

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 10565 - L2 Version 2  
Chandra X-Ray Center

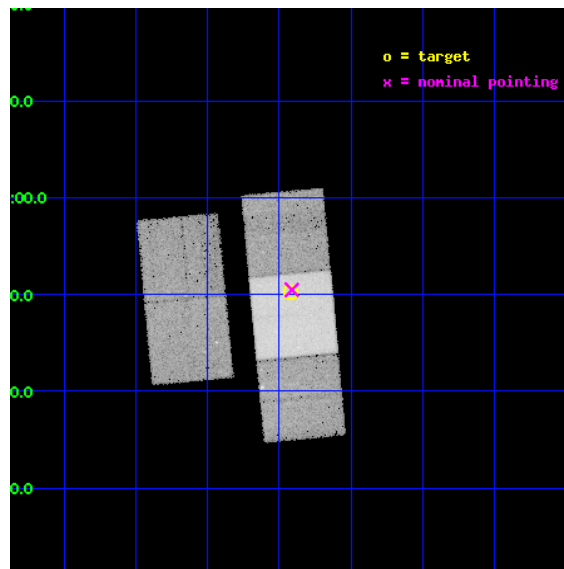
L2 Processing Date : Jun 2 2012

## 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

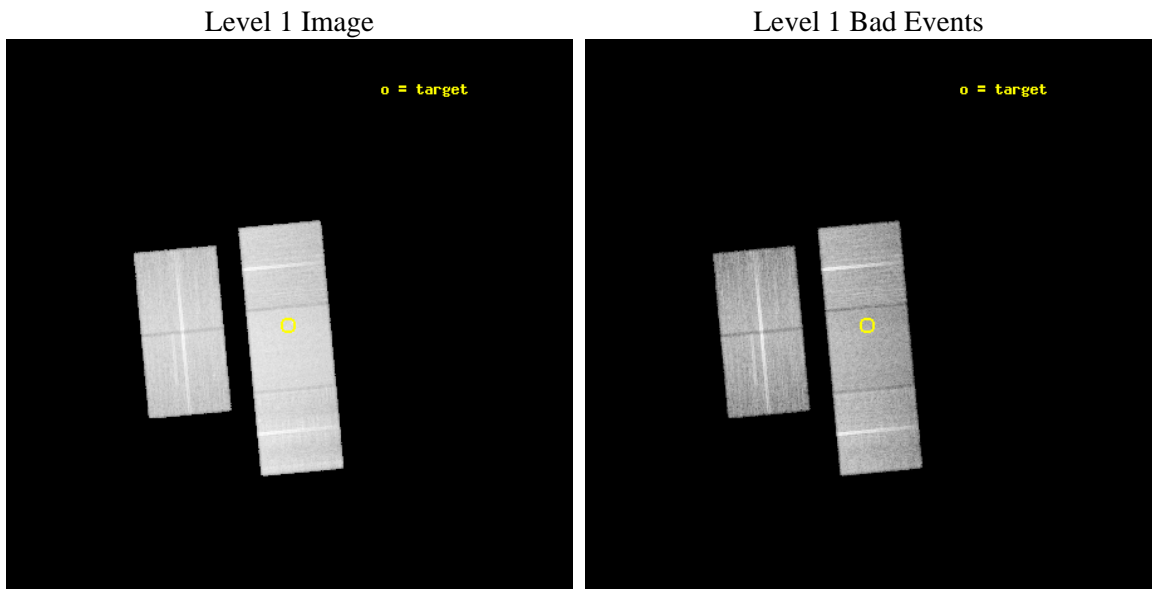
seq_num	600758	Sequence number
obs_id	10565	Observation id
title	The Most Luminous ULXs	Proposal title
observer	Douglas Swartz	Principal investigator
object	Arp 240	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	204.98	Observer's specified target RA [deg]
dec_targ	0.836944	Observer's specified target Dec [deg]
ra_nom	204.97786501408	Nominal RA [deg]
dec_nom	0.84129971228825	Nominal Dec [deg]
roll_nom	84.646352263143	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20181.00015521	Sum of GTIs [s]
livetime	19917.320531146	Livetime [s]
ontime2	20177.859164894	Sum of GTIs [s]
ontime3	20181.00015521	Sum of GTIs [s]
ontime6	20181.00015521	Sum of GTIs [s]
ontime7	20181.00015521	Sum of GTIs [s]
ontime8	20177.85915482	Sum of GTIs [s]
l2events	213796	Number of level 2 events



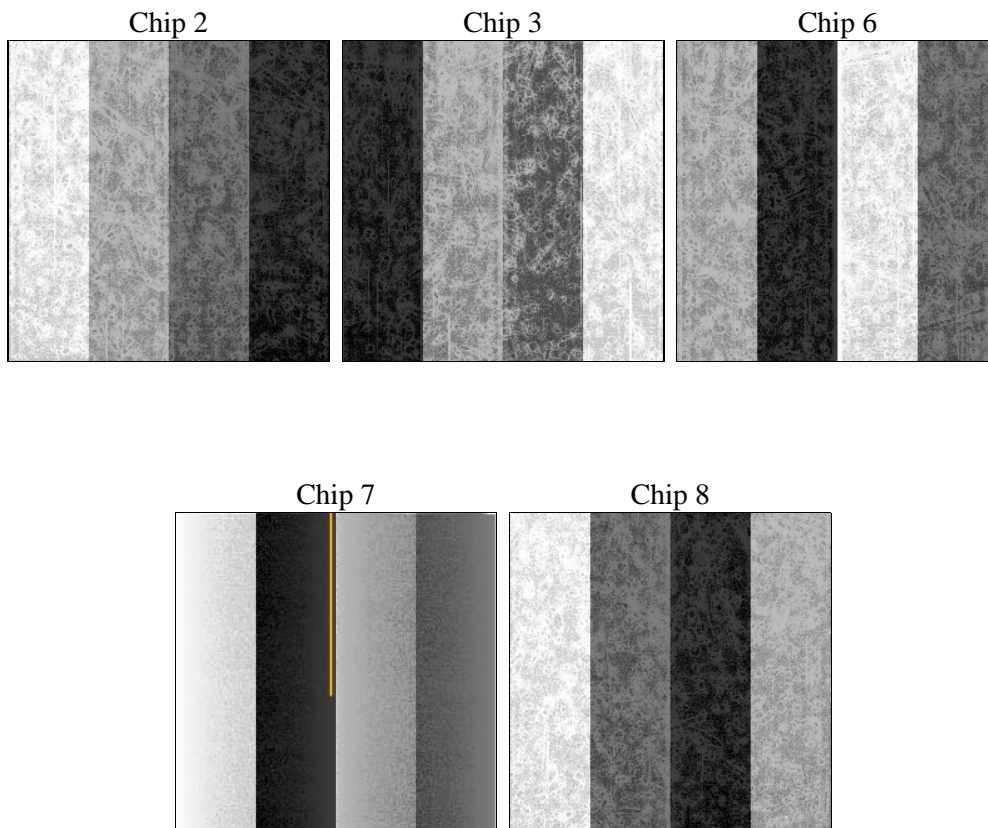
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	20181.00015521	Sum of GTIs [s]
caldbver	4.4.9	&#160	ontime2	20177.859164894	Sum of GTIs [s]
date	2012-06-02T01:46:43	Date and time of file creation	ontime3	20181.00015521	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	20181.00015521	Sum of GTIs [s]
			ontime7	20181.00015521	Sum of GTIs [s]
			ontime8	20177.85915482	Sum of GTIs [s]
			l1events	1208226	Number of level 1 events

### 2.1.4 Events

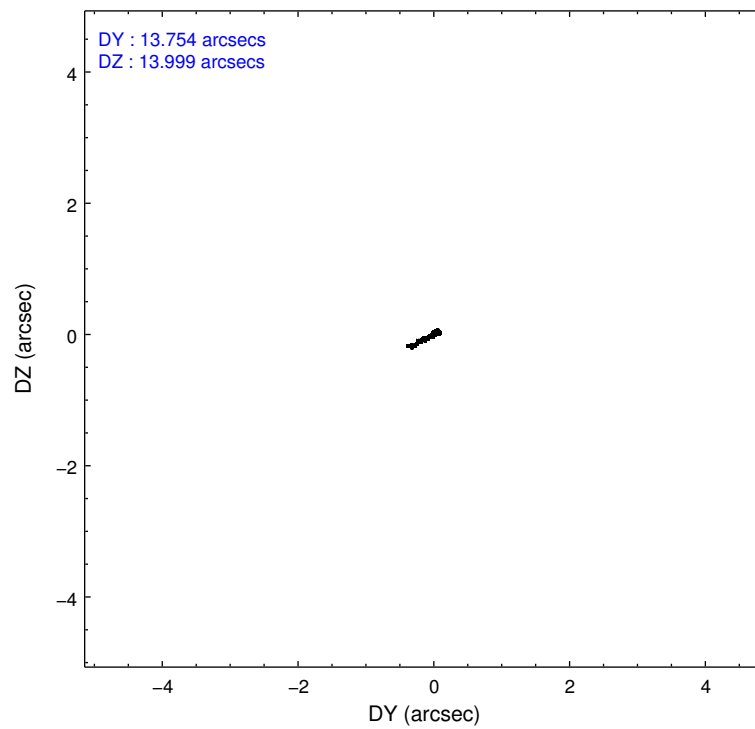
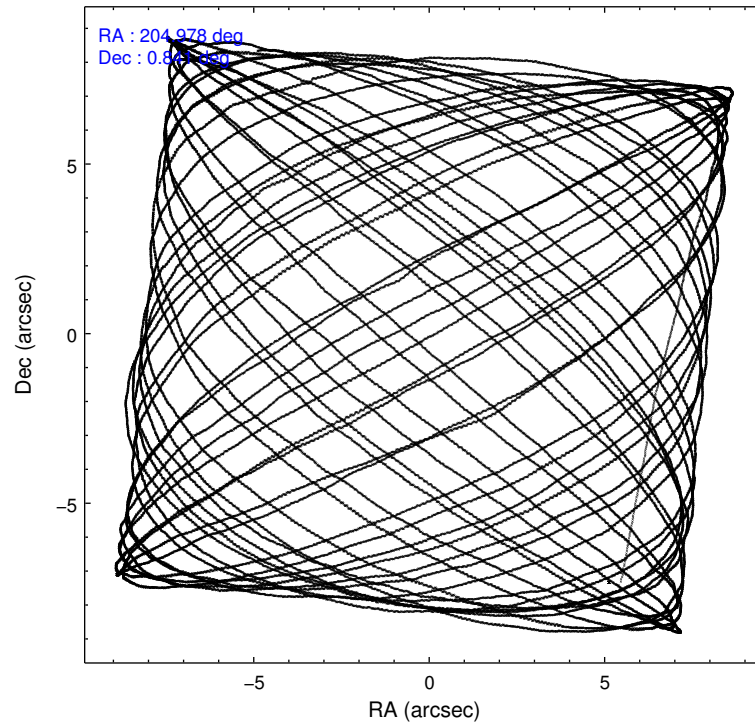
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	207750	209601	217406	298978	274491
rejected events	183342	184223	191303	175513	211365
rejected %	88%	87%	87%	58%	77%

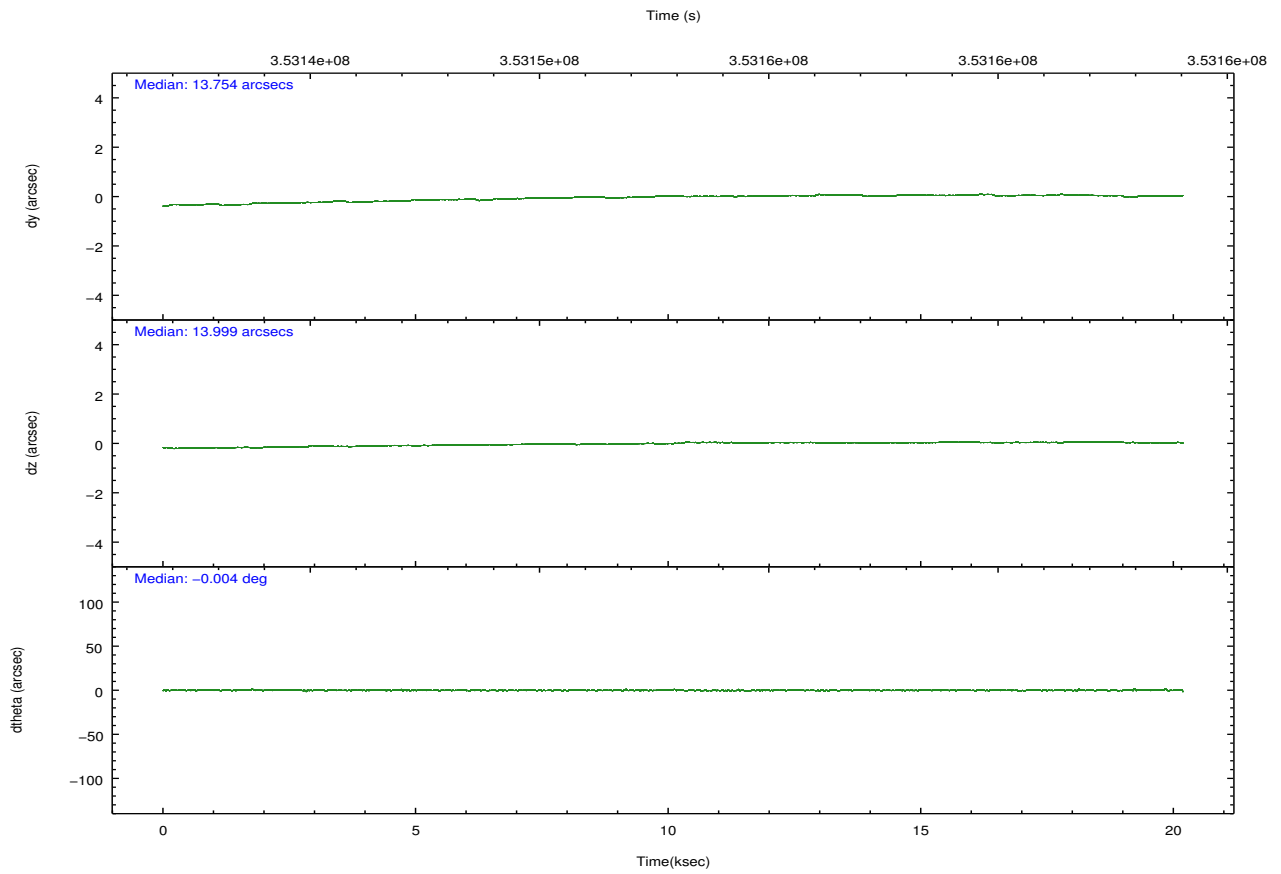
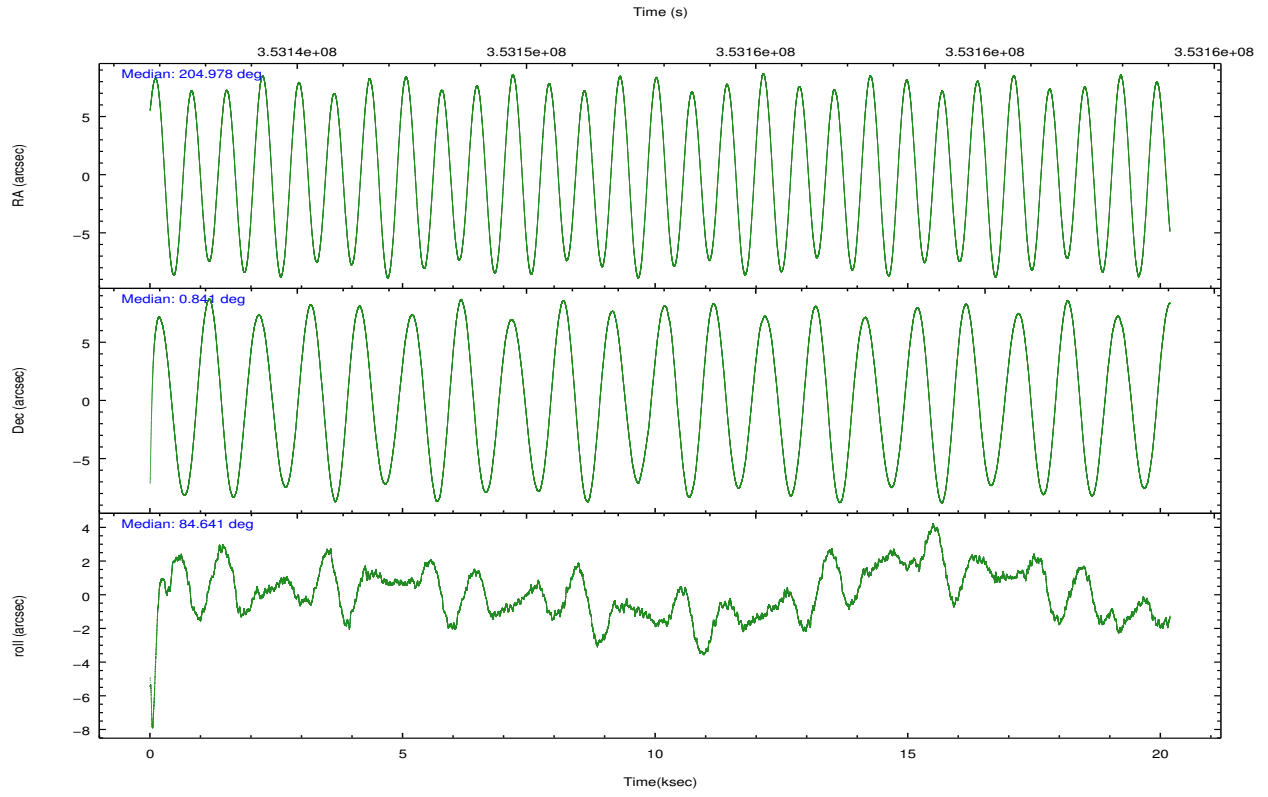
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	10429	11124	10069	10598	20151
	5%	5%	4%	3%	7%
grade 1 events	143	150	122	311	220
	0%	0%	0%	0%	0%
grade 2 events	5414	5116	5895	25620	14575
	2%	2%	2%	8%	5%
grade 3 events	2212	2349	2411	10418	6419
	1%	1%	1%	3%	2%
grade 4 events	2302	2384	2415	10358	5954
	1%	1%	1%	3%	2%
grade 5 events	8620	10114	10358	27467	13722
	4%	4%	4%	9%	4%
grade 6 events	4205	4556	5460	67216	16377
	2%	2%	2%	22%	5%
grade 7 events	174425	173808	180676	146990	197073
	83%	82%	83%	49%	71%

## 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	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	204.989591	204.9778650140794	CCD I2 on	O1	Y
[deg] Pointing Dec	0.816602	0.841299712288249	CCD I3 on	O2	Y
[deg] Pointing Roll	84.489554	84.64635226314289	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)	353143006.184000	353141944.90687	CCD S5 on	N	N
Observation start date	2009-03-11T07:15:40	2009-03-11T06:59:04	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	353163006.184000	353163717.44545	On-chip summing requested	N	N
Observation end date	2009-03-11T12:49:00	2009-03-11T13:01:57	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



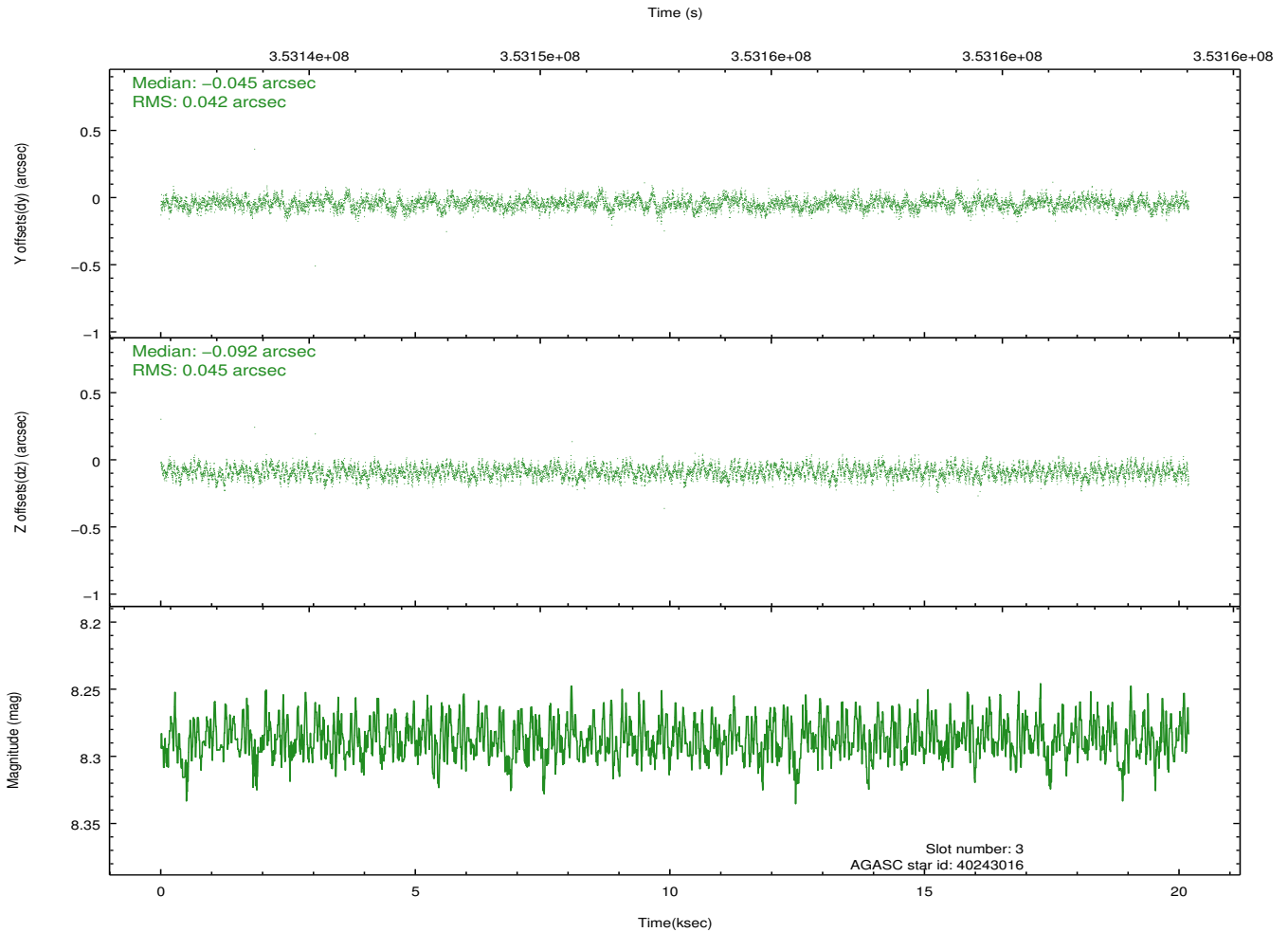
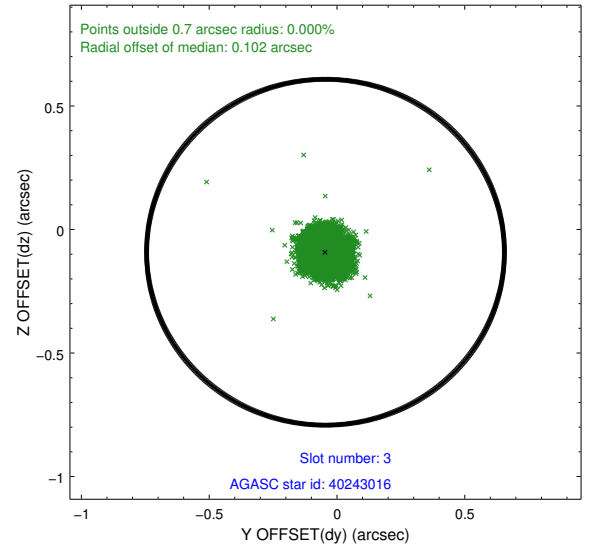
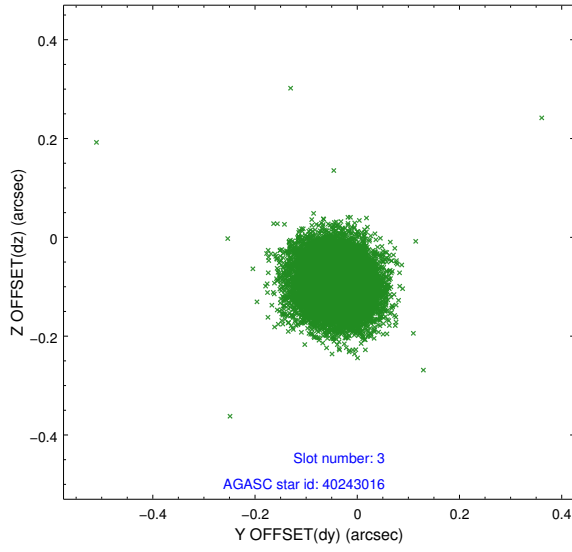


### Slot Statistics

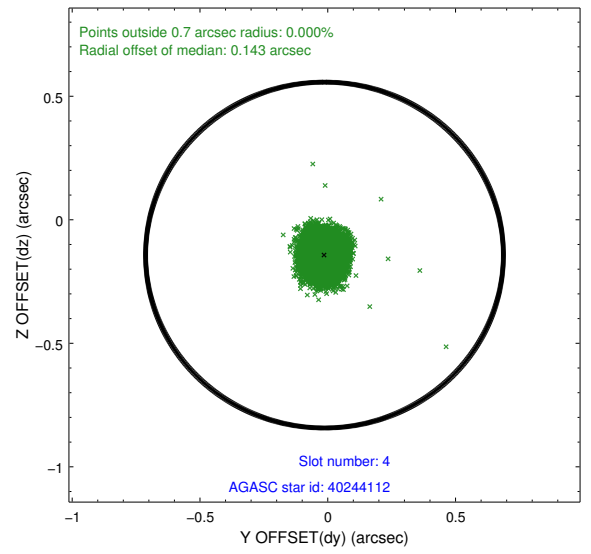
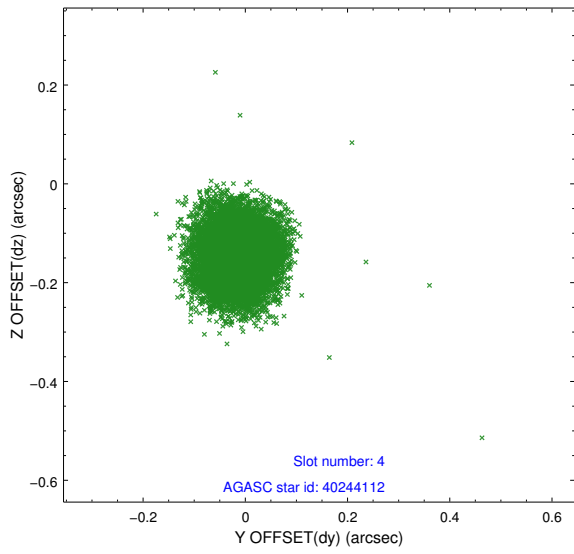
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.95	4923	-0.050	-0.054	0.010	0.017	0.000000	0.000000	-766.67	-1735.33
1	FID	ACIS-S-4	7.03	4924	0.194	0.039	0.011	0.024	0.000000	0.000000	2146.76	173.07
2	FID	ACIS-S-5	7.07	4923	-0.174	0.025	0.007	0.012	0.000000	0.000000	-1819.40	166.92
3	GUIDE	40243016	8.29	9839	-0.045	-0.092	0.066	0.103	204.630077	1.254935	1446.58	1440.05
4	GUIDE	40244112	8.08	9844	-0.013	-0.143	0.067	0.108	204.893020	1.088369	940.24	440.97
5	GUIDE	40245120	9.04	9843	-0.027	0.039	0.077	0.129	204.638974	1.471112	2224.24	1482.99
6	GUIDE	40248608	9.13	9834	0.146	-0.105	0.099	0.153	204.588567	0.476253	-1357.63	1319.94
7	GUIDE	40375320	7.03	9844	-0.064	0.301	0.054	0.088	205.589158	0.997036	854.11	-2085.19

## 2.4 Star Slots

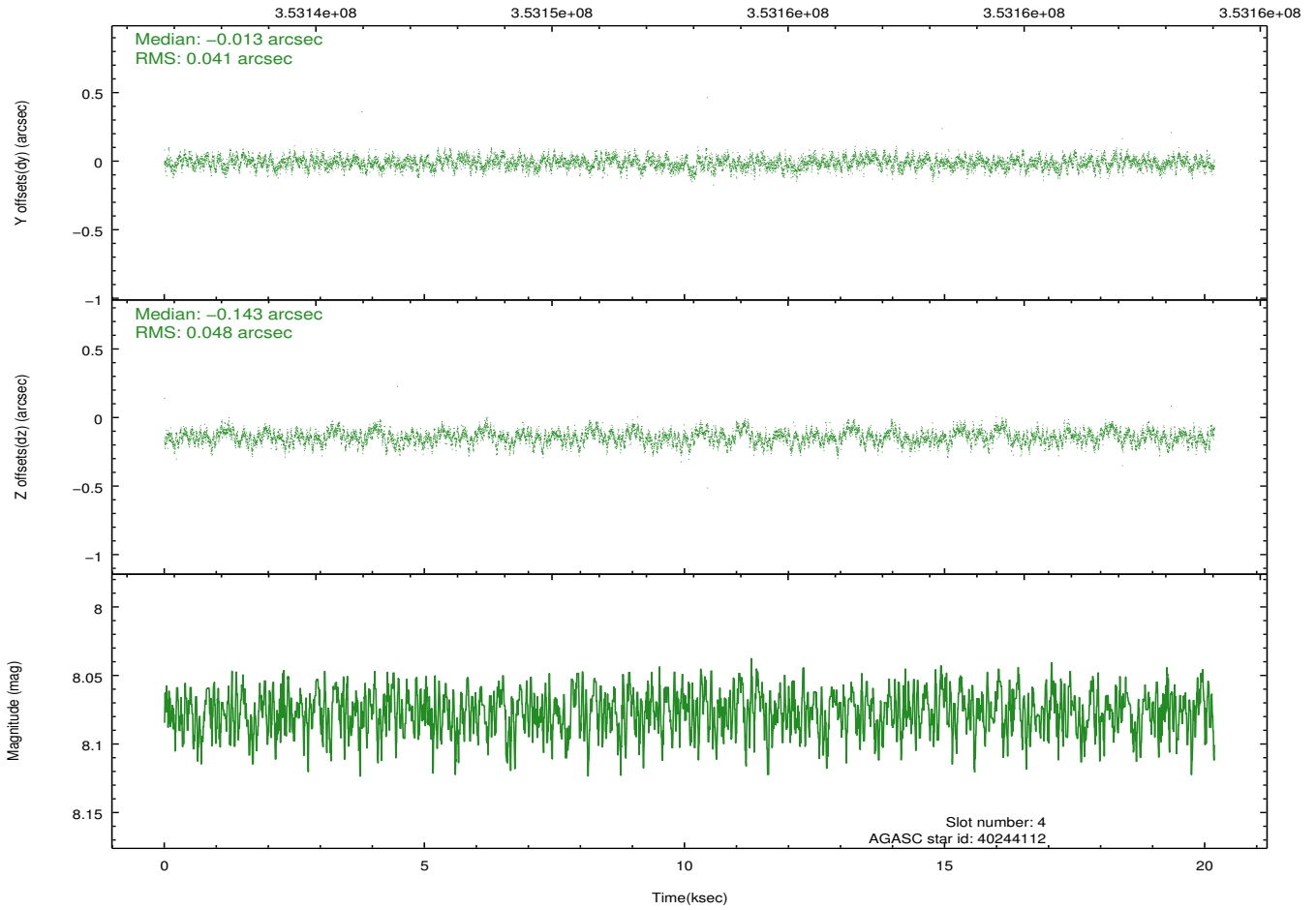
### 2.4.1 Slot 3



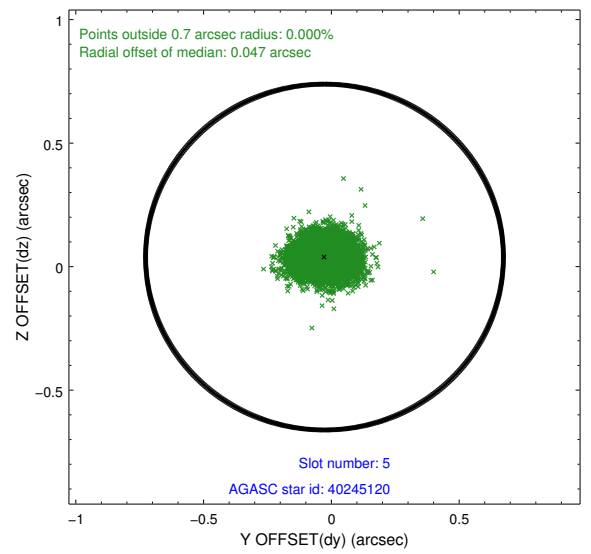
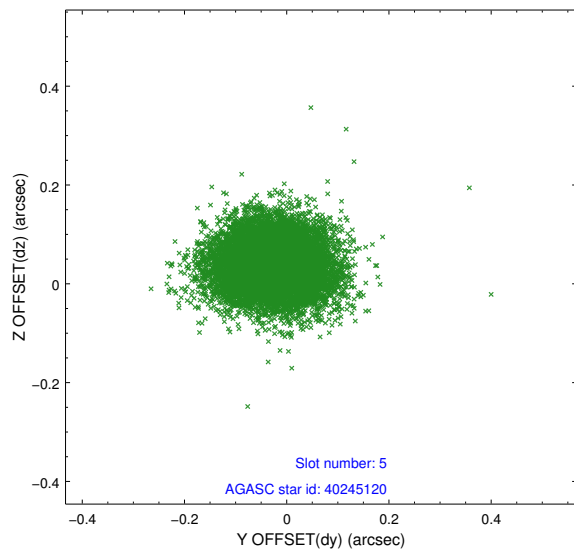
## 2.4.2 Slot 4



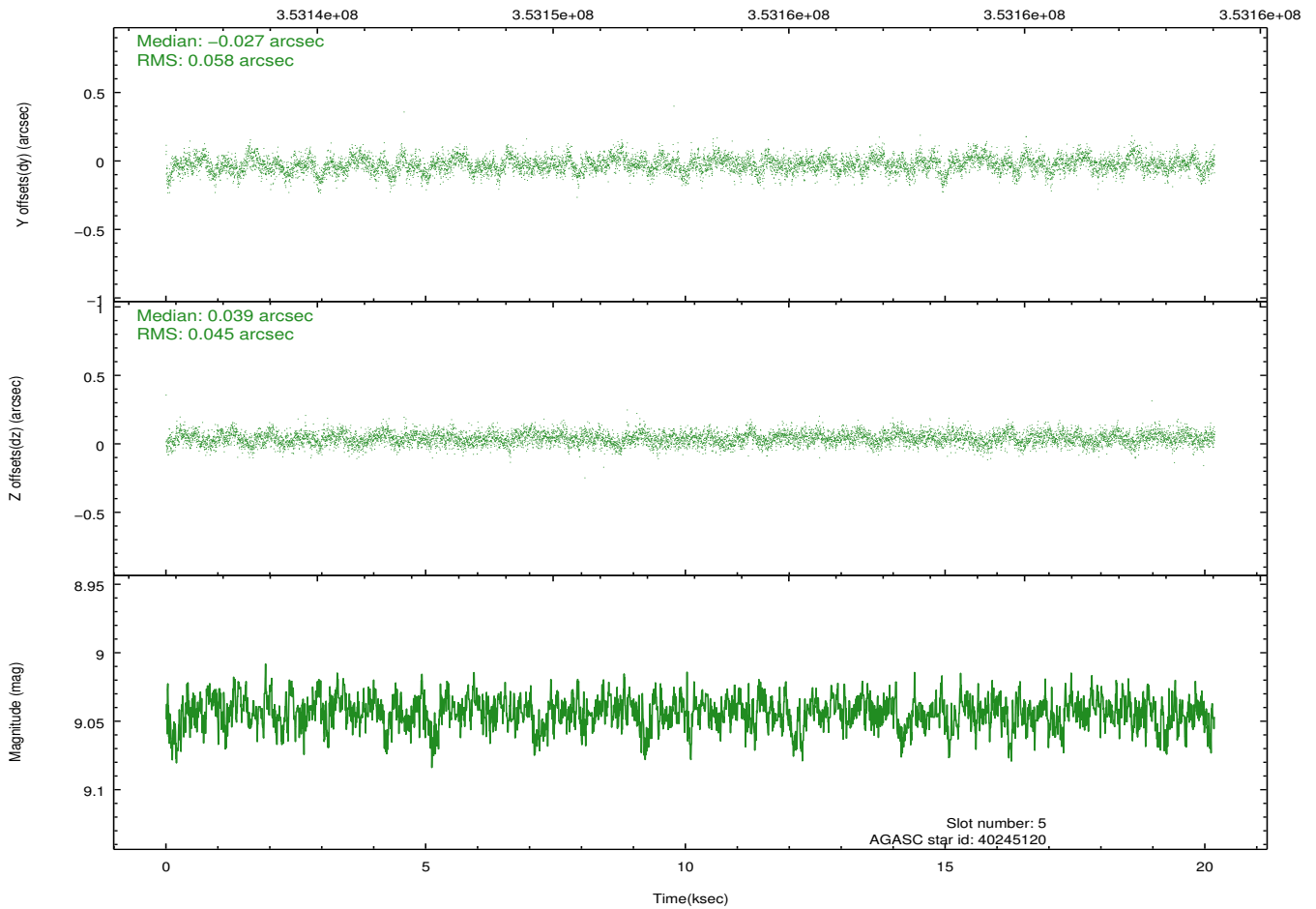
Time (s)



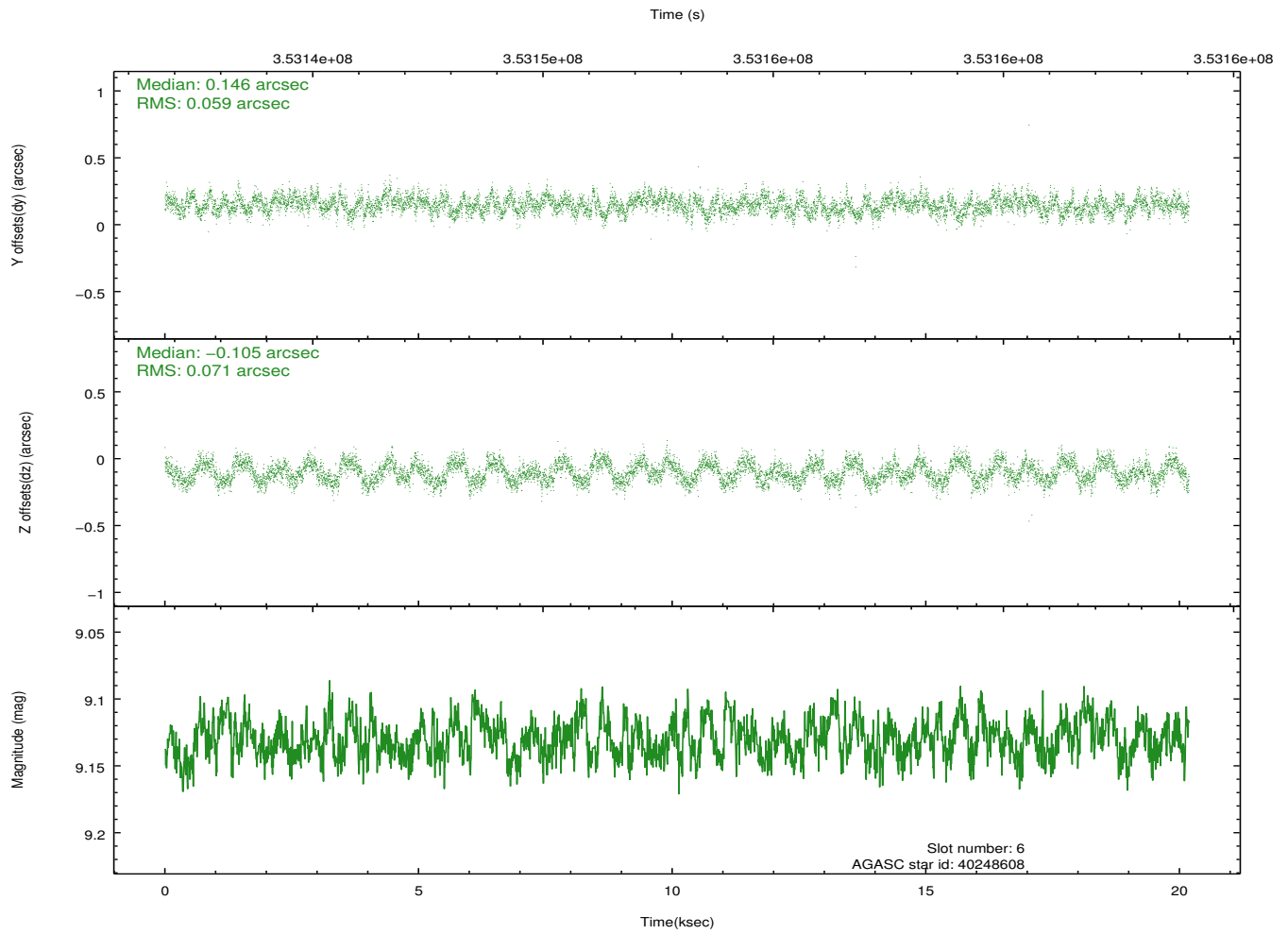
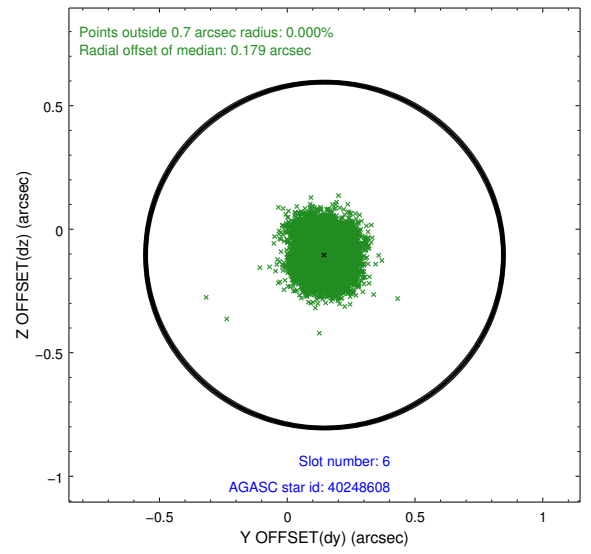
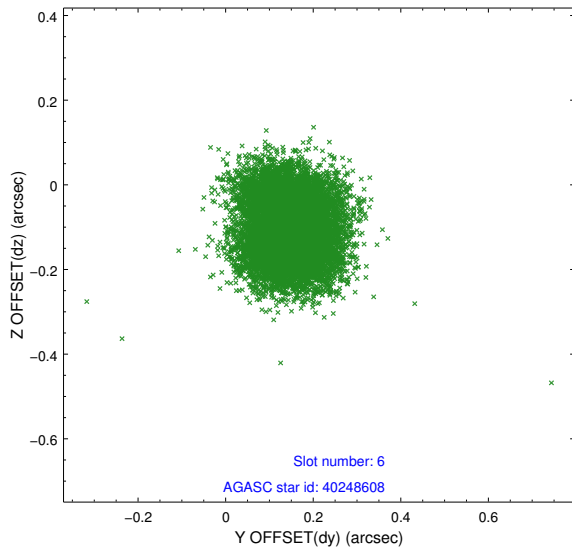
### 2.4.3 Slot 5



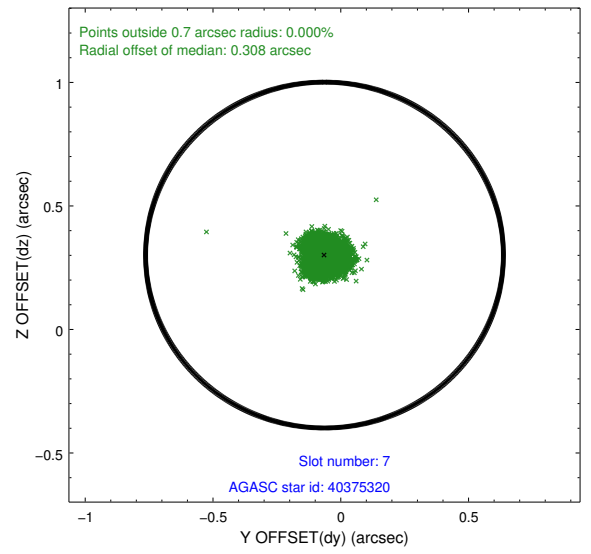
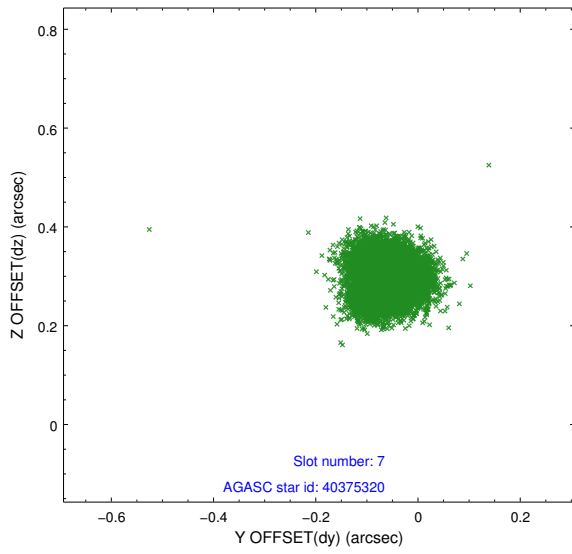
Time (s)



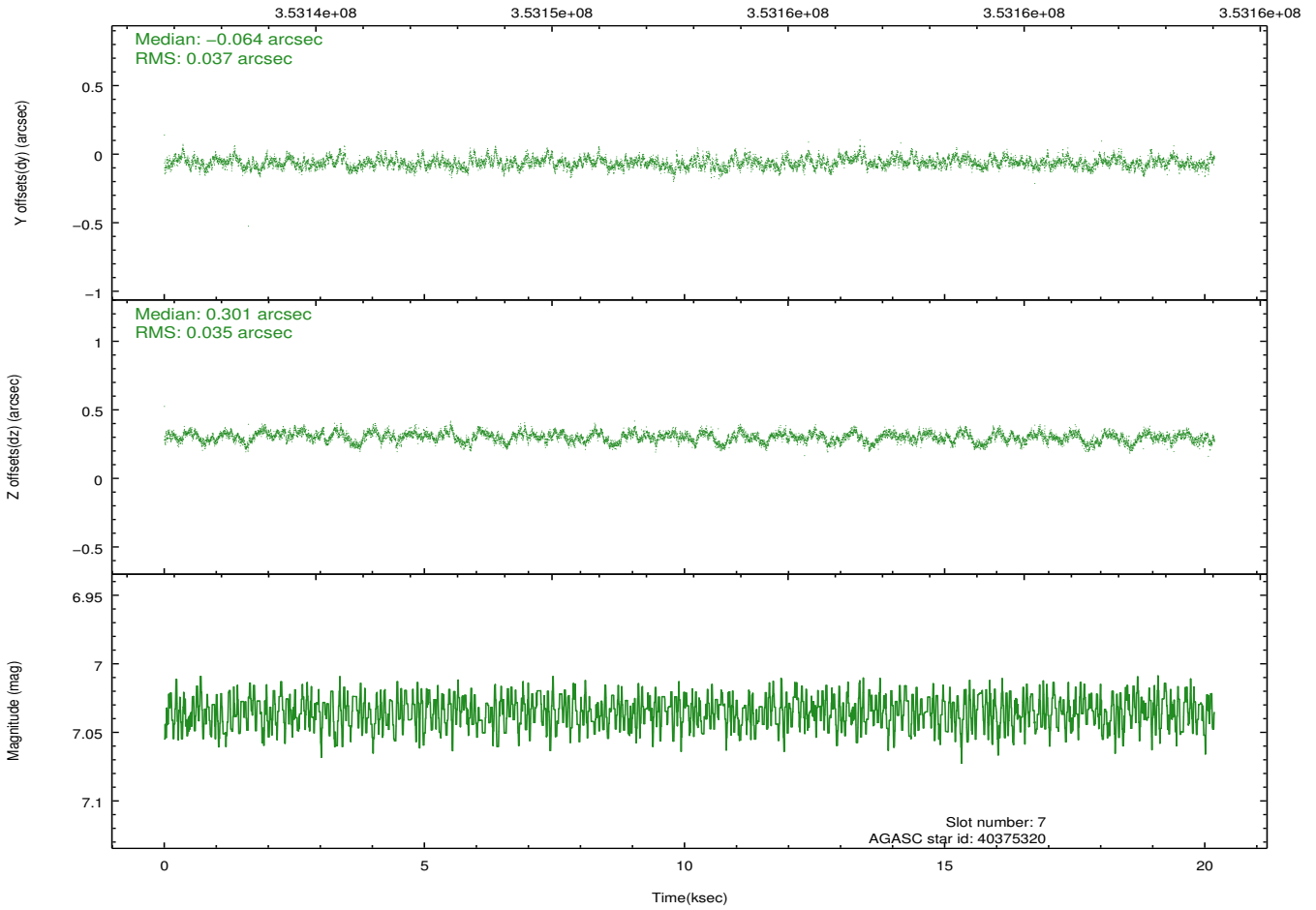
## 2.4.4 Slot 6



## 2.4.5 Slot 7

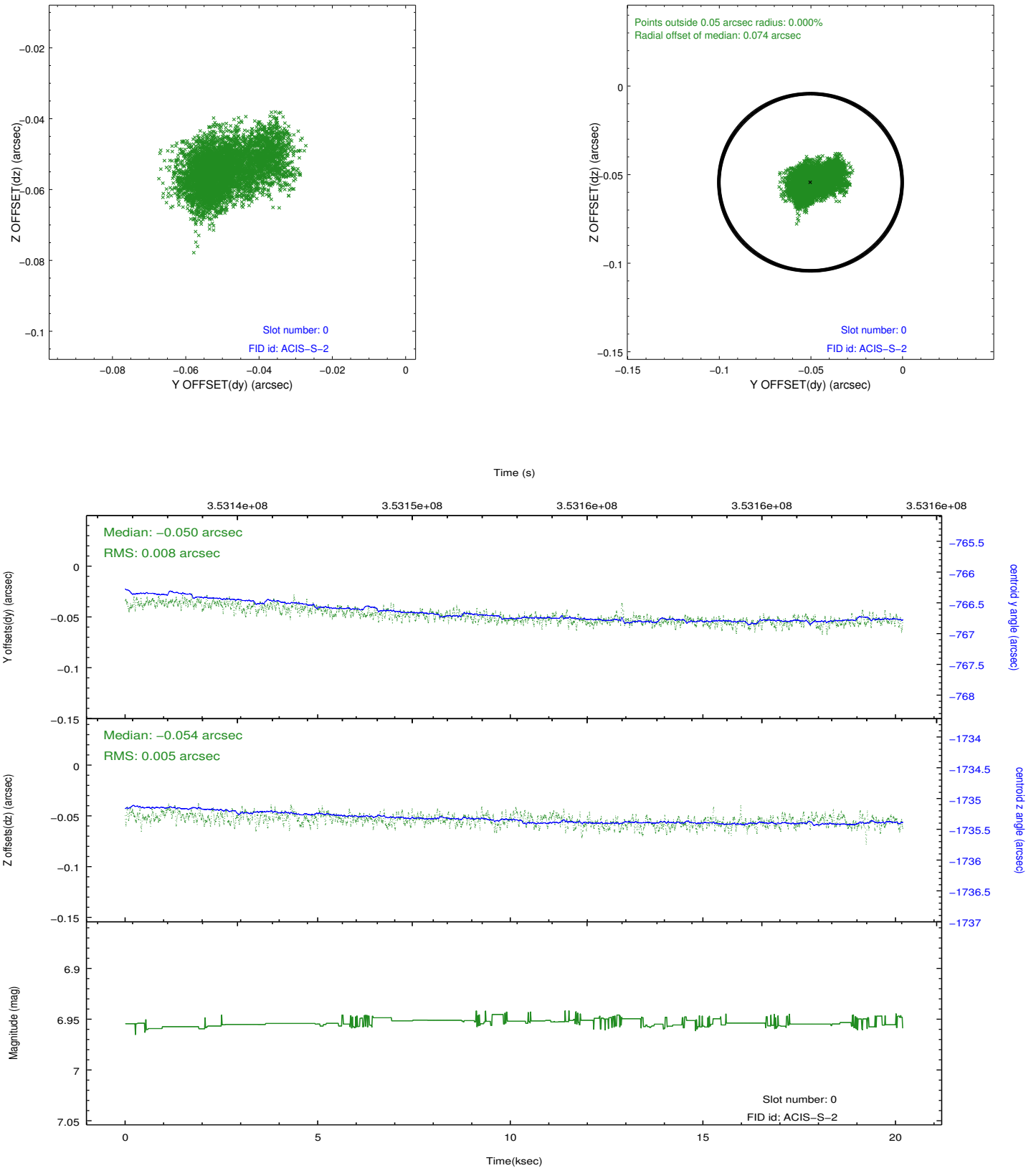


Time (s)

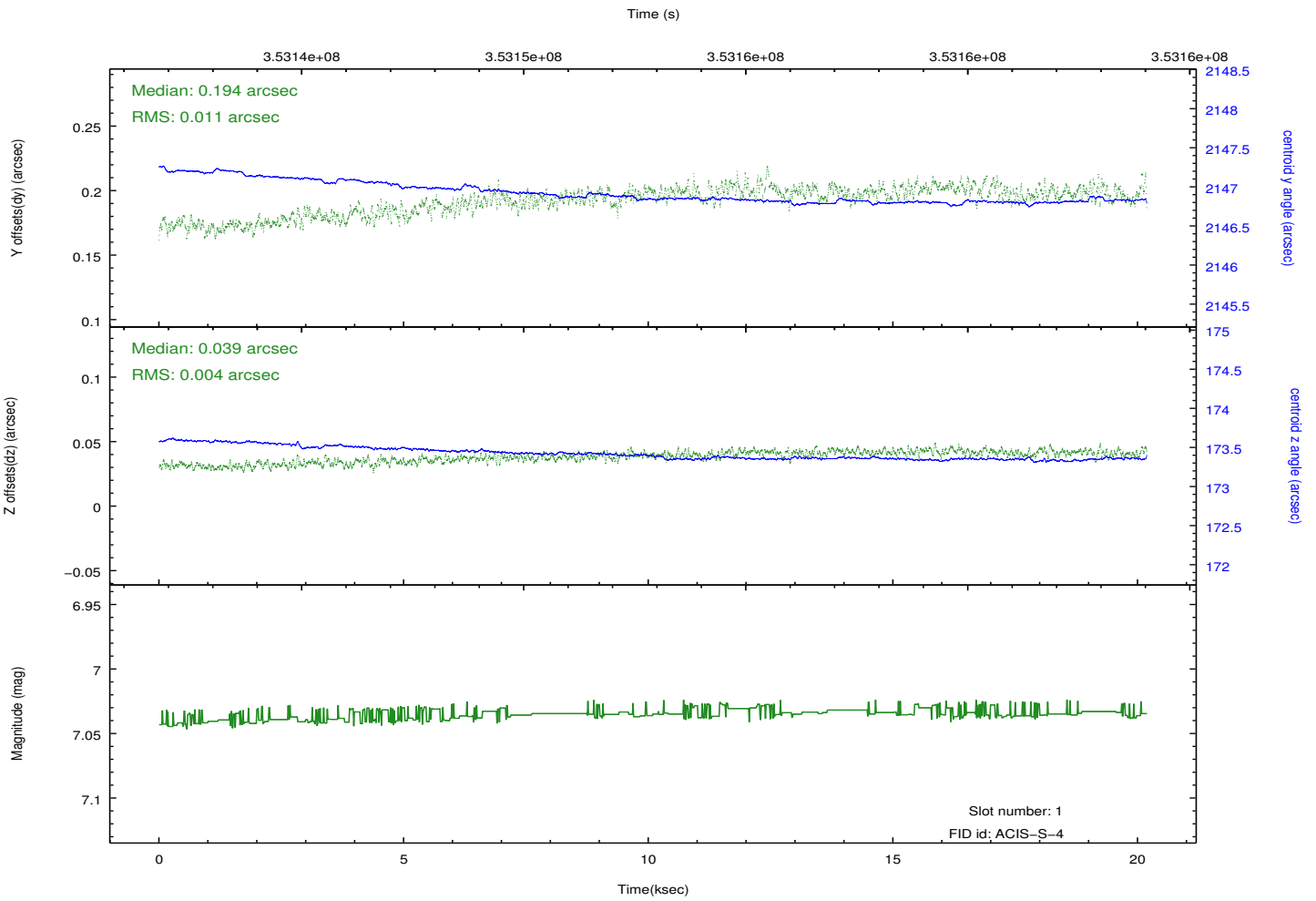
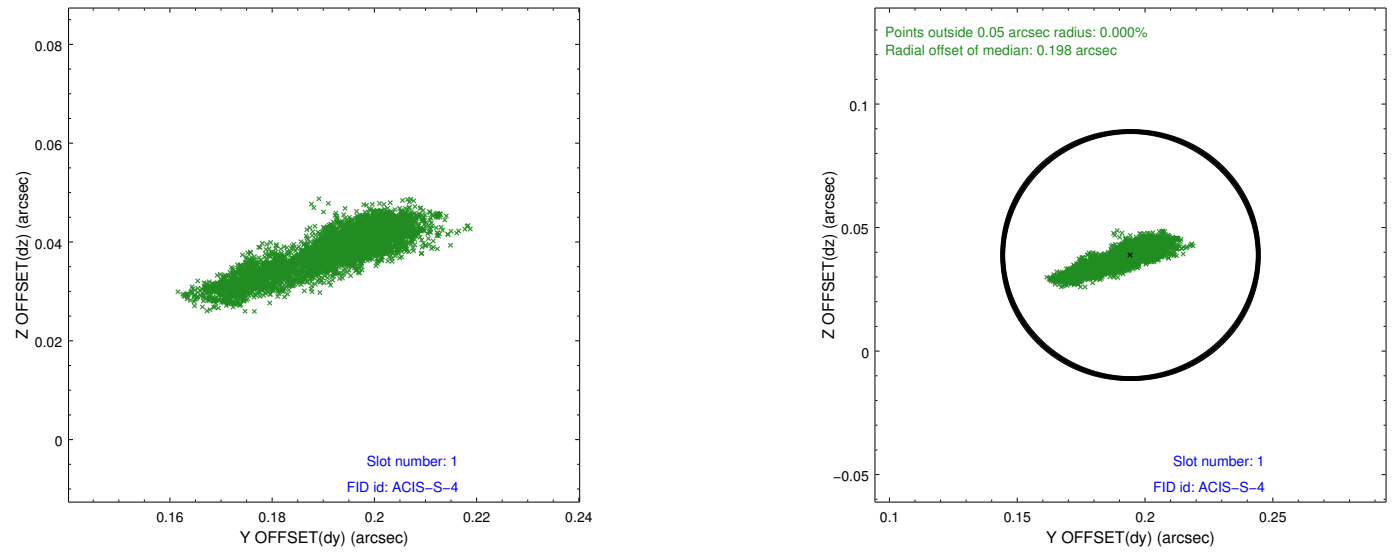


## 2.5 FID Slots

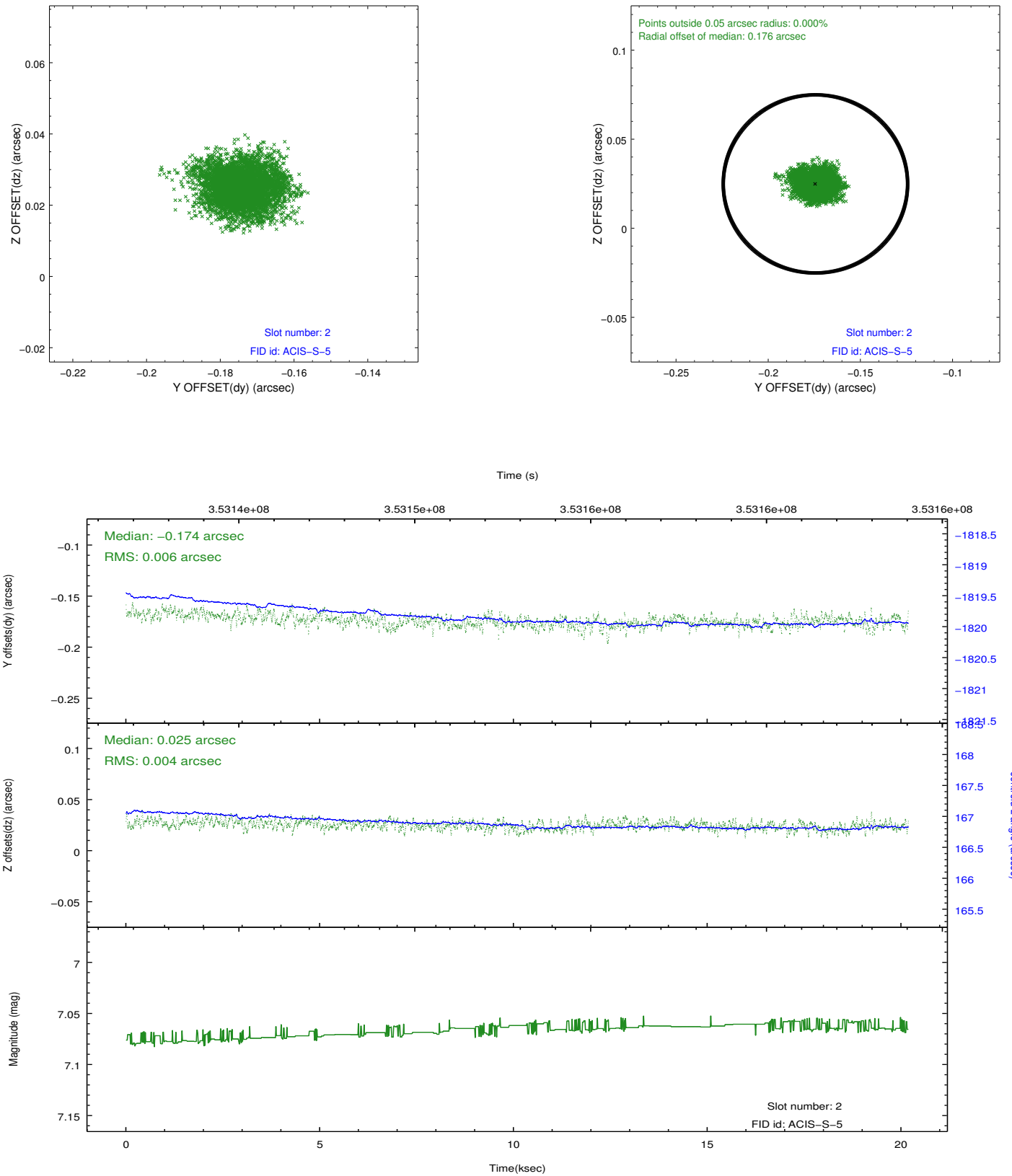
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.06.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.1810001

## A.2 Comments