

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 12518 - L2 Version 3  
Chandra X-Ray Center

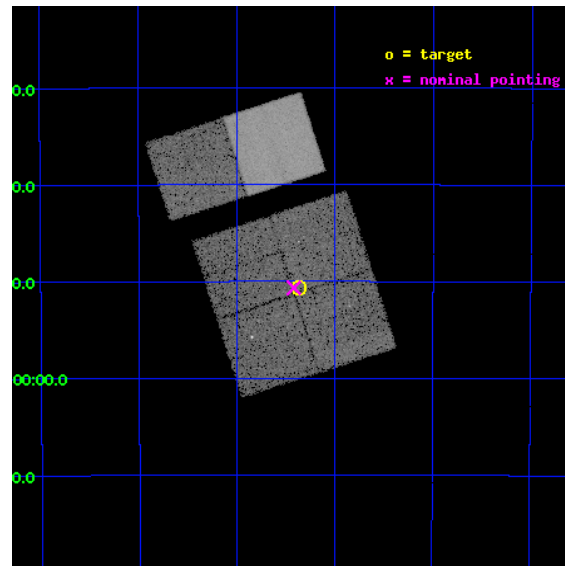
L2 Processing Date : Feb 12 2012

## 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
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

seq_num	401259	Sequence number
obs_id	12518	Observation id
title	Census of the Normal Spiral Arm Region	Proposal title
observer	Dr. John Tomsick	Principal investigator
object	Norma Region	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	249.342851	Observer's specified target RA [deg]
dec_targ	-46.84447	Observer's specified target Dec [deg]
ra_nom	249.35467267916	Nominal RA [deg]
dec_nom	-46.844540391795	Nominal Dec [deg]
roll_nom	342.21730825221	Nominal Roll [deg]
revision	3	Processing version of data
ontime	19756.79992646	Sum of GTIs [s]
livetime	19506.627429674	Livetime [s]
ontime0	19750.3178159	Sum of GTIs [s]
ontime1	19756.79992646	Sum of GTIs [s]
ontime2	19753.558876395	Sum of GTIs [s]
ontime3	19756.79992646	Sum of GTIs [s]
ontime6	19756.79992646	Sum of GTIs [s]
ontime7	19756.79992646	Sum of GTIs [s]
l2events	138282	Number of level 2 events

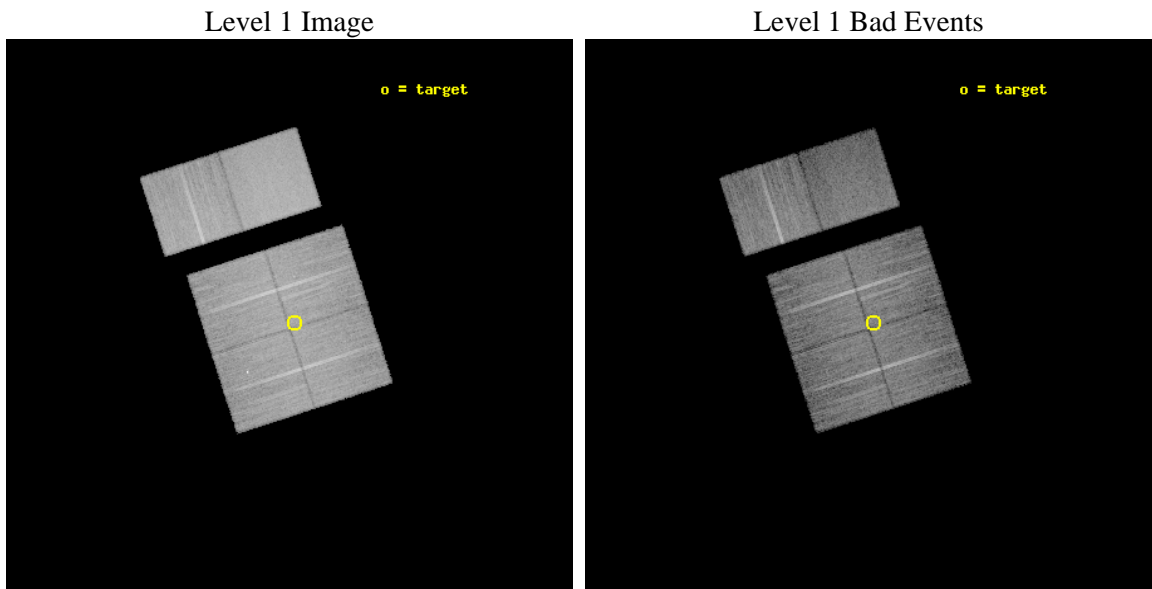




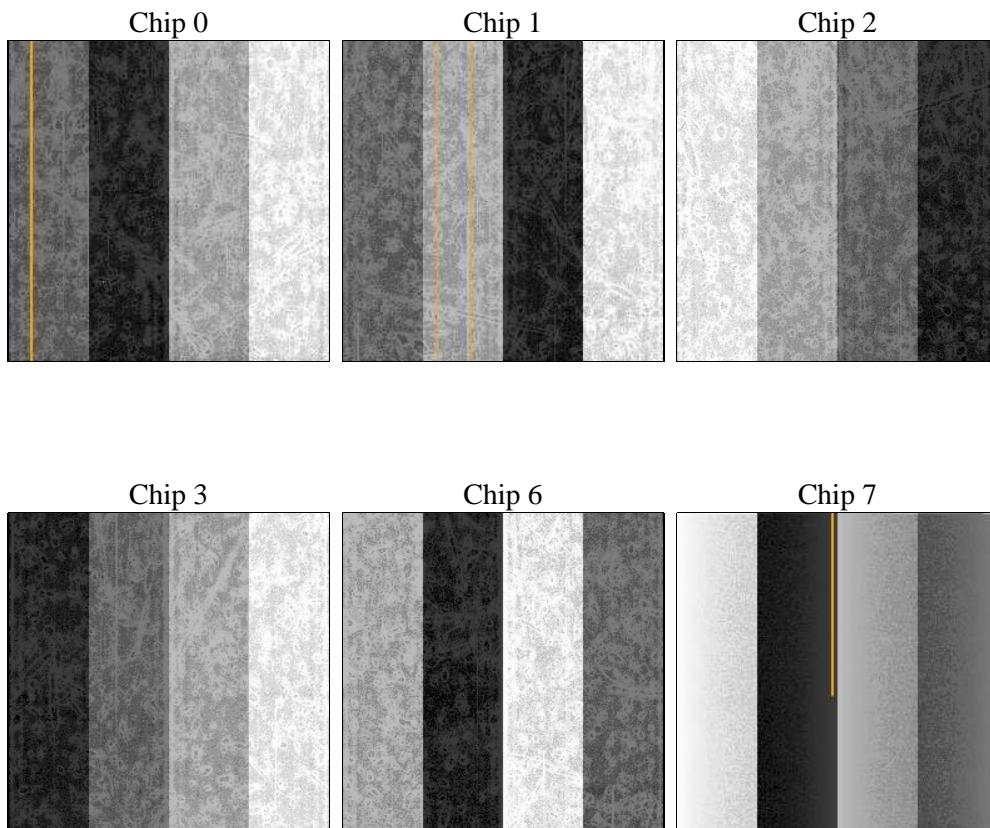
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	19756.79992646	Sum of GTIs [s]
caldsver	4.4.7	&#160	ontime0	19750.3178159	Sum of GTIs [s]
date	2012-02-12T11:09:13	Date and time of file creation	ontime1	19756.79992646	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	19753.558876395	Sum of GTIs [s]
			ontime3	19756.79992646	Sum of GTIs [s]
			ontime6	19756.79992646	Sum of GTIs [s]
			ontime7	19756.79992646	Sum of GTIs [s]
			l1events	773818	Number of level 1 events

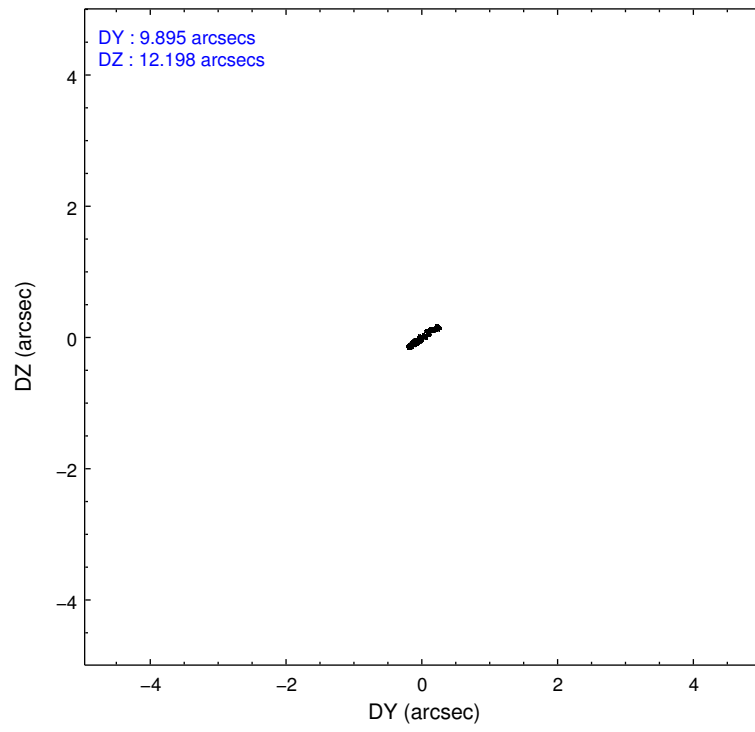
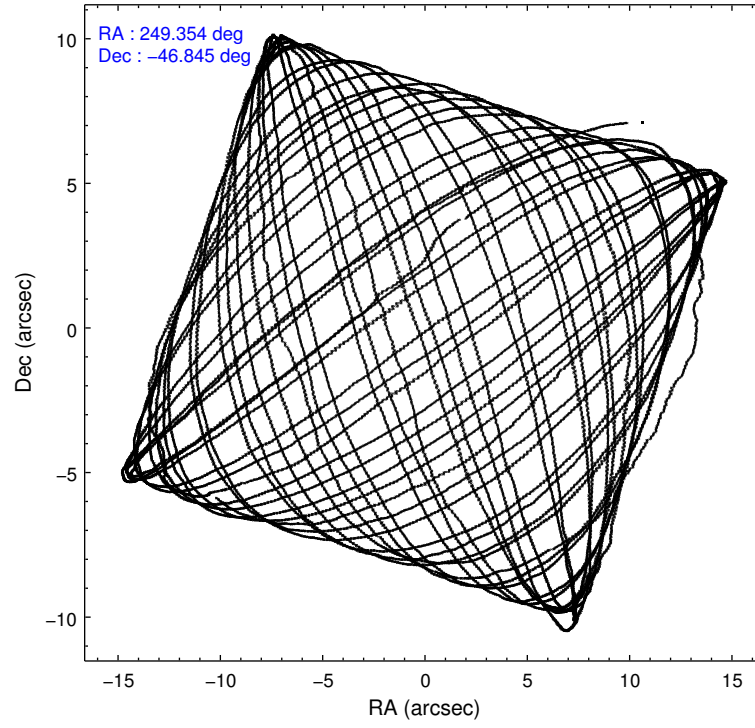
### 2.1.4 Events

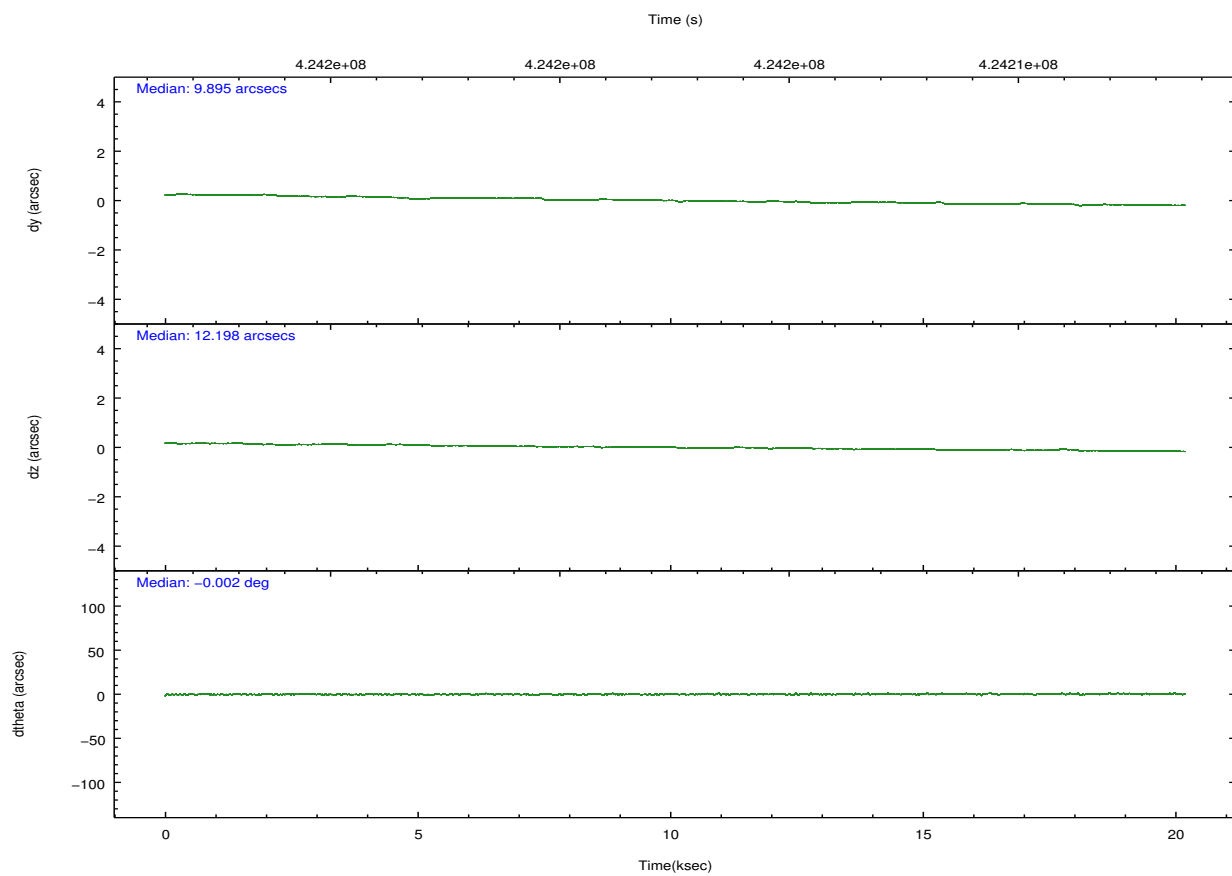
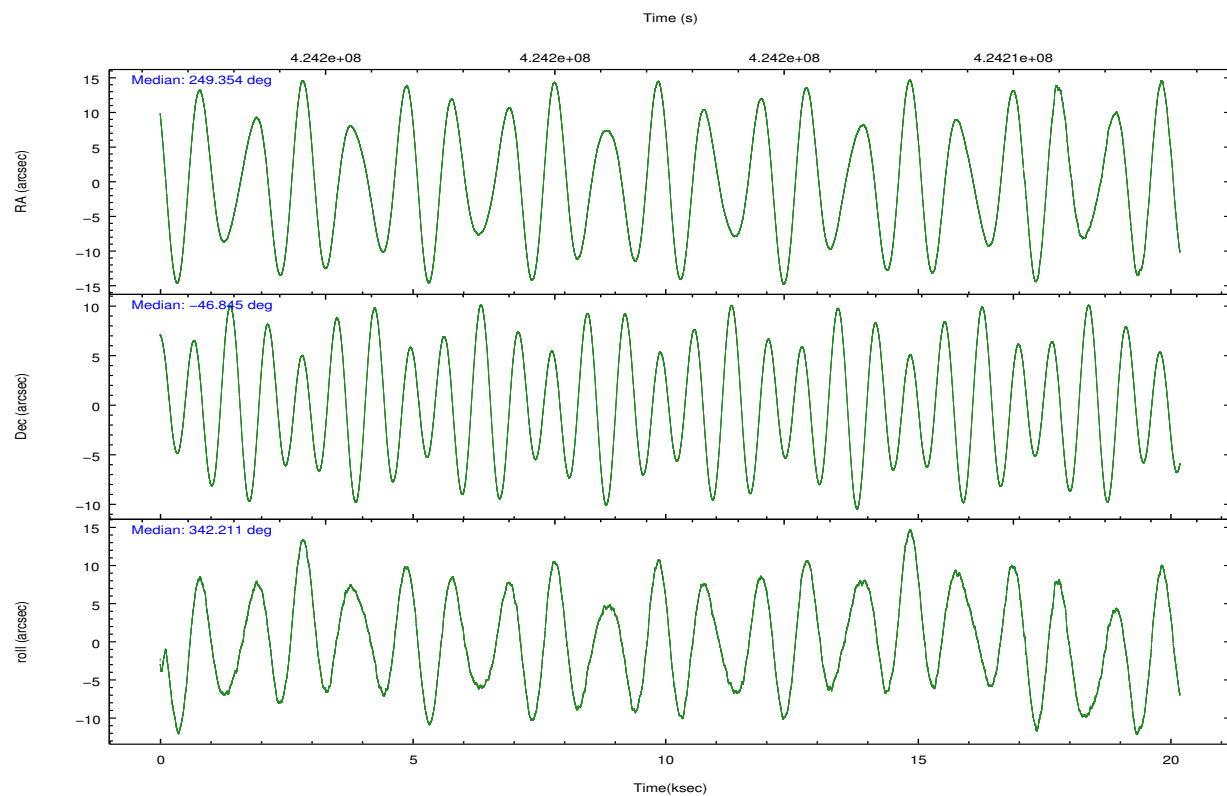
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	117139	115799	125325	121926	134772	158857	grade 0 events	6531	6300	6054	6035	6266	6774
rejected events	100877	99420	110188	107020	118481	86695		5%	5%	4%	4%	4%	4%
rejected %	86%	85%	87%	87%	87%	54%	grade 1 events	79	53	70	69	83	190
								0%	0%	0%	0%	0%	0%
							grade 2 events	3672	3525	3381	3088	3465	14968
								3%	3%	2%	2%	2%	9%
							grade 3 events	1544	1642	1497	1490	1596	6283
								1%	1%	1%	1%	1%	3%
							grade 4 events	1546	1576	1456	1439	1481	6079
								1%	1%	1%	1%	1%	3%
							grade 5 events	5004	5517	4757	5725	5944	15937
								4%	4%	3%	4%	4%	10%
							grade 6 events	2973	3338	2761	2857	3489	38080
								2%	2%	2%	2%	2%	23%
							grade 7 events	95790	93848	105349	101223	112448	70546
								81%	81%	84%	83%	83%	44%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	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	249.315406	249.3546726791567	CCD I2 on	Y	Y
[deg] Pointing Dec	-46.850463	-46.84454039179474	CCD I3 on	Y	Y
[deg] Pointing Roll	341.979978	342.2173082522115	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	O2	Y
[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)	424192594.184000	424192218.43387	CCD S5 on	N	N
Observation start date	2011-06-11T15:15:28	2011-06-11T15:10:18	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	424212594.184000	424213619.40999	On-chip summing requested	N	N
Observation end date	2011-06-11T20:48:48	2011-06-11T21:06:59	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



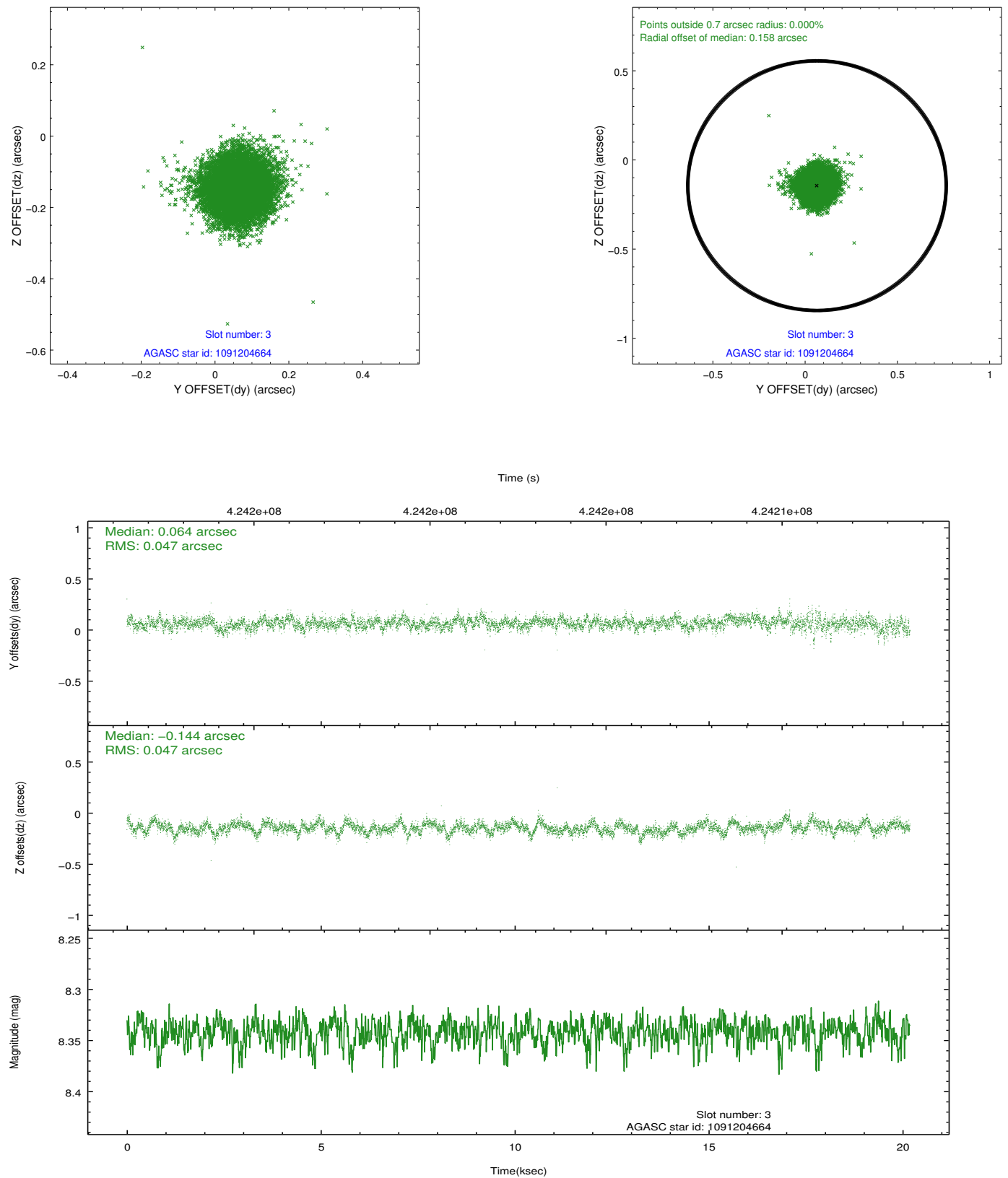


### Slot Statistics

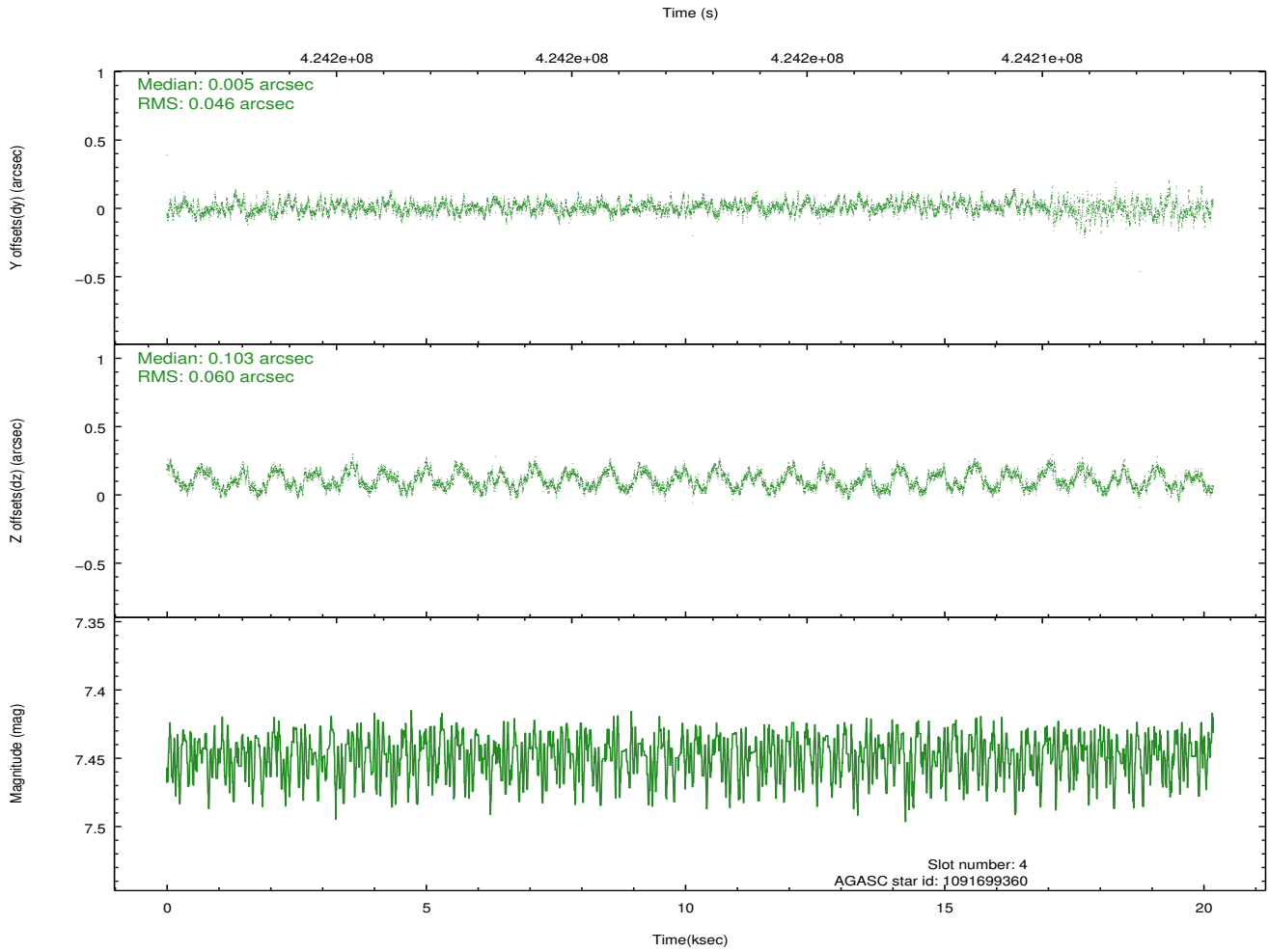
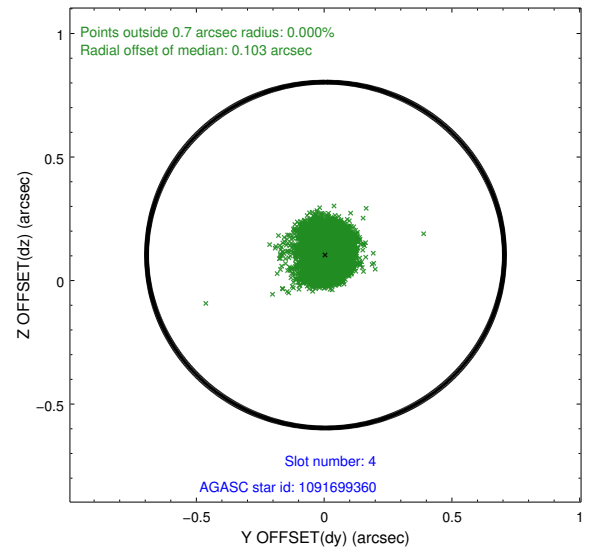
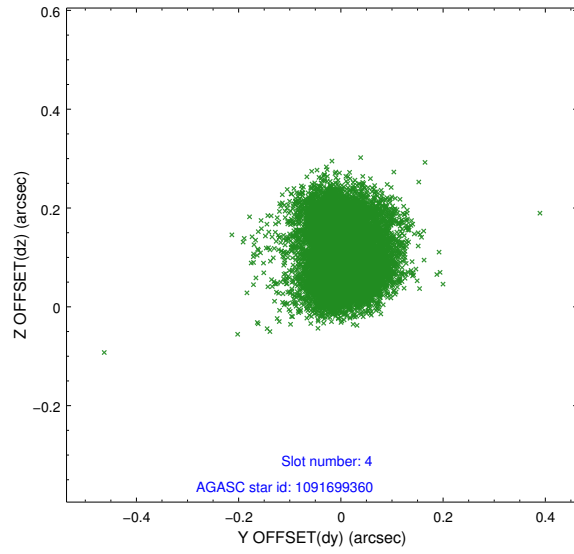
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.16	4924	0.091	-0.048	0.009	0.024	0.000000	0.000000	929.79	-835.78
1	FID	ACIS-I-5	7.14	4924	-0.225	0.090	0.007	0.017	0.000000	0.000000	-1818.54	1061.76
2	FID	ACIS-I-6	7.15	4924	0.044	0.029	0.010	0.018	0.000000	0.000000	395.08	1706.41
3	GUIDE	1091204664	8.34	9845	0.064	-0.144	0.069	0.114	248.658352	-46.526357	-1906.03	599.50
4	GUIDE	1091699360	7.45	9847	0.005	0.103	0.081	0.127	248.660725	-47.004364	-1354.59	-1030.24
5	GUIDE	1091705016	7.85	9847	-0.151	-0.024	0.069	0.114	249.888030	-47.558250	2113.14	-1997.34
6	GUIDE	1091709408	9.20	9824	0.025	-0.037	0.090	0.147	249.304466	-47.312562	490.06	-1590.23
7	GUIDE	1091709800	9.16	9819	0.054	0.100	0.112	0.173	249.801955	-47.310212	1643.80	-1211.06

## 2.4 Star Slots

### 2.4.1 Slot 3

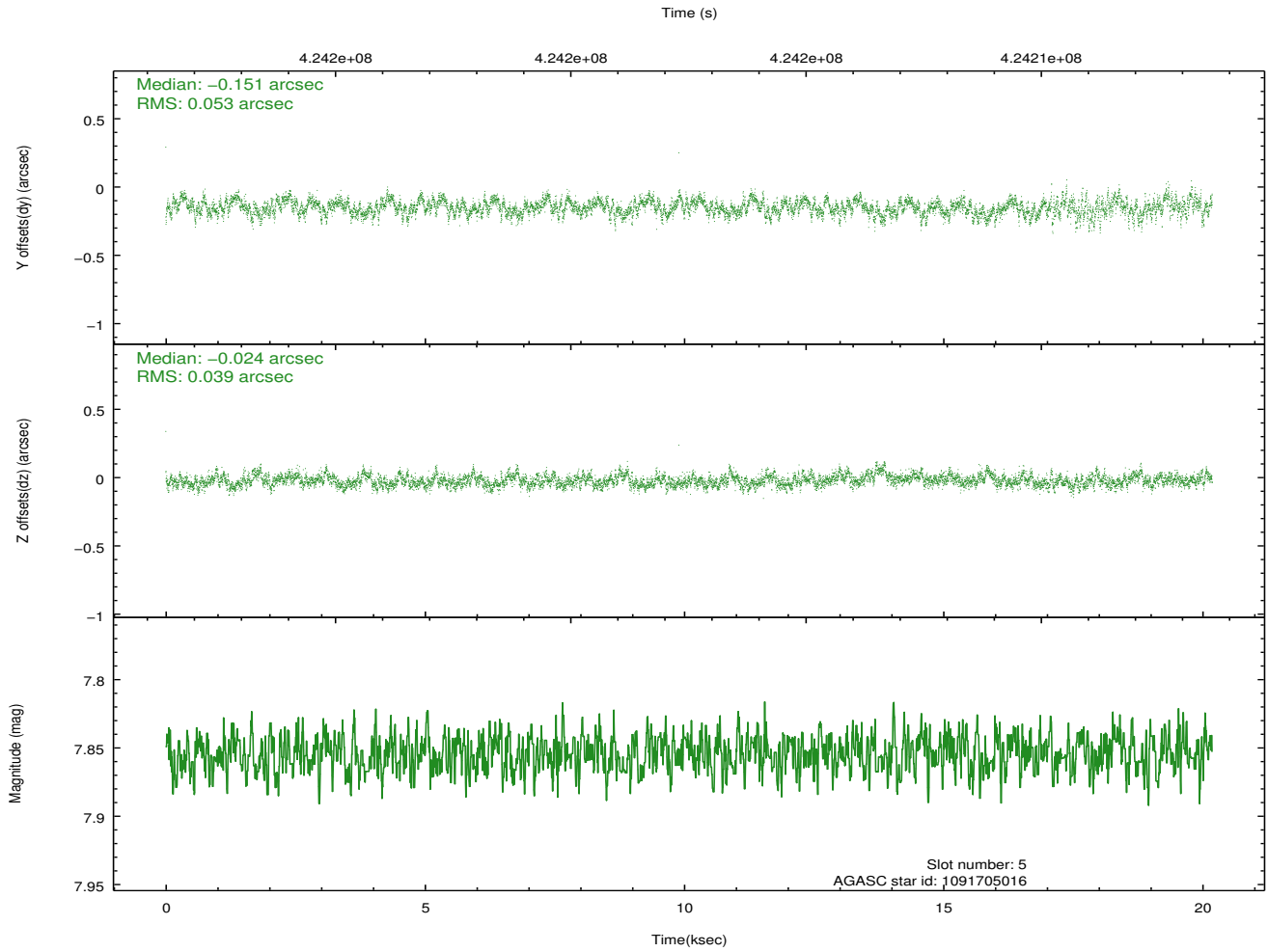
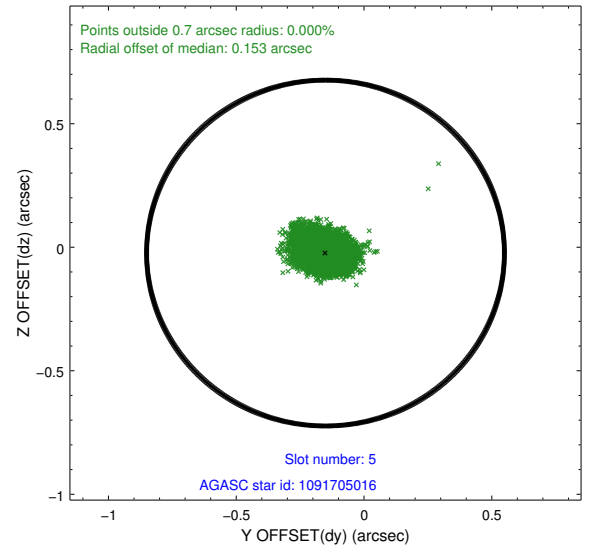
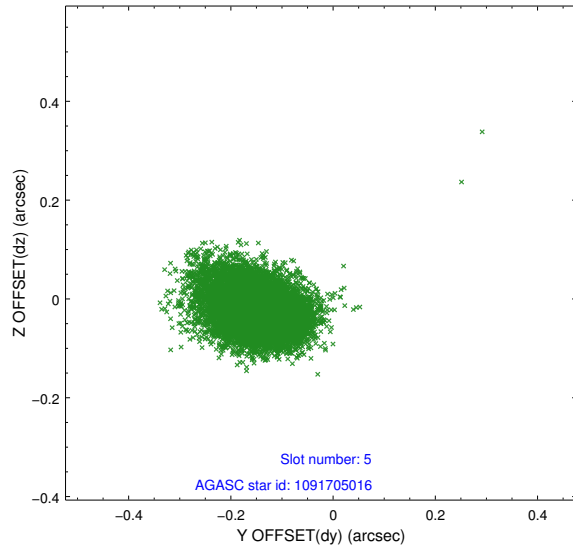


## 2.4.2 Slot 4

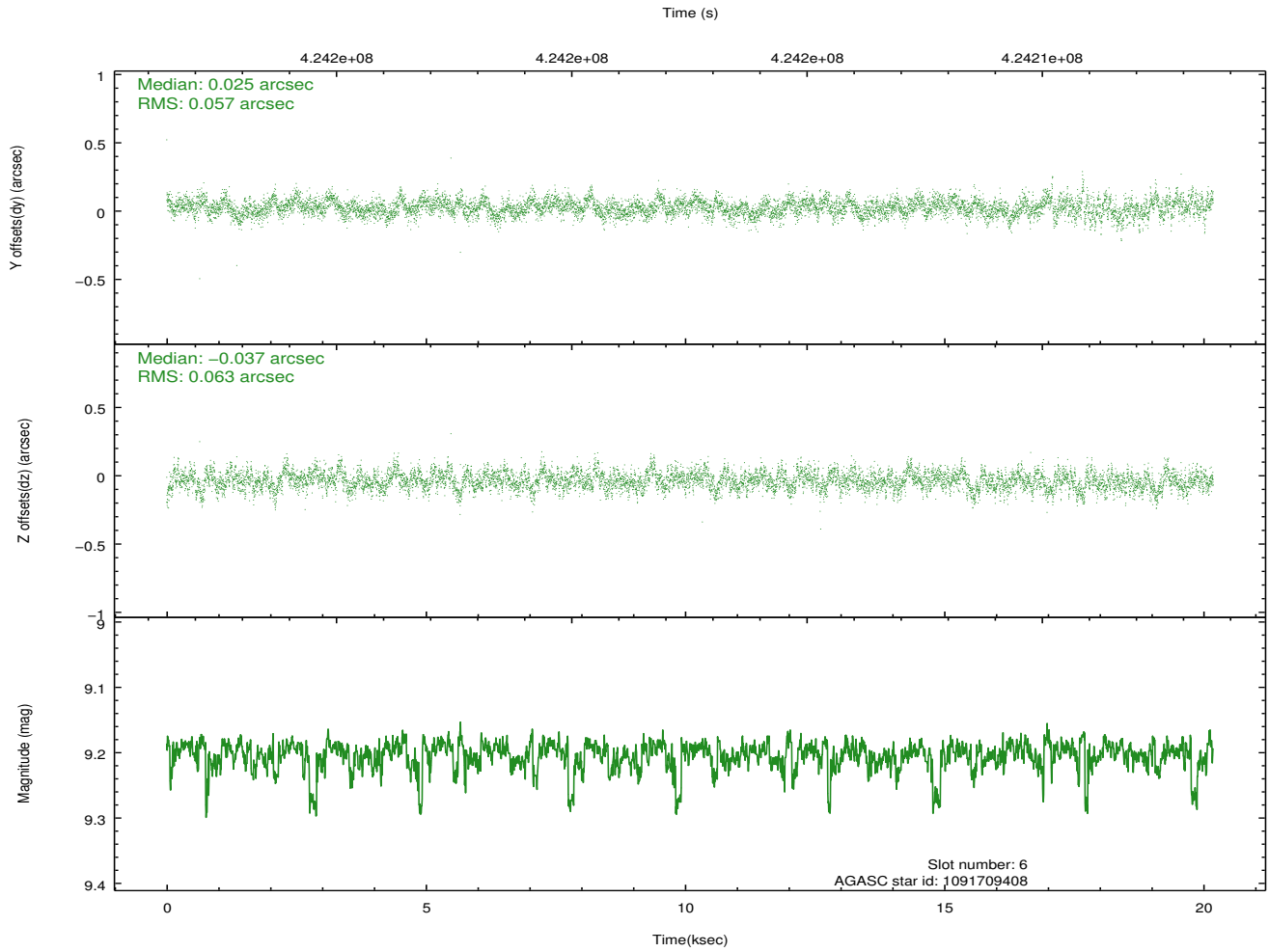
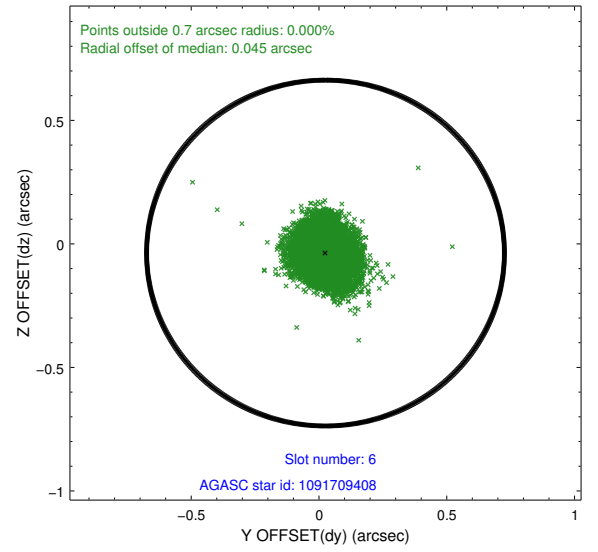
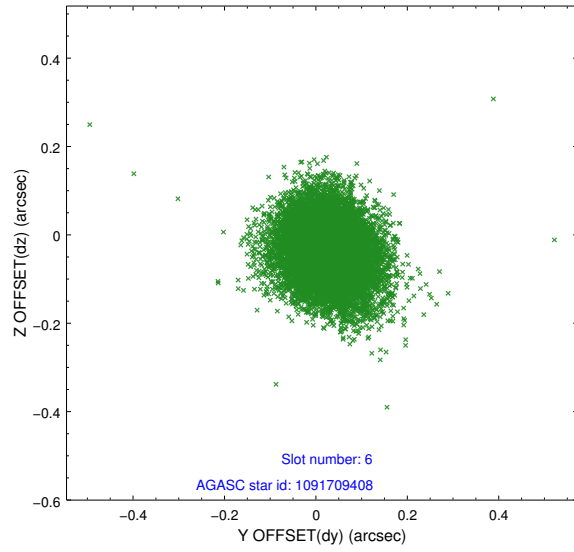




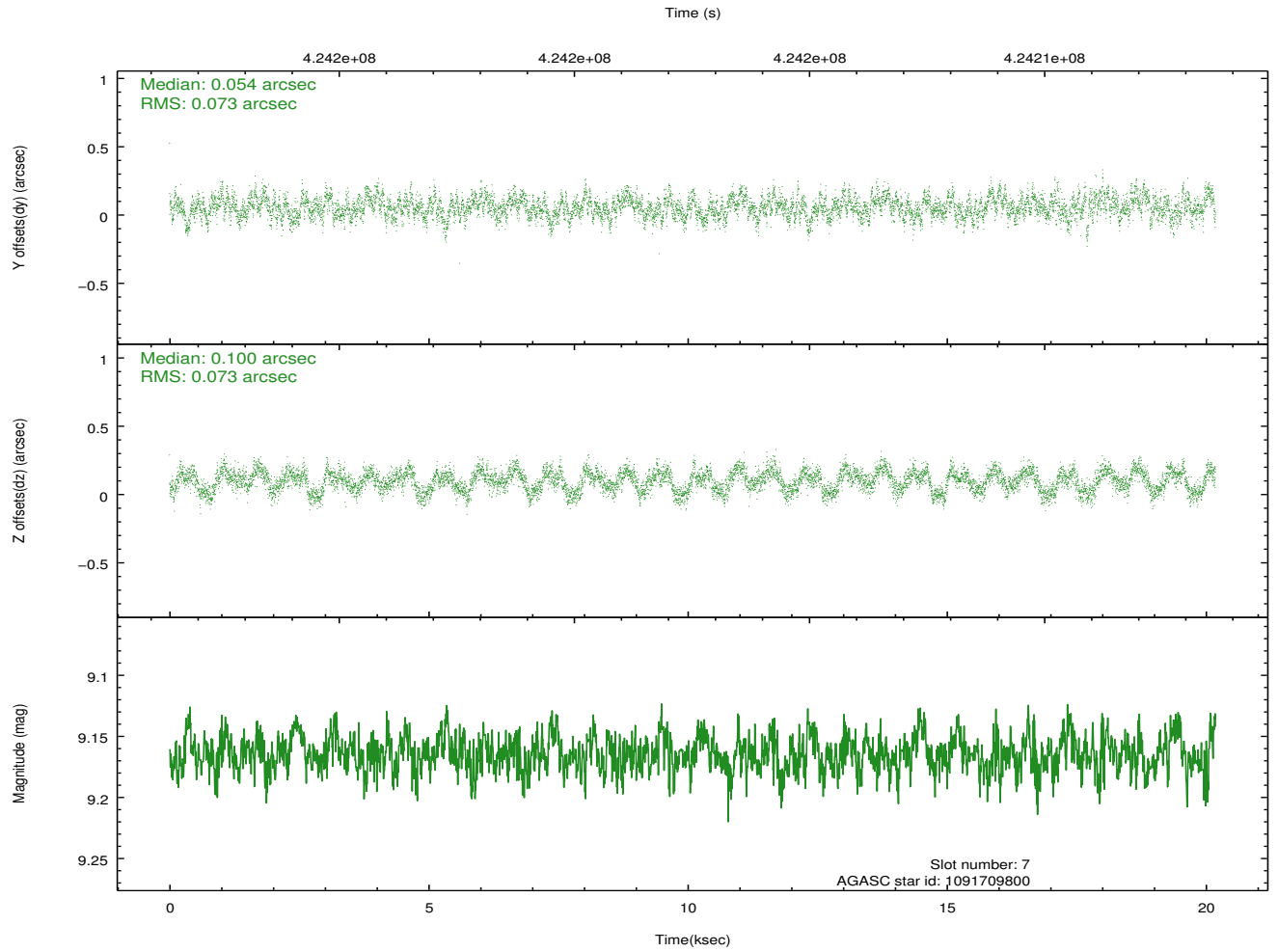
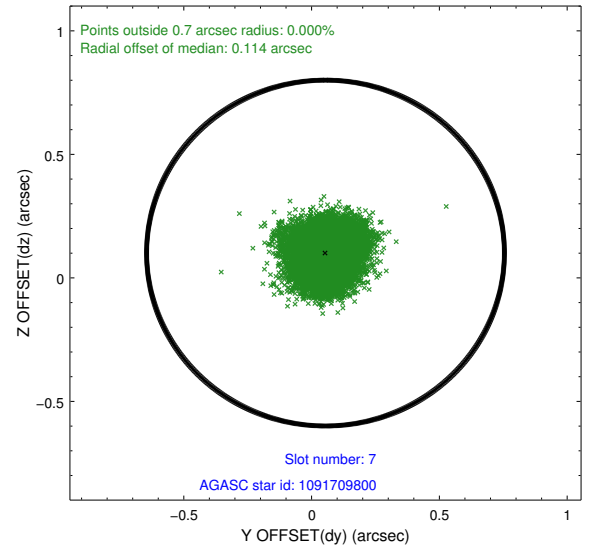
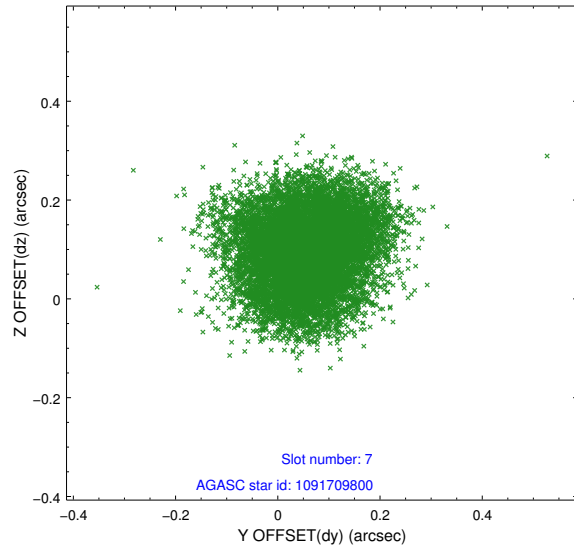
### 2.4.3 Slot 5



## 2.4.4 Slot 6

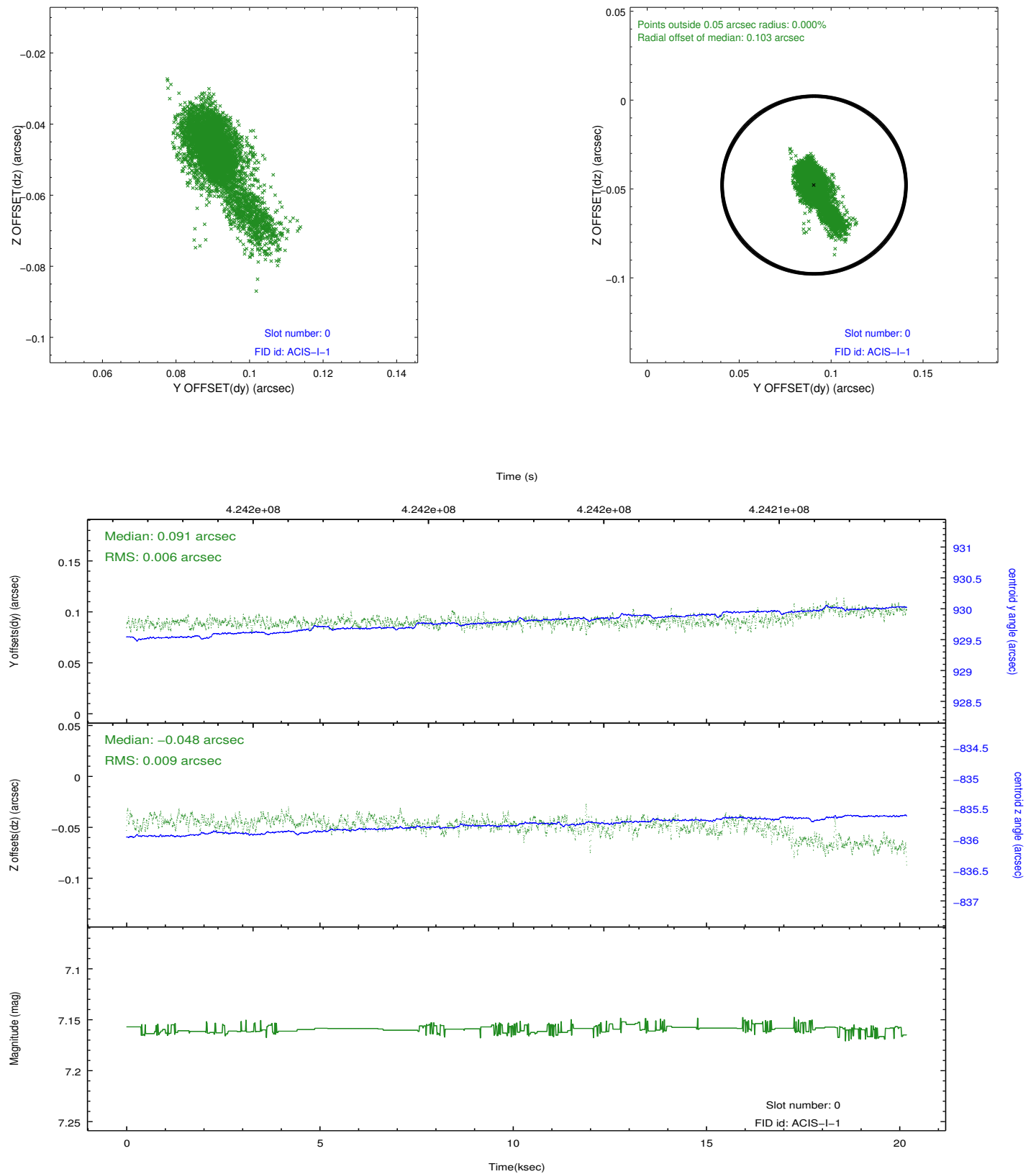


## 2.4.5 Slot 7

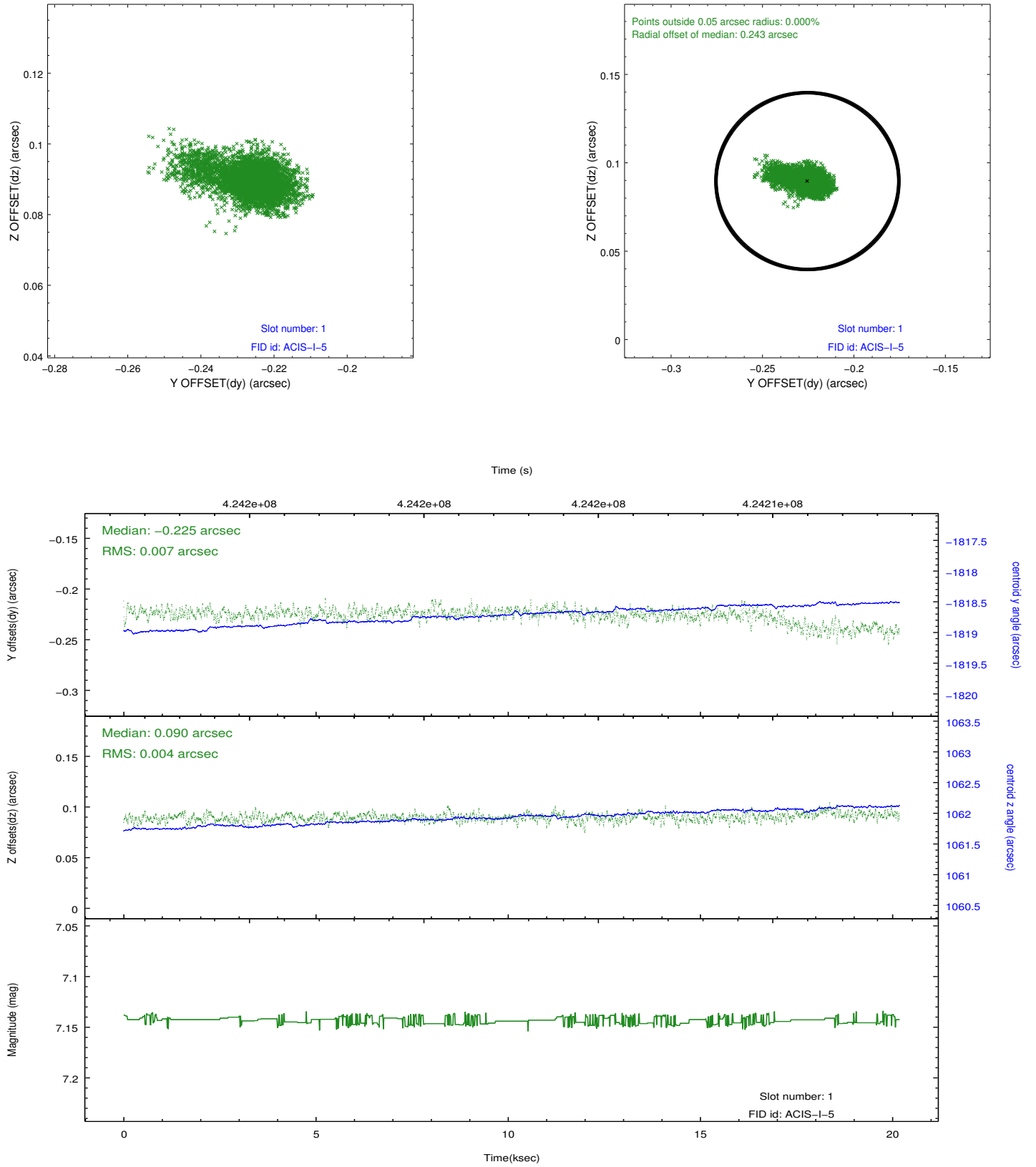


## 2.5 FID Slots

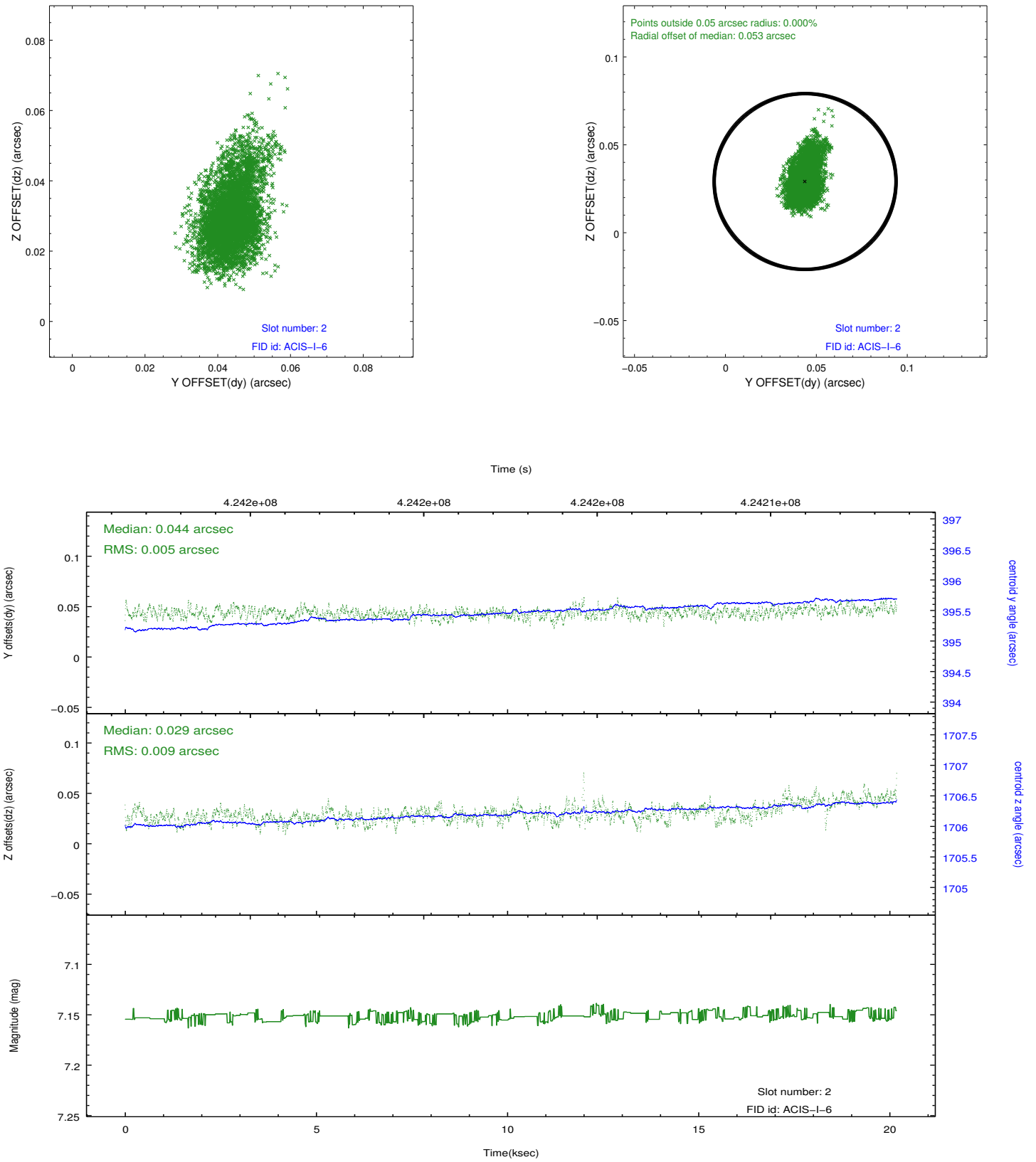
### 2.5.1 Slot 0



## 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)	2012.02.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.75679992646

### A.2 Comments

Joint proposal: NOAO