

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 4531 - L2 Version 3  
Chandra X-Ray Center

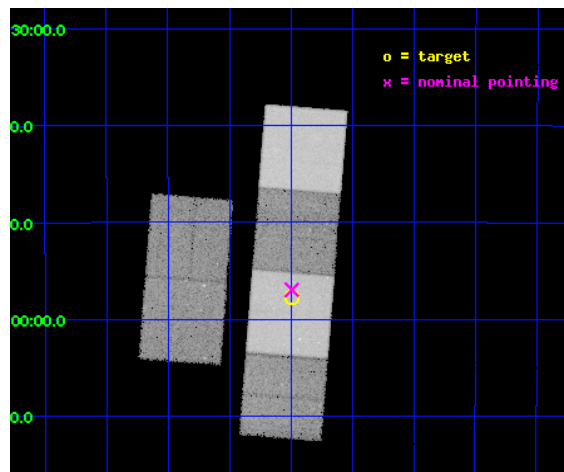
L2 Processing Date : Dec 1 2012

## 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

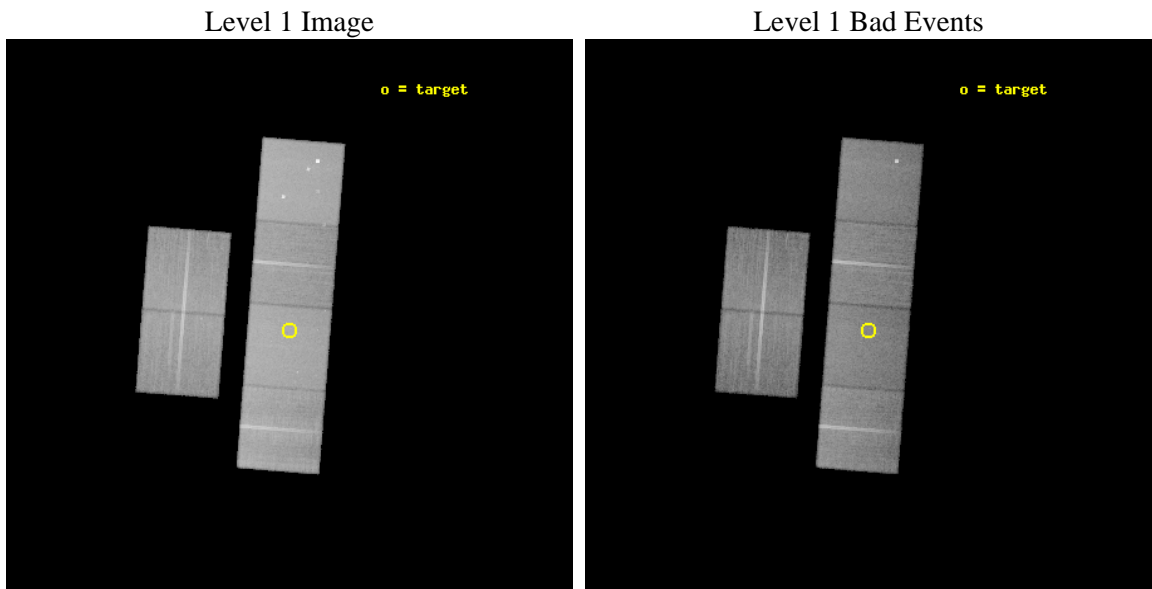
seq_num	300125	Sequence number
obs_id	4531	Observation id
title	A Uniform Study of Globular Cluster X-ray Sources: The Keys to Cluster Dynamical Evolution	Proposal title
observer	Prof. Walter Lewin	Principal investigator
object	NGC 6809	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	294.9975	Observer's specified target RA [deg]
dec_targ	-30.962222	Observer's specified target Dec [deg]
ra_nom	294.99832387742	Nominal RA [deg]
dec_nom	-30.949749076498	Nominal Dec [deg]
roll_nom	94.543473796922	Nominal Roll [deg]
revision	3	Processing version of data
ontime	34156.493075758	Sum of GTIs [s]
livetime	33723.982993862	Livetime [s]
ontime2	34156.534115762	Sum of GTIs [s]
ontime3	34156.369955748	Sum of GTIs [s]
ontime5	34156.452035755	Sum of GTIs [s]
ontime6	34156.410995752	Sum of GTIs [s]
ontime7	34156.493075758	Sum of GTIs [s]
ontime8	34153.087825924	Sum of GTIs [s]
l2events	396242	Number of level 2 events



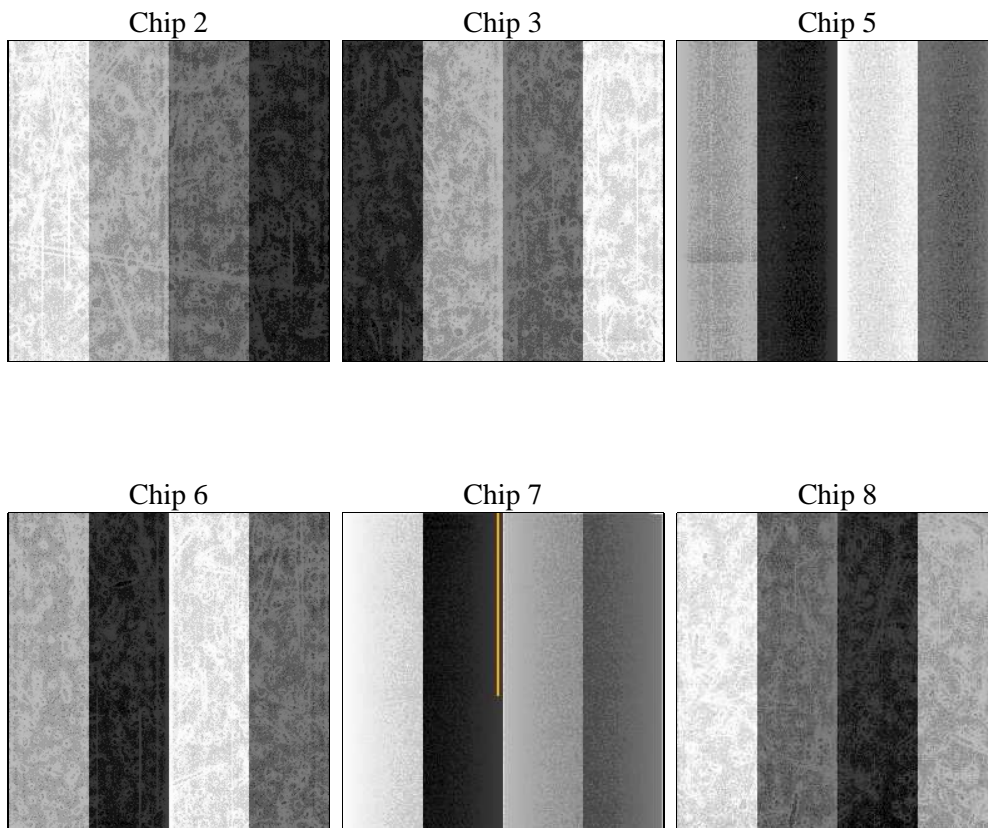
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	34400.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	34156.493075758	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime2	34156.534115762	Sum of GTIs [s]
date	2012-12-01T07:37:16	Date and time of file creation	ontime3	34156.369955748	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	34156.452035755	Sum of GTIs [s]
			ontime6	34156.410995752	Sum of GTIs [s]
			ontime7	34156.493075758	Sum of GTIs [s]
			ontime8	34153.087825924	Sum of GTIs [s]
			l1events	1738644	Number of level 1 events

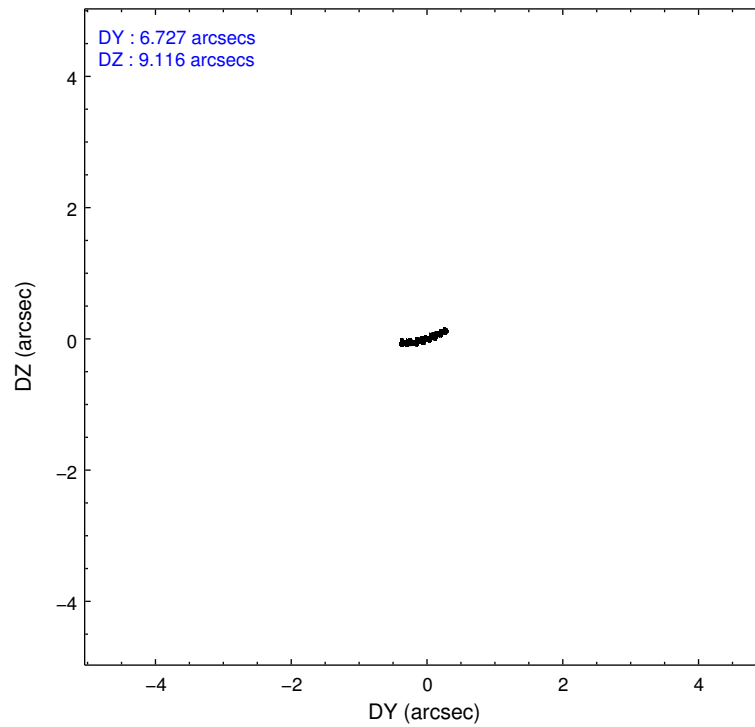
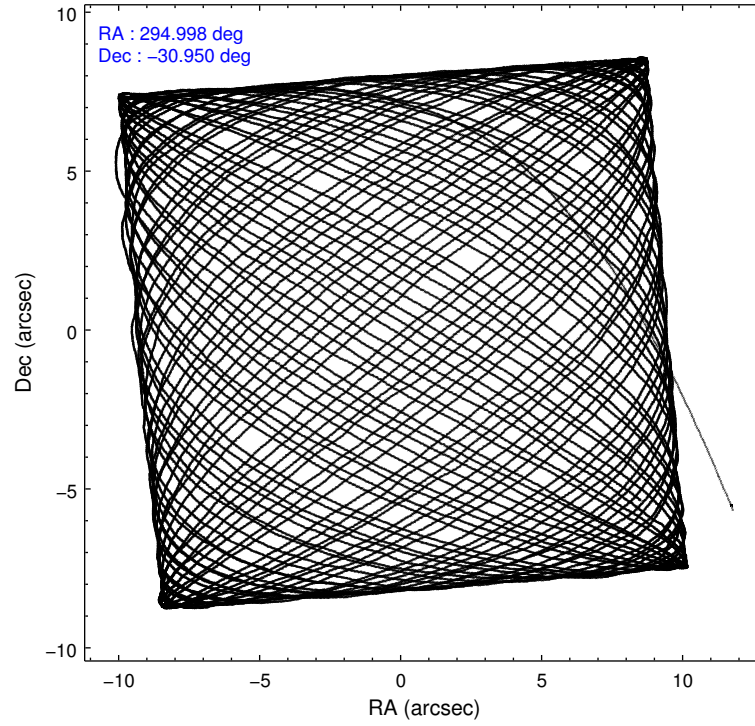
### 2.1.4 Events

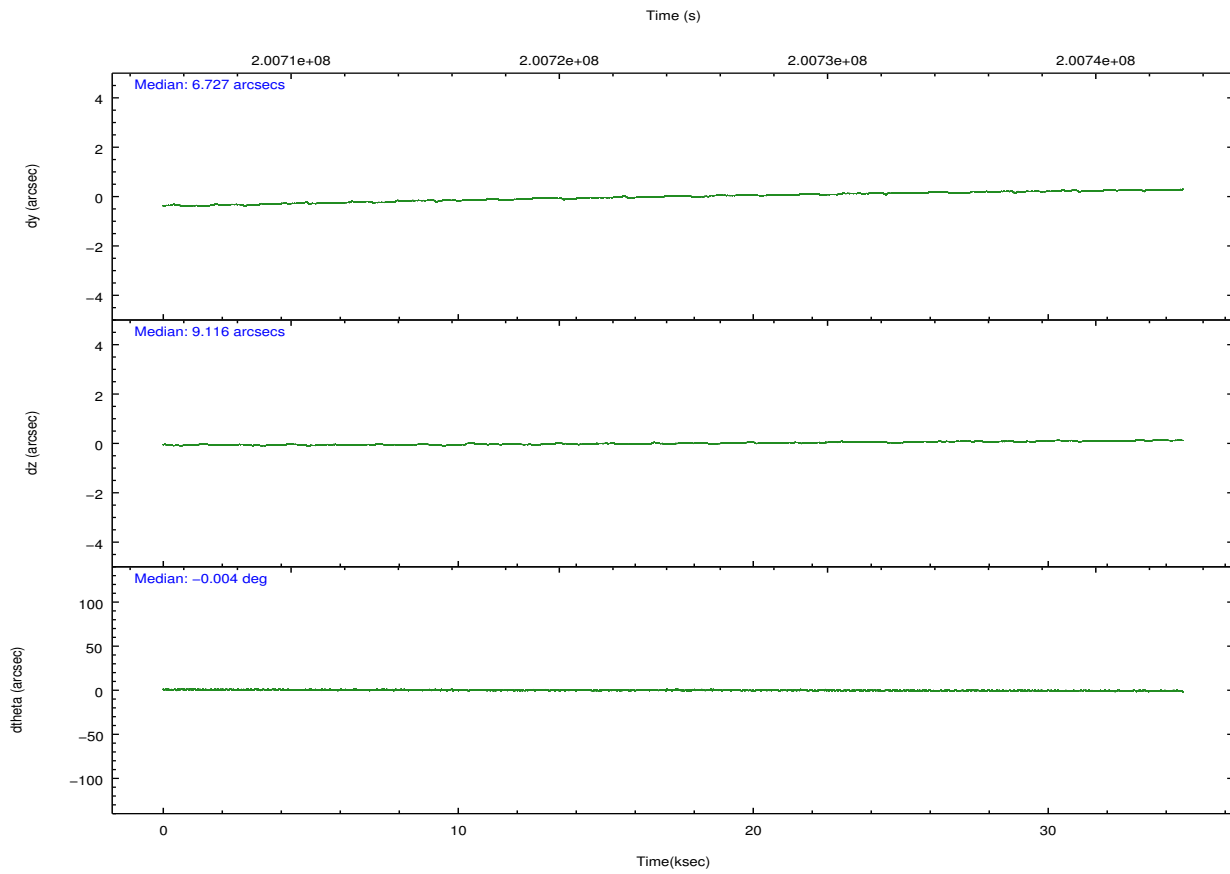
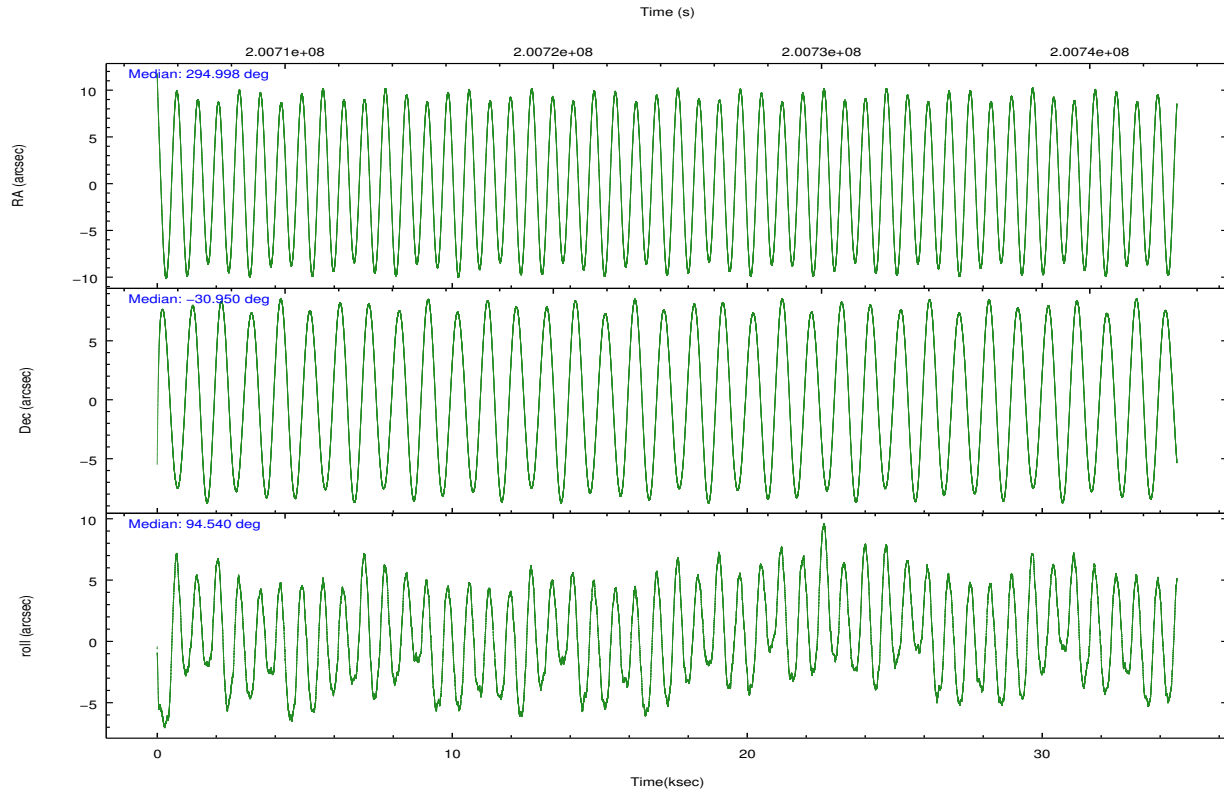
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	246954	233317	371520	246583	331400	308870	grade 0 events	12811	12925	19619	12287	13186	20672
rejected events	217929	204476	199937	216893	193005	243972		5%	5%	5%	4%	3%	6%
rejected %	88%	87%	53%	87%	58%	78%	grade 1 events	169	148	3674	134	301	208
								0%	0%	0%	0%	0%	0%
							grade 2 events	6083	5357	52172	6069	27571	14358
								2%	2%	14%	2%	8%	4%
							grade 3 events	2761	2792	6592	2769	12289	6639
								1%	1%	1%	1%	3%	2%
							grade 4 events	2720	2796	6634	2758	12375	6420
								1%	1%	1%	1%	3%	2%
							grade 5 events	9561	10634	27028	11386	31732	14445
								3%	4%	7%	4%	9%	4%
							grade 6 events	4656	4975	86581	5808	72984	16812
								1%	2%	23%	2%	22%	5%
							grade 7 events	208193	193690	169220	205372	160962	229316
								84%	83%	45%	83%	48%	74%

## 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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	295.016697	294.9983238774196	Subarray requested	NONE	NONE
[deg] Pointing Dec	-30.971994	-30.94974907649786	Alternating exposures requested	N	N
[deg] Pointing Roll	94.396298	94.54347379692226	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	200707126.184000	200706228.32287			
Observation start date	2004-05-11T23:57:42	2004-05-11T23:43:48			
[s] Observation end time (MET)	200741526.184000	200742098.19946			
Observation end date	2004-05-12T09:31:02	2004-05-12T09:41:38			
Read mode	TIMED	TIMED			

## 2.3 Aspect



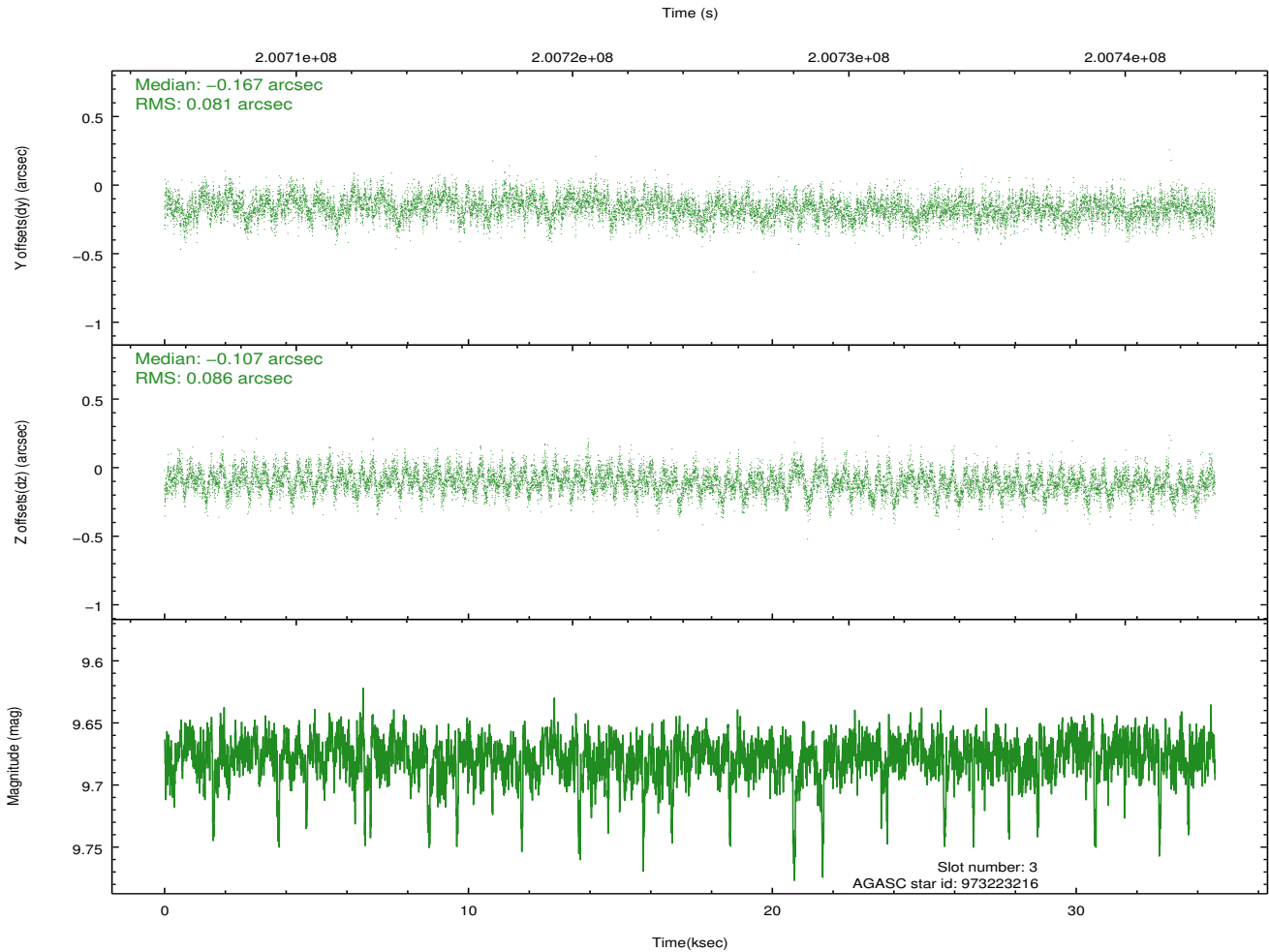
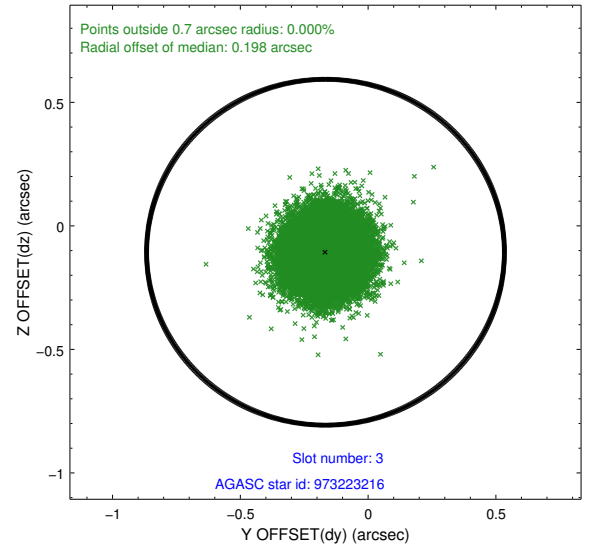
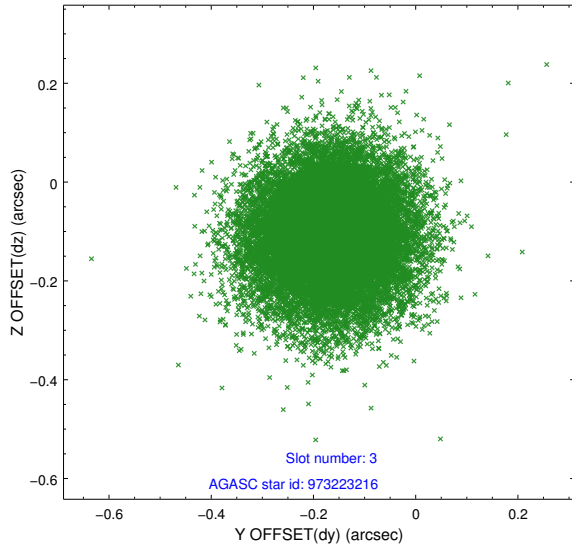


### Slot Statistics

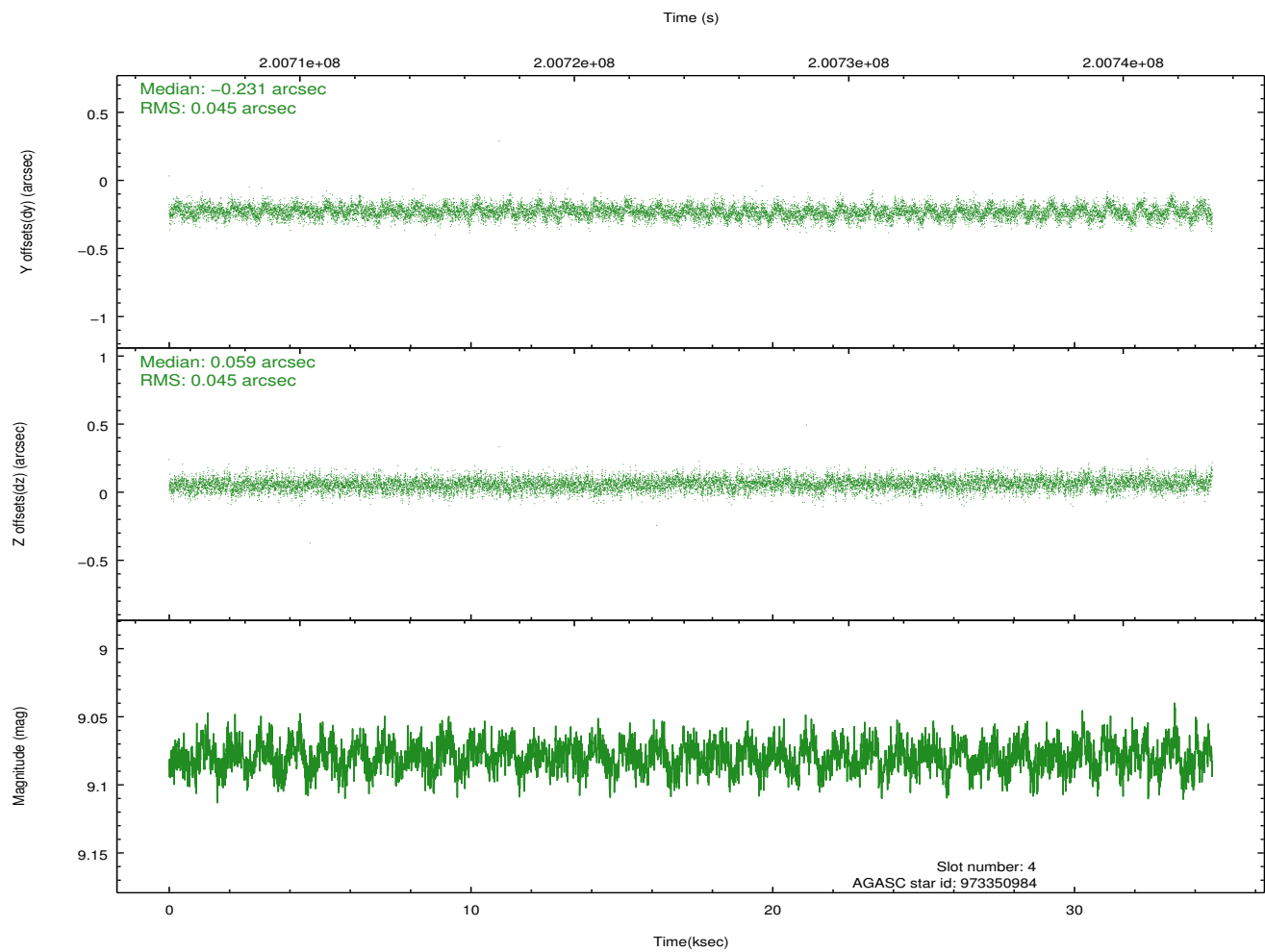
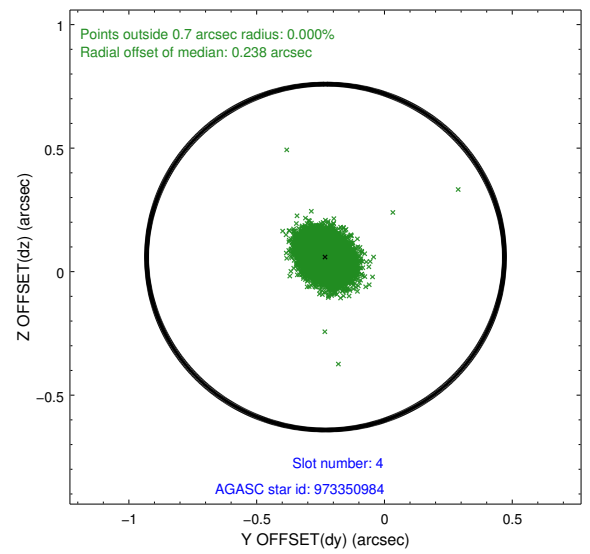
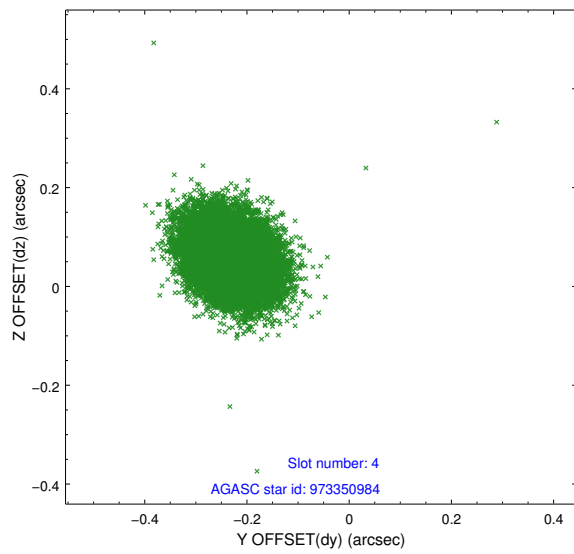
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	8431	-0.040	-0.037	0.013	0.020	0.000000	0.000000	-759.48	-1730.39
1	FID	ACIS-S-4	7.20	8432	0.072	0.029	0.018	0.025	0.000000	0.000000	2153.88	178.14
2	FID	ACIS-S-5	7.23	8432	-0.066	0.017	0.012	0.017	0.000000	0.000000	-1812.31	171.82
3	GUIDE	973223216	9.68	16847	-0.167	-0.107	0.126	0.202	294.283723	-30.379145	2295.05	2106.91
4	GUIDE	973350984	9.08	16858	-0.231	0.059	0.066	0.110	295.430415	-30.606374	1211.96	-1378.51
5	GUIDE	973355576	9.20	16856	0.160	-0.194	0.095	0.153	294.864100	-31.349834	-1320.17	571.80
6	GUIDE	973355664	9.36	16787	0.060	0.192	0.114	0.187	295.809477	-31.112987	-701.77	-2396.40
7	GUIDE	973357344	9.08	16855	0.178	0.061	0.082	0.135	295.087173	-31.269269	-1083.44	-134.31

## 2.4 Star Slots

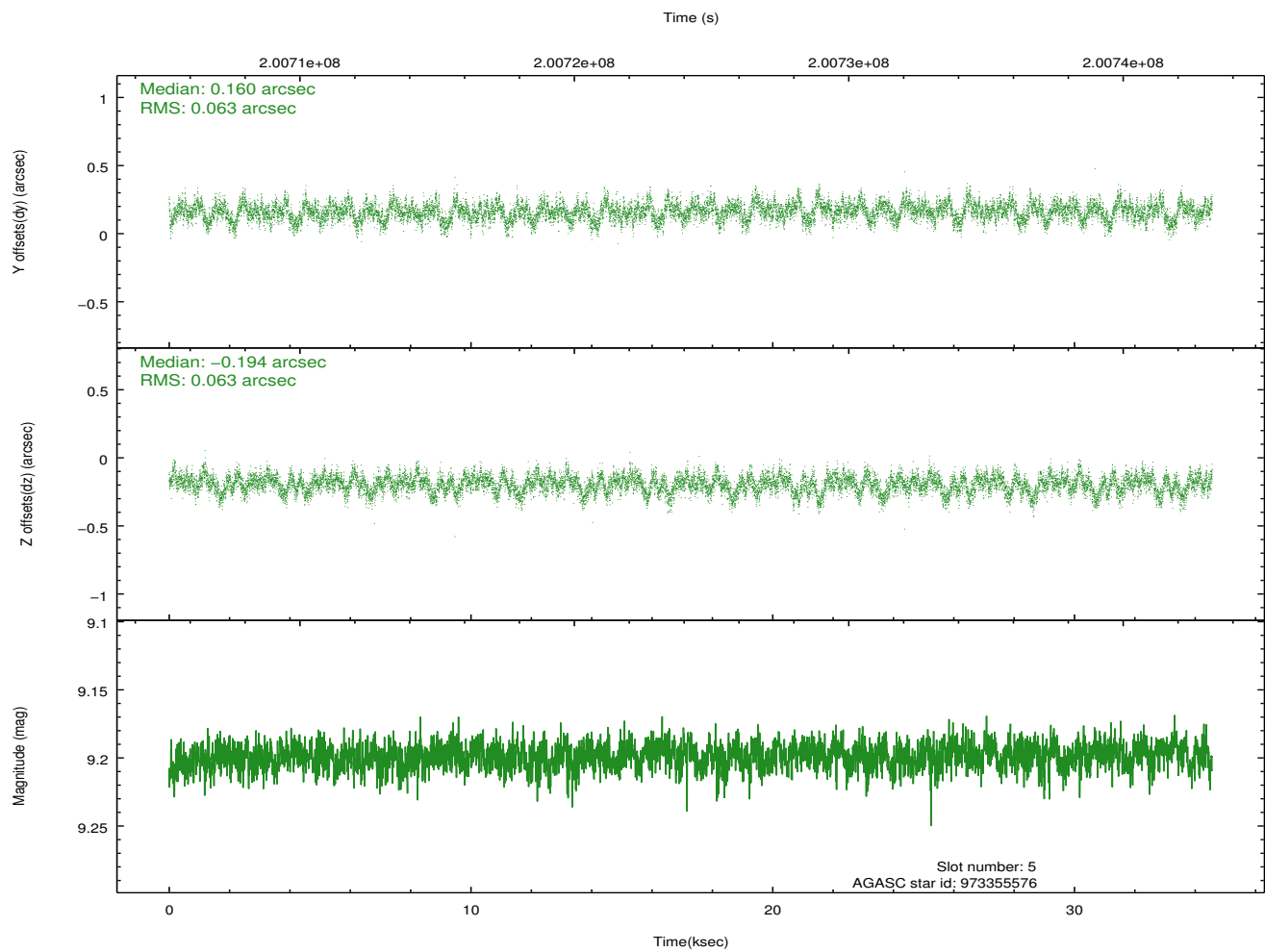
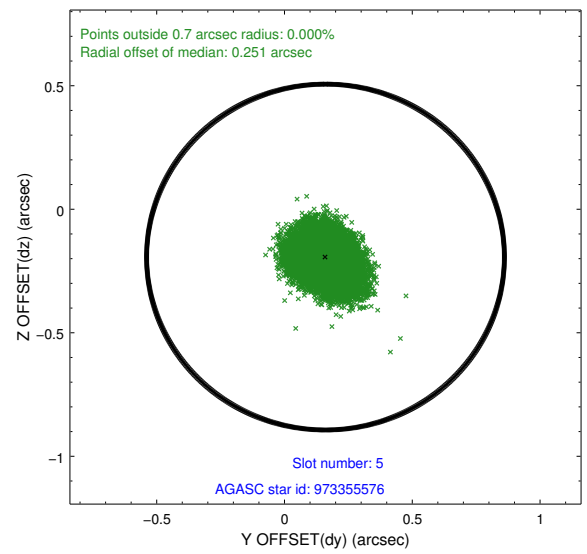
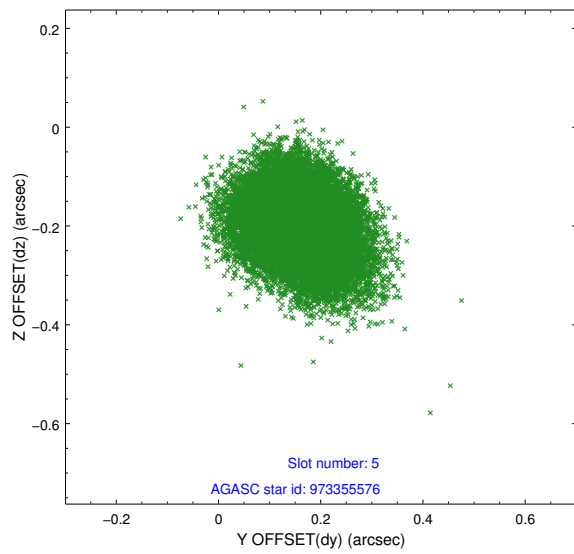
### 2.4.1 Slot 3



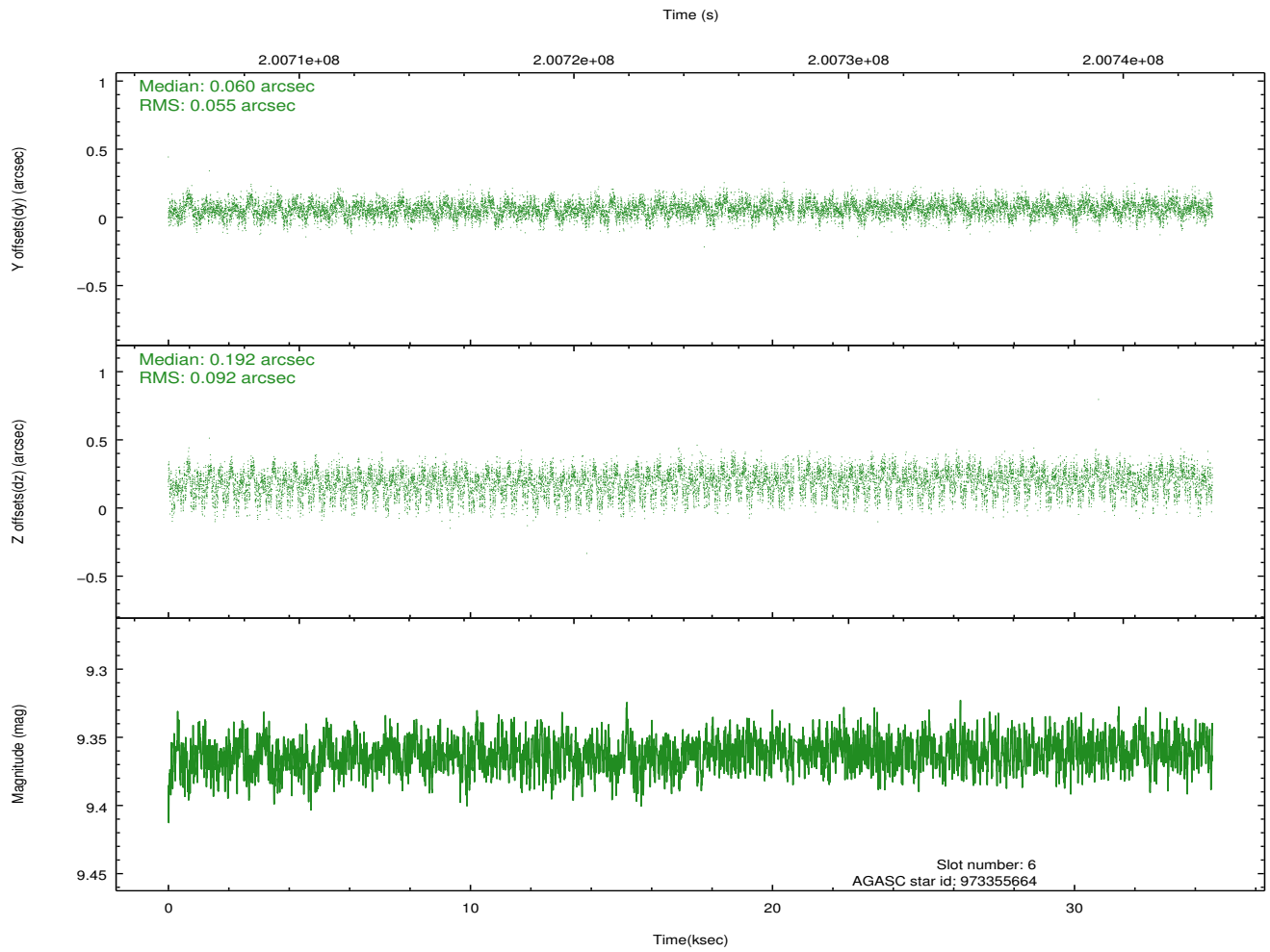
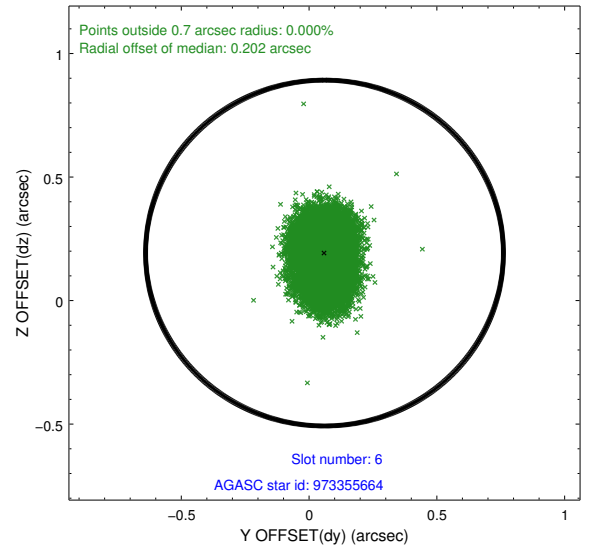
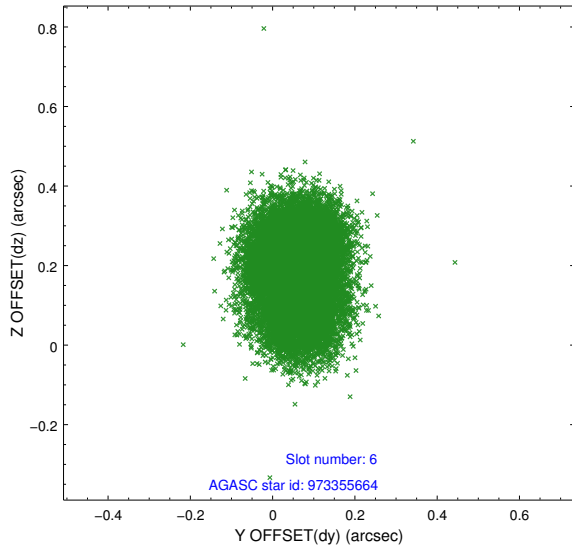
## 2.4.2 Slot 4



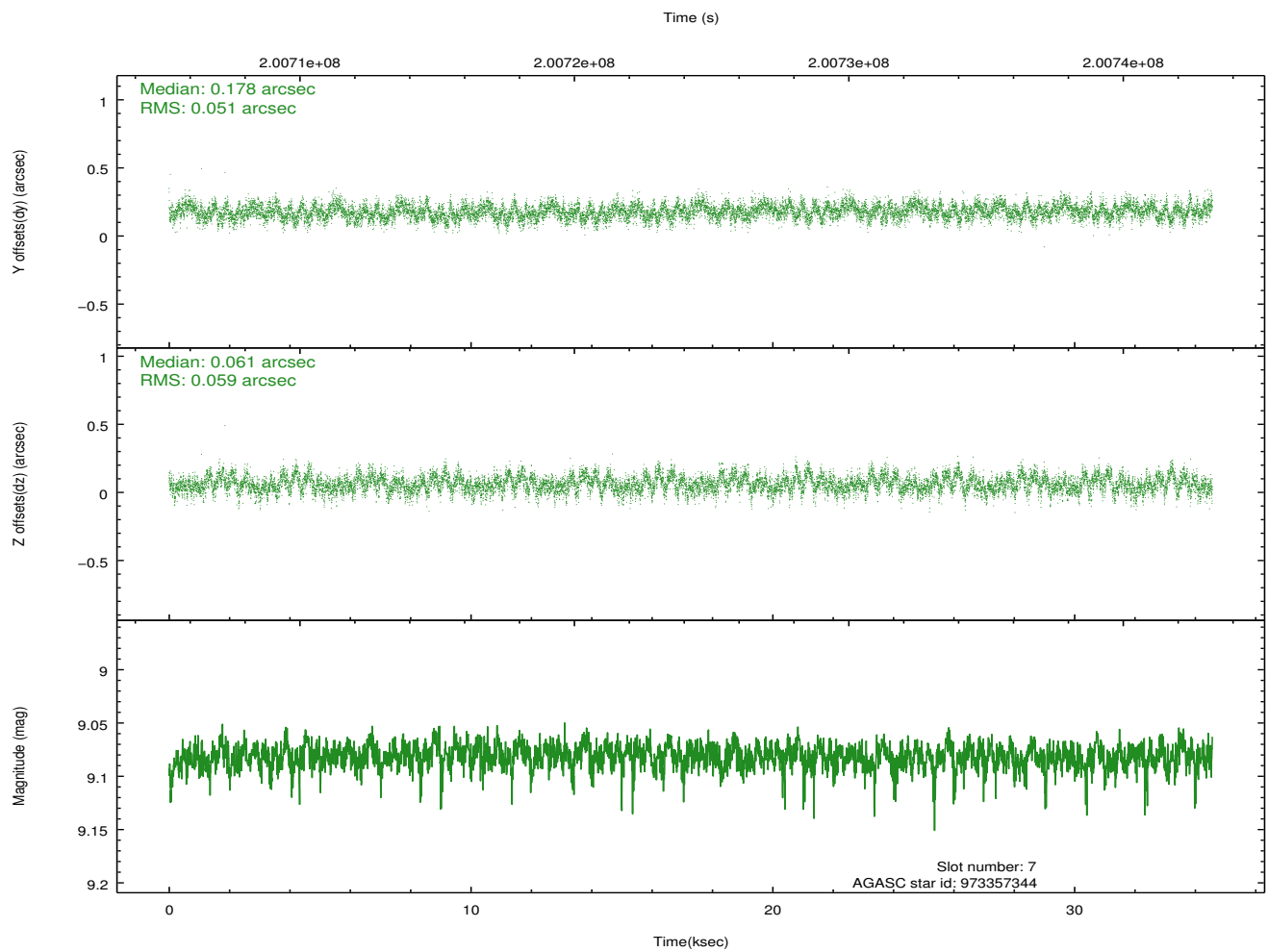
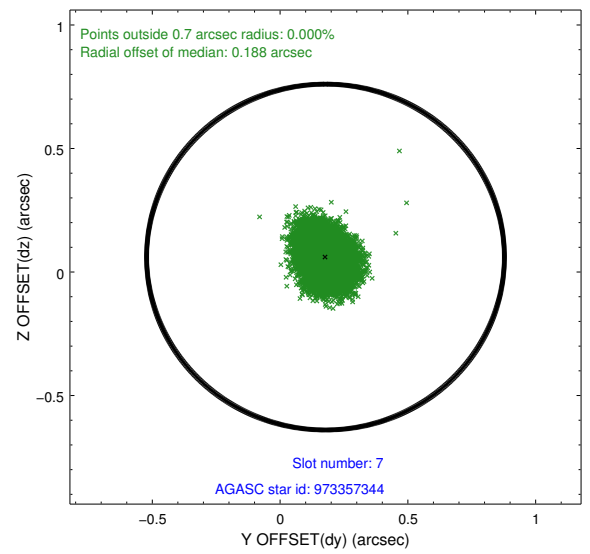
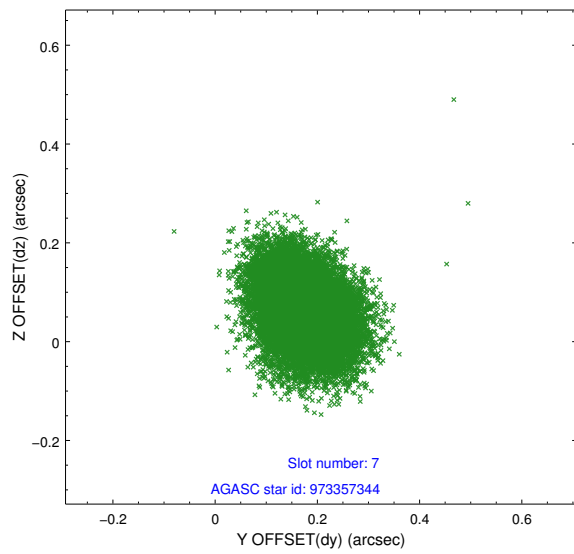
### 2.4.3 Slot 5



### 2.4.4 Slot 6

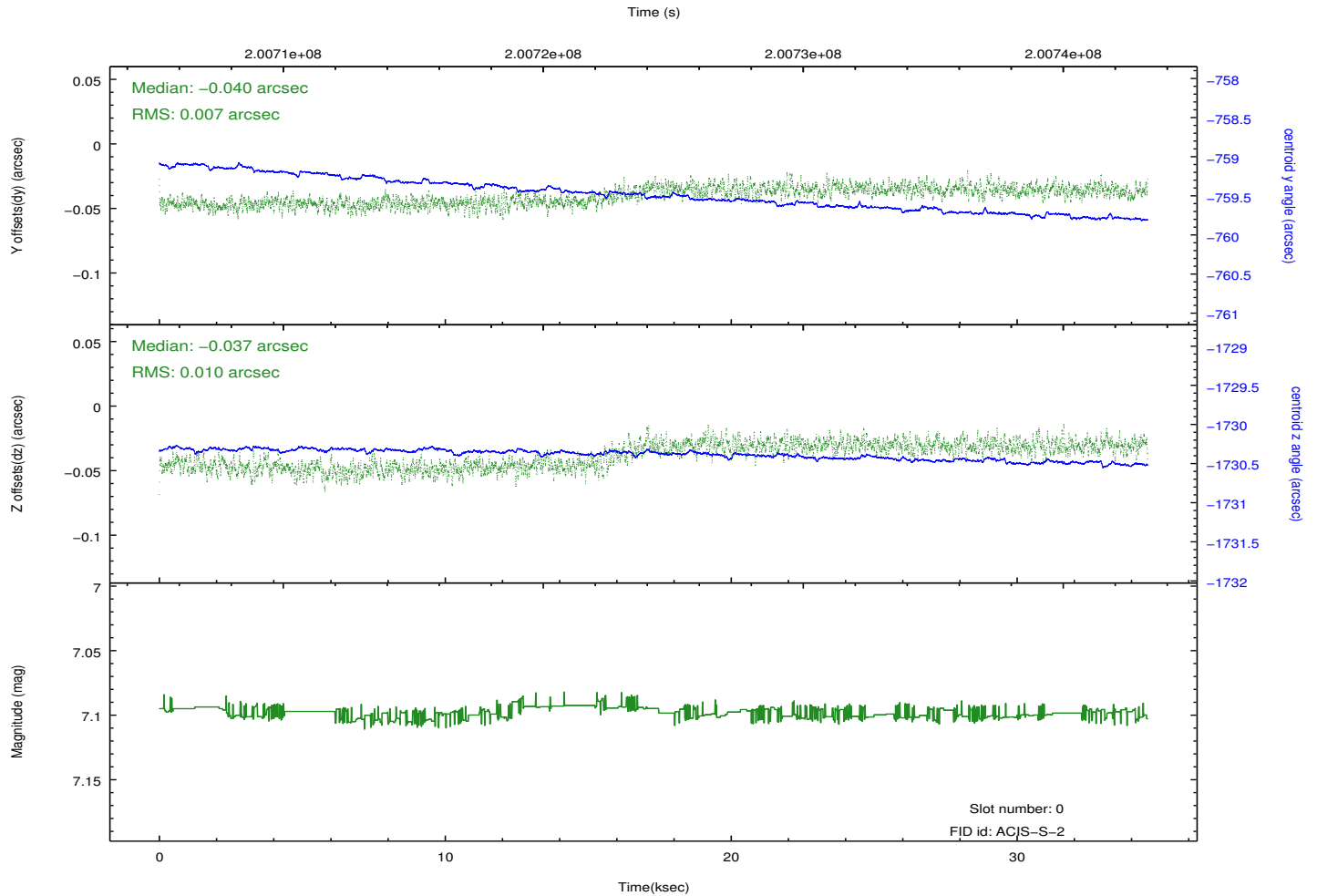
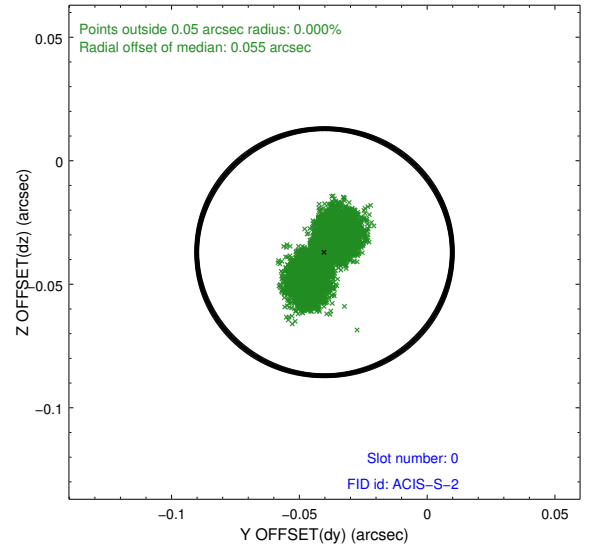
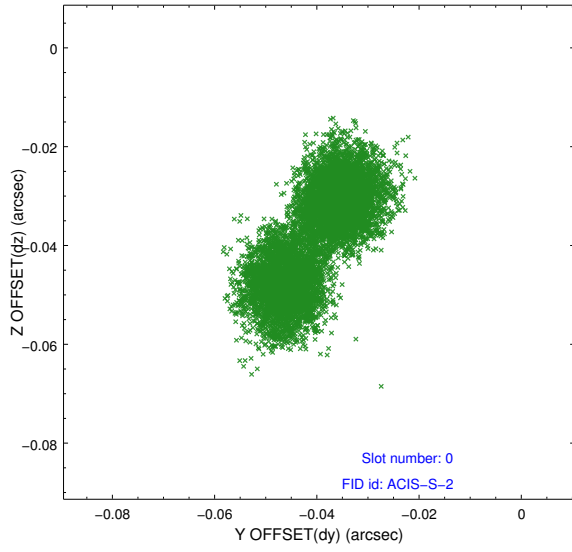


## 2.4.5 Slot 7

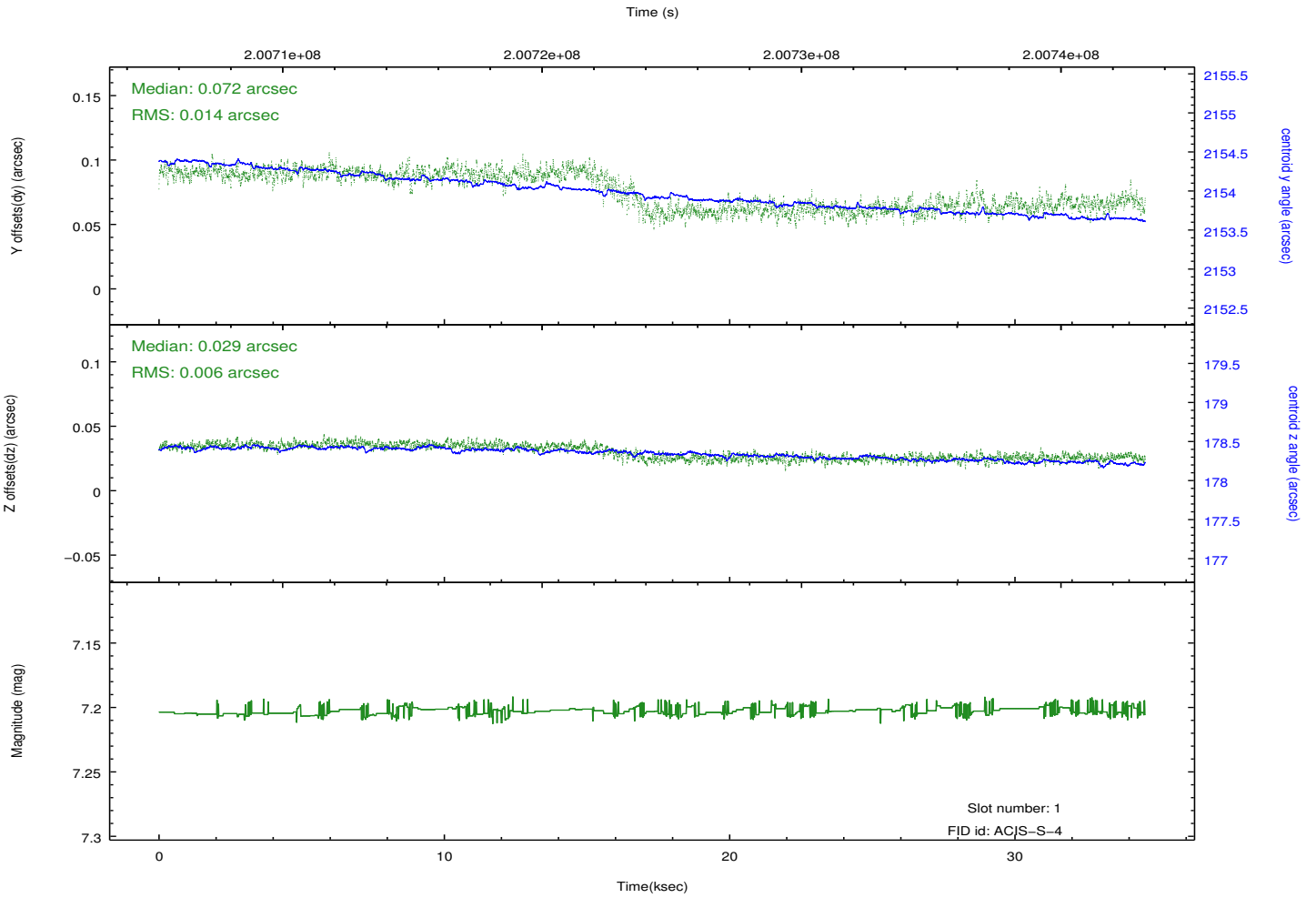
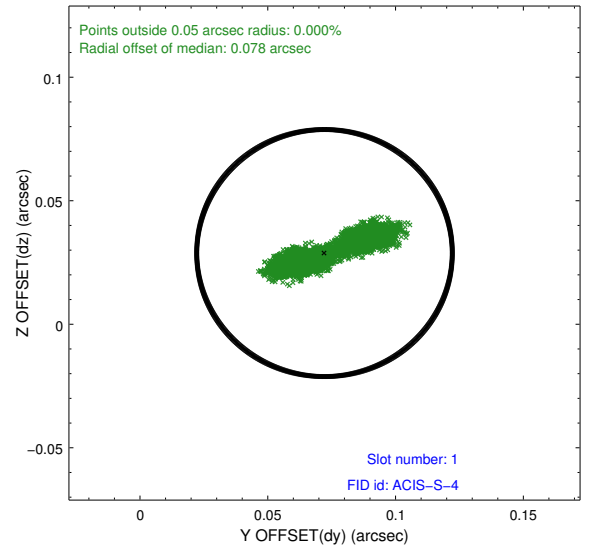
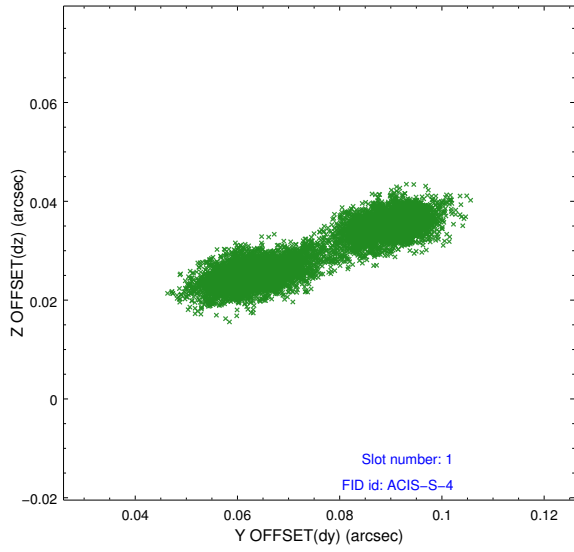


## 2.5 FID Slots

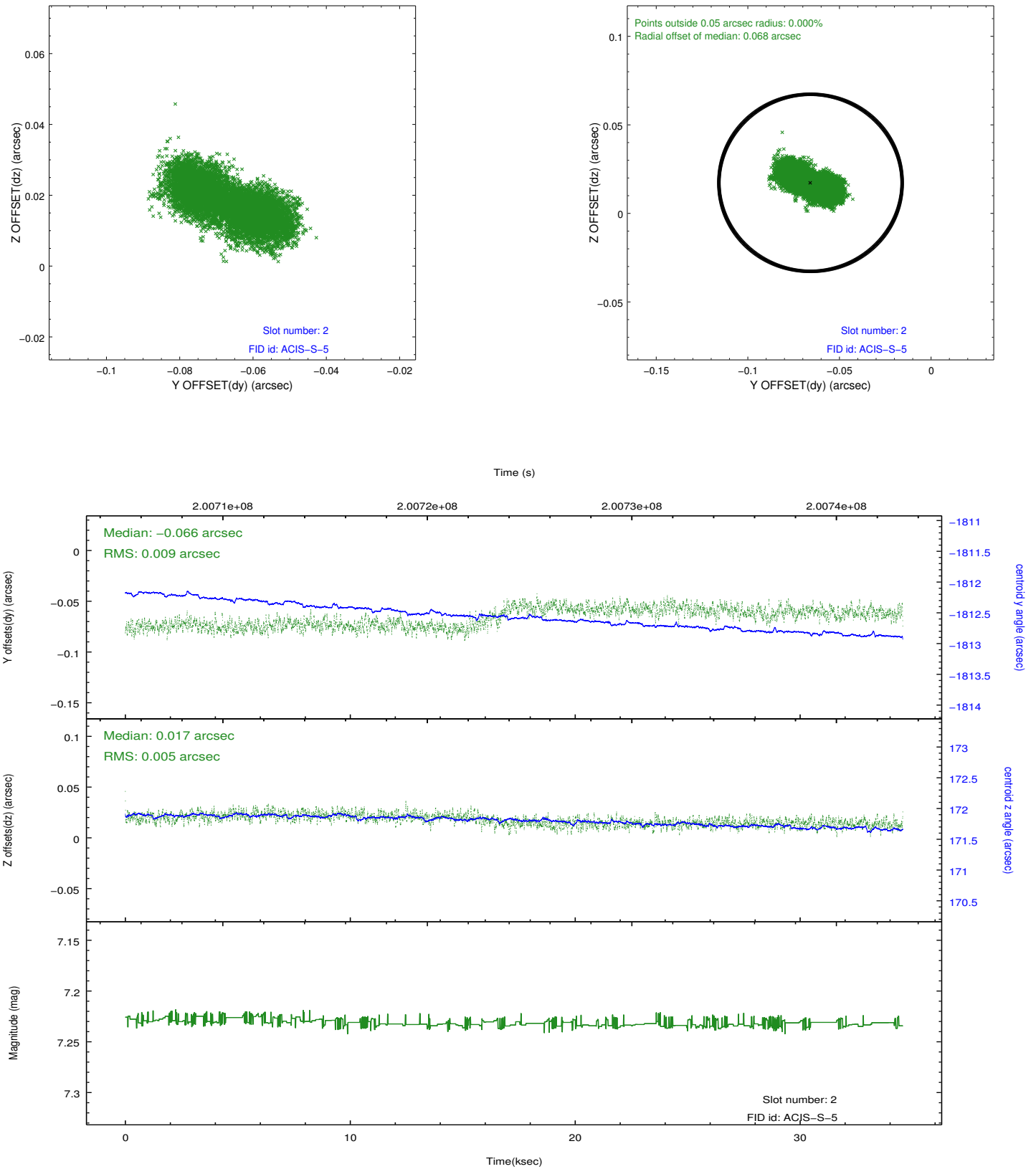
### 2.5.1 Slot 0



## 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)	2012.12.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	34.156

## A.2 Comments

Joint proposal with HST.