

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3287 - L2 Version 3  
Chandra X-Ray Center

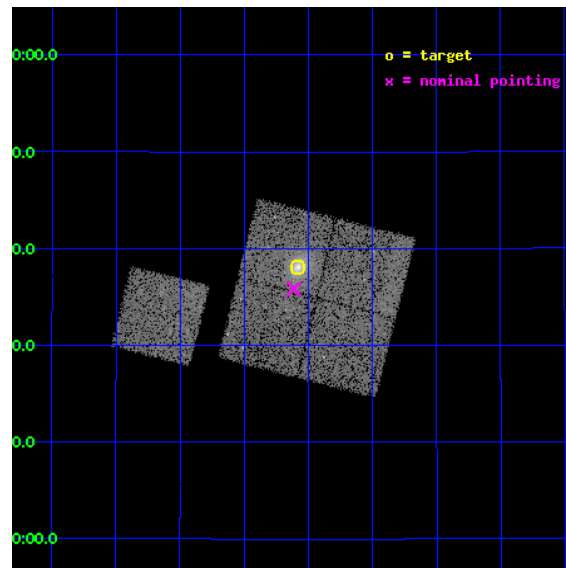
L2 Processing Date : Oct 18 2012

## 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	800287	Sequence number
obs_id	3287	Observation id
title	MACS: THE X-RAY PROPERTIES OF THE MOST MASSIVE GALAXY CLUSTERS AT $Z>0.3$	Proposal title
observer	Dr. Harald Ebeling	Principal investigator
object	MACSJ2245.0+2637	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	341.27	Observer's specified target RA [deg]
dec_targ	26.634444	Observer's specified target Dec [deg]
ra_nom	341.27819844221	Nominal RA [deg]
dec_nom	26.597463516693	Nominal Dec [deg]
roll_nom	284.13669724613	Nominal Roll [deg]
revision	3	Processing version of data
ontime	17084.058977008	Sum of GTIs [s]
livetime	16860.843169372	Livetime [s]
ontime0	17087.199967116	Sum of GTIs [s]
ontime1	17084.058976948	Sum of GTIs [s]
ontime2	17087.199967116	Sum of GTIs [s]
ontime3	17084.058977008	Sum of GTIs [s]
ontime6	17087.199967116	Sum of GTIs [s]
l2events	49299	Number of level 2 events

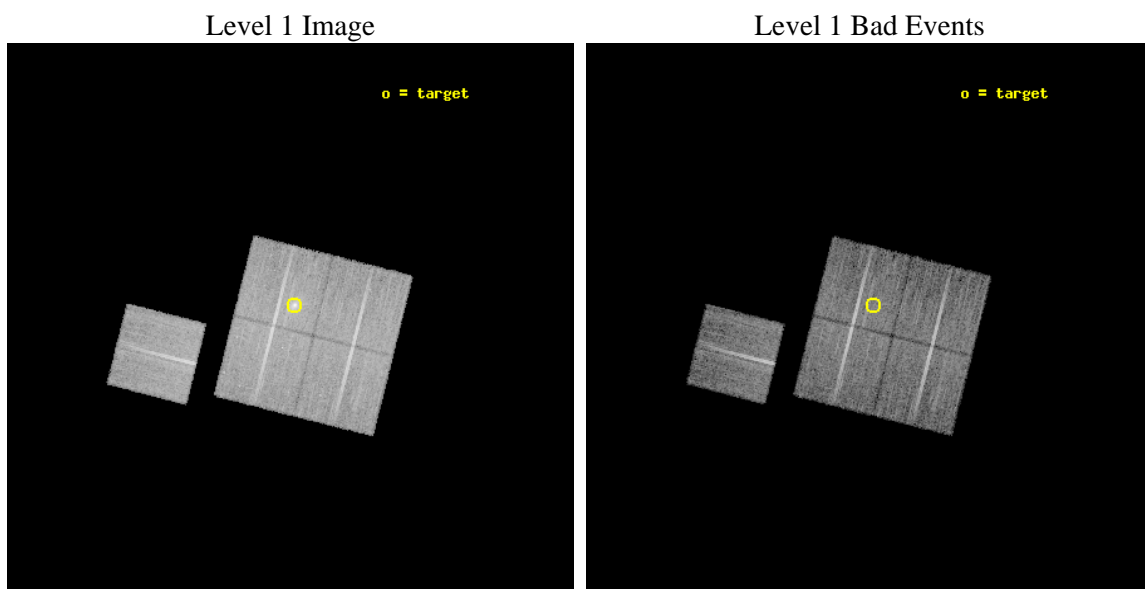




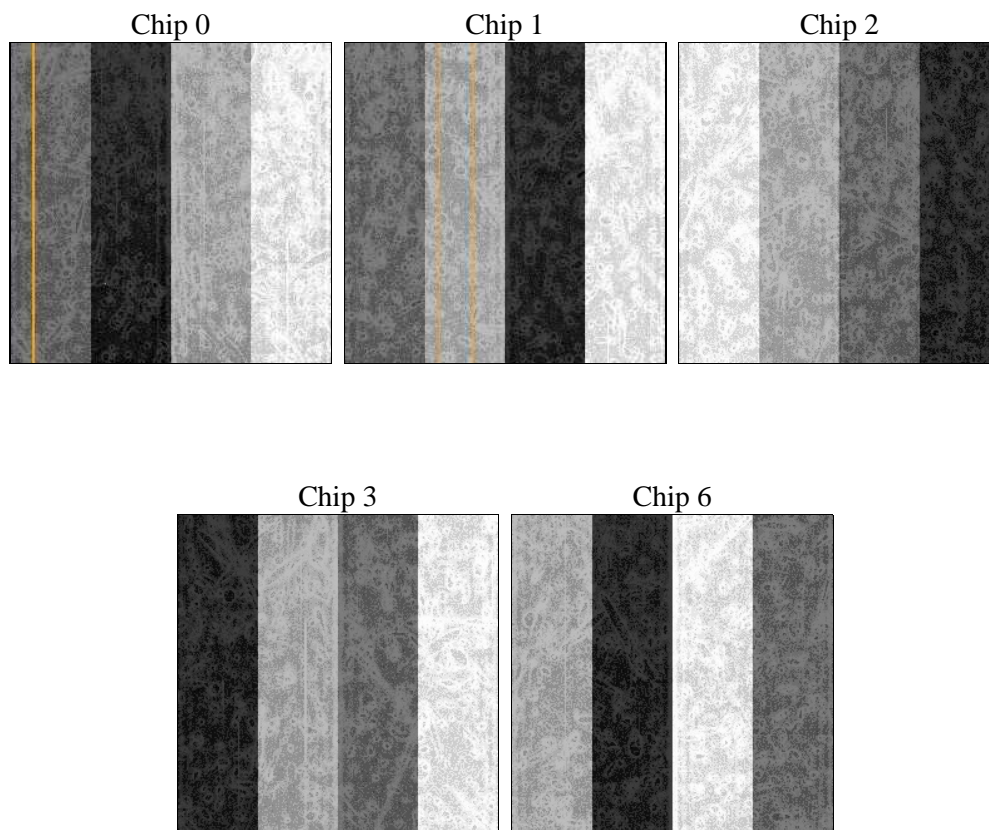
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	17000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	17084.058977008	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime0	17087.199967116	Sum of GTIs [s]
date	2012-10-18T03:44:53	Date and time of file creation	ontime1	17084.058976948	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	17087.199967116	Sum of GTIs [s]
			ontime3	17084.058977008	Sum of GTIs [s]
			ontime6	17087.199967116	Sum of GTIs [s]
			l1events	452756	Number of level 1 events

### 2.1.4 Events

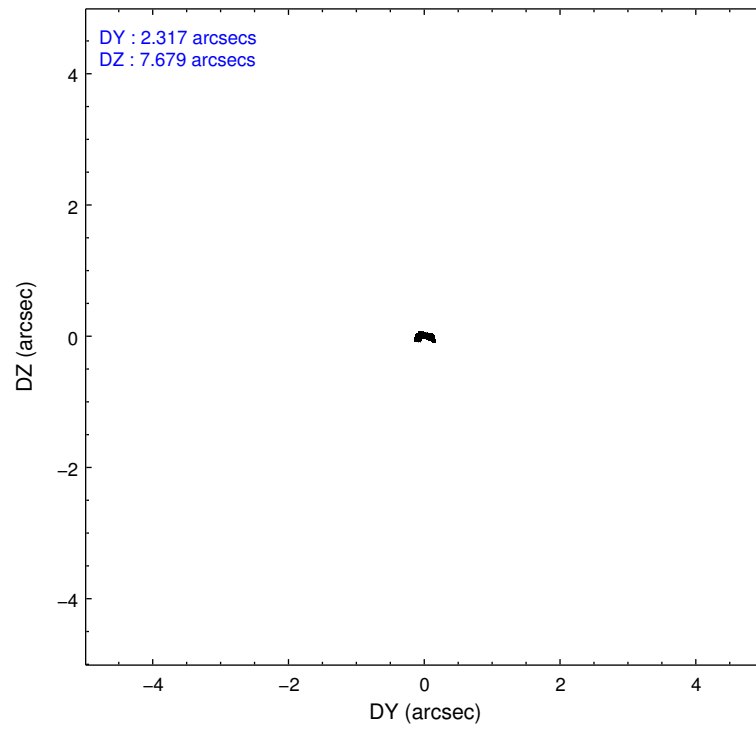
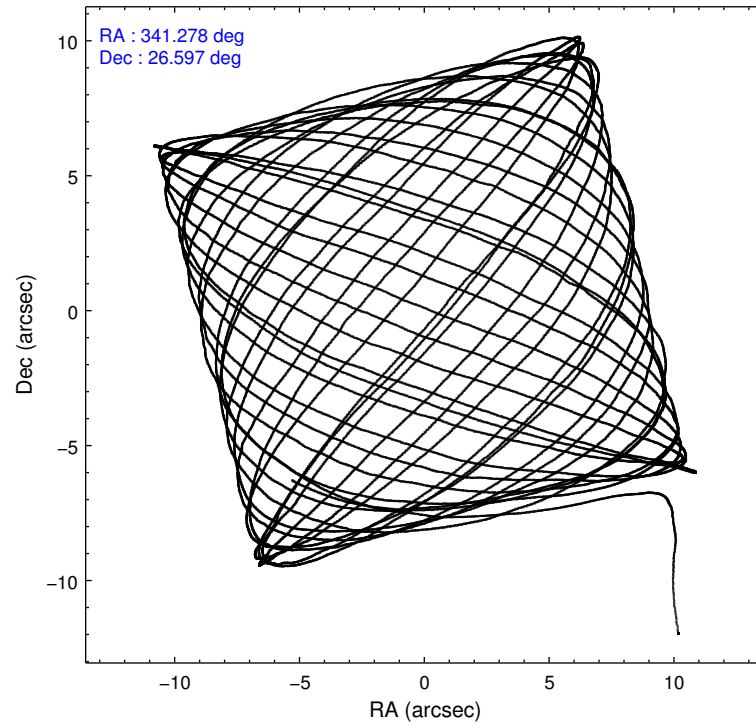
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	84936	85843	93603	97662	90712
rejected events	75071	74871	83340	81219	80637
rejected %	88%	87%	89%	83%	88%

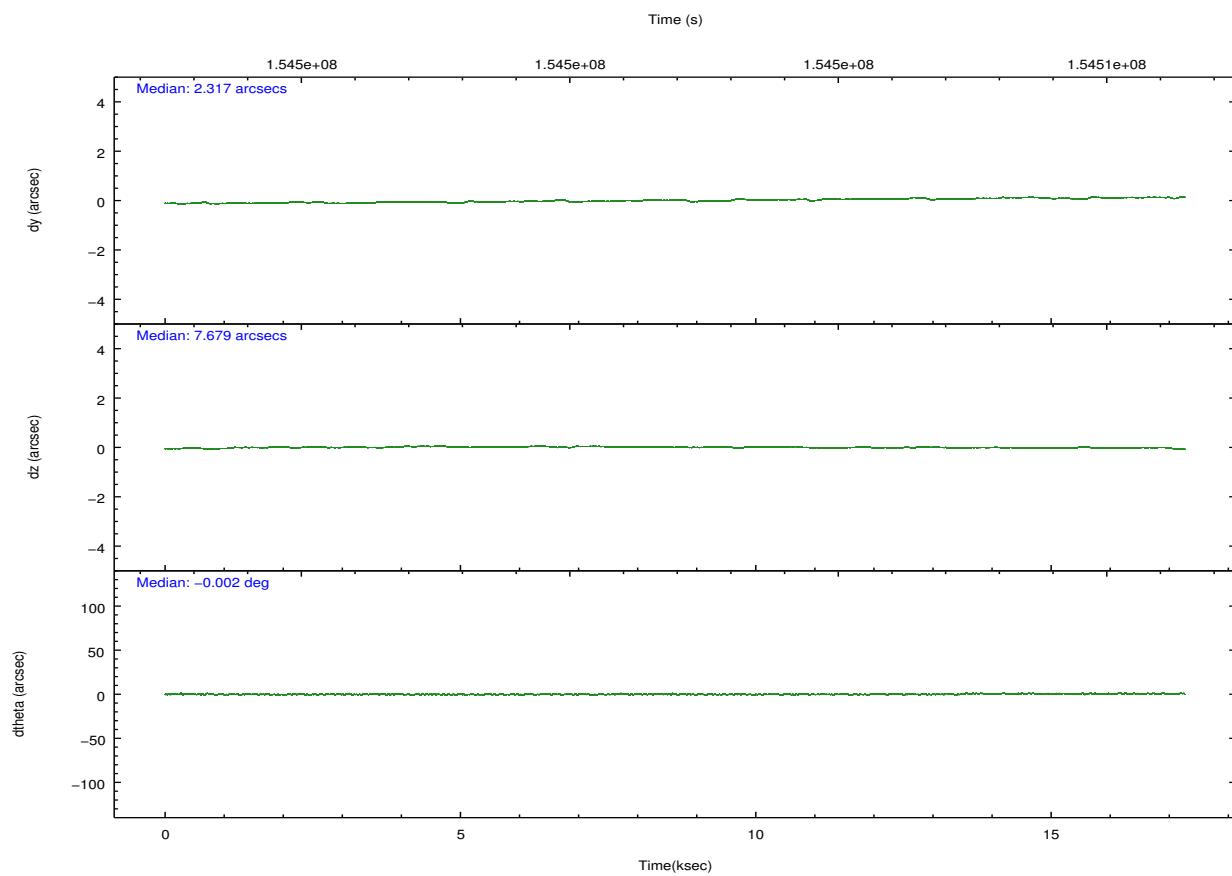
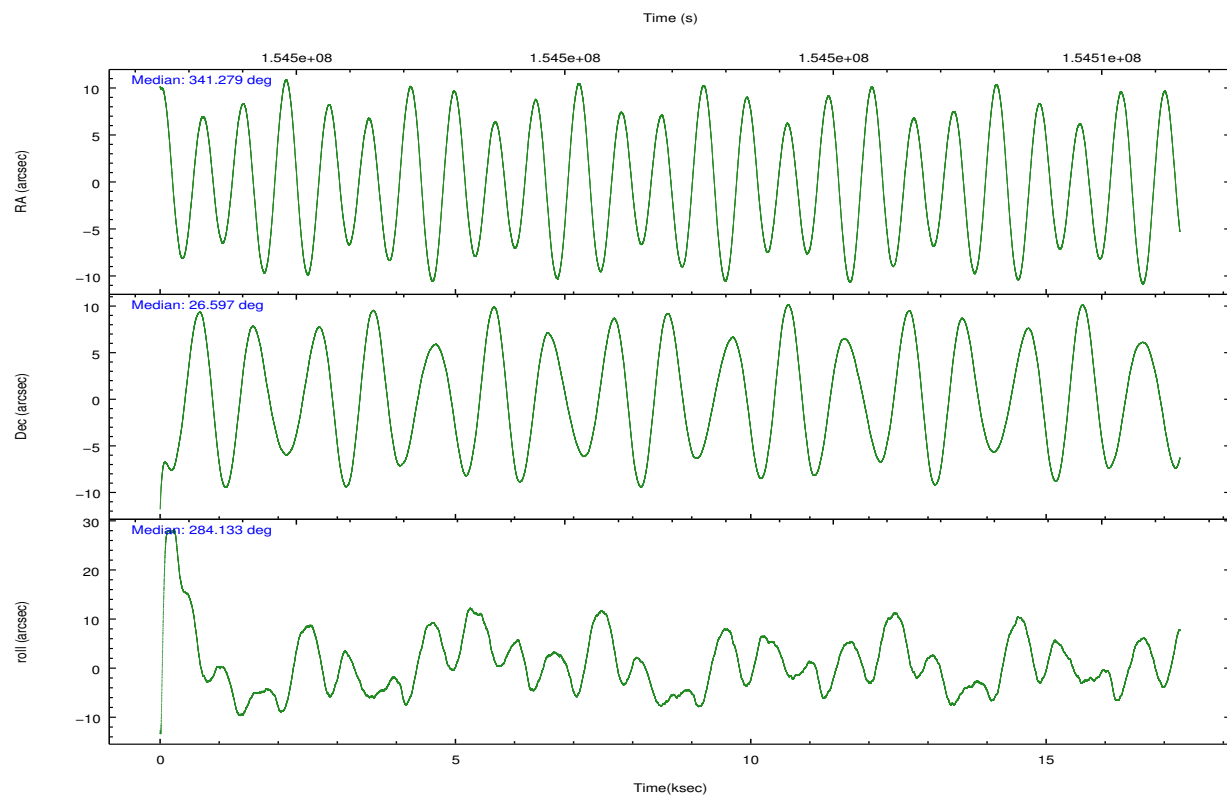
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	3643	4172	4251	9517	3830
	4%	4%	4%	9%	4%
grade 1 events	33	45	59	75	42
	0%	0%	0%	0%	0%
grade 2 events	2193	2201	2167	2590	2002
	2%	2%	2%	2%	2%
grade 3 events	1107	1200	1072	1220	1044
	1%	1%	1%	1%	1%
grade 4 events	1028	1214	1053	1208	1116
	1%	1%	1%	1%	1%
grade 5 events	3084	3190	2927	3466	3425
	3%	3%	3%	3%	3%
grade 6 events	1895	2192	1723	1915	2088
	2%	2%	1%	1%	2%
grade 7 events	71953	71629	80351	77671	77165
	84%	83%	85%	79%	85%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	341.256754	341.2781984422077	Subarray requested	NONE	NONE
[deg] Pointing Dec	26.617082	26.59746351669337	Alternating exposures requested	N	N
[deg] Pointing Roll	283.937646	284.1366972461323	[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	-227.742463	-227.734108438797			
[mm] SIM translation stage offset	-5.85	-5.858344564132665			
[s] Observation start time (MET)	154493592.184000	154492583.83068			
Observation start date	2002-11-24T02:52:08	2002-11-24T02:36:23			
[s] Observation end time (MET)	154510592.184000	154511115.31895			
Observation end date	2002-11-24T07:35:28	2002-11-24T07:45:15			
Read mode	TIMED	TIMED			

## 2.3 Aspect



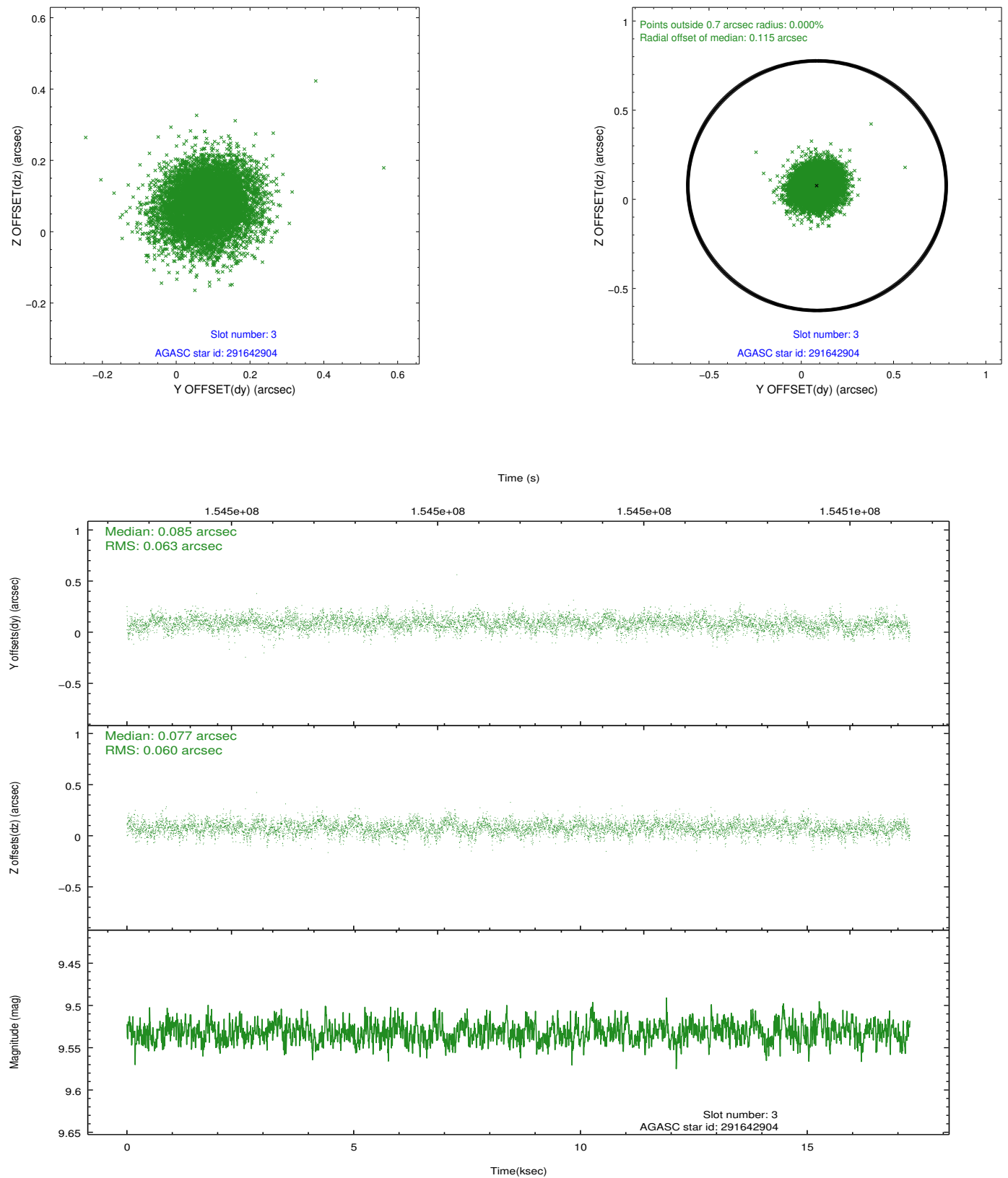


### Slot Statistics

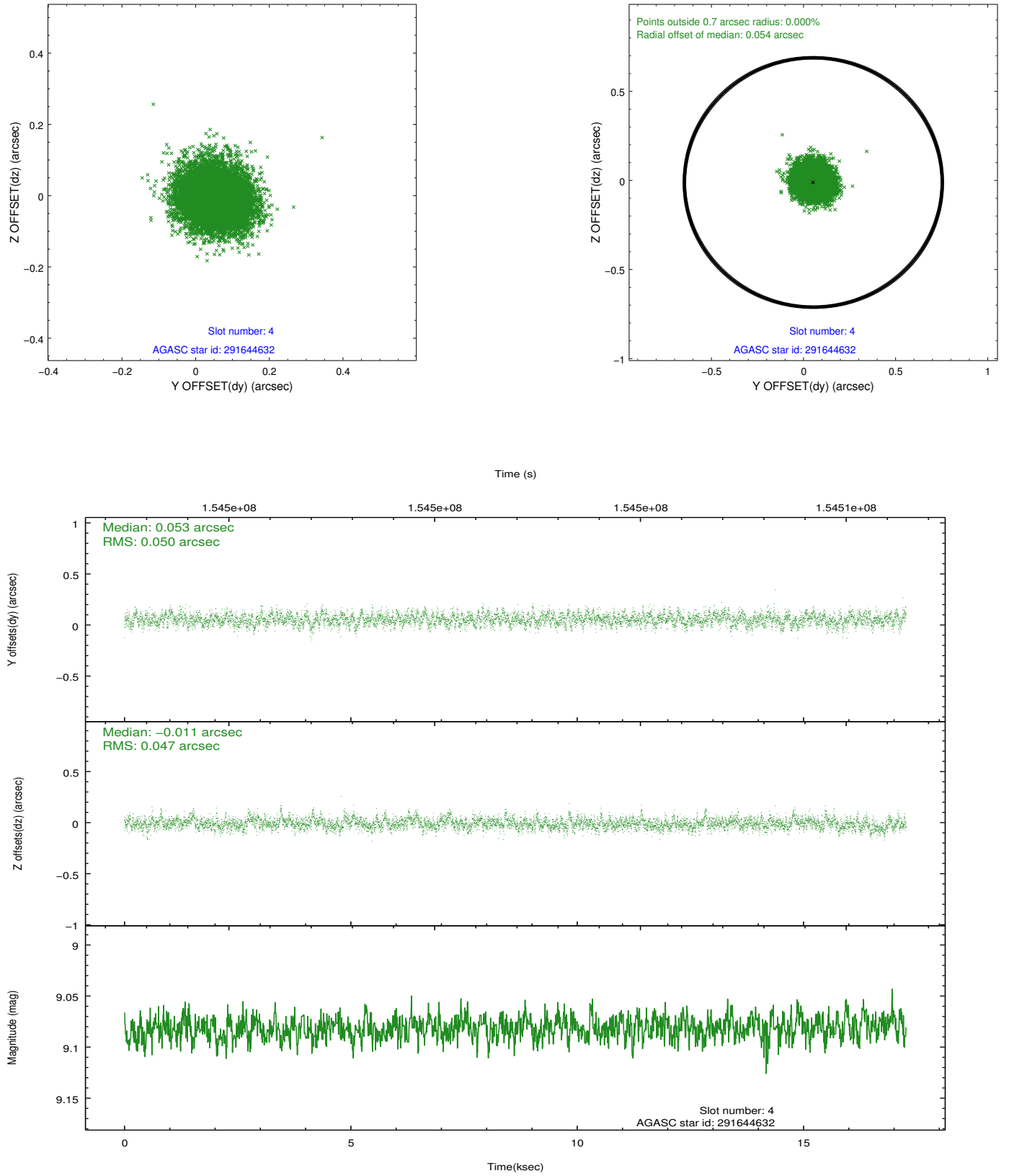
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	4211	0.034	0.007	0.008	0.017	0.000000	0.000000	937.41	-951.32
1	FID	ACIS-I-5	7.23	4211	-0.134	0.065	0.008	0.020	0.000000	0.000000	-1810.72	946.08
2	FID	ACIS-I-6	7.25	4210	0.007	-0.002	0.009	0.017	0.000000	0.000000	402.67	1590.79
3	GUIDE	291642904	9.53	8418	0.085	0.077	0.092	0.153	341.838064	26.070490	2358.03	1350.81
4	GUIDE	291644632	9.08	8416	0.053	-0.011	0.074	0.120	341.281560	26.048131	2007.13	-416.21
5	GUIDE	292037024	9.62	8418	-0.028	-0.195	0.095	0.160	340.913037	26.550252	-34.74	-1133.13
6	GUIDE	292164032	8.85	8420	-0.051	0.101	0.068	0.110	341.540574	26.846542	-583.70	1082.89
7	GUIDE	292035632	10.21	8417	-0.060	0.028	0.146	0.246	341.093208	26.825504	-855.69	-330.02

## 2.4 Star Slots

### 2.4.1 Slot 3

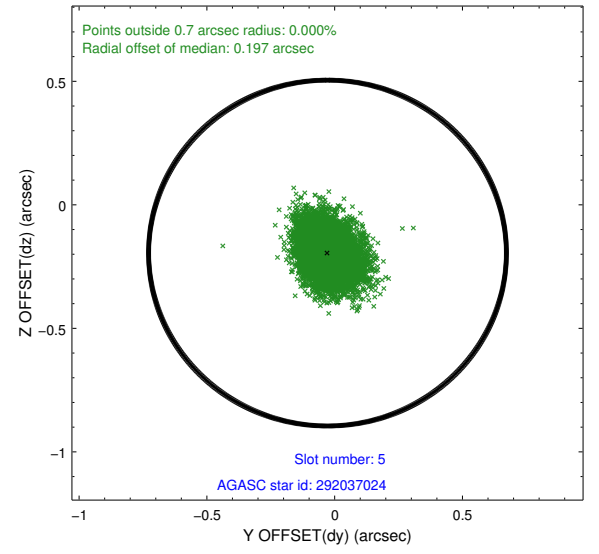
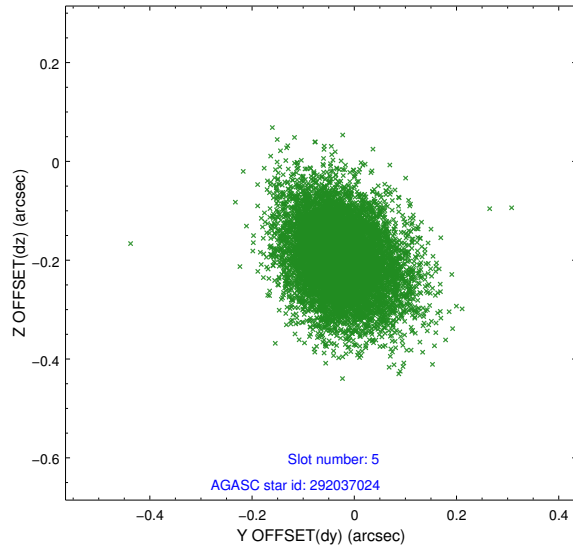


## 2.4.2 Slot 4

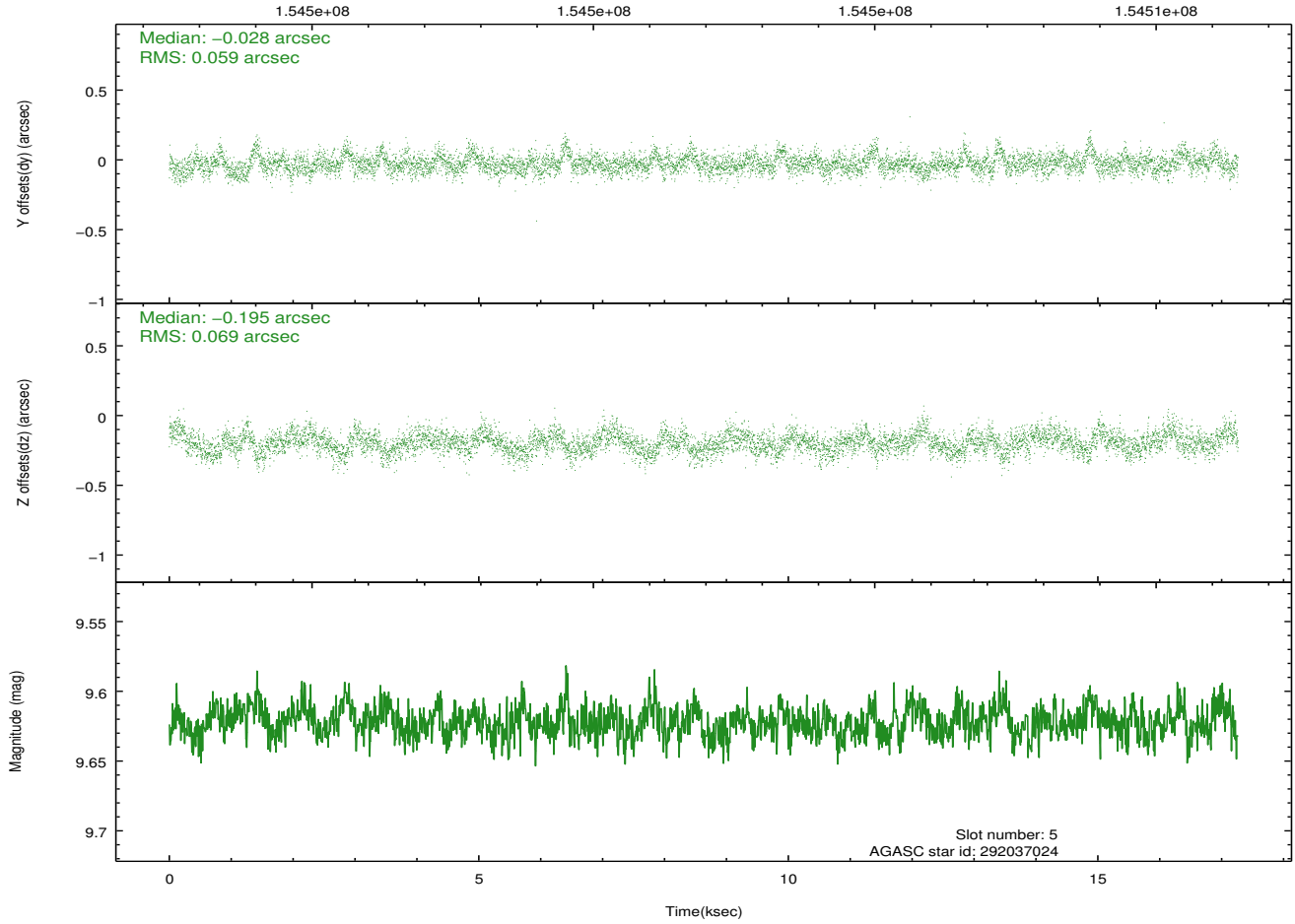




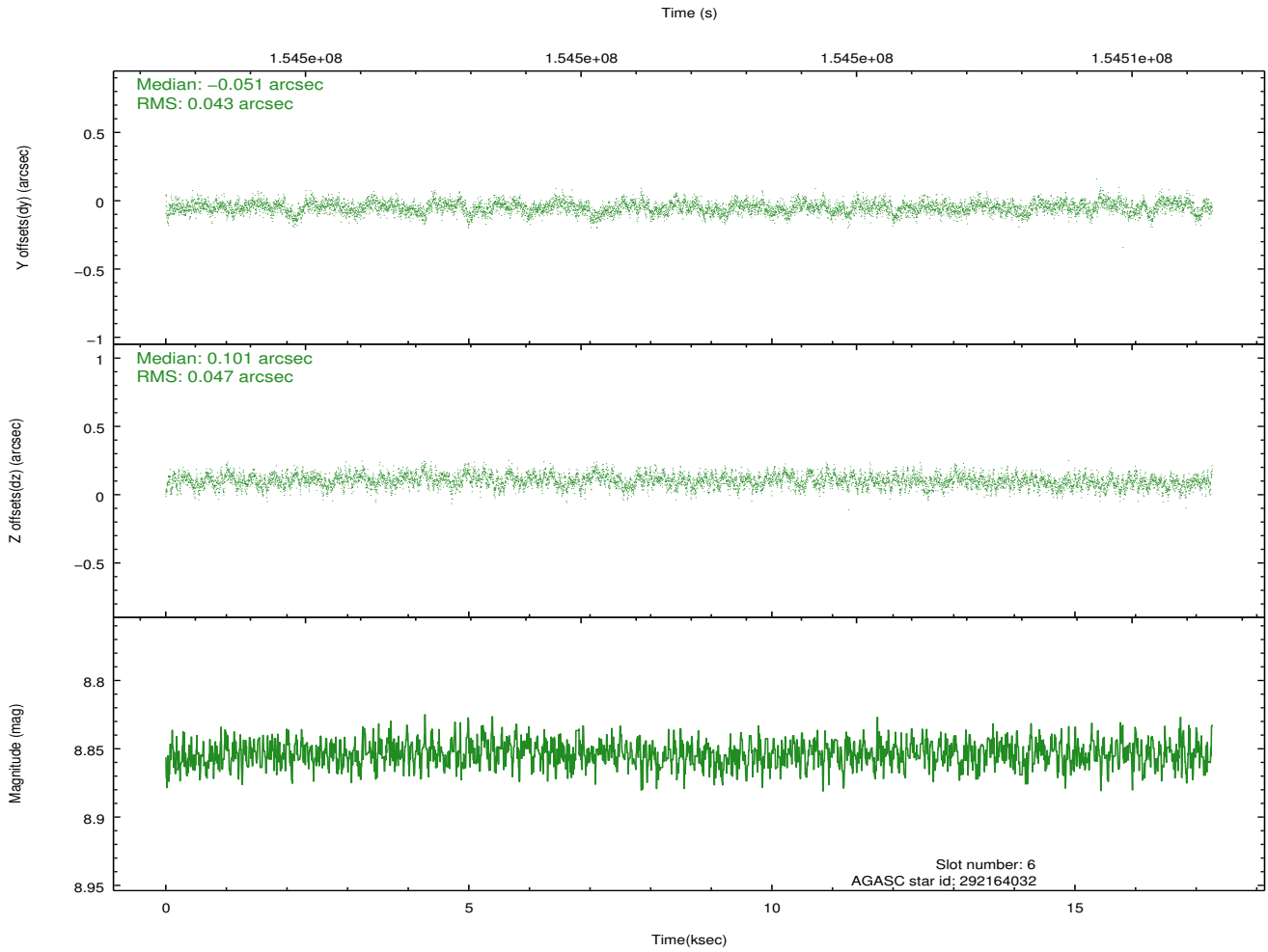
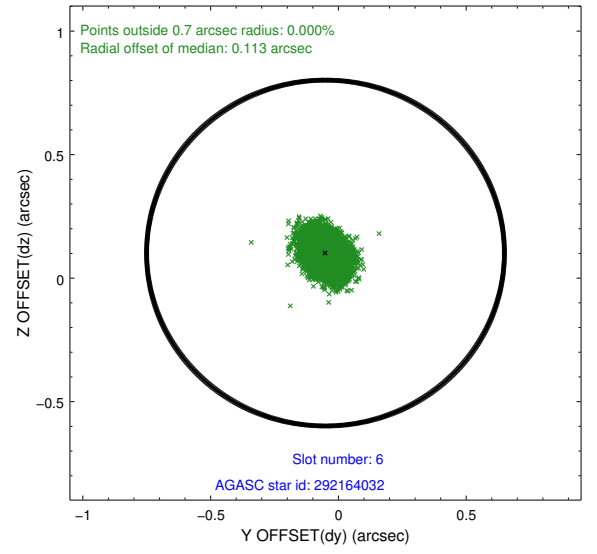
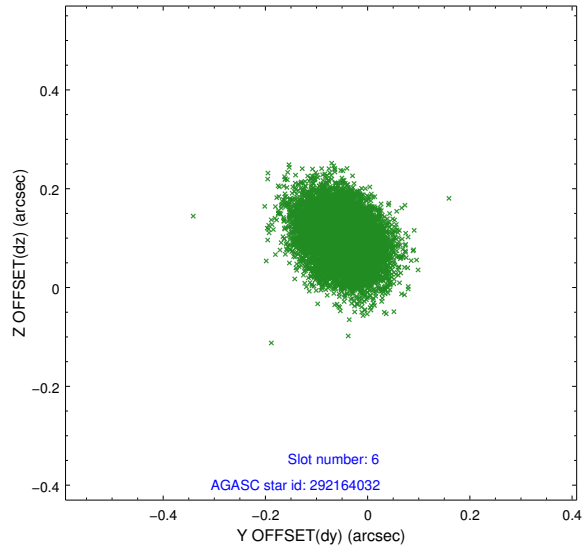
### 2.4.3 Slot 5



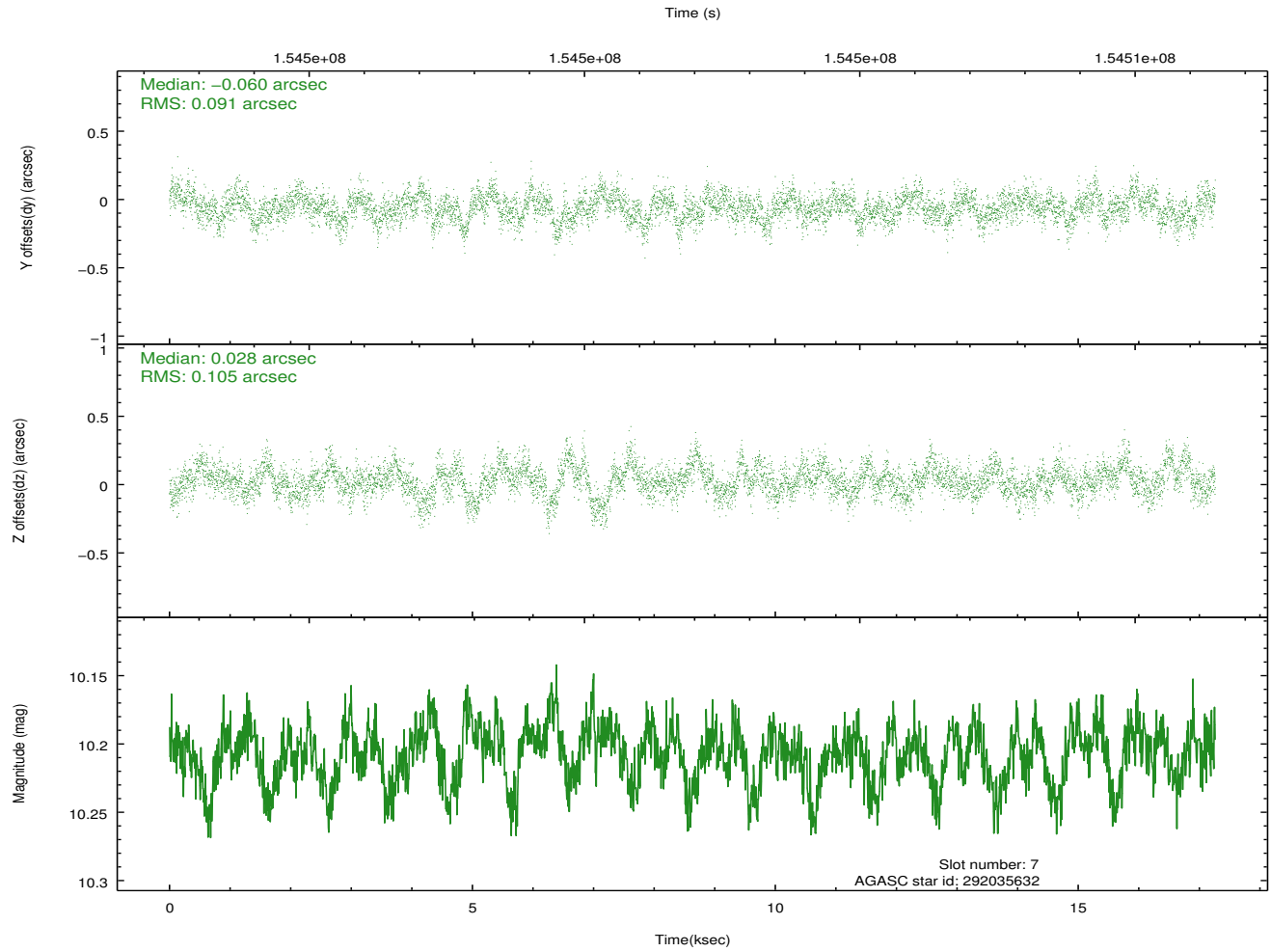
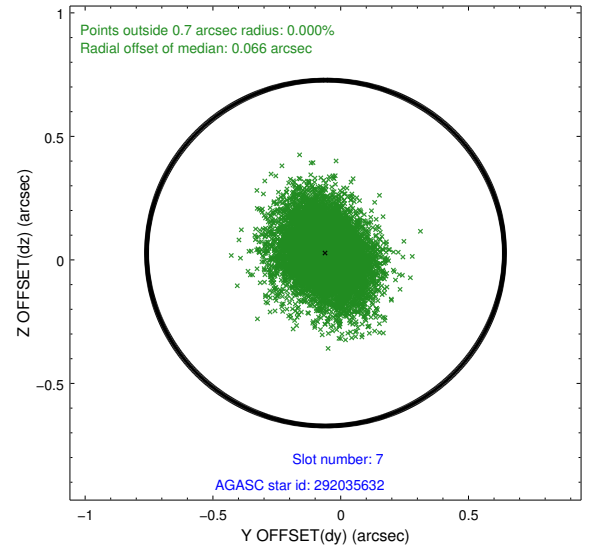
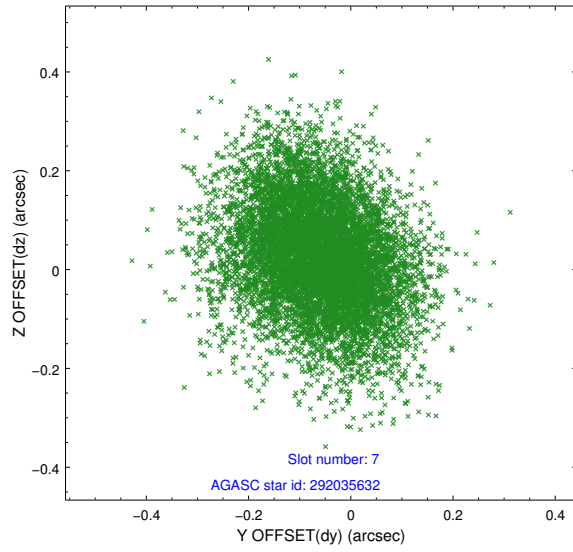
Time (s)



## 2.4.4 Slot 6

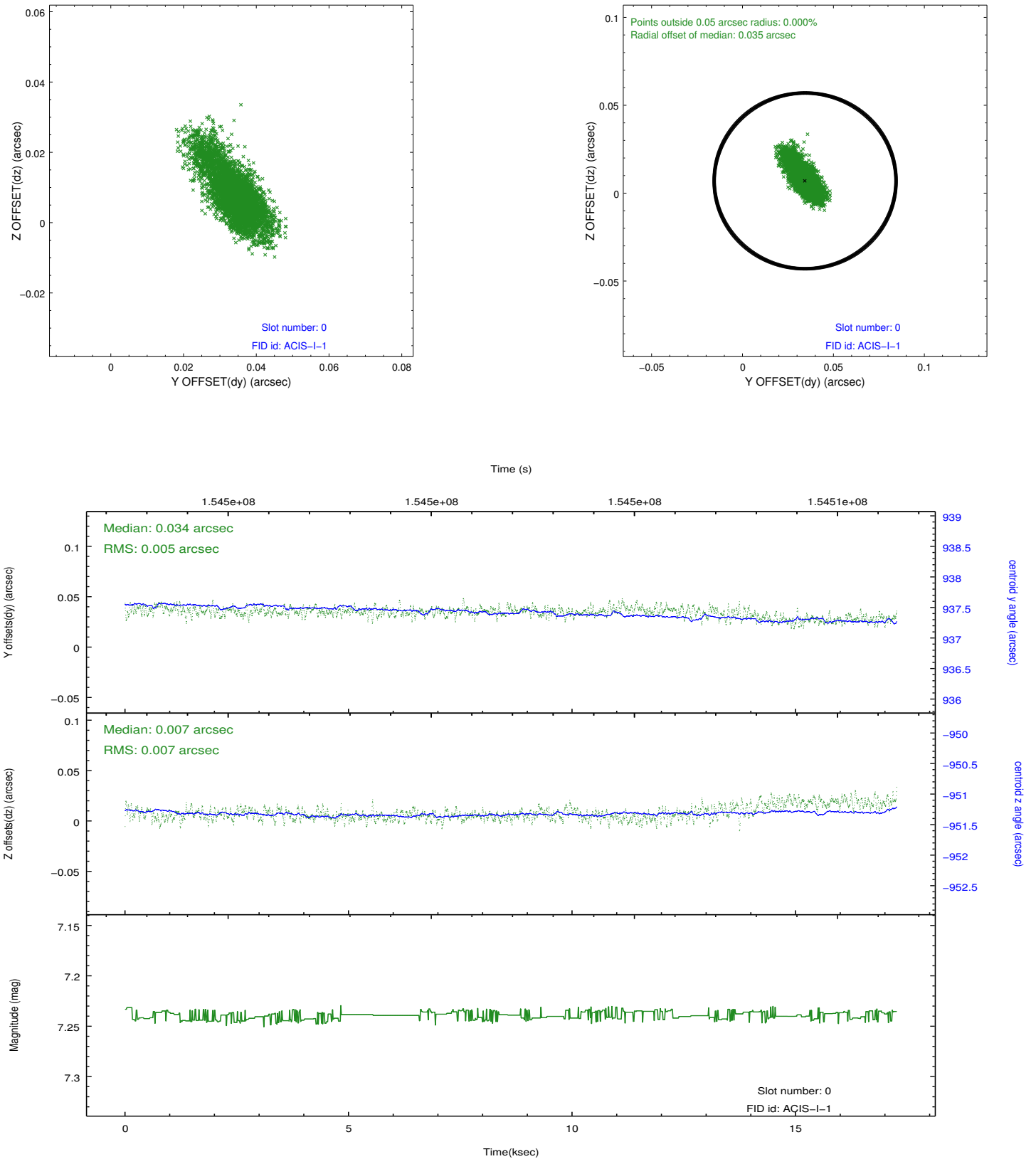


## 2.4.5 Slot 7

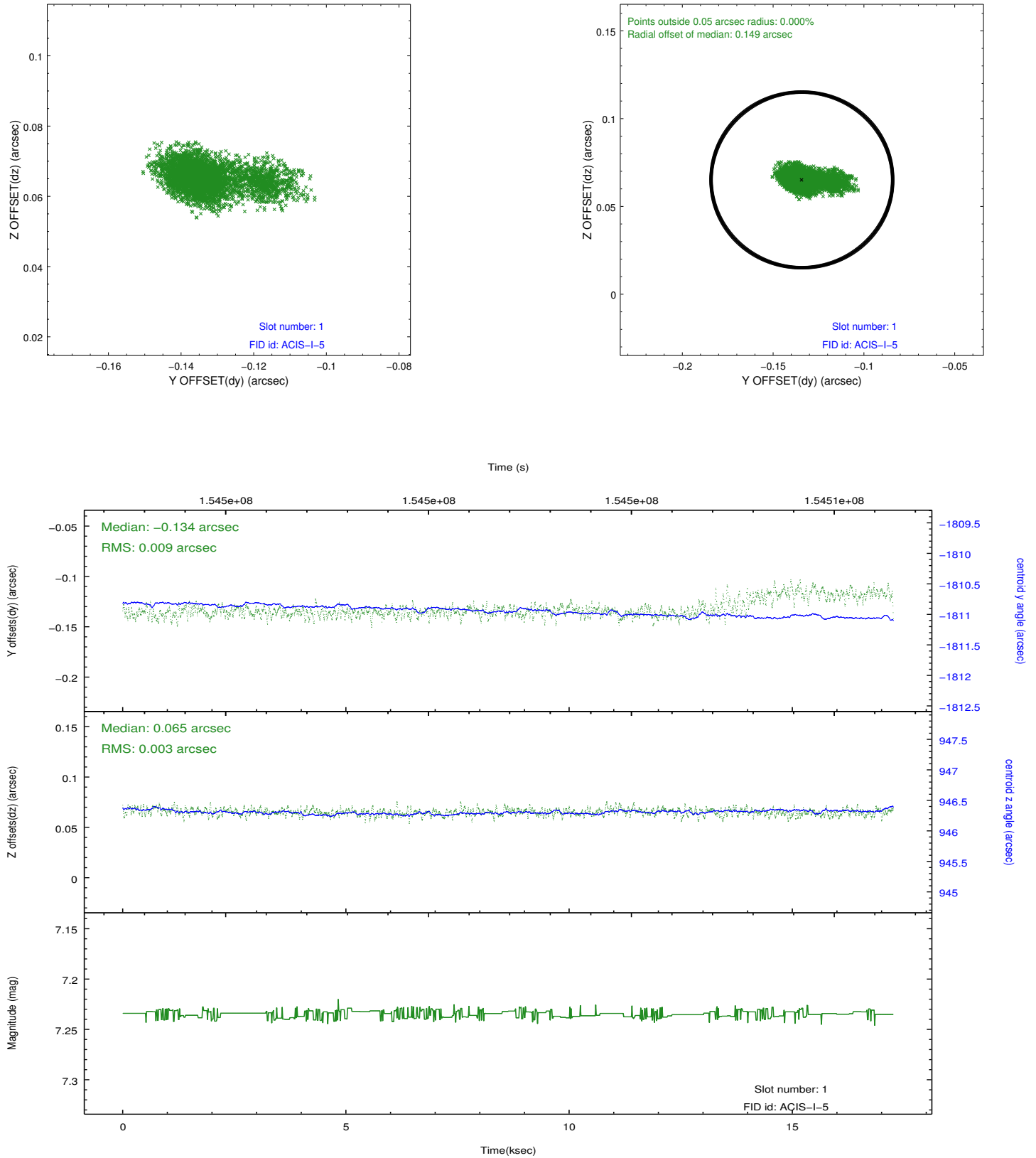


## 2.5 FID Slots

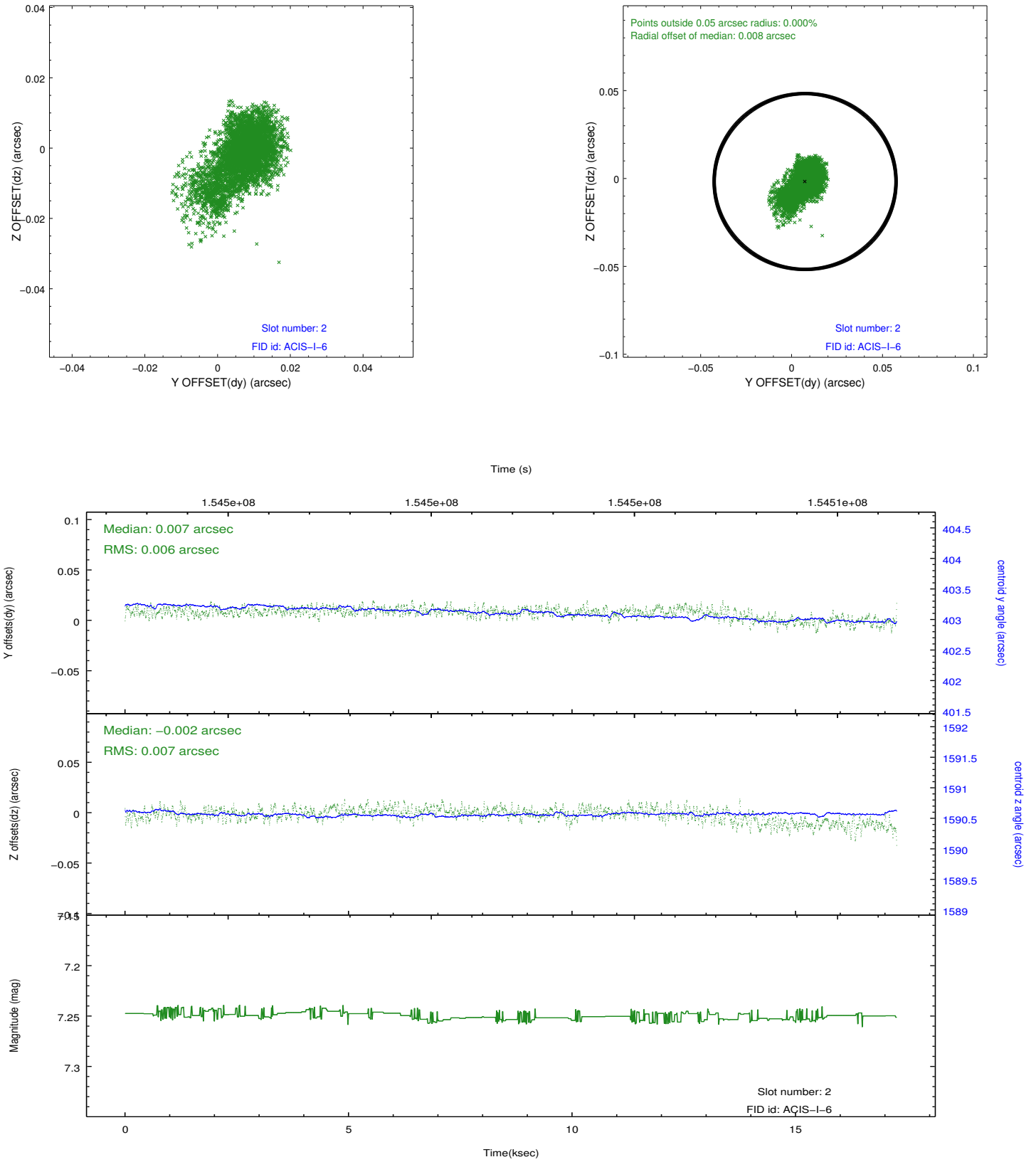
### 2.5.1 Slot 0



## 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)	2012.10.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	17.09

### **A.2 Comments**