

# V&V Reference Report

## L2 ASCDS Version : 10.7.1

Observation 21440 - L2 Version 1  
Chandra X-Ray Center

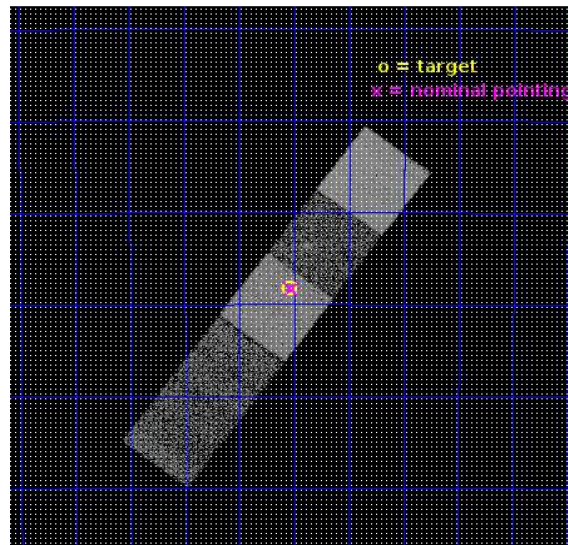
L2 Processing Date : Mar 5 2019

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# 1 Front

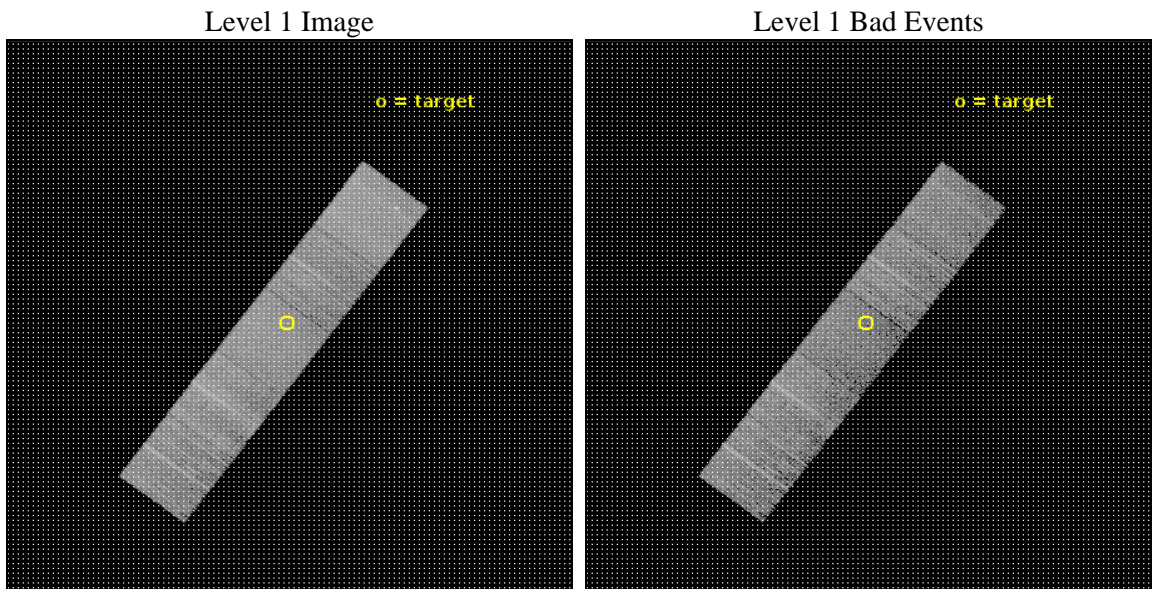
seq_num	703737	Sequence number
obs_id	21440	Observation id
title	Chandra Observations of Five New Quads and a Quint	Proposal title
observer	David Pooley	Principal investigator
object	WGD 2038-4008	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	309.510833	Observer's specified target RA [deg]
dec_targ	-40.137389	Observer's specified target Dec [deg]
ra_nom	309.50647836877	Nominal RA [deg]
dec_nom	-40.138316108391	Nominal Dec [deg]
roll_nom	126.55729459072	Nominal Roll [deg]
revision	1	Processing version of data
ontime	6047.7356145382	Sum of GTIs [s]
livetime	5968.7174964561	Livetime [s]
ontime5	6047.6945745945	Sum of GTIs [s]
ontime6	6047.6535345316	Sum of GTIs [s]
ontime7	6047.7356145382	Sum of GTIs [s]
ontime8	6044.4714845419	Sum of GTIs [s]
ontime9	6047.571454525	Sum of GTIs [s]
l2events	74708	Number of level 2 events



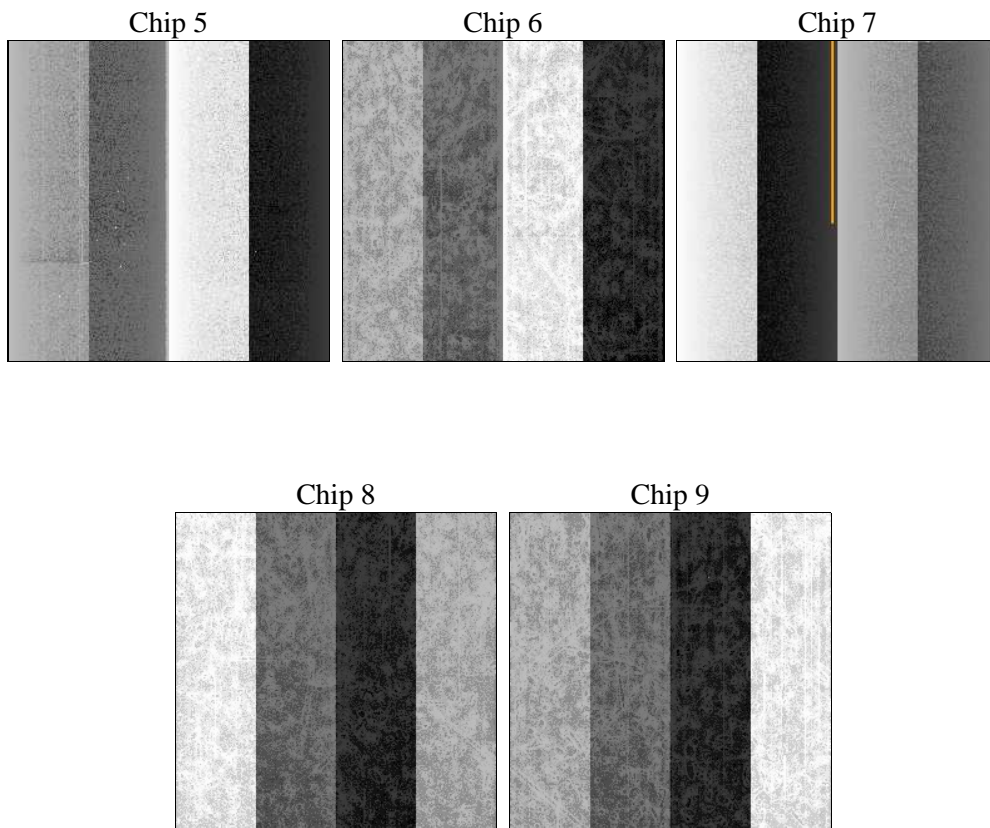
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	6000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	6047.7356145382	Sum of GTIs [s]
caldsver	4.8.2	&#160	ontime5	6047.6945745945	Sum of GTIs [s]
date	2019-03-06T04:23:49	Date and time of file creation	ontime6	6047.6535345316	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	6047.7356145382	Sum of GTIs [s]
			ontime8	6044.4714845419	Sum of GTIs [s]
			ontime9	6047.571454525	Sum of GTIs [s]
			l1events	298917	Number of level 1 events

### 2.1.4 Events

	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	74329	51639	60259	63661	49029
rejected events	39283	46043	33847	47630	43481
rejected %	52%	89%	56%	74%	88%

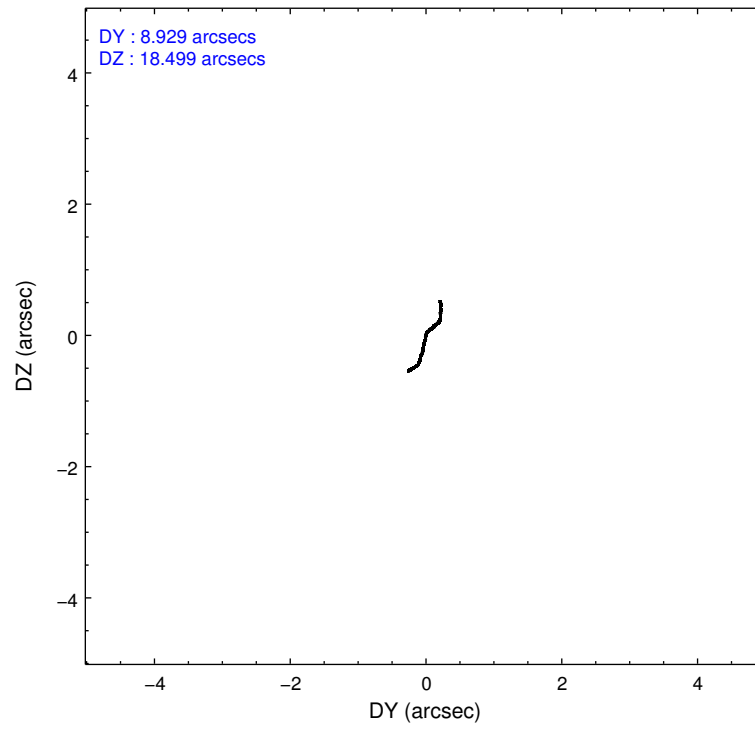
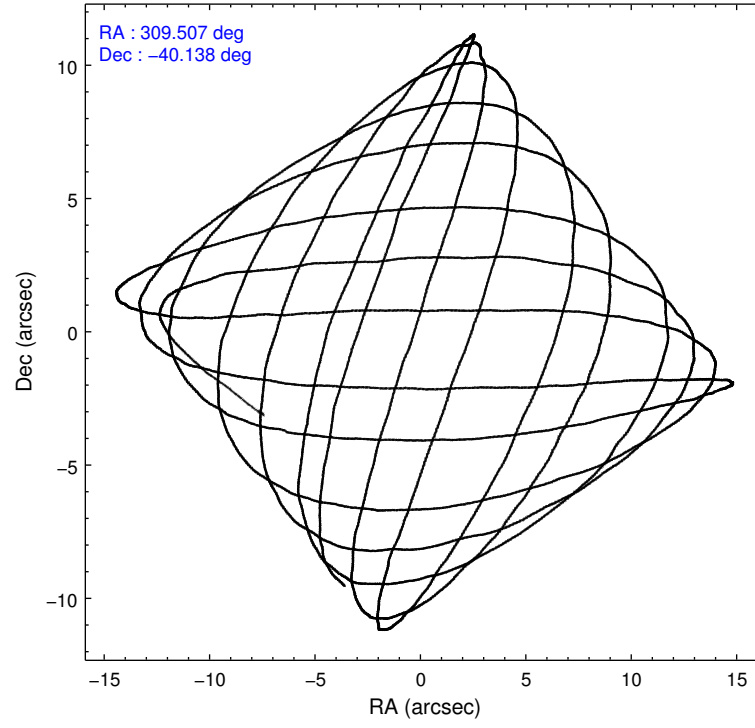
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	2152	1807	2303	4461	1823
	2%	3%	3%	7%	3%
grade 1 events	229	37	86	53	19
	0%	0%	0%	0%	0%
grade 2 events	11136	1449	5495	3877	1358
	14%	2%	9%	6%	2%
grade 3 events	1028	486	2118	1750	597
	1%	0%	3%	2%	1%
grade 4 events	1030	484	2094	1573	511
	1%	0%	3%	2%	1%
grade 5 events	4744	2022	5853	3245	2321
	6%	3%	9%	5%	4%
grade 6 events	19740	1379	14430	4405	1262
	26%	2%	23%	6%	2%
grade 7 events	34270	43975	27880	44297	41138
	46%	85%	46%	69%	83%

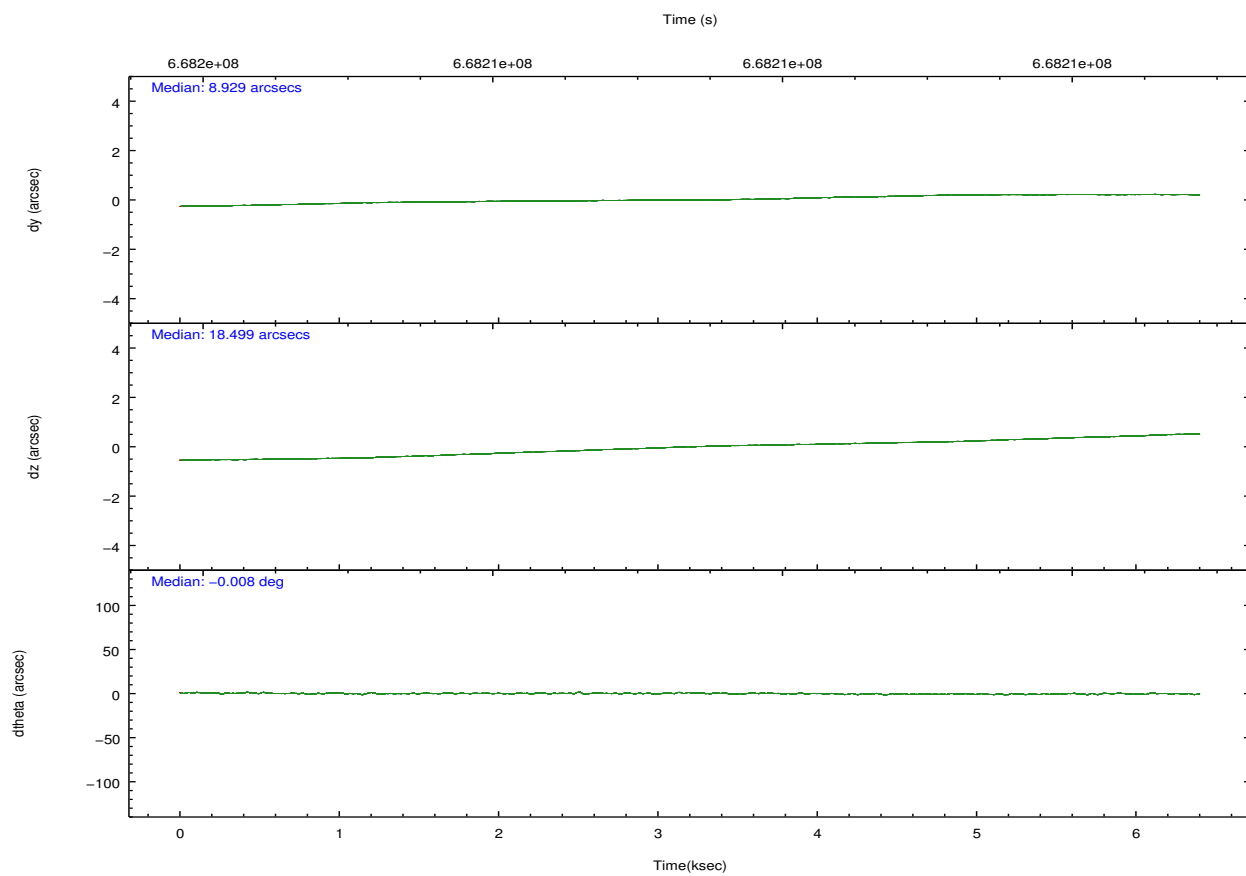
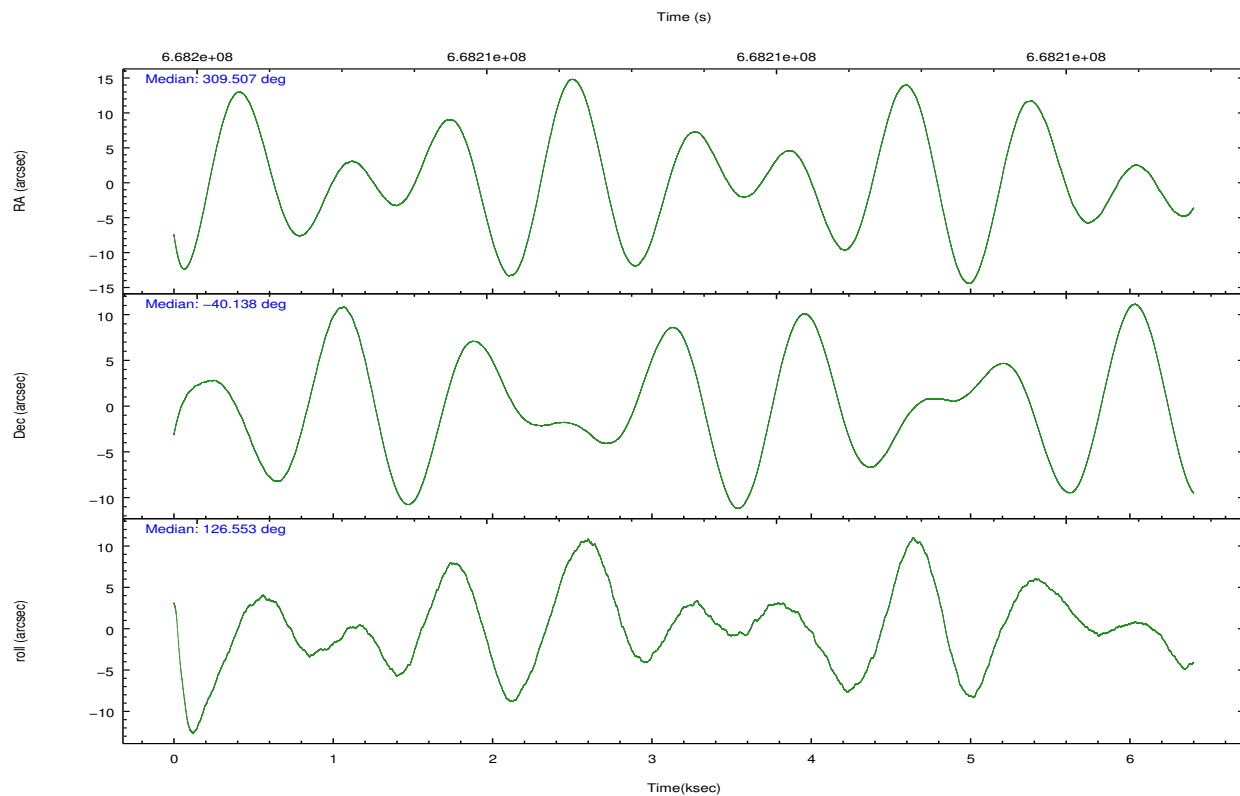


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-56789	ACIS-56789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	309.539642	309.5064783687679	CCD I2 on	N	N
[deg] Pointing Dec	-40.148920	-40.13831610839134	CCD I3 on	N	N
[deg] Pointing Roll	126.422026	126.5572945907203	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O2	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O4	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	O3	Y
[s] Observation start time (MET)	668204559.184000	668203506.84164	CCD S5 on	O1	Y
Observation start date	2019-03-05T20:21:30	2019-03-05T20:05:06	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	668210559.184000	668211242.0046	On-chip summing requested	N	N
Observation end date	2019-03-05T22:01:30	2019-03-05T22:14:02	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



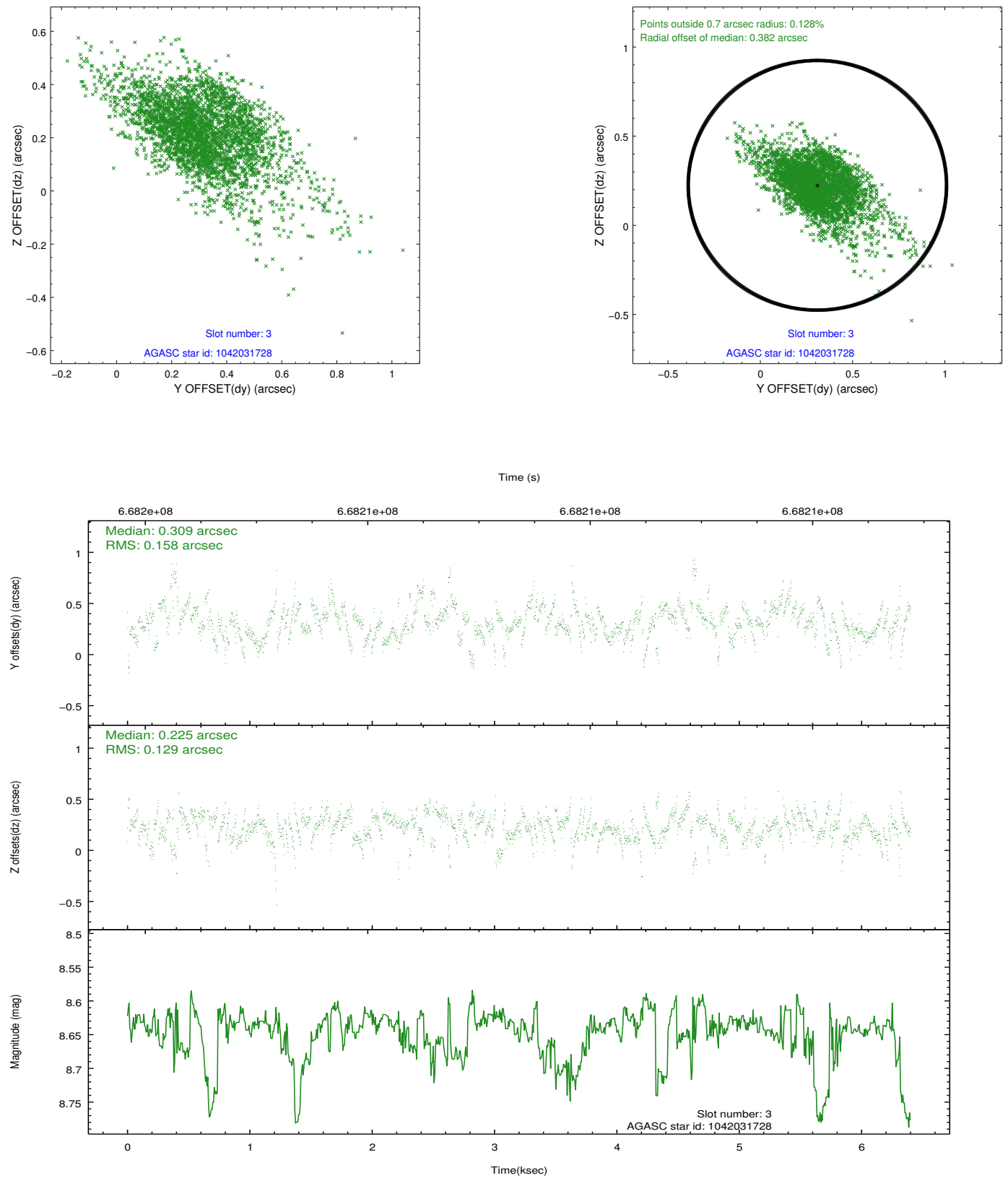


Slot Statistics

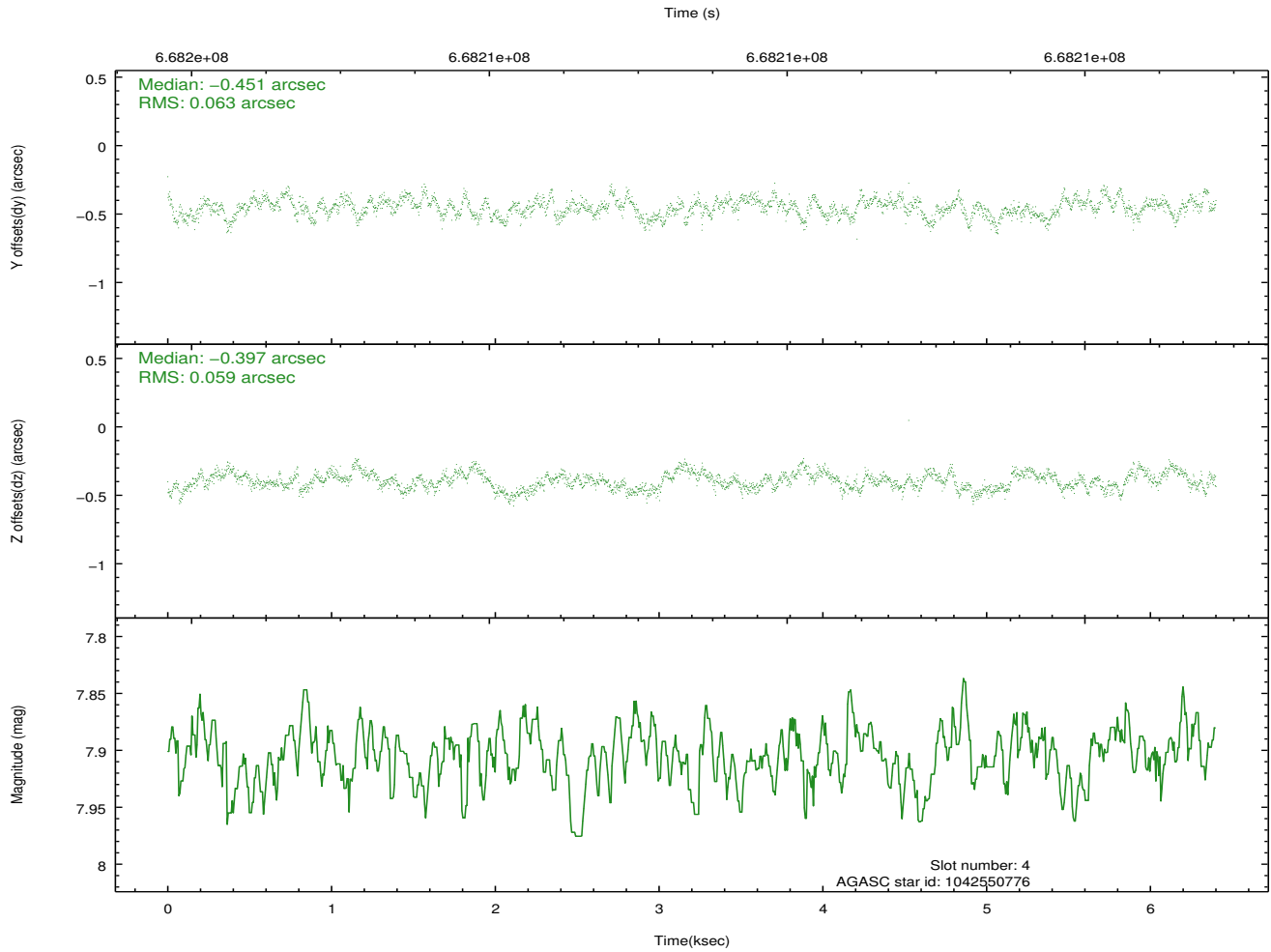
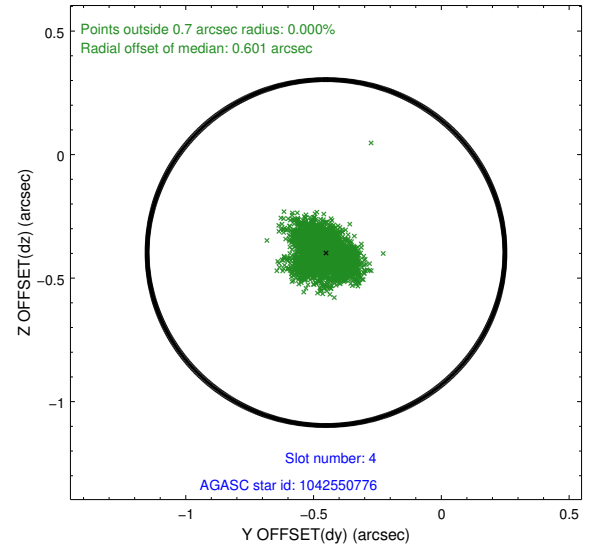
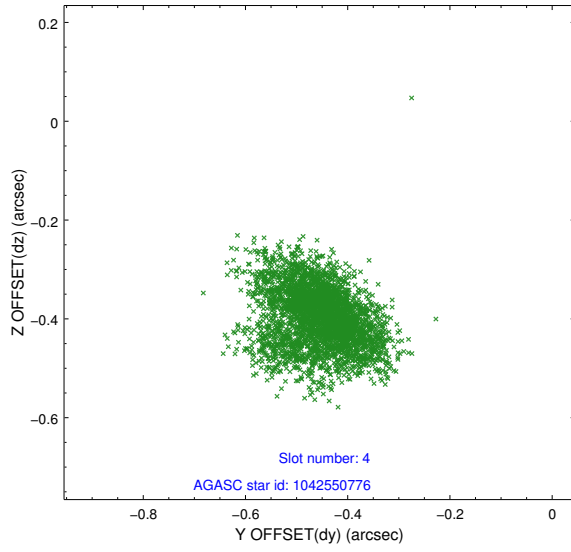
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.22	1562	1.000	0.152	-0.034	0.011	0.018	0.000000	0.000000	934.52	-1735
1	FID		ACIS-S-5	7.25	1562	1.000	-0.412	0.060	0.010	0.016	0.000000	0.000000	-1814.62	161
2	FID		ACIS-S-6	7.39	1562	1.000	0.239	-0.013	0.011	0.016	0.000000	0.000000	399.05	806
3	GUIDE	used	1042031728	8.64	3119	1.000	0.309	0.225	0.194	0.385	309.740245	-39.244335	2287.89	-2383
4	GUIDE	used	1042550776	7.90	3123	1.000	-0.451	-0.397	0.092	0.148	308.955011	-39.684442	2303.16	312
5	GUIDE	used	1042553360	8.72	3116	1.000	0.113	-0.063	0.183	0.261	309.716469	-40.368838	-924.41	80
6	GUIDE	used	1042556128	8.74	3116	1.000	-0.437	-0.471	0.104	0.168	308.834187	-40.284820	748.74	1854
7	GUIDE	used	1044256136	8.37	3121	1.000	0.467	0.719	0.093	0.159	310.430030	-40.423206	-2252.54	-1368

## 2.4 Star Slots

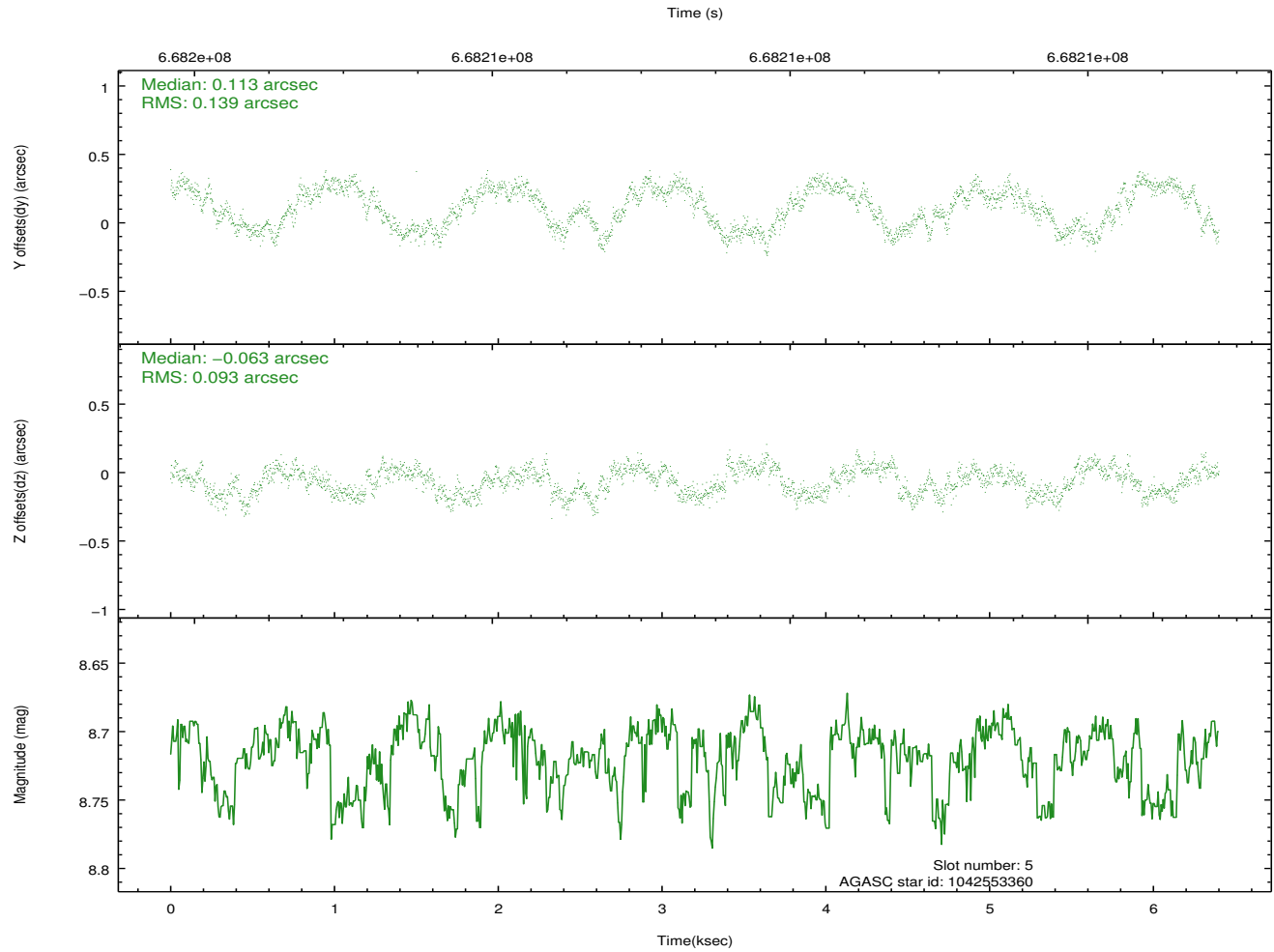
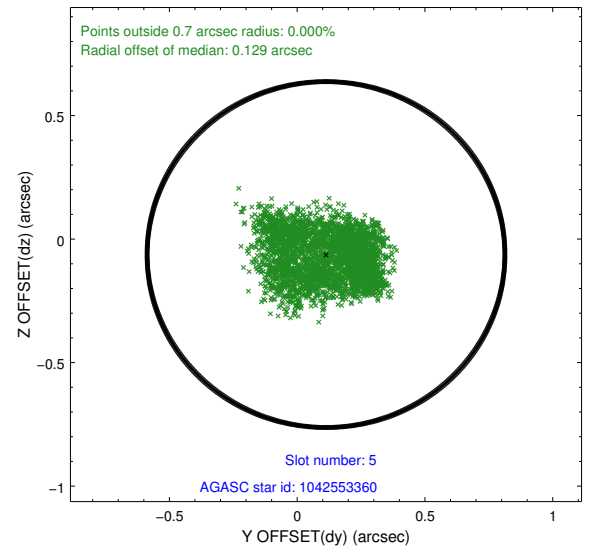
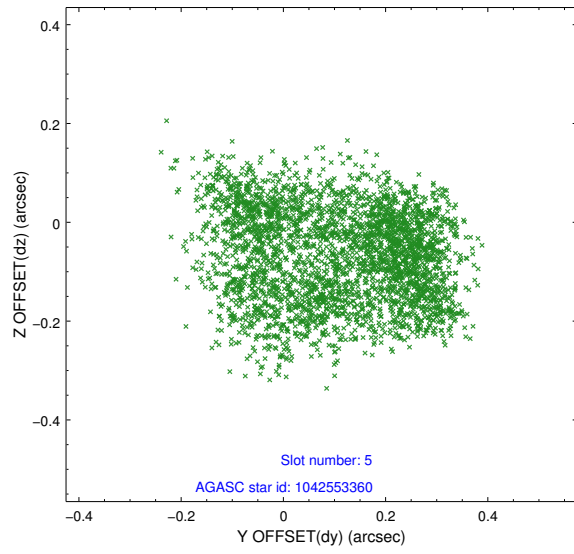
### 2.4.1 Slot 3



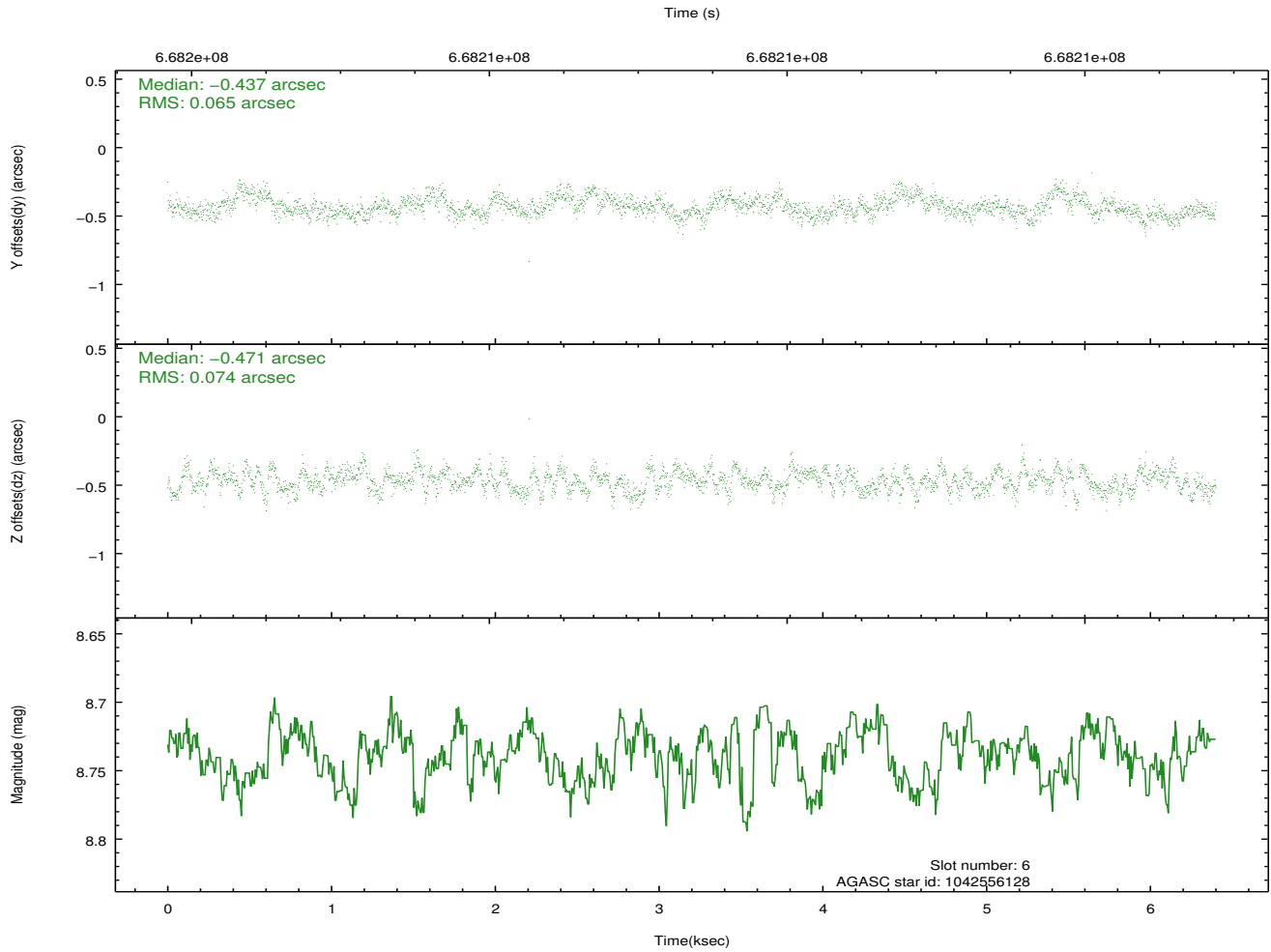
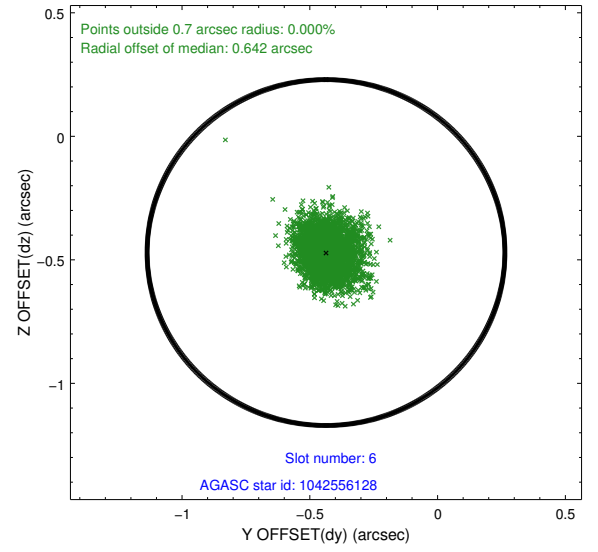
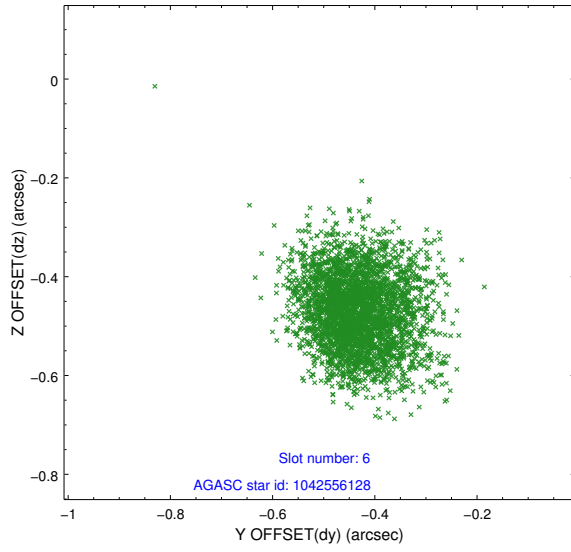
## 2.4.2 Slot 4



### 2.4.3 Slot 5

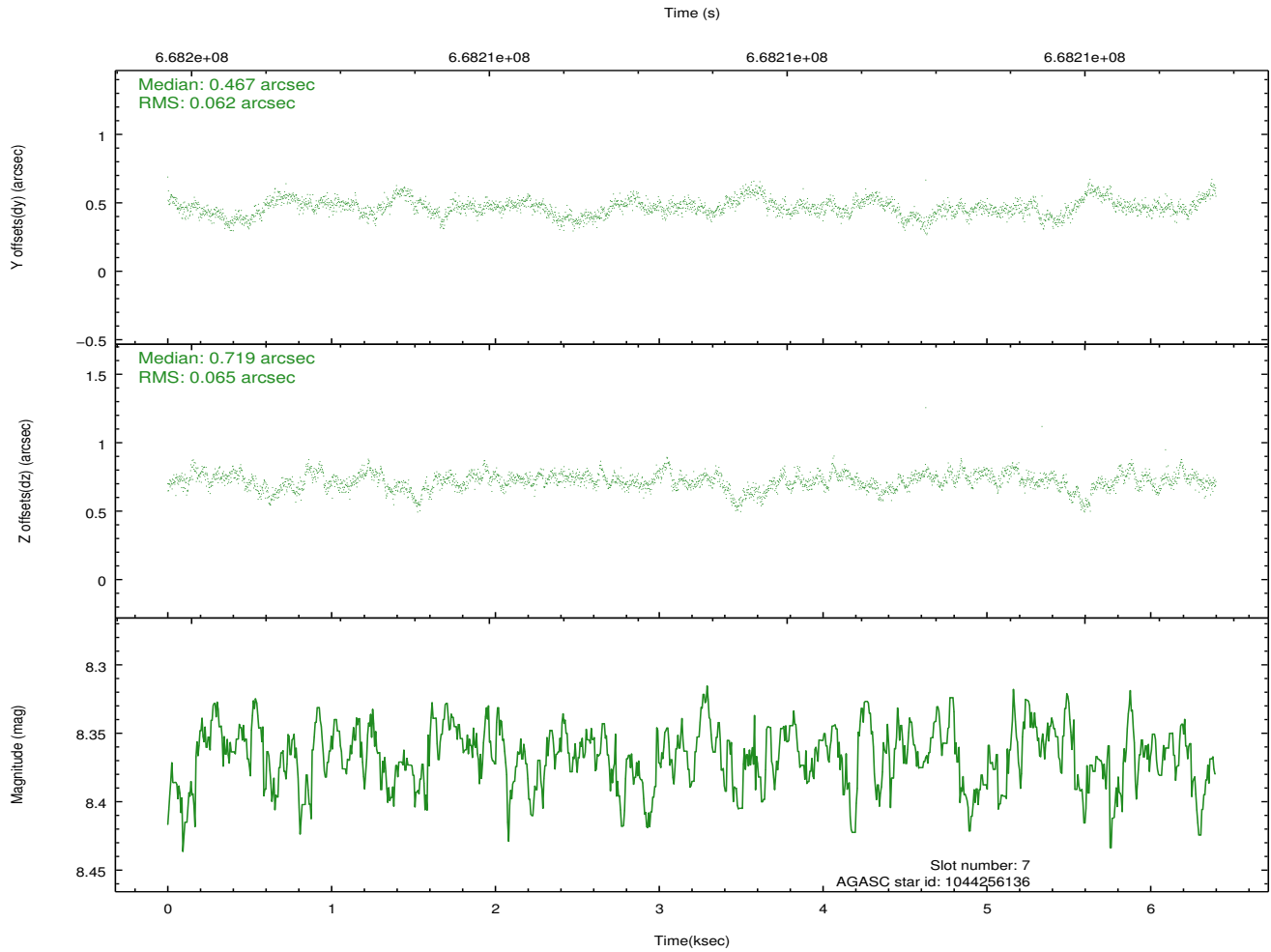
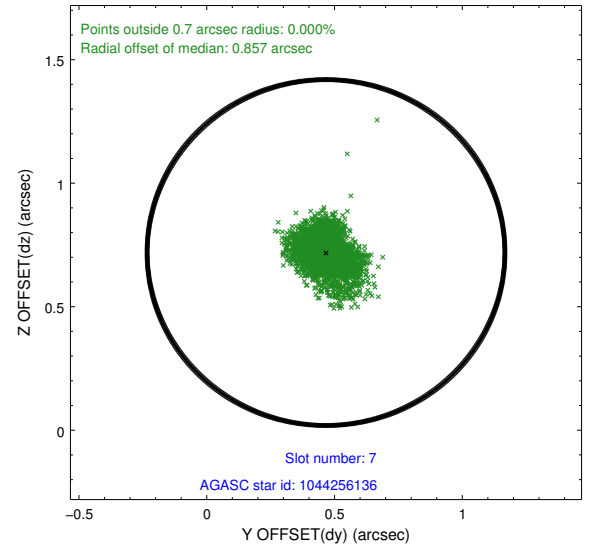
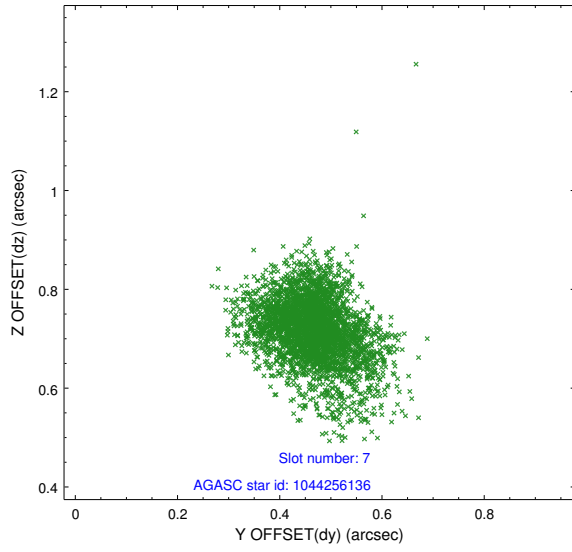


## 2.4.4 Slot 6



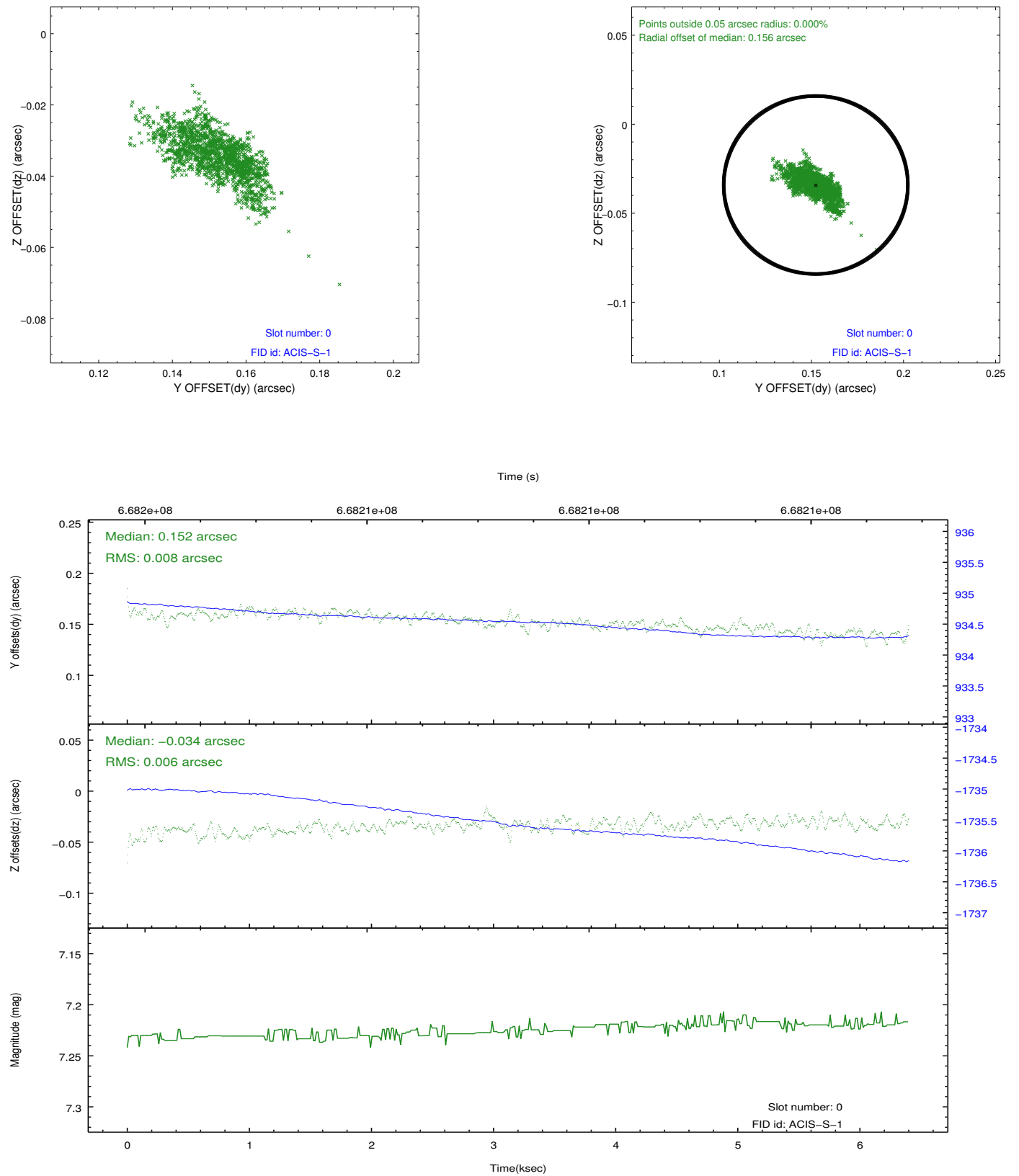


## 2.4.5 Slot 7

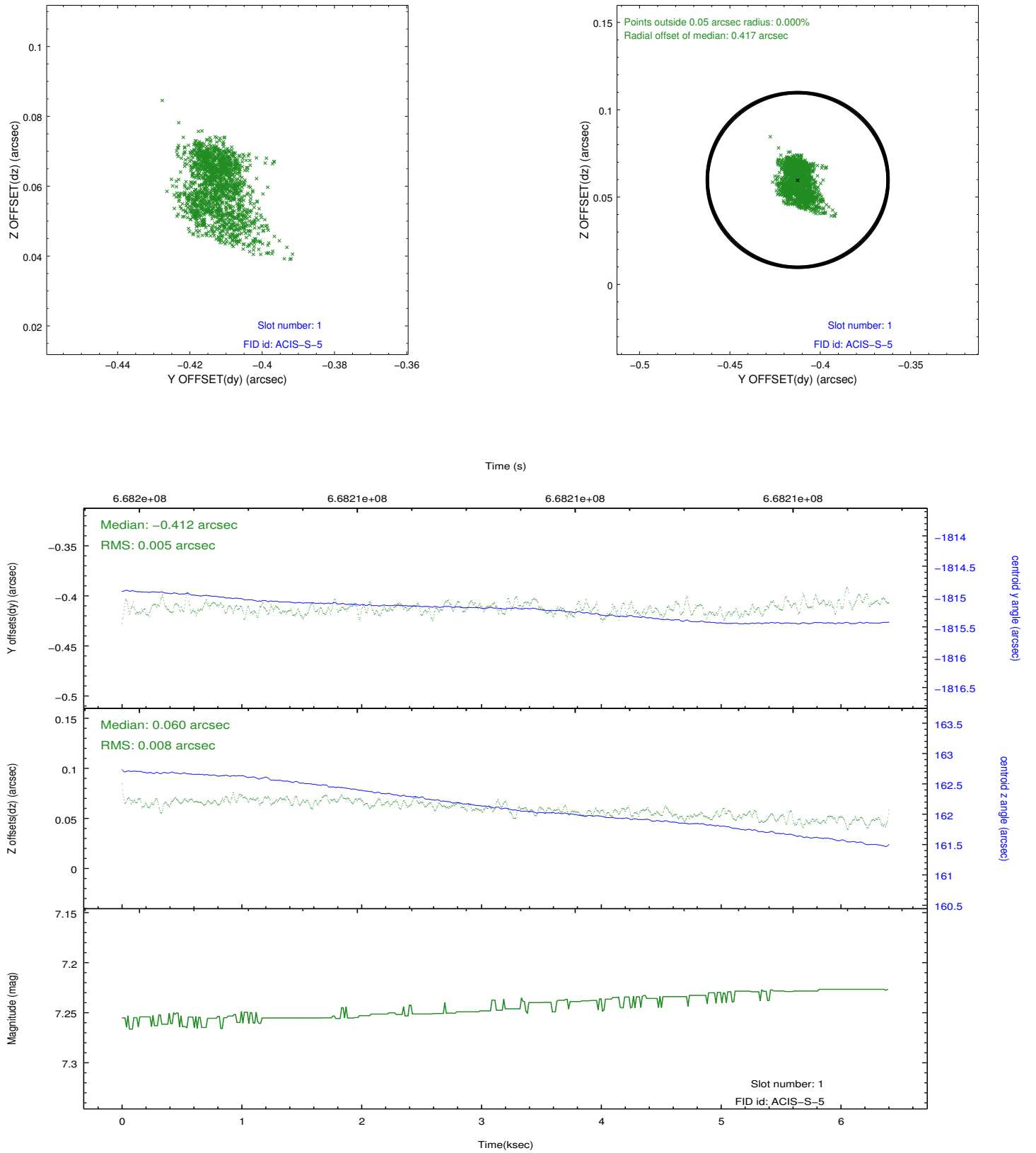


## 2.5 FID Slots

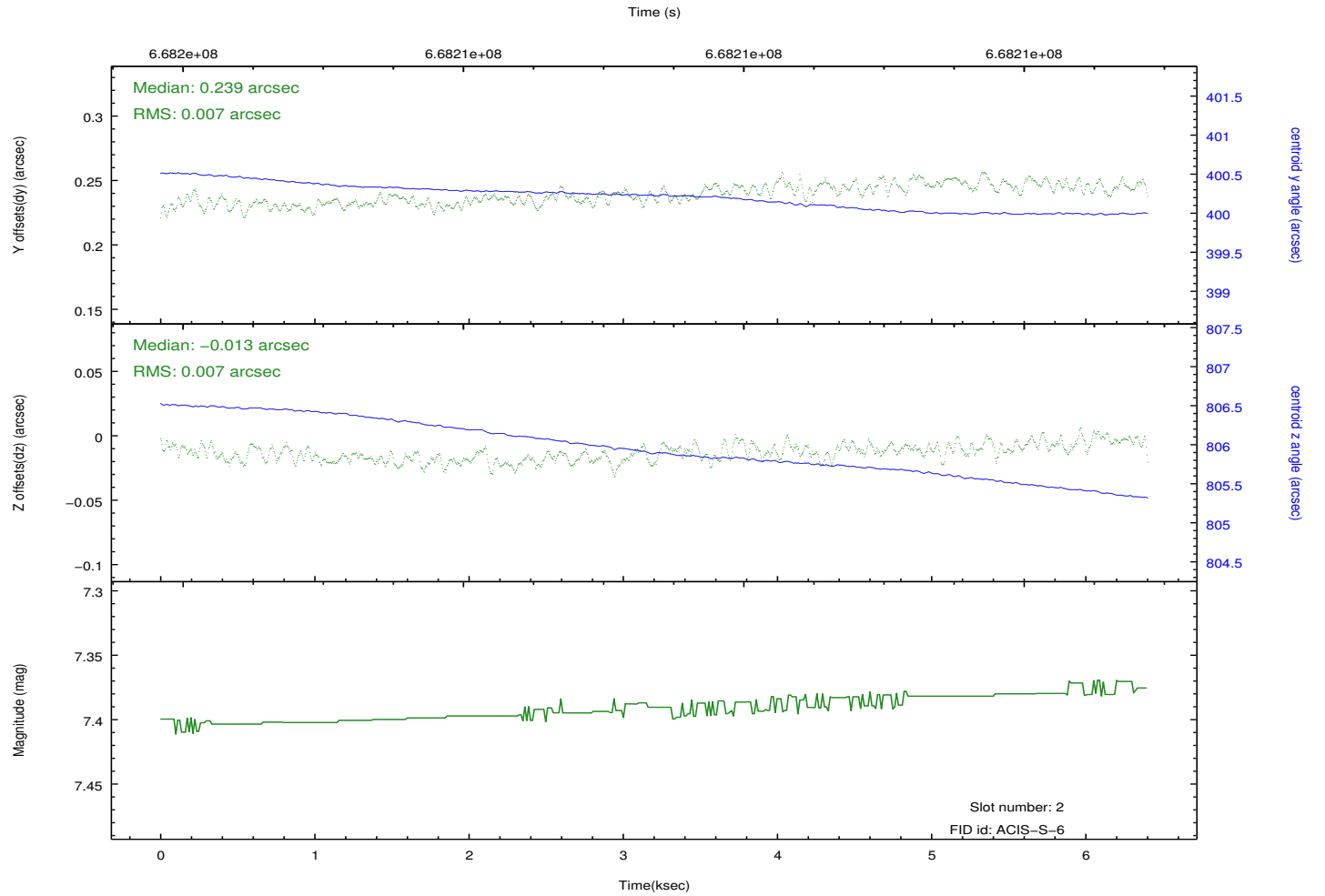
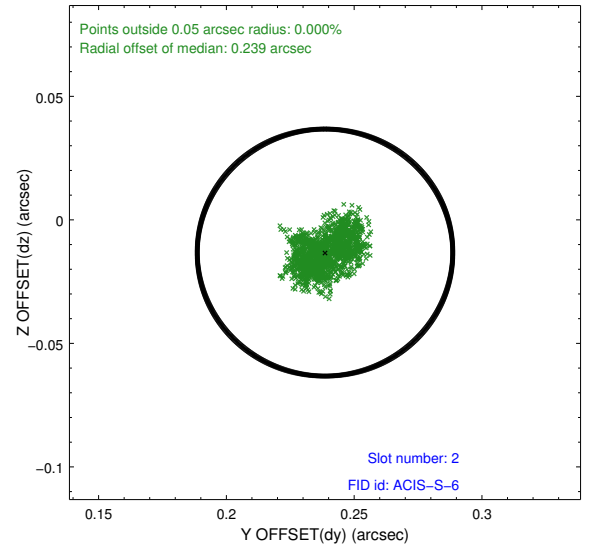
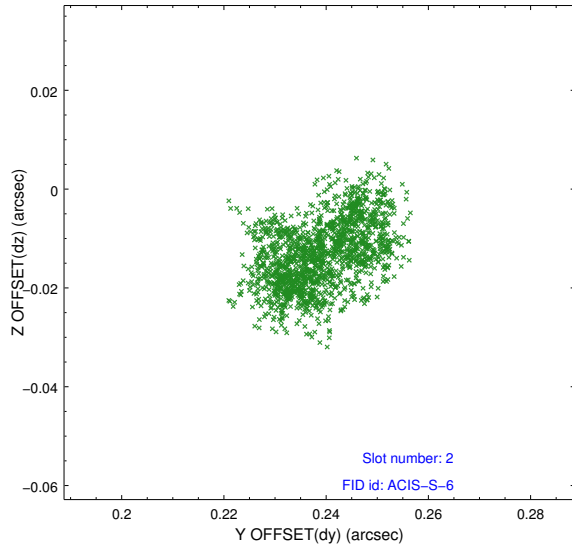
### 2.5.1 Slot 0



## 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)	2019.03.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.0477356145382

### A.2 Comments