

# V&V Reference Report

## L2 ASCDS Version : 10.7.1

Observation 21533 - L2 Version 1  
Chandra X-Ray Center

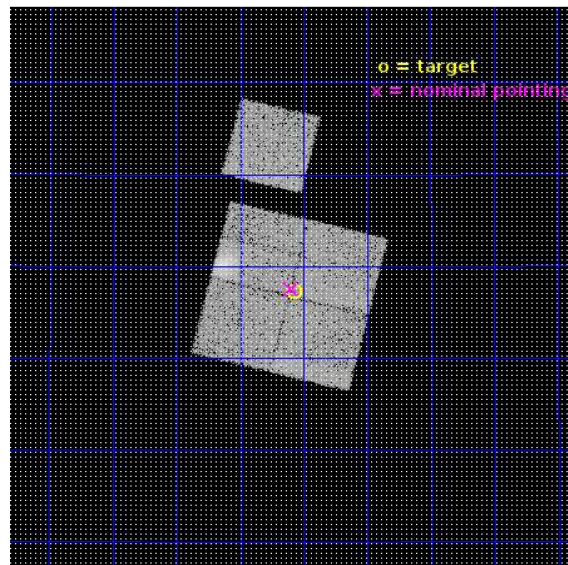
L2 Processing Date : Dec 24 2018

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# 1 Front

seq_num	801817	Sequence number
obs_id	21533	Observation id
title	360 Degree View of a Regular Non-Cool Core Out to the Virial Radius	&#160
observer	KA-WAH WONG	Principal investigator
object	A2259 SW	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	259.892917	Observer's specified target RA [deg]
dec_targ	27.621	Observer's specified target Dec [deg]
ra_nom	259.89934535799	Nominal RA [deg]
dec_nom	27.626075510987	Nominal Dec [deg]
roll_nom	13.978701856497	Nominal Roll [deg]
revision	1	Processing version of data
ontime	18066.80013907	Sum of GTIs [s]
livetime	17830.744094668	Livetime [s]
ontime0	18066.80013907	Sum of GTIs [s]
ontime1	18066.80013907	Sum of GTIs [s]
ontime2	18066.80013907	Sum of GTIs [s]
ontime3	18066.80013907	Sum of GTIs [s]
ontime6	18063.659178734	Sum of GTIs [s]
l2events	71587	Number of level 2 events

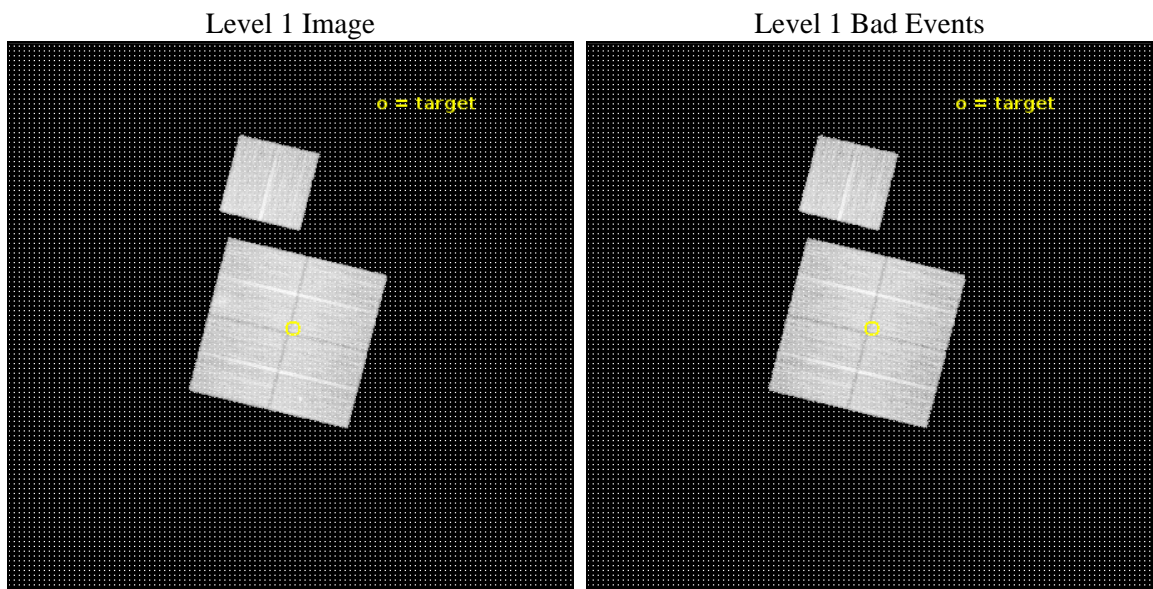




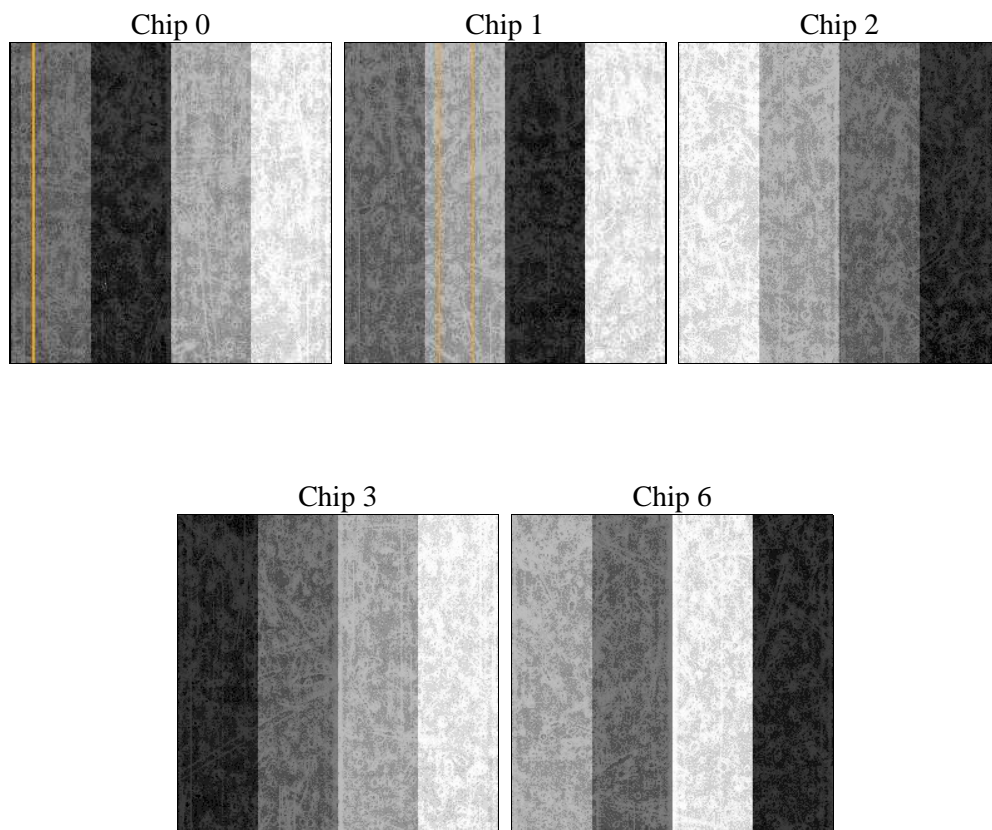
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	18000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	18066.80013907	Sum of GTIs [s]
caldbver	4.8.2	&#160	ontime0	18066.80013907	Sum of GTIs [s]
date	2018-12-24T06:16:21	Date and time of file creation	ontime1	18066.80013907	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	18066.80013907	Sum of GTIs [s]
			ontime3	18066.80013907	Sum of GTIs [s]
			ontime6	18063.659178734	Sum of GTIs [s]
			l1events	674613	Number of level 1 events

### 2.1.4 Events

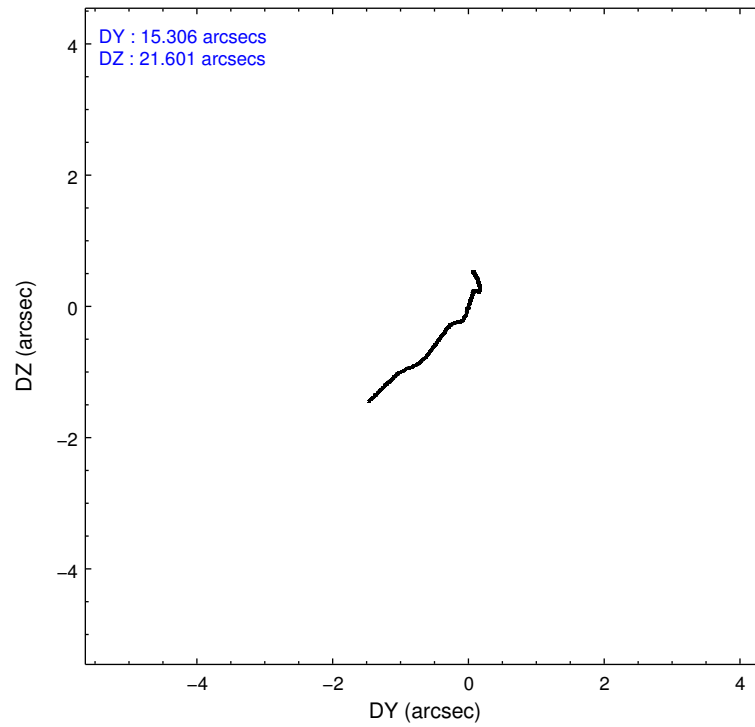
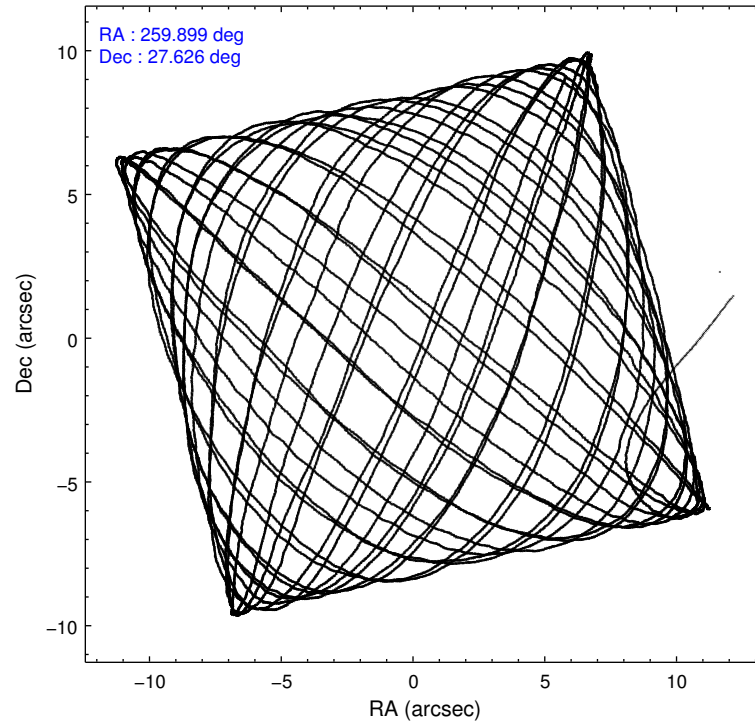
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	127595	128089	146375	135760	136794
rejected events	111705	110230	125874	120419	121128
rejected %	87%	86%	85%	88%	88%

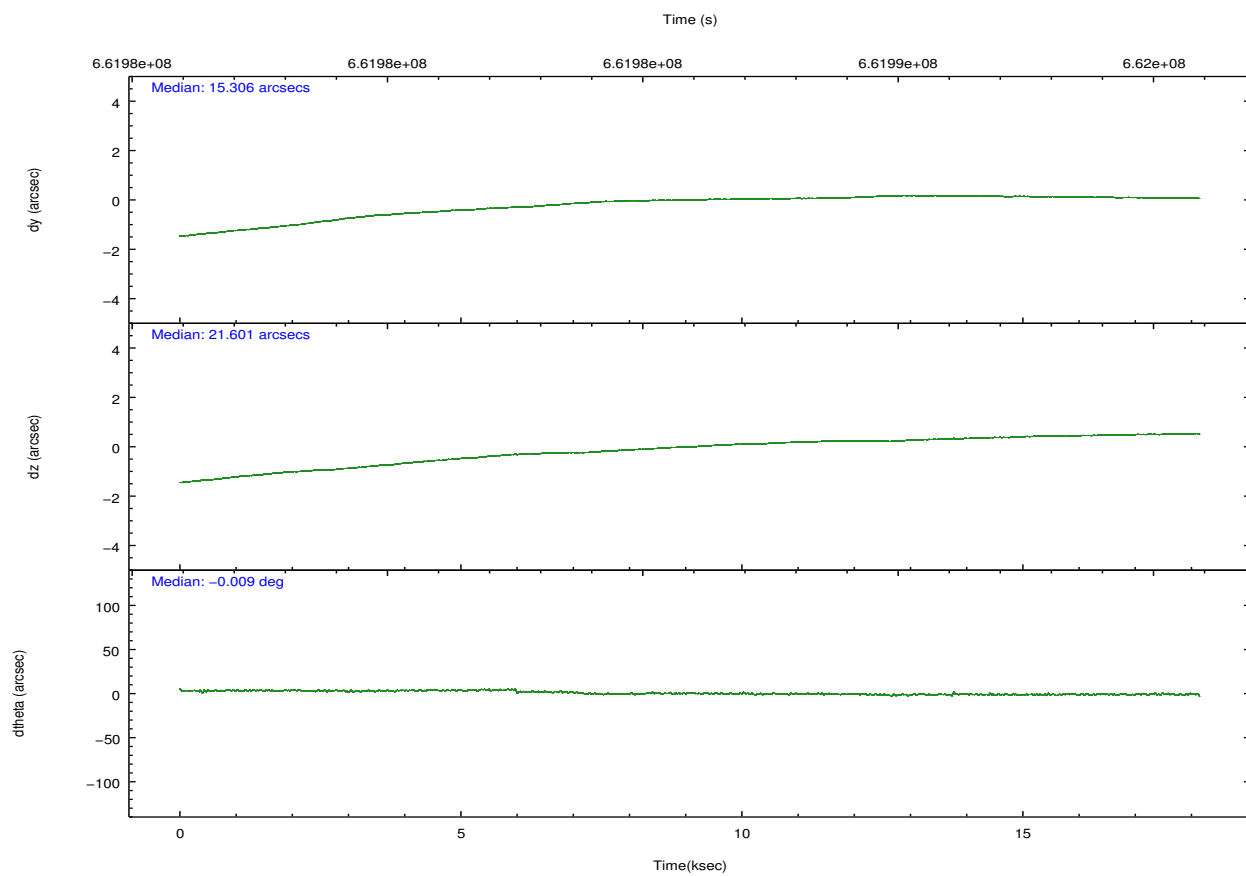
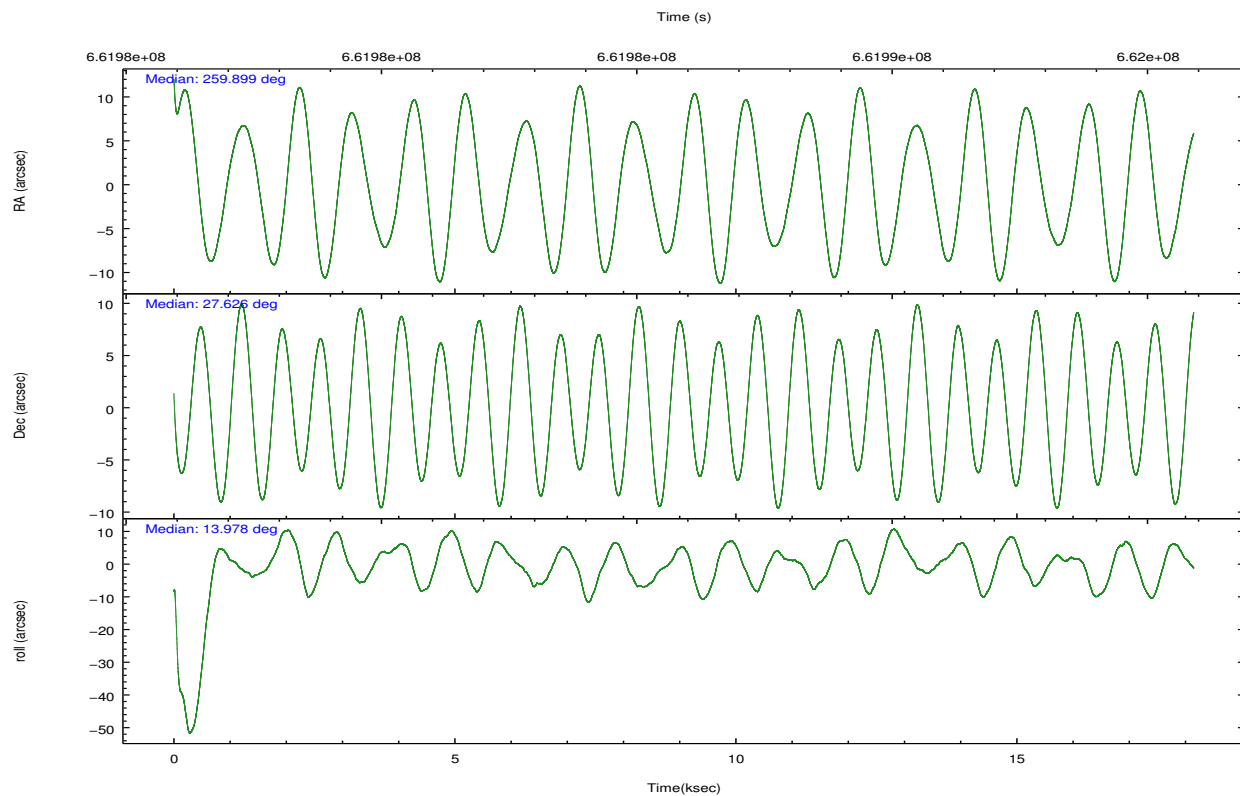
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	5486	6268	9226	5837	5207
	4%	4%	6%	4%	3%
grade 1 events	65	85	111	87	64
	0%	0%	0%	0%	0%
grade 2 events	4013	4413	4659	3382	3759
	3%	3%	3%	2%	2%
grade 3 events	1601	1710	1711	1513	1554
	1%	1%	1%	1%	1%
grade 4 events	1539	1705	1760	1465	1560
	1%	1%	1%	1%	1%
grade 5 events	5929	6355	5652	6763	6418
	4%	4%	3%	4%	4%
grade 6 events	3253	3766	3148	3149	3591
	2%	2%	2%	2%	2%
grade 7 events	105709	103787	120108	113564	114641
	82%	81%	82%	83%	83%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	259.876986	259.8993453579906	CCD I2 on	Y	Y
[deg] Pointing Dec	27.606851	27.62607551098739	CCD I3 on	Y	Y
[deg] Pointing Roll	13.780364	13.97870185649747	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	661976974.184000	661975729.98216	CCD S5 on	N	N
Observation start date	2018-12-23T18:28:25	2018-12-23T18:08:49	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	661994974.184000	661995108.63331	On-chip summing requested	N	N
Observation end date	2018-12-23T23:28:25	2018-12-23T23:31:48	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



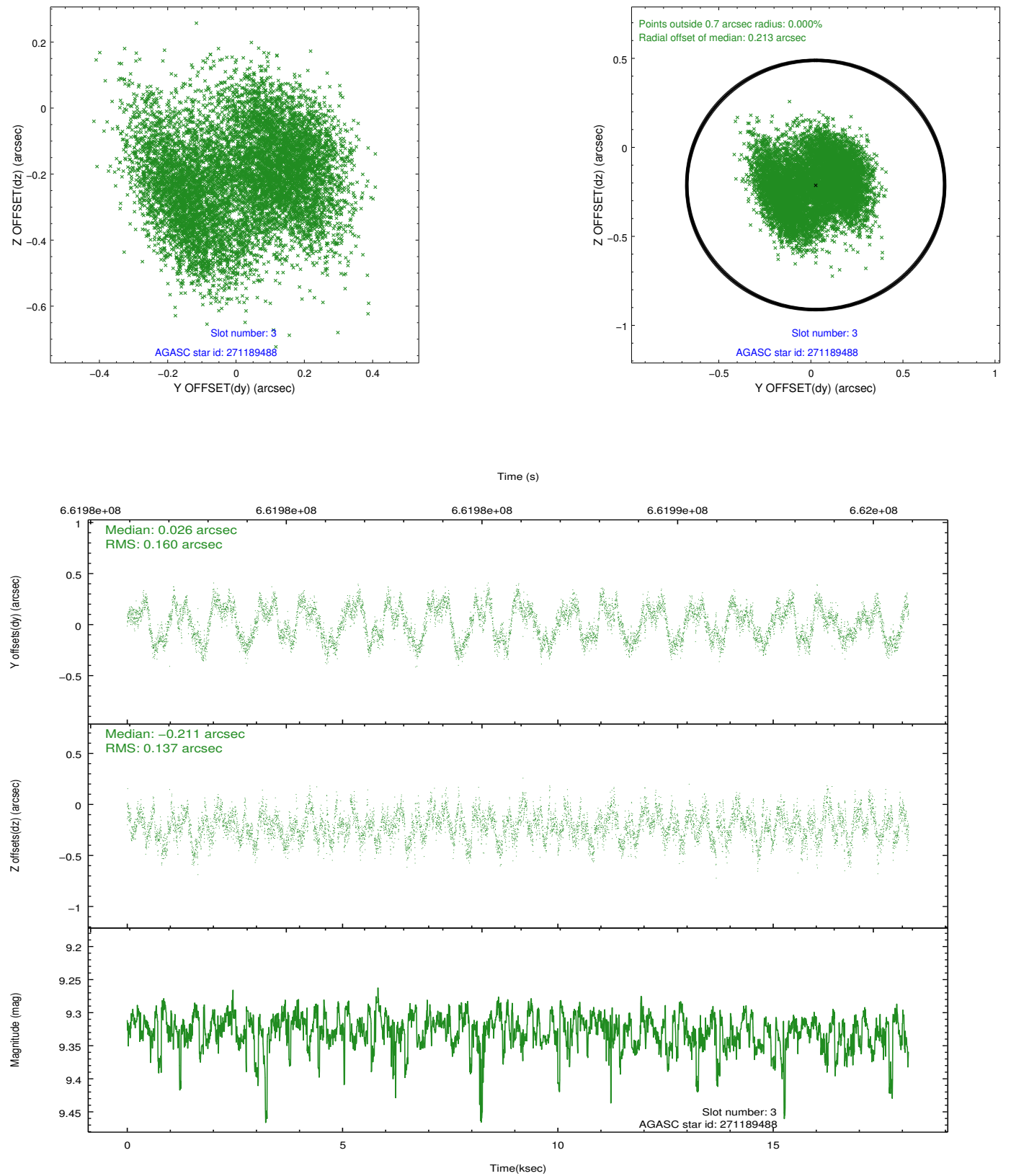


Slot Statistics

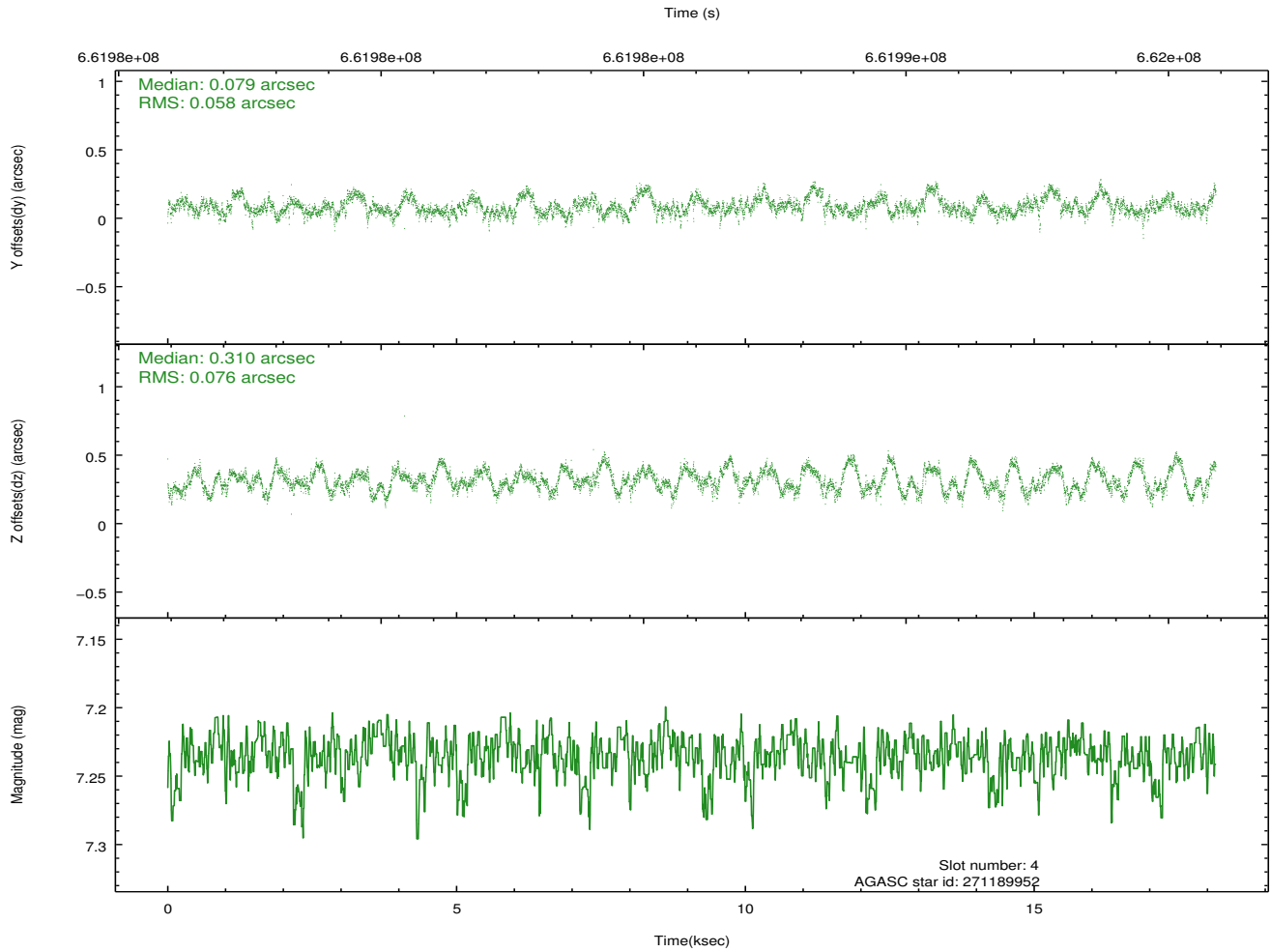
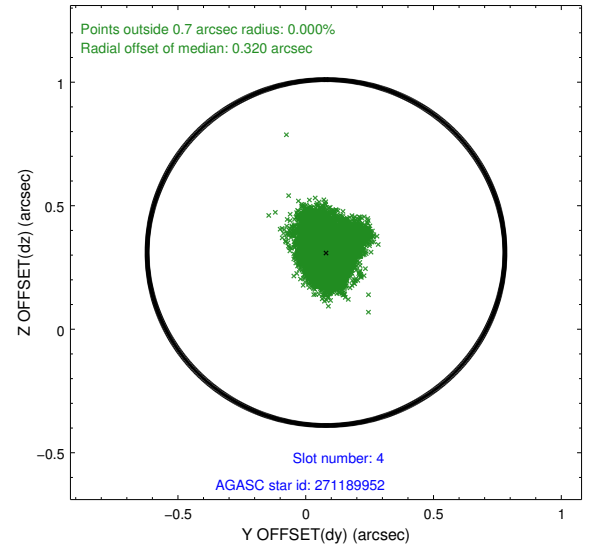
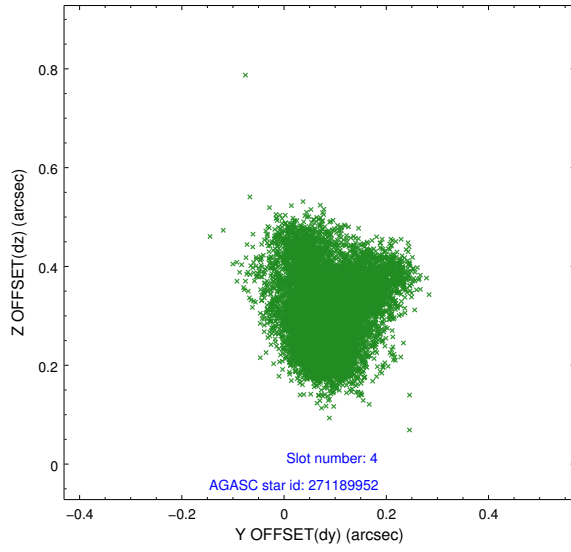
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.09	4426	1.000	-0.091	-0.177	0.025	0.062	0.000000	0.000000	924.40	-845
1	FID		ACIS-I-4	7.03	4422	1.000	0.613	0.190	0.027	0.043	0.000000	0.000000	2145.03	1054
2	FID		ACIS-I-5	7.09	4426	1.000	-0.619	0.057	0.015	0.027	0.000000	0.000000	-1824.07	1052
3	GUIDE	used	271189488	9.33	8830	1.000	0.026	-0.211	0.233	0.330	259.387780	28.096100	-1088.44	2083
4	GUIDE	used	271189952	7.23	8850	1.000	0.079	0.310	0.105	0.162	259.136686	27.683227	-2224.26	836
5	GUIDE	used	272894560	9.60	8812	1.000	0.255	-0.020	0.207	0.336	259.749385	27.582621	-415.59	12
6	GUIDE	used	272898872	9.01	8769	1.000	0.001	0.115	0.151	0.230	260.157490	27.527501	802.06	-491
7	GUIDE	used	272901536	9.29	8845	1.000	-0.365	-0.223	0.173	0.277	259.913259	28.084342	522.16	1641

## 2.4 Star Slots

### 2.4.1 Slot 3

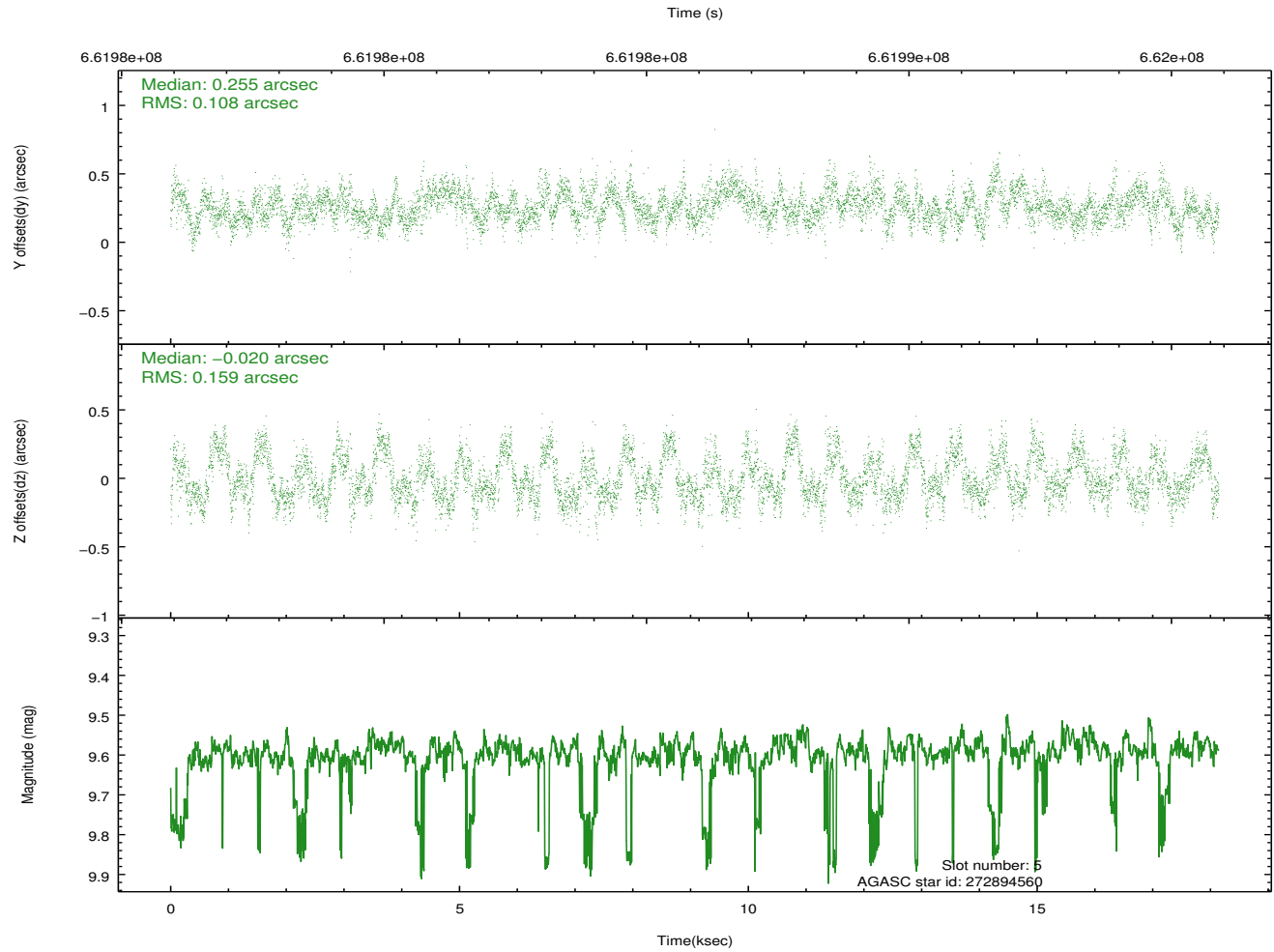
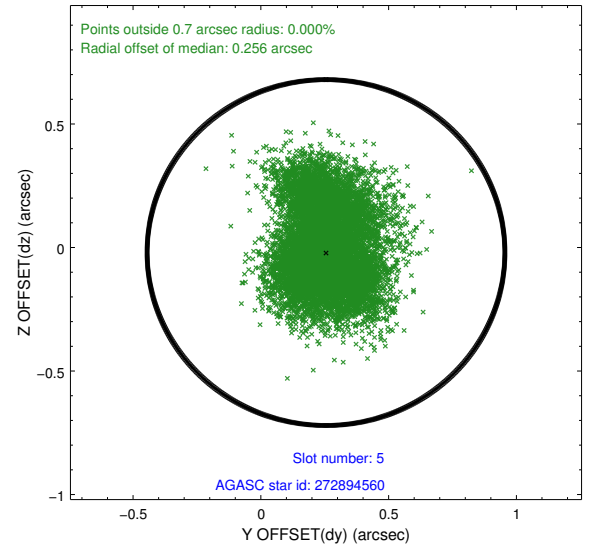
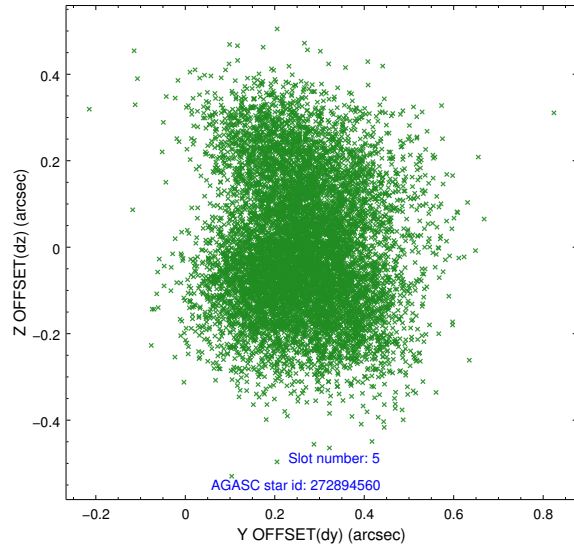


## 2.4.2 Slot 4

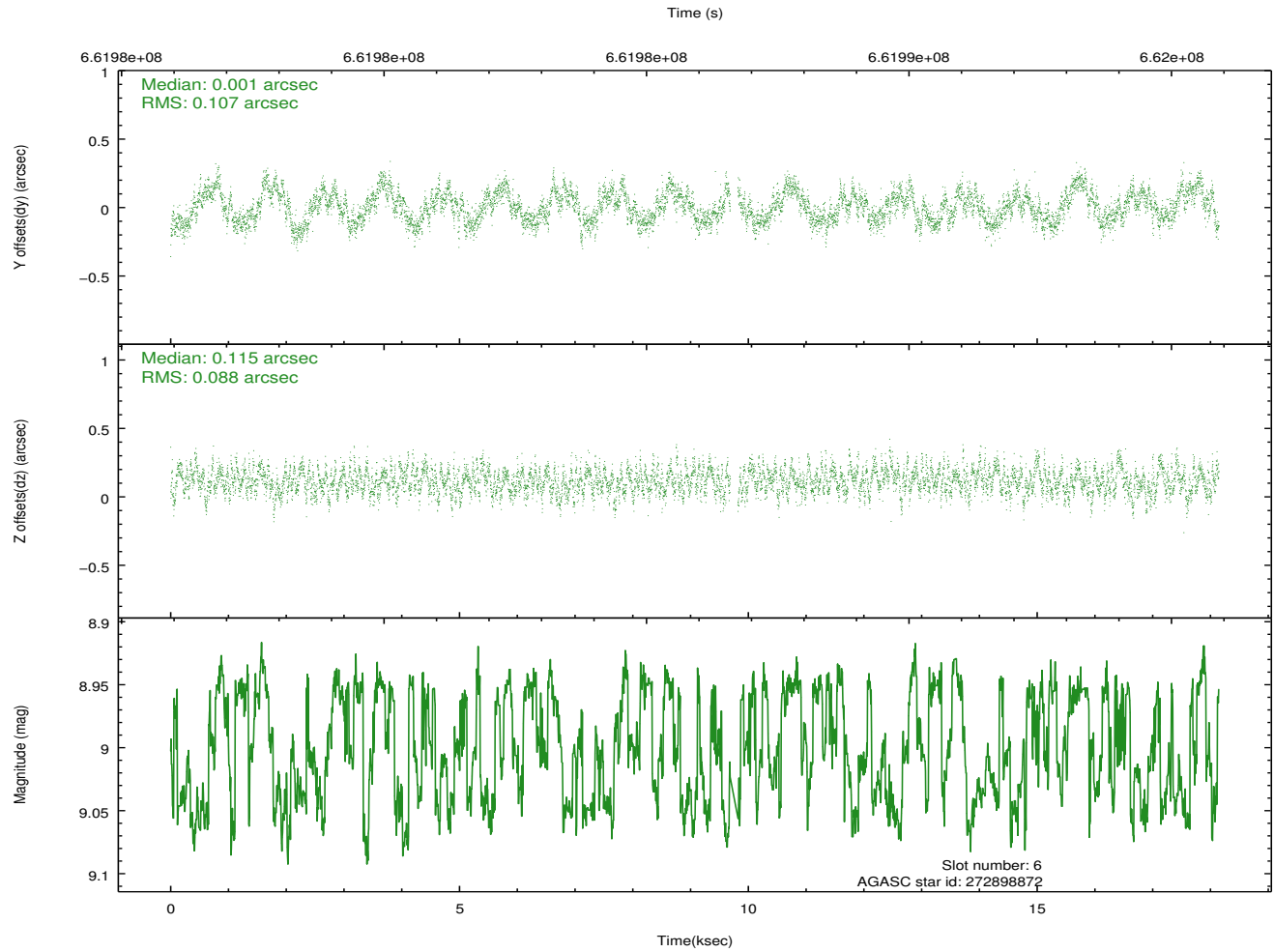
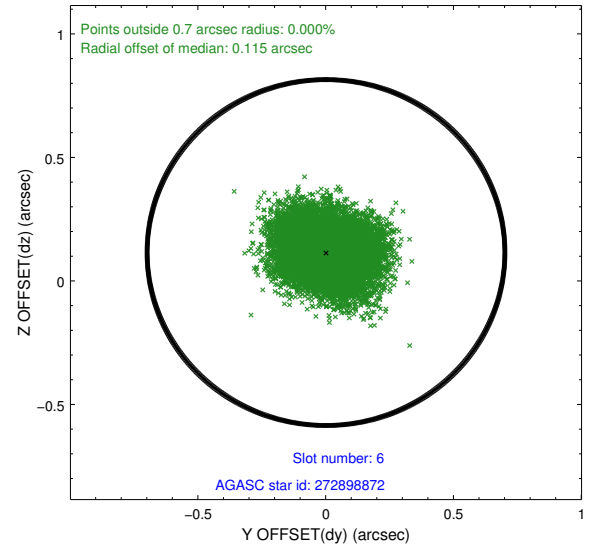
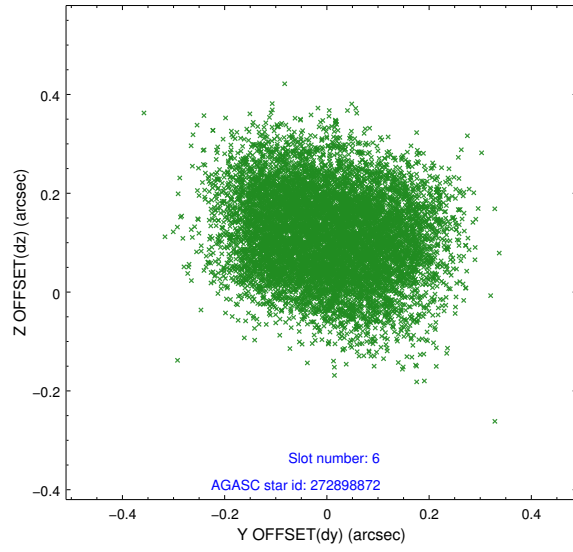




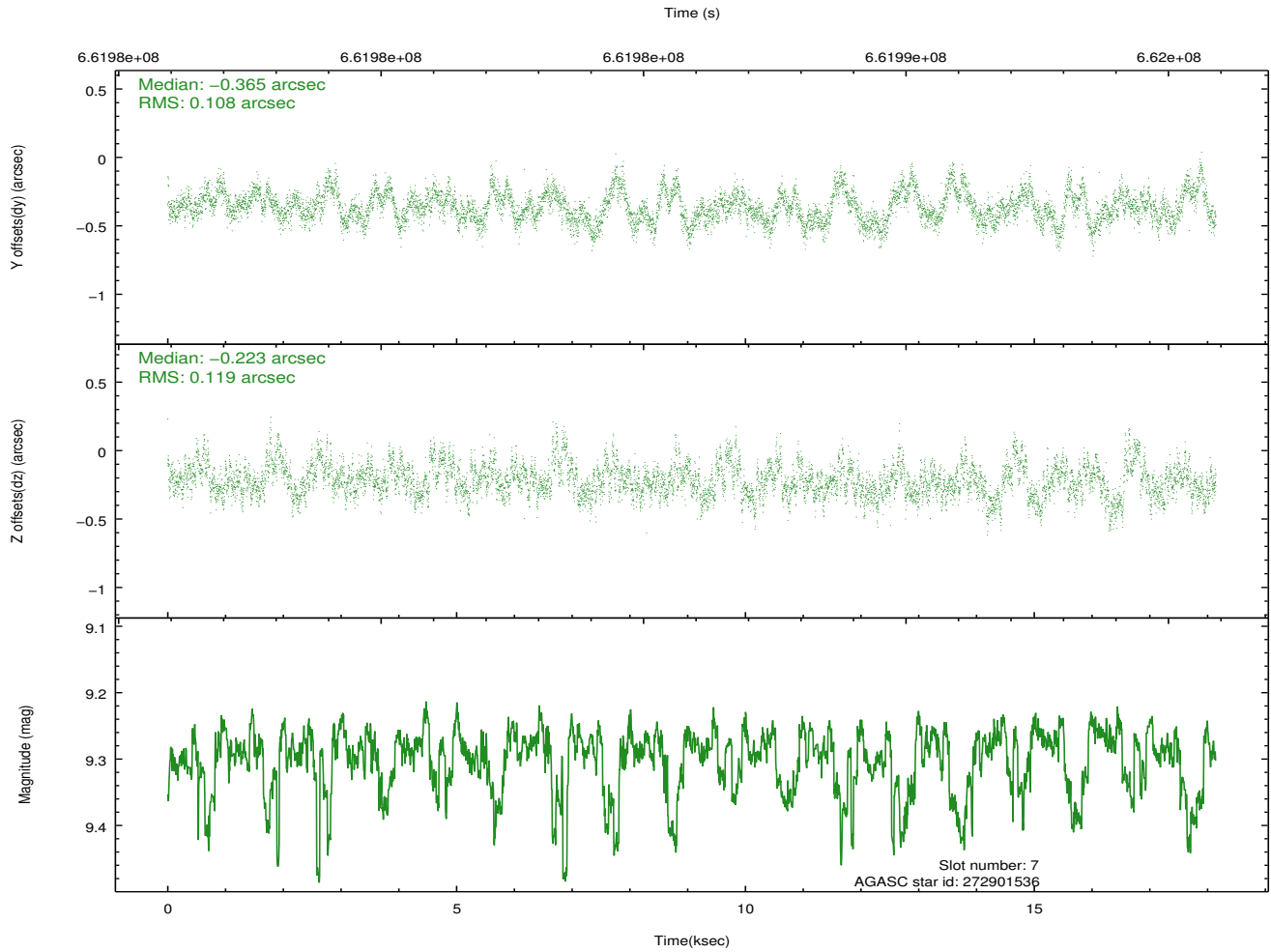
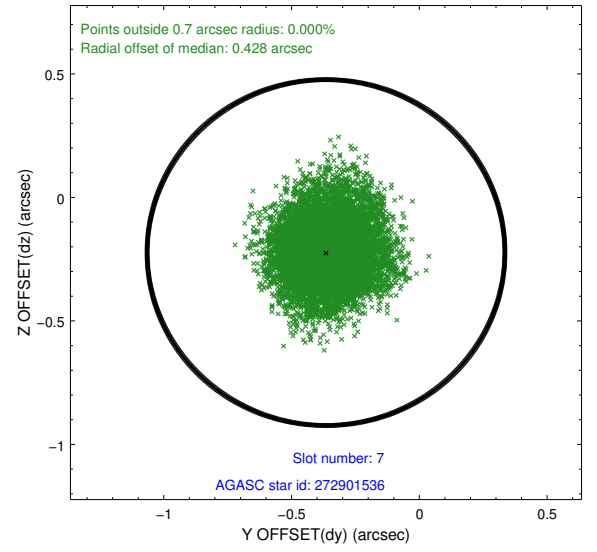
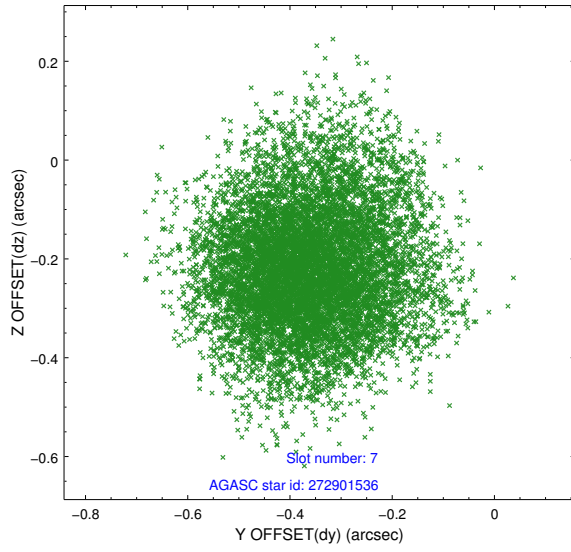
### 2.4.3 Slot 5



## 2.4.4 Slot 6

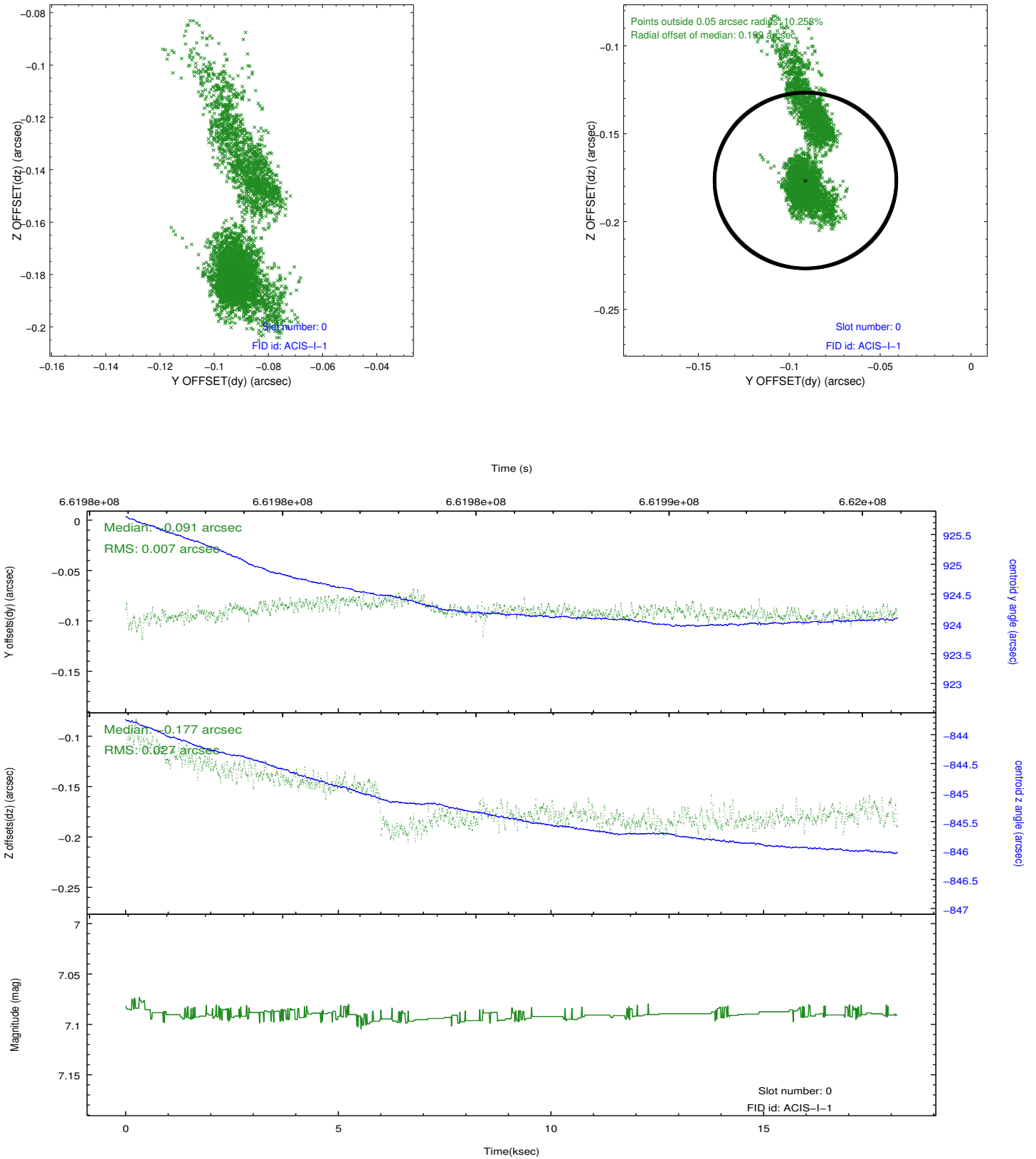


## 2.4.5 Slot 7

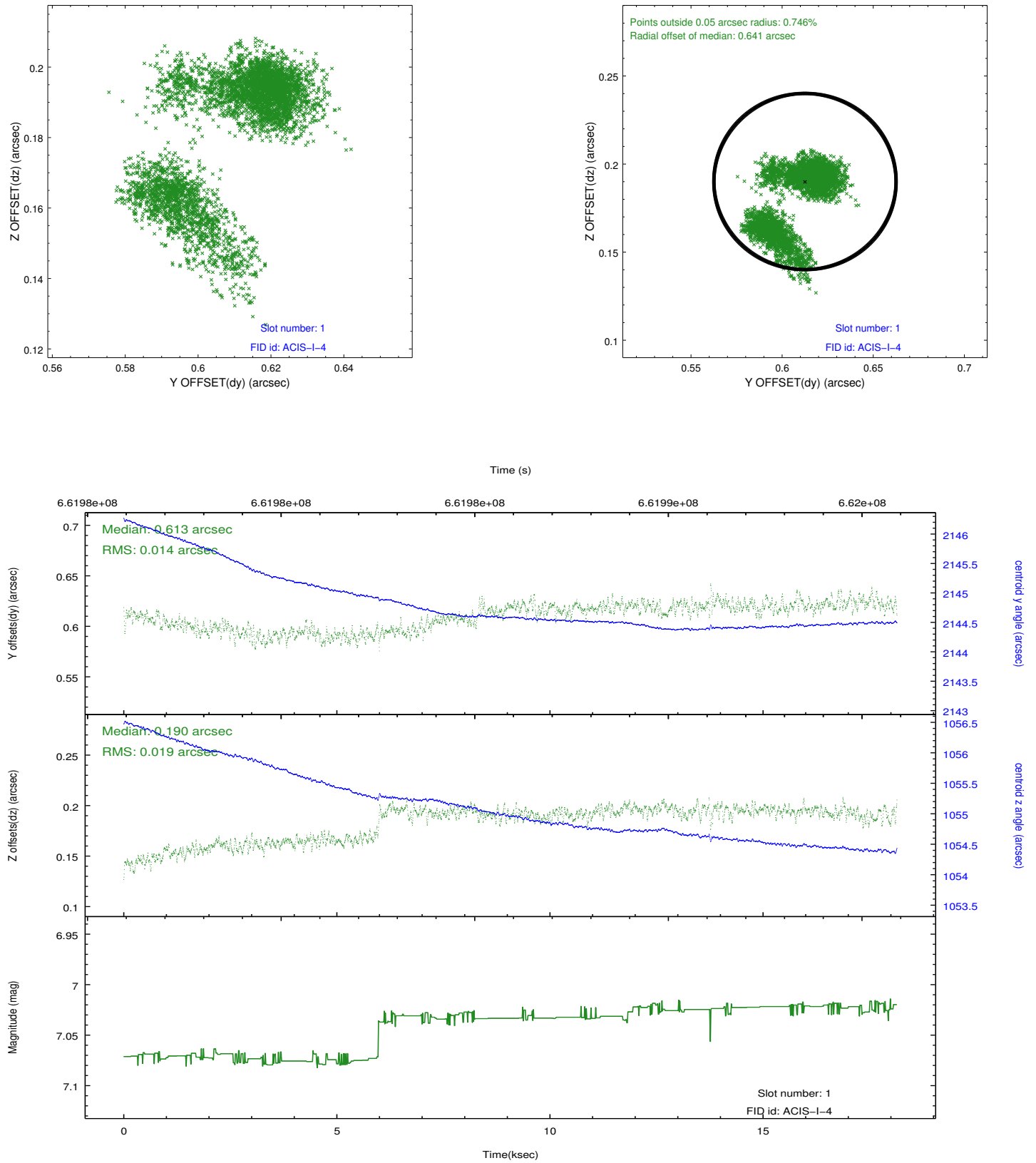


## 2.5 FID Slots

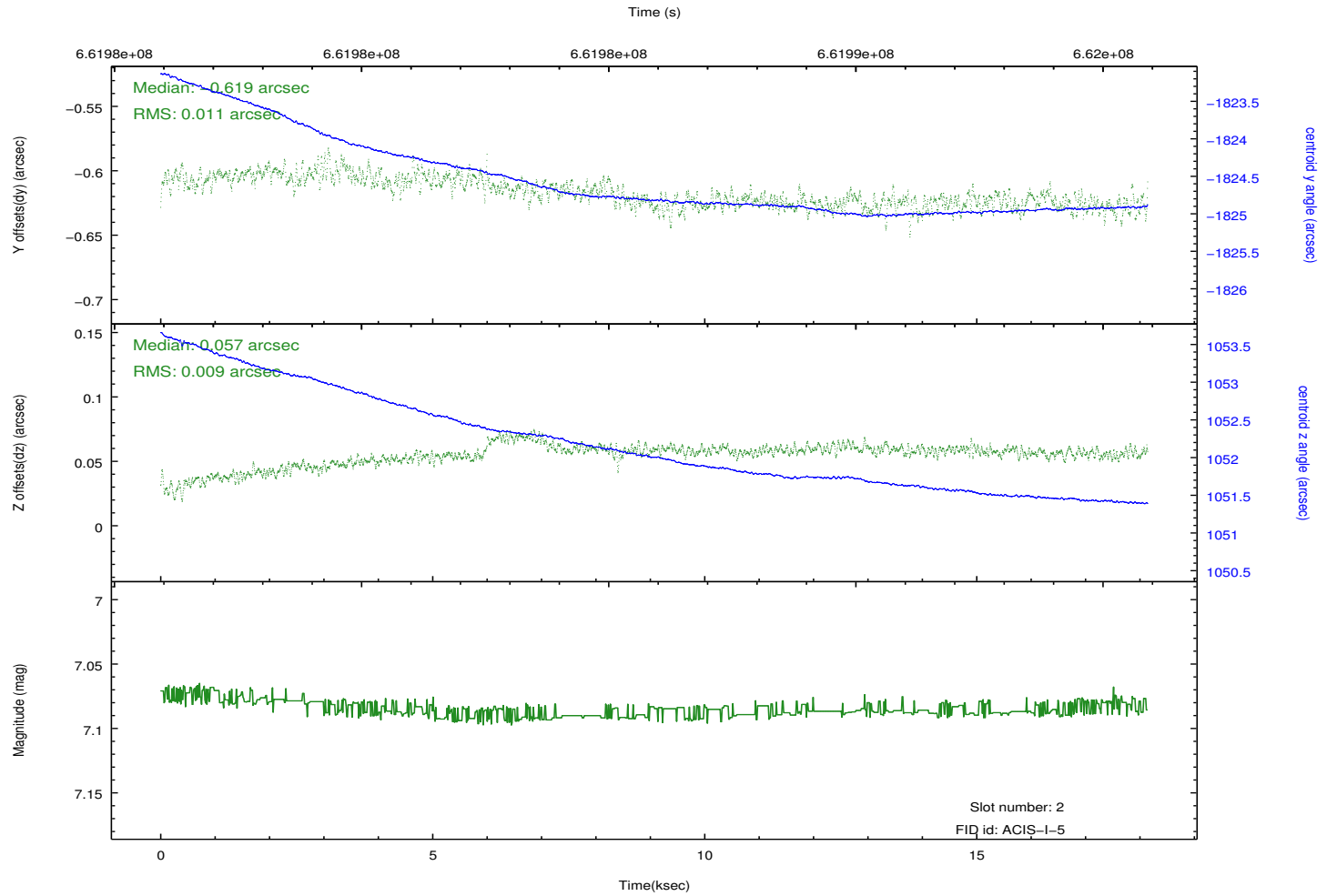
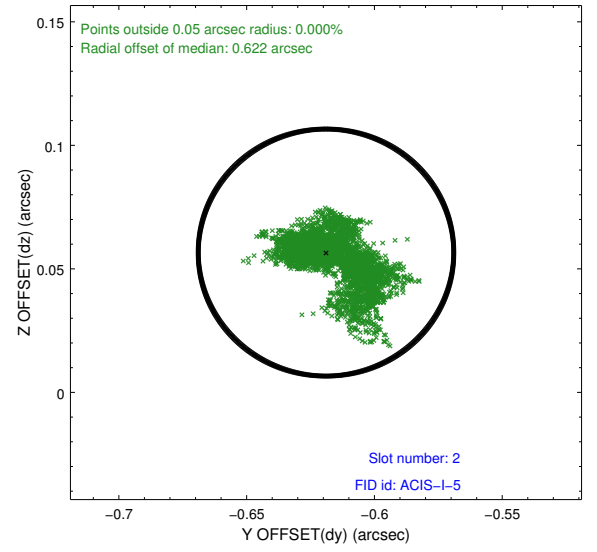
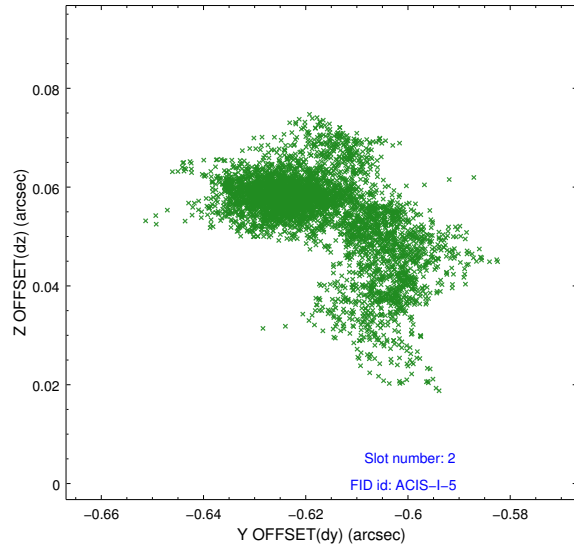
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2018.12.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	18.06680013907

### A.2 Comments