

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 20925 - L2 Version 2  
Chandra X-Ray Center

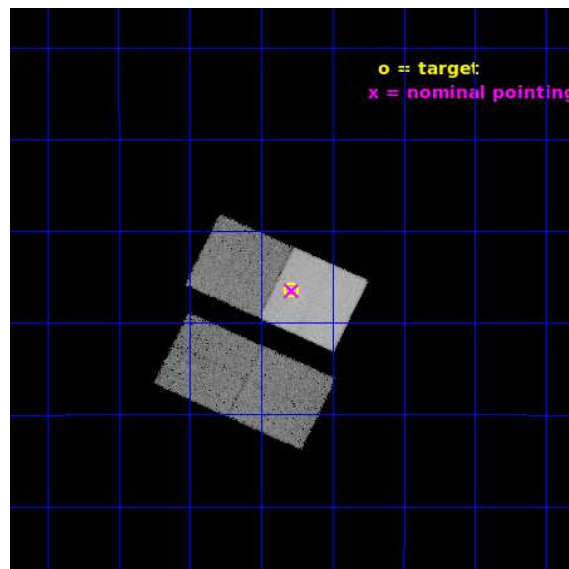
L2 Processing Date : Oct 24 2020

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

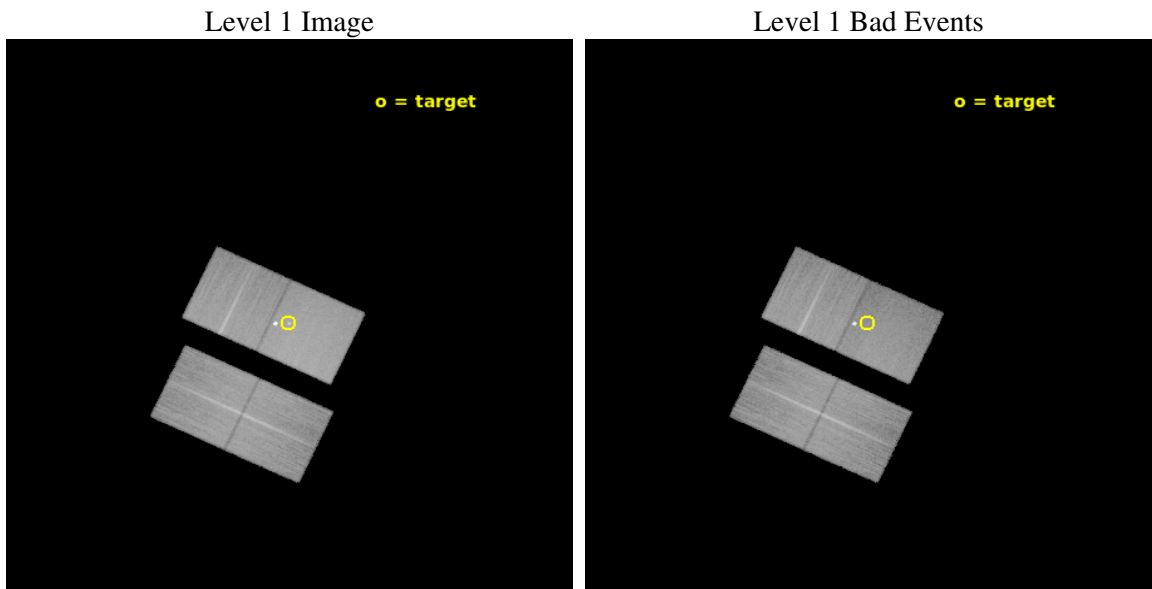
seq_num	601408	Sequence number
obs_id	20925	Observation id
title	The Mass Profiles of Two Massive Relic Galaxies	Proposal title
observer	David Buote	Principal investigator
object	Mrk1216	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	127.19625	Observer's specified target RA [deg]
dec_targ	-6.940278	Observer's specified target Dec [deg]
ra_nom	127.19622173611	Nominal RA [deg]
dec_nom	-6.9416584526603	Nominal Dec [deg]
roll_nom	25.146755979517	Nominal Roll [deg]
revision	2	Processing version of data
ontime	32071.551782846	Sum of GTIs [s]
liveltime	31652.513348071	Livetime [s]
ontime2	32068.287542343	Sum of GTIs [s]
ontime3	32068.328612447	Sum of GTIs [s]
ontime6	32071.510742903	Sum of GTIs [s]
ontime7	32071.551782846	Sum of GTIs [s]
l2events	197159	Number of level 2 events



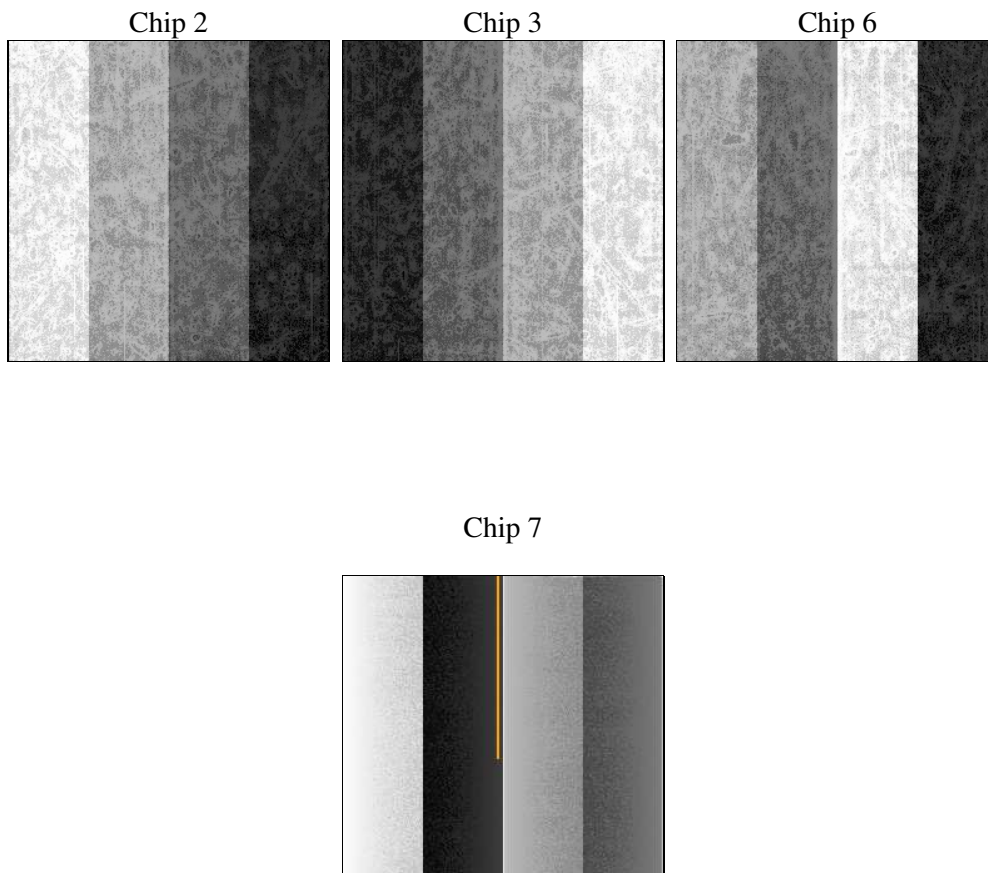
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	32000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	32071.551782846	Sum of GTIs [s]
caldsver	4.9.3	&#160	ontime2	32068.287542343	Sum of GTIs [s]
date	2020-10-24T06:50:55	Date and time of file creation	ontime3	32068.328612447	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	32071.510742903	Sum of GTIs [s]
			ontime7	32071.551782846	Sum of GTIs [s]
			l1events	1011073	Number of level 1 events

### 2.1.4 Events

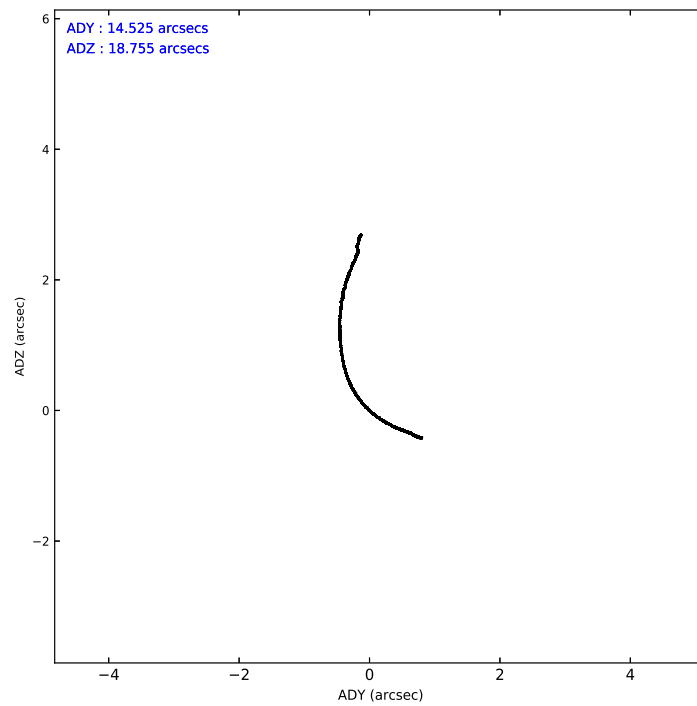
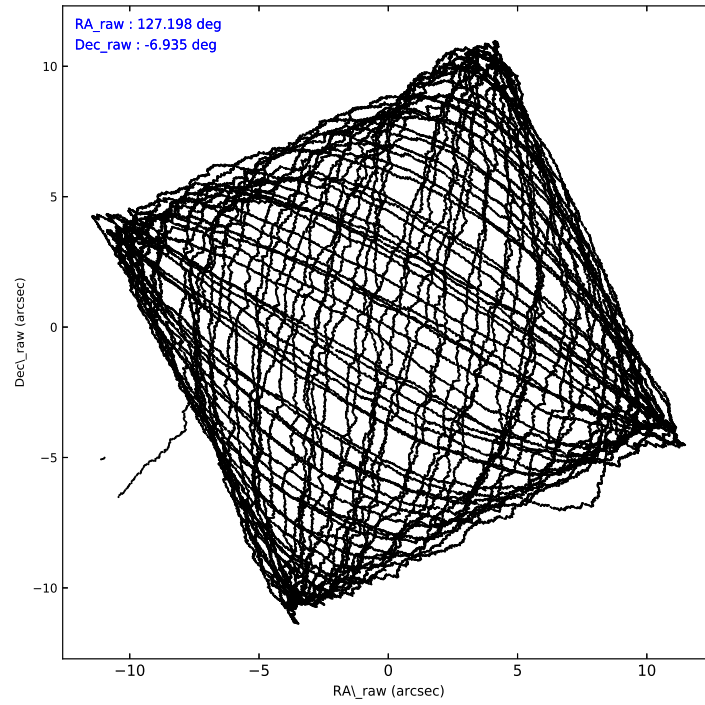
	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	232899	224719	237204	316251
rejected events	208172	200391	210354	176523
rejected %	89%	89%	88%	55%

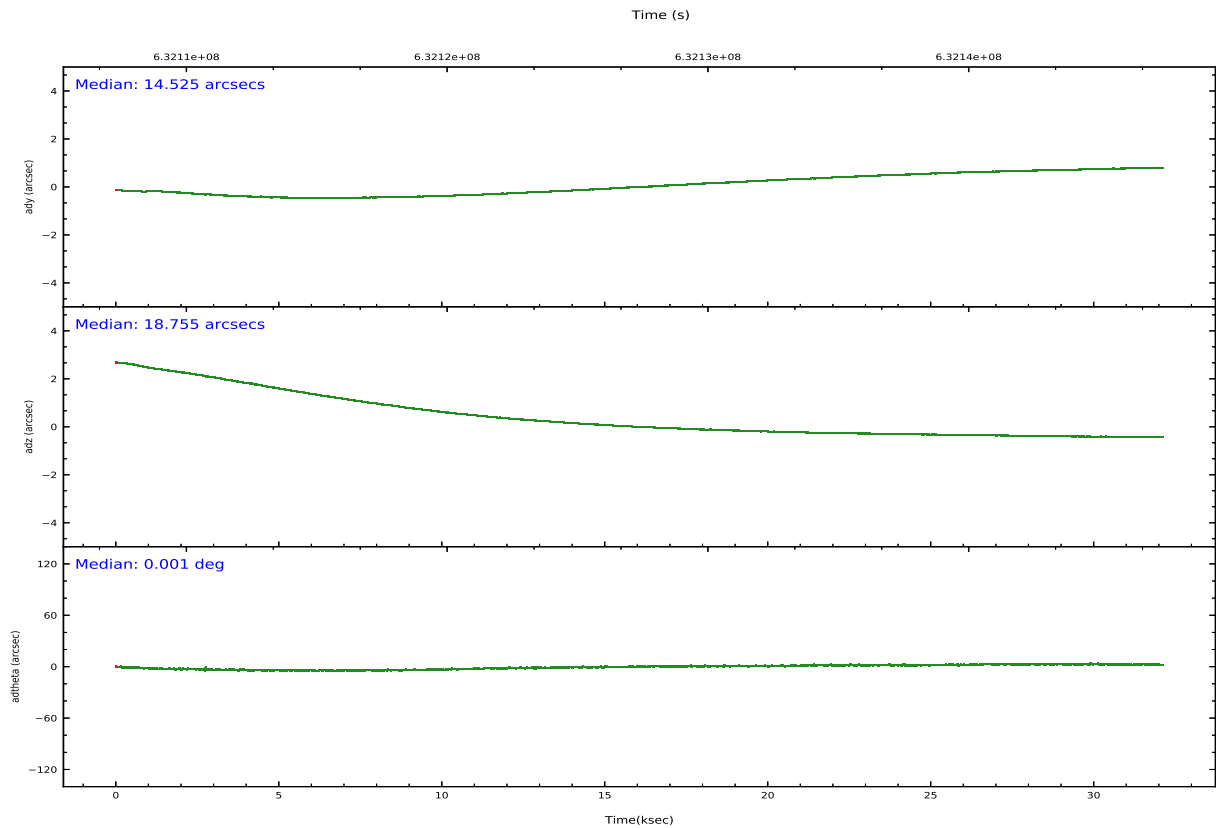
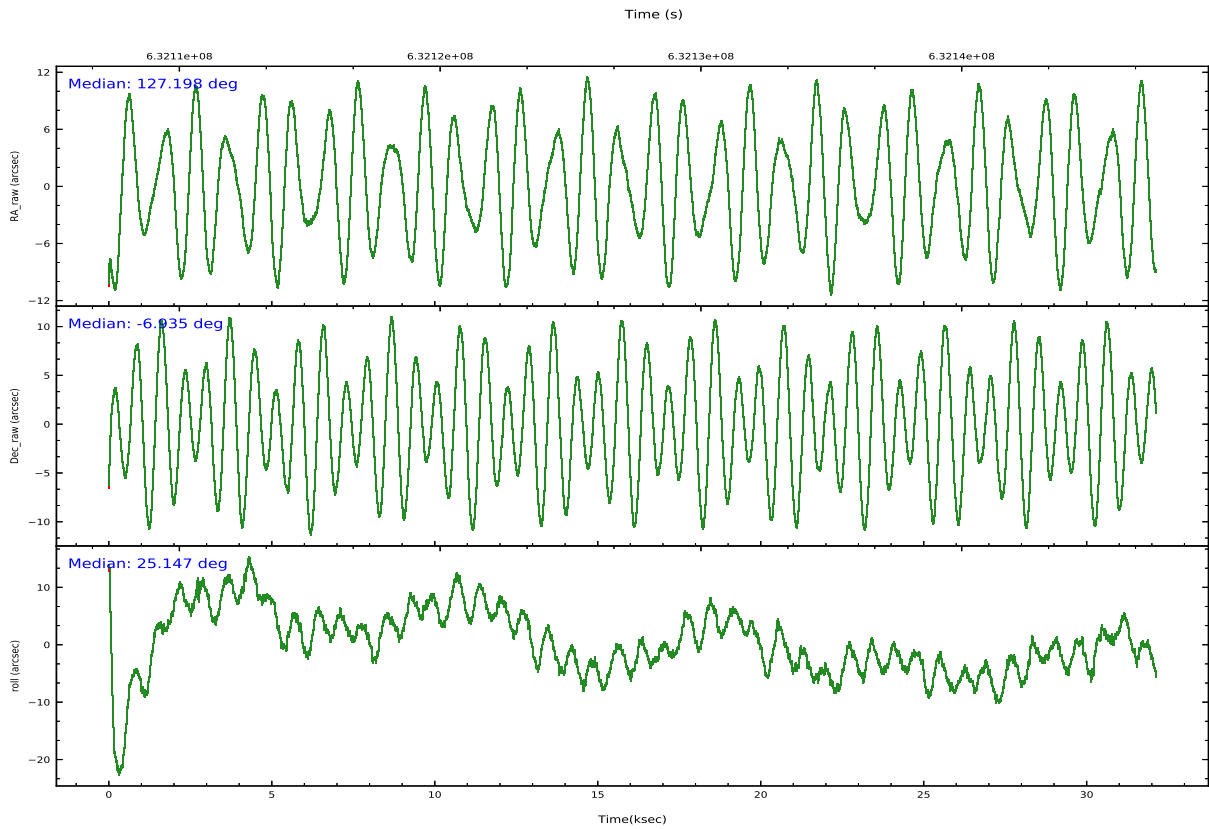
	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	8680	8455	8808	12245
	3%	3%	3%	3%
grade 1 events	143	120	120	431
	0%	0%	0%	0%
grade 2 events	6103	5326	6365	29138
	2%	2%	2%	9%
grade 3 events	2475	2679	2696	11142
	1%	1%	1%	3%
grade 4 events	2526	2717	2604	11032
	1%	1%	1%	3%
grade 5 events	9280	11363	11312	31021
	3%	5%	4%	9%
grade 6 events	4948	5156	6382	76203
	2%	2%	2%	24%
grade 7 events	198744	188903	198917	145039
	85%	84%	83%	45%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-2367	ACIS-2367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	O2	N
Observation mode	POINTING	POINTING	CCD I1 on	O1	N
[deg] Pointing RA	127.182250	127.19622173611	CCD I2 on	Y	Y
[deg] Pointing Dec	-6.957607	-6.9416584526603	CCD I3 on	Y	Y
[deg] Pointing Roll	24.998308	25.146755979517	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	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	N	N
[s] Observation start time (MET)	632109965.184000	632108705.67081	CCD S5 on	N	N
Observation start date	2018-01-12T02:04:56	2018-01-12T01:45:05	Number of optional ACIS chips dropped	2	2
[s] Observation end time (MET)	632141965.184000	632142624.97281	On-chip summing requested	N	N
Observation end date	2018-01-12T10:58:16	2018-01-12T11:10:24	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





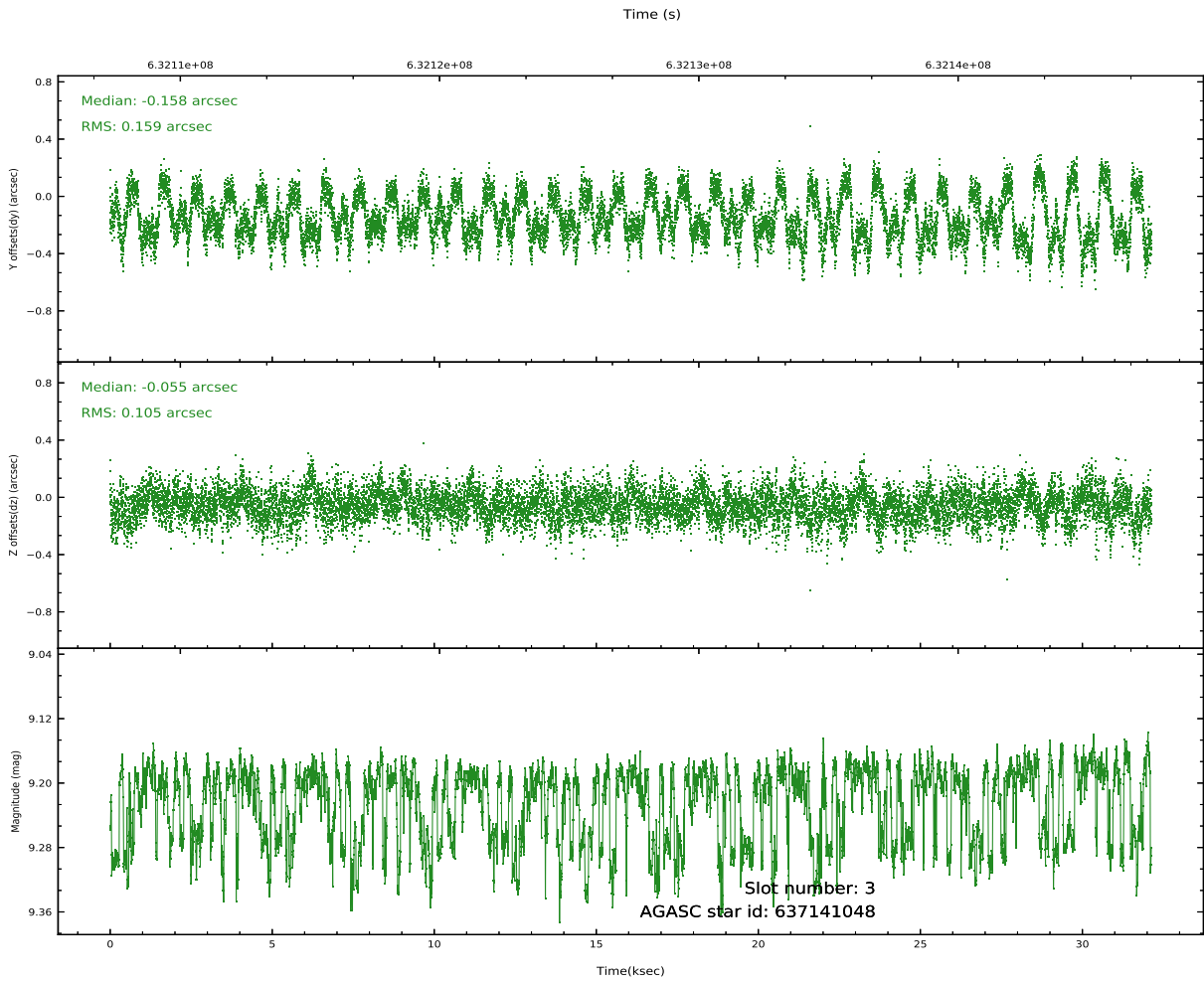
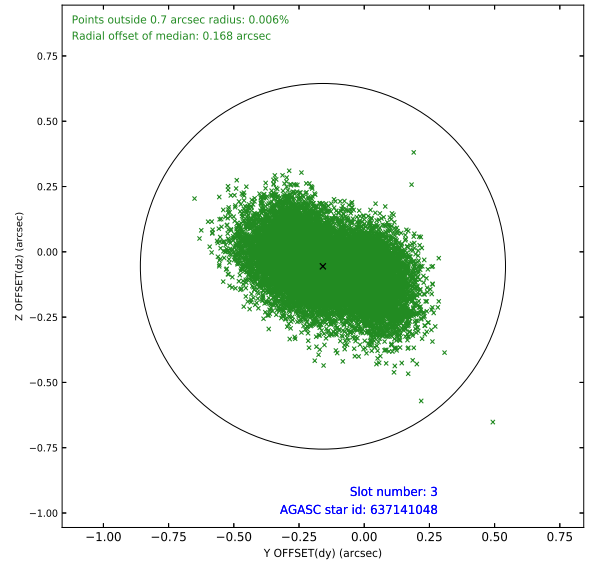
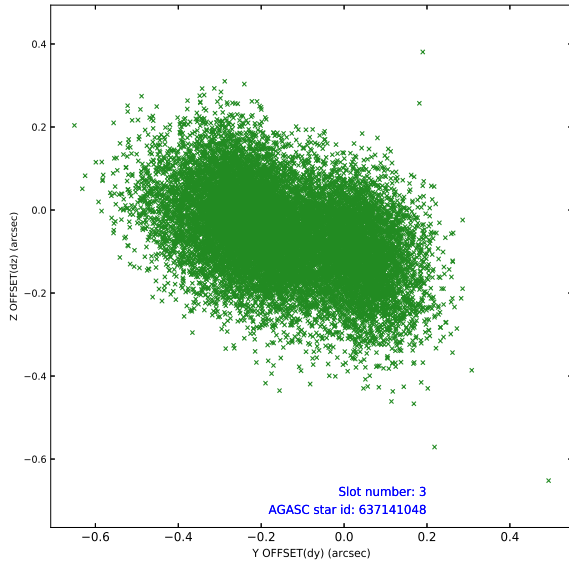
### Slot Statistics

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	7.11	7837	1.000	0.238	-0.062	0.017	0.069	0.000000	0.000000	928.52	-1736
1	FID		ACIS-S-4	7.13	7837	1.000	0.076	-0.068	0.024	0.059	0.000000	0.000000	2145.98	167
2	FID		ACIS-S-5	7.11	7835	1.000	-0.338	0.143	0.009	0.017	0.000000	0.000000	-1820.67	161
3	GUIDE	used	637141048	9.21	15652	1.000	-0.158	-0.055	0.207	0.327	127.462654	-7.078875	723.65	-819
4	GUIDE	used	637143216	7.00	15672	1.000	-0.047	0.250	0.120	0.200	126.941738	-7.220354	-1178.00	-494
5	GUIDE	used	637152496	9.06	15609	1.000	0.146	-0.062	0.142	0.239	126.870796	-6.559955	-404.70	1767
6	GUIDE	used	711467944	8.67	15658	1.000	0.194	0.163	0.127	0.215	127.206727	-7.544375	-813.12	-1950
7	GUIDE	used	637158032	6.76	15672	1.000	-0.157	-0.298	0.136	0.219	126.821957	-6.409718	-336.02	2331

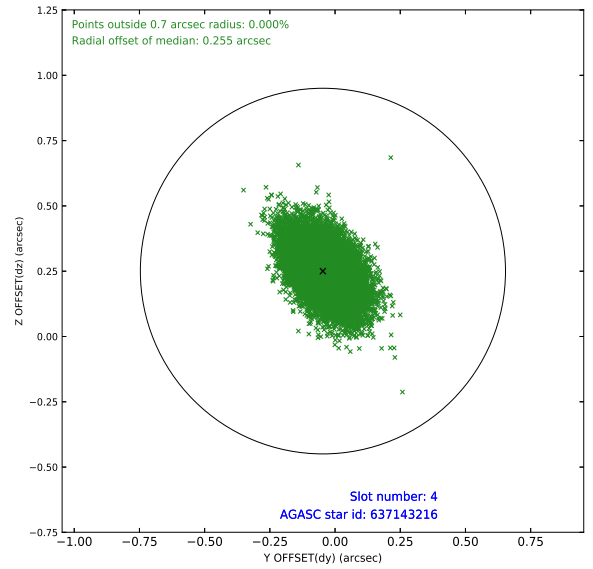
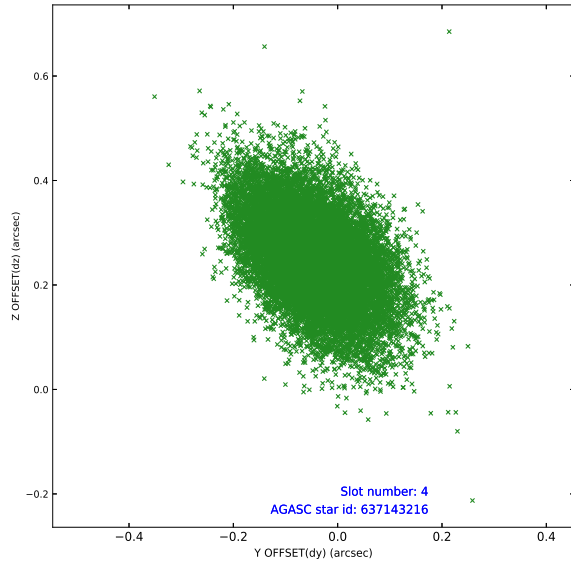
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## 2.4 Star Slots

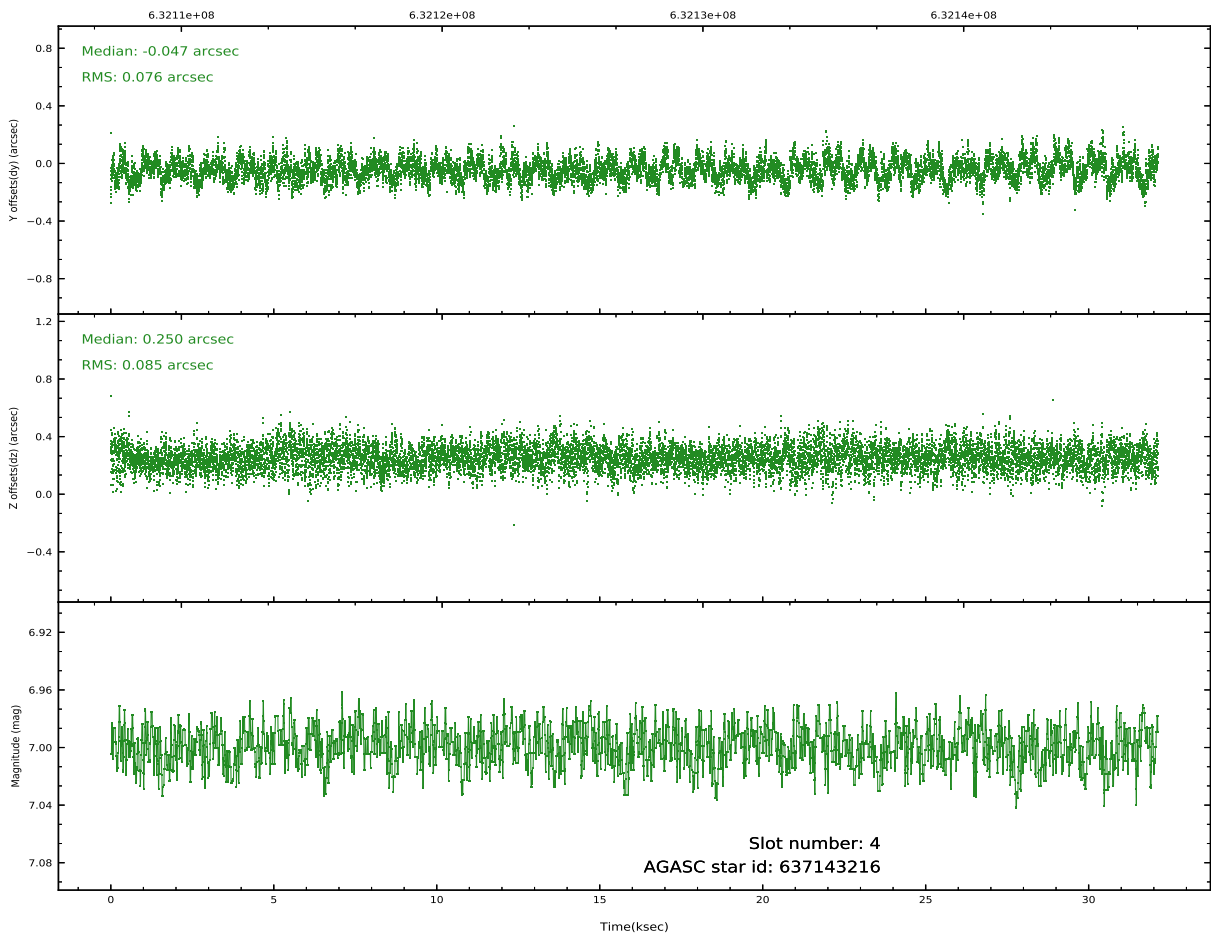
### 2.4.1 Slot 3



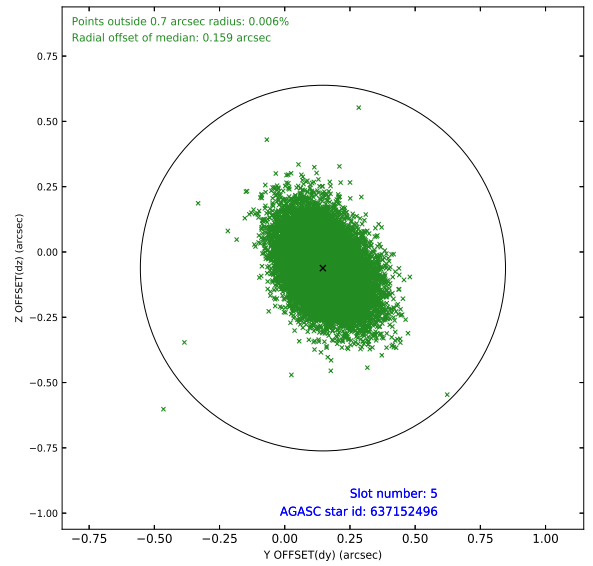
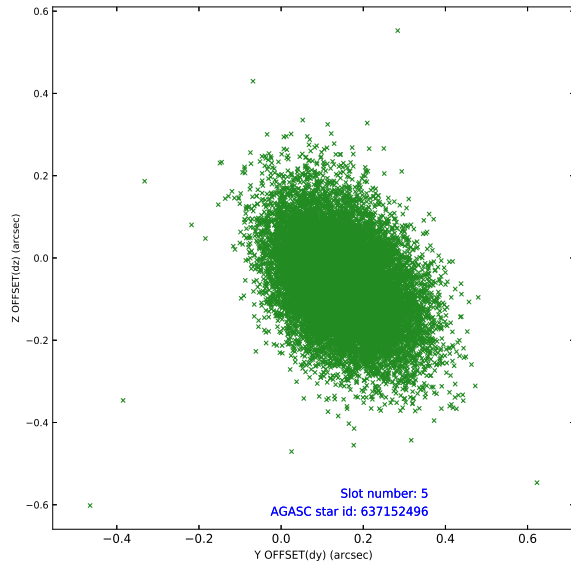
## 2.4.2 Slot 4



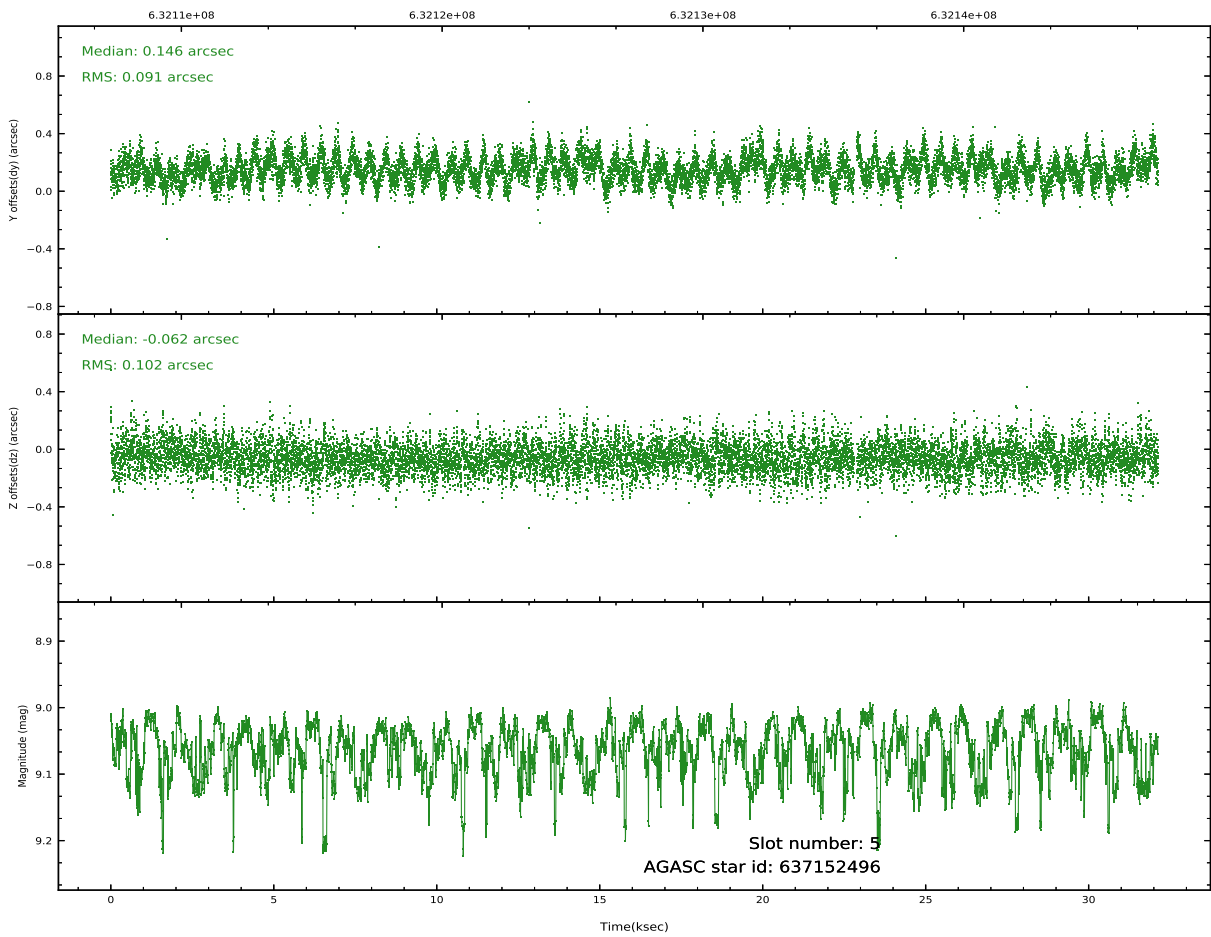
Time (s)



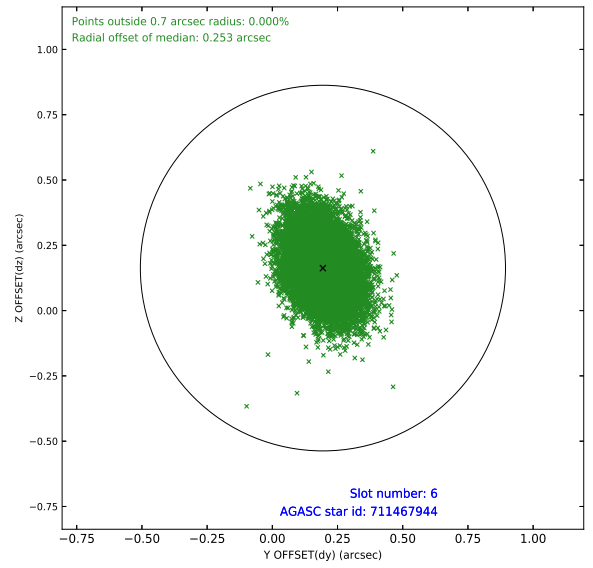
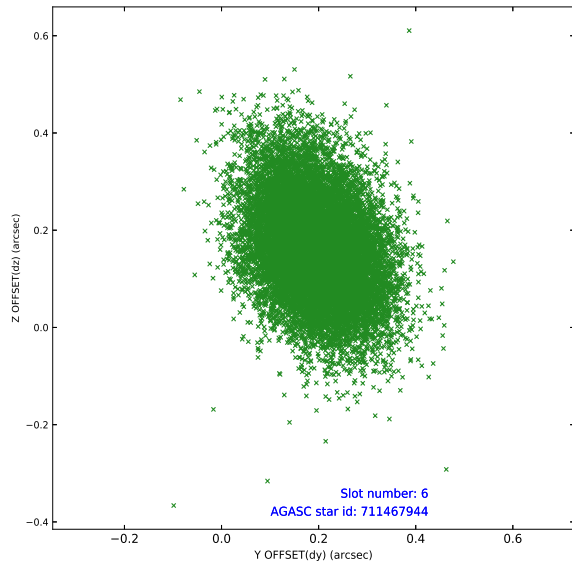
### 2.4.3 Slot 5



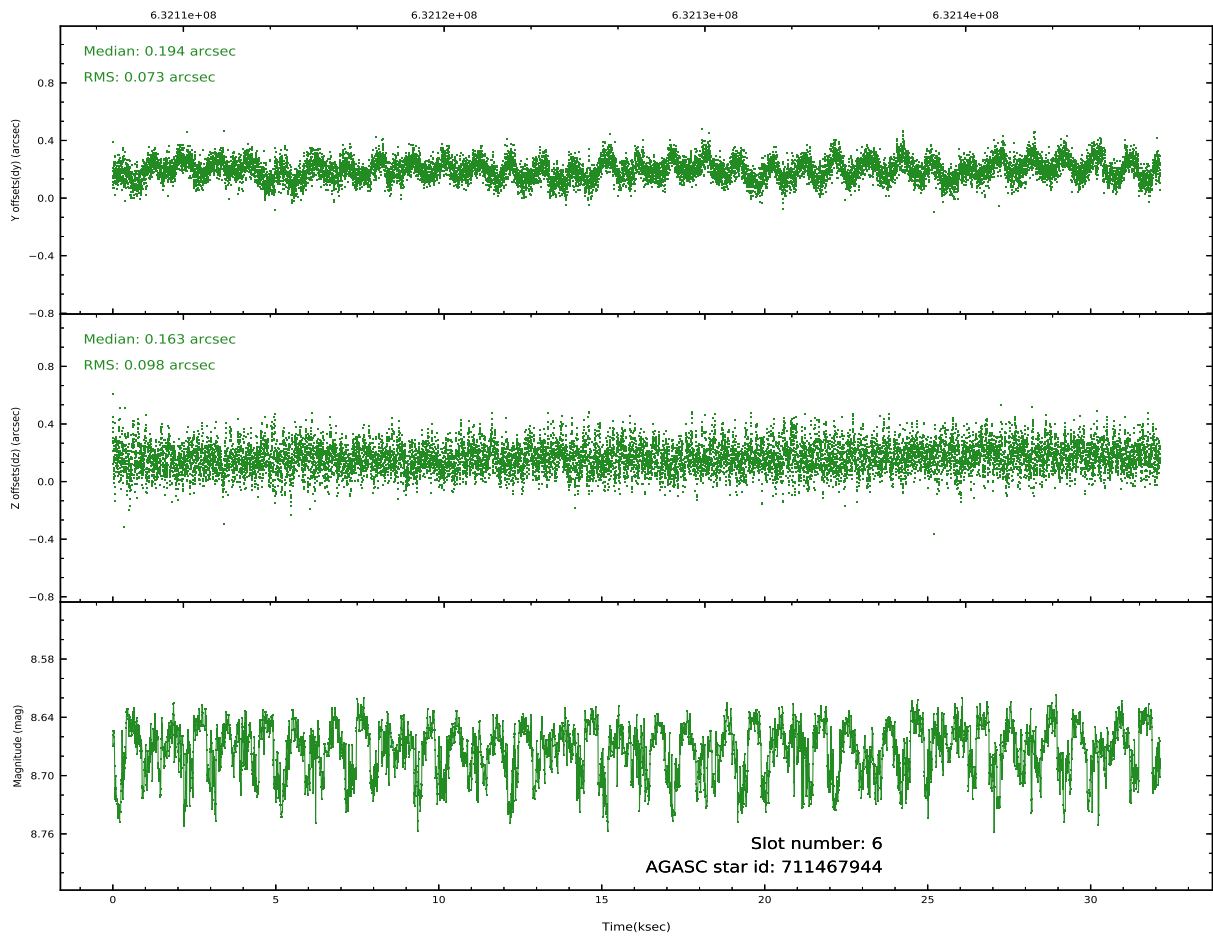
Time (s)



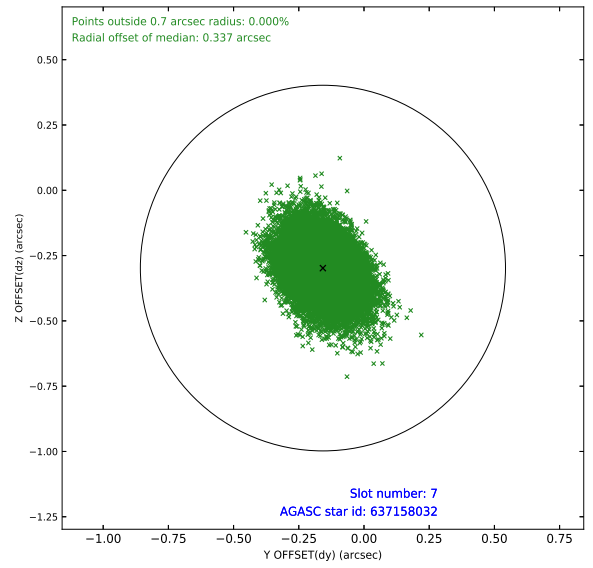
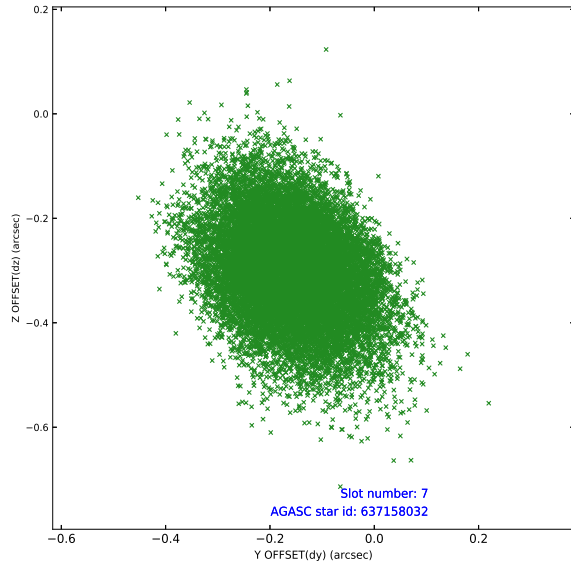
## 2.4.4 Slot 6



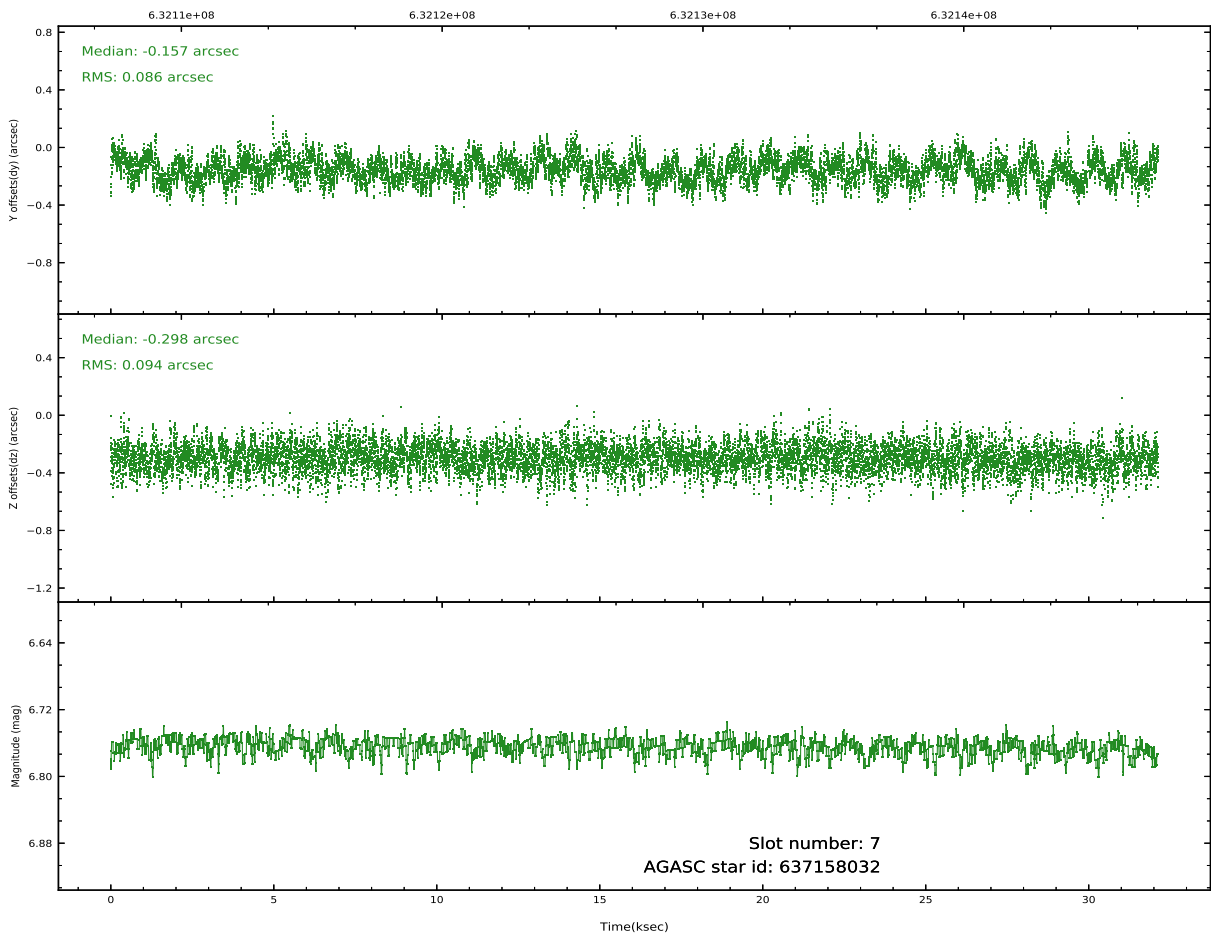
Time (s)



## 2.4.5 Slot 7

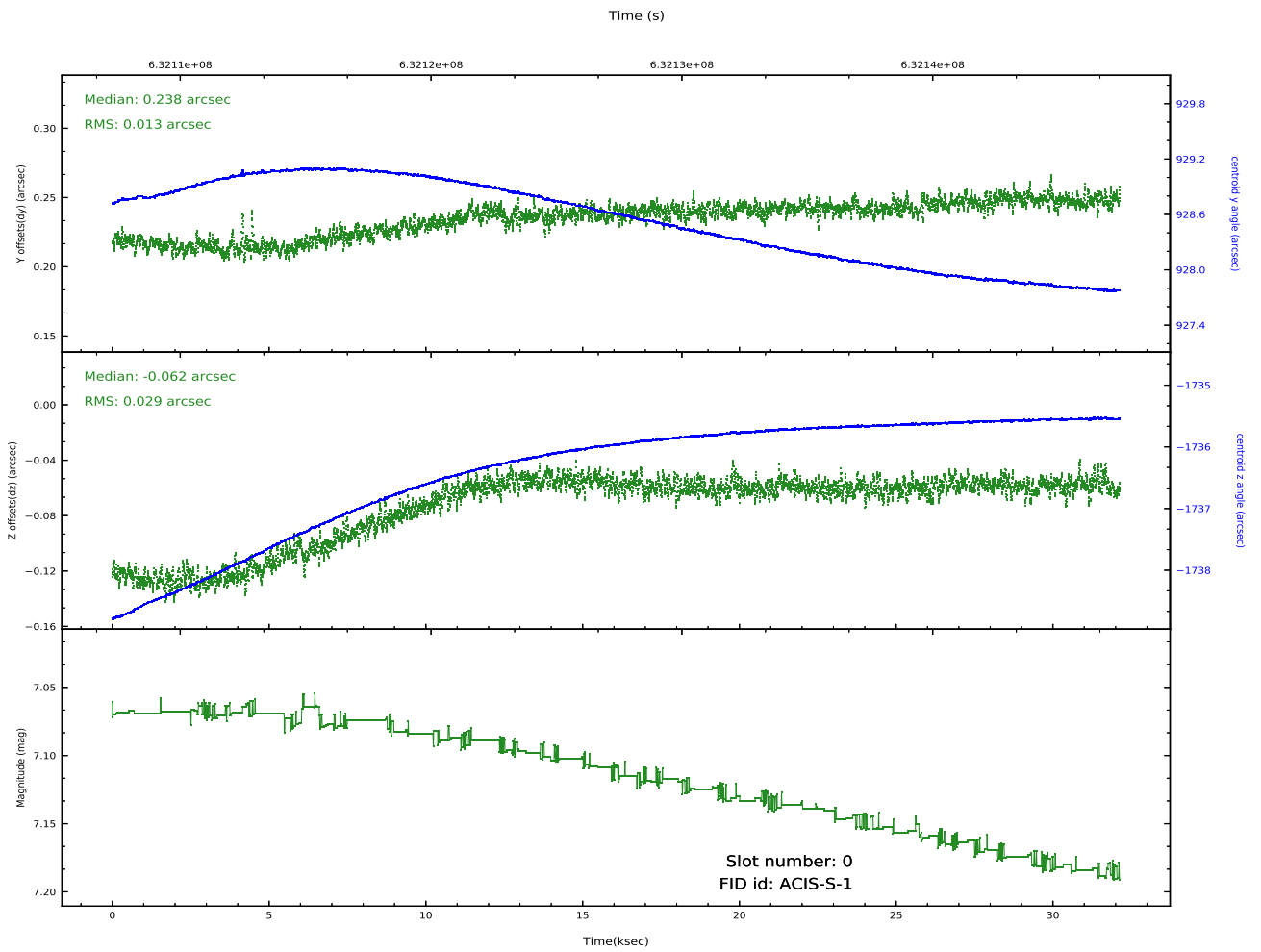
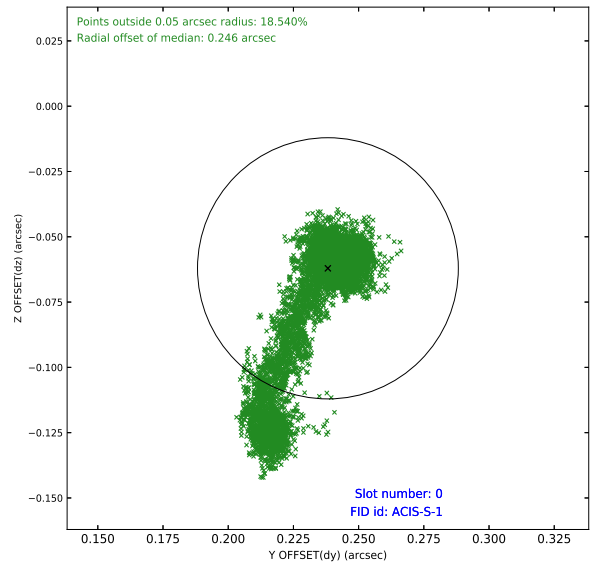
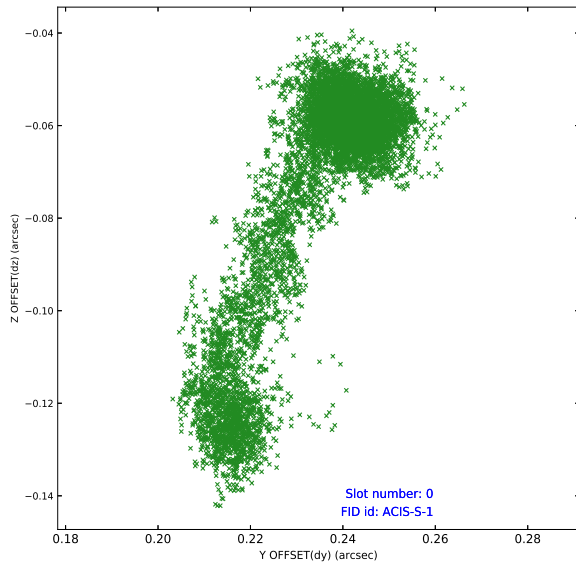


Time (s)

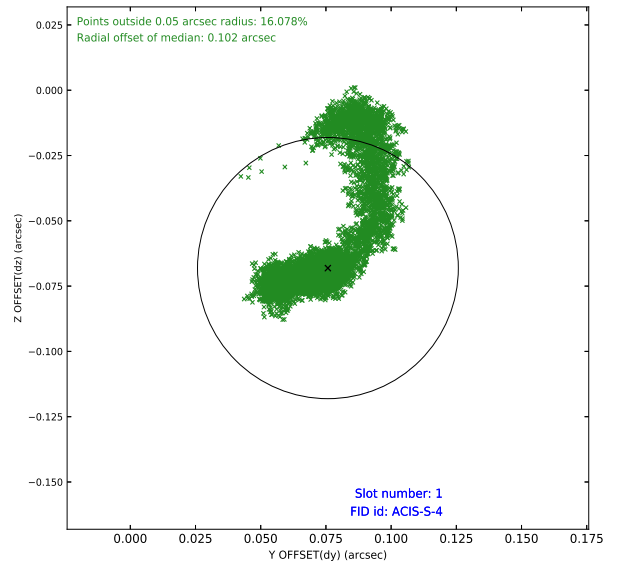
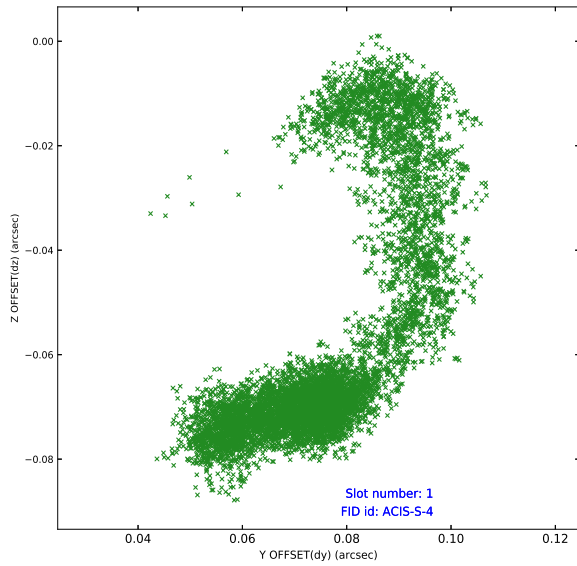


## 2.5 FID Slots

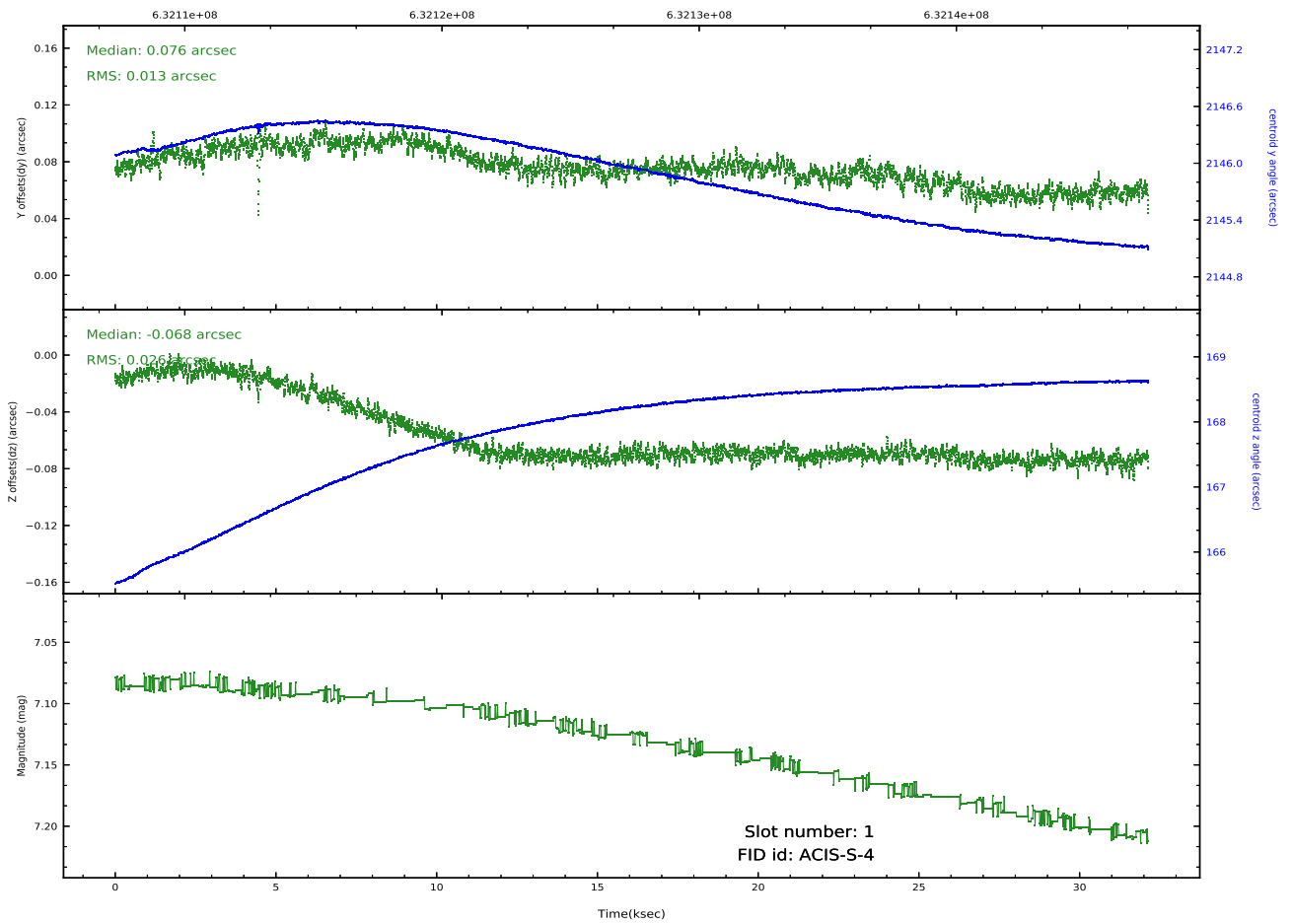
### 2.5.1 Slot 0



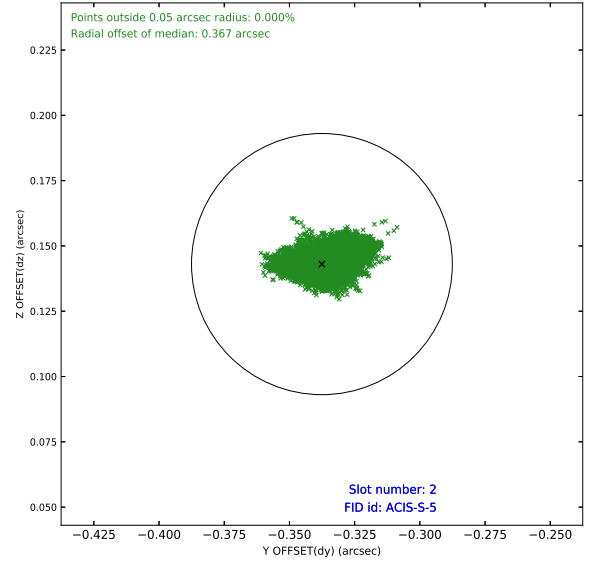
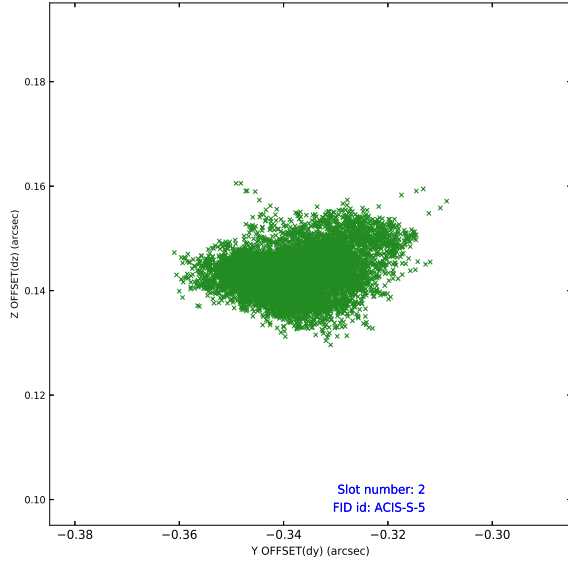
## 2.5.2 Slot 1



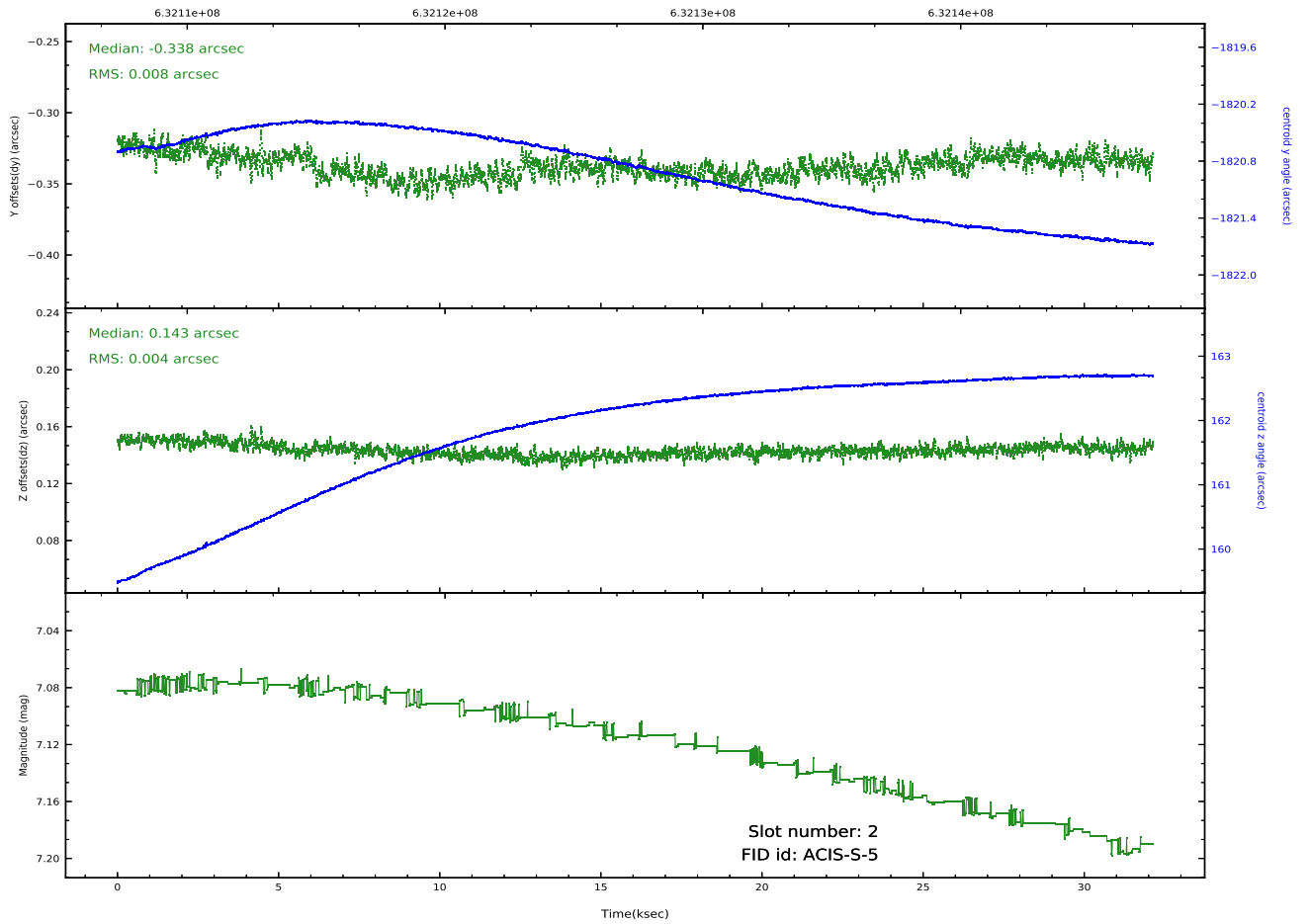
Time (s)



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	32.071551785707

## A.2 Comments

Two optional chips were dropped.