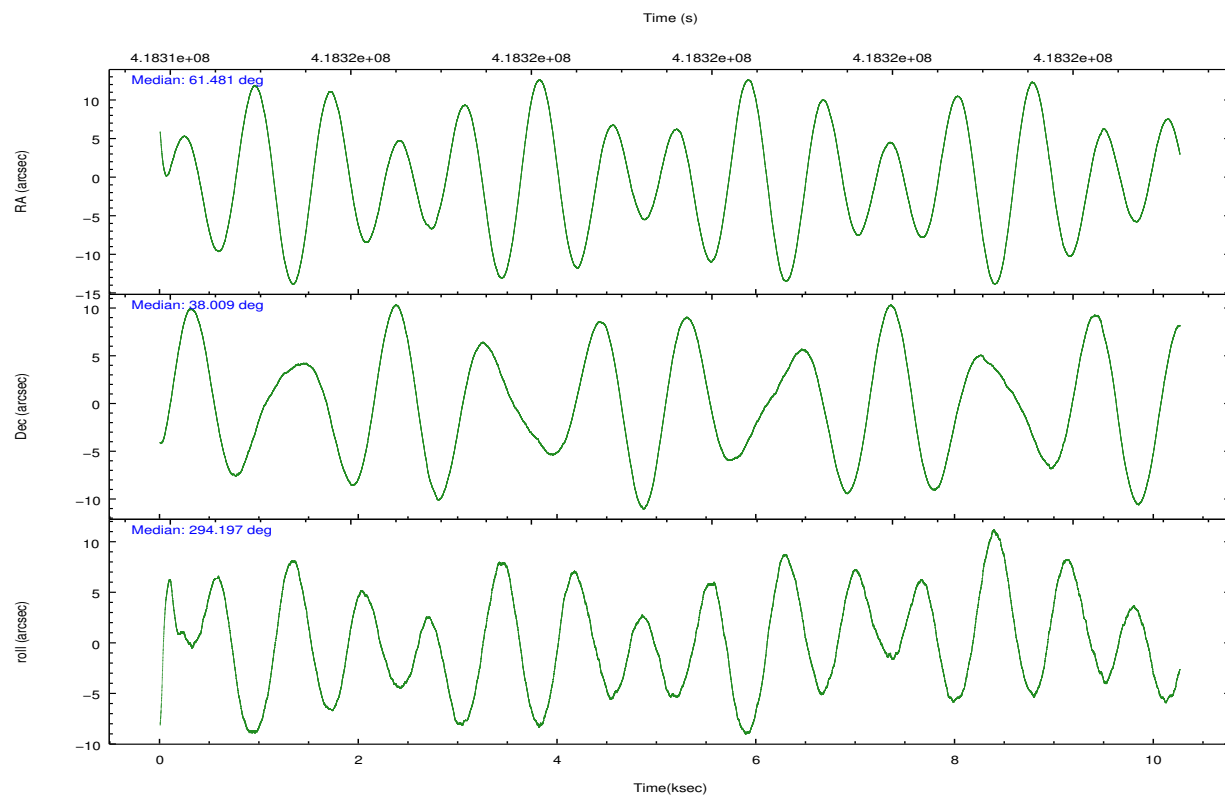
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	2814	4855	3446	15331	2559
	4%	7%	5%	19%	4%
grade 1 events	27	36	50	118	37
	0%	0%	0%	0%	0%
grade 2 events	1945	2306	1905	3391	1680
	3%	3%	2%	4%	2%
grade 3 events	842	946	751	1324	775
	1%	1%	1%	1%	1%
grade 4 events	711	894	773	1297	765
	1%	1%	1%	1%	1%
grade 5 events	2709	2888	2572	3130	2993
	4%	4%	3%	3%	4%
grade 6 events	1499	1729	1371	1948	1595
	2%	2%	2%	2%	2%
grade 7 events	49833	51189	54152	53315	53149
	82%	78%	83%	66%	83%

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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	61.452674	61.48110385152989	Subarray requested	NONE	NONE
[deg] Pointing Dec	38.024492	38.00853094080006	Alternating exposures requested	N	N
[deg] Pointing Roll	294.006625	294.1977841453771	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-225.840463	-225.8433433320239			
[mm] SIM translation stage offset	-7.752	-7.749109670905796			
[s] Observation start time (MET)	418314593.184000	418313563.30358			
Observation start date	2011-04-04T14:28:47	2011-04-04T14:12:43			
[s] Observation end time (MET)	418324669.184000	418324907.49167			
Observation end date	2011-04-04T17:16:43	2011-04-04T17:21:47			
Read mode	TIMED	TIMED			

2.3 Aspect



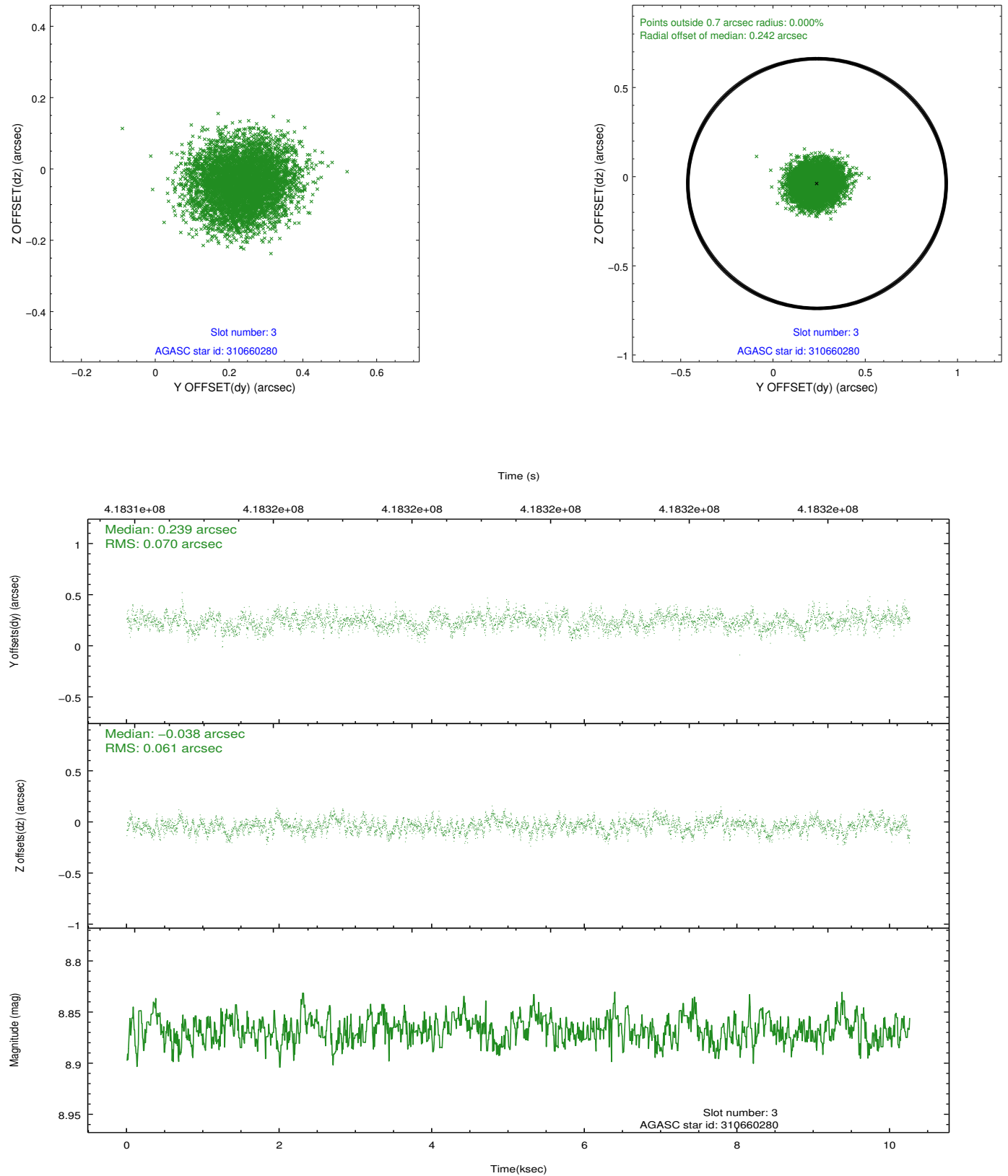


Slot Statistics

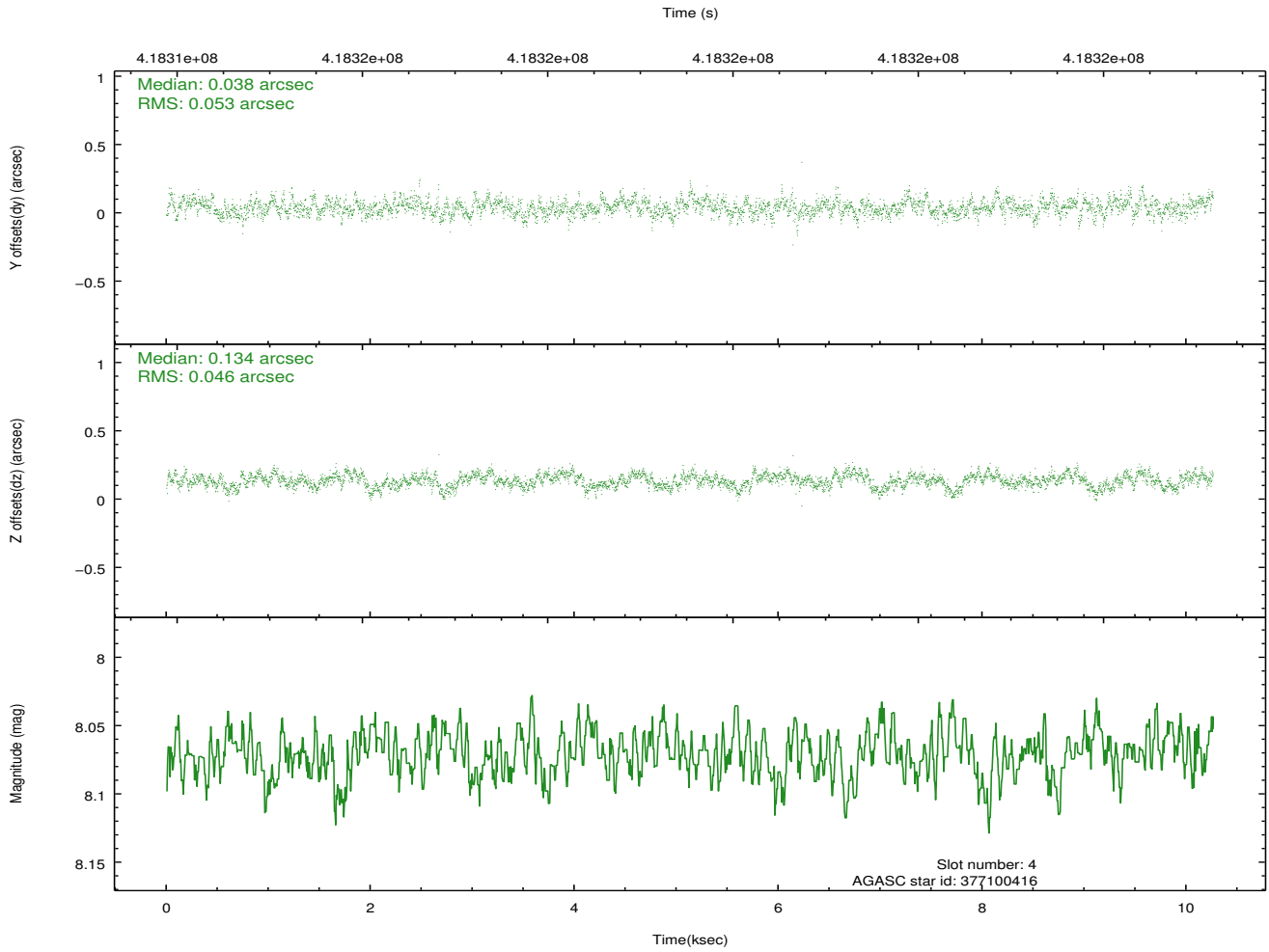
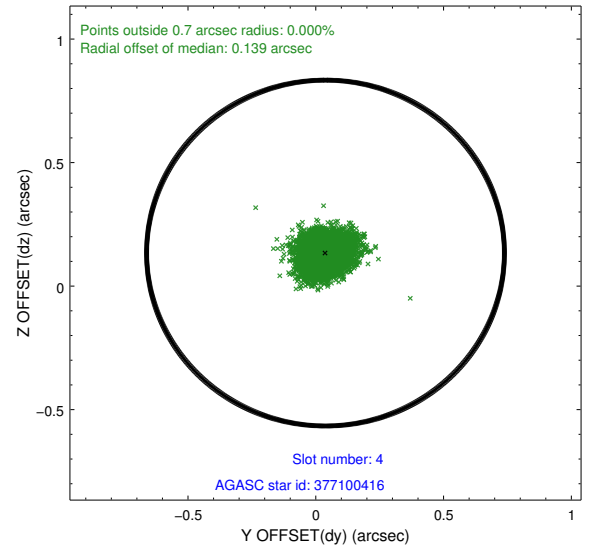
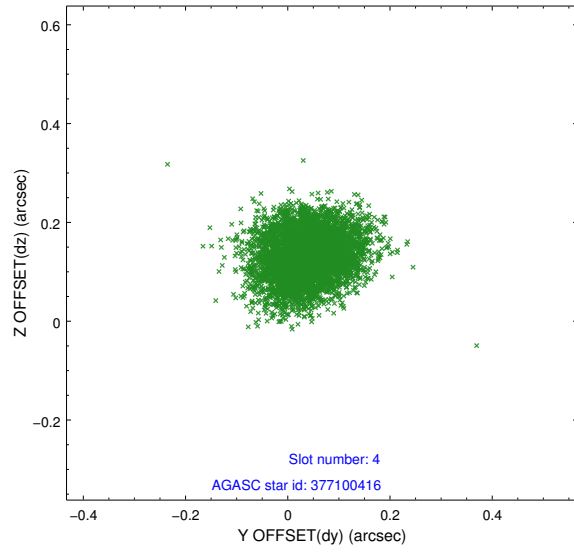
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.00	2503	0.127	-0.075	0.015	0.023	0.000000	0.000000	922.75	-1000.82
1	FID	ACIS-I-5	7.00	2503	-0.250	0.117	0.014	0.020	0.000000	0.000000	-1825.50	896.48
2	FID	ACIS-I-6	7.01	2503	0.033	0.030	0.011	0.019	0.000000	0.000000	387.58	1541.53
3	GUIDE	310660280	8.87	5005	0.239	-0.038	0.100	0.156	61.238771	37.454806	1625.17	-1392.45
4	GUIDE	377100416	8.07	5002	0.038	0.134	0.075	0.121	61.414631	37.755444	842.12	-492.88
5	GUIDE	377105848	8.29	5006	-0.061	-0.111	0.091	0.144	60.795234	38.054806	-863.05	-1655.48
6	GUIDE	377106472	9.21	5003	-0.158	-0.012	0.111	0.185	61.130384	37.562524	1144.07	-1516.36
7	GUIDE	377103112	8.99	5005	-0.056	0.036	0.109	0.173	60.700271	37.945812	-617.12	-2063.27

2.4 Star Slots

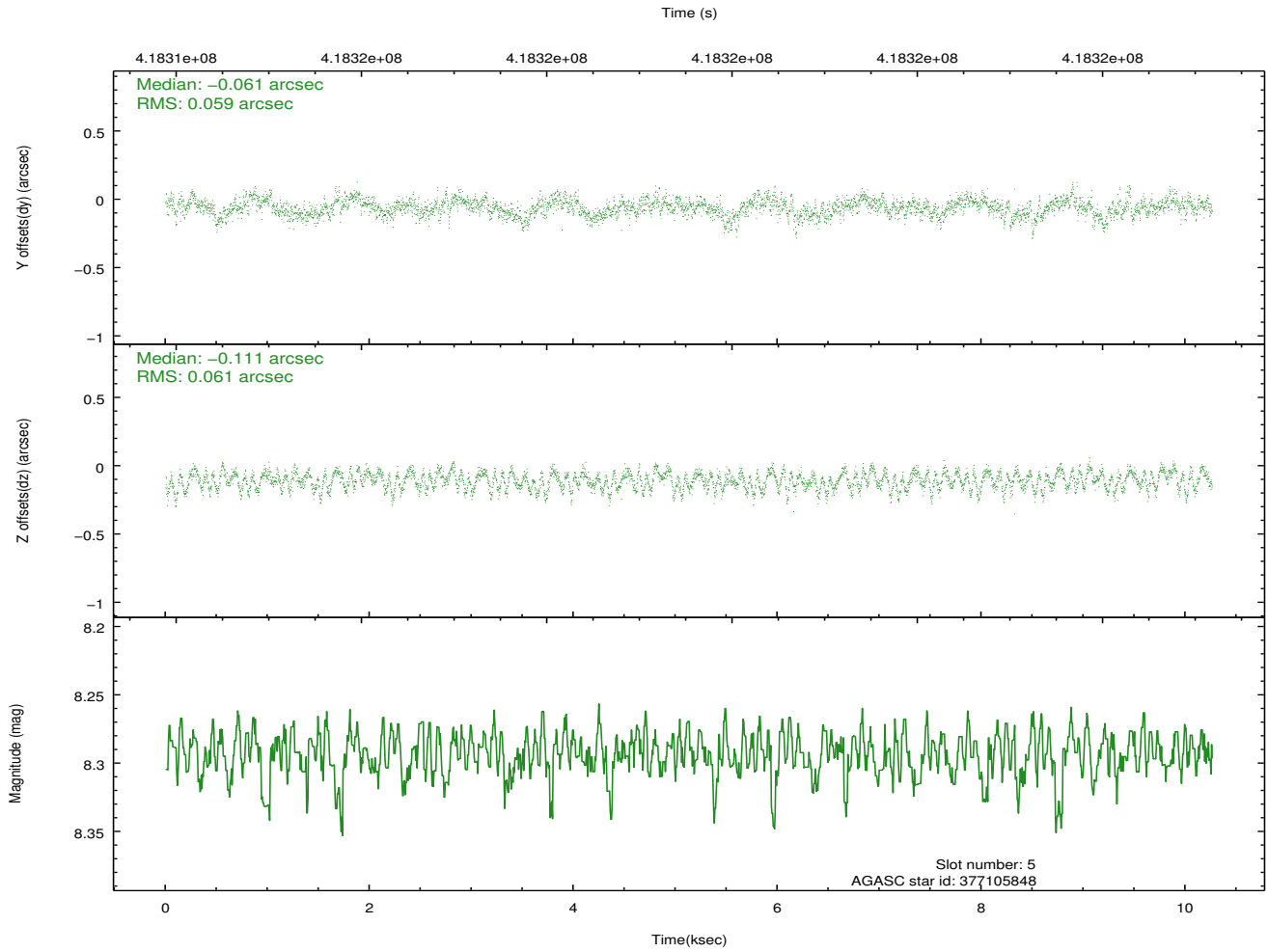
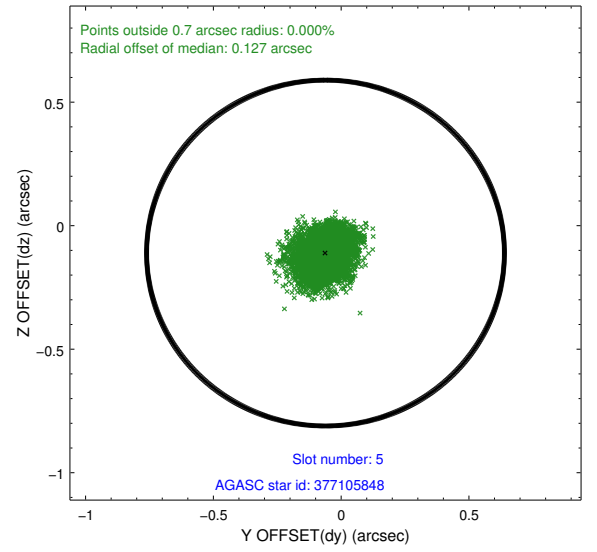
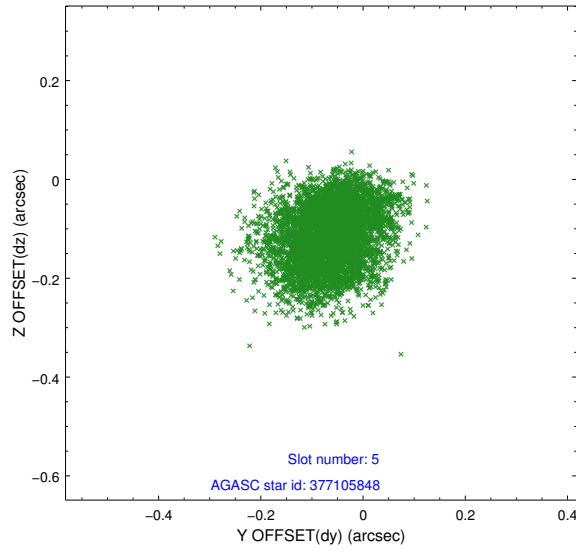
2.4.1 Slot 3



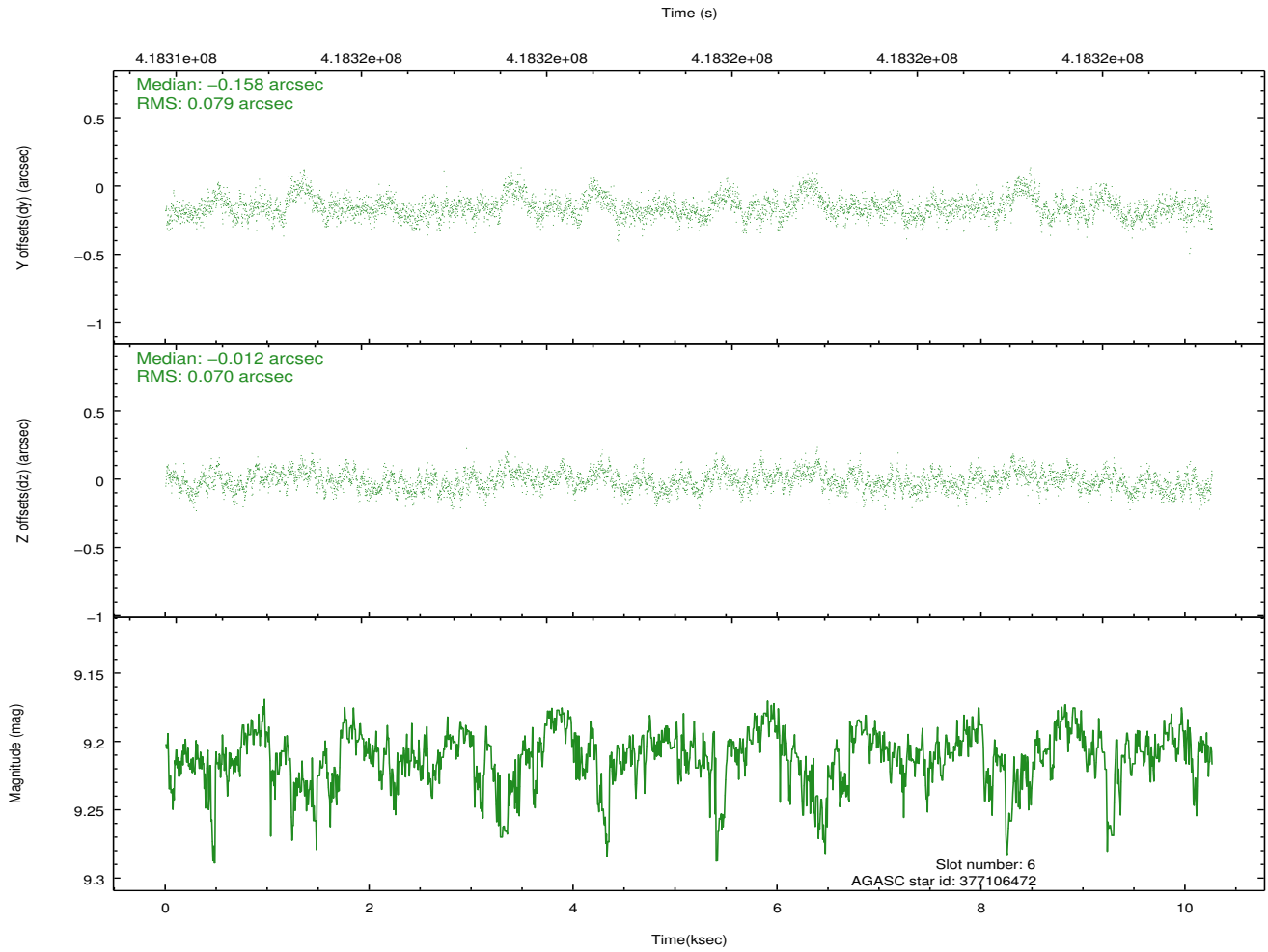
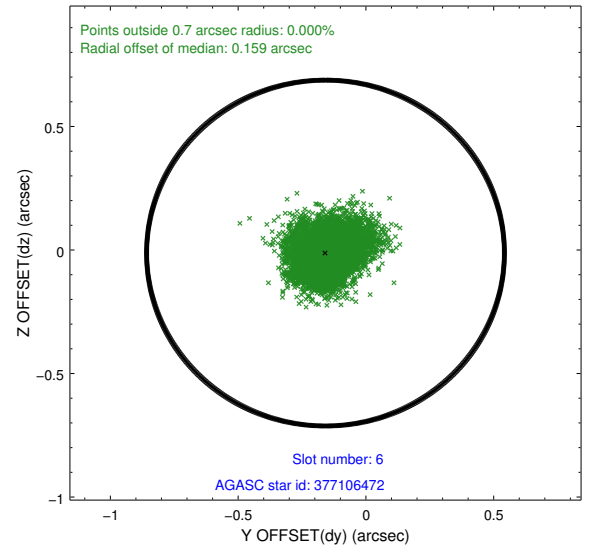
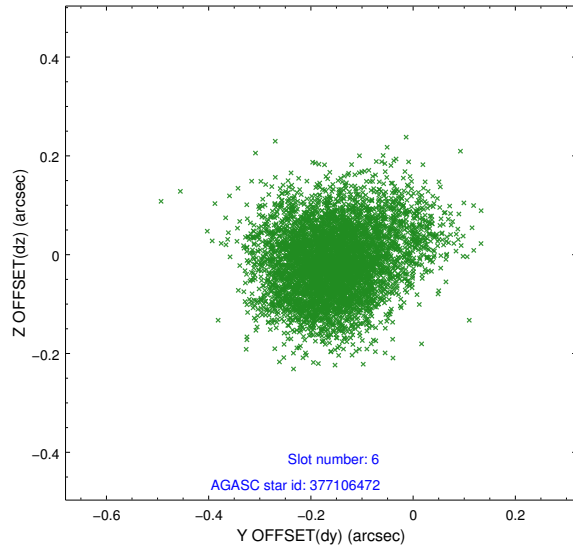
2.4.2 Slot 4



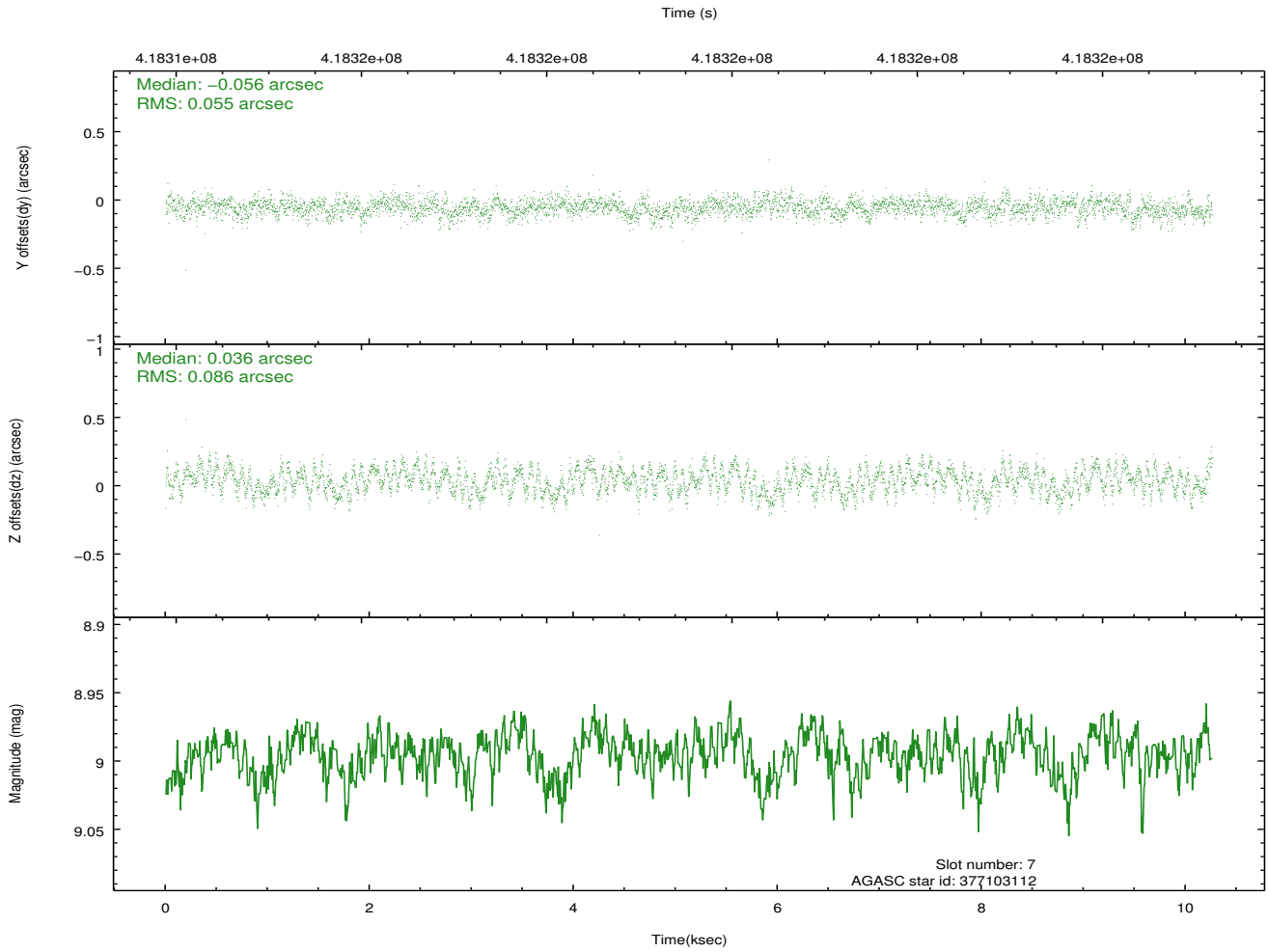
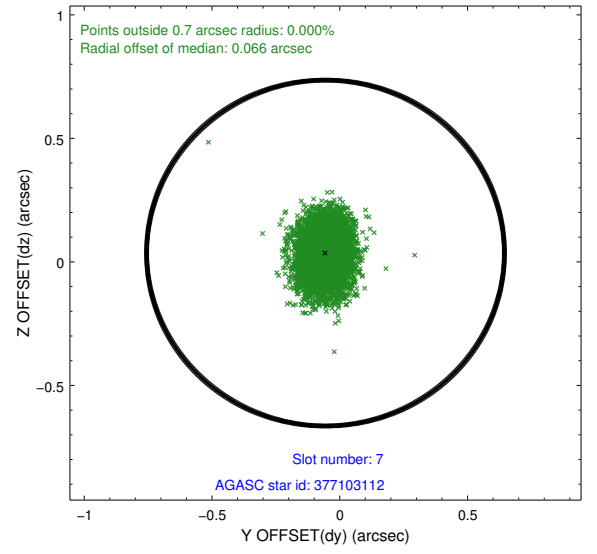
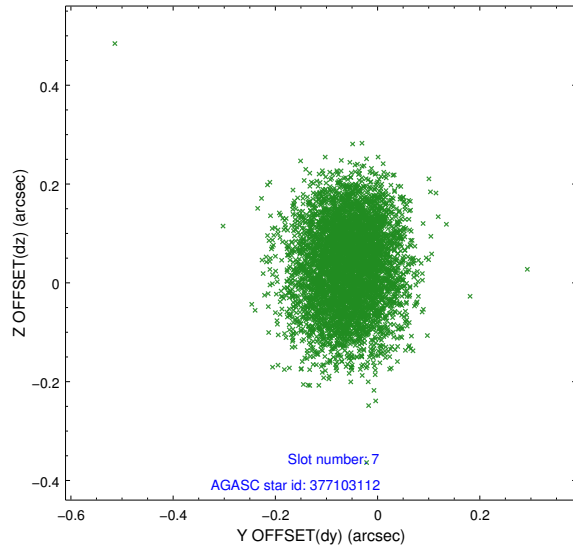
2.4.3 Slot 5



2.4.4 Slot 6

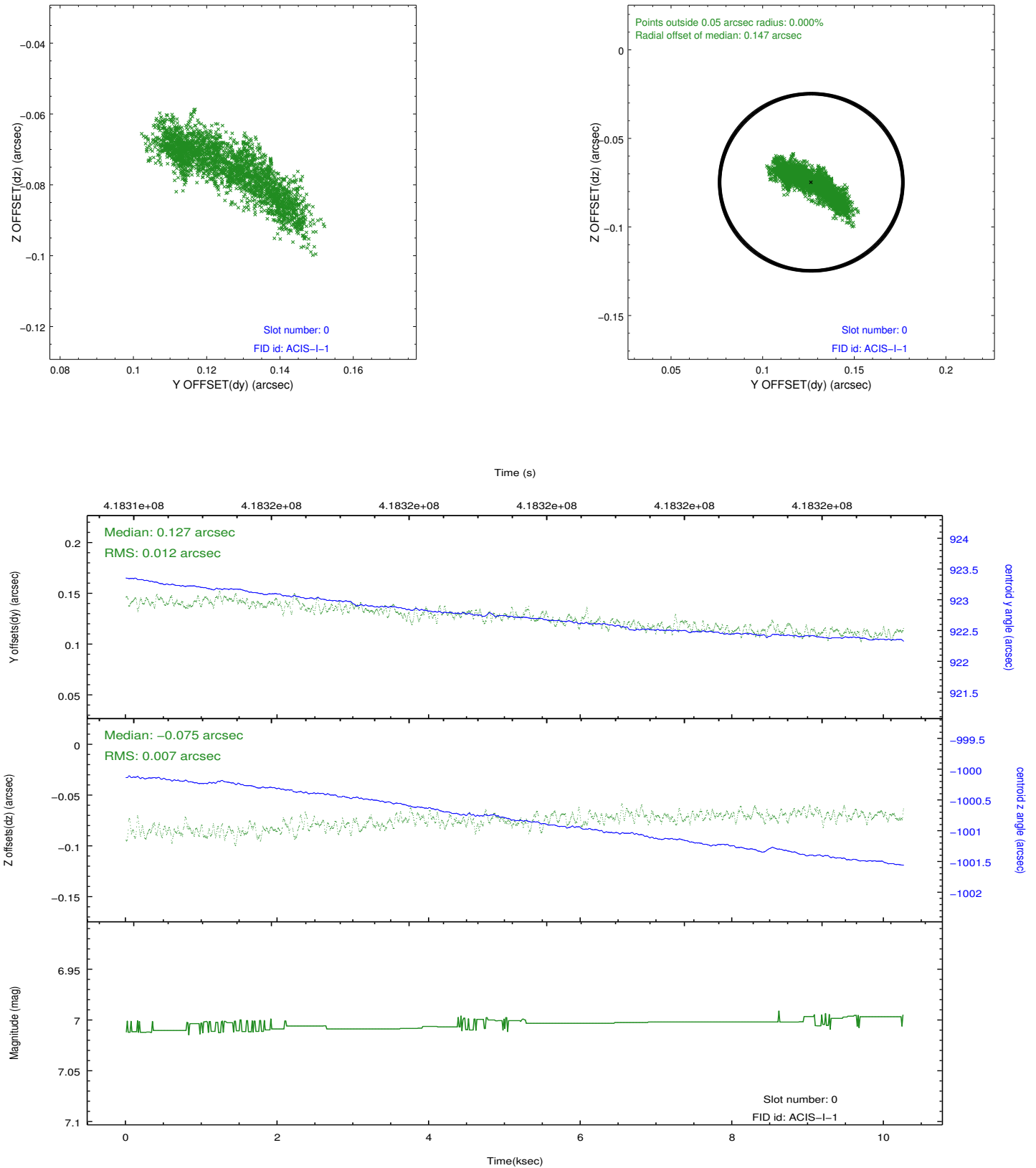


2.4.5 Slot 7

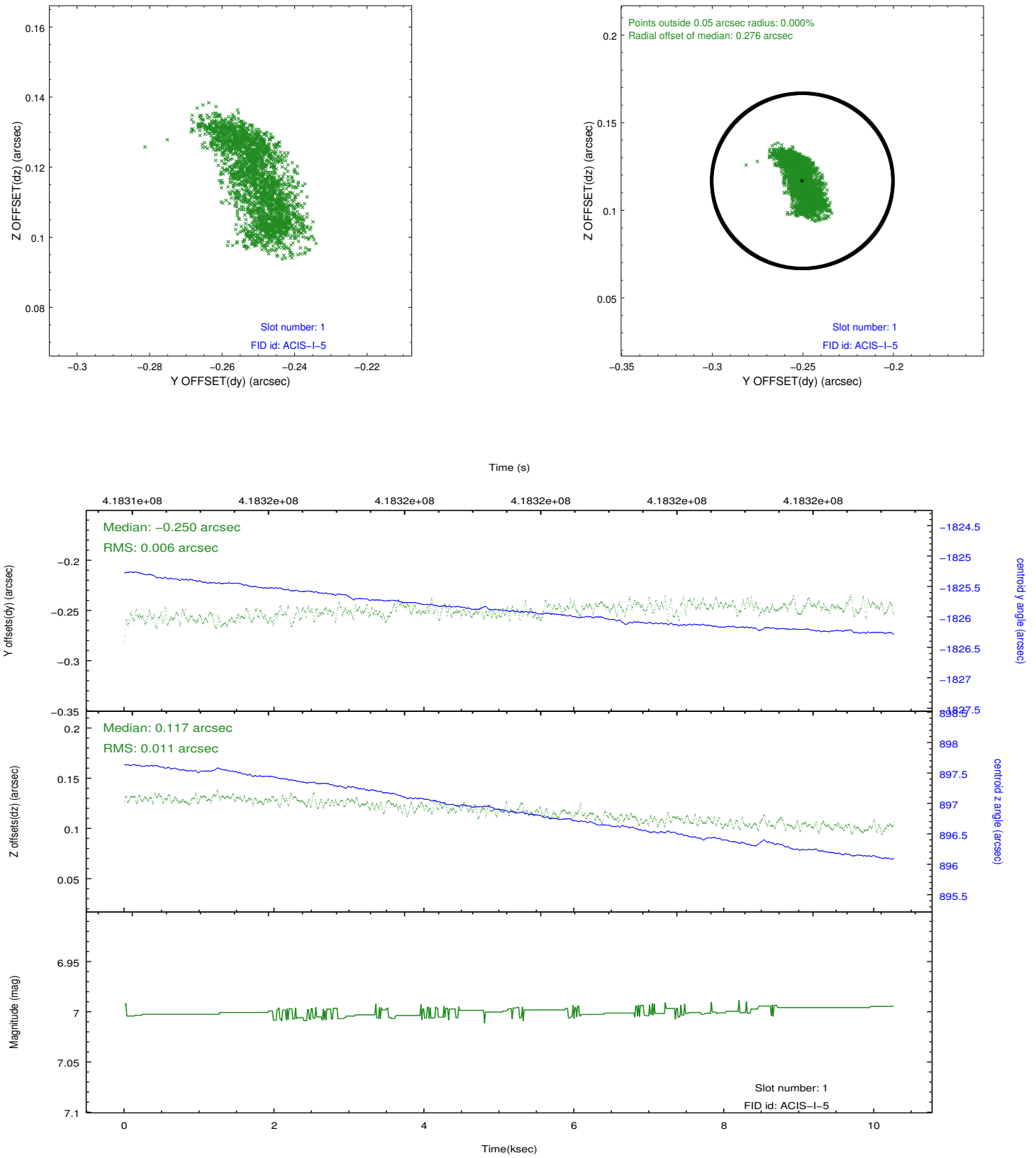


2.5 FID Slots

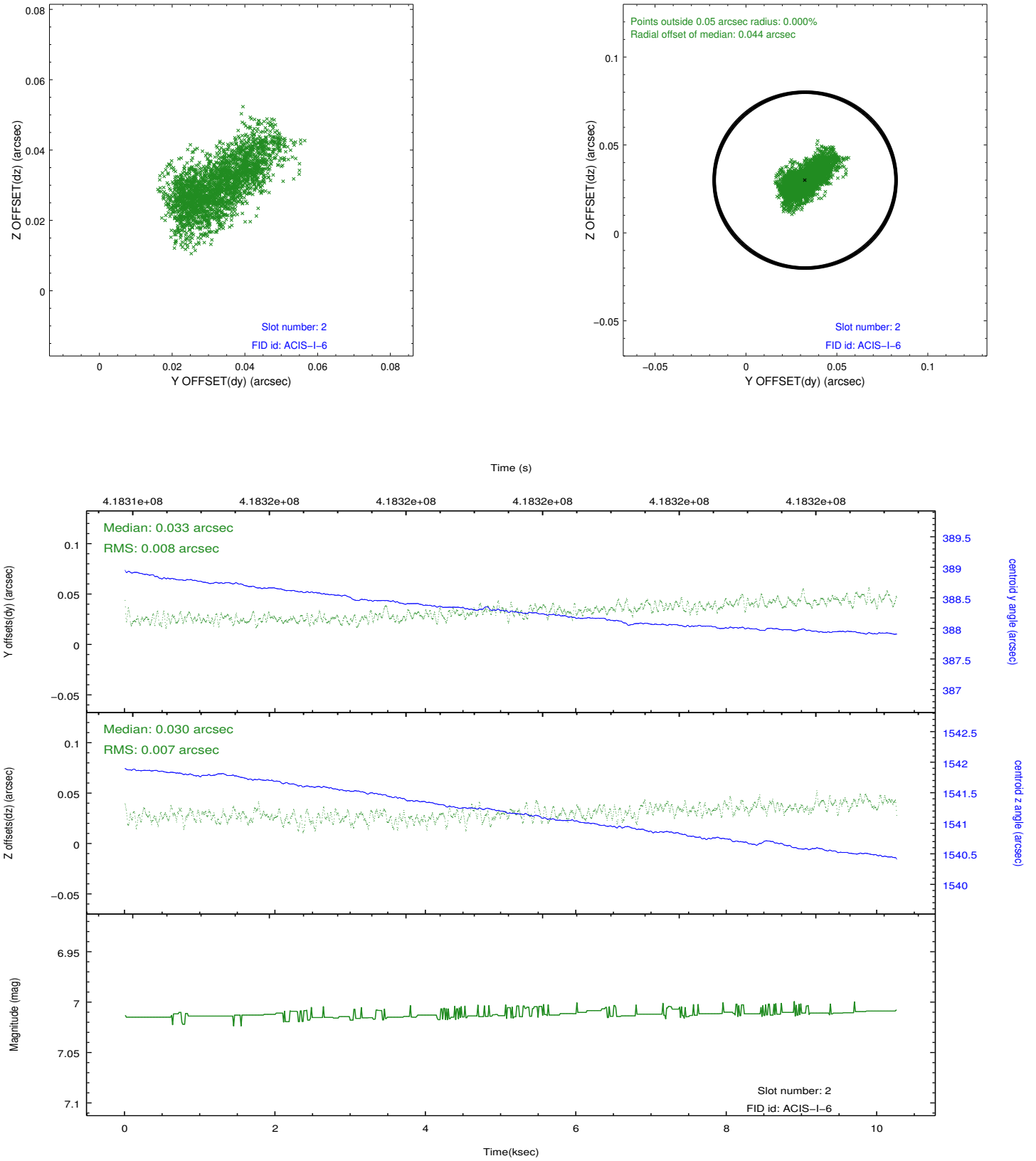
2.5.1 Slot 0



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)	2012.02.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.124477176964

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.