

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 1630 - L2 Version 3  
Chandra X-Ray Center

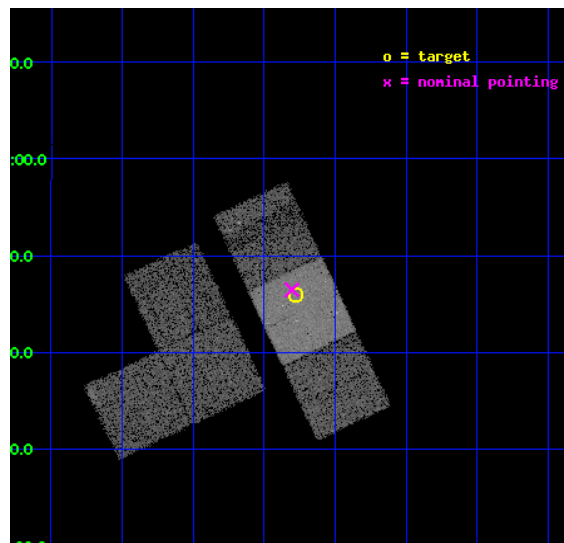
L2 Processing Date : Sep 2 2012

## Contents

<b>1 Front</b>	<b>2</b>
<b>2 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 Summary</b>	<b>17</b>
A.1 Status . . . . .	17
A.2 Comments . . . . .	17

# 1 Front

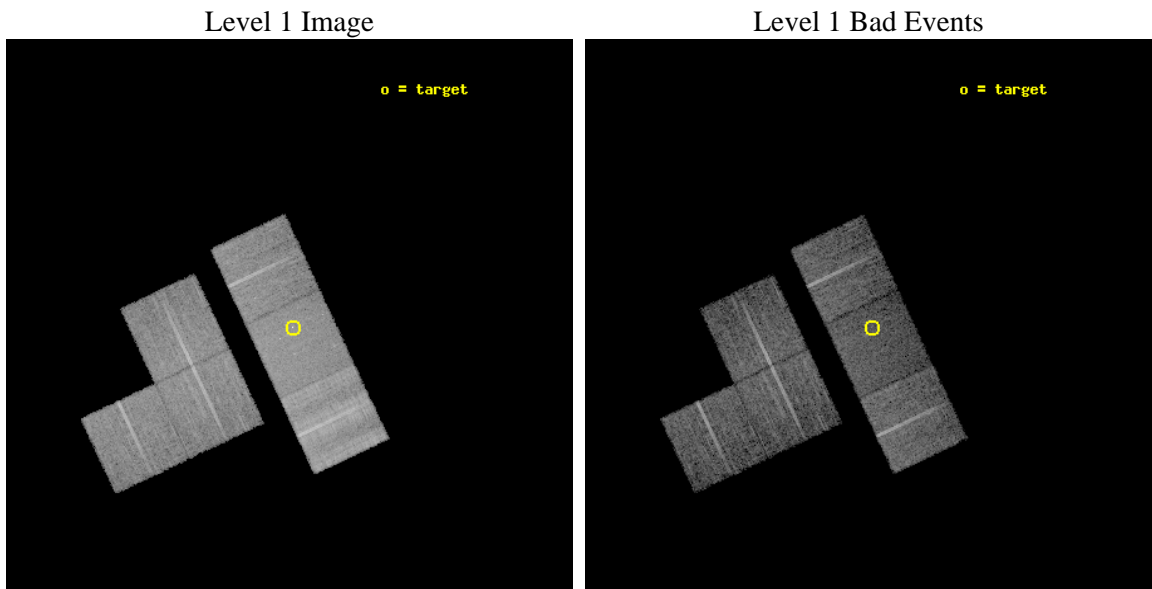
seq_num	700246	Sequence number
obs_id	1630	Observation id
title	FOLLOW - UP ON CHANDRA SURVEY OF GRAVITATIONAL LENSES FOR TIME-DELAY MEASUREMENTS	Proposal title
observer	Professor Gordon Garmire	Principal investigator
object	PG1115+080	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	169.570417	Observer's specified target RA [deg]
dec_targ	7.7665	Observer's specified target Dec [deg]
ra_nom	169.57619081092	Nominal RA [deg]
dec_nom	7.7745204749818	Nominal Dec [deg]
roll_nom	64.856078926105	Nominal Roll [deg]
revision	3	Processing version of data
ontime	9951.5499954671	Sum of GTIs [s]
livetime	9825.5374773205	Livetime [s]
ontime1	9951.5910354704	Sum of GTIs [s]
ontime2	9951.3858354688	Sum of GTIs [s]
ontime3	9951.4679154754	Sum of GTIs [s]
ontime6	9951.5089554638	Sum of GTIs [s]
ontime7	9951.5499954671	Sum of GTIs [s]
ontime8	9951.4268754721	Sum of GTIs [s]
l2events	71720	Number of level 2 events



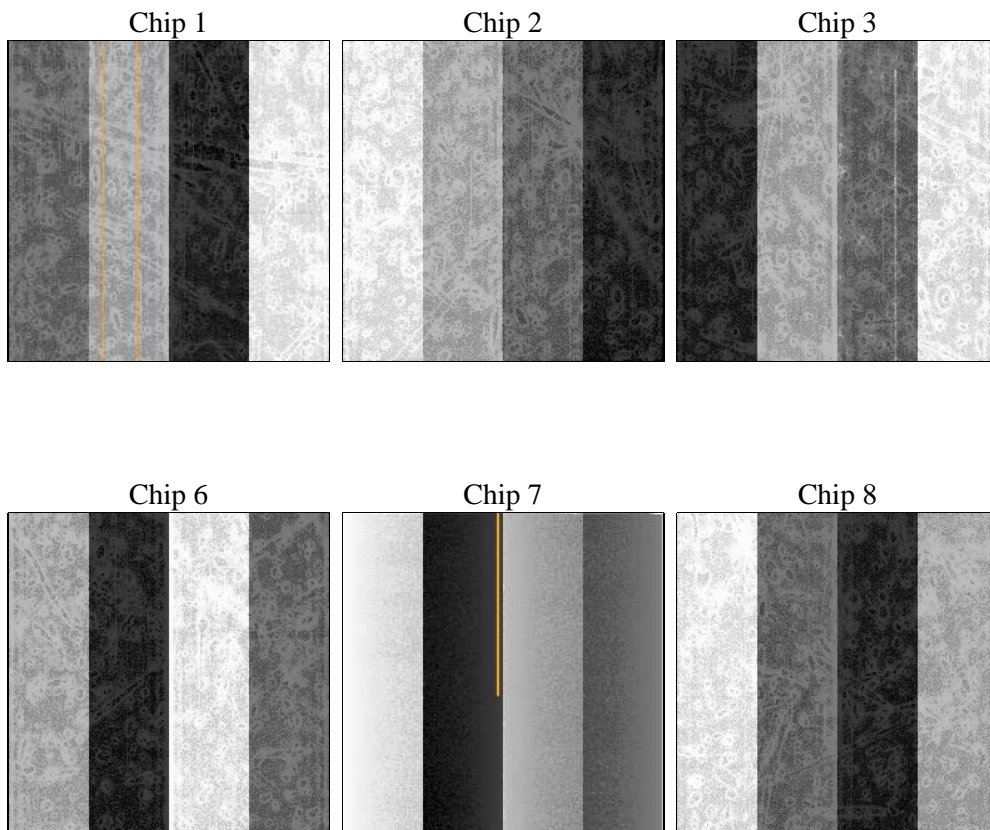
## 2 OBI

### 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	9951.5499954671	Sum of GTIs [s]
caldbver	4.5.1.1	&#160	ontime1	9951.5910354704	Sum of GTIs [s]
date	2012-09-03T01:03:06	Date and time of file creation	ontime2	9951.3858354688	Sum of GTIs [s]
revision	3	Processing version of data	ontime3	9951.4679154754	Sum of GTIs [s]
			ontime6	9951.5089554638	Sum of GTIs [s]
			ontime7	9951.5499954671	Sum of GTIs [s]
			ontime8	9951.4268754721	Sum of GTIs [s]
			l1events	447993	Number of level 1 events

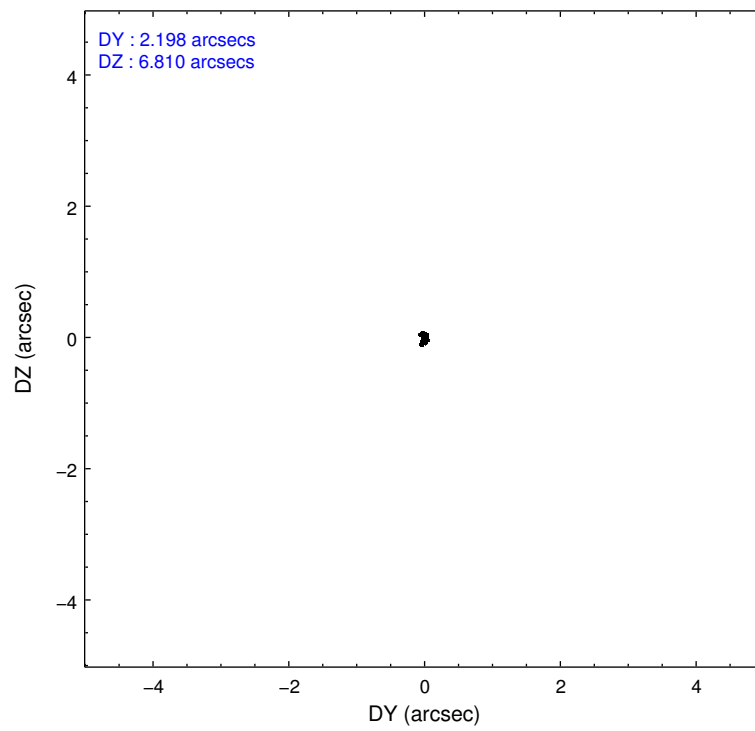
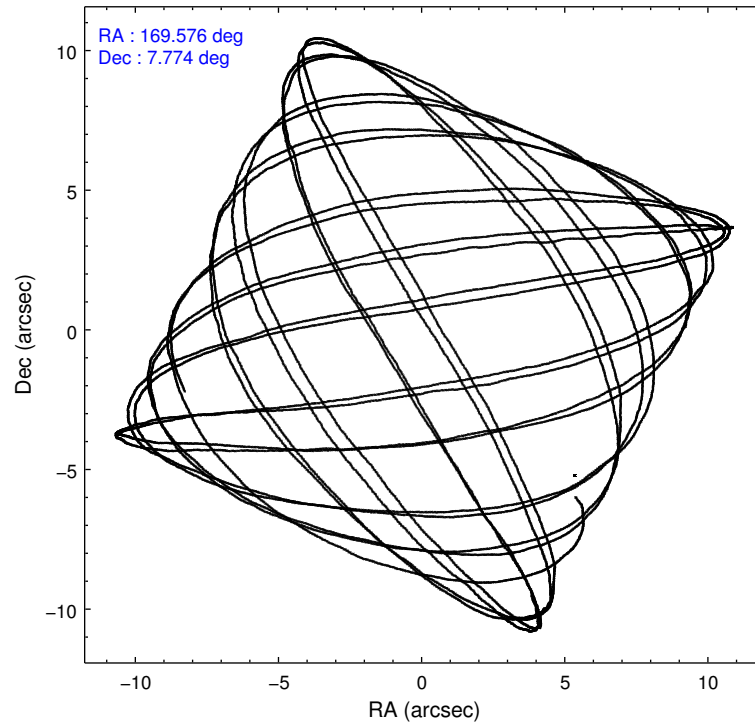
### 2.1.4 Events

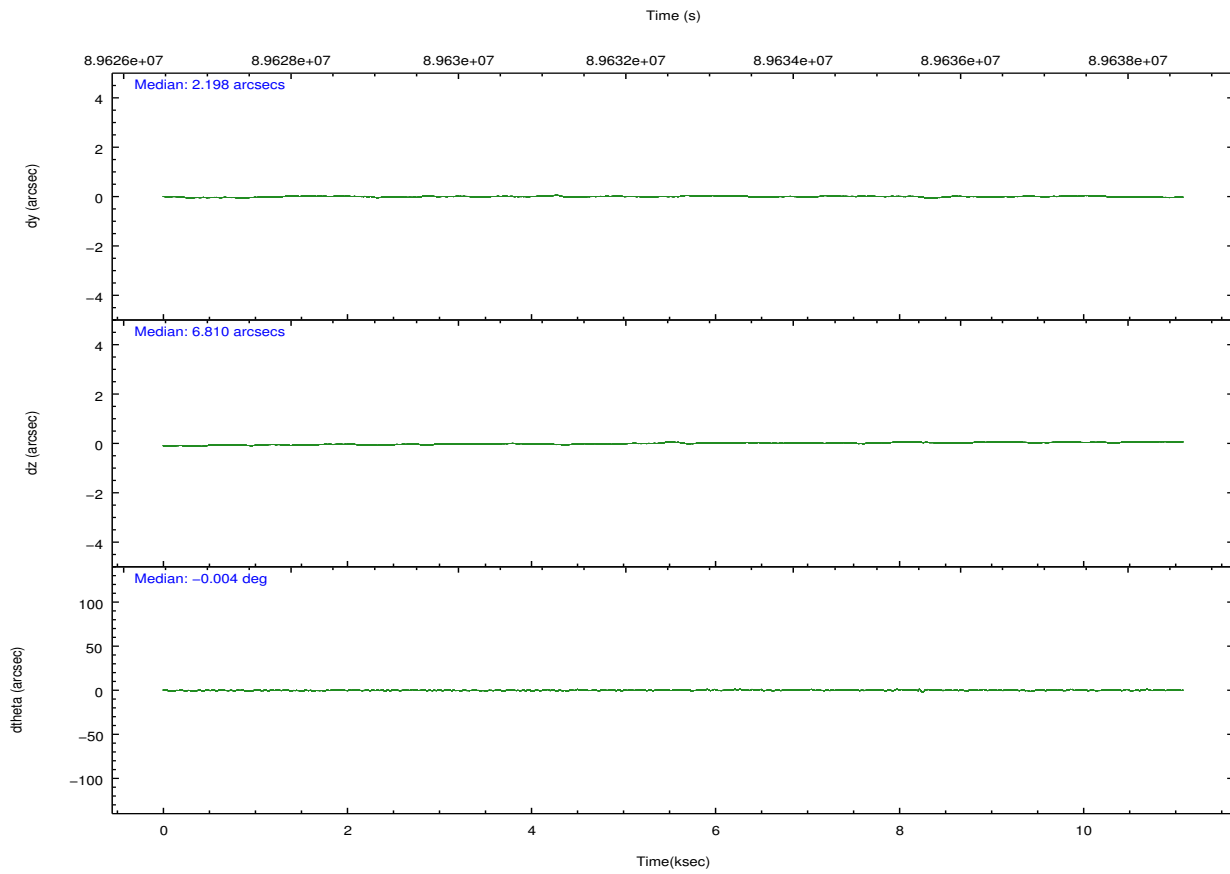
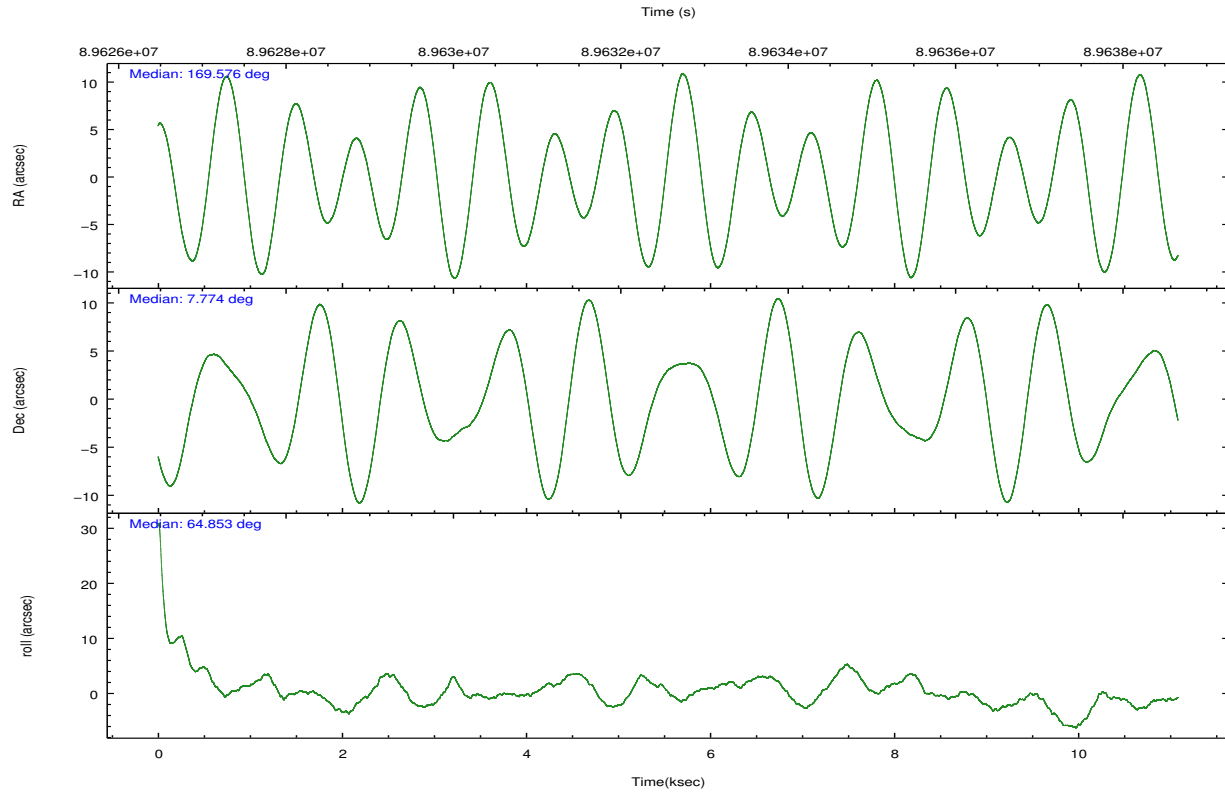
	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8		ccd 1	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	61194	65018	65120	65831	77132	113698	grade 0 events	3591	3966	3442	3824	3707	16355
rejected events	52098	55919	56487	56612	43459	66839		5%	6%	5%	5%	4%	14%
rejected %	85%	86%	86%	85%	56%	58%	grade 1 events	37	33	29	40	86	141
								0%	0%	0%	0%	0%	0%
							grade 2 events	2156	2043	2088	2198	6903	6244
								3%	3%	3%	3%	8%	5%
							grade 3 events	749	672	644	690	3163	8597
								1%	1%	0%	1%	4%	7%
							grade 4 events	726	747	658	708	3057	7689
								1%	1%	1%	1%	3%	6%
							grade 5 events	2255	1957	2189	2508	7102	3370
								3%	3%	3%	3%	9%	2%
							grade 6 events	1878	1673	1801	1802	16860	7991
								3%	2%	2%	2%	21%	7%
							grade 7 events	49802	53927	54269	54061	36254	63311
								81%	82%	83%	82%	47%	55%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-123678	ACIS-123678	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	169.578743	169.5761908109212	Subarray requested	NONE	NONE
[deg] Pointing Dec	7.747299	7.774520474981816	Alternating exposures requested	N	N
[deg] Pointing Roll	64.699112	64.85607892610486	[s] Primary exposure time	0.000000	3.2
[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)	89628103.184000	89626694.44539399			
Observation start date	2000-11-03T08:40:39	2000-11-03T08:18:14			
[s] Observation end time (MET)	89638103.184000	89639003.15835901			
Observation end date	2000-11-03T11:27:19	2000-11-03T11:43:23			
Read mode	TIMED	TIMED			

## 2.3 Aspect



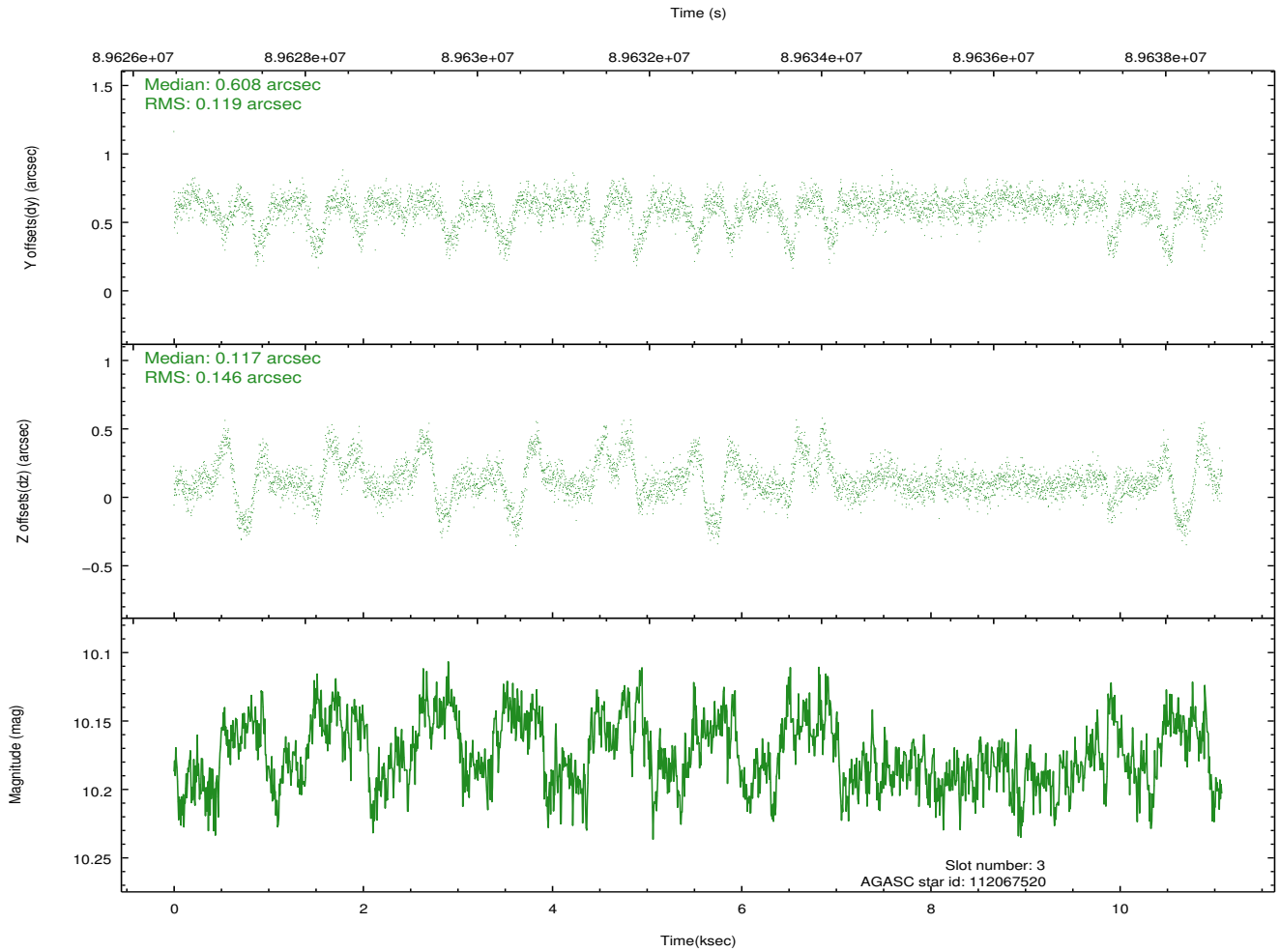
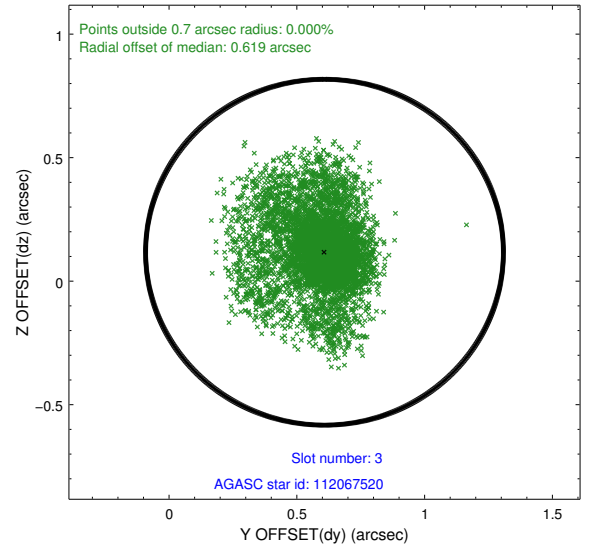
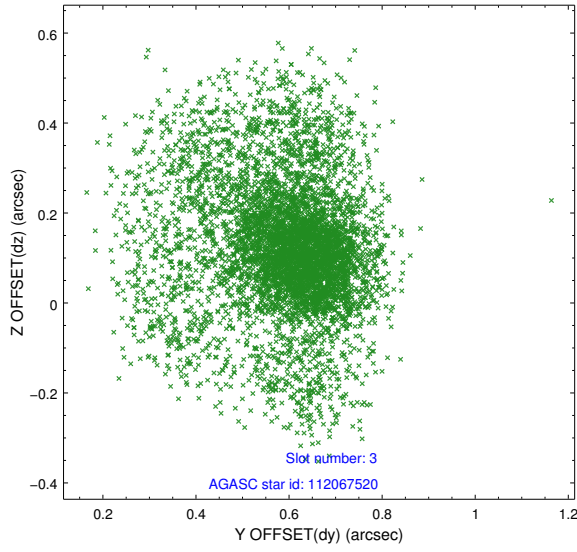


### Slot Statistics

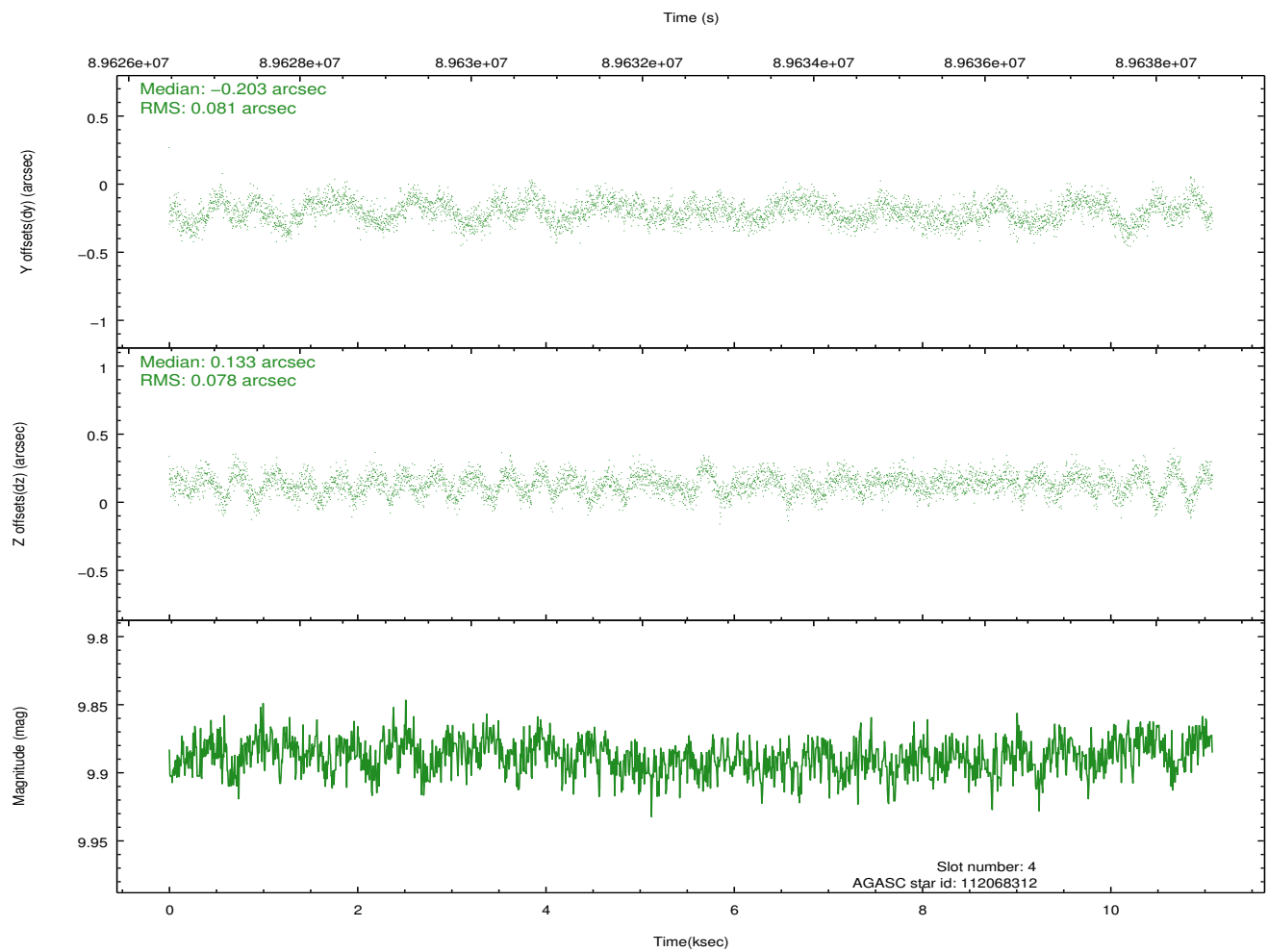
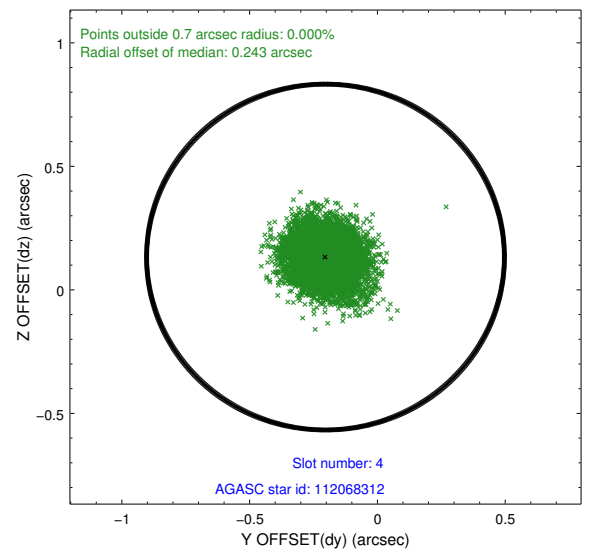
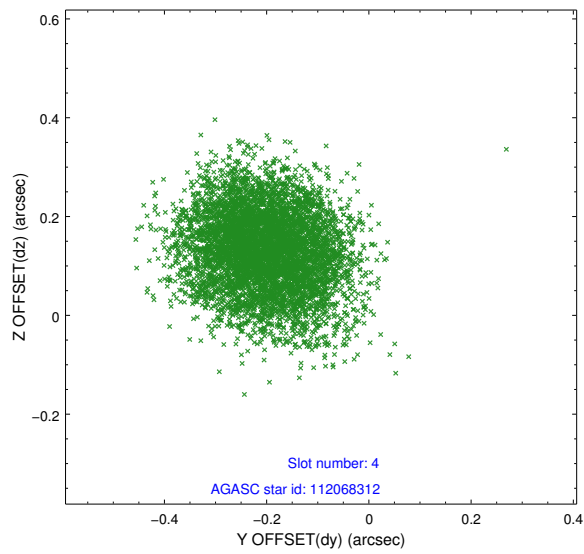
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	2703	-0.027	-0.003	0.007	0.011	0.000000	0.000000	-754.84	-1727.97
1	FID	ACIS-S-4	7.20	2703	-0.029	0.014	0.006	0.012	0.000000	0.000000	2158.22	180.05
2	FID	ACIS-S-5	7.23	2702	0.025	-0.002	0.007	0.011	0.000000	0.000000	-1807.03	174.24
3	GUIDE	112067520	10.17	5405	0.608	0.117	0.190	0.358	169.288653	7.745293	-446.78	932.49
4	GUIDE	112068312	9.89	5403	-0.203	0.133	0.122	0.190	169.673636	8.146330	1444.08	308.38
5	GUIDE	112068528	8.77	5405	0.018	0.210	0.079	0.131	169.984852	7.578312	71.46	-1569.85
6	GUIDE	35259424	9.22	5404	-0.124	-0.263	0.077	0.123	169.225147	7.406887	-1645.97	616.92
7	GUIDE	35262512	9.42	5402	-0.280	-0.202	0.101	0.169	169.912813	6.863684	-2364.69	-2439.42

## 2.4 Star Slots

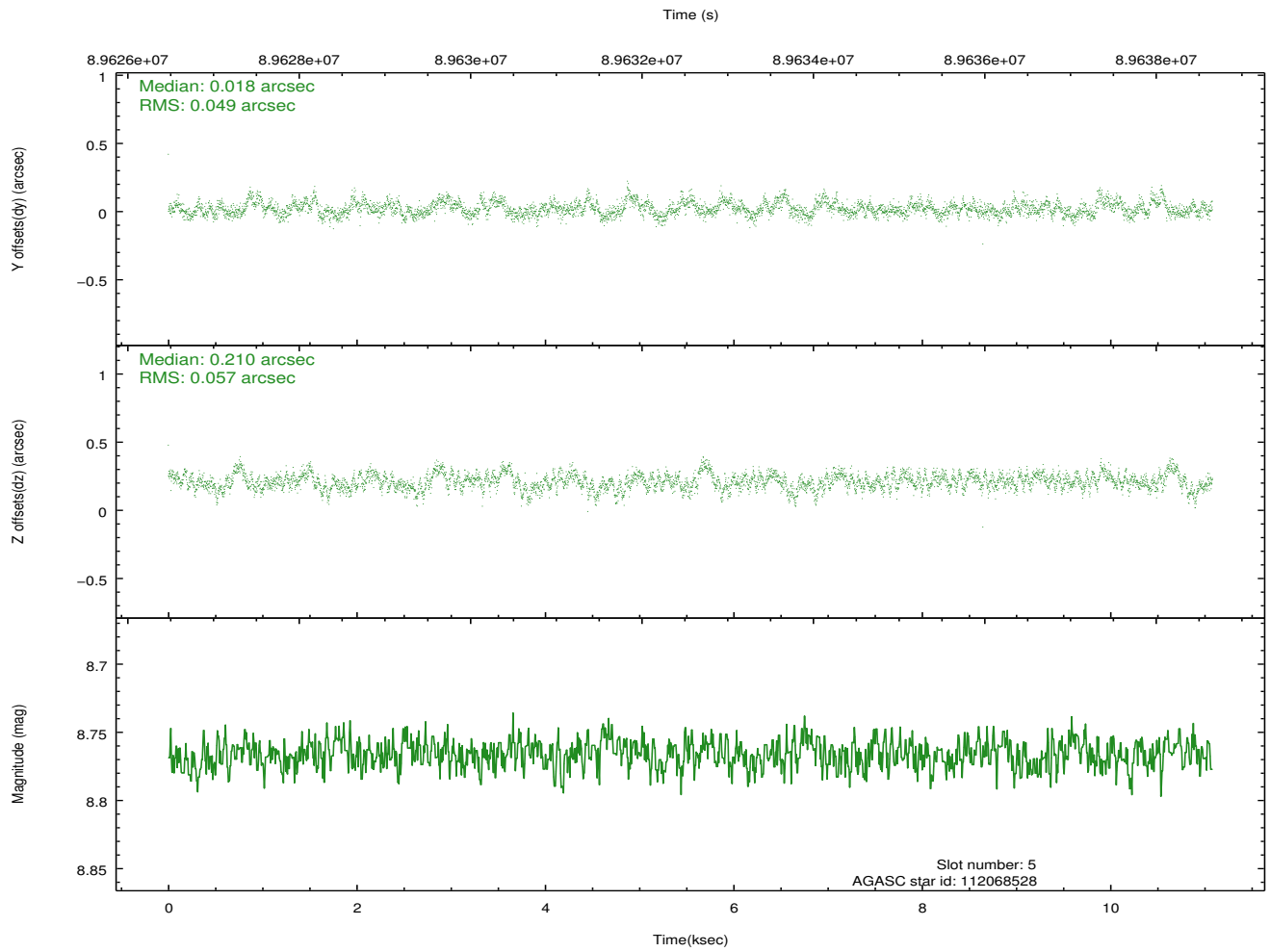
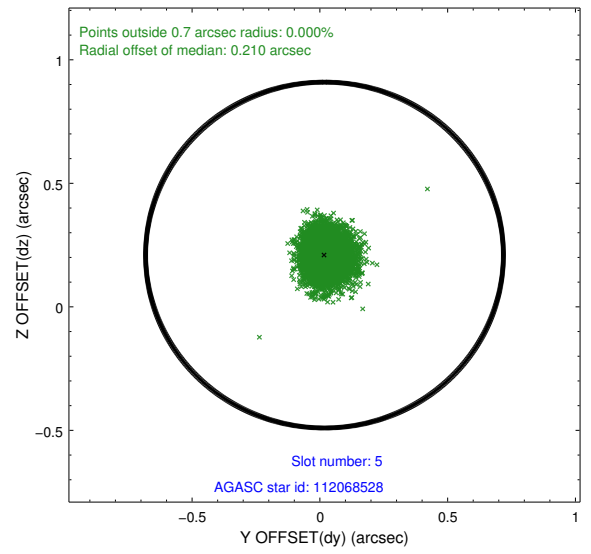
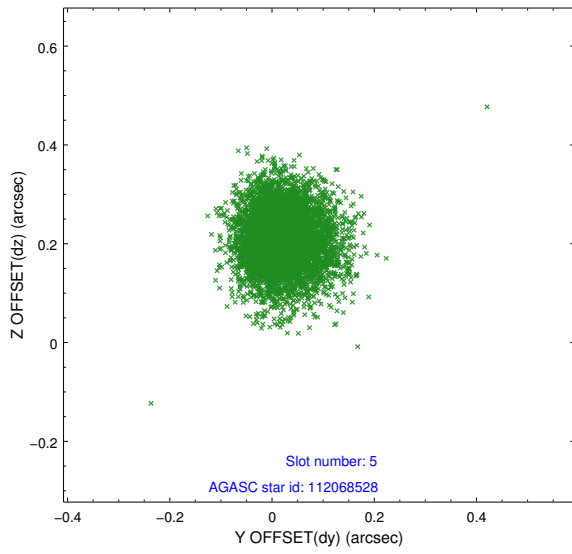
### 2.4.1 Slot 3



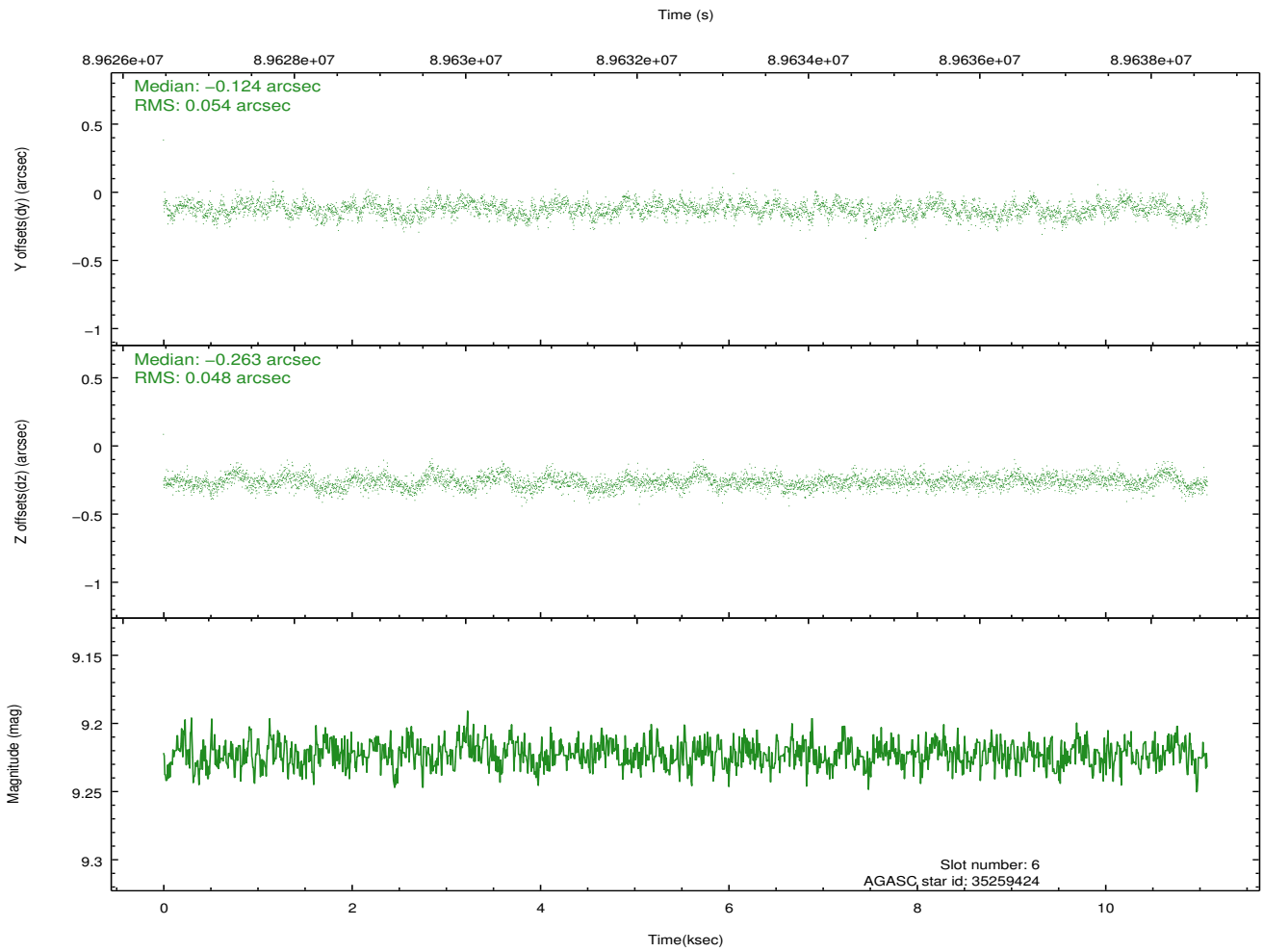
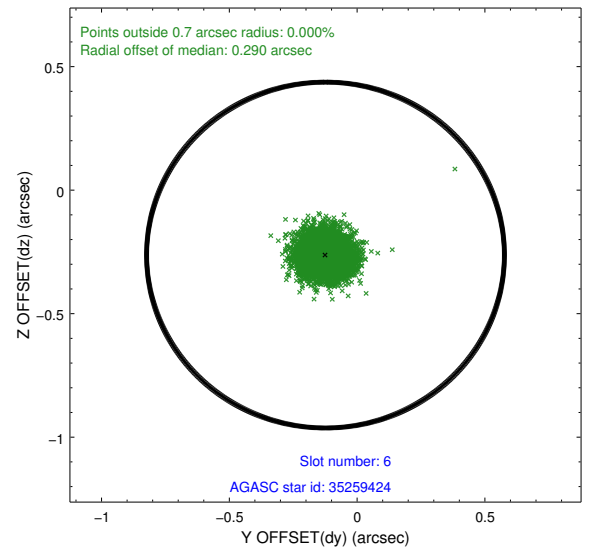
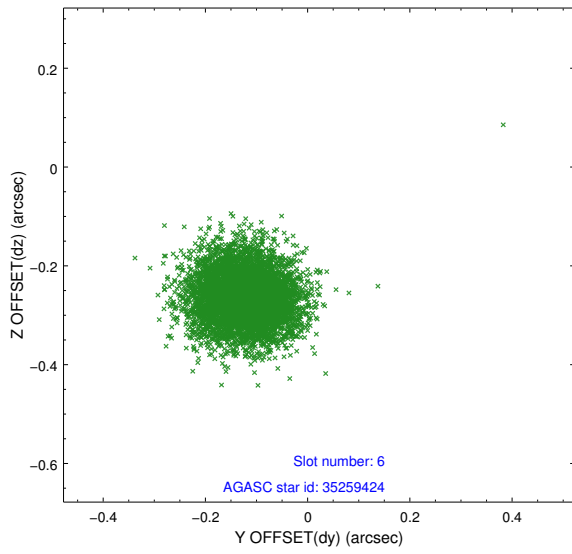
## 2.4.2 Slot 4



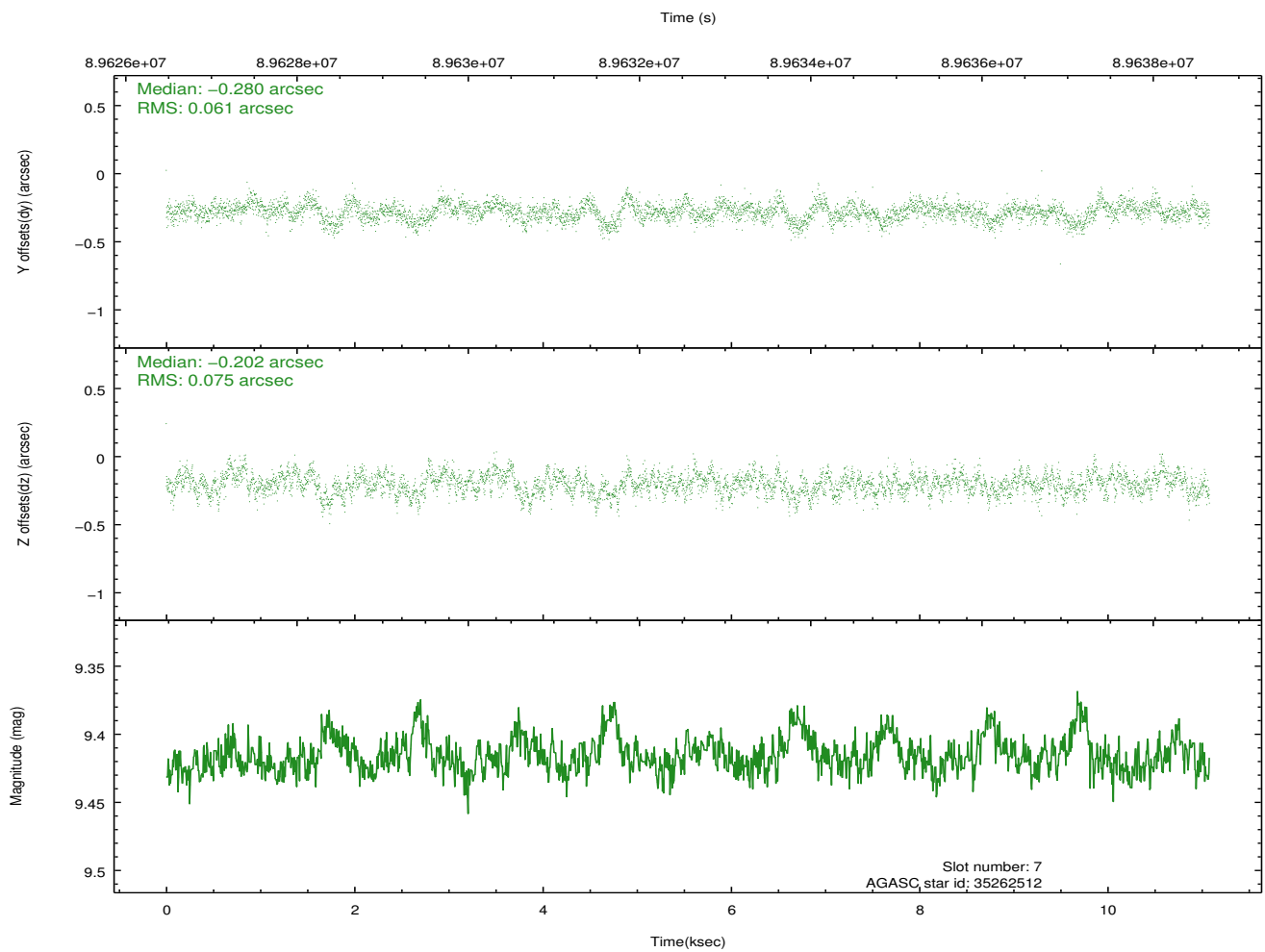
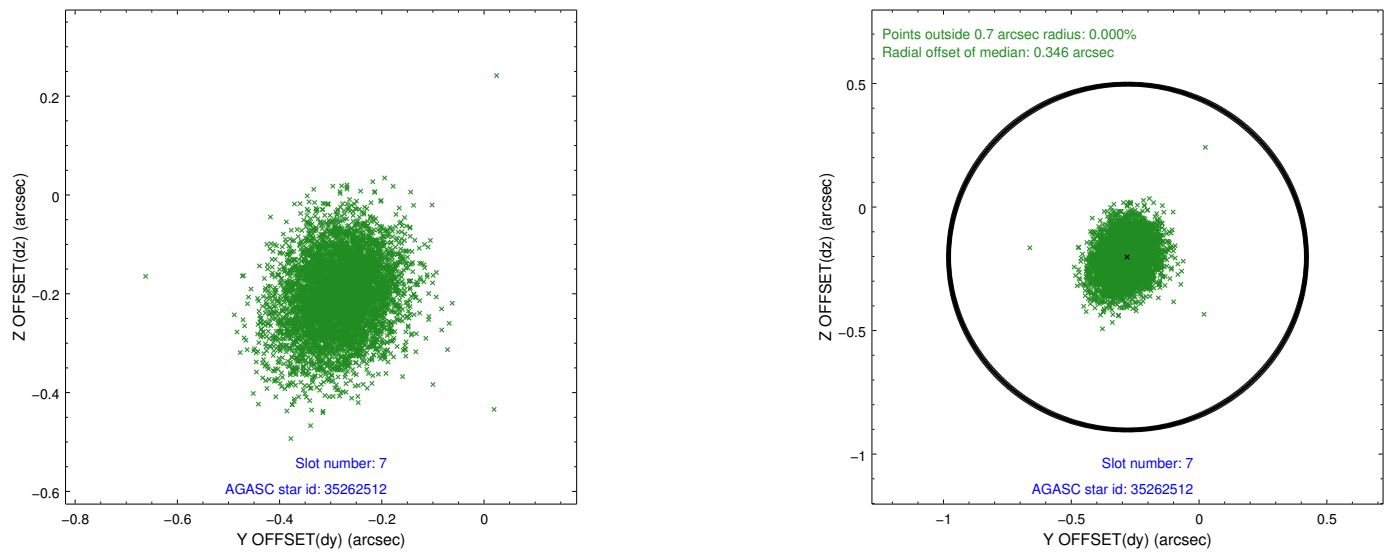
### 2.4.3 Slot 5



## 2.4.4 Slot 6

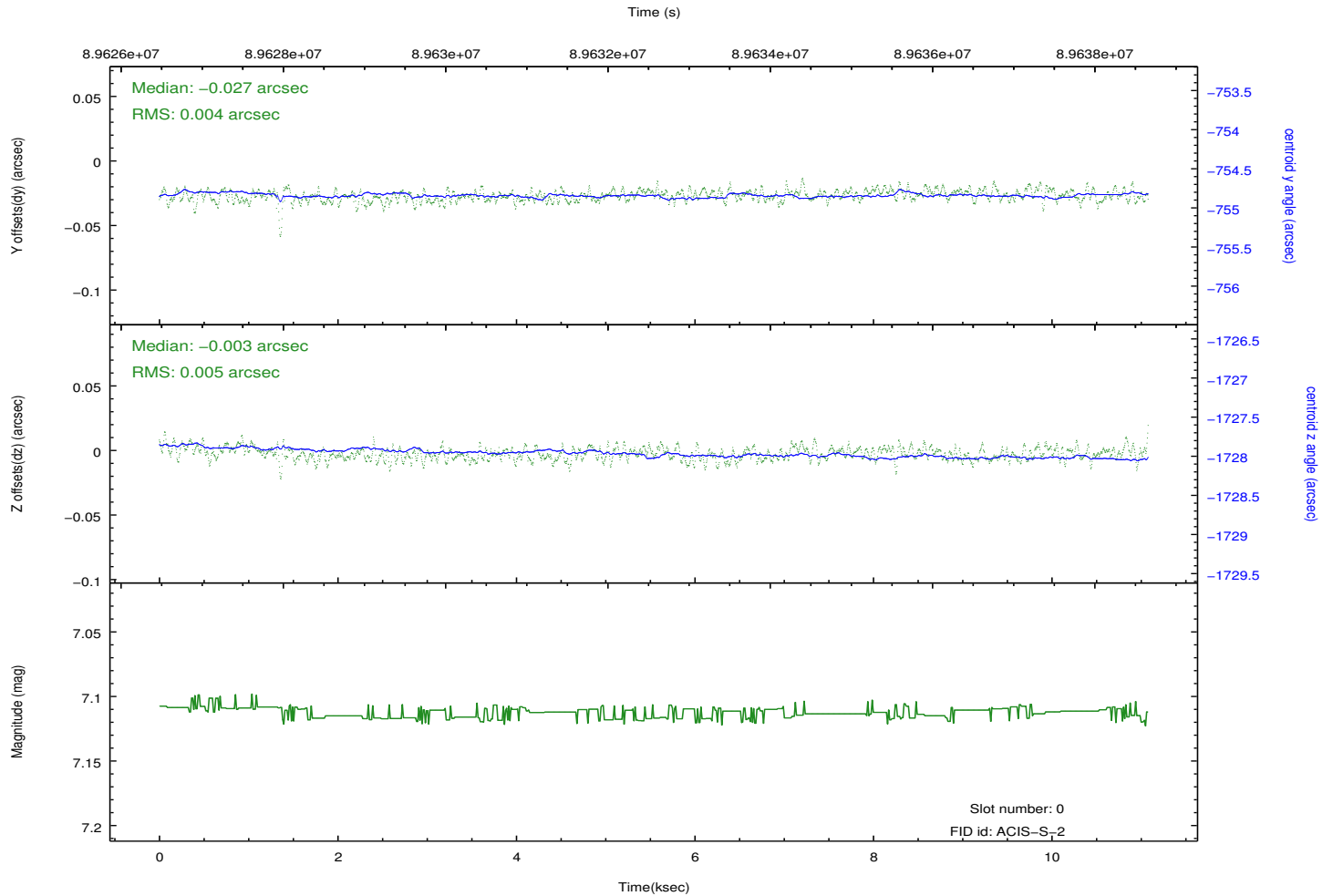
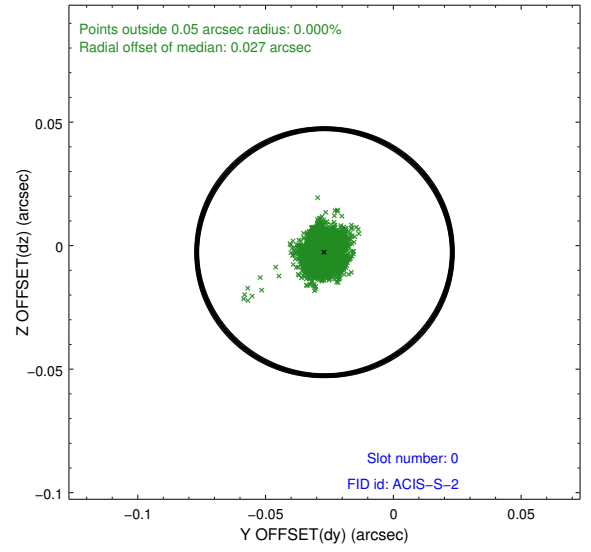
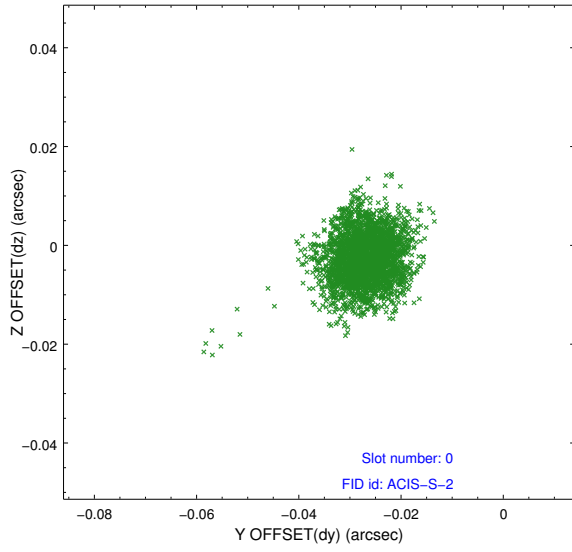


## 2.4.5 Slot 7

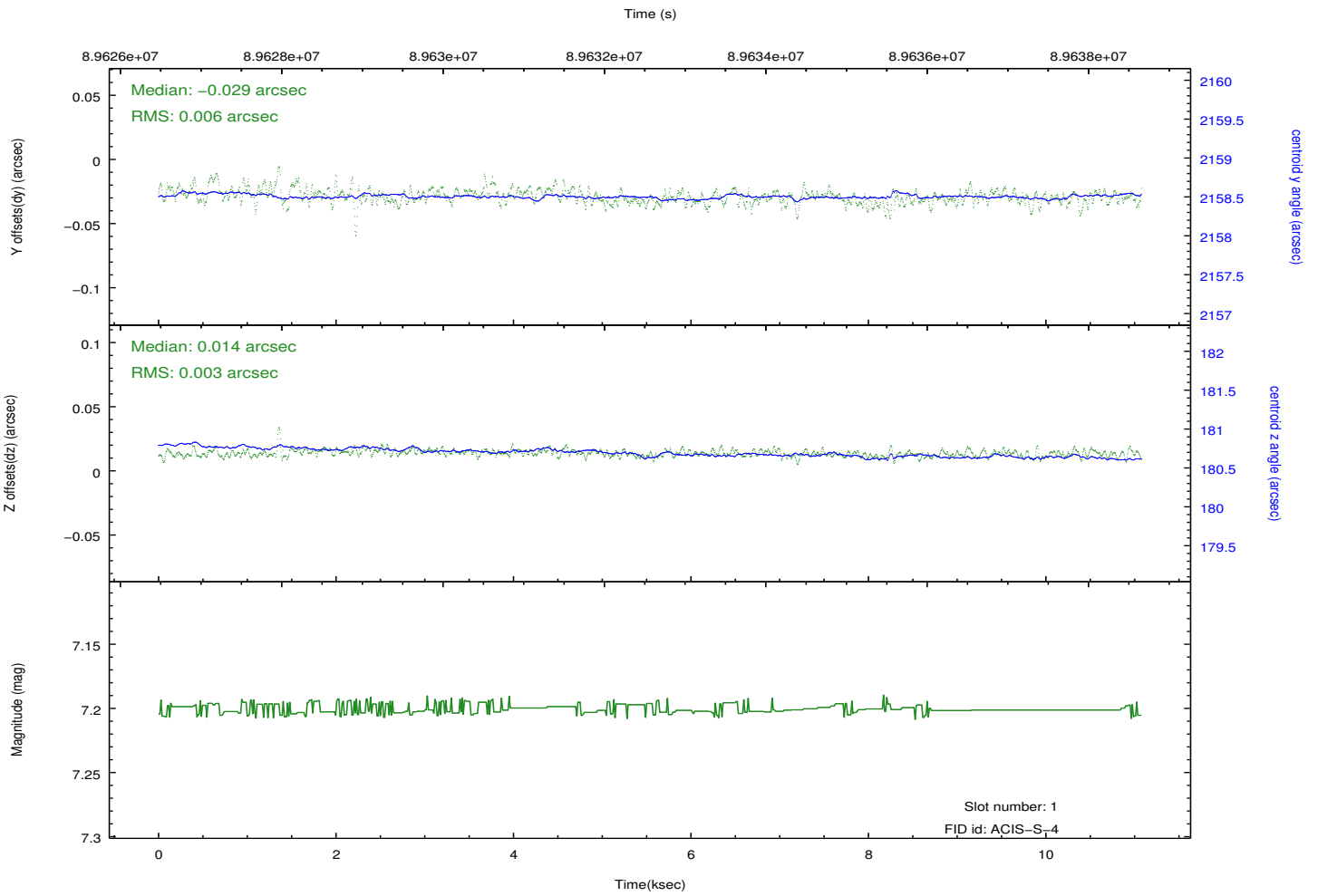
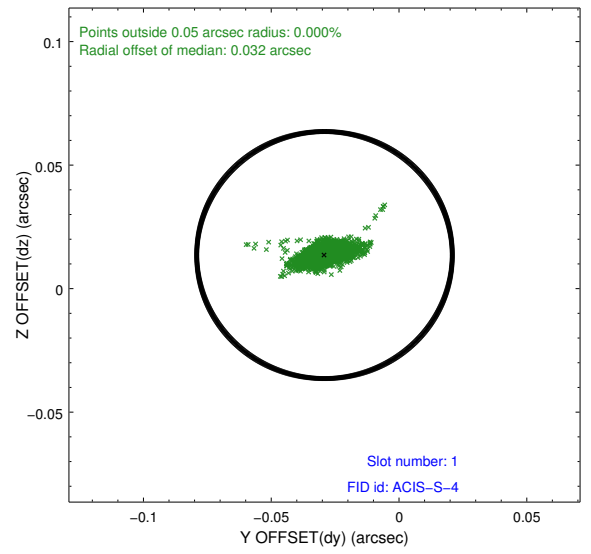
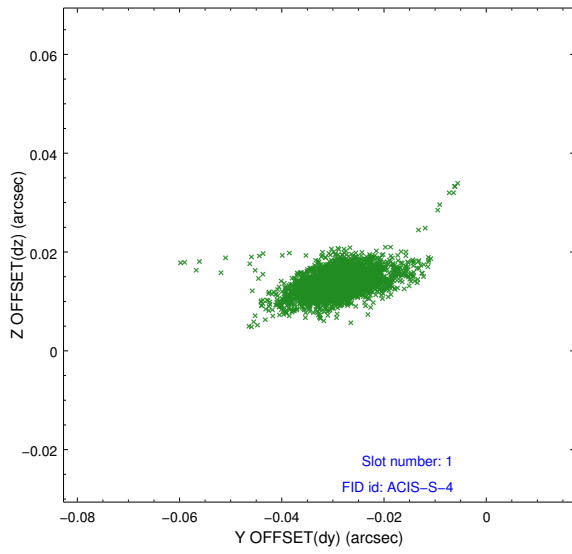


## 2.5 FID Slots

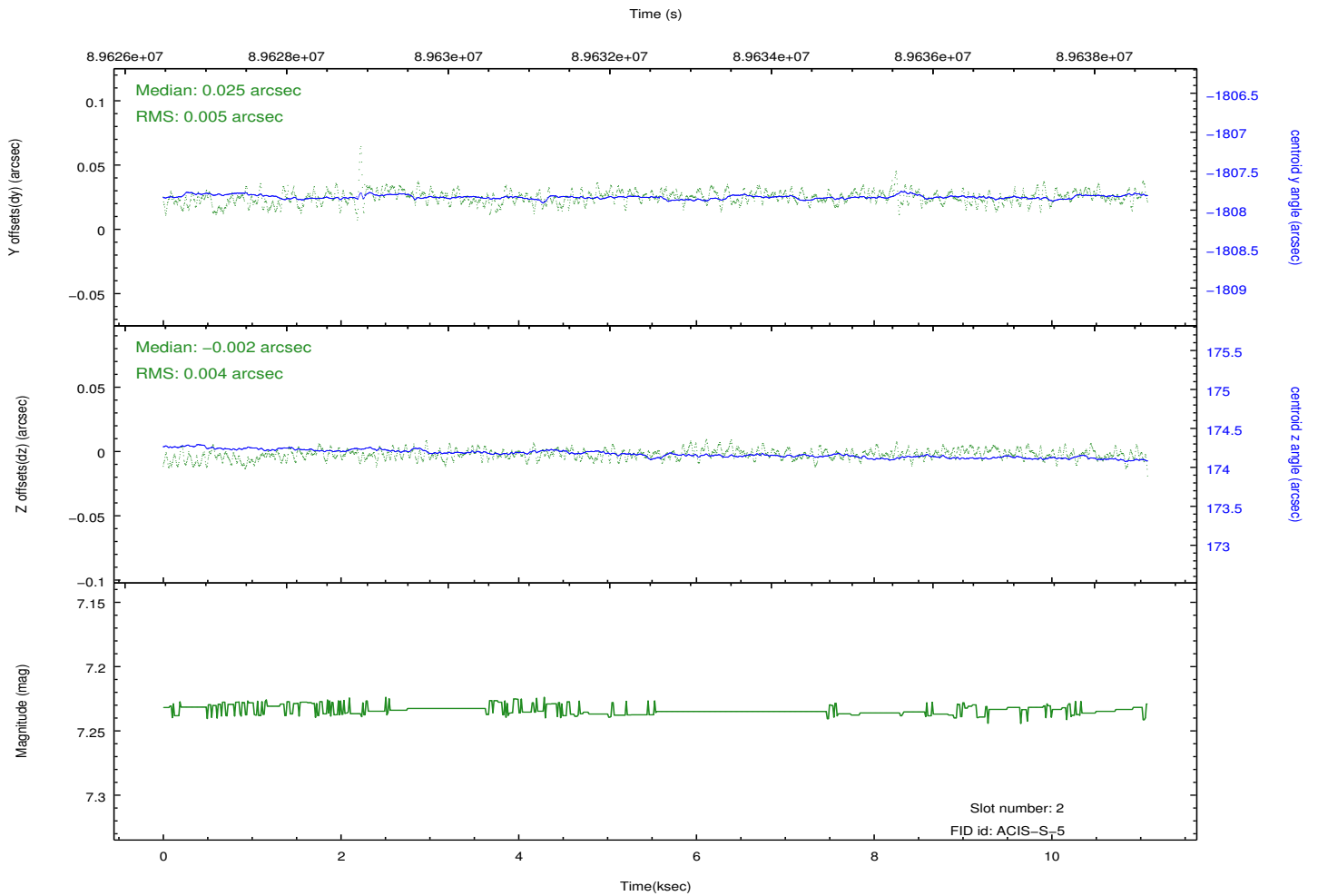
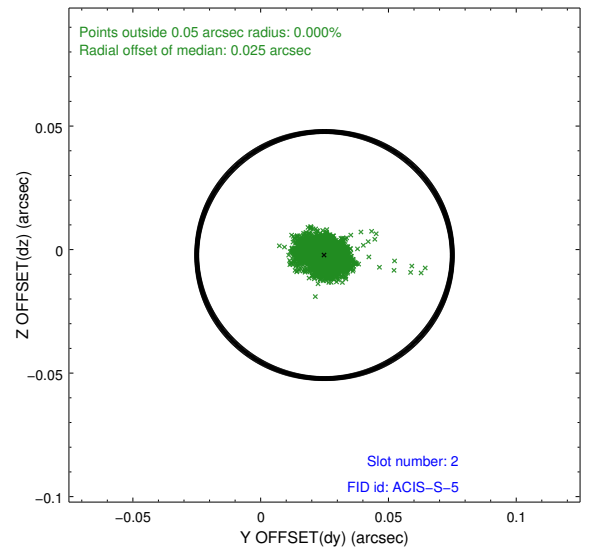
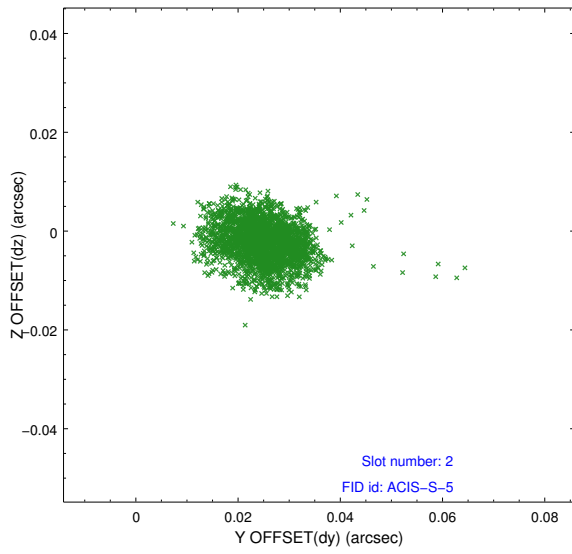
### 2.5.1 Slot 0



## 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)	2012.09.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.952

## A.2 Comments