

# V&V Reference Report

## L2 ASCDS Version : 10.1.1

Observation 15714 - L2 Version 2  
Chandra X-Ray Center

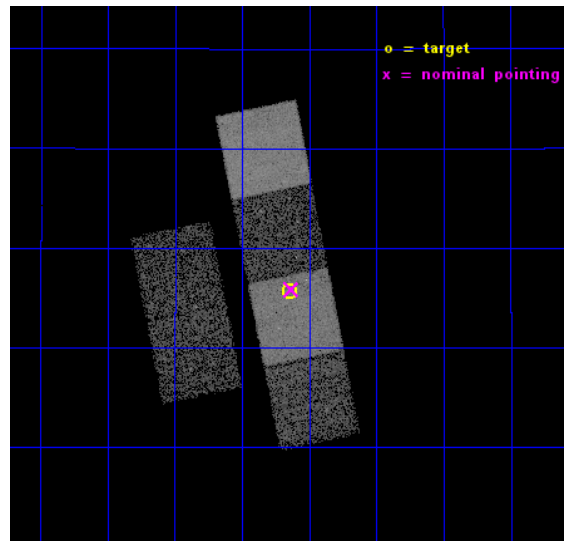
L2 Processing Date : Dec 8 2014

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.5	FID Slots . . . . .	13
2.5.1	Slot 0 . . . . .	13
2.5.2	Slot 1 . . . . .	14
2.5.3	Slot 2 . . . . .	15
<b>A</b>	<b>Summary</b>	<b>16</b>
A.1	Status . . . . .	16
A.2	Comments . . . . .	16

# 1 Front

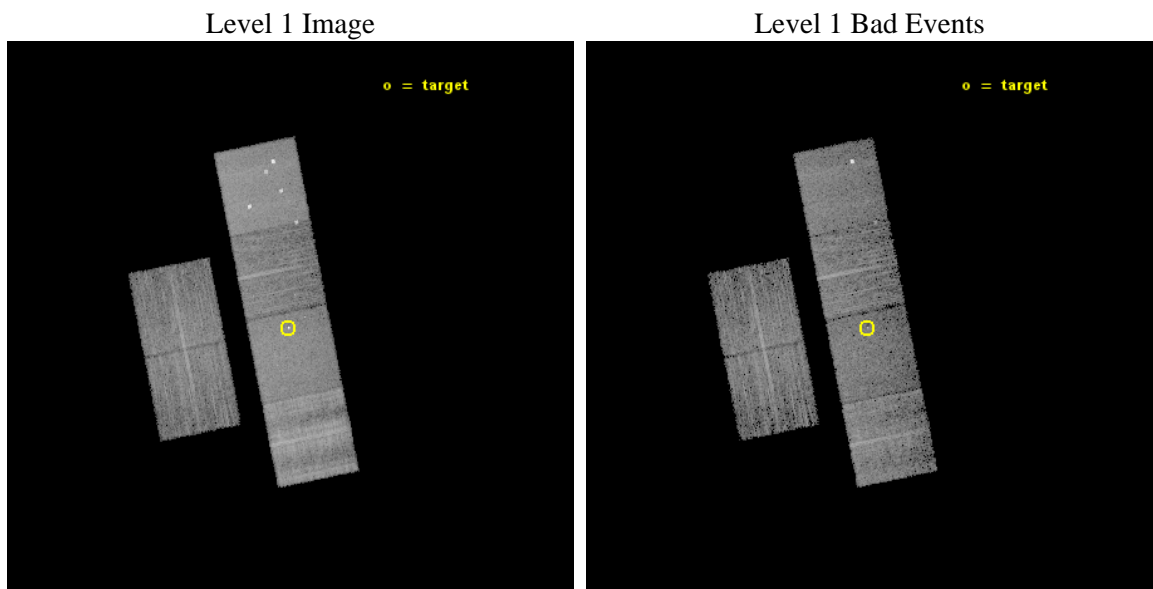
seq_num	200927	Sequence number
obs_id	15714	Observation id
title	INVESTIGATING BINARITY AND ACTIVE ACCRETION IN A NEW CLASS OF AGB STARS WITH FUV EXCESSES	Proposal title
observer	Dr Raghvendra Sahai	Principal investigator
object	Y Gem	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	115.285417	Observer's specified target RA [deg]
dec_targ	20.428972	Observer's specified target Dec [deg]
ra_nom	115.2830928584	Nominal RA [deg]
dec_nom	20.431120456446	Nominal Dec [deg]
roll_nom	78.605950323853	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10467.199961066	Sum of GTIs [s]
livetime	10334.657972568	Livetime [s]
ontime2	10463.958910644	Sum of GTIs [s]
ontime3	10467.199961066	Sum of GTIs [s]
ontime5	10467.199961066	Sum of GTIs [s]
ontime6	10467.199961066	Sum of GTIs [s]
ontime7	10467.199961066	Sum of GTIs [s]
ontime8	10467.199961066	Sum of GTIs [s]
l2events	89712	Number of level 2 events



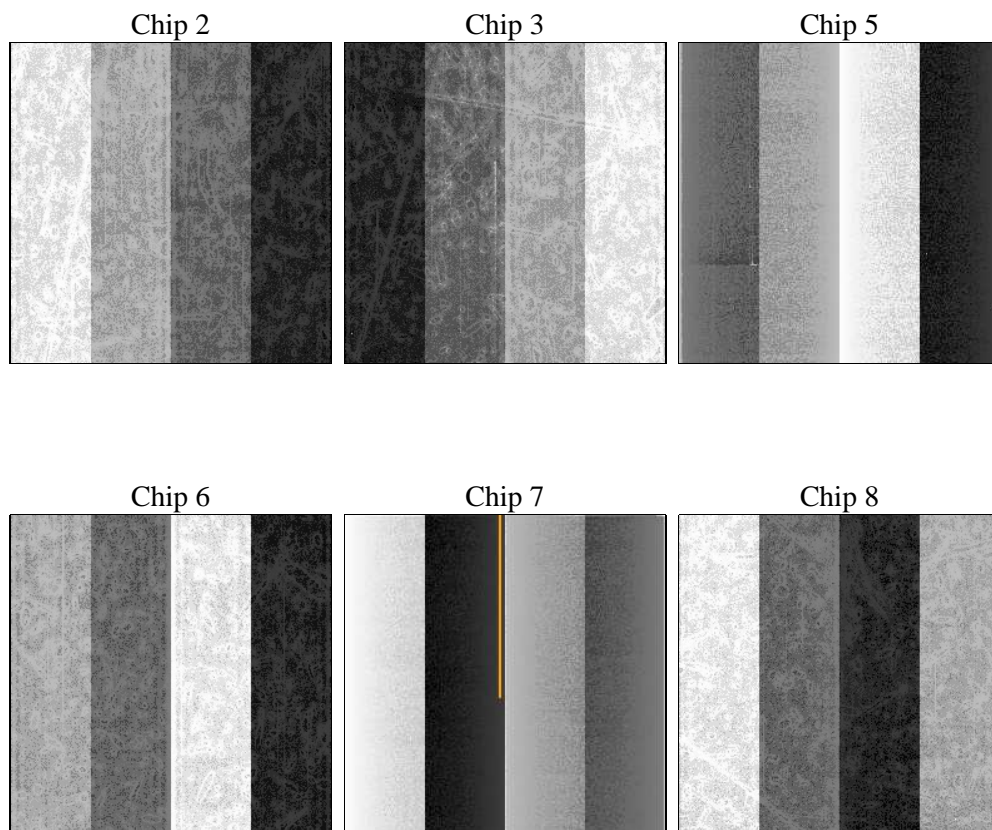
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10500.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	10467.199961066	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime2	10463.958910644	Sum of GTIs [s]
date	2014-12-08T10:03:56	Date and time of file creation	ontime3	10467.199961066	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	10467.199961066	Sum of GTIs [s]
			ontime6	10467.199961066	Sum of GTIs [s]
			ontime7	10467.199961066	Sum of GTIs [s]
			ontime8	10467.199961066	Sum of GTIs [s]
			l1events	394941	Number of level 1 events

### 2.1.4 Events

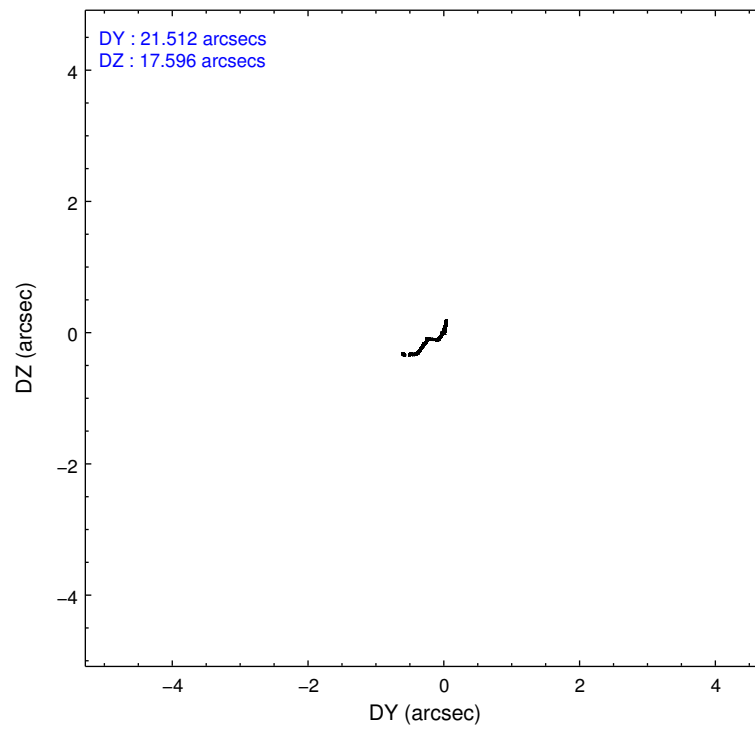
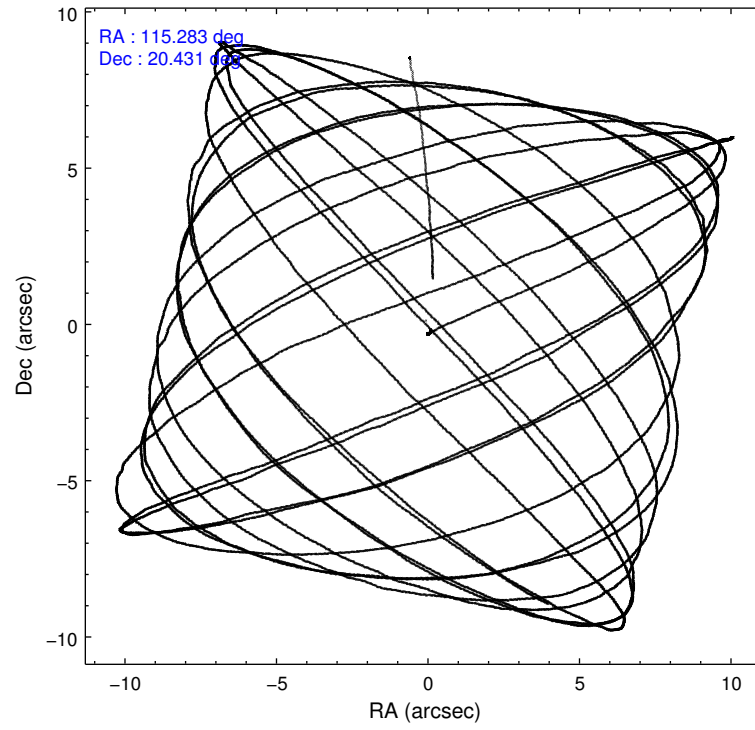
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	49629	47890	90785	50908	69229	86500	grade 0 events	2533	2047	8055	2606	2932	13163
rejected events	43197	42402	46612	44278	38129	49282		5%	4%	8%	5%	4%	15%
rejected %	87%	88%	51%	86%	55%	56%	grade 1 events	38	28	285	21	101	115
								0%	0%	0%	0%	0%	0%
							grade 2 events	1578	1189	12499	1465	6717	5462
								3%	2%	13%	2%	9%	6%
							grade 3 events	566	551	1487	618	2656	6113
								1%	1%	1%	1%	3%	7%
							grade 4 events	664	563	1450	591	2552	5648
								1%	1%	1%	1%	3%	6%
							grade 5 events	2263	2494	6164	2452	6844	3730
								4%	5%	6%	4%	9%	4%
							grade 6 events	1093	1141	20695	1351	16254	6851
								2%	2%	22%	2%	23%	7%
							grade 7 events	40894	39877	40150	41804	31173	45418
								82%	83%	44%	82%	45%	52%

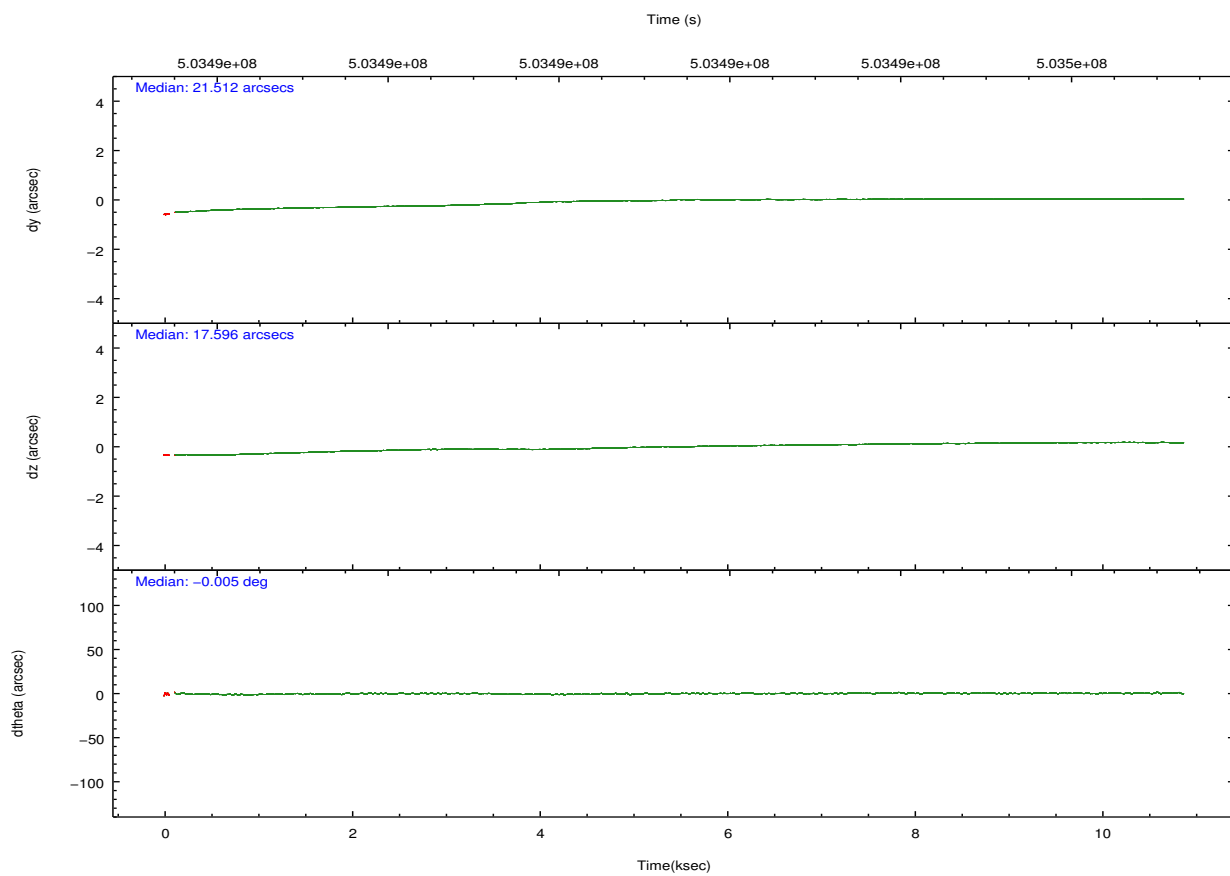
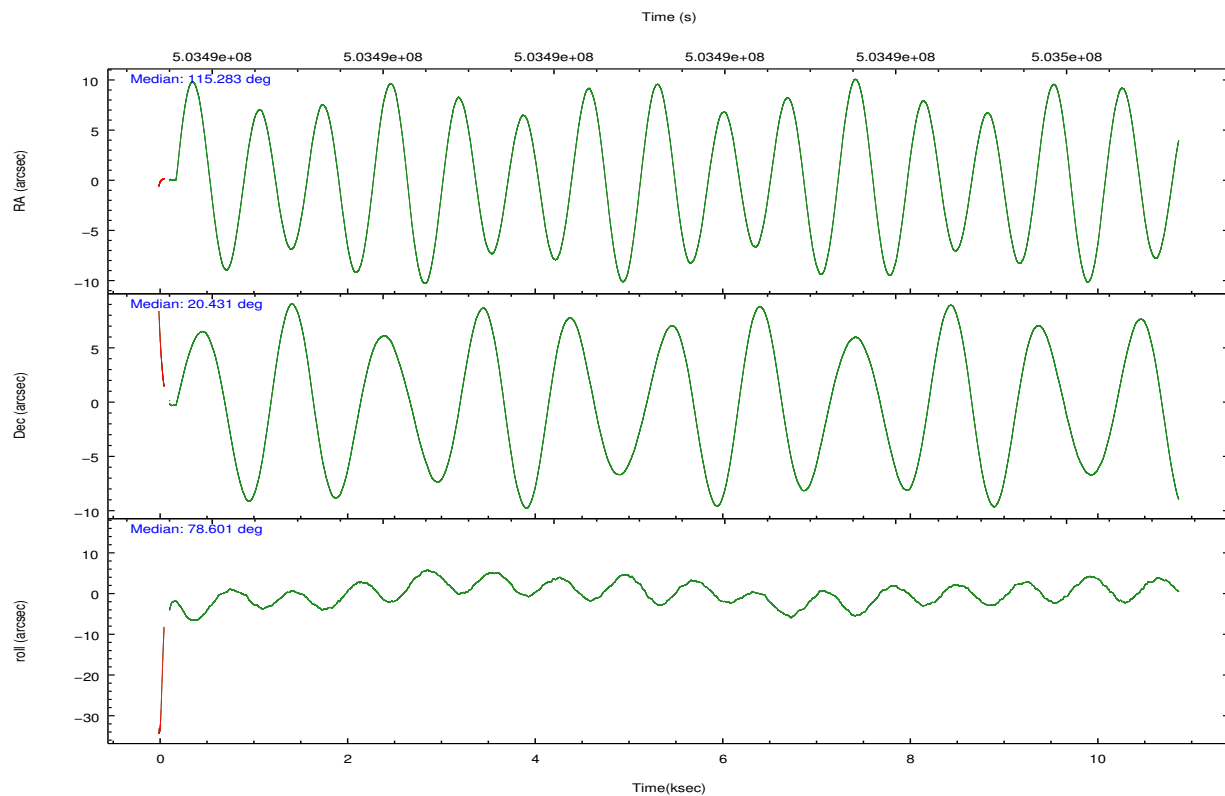


## 2.2 Compared Parameters

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	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	115.292773	115.2830928583971	CCD I2 on	O1	Y
[deg] Pointing Dec	20.405280	20.43112045644594	CCD I3 on	O2	Y
[deg] Pointing Roll	78.445990	78.60595032385346	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	503486281.184000	503485205.80267	CCD S5 on	N	N
Observation start date	2013-12-15T09:16:54	2013-12-15T09:00:05	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	503496781.184000	503497532.45335	On-chip summing requested	N	N
Observation end date	2013-12-15T12:11:54	2013-12-15T12:25:32	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



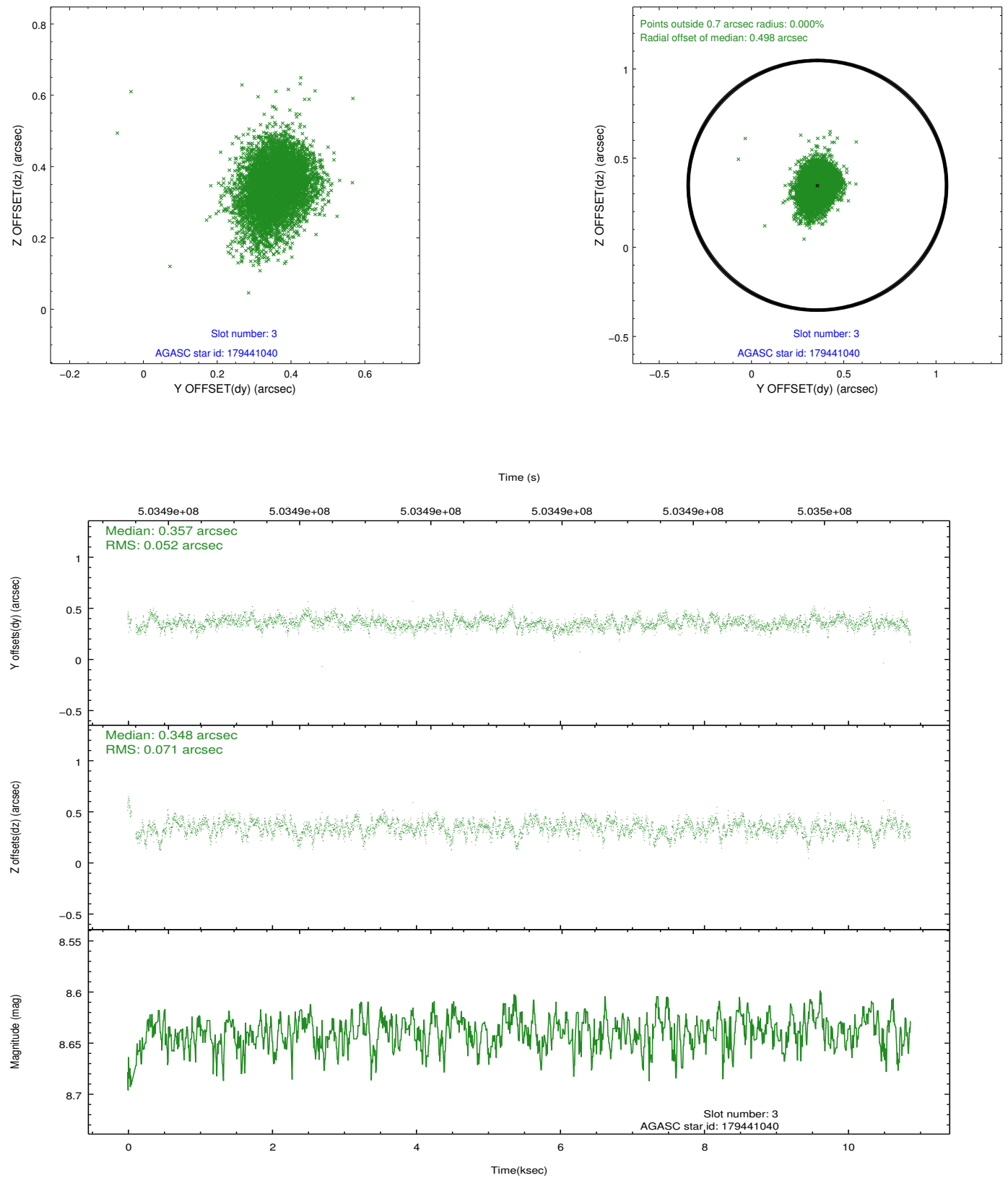


Slot Statistics

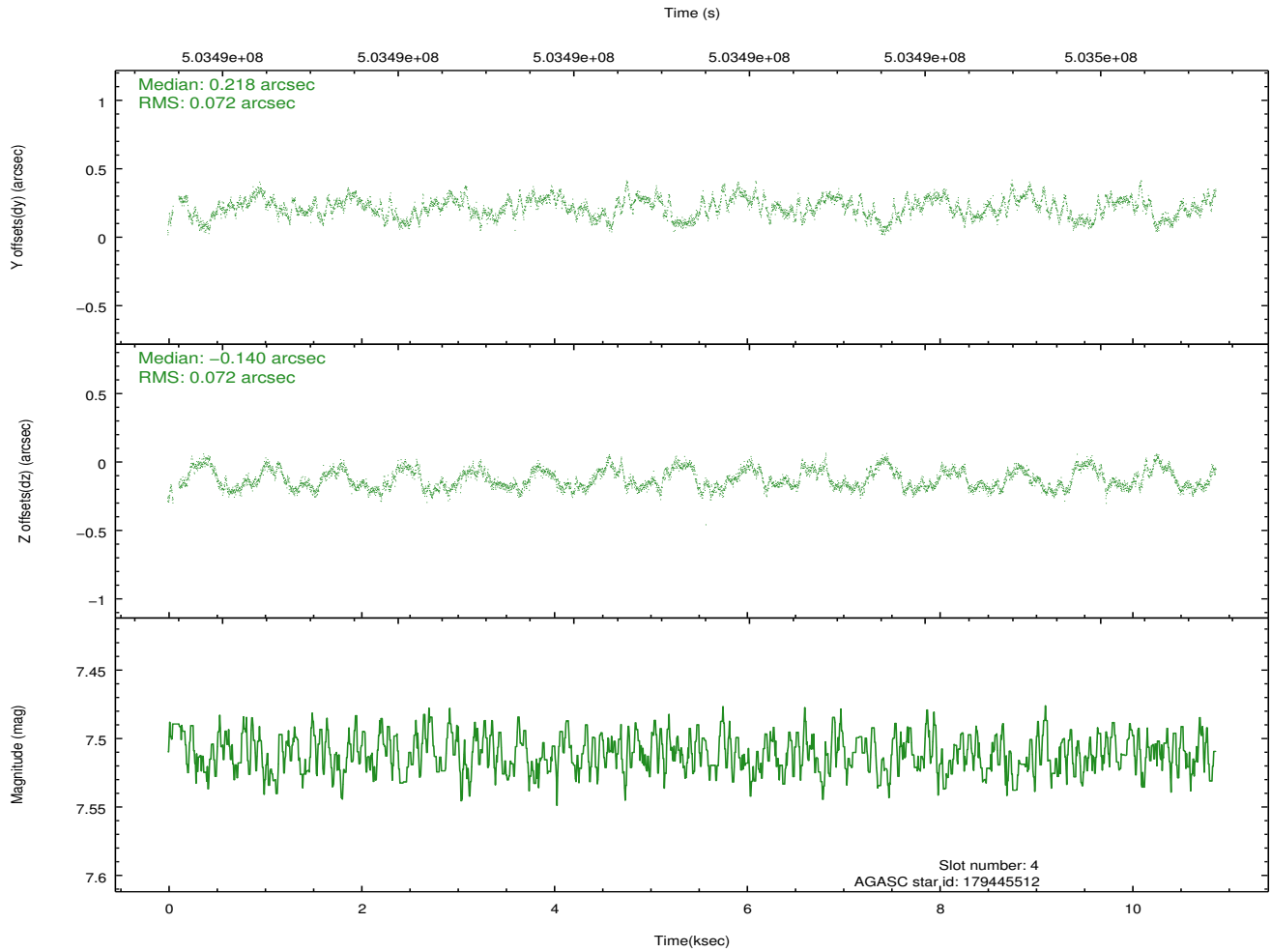
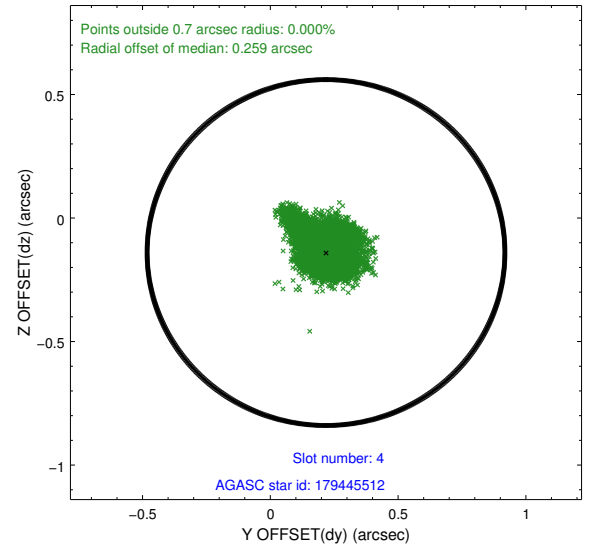
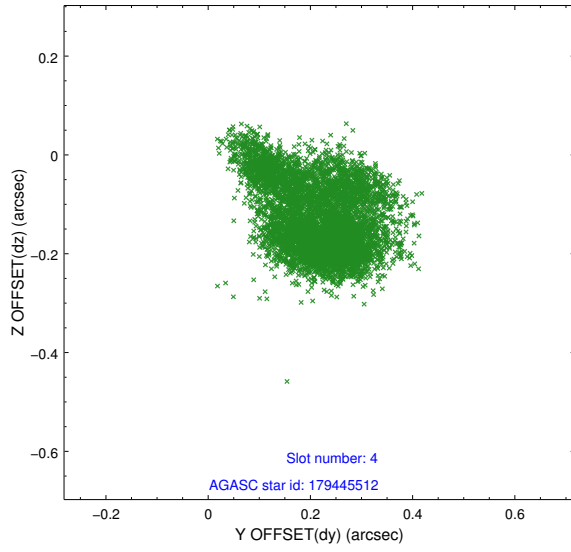
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.06	2639	0.057	-0.054	0.011	0.019	0.000000	0.000000	921.52	-1734.66
1	FID		ACIS-S-4	7.07	2639	0.190	0.014	0.009	0.016	0.000000	0.000000	2139.33	169.06
2	FID		ACIS-S-5	7.10	2639	-0.274	0.052	0.011	0.019	0.000000	0.000000	-1827.06	163.26
3	GUIDE	used	179441040	8.64	5277	0.357	0.348	0.091	0.150	115.790234	20.117205	-676.24	-1854.43
4	GUIDE	used	179445512	7.51	5278	0.218	-0.140	0.107	0.176	114.824205	20.148541	-1220.50	1366.61
5	GUIDE	used	179963584	8.77	5272	-0.073	-0.286	0.130	0.189	114.864941	20.840612	1248.47	1724.39
6	GUIDE	used	179968768	7.72	5277	-0.491	0.073	0.070	0.113	115.564493	20.976474	2198.13	-482.27
7	MONITOR	unused		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

## 2.4 Star Slots

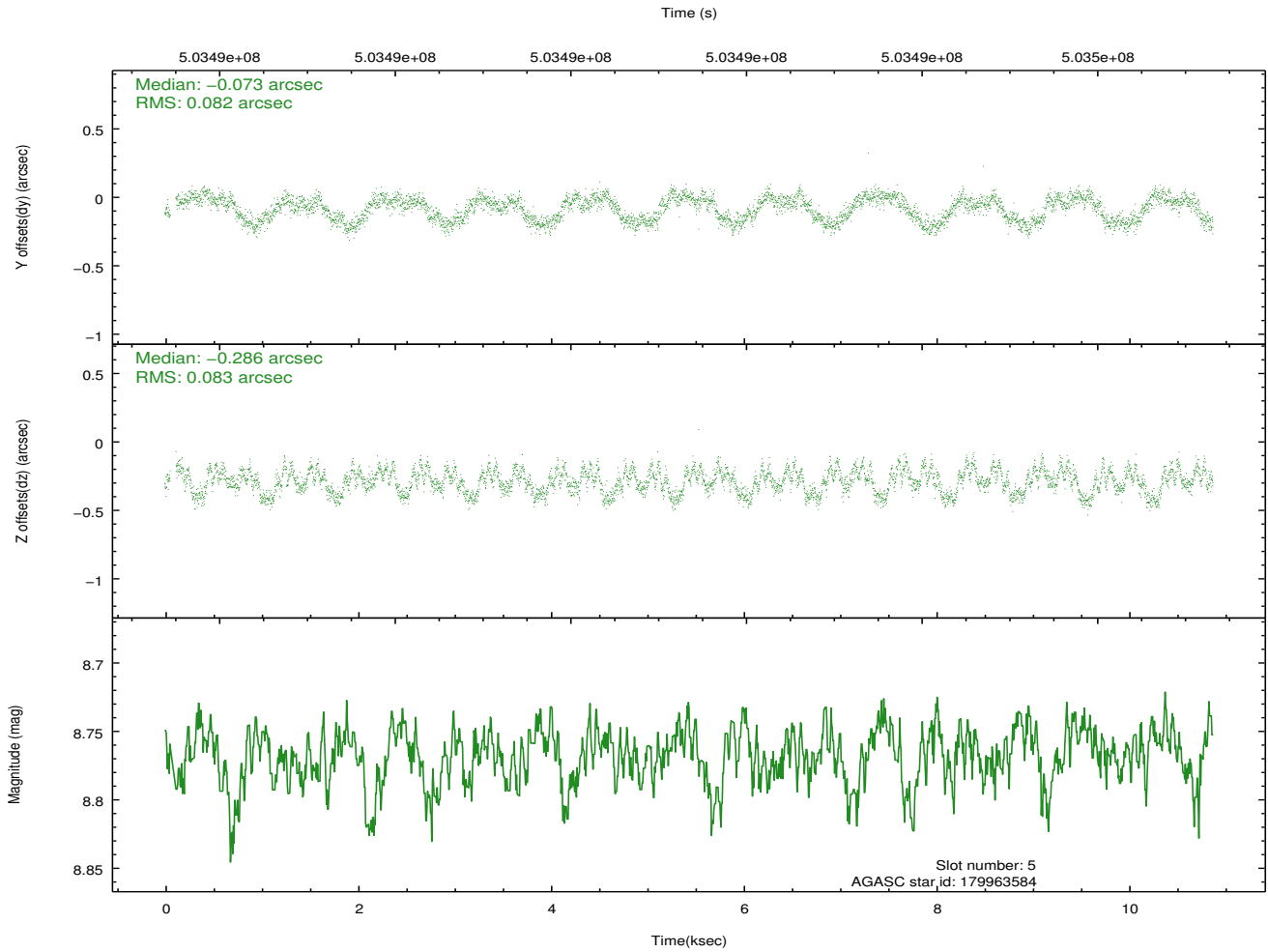
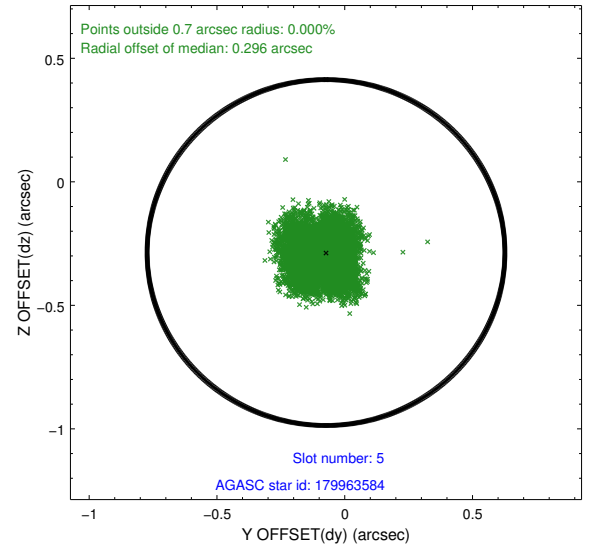
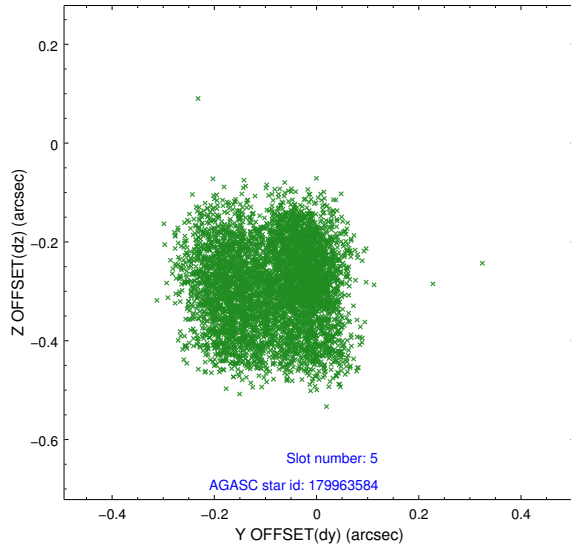
### 2.4.1 Slot 3



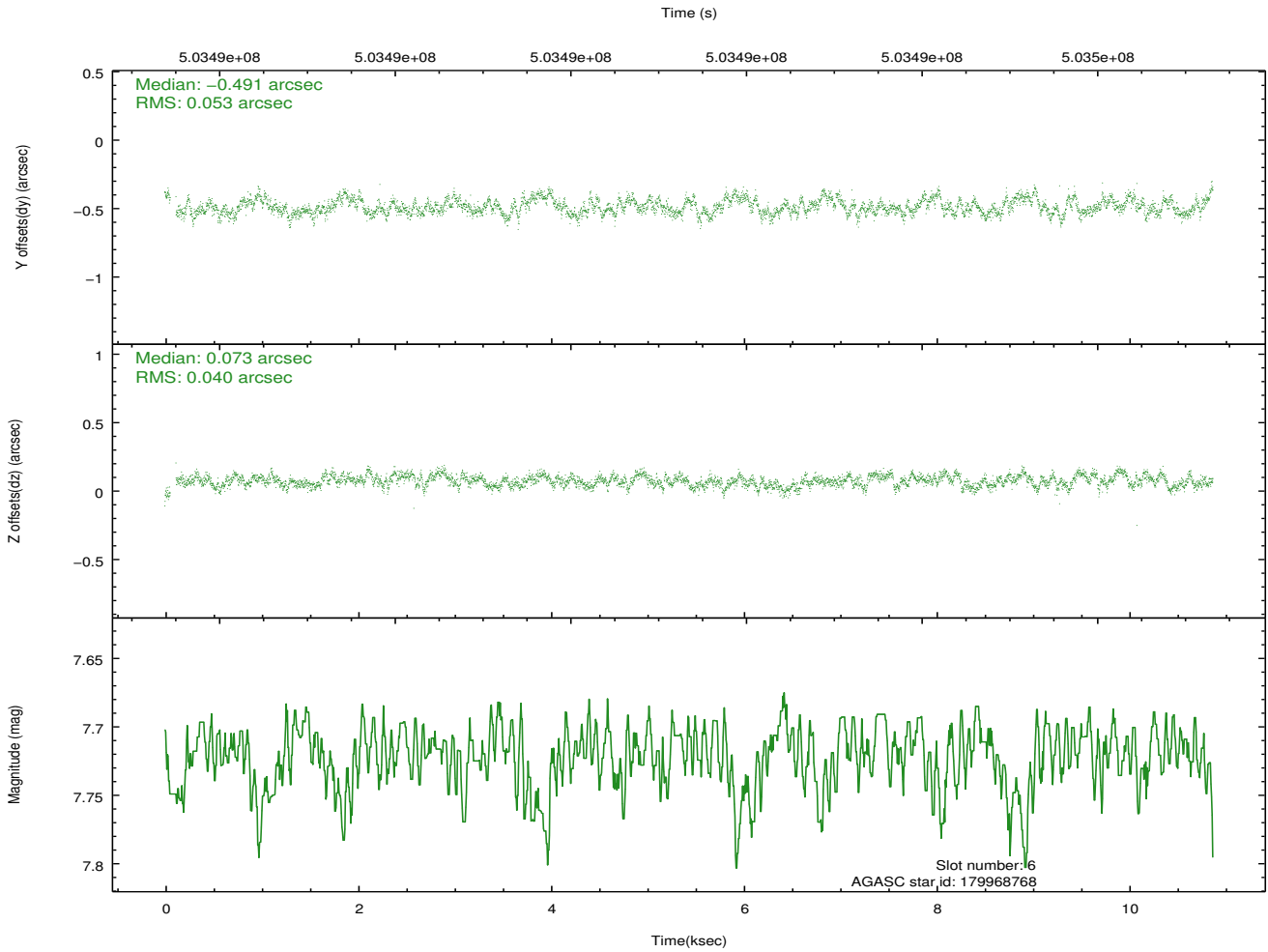
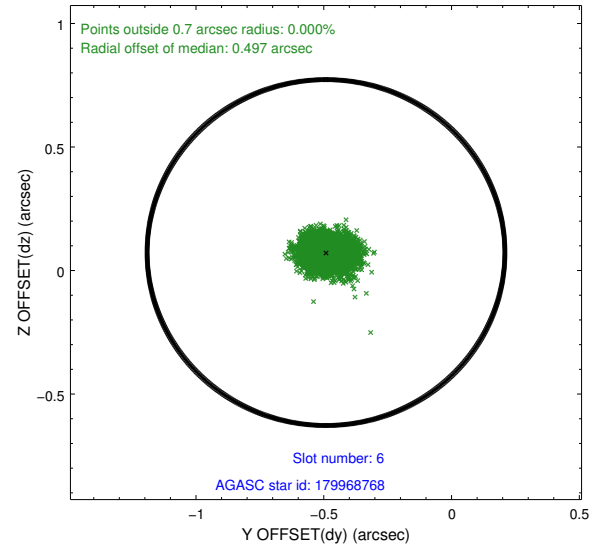
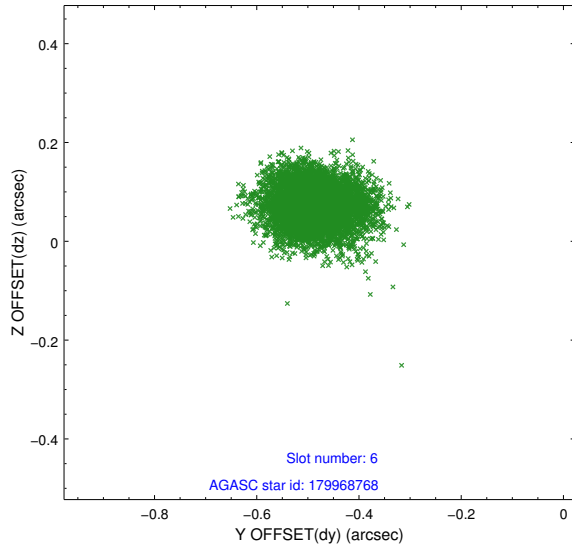
## 2.4.2 Slot 4



### 2.4.3 Slot 5



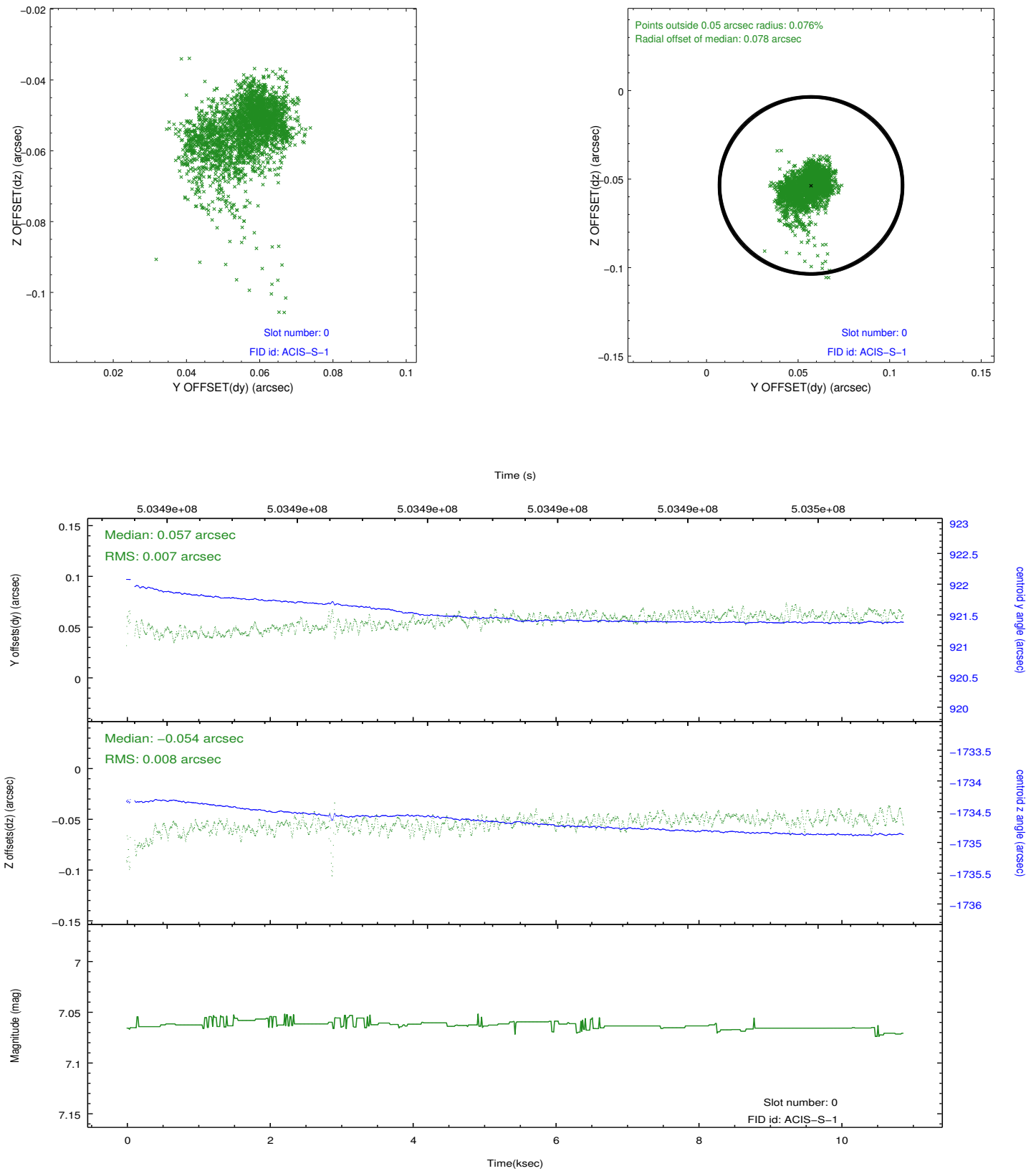
## 2.4.4 Slot 6



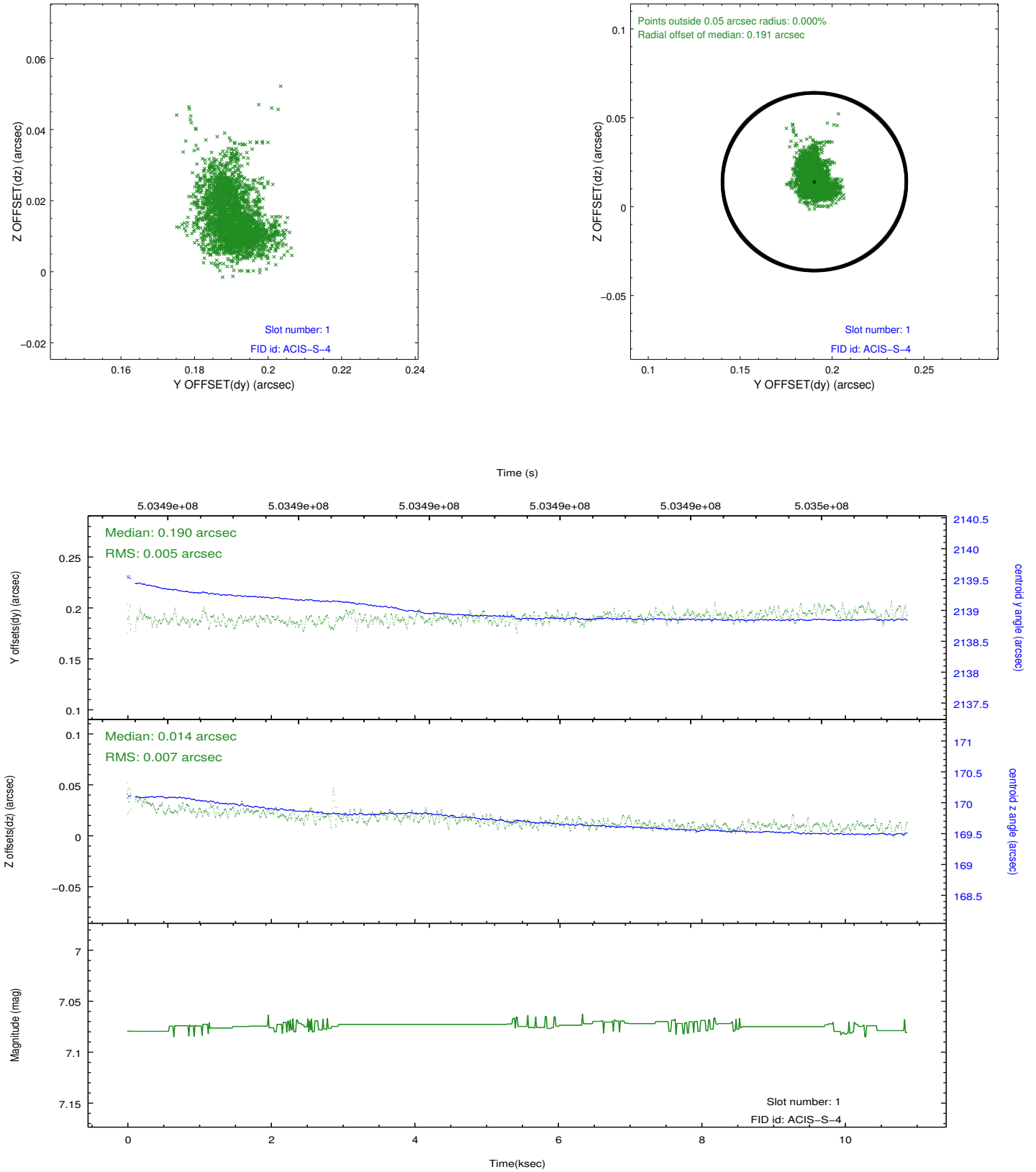


## 2.5 FID Slots

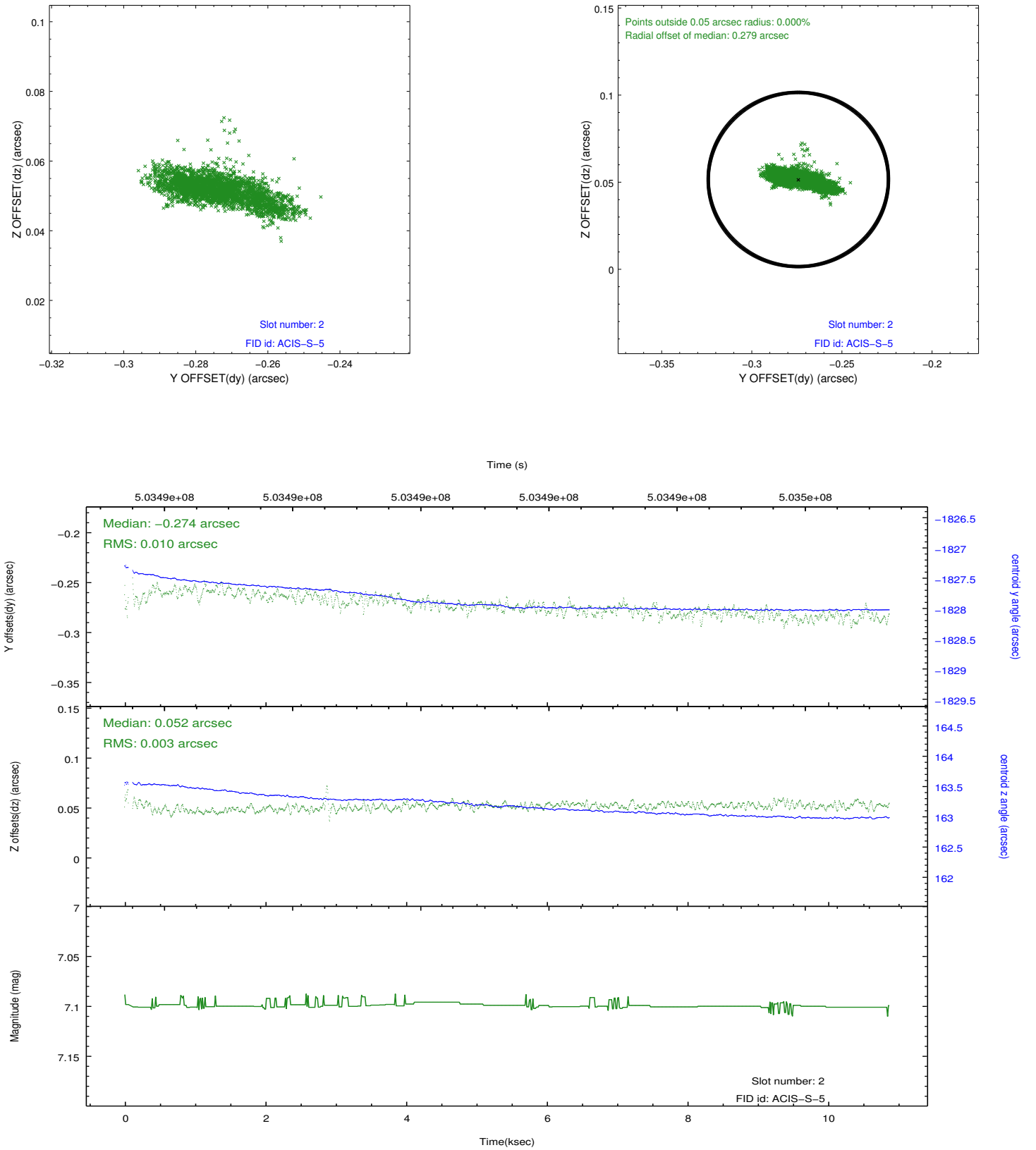
### 2.5.1 Slot 0



## 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)	2014.12.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.467199961066

## A.2 Comments

Slot 7 was used for optical photometry.

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.