

# V&V Reference Report

## L2 ASCDS Version : 10

Observation 15074 - L2 Version 2  
Chandra X-Ray Center

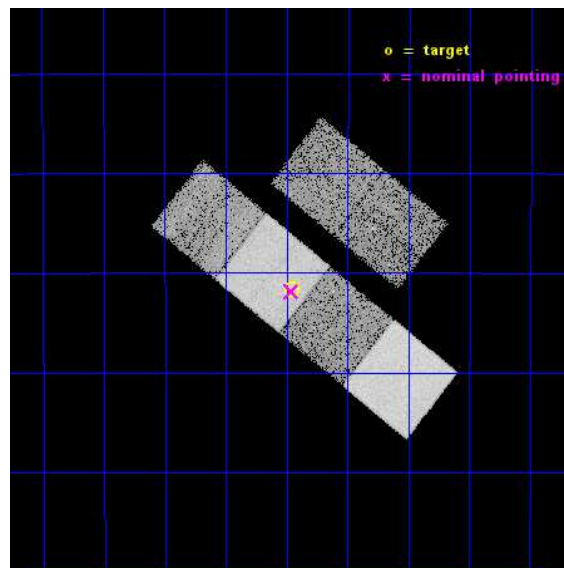
L2 Processing Date : Dec 4 2014

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# 1 Front

seq_num	702881	Sequence number
obs_id	15074	Observation id
title	C-GOALS: The Chandra-RBGS Survey of a Complete Sample of Major-Merger LIRGs	Proposal title
observer	Professor David Sanders	Principal investigator
object	ESO 432-IG006	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	131.115	Observer's specified target RA [deg]
dec_targ	-31.694722	Observer's specified target Dec [deg]
ra_nom	131.11538446389	Nominal RA [deg]
dec_nom	-31.697755356493	Nominal Dec [deg]
roll_nom	218.5954402061	Nominal Roll [deg]
revision	2	Processing version of data
ontime	16259.199939489	Sum of GTIs [s]
livetime	16053.316159741	Livetime [s]
ontime2	16259.199939489	Sum of GTIs [s]
ontime3	16259.199939489	Sum of GTIs [s]
ontime5	16259.199939489	Sum of GTIs [s]
ontime6	16259.199939489	Sum of GTIs [s]
ontime7	16259.199939489	Sum of GTIs [s]
ontime8	16259.199939489	Sum of GTIs [s]
l2events	146871	Number of level 2 events

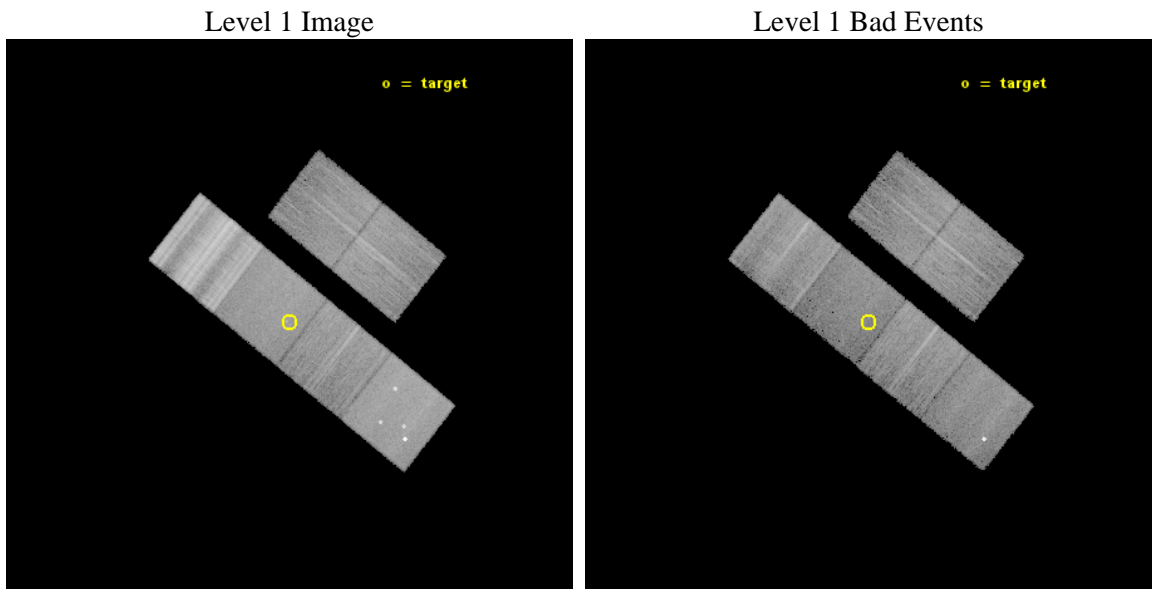




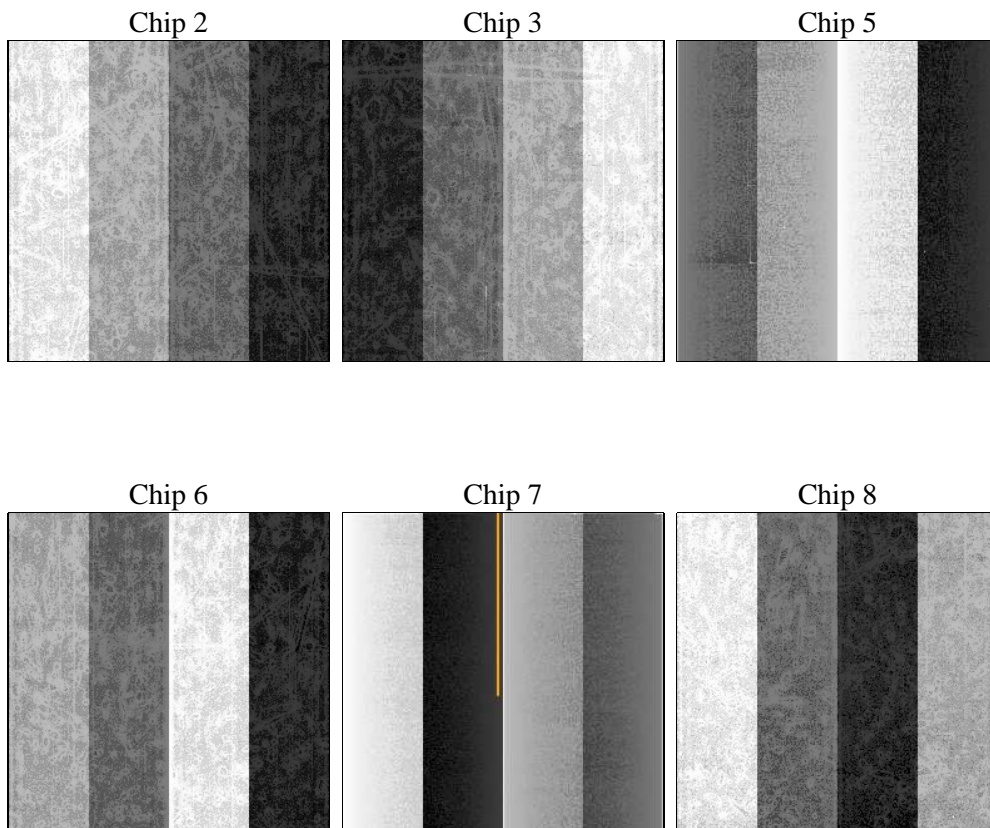
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	16300.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	16259.199939489	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime2	16259.199939489	Sum of GTIs [s]
date	2014-12-04T06:34:19	Date and time of file creation	ontime3	16259.199939489	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	16259.199939489	Sum of GTIs [s]
			ontime6	16259.199939489	Sum of GTIs [s]
			ontime7	16259.199939489	Sum of GTIs [s]
			ontime8	16259.199939489	Sum of GTIs [s]
			l1events	768163	Number of level 1 events

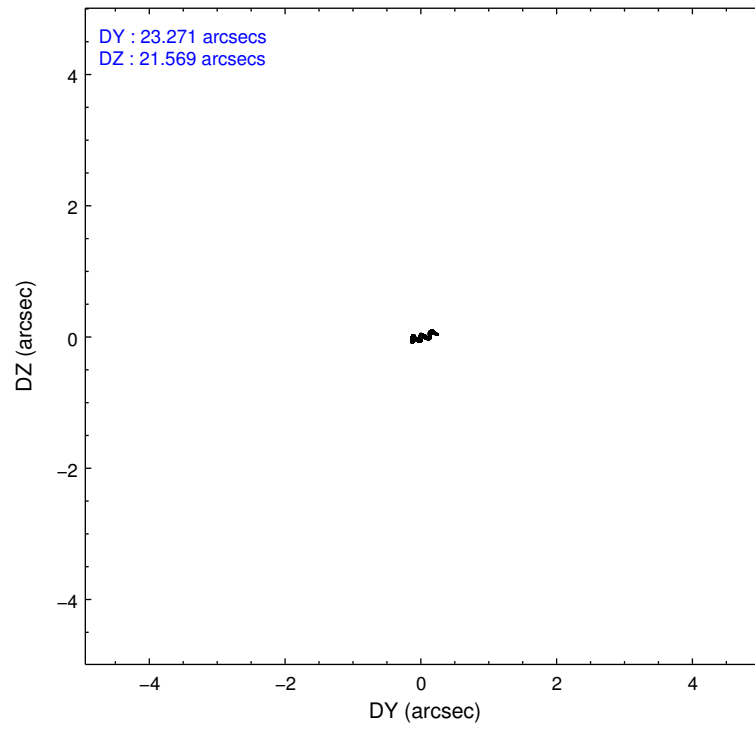
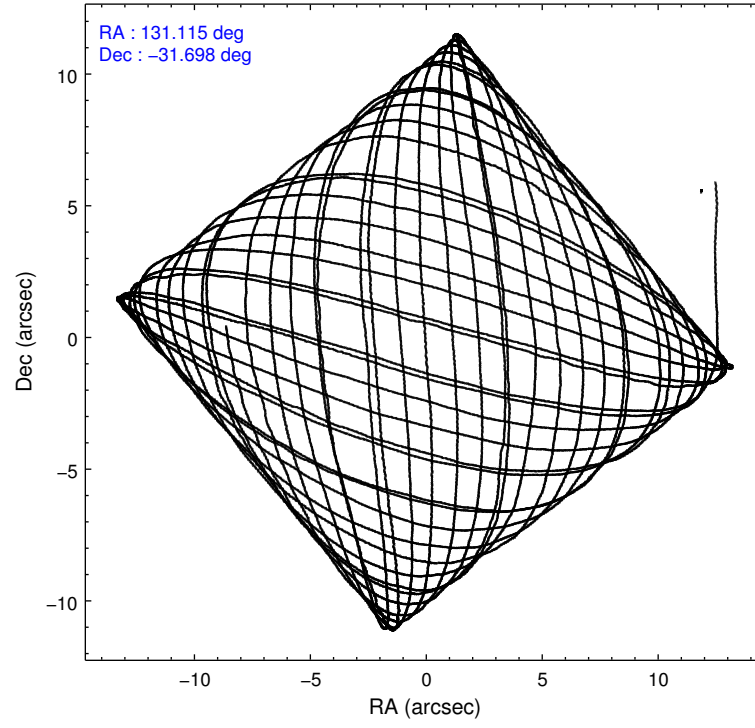
### 2.1.4 Events

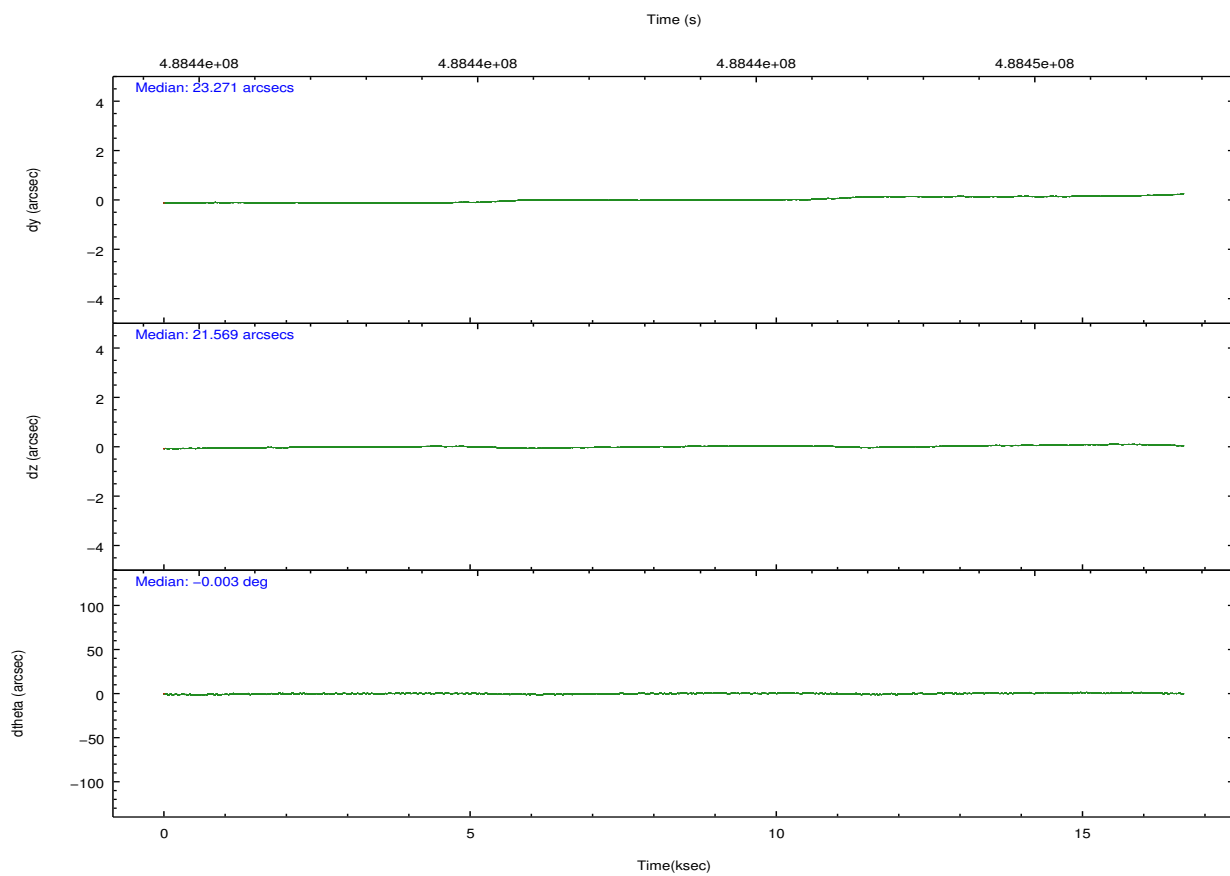
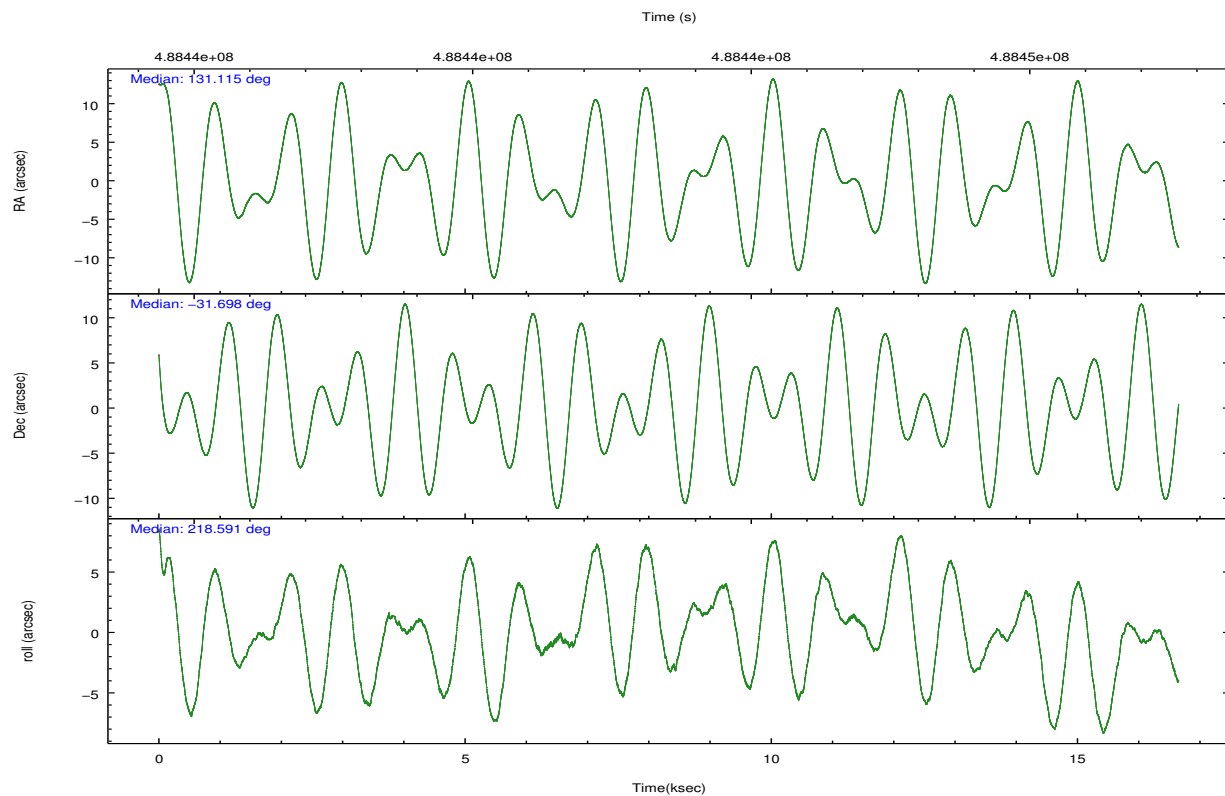
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	99551	86474	143185	94203	109059	235691	grade 0 events	5592	3586	9699	5223	4834	44045
rejected events	85898	77065	73753	81720	59366	96663		5%	4%	6%	5%	4%	18%
rejected %	86%	89%	51%	86%	54%	41%	grade 1 events	57	47	325	55	207	342
								0%	0%	0%	0%	0%	0%
							grade 2 events	3855	2151	21500	3242	11413	19054
								3%	2%	15%	3%	10%	8%
							grade 3 events	855	989	2994	961	4263	24625
								0%	1%	2%	1%	3%	10%
							grade 4 events	1362	930	2854	946	4306	22750
								1%	1%	1%	1%	3%	9%
							grade 5 events	3209	3800	10061	3831	10639	6951
								3%	4%	7%	4%	9%	2%
							grade 6 events	1994	1758	32414	2115	24900	28584
								2%	2%	22%	2%	22%	12%
							grade 7 events	82627	73213	63338	77830	48497	89340
								82%	84%	44%	82%	44%	37%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	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	131.126691	131.1153844638891	CCD I2 on	O2	Y
[deg] Pointing Dec	-31.672139	-31.69775535649267	CCD I3 on	Y	Y
[deg] Pointing Roll	218.444755	218.5954402060989	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	488435552.184000	488434508.83056	CCD S5 on	N	N
Observation start date	2013-06-24T04:31:25	2013-06-24T04:15:08	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	488451852.184000	488452610.33155	On-chip summing requested	N	N
Observation end date	2013-06-24T09:03:05	2013-06-24T09:16:50	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



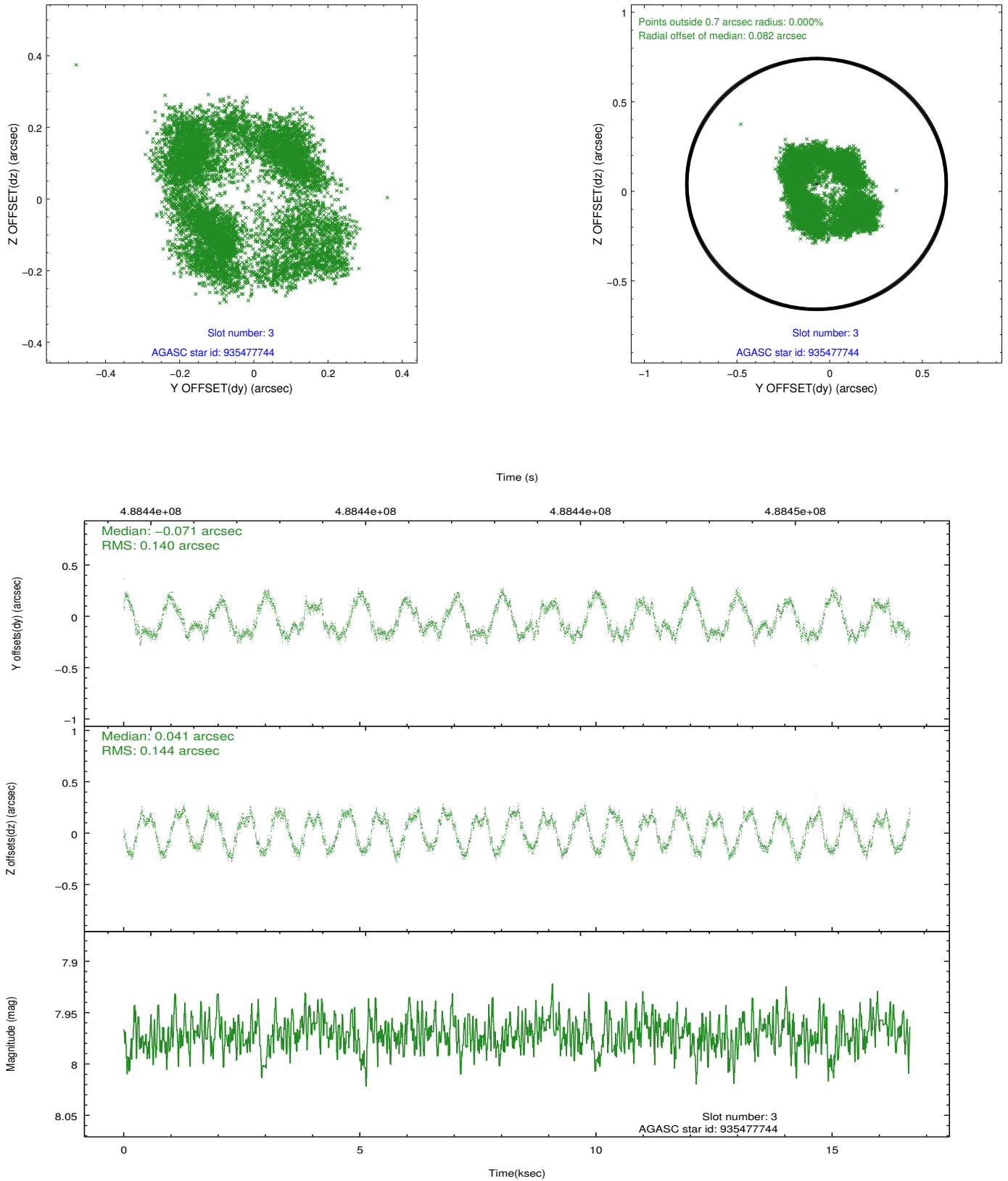


### Slot Statistics

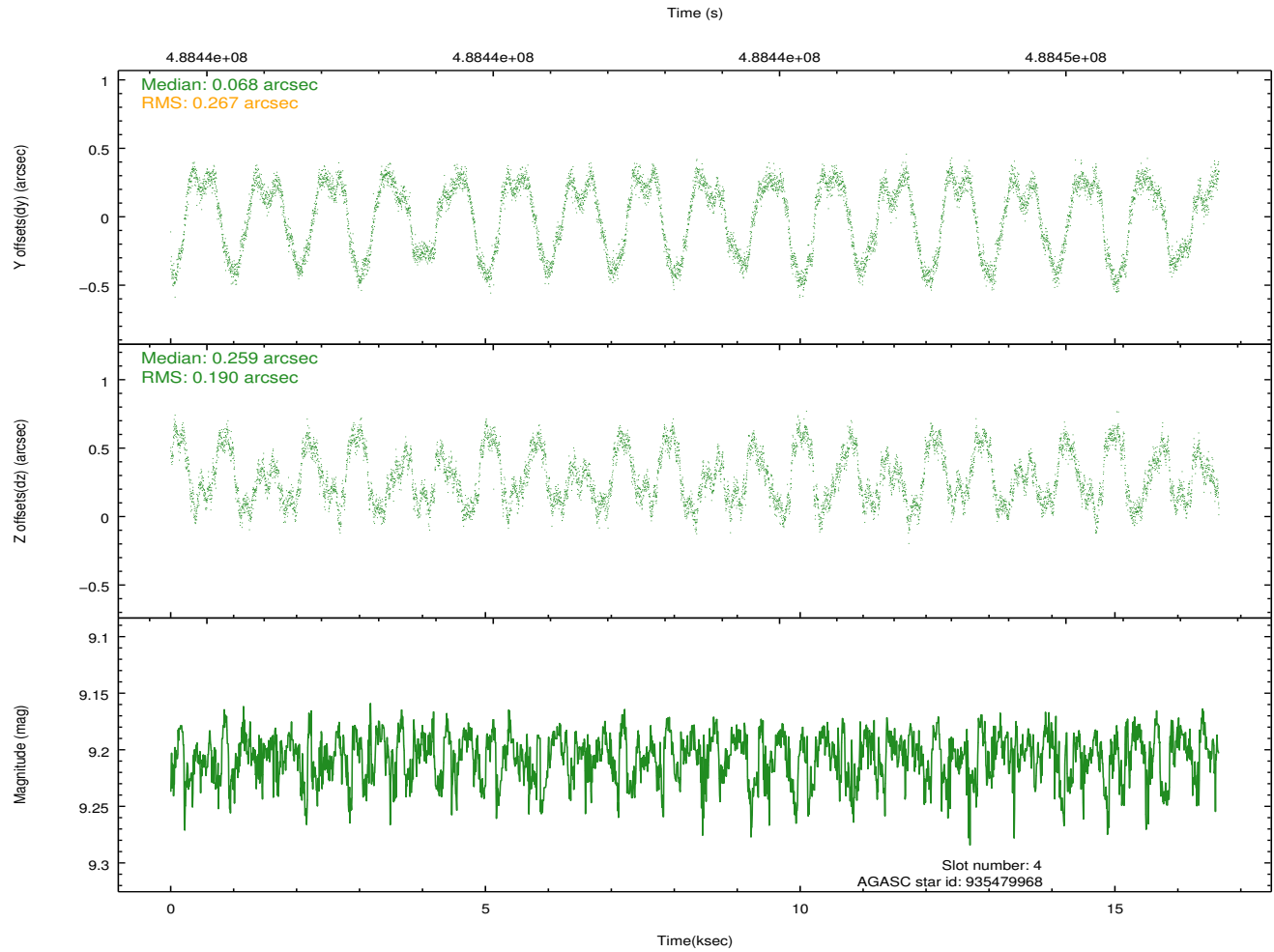
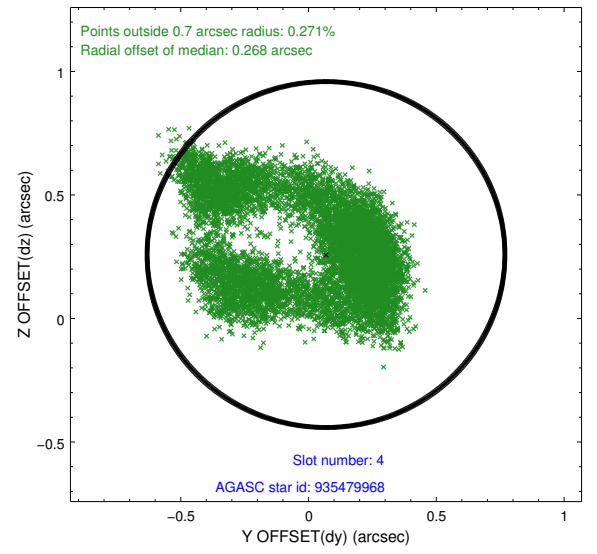
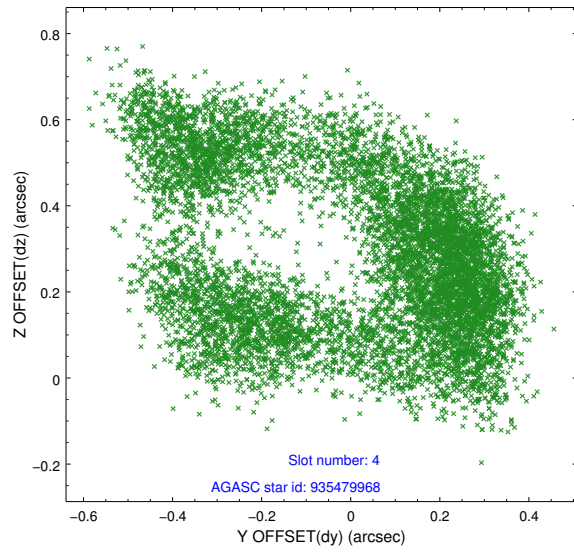
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.95	4062	-0.099	-0.003	0.008	0.013	0.000000	0.000000	-776.60	-1743.07
1	FID		ACIS-S-4	7.02	4062	0.259	0.049	0.008	0.014	0.000000	0.000000	2136.94	165.16
2	FID		ACIS-S-5	7.06	4061	-0.191	-0.037	0.007	0.012	0.000000	0.000000	-1829.18	159.09
3	GUIDE	used	935477744	7.97	8124	-0.071	0.041	0.214	0.319	130.763067	-31.595574	703.72	-907.59
4	GUIDE	used	935479968	9.20	8111	0.068	0.259	0.348	0.558	130.929283	-31.670090	469.84	-381.49
5	GUIDE	used	936006328	7.15	8123	-0.148	-0.251	0.108	0.165	131.286875	-32.249262	910.06	1931.99
6	GUIDE	used	935462128	7.59	8123	-0.036	0.090	0.085	0.135	131.253043	-30.978082	-1858.46	-1714.05
7	GUIDE	used	935479648	9.03	8119	0.218	-0.137	0.123	0.186	131.297228	-31.599542	-571.59	120.45

## 2.4 Star Slots

### 2.4.1 Slot 3

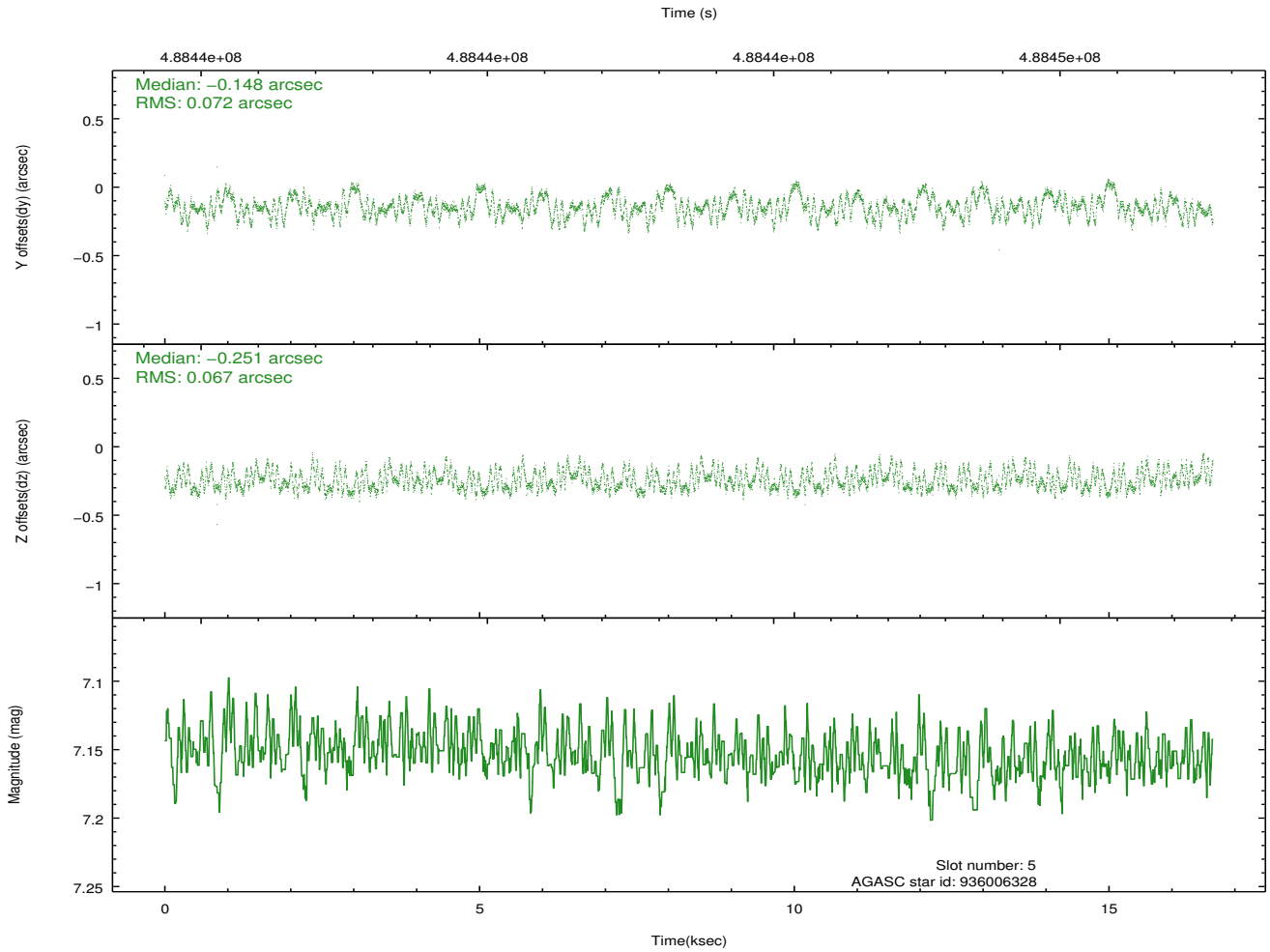
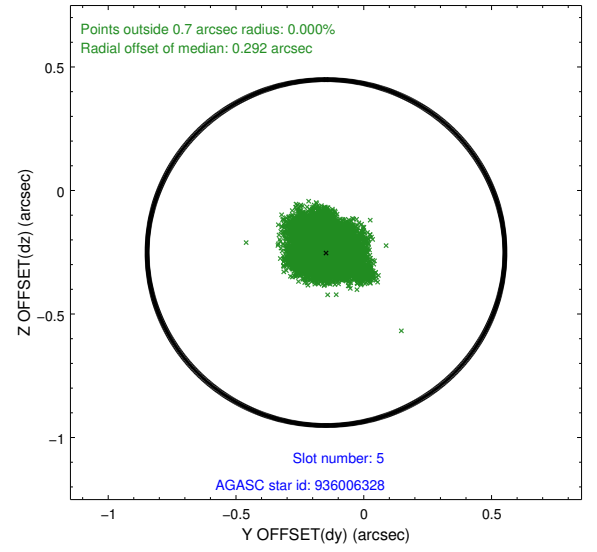
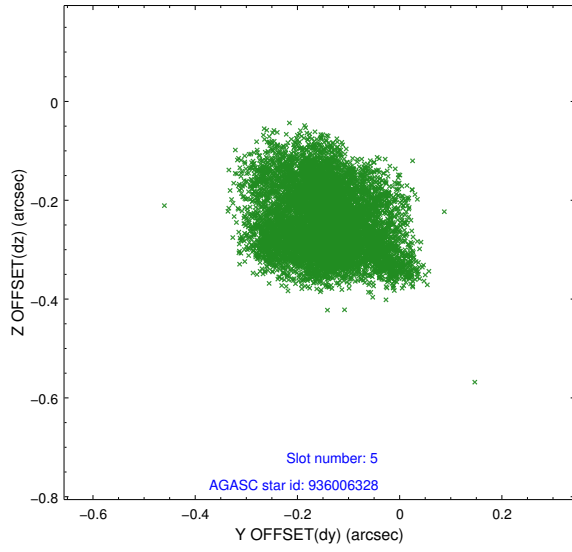


## 2.4.2 Slot 4

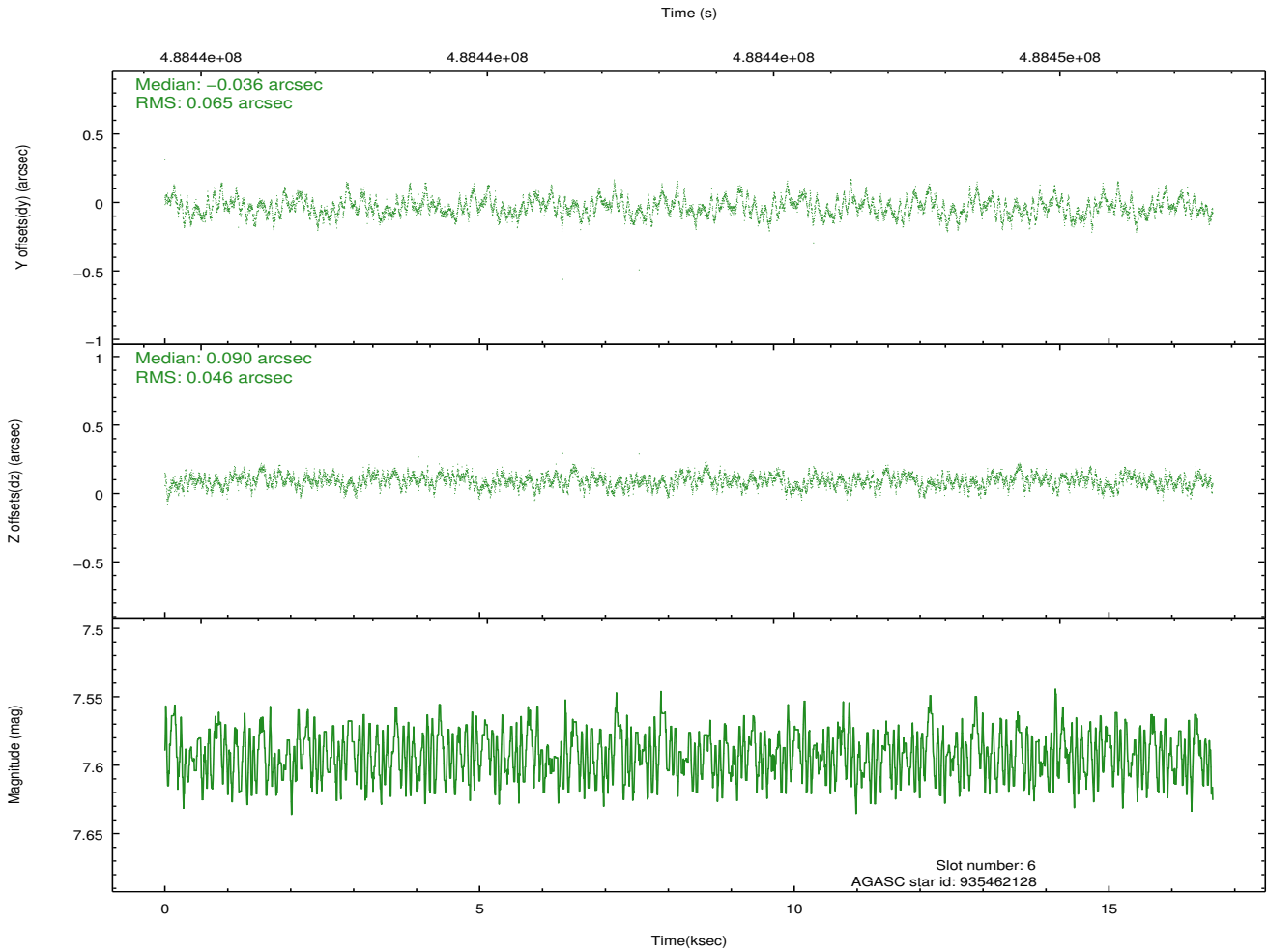
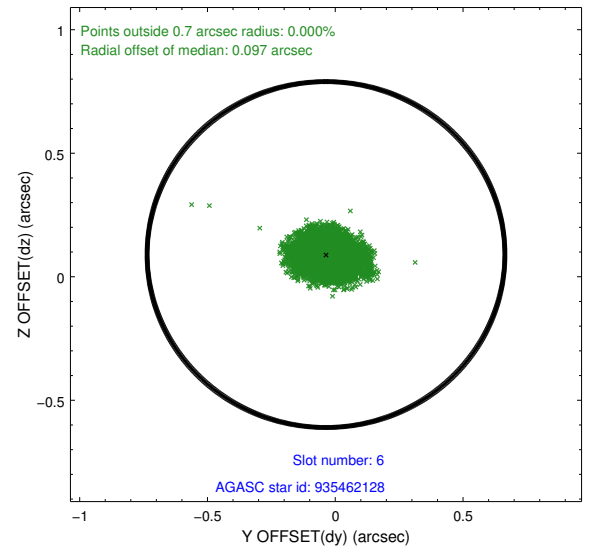
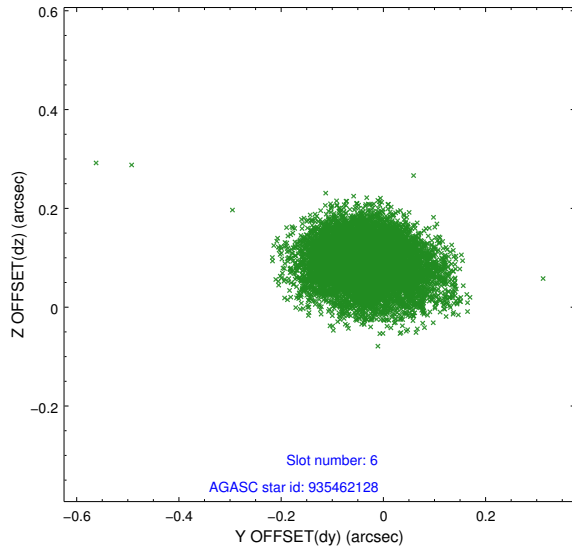




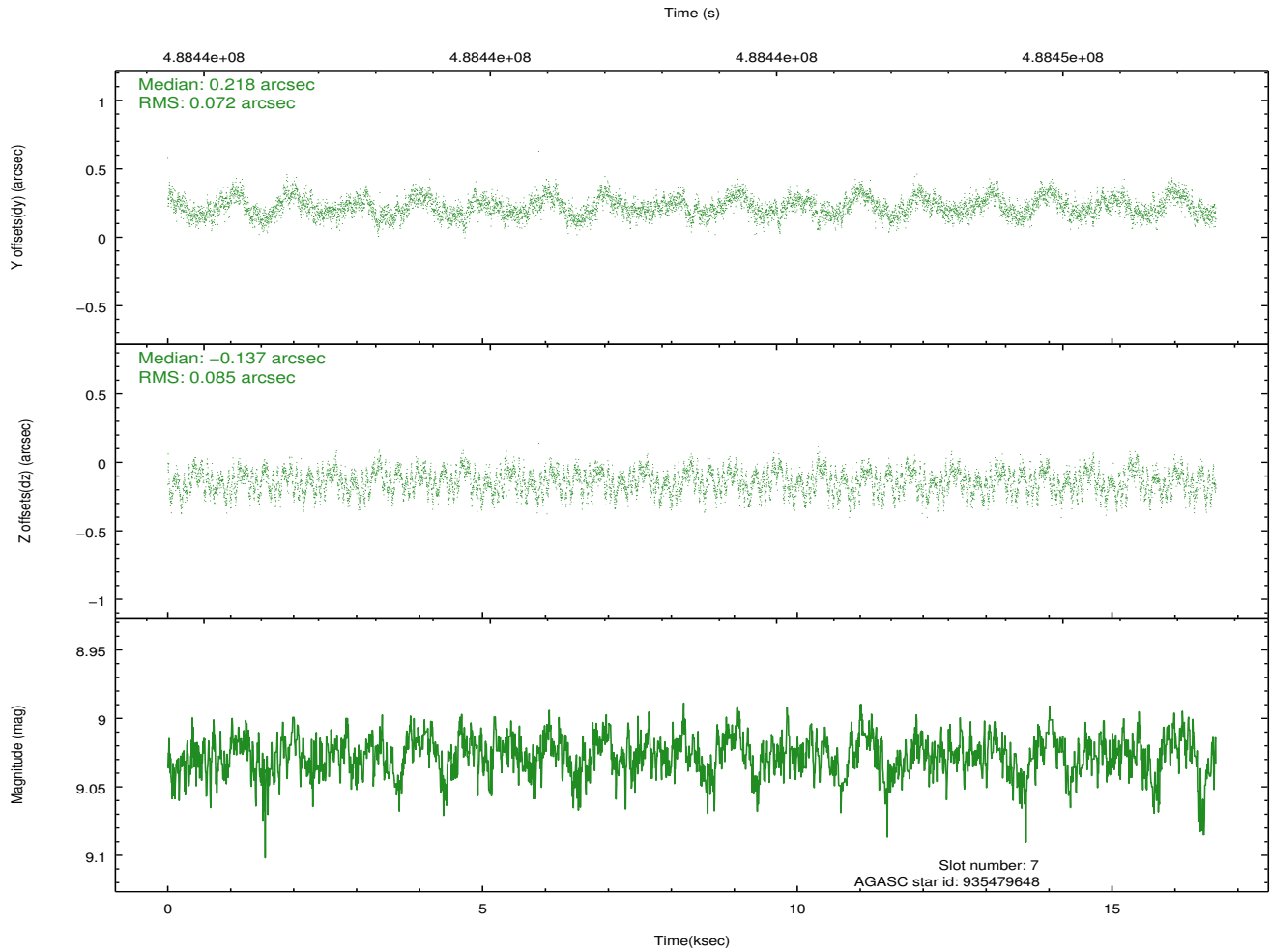
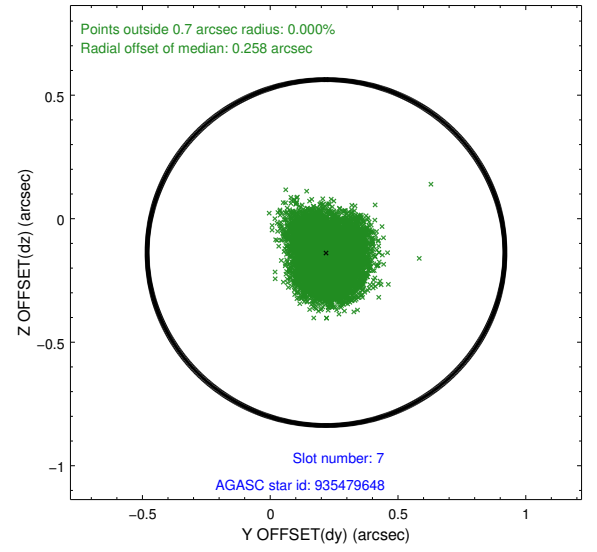
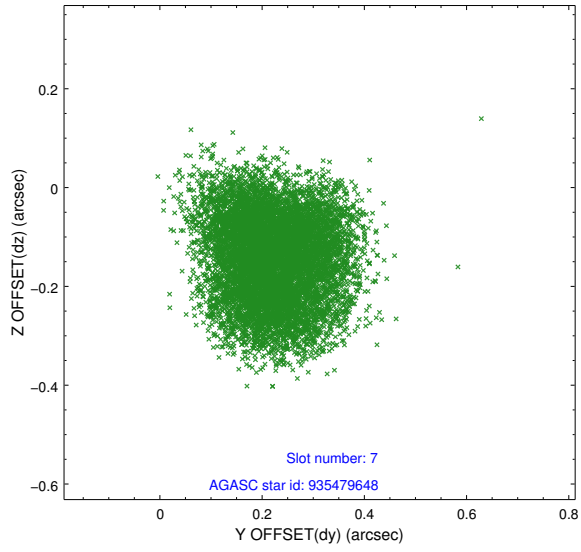
### 2.4.3 Slot 5



## 2.4.4 Slot 6

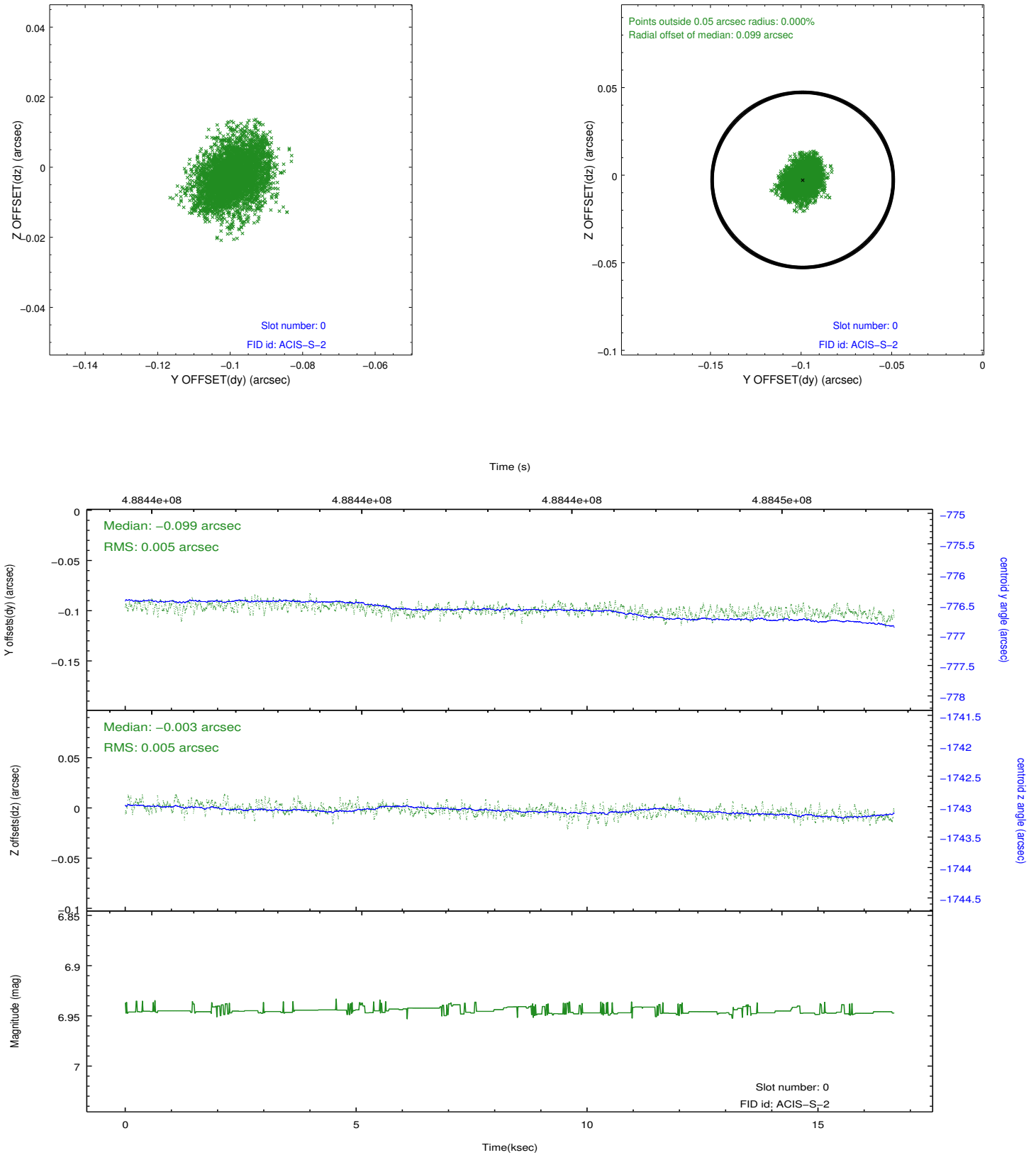


## 2.4.5 Slot 7

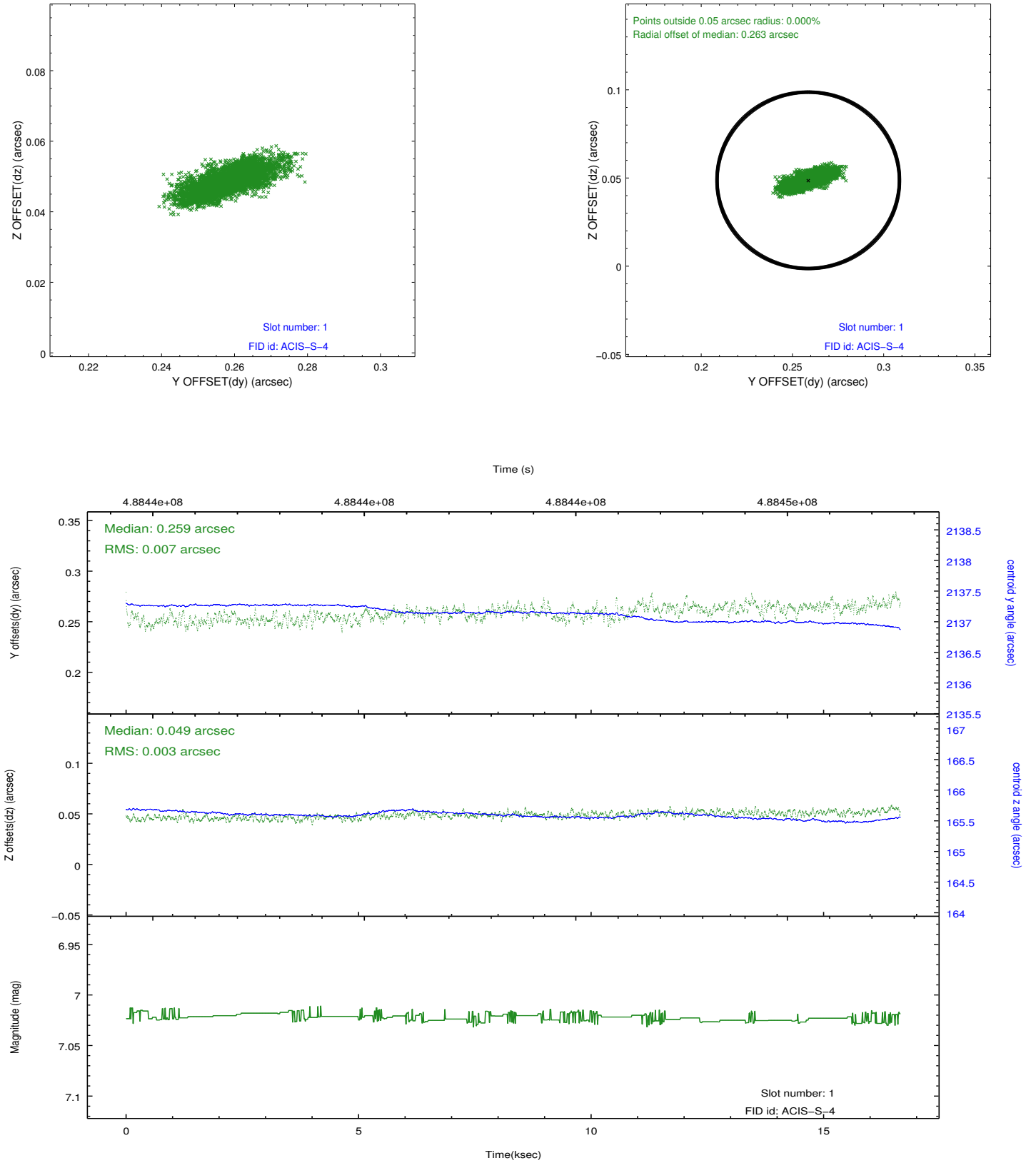


## 2.5 FID Slots

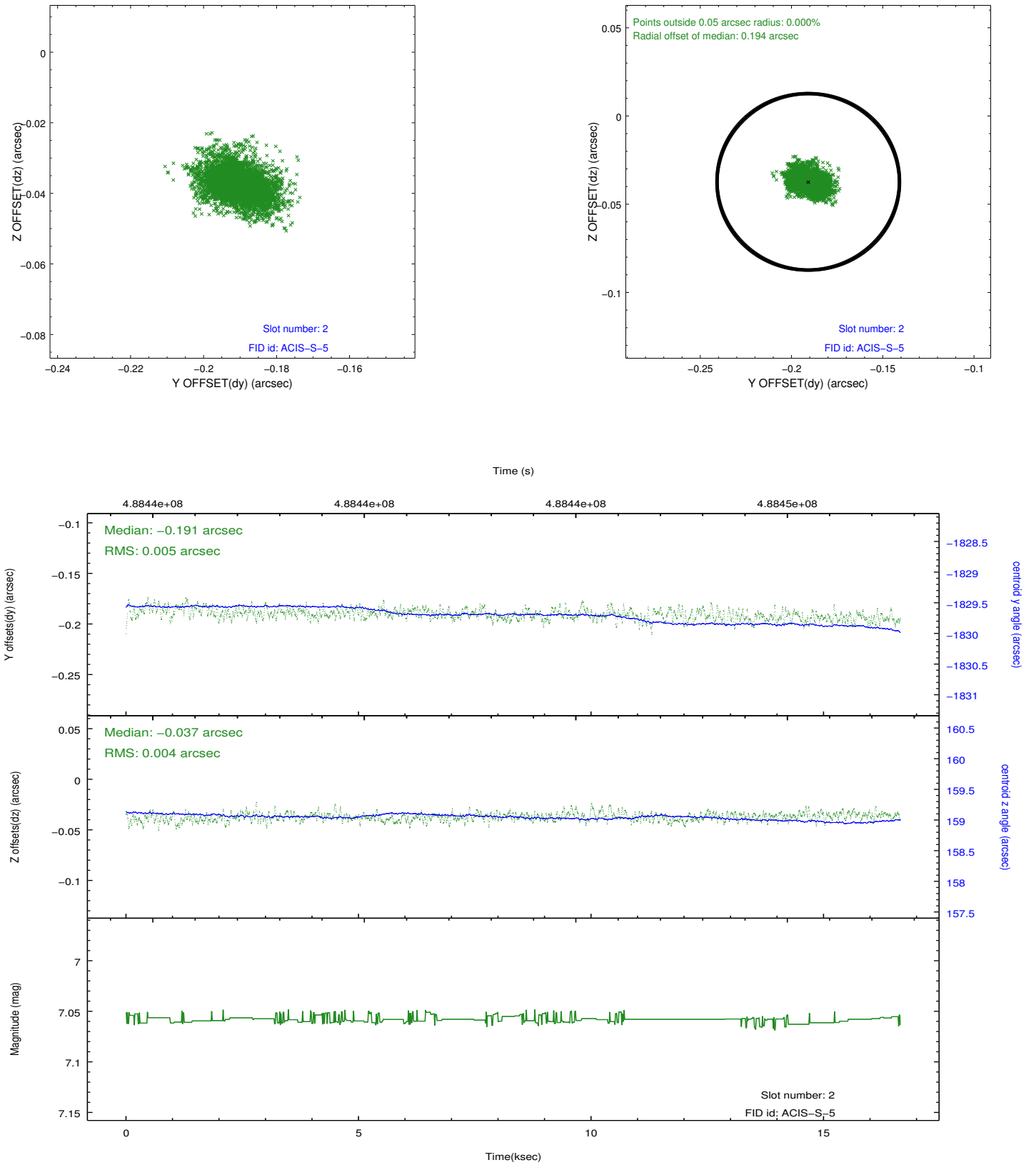
### 2.5.1 Slot 0



## 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)	2014.12.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	16.259199939489

## 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.