

# V&V Reference Report

## L2 ASCDS Version : 10.6

Observation 19513 - L2 Version 1  
Chandra X-Ray Center

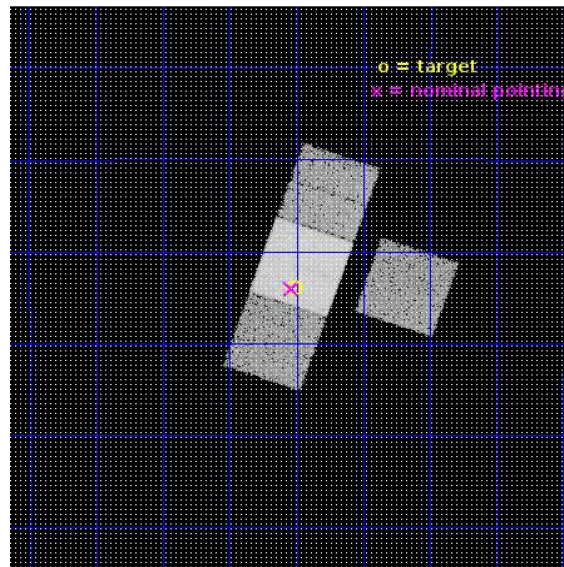
L2 Processing Date : Aug 27 2017

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# 1 Front

seq_num	703361	Sequence number
obs_id	19513	Observation id
title	Extreme rotation measures and high-redshift clusters	Proposal titl
observer	Mark Birkinshaw	Principal investigator
object	MRC 2059-214	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	315.504583	Observer's specified target RA [deg]
dec_targ	-21.232917	Observer's specified target Dec [deg]
ra_nom	315.50953149056	Nominal RA [deg]
dec_nom	-21.234366830921	Nominal Dec [deg]
roll_nom	289.15845636861	Nominal Roll [deg]
revision	1	Processing version of data
ontime	20069.400154471	Sum of GTIs [s]
livetime	19807.178666576	Livetime [s]
ontime3	20069.400154471	Sum of GTIs [s]
ontime6	20059.977083325	Sum of GTIs [s]
ontime7	20069.400154471	Sum of GTIs [s]
ontime8	20066.259303689	Sum of GTIs [s]
l2events	118638	Number of level 2 events

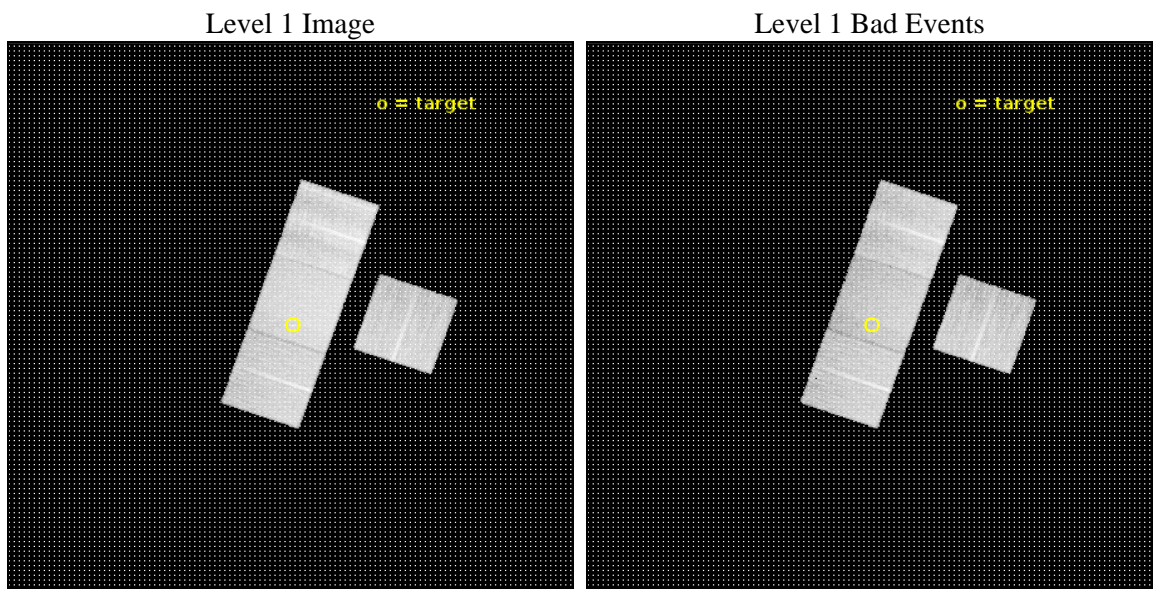




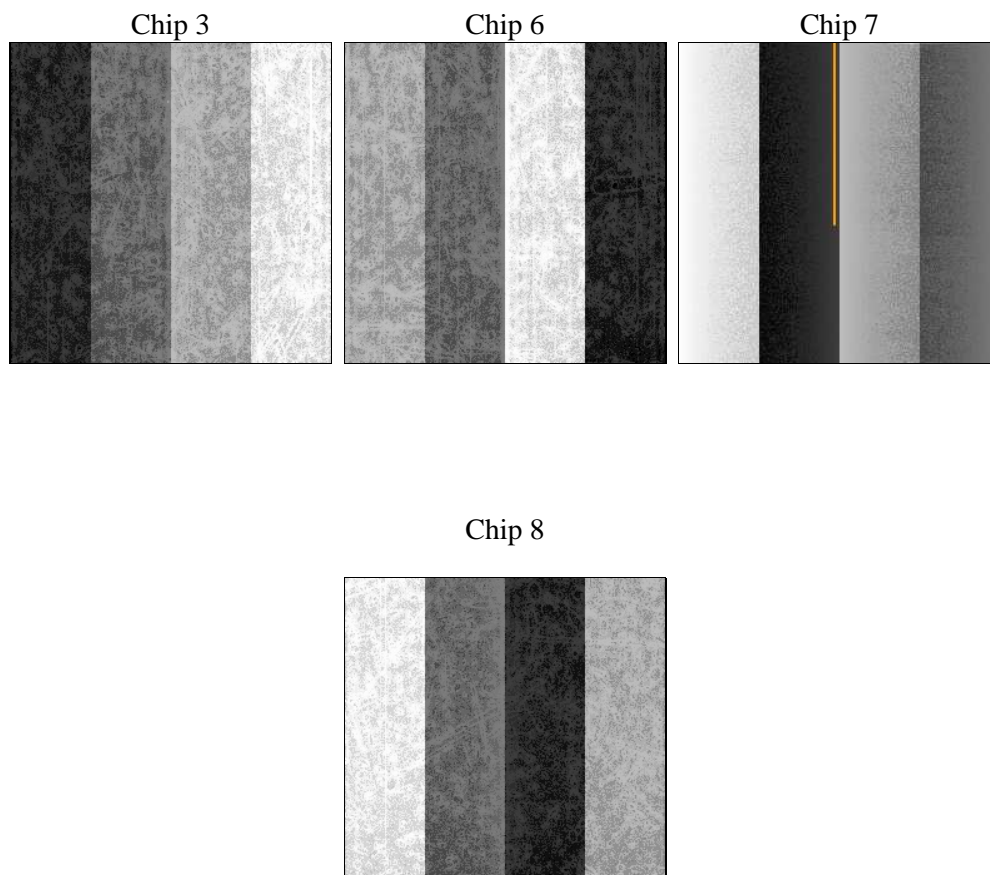
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	20069.400154471	Sum of GTIs [s]
caldsver	4.7.6	&#160	ontime3	20069.400154471	Sum of GTIs [s]
date	2017-08-27T14:35:06	Date and time of file creation	ontime6	20059.977083325	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	20069.400154471	Sum of GTIs [s]
			ontime8	20066.259303689	Sum of GTIs [s]
			l1events	619833	Number of level 1 events

### 2.1.4 Events

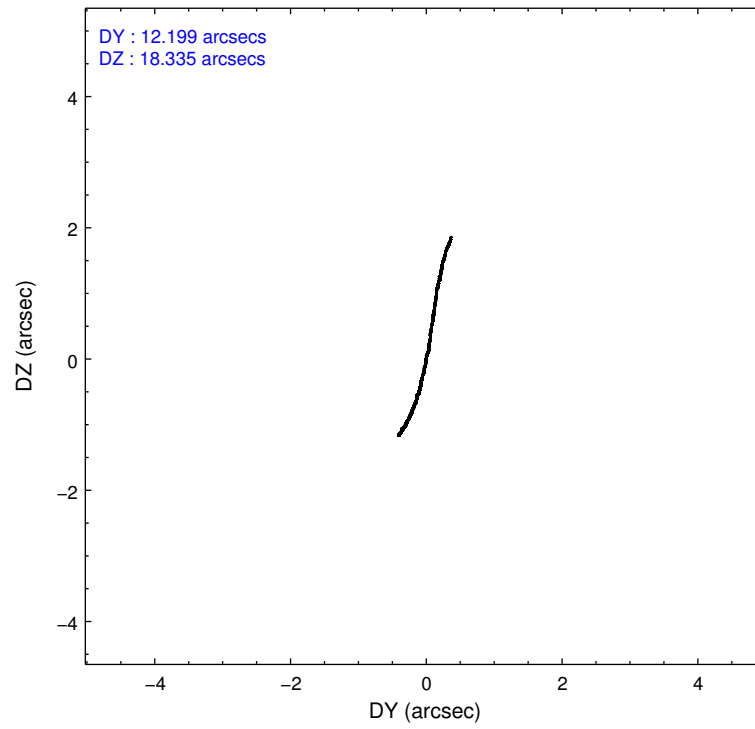
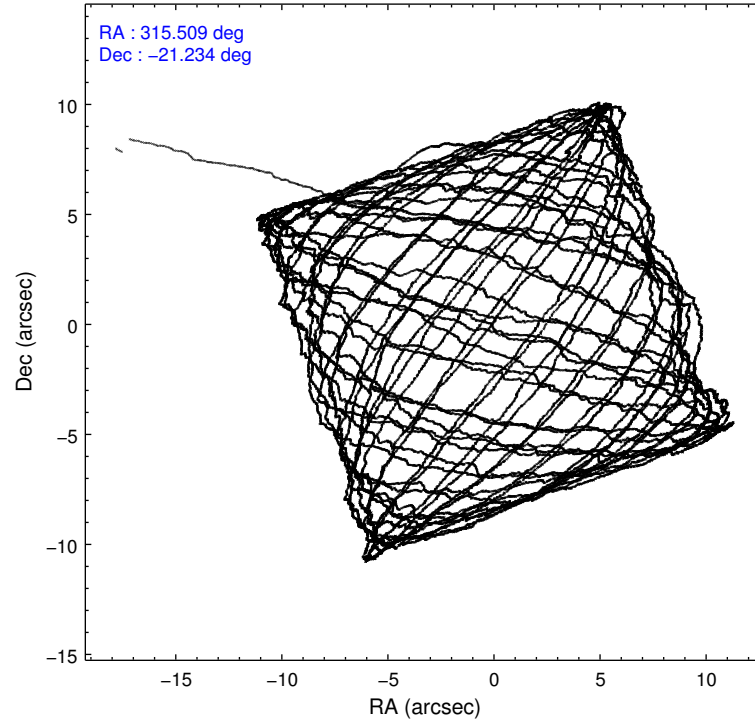
	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	128570	137286	176455	177522
rejected events	114419	121471	98728	129437
rejected %	88%	88%	55%	72%

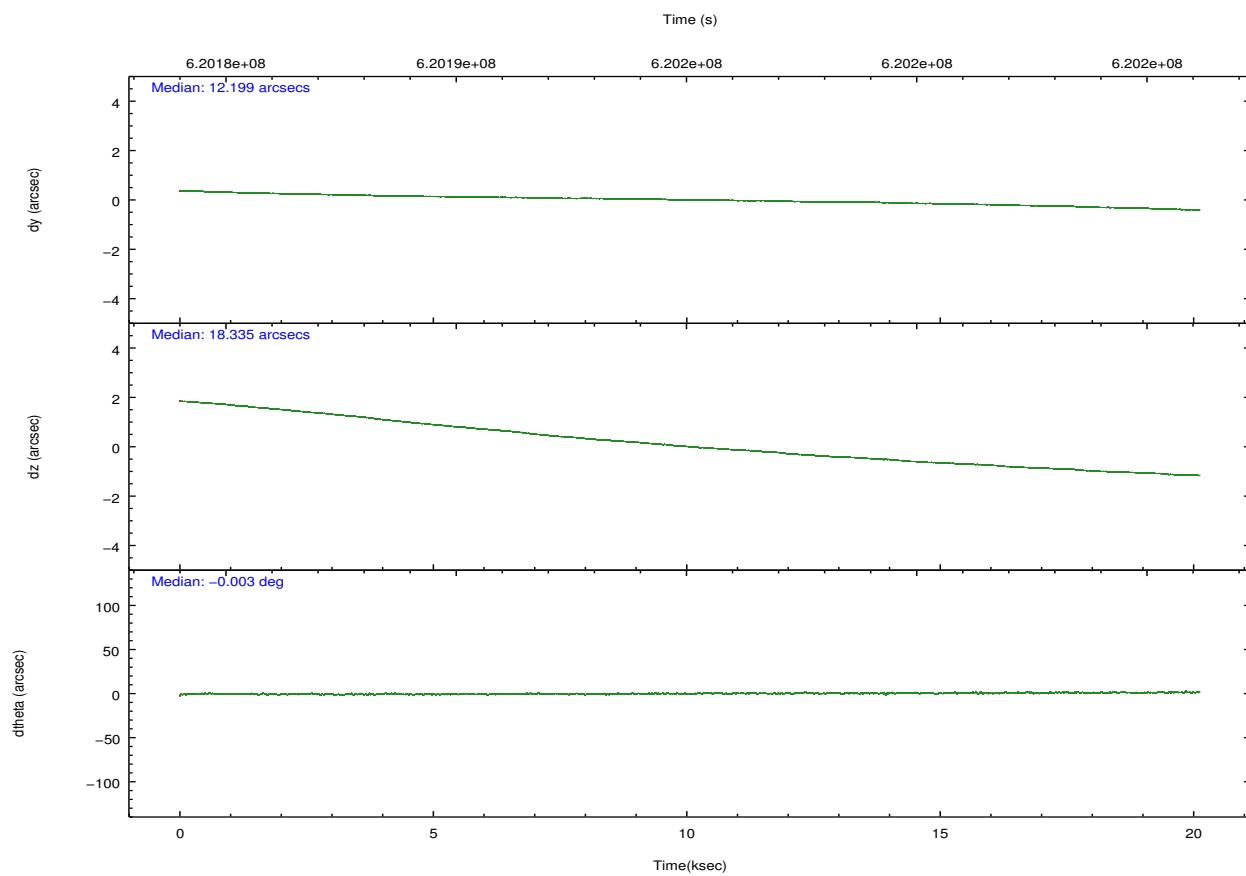
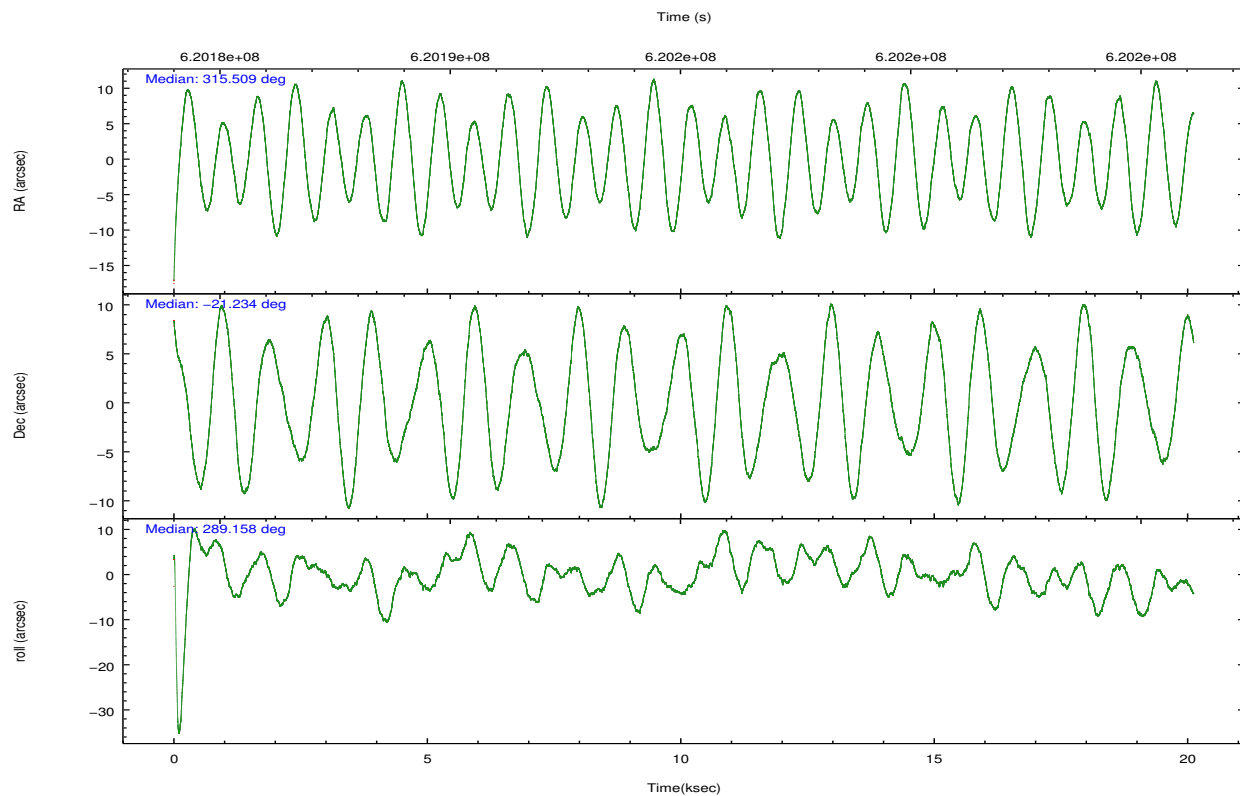
	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	5104	5339	6849	13867
	3%	3%	3%	7%
grade 1 events	74	62	250	138
	0%	0%	0%	0%
grade 2 events	3108	3630	16301	11878
	2%	2%	9%	6%
grade 3 events	1547	1602	6443	4897
	1%	1%	3%	2%
grade 4 events	1448	1562	6315	4455
	1%	1%	3%	2%
grade 5 events	6271	6608	17891	10129
	4%	4%	10%	5%
grade 6 events	2950	3684	41832	13027
	2%	2%	23%	7%
grade 7 events	108068	114799	80574	119131
	84%	83%	45%	67%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-3678	ACIS-3678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	315.486991	315.5095314905583	CCD I2 on	N	N
[deg] Pointing Dec	-21.216709	-21.23436683092054	CCD I3 on	O1	Y
[deg] Pointing Roll	288.993627	289.1584563686083	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	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	O2	Y
[s] Observation start time (MET)	620185148.184000	620183859.07151	CCD S5 on	N	N
Observation start date	2017-08-27T01:37:59	2017-08-27T01:17:39	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	620205148.184000	620206244.56032	On-chip summing requested	N	N
Observation end date	2017-08-27T07:11:19	2017-08-27T07:30:44	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



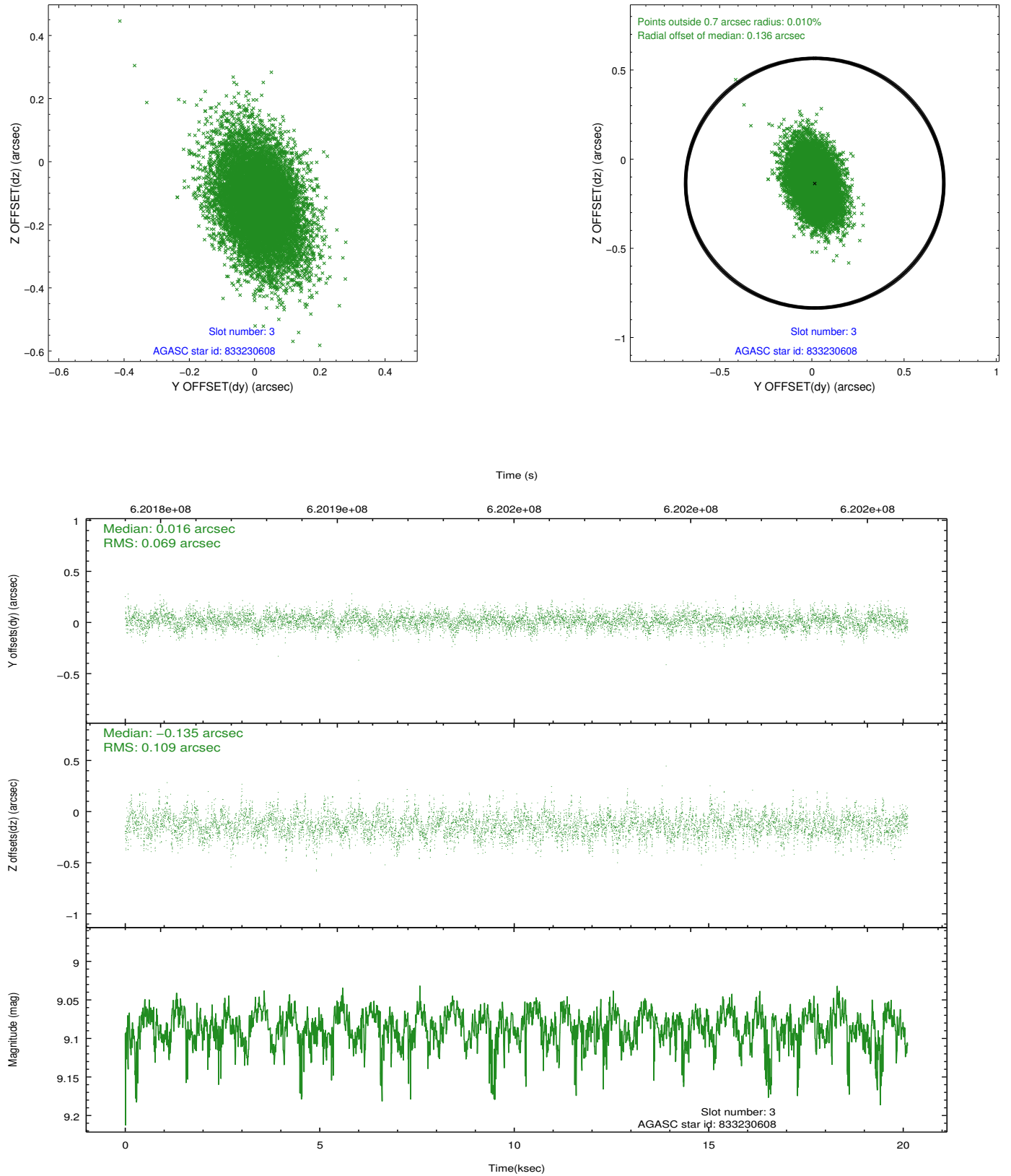


### Slot Statistics

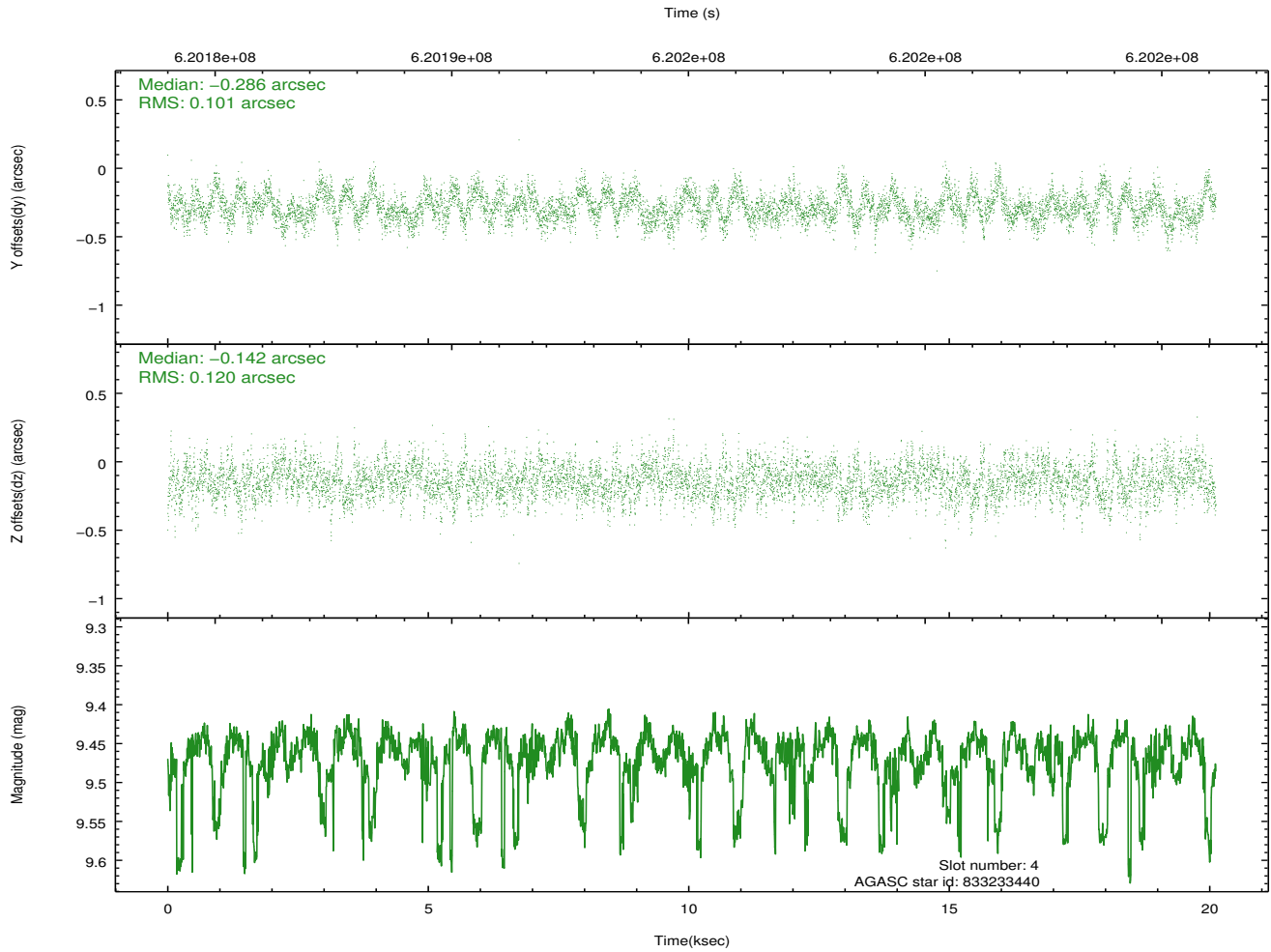
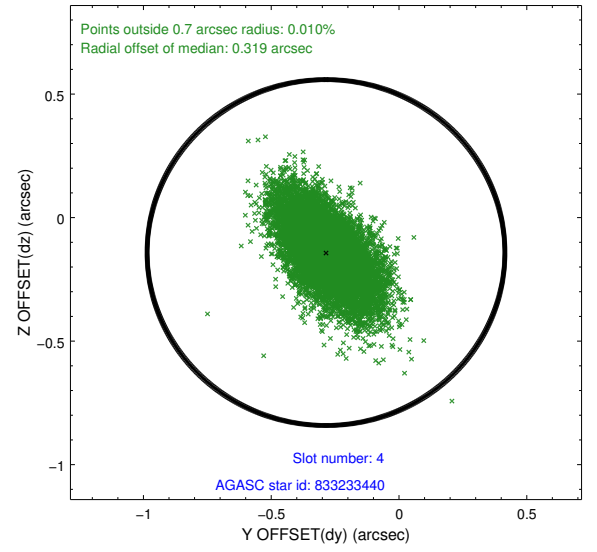
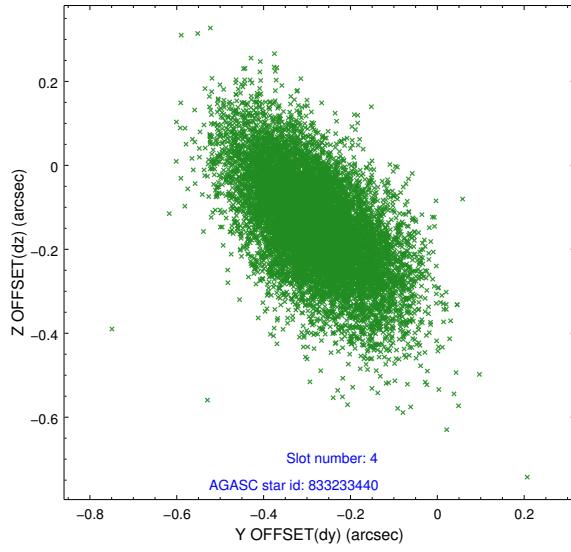
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.95	4907	-0.198	-0.101	0.013	0.020	0.000000	0.000000	-765.31	-1740.04
1	FID		ACIS-S-4	7.07	4908	0.252	0.118	0.012	0.018	0.000000	0.000000	2148.36	168.42
2	FID		ACIS-S-6	7.21	4908	-0.081	-0.009	0.010	0.016	0.000000	0.000000	397.07	805.93
3	GUIDE	used	833230608	9.08	9805	0.016	-0.135	0.131	0.232	315.521903	-21.122416	-282.17	221.69
4	GUIDE	used	833233440	9.46	9798	-0.286	-0.142	0.162	0.283	315.937191	-20.851870	-746.51	1859.35
5	GUIDE	used	833235544	9.69	9805	0.407	0.631	0.238	0.389	315.065613	-21.153789	-672.15	-1263.63
6	GUIDE	used	833235920	8.12	9805	-0.072	-0.470	0.125	0.211	315.849859	-21.536898	1486.93	772.97
7	GUIDE	used	833236600	9.29	9805	-0.069	0.132	0.191	0.365	315.630700	-20.765512	-1377.80	986.35

## 2.4 Star Slots

### 2.4.1 Slot 3

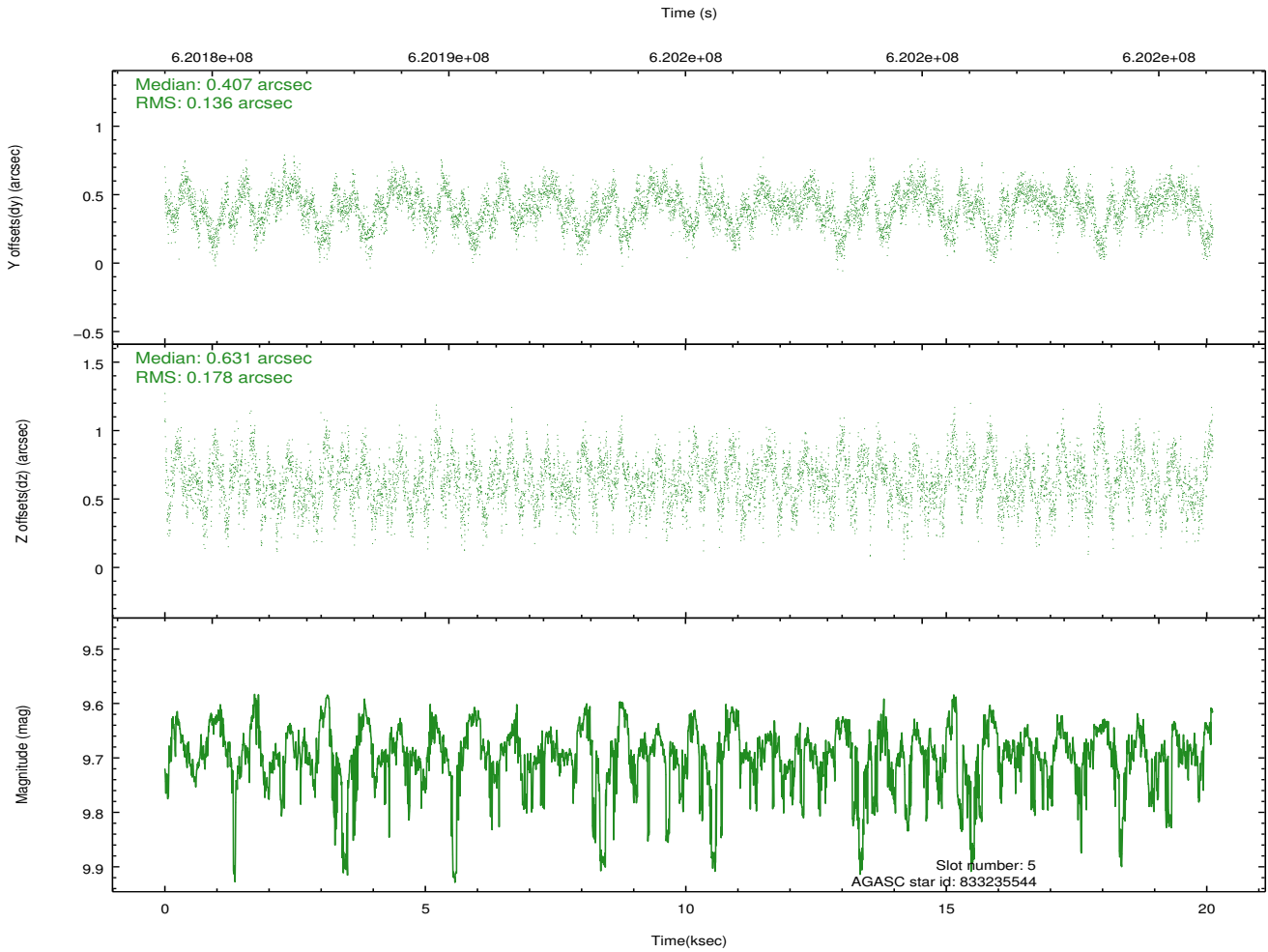
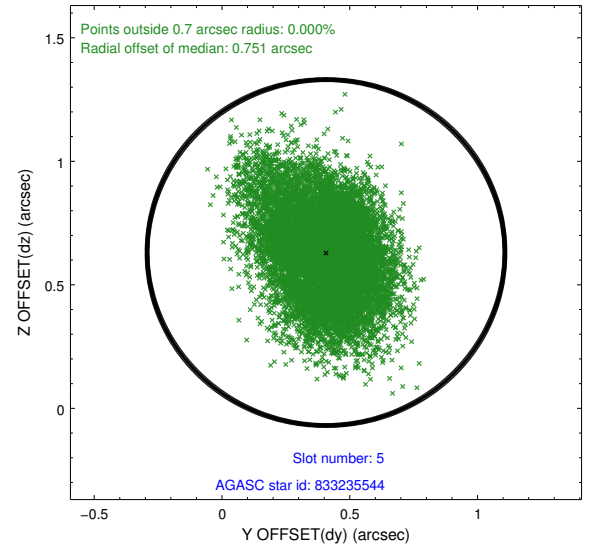
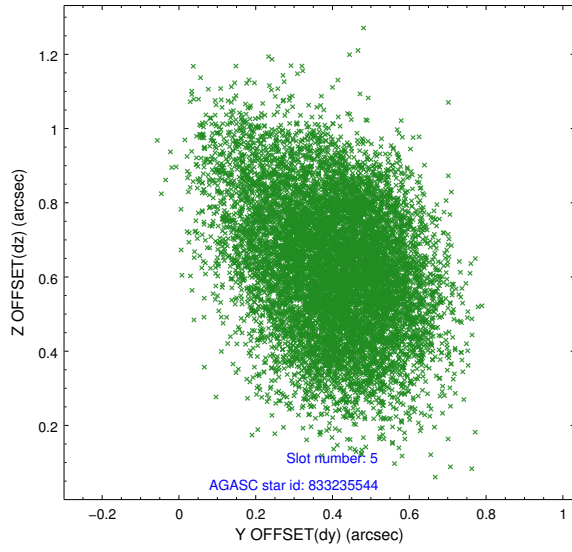


## 2.4.2 Slot 4

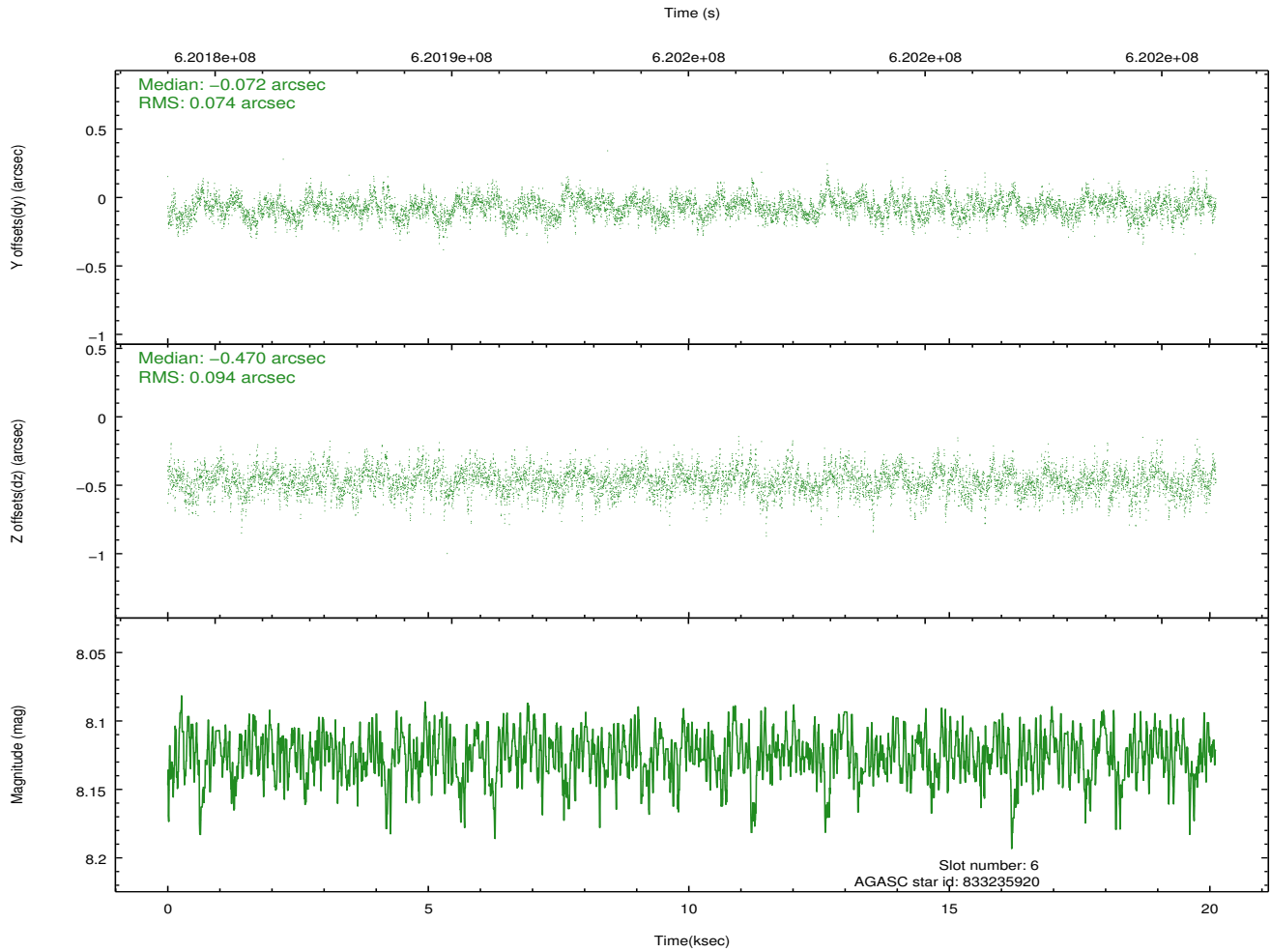
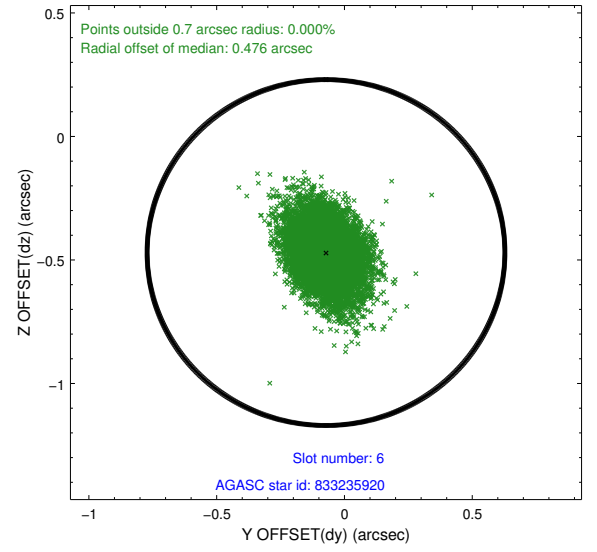
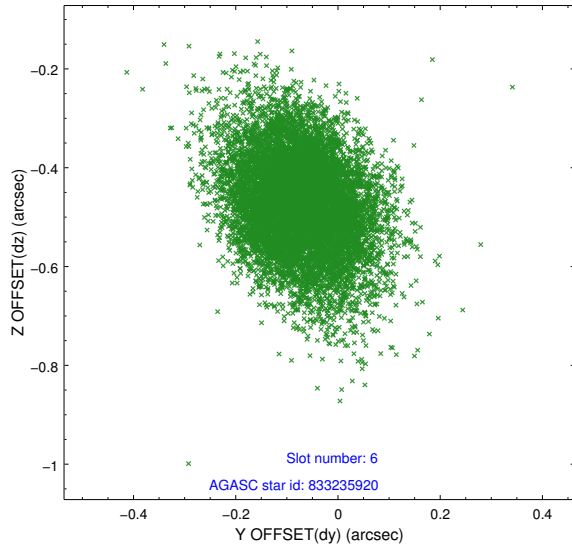




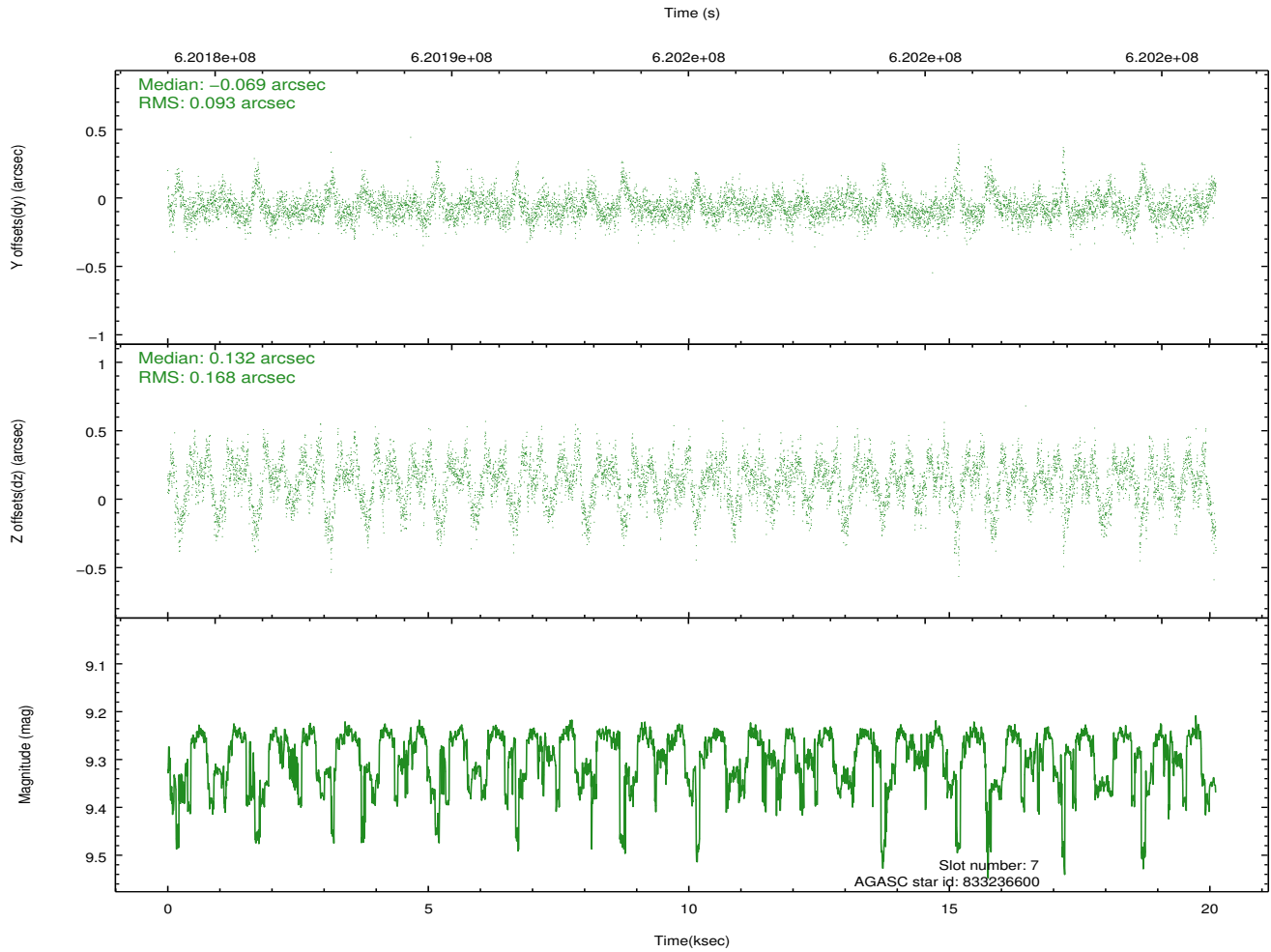
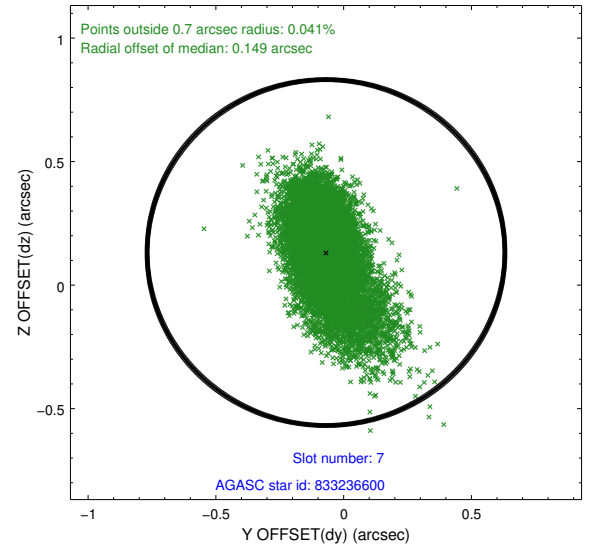
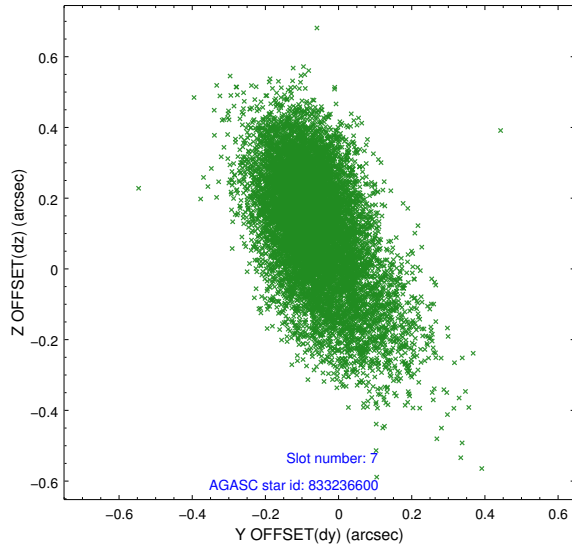
### 2.4.3 Slot 5



## 2.4.4 Slot 6

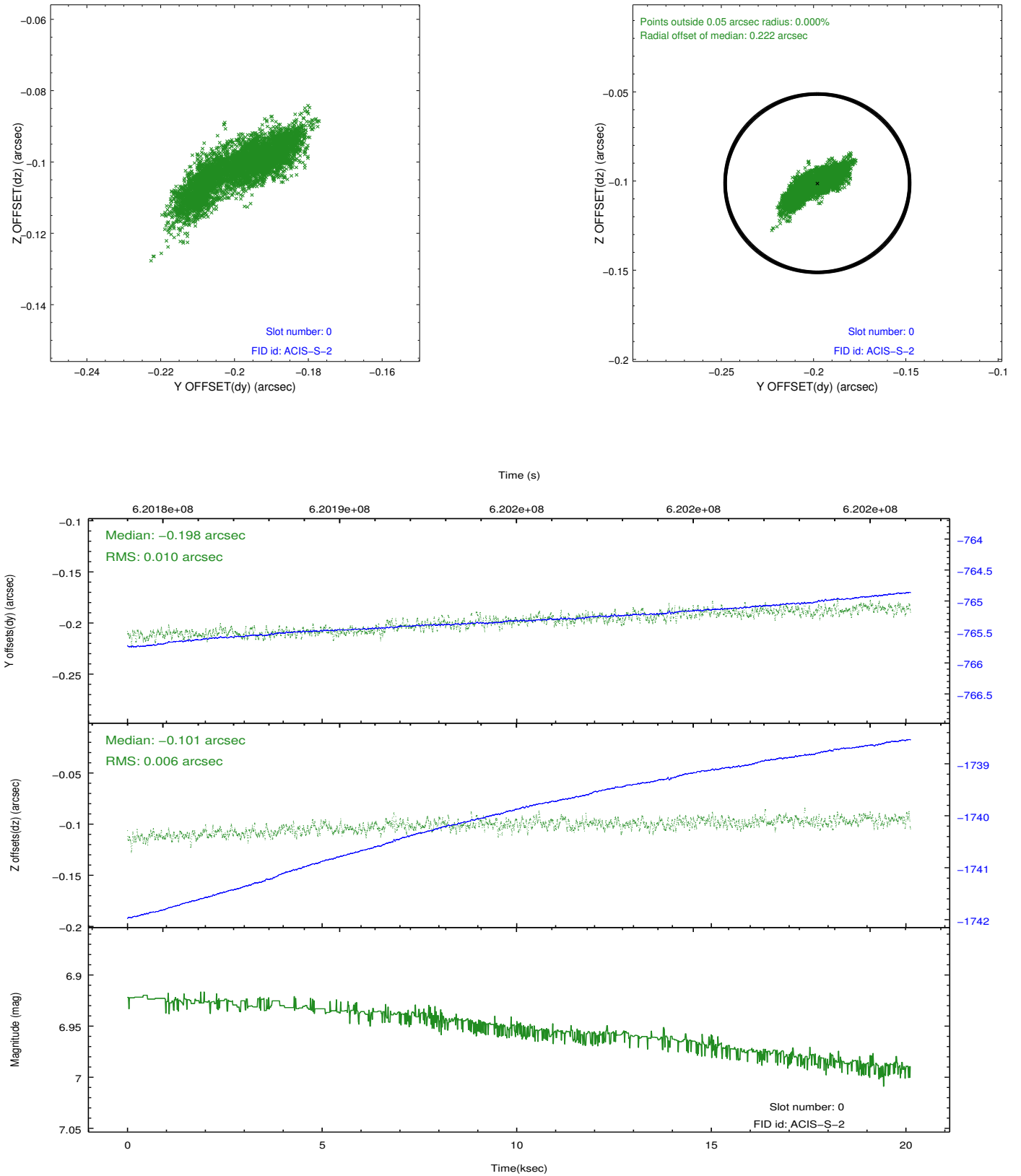


## 2.4.5 Slot 7

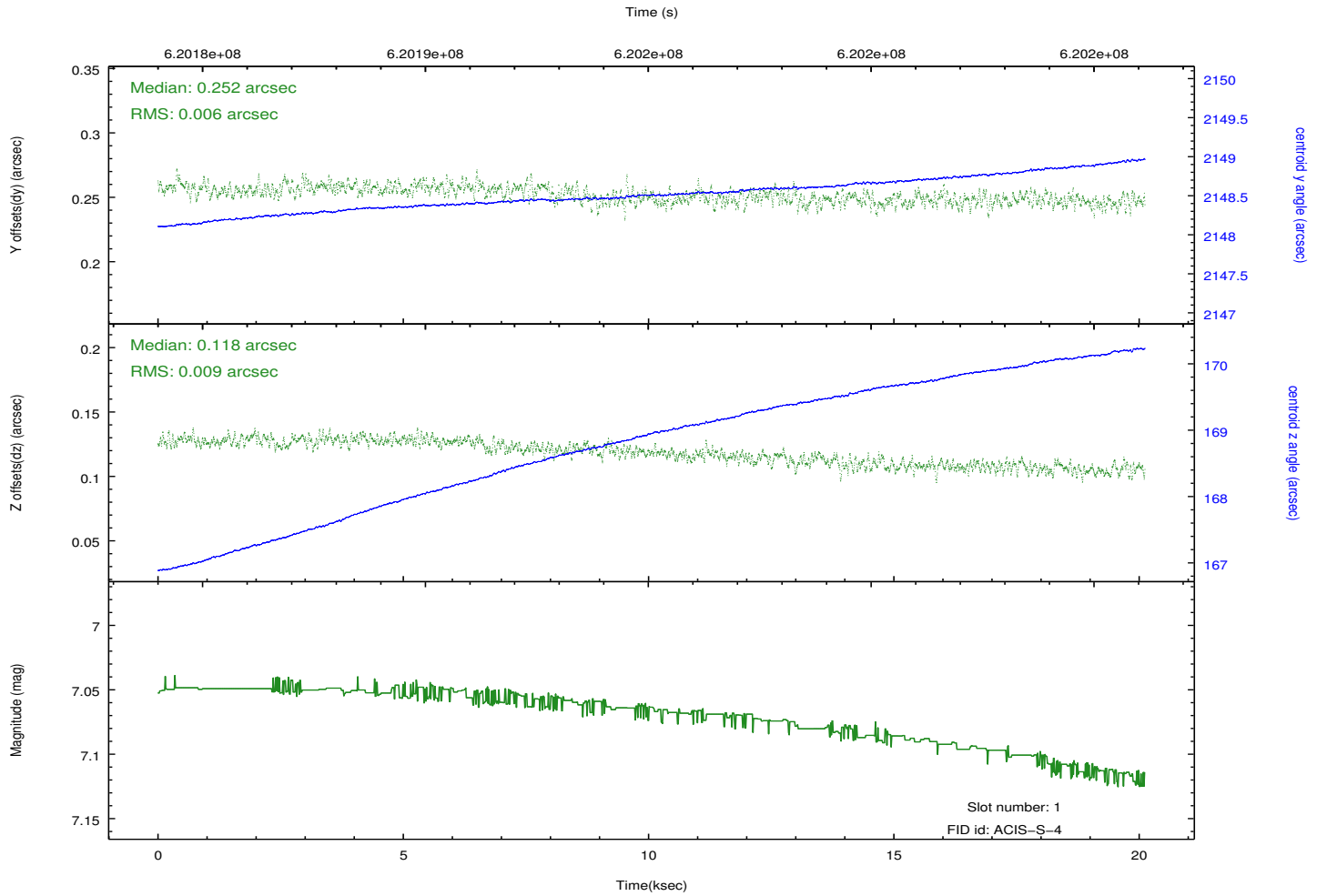
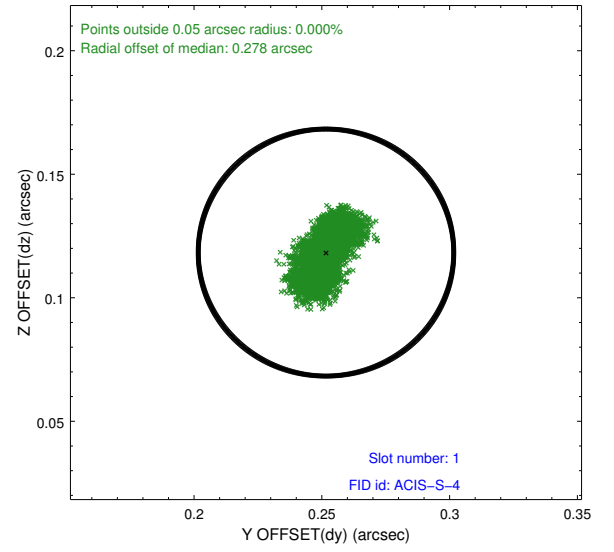
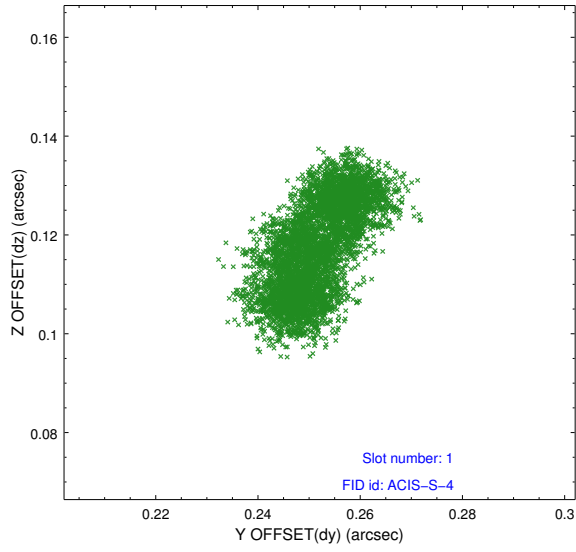


## 2.5 FID Slots

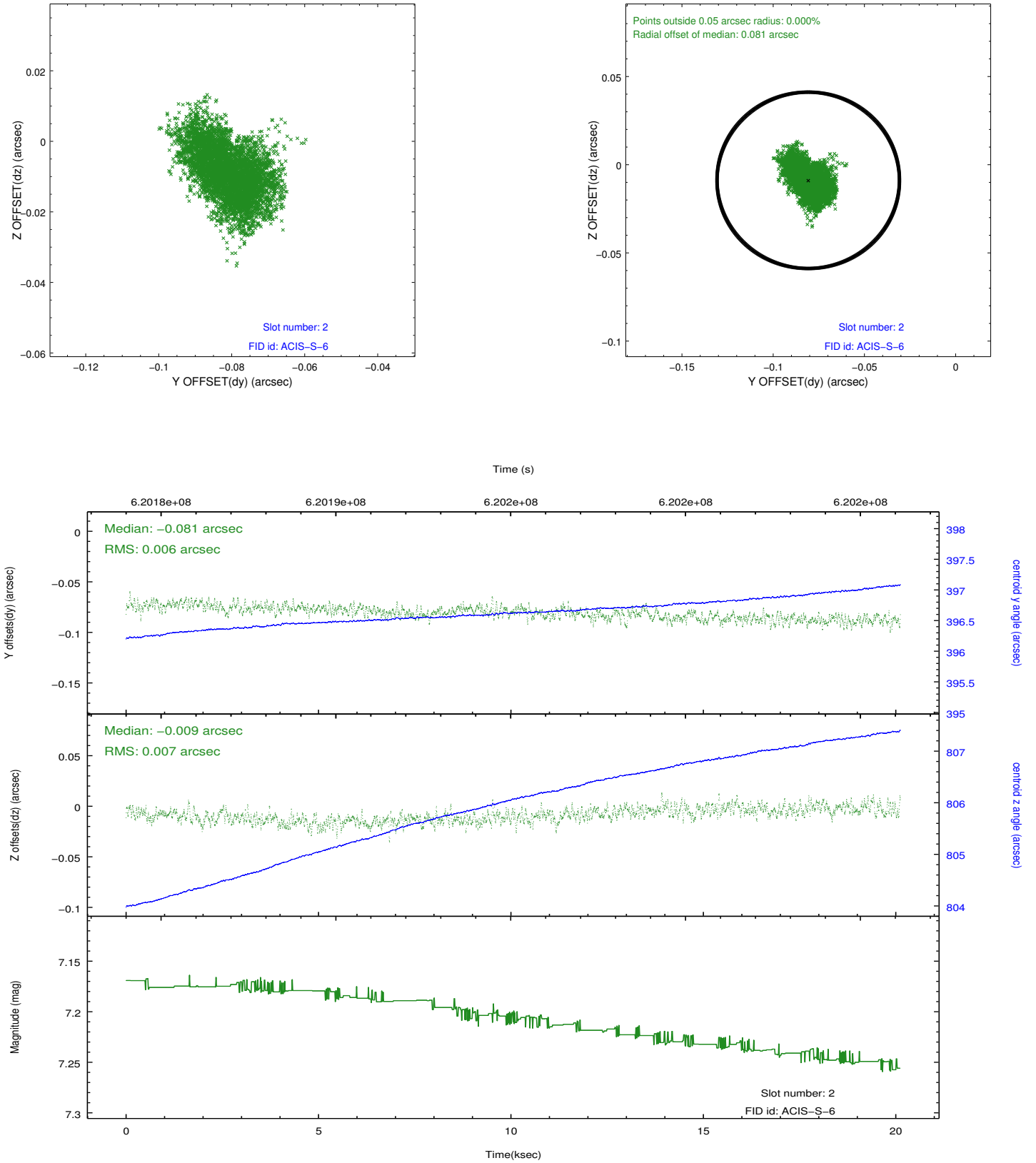
### 2.5.1 Slot 0



## 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)	2017.08.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.069400154471

### A.2 Comments