

# V&V Reference Report

## L2 ASCDS Version : 8.5.1

Observation 6097 - L2 Version 3  
Chandra X-Ray Center

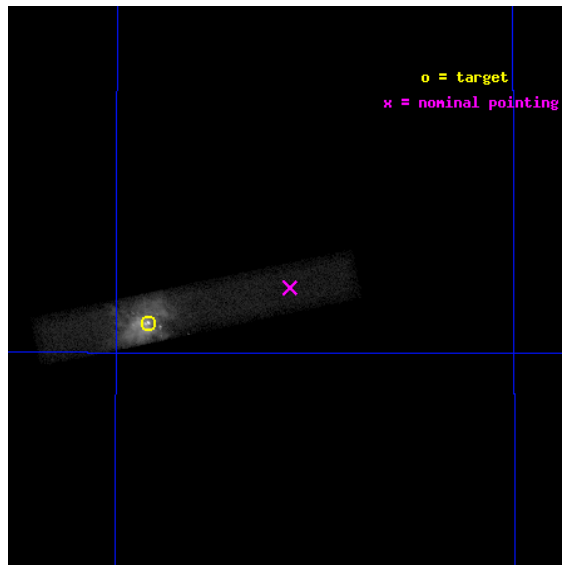
L2 Processing Date : Dec 17 2012

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# 1 Front

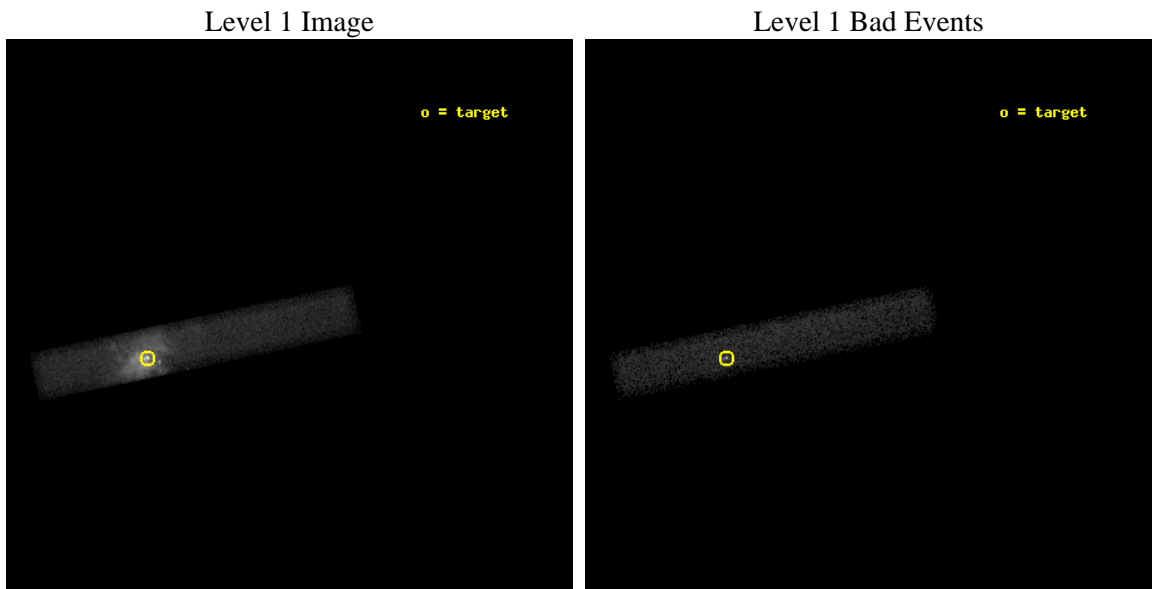
seq_num	600475	Sequence number
obs_id	6097	Observation id
title	A State Transition of the Ultraluminous X-Ray Source in M82	Propos
observer	Prof. Philip Kaaret	Principal investigator
object	M82 ULX	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	148.959167	Observer's specified target RA [deg]
dec_targ	69.679722	Observer's specified target Dec [deg]
ra_nom	148.7812772614	Nominal RA [deg]
dec_nom	69.694731078901	Nominal Dec [deg]
roll_nom	168.08538526786	Nominal Roll [deg]
revision	3	Processing version of data
ontime	58188.000867039	Sum of GTIs [s]
livetime	52773.445371884	Livetime [s]
ontime7	58188.000867039	Sum of GTIs [s]
l2events	210936	Number of level 2 events



## 2 OBI

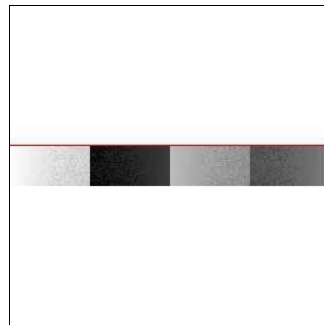
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	58000.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1	Processing system revision	ontime	58188.000867039	Sum of GTIs [s]
caldbver	4.5.5	&#160	ontime7	58188.000867039	Sum of GTIs [s]
date	2012-12-17T04:16:26	Date and time of file creation	l1events	258578	Number of level 1 events
revision	3	Processing version of data			

### 2.1.4 Events

	<b>ccd 7</b>
level 1 events	258578
rejected events	45877
rejected %	17%

	<b>ccd 7</b>
grade 0 events	55545
	21%
grade 1 events	524
	0%
grade 2 events	52900
	20%
grade 3 events	25480
	9%
grade 4 events	25631
	9%
grade 5 events	8869
	3%
grade 6 events	53751
	20%
grade 7 events	35878
	13%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-7	ACIS-7	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	148.855569	148.7812772613969	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	69.703504	69.69473107890109	Subarray start row	449	449
[deg] Pointing Roll	167.859083	168.0853852678583	Subarray row count	128	128
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	0.4
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	223948108.184000	223947280.77341			
Observation start date	2005-02-04T23:47:24	2005-02-04T23:34:40			
[s] Observation end time (MET)	224006108.184000	224006993.17611			
Observation end date	2005-02-05T15:54:04	2005-02-05T16:09:53			
Read mode	TIMED	TIMED			

## 2.3 Aspect

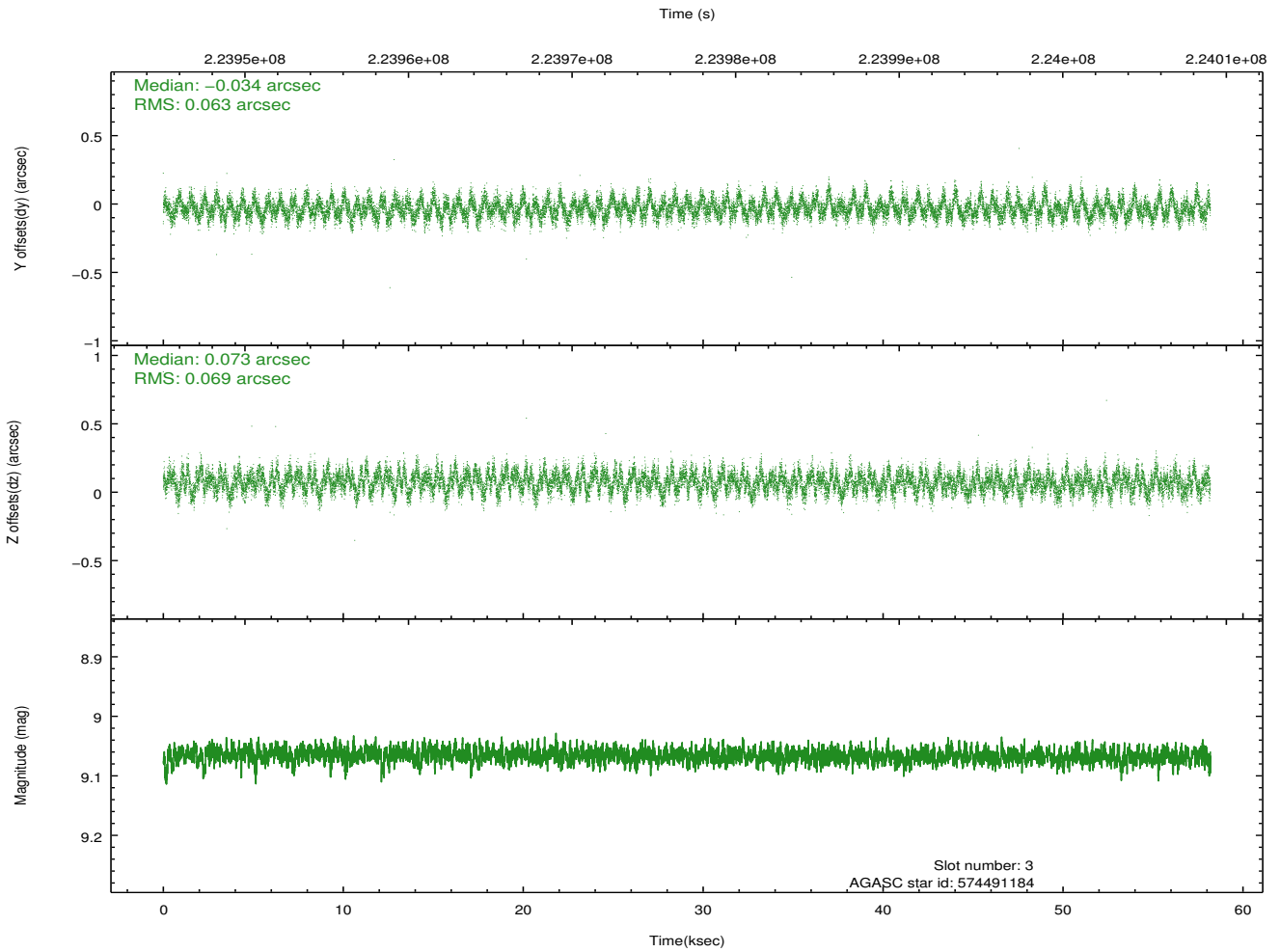
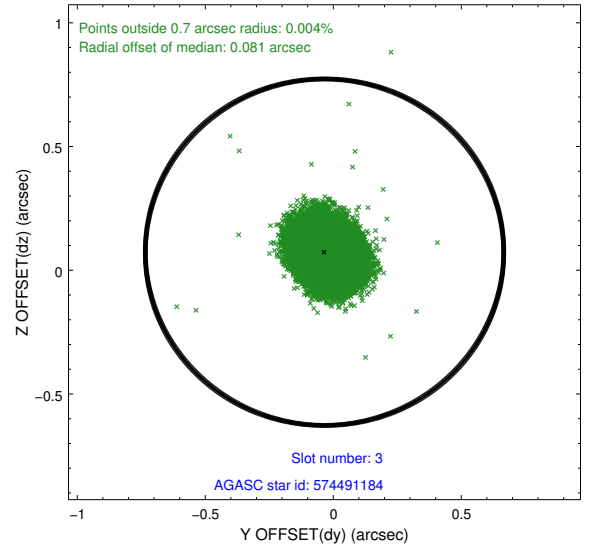
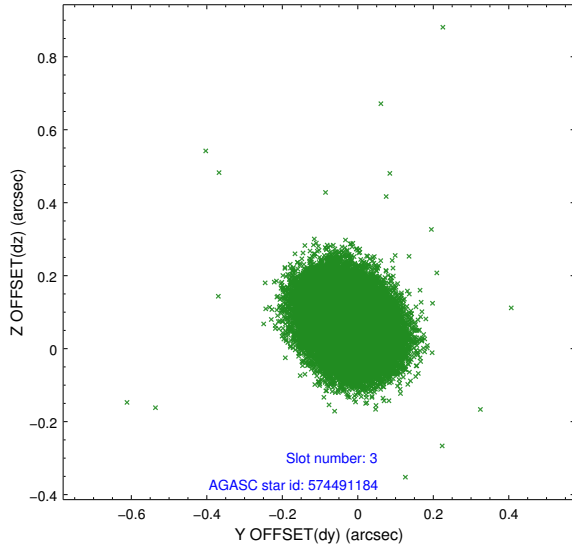


### Slot Statistics

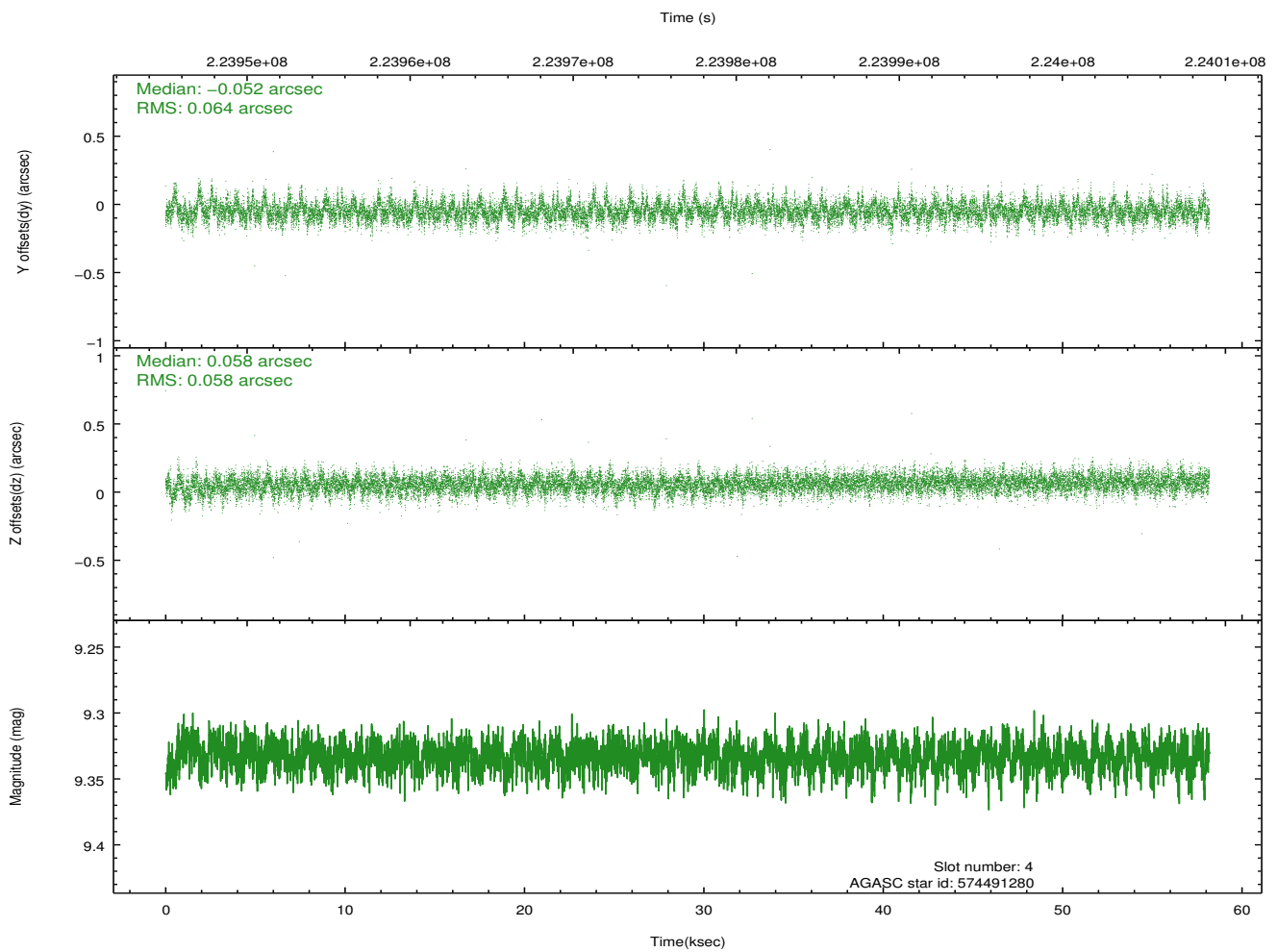
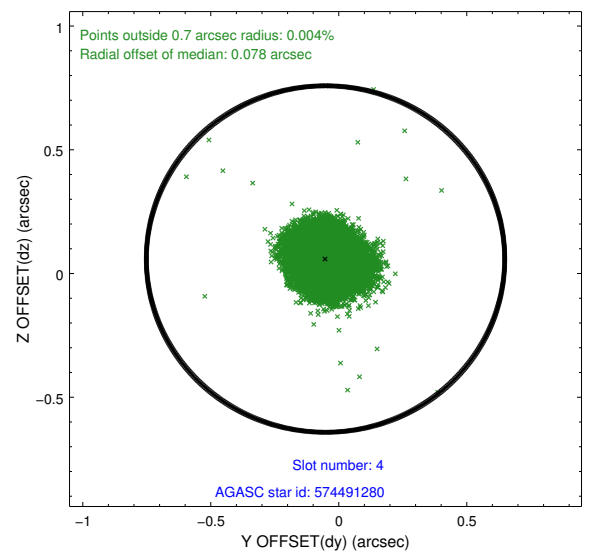
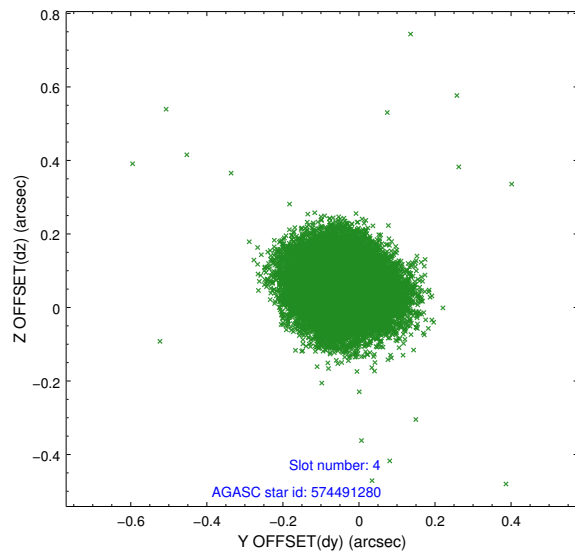
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.19	14193	0.031	-0.016	0.012	0.024	0.000000	0.000000	936.83	-1726.33
1	FID	ACIS-S-5	7.24	14193	-0.076	0.022	0.015	0.022	0.000000	0.000000	-1812.29	171.31
2	FID	ACIS-S-6	7.35	14192	0.022	0.007	0.017	0.026	0.000000	0.000000	402.43	815.20
3	GUIDE	574491184	9.07	28371	-0.034	0.073	0.101	0.157	148.582453	69.768699	382.19	-158.38
4	GUIDE	574491280	9.33	28361	-0.052	0.058	0.090	0.150	148.611567	69.450135	110.26	956.84
5	GUIDE	574491872	9.28	28361	0.026	-0.135	0.083	0.139	147.207613	69.765453	2058.56	188.58
6	GUIDE	574885216	8.52	28306	0.032	0.066	0.091	0.156	147.834547	70.411352	1743.76	-2241.60
7	GUIDE	574886496	8.49	28377	0.028	-0.064	0.063	0.101	148.945563	70.041136	148.22	-1211.68

## 2.4 Star Slots

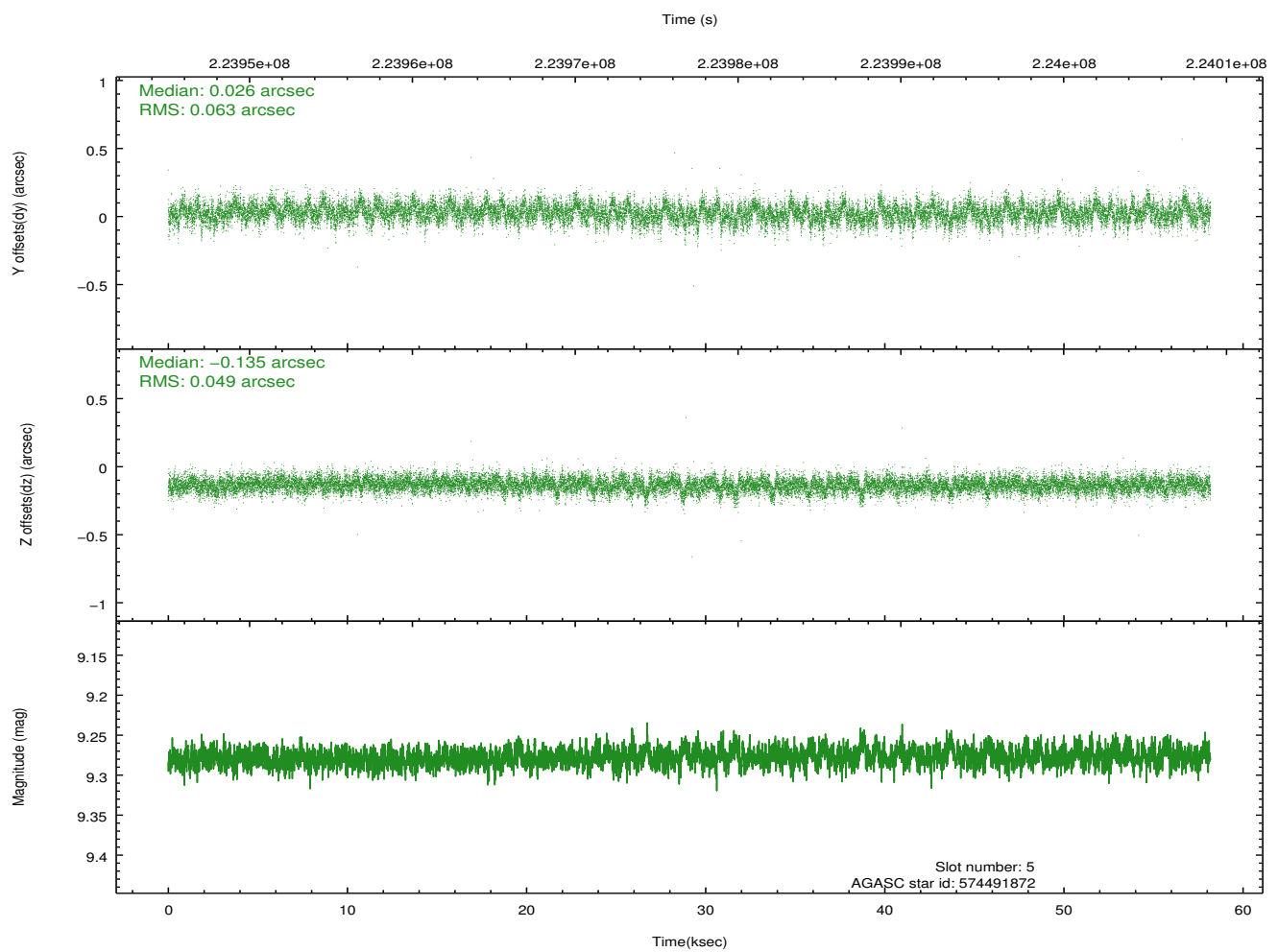
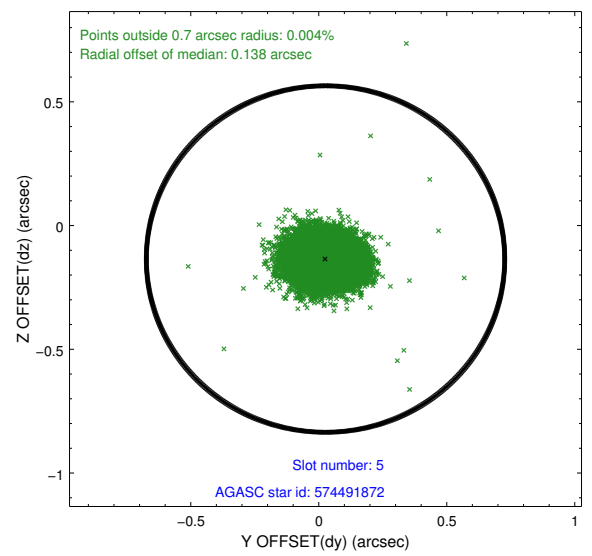
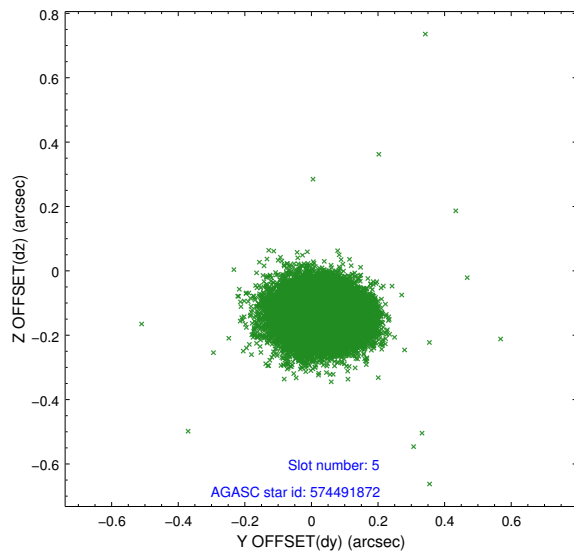
### 2.4.1 Slot 3



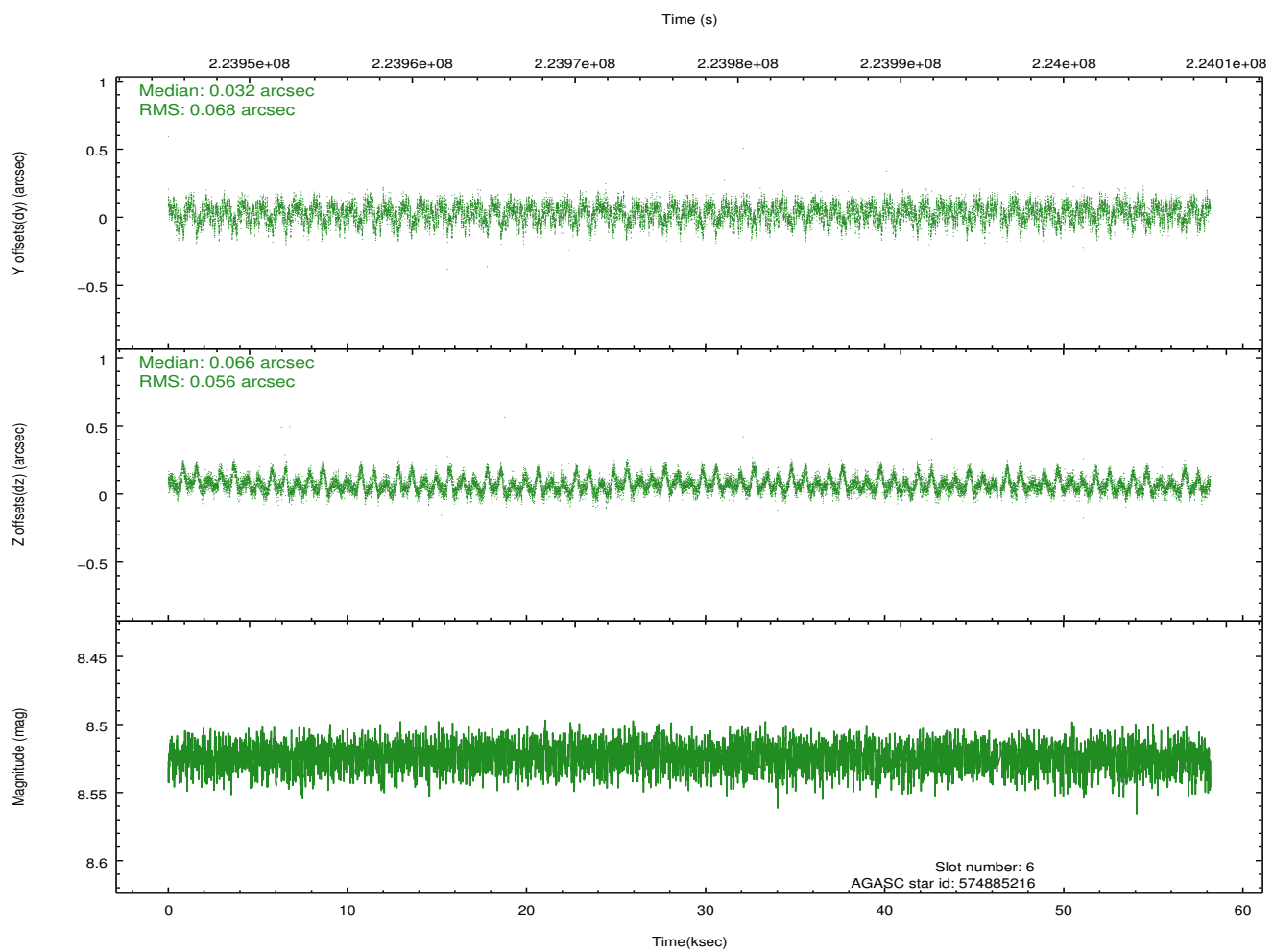
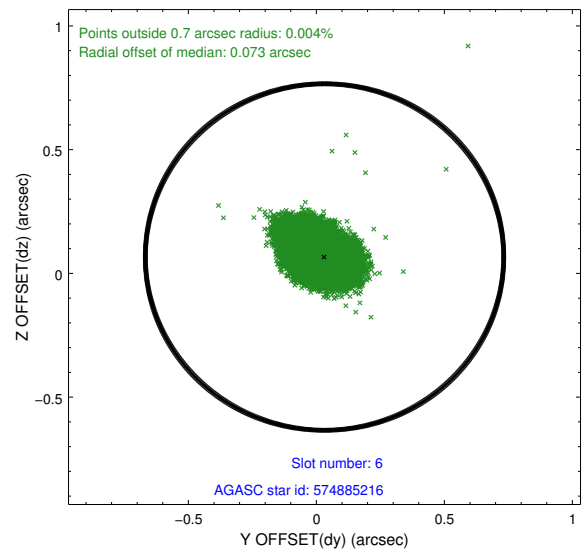
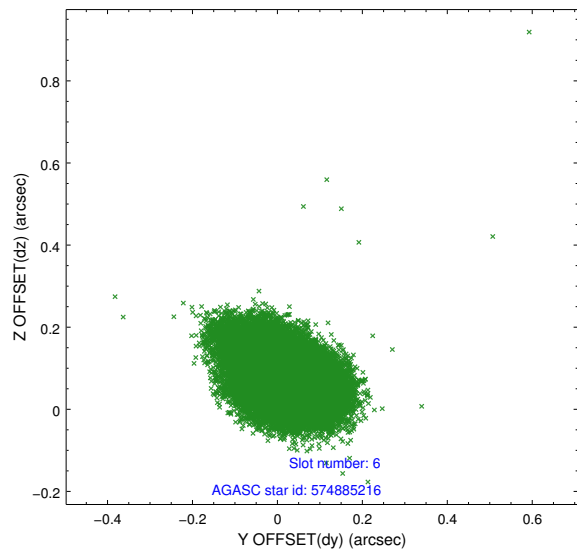
## 2.4.2 Slot 4



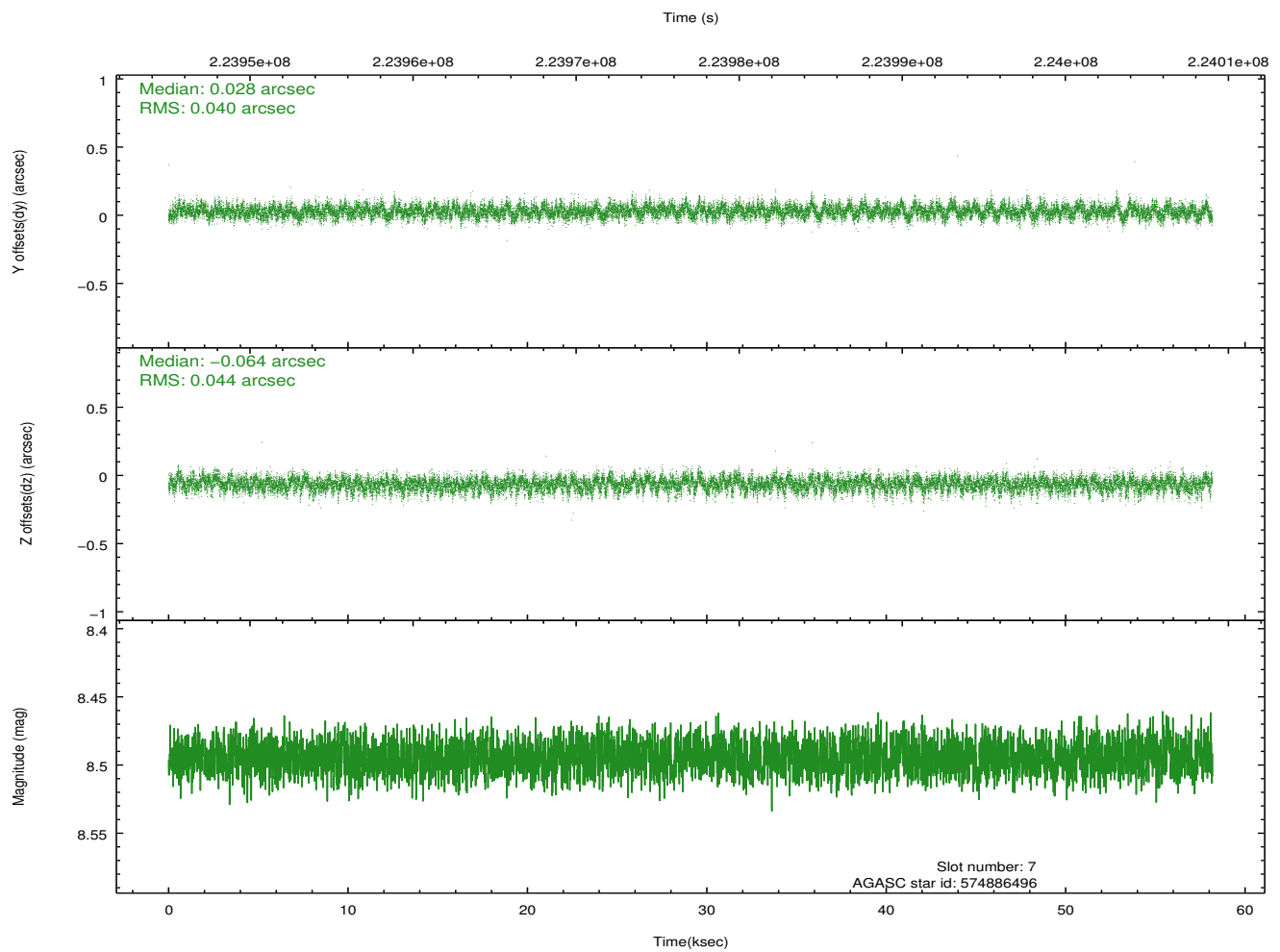
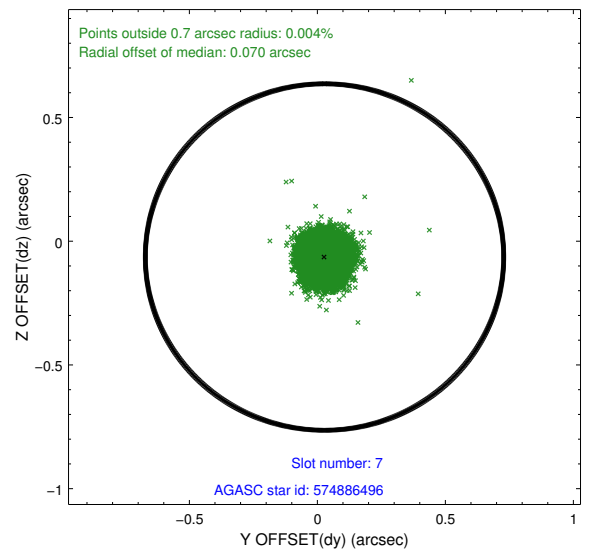
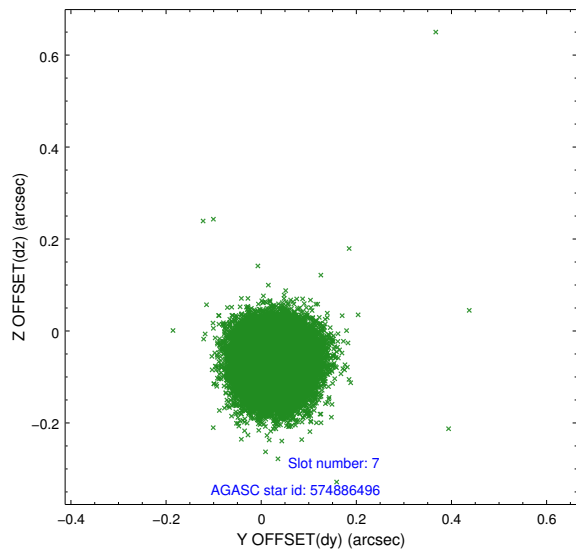
### 2.4.3 Slot 5



## 2.4.4 Slot 6

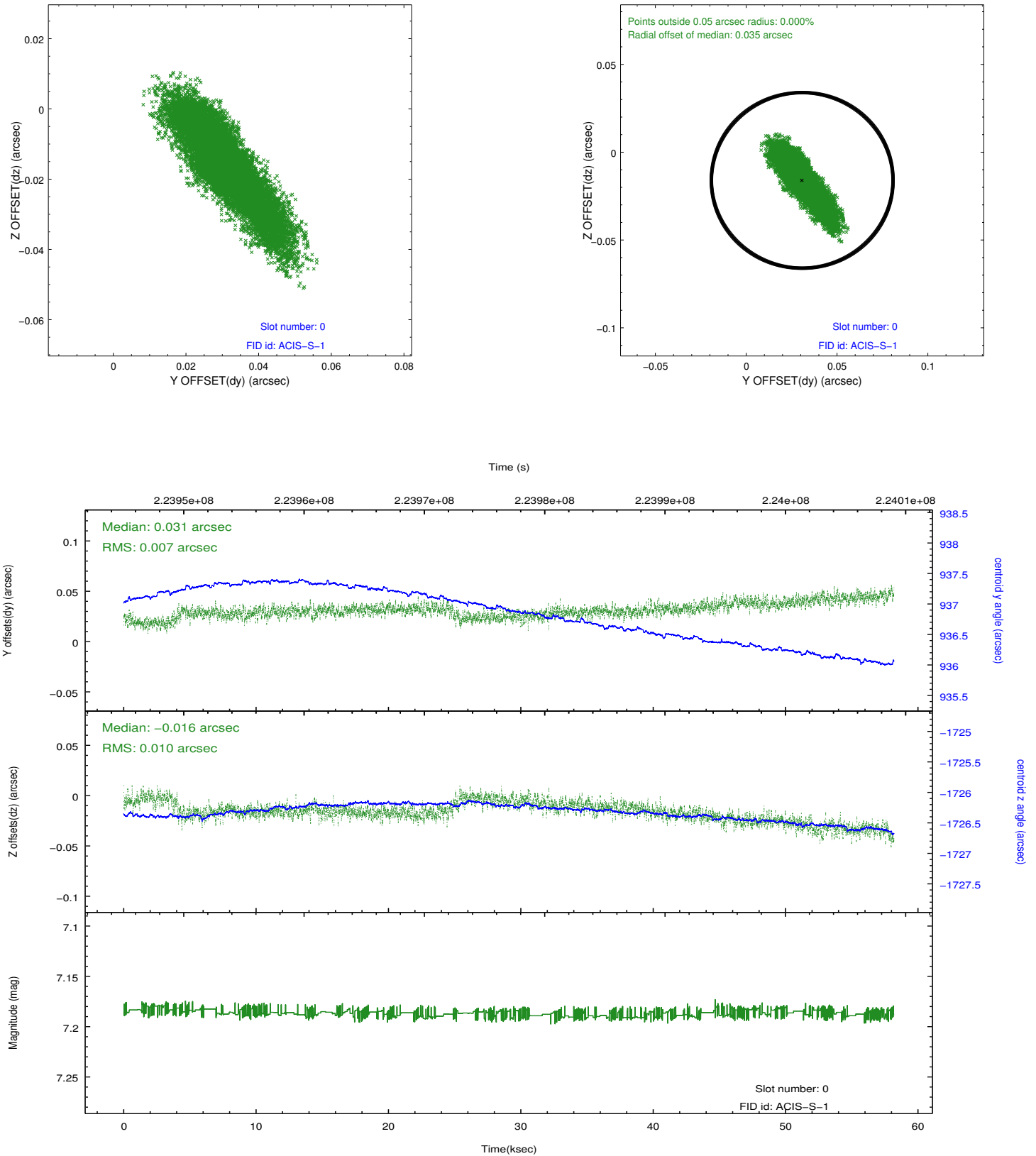


## 2.4.5 Slot 7

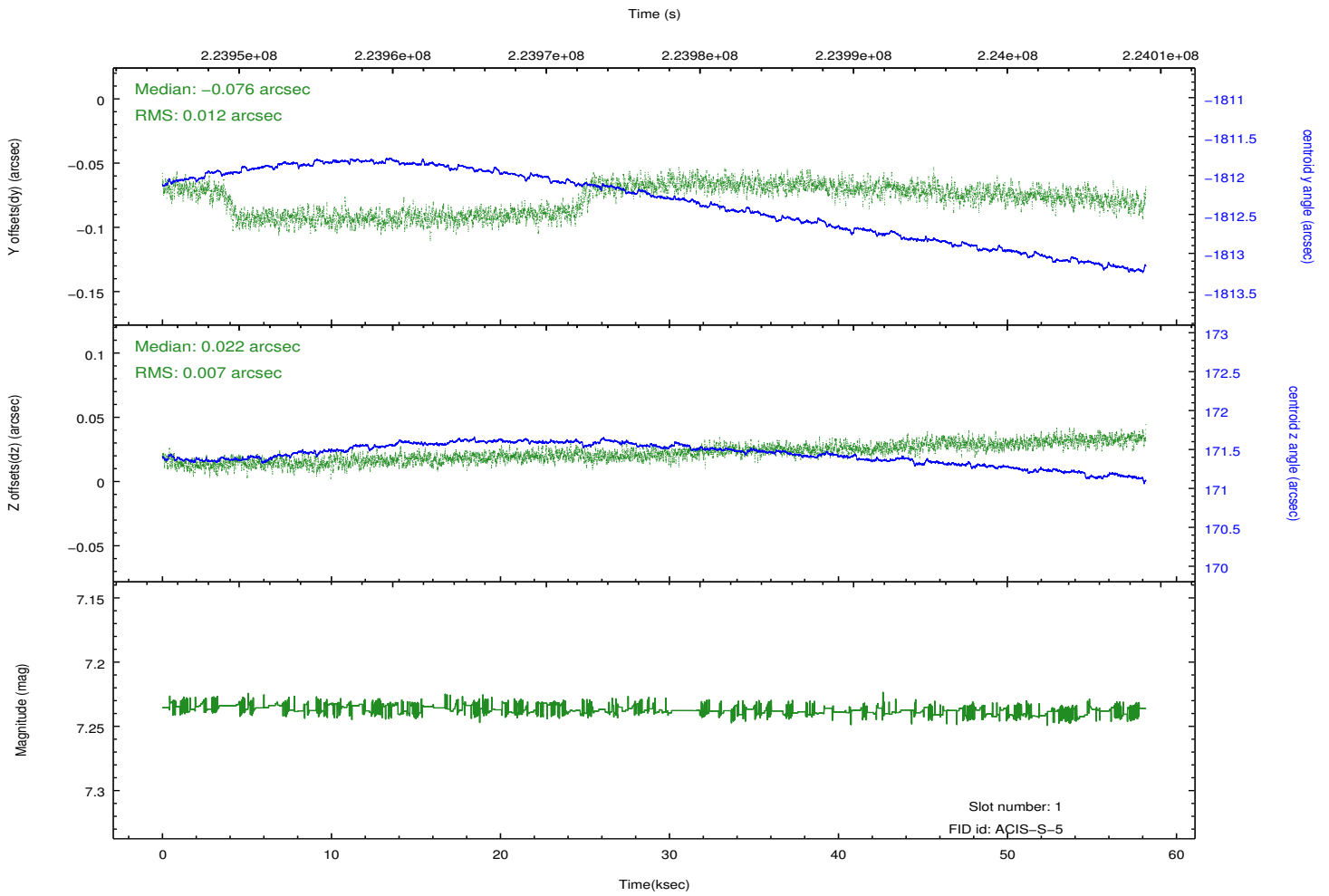
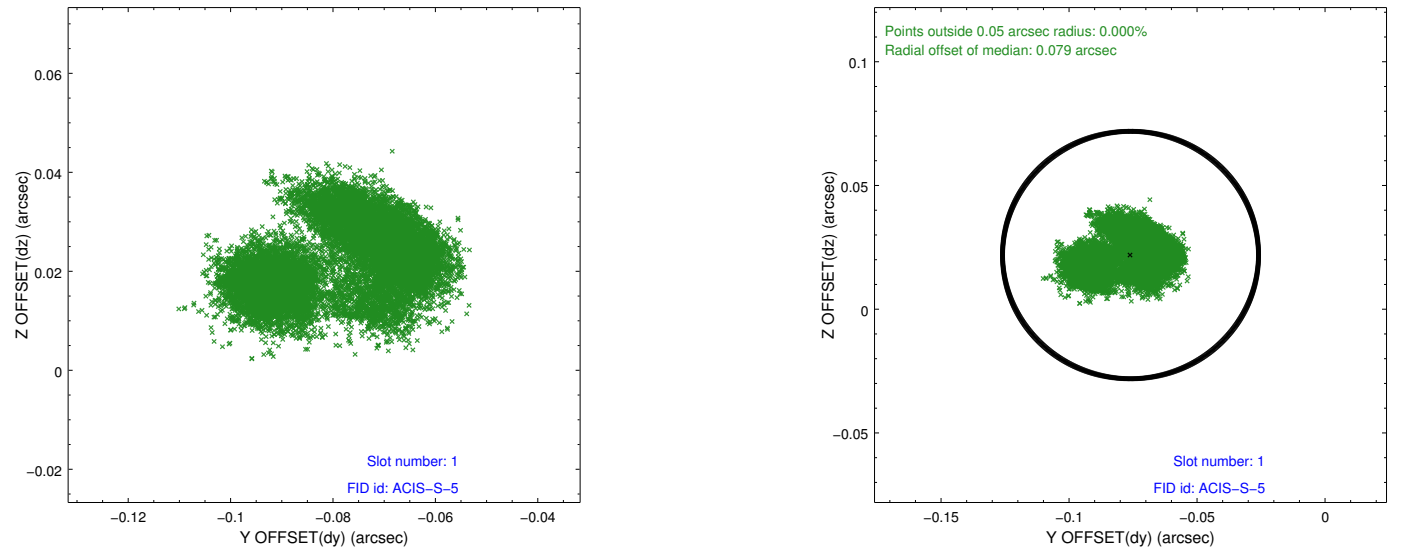


## 2.5 FID Slots

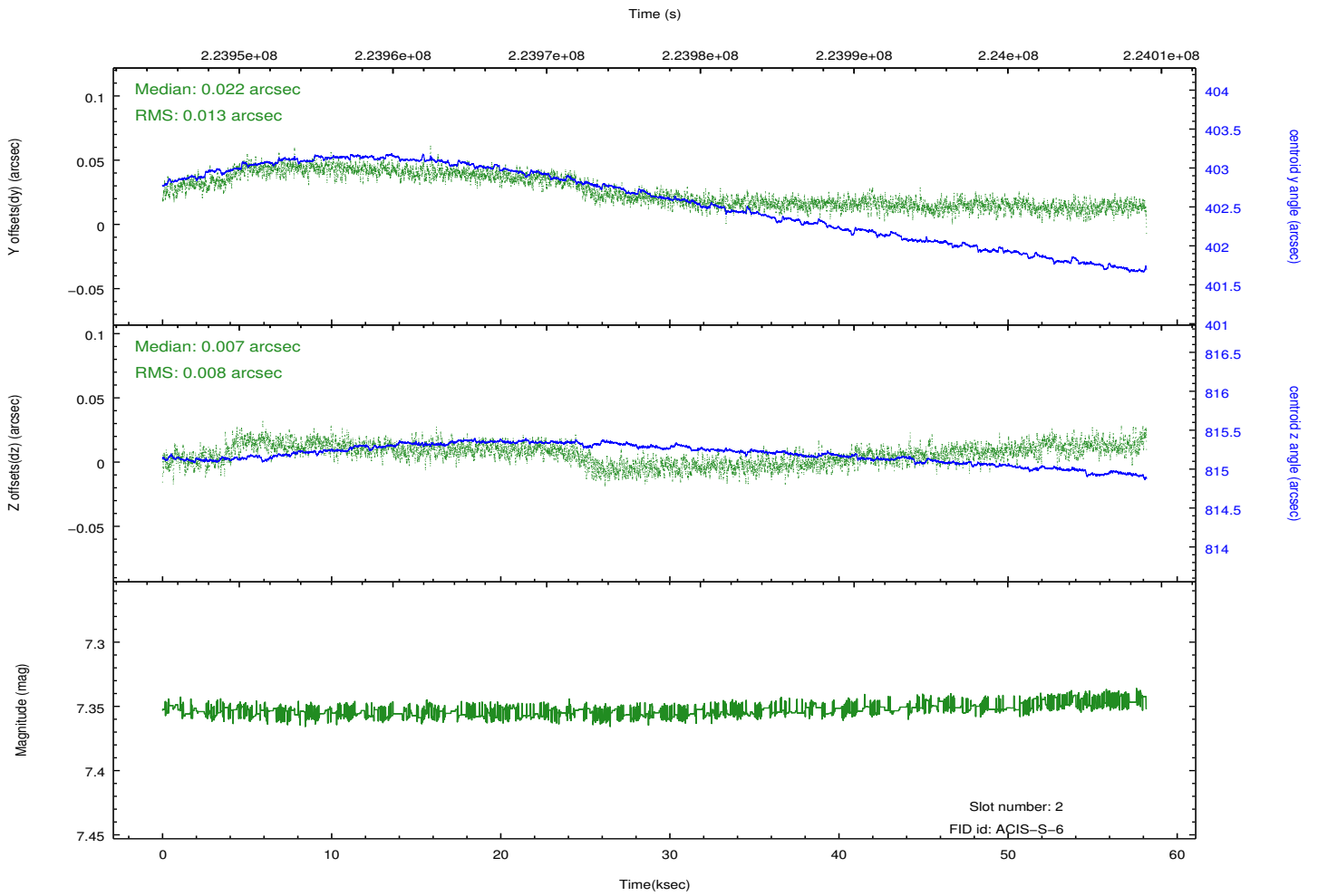
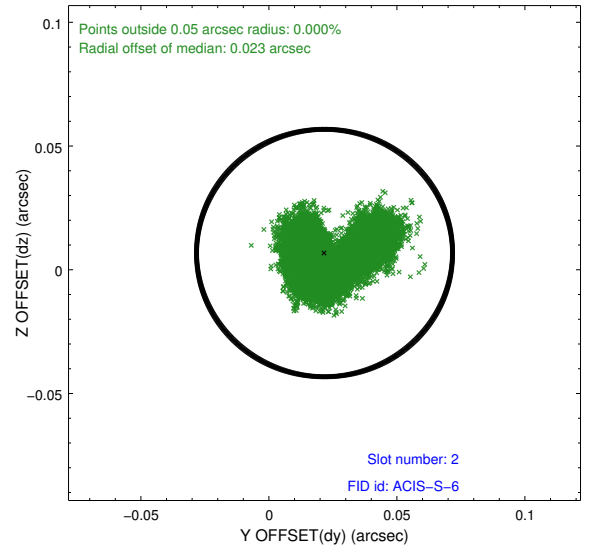
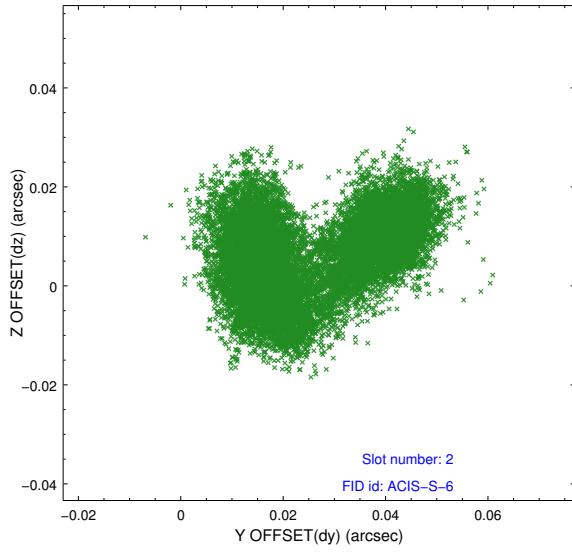
### 2.5.1 Slot 0



## 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)	2013.01.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	58.188

## A.2 Comments

Requested target ra = 148.855 Nominal ra of observation is 148.78135  
Observer requested ~4 arcmin offset from aim point in order to spread  
out the PSF and reduce pileup of the sources. The sources are elliptical  
in shape and were verified to be consistent with the off-axis PSF  
expected in this case.