

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11331 - L2 Version 2  
Chandra X-Ray Center

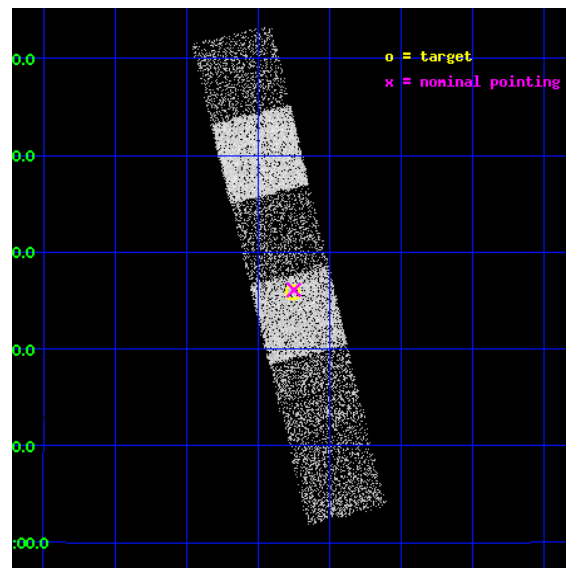
L2 Processing Date : Jun 21 2012

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# 1 Front

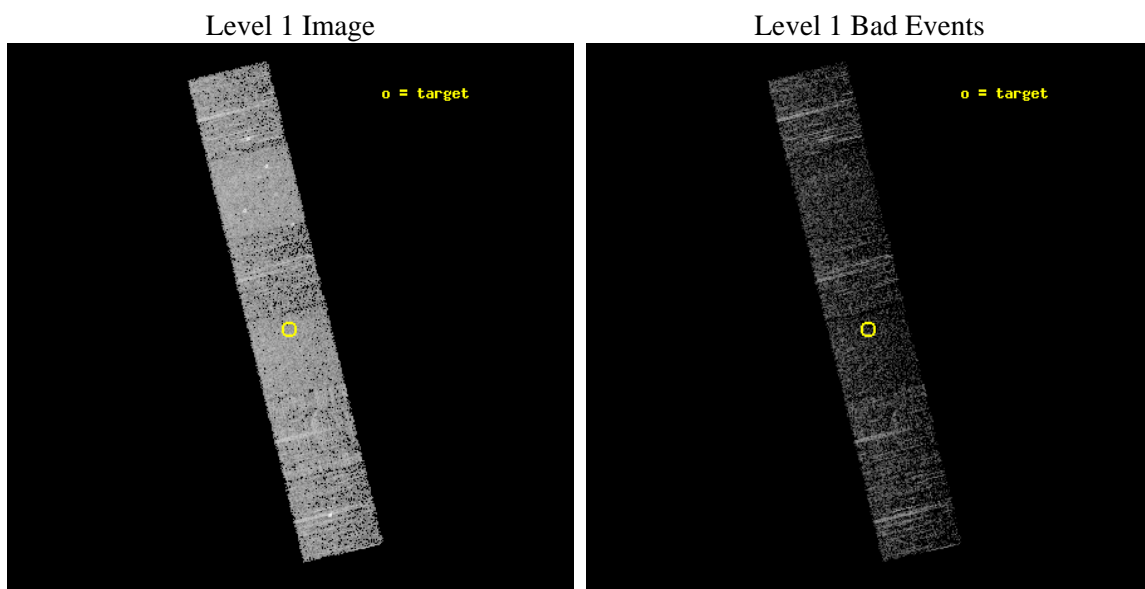
seq_num	600850	Sequence number
obs_id	11331	Observation id
title	Accretion onto nuclear black holes in early type galaxies: comparing field vs. clusters	Proposal title
observer	Elena Gallo	Principal investigator
object	PGC042724	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	190.689	Observer's specified target RA [deg]
dec_targ	3.43059	Observer's specified target Dec [deg]
ra_nom	190.68710108577	Nominal RA [deg]
dec_nom	3.4351423647333	Nominal Dec [deg]
roll_nom	76.280881166658	Nominal Roll [deg]
revision	2	Processing version of data
ontime	1823.9999932647	Sum of GTIs [s]
livetime	1800.903407069	Livetime [s]
ontime4	1823.9999932647	Sum of GTIs [s]
ontime5	1823.9999932647	Sum of GTIs [s]
ontime6	1823.9999932647	Sum of GTIs [s]
ontime7	1823.9999932647	Sum of GTIs [s]
ontime8	1823.9999932647	Sum of GTIs [s]
ontime9	1823.9999932647	Sum of GTIs [s]
l2events	24236	Number of level 2 events



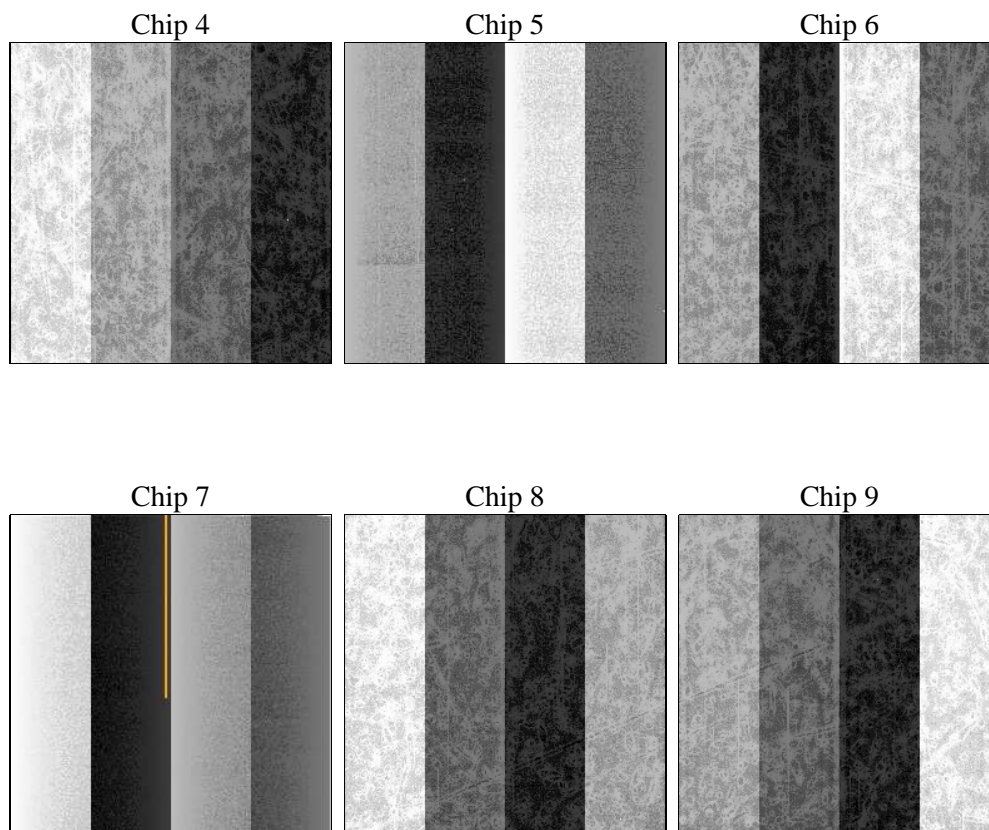
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	1700.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	1823.9999932647	Sum of GTIs [s]
caldsver	4.4.10	&#160	ontime4	1823.9999932647	Sum of GTIs [s]
date	2012-06-21T14:51:48	Date and time of file creation	ontime5	1823.9999932647	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	1823.9999932647	Sum of GTIs [s]
			ontime7	1823.9999932647	Sum of GTIs [s]
			ontime8	1823.9999932647	Sum of GTIs [s]
			ontime9	1823.9999932647	Sum of GTIs [s]
			l1events	109033	Number of level 1 events

### 2.1.4 Events

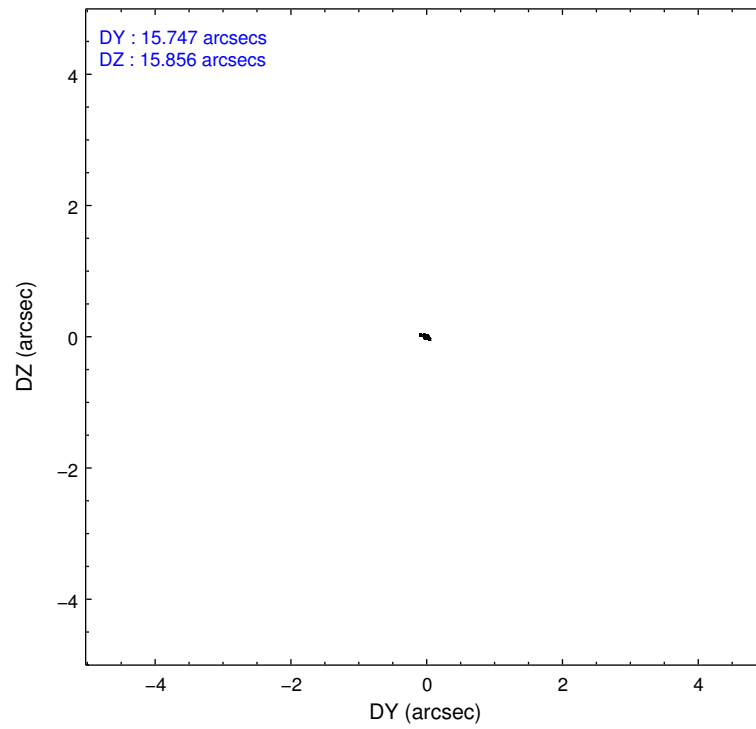
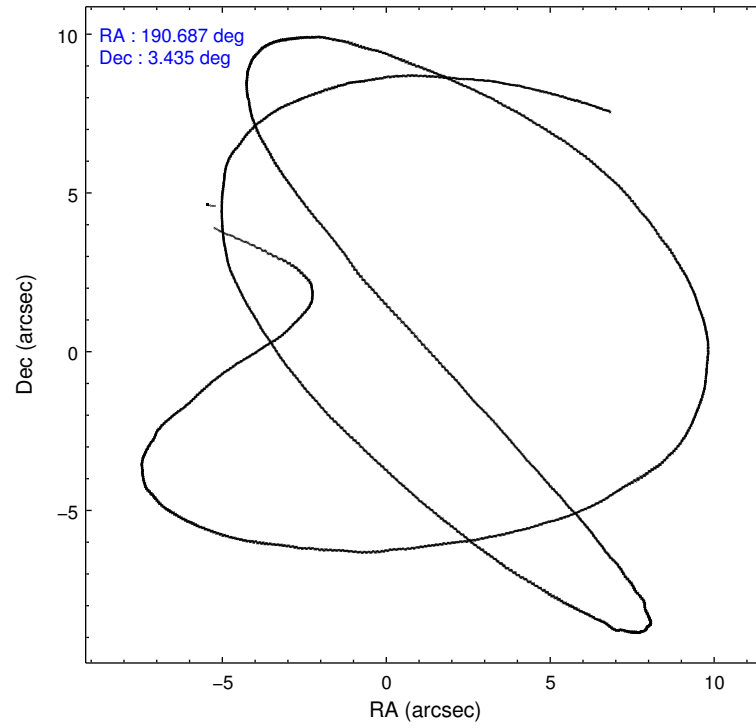
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	18163	22259	14777	18133	19682	16019
rejected events	16130	11065	13104	10044	14172	13728
rejected %	88%	49%	88%	55%	72%	85%

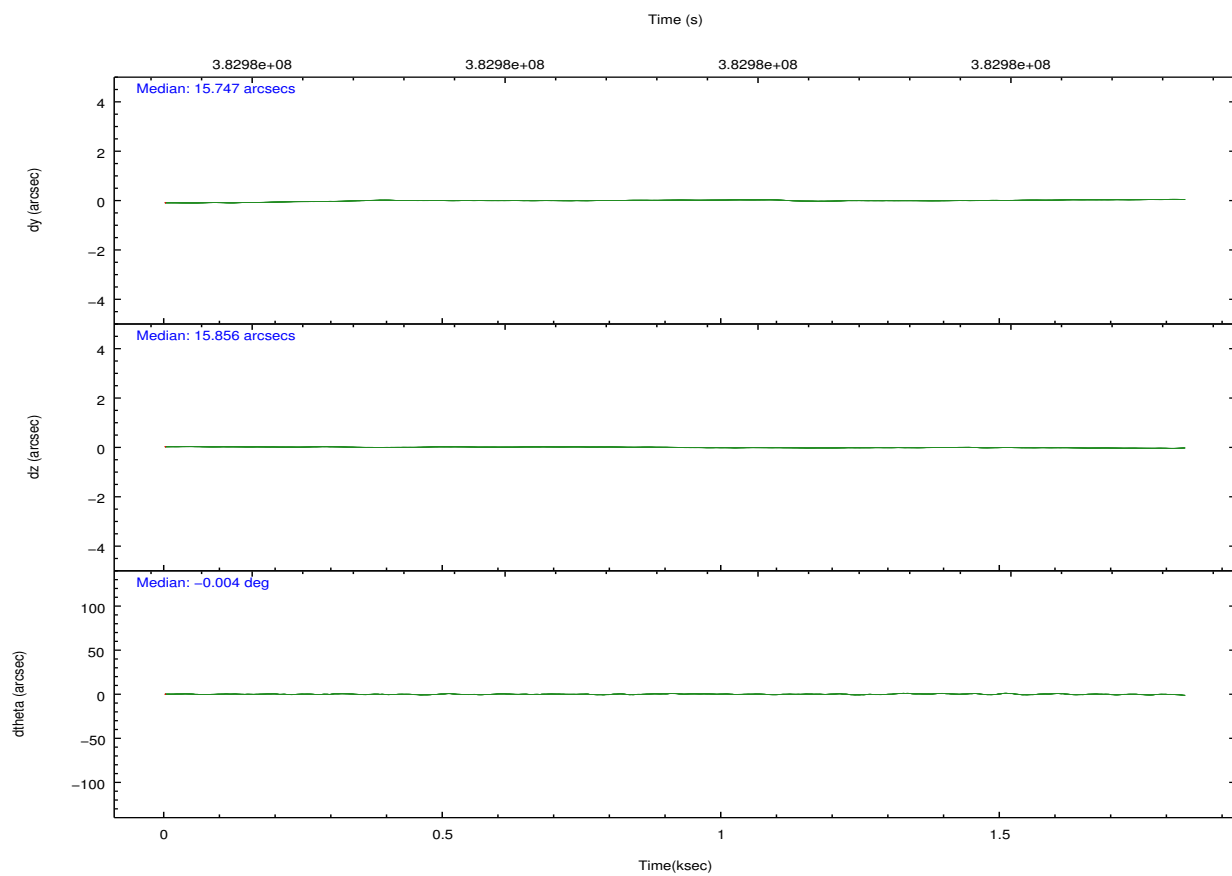
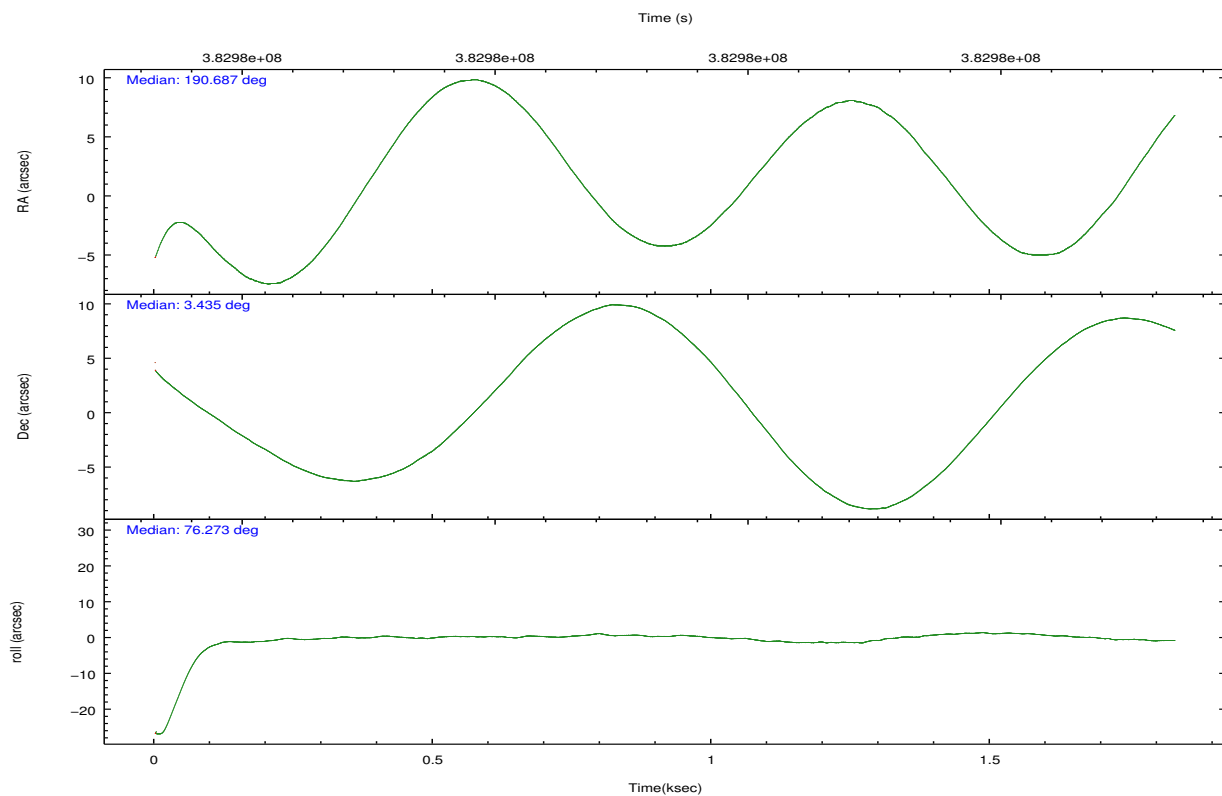
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	1033	1388	604	799	1726	1245
	5%	6%	4%	4%	8%	7%
grade 1 events	30	90	11	24	15	15
	0%	0%	0%	0%	0%	0%
grade 2 events	414	3341	398	1734	1304	400
	2%	15%	2%	9%	6%	2%
grade 3 events	187	458	173	774	575	180
	1%	2%	1%	4%	2%	1%
grade 4 events	172	444	182	720	489	156
	0%	1%	1%	3%	2%	0%
grade 5 events	612	1752	637	1873	966	733
	3%	7%	4%	10%	4%	4%
grade 6 events	265	5721	348	4187	1454	347
	1%	25%	2%	23%	7%	2%
grade 7 events	15450	9065	12424	8022	13153	12943
	85%	40%	84%	44%	66%	80%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	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	190.695542	190.6871010857707	CCD I2 on	N	N
[deg] Pointing Dec	3.409067	3.435142364733346	CCD I3 on	N	N
[deg] Pointing Roll	76.123929	76.28088116665788	CCD S0 on	O1	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	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	Y	Y
[s] Observation start time (MET)	382975557.184000	382974499.14107	CCD S5 on	O2	Y
Observation start date	2010-02-19T14:04:51	2010-02-19T13:48:19	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	382977257.184000	382978561.21627	On-chip summing requested	N	N
Observation end date	2010-02-19T14:33:11	2010-02-19T14:56:01	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect





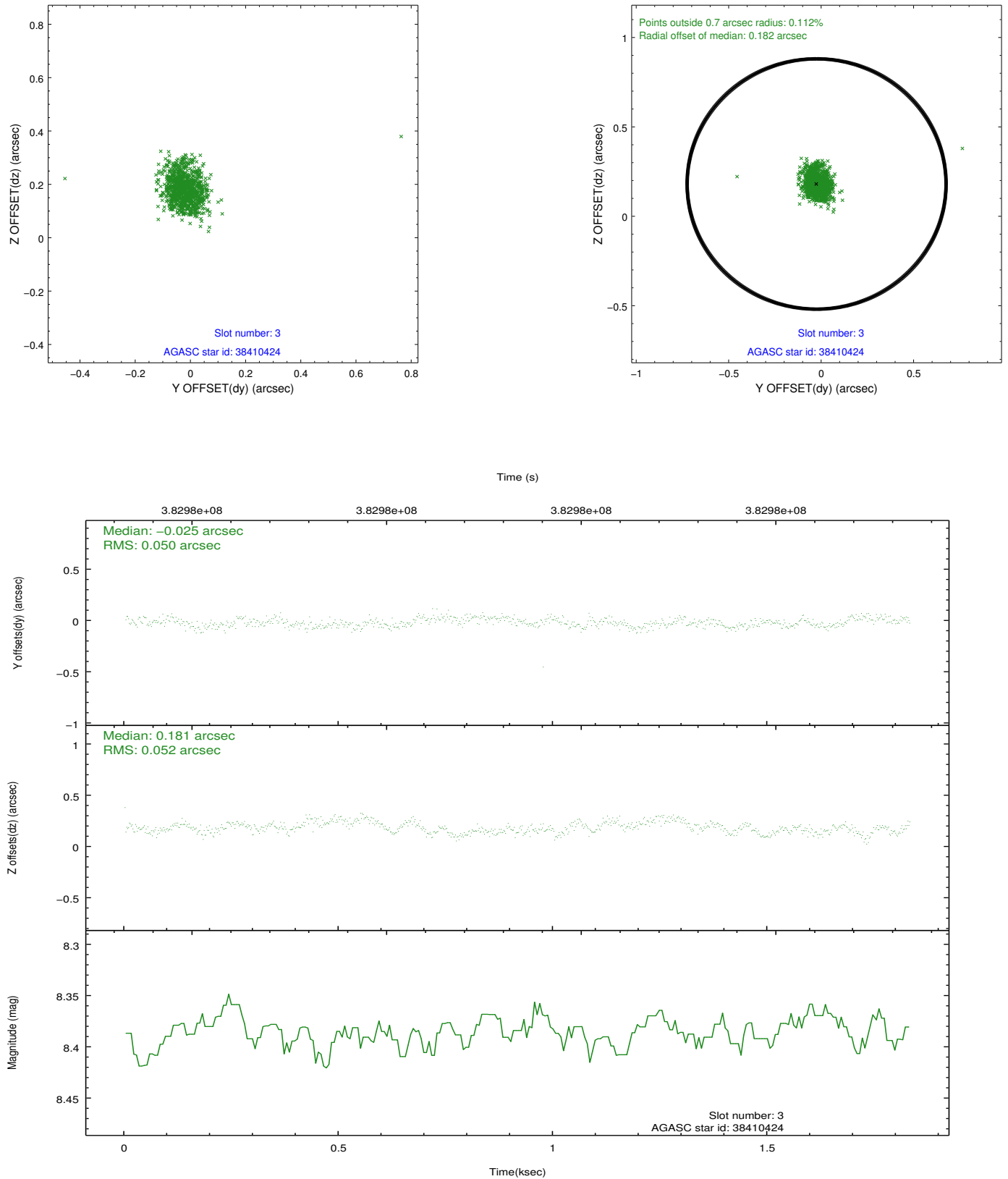
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.92	447	-0.095	-0.014	0.006	0.010	0.000000	0.000000	-768.82	-1737.28
1	FID	ACIS-S-4	7.00	447	0.176	0.049	0.005	0.009	0.000000	0.000000	2143.07	167.56
2	FID	ACIS-S-5	7.03	447	-0.113	-0.027	0.006	0.010	0.000000	0.000000	-1817.09	165.22
3	GUIDE	38410424	8.39	892	-0.025	0.181	0.070	0.113	191.145260	3.531809	818.37	-1462.92
4	GUIDE	38412992	8.07	894	-0.031	0.176	0.068	0.113	191.066546	3.351036	118.87	-1347.02
5	GUIDE	38408088	8.82	894	0.149	-0.039	0.095	0.144	190.134603	3.092530	-1588.51	1681.55
6	GUIDE	38408136	9.05	893	0.097	-0.090	0.079	0.132	190.151984	3.123950	-1465.57	1651.65
7	GUIDE	38406888	7.90	893	-0.191	-0.228	0.070	0.111	190.208023	3.869695	1188.61	2099.04

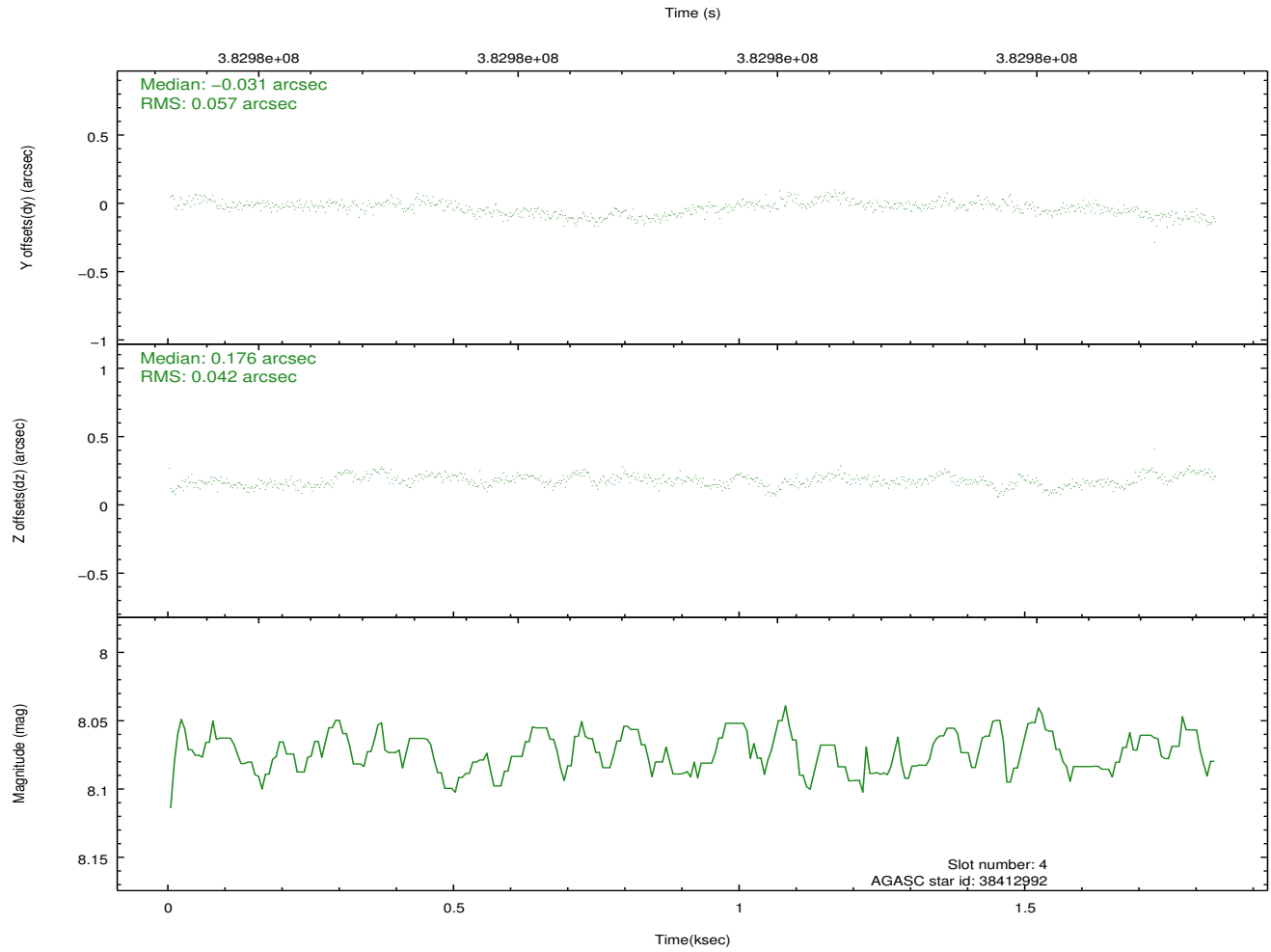
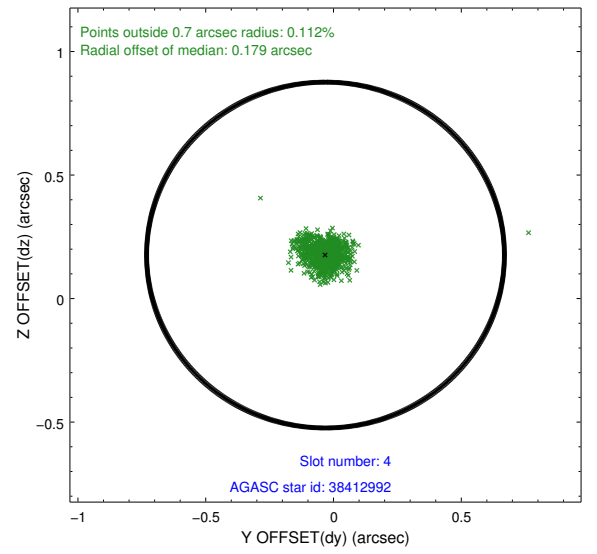
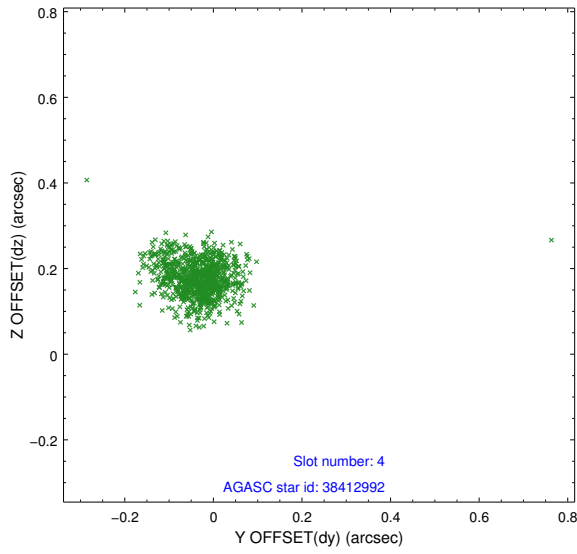


## 2.4 Star Slots

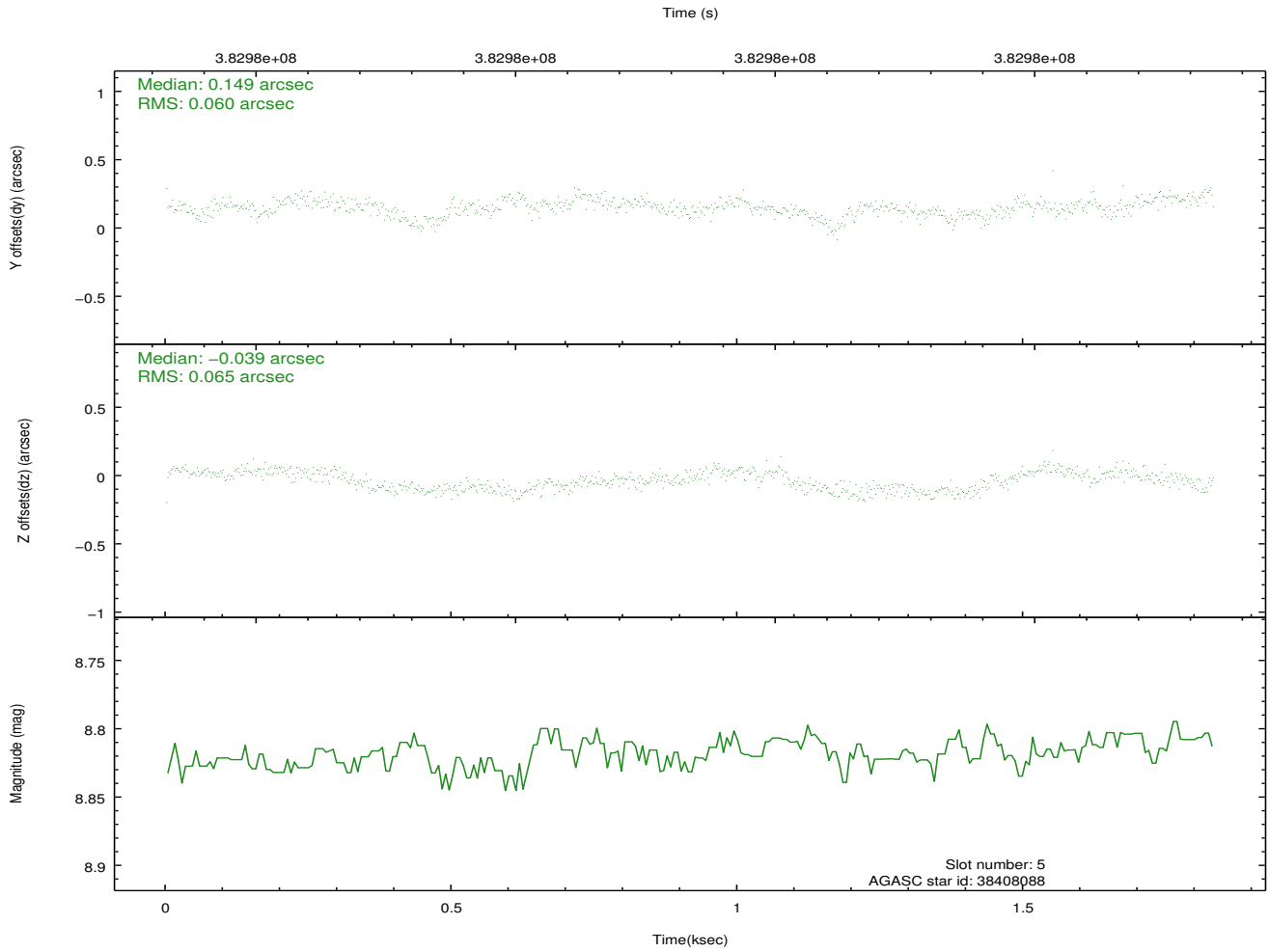
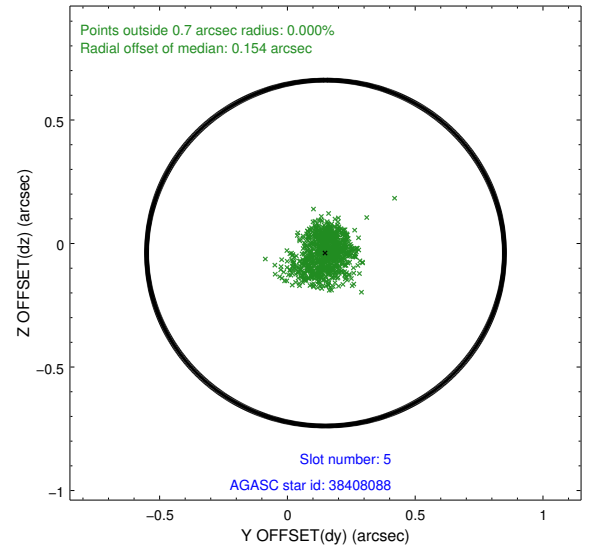
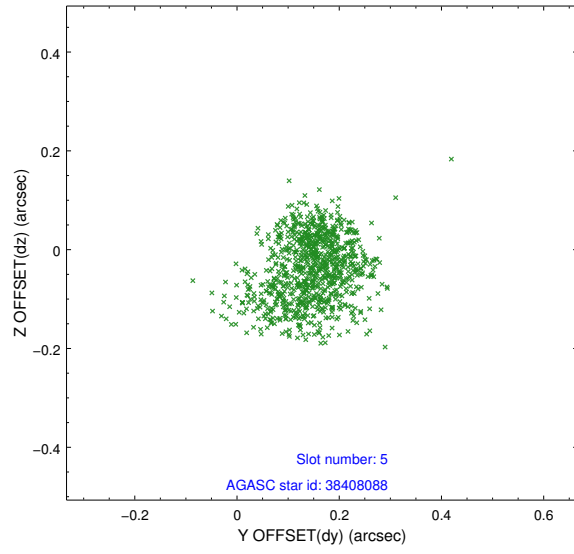
### 2.4.1 Slot 3



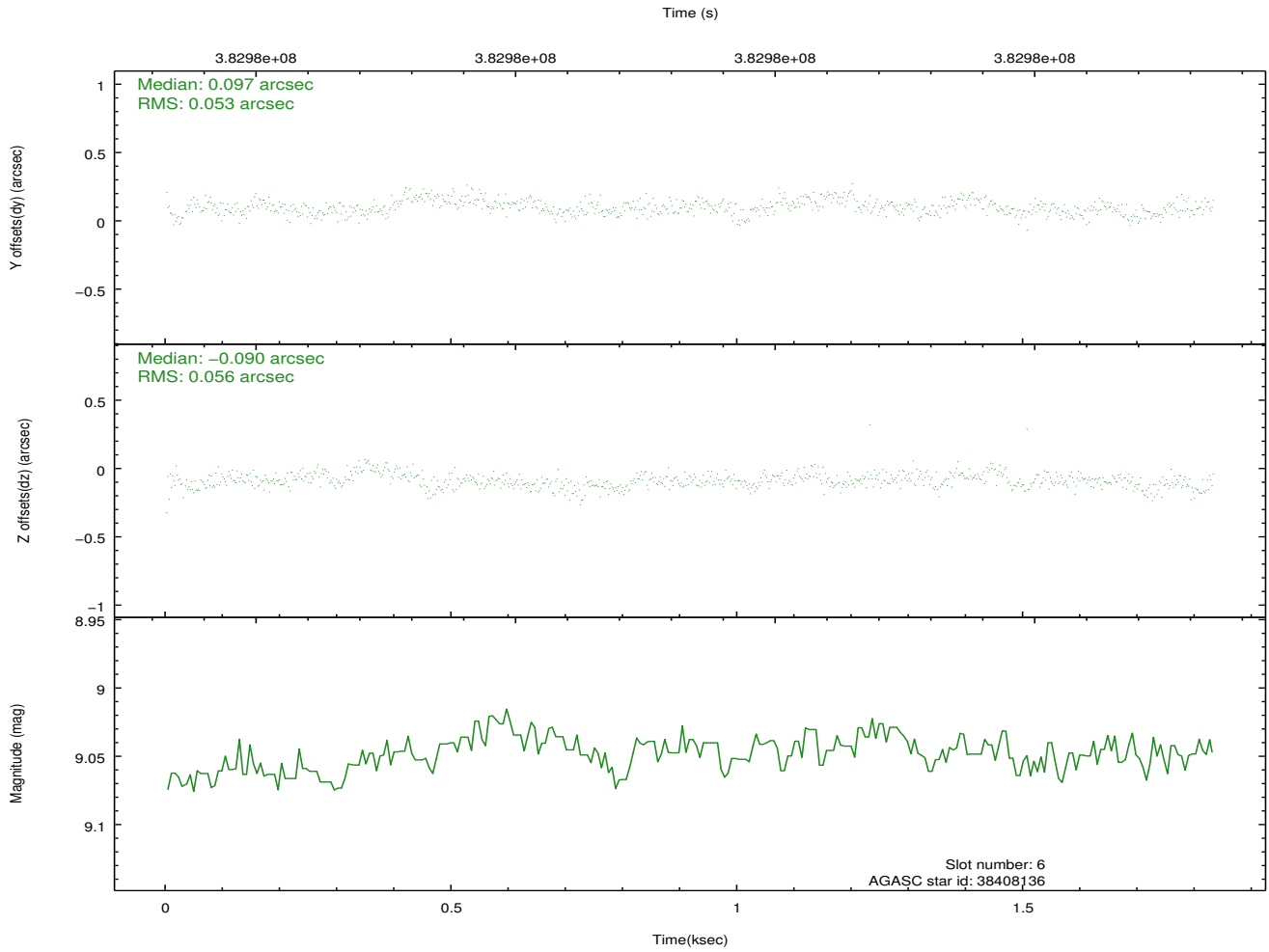
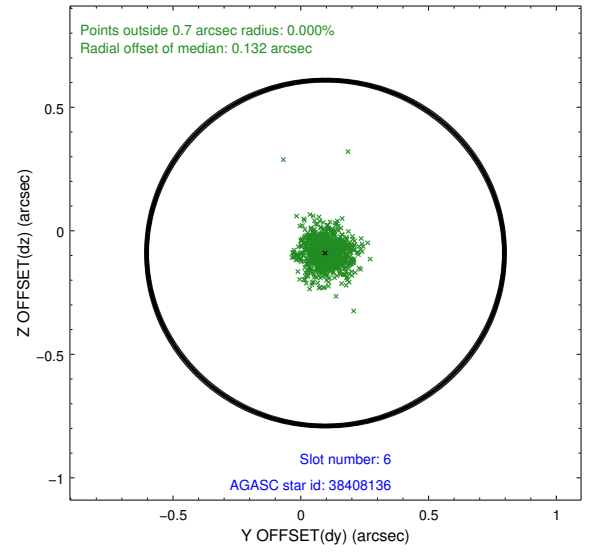
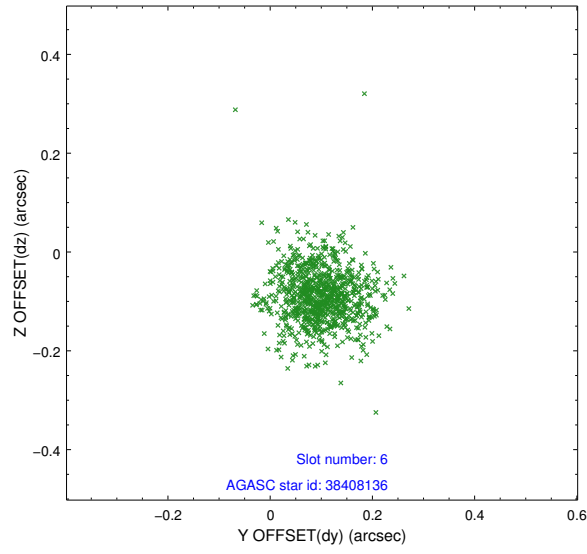
## 2.4.2 Slot 4



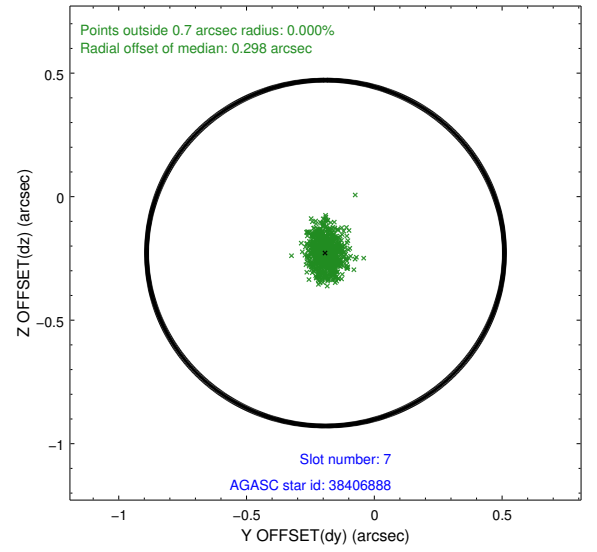
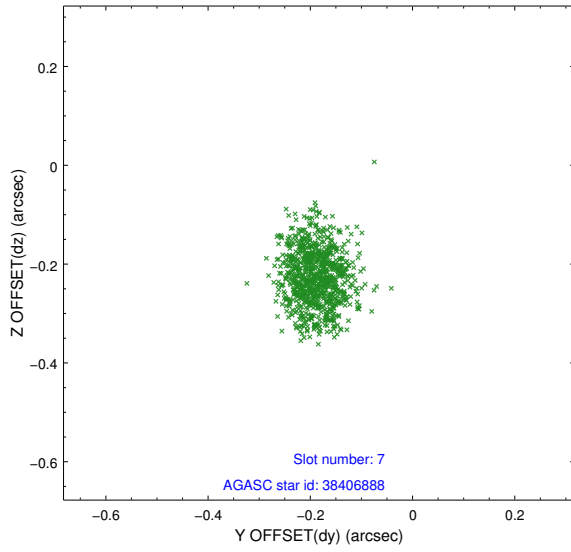
### 2.4.3 Slot 5



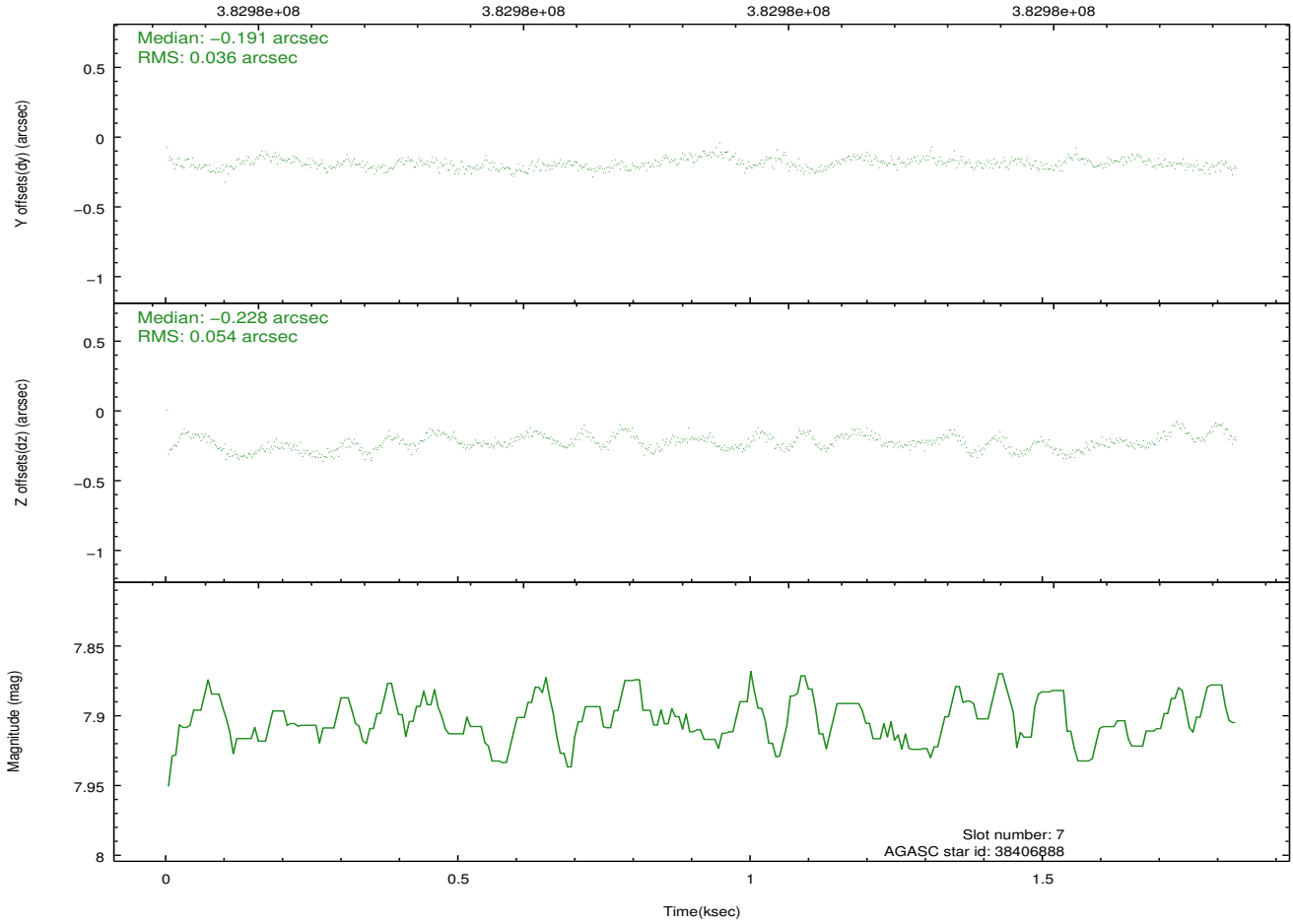
## 2.4.4 Slot 6



## 2.4.5 Slot 7

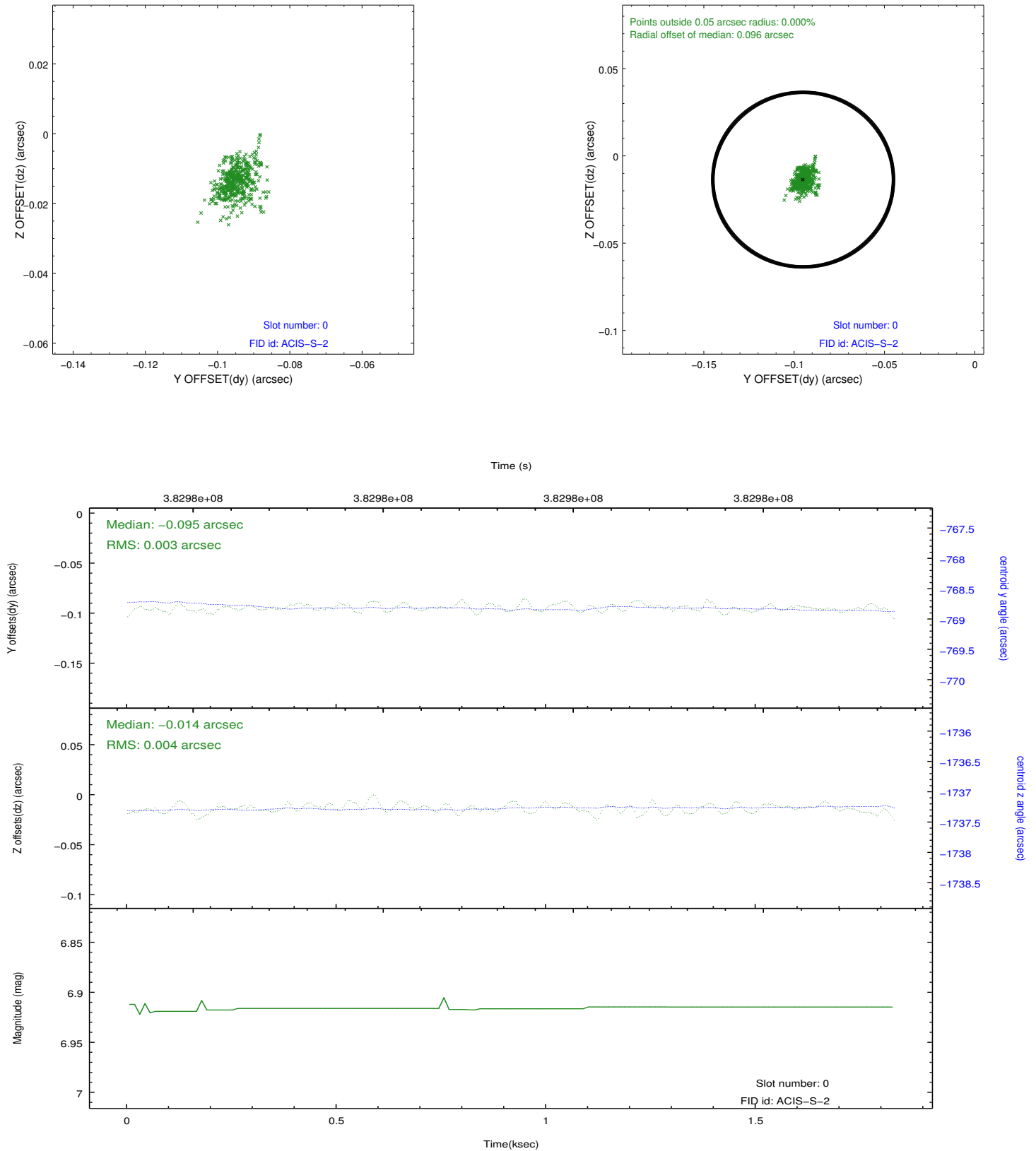


Time (s)

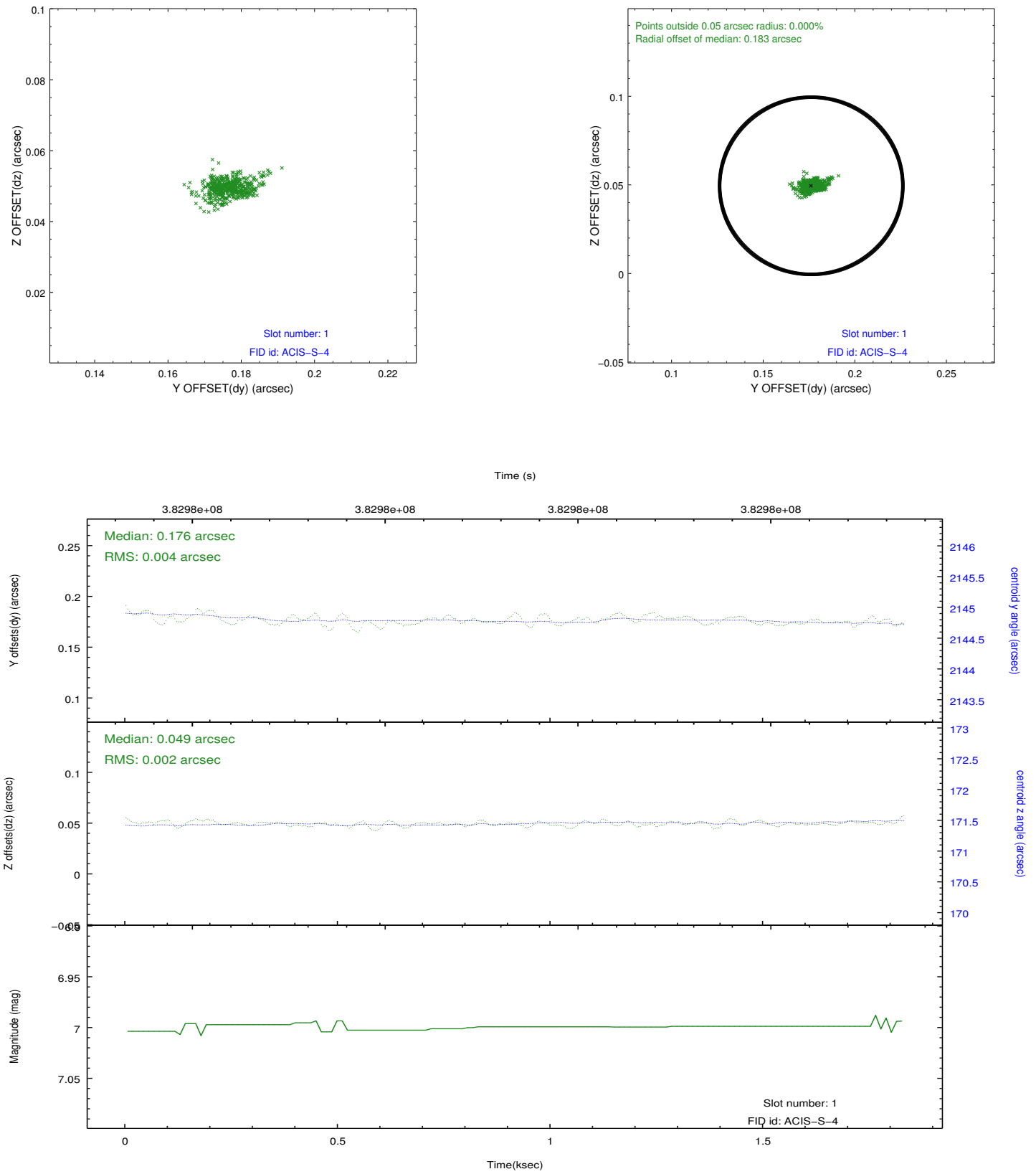


## 2.5 FID Slots

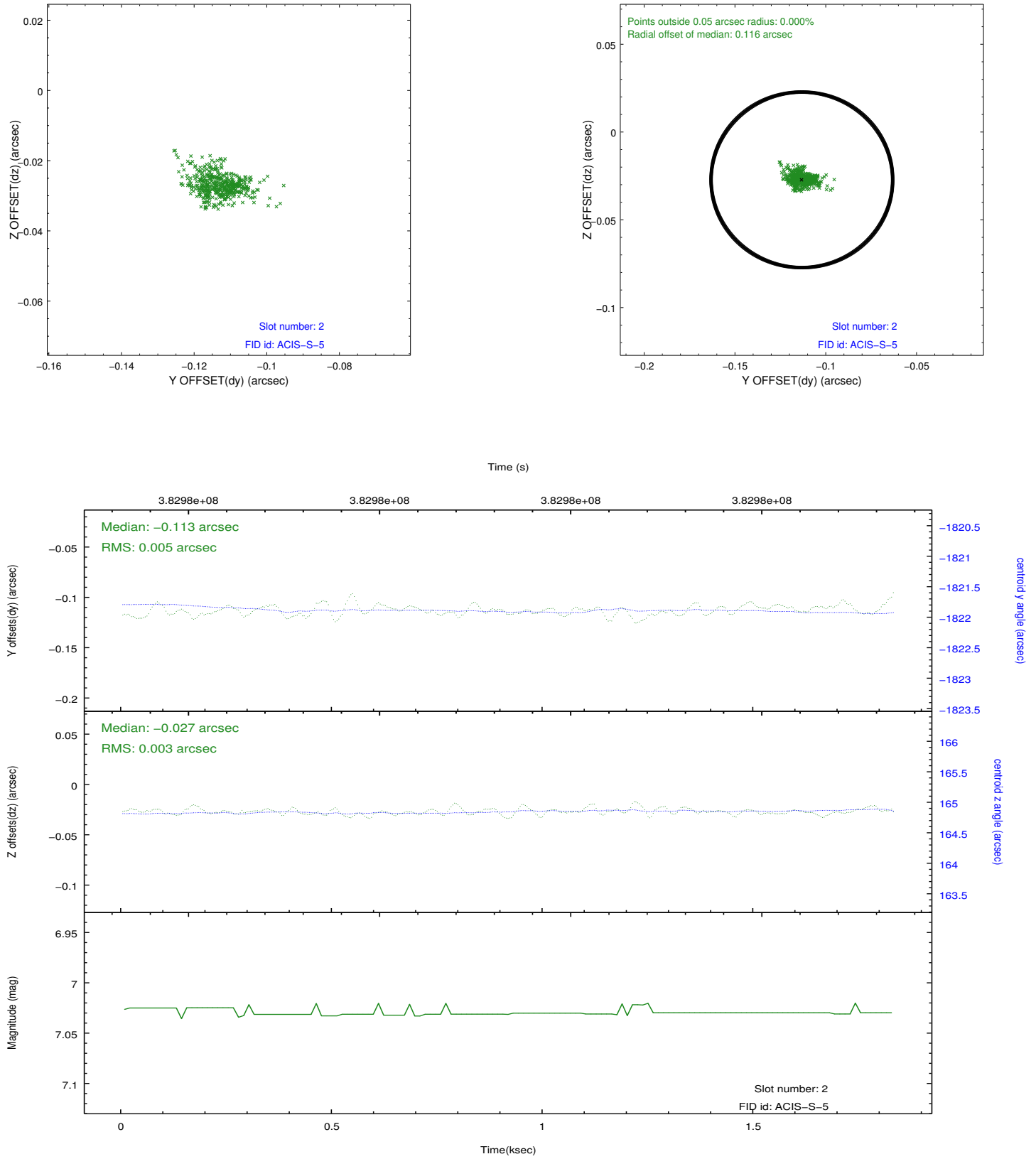
### 2.5.1 Slot 0



## 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)	2012.06.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.8239999932647

### A.2 Comments