

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 12703 - L2 Version 2  
Chandra X-Ray Center

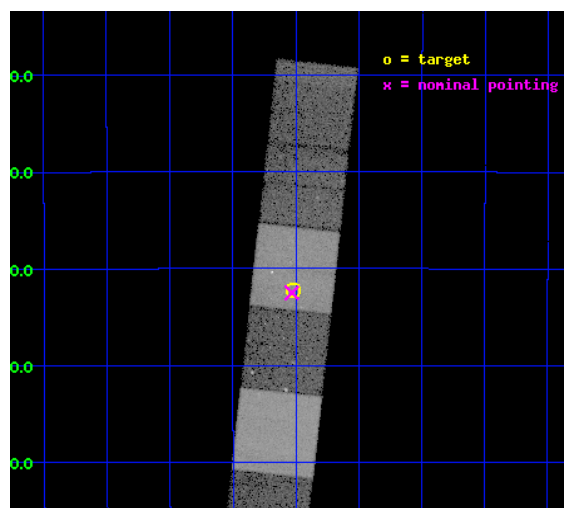
L2 Processing Date : Feb 22 2012

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# 1 Front

seq_num	501530	Sequence number
obs_id	12703	Observation id
title	The Astrophysics of the Most Energetic Gamma-Ray Bursts	Proposal t
observer	Dr. Andrew Fruchter	Principal investigator
object	GRB 110731A	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	280.504333	Observer's specified target RA [deg]
dec_targ	-28.537139	Observer's specified target Dec [deg]
ra_nom	280.50784870439	Nominal RA [deg]
dec_nom	-28.541798750404	Nominal Dec [deg]
roll_nom	276.31768290355	Nominal Roll [deg]
revision	2	Processing version of data
ontime	19407.999927759	Sum of GTIs [s]
livetime	19162.244146579	Livetime [s]
ontime4	19404.758917451	Sum of GTIs [s]
ontime5	19407.999927759	Sum of GTIs [s]
ontime6	19407.999927759	Sum of GTIs [s]
ontime7	19407.999927759	Sum of GTIs [s]
ontime8	19407.999927759	Sum of GTIs [s]
ontime9	19407.999927759	Sum of GTIs [s]
l2events	209705	Number of level 2 events

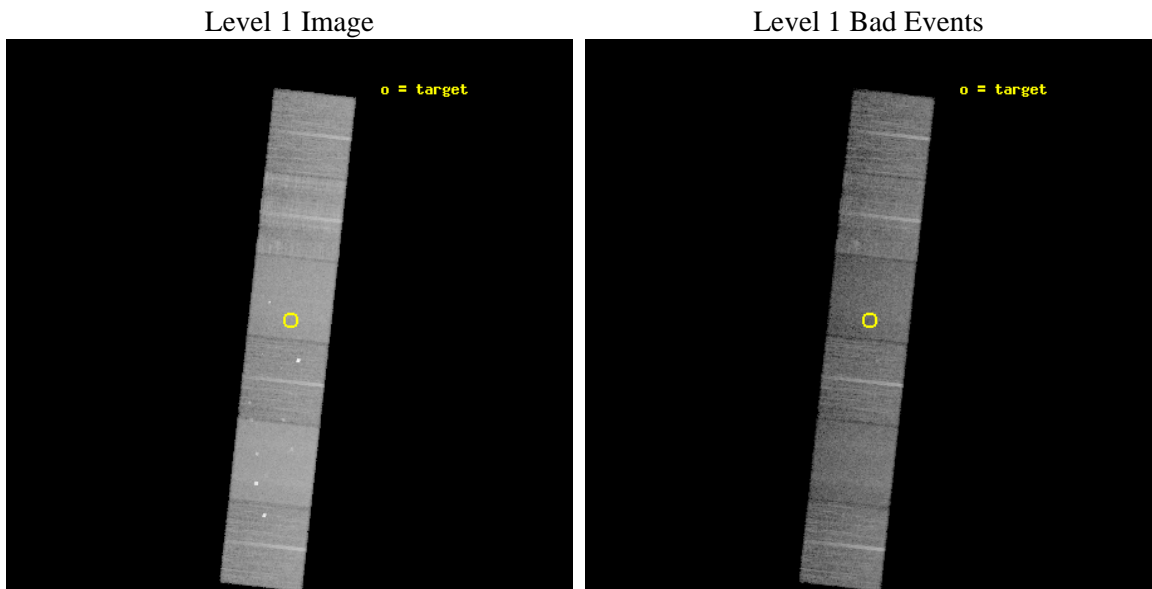




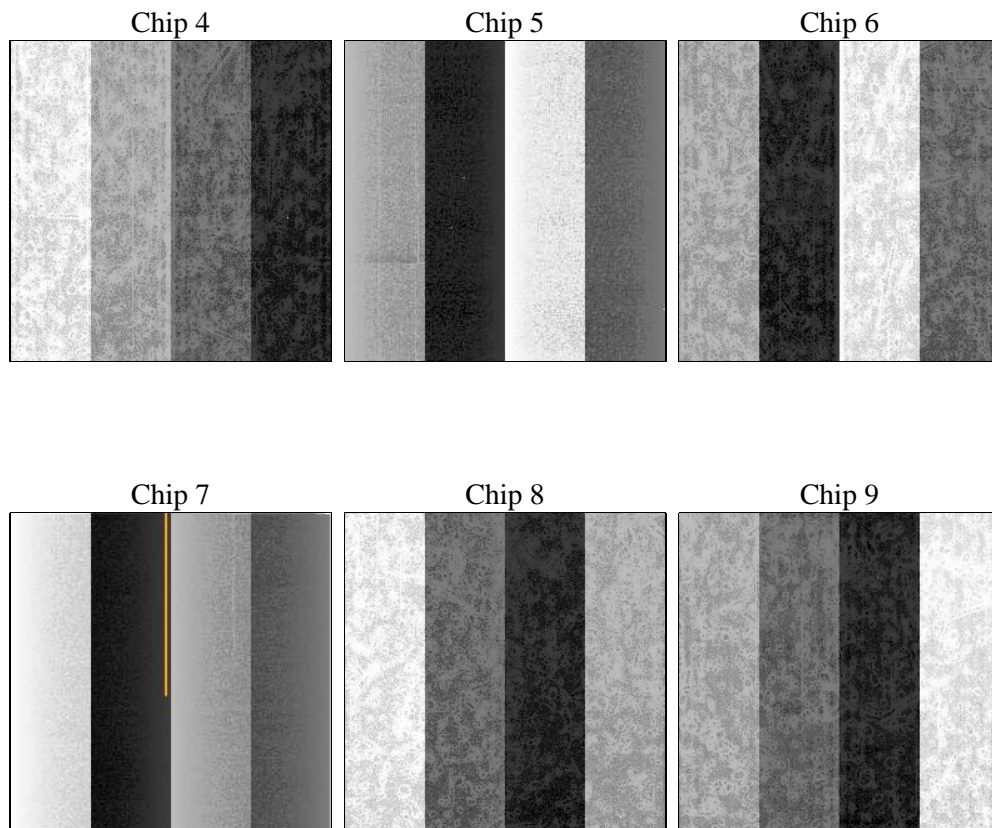
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	19359.179000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	19407.999927759	Sum of GTIs [s]
caldsver	4.4.8	&#160	ontime4	19404.758917451	Sum of GTIs [s]
date	2012-02-23T00:15:11	Date and time of file creation	ontime5	19407.999927759	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	19407.999927759	Sum of GTIs [s]
			ontime7	19407.999927759	Sum of GTIs [s]
			ontime8	19407.999927759	Sum of GTIs [s]
			ontime9	19407.999927759	Sum of GTIs [s]
			l1events	872663	Number of level 1 events

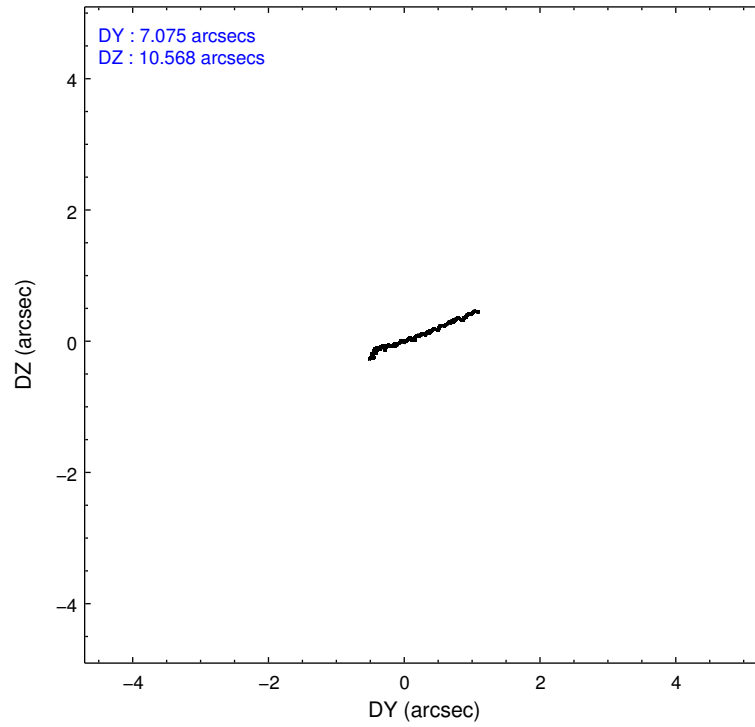
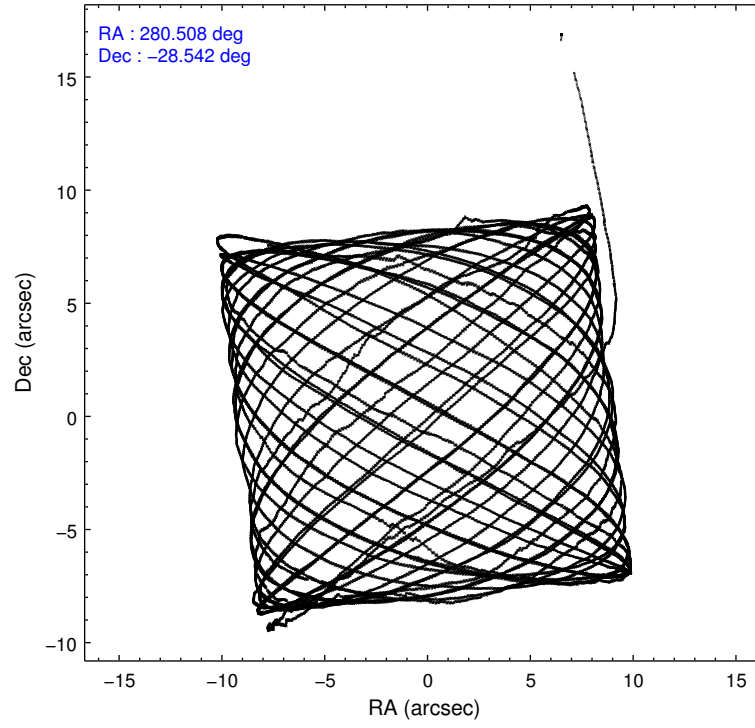
### 2.1.4 Events

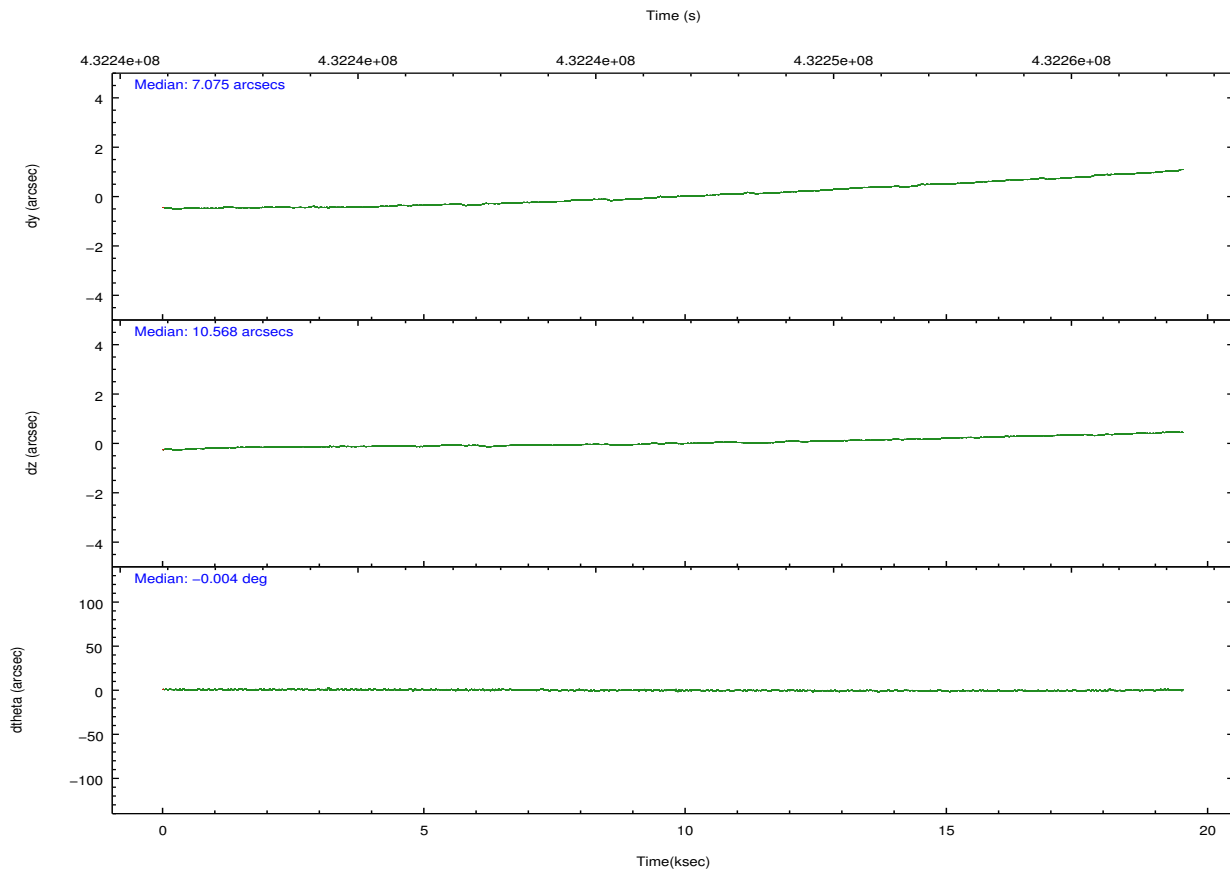
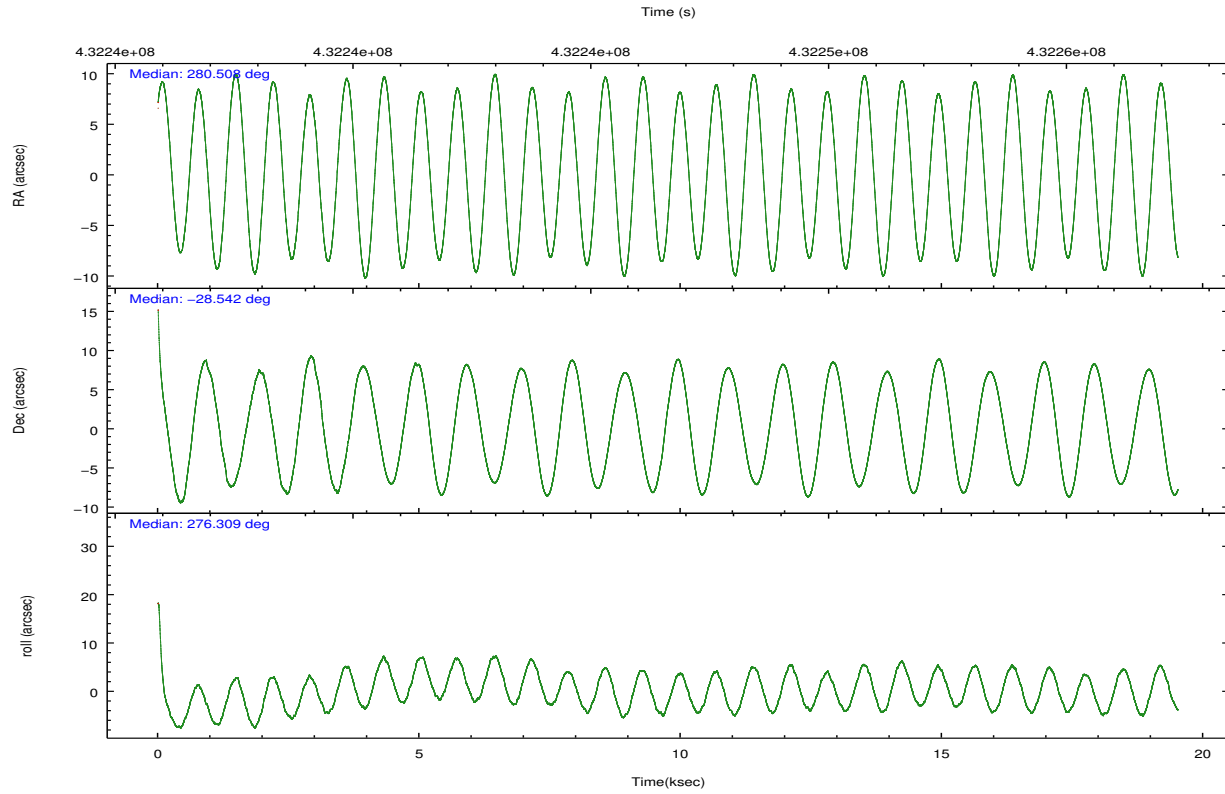
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	132601	188453	124917	154835	156043	115814	grade 0 events	9563	11248	6567	7568	12830	5982
rejected events	114241	93765	103295	83036	114101	100827		7%	5%	5%	4%	8%	5%
rejected %	86%	49%	82%	53%	73%	87%	grade 1 events	143	348	61	204	126	64
								0%	0%	0%	0%	0%	0%
							grade 2 events	3461	28727	9067	15259	9703	3027
								2%	15%	7%	9%	6%	2%
							grade 3 events	1540	3394	1448	6437	4284	1579
								1%	1%	1%	4%	2%	1%
							grade 4 events	1410	3410	1466	6275	4046	1413
								1%	1%	1%	4%	2%	1%
							grade 5 events	5546	13738	5523	15415	8233	6249
								4%	7%	4%	9%	5%	5%
							grade 6 events	2390	47947	3078	36276	11098	2997
								1%	25%	2%	23%	7%	2%
							grade 7 events	108548	79641	97707	67401	105723	94503
								81%	42%	78%	43%	67%	81%

## 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	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	280.489063	280.507848704388	Subarray requested	NONE	NONE
[deg] Pointing Dec	-28.519974	-28.54179875040421	Alternating exposures requested	N	N
[deg] Pointing Roll	276.152072	276.3176829035544	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	432237033.184000	432235567.73217			
Observation start date	2011-09-12T17:49:27	2011-09-12T17:26:07			
[s] Observation end time (MET)	432256392.184000	432256834.43328			
Observation end date	2011-09-12T23:12:06	2011-09-12T23:20:34			
Read mode	TIMED	TIMED			

## 2.3 Aspect



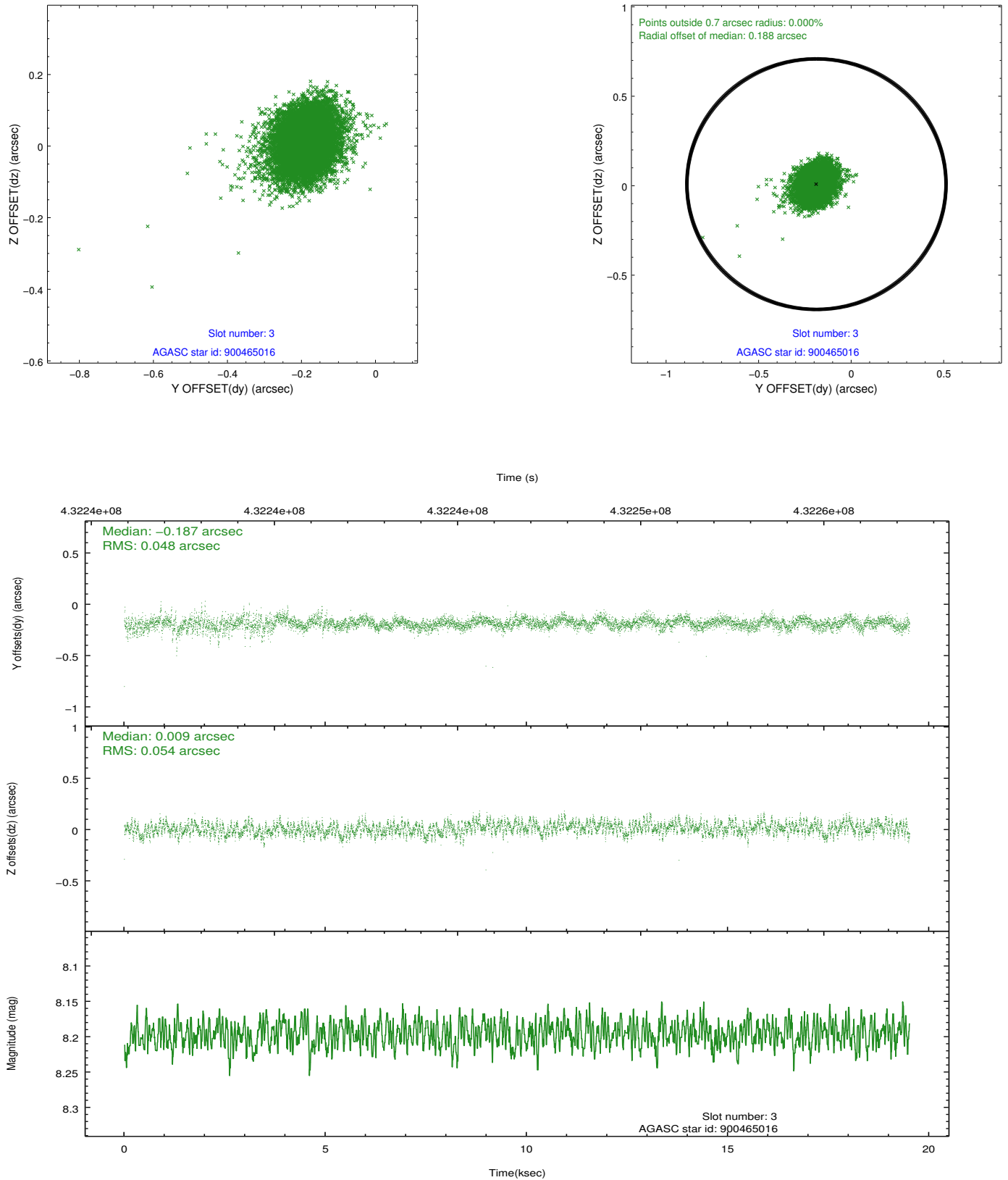


### Slot Statistics

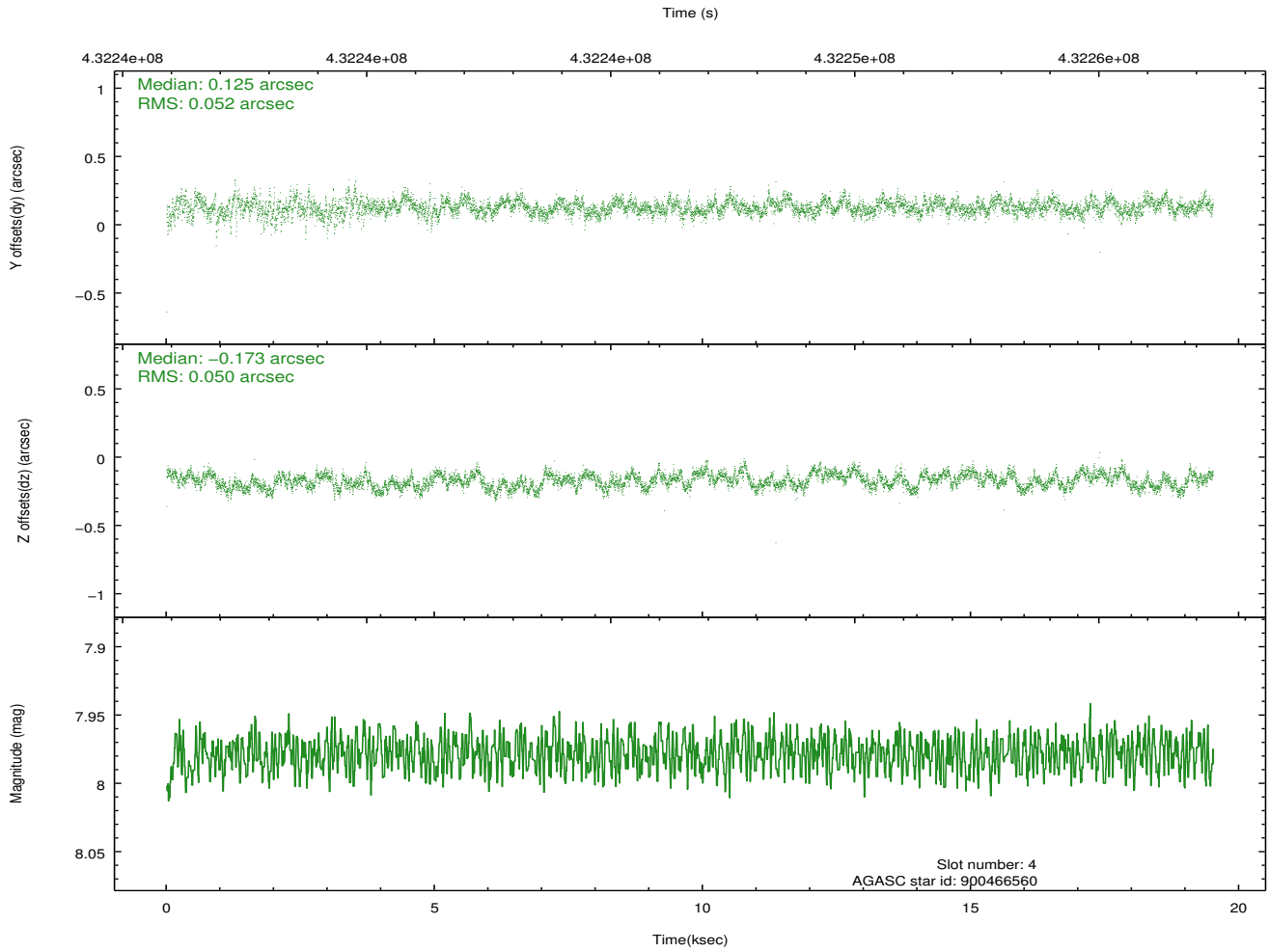
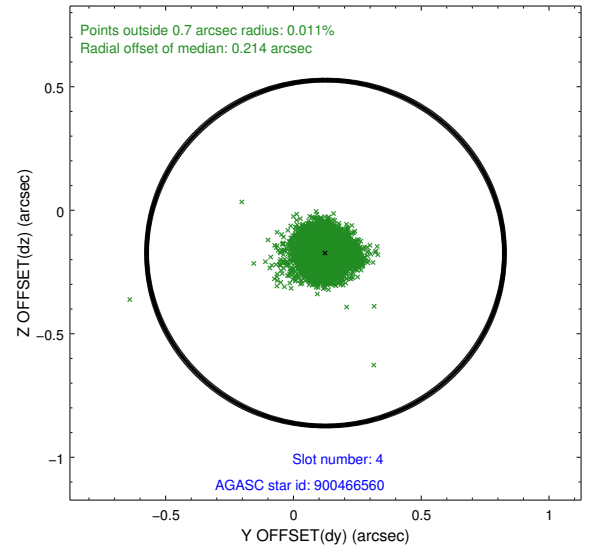
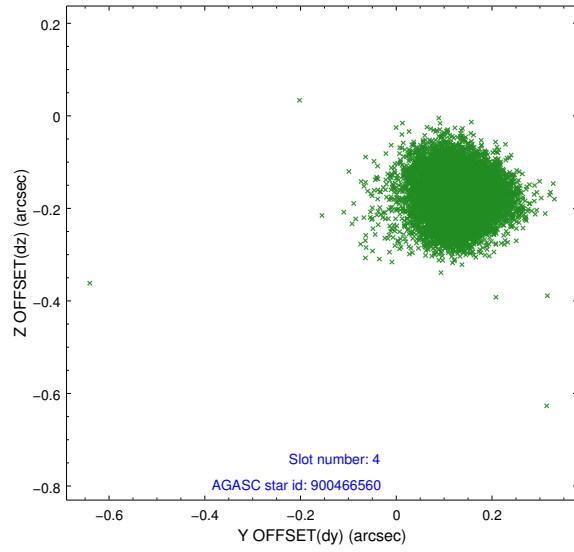
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.98	4761	-0.087	-0.061	0.014	0.021	0.000000	0.000000	-760.01	-1731.88
1	FID	ACIS-S-4	7.08	4761	0.115	0.035	0.011	0.016	0.000000	0.000000	2153.39	176.49
2	FID	ACIS-S-6	7.21	4761	-0.053	0.032	0.009	0.015	0.000000	0.000000	402.27	814.11
3	GUIDE	900465016	8.20	9519	-0.187	0.009	0.075	0.124	279.807291	-28.180647	-1439.99	-2020.86
4	GUIDE	900466560	7.98	9521	0.125	-0.173	0.077	0.120	279.809808	-28.514071	-244.81	-2135.00
5	GUIDE	900602032	7.95	9519	0.289	0.032	0.073	0.119	280.831746	-28.449911	-132.64	1105.19
6	GUIDE	900088296	8.38	9520	-0.273	0.111	0.079	0.132	281.146058	-28.041082	-1485.14	2259.83
7	GUIDE	900605064	8.47	9515	0.046	0.023	0.076	0.125	281.119162	-28.936379	1708.53	1813.28

## 2.4 Star Slots

### 2.4.1 Slot 3

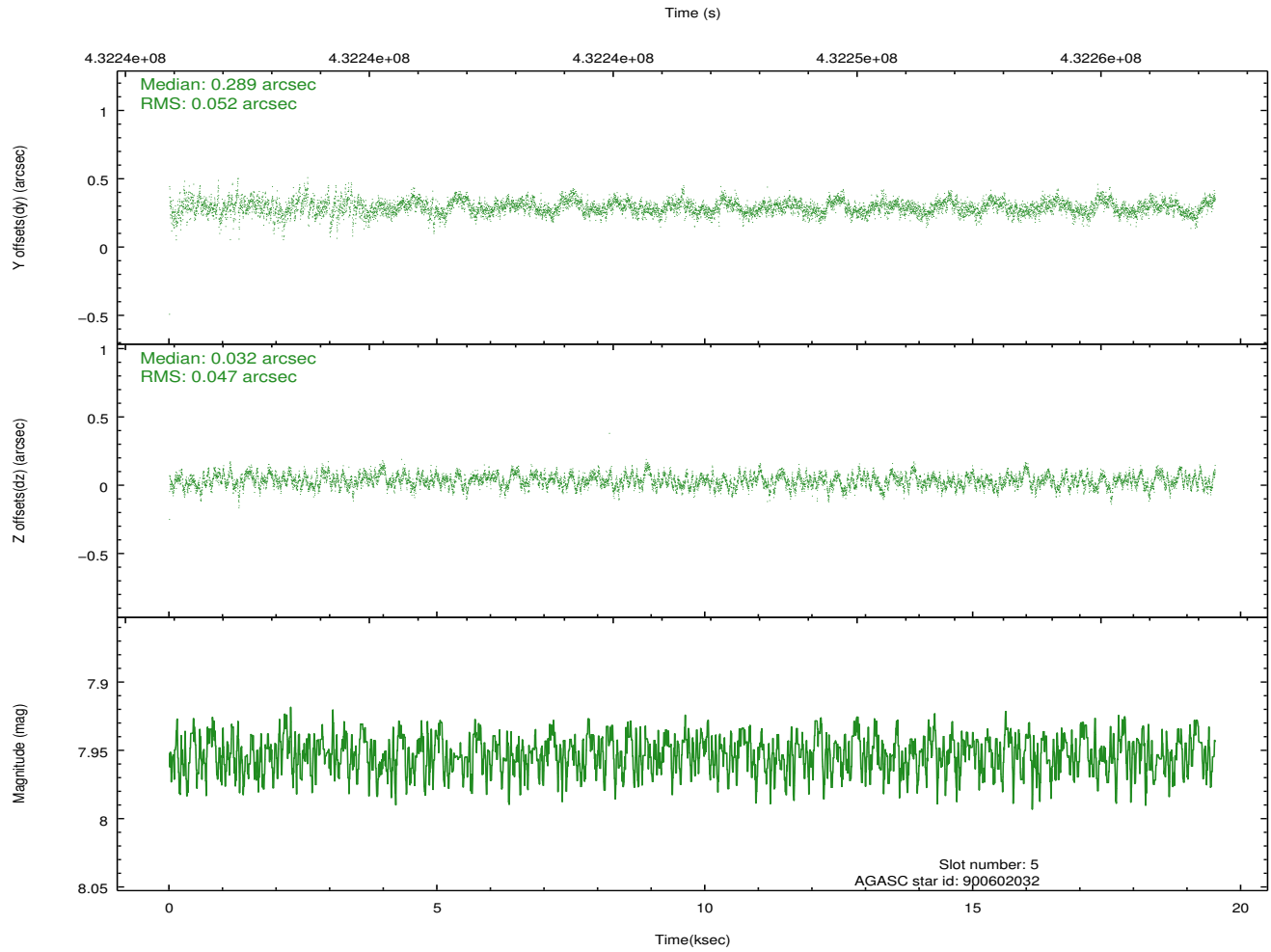
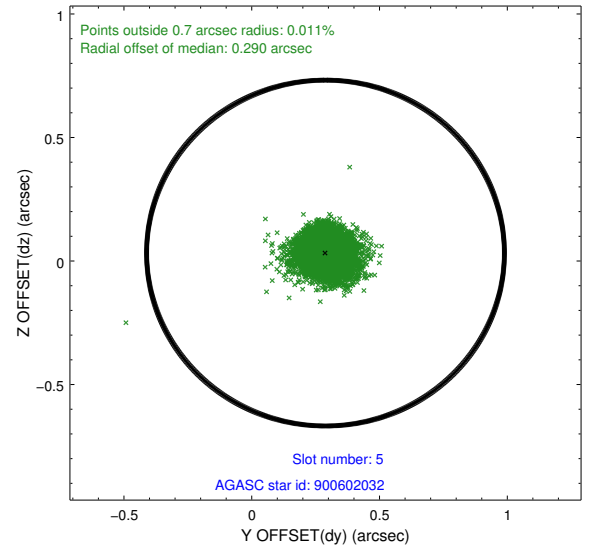
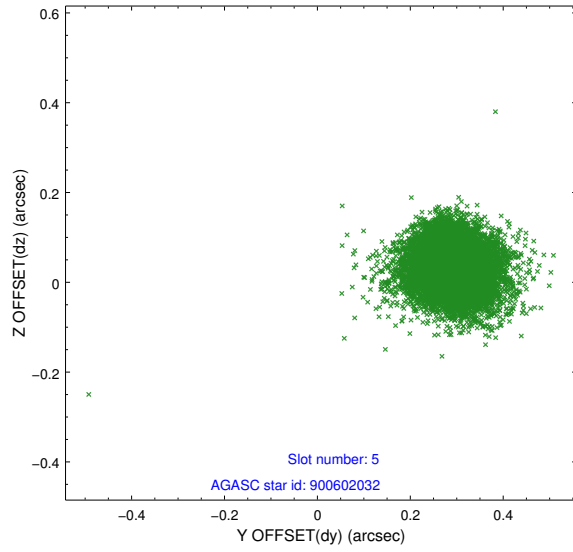


## 2.4.2 Slot 4

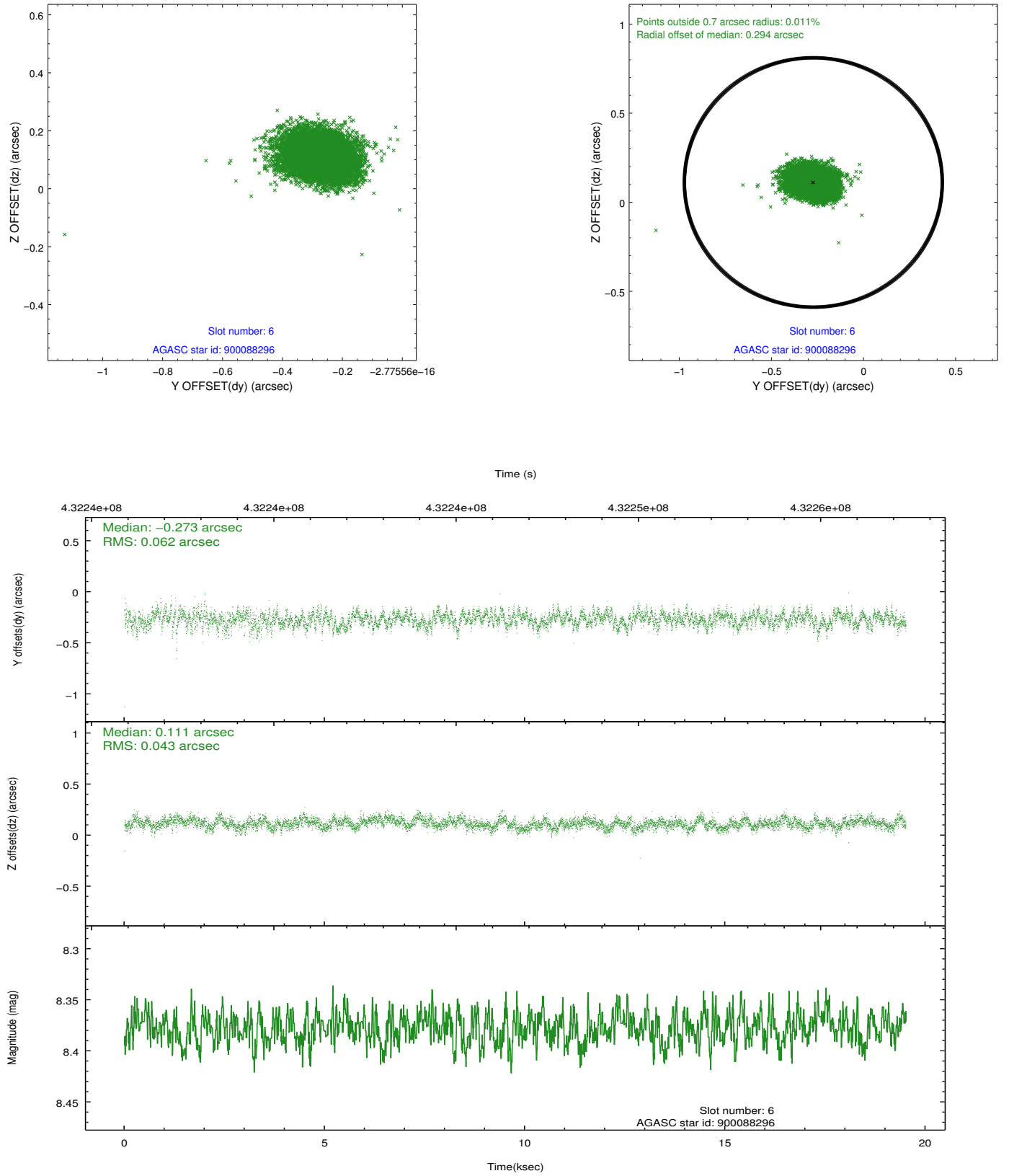




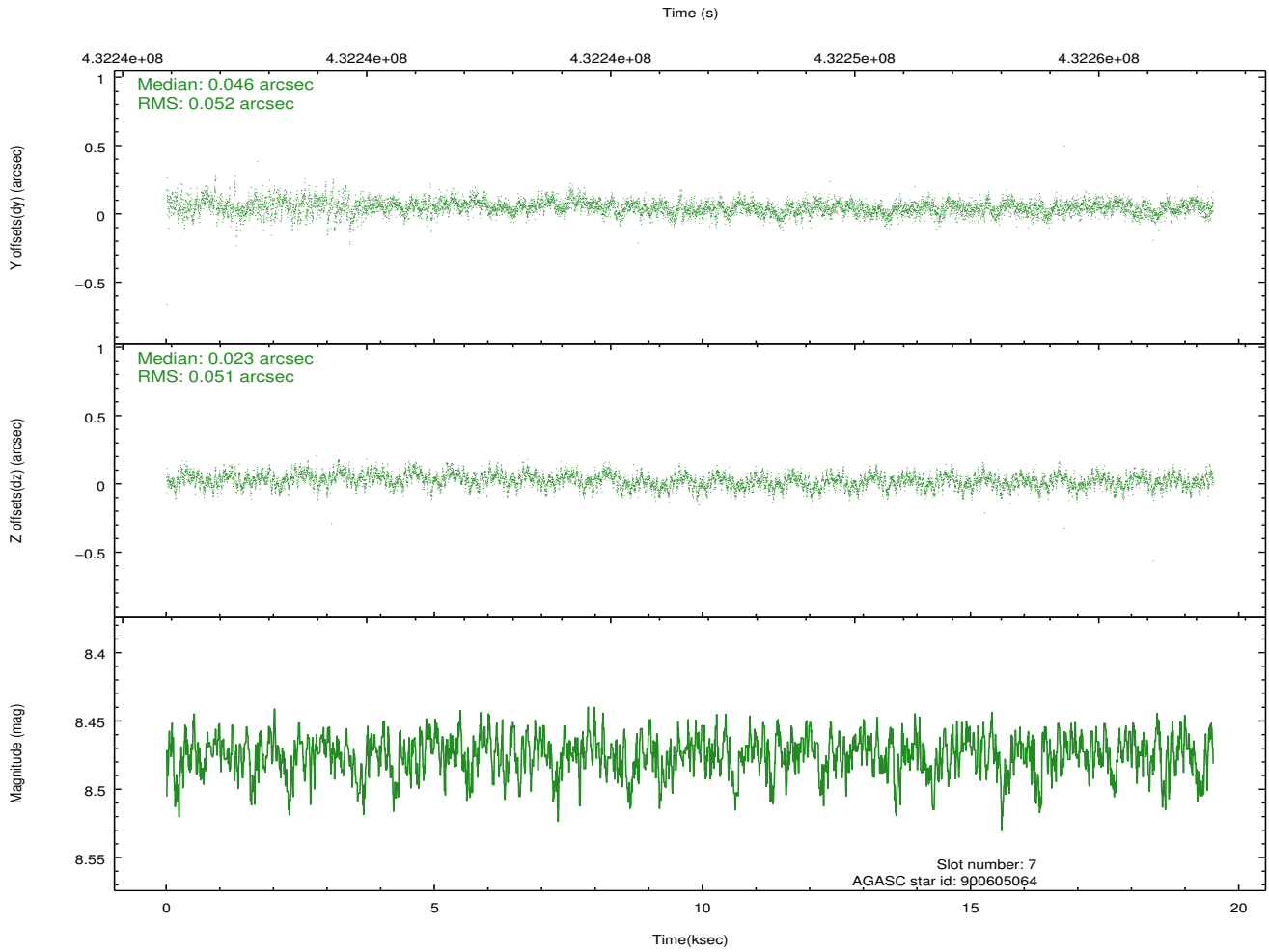
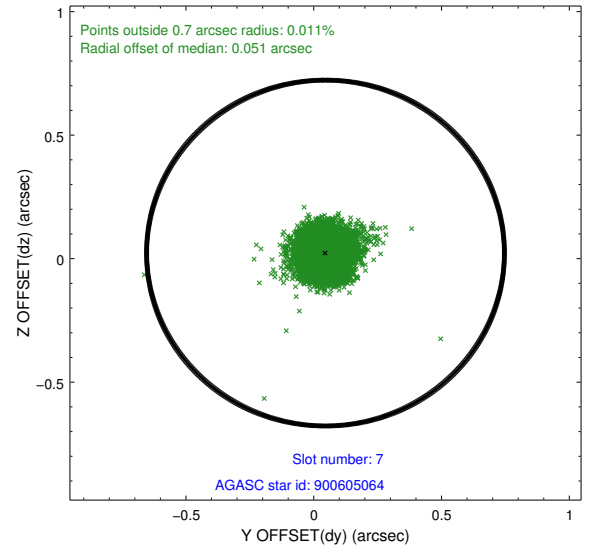
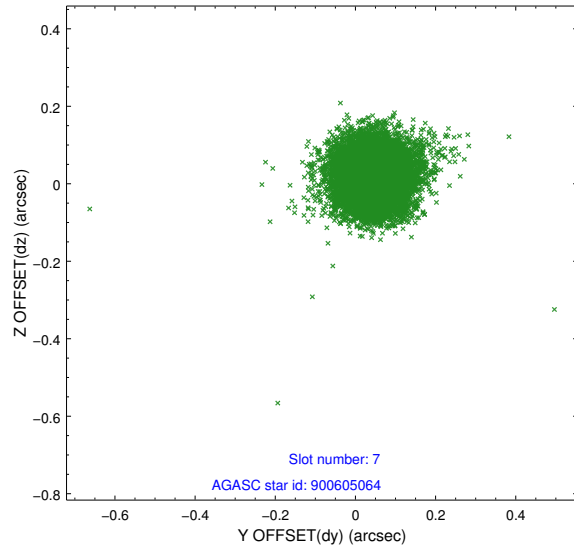
### 2.4.3 Slot 5



## 2.4.4 Slot 6

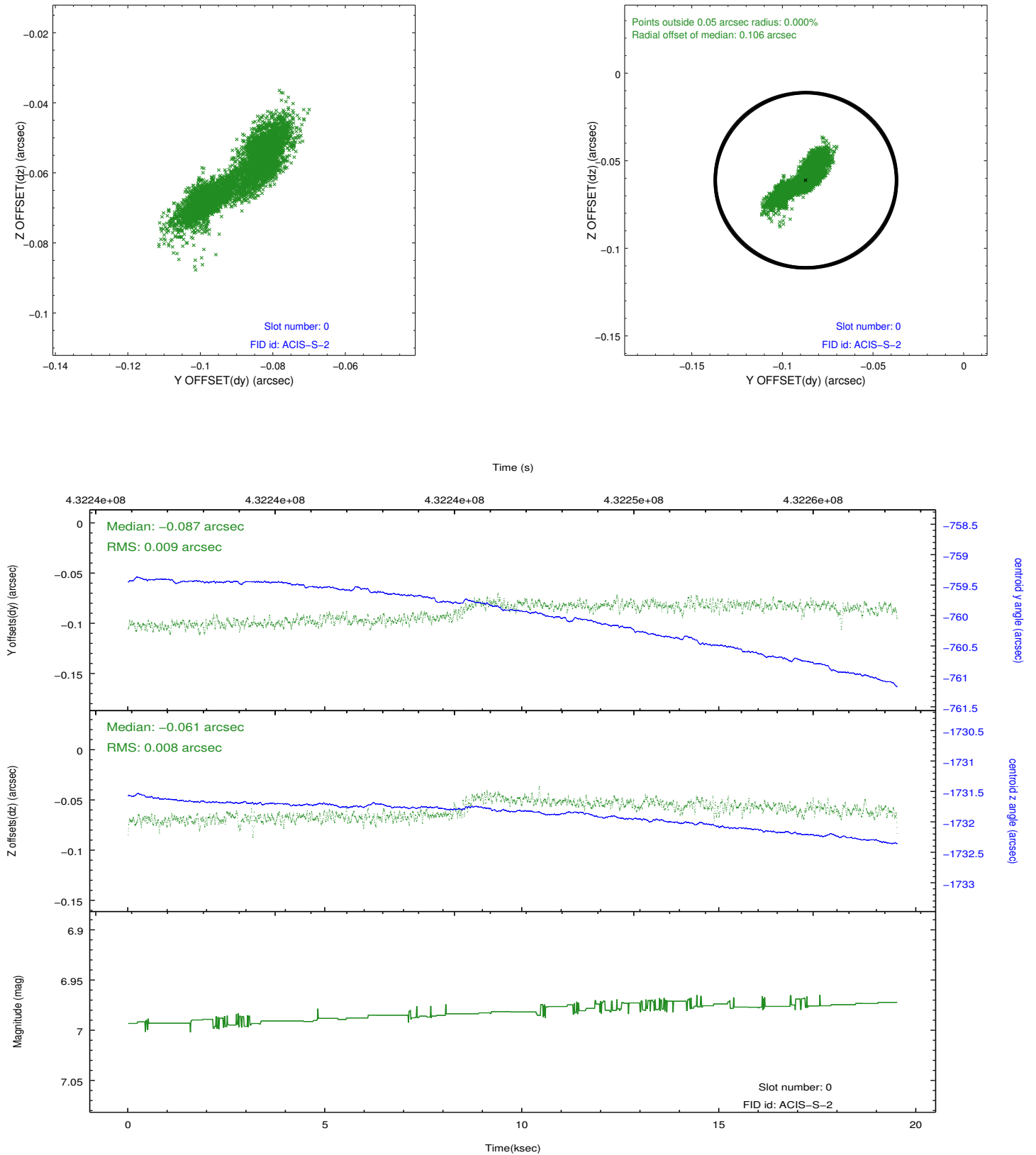


## 2.4.5 Slot 7

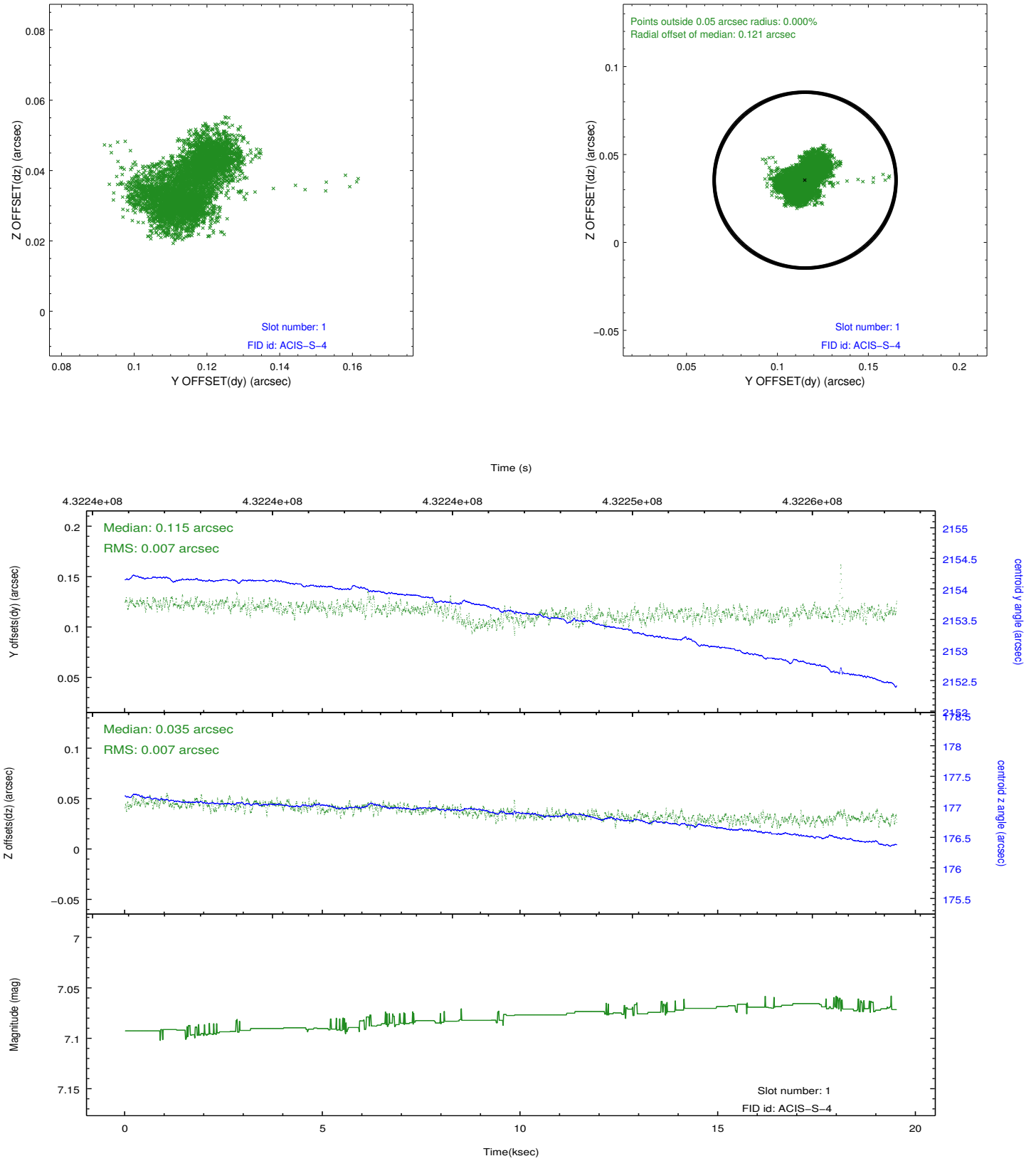


## 2.5 FID Slots

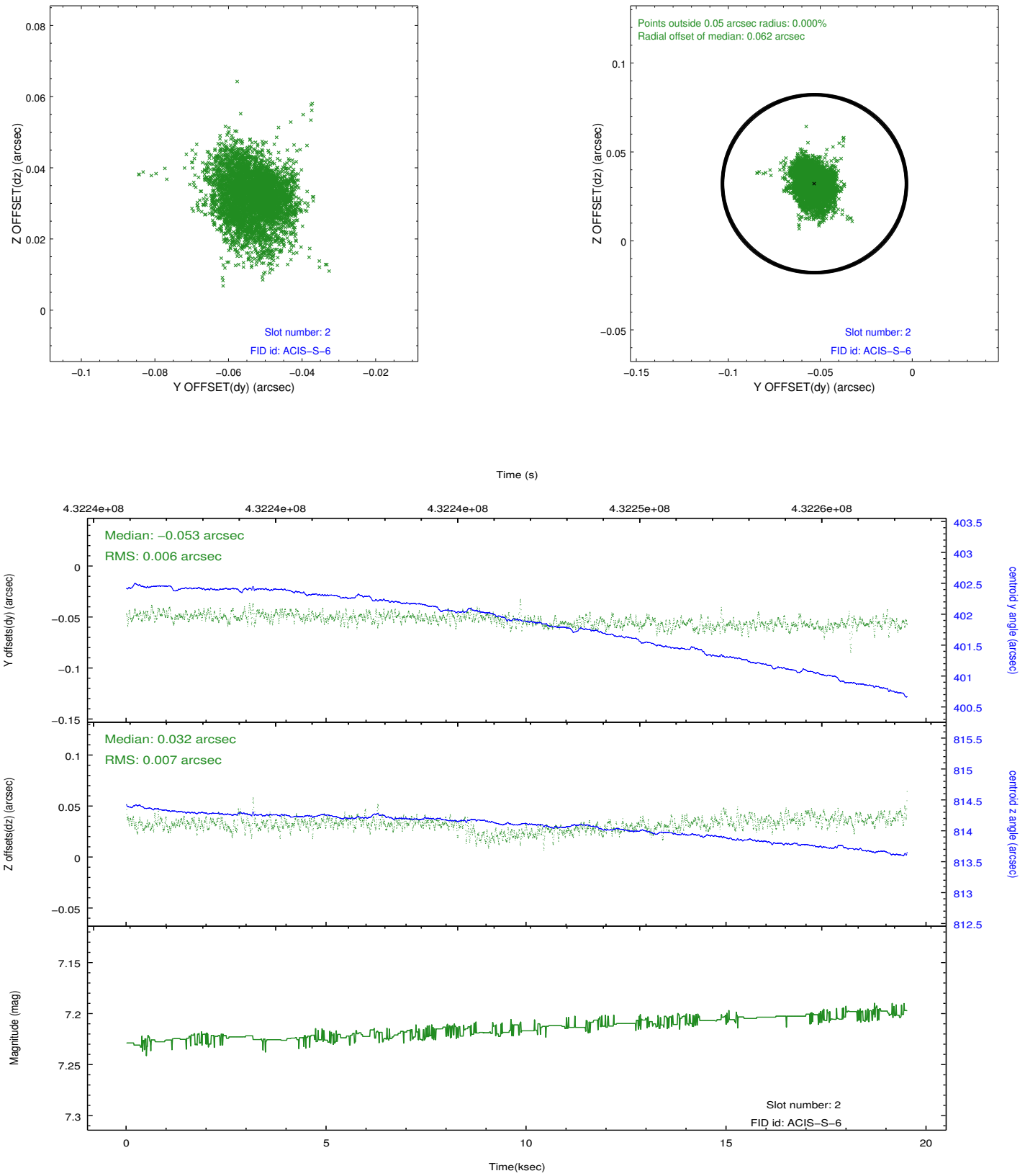
### 2.5.1 Slot 0



## 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)	2012.02.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.407999927759

### **A.2 Comments**