

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11386 - L2 Version 2  
Chandra X-Ray Center

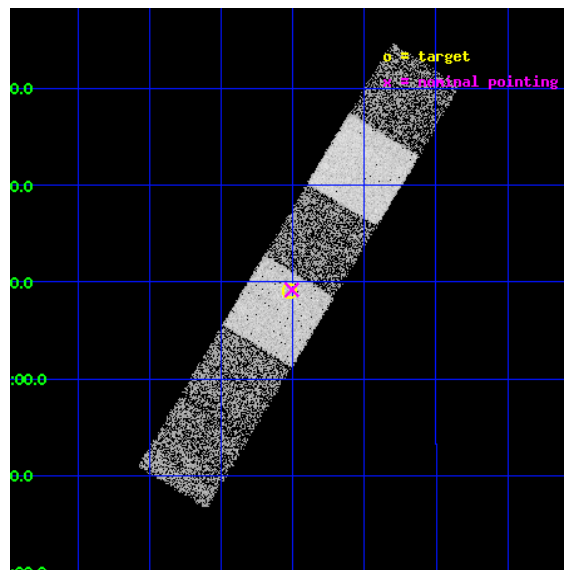
L2 Processing Date : Jun 24 2012

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# 1 Front

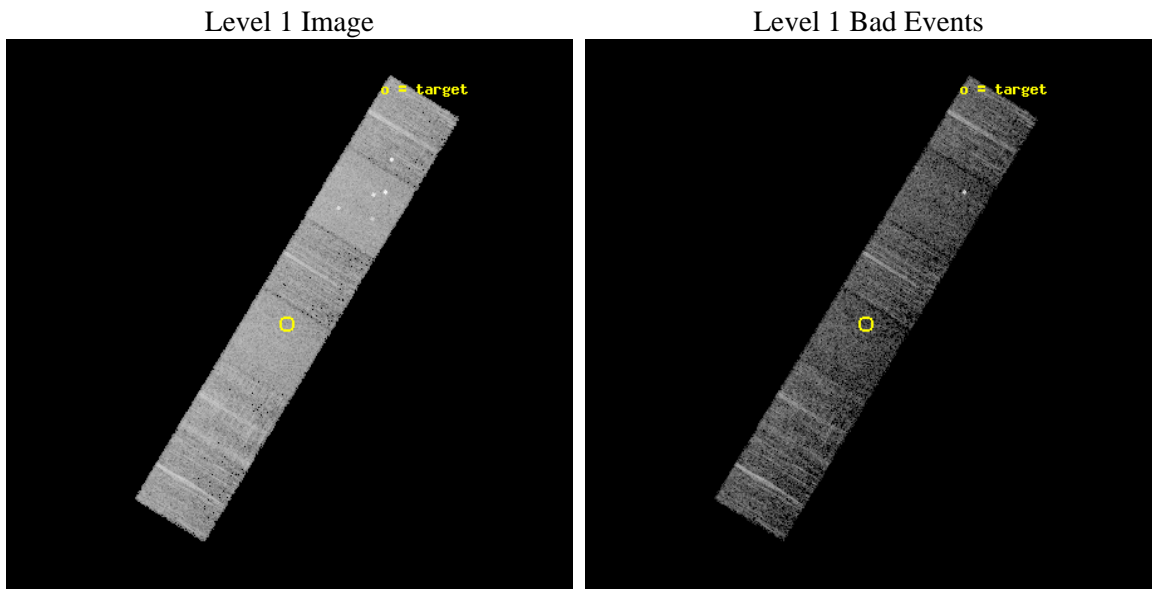
seq_num	600905	Sequence number
obs_id	11386	Observation id
title	Accretion onto nuclear black holes in early type galaxies: comparing field vs. clusters	Proposal title
observer	Elena Gallo	Principal investigator
object	PGC1217593	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	227.006	Observer's specified target RA [deg]
dec_targ	2.15102	Observer's specified target Dec [deg]
ra_nom	227.00166349901	Nominal RA [deg]
dec_nom	2.1531058306663	Nominal Dec [deg]
roll_nom	121.29803540072	Nominal Roll [deg]
revision	2	Processing version of data
ontime	4678.3999826312	Sum of GTIs [s]
livetime	4619.1592650569	Livetime [s]
ontime4	4678.3999826312	Sum of GTIs [s]
ontime5	4678.3999826312	Sum of GTIs [s]
ontime6	4678.3999826312	Sum of GTIs [s]
ontime7	4678.3999826312	Sum of GTIs [s]
ontime8	4678.3999826312	Sum of GTIs [s]
ontime9	4678.3999826312	Sum of GTIs [s]
l2events	56813	Number of level 2 events



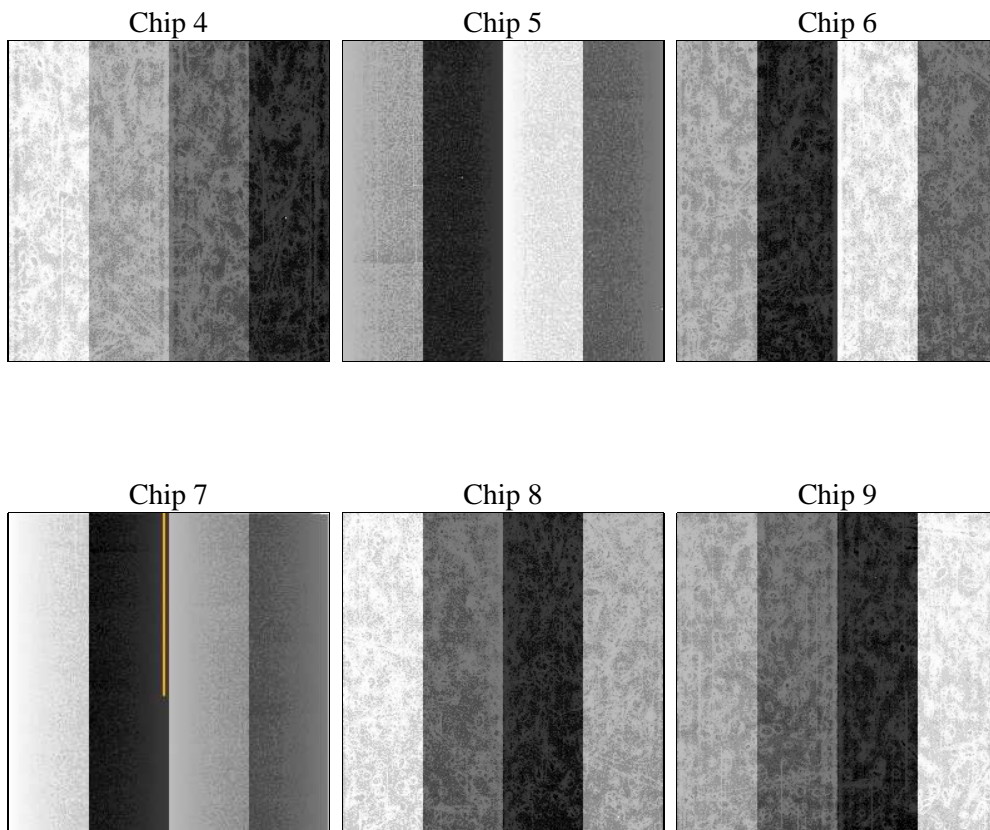
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	2	Obi number	sched_exp_time	4500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	4678.3999826312	Sum of GTIs [s]
caldbver	4.4.10	&#160	ontime4	4678.3999826312	Sum of GTIs [s]
date	2012-06-24T08:33:43	Date and time of file creation	ontime5	4678.3999826312	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	4678.3999826312	Sum of GTIs [s]
			ontime7	4678.3999826312	Sum of GTIs [s]
			ontime8	4678.3999826312	Sum of GTIs [s]
			ontime9	4678.3999826312	Sum of GTIs [s]
			l1events	314832	Number of level 1 events

### 2.1.4 Events

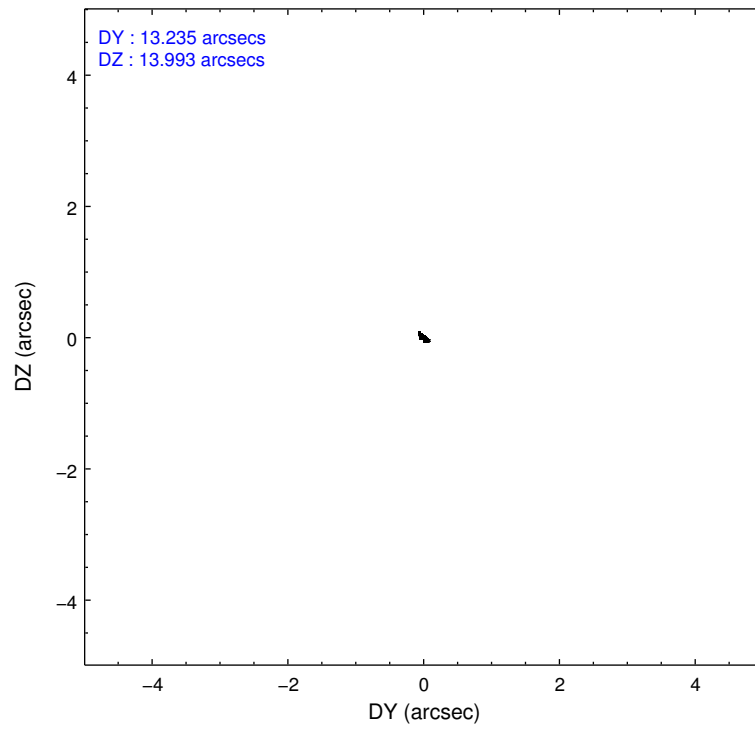
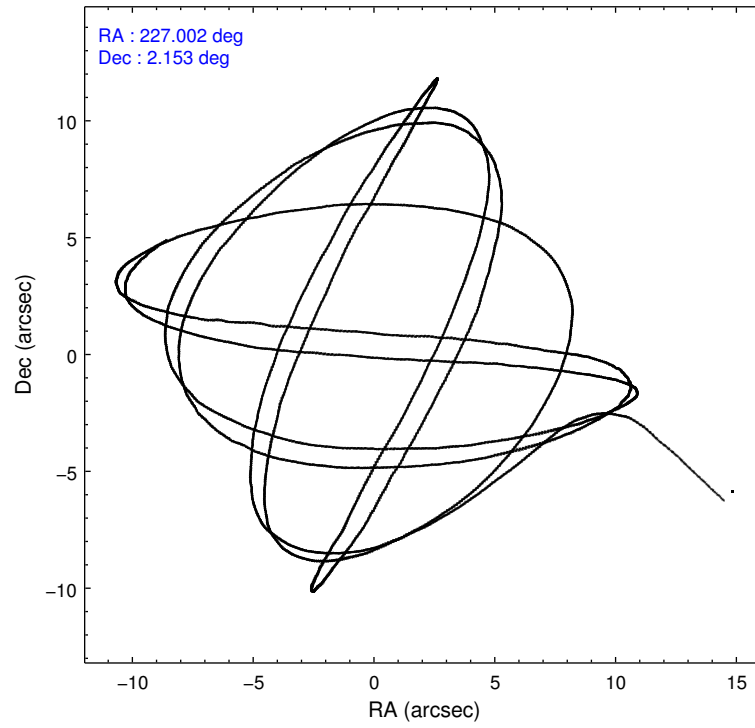
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	50697	67466	43743	53208	56172	43546
rejected events	45486	40362	39837	33886	45011	39410
rejected %	89%	59%	91%	63%	80%	90%

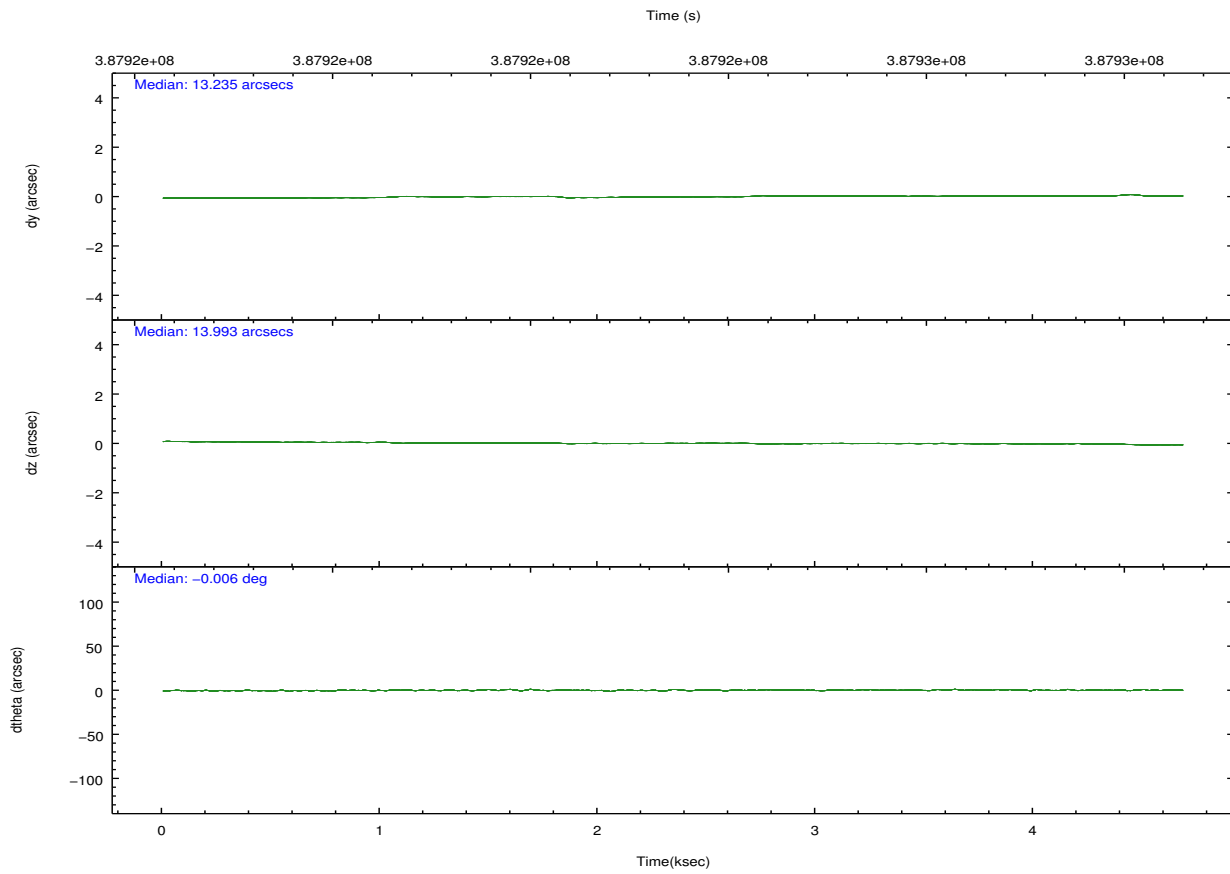
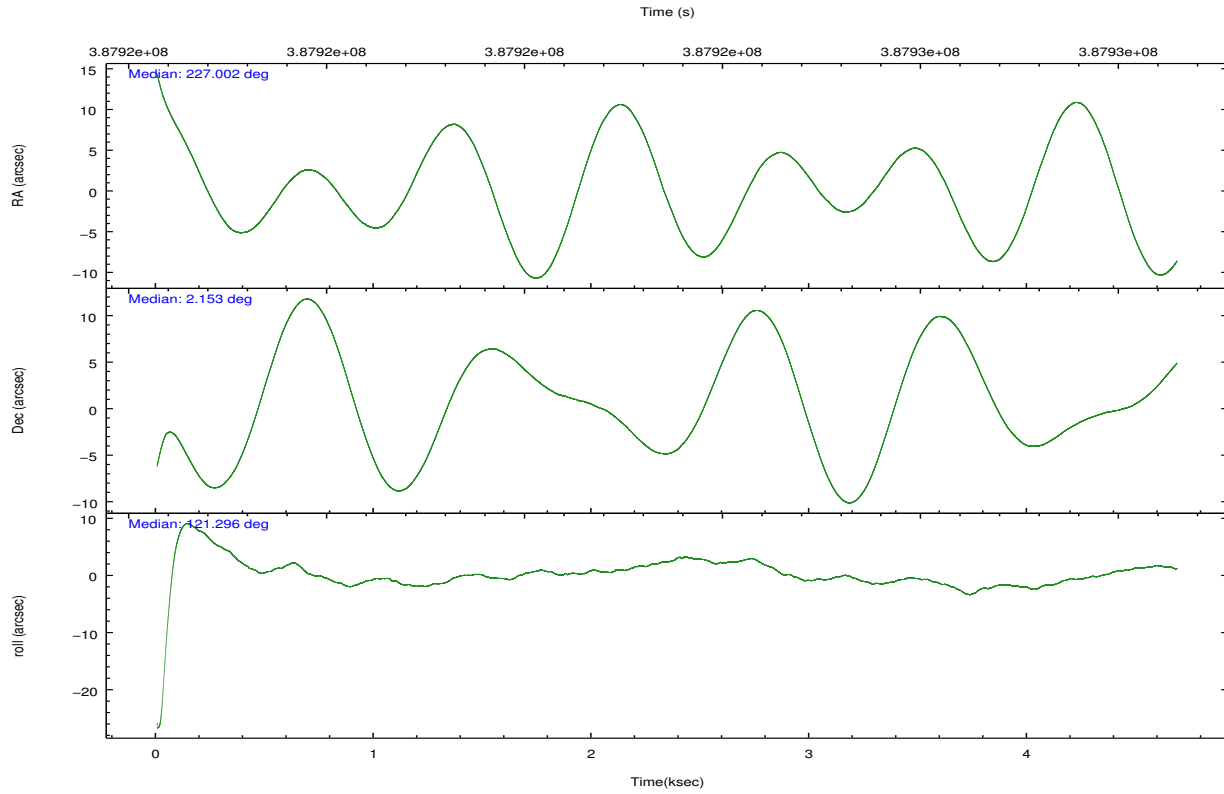
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	3218	4432	1708	2271	4143	1903
	6%	6%	3%	4%	7%	4%
grade 1 events	53	147	26	65	41	28
	0%	0%	0%	0%	0%	0%
grade 2 events	1289	10011	1059	5027	3365	1110
	2%	14%	2%	9%	5%	2%
grade 3 events	542	1258	546	2154	1482	536
	1%	1%	1%	4%	2%	1%
grade 4 events	504	1159	503	2088	1392	522
	0%	1%	1%	3%	2%	1%
grade 5 events	1813	4979	1936	5470	2796	2157
	3%	7%	4%	10%	4%	4%
grade 6 events	926	16846	1031	12322	3915	1055
	1%	24%	2%	23%	6%	2%
grade 7 events	42352	28634	36934	23811	39038	36235
	83%	42%	84%	44%	69%	83%

## 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	227.025854	227.0016634990066	CCD I2 on	N	N
[deg] Pointing Dec	2.140424	2.153105830666285	CCD I3 on	N	N
[deg] Pointing Roll	121.140601	121.2980354007208	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	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	387922561.184000	387920924.91718	CCD S5 on	O2	Y
Observation start date	2010-04-17T20:14:55	2010-04-17T19:48:44	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	387927061.184000	387928062.50504	On-chip summing requested	N	N
Observation end date	2010-04-17T21:29:55	2010-04-17T21:47:42	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



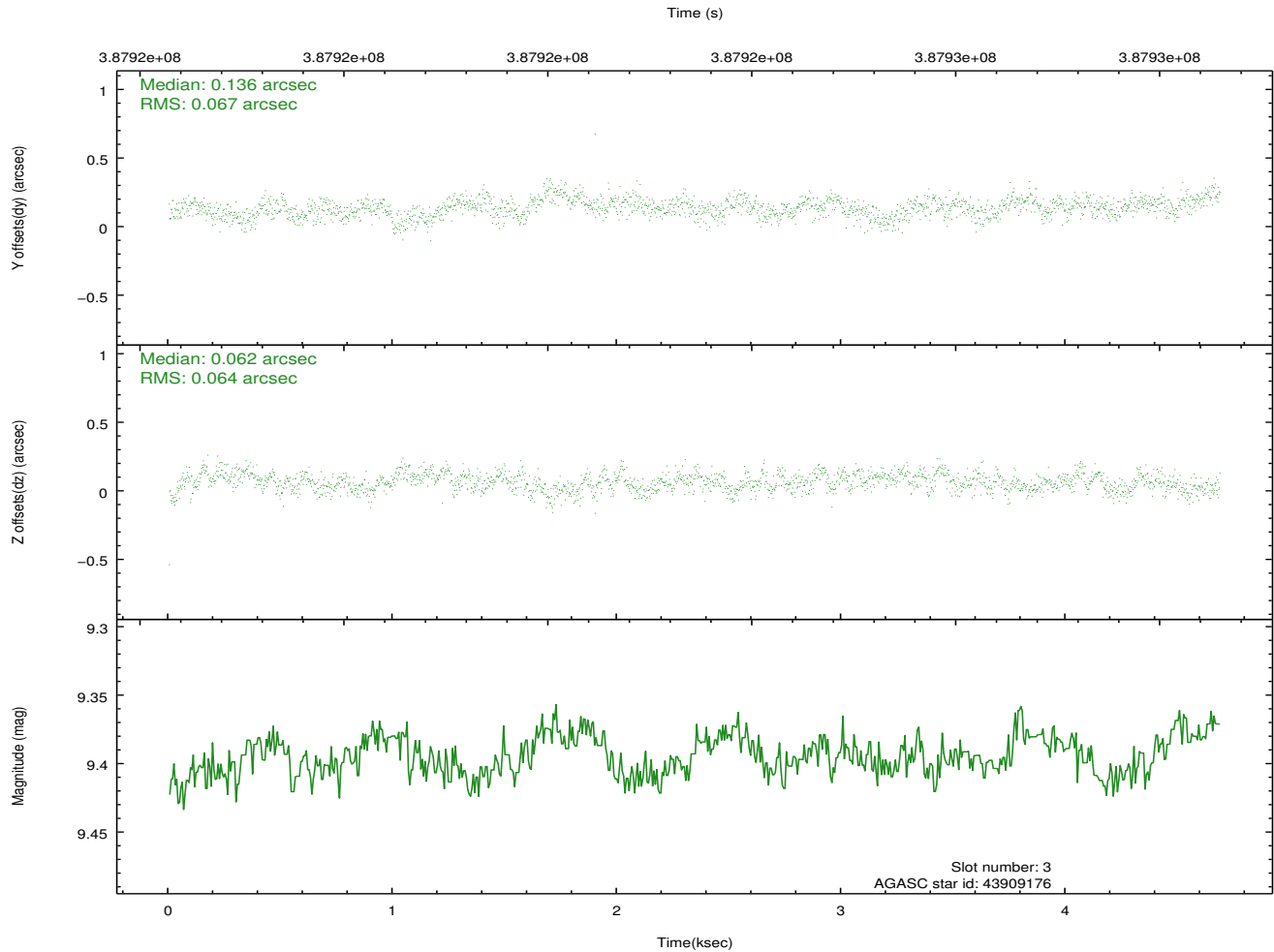
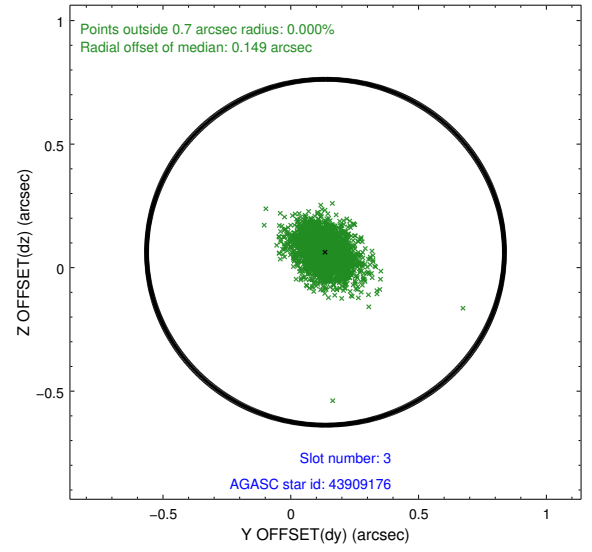
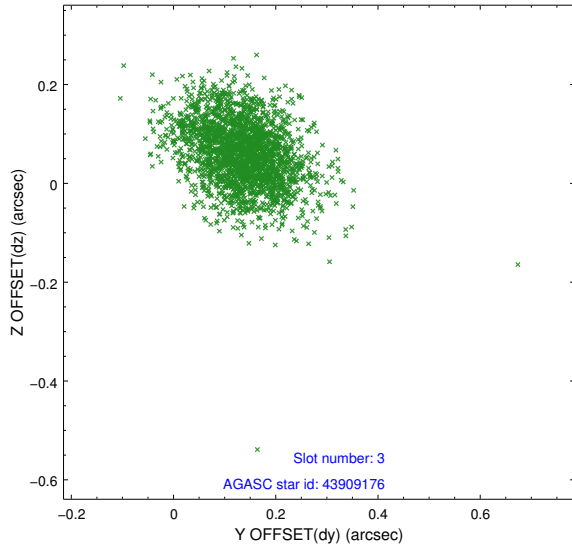


### Slot Statistics

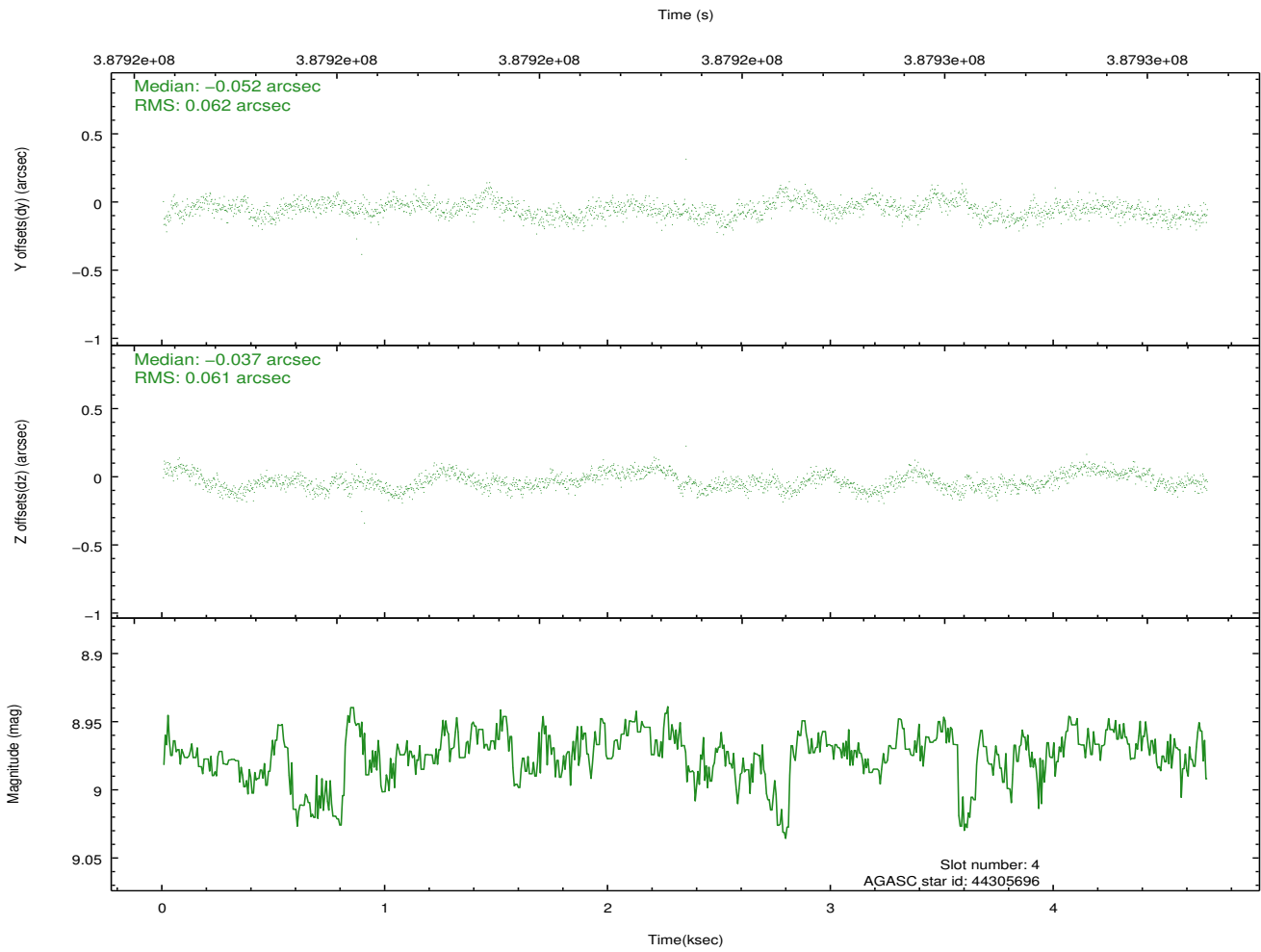
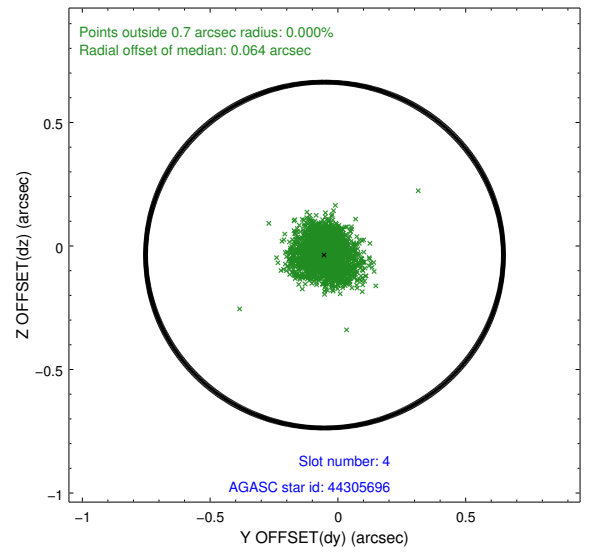
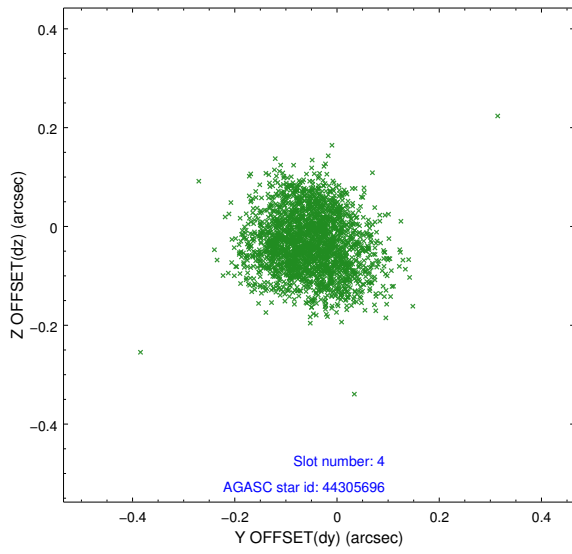
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.03	1143	0.071	-0.010	0.006	0.011	0.000000	0.000000	929.97	-1730.93
1	FID	ACIS-S-5	7.07	1143	-0.147	0.049	0.006	0.010	0.000000	0.000000	-1818.53	165.31
2	FID	ACIS-S-6	7.17	1142	0.055	-0.028	0.006	0.010	0.000000	0.000000	394.07	810.69
3	GUIDE	43909176	9.39	2286	0.136	0.062	0.097	0.158	227.095539	1.632644	-1692.97	730.96
4	GUIDE	44305696	8.97	2282	-0.052	-0.037	0.093	0.144	226.640736	2.617122	2185.04	298.57
5	GUIDE	44434008	8.71	2283	-0.045	0.197	0.062	0.104	226.878607	2.612877	1731.08	-426.10
6	GUIDE	44302592	7.86	2282	-0.079	-0.210	0.064	0.101	226.320439	2.016885	933.65	2402.00
7	GUIDE	44305256	9.14	2282	0.039	-0.018	0.089	0.142	226.603465	2.661871	2393.38	330.53

## 2.4 Star Slots

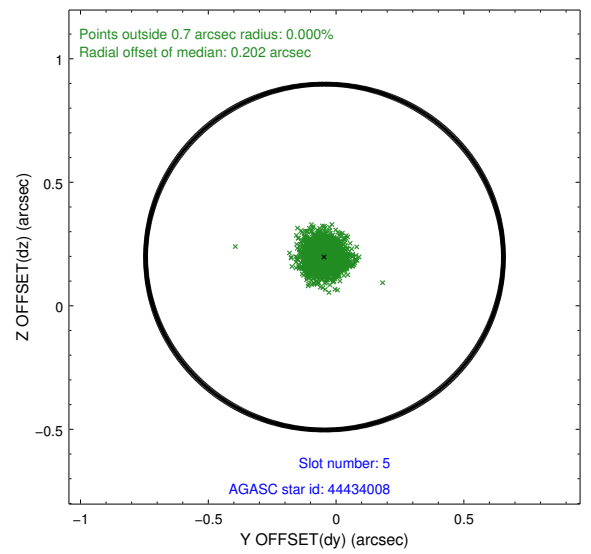
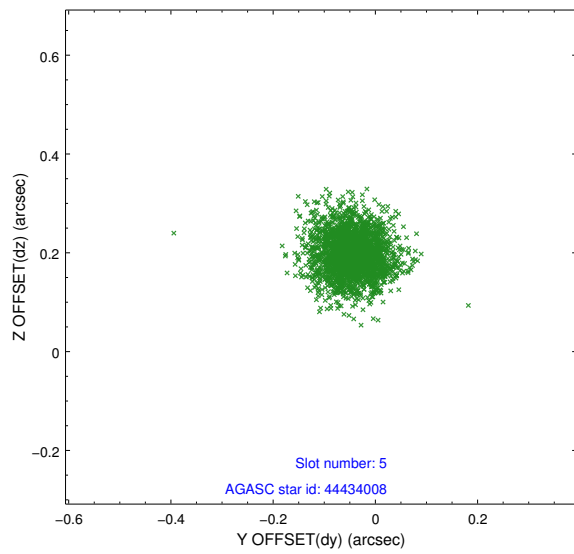
### 2.4.1 Slot 3



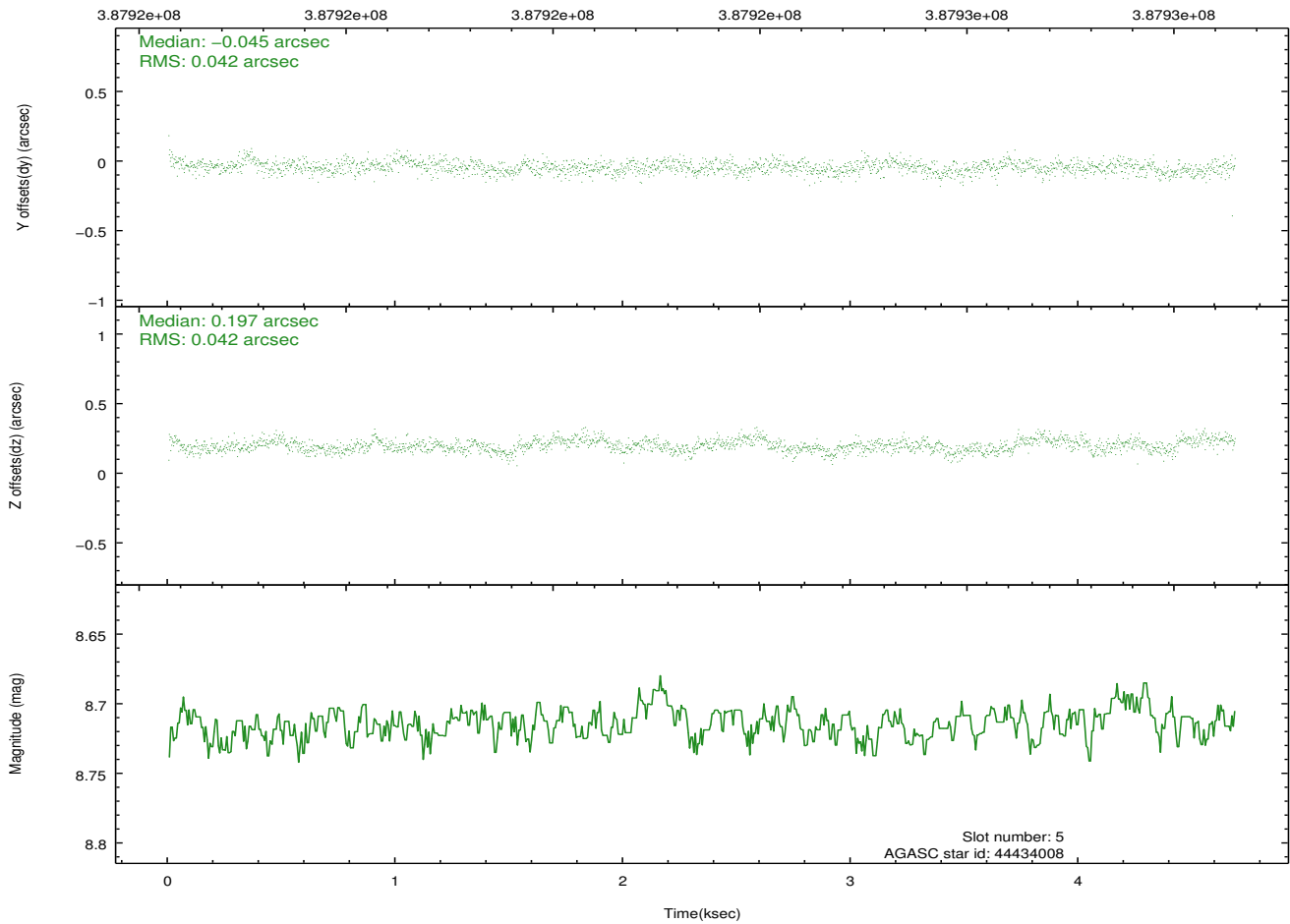
## 2.4.2 Slot 4



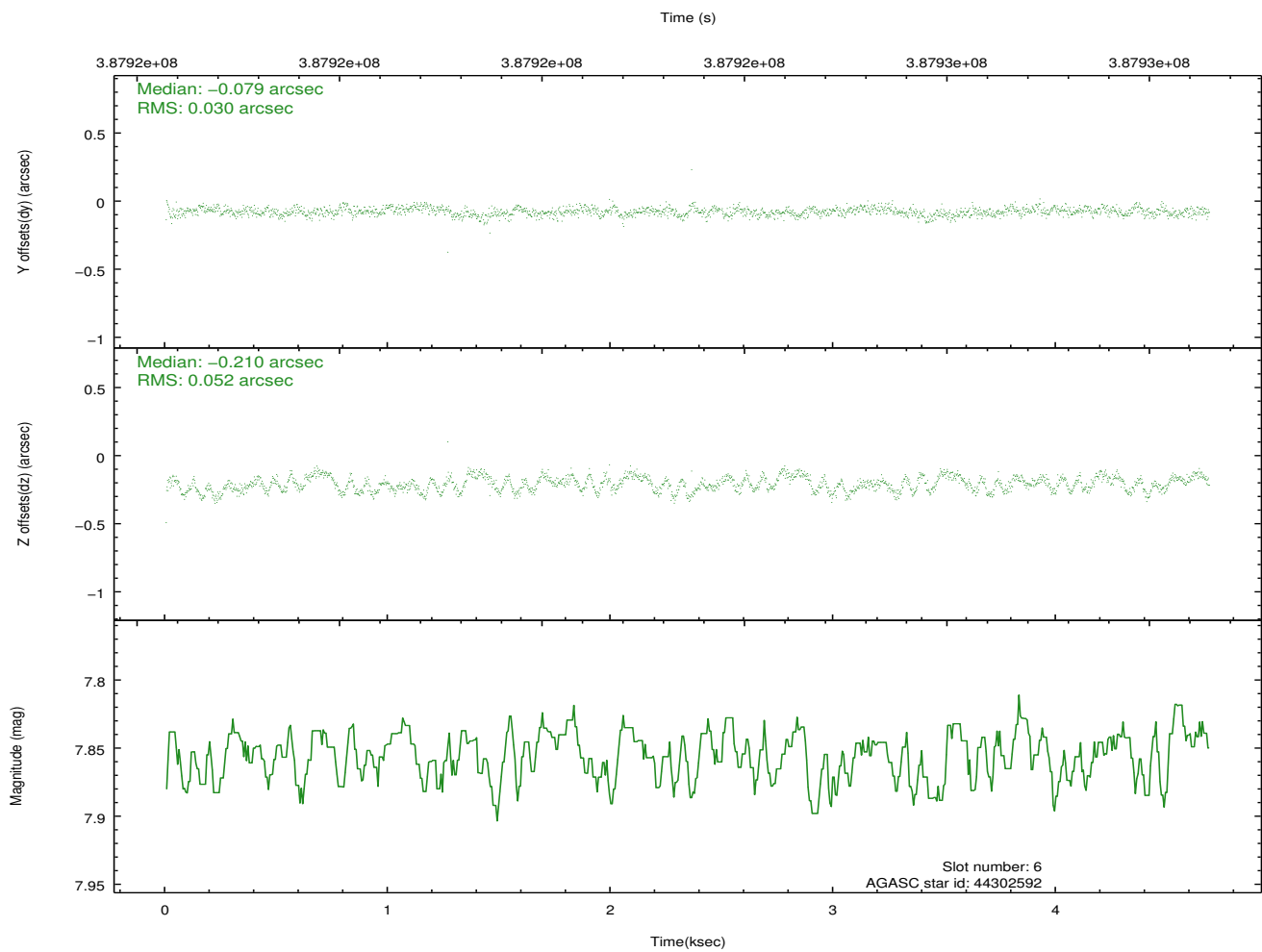
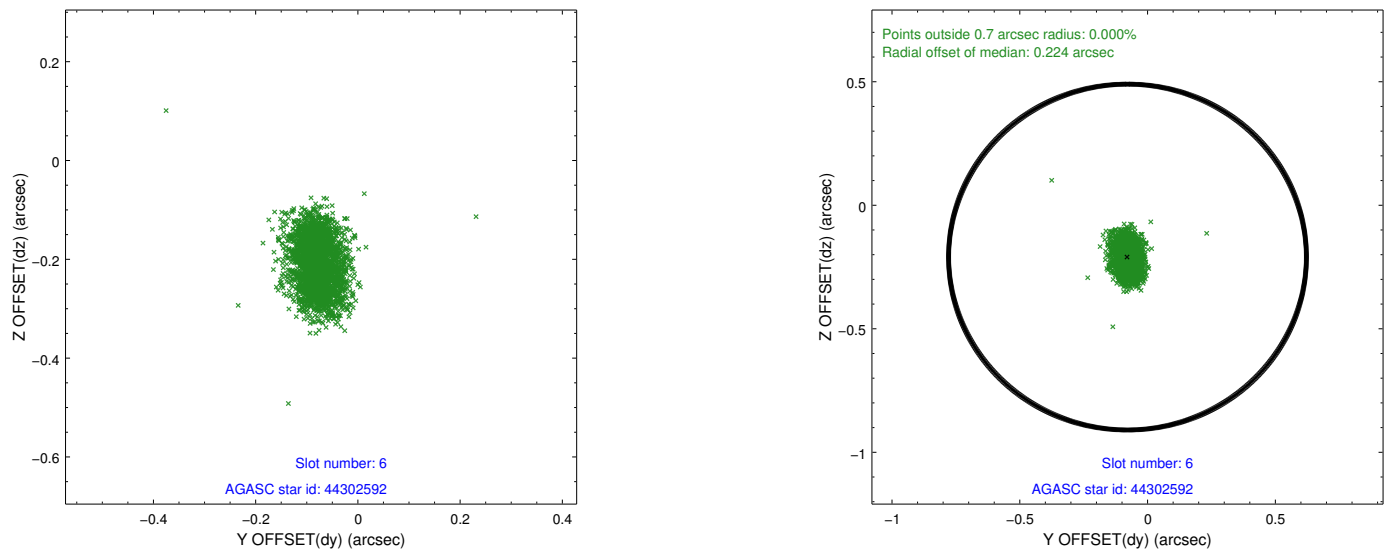
### 2.4.3 Slot 5



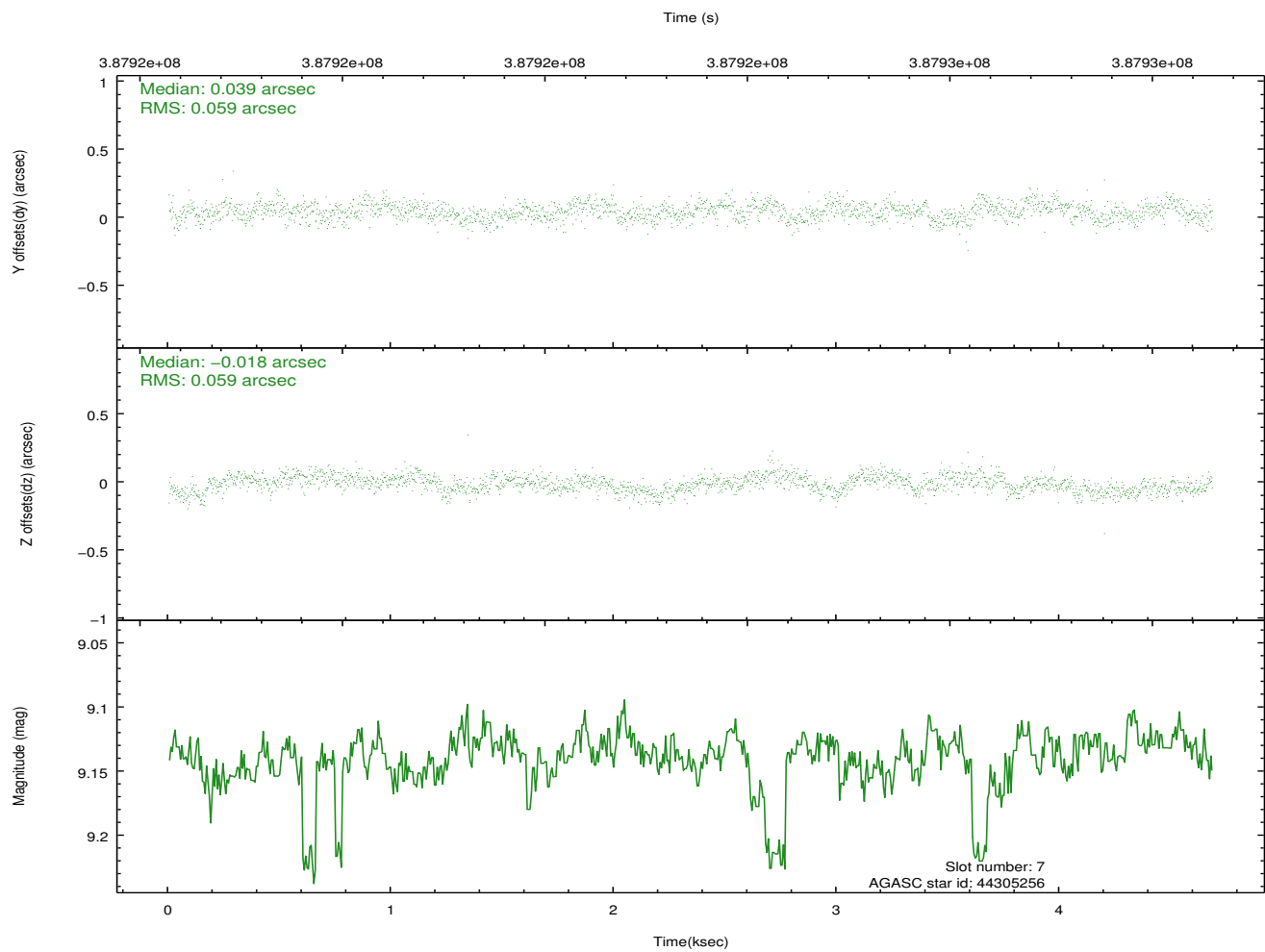
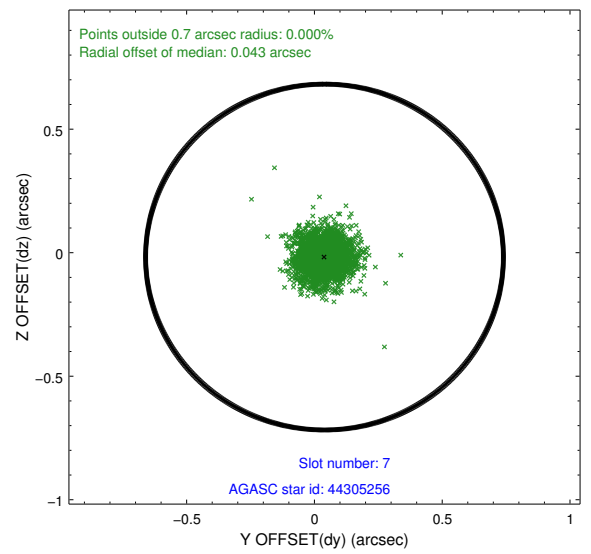
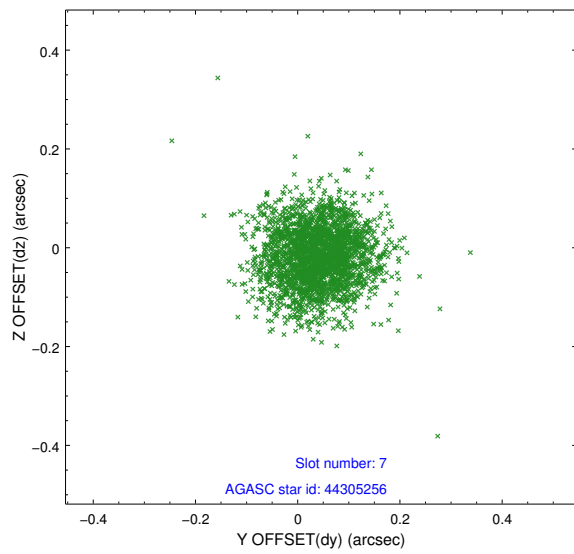
Time (s)



## 2.4.4 Slot 6

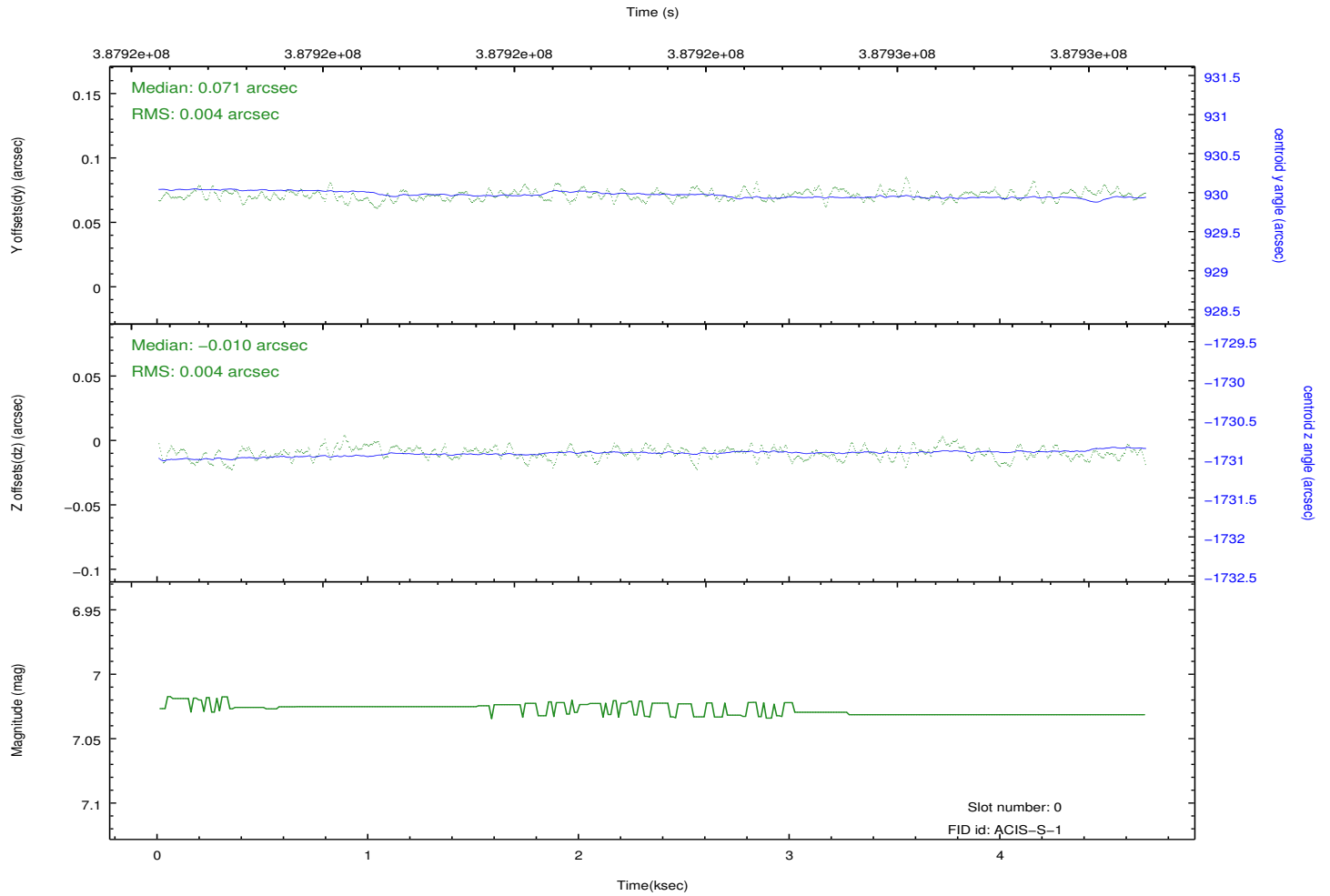
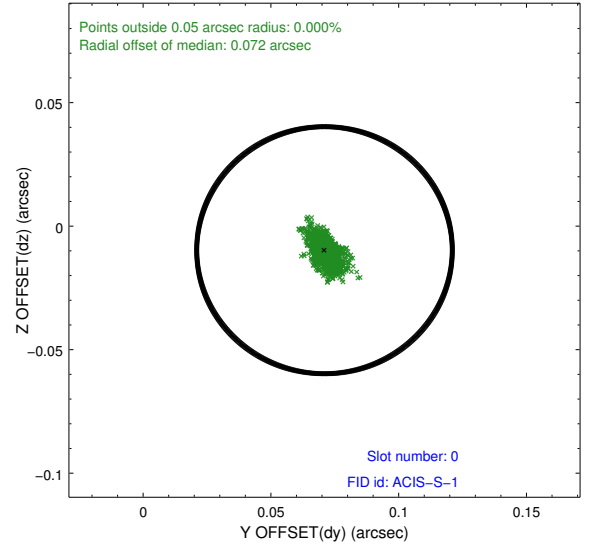
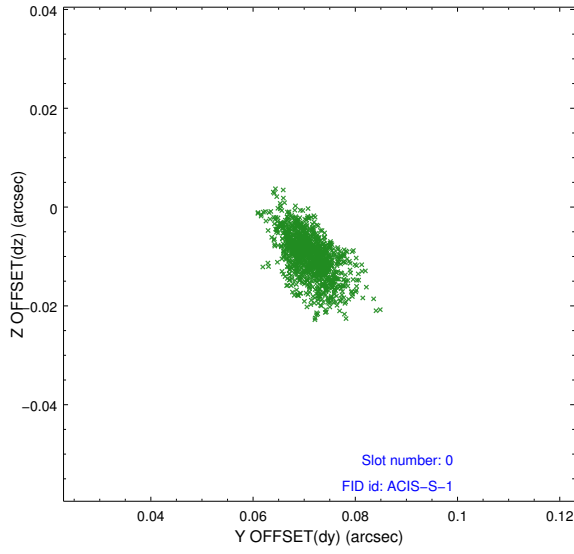


## 2.4.5 Slot 7

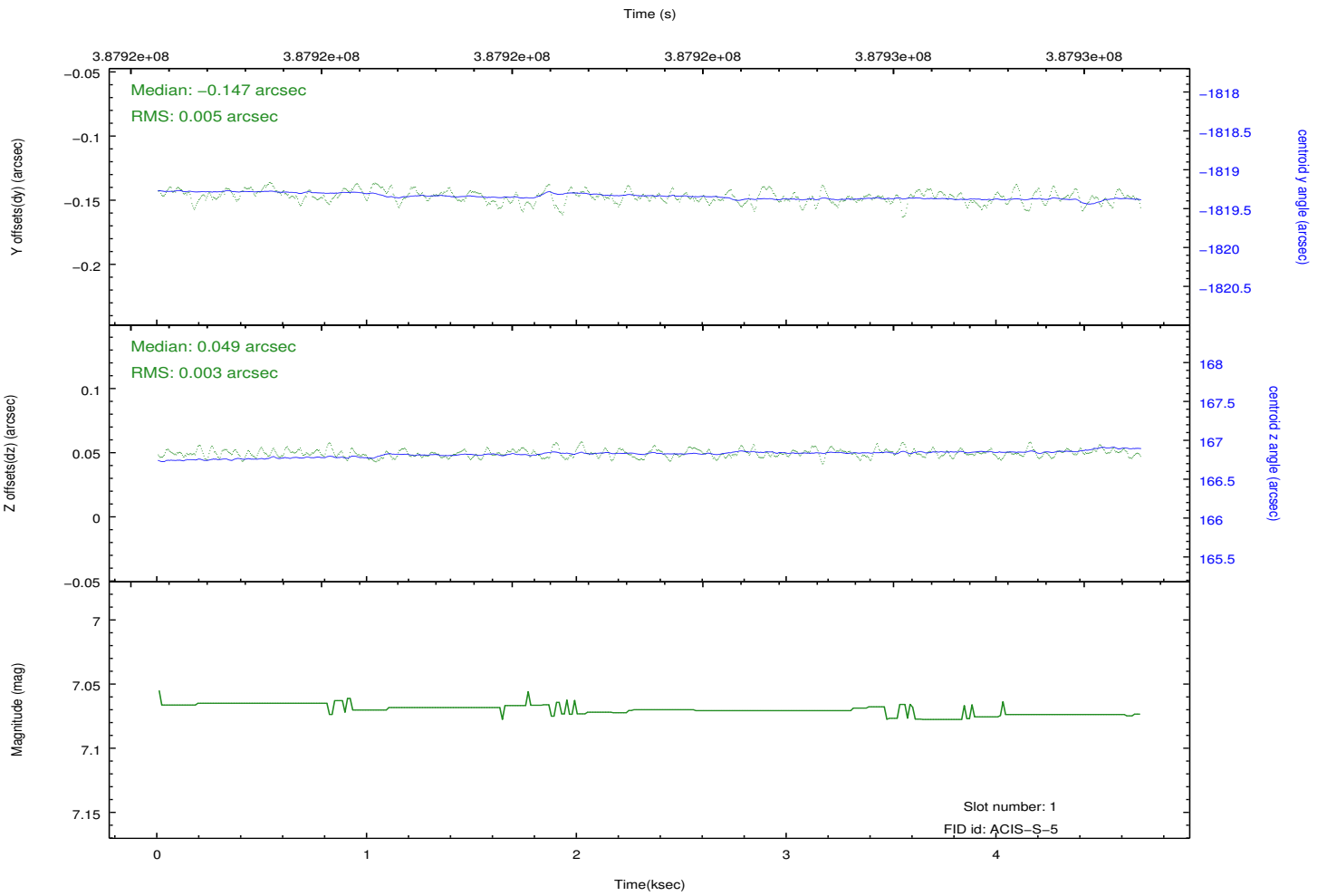
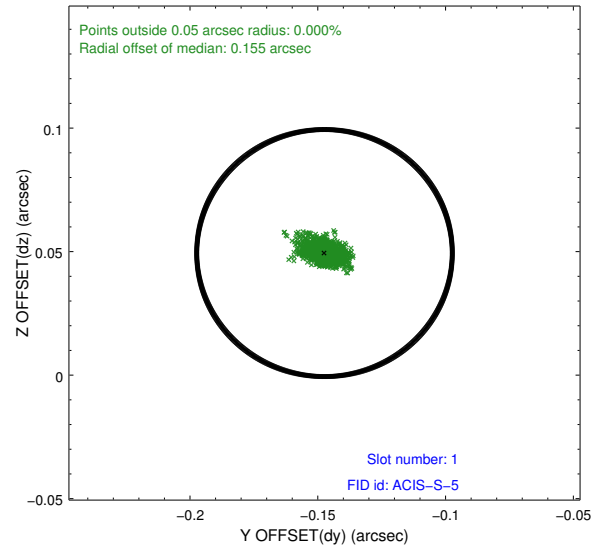
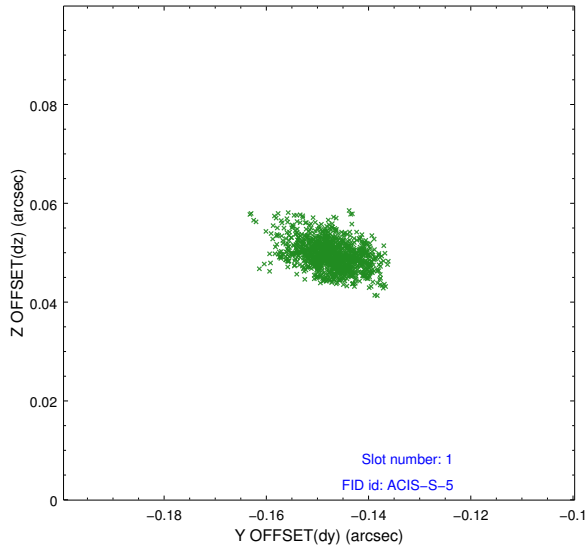


## 2.5 FID Slots

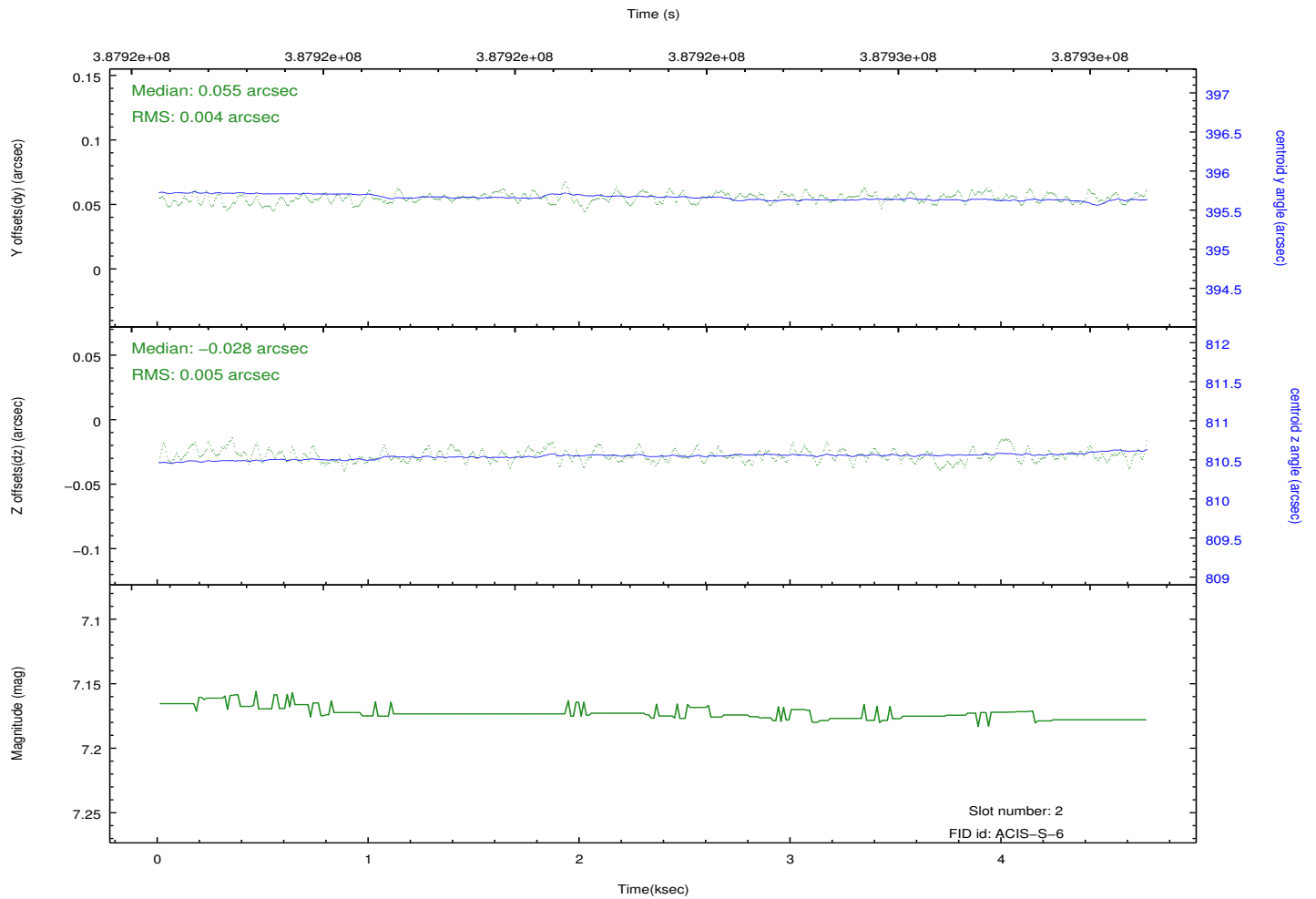
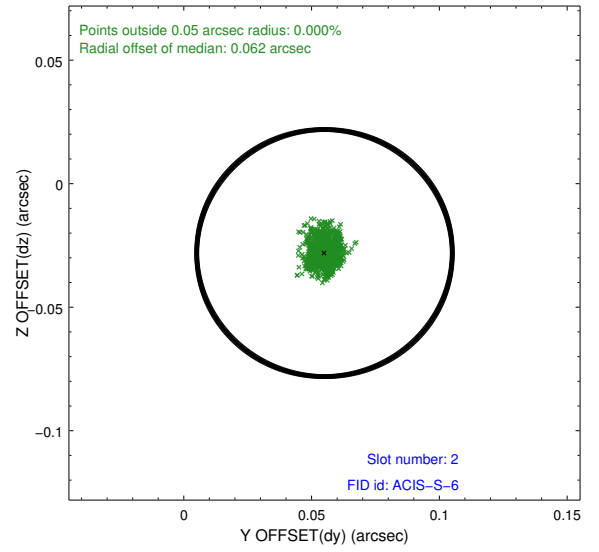
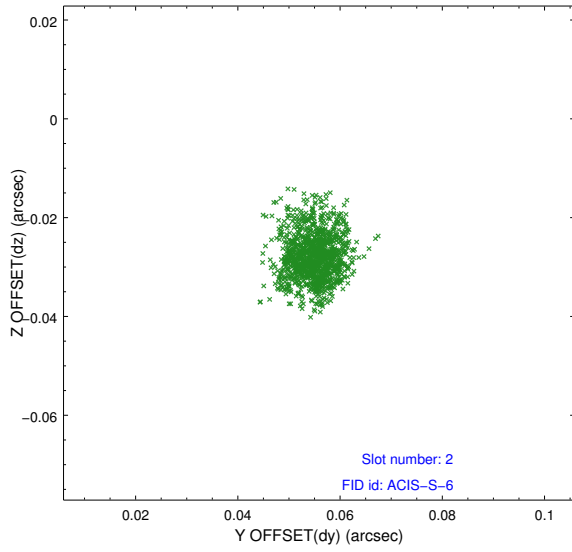
### 2.5.1 Slot 0



## 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)	2012.06.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.6783999826312

### A.2 Comments