

# V&V Reference Report

## L2 ASCDS Version : 10.1

Observation 14934 - L2 Version 2  
Chandra X-Ray Center

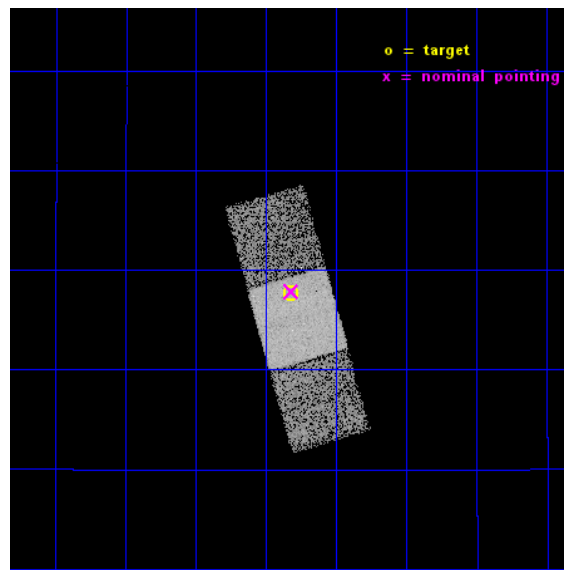
L2 Processing Date : Dec 9 2014

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# 1 Front

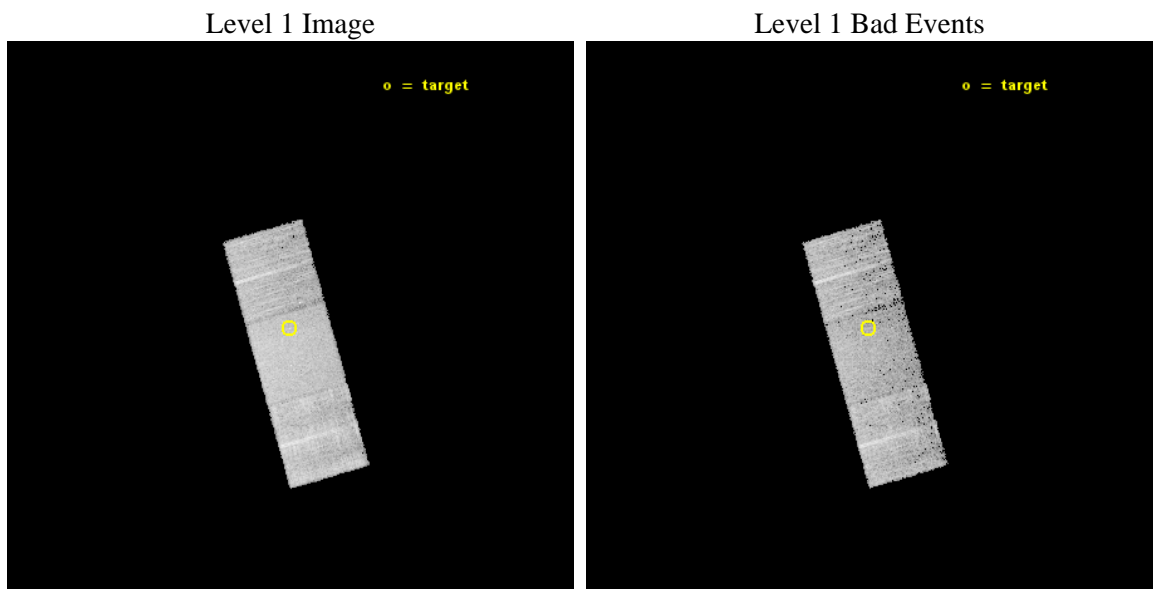
seq_num	601064	Sequence number
obs_id	14934	Observation id
title	Testing supermassive black hole feedback in a pristine environment	&#160
observer	Dr. Brendan Miller	Principal investigator
object	PGC 3091110	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	139.332083	Observer's specified target RA [deg]
dec_targ	11.628694	Observer's specified target Dec [deg]
ra_nom	139.33000413813	Nominal RA [deg]
dec_nom	11.630950112437	Nominal Dec [deg]
roll_nom	74.075360668864	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10117.96954155	Sum of GTIs [s]
livetime	9985.7708207485	Livetime [s]
ontime6	10117.928501546	Sum of GTIs [s]
ontime7	10117.96954155	Sum of GTIs [s]
ontime8	10117.887461543	Sum of GTIs [s]
l2events	40149	Number of level 2 events



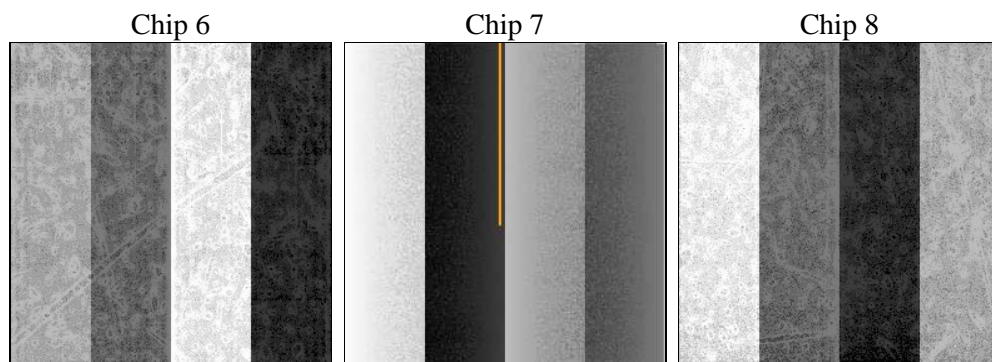
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	2	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	10117.96954155	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime6	10117.928501546	Sum of GTIs [s]
date	2014-12-09T04:23:56	Date and time of file creation	ontime7	10117.96954155	Sum of GTIs [s]
revision	2	Processing version of data	ontime8	10117.887461543	Sum of GTIs [s]
			l1events	180796	Number of level 1 events

### 2.1.4 Events

	ccd 6	ccd 7	ccd 8
level 1 events	49263	65973	65560
rejected events	43153	36815	47857
rejected %	87%	55%	72%

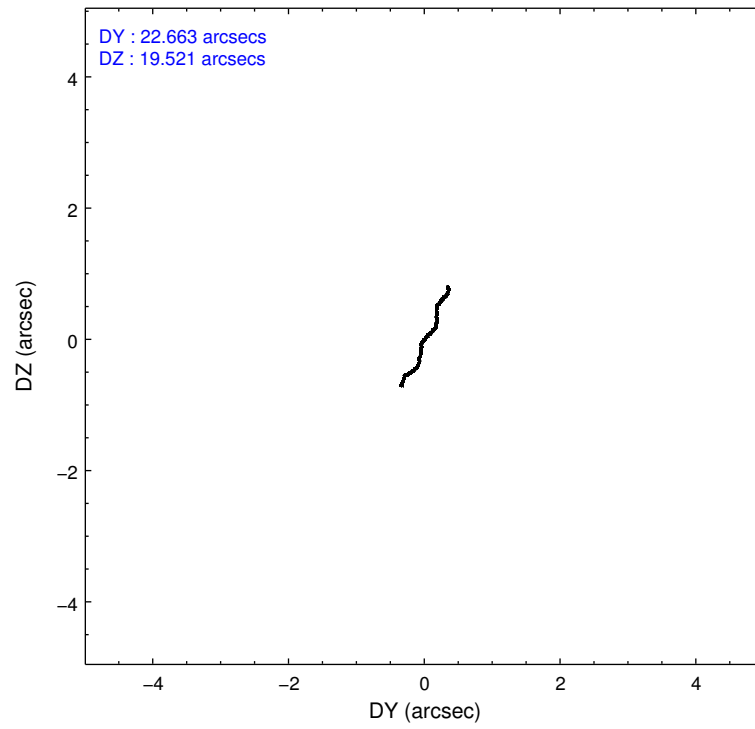
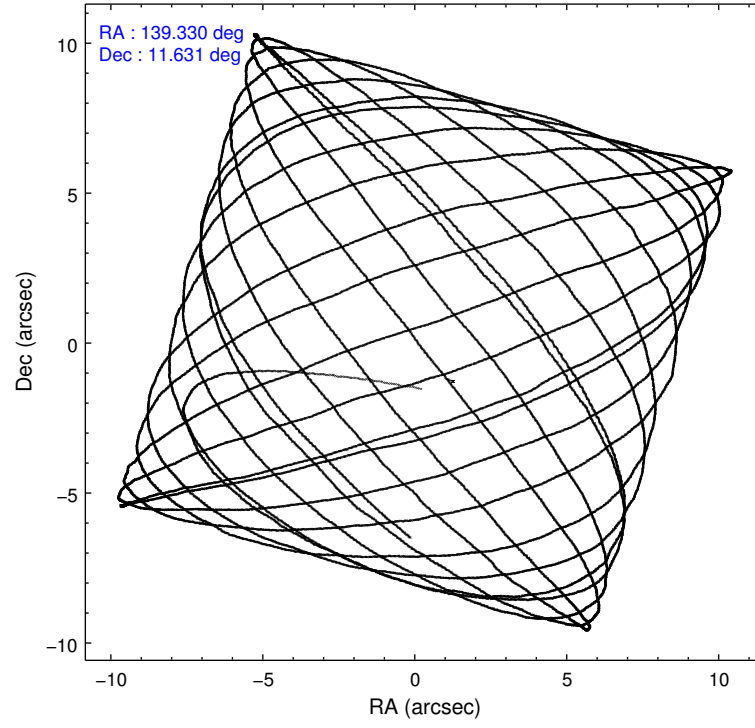
	ccd 6	ccd 7	ccd 8
grade 0 events	2102	2652	5249
	4%	4%	8%
grade 1 events	21	79	45
	0%	0%	0%
grade 2 events	1353	5943	4195
	2%	9%	6%
grade 3 events	623	2469	1829
	1%	3%	2%
grade 4 events	600	2422	1757
	1%	3%	2%
grade 5 events	2559	6868	3675
	5%	10%	5%
grade 6 events	1438	15688	4677
	2%	23%	7%
grade 7 events	40567	29852	44133
	82%	45%	67%

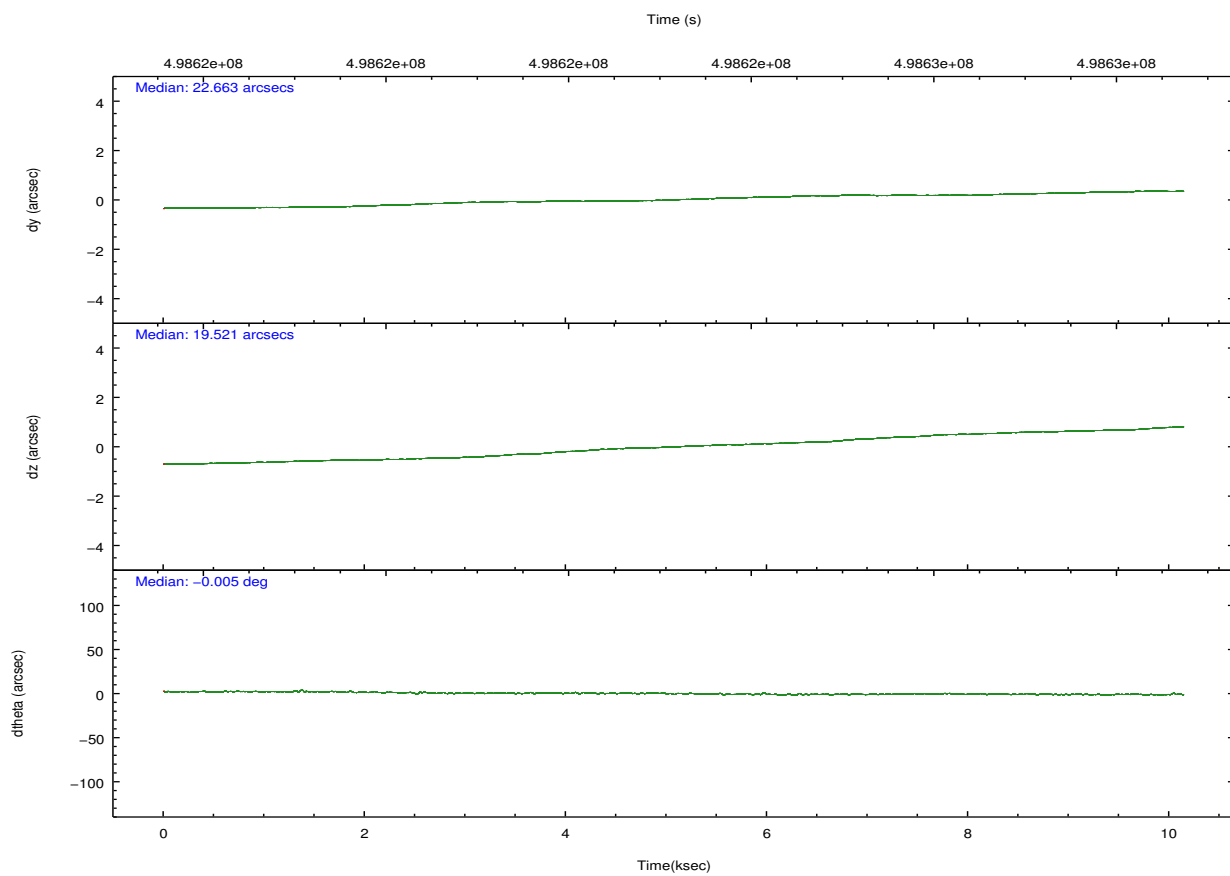
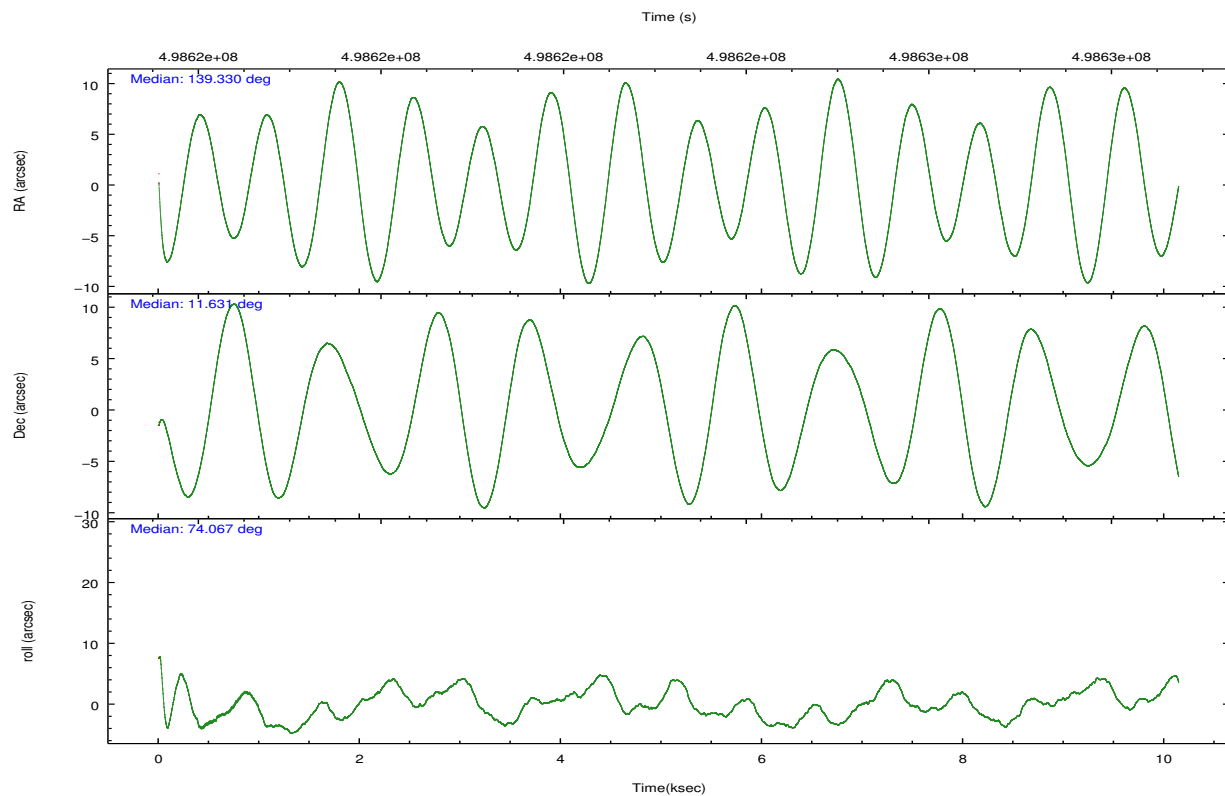


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-678	ACIS-678	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	139.337190	139.3300041381324	CCD I2 on	N	N
[deg] Pointing Dec	11.604529	11.63095011243728	CCD I3 on	N	N
[deg] Pointing Roll	73.917274	74.07536066886443	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	O2	Y
[s] Observation start time (MET)	498618230.184000	498617284.24839	CCD S5 on	N	N
Observation start date	2013-10-20T01:02:43	2013-10-20T00:48:04	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	498628230.184000	498629402.31155	On-chip summing requested	N	N
Observation end date	2013-10-20T03:49:23	2013-10-20T04:10:02	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



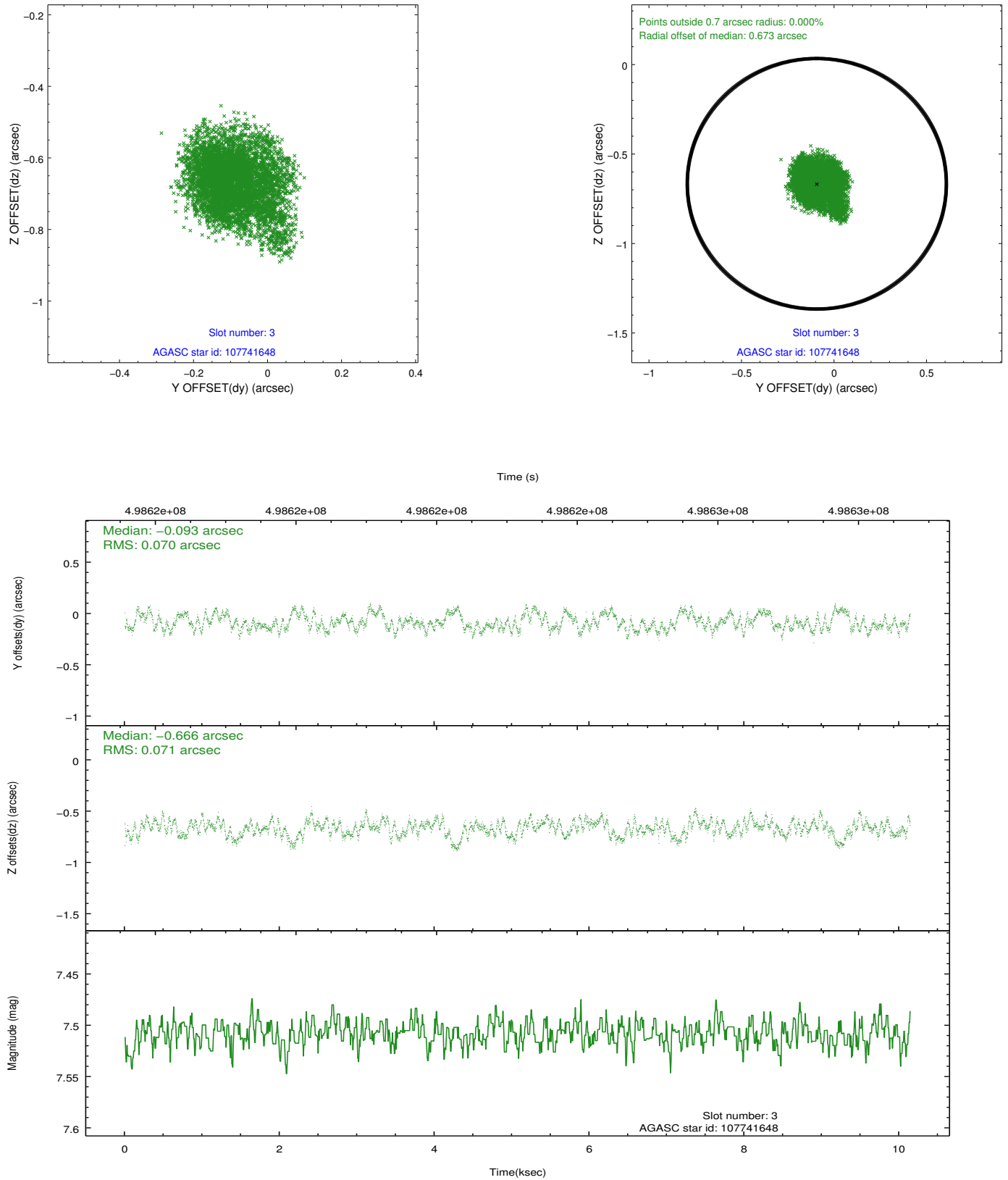


### Slot Statistics

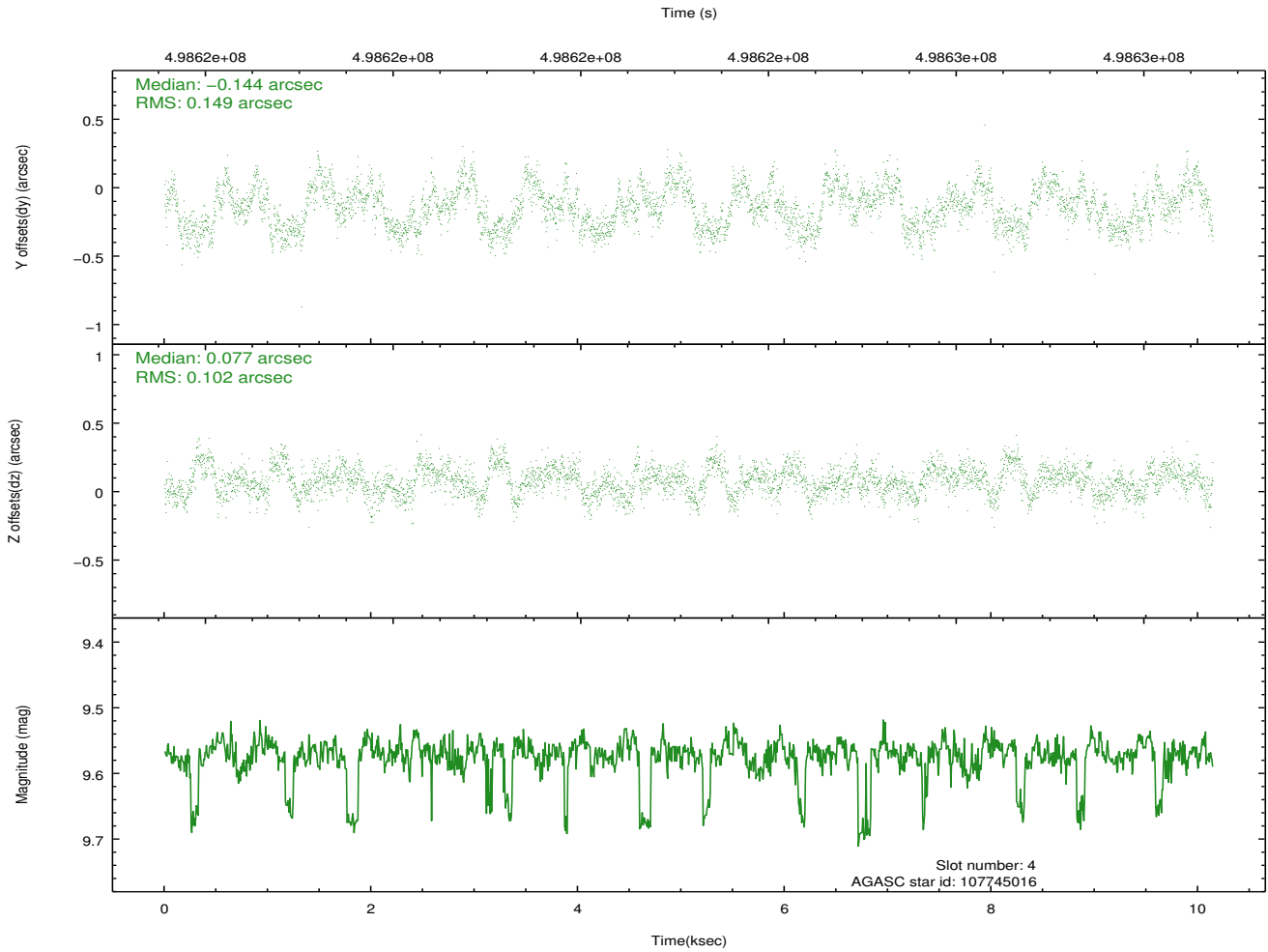
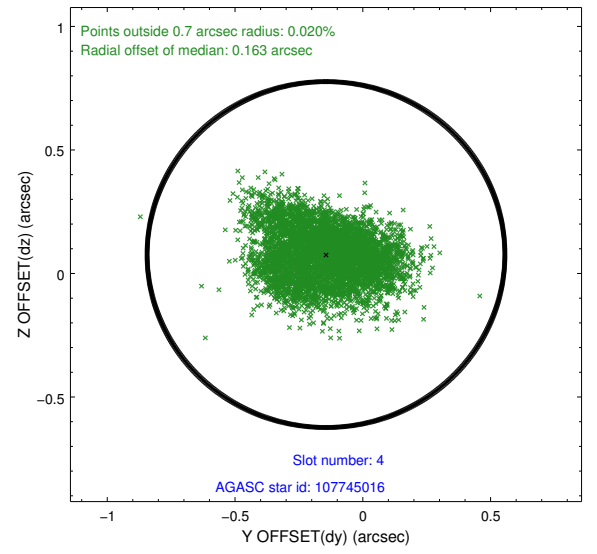
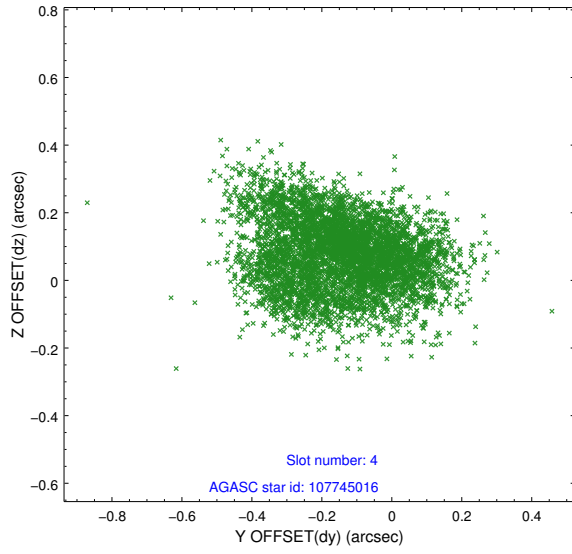
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.99	2474	-0.129	-0.042	0.016	0.024	0.000000	0.000000	-775.96	-1741.06
1	FID		ACIS-S-4	7.07	2474	0.308	0.073	0.015	0.024	0.000000	0.000000	2137.49	167.02
2	FID		ACIS-S-5	7.09	2473	-0.211	-0.023	0.017	0.023	0.000000	0.000000	-1828.24	161.15
3	GUIDE	used	107741648	7.51	4947	-0.093	-0.666	0.107	0.170	138.670792	11.496801	-1021.46	2151.56
4	GUIDE	used	107745016	9.57	4900	-0.144	0.077	0.194	0.306	140.026202	12.077044	2309.60	-1857.81
5	GUIDE	used	107745592	9.12	4929	0.270	0.431	0.141	0.226	139.814175	11.214290	-880.37	-2007.02
6	GUIDE	used	107746680	9.73	4925	-0.309	-0.422	0.189	0.292	139.276020	12.106305	1675.59	707.27
7	GUIDE	used	107747008	9.56	4939	0.285	0.583	0.171	0.254	139.852782	10.886342	-1976.76	-2467.54

## 2.4 Star Slots

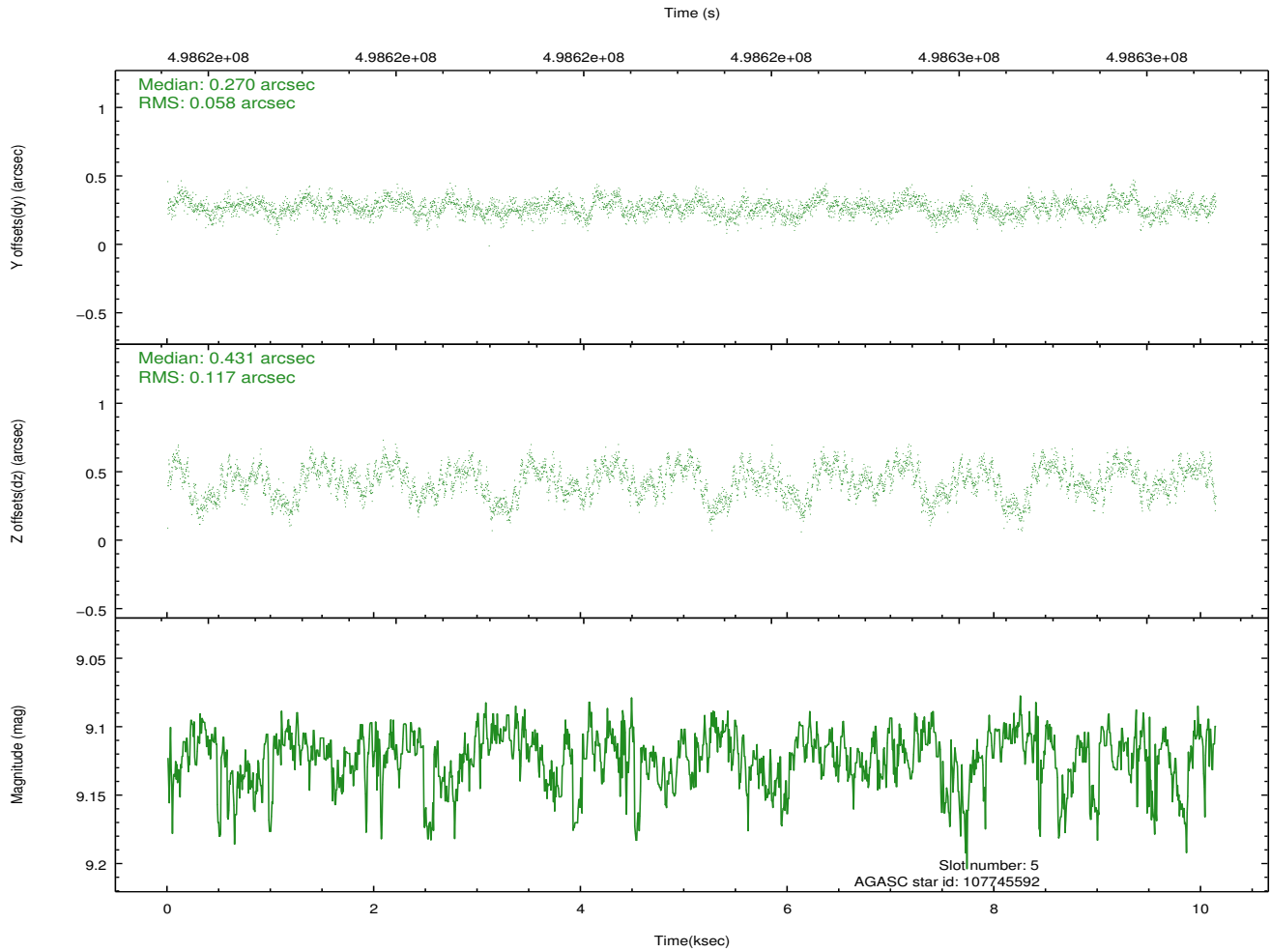
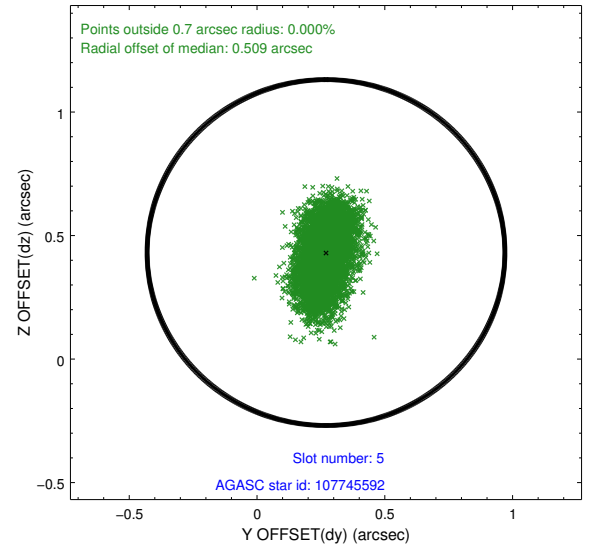
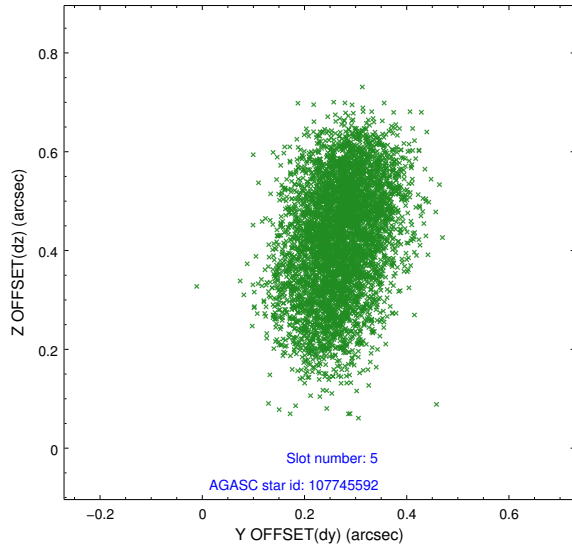
### 2.4.1 Slot 3



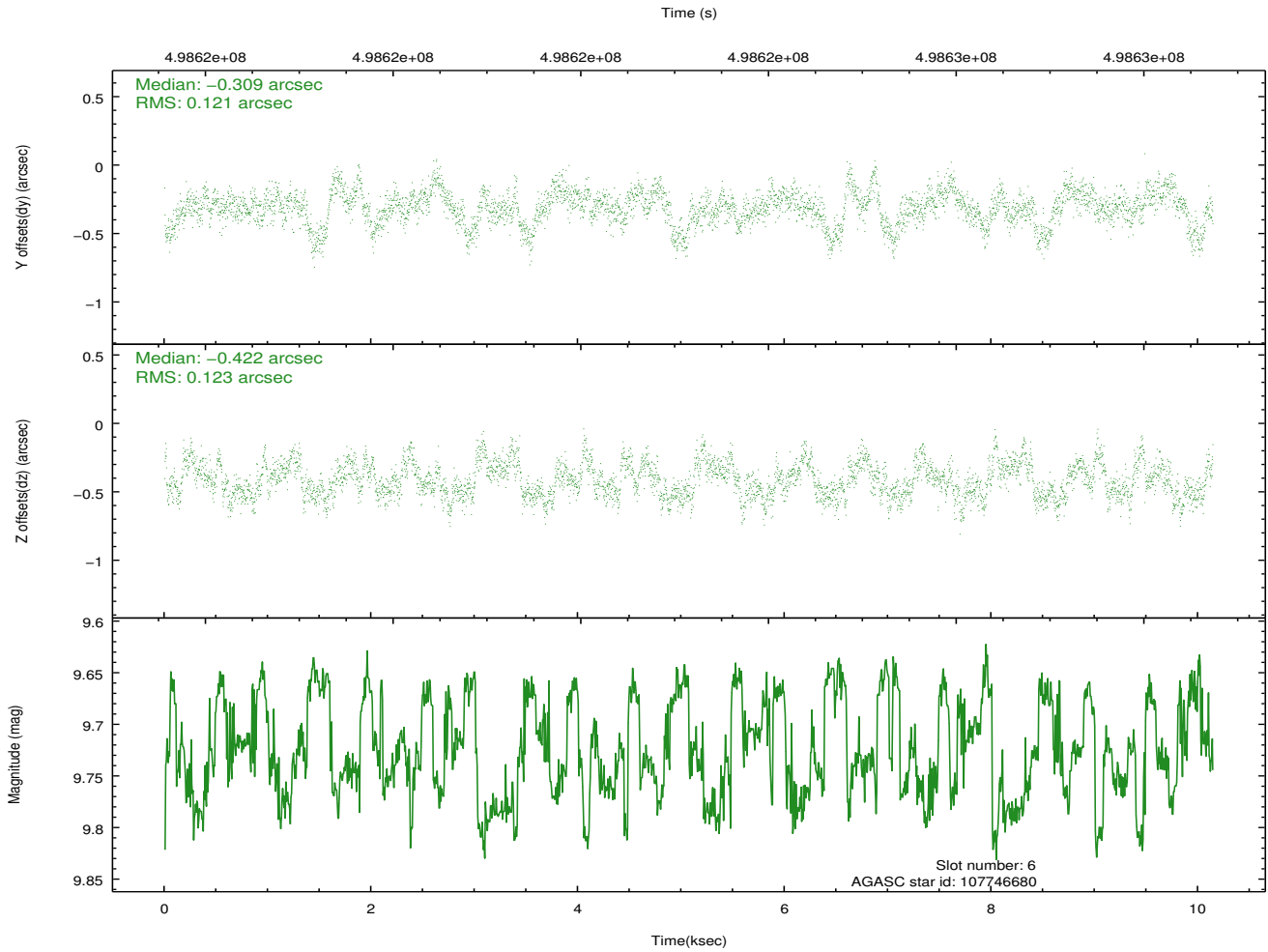
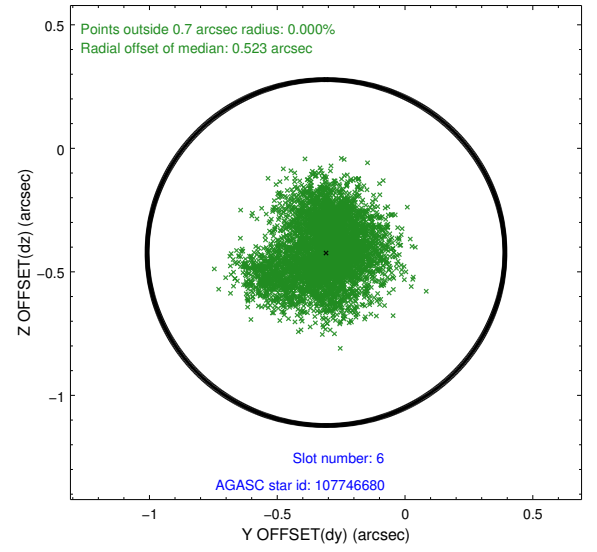
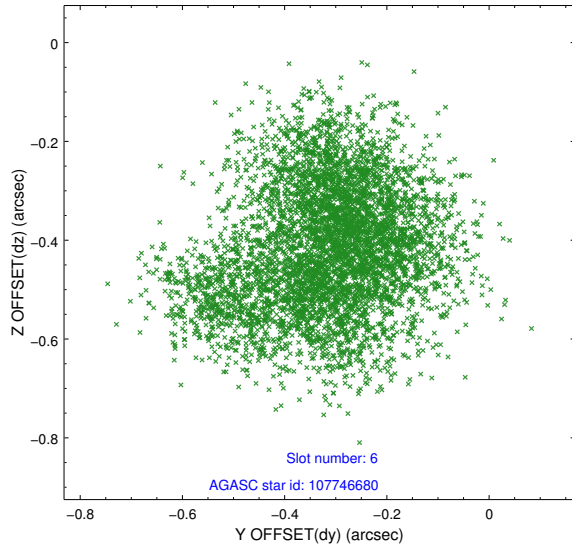
## 2.4.2 Slot 4



### 2.4.3 Slot 5

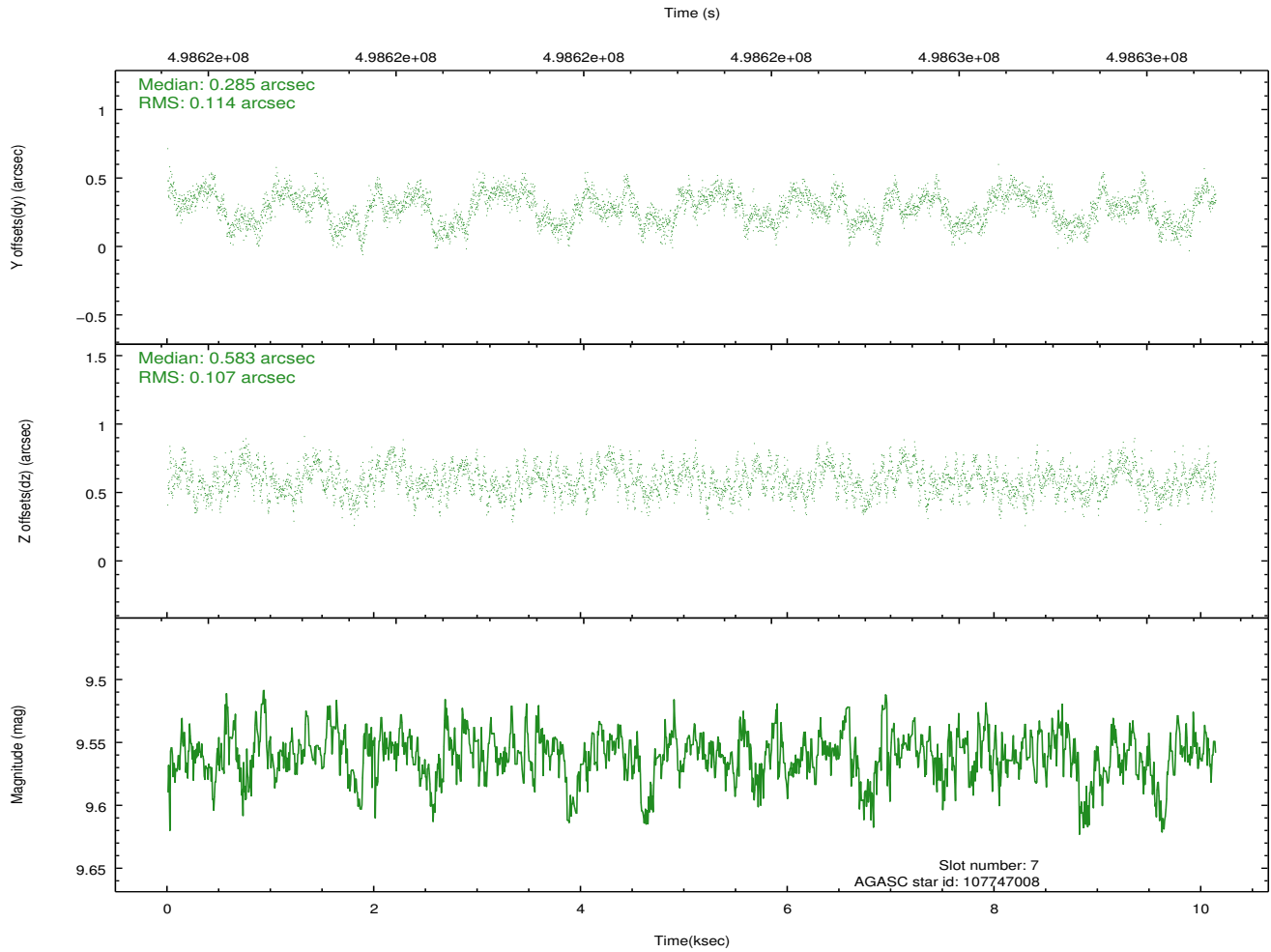
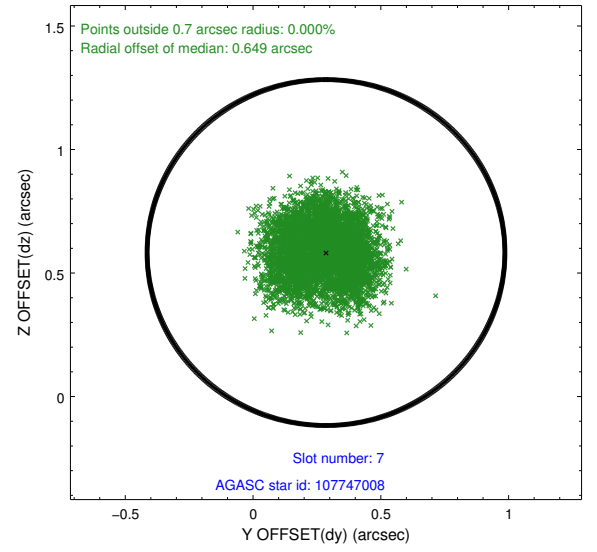
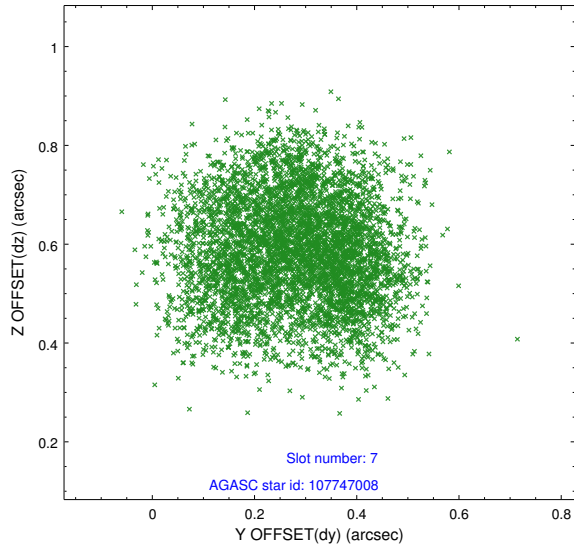


## 2.4.4 Slot 6



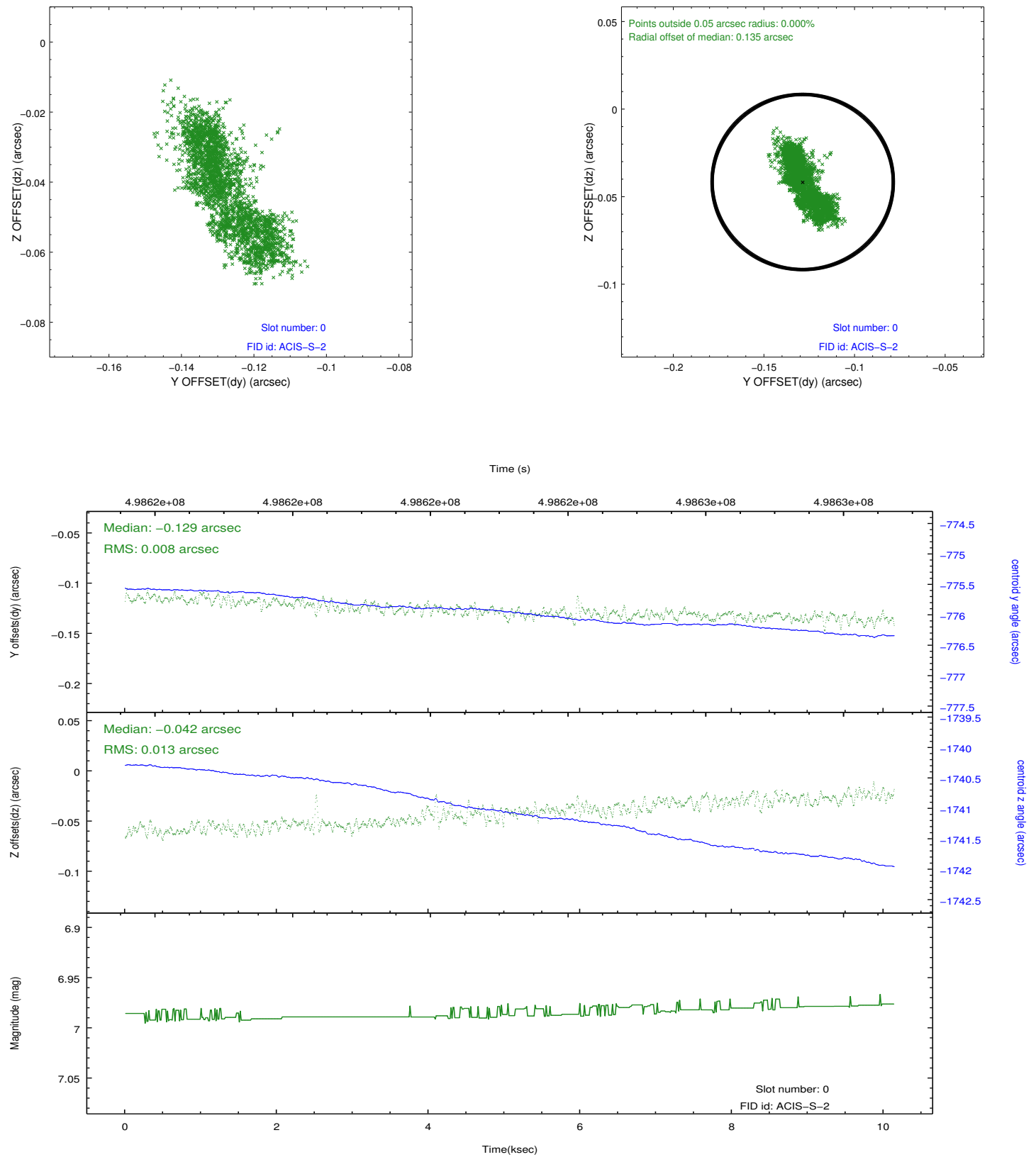


## 2.4.5 Slot 7

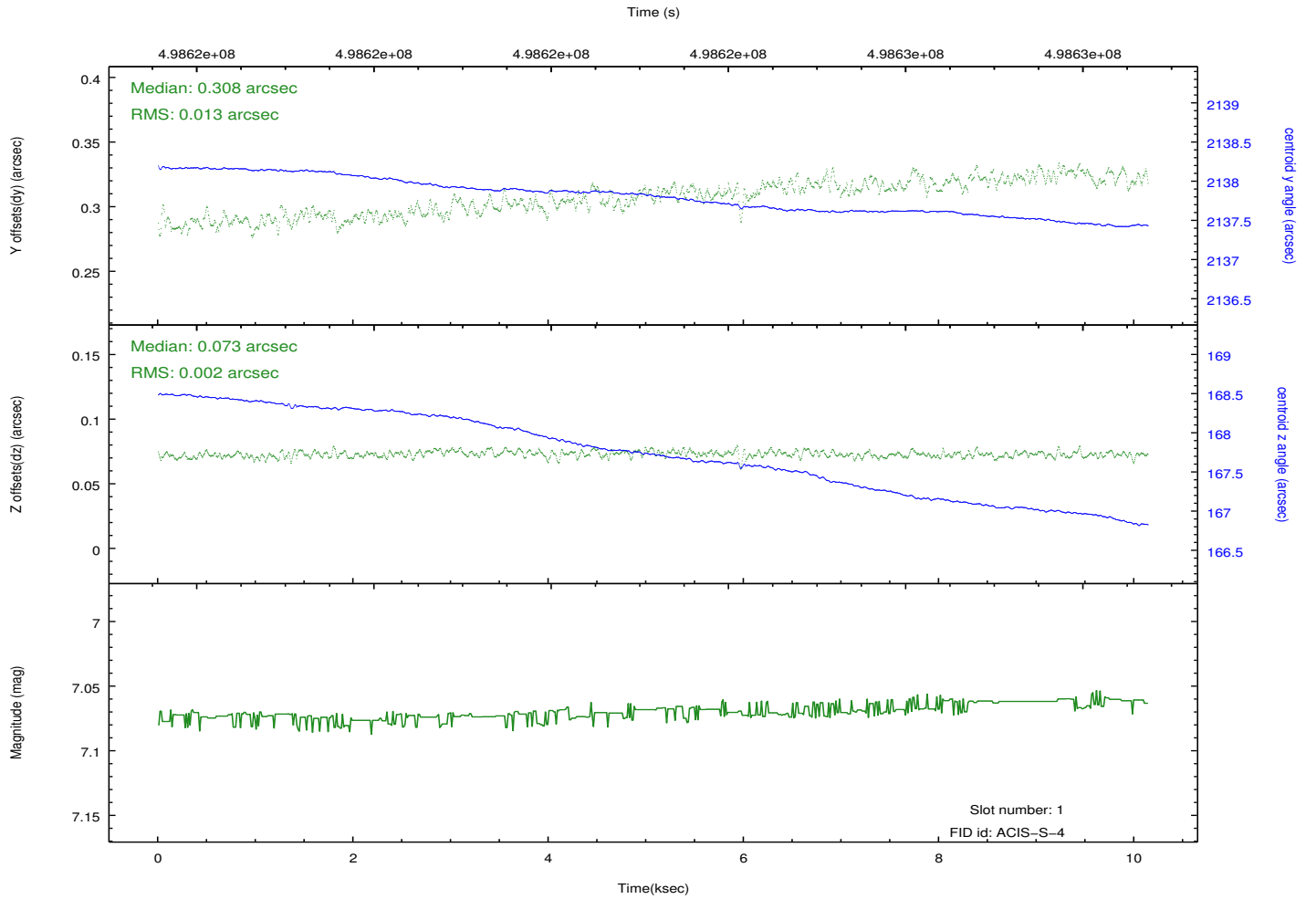
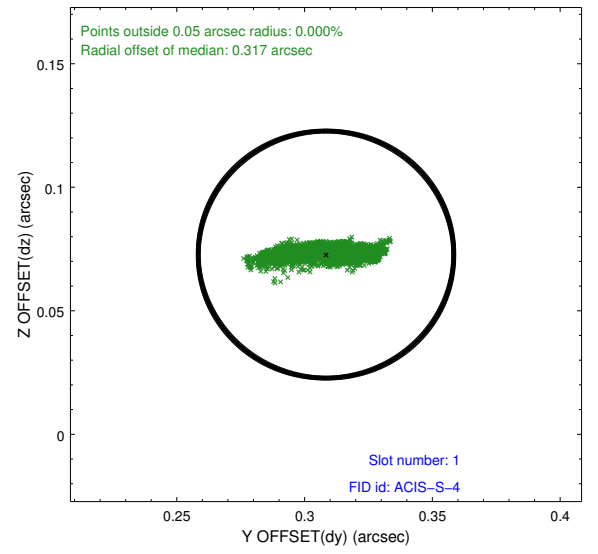
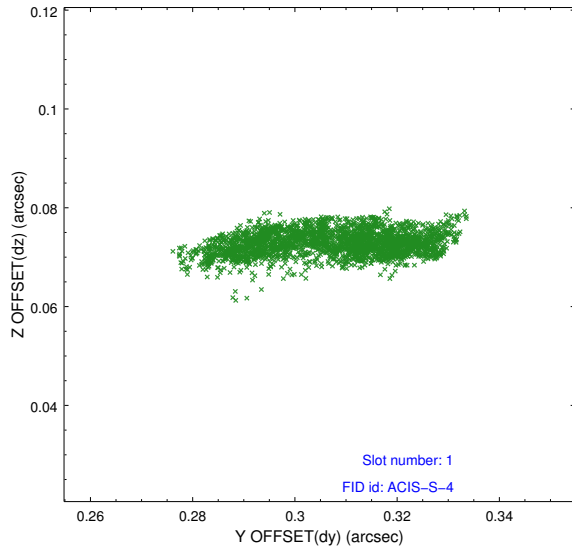


## 2.5 FID Slots

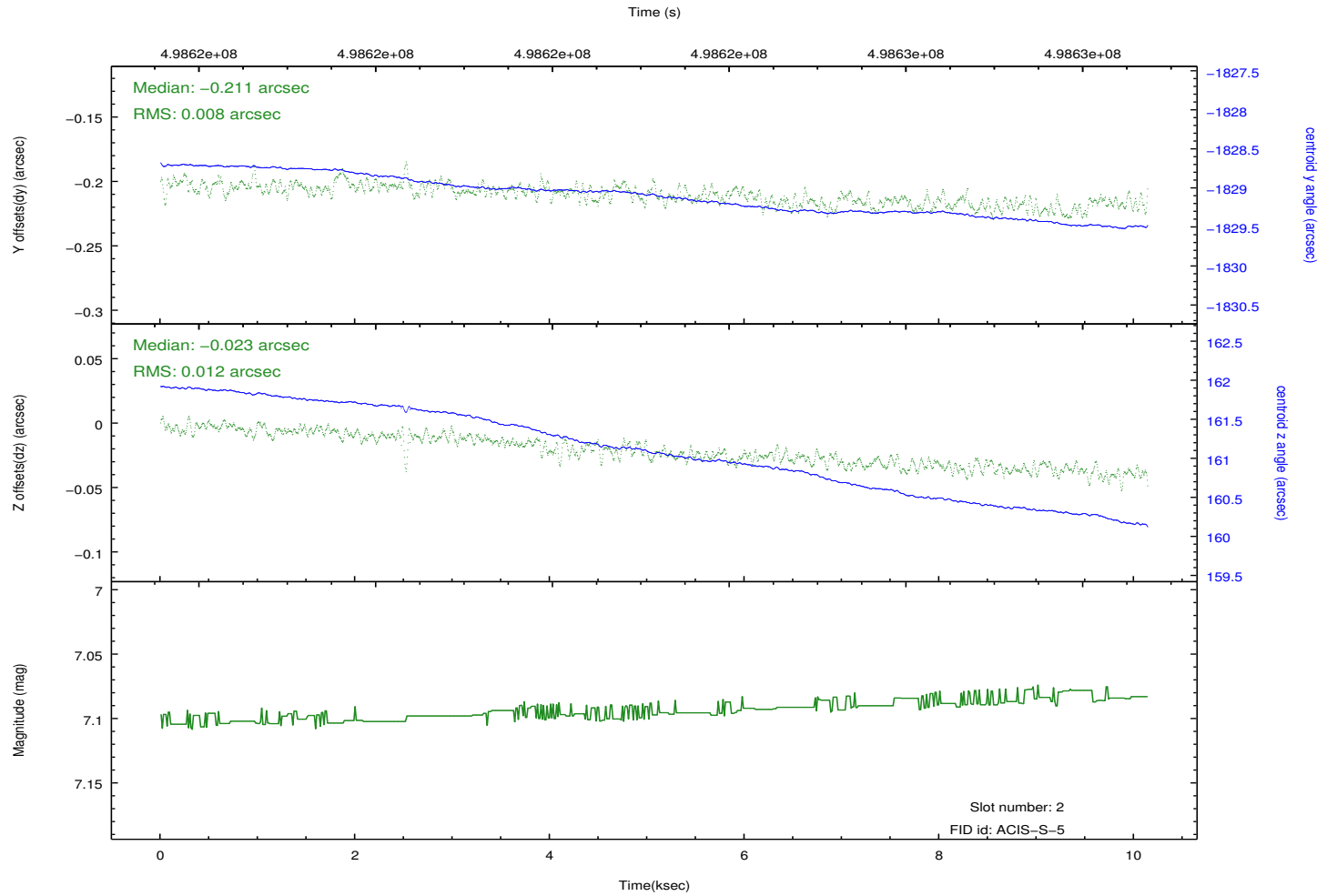
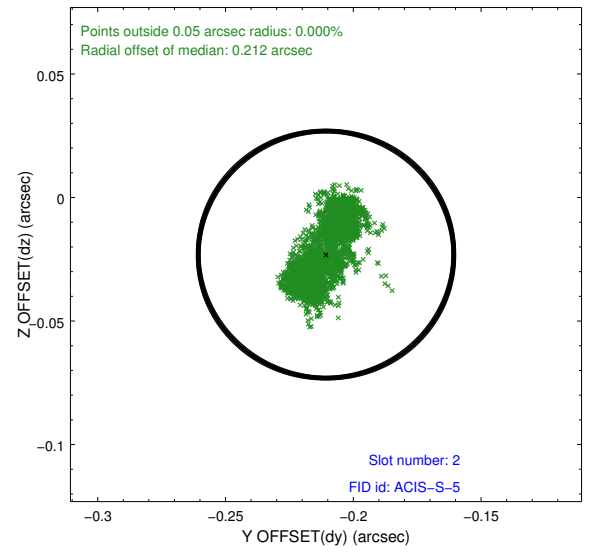
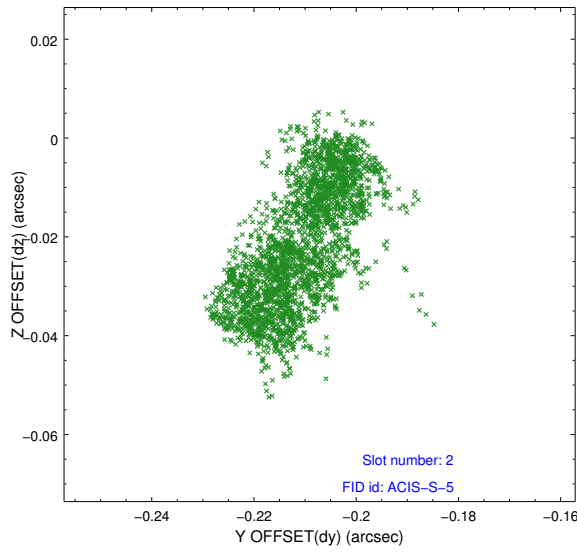
### 2.5.1 Slot 0



## 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)	2014.12.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.11796954155

## A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.