

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 15046 - L2 Version 2  
Chandra X-Ray Center

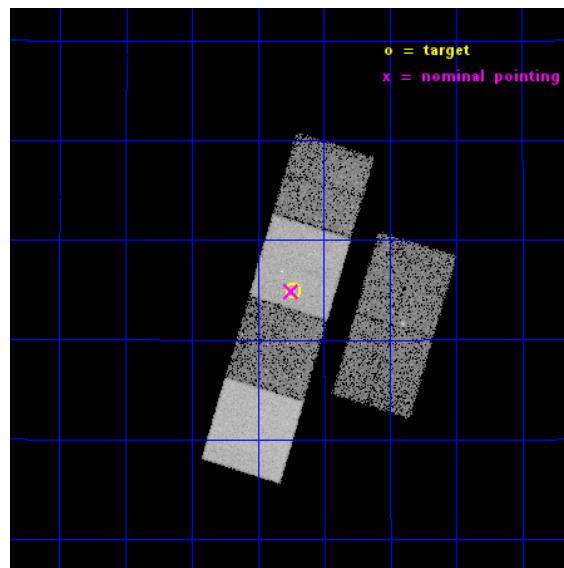
L2 Processing Date : Nov 30 2014

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# 1 Front

seq_num	702853	Sequence number
obs_id	15046	Observation id
title	C-GOALS: The Chandra-RBGS Survey of a Complete Sample of Major-Merger LIRGs	Proposal title
observer	Professor David Sanders	Principal investigator
object	NGC 0695	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	27.808333	Observer's specified target RA [deg]
dec_targ	22.581944	Observer's specified target Dec [deg]
ra_nom	27.81150878947	Nominal RA [deg]
dec_nom	22.581135857166	Nominal Dec [deg]
roll_nom	286.82544770063	Nominal Roll [deg]
revision	2	Processing version of data
ontime	14966.399944305	Sum of GTIs [s]
livetime	14776.886376526	Livetime [s]
ontime2	14966.399944305	Sum of GTIs [s]
ontime3	14963.158903956	Sum of GTIs [s]
ontime5	14966.399944305	Sum of GTIs [s]
ontime6	14966.399944305	Sum of GTIs [s]
ontime7	14966.399944305	Sum of GTIs [s]
ontime8	14966.377758384	Sum of GTIs [s]
l2events	139357	Number of level 2 events

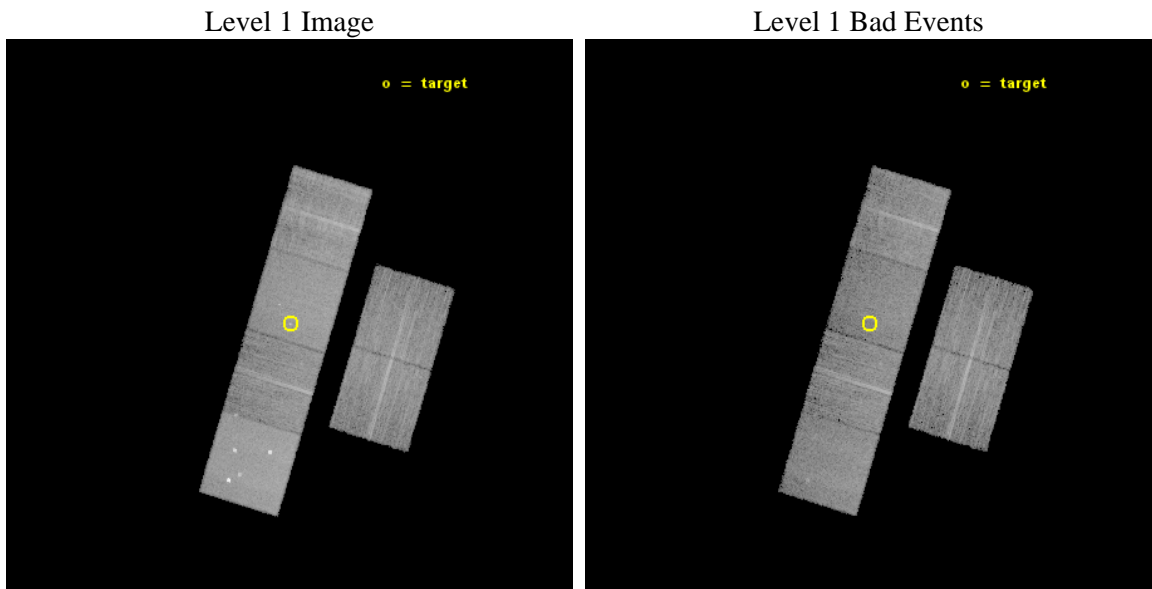




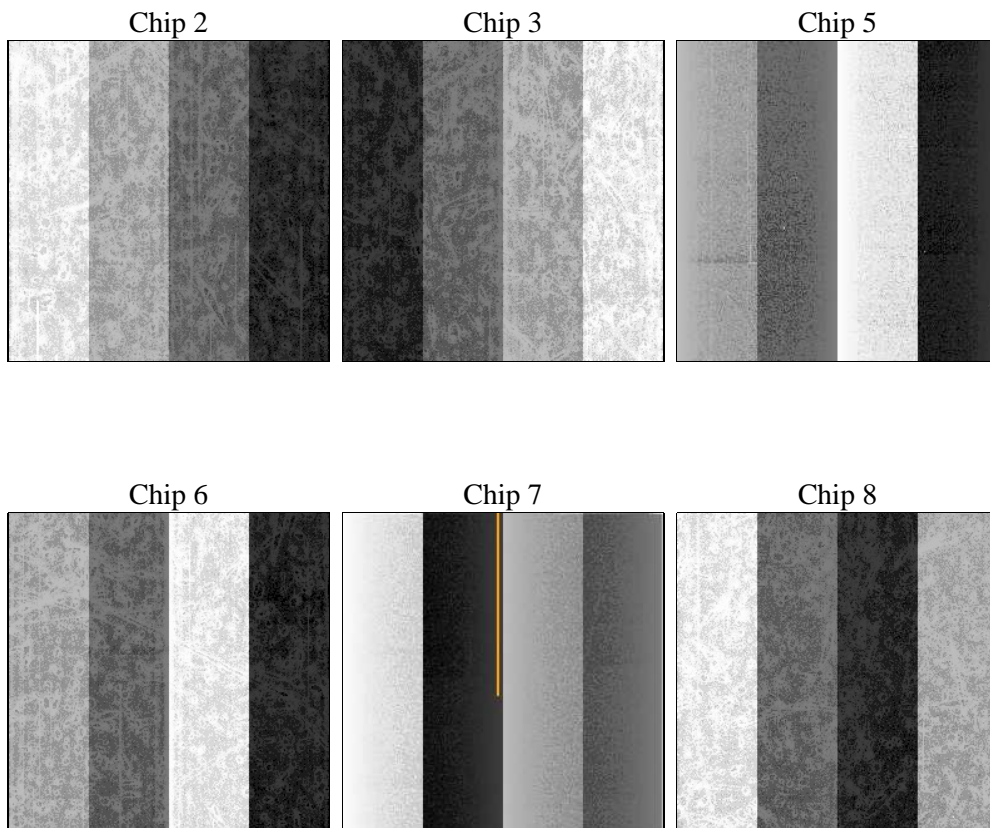
## 2 OBI

### 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	10.3	Processing system revision	ontime	14966.399944305	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime2	14966.399944305	Sum of GTIs [s]
date	2014-11-30T22:11:17	Date and time of file creation	ontime3	14963.158903956	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	14966.399944305	Sum of GTIs [s]
			ontime6	14966.399944305	Sum of GTIs [s]
			ontime7	14966.399944305	Sum of GTIs [s]
			ontime8	14966.377758384	Sum of GTIs [s]
			l1events	593513	Number of level 1 events

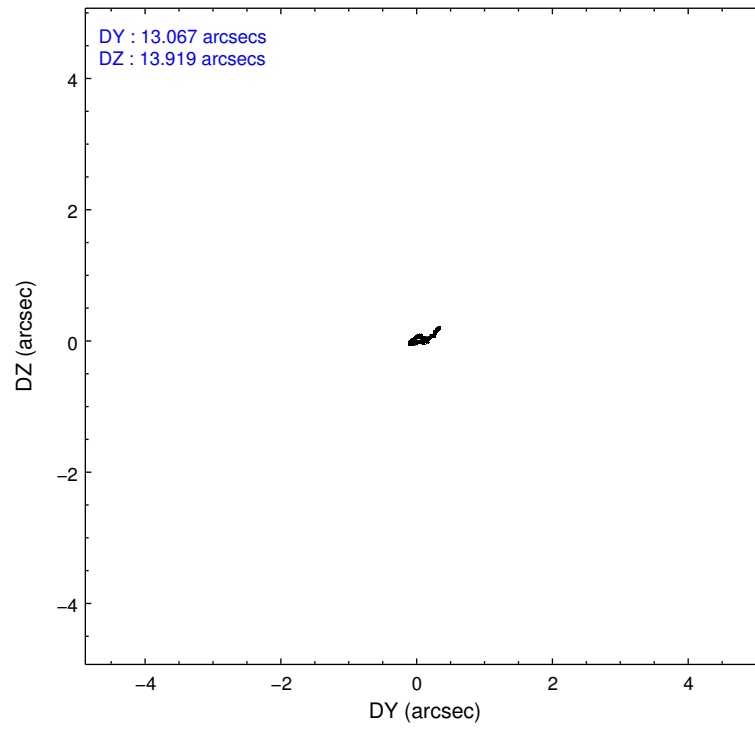
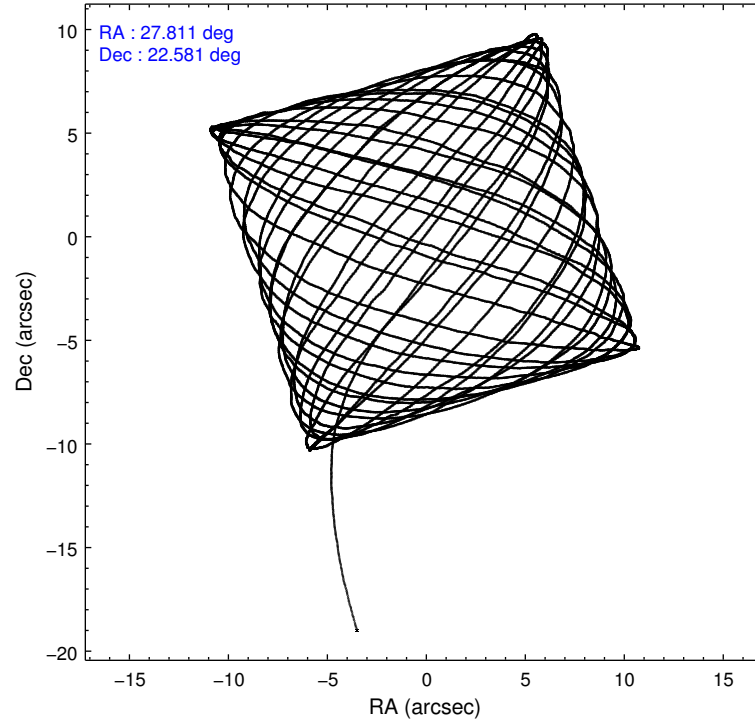
### 2.1.4 Events

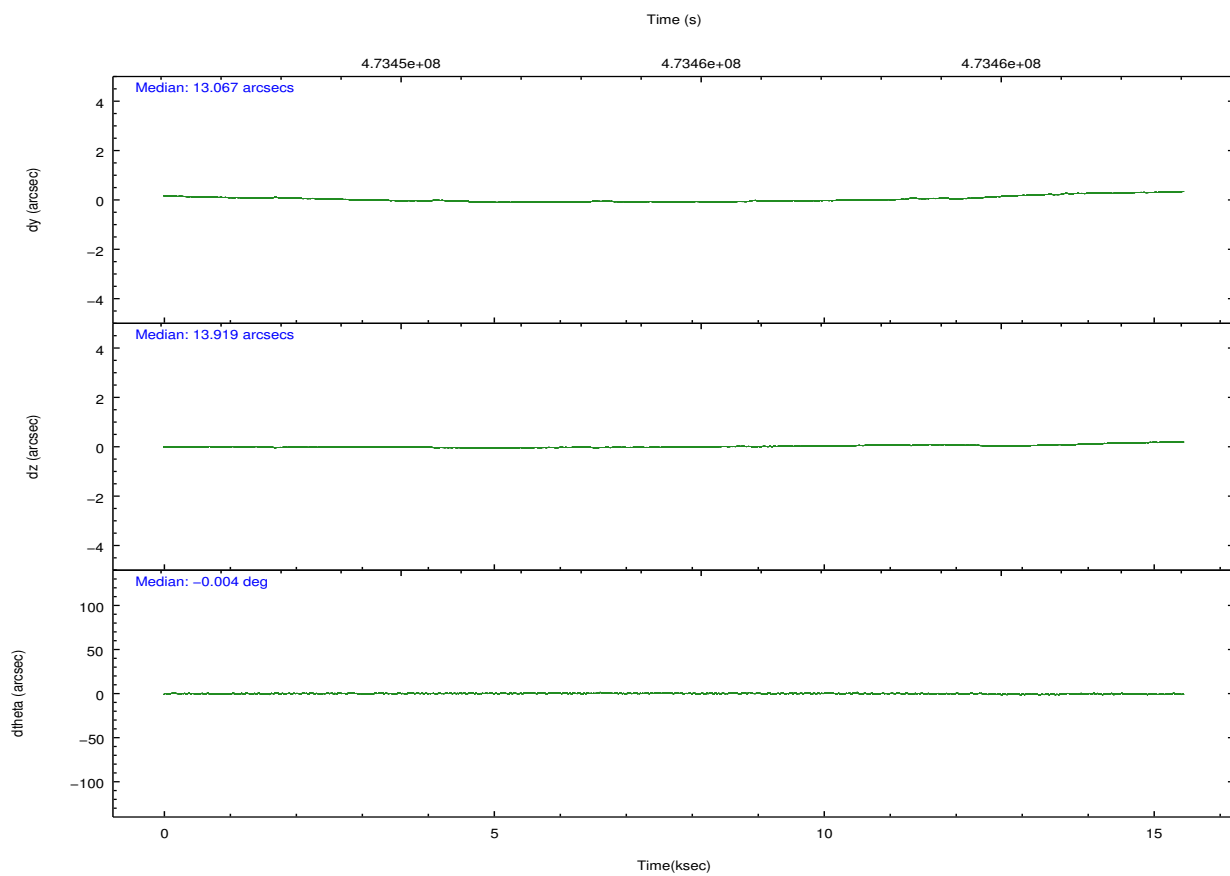
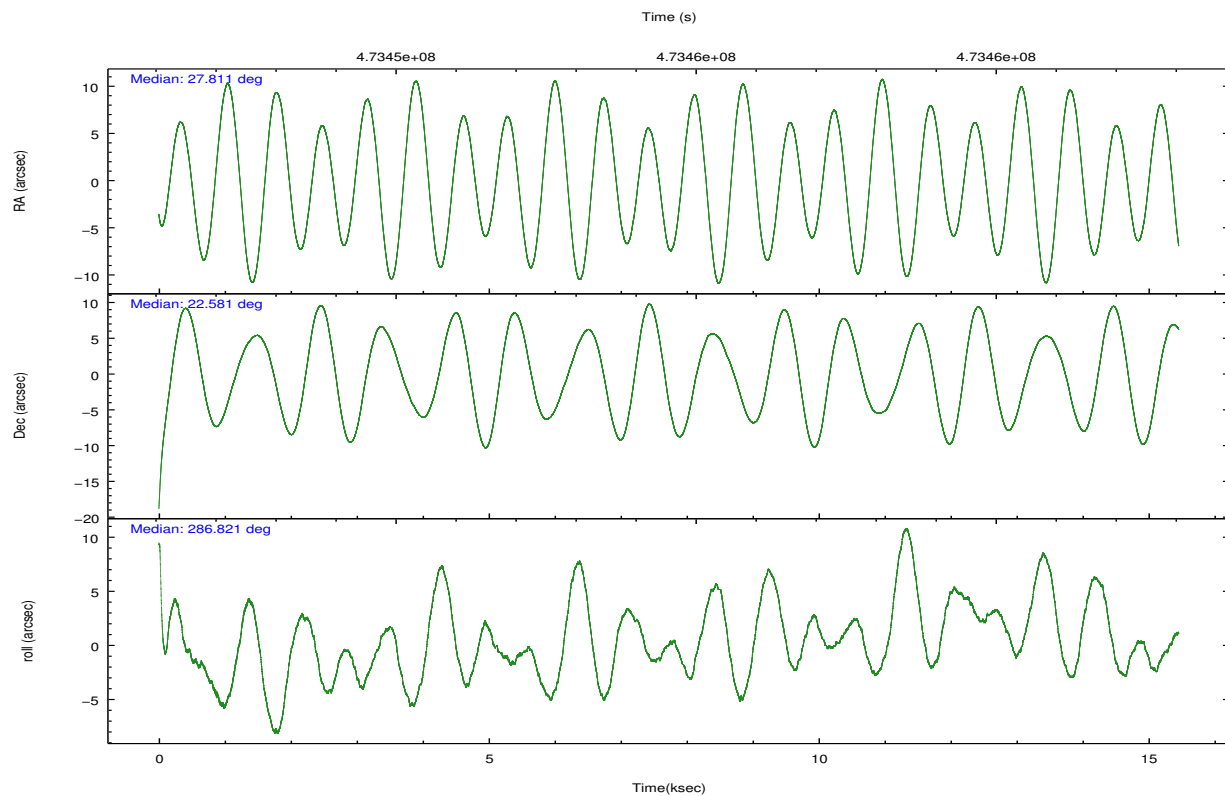
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	80869	77113	139065	80844	108529	107093	grade 0 events	3011	3077	10764	3271	4232	7440
rejected events	71887	68216	68408	71145	60958	79889		3%	3%	7%	4%	3%	6%
rejected %	88%	88%	49%	88%	56%	74%	grade 1 events	58	53	397	34	123	80
								0%	0%	0%	0%	0%	0%
							grade 2 events	2293	2016	21035	2200	9797	6520
								2%	2%	15%	2%	9%	6%
							grade 3 events	968	963	2093	1015	3957	2834
								1%	1%	1%	1%	3%	2%
							grade 4 events	928	948	1968	979	4066	2628
								1%	1%	1%	1%	3%	2%
							grade 5 events	3727	4065	9567	4183	10989	5973
								4%	5%	6%	5%	10%	5%
							grade 6 events	1784	1894	34814	2235	25529	7782
								2%	2%	25%	2%	23%	7%
							grade 7 events	68100	64097	58427	66927	49836	73836
								84%	83%	42%	82%	45%	68%

## 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	27.789612	27.81150878946965	CCD I2 on	O2	Y
[deg] Pointing Dec	22.599554	22.58113585716602	CCD I3 on	Y	Y
[deg] Pointing Roll	286.677210	286.8254477006298	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	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)	473447262.184000	473446167.23193	CCD S5 on	N	N
Observation start date	2013-01-01T17:06:35	2013-01-01T16:49:27	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	473462262.184000	473463803.38288	On-chip summing requested	N	N
Observation end date	2013-01-01T21:16:35	2013-01-01T21:43:23	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



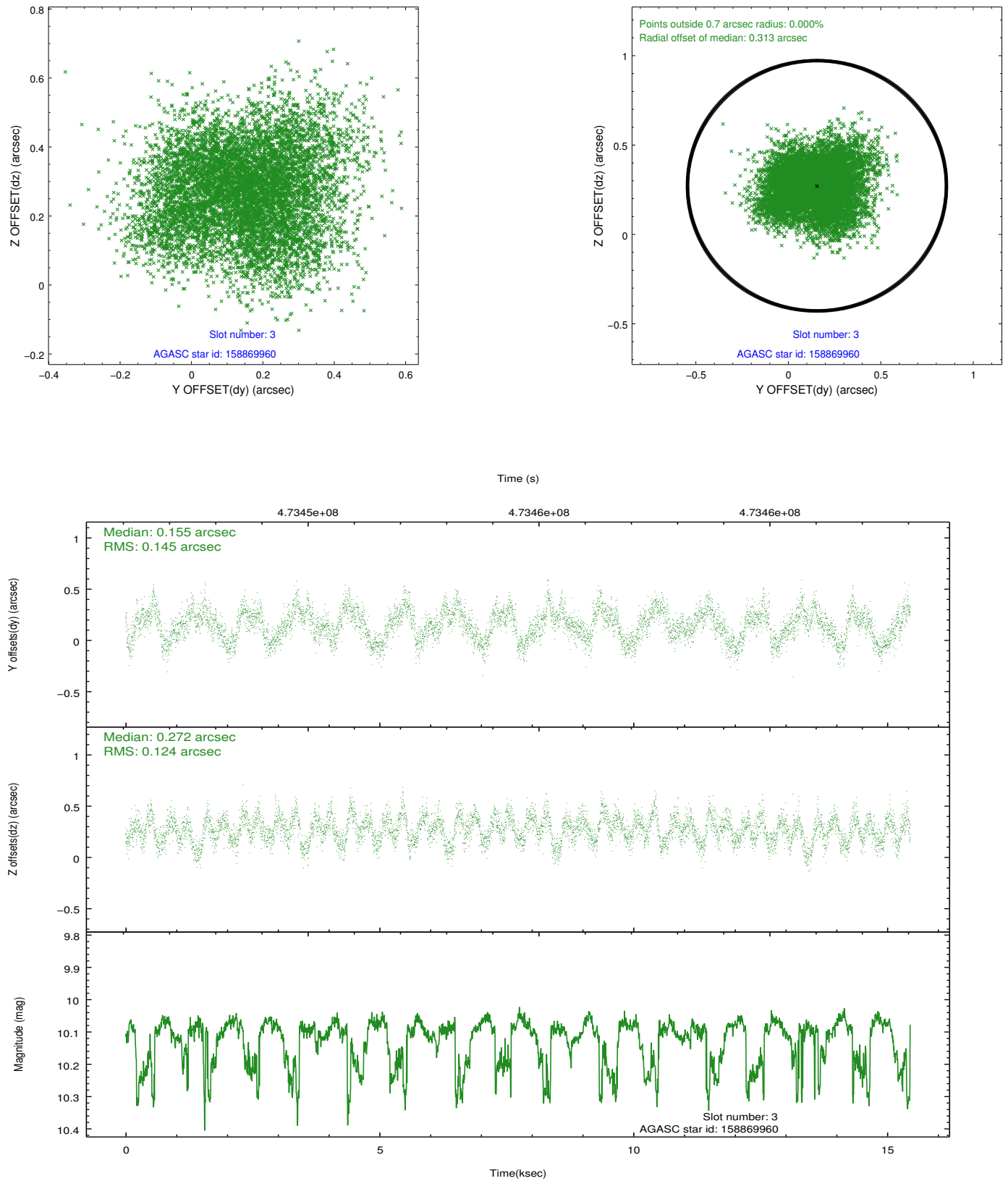


### Slot Statistics

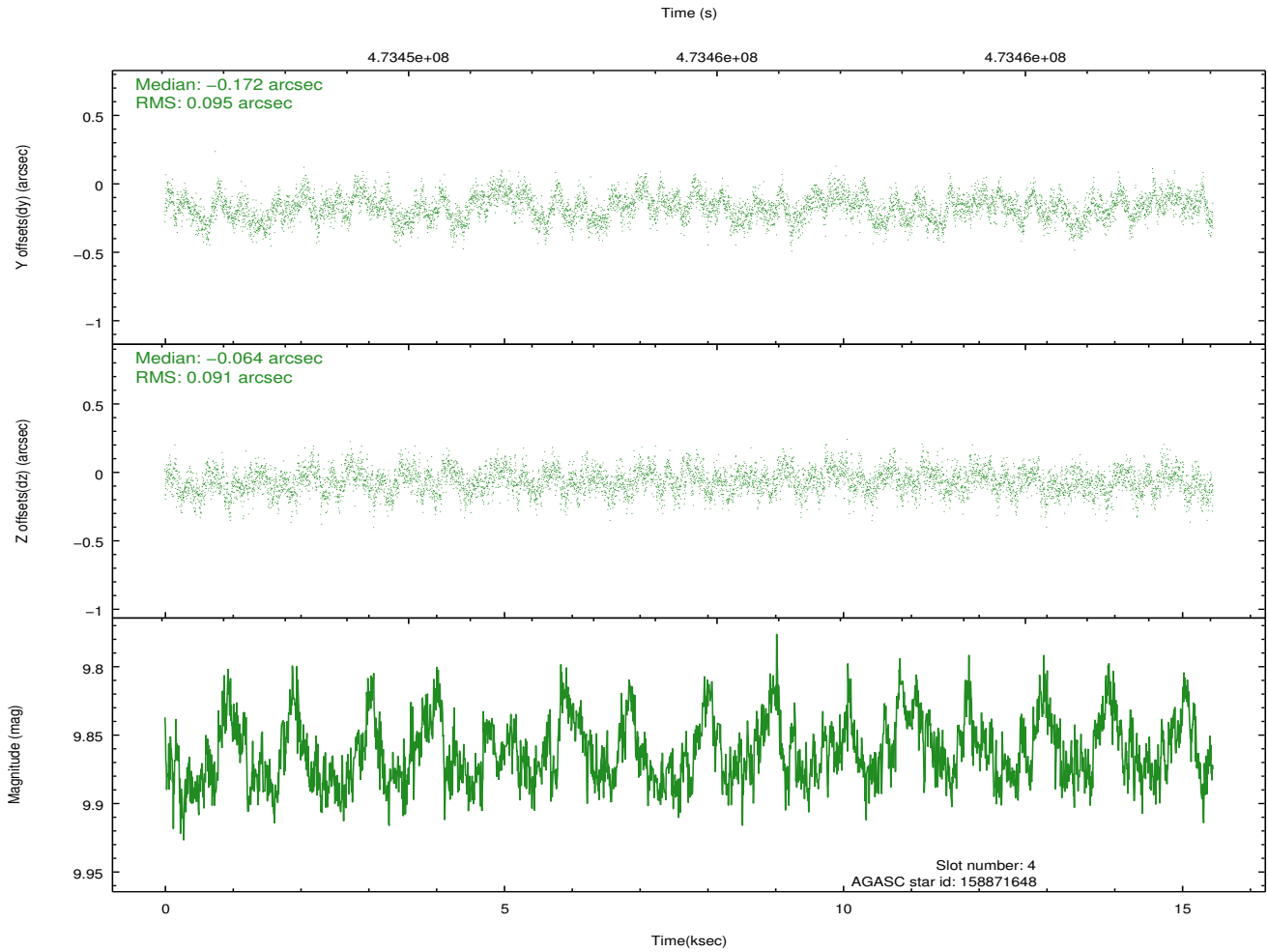
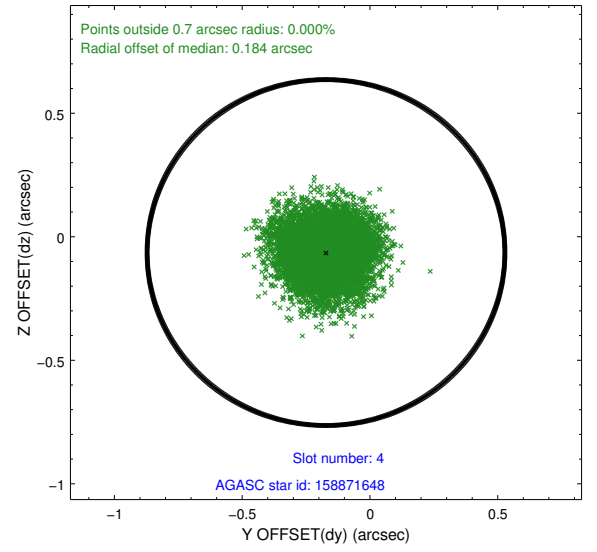
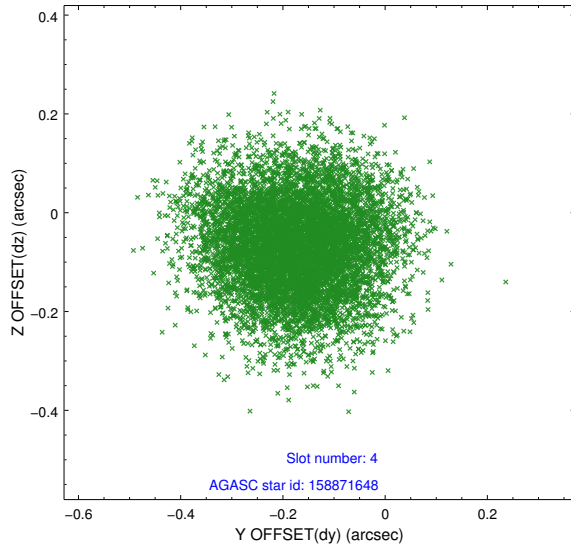
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.01	3770	-0.049	-0.037	0.009	0.015	0.000000	0.000000	-766.07	-1735.33
1	FID		ACIS-S-4	7.09	3769	0.192	0.034	0.007	0.012	0.000000	0.000000	2147.31	172.93
2	FID		ACIS-S-5	7.13	3770	-0.174	0.012	0.010	0.015	0.000000	0.000000	-1818.67	166.90
3	GUIDE	used	158869960	10.11	7468	0.155	0.272	0.207	0.322	28.472792	22.214094	1978.26	1784.93
4	GUIDE	used	158871648	9.86	7530	-0.172	-0.064	0.142	0.225	28.383650	22.462886	1035.15	1753.45
5	GUIDE	used	158871976	8.32	7538	-0.083	-0.162	0.094	0.144	27.152110	22.401800	68.91	-2235.76
6	GUIDE	used	230174288	8.35	7537	-0.043	0.004	0.077	0.124	26.980352	22.759662	-1329.56	-2406.30
7	GUIDE	used	230300520	9.10	7534	0.159	-0.038	0.103	0.158	28.121974	22.953432	-905.03	1421.07

## 2.4 Star Slots

### 2.4.1 Slot 3

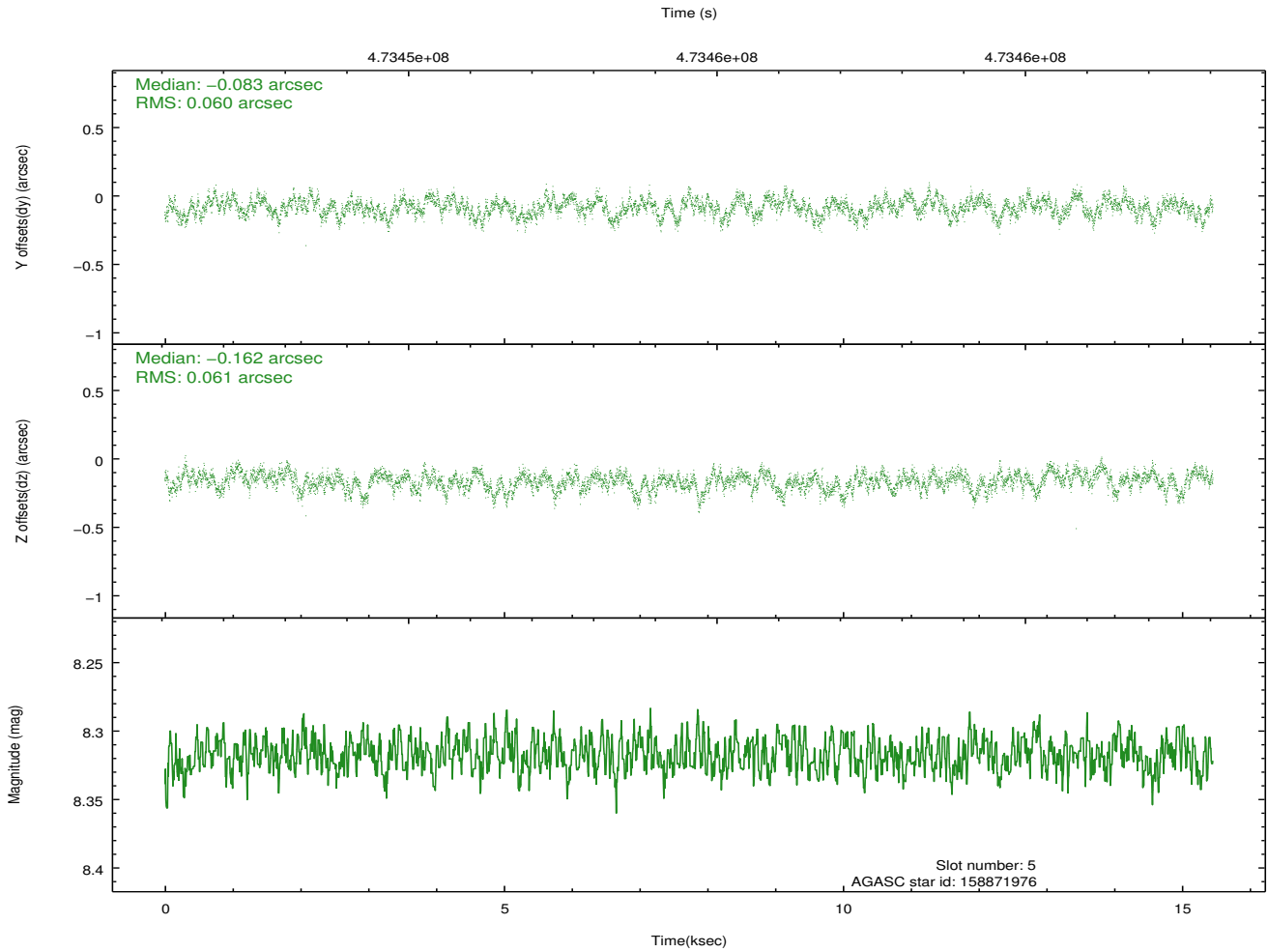
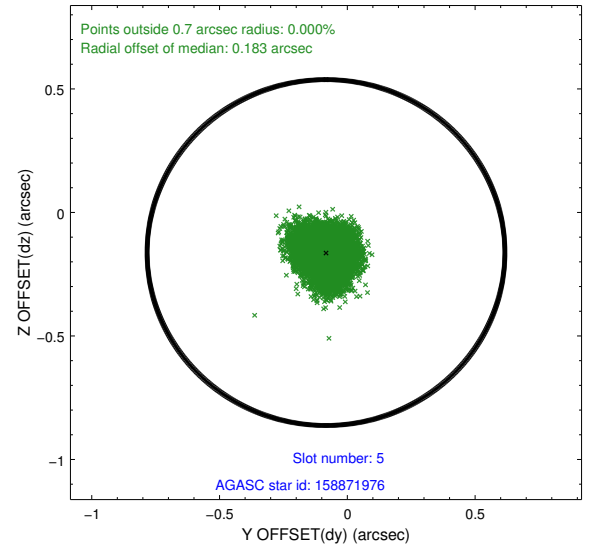
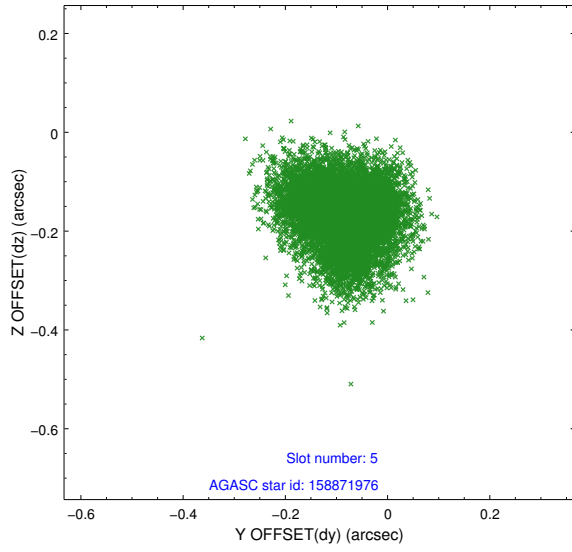


## 2.4.2 Slot 4

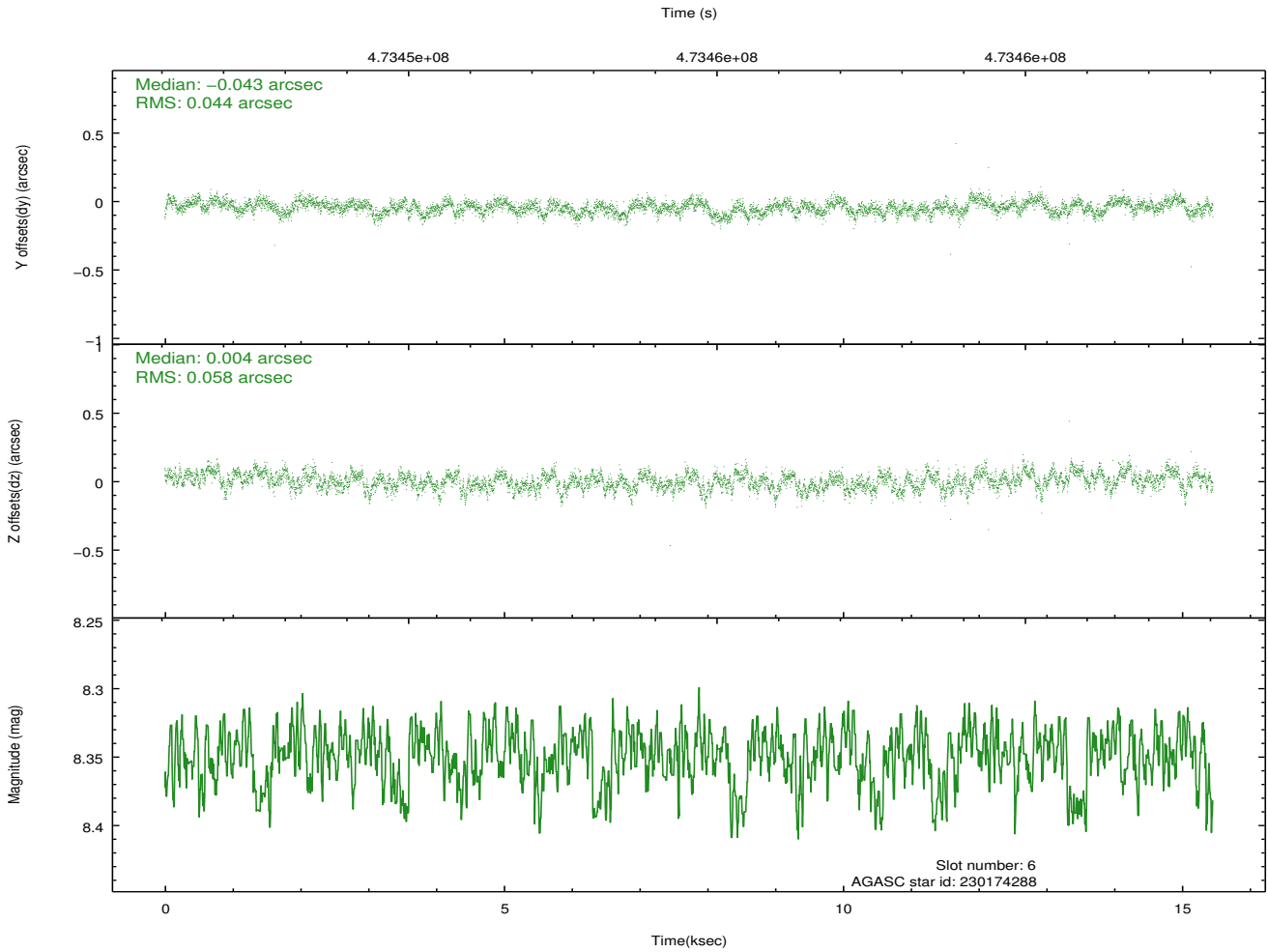
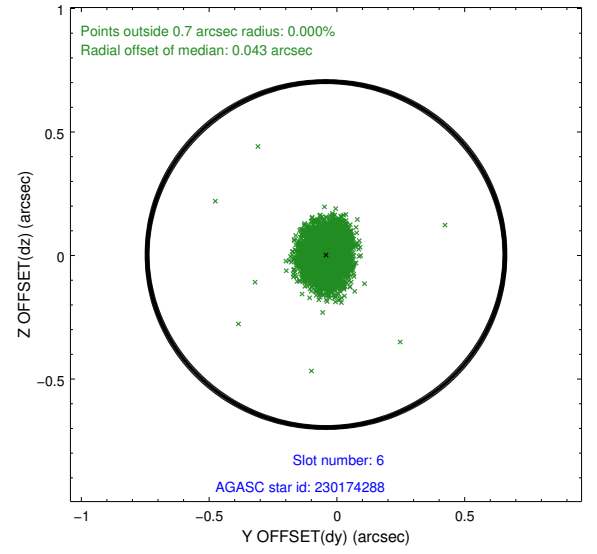
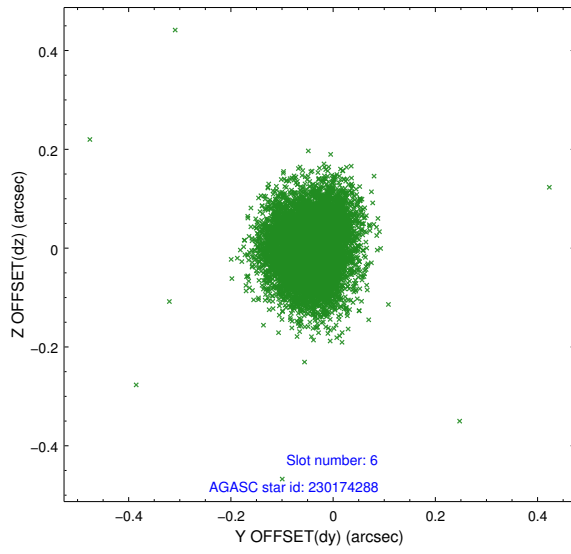




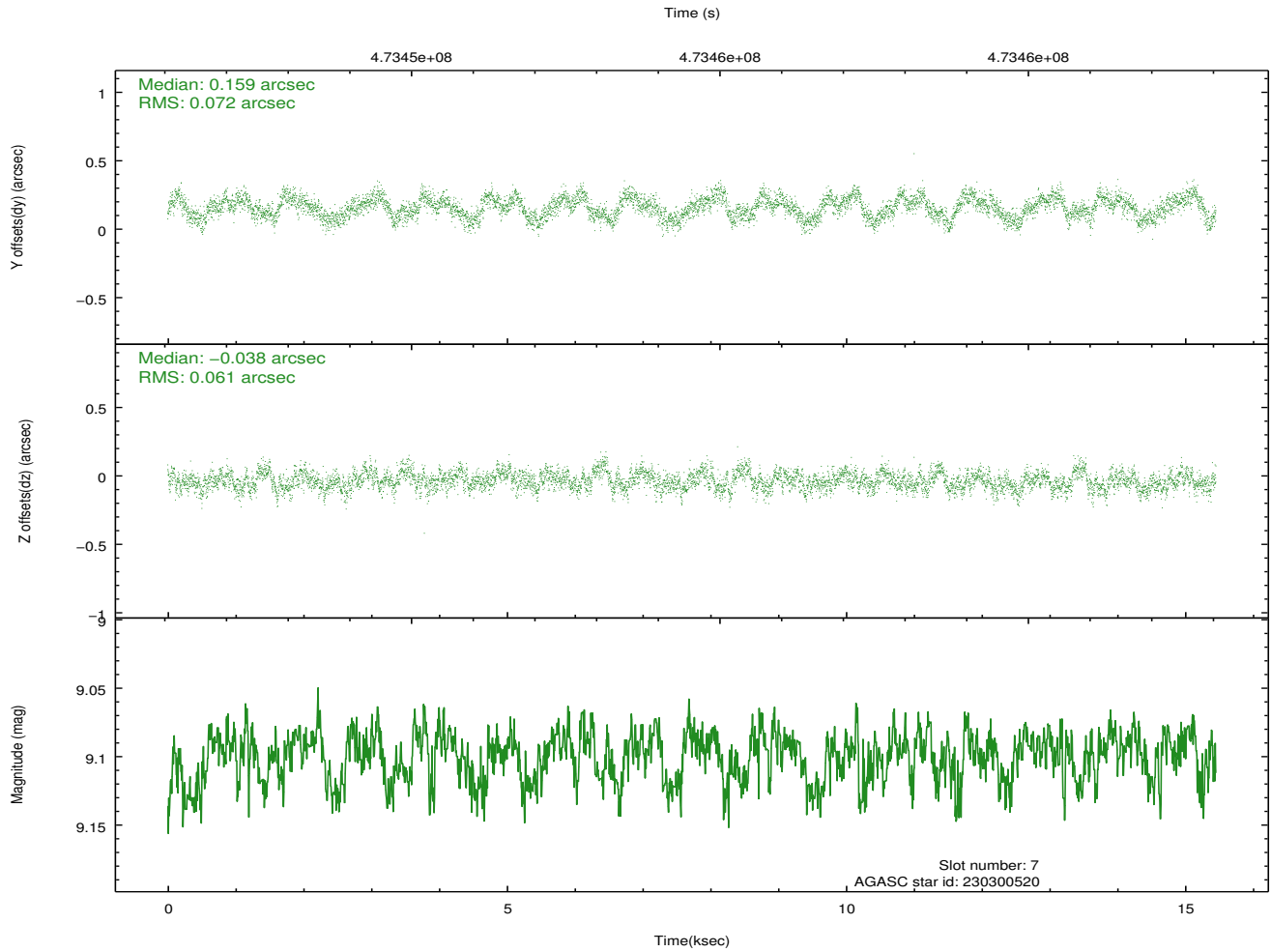
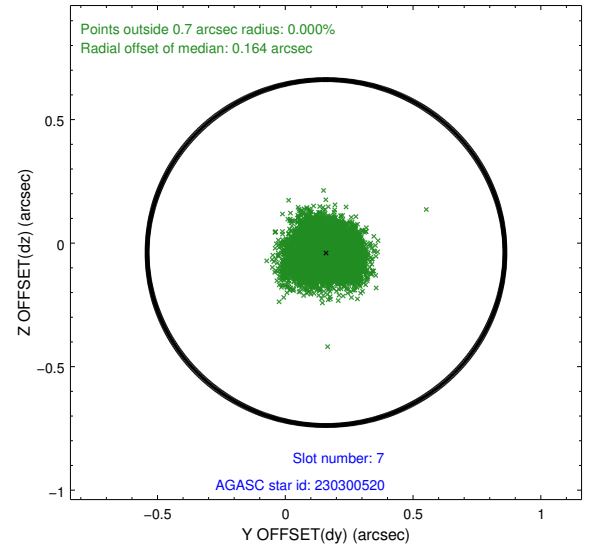
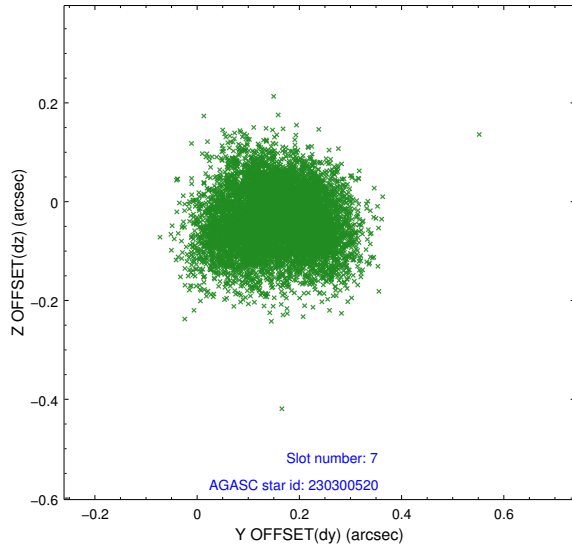
### 2.4.3 Slot 5



## 2.4.4 Slot 6

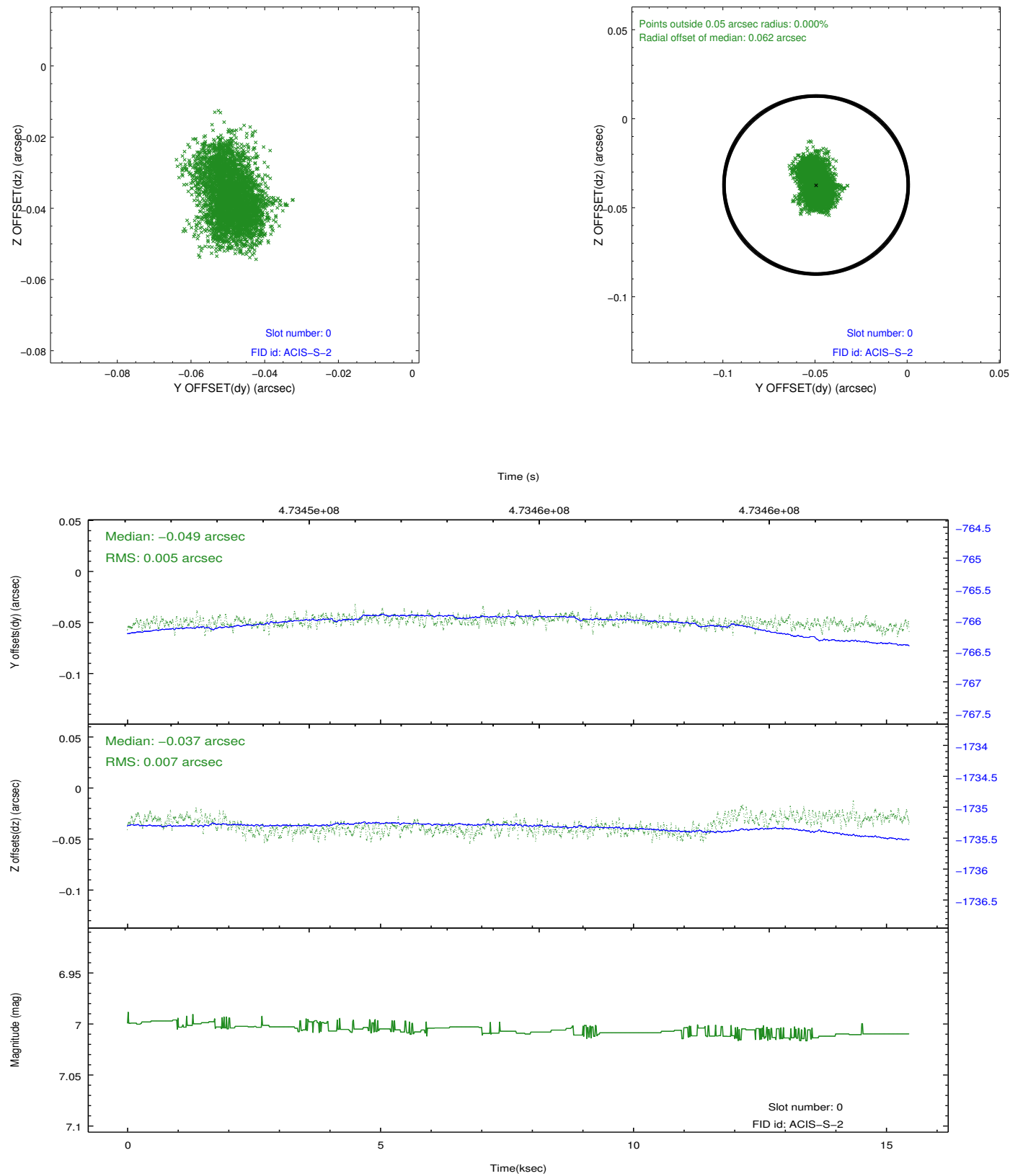


## 2.4.5 Slot 7

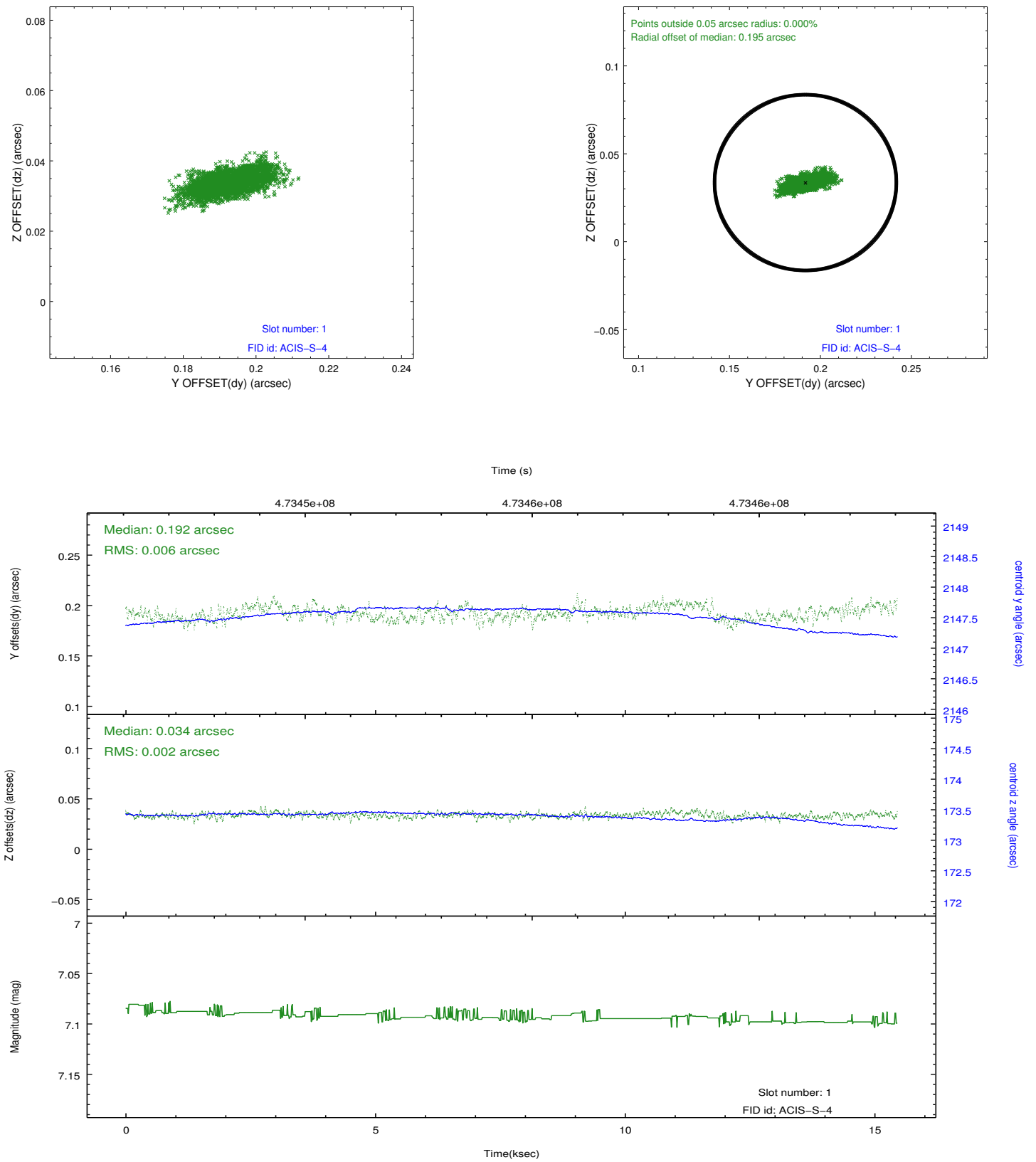


## 2.5 FID Slots

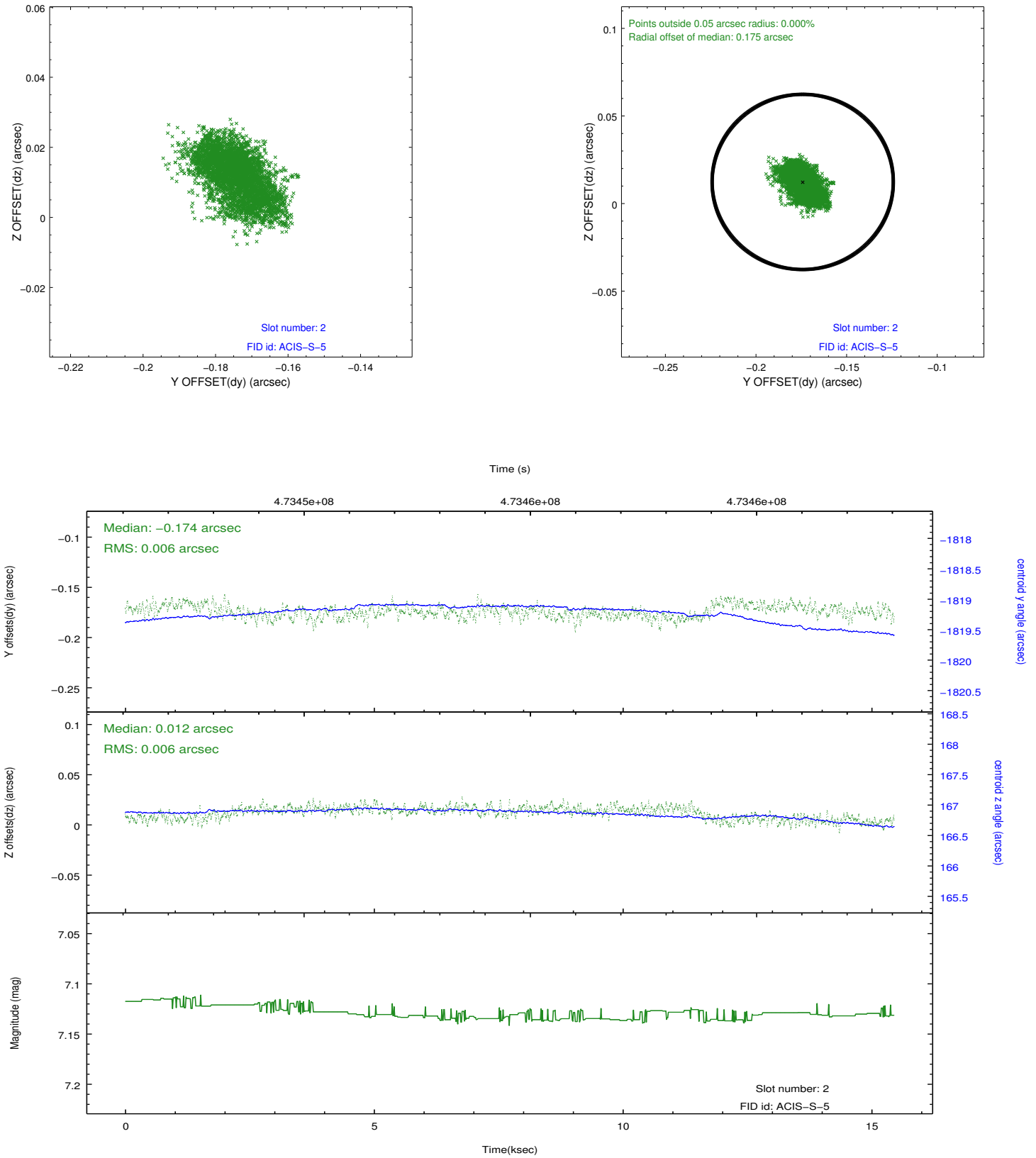
### 2.5.1 Slot 0



## 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)	2014.12.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.966399944305

## 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.