

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 15643 - L2 Version 2  
Chandra X-Ray Center

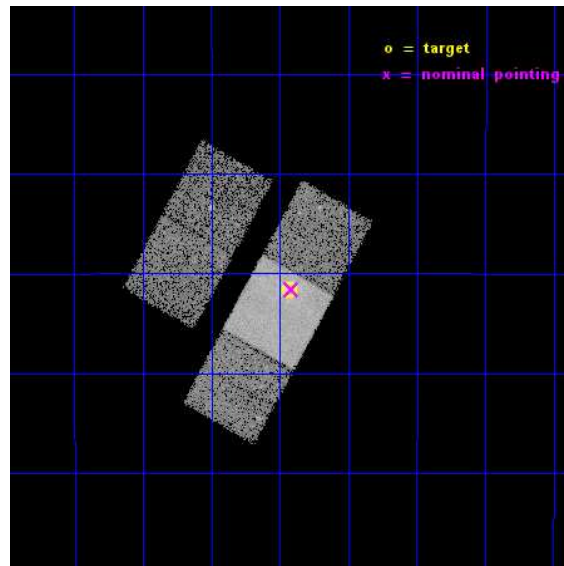
L2 Processing Date : Dec 2 2014

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# 1 Front

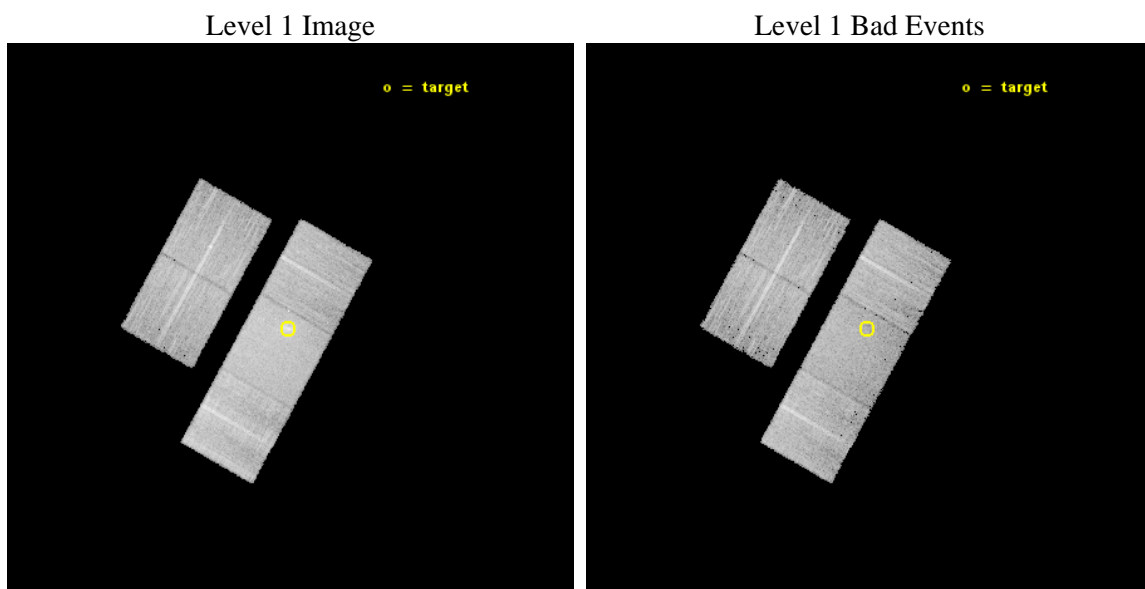
seq_num	801223	Sequence number
obs_id	15643	Observation id
title	The strongest shock around an FR II radio galaxy?	Proposal title
observer	Dr Judith Croston	Principal investigator
object	3C 444	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	333.607083	Observer's specified target RA [deg]
dec_targ	-17.026778	Observer's specified target Dec [deg]
ra_nom	333.60392476072	Nominal RA [deg]
dec_nom	-17.026587476643	Nominal Dec [deg]
roll_nom	119.15567879335	Nominal Roll [deg]
revision	2	Processing version of data
ontime	14067.800108194	Sum of GTIs [s]
livetime	13883.993943217	Livetime [s]
ontime2	14067.800108194	Sum of GTIs [s]
ontime3	14067.800108194	Sum of GTIs [s]
ontime6	14067.800108194	Sum of GTIs [s]
ontime7	14067.800108194	Sum of GTIs [s]
ontime8	14064.659117937	Sum of GTIs [s]
l2events	81190	Number of level 2 events



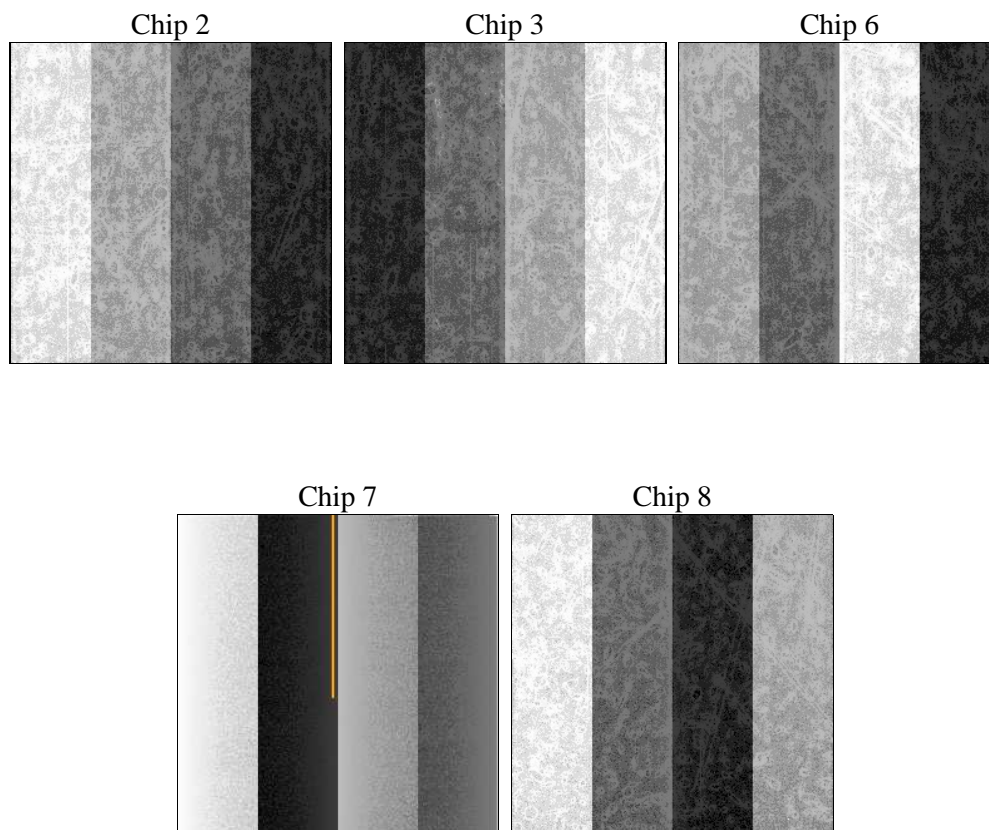
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	14000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	14067.800108194	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime2	14067.800108194	Sum of GTIs [s]
date	2014-12-02T15:22:00	Date and time of file creation	ontime3	14067.800108194	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	14067.800108194	Sum of GTIs [s]
			ontime7	14067.800108194	Sum of GTIs [s]
			ontime8	14064.659117937	Sum of GTIs [s]
			l1events	435411	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	74212	72733	76976	107281	104209
rejected events	65657	64652	67518	57469	75604
rejected %	88%	88%	87%	53%	72%

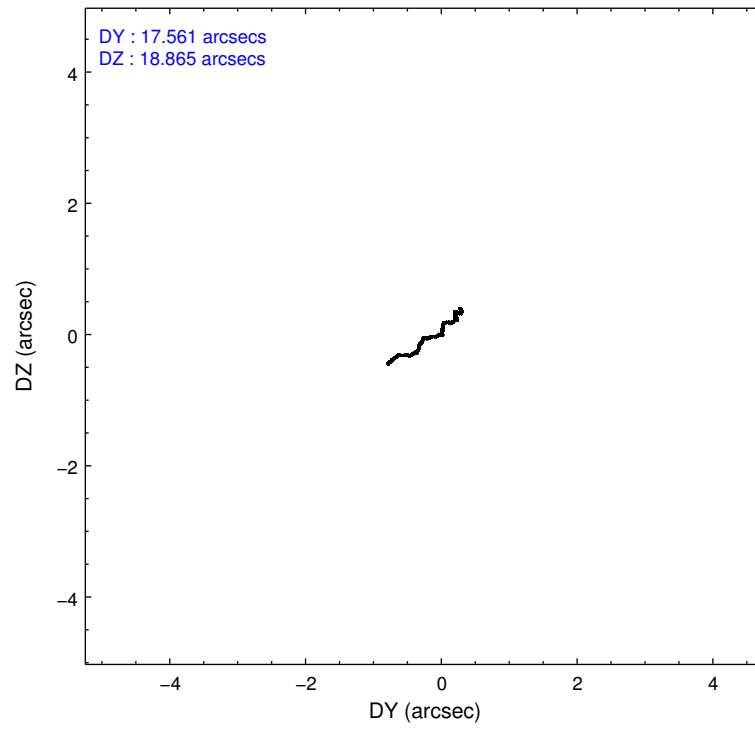
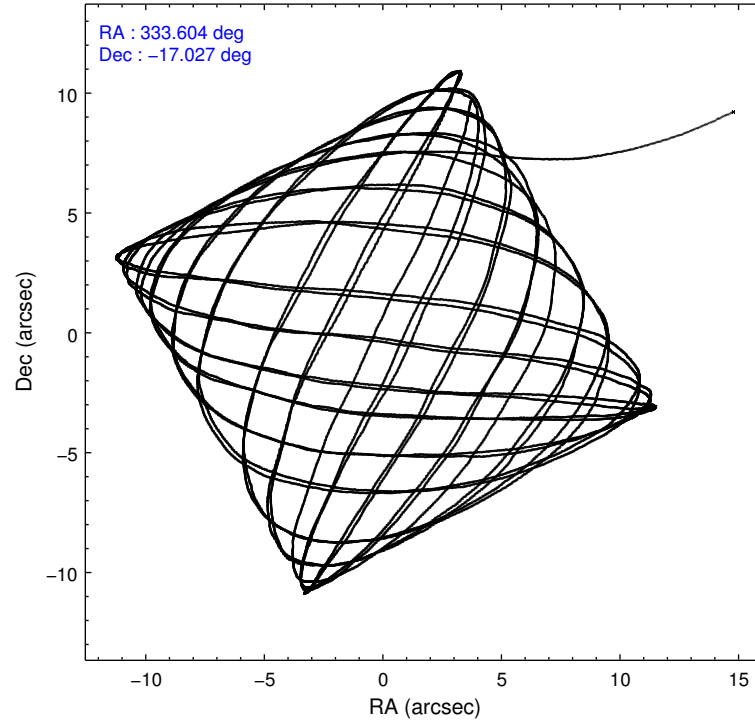
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	3158	2714	3295	5632	8897
	4%	3%	4%	5%	8%
grade 1 events	46	35	40	112	94
	0%	0%	0%	0%	0%
grade 2 events	2053	1889	2158	10392	6500
	2%	2%	2%	9%	6%
grade 3 events	886	921	960	4445	3107
	1%	1%	1%	4%	2%
grade 4 events	849	848	922	4302	2939
	1%	1%	1%	4%	2%
grade 5 events	3113	3907	3974	10577	5753
	4%	5%	5%	9%	5%
grade 6 events	1612	1712	2127	25052	7167
	2%	2%	2%	23%	6%
grade 7 events	62495	60707	63500	46769	69752
	84%	83%	82%	43%	66%

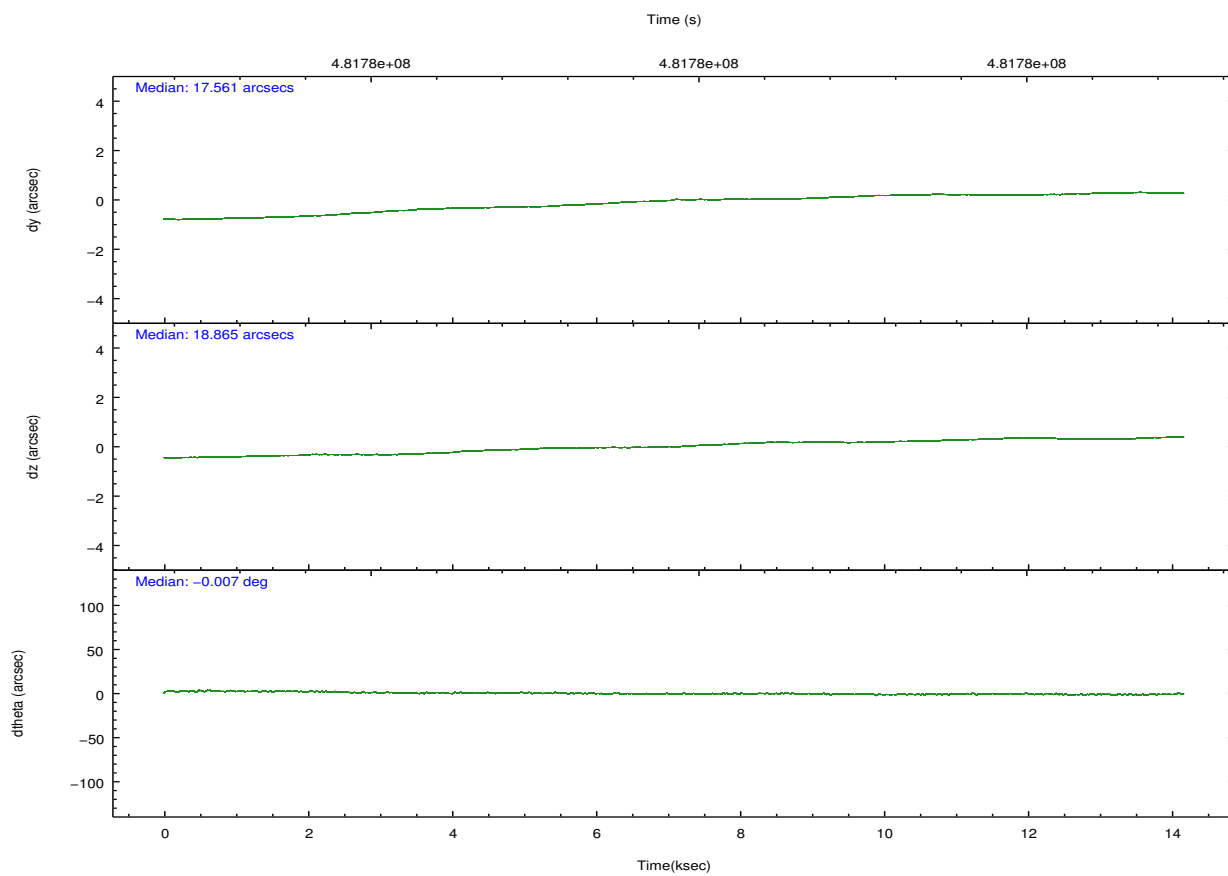
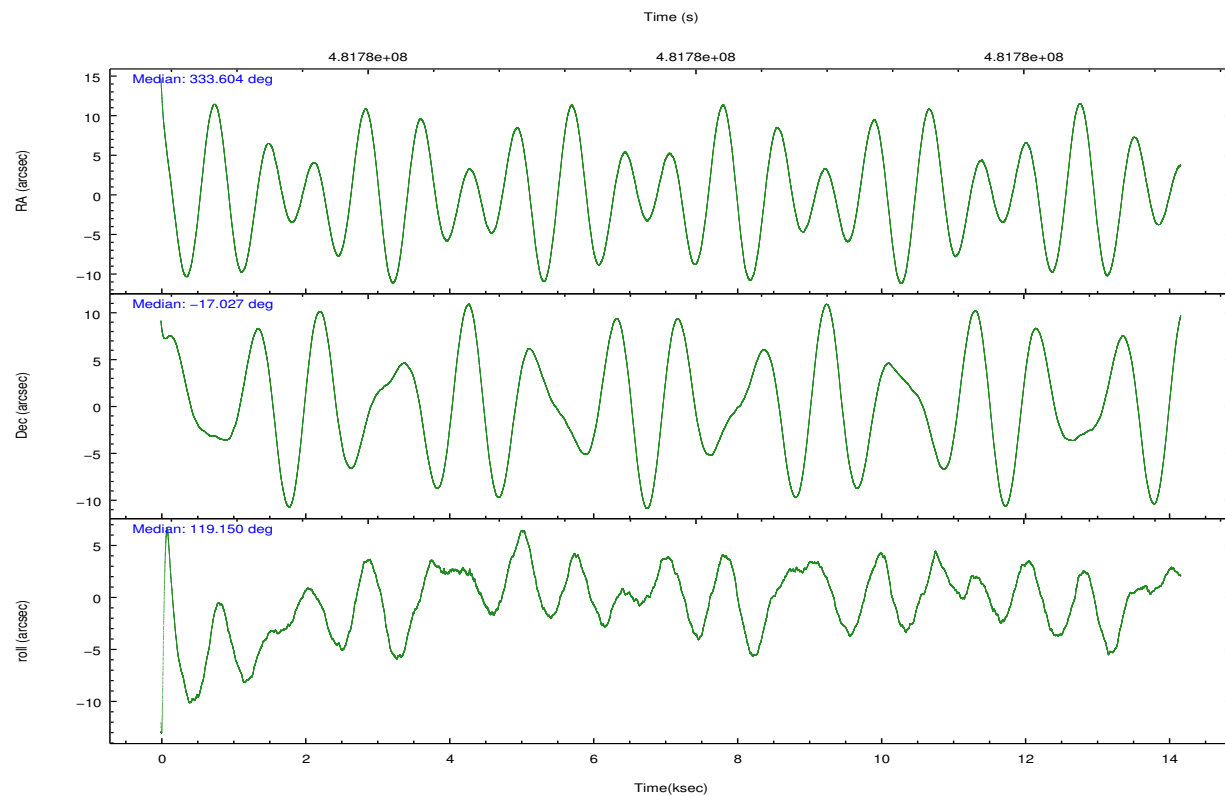


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	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	333.628679	333.6039247607231	CCD I2 on	O1	Y
[deg] Pointing Dec	-17.040297	-17.02658747664333	CCD I3 on	O2	Y
[deg] Pointing Roll	119.006326	119.1556787933477	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[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)	481772698.184000	481771259.19431	CCD S5 on	N	N
Observation start date	2013-04-08T01:43:51	2013-04-08T01:20:59	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	481786698.184000	481787766.3077	On-chip summing requested	N	N
Observation end date	2013-04-08T05:37:11	2013-04-08T05:56:06	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



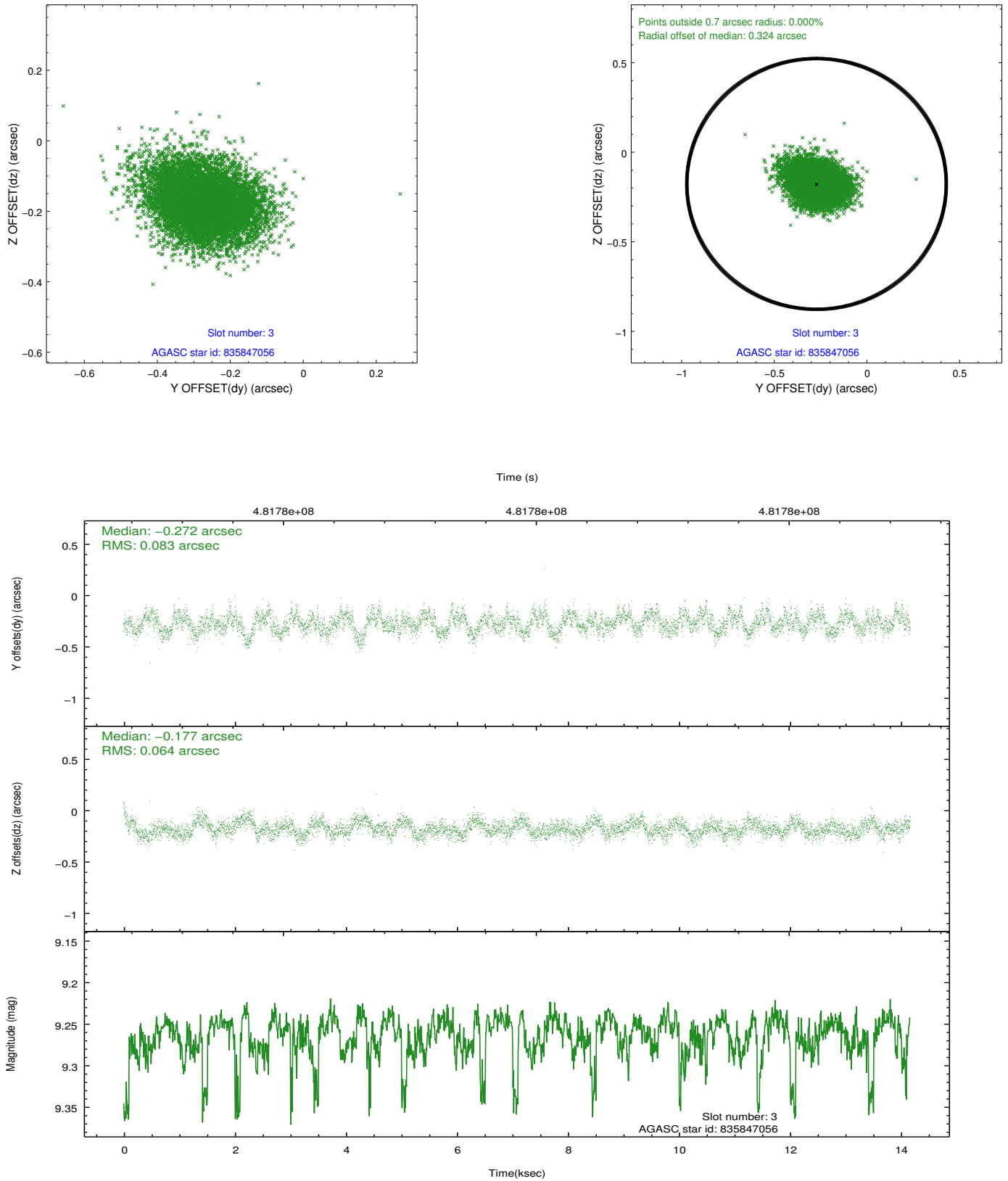


### Slot Statistics

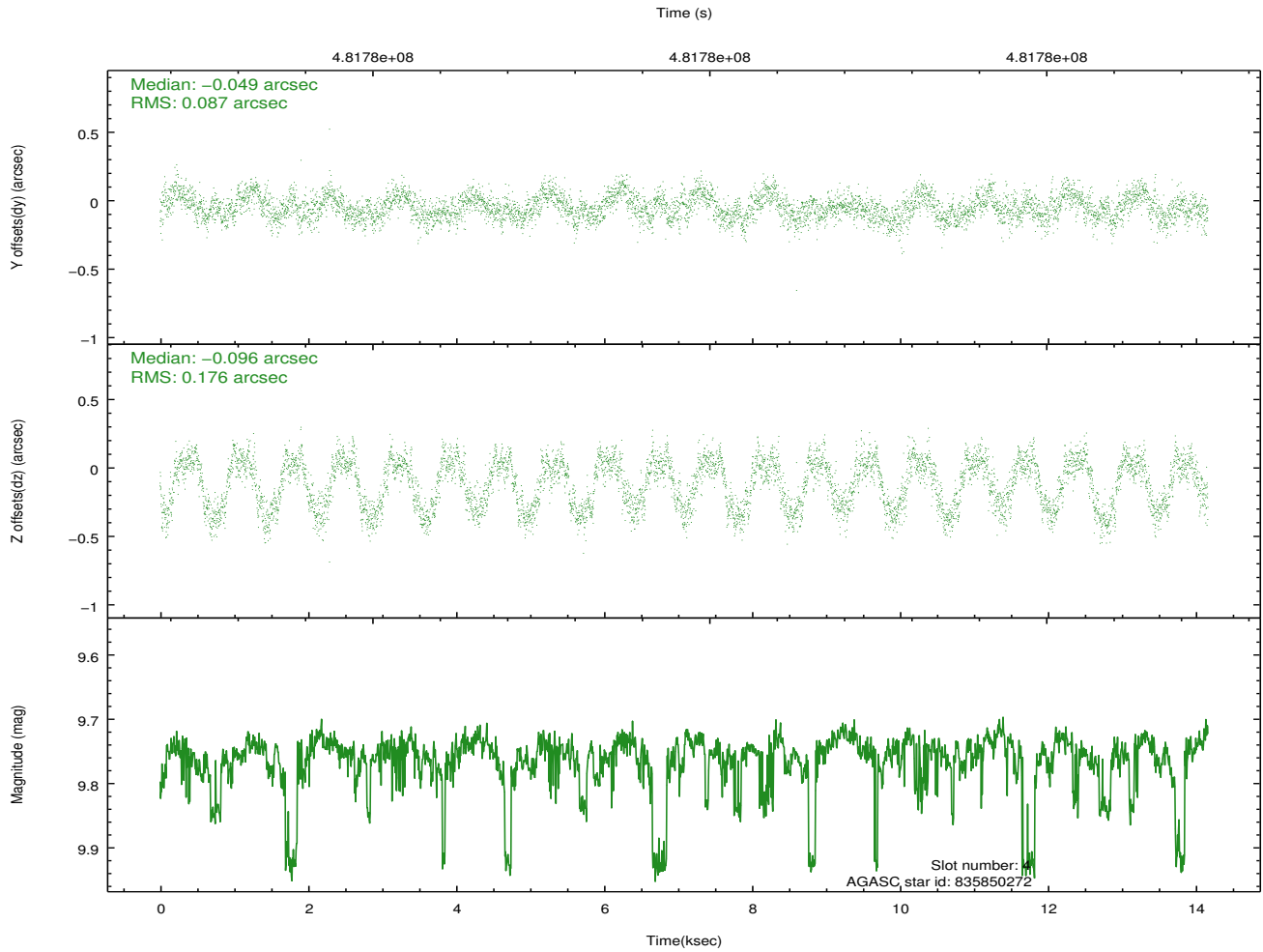
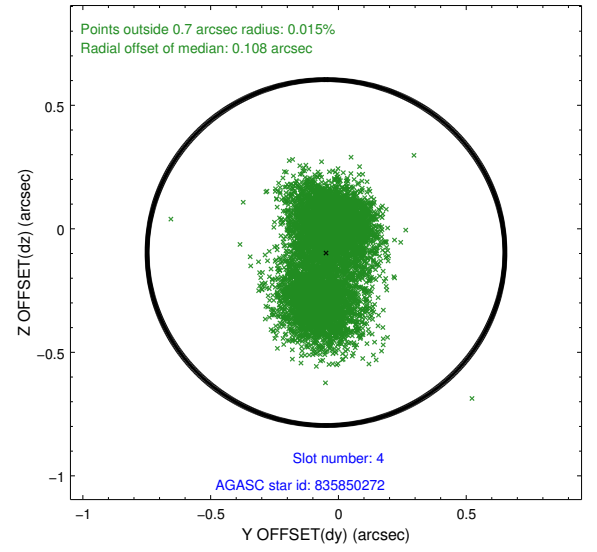
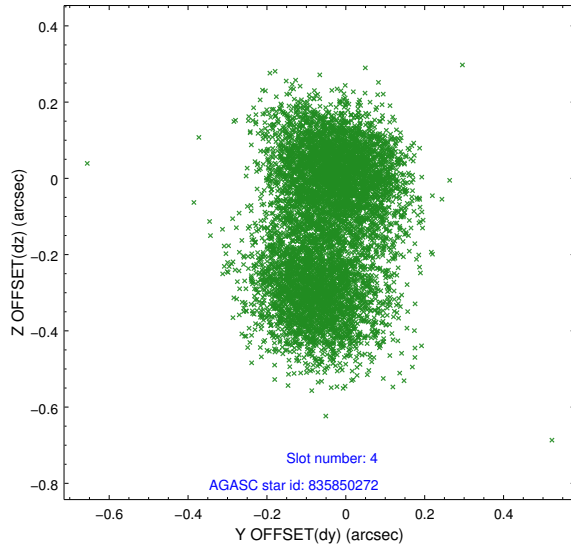
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.01	3456	0.078	-0.016	0.007	0.011	0.000000	0.000000	925.70	-1735.98
1	FID		ACIS-S-5	7.05	3456	-0.139	0.060	0.015	0.025	0.000000	0.000000	-1823.38	161.25
2	FID		ACIS-S-6	7.15	3456	0.038	-0.032	0.018	0.025	0.000000	0.000000	390.79	805.54
3	GUIDE	used	835847056	9.26	6885	-0.272	-0.177	0.112	0.180	333.278171	-16.621840	1902.76	327.71
4	GUIDE	used	835850272	9.76	6865	-0.049	-0.096	0.214	0.324	333.242614	-17.411688	-527.26	1809.10
5	GUIDE	used	835977888	9.44	6892	0.041	-0.055	0.172	0.250	333.352822	-17.230918	-141.00	1162.80
6	GUIDE	used	835978224	9.10	6898	0.058	0.145	0.107	0.167	334.068991	-17.205246	-1254.72	-1035.11
7	GUIDE	used	835978912	9.42	6908	0.222	0.202	0.149	0.230	334.237511	-16.984216	-842.35	-1929.05

## 2.4 Star Slots

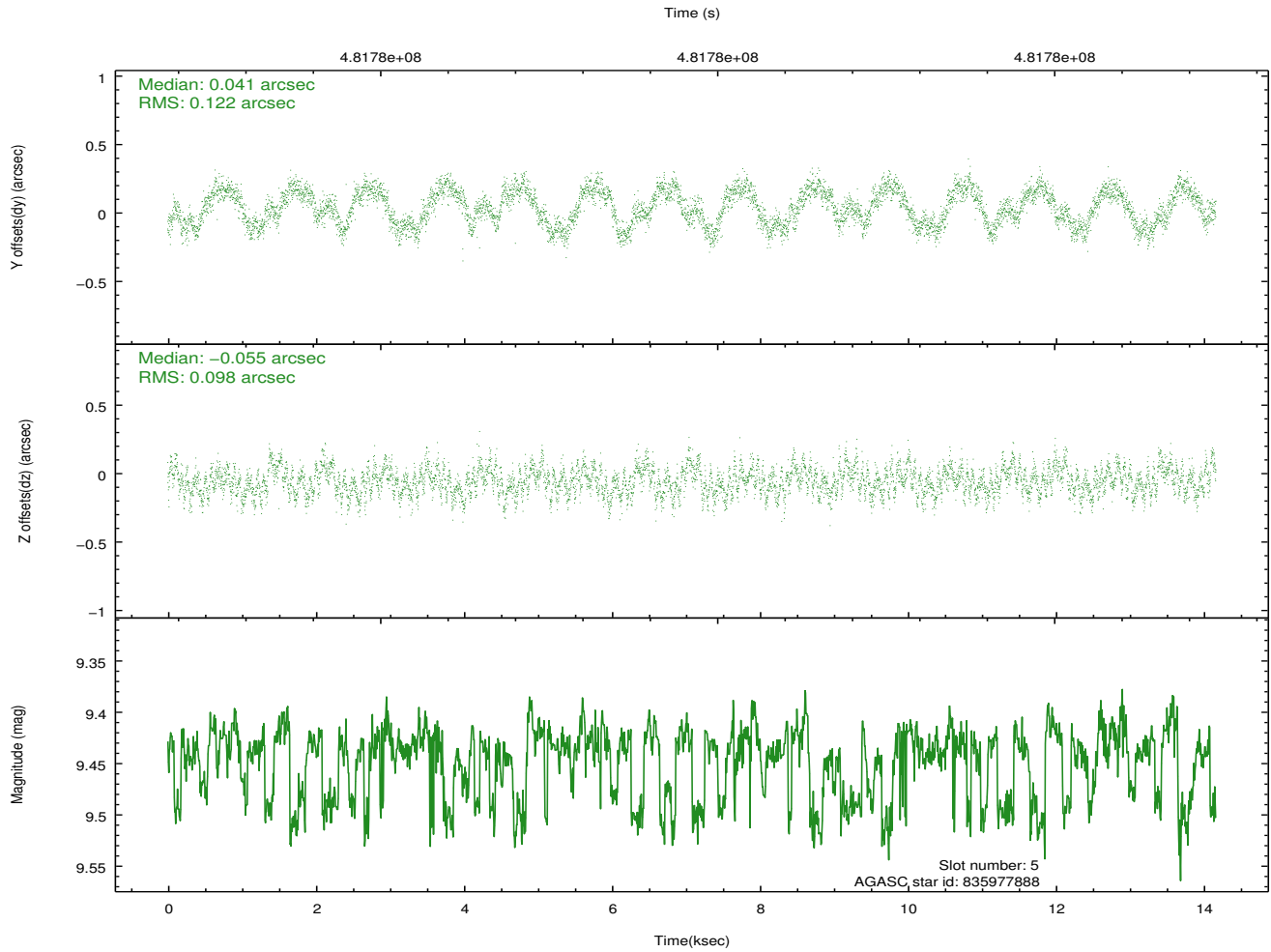
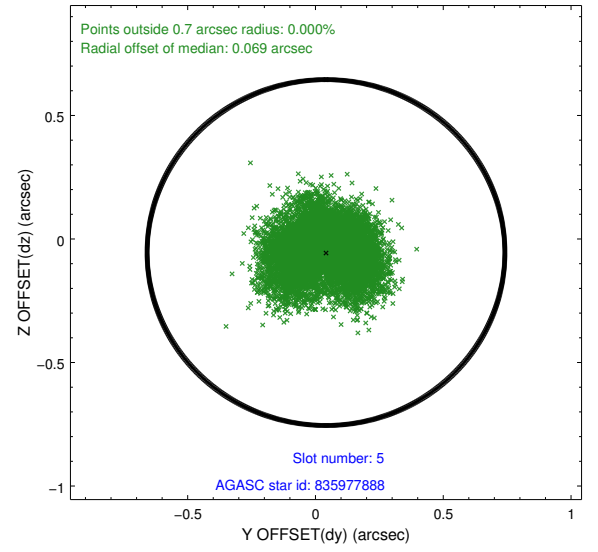
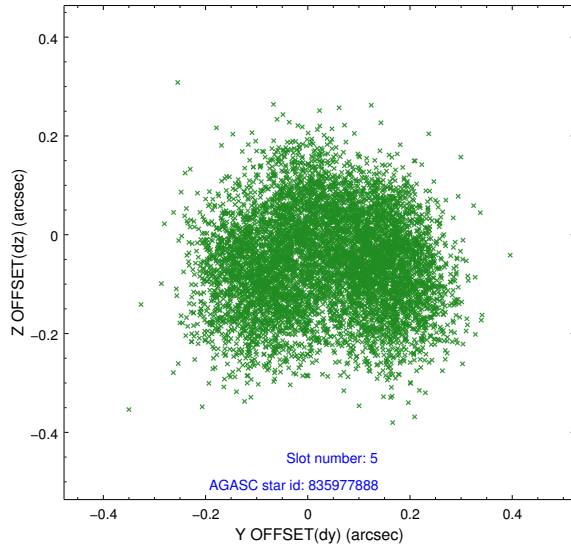
### 2.4.1 Slot 3



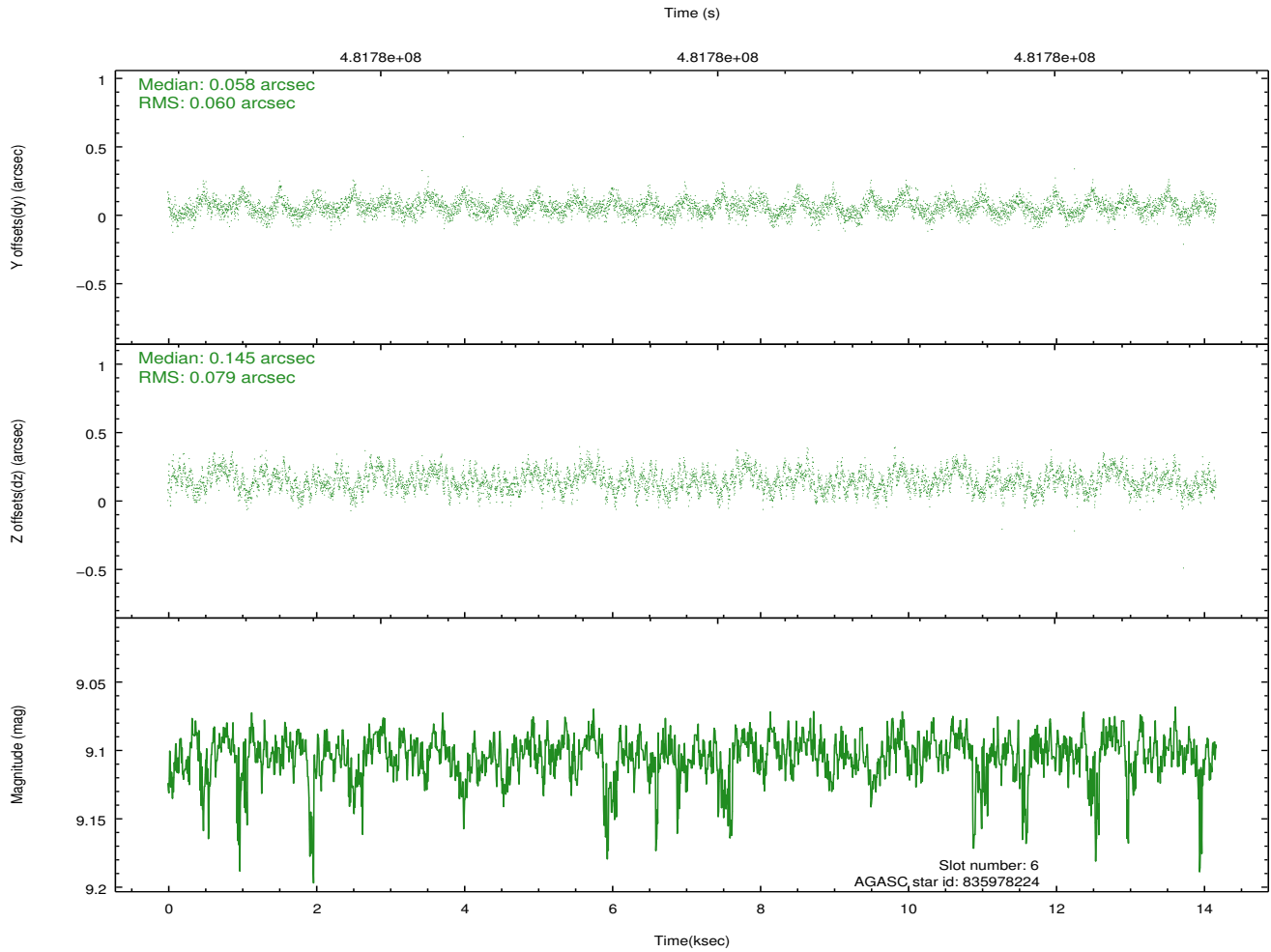
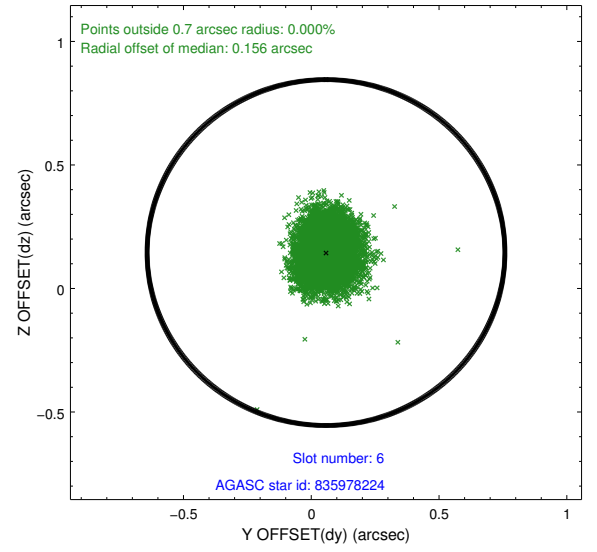
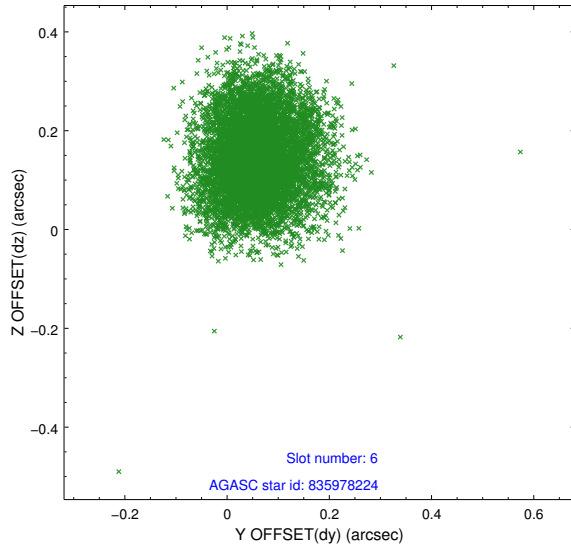
## 2.4.2 Slot 4



### 2.4.3 Slot 5

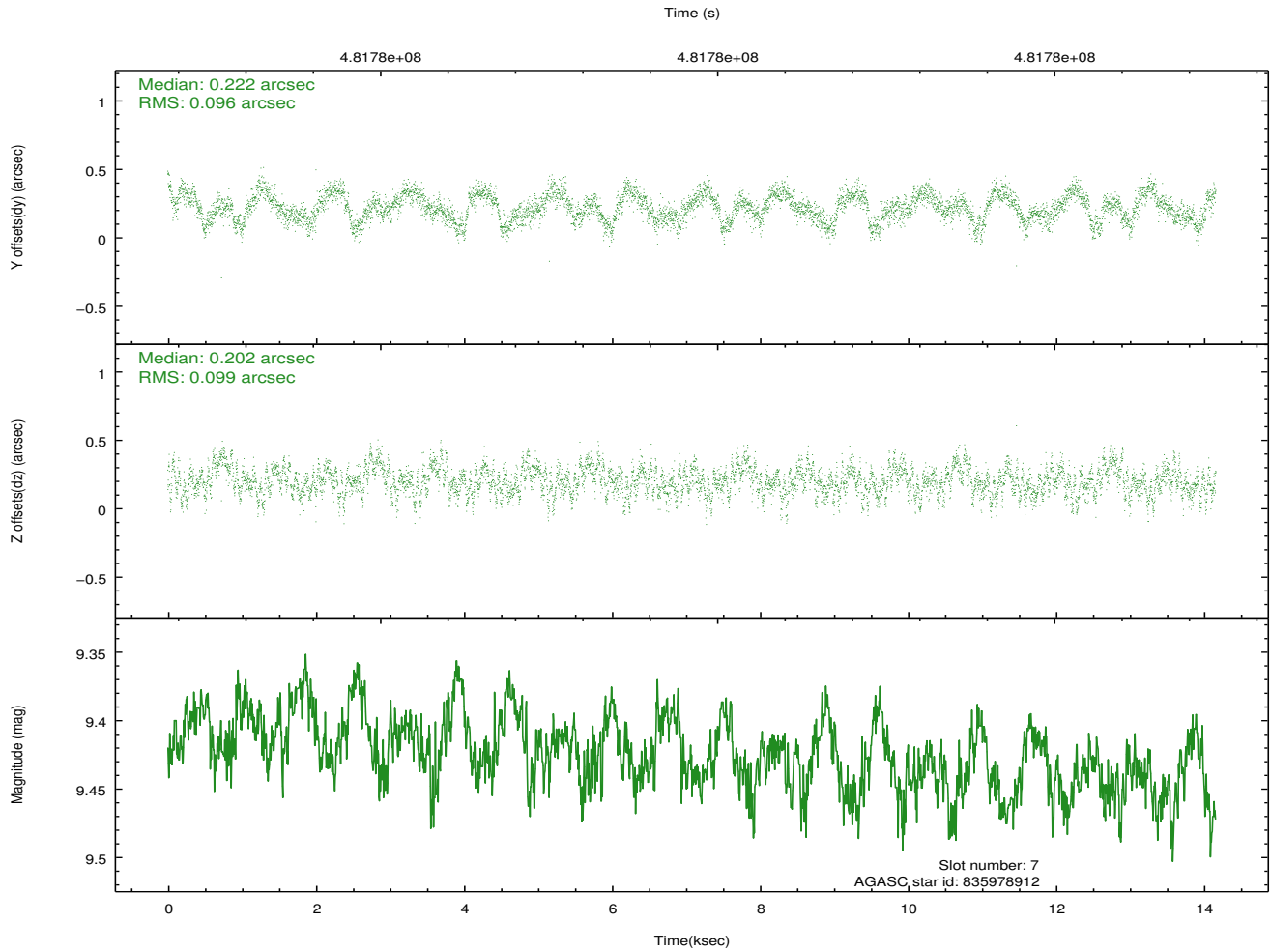
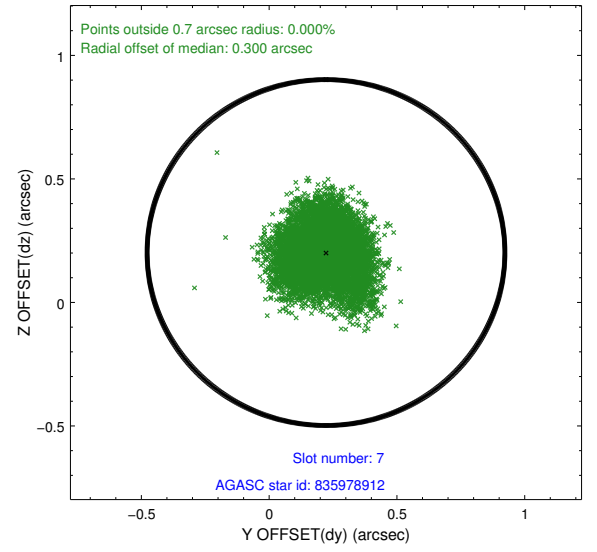
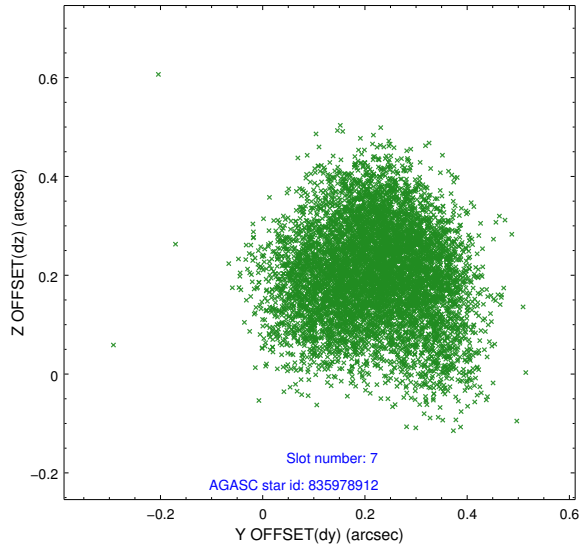


## 2.4.4 Slot 6



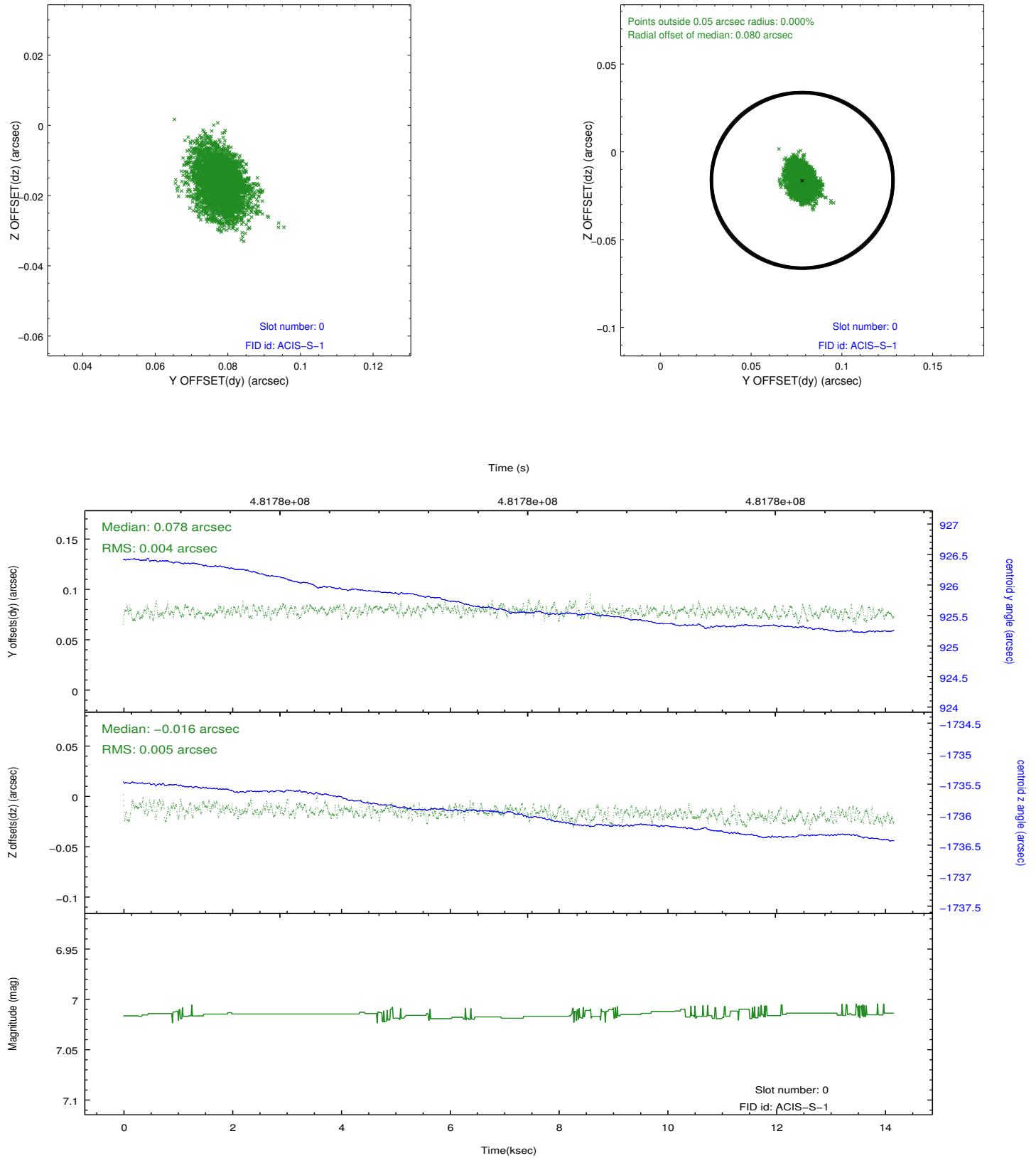


## 2.4.5 Slot 7

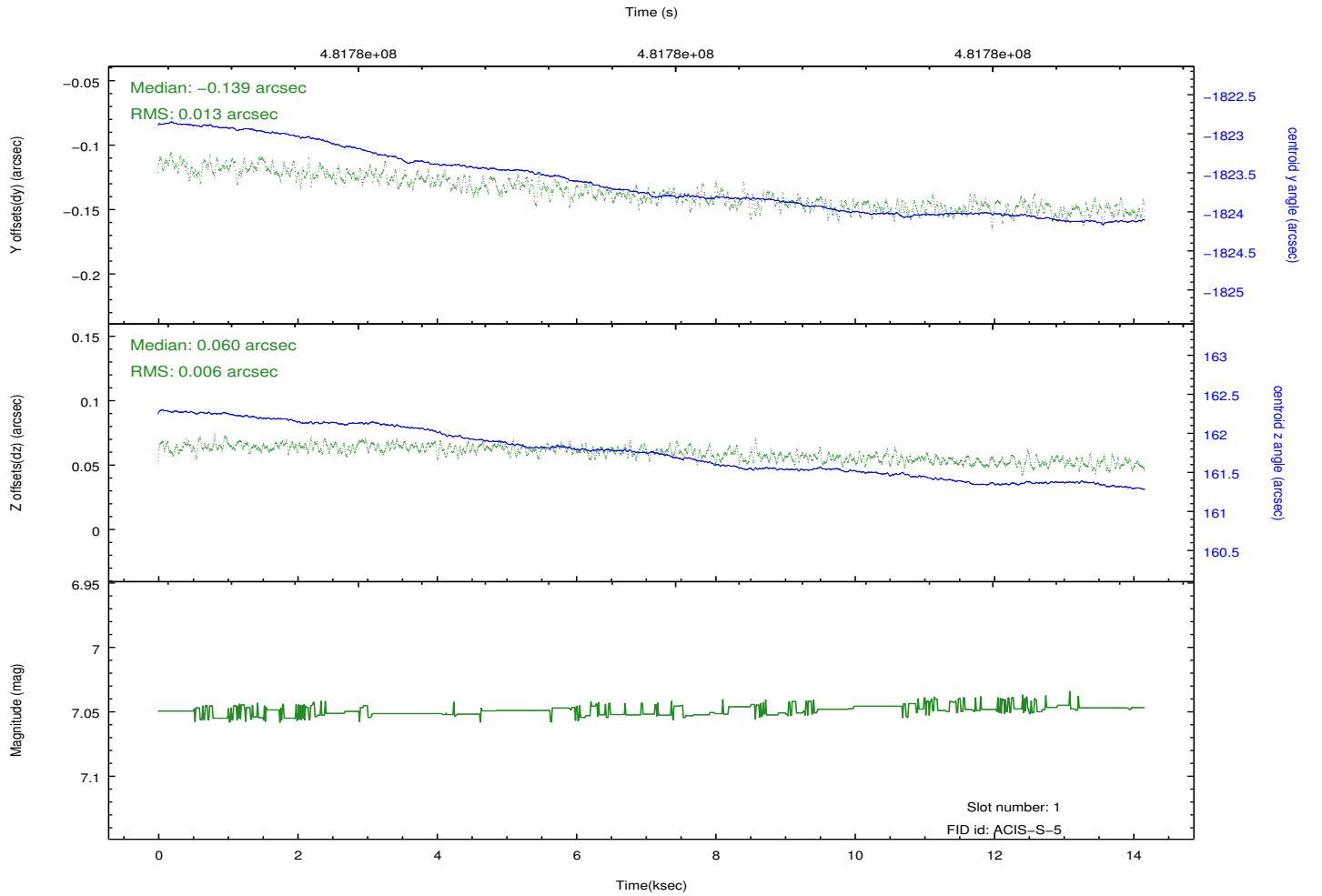
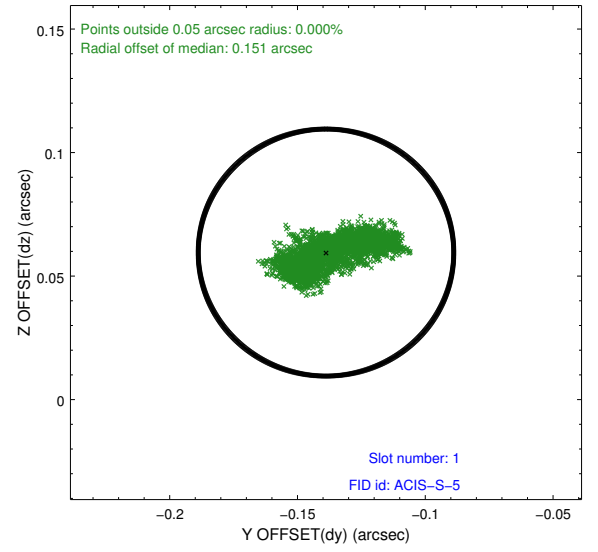
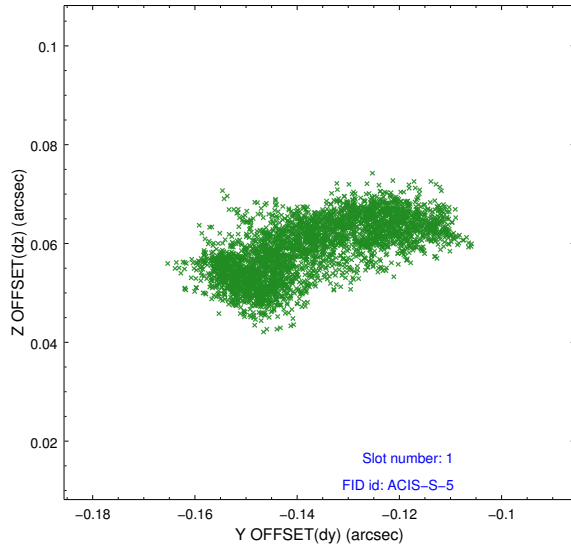


## 2.5 FID Slots

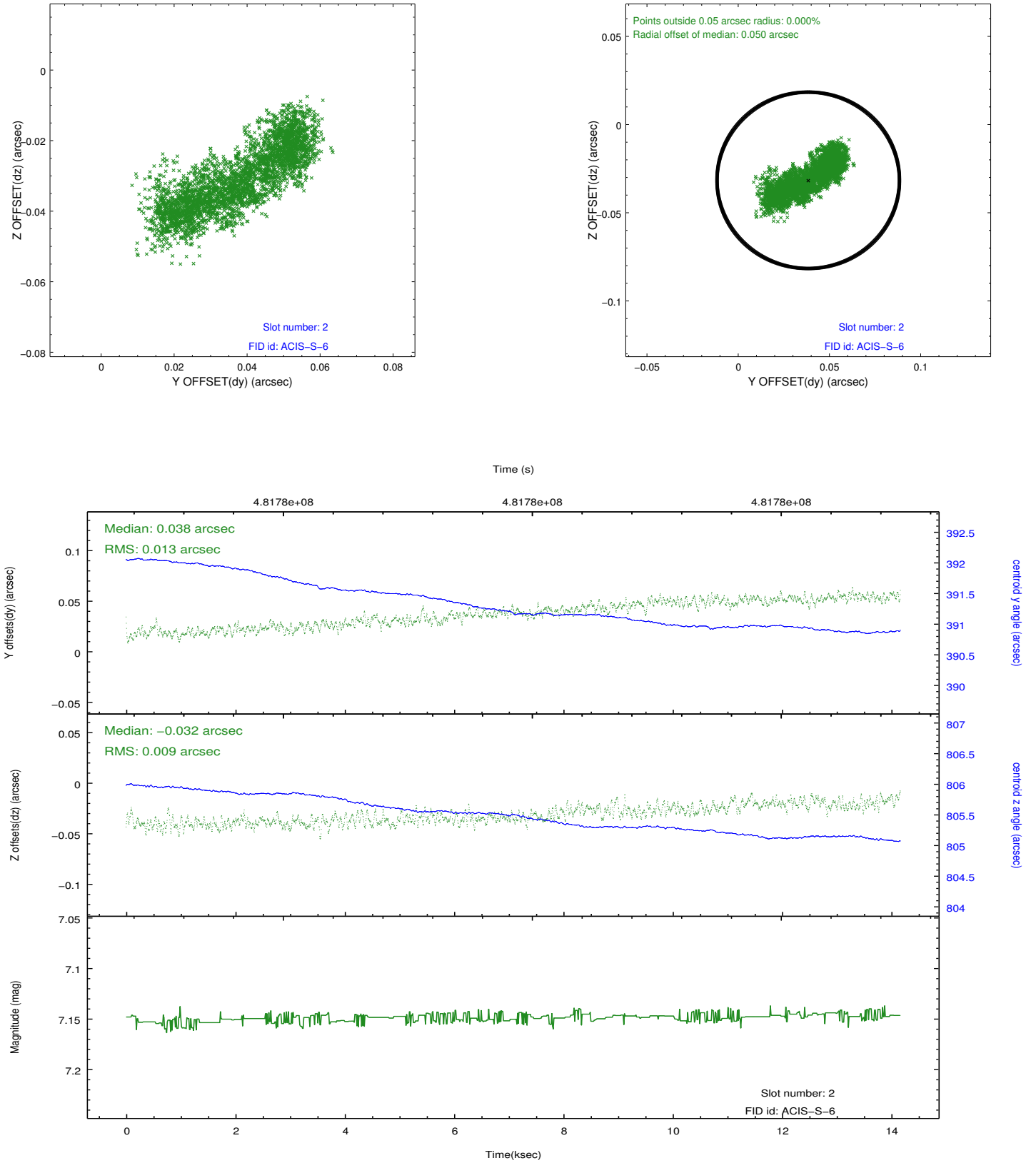
### 2.5.1 Slot 0



## 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)	2014.12.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.067800108194

## 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.