

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 10239 - L2 Version 2  
Chandra X-Ray Center

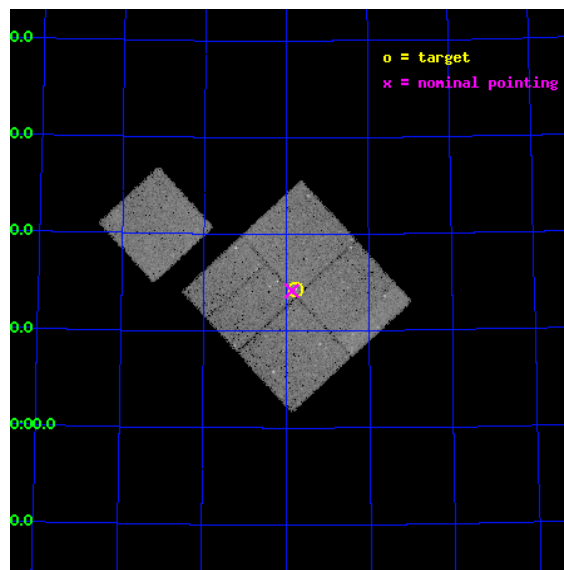
L2 Processing Date : Jun 9 2012

## 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

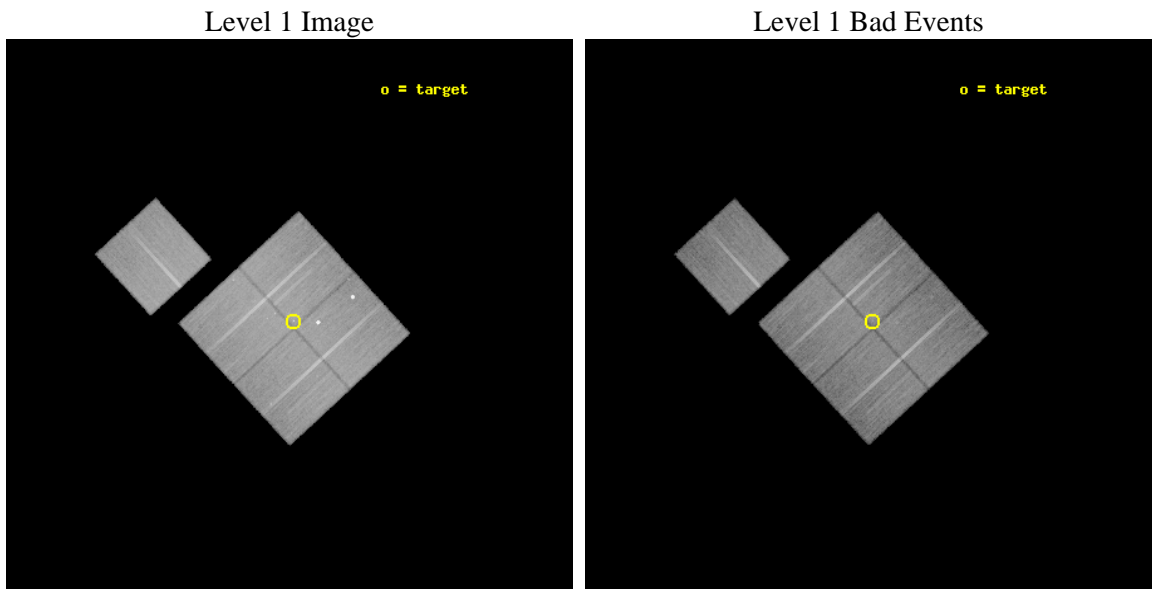
seq_num	701782	Sequence number
obs_id	10239	Observation id
title	The multi-faceted X-ray activity of low-redshift active galaxies	P
observer	Prof Mark Birkinshaw	Principal investigator
object	4C 73.08	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	147.441667	Observer's specified target RA [deg]
dec_targ	73.23975	Observer's specified target Dec [deg]
ra_nom	147.4669224364	Nominal RA [deg]
dec_nom	73.236295068835	Nominal Dec [deg]
roll_nom	317.37083310679	Nominal Roll [deg]
revision	2	Processing version of data
ontime	28898.077311337	Sum of GTIs [s]
livetime	28520.502656809	Livetime [s]
ontime0	28907.500222325	Sum of GTIs [s]
ontime1	28907.500222325	Sum of GTIs [s]
ontime2	28901.218251884	Sum of GTIs [s]
ontime3	28898.077311337	Sum of GTIs [s]
ontime6	28894.936440766	Sum of GTIs [s]
l2events	110622	Number of level 2 events



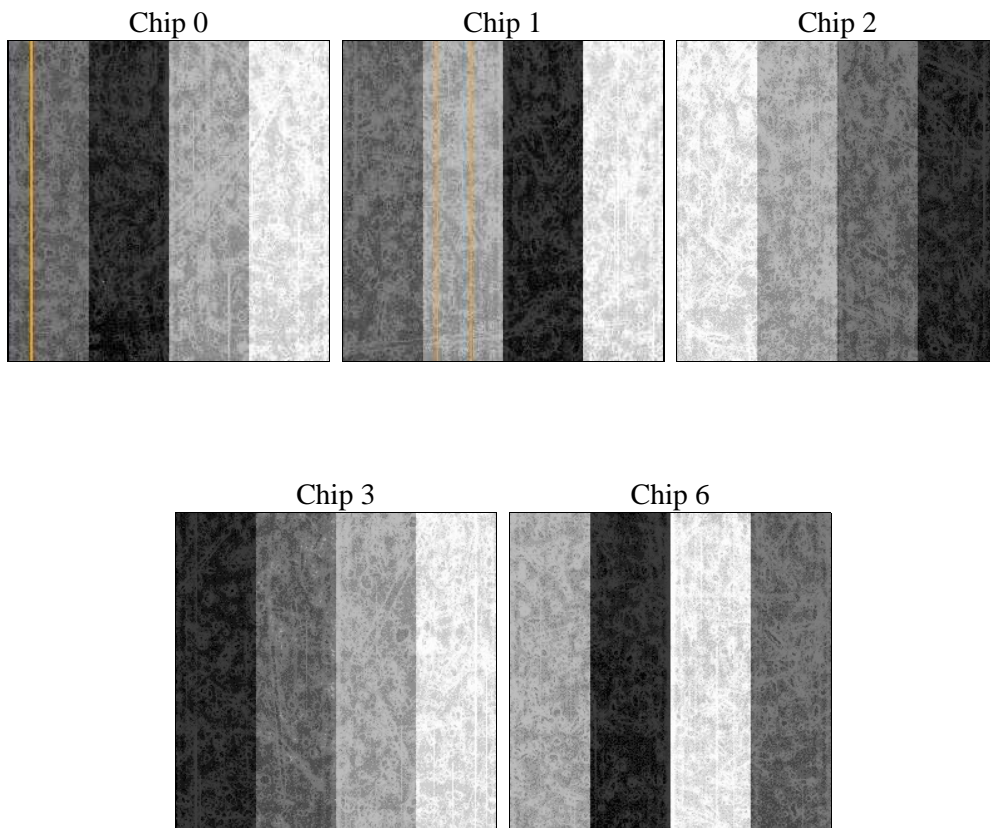
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29135.536000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	28898.077311337	Sum of GTIs [s]
caldbver	4.4.10	&#160	ontime0	28907.500222325	Sum of GTIs [s]
date	2012-06-10T00:09:39	Date and time of file creation	ontime1	28907.500222325	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	28901.218251884	Sum of GTIs [s]
			ontime3	28898.077311337	Sum of GTIs [s]
			ontime6	28894.936440766	Sum of GTIs [s]
			l1events	1256922	Number of level 1 events

### 2.1.4 Events

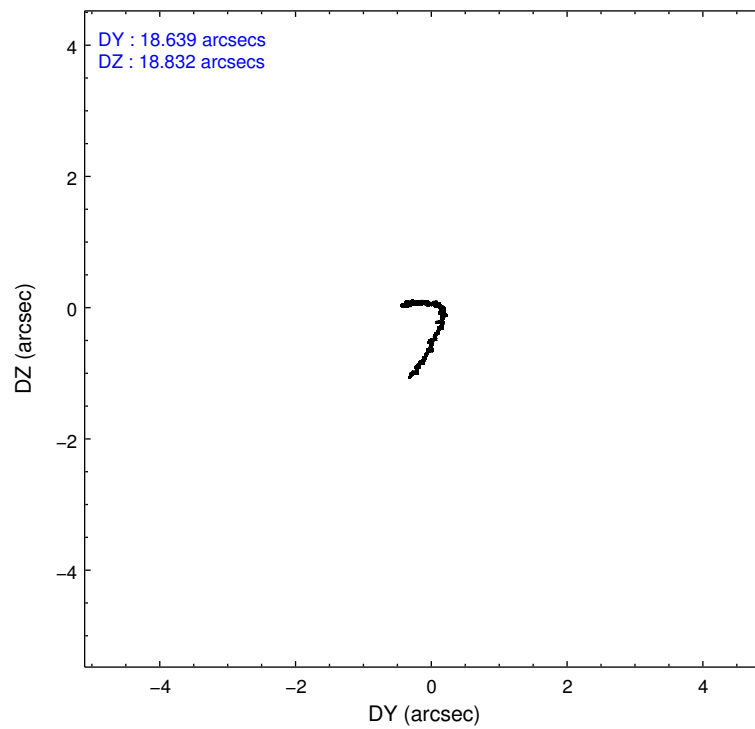
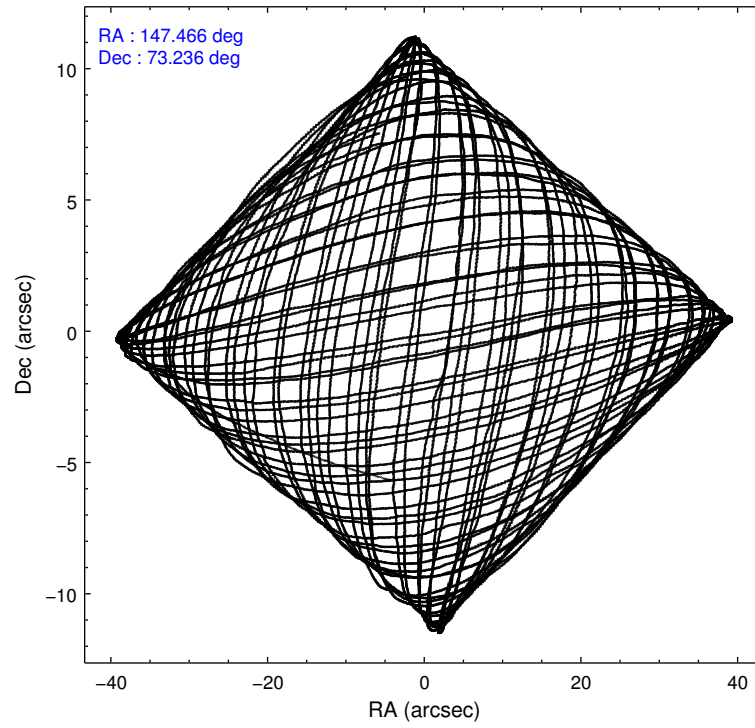
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	236408	256167	262261	250386	251700
rejected events	210109	209406	236231	225482	225507
rejected %	88%	81%	90%	90%	89%

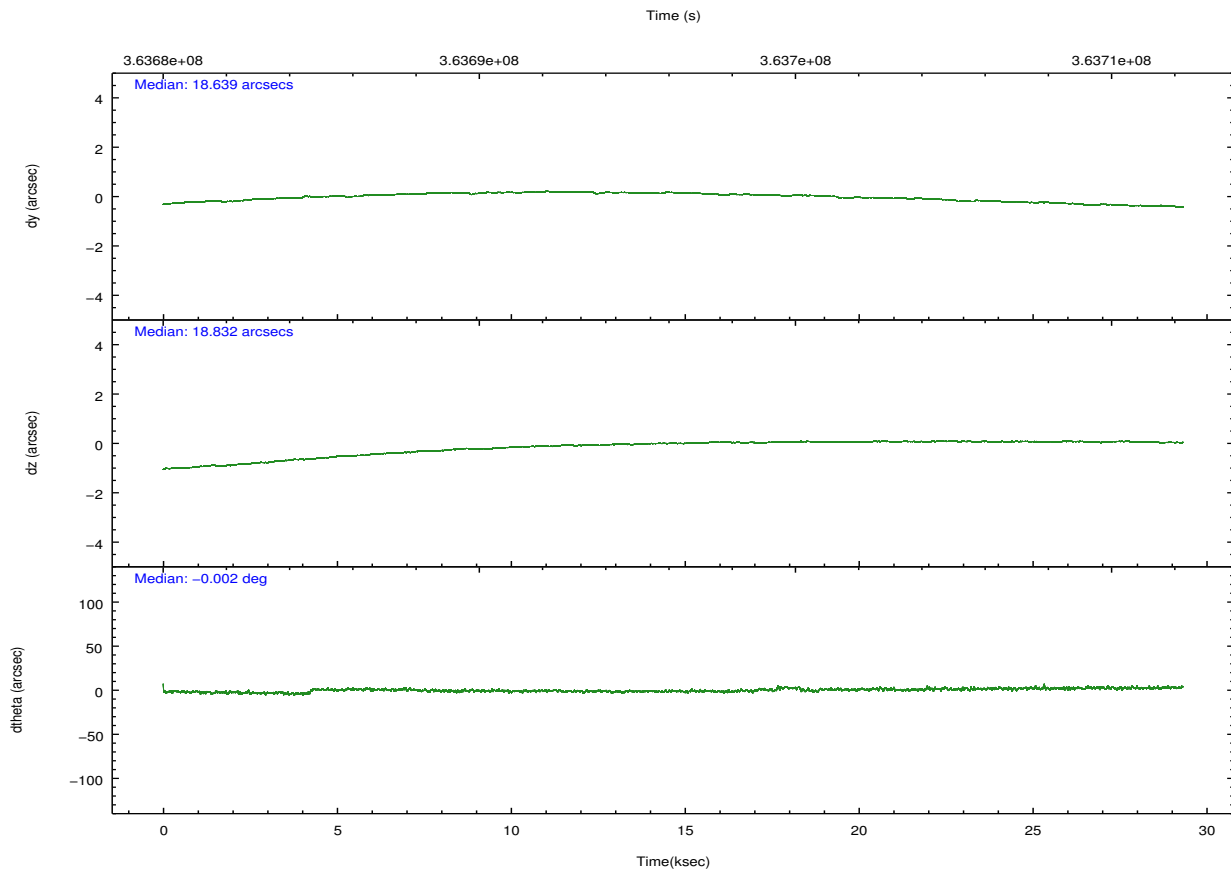
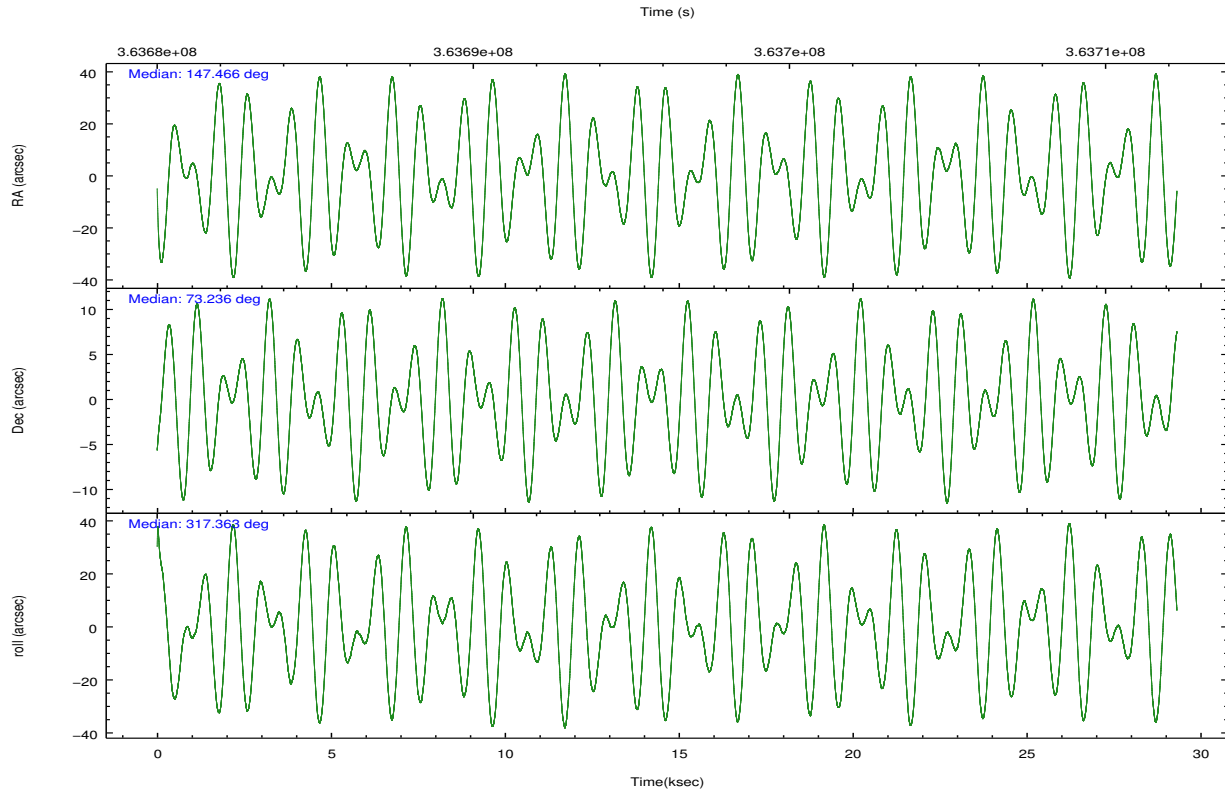
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	9211	28139	9905	9192	9176
	3%	10%	3%	3%	3%
grade 1 events	130	243	162	162	144
	0%	0%	0%	0%	0%
grade 2 events	6604	6624	6276	5393	5981
	2%	2%	2%	2%	2%
grade 3 events	2804	3116	2550	2735	2718
	1%	1%	0%	1%	1%
grade 4 events	2578	2985	2632	2609	2717
	1%	1%	1%	1%	1%
grade 5 events	9006	9922	8538	10513	10259
	3%	3%	3%	4%	4%
grade 6 events	5102	5900	4670	4978	5606
	2%	2%	1%	1%	2%
grade 7 events	200973	199238	227528	214804	215099
	85%	77%	86%	85%	85%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	147.373858	147.4669224364015	CCD I2 on	Y	Y
[deg] Pointing Dec	73.242166	73.23629506883525	CCD I3 on	Y	Y
[deg] Pointing Roll	317.251246	317.3708331067949	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	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	363681644.184000	363680818.10705	CCD S5 on	N	N
Observation start date	2009-07-11T06:39:38	2009-07-11T06:26:58	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	363710779.184000	363711011.02106	On-chip summing requested	N	N
Observation end date	2009-07-11T14:45:13	2009-07-11T14:50:11	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



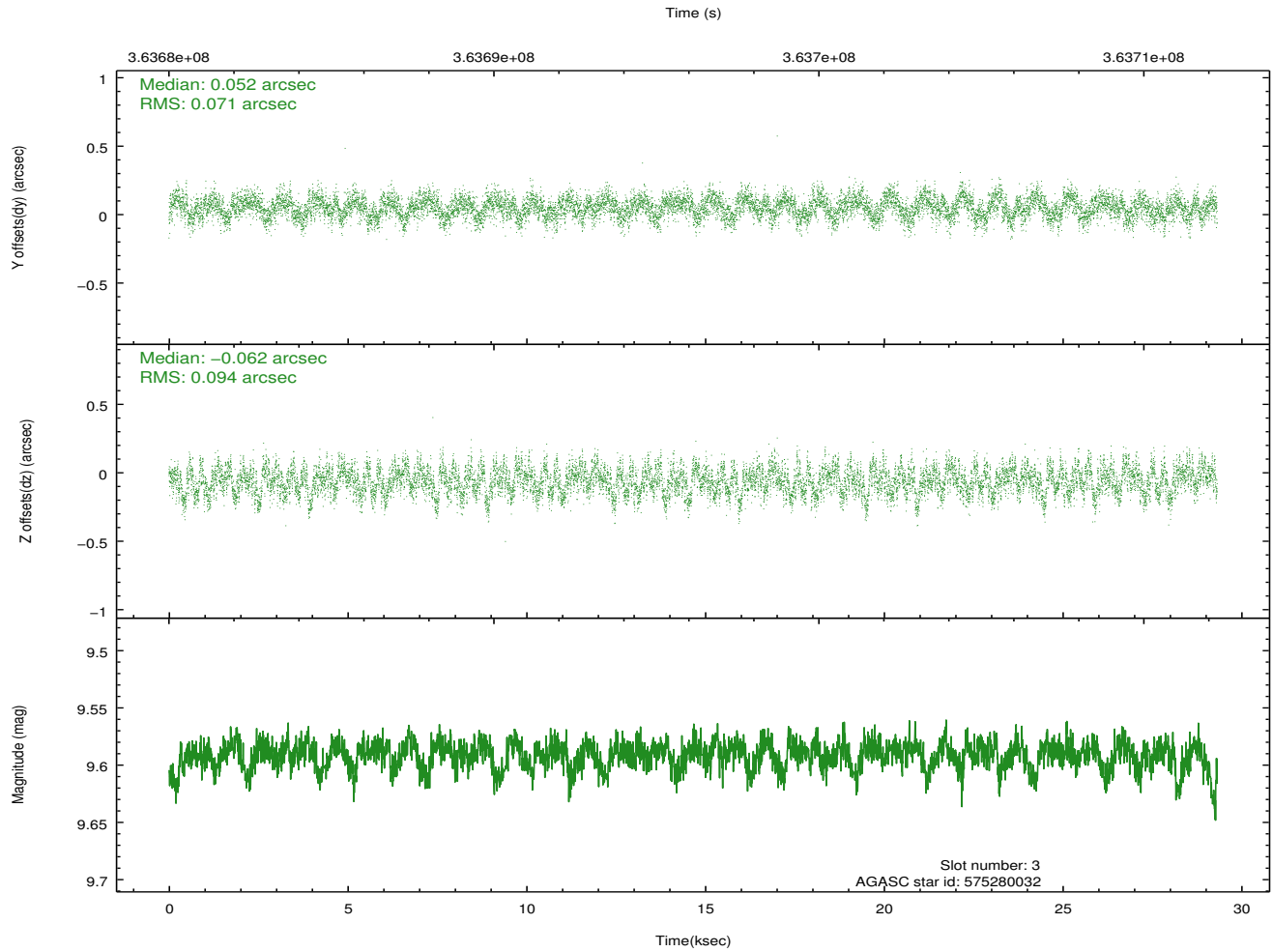
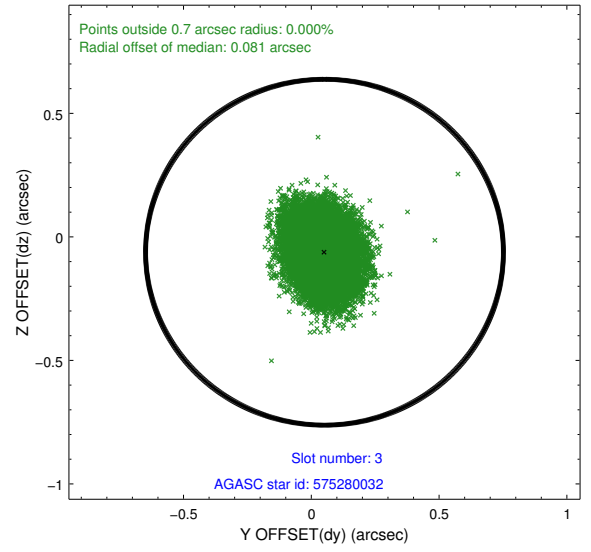
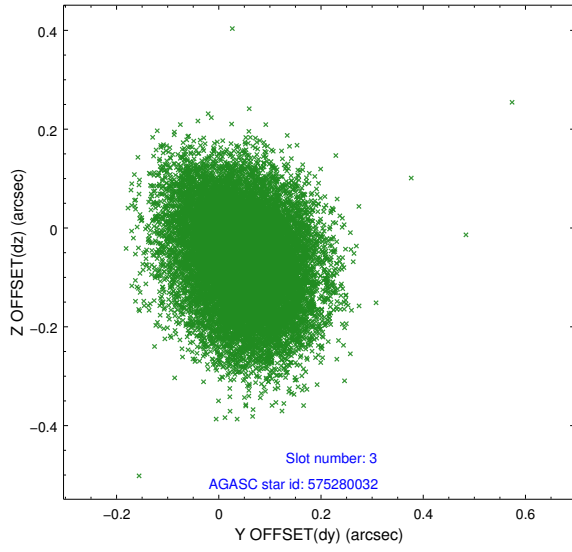


### Slot Statistics

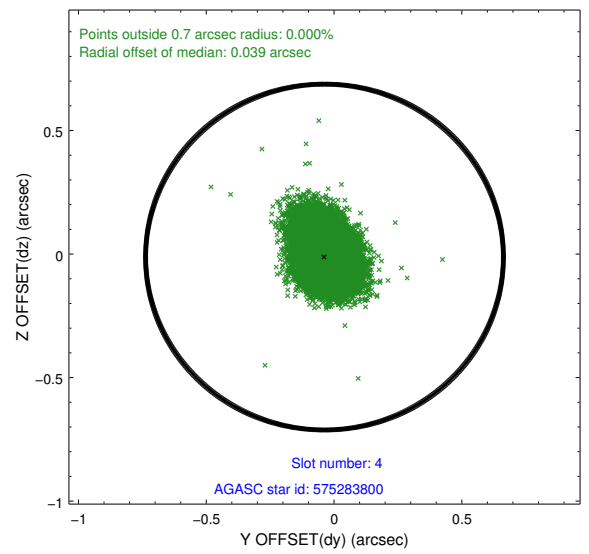
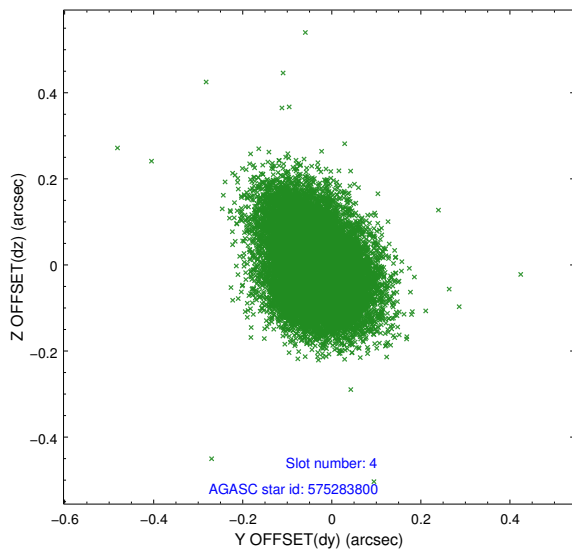
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.02	7151	-0.067	0.042	0.013	0.042	0.000000	0.000000	920.70	-842.31
1	FID	ACIS-I-2	6.94	7150	-0.142	-0.079	0.016	0.024	0.000000	0.000000	-773.42	-848.91
2	FID	ACIS-I-4	6.94	7149	0.108	0.104	0.012	0.046	0.000000	0.000000	2140.71	1057.53
3	GUIDE	575280032	9.59	14271	0.052	-0.062	0.127	0.202	145.621803	73.295660	-1479.50	-1070.10
4	GUIDE	575283800	9.37	14289	-0.037	-0.012	0.108	0.181	147.266114	73.834100	-1525.26	1491.66
5	GUIDE	575283808	9.85	14284	-0.080	0.059	0.183	0.294	147.112904	72.766612	957.95	-1445.15
6	GUIDE	575284776	9.76	14228	0.169	0.103	0.143	0.235	146.865672	73.231885	-363.07	-383.65
7	GUIDE	575286280	9.47	14288	-0.109	-0.092	0.126	0.196	147.072817	72.888473	630.25	-1150.71

## 2.4 Star Slots

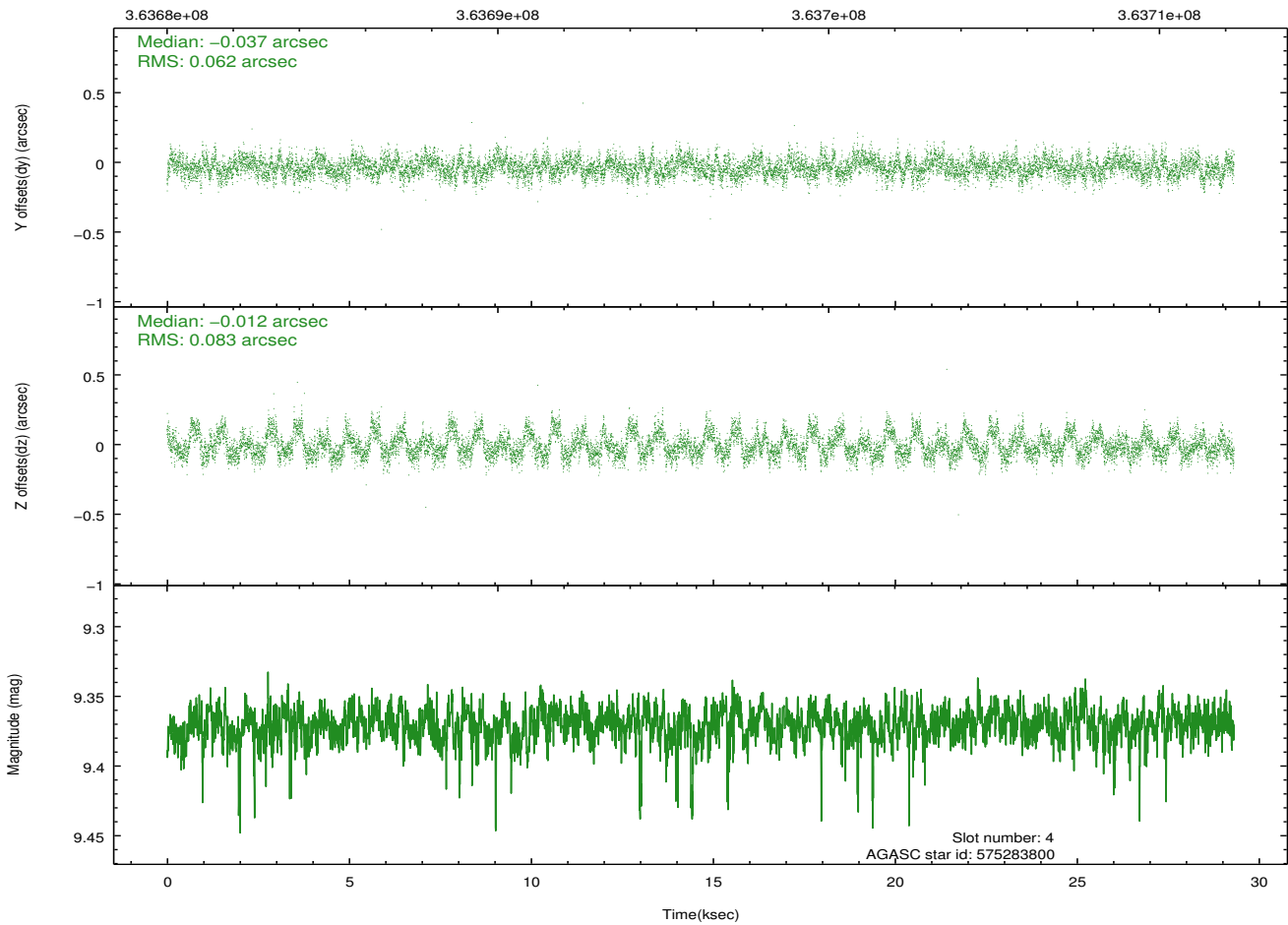
### 2.4.1 Slot 3



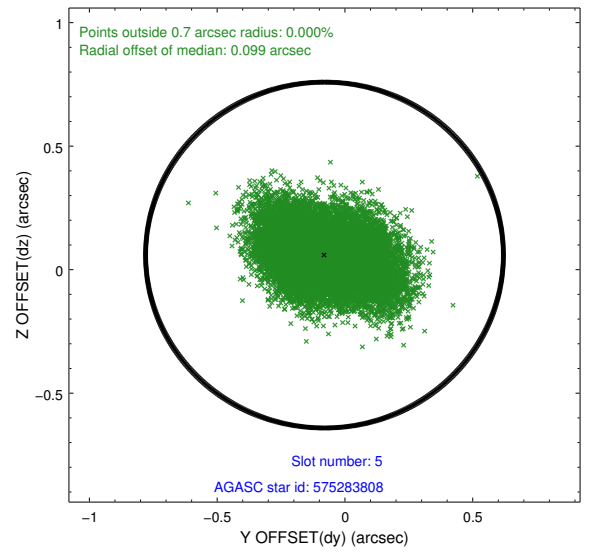
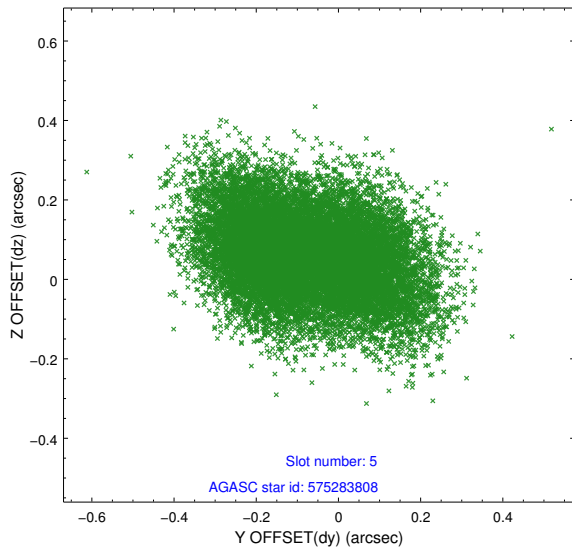
## 2.4.2 Slot 4



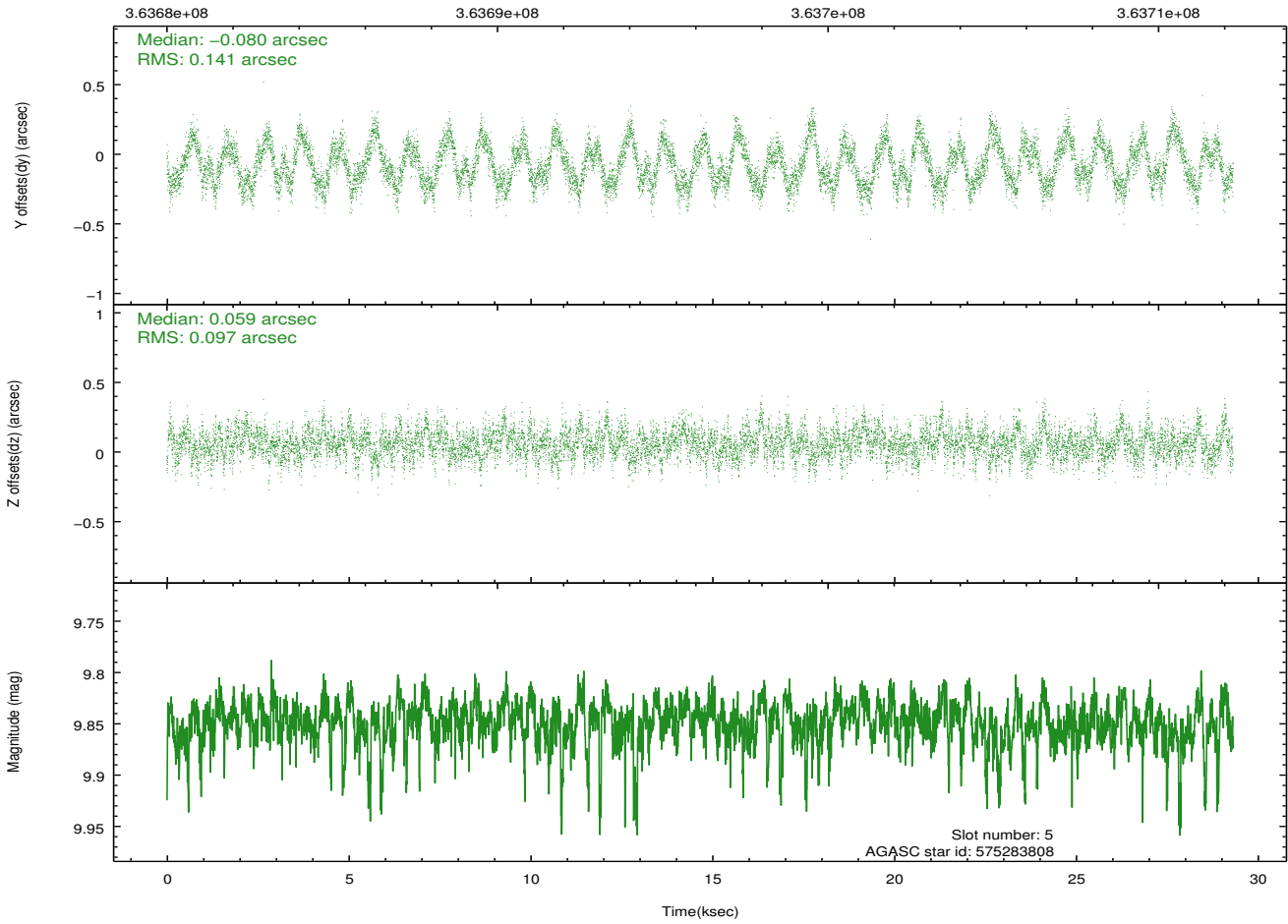
Time (s)



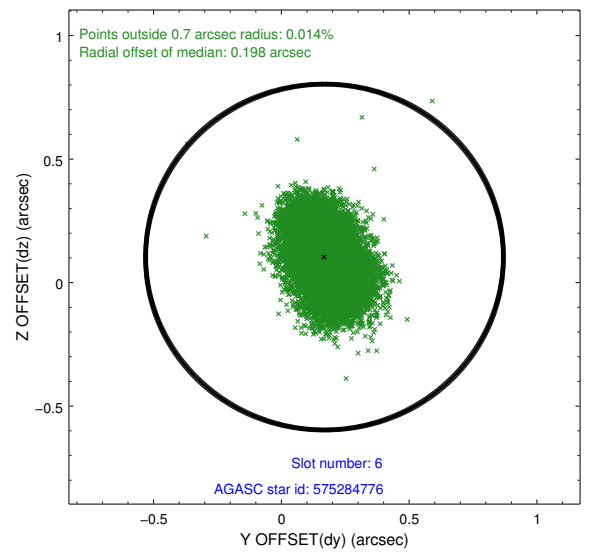
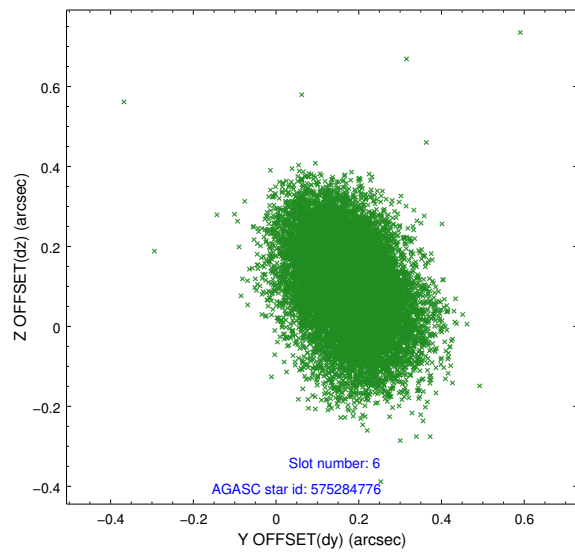
### 2.4.3 Slot 5



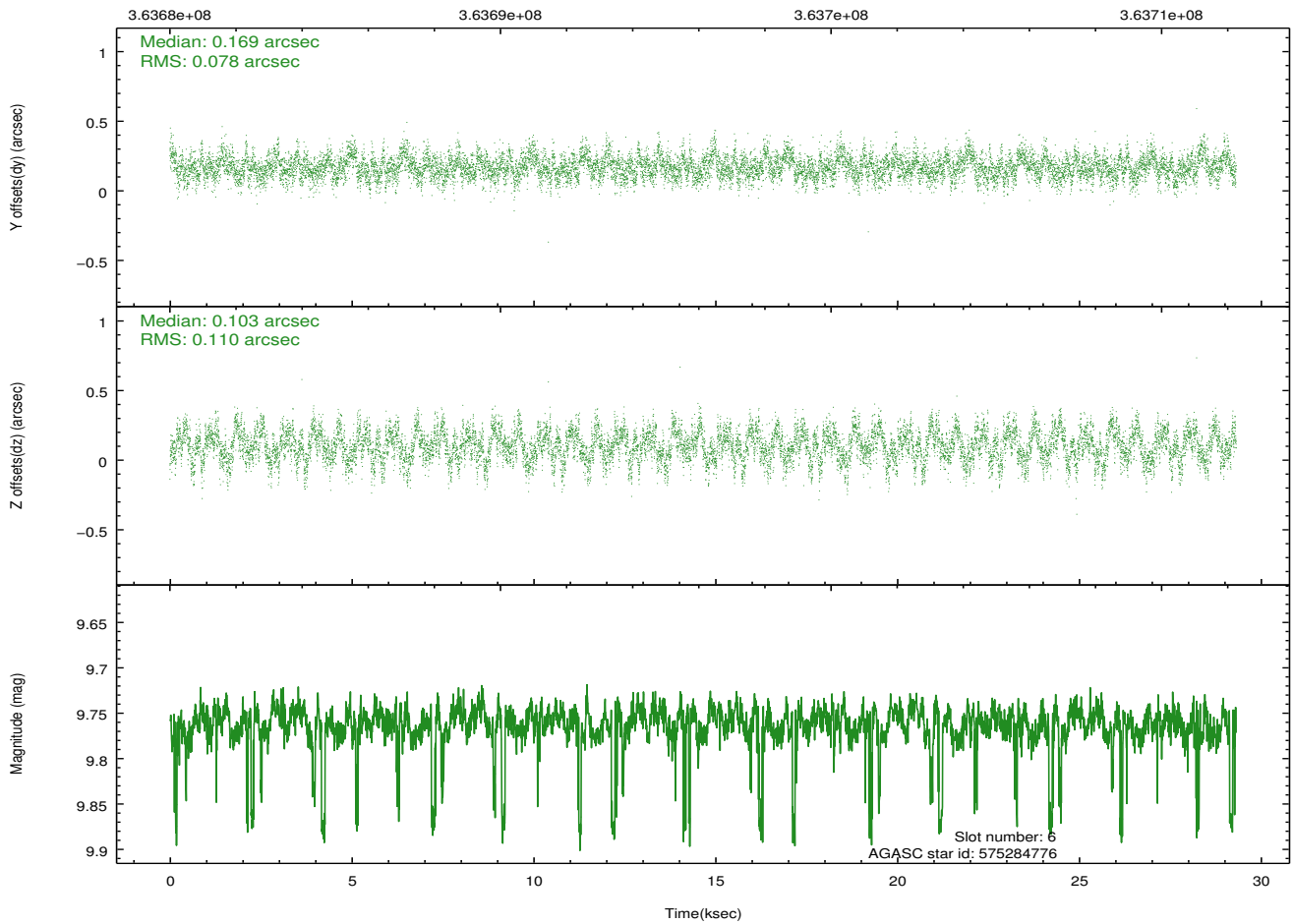
Time (s)



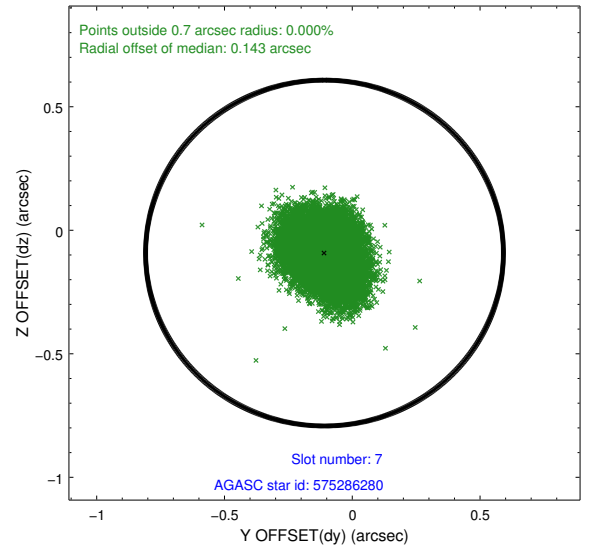
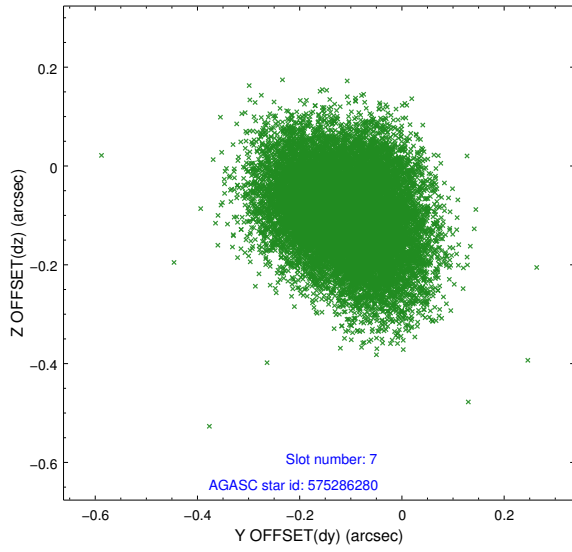
## 2.4.4 Slot 6



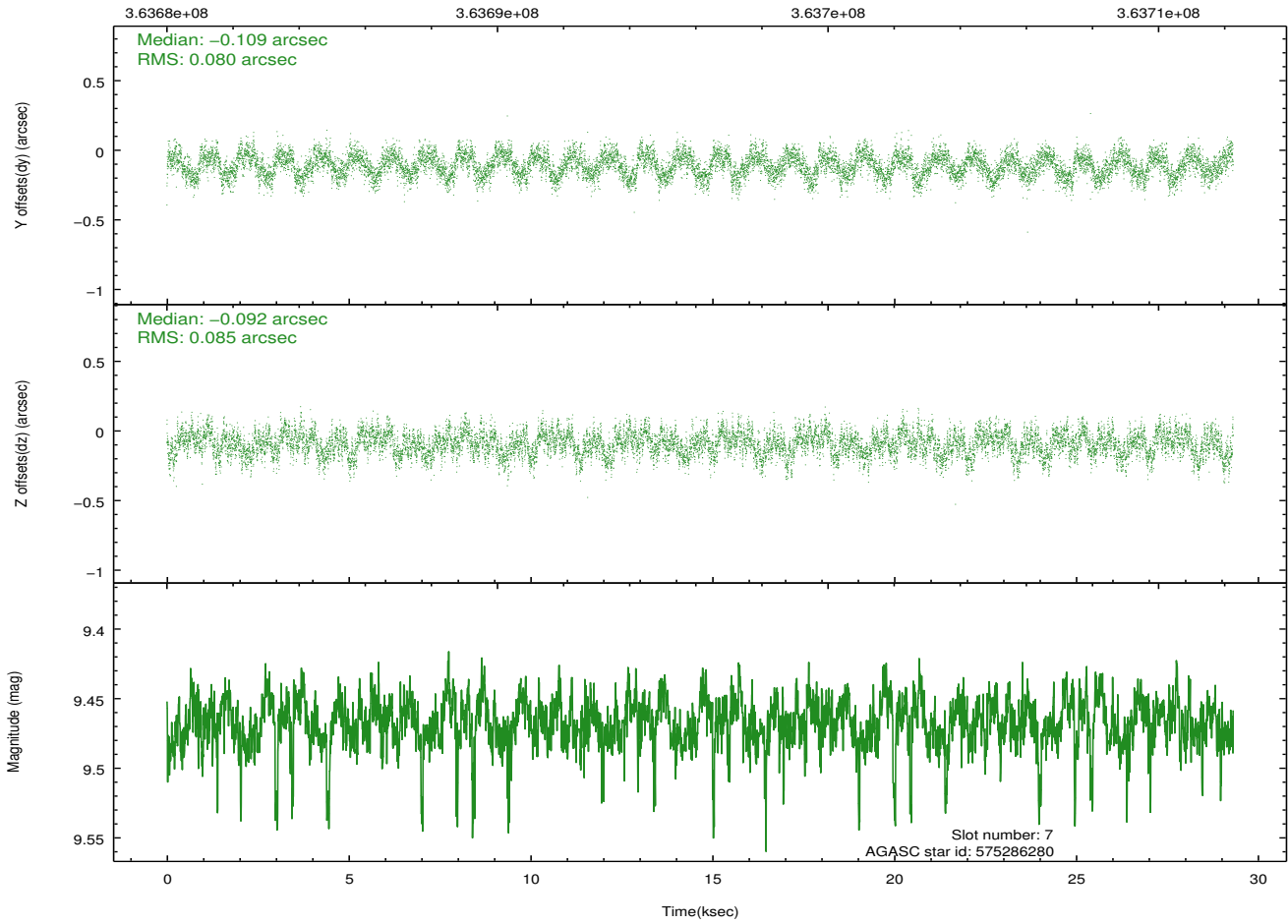
Time (s)



### 2.4.5 Slot 7

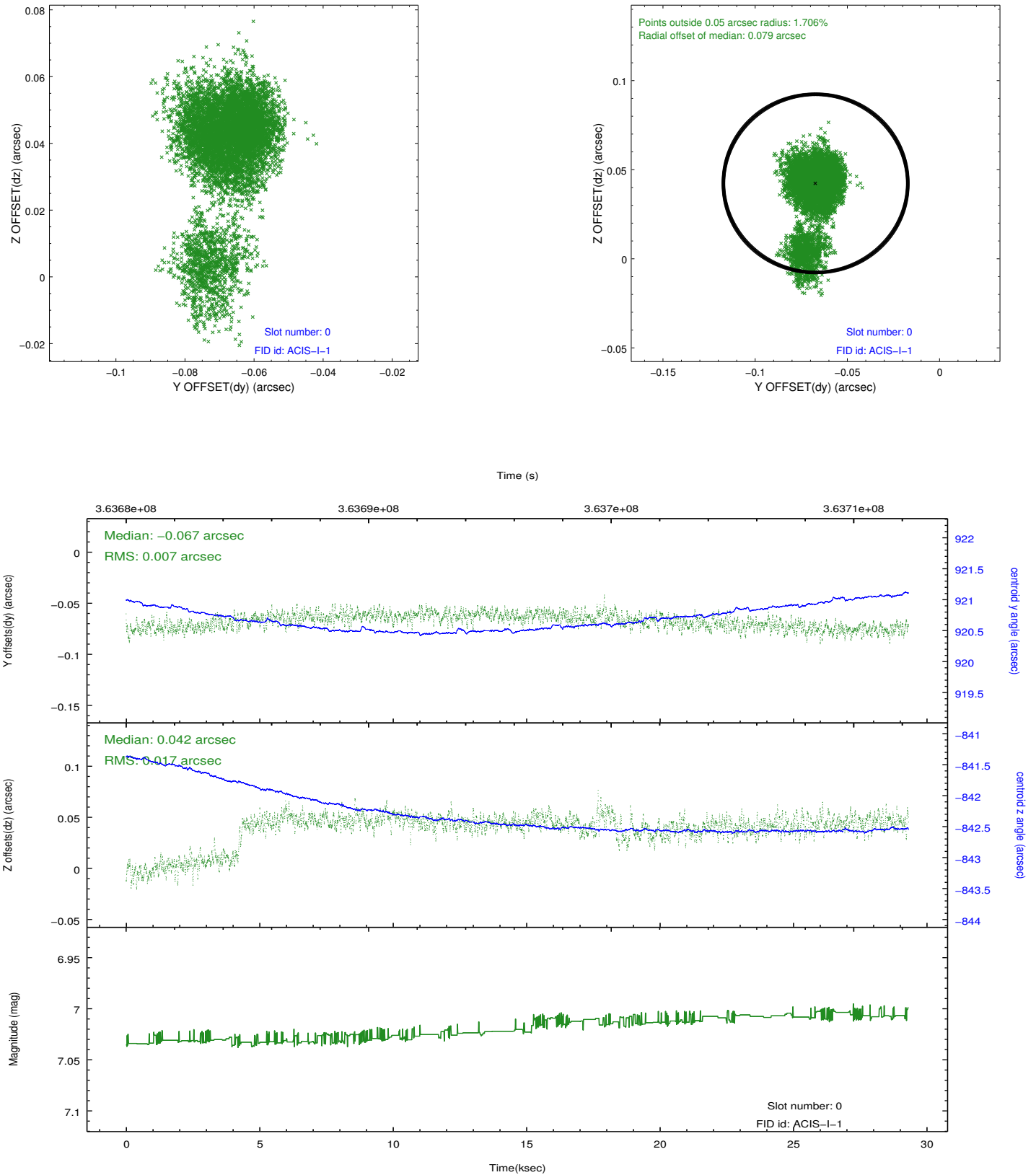


Time (s)

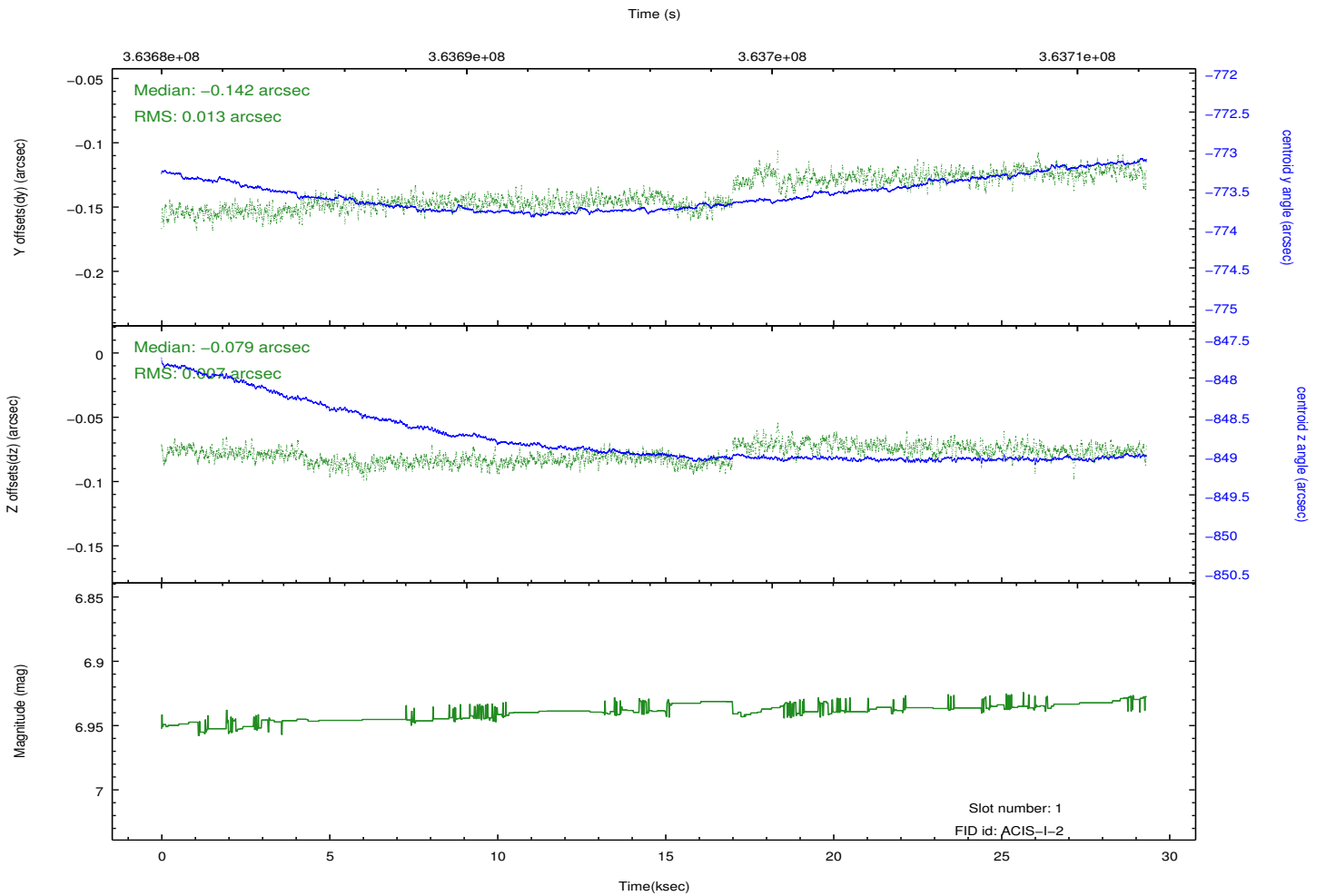
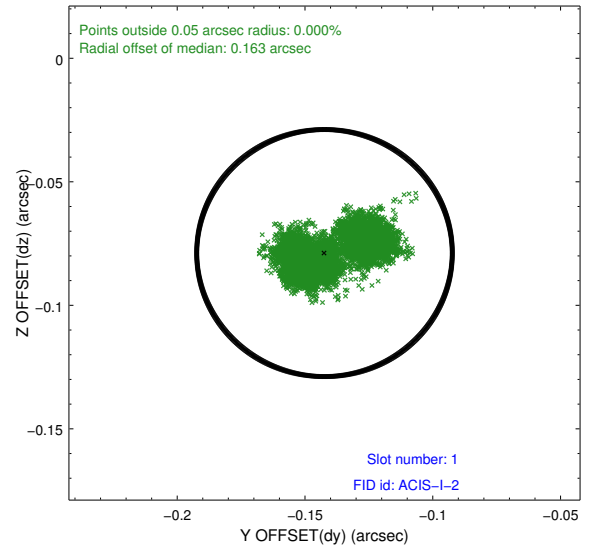
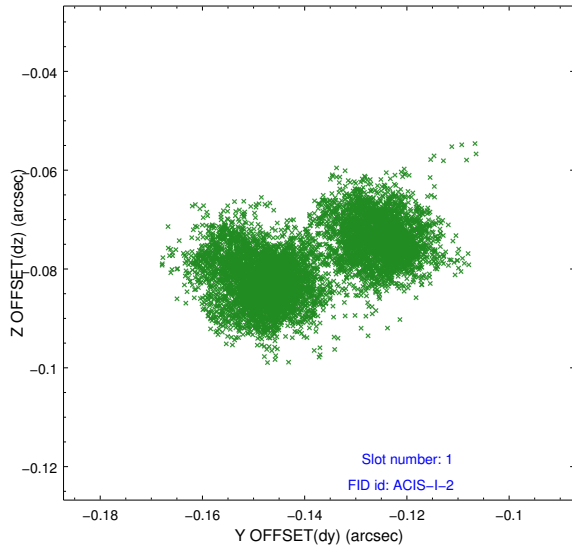


## 2.5 FID Slots

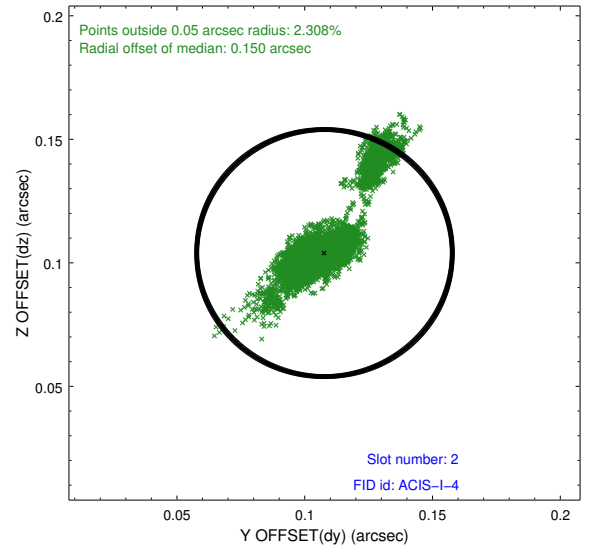
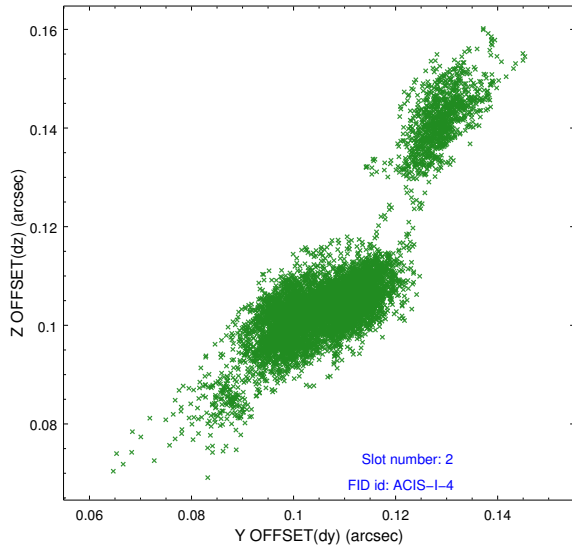
### 2.5.1 Slot 0



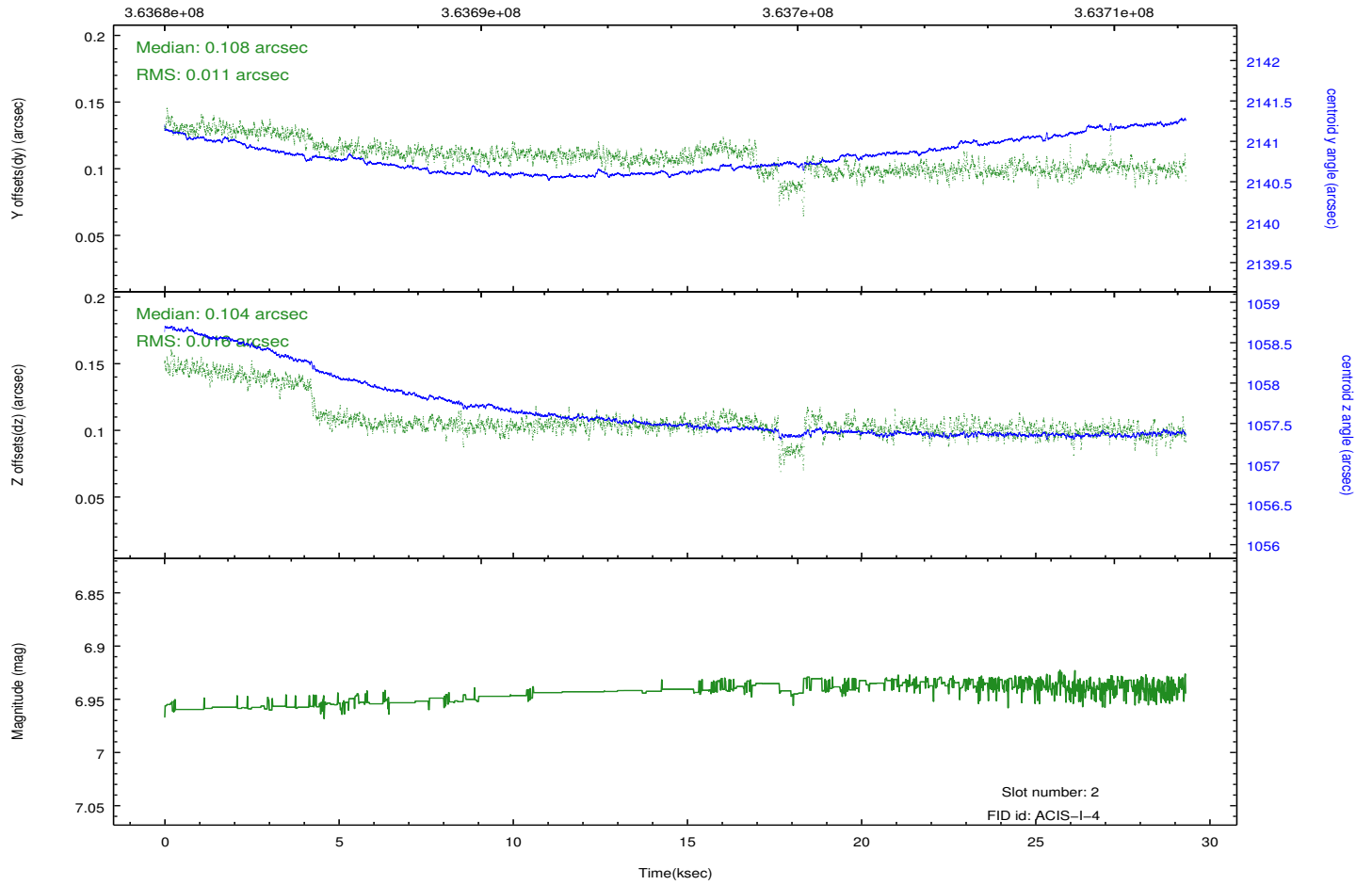
## 2.5.2 Slot 1



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.06.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	28.8980773

## A.2 Comments

Joint proposal with HST.