

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 12991 - L2 Version 2  
Chandra X-Ray Center

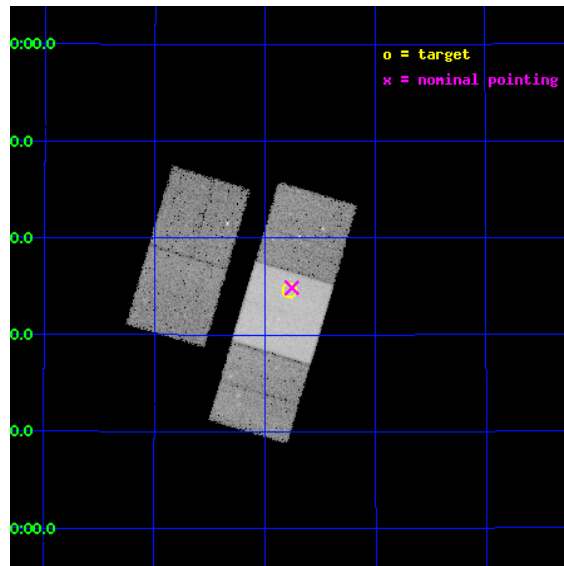
L2 Processing Date : Feb 13 2012

## 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

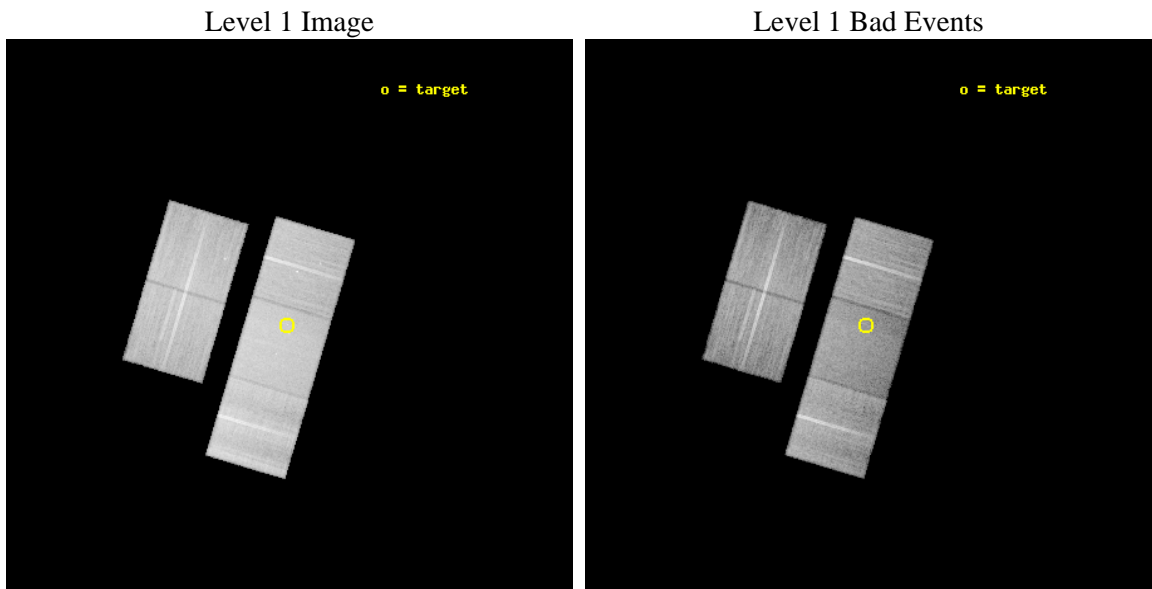
seq_num	600959	Sequence number
obs_id	12991	Observation id
title	An X-ray/Radio Test for an Intermediate-Mass Black Hole in M31's G1 Cluster	Proposal title
observer	Prof. Craig Heinke	Principal investigator
object	G1	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	8.19375	Observer's specified target RA [deg]
dec_targ	39.577917	Observer's specified target Dec [deg]
ra_nom	8.1890486356159	Nominal RA [deg]
dec_nom	39.581140028805	Nominal Dec [deg]
roll_nom	106.55207374342	Nominal Roll [deg]
revision	2	Processing version of data
ontime	35045.004909098	Sum of GTIs [s]
livetime	34587.116120204	Livetime [s]
ontime2	35041.699778736	Sum of GTIs [s]
ontime3	35044.922829092	Sum of GTIs [s]
ontime6	35044.963869095	Sum of GTIs [s]
ontime7	35045.004909098	Sum of GTIs [s]
ontime8	35041.740798831	Sum of GTIs [s]
l2events	195911	Number of level 2 events



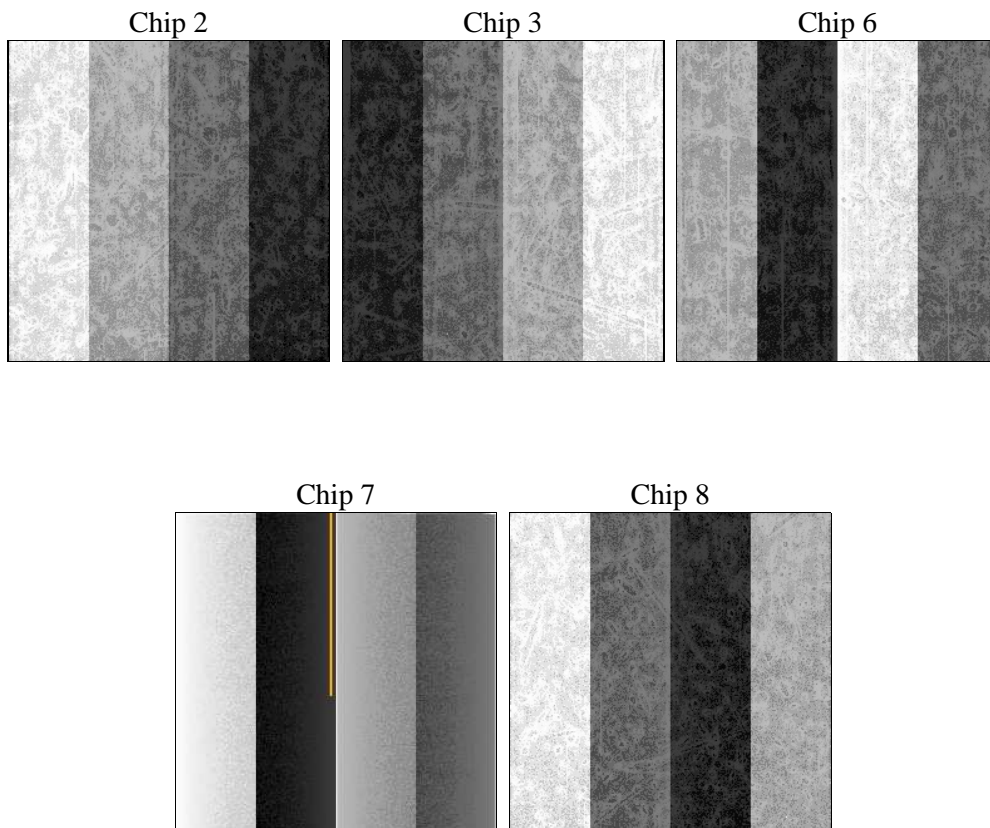
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	35000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	35045.004909098	Sum of GTIs [s]
caldbver	4.4.7	&#160	ontime2	35041.699778736	Sum of GTIs [s]
date	2012-02-13T12:19:37	Date and time of file creation	ontime3	35044.922829092	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	35044.963869095	Sum of GTIs [s]
			ontime7	35045.004909098	Sum of GTIs [s]
			ontime8	35041.740798831	Sum of GTIs [s]
			l1events	1139767	Number of level 1 events

### 2.1.4 Events

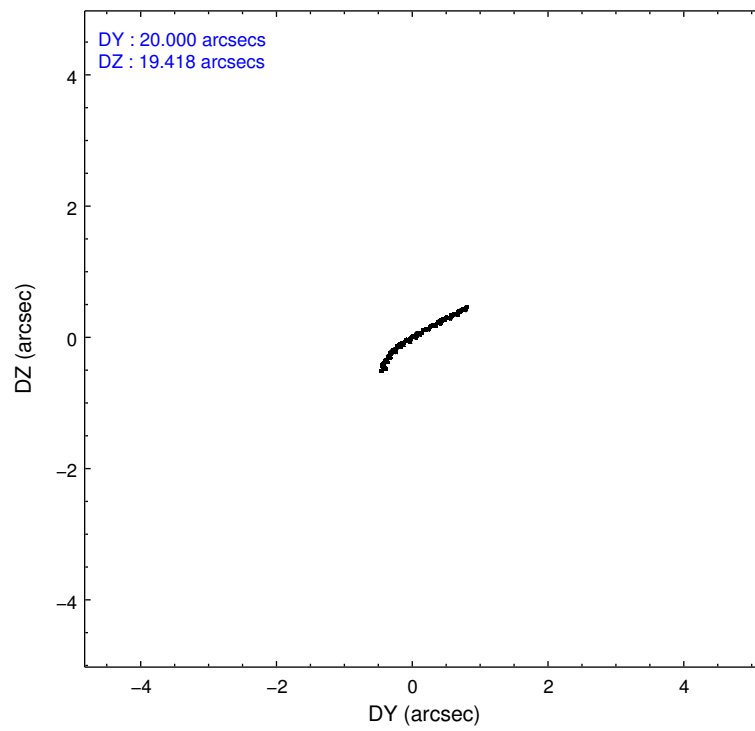
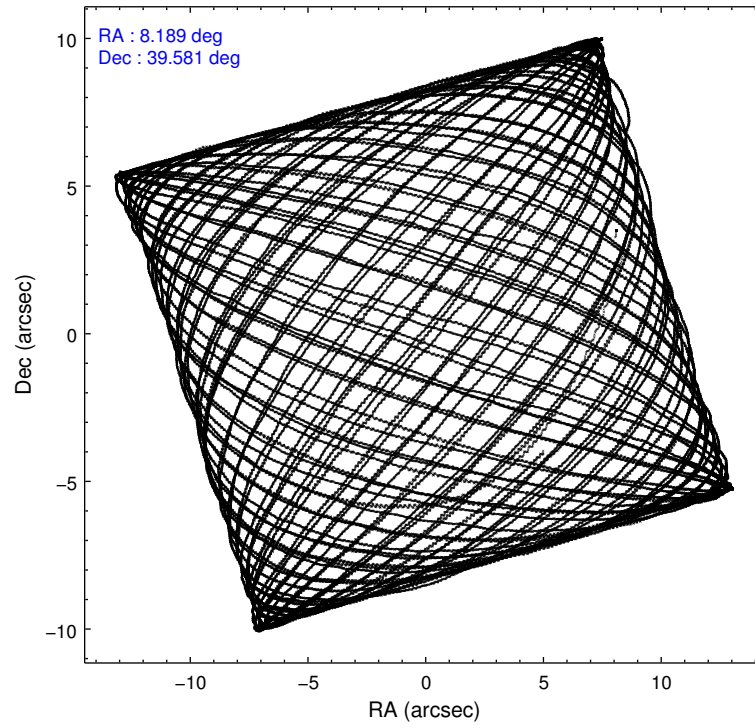
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	201416	196948	207332	261945	272126
rejected events	178934	175448	182807	146206	200312
rejected %	88%	89%	88%	55%	73%

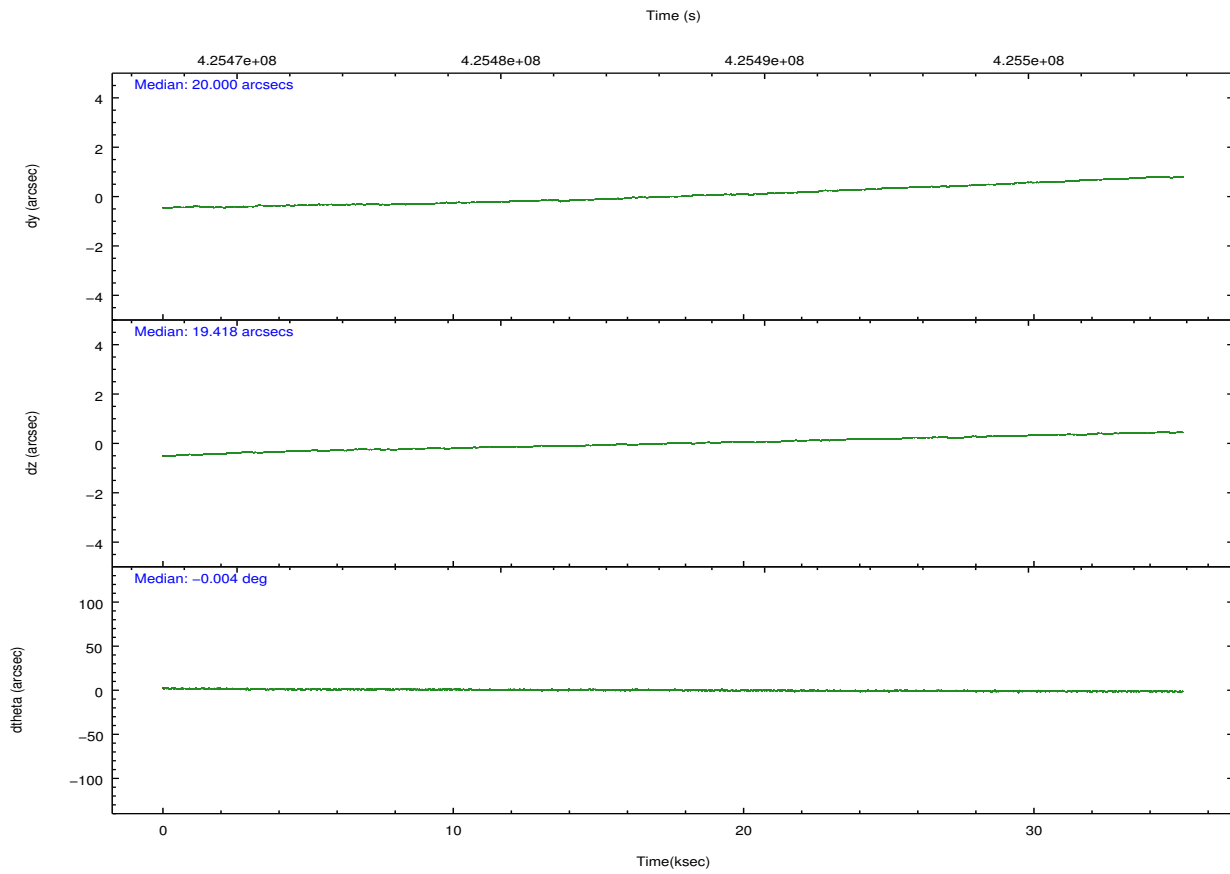
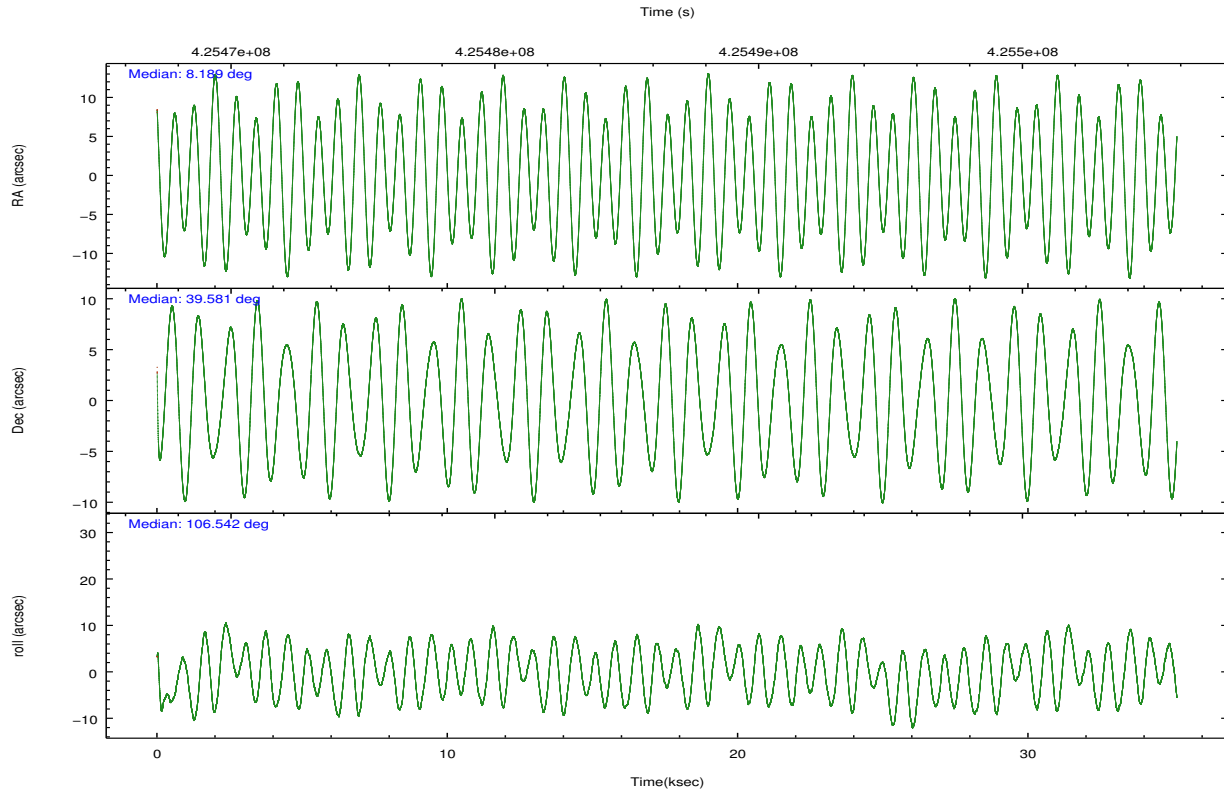
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	8066	7490	8842	10512	21483
	4%	3%	4%	4%	7%
grade 1 events	110	121	111	339	202
	0%	0%	0%	0%	0%
grade 2 events	5578	4807	5506	23433	16714
	2%	2%	2%	8%	6%
grade 3 events	2233	2426	2514	10209	7336
	1%	1%	1%	3%	2%
grade 4 events	2249	2303	2407	10110	6928
	1%	1%	1%	3%	2%
grade 5 events	7847	9802	9939	27070	14153
	3%	4%	4%	10%	5%
grade 6 events	4359	4478	5263	61498	19362
	2%	2%	2%	23%	7%
grade 7 events	170974	165521	172750	118774	185948
	84%	84%	83%	45%	68%

## 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	8.215138	8.189048635615926	CCD I2 on	O2	Y
[deg] Pointing Dec	39.562609	39.58114002880545	CCD I3 on	O1	Y
[deg] Pointing Roll	106.378821	106.5520737434218	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	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	425469092.184000	425467678.78774	CCD S5 on	N	N
Observation start date	2011-06-26T09:50:26	2011-06-26T09:27:58	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	425504092.184000	425505208.13969	On-chip summing requested	N	N
Observation end date	2011-06-26T19:33:46	2011-06-26T19:53:28	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



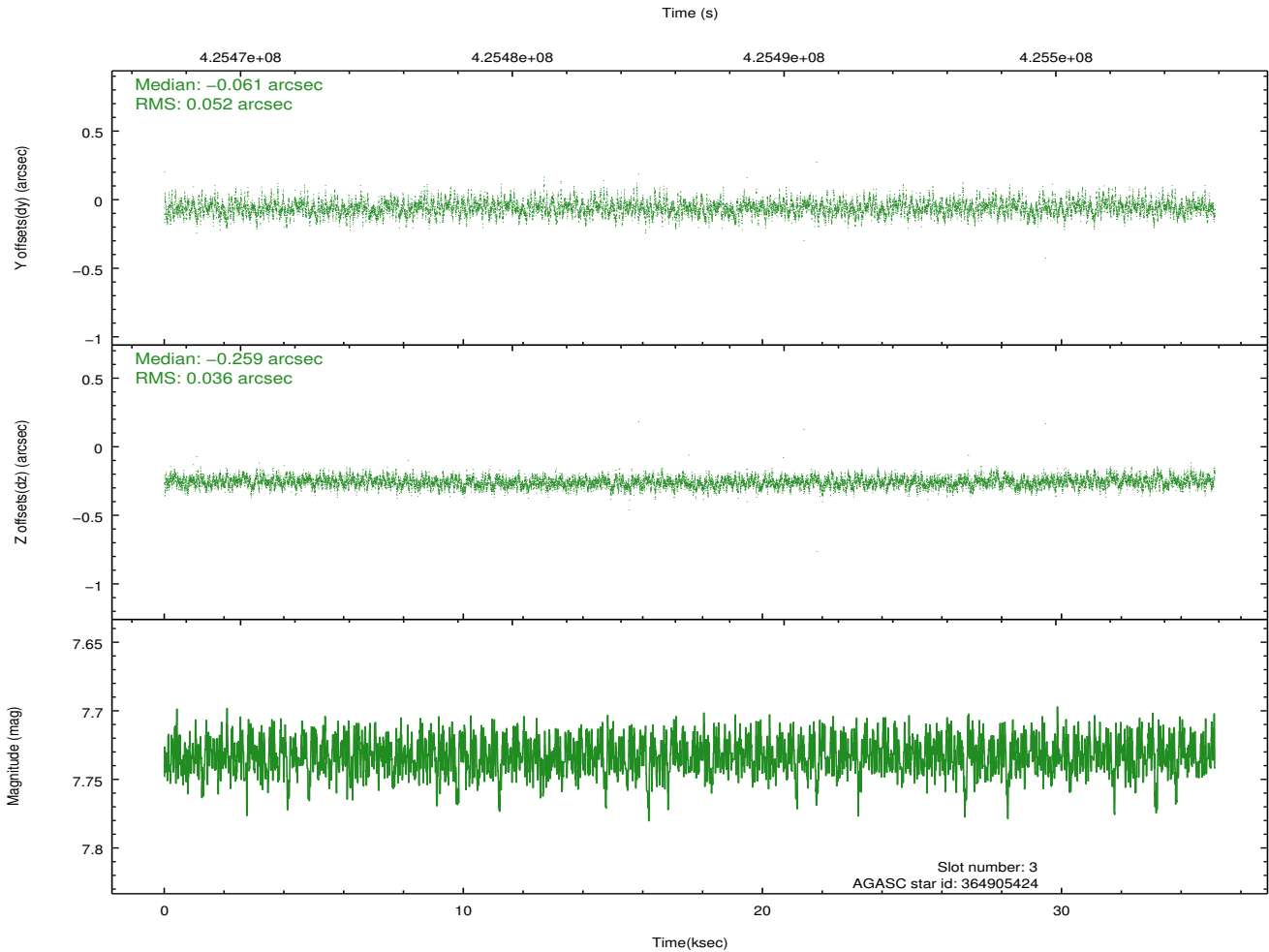
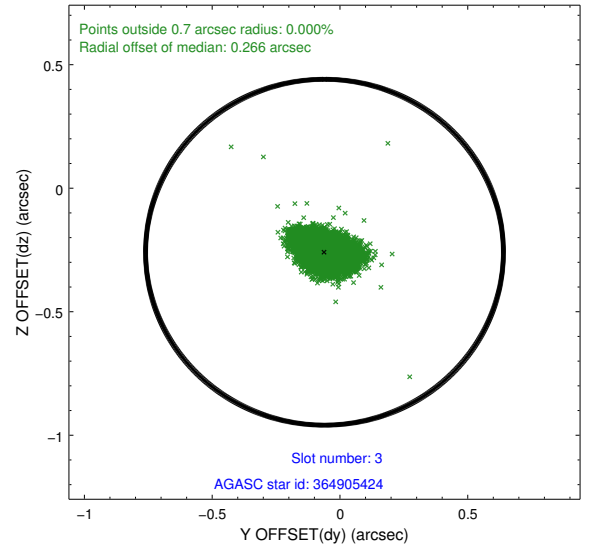
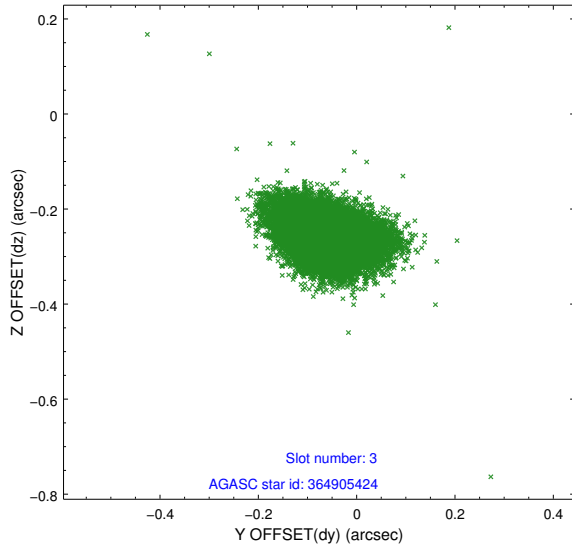


### Slot Statistics

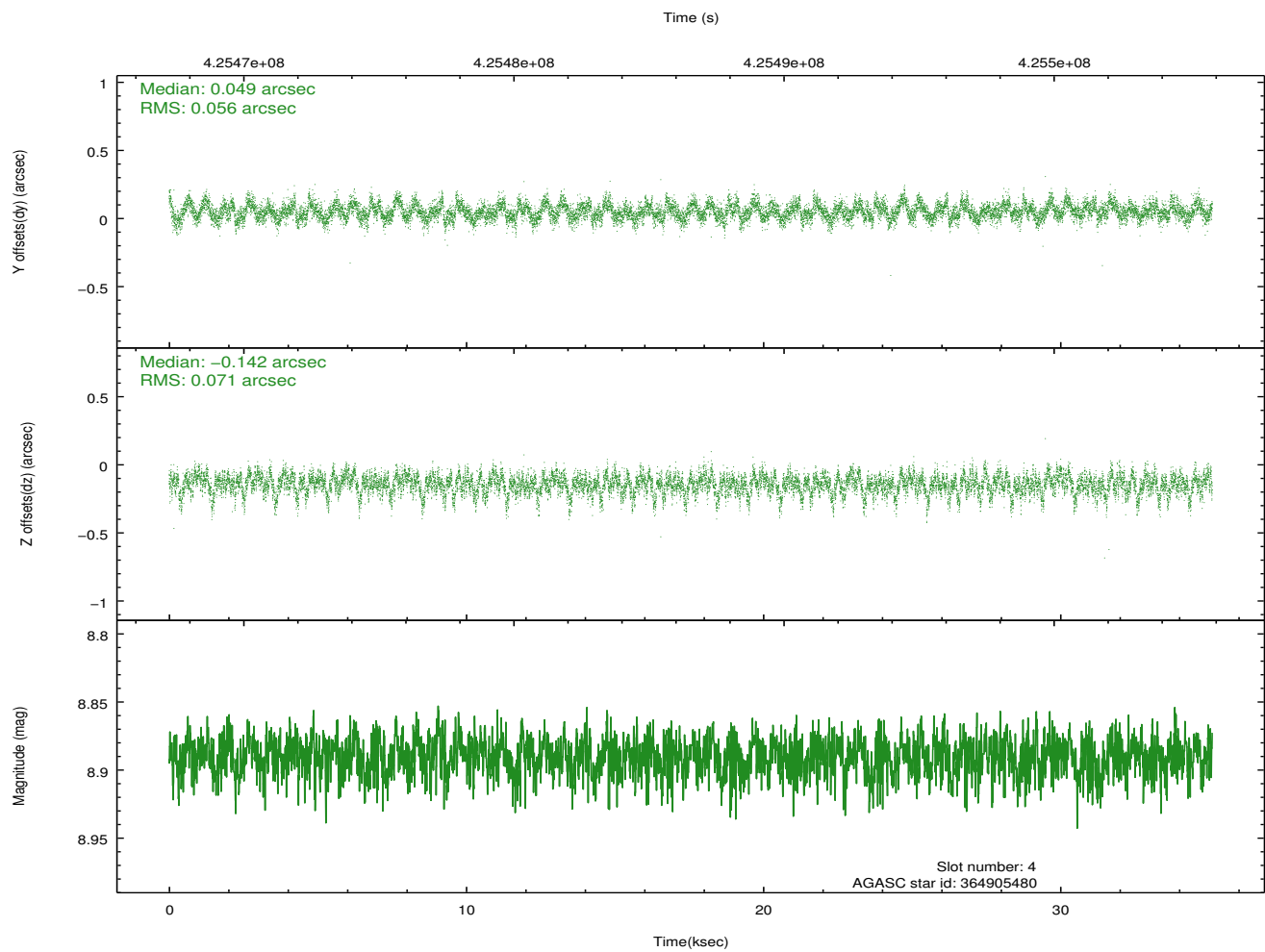
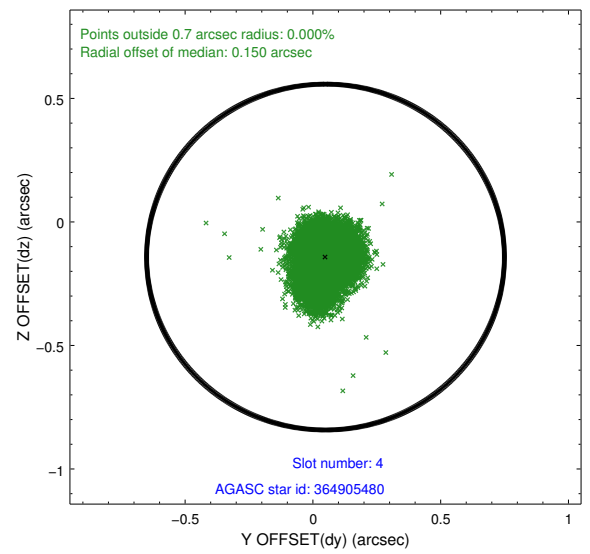
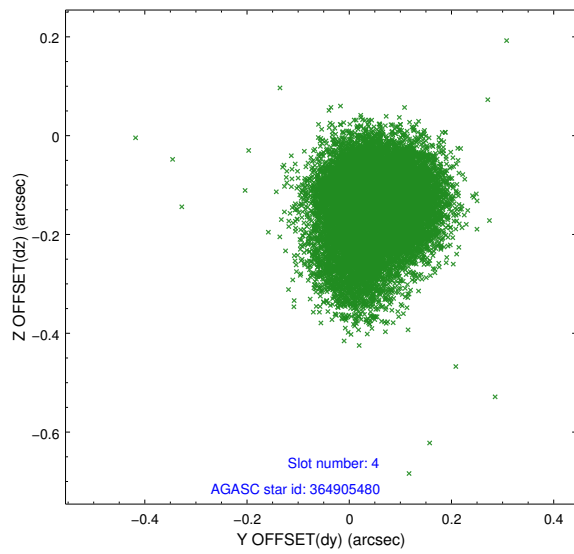
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.89	8567	-0.106	-0.026	0.011	0.026	0.000000	0.000000	-773.29	-1740.89
1	FID	ACIS-S-4	6.97	8567	0.212	0.058	0.013	0.023	0.000000	0.000000	2140.30	167.62
2	FID	ACIS-S-5	7.00	8566	-0.137	-0.024	0.017	0.037	0.000000	0.000000	-1826.11	161.28
3	GUIDE	364905424	7.73	17131	-0.061	-0.259	0.066	0.113	7.854522	38.980589	-1723.83	1558.28
4	GUIDE	364905480	8.89	17116	0.049	-0.142	0.094	0.159	7.889052	39.331291	-541.53	1105.60
5	GUIDE	365431288	8.88	17123	0.067	0.153	0.094	0.148	8.467902	39.603153	-56.41	-713.73
6	GUIDE	365444232	8.75	17126	-0.120	-0.318	0.087	0.143	7.566908	39.409853	-13.49	1882.59
7	GUIDE	364906232	8.81	17103	0.062	0.577	0.096	0.154	9.200112	39.292644	-1691.20	-2362.38

## 2.4 Star Slots

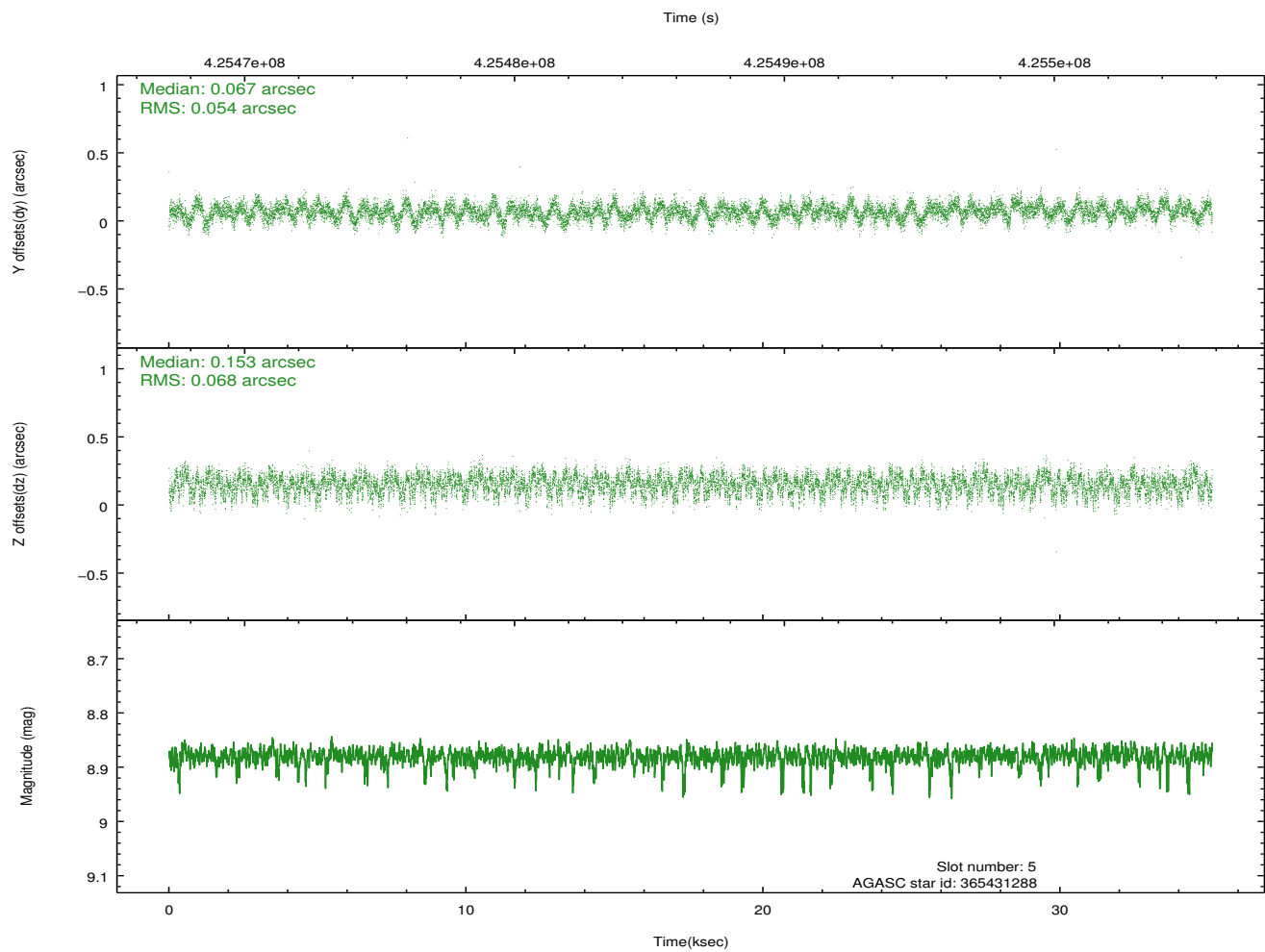
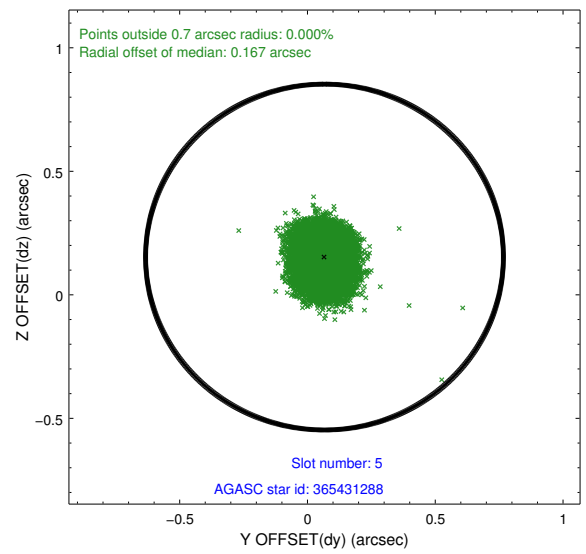
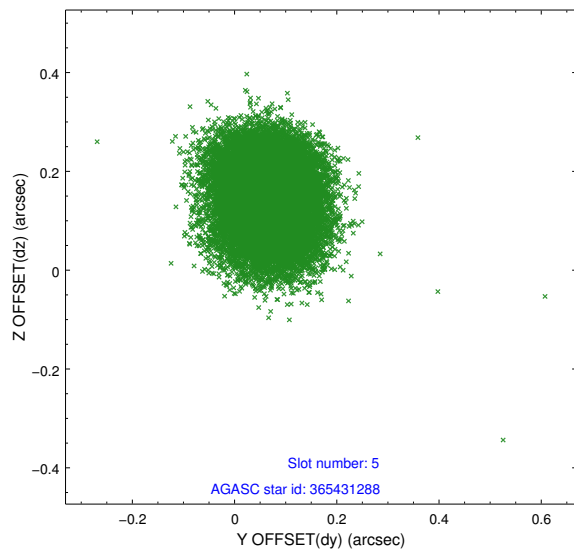
### 2.4.1 Slot 3



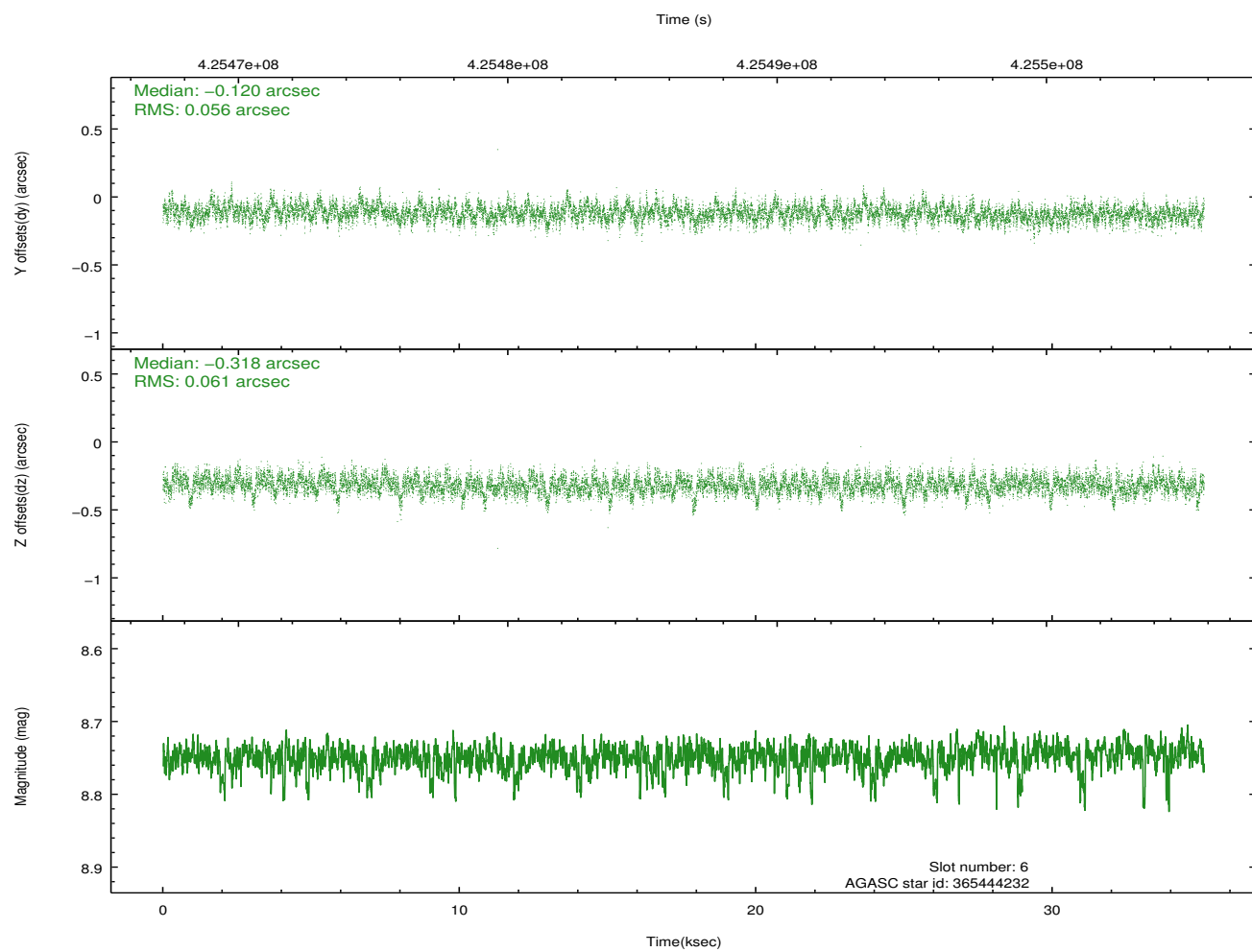
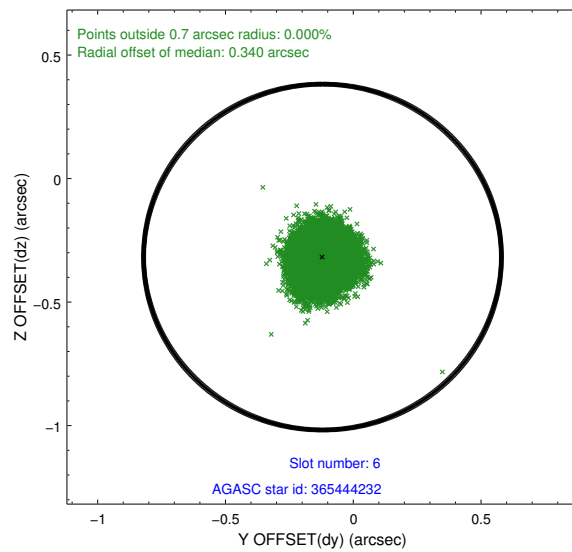
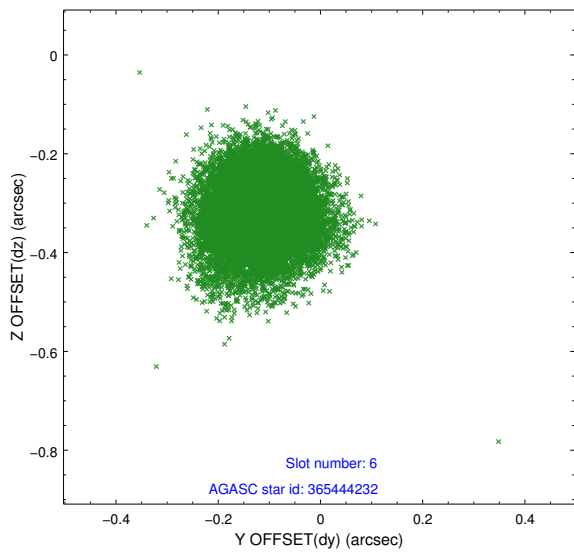
## 2.4.2 Slot 4



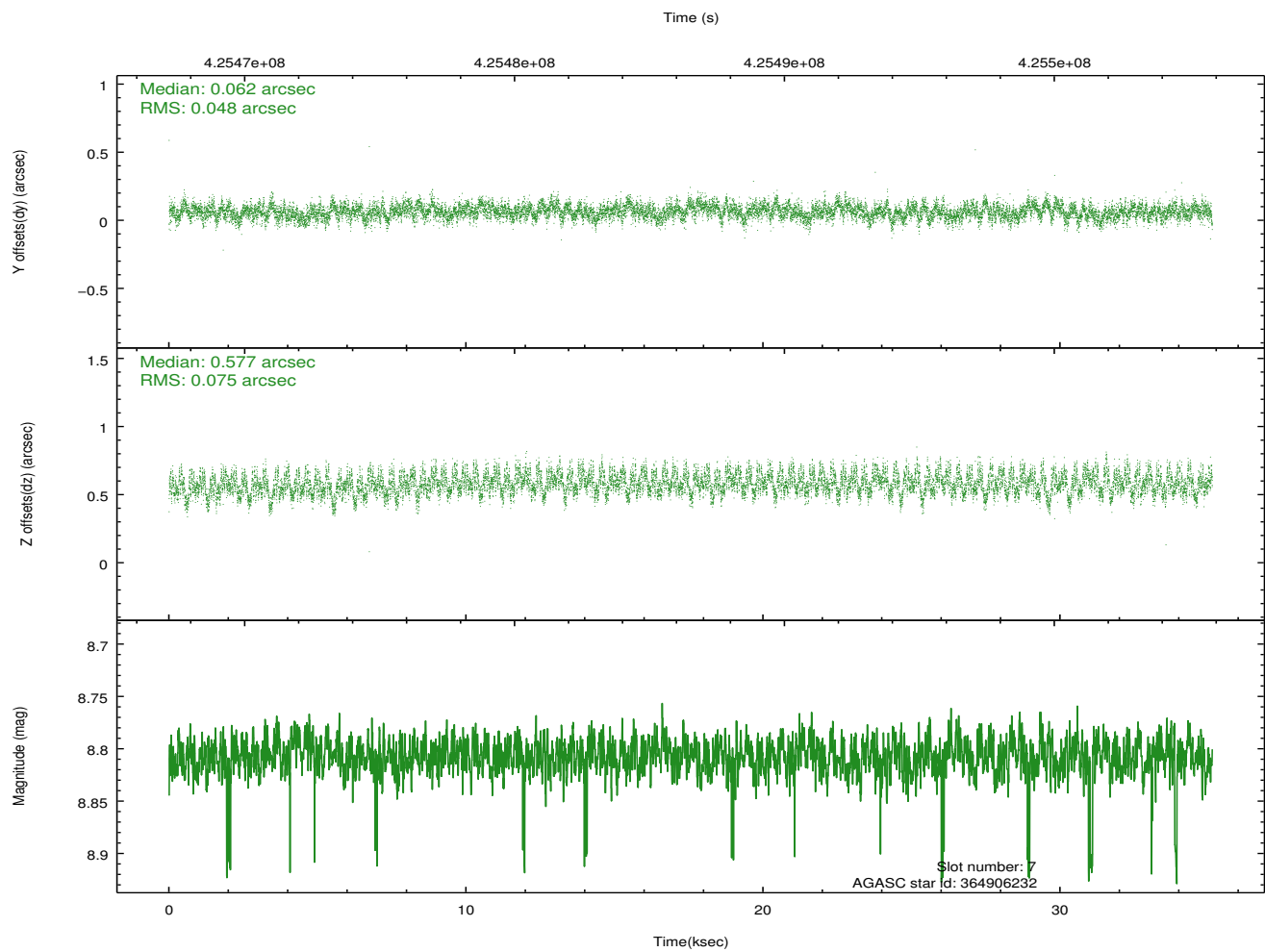
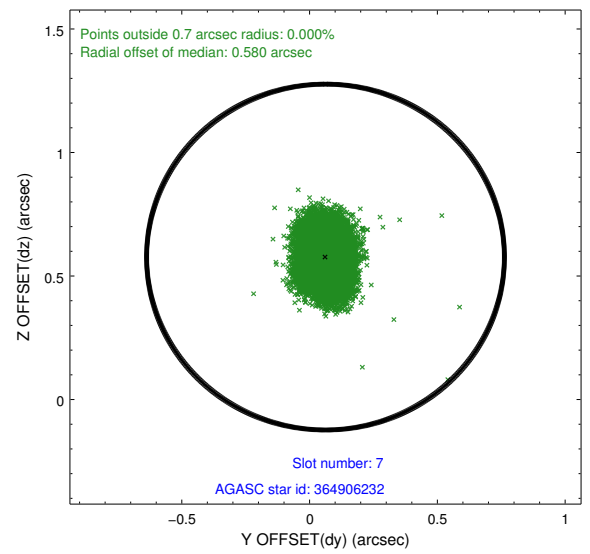
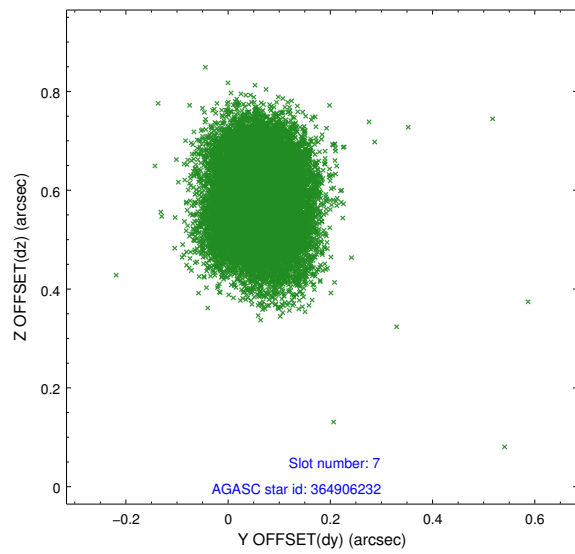
### 2.4.3 Slot 5



## 2.4.4 Slot 6

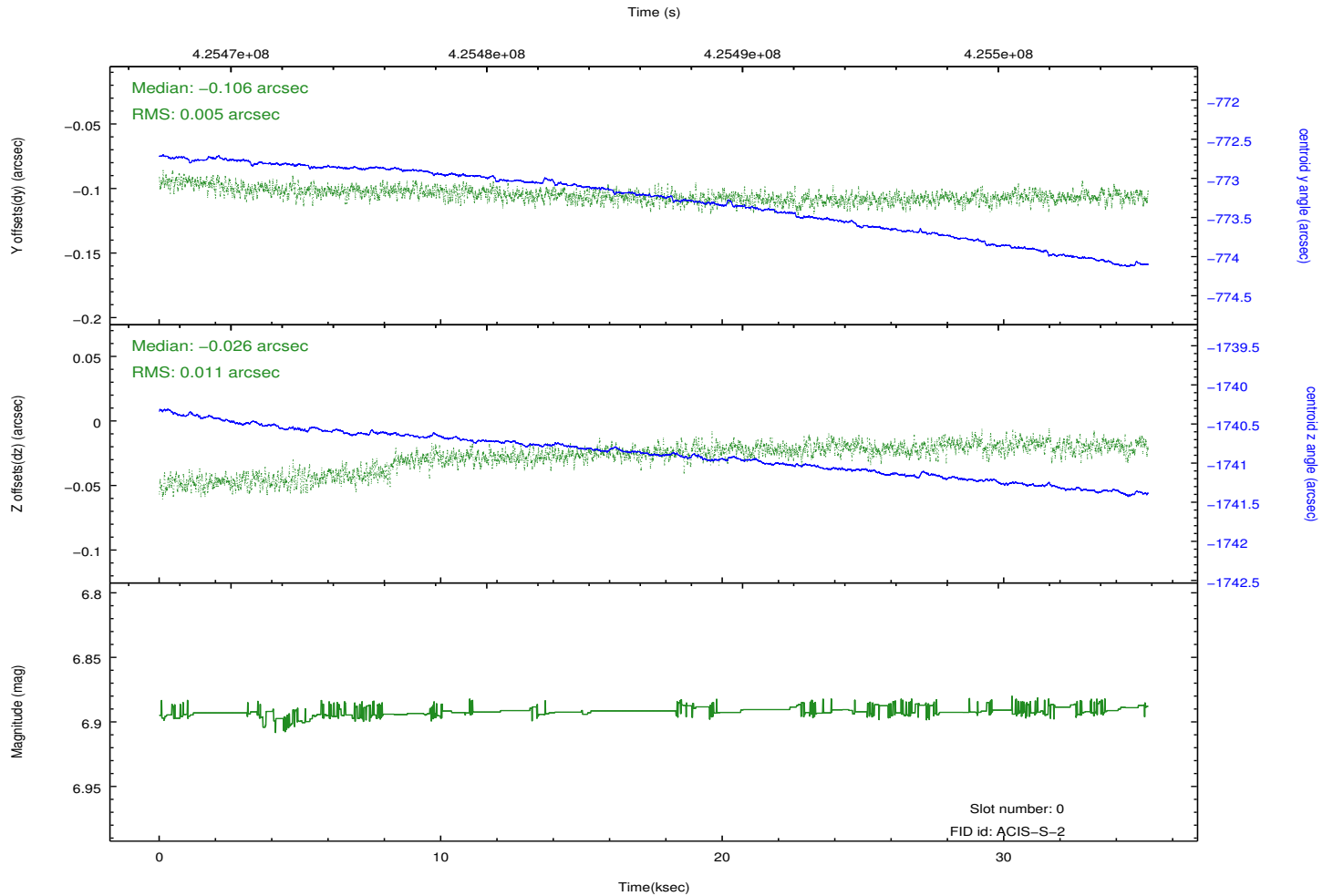
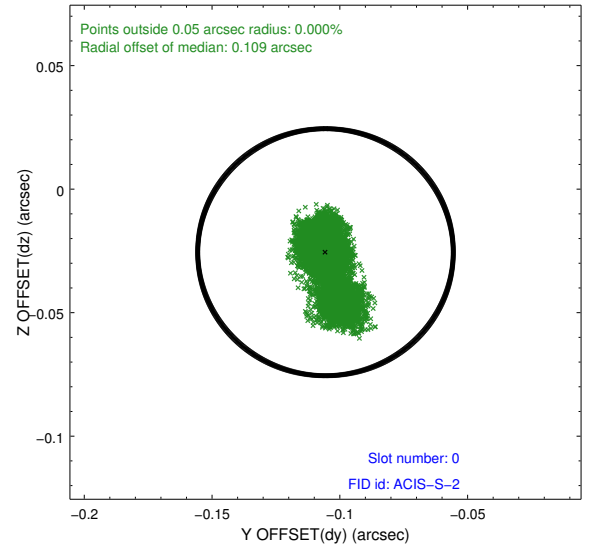
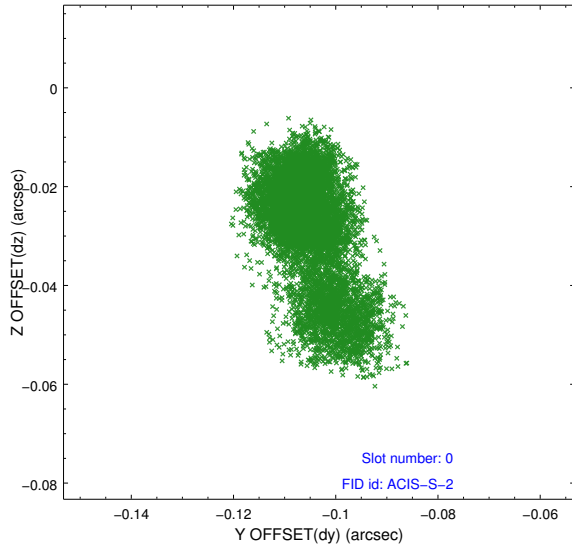


## 2.4.5 Slot 7

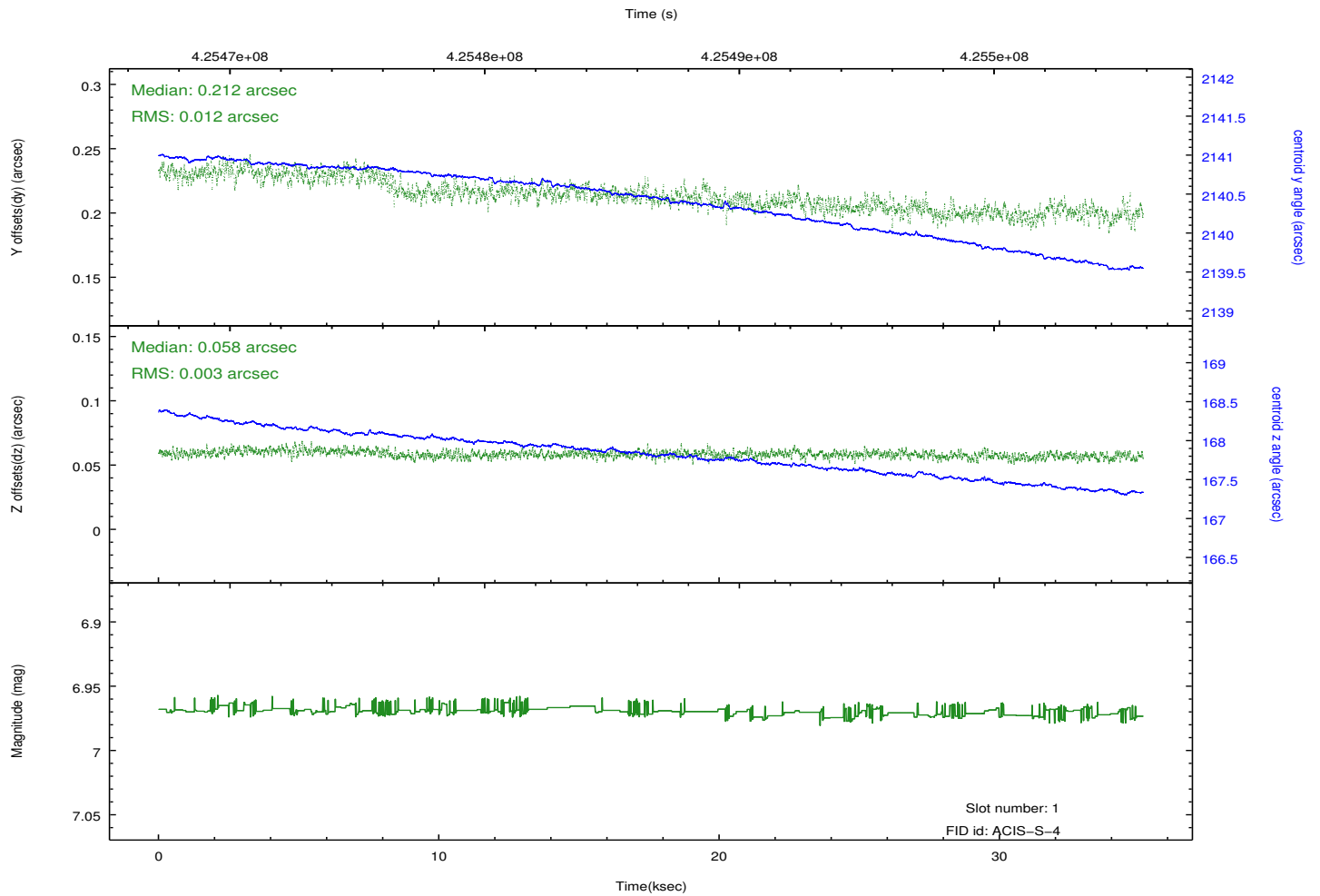
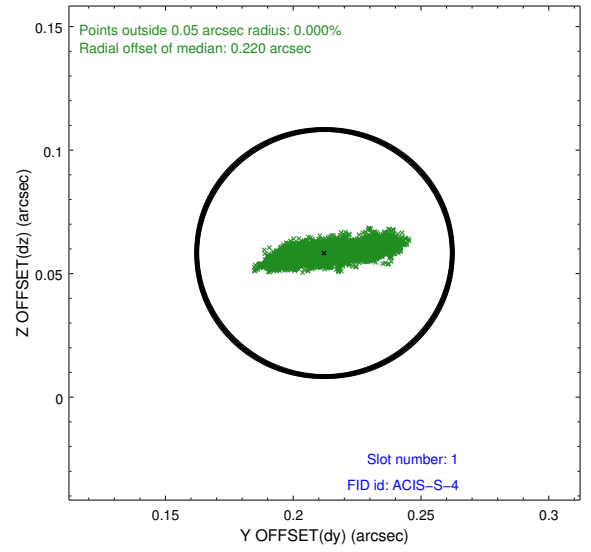
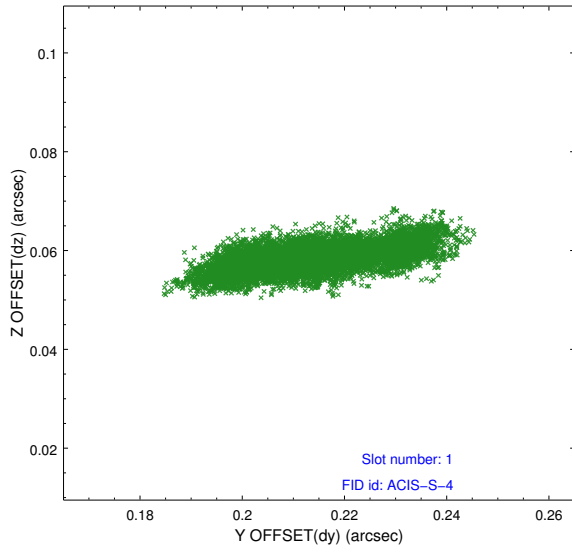


## 2.5 FID Slots

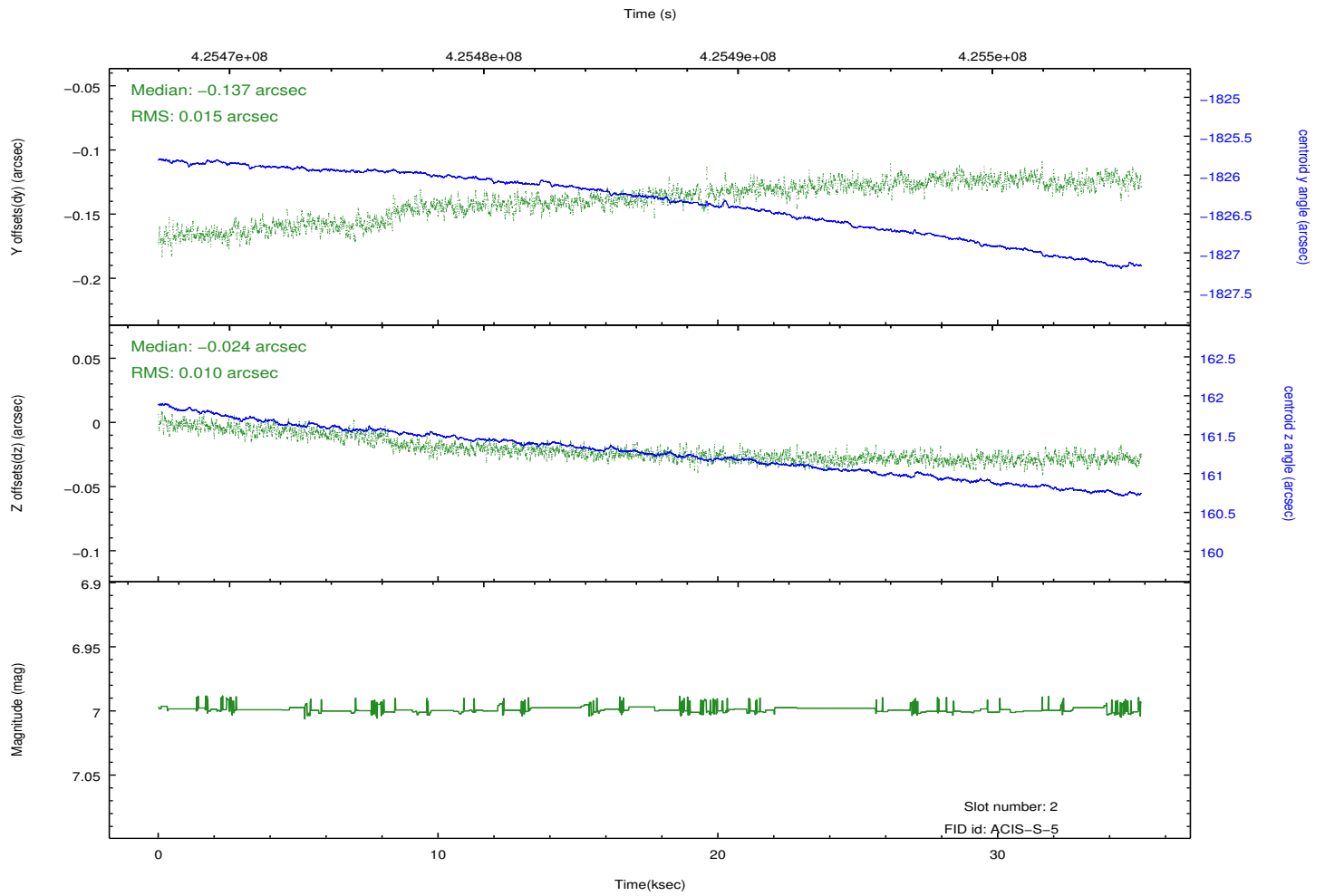
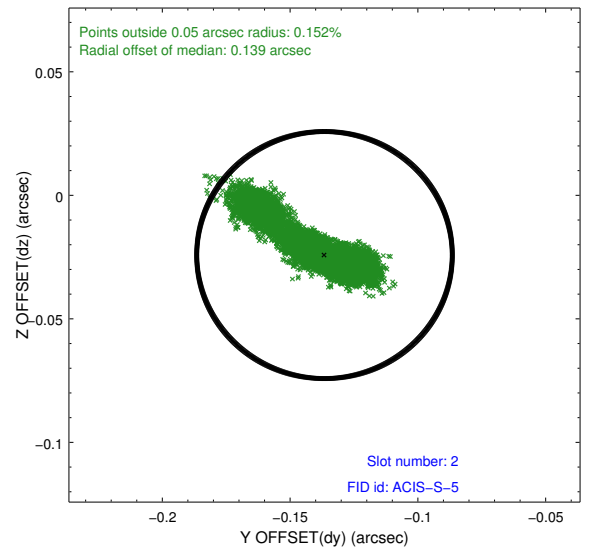
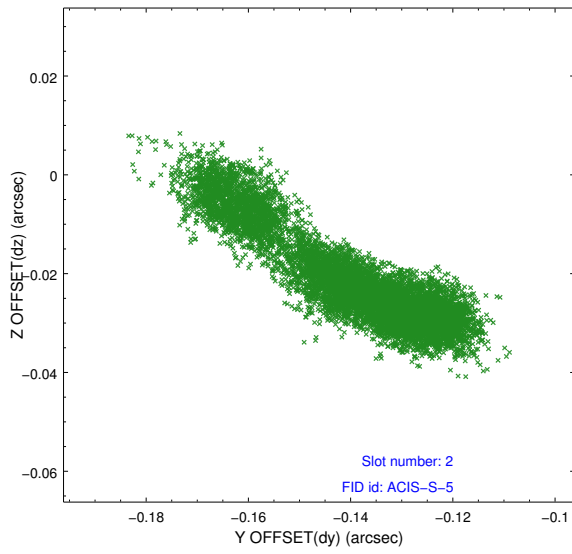
### 2.5.1 Slot 0



## 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	35.045004906535

## A.2 Comments

Joint Proposal: NRAO