

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 13168 - L2 Version 3  
Chandra X-Ray Center

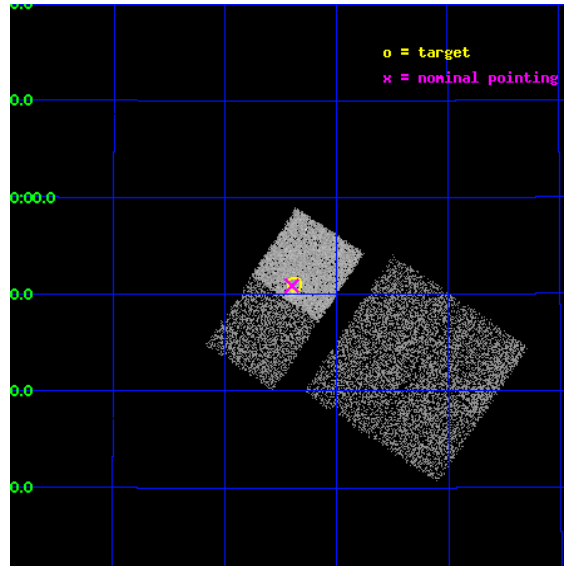
L2 Processing Date : Jul 6 2012

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# 1 Front

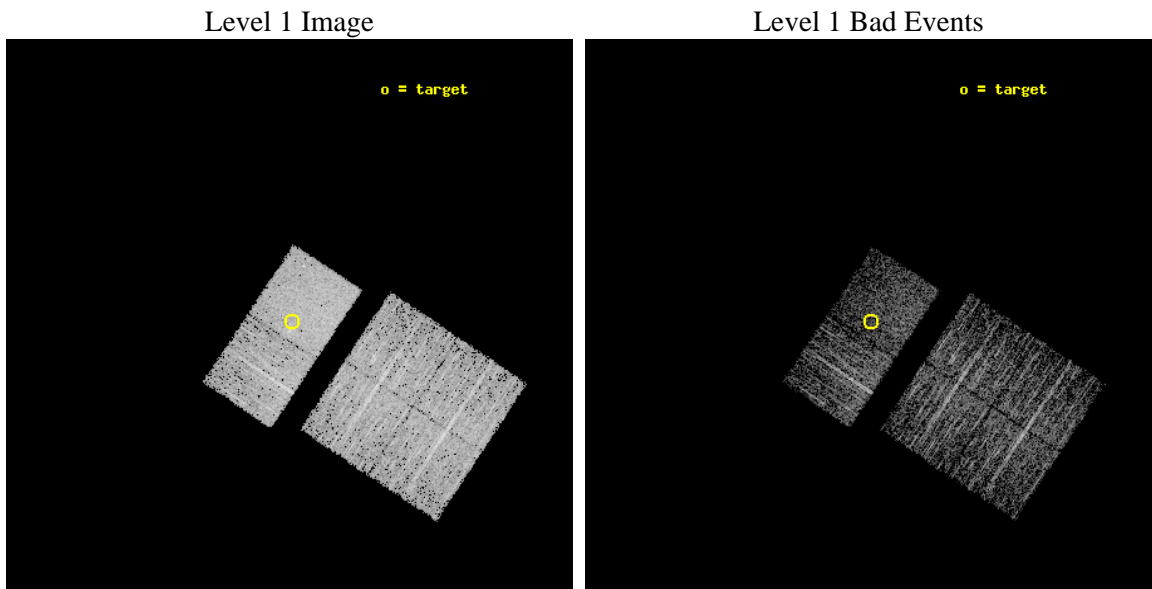
seq_num	401288	Sequence number
obs_id	13168	Observation id
title	Confirming the low-mass X-ray binaries in the Kepler field	Proposa
observer	Dr Jifeng Liu	Principal investigator
object	J190822.7+385101	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	287.094583	Observer's specified target RA [deg]
dec_targ	38.850278	Observer's specified target Dec [deg]
ra_nom	287.10032949313	Nominal RA [deg]
dec_nom	38.848101041019	Nominal Dec [deg]
roll_nom	303.67150416227	Nominal Roll [deg]
revision	3	Processing version of data
ontime	2962.5136308074	Sum of GTIs [s]
livetime	2925.0004994026	Livetime [s]
ontime0	2962.5546708107	Sum of GTIs [s]
ontime1	2962.3494707942	Sum of GTIs [s]
ontime2	2962.3905107975	Sum of GTIs [s]
ontime3	2962.4315508008	Sum of GTIs [s]
ontime6	2962.4725908041	Sum of GTIs [s]
ontime7	2962.5136308074	Sum of GTIs [s]
l2events	26945	Number of level 2 events



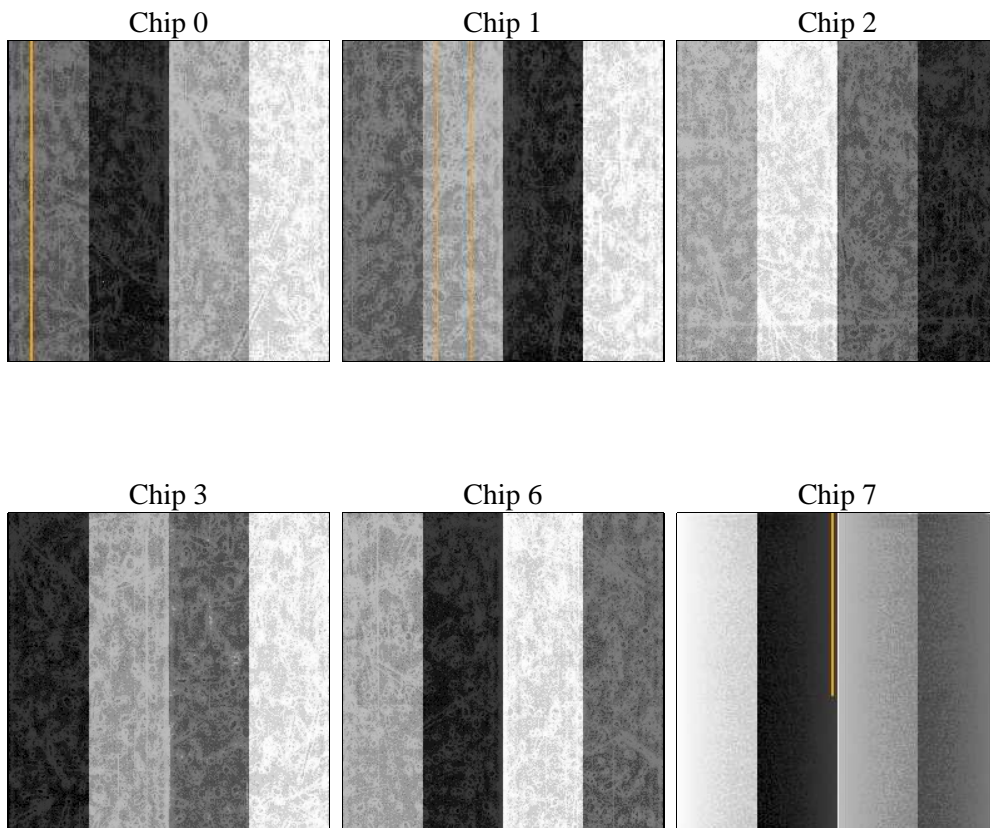
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3000.576000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	2962.5136308074	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime0	2962.5546708107	Sum of GTIs [s]
date	2012-07-06T14:05:04	Date and time of file creation	ontime1	2962.3494707942	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	2962.3905107975	Sum of GTIs [s]
			ontime3	2962.4315508008	Sum of GTIs [s]
			ontime6	2962.4725908041	Sum of GTIs [s]
			ontime7	2962.5136308074	Sum of GTIs [s]
			l1events	134157	Number of level 1 events

### 2.1.4 Events

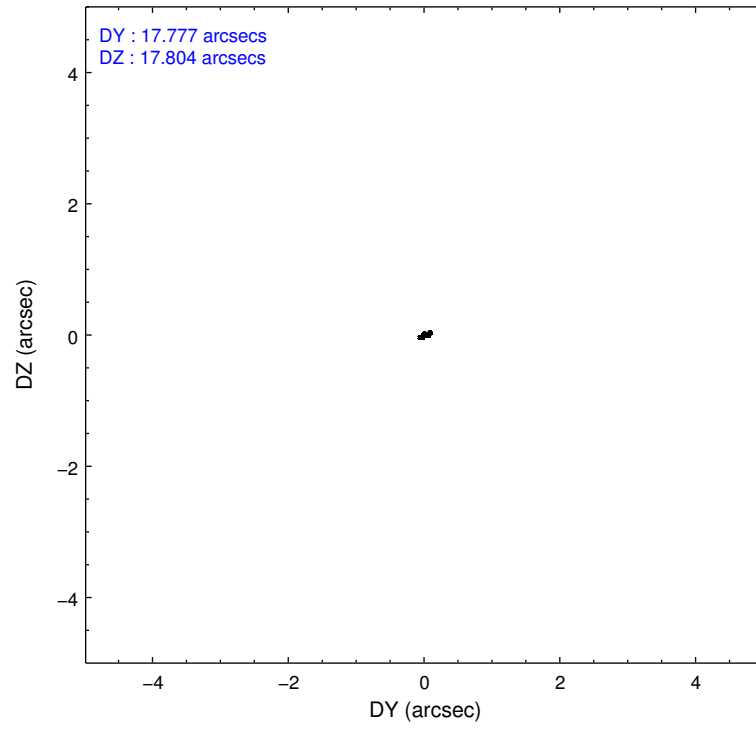
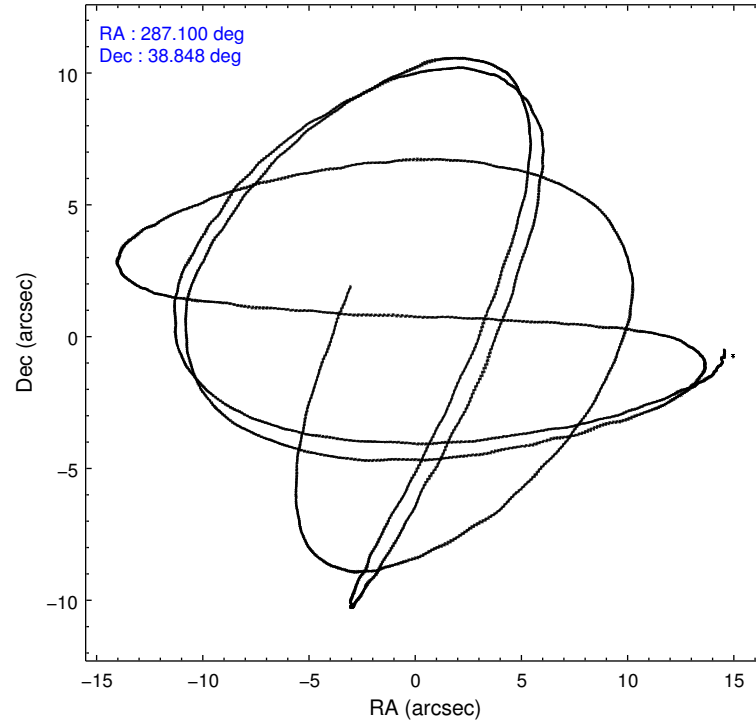
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	20504	20841	21936	20710	22292	27874	grade 0 events	1382	1548	1351	1352	1433	1364
rejected events	17354	17276	18865	17737	19019	14397		6%	7%	6%	6%	6%	4%
rejected %	84%	82%	86%	85%	85%	51%	grade 1 events	16	15	20	17	14	45
								0%	0%	0%	0%	0%	0%
							grade 2 events	649	748	671	541	632	2699
								3%	3%	3%	2%	2%	9%
							grade 3 events	275	301	295	267	297	1209
								1%	1%	1%	1%	1%	4%
							grade 4 events	280	318	255	279	291	1194
								1%	1%	1%	1%	1%	4%
							grade 5 events	846	900	839	971	970	2710
								4%	4%	3%	4%	4%	9%
							grade 6 events	574	656	503	540	625	7035
								2%	3%	2%	2%	2%	25%
							grade 7 events	16482	16355	18002	16743	18030	11618
								80%	78%	82%	80%	80%	41%

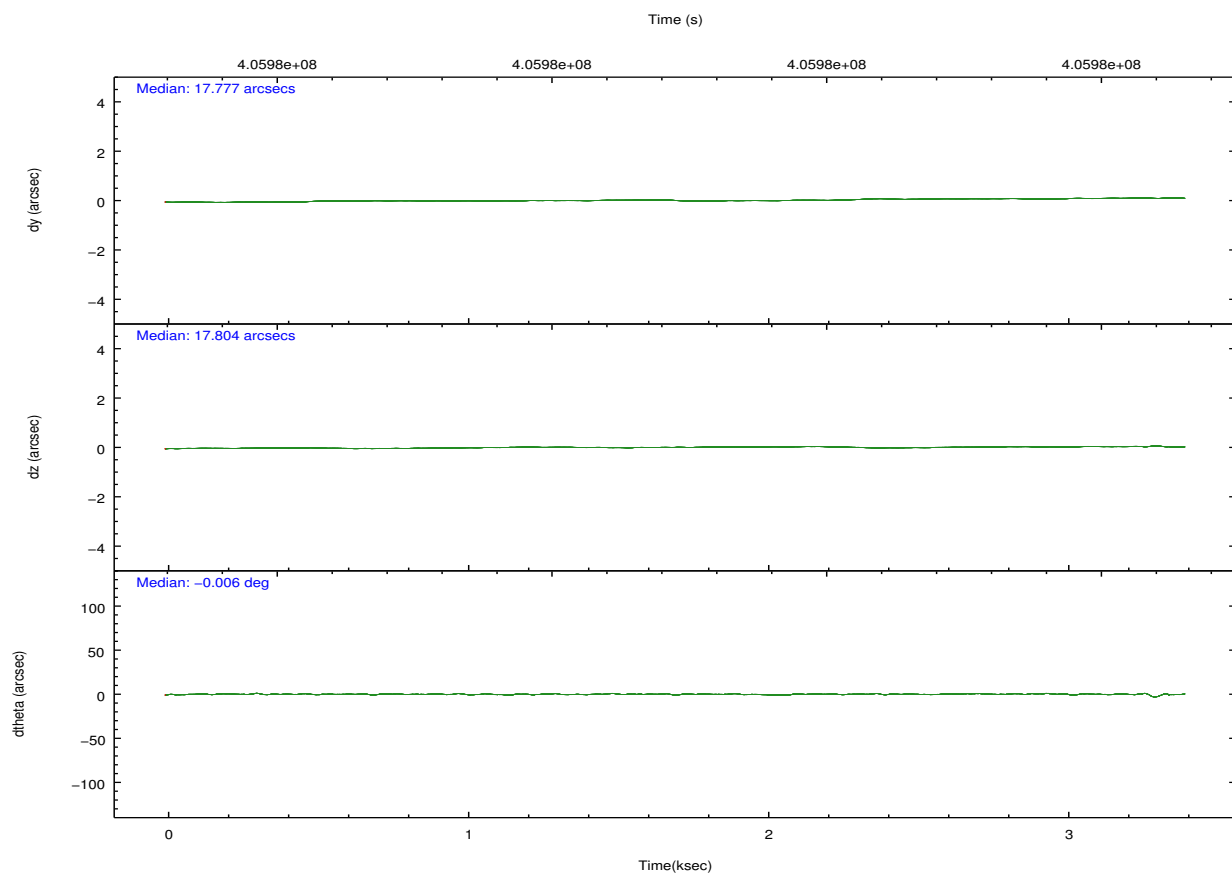
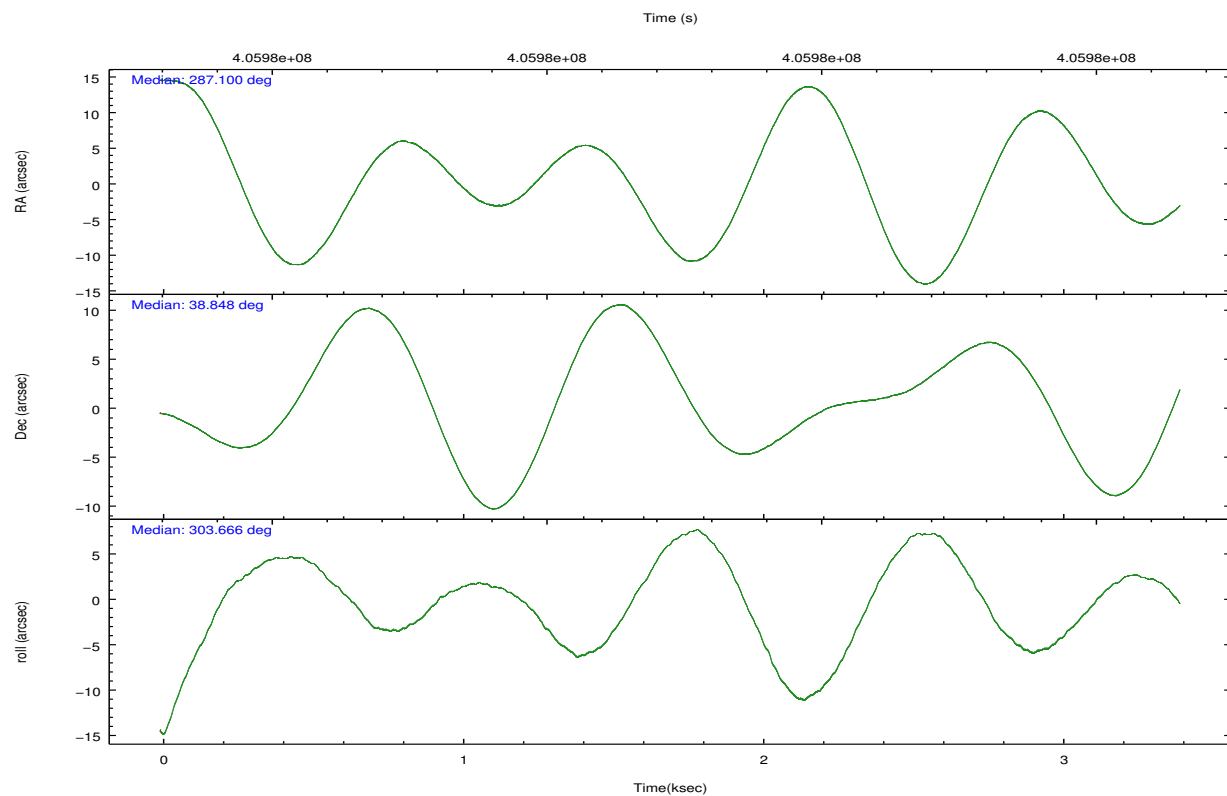


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	287.068570	287.1003294931311	Subarray requested	NONE	NONE
[deg] Pointing Dec	38.860045	38.84810104101896	Alternating exposures requested	N	N
[deg] Pointing Roll	303.534803	303.6715041622705	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	405979138.184000	405978069.99094			
Observation start date	2010-11-12T19:57:52	2010-11-12T19:41:09			
[s] Observation end time (MET)	405982138.184000	405982364.22866			
Observation end date	2010-11-12T20:47:52	2010-11-12T20:52:44			
Read mode	TIMED	TIMED			

## 2.3 Aspect



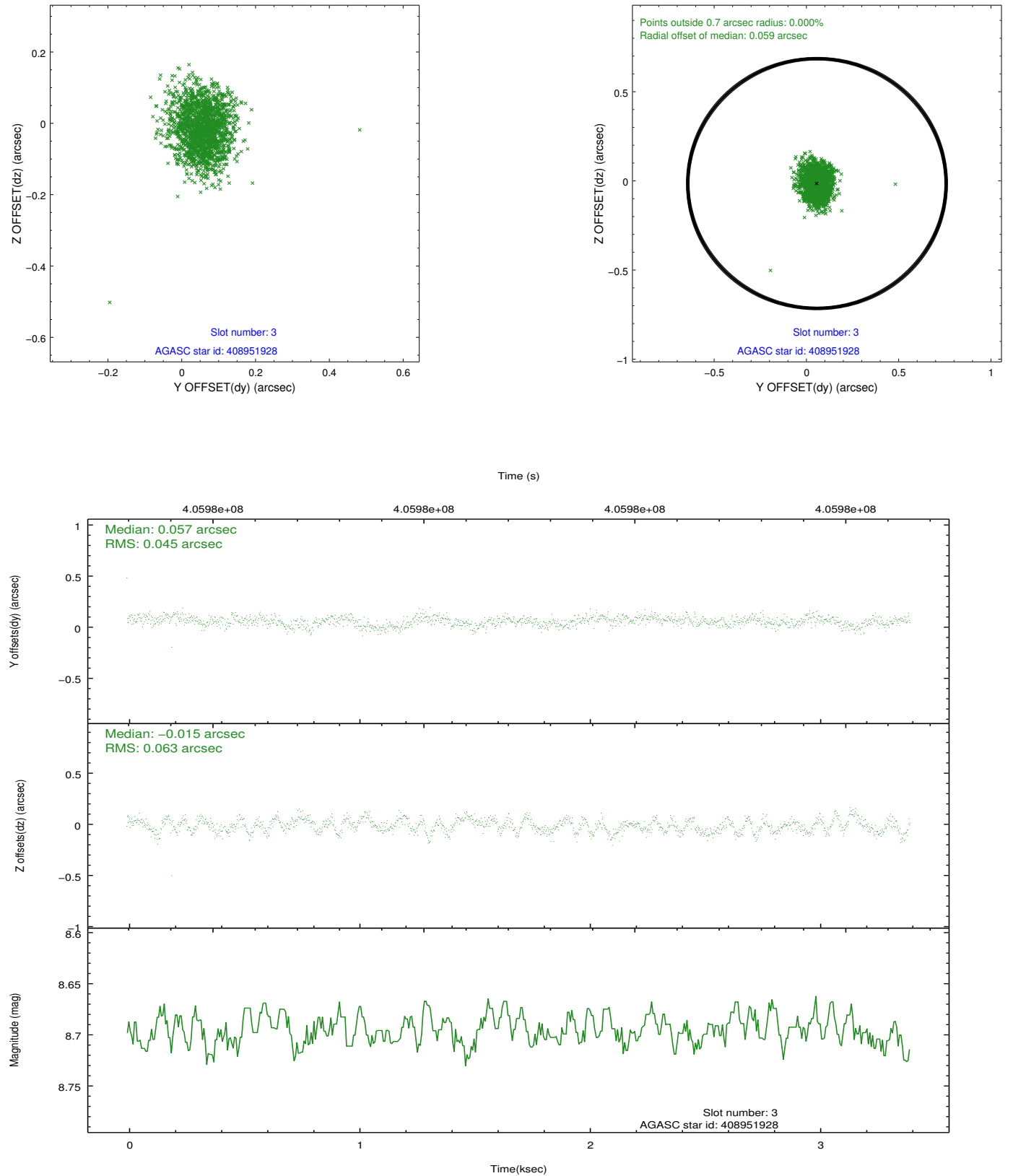


### Slot Statistics

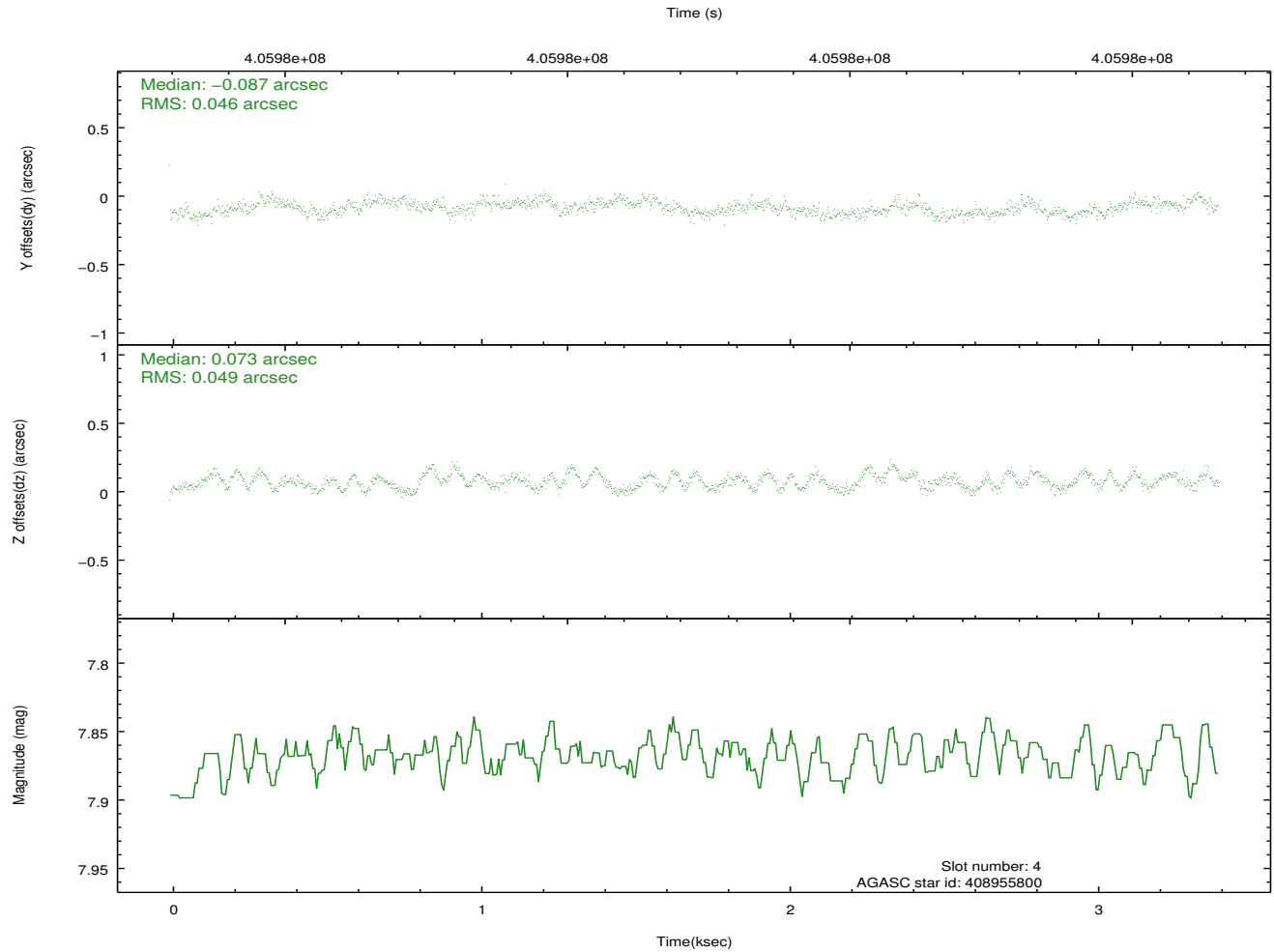
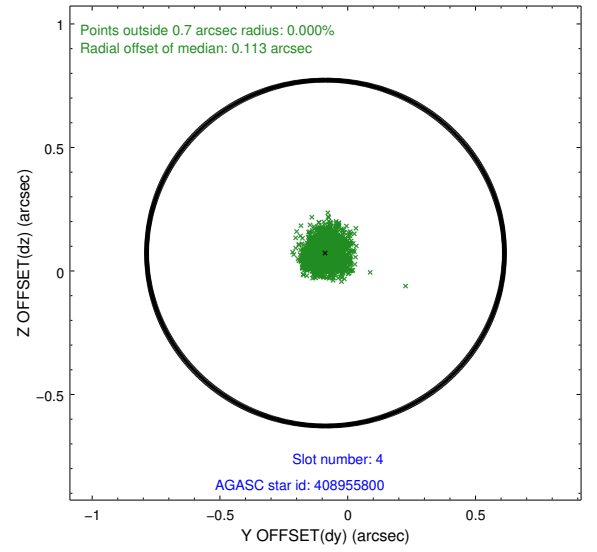
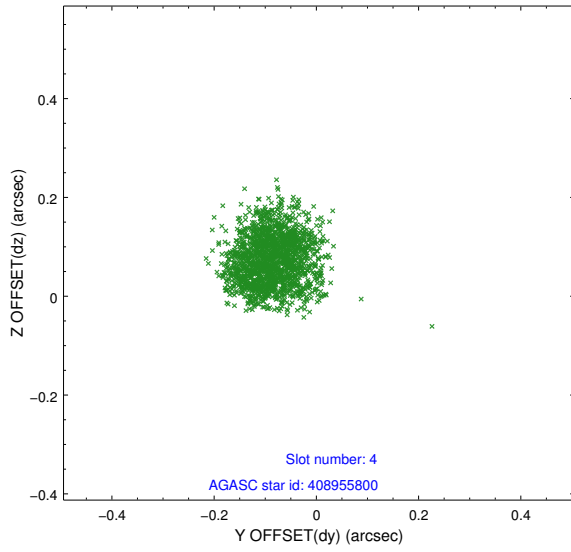
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	6.92	830	0.116	-0.058	0.007	0.011	0.000000	0.000000	925.33	-1734.94
1	FID	ACIS-S-5	6.97	830	-0.135	0.093	0.007	0.013	0.000000	0.000000	-1822.90	160.82
2	FID	ACIS-S-6	7.07	830	-0.002	-0.024	0.007	0.012	0.000000	0.000000	388.72	806.79
3	GUIDE	408951928	8.70	1656	0.057	-0.015	0.081	0.128	286.204065	38.742633	-998.13	-2250.36
4	GUIDE	408955800	7.87	1659	-0.087	0.073	0.072	0.109	286.441653	39.119672	-1752.26	-941.09
5	GUIDE	408957760	8.59	1657	0.035	0.026	0.087	0.139	286.614772	38.353858	807.94	-2072.98
6	GUIDE	409077064	8.09	1659	-0.085	-0.054	0.064	0.101	287.695034	38.905466	828.37	1555.61
7	GUIDE	409083728	8.24	1658	0.082	-0.029	0.064	0.102	287.612523	38.561644	1737.96	686.78

## 2.4 Star Slots

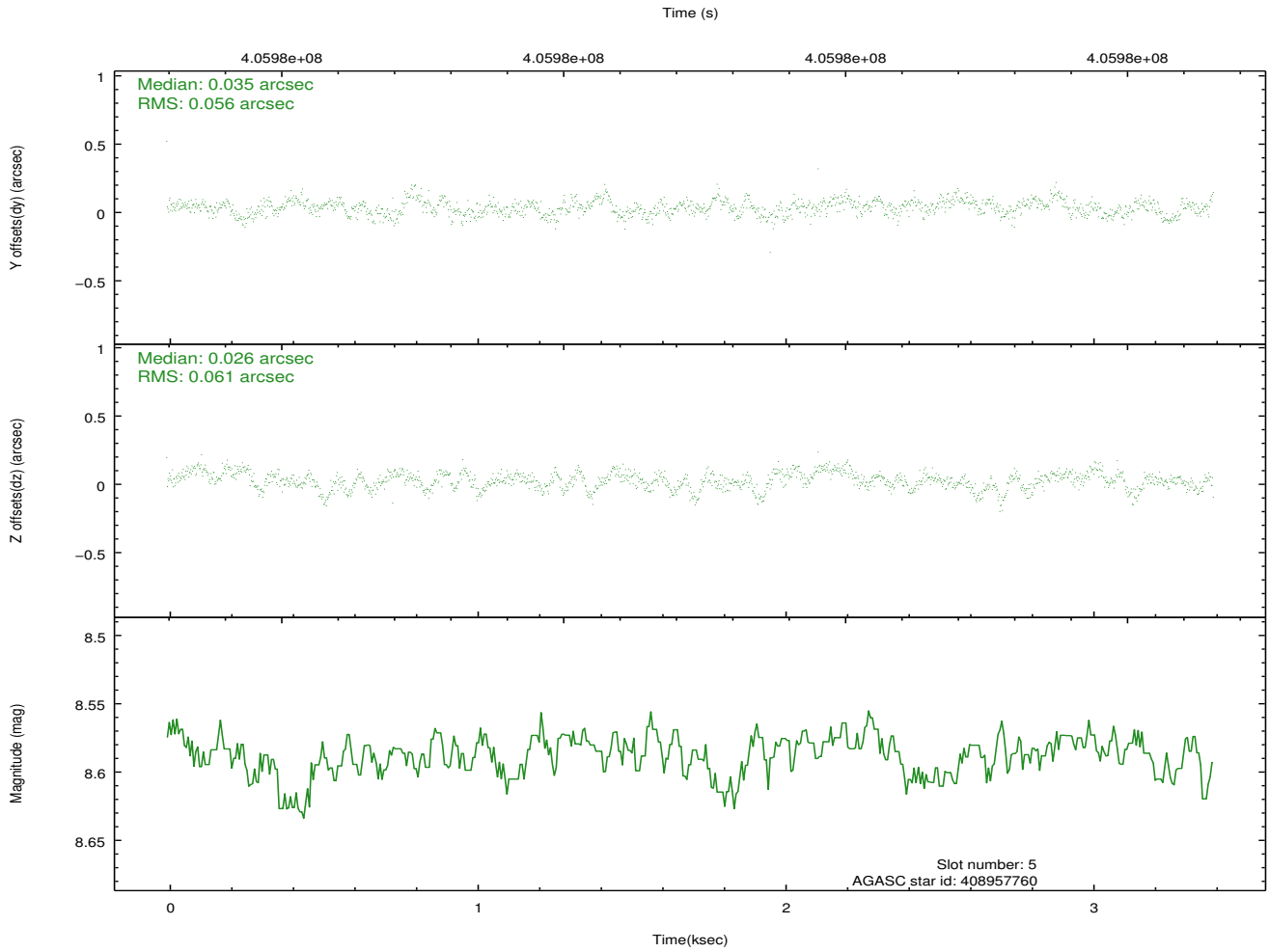
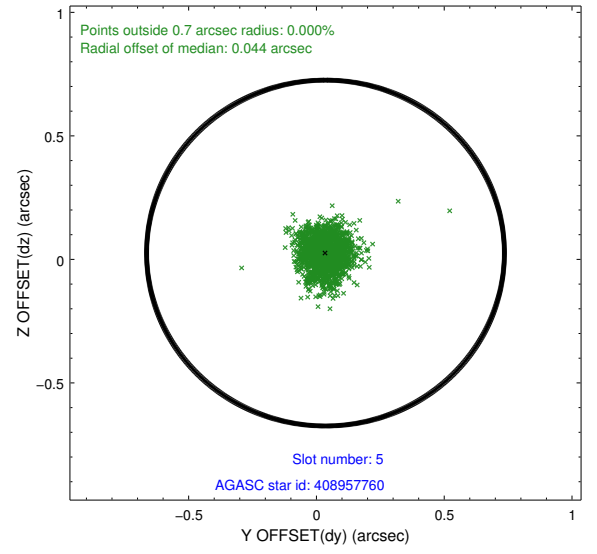
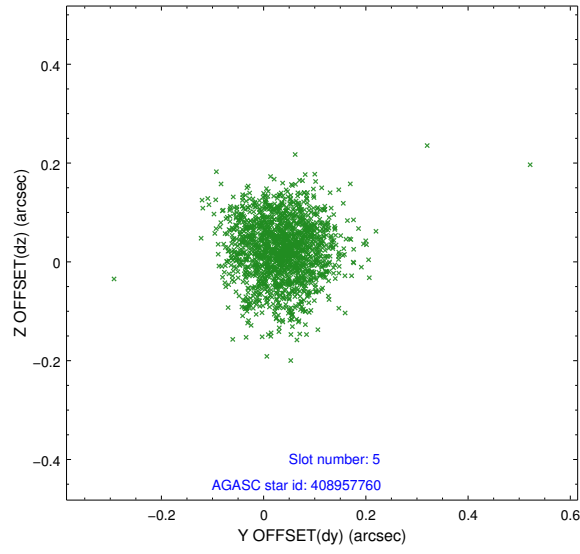
### 2.4.1 Slot 3



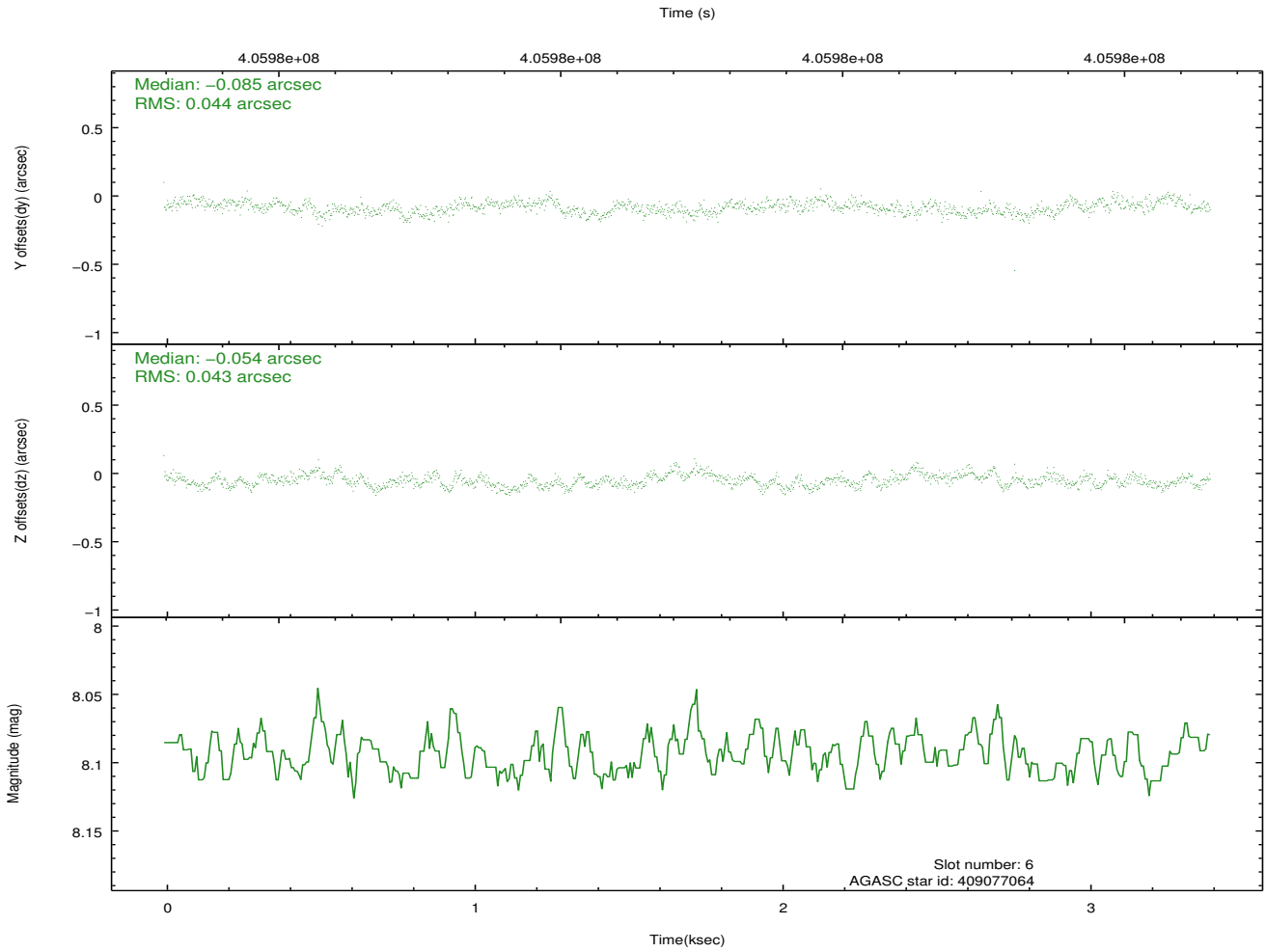
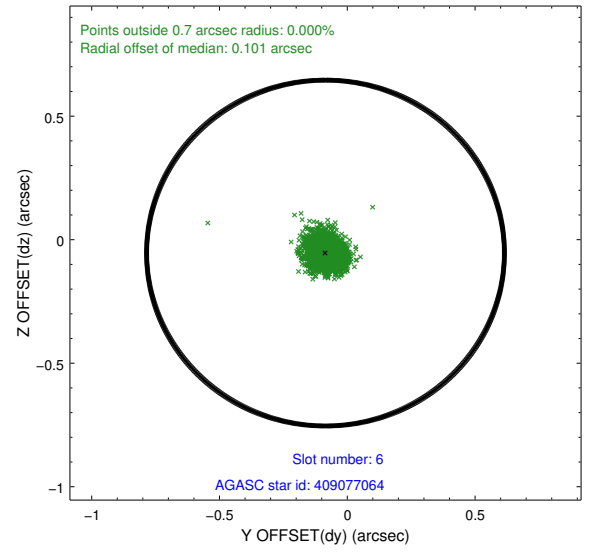
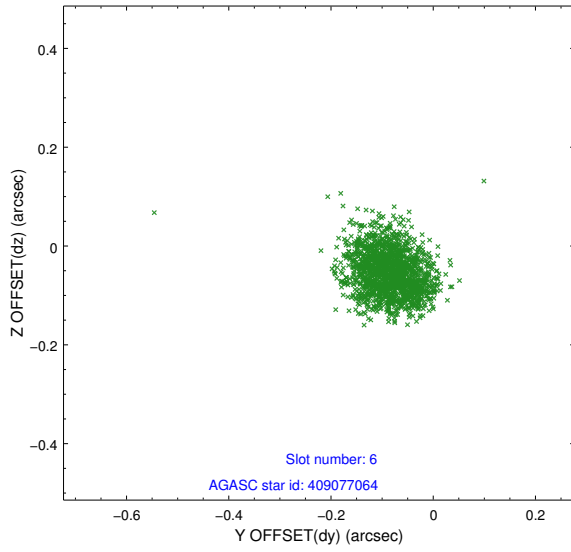
## 2.4.2 Slot 4



### 2.4.3 Slot 5

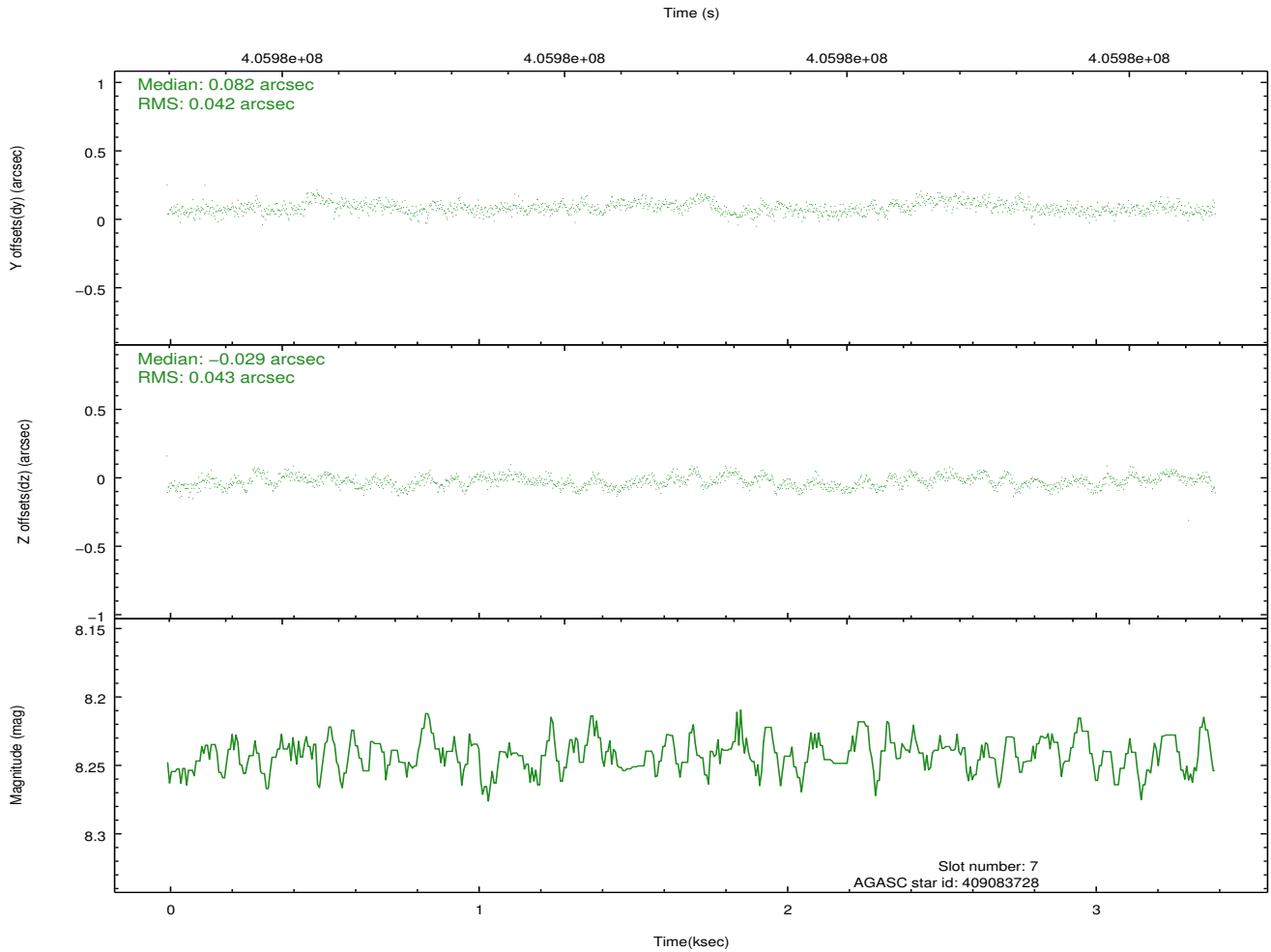
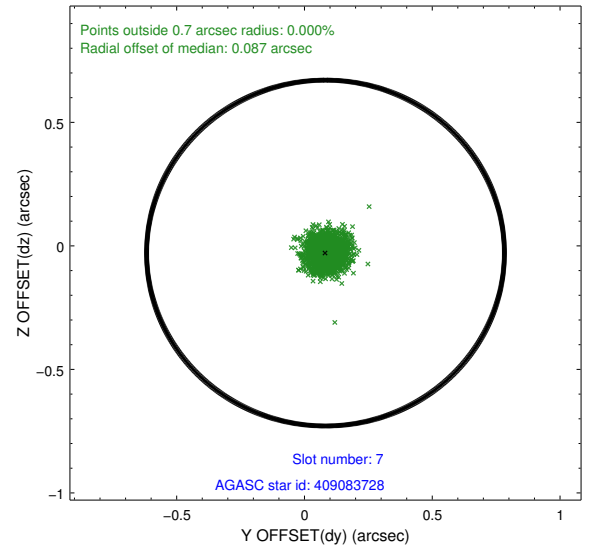
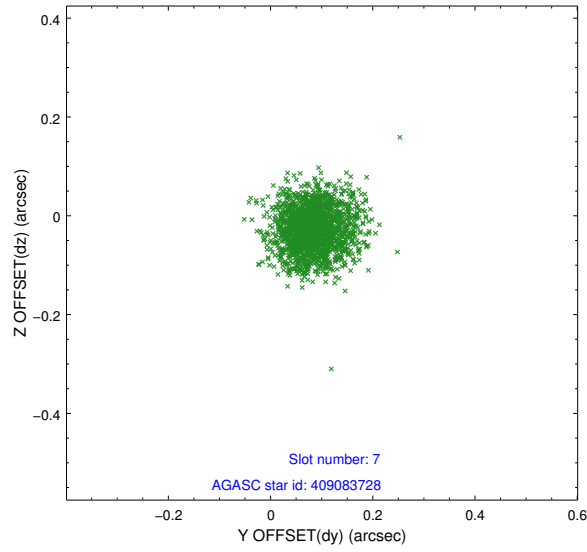


## 2.4.4 Slot 6



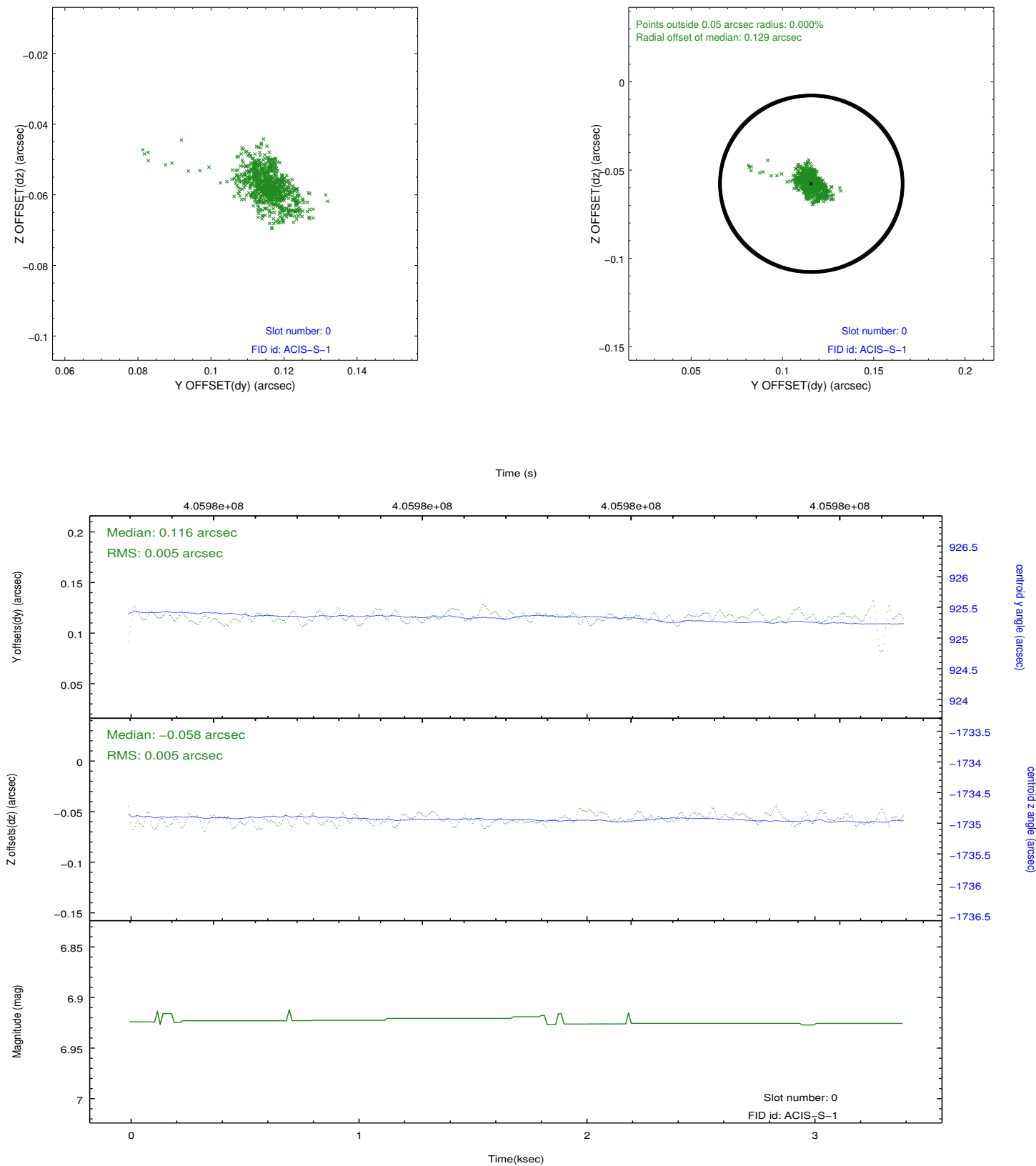


## 2.4.5 Slot 7

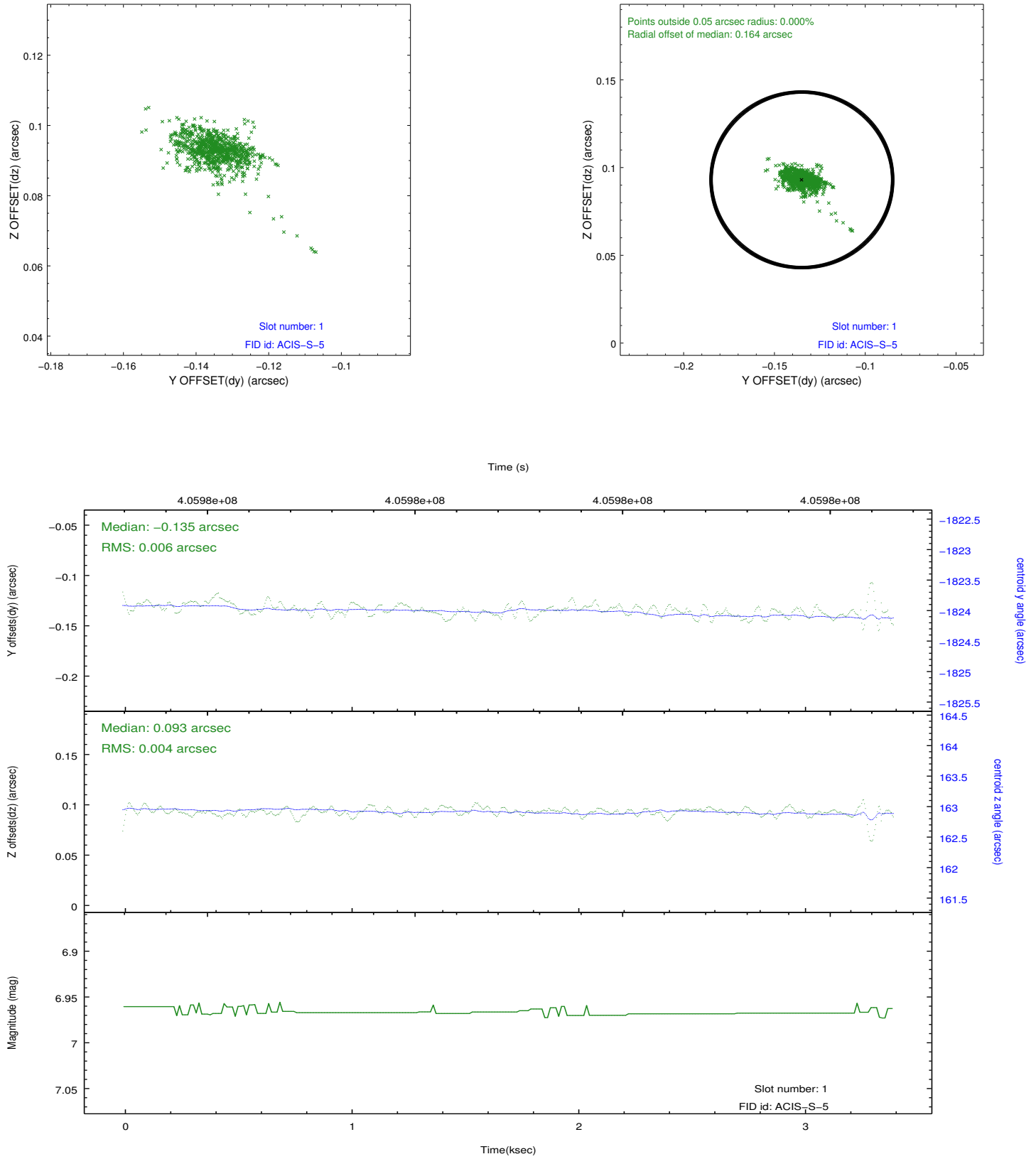


## 2.5 FID Slots

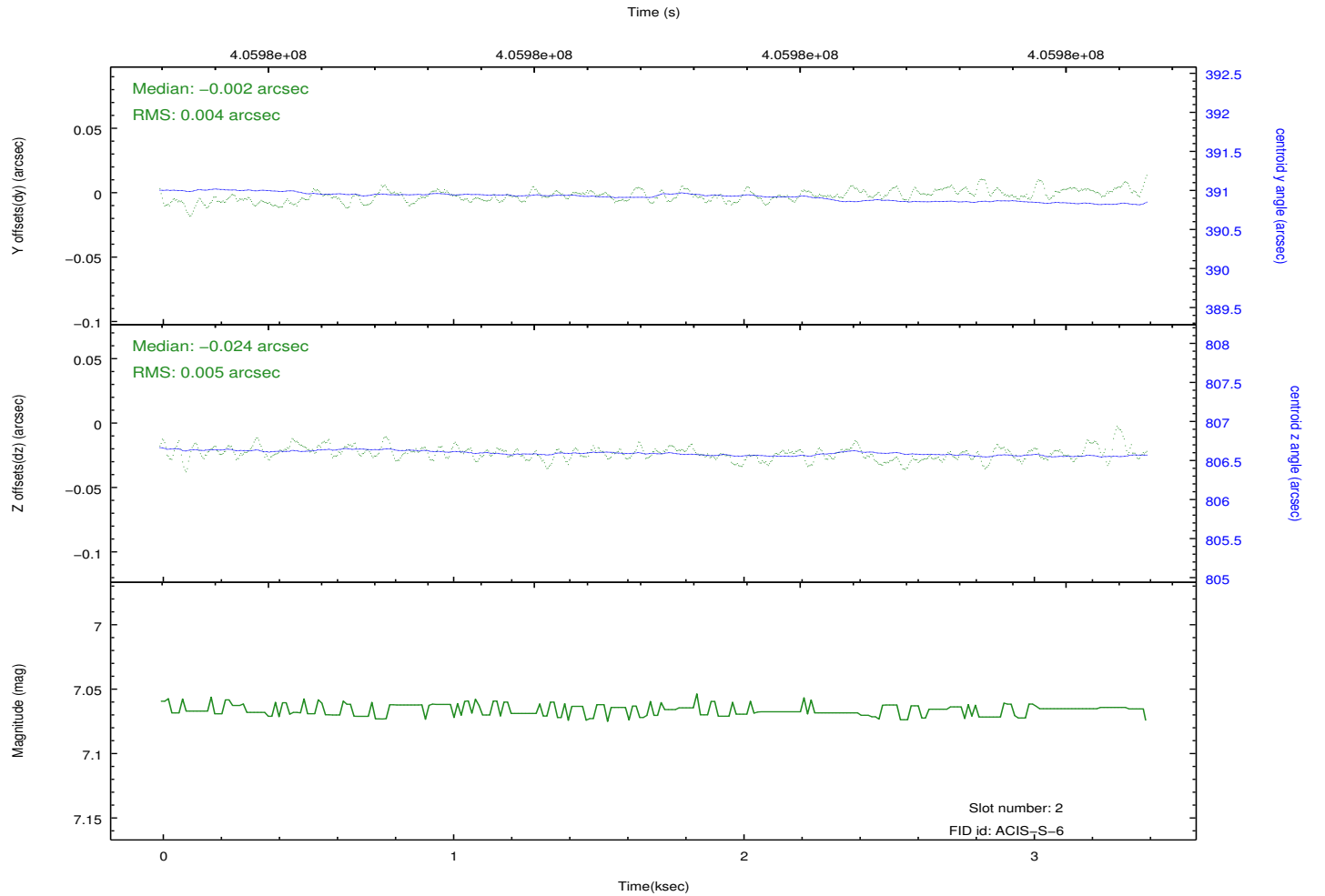
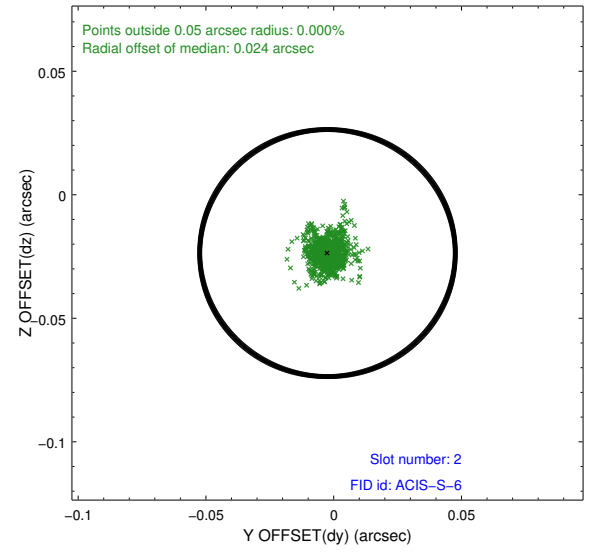
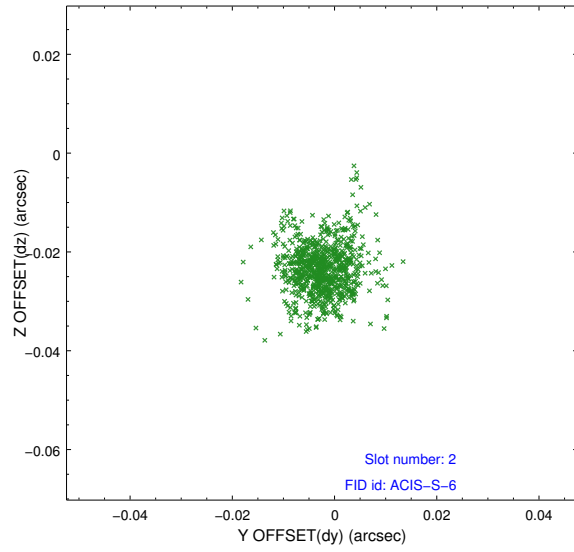
### 2.5.1 Slot 0



## 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)	2012.07.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.9625136235952

## A.2 Comments

A spatial region of the original bias map for CCD = 6 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small ( $\sim 20$  eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 6 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords:  
(287.22899,38.81926), (287.21899,38.83096), (287.18064,38.81107), (287.18306,38.79543)