

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 10345 - L2 Version 2  
Chandra X-Ray Center

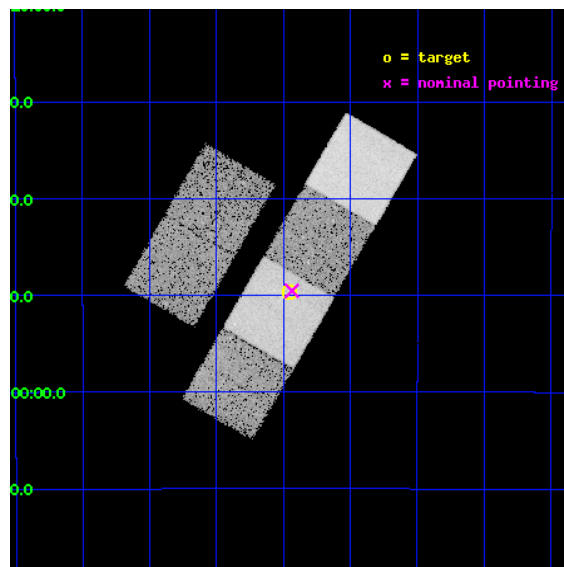
L2 Processing Date : Jun 10 2012

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# 1 Front

seq_num	701888	Sequence number
obs_id	10345	Observation id
title	Evolution of Activity in Massive Gas-rich Mergers: The X-ray Perspective	Proposal title
observer	Prof. Sylvain Veilleux	Principal investigator
object	F02021-2103	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	31.11375	Observer's specified target RA [deg]
dec_targ	-20.828139	Observer's specified target Dec [deg]
ra_nom	31.109209949023	Nominal RA [deg]
dec_nom	-20.825831751634	Nominal Dec [deg]
roll_nom	120.15503651506	Nominal Roll [deg]
revision	2	Processing version of data
ontime	15039.999944031	Sum of GTIs [s]
livetime	14849.554408739	Livetime [s]
ontime2	15039.999944031	Sum of GTIs [s]
ontime3	15036.758963704	Sum of GTIs [s]
ontime5	15039.999944031	Sum of GTIs [s]
ontime6	15039.999944031	Sum of GTIs [s]
ontime7	15039.999944031	Sum of GTIs [s]
ontime8	15039.999944031	Sum of GTIs [s]
l2events	176872	Number of level 2 events

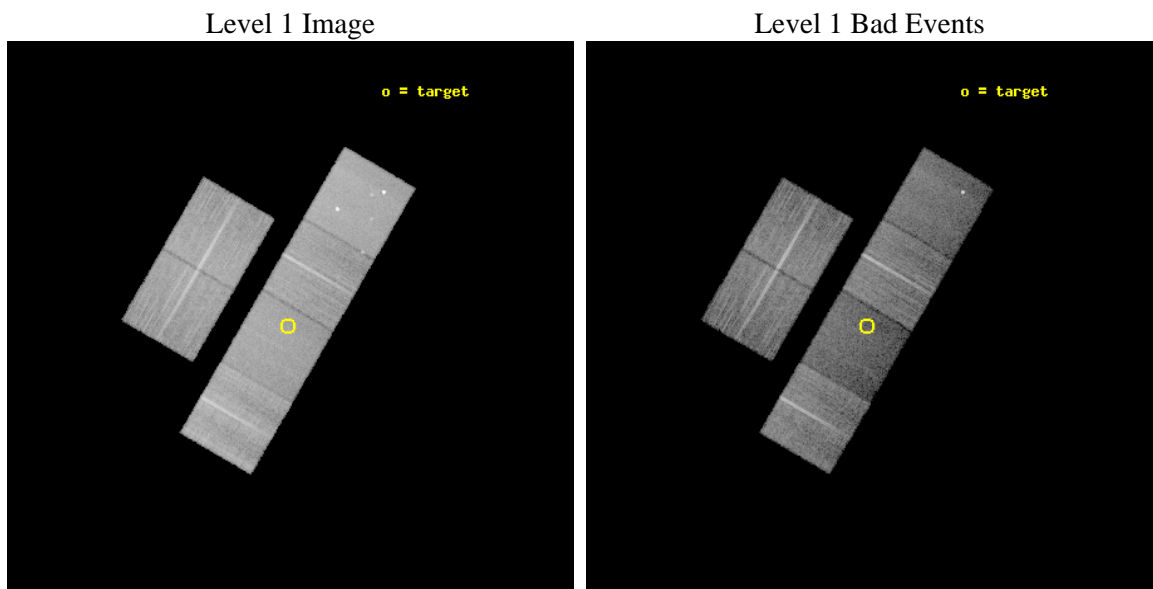




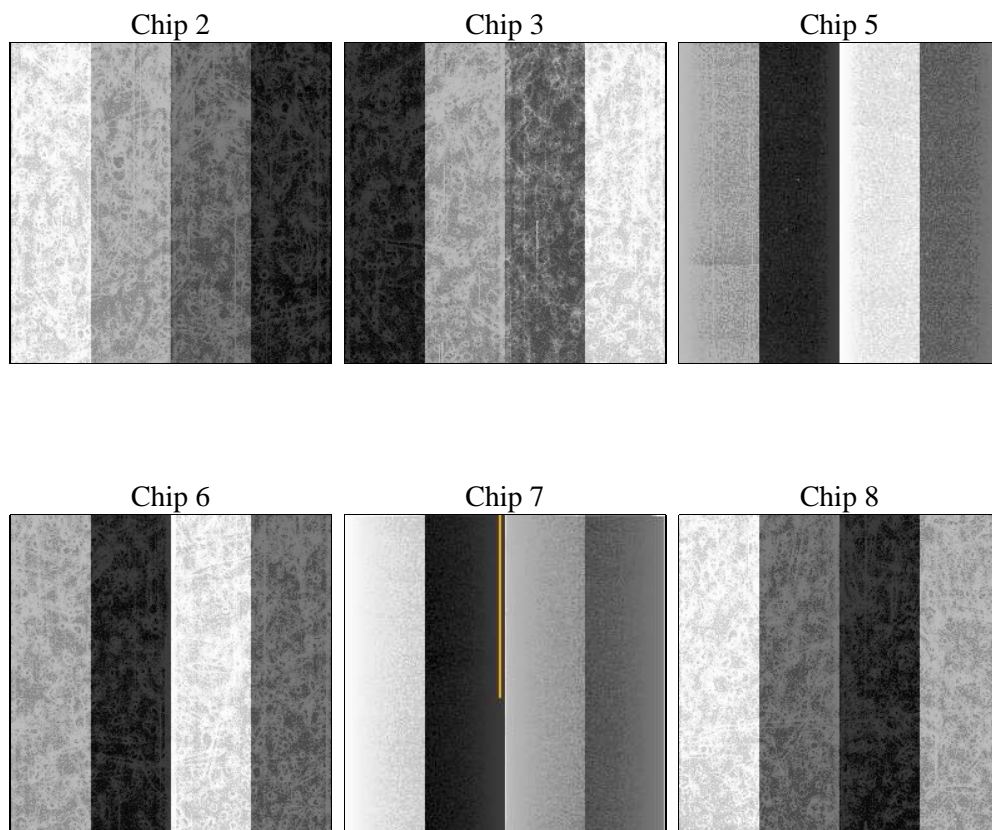
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	15039.999944031	Sum of GTIs [s]
caldsver	4.4.10	&#160	ontime2	15039.999944031	Sum of GTIs [s]
date	2012-06-10T11:55:52	Date and time of file creation	ontime3	15036.758963704	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	15039.999944031	Sum of GTIs [s]
			ontime6	15039.999944031	Sum of GTIs [s]
			ontime7	15039.999944031	Sum of GTIs [s]
			ontime8	15039.999944031	Sum of GTIs [s]
			l1events	808065	Number of level 1 events

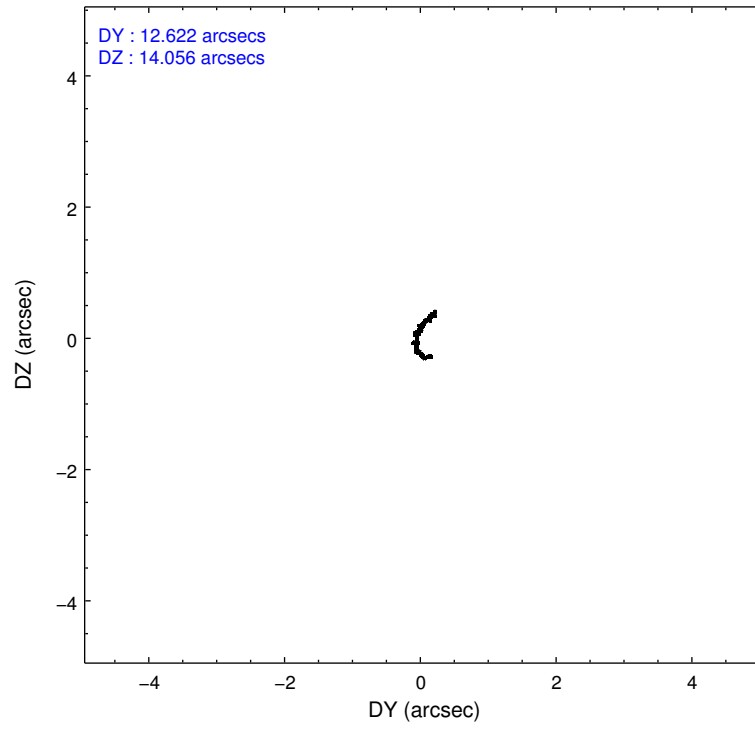
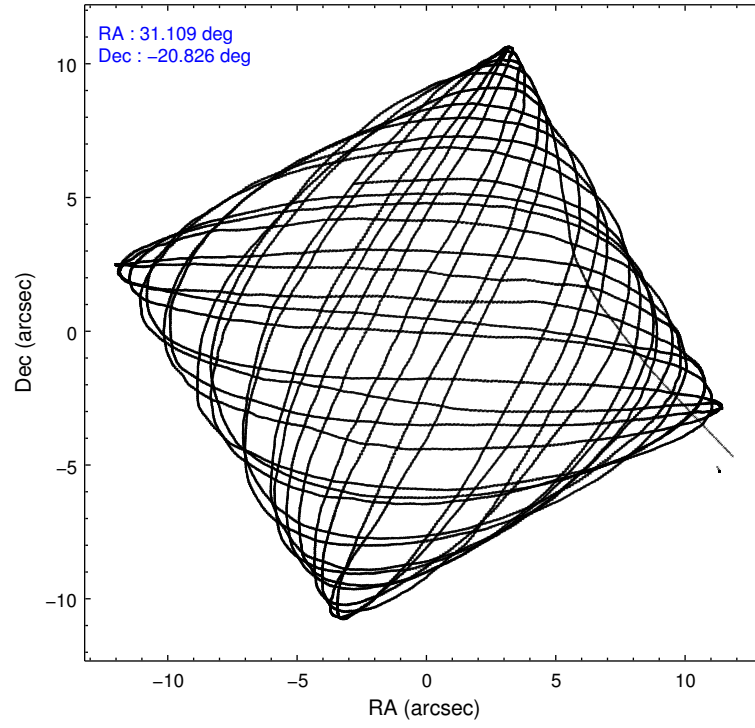
### 2.1.4 Events

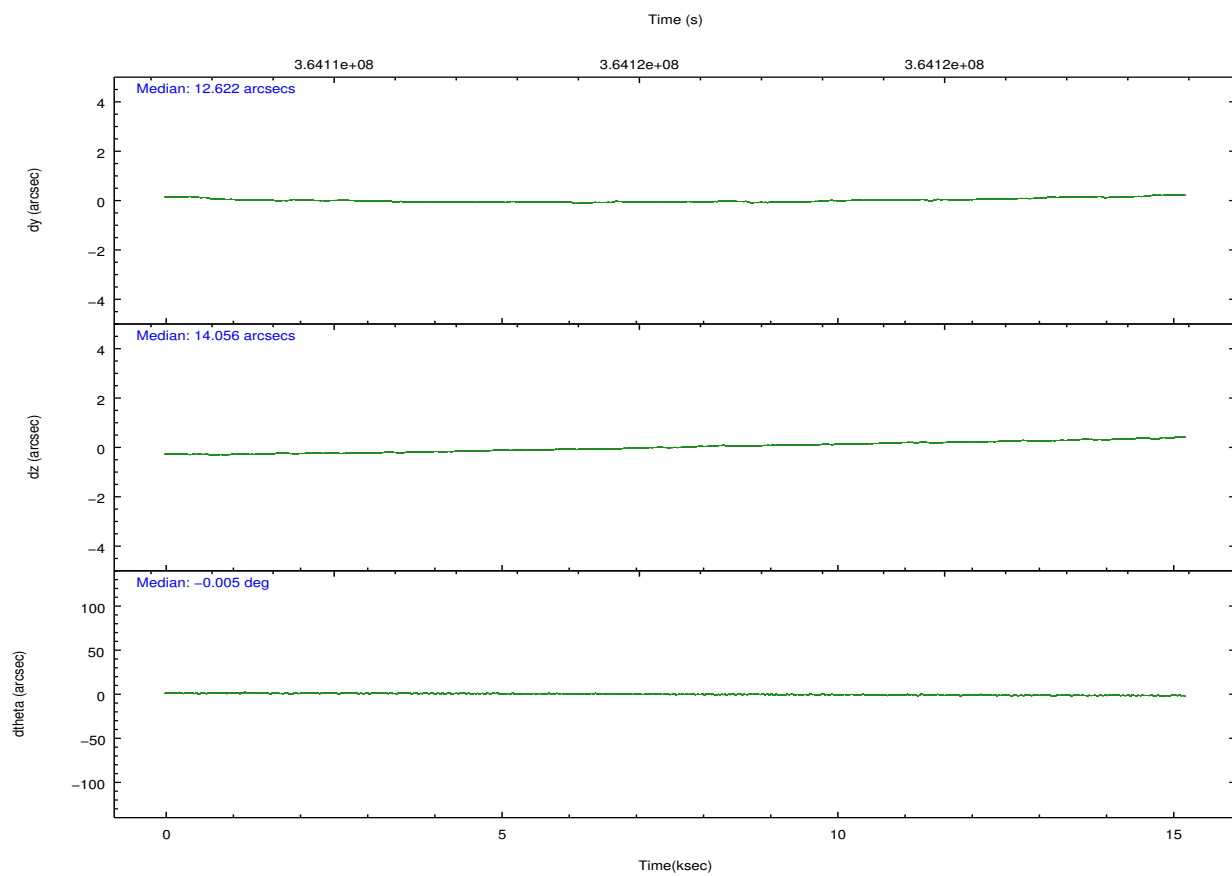
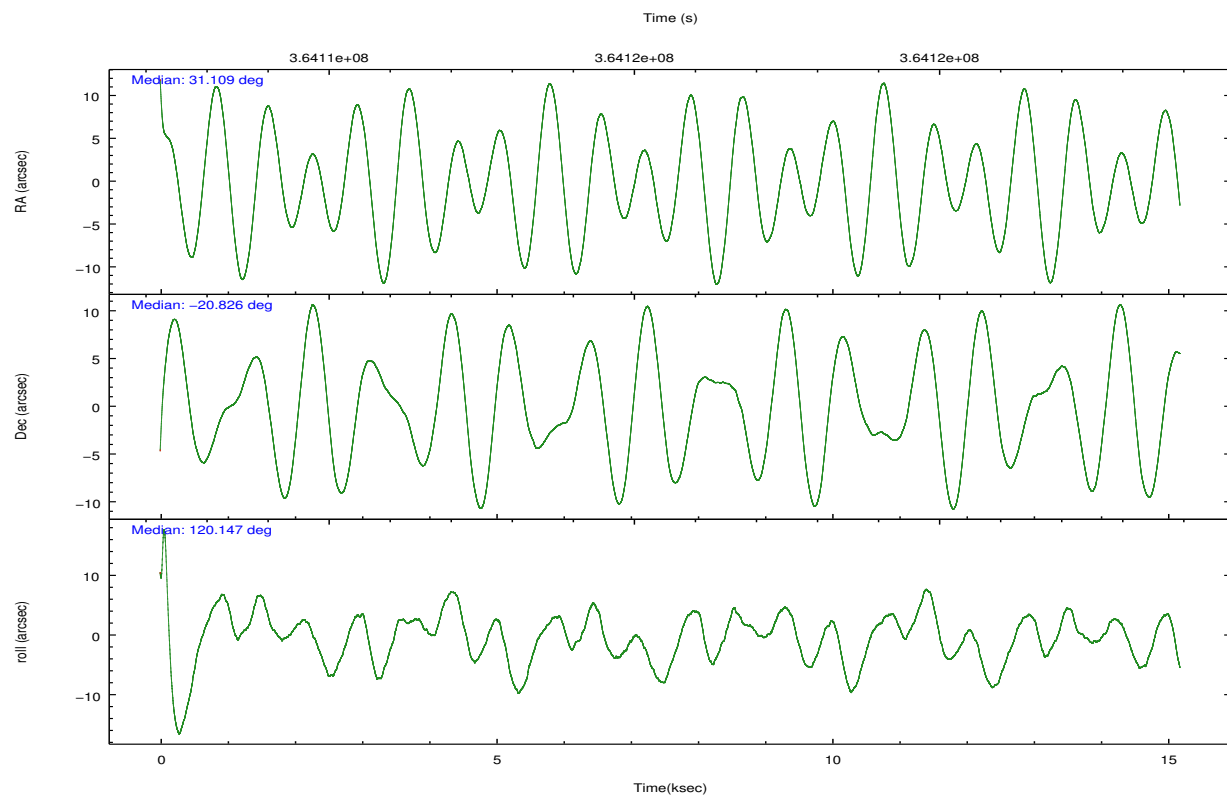
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	133022	118945	162042	121983	118416	153657	grade 0 events	4361	4226	10745	4808	5946	11081
rejected events	120858	107571	76465	109040	60071	113893		3%	3%	6%	3%	5%	7%
rejected %	90%	90%	47%	89%	50%	74%	grade 1 events	99	69	1022	63	185	121
								0%	0%	0%	0%	0%	0%
							grade 2 events	3025	2476	26340	2928	12503	9253
								2%	2%	16%	2%	10%	6%
							grade 3 events	1249	1306	3395	1339	5367	4561
								0%	1%	2%	1%	4%	2%
							grade 4 events	1278	1238	3343	1281	5251	4127
								0%	1%	2%	1%	4%	2%
							grade 5 events	3519	4192	12825	4265	12703	6699
								2%	3%	7%	3%	10%	4%
							grade 6 events	2253	2129	41771	2589	29296	10765
								1%	1%	25%	2%	24%	7%
							grade 7 events	117238	103309	62601	104710	47165	107050
								88%	86%	38%	85%	39%	69%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	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	31.134751	31.10920994902312	CCD I2 on	O1	Y
[deg] Pointing Dec	-20.839134	-20.82583175163389	CCD I3 on	O2	Y
[deg] Pointing Roll	120.007468	120.1550365150561	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	O4	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	O5	Y
[s] Observation start time (MET)	364108166.184000	364107147.40339	CCD S5 on	N	N
Observation start date	2009-07-16T05:08:20	2009-07-16T04:52:27	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	364123166.184000	364123890.77923	On-chip summing requested	N	N
Observation end date	2009-07-16T09:18:20	2009-07-16T09:31:30	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



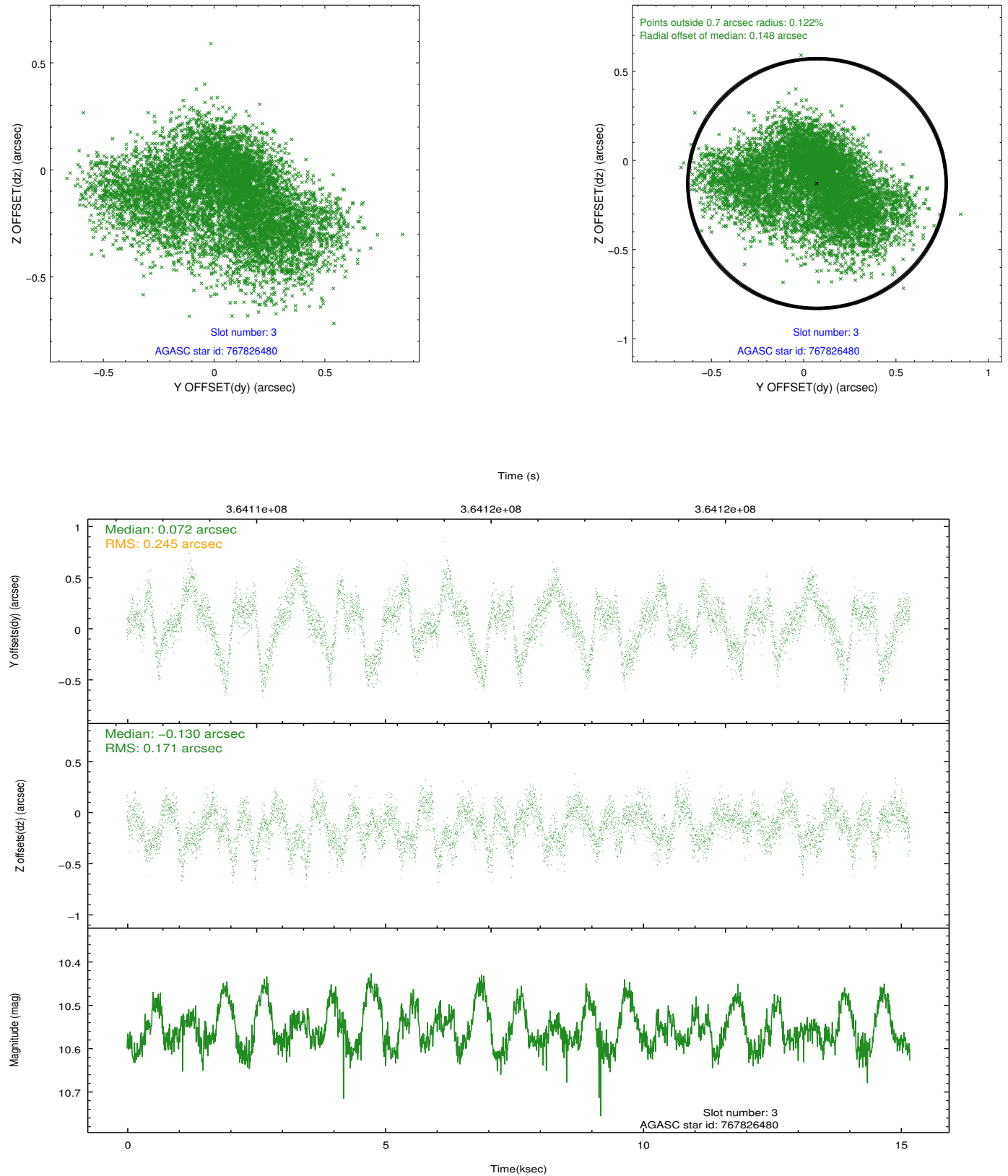


### Slot Statistics

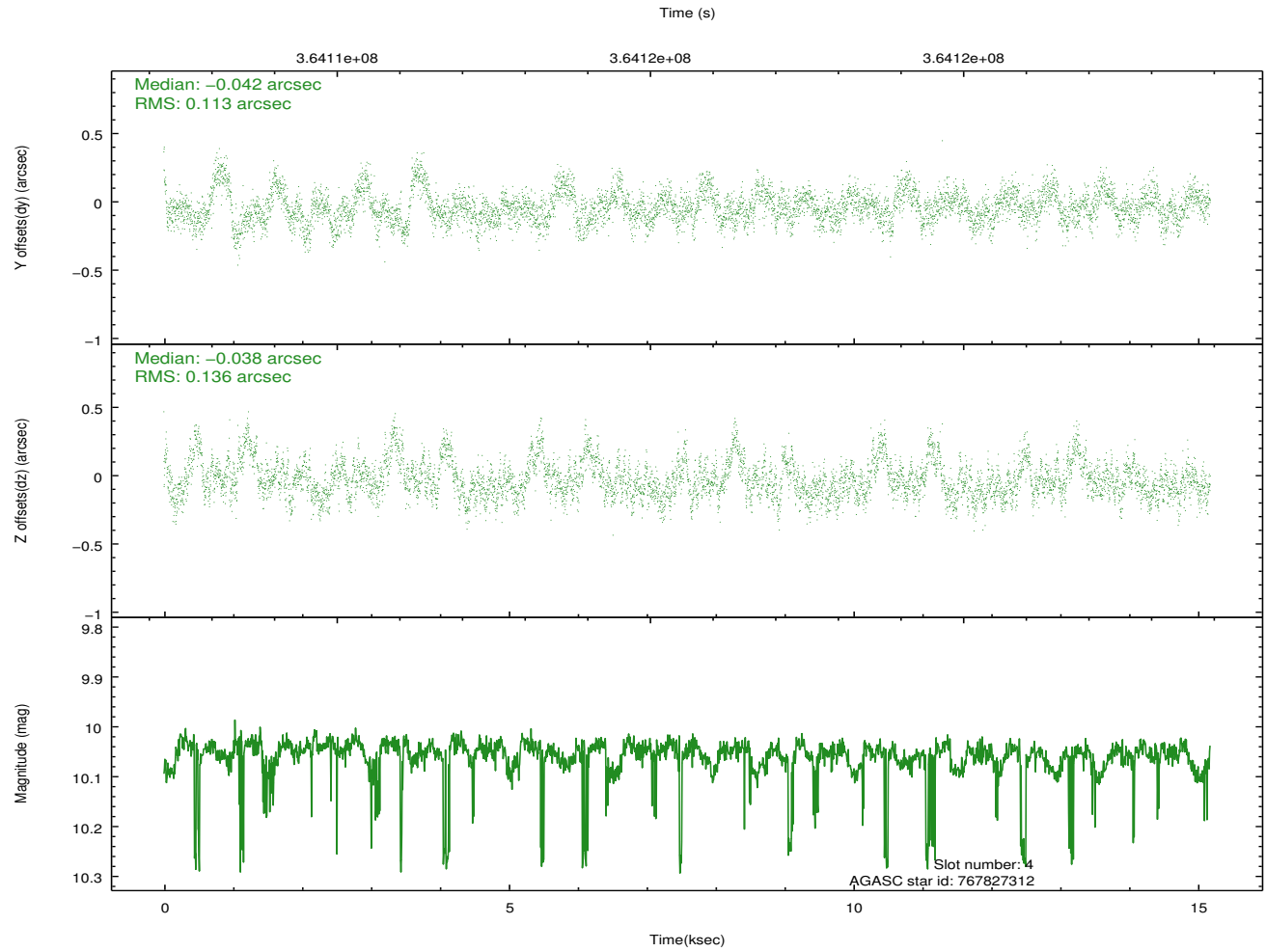
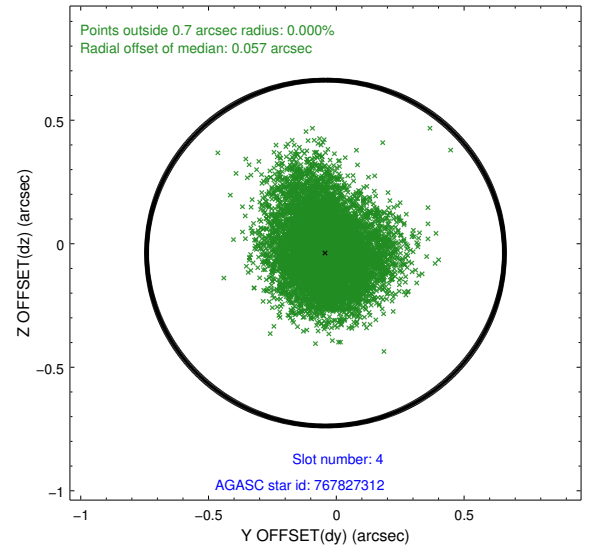
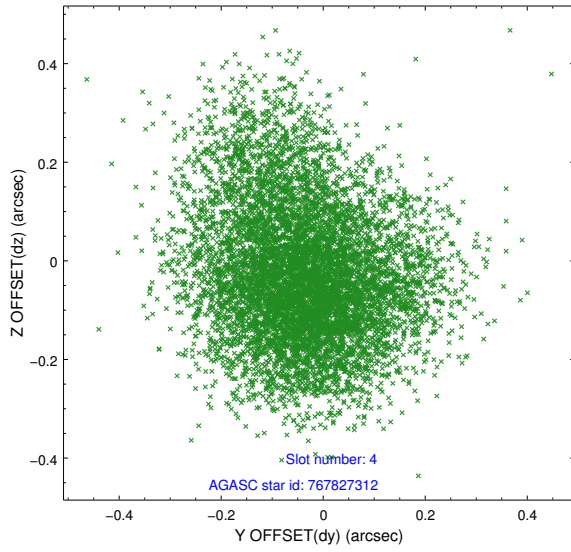
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.93	3704	-0.034	-0.031	0.009	0.015	0.000000	0.000000	-765.56	-1735.46
1	FID	ACIS-S-4	7.01	3704	0.134	0.025	0.009	0.020	0.000000	0.000000	2147.73	172.80
2	FID	ACIS-S-5	7.05	3704	-0.130	0.015	0.008	0.013	0.000000	0.000000	-1818.13	166.76
3	GUIDE	767826480	10.56	7376	0.072	-0.130	0.322	0.518	31.192831	-20.540928	832.05	-706.57
4	GUIDE	767827312	10.05	7333	-0.042	-0.038	0.188	0.310	31.265349	-20.513616	794.93	-966.95
5	GUIDE	767831592	9.34	7399	0.218	0.238	0.146	0.235	31.912804	-20.812375	-1230.71	-2311.06
6	GUIDE	767831576	8.37	7401	-0.138	-0.033	0.089	0.141	30.945478	-21.359933	-1306.78	1487.20
7	GUIDE	767831168	10.35	7377	-0.107	-0.059	0.221	0.349	31.443891	-20.010638	2059.39	-2396.00

## 2.4 Star Slots

### 2.4.1 Slot 3

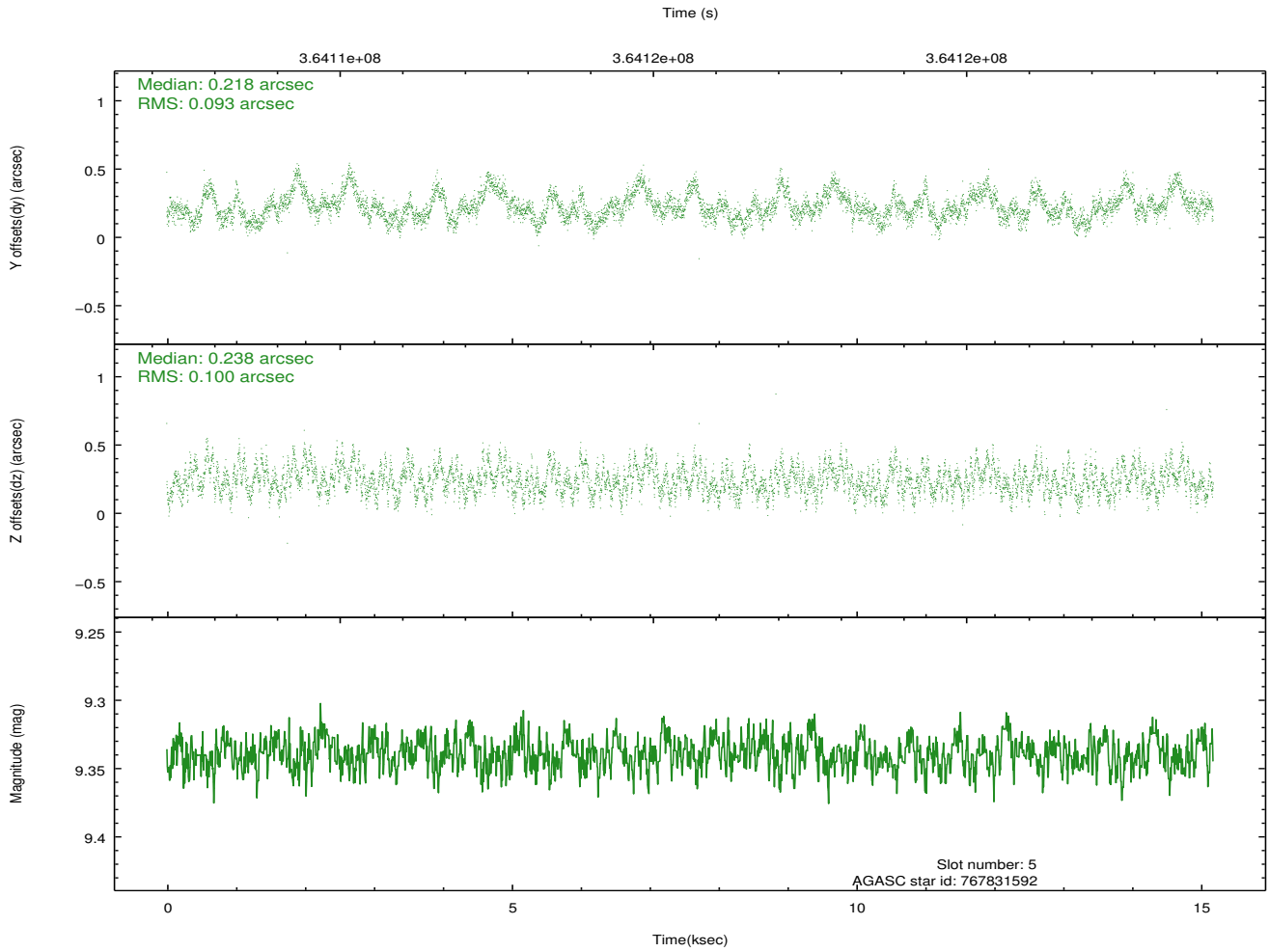
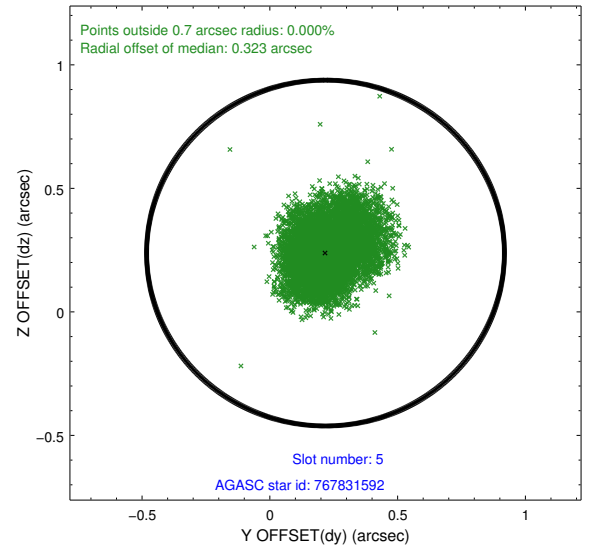
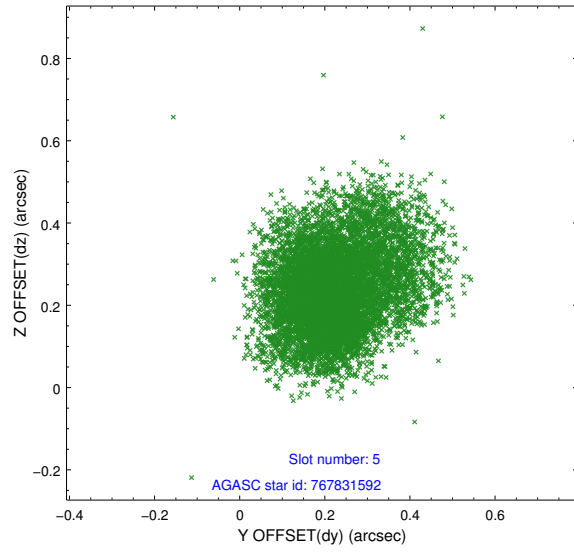


## 2.4.2 Slot 4

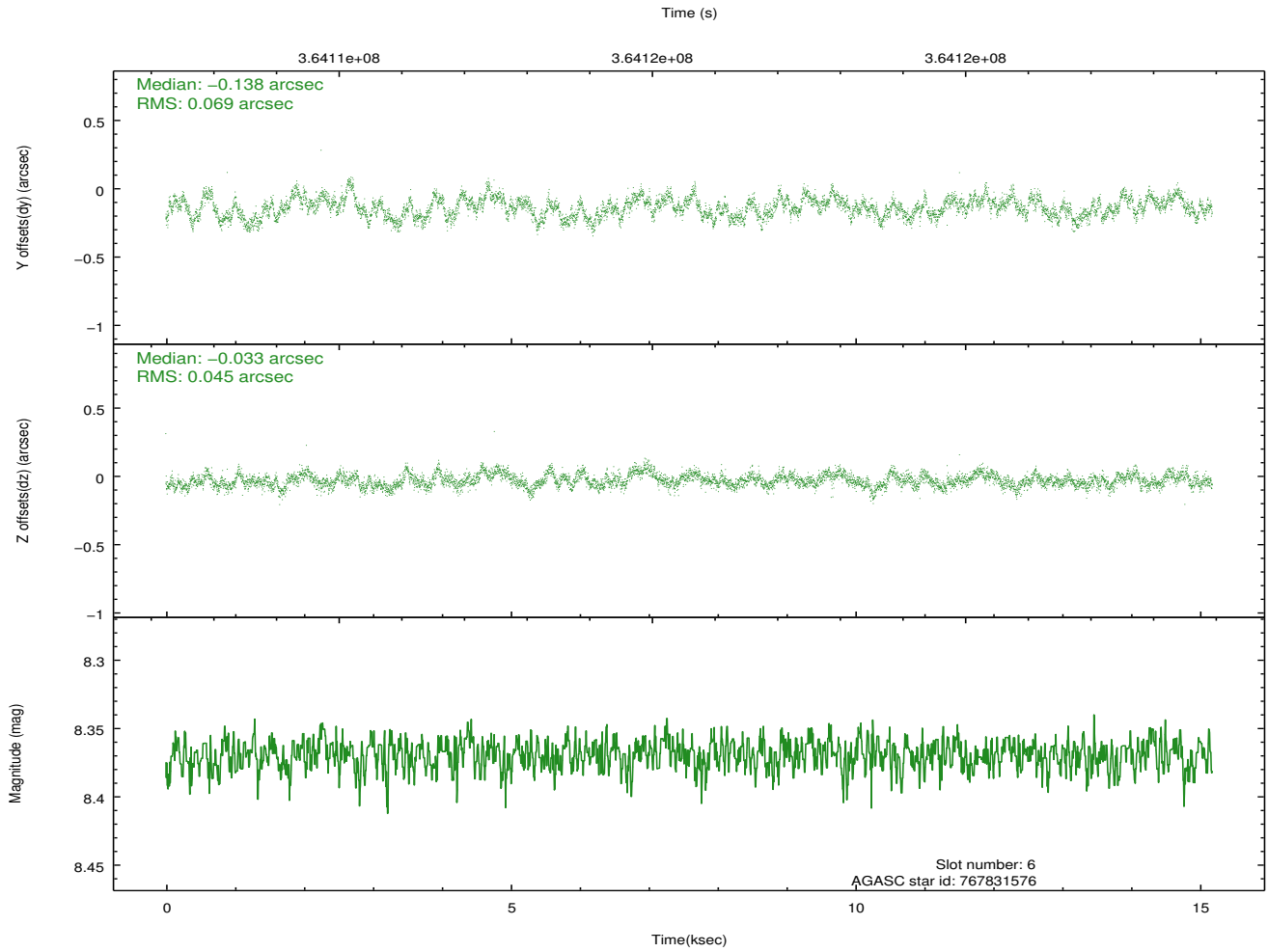
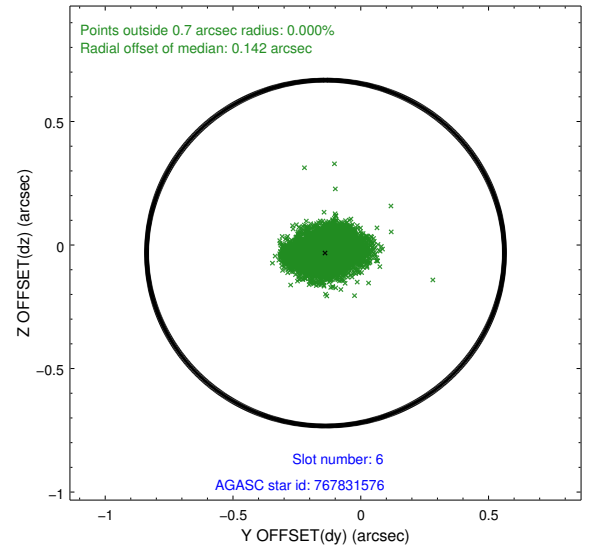
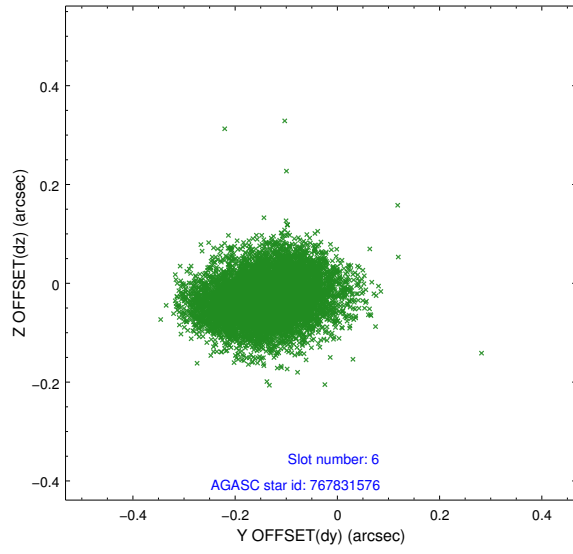




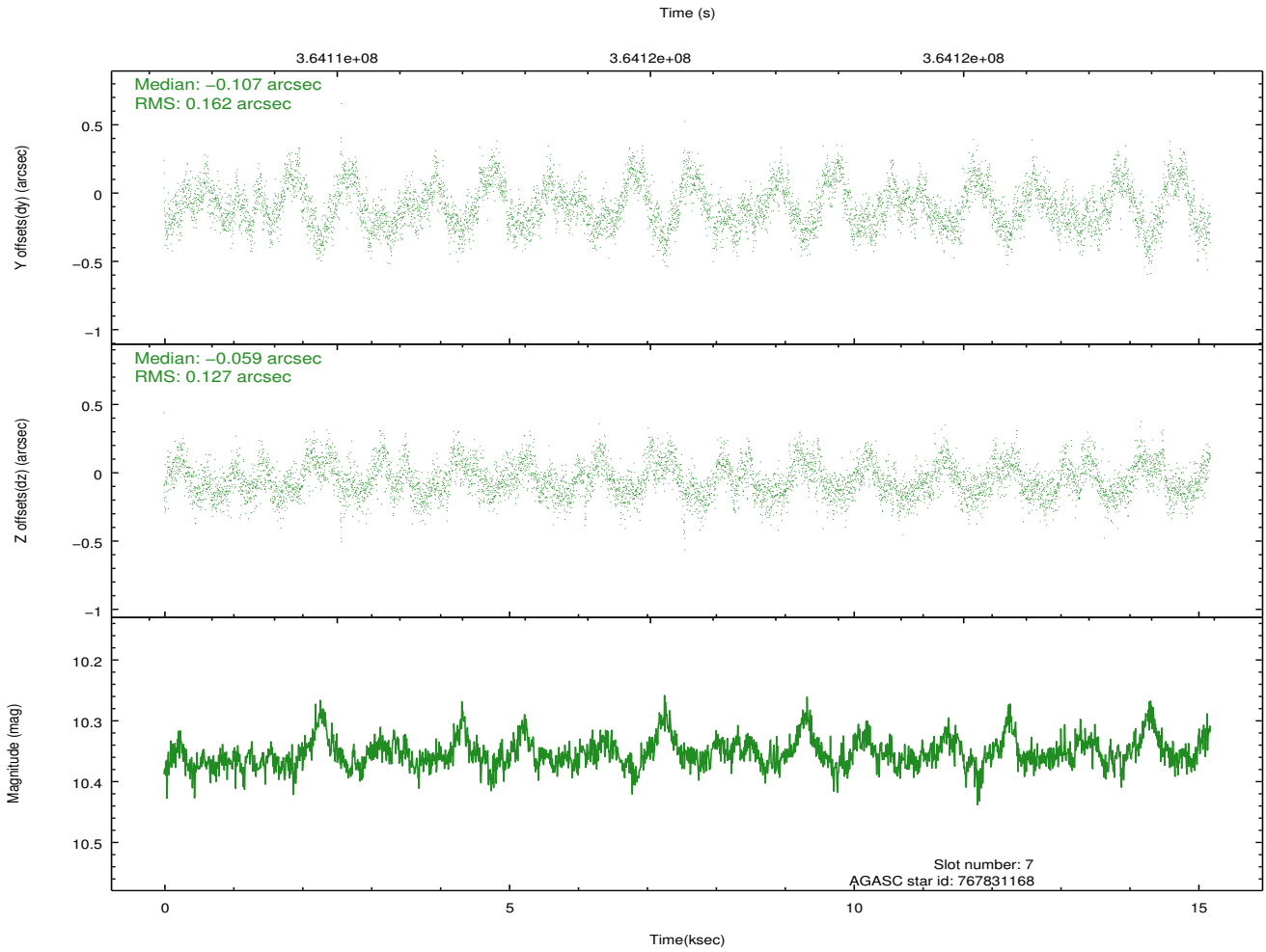
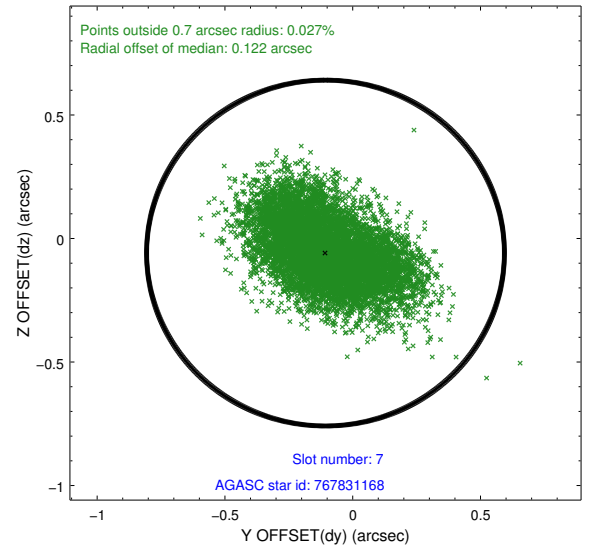
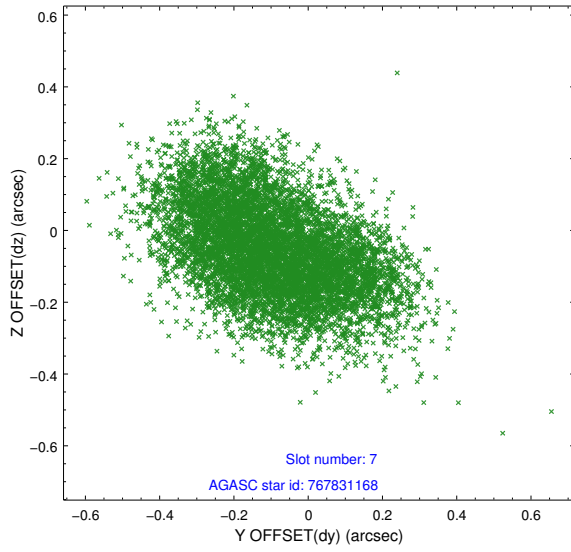
### 2.4.3 Slot 5



## 2.4.4 Slot 6

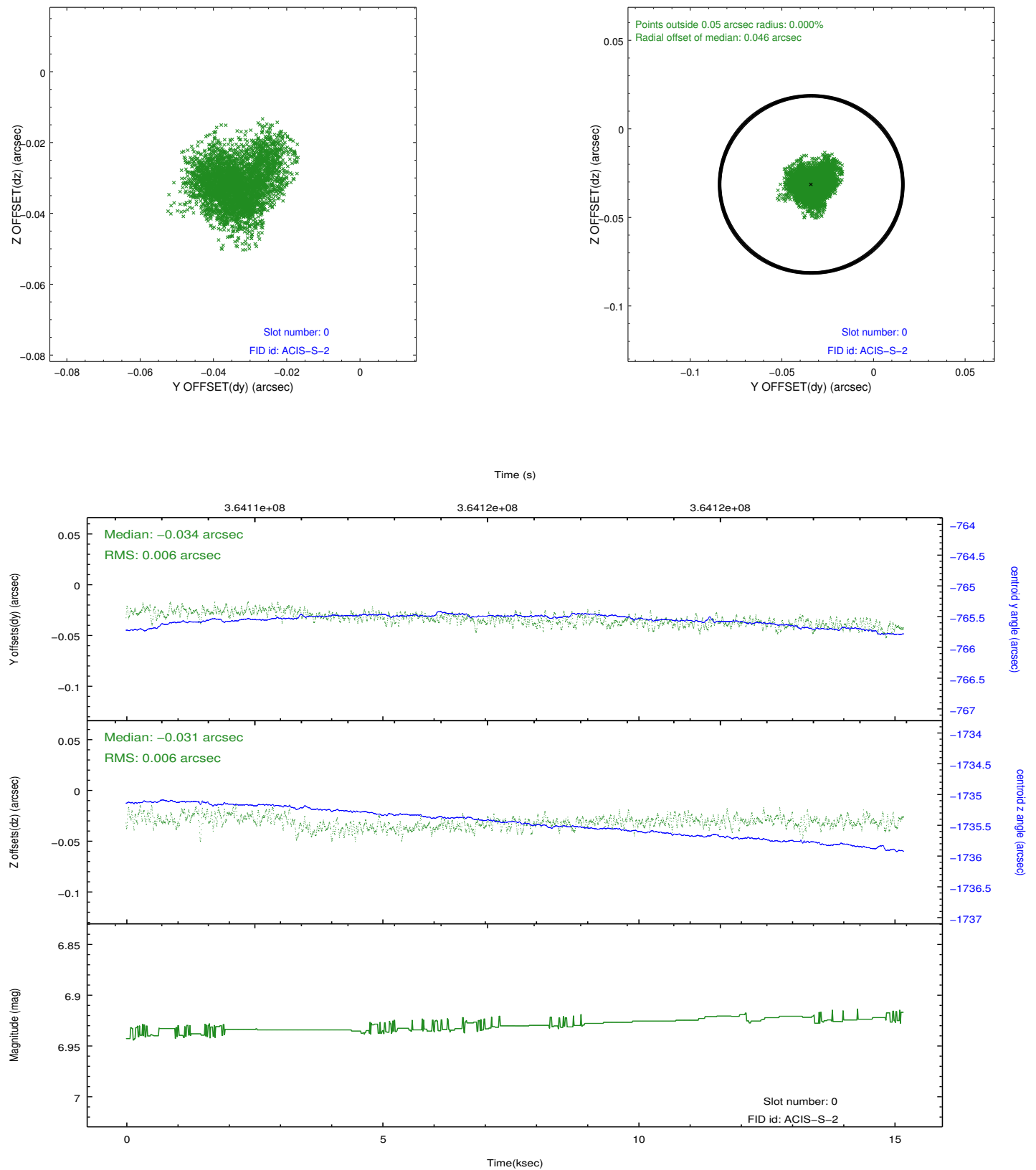


## 2.4.5 Slot 7

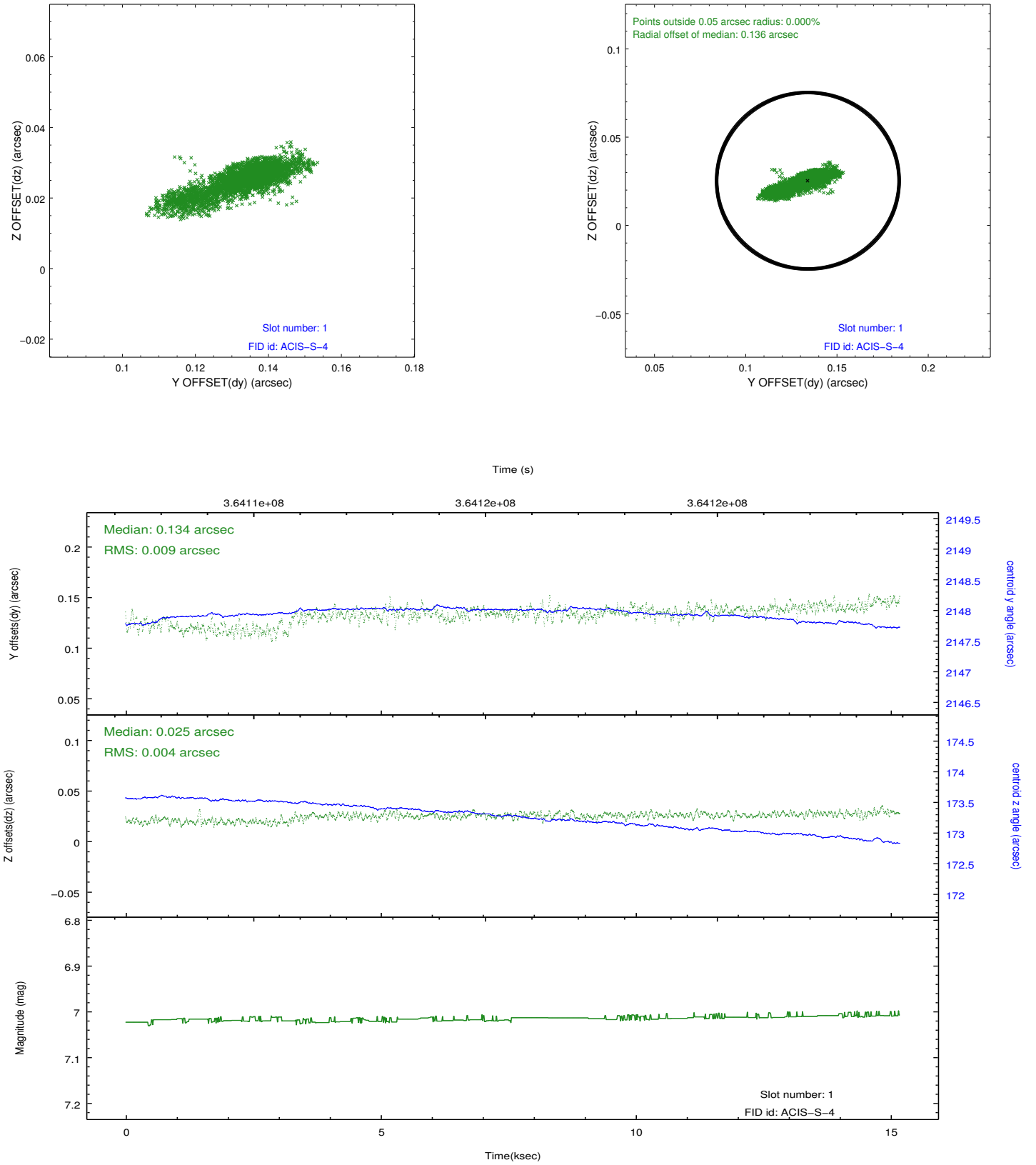


## 2.5 FID Slots

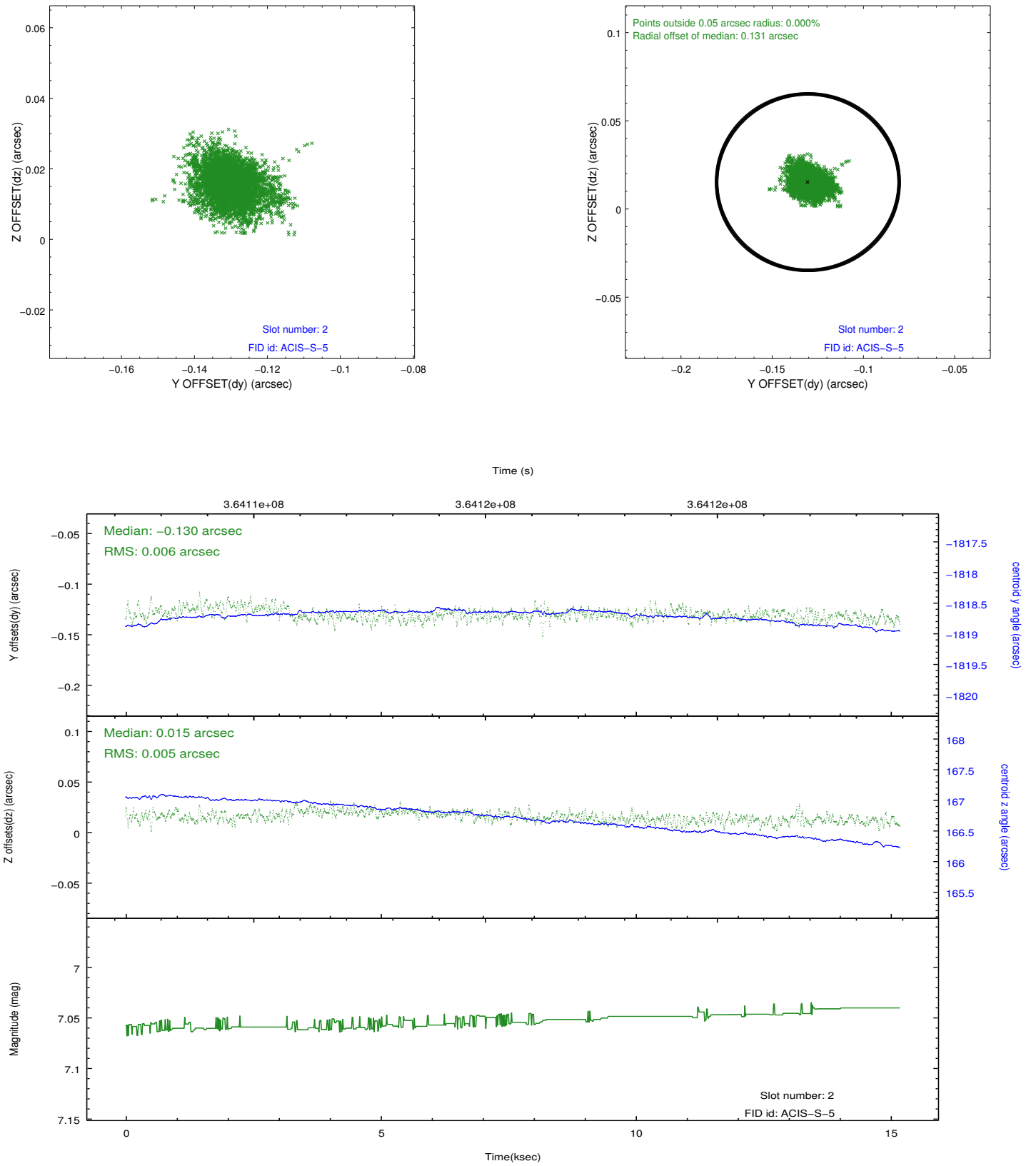
### 2.5.1 Slot 0



## 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)	2012.06.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.039999944031

### A.2 Comments