

V&V Reference Report

L2 ASCDS Version : 10.8.1

Observation 21519 - L2 Version 1
Chandra X-Ray Center

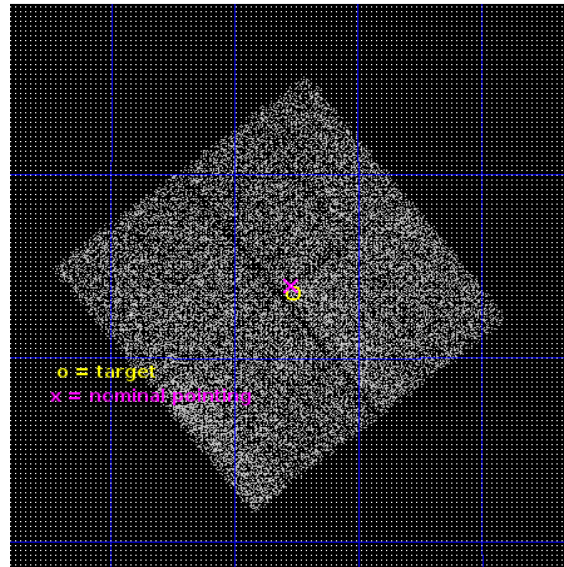
L2 Processing Date : Oct 19 2019

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1 Front

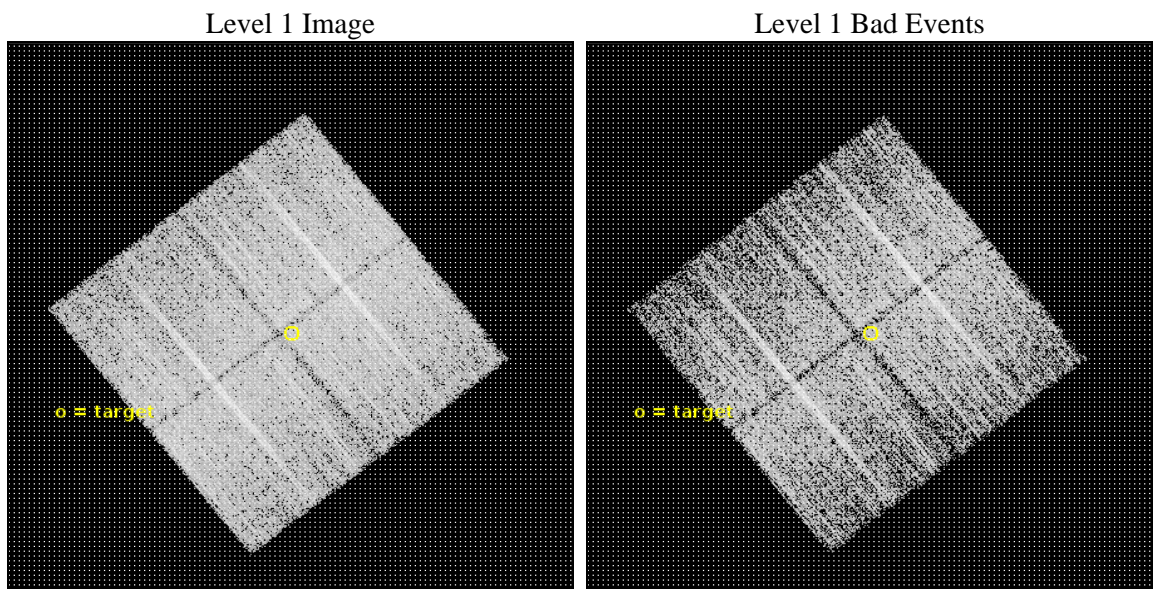
seq_num	703812	Sequence number
obs_id	21519	Observation id
title	Black Holes in Green Peas?	Proposal title
observer	Sangeeta Malhotra	Principal investigator
object	J104645.75+302330.9	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	161.690833	Observer's specified target RA [deg]
dec_targ	30.391917	Observer's specified target Dec [deg]
ra_nom	161.69224874537	Nominal RA [deg]
dec_nom	30.399032870548	Nominal Dec [deg]
roll_nom	51.716966251834	Nominal Roll [deg]
revision	1	Processing version of data
ontime	10079.764731407	Sum of GTIs [s]
livetime	9948.0651845765	Livetime [s]
ontime0	10079.641611457	Sum of GTIs [s]
ontime1	10076.541681051	Sum of GTIs [s]
ontime2	10079.723691463	Sum of GTIs [s]
ontime3	10079.764731407	Sum of GTIs [s]
l2events	29273	Number of level 2 events



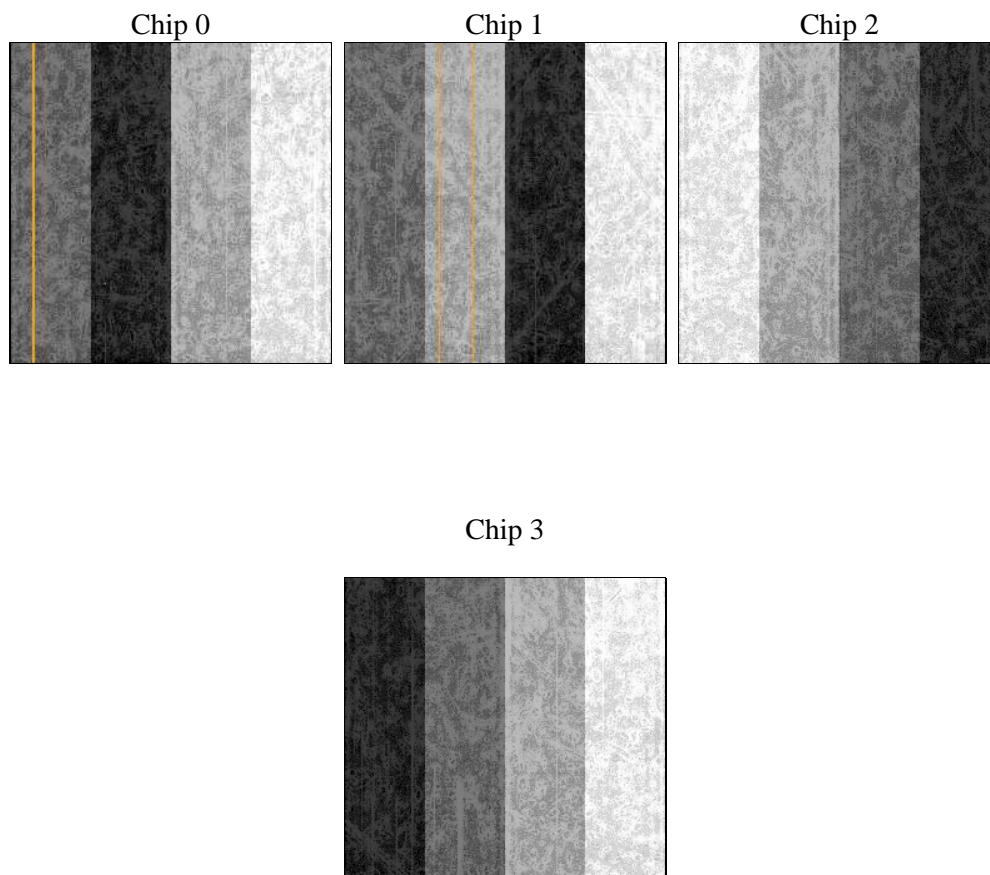
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.8.1	Processing system revision	ontime	10079.764731407	Sum of GTIs [s]
caldsver	4.8.4.2	 	ontime0	10079.641611457	Sum of GTIs [s]
date	2019-10-19T22:07:33	Date and time of file creation	ontime1	10076.541681051	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	10079.723691463	Sum of GTIs [s]
			ontime3	10079.764731407	Sum of GTIs [s]
			l1events	290274	Number of level 1 events

2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	66032	72159	76407	75676
rejected events	57208	62451	68140	67218
rejected %	86%	86%	89%	88%

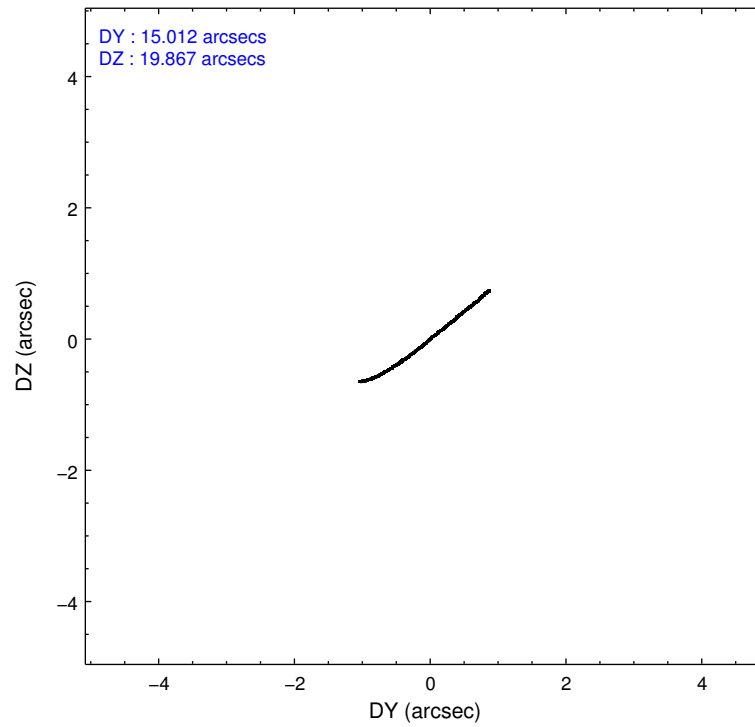
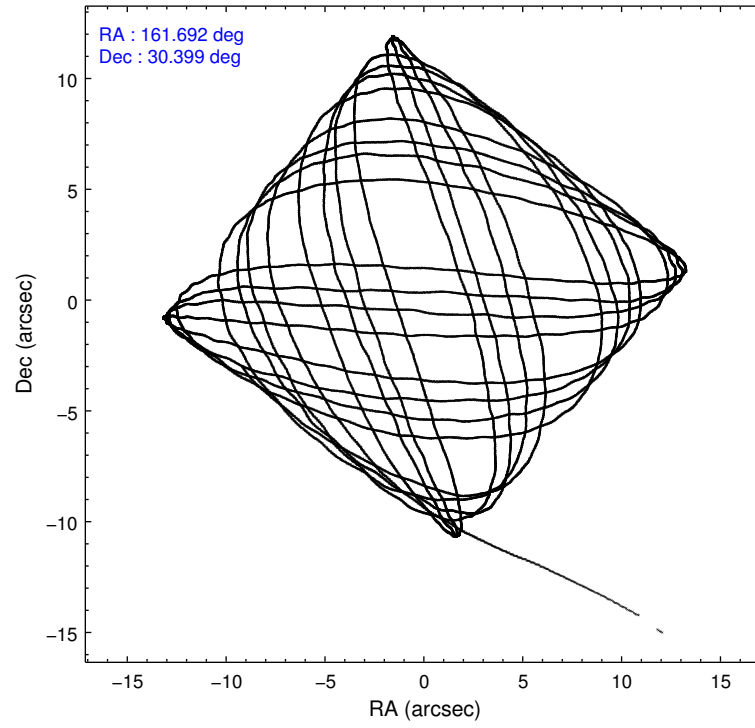
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	3009	3230	2784	3166
	4%	4%	3%	4%
grade 1 events	40	44	42	57
	0%	0%	0%	0%
grade 2 events	2338	2496	2128	1862
	3%	3%	2%	2%
grade 3 events	868	935	825	844
	1%	1%	1%	1%
grade 4 events	823	936	849	818
	1%	1%	1%	1%
grade 5 events	3338	3493	3191	3654
	5%	4%	4%	4%
grade 6 events	1787	2114	1686	1774
	2%	2%	2%	2%
grade 7 events	53829	58911	64902	63501
	81%	81%	84%	83%

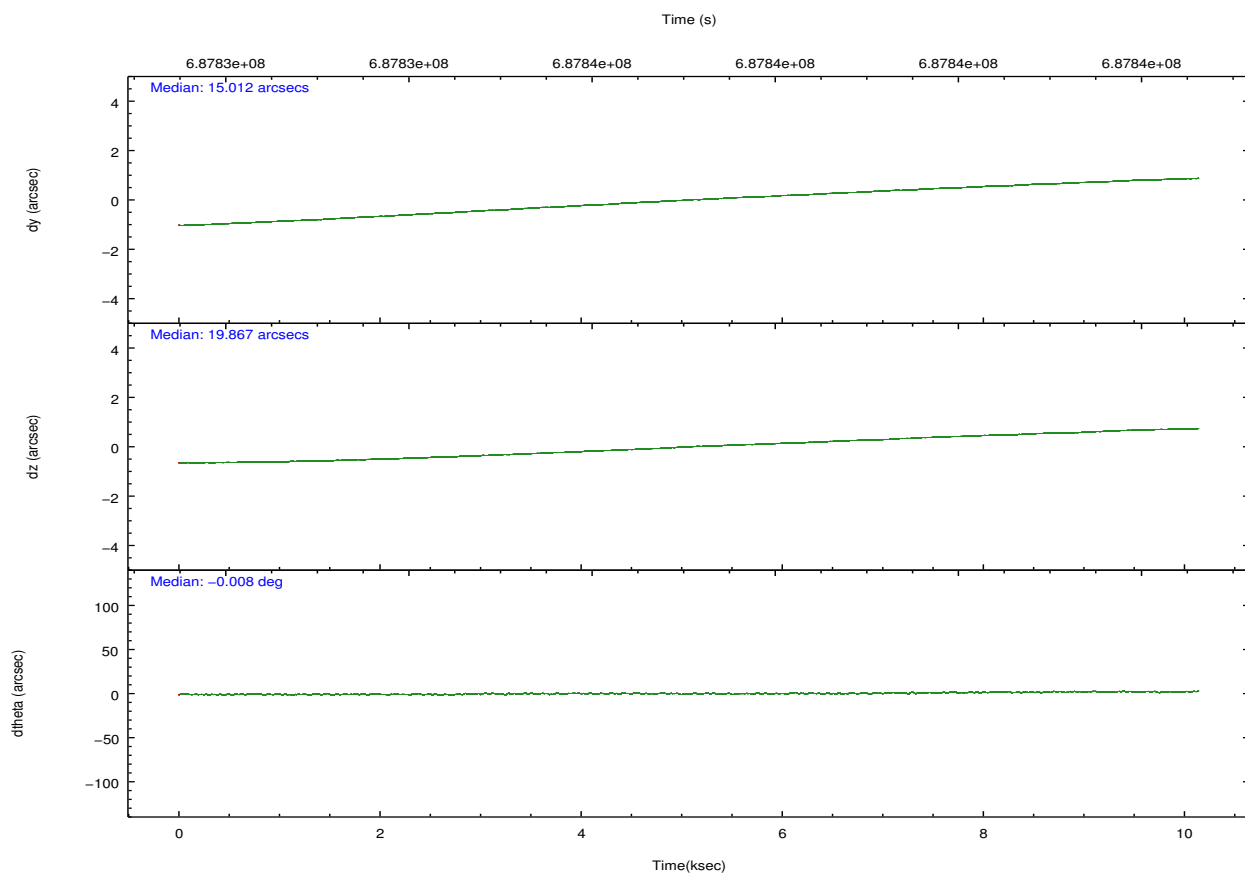
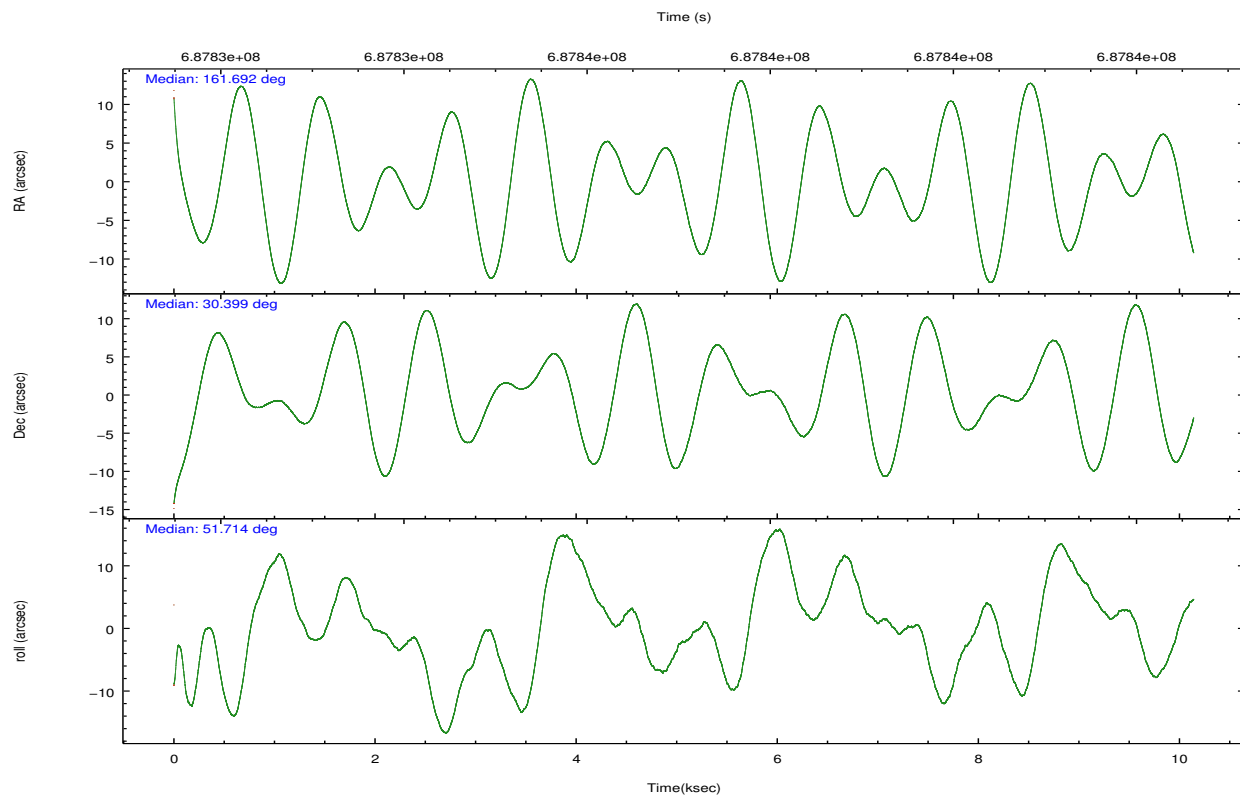
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-0123	ACIS-0123
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	161.687744	161.6922487453661
[deg] Pointing Dec	30.371746	30.39903287054806
[deg] Pointing Roll	51.510562	51.71696625183377
[mm] SIM focus pos	-0.782348	-0.7809083437167272
[mm] SIM defocus	0	0.001439871863259334
[mm] SIM translation stage pos	-233.592463	-233.5874344608287
[mm] SIM translation stage offset	0	-0.005018542100998502
[s] Observation start time (MET)	687832133.184000	687830858.38219
Observation start date	2019-10-19T00:27:44	2019-10-19T00:07:38
[s] Observation end time (MET)	687842133.184000	687843176.3204401
Observation end date	2019-10-19T03:14:24	2019-10-19T03:32:56
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

2.3 Aspect



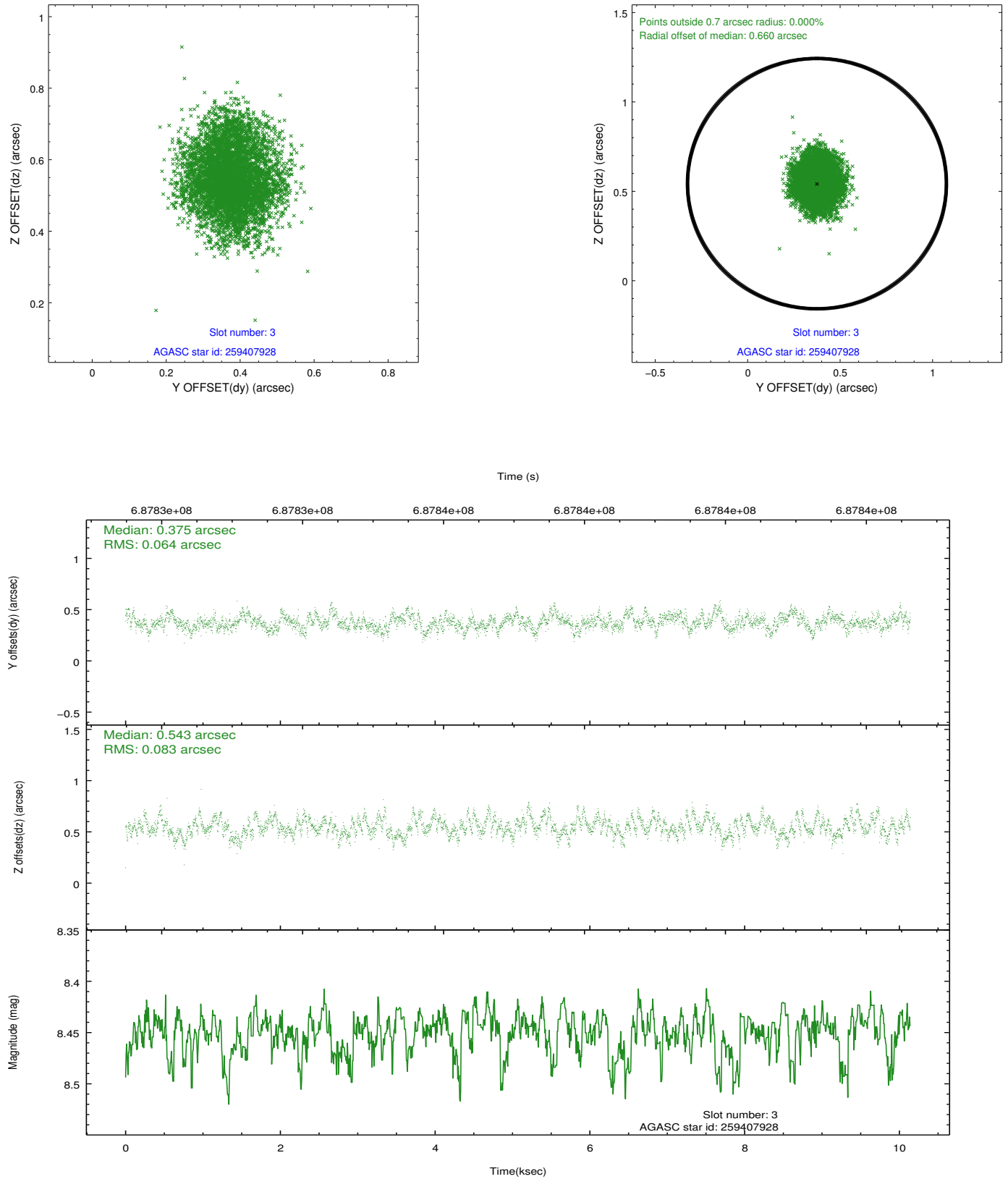


Slot Statistics

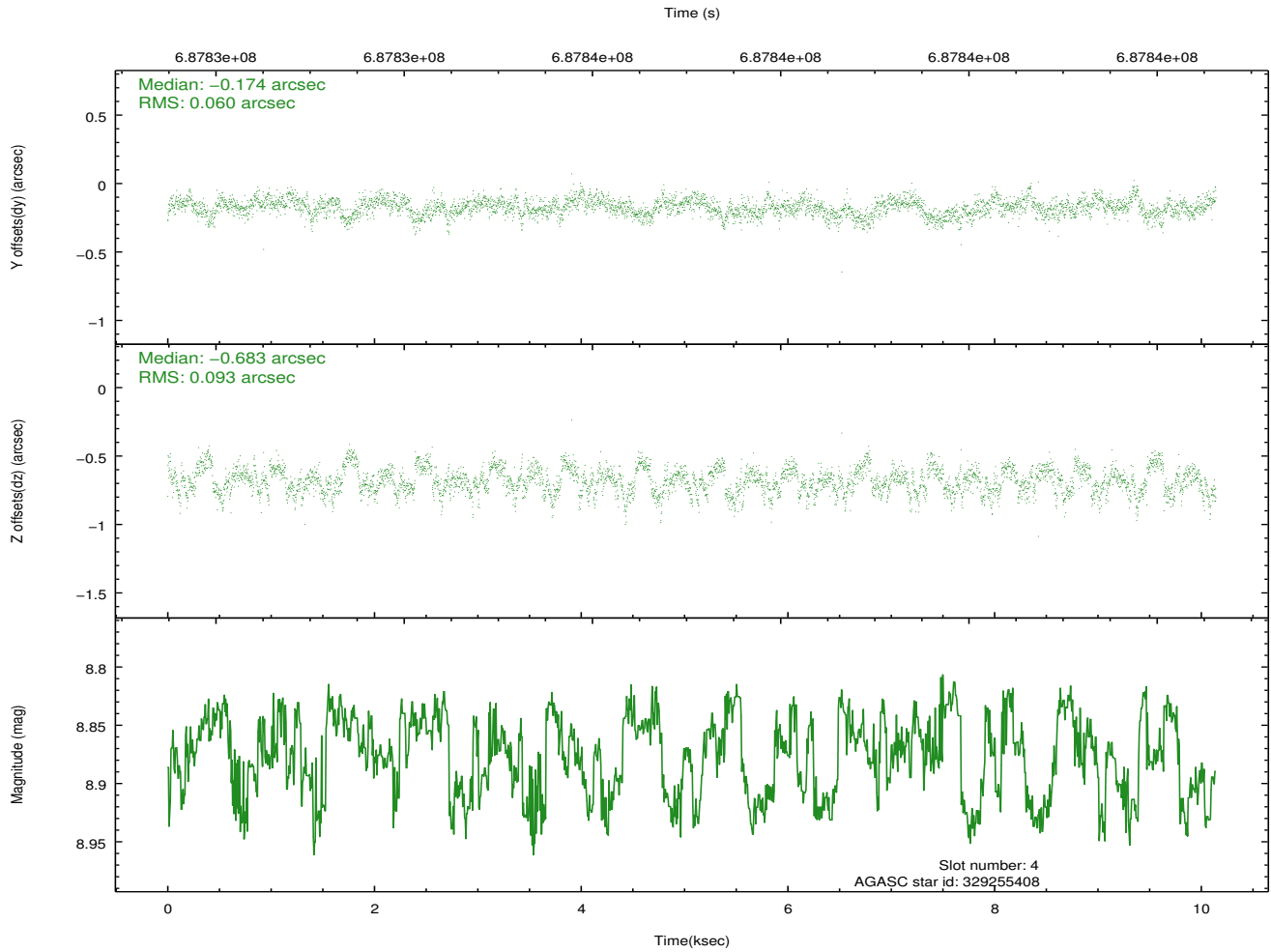
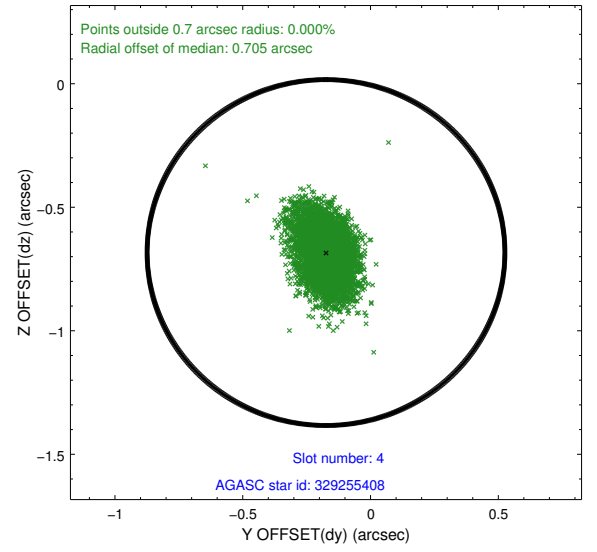
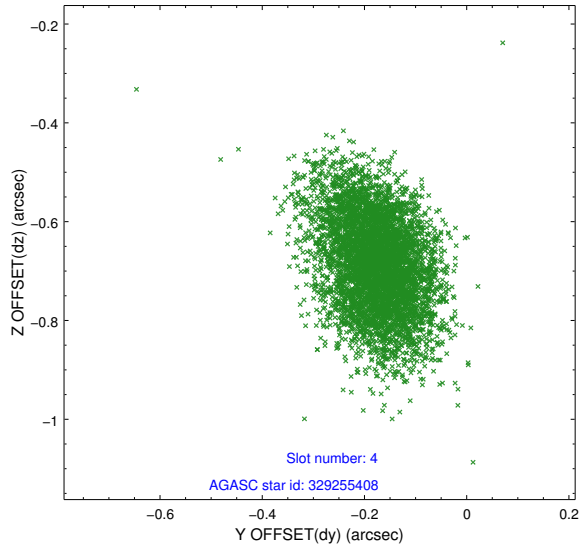
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.12	2474	1.000	0.086	-0.045	0.028	0.045	0.000000	0.000000	924.66	-843
1	FID		ACIS-I-5	7.10	2474	1.000	-0.483	0.011	0.017	0.026	0.000000	0.000000	-1823.91	1053
2	FID		ACIS-I-6	7.11	2474	1.000	0.304	0.105	0.023	0.034	0.000000	0.000000	389.61	1698
3	GUIDE	used	259407928	8.45	4938	1.000	0.375	0.543	0.114	0.178	161.844239	29.981360	-795.75	-1256
4	GUIDE	used	329255408	8.88	4944	1.000	-0.174	-0.683	0.116	0.195	161.086567	30.691431	-253.27	2175
5	GUIDE	used	329255504	8.47	4945	1.000	-0.158	-0.226	0.093	0.152	161.603255	30.674829	690.74	884
6	GUIDE	used	329259440	9.41	4942	1.000	0.330	0.631	0.153	0.246	161.427972	30.012498	-1514.37	-169
7	GUIDE	used	329256376	7.38	4945	1.000	-0.373	-0.268	0.105	0.168	161.473444	30.628023	308.84	1094

2.4 Star Slots

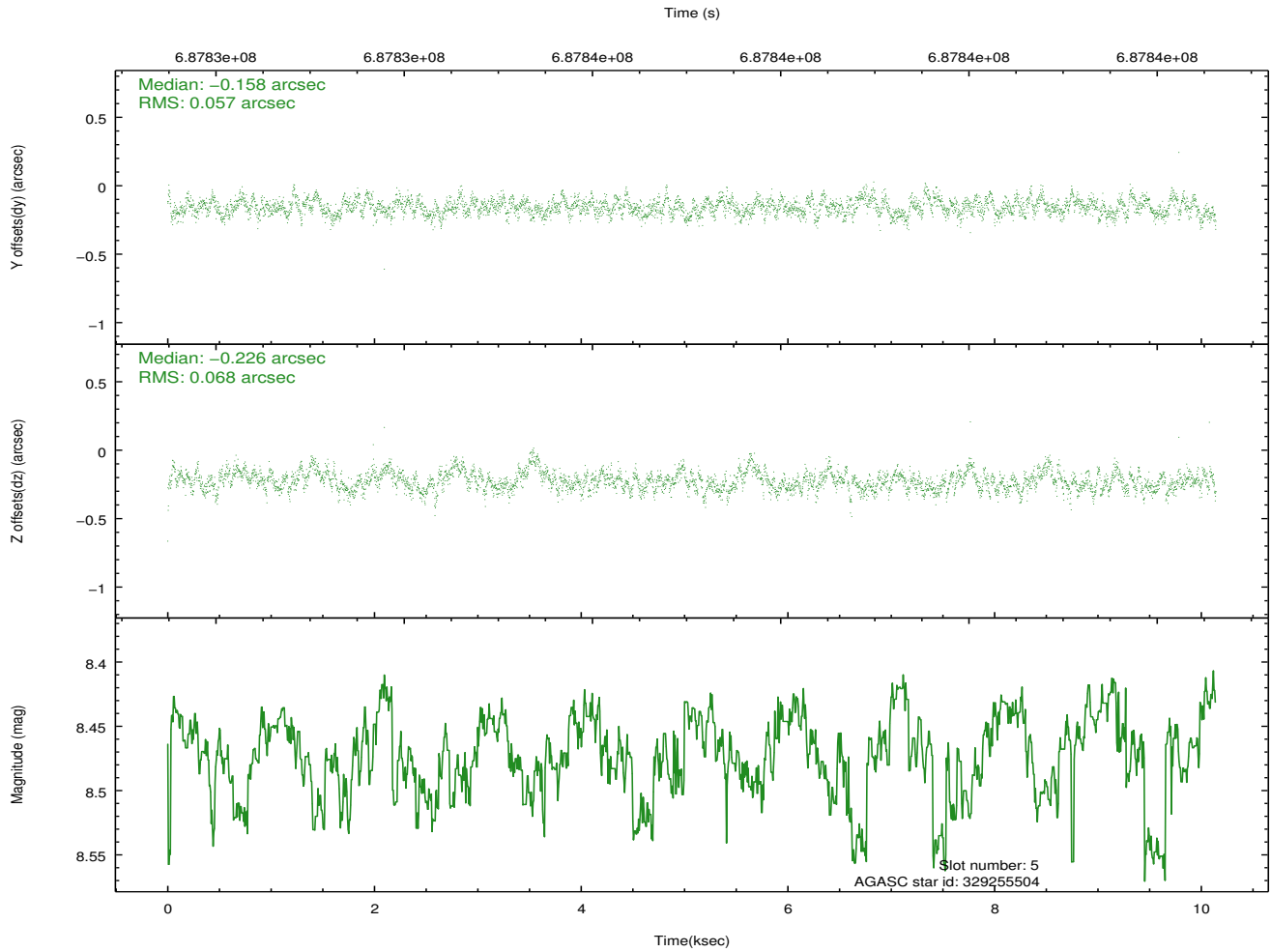
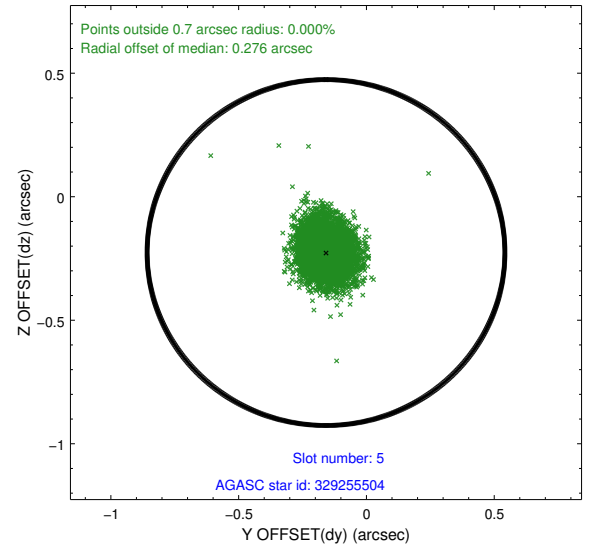
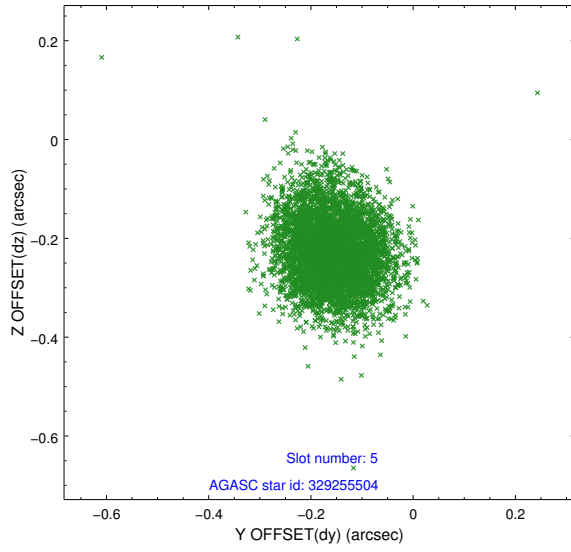
2.4.1 Slot 3



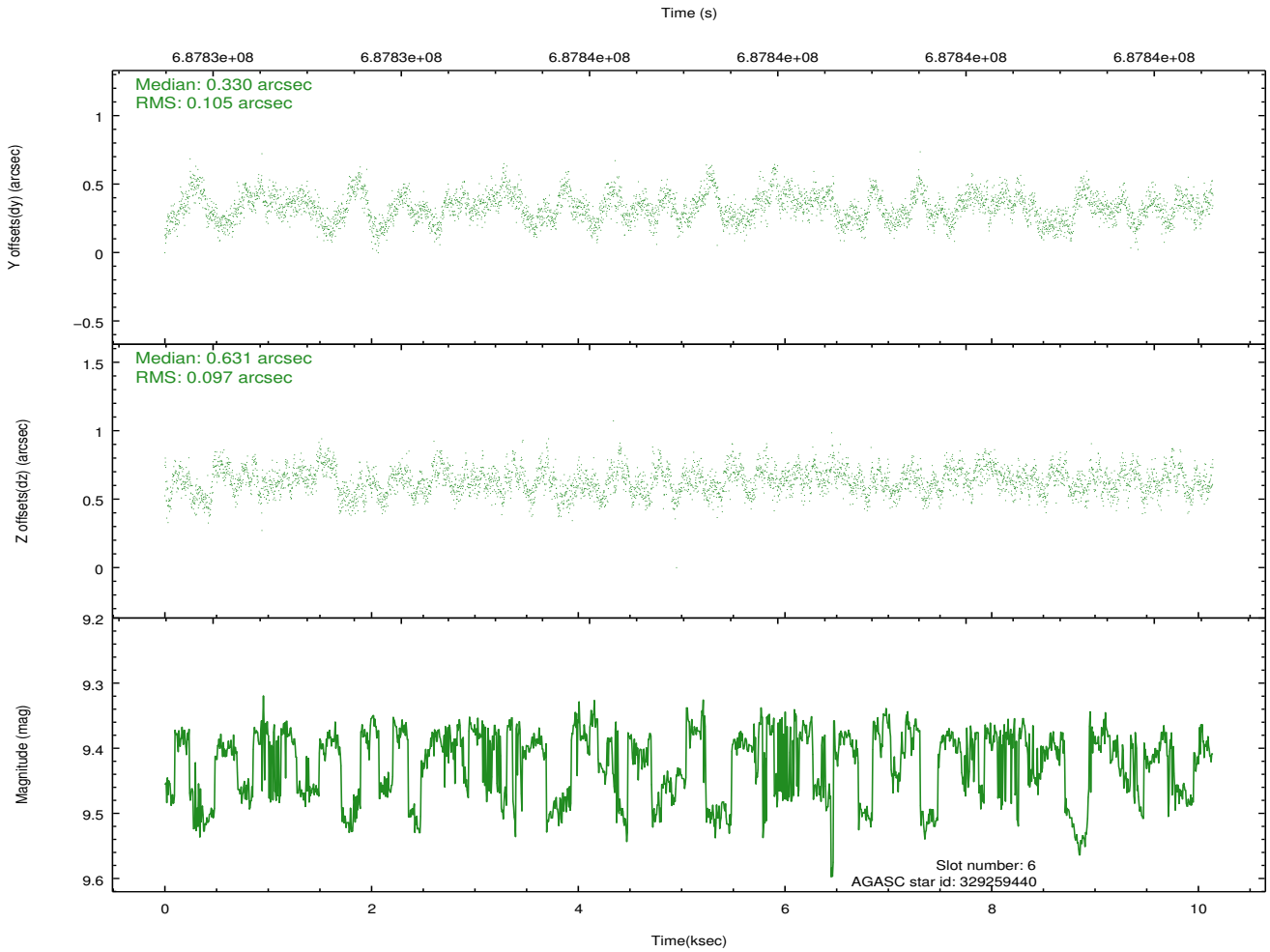
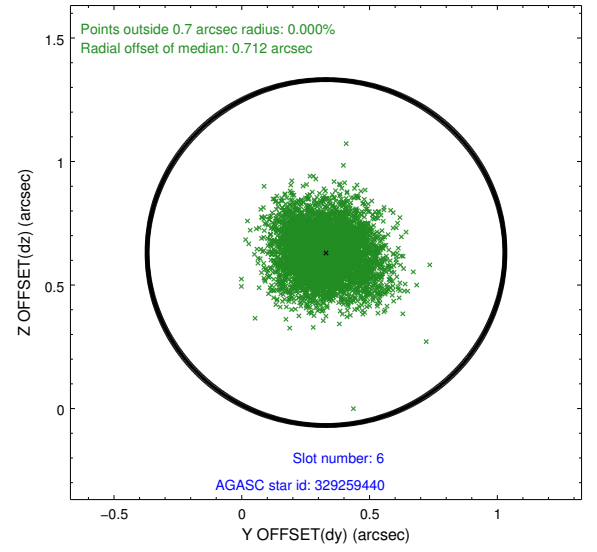
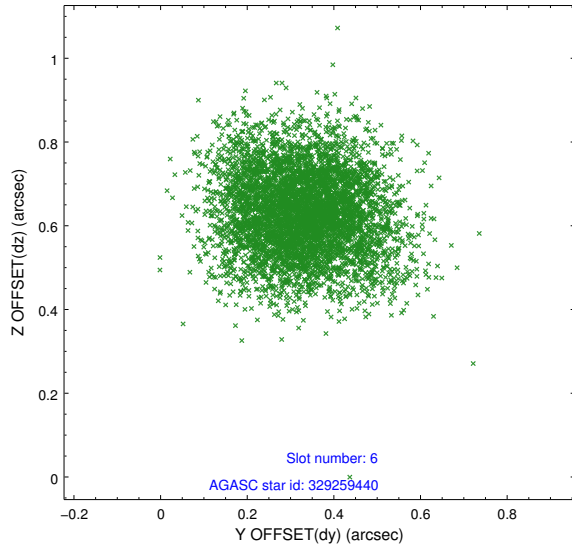
2.4.2 Slot 4



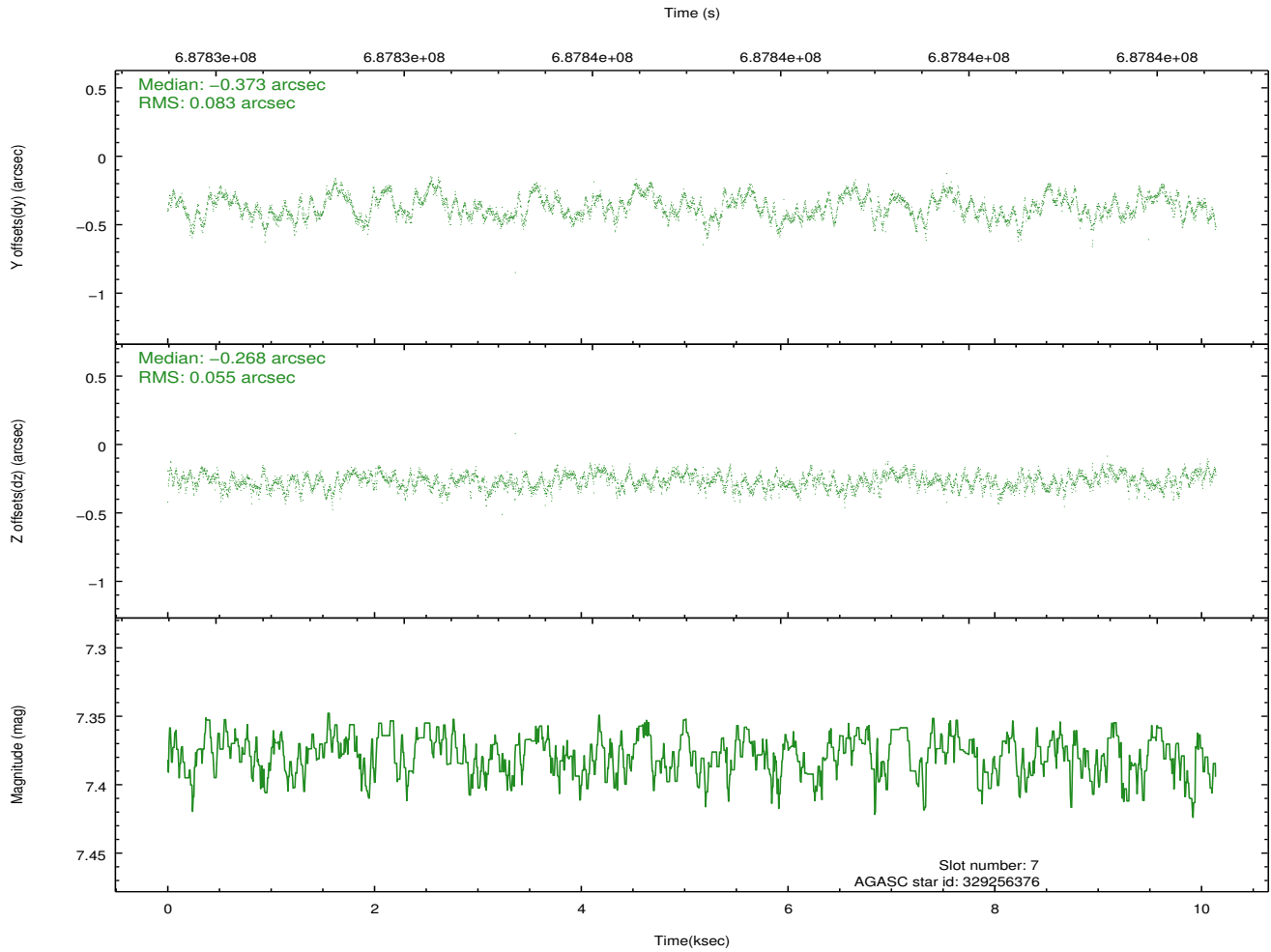
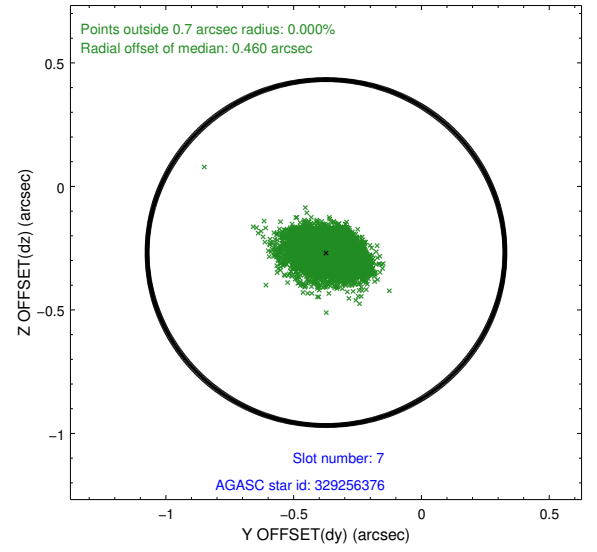
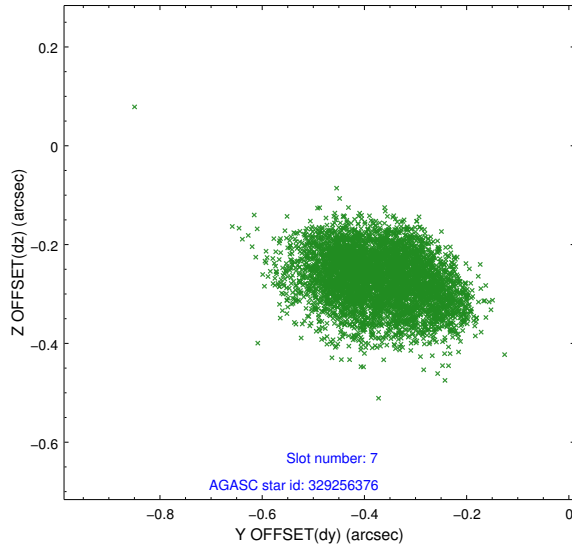
2.4.3 Slot 5



2.4.4 Slot 6

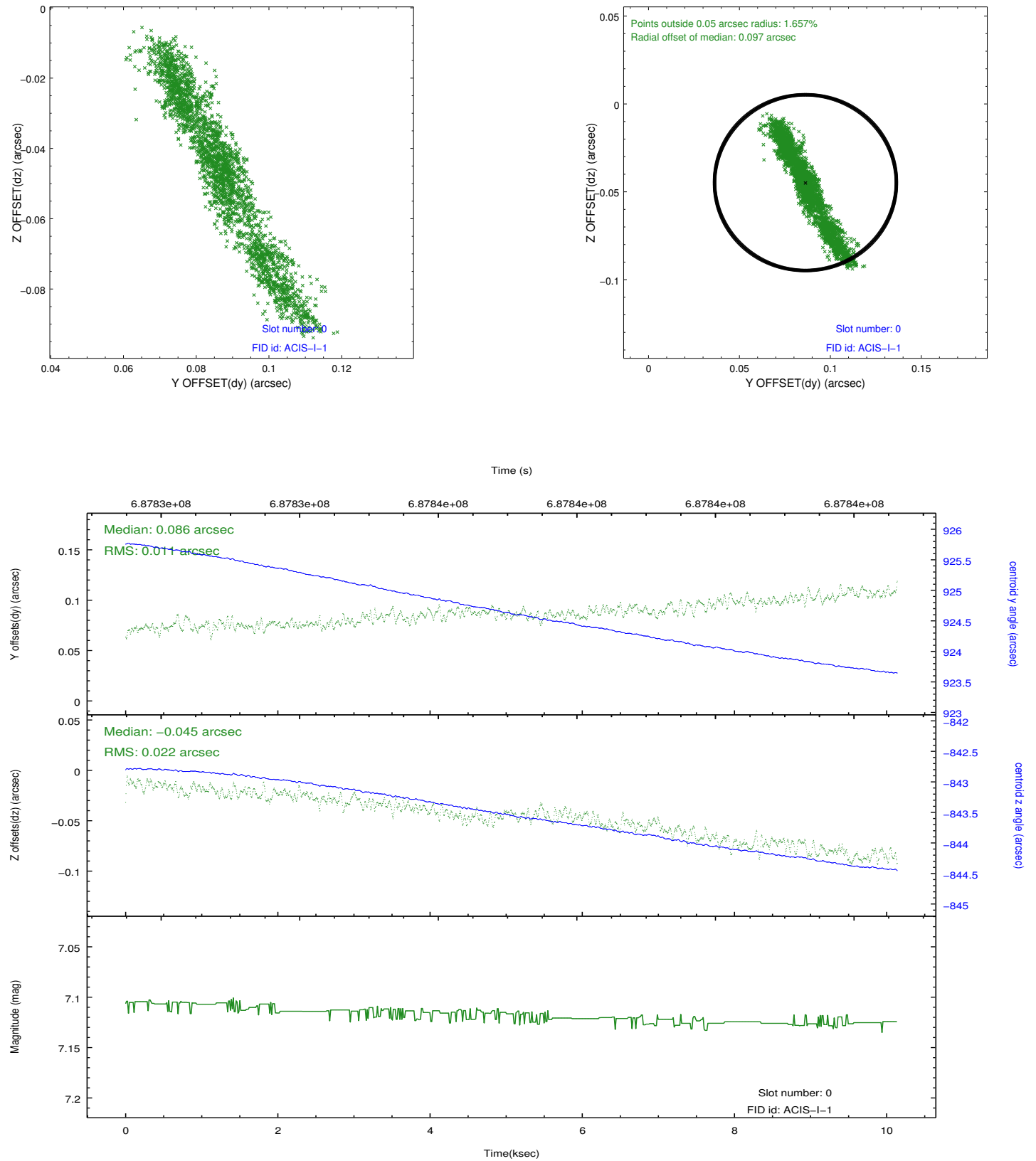


2.4.5 Slot 7

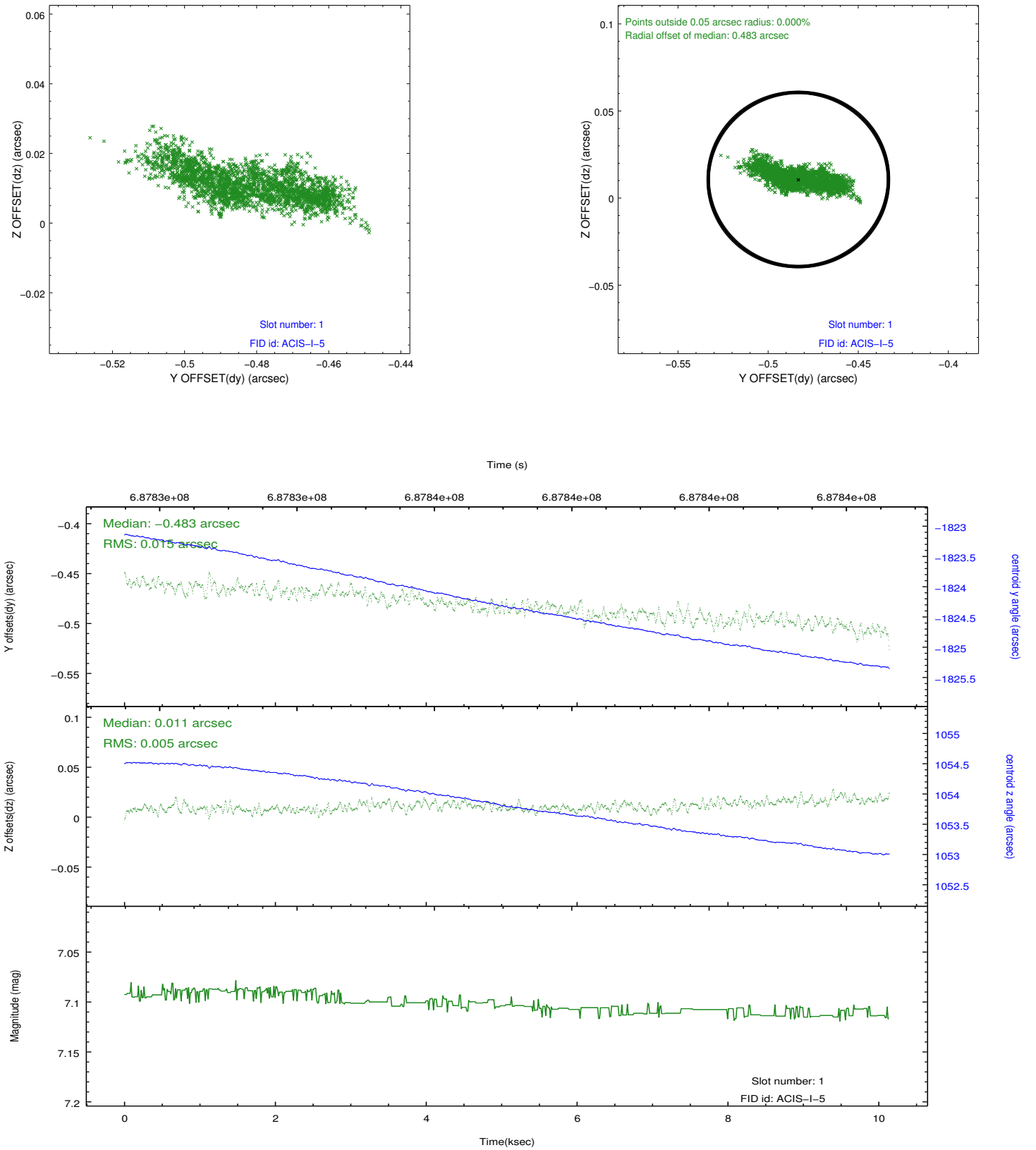


2.5 FID Slots

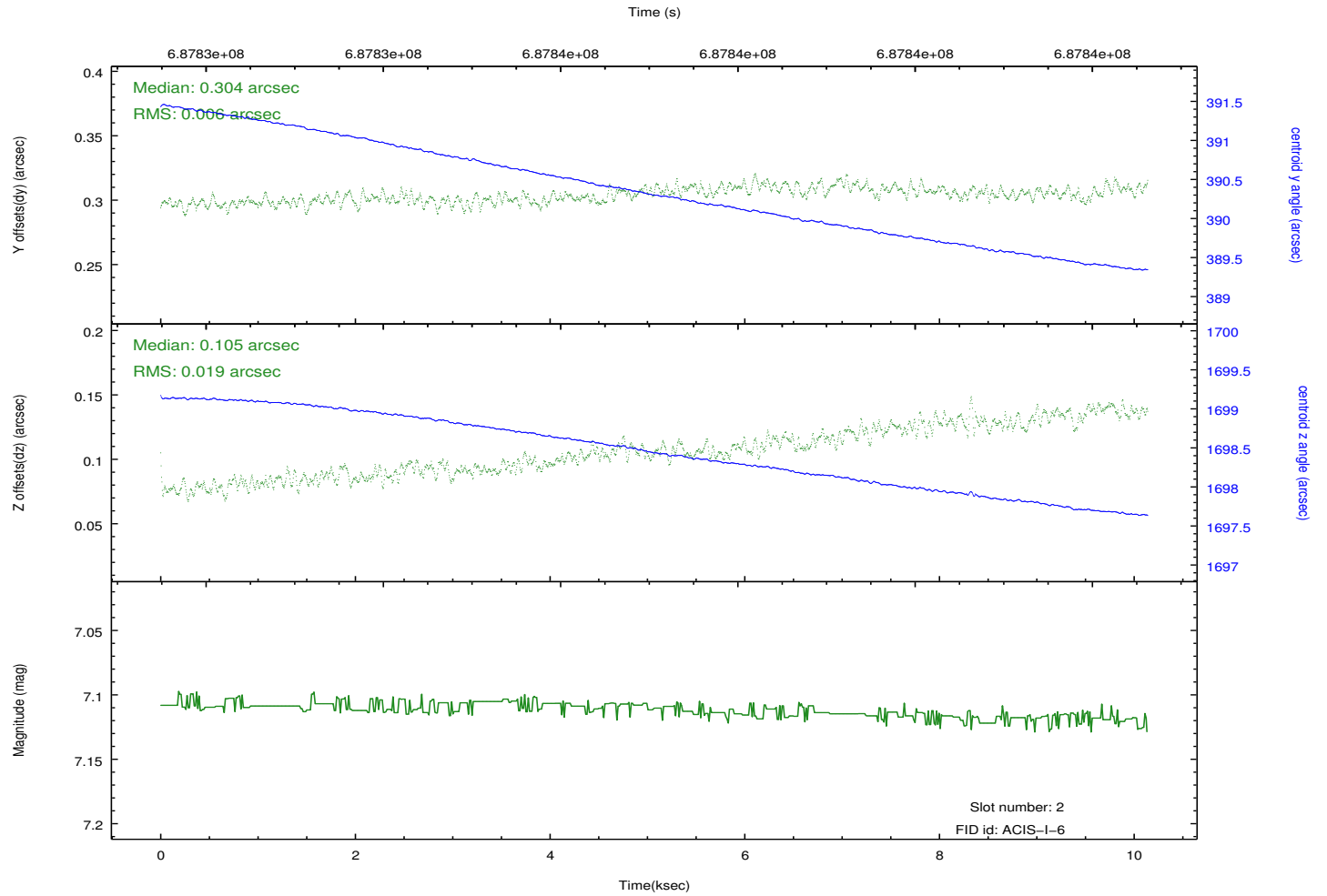
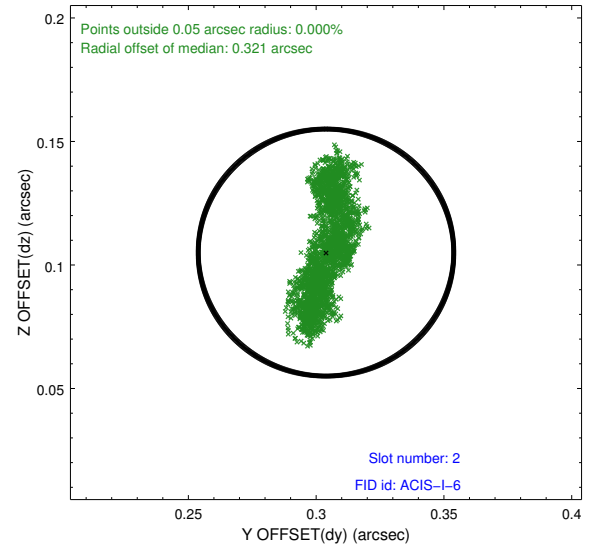
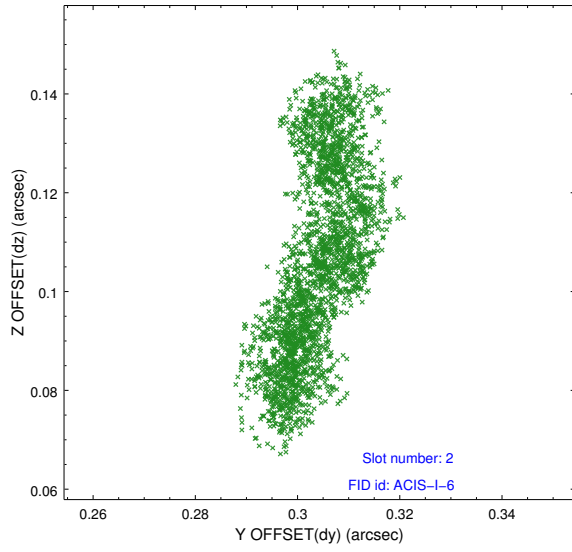
2.5.1 Slot 0



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)	2019.10.30
V&V Edition	2
V&V Disposition and Status	OK
V&V Charge Time	10.079764731407

A.2 Comments

Joint proposal with HST.

A spatial region of the original bias map for CCD = 3 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. In this case, the bias map for CCD = 3 could not be improved because no suitable data at a compatible temperature and time range are available to use as replacement values. The bias map used in this processing is the original bias map telemetered with the observation.