

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 20591 - L2 Version 2
Chandra X-Ray Center

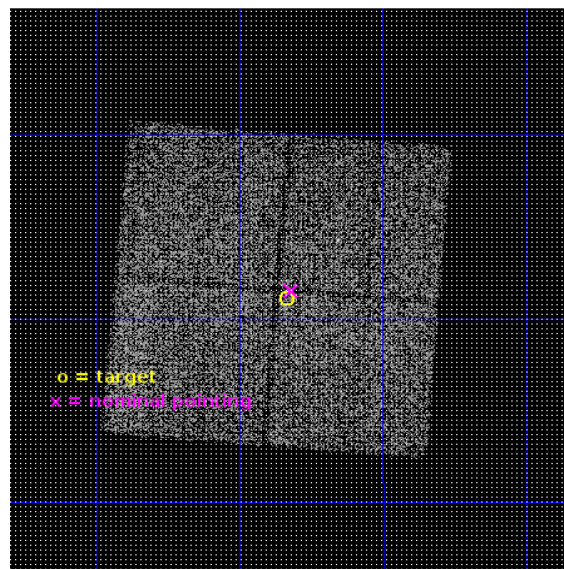
L2 Processing Date : Mar 11 2019

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1 Front

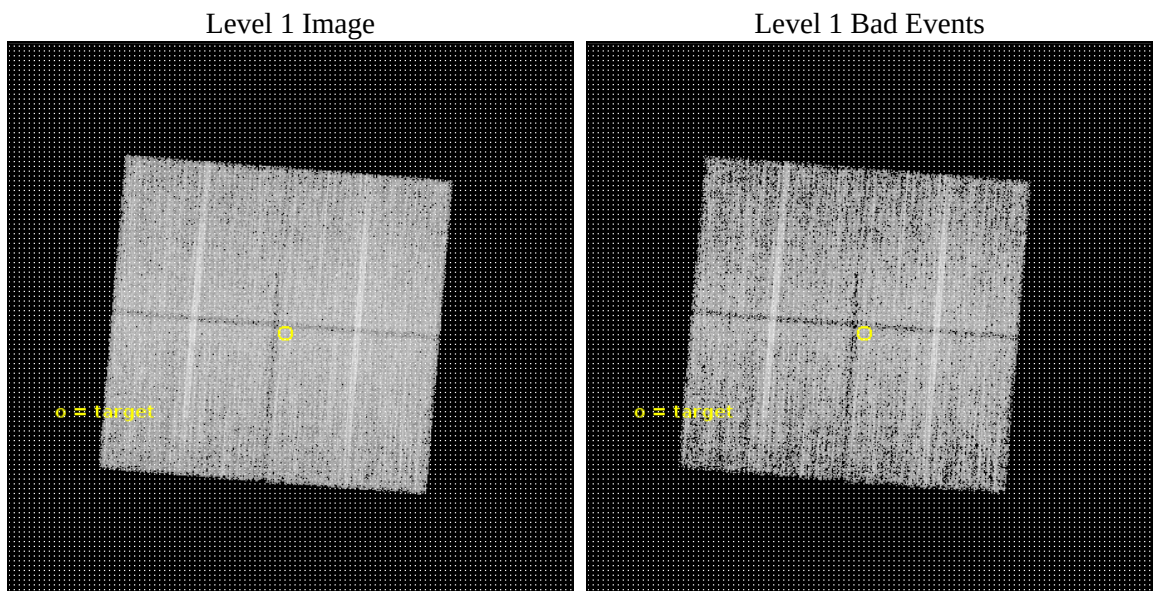
seq_num	801787	Sequence number
obs_id	20591	Observation id
title	Exploring the largest radii of the smallest cluster	Proposal title
observer	Yuanyuan Su	Principal investigator
object	MKW4-NE	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	181.459167	Observer's specified target RA [deg]
dec_targ	2.351833	Observer's specified target Dec [deg]
ra_nom	181.45486120011	Nominal RA [deg]
dec_nom	2.3585895987959	Nominal Dec [deg]
roll_nom	94.708778131263	Nominal Roll [deg]
revision	2	Processing version of data
ontime	15077.943559051	Sum of GTIs [s]
livetime	14880.939126231	Livetime [s]
ontime0	15077.8204391	Sum of GTIs [s]
ontime1	15077.861479044	Sum of GTIs [s]
ontime2	15077.902519107	Sum of GTIs [s]
ontime3	15077.943559051	Sum of GTIs [s]
l2events	42837	Number of level 2 events



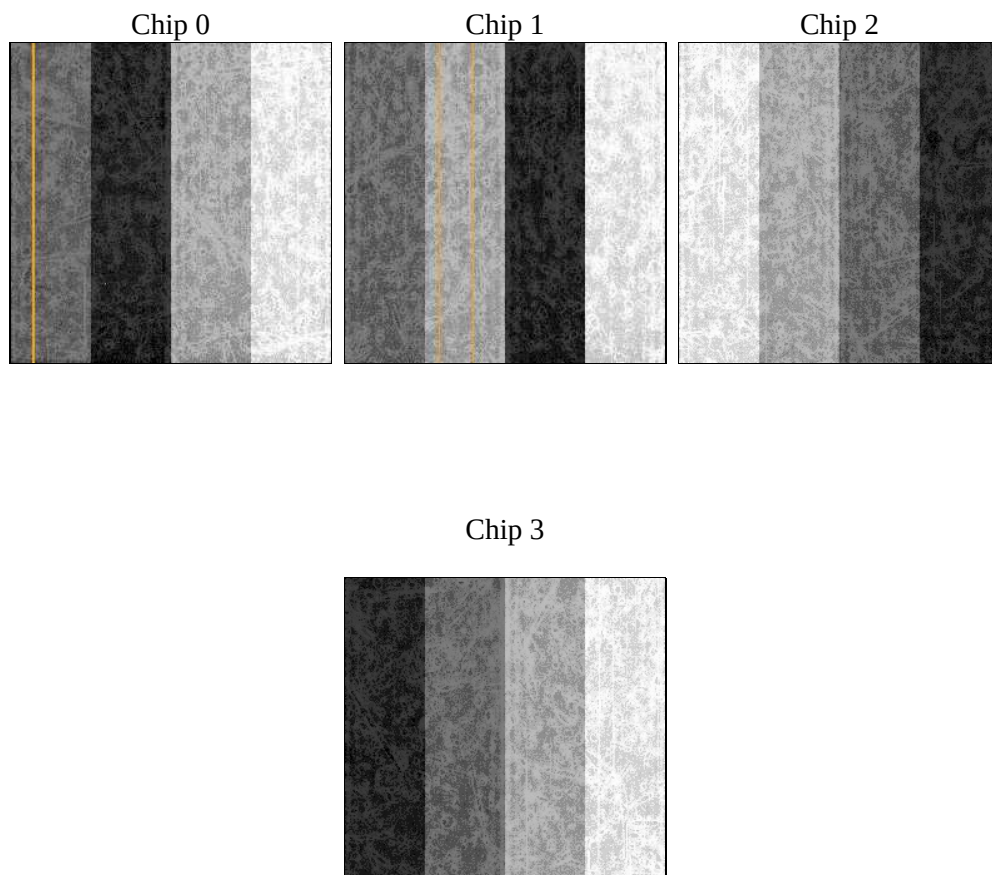
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	15077.943559051	Sum of GTIs [s]
caldbver	4.8.2	 	ontime0	15077.8204391	Sum of GTIs [s]
date	2019-03-11T20:04:53	Date and time of file creation	ontime1	15077.861479044	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	15077.902519107	Sum of GTIs [s]
			ontime3	15077.943559051	Sum of GTIs [s]
			l1events	442830	Number of level 1 events

2.1.4 Events

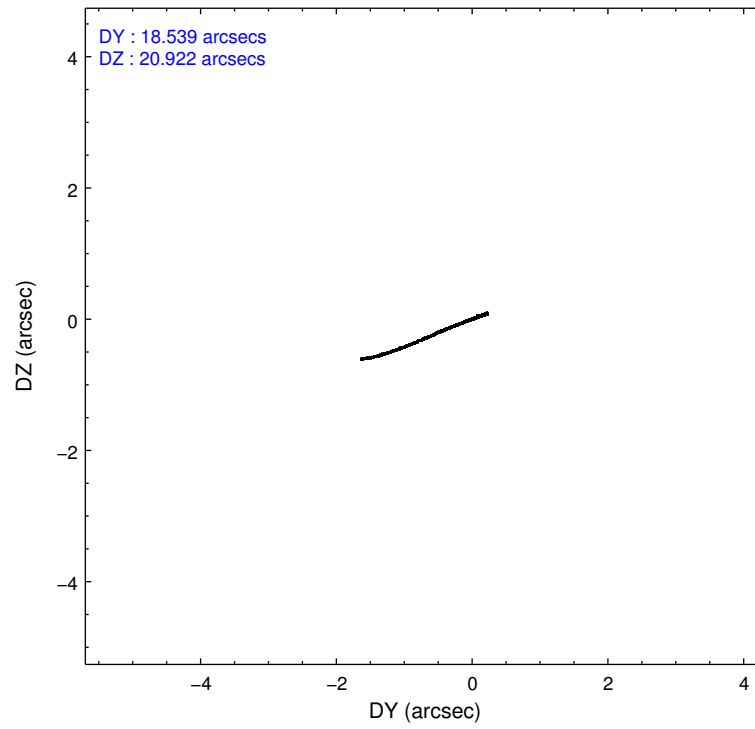
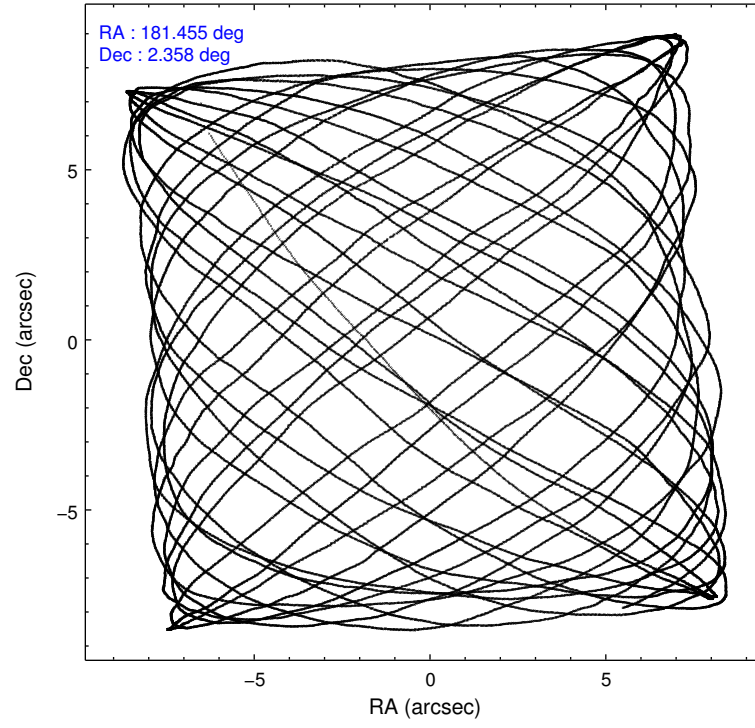
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	103857	107397	117300	114276
rejected events	90936	93431	104841	102251
rejected %	87%	86%	89%	89%

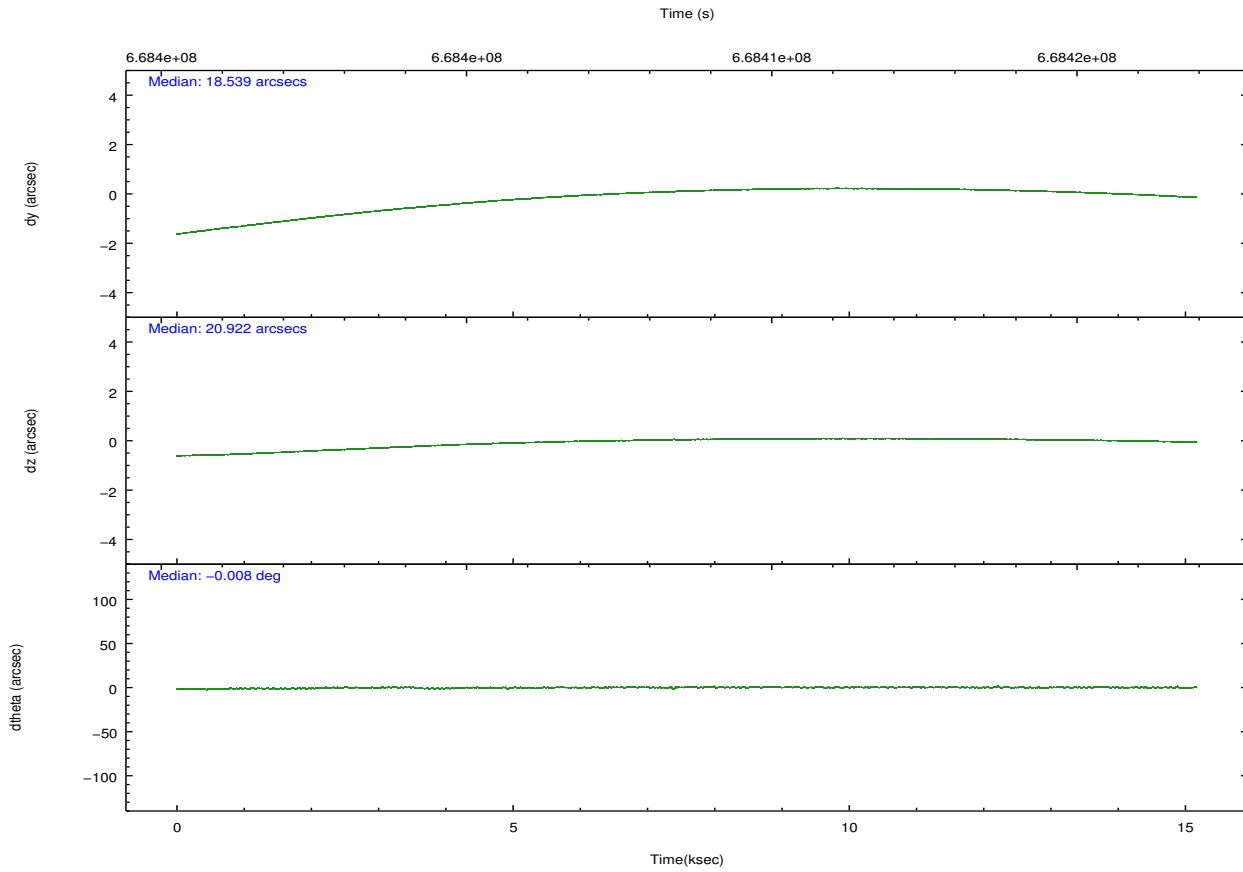
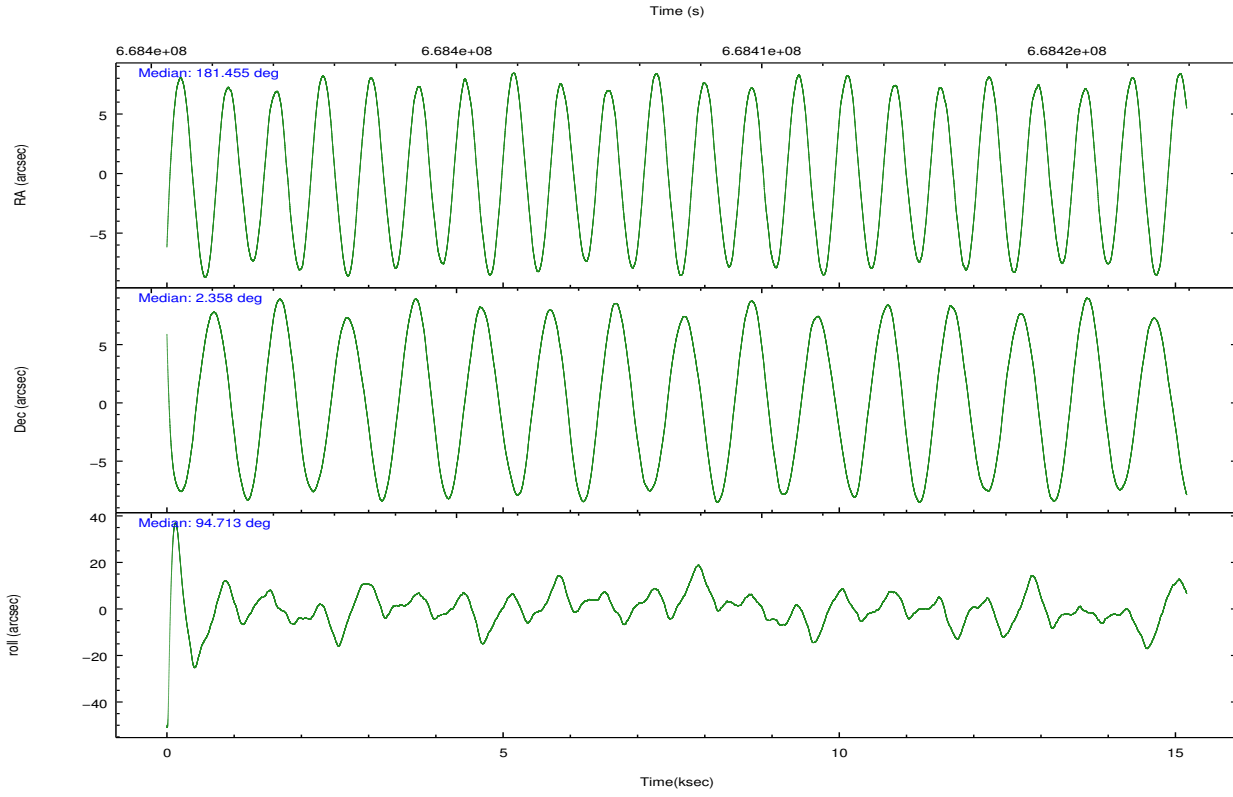
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	4316	4545	4462	4240
	4%	4%	3%	3%
grade 1 events	63	58	69	70
	0%	0%	0%	0%
grade 2 events	3211	3562	2997	2629
	3%	3%	2%	2%
grade 3 events	1408	1334	1157	1328
	1%	1%	0%	1%
grade 4 events	1257	1334	1290	1285
	1%	1%	1%	1%
grade 5 events	5003	5220	4680	5541
	4%	4%	3%	4%
grade 6 events	2733	3197	2558	2551
	2%	2%	2%	2%
grade 7 events	85866	88147	100087	96632
	82%	82%	85%	84%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	181.470652	181.4548612001112	Subarray requested	NONE	NONE
[deg] Pointing Dec	2.335970	2.358589598795919	Alternating exposures requested	N	N
[deg] Pointing Roll	94.499536	94.70877813126282	[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	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	668401179.184000	668400069.56589			
Observation start date	2019-03-08T02:58:30	2019-03-08T02:41:09			
[s] Observation end time (MET)	668416179.184000	668416422.92937			
Observation end date	2019-03-08T07:08:30	2019-03-08T07:13:42			
Read mode	TIMED	TIMED			

2.3 Aspect



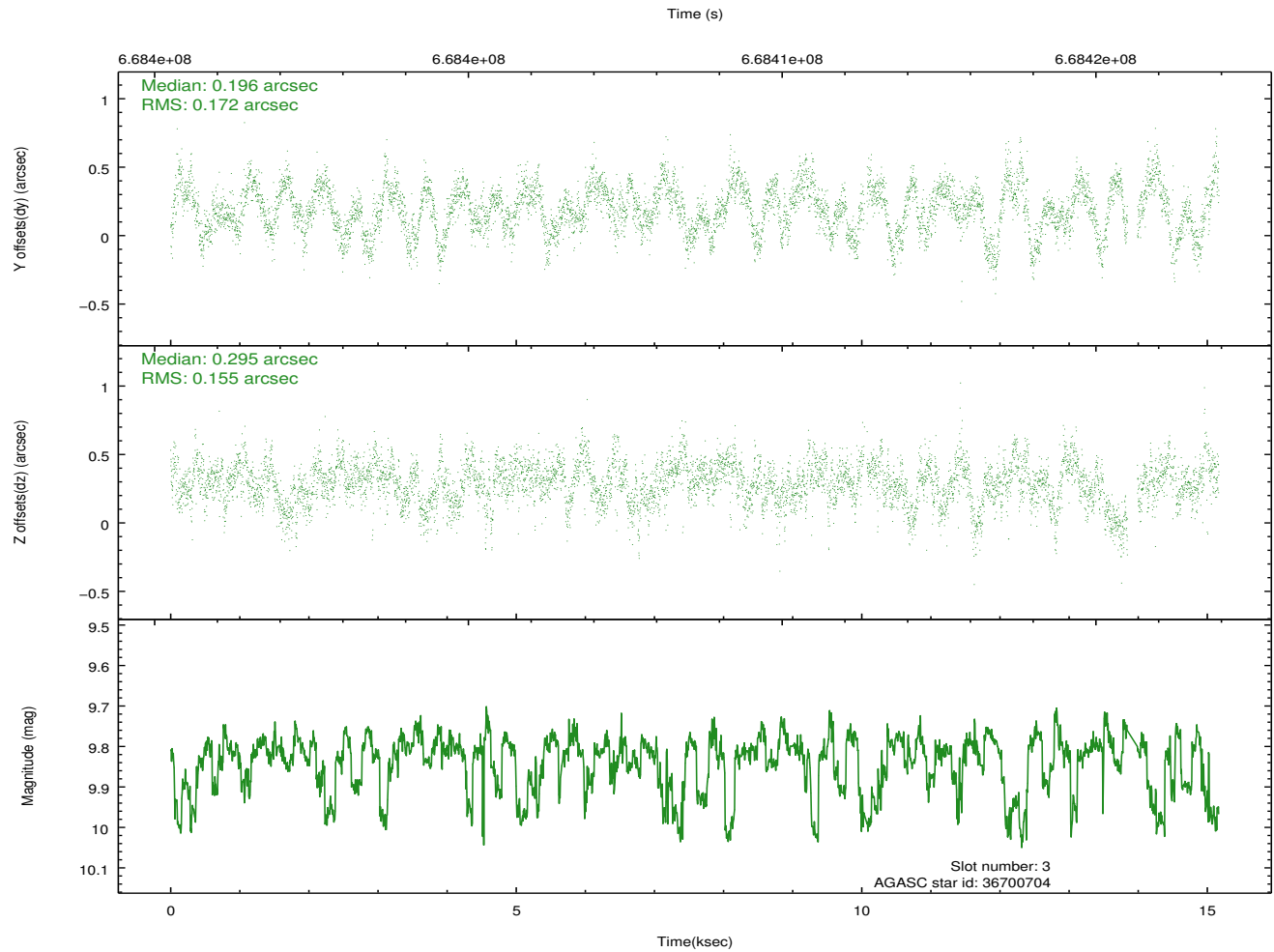
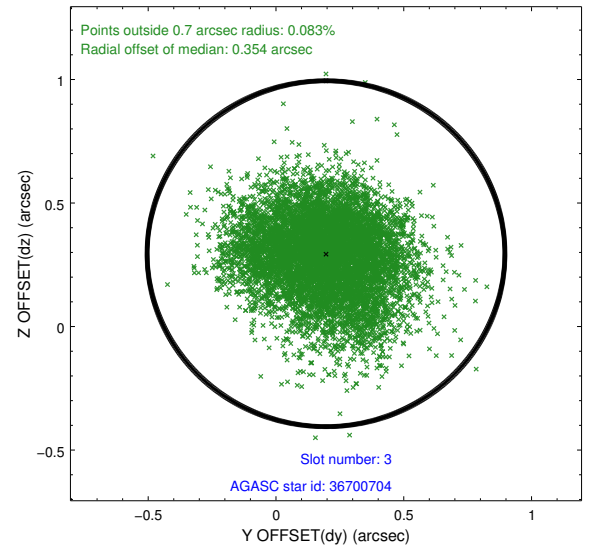
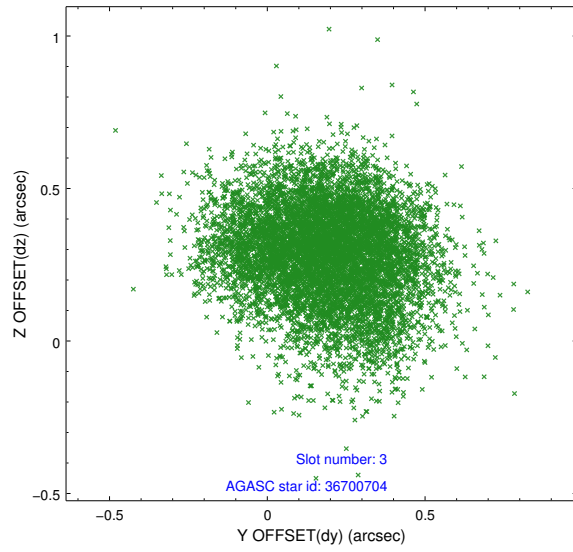


Slot Statistics

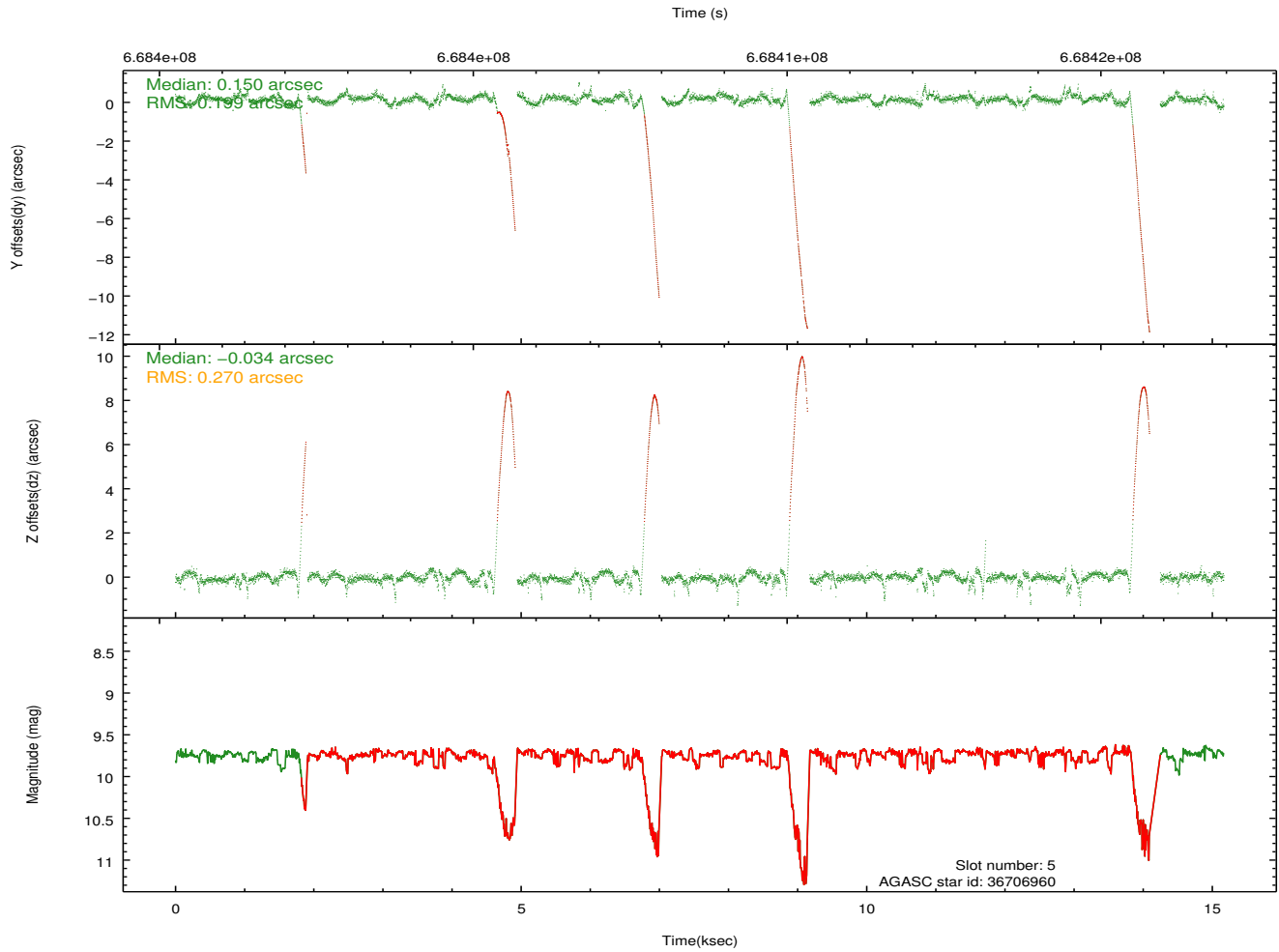
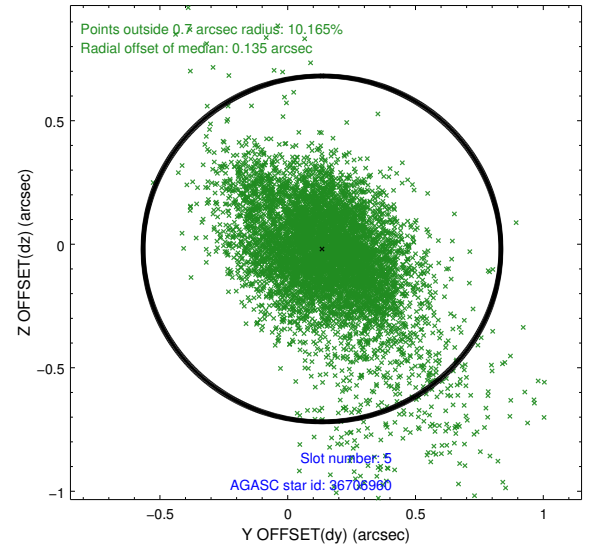
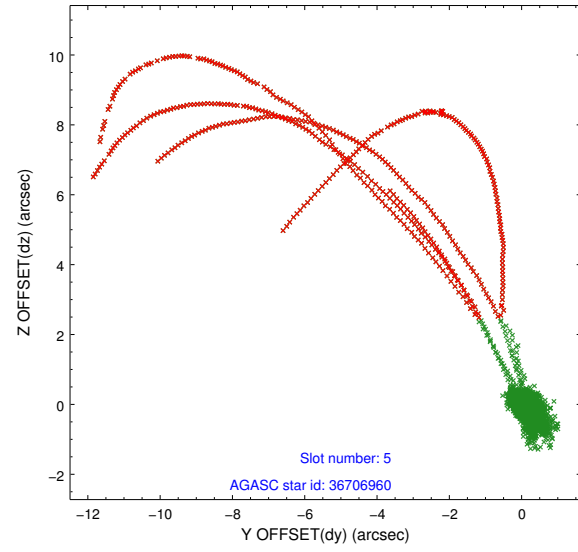
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.21	3700	1.000	0.103	-0.131	0.011	0.028	0.000000	0.000000	921.25	-844
1	FID		ACIS-I-5	7.20	3700	1.000	-0.545	-0.009	0.009	0.015	0.000000	0.000000	-1827.54	1052
2	FID		ACIS-I-6	7.20	3700	1.000	0.351	0.210	0.012	0.029	0.000000	0.000000	386.45	1697
3	GUIDE	used	36700704	9.82	7238	1.000	0.196	0.295	0.248	0.394	181.490734	2.322169	-54.63	-67
4	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
5	GUIDE	used	36706960	9.74	6697	0.931	0.150	-0.034	0.294	6.473	181.319374	1.706880	-2214.94	722
6	GUIDE	used	37094432	9.00	7386	1.000	0.169	0.237	0.162	0.275	181.923410	2.503119	472.67	-1670
7	GUIDE	used	37096144	9.43	7388	1.000	-0.497	-0.507	0.210	0.335	181.058745	2.901149	2144.45	1317

2.4 Star Slots

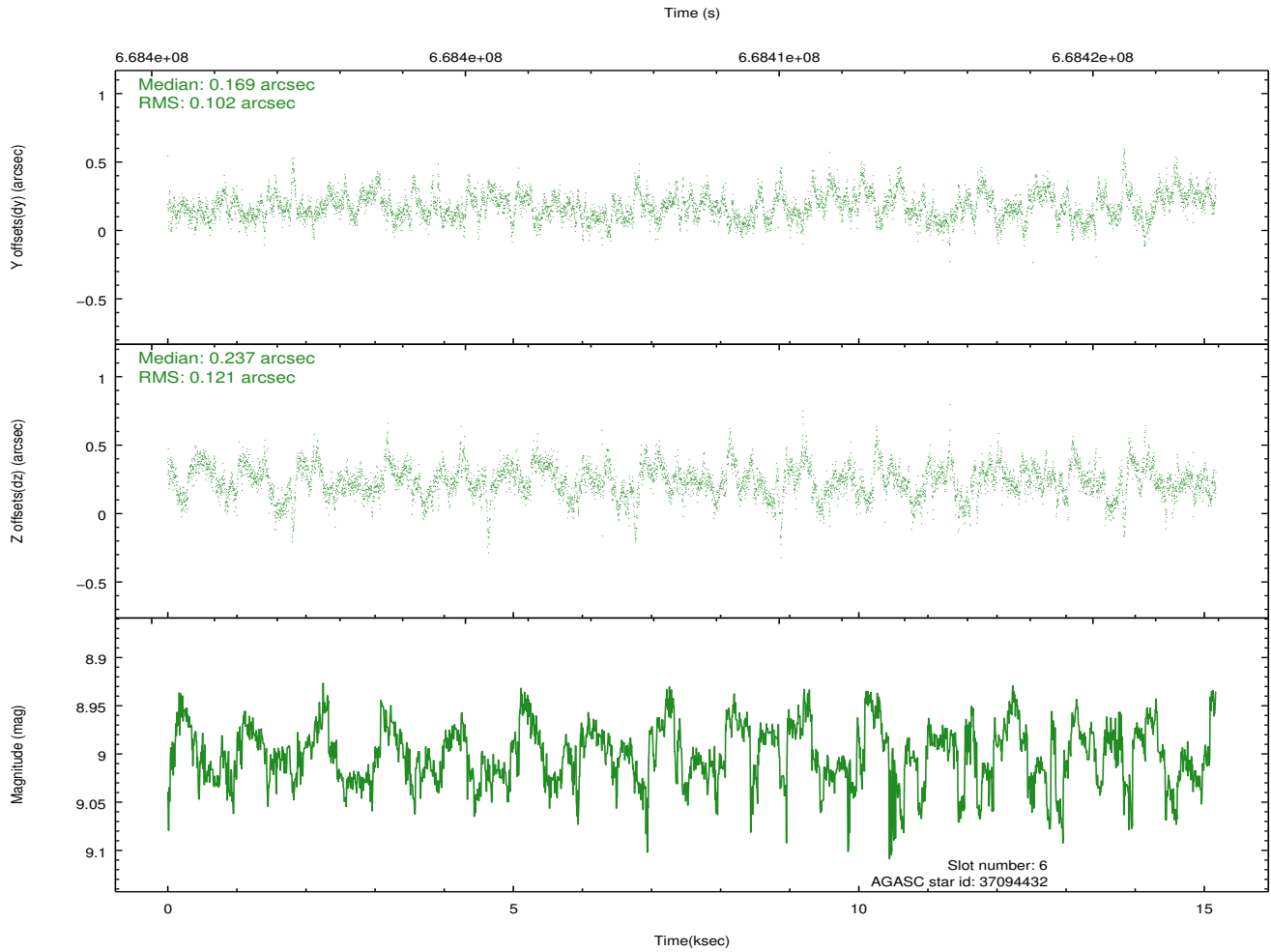
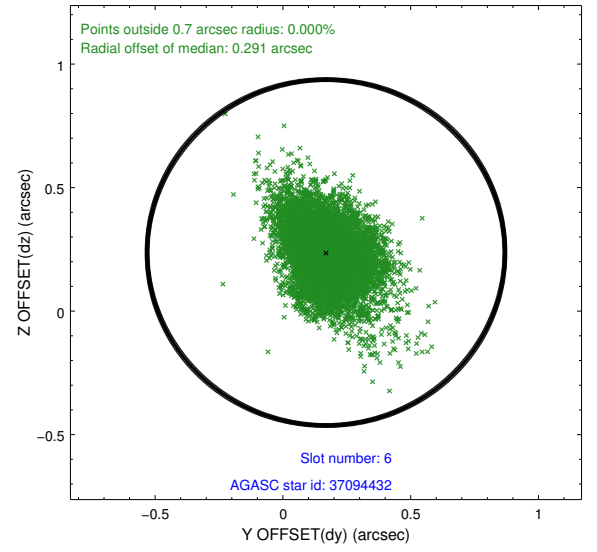
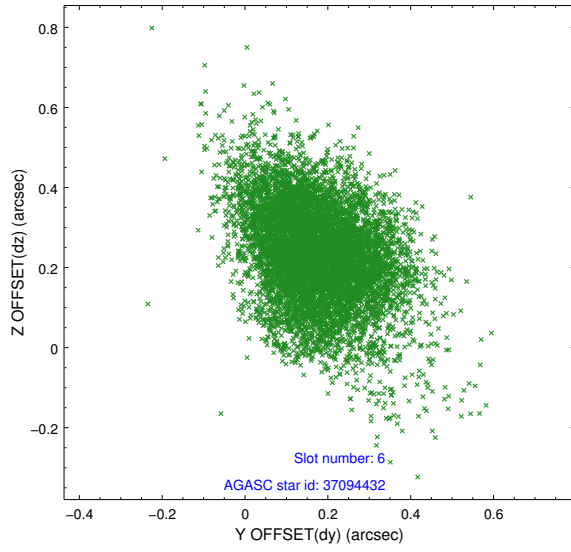
2.4.1 Slot 3



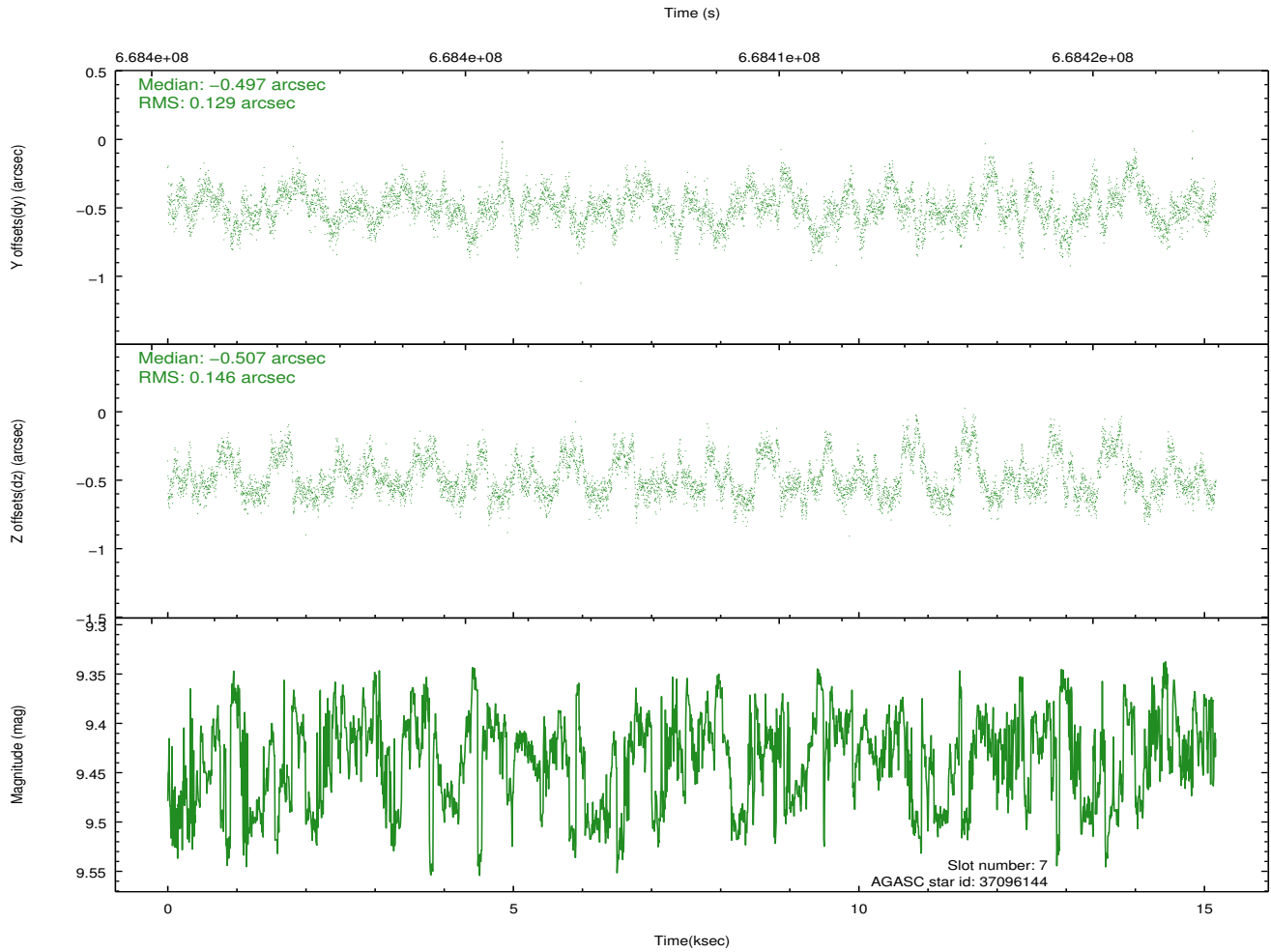
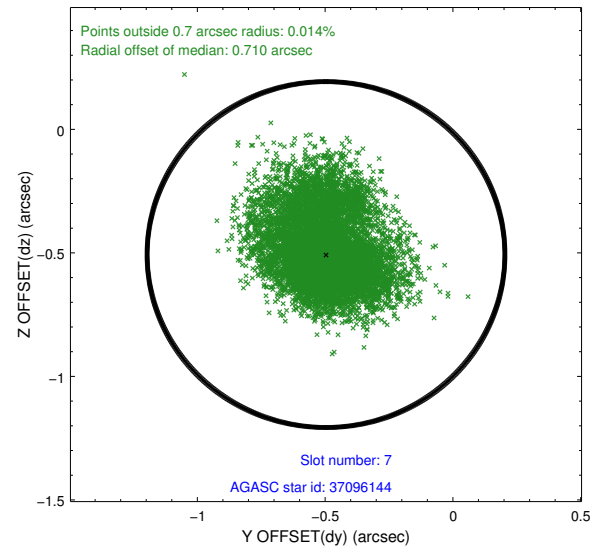
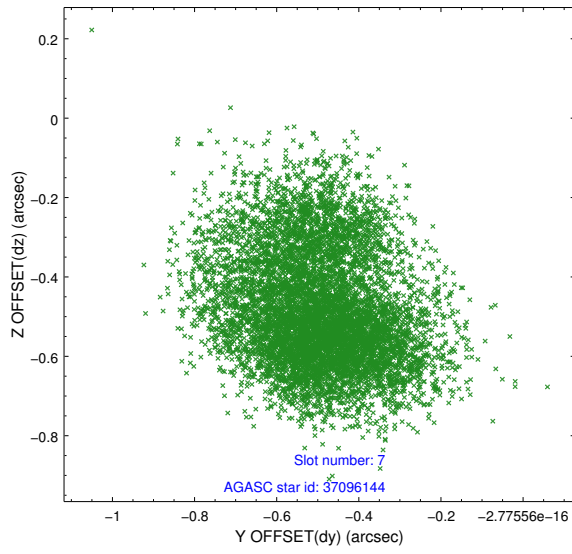
2.4.2 Slot 5



2.4.3 Slot 6

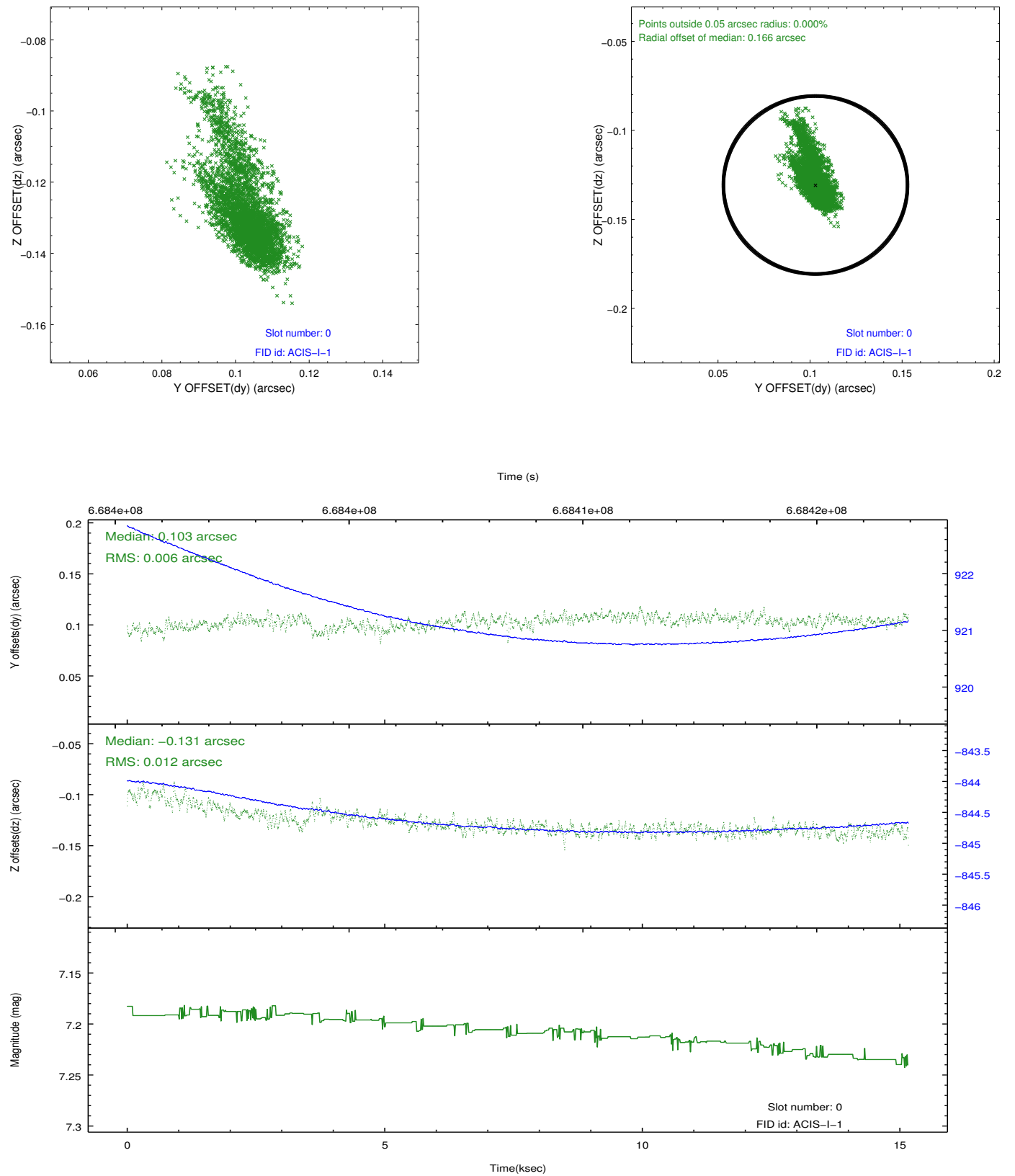


2.4.4 Slot 7

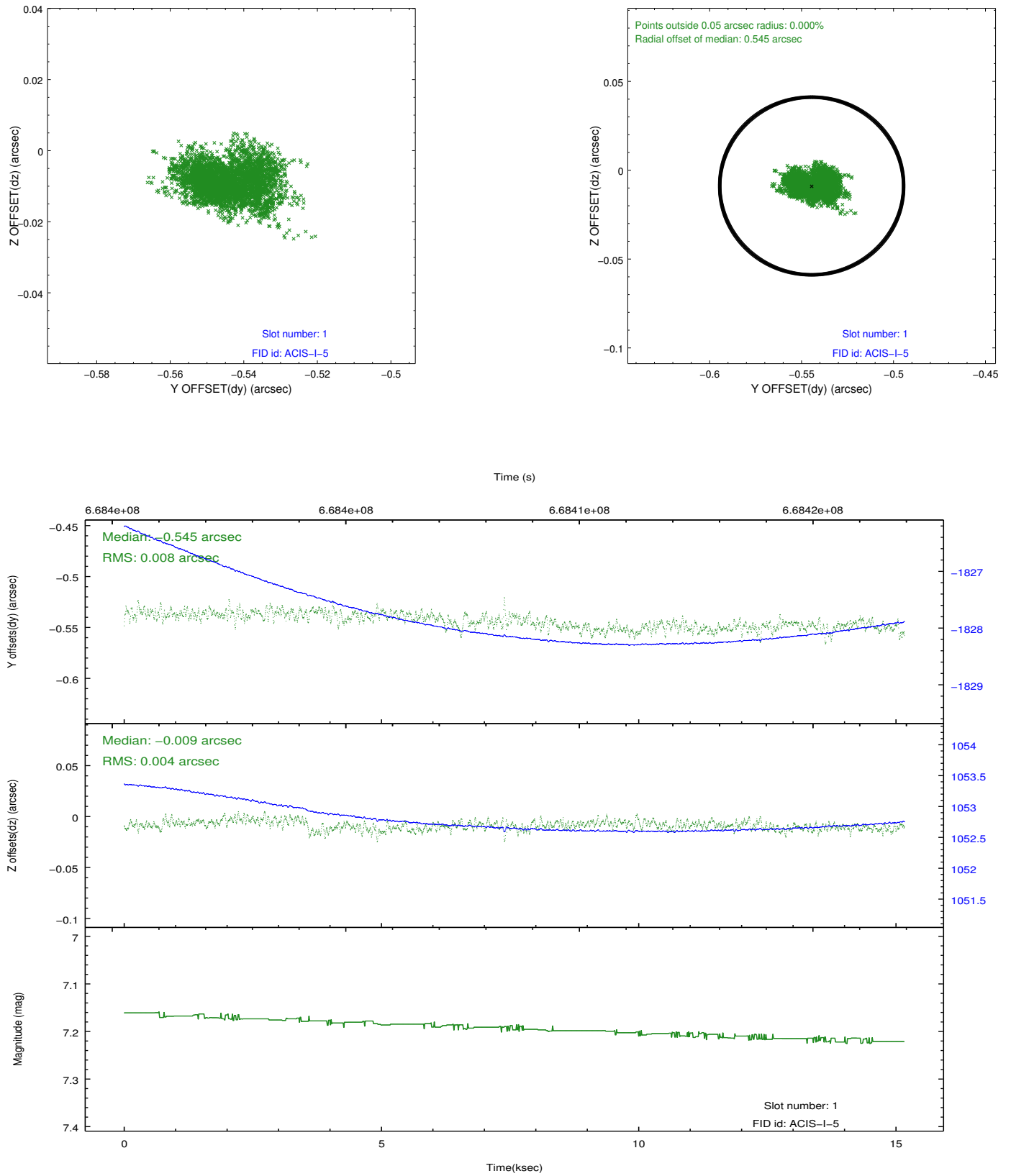


2.5 FID Slots

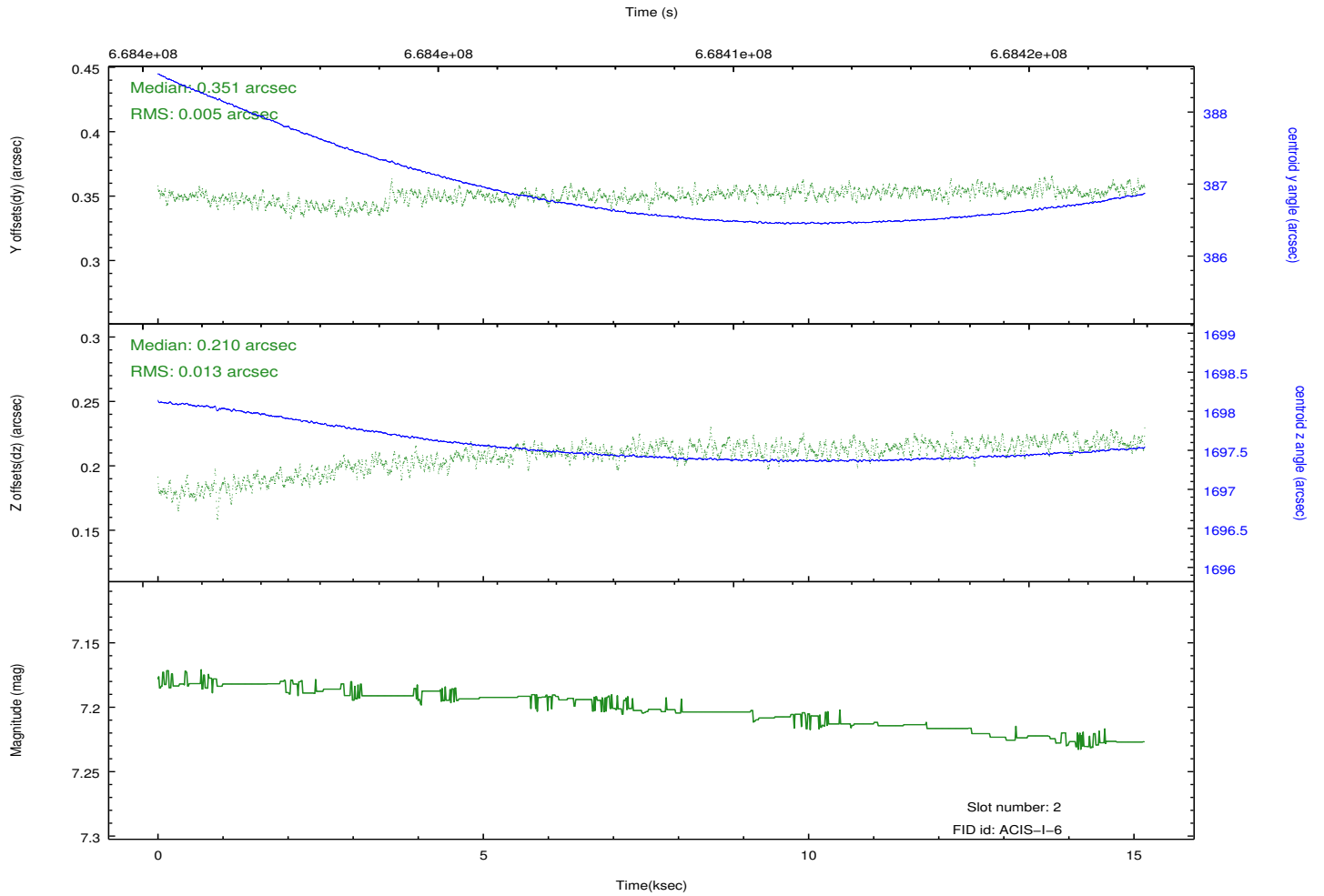
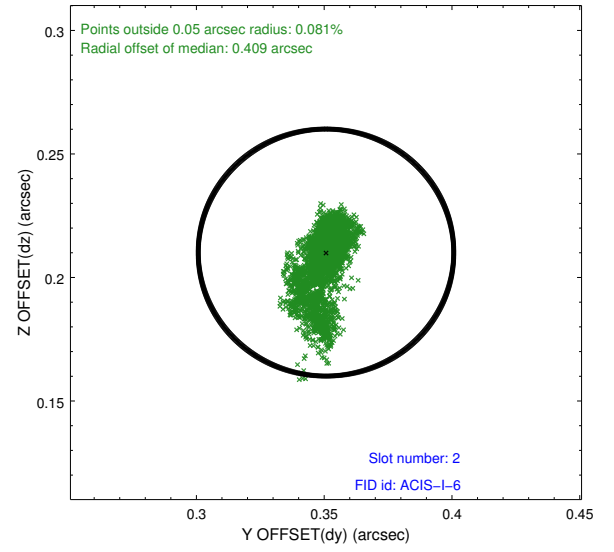
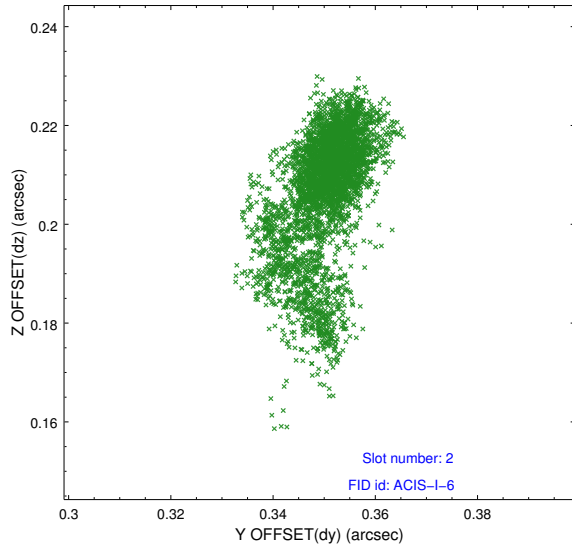
2.5.1 Slot 0



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)	2019.03.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.077943559051

A.2 Comments

The guide star in slot 4 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this slot from the solution.