

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 10480 - L2 Version 2  
Chandra X-Ray Center

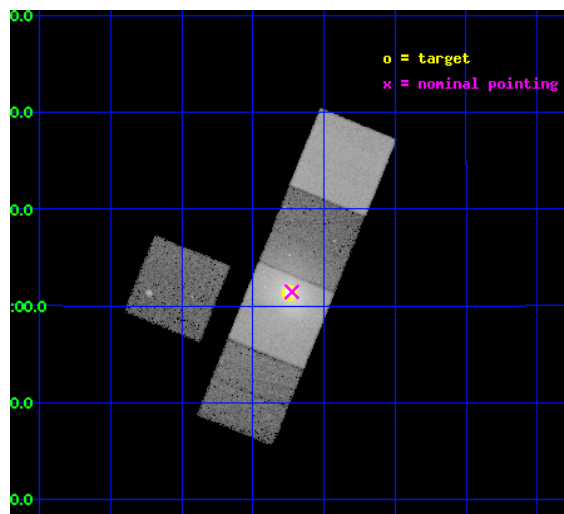
L2 Processing Date : Jun 3 2012

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# 1 Front

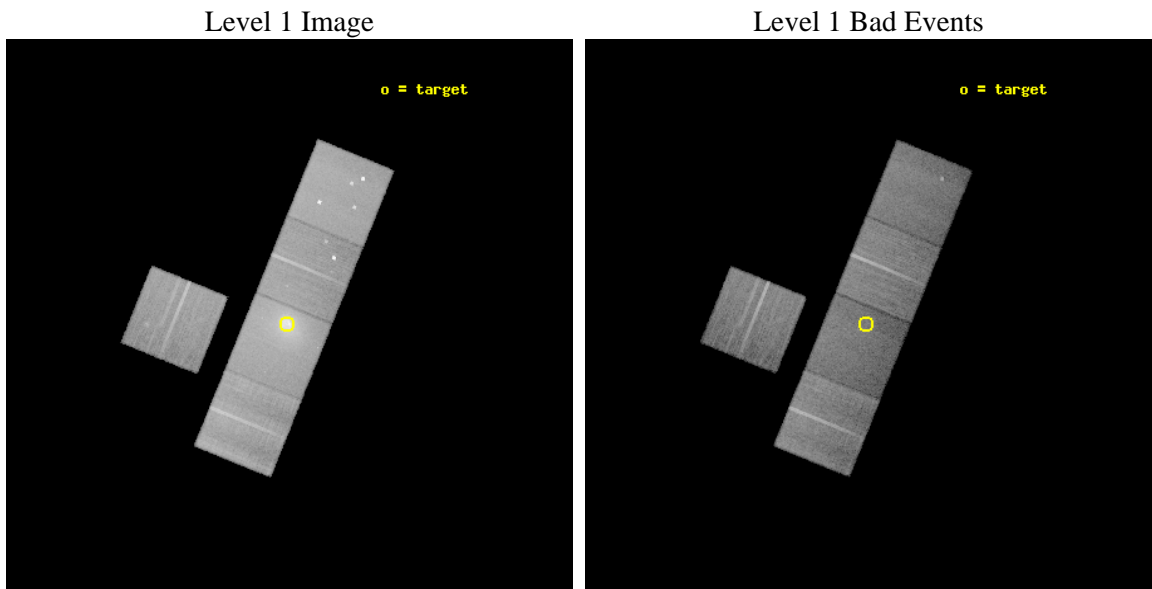
seq_num	800835	Sequence number
obs_id	10480	Observation id
title	Shocks, Ripples, and Bubbles: A Very Deep Observation of Abell 2052	&#160
observer	Prof. Elizabeth Blanton	Principal investigator
object	Abell 2052	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	229.185417	Observer's specified target RA [deg]
dec_targ	7.021278	Observer's specified target Dec [deg]
ra_nom	229.1814599074	Nominal RA [deg]
dec_nom	7.0241335421637	Nominal Dec [deg]
roll_nom	112.15711504621	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20146.900154948	Sum of GTIs [s]
livetime	19883.666072492	Livetime [s]
ontime3	20143.759144604	Sum of GTIs [s]
ontime5	20146.900154948	Sum of GTIs [s]
ontime6	20146.900154948	Sum of GTIs [s]
ontime7	20146.900154948	Sum of GTIs [s]
ontime8	20143.759174109	Sum of GTIs [s]
l2events	391824	Number of level 2 events



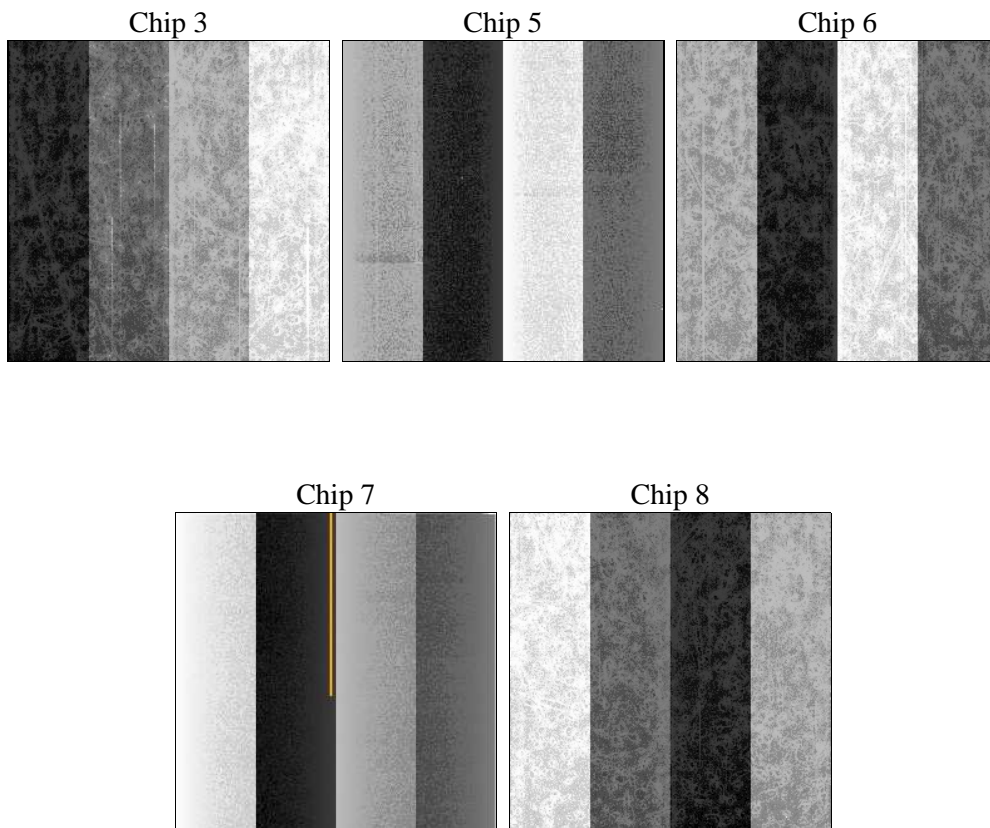
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20001.895000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	20146.900154948	Sum of GTIs [s]
caldbver	4.4.9	&#160	ontime3	20143.759144604	Sum of GTIs [s]
date	2012-06-03T23:57:48	Date and time of file creation	ontime5	20146.900154948	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	20146.900154948	Sum of GTIs [s]
			ontime7	20146.900154948	Sum of GTIs [s]
			ontime8	20143.759174109	Sum of GTIs [s]
			l1events	1238152	Number of level 1 events

### 2.1.4 Events

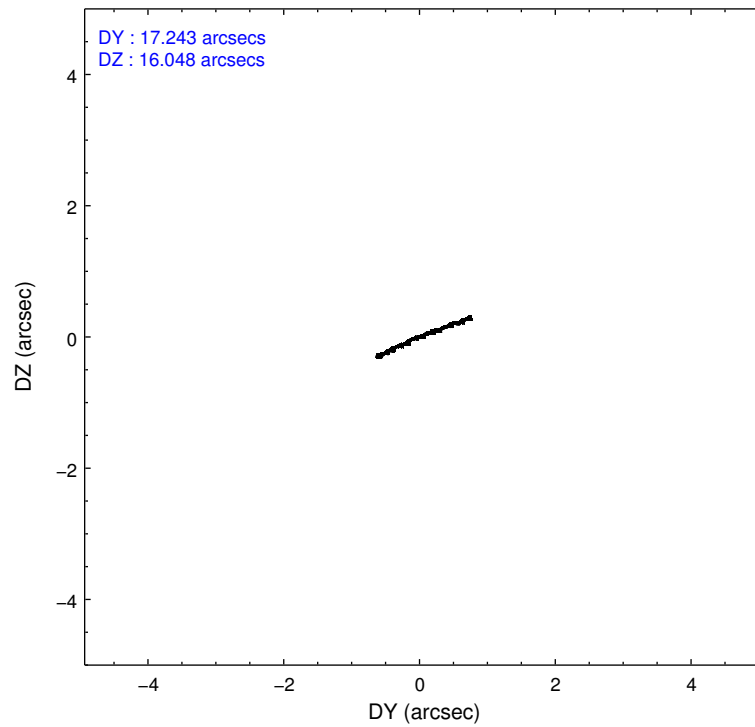
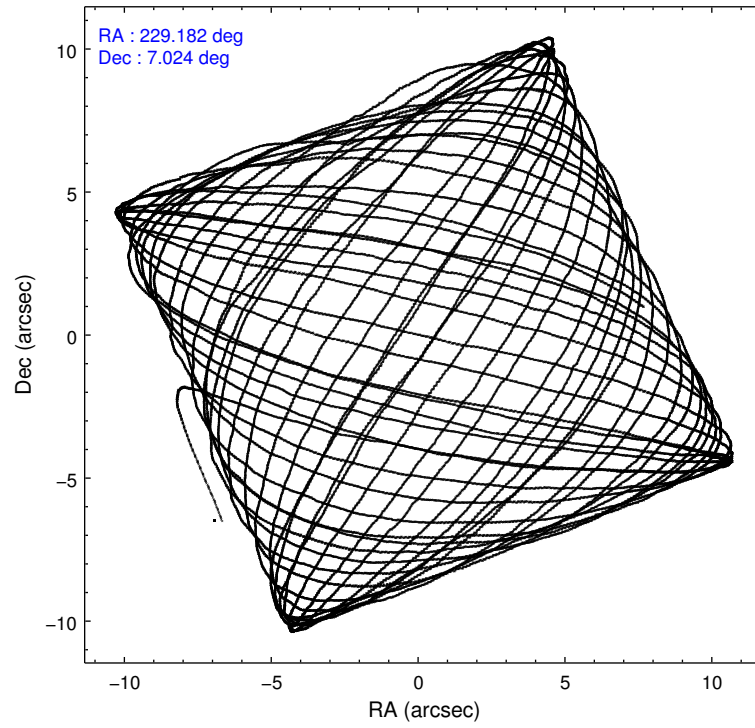
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	181929	273819	212055	333075	237274
rejected events	163493	139113	170696	123480	180305
rejected %	89%	50%	80%	37%	75%

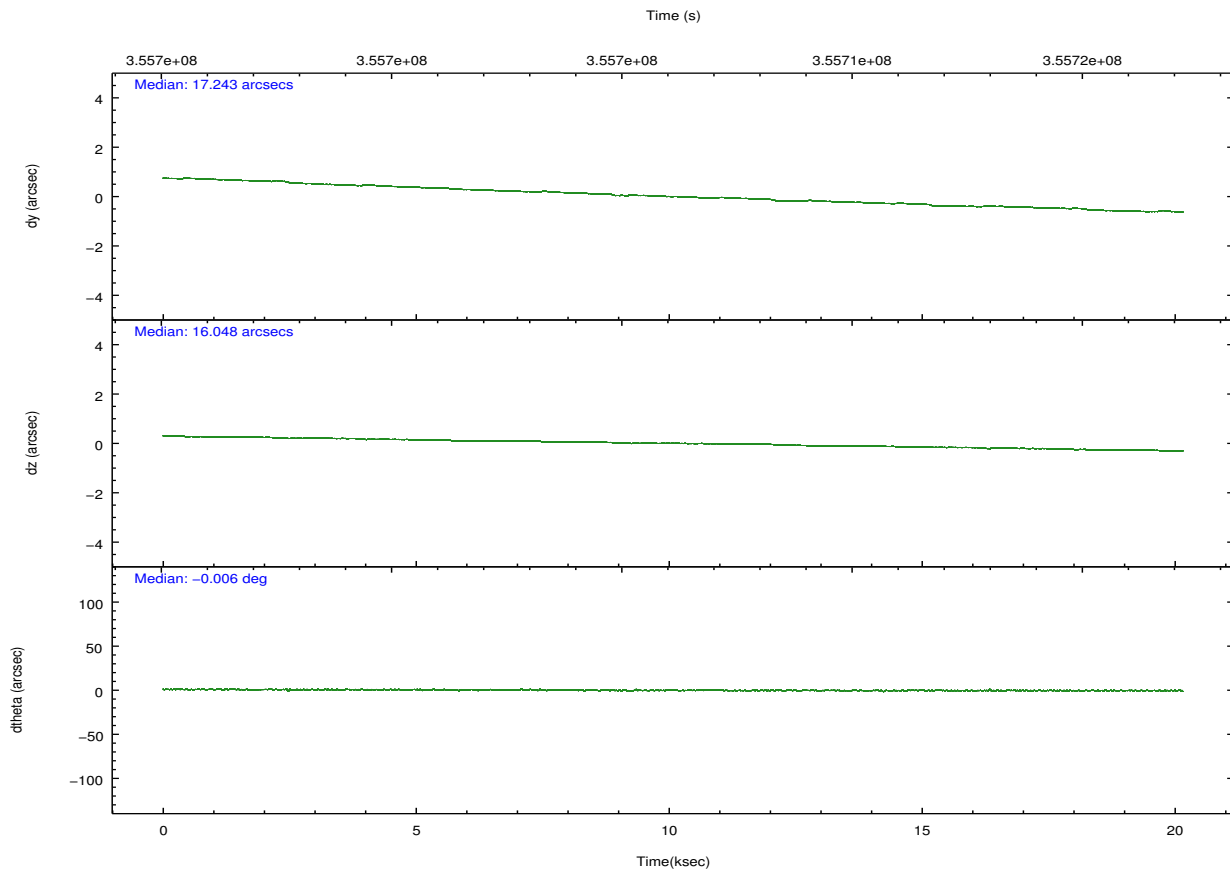
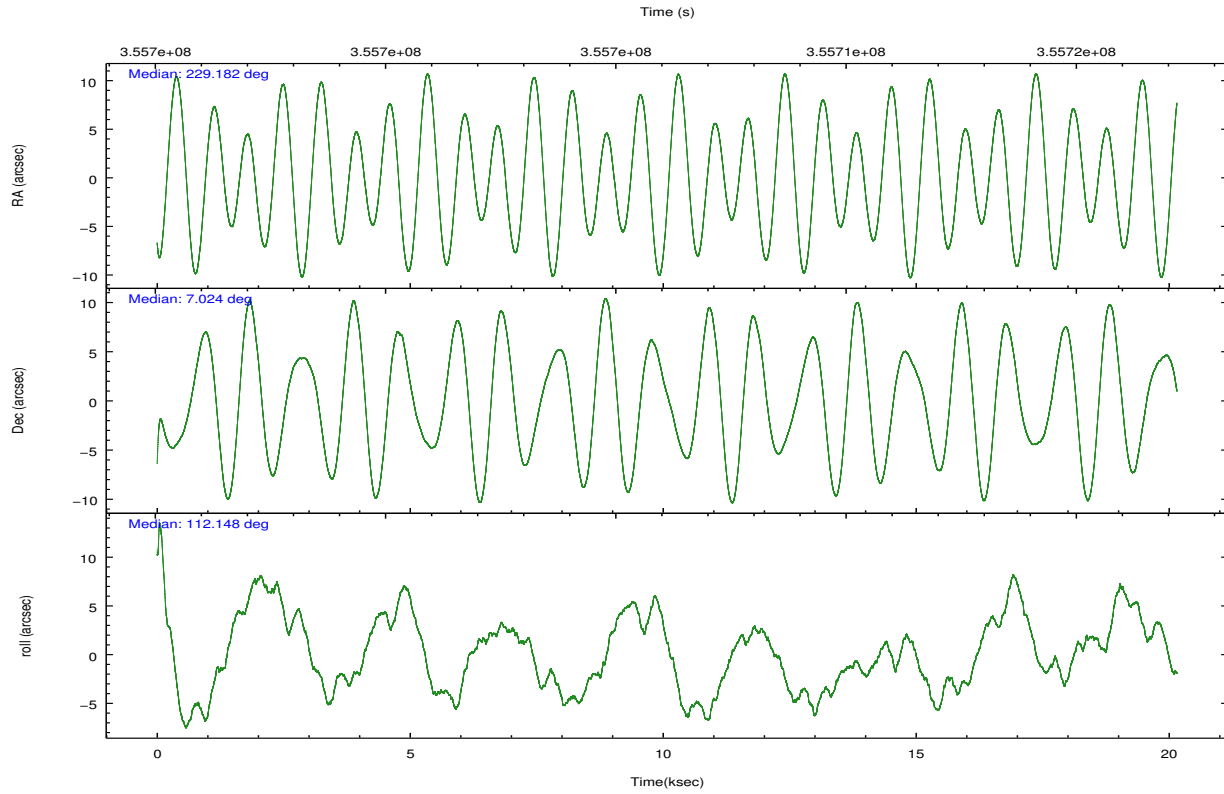
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	7902	21623	27524	45254	18788
	4%	7%	12%	13%	7%
grade 1 events	114	1072	221	298	222
	0%	0%	0%	0%	0%
grade 2 events	3934	42508	5990	51771	13808
	2%	15%	2%	15%	5%
grade 3 events	2089	5464	2511	22883	6339
	1%	1%	1%	6%	2%
grade 4 events	2026	5307	2514	22335	5767
	1%	1%	1%	6%	2%
grade 5 events	7610	20594	7839	22709	11202
	4%	7%	3%	6%	4%
grade 6 events	3517	68046	4503	74109	16091
	1%	24%	2%	22%	6%
grade 7 events	154737	109205	160953	93716	165057
	85%	39%	75%	28%	69%

## 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	229.203459	229.1814599074049	Subarray requested	NONE	NONE
[deg] Pointing Dec	7.007667	7.02413354216371	Alternating exposures requested	N	N
[deg] Pointing Roll	111.997798	112.1571150462133	[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)	355696182.184000	355694594.27127			
Observation start date	2009-04-09T20:28:36	2009-04-09T20:03:14			
[s] Observation end time (MET)	355716184.184000	355716407.29735			
Observation end date	2009-04-10T02:01:58	2009-04-10T02:06:47			
Read mode	TIMED	TIMED			

## 2.3 Aspect



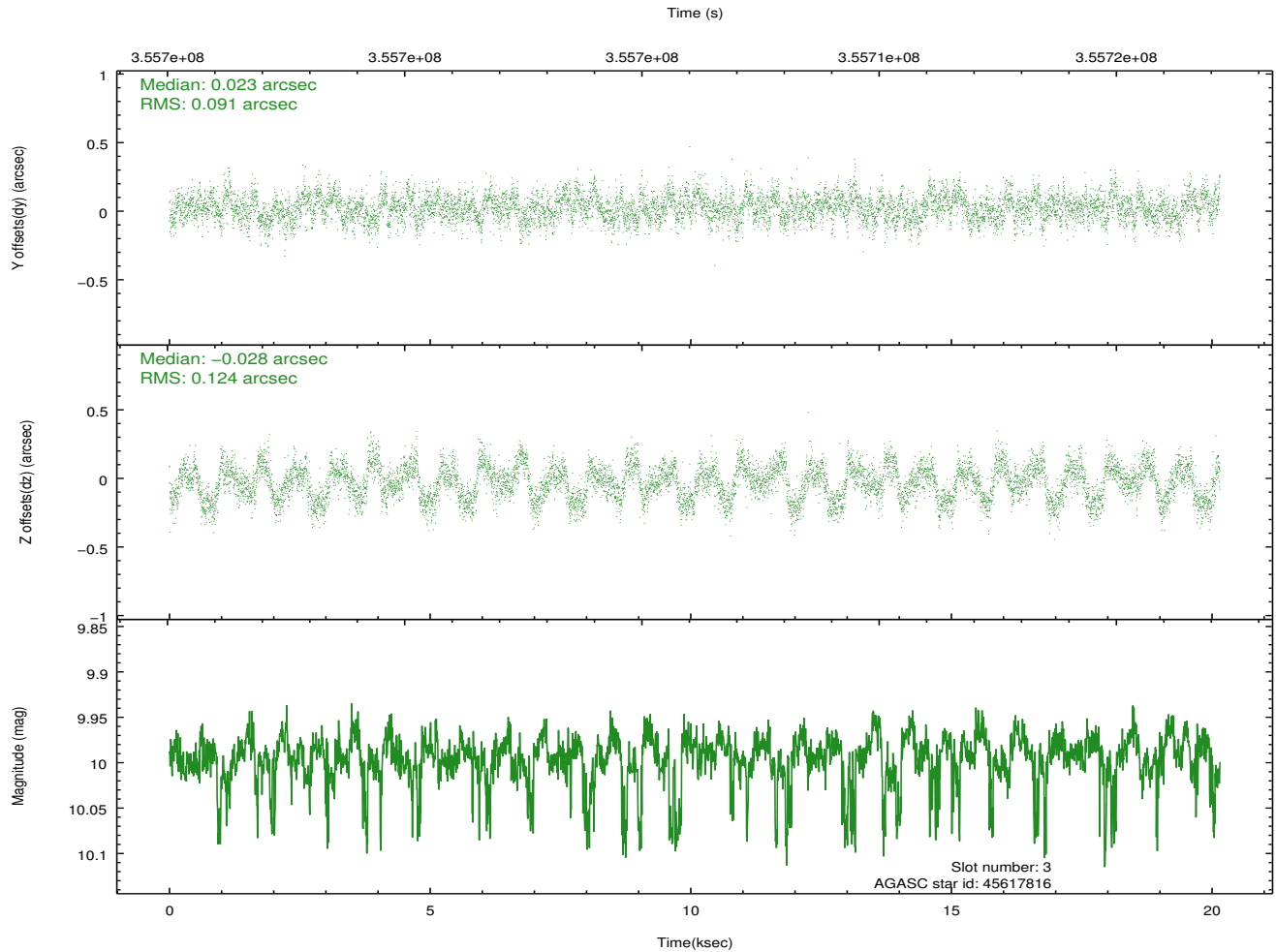
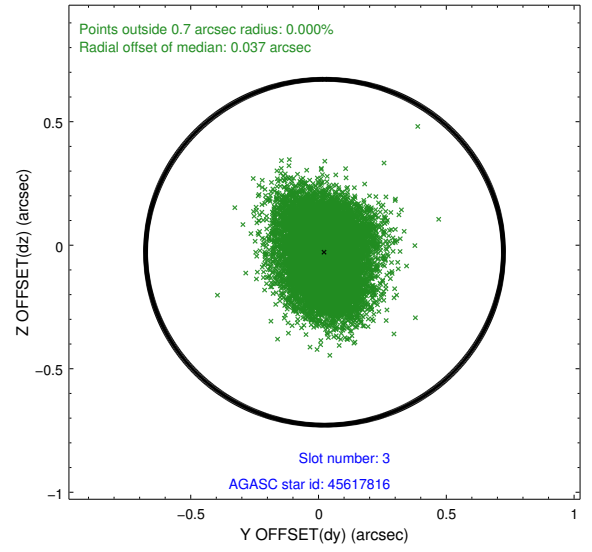
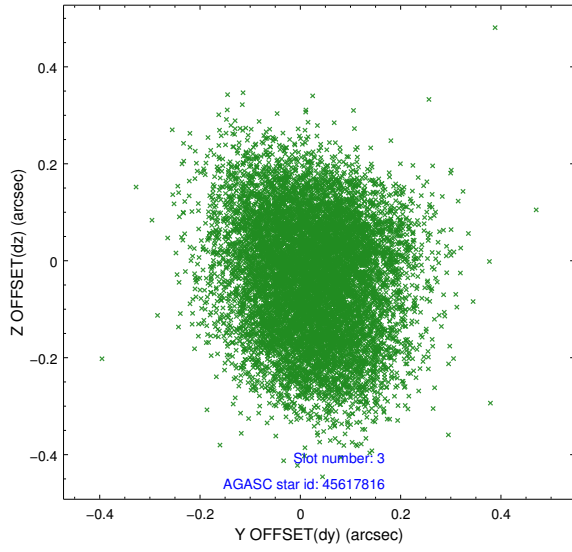


### Slot Statistics

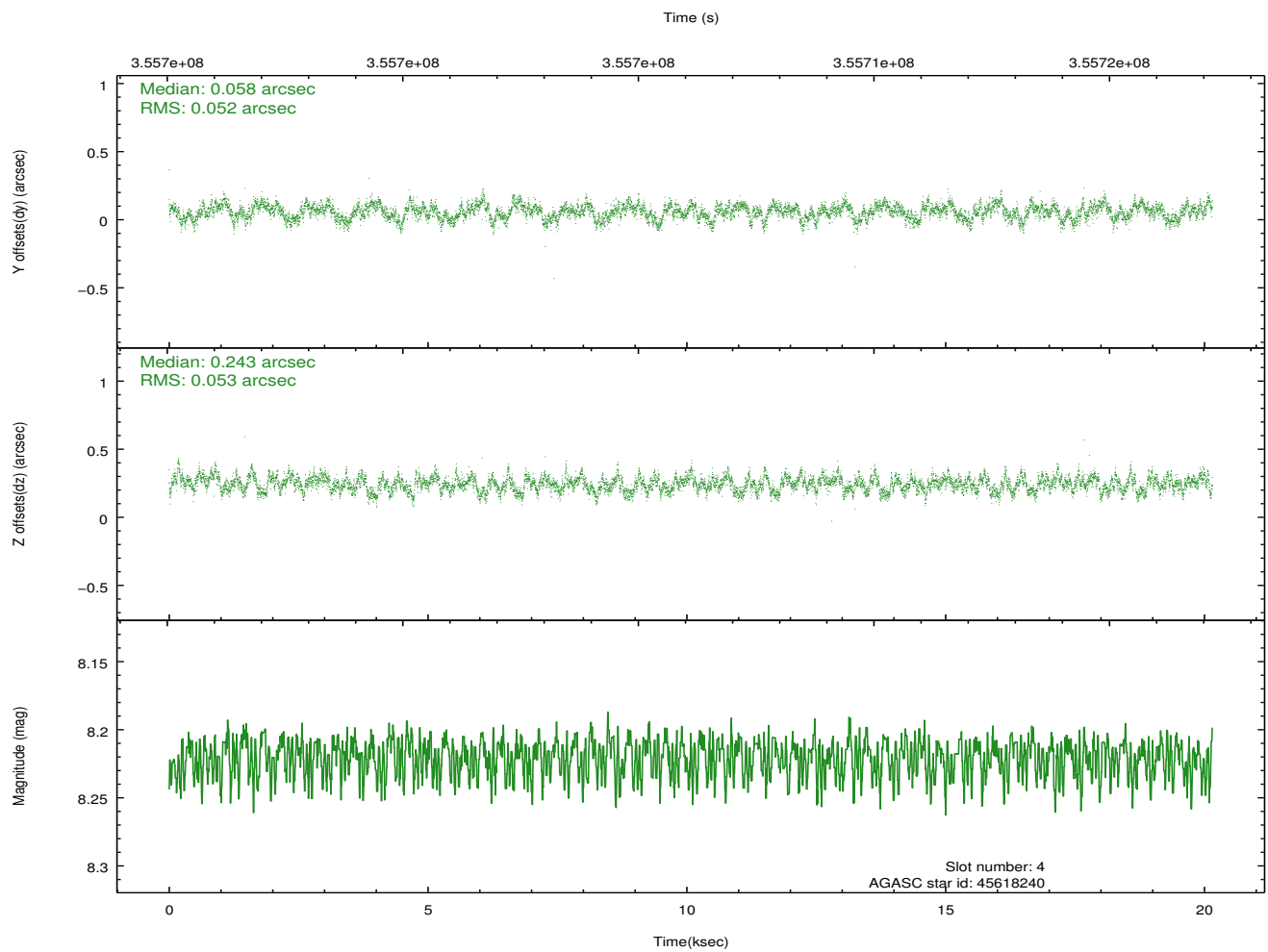
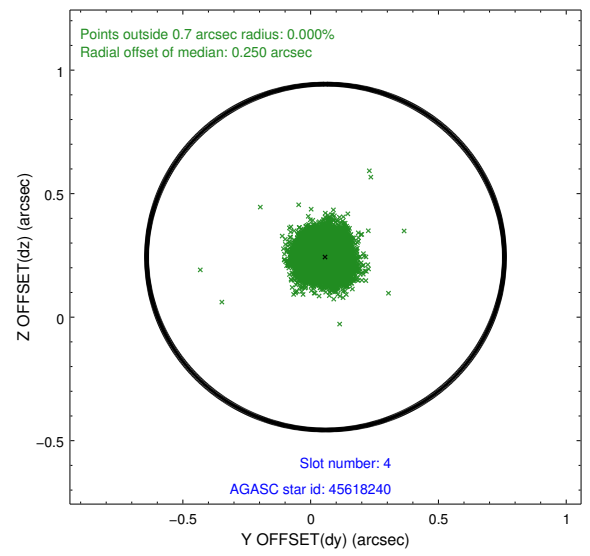
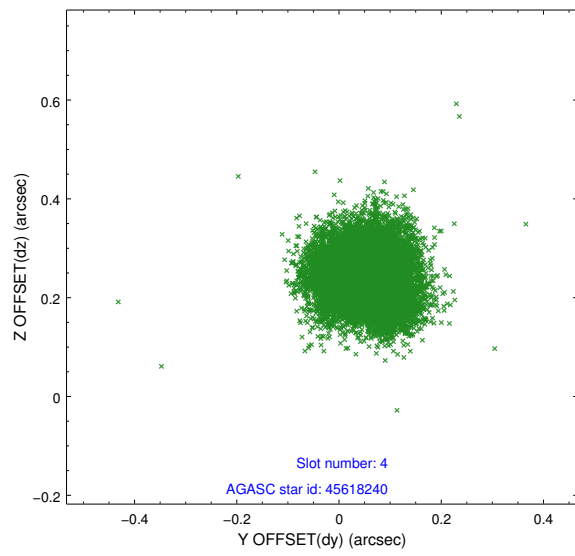
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.05	4916	0.057	-0.076	0.016	0.027	0.000000	0.000000	925.80	-1733.10
1	FID	ACIS-S-4	7.06	4916	0.137	0.032	0.010	0.017	0.000000	0.000000	2143.37	170.98
2	FID	ACIS-S-5	7.10	4916	-0.220	0.059	0.023	0.034	0.000000	0.000000	-1823.13	164.77
3	GUIDE	45617816	9.99	9807	0.023	-0.028	0.165	0.259	228.997066	7.166043	805.21	470.15
4	GUIDE	45618240	8.22	9829	0.058	0.243	0.080	0.126	229.756501	6.988062	-804.01	-1805.81
5	GUIDE	45619272	6.17	9833	-0.097	-0.106	0.083	0.145	228.973190	6.464840	-1503.45	1495.44
6	GUIDE	120599960	10.16	9645	0.037	0.011	0.150	0.251	229.604732	7.524393	1189.52	-2024.55
7	GUIDE	120598184	10.12	9702	-0.015	-0.110	0.176	0.287	228.939530	7.597810	2321.72	78.43

## 2.4 Star Slots

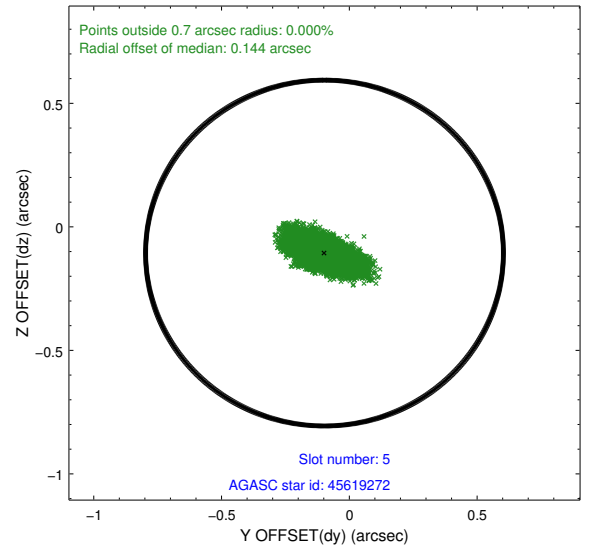
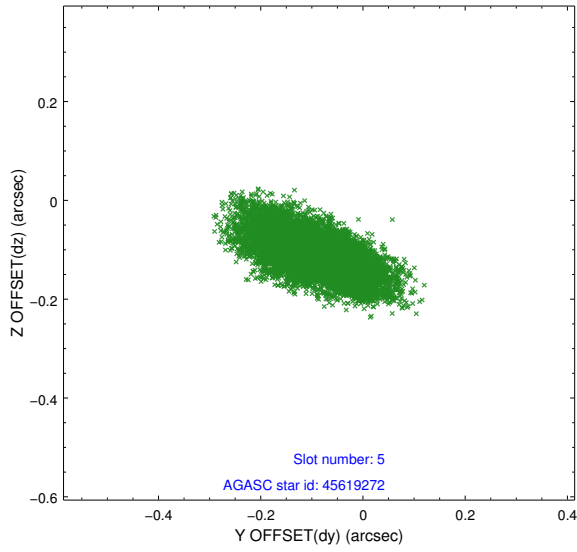
### 2.4.1 Slot 3



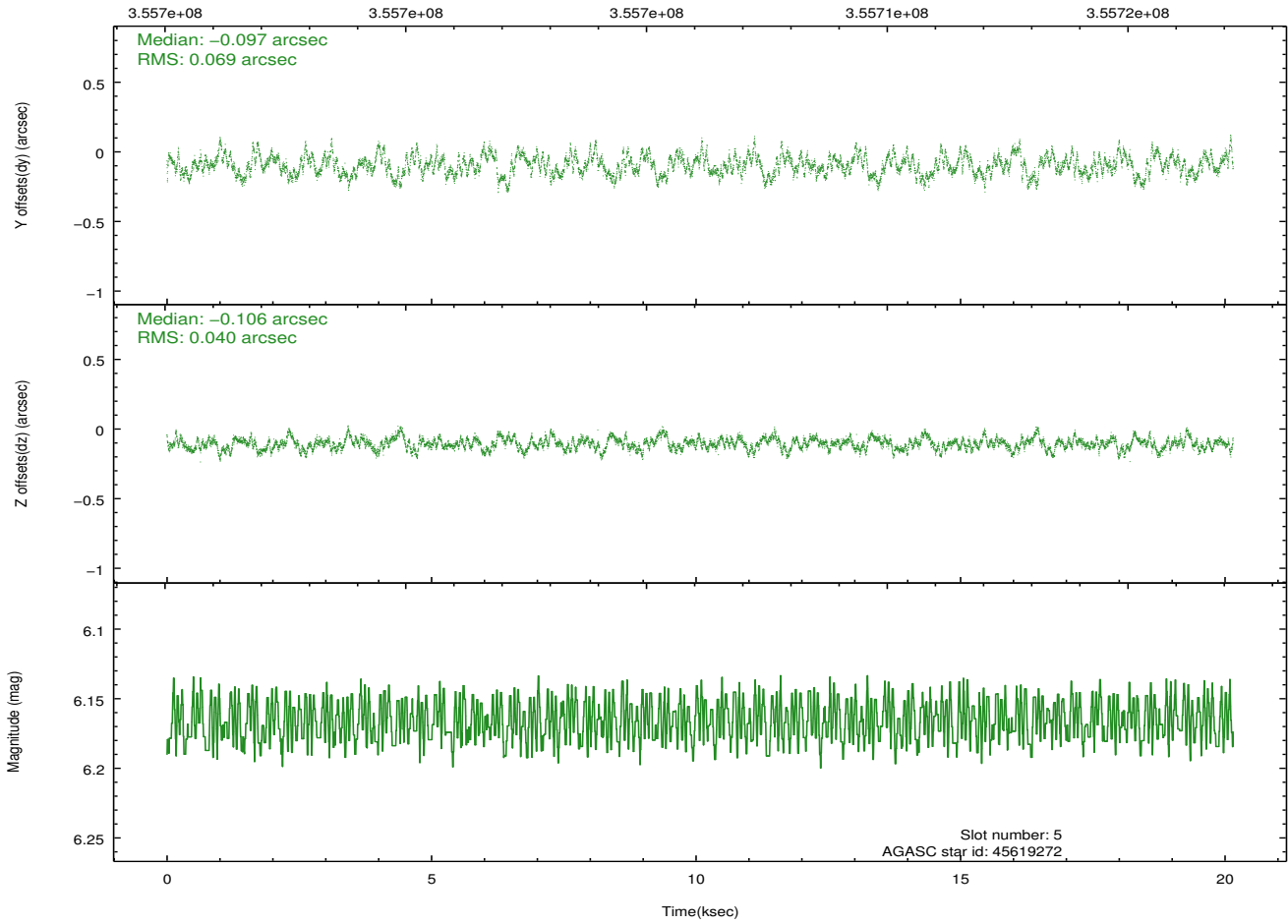
## 2.4.2 Slot 4



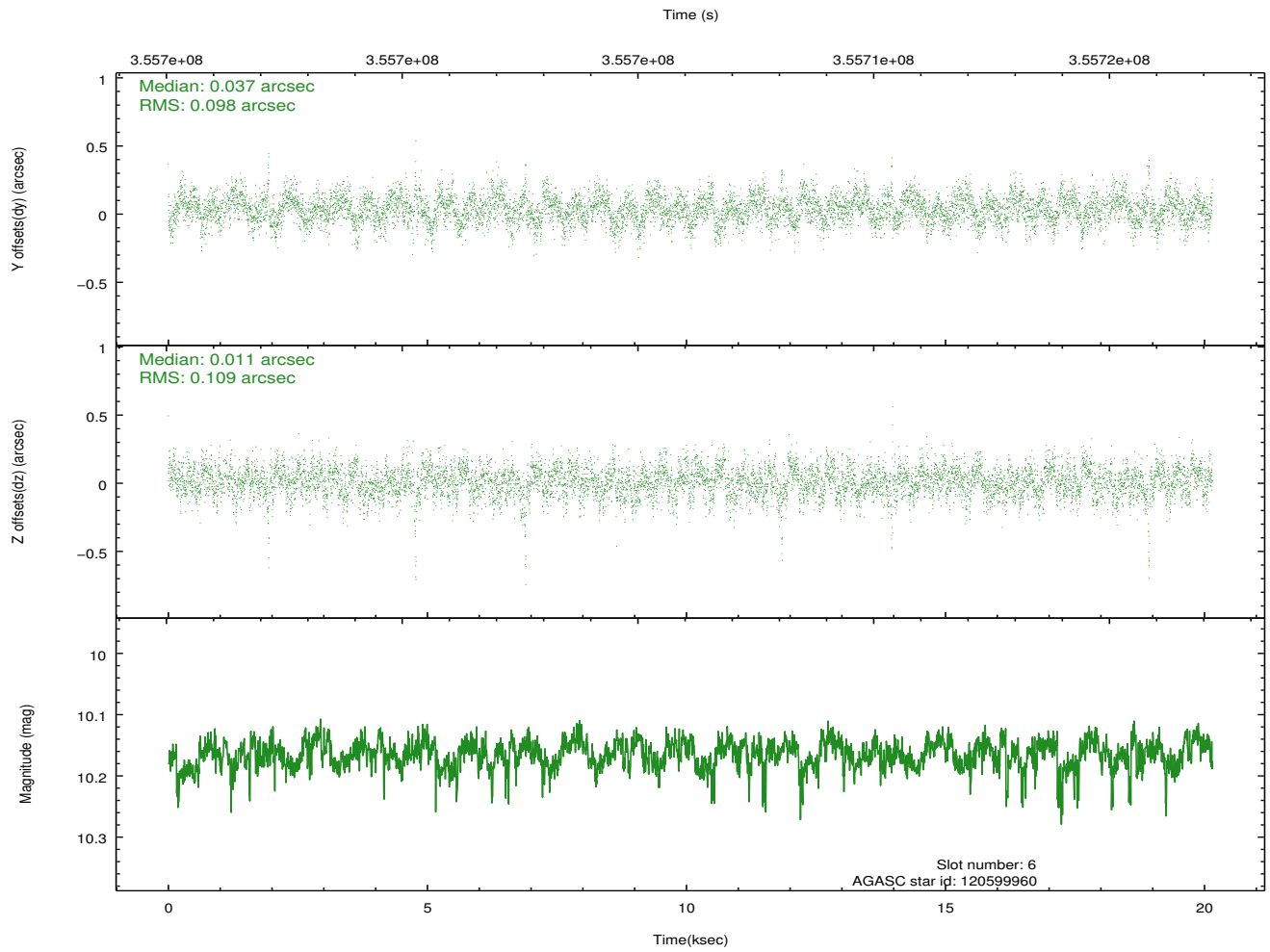
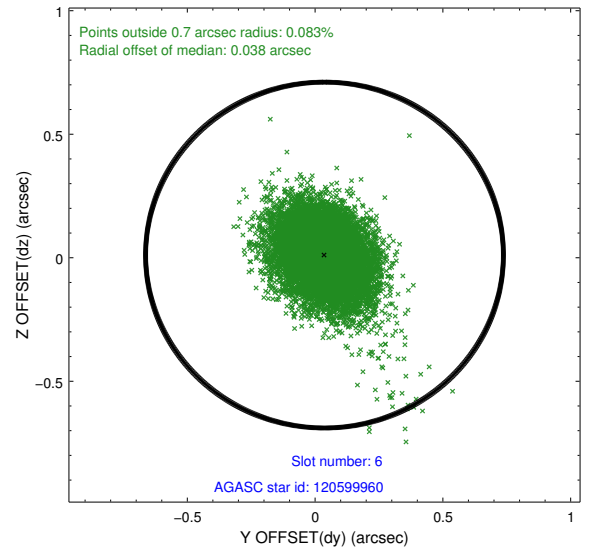
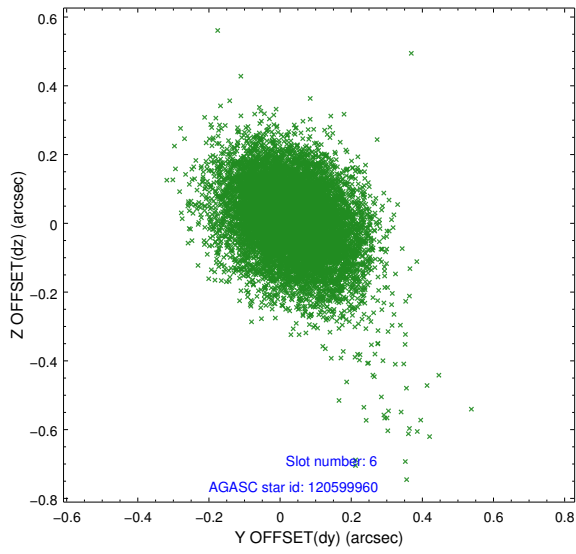
### 2.4.3 Slot 5



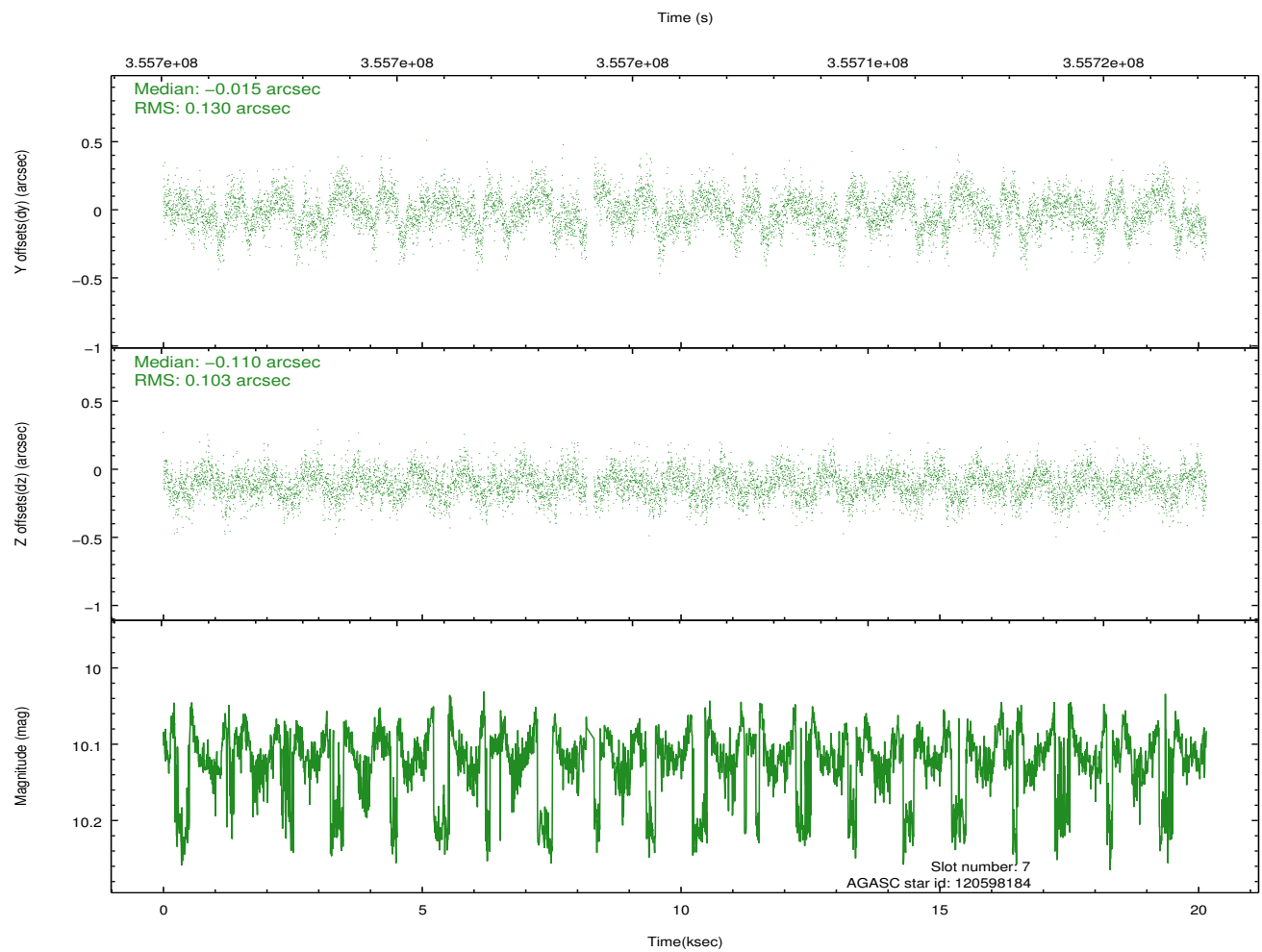
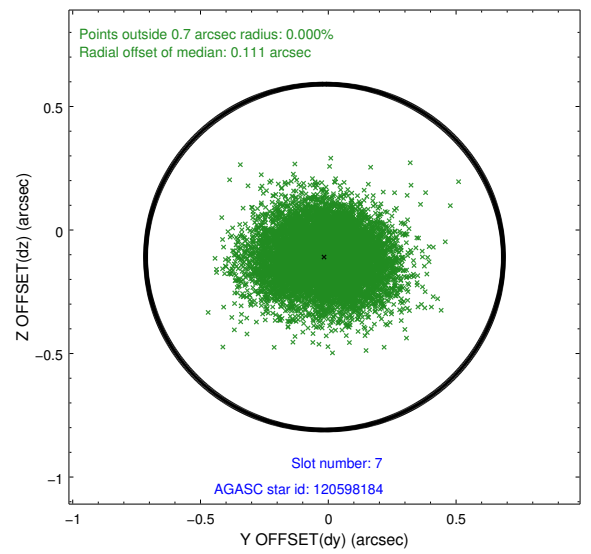
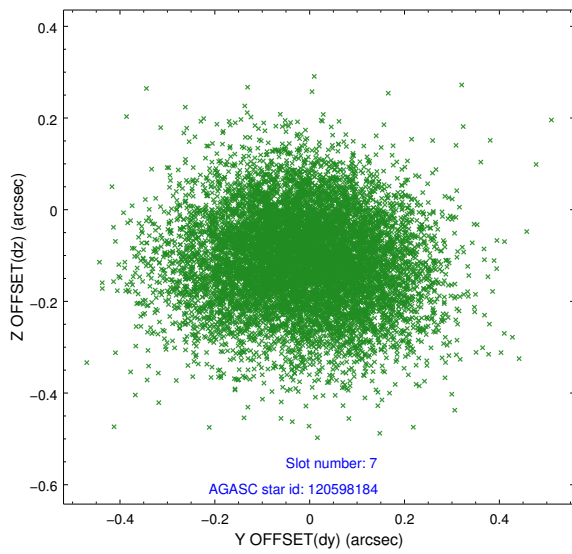
Time (s)



## 2.4.4 Slot 6

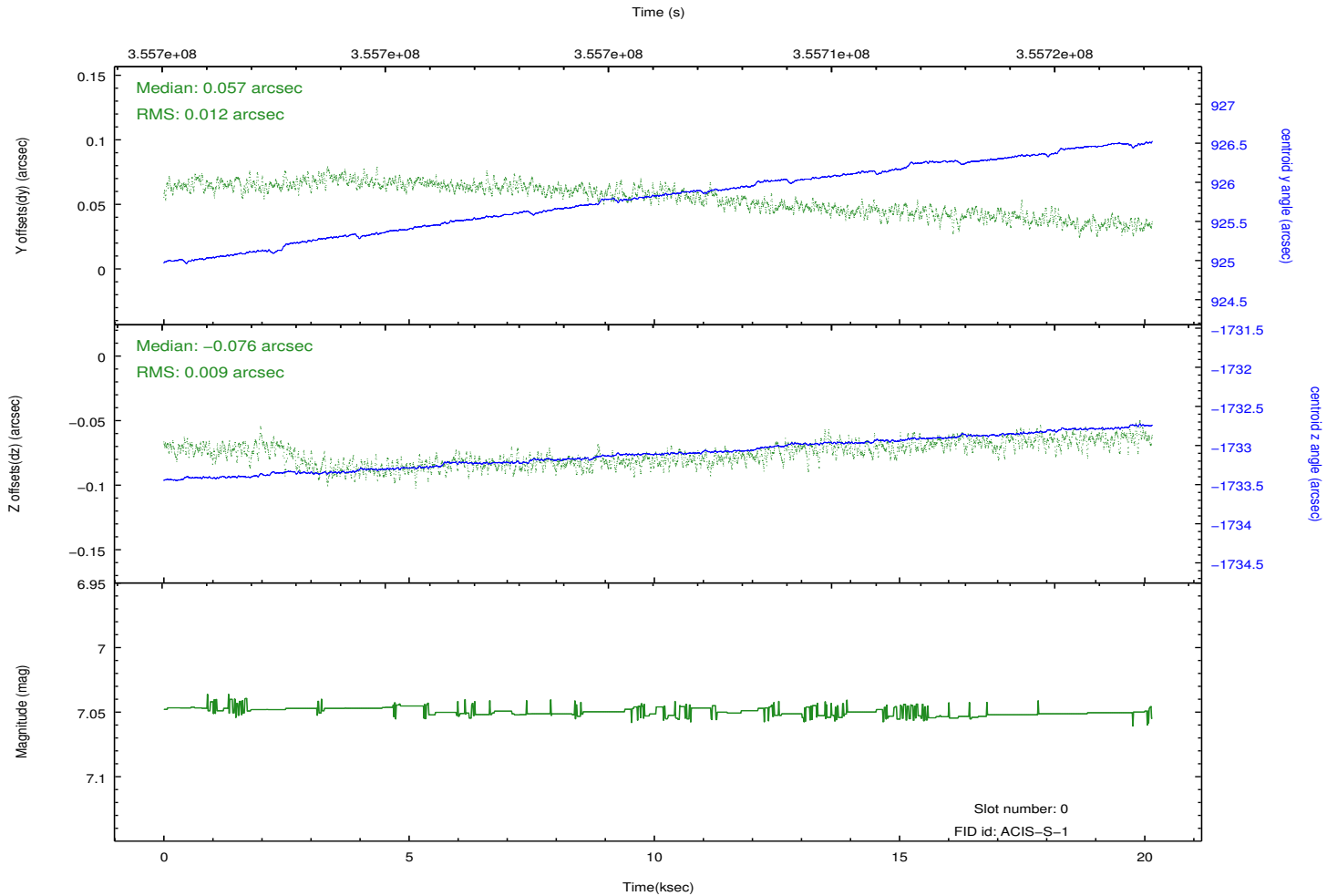
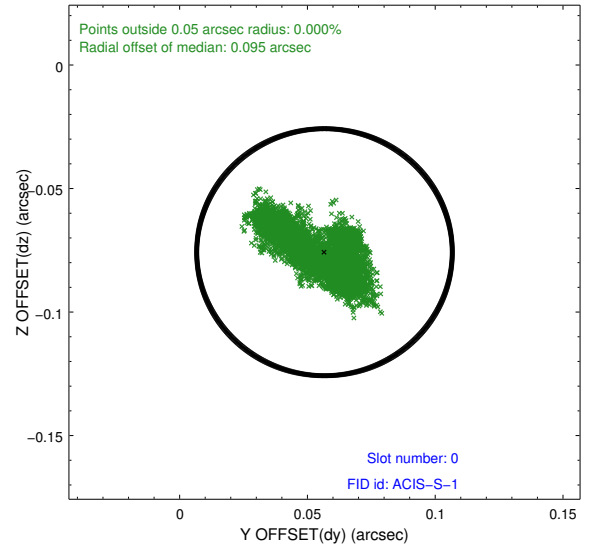
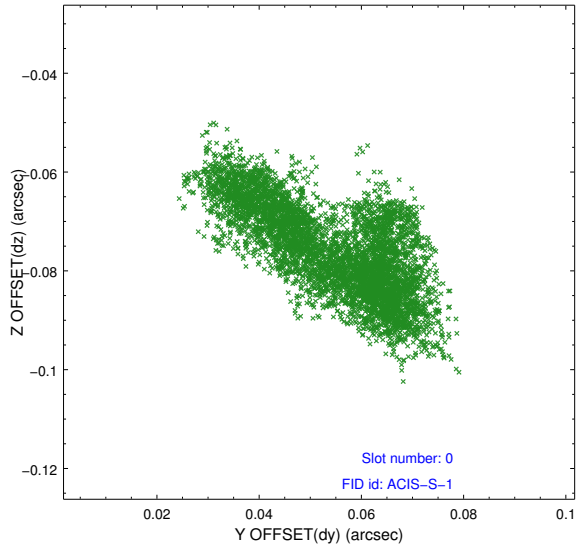


### 2.4.5 Slot 7

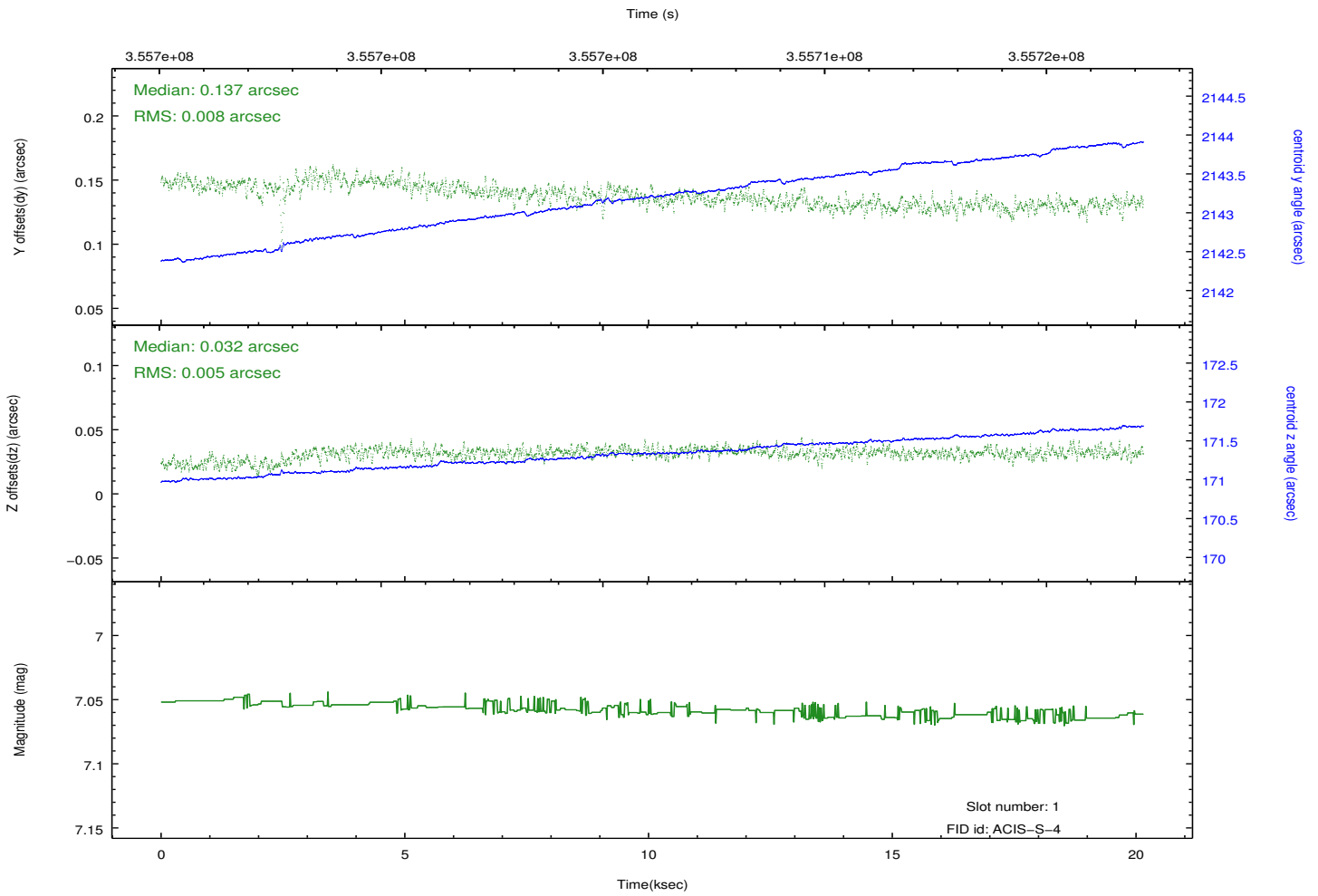
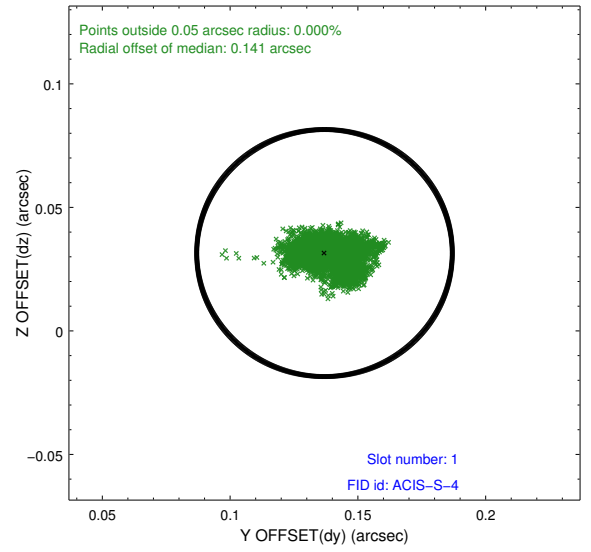
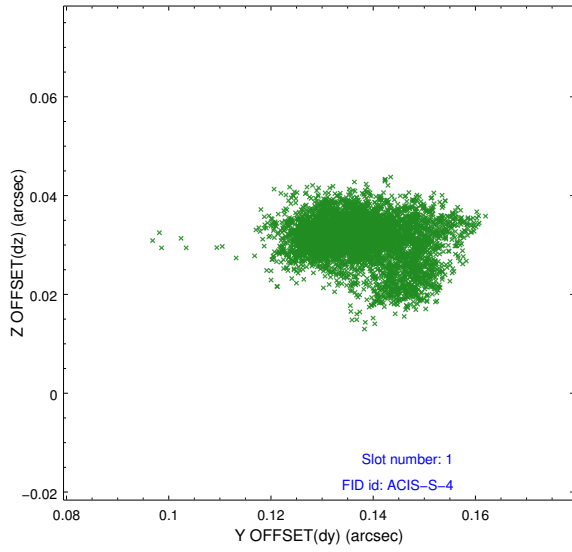


## 2.5 FID Slots

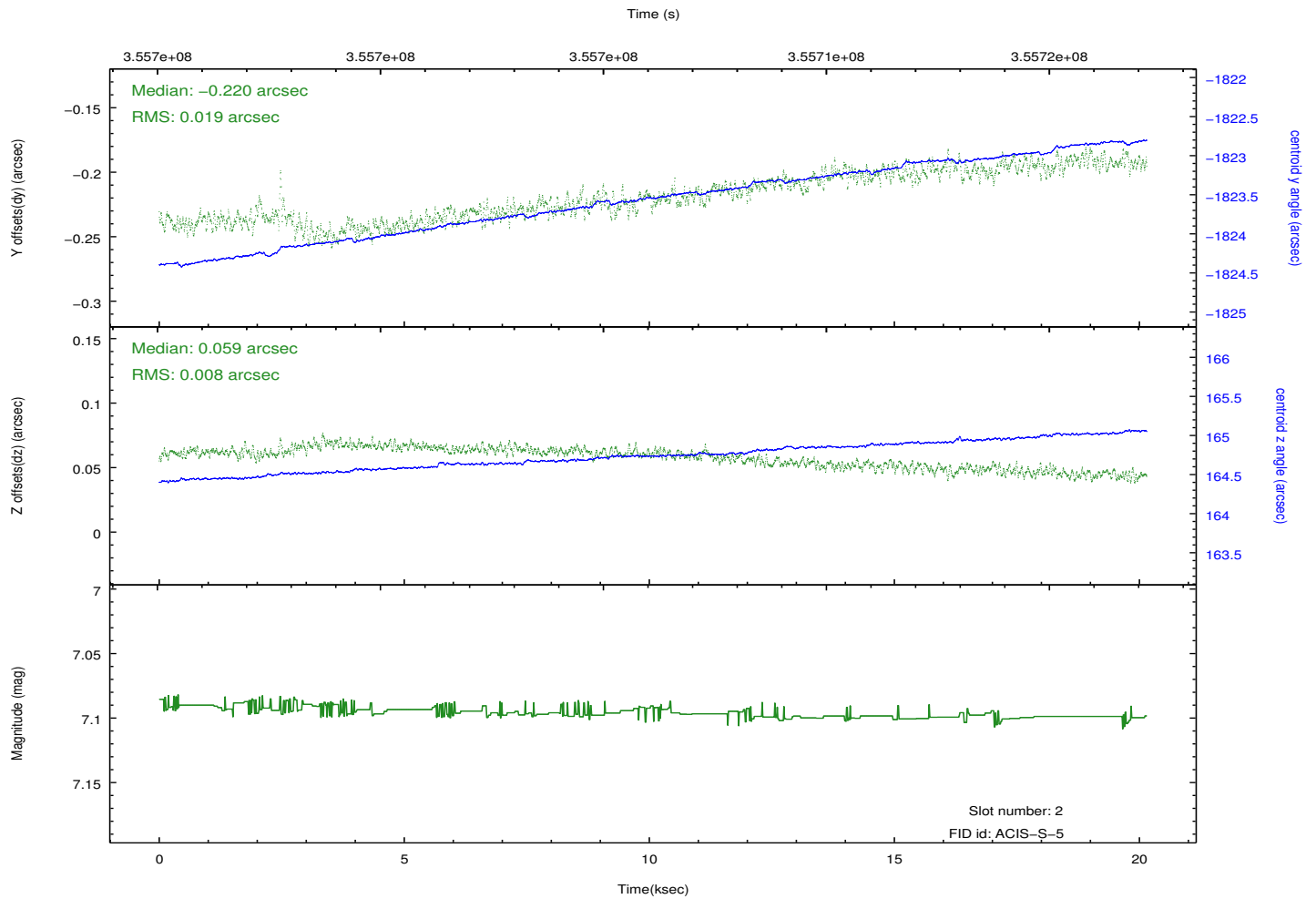
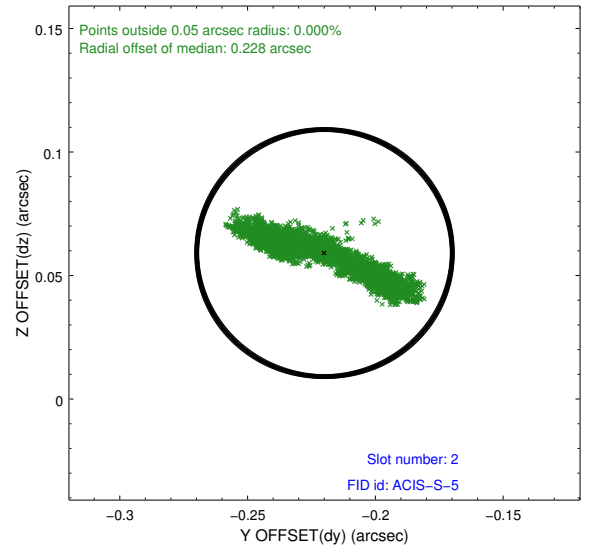
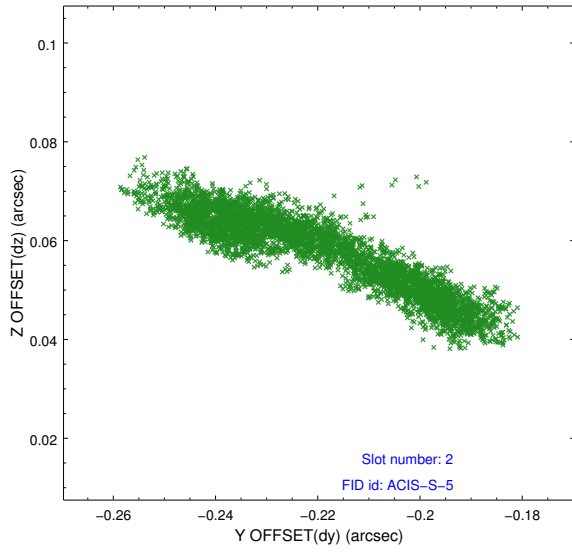
### 2.5.1 Slot 0



## 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)	2012.06.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.1469001

## A.2 Comments