

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 13792 - L2 Version 2  
Chandra X-Ray Center

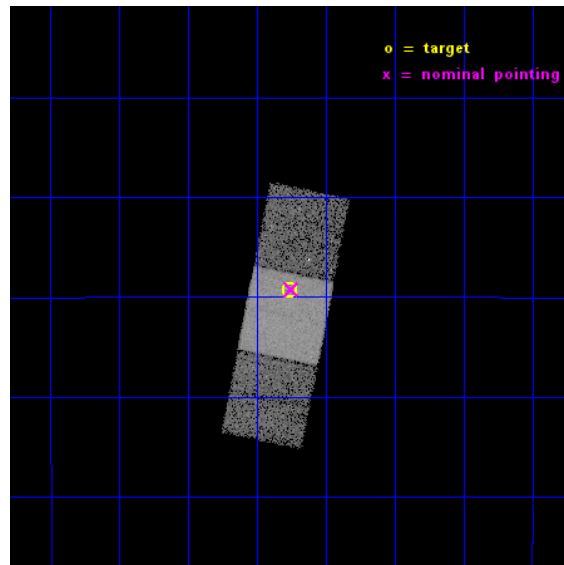
L2 Processing Date : Nov 26 2014

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

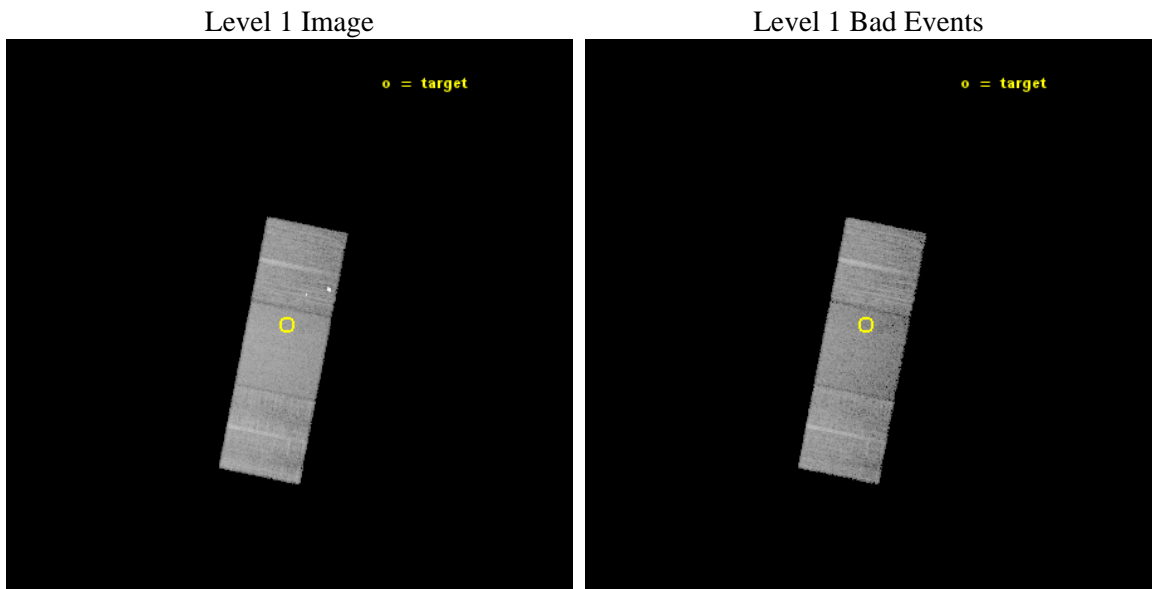
seq_num	501624	Sequence number
obs_id	13792	Observation id
title	Search for X-ray counterparts of Fermi LAT radio-quiet gamma-ray pulsars	Proposal title
observer	Dr. Pablo Saz Parkinson	Principal investigator
object	PSR J0734-1559	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	113.690417	Observer's specified target RA [deg]
dec_targ	-15.988361	Observer's specified target Dec [deg]
ra_nom	113.68751854799	Nominal RA [deg]
dec_nom	-15.987256979685	Nominal Dec [deg]
roll_nom	101.365126666663	Nominal Roll [deg]
revision	2	Processing version of data
ontime	15115.255699575	Sum of GTIs [s]
livetime	14917.763756171	Livetime [s]
ontime6	15115.214659572	Sum of GTIs [s]
ontime7	15115.255699575	Sum of GTIs [s]
ontime8	15115.173619568	Sum of GTIs [s]
l2events	64632	Number of level 2 events



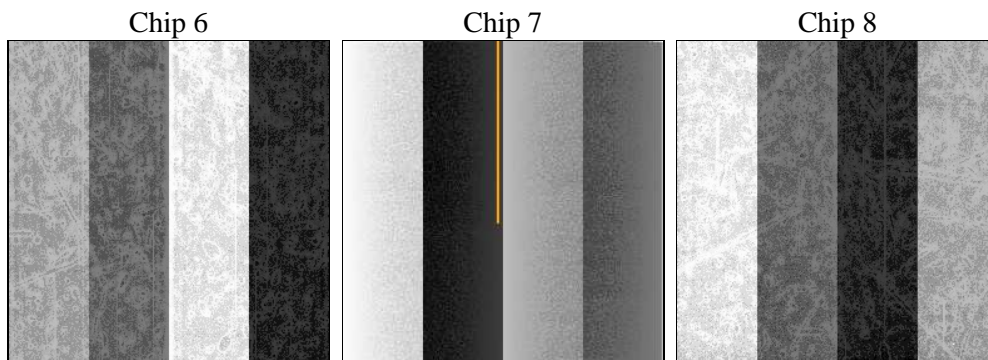
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	15115.255699575	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime6	15115.214659572	Sum of GTIs [s]
date	2014-11-27T04:20:03	Date and time of file creation	ontime7	15115.255699575	Sum of GTIs [s]
revision	2	Processing version of data	ontime8	15115.173619568	Sum of GTIs [s]
			l1events	302047	Number of level 1 events

### 2.1.4 Events

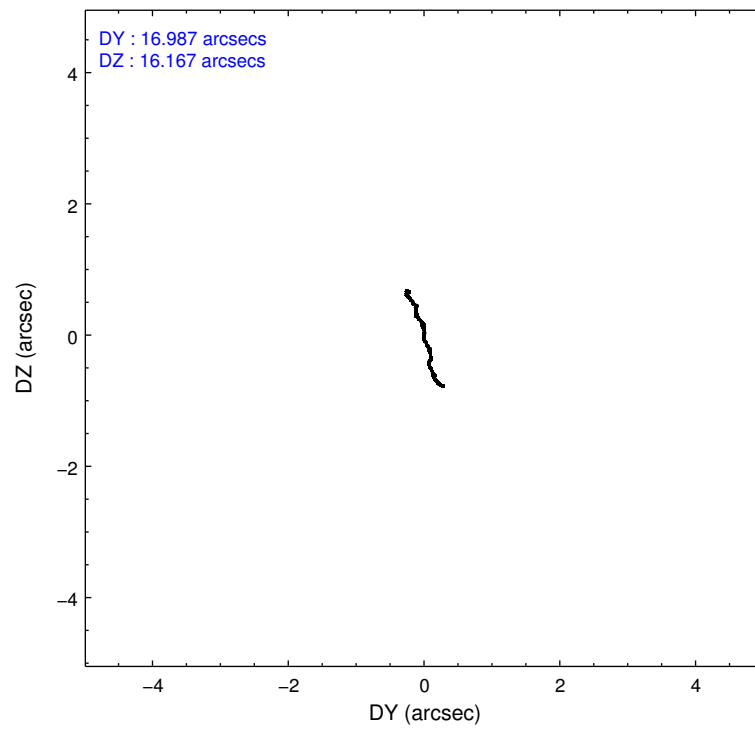
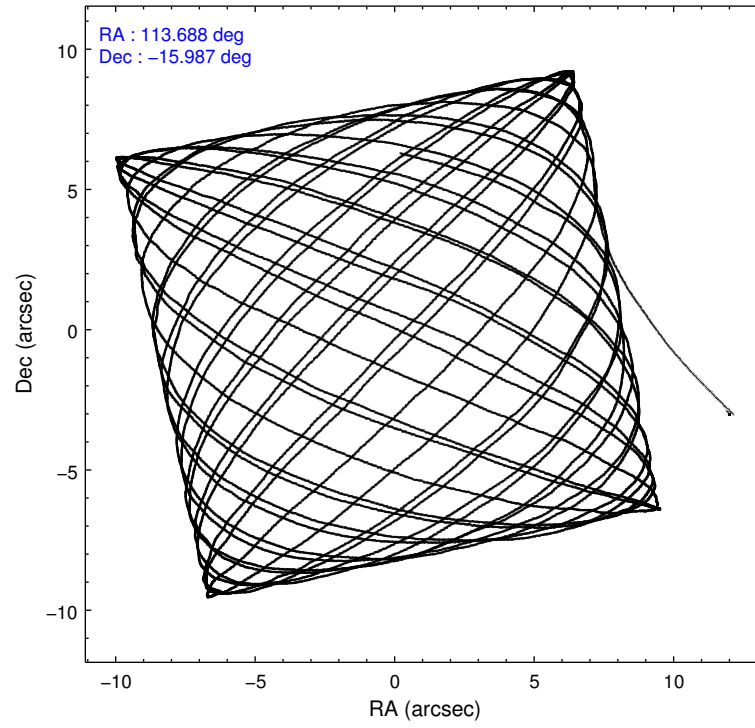
	ccd 6	ccd 7	ccd 8
level 1 events	88645	105548	107854
rejected events	73435	58702	78595
rejected %	82%	55%	72%

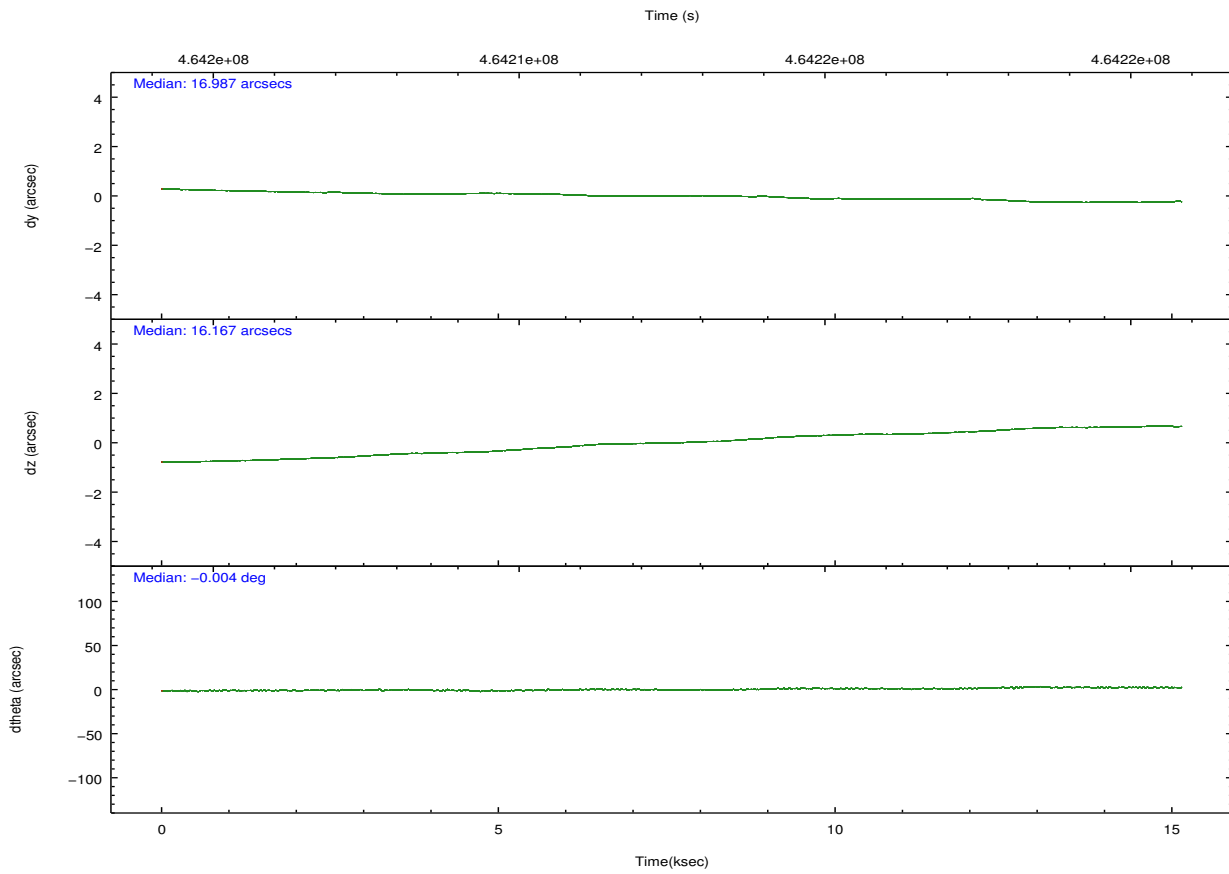
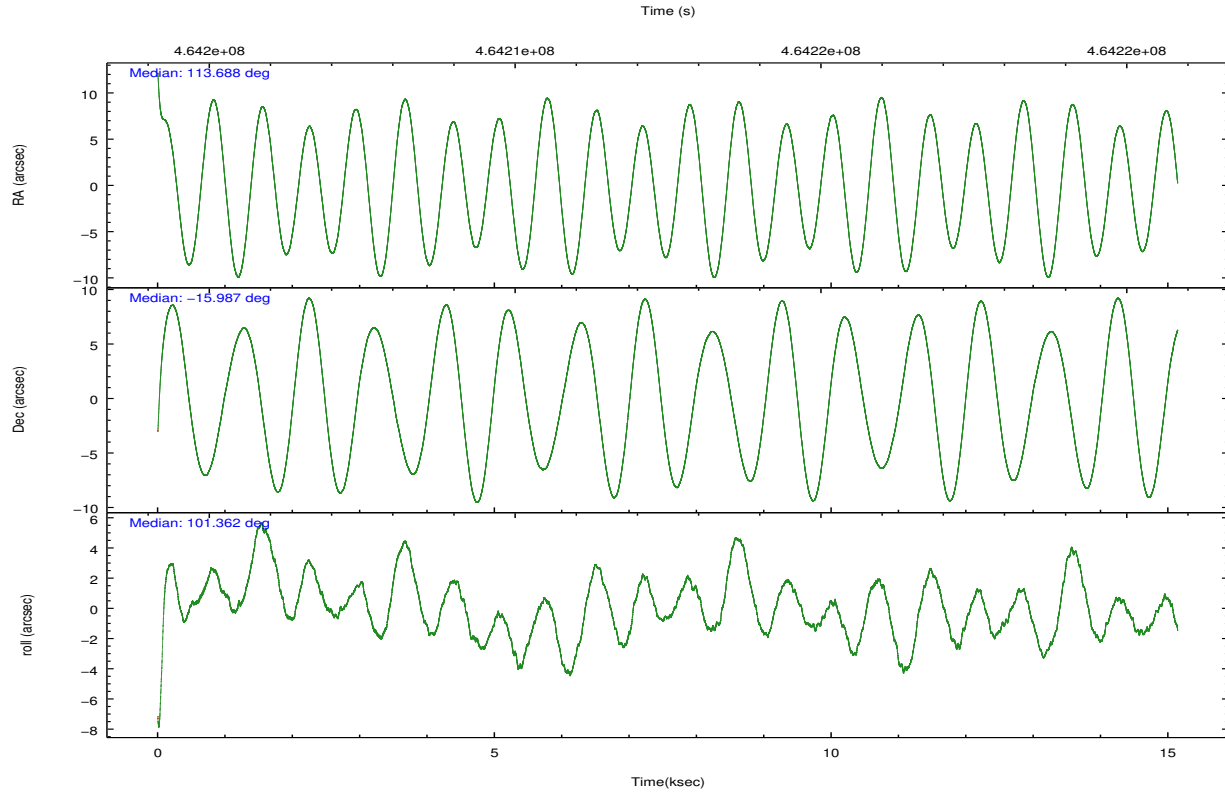
	ccd 6	ccd 7	ccd 8
grade 0 events	3968	4184	8359
	4%	3%	7%
grade 1 events	52	109	76
	0%	0%	0%
grade 2 events	6944	9481	6868
	7%	8%	6%
grade 3 events	1037	4094	3058
	1%	3%	2%
grade 4 events	983	3950	2866
	1%	3%	2%
grade 5 events	4041	10765	6018
	4%	10%	5%
grade 6 events	2287	25149	8114
	2%	23%	7%
grade 7 events	69333	47816	72495
	78%	45%	67%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-678	ACIS-678	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	113.706571	113.687518547987	Subarray requested	NONE	NONE
[deg] Pointing Dec	-16.007535	-15.98725697968458	Alternating exposures requested	N	N
[deg] Pointing Roll	101.213758	101.3651266666263	[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	-190.145094680475			
[mm] SIM translation stage offset	0	0.01257209746719923			
[s] Observation start time (MET)	464205075.184000	464203900.6102			
Observation start date	2012-09-16T17:50:08	2012-09-16T17:31:40			
[s] Observation end time (MET)	464220075.184000	464220723.9361			
Observation end date	2012-09-16T22:00:08	2012-09-16T22:12:03			
Read mode	TIMED	TIMED			

## 2.3 Aspect



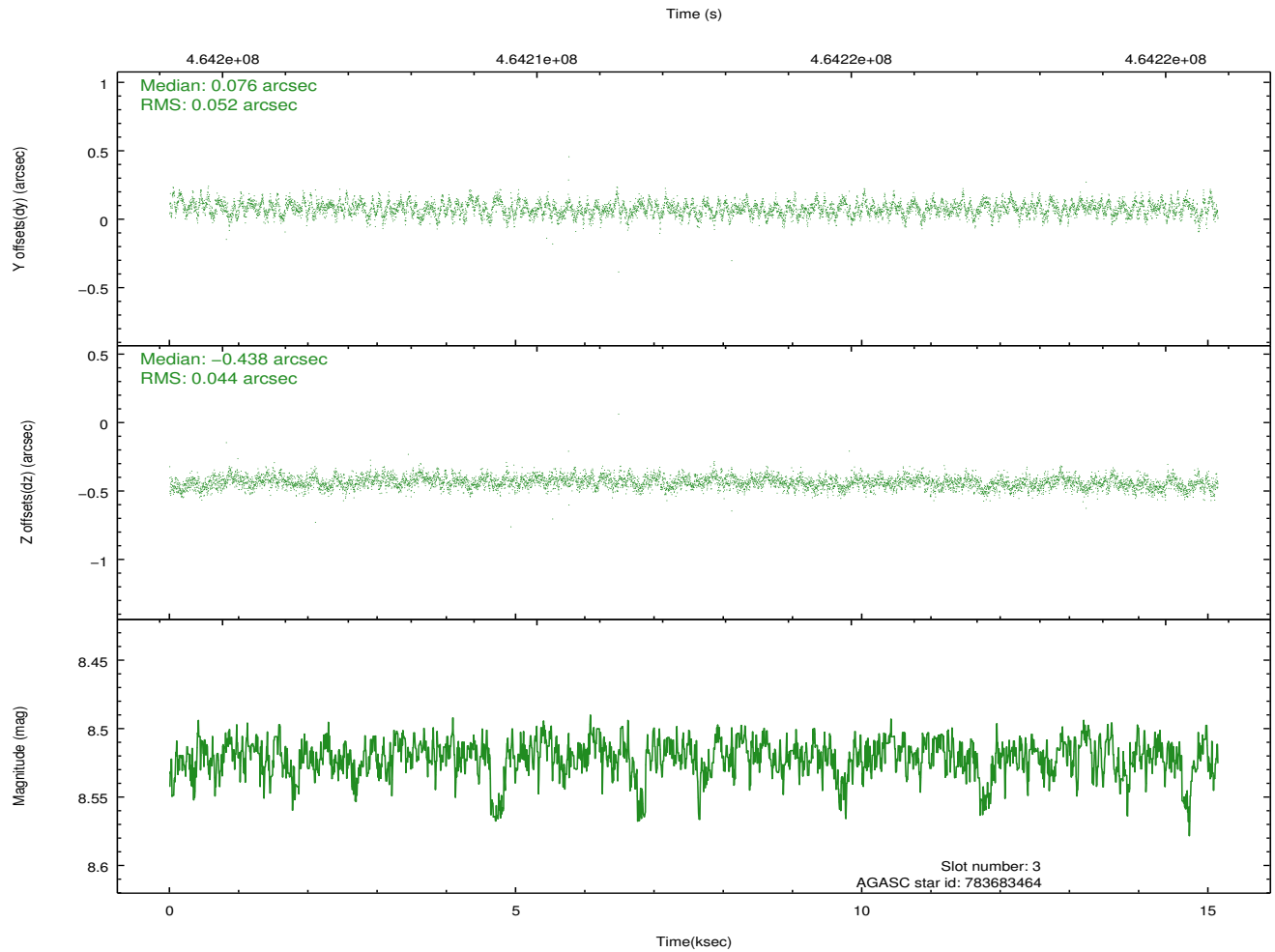
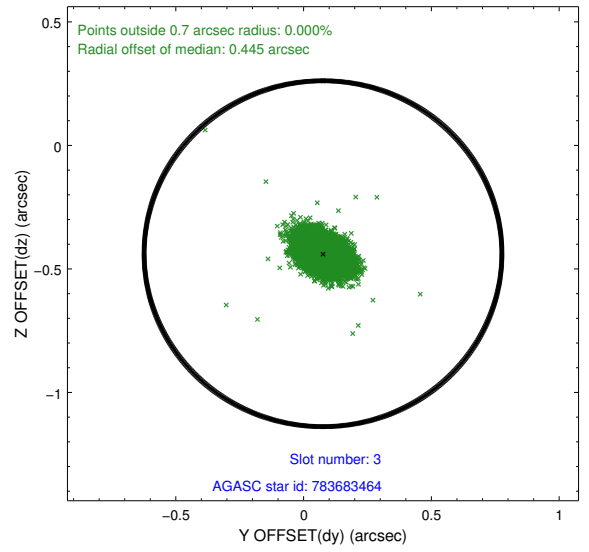
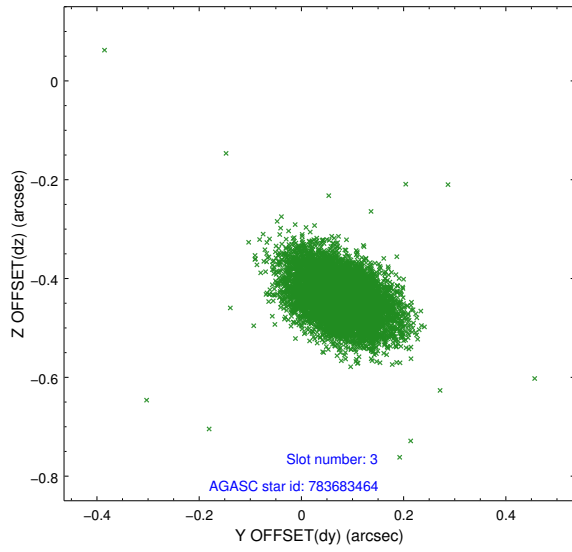


### Slot Statistics

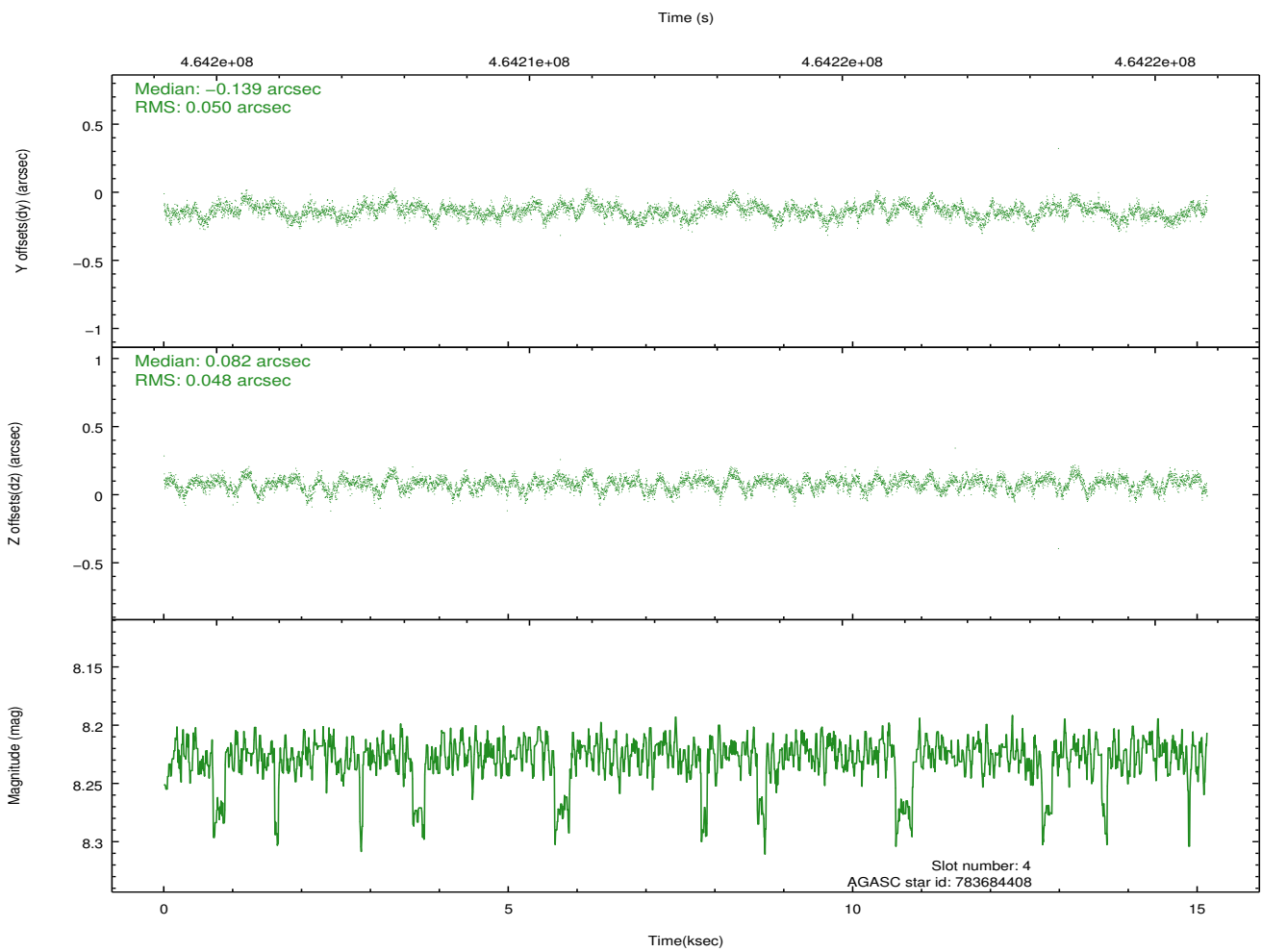
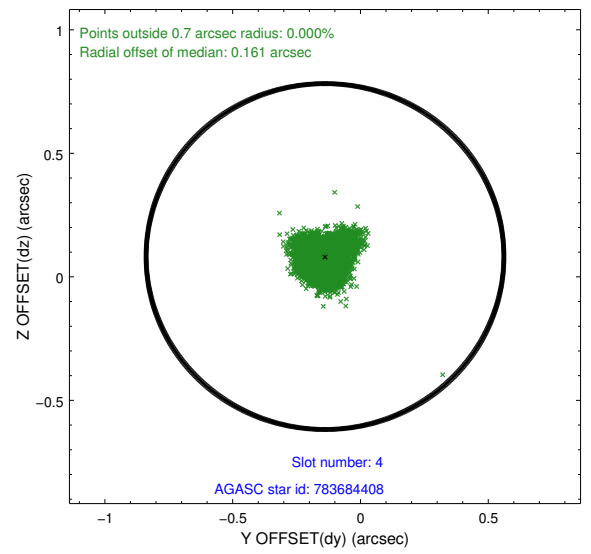
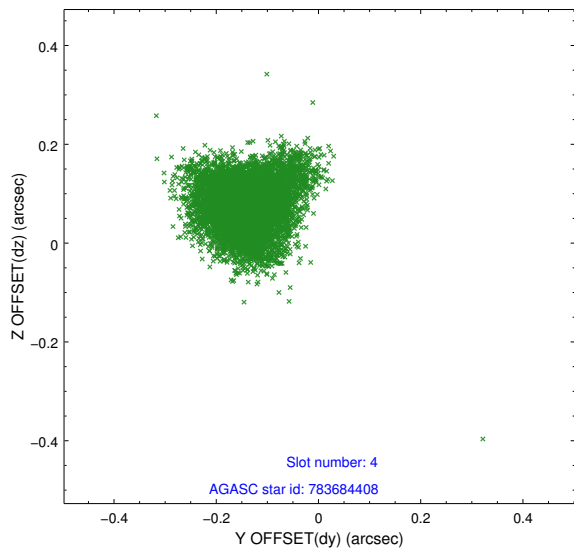
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.02	3694	-0.115	-0.021	0.011	0.017	0.000000	0.000000	-770.10	-1737.48
1	FID		ACIS-S-4	7.10	3694	0.246	0.061	0.015	0.023	0.000000	0.000000	2143.39	170.79
2	FID		ACIS-S-5	7.13	3694	-0.161	-0.032	0.013	0.019	0.000000	0.000000	-1822.62	164.69
3	GUIDE	used	783683464	8.52	7377	0.076	-0.438	0.070	0.119	113.182779	-16.591736	-1713.90	2181.95
4	GUIDE	used	783684408	8.23	7378	-0.139	0.082	0.073	0.122	113.860172	-15.610882	1296.48	-799.47
5	GUIDE	used	783691520	9.25	7355	-0.277	-0.243	0.124	0.206	113.128447	-15.460004	2322.36	1585.28
6	GUIDE	used	783816456	8.35	7384	0.195	0.342	0.091	0.138	114.413188	-16.417592	-1926.29	-2105.16
7	GUIDE	used	783823192	7.16	7386	0.139	0.256	0.060	0.093	114.087924	-16.281095	-1223.42	-1100.81

## 2.4 Star Slots

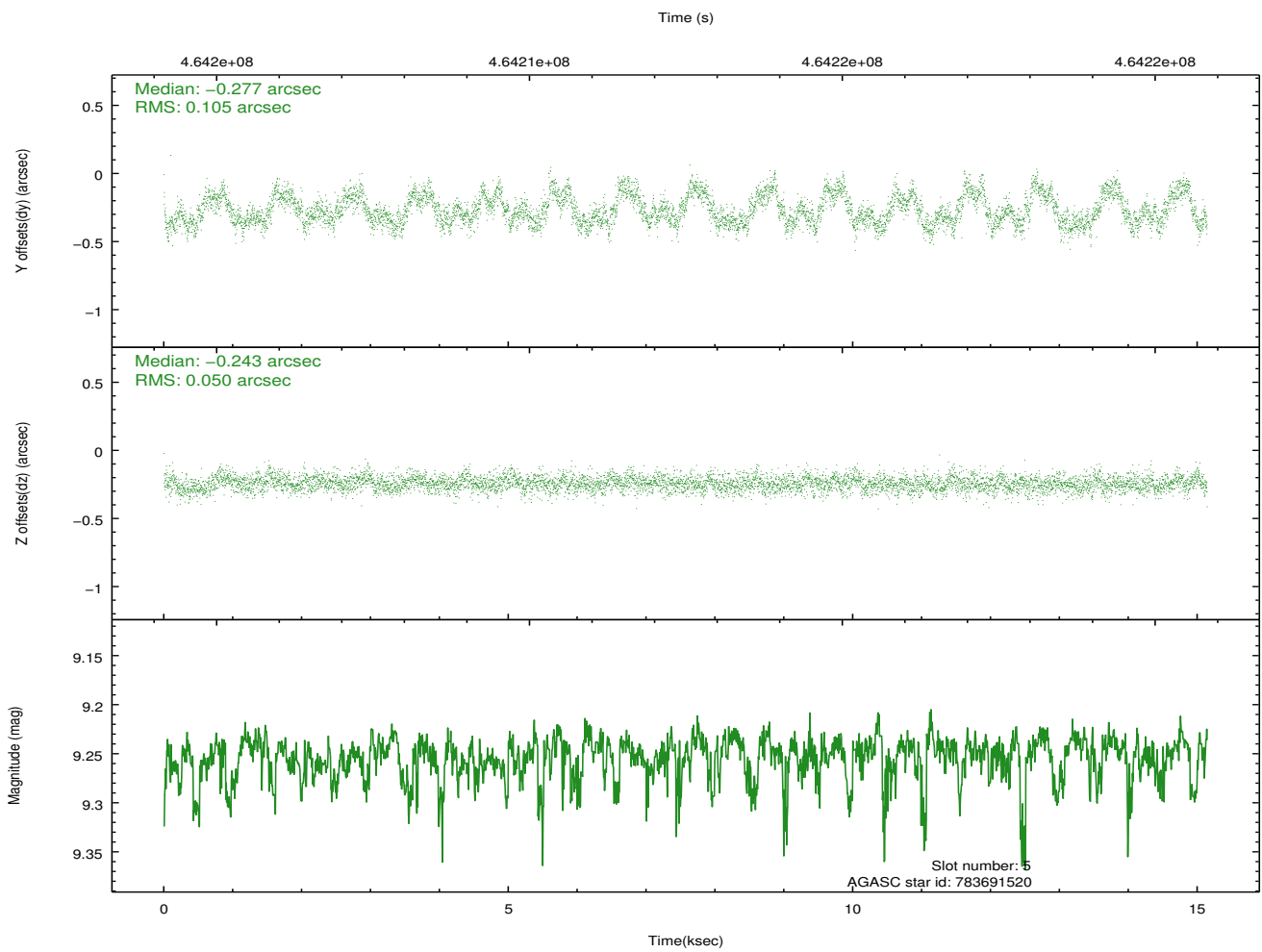
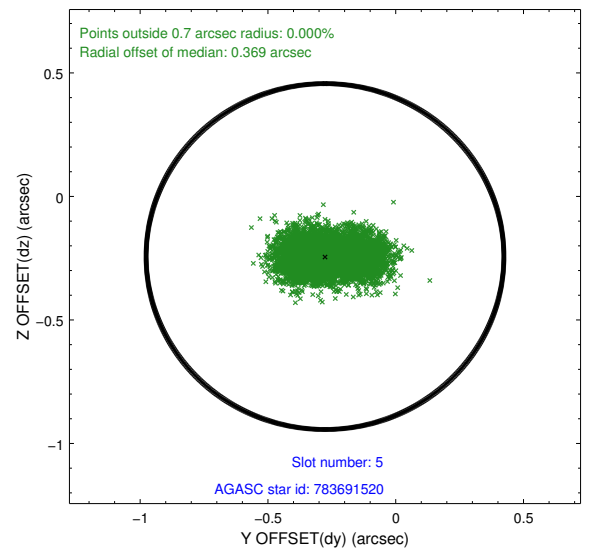
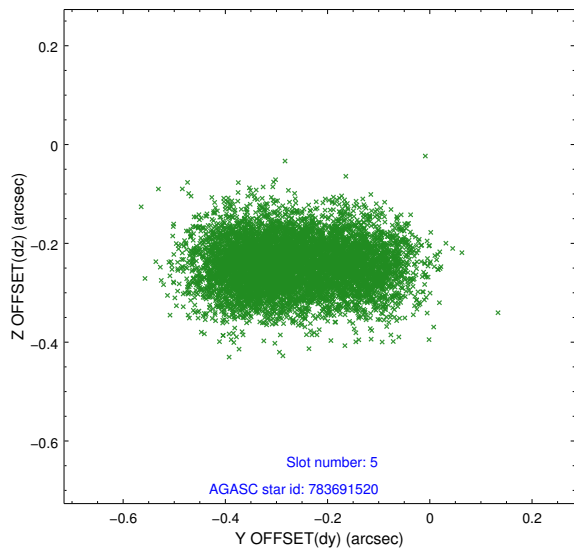
### 2.4.1 Slot 3



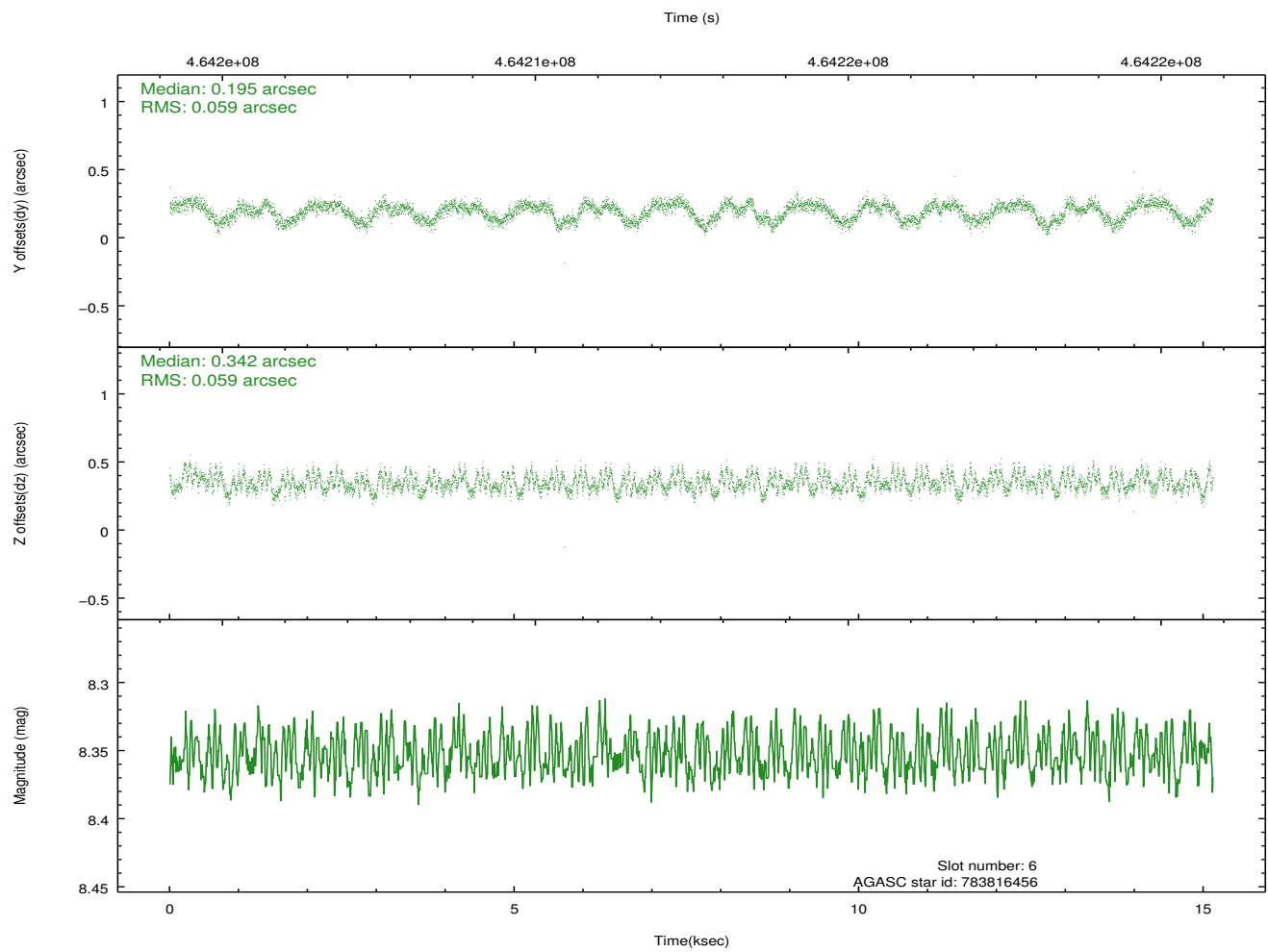
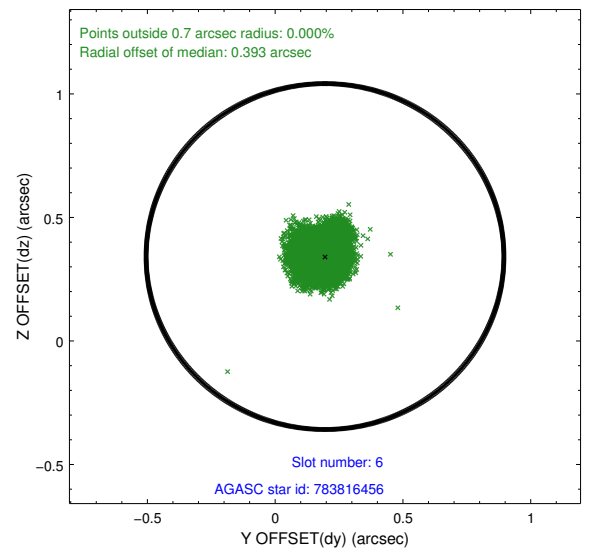
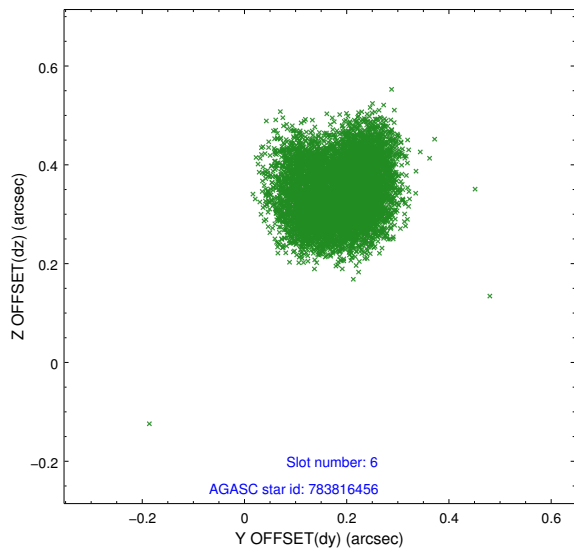
## 2.4.2 Slot 4



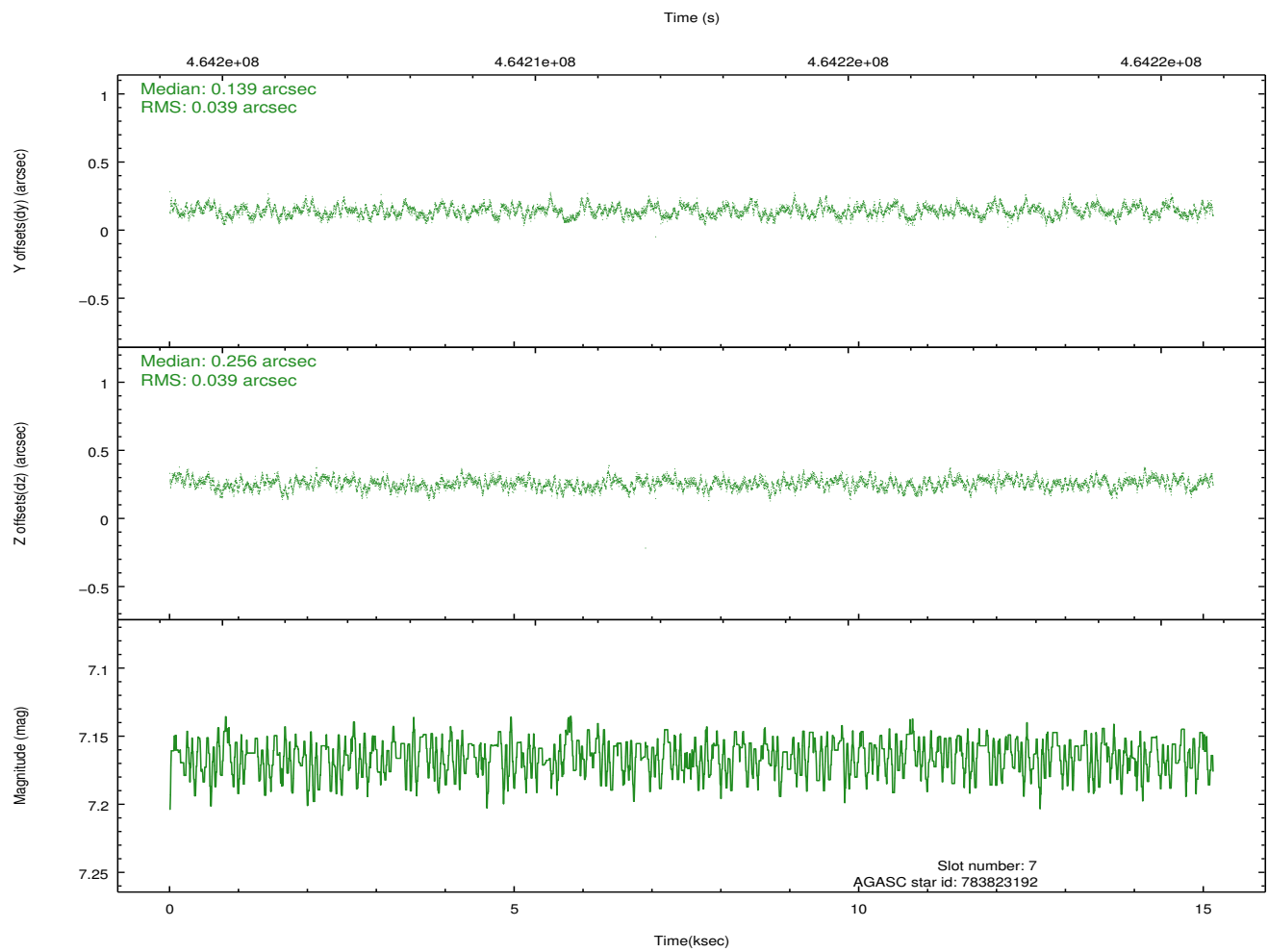
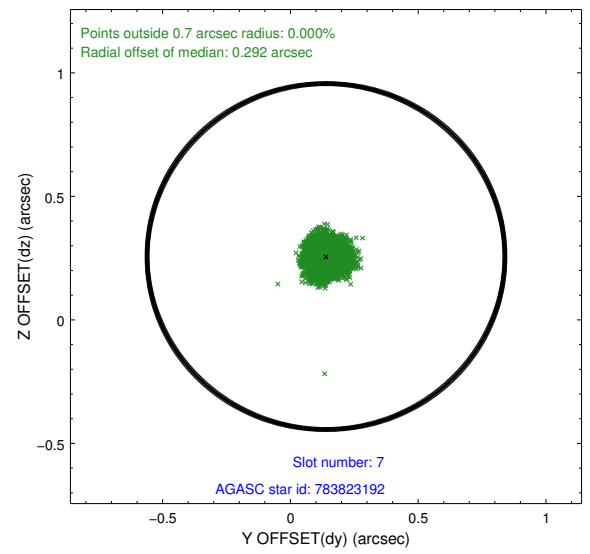
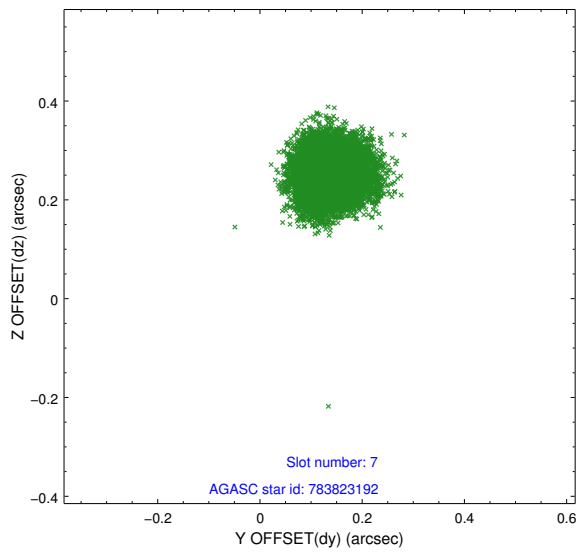
### 2.4.3 Slot 5



## 2.4.4 Slot 6

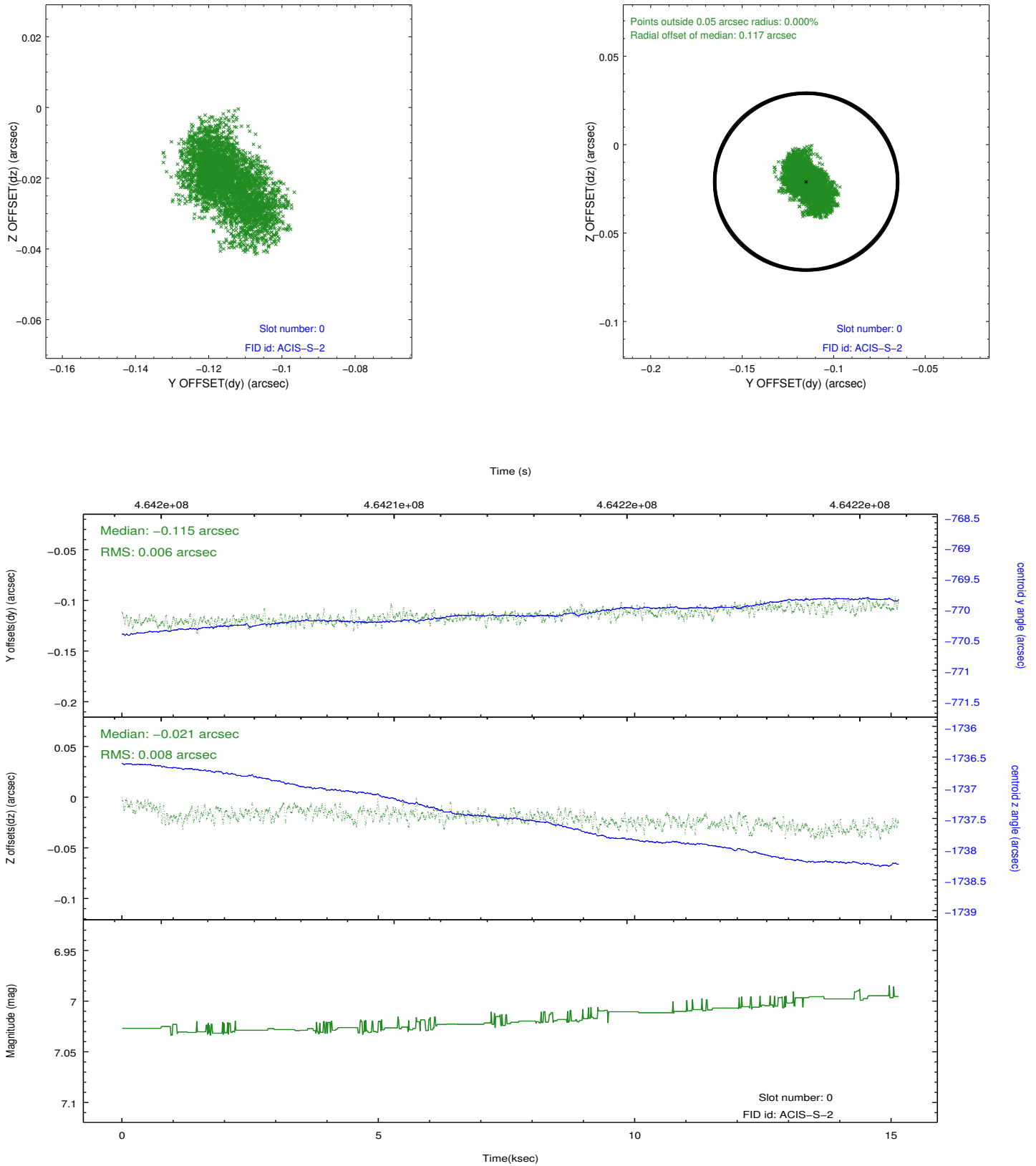


## 2.4.5 Slot 7

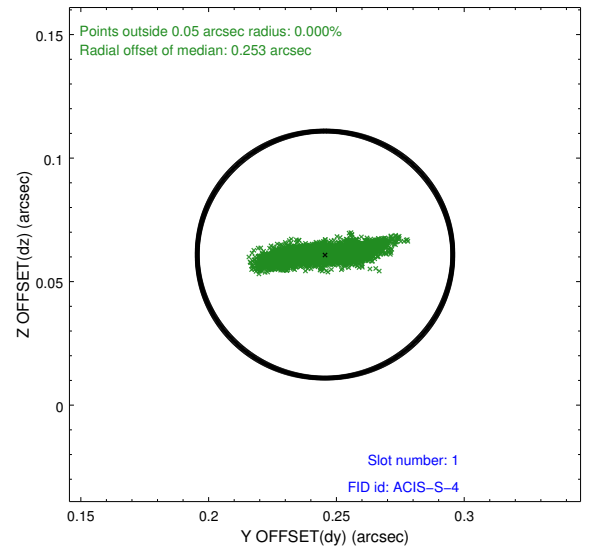
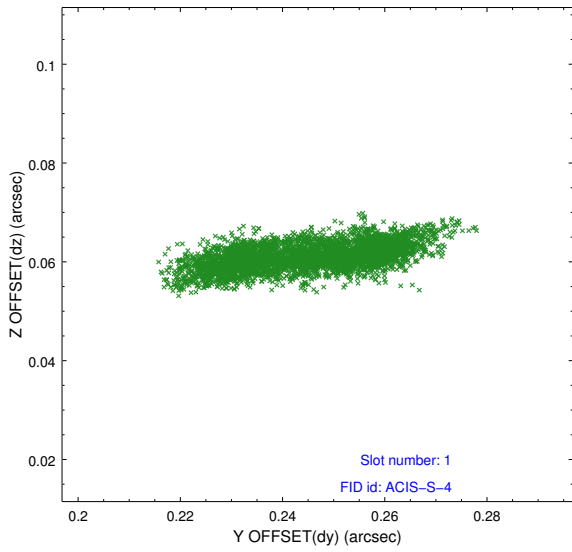


## 2.5 FID Slots

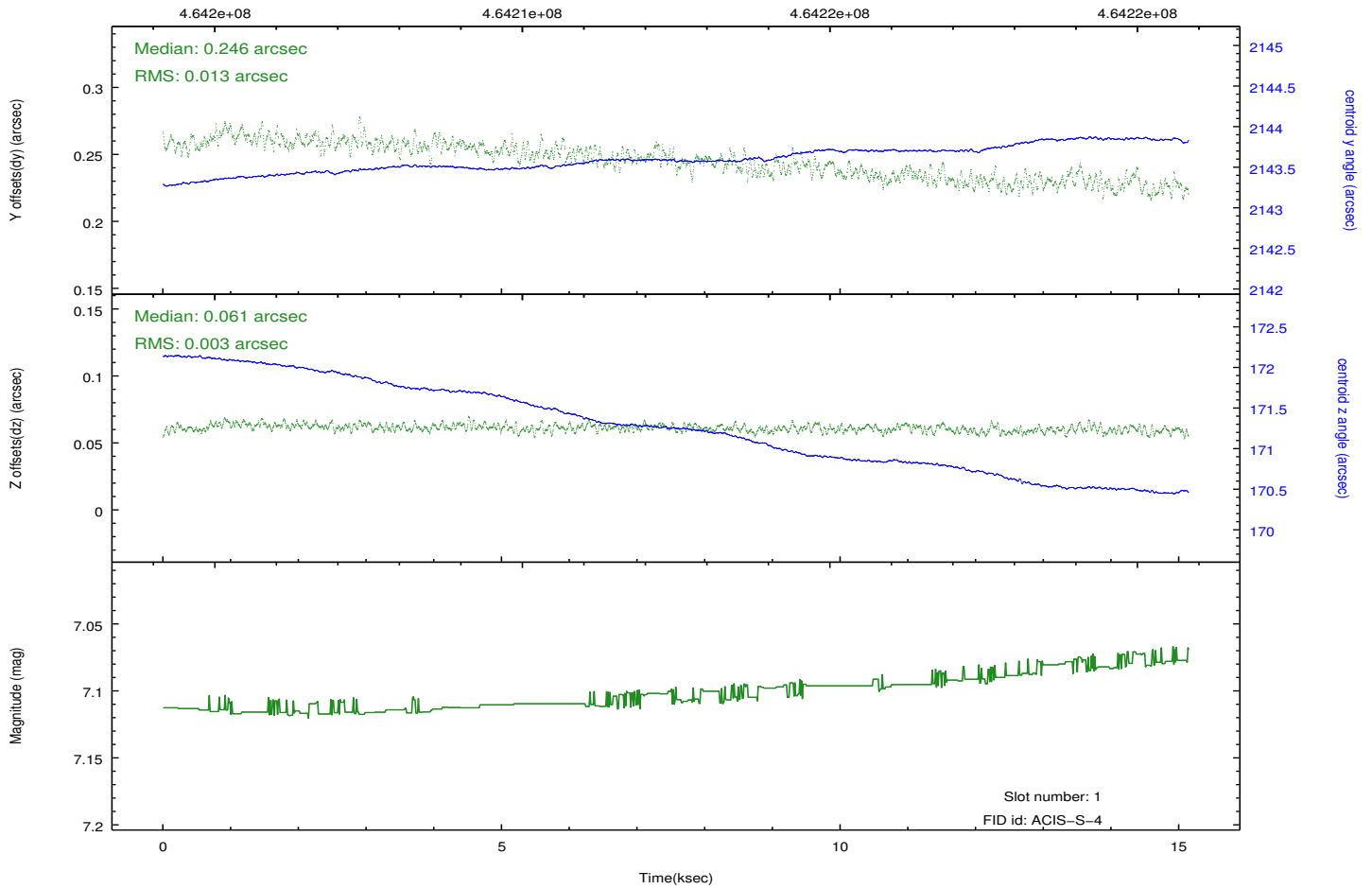
### 2.5.1 Slot 0



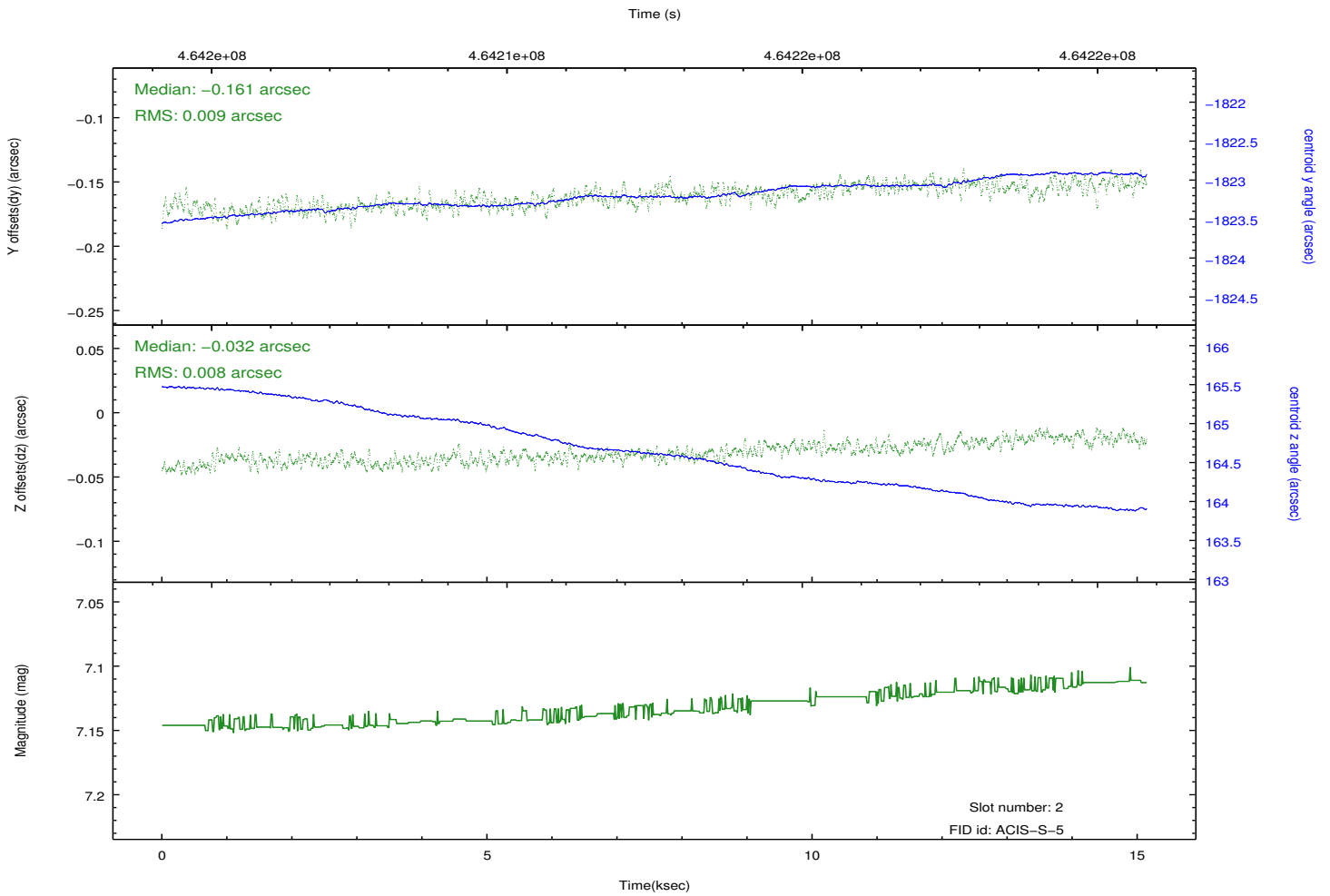
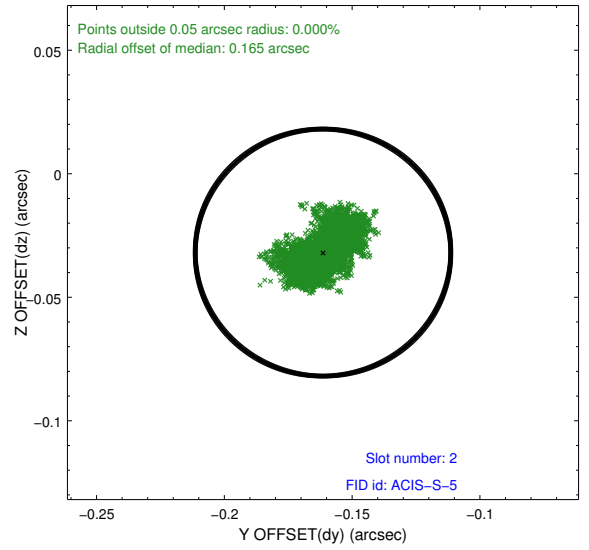
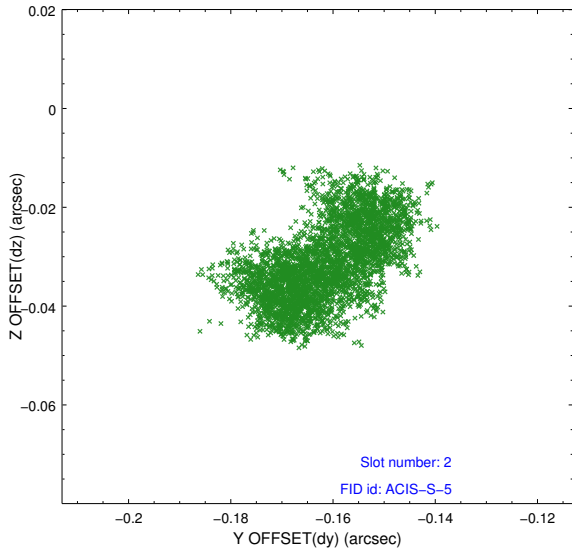
## 2.5.2 Slot 1



Time (s)



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.115255699575

## A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.