

# V&V Reference Report

## L2 ASCDS Version : 8.5

Observation 5754 - L2 Version 3  
Chandra X-Ray Center

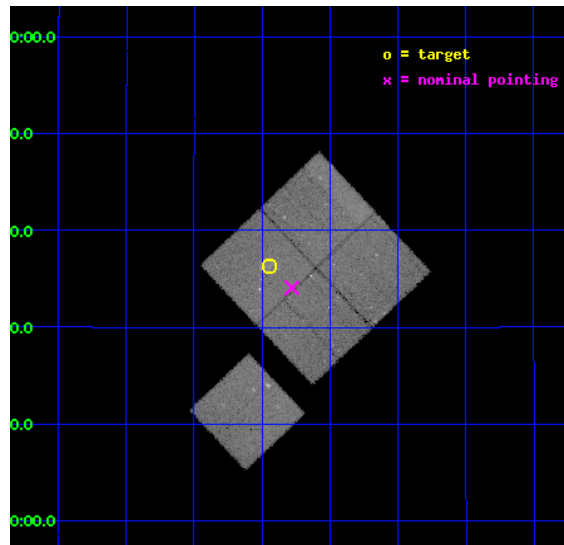
L2 Processing Date : Dec 11 2012

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# 1 Front

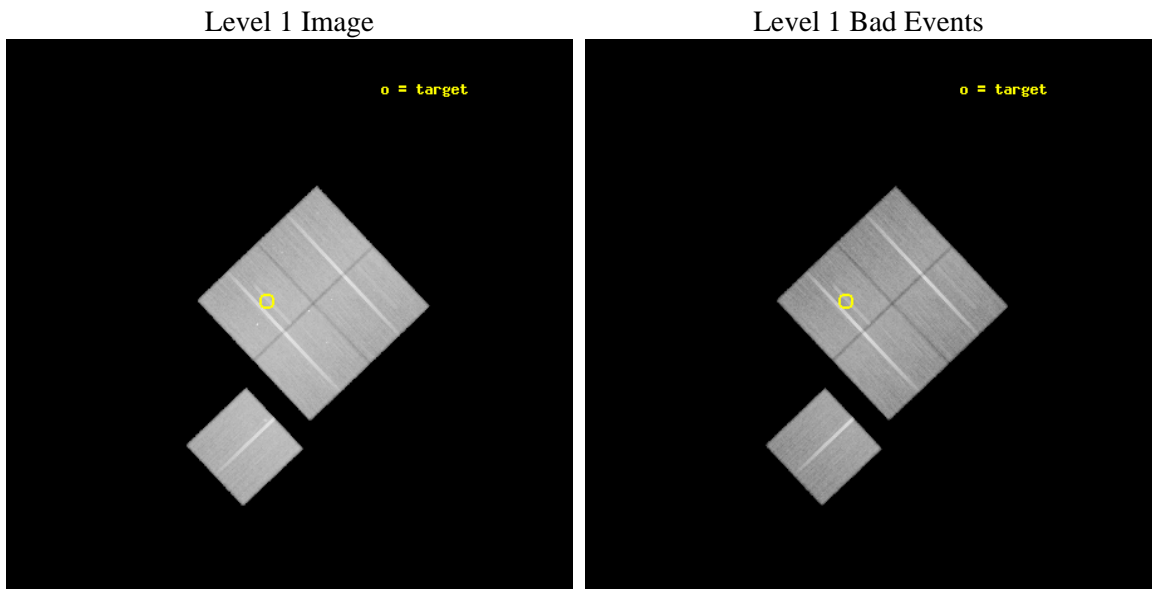
seq_num	800467	Sequence number
obs_id	5754	Observation id
title	DARK ENERGY WITH X-RAY CLUSTERS: CHANDRA OBSERVATIONS OF 41 HIGH-REDSHIFT CLUSTERS FROM THE 400 deg <sup>2</sup> ROSAT PSPC SURVEY	Proposal titl
observer	Dr. Alexey Vikhlinin	Principal investigator
object	cl0230+1836	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	37.610833	Observer's specified target RA [deg]
dec_targ	18.606111	Observer's specified target Dec [deg]
ra_nom	37.569930456048	Nominal RA [deg]
dec_nom	18.56805127632	Nominal Dec [deg]
roll_nom	226.57729340367	Nominal Roll [deg]
revision	3	Processing version of data
ontime	68668.017867595	Sum of GTIs [s]
livetime	67770.819661496	Livetime [s]
ontime0	68649.171976268	Sum of GTIs [s]
ontime1	68668.017887503	Sum of GTIs [s]
ontime2	68668.017887503	Sum of GTIs [s]
ontime3	68668.017867595	Sum of GTIs [s]
ontime6	68664.876887381	Sum of GTIs [s]
l2events	190108	Number of level 2 events



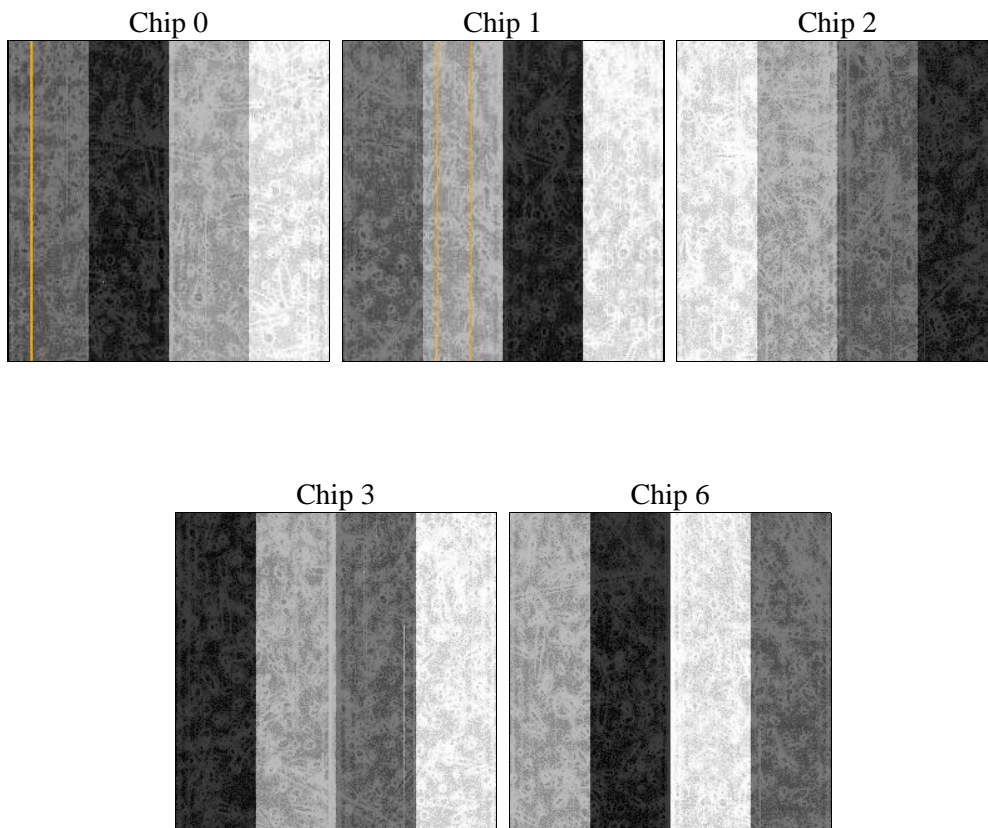
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	68500.000000	[s] Scheduled observation exposure time
ascdsver	8.5	Processing system revision	ontime	68668.017867595	Sum of GTIs [s]
caldbver	4.5.4	&#160	ontime0	68649.171976268	Sum of GTIs [s]
date	2012-12-11T04:11:20	Date and time of file creation	ontime1	68668.017887503	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	68668.017887503	Sum of GTIs [s]
			ontime3	68668.017867595	Sum of GTIs [s]
			ontime6	68664.876887381	Sum of GTIs [s]
			l1events	2280215	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	431876	431302	485260	469960	461817
rejected events	387541	380728	440460	426143	415606
rejected %	89%	88%	90%	90%	89%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	15223	18541	16820	16442	16650
	3%	4%	3%	3%	3%
grade 1 events	212	211	239	220	202
	0%	0%	0%	0%	0%
grade 2 events	10442	10916	10407	9335	9947
	2%	2%	2%	1%	2%
grade 3 events	5312	5674	4846	5093	5269
	1%	1%	0%	1%	1%
grade 4 events	5006	5592	4941	4850	5073
	1%	1%	1%	1%	1%
grade 5 events	15883	16916	14825	17600	17709
	3%	3%	3%	3%	3%
grade 6 events	8657	10176	8066	8407	9631
	2%	2%	1%	1%	2%
grade 7 events	371141	363276	425116	408013	397336
	85%	84%	87%	86%	86%

## 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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	37.576536	37.5699304560476	Subarray requested	NONE	NONE
[deg] Pointing Dec	18.594732	18.56805127632008	Alternating exposures requested	N	N
[deg] Pointing Roll	226.366498	226.5772934036697	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-225.840463	-225.8433433320239			
[mm] SIM translation stage offset	-7.752	-7.749109670905796			
[s] Observation start time (MET)	216019888.184000	216018655.82895			
Observation start date	2004-11-05T05:30:24	2004-11-05T05:10:55			
[s] Observation end time (MET)	216088388.184000	216089228.61961			
Observation end date	2004-11-06T00:32:04	2004-11-06T00:47:08			
Read mode	TIMED	TIMED			

## 2.3 Aspect

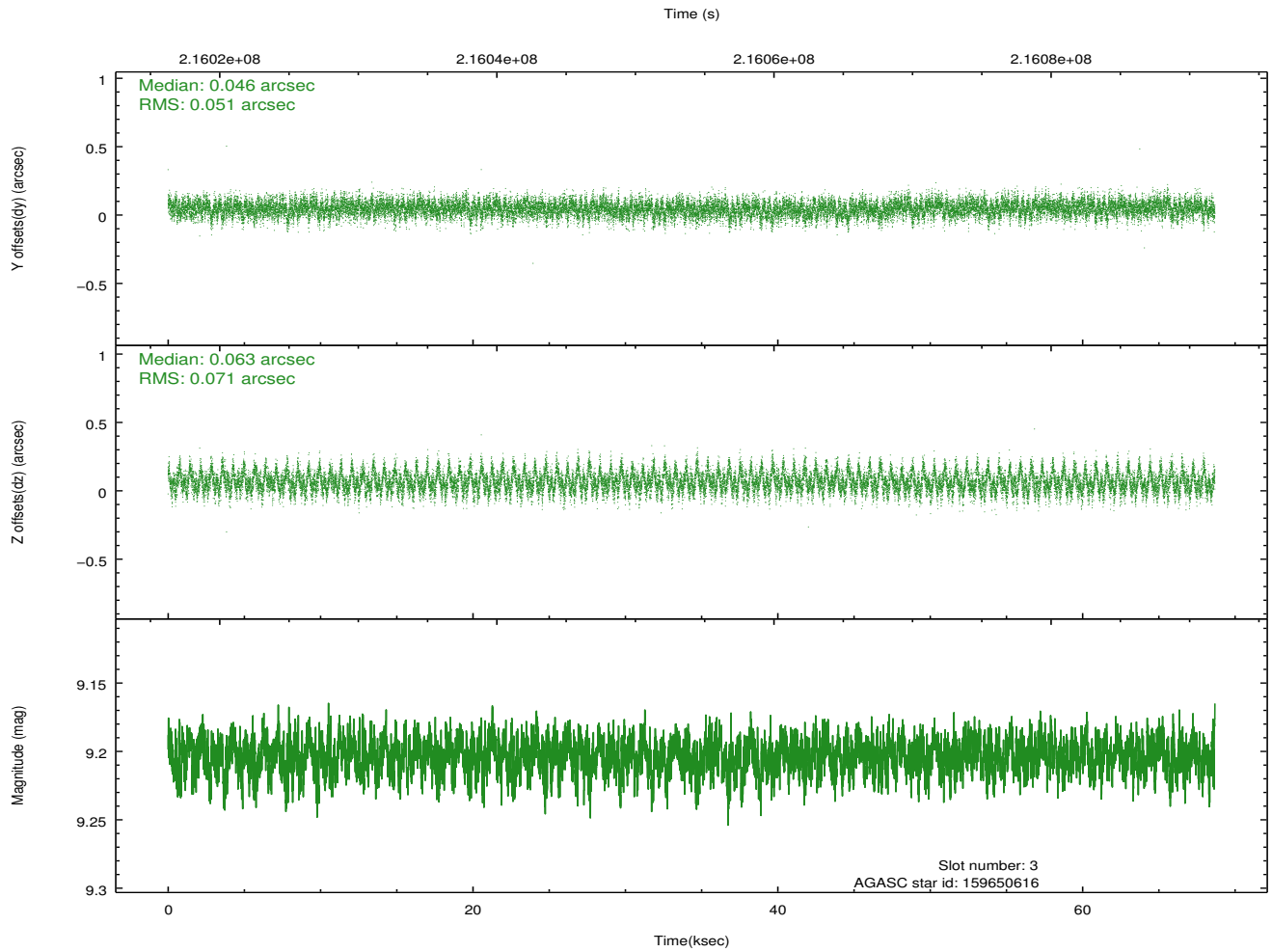
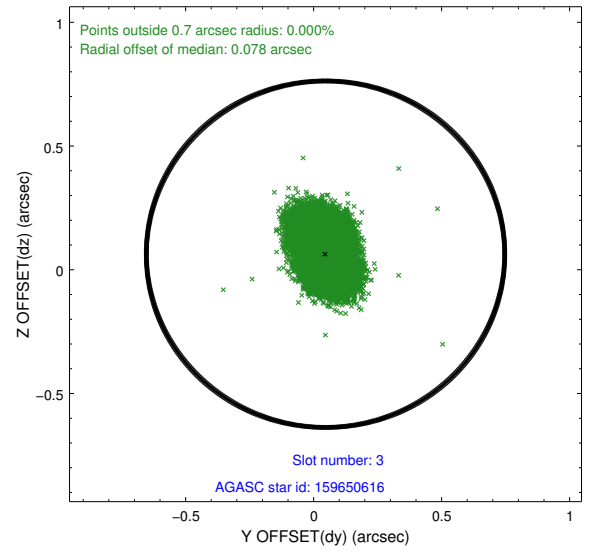
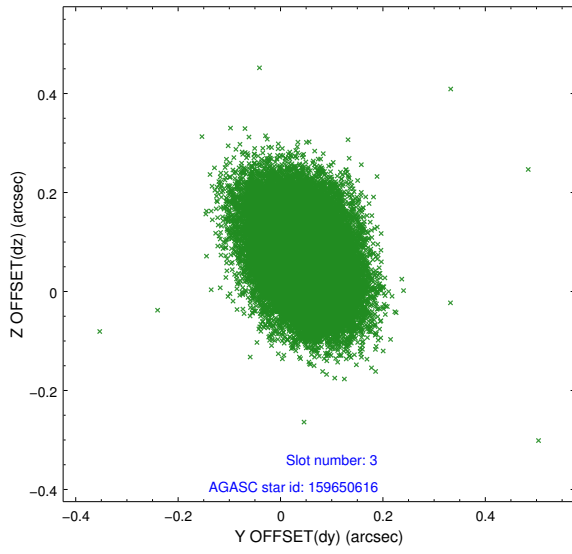


### Slot Statistics

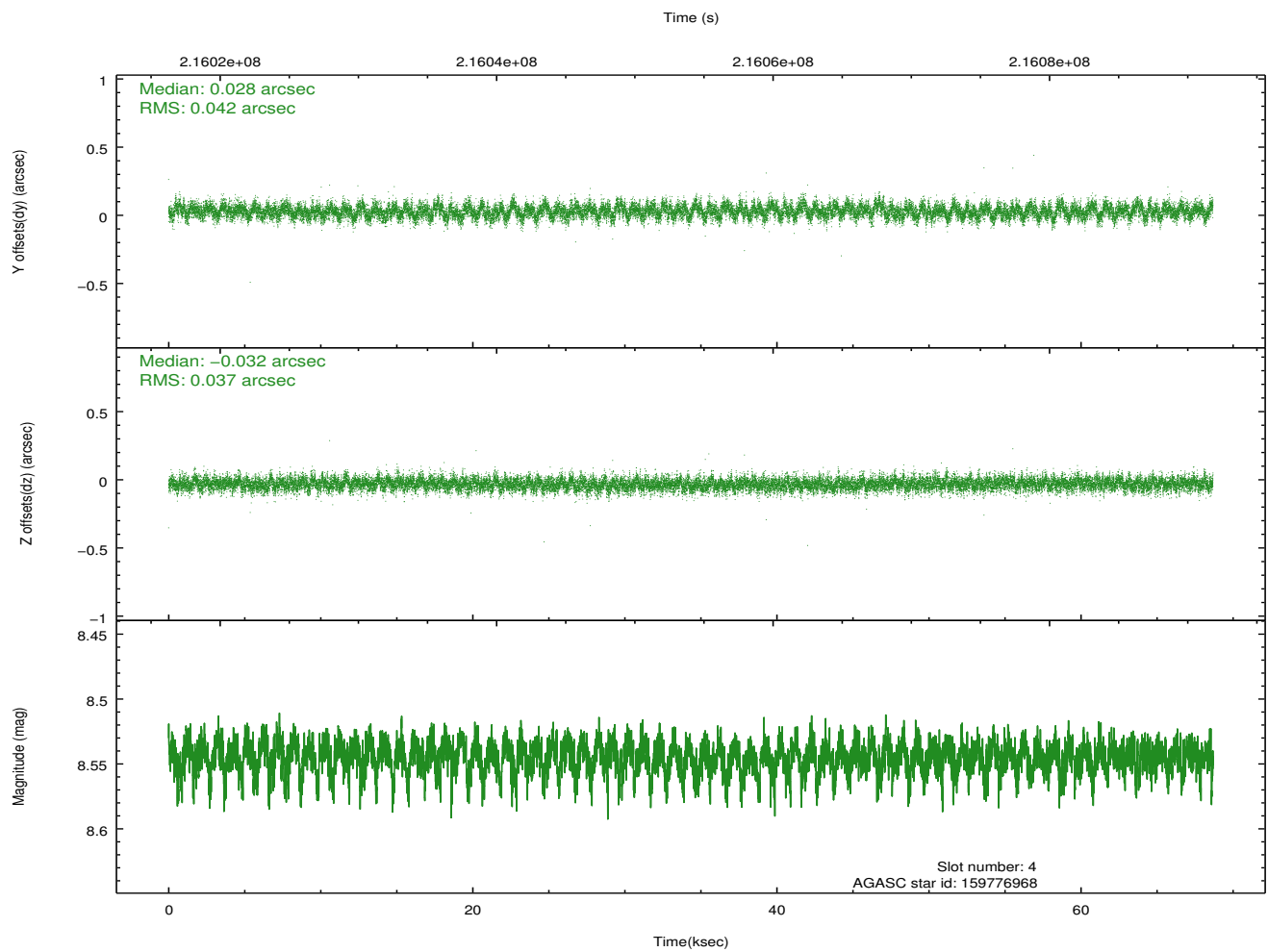
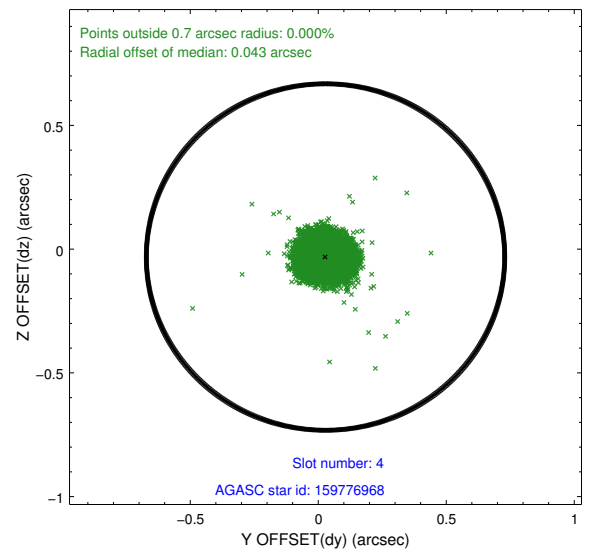
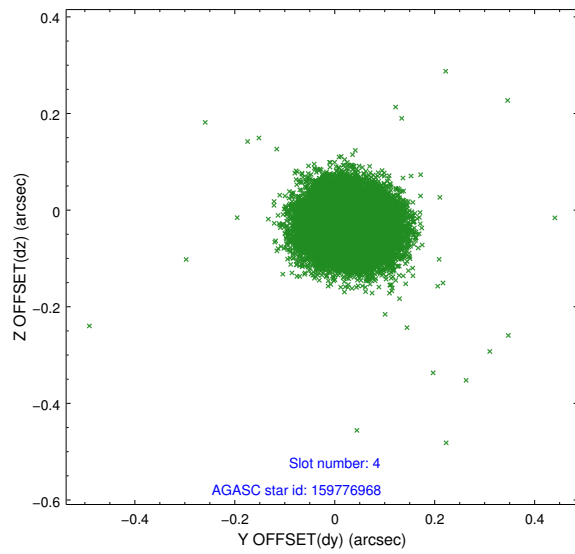
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.17	16747	-0.064	-0.073	0.024	0.040	0.000000	0.000000	-759.65	-995.74
1	FID	ACIS-I-4	7.14	16752	0.094	0.063	0.023	0.036	0.000000	0.000000	2154.53	910.57
2	FID	ACIS-I-5	7.21	16751	-0.130	0.082	0.022	0.036	0.000000	0.000000	-1813.23	907.34
3	GUIDE	159650616	9.20	33471	0.046	0.063	0.092	0.155	37.179728	18.571566	994.13	-922.99
4	GUIDE	159776968	8.54	33490	0.028	-0.032	0.059	0.096	38.124868	18.912417	-2118.18	560.49
5	GUIDE	159779088	8.86	33488	-0.057	-0.158	0.072	0.116	37.891114	18.792953	-1256.88	282.90
6	GUIDE	159792160	9.31	33428	0.081	0.040	0.082	0.134	38.137586	18.477673	-1018.91	1675.52
7	GUIDE	159657288	9.68	33482	-0.098	0.084	0.119	0.196	36.947403	18.957788	529.94	-2454.22

## 2.4 Star Slots

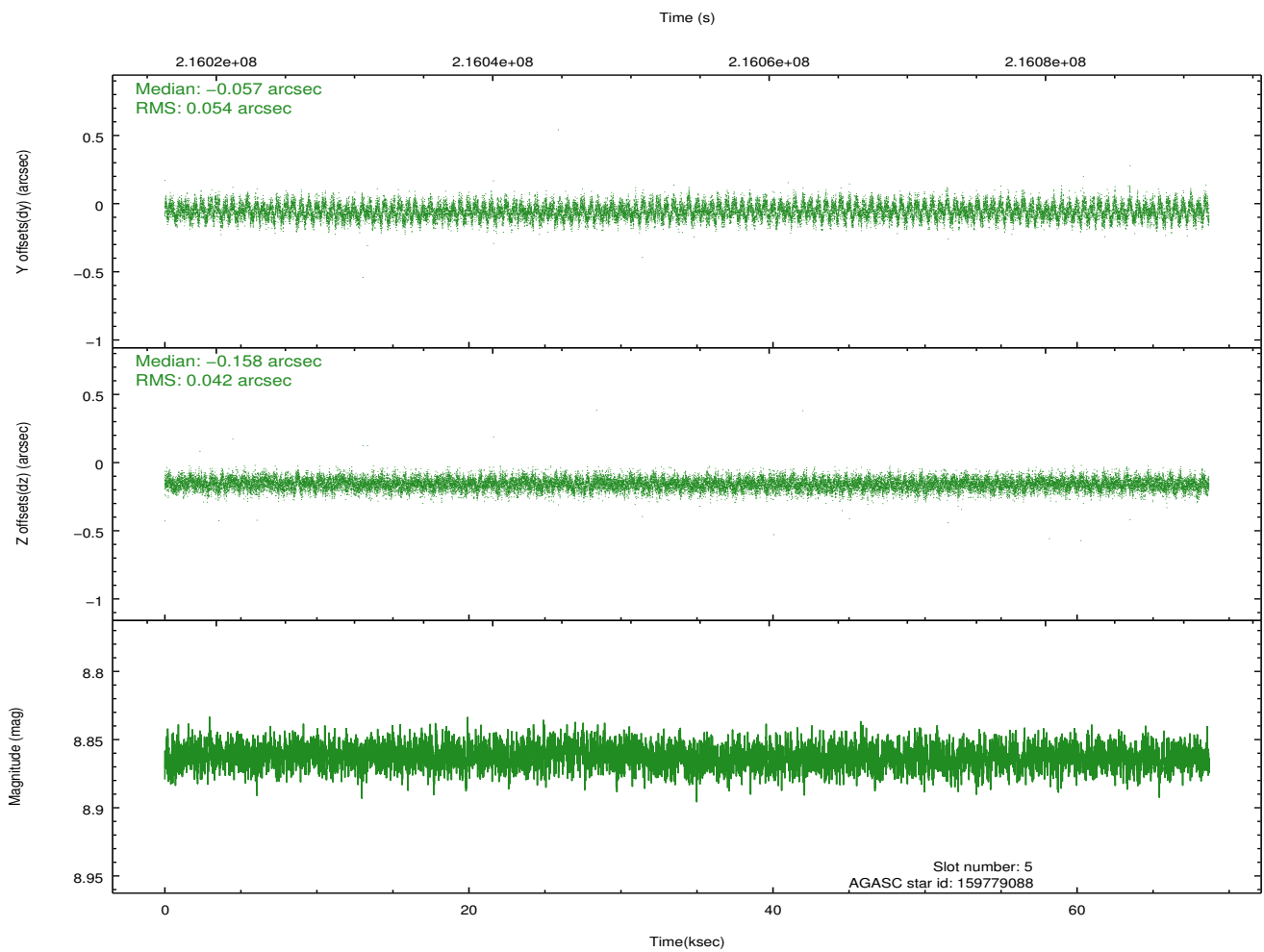
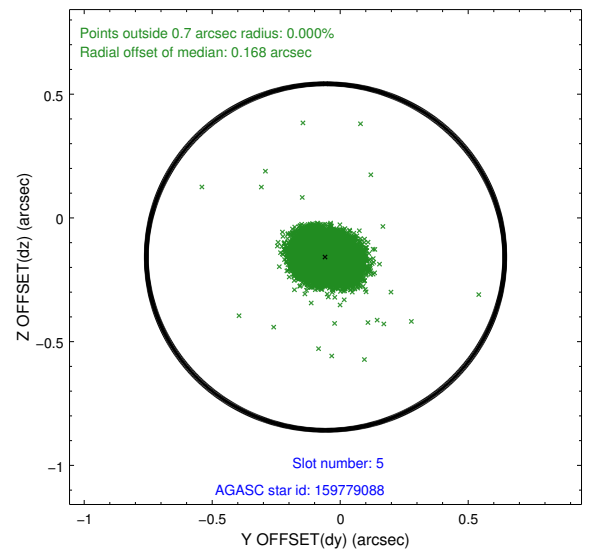
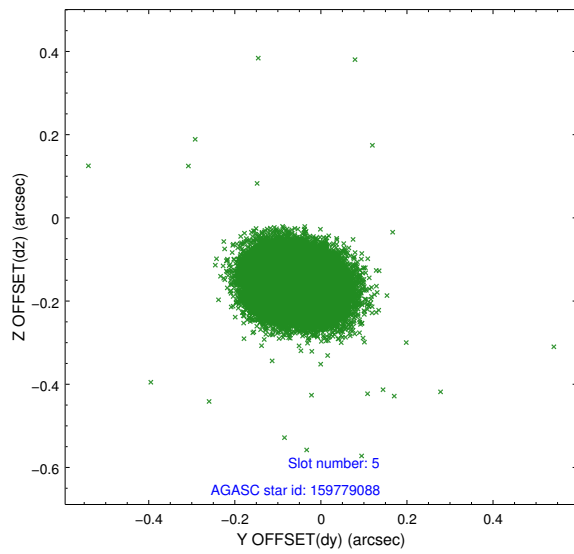
### 2.4.1 Slot 3



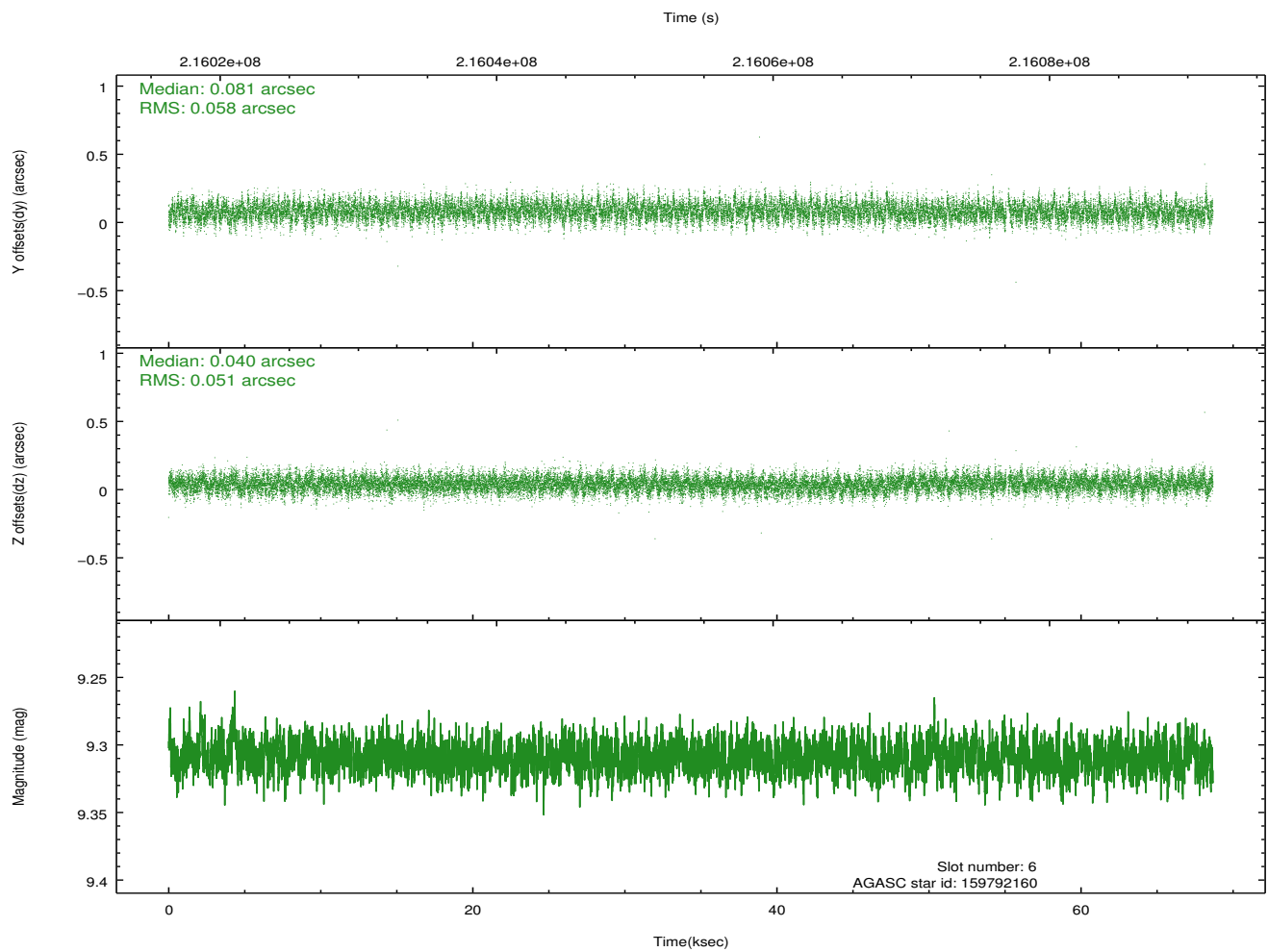
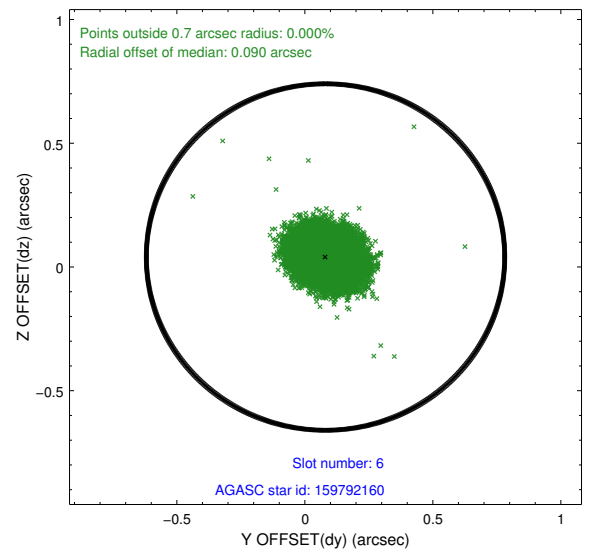
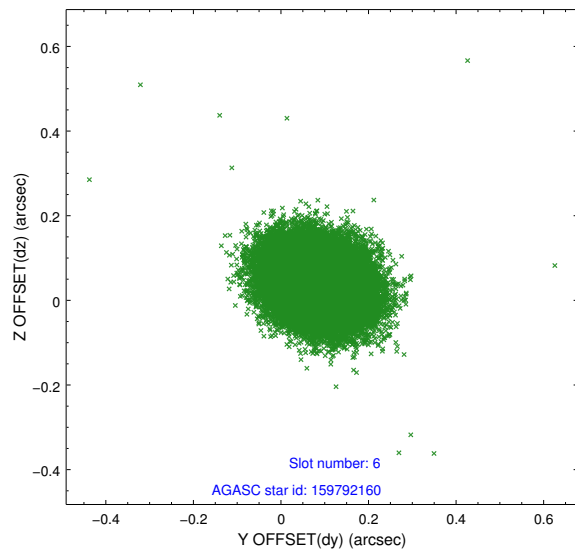
## 2.4.2 Slot 4



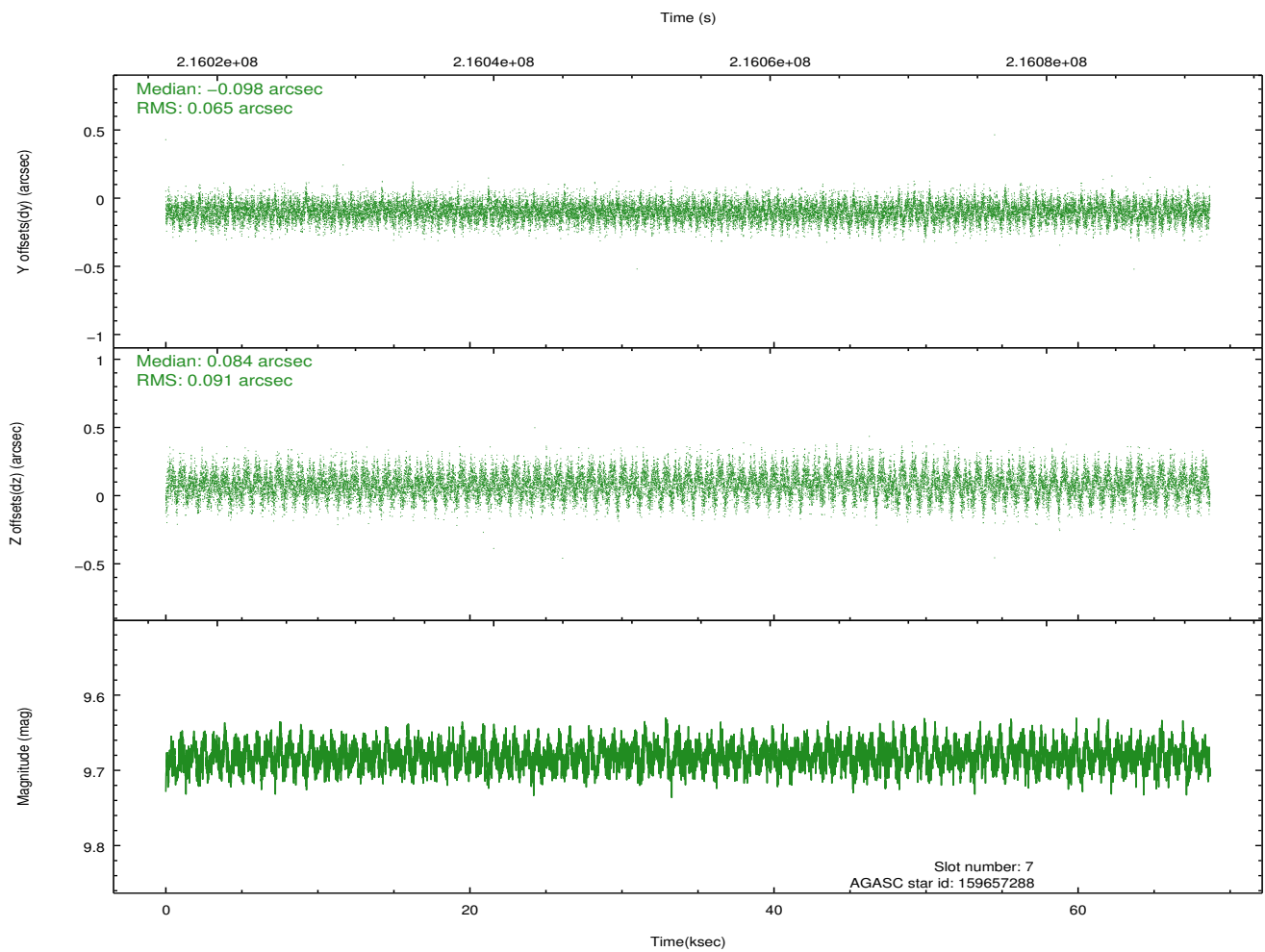
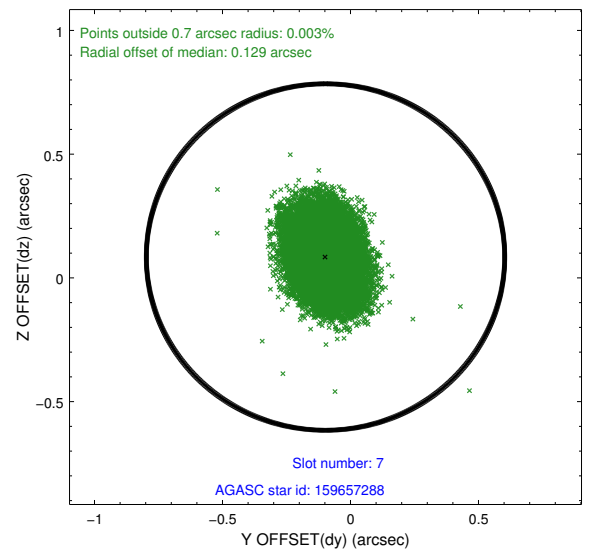
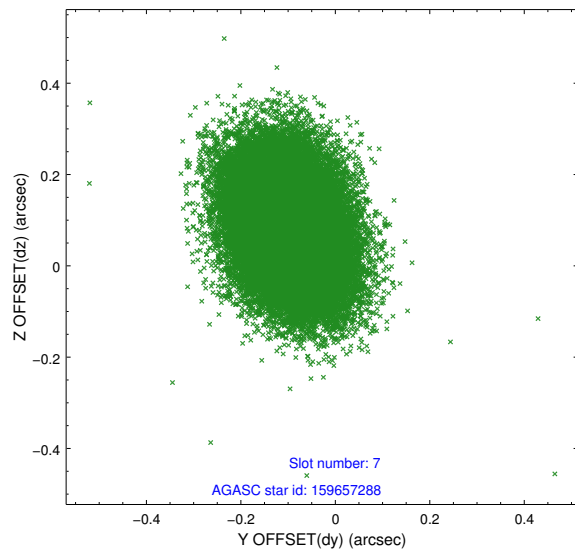
### 2.4.3 Slot 5



## 2.4.4 Slot 6

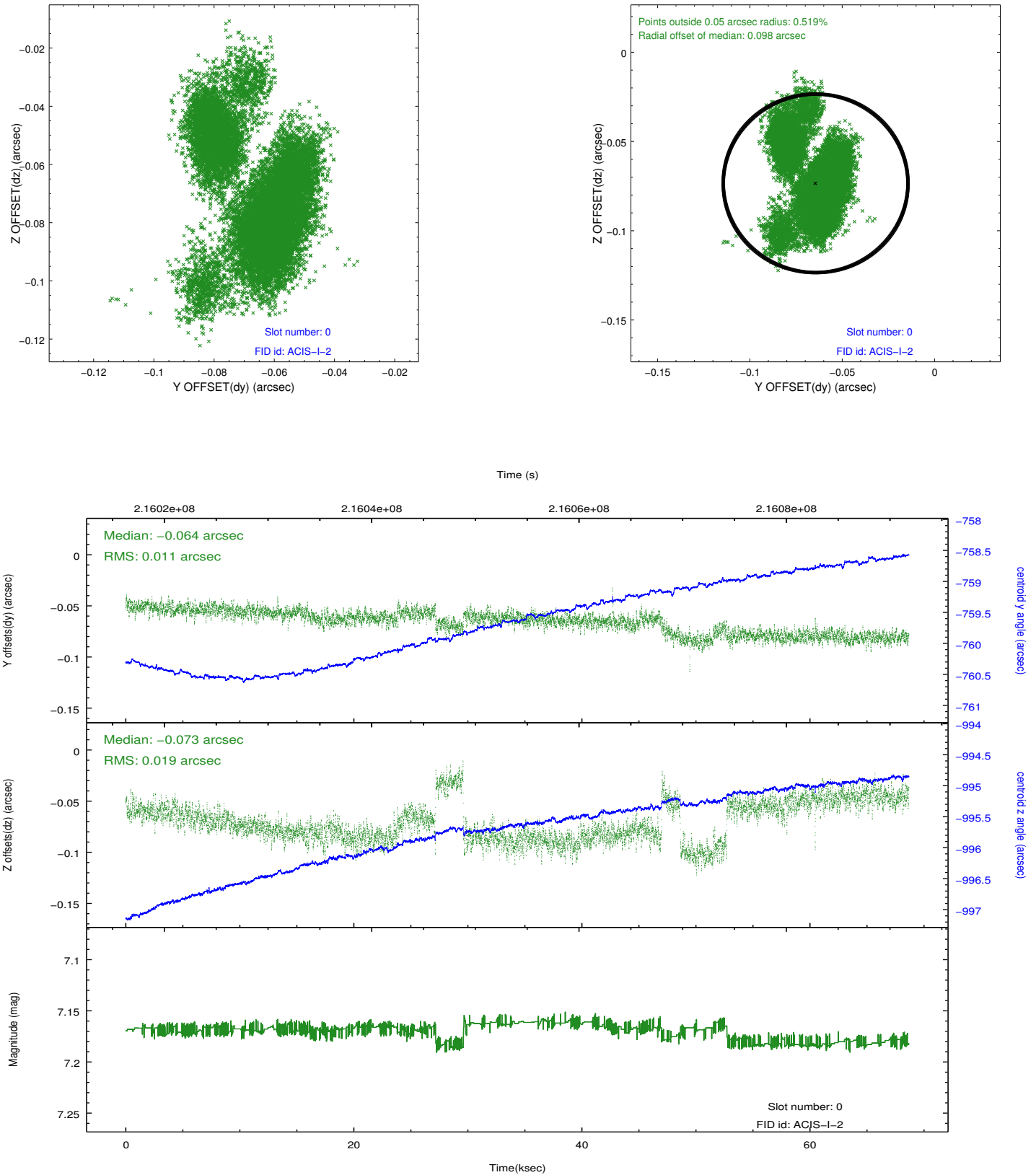


## 2.4.5 Slot 7

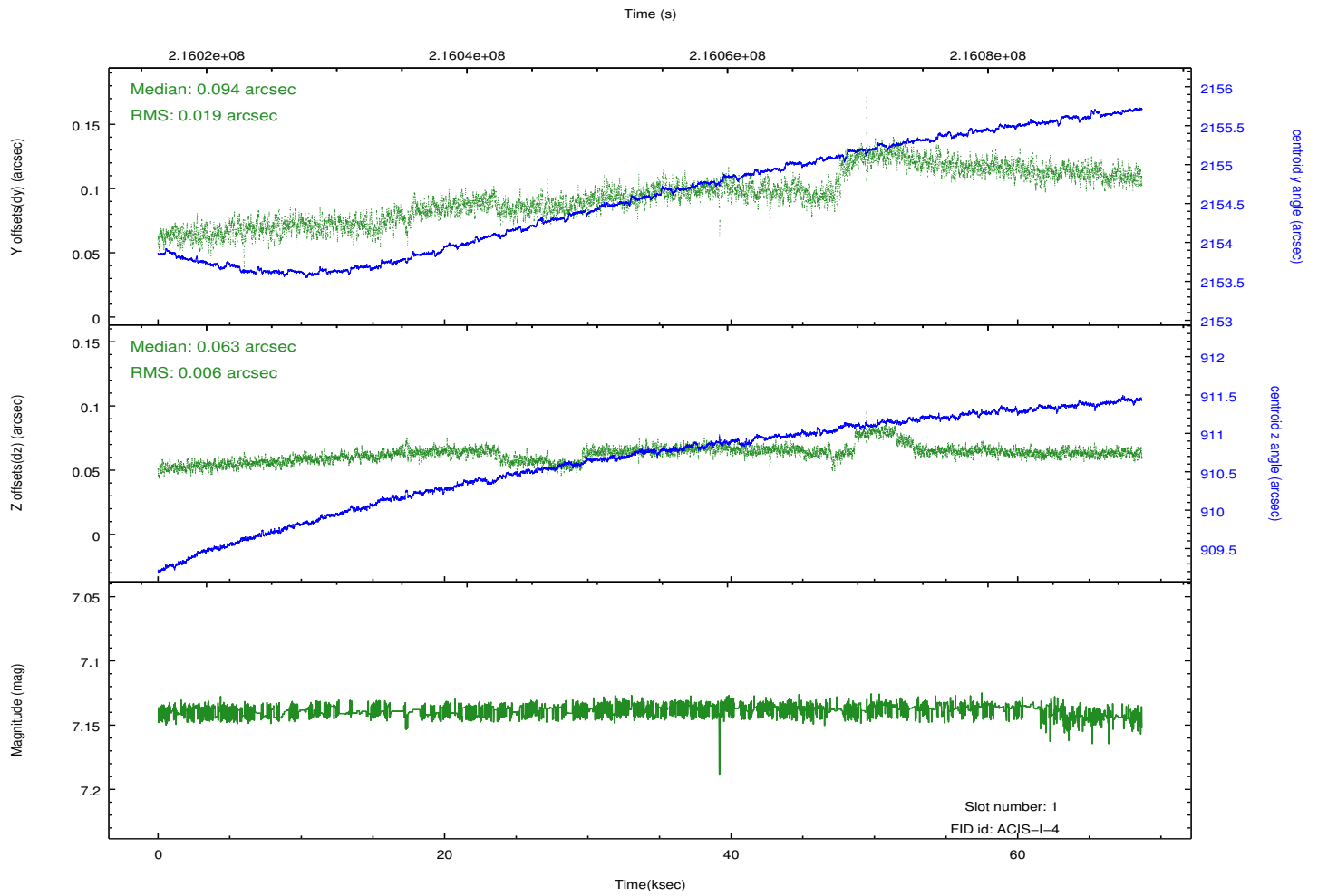
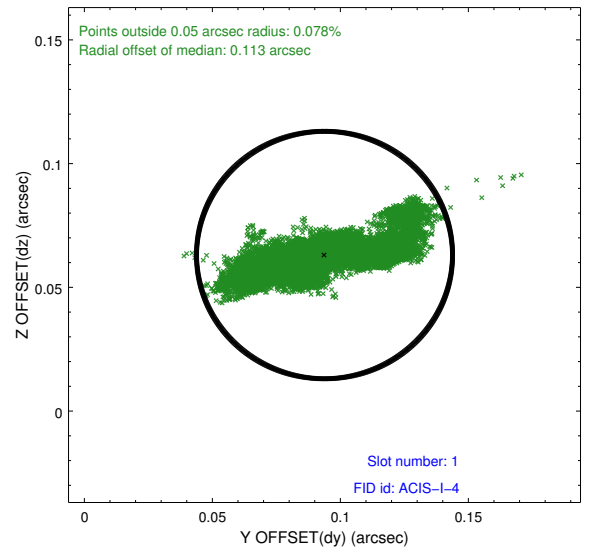
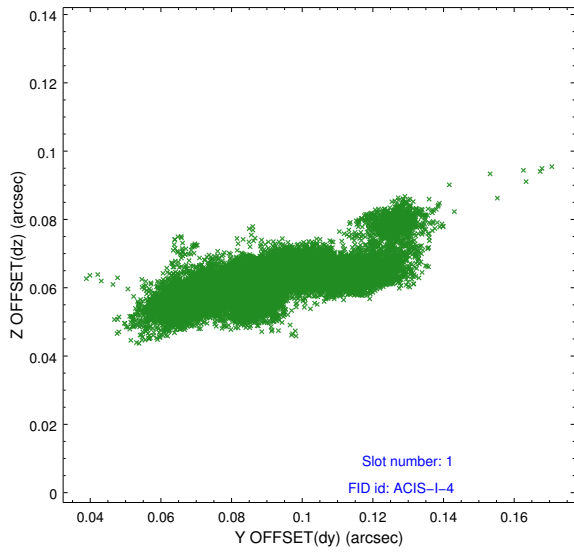


## 2.5 FID Slots

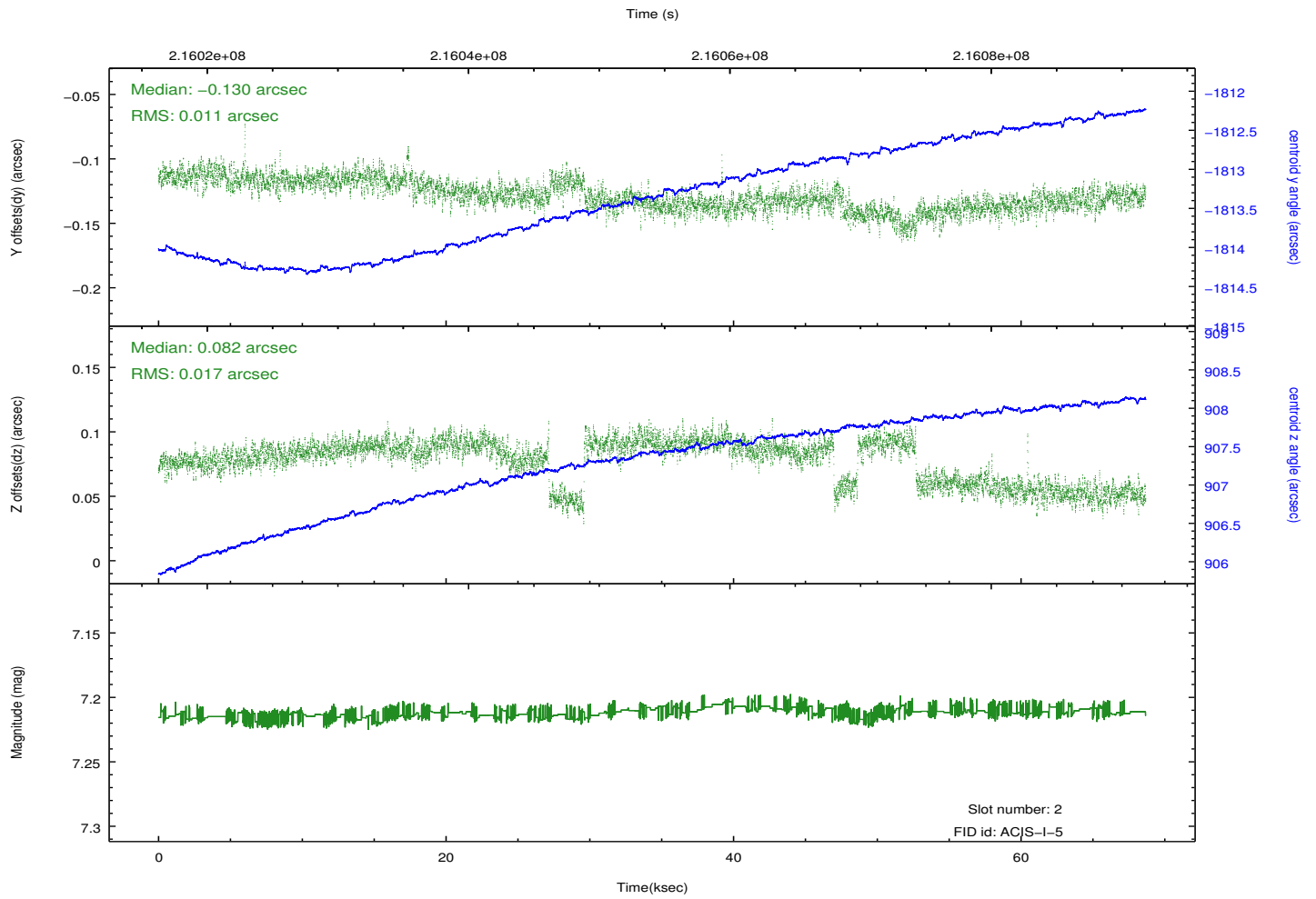
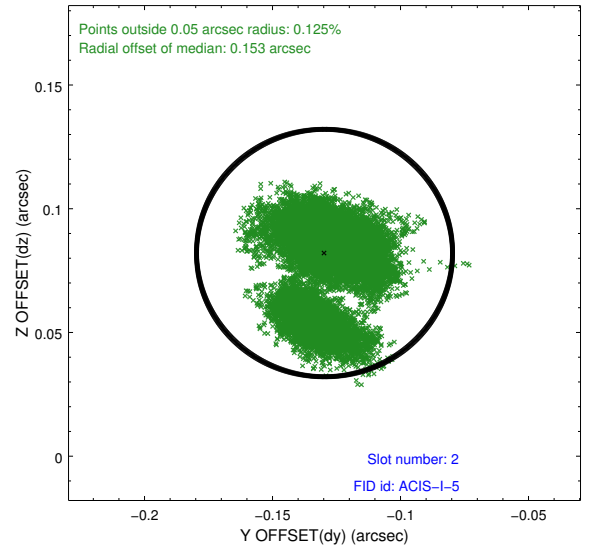
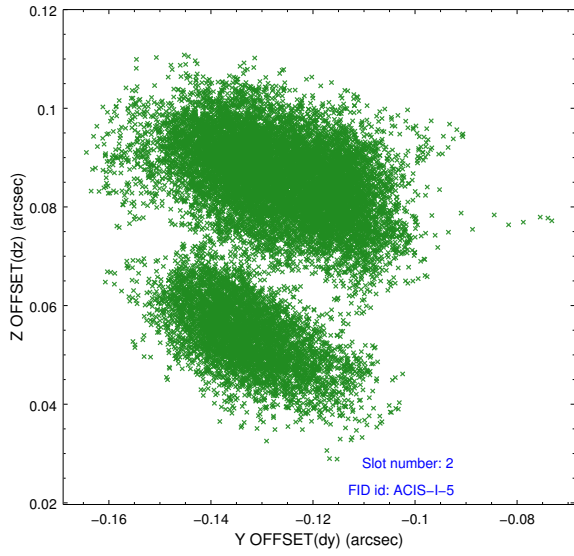
### 2.5.1 Slot 0



## 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)	2013.01.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	68.668

## A.2 Comments