

V&V Reference Report

L2 ASCDS Version : 10.8

Observation 20150 - L2 Version 1
Chandra X-Ray Center

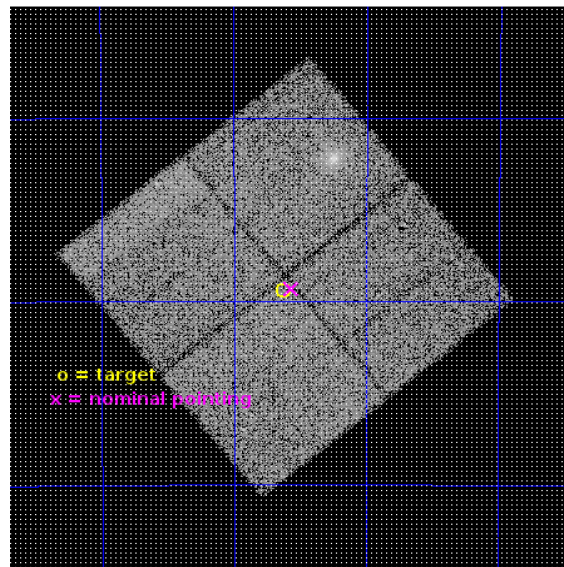
L2 Processing Date : Jul 27 2019

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1 Front

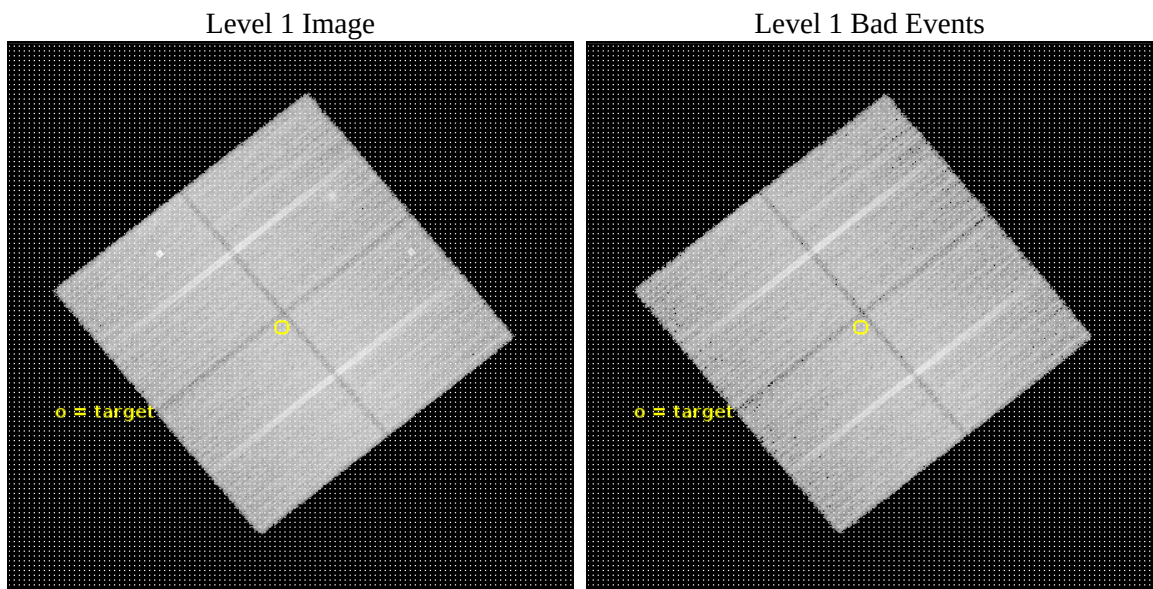
seq_num	201172	Sequence number
obs_id	20150	Observation id
title	Secret Lives of Cepheids: beta Dor as a Test of Cepheid X-ray Heating Mechanisms	Proposal title
observer	Scott Engle	Principal investigator
object	beta Dor	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.40625	Observer's specified target RA [deg]
dec_targ	-62.489833	Observer's specified target Dec [deg]
ra_nom	83.391391592137	Nominal RA [deg]
dec_nom	-62.488552840276	Nominal Dec [deg]
roll_nom	140.93688626542	Nominal Roll [deg]
revision	1	Processing version of data
ontime	37076.000285268	Sum of GTIs [s]
livetime	36591.575046586	Livetime [s]
ontime0	37076.000285268	Sum of GTIs [s]
ontime1	37076.000285268	Sum of GTIs [s]
ontime2	37076.000285268	Sum of GTIs [s]
ontime3	37076.000285268	Sum of GTIs [s]
l2events	112018	Number of level 2 events



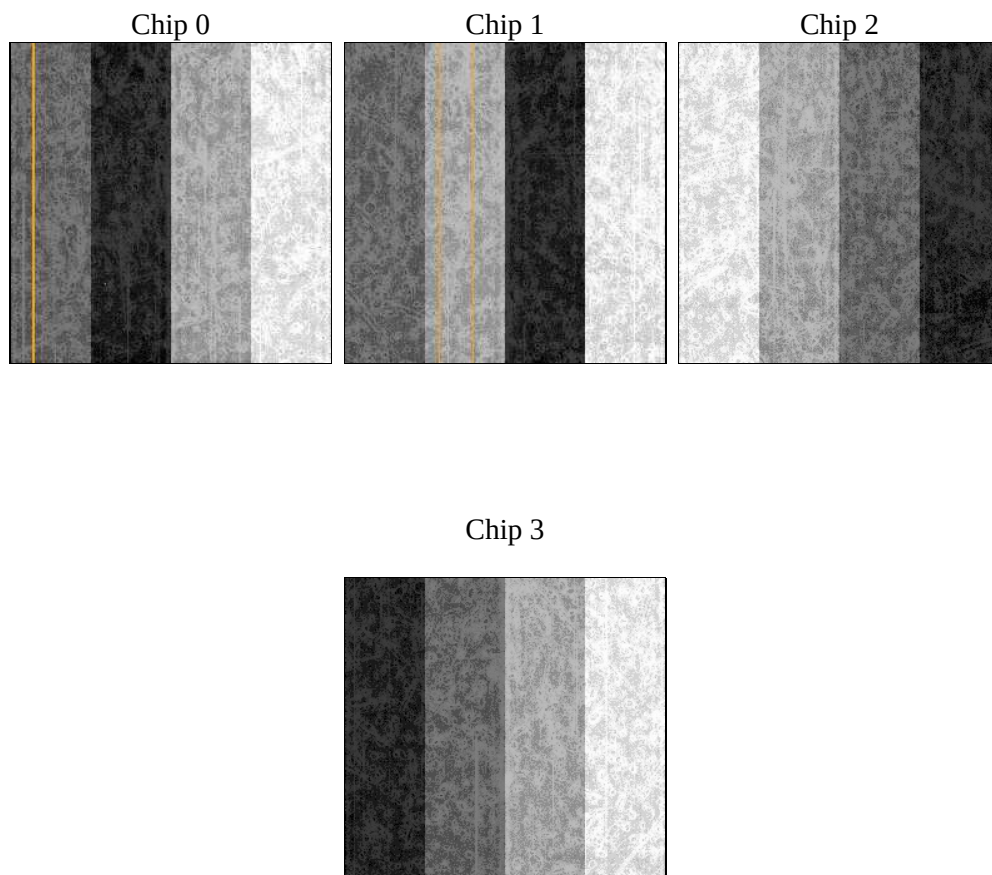
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	37000.000000	[s] Scheduled observation exposure time
ascdsver	10.8	Processing system revision	ontime	37076.000285268	Sum of GTIs [s]
caldsver	4.8.3.1	 	ontime0	37076.000285268	Sum of GTIs [s]
date	2019-07-27T23:31:16	Date and time of file creation	ontime1	37076.000285268	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	37076.000285268	Sum of GTIs [s]
			ontime3	37076.000285268	Sum of GTIs [s]
			l1events	1097492	Number of level 1 events

2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	264848	272869	283086	276689
rejected events	229200	235254	251302	245321
rejected %	86%	86%	88%	88%

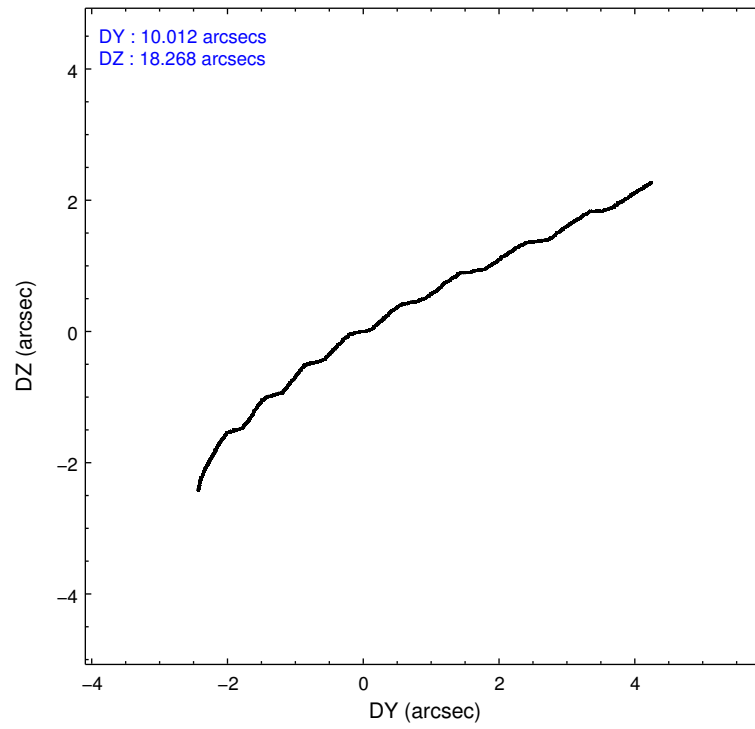
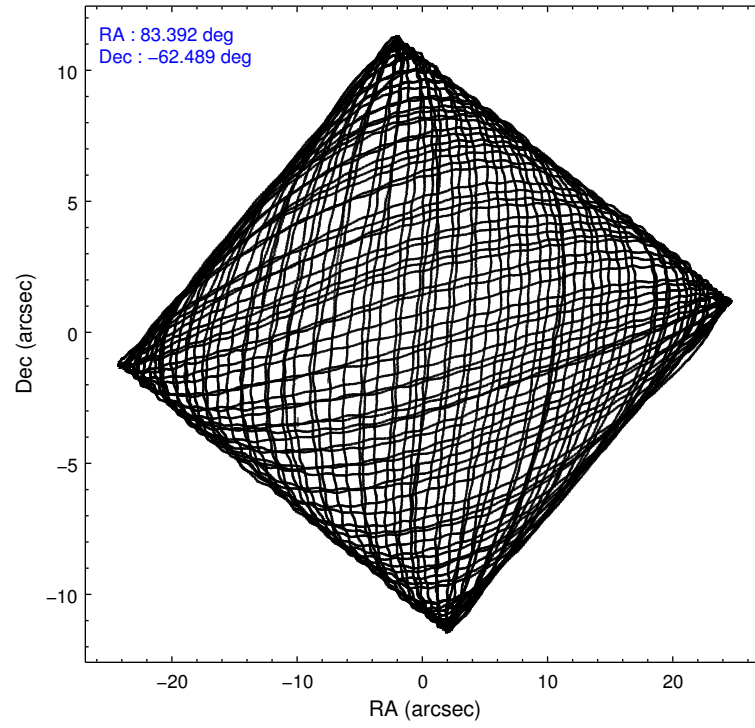
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	13828	13490	11692	11688
	5%	4%	4%	4%
grade 1 events	138	131	181	181
	0%	0%	0%	0%
grade 2 events	8671	9515	7709	6771
	3%	3%	2%	2%
grade 3 events	3232	3181	3046	3153
	1%	1%	1%	1%
grade 4 events	3072	3310	3123	3207
	1%	1%	1%	1%
grade 5 events	12151	12409	11638	13498
	4%	4%	4%	4%
grade 6 events	6855	8127	6216	6557
	2%	2%	2%	2%
grade 7 events	216901	222706	239481	231634
	81%	81%	84%	83%

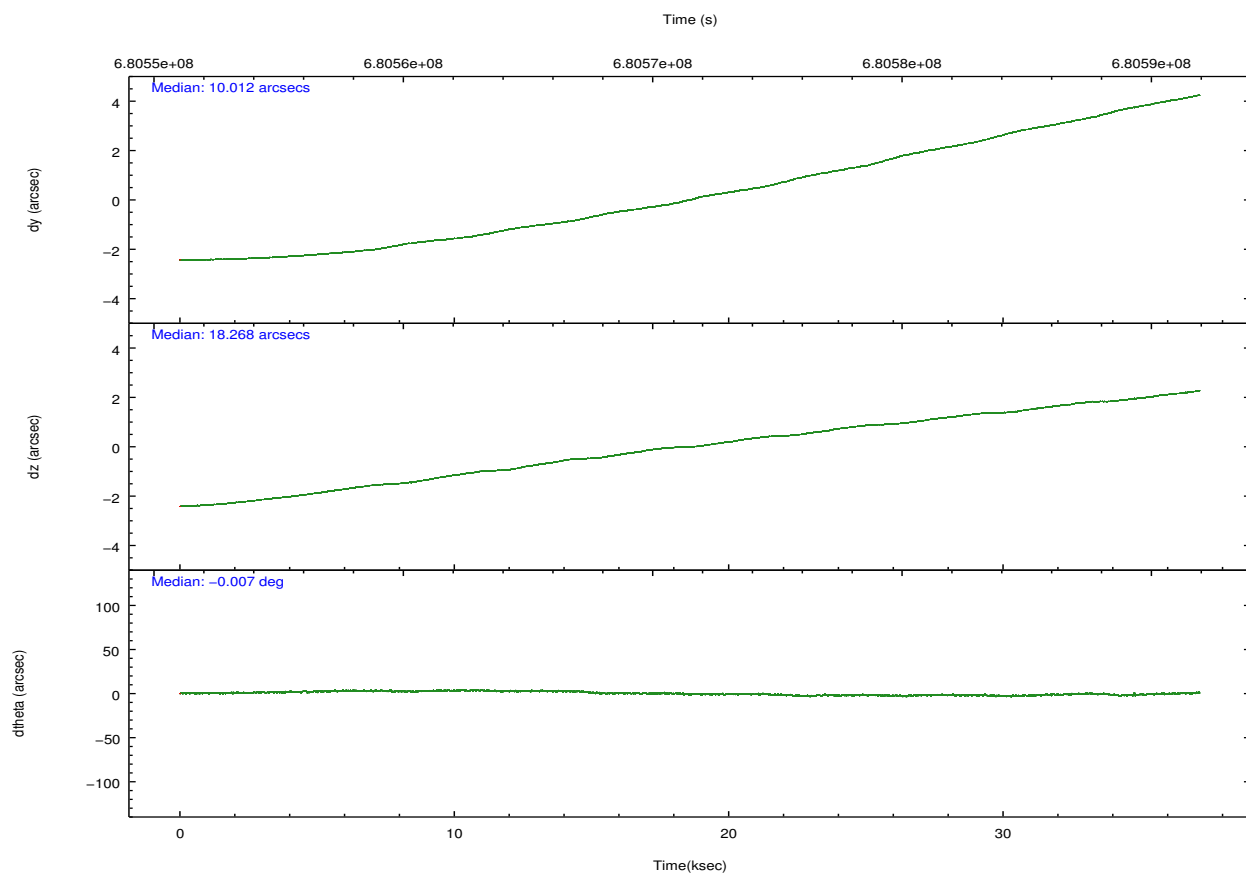
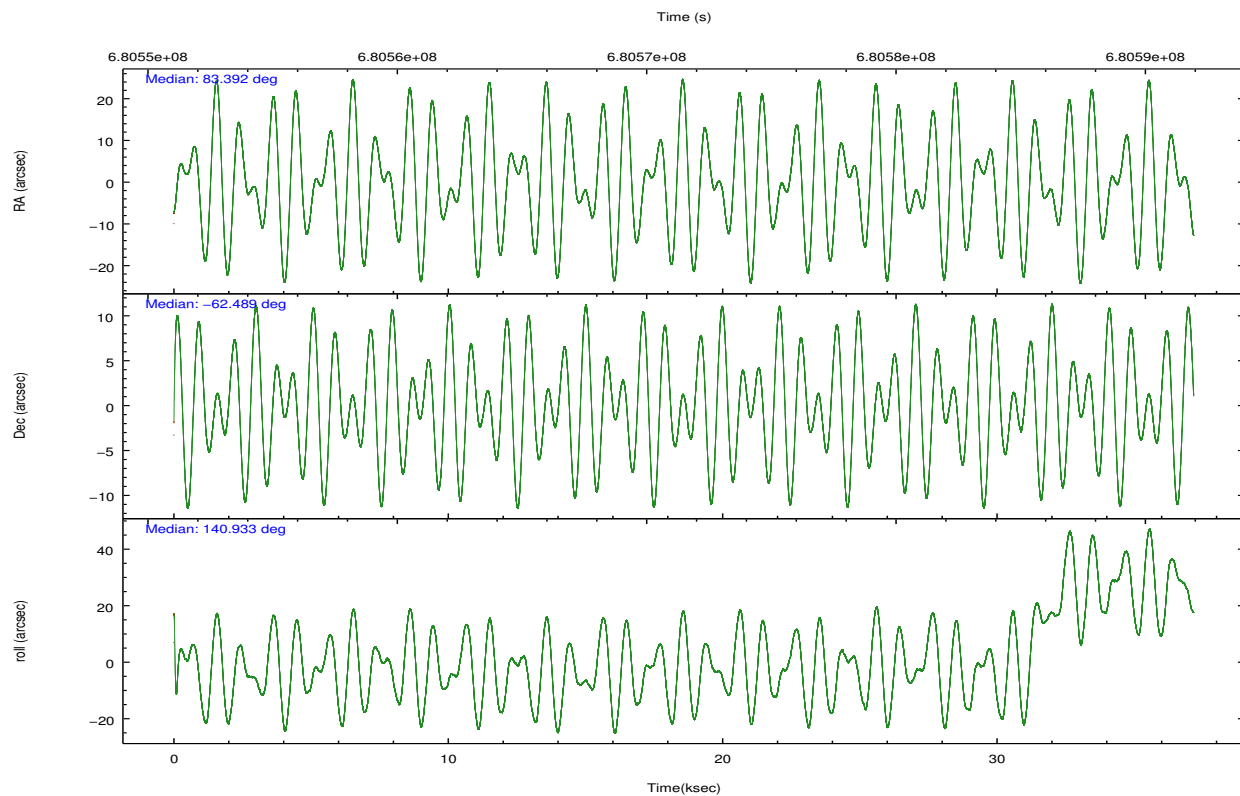
2.2 Compared Parameters

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	83.450437	83.39139159213664
[deg] Pointing Dec	-62.492814	-62.48855284027605
[deg] Pointing Roll	140.780560	140.9368862654155
[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
Phase constraints	Y	Y
[d] Phase period	9.842600	9.842600
[d] Phase epoch (MJD)	56367.524600	56367.524600
Phase start	0.000000	0.000000
Phase end	0.080000	0.080000
Phase start error	0.020000	0.020000
Phase end error	0.020000	0.020000
[s] Observation start time (MET)	680553091.184000	680551849.1441801
Observation start date	2019-07-26T18:30:22	2019-07-26T18:10:49
[s] Observation end time (MET)	680590091.184000	680591076.40903
Observation end date	2019-07-27T04:47:02	2019-07-27T05:04:36
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



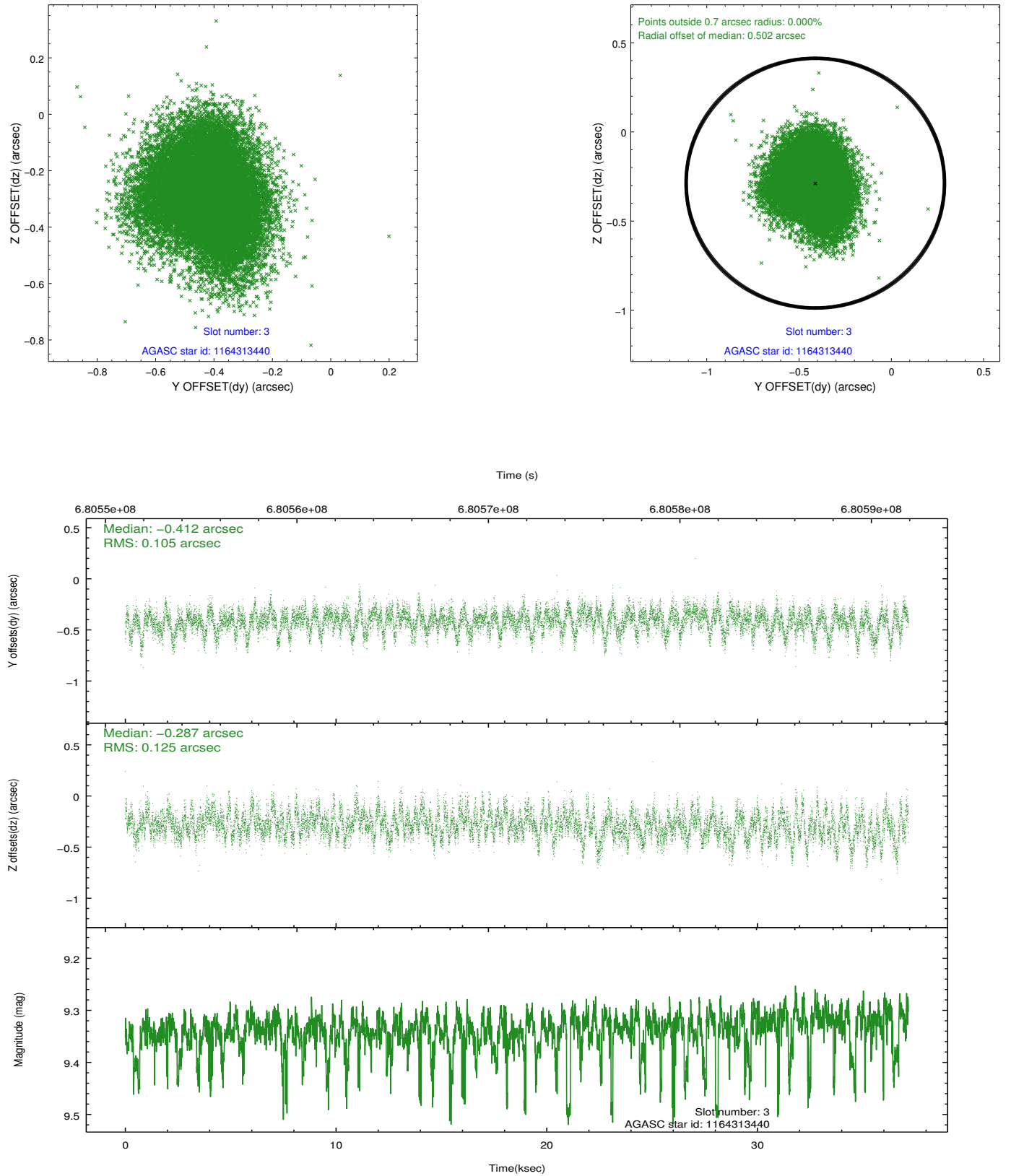


Slot Statistics

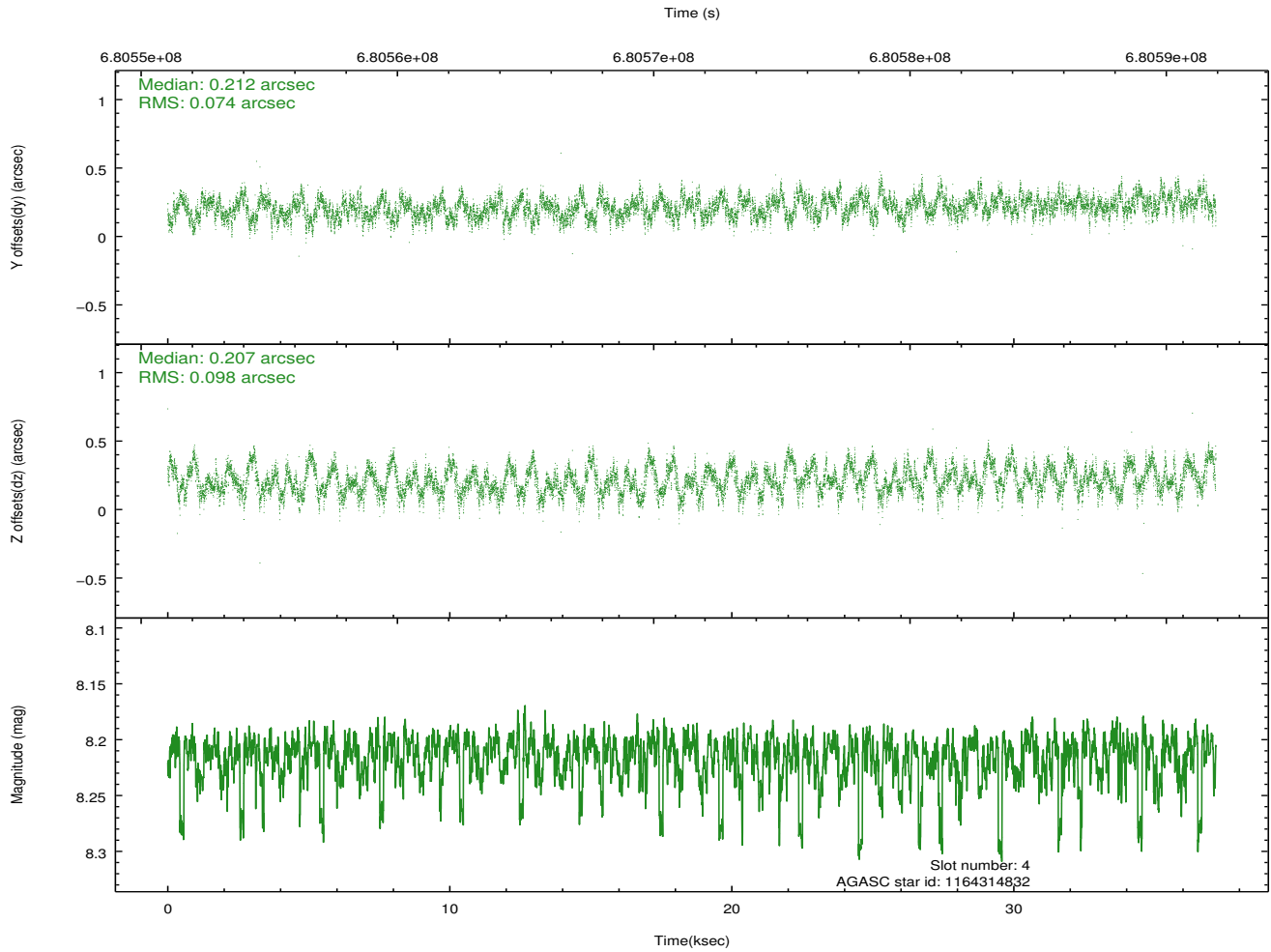
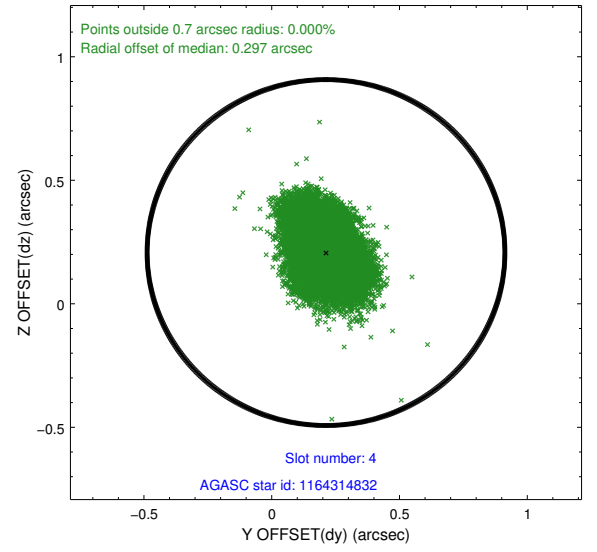
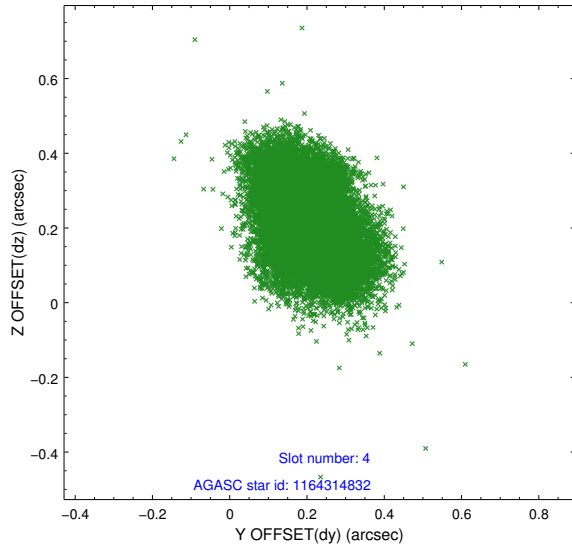
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.22	9066	1.000	0.108	-0.090	0.052	0.093	0.000000	0.000000	929.46	-841
1	FID		ACIS-I-5	7.18	9066	1.000	-0.455	0.034	0.016	0.031	0.000000	0.000000	-1819.36	1055
2	FID		ACIS-I-6	7.18	9064	1.000	0.253	0.129	0.046	0.088	0.000000	0.000000	394.90	1700
3	GUIDE	used	1164313440	9.34	18098	1.000	-0.412	-0.287	0.175	0.281	81.756900	-62.489804	2165.07	1801
4	GUIDE	used	1164314832	8.21	18118	1.000	0.212	0.207	0.131	0.209	83.906470	-62.052128	404.82	-1712
5	GUIDE	used	1164316296	9.74	18035	1.000	-0.288	-0.411	0.248	0.429	82.512520	-62.448874	1302.22	874
6	GUIDE	used	1164320624	9.07	18107	1.000	0.305	0.139	0.162	0.288	84.105569	-62.319861	-458.09	-1170
7	GUIDE	used	1164321856	9.03	18112	1.000	0.219	0.312	0.234	0.367	84.402690	-62.802970	-1926.71	-116

2.4 Star Slots

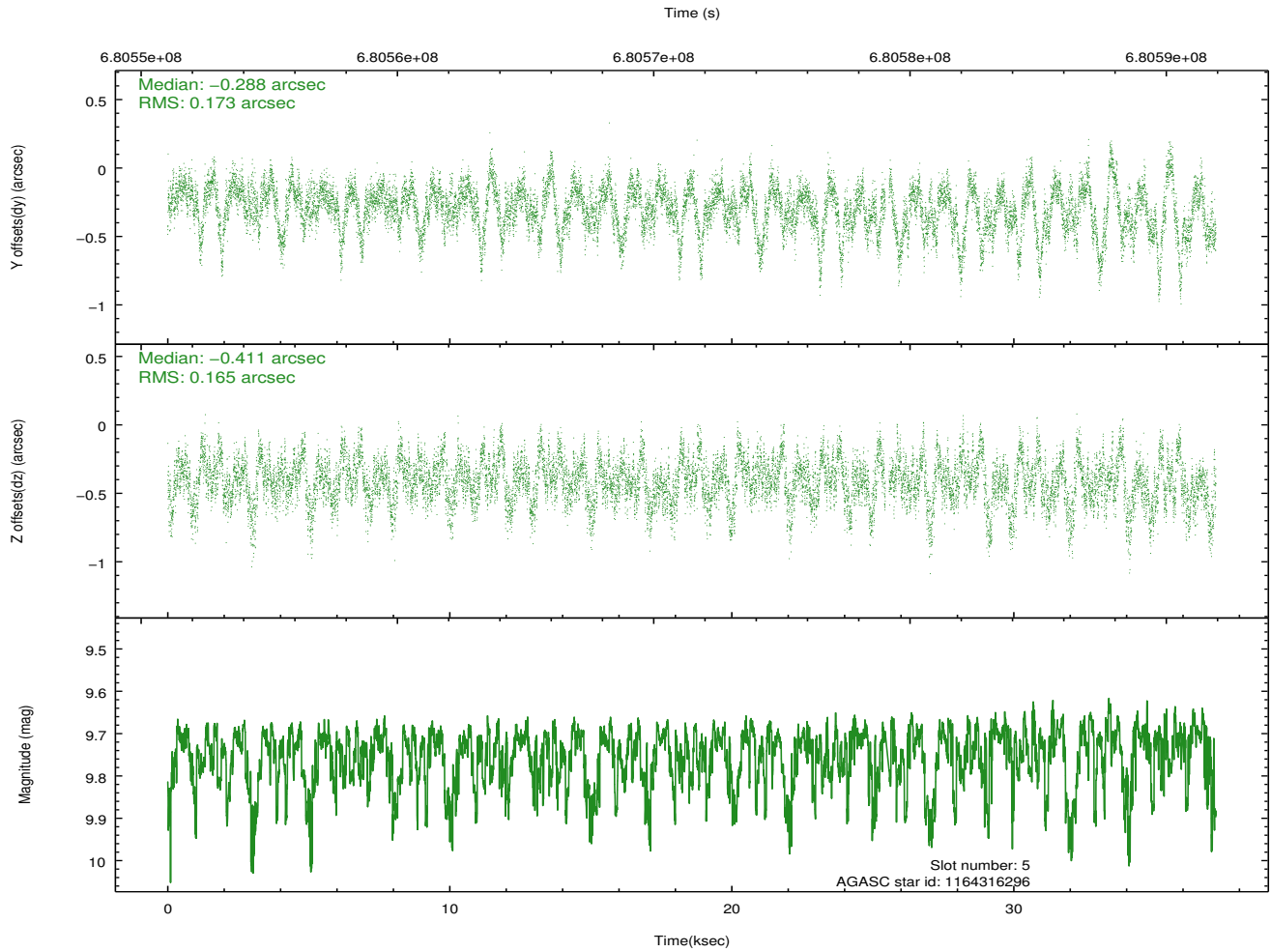
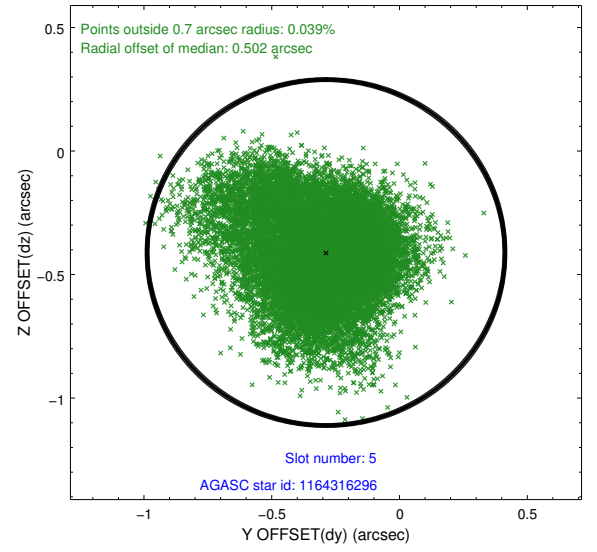
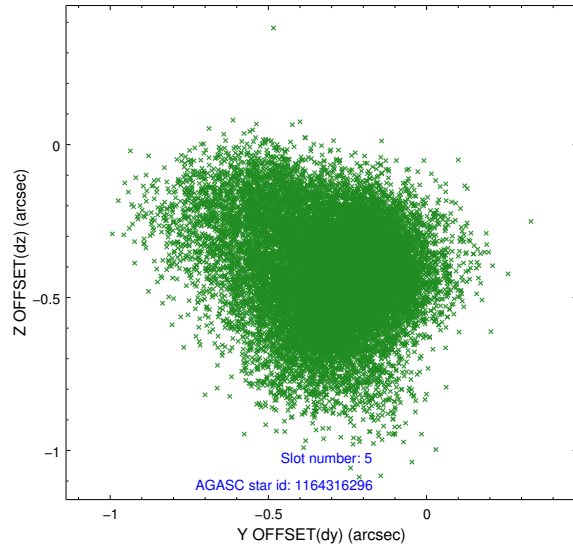
2.4.1 Slot 3



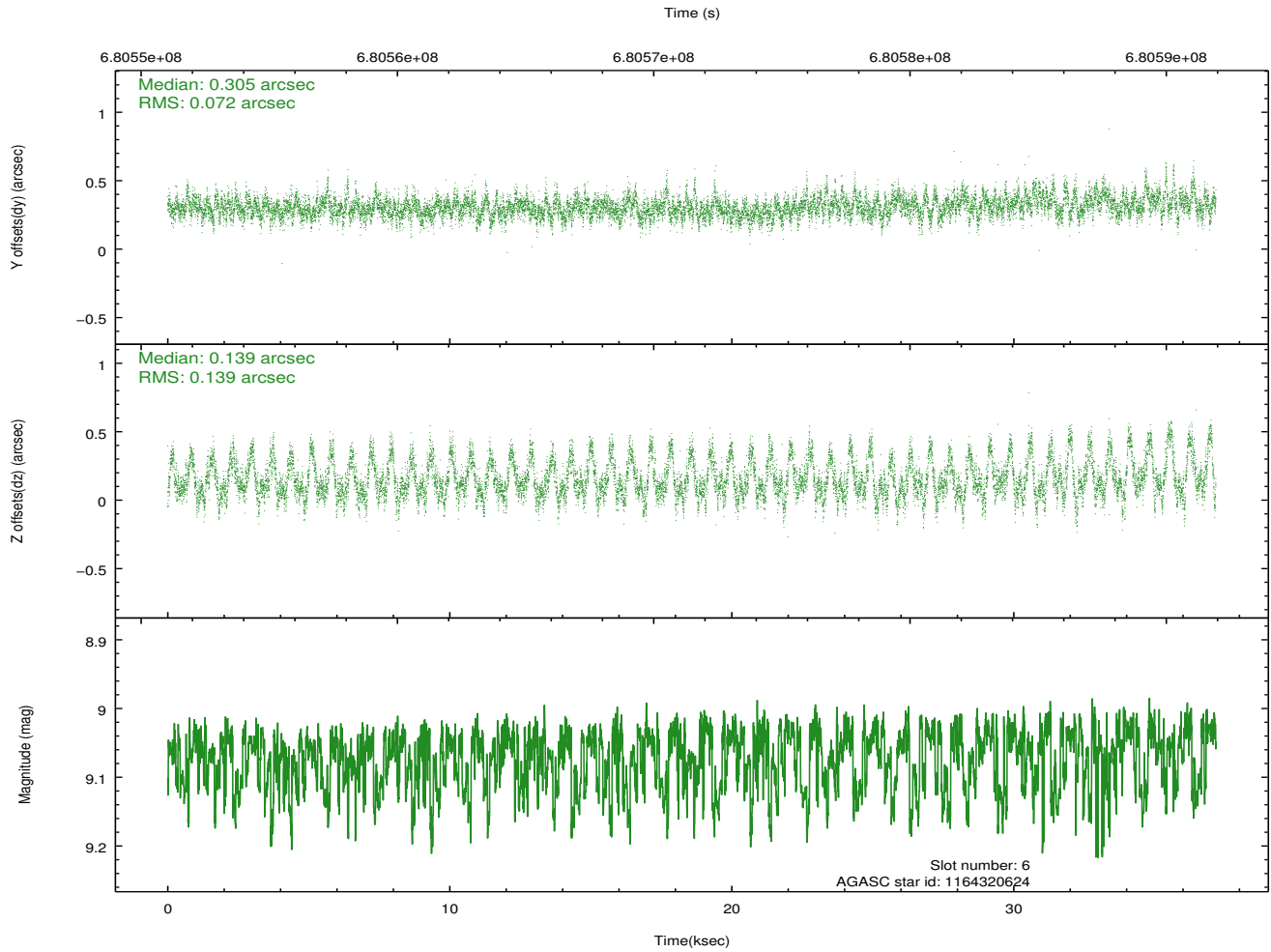
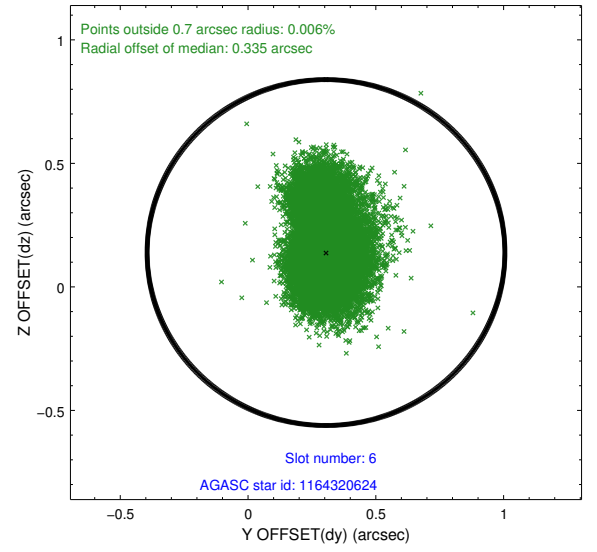
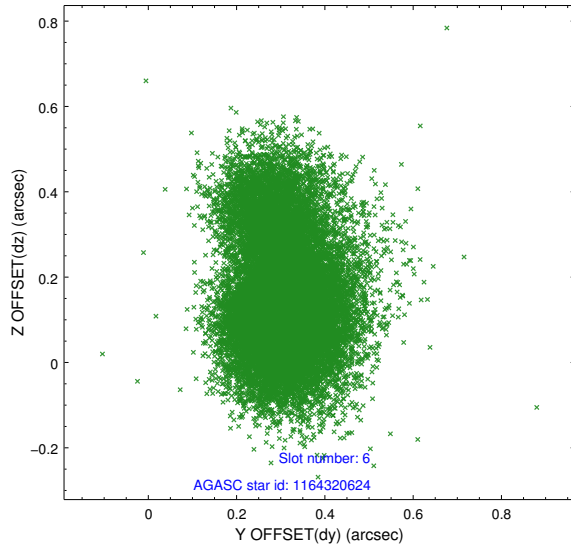
2.4.2 Slot 4



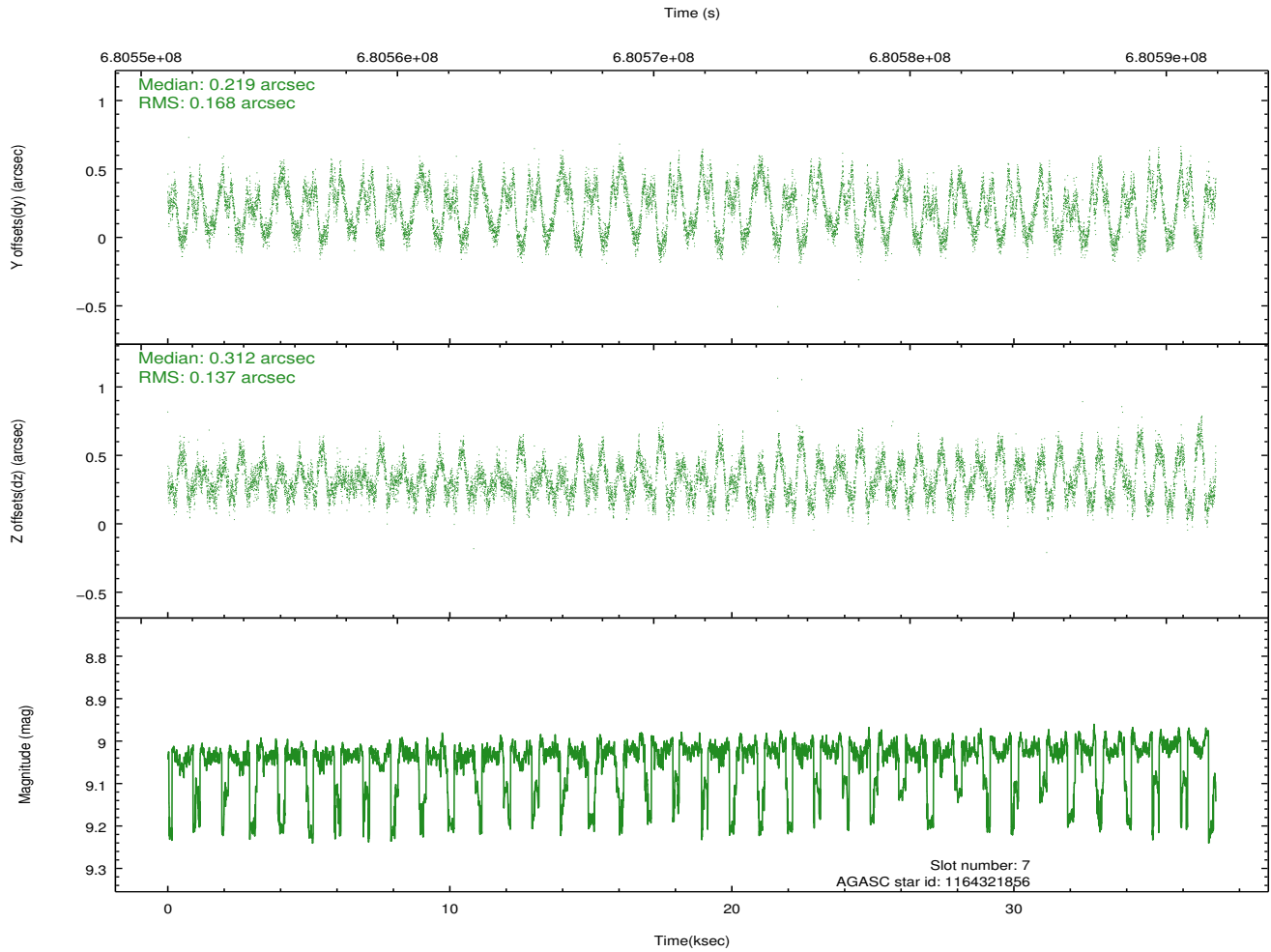
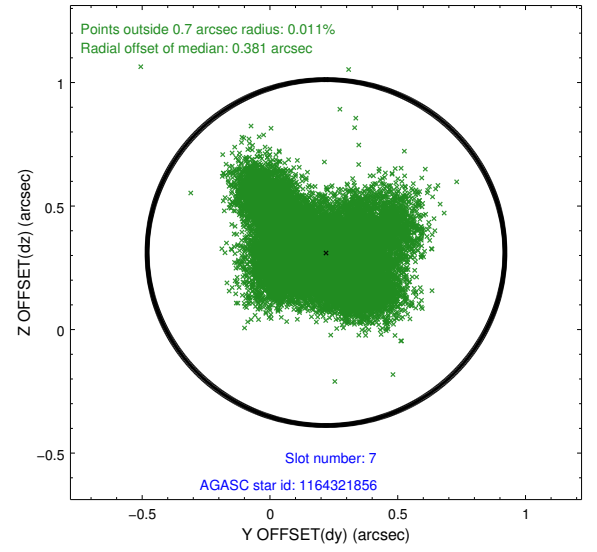
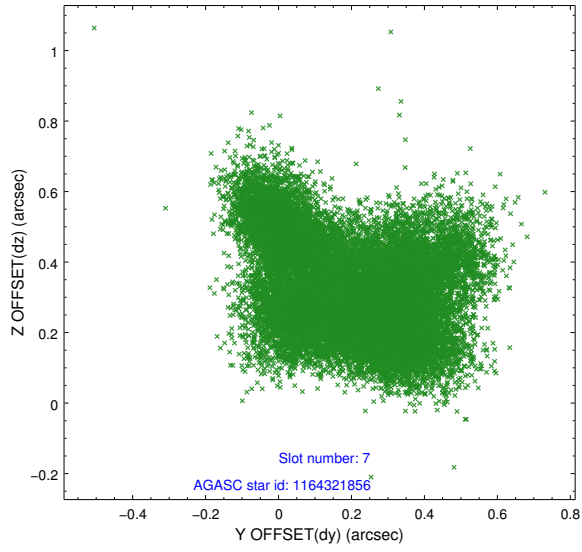
2.4.3 Slot 5



2.4.4 Slot 6

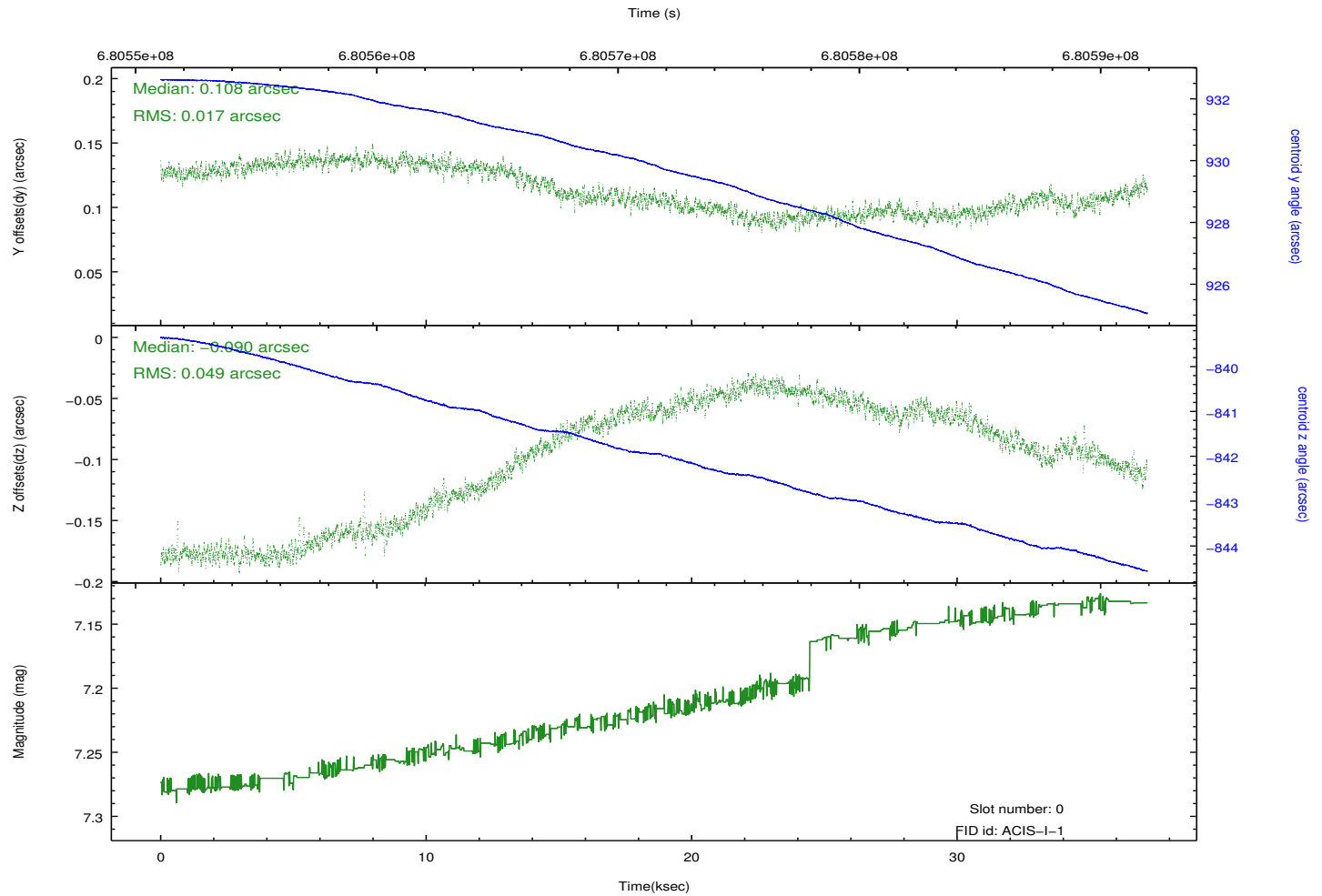
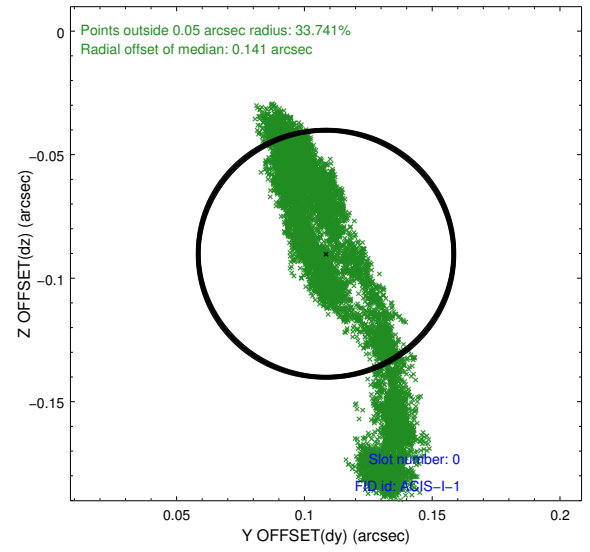
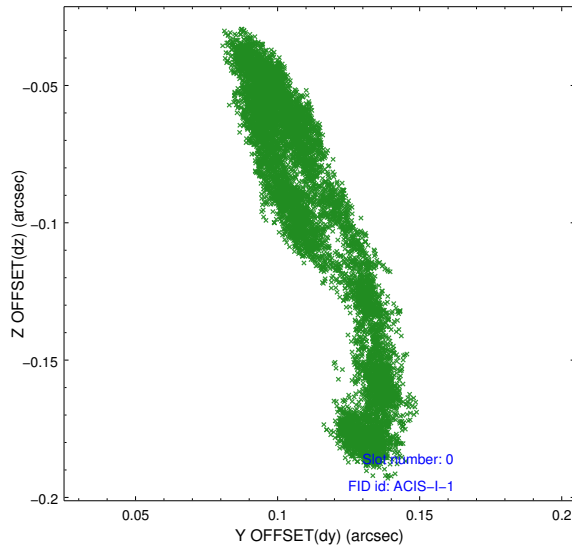


2.4.5 Slot 7

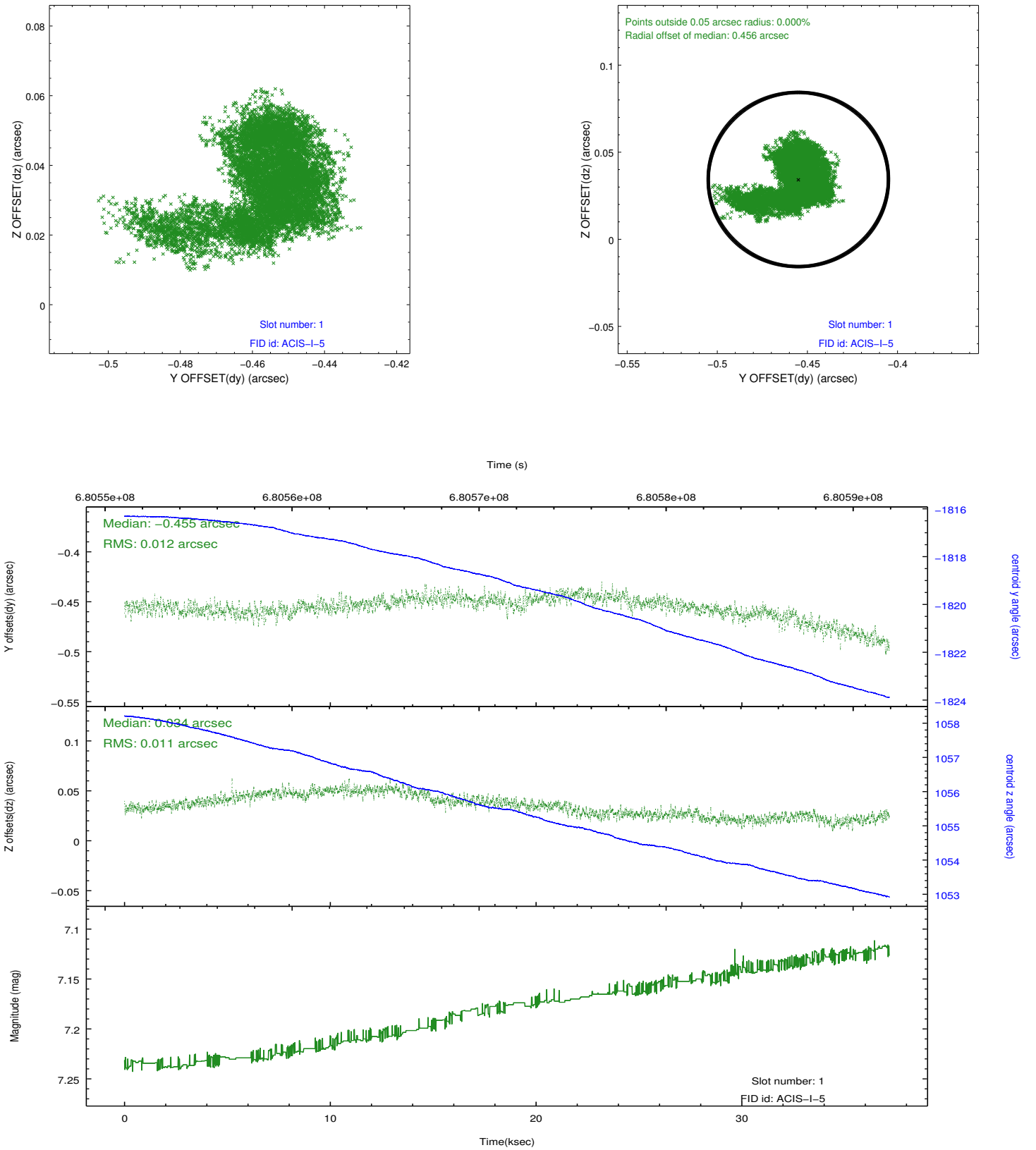


2.5 FID Slots

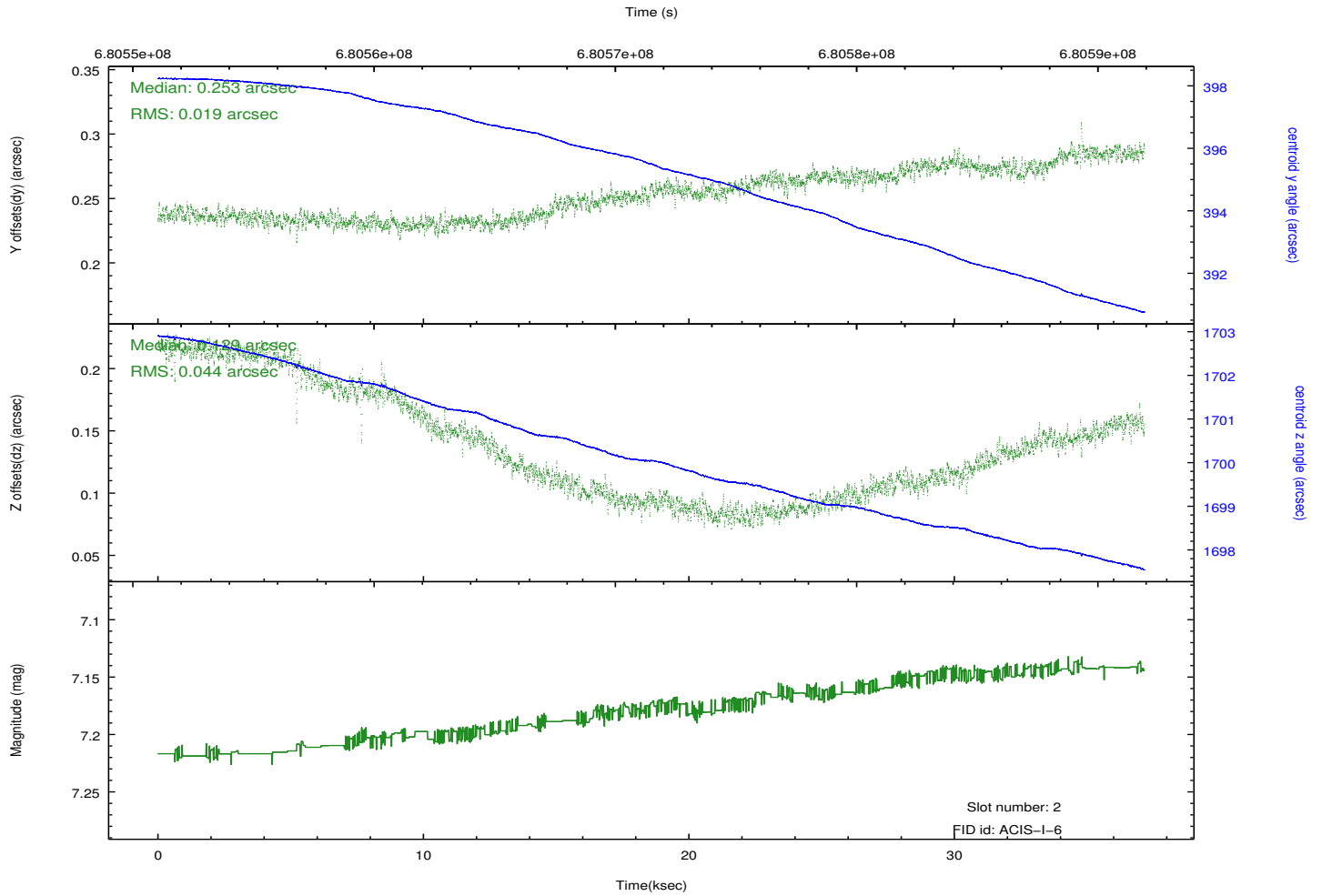
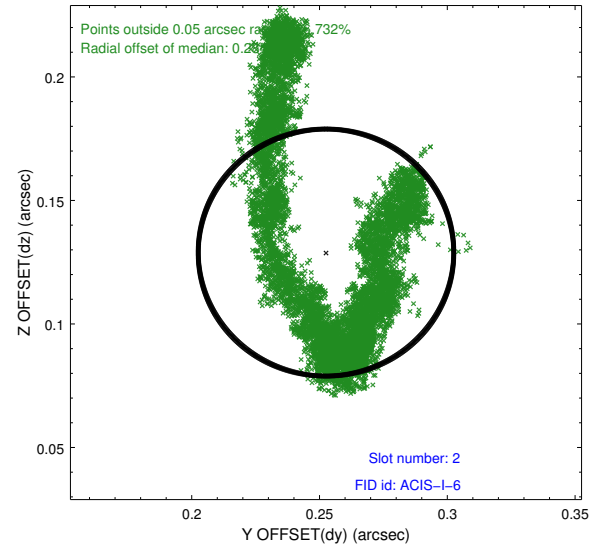
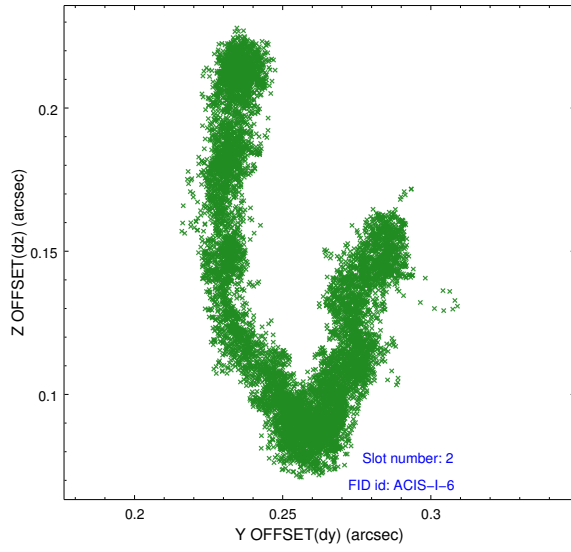
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2019.07.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	37.076000285268

A.2 Comments

Phase constraint met.