

# V&V Reference Report

## L2 ASCDS Version : 10.3.3

Observation 17000 - L2 Version 1  
Chandra X-Ray Center

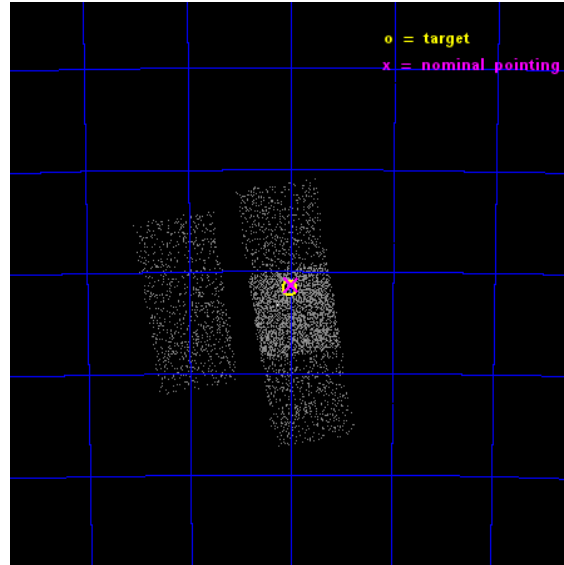
L2 Processing Date : May 25 2015

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# 1 Front

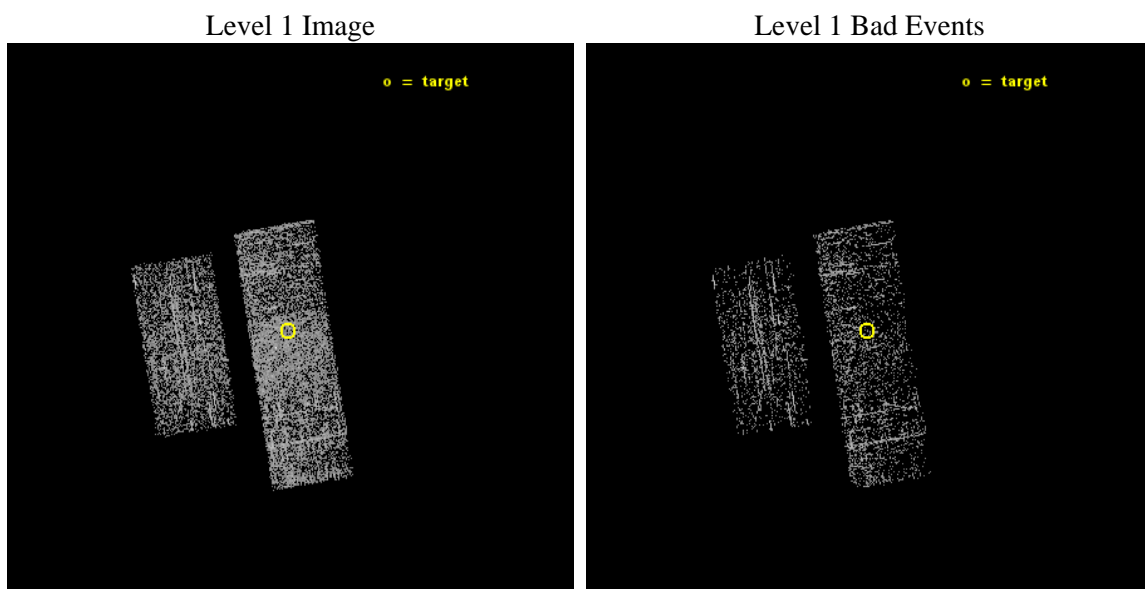
seq_num	601193	Sequence number
obs_id	17000	Observation id
title	Super-massive black holes and nuclear star clusters in late type galaxies	Proposal title
observer	Elena Gallo	Principal investigator
object	IC5052	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	313.006667	Observer's specified target RA [deg]
dec_targ	-69.193306	Observer's specified target Dec [deg]
ra_nom	312.99944872816	Nominal RA [deg]
dec_nom	-69.188648834439	Nominal Dec [deg]
roll_nom	80.791939939723	Nominal Roll [deg]
revision	1	Processing version of data
ontime	1038.5000081062	Sum of GTIs [s]
livetime	1024.9312409677	Livetime [s]
ontime2	1038.5000081062	Sum of GTIs [s]
ontime3	1038.5000081062	Sum of GTIs [s]
ontime6	1038.5000081062	Sum of GTIs [s]
ontime7	1038.5000081062	Sum of GTIs [s]
ontime8	1038.5000081062	Sum of GTIs [s]
l2events	5410	Number of level 2 events



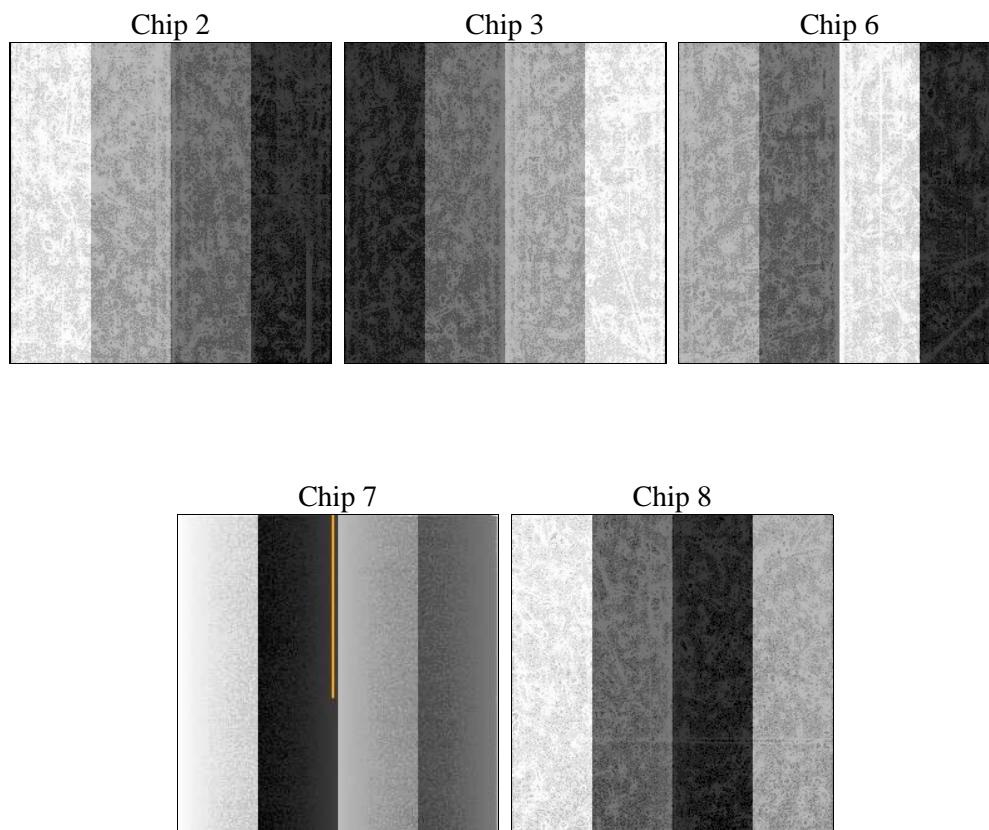
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	1000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.3	Processing system revision	ontime	1038.5000081062	Sum of GTIs [s]
caldbver	4.6.7	&#160	ontime2	1038.5000081062	Sum of GTIs [s]
date	2015-05-25T10:06:34	Date and time of file creation	ontime3	1038.5000081062	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	1038.5000081062	Sum of GTIs [s]
			ontime7	1038.5000081062	Sum of GTIs [s]
			ontime8	1038.5000081062	Sum of GTIs [s]
			l1events	28628	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	4817	4794	5109	7354	6554
rejected events	4261	4200	4469	4081	4933
rejected %	88%	87%	87%	55%	75%

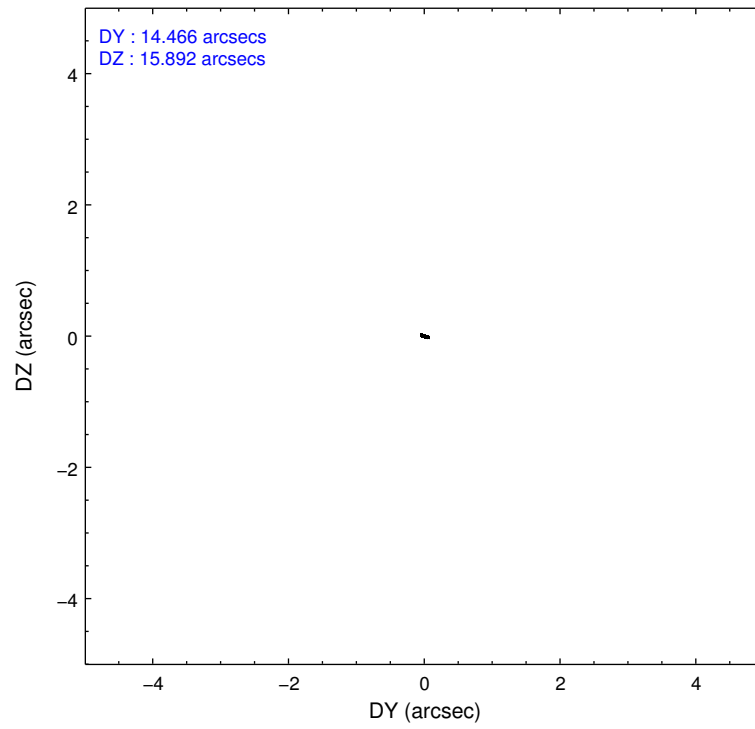
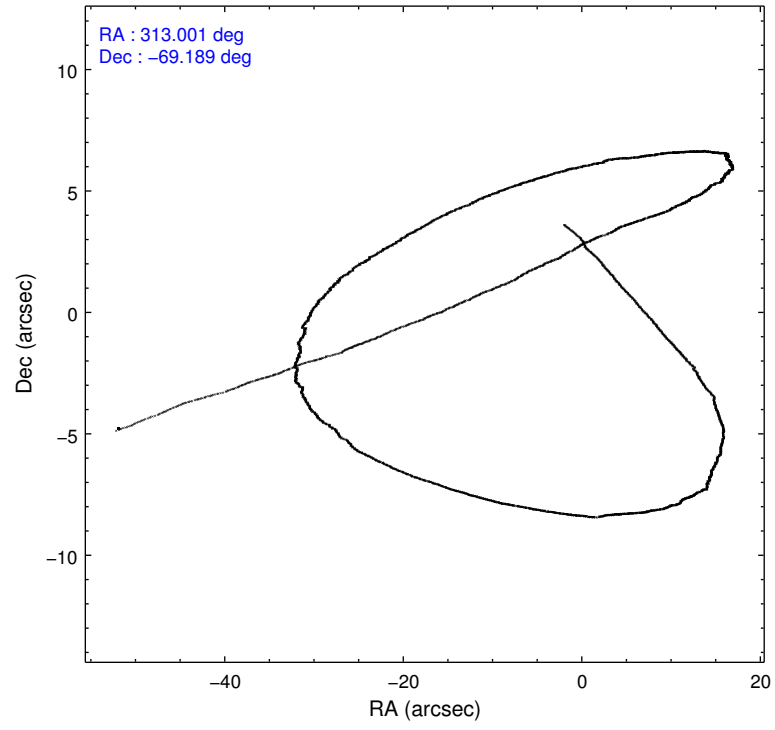
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	194	195	232	339	459
	4%	4%	4%	4%	7%
grade 1 events	2	4	5	13	2
	0%	0%	0%	0%	0%
grade 2 events	135	143	151	715	442
	2%	2%	2%	9%	6%
grade 3 events	65	60	57	295	130
	1%	1%	1%	4%	1%
grade 4 events	56	81	71	260	139
	1%	1%	1%	3%	2%
grade 5 events	223	287	269	699	358
	4%	5%	5%	9%	5%
grade 6 events	108	117	132	1674	455
	2%	2%	2%	22%	6%
grade 7 events	4034	3907	4192	3359	4569
	83%	81%	82%	45%	69%

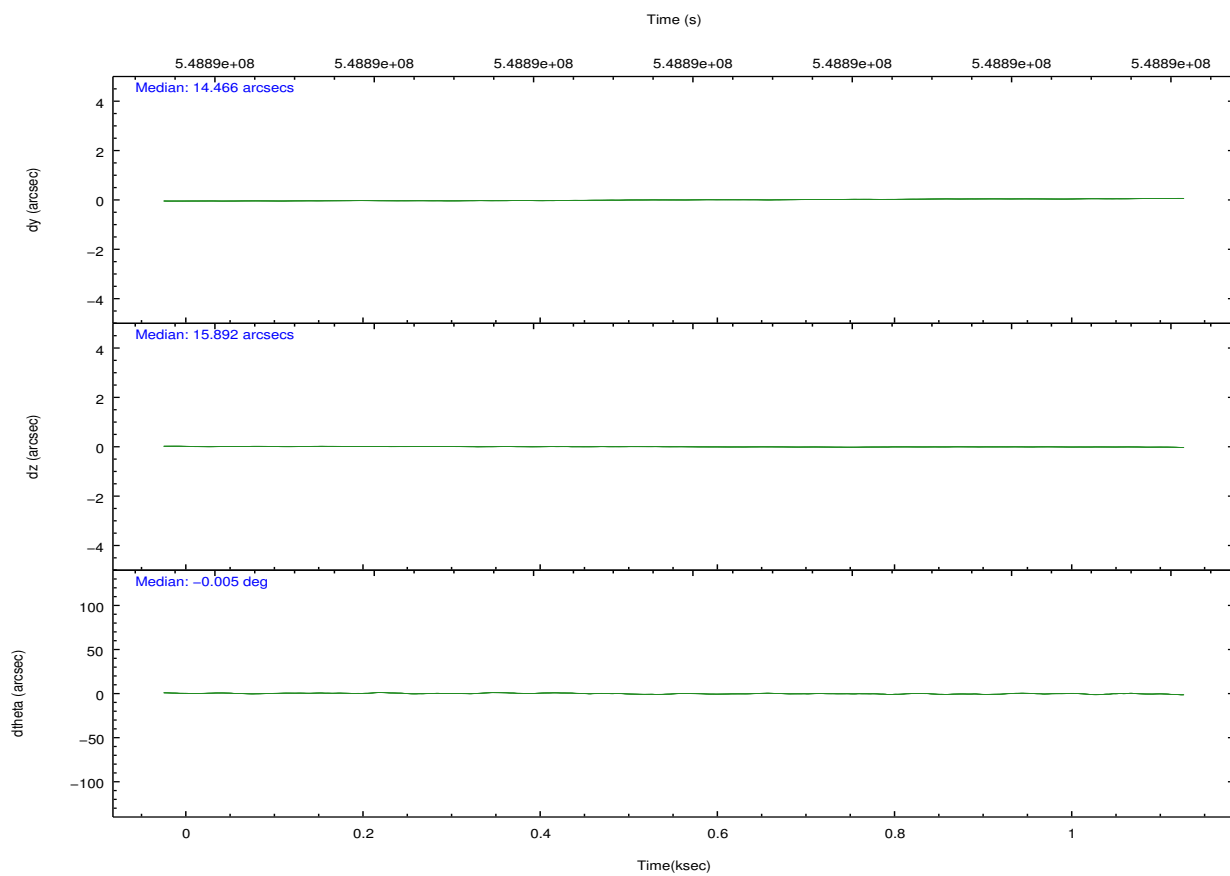
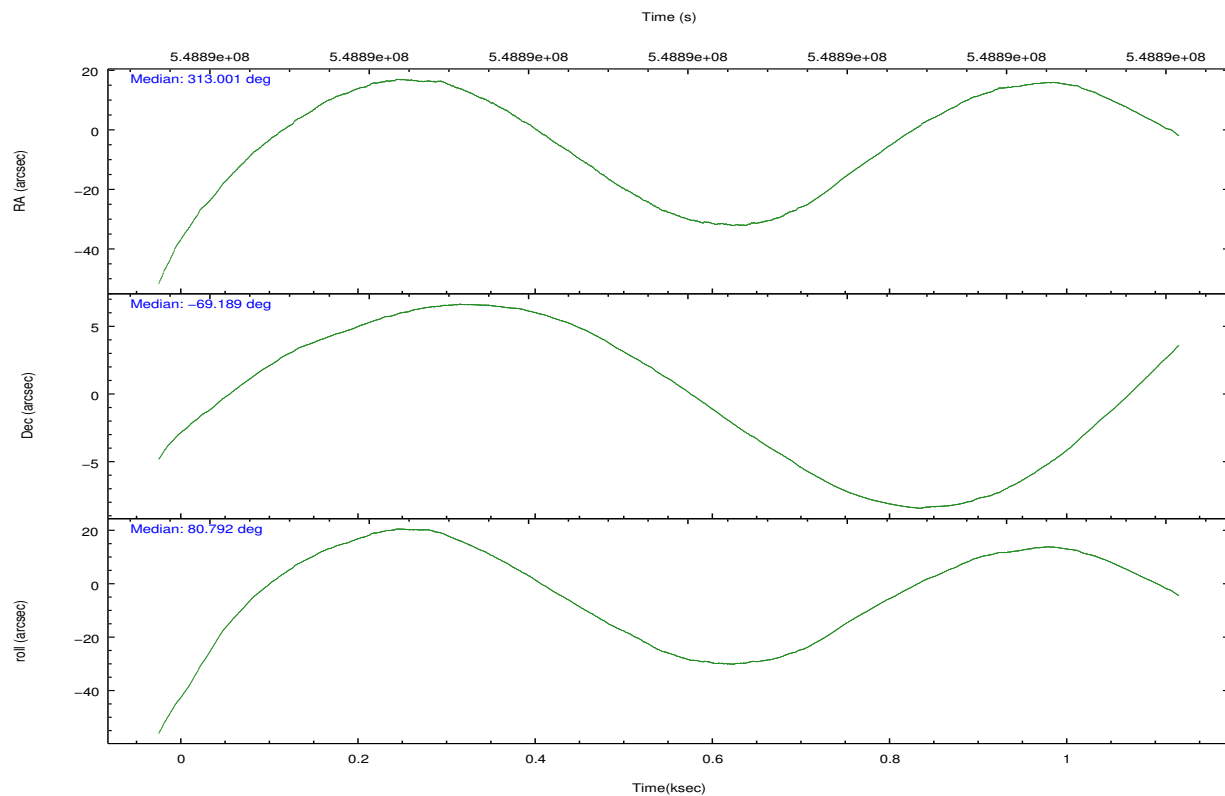
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-23678	ACIS-23678
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	313.027457	312.9994487281641
[deg] Pointing Dec	-69.214115	-69.18864883443882
[deg] Pointing Roll	80.661492	80.79193993972252
[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)	548891328.184000	548889680.9850301
Observation start date	2015-05-24T21:47:41	2015-05-24T21:21:20
[s] Observation end time (MET)	548892328.184000	548892967.1352201
Observation end date	2015-05-24T22:04:21	2015-05-24T22:16:07
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	N	N
CCD I1 on	N	N
CCD I2 on	O2	Y
CCD I3 on	O1	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	Y	Y
CCD S5 on	N	N
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





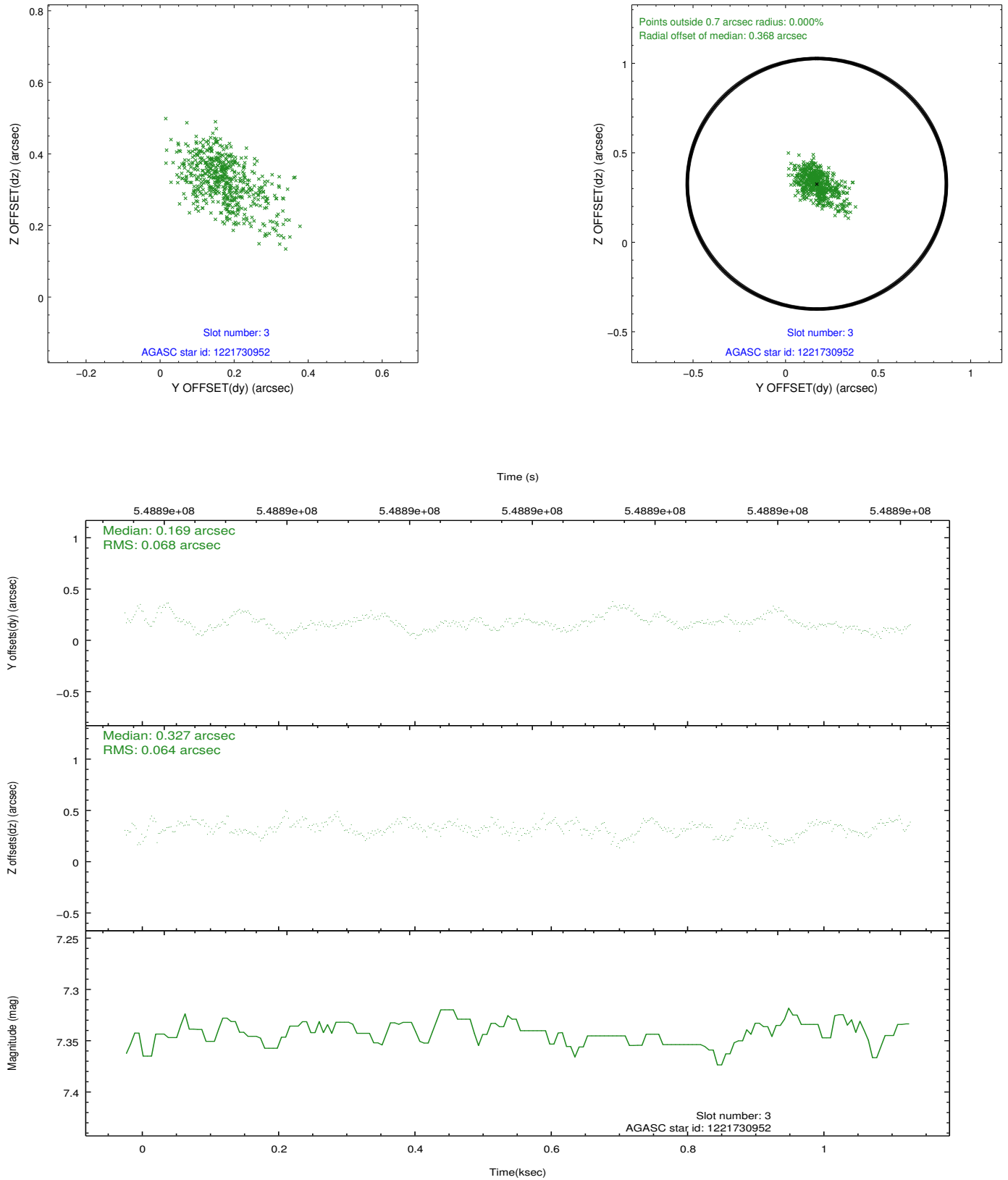
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.01	281	-0.111	-0.025	0.006	0.011	0.000000	0.000000	-767.51	-1737.33
1	FID		ACIS-S-4	7.10	281	0.323	0.060	0.006	0.011	0.000000	0.000000	2143.52	165.25
2	FID		ACIS-S-5	7.12	281	-0.243	-0.027	0.006	0.012	0.000000	0.000000	-1813.08	165.38
3	GUIDE	used	1221730952	7.34	563	0.169	0.327	0.097	0.178	314.548663	-69.146222	533.91	-1887.05
4	GUIDE	used	1221732832	9.40	563	-0.312	-0.152	0.119	0.197	312.508975	-68.626193	1976.37	1011.45
5	GUIDE	used	1221734128	9.29	563	0.008	-0.139	0.145	0.241	313.508844	-69.071260	609.51	-525.46
6	GUIDE	used	1222257448	9.01	563	0.289	0.131	0.110	0.173	312.467558	-69.791429	-2165.07	349.10
7	GUIDE	used	1221726944	7.30	562	-0.137	-0.159	0.110	0.173	312.235507	-68.791258	1323.84	1264.01

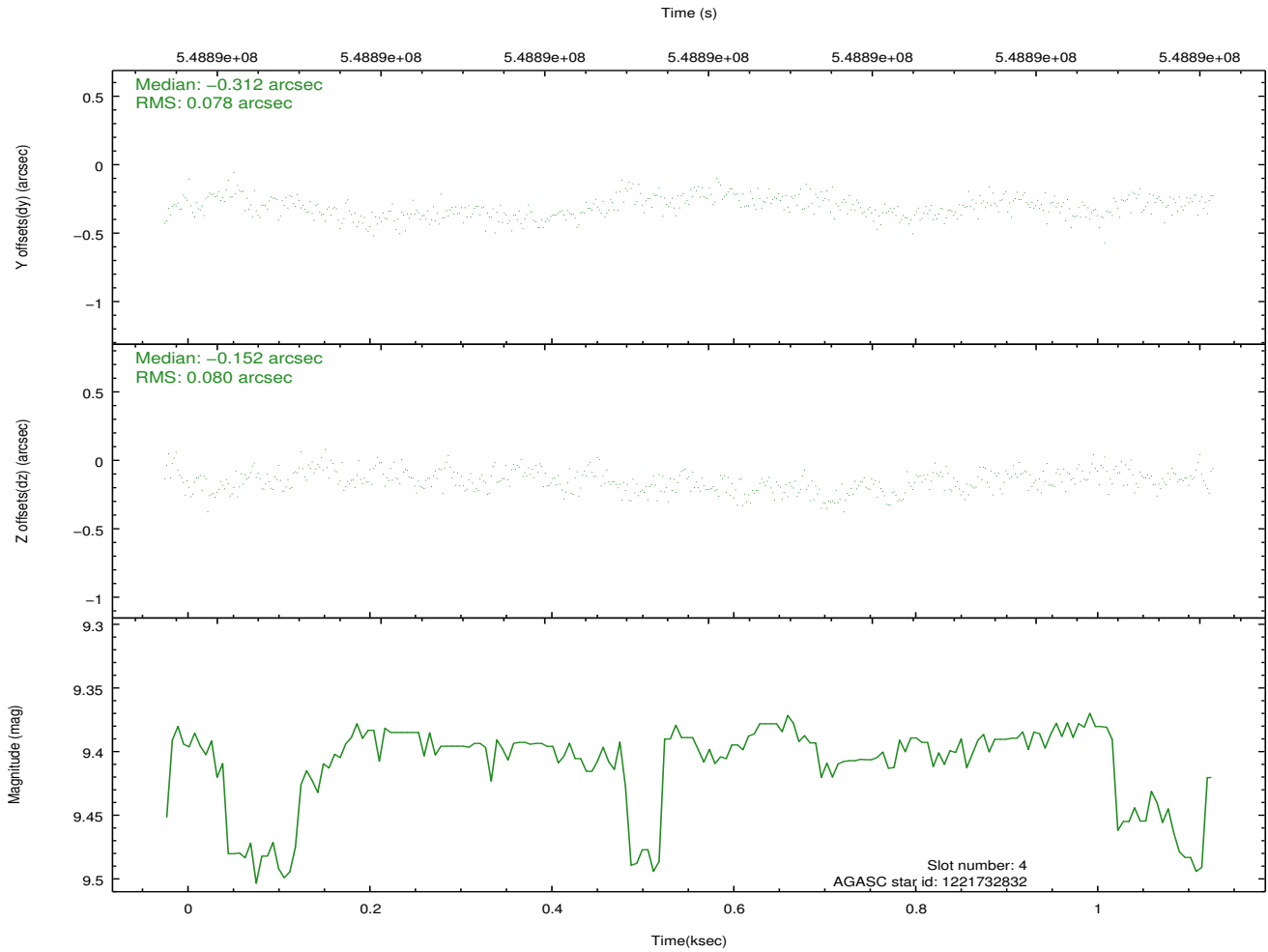
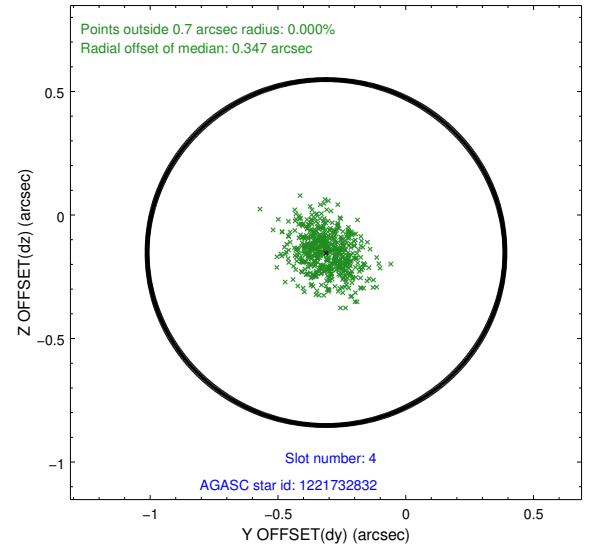
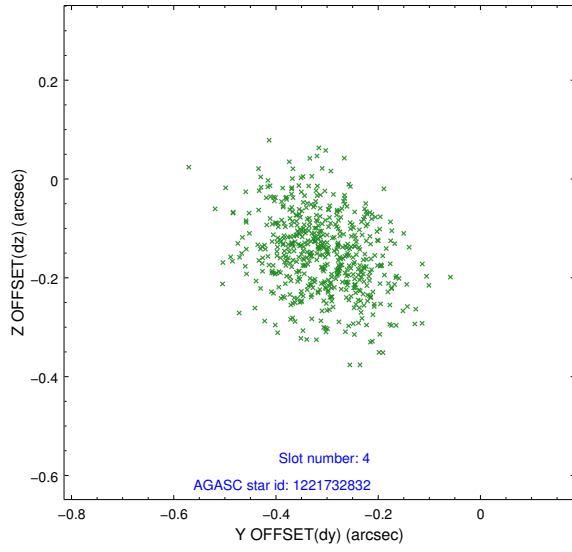


## 2.4 Star Slots

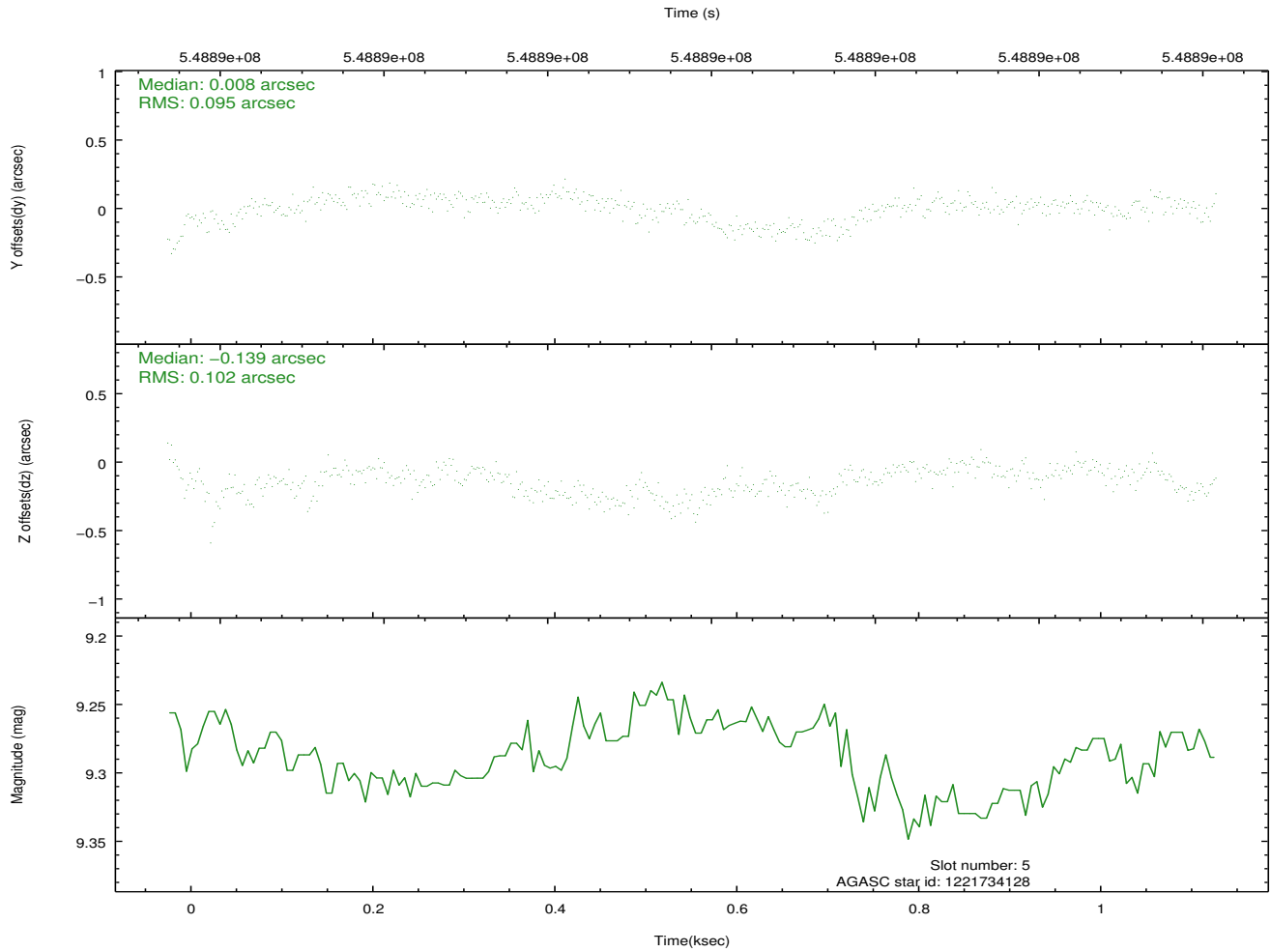
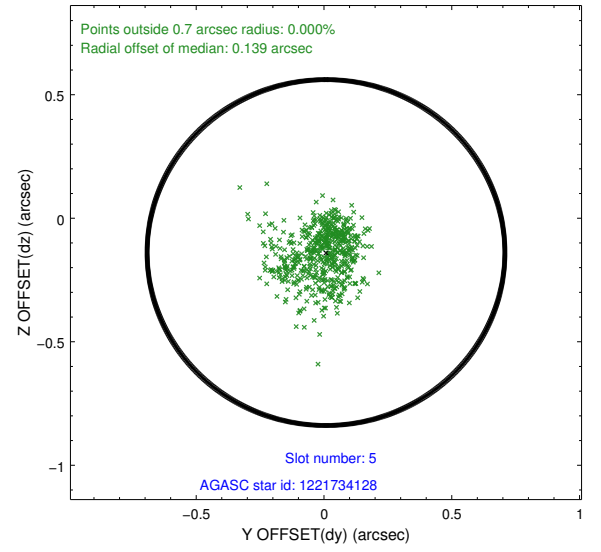
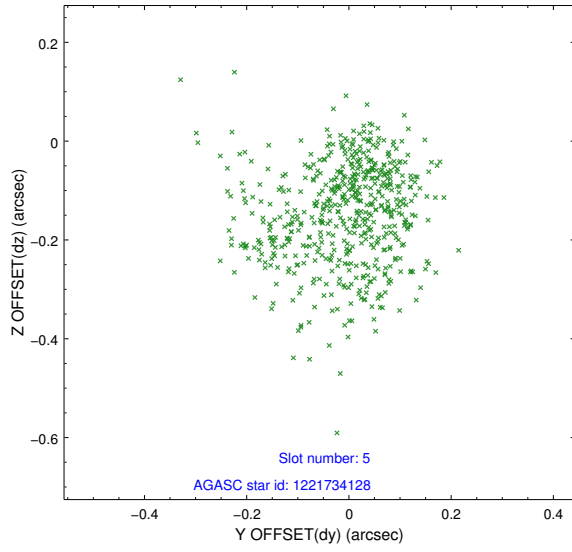
### 2.4.1 Slot 3



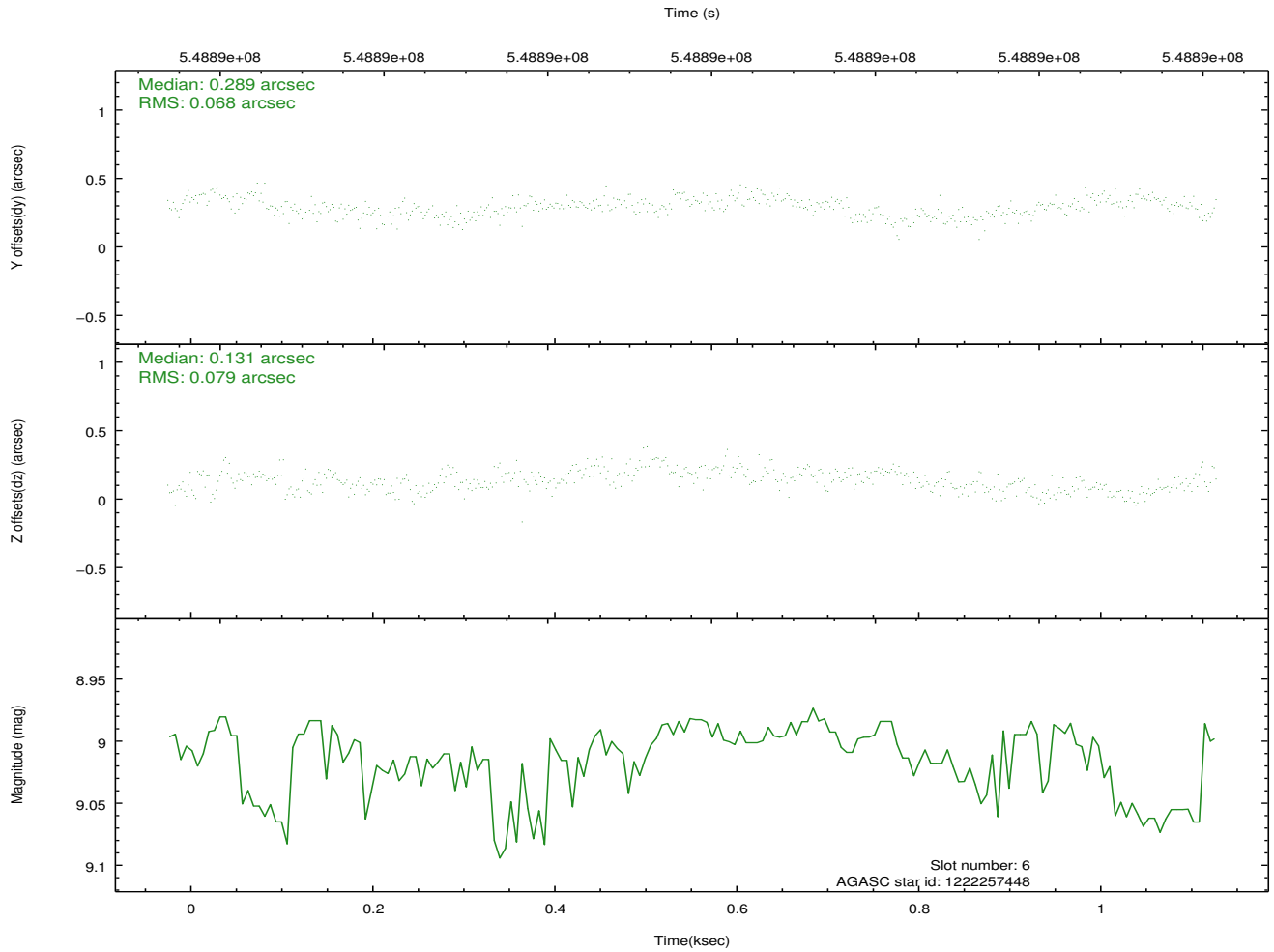
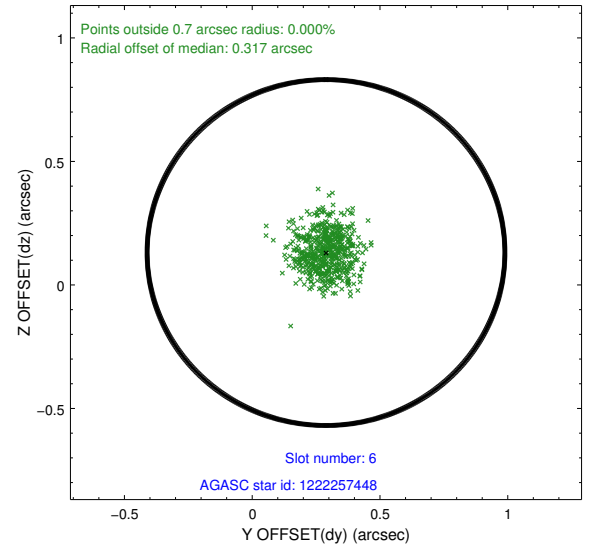
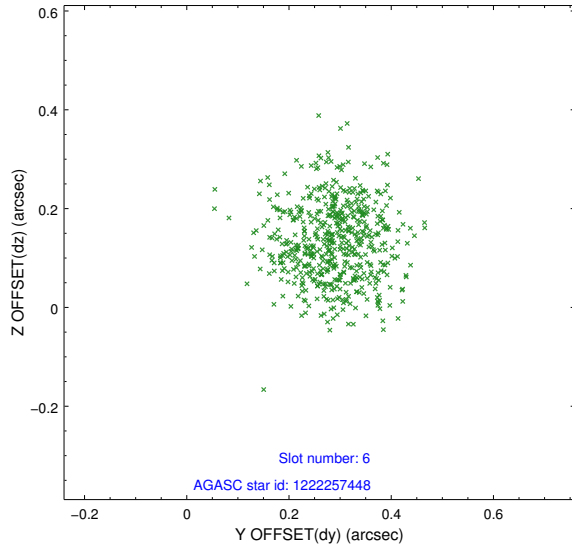
## 2.4.2 Slot 4



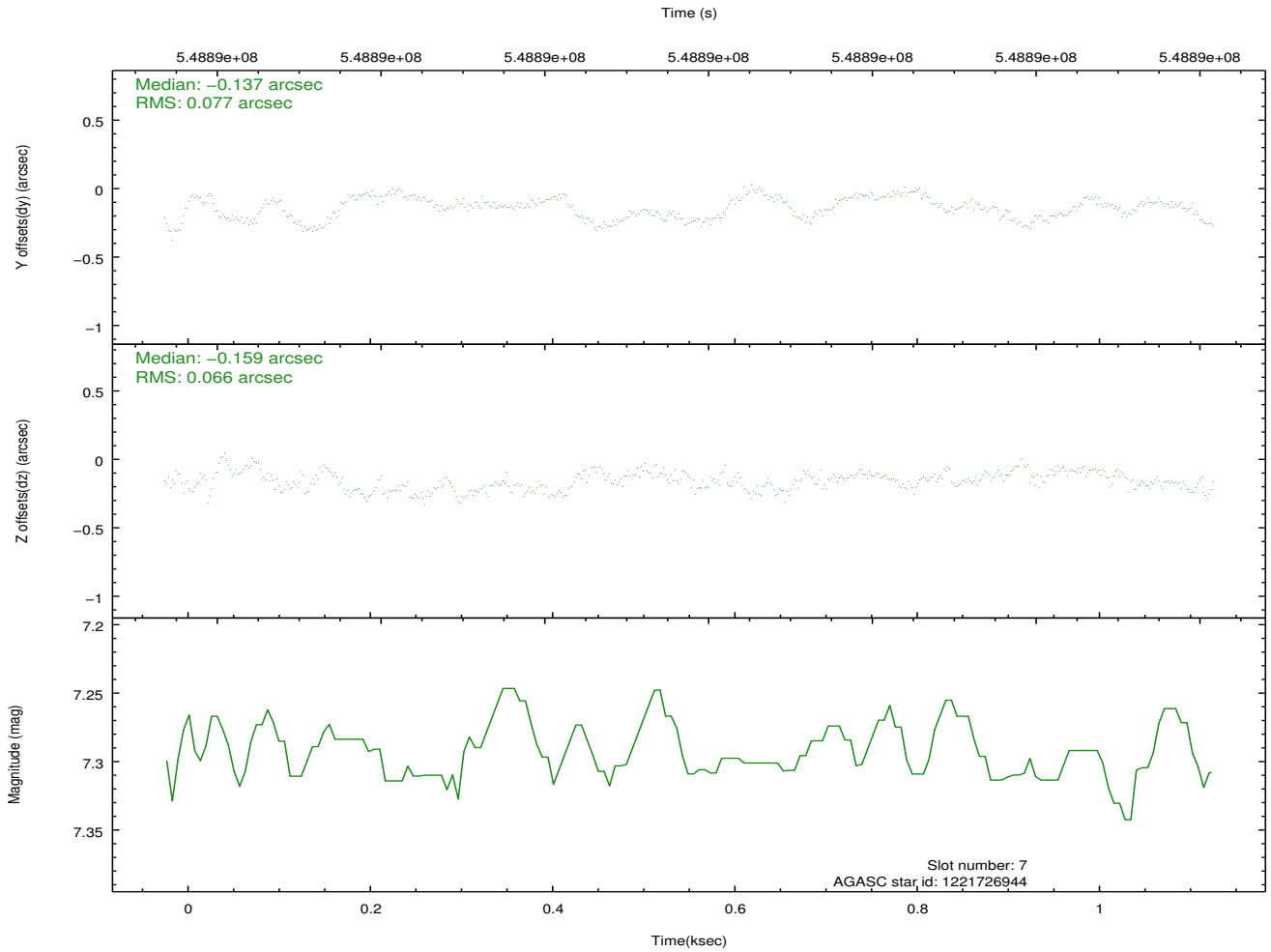
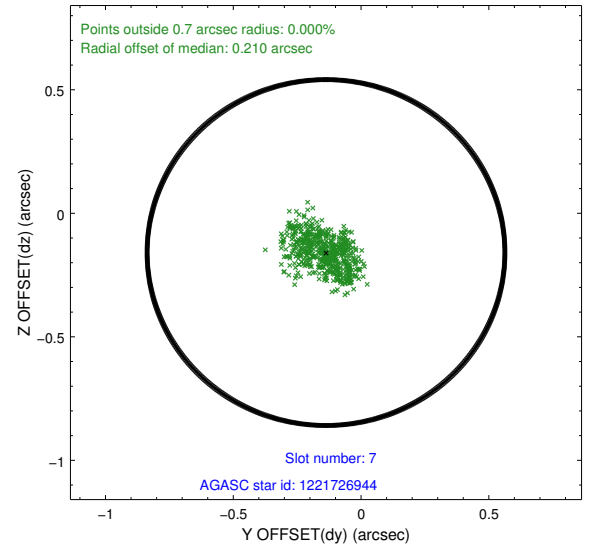
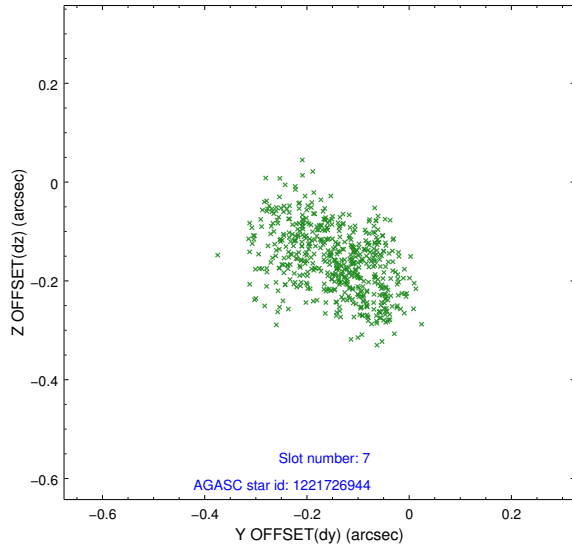
### 2.4.3 Slot 5



## 2.4.4 Slot 6

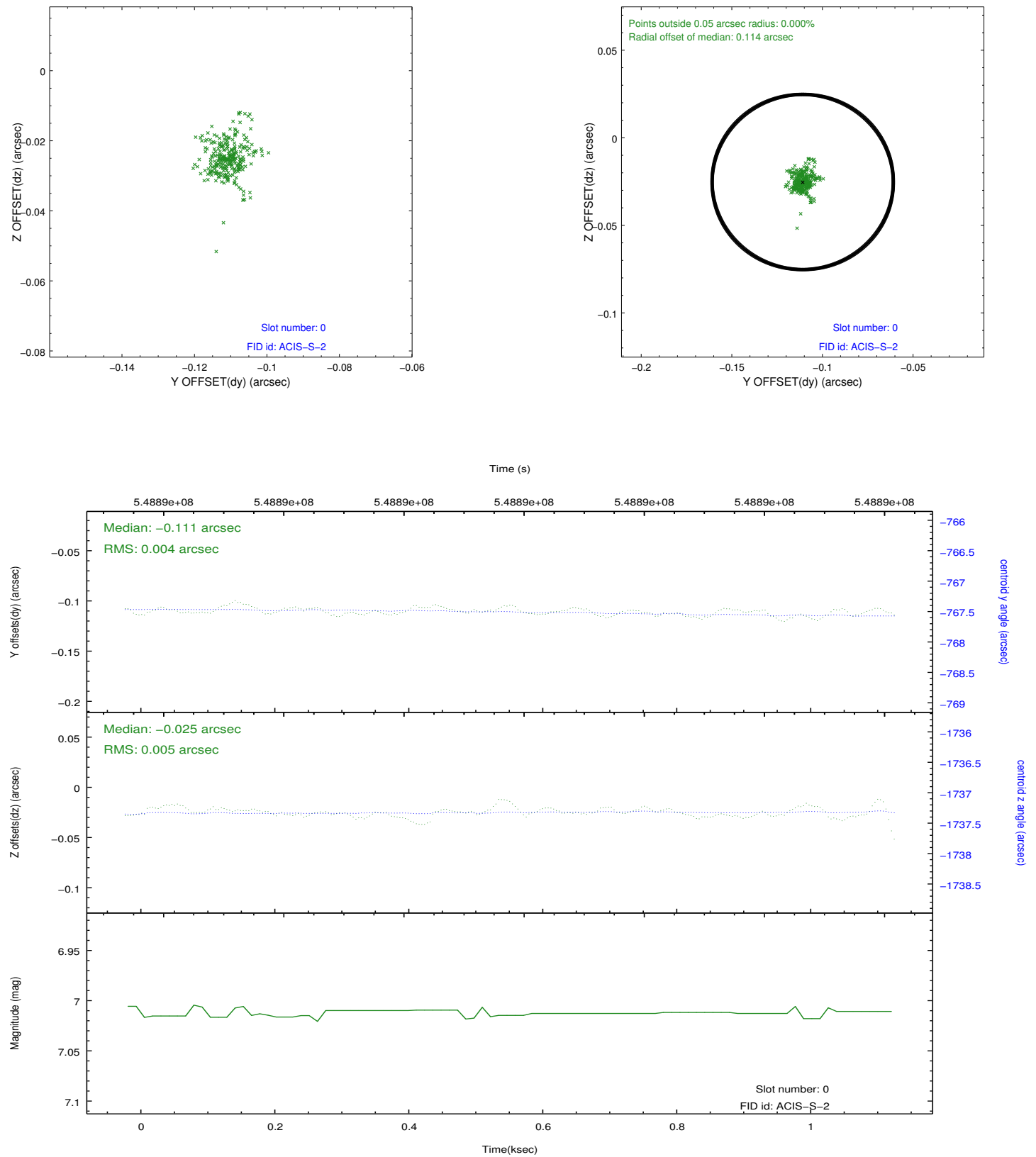


## 2.4.5 Slot 7

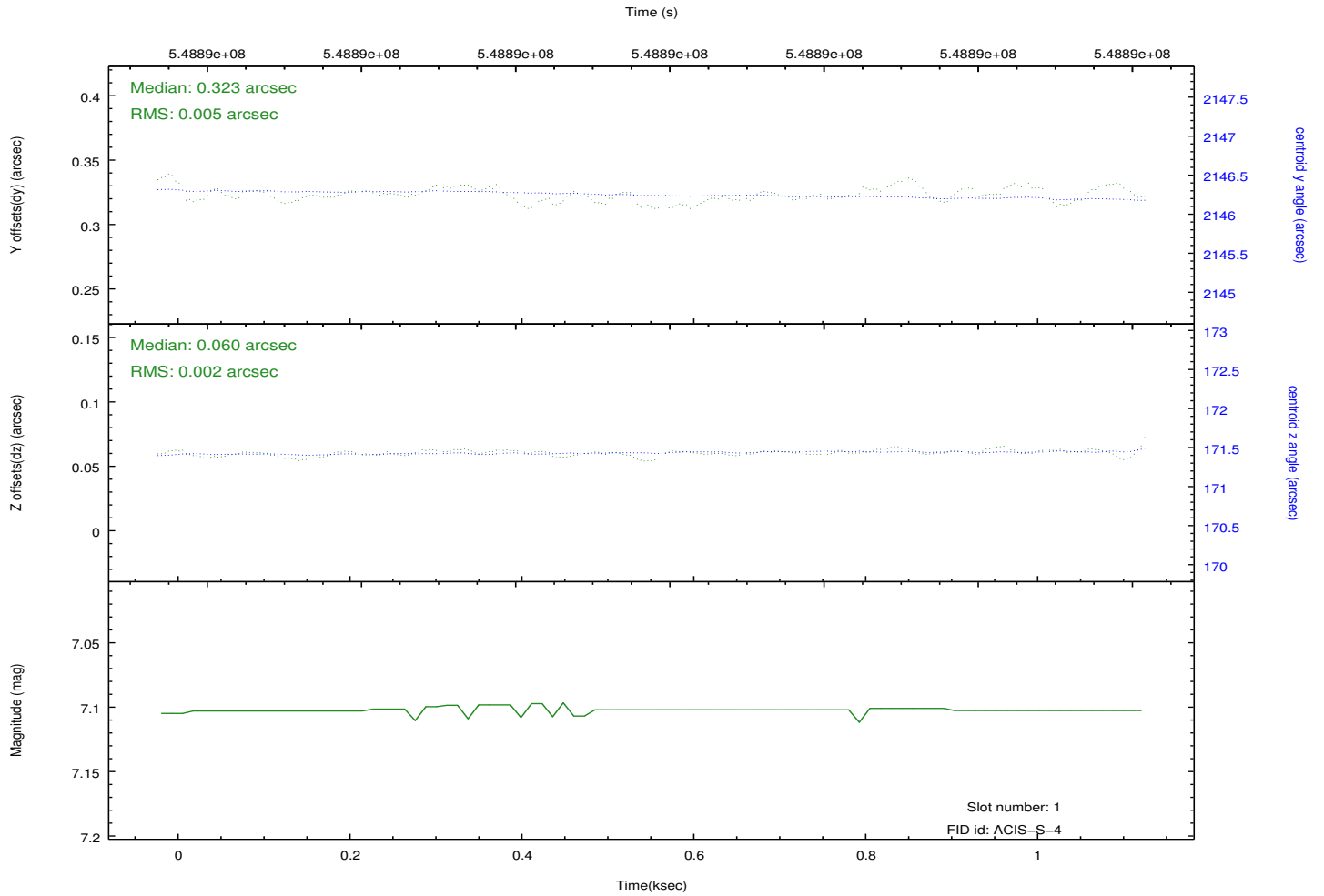
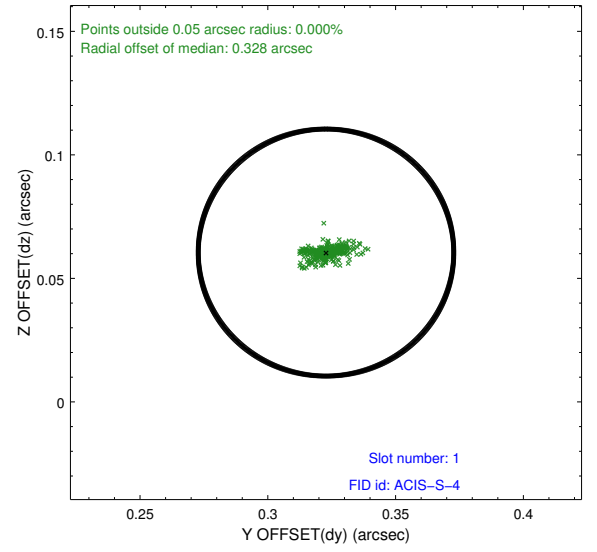
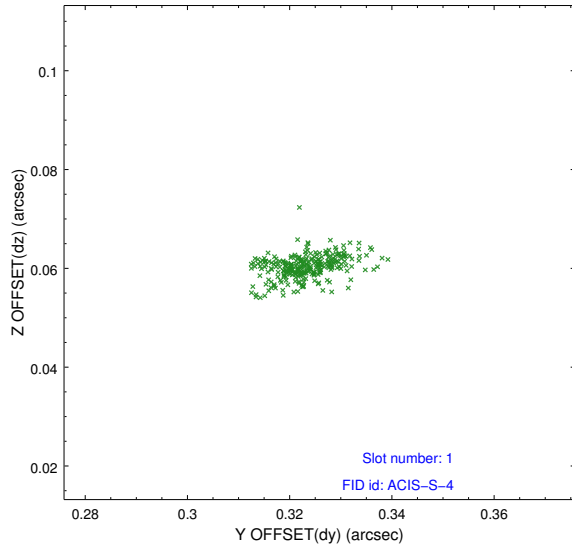


## 2.5 FID Slots

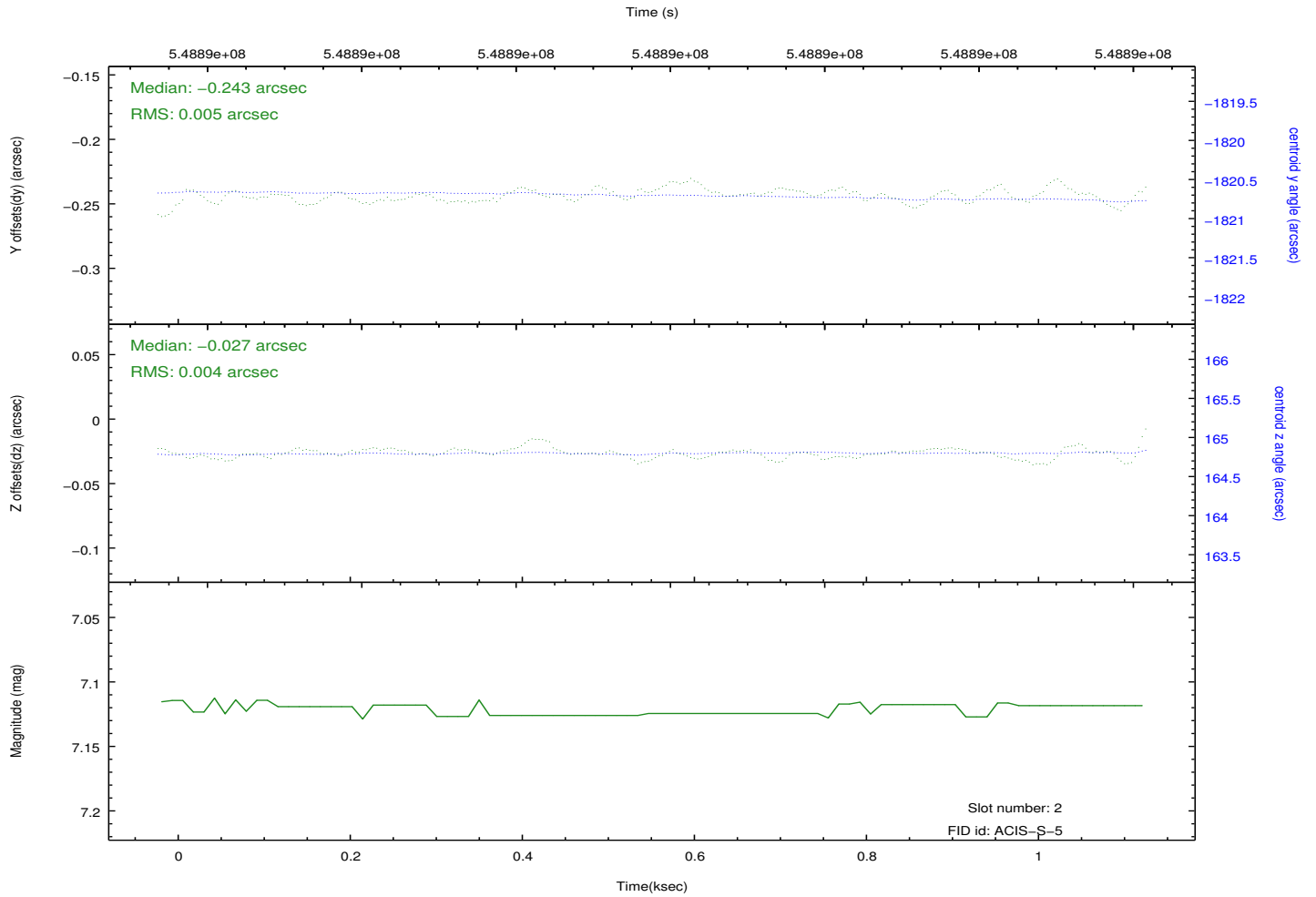
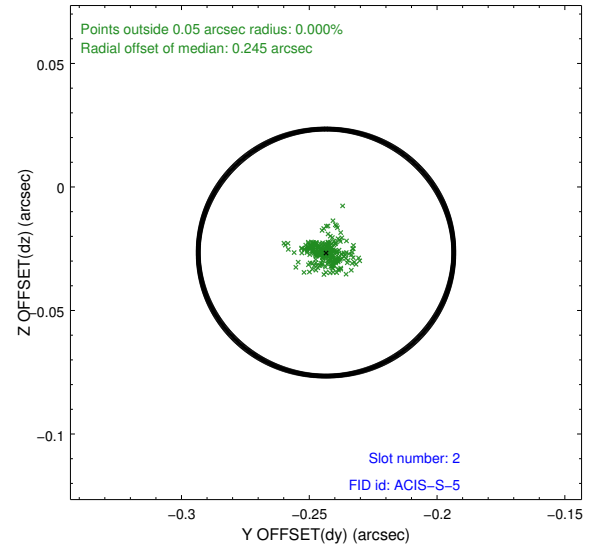
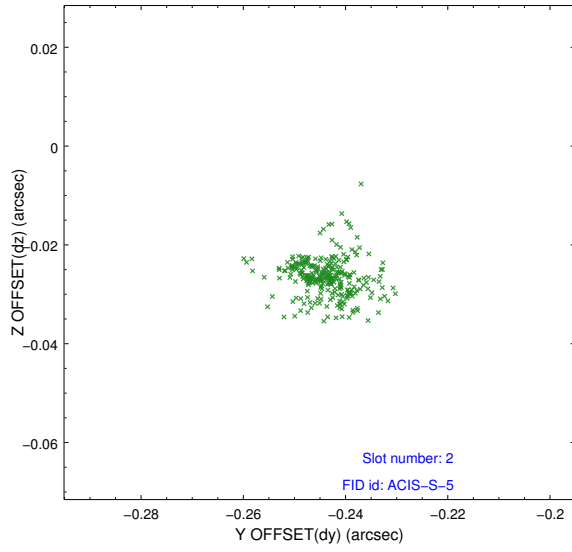
### 2.5.1 Slot 0



## 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)	2015.05.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.0385000081062

### A.2 Comments