

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4729 - L2 Version 4  
Chandra X-Ray Center

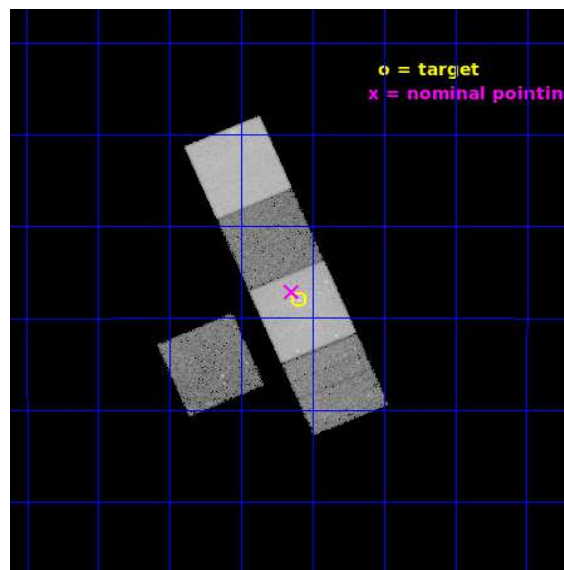
L2 Processing Date : Sep 23 2020

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# 1 Front

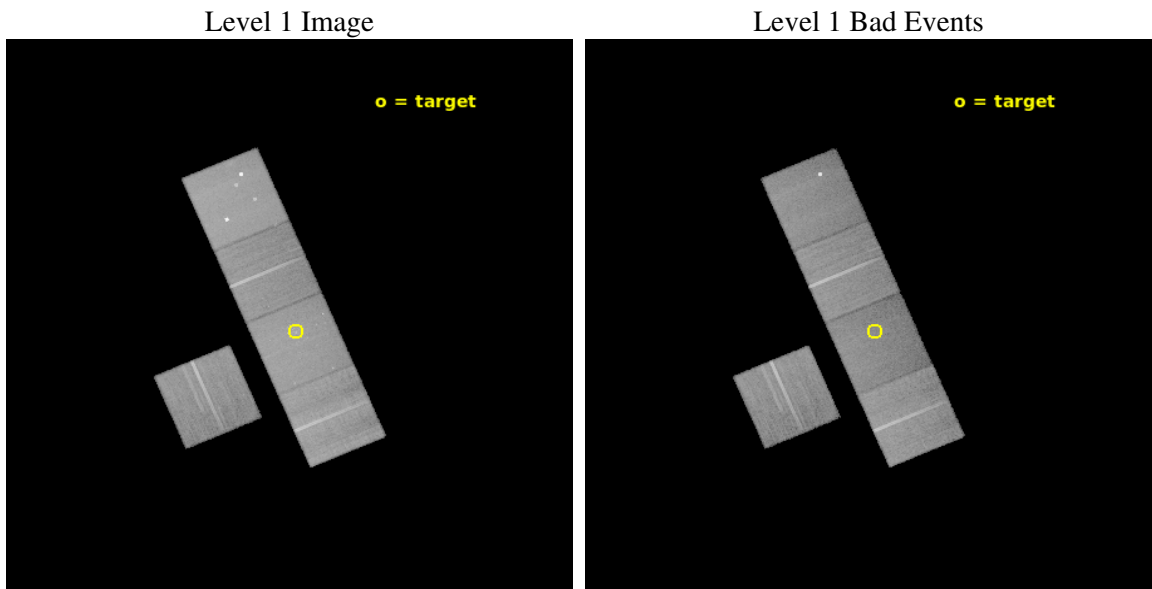
seq_num	600384	Sequence number
obs_id	4729	Observation id
title	Deep Chandra and Hubble Observations NGC 4697, the Nearest Optically Luminous, X-ray Faint Elliptical Galaxy	Proposal title
observer	Craig Sarazin	Principal investigator
object	NGC4697	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	192.149583	Observer's specified target RA [deg]
dec_targ	-5.800556	Observer's specified target Dec [deg]
ra_nom	192.16105062779	Nominal RA [deg]
dec_nom	-5.7853402669215	Nominal Dec [deg]
roll_nom	66.766716054986	Nominal Roll [deg]
revision	4	Processing version of data
ontime	38604.299925745	Sum of GTIs [s]
livetime	38099.906327143	Livetime [s]
ontime3	38594.876965135	Sum of GTIs [s]
ontime5	38604.299925745	Sum of GTIs [s]
ontime6	38604.299925745	Sum of GTIs [s]
ontime7	38604.299925745	Sum of GTIs [s]
ontime8	38604.299925745	Sum of GTIs [s]
l2events	341634	Number of level 2 events



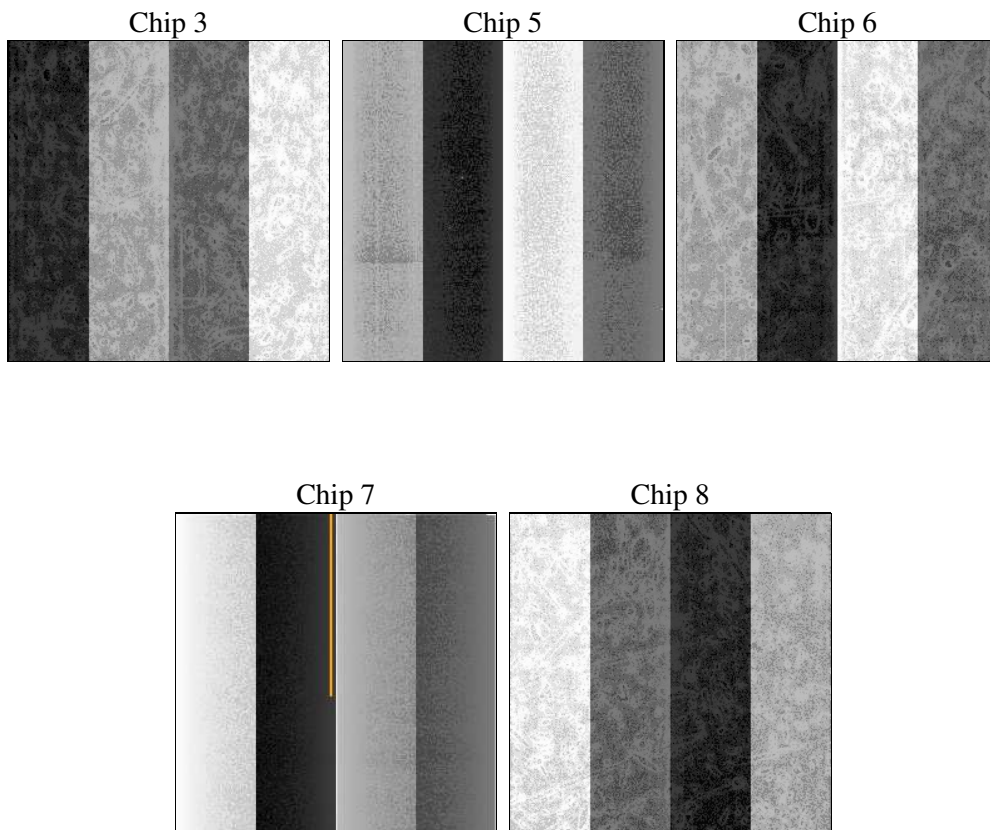
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	38500.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	38604.299925745	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime3	38594.876965135	Sum of GTIs [s]
date	2020-09-23T06:43:52	Date and time of file creation	ontime5	38604.299925745	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	38604.299925745	Sum of GTIs [s]
			ontime7	38604.299925745	Sum of GTIs [s]
			ontime8	38604.299925745	Sum of GTIs [s]
			l1events	1253165	Number of level 1 events

### 2.1.4 Events

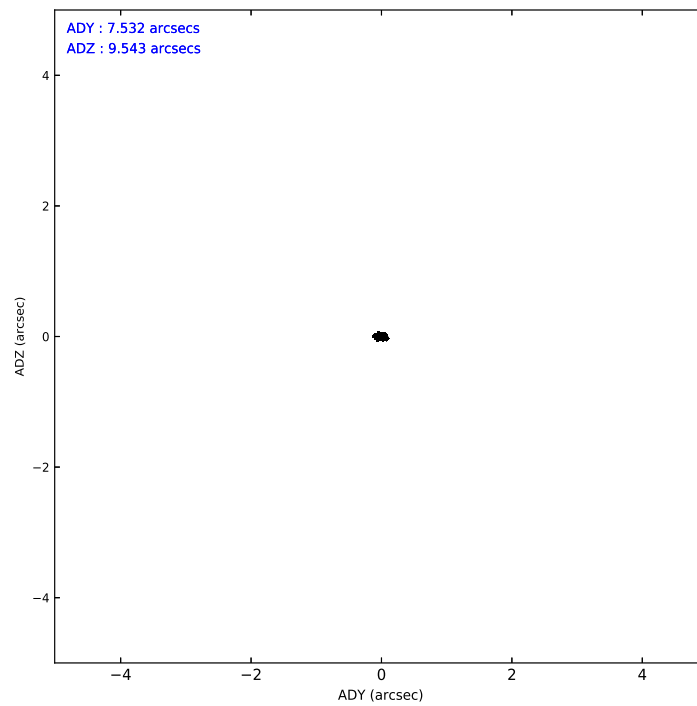
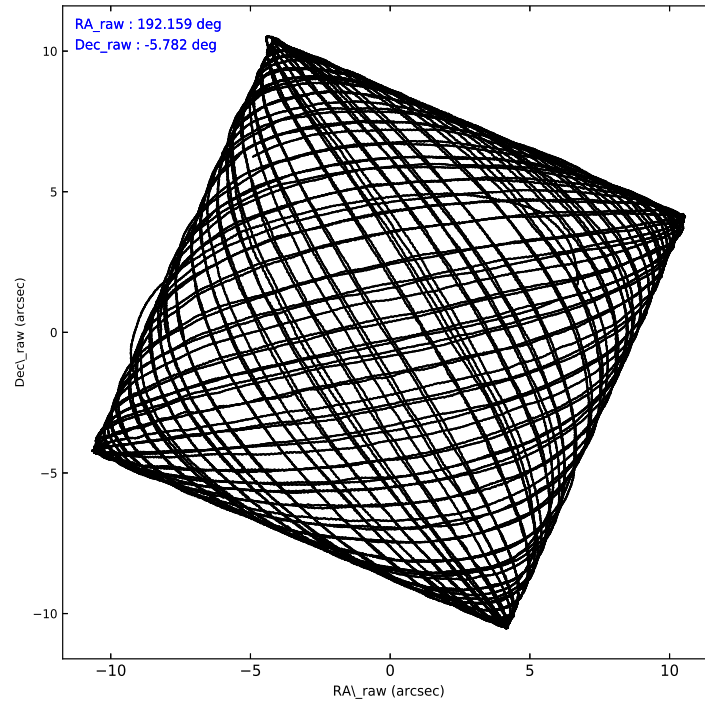
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	199376	318168	208187	259032	268402
rejected events	178608	149665	183373	126683	204317
rejected %	89%	47%	88%	48%	76%

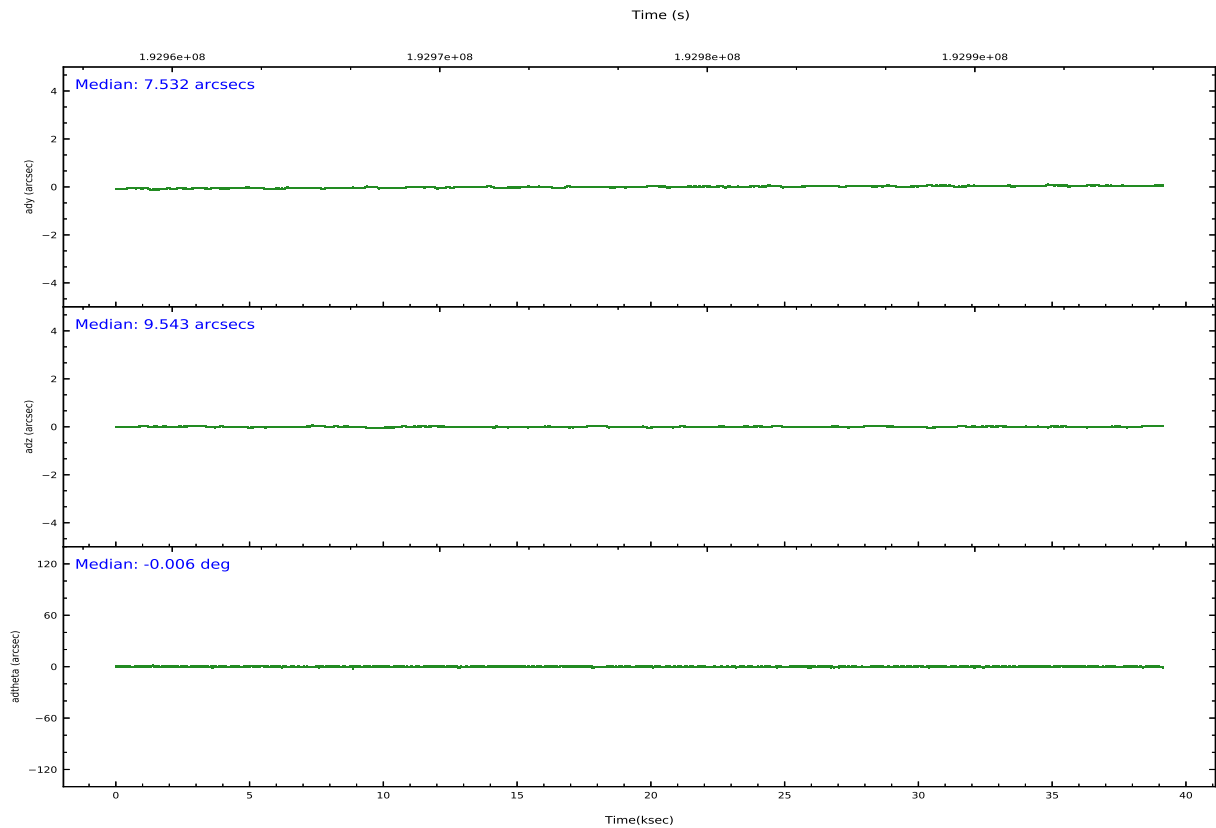
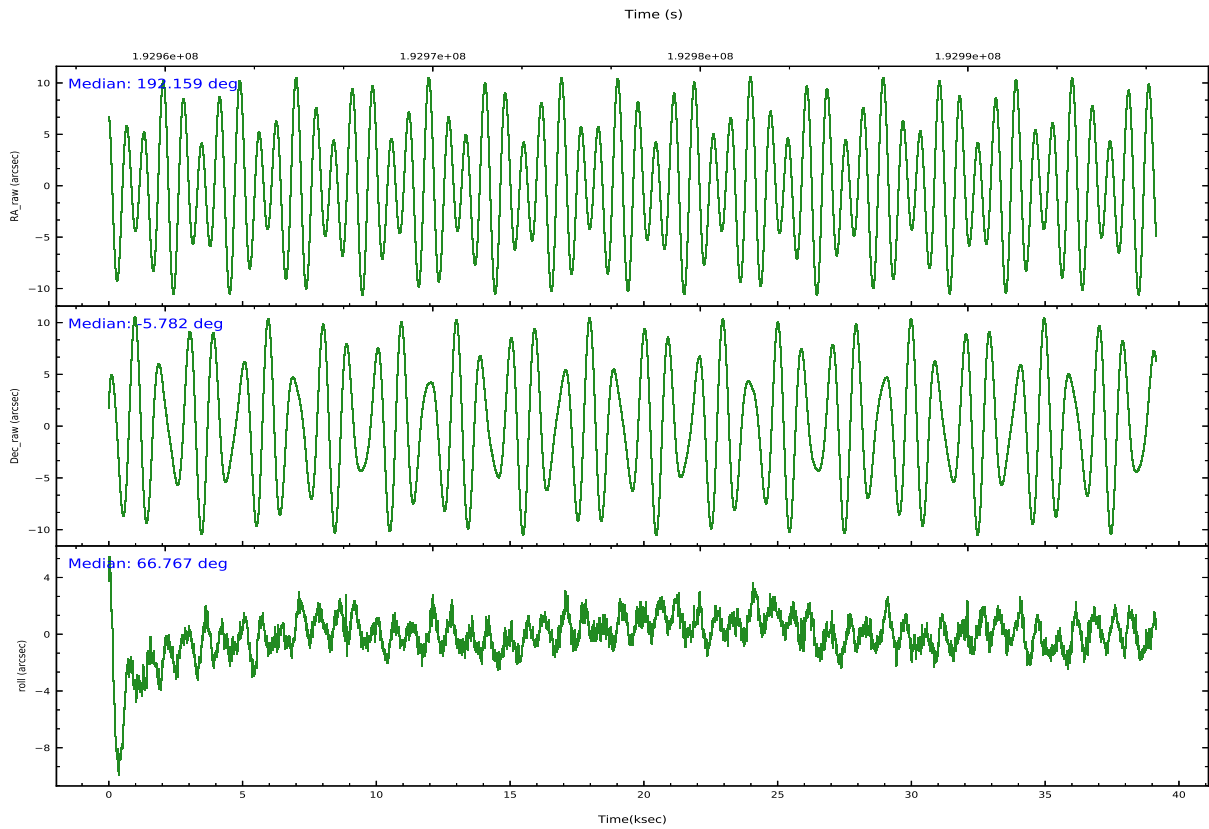
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	8284	25736	10347	14862	21248
	4%	8%	4%	5%	7%
grade 1 events	94	262	95	188	181
	0%	0%	0%	0%	0%
grade 2 events	4146	49044	4778	26424	13384
	2%	15%	2%	10%	4%
grade 3 events	2257	7483	2572	12501	6957
	1%	2%	1%	4%	2%
grade 4 events	2231	7149	2507	12286	6541
	1%	2%	1%	4%	2%
grade 5 events	8093	24252	8354	24682	11717
	4%	7%	4%	9%	4%
grade 6 events	3851	79100	4611	66288	15959
	1%	24%	2%	25%	5%
grade 7 events	170420	125142	174923	101801	192415
	85%	39%	84%	39%	71%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-35678	ACIS-35678	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	192.162973	192.16105062779	Subarray requested	NONE	NONE
[deg] Pointing Dec	-5.809223	-5.7853402669215	Alternating exposures requested	N	N
[deg] Pointing Roll	66.613091	66.76671605498601	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	192958538.184000	192957346.3699			
Observation start date	2004-02-12T07:34:34	2004-02-12T07:15:46			
[s] Observation end time (MET)	192997038.184000	192997342.38415			
Observation end date	2004-02-12T18:16:14	2004-02-12T18:22:22			
Read mode	TIMED	TIMED			

## 2.3 Aspect





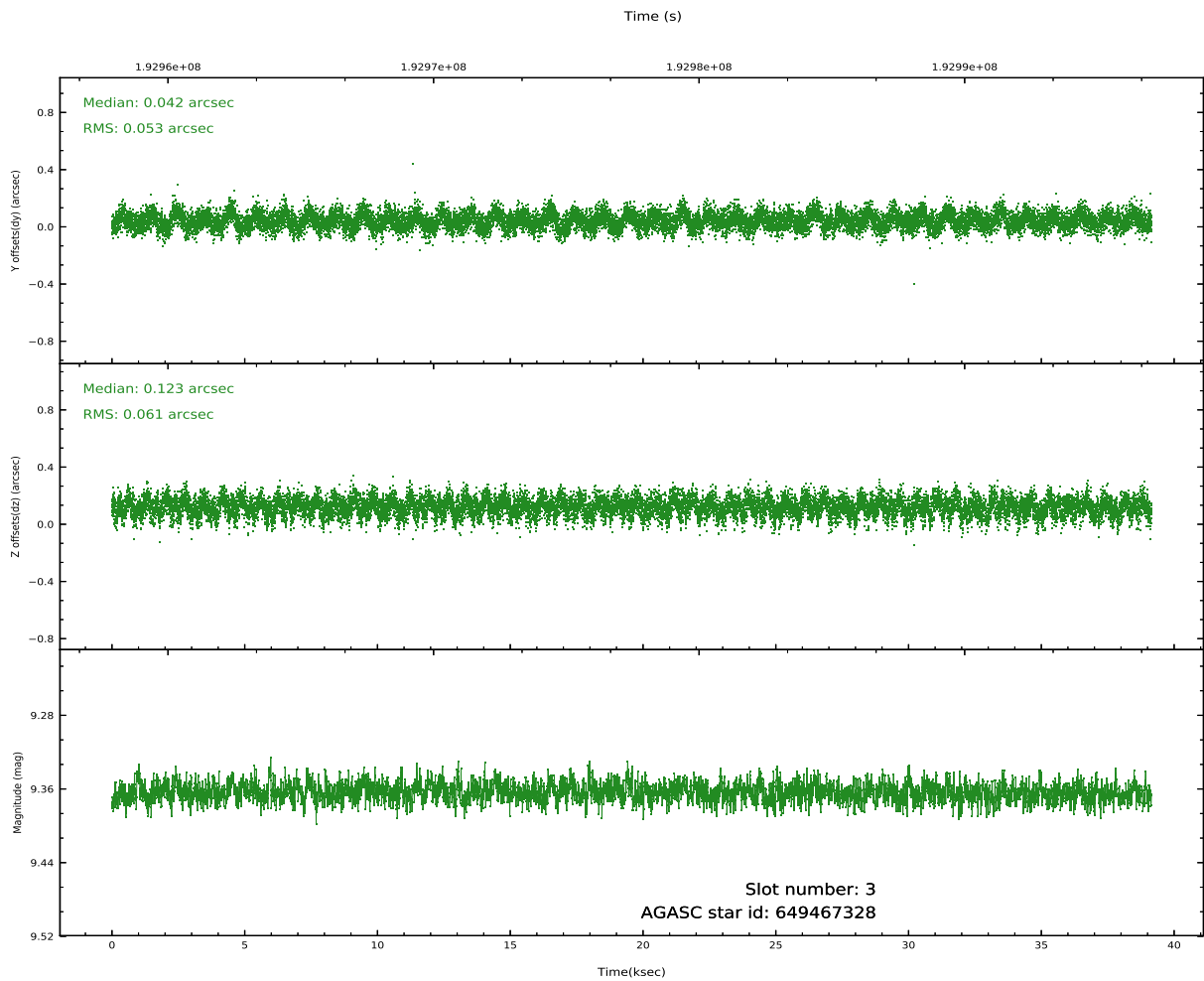
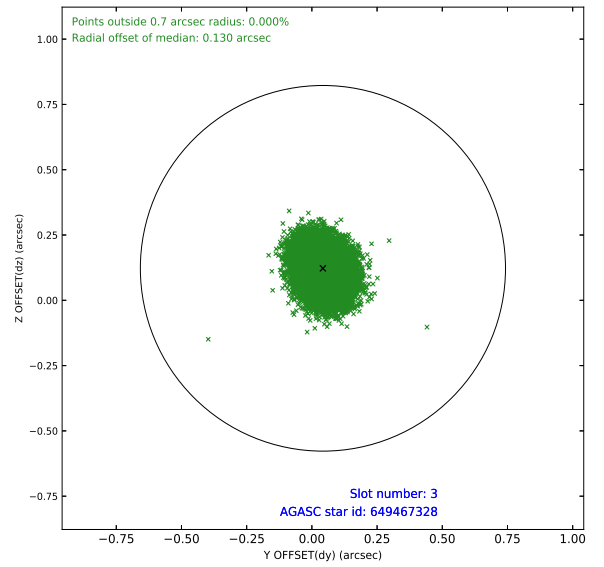
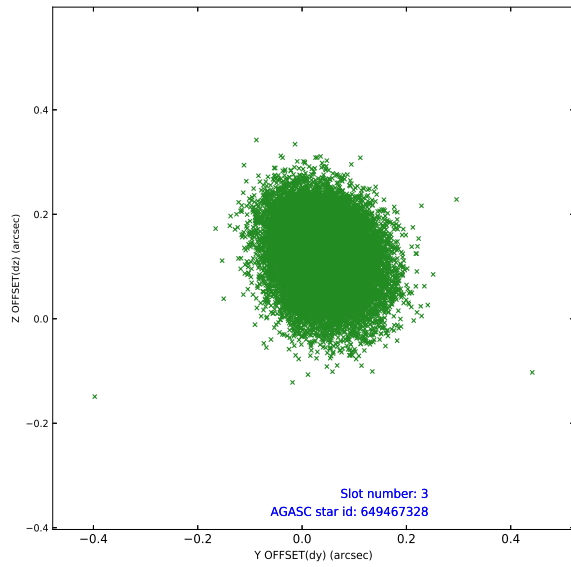
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-2	7.10	9549	1.000	-0.067	-0.070	0.007	0.011	0.000000	0.000000	-760.31	-1730
1	FID		ACIS-S-4	7.20	9548	1.000	0.149	0.051	0.006	0.010	0.000000	0.000000	2153.12	177
2	FID		ACIS-S-5	7.23	9549	1.000	-0.113	0.028	0.006	0.011	0.000000	0.000000	-1813.23	171
3	GUIDE	used	649467328	9.36	19087	1.000	0.042	0.123	0.086	0.140	192.312268	-5.822418	169.07	-509
4	GUIDE	used	649471008	8.77	19091	1.000	0.059	-0.026	0.068	0.109	191.883055	-5.890695	-667.18	803
5	GUIDE	used	649471216	9.00	19091	1.000	-0.025	-0.195	0.078	0.122	192.046748	-5.955581	-648.69	172
6	GUIDE	used	649471800	8.60	19082	1.000	-0.102	-0.149	0.055	0.089	192.288030	-5.445033	1381.13	109
7	GUIDE	used	649594712	8.43	19089	1.000	0.026	0.249	0.077	0.119	192.730305	-6.061024	-26.20	-2224

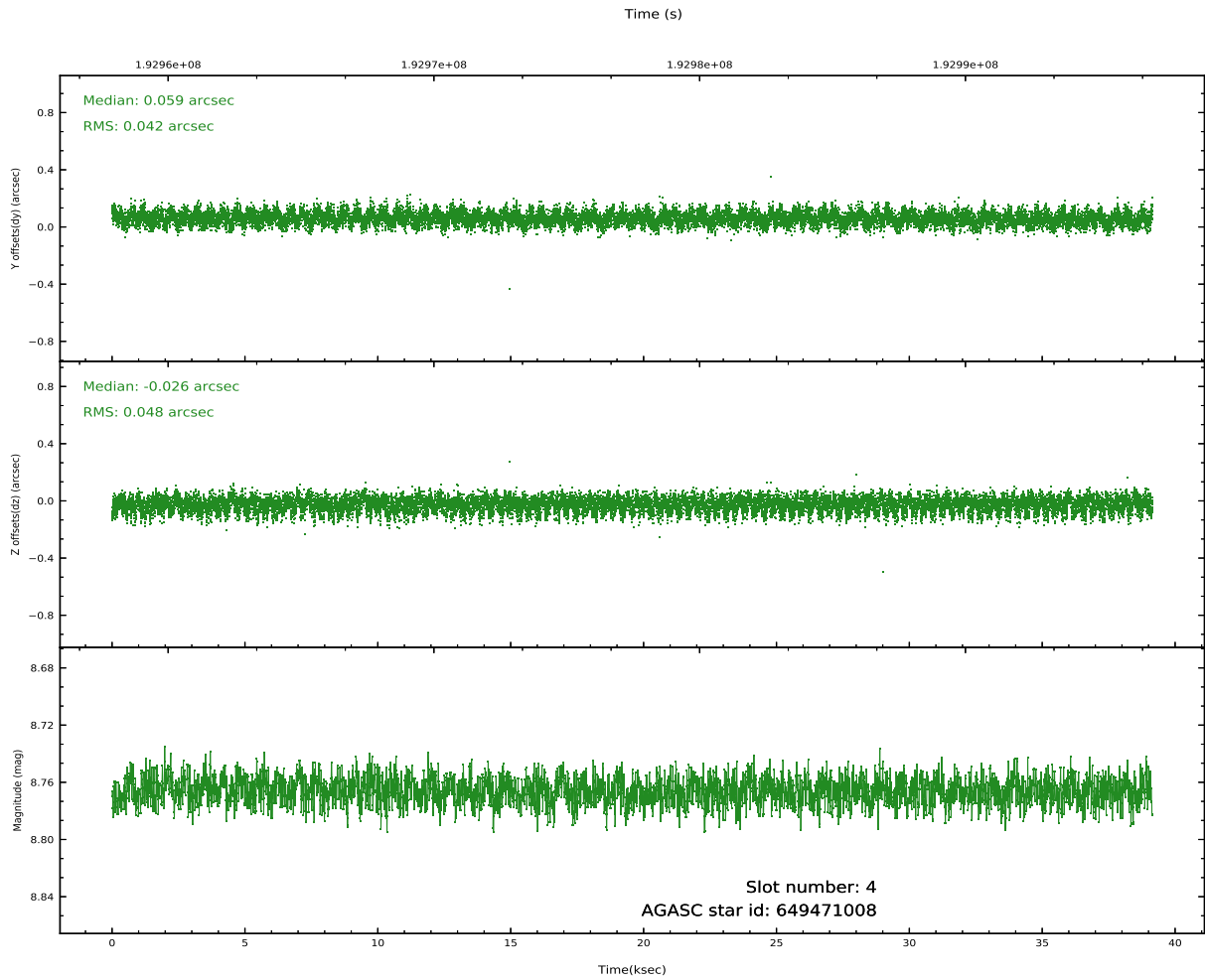
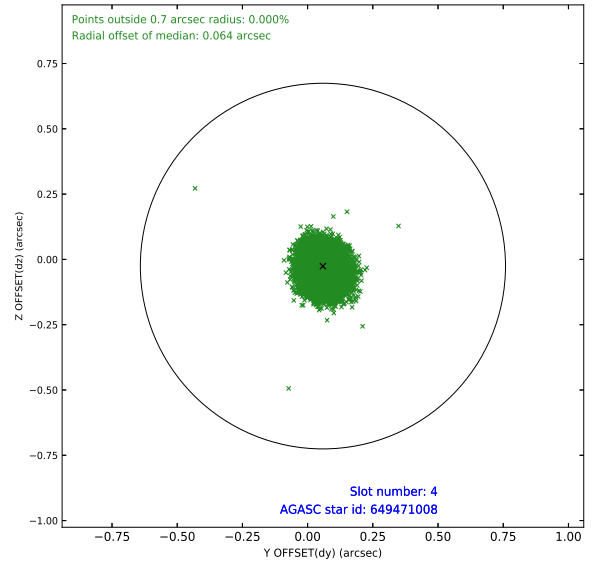
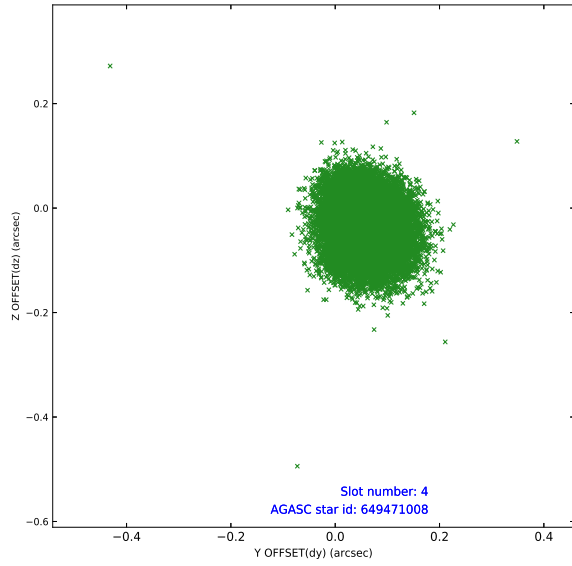
∞

## 2.4 Star Slots

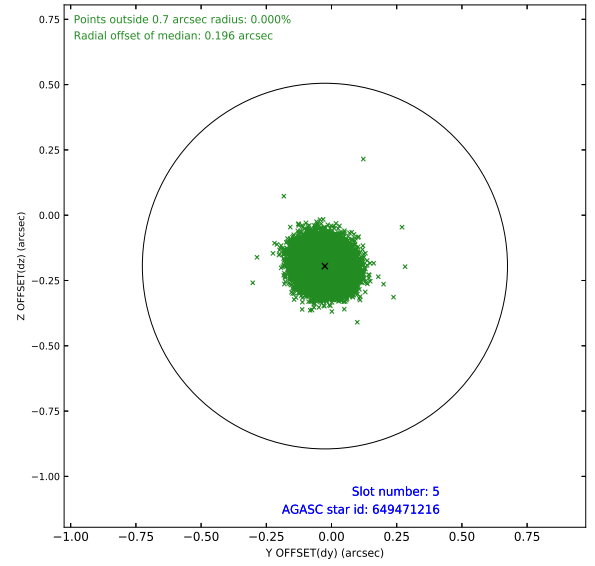
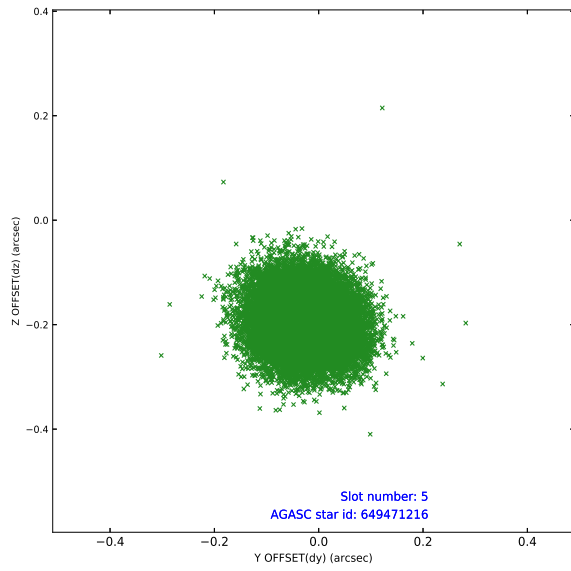
### 2.4.1 Slot 3



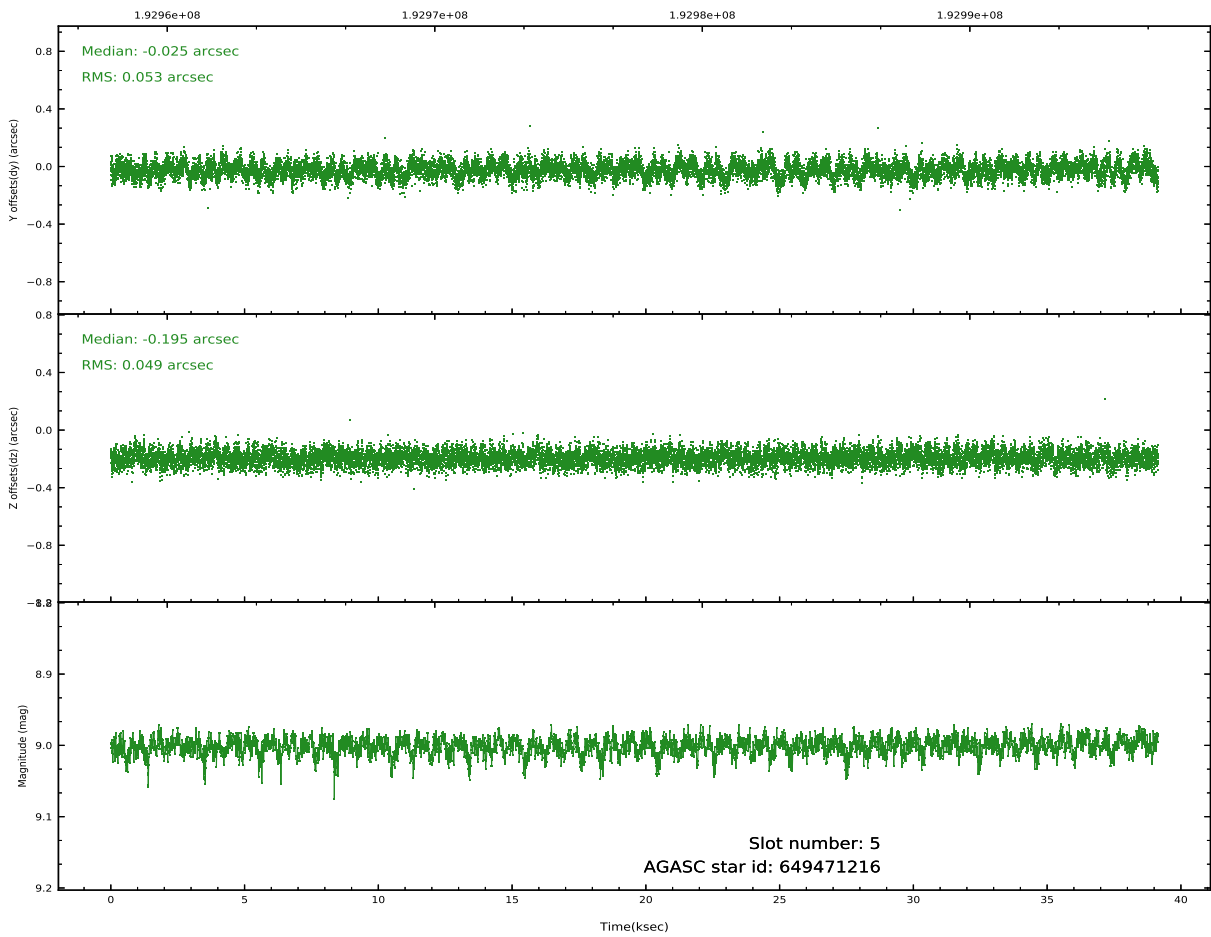
## 2.4.2 Slot 4



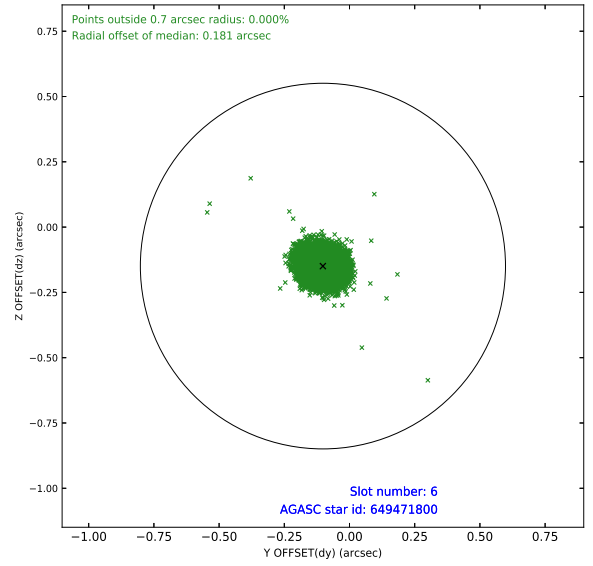
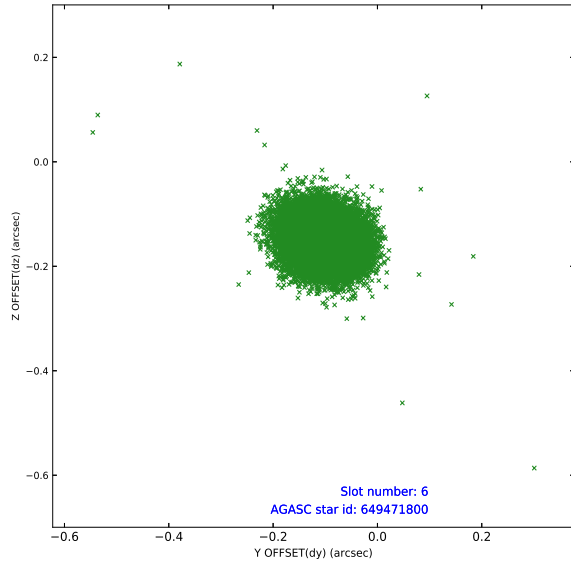
### 2.4.3 Slot 5



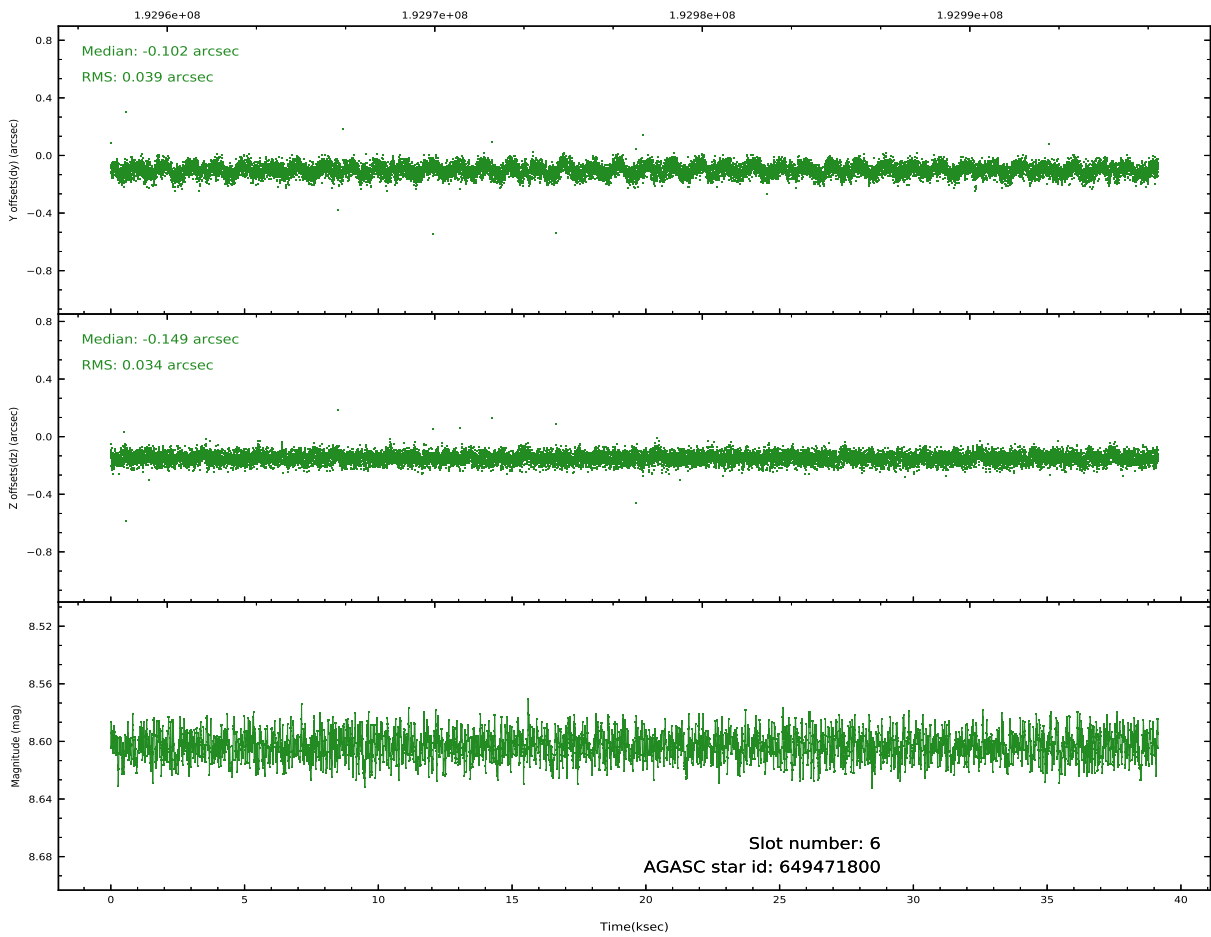
Time (s)



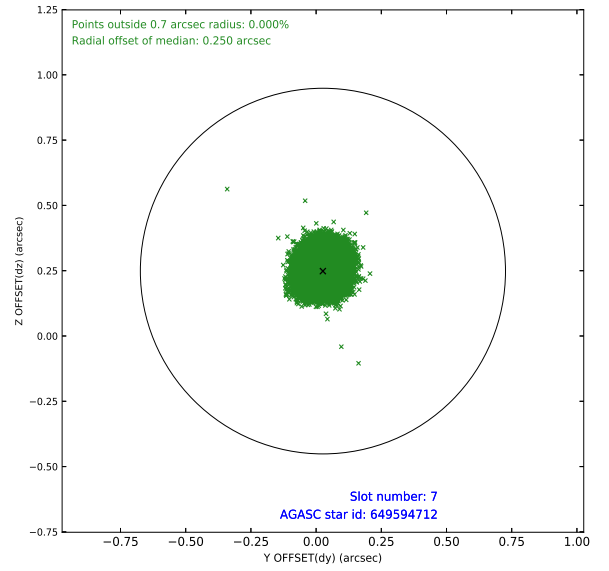
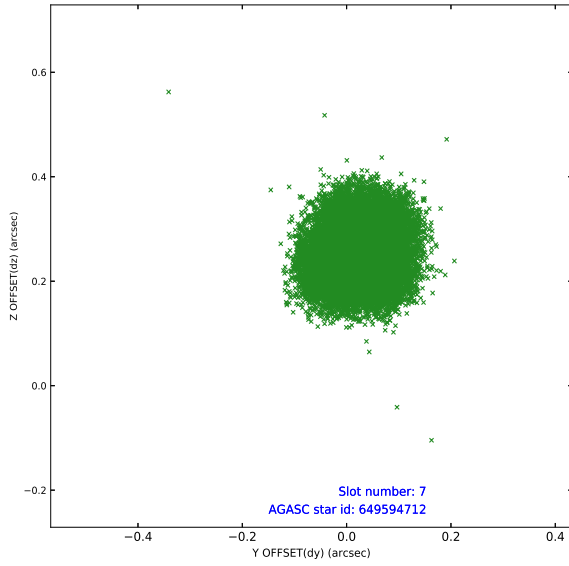
## 2.4.4 Slot 6



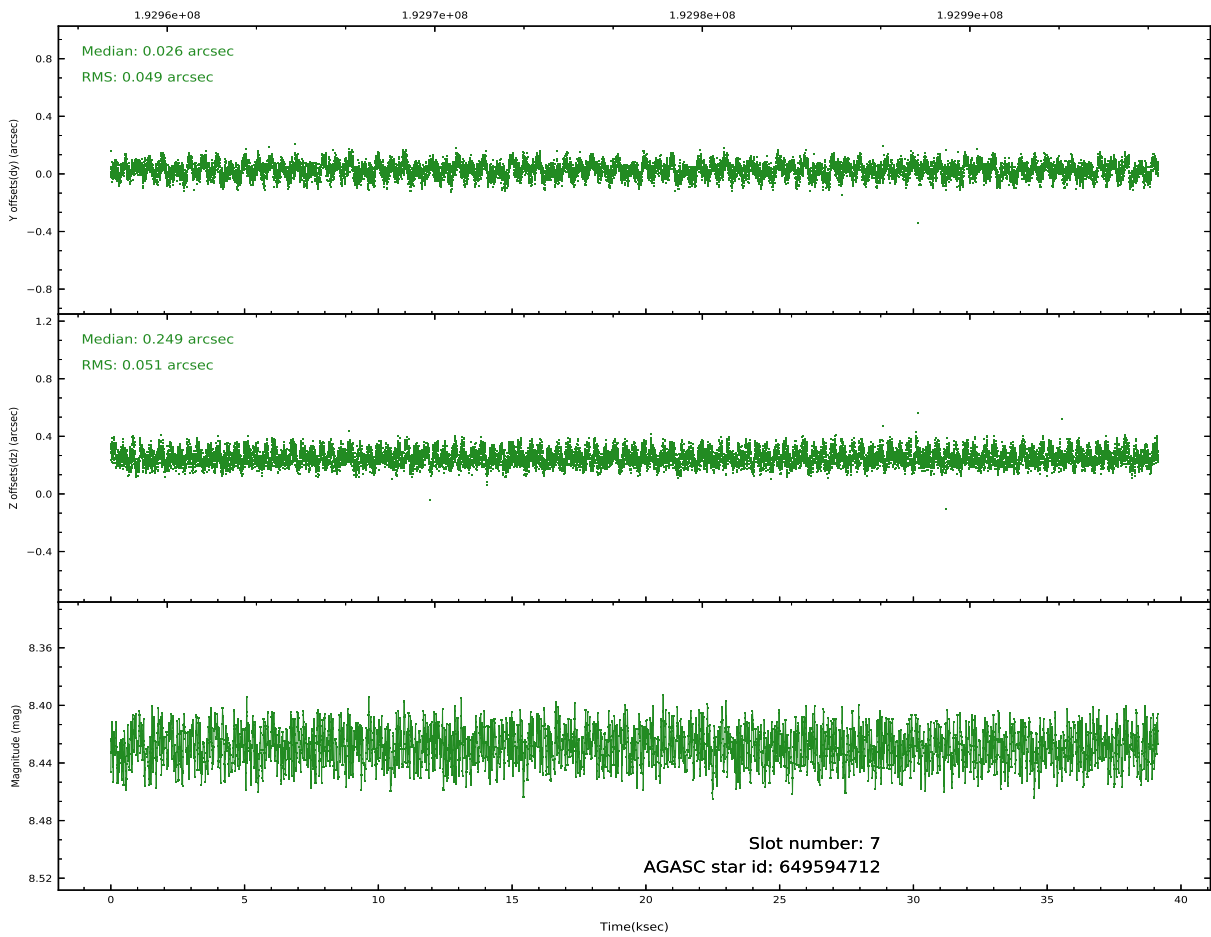
Time (s)



## 2.4.5 Slot 7

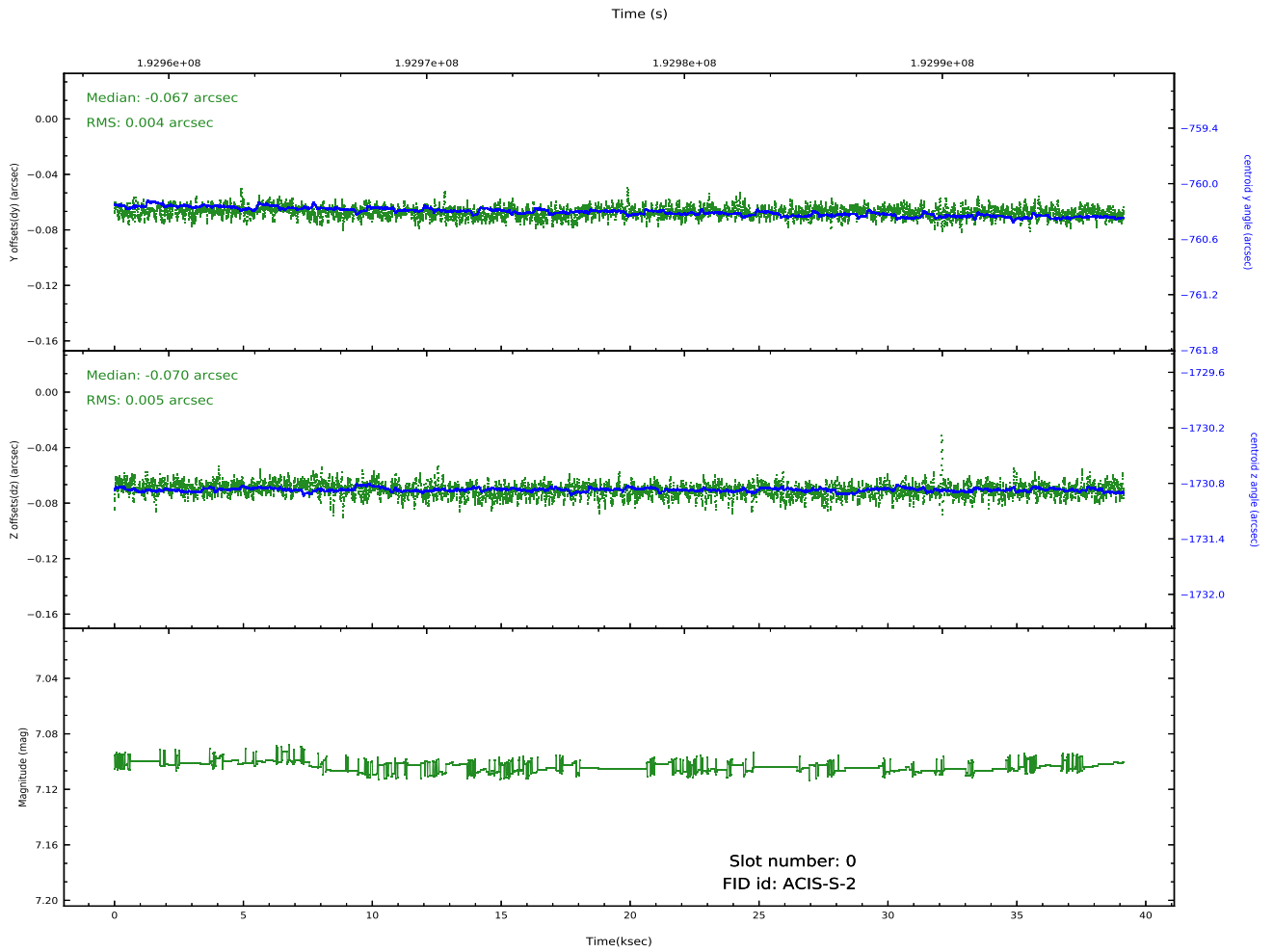
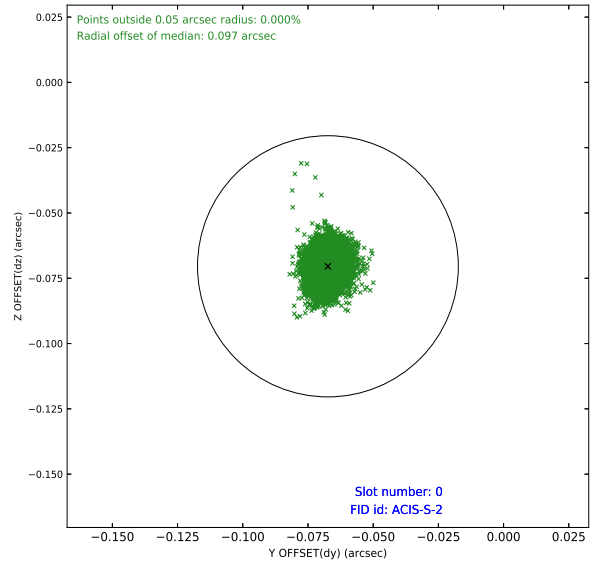
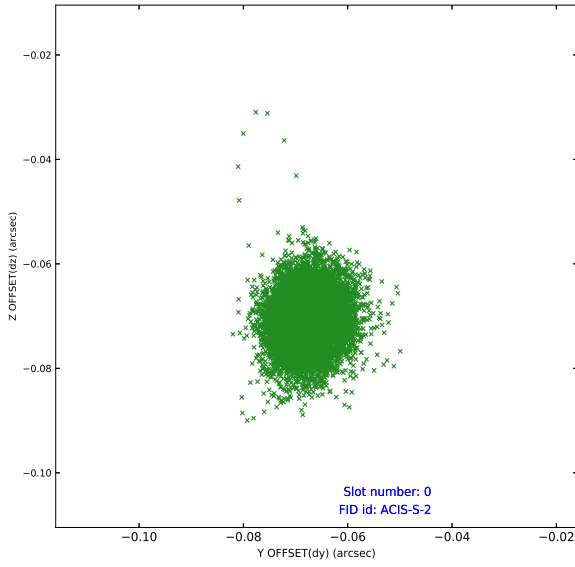


Time (s)

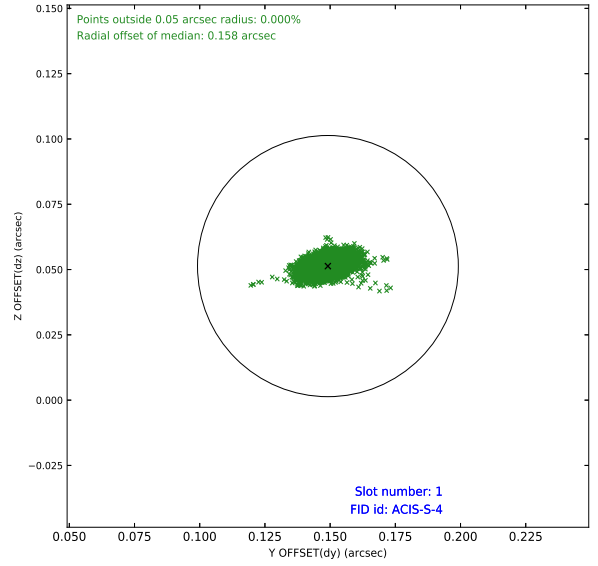
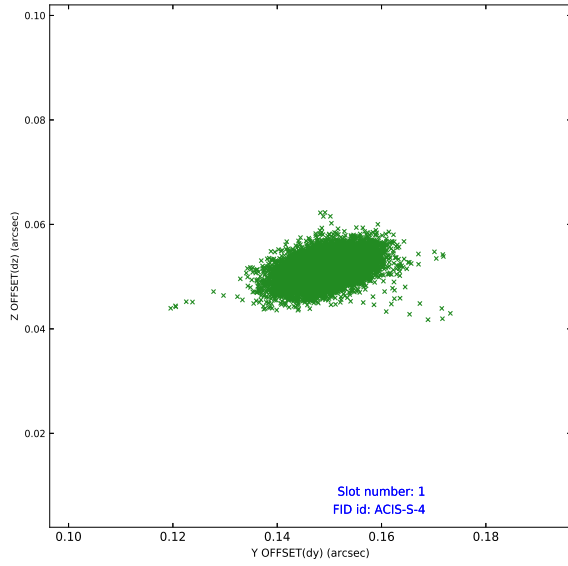


## 2.5 FID Slots

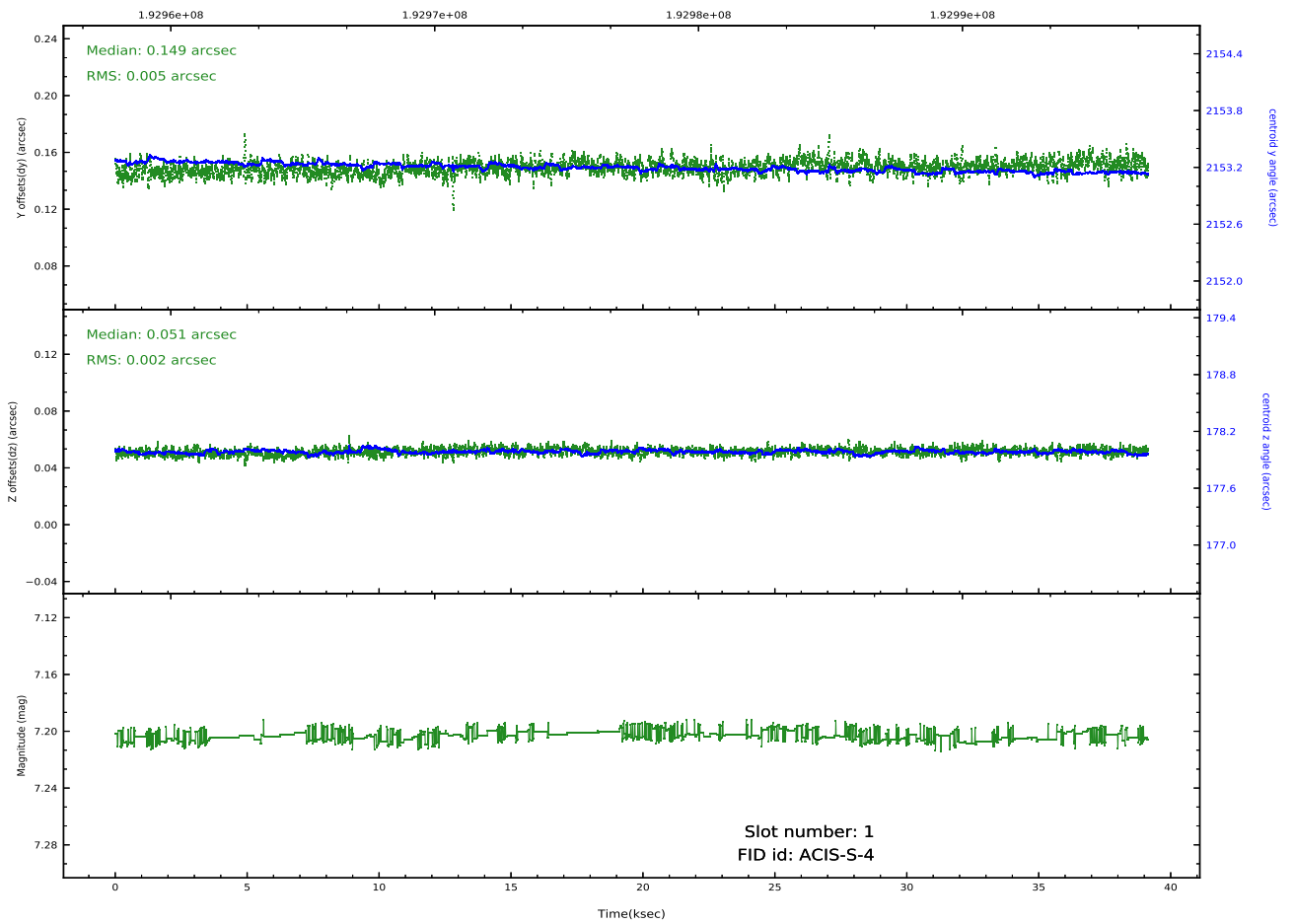
### 2.5.1 Slot 0



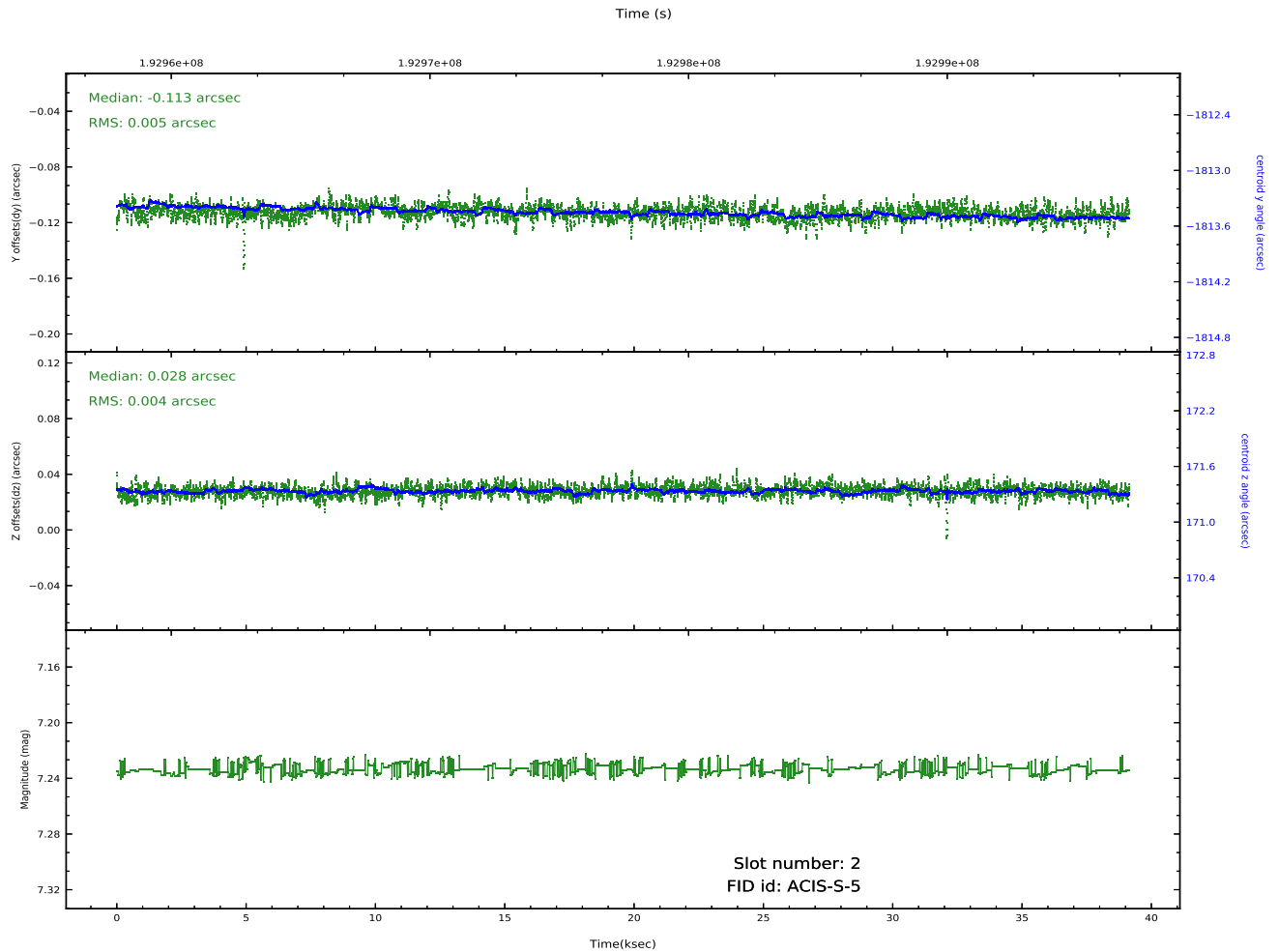
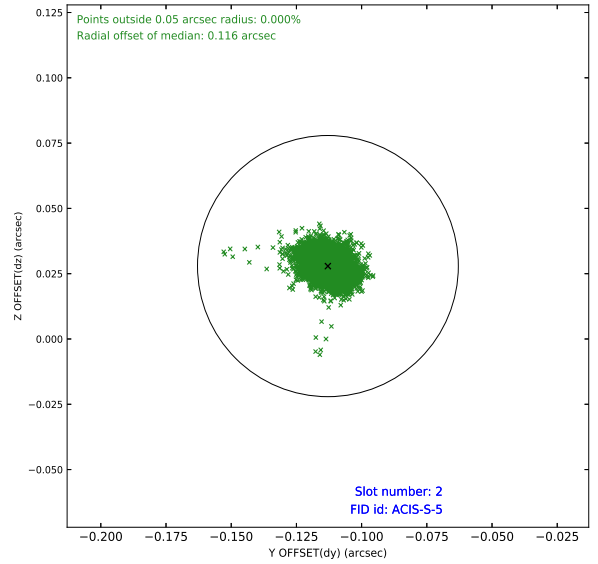
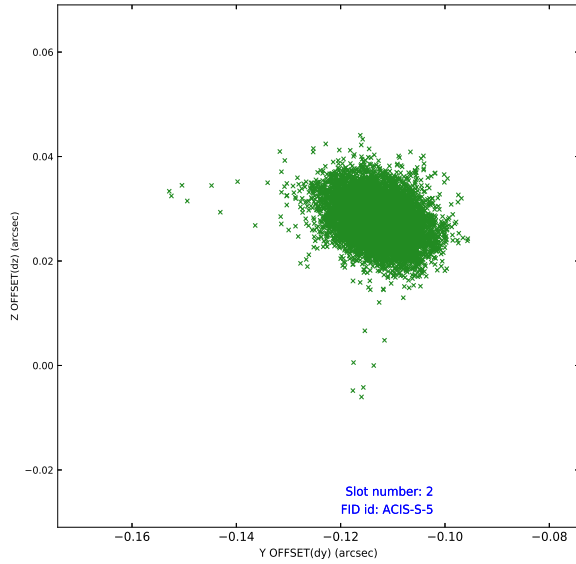
## 2.5.2 Slot 1



Time (s)



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.09.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	38.607

## A.2 Comments

Joint proposal with HST.

Window preference was not met.