

# V&V Reference Report

## L2 ASCDS Version : 10.6

Observation 20102 - L2 Version 1  
Chandra X-Ray Center

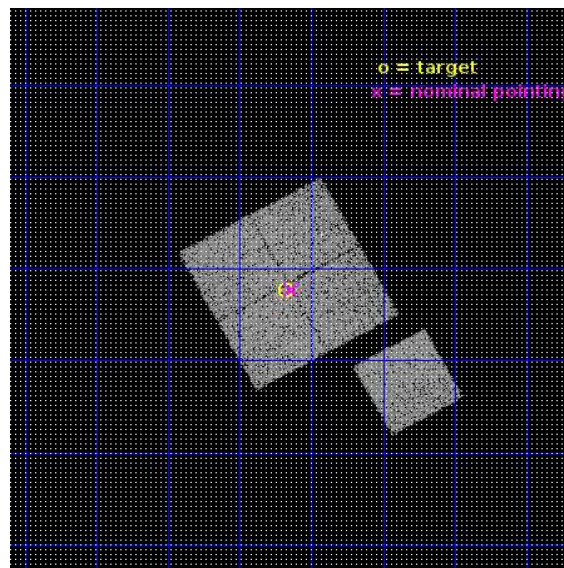
L2 Processing Date : Jun 25 2017

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# 1 Front

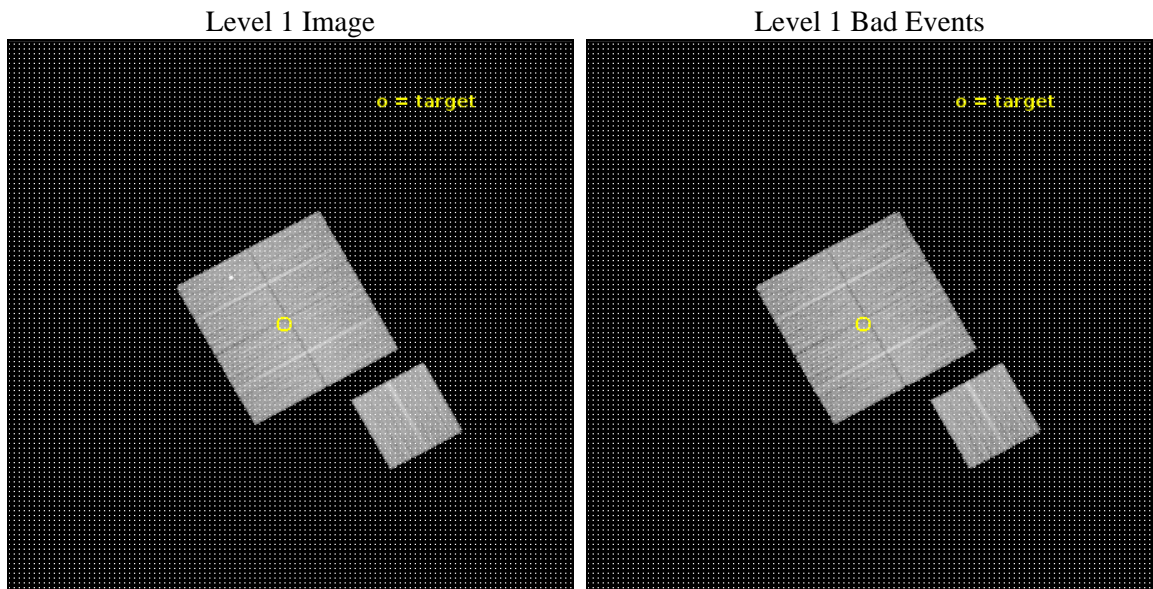
seq_num	201114	Sequence number
obs_id	20102	Observation id
title	An X-ray Census of YSOs in Infrared Dark Clouds. II. Star Cluster Formation from a Massive Filament	Proposal title
observer	Jonathan Tan	Principal investigator
object	IRDC G35.4-0.33	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	284.294583	Observer's specified target RA [deg]
dec_targ	2.128444	Observer's specified target Dec [deg]
ra_nom	284.2848186997	Nominal RA [deg]
dec_nom	2.1287820619625	Nominal Dec [deg]
roll_nom	151.20903503199	Nominal Roll [deg]
revision	1	Processing version of data
ontime	17114.500488043	Sum of GTIs [s]
livetime	16890.886939655	Livetime [s]
ontime0	17117.518398285	Sum of GTIs [s]
ontime1	17117.559438229	Sum of GTIs [s]
ontime2	17111.318517208	Sum of GTIs [s]
ontime3	17114.500488043	Sum of GTIs [s]
ontime6	17117.477358222	Sum of GTIs [s]
l2events	53934	Number of level 2 events



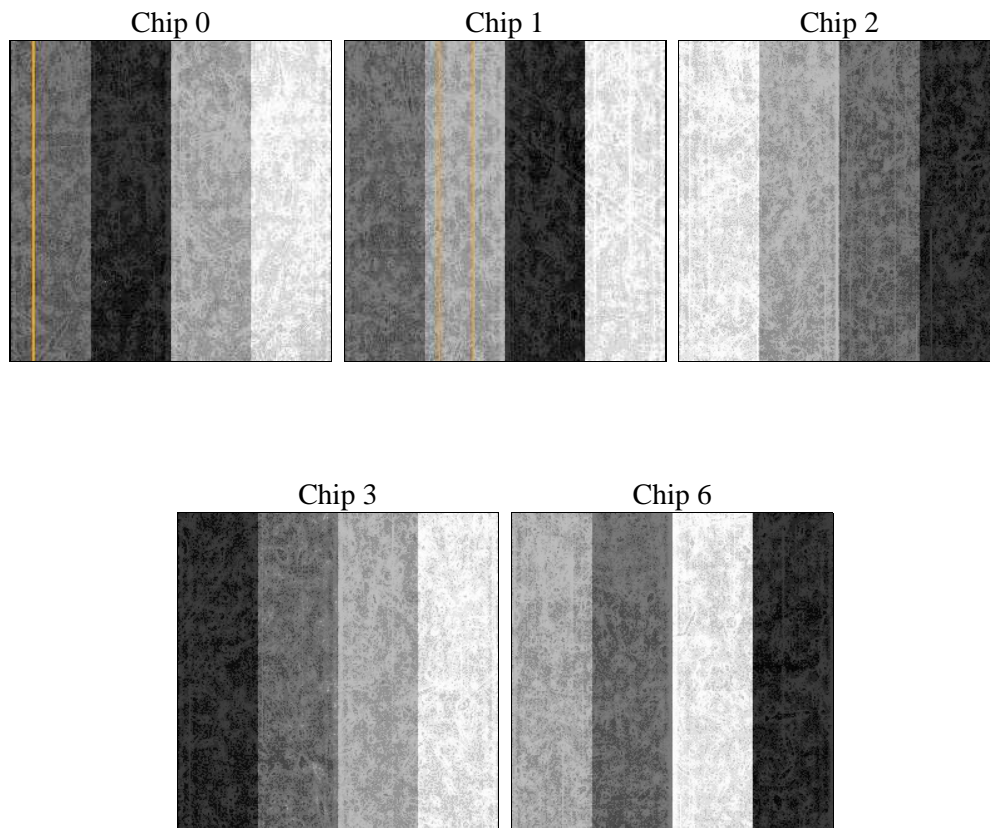
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	17042.602000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	17114.500488043	Sum of GTIs [s]
caldbver	4.7.5	&#160	ontime0	17117.518398285	Sum of GTIs [s]
date	2017-06-26T03:18:59	Date and time of file creation	ontime1	17117.559438229	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	17111.318517208	Sum of GTIs [s]
			ontime3	17114.500488043	Sum of GTIs [s]
			ontime6	17117.477358222	Sum of GTIs [s]
			l1events	561280	Number of level 1 events

### 2.1.4 Events

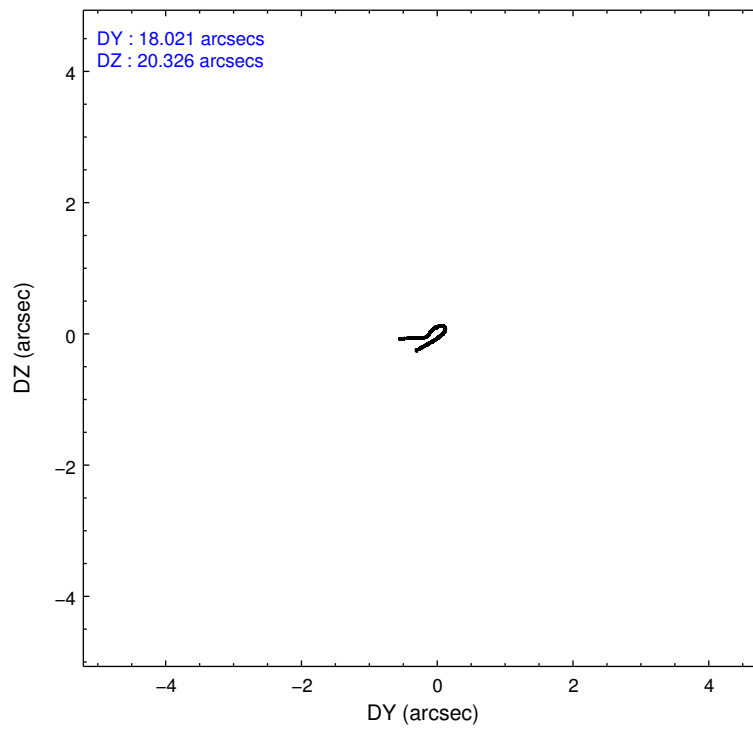
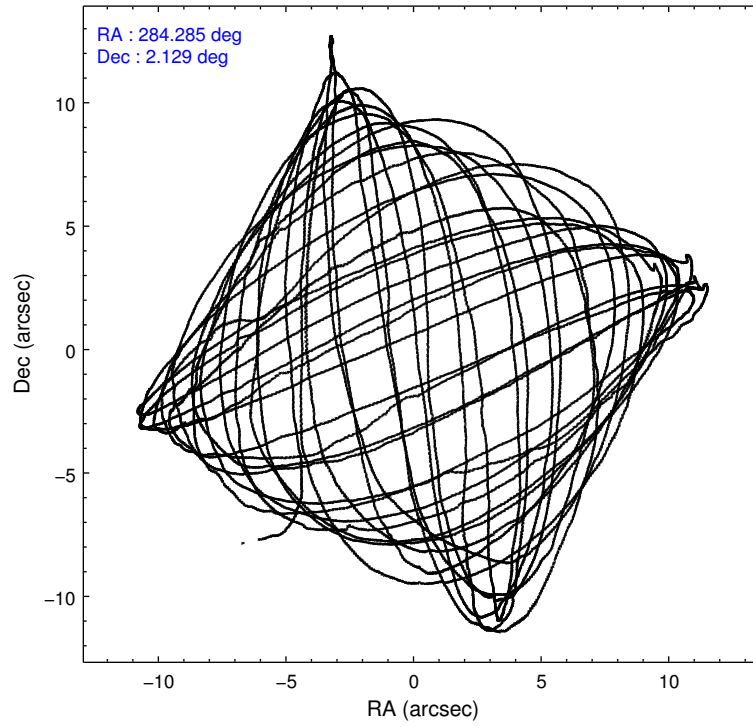
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	104419	112059	120239	111766	112797
rejected events	91097	95152	107378	99720	99986
rejected %	87%	84%	89%	89%	88%

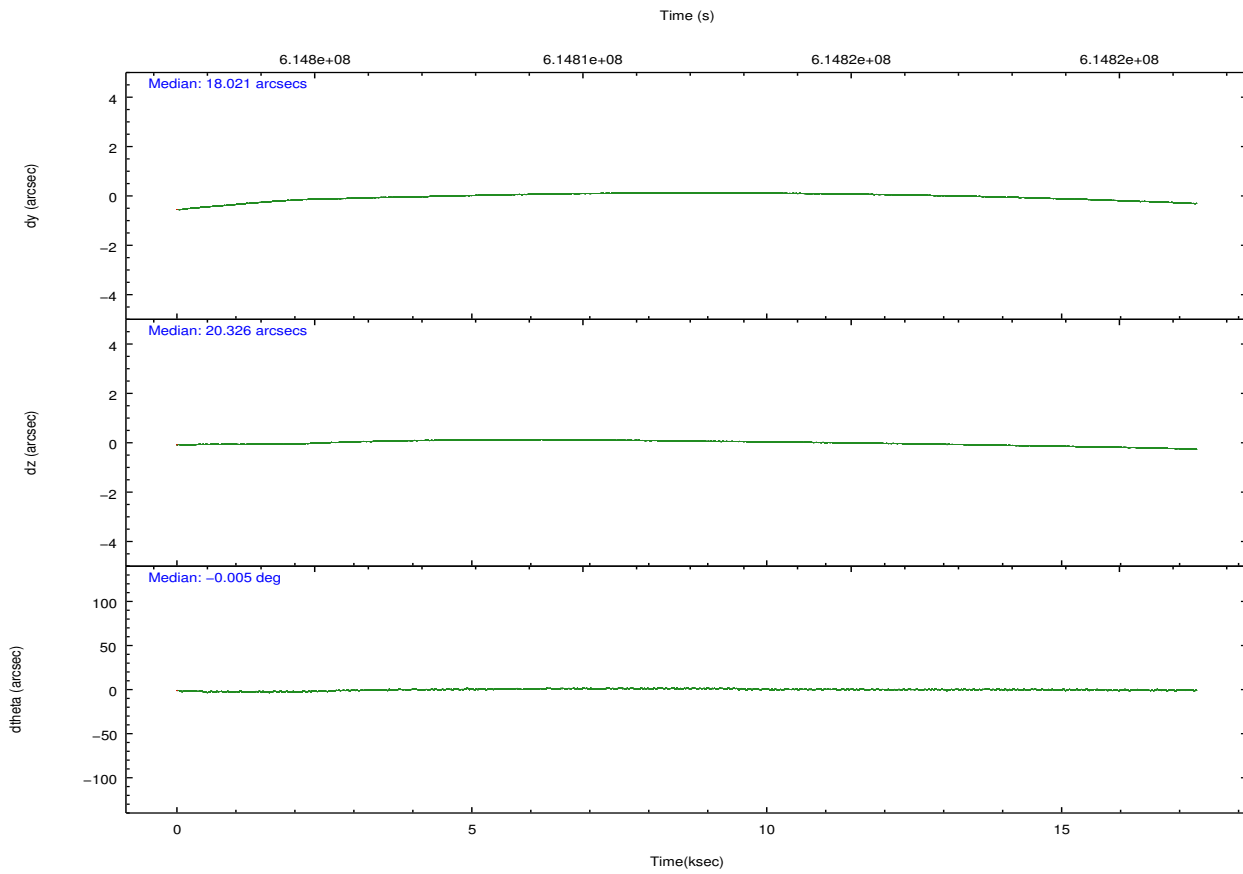
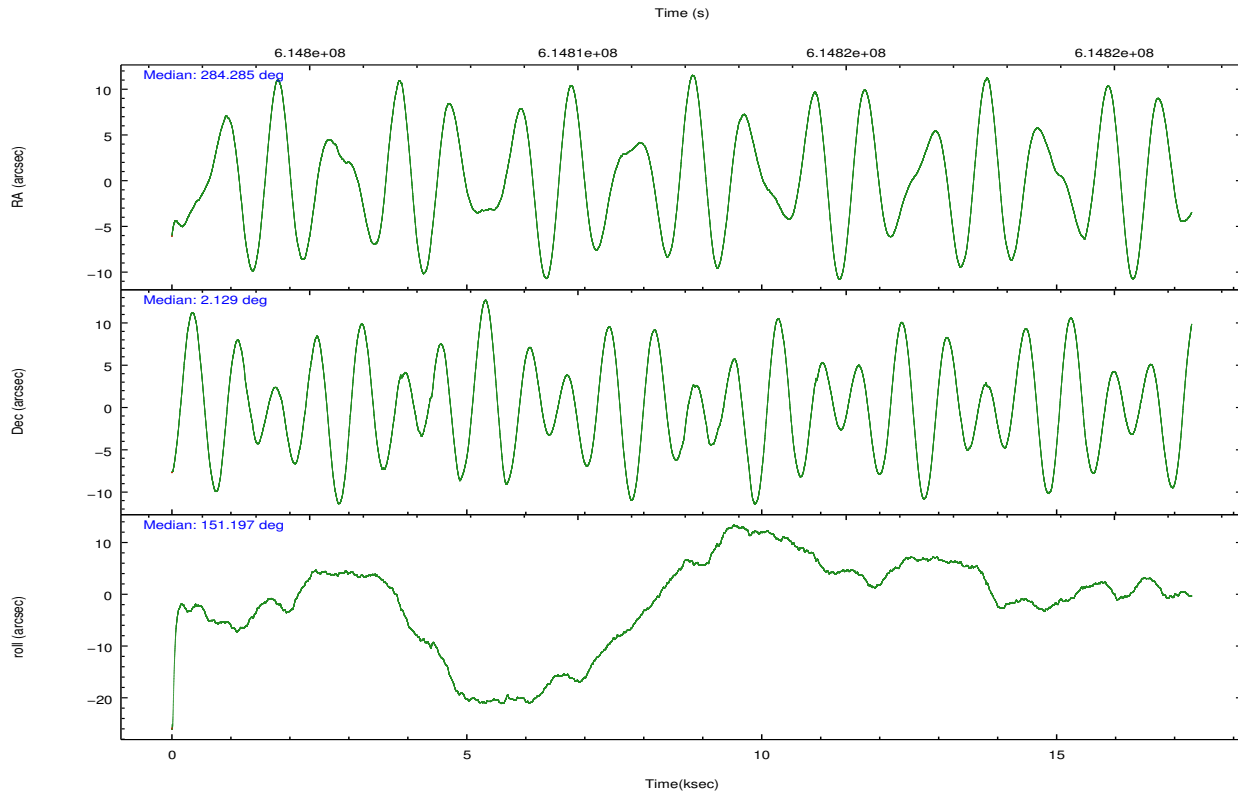
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	4852	8044	4881	4550	4595
	4%	7%	4%	4%	4%
grade 1 events	62	78	61	66	40
	0%	0%	0%	0%	0%
grade 2 events	3346	3204	3342	2728	2897
	3%	2%	2%	2%	2%
grade 3 events	1344	1354	1146	1195	1242
	1%	1%	0%	1%	1%
grade 4 events	1263	1337	1216	1227	1241
	1%	1%	1%	1%	1%
grade 5 events	4206	4313	3752	4717	4514
	4%	3%	3%	4%	4%
grade 6 events	2518	2971	2278	2347	2838
	2%	2%	1%	2%	2%
grade 7 events	86828	90758	103563	94936	95430
	83%	80%	86%	84%	84%

## 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	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	284.312452	284.2848186996956	CCD I2 on	Y	Y
[deg] Pointing Dec	2.129474	2.128782061962456	CCD I3 on	Y	Y
[deg] Pointing Roll	150.999332	151.2090350319863	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O2	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	614803517.184000	614802543.1574399	CCD S5 on	N	N
Observation start date	2017-06-25T18:44:08	2017-06-25T18:29:03	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	614820559.184000	614820797.896	On-chip summing requested	N	N
Observation end date	2017-06-25T23:28:10	2017-06-25T23:33:17	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





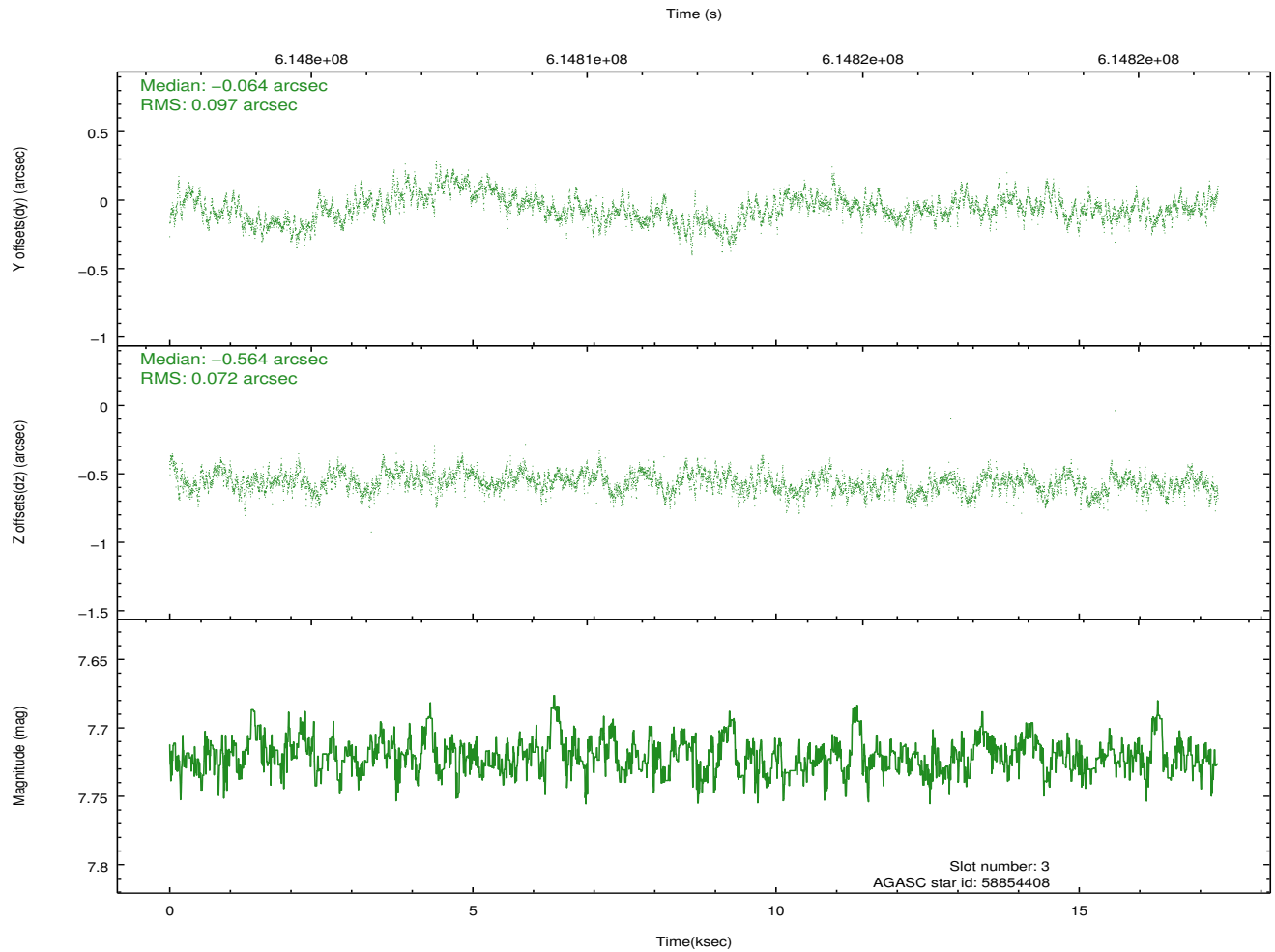
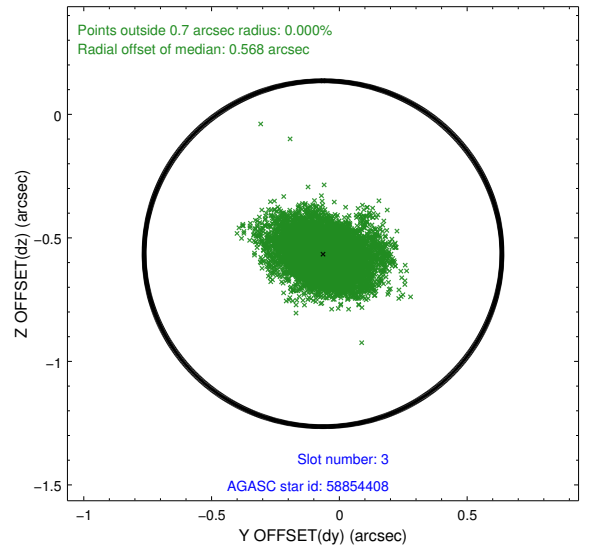
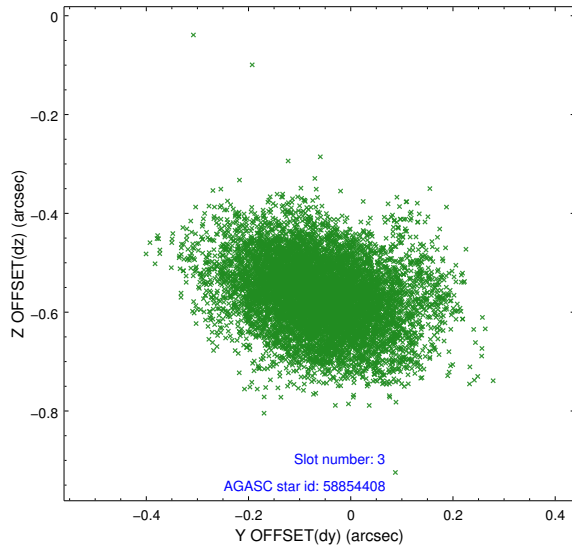
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.09	4218	0.064	-0.054	0.014	0.023	0.000000	0.000000	921.51	-844.06
1	FID		ACIS-I-5	7.08	4218	-0.381	0.013	0.010	0.015	0.000000	0.000000	-1827.02	1053.22
2	FID		ACIS-I-6	7.10	4218	0.223	0.114	0.012	0.017	0.000000	0.000000	386.81	1698.22
3	GUIDE	used	58854408	7.72	8433	-0.064	-0.564	0.125	0.217	284.268664	1.500448	-960.44	2056.46
4	GUIDE	used	59376080	9.06	8428	0.186	0.093	0.164	0.246	284.651749	1.918668	-1435.39	72.06
5	GUIDE	used	59376520	8.91	8427	0.247	0.166	0.130	0.223	284.649079	2.608986	-221.18	-2096.47
6	GUIDE	used	59376552	7.03	8435	-0.440	-0.062	0.143	0.213	284.421699	2.701942	655.70	-1992.88
7	GUIDE	used	59377200	8.74	8432	0.055	0.367	0.108	0.180	284.692162	2.481077	-580.06	-1769.07

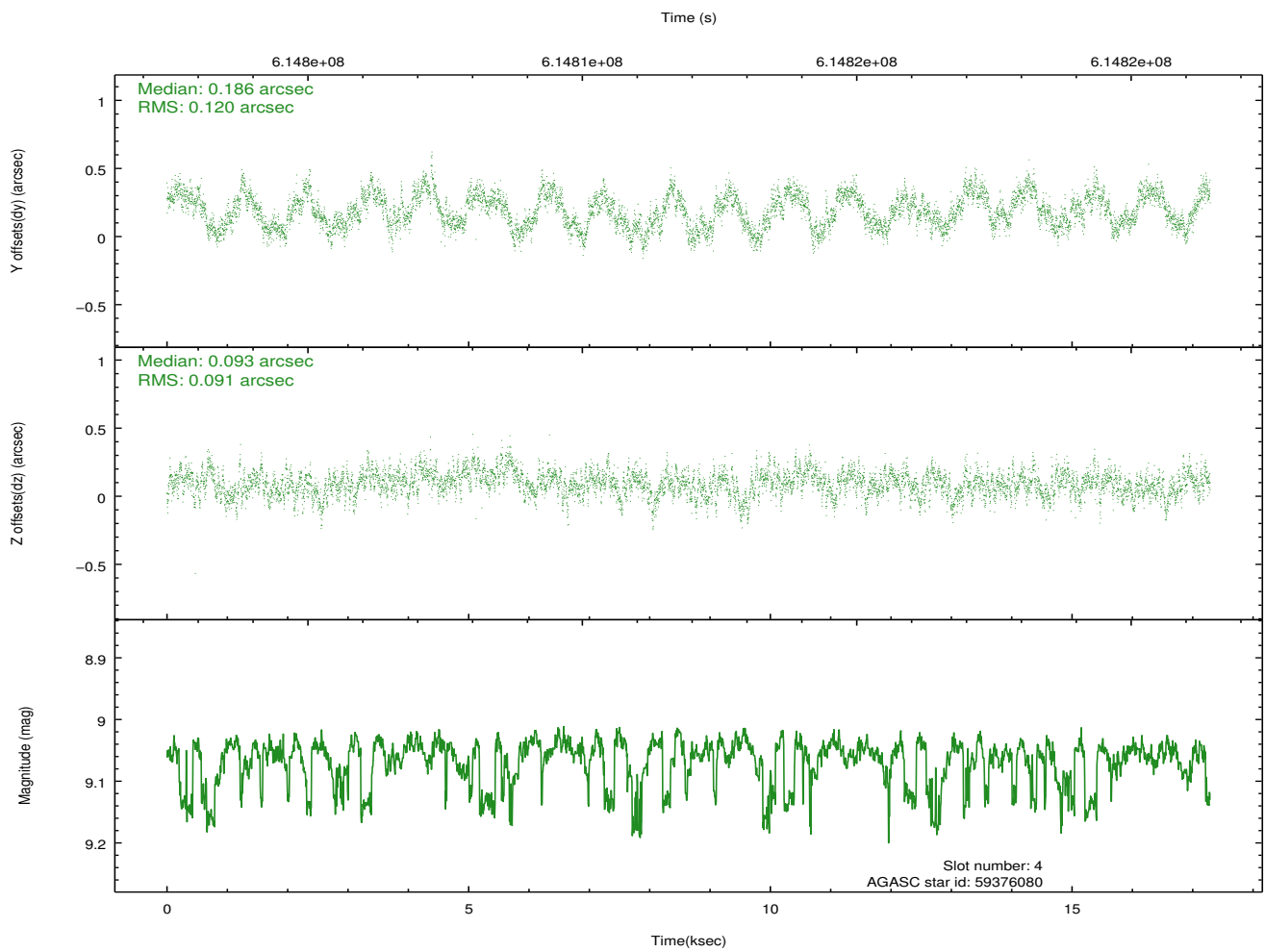
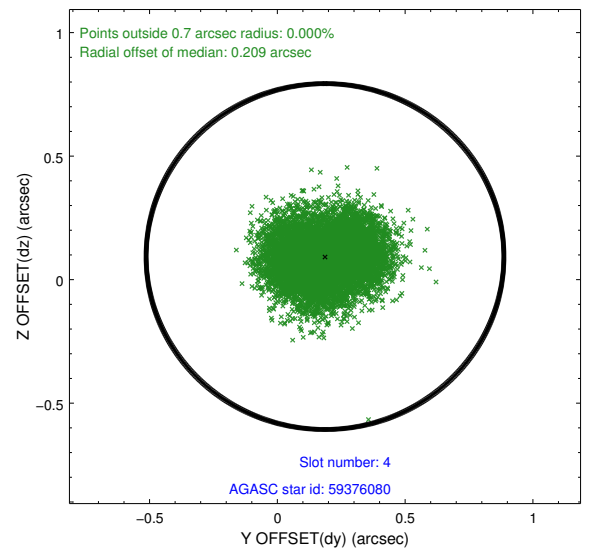
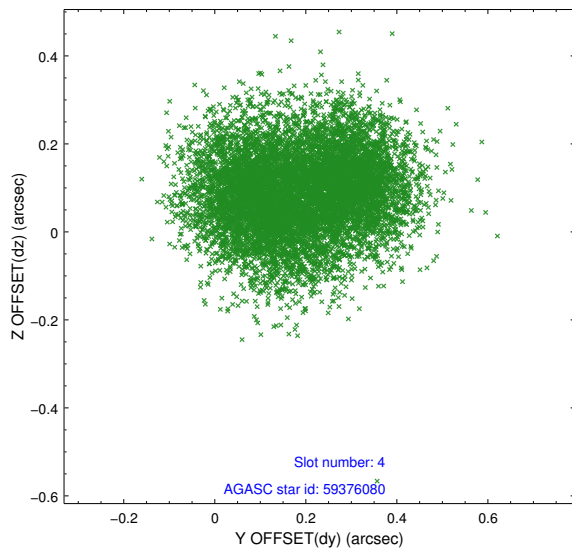
∞

## 2.4 Star Slots

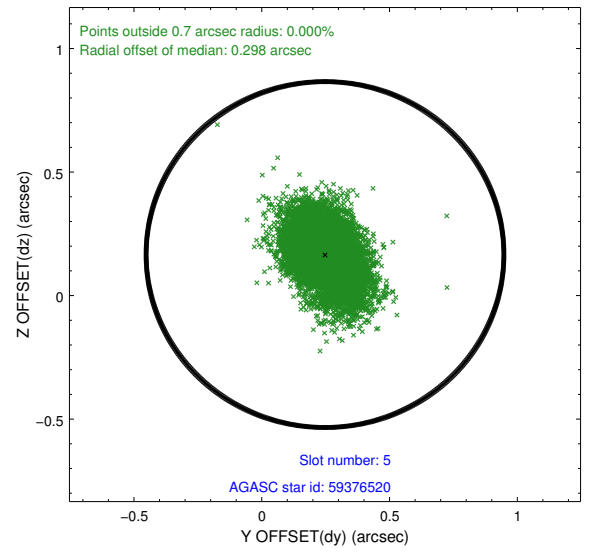
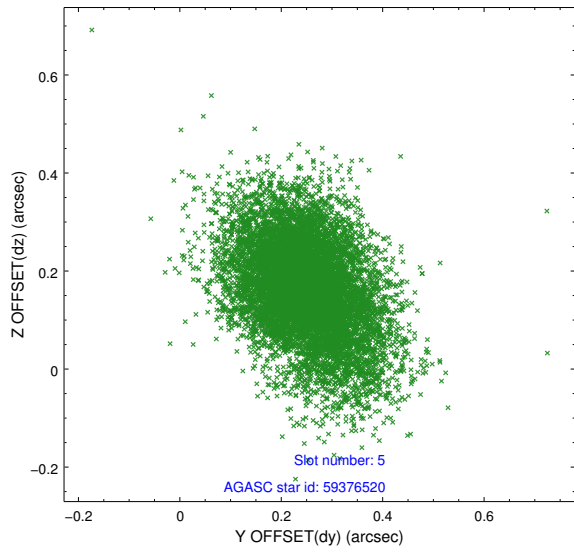
### 2.4.1 Slot 3



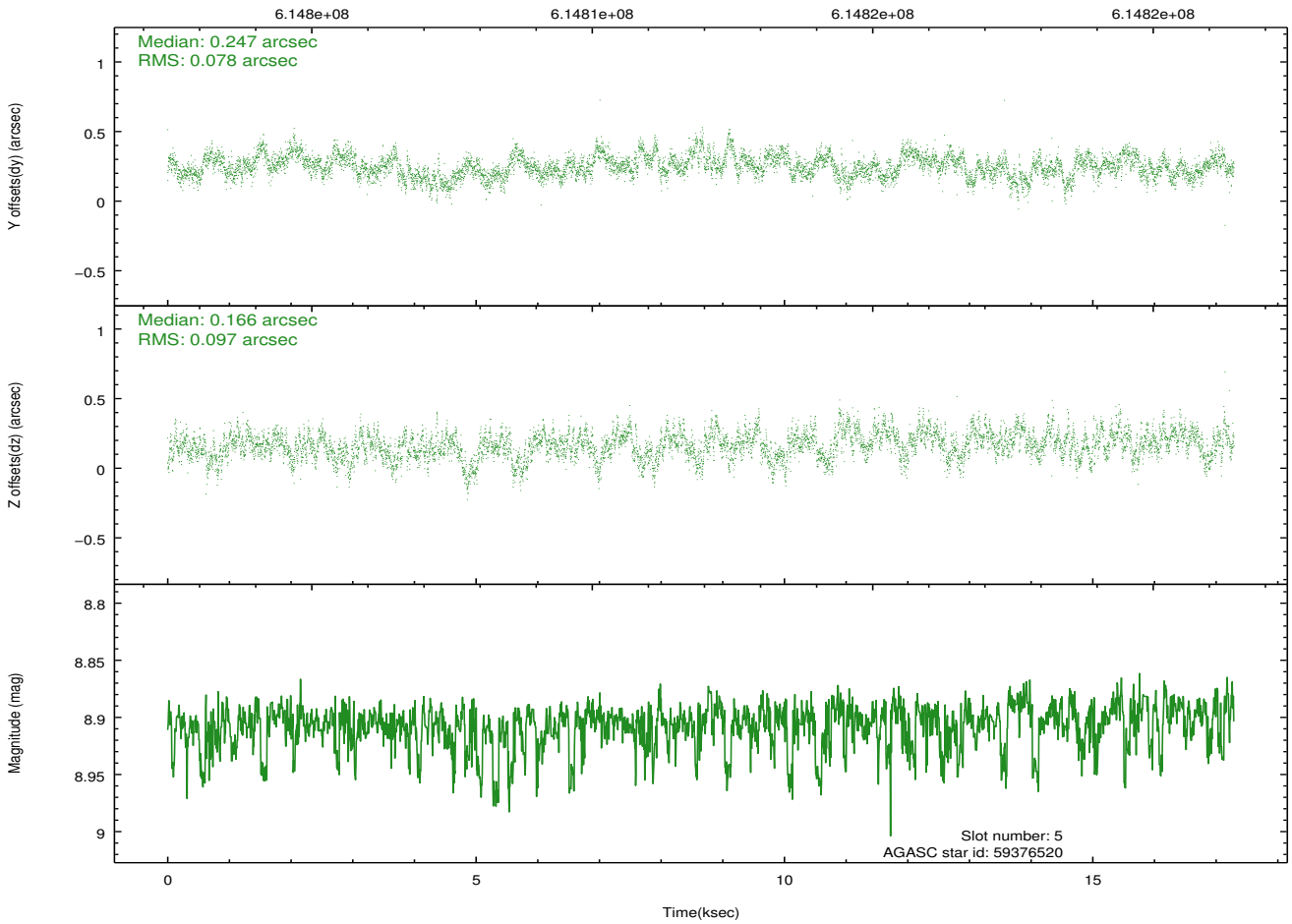
## 2.4.2 Slot 4



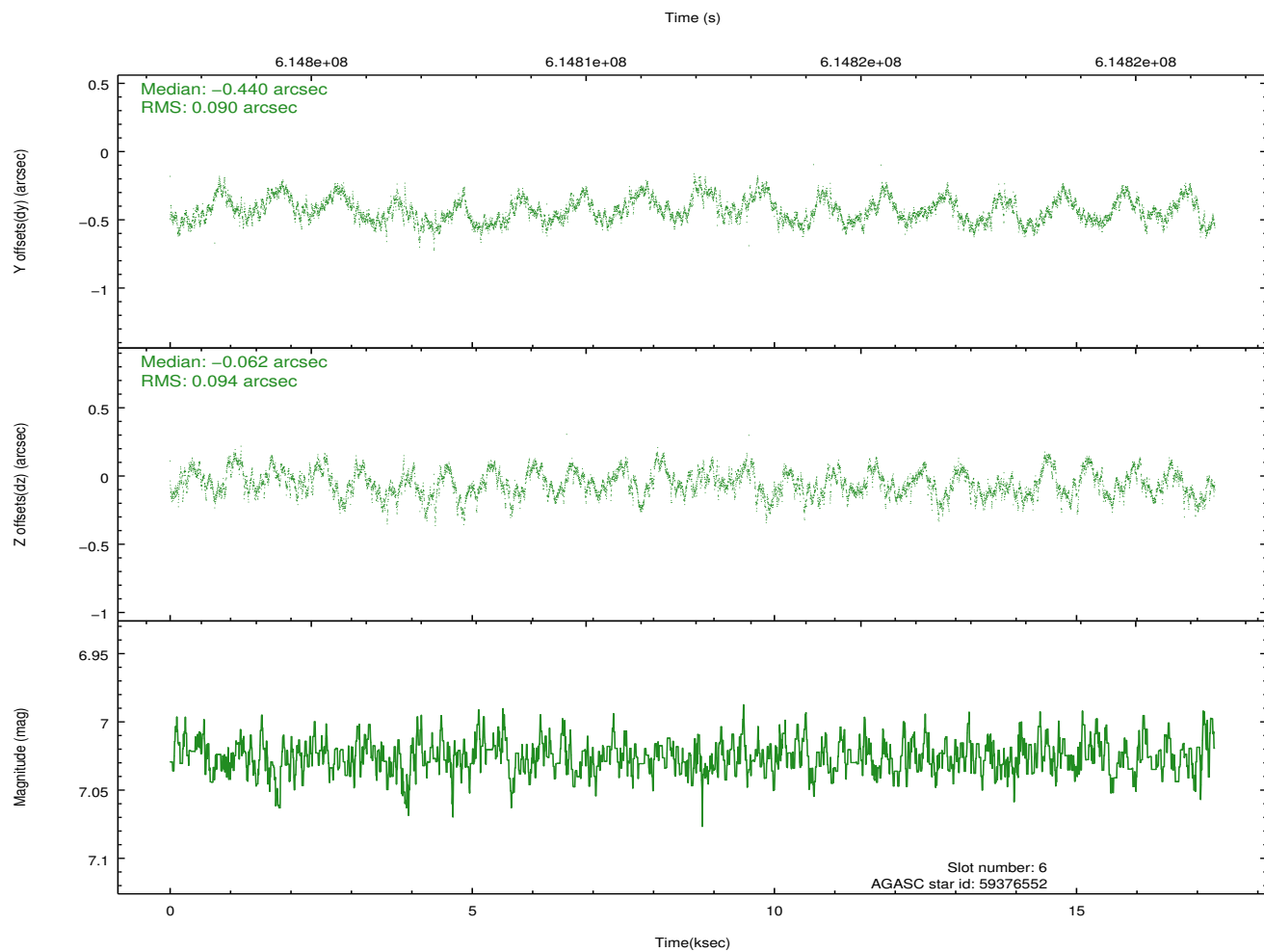
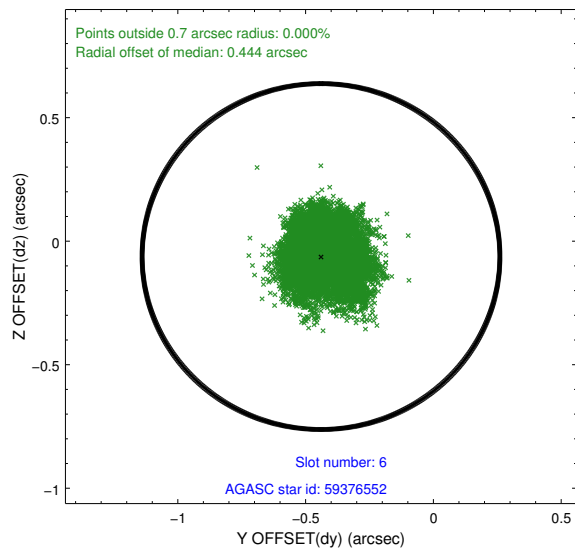
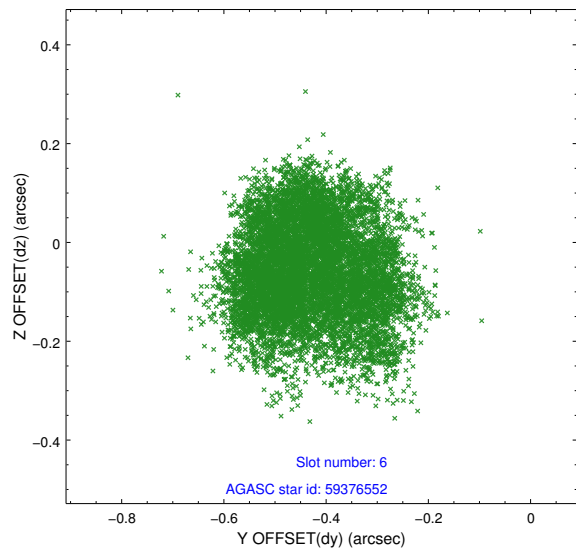
### 2.4.3 Slot 5



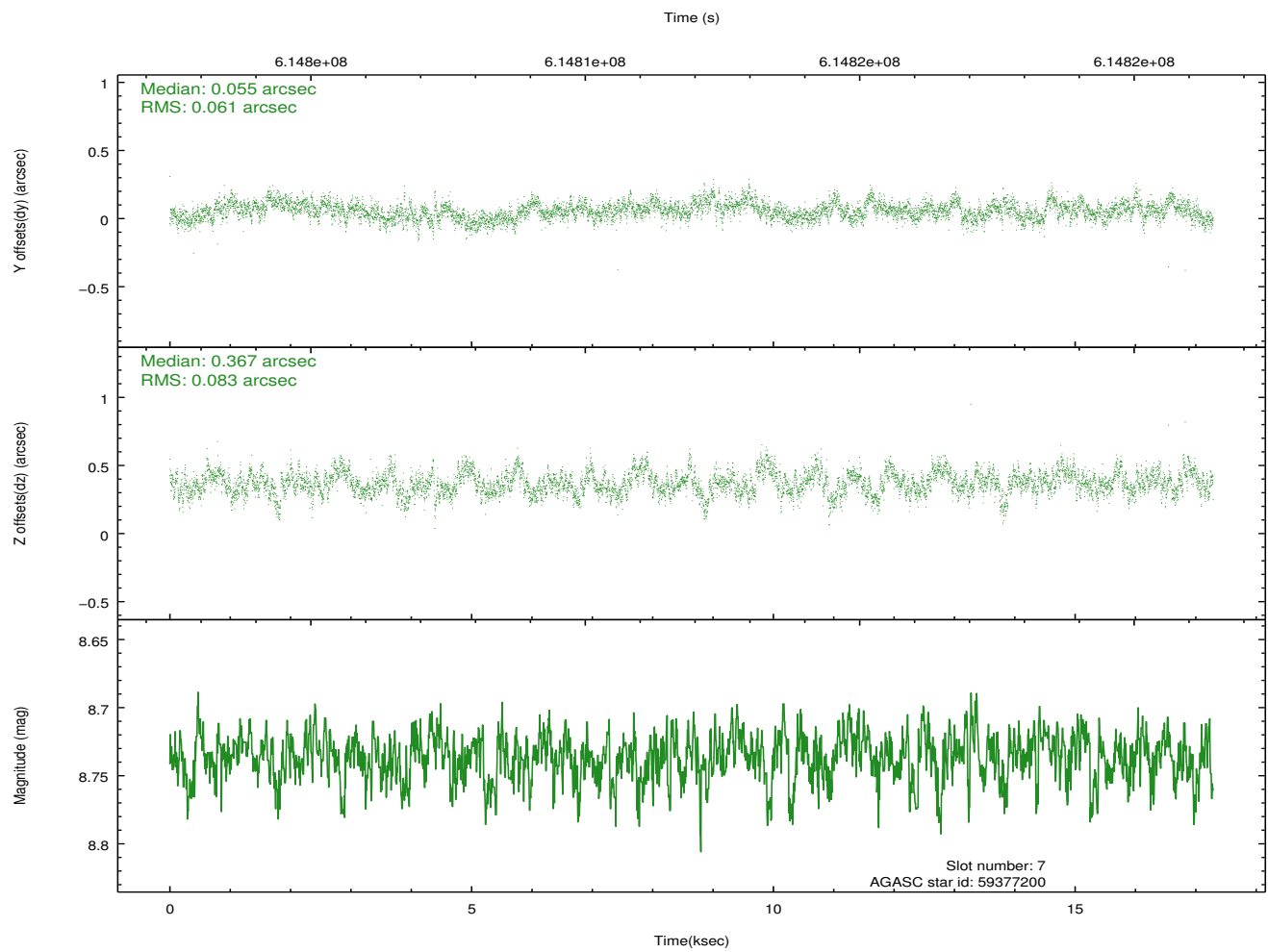
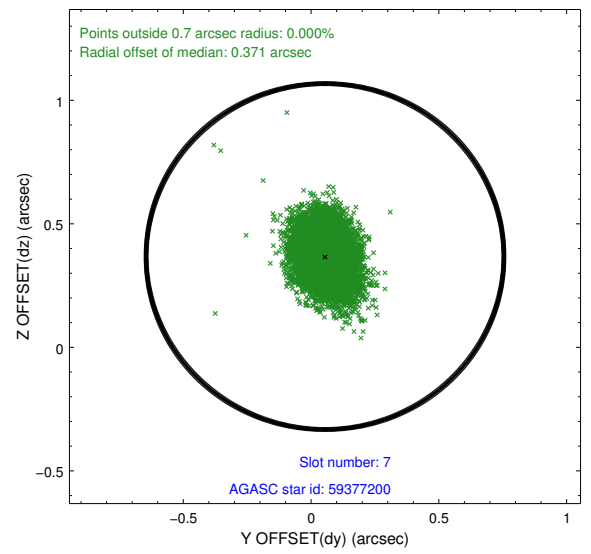
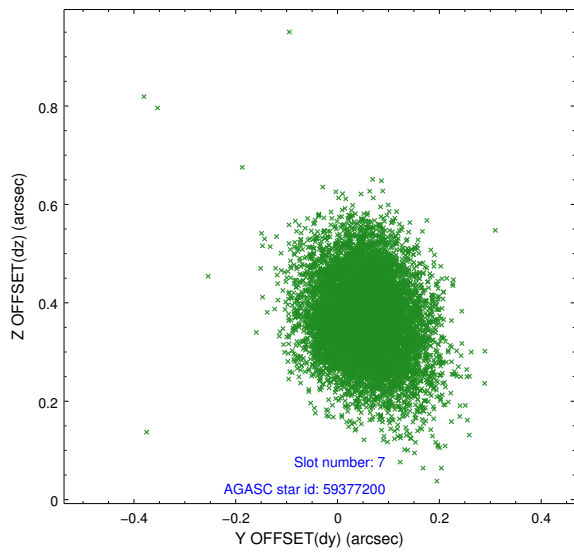
Time (s)



## 2.4.4 Slot 6

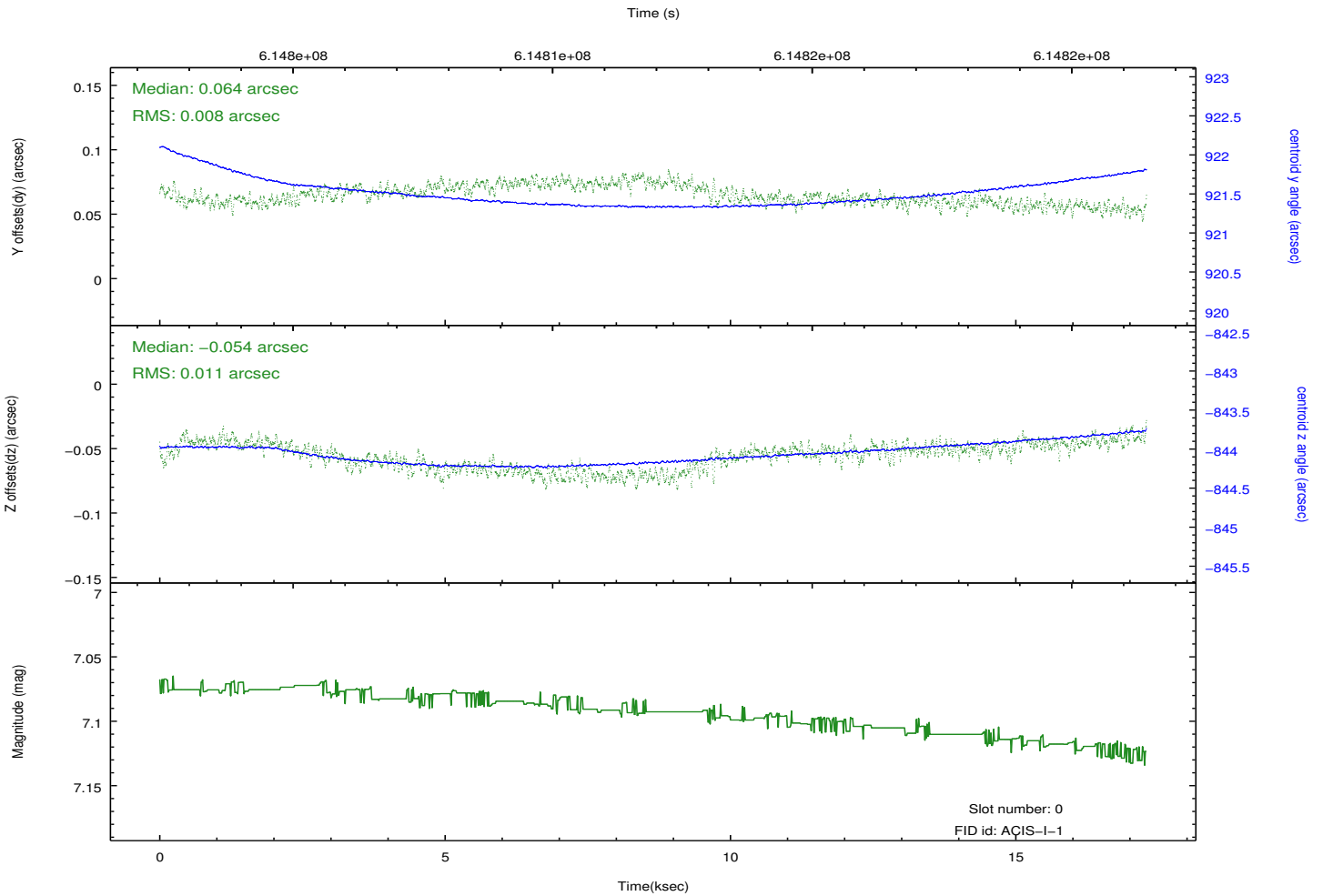
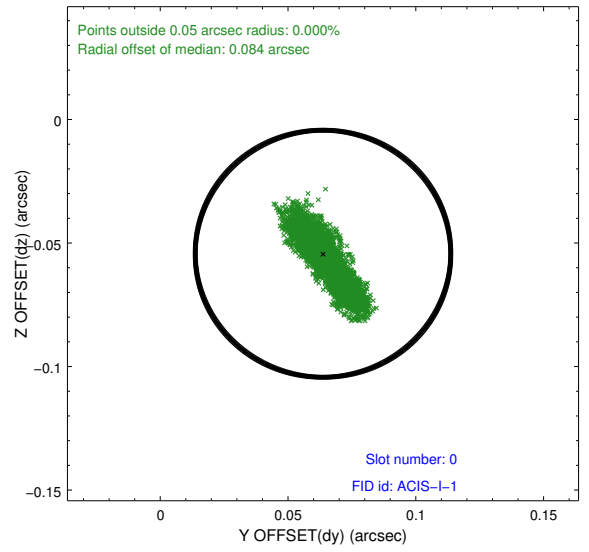
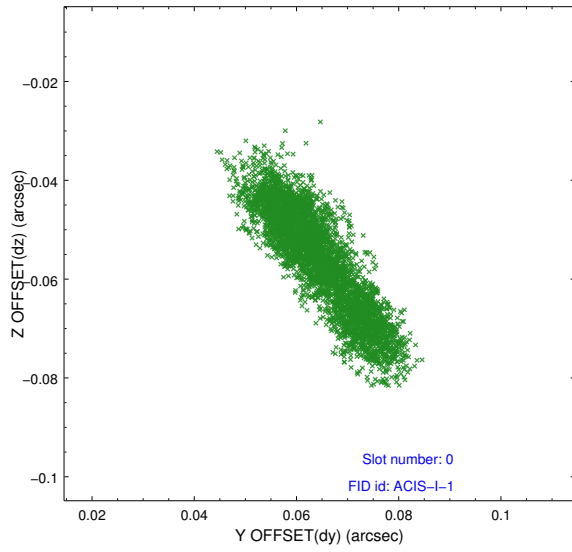


## 2.4.5 Slot 7

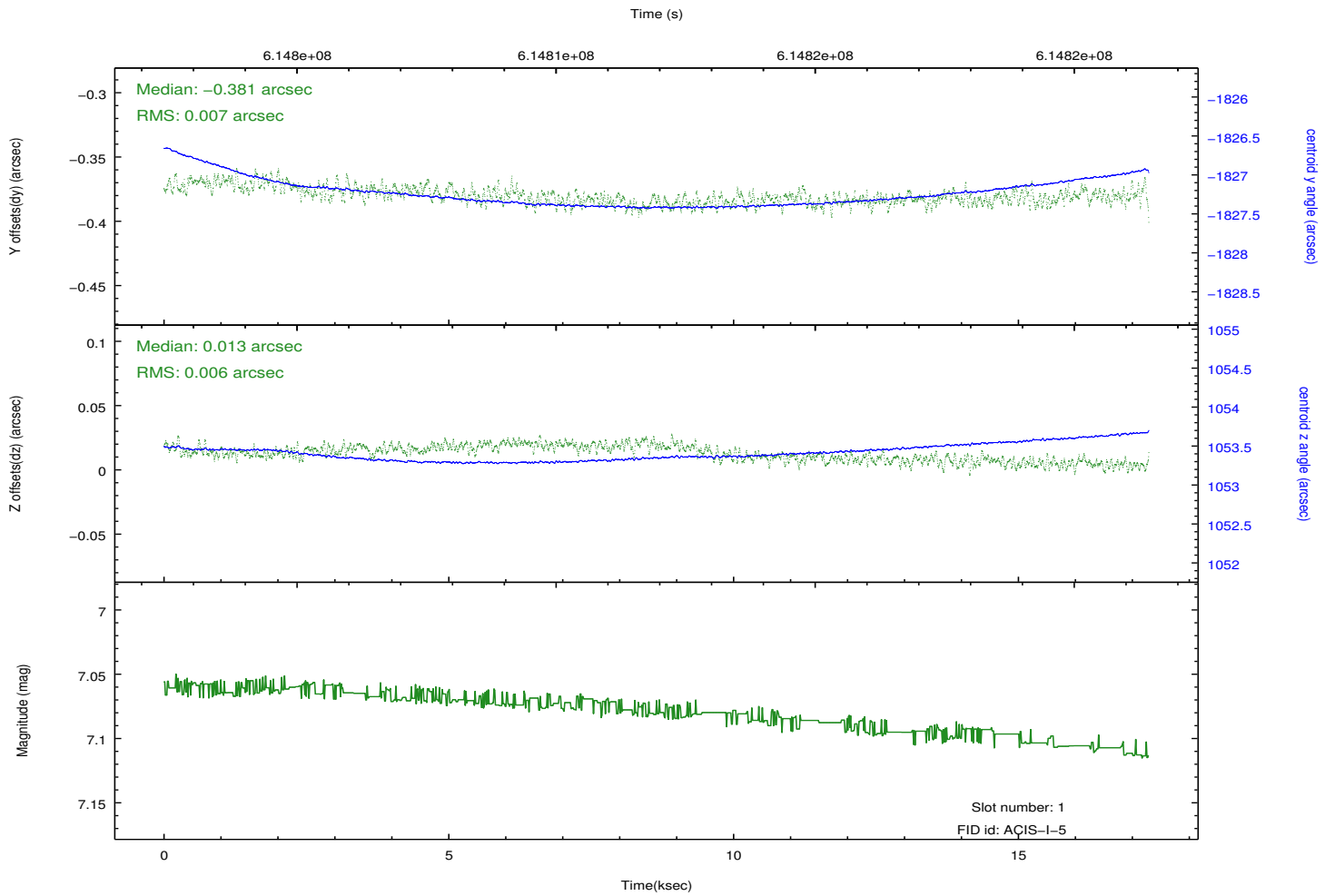
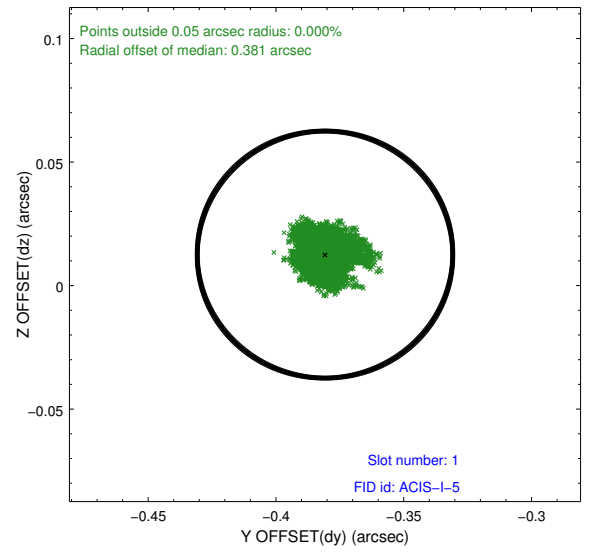
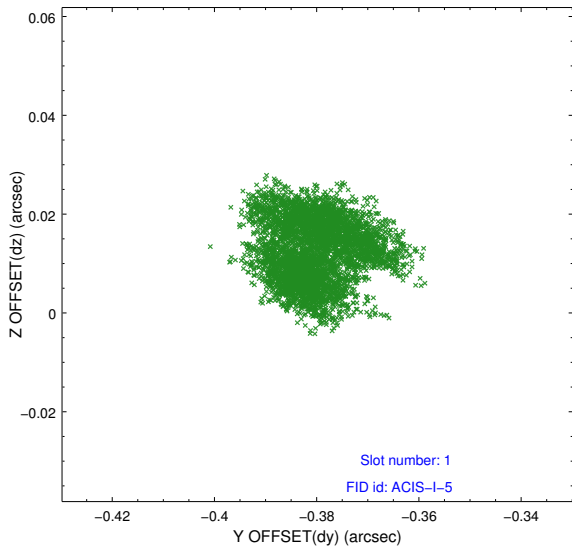


## 2.5 FID Slots

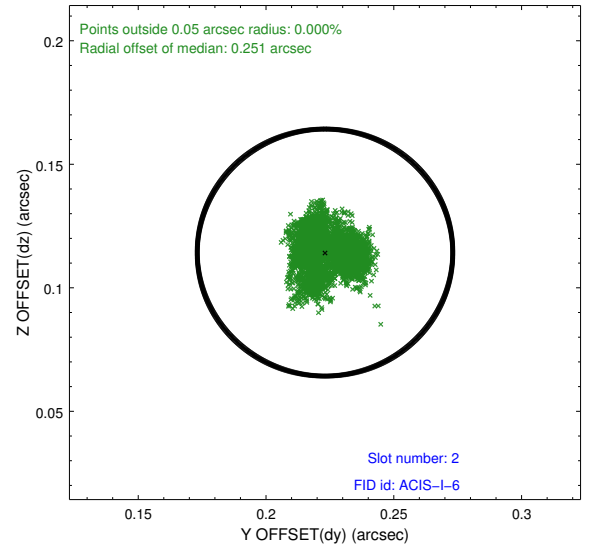
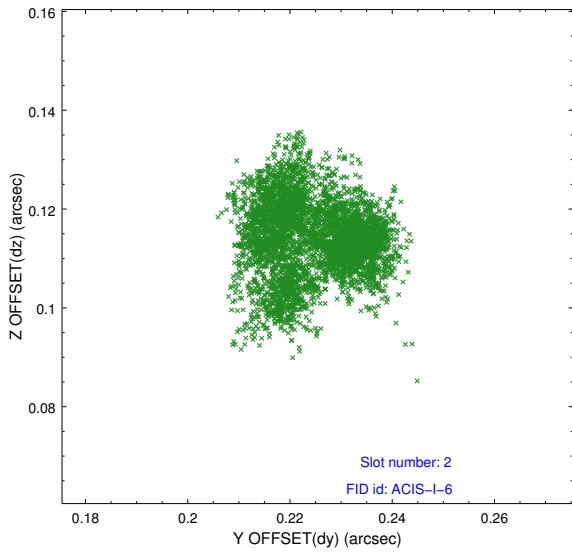
### 2.5.1 Slot 0



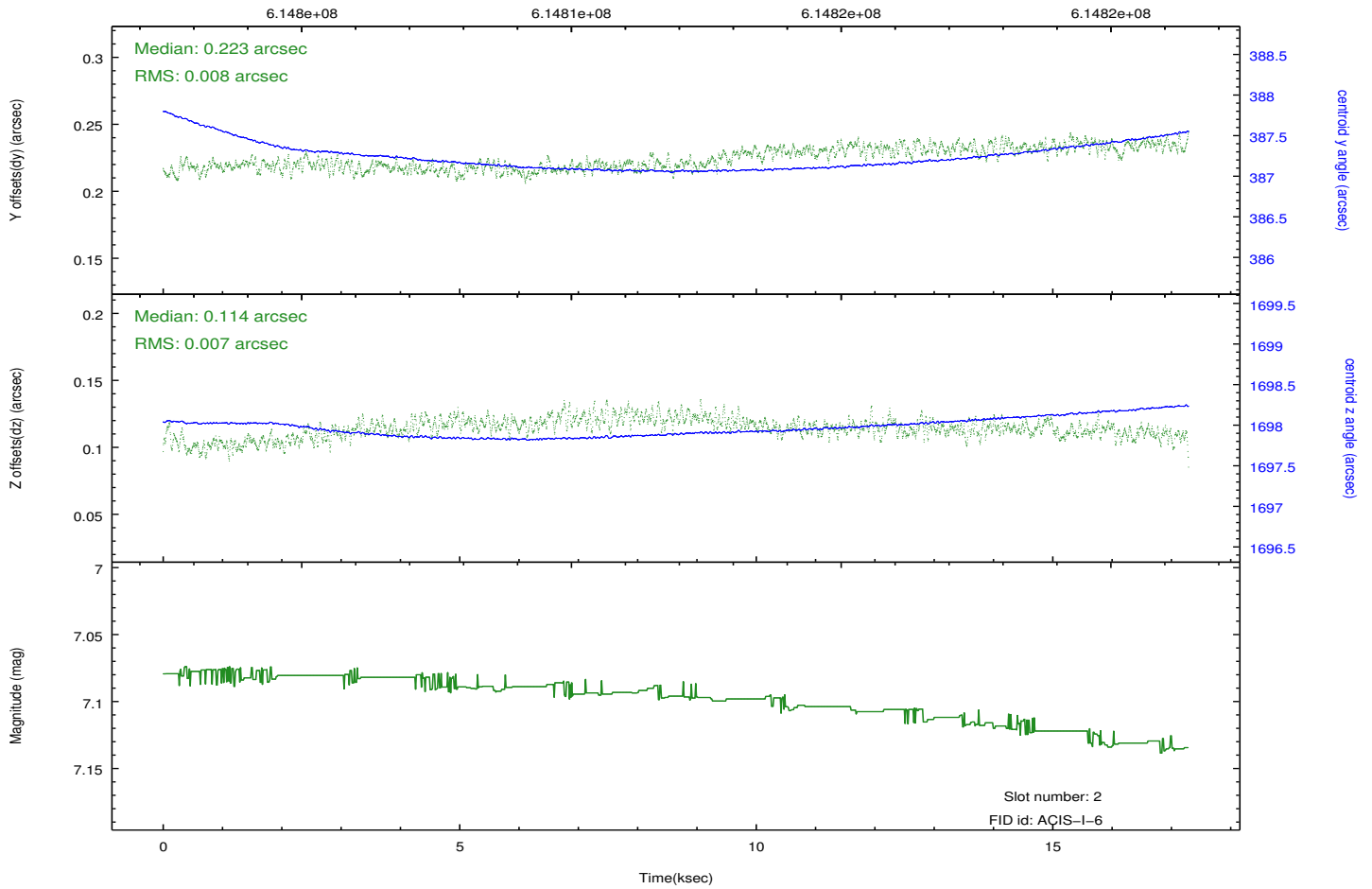
## 2.5.2 Slot 1



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2017.06.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	17.114500488043

## A.2 Comments

Optional chip S3 not included.