

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 9432 - L2 Version 2  
Chandra X-Ray Center

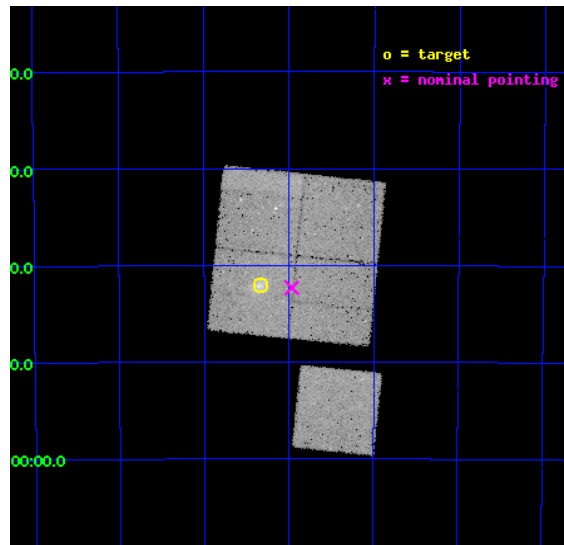
L2 Processing Date : Jun 8 2012

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# 1 Front

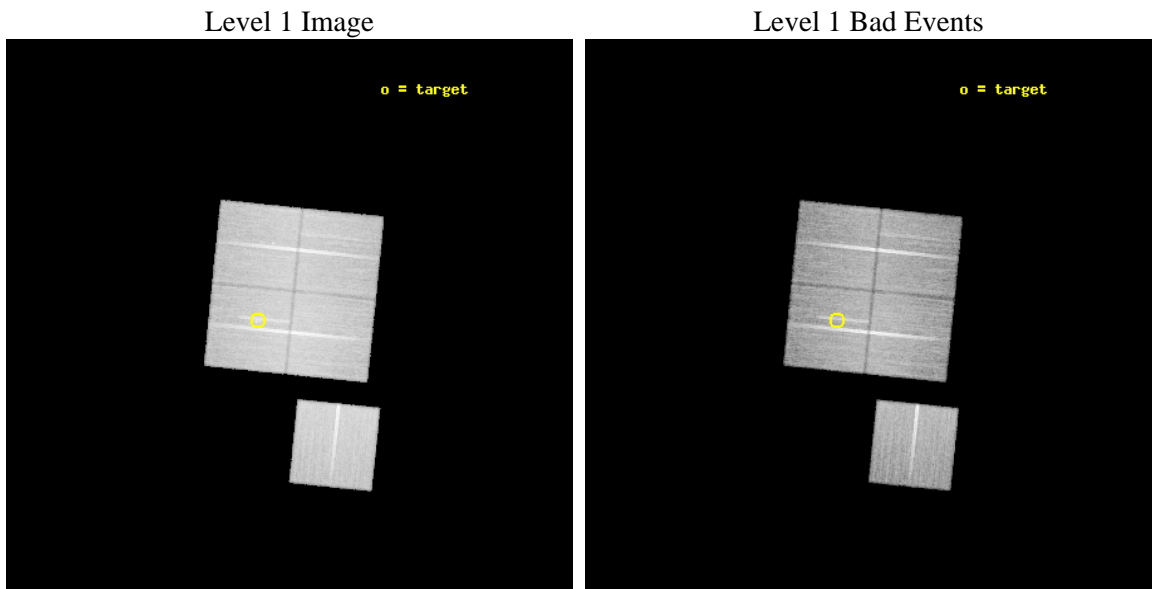
seq_num	800768	Sequence number
obs_id	9432	Observation id
title	South Pole Telescope (SPT) - Chandra Cluster Cosmology	Proposal ti
observer	Dr. Stephen Murray	Principal investigator
object	SPT-CL 0509-5342	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	77.333	Observer's specified target RA [deg]
dec_targ	-53.702	Observer's specified target Dec [deg]
ra_nom	77.241301094725	Nominal RA [deg]
dec_nom	-53.705628090917	Nominal Dec [deg]
roll_nom	185.81651119686	Nominal Roll [deg]
revision	2	Processing version of data
ontime	29174.059283972	Sum of GTIs [s]
livetime	28792.878721797	Livetime [s]
ontime0	29170.918293715	Sum of GTIs [s]
ontime1	29167.777273655	Sum of GTIs [s]
ontime2	29170.918263733	Sum of GTIs [s]
ontime3	29174.059283972	Sum of GTIs [s]
ontime6	29174.05925411	Sum of GTIs [s]
l2events	113631	Number of level 2 events



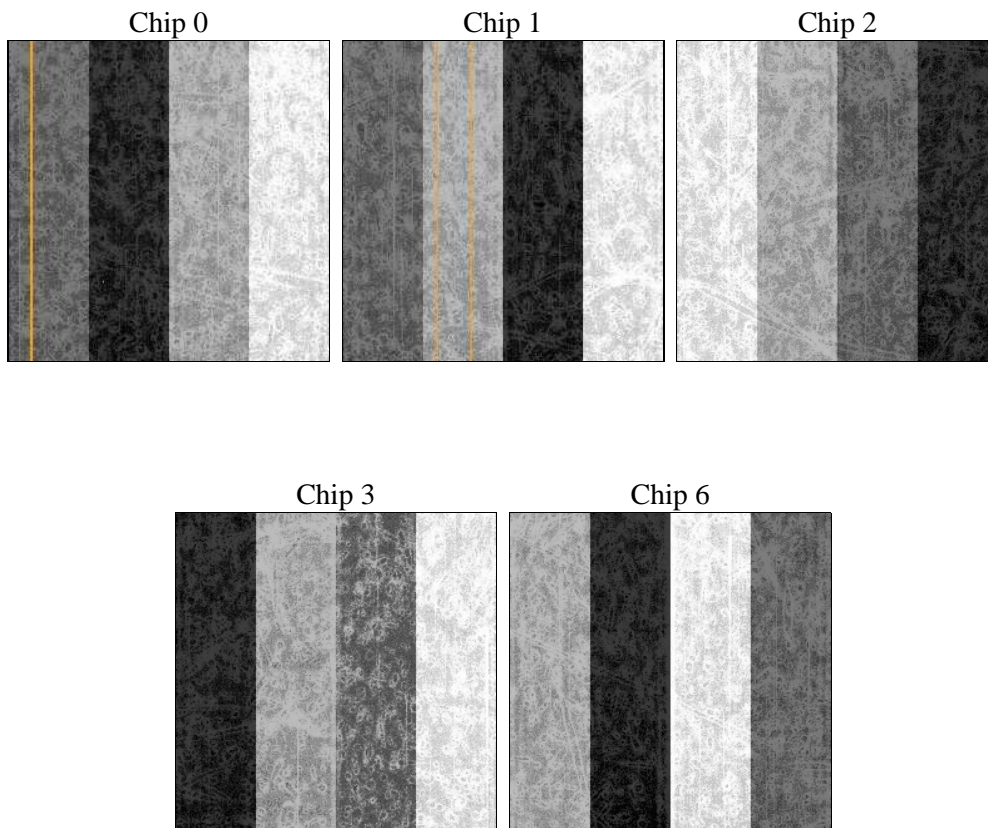
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	29174.059283972	Sum of GTIs [s]
caldbver	4.4.10	&#160	ontime0	29170.918293715	Sum of GTIs [s]
date	2012-06-08T07:14:28	Date and time of file creation	ontime1	29167.777273655	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	29170.918263733	Sum of GTIs [s]
			ontime3	29174.059283972	Sum of GTIs [s]
			ontime6	29174.05925411	Sum of GTIs [s]
			l1events	1258137	Number of level 1 events

### 2.1.4 Events

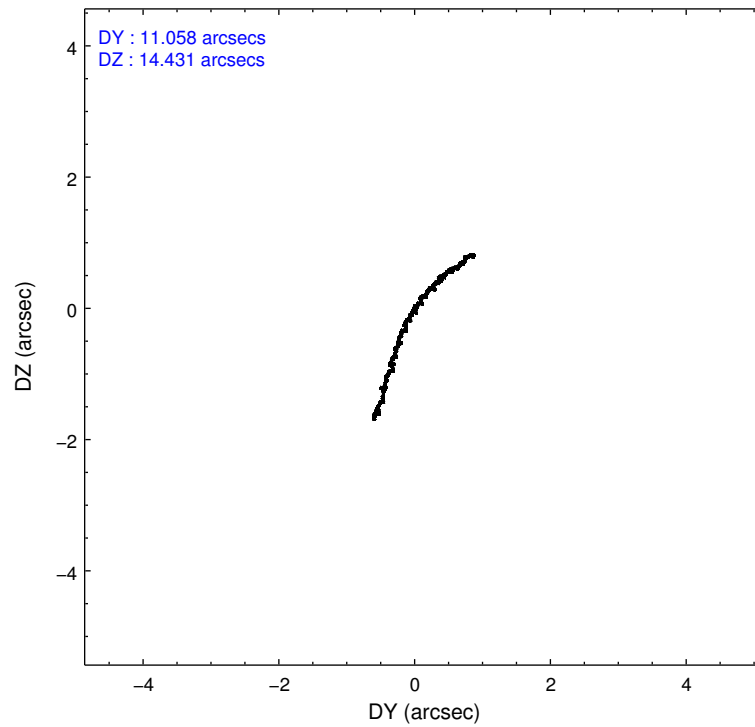
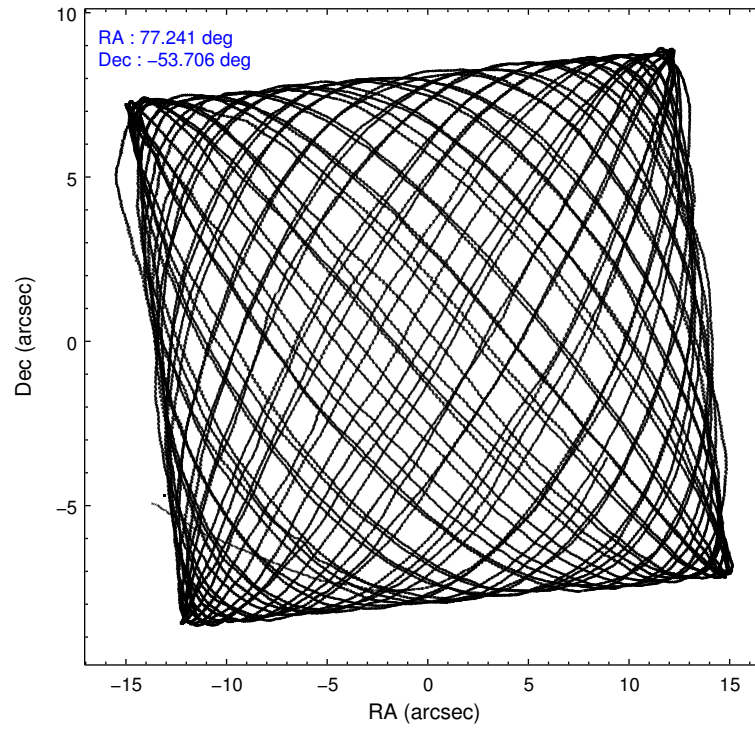
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	236775	239661	265968	253934	261799
rejected events	210559	209963	240316	225953	235188
rejected %	88%	87%	90%	88%	89%

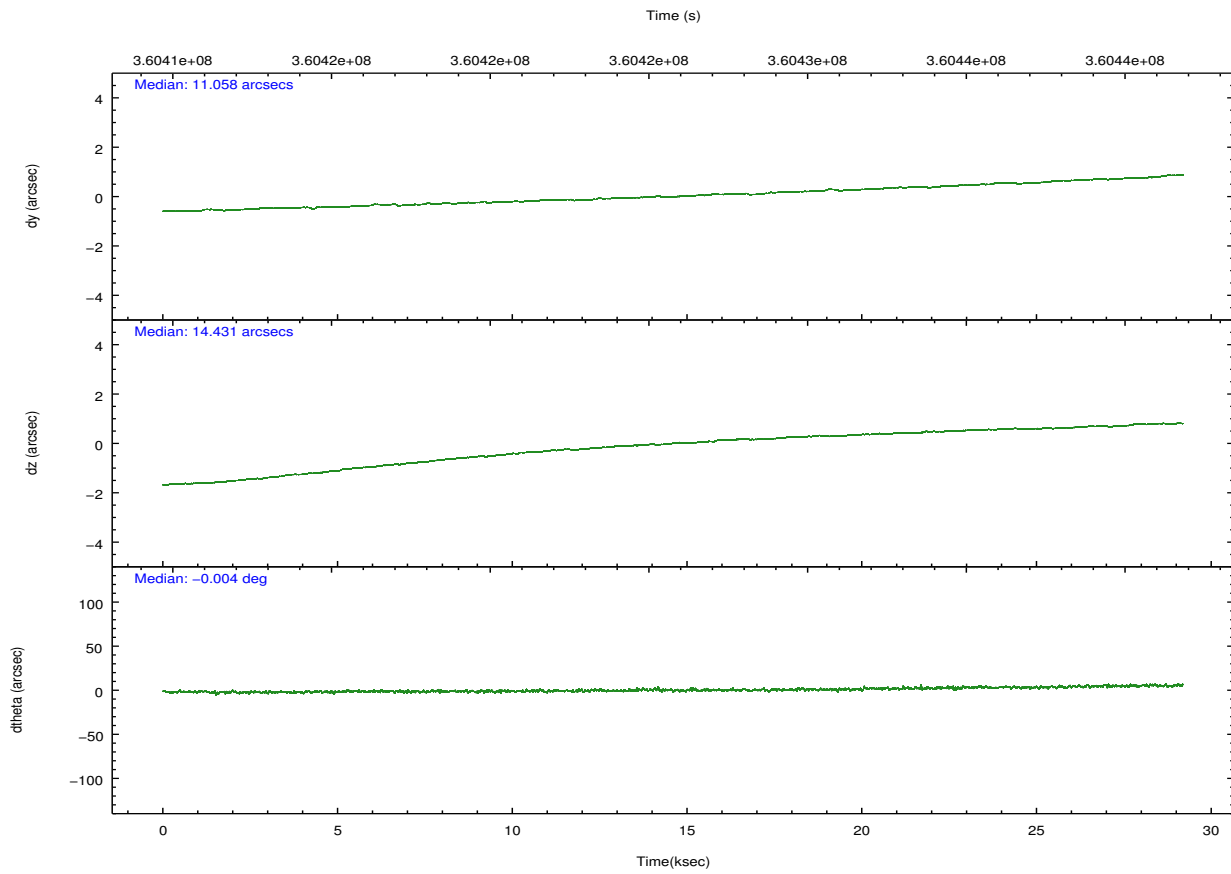
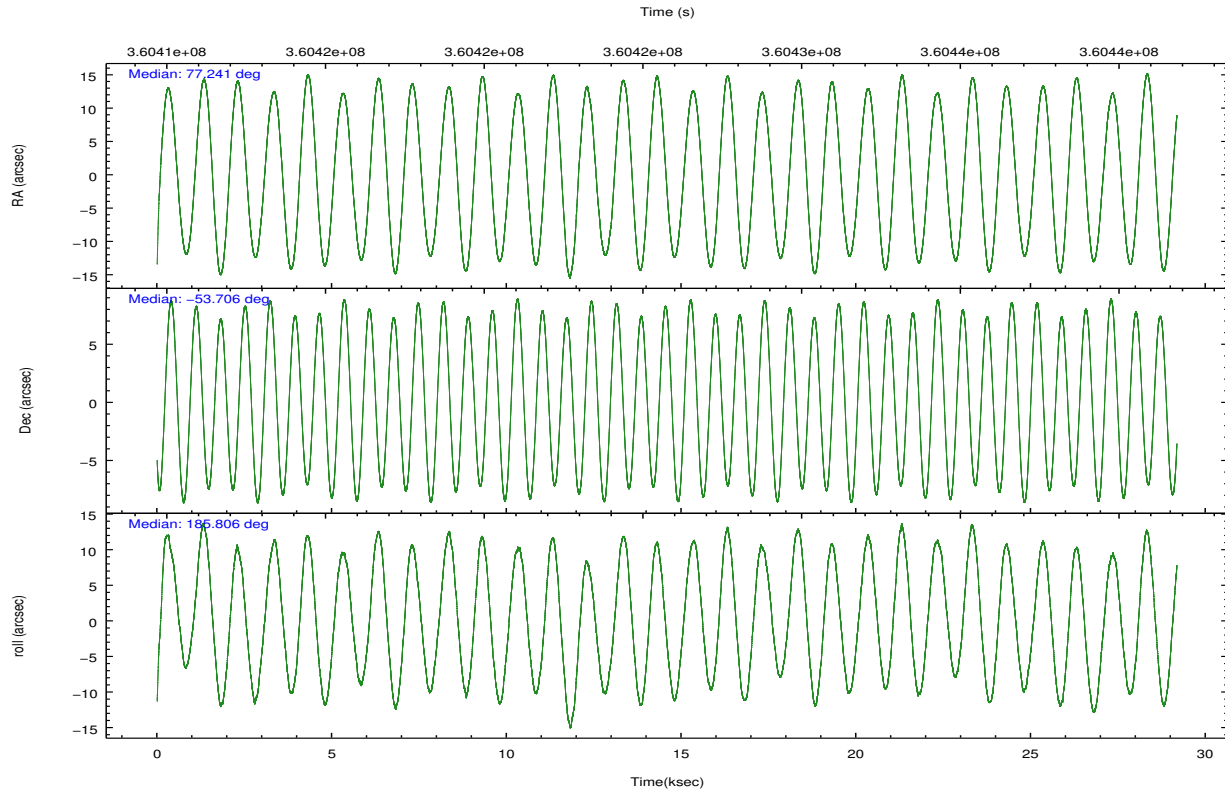
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	9154	10826	9048	11372	9198
	3%	4%	3%	4%	3%
grade 1 events	159	138	152	178	132
	0%	0%	0%	0%	0%
grade 2 events	6536	6852	6259	5694	5935
	2%	2%	2%	2%	2%
grade 3 events	2872	3017	2683	2944	2951
	1%	1%	1%	1%	1%
grade 4 events	2634	3013	2790	2868	2831
	1%	1%	1%	1%	1%
grade 5 events	9262	10113	9099	10584	10297
	3%	4%	3%	4%	3%
grade 6 events	5060	6020	4927	5122	5720
	2%	2%	1%	2%	2%
grade 7 events	201098	199682	231010	215172	224735
	84%	83%	86%	84%	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	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	77.278849	77.24130109472519	CCD I2 on	Y	Y
[deg] Pointing Dec	-53.689428	-53.70562809091653	CCD I3 on	Y	Y
[deg] Pointing Roll	185.638091	185.8165111968639	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-225.840463	-225.8433433320239	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.752	-7.749109670905796	CCD S4 on	N	N
[s] Observation start time (MET)	360411359.184000	360410349.93112	CCD S5 on	N	N
Observation start date	2009-06-03T10:14:53	2009-06-03T09:59:09	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	360440359.184000	360440889.80764	On-chip summing requested	N	N
Observation end date	2009-06-03T18:18:13	2009-06-03T18:28:09	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



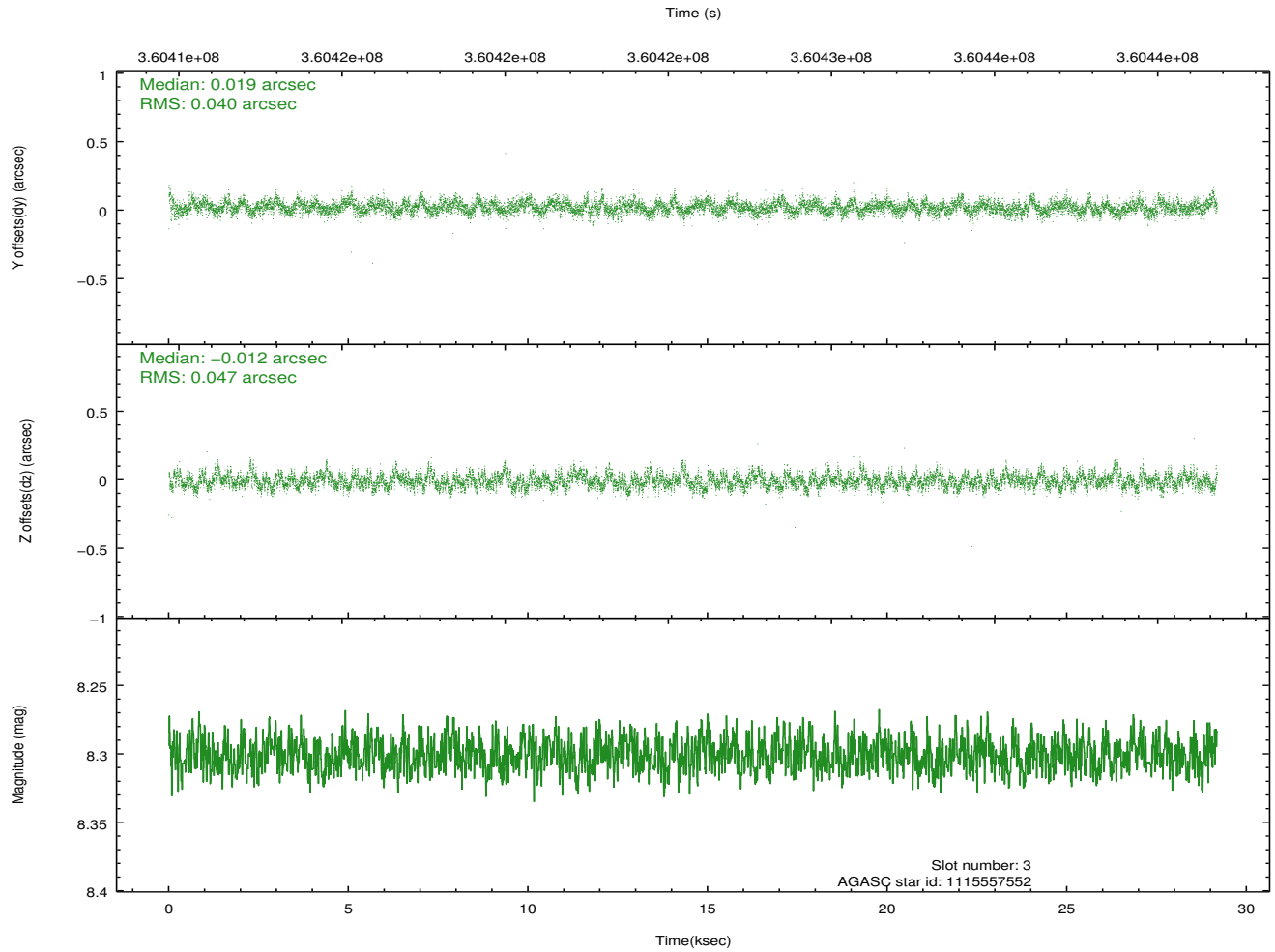
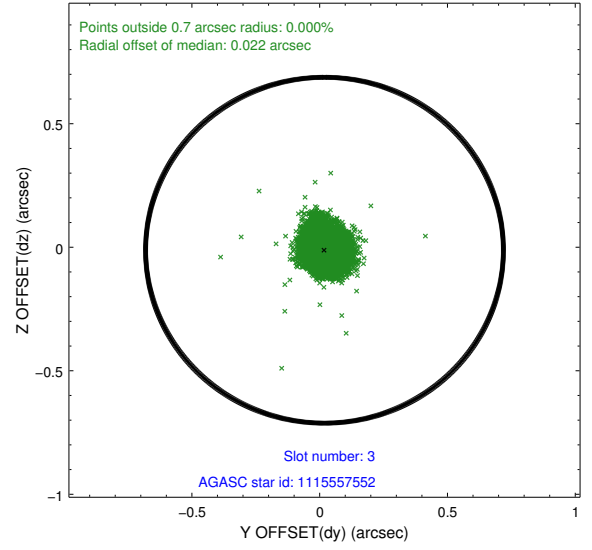
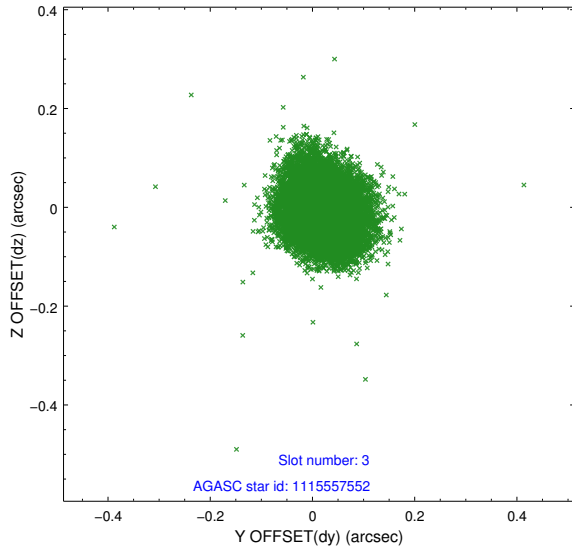


### Slot Statistics

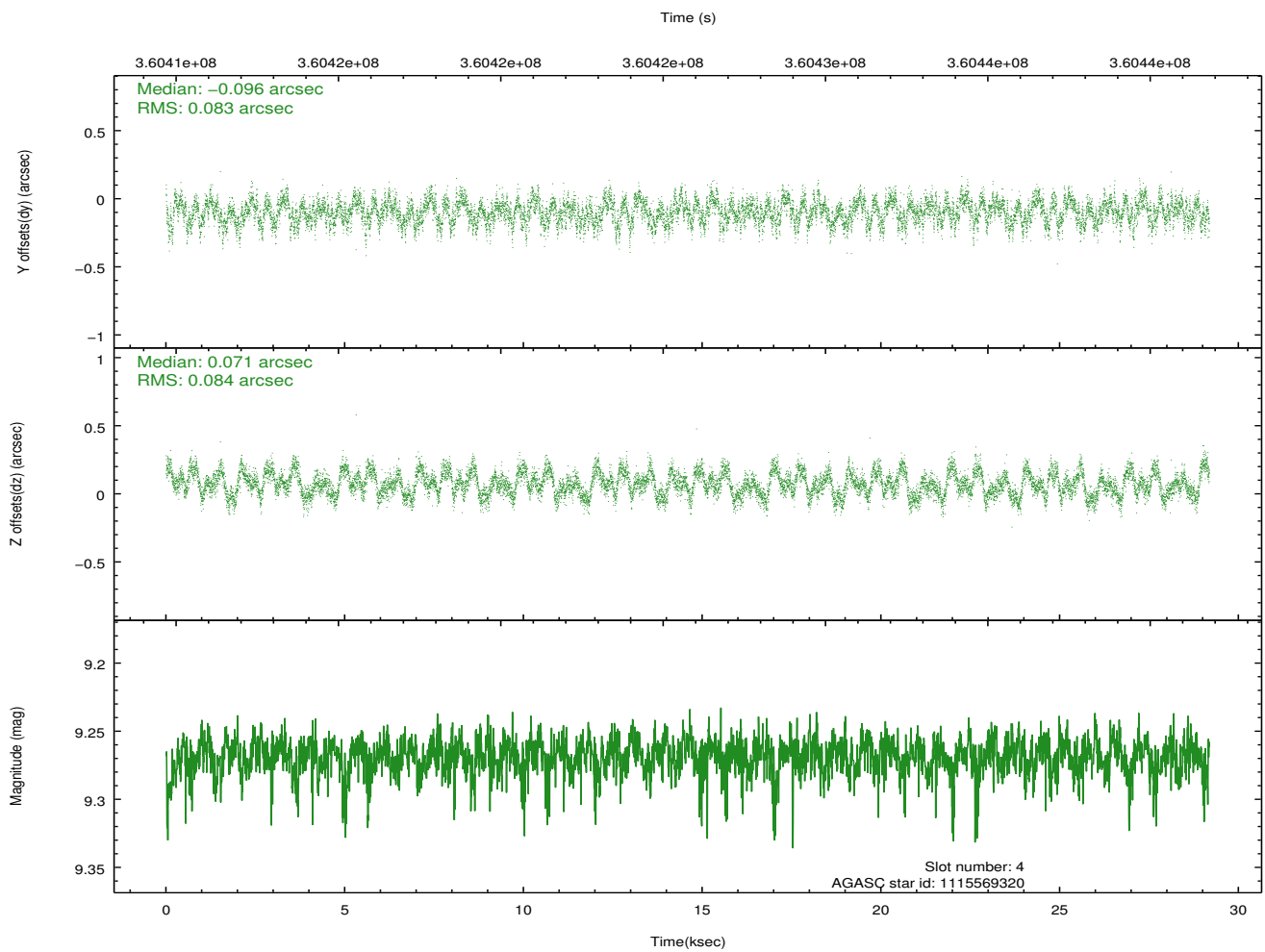
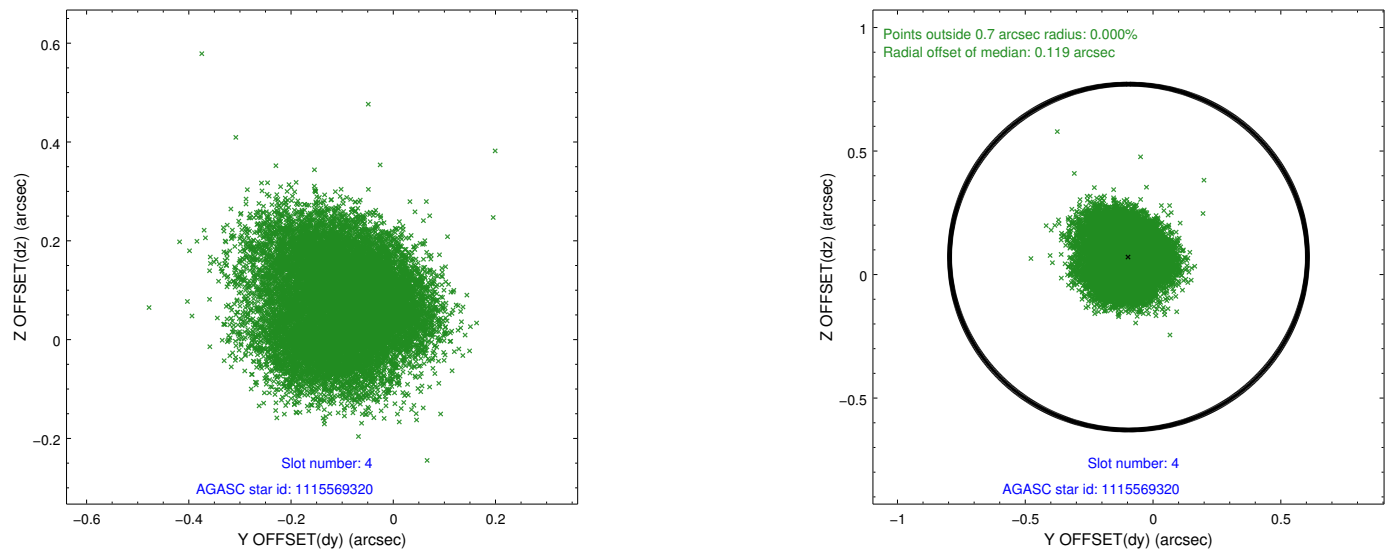
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.03	7117	0.092	-0.066	0.014	0.038	0.000000	0.000000	928.45	-996.94
1	FID	ACIS-I-2	6.98	7118	-0.211	0.019	0.013	0.027	0.000000	0.000000	-766.31	-1002.39
2	FID	ACIS-I-4	6.93	7117	0.021	0.114	0.012	0.019	0.000000	0.000000	2147.71	904.00
3	GUIDE	1115557552	8.30	14227	0.019	-0.012	0.065	0.105	77.788660	-53.887810	-1005.82	820.65
4	GUIDE	1115569320	9.27	14217	-0.096	0.071	0.129	0.197	76.358000	-53.275739	1827.98	-1663.67
5	GUIDE	1115569848	8.70	14233	-0.014	0.129	0.073	0.120	76.809785	-54.221338	1170.84	1811.96
6	GUIDE	1115570568	8.08	14235	-0.018	0.126	0.093	0.140	76.912461	-53.557310	733.63	-548.57
7	GUIDE	1115562408	8.95	14225	0.119	-0.314	0.084	0.137	77.459775	-54.316782	-156.21	2284.95

## 2.4 Star Slots

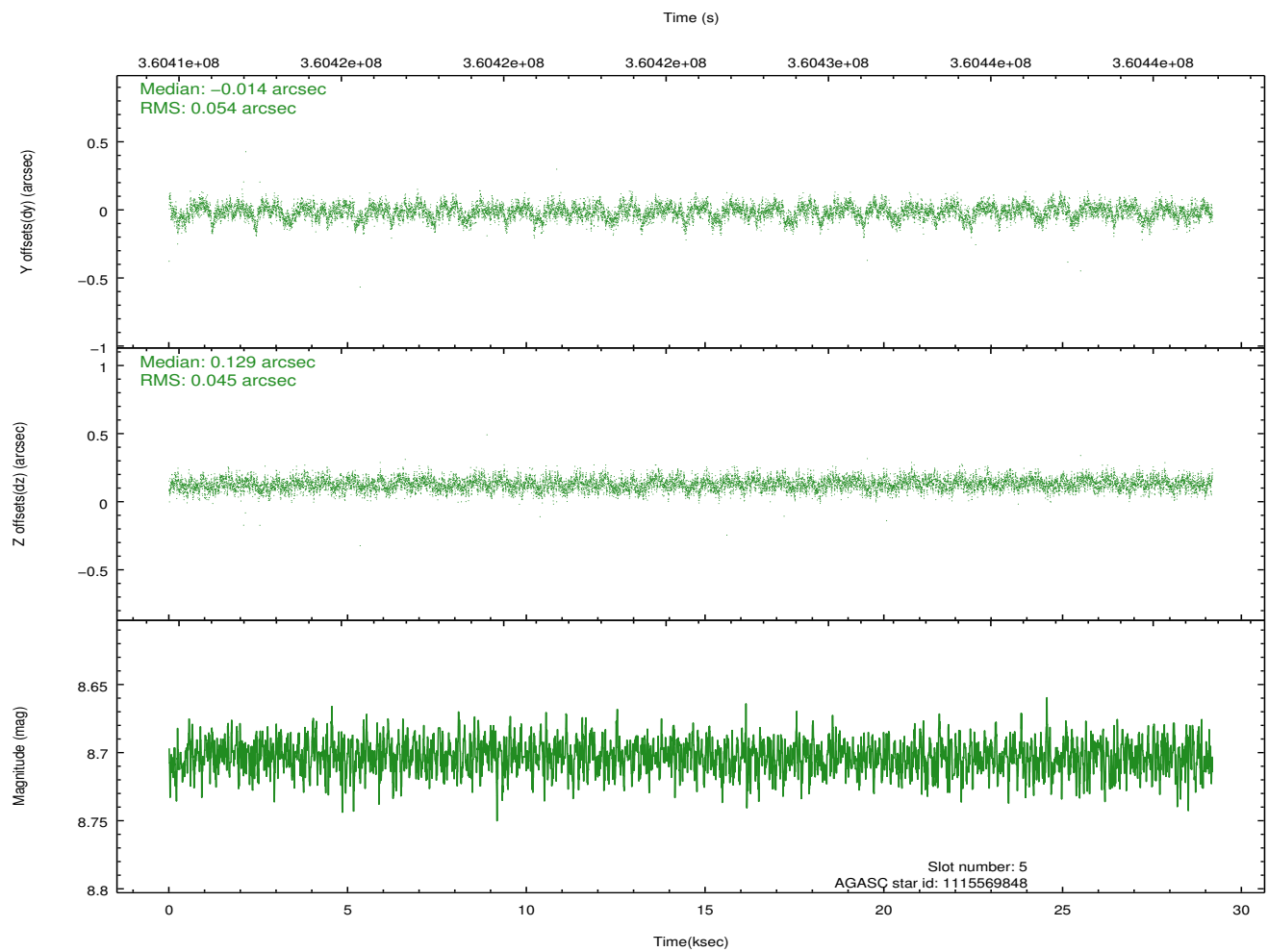
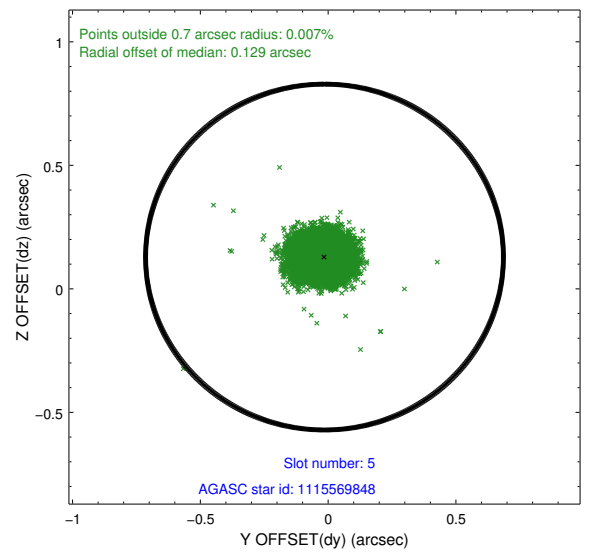
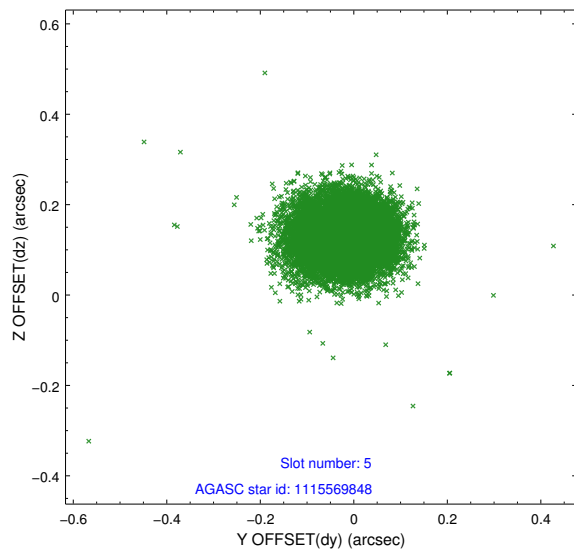
### 2.4.1 Slot 3



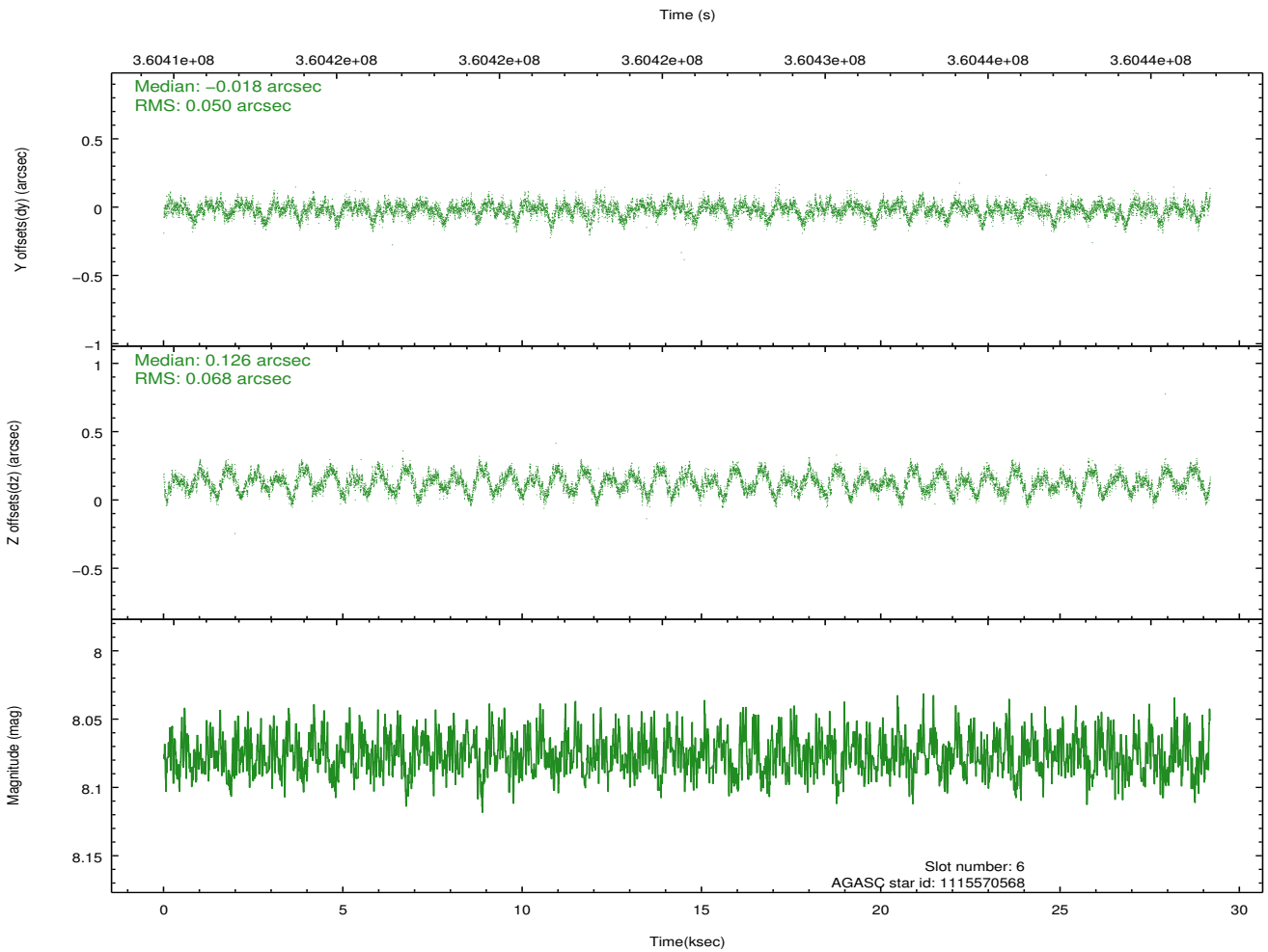
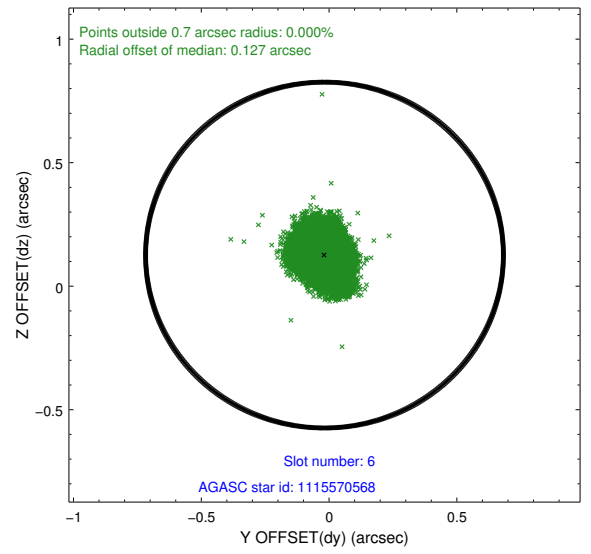
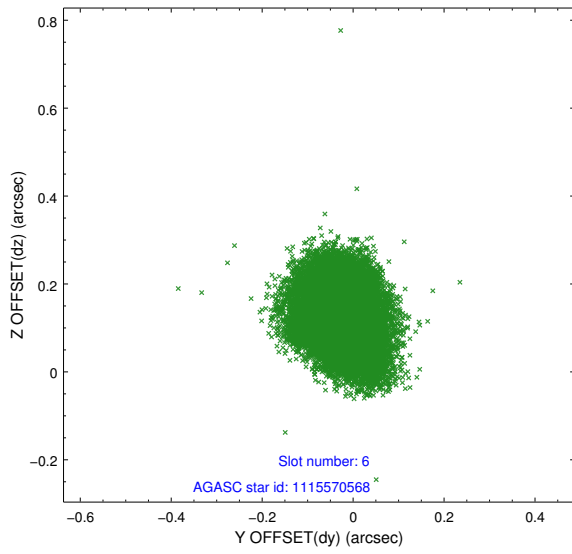
## 2.4.2 Slot 4



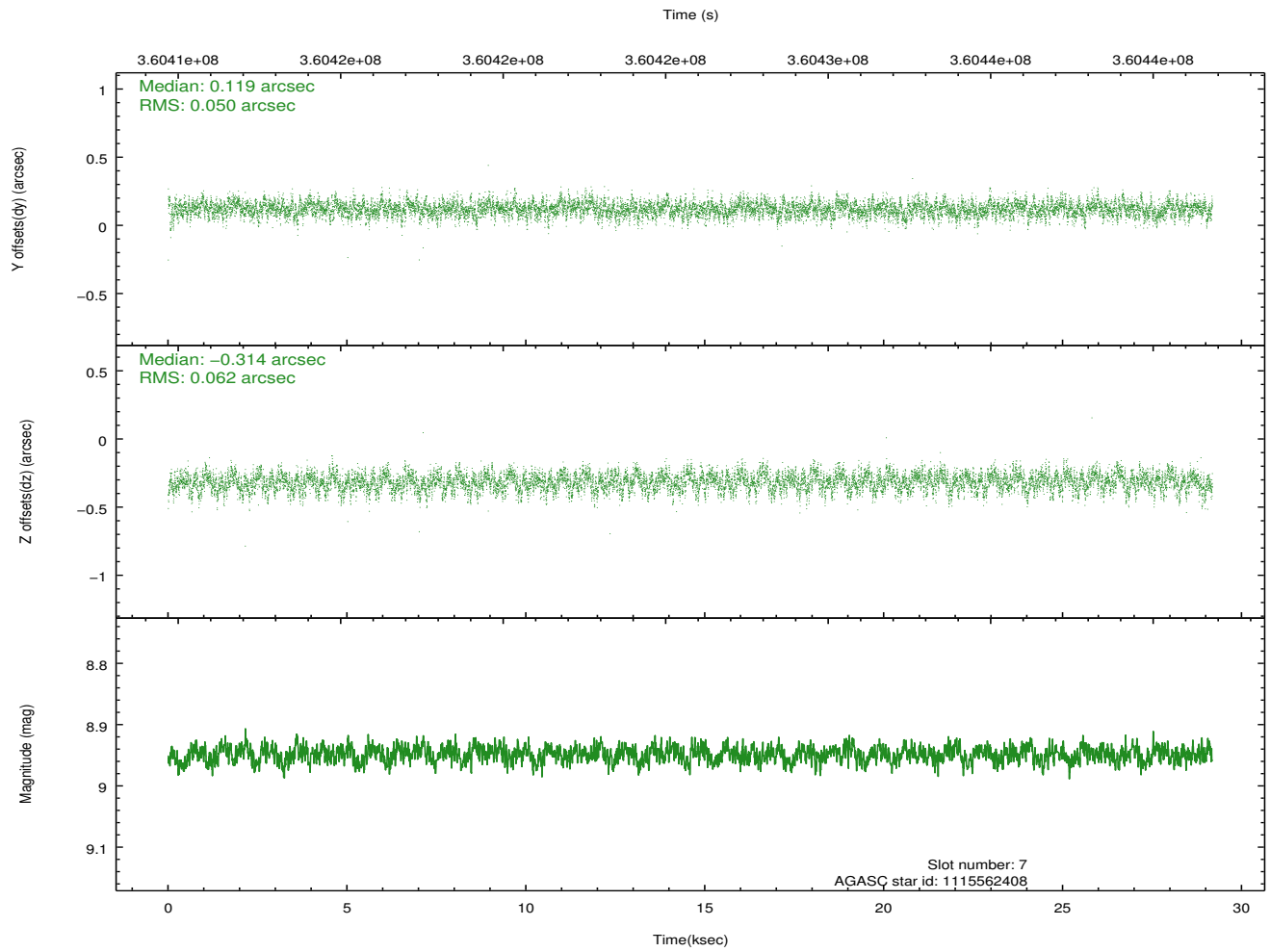
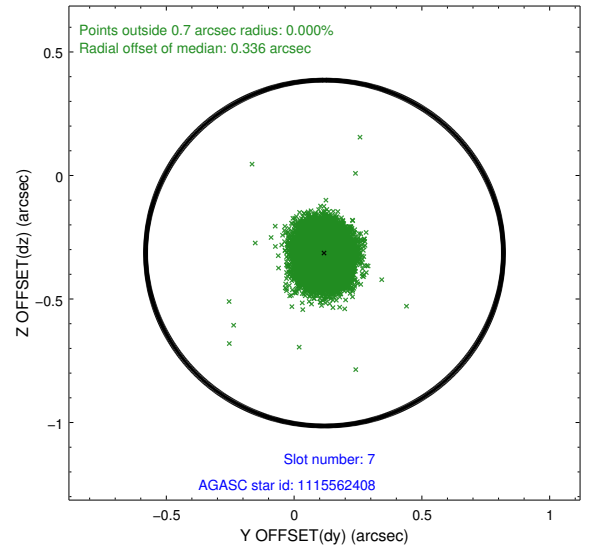
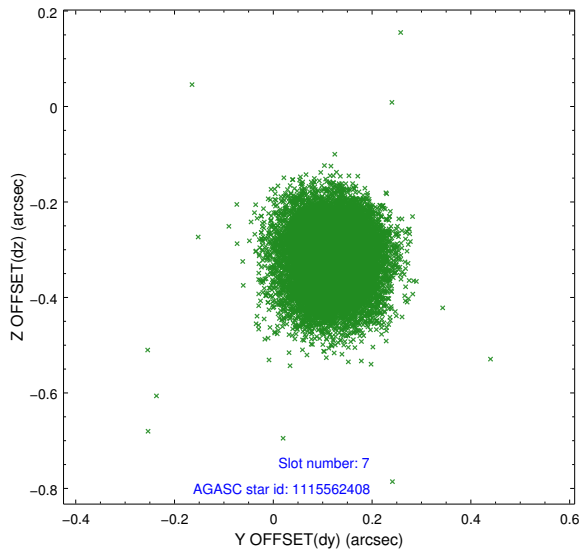
### 2.4.3 Slot 5



## 2.4.4 Slot 6

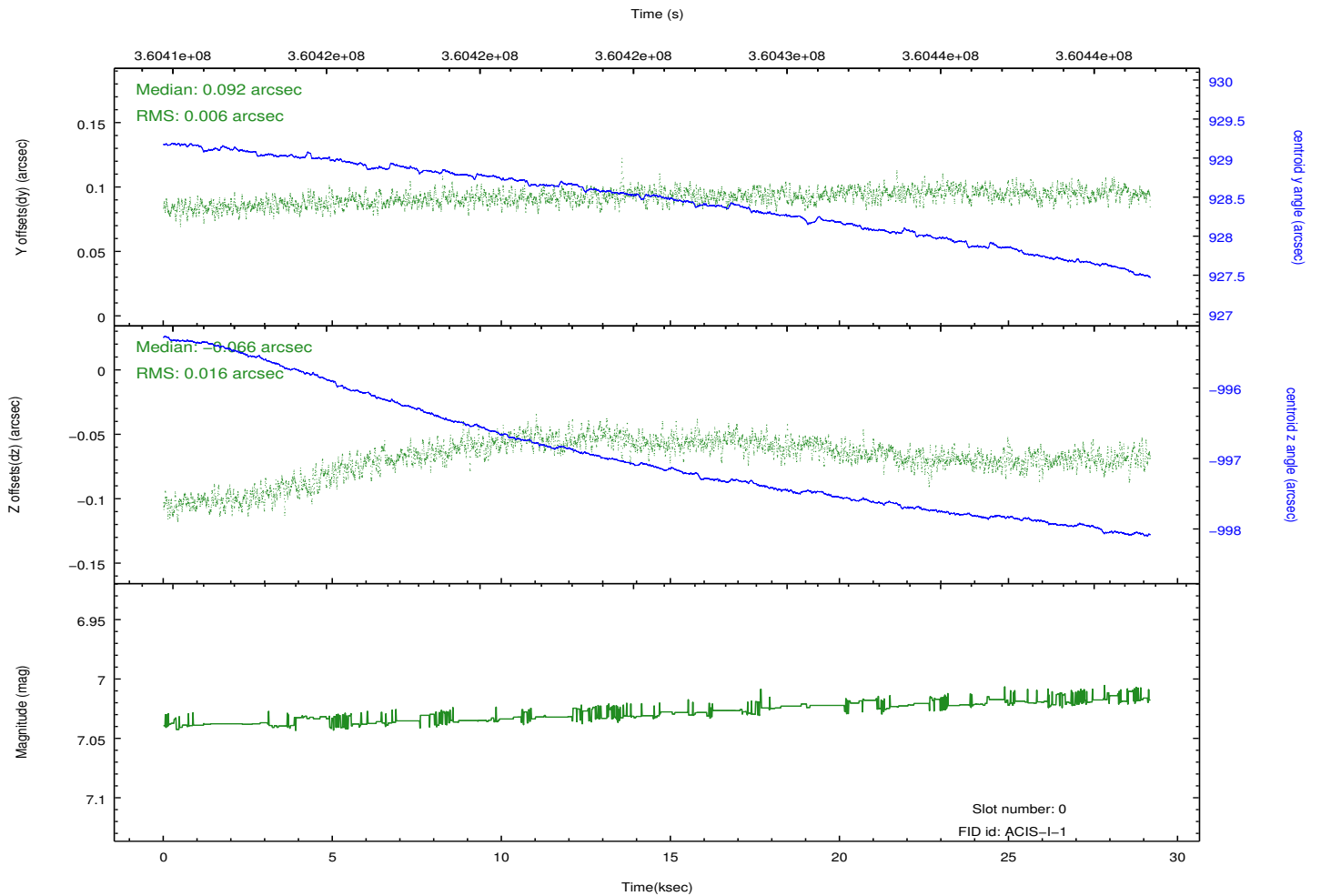
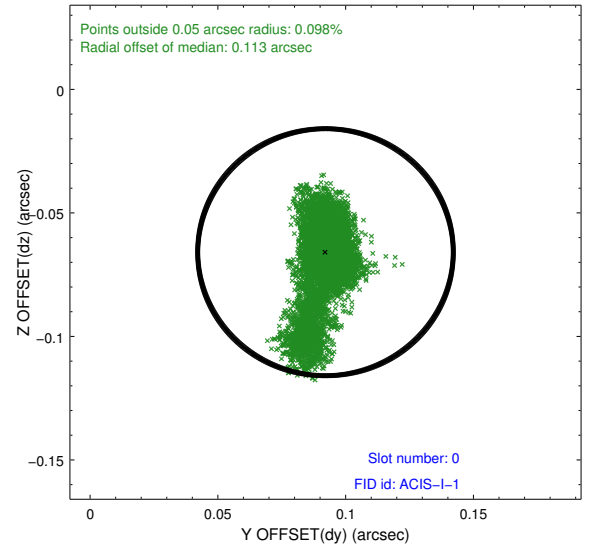
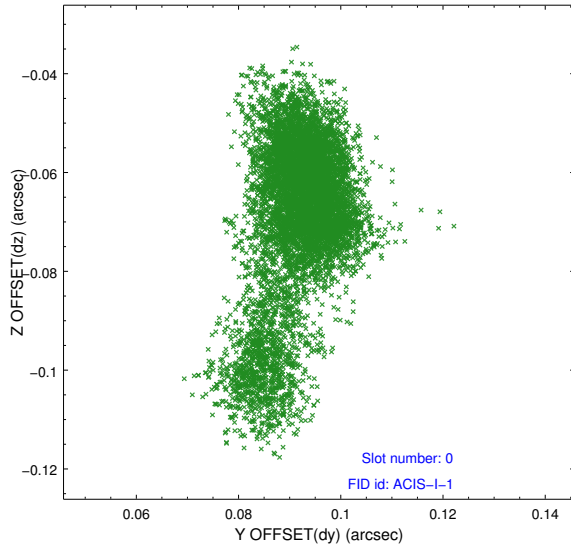


### 2.4.5 Slot 7

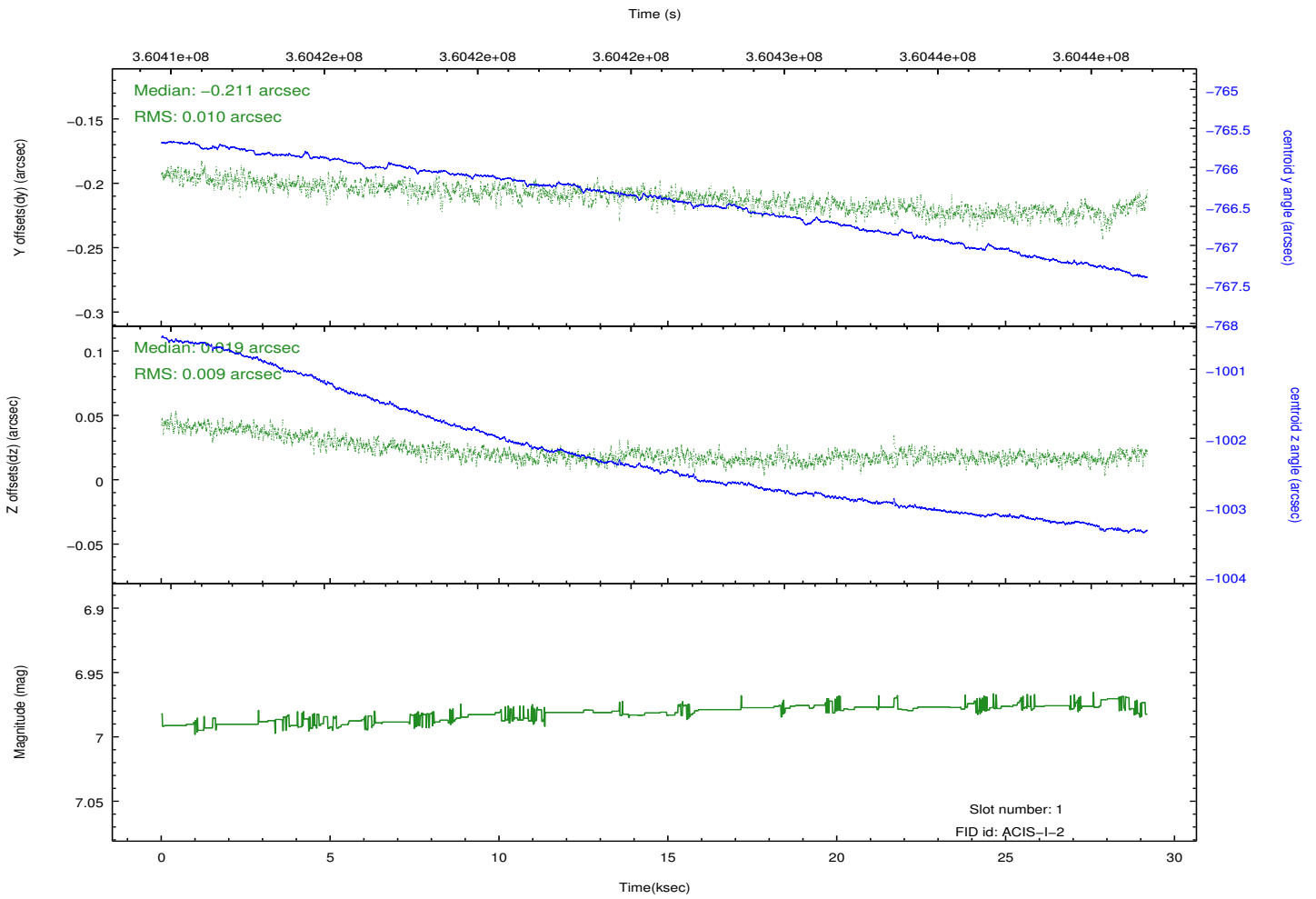
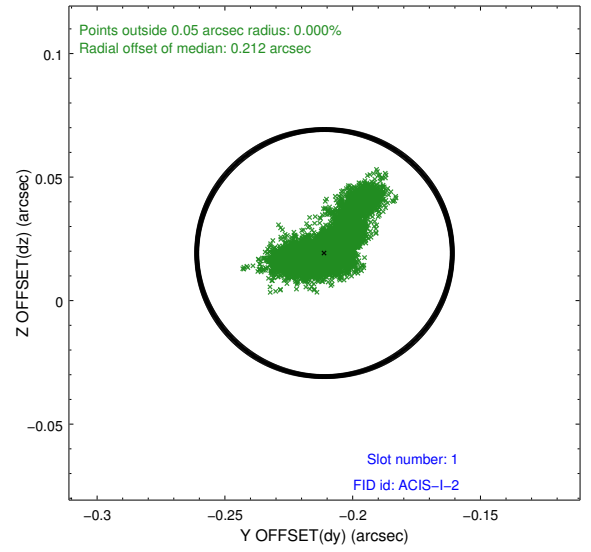
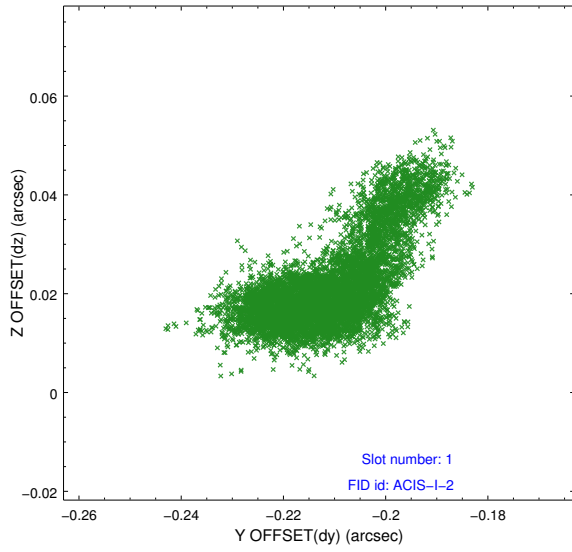


## 2.5 FID Slots

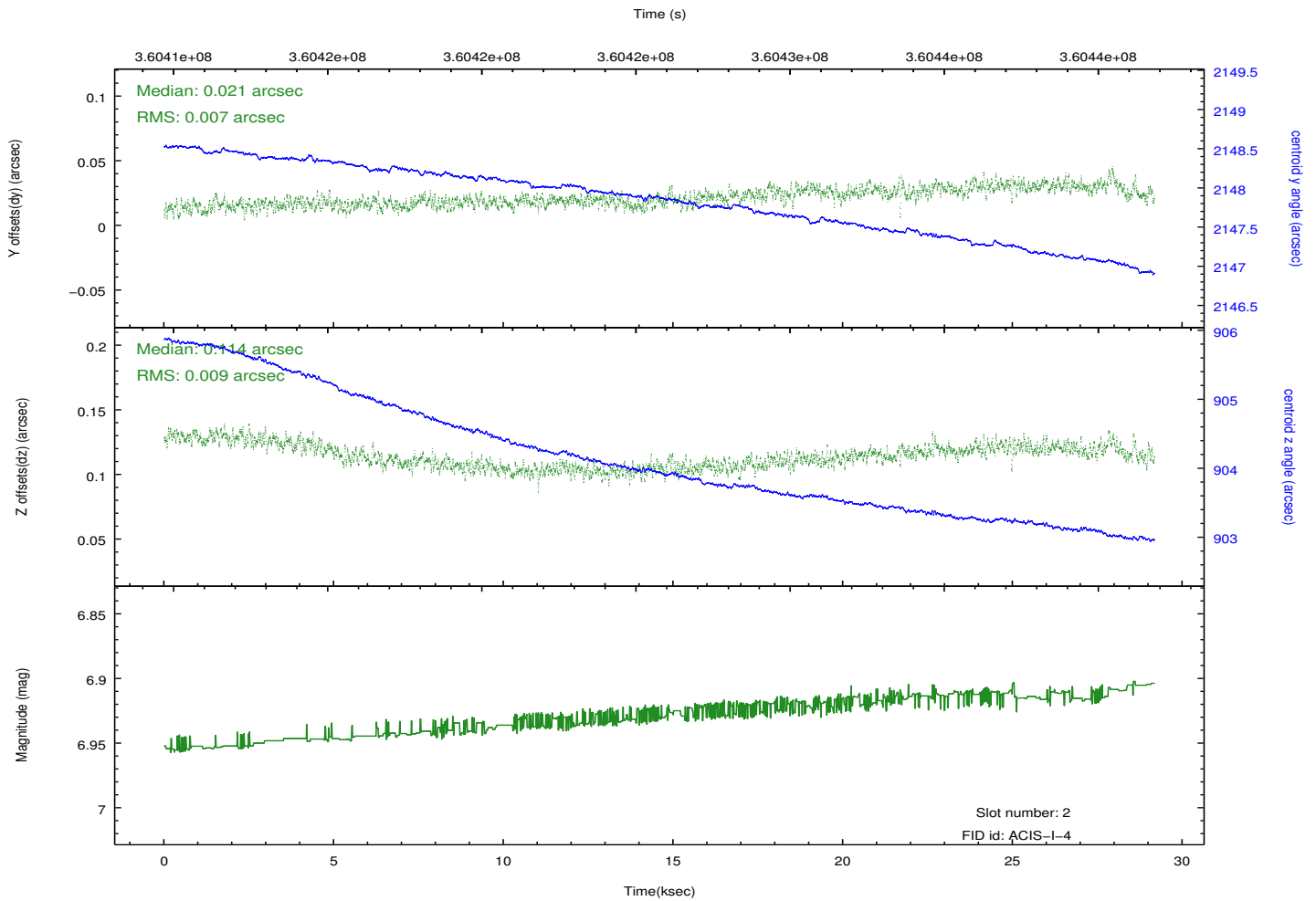
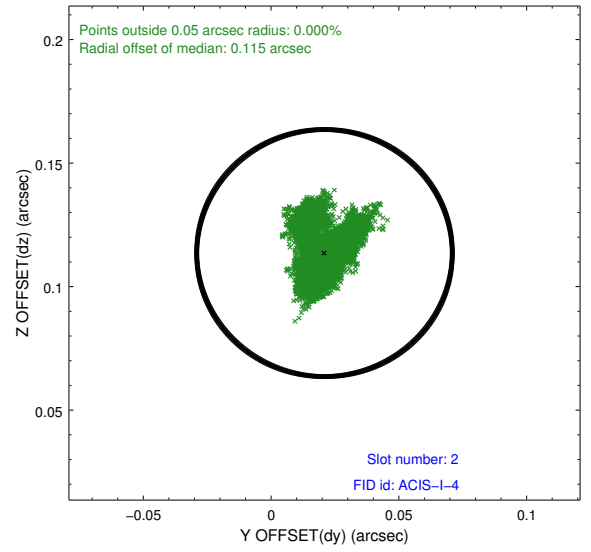
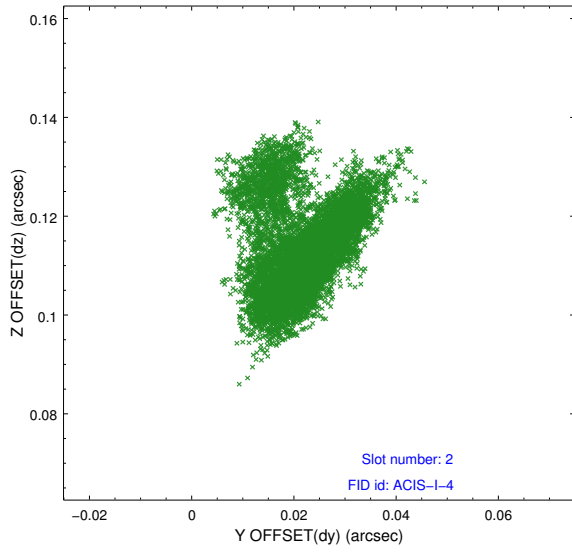
### 2.5.1 Slot 0



## 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)	2012.06.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.1740592

## A.2 Comments