

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 10707 - L2 Version 2  
Chandra X-Ray Center

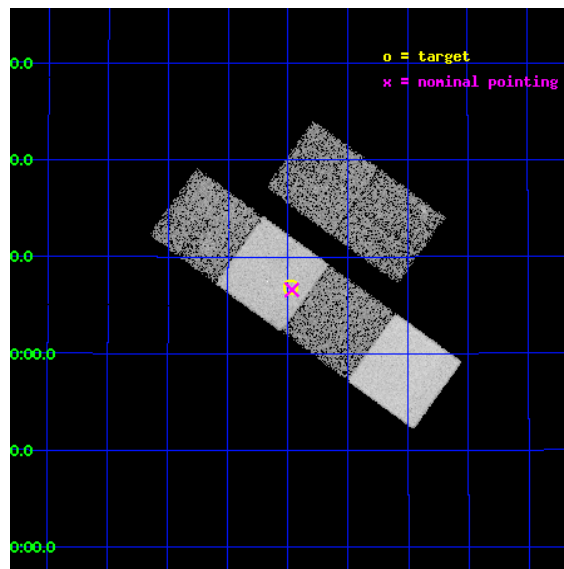
L2 Processing Date : Jun 1 2012

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# 1 Front

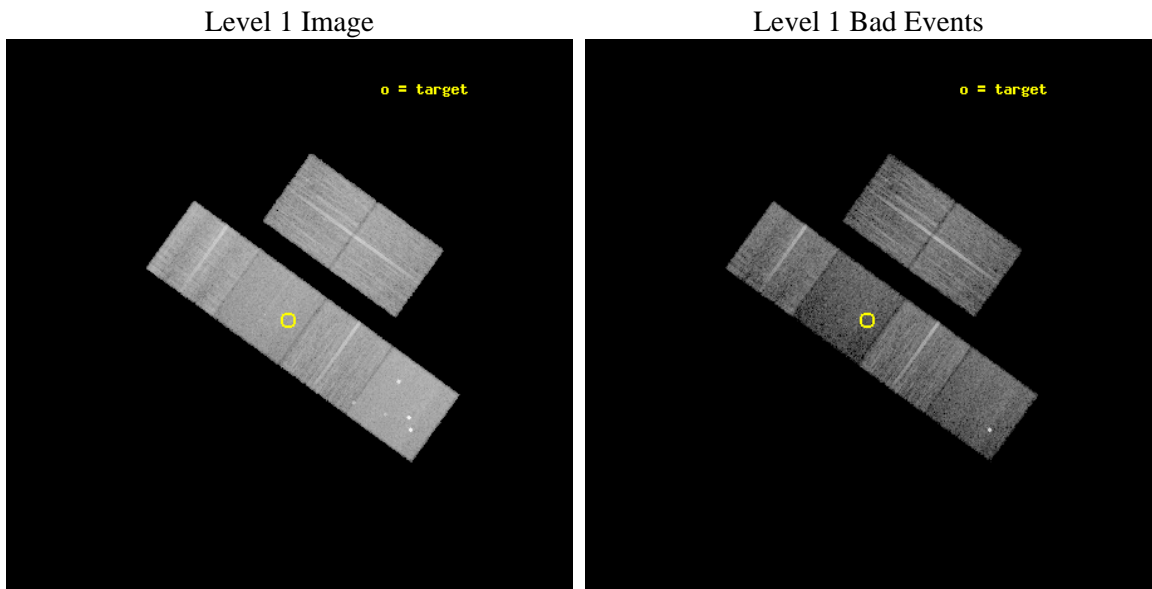
seq_num	501163	Sequence number
obs_id	10707	Observation id
title	Long GRB Jet Breaks	Proposal title
observer	Professor Gordon Garmire	Principal investigator
object	GRB 090102	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	128.244167	Observer's specified target RA [deg]
dec_targ	33.114472	Observer's specified target Dec [deg]
ra_nom	128.24193207083	Nominal RA [deg]
dec_nom	33.109970326662	Nominal Dec [deg]
roll_nom	215.87314691466	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10553.548609674	Sum of GTIs [s]
livetime	10419.913222594	Livetime [s]
ontime2	10553.589649677	Sum of GTIs [s]
ontime3	10553.425489664	Sum of GTIs [s]
ontime5	10553.507569671	Sum of GTIs [s]
ontime6	10553.466529667	Sum of GTIs [s]
ontime7	10553.548609674	Sum of GTIs [s]
ontime8	10553.384449661	Sum of GTIs [s]
l2events	119889	Number of level 2 events



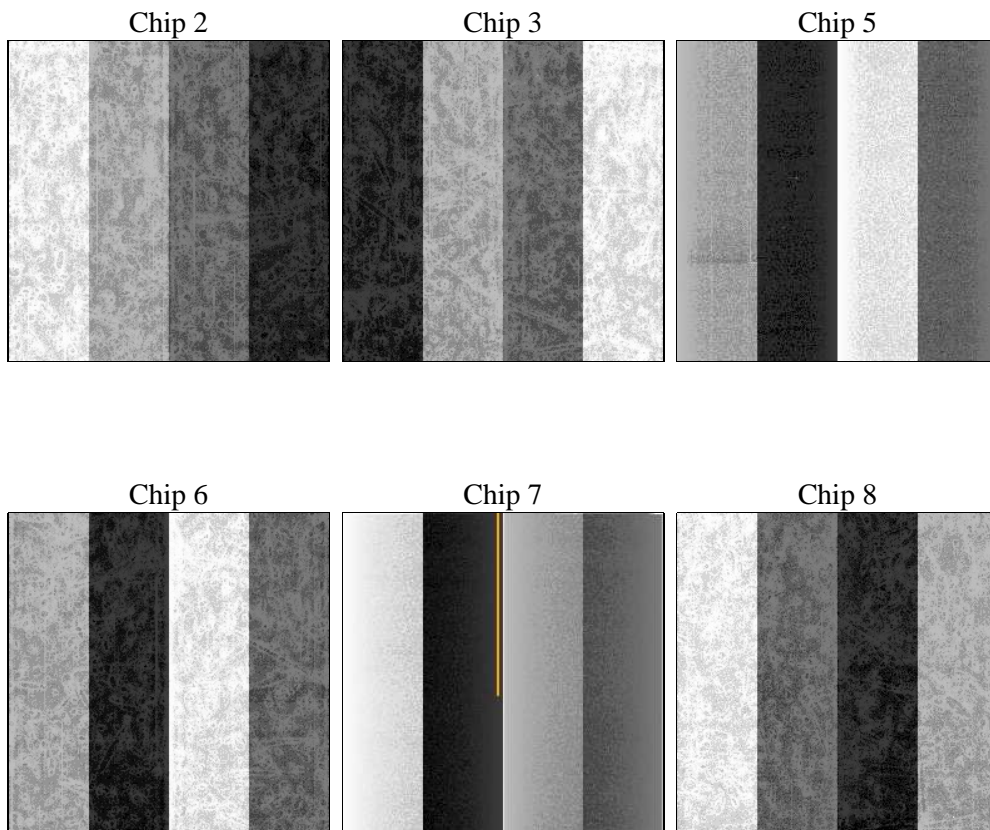
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	10553.548609674	Sum of GTIs [s]
caldbver	4.4.9	&#160	ontime2	10553.589649677	Sum of GTIs [s]
date	2012-06-01T08:50:22	Date and time of file creation	ontime3	10553.425489664	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	10553.507569671	Sum of GTIs [s]
			ontime6	10553.466529667	Sum of GTIs [s]
			ontime7	10553.548609674	Sum of GTIs [s]
			ontime8	10553.384449661	Sum of GTIs [s]
			l1events	550408	Number of level 1 events

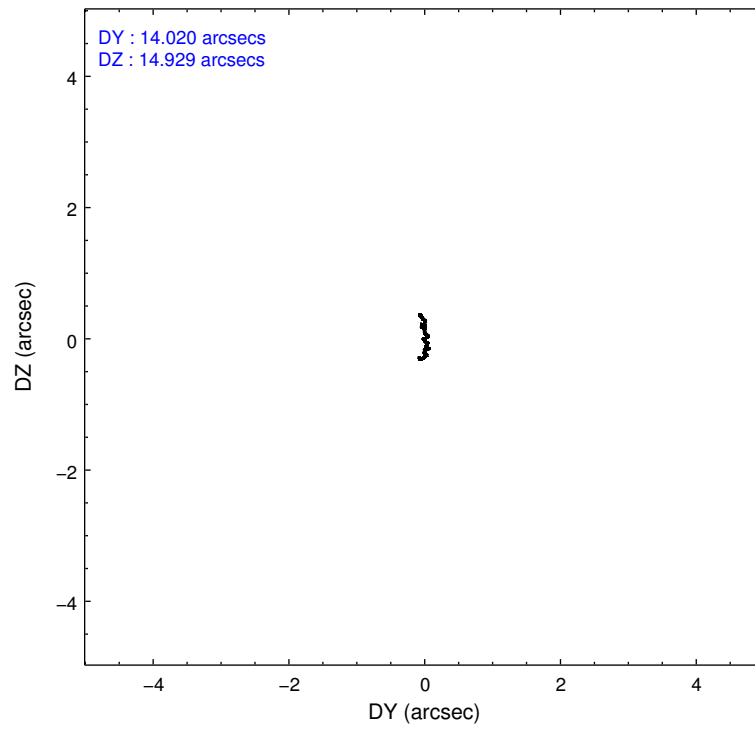
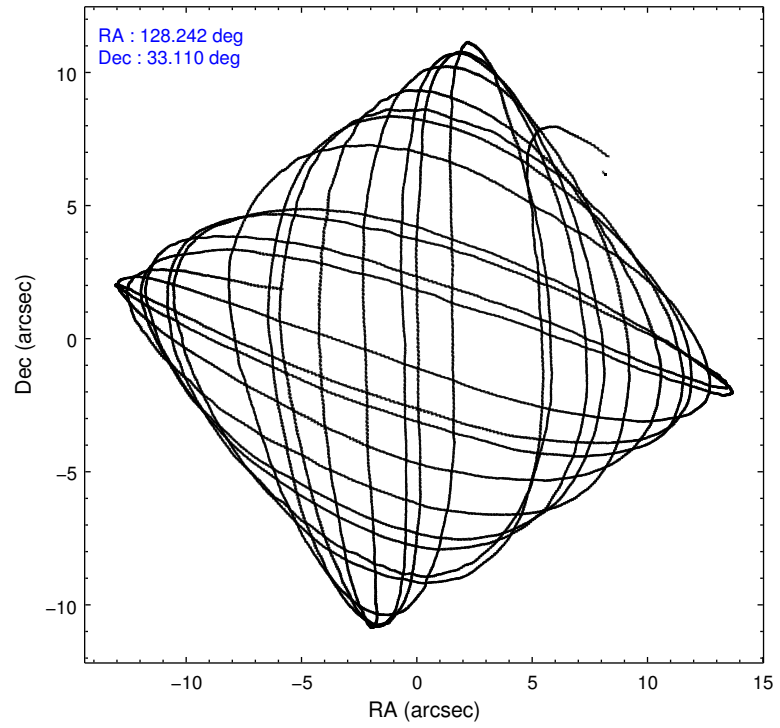
### 2.1.4 Events

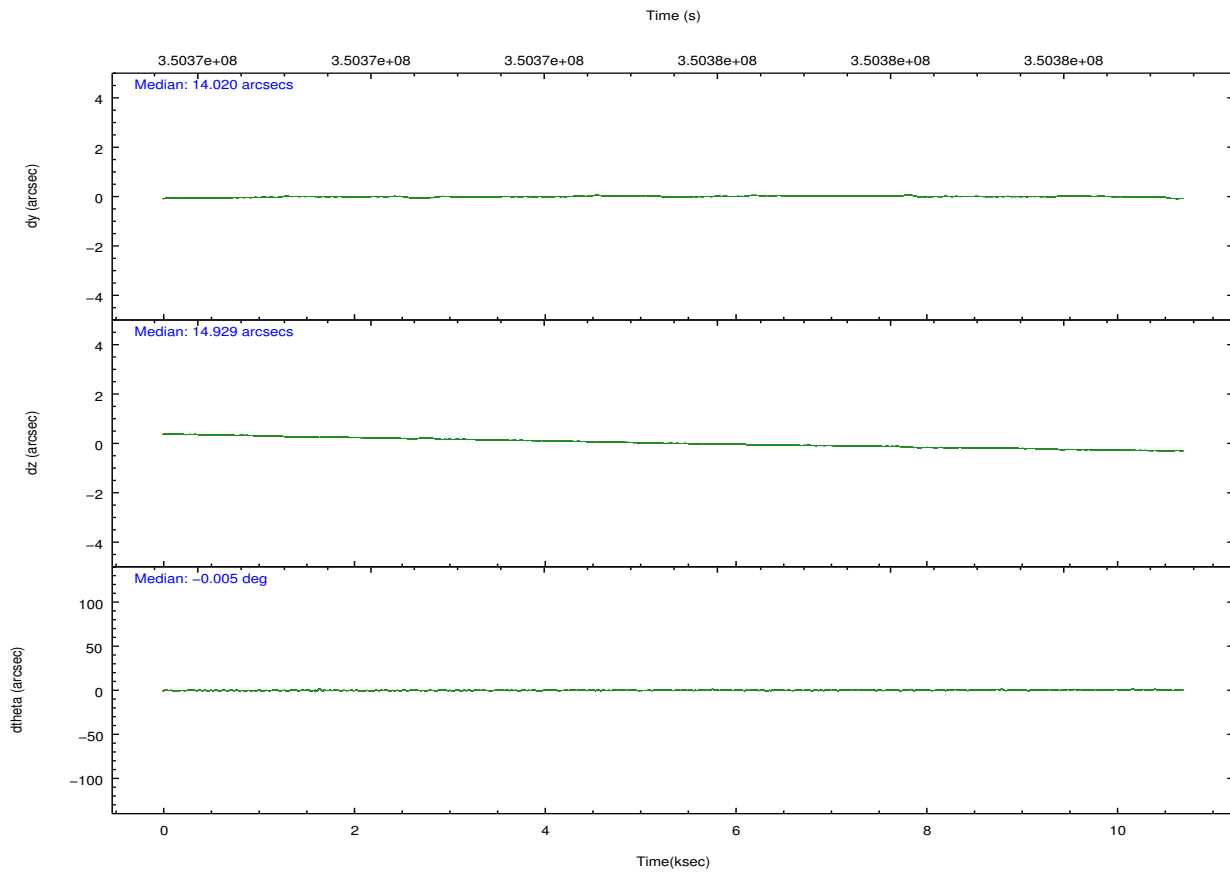
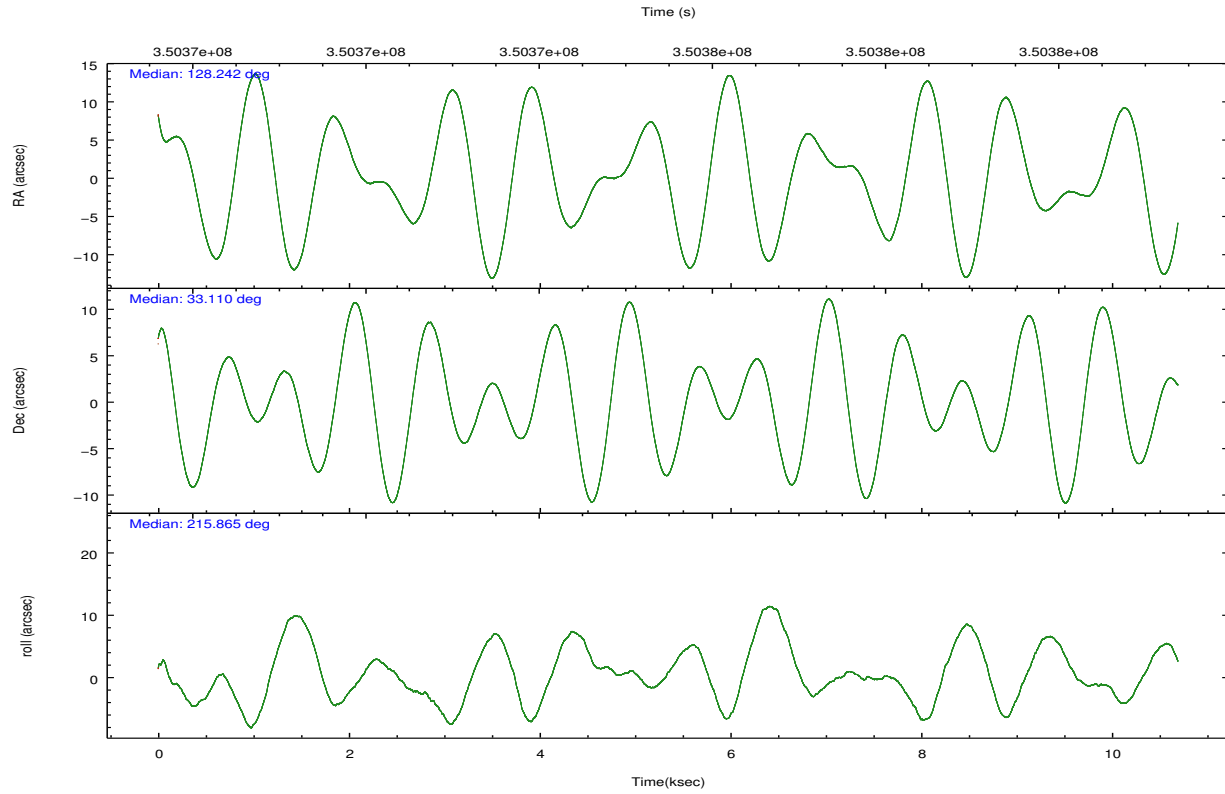
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	86886	83121	112997	84015	80554	102835	grade 0 events	3018	2844	8447	3160	3986	7460
rejected events	78621	75399	52801	75518	40885	75811		3%	3%	7%	3%	4%	7%
rejected %	90%	90%	46%	89%	50%	73%	grade 1 events	52	48	269	38	130	101
								0%	0%	0%	0%	0%	0%
							grade 2 events	2100	1730	18527	1905	8476	6480
								2%	2%	16%	2%	10%	6%
							grade 3 events	831	849	2385	878	3669	2944
								0%	1%	2%	1%	4%	2%
							grade 4 events	893	888	2229	858	3797	2781
								1%	1%	1%	1%	4%	2%
							grade 5 events	2379	2819	8792	2853	8843	4348
								2%	3%	7%	3%	10%	4%
							grade 6 events	1427	1419	28646	1707	19760	7367
								1%	1%	25%	2%	24%	7%
							grade 7 events	76186	72524	43702	72616	31893	71354
								87%	87%	38%	86%	39%	69%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	128.254900	128.2419320708345	CCD I2 on	O2	Y
[deg] Pointing Dec	33.135099	33.10997032666244	CCD I3 on	O3	Y
[deg] Pointing Roll	215.709426	215.8731469146552	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O5	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	O4	Y
[s] Observation start time (MET)	350370328.184000	350369317.2068	CCD S5 on	N	N
Observation start date	2009-02-07T05:04:22	2009-02-07T04:48:37	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	350380828.184000	350381738.66992	On-chip summing requested	N	N
Observation end date	2009-02-07T07:59:22	2009-02-07T08:15:38	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



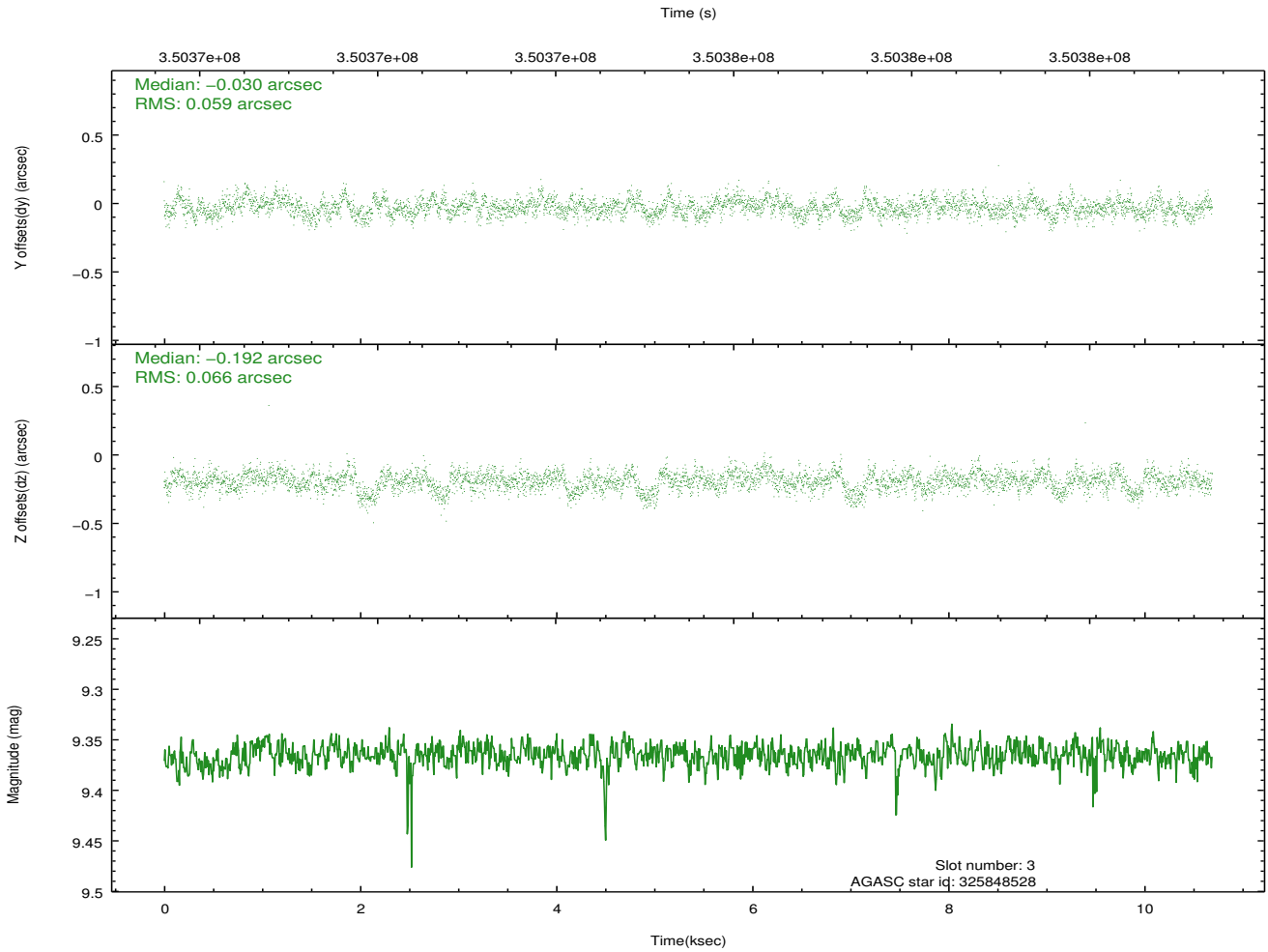
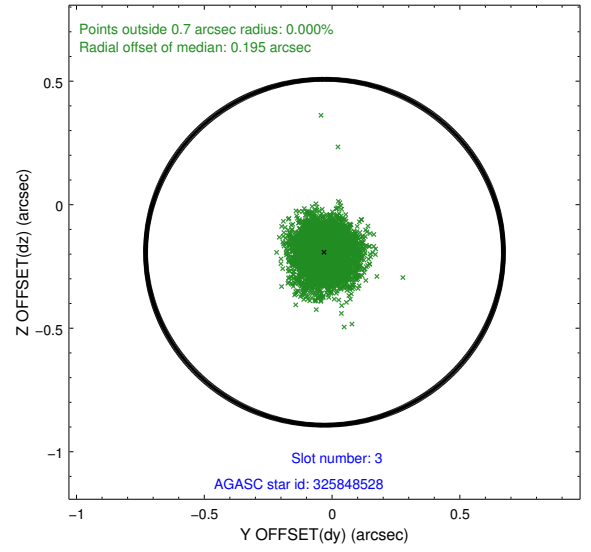
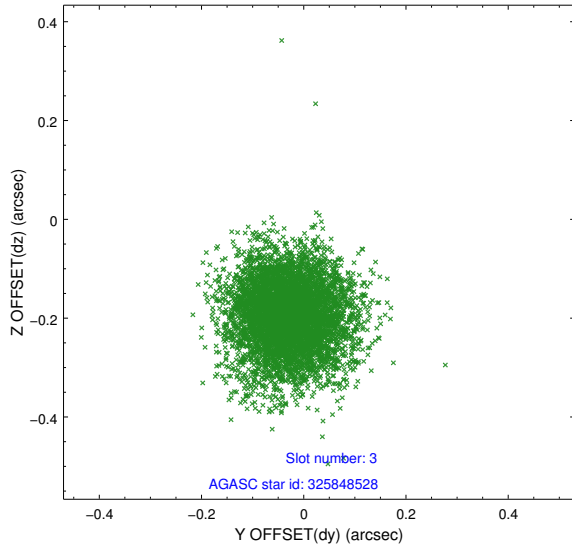


### Slot Statistics

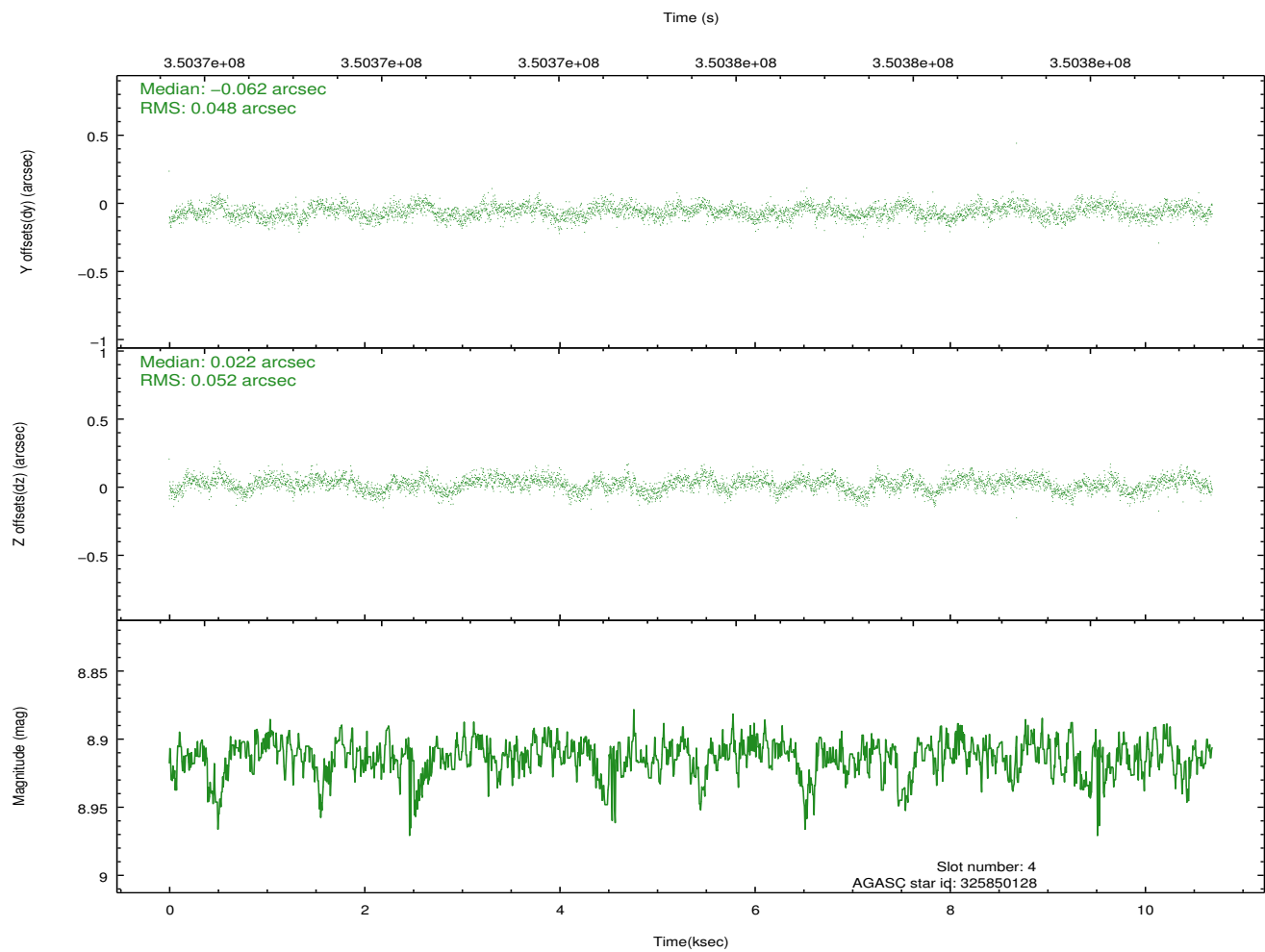
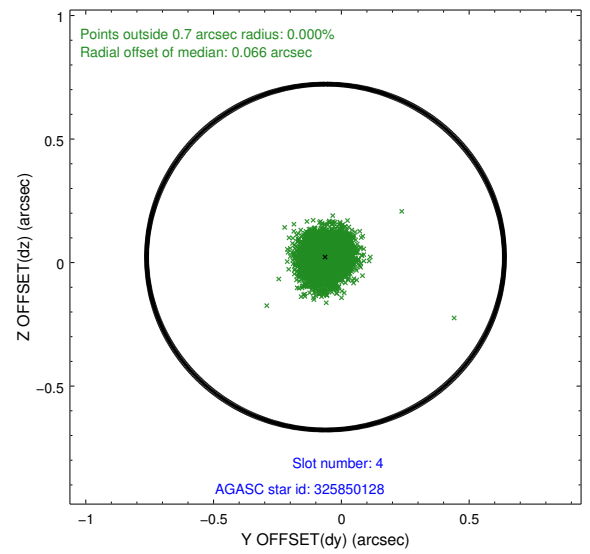
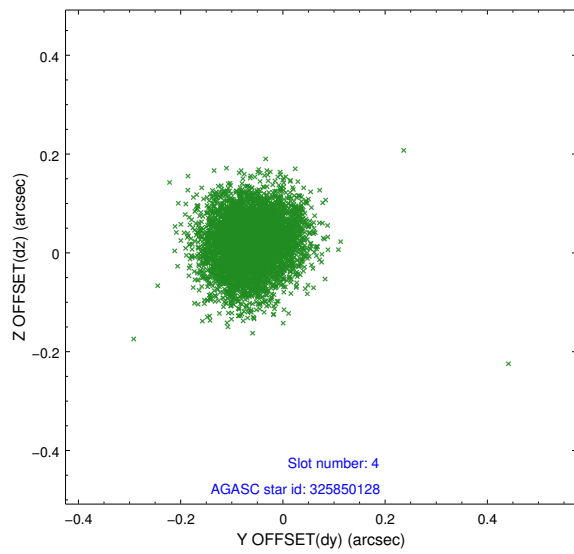
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.91	2608	-0.063	-0.018	0.008	0.013	0.000000	0.000000	-767.00	-1736.30
1	FID	ACIS-S-4	6.99	2608	0.181	0.036	0.006	0.011	0.000000	0.000000	2146.27	171.77
2	FID	ACIS-S-5	7.02	2608	-0.148	-0.009	0.007	0.012	0.000000	0.000000	-1819.33	165.90
3	GUIDE	325848528	9.37	5208	-0.030	-0.192	0.094	0.154	128.890961	32.792079	-845.86	2121.84
4	GUIDE	325850128	8.91	5211	-0.062	0.022	0.075	0.120	128.006537	33.170352	532.89	-539.63
5	GUIDE	325854112	9.18	5211	0.051	0.131	0.091	0.143	128.739587	32.919099	-737.36	1484.01
6	GUIDE	325858584	9.78	5214	-0.083	0.088	0.127	0.218	128.398281	33.840775	-1829.92	-1812.41
7	GUIDE	325859552	9.63	5203	0.121	-0.047	0.116	0.181	128.318446	33.774353	-1497.54	-1757.83

## 2.4 Star Slots

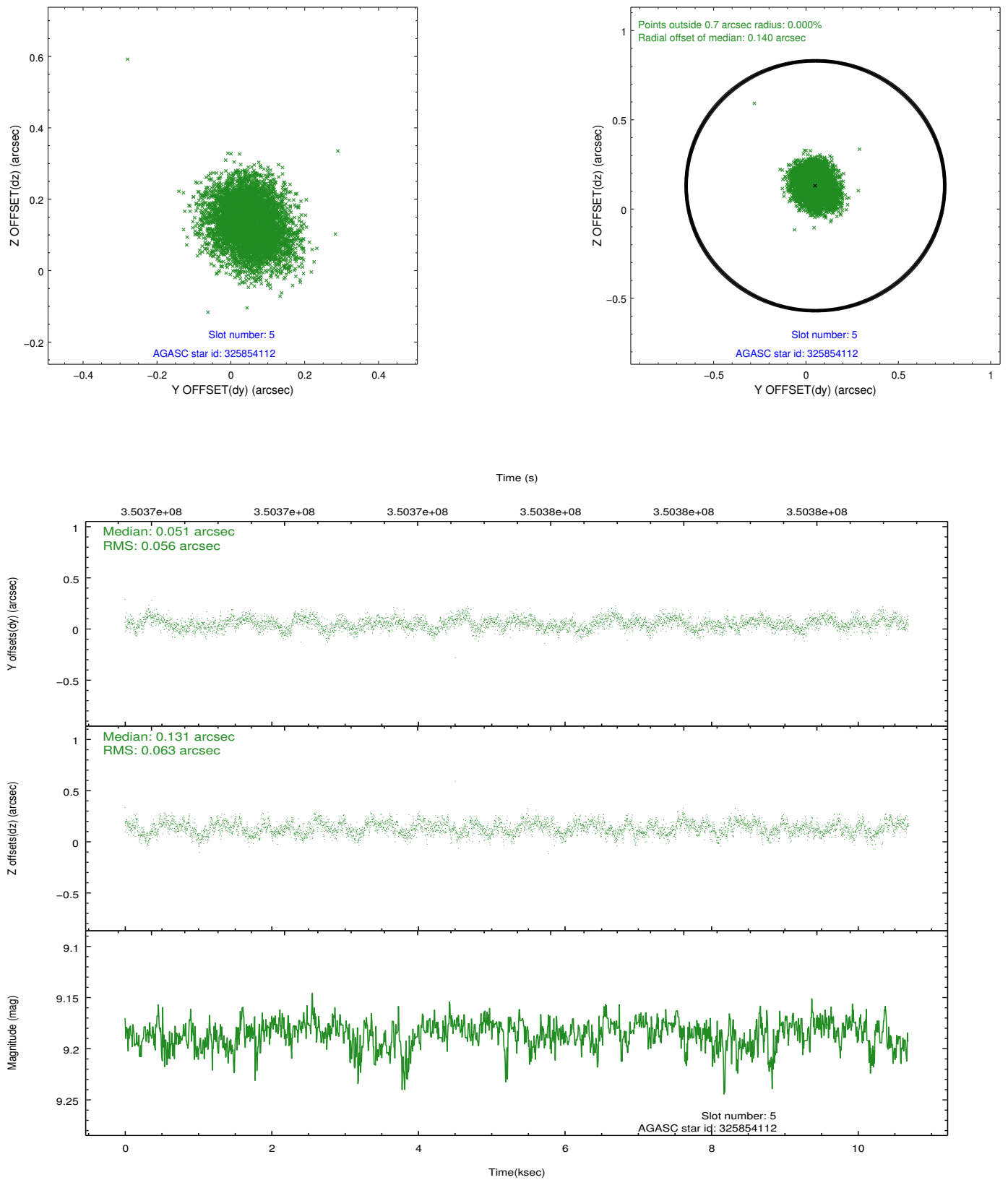
### 2.4.1 Slot 3



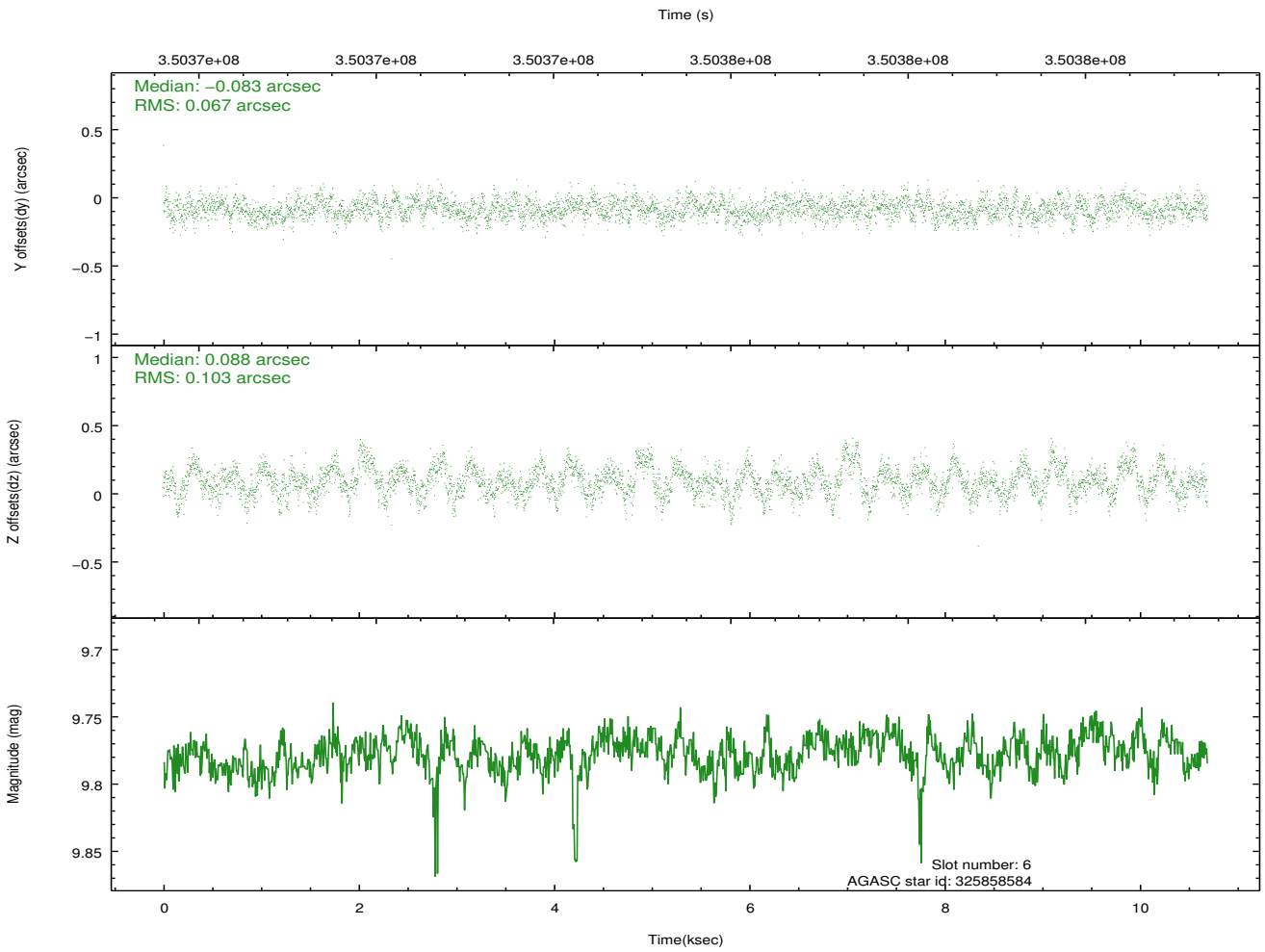
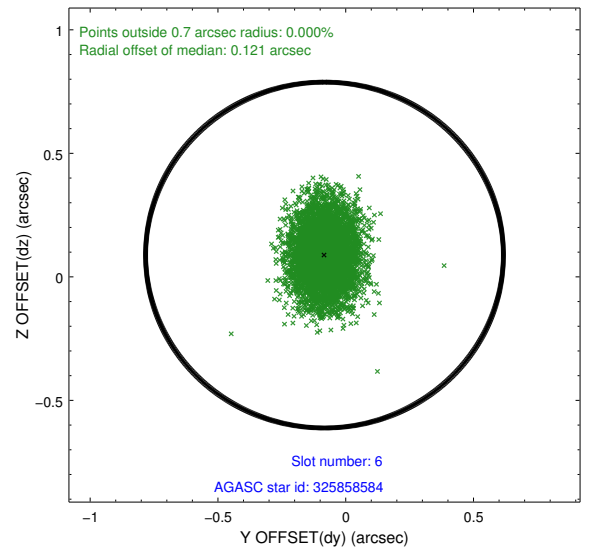
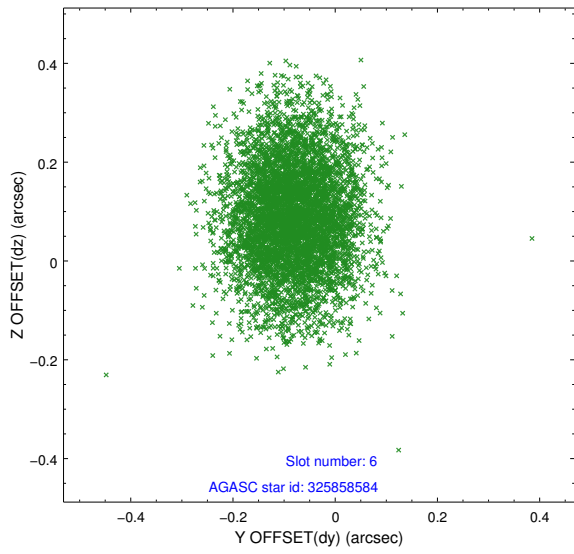
## 2.4.2 Slot 4



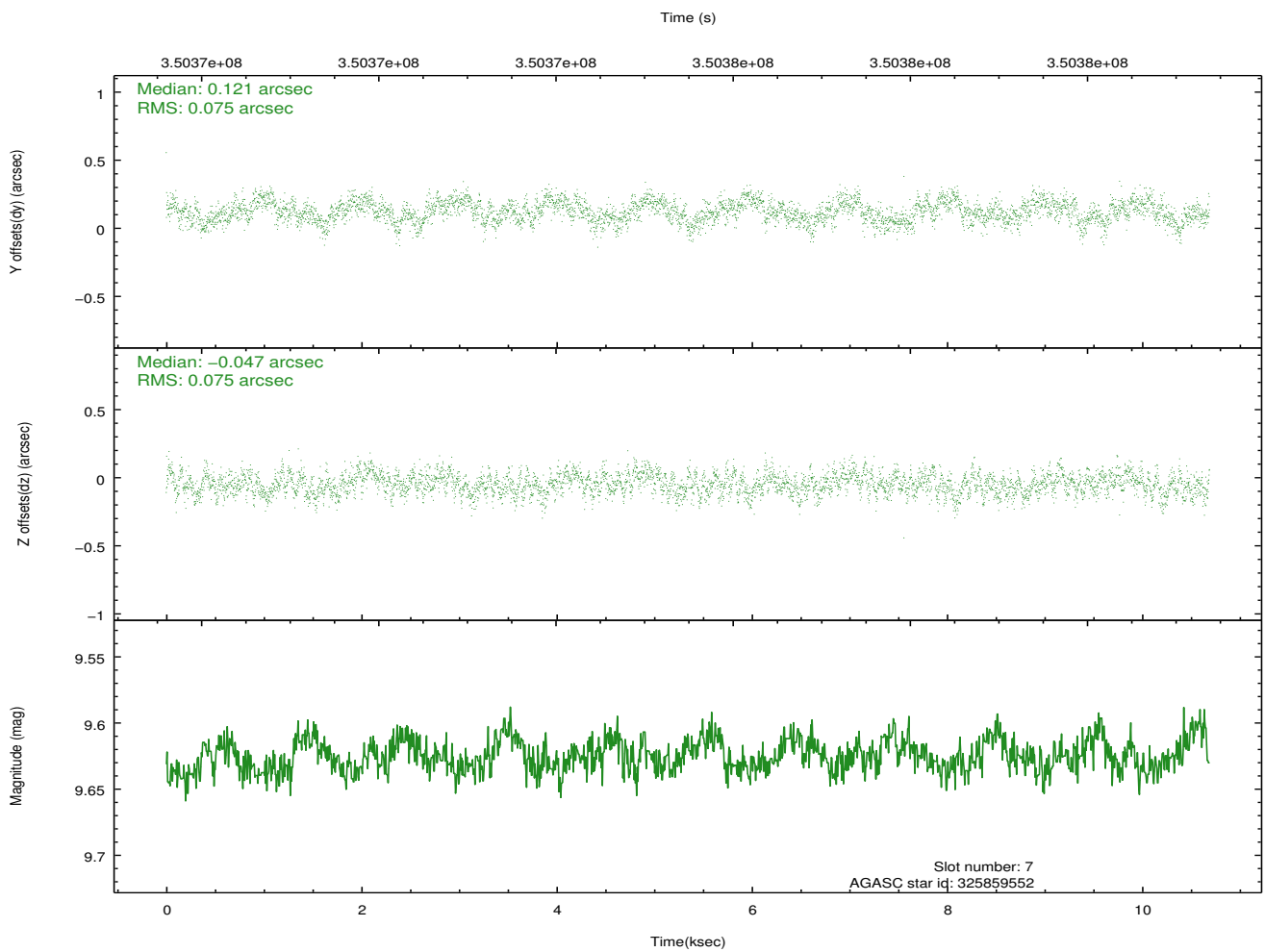
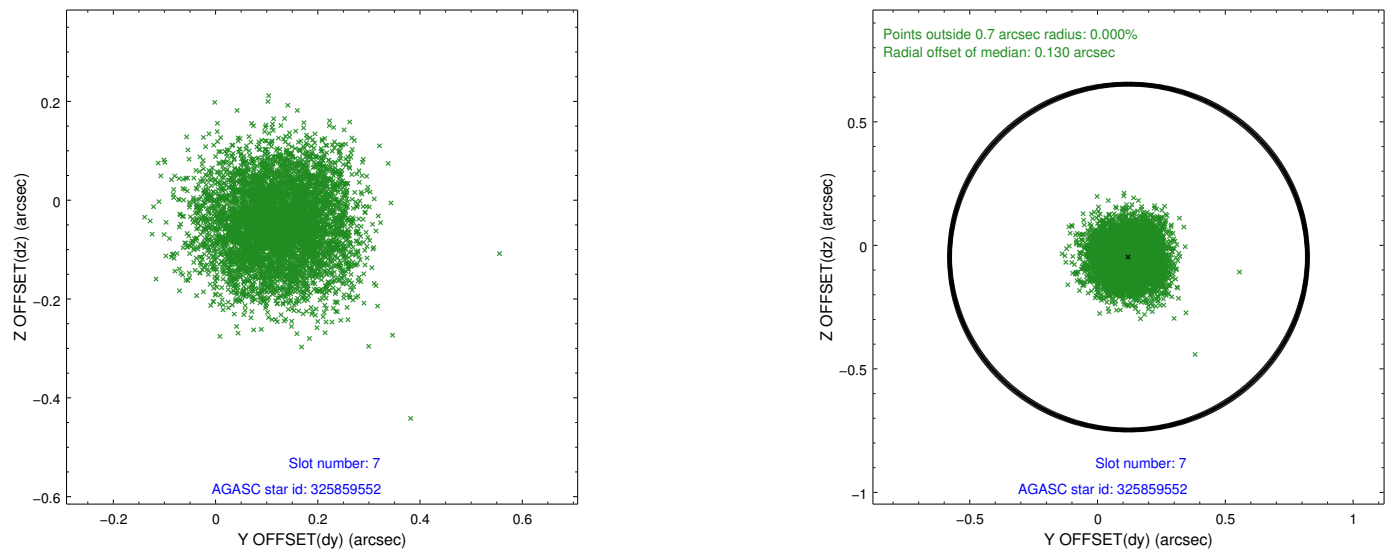
### 2.4.3 Slot 5



### 2.4.4 Slot 6

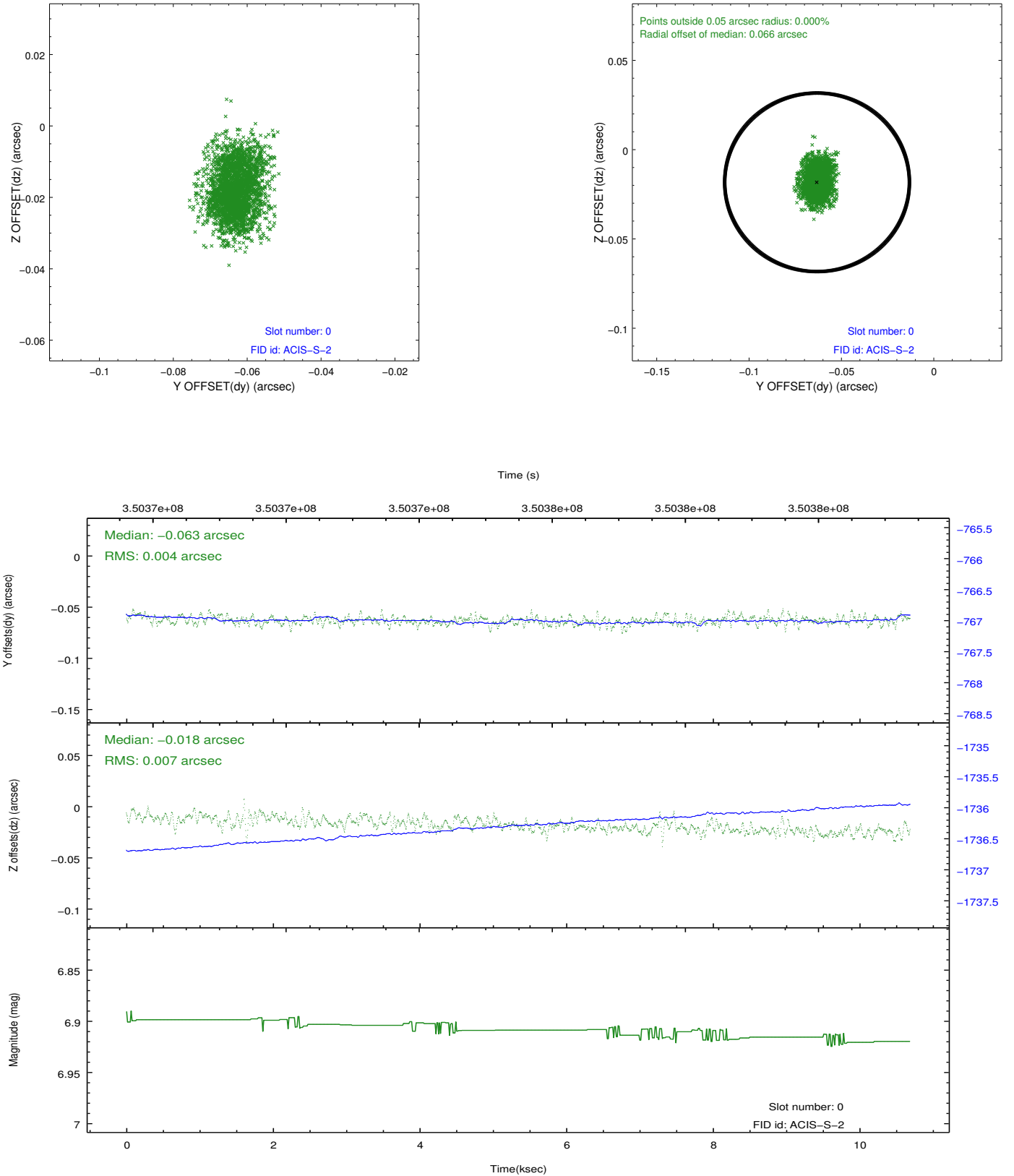


## 2.4.5 Slot 7

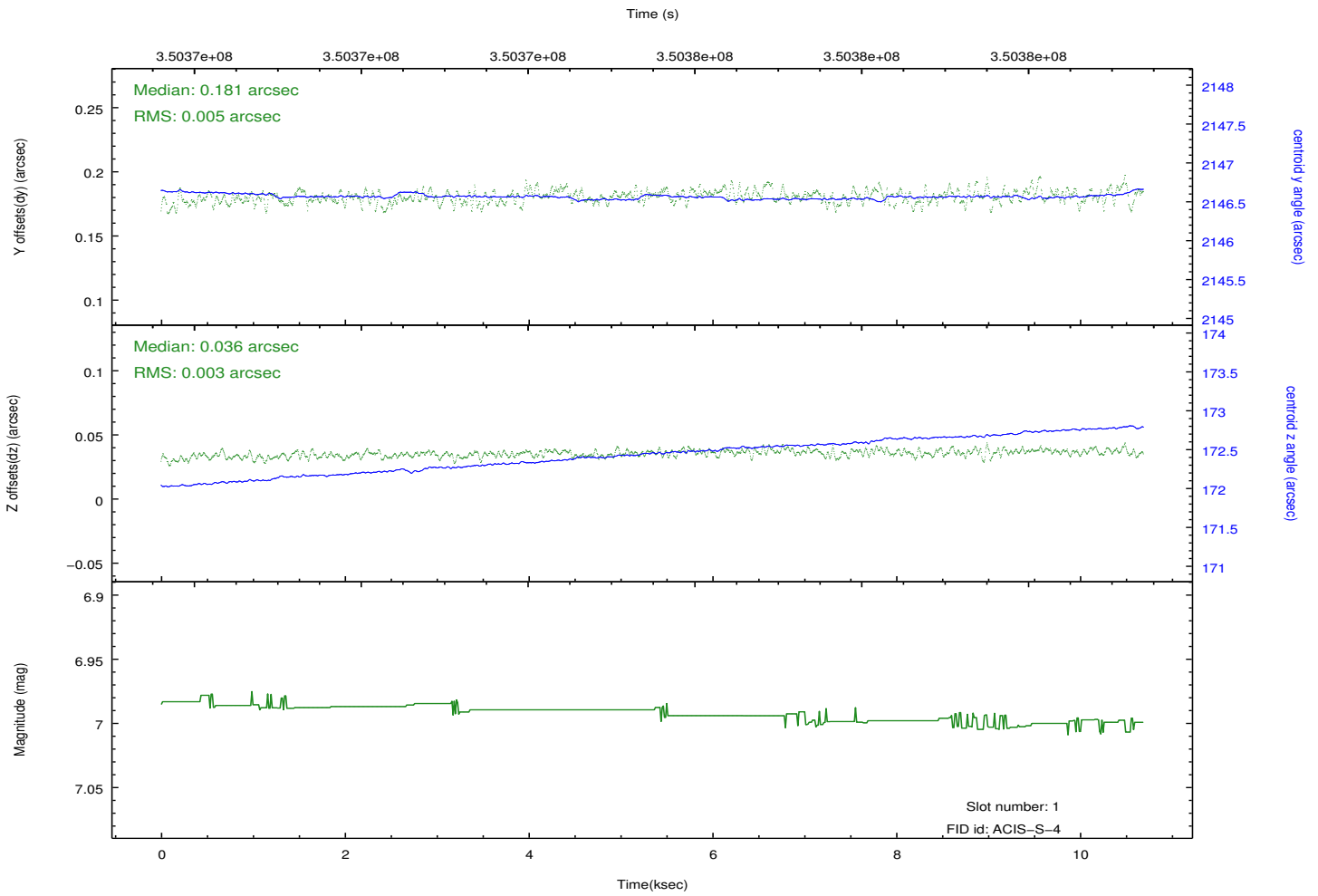
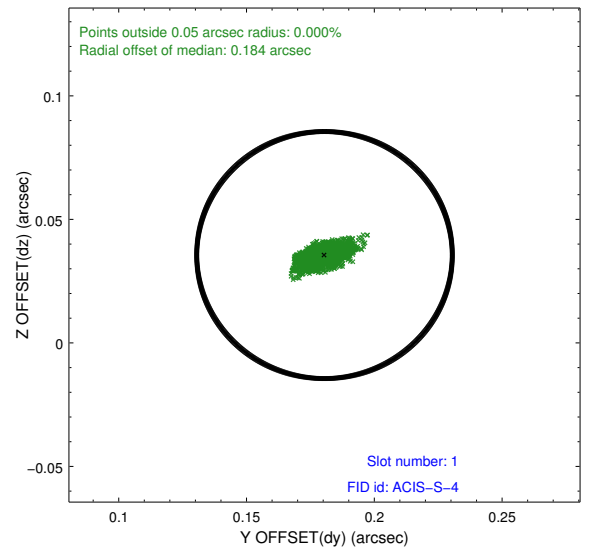
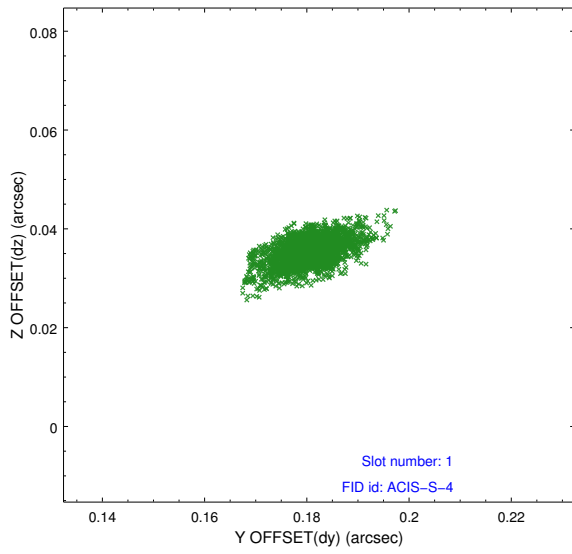


## 2.5 FID Slots

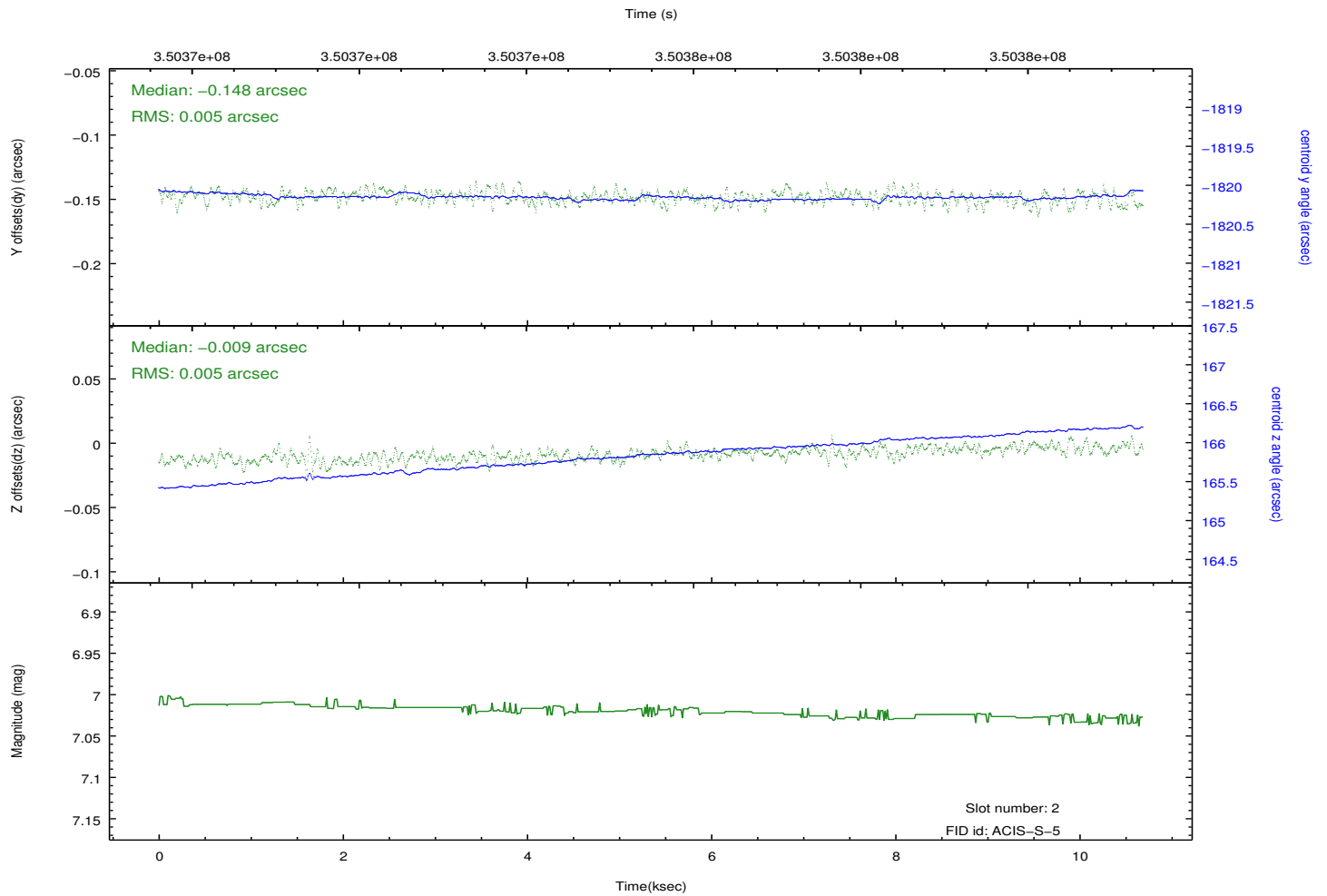
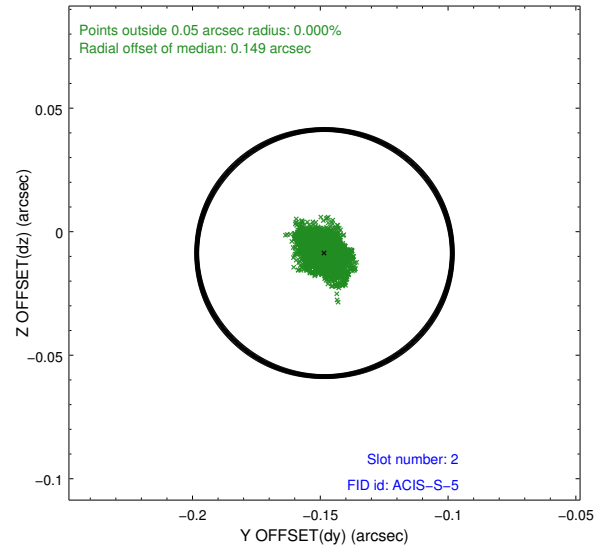
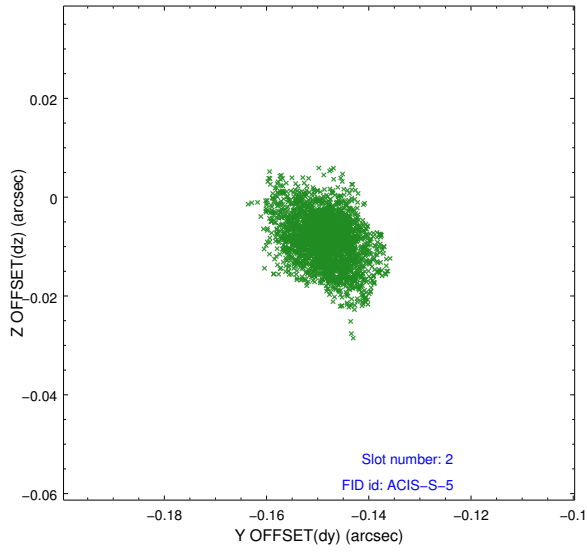
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.06.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.5535999

### A.2 Comments