

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 15363 - L2 Version 2  
Chandra X-Ray Center

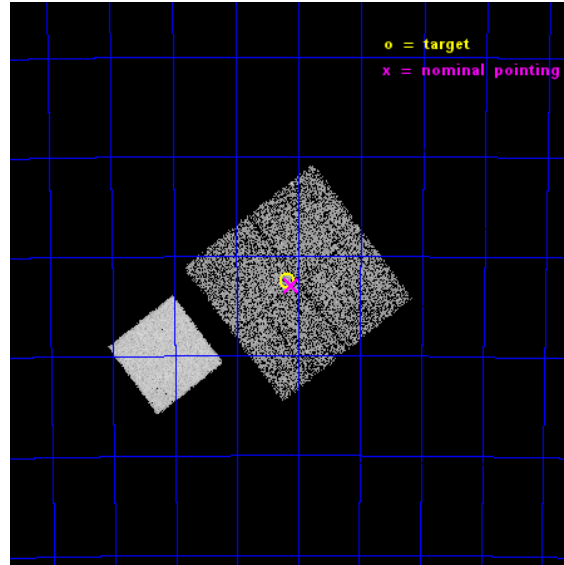
L2 Processing Date : Dec 1 2014

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# 1 Front

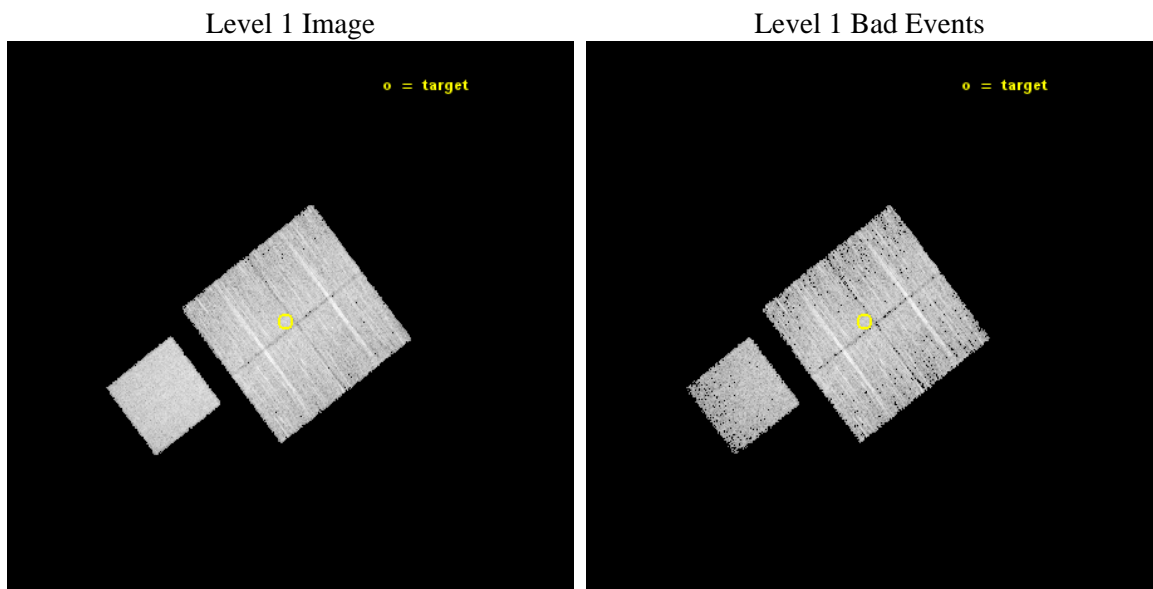
seq_num	502028	Sequence number
obs_id	15363	Observation id
title	Snap-shot survey of galactic gamma-ray sources	Proposal title
observer	Professor Gordon Garmire	Principal investigator
object	PSR J0101-6422	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	15.29625	Observer's specified target RA [deg]
dec_targ	-64.375028	Observer's specified target Dec [deg]
ra_nom	15.277410600377	Nominal RA [deg]
dec_nom	-64.38264197939	Nominal Dec [deg]
roll_nom	232.40481441776	Nominal Roll [deg]
revision	2	Processing version of data
ontime	9771.2000751495	Sum of GTIs [s]
livetime	9643.5321527149	Livetime [s]
ontime0	9768.0590848327	Sum of GTIs [s]
ontime1	9771.2000751495	Sum of GTIs [s]
ontime2	9768.0592342019	Sum of GTIs [s]
ontime3	9771.2000751495	Sum of GTIs [s]
ontime7	9771.2000751495	Sum of GTIs [s]
l2events	45041	Number of level 2 events



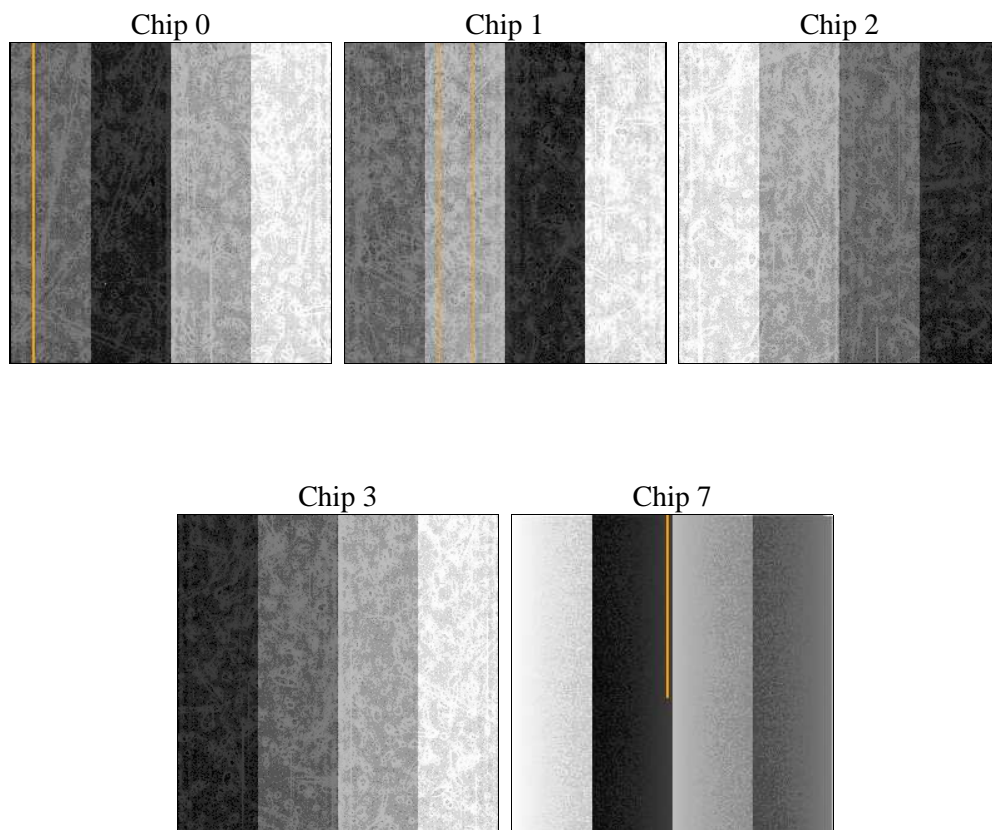
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	9771.2000751495	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	9768.0590848327	Sum of GTIs [s]
date	2014-12-01T18:28:39	Date and time of file creation	ontime1	9771.2000751495	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	9768.0592342019	Sum of GTIs [s]
			ontime3	9771.2000751495	Sum of GTIs [s]
			ontime7	9771.2000751495	Sum of GTIs [s]
			l1events	243964	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	44758	45379	49636	47169	57022
rejected events	38988	39626	43941	41873	29891
rejected %	87%	87%	88%	88%	52%

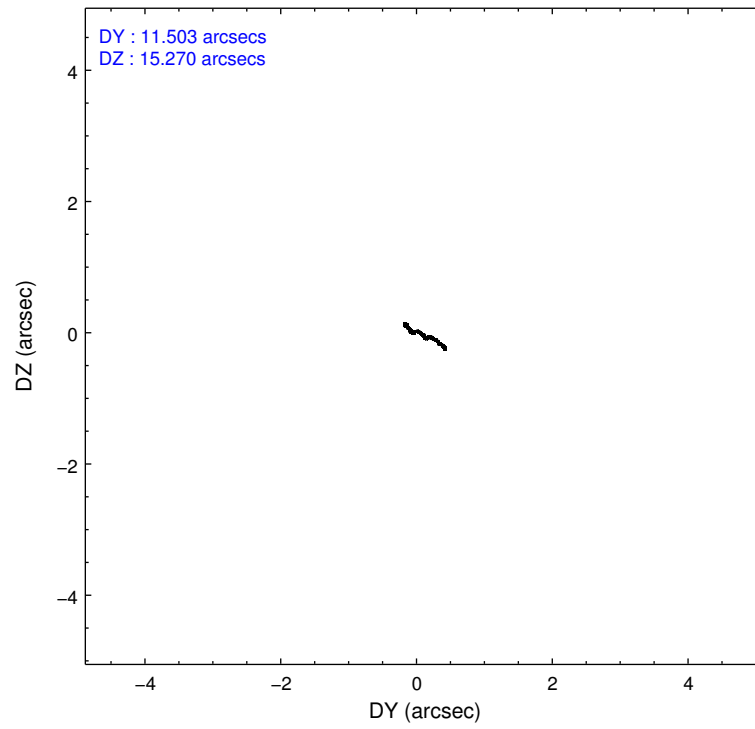
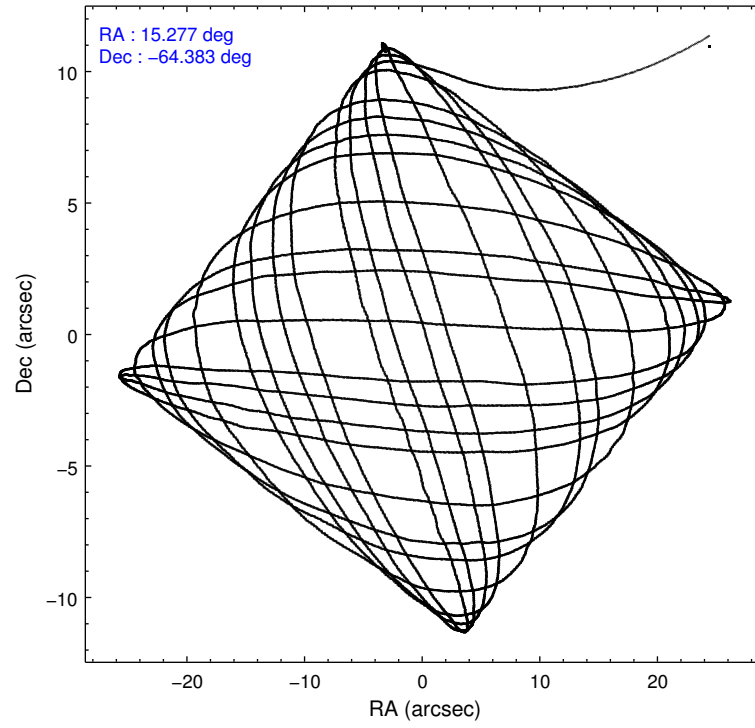
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	2042	1944	2079	1931	2669
	4%	4%	4%	4%	4%
grade 1 events	22	18	37	20	85
	0%	0%	0%	0%	0%
grade 2 events	1463	1425	1393	1232	5936
	3%	3%	2%	2%	10%
grade 3 events	619	586	553	544	2425
	1%	1%	1%	1%	4%
grade 4 events	558	582	605	564	2388
	1%	1%	1%	1%	4%
grade 5 events	1842	2001	1790	2208	6137
	4%	4%	3%	4%	10%
grade 6 events	1092	1220	1067	1029	13730
	2%	2%	2%	2%	24%
grade 7 events	37120	37603	42112	39641	23652
	82%	82%	84%	84%	41%

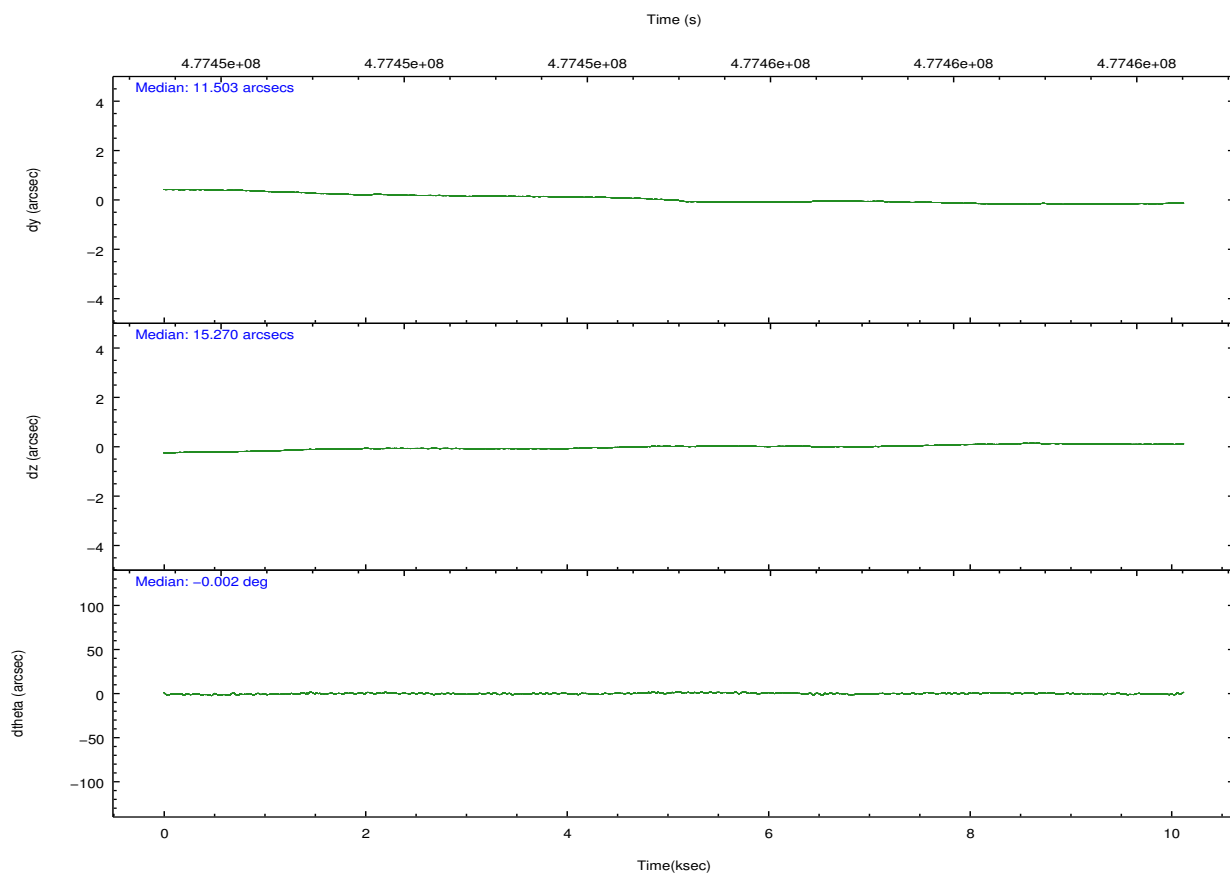
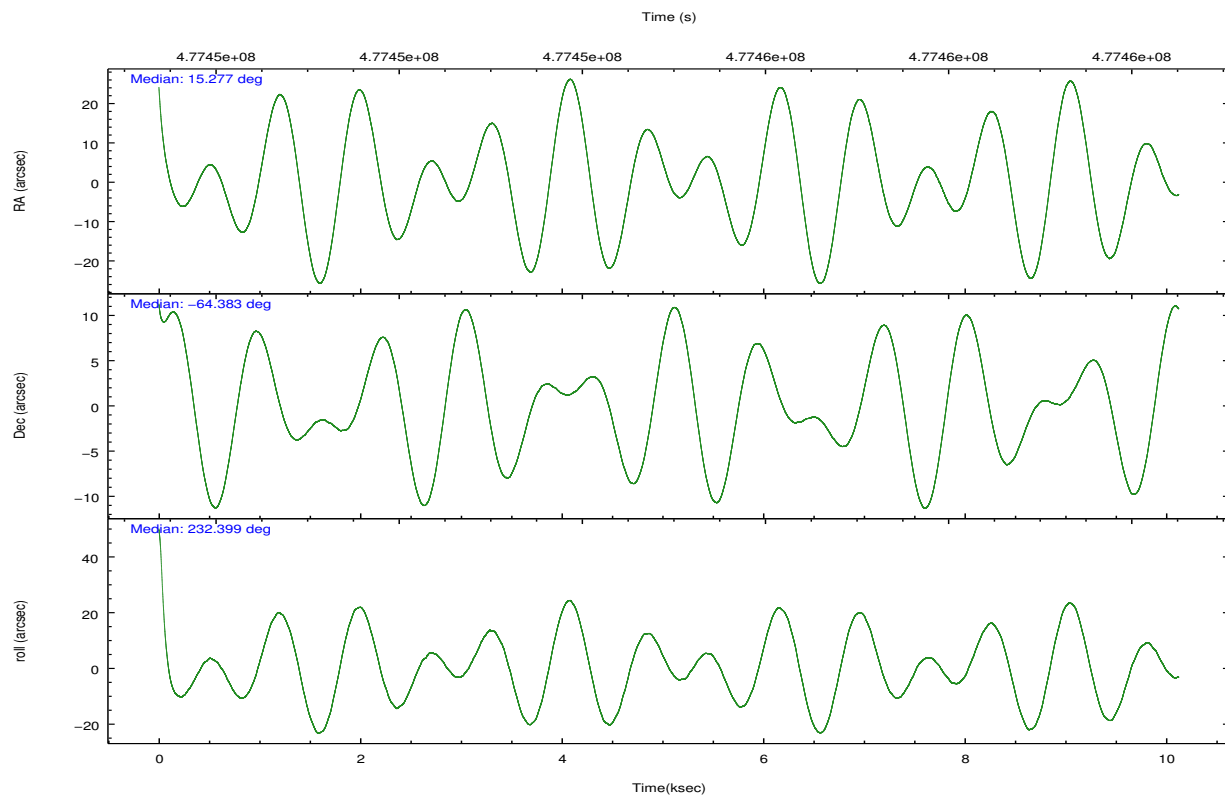


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01237	ACIS-01237	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	15.285567	15.27741060037658	CCD I2 on	Y	Y
[deg] Pointing Dec	-64.355416	-64.38264197939048	CCD I3 on	Y	Y
[deg] Pointing Roll	232.203447	232.4048144177632	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	N	N
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	477450006.184000	477448643.82303	CCD S5 on	N	N
Observation start date	2013-02-17T00:58:59	2013-02-17T00:37:23	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	477460006.184000	477461195.46121	On-chip summing requested	N	N
Observation end date	2013-02-17T03:45:39	2013-02-17T04:06:35	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



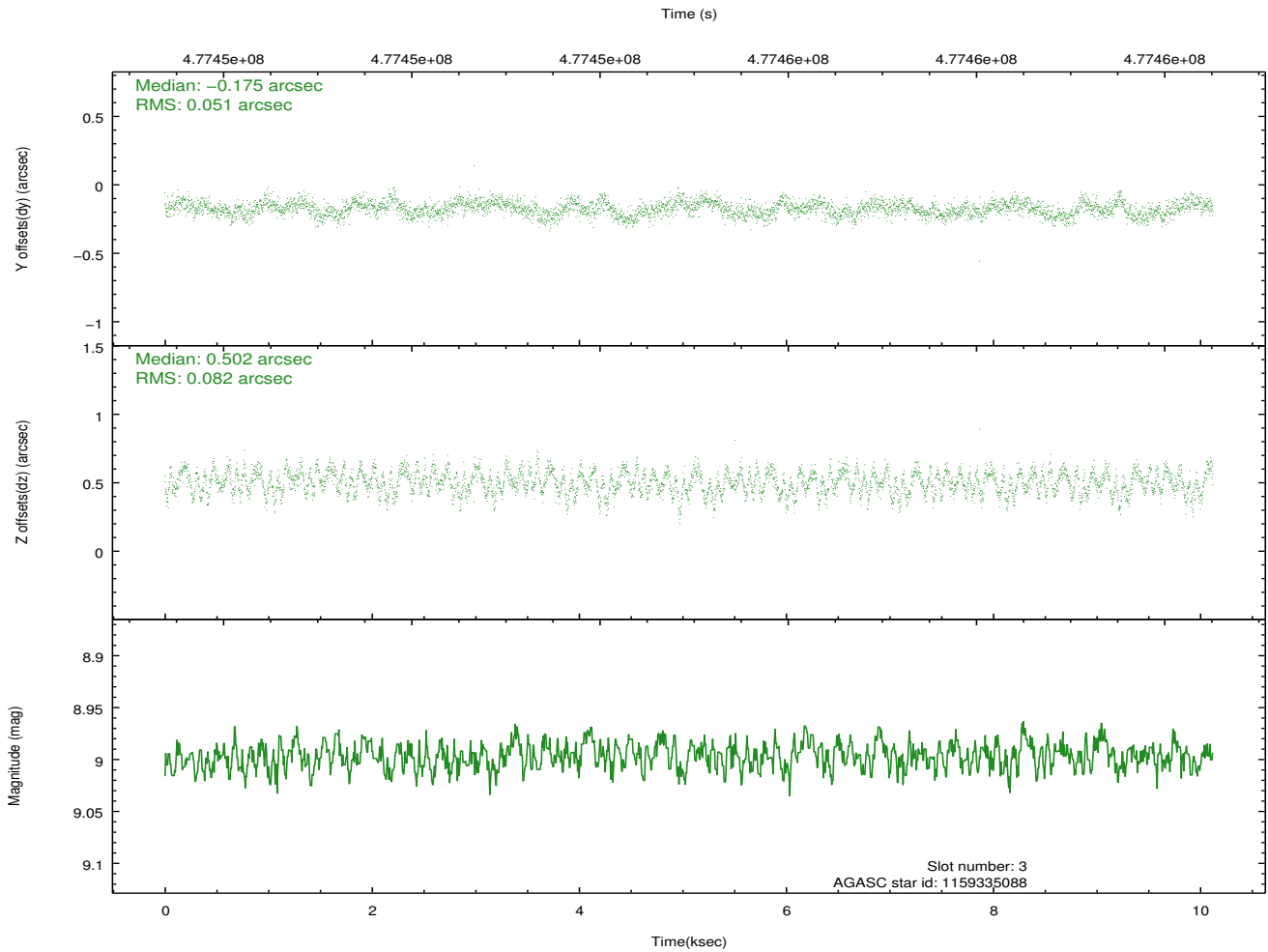
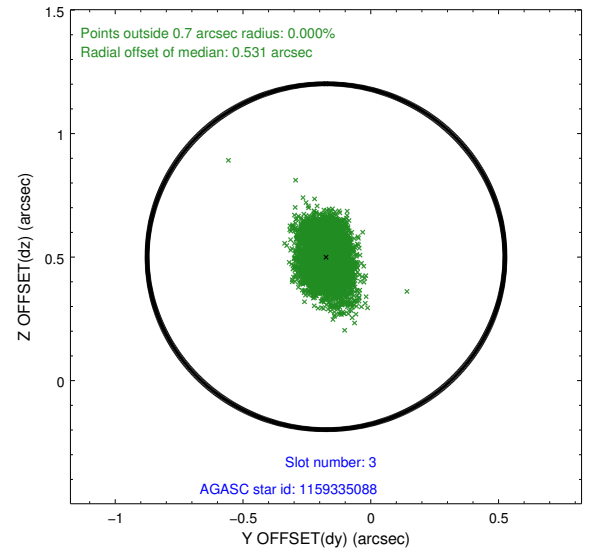
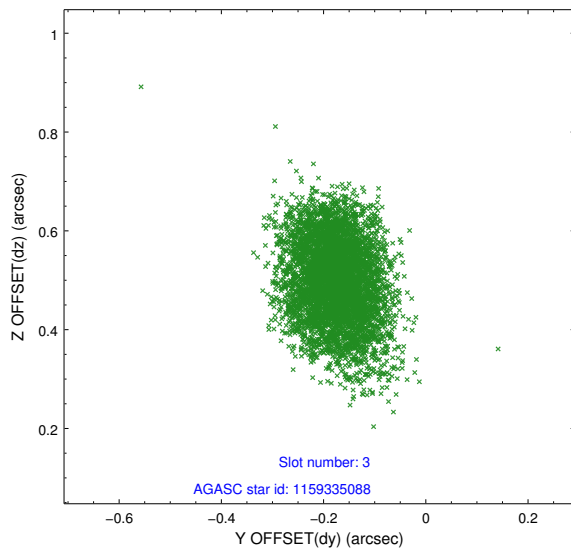


### Slot Statistics

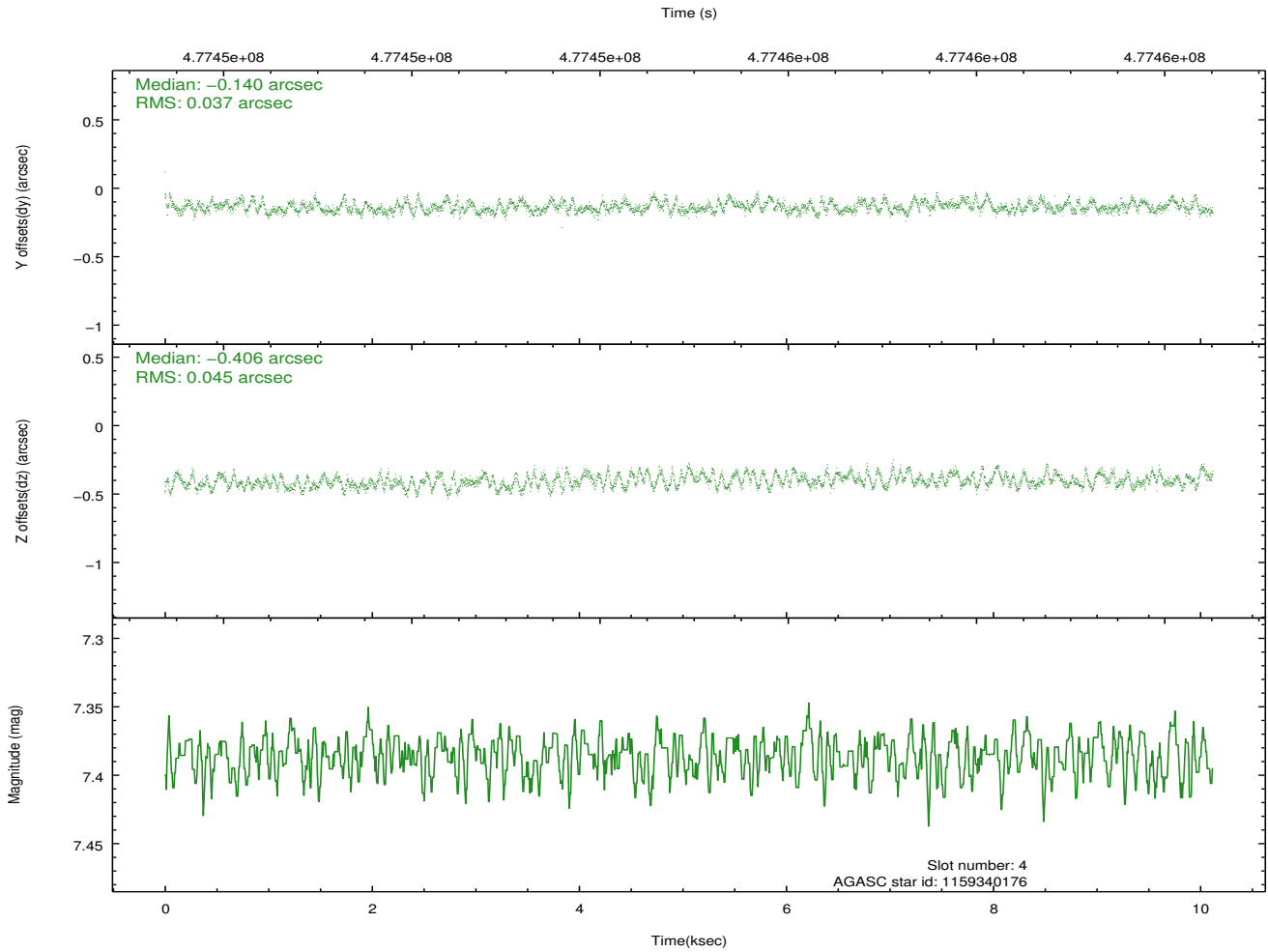
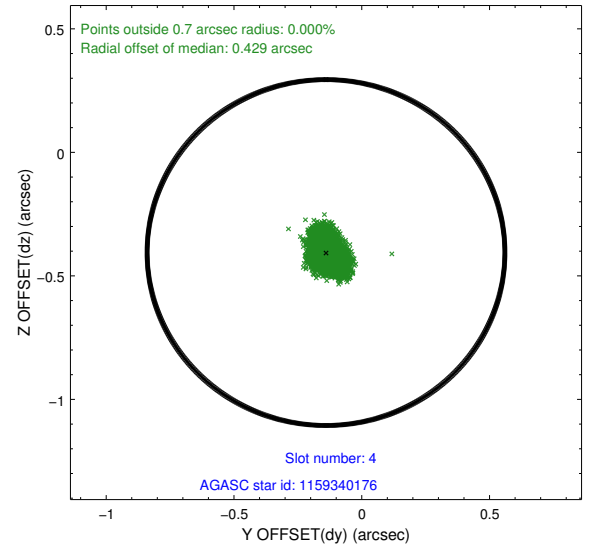
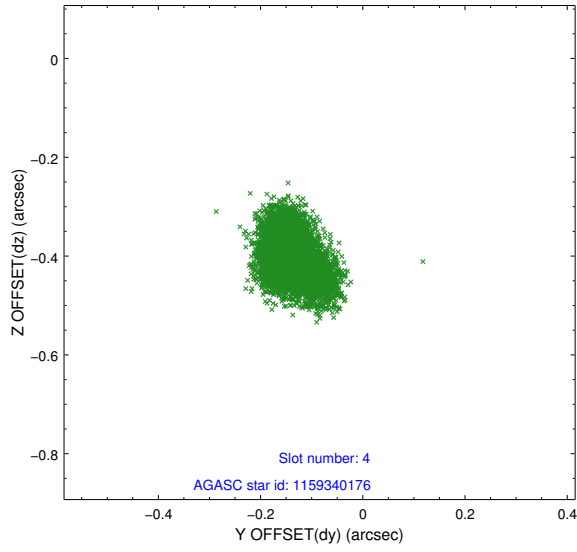
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.12	2469	0.004	-0.021	0.018	0.029	0.000000	0.000000	928.00	-838.87
1	FID		ACIS-I-4	7.05	2468	0.112	0.036	0.014	0.026	0.000000	0.000000	2148.44	1060.72
2	FID		ACIS-I-5	7.11	2468	-0.213	0.056	0.012	0.019	0.000000	0.000000	-1819.54	1059.18
3	GUIDE	used	1159335088	9.00	4939	-0.175	0.502	0.102	0.164	14.412931	-63.892340	-462.09	-2107.33
4	GUIDE	used	1159340176	7.39	4937	-0.140	-0.406	0.062	0.099	16.142447	-64.701173	182.55	1809.78
5	GUIDE	used	1159341080	8.49	4938	0.116	0.045	0.064	0.106	15.679048	-63.984479	-1433.76	-325.70
6	GUIDE	used	1159342336	8.28	4938	-0.008	-0.056	0.066	0.104	14.541223	-64.713075	1724.76	-110.60
7	GUIDE	used	1159340704	7.56	4938	0.205	-0.089	0.074	0.123	14.457866	-63.774113	-839.25	-2317.30

## 2.4 Star Slots

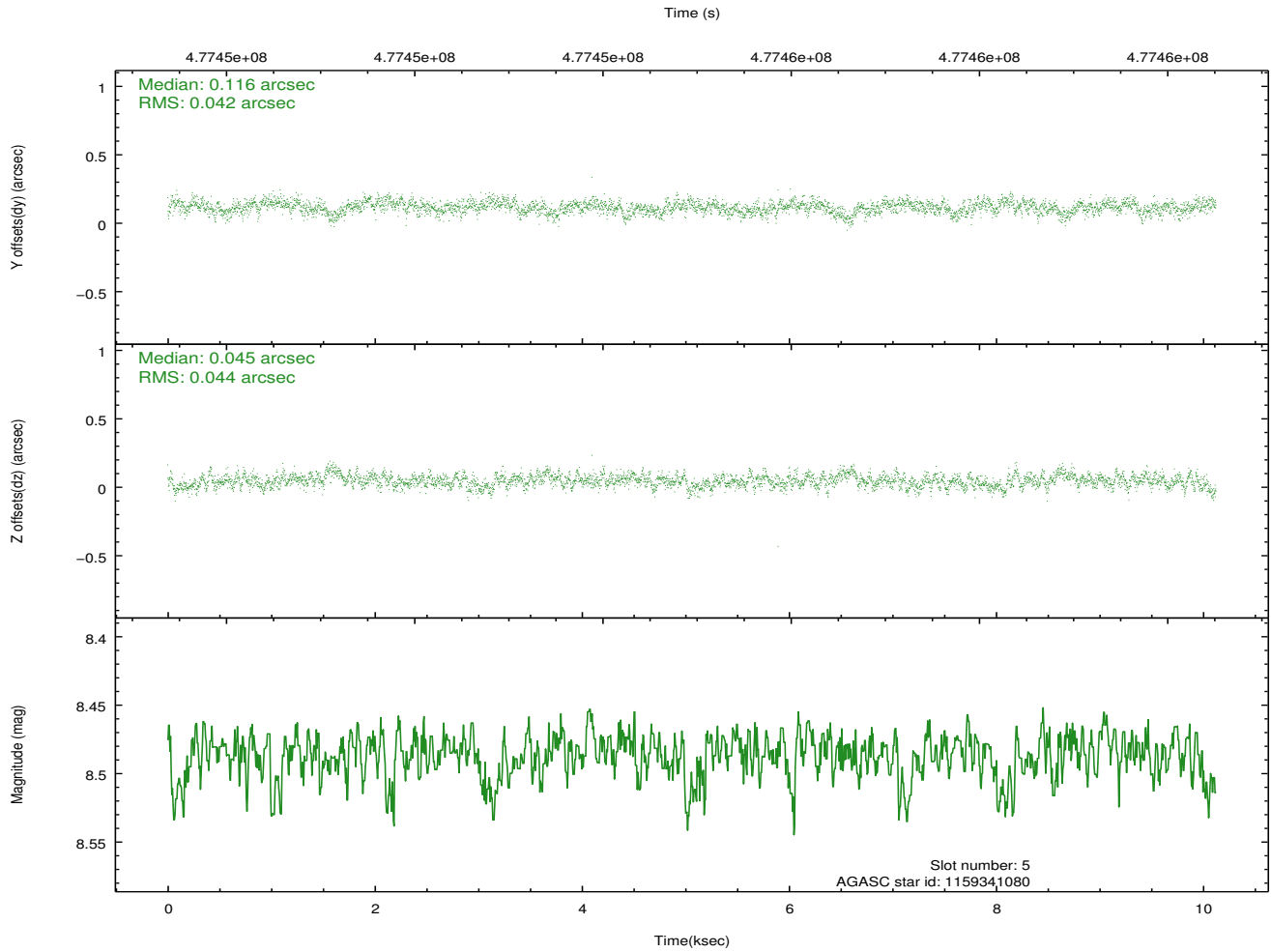
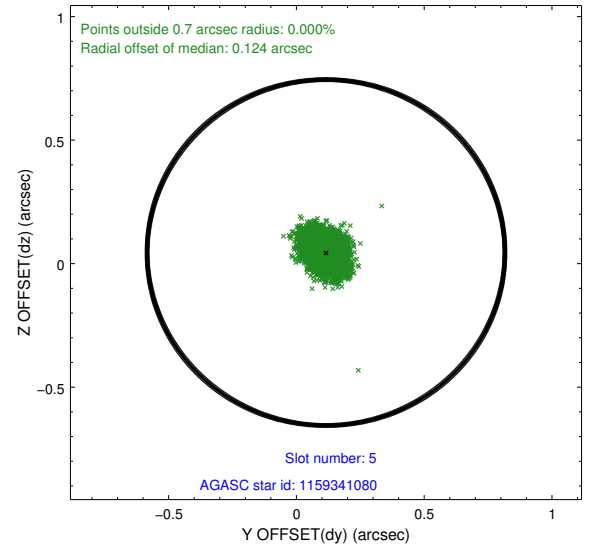
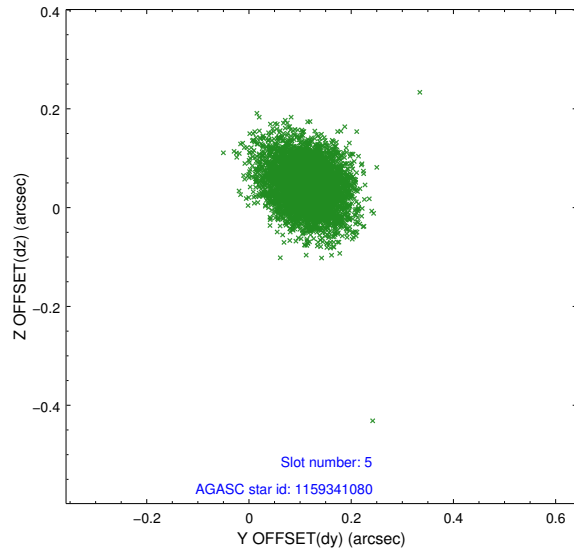
### 2.4.1 Slot 3



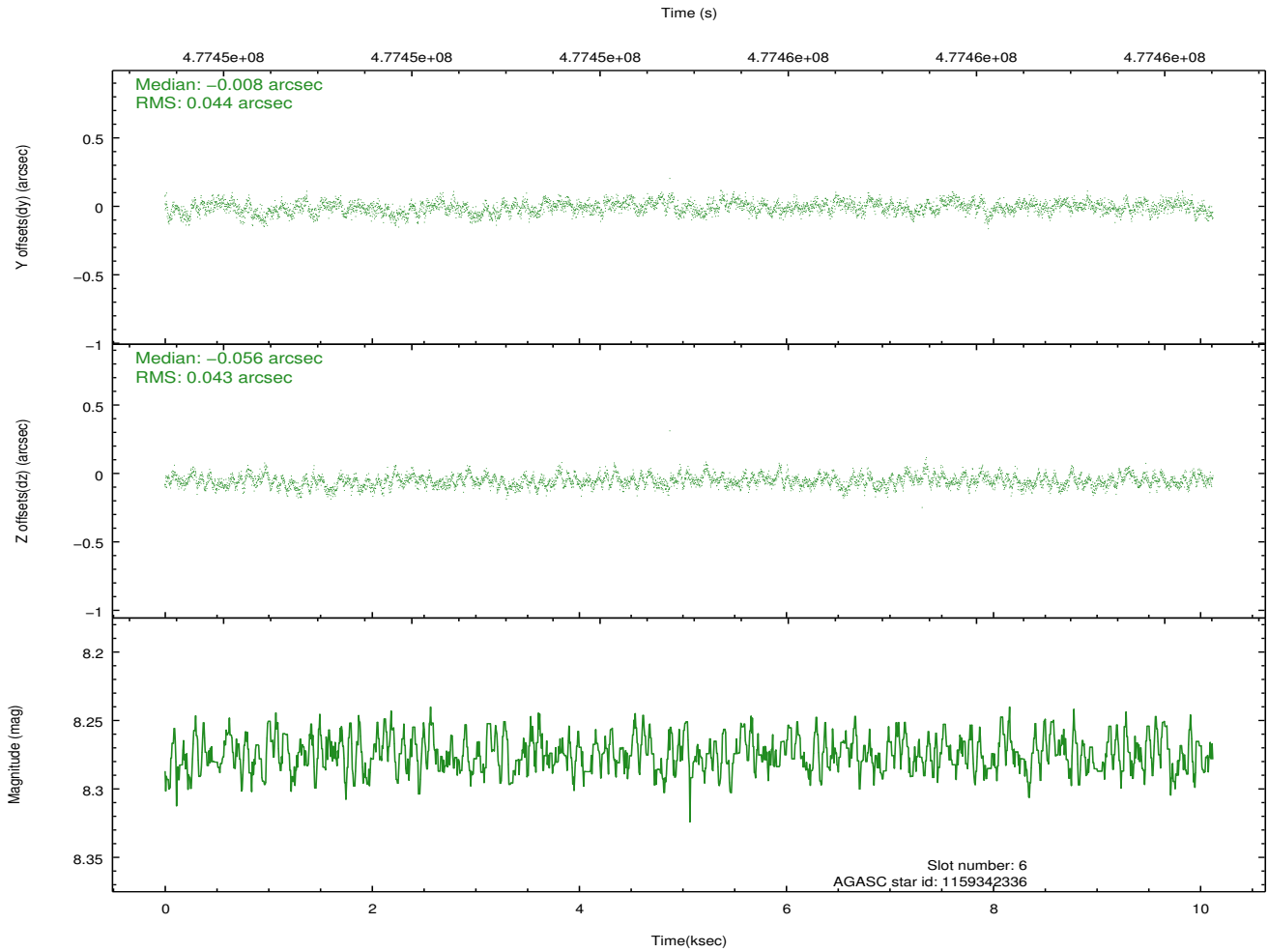
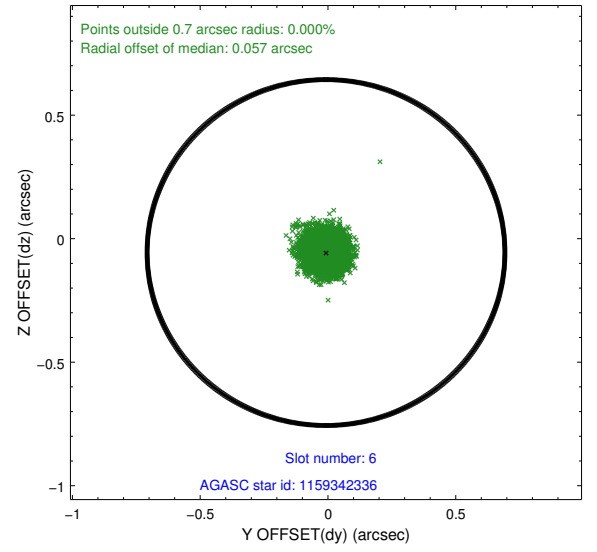
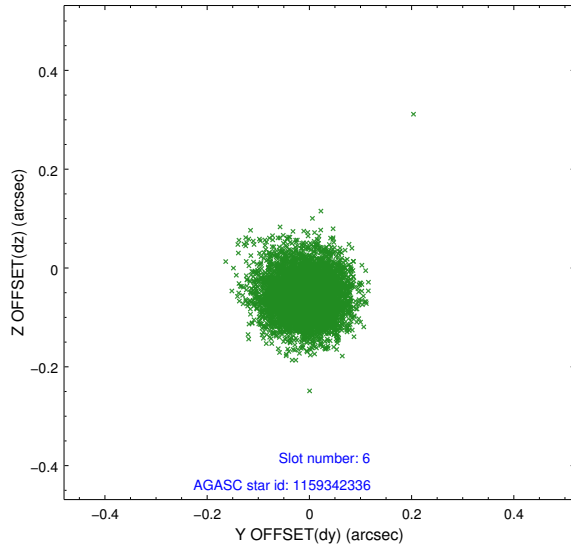
## 2.4.2 Slot 4



### 2.4.3 Slot 5

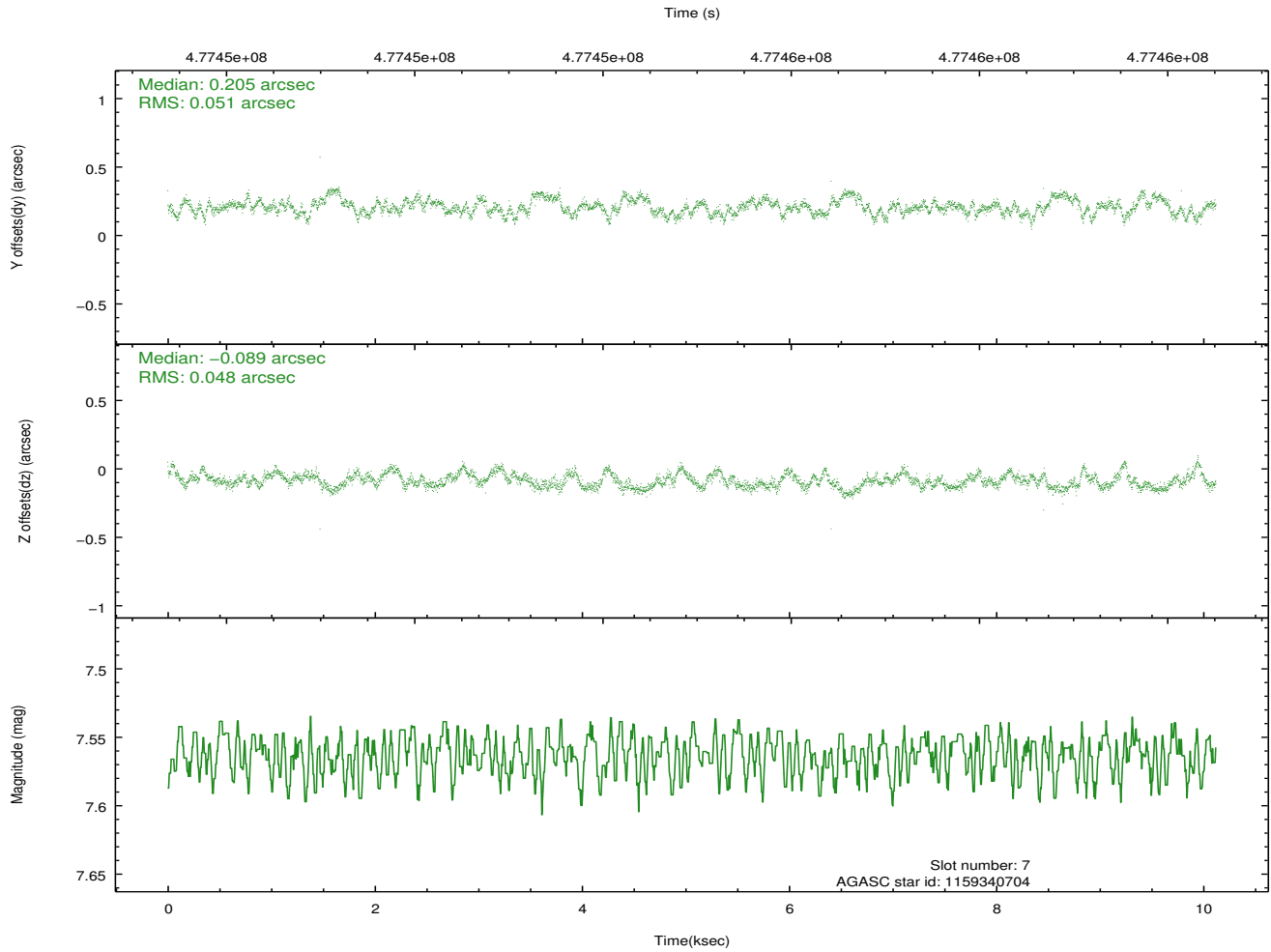
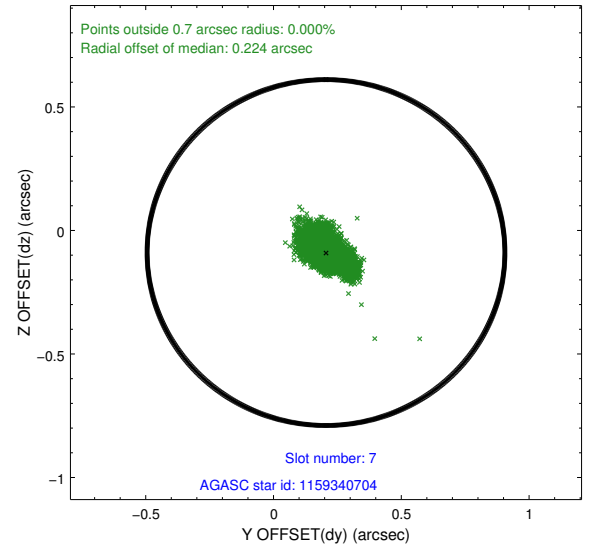
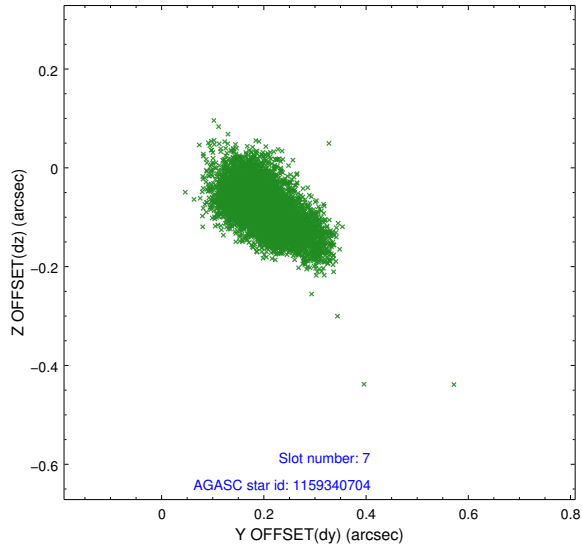


## 2.4.4 Slot 6



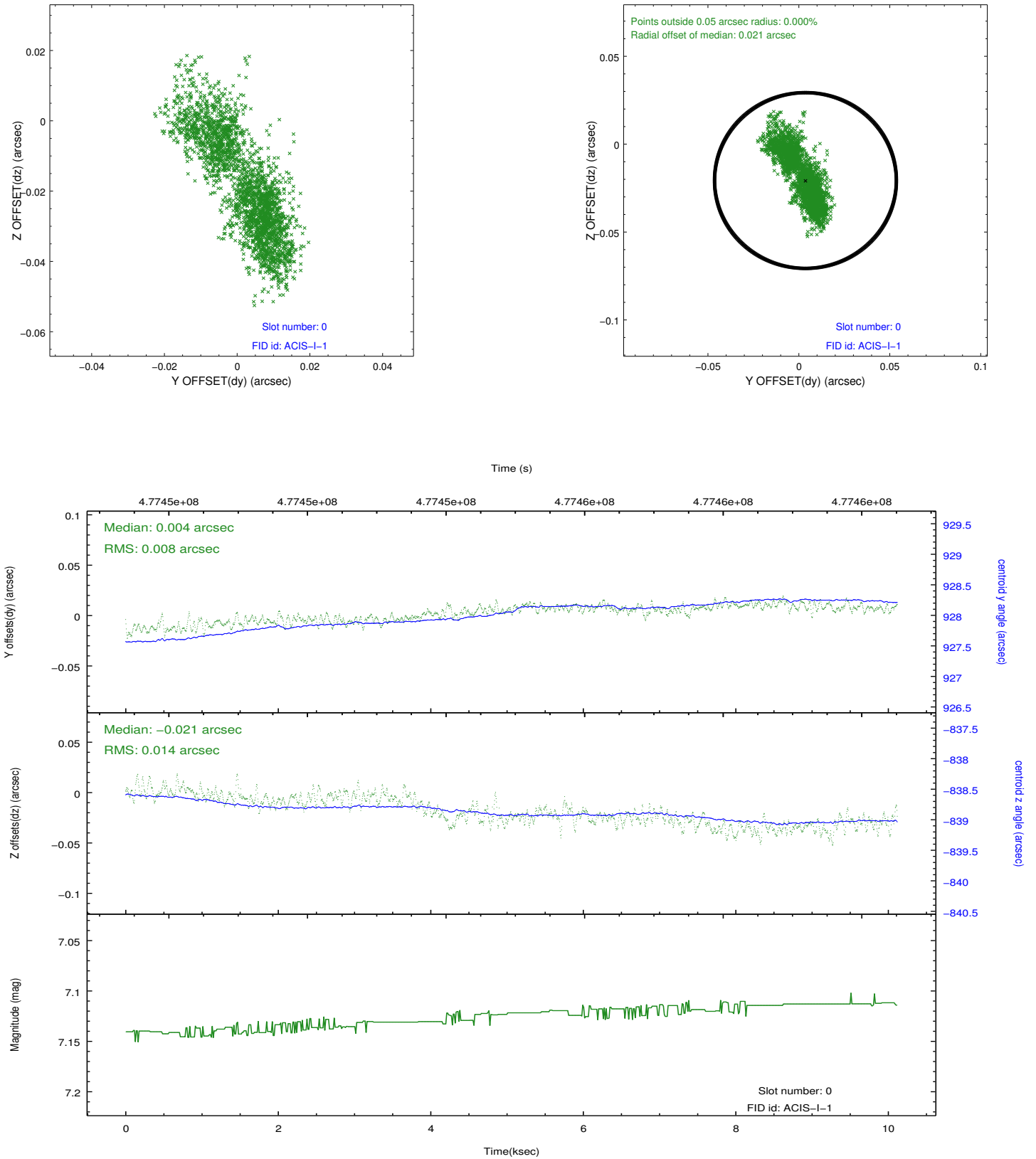


## 2.4.5 Slot 7

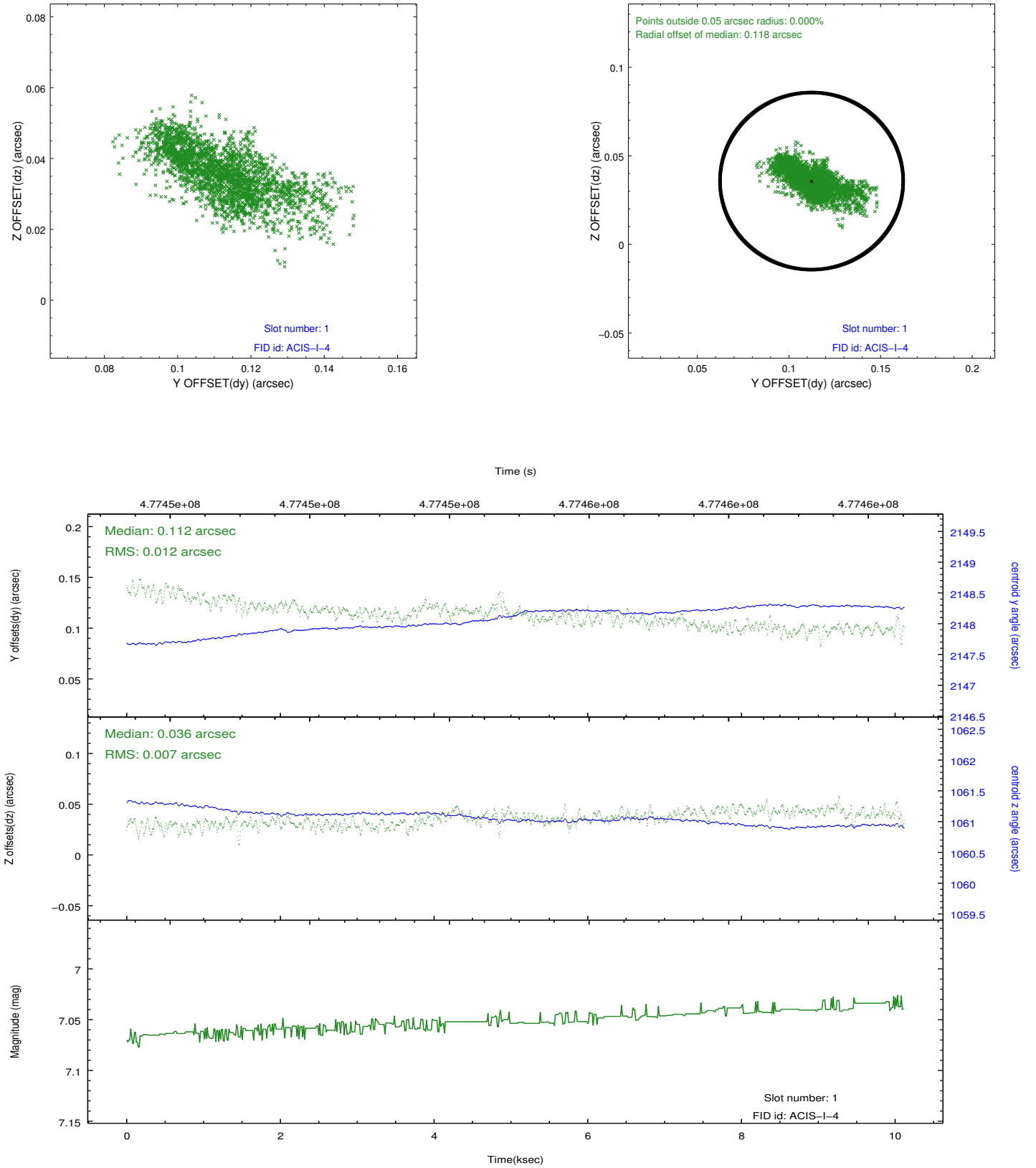


## 2.5 FID Slots

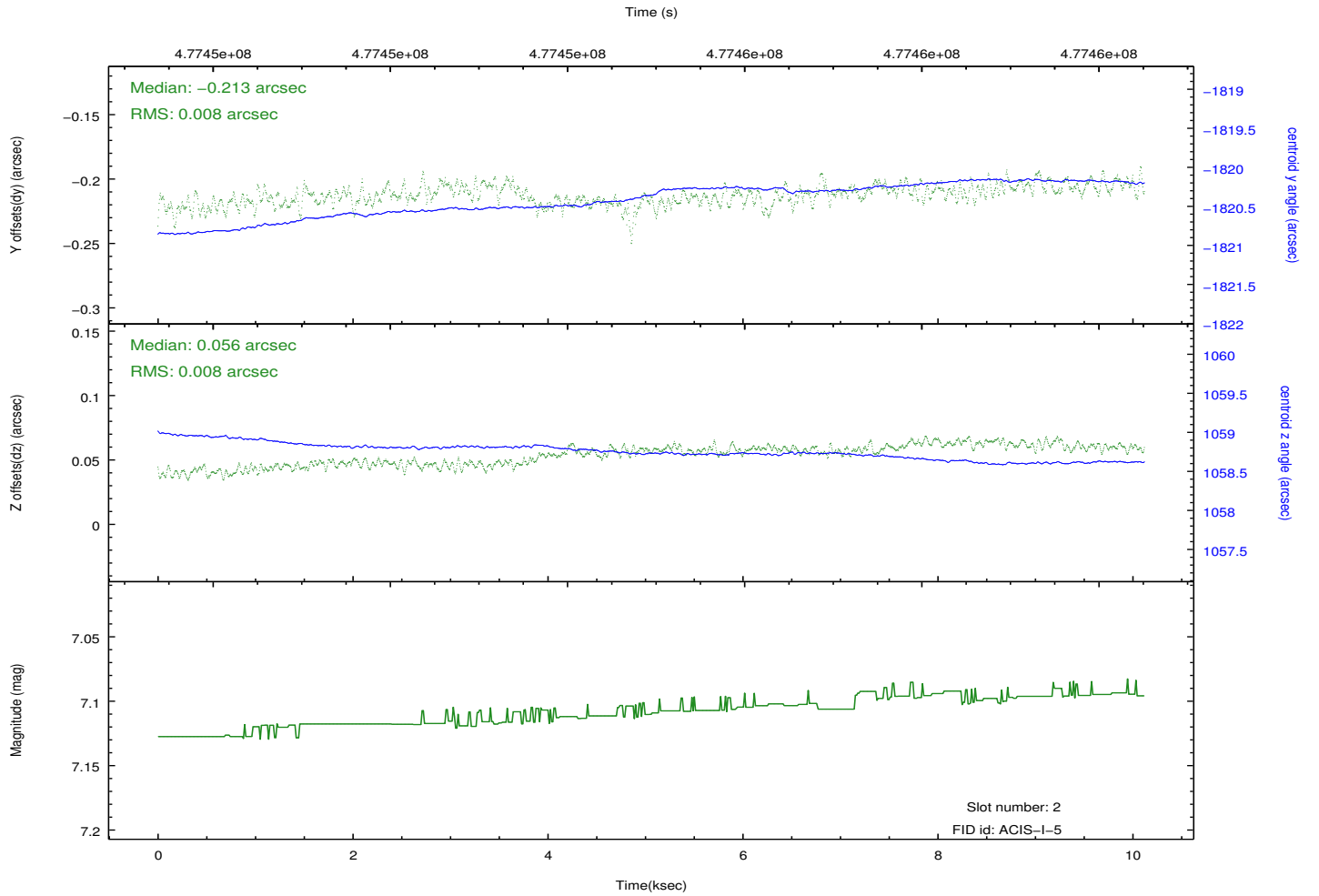
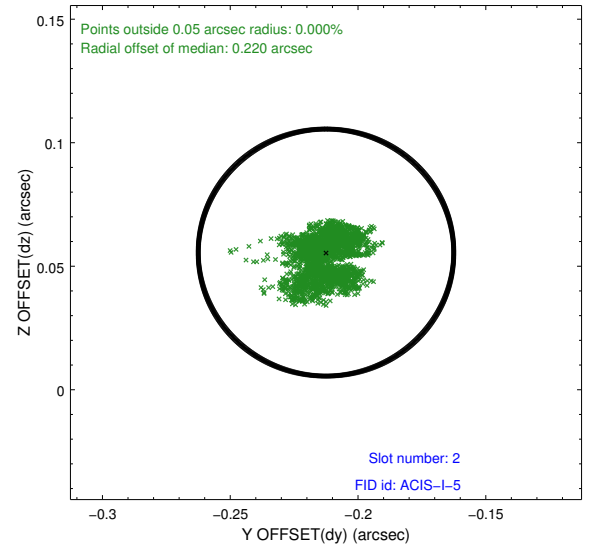
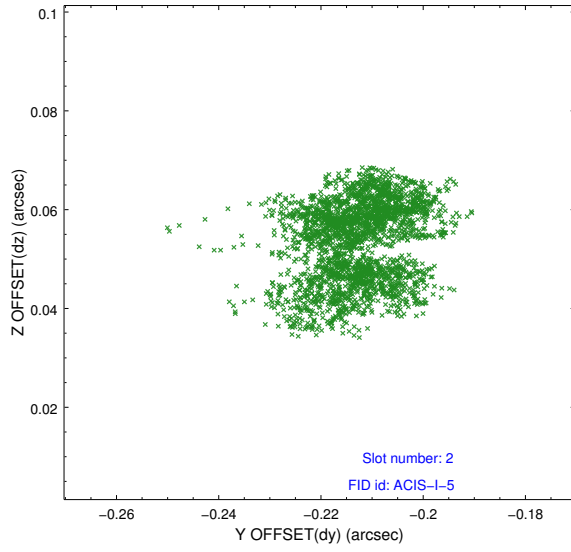
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.7712000751495

## A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.