

# V&V Reference Report

## L2 ASCDS Version : 10.6

Observation 16958 - L2 Version 1  
Chandra X-Ray Center

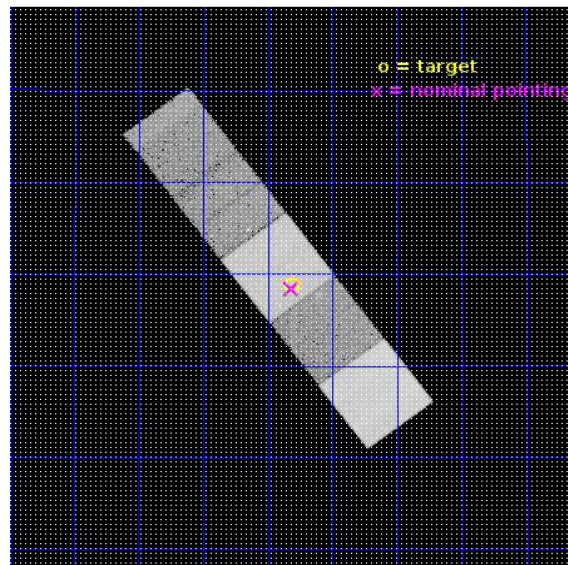
L2 Processing Date : Sep 16 2017

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# 1 Front

seq_num	502474	Sequence number
obs_id	16958	Observation id
title	Deep study on the proper motion and collimated tail of the oldish PSR J2055+2539	Proposal title
observer	Martino Marelli	Principal investigator
object	PSR J2055+2539 nebula	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	313.95359	Observer's specified target RA [deg]
dec_targ	25.645942	Observer's specified target Dec [deg]
ra_nom	313.95470939173	Nominal RA [deg]
dec_nom	25.640089260006	Nominal Dec [deg]
roll_nom	233.15614343782	Nominal Roll [deg]
revision	1	Processing version of data
ontime	29600.685828567	Sum of GTIs [s]
livetime	29213.931076508	Livetime [s]
ontime5	29600.644788623	Sum of GTIs [s]
ontime6	29600.60374856	Sum of GTIs [s]
ontime7	29600.685828567	Sum of GTIs [s]
ontime8	29600.562708616	Sum of GTIs [s]
ontime9	29600.521668553	Sum of GTIs [s]
l2events	326493	Number of level 2 events

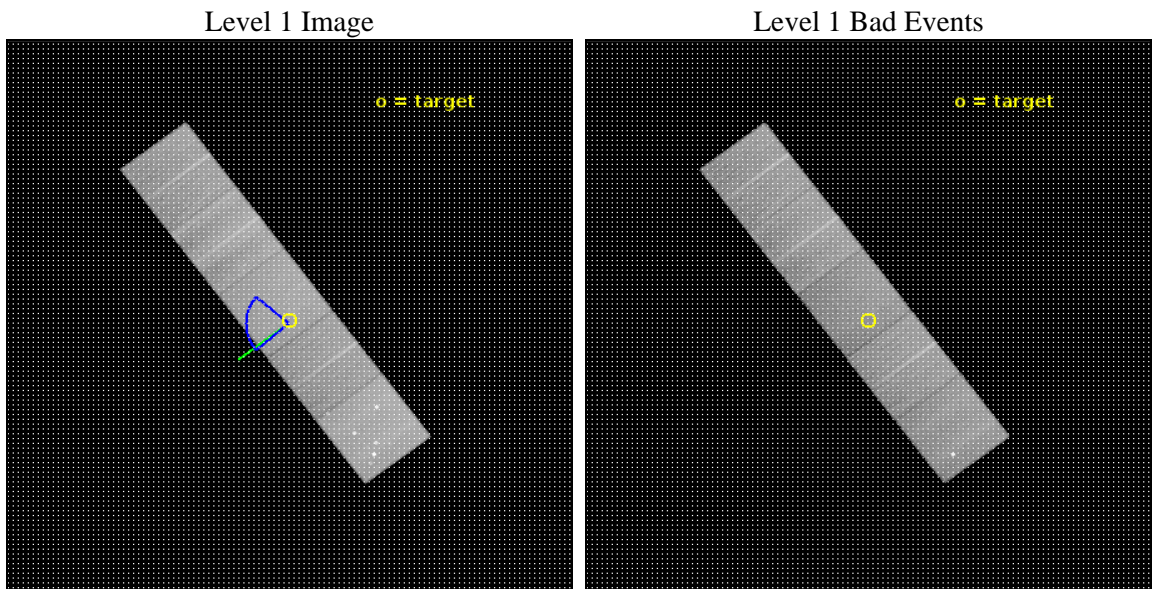




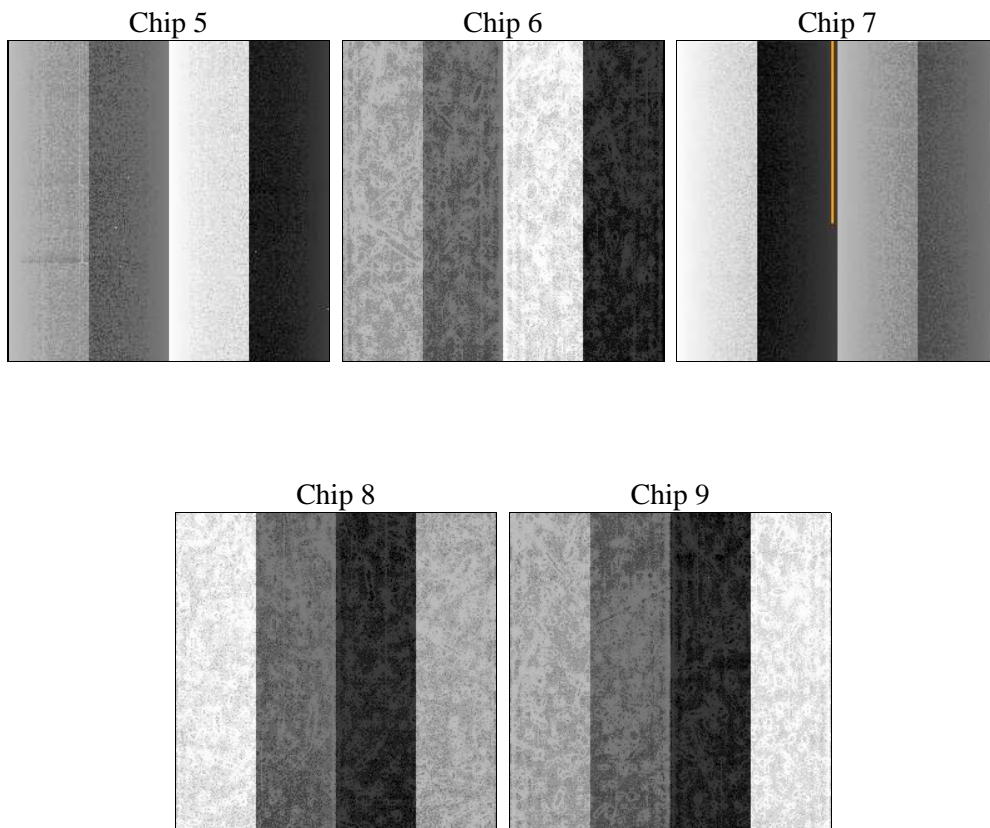
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	29548.114000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	29600.685828567	Sum of GTIs [s]
caldsver	4.7.6	&#160	ontime5	29600.644788623	Sum of GTIs [s]
date	2017-09-16T05:40:02	Date and time of file creation	ontime6	29600.60374856	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	29600.685828567	Sum of GTIs [s]
			ontime8	29600.562708616	Sum of GTIs [s]
			ontime9	29600.521668553	Sum of GTIs [s]
			l1events	1295151	Number of level 1 events

### 2.1.4 Events

	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	347400	208708	263864	265282	209897
rejected events	175093	184496	147156	196344	184605
rejected %	50%	88%	55%	74%	87%

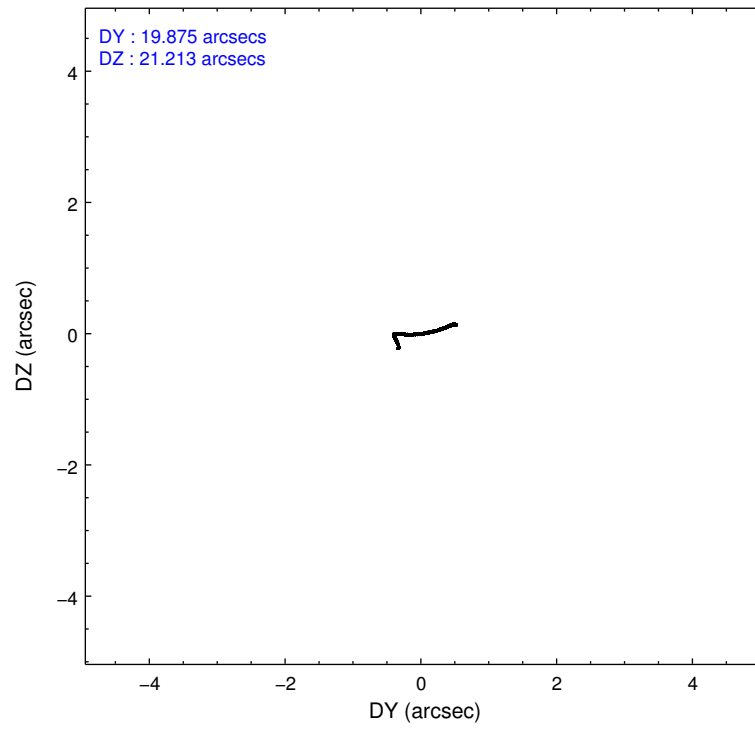
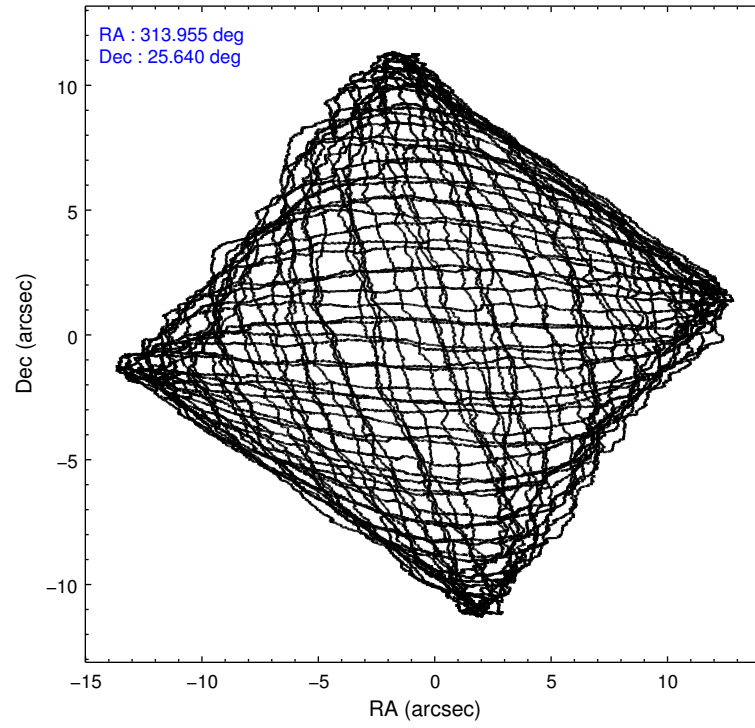
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	26997	8006	10483	19772	9171
	7%	3%	3%	7%	4%
grade 1 events	772	92	339	206	135
	0%	0%	0%	0%	0%
grade 2 events	50547	5825	24329	16768	5713
	14%	2%	9%	6%	2%
grade 3 events	4521	2130	9551	7274	2442
	1%	1%	3%	2%	1%
grade 4 events	4417	2282	9533	6633	2376
	1%	1%	3%	2%	1%
grade 5 events	20902	9023	25912	13974	10365
	6%	4%	9%	5%	4%
grade 6 events	85849	5972	62826	18491	5593
	24%	2%	23%	6%	2%
grade 7 events	153395	175378	120891	182164	174102
	44%	84%	45%	68%	82%

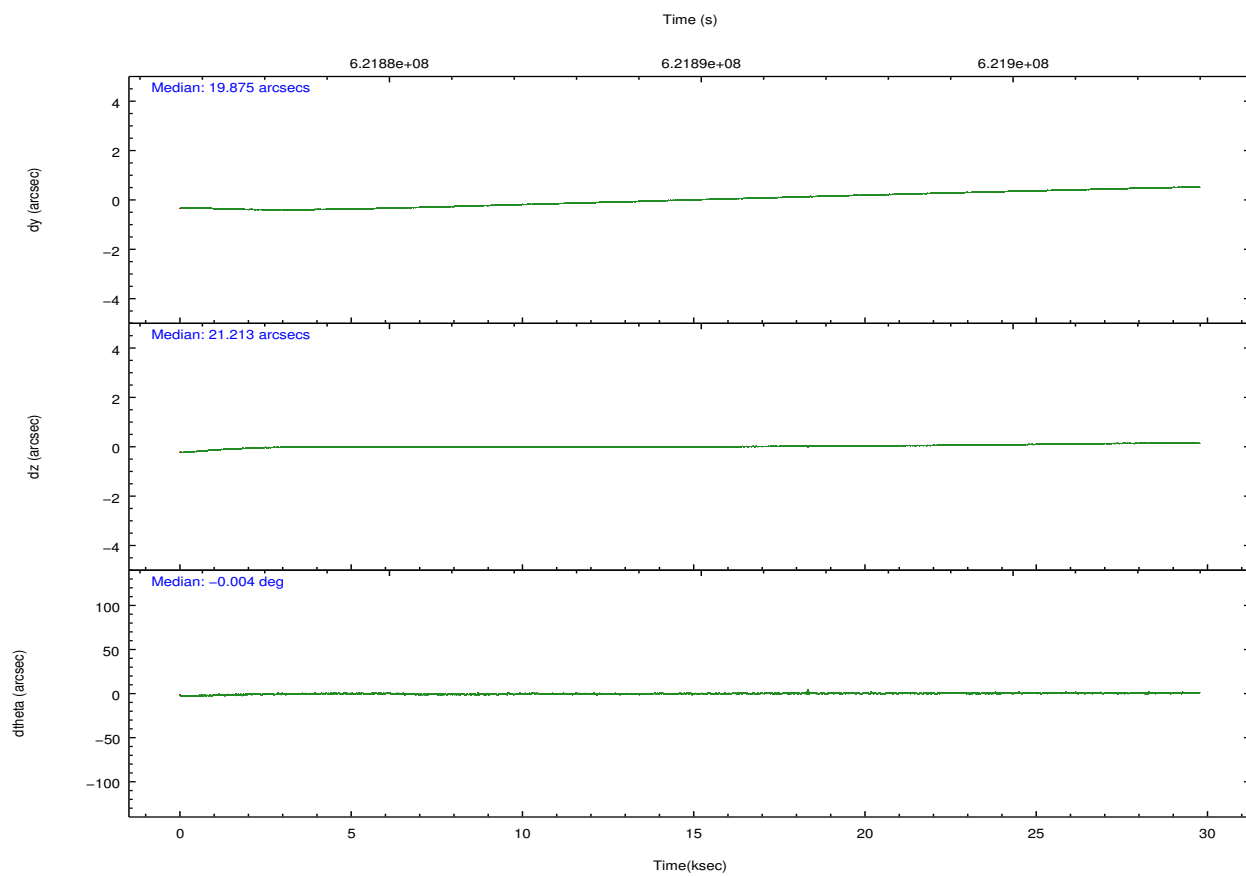
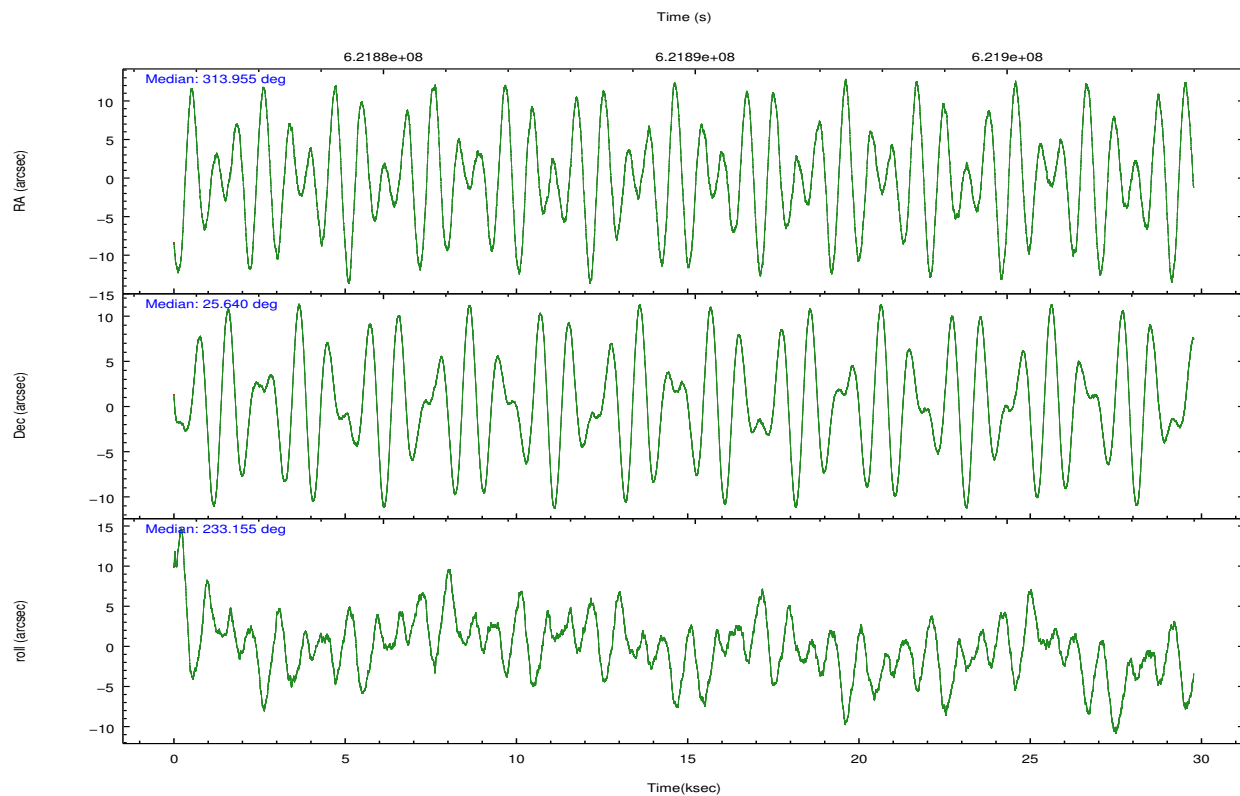
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-56789	ACIS-56789
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	313.957939	313.9547093917305
[deg] Pointing Dec	25.667377	25.64008926000572
[deg] Pointing Roll	232.998121	233.156143437819
[deg] Roll angle	270.000000	270.000000
[deg] Roll tolerance	40.000000	40.000000
Roll constraint allows 180D rotation	N	N
[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)	621874961.184000	621874089.8078099
Observation start date	2017-09-15T15:01:32	2017-09-15T14:48:09
[s] Observation end time (MET)	621904509.184000	621905575.75965
Observation end date	2017-09-15T23:14:00	2017-09-15T23:32:55
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	N	N
CCD I3 on	N	N
CCD S0 on	N	N
CCD S1 on	O2	Y
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	Y	Y
CCD S5 on	O1	Y
Number of optional ACIS chips dropped	0	0
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



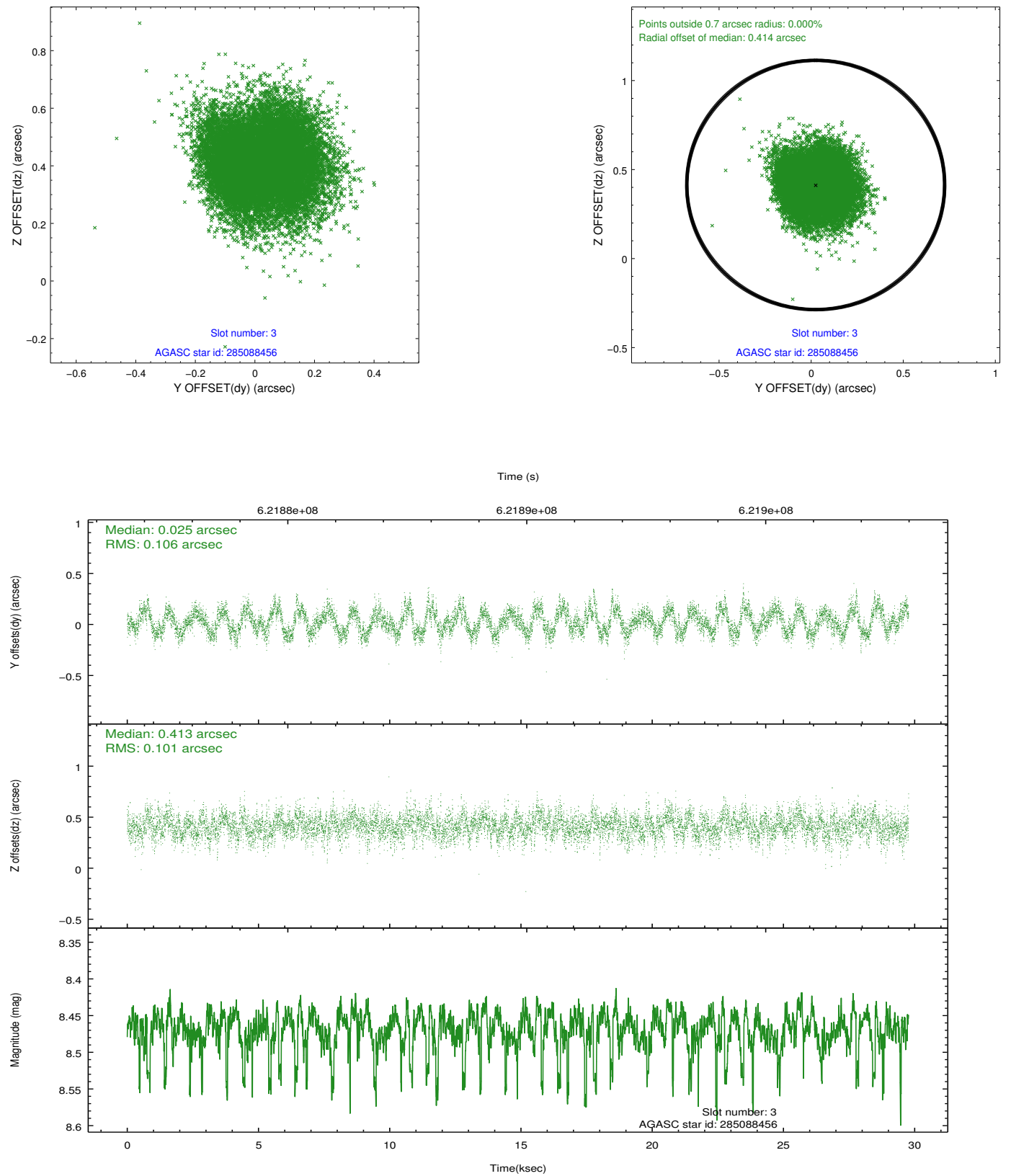


### Slot Statistics

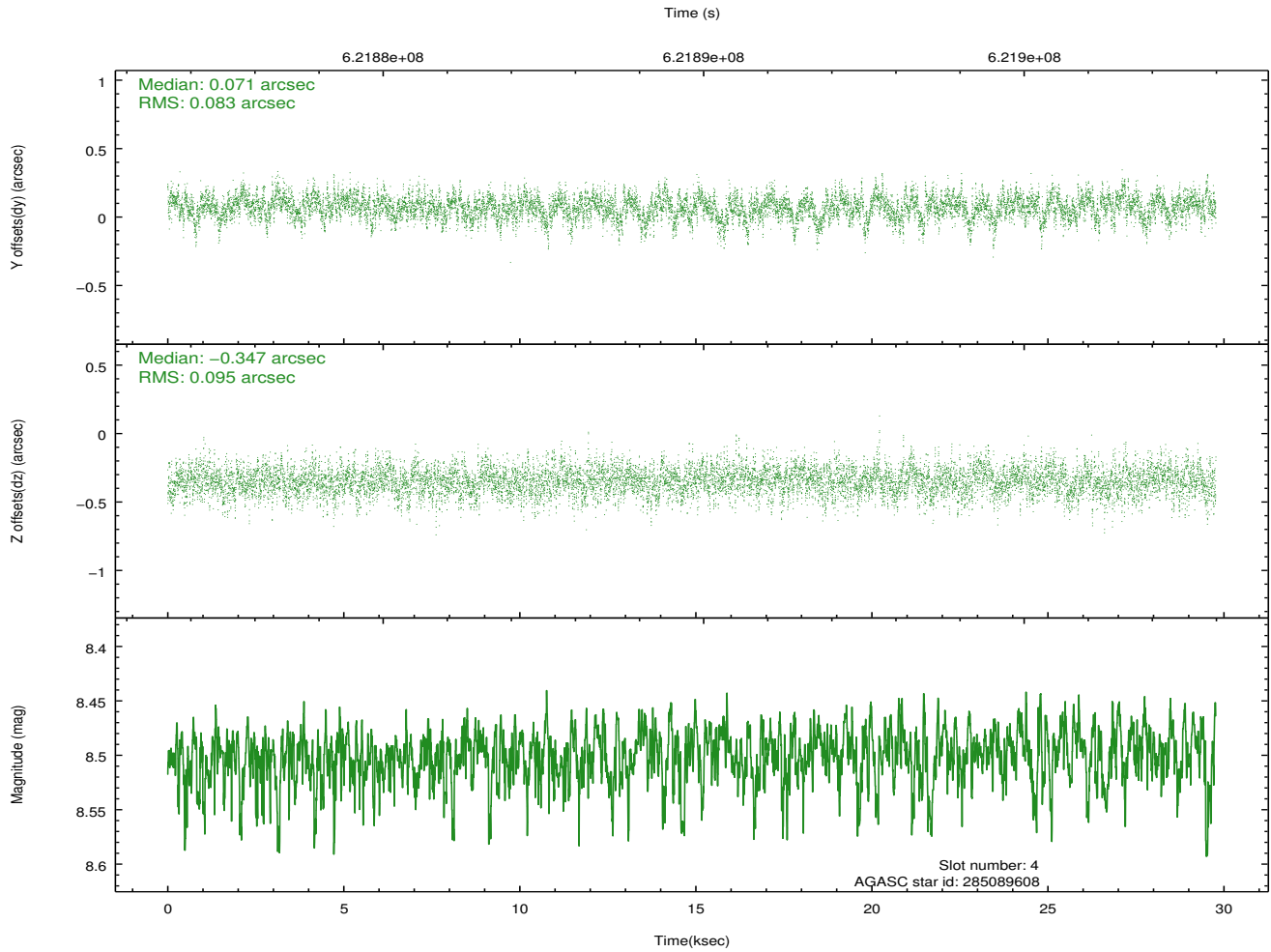
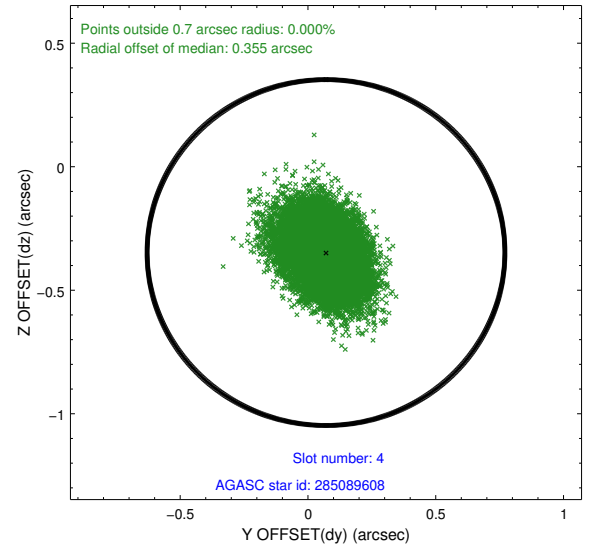
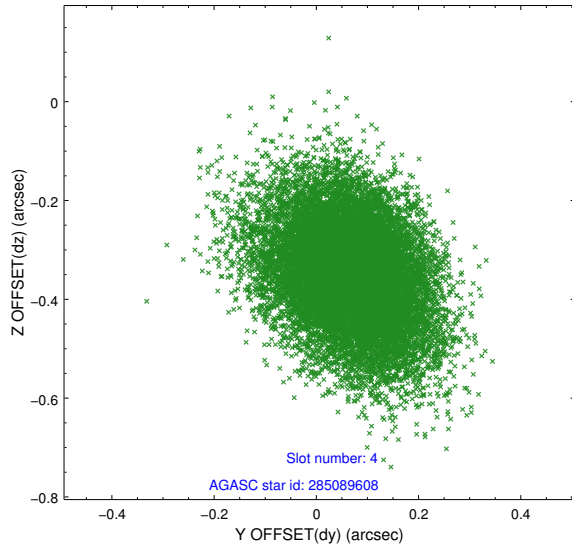
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.09	7262	-0.262	-0.143	0.012	0.019	0.000000	0.000000	-773.24	-1742.92
1	FID		ACIS-S-4	7.21	7261	0.549	0.165	0.007	0.012	0.000000	0.000000	2140.80	165.79
2	FID		ACIS-S-5	7.20	7262	-0.319	-0.012	0.010	0.016	0.000000	0.000000	-1826.05	159.36
3	GUIDE	used	285088456	8.47	14521	0.025	0.413	0.157	0.244	313.630440	25.646401	699.15	-803.41
4	GUIDE	used	285089608	8.50	14518	0.071	-0.347	0.132	0.224	313.859513	25.230500	1449.92	690.79
5	GUIDE	used	285218472	8.13	14517	0.048	-0.079	0.117	0.214	314.524571	25.797897	-1483.44	1181.81
6	GUIDE	used	285091496	9.08	14508	-0.268	0.005	0.126	0.217	313.808453	25.010208	2182.46	1034.69
7	GUIDE	used	285214408	8.21	14518	0.127	0.010	0.118	0.200	314.556750	26.085039	-2368.59	639.21

## 2.4 Star Slots

### 2.4.1 Slot 3

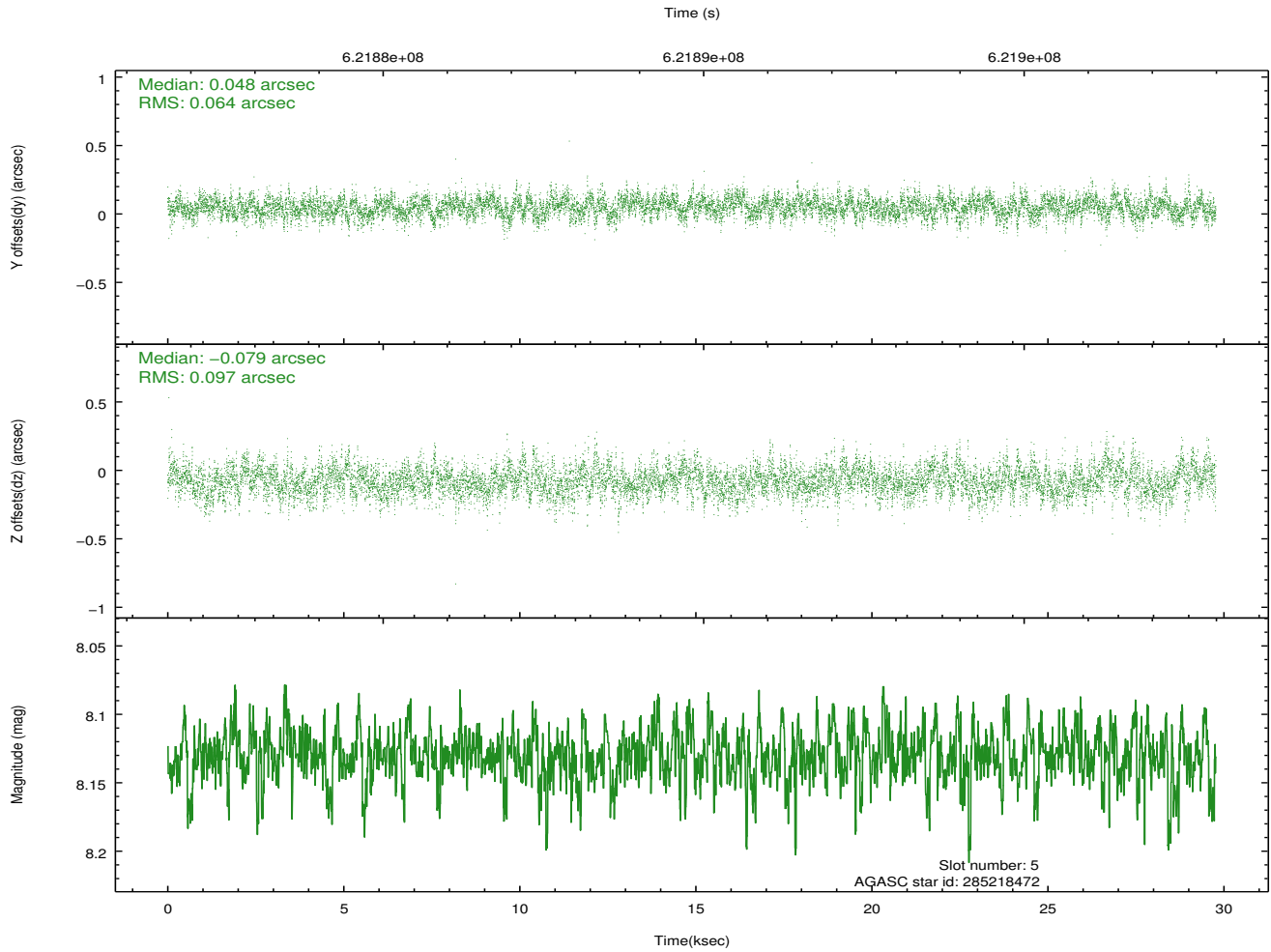
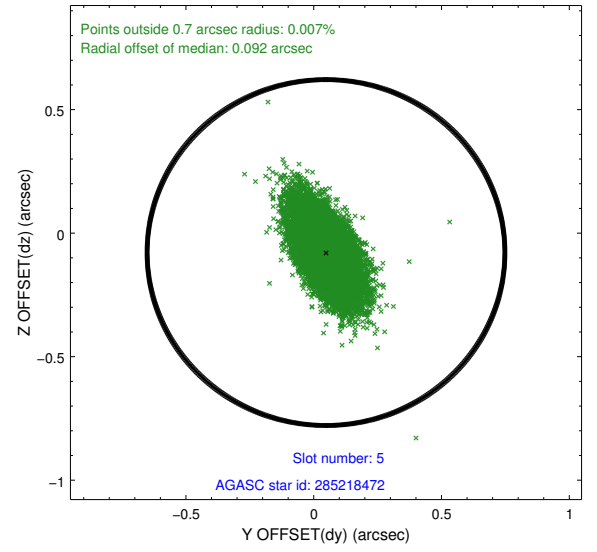
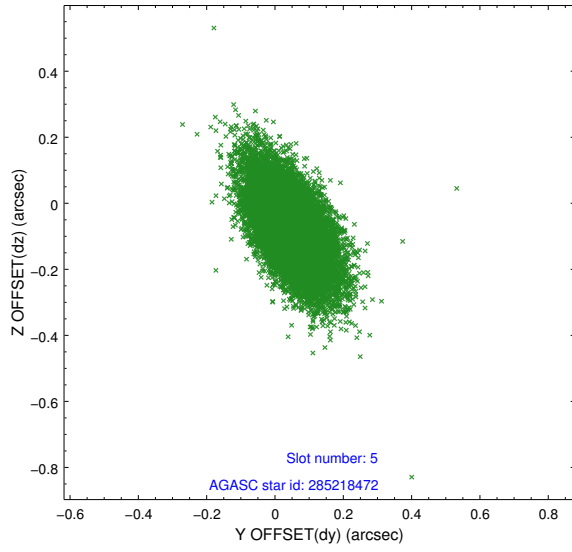


## 2.4.2 Slot 4

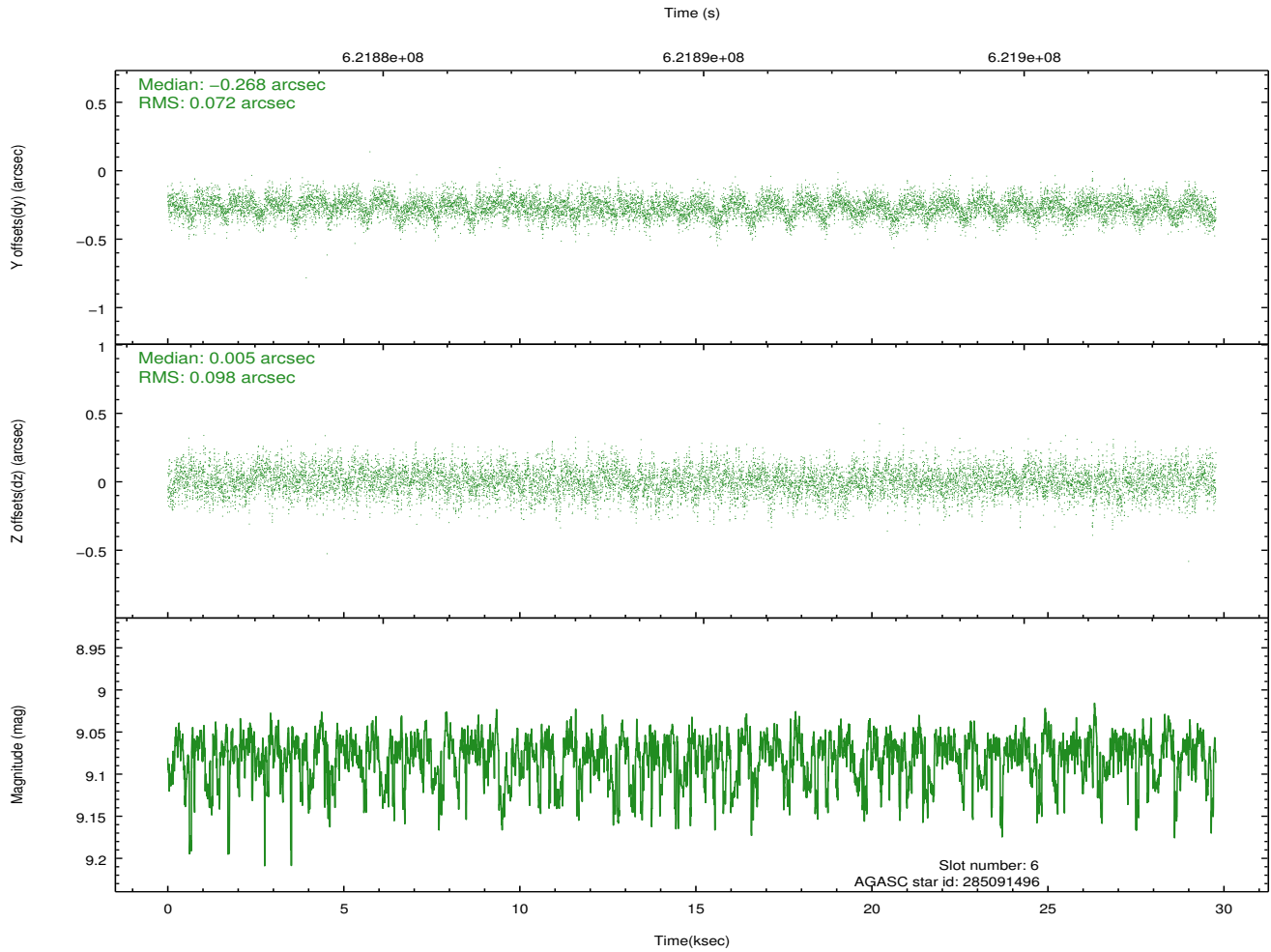
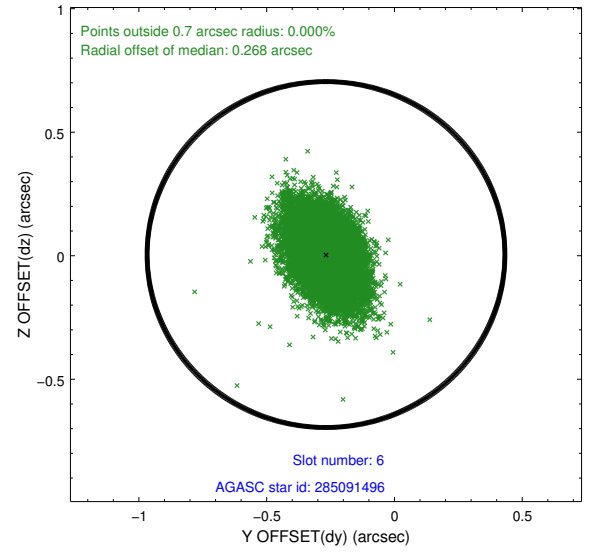
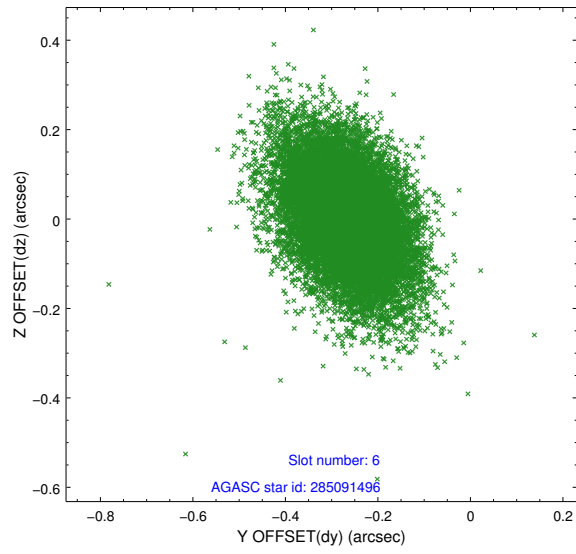




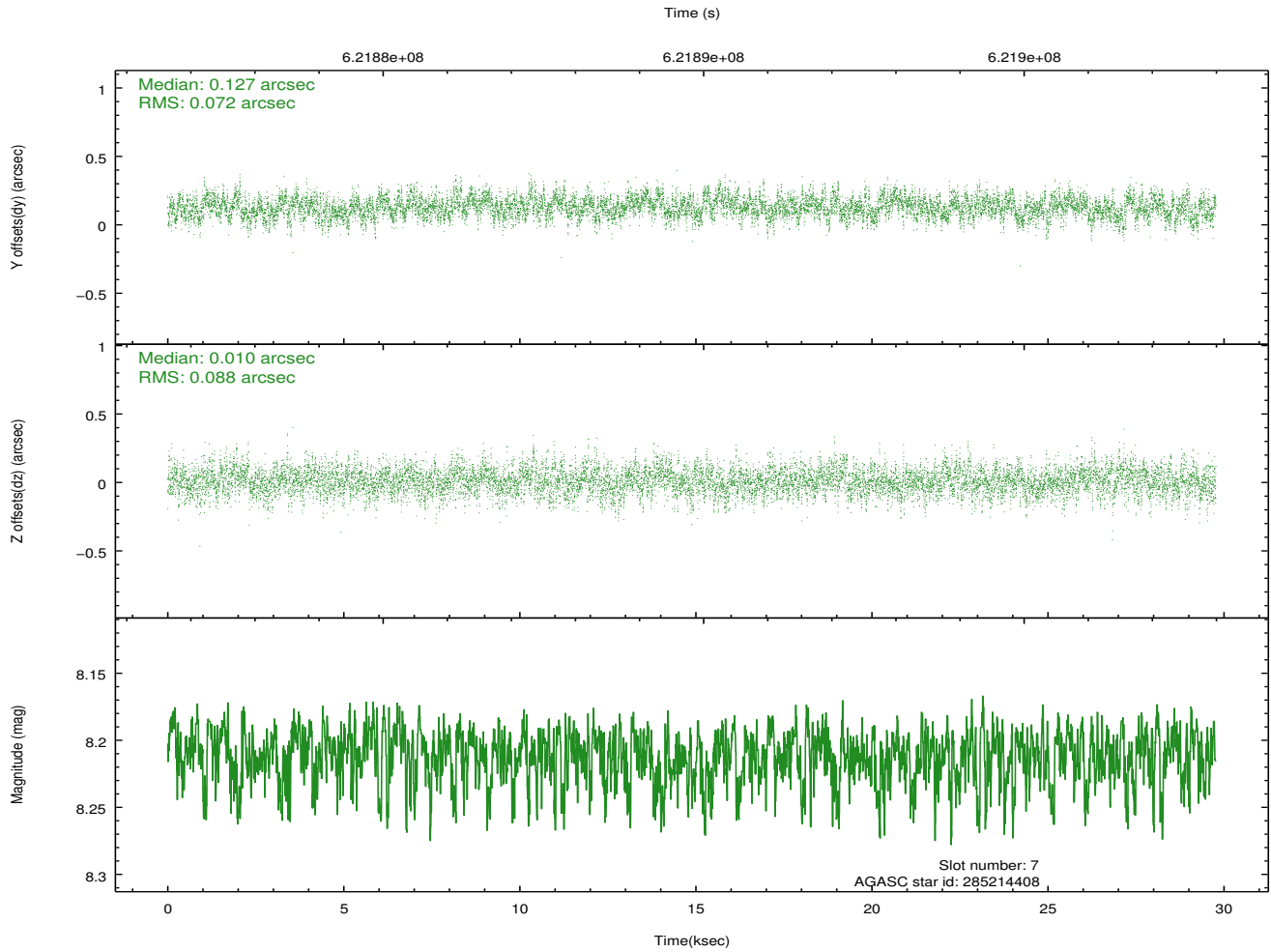
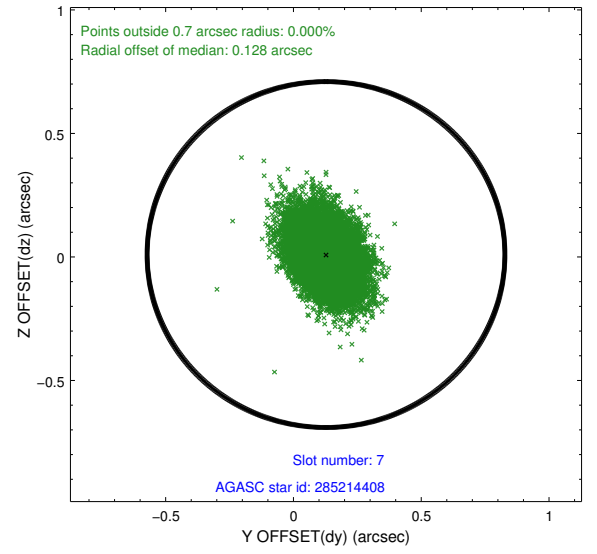
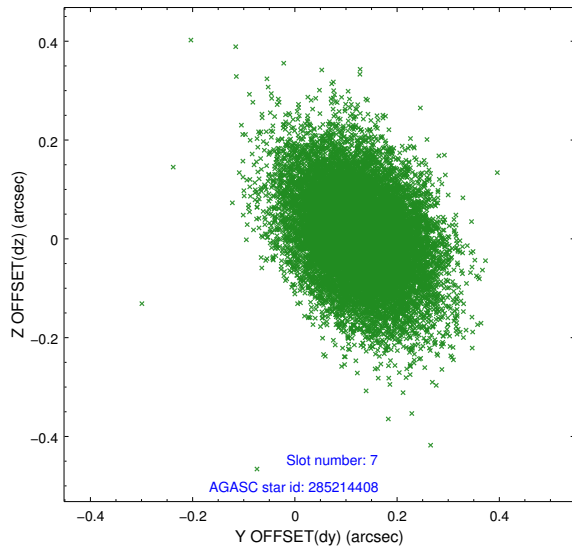
### 2.4.3 Slot 5



## 2.4.4 Slot 6

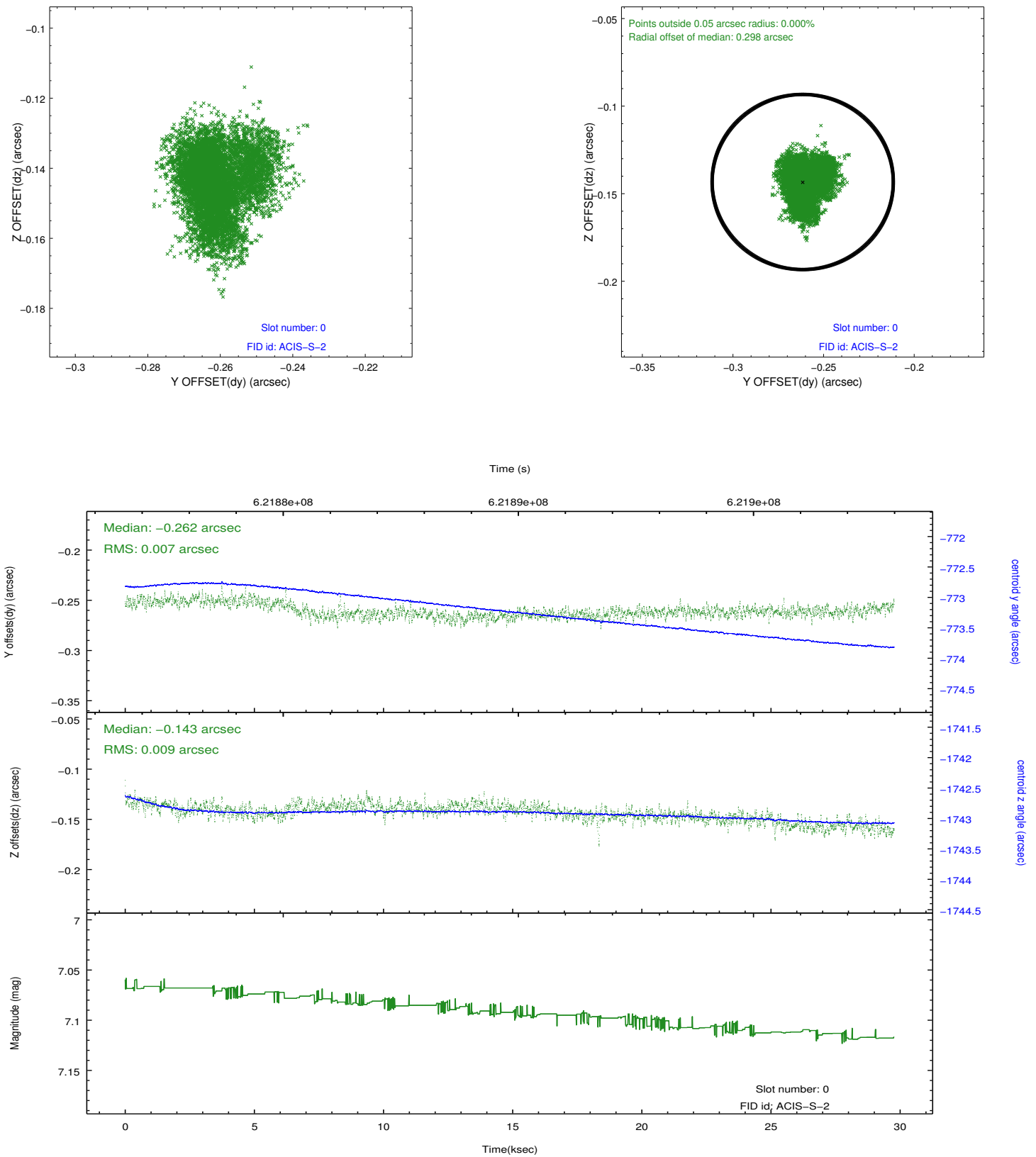


## 2.4.5 Slot 7

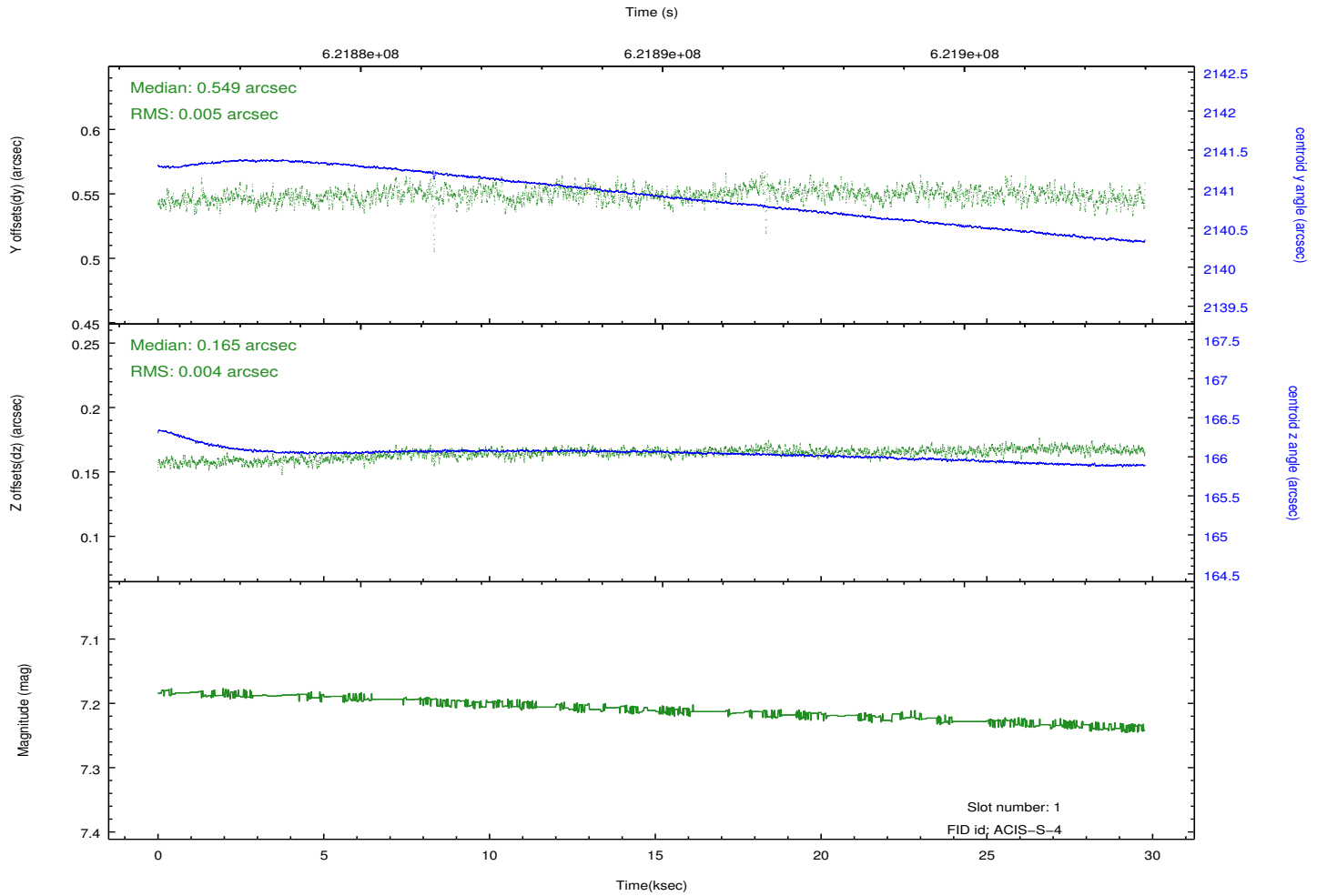
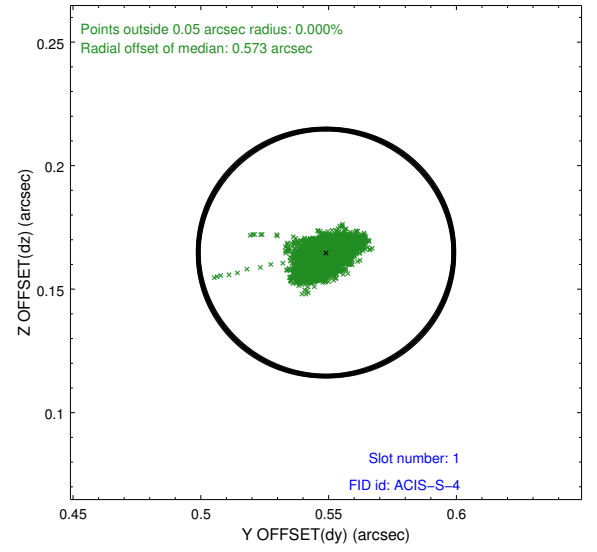
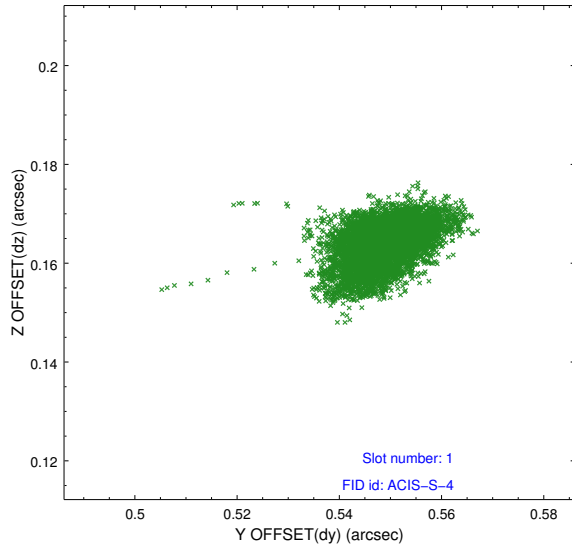


## 2.5 FID Slots

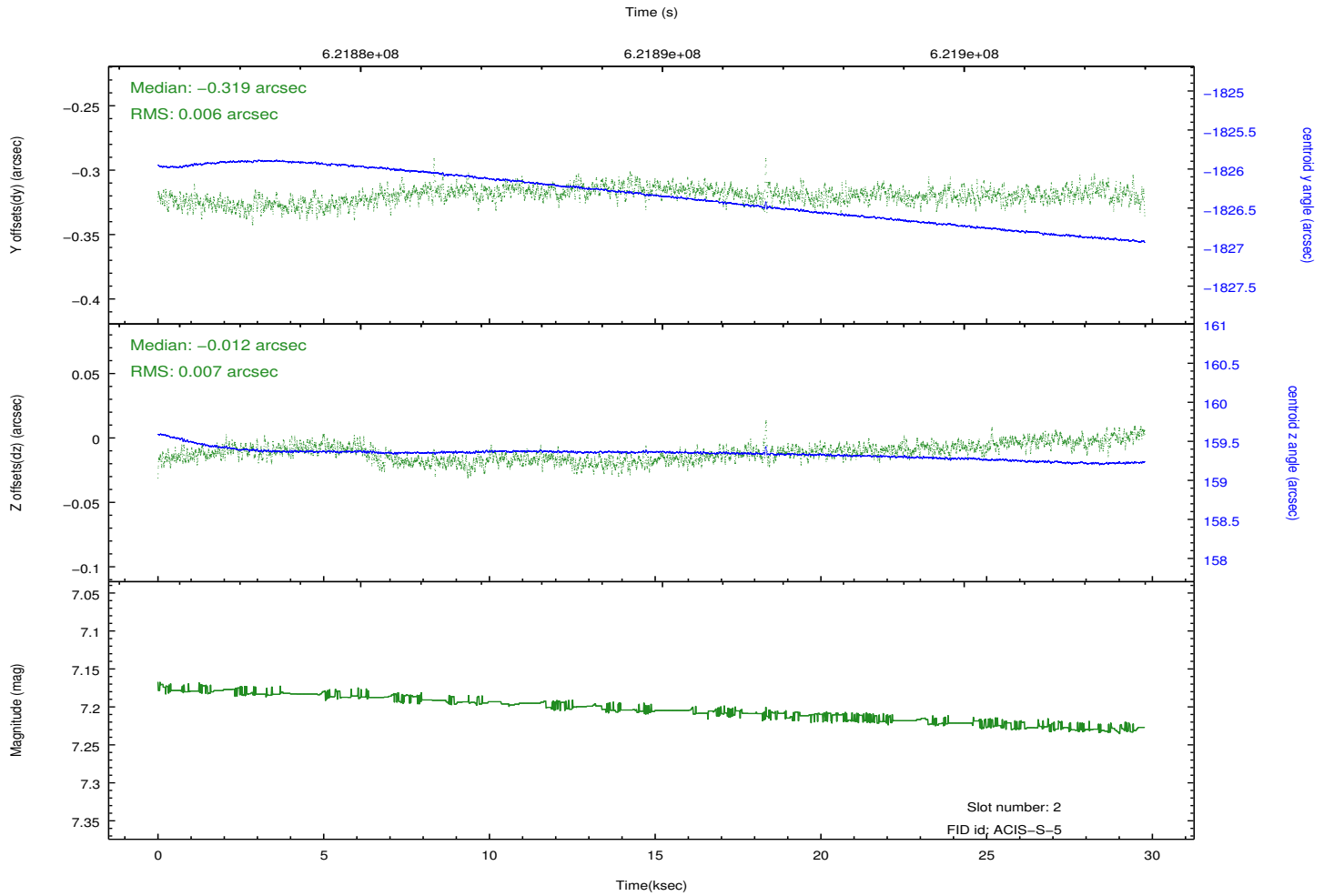
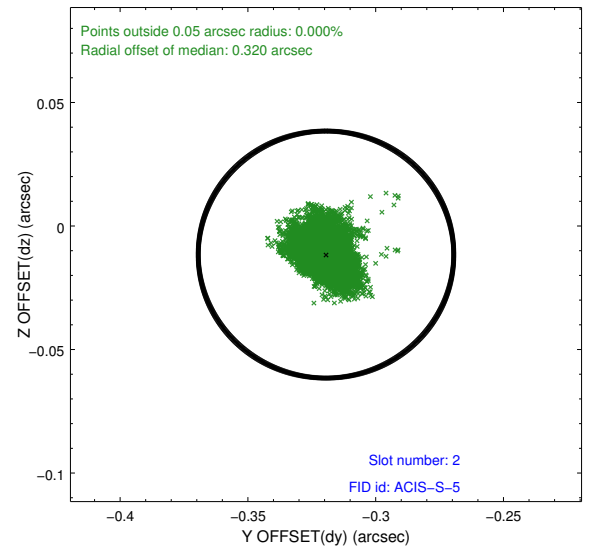
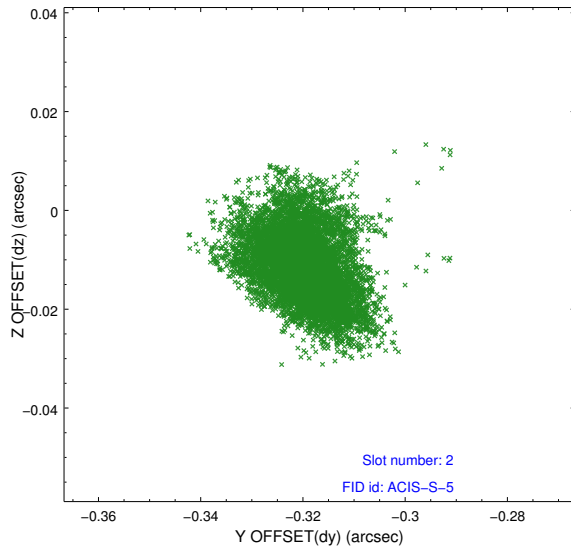
### 2.5.1 Slot 0



## 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)	2017.09.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.600685828567

### A.2 Comments

Roll preference met.