

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 4577 - L2 Version 3  
Chandra X-Ray Center

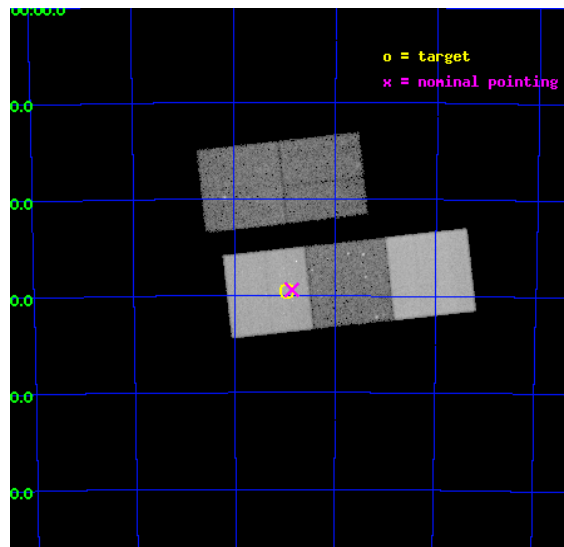
L2 Processing Date : Dec 25 2012

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# 1 Front

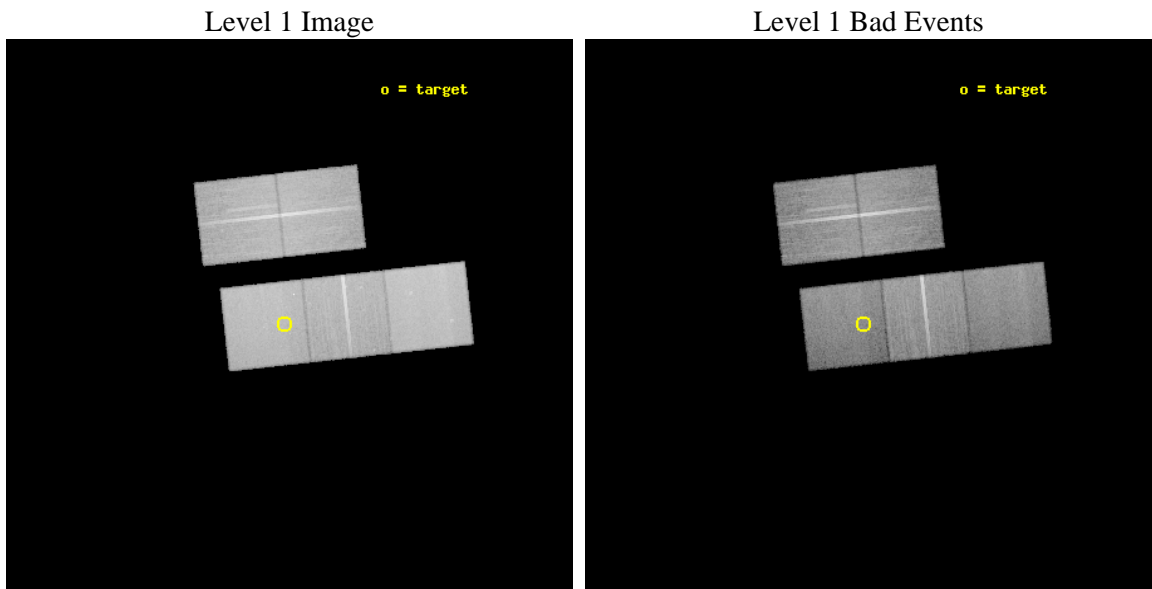
seq_num	400359	Sequence number
obs_id	4577	Observation id
title	Finding Black Holes and Understanding Star Cluster Evolution with Chandra	Proposal title
observer	Dr. Simon Portegies Zwart	Principal investigator
object	NGC 2136/7	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	88.241667	Observer's specified target RA [deg]
dec_targ	-69.492778	Observer's specified target Dec [deg]
ra_nom	88.215156077084	Nominal RA [deg]
dec_nom	-69.490048428782	Nominal Dec [deg]
roll_nom	173.69163863681	Nominal Roll [deg]
revision	3	Processing version of data
ontime	37454.199927956	Sum of GTIs [s]
livetime	36964.833232516	Livetime [s]
ontime2	37447.917977422	Sum of GTIs [s]
ontime3	37447.91799745	Sum of GTIs [s]
ontime5	37454.199927956	Sum of GTIs [s]
ontime6	37447.91799745	Sum of GTIs [s]
ontime7	37454.199927956	Sum of GTIs [s]
l2events	332346	Number of level 2 events



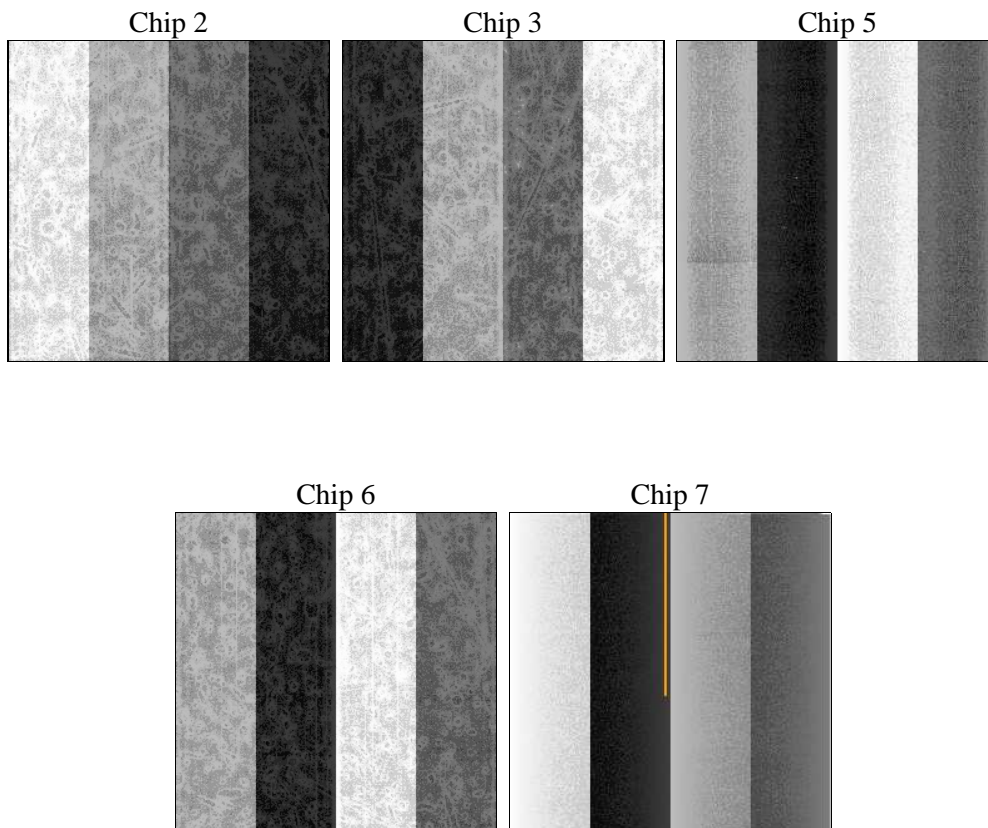
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	37300.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	37454.199927956	Sum of GTIs [s]
caldbver	4.5.5	&#160	ontime2	37447.917977422	Sum of GTIs [s]
date	2012-12-25T07:46:19	Date and time of file creation	ontime3	37447.91799745	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	37454.199927956	Sum of GTIs [s]
			ontime6	37447.91799745	Sum of GTIs [s]
			ontime7	37454.199927956	Sum of GTIs [s]
			l1events	1313923	Number of level 1 events

### 2.1.4 Events

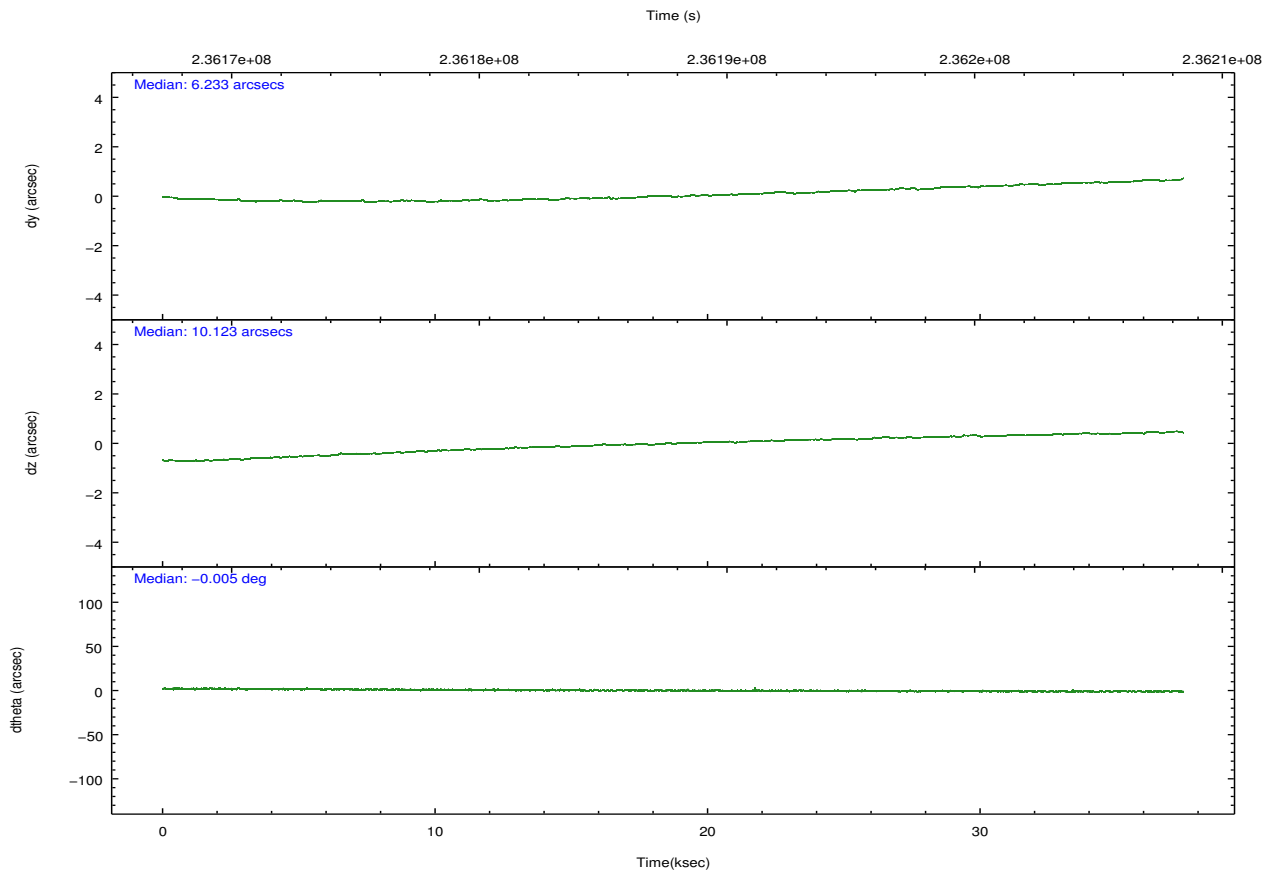
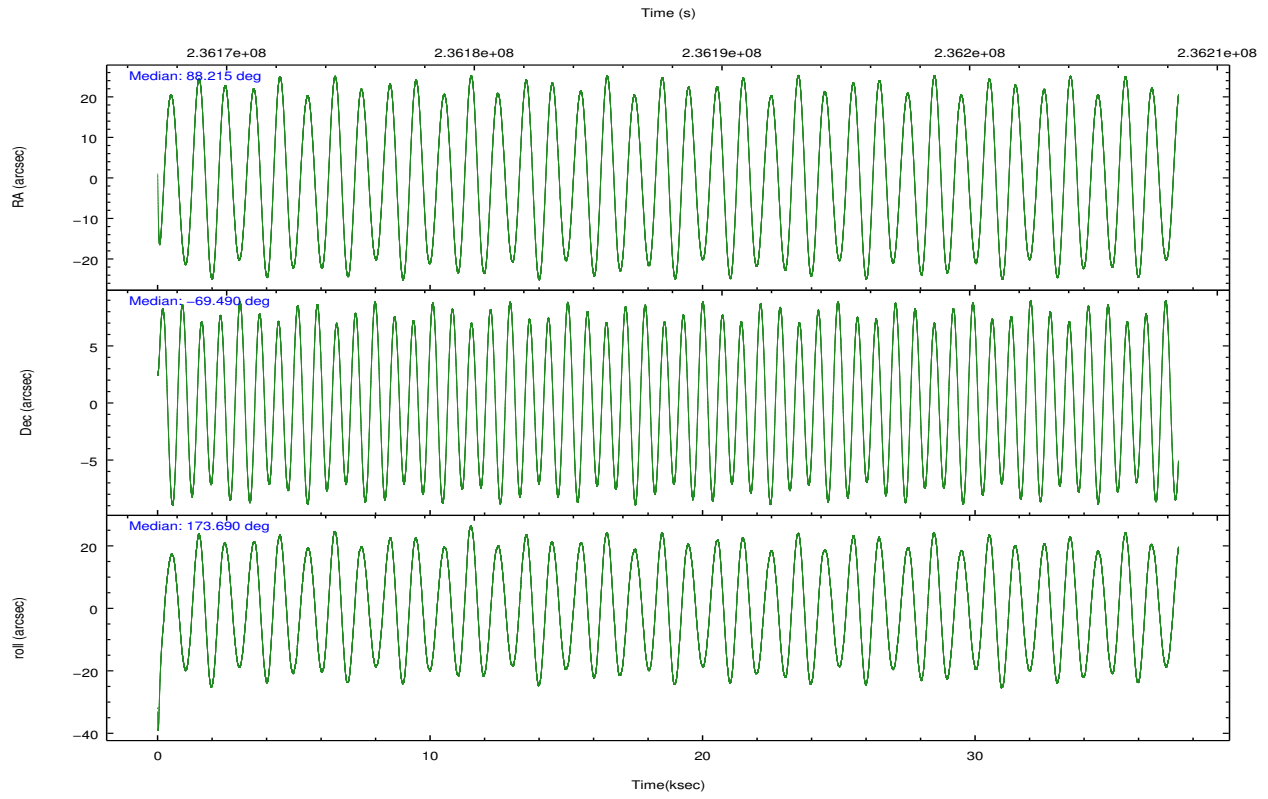
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	244526	237504	321269	241972	268652
rejected events	221418	214656	164952	216188	146534
rejected %	90%	90%	51%	89%	54%

	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	8219	8155	10392	9419	11041
	3%	3%	3%	3%	4%
grade 1 events	126	132	281	140	214
	0%	0%	0%	0%	0%
grade 2 events	5585	4950	46611	5533	24784
	2%	2%	14%	2%	9%
grade 3 events	2509	2670	7502	2786	11570
	1%	1%	2%	1%	4%
grade 4 events	2606	2620	7162	2782	11630
	1%	1%	2%	1%	4%
grade 5 events	7819	9534	26720	9638	28798
	3%	4%	8%	3%	10%
grade 6 events	4192	4456	84686	5266	63120
	1%	1%	26%	2%	23%
grade 7 events	213470	204987	137915	206408	117495
	87%	86%	42%	85%	43%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23567	ACIS-23567	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	88.285910	88.2151560770838	Subarray requested	NONE	NONE
[deg] Pointing Dec	-69.478759	-69.49004842878213	Alternating exposures requested	N	N
[deg] Pointing Roll	173.601288	173.6916386368131	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	236169254.184000	236168266.12891			
Observation start date	2005-06-26T10:33:10	2005-06-26T10:17:46			
[s] Observation end time (MET)	236206554.184000	236207132.08069			
Observation end date	2005-06-26T20:54:50	2005-06-26T21:05:32			
Read mode	TIMED	TIMED			

## 2.3 Aspect

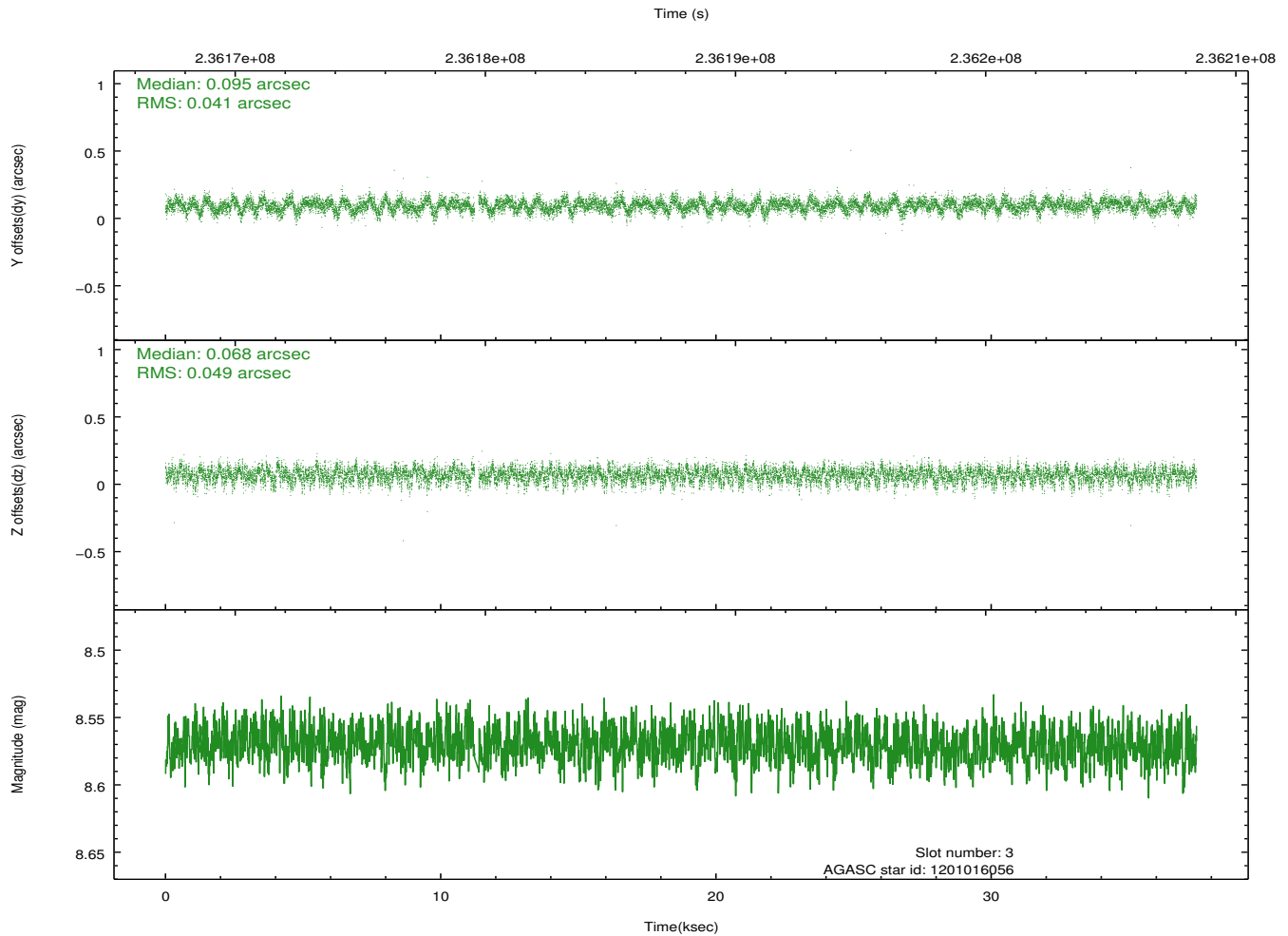
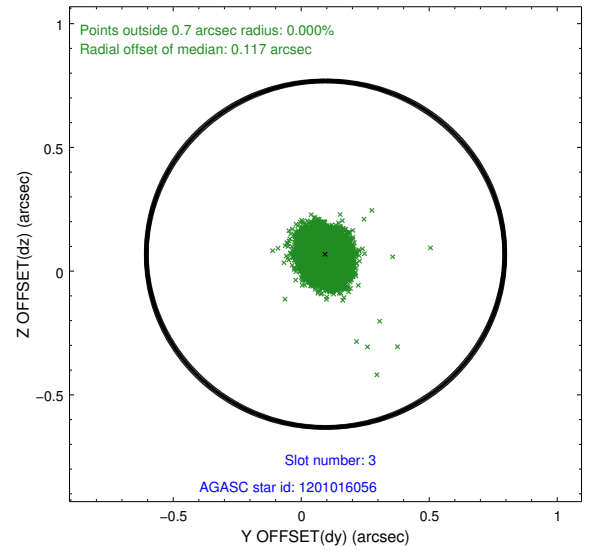
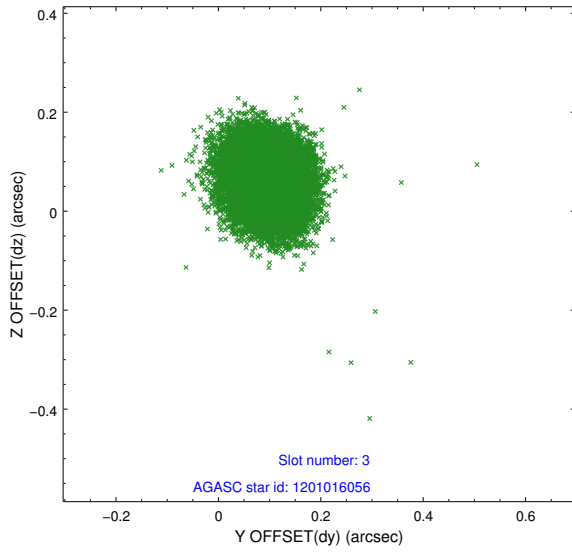


### Slot Statistics

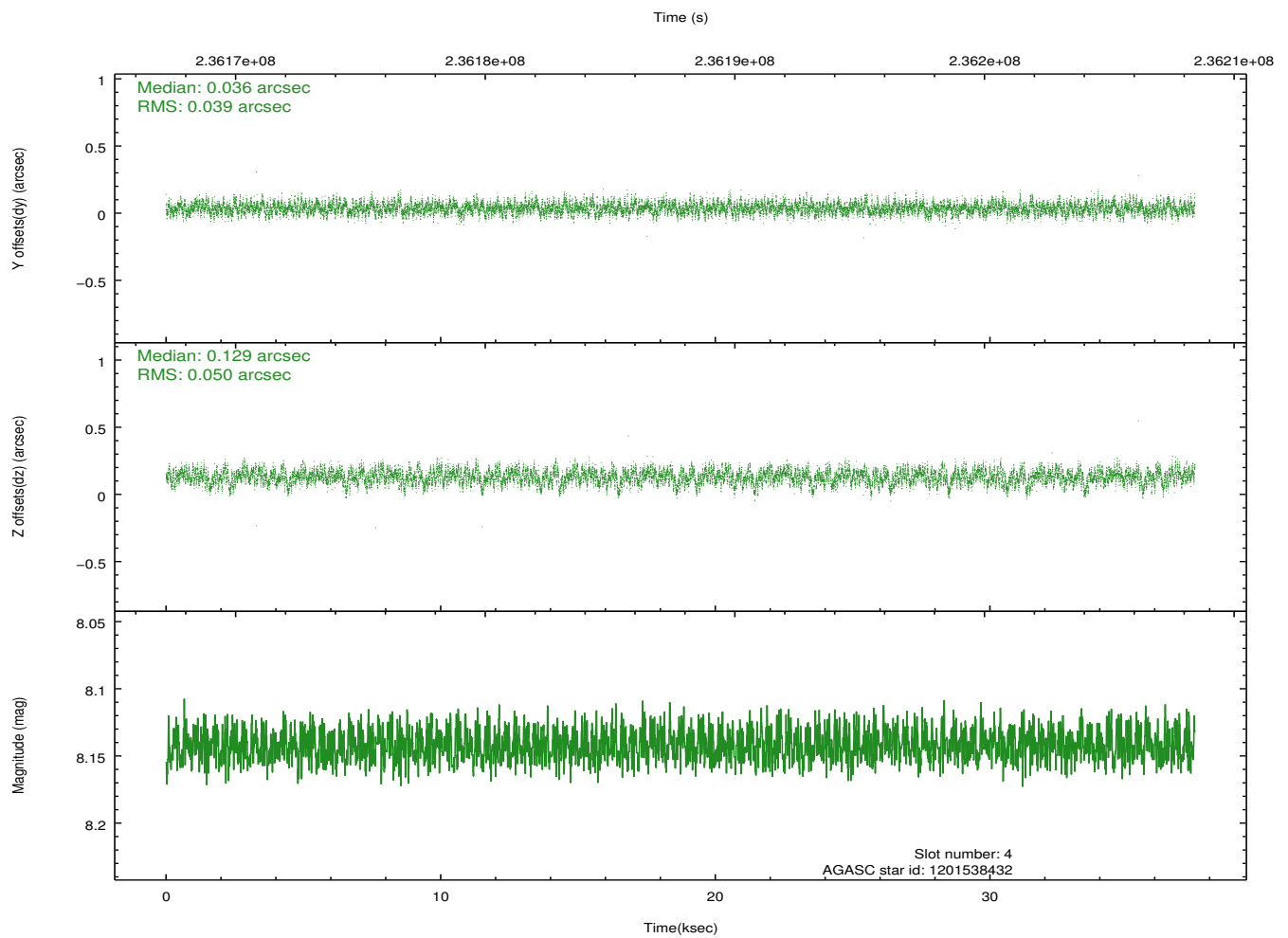
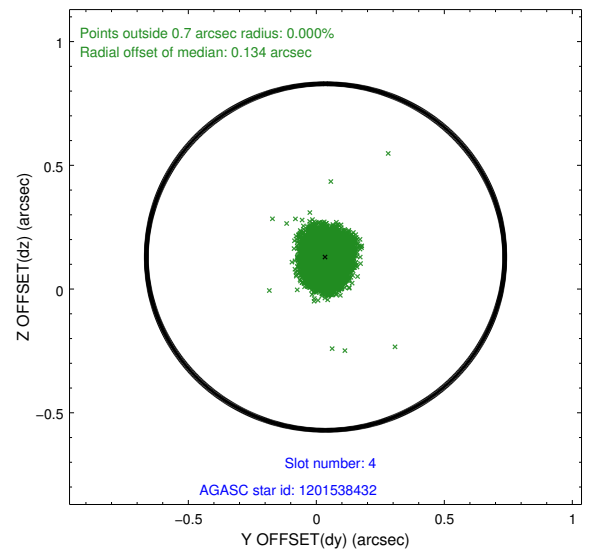
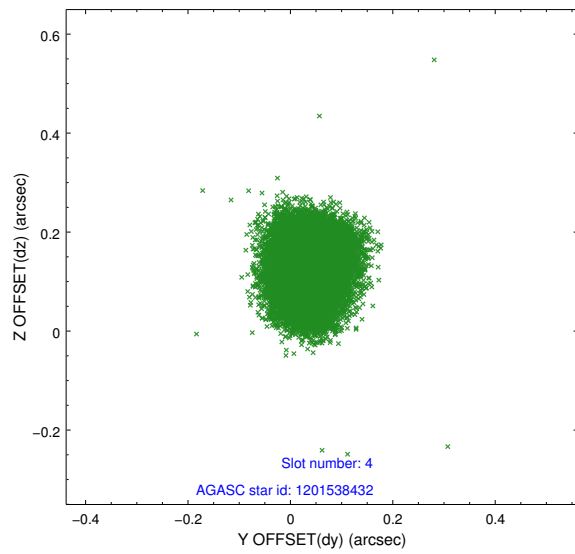
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	9137	-0.067	-0.030	0.010	0.018	0.000000	0.000000	-759.10	-1731.36
1	FID	ACIS-S-4	7.21	9137	0.105	0.041	0.008	0.014	0.000000	0.000000	2154.31	177.21
2	FID	ACIS-S-5	7.23	9137	-0.069	-0.002	0.009	0.016	0.000000	0.000000	-1811.93	170.81
3	GUIDE	1201016056	8.57	18193	0.095	0.068	0.067	0.108	88.122740	-68.971148	413.28	-1791.74
4	GUIDE	1201538432	8.14	18272	0.036	0.129	0.067	0.109	89.309186	-69.477902	-1284.15	-136.45
5	GUIDE	1201539152	9.23	18268	0.051	-0.037	0.103	0.170	89.978520	-69.970583	-2274.33	1555.78
6	GUIDE	1201540816	7.94	18273	-0.110	-0.122	0.054	0.085	86.998494	-69.749817	1483.32	1165.56
7	GUIDE	1201540944	8.18	18268	-0.071	-0.039	0.062	0.097	87.496877	-69.685010	896.69	854.42

## 2.4 Star Slots

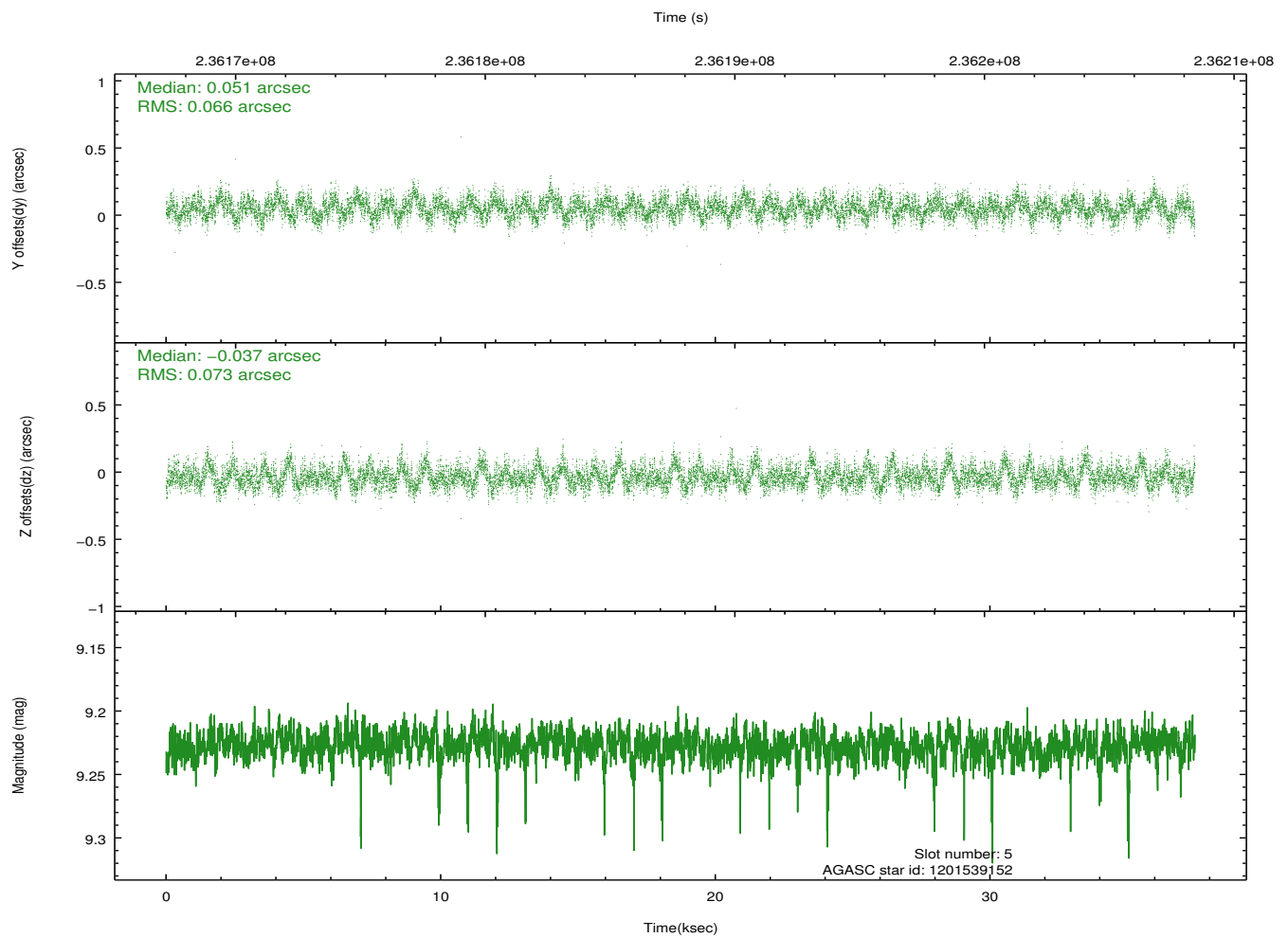
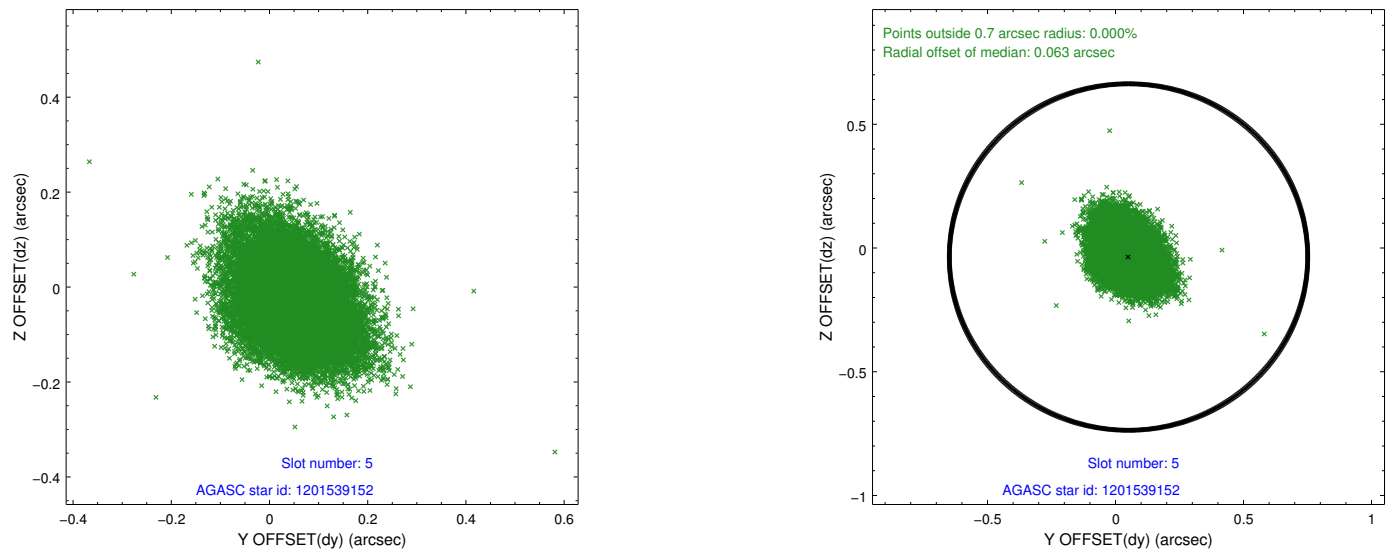
### 2.4.1 Slot 3



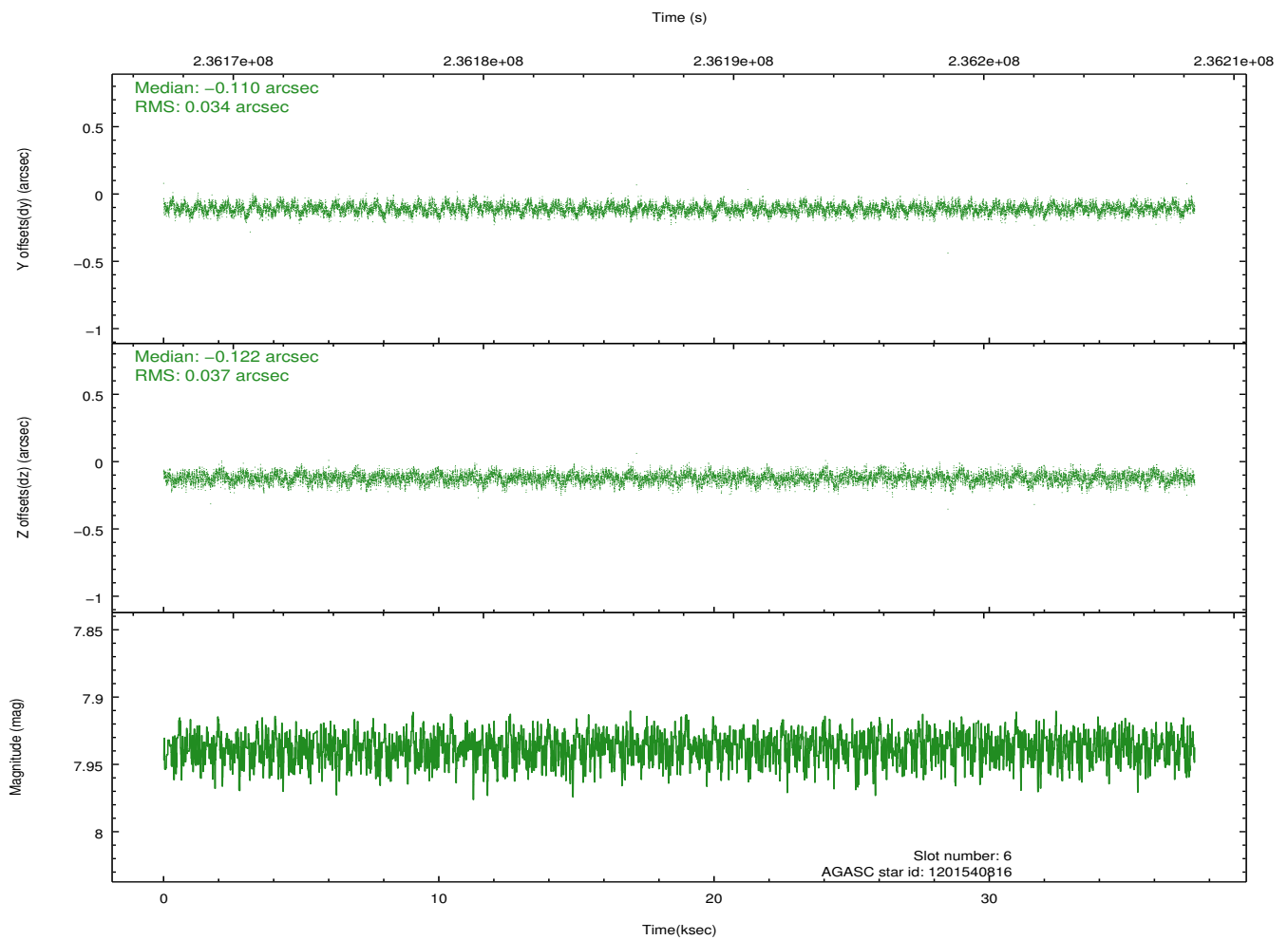
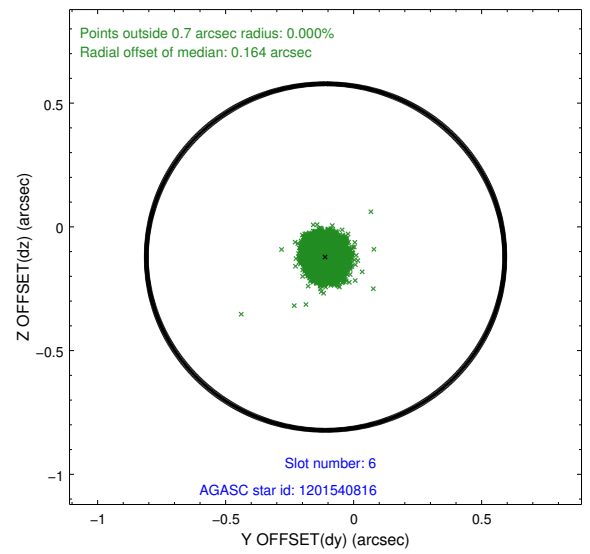
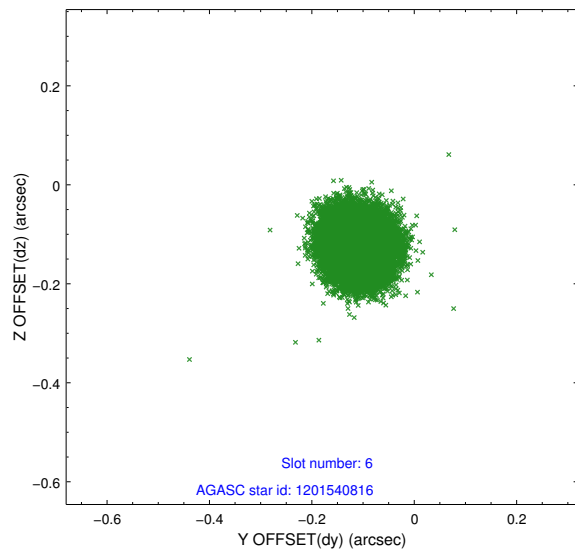
## 2.4.2 Slot 4



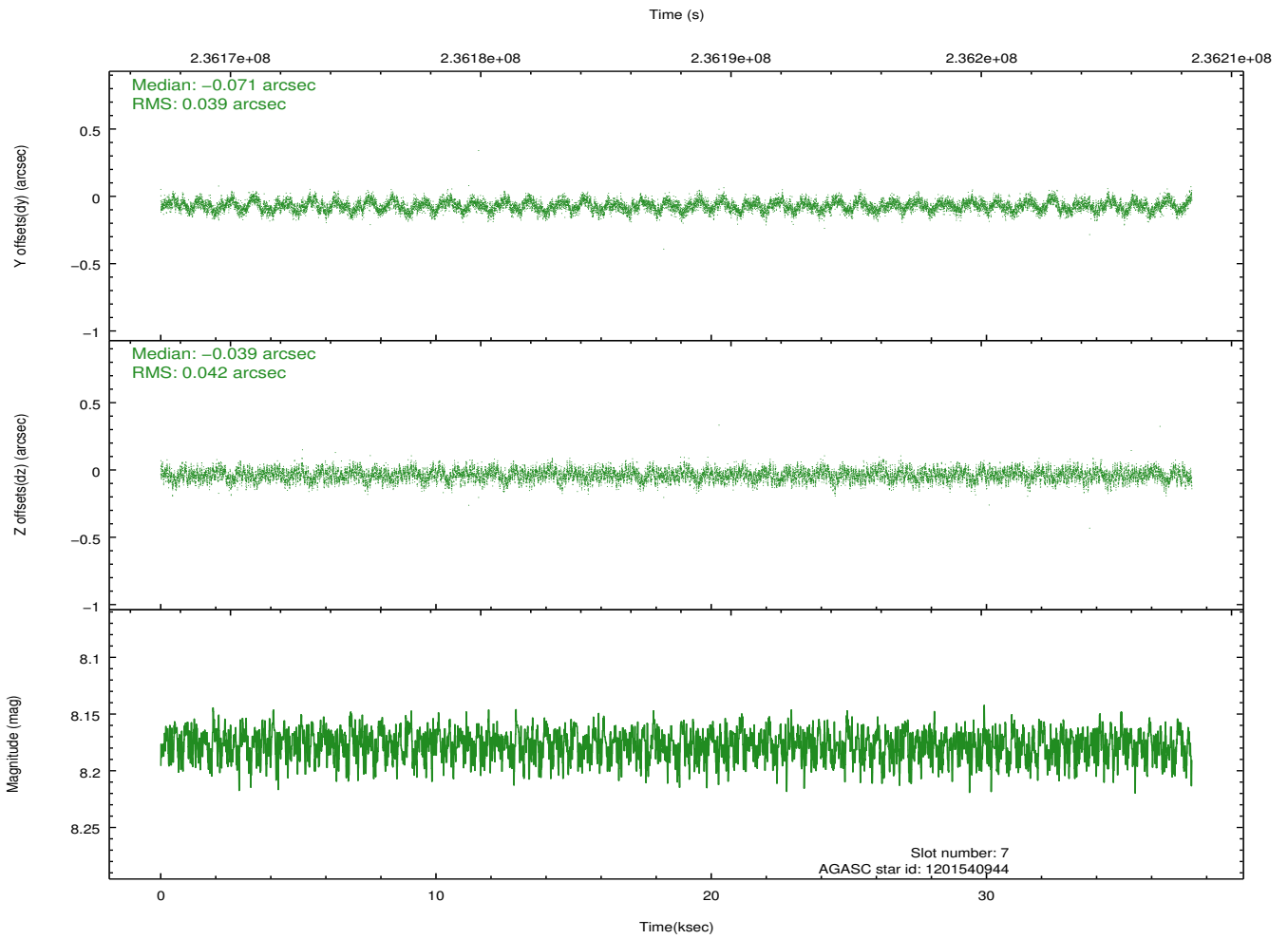
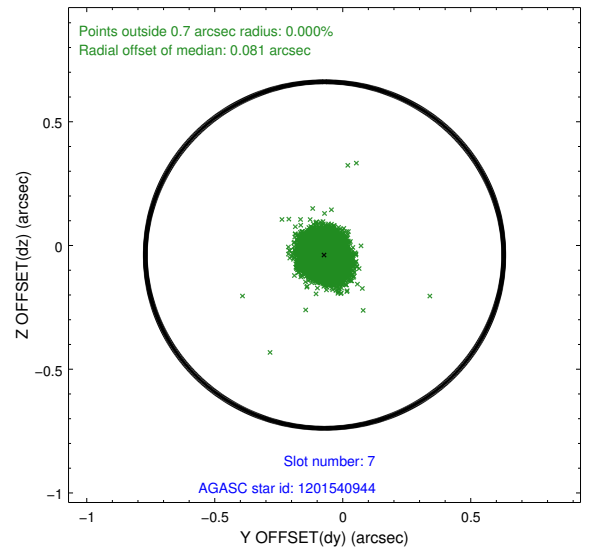
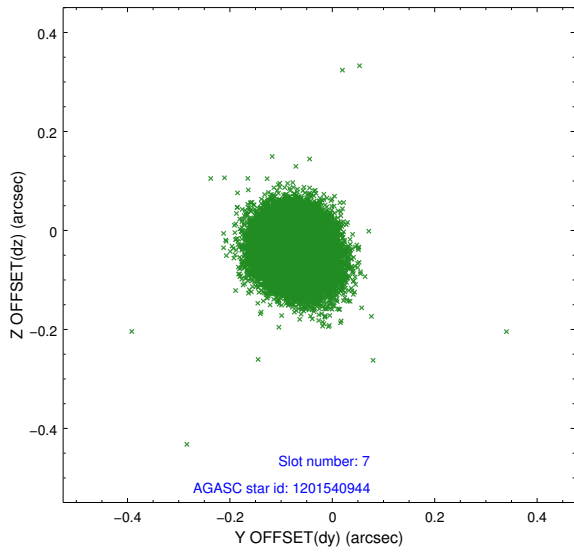
### 2.4.3 Slot 5



## 2.4.4 Slot 6

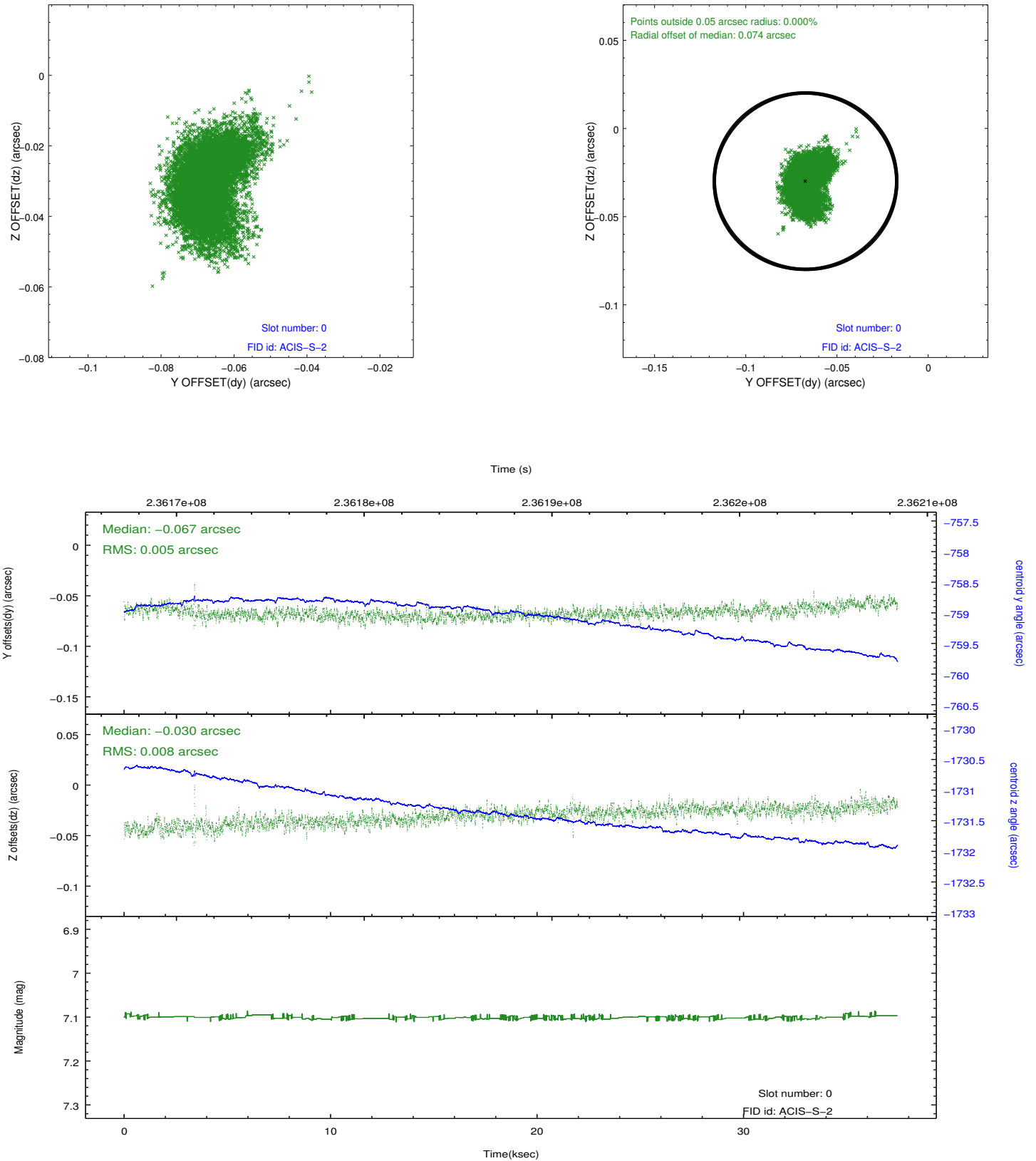


### 2.4.5 Slot 7

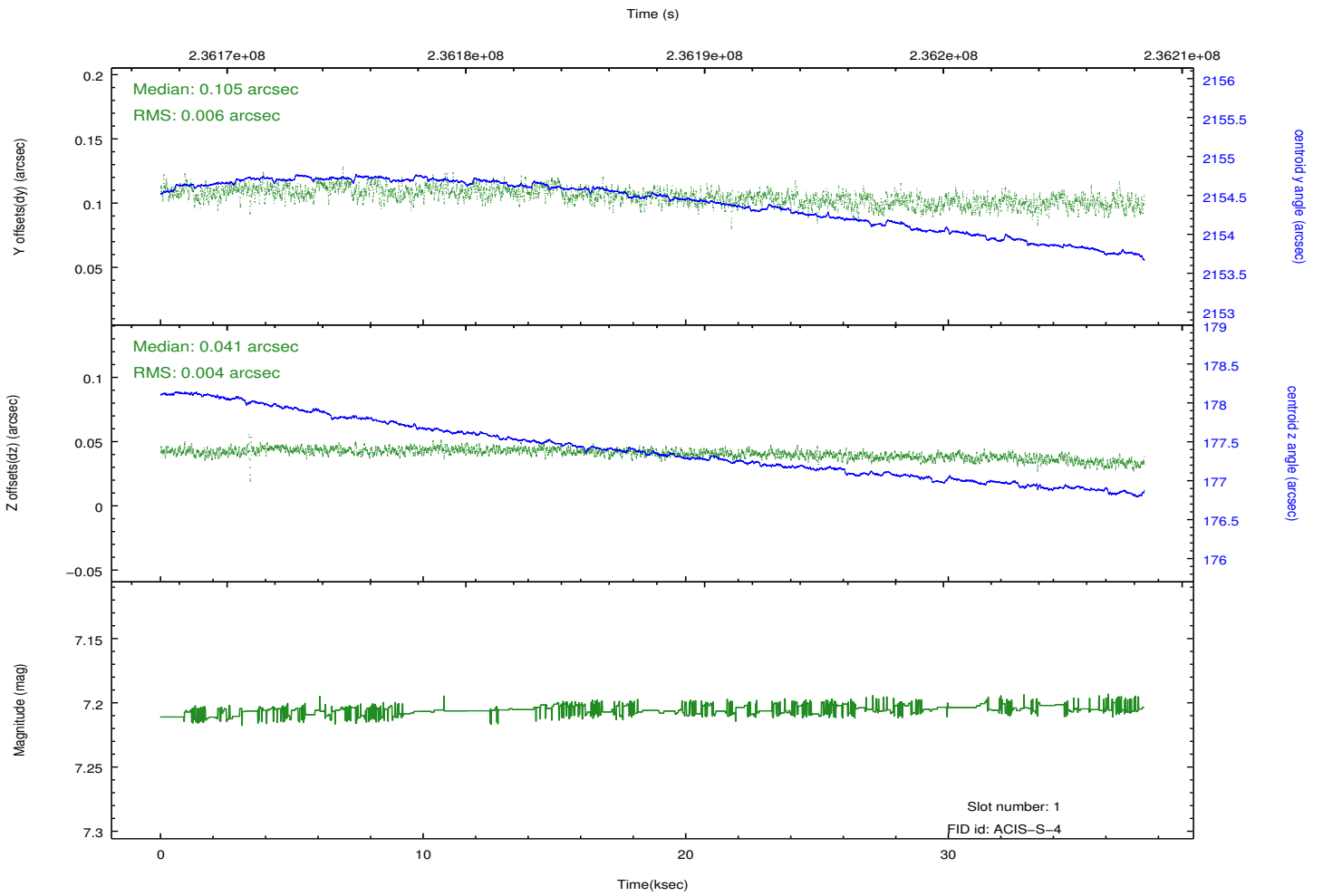
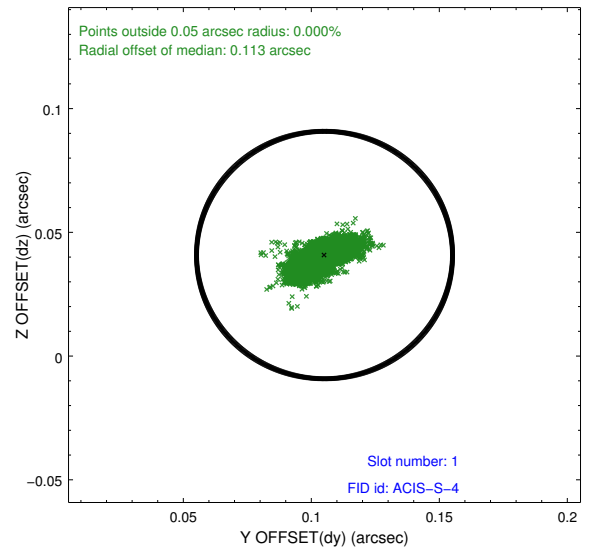
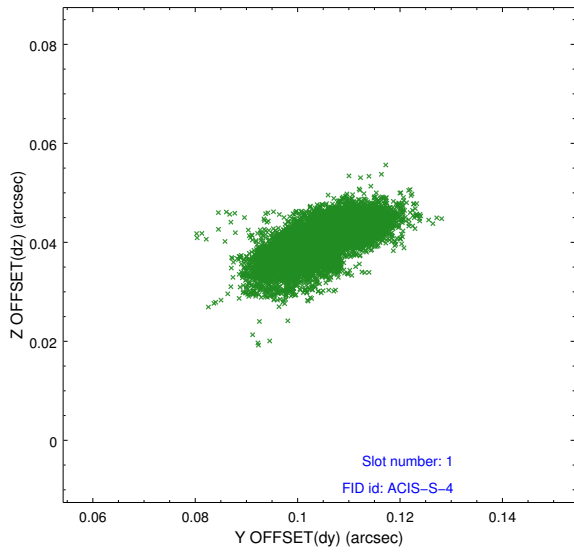


## 2.5 FID Slots

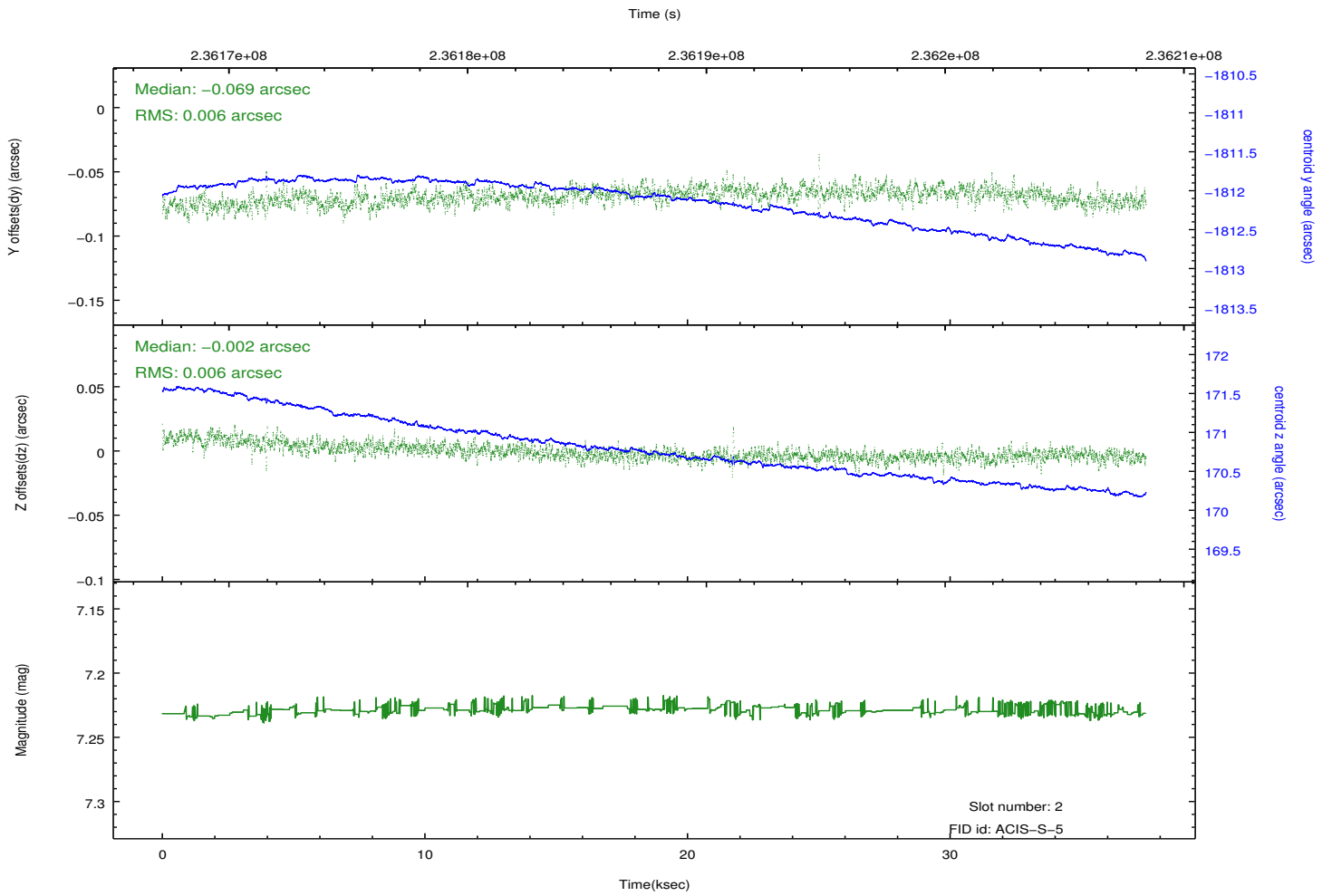
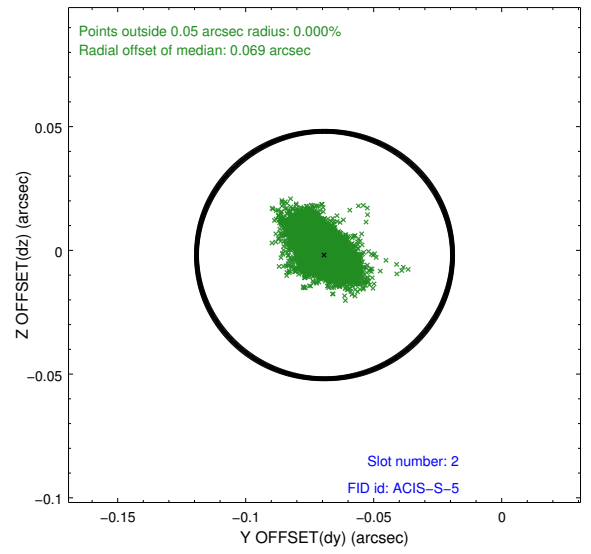
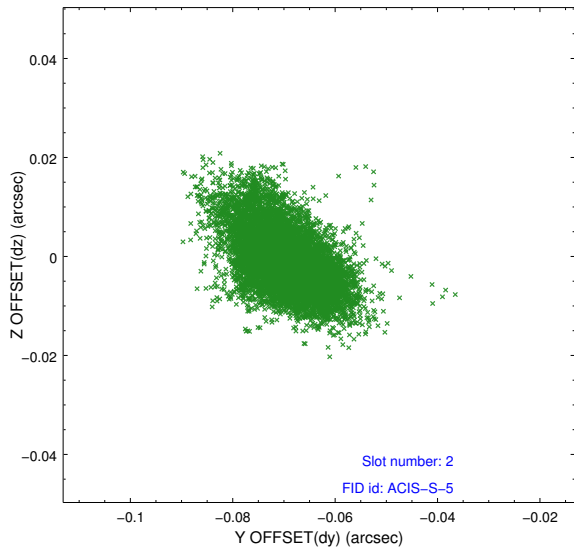
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2013.01.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	37.45419

### A.2 Comments