

# V&V Reference Report

## L2 ASCDS Version : 10.5.2

Observation 18072 - L2 Version 1  
Chandra X-Ray Center

L2 Processing Date : Dec 2 2016

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# 1 Front

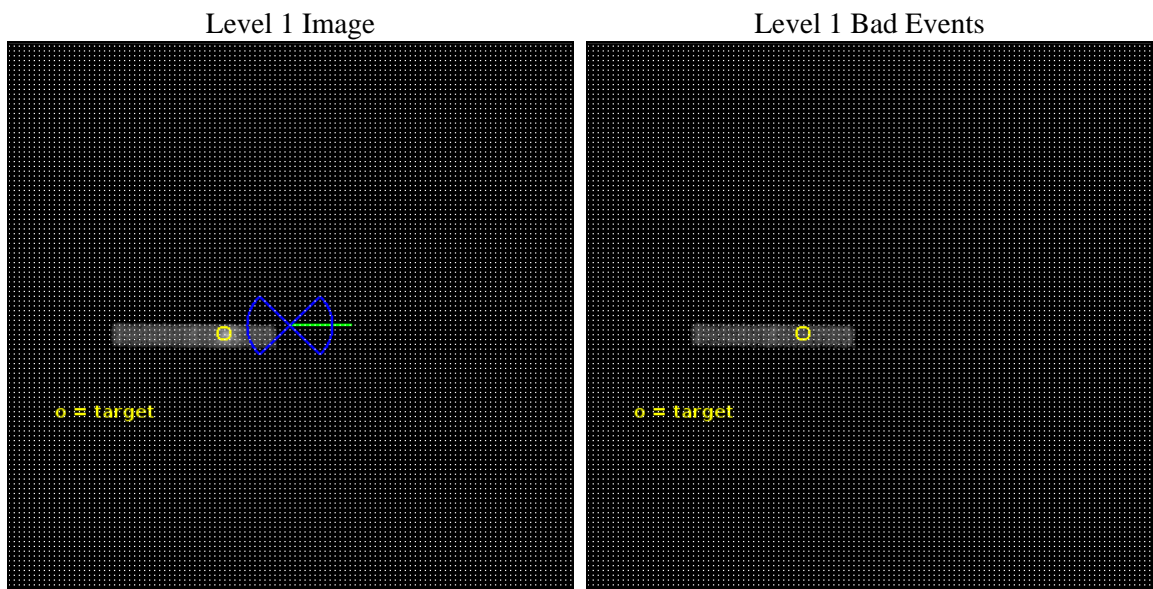
seq_num	601254	Sequence number
obs_id	18072	Observation id
title	Timing and Spectral Studies of the Extreme Binary Population in M82	&#160
observer	Professor Fiona Harrison	Principal investigator
object	M82 offset 2	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	148.969583	Observer's specified target RA [deg]
dec_targ	69.679444	Observer's specified target Dec [deg]
ra_nom	148.8060000861	Nominal RA [deg]
dec_nom	69.687102656458	Nominal Dec [deg]
roll_nom	90.525642732967	Nominal Roll [deg]
revision	1	Processing version of data
ontime	25557.5	Sum of GTIs [s]
livetime	23618.863669969	Livetime [s]
ontime1	25557.5	Sum of GTIs [s]
l2events	34824	Number of level 2 events



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 1



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	25455.917000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	25557.5	Sum of GTIs [s]
caldbver	4.7.2	&#160	ontime1	25557.5	Sum of GTIs [s]
date	2016-12-02T19:38:52	Date and time of file creation	l1events	63877	Number of level 1 events
revision	1	Processing version of data			

### 2.1.4 Events

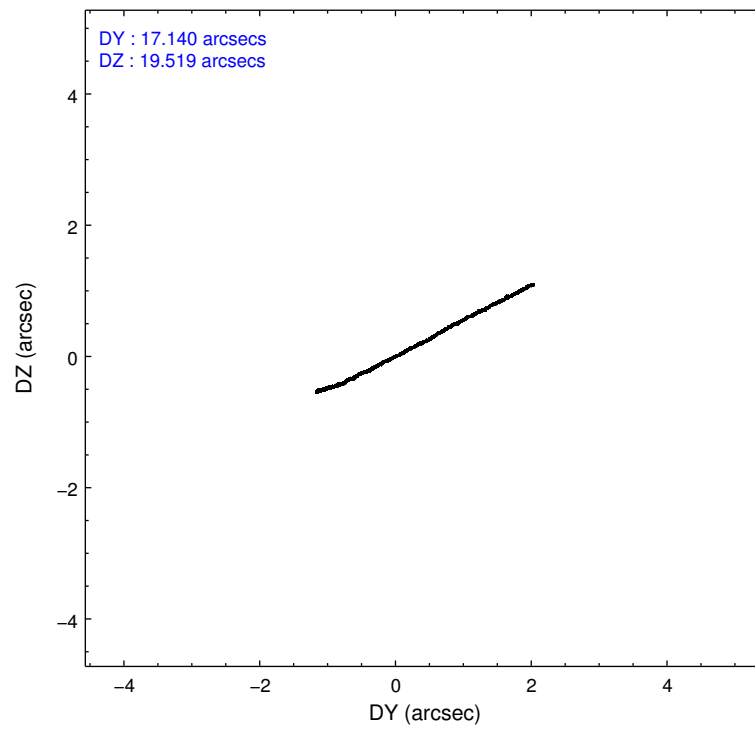
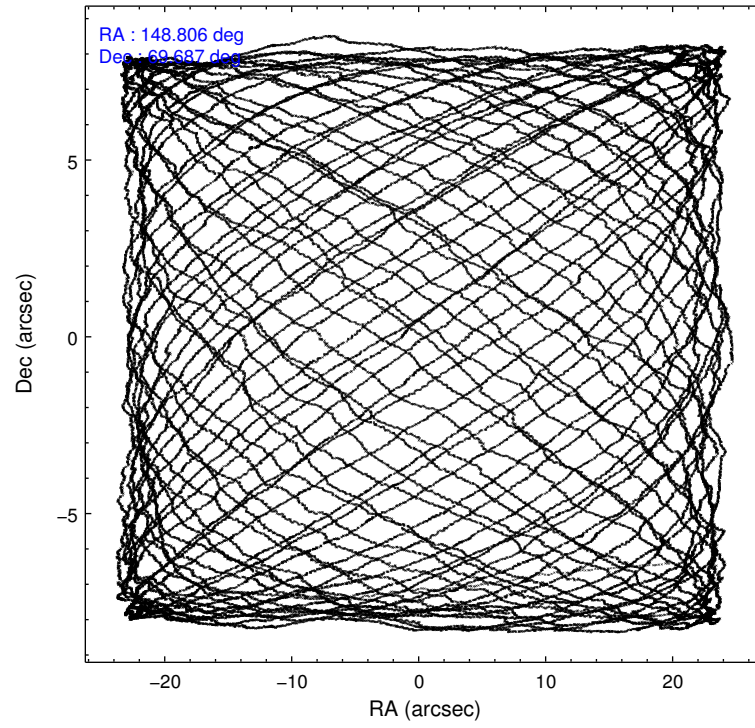
	<b>ccd 1</b>
level 1 events	63877
rejected events	25868
rejected %	40%

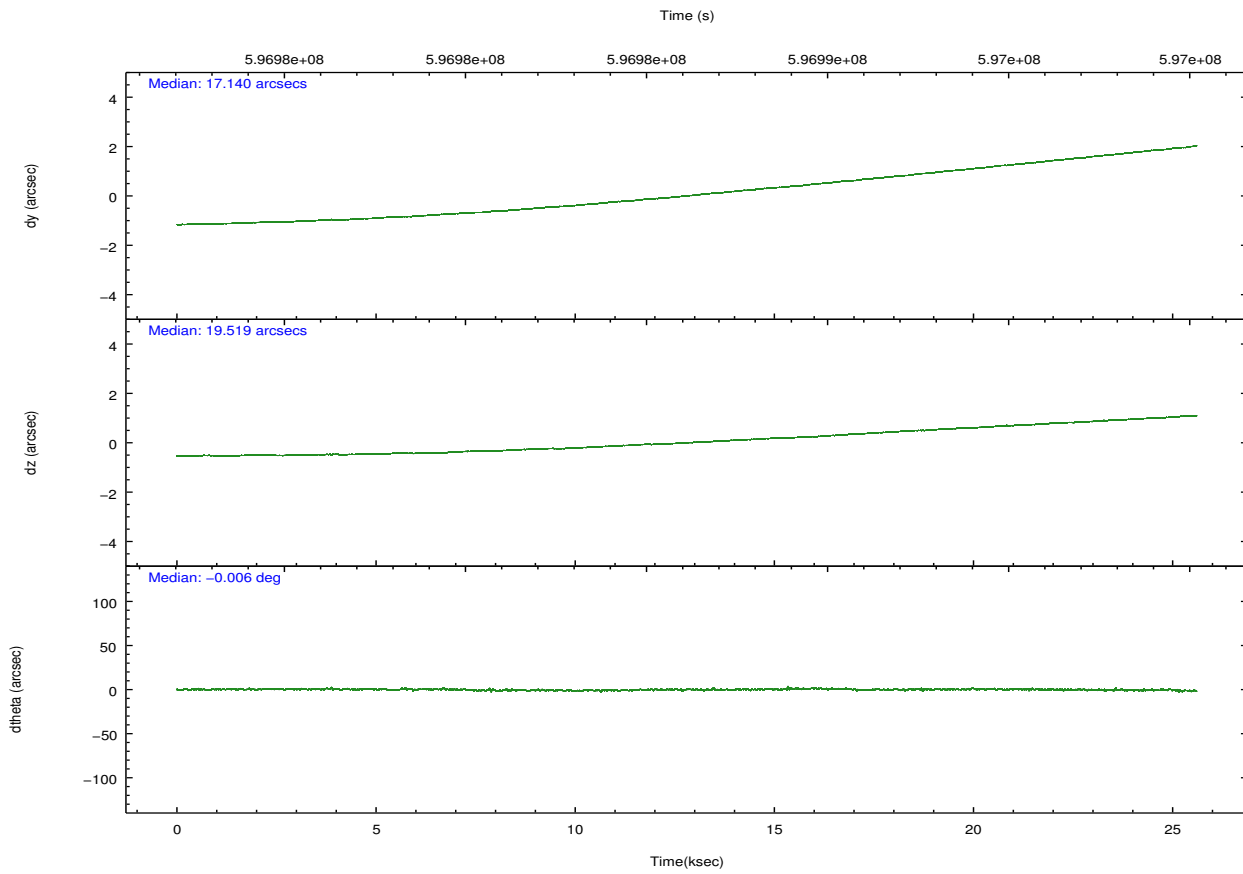
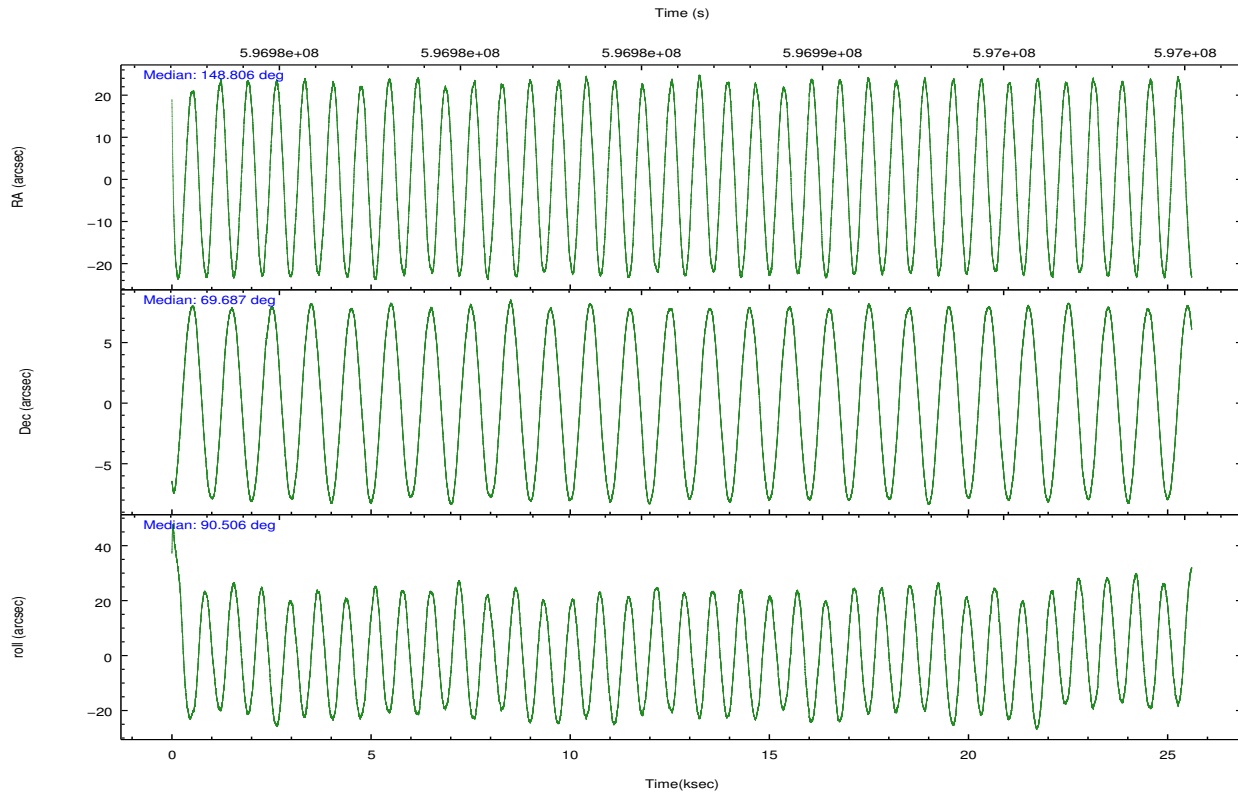
	<b>ccd 1</b>
grade 0 events	28291
	44%
grade 1 events	196
	0%
grade 2 events	4381
	6%
grade 3 events	1837
	2%
grade 4 events	1750
	2%
grade 5 events	1239
	1%
grade 6 events	1754
	2%
grade 7 events	24429
	38%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-1	ACIS-1	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	148.846595	148.8060000861049	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	69.663363	69.68710265645841	Subarray start row	897	897
[deg] Pointing Roll	90.278871	90.52564273296677	Subarray row count	128	128
[deg] Roll angle	270.000000	270.000000	Alternating exposures requested	N	N
[deg] Roll tolerance	45.000000	45.000000	[s] Primary exposure time	0.000000	0.5
Roll constraint allows 180D rotation	Y	Y			
[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)	596973432.184000	596972224.83551			
Observation start date	2016-12-01T09:56:04	2016-12-01T09:37:04			
[s] Observation end time (MET)	596998888.184000	596999117.76206			
Observation end date	2016-12-01T17:00:20	2016-12-01T17:05:17			
Read mode	TIMED	TIMED			

## 2.3 Aspect





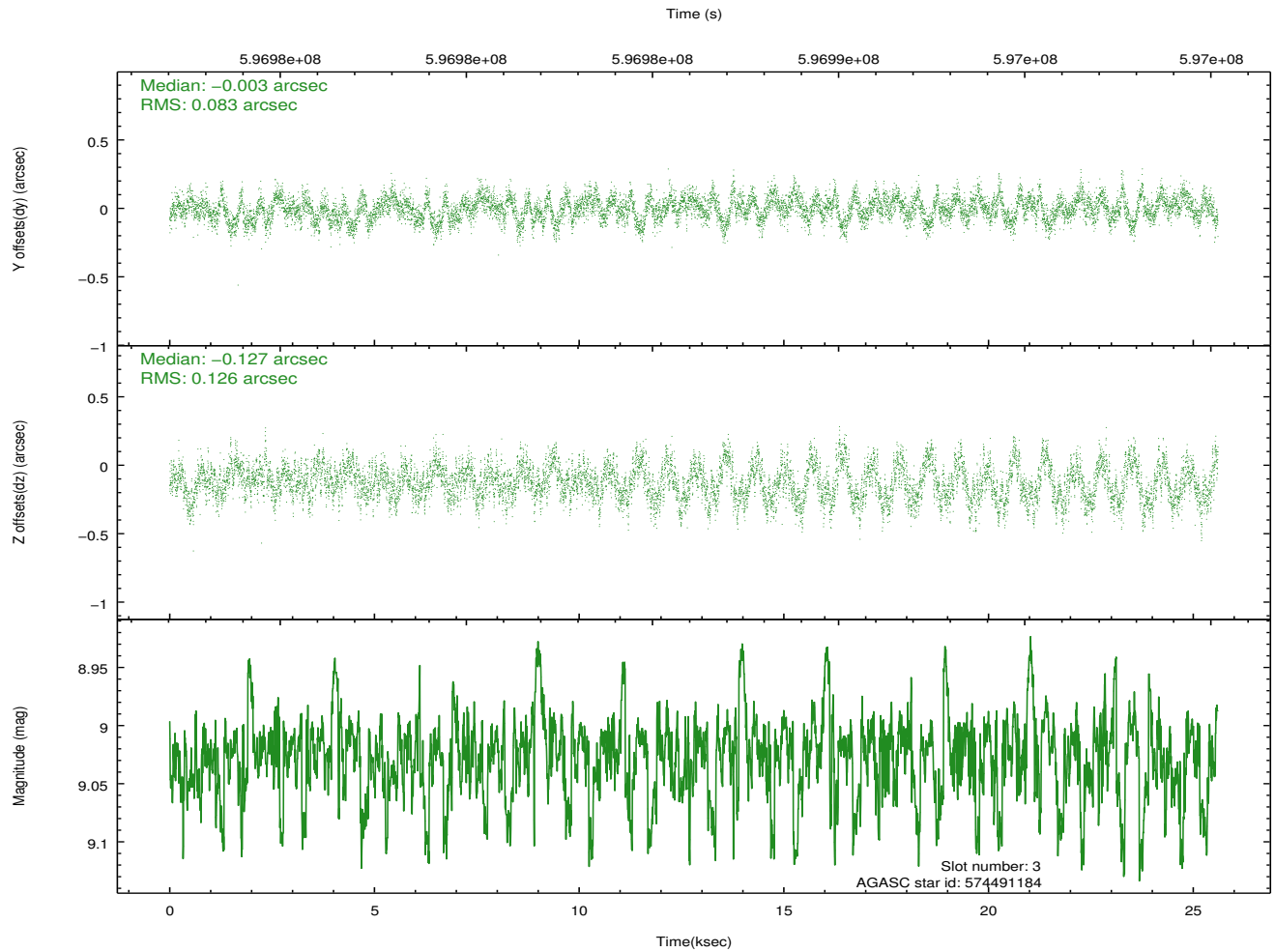
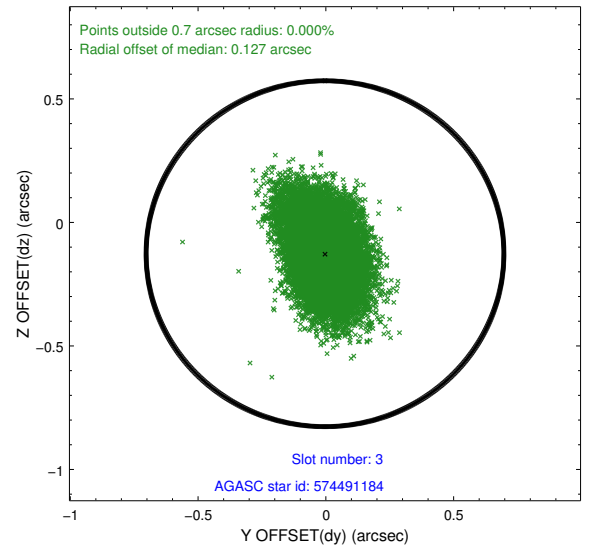
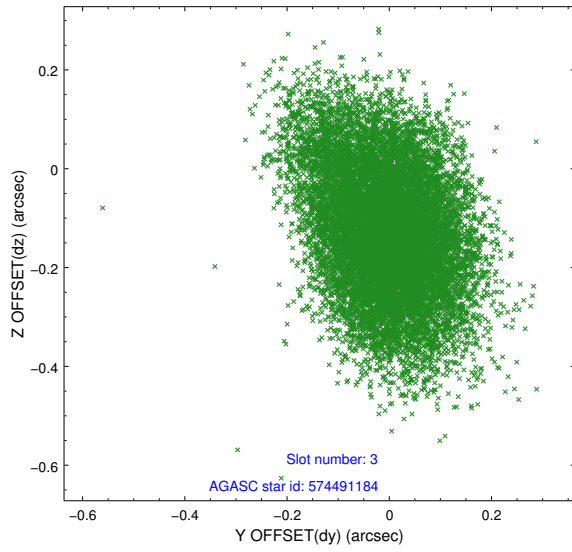
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.14	6245	-0.065	-0.026	0.031	0.079	0.000000	0.000000	922.11	-843.31
1	FID		ACIS-I-4	7.09	6244	0.437	0.075	0.048	0.071	0.000000	0.000000	2142.58	1056.63
2	FID		ACIS-I-5	7.13	6245	-0.469	0.024	0.030	0.053	0.000000	0.000000	-1826.26	1054.31
3	GUIDE	used	574491184	9.03	12481	-0.003	-0.127	0.159	0.265	148.582453	69.768699	381.75	326.40
4	GUIDE	used	574491280	9.30	12466	0.259	0.143	0.137	0.224	148.611567	69.450135	-766.74	302.14
5	GUIDE	used	574491872	9.24	12480	-0.035	-0.345	0.146	0.240	147.207613	69.765453	398.88	2038.39
6	GUIDE	used	574886464	9.75	12474	-0.126	0.027	0.232	0.361	149.898674	70.203982	1951.75	-1291.94
7	GUIDE	used	574886496	8.48	12483	-0.094	0.299	0.115	0.188	148.945563	70.041136	1360.28	-128.03

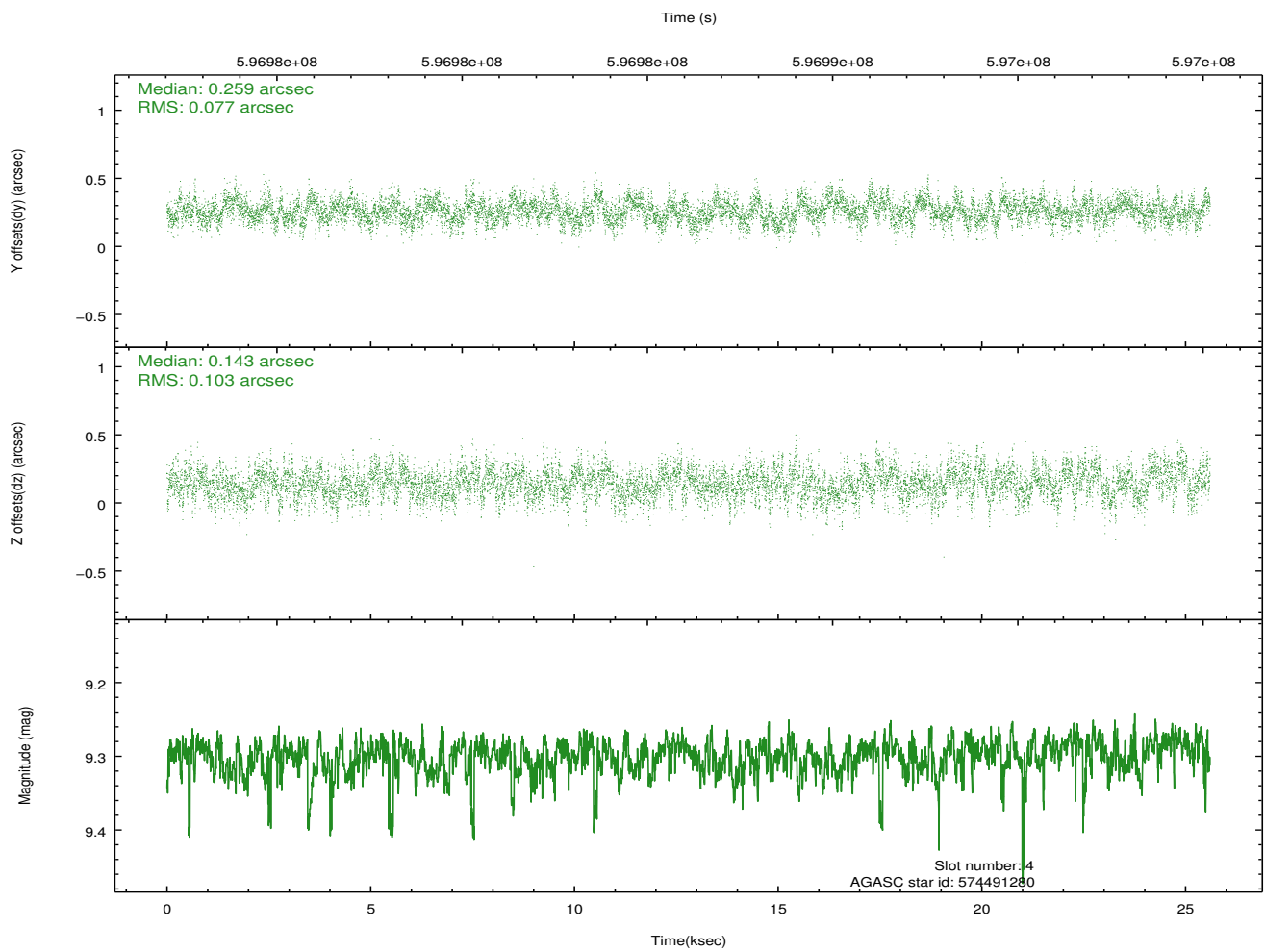
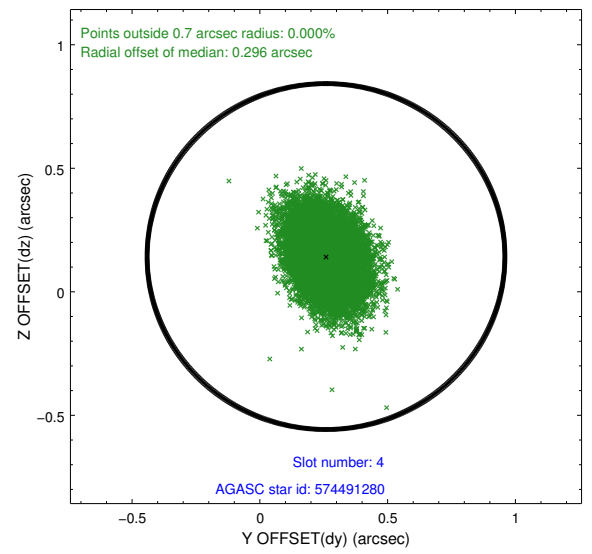
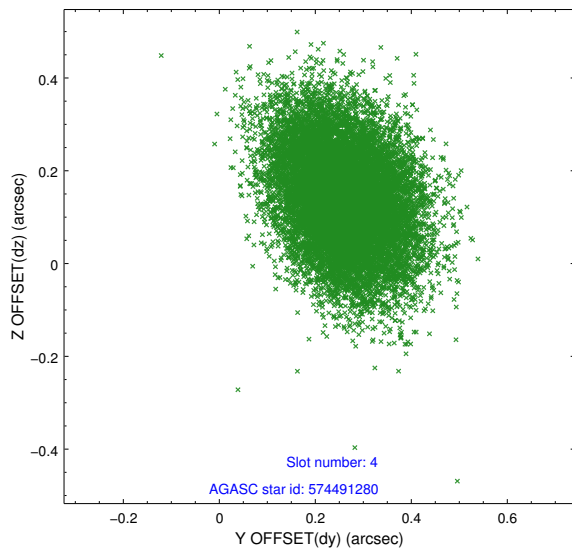
∞

## 2.4 Star Slots

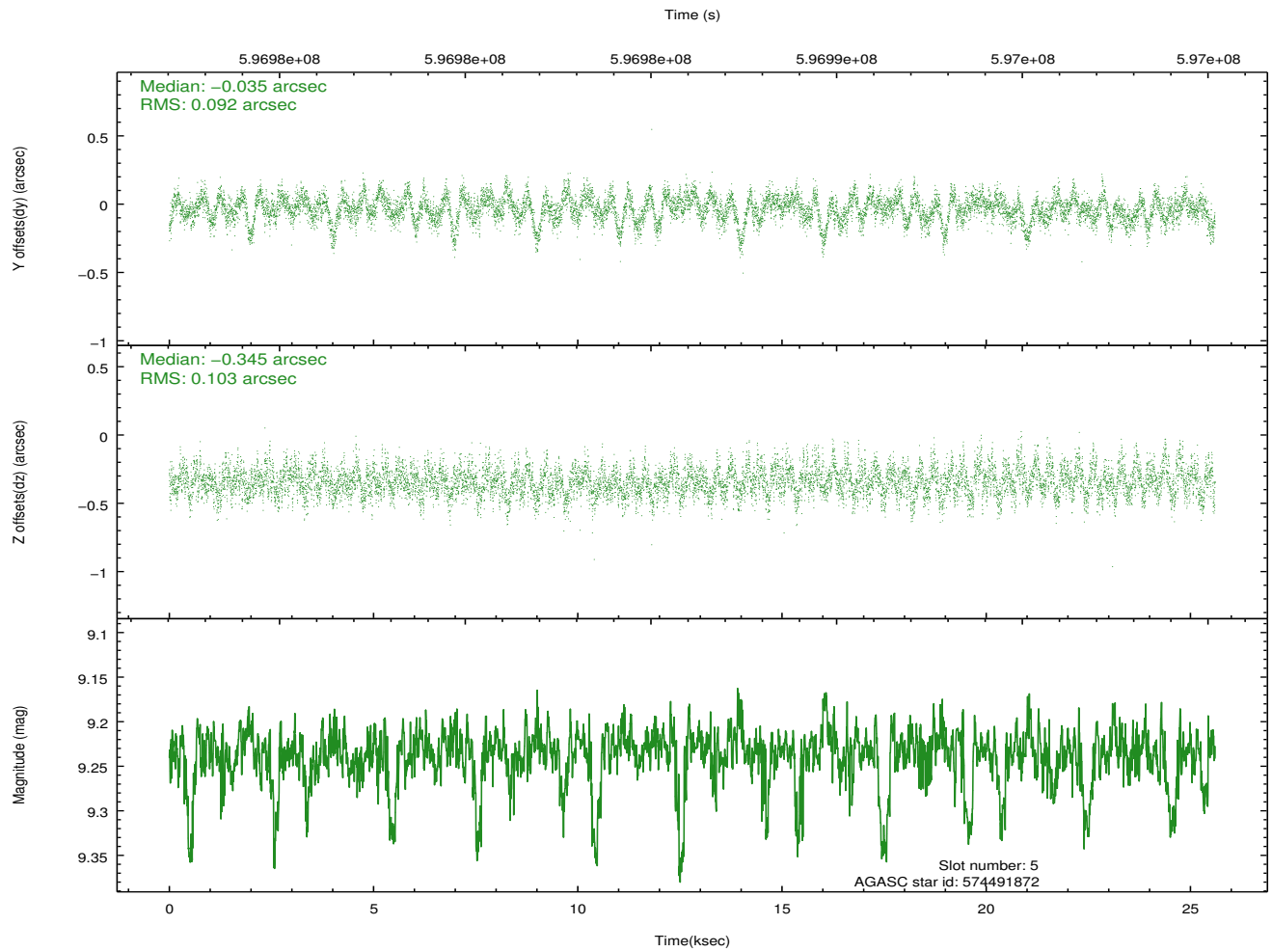
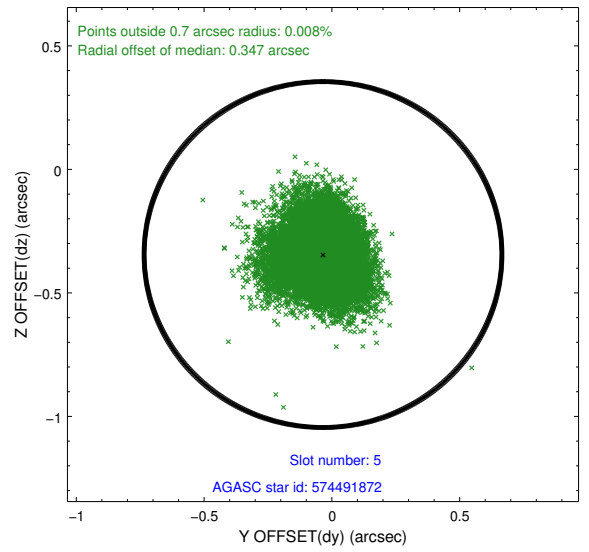
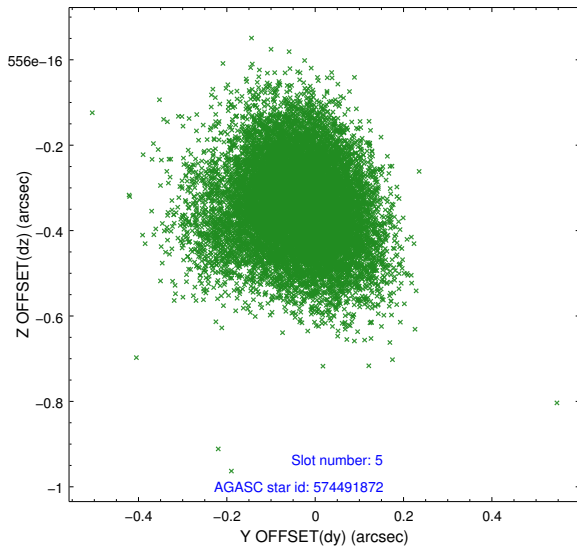
### 2.4.1 Slot 3



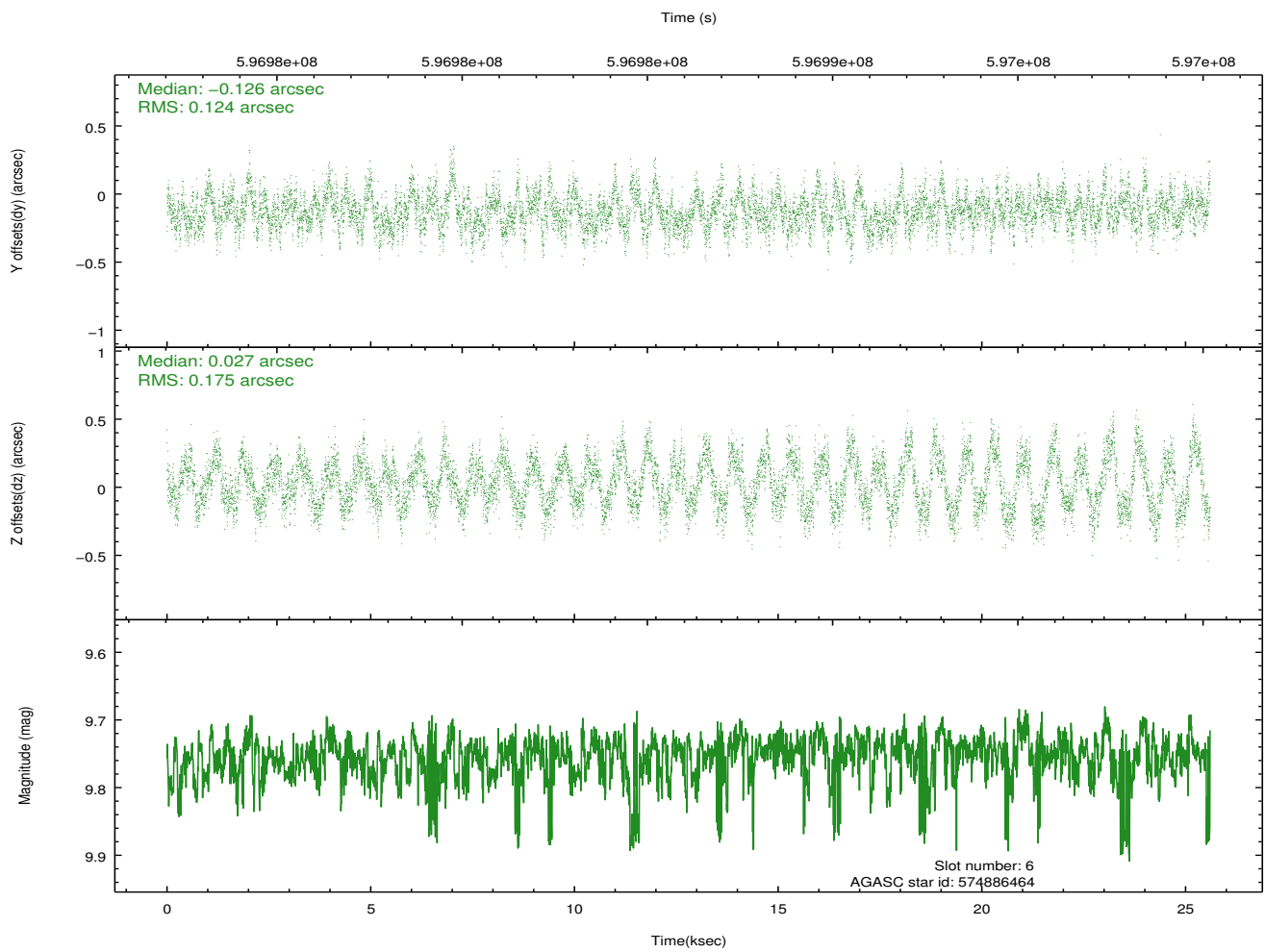
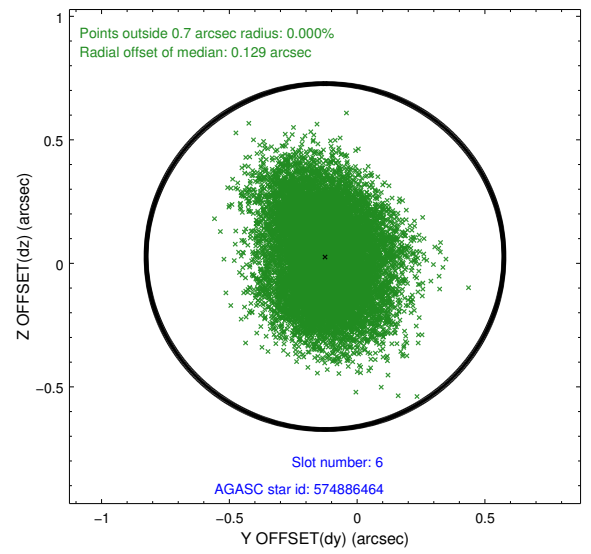
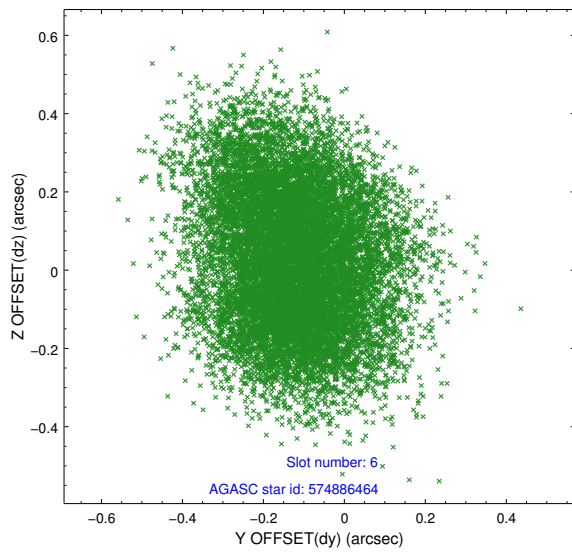
## 2.4.2 Slot 4



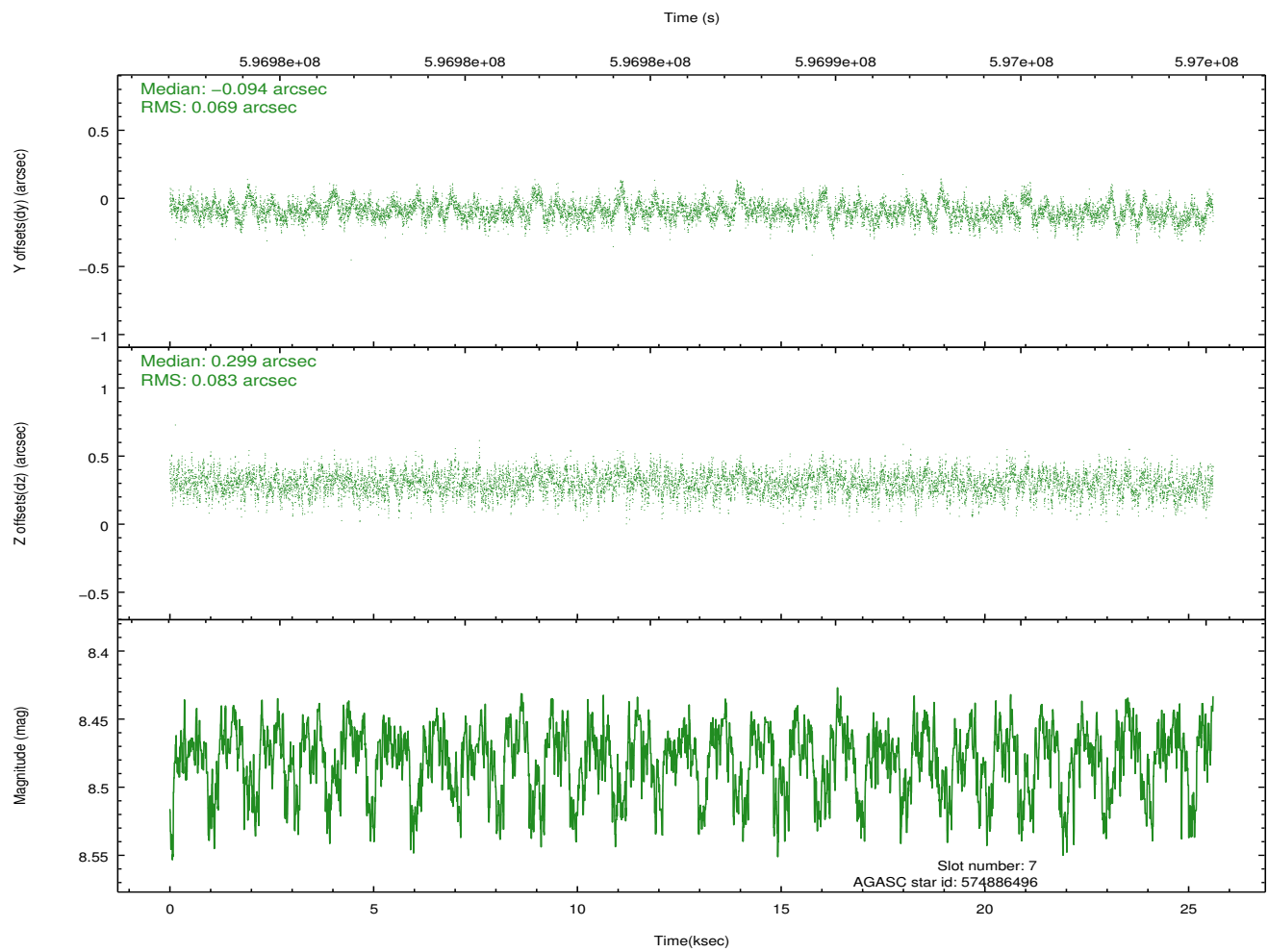
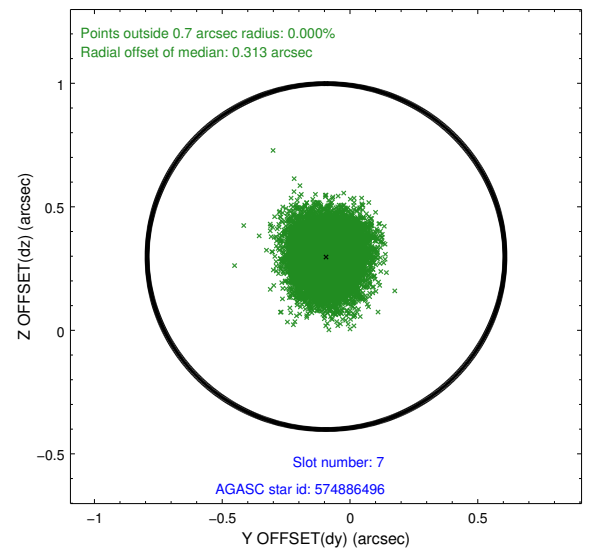
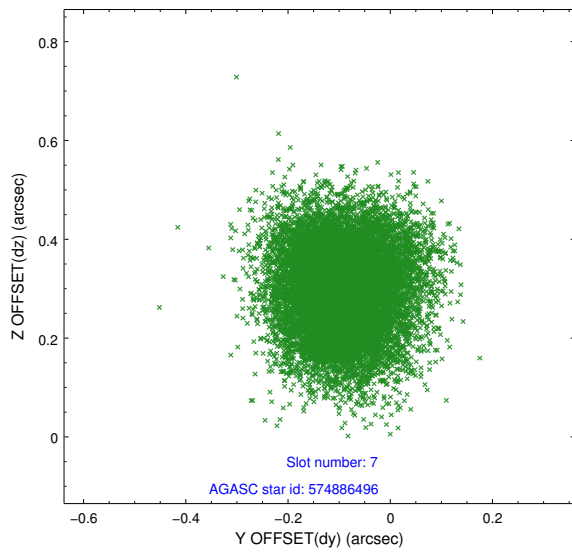
### 2.4.3 Slot 5



## 2.4.4 Slot 6

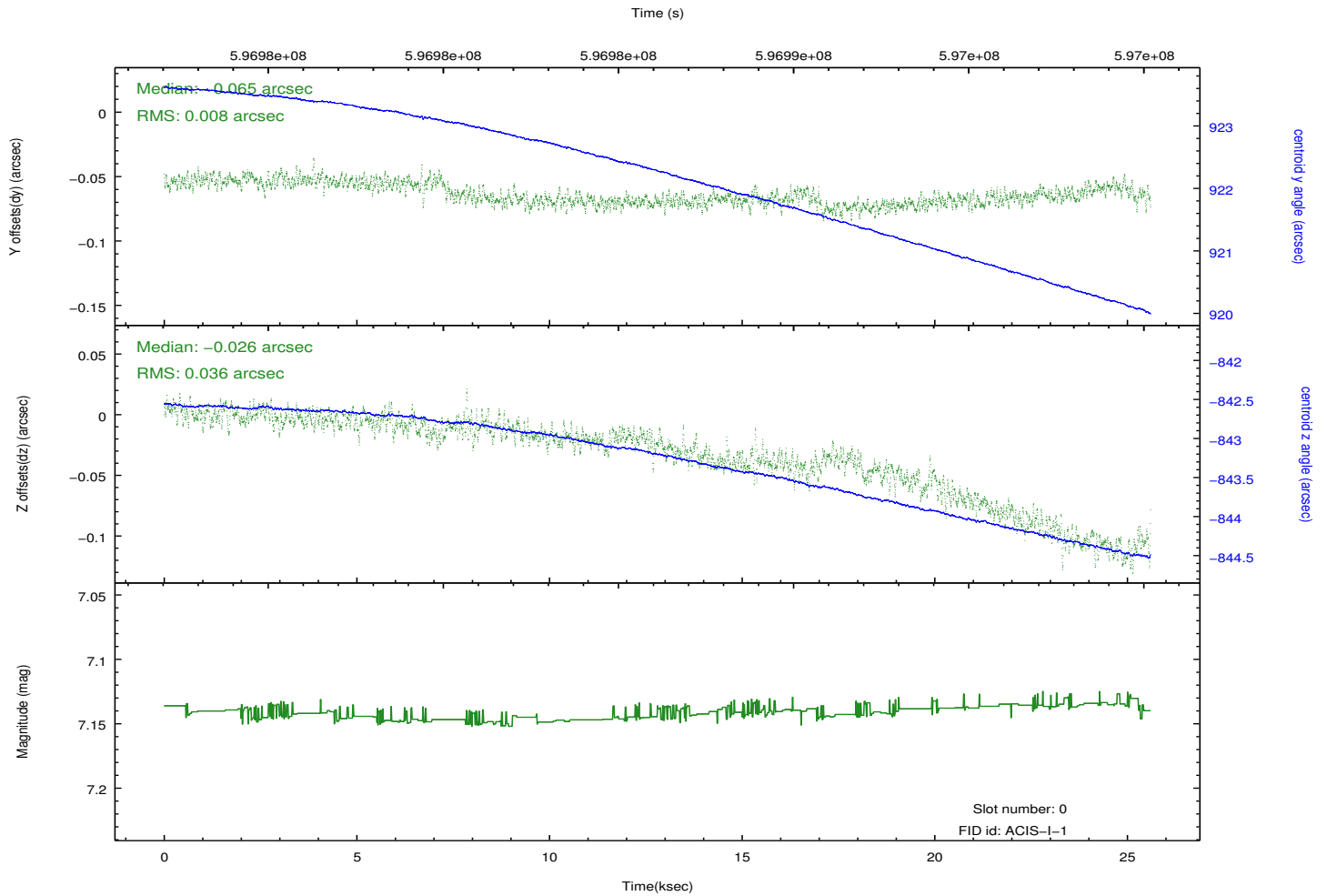
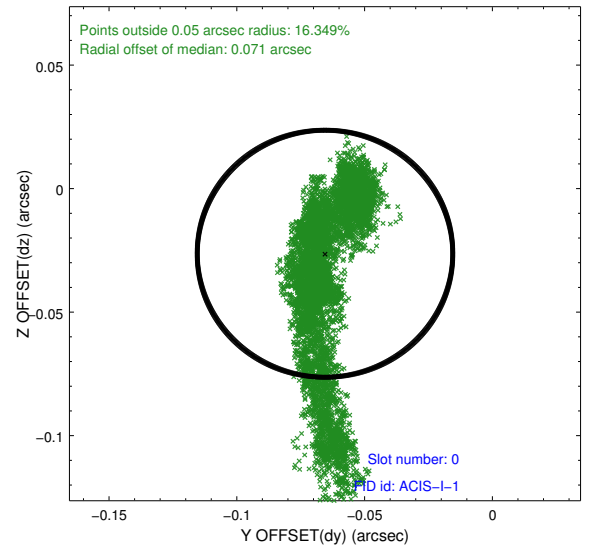
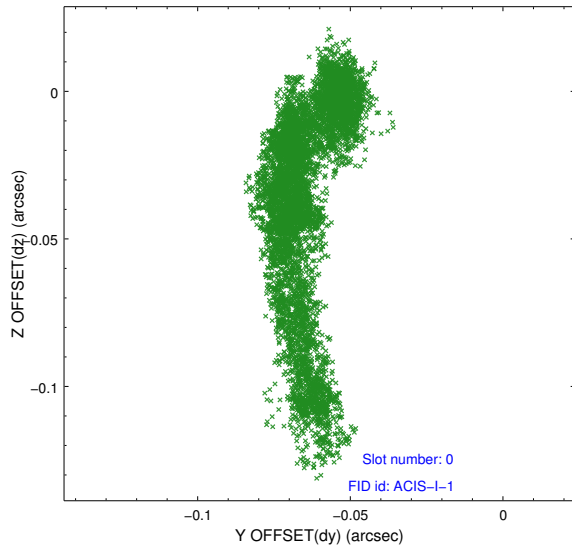


## 2.4.5 Slot 7

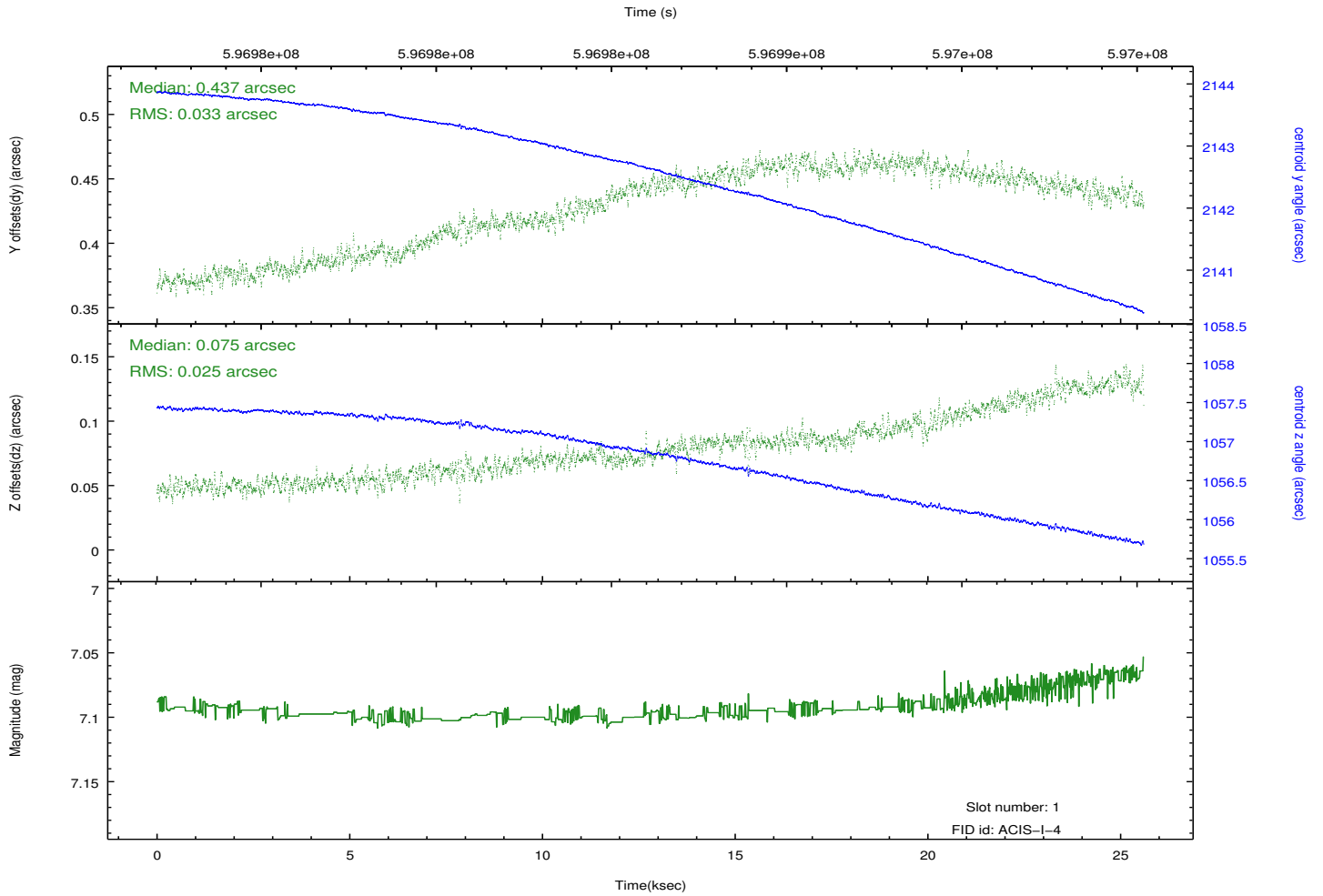
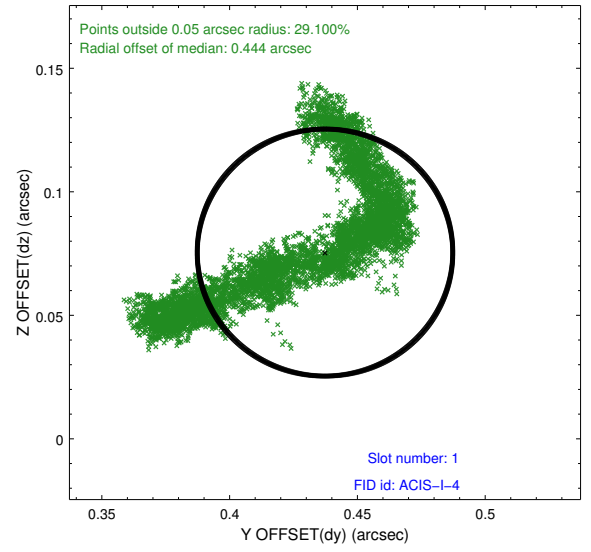
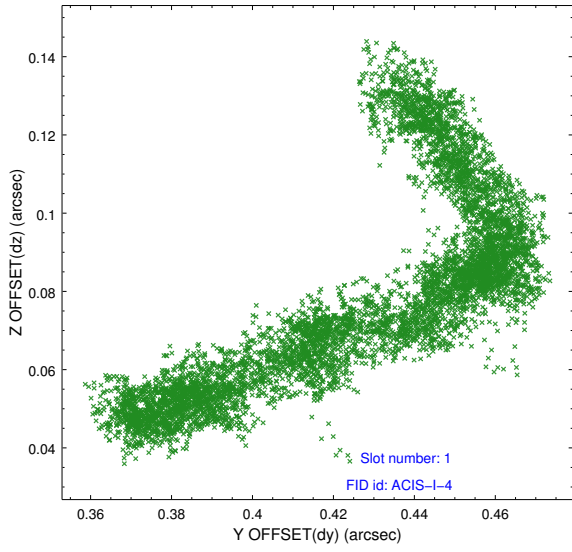


## 2.5 FID Slots

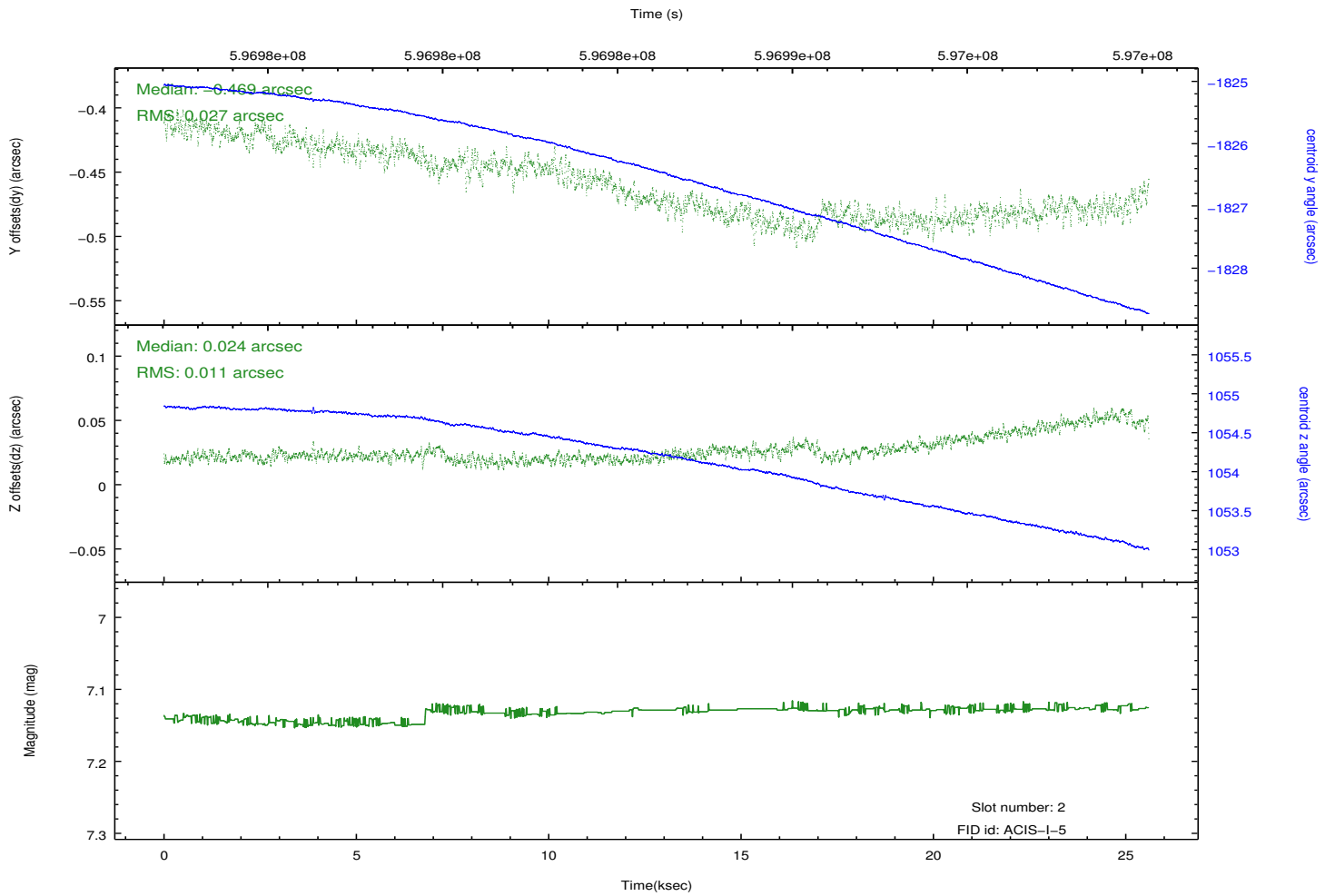
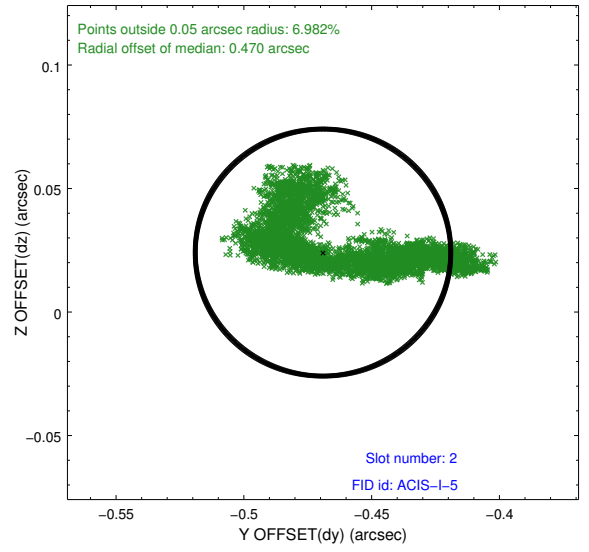
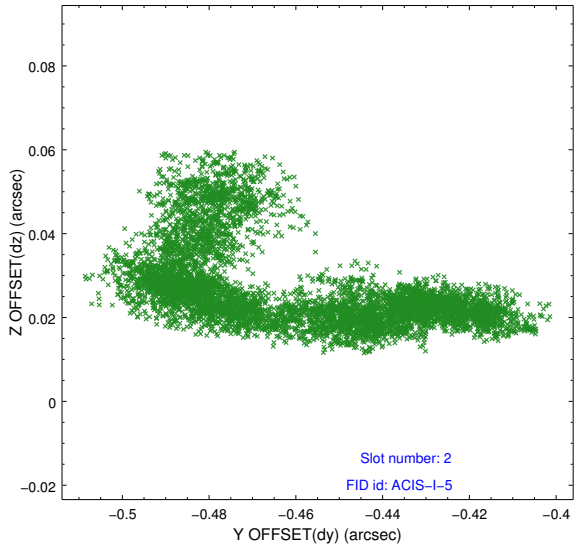
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2016.12.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.5575

## A.2 Comments

Roll angle preference OK.