

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 20490 - L2 Version 2  
Chandra X-Ray Center

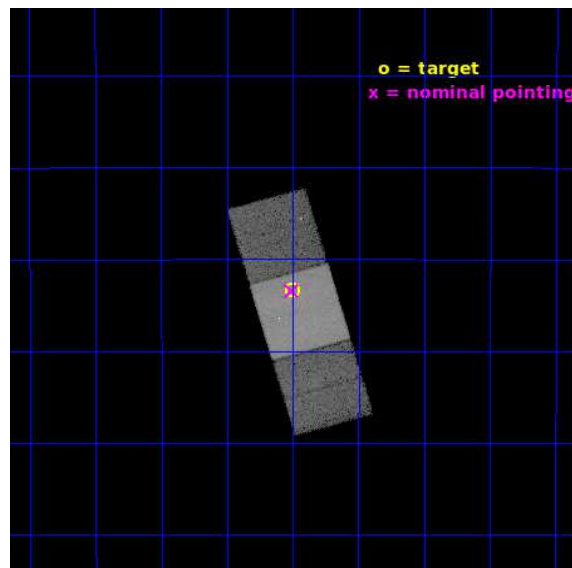
L2 Processing Date : Oct 25 2020

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# 1 Front

seq_num	703593	Sequence number
obs_id	20490	Observation id
title	Confirming X-ray bright gravitationally lensed quasars identified by Gaia and ROSAT	Proposal title
observer	Cameron Lemon	Principal investigator
object	J1606-2333	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	241.500833	Observer's specified target RA [deg]
dec_targ	-23.556111	Observer's specified target Dec [deg]
ra_nom	241.50166110483	Nominal RA [deg]
dec_nom	-23.557061822202	Nominal Dec [deg]
roll_nom	73.864638509564	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30109.786996126	Sum of GTIs [s]
livetime	29716.380462519	Livetime [s]
ontime6	30106.604866028	Sum of GTIs [s]
ontime7	30109.786996126	Sum of GTIs [s]
ontime8	30106.563835859	Sum of GTIs [s]
l2events	167487	Number of level 2 events

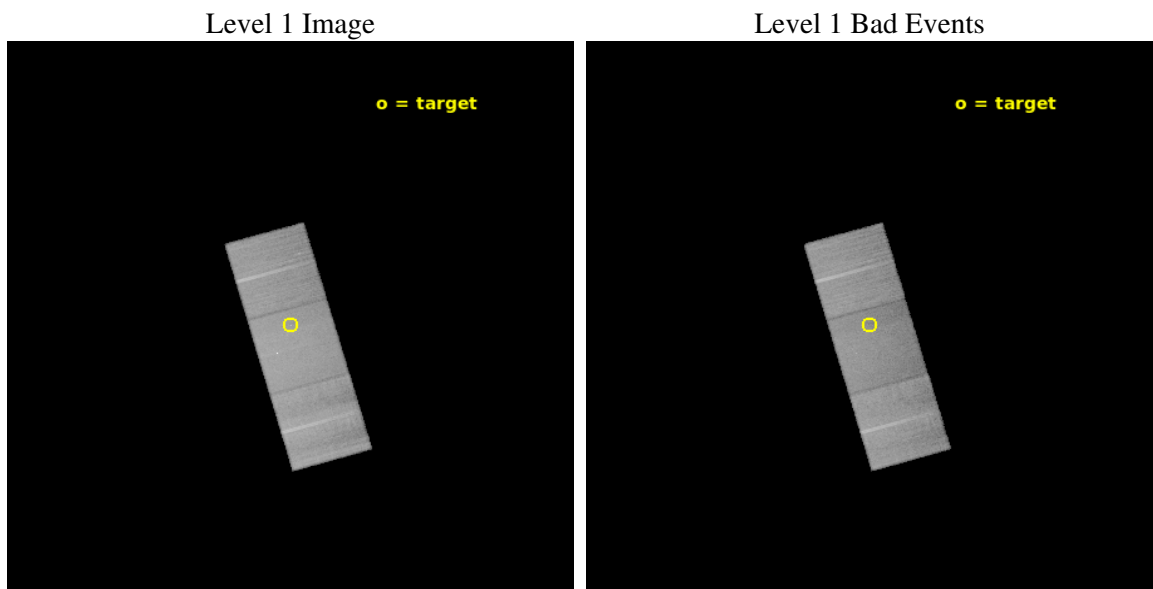




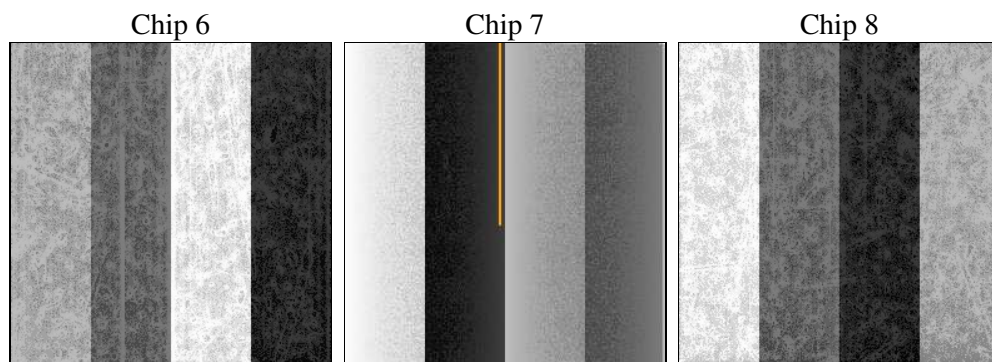
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	30109.786996126	Sum of GTIs [s]
caldsver	4.9.3	&#160	ontime6	30106.604866028	Sum of GTIs [s]
date	2020-10-25T15:52:29	Date and time of file creation	ontime7	30109.786996126	Sum of GTIs [s]
revision	2	Processing version of data	ontime8	30106.563835859	Sum of GTIs [s]
			l1events	805644	Number of level 1 events

### 2.1.4 Events

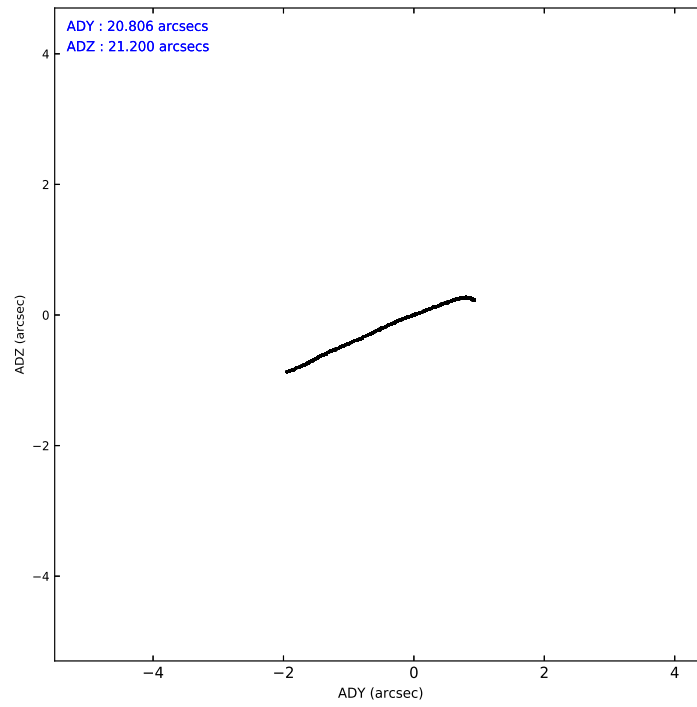
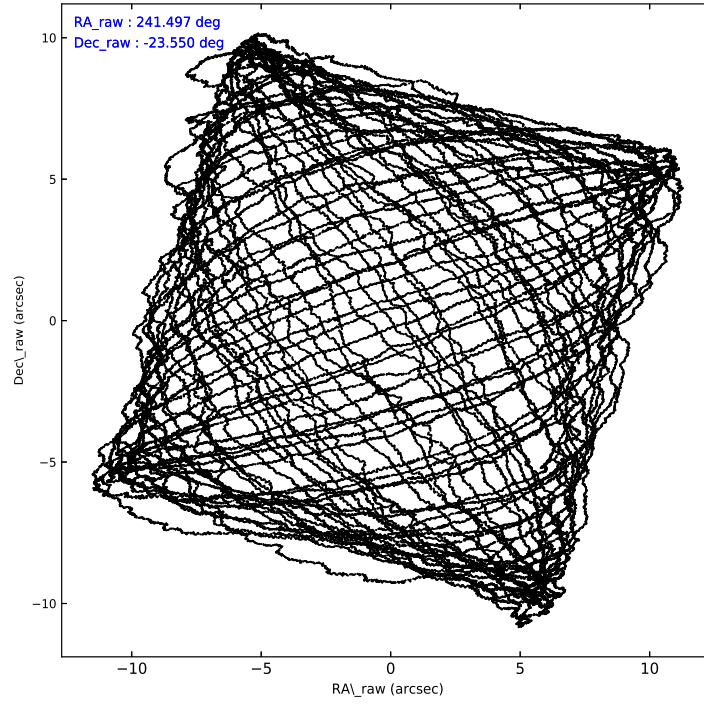
	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
level 1 events	233288	285007	287349
rejected events	207976	160654	216442
rejected %	89%	56%	75%

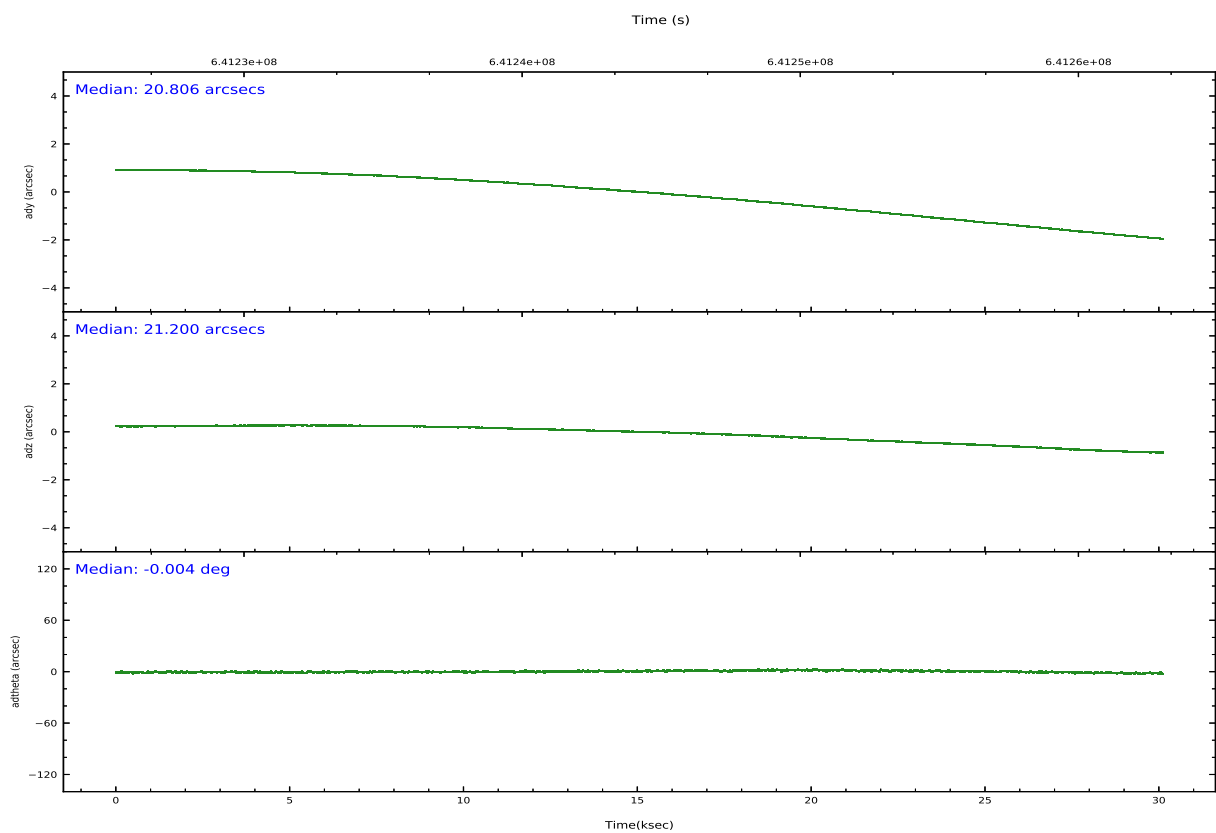
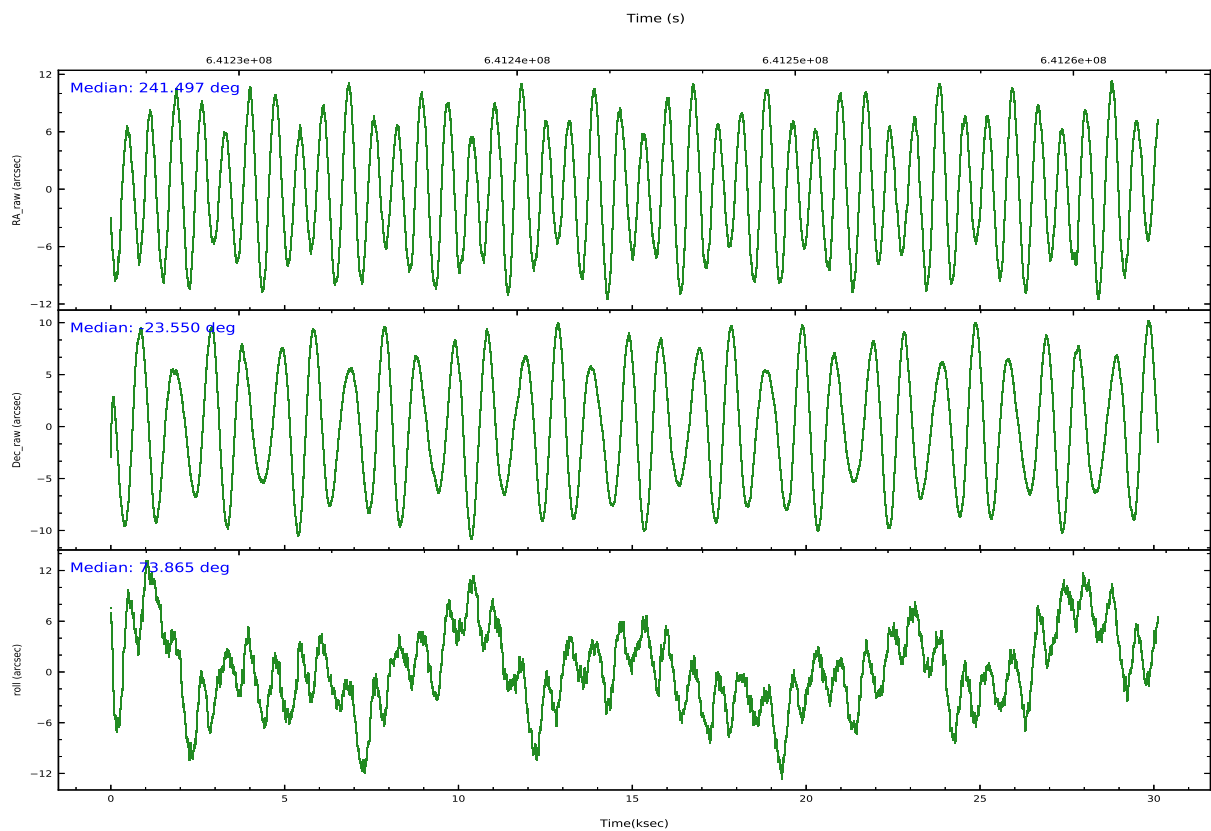
	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
grade 0 events	7516	11144	19989
	3%	3%	6%
grade 1 events	108	399	194
	0%	0%	0%
grade 2 events	6739	26021	17357
	2%	9%	6%
grade 3 events	2190	10057	7123
	0%	3%	2%
grade 4 events	2049	9592	6577
	0%	3%	2%
grade 5 events	9369	27448	14545
	4%	9%	5%
grade 6 events	6820	67556	19866
	2%	23%	6%
grade 7 events	198497	132790	201698
	85%	46%	70%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-678	ACIS-678	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	241.504685	241.50166110483	CCD I2 on	N	N
[deg] Pointing Dec	-23.576229	-23.557061822202	CCD I3 on	N	N
[deg] Pointing Roll	73.715463	73.864638509564	CCD S0 on	O2	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	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	Y	Y
[s] Observation start time (MET)	641228436.184000	641227013.44584	CCD S5 on	O1	N
Observation start date	2018-04-27T14:59:27	2018-04-27T14:36:53	Number of optional ACIS chips dropped	3	3
[s] Observation end time (MET)	641258436.184000	641258938.09772	On-chip summing requested	N	N
Observation end date	2018-04-27T23:19:27	2018-04-27T23:28:58	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



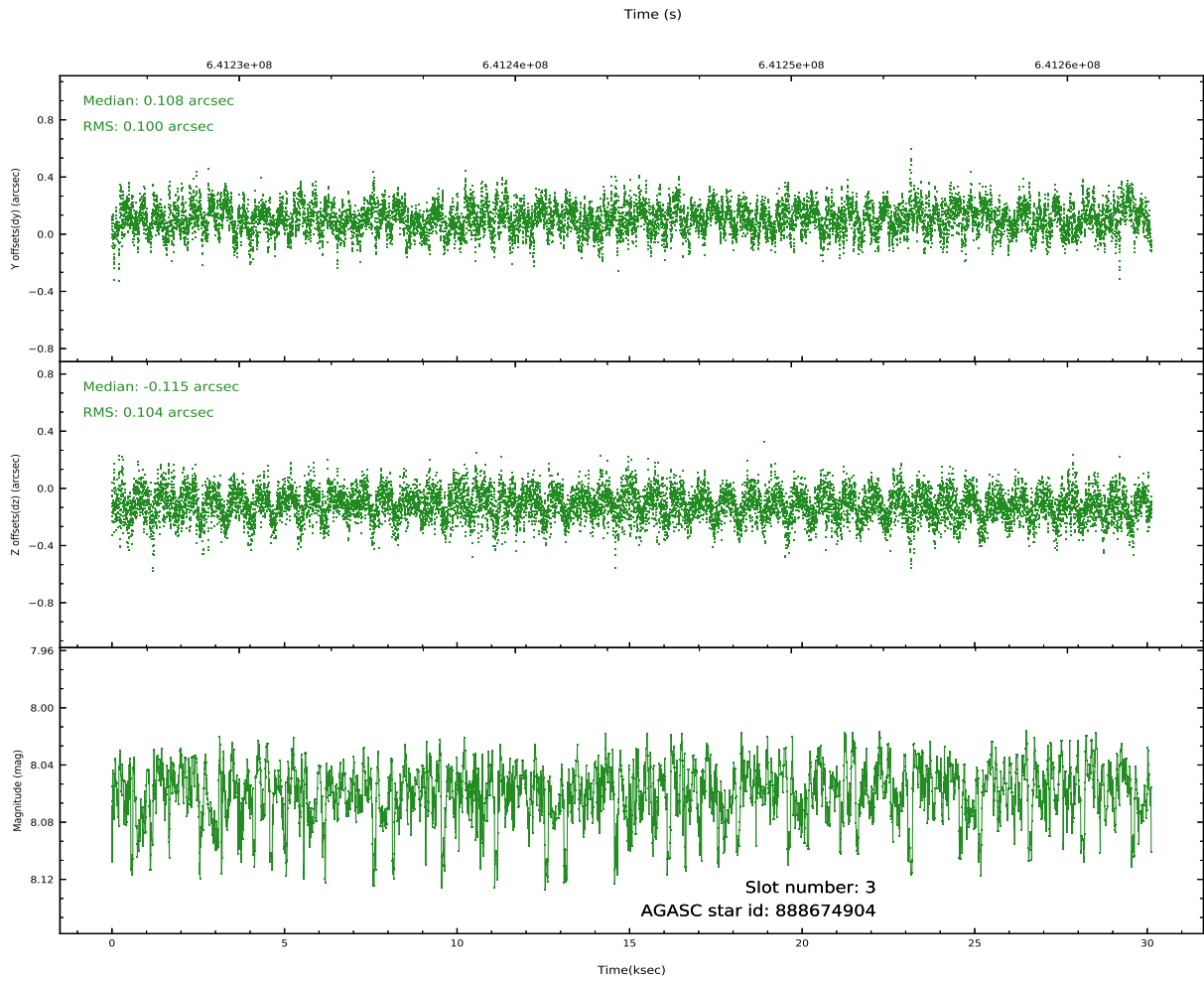
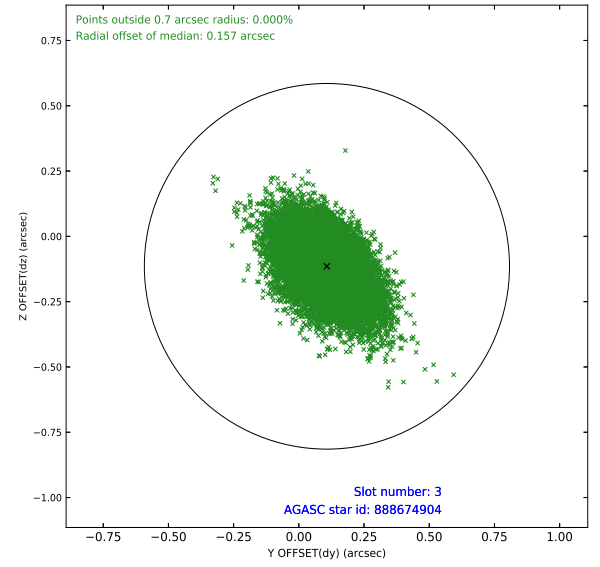
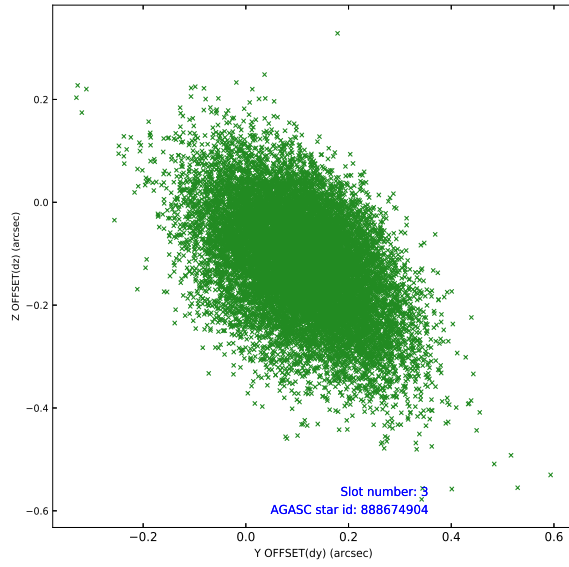


Slot Statistics

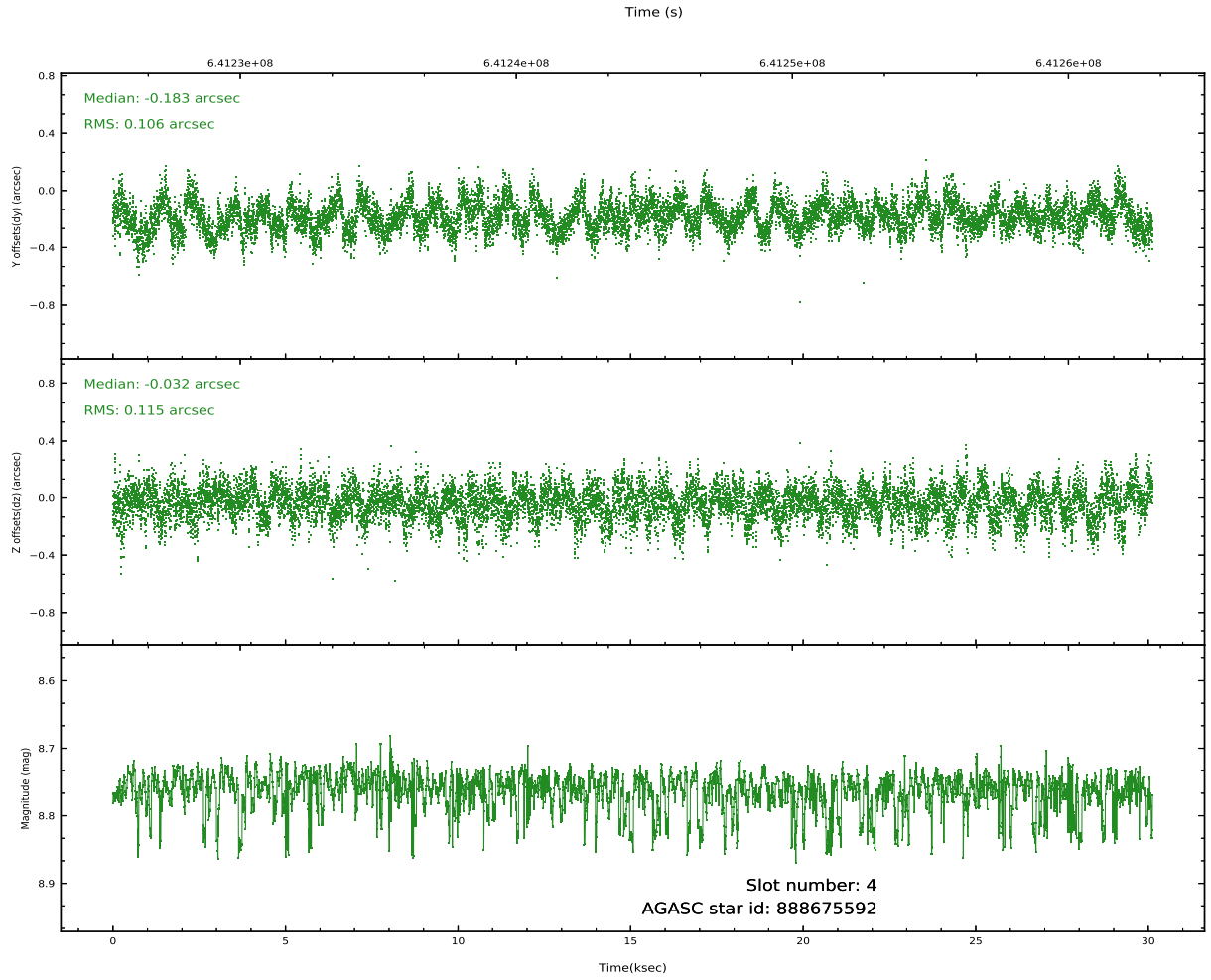
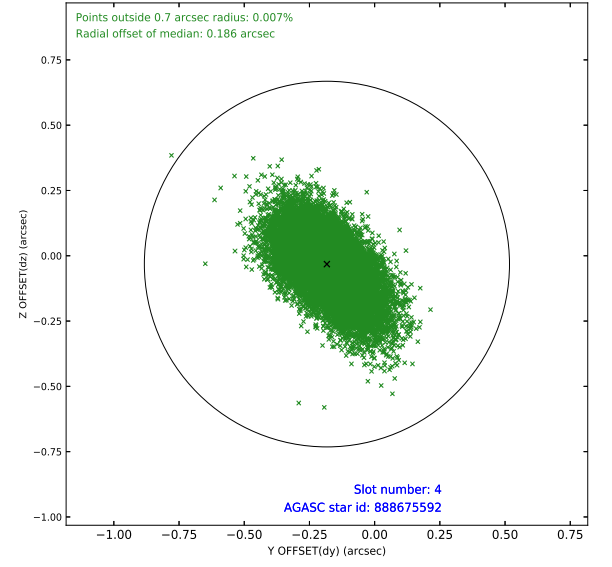
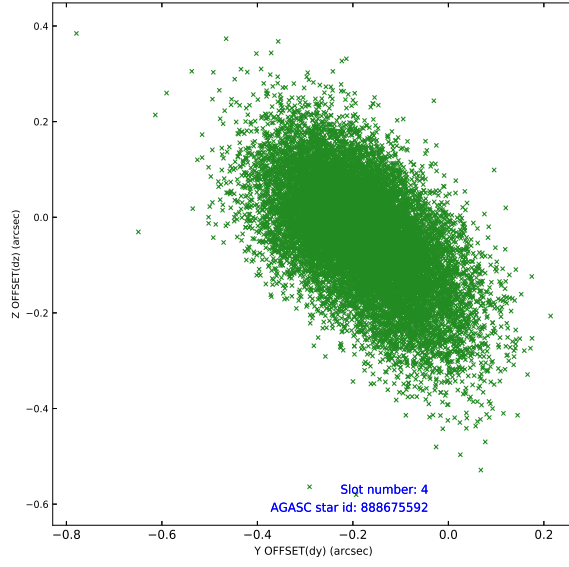
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.24	7348	1.000	0.072	-0.090	0.017	0.026	0.000000	0.000000	922.30	-1738
1	FID		ACIS-S-4	7.27	7348	1.000	0.040	-0.097	0.021	0.034	0.000000	0.000000	2139.76	165
2	FID		ACIS-S-6	7.40	7346	1.000	-0.135	0.203	0.013	0.029	0.000000	0.000000	388.19	803
3	GUIDE	used	888674904	8.06	14694	1.000	0.108	-0.115	0.150	0.255	241.329780	-23.669126	-483.29	459
4	GUIDE	used	888675592	8.76	14679	1.000	-0.183	-0.032	0.162	0.281	241.234503	-23.629026	-433.14	801
5	GUIDE	used	888679600	5.90	14696	1.000	-0.088	0.244	0.118	0.208	242.051477	-23.793344	-248.10	-1948
6	GUIDE	used	888680880	9.09	14682	1.000	-0.017	0.038	0.148	0.252	241.150567	-24.100181	-2138.52	587
7	GUIDE	used	888674248	8.73	14623	1.000	0.179	-0.130	0.193	0.336	242.349853	-23.178124	2152.79	-2284

## 2.4 Star Slots

### 2.4.1 Slot 3

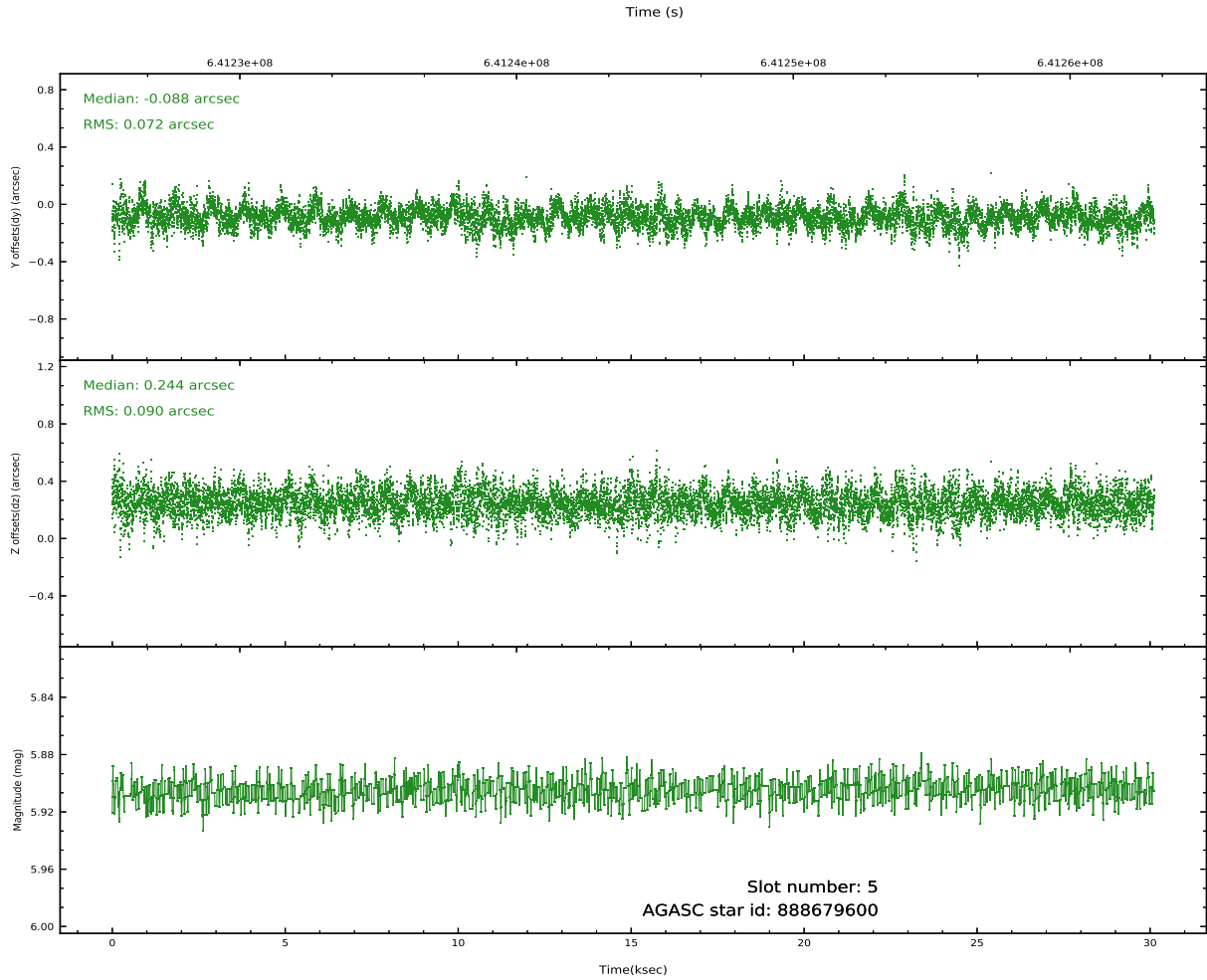
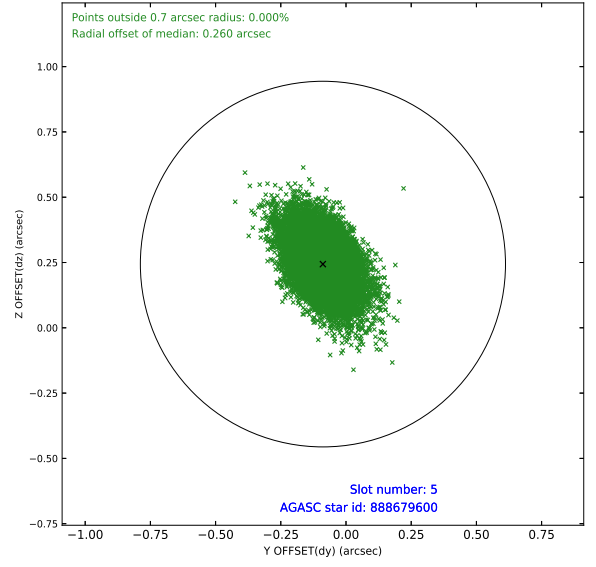
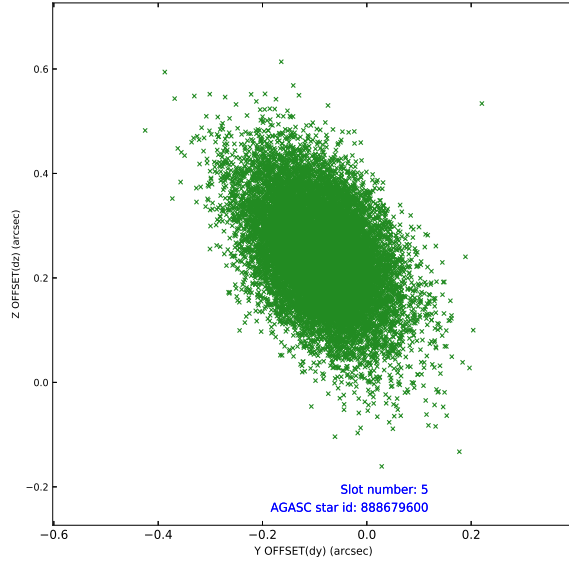


## 2.4.2 Slot 4

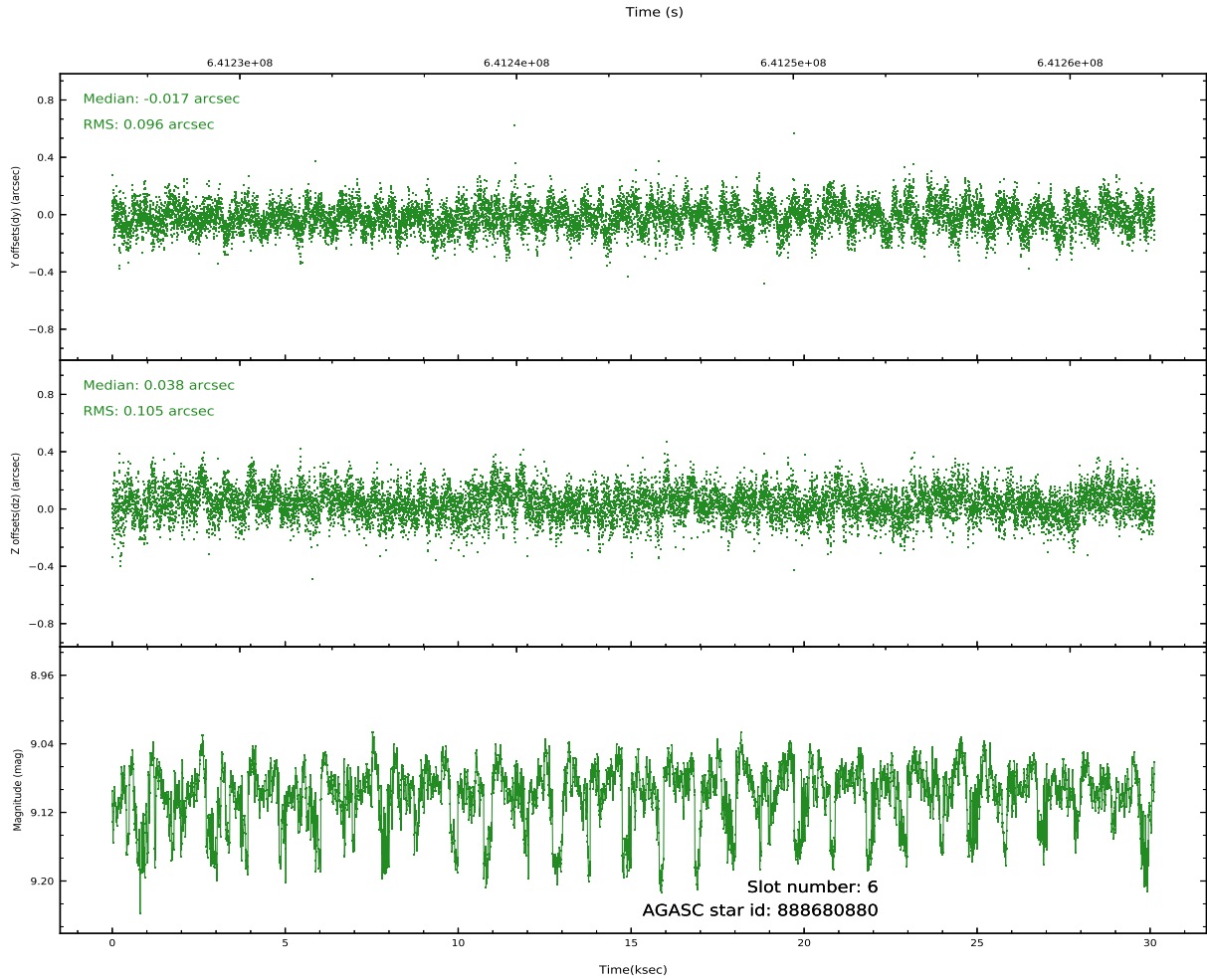
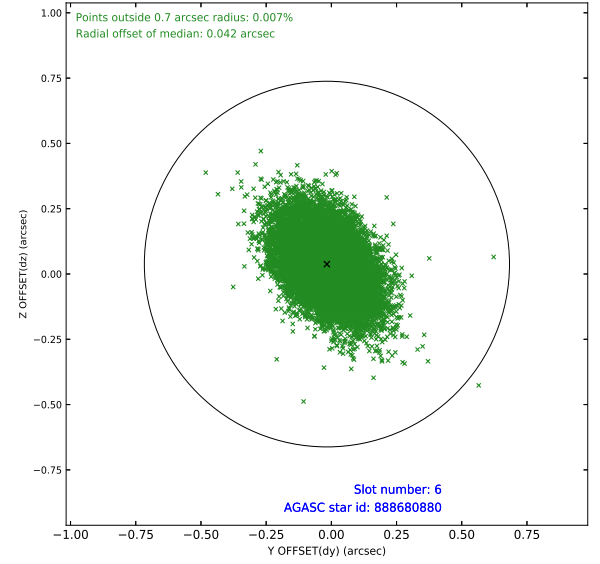
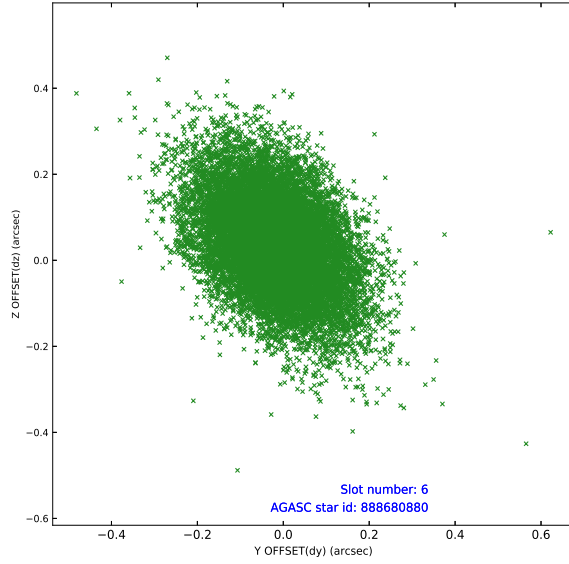




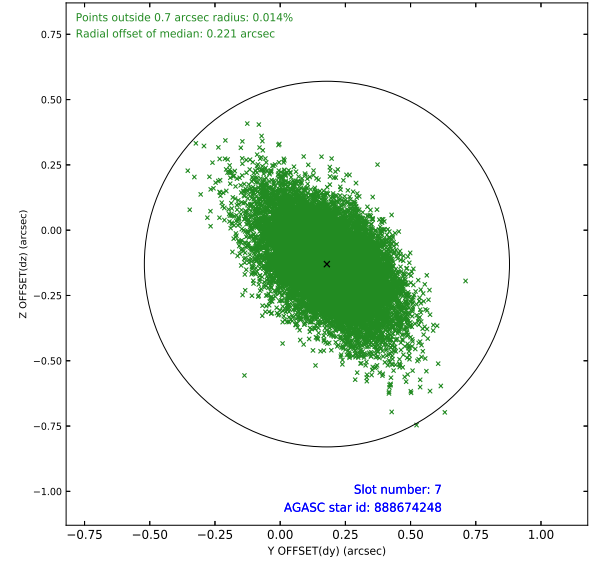
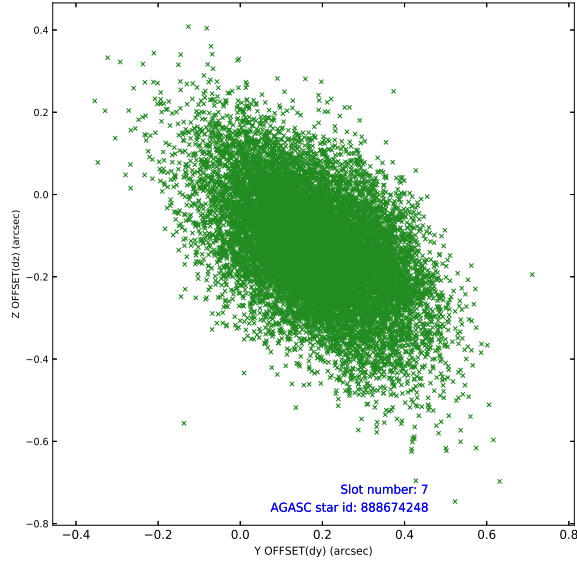
### 2.4.3 Slot 5



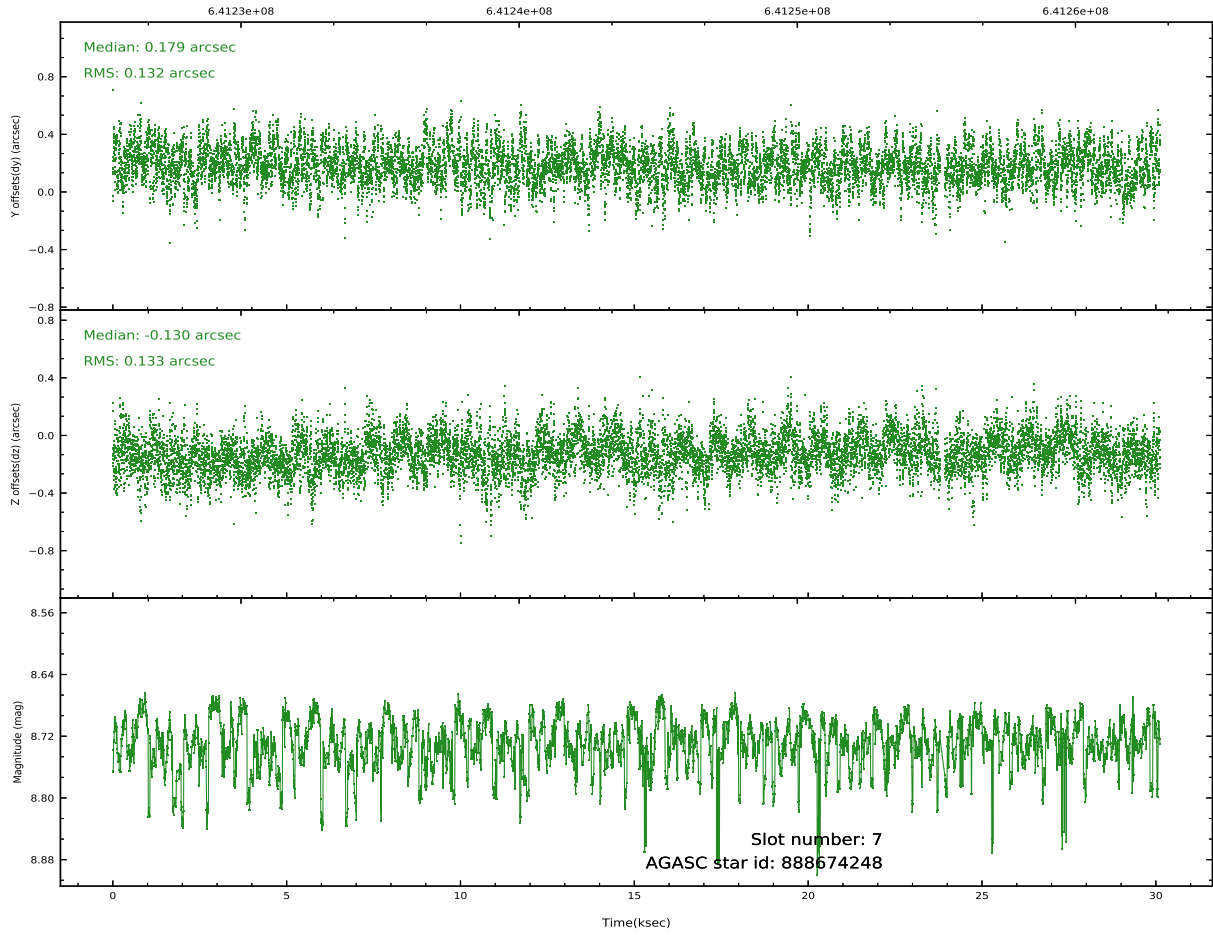
## 2.4.4 Slot 6



## 2.4.5 Slot 7

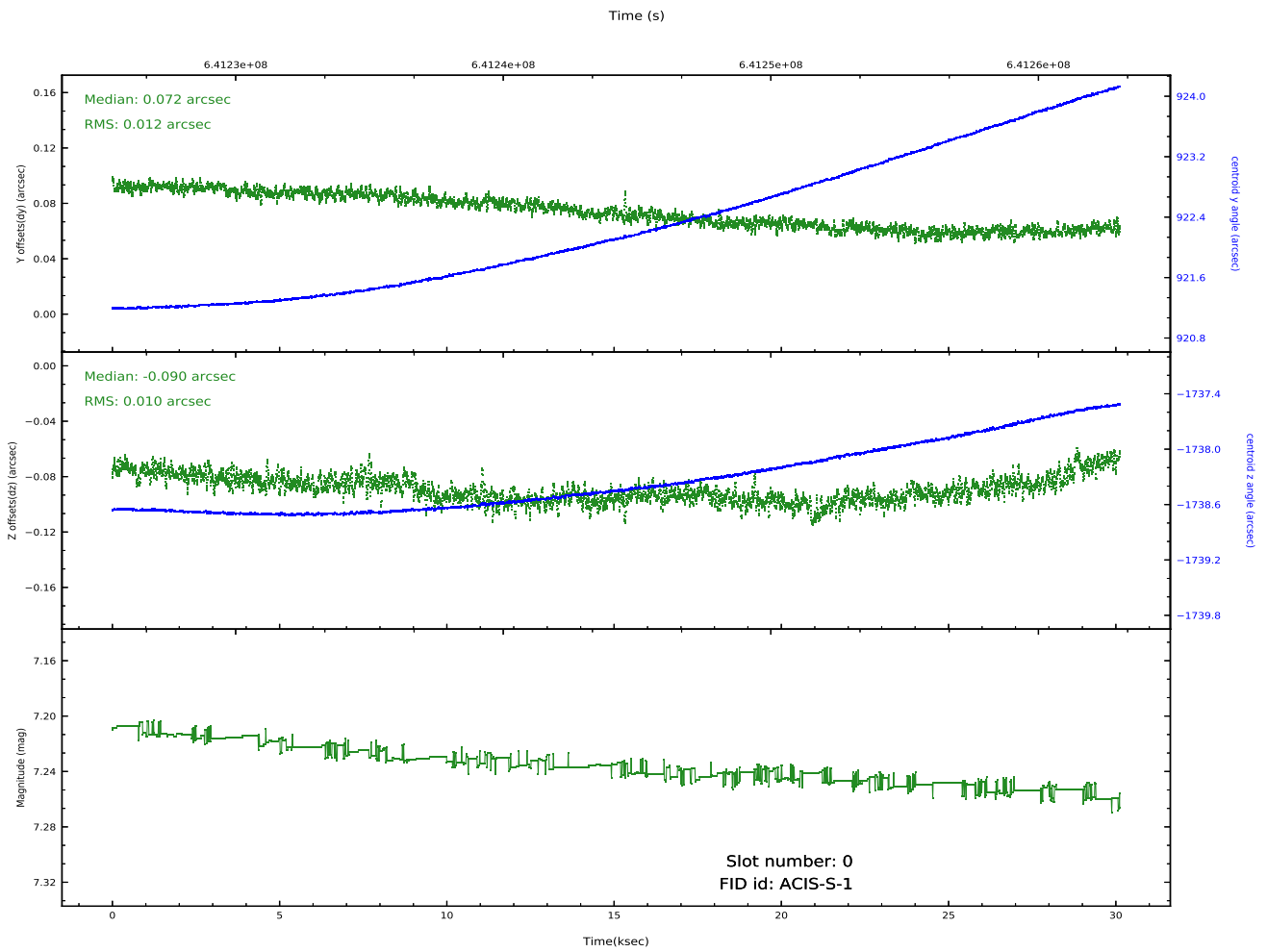
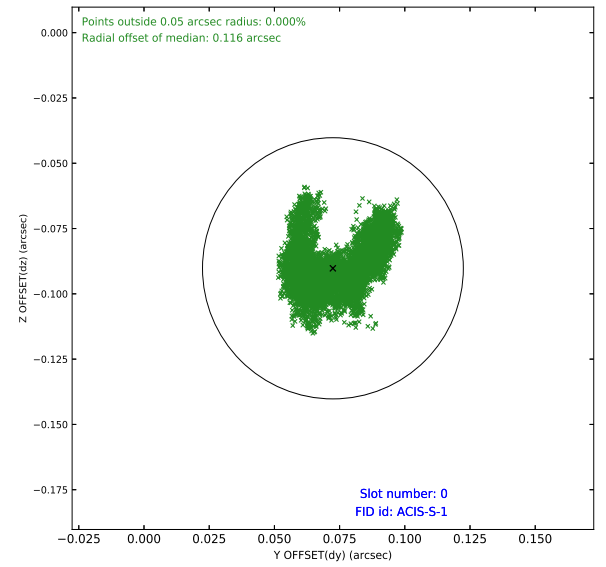
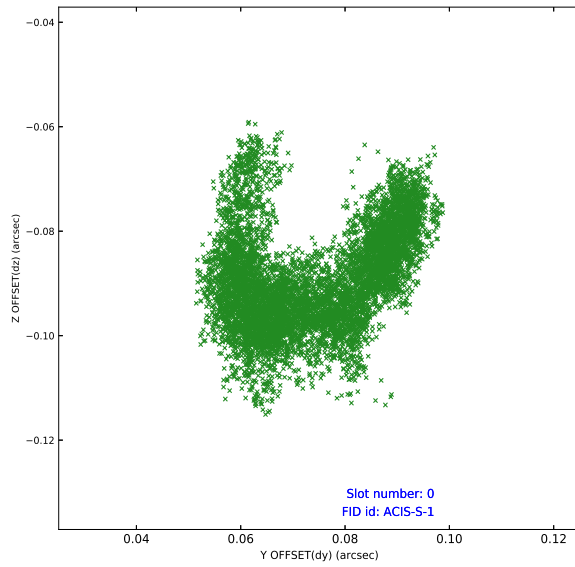


Time (s)

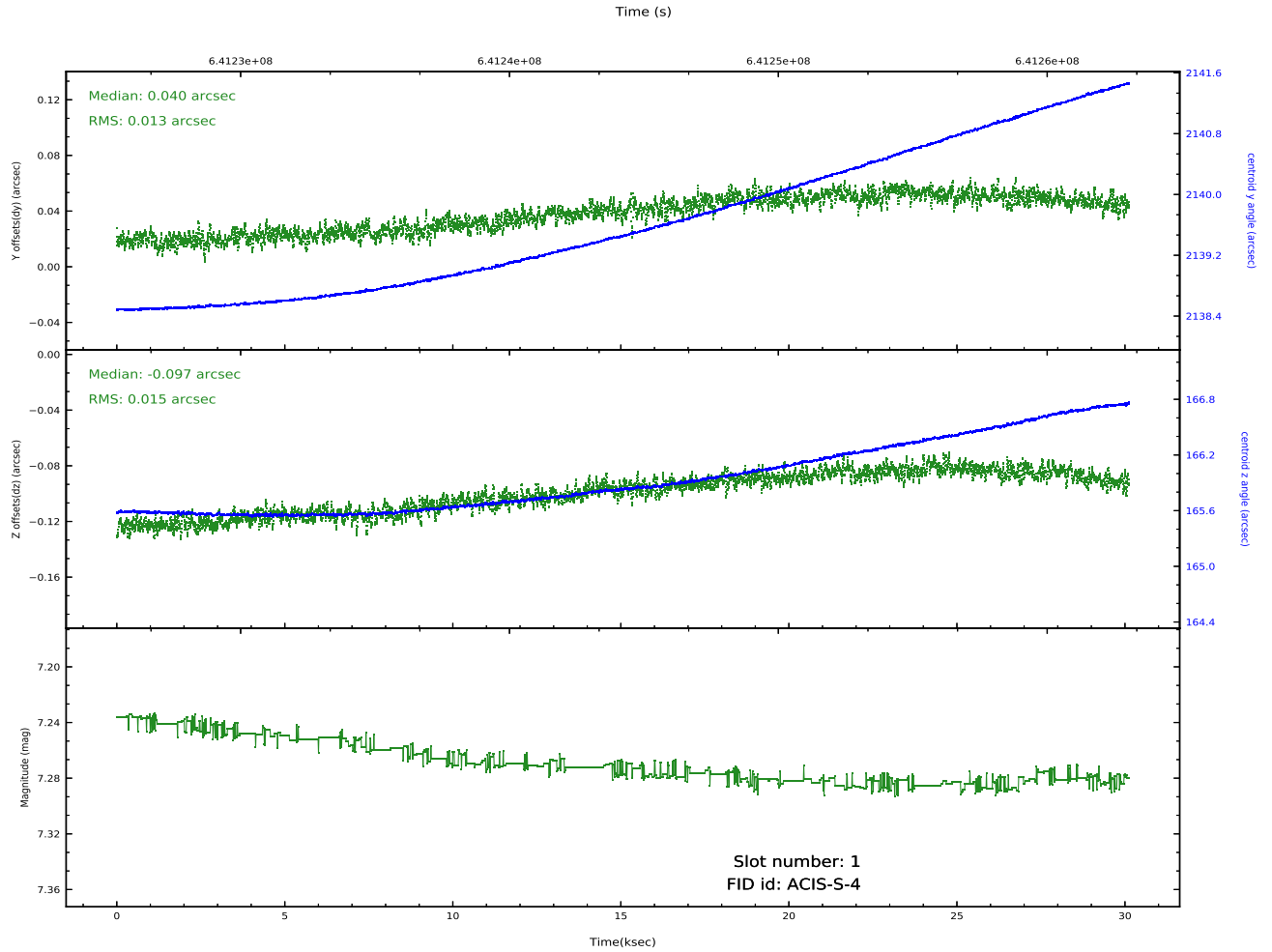
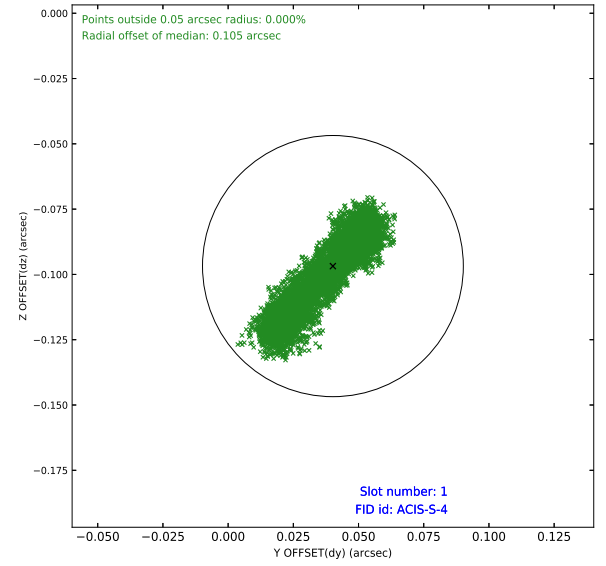
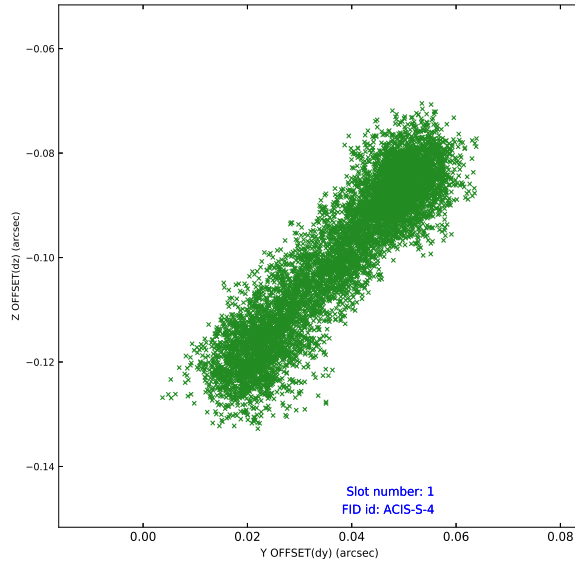


## 2.5 FID Slots

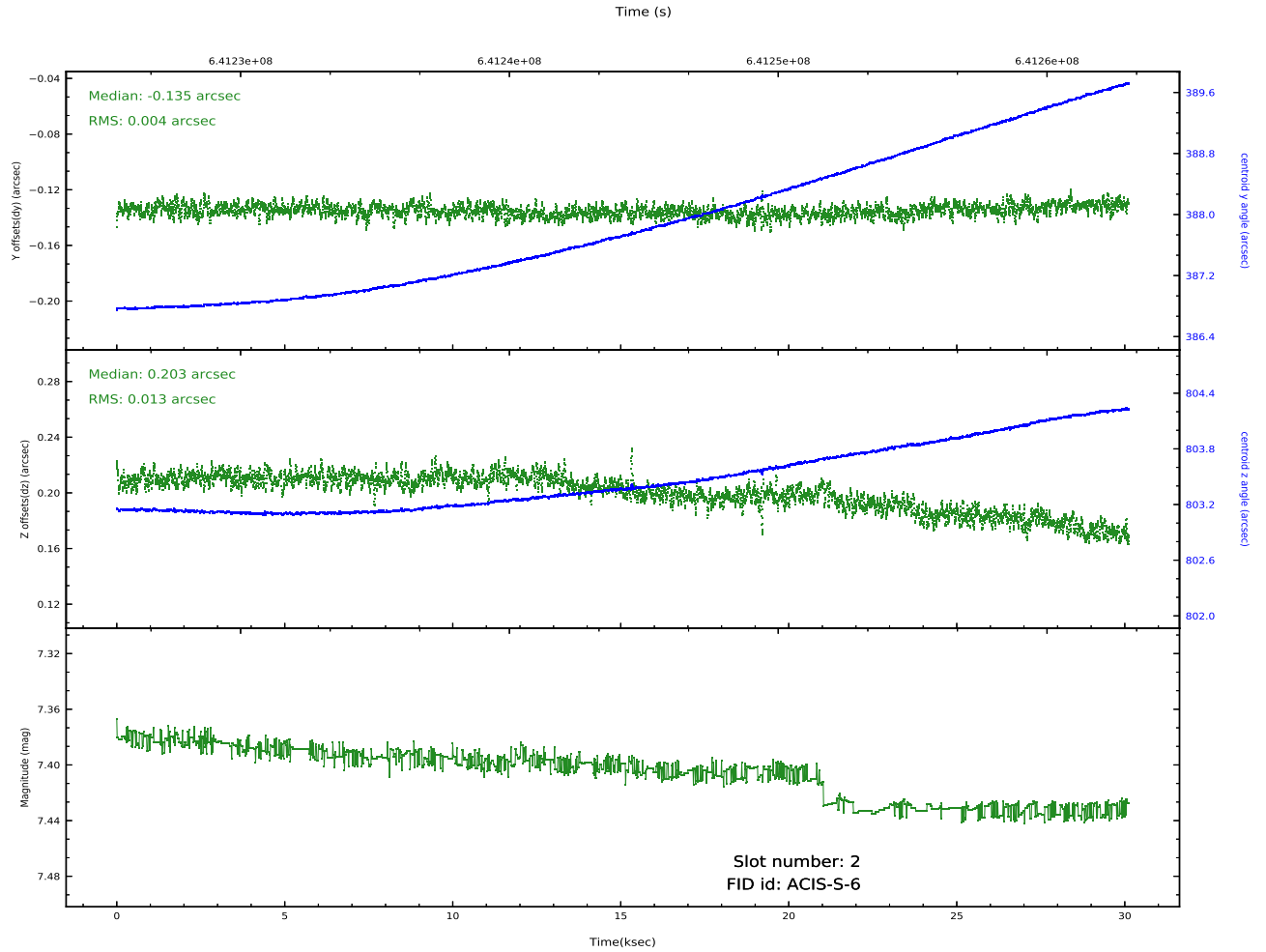
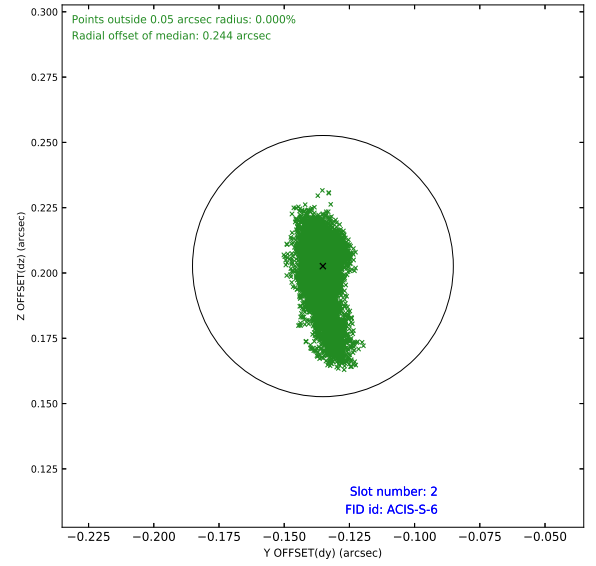
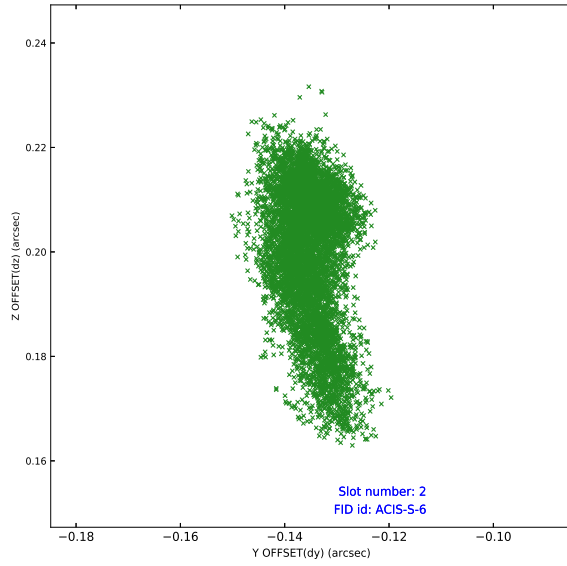
### 2.5.1 Slot 0



## 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)	2020.10.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.109786998868

### A.2 Comments

Three optional chips were dropped.