

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 12871 - L2 Version 2  
Chandra X-Ray Center

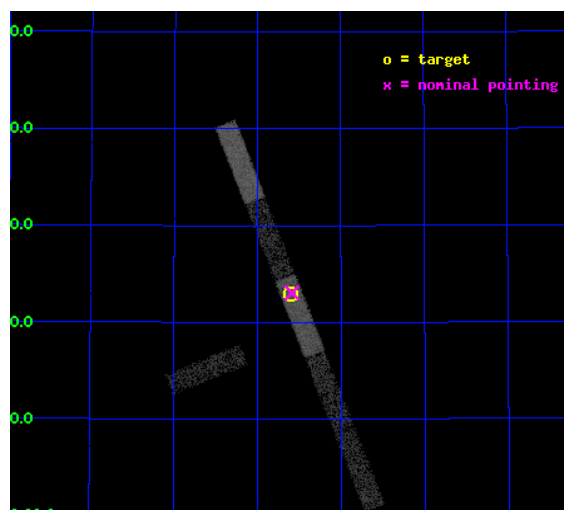
L2 Processing Date : Feb 27 2012

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# 1 Front

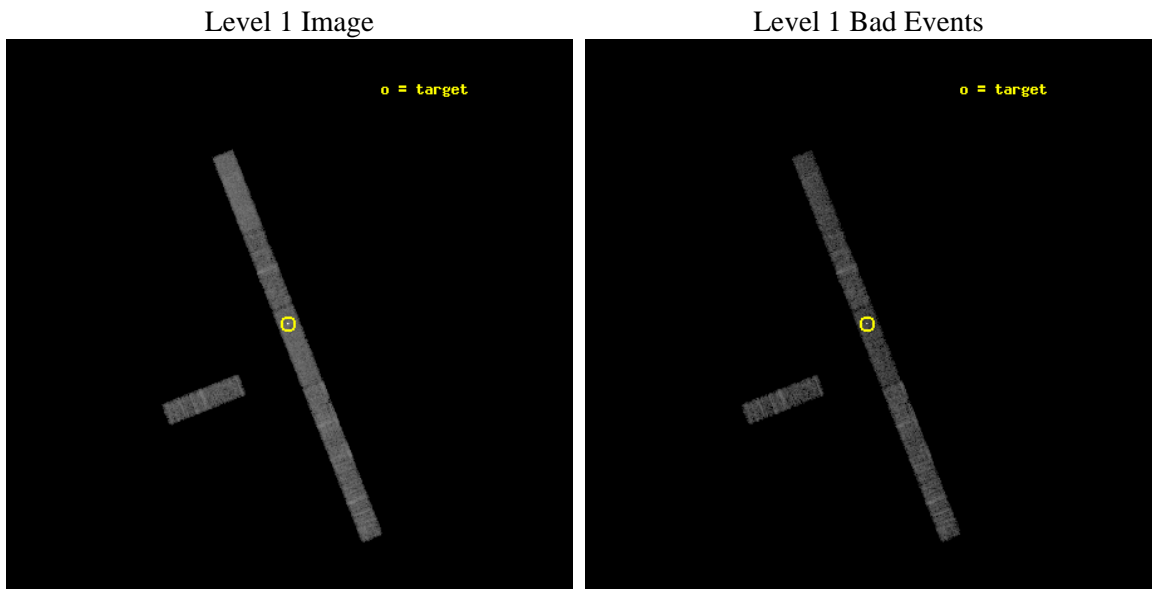
seq_num	702504	Sequence number
obs_id	12871	Observation id
title	Chandra Survey of Hard X-ray Selected Merging AGN Hosts	Proposal t
observer	Dr. Richard Mushotzky	Principal investigator
object	ARP 151	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	171.4	Observer's specified target RA [deg]
dec_targ	54.382	Observer's specified target Dec [deg]
ra_nom	171.3969545004	Nominal RA [deg]
dec_nom	54.384445217686	Nominal Dec [deg]
roll_nom	68.478481617234	Nominal Roll [deg]
revision	2	Processing version of data
ontime	7597.7001646757	Sum of GTIs [s]
livetime	7324.4322557871	Livetime [s]
ontime3	7597.7001646757	Sum of GTIs [s]
ontime5	7597.7001646757	Sum of GTIs [s]
ontime6	7597.7001646757	Sum of GTIs [s]
ontime7	7597.7001646757	Sum of GTIs [s]
ontime8	7597.6616374254	Sum of GTIs [s]
ontime9	7597.7001646757	Sum of GTIs [s]
l2events	26609	Number of level 2 events



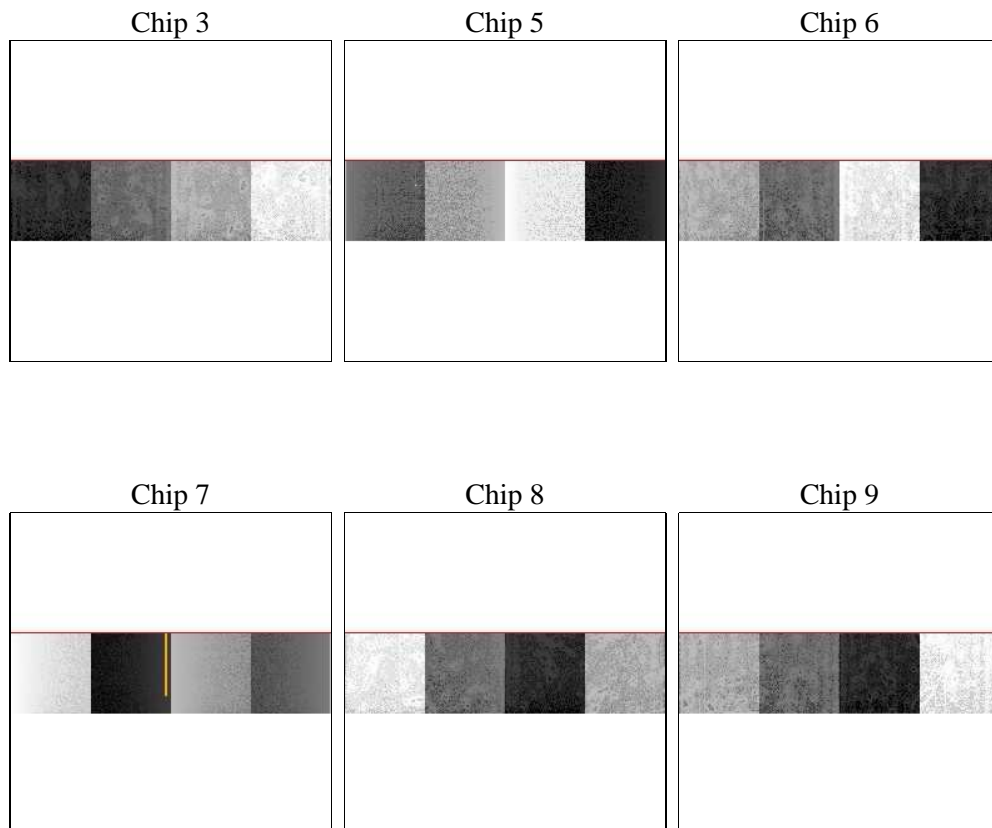
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	7597.7001646757	Sum of GTIs [s]
caldsver	4.4.8	&#160	ontime3	7597.7001646757	Sum of GTIs [s]
date	2012-02-28T00:54:10	Date and time of file creation	ontime5	7597.7001646757	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	7597.7001646757	Sum of GTIs [s]
			ontime7	7597.7001646757	Sum of GTIs [s]
			ontime8	7597.6616374254	Sum of GTIs [s]
			ontime9	7597.7001646757	Sum of GTIs [s]
			l1events	101503	Number of level 1 events

### 2.1.4 Events

	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	12547	19412	13756	21748	18841	15199
rejected events	11099	9960	12072	9820	14309	13415
rejected %	88%	51%	87%	45%	75%	88%

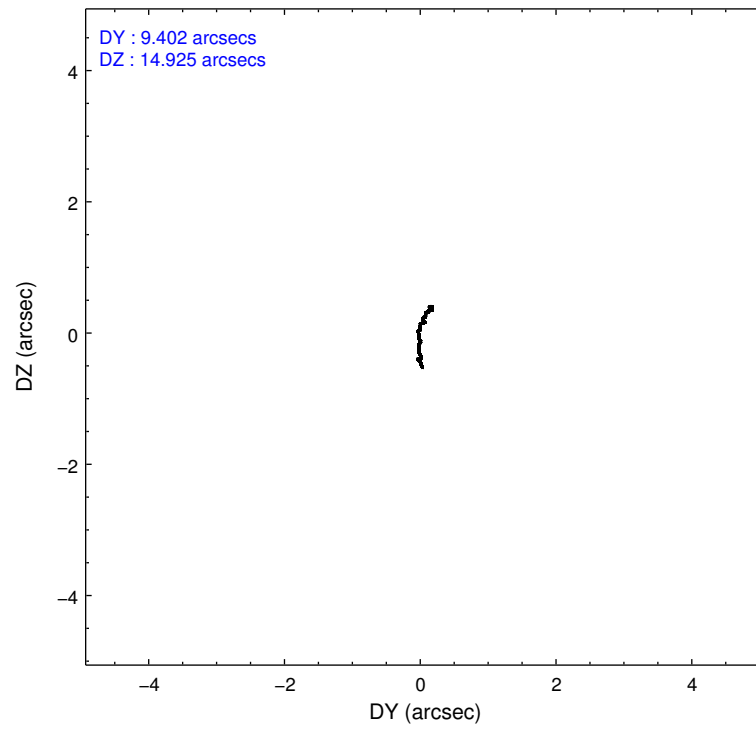
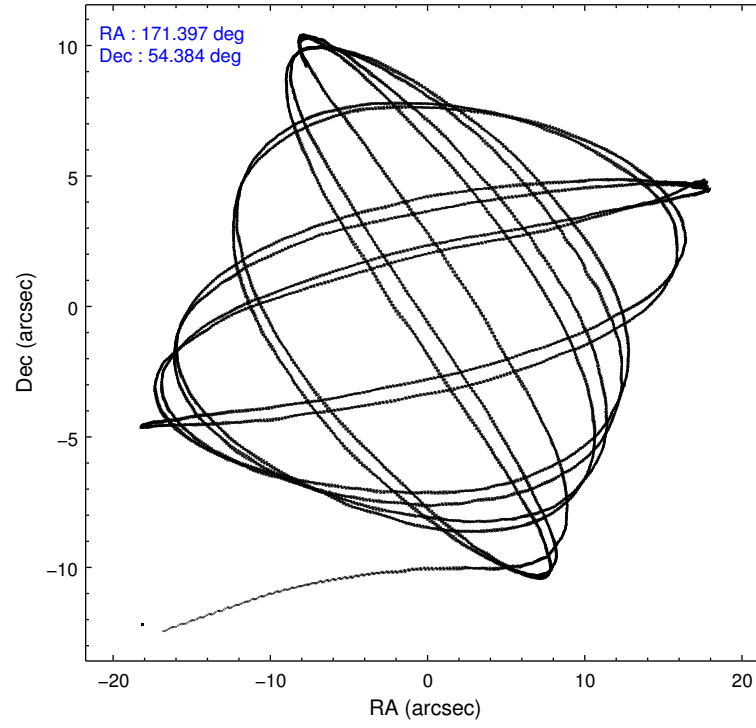
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	470	804	555	1806	1263	603
	3%	4%	4%	8%	6%	3%
grade 1 events	13	28	0	116	8	5
	0%	0%	0%	0%	0%	0%
grade 2 events	279	2739	353	2660	1032	388
	2%	14%	2%	12%	5%	2%
grade 3 events	210	562	246	1287	506	245
	1%	2%	1%	5%	2%	1%
grade 4 events	214	548	218	1274	471	217
	1%	2%	1%	5%	2%	1%
grade 5 events	548	1778	598	2140	829	730
	4%	9%	4%	9%	4%	4%
grade 6 events	277	4799	312	4904	1261	331
	2%	24%	2%	22%	6%	2%
grade 7 events	10536	8154	11474	7561	13471	12680
	83%	42%	83%	34%	71%	83%

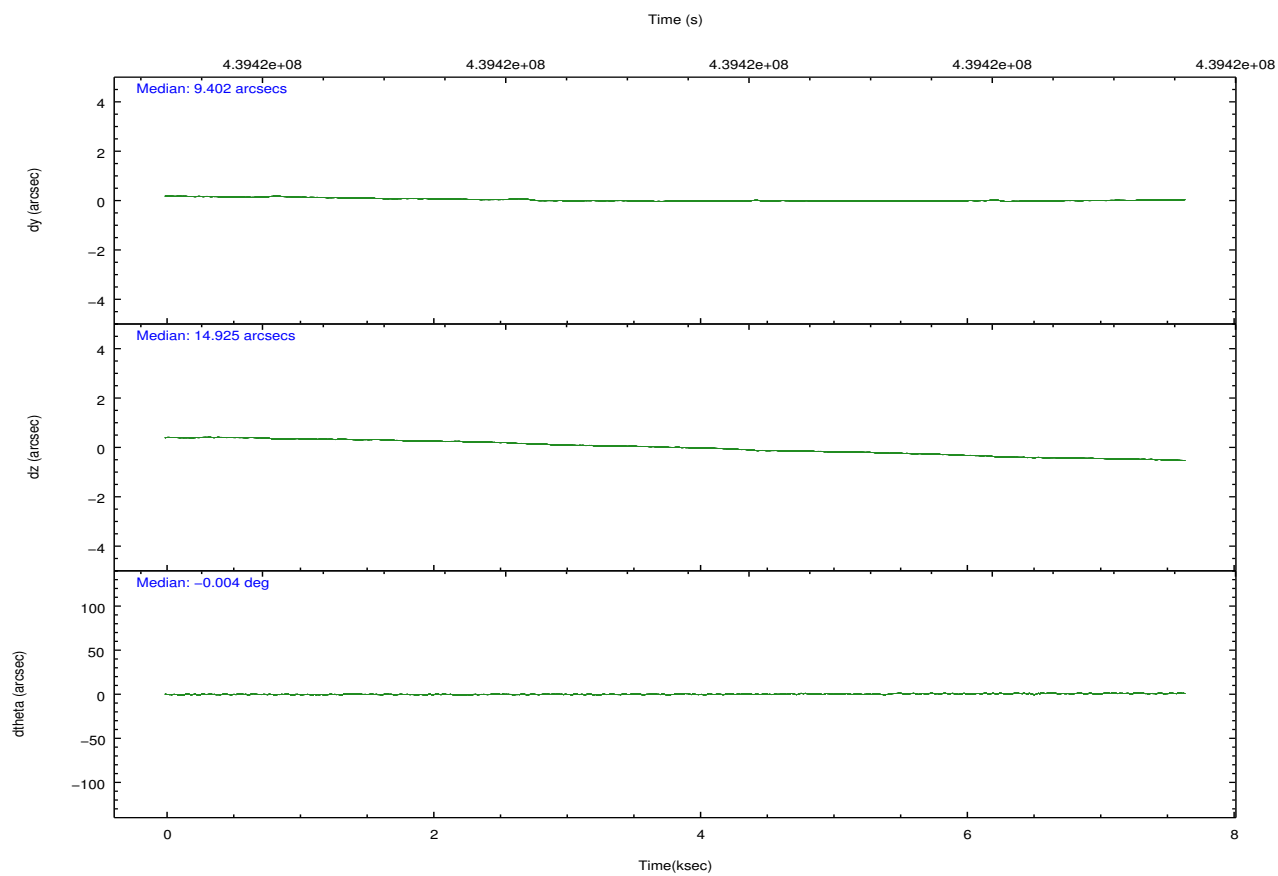
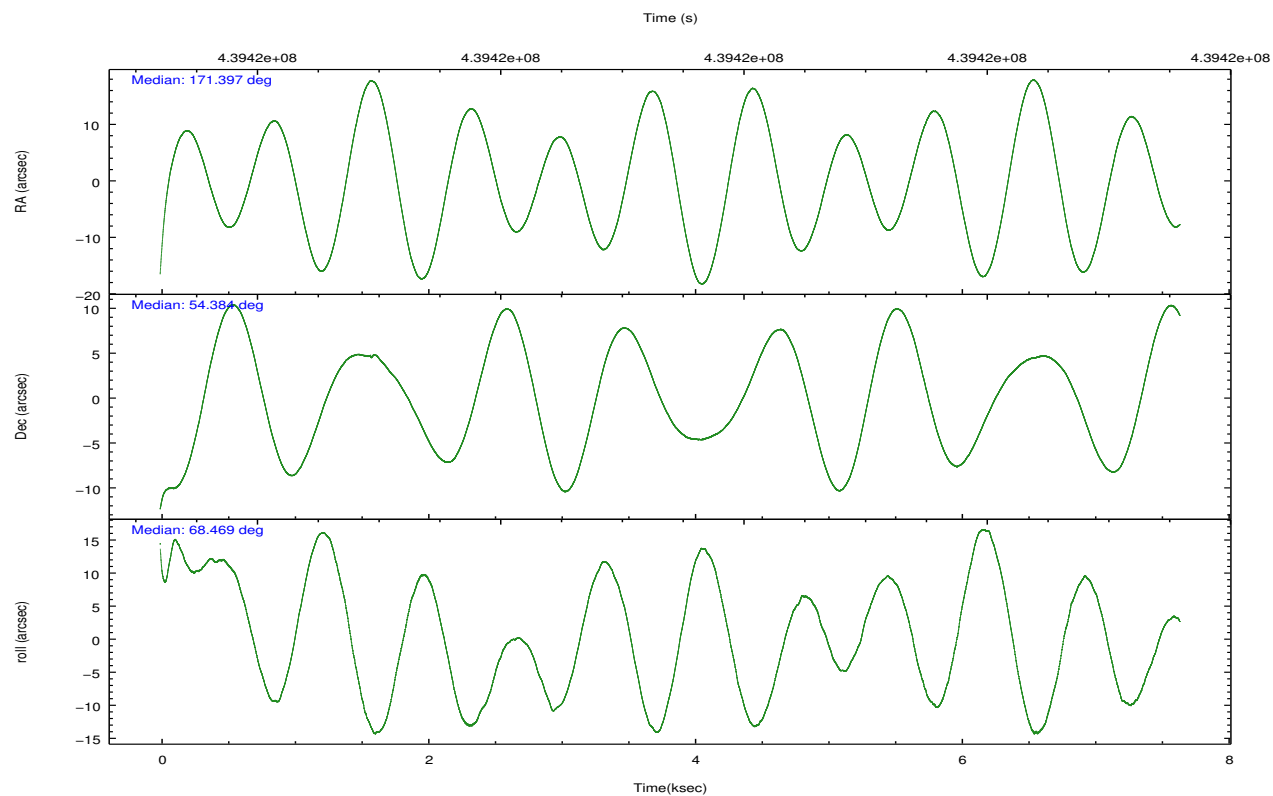


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-356789	ACIS-356789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	171.404496	171.3969545004009	CCD I2 on	N	N
[deg] Pointing Dec	54.357459	54.38444521768643	CCD I3 on	O1	Y
[deg] Pointing Roll	68.315746	68.47848161723383	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	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)	439415716.184000	439414443.93434	CCD S5 on	O2	Y
Observation start date	2011-12-04T19:54:10	2011-12-04T19:34:03	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	439423216.184000	439423788.85983	On-chip summing requested	N	N
Observation end date	2011-12-04T21:59:10	2011-12-04T22:09:48	Subarray requested	CUSTOM	1/4
Read mode	TIMED	TIMED	Subarray start row	385	385
			Subarray row count	256	256
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.1

## 2.3 Aspect



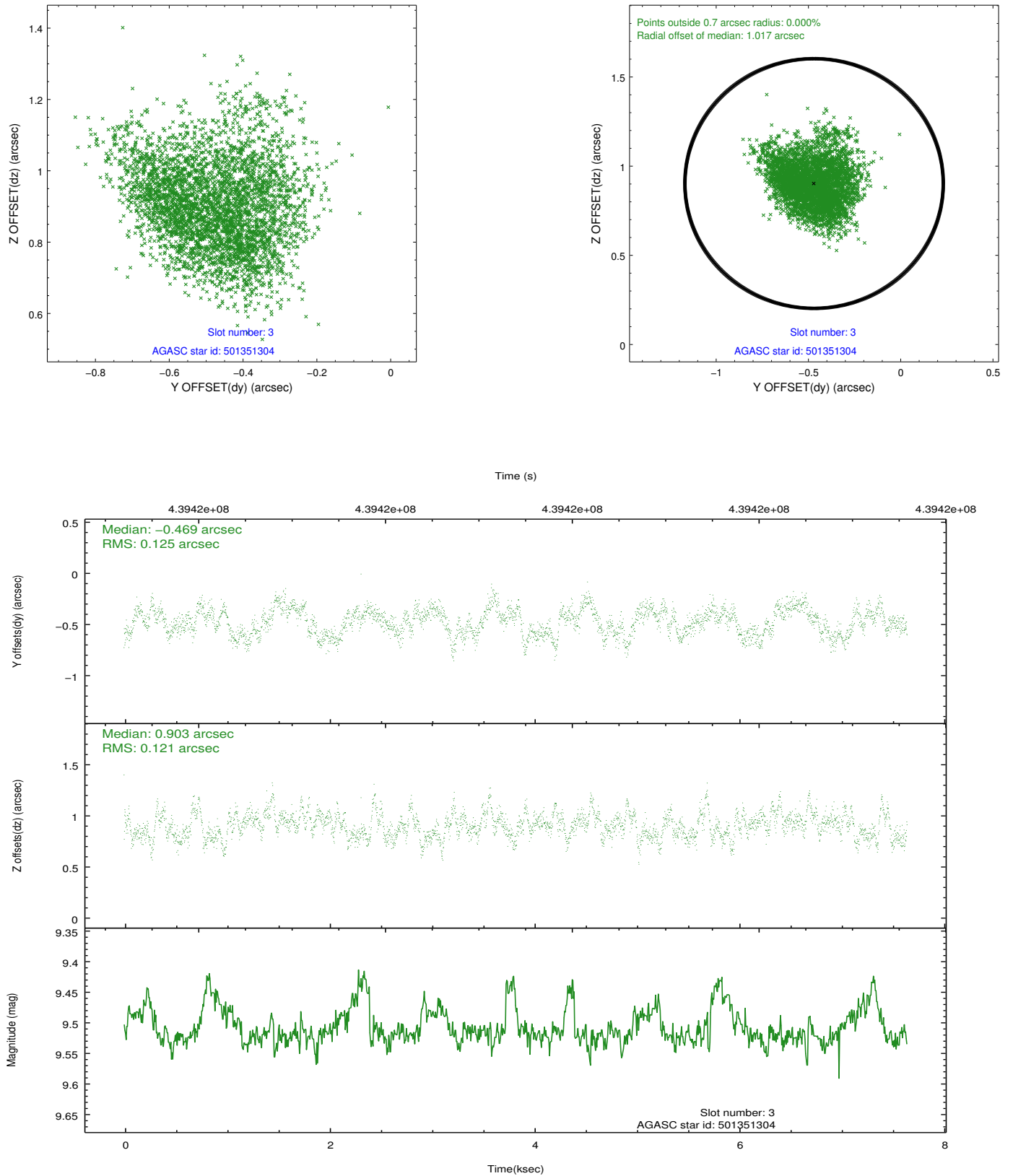


### Slot Statistics

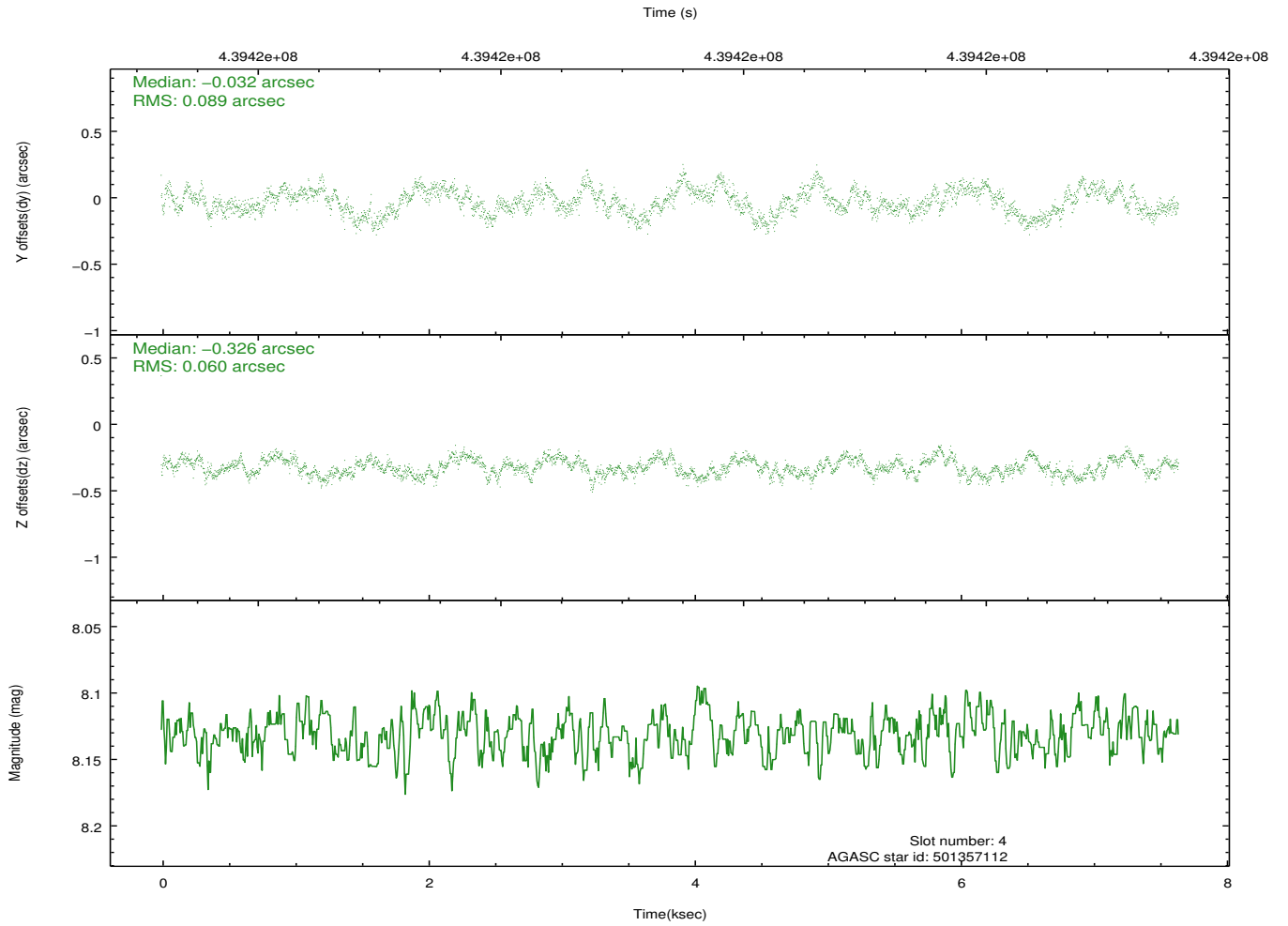
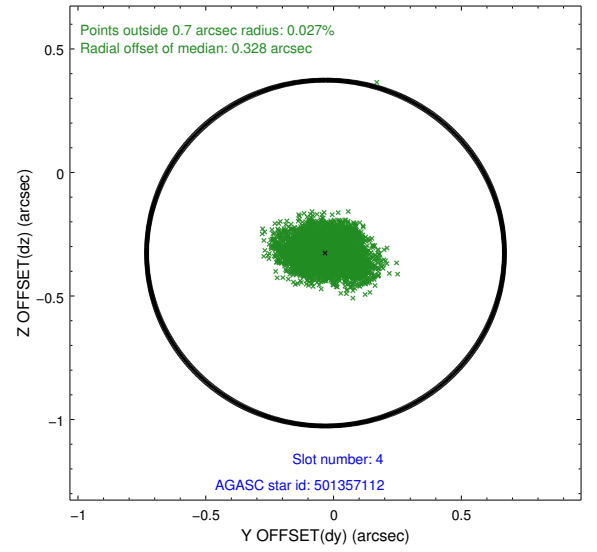
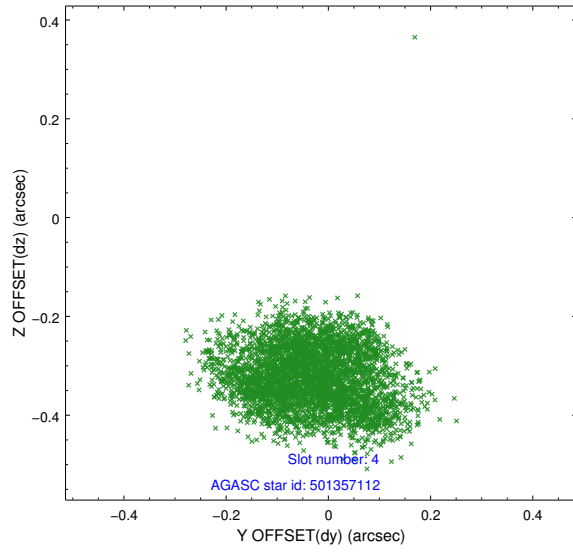
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.92	1865	-0.057	-0.025	0.010	0.016	0.000000	0.000000	-762.31	-1736.31
1	FID	ACIS-S-4	7.00	1865	0.203	0.034	0.006	0.011	0.000000	0.000000	2150.89	171.46
2	FID	ACIS-S-5	7.03	1865	-0.178	-0.001	0.009	0.015	0.000000	0.000000	-1814.32	165.95
3	GUIDE	501351304	9.51	3717	-0.469	0.903	0.186	0.299	170.507224	54.650018	298.57	2131.22
4	GUIDE	501357112	8.13	3731	-0.032	-0.326	0.115	0.182	172.382230	54.802033	2250.39	-1287.98
5	GUIDE	501357752	9.14	3726	0.219	0.066	0.105	0.169	172.449498	54.149455	134.79	-2318.09
6	GUIDE	501358824	6.47	3731	0.191	-0.036	0.080	0.135	172.553630	54.362237	925.21	-2226.75
7	GUIDE	501354600	8.30	3730	0.097	-0.613	0.081	0.142	171.807207	54.963028	2336.04	32.28

## 2.4 Star Slots

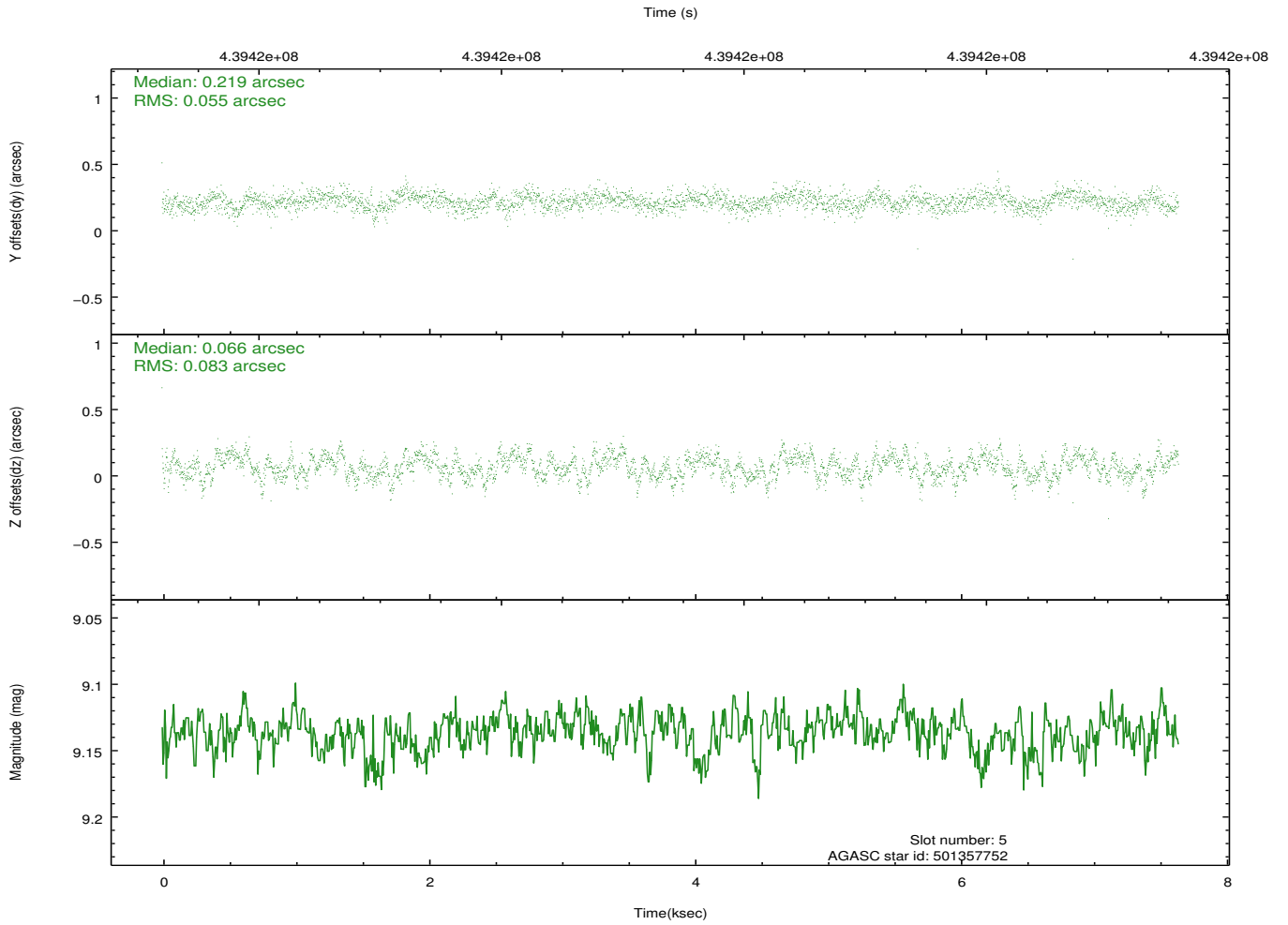
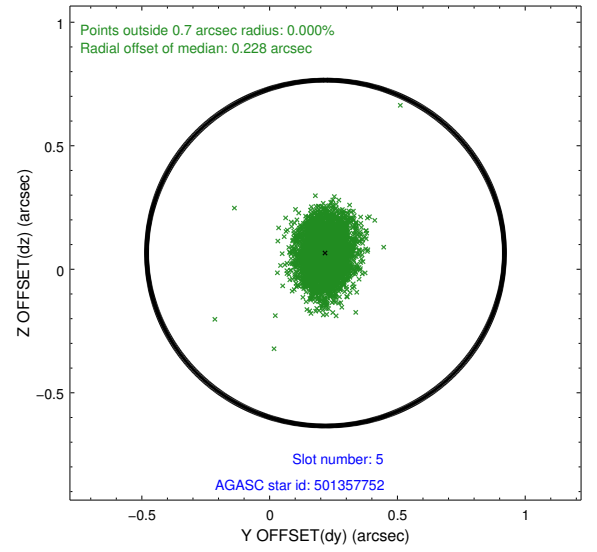
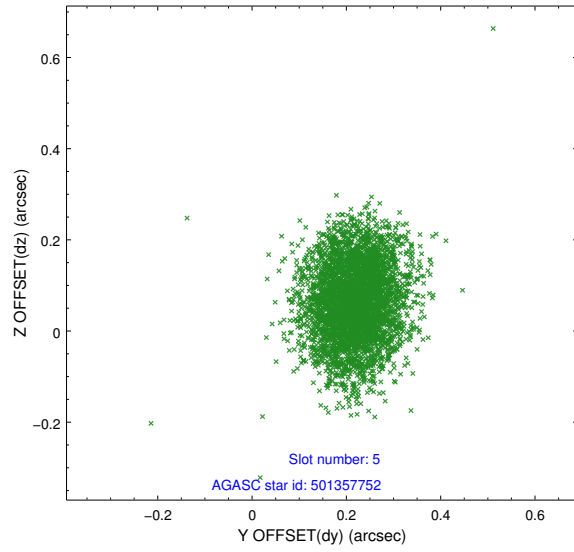
### 2.4.1 Slot 3



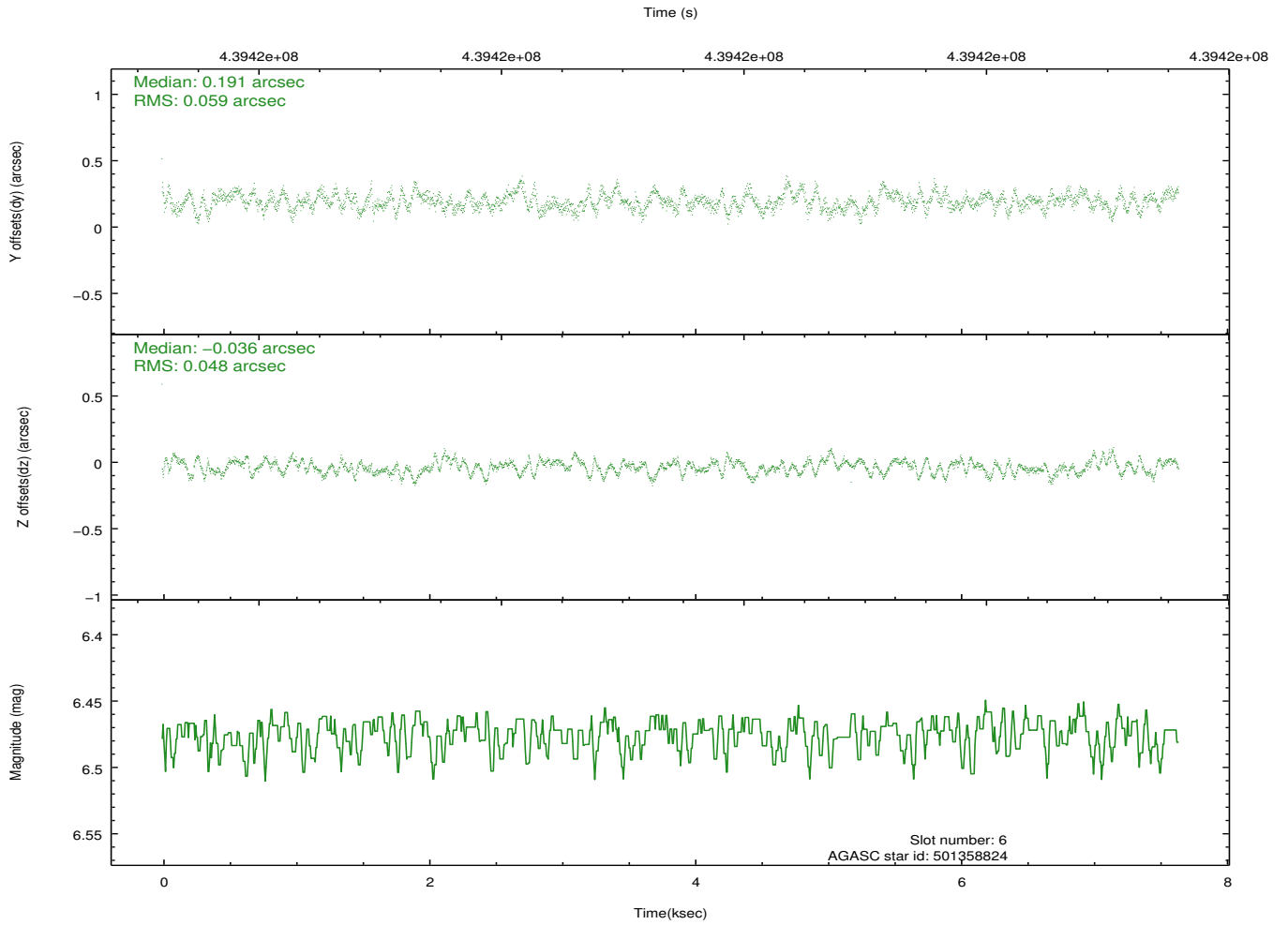
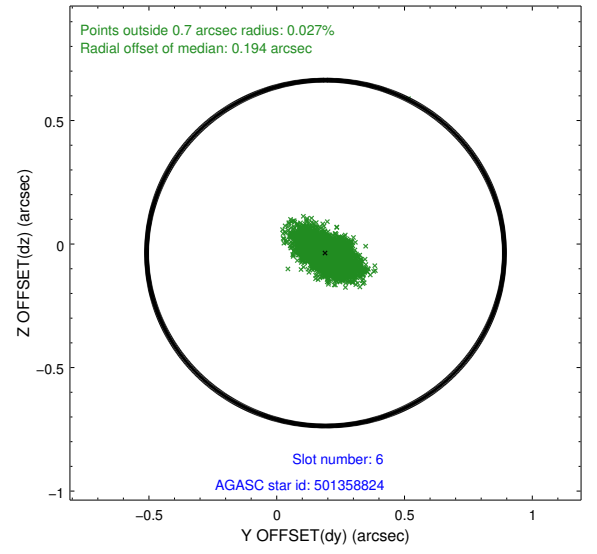
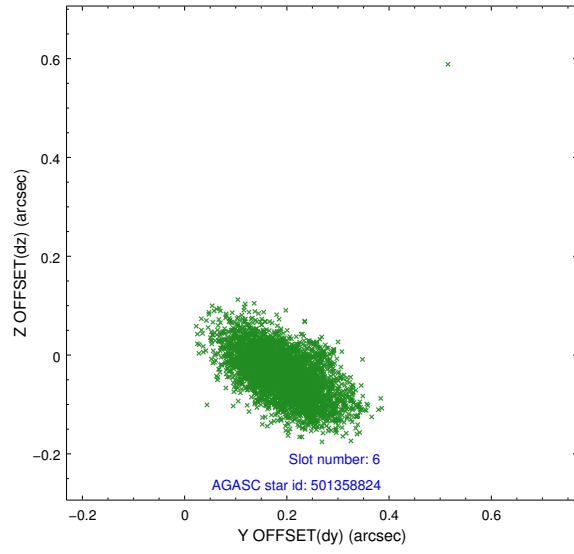
## 2.4.2 Slot 4



### 2.4.3 Slot 5

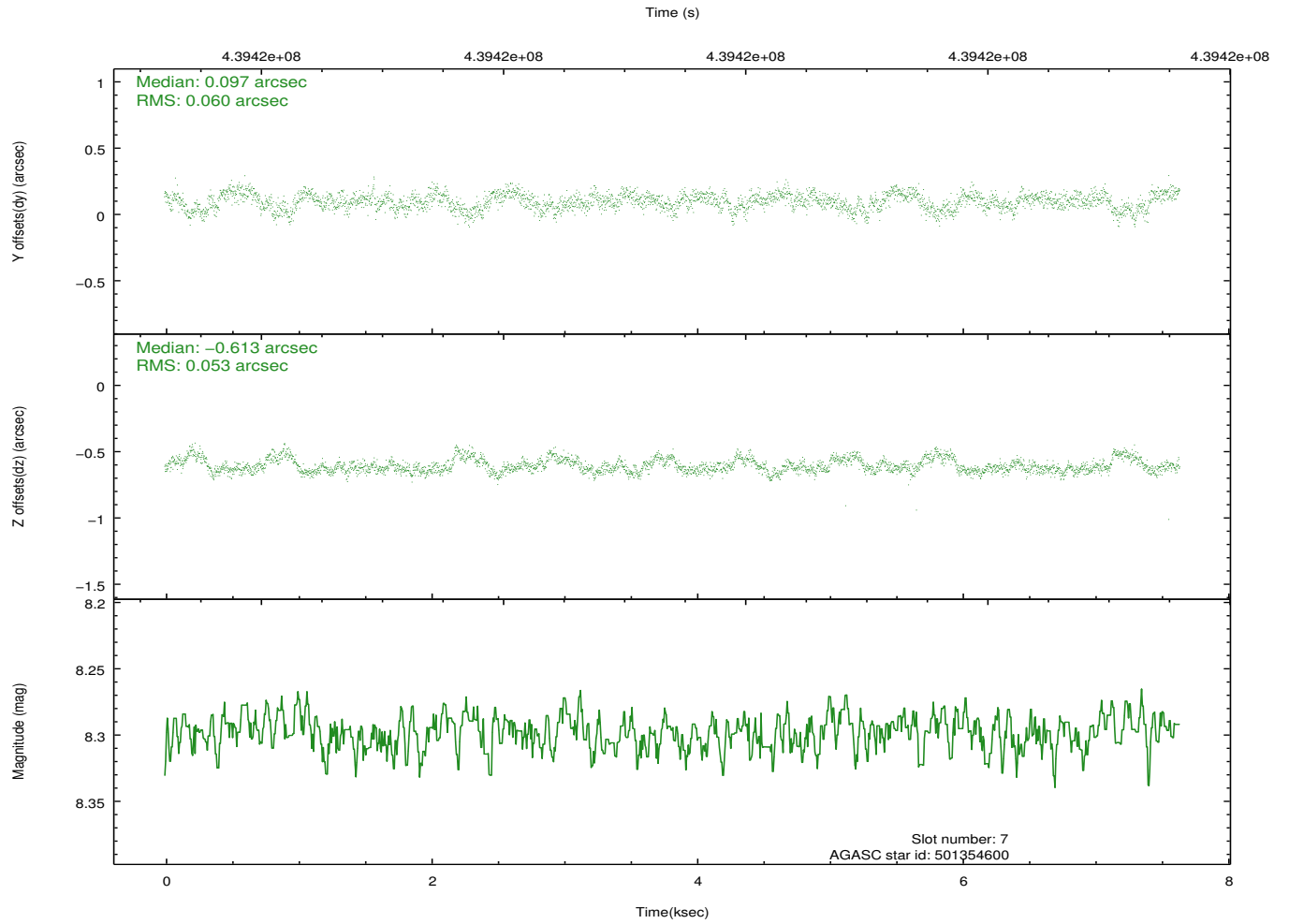
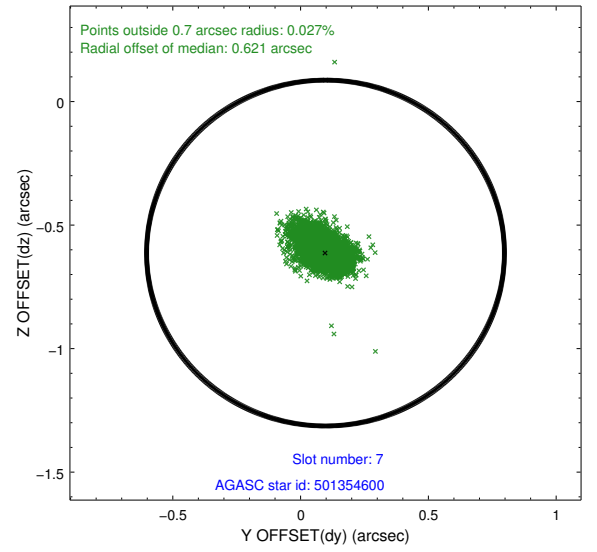
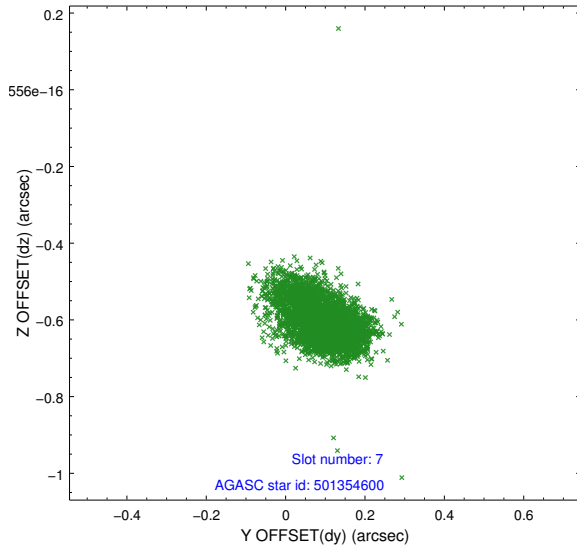


## 2.4.4 Slot 6



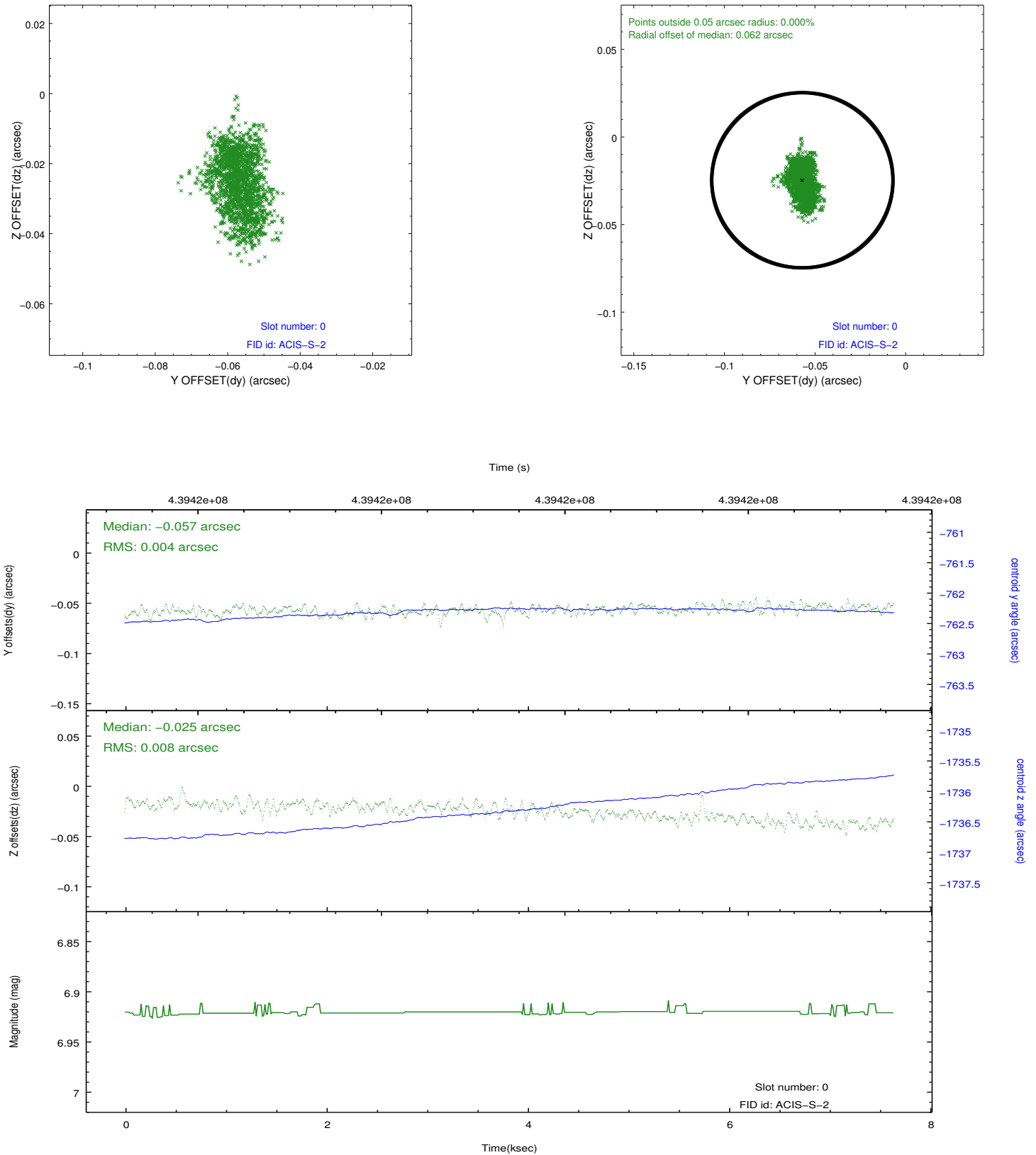


## 2.4.5 Slot 7

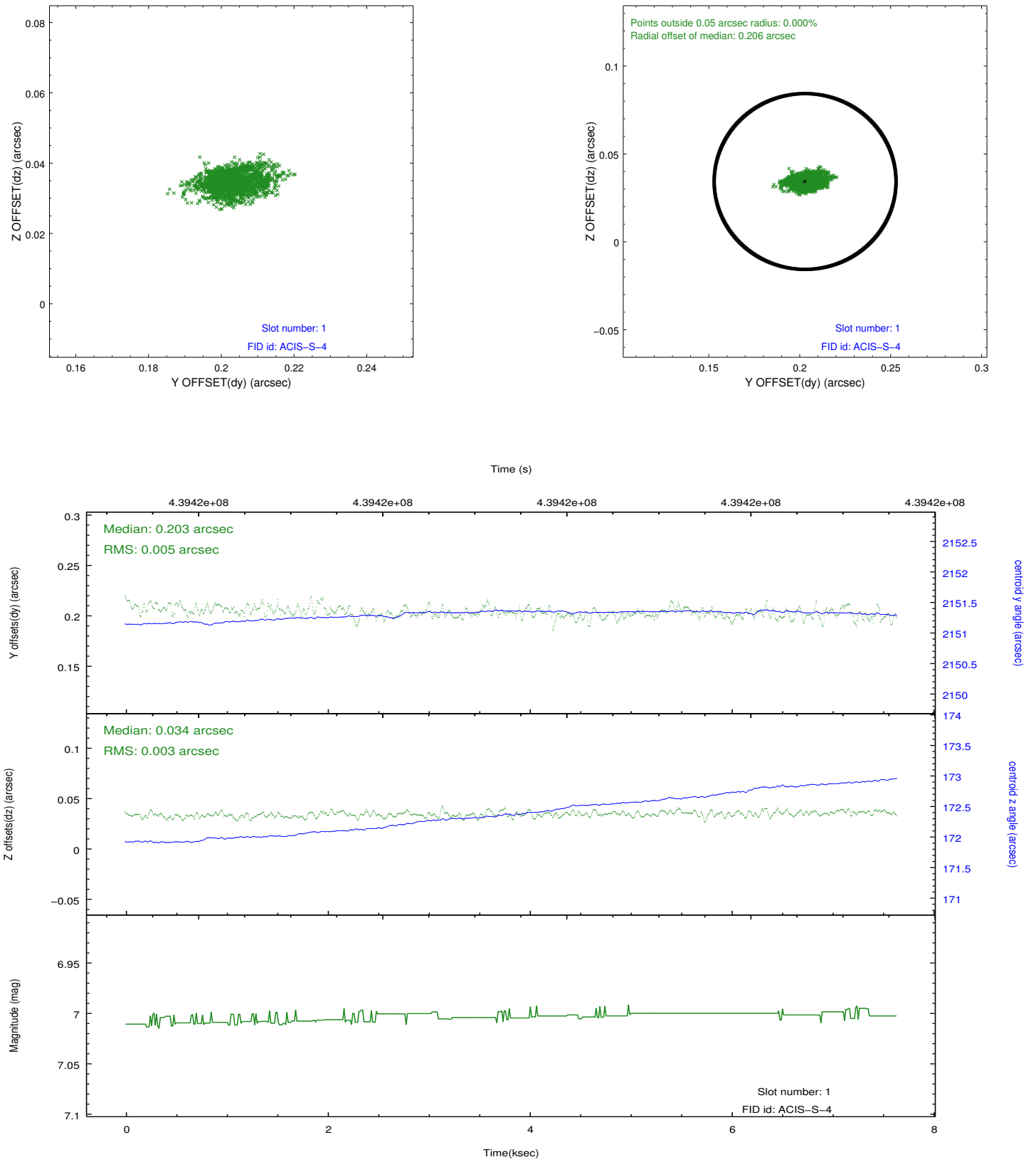


## 2.5 FID Slots

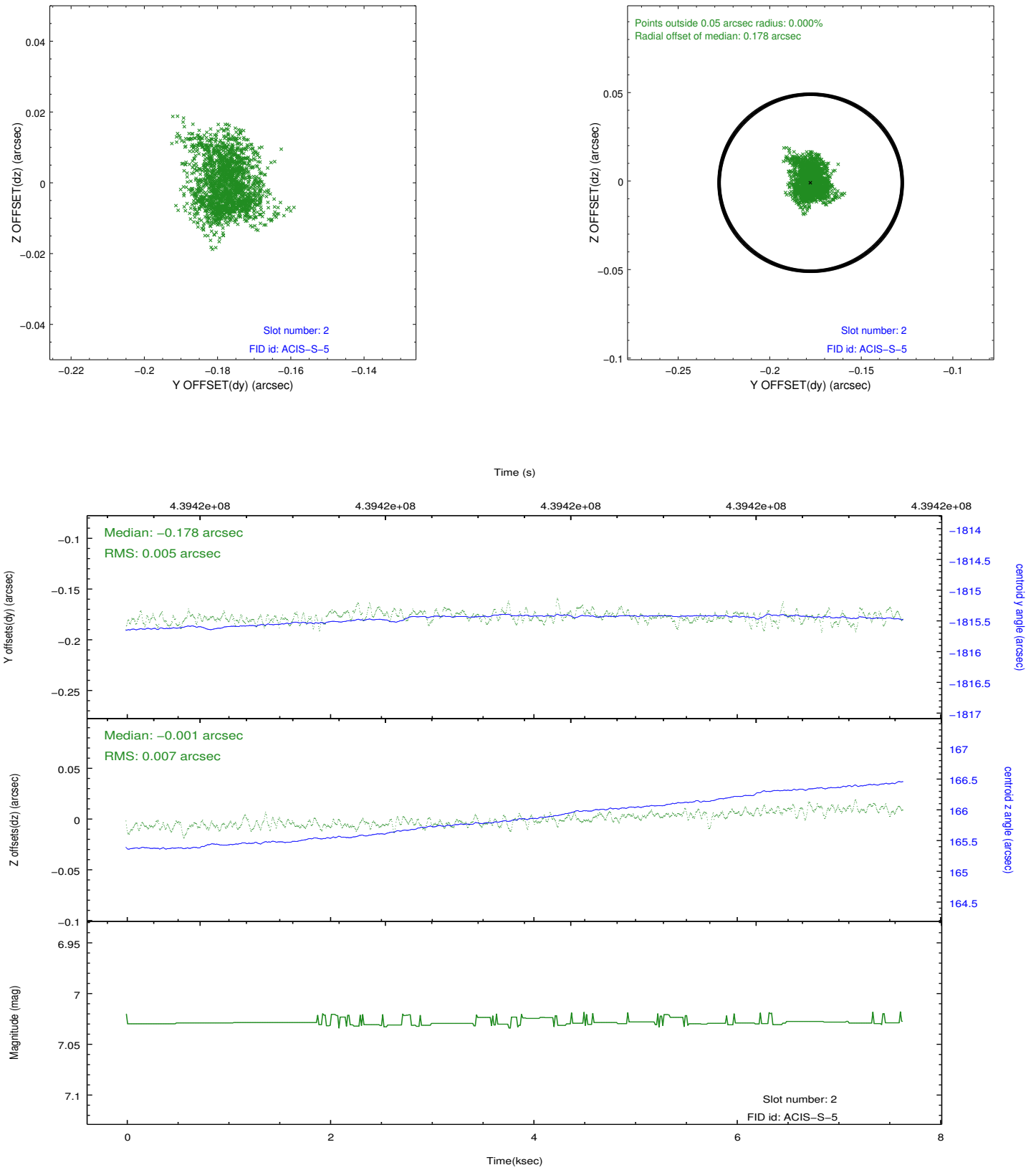
### 2.5.1 Slot 0



## 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)	2012.02.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.5977001646757

### **A.2 Comments**