

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5756 - L2 Version 4  
Chandra X-Ray Center

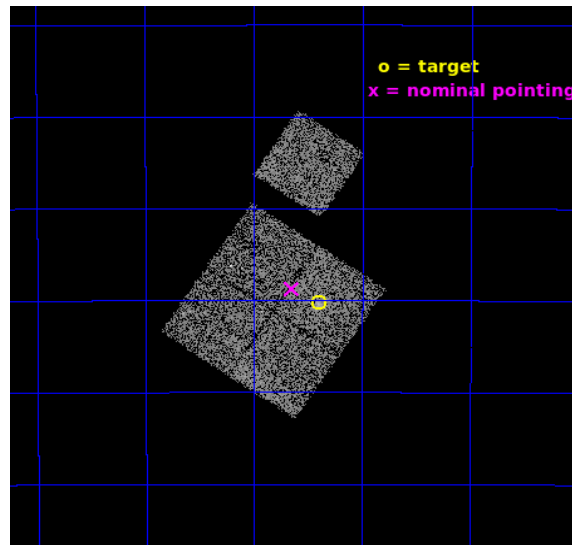
L2 Processing Date : Oct 11 2020

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# 1 Front

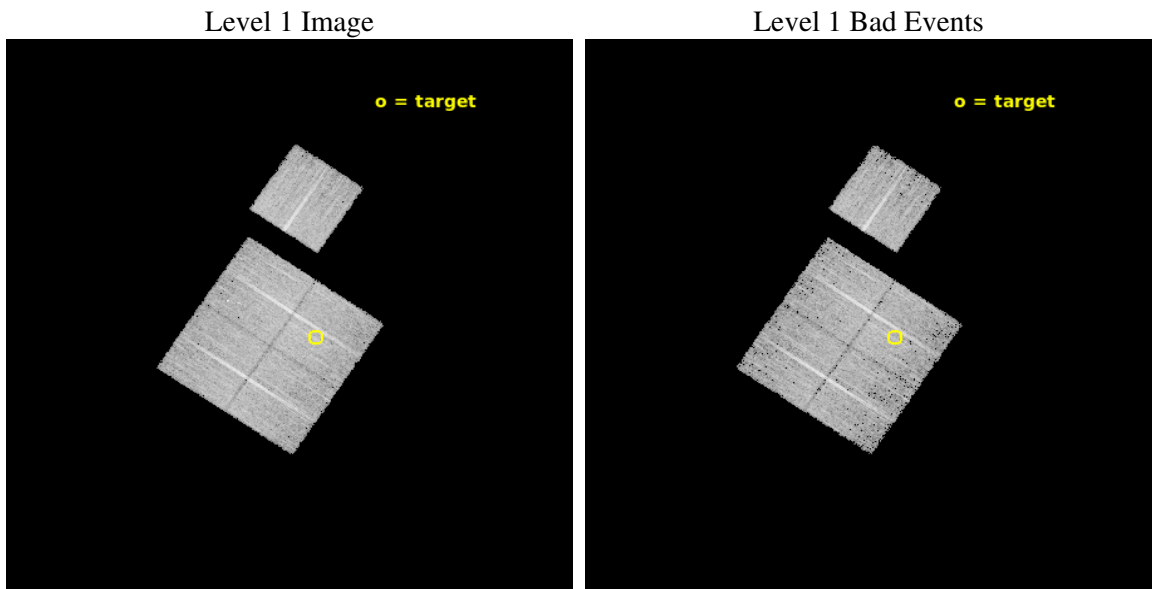
seq_num	800469	Sequence number
obs_id	5756	Observation id
title	DARK ENERGY WITH X-RAY CLUSTERS: CHANDRA OBSERVATIONS OF 41 HIGH-REDSHIFT CLUSTERS FROM THE 400 deg^2 ROSAT PSPC SURVEY	Proposal titl
observer	Dr Alexey Vikhlinin	Principal investigator
object	CIG J0405-4100	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	61.35125	Observer's specified target RA [deg]
dec_targ	-41.004167	Observer's specified target Dec [deg]
ra_nom	61.412415765926	Nominal RA [deg]
dec_nom	-40.979014785625	Nominal Dec [deg]
roll_nom	33.927547971923	Nominal Roll [deg]
revision	4	Processing version of data
ontime	8050.4369955063	Sum of GTIs [s]
livetime	7945.2521095145	Livetime [s]
ontime0	8050.3138754964	Sum of GTIs [s]
ontime1	8047.2139352262	Sum of GTIs [s]
ontime2	8050.395955503	Sum of GTIs [s]
ontime3	8050.4369955063	Sum of GTIs [s]
ontime6	8050.2728354931	Sum of GTIs [s]
l2events	22403	Number of level 2 events



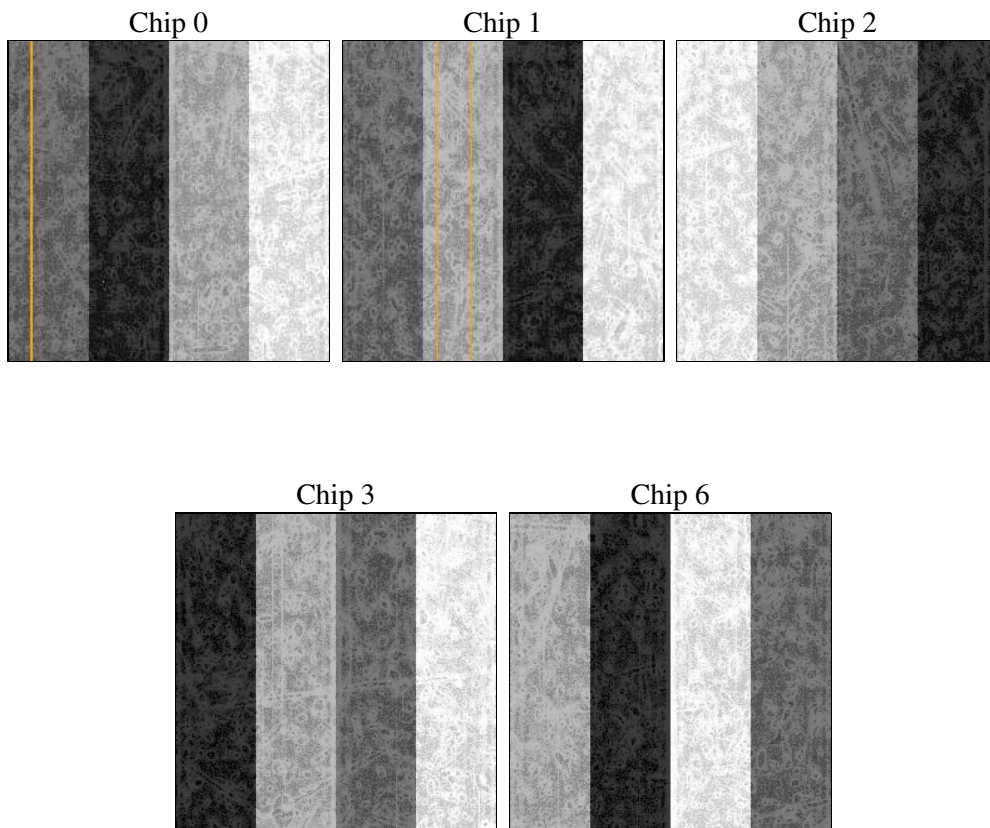
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	8000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	8050.4369955063	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime0	8050.3138754964	Sum of GTIs [s]
date	2020-10-11T04:33:27	Date and time of file creation	ontime1	8047.2139352262	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	8050.395955503	Sum of GTIs [s]
			ontime3	8050.4369955063	Sum of GTIs [s]
			ontime6	8050.2728354931	Sum of GTIs [s]
			l1events	257778	Number of level 1 events

### 2.1.4 Events

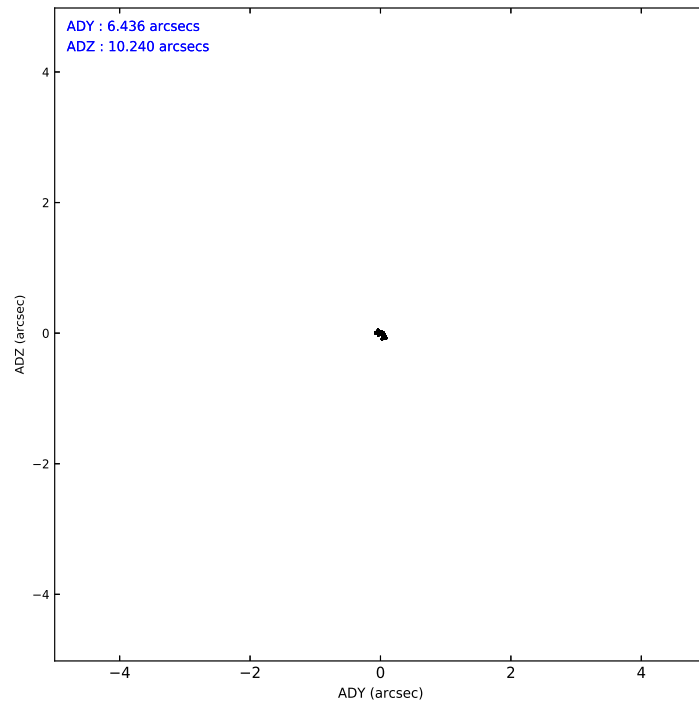
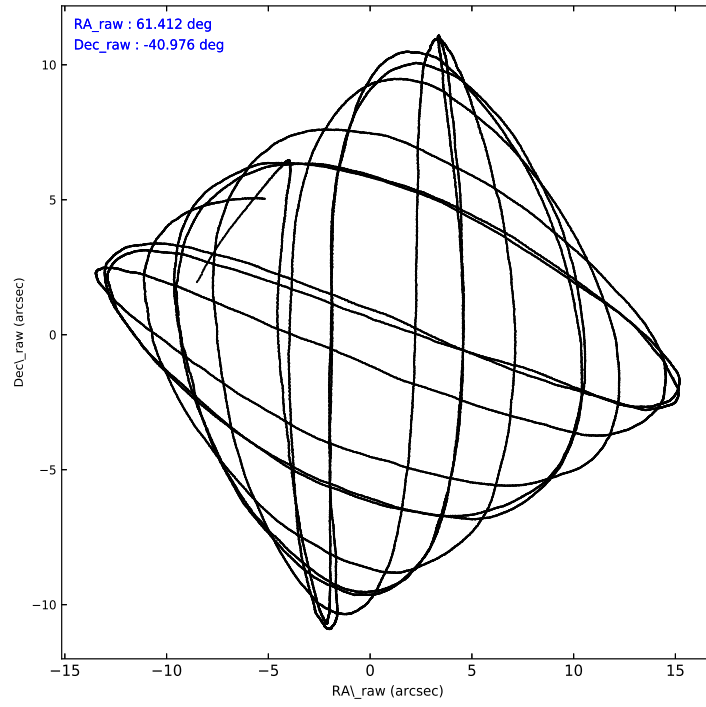
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	49046	48912	54544	51815	53461
rejected events	43854	43059	49257	46454	48084
rejected %	89%	88%	90%	89%	89%

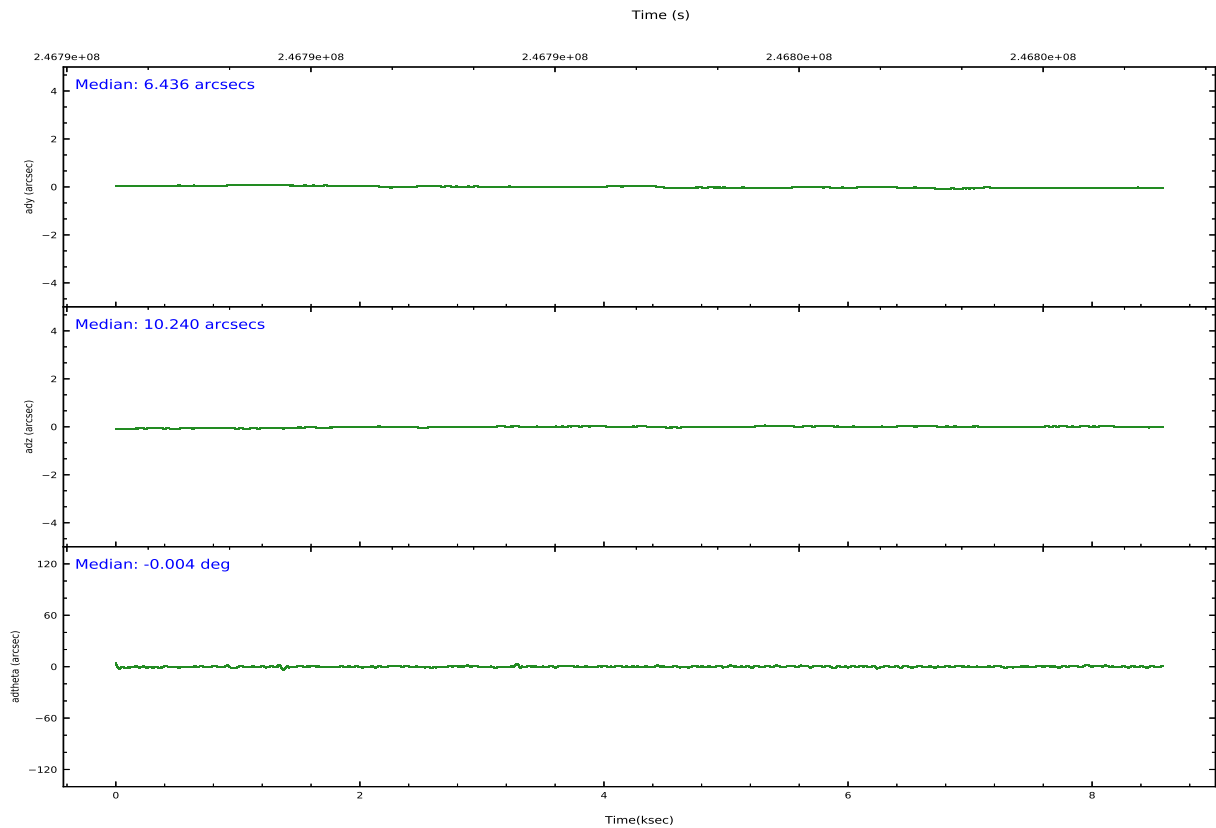
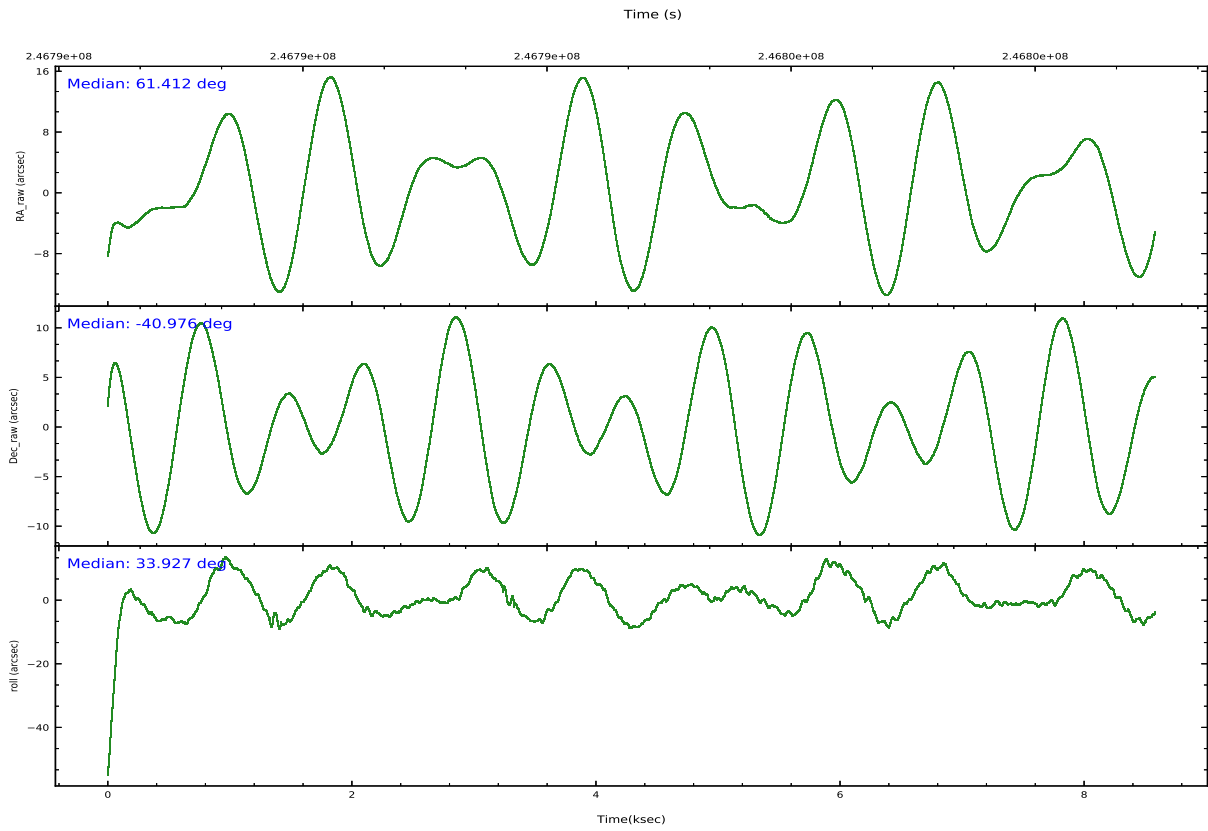
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	1803	2026	2051	2099	1802
	3%	4%	3%	4%	3%
grade 1 events	33	23	33	30	26
	0%	0%	0%	0%	0%
grade 2 events	1255	1373	1143	1057	1217
	2%	2%	2%	2%	2%
grade 3 events	574	614	544	632	604
	1%	1%	0%	1%	1%
grade 4 events	569	667	628	555	598
	1%	1%	1%	1%	1%
grade 5 events	1855	2100	1754	2099	2059
	3%	4%	3%	4%	3%
grade 6 events	995	1177	924	1018	1160
	2%	2%	1%	1%	2%
grade 7 events	41962	40932	47467	44325	45995
	85%	83%	87%	85%	86%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	61.396573	61.412415765926	Subarray requested	NONE	NONE
[deg] Pointing Dec	-41.000197	-40.979014785625	Alternating exposures requested	N	N
[deg] Pointing Roll	33.705686	33.927547971923	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-225.840463	-225.8433433320239			
[mm] SIM translation stage offset	-7.752	-7.749109670905796			
[s] Observation start time (MET)	246790984.184000	246789797.34138			
Observation start date	2005-10-27T09:02:00	2005-10-27T08:43:17			
[s] Observation end time (MET)	246798984.184000	246799486.66683			
Observation end date	2005-10-27T11:15:20	2005-10-27T11:24:46			
Read mode	TIMED	TIMED			

## 2.3 Aspect





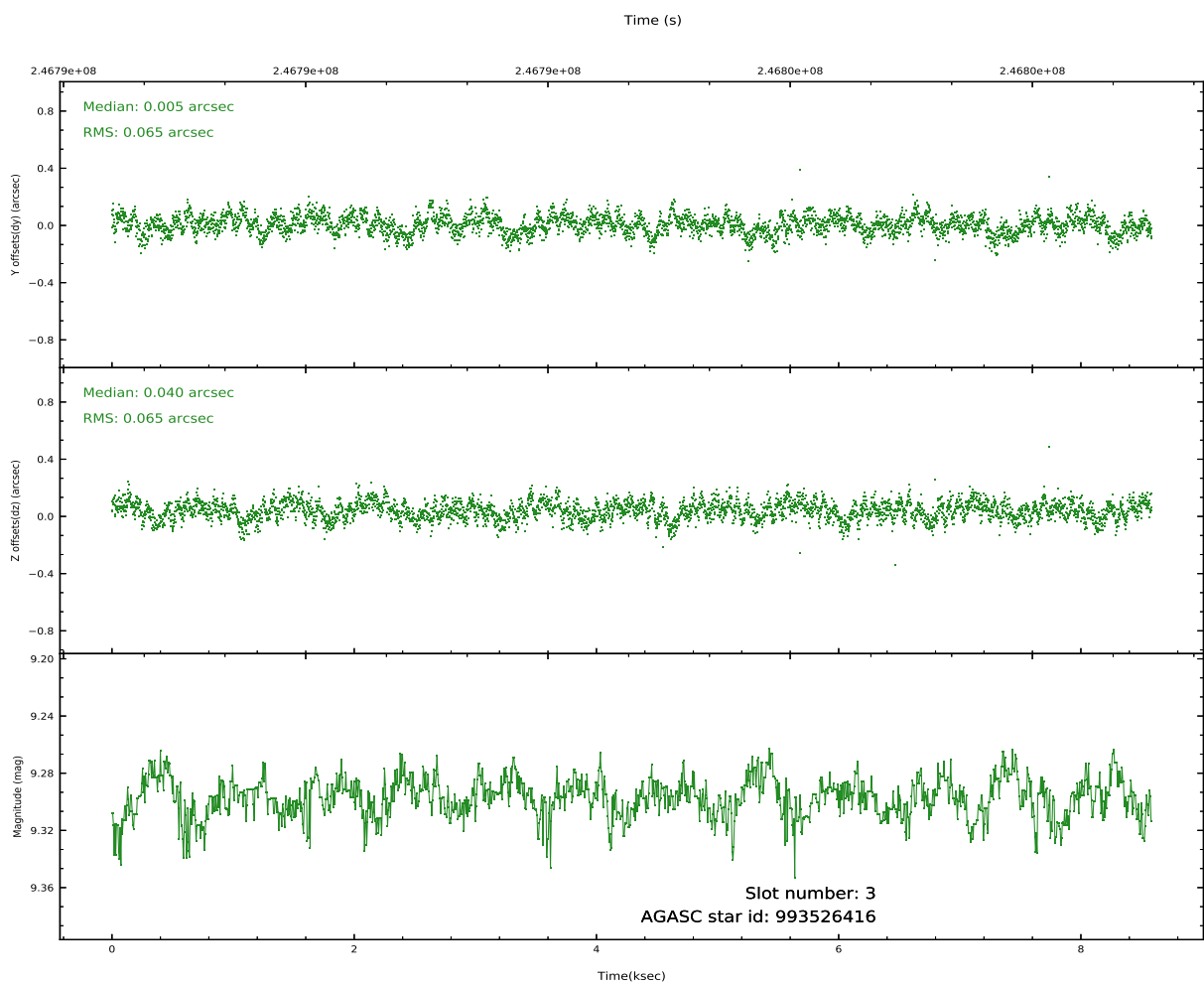
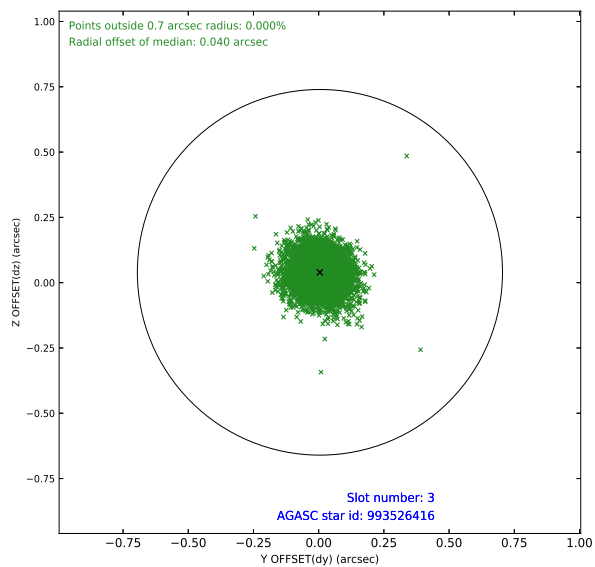
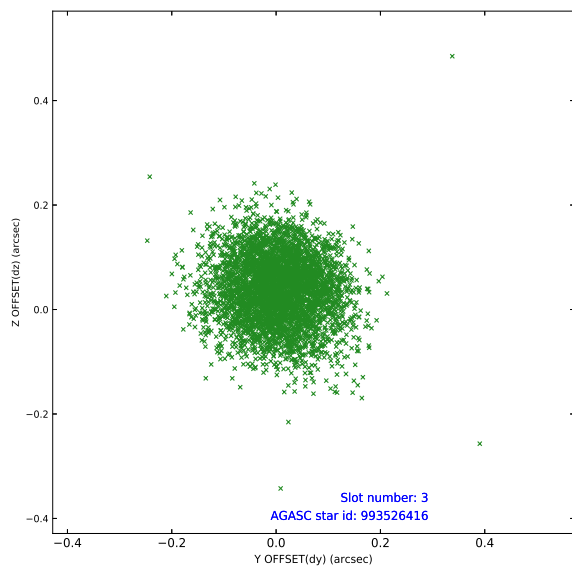
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-2	7.18	2094	1.000	-0.075	-0.080	0.009	0.016	0.000000	0.000000	-761.51	-998
1	FID		ACIS-I-4	7.14	2094	1.000	0.106	0.069	0.006	0.011	0.000000	0.000000	2152.35	907
2	FID		ACIS-I-5	7.22	2094	1.000	-0.133	0.080	0.008	0.015	0.000000	0.000000	-1814.21	905
3	GUIDE	used	993526416	9.30	4185	1.000	0.005	0.040	0.098	0.156	61.421932	-40.527049	1003.24	1378
4	GUIDE	used	993529120	10.55	4184	1.000	-0.093	-0.104	0.174	0.276	61.765239	-40.752575	1331.07	183
5	GUIDE	used	993532984	9.17	4181	1.000	0.027	-0.072	0.099	0.160	61.605919	-41.321492	-170.63	-1276
6	GUIDE	used	993534072	9.77	4180	1.000	0.042	0.106	0.154	0.240	61.739666	-40.271472	2239.29	1657
7	GUIDE	used	993537328	9.75	4182	1.000	0.012	0.041	0.103	0.167	60.508396	-40.937645	-1890.16	1517

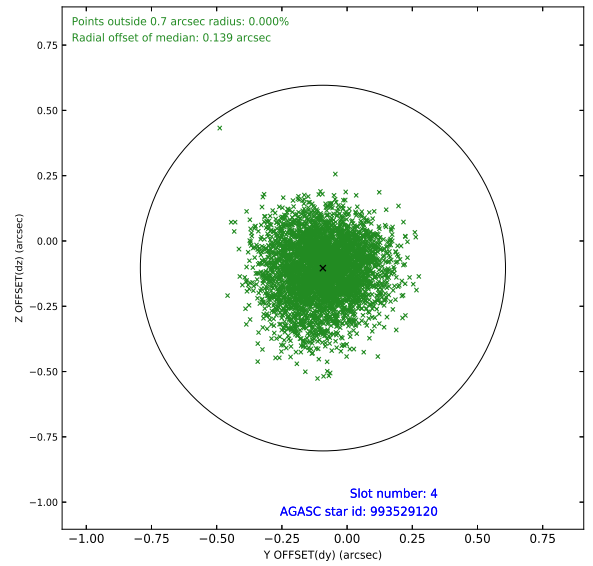
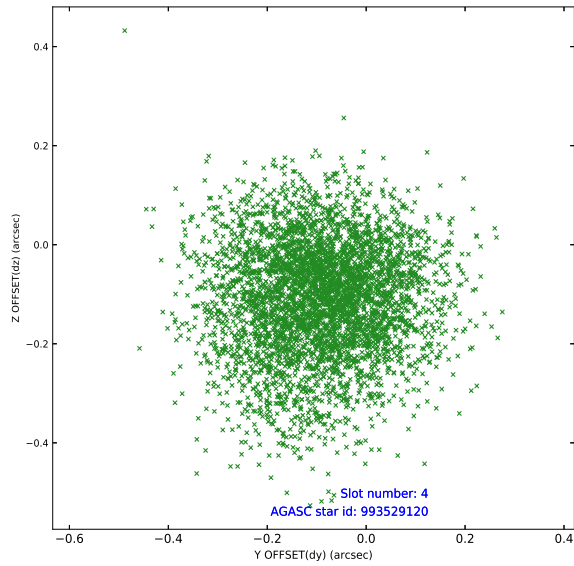
∞

## 2.4 Star Slots

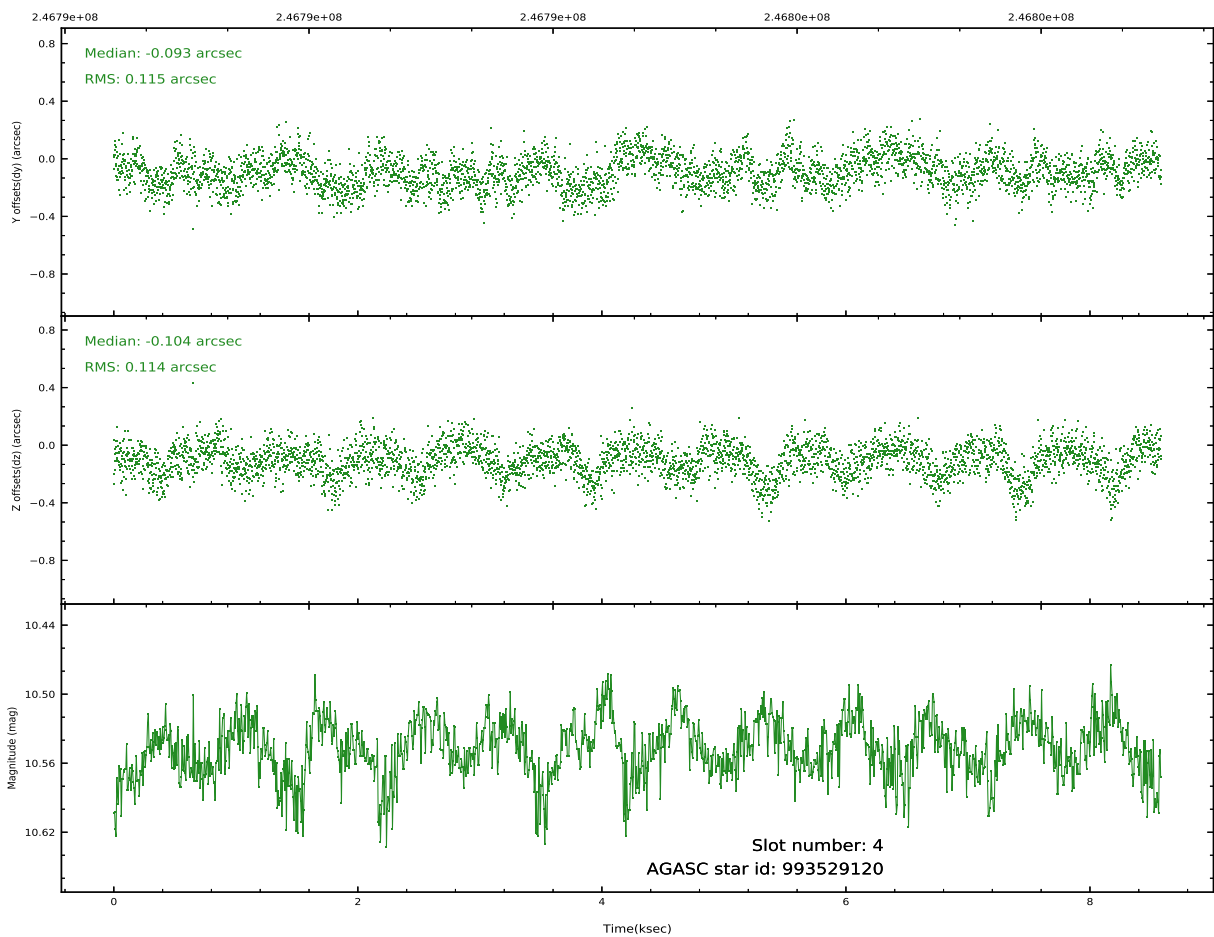
### 2.4.1 Slot 3



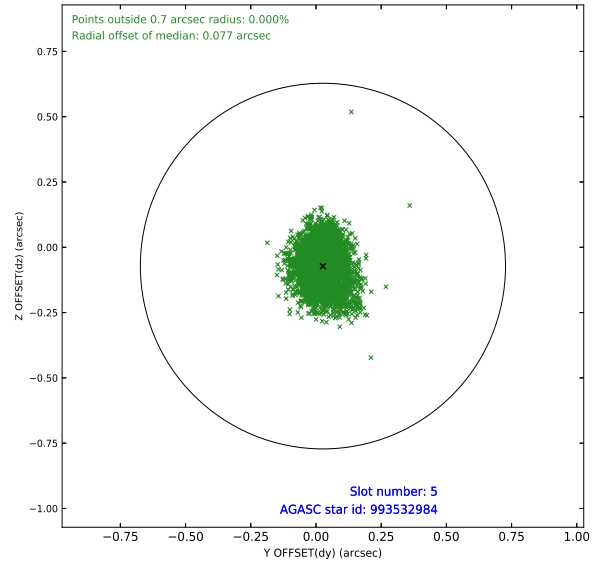
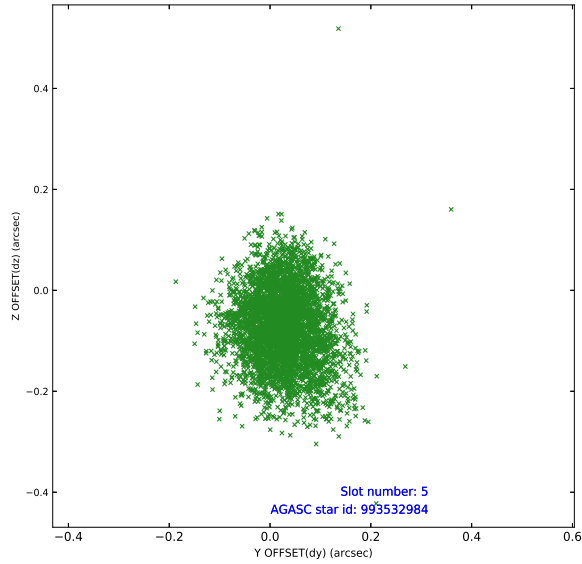
## 2.4.2 Slot 4



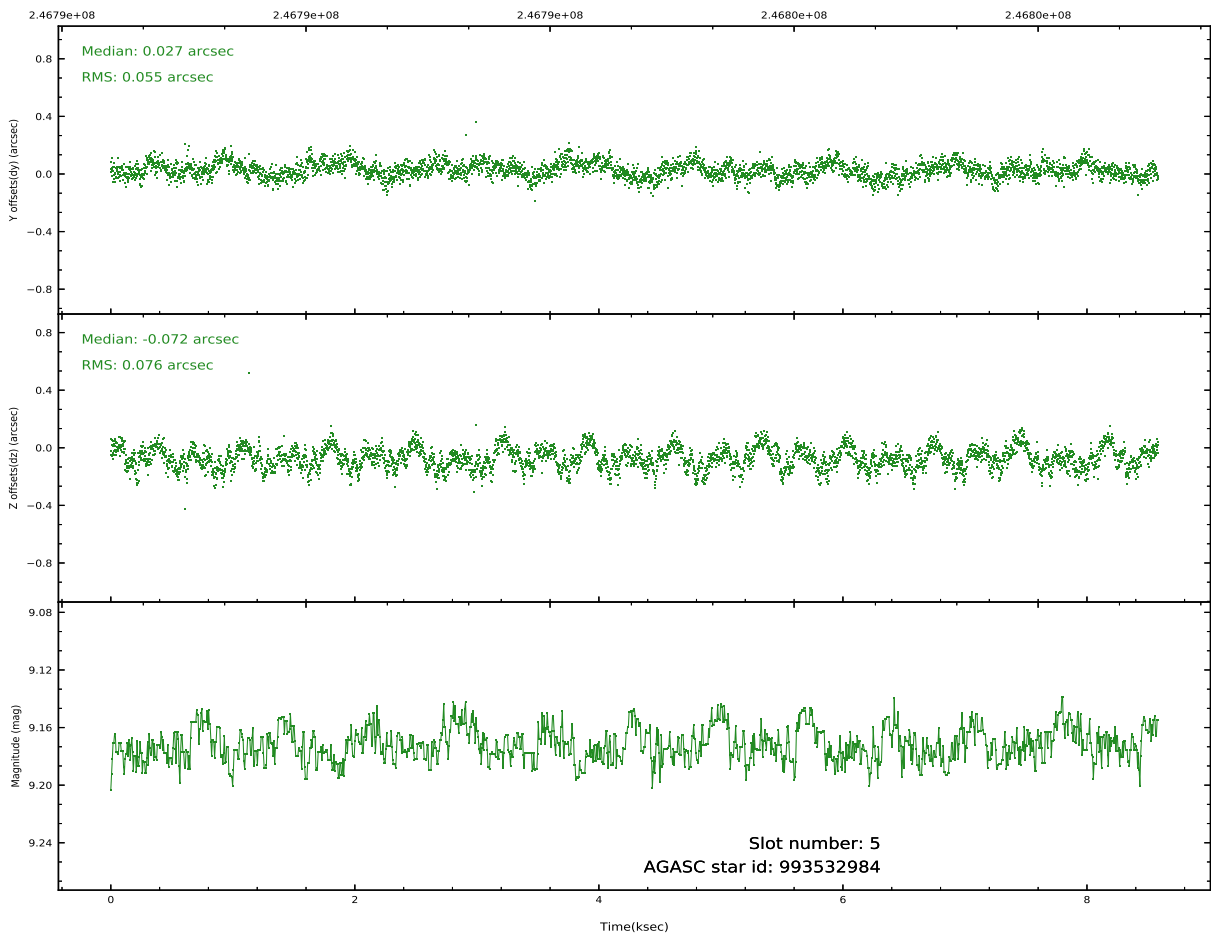
Time (s)



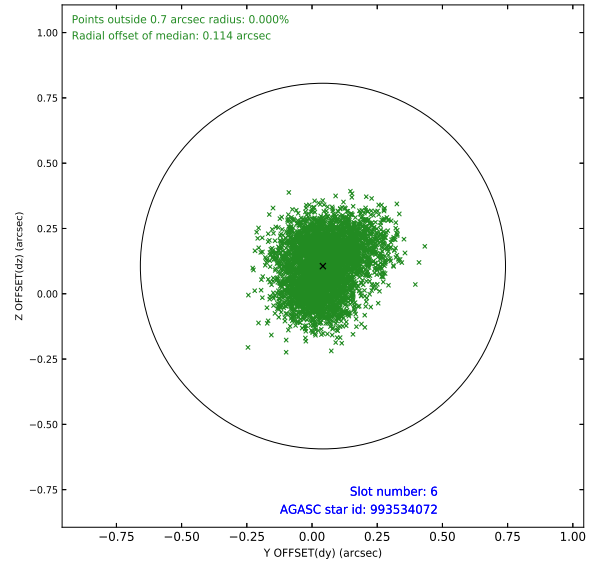
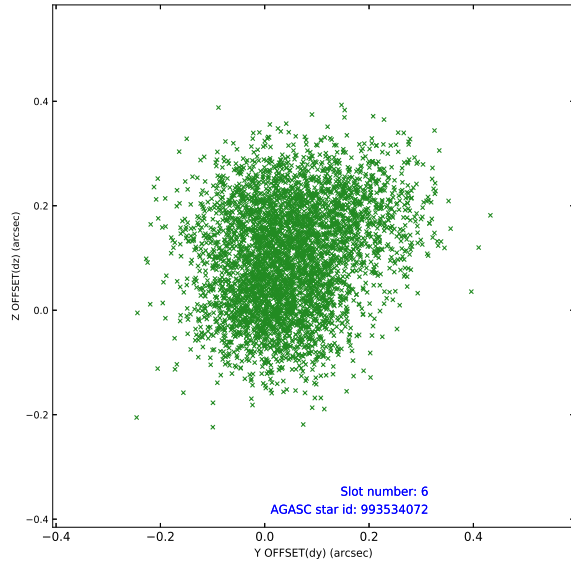
### 2.4.3 Slot 5



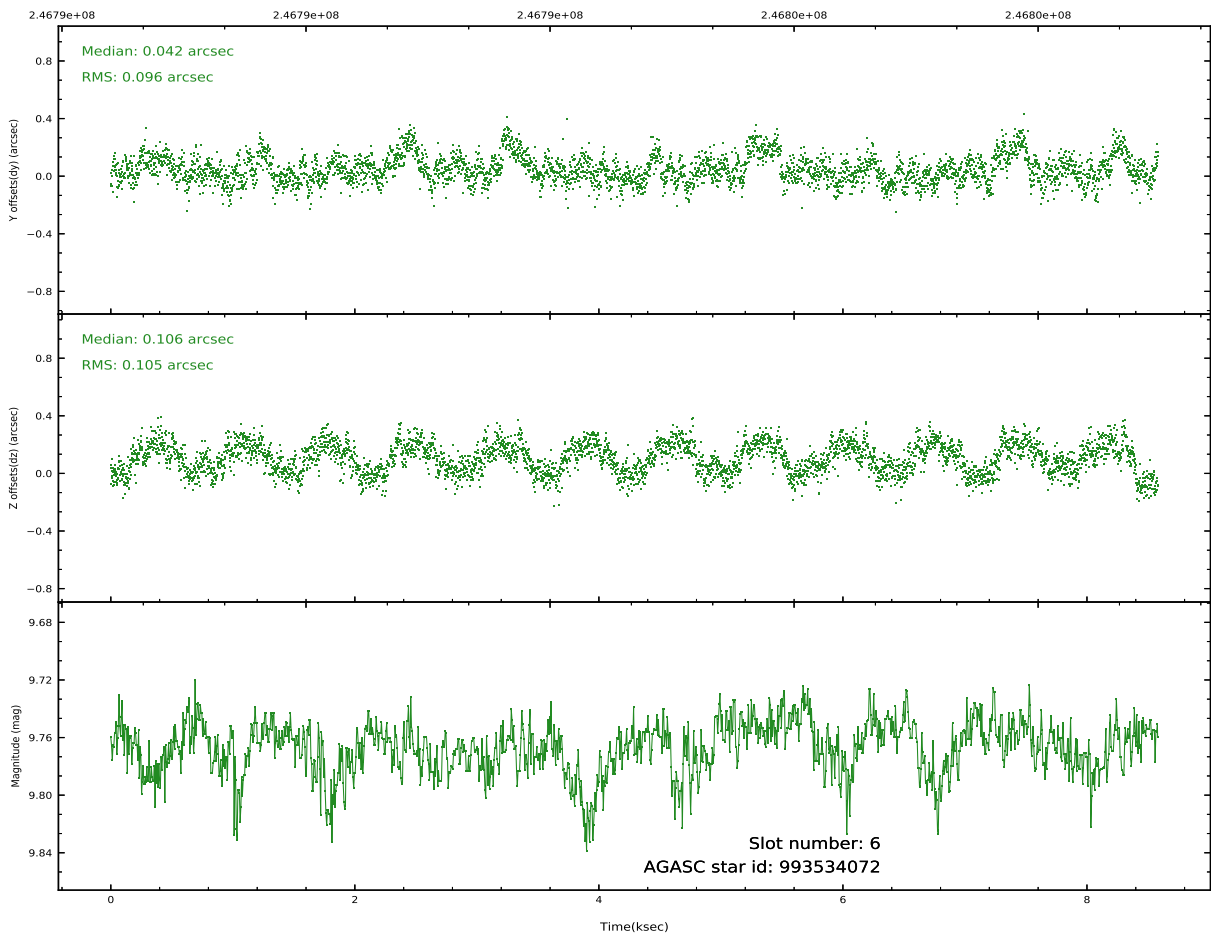
Time (s)



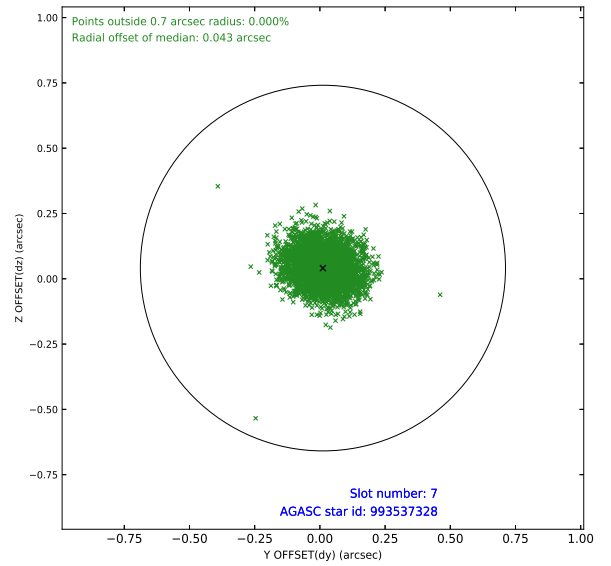
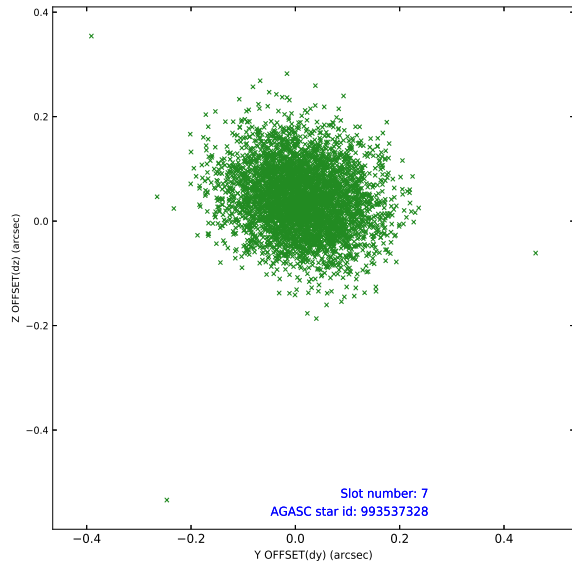
## 2.4.4 Slot 6



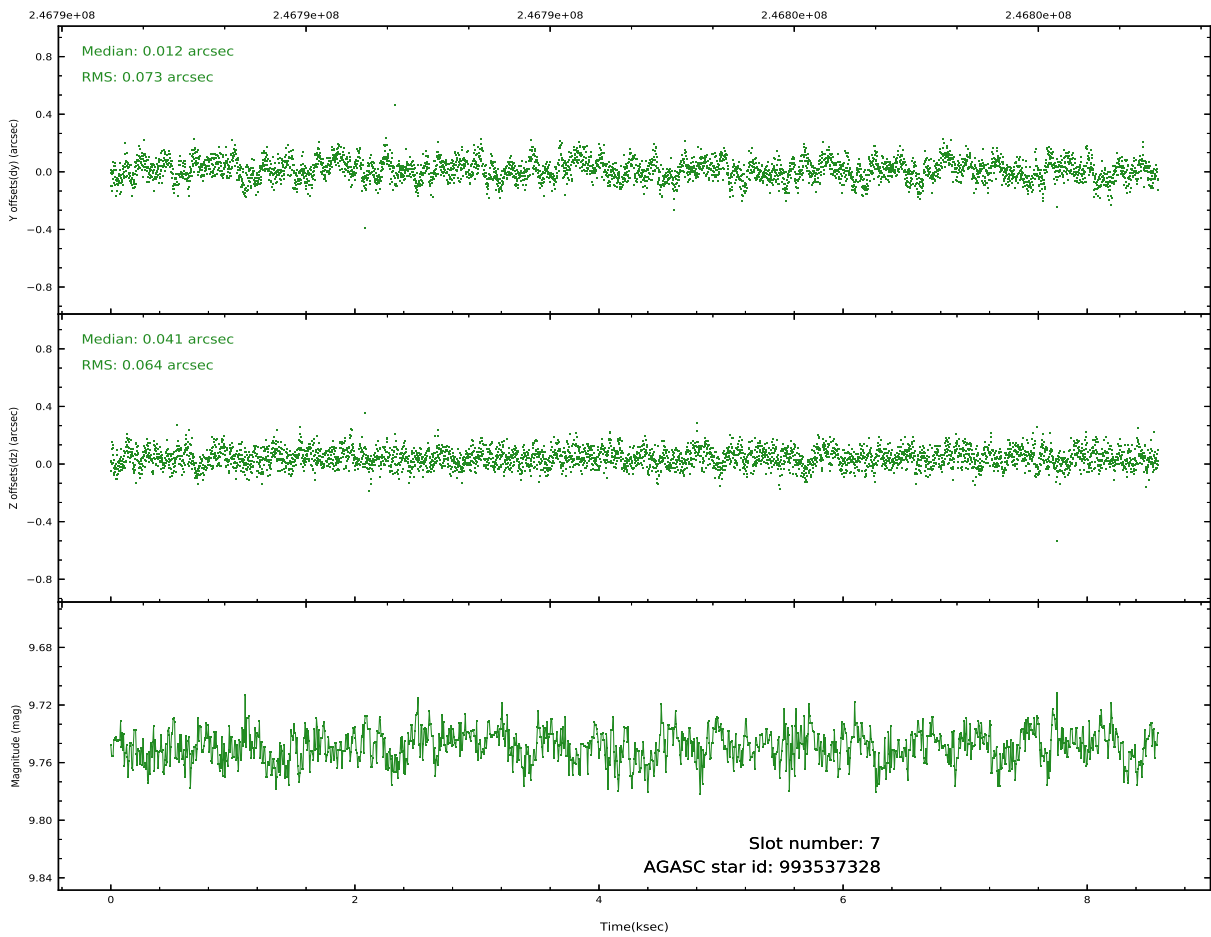
Time (s)



## 2.4.5 Slot 7

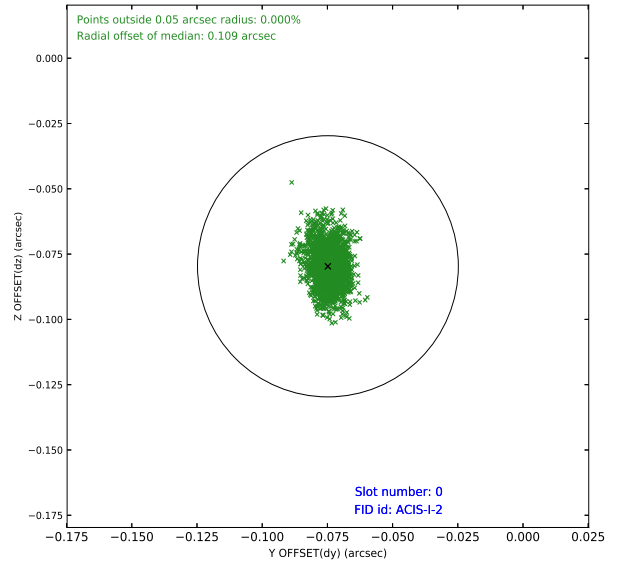
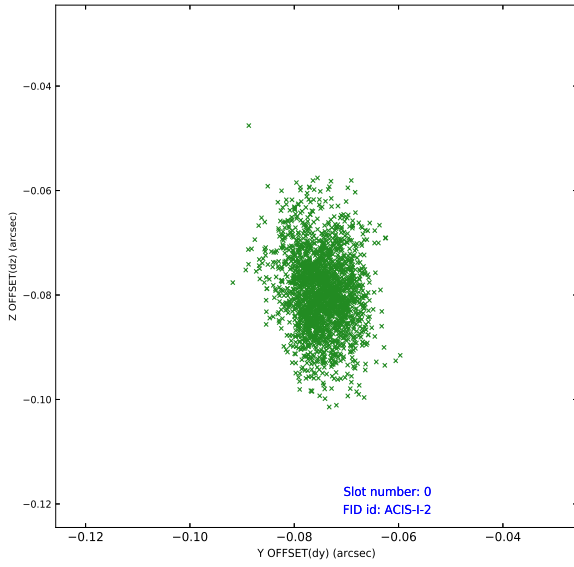


Time (s)

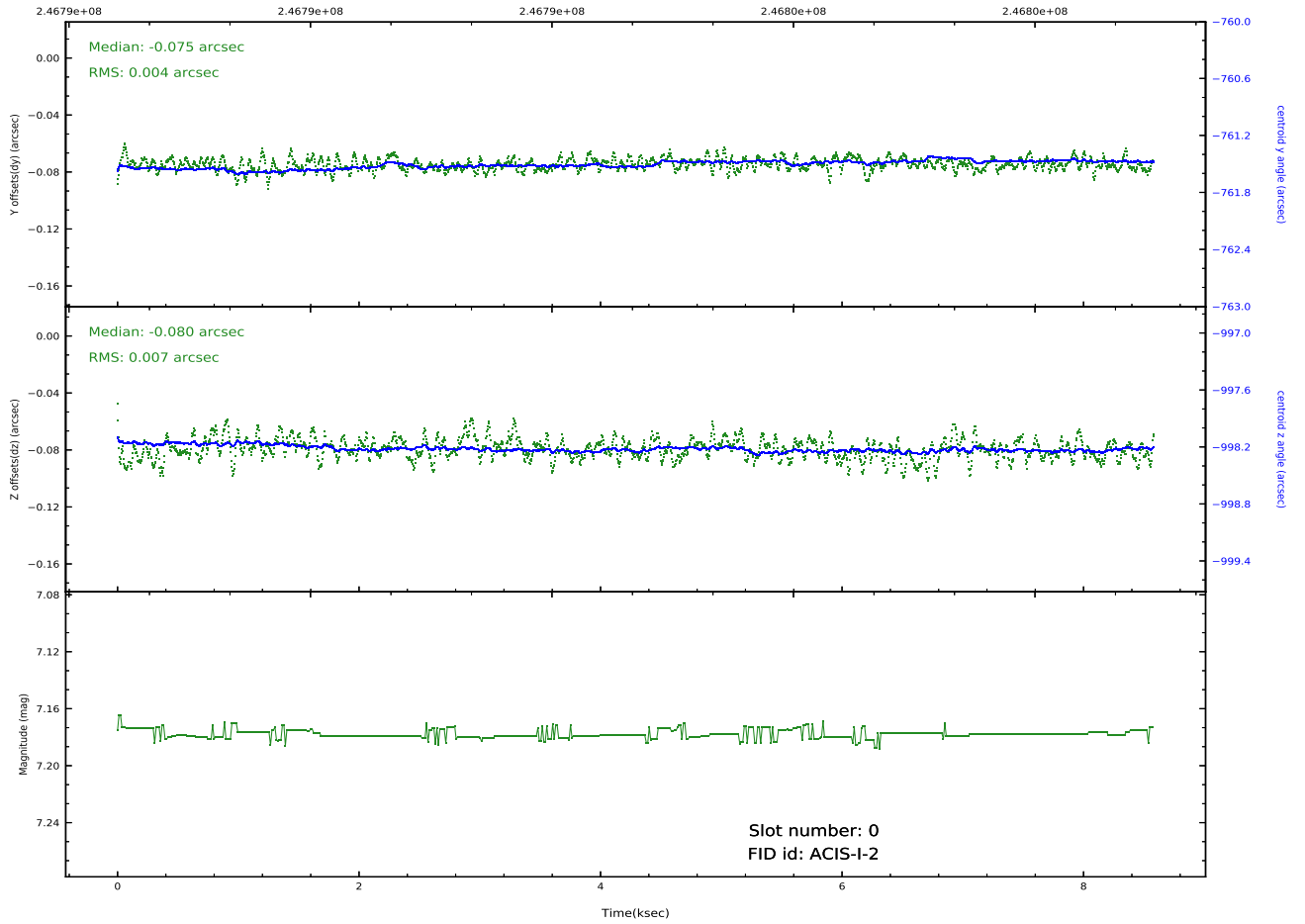


## 2.5 FID Slots

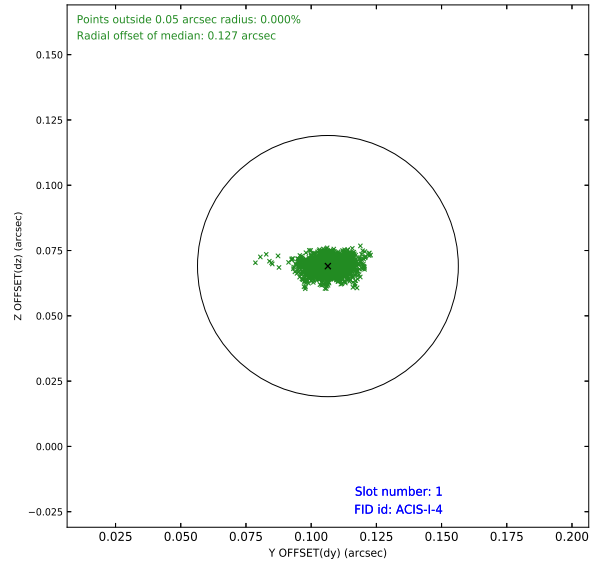
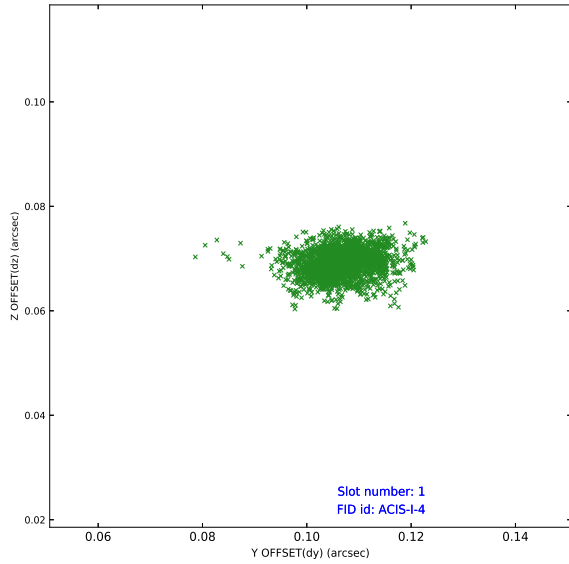
### 2.5.1 Slot 0



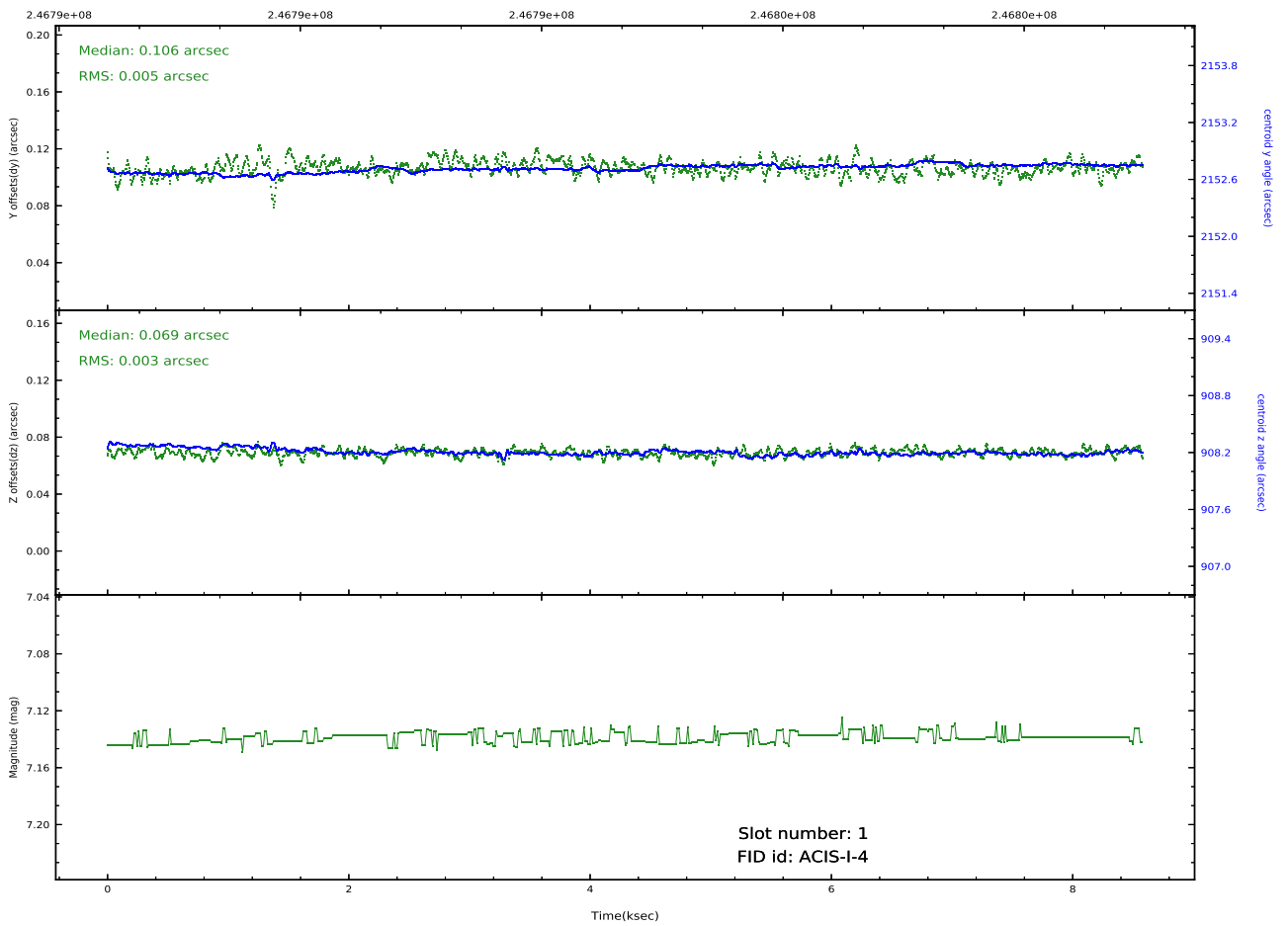
Time (s)



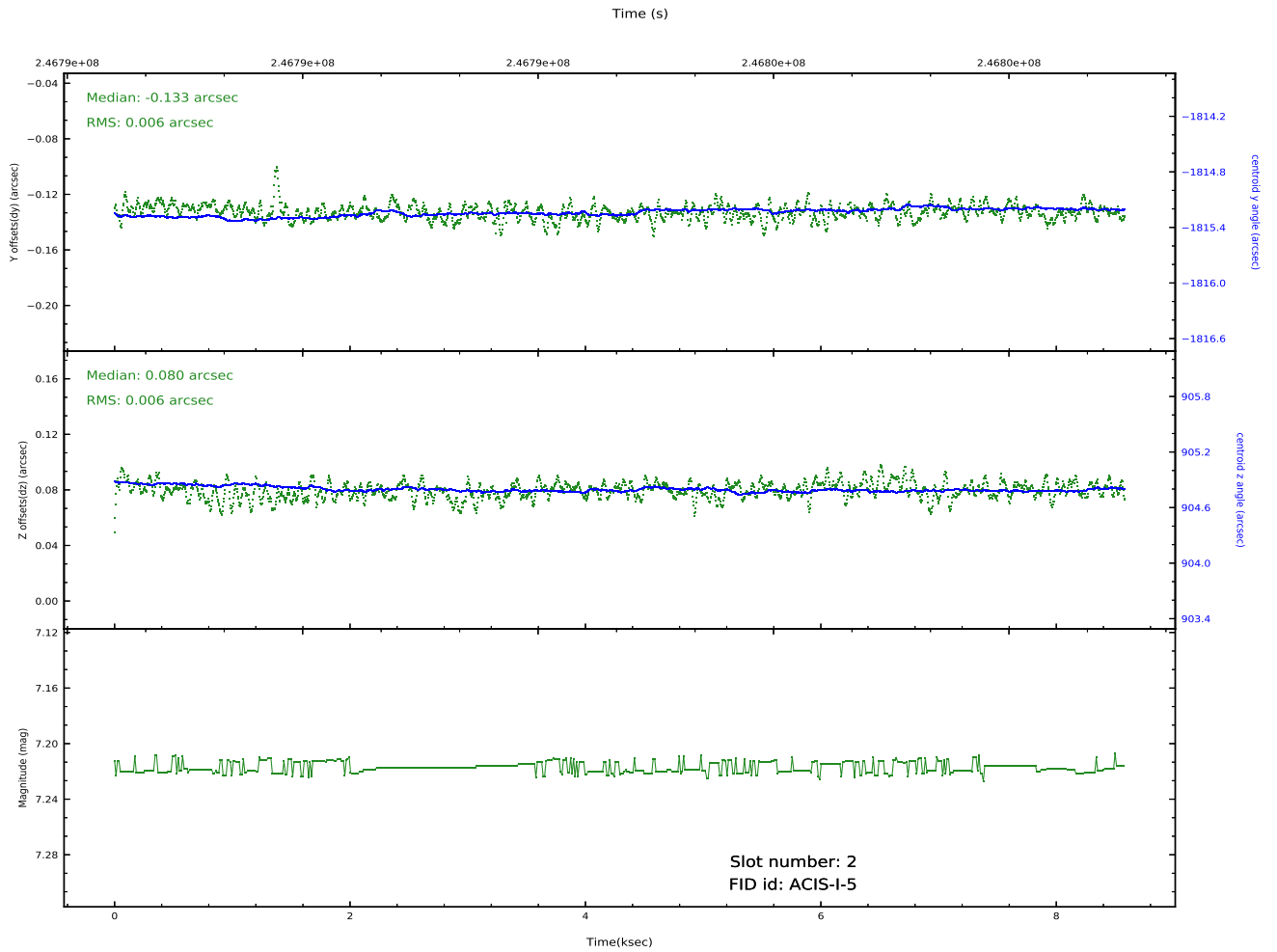
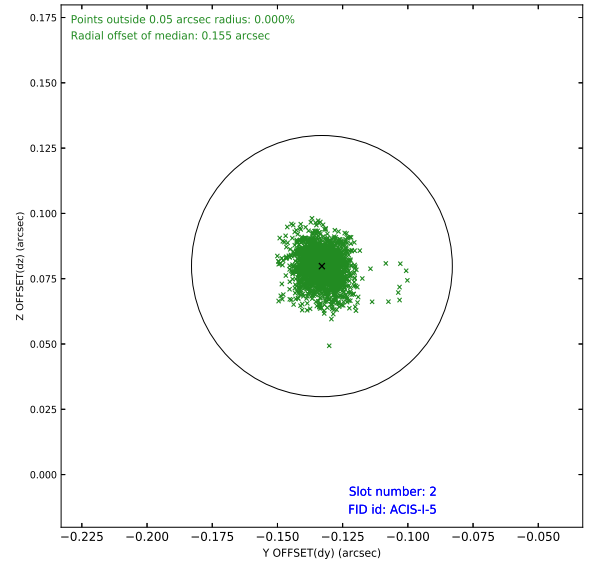
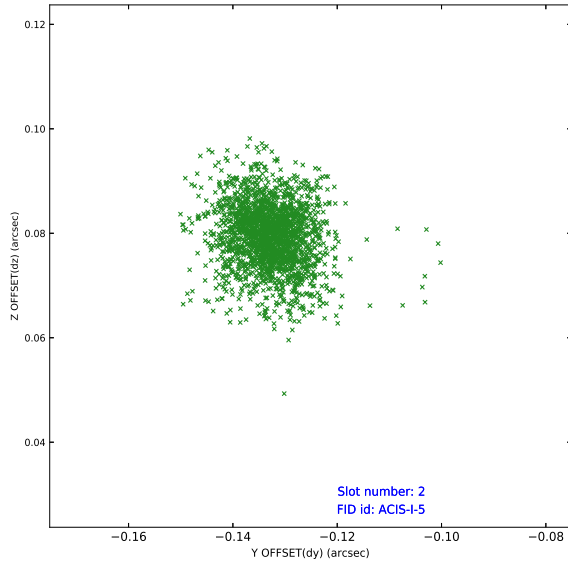
## 2.5.2 Slot 1



Time (s)



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.050699

## A.2 Comments