

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 10802 - L2 Version 2  
Chandra X-Ray Center

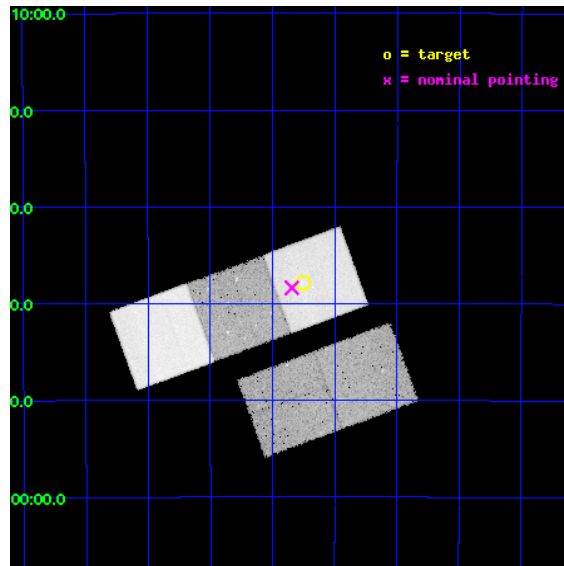
L2 Processing Date : May 24 2012

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# 1 Front

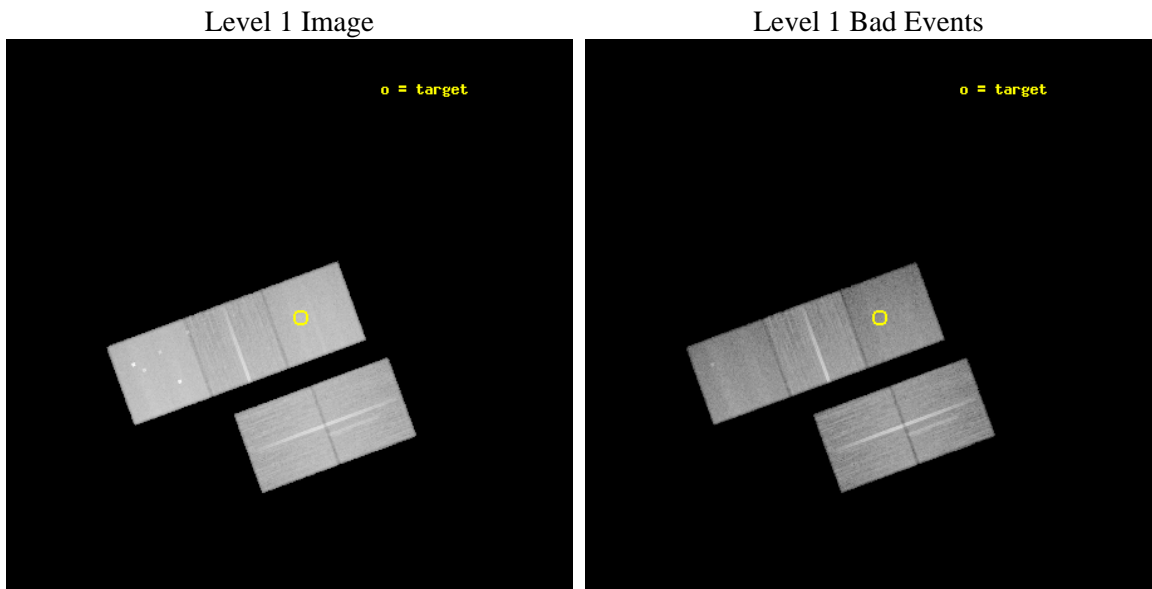
seq_num	800828	Sequence number
obs_id	10802	Observation id
title	The Formation of Brightest Cluster Galaxies	Proposal title
observer	Dr. John Mulchaey	Principal investigator
object	MZ 10451	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	37.439167	Observer's specified target RA [deg]
dec_targ	-29.630778	Observer's specified target Dec [deg]
ra_nom	37.460974109506	Nominal RA [deg]
dec_nom	-29.639499757968	Nominal Dec [deg]
roll_nom	339.8673995814	Nominal Roll [deg]
revision	2	Processing version of data
ontime	32037.353822291	Sum of GTIs [s]
livetime	31618.762209046	Livetime [s]
ontime2	32030.90767163	Sum of GTIs [s]
ontime3	32034.08970201	Sum of GTIs [s]
ontime5	32037.312782288	Sum of GTIs [s]
ontime6	32024.707850337	Sum of GTIs [s]
ontime7	32037.353822291	Sum of GTIs [s]
l2events	374673	Number of level 2 events



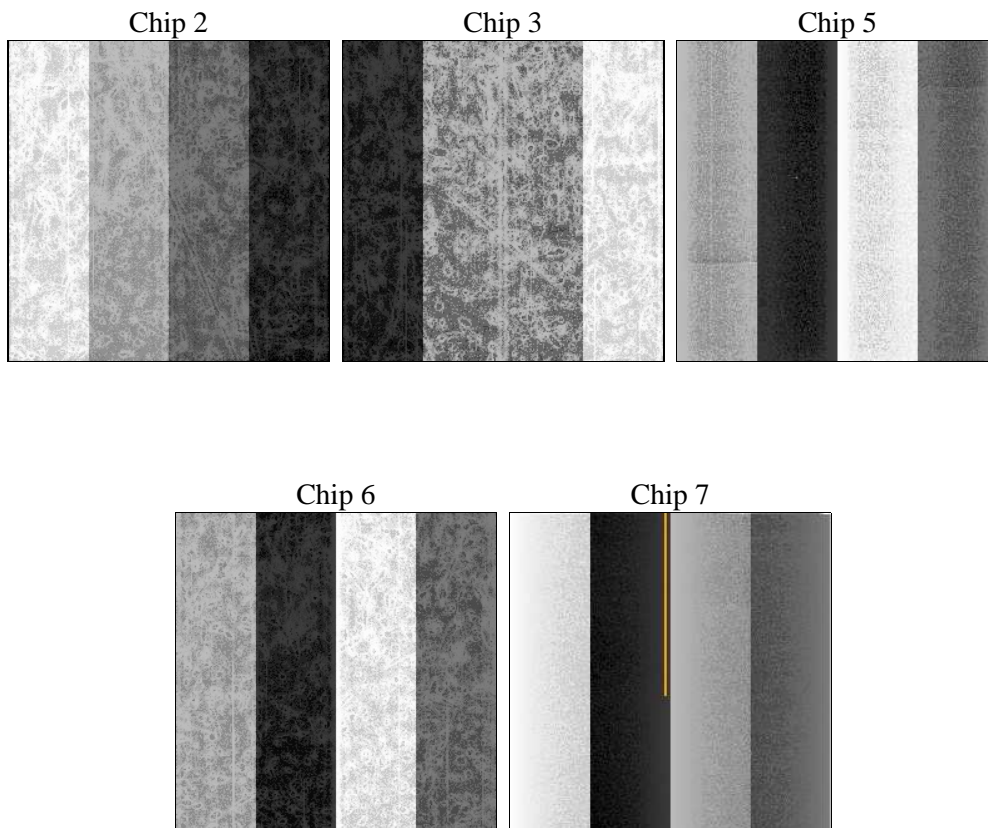
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	32000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	32037.353822291	Sum of GTIs [s]
caldbver	4.4.9	&#160	ontime2	32030.90767163	Sum of GTIs [s]
date	2012-05-24T02:37:12	Date and time of file creation	ontime3	32034.08970201	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	32037.312782288	Sum of GTIs [s]
			ontime6	32024.707850337	Sum of GTIs [s]
			ontime7	32037.353822291	Sum of GTIs [s]
			l1events	1480474	Number of level 1 events

### 2.1.4 Events

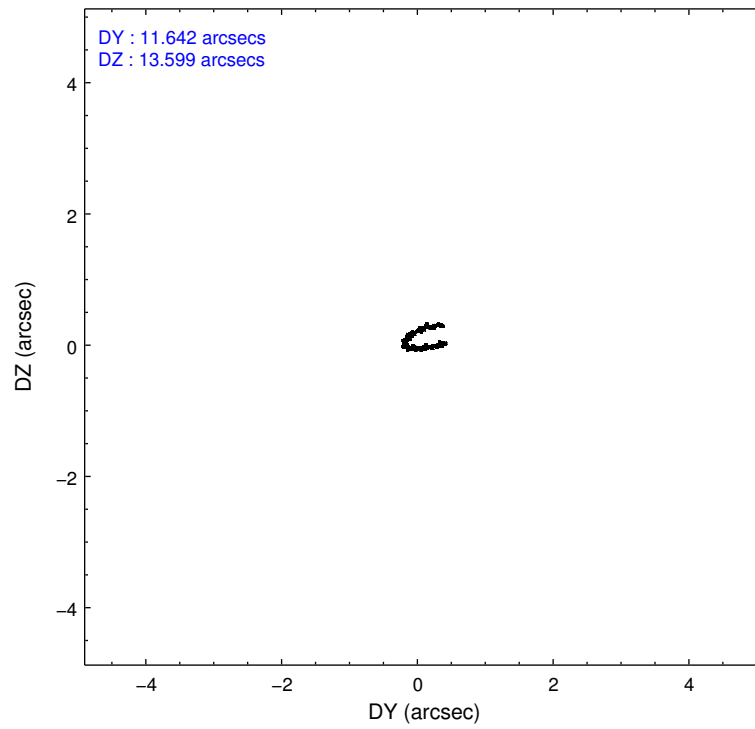
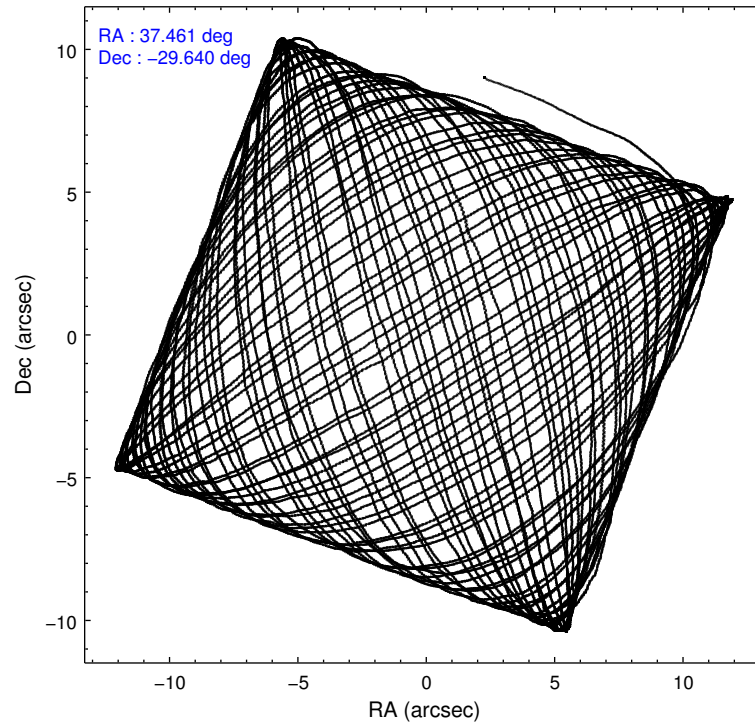
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	270936	258805	377185	269694	303854
rejected events	244768	234149	190019	241589	166204
rejected %	90%	90%	50%	89%	54%

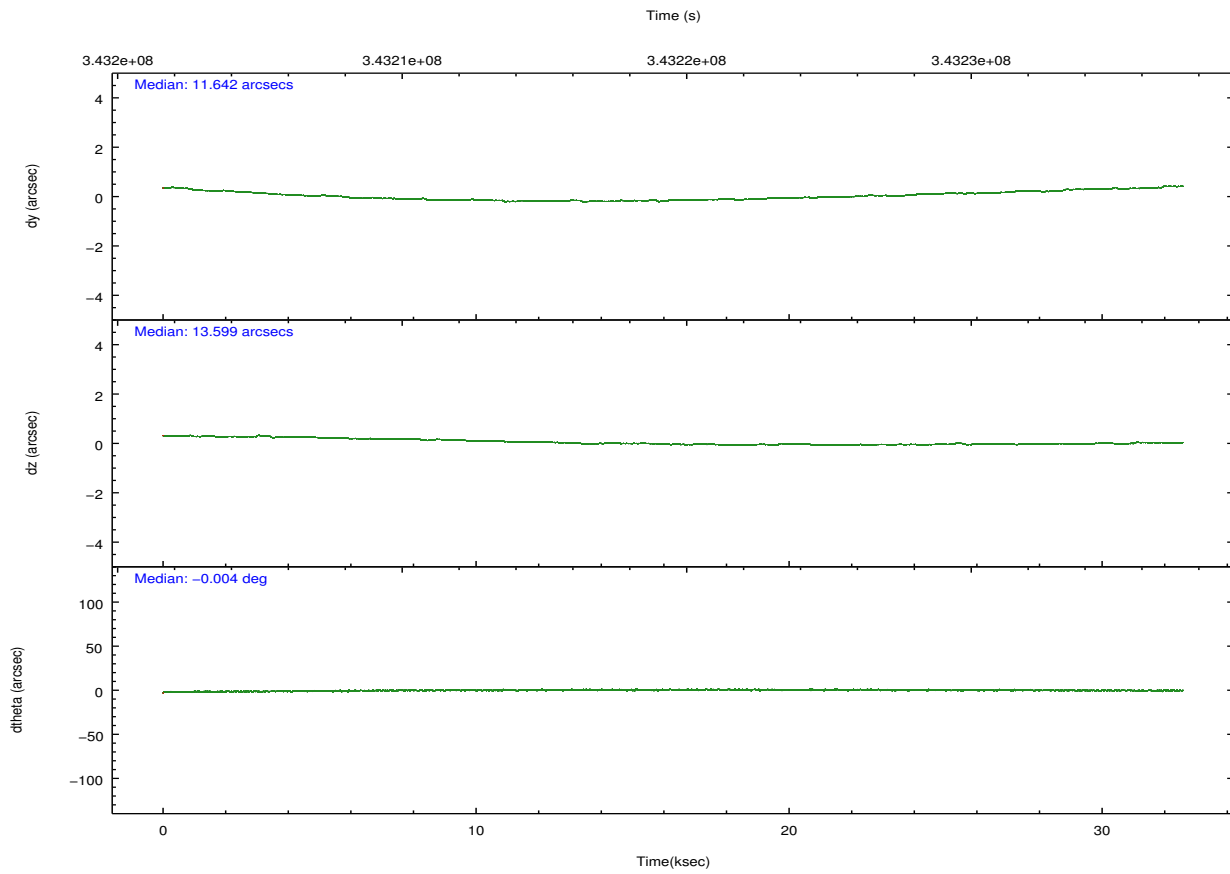
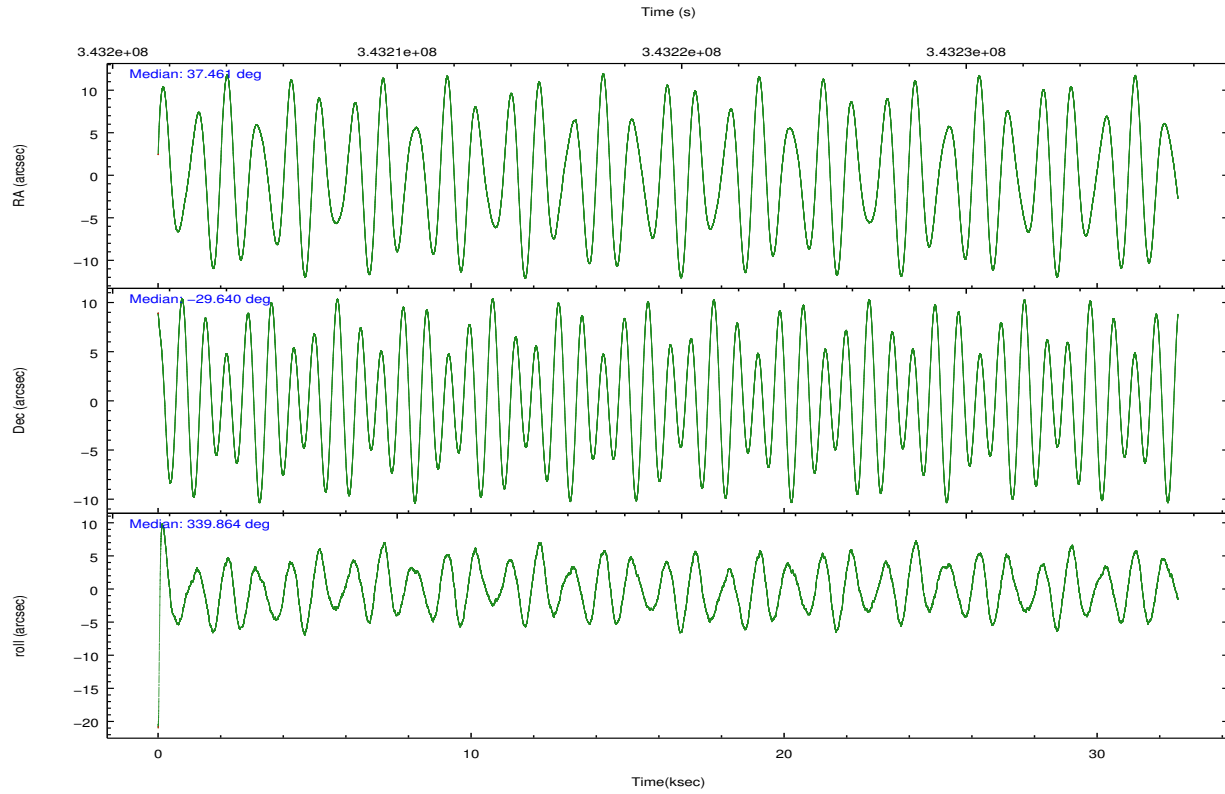
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	9337	8448	21204	9813	12997
	3%	3%	5%	3%	4%
grade 1 events	168	140	1004	144	392
	0%	0%	0%	0%	0%
grade 2 events	6255	5411	54503	6285	28223
	2%	2%	14%	2%	9%
grade 3 events	2781	2815	7577	3109	12391
	1%	1%	2%	1%	4%
grade 4 events	2895	2829	7292	3057	12311
	1%	1%	1%	1%	4%
grade 5 events	8881	10886	29715	11011	31977
	3%	4%	7%	4%	10%
grade 6 events	4903	5156	96616	5841	71744
	1%	1%	25%	2%	23%
grade 7 events	235716	223120	159274	230434	133819
	87%	86%	42%	85%	44%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23567	ACIS-23567	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	37.430041	37.46097410950599	CCD I2 on	O1	Y
[deg] Pointing Dec	-29.644552	-29.63949975796787	CCD I3 on	O2	Y
[deg] Pointing Roll	339.695487	339.8673995813975	CCD S0 on	N	N
[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	N	N
[s] Observation start time (MET)	343203813.184000	343202690.58988	CCD S5 on	N	N
Observation start date	2008-11-16T06:22:28	2008-11-16T06:04:50	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	343235813.184000	343237017.84157	On-chip summing requested	N	N
Observation end date	2008-11-16T15:15:48	2008-11-16T15:36:57	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



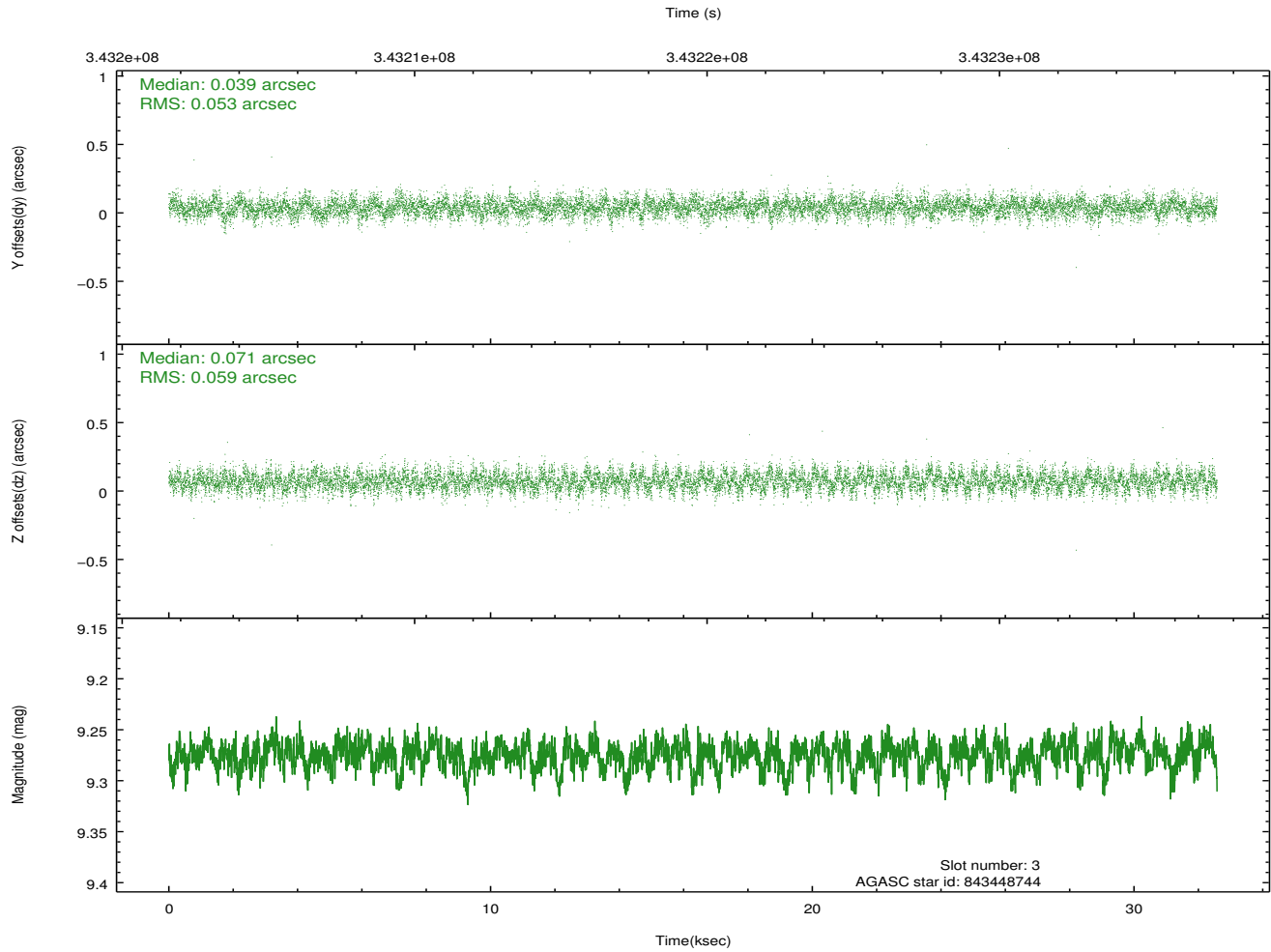
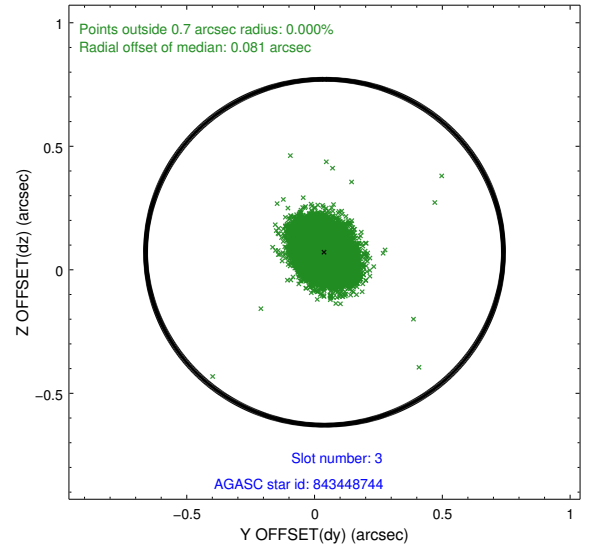
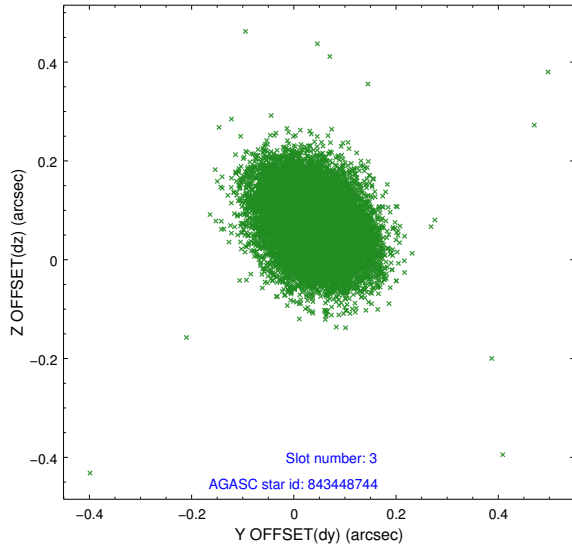


### Slot Statistics

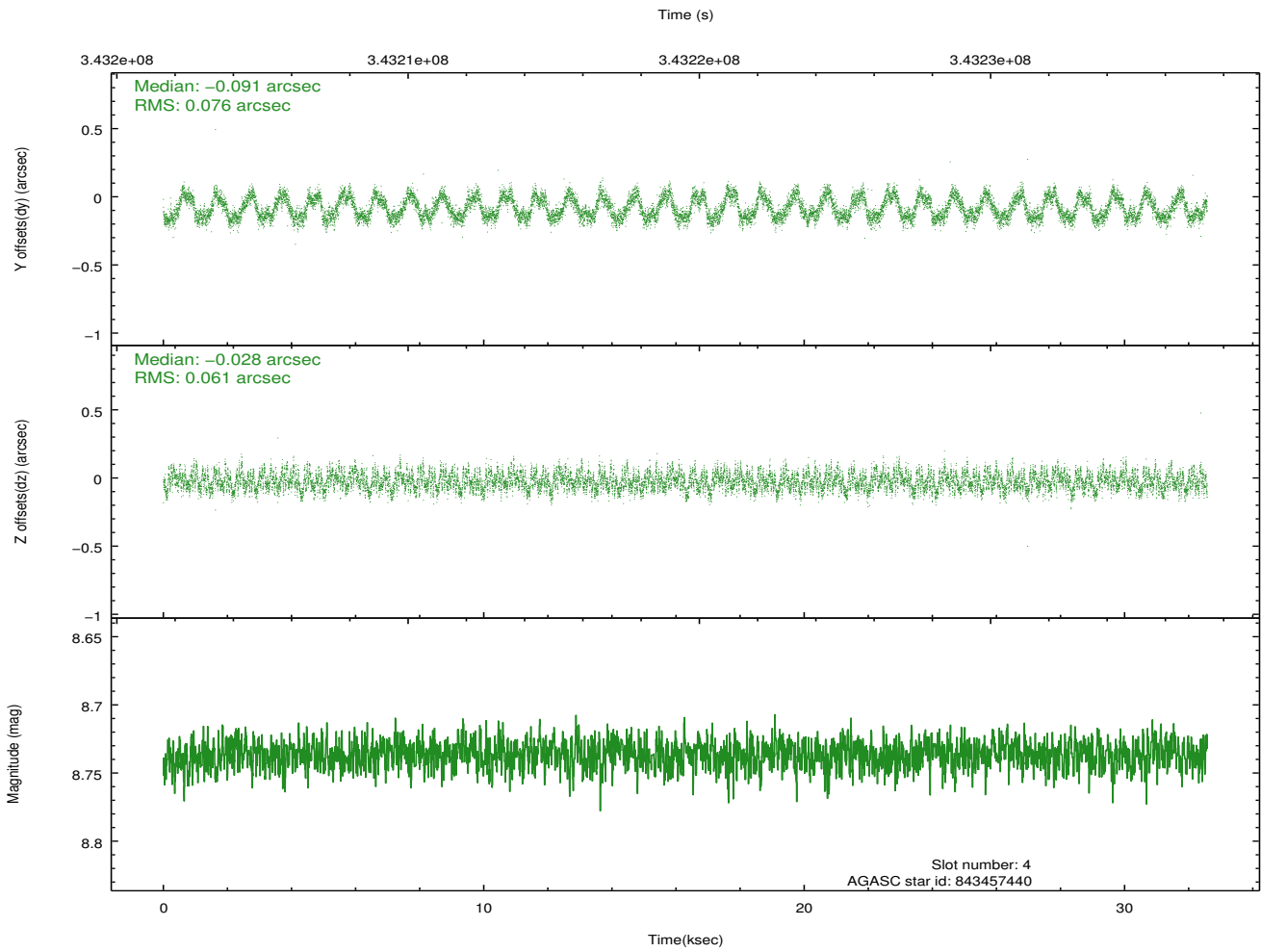
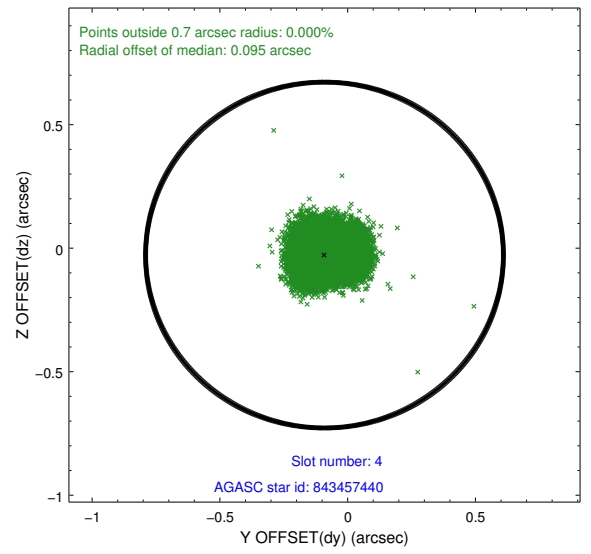
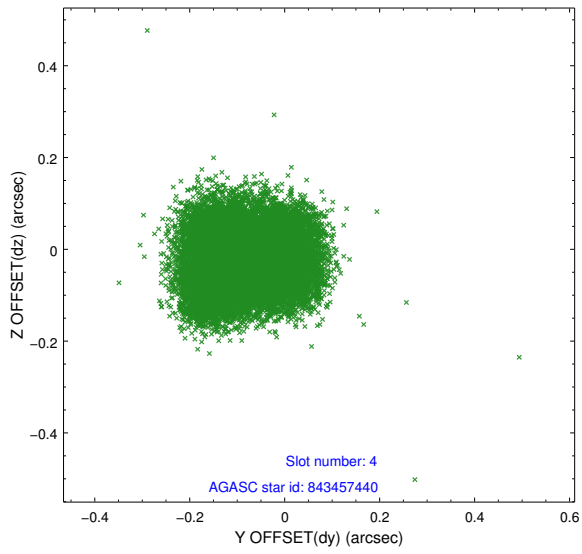
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.91	7947	-0.027	-0.024	0.008	0.012	0.000000	0.000000	-764.59	-1735.02
1	FID	ACIS-S-4	7.00	7947	0.109	0.020	0.009	0.018	0.000000	0.000000	2148.81	173.44
2	FID	ACIS-S-5	7.02	7946	-0.114	0.013	0.008	0.013	0.000000	0.000000	-1817.44	167.18
3	GUIDE	843448744	9.27	15881	0.039	0.071	0.084	0.137	37.502677	-29.743106	336.31	-253.99
4	GUIDE	843457440	8.74	15884	-0.091	-0.028	0.106	0.156	36.962323	-29.716224	-1280.34	-753.24
5	GUIDE	843465080	9.04	15877	0.046	0.075	0.086	0.142	37.107631	-29.646375	-942.89	-357.44
6	GUIDE	843465384	9.05	15877	-0.081	-0.050	0.086	0.138	37.150341	-29.273307	-1287.03	947.67
7	GUIDE	918817696	9.41	15876	0.080	-0.068	0.100	0.161	37.946127	-30.001076	1956.14	-648.59

## 2.4 Star Slots

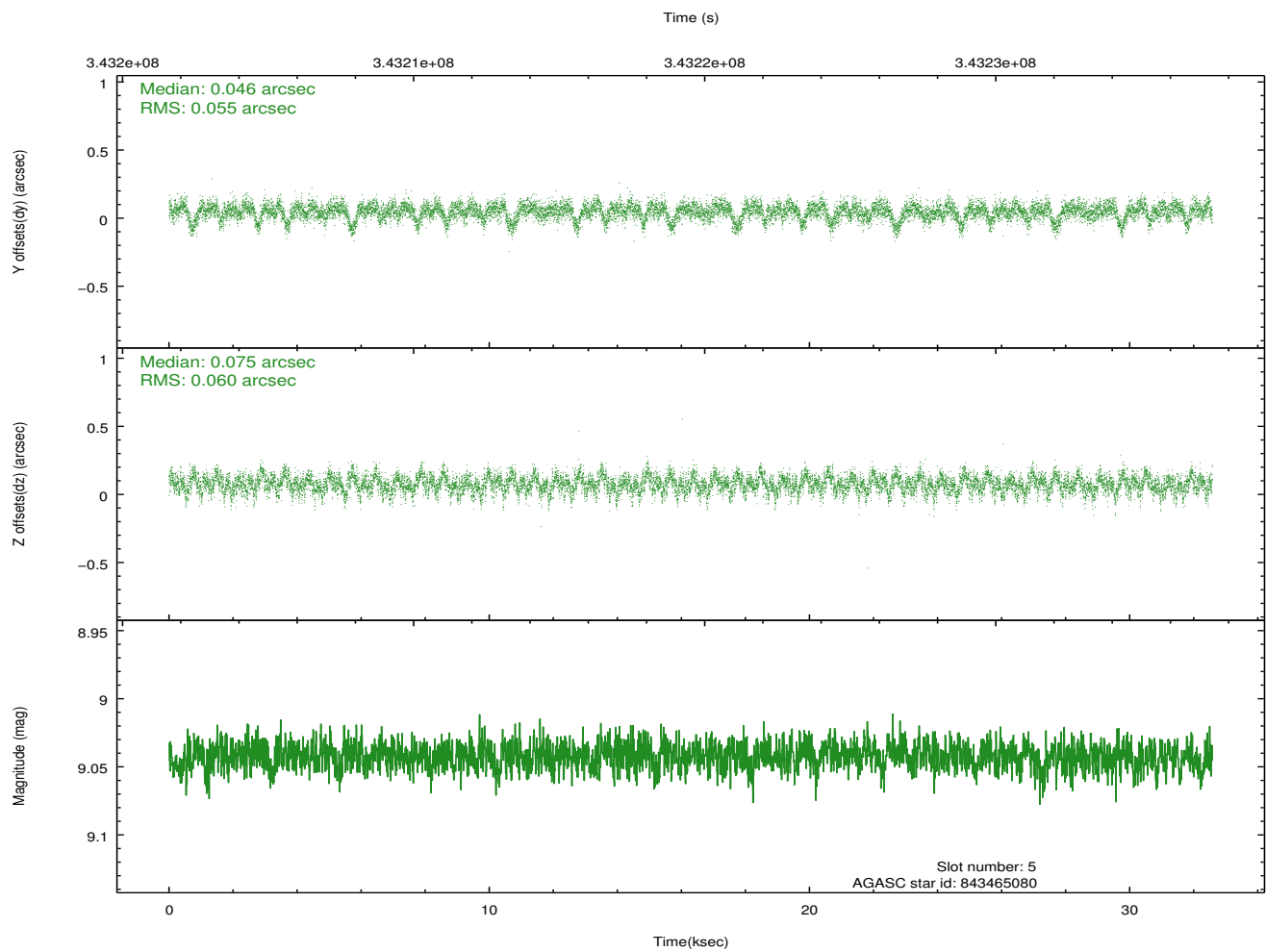
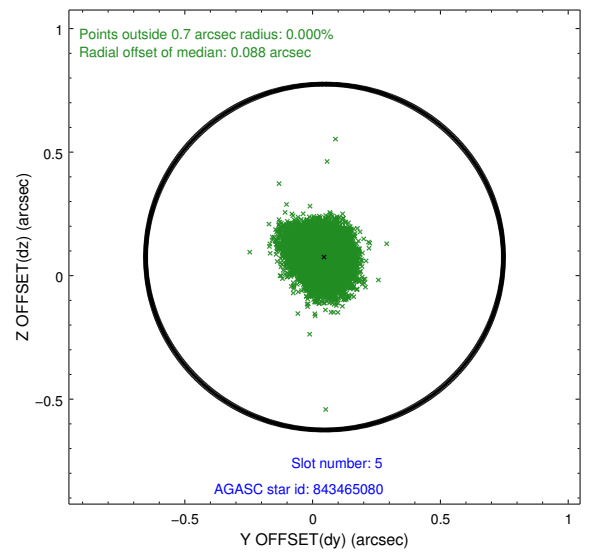
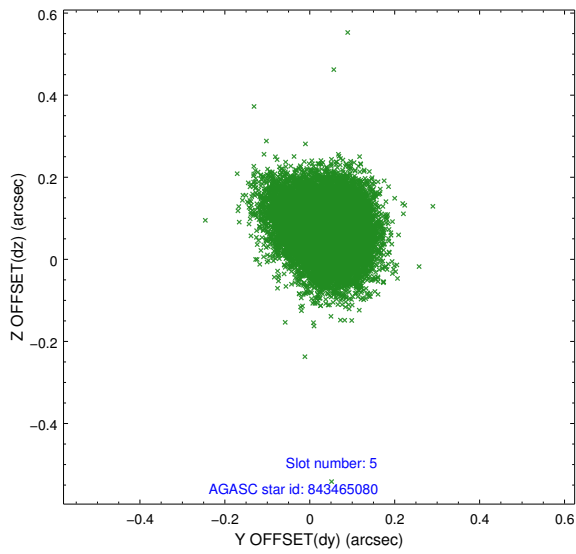
### 2.4.1 Slot 3



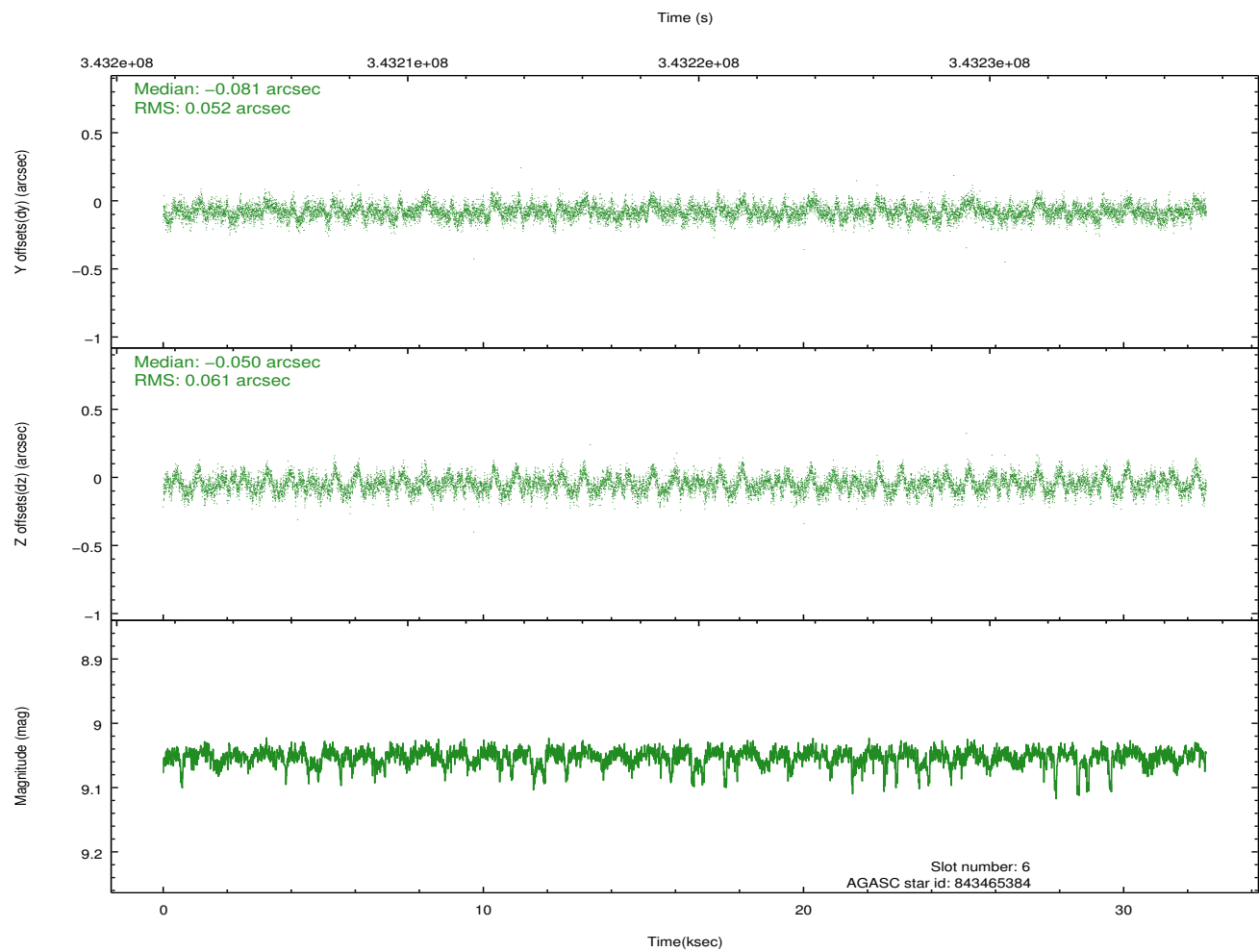
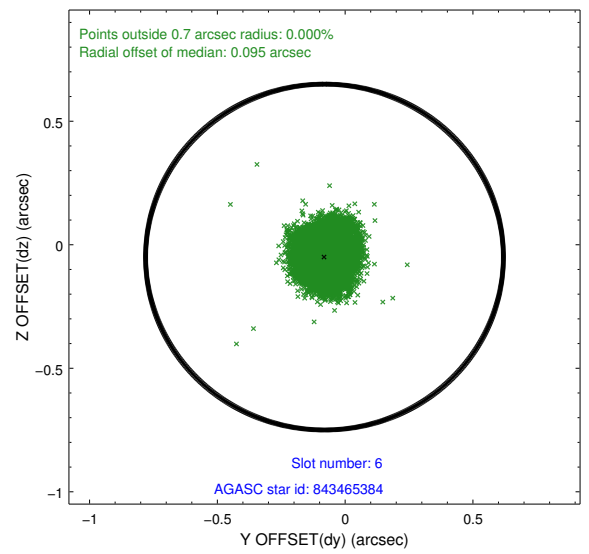
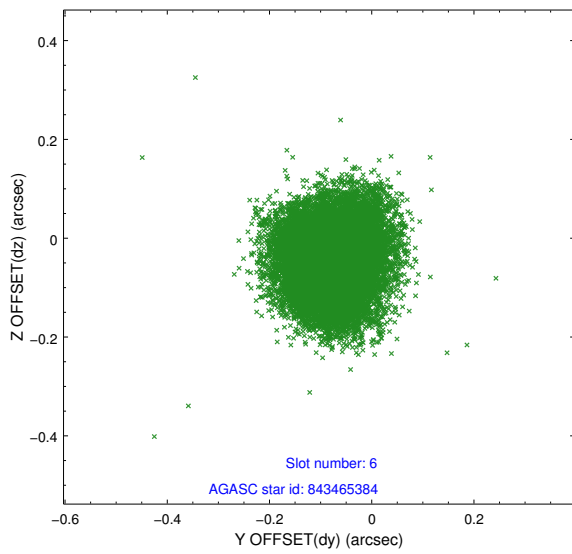
## 2.4.2 Slot 4



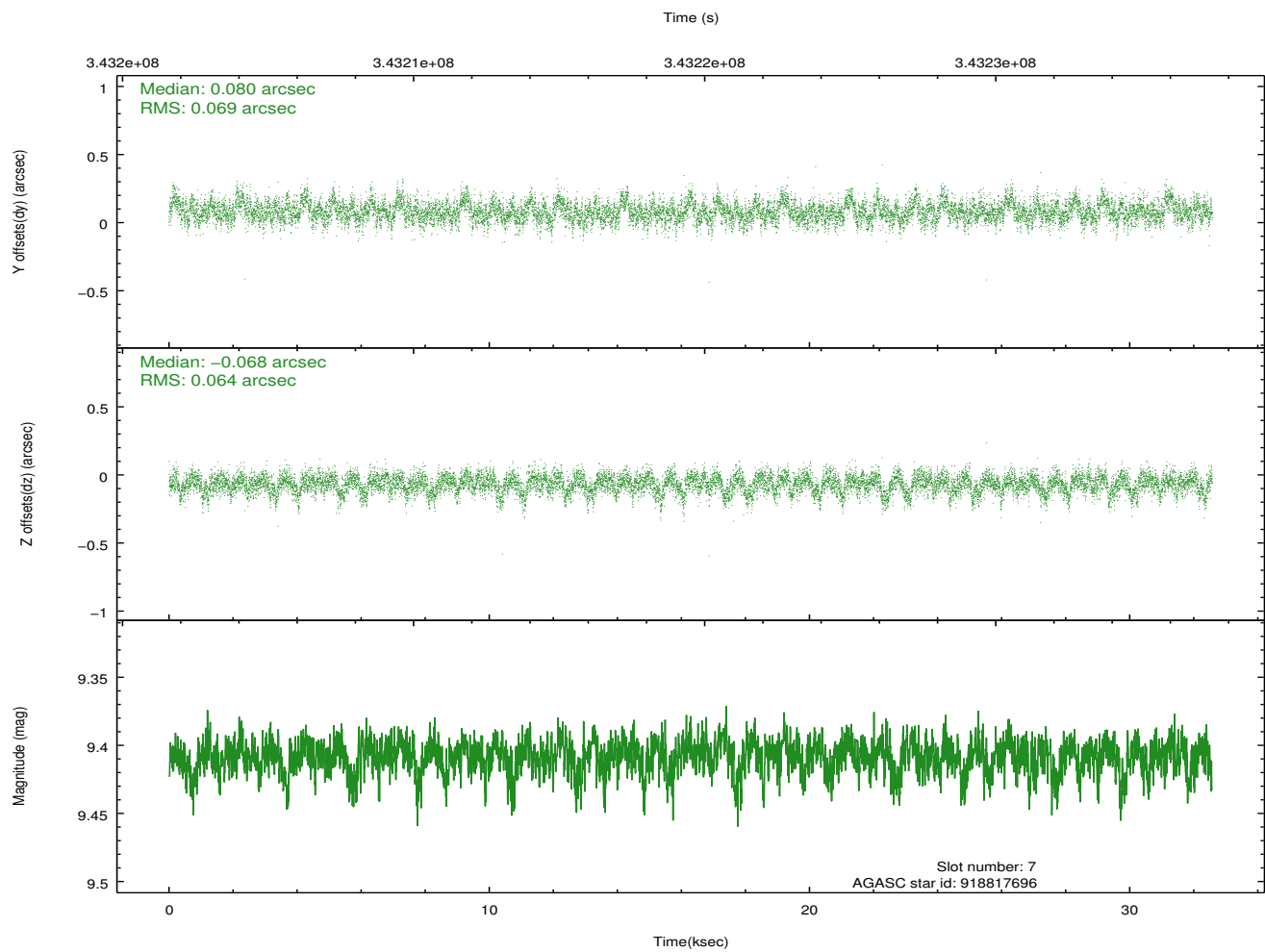
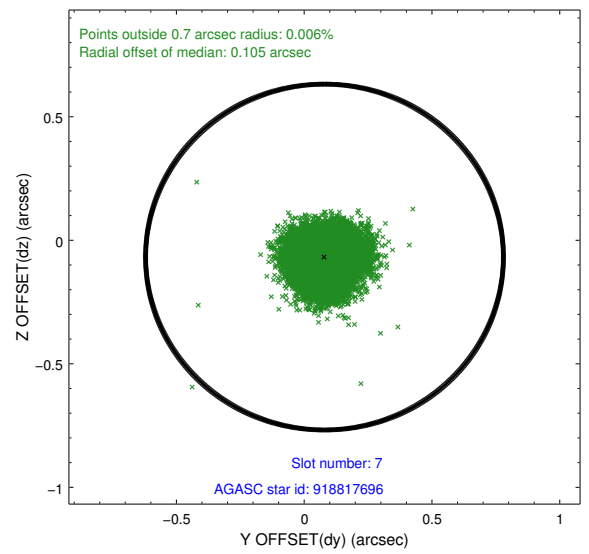
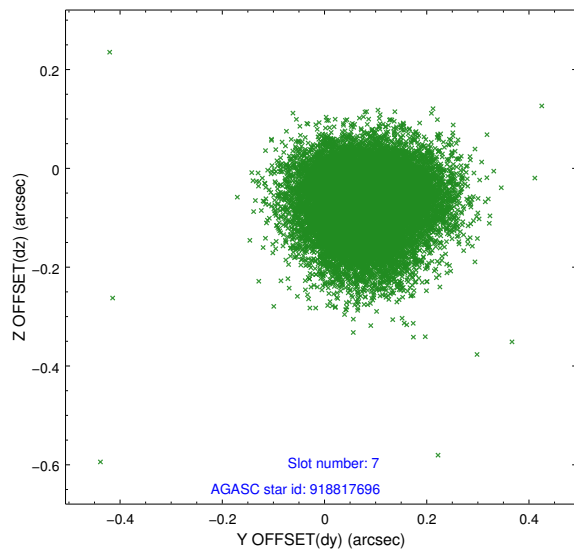
### 2.4.3 Slot 5



## 2.4.4 Slot 6

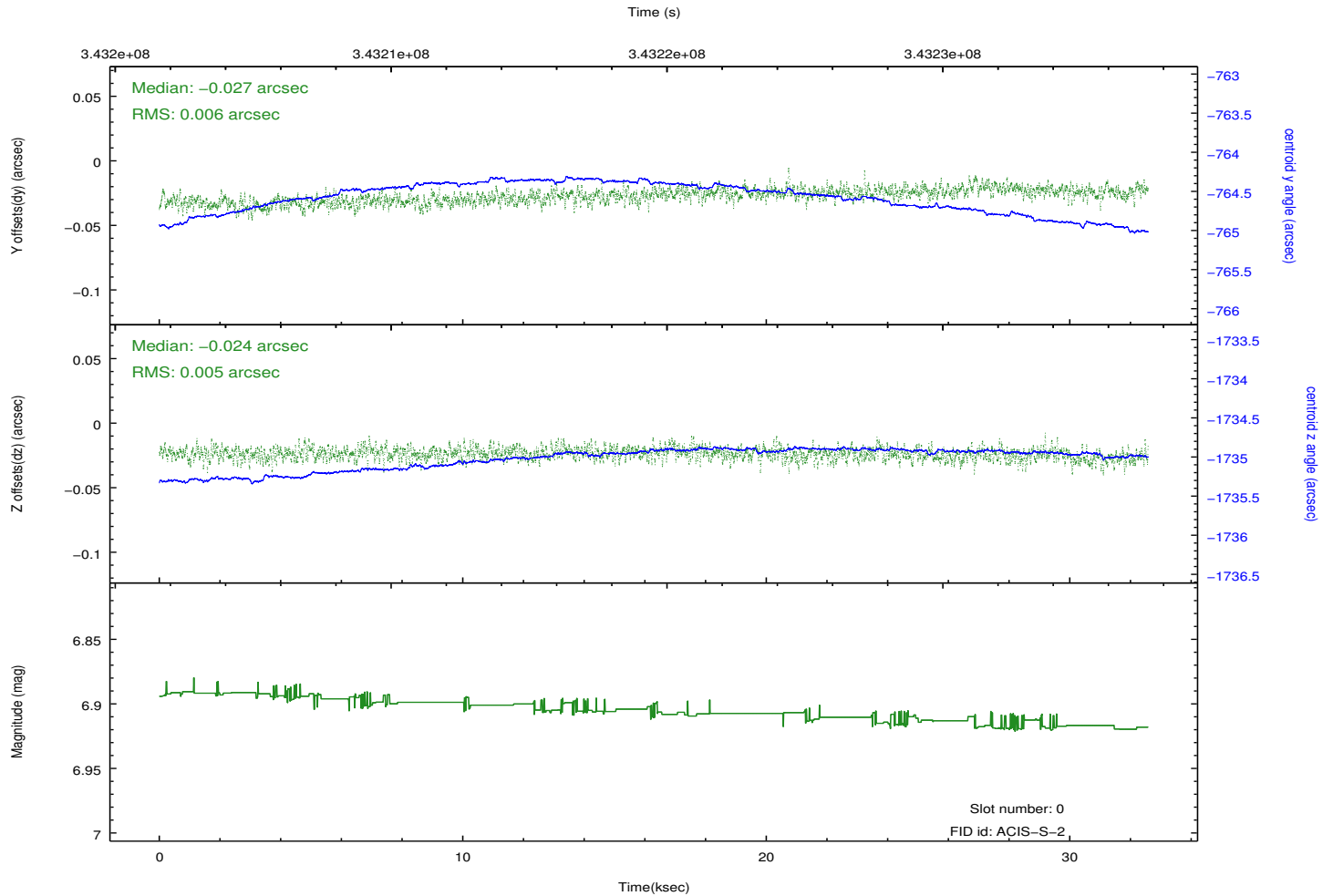
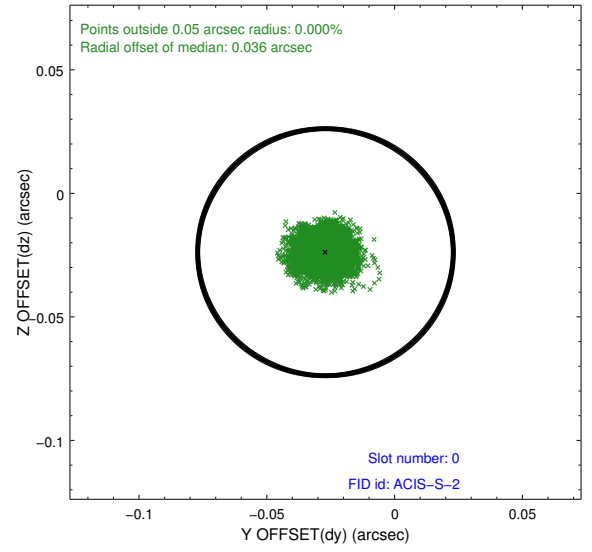
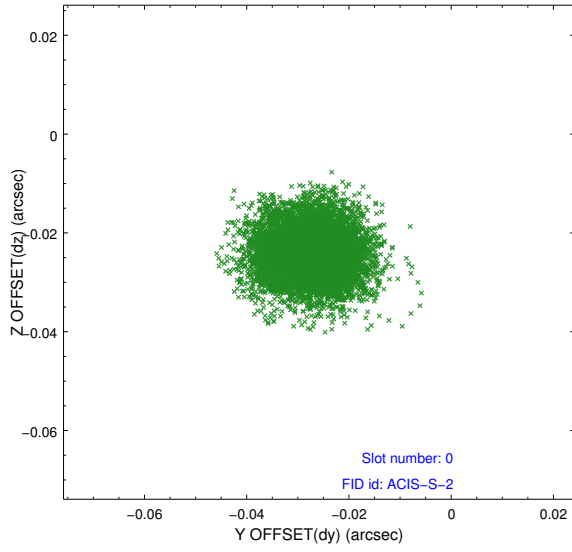


## 2.4.5 Slot 7

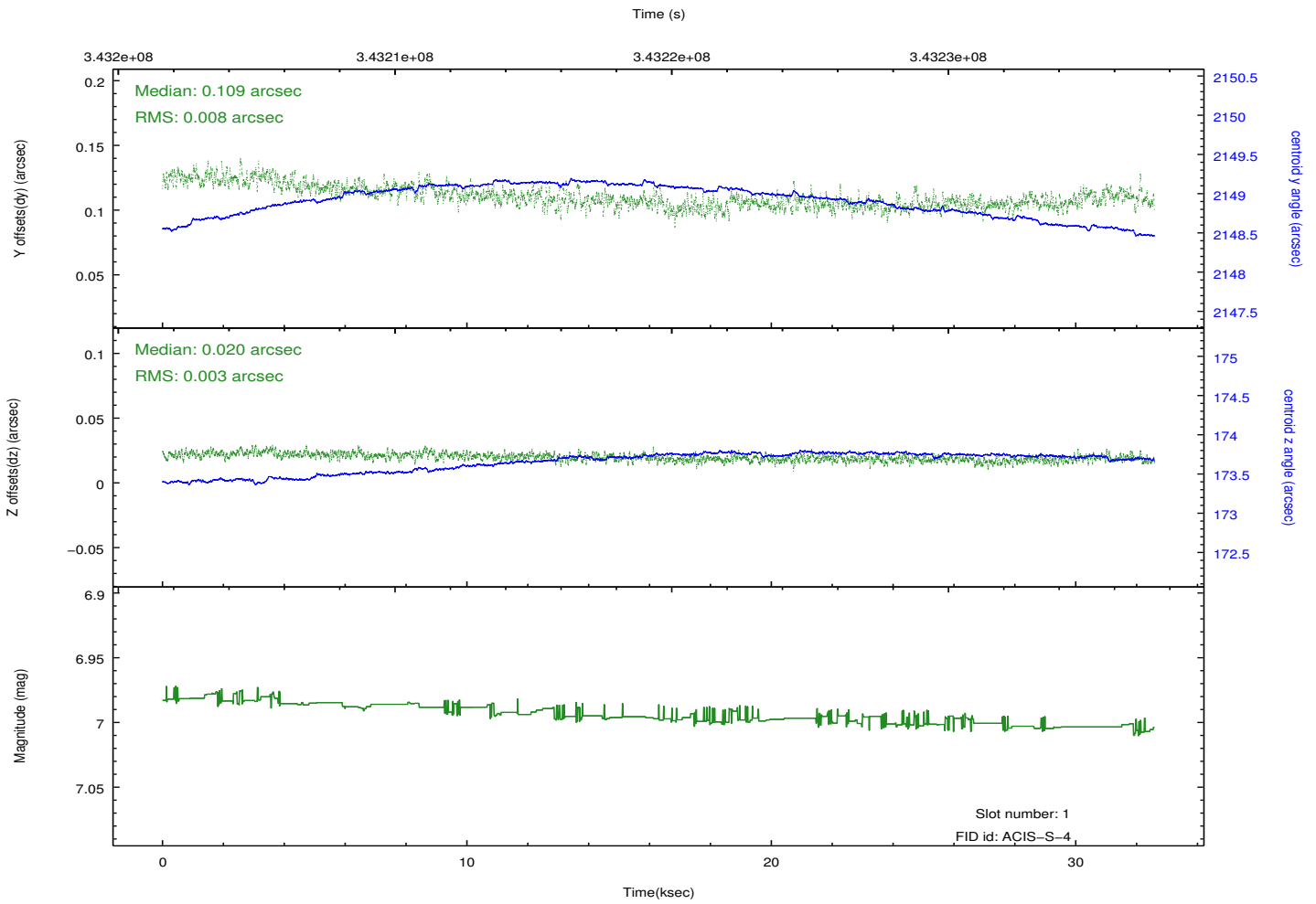
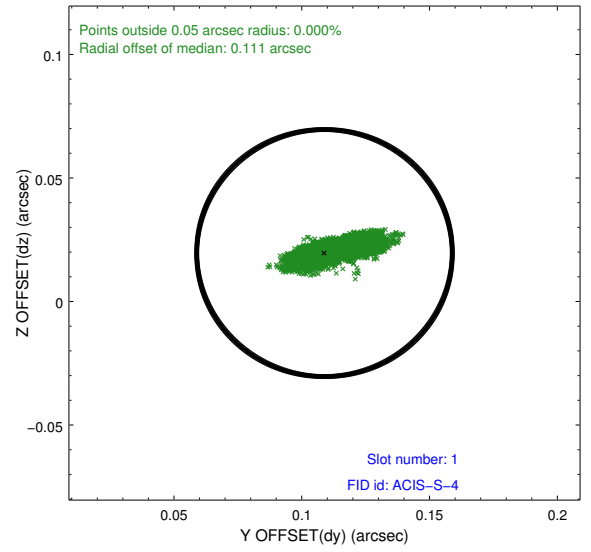
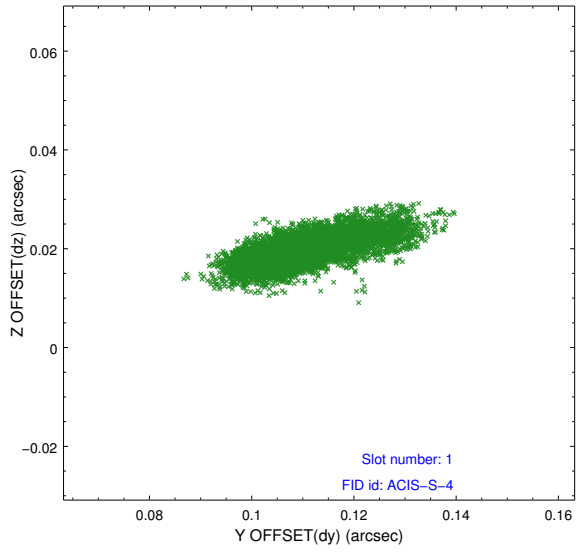


## 2.5 FID Slots

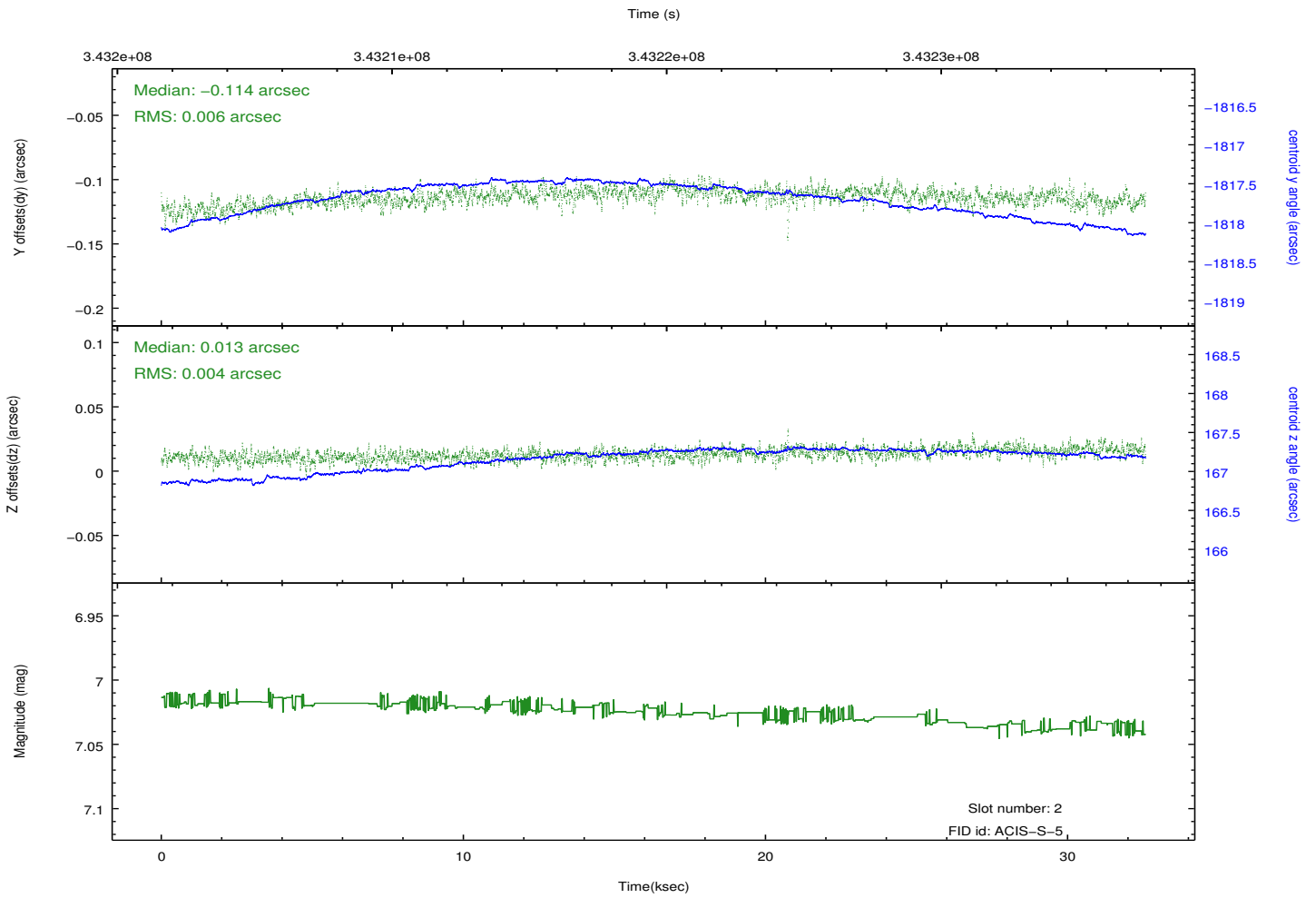
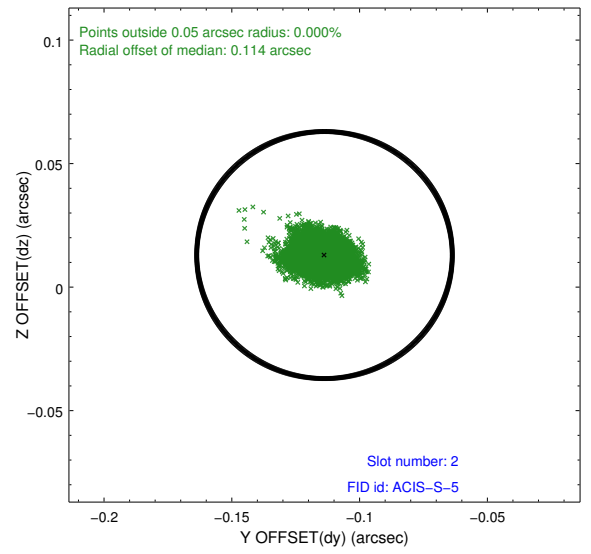
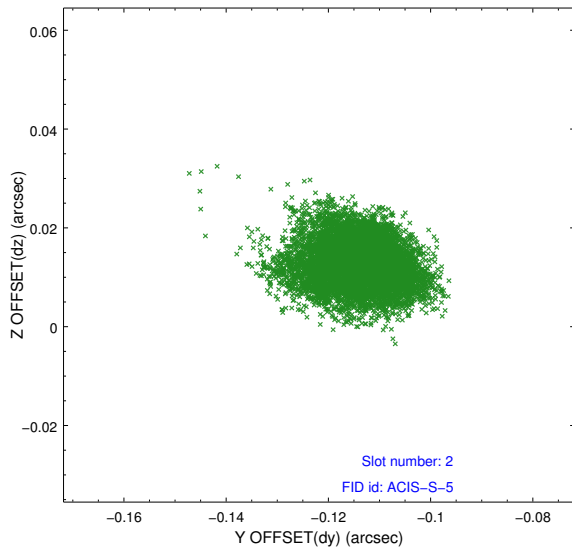
### 2.5.1 Slot 0



## 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)	2012.05.31
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	32.0385002

## A.2 Comments

Joint proposal with HST.