

# V&V Reference Report

## L2 ASCDS Version : 10.4.2.1

Observation 18449 - L2 Version 1  
Chandra X-Ray Center

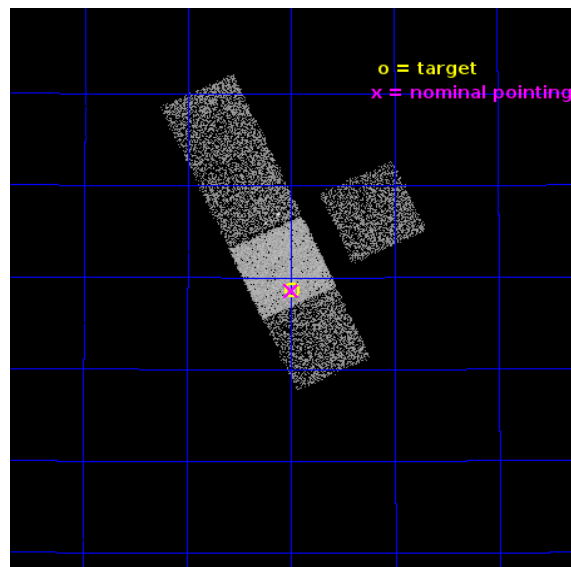
L2 Processing Date : Dec 12 2015

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# 1 Front

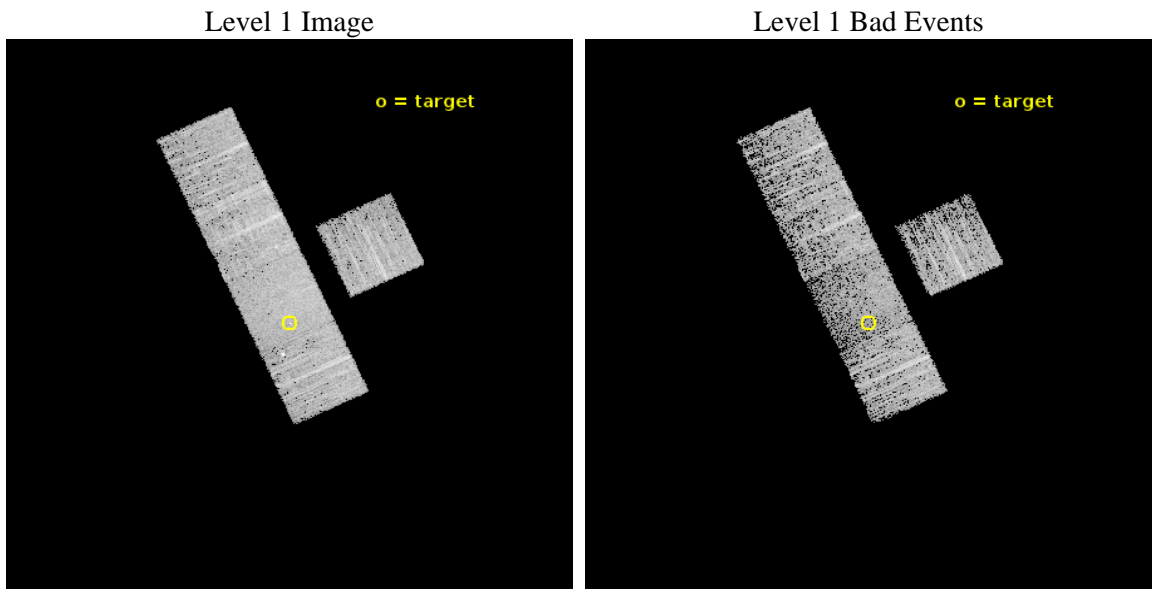
seq_num	703288	Sequence number
obs_id	18449	Observation id
title	Deciphering the X-ray Enhancement of Highly Radio-Loud Quasars in the Early Universe	Proposal title
observer	Dr. Gordon Garmire	Principal investigator
object	B3 0254+434	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	44.49625	Observer's specified target RA [deg]
dec_targ	43.643806	Observer's specified target Dec [deg]
ra_nom	44.499241498922	Nominal RA [deg]
dec_nom	43.642727721675	Nominal Dec [deg]
roll_nom	245.06269952067	Nominal Roll [deg]
revision	1	Processing version of data
ontime	5586.2000430822	Sum of GTIs [s]
livetime	5513.2122270187	Livetime [s]
ontime3	5586.2000430822	Sum of GTIs [s]
ontime6	5583.058962822	Sum of GTIs [s]
ontime7	5586.2000430822	Sum of GTIs [s]
ontime8	5579.9179029465	Sum of GTIs [s]
ontime9	5586.2000430822	Sum of GTIs [s]
l2events	26257	Number of level 2 events



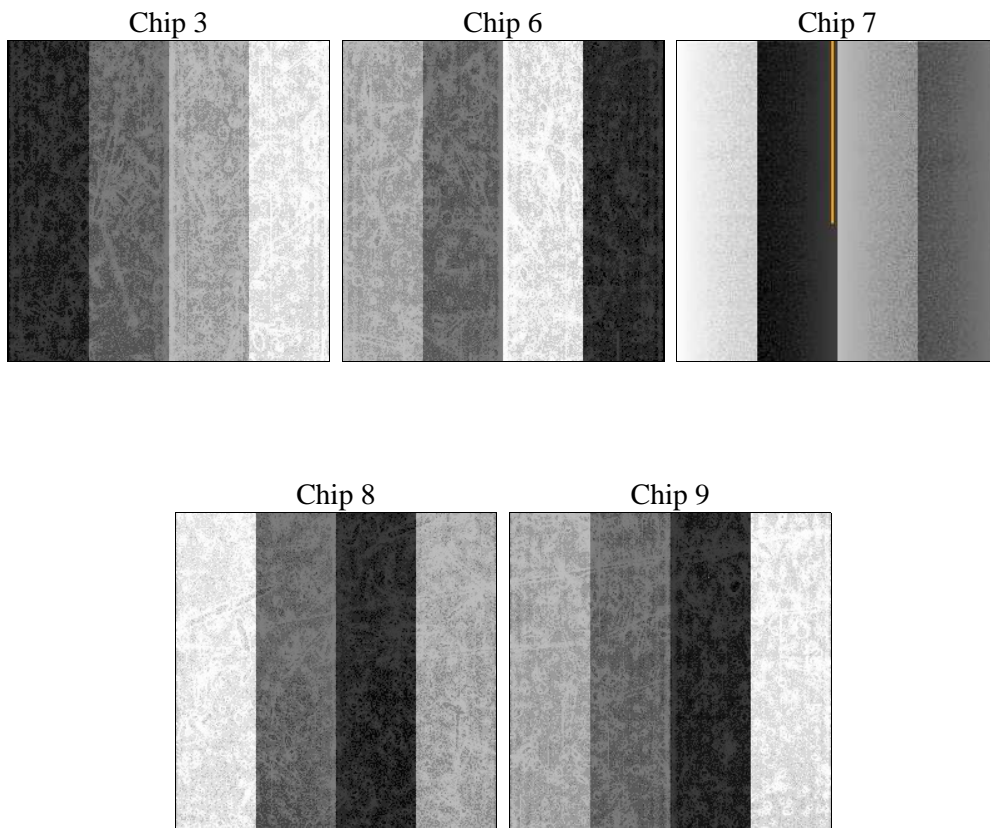
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5500.000000	[s] Scheduled observation exposure time
ascdsver	10.4.2.1	Processing system revision	ontime	5586.2000430822	Sum of GTIs [s]
caldsver	4.6.10a	&#160	ontime3	5586.2000430822	Sum of GTIs [s]
date	2015-12-12T19:36:26	Date and time of file creation	ontime6	5583.058962822	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	5586.2000430822	Sum of GTIs [s]
			ontime8	5579.9179029465	Sum of GTIs [s]
			ontime9	5586.2000430822	Sum of GTIs [s]
			l1events	155706	Number of level 1 events

### 2.1.4 Events

	ccd 3	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	27847	32308	32974	35814	26763
rejected events	24884	28715	18046	25847	23465
rejected %	89%	88%	54%	72%	87%

	ccd 3	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	1080	1388	1344	3002	1158
	3%	4%	4%	8%	4%
grade 1 events	13	20	45	31	15
	0%	0%	0%	0%	0%
grade 2 events	630	758	3154	2450	722
	2%	2%	9%	6%	2%
grade 3 events	316	298	1209	992	328
	1%	0%	3%	2%	1%
grade 4 events	304	337	1191	961	365
	1%	1%	3%	2%	1%
grade 5 events	1190	1171	3295	1792	1315
	4%	3%	9%	5%	4%
grade 6 events	634	812	8040	2572	726
	2%	2%	24%	7%	2%
grade 7 events	23680	27524	14696	24014	22134
	85%	85%	44%	67%	82%

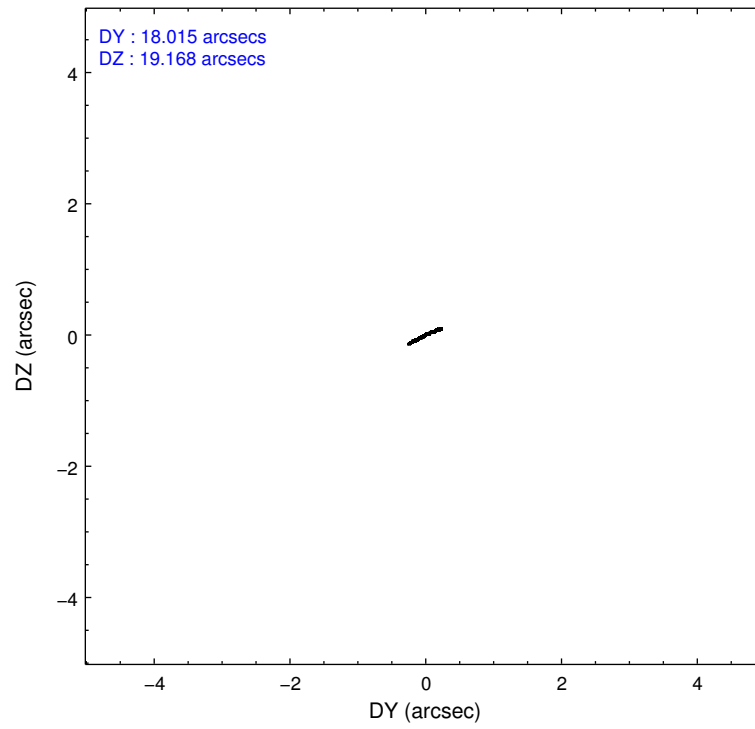
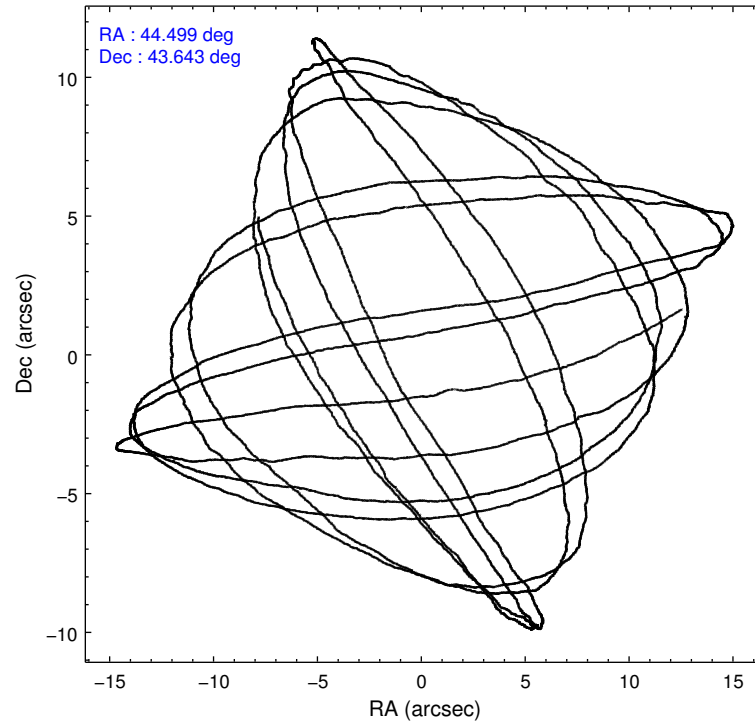


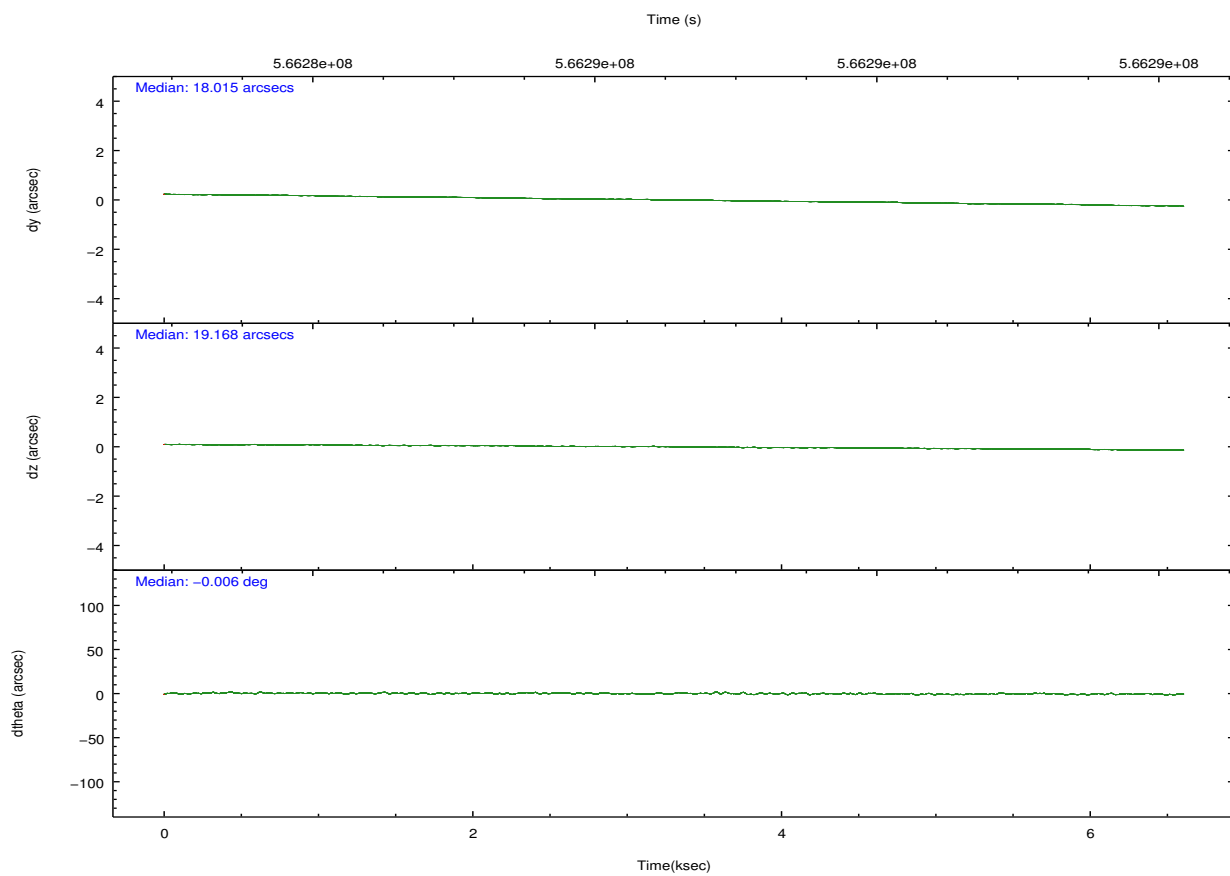
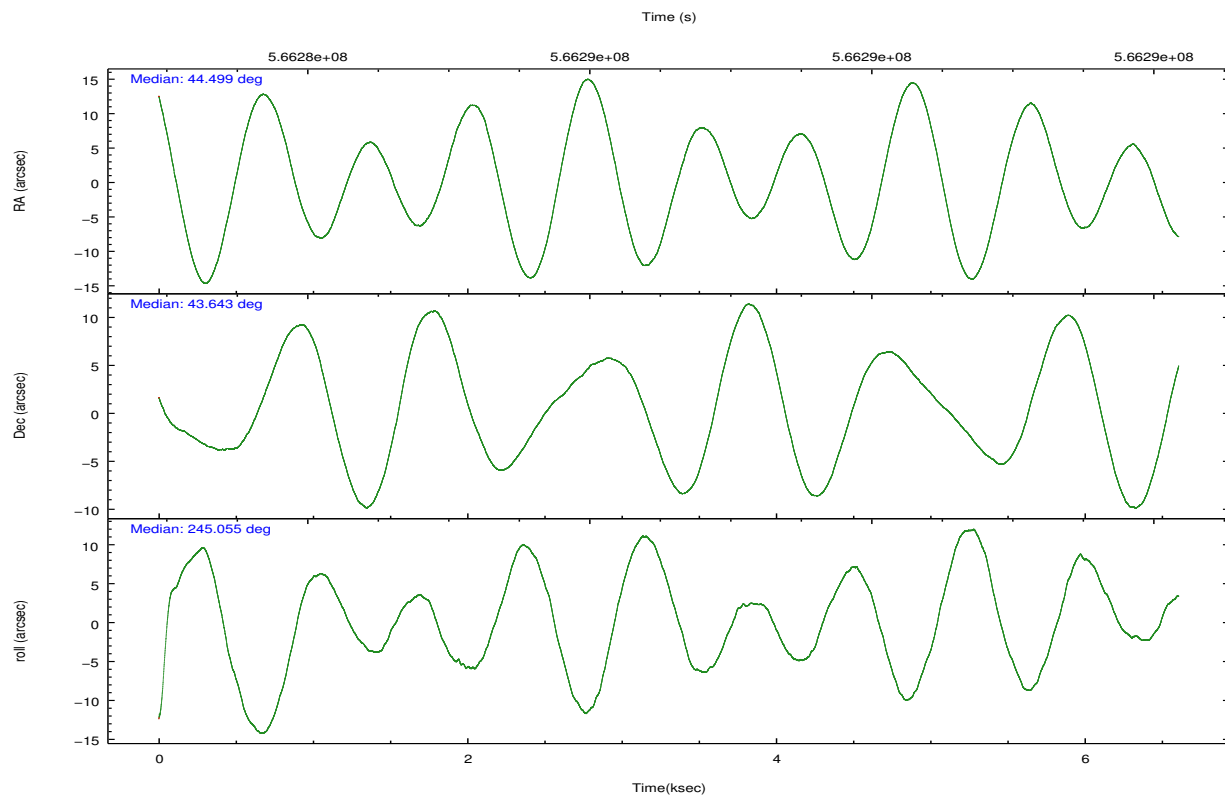
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-36789	ACIS-36789
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	44.495425	44.49924149892203
[deg] Pointing Dec	43.670144	43.64272772167526
[deg] Pointing Roll	244.908698	245.0626995206734
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.145094680475
[mm] SIM translation stage offset	0	0.01257209746719923
[s] Observation start time (MET)	566284370.184000	566282945.68031
Observation start date	2015-12-12T05:11:42	2015-12-12T04:49:05
[s] Observation end time (MET)	566289870.184000	566291013.9682699
Observation end date	2015-12-12T06:43:22	2015-12-12T07:03:33
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	N	N
CCD I1 on	N	N
CCD I2 on	O1	N
CCD I3 on	O2	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	Y	Y
CCD S5 on	Y	Y
Number of optional ACIS chips dropped	1	1
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



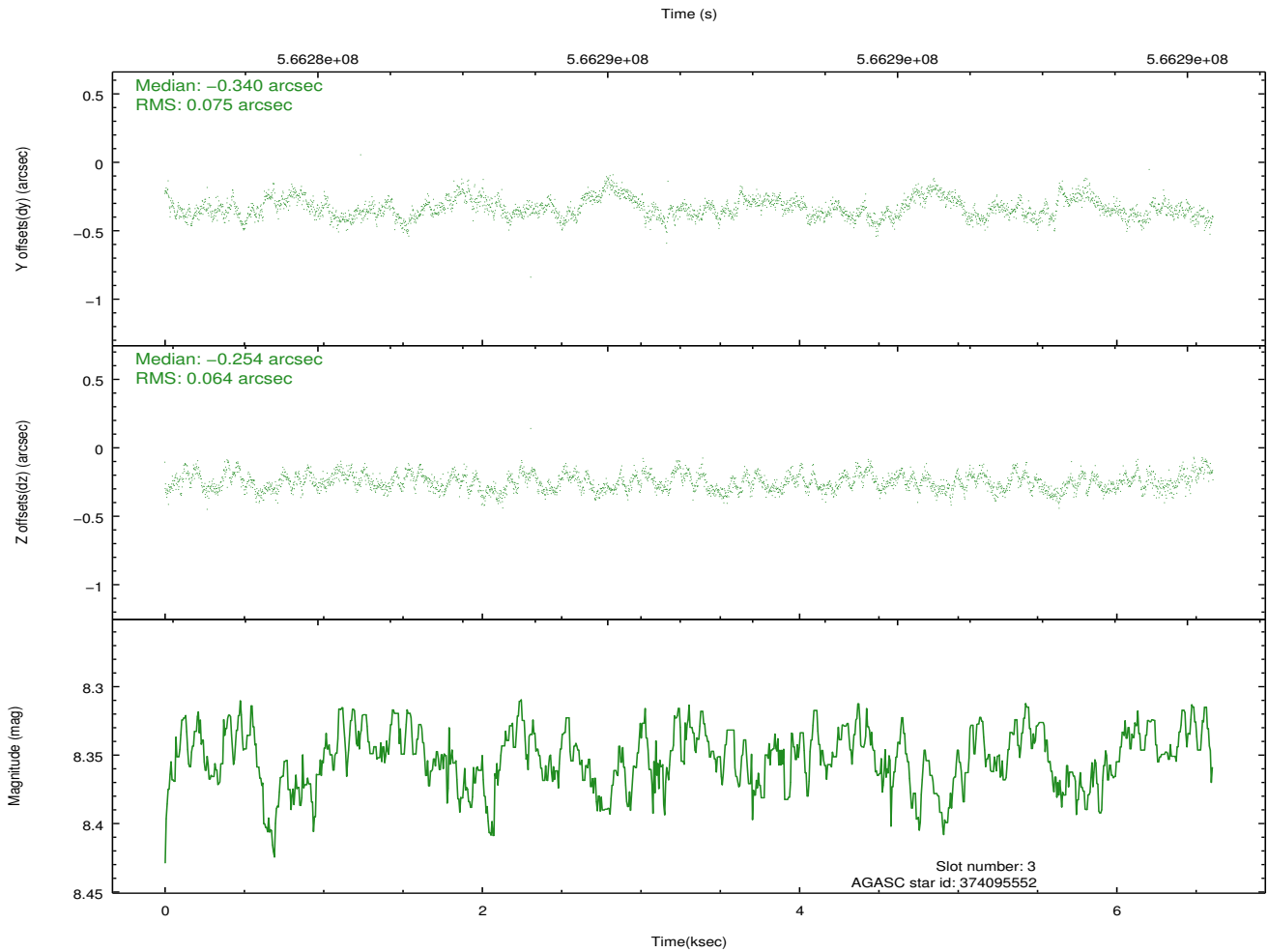
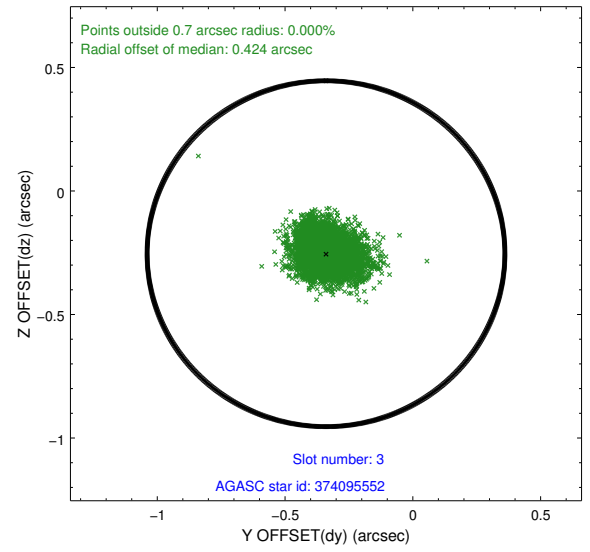
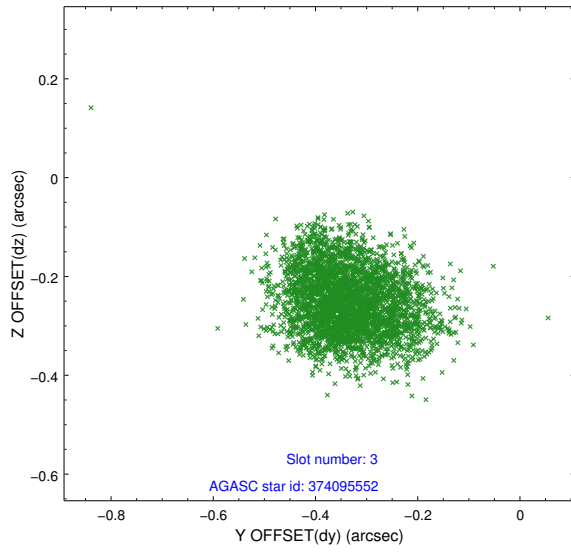


### Slot Statistics

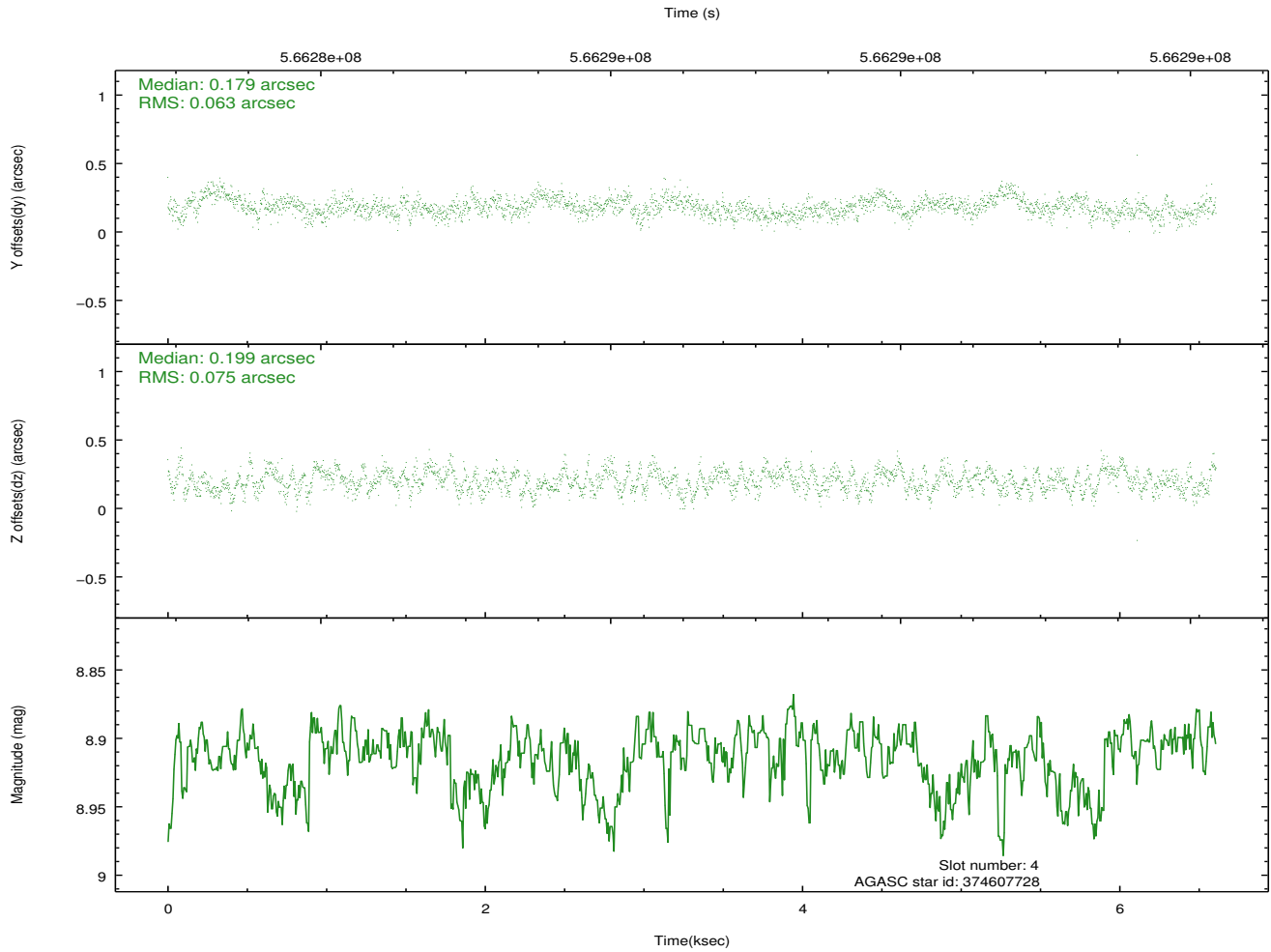
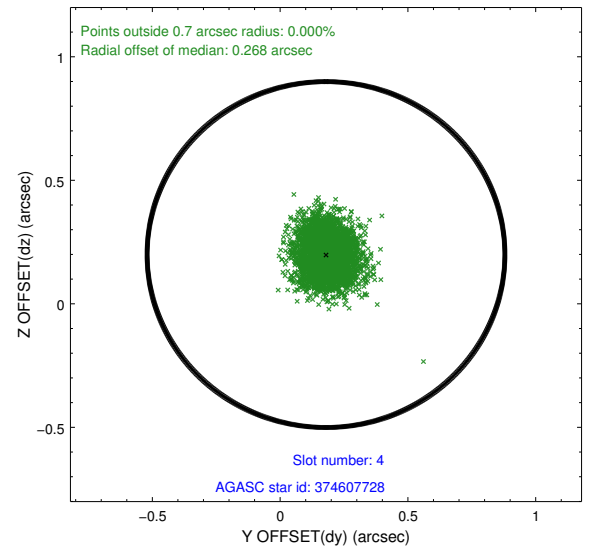
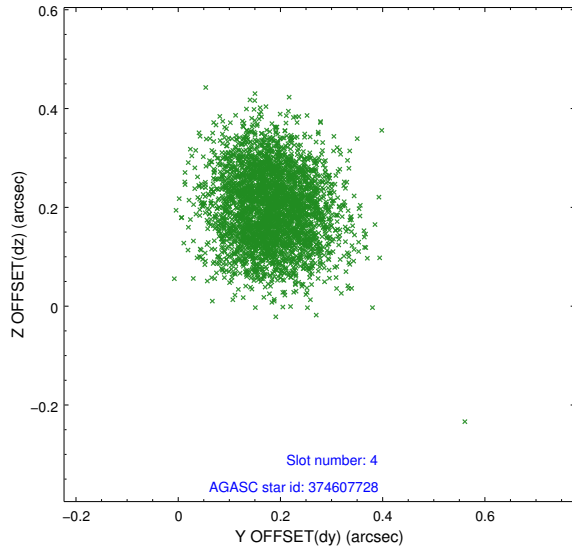
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.23	1612	-0.067	-0.047	0.007	0.013	0.000000	0.000000	924.92	-1736.21
1	FID		ACIS-S-4	7.23	1612	0.181	0.039	0.008	0.013	0.000000	0.000000	2143.04	167.13
2	FID		ACIS-S-6	7.38	1612	-0.138	0.019	0.007	0.012	0.000000	0.000000	391.88	805.45
3	GUIDE	used	374095552	8.35	3223	-0.340	-0.254	0.105	0.166	44.858276	42.881709	2162.13	2069.69
4	GUIDE	used	374607728	8.91	3221	0.179	0.199	0.105	0.167	44.110293	44.091335	-951.97	-1544.88
5	GUIDE	used	374623000	8.12	3222	0.192	0.163	0.082	0.135	44.482514	43.722042	-155.11	-110.03
6	GUIDE	used	374623056	8.92	3221	0.163	0.281	0.098	0.158	44.416015	44.070120	-1216.88	-796.64
7	GUIDE	used	374750880	8.00	3223	-0.201	-0.392	0.094	0.142	45.046507	43.126780	1152.33	2138.53

## 2.4 Star Slots

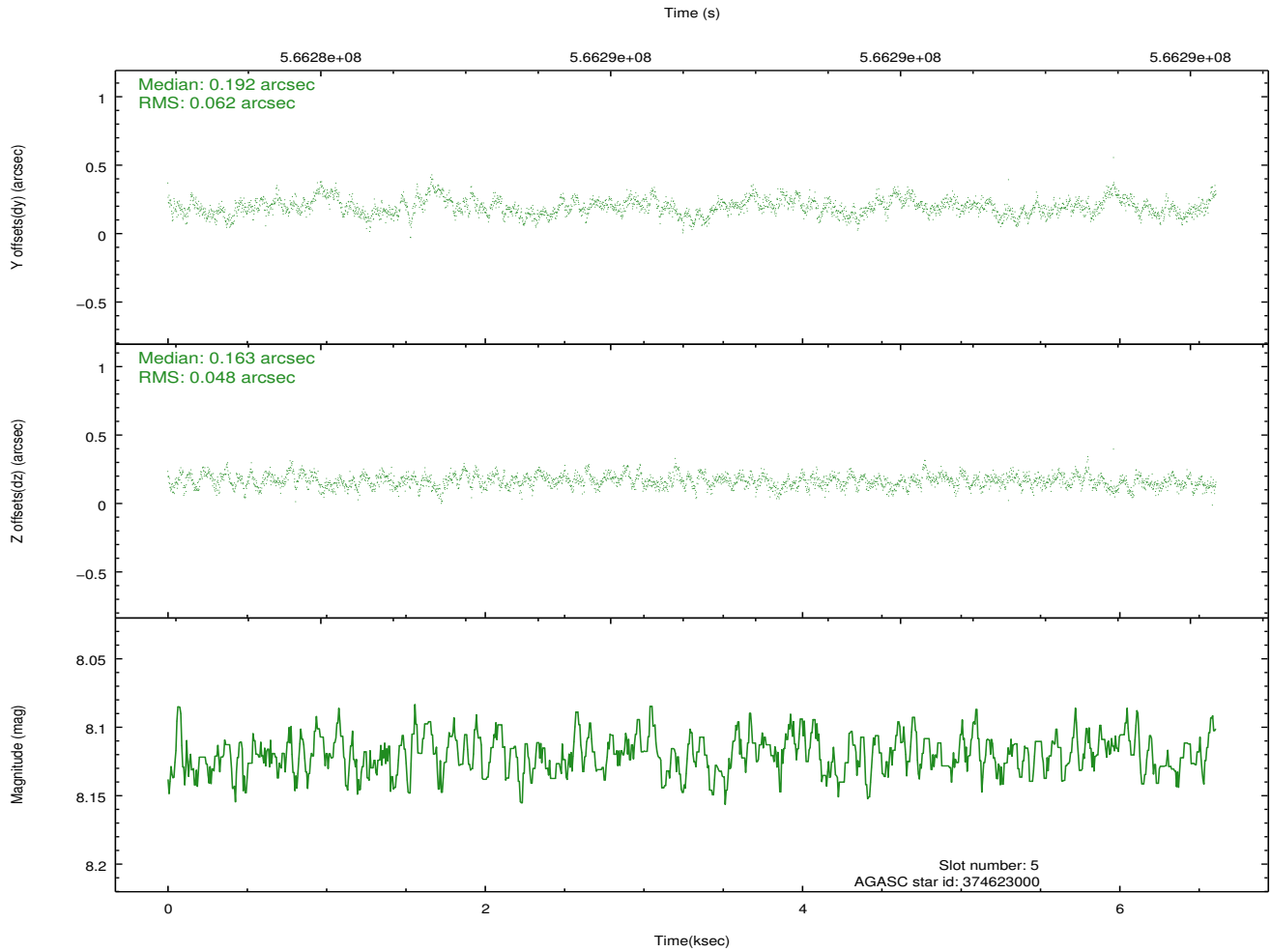
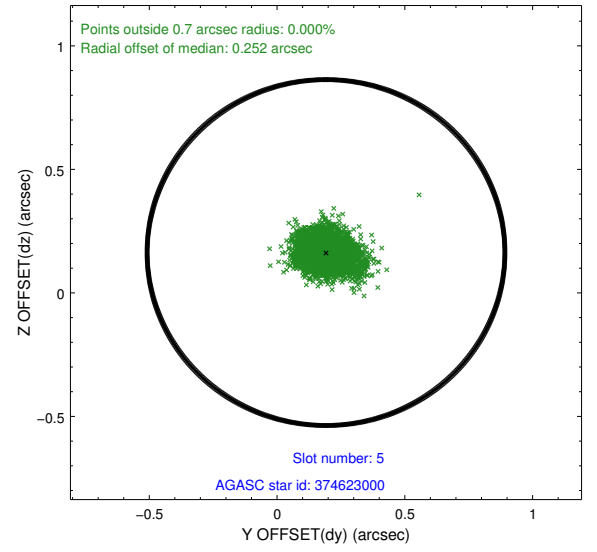
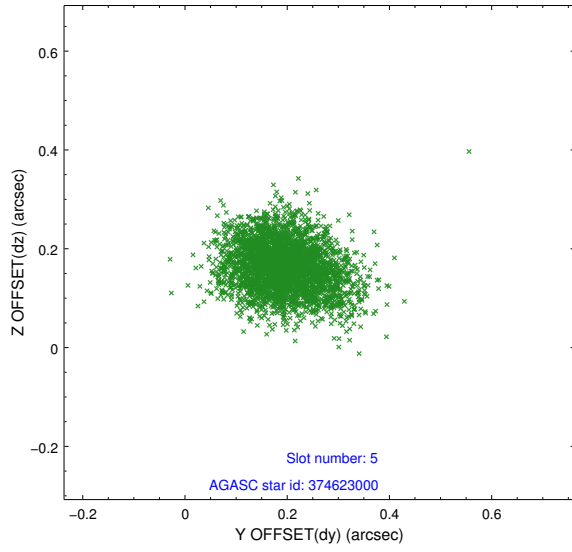
### 2.4.1 Slot 3



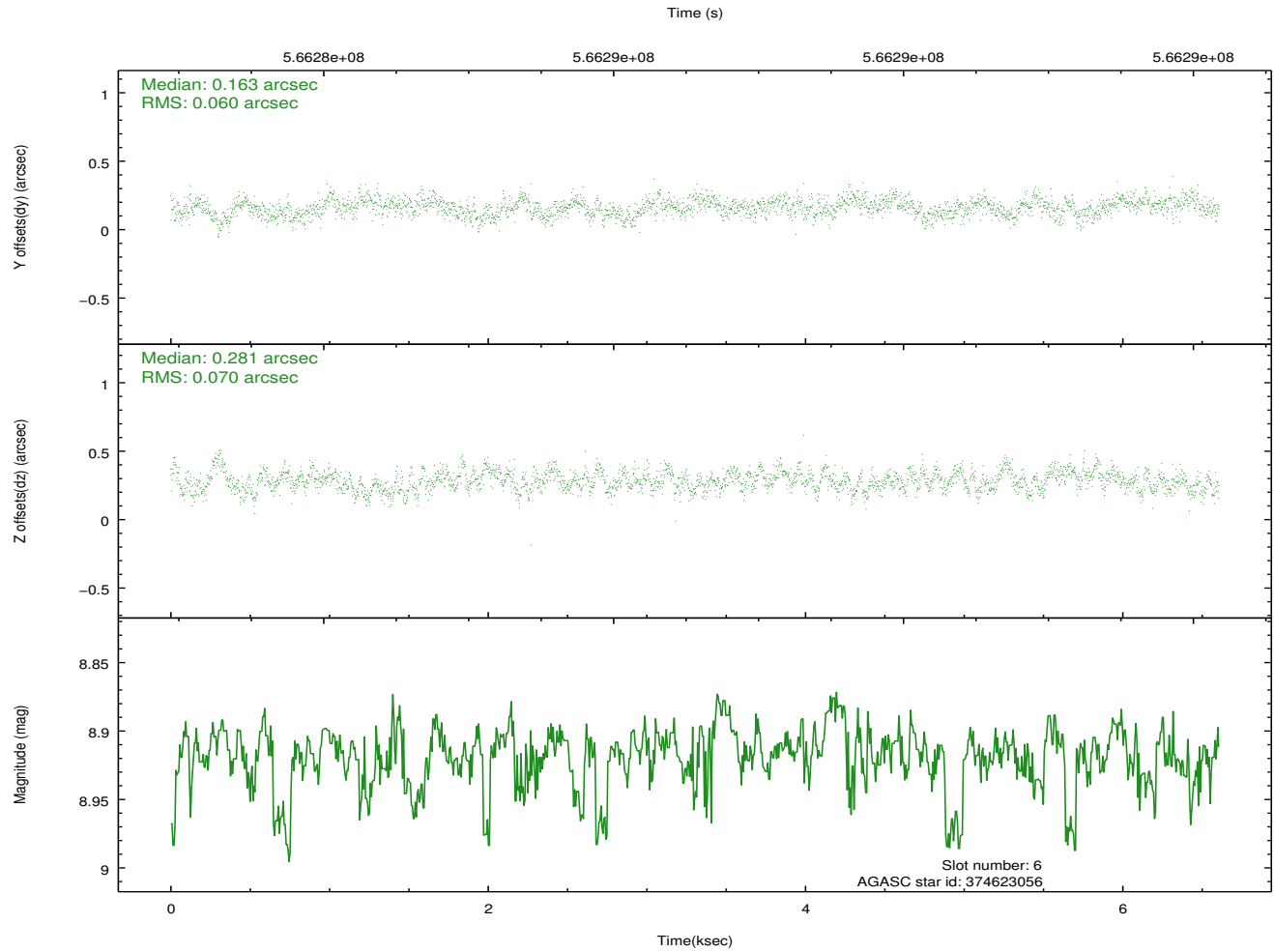
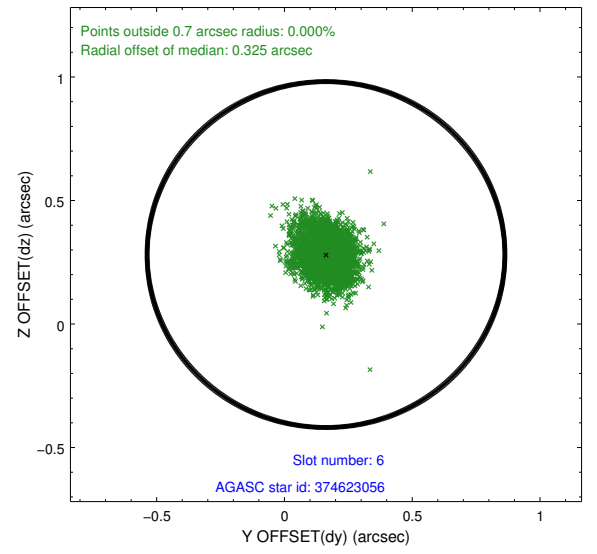
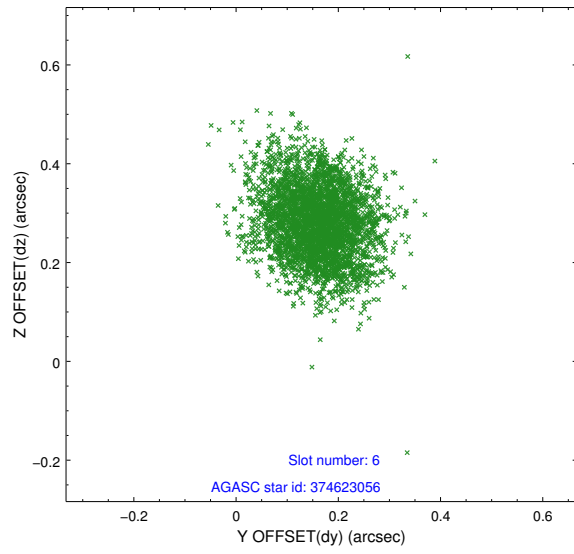
## 2.4.2 Slot 4



### 2.4.3 Slot 5

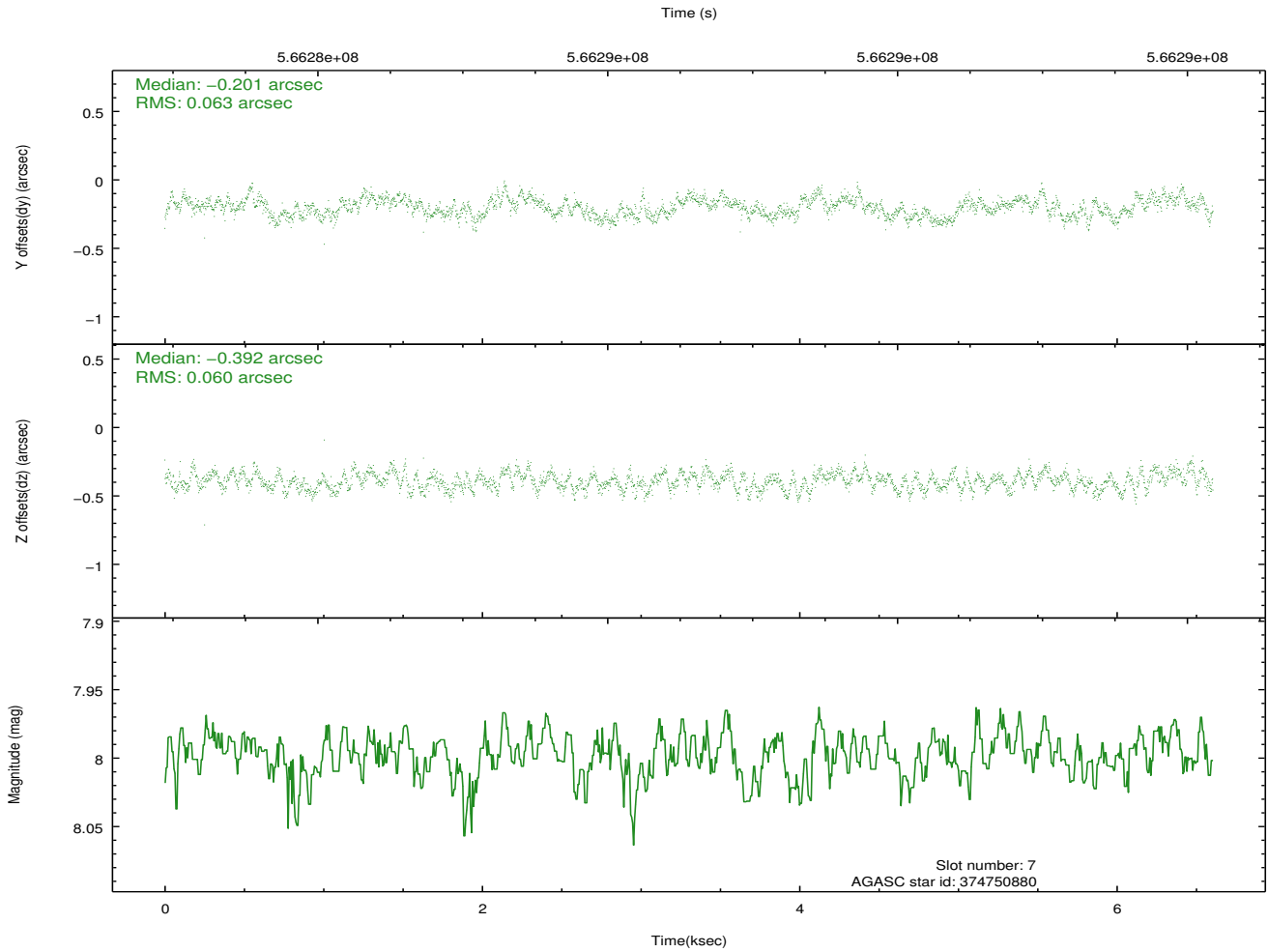
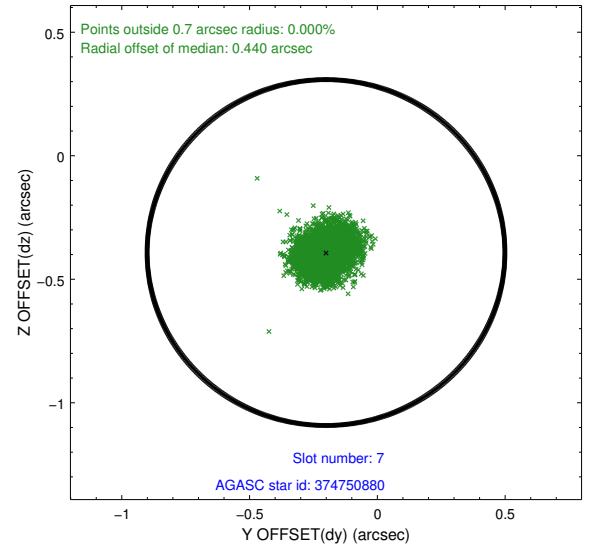
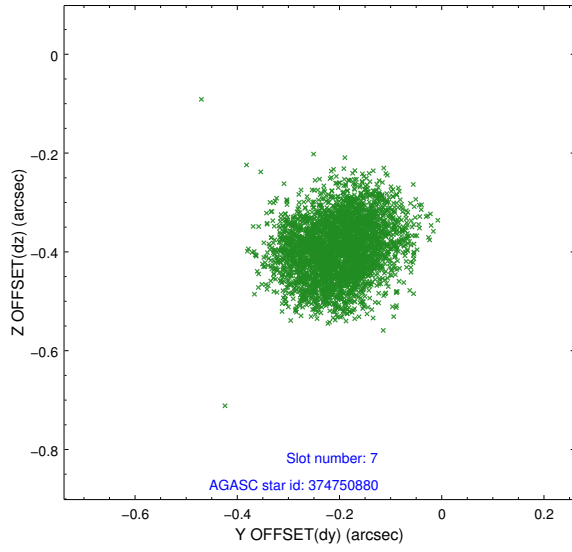


## 2.4.4 Slot 6



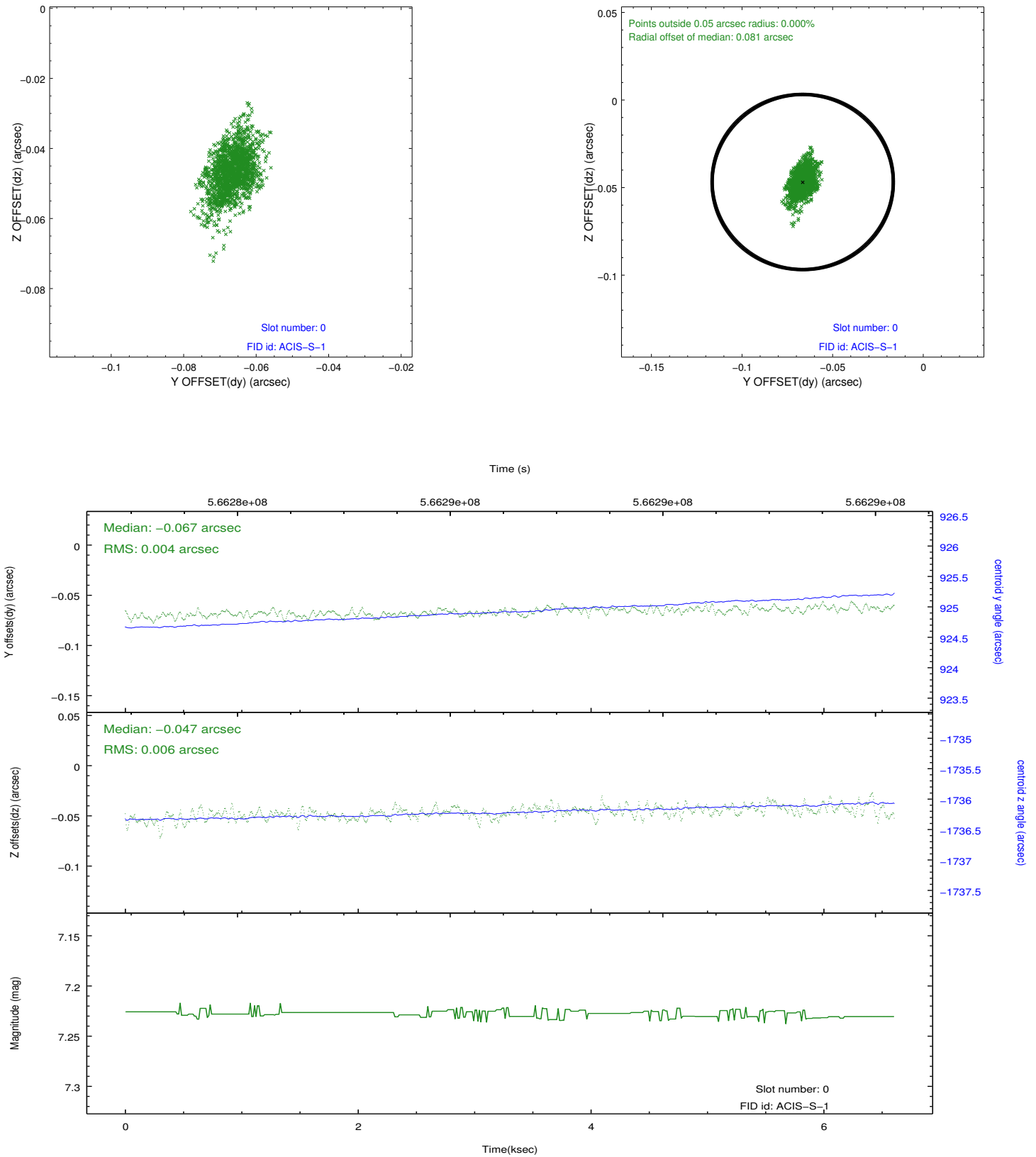


## 2.4.5 Slot 7

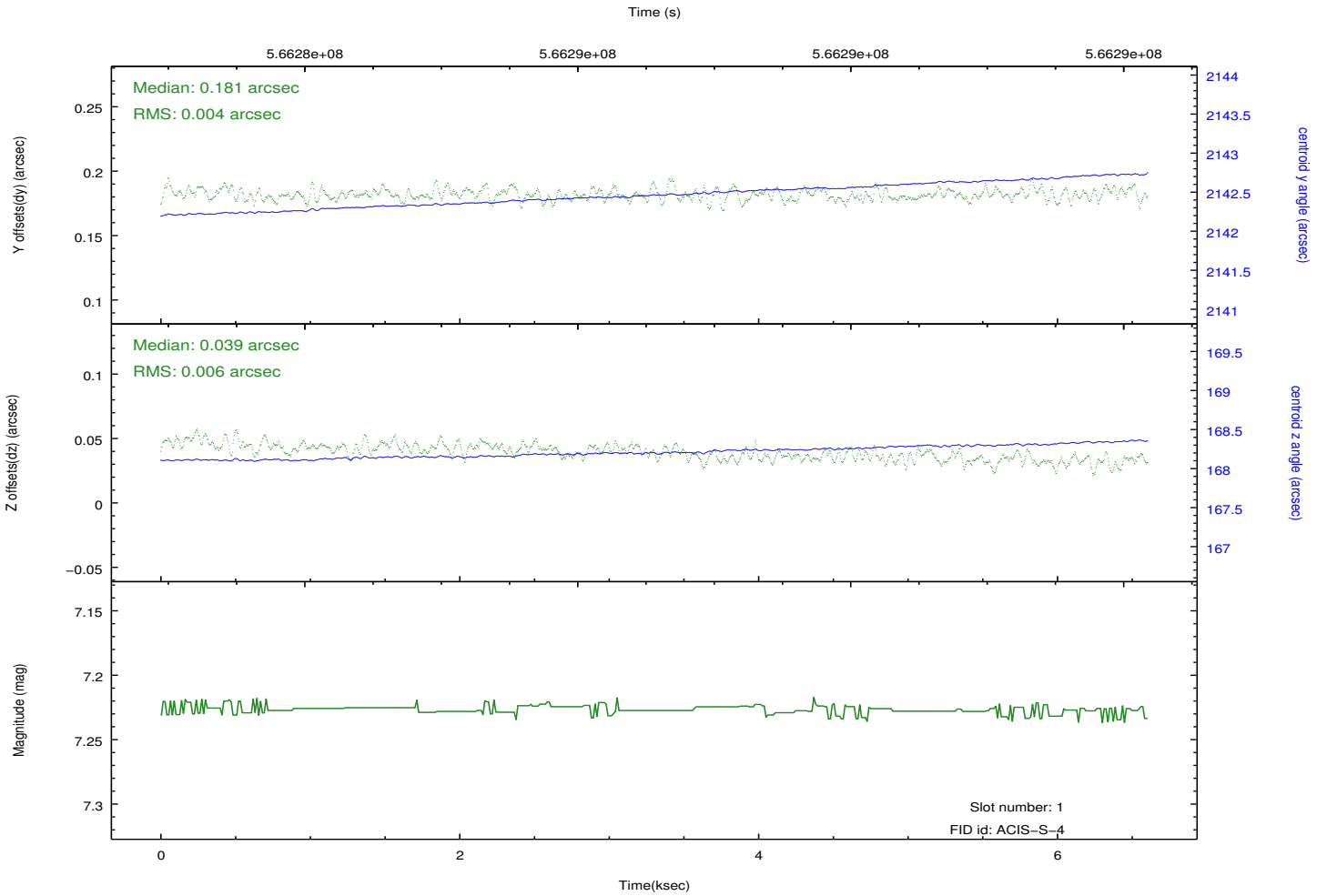
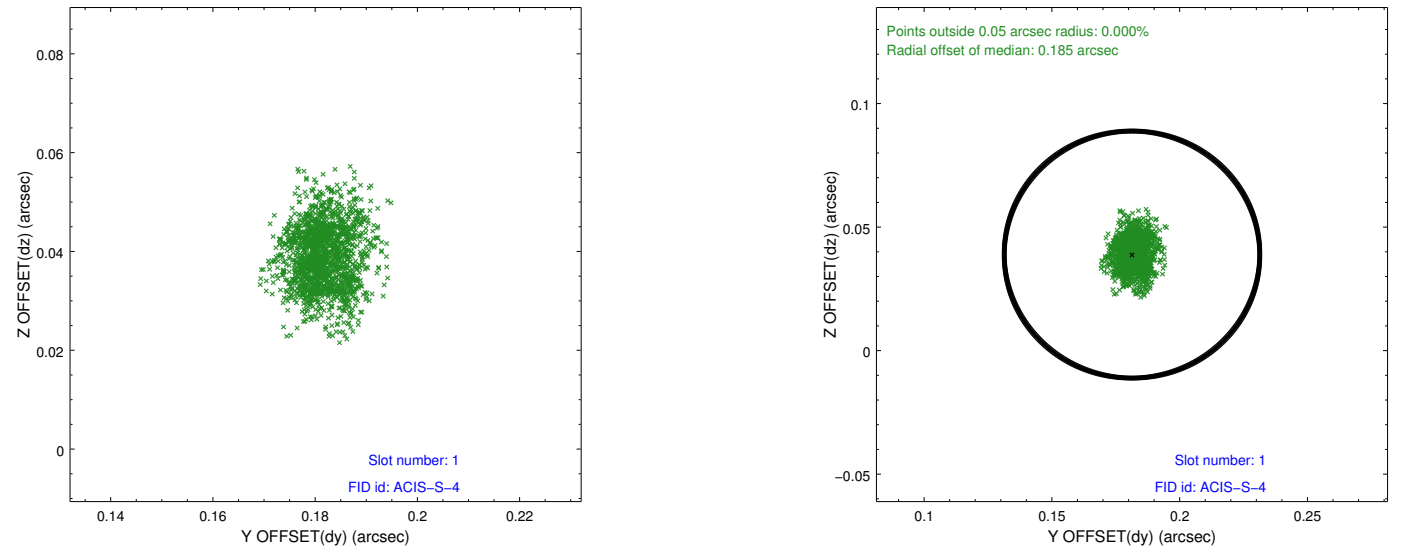


## 2.5 FID Slots

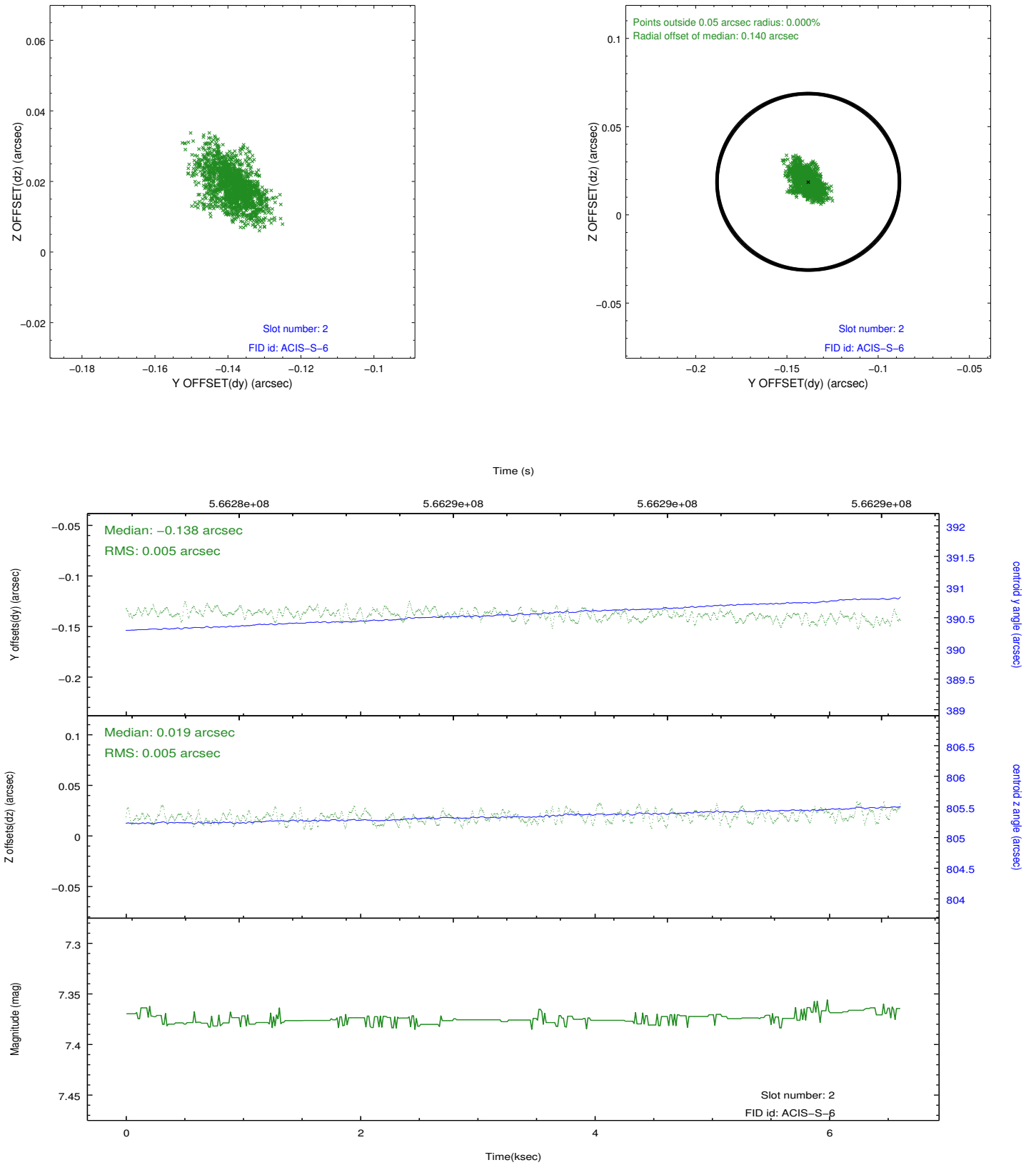
### 2.5.1 Slot 0



## 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)	2015.12.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.5862000430822

### A.2 Comments

Optional chip I2 was dropped.