

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 4109 - L2 Version 3  
Chandra X-Ray Center

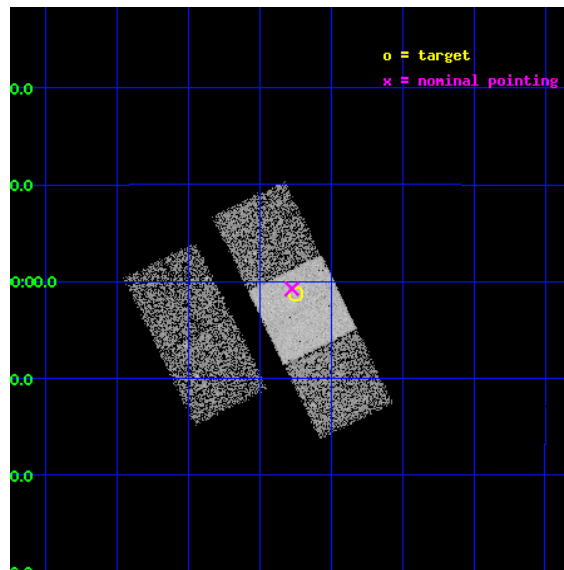
L2 Processing Date : Oct 22 2012

## 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

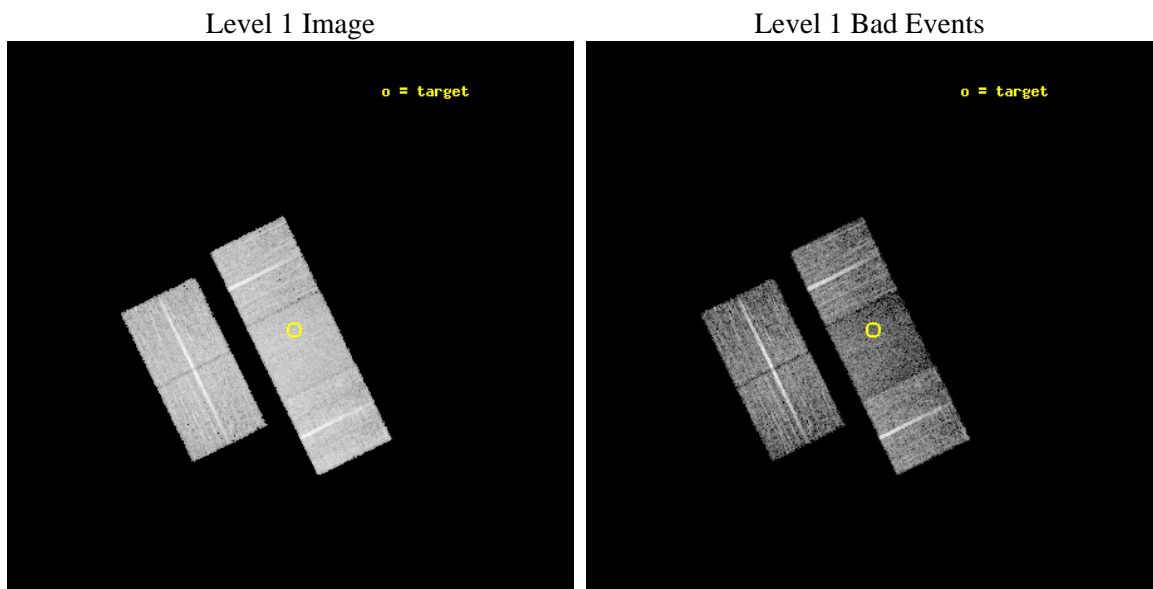
seq_num	700788	Sequence number
obs_id	4109	Observation id
title	THE X-RAY PROPERTIES OF ULTRALUMINOUS INFRARED GALAXIES (ULIGS)	Pr
observer	Professor Andrew Wilson	Principal investigator
object	F12072-0444	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	182.437917	Observer's specified target RA [deg]
dec_targ	-5.020528	Observer's specified target Dec [deg]
ra_nom	182.44366218106	Nominal RA [deg]
dec_nom	-5.0127680910261	Nominal Dec [deg]
roll_nom	63.864713430597	Nominal Roll [deg]
revision	3	Processing version of data
ontime	9773.4040825963	Sum of GTIs [s]
livetime	9645.7073631818	Livetime [s]
ontime2	9773.2399225831	Sum of GTIs [s]
ontime3	9773.3220025897	Sum of GTIs [s]
ontime6	9773.363042593	Sum of GTIs [s]
ontime7	9773.4040825963	Sum of GTIs [s]
ontime8	9766.9988626838	Sum of GTIs [s]
l2events	43525	Number of level 2 events



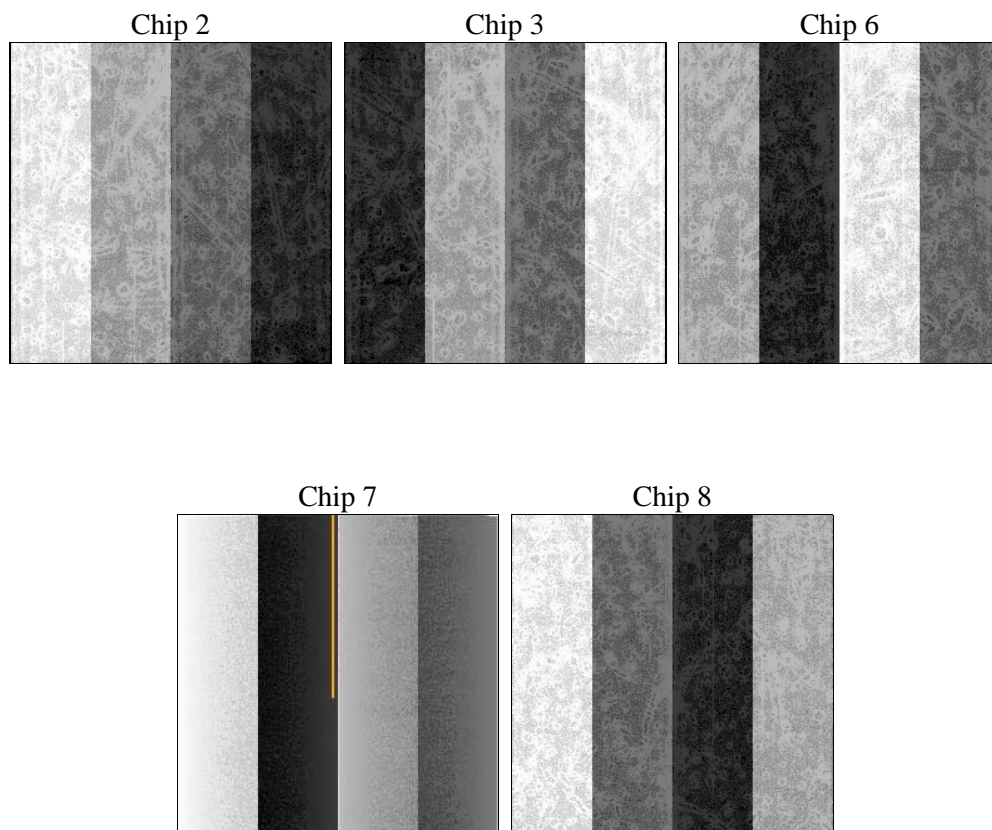
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	9773.4040825963	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime2	9773.2399225831	Sum of GTIs [s]
date	2012-10-22T04:04:37	Date and time of file creation	ontime3	9773.3220025897	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	9773.363042593	Sum of GTIs [s]
			ontime7	9773.4040825963	Sum of GTIs [s]
			ontime8	9766.9988626838	Sum of GTIs [s]
			l1events	284922	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	53382	52715	53654	57104	68067
rejected events	48338	48002	48226	30956	54163
rejected %	90%	91%	89%	54%	79%

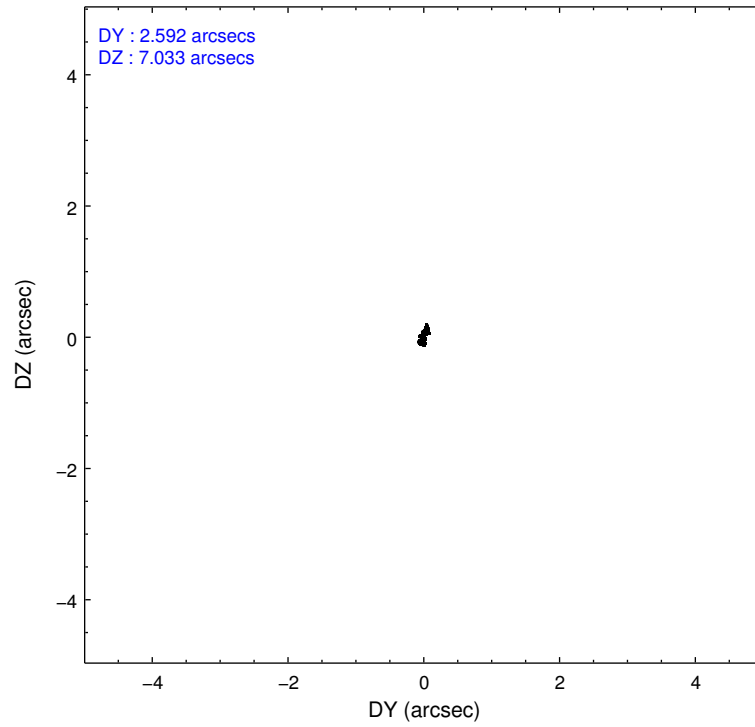
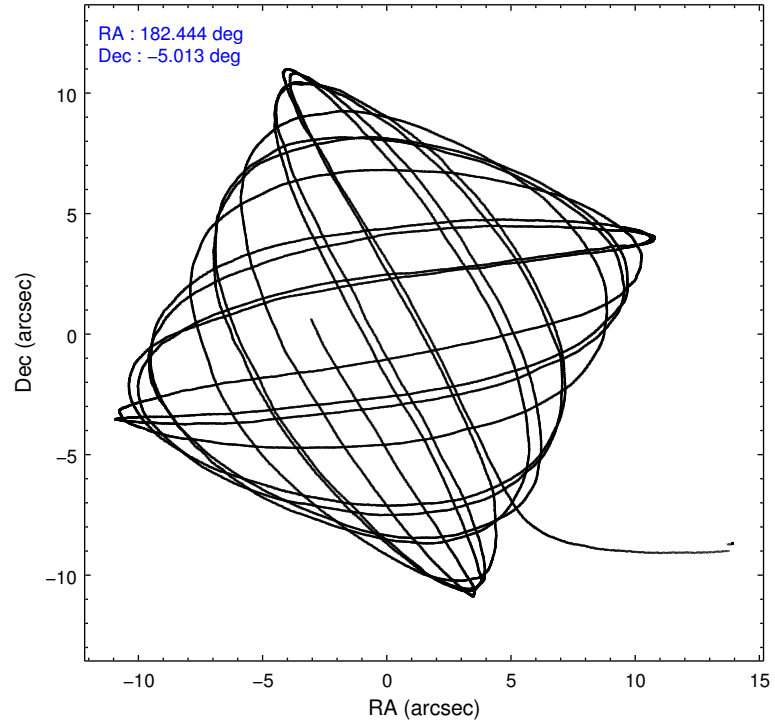
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	1816	1666	1874	2395	4176
	3%	3%	3%	4%	6%
grade 1 events	27	28	31	44	44
	0%	0%	0%	0%	0%
grade 2 events	1127	989	1163	5320	3109
	2%	1%	2%	9%	4%
grade 3 events	582	573	679	2532	1505
	1%	1%	1%	4%	2%
grade 4 events	576	571	573	2450	1424
	1%	1%	1%	4%	2%
grade 5 events	1576	1942	2160	6120	2864
	2%	3%	4%	10%	4%
grade 6 events	946	917	1141	13456	3691
	1%	1%	2%	23%	5%
grade 7 events	46732	46029	46033	24787	51254
	87%	87%	85%	43%	75%

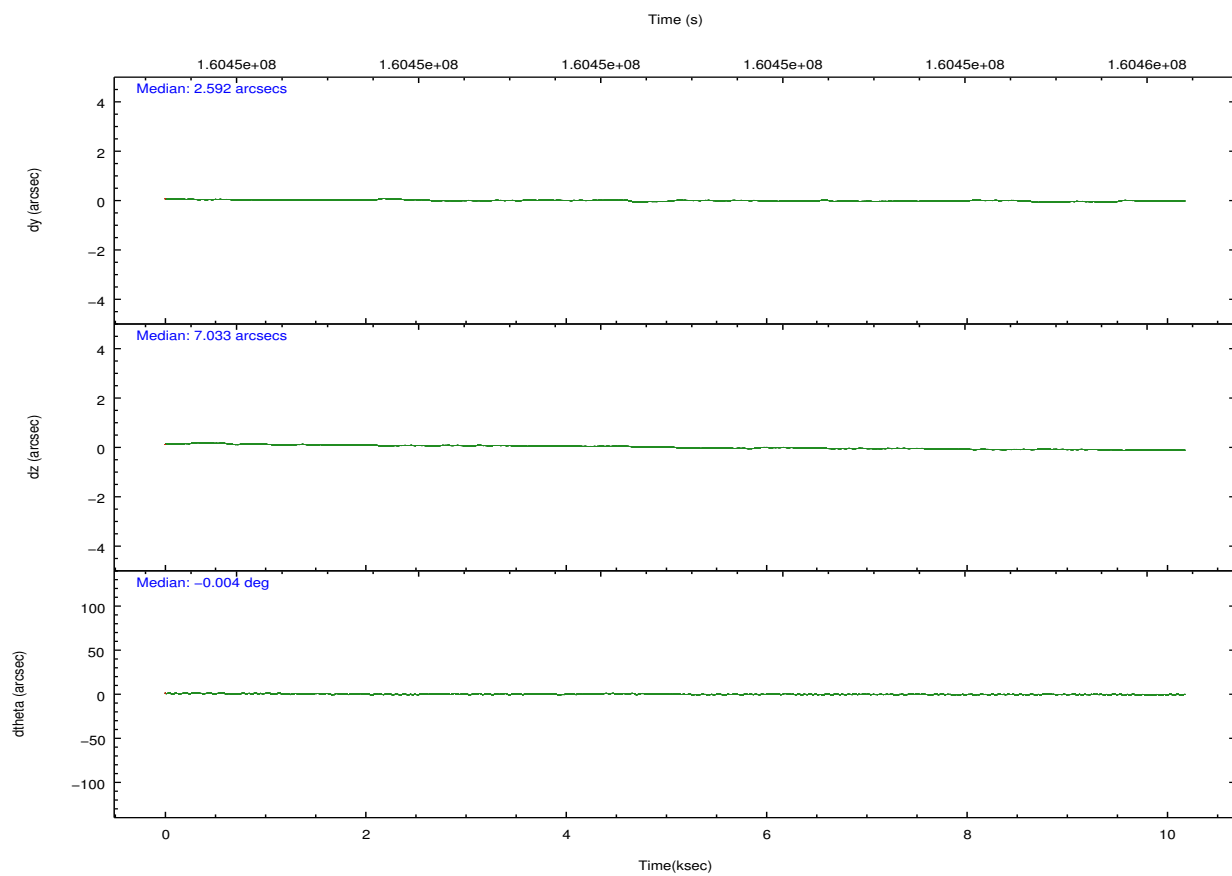
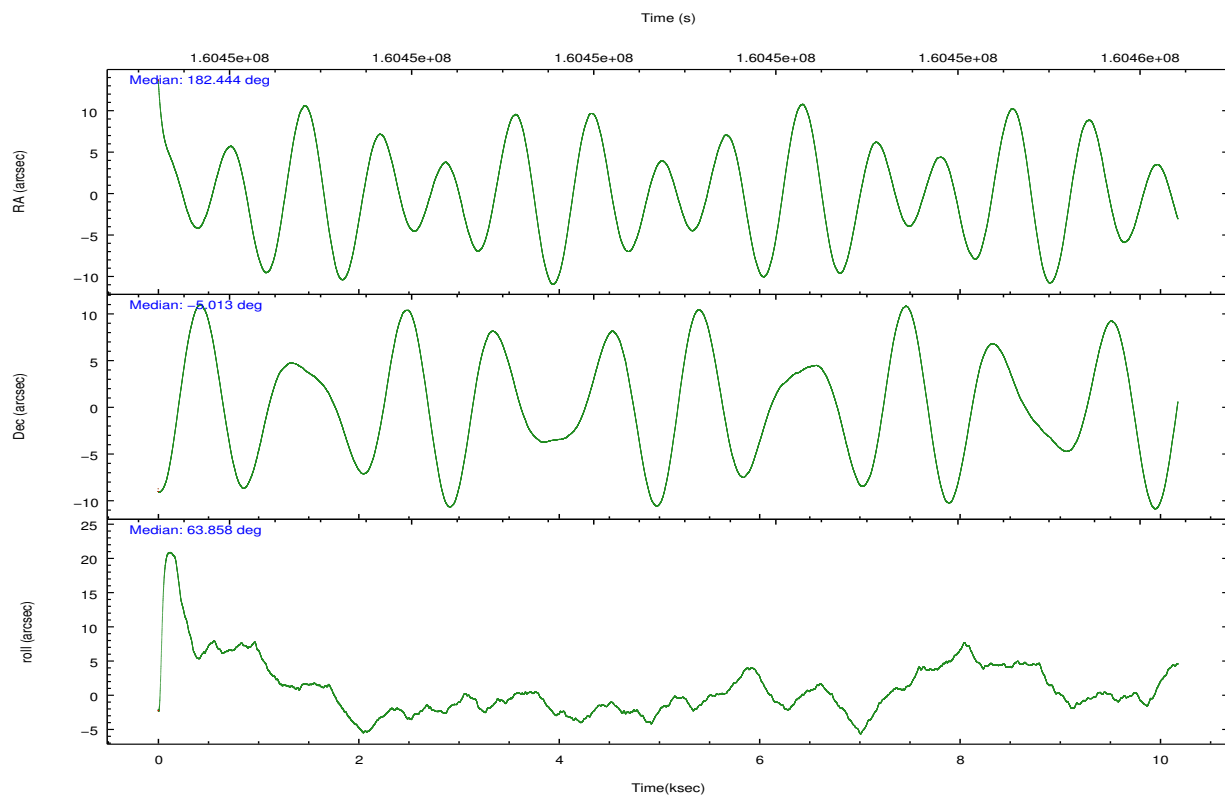


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	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	182.445867	182.4436621810629	Subarray requested	NONE	NONE
[deg] Pointing Dec	-5.039863	-5.012768091026117	Alternating exposures requested	N	N
[deg] Pointing Roll	63.708313	63.86471343059712	[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	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	160445902.184000	160445090.15441			
Observation start date	2003-02-01T00:17:18	2003-02-01T00:04:50			
[s] Observation end time (MET)	160455902.184000	160456595.7799			
Observation end date	2003-02-01T03:03:58	2003-02-01T03:16:35			
Read mode	TIMED	TIMED			

## 2.3 Aspect



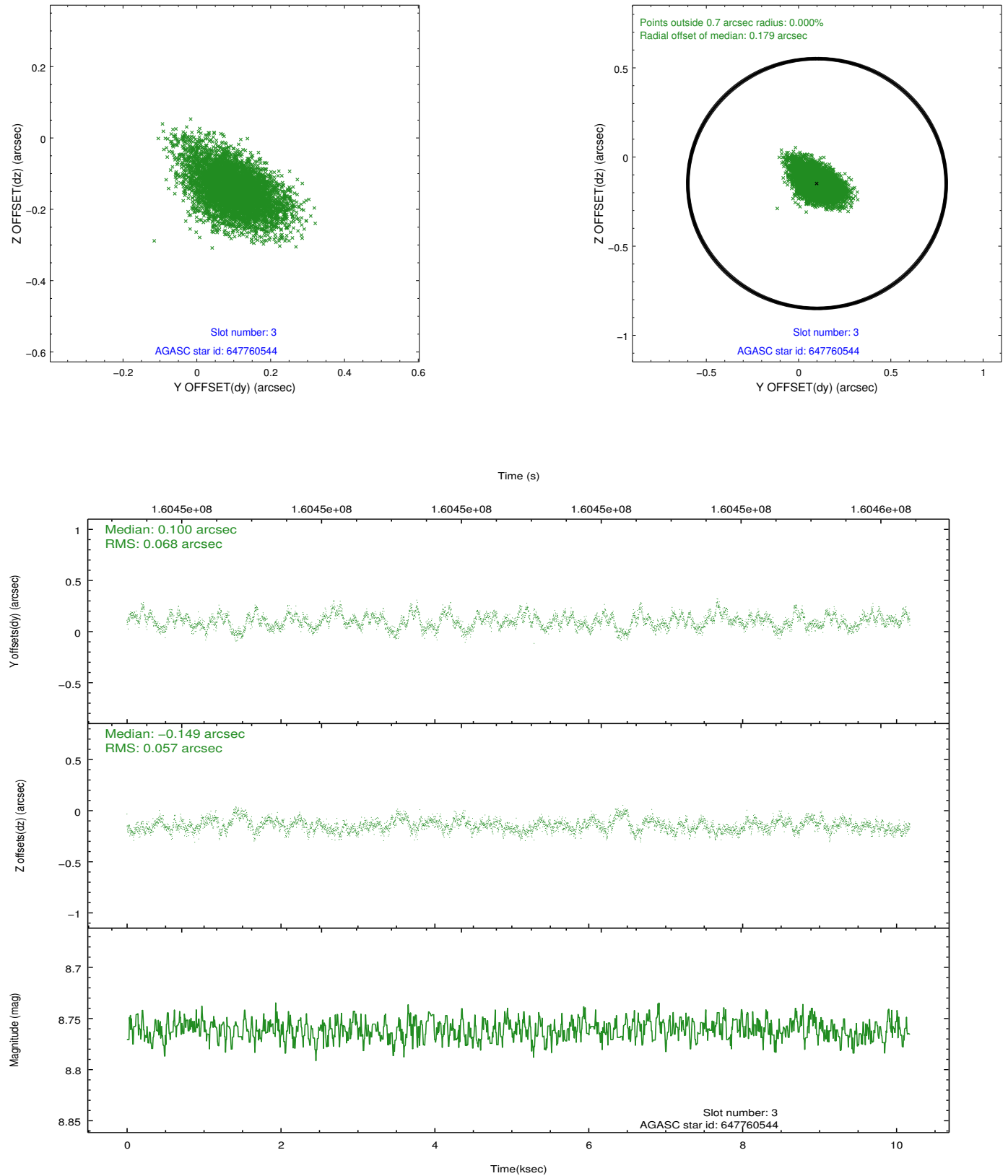


### Slot Statistics

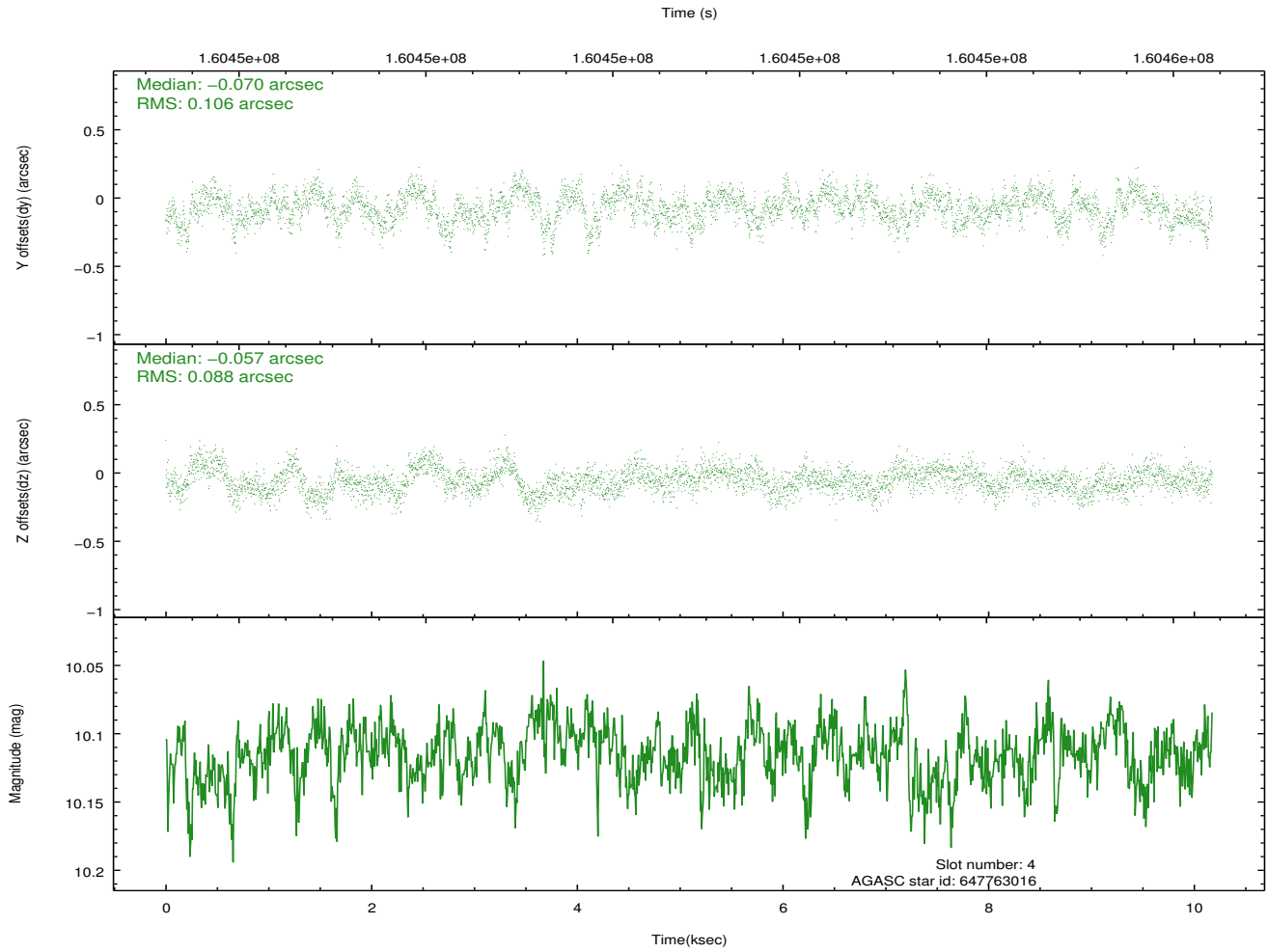
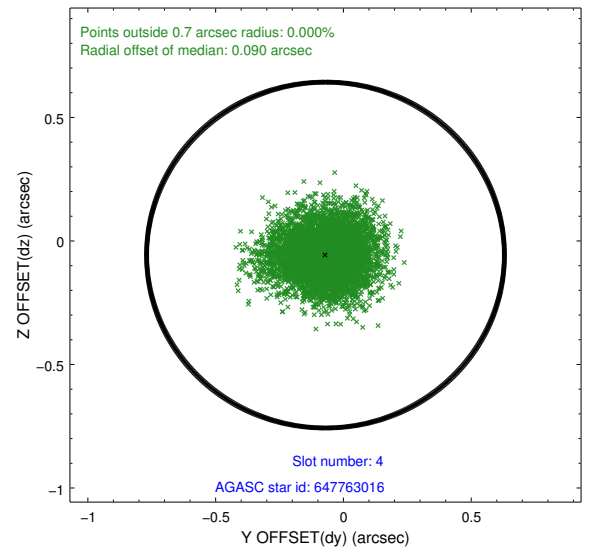
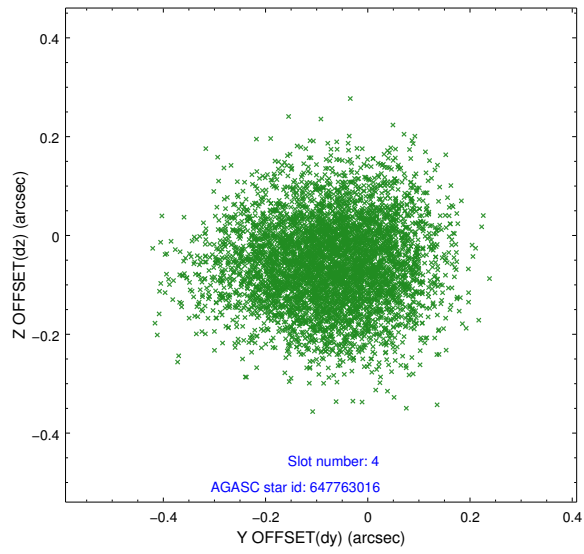
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	2483	-0.029	-0.001	0.008	0.013	0.000000	0.000000	-755.24	-1728.22
1	FID	ACIS-S-4	7.20	2483	-0.007	0.014	0.006	0.010	0.000000	0.000000	2157.81	179.76
2	FID	ACIS-S-5	7.24	2483	0.005	-0.004	0.007	0.012	0.000000	0.000000	-1807.39	173.98
3	GUIDE	647760544	8.76	4965	0.100	-0.149	0.091	0.158	181.976212	-4.986795	-575.12	1594.32
4	GUIDE	647763016	10.11	4958	-0.070	-0.057	0.147	0.238	182.153065	-4.236212	2127.96	2224.53
5	GUIDE	648151320	7.47	4965	0.021	0.092	0.071	0.112	182.448965	-5.225746	-594.28	-305.69
6	GUIDE	648151632	10.19	4962	0.019	-0.097	0.122	0.198	182.020814	-5.183970	-1140.52	1136.06
7	GUIDE	648286368	10.53	4944	-0.072	0.207	0.155	0.255	182.819259	-5.103322	387.94	-1301.15

## 2.4 Star Slots

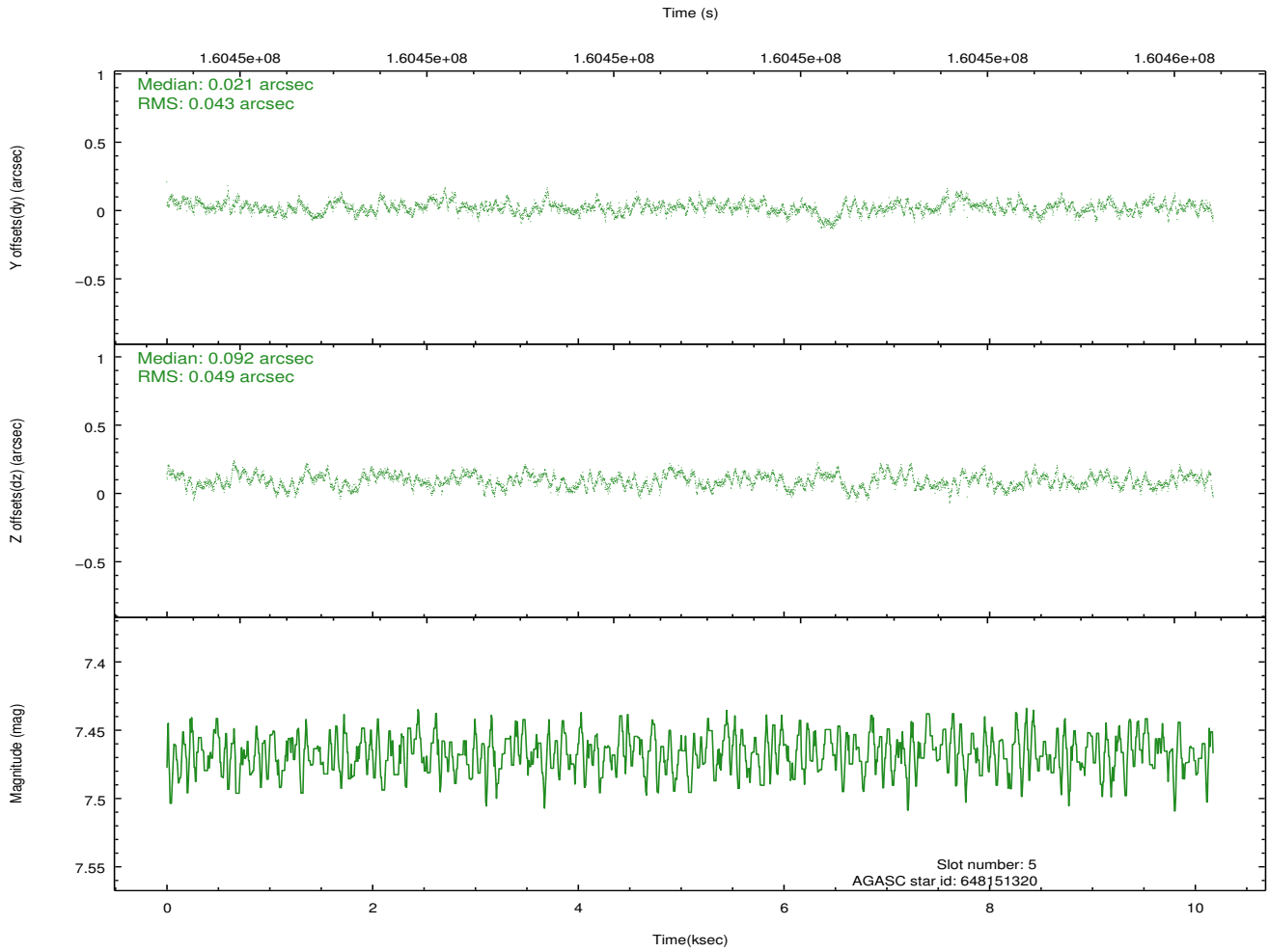
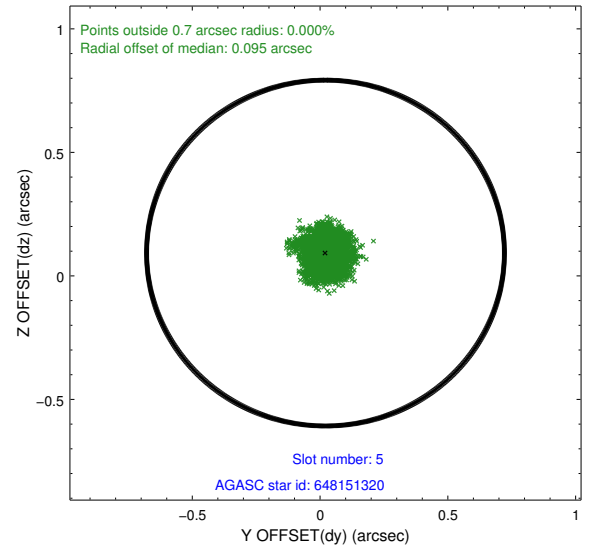
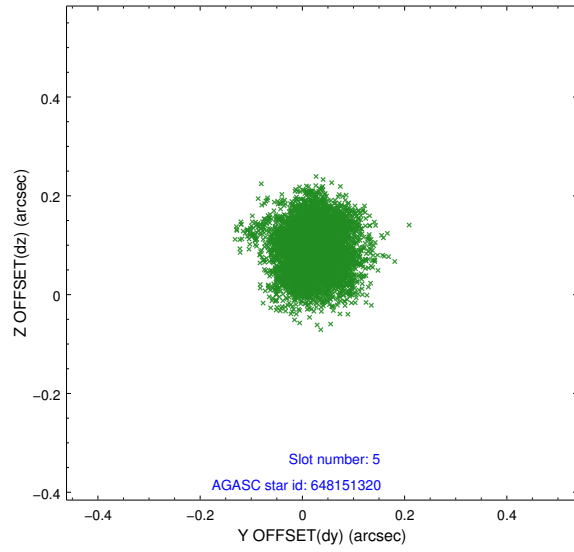
### 2.4.1 Slot 3



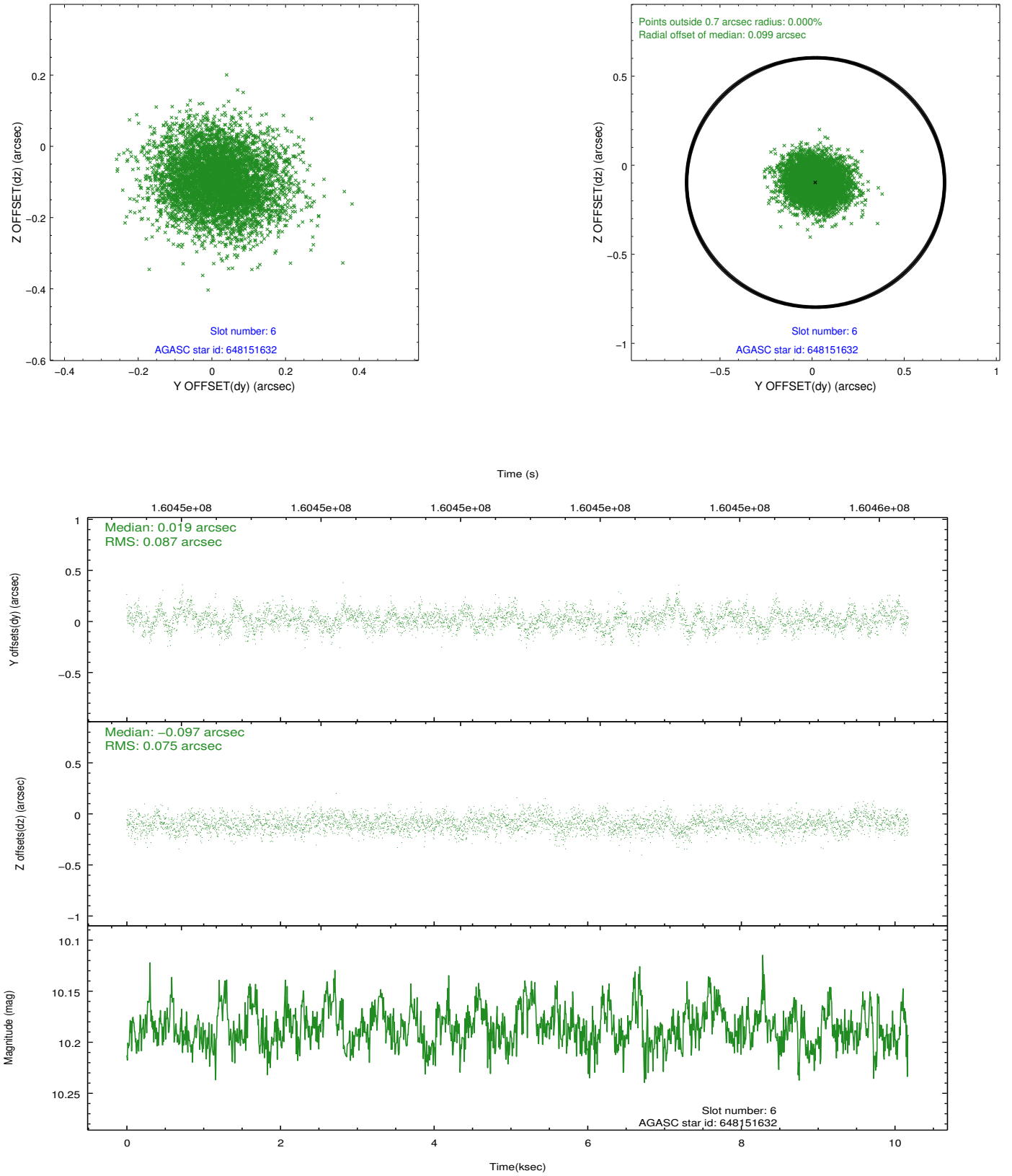
## 2.4.2 Slot 4



### 2.4.3 Slot 5

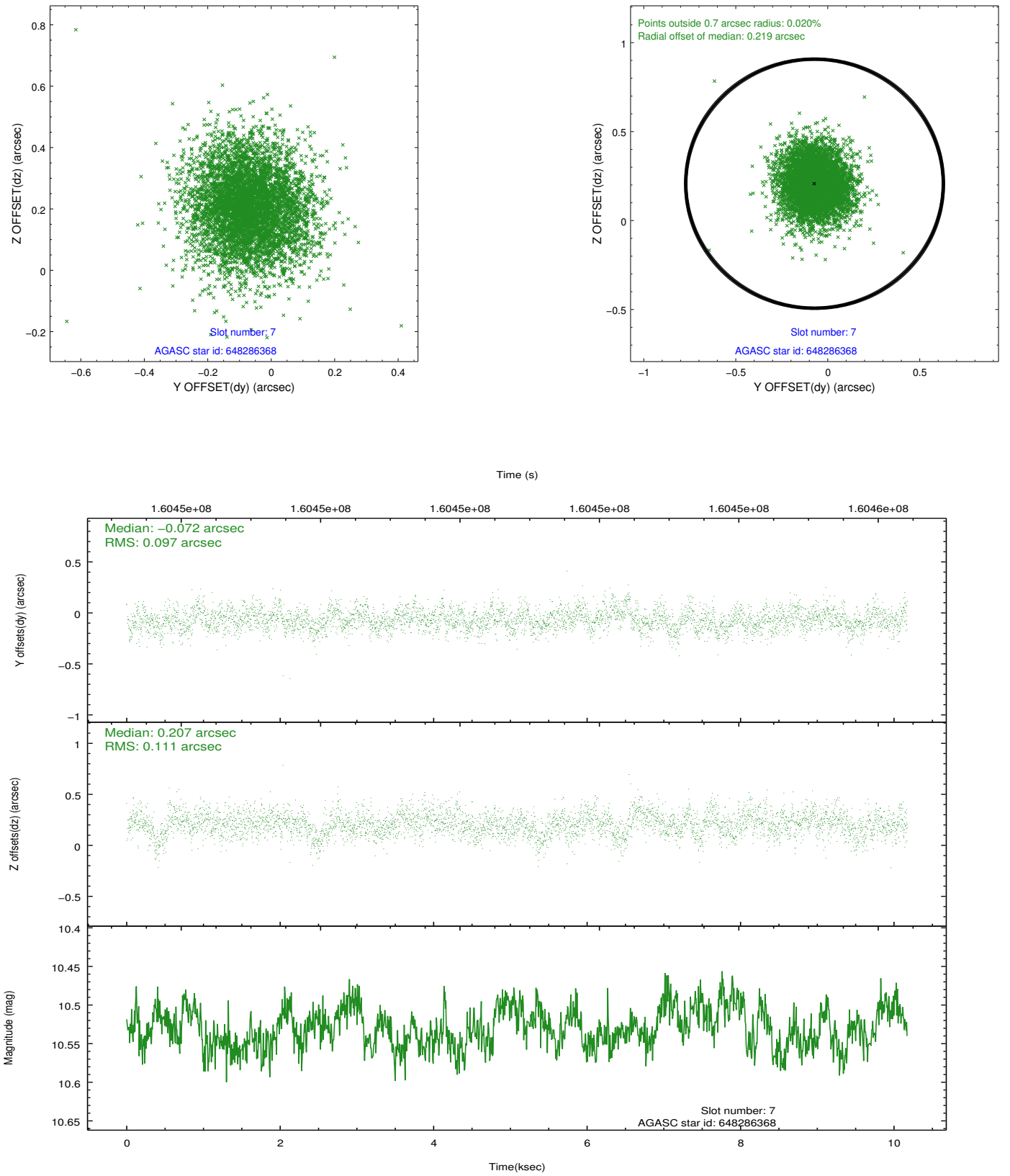


## 2.4.4 Slot 6



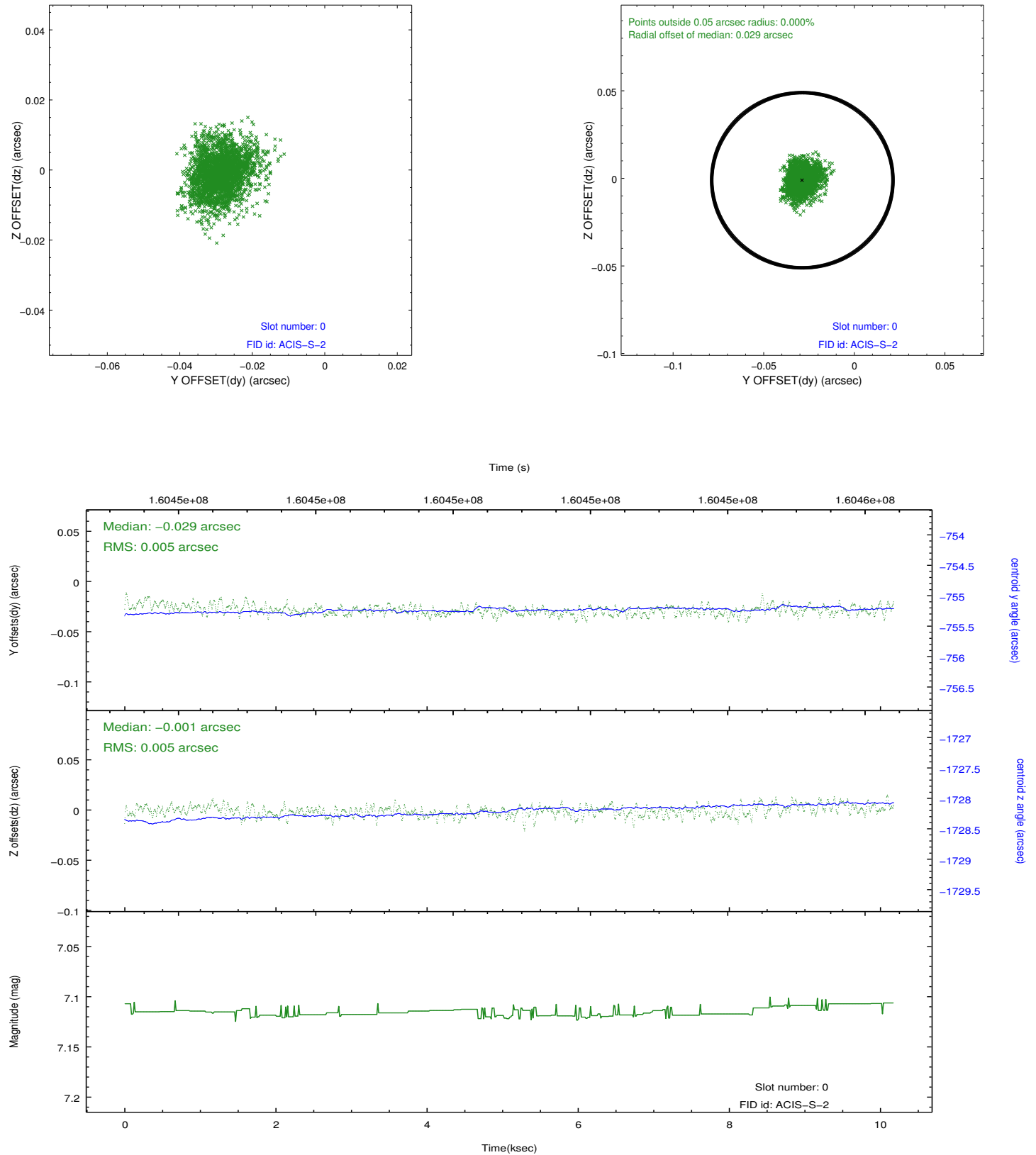


## 2.4.5 Slot 7

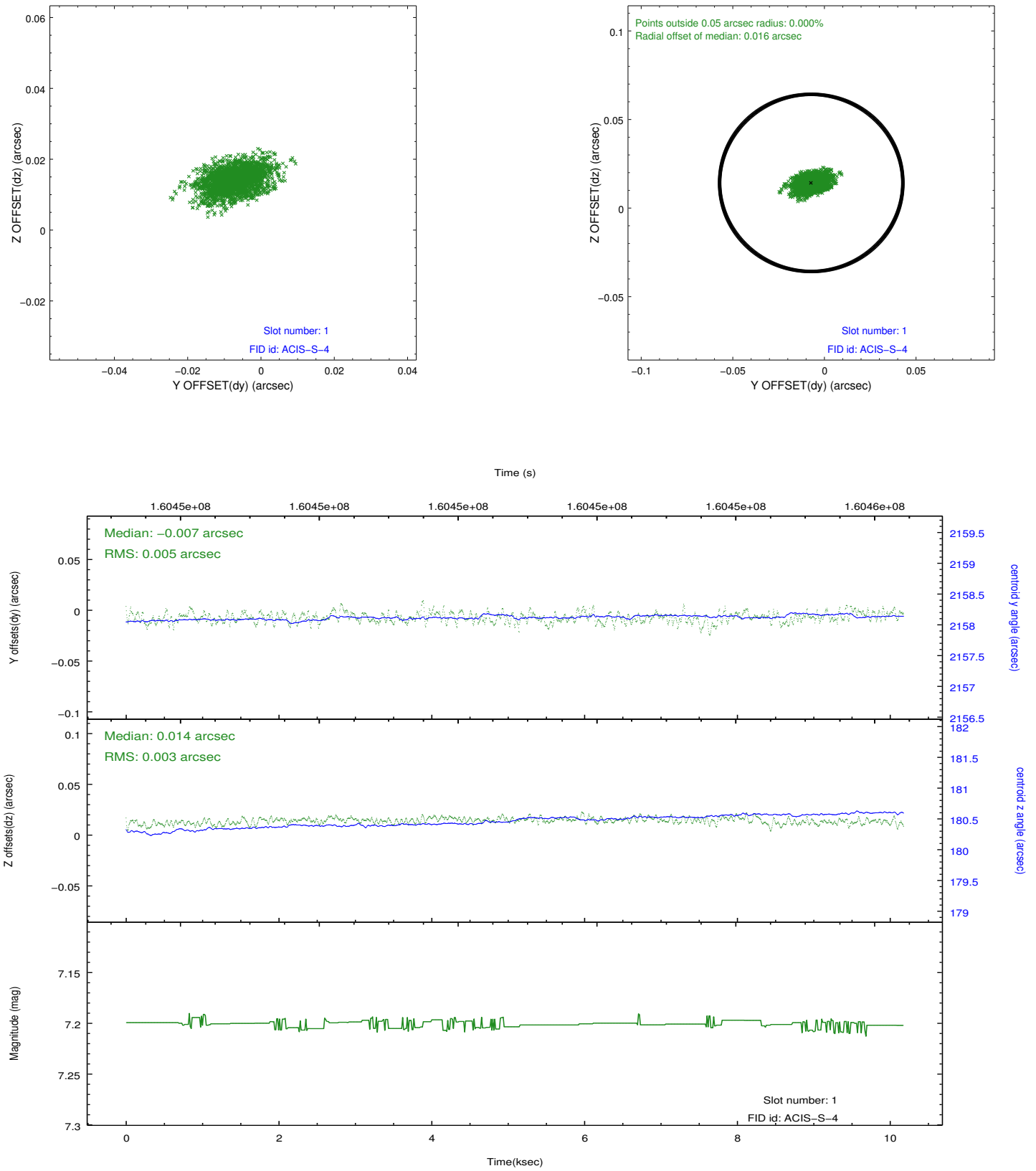


## 2.5 FID Slots

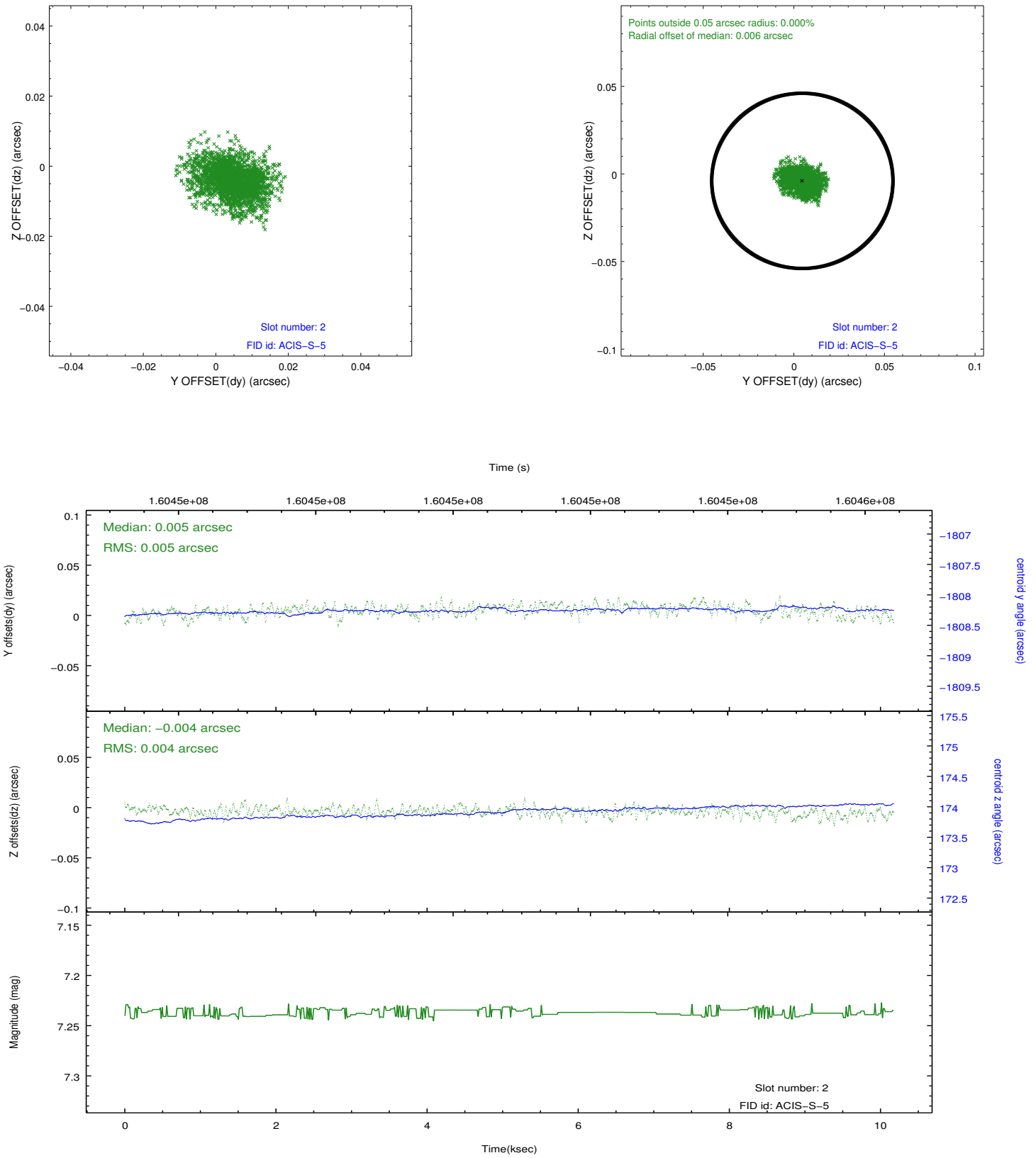
### 2.5.1 Slot 0



## 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)	2012.11.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.774

### **A.2 Comments**