

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 8462 - L2 Version 3  
Chandra X-Ray Center

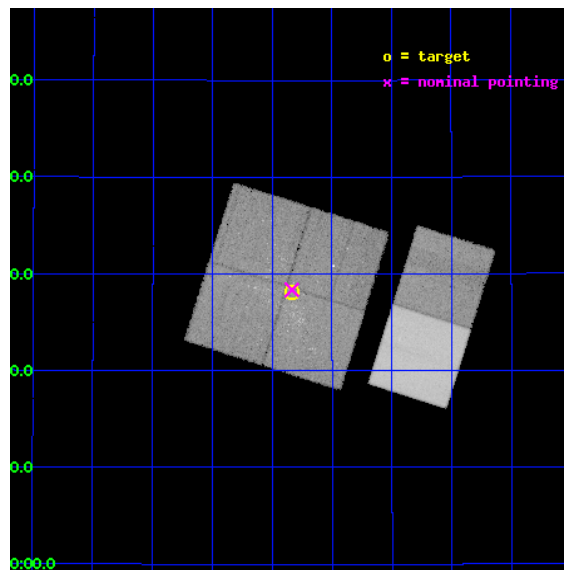
L2 Processing Date : Apr 30 2012

## 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

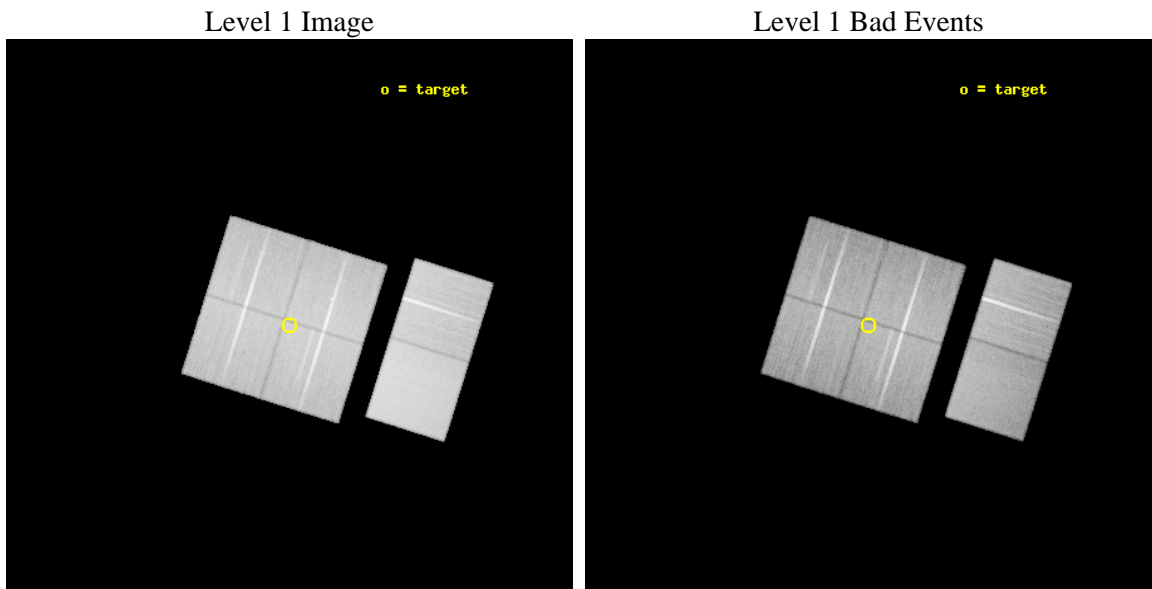
seq_num	200383	Sequence number
obs_id	8462	Observation id
title	The Initial Mass Function in the Outer Galaxy: The star forming region NGC 1893	Proposal title
observer	Dr Giuseppina Micela	Principal investigator
object	NGC 1893	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	80.708333	Observer's specified target RA [deg]
dec_targ	33.468056	Observer's specified target Dec [deg]
ra_nom	80.708853379352	Nominal RA [deg]
dec_nom	33.472687290733	Nominal Dec [deg]
roll_nom	107.50840508897	Nominal Roll [deg]
revision	3	Processing version of data
ontime	43161.59983927	Sum of GTIs [s]
livetime	42615.06167331	Livetime [s]
ontime0	43161.59983927	Sum of GTIs [s]
ontime1	43158.358868539	Sum of GTIs [s]
ontime2	43158.358838975	Sum of GTIs [s]
ontime3	43161.59983927	Sum of GTIs [s]
ontime6	43161.59983927	Sum of GTIs [s]
ontime7	43161.59983927	Sum of GTIs [s]
l2events	430351	Number of level 2 events



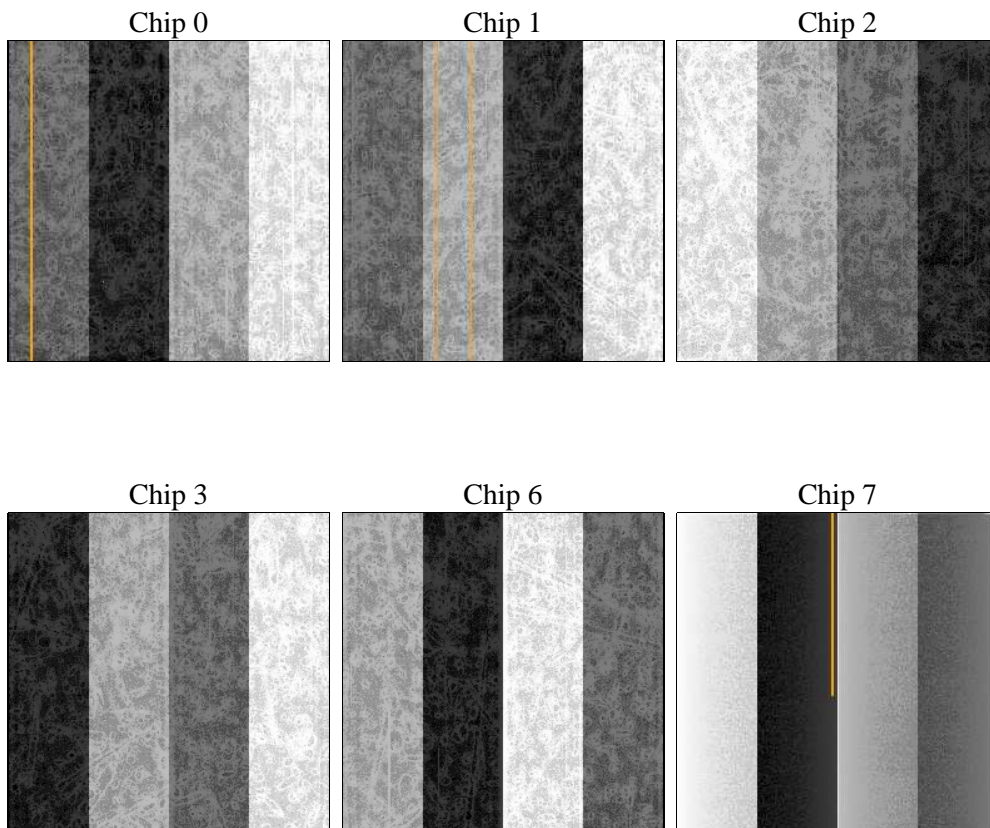
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	43000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	43161.59983927	Sum of GTIs [s]
caldbver	4.4.9	&#160	ontime0	43161.59983927	Sum of GTIs [s]
date	2012-04-30T21:59:00	Date and time of file creation	ontime1	43158.358868539	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	43158.358838975	Sum of GTIs [s]
			ontime3	43161.59983927	Sum of GTIs [s]
			ontime6	43161.59983927	Sum of GTIs [s]
			ontime7	43161.59983927	Sum of GTIs [s]
			l1events	2576085	Number of level 1 events

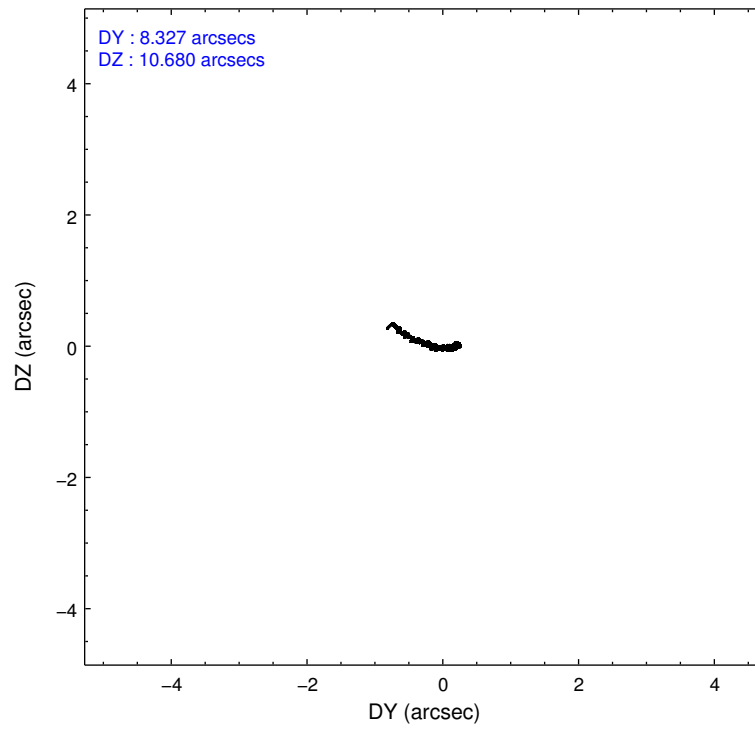
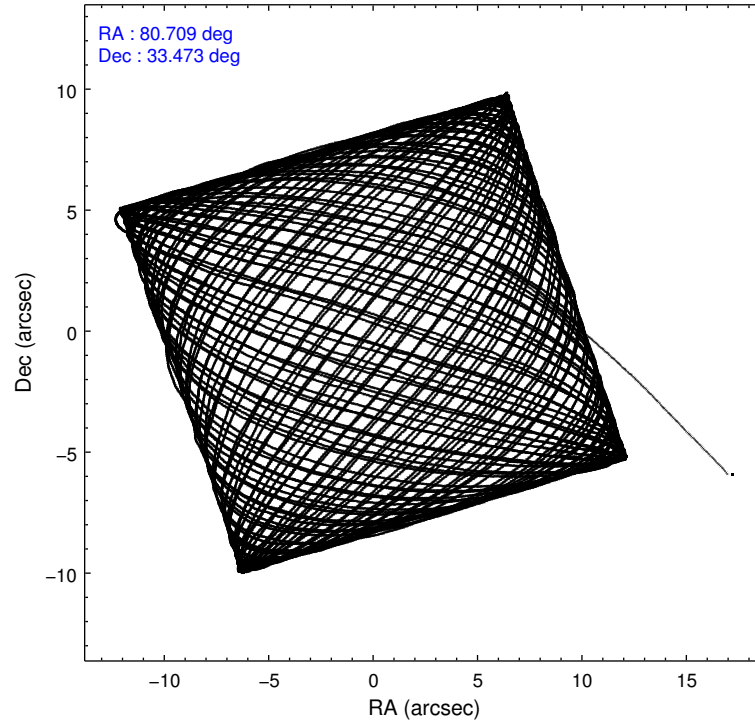
### 2.1.4 Events

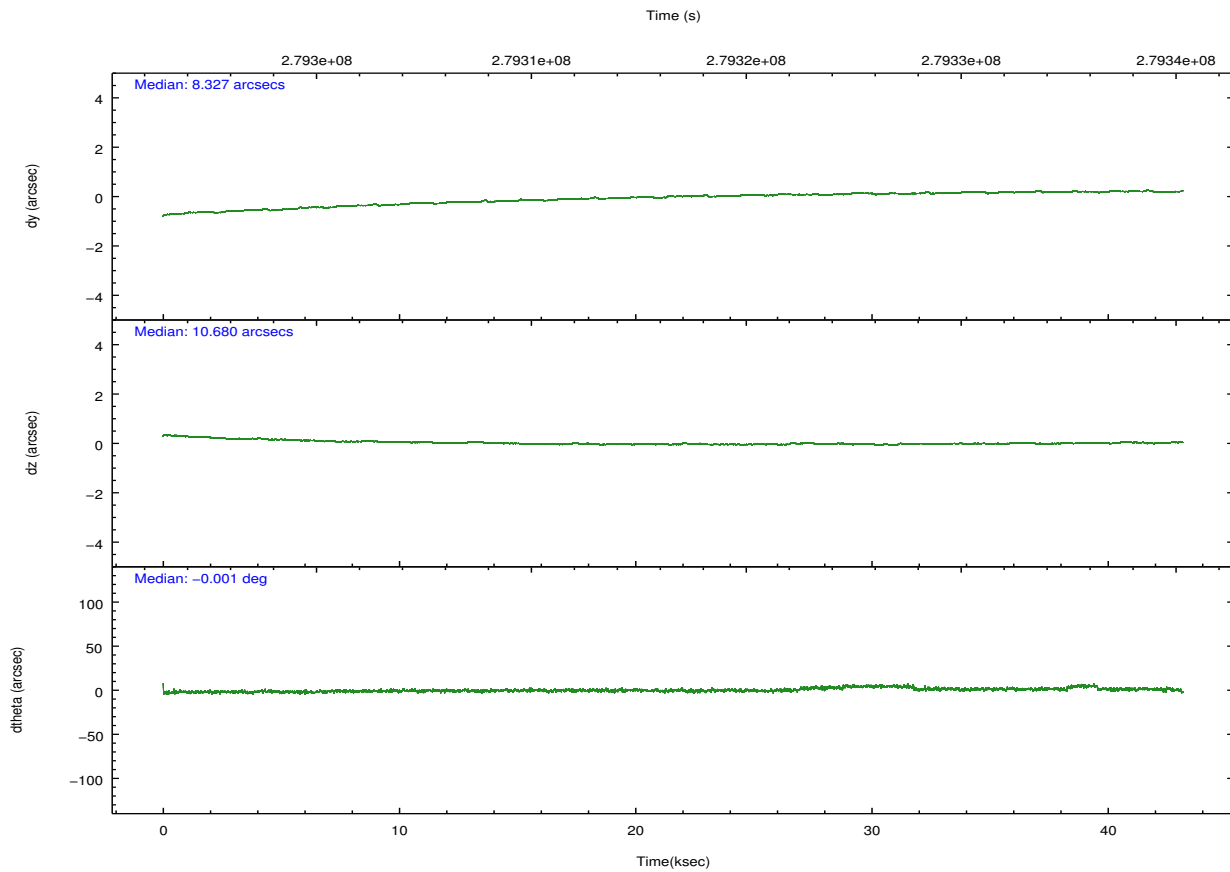
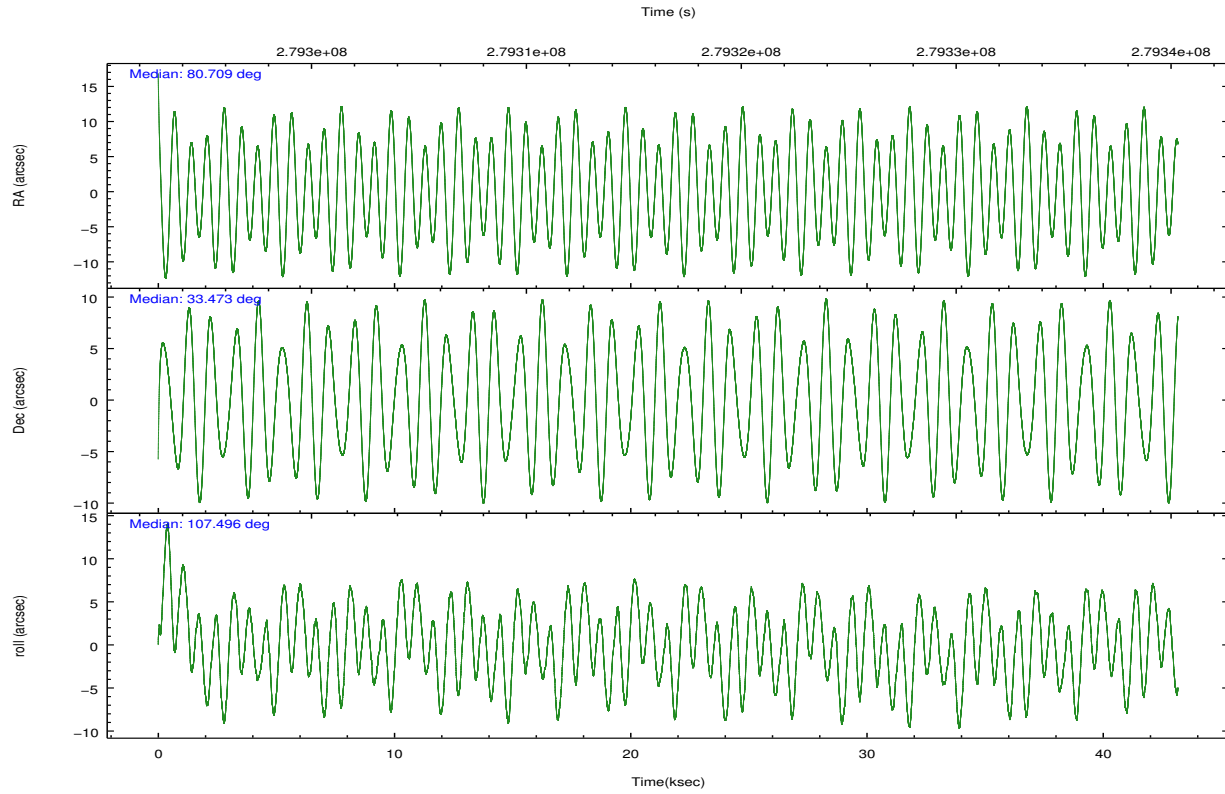
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	383313	384966	410218	406663	433306	557619	grade 0 events	21534	21058	20202	23740	18442	19569
rejected events	334545	332720	364657	356291	386322	333013		5%	5%	4%	5%	4%	3%
rejected %	87%	86%	88%	87%	89%	59%	grade 1 events	242	239	265	290	208	547
								0%	0%	0%	0%	0%	0%
							grade 2 events	10730	12109	9930	9843	10578	45907
								2%	3%	2%	2%	2%	8%
							grade 3 events	4740	5023	4357	4702	4541	19521
								1%	1%	1%	1%	1%	3%
							grade 4 events	4513	4897	4387	4676	4591	19779
								1%	1%	1%	1%	1%	3%
							grade 5 events	16156	17497	15364	18683	18927	52245
								4%	4%	3%	4%	4%	9%
							grade 6 events	8442	10345	7828	8556	10007	125288
								2%	2%	1%	2%	2%	22%
							grade 7 events	316956	313798	347885	336173	366012	274763
								82%	81%	84%	82%	84%	49%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	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	80.733153	80.70885337935212	Subarray requested	NONE	NONE
[deg] Pointing Dec	33.454248	33.47268729073279	Alternating exposures requested	N	N
[deg] Pointing Roll	107.286316	107.5084050889679	[s] Primary exposure time	0.000000	3.2
[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)	279295169.184000	279293595.89523			
Observation start date	2006-11-07T13:58:24	2006-11-07T13:33:15			
[s] Observation end time (MET)	279338169.184000	279339160.22238			
Observation end date	2006-11-08T01:55:04	2006-11-08T02:12:40			
Read mode	TIMED	TIMED			

## 2.3 Aspect



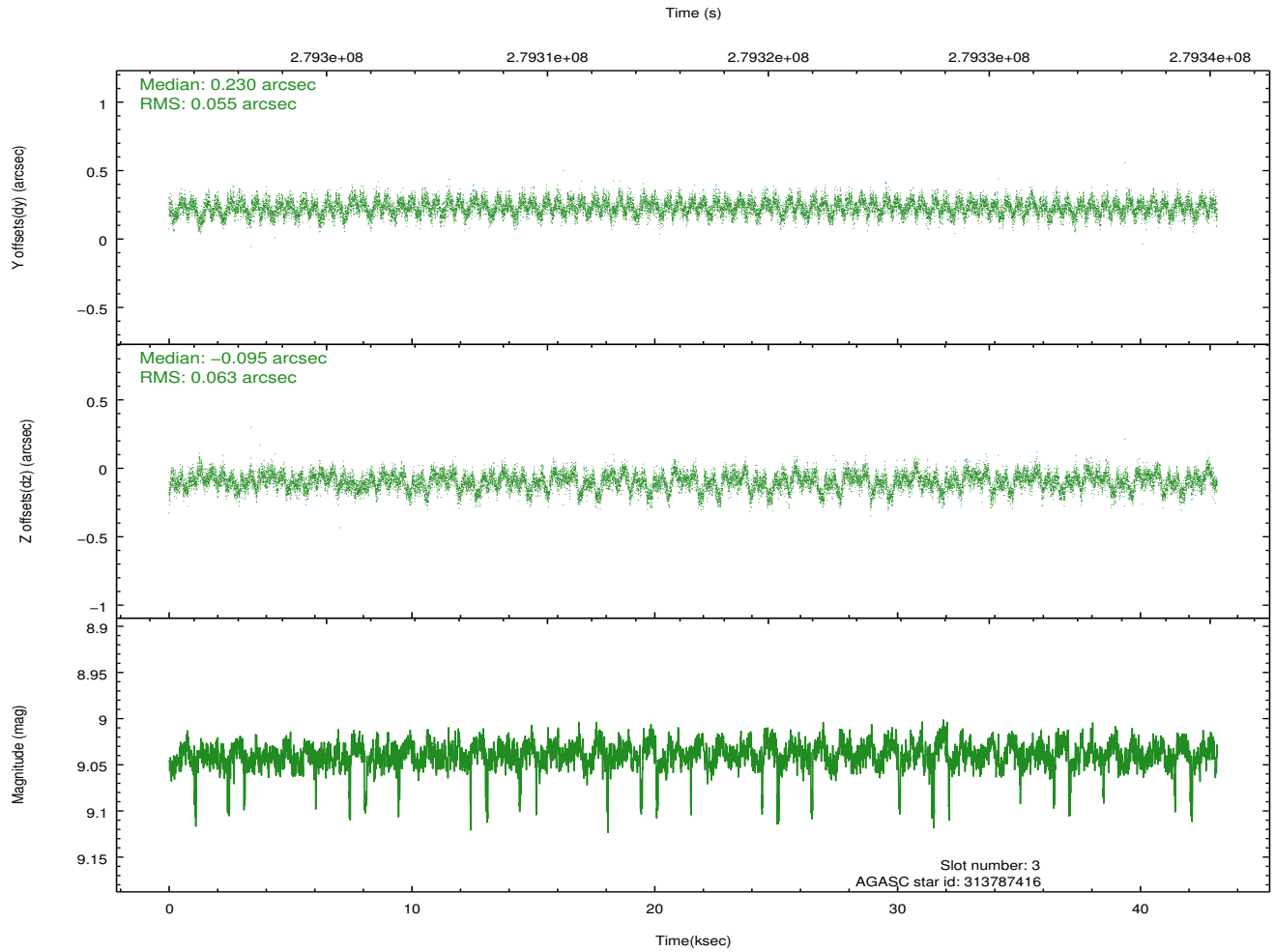
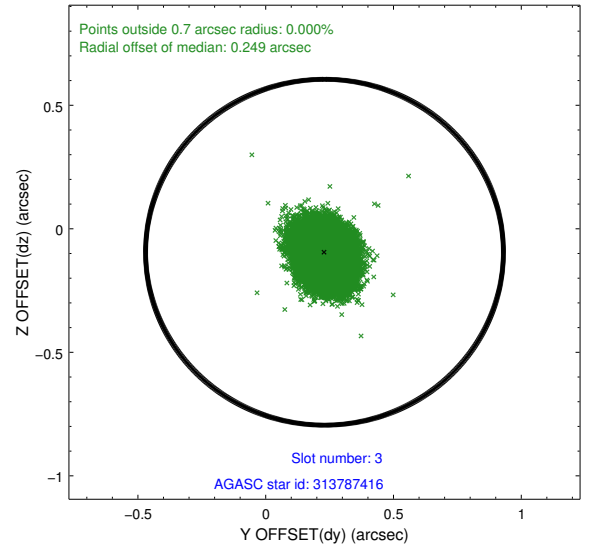
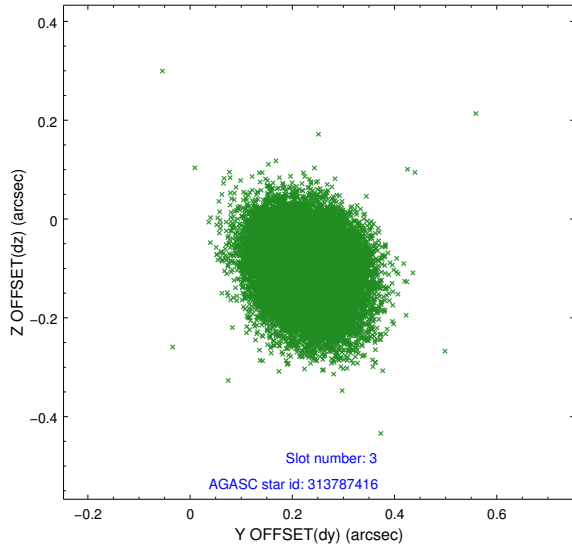


### Slot Statistics

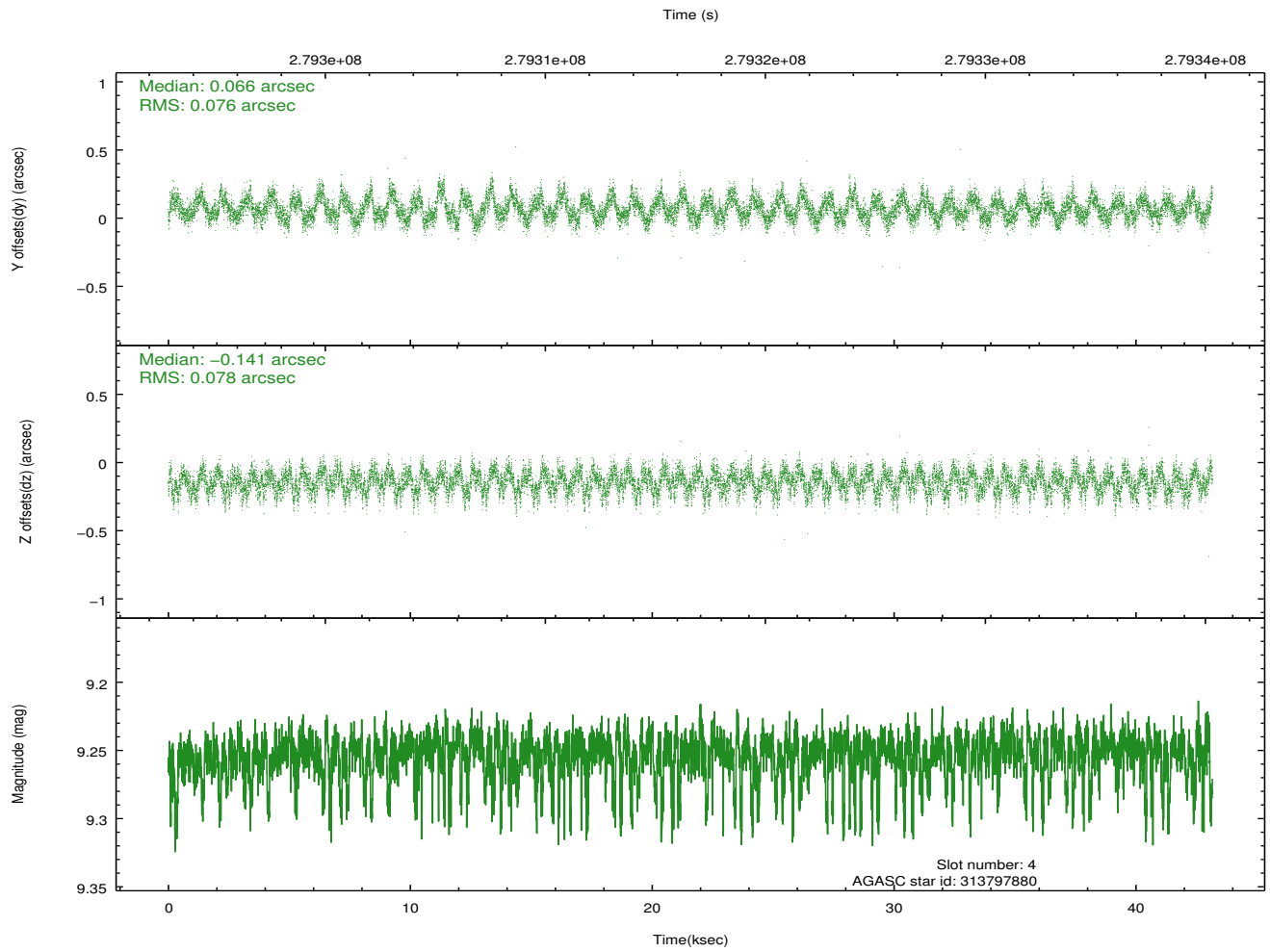
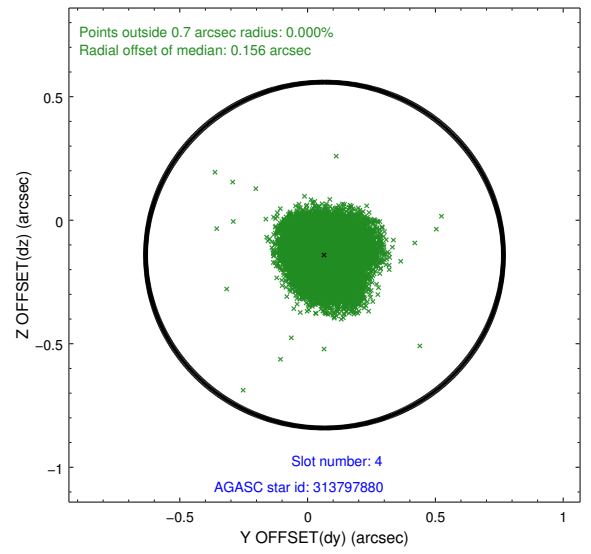
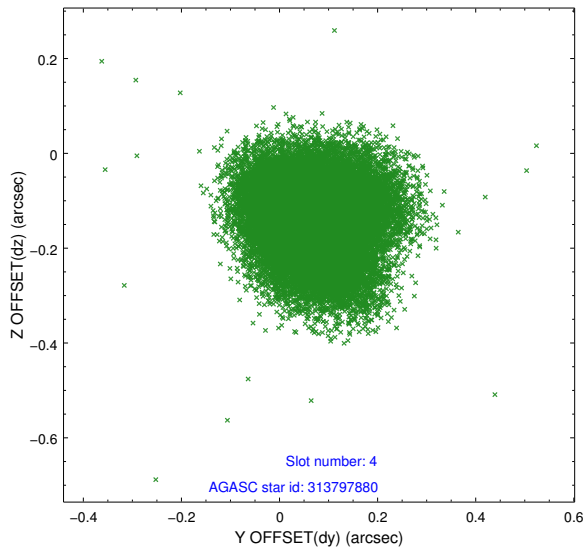
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.25	10529	-0.043	0.038	0.016	0.027	0.000000	0.000000	931.35	-834.18
1	FID	ACIS-I-2	7.15	10527	-0.166	-0.080	0.011	0.018	0.000000	0.000000	-762.86	-840.70
2	FID	ACIS-I-4	7.18	10526	0.112	0.112	0.013	0.031	0.000000	0.000000	2151.43	1065.67
3	GUIDE	313787416	9.04	21014	0.230	-0.095	0.089	0.144	80.395974	33.116845	-855.93	1330.92
4	GUIDE	313797880	9.25	20999	0.066	-0.141	0.118	0.181	80.622092	33.514008	304.90	254.26
5	GUIDE	313798616	8.97	20972	-0.166	-0.093	0.082	0.134	80.204171	33.476485	552.12	1491.69
6	GUIDE	315505832	9.34	21037	0.019	0.098	0.109	0.178	81.171561	33.648507	280.66	-1462.93
7	GUIDE	316032328	8.57	21045	-0.149	0.237	0.074	0.118	81.274709	34.029688	1502.62	-2159.17

## 2.4 Star Slots

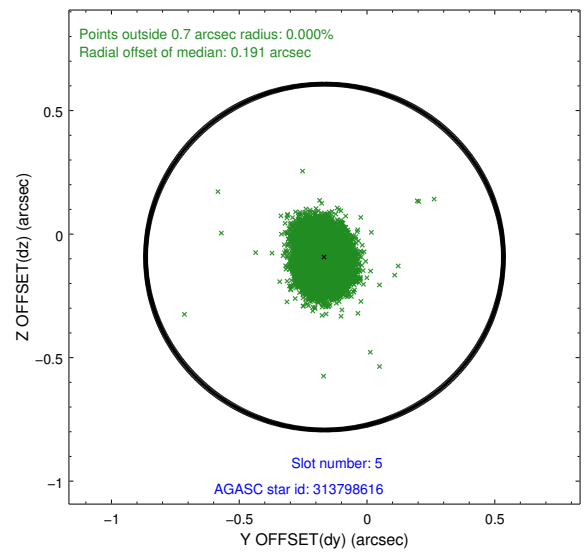
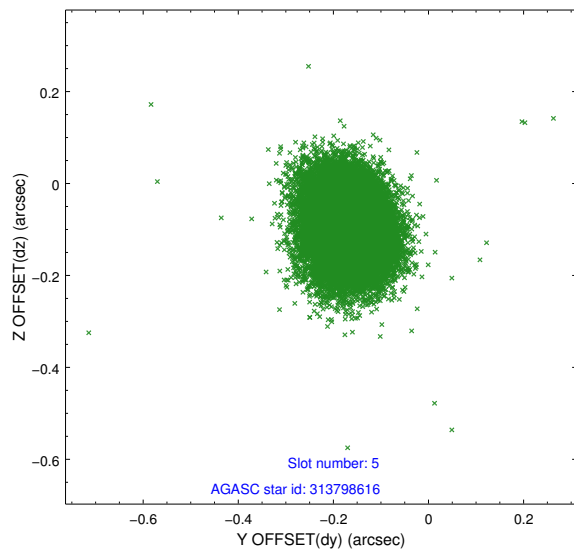
### 2.4.1 Slot 3



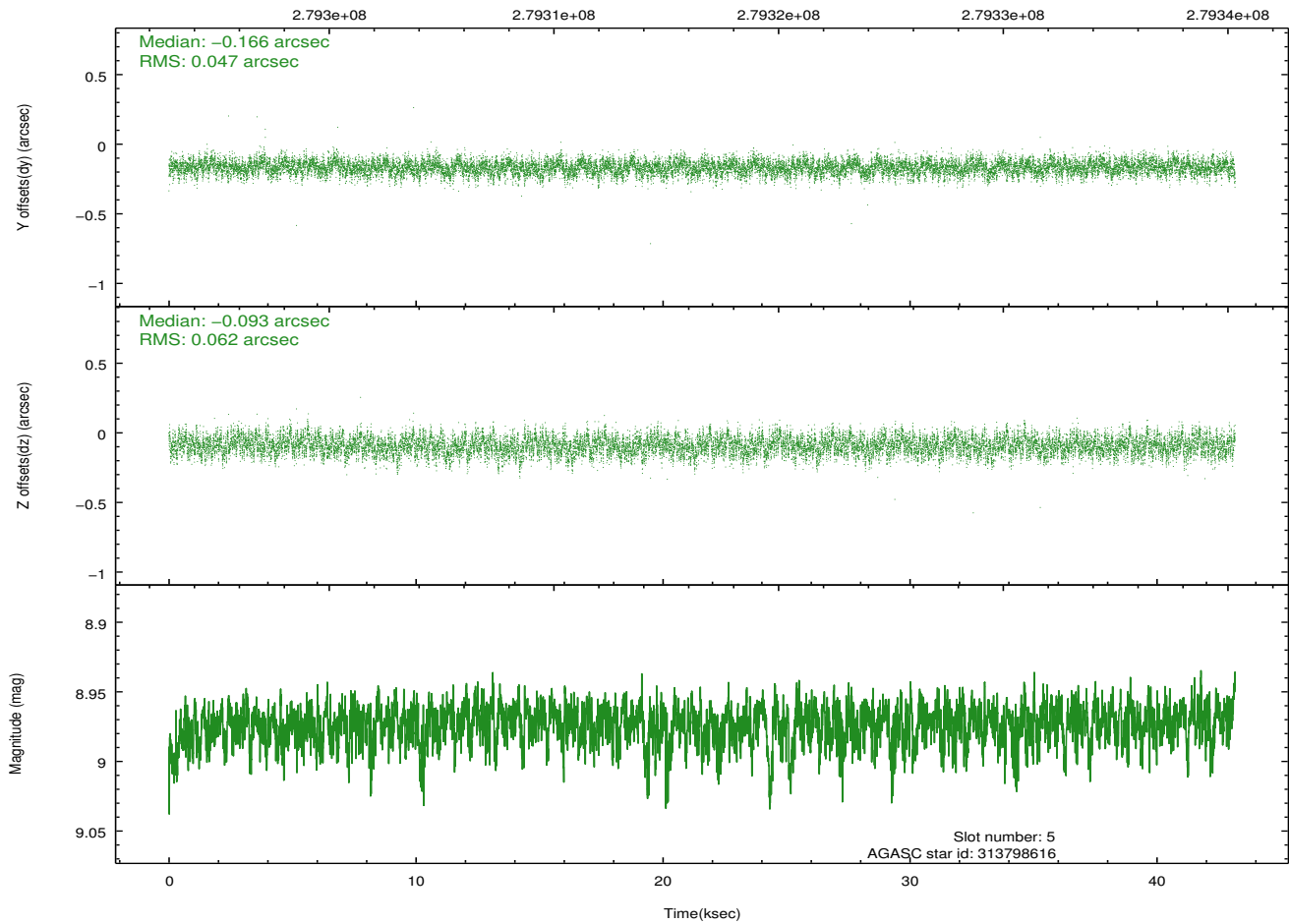
## 2.4.2 Slot 4



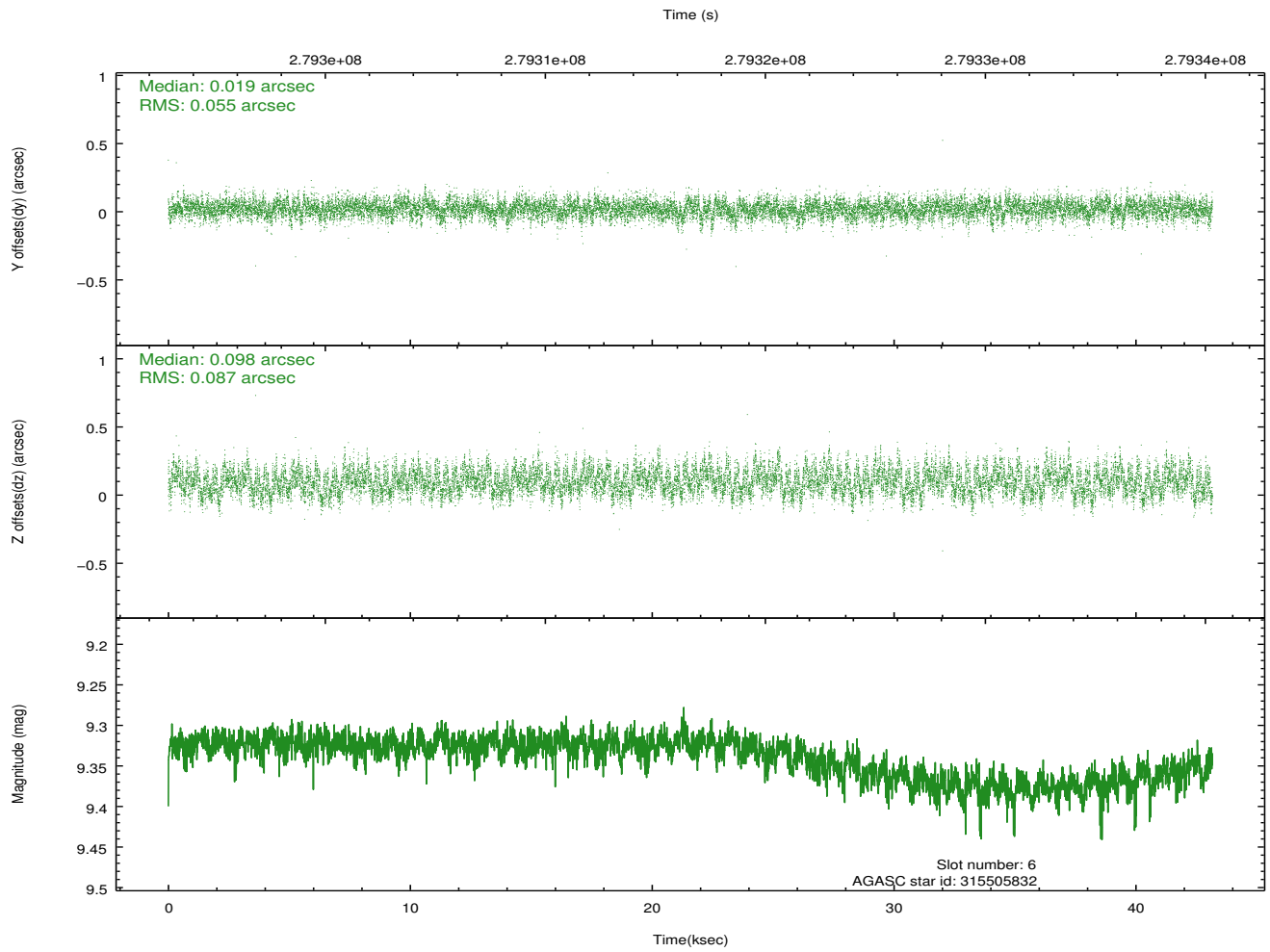
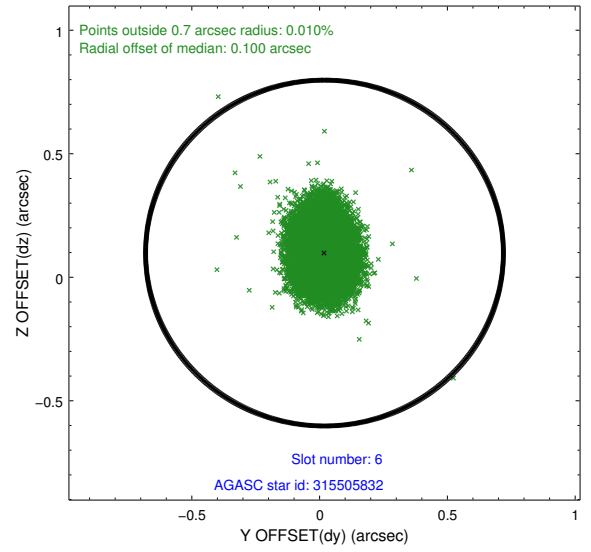
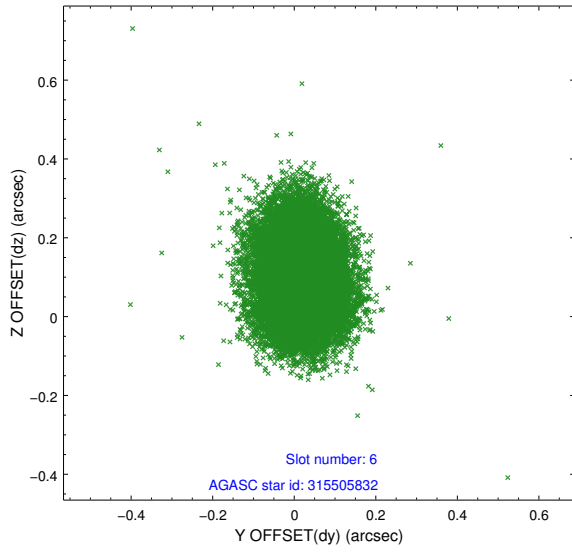
### 2.4.3 Slot 5



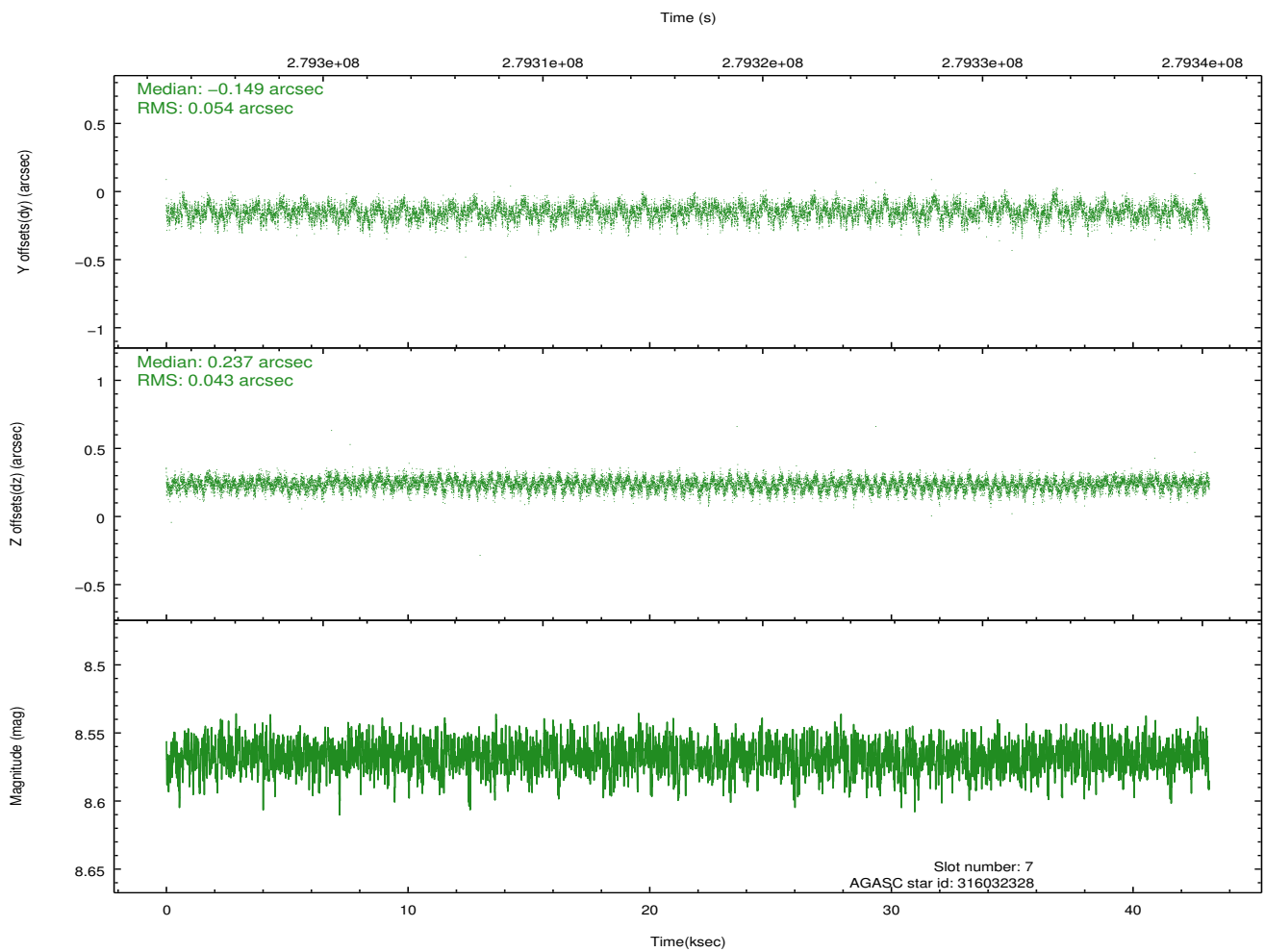
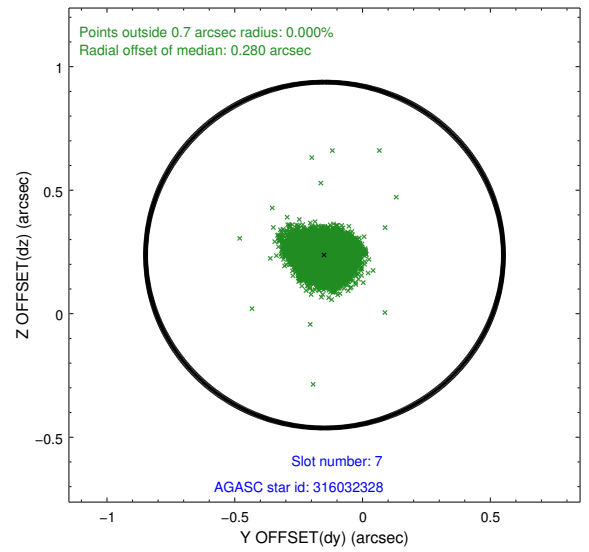
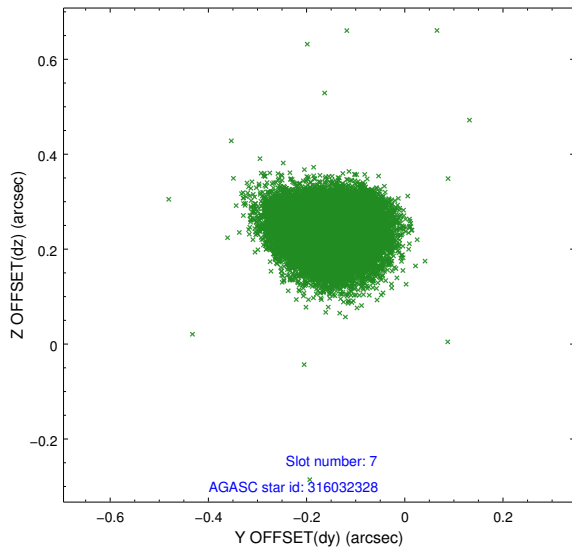
Time (s)



## 2.4.4 Slot 6

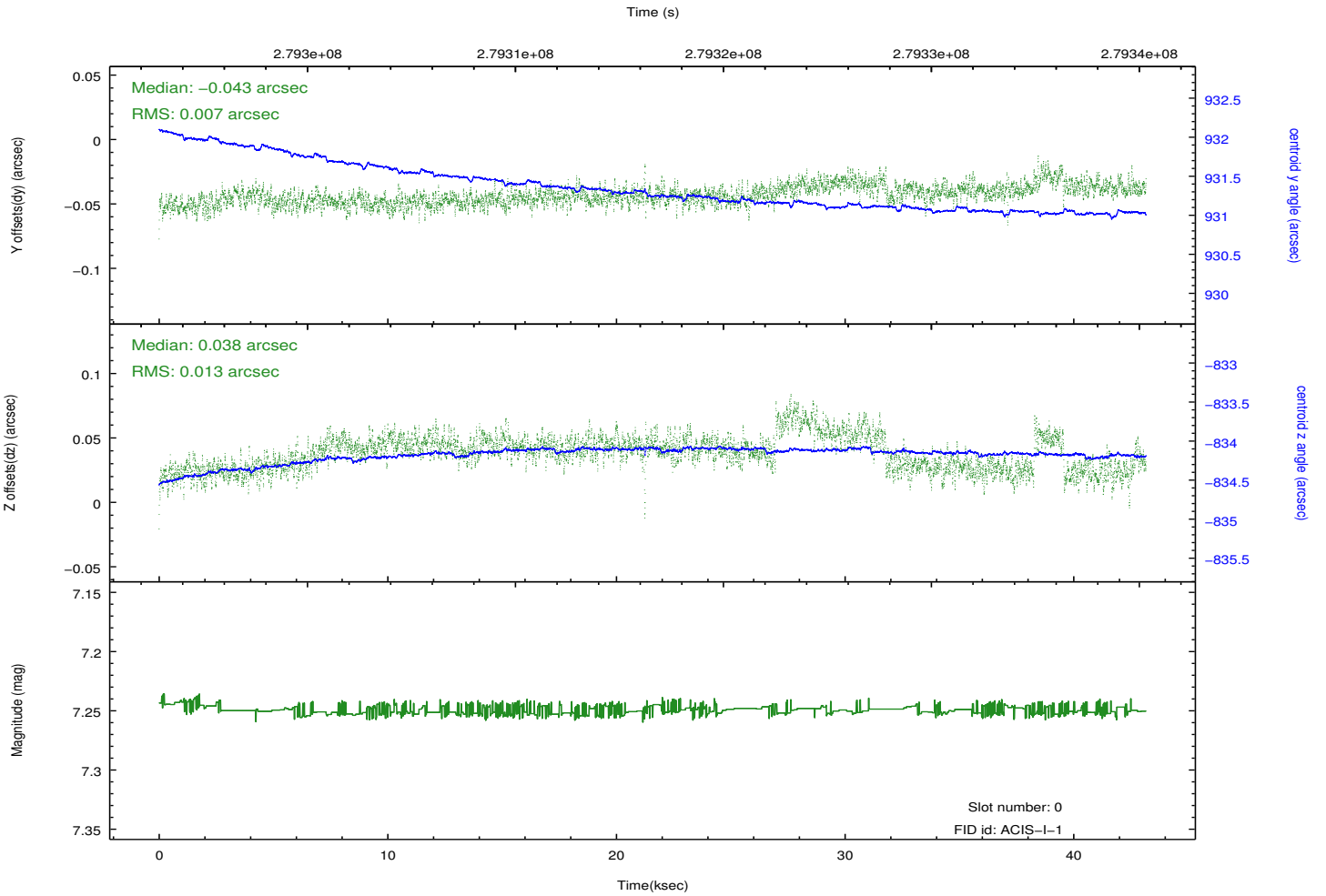
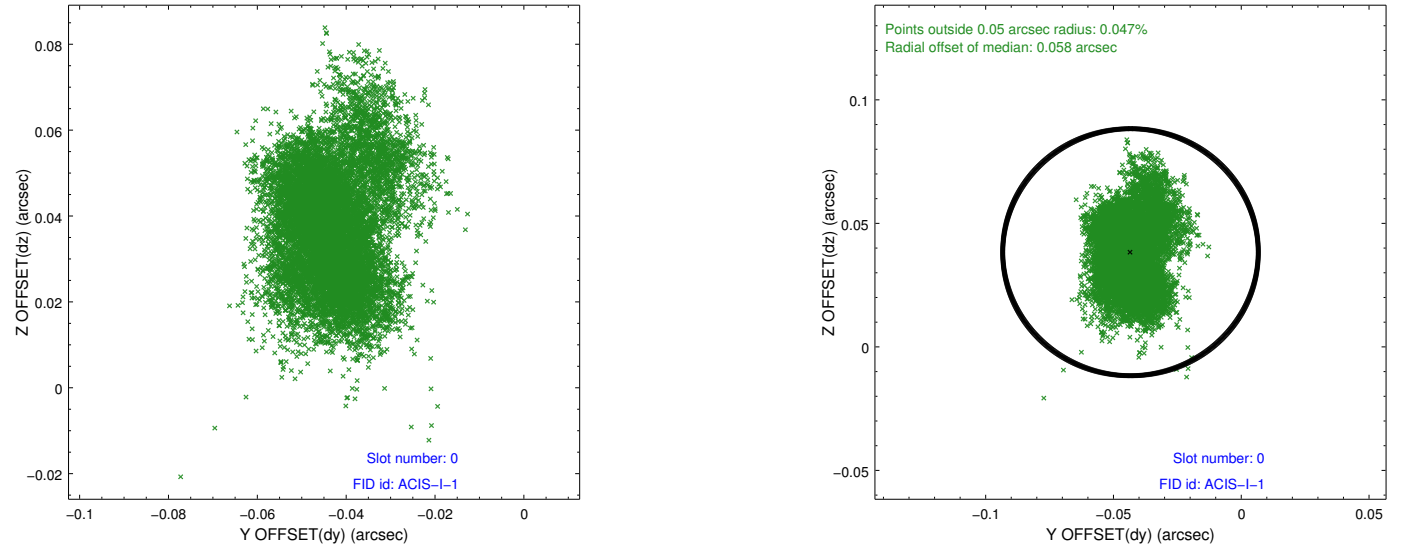


## 2.4.5 Slot 7

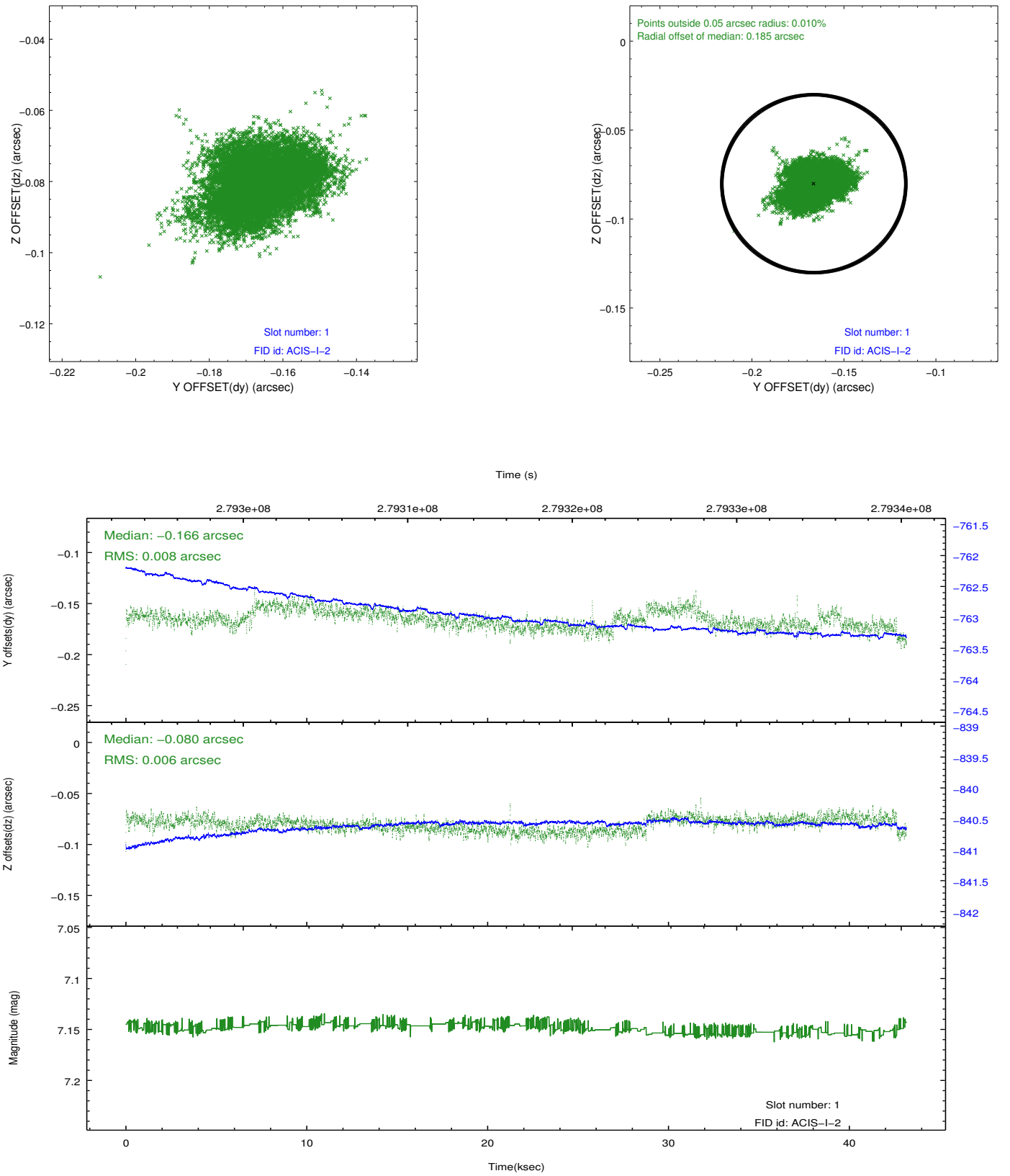


## 2.5 FID Slots

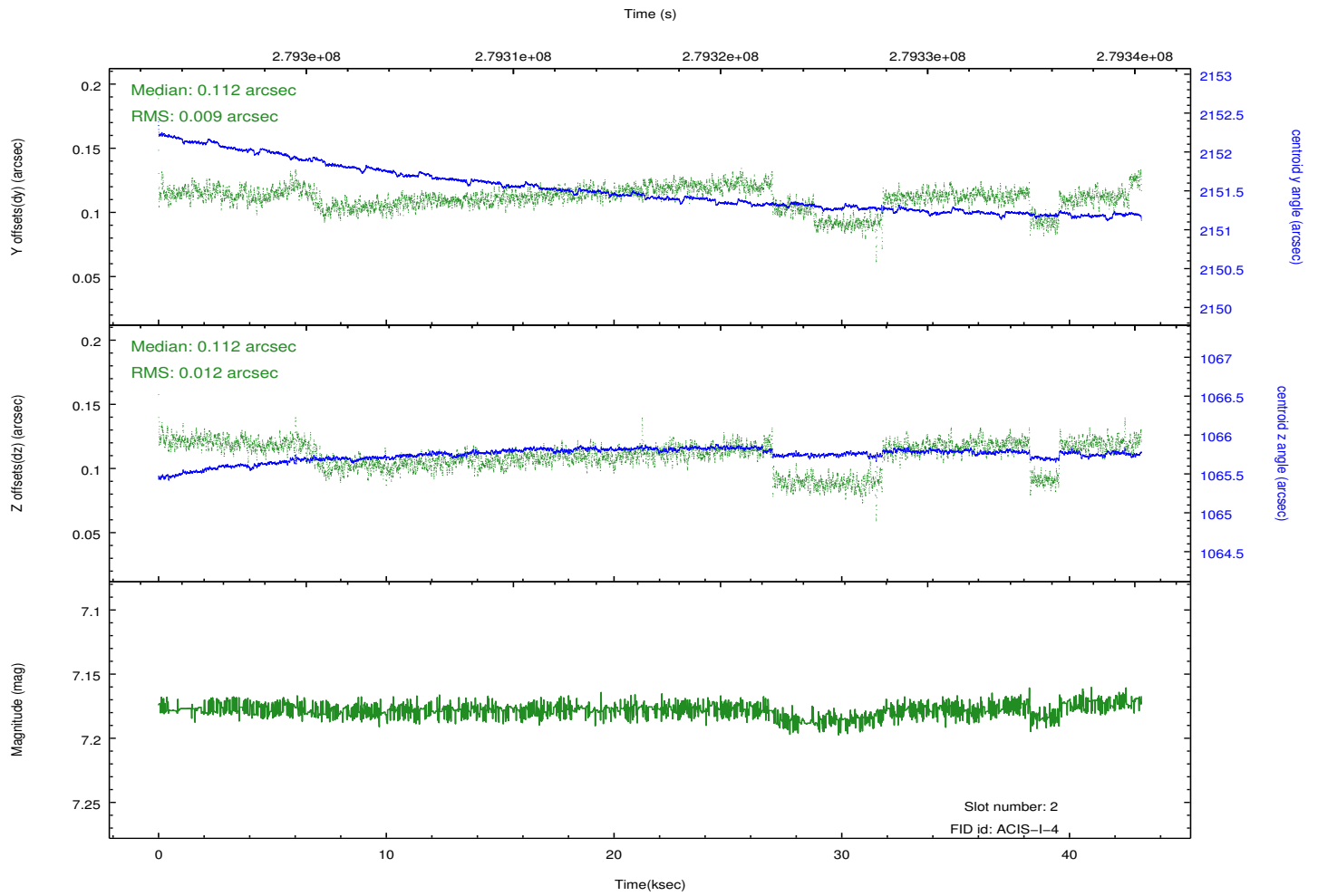
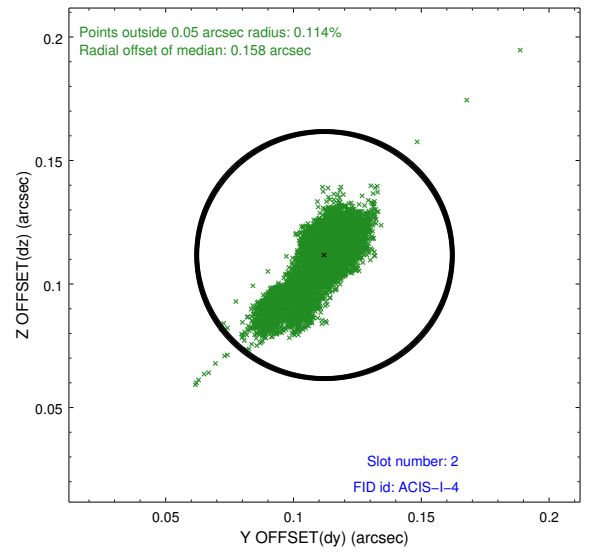
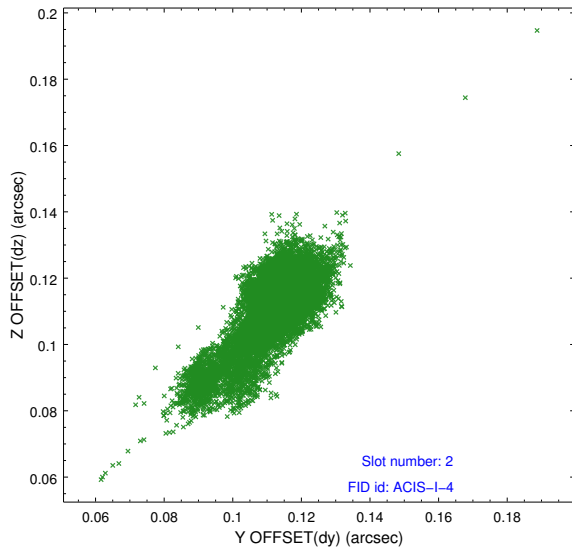
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.05.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	43.1615998

## A.2 Comments

A spatial region of the original bias map for CCD = 0 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 0 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords:  
(80.74416,33.63318), (80.73791,33.63155), (80.75522,33.58578), (80.75951,33.59260)

=====

Joint Proposal: Spitzer