

# V&V Reference Report

## L2 ASCDS Version : 10.6

Observation 19546 - L2 Version 1  
Chandra X-Ray Center

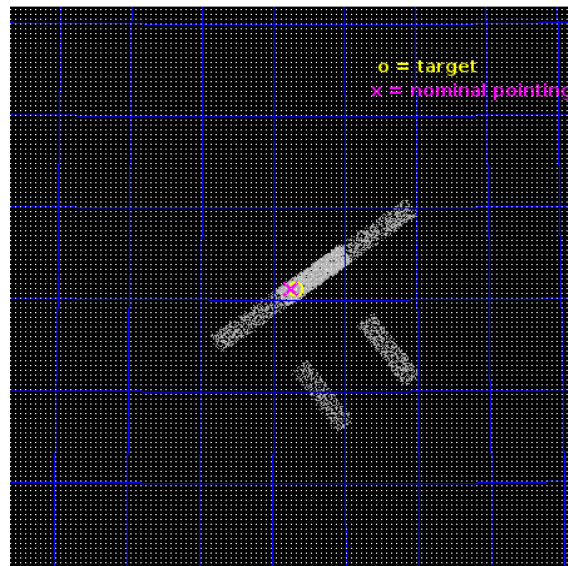
L2 Processing Date : Aug 12 2017

## 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

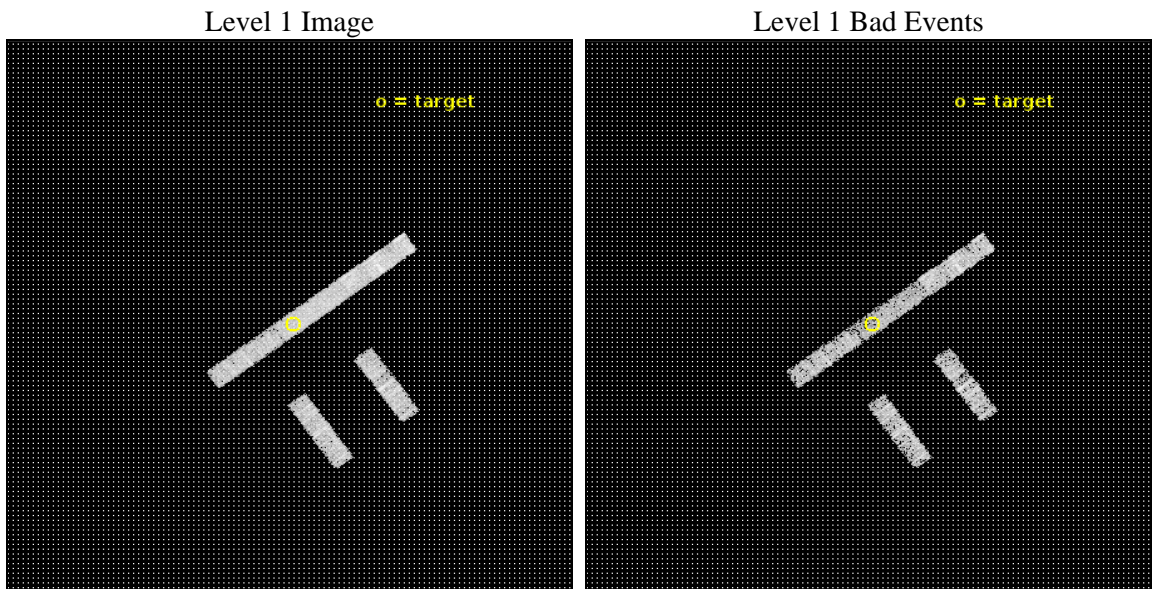
seq_num	703394	Sequence number
obs_id	19546	Observation id
title	Investigating X-ray Bias in Low-L, Low-z Quasars	Proposal title
observer	Gordon Richards	Principal investigator
object	SDSSJ111941.12+595108.7	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	169.92125	Observer's specified target RA [deg]
dec_targ	59.852417	Observer's specified target Dec [deg]
ra_nom	169.93516426493	Nominal RA [deg]
dec_nom	59.853418412513	Nominal Dec [deg]
roll_nom	323.82095710877	Nominal Roll [deg]
revision	1	Processing version of data
ontime	3680.0	Sum of GTIs [s]
livetime	3534.9266118497	Livetime [s]
ontime2	3680.0	Sum of GTIs [s]
ontime3	3680.0	Sum of GTIs [s]
ontime6	3680.0	Sum of GTIs [s]
ontime7	3680.0	Sum of GTIs [s]
ontime8	3680.0	Sum of GTIs [s]
l2events	6913	Number of level 2 events



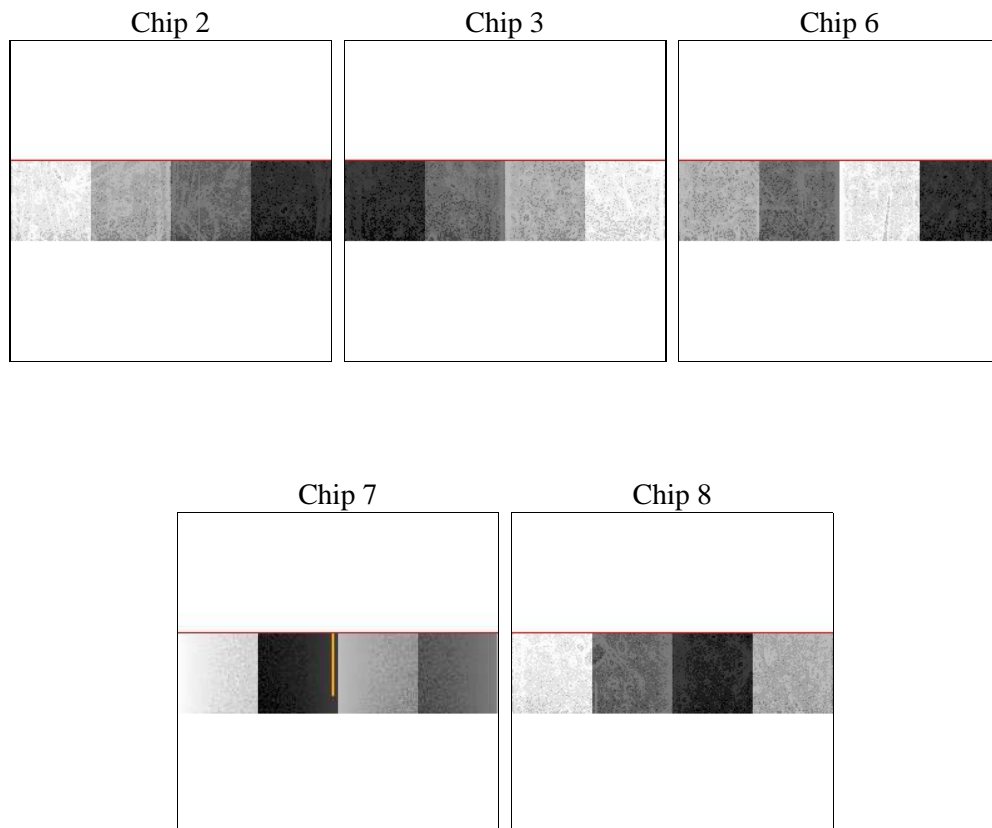
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3607.779000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	3680.0	Sum of GTIs [s]
caldsver	4.7.5	&#160	ontime2	3680.0	Sum of GTIs [s]
date	2017-08-12T22:04:43	Date and time of file creation	ontime3	3680.0	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	3680.0	Sum of GTIs [s]
			ontime7	3680.0	Sum of GTIs [s]
			ontime8	3680.0	Sum of GTIs [s]
			l1events	43622	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	7840	7583	7317	9064	11818
rejected events	7068	6743	6440	4876	8856
rejected %	90%	88%	88%	53%	74%

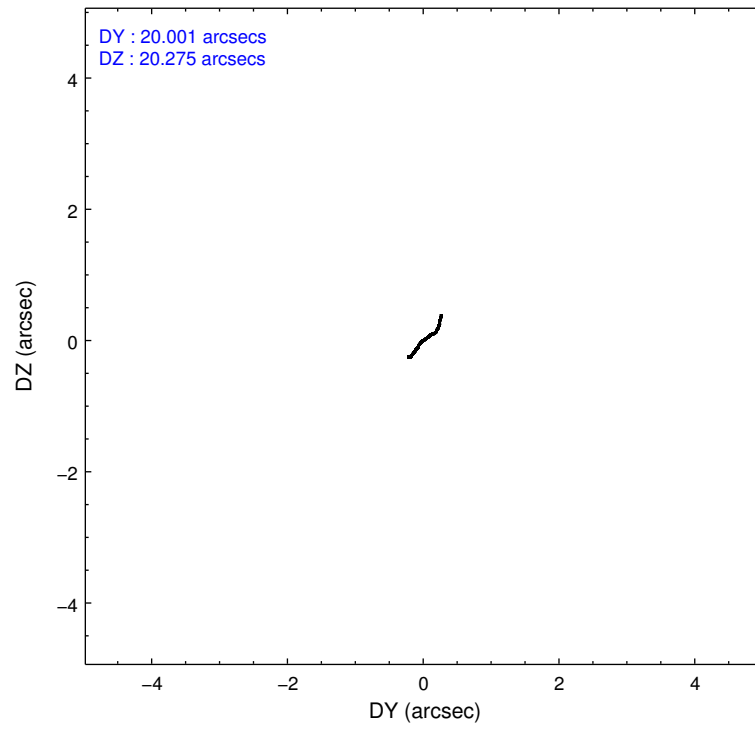
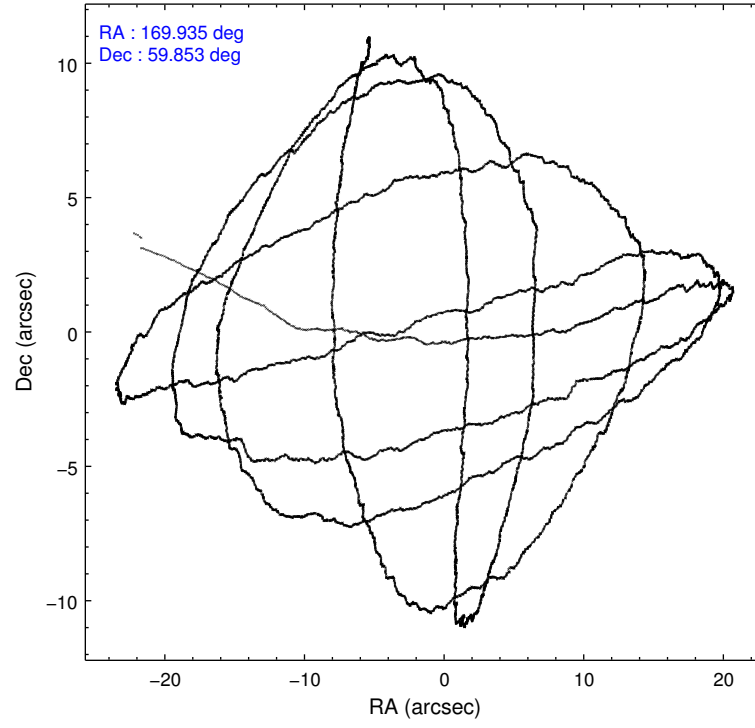
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	254	251	258	419	797
	3%	3%	3%	4%	6%
grade 1 events	2	3	4	15	7
	0%	0%	0%	0%	0%
grade 2 events	155	179	199	867	652
	1%	2%	2%	9%	5%
grade 3 events	100	136	119	447	314
	1%	1%	1%	4%	2%
grade 4 events	126	107	116	438	327
	1%	1%	1%	4%	2%
grade 5 events	274	329	347	969	499
	3%	4%	4%	10%	4%
grade 6 events	137	167	185	2019	872
	1%	2%	2%	22%	7%
grade 7 events	6792	6411	6089	3890	8350
	86%	84%	83%	42%	70%

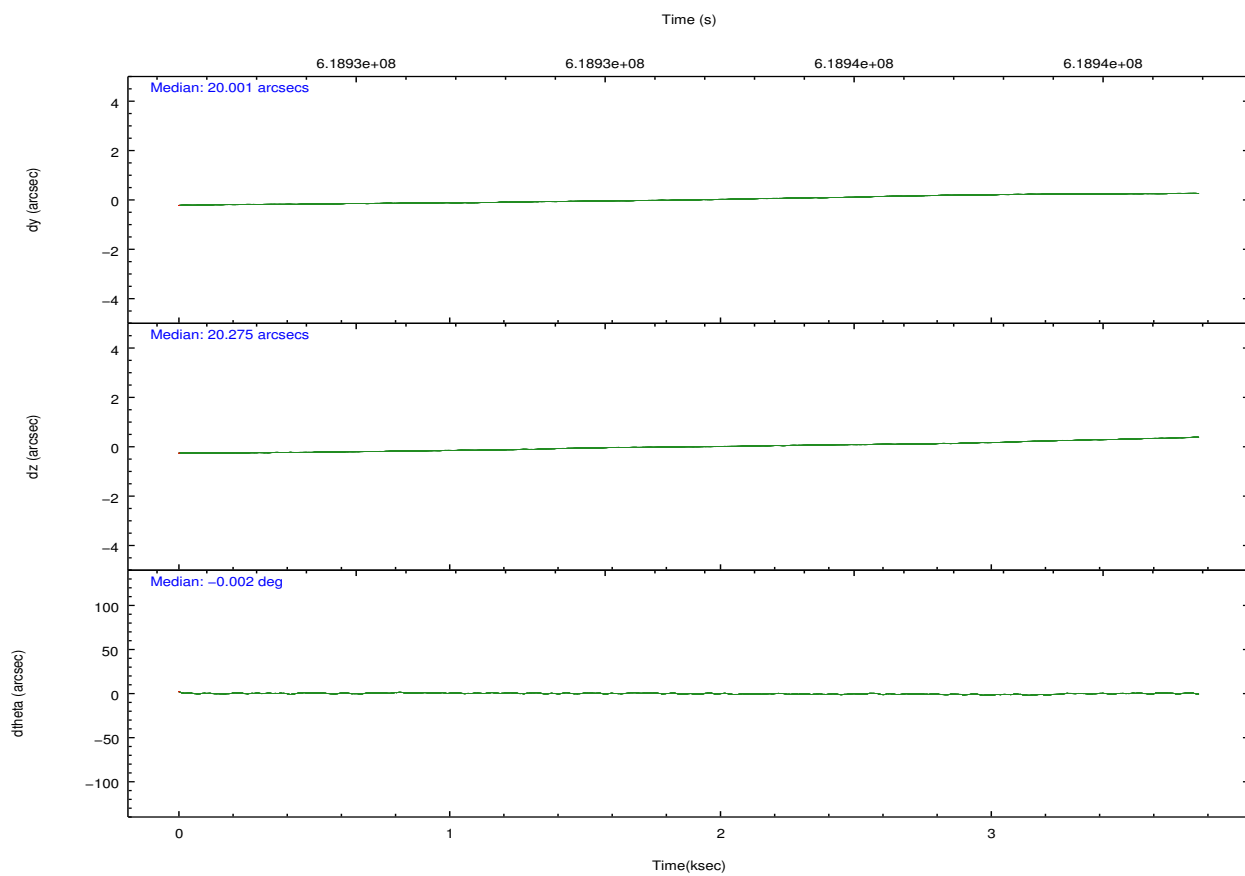
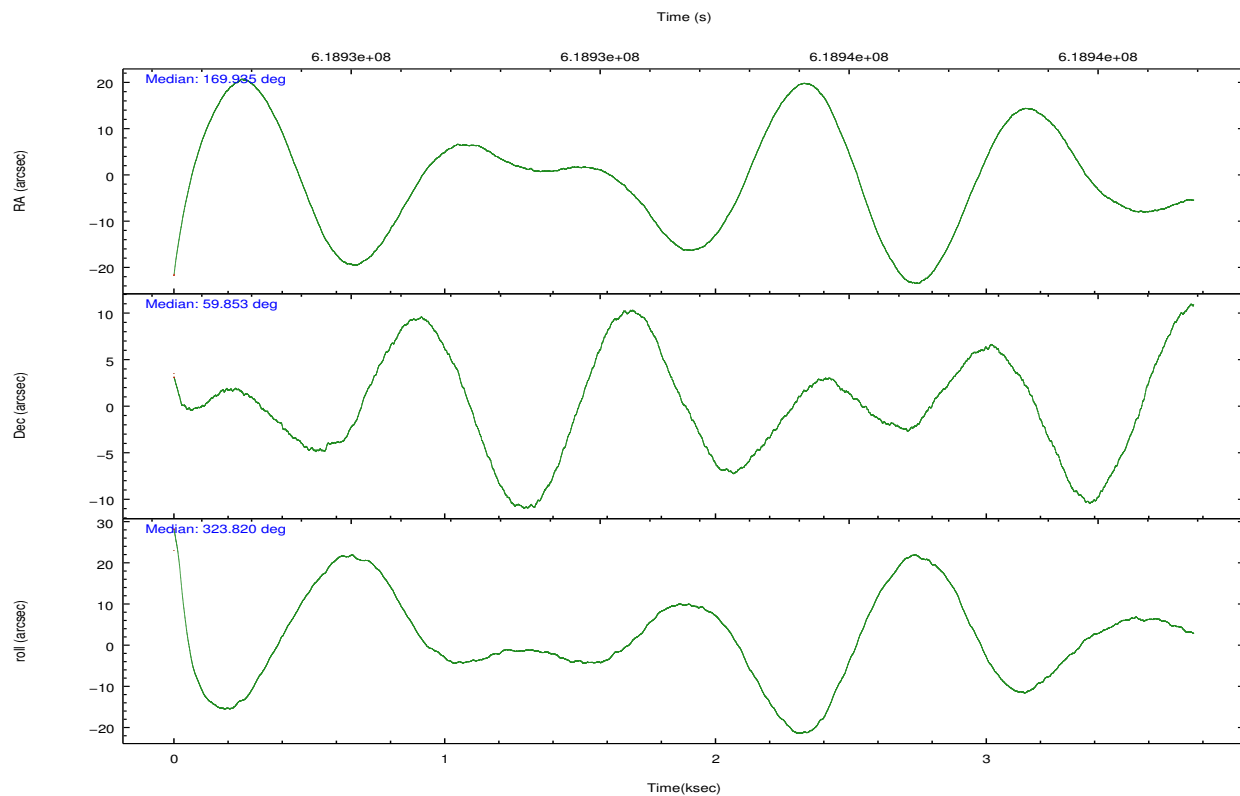


## 2.2 Compared Parameters

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	169.880582	169.9351642649289	CCD I2 on	O1	Y
[deg] Pointing Dec	59.855995	59.85341841251287	CCD I3 on	Y	Y
[deg] Pointing Roll	323.711479	323.8209571087704	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)	618932603.184000	618931487.34833	CCD S5 on	N	N
Observation start date	2017-08-12T13:42:14	2017-08-12T13:24:47	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	618936211.184000	618936436.04862	On-chip summing requested	N	N
Observation end date	2017-08-12T14:42:22	2017-08-12T14:47:16	Subarray requested	CUSTOM	1/4
Read mode	TIMED	TIMED	Subarray start row	385	385
			Subarray row count	256	256
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1

## 2.3 Aspect



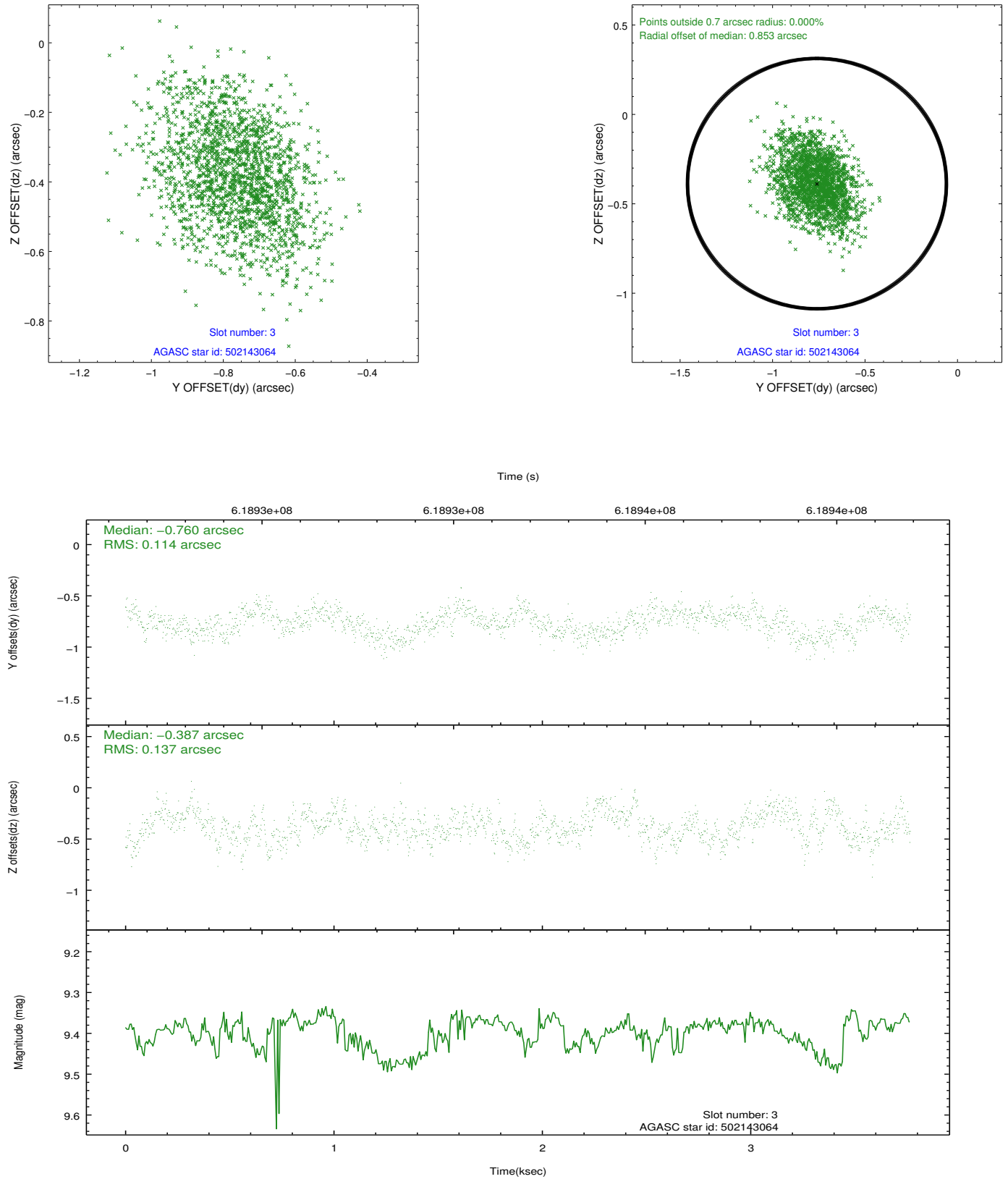


### Slot Statistics

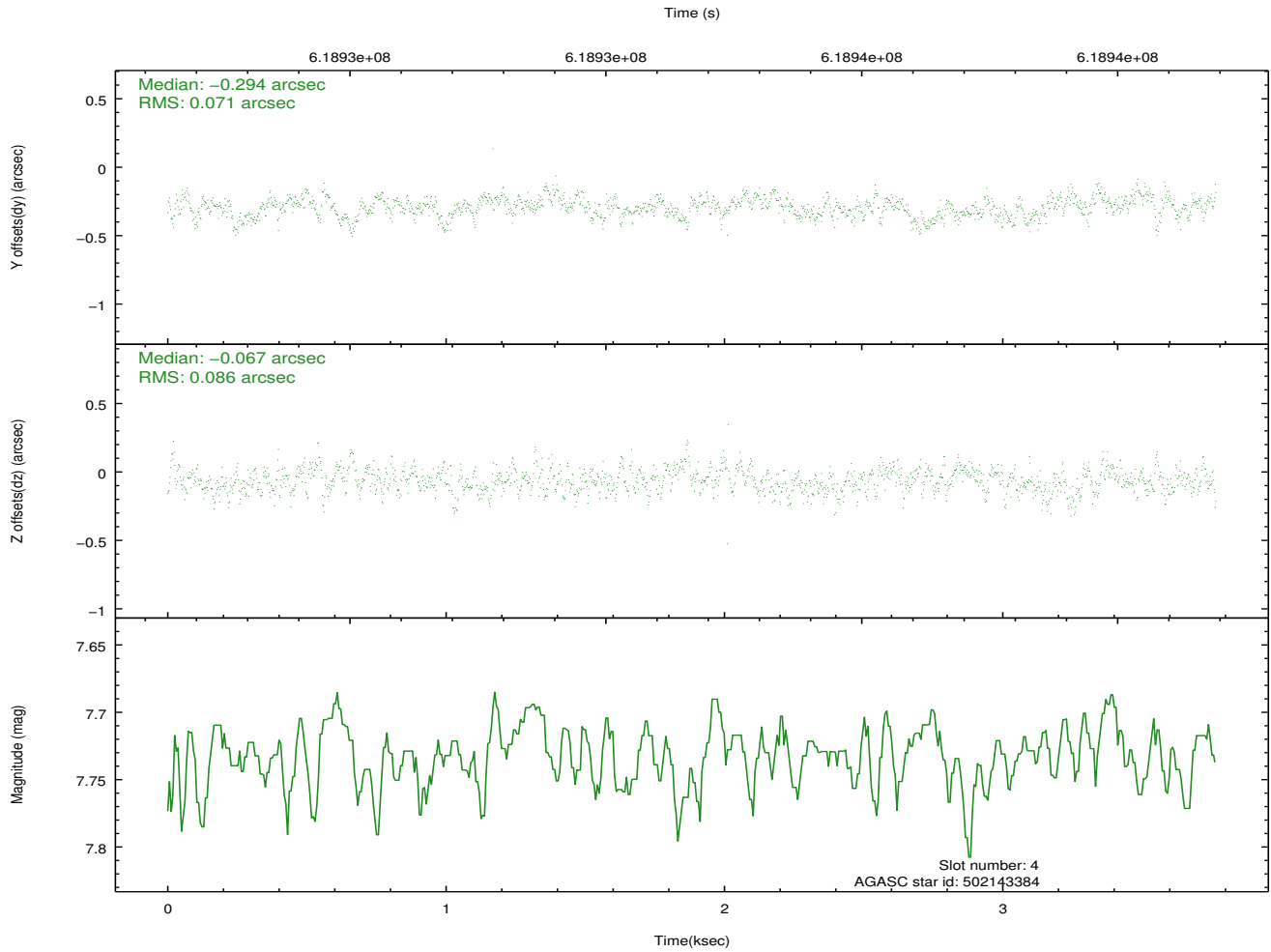
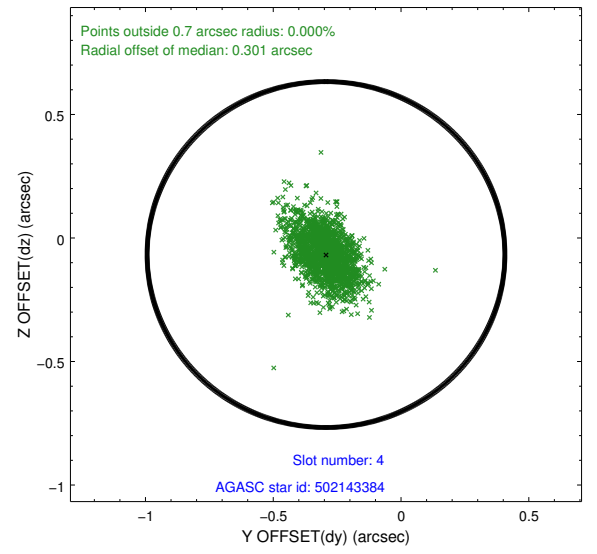
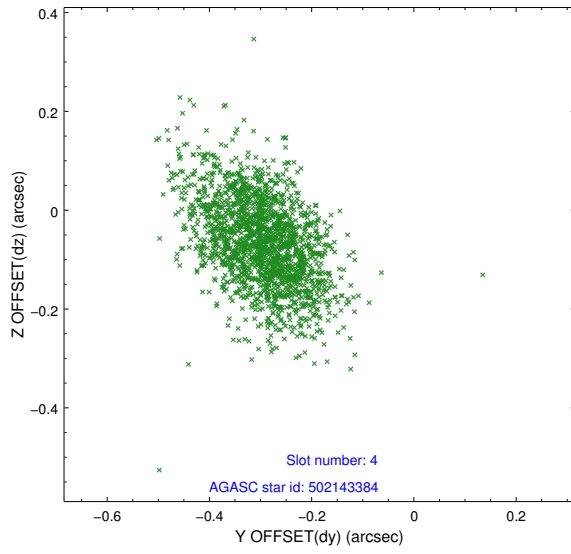
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.01	919	-0.352	-0.235	0.007	0.011	0.000000	0.000000	-773.55	-1741.95
1	FID		ACIS-S-4	7.13	919	0.369	0.210	0.008	0.013	0.000000	0.000000	2139.75	165.13
2	FID		ACIS-S-6	7.26	919	-0.045	0.033	0.008	0.014	0.000000	0.000000	390.96	804.31
3	GUIDE	used	502143064	9.39	1828	-0.760	-0.387	0.190	0.305	170.784782	59.809183	1411.81	841.54
4	GUIDE	used	502143384	7.73	1838	-0.294	-0.067	0.115	0.202	171.186607	59.663751	2310.16	866.55
5	GUIDE	used	502144072	7.27	1838	0.367	0.299	0.163	0.262	169.079129	59.943199	-1354.48	-594.65
6	GUIDE	used	543430576	6.54	1838	0.071	-0.050	0.123	0.220	169.362290	60.271781	-1634.45	661.37
7	GUIDE	used	543432504	8.80	1835	0.617	0.196	0.139	0.226	169.018620	60.027502	-1621.12	-411.22

## 2.4 Star Slots

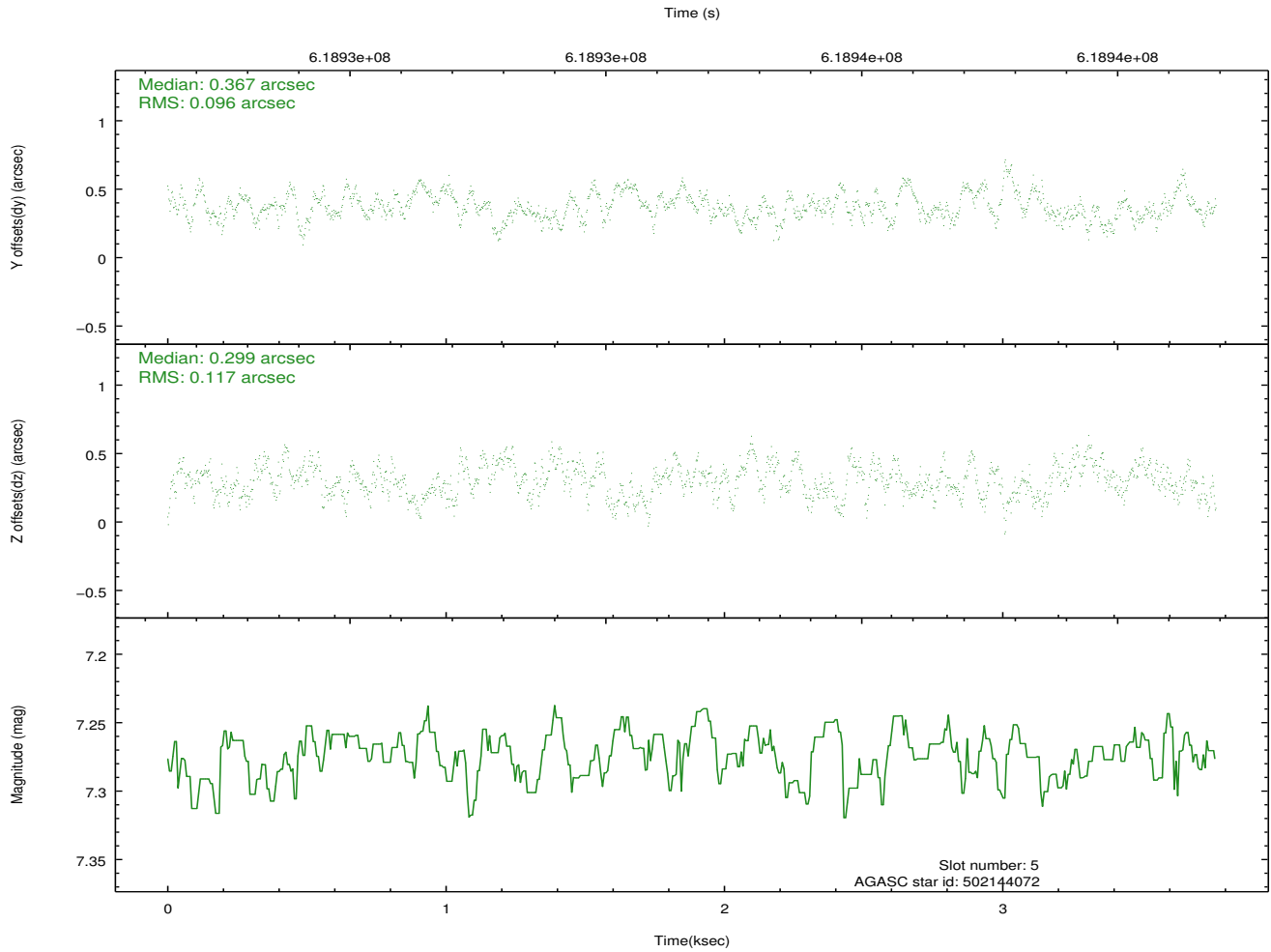
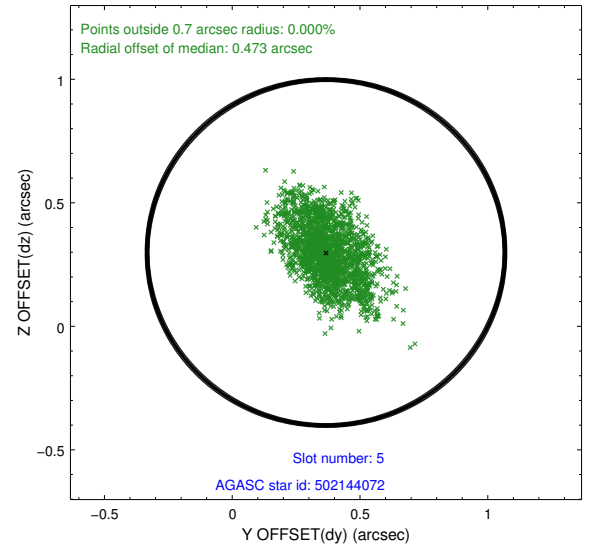
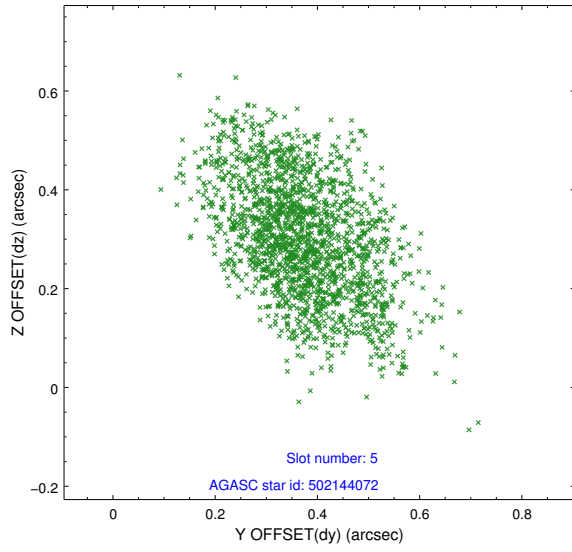
### 2.4.1 Slot 3



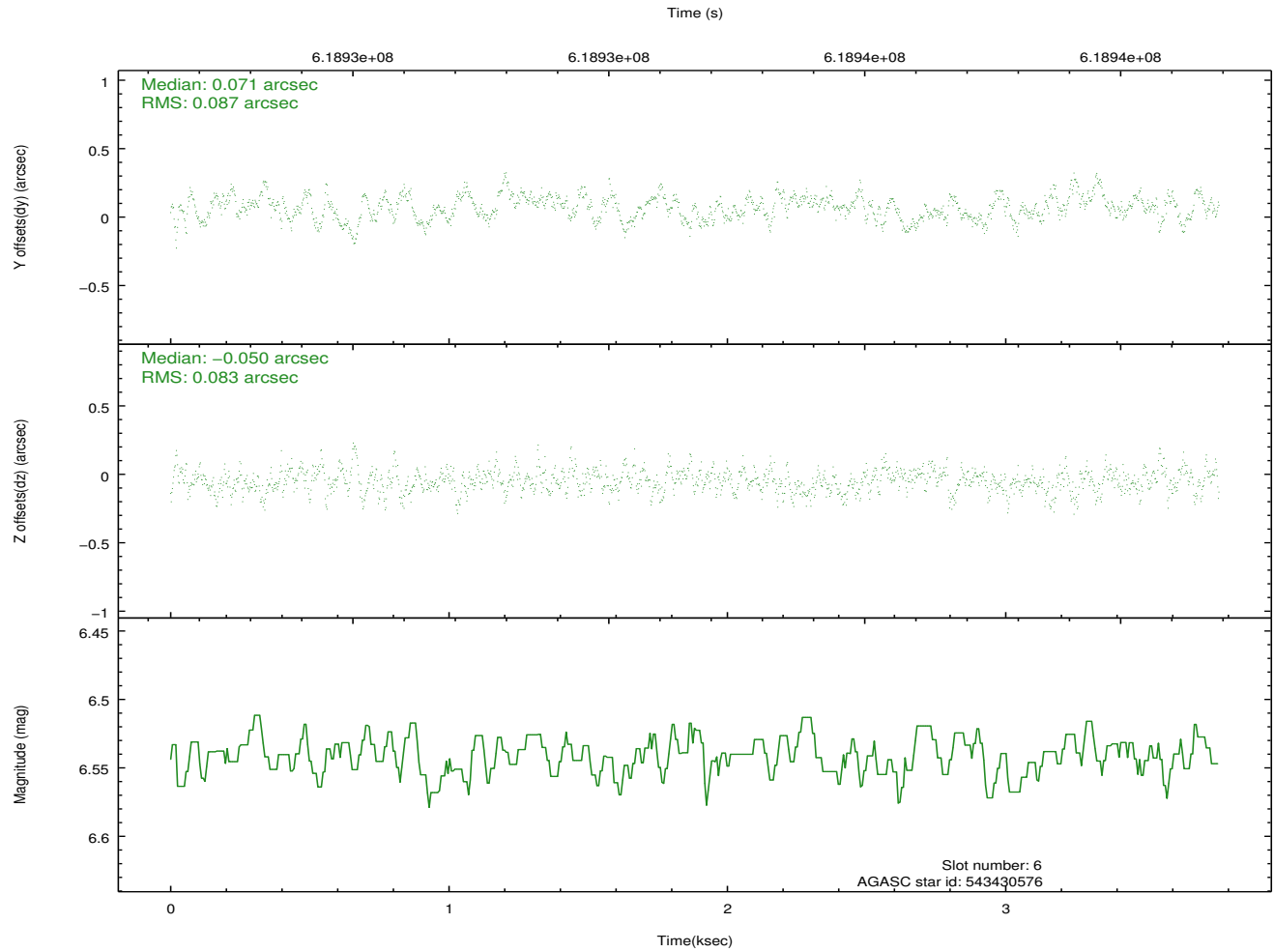
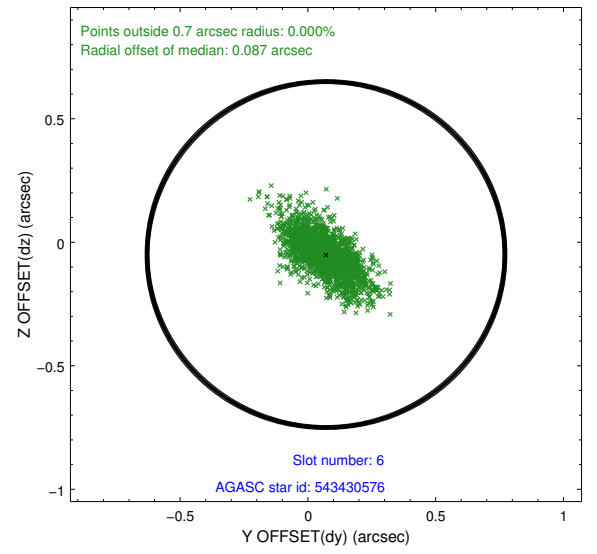
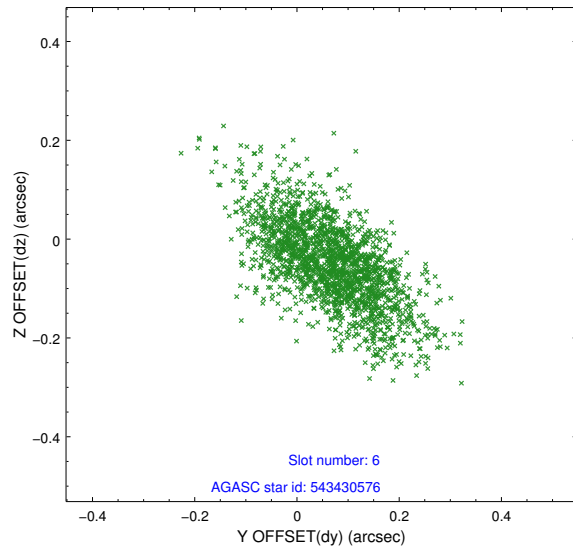
## 2.4.2 Slot 4



### 2.4.3 Slot 5

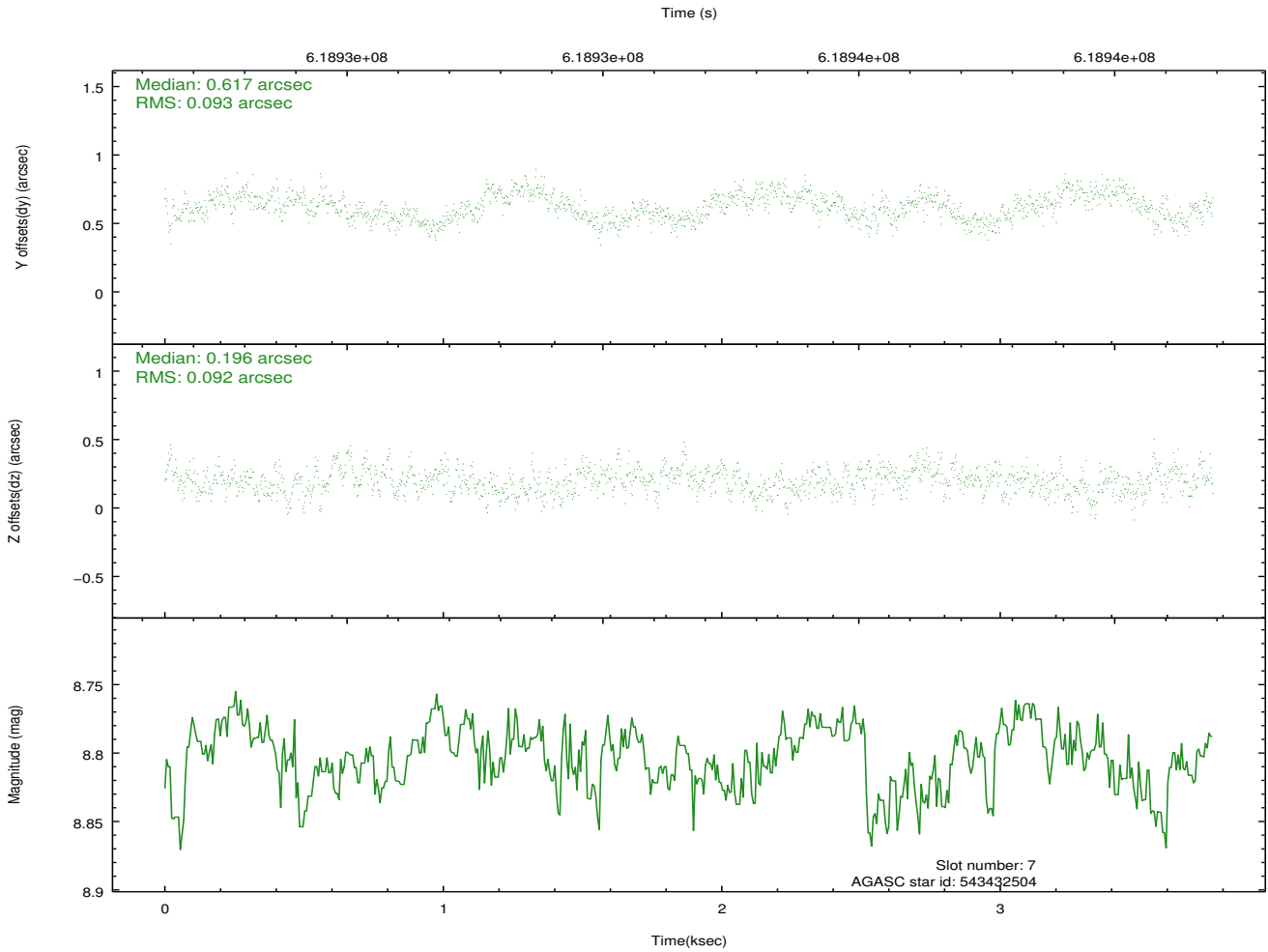
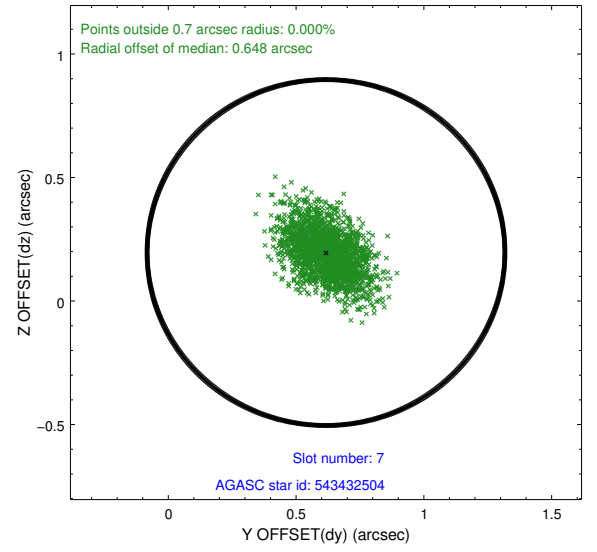
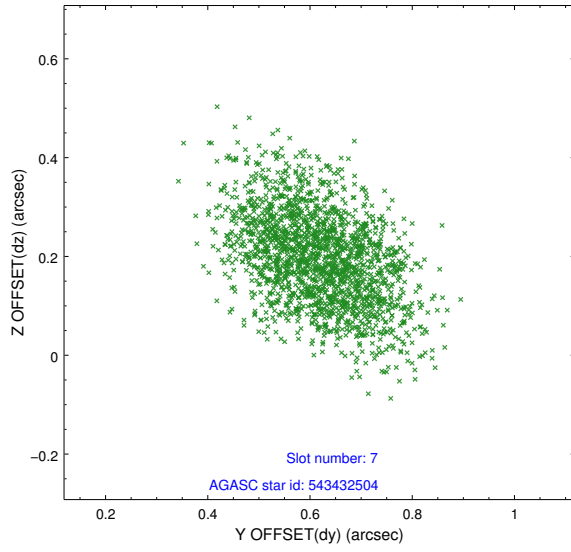


## 2.4.4 Slot 6



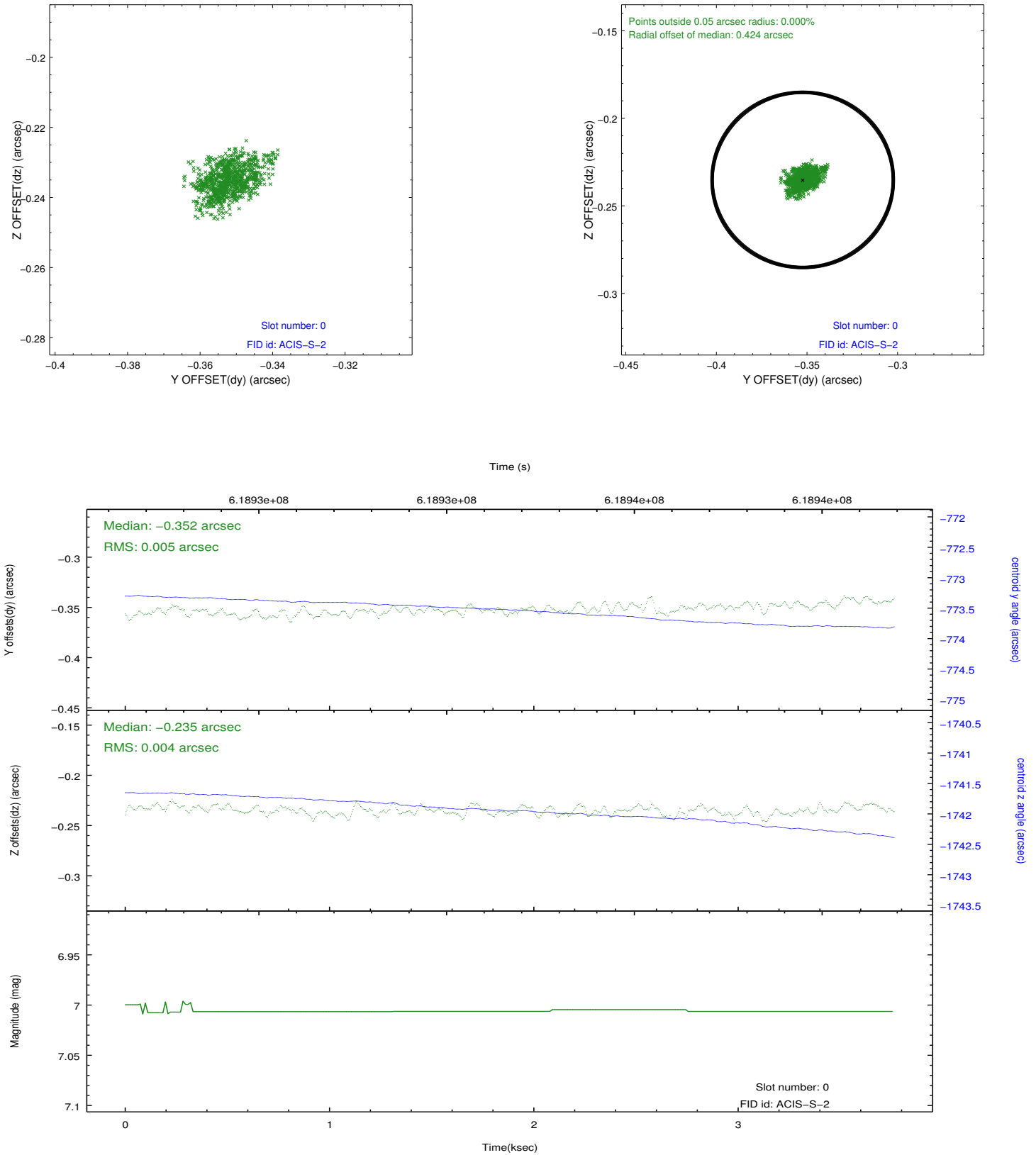


## 2.4.5 Slot 7

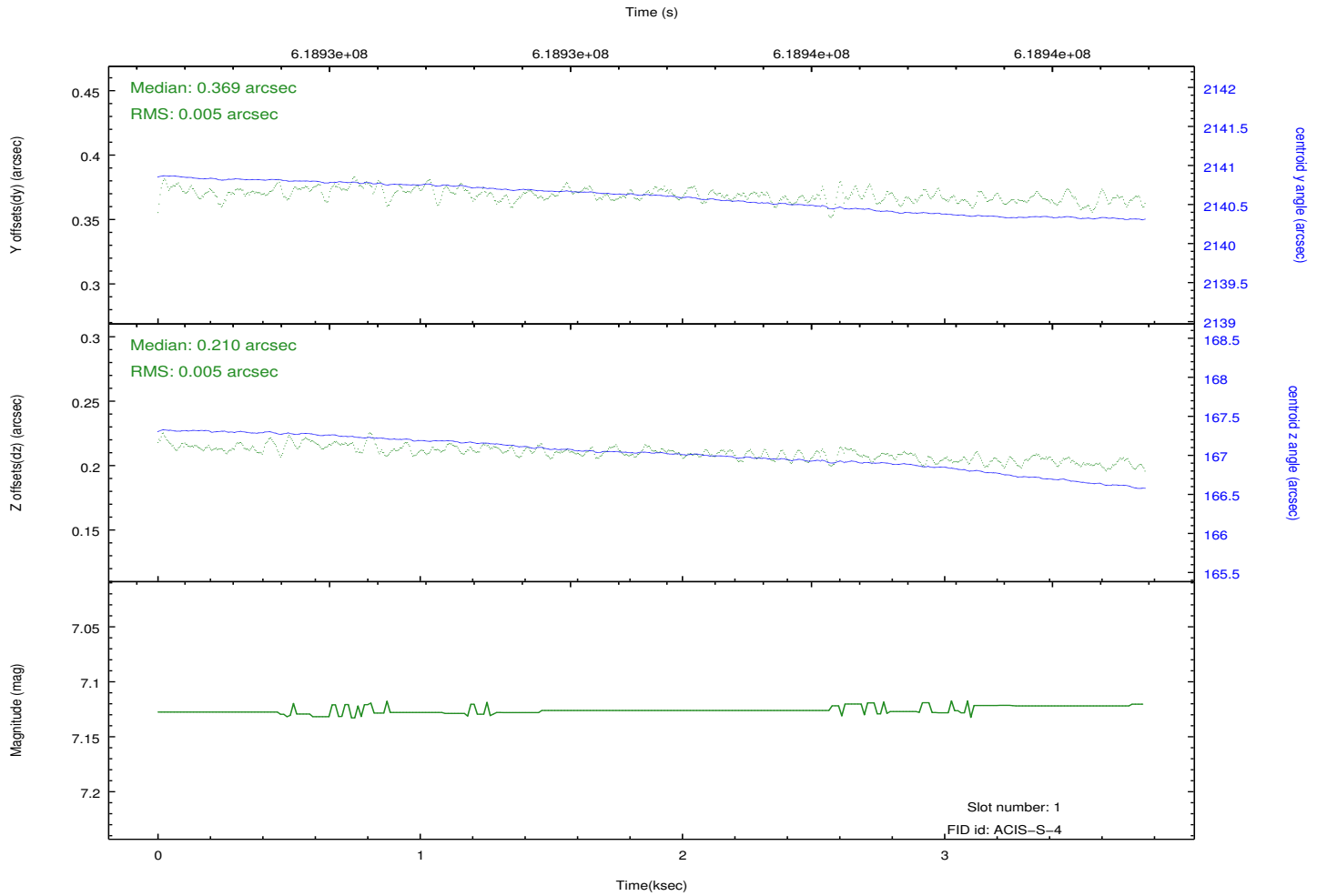
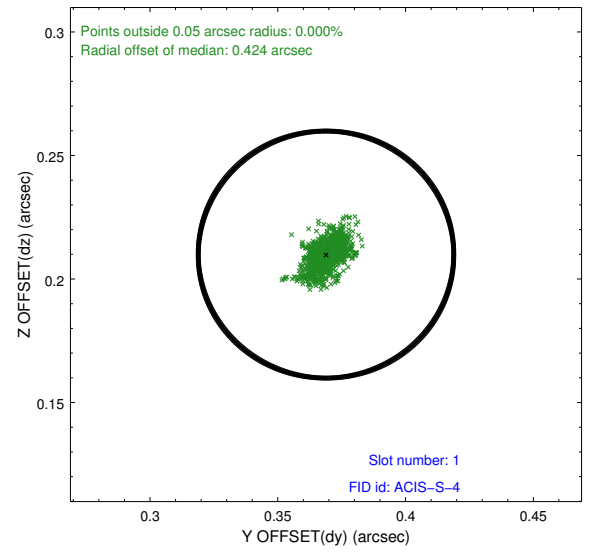
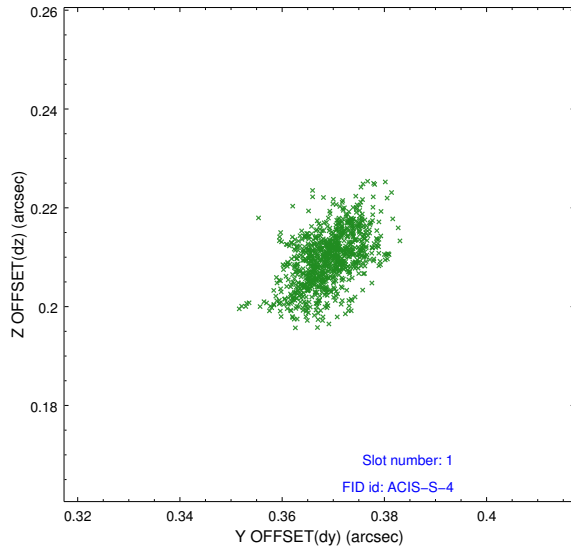


## 2.5 FID Slots

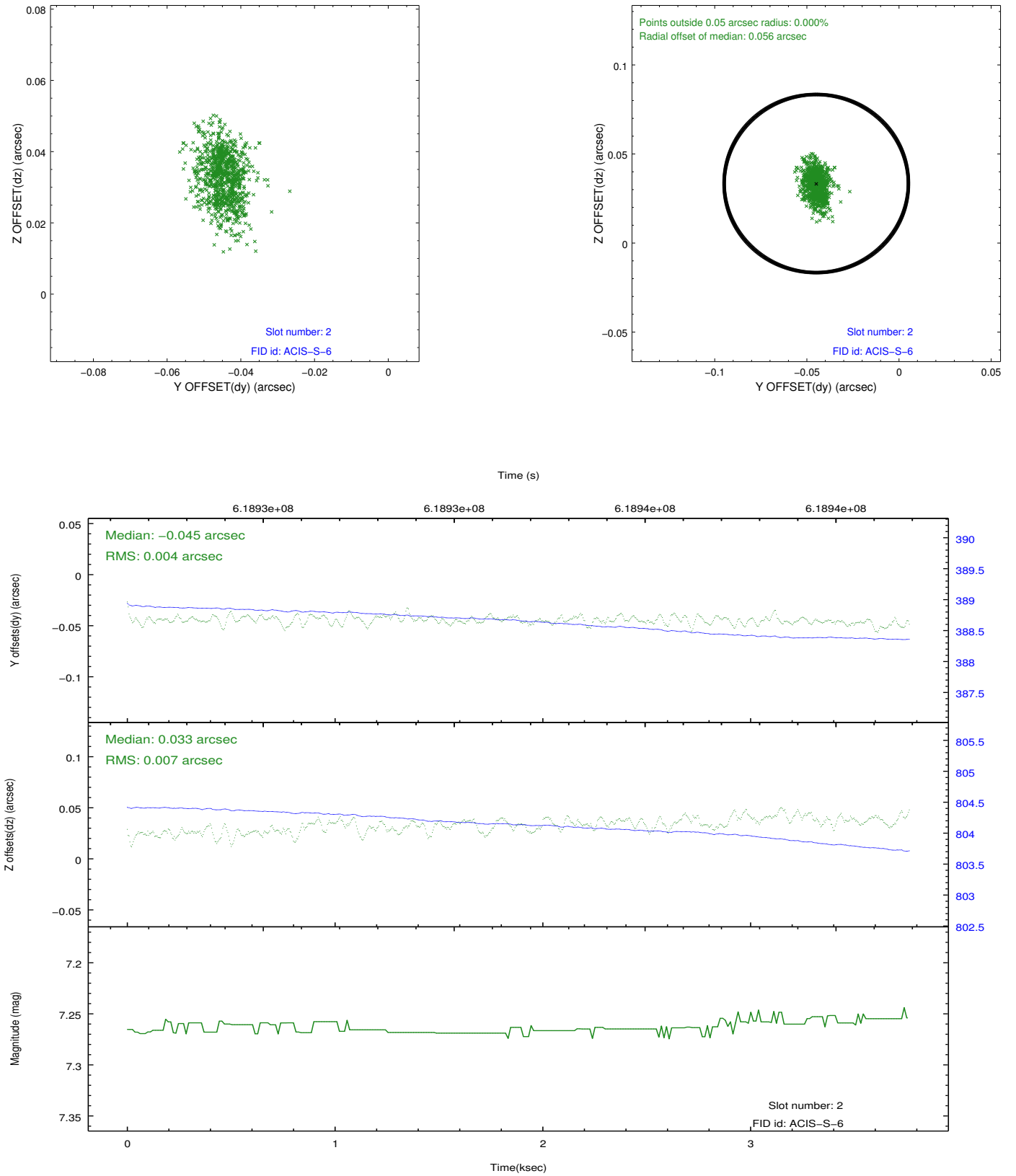
### 2.5.1 Slot 0



## 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)	2017.08.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.68

### A.2 Comments