

# V&V Reference Report

## L2 ASCDS Version : 10.4.1

Observation 17032 - L2 Version 1  
Chandra X-Ray Center

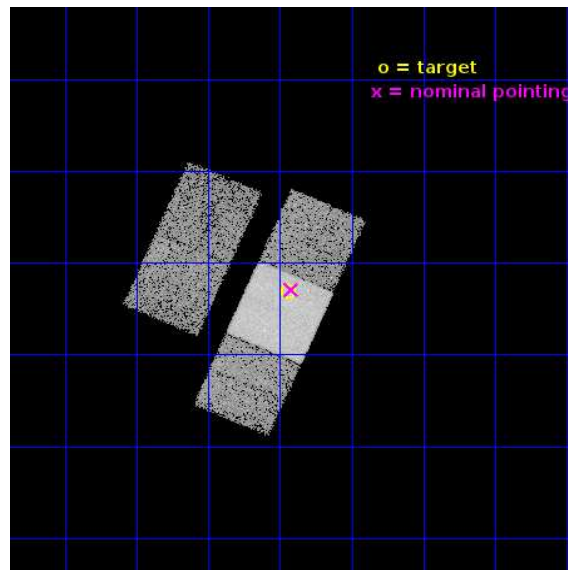
L2 Processing Date : Jul 13 2015

## 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	703036	Sequence number
obs_id	17032	Observation id
title	Probing the Growth of Massive Black Holes in Dwarf Galaxies with Chandra and HST	Proposal title
observer	Dr. Amy Reines	Principal investigator
object	J024656.39-003304.8	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	41.735	Observer's specified target RA [deg]
dec_targ	-0.551361	Observer's specified target Dec [deg]
ra_nom	41.730183507836	Nominal RA [deg]
dec_nom	-0.54886966016699	Nominal Dec [deg]
roll_nom	113.56872262205	Nominal Roll [deg]
revision	1	Processing version of data
ontime	17632.555155754	Sum of GTIs [s]
livetime	17402.172841746	Livetime [s]
ontime2	17632.390995741	Sum of GTIs [s]
ontime3	17629.332035422	Sum of GTIs [s]
ontime6	17632.51411581	Sum of GTIs [s]
ontime7	17632.555155754	Sum of GTIs [s]
ontime8	17632.432035804	Sum of GTIs [s]
l2events	90164	Number of level 2 events

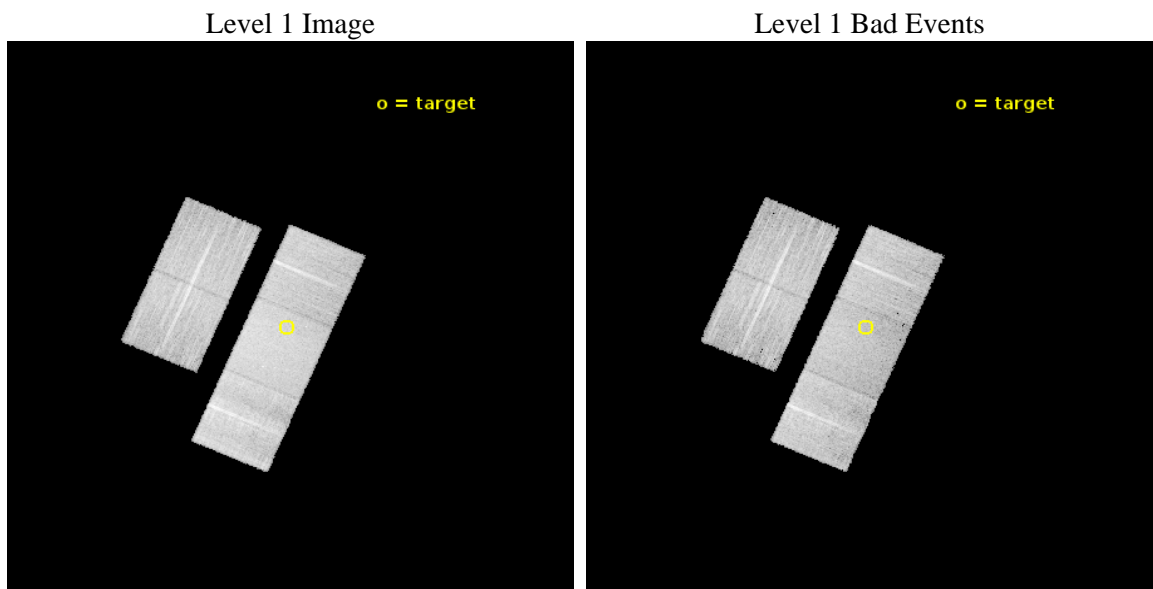




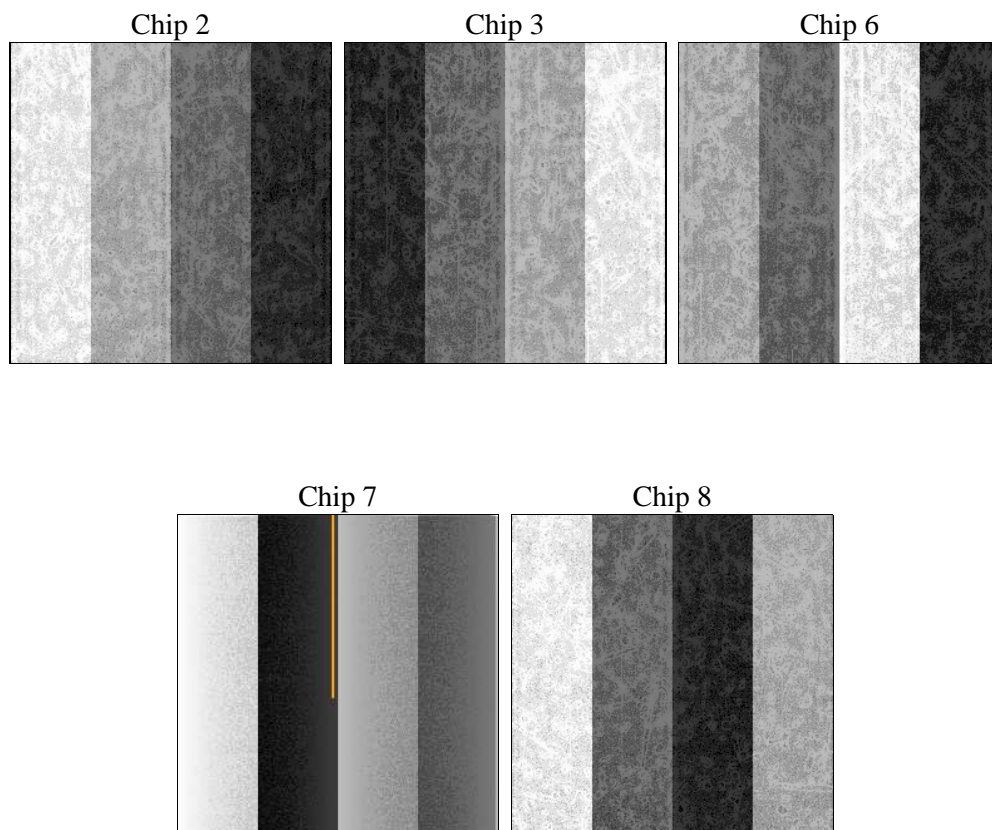
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	17570.638000	[s] Scheduled observation exposure time
ascdsver	10.4.1	Processing system revision	ontime	17632.555155754	Sum of GTIs [s]
caldsver	4.6.8	&#160	ontime2	17632.390995741	Sum of GTIs [s]
date	2015-07-13T18:01:19	Date and time of file creation	ontime3	17629.332035422	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	17632.51411581	Sum of GTIs [s]
			ontime7	17632.555155754	Sum of GTIs [s]
			ontime8	17632.432035804	Sum of GTIs [s]
			l1events	516575	Number of level 1 events

### 2.1.4 Events

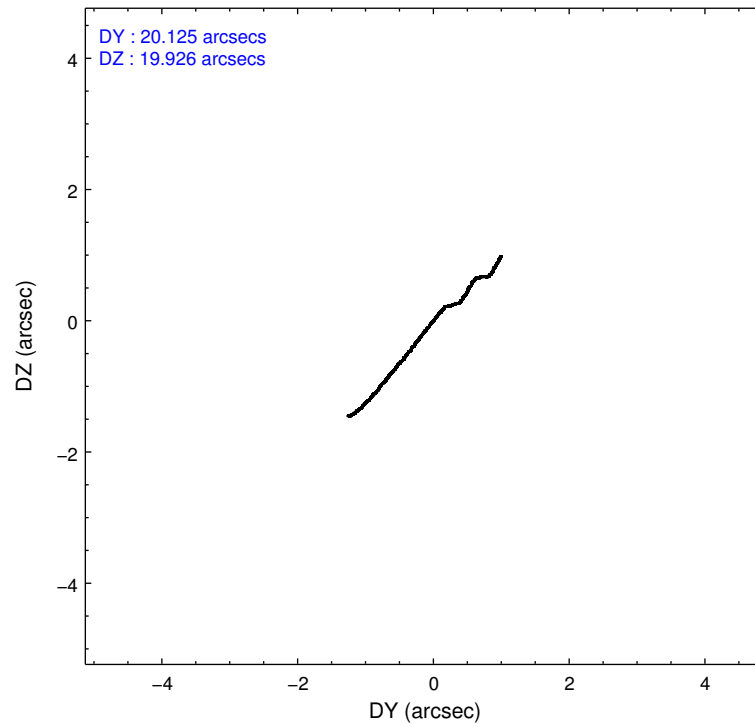
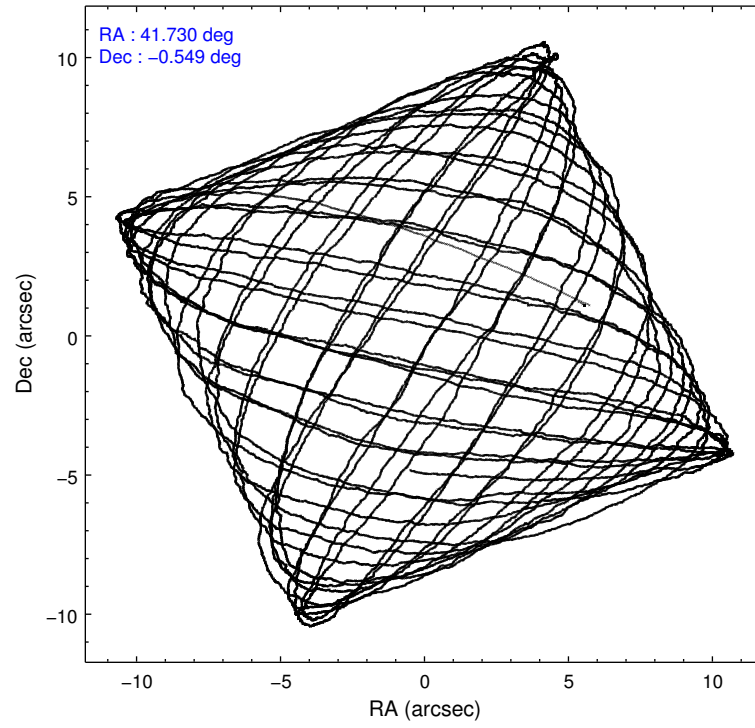
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	88467	90505	94393	123156	120054
rejected events	78680	80489	83206	69630	89104
rejected %	88%	88%	88%	56%	74%

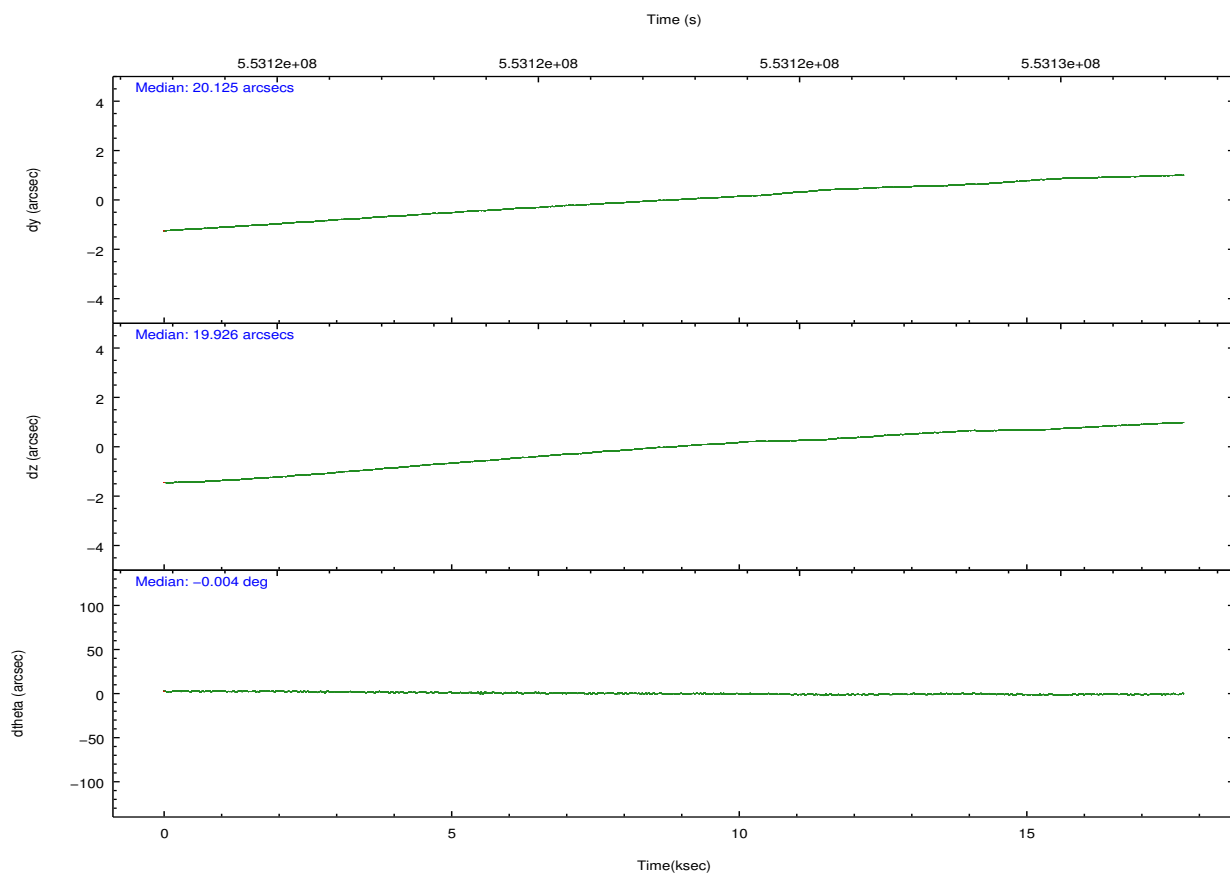
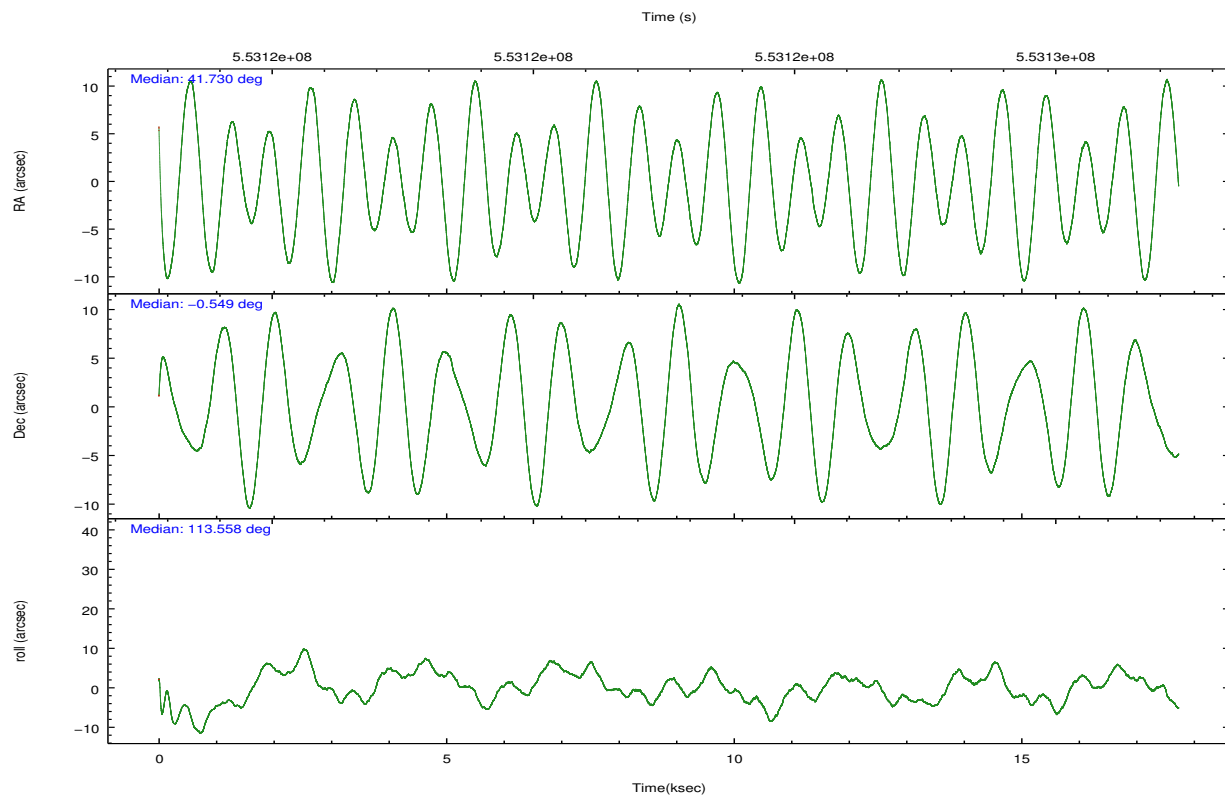
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	3383	3626	3757	4844	8762
	3%	4%	3%	3%	7%
grade 1 events	46	52	43	150	86
	0%	0%	0%	0%	0%
grade 2 events	2438	2114	2608	11272	7568
	2%	2%	2%	9%	6%
grade 3 events	988	1109	1076	4327	3095
	1%	1%	1%	3%	2%
grade 4 events	997	1078	1029	4077	3046
	1%	1%	1%	3%	2%
grade 5 events	3725	4628	4624	11947	6816
	4%	5%	4%	9%	5%
grade 6 events	1982	2092	2718	29016	8485
	2%	2%	2%	23%	7%
grade 7 events	74908	75806	78538	57523	82196
	84%	83%	83%	46%	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	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	41.752473	41.73018350783631	CCD I2 on	Y	Y
[deg] Pointing Dec	-0.564864	-0.5488696601669907	CCD I3 on	Y	Y
[deg] Pointing Roll	113.412306	113.568722622054	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	O1	Y
[s] Observation start time (MET)	553113885.184000	553112645.85985	CCD S5 on	N	N
Observation start date	2015-07-12T18:43:37	2015-07-12T18:24:05	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	553131456.184000	553131675.49842	On-chip summing requested	N	N
Observation end date	2015-07-12T23:36:28	2015-07-12T23:41:15	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



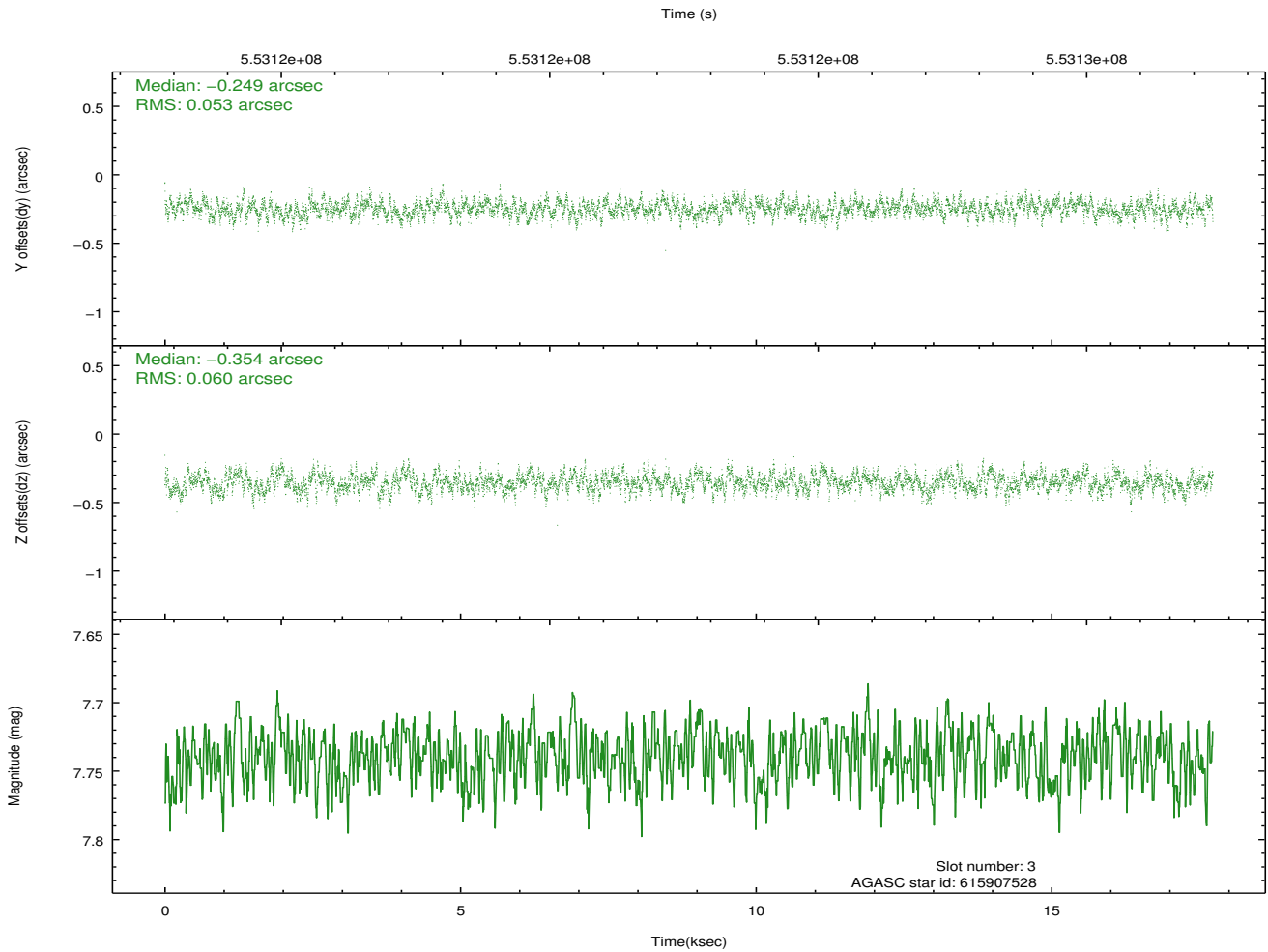
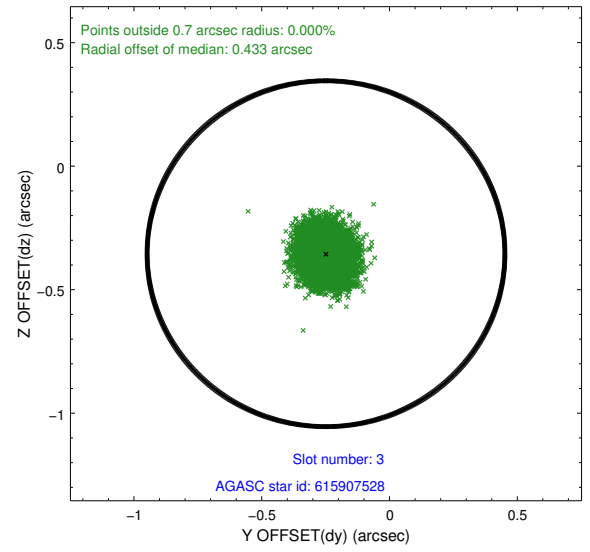
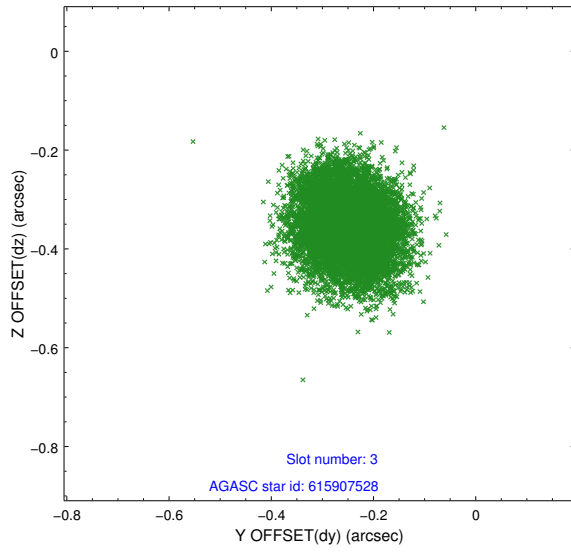


### Slot Statistics

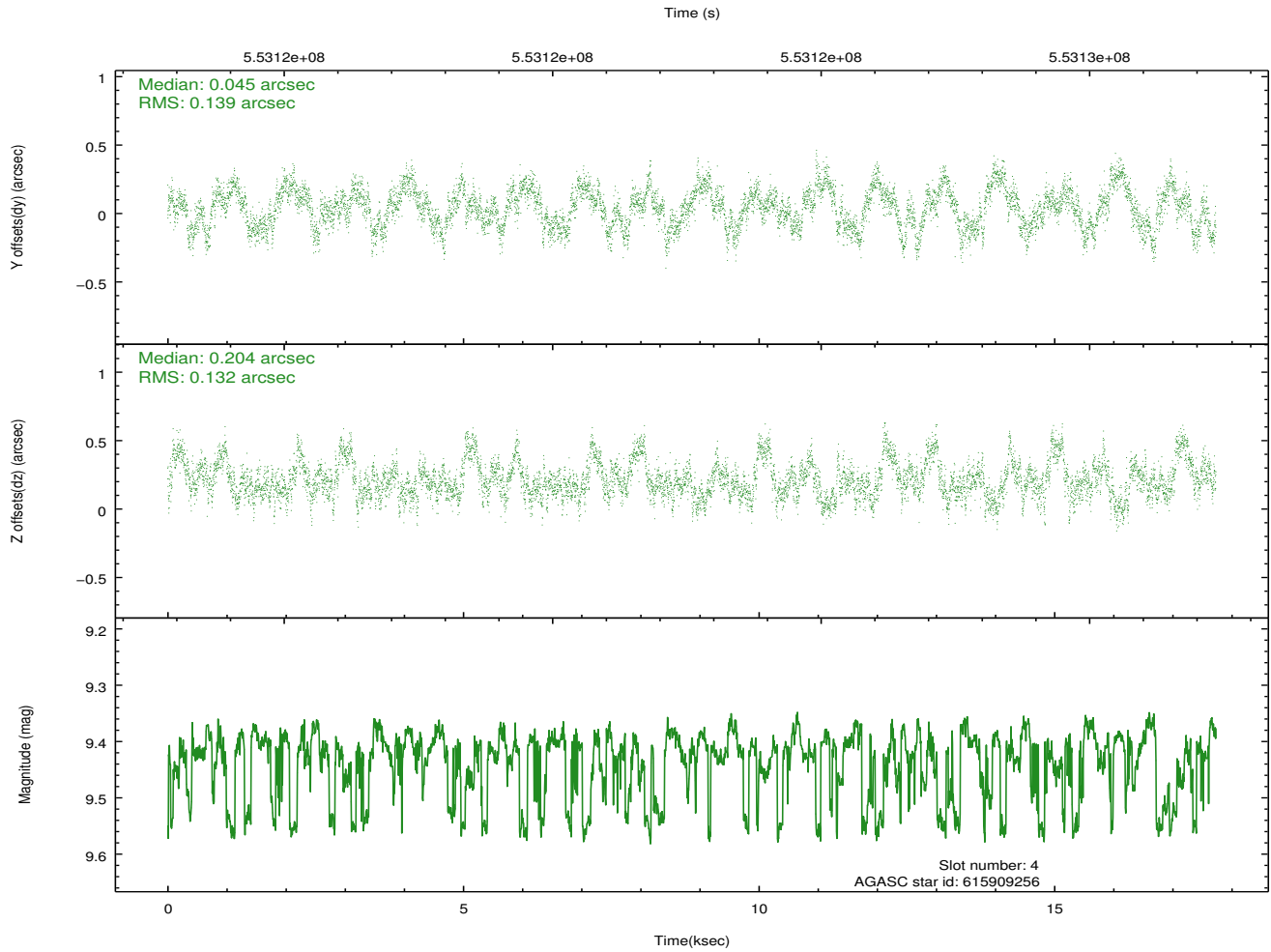
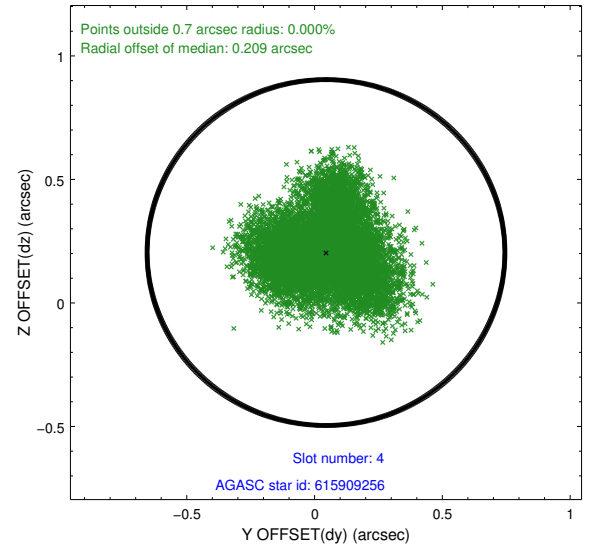
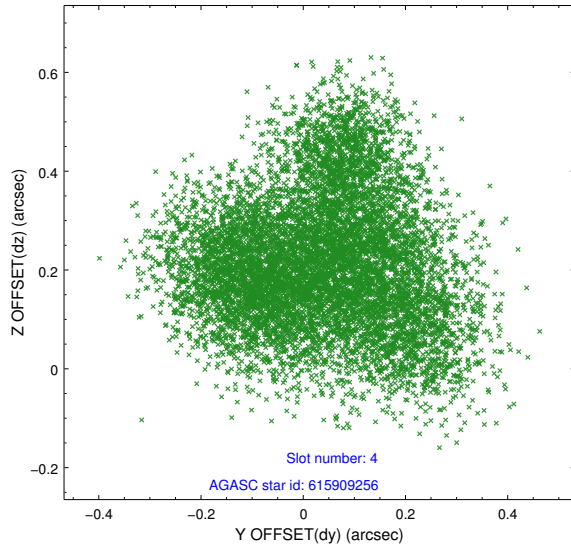
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.09	4325	-0.163	-0.093	0.018	0.036	0.000000	0.000000	-773.38	-1741.35
1	FID		ACIS-S-4	7.20	4325	0.380	0.104	0.022	0.044	0.000000	0.000000	2140.33	167.08
2	FID		ACIS-S-5	7.21	4325	-0.239	-0.004	0.027	0.053	0.000000	0.000000	-1826.00	160.93
3	GUIDE	used	615907528	7.74	8650	-0.249	-0.354	0.087	0.135	41.252710	-0.191636	1947.72	1117.15
4	GUIDE	used	615909256	9.42	8642	0.045	0.204	0.212	0.314	41.862133	-0.206235	1029.14	-875.57
5	GUIDE	used	615913168	9.54	8643	0.154	0.042	0.169	0.293	41.634721	-1.015700	-1320.58	1033.48
6	GUIDE	used	615914432	9.73	8647	0.087	0.563	0.186	0.291	42.193467	-0.308417	216.67	-1823.21
7	GUIDE	used	615908528	7.72	8649	-0.025	-0.474	0.103	0.161	41.178288	-0.846146	-108.22	2298.31

## 2.4 Star Slots

### 2.4.1 Slot 3

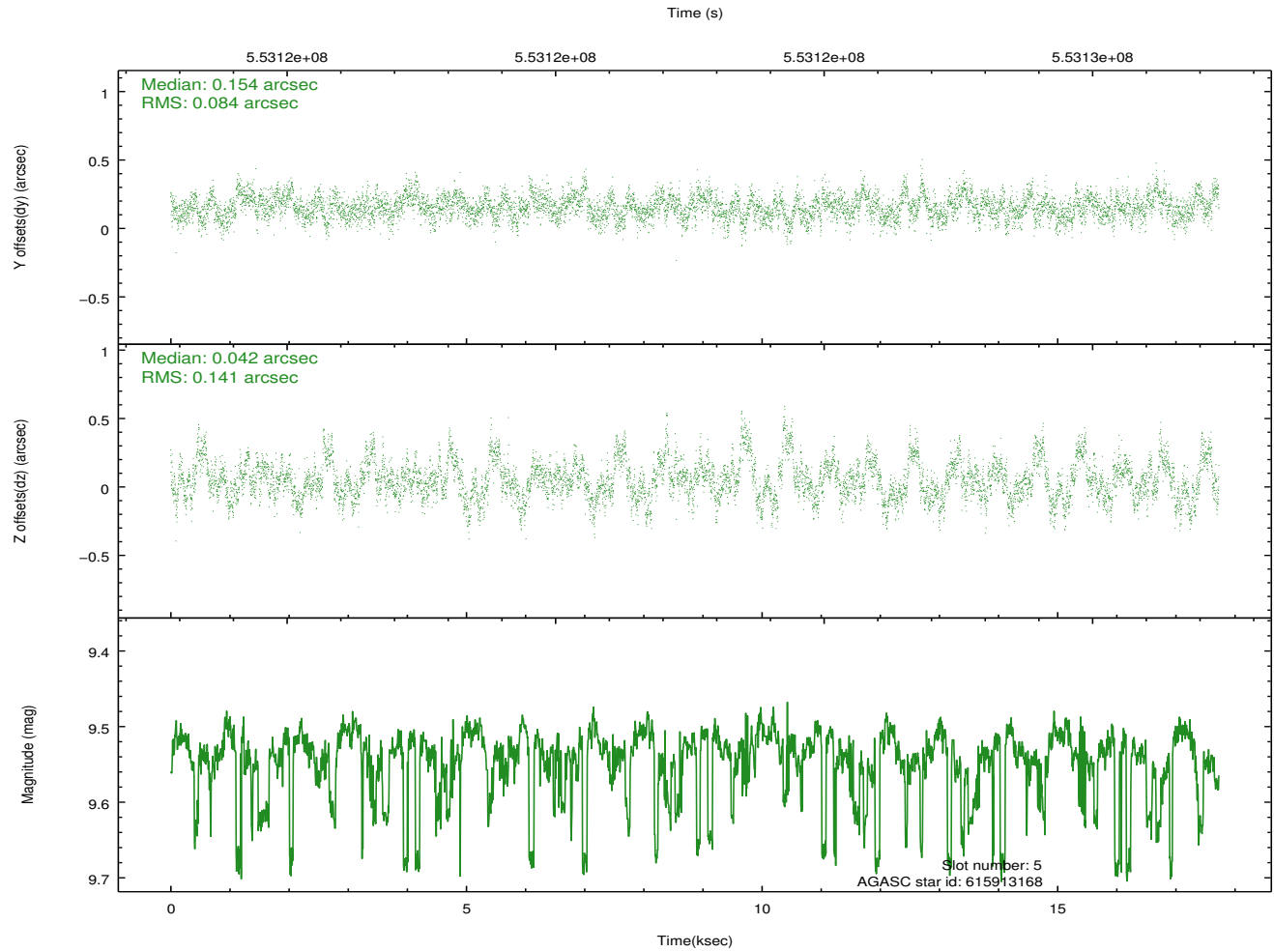
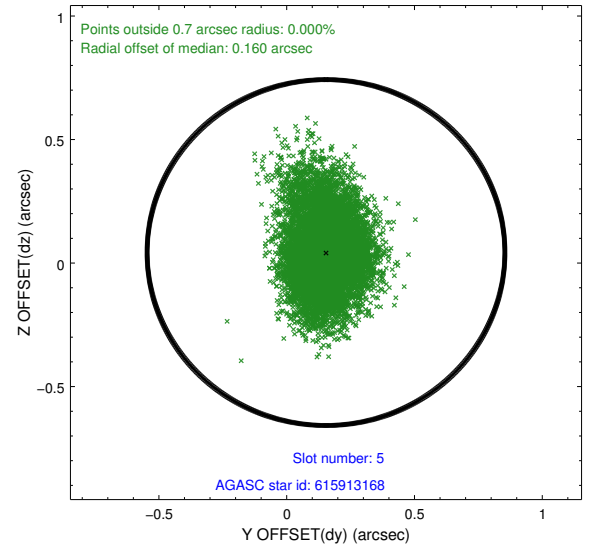
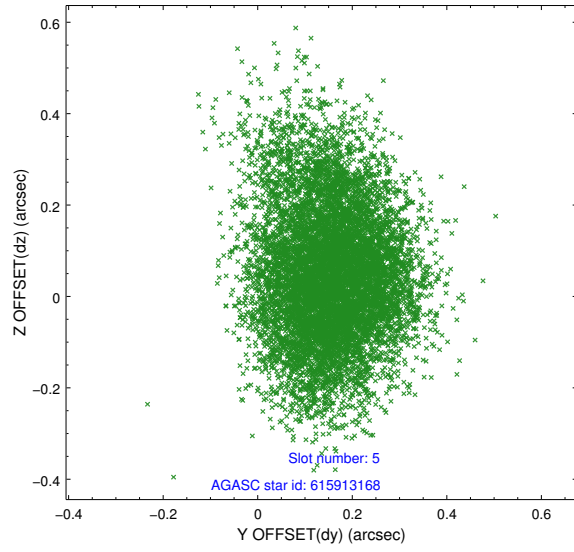


## 2.4.2 Slot 4

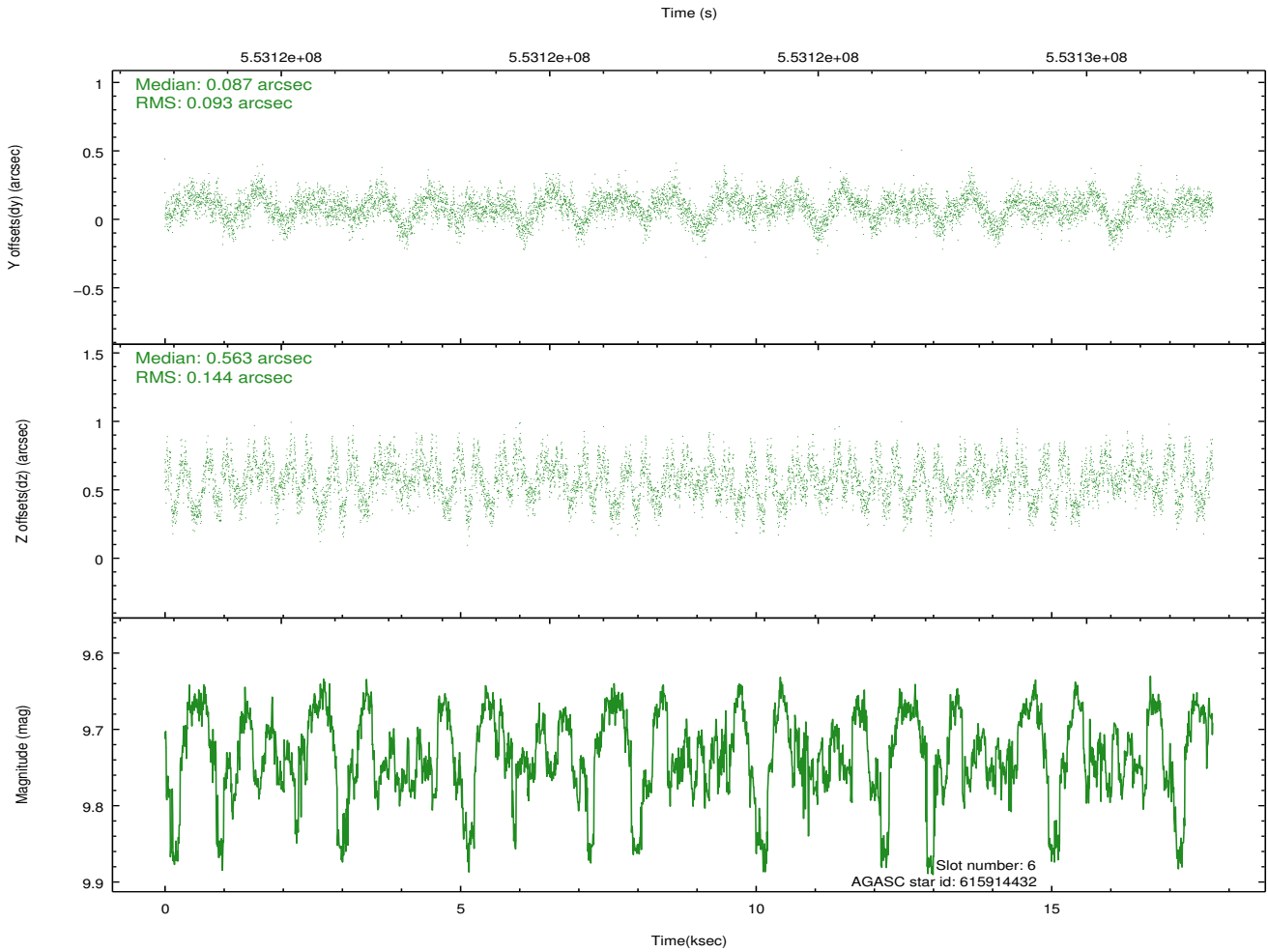
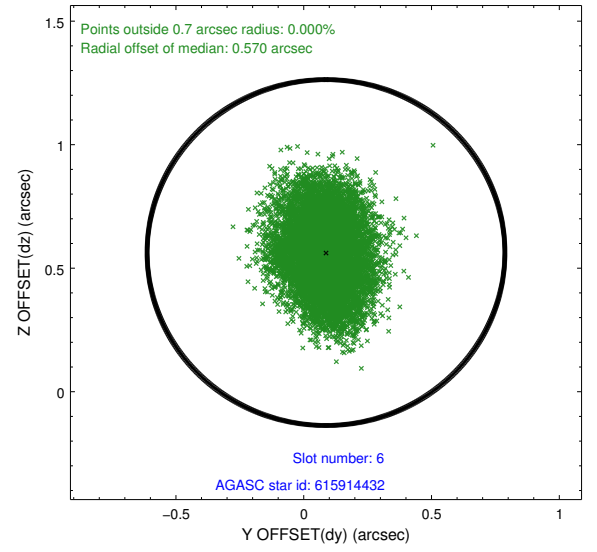
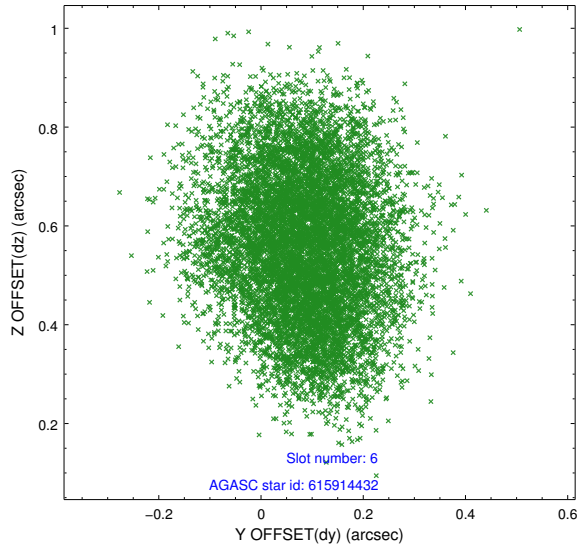




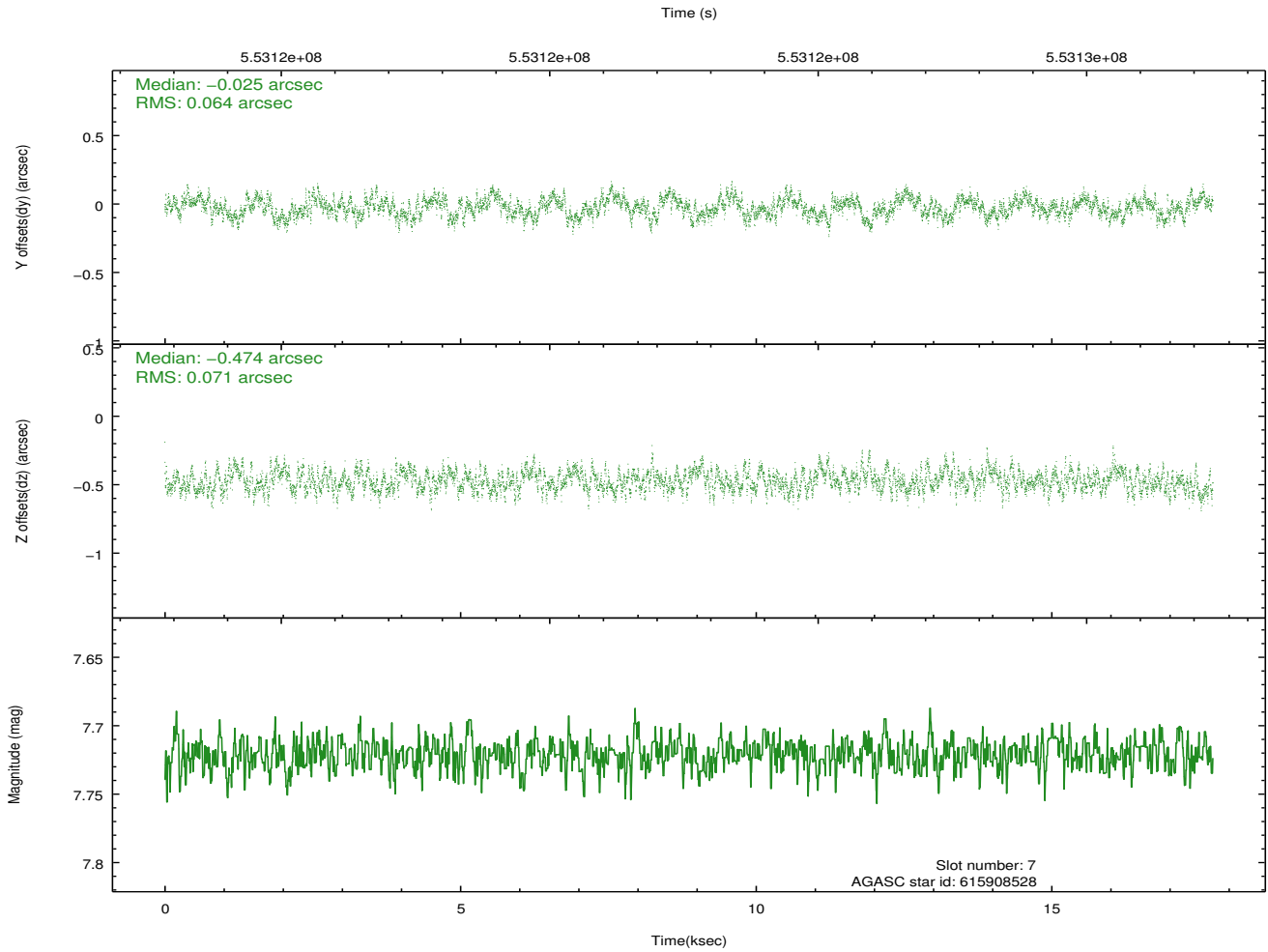
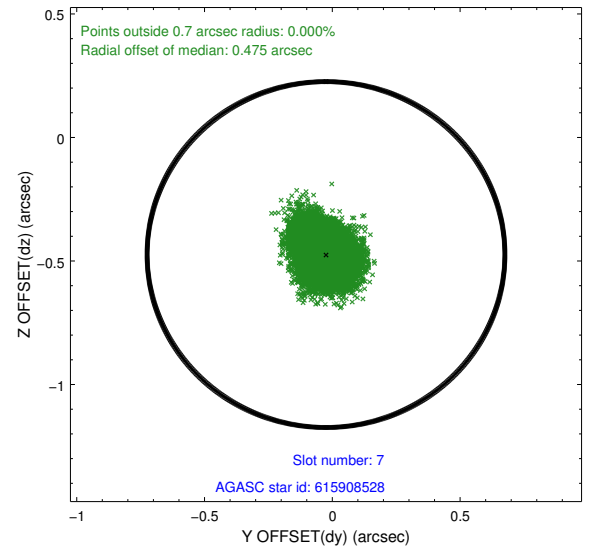
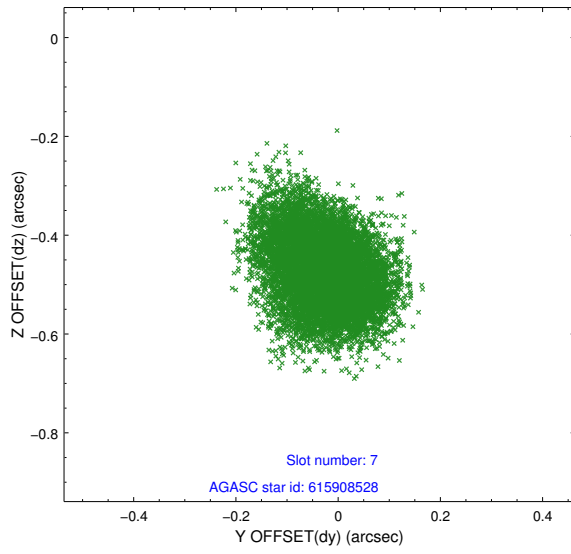
### 2.4.3 Slot 5



## 2.4.4 Slot 6

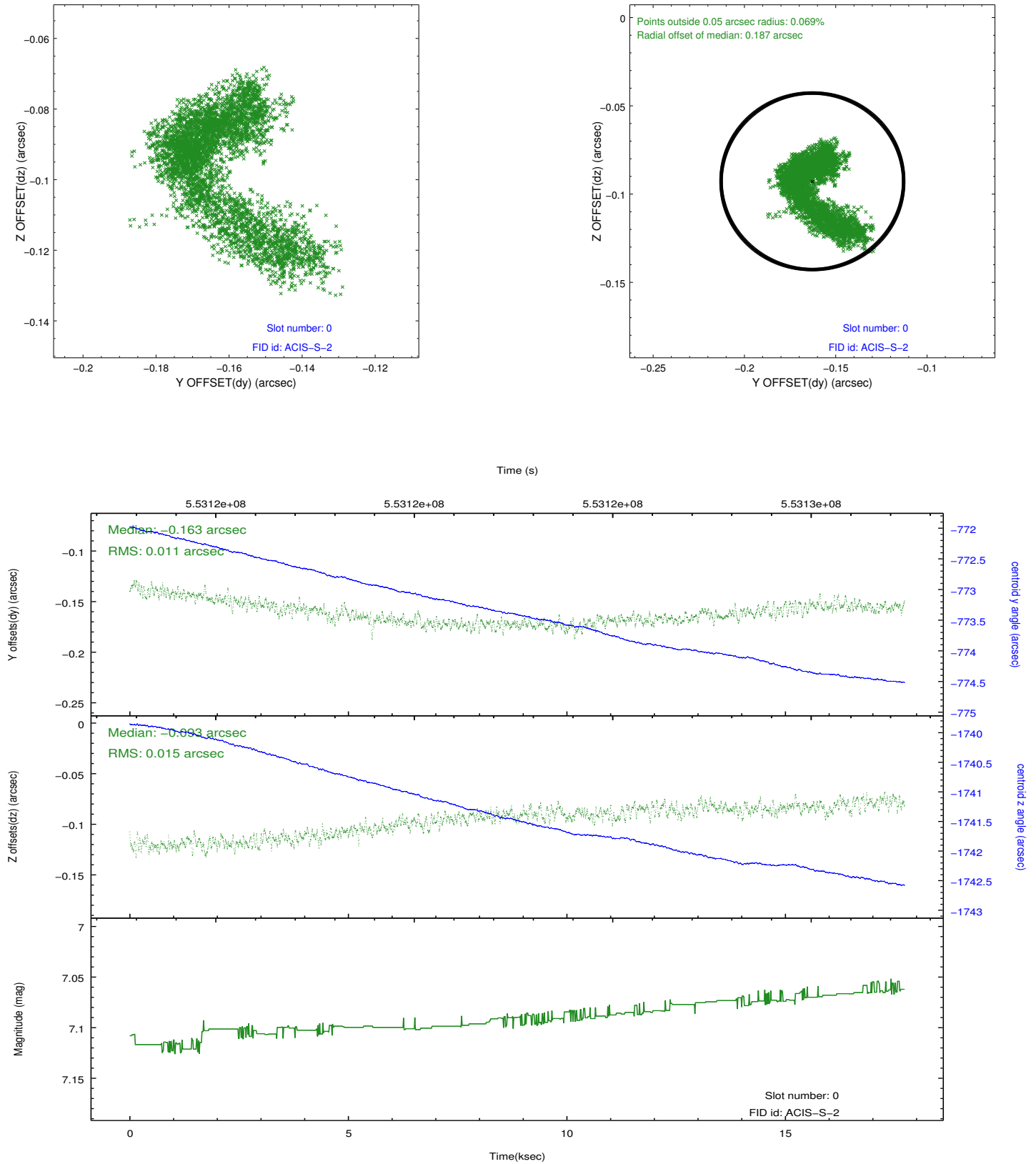


## 2.4.5 Slot 7

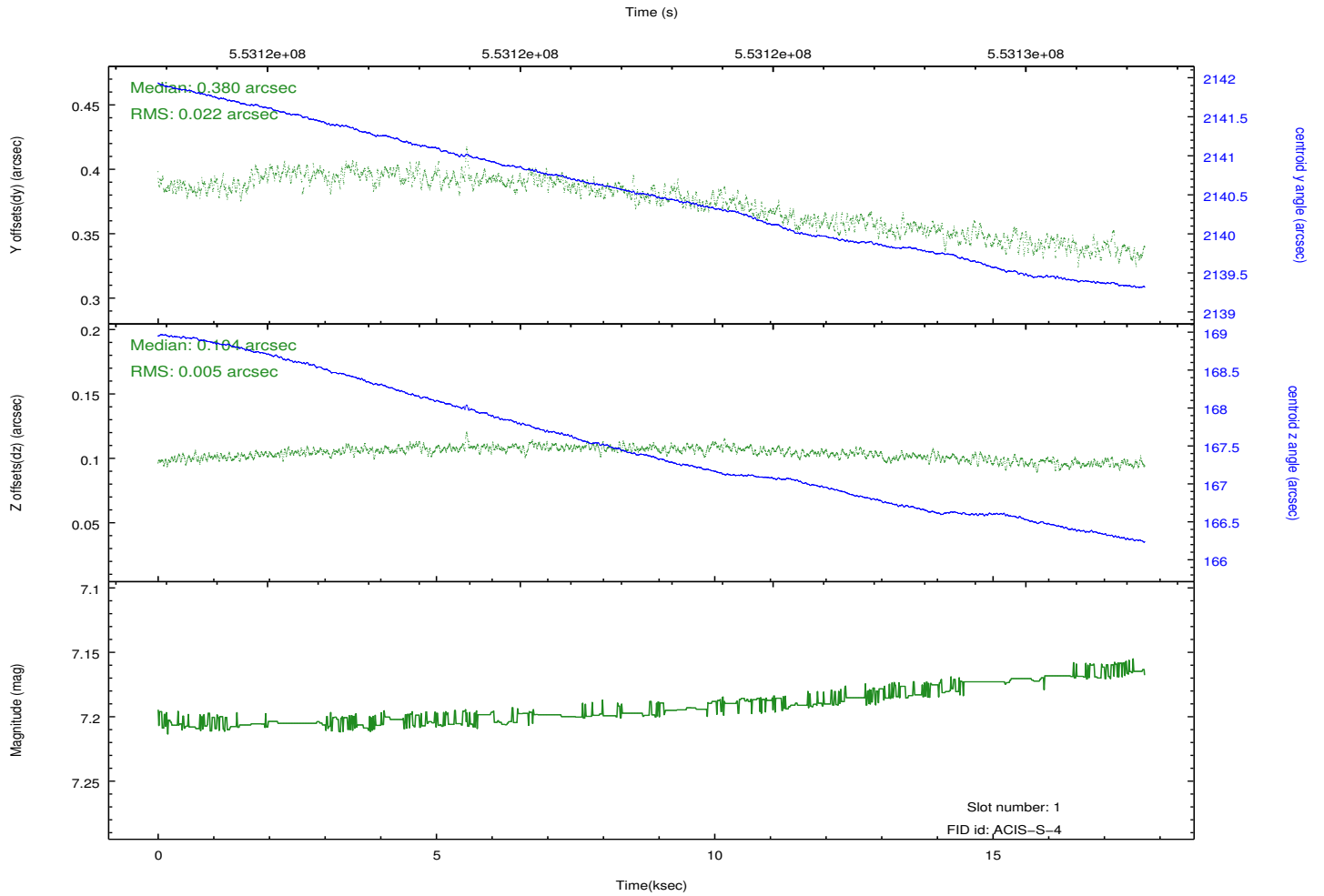
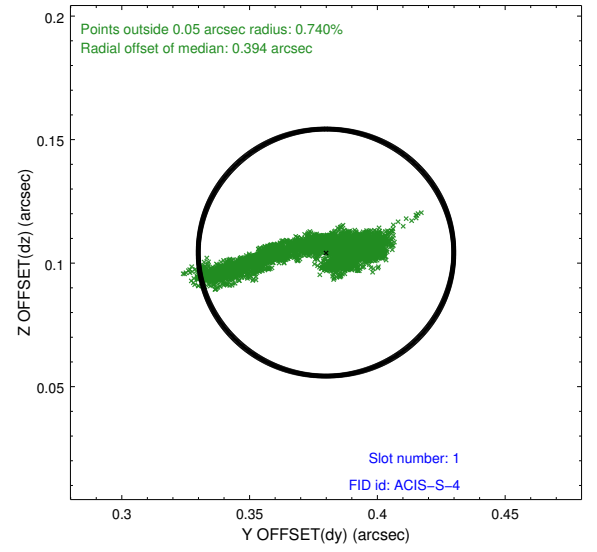
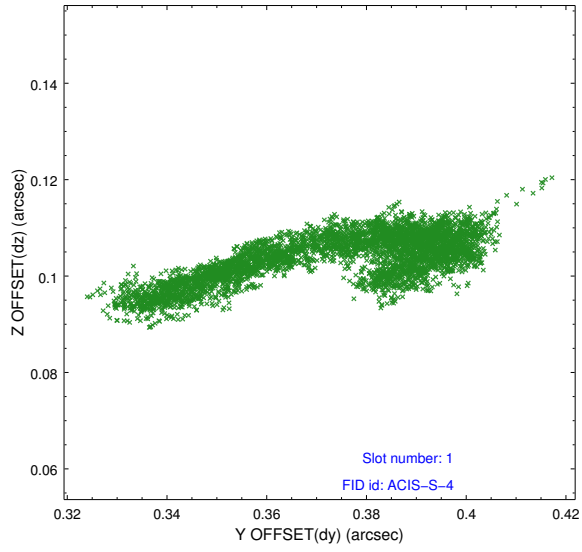


## 2.5 FID Slots

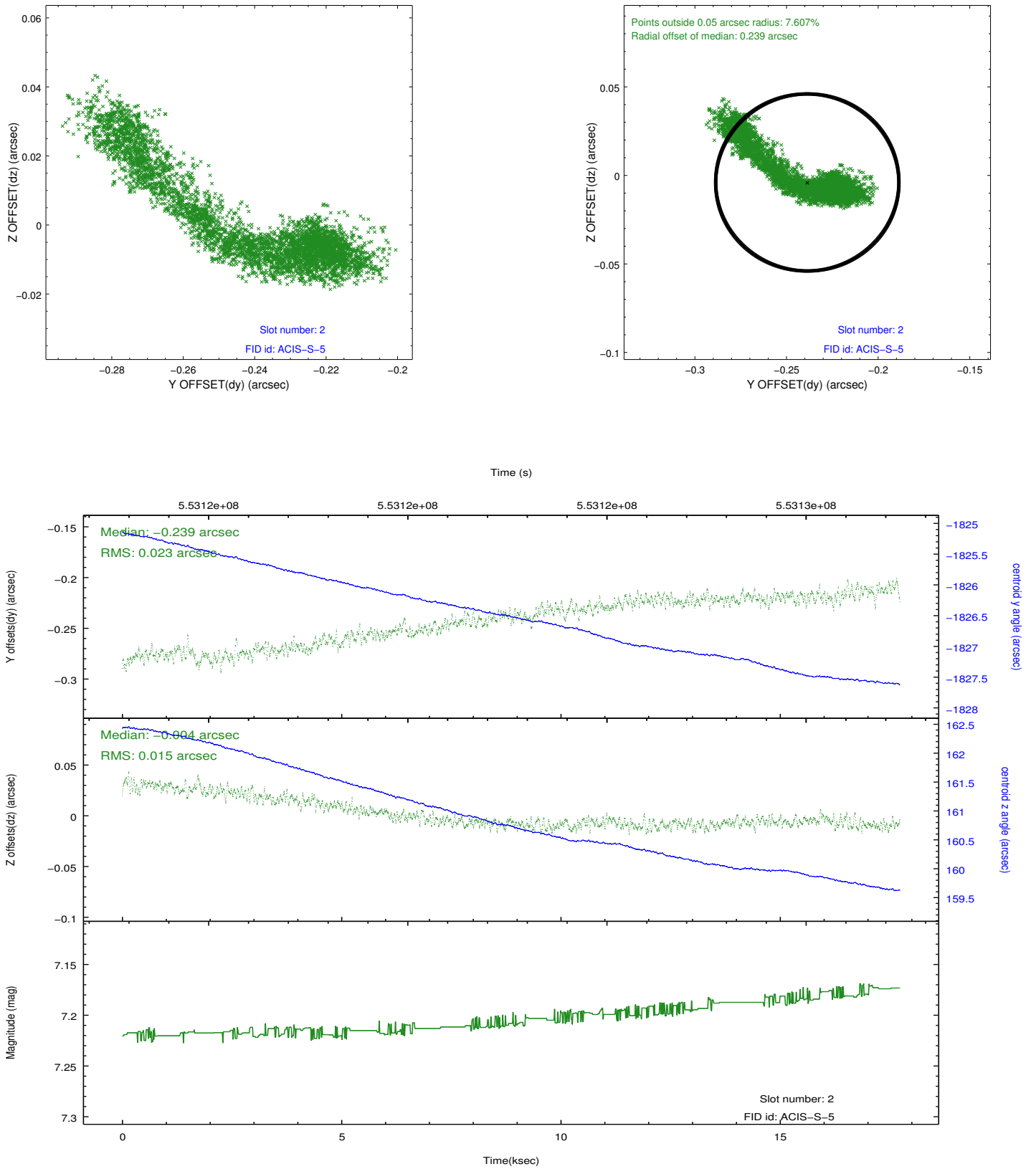
### 2.5.1 Slot 0



## 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)	2015.07.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	17.632555155754

### A.2 Comments

Joint proposal with HST.