

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5931 - L2 Version 4  
Chandra X-Ray Center

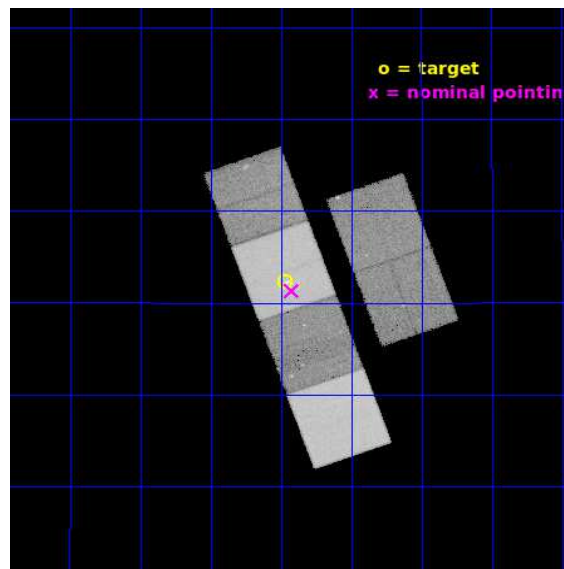
L2 Processing Date : Oct 9 2020

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# 1 Front

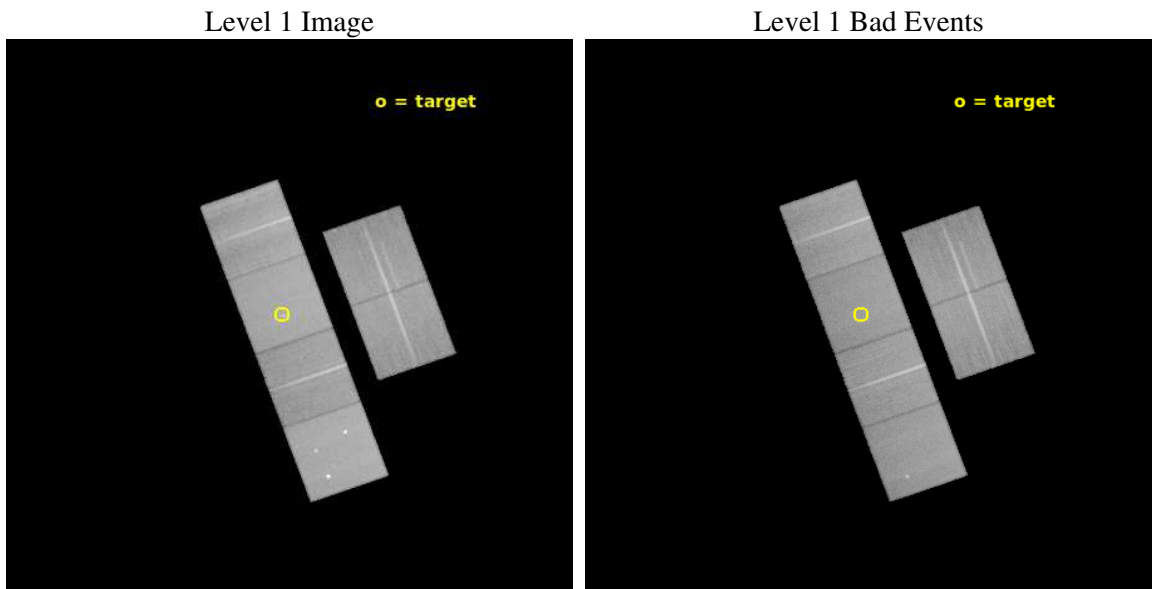
seq_num	600450	Sequence number
obs_id	5931	Observation id
title	X-rays and Galactic Structure	Proposal title
observer	Douglas Swartz	Principal investigator
object	NGC 3351	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	160.991667	Observer's specified target RA [deg]
dec_targ	11.704167	Observer's specified target Dec [deg]
ra_nom	160.98033252303	Nominal RA [deg]
dec_nom	11.688673376984	Nominal Dec [deg]
roll_nom	250.1487307563	Nominal Roll [deg]
revision	4	Processing version of data
ontime	40060.436821163	Sum of GTIs [s]
livetime	39553.167448634	Livetime [s]
ontime2	40060.477851212	Sum of GTIs [s]
ontime3	40060.313691199	Sum of GTIs [s]
ontime5	40060.395801097	Sum of GTIs [s]
ontime6	40060.354731202	Sum of GTIs [s]
ontime7	40060.436821163	Sum of GTIs [s]
ontime8	40057.031690925	Sum of GTIs [s]
l2events	508271	Number of level 2 events



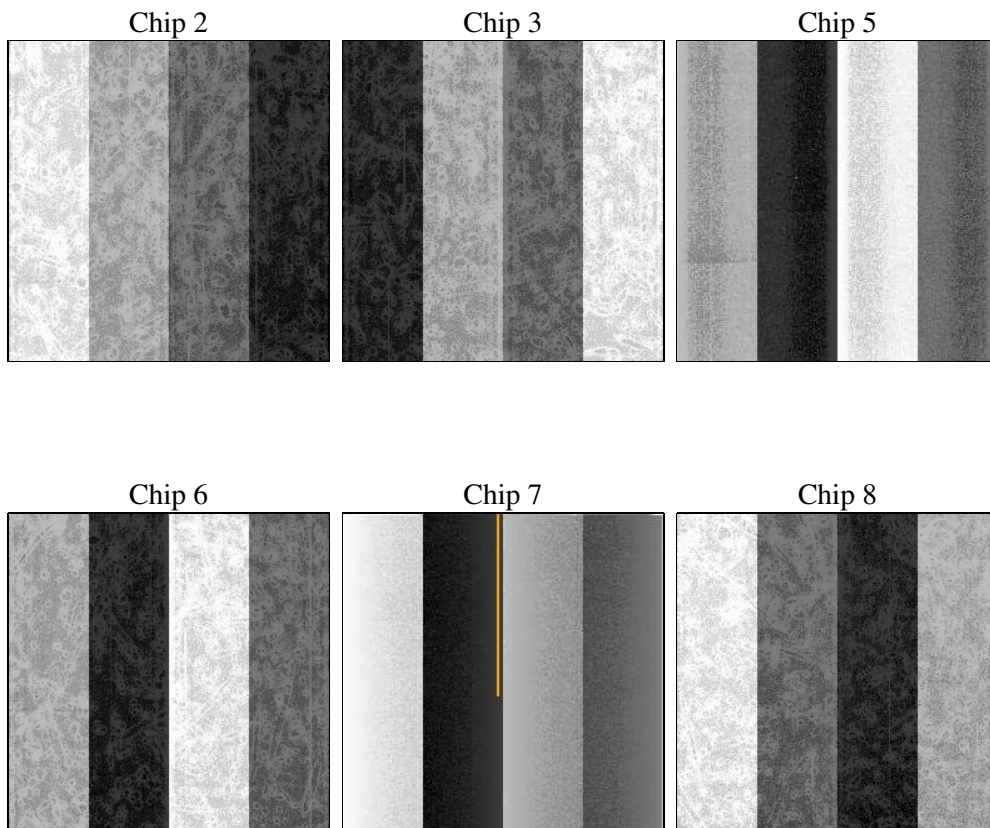
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	40060.436821163	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime2	40060.477851212	Sum of GTIs [s]
date	2020-10-09T08:19:46	Date and time of file creation	ontime3	40060.313691199	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	40060.395801097	Sum of GTIs [s]
			ontime6	40060.354731202	Sum of GTIs [s]
			ontime7	40060.436821163	Sum of GTIs [s]
			ontime8	40057.031690925	Sum of GTIs [s]
			l1events	2256777	Number of level 1 events

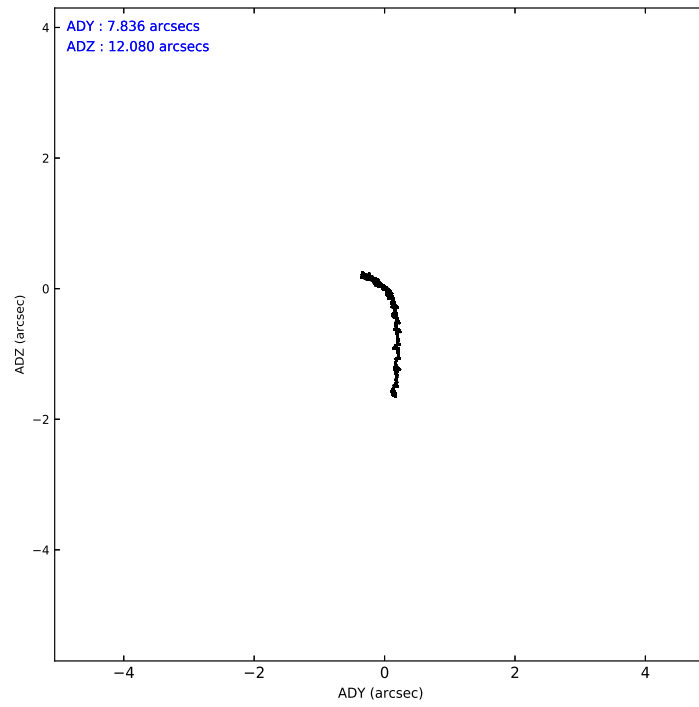
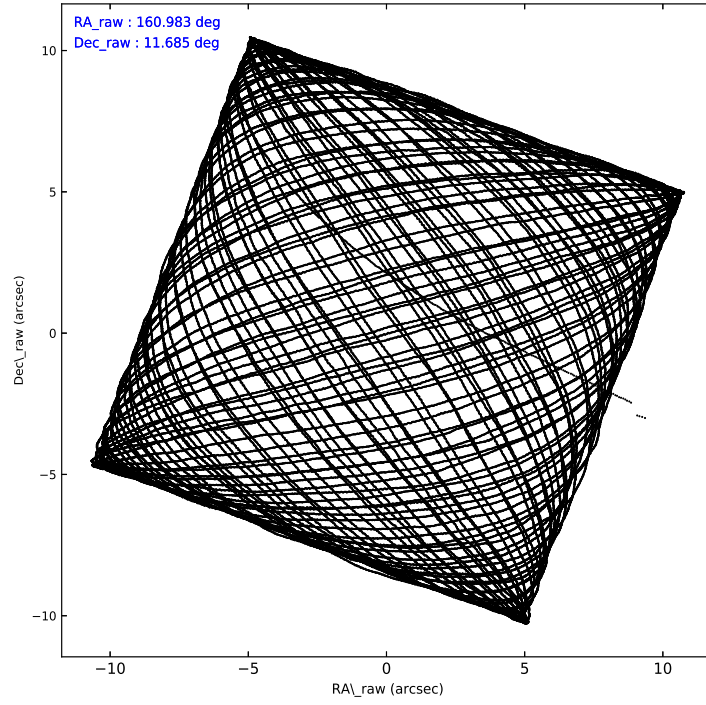
### 2.1.4 Events

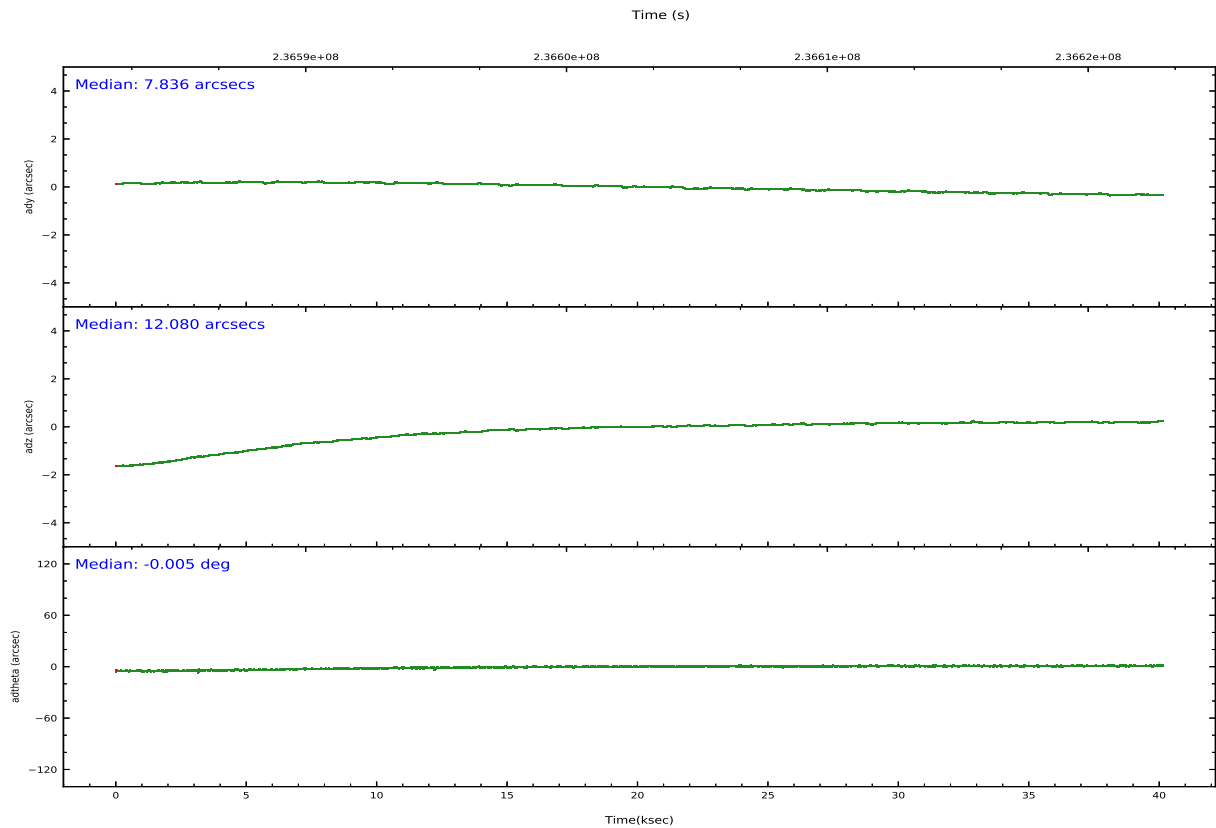
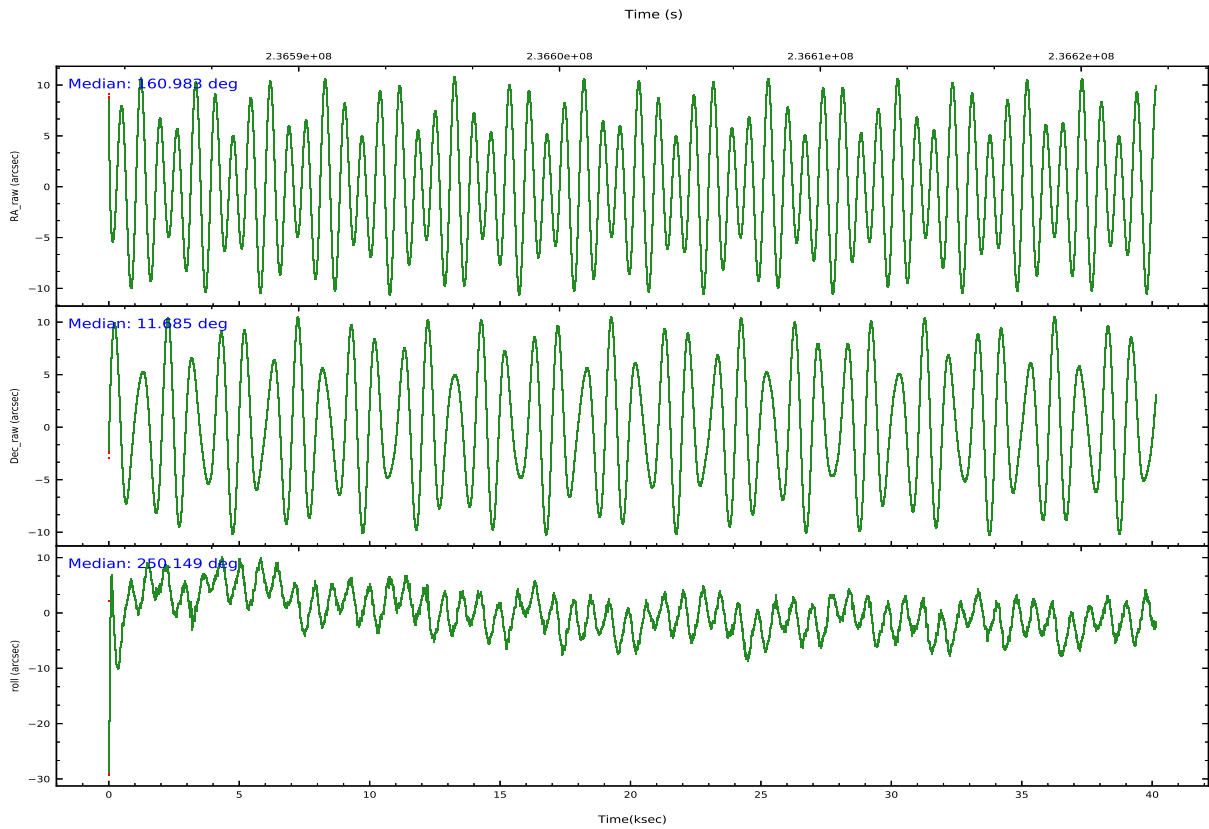
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	322996	301994	483884	319315	431343	397245	grade 0 events	16482	15959	24073	14643	16758	27440
rejected events	285735	265460	259618	281832	252219	311738		5%	5%	4%	4%	3%	6%
rejected %	88%	87%	53%	88%	58%	78%	grade 1 events	181	156	1904	168	397	282
								0%	0%	0%	0%	0%	0%
							grade 2 events	7739	7159	69829	8006	35799	18756
								2%	2%	14%	2%	8%	4%
							grade 3 events	3407	3527	8086	3687	15631	9090
								1%	1%	1%	1%	3%	2%
							grade 4 events	3554	3505	7769	3561	15538	8493
								1%	1%	1%	1%	3%	2%
							grade 5 events	12715	14300	34556	14538	41161	19452
								3%	4%	7%	4%	9%	4%
							grade 6 events	6082	6399	114529	7587	95417	21737
								1%	2%	23%	2%	22%	5%
							grade 7 events	272836	250989	223138	267125	210642	291995
								84%	83%	46%	83%	48%	73%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	160.977561	160.98033252303	Subarray requested	NONE	NONE
[deg] Pointing Dec	11.712035	11.688673376984	Alternating exposures requested	N	N
[deg] Pointing Roll	249.988265	250.1487307563	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	236582873.184000	236581857.74781			
Observation start date	2005-07-01T05:26:49	2005-07-01T05:10:57			
[s] Observation end time (MET)	236622873.184000	236623718.74973			
Observation end date	2005-07-01T16:33:29	2005-07-01T16:48:38			
Read mode	TIMED	TIMED			

## 2.3 Aspect





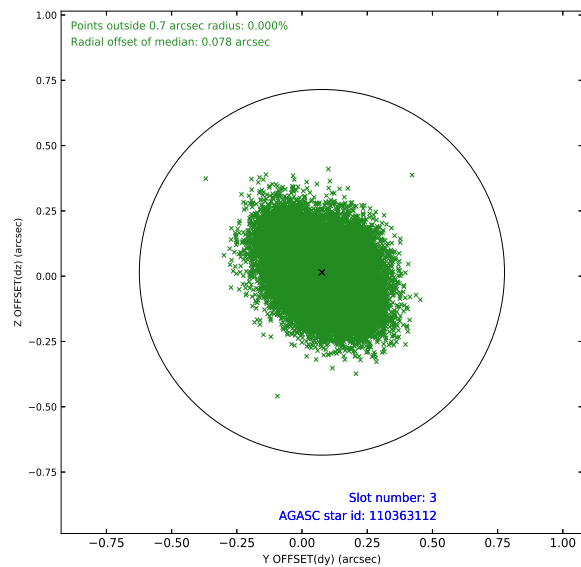
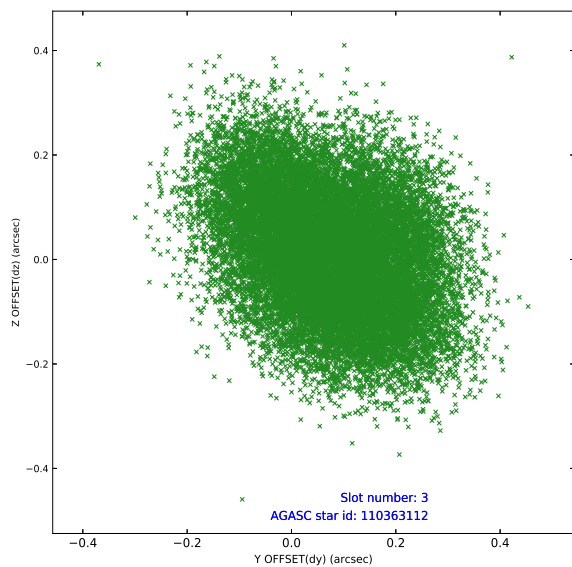
### Slot Statistics

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	9792	1.000	-0.046	-0.061	0.010	0.025	0.000000	0.000000	-760.60	-1733
1	FID		ACIS-S-4	7.20	9793	1.000	0.140	0.039	0.016	0.038	0.000000	0.000000	2152.82	175
2	FID		ACIS-S-5	7.23	9793	1.000	-0.127	0.031	0.015	0.022	0.000000	0.000000	-1813.54	169
3	GUIDE	used	110363112	10.01	19566	1.000	0.076	0.015	0.179	0.273	160.492613	11.398369	1645.95	-1221
4	GUIDE	used	110363240	8.15	19583	1.000	-0.318	-0.273	0.107	0.162	160.564767	12.418075	-1892.32	-2234
5	GUIDE	used	111280632	9.87	19565	1.000	0.084	0.082	0.121	0.195	161.089942	11.335611	1137.96	836
6	GUIDE	used	111281680	10.23	19459	1.000	0.195	0.077	0.164	0.276	161.020105	11.200959	1678.22	771
7	GUIDE	used	111285392	10.15	19541	1.000	-0.033	0.113	0.164	0.259	161.241595	11.515570	345.99	1117

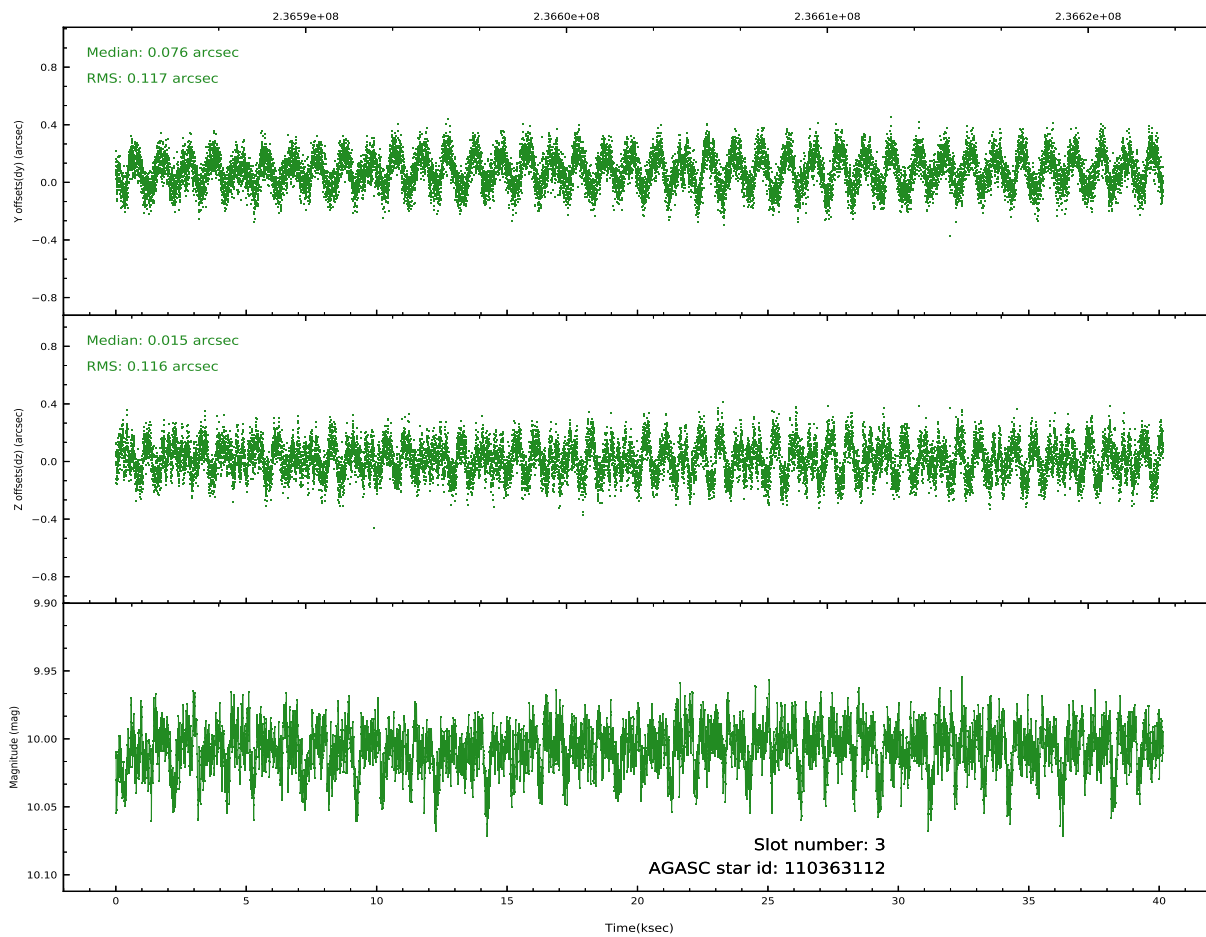
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## 2.4 Star Slots

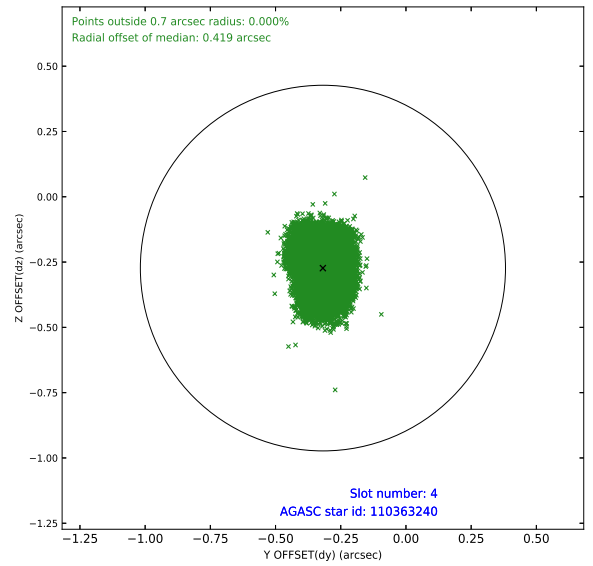
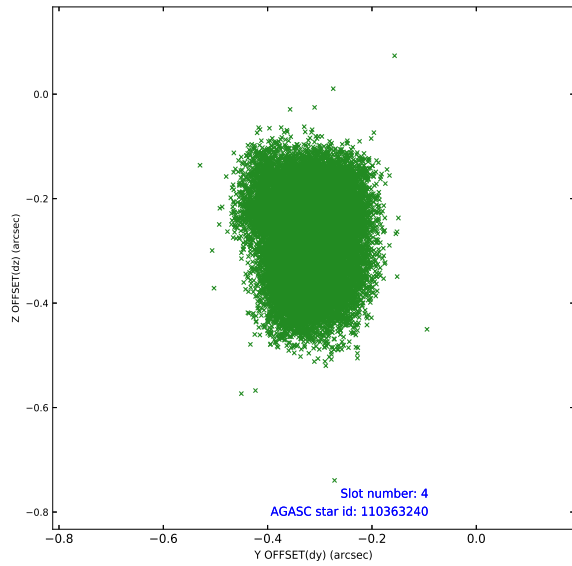
### 2.4.1 Slot 3



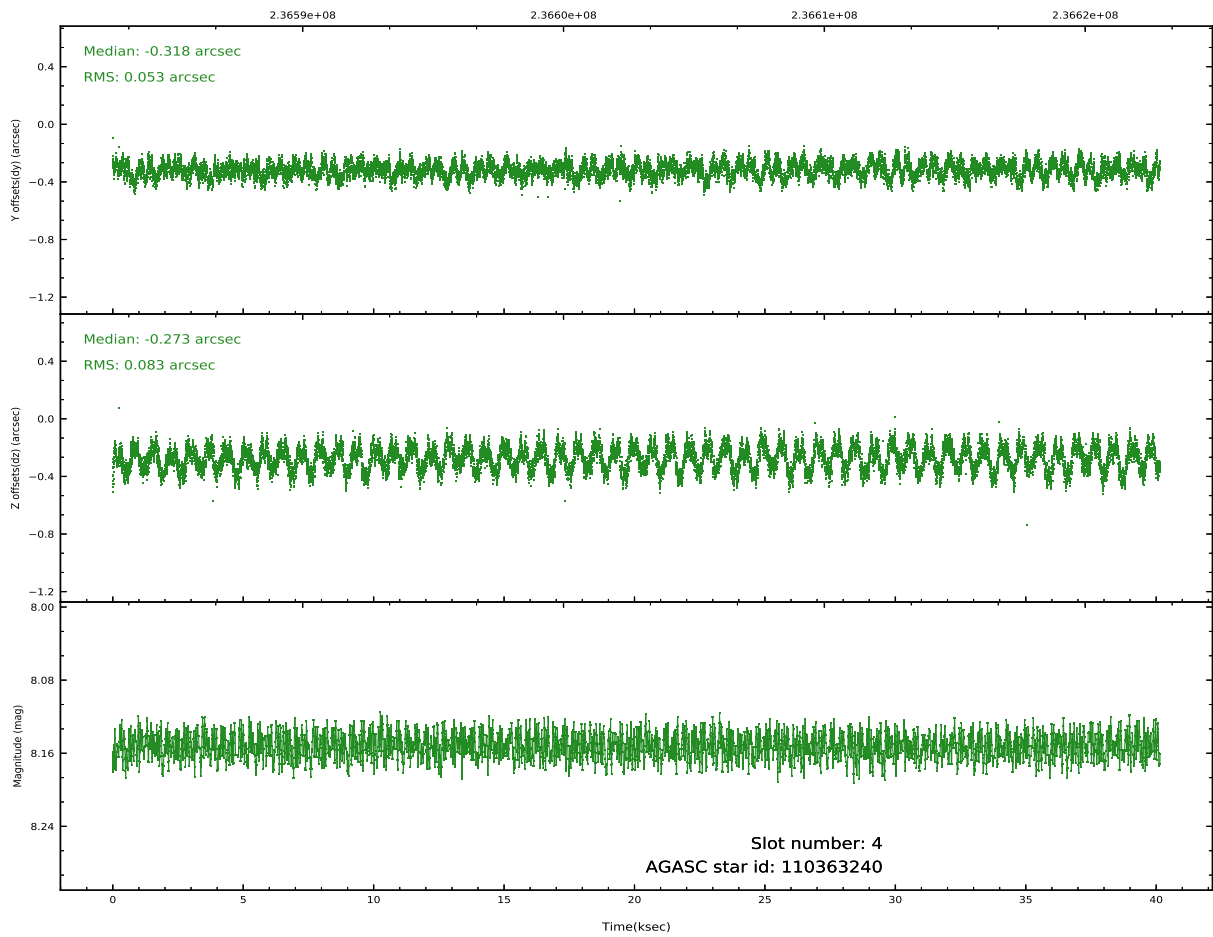
Time (s)



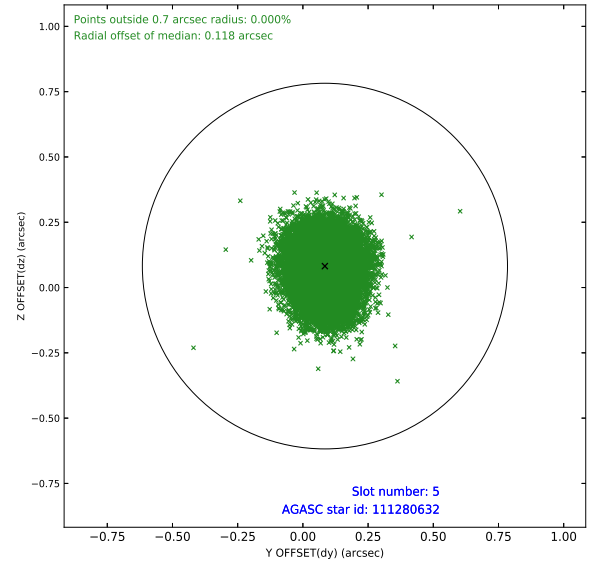
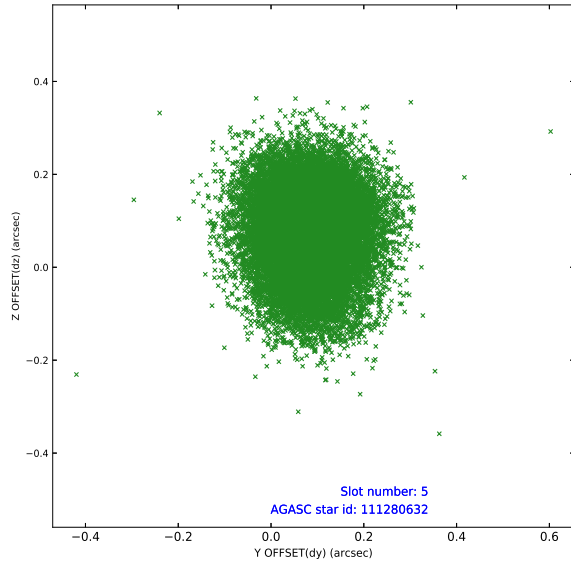
## 2.4.2 Slot 4



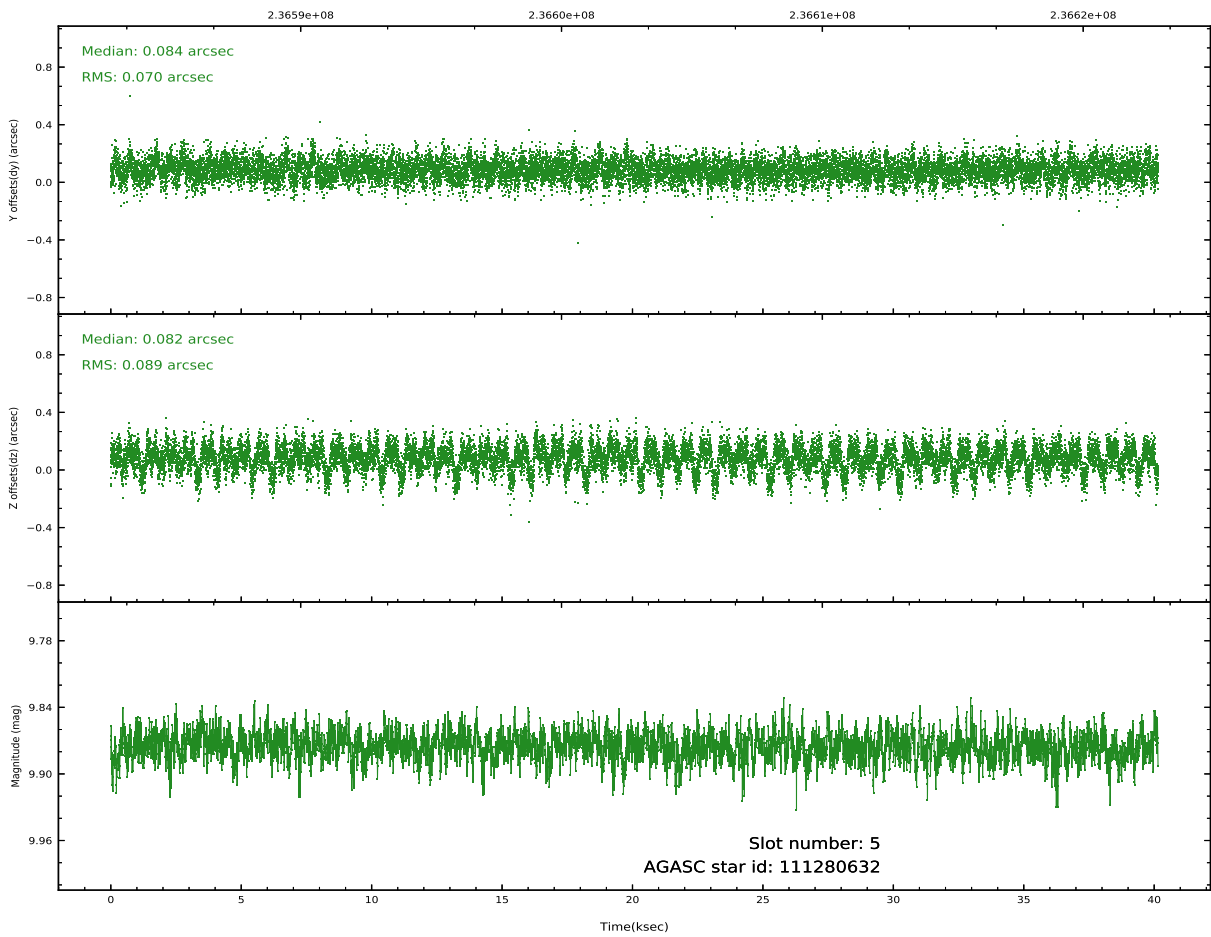
Time (s)



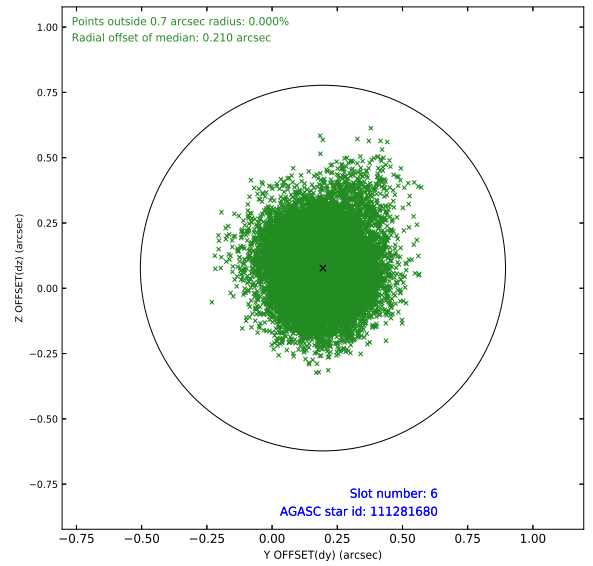
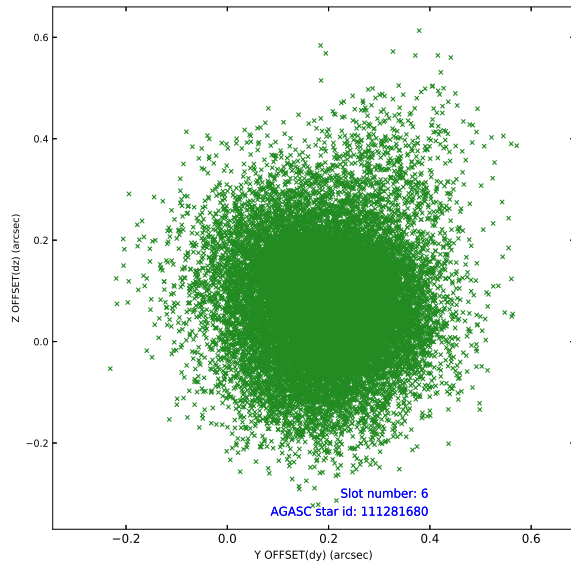
### 2.4.3 Slot 5



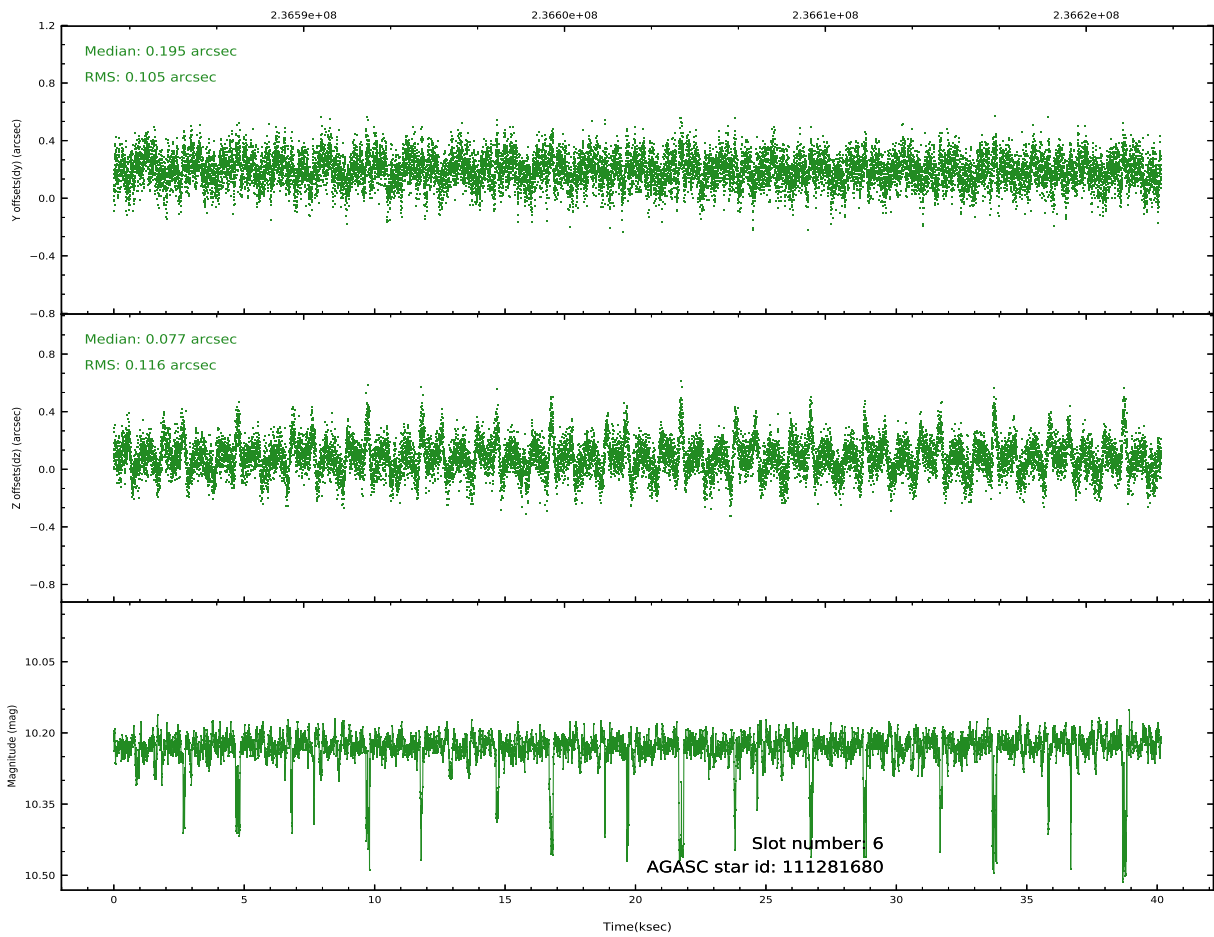
Time (s)



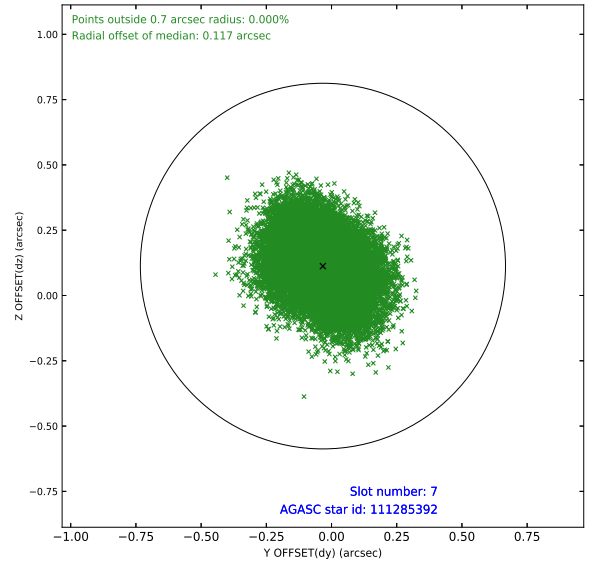
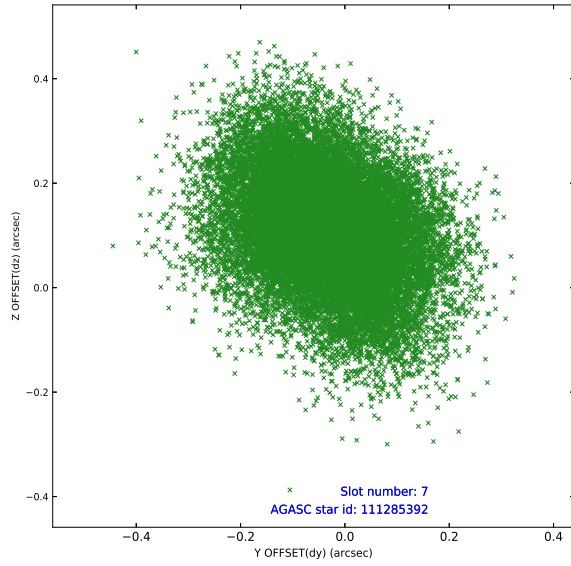
## 2.4.4 Slot 6



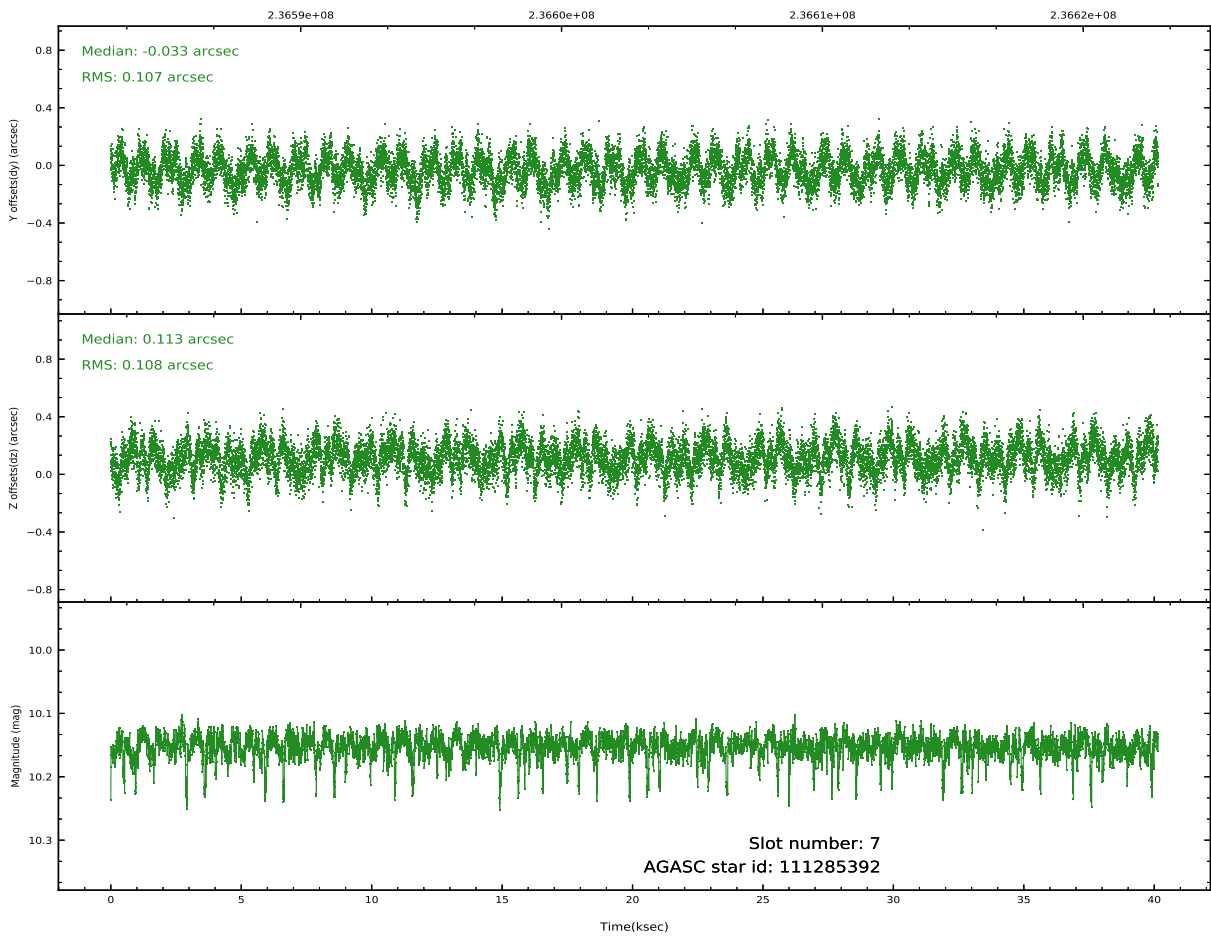
Time (s)



## 2.4.5 Slot 7

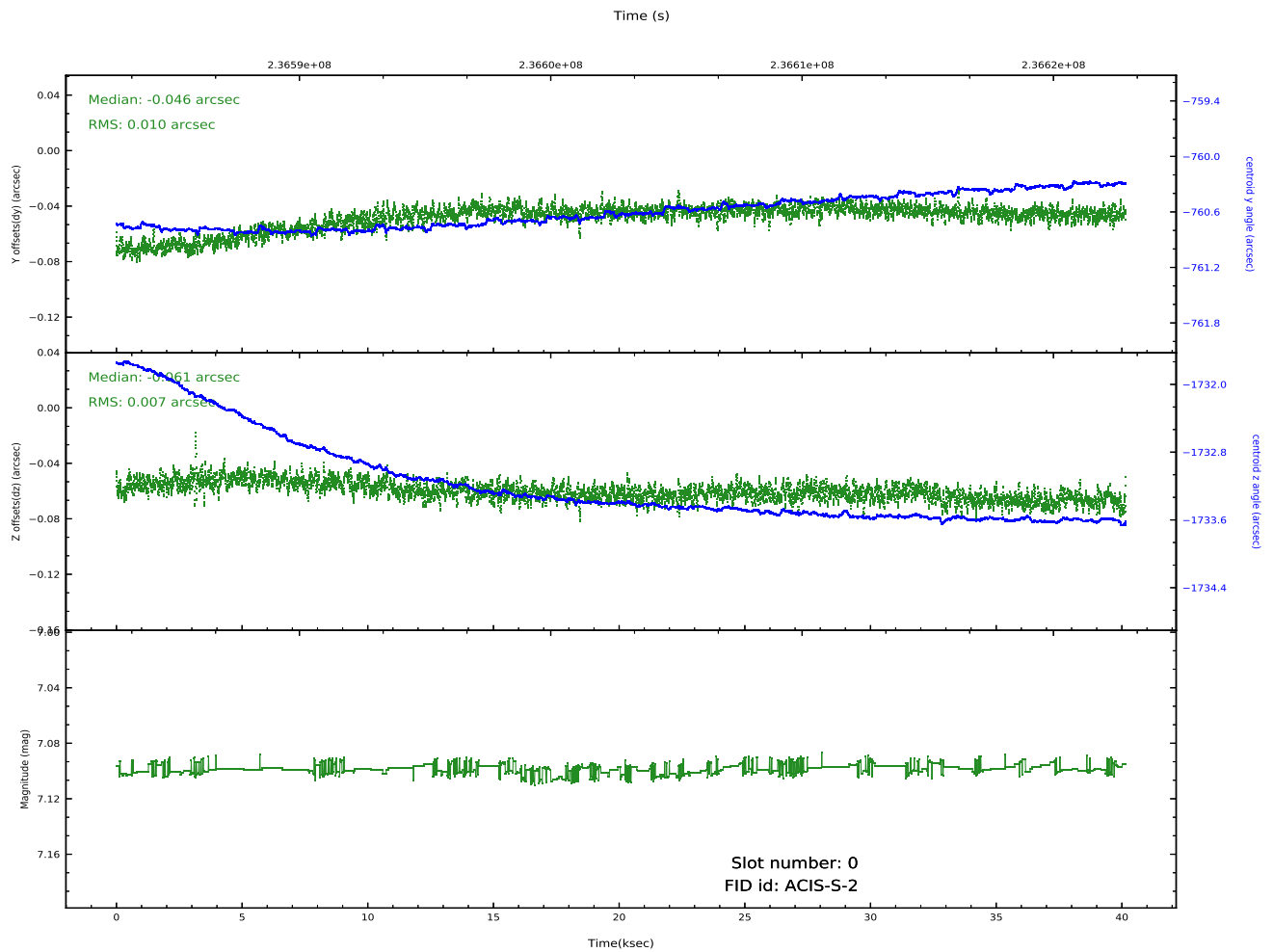
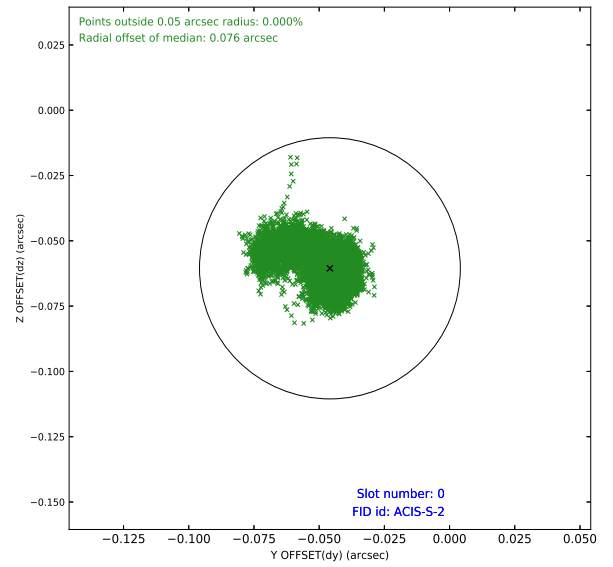
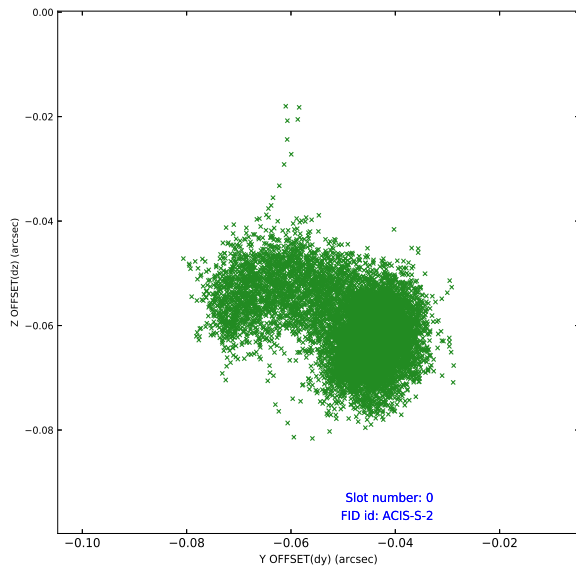


Time (s)

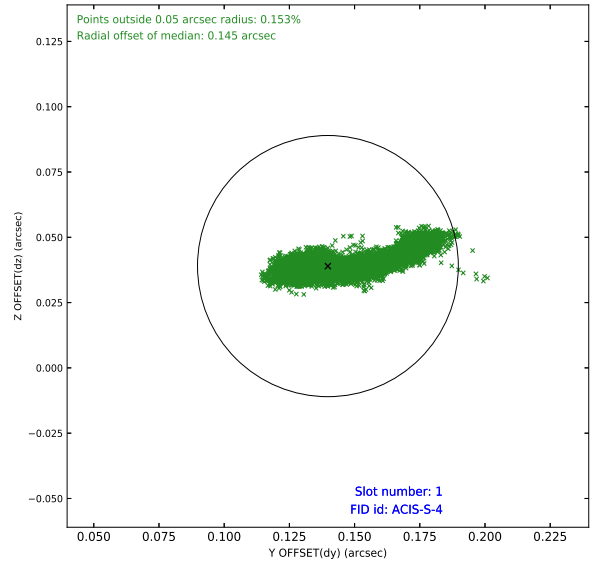
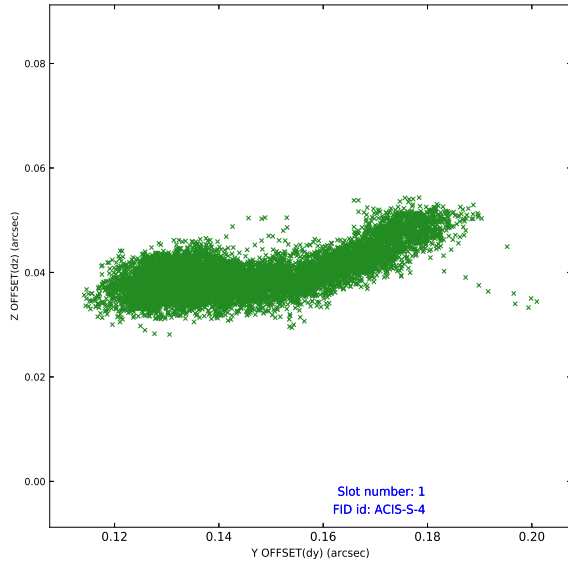


## 2.5 FID Slots

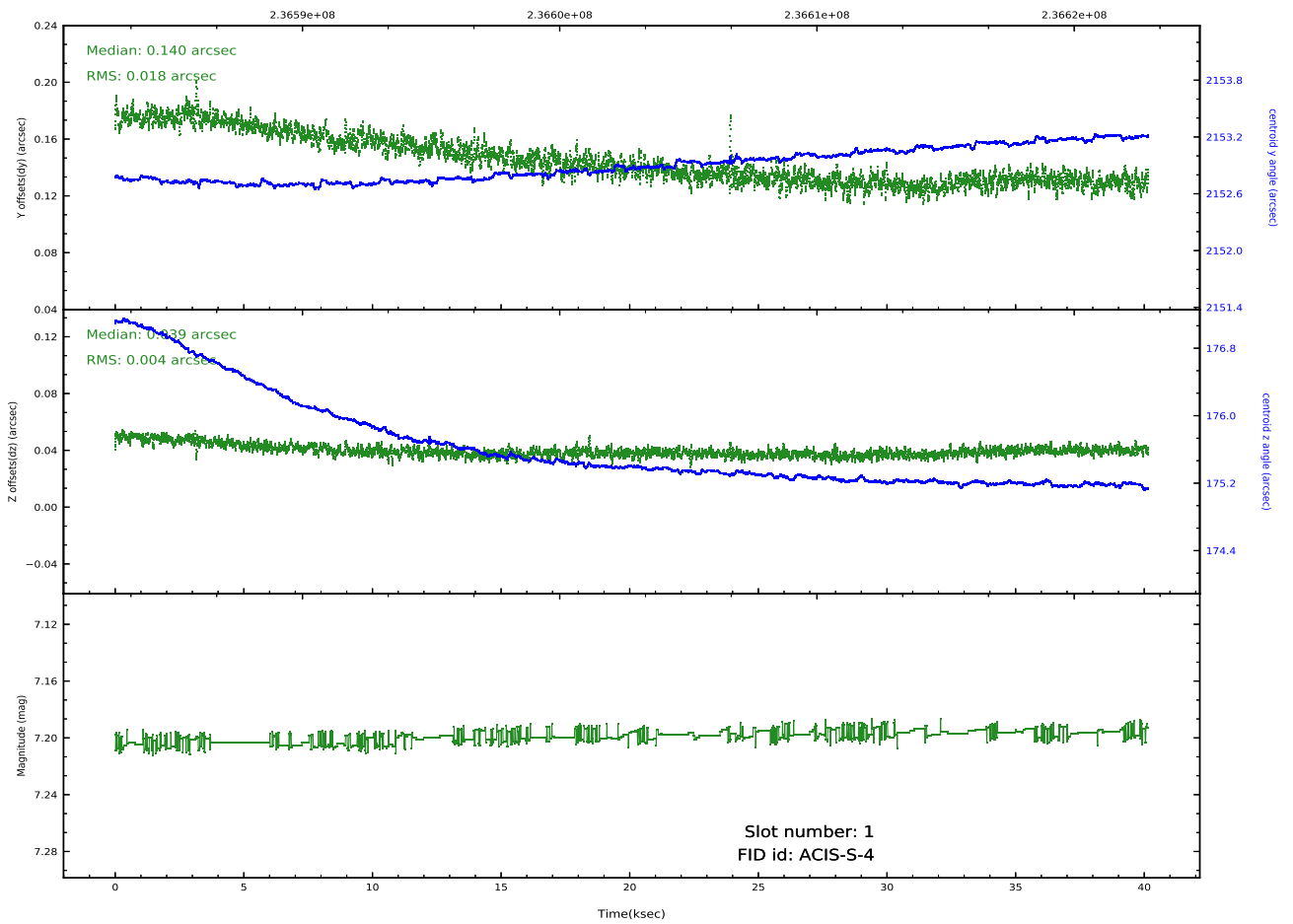
### 2.5.1 Slot 0



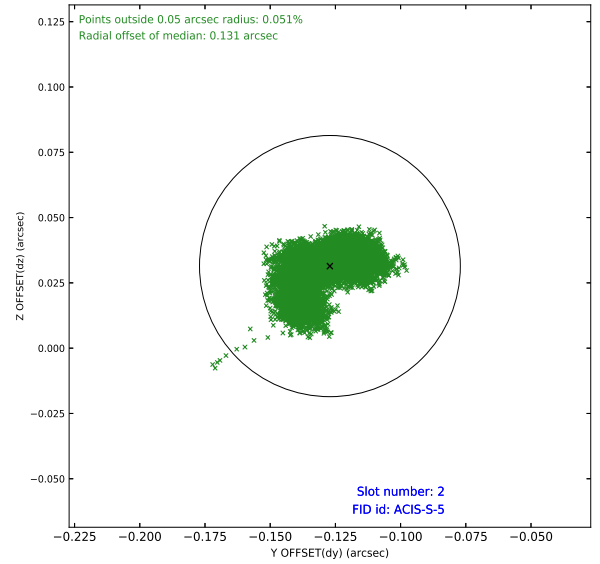
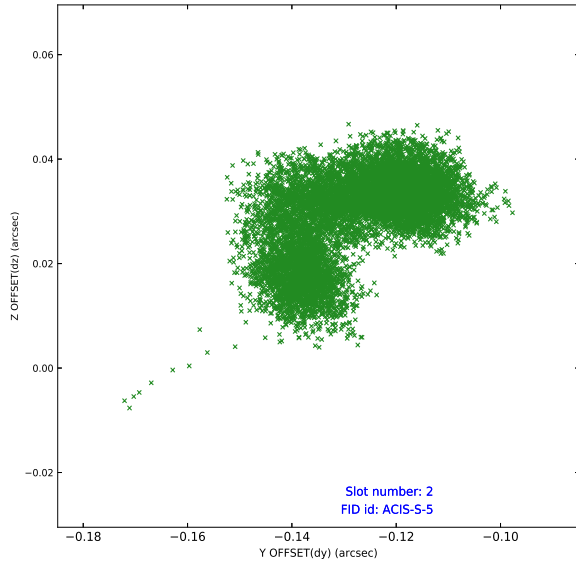
## 2.5.2 Slot 1



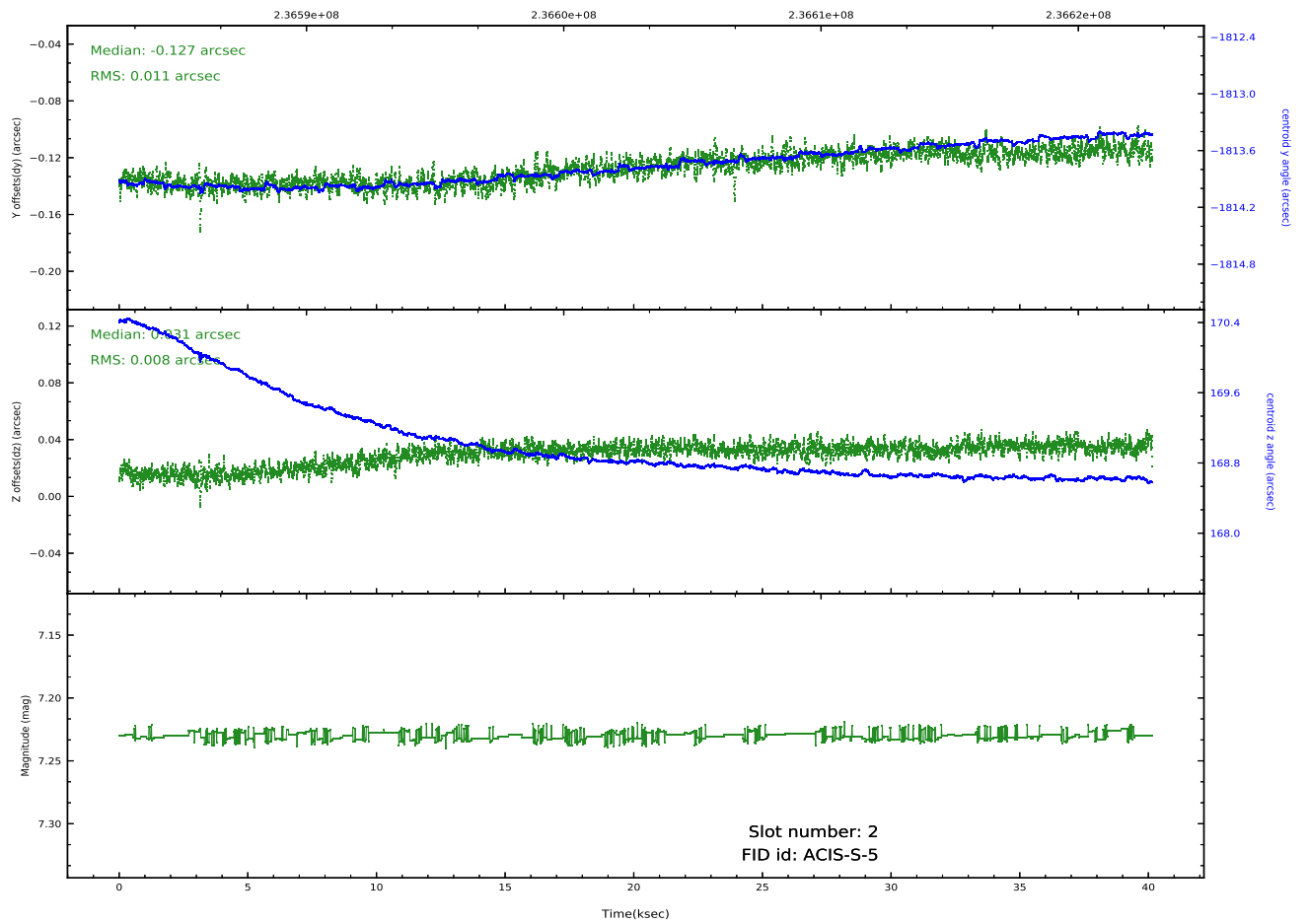
Time (s)



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.06075

## A.2 Comments

Monitor constraint met.