

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 4727 - L2 Version 3  
Chandra X-Ray Center

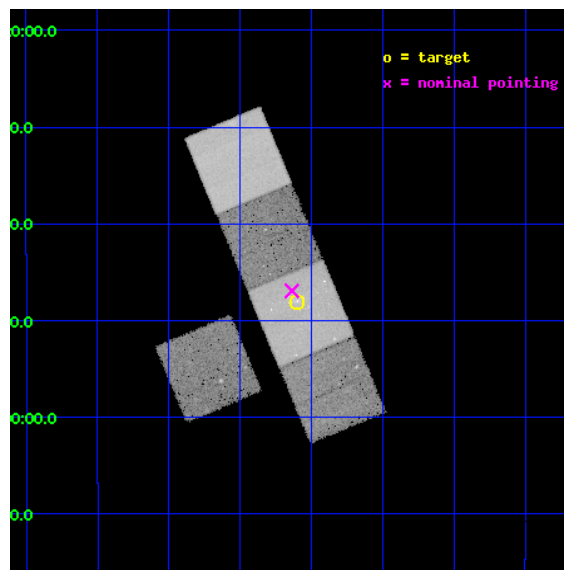
L2 Processing Date : Nov 9 2012

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# 1 Front

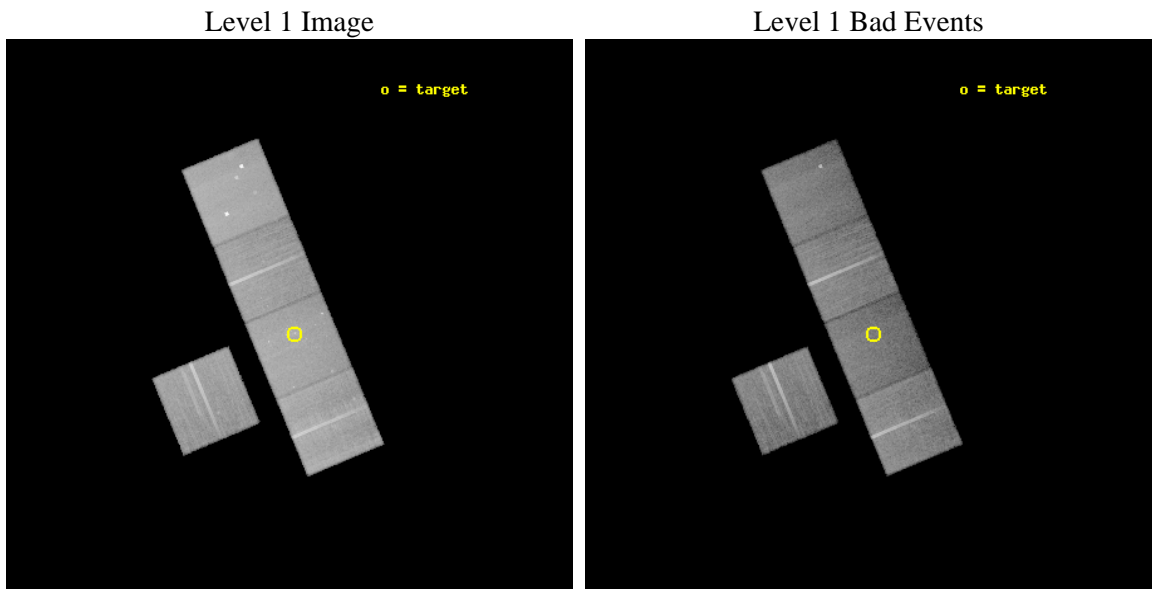
seq_num	600382	Sequence number
obs_id	4727	Observation id
title	Deep Chandra and Hubble Observations NGC 4697, the Nearest Optically Luminous, X-ray Faint Elliptical Galaxy	Proposal title
observer	Dr. CRAIG SARAZIN	Principal investigator
object	NGC4697	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	192.149583	Observer's specified target RA [deg]
dec_targ	-5.800556	Observer's specified target Dec [deg]
ra_nom	192.15920935683	Nominal RA [deg]
dec_nom	-5.7821057974408	Nominal Dec [deg]
roll_nom	67.314874388835	Nominal Roll [deg]
revision	3	Processing version of data
ontime	40448.799922198	Sum of GTIs [s]
livetime	39920.306573241	Livetime [s]
ontime3	40442.517991692	Sum of GTIs [s]
ontime5	40448.799922198	Sum of GTIs [s]
ontime6	40445.65893206	Sum of GTIs [s]
ontime7	40448.799922198	Sum of GTIs [s]
ontime8	40445.658951938	Sum of GTIs [s]
l2events	306325	Number of level 2 events



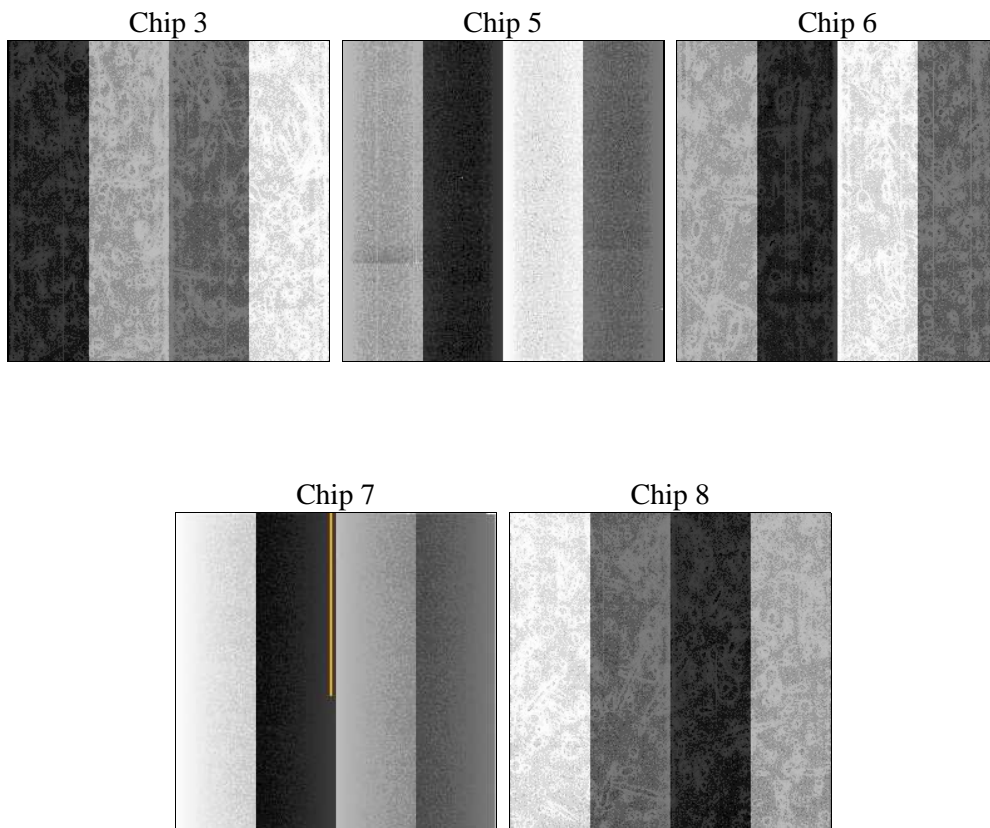
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	40300.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	40448.799922198	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime3	40442.517991692	Sum of GTIs [s]
date	2012-11-09T15:35:04	Date and time of file creation	ontime5	40448.799922198	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	40445.65893206	Sum of GTIs [s]
			ontime7	40448.799922198	Sum of GTIs [s]
			ontime8	40445.658951938	Sum of GTIs [s]
			l1events	1225200	Number of level 1 events

### 2.1.4 Events

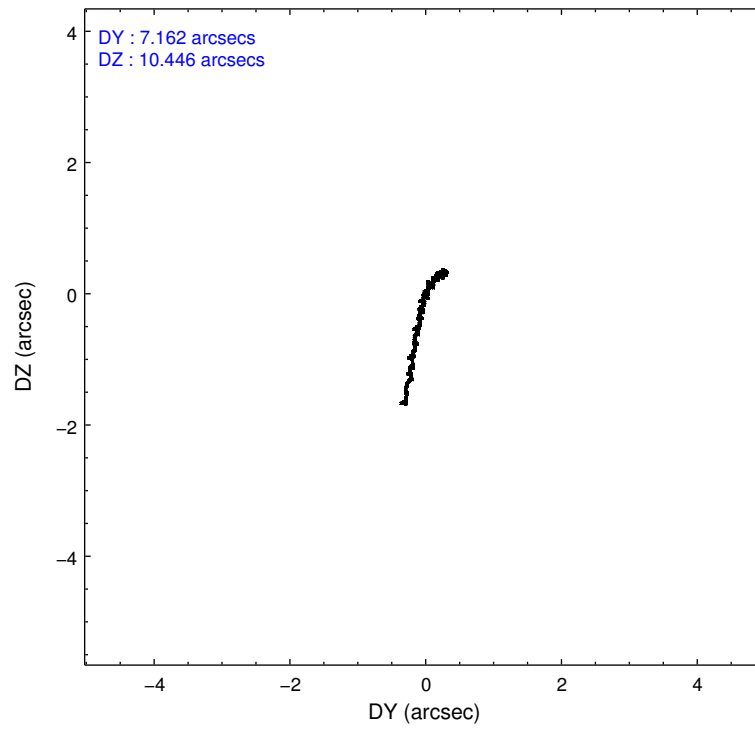
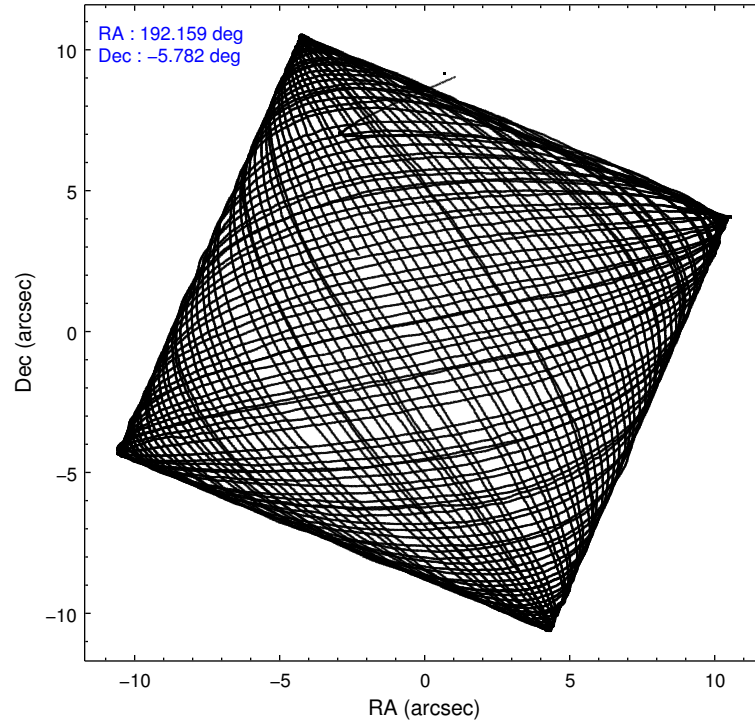
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	208011	295901	212097	243586	265605
rejected events	187393	146655	189058	129901	203330
rejected %	90%	49%	89%	53%	76%

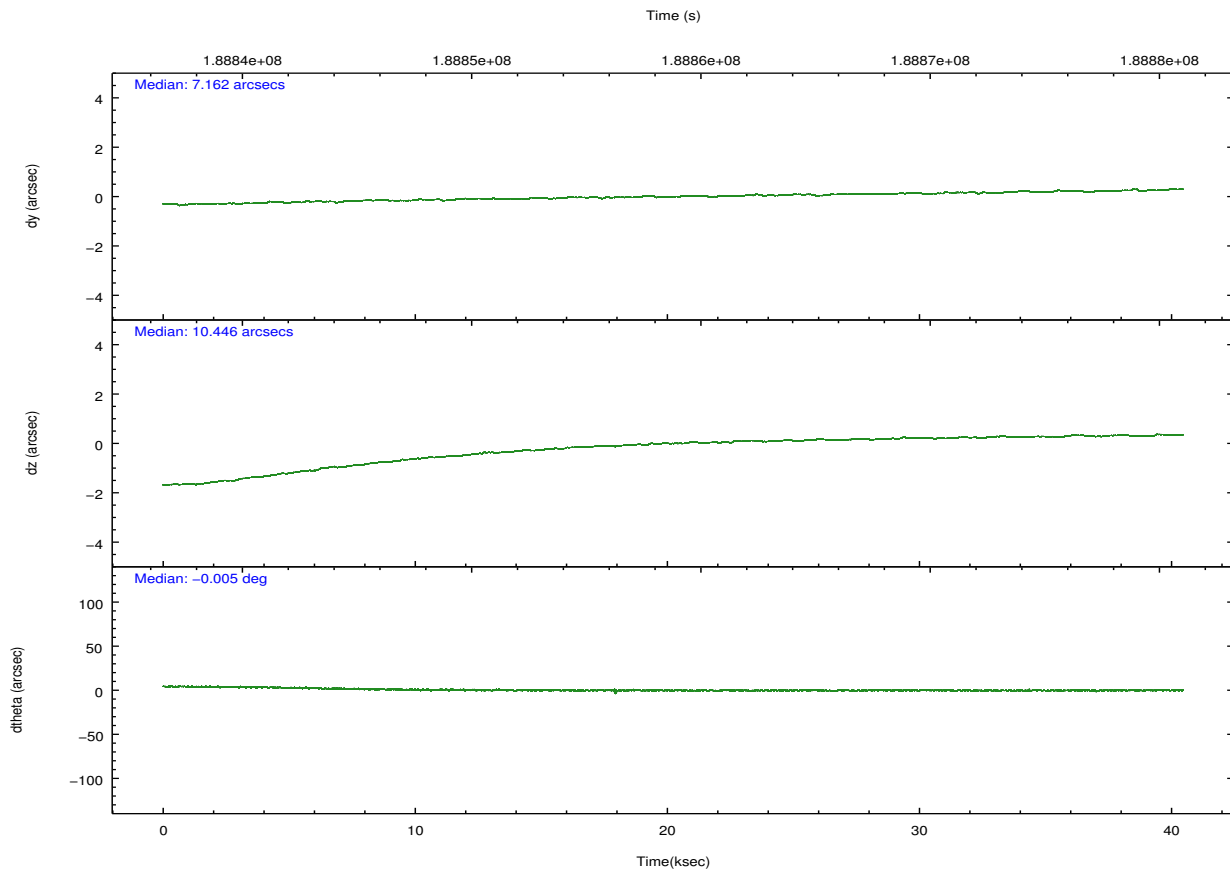
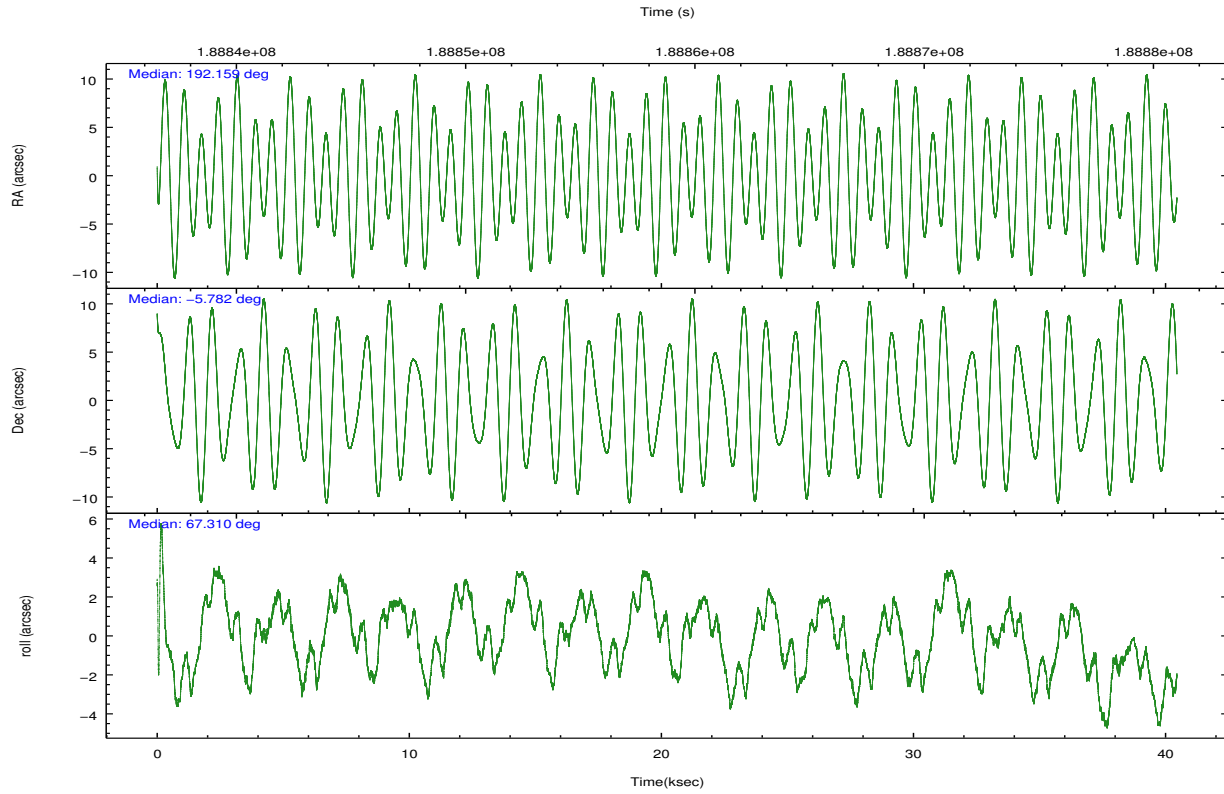
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	7830	21555	8802	13137	20417
	3%	7%	4%	5%	7%
grade 1 events	112	1509	80	190	212
	0%	0%	0%	0%	0%
grade 2 events	4355	42343	4733	23400	12926
	2%	14%	2%	9%	4%
grade 3 events	2278	7026	2490	11055	6994
	1%	2%	1%	4%	2%
grade 4 events	2295	6745	2448	11082	6520
	1%	2%	1%	4%	2%
grade 5 events	8280	23756	8588	25354	12028
	3%	8%	4%	10%	4%
grade 6 events	4020	72812	4754	55836	15922
	1%	24%	2%	22%	5%
grade 7 events	178841	120155	180202	103532	190586
	85%	40%	84%	42%	71%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-35678	ACIS-35678	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	192.163052	192.1592093568346	Subarray requested	NONE	NONE
[deg] Pointing Dec	-5.809098	-5.782105797440785	Alternating exposures requested	N	N
[deg] Pointing Roll	67.158638	67.31487438883457	[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	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	188838711.184000	188837570.86524			
Observation start date	2003-12-26T15:10:47	2003-12-26T14:52:50			
[s] Observation end time (MET)	188879011.184000	188880098.62959			
Observation end date	2003-12-27T02:22:27	2003-12-27T02:41:38			
Read mode	TIMED	TIMED			

## 2.3 Aspect



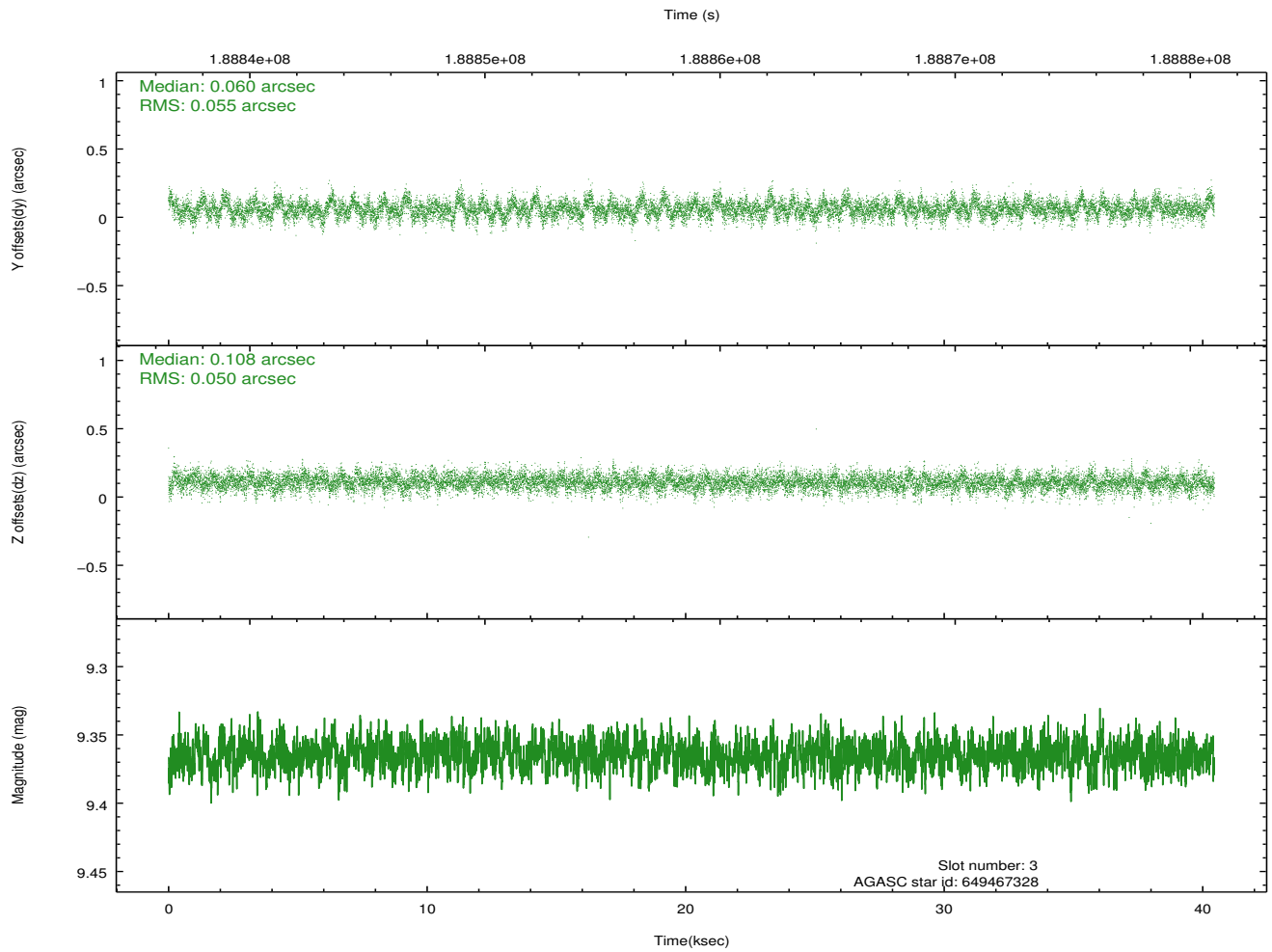
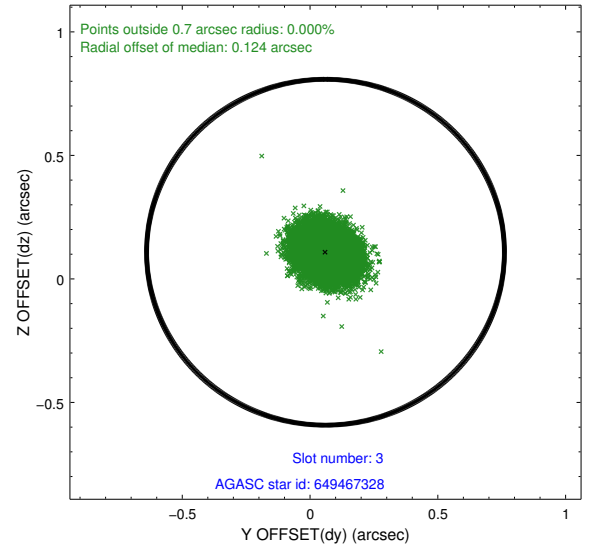
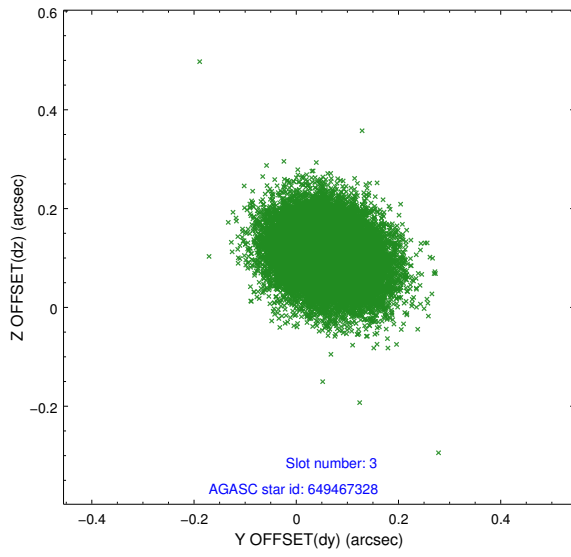


### Slot Statistics

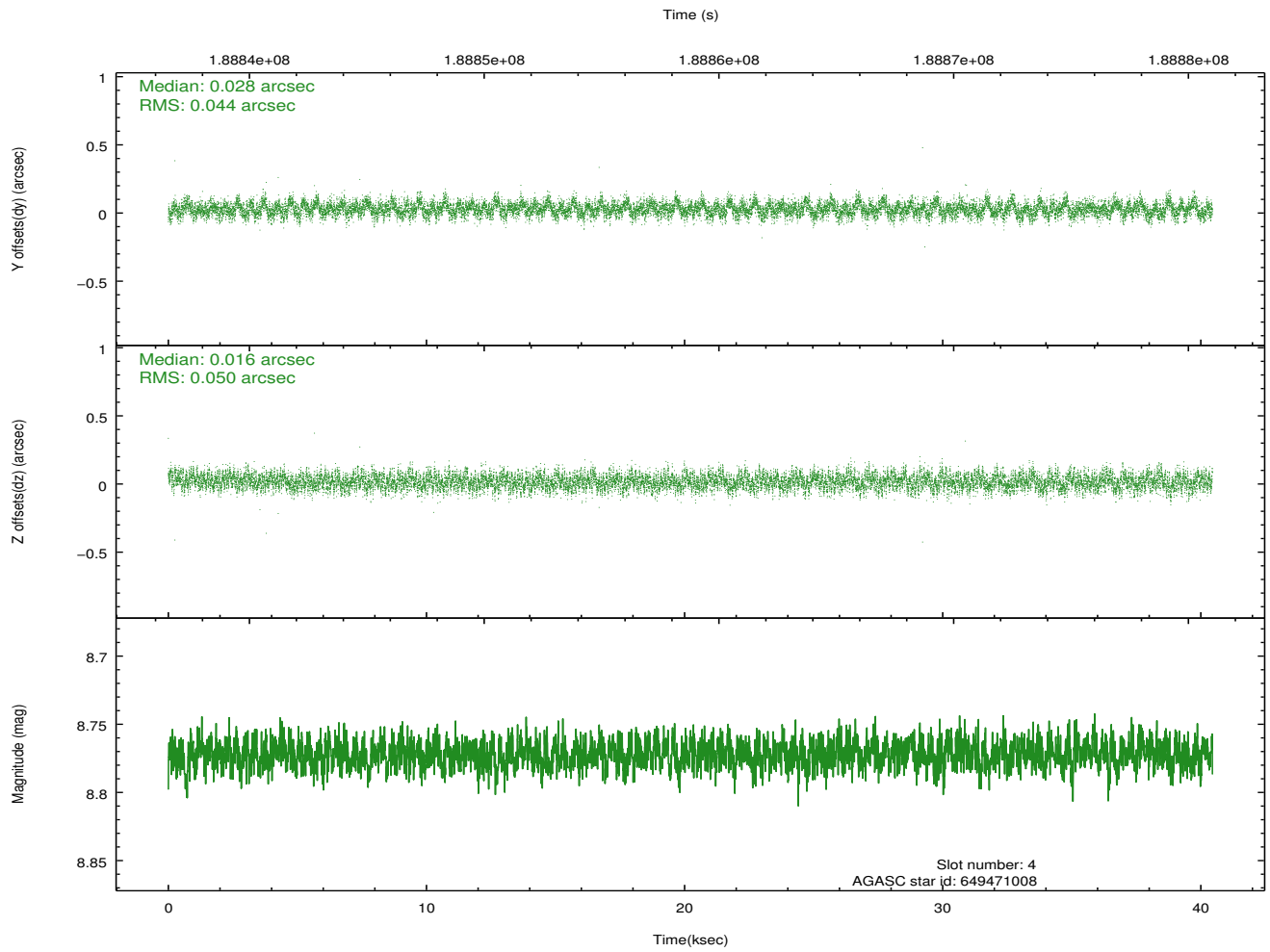
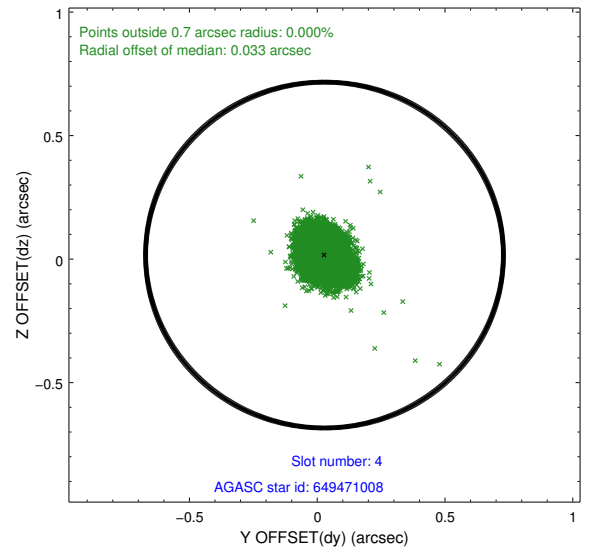
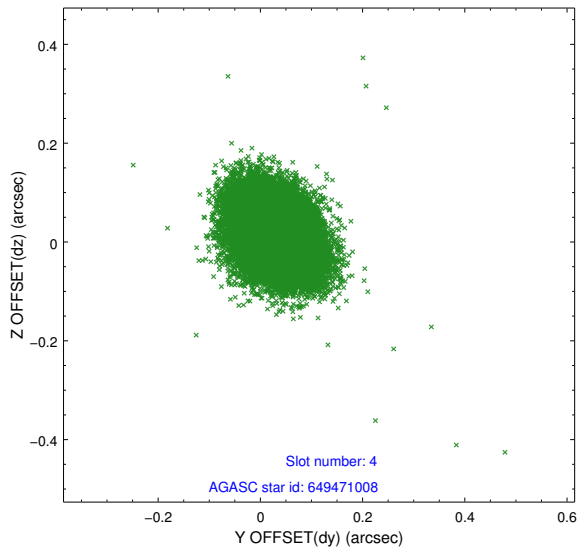
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	9867	-0.036	-0.007	0.011	0.038	0.000000	0.000000	-759.92	-1731.40
1	FID	ACIS-S-4	7.20	9866	0.059	0.020	0.007	0.015	0.000000	0.000000	2153.42	177.14
2	FID	ACIS-S-5	7.23	9867	-0.053	-0.004	0.011	0.037	0.000000	0.000000	-1812.79	170.75
3	GUIDE	649467328	9.37	19690	0.060	0.108	0.079	0.131	192.312268	-5.822418	163.62	-510.76
4	GUIDE	649471008	8.77	19733	0.028	0.016	0.070	0.114	191.883055	-5.890695	-659.98	810.11
5	GUIDE	649471216	9.00	19729	0.043	-0.256	0.078	0.124	192.046748	-5.955581	-647.50	178.95
6	GUIDE	649471800	8.60	19730	-0.141	-0.140	0.056	0.090	192.288030	-5.445033	1381.51	96.17
7	GUIDE	649594712	8.43	19728	0.010	0.273	0.069	0.111	192.730305	-6.061024	-48.01	-2223.39

## 2.4 Star Slots

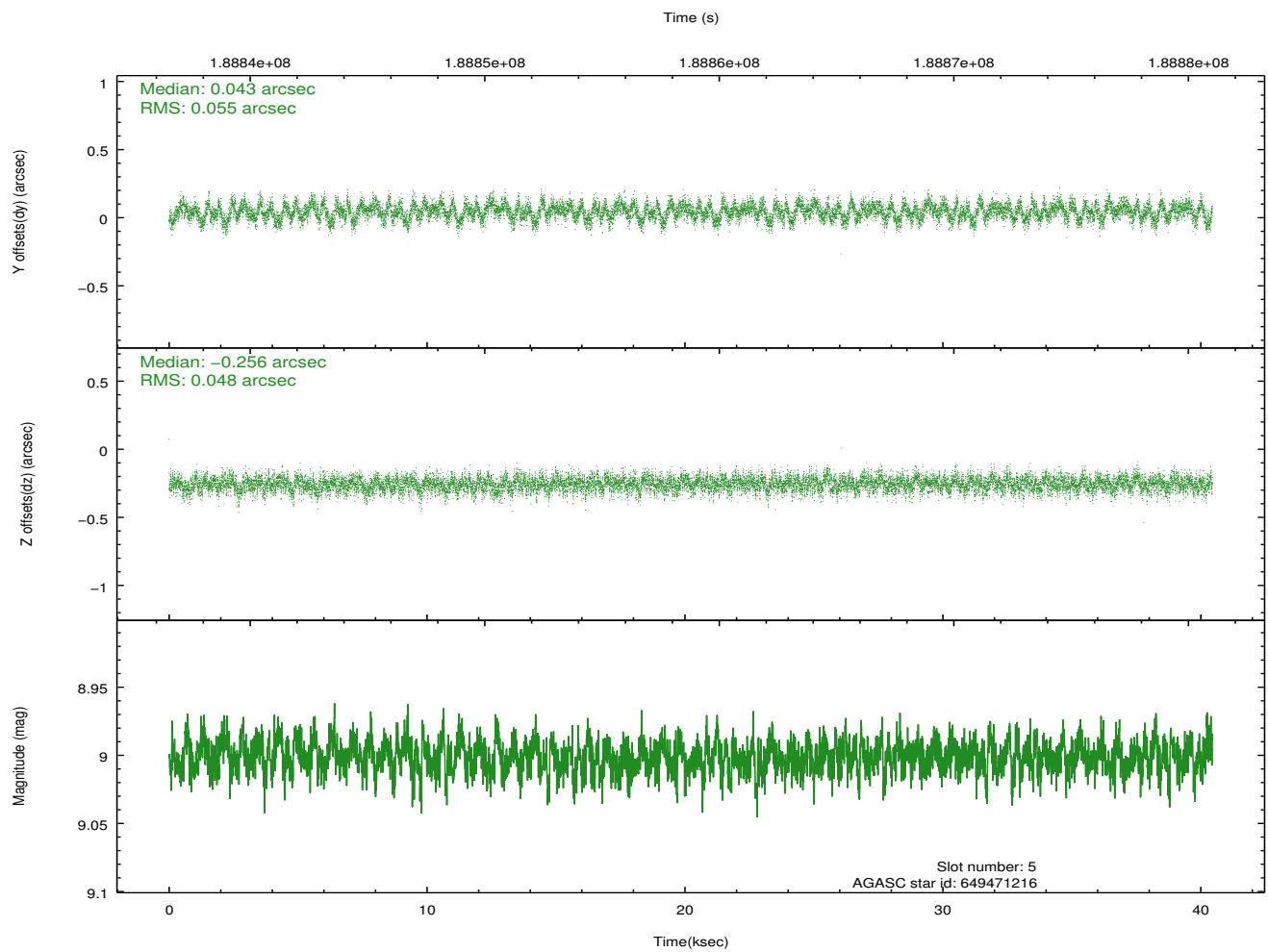
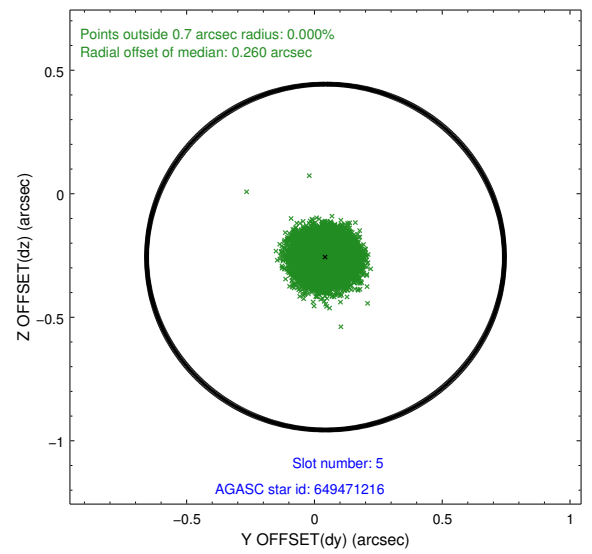
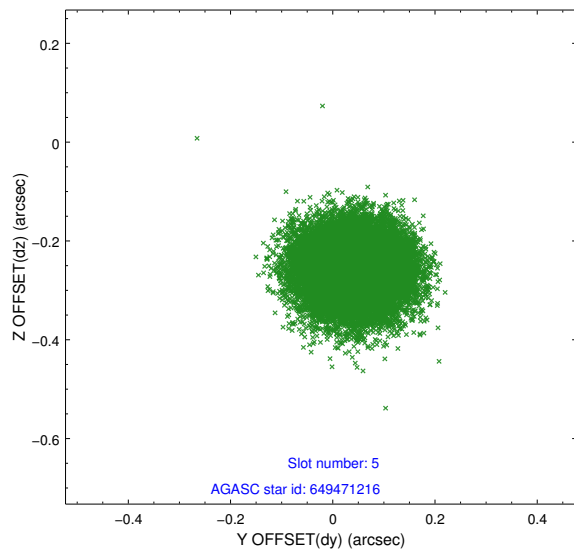
### 2.4.1 Slot 3



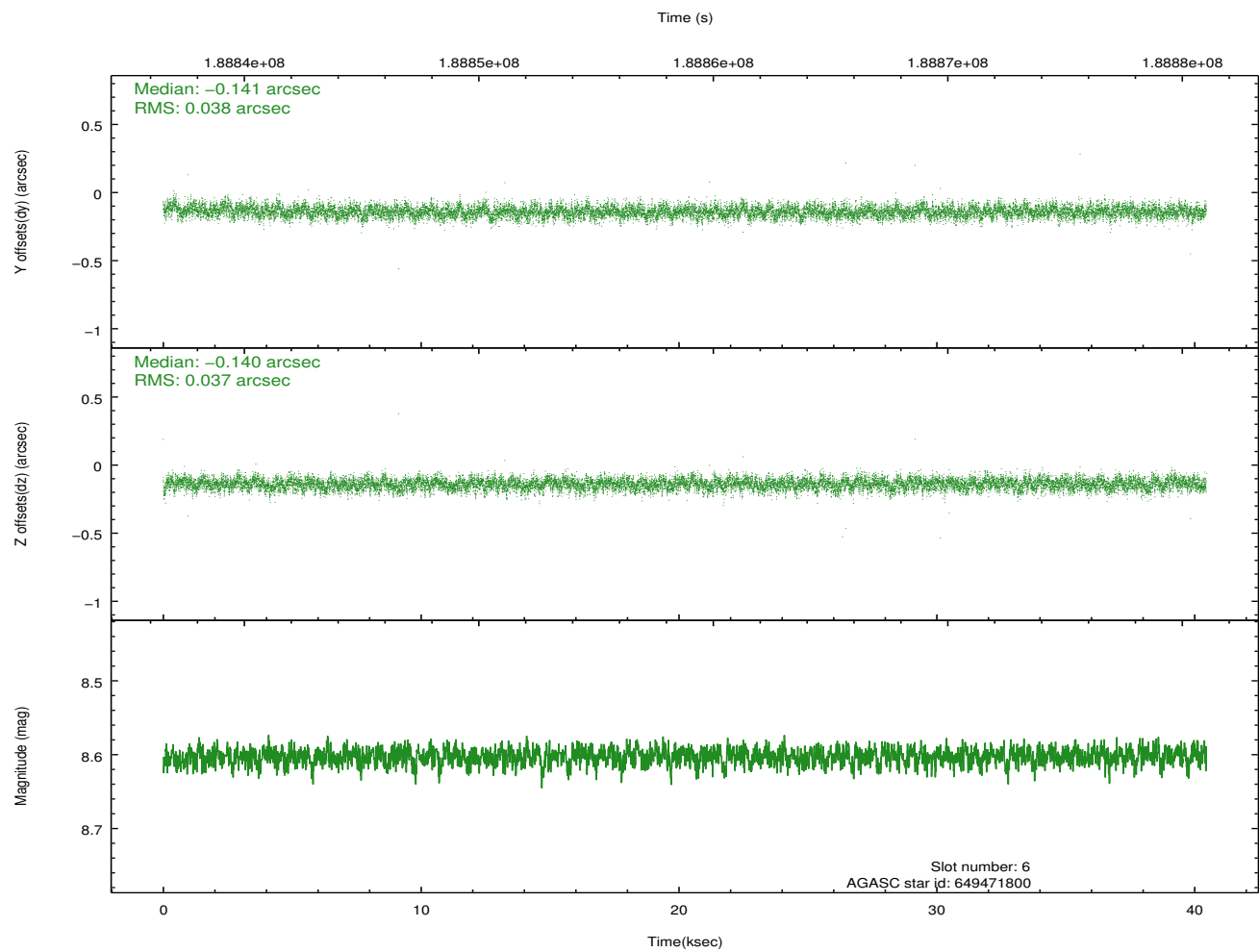
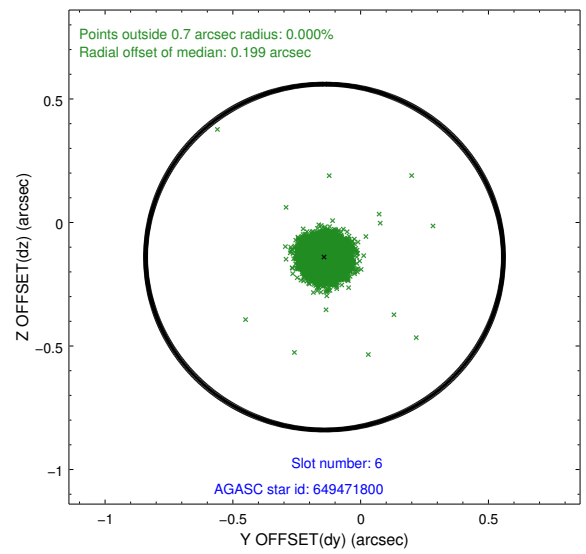
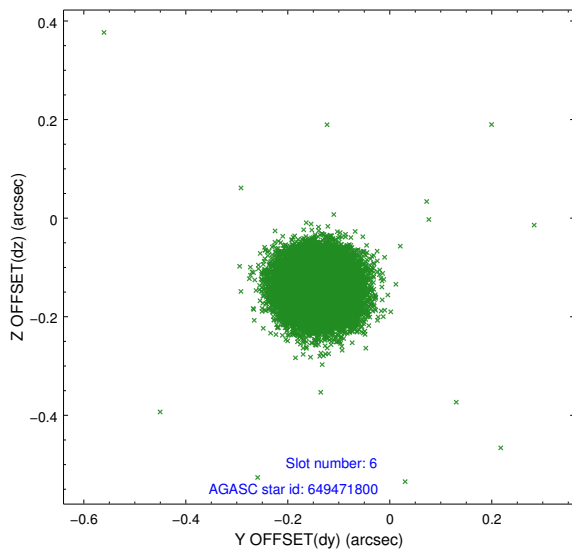
### 2.4.2 Slot 4



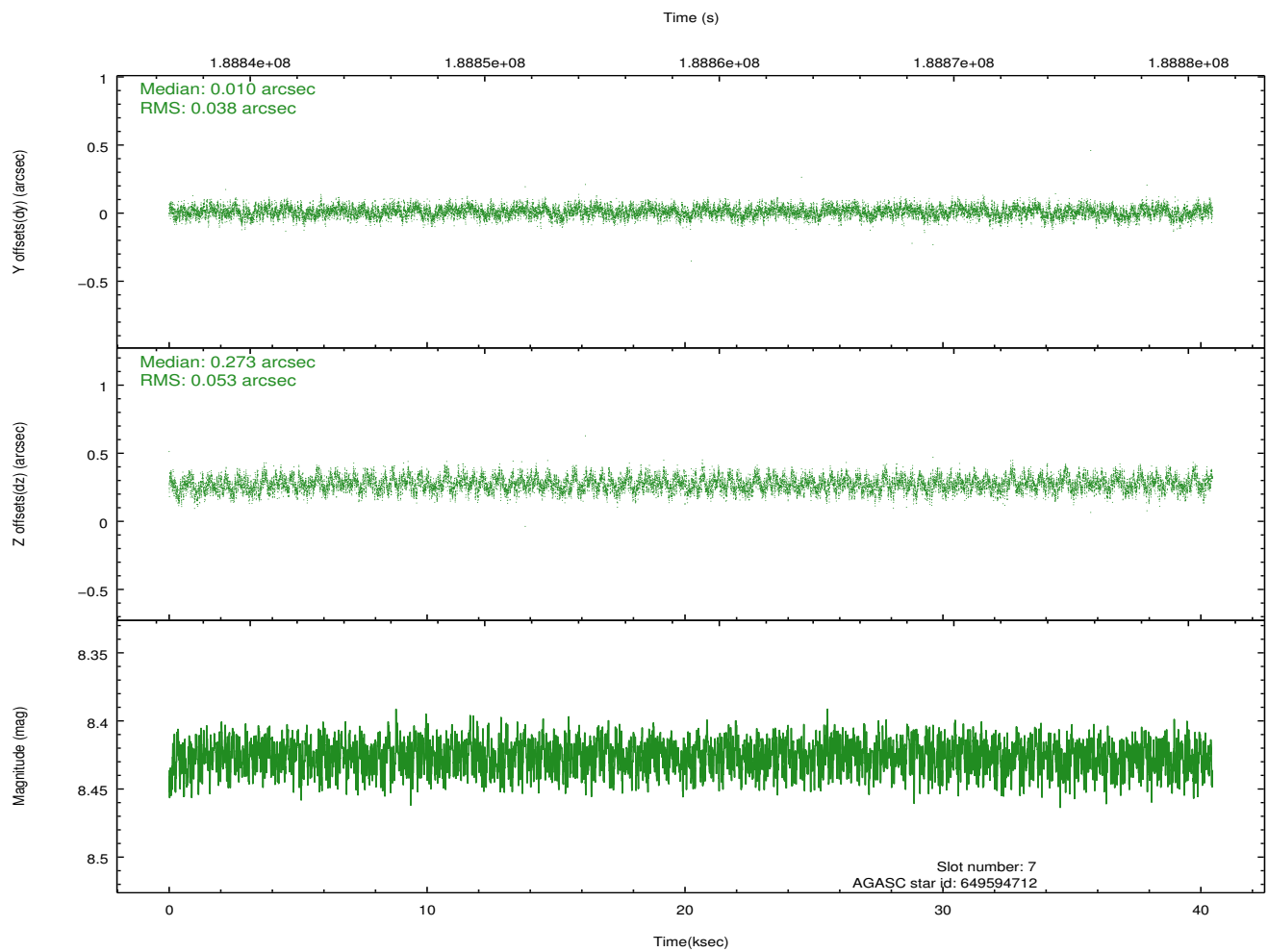
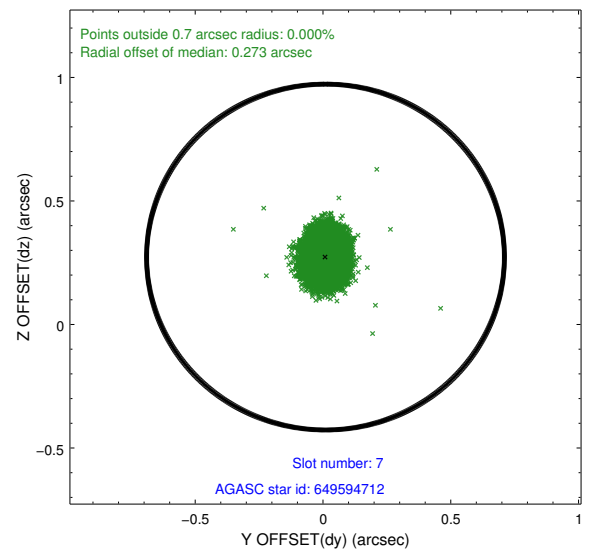
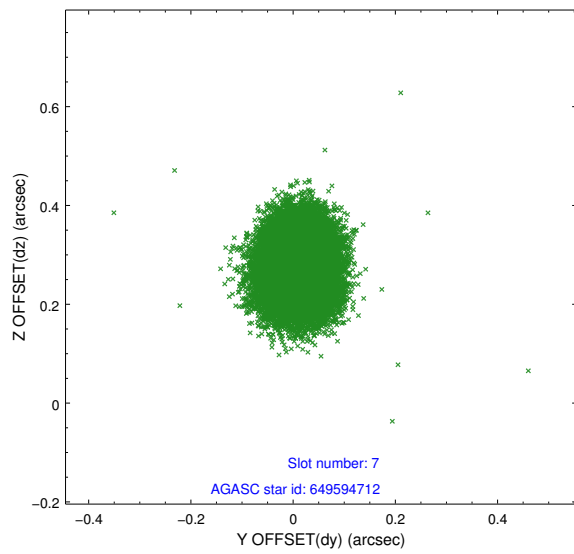
### 2.4.3 Slot 5



## 2.4.4 Slot 6

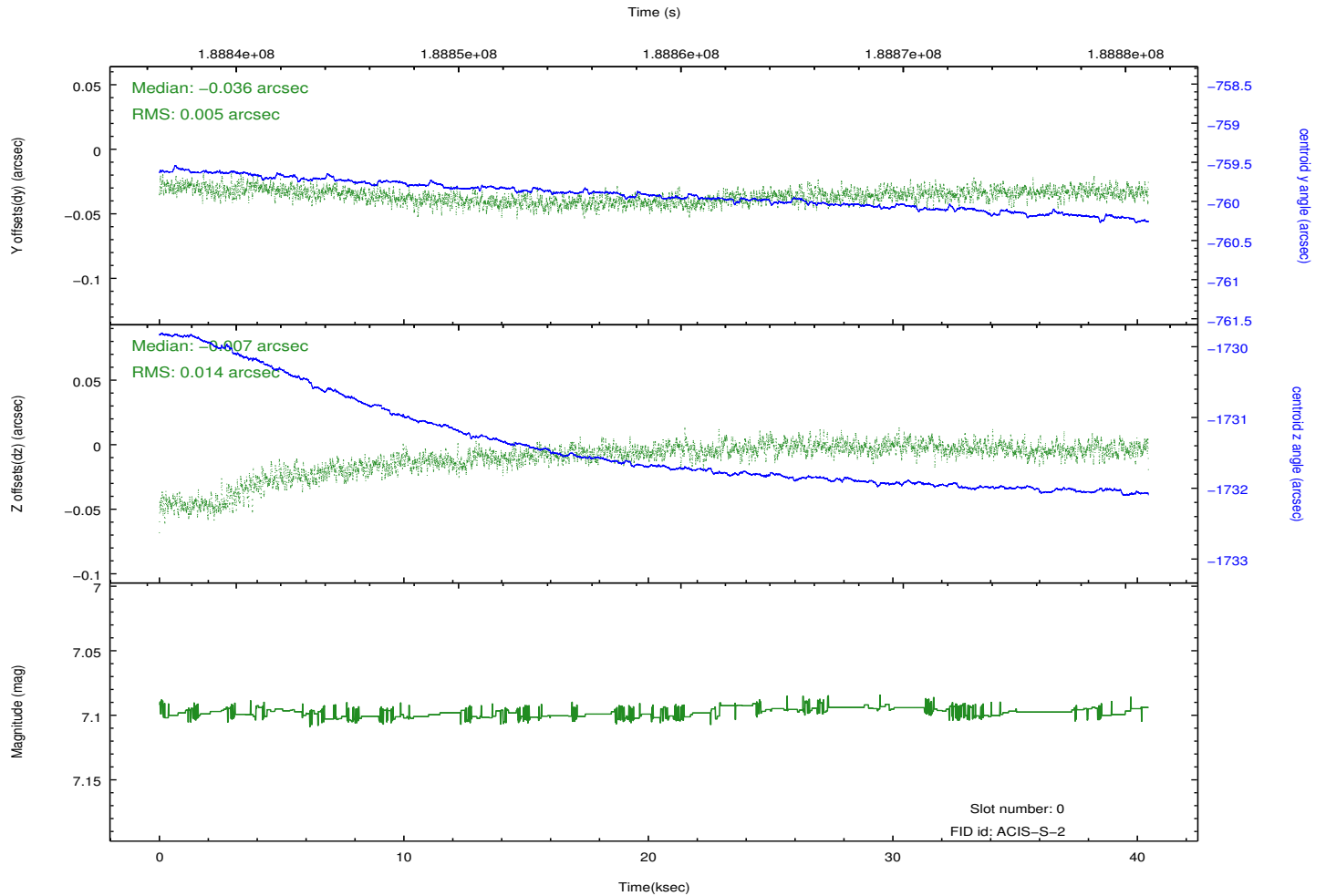
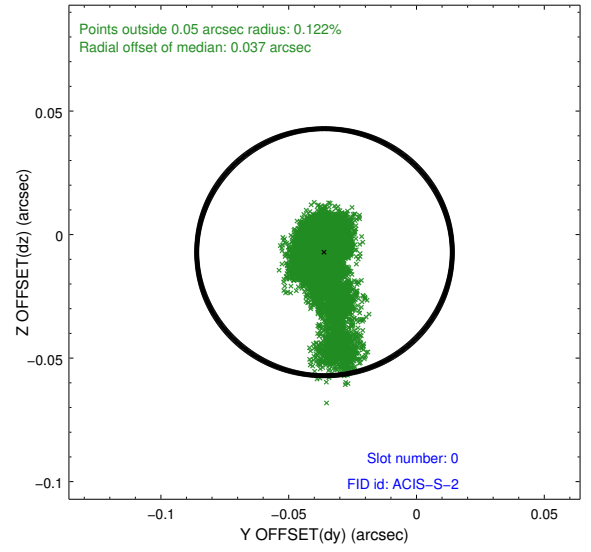
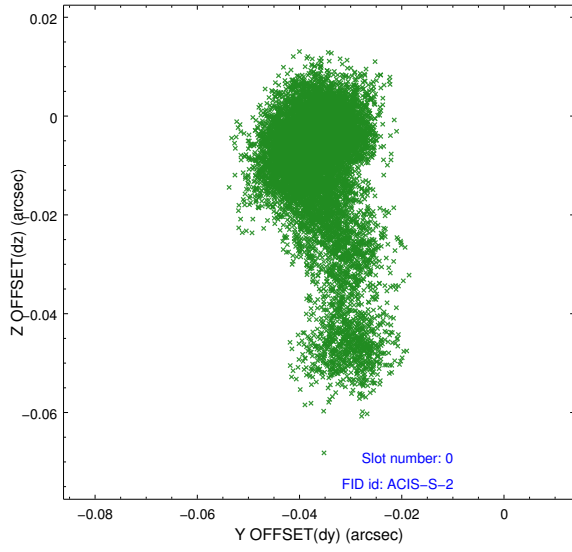


## 2.4.5 Slot 7

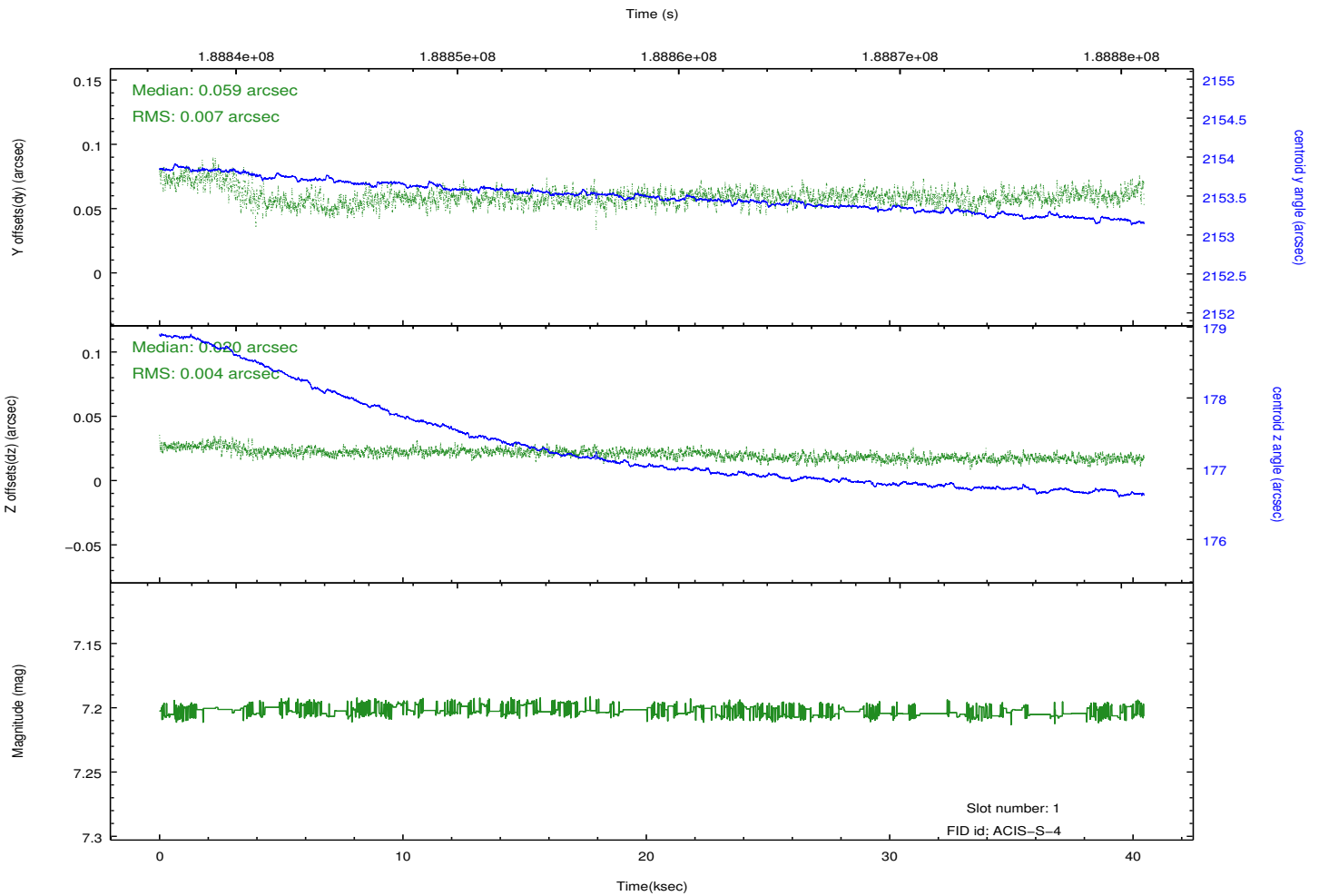
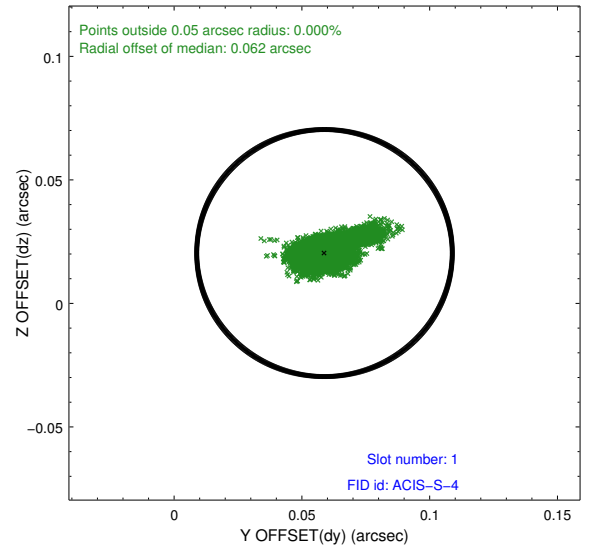
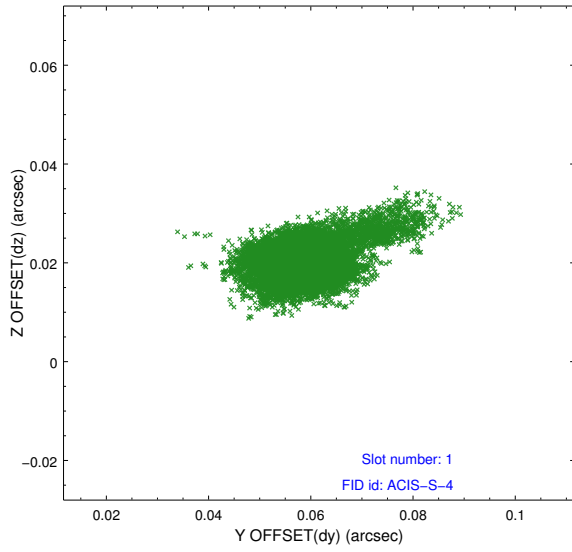


## 2.5 FID Slots

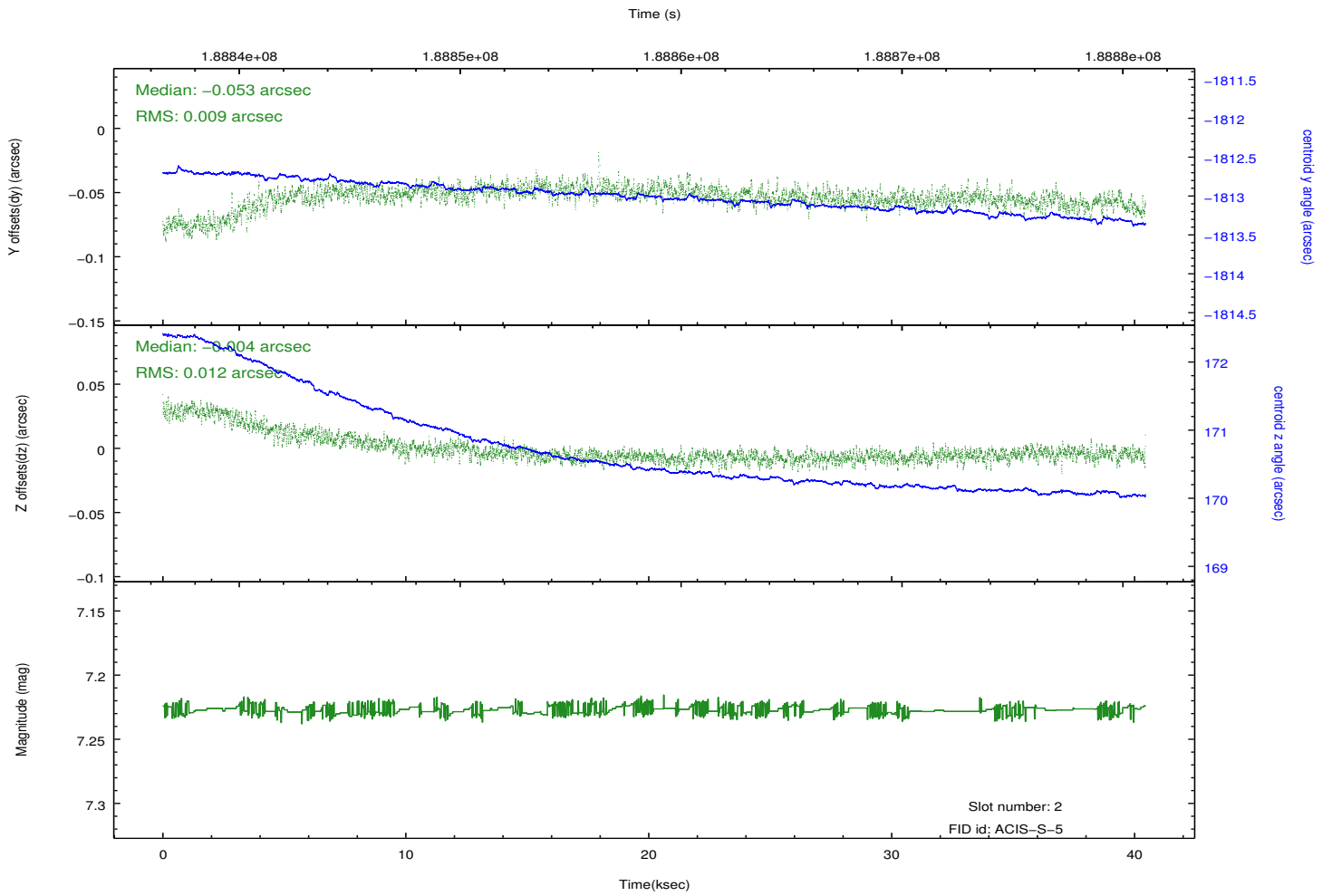
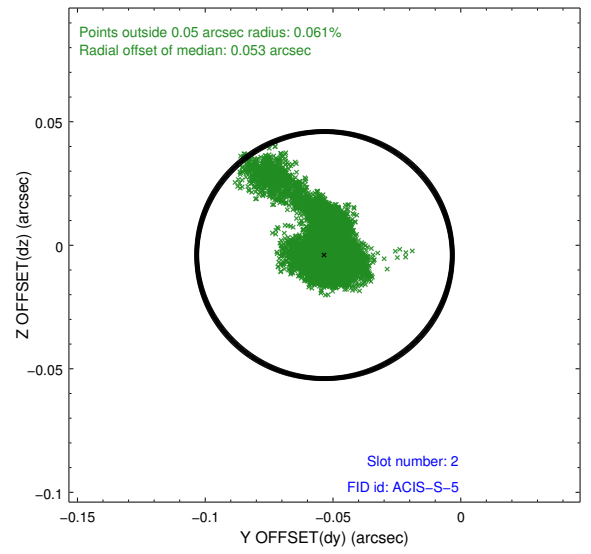
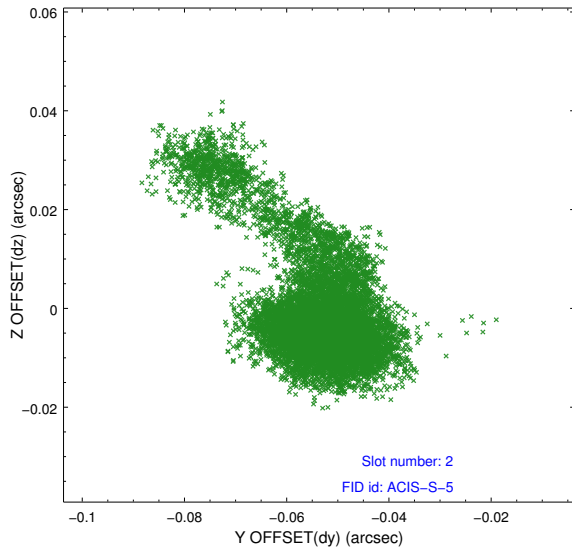
### 2.5.1 Slot 0



## 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)	2012.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.448

## A.2 Comments

Window preference not met. Joint Proposal with HST. On day 356 at about 00:30, the OBA heater stuck in the 'on' position. This situation affected obsid 4901 and all subsequent observations to this point. The result of this anomaly could be a displacement of the target on the chip in the z direction. The displacement will be small because everything is still within spec, but the target may be spatially displaced, have a different point spread function, or trail across the chip.