

# V&V Reference Report

## L2 ASCDS Version : 10.5

Observation 18654 - L2 Version 1  
Chandra X-Ray Center

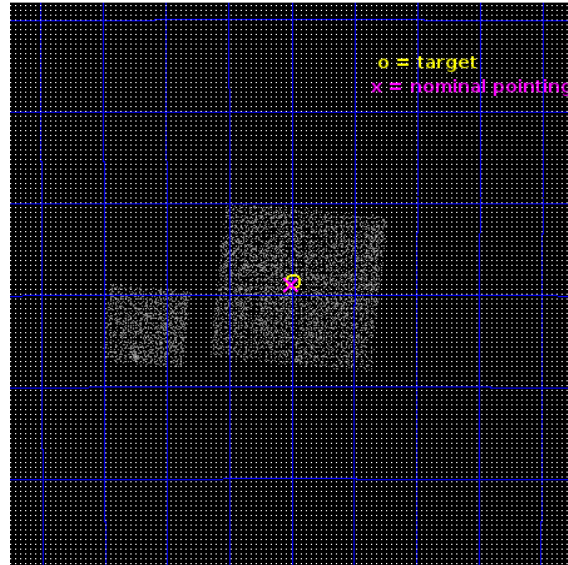
L2 Processing Date : Jul 25 2016

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# 1 Front

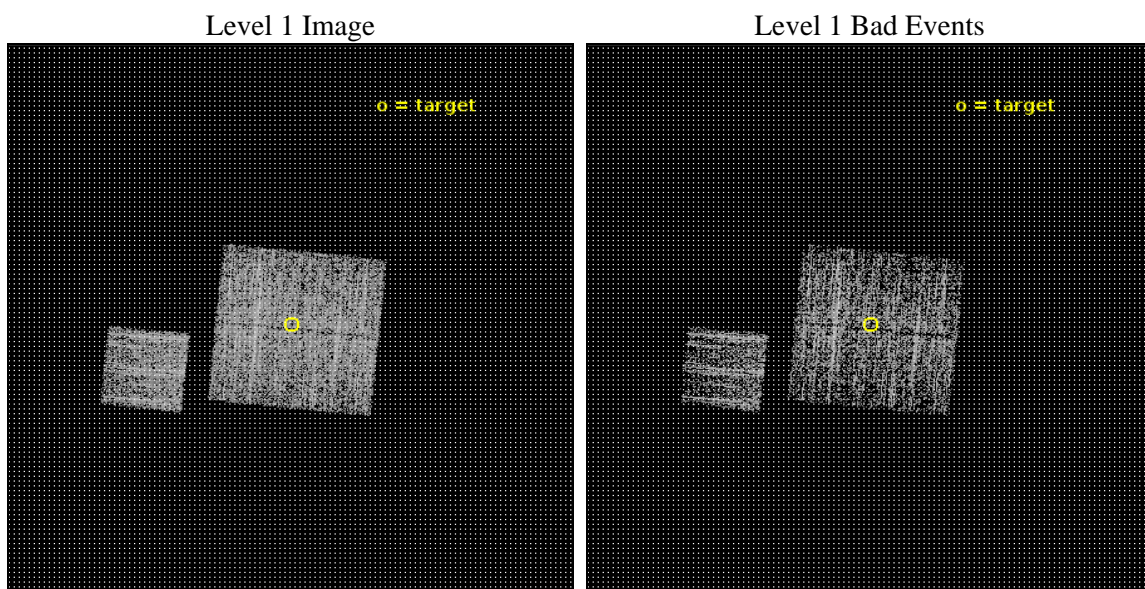
seq_num	300378	Sequence number
obs_id	18654	Observation id
title	X-raying the Galactic center/bulge interface	Proposal title
observer	Q. Daniel Wang	Principal investigator
object	GC-GB interface	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	264.87171	Observer's specified target RA [deg]
dec_targ	-29.1419	Observer's specified target Dec [deg]
ra_nom	264.87525138875	Nominal RA [deg]
dec_nom	-29.148056321991	Nominal Dec [deg]
roll_nom	275.64211988076	Nominal Roll [deg]
revision	1	Processing version of data
ontime	1955.5395038128	Sum of GTIs [s]
livetime	1929.9889405482	Livetime [s]
ontime0	1955.4163836241	Sum of GTIs [s]
ontime1	1955.4574235678	Sum of GTIs [s]
ontime2	1955.4984638691	Sum of GTIs [s]
ontime3	1955.5395038128	Sum of GTIs [s]
ontime6	1955.3753437996	Sum of GTIs [s]
l2events	6889	Number of level 2 events



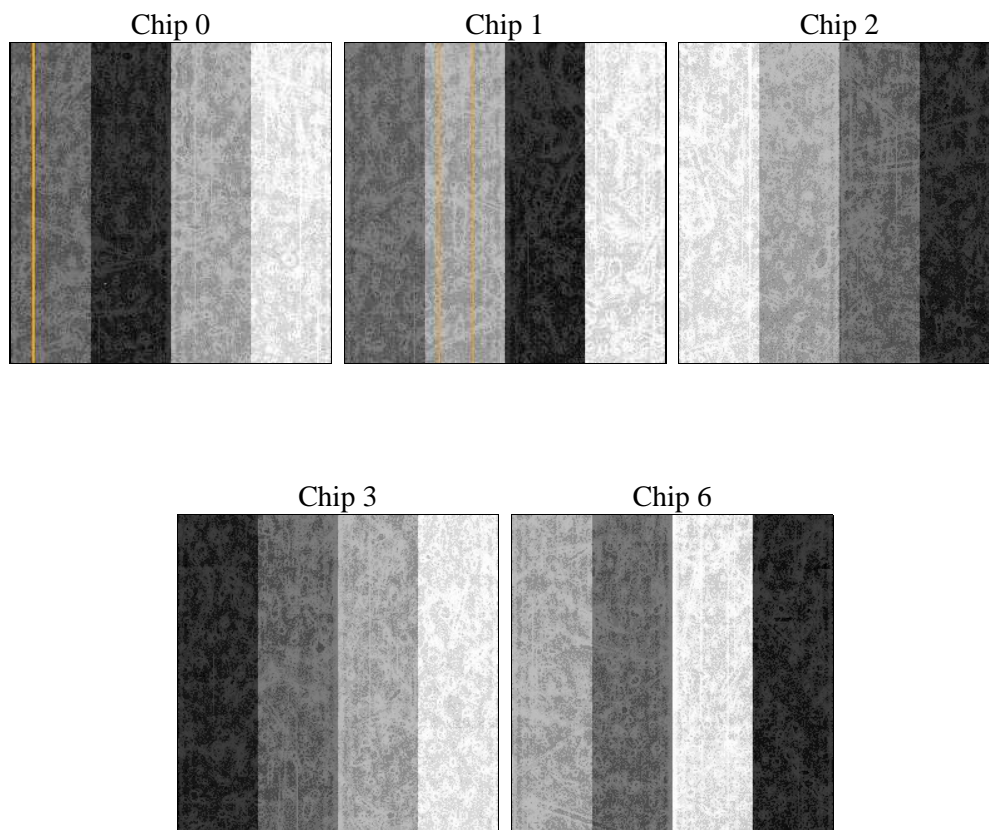
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2180.000000	[s] Scheduled observation exposure time
ascdsver	10.5	Processing system revision	ontime	1955.5395038128	Sum of GTIs [s]
caldsver	4.7.2	&#160	ontime0	1955.4163836241	Sum of GTIs [s]
date	2016-07-26T03:14:49	Date and time of file creation	ontime1	1955.4574235678	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	1955.4984638691	Sum of GTIs [s]
			ontime3	1955.5395038128	Sum of GTIs [s]
			ontime6	1955.3753437996	Sum of GTIs [s]
			l1events	61635	Number of level 1 events

### 2.1.4 Events

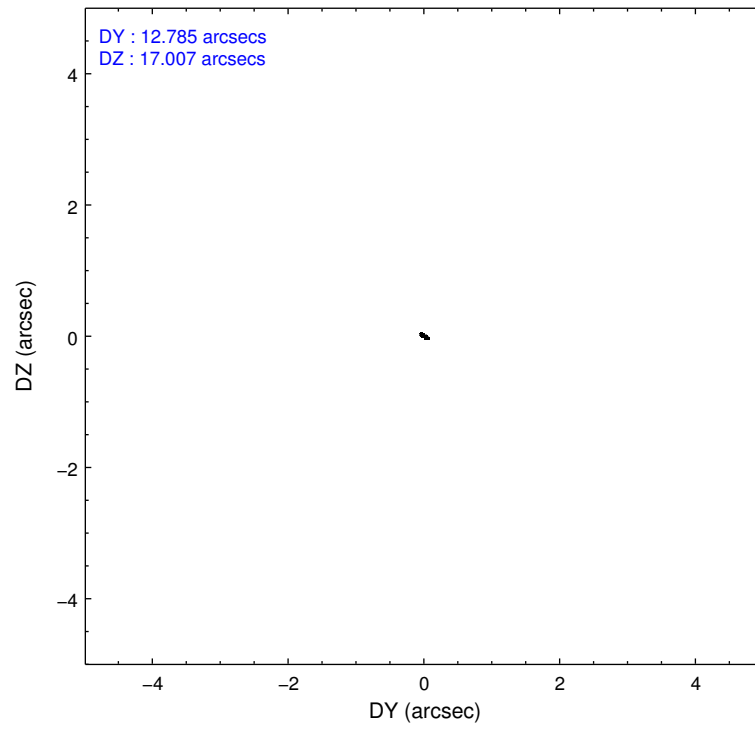
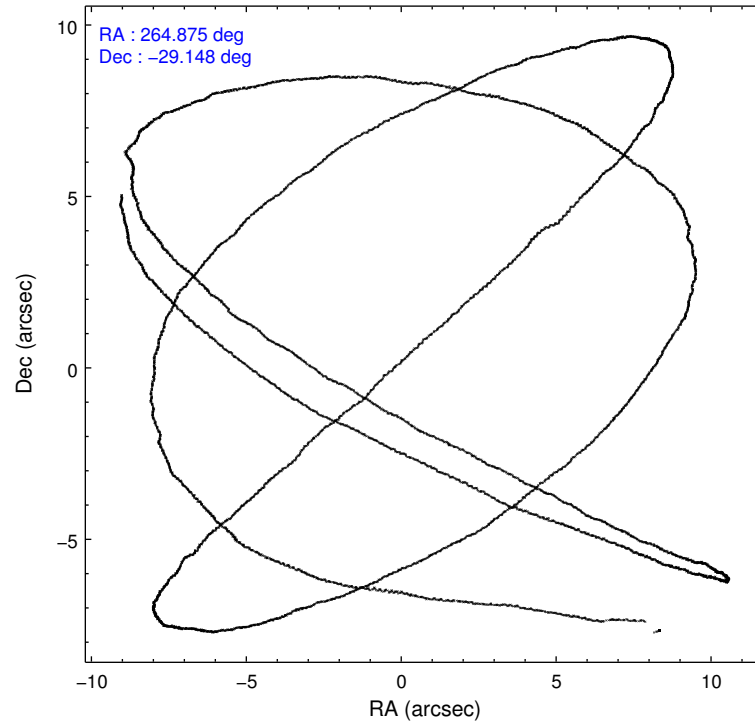
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	12021	11376	12264	13385	12589
rejected events	10485	9651	10549	11872	10967
rejected %	87%	84%	86%	88%	87%

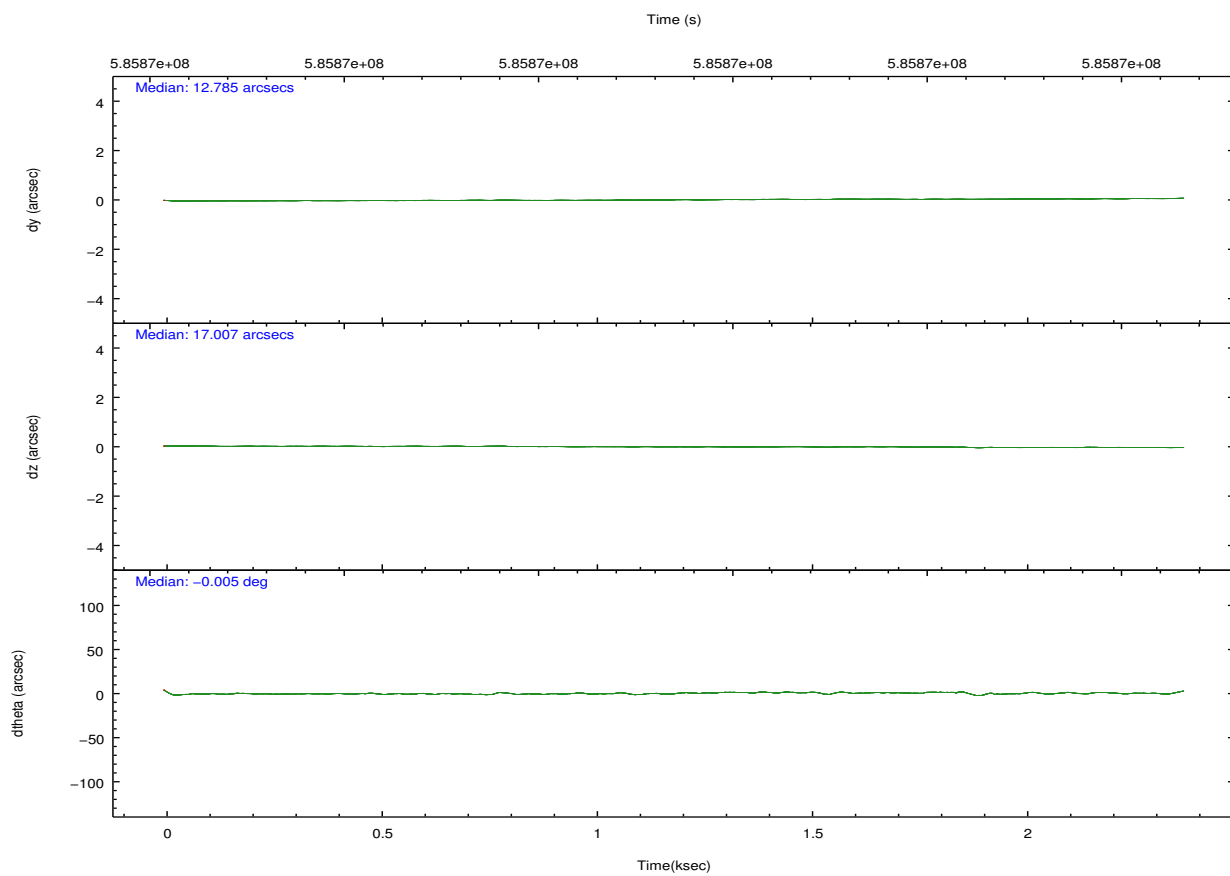
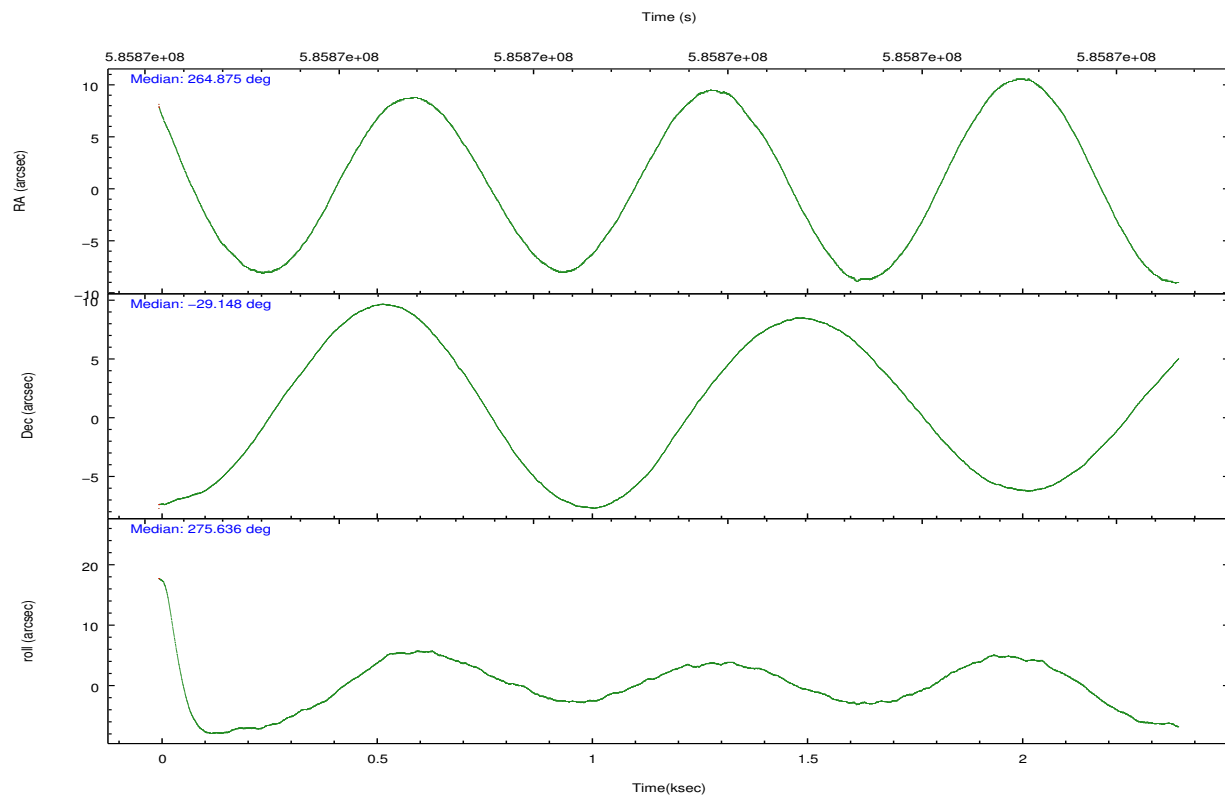
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	567	721	789	602	624
	4%	6%	6%	4%	4%
grade 1 events	11	7	23	11	5
	0%	0%	0%	0%	0%
grade 2 events	381	406	384	309	332
	3%	3%	3%	2%	2%
grade 3 events	157	128	134	162	160
	1%	1%	1%	1%	1%
grade 4 events	131	139	157	138	157
	1%	1%	1%	1%	1%
grade 5 events	601	566	521	565	540
	4%	4%	4%	4%	4%
grade 6 events	307	331	253	304	354
	2%	2%	2%	2%	2%
grade 7 events	9866	9078	10003	11294	10417
	82%	79%	81%	84%	82%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	264.856811	264.8752513887451	CCD I2 on	Y	Y
[deg] Pointing Dec	-29.125541	-29.14805632199083	CCD I3 on	Y	Y
[deg] Pointing Roll	275.424345	275.6421198807583	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	585865847.184000	585865470.77087	CCD S5 on	N	N
Observation start date	2016-07-25T20:29:39	2016-07-25T20:24:30	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	585868027.184000	585869100.80858	On-chip summing requested	N	N
Observation end date	2016-07-25T21:05:59	2016-07-25T21:25:00	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





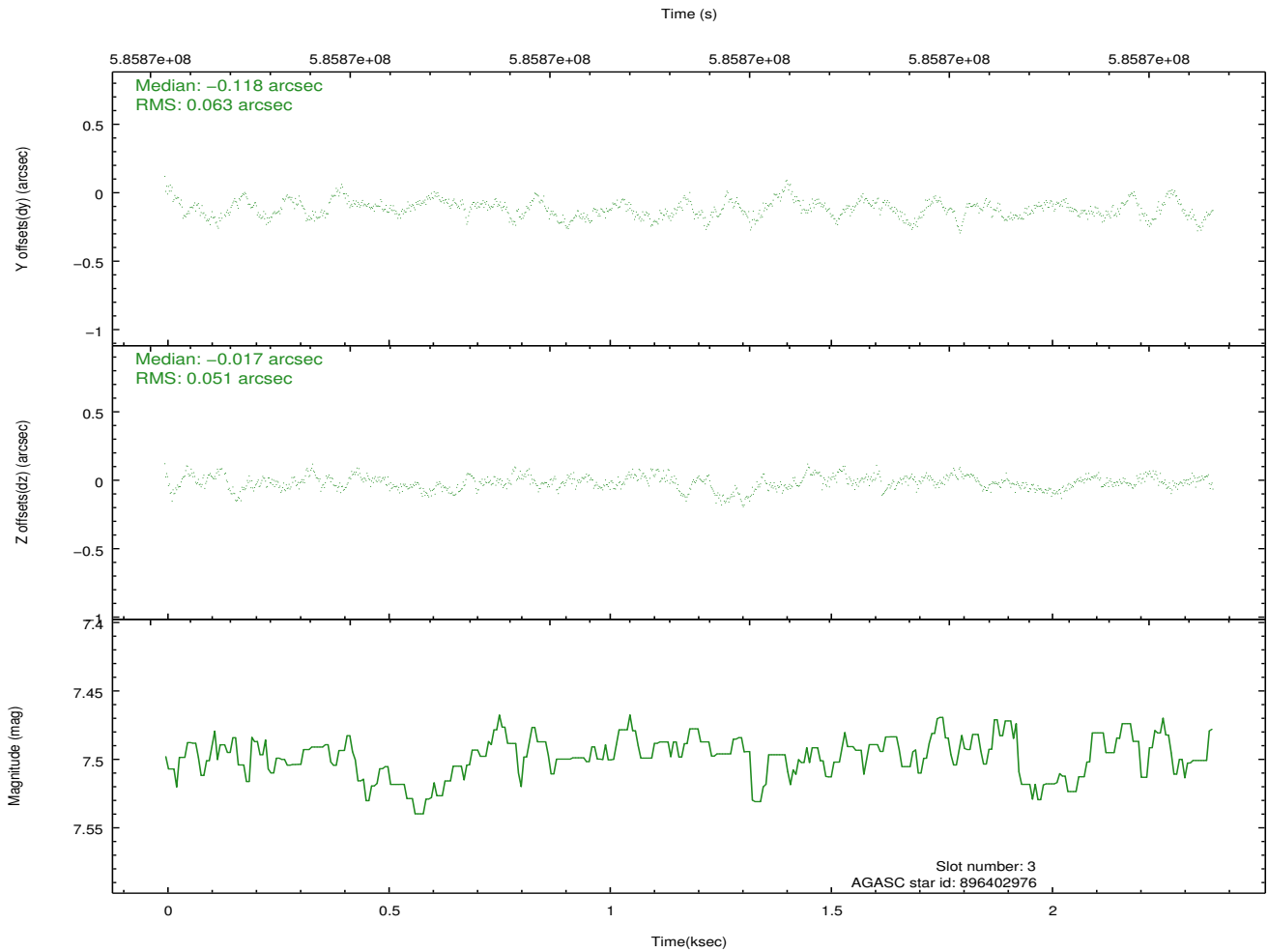
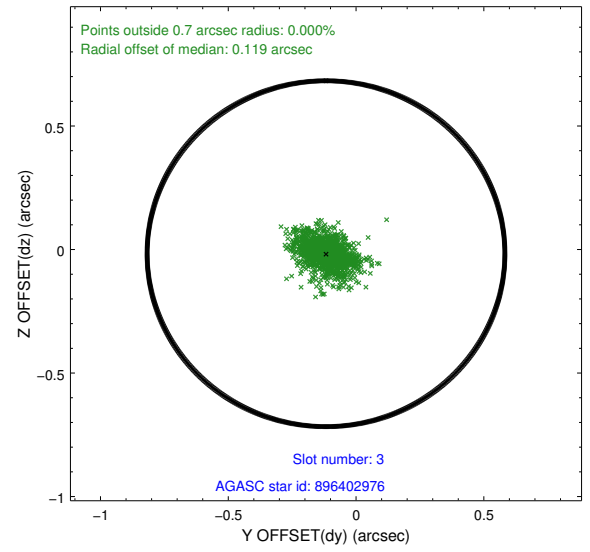
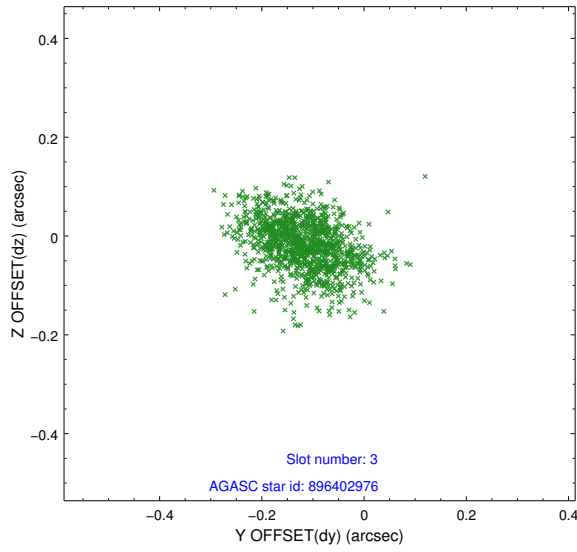
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-4	6.99	579	0.258	0.054	0.008	0.015	0.000000	0.000000	2146.90	1059.38
1	FID		ACIS-I-5	7.06	579	-0.386	0.035	0.006	0.012	0.000000	0.000000	-1818.19	1058.68
2	FID		ACIS-I-6	7.05	579	0.028	-0.022	0.009	0.016	0.000000	0.000000	389.25	1703.06
3	GUIDE	used	896402976	7.50	1155	-0.118	-0.017	0.085	0.141	265.099474	-28.923203	-652.40	830.26
4	GUIDE	used	896403224	8.26	1157	-0.232	-0.150	0.097	0.150	265.612825	-29.438915	1354.04	2253.46
5	GUIDE	used	896404376	6.67	1156	0.186	0.024	0.079	0.138	264.835179	-29.530972	1447.88	-202.93
6	GUIDE	used	896405976	9.08	1156	-0.048	0.296	0.095	0.158	264.638127	-28.604395	-1931.28	-510.54
7	GUIDE	used	896406904	8.97	1156	0.213	-0.150	0.122	0.197	264.311862	-29.742267	2051.90	-1906.10

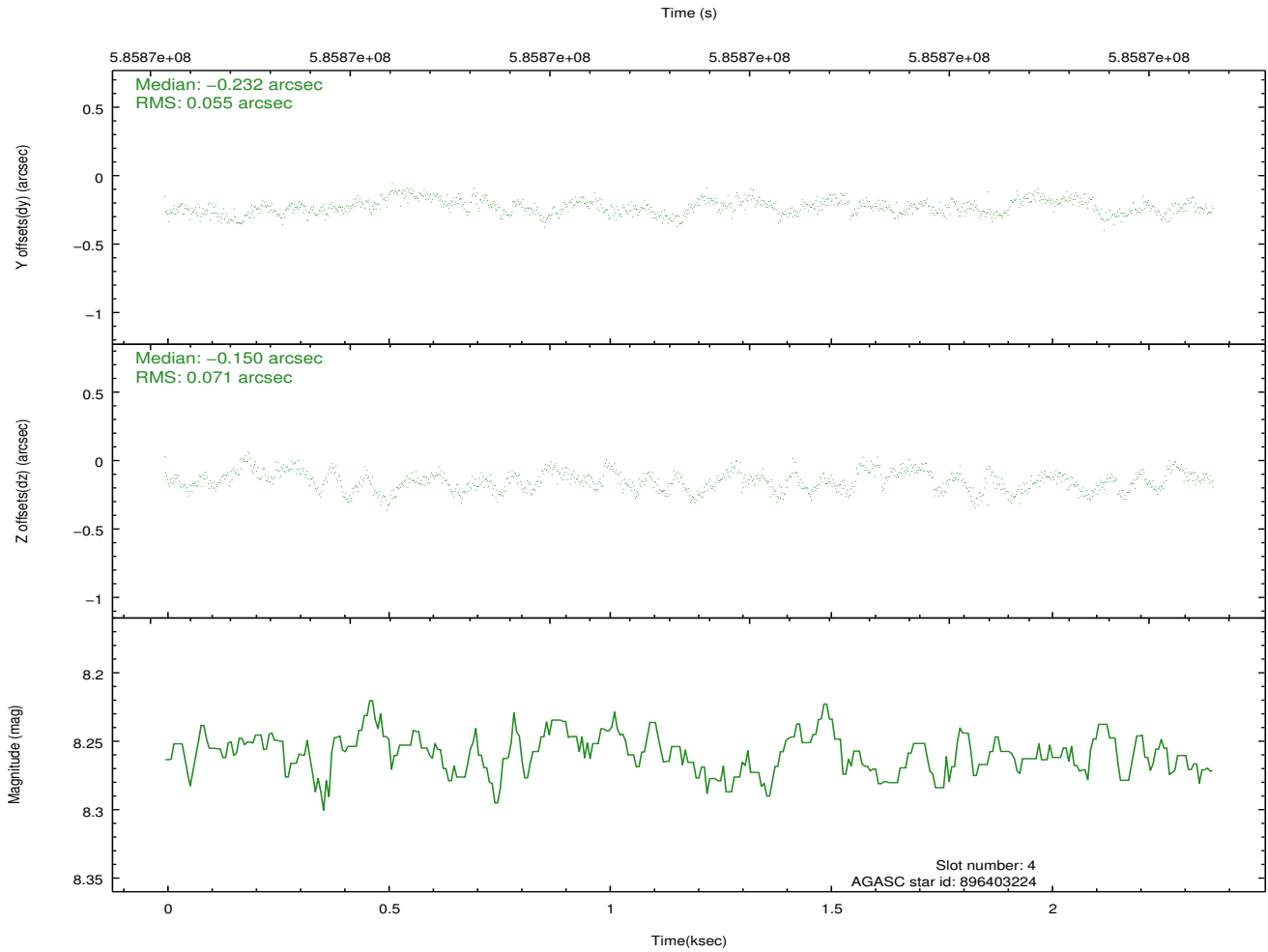
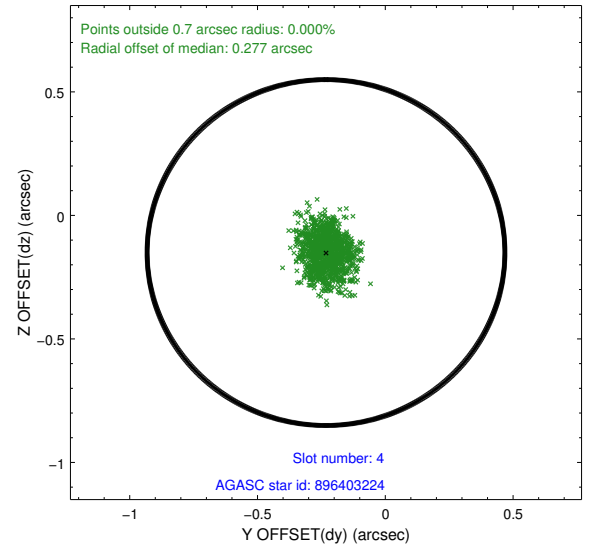
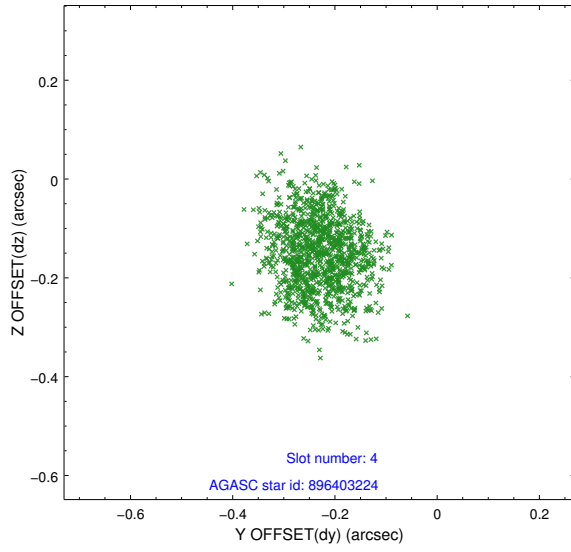


## 2.4 Star Slots

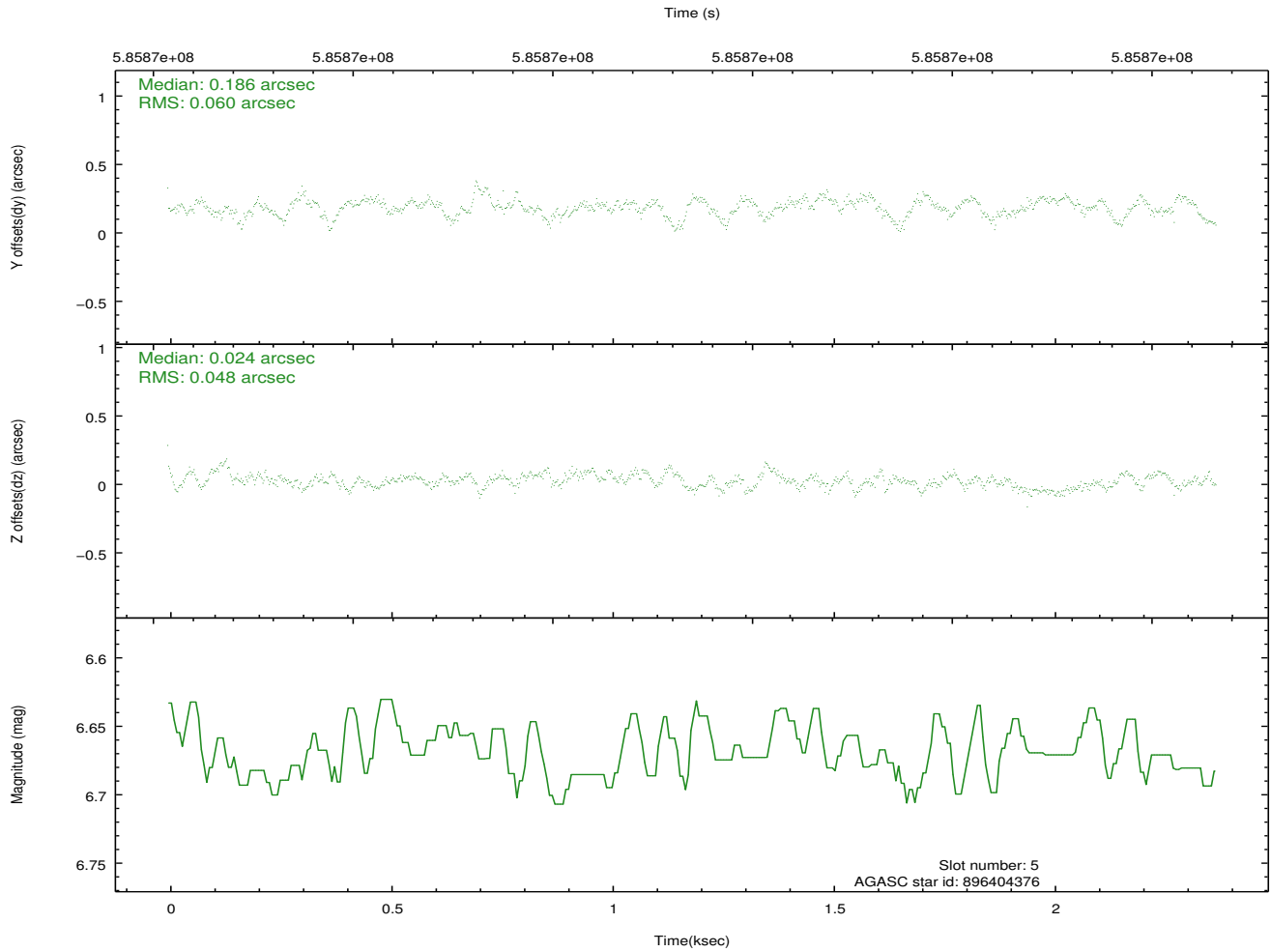
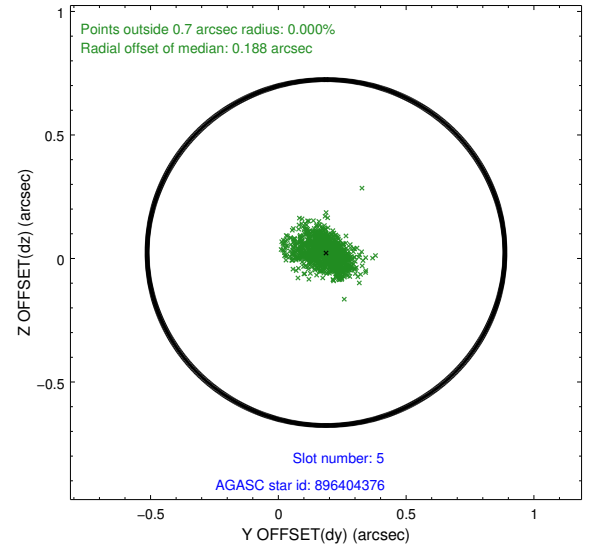
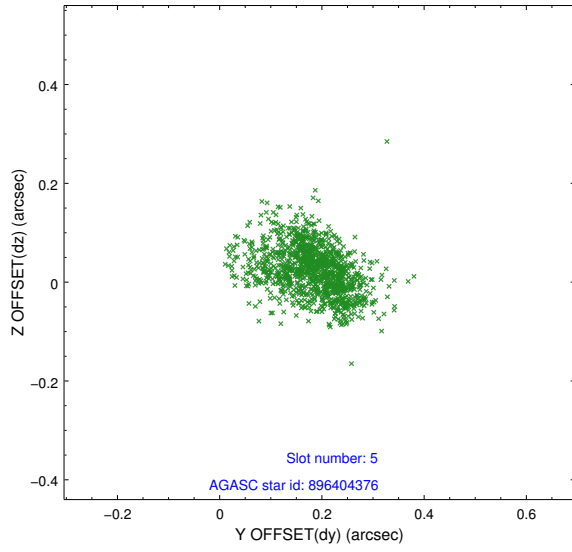
### 2.4.1 Slot 3



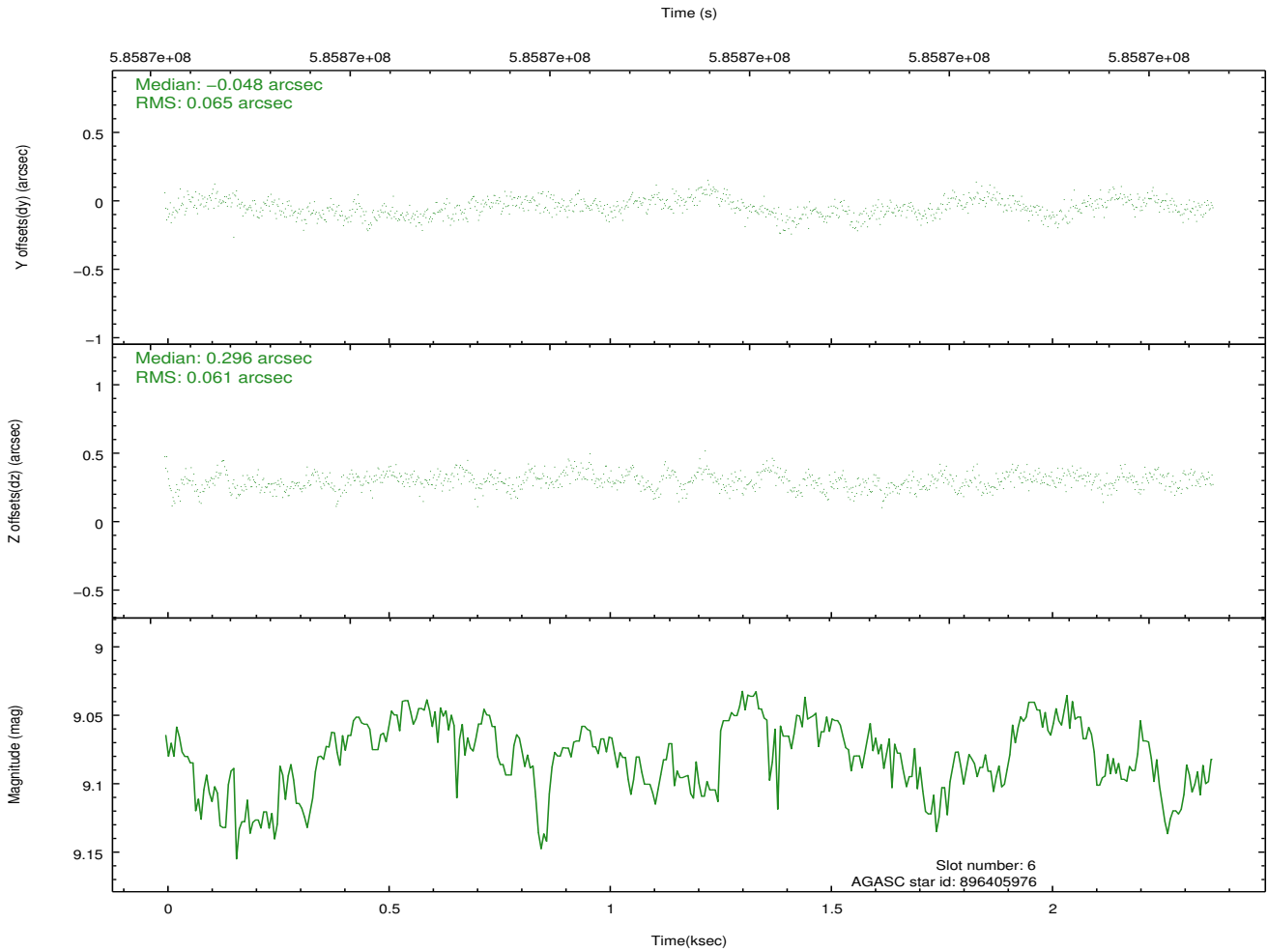
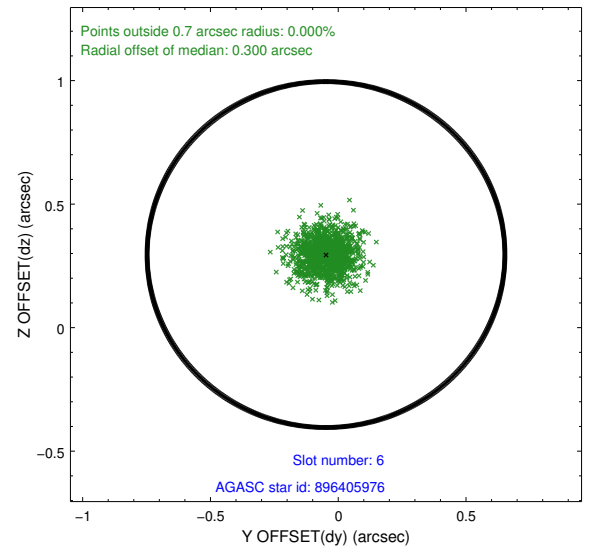
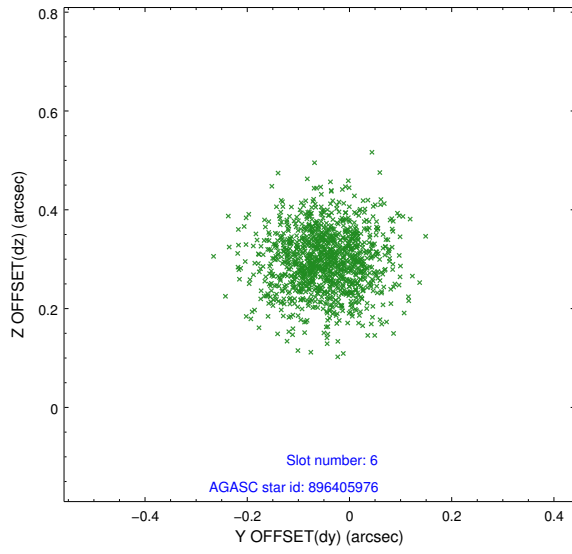
## 2.4.2 Slot 4



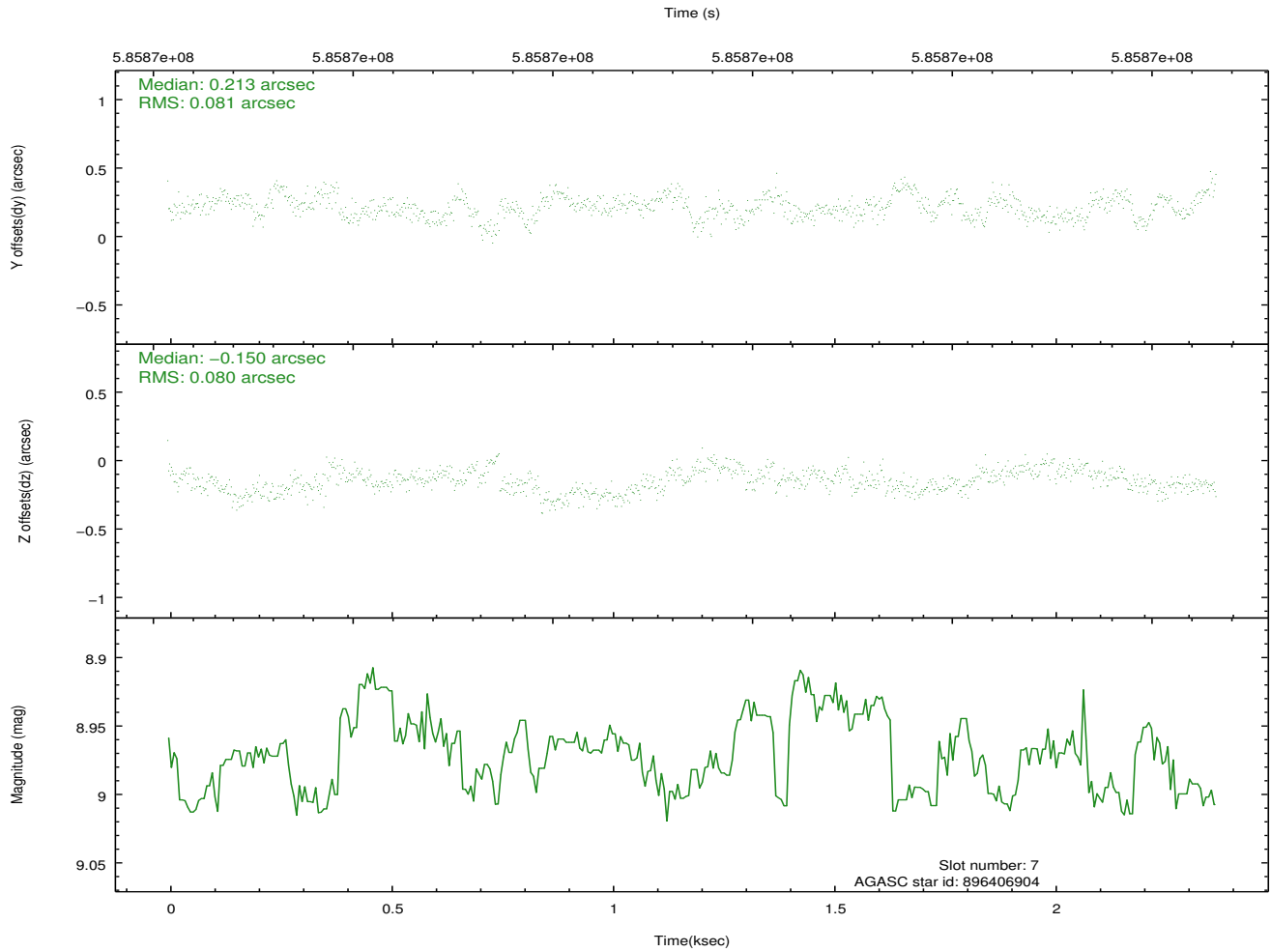
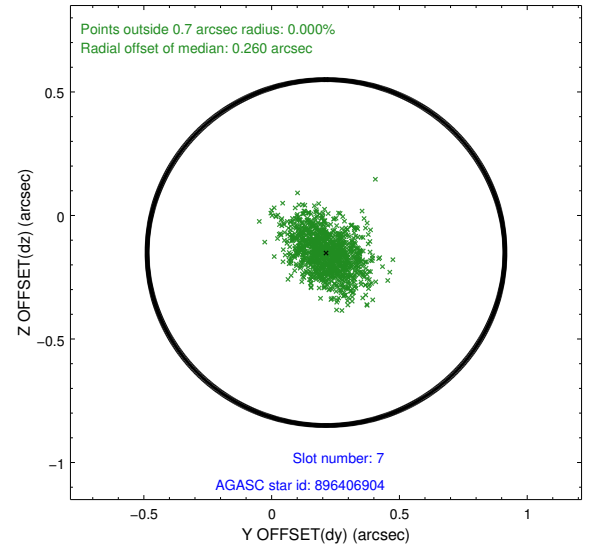
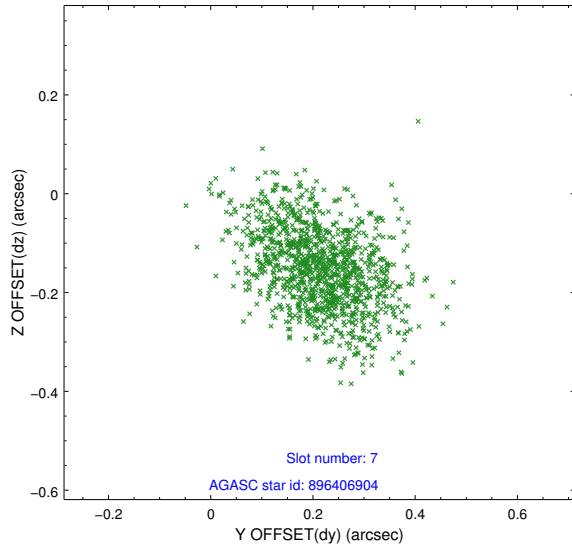
### 2.4.3 Slot 5



## 2.4.4 Slot 6

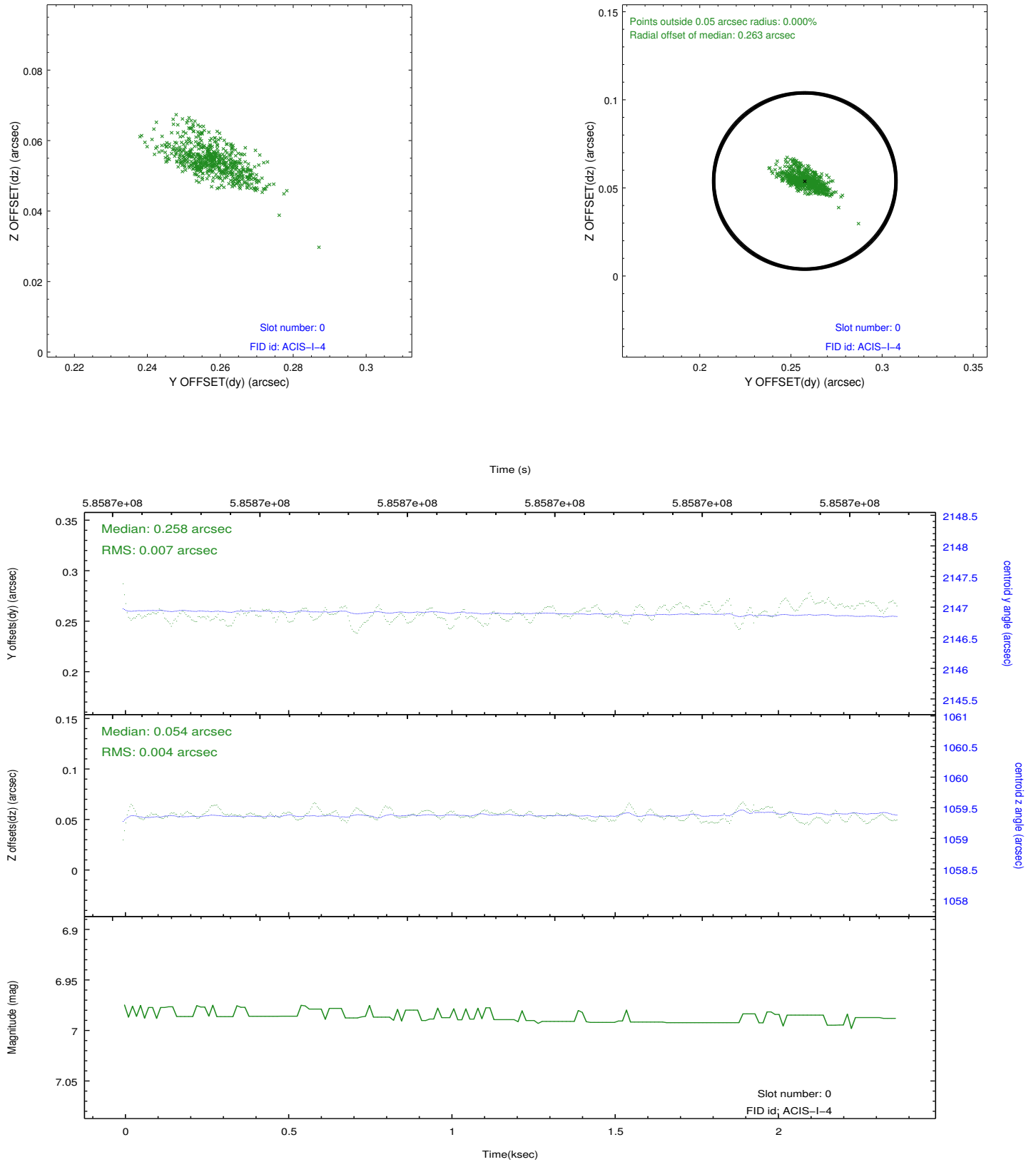


## 2.4.5 Slot 7

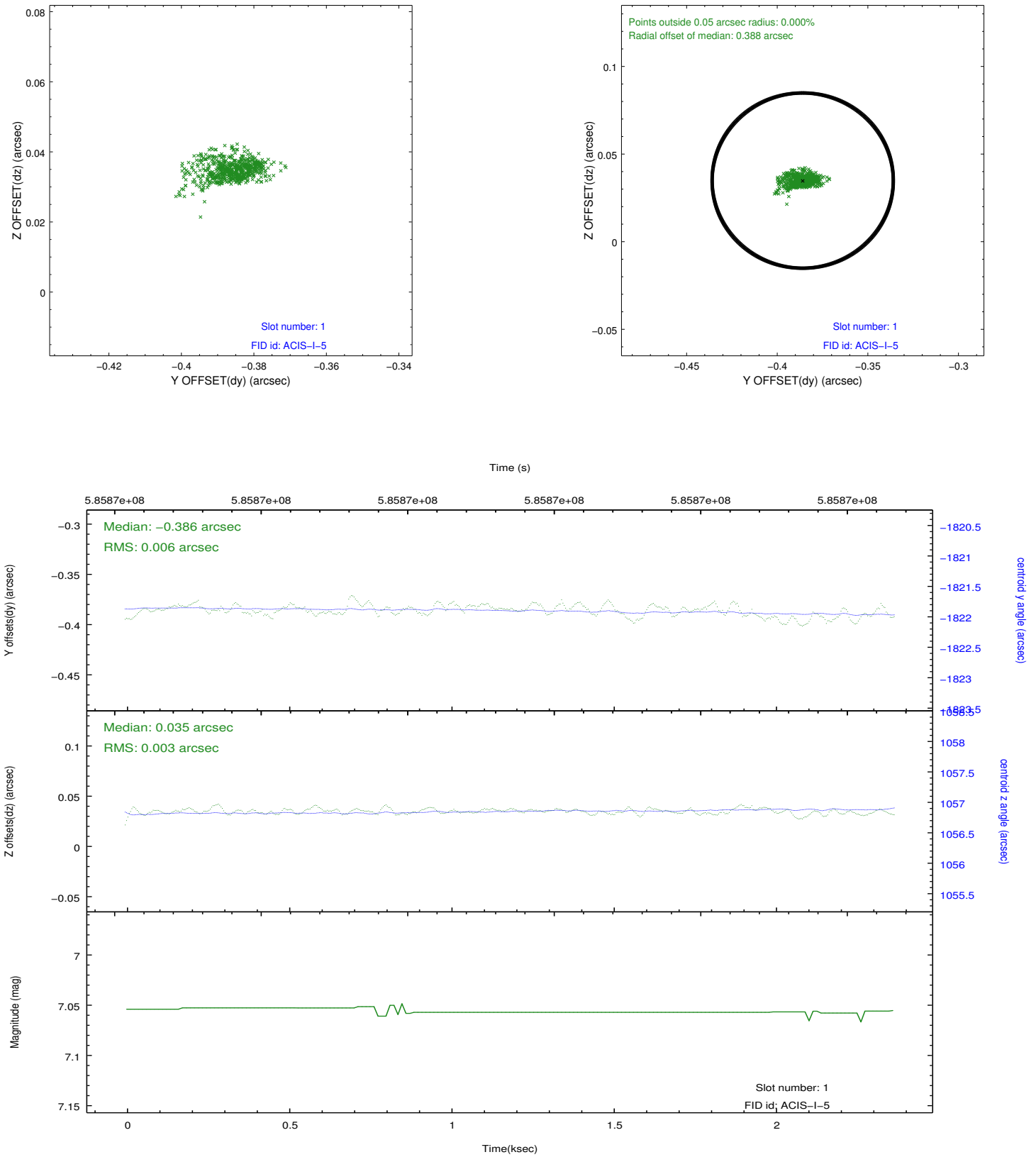


## 2.5 FID Slots

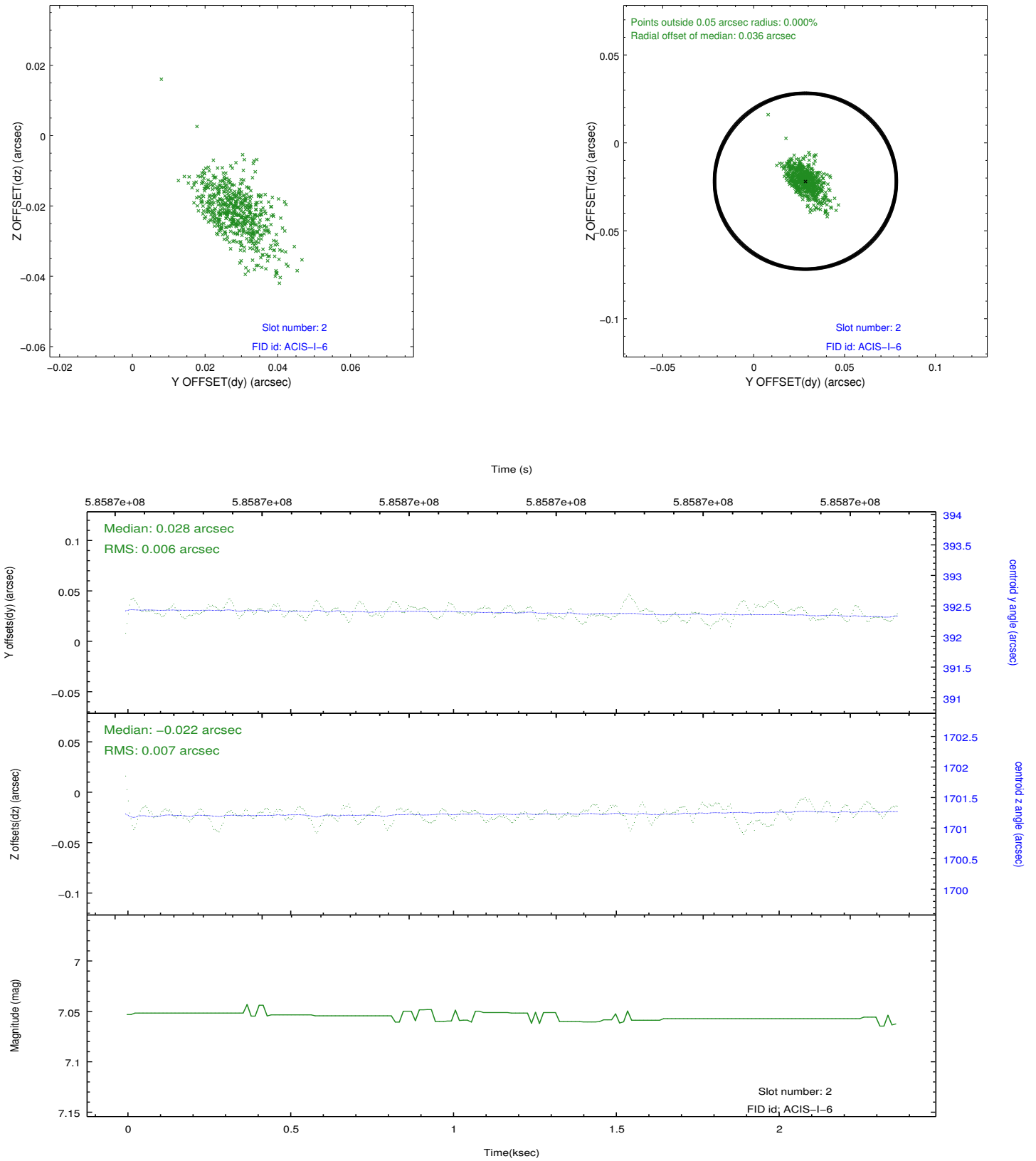
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2





## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2016.07.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.9555395038128

### A.2 Comments