

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 7714 - L2 Version 3  
Chandra X-Ray Center

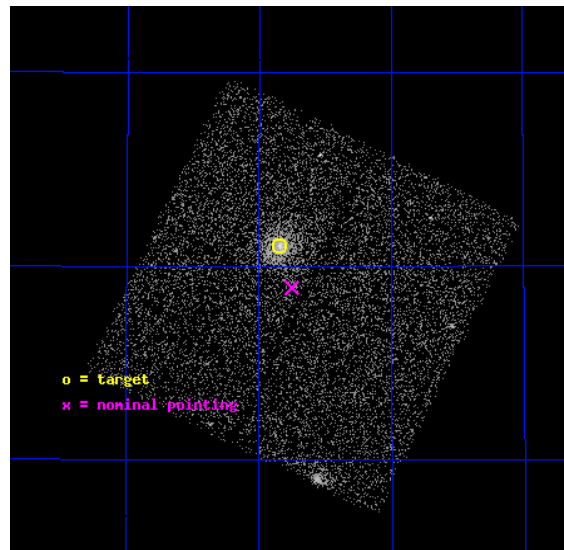
L2 Processing Date : May 10 2012

## 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

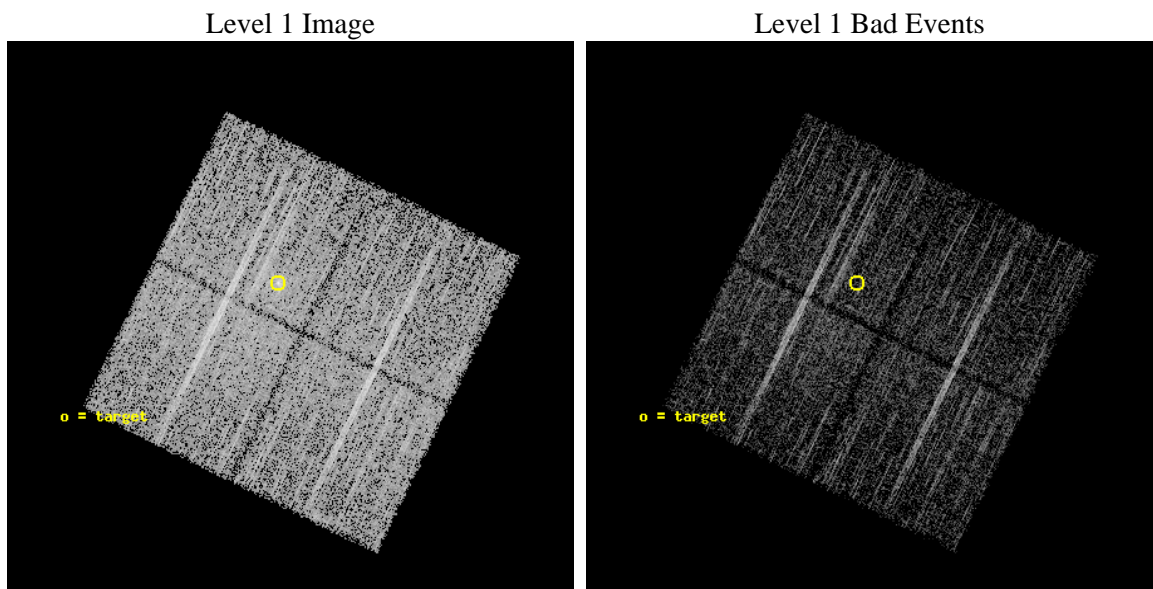
seq_num	701382	Sequence number
obs_id	7714	Observation id
title	Snapshot Survey for X-ray Outbursts in Rich Clusters of Galaxies	P
observer	Professor Gordon Garmire	Principal investigator
object	ZWCL1358+6245	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	209.960833	Observer's specified target RA [deg]
dec_targ	62.517778	Observer's specified target Dec [deg]
ra_nom	209.93843508447	Nominal RA [deg]
dec_nom	62.481834979671	Nominal Dec [deg]
roll_nom	296.18375881064	Nominal Roll [deg]
revision	3	Processing version of data
ontime	7055.6000542641	Sum of GTIs [s]
livetime	6963.4134452979	Livetime [s]
ontime0	7049.3181334734	Sum of GTIs [s]
ontime1	7055.6000542641	Sum of GTIs [s]
ontime2	7055.6000542641	Sum of GTIs [s]
ontime3	7055.6000542641	Sum of GTIs [s]
l2events	15206	Number of level 2 events



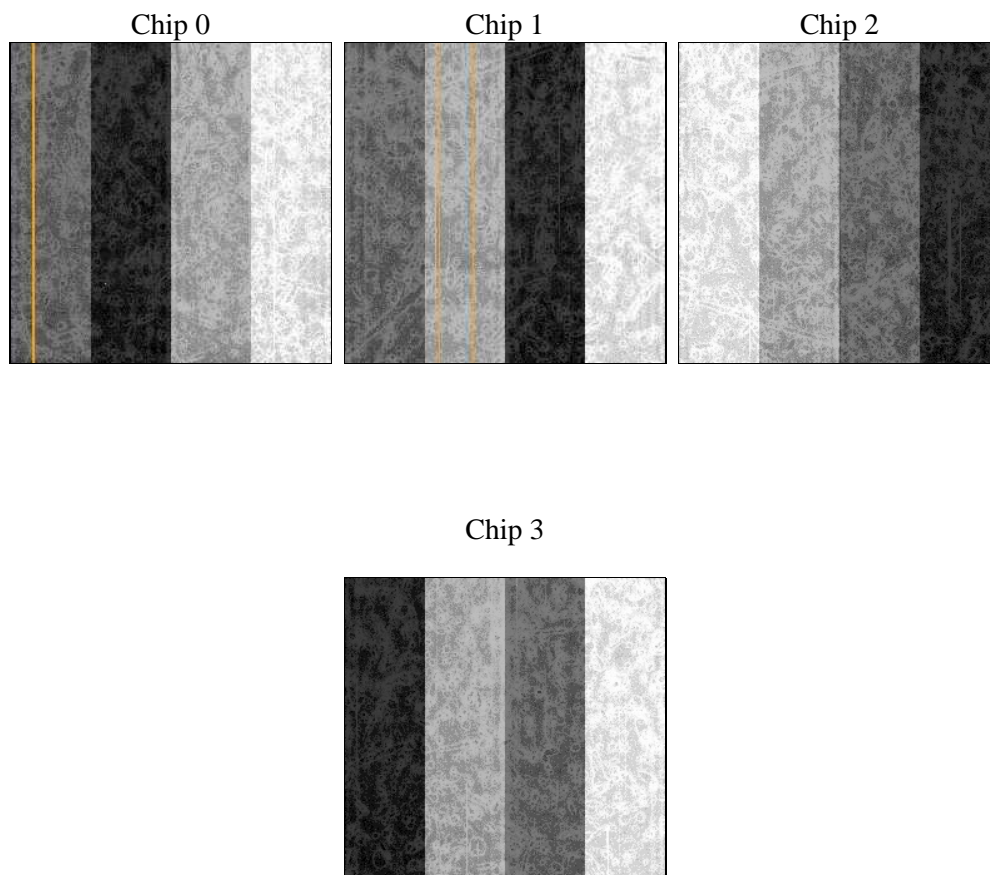
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	7055.6000542641	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	7049.3181334734	Sum of GTIs [s]
date	2012-05-10T16:36:31	Date and time of file creation	ontime1	7055.6000542641	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	7055.6000542641	Sum of GTIs [s]
			ontime3	7055.6000542641	Sum of GTIs [s]
			l1events	195245	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	47414	43737	51799	52295
rejected events	42755	39325	47601	46505
rejected %	90%	89%	91%	88%

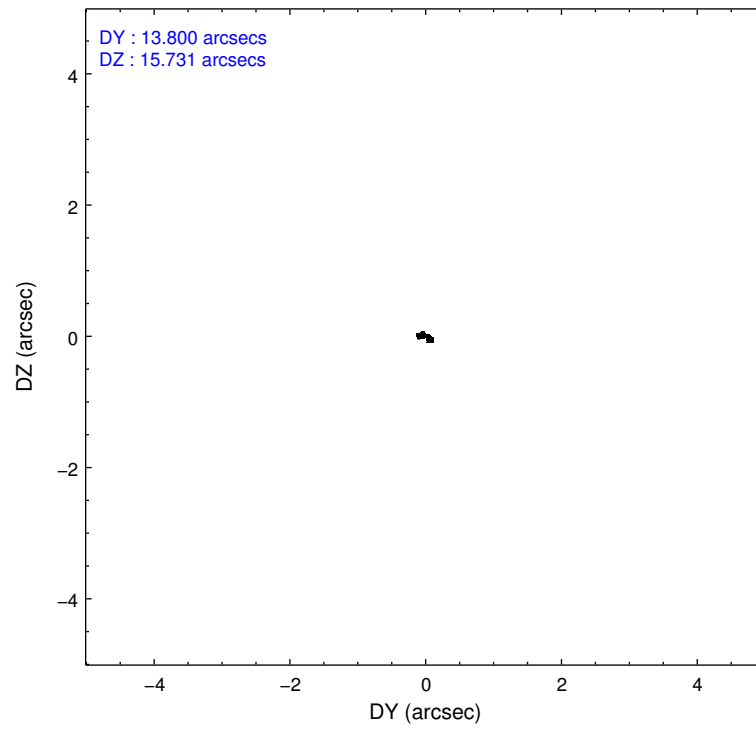
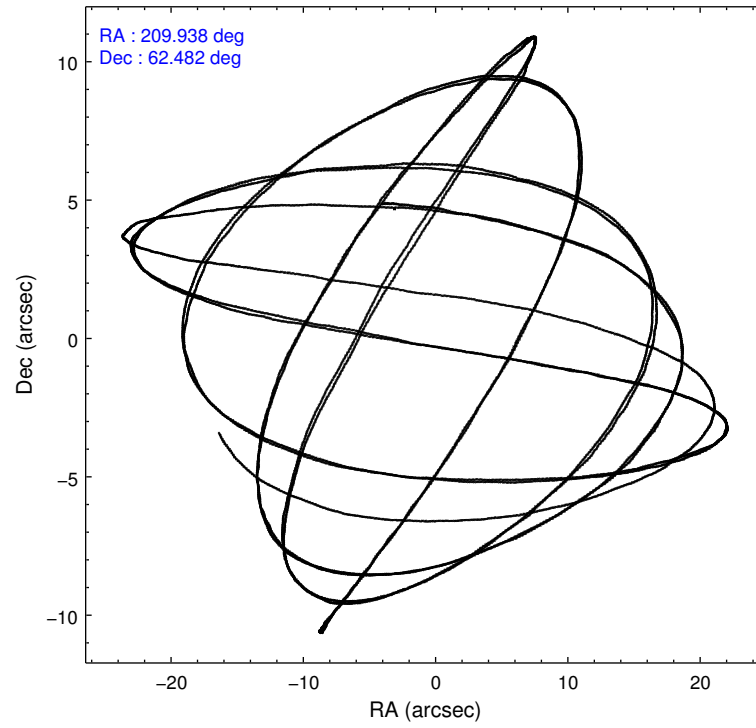
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	1852	1766	1700	3131
	3%	4%	3%	5%
grade 1 events	32	19	39	48
	0%	0%	0%	0%
grade 2 events	1158	888	1020	1032
	2%	2%	1%	1%
grade 3 events	525	521	431	513
	1%	1%	0%	0%
grade 4 events	492	515	437	479
	1%	1%	0%	0%
grade 5 events	785	961	683	1042
	1%	2%	1%	1%
grade 6 events	634	724	613	639
	1%	1%	1%	1%
grade 7 events	41936	38343	46876	45411
	88%	87%	90%	86%

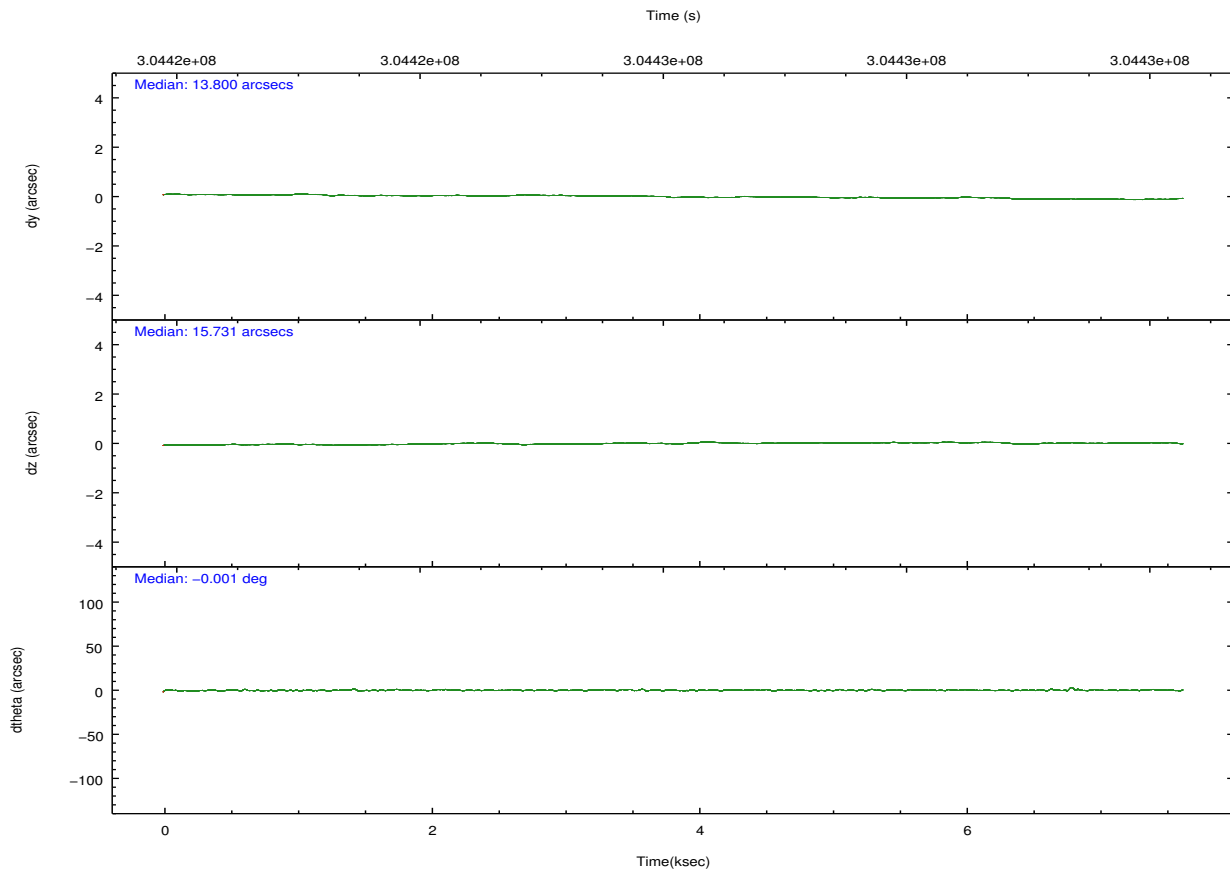
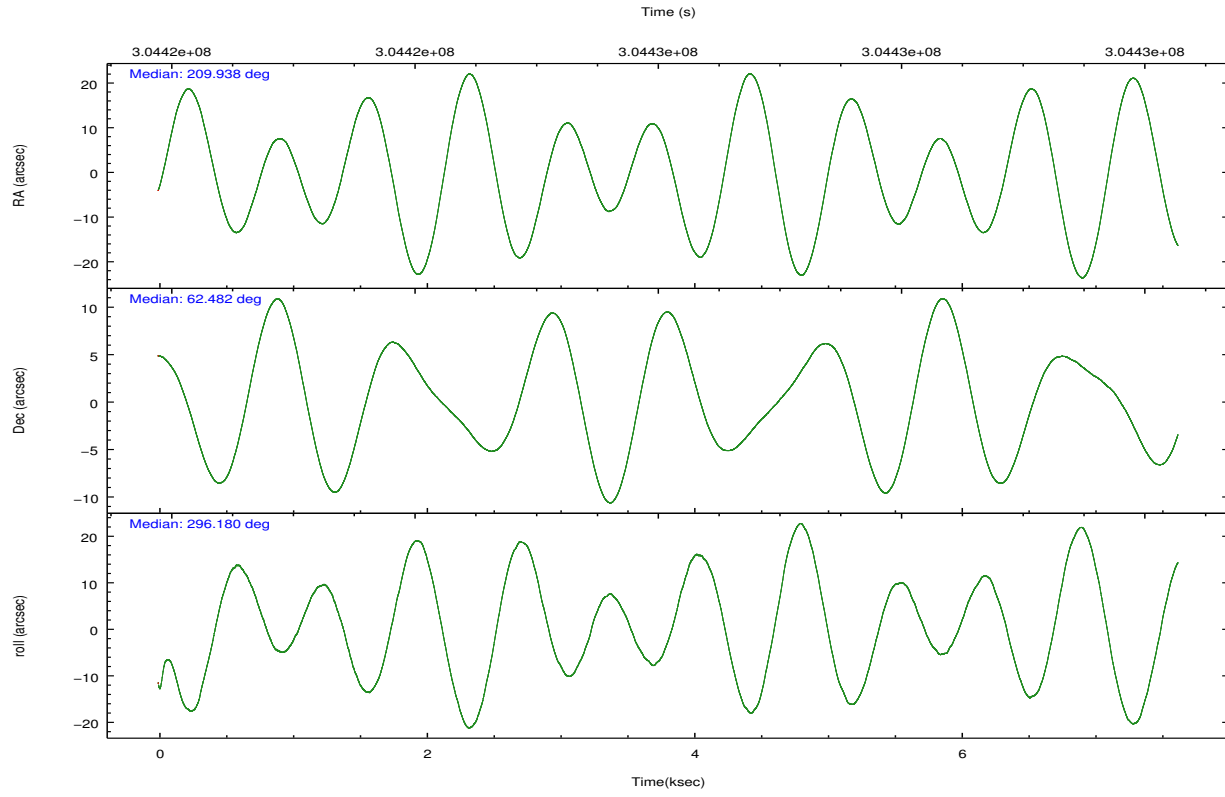


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	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	209.888677	209.9384350844684	Subarray requested	NONE	NONE
[deg] Pointing Dec	62.497095	62.48183497967096	Alternating exposures requested	N	N
[deg] Pointing Roll	296.019237	296.1837588106436	[s] Primary exposure time	0.000000	3.1
[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)	304422885.184000	304421796.50438			
Observation start date	2007-08-25T09:53:40	2007-08-25T09:36:36			
[s] Observation end time (MET)	304429885.184000	304430092.34228			
Observation end date	2007-08-25T11:50:20	2007-08-25T11:54:52			
Read mode	TIMED	TIMED			

## 2.3 Aspect



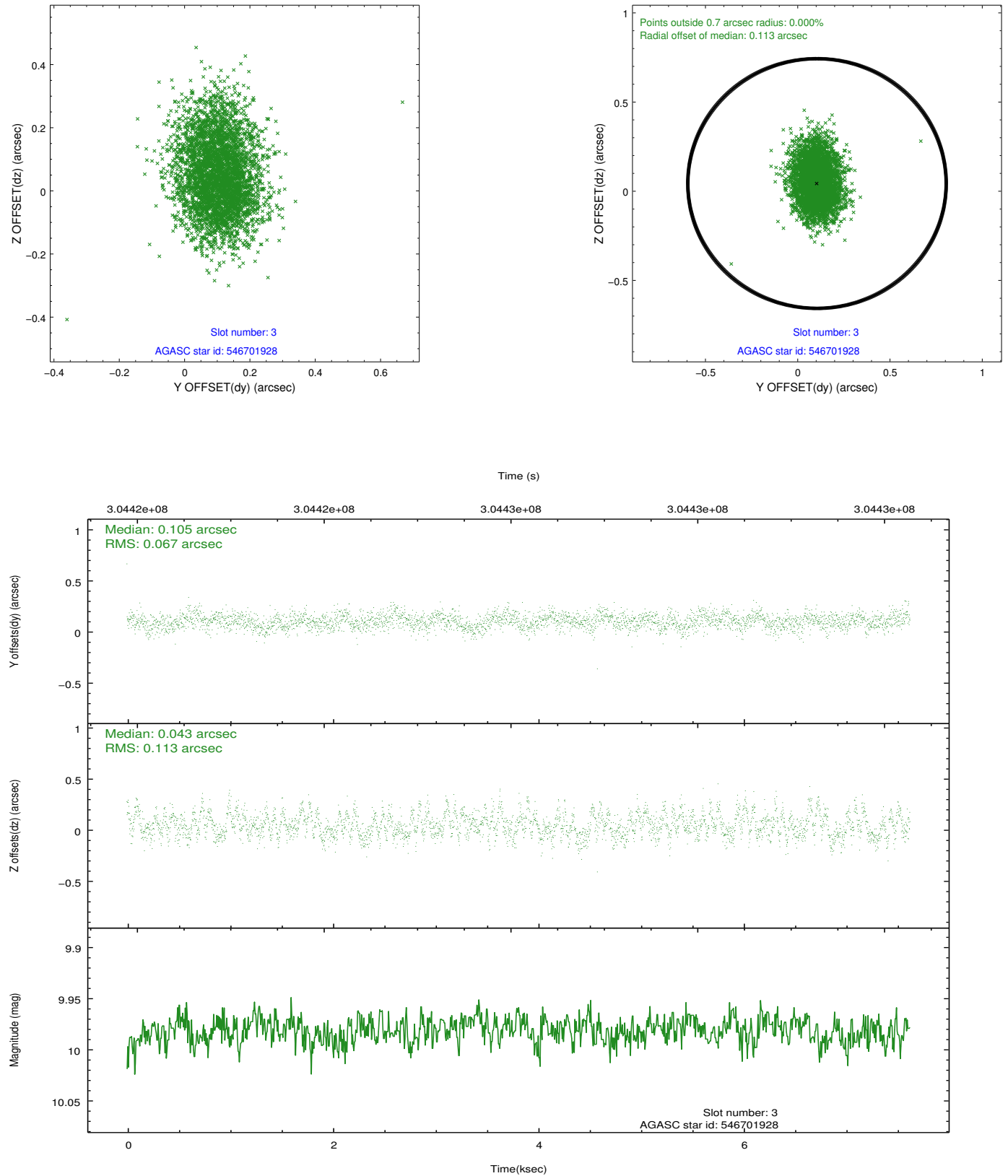


### Slot Statistics

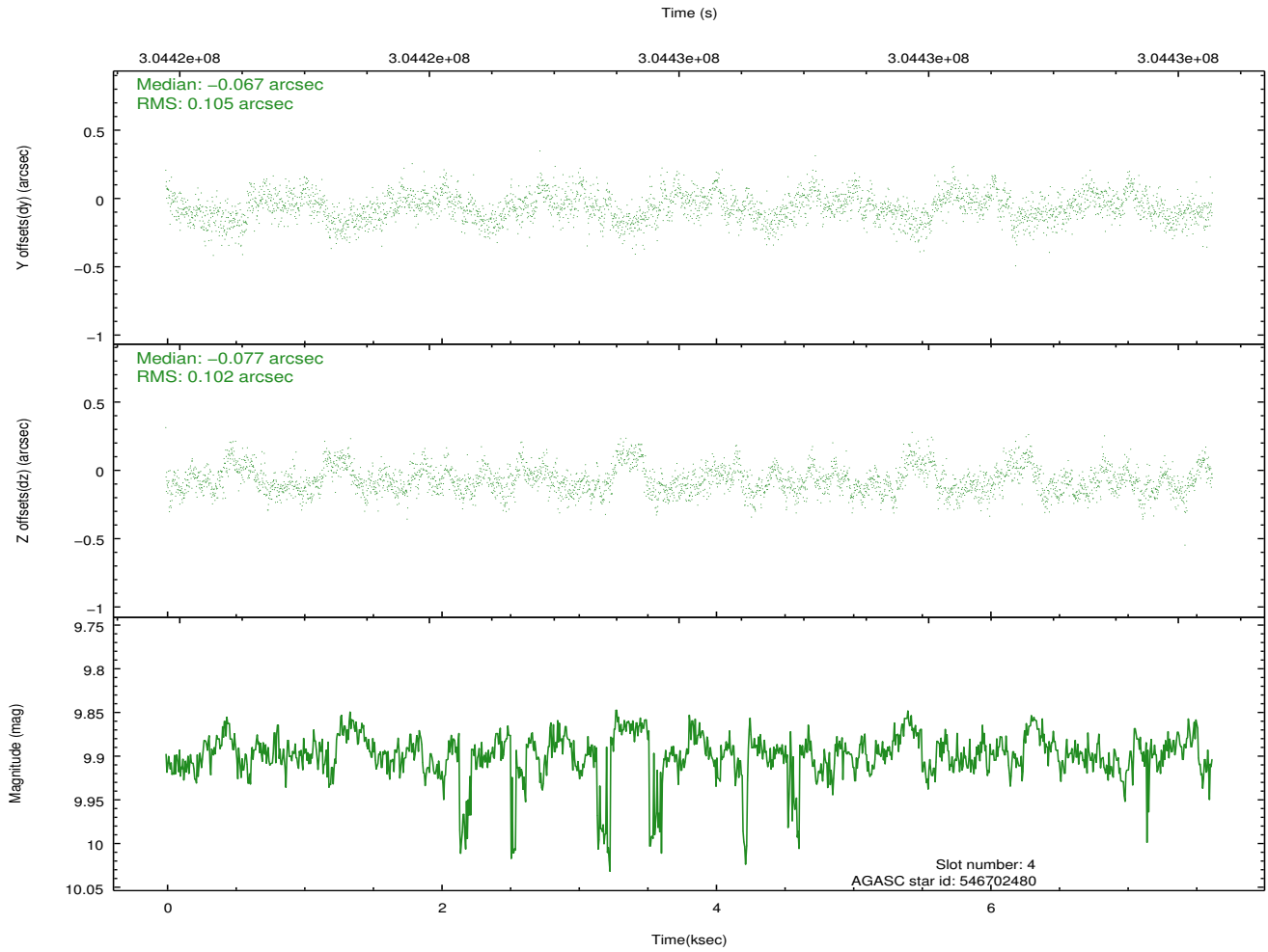
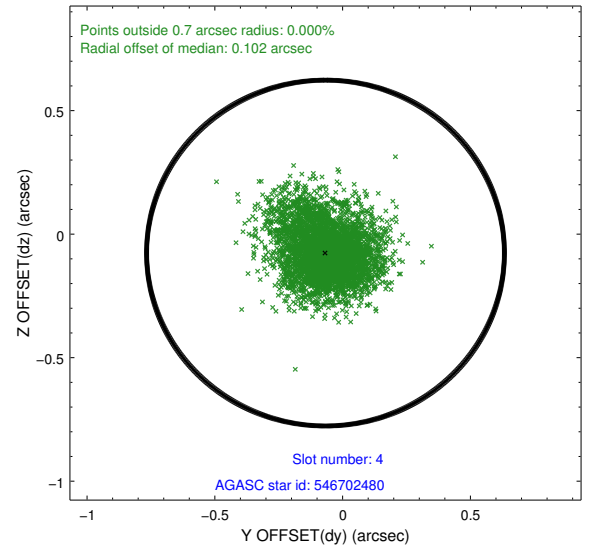
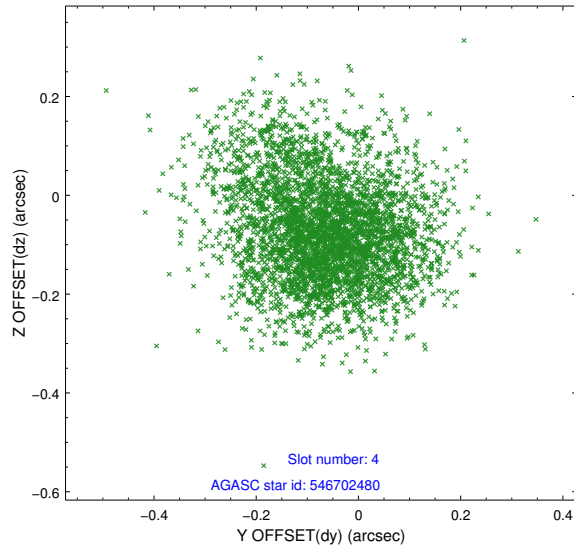
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.22	1861	0.051	-0.044	0.007	0.012	0.000000	0.000000	925.73	-839.40
1	FID	ACIS-I-5	7.22	1861	-0.215	0.048	0.006	0.010	0.000000	0.000000	-1822.20	1057.85
2	FID	ACIS-I-6	7.23	1861	0.073	0.066	0.007	0.011	0.000000	0.000000	390.53	1703.18
3	GUIDE	546701928	9.98	3717	0.105	0.043	0.138	0.232	208.434731	62.460629	-967.33	-2220.09
4	GUIDE	546702480	9.90	3705	-0.067	-0.077	0.156	0.254	210.935181	61.998473	2375.38	807.88
5	GUIDE	547100152	7.45	3721	-0.137	0.070	0.069	0.109	209.266185	62.792313	-1408.86	-452.41
6	GUIDE	547102216	8.97	3718	0.013	-0.023	0.137	0.203	208.623896	62.904596	-2246.56	-1211.30
7	GUIDE	547102544	10.04	3709	0.075	-0.029	0.146	0.238	209.734827	62.868804	-1314.11	359.89

## 2.4 Star Slots

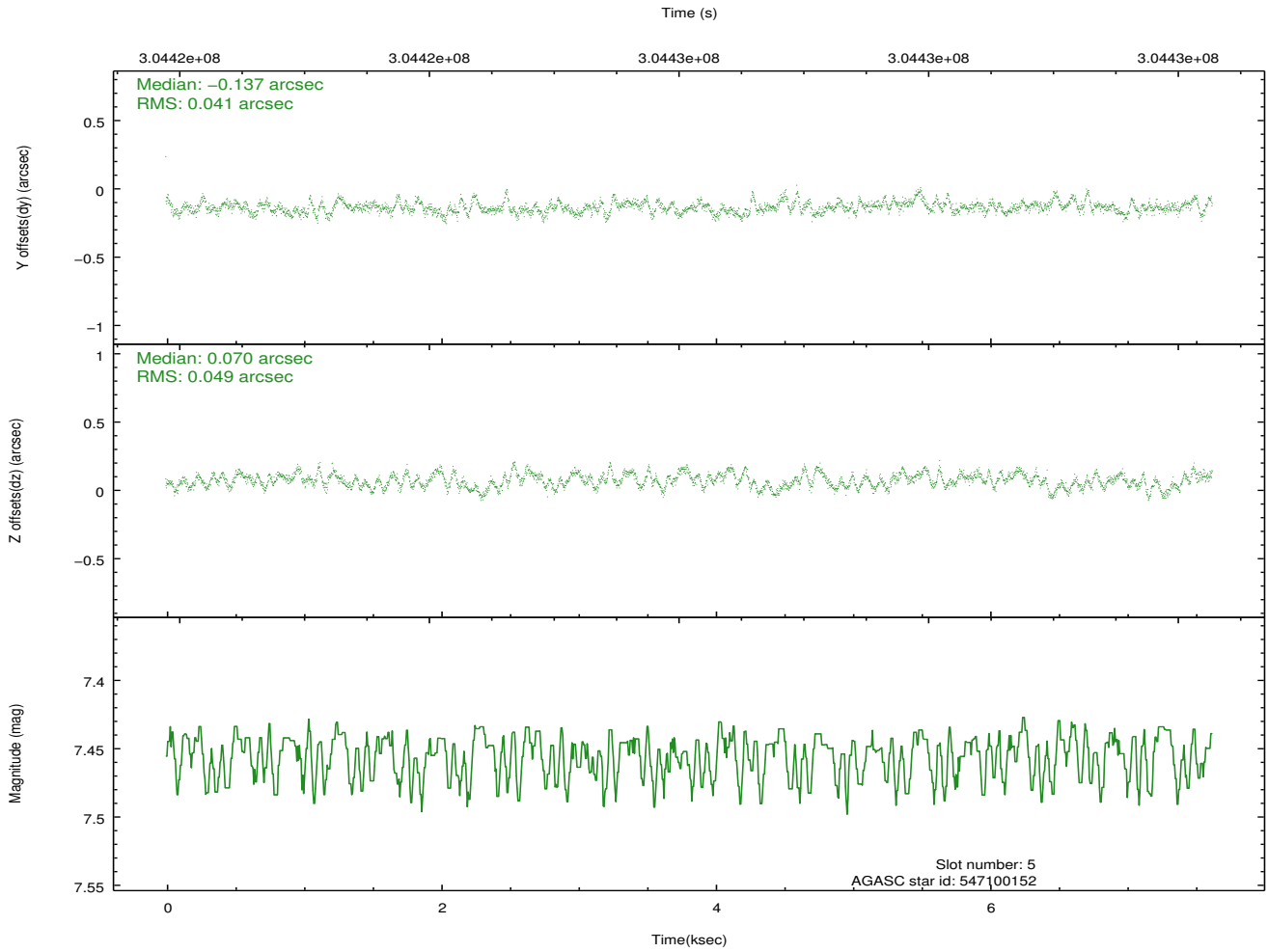
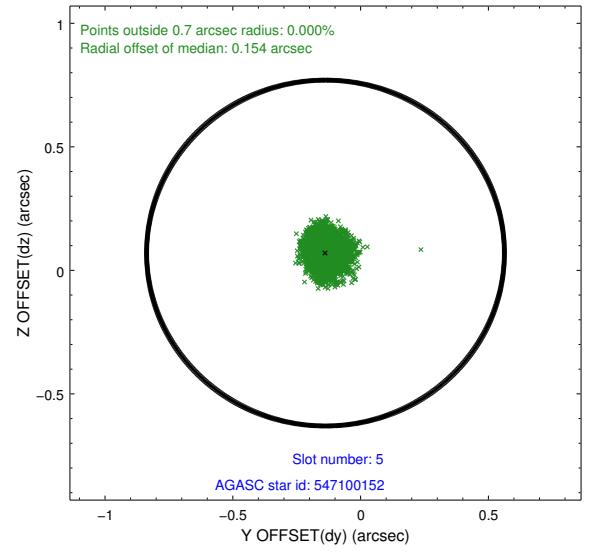
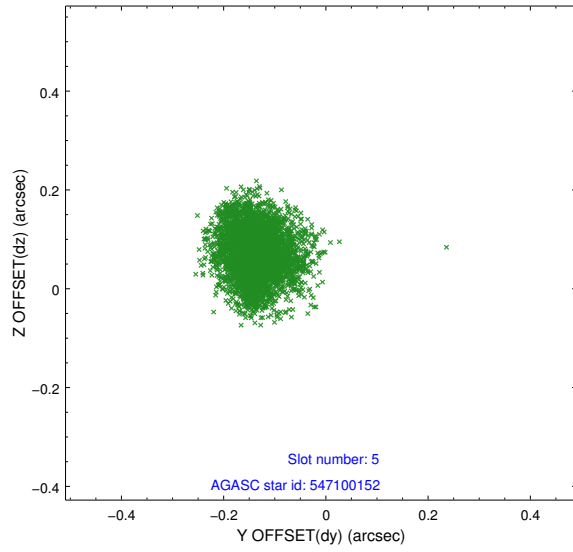
### 2.4.1 Slot 3



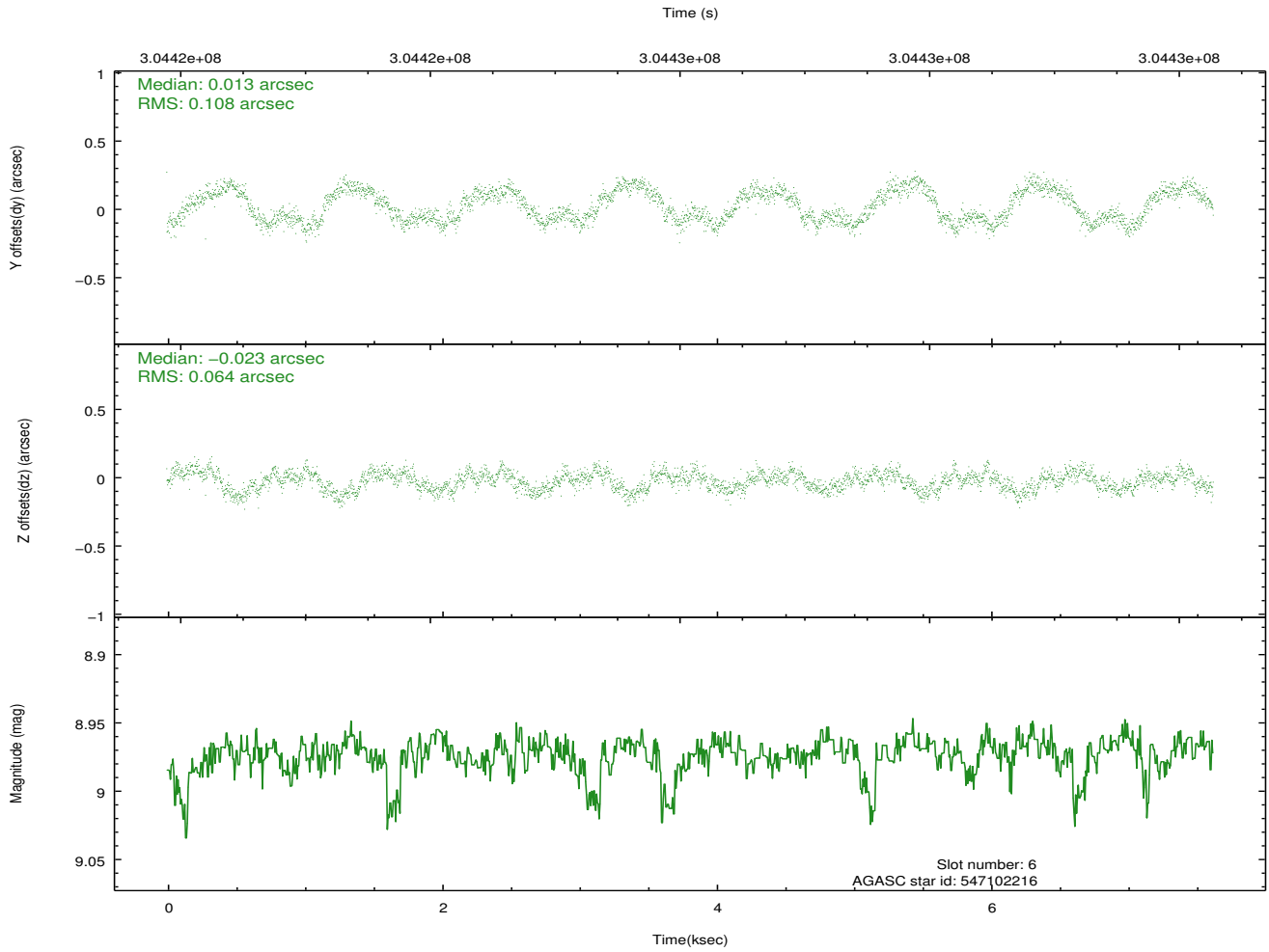
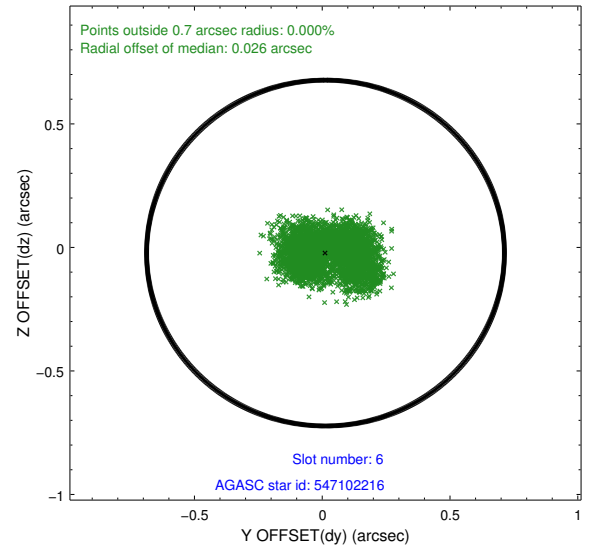
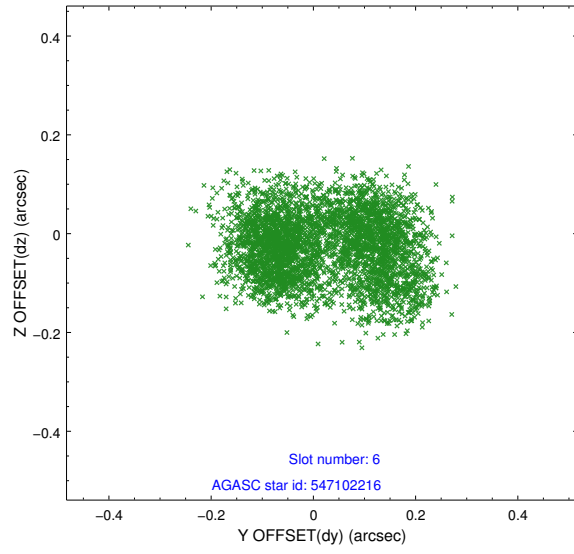
## 2.4.2 Slot 4



### 2.4.3 Slot 5

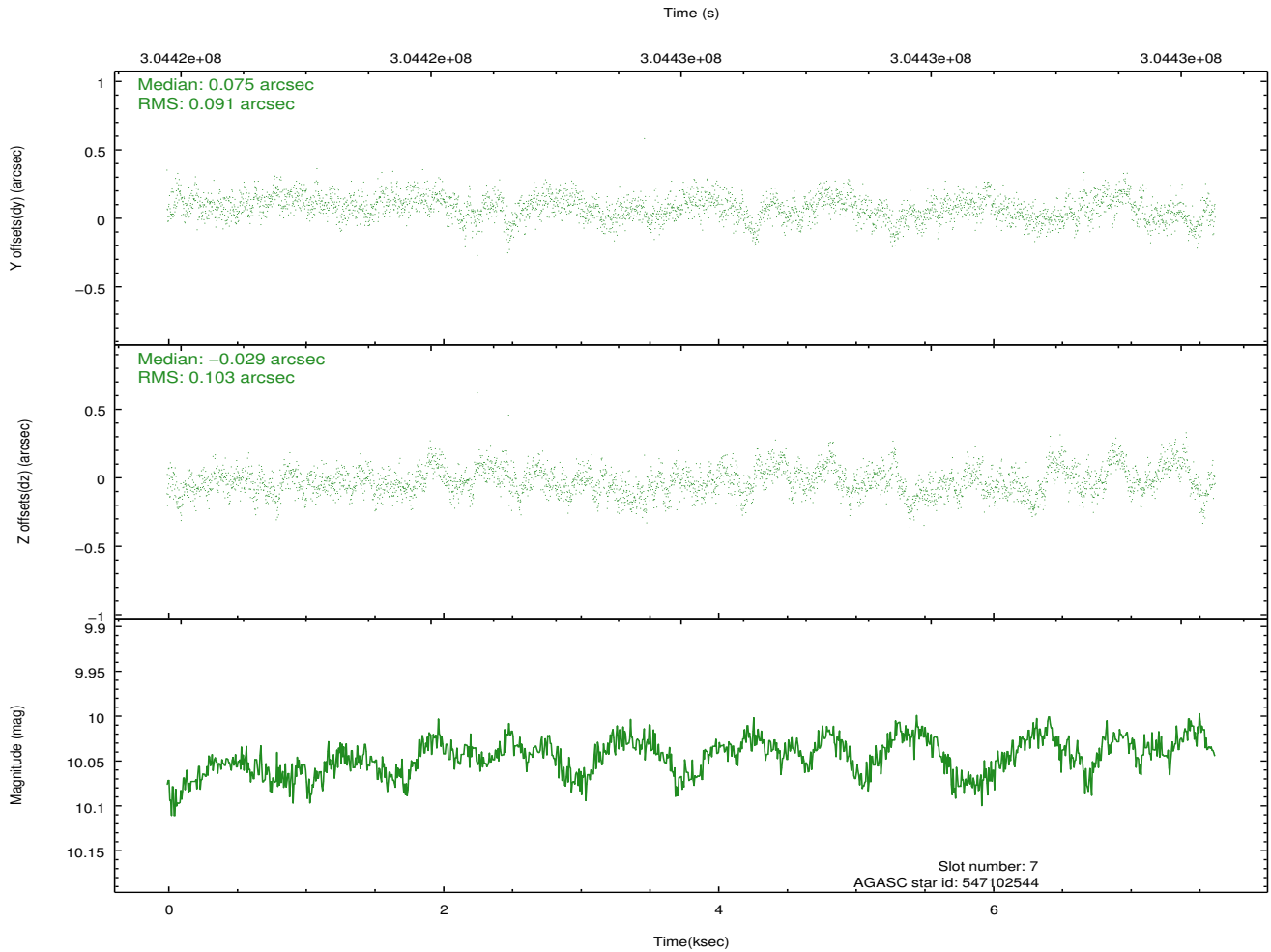
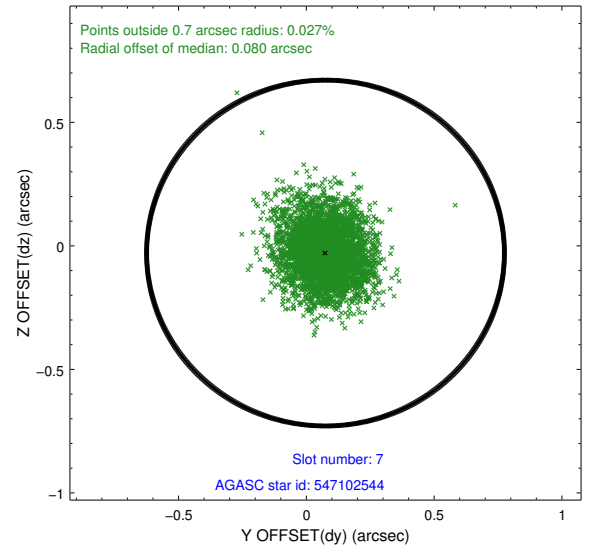
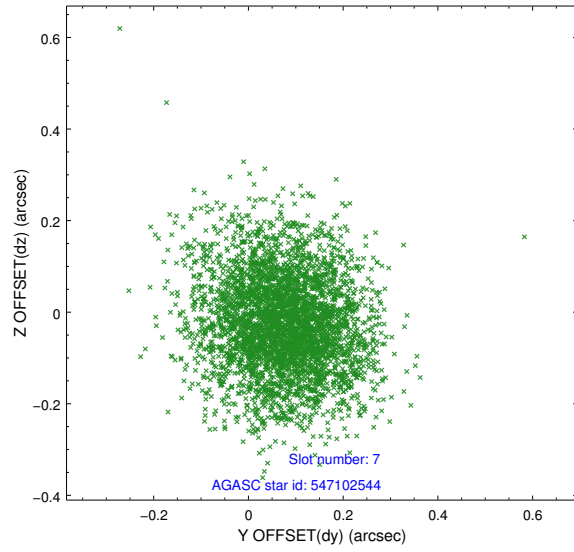


## 2.4.4 Slot 6



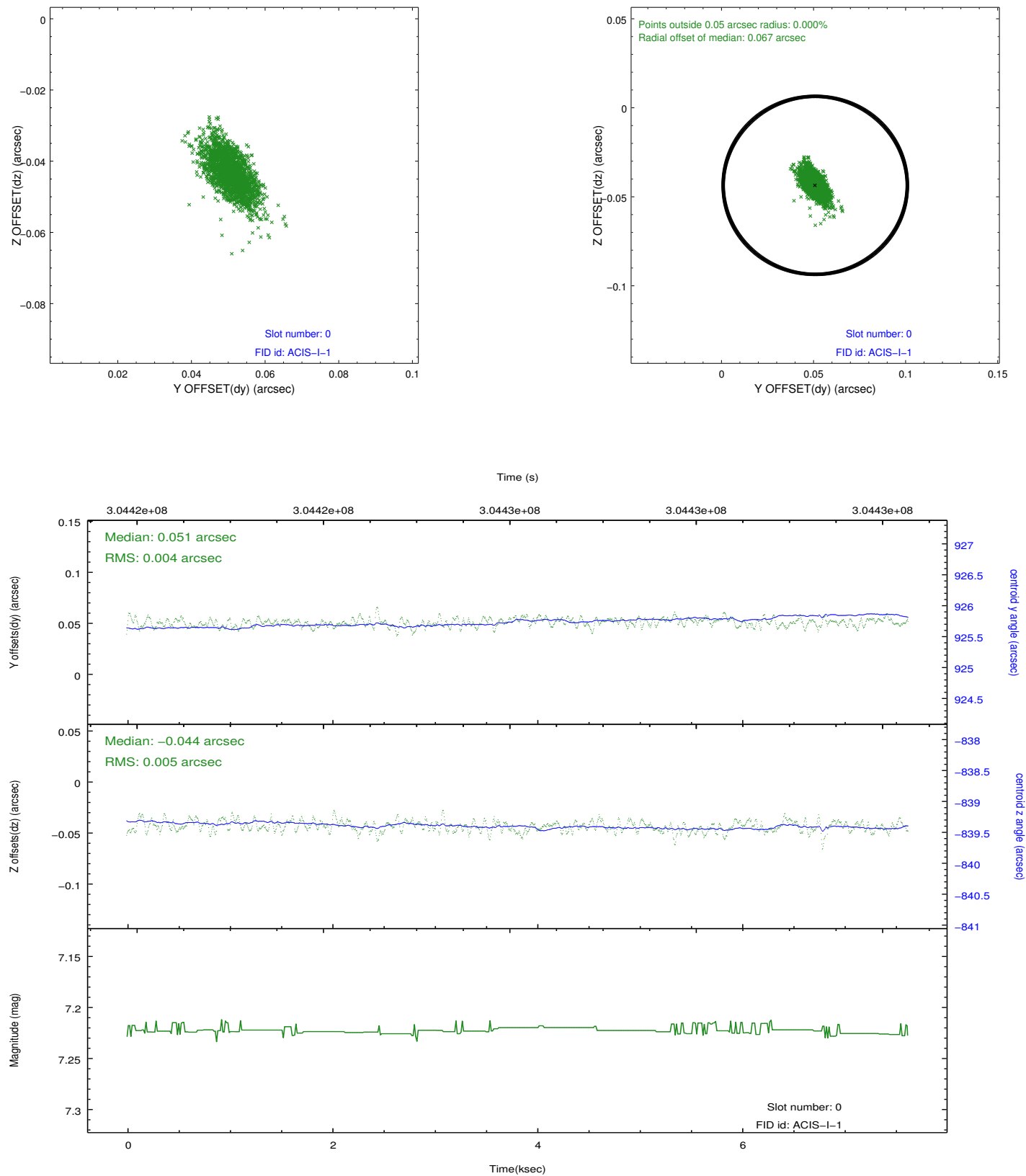


## 2.4.5 Slot 7

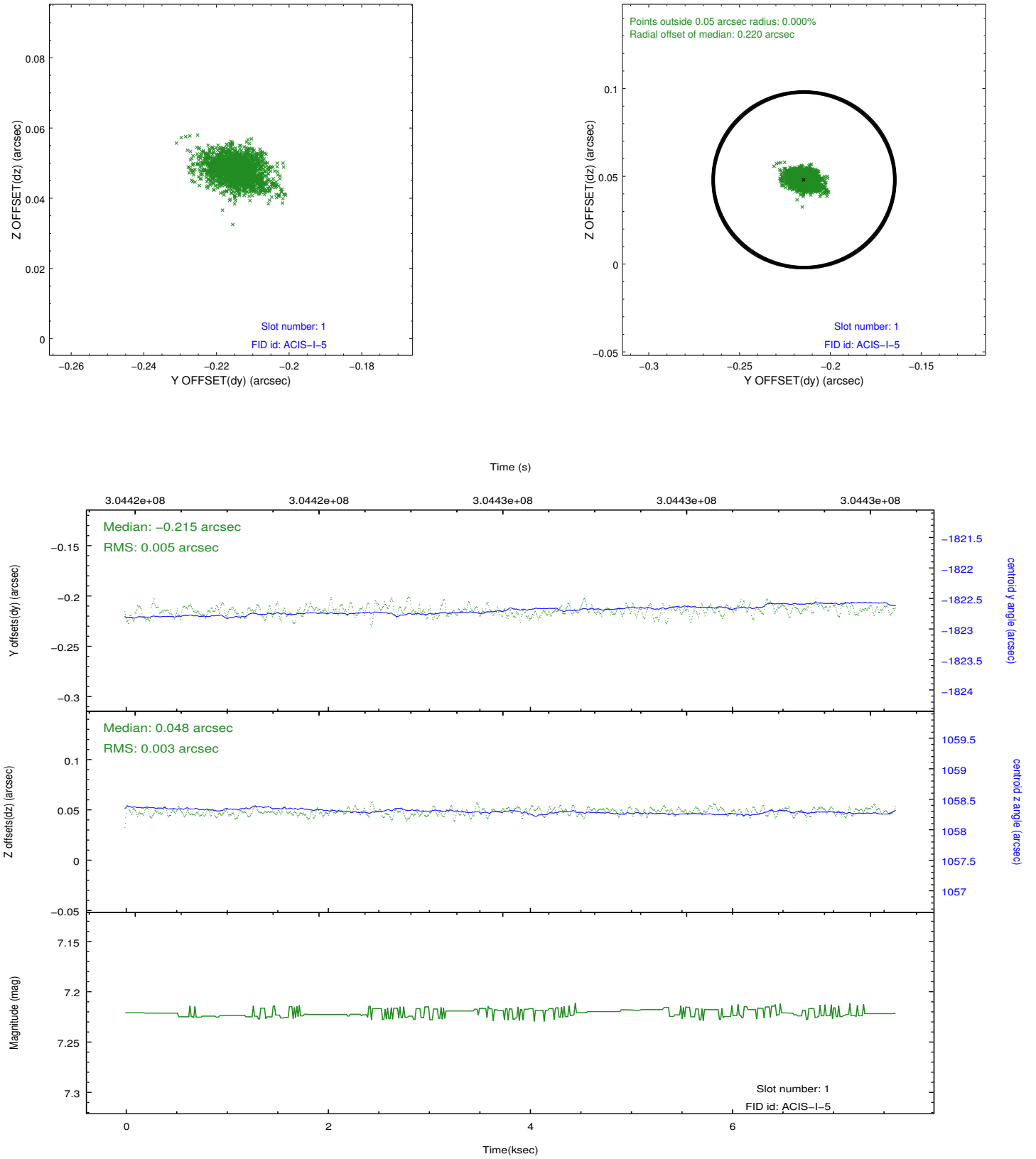


## 2.5 FID Slots

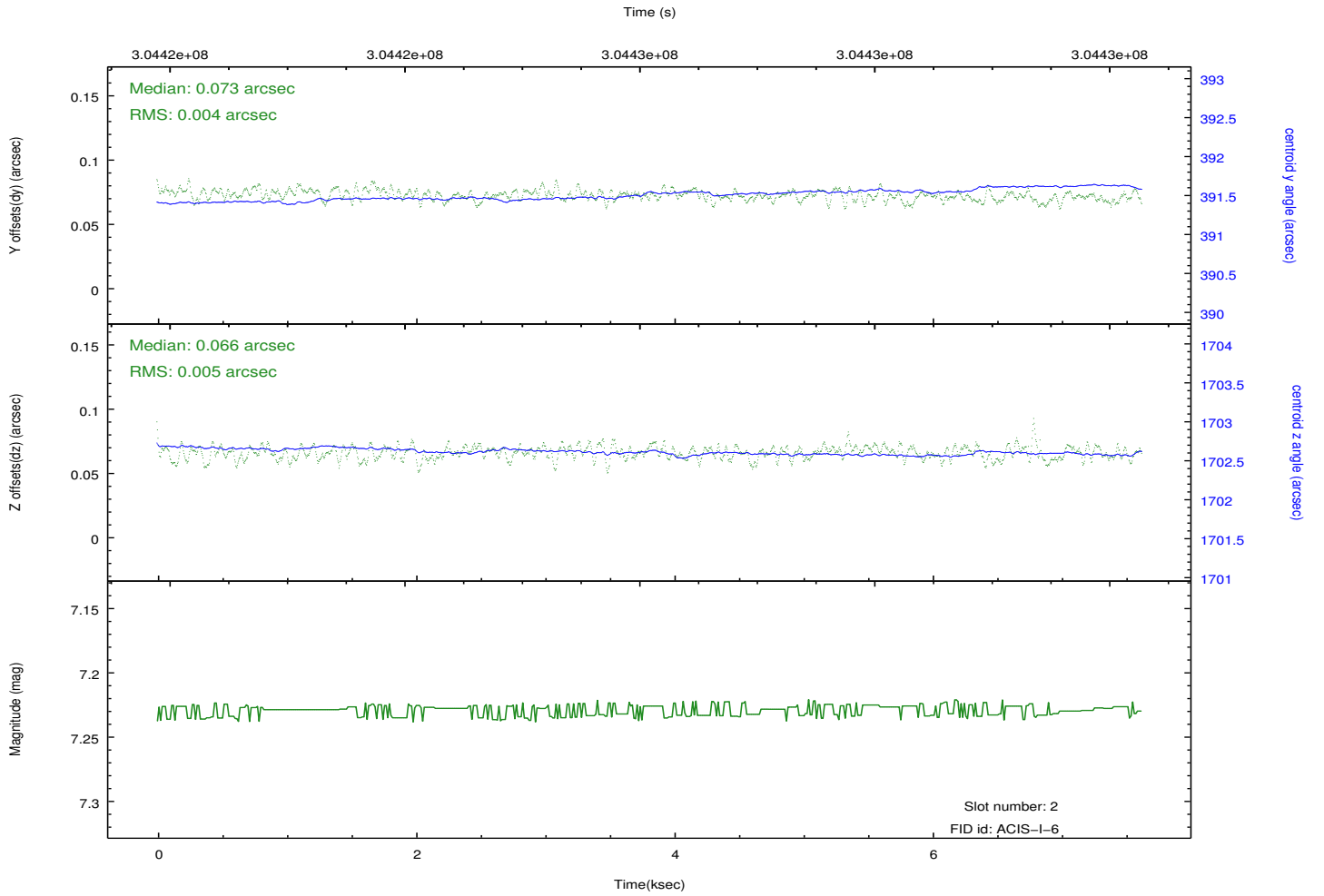
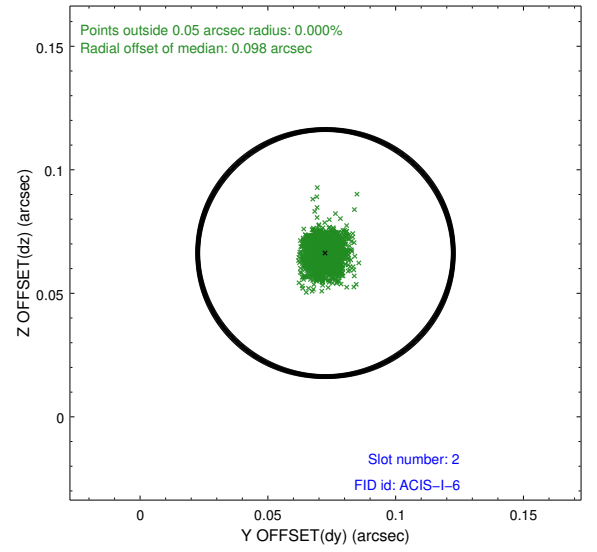
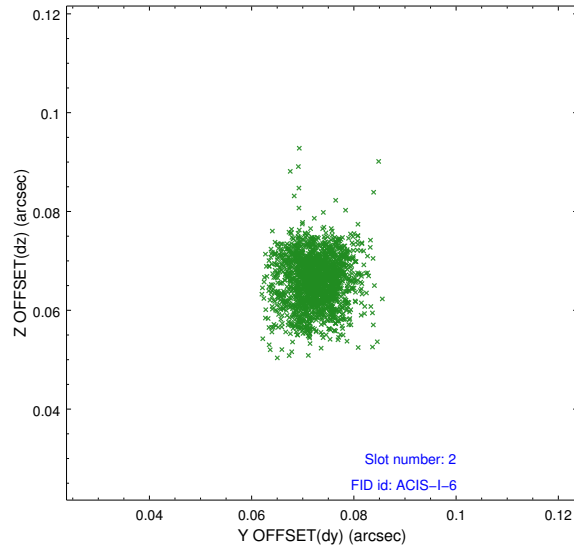
### 2.5.1 Slot 0



## 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)	2012.05.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.05560005

## A.2 Comments

A spatial region of the original bias map for CCD = 1 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 ( $\sim 20$  eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 1 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:  
(209.66507,62.50812), (209.66032,62.50703), (209.70128,62.46893), (209.70603,62.47003)