

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5930 - L2 Version 4  
Chandra X-Ray Center

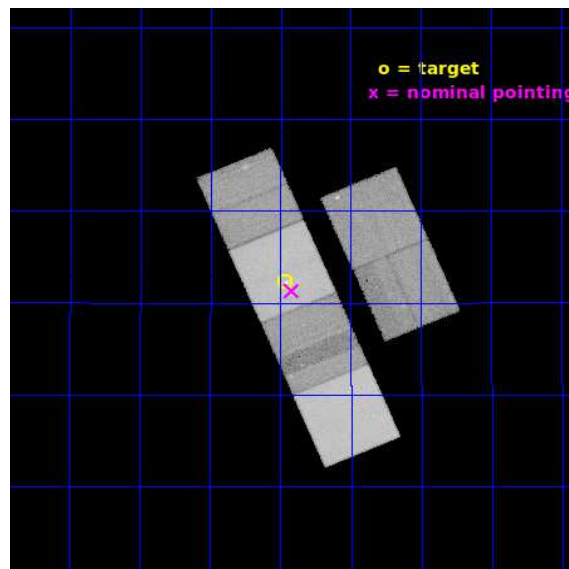
L2 Processing Date : Oct 8 2020

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# 1 Front

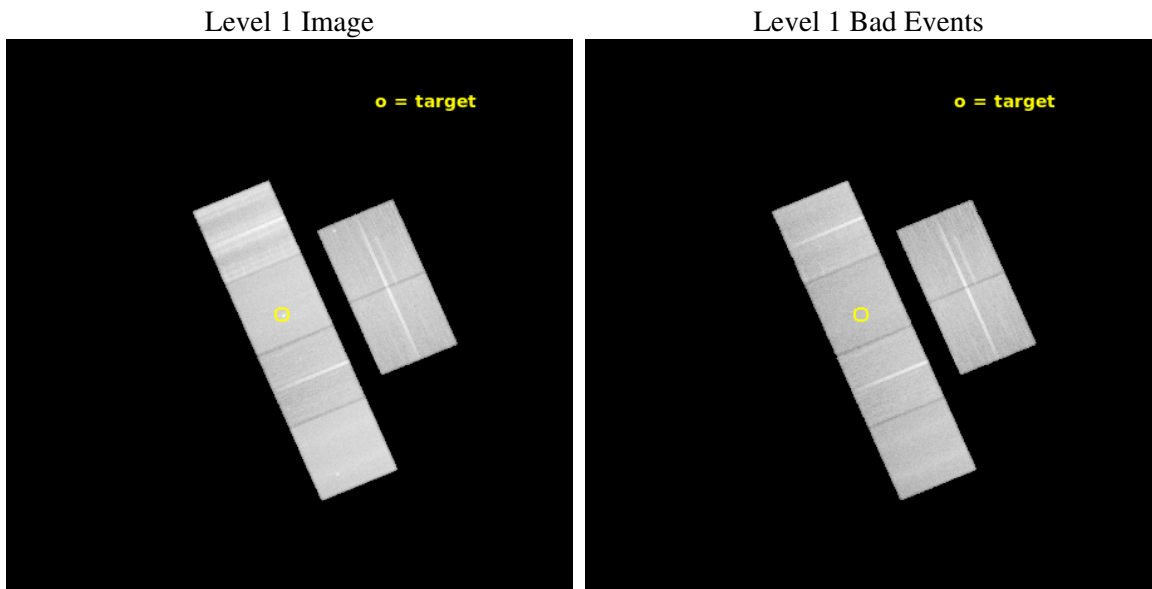
seq_num	600449	Sequence number
obs_id	5930	Observation id
title	X-rays and Galactic Structure	Proposal title
observer	Douglas Swartz	Principal investigator
object	NGC 3351	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	160.991667	Observer's specified target RA [deg]
dec_targ	11.704167	Observer's specified target Dec [deg]
ra_nom	160.97988410864	Nominal RA [deg]
dec_nom	11.688700700382	Nominal Dec [deg]
roll_nom	246.80096565472	Nominal Roll [deg]
revision	4	Processing version of data
ontime	39955.199851155	Sum of GTIs [s]
livetime	39449.263052507	Livetime [s]
ontime2	39948.717930406	Sum of GTIs [s]
ontime3	39951.958880872	Sum of GTIs [s]
ontime5	39955.199851155	Sum of GTIs [s]
ontime6	39955.199851155	Sum of GTIs [s]
ontime7	39955.199851155	Sum of GTIs [s]
ontime8	39955.199851155	Sum of GTIs [s]
l2events	588967	Number of level 2 events



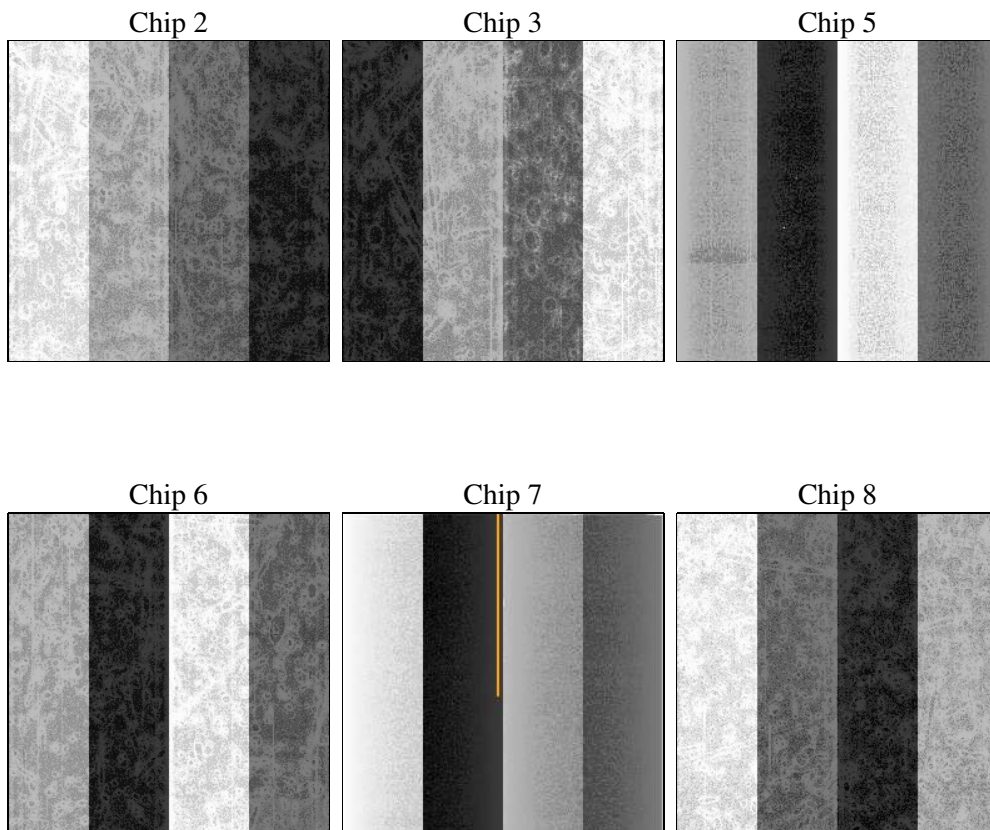
## 2 OBI

### 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	39955.199851155	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime2	39948.717930406	Sum of GTIs [s]
date	2020-10-08T07:33:31	Date and time of file creation	ontime3	39951.958880872	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	39955.199851155	Sum of GTIs [s]
			ontime6	39955.199851155	Sum of GTIs [s]
			ontime7	39955.199851155	Sum of GTIs [s]
			ontime8	39955.199851155	Sum of GTIs [s]
			l1events	2375229	Number of level 1 events

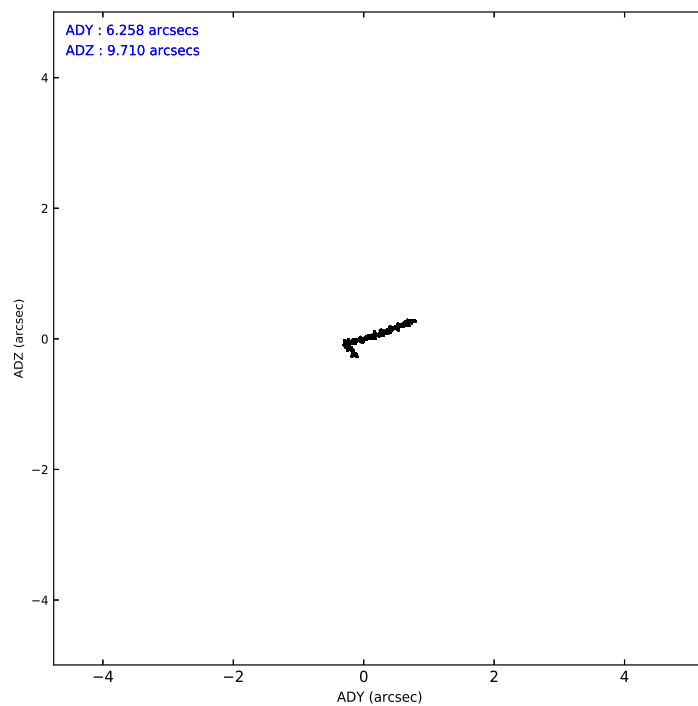
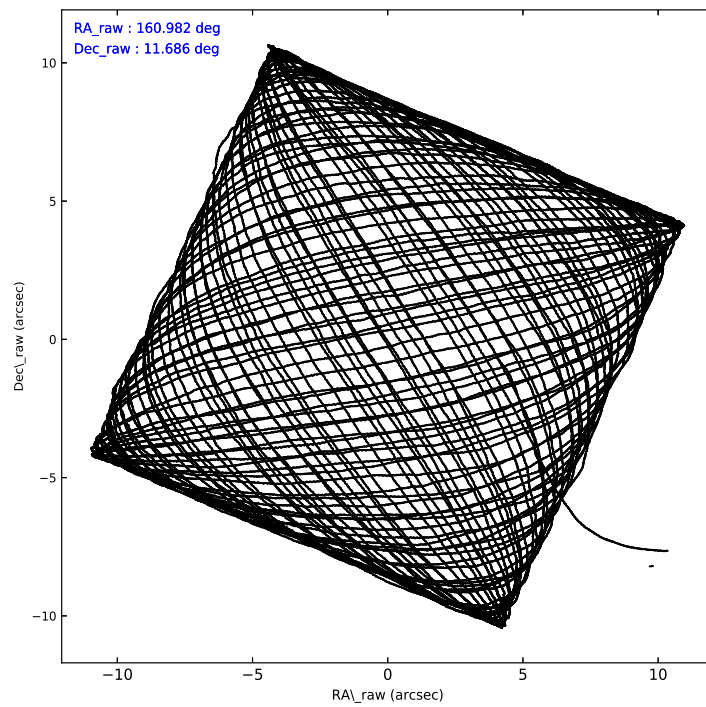
### 2.1.4 Events

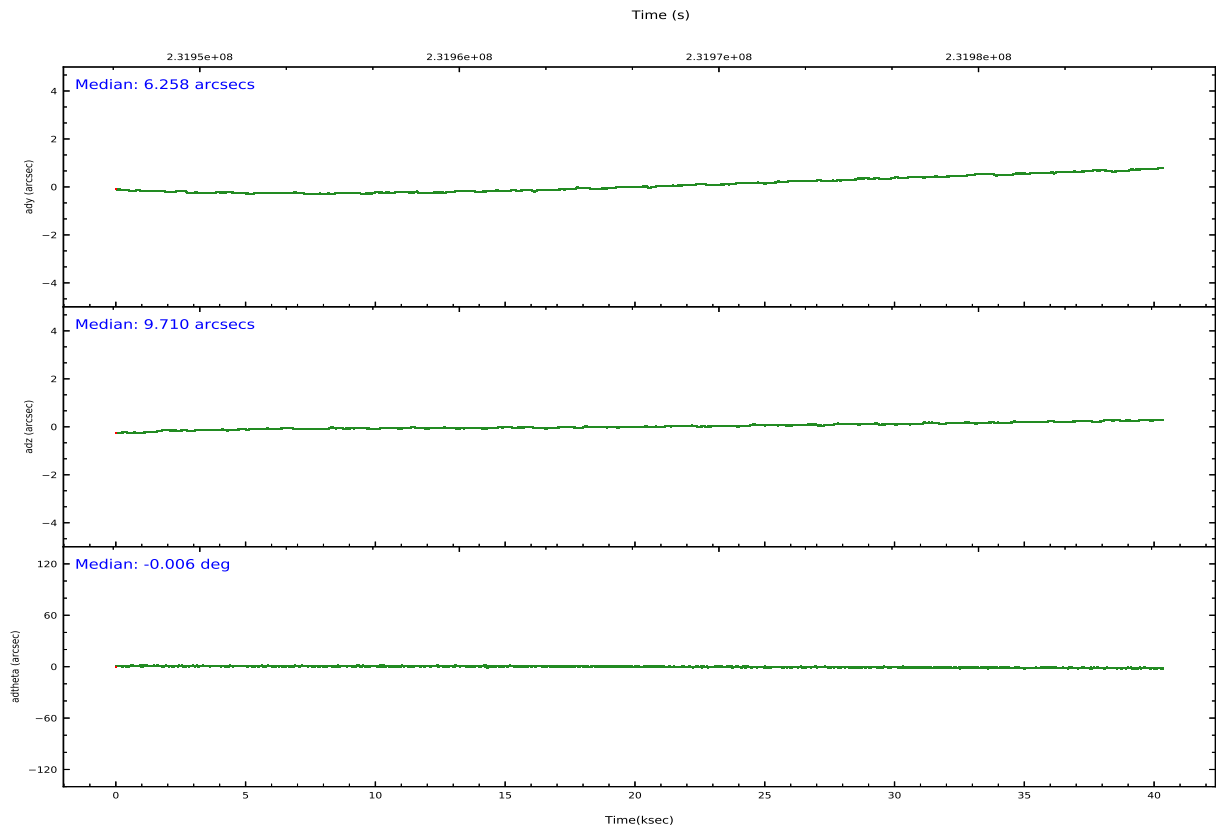
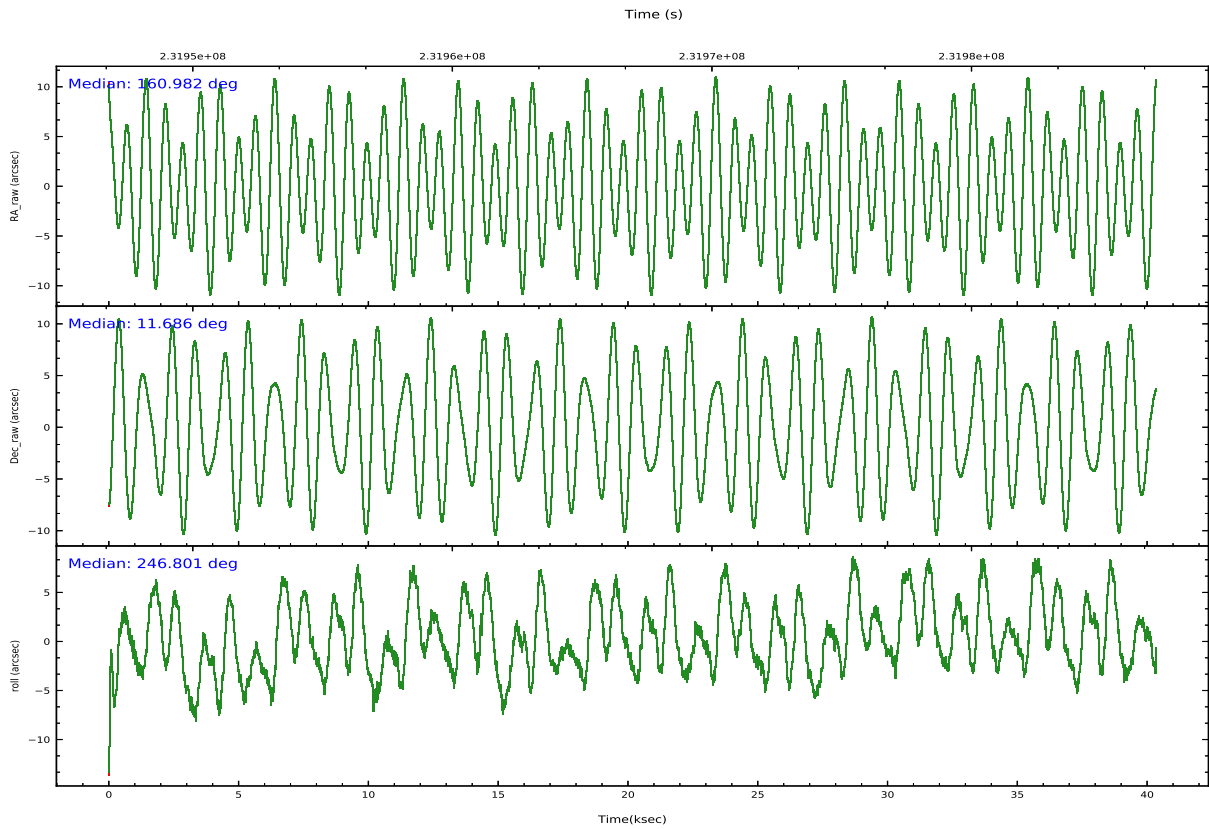
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	330841	318565	451599	335673	410923	527628	grade 0 events	25812	24447	13660	24528	16467	84347
rejected events	272660	258073	248499	273910	232723	308939		7%	7%	3%	7%	4%	15%
rejected %	82%	81%	55%	81%	56%	58%	grade 1 events	236	208	886	195	461	729
								0%	0%	0%	0%	0%	0%
							grade 2 events	14099	17708	62472	18720	36022	33627
								4%	5%	13%	5%	8%	6%
							grade 3 events	3416	3492	9196	3651	15475	33844
								1%	1%	2%	1%	3%	6%
							grade 4 events	4146	3707	8759	3539	15449	30218
								1%	1%	1%	1%	3%	5%
							grade 5 events	11439	12753	32045	13379	37360	18179
								3%	4%	7%	3%	9%	3%
							grade 6 events	10712	11152	109041	11333	94798	36665
								3%	3%	24%	3%	23%	6%
							grade 7 events	260981	245098	215540	260328	194891	290019
								78%	76%	47%	77%	47%	54%

## 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	160.978055	160.97988410864	Subarray requested	NONE	NONE
[deg] Pointing Dec	11.712821	11.688700700382	Alternating exposures requested	N	N
[deg] Pointing Roll	246.642348	246.80096565472	[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	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	231947113.184000	231946073.12386			
Observation start date	2005-05-08T13:44:09	2005-05-08T13:27:53			
[s] Observation end time (MET)	231987113.184000	231987610.73825			
Observation end date	2005-05-09T00:50:49	2005-05-09T01:00:10			
Read mode	TIMED	TIMED			

## 2.3 Aspect



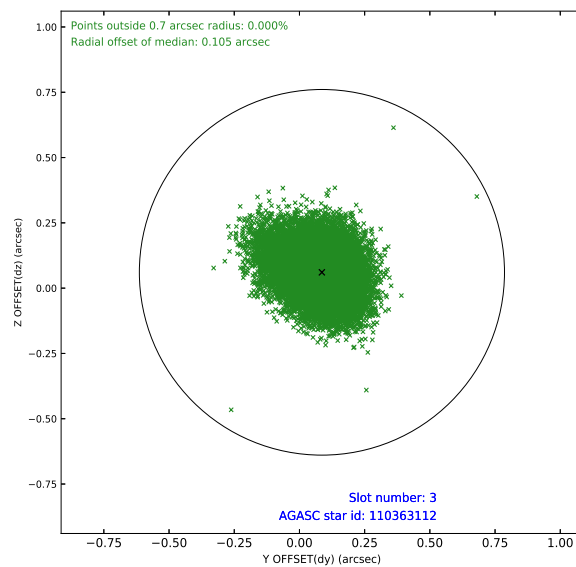
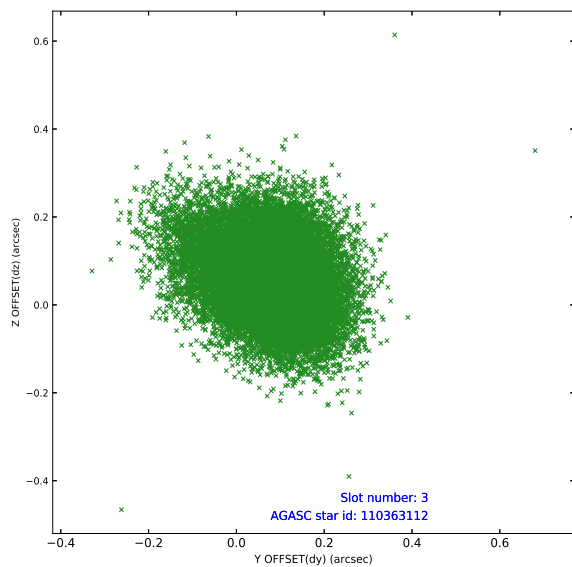


### Slot Statistics

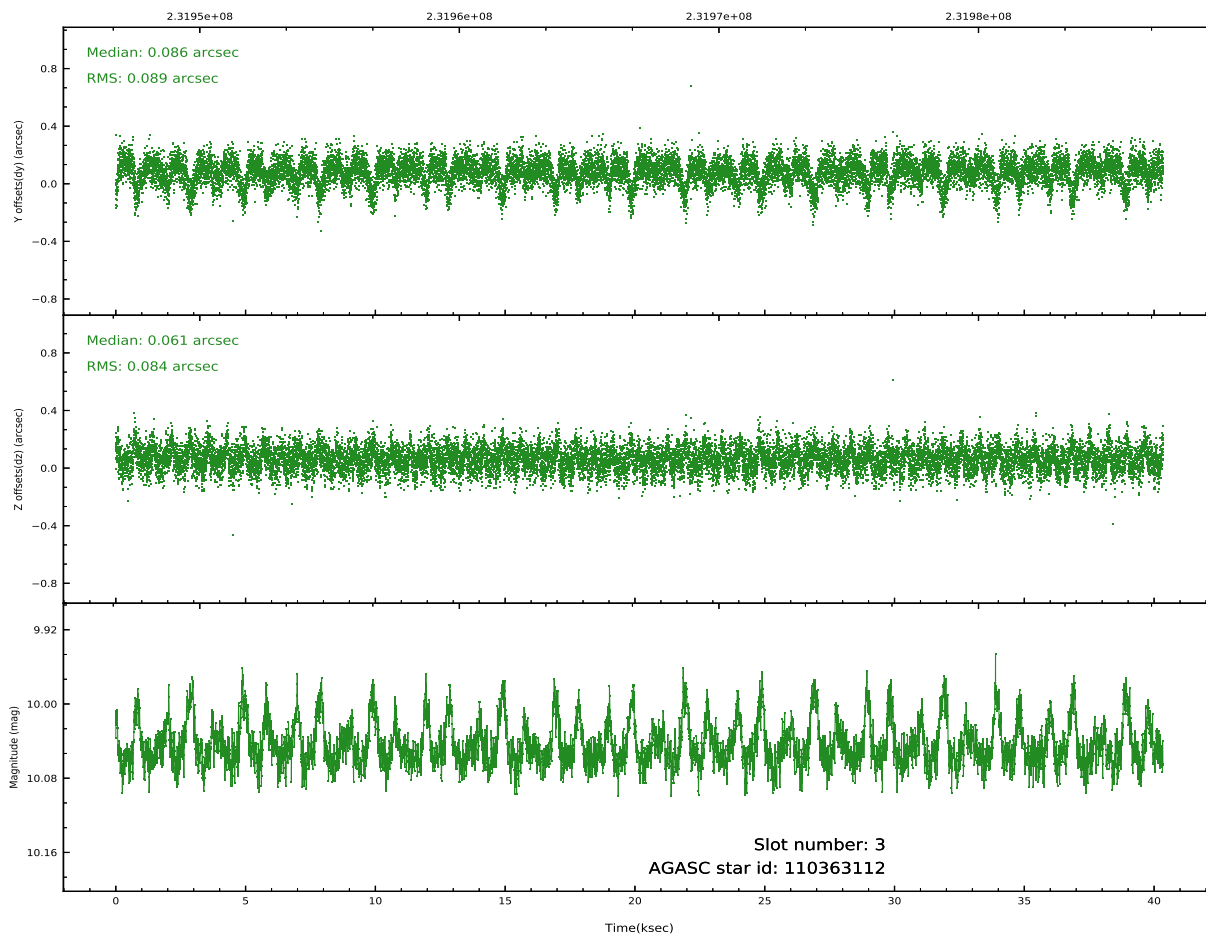
slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-2	7.10	9842	1.000	-0.094	-0.072	0.008	0.013	0.000000	0.000000	-759.13	-1731
1	FID		ACIS-S-4	7.21	9841	1.000	0.165	0.064	0.008	0.014	0.000000	0.000000	2154.35	177
2	FID		ACIS-S-5	7.23	9840	1.000	-0.103	0.016	0.007	0.012	0.000000	0.000000	-1812.02	171
3	GUIDE	used	110363112	10.05	19646	1.000	0.086	0.061	0.127	0.216	160.492613	11.398369	1717.83	-1124
4	GUIDE	used	110363240	8.14	19681	1.000	-0.252	-0.221	0.095	0.151	160.564767	12.418075	-1755.24	-2341
5	GUIDE	used	110365200	9.27	19669	1.000	-0.279	-0.200	0.086	0.137	160.778767	12.493533	-2302.45	-1758
6	GUIDE	used	111280632	9.86	19636	1.000	0.110	0.290	0.152	0.241	161.089942	11.335611	1090.49	901
7	GUIDE	used	111281680	10.23	19657	1.000	0.343	0.075	0.171	0.280	161.020105	11.200959	1633.76	867

## 2.4 Star Slots

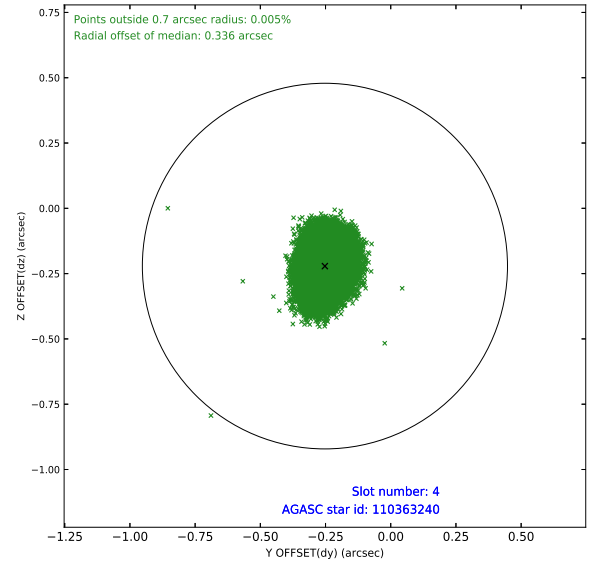
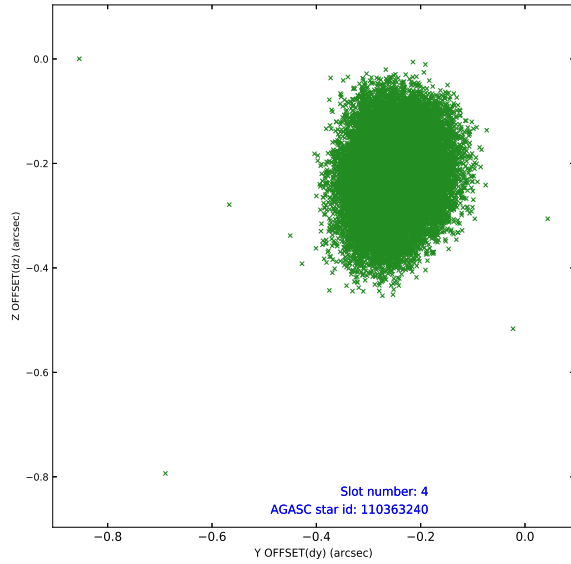
### 2.4.1 Slot 3



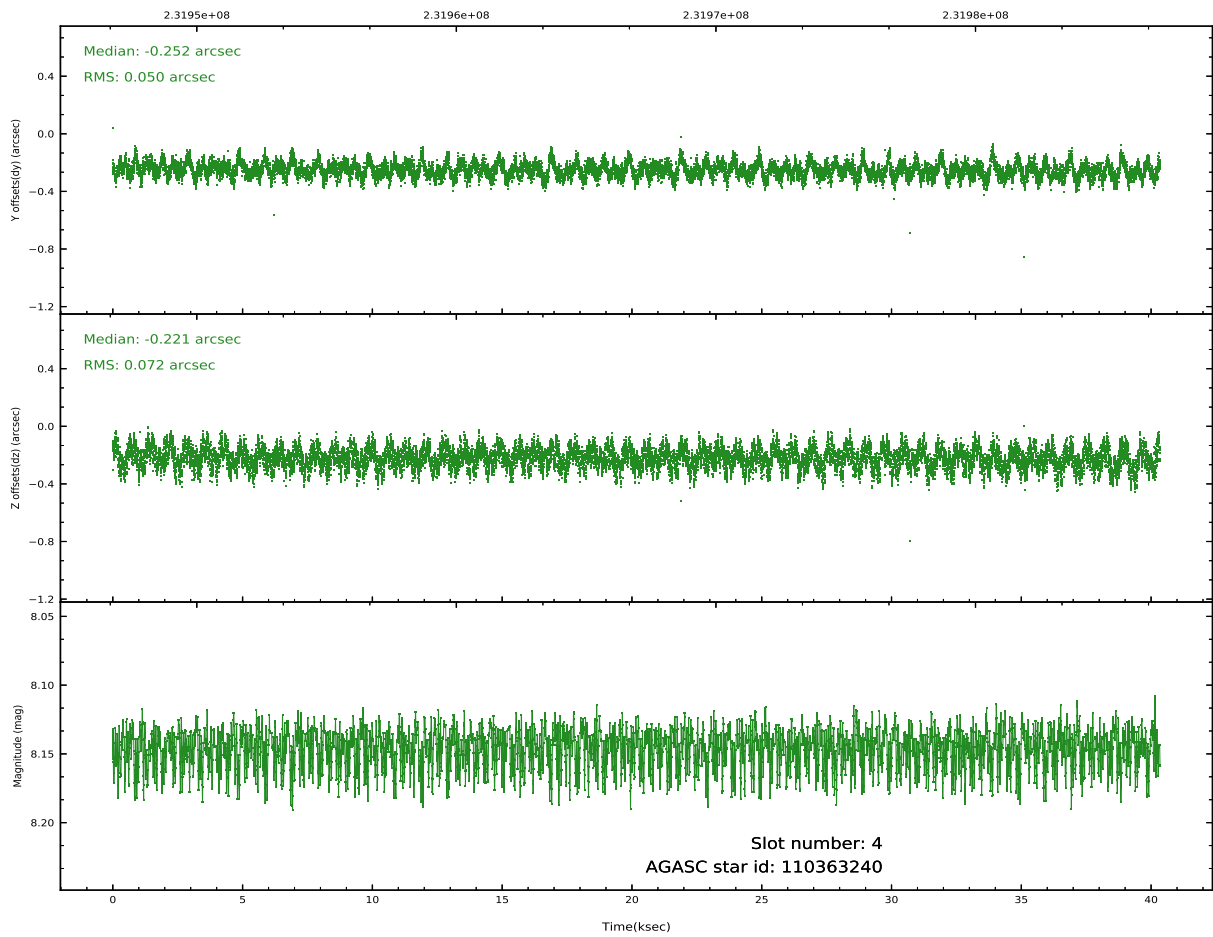
Time (s)



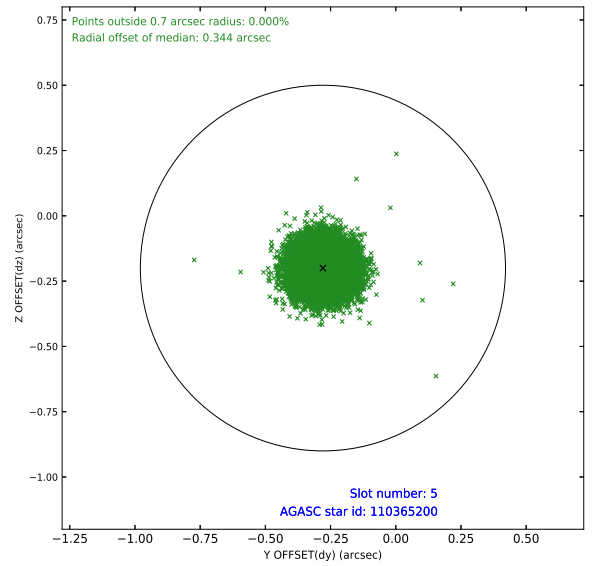
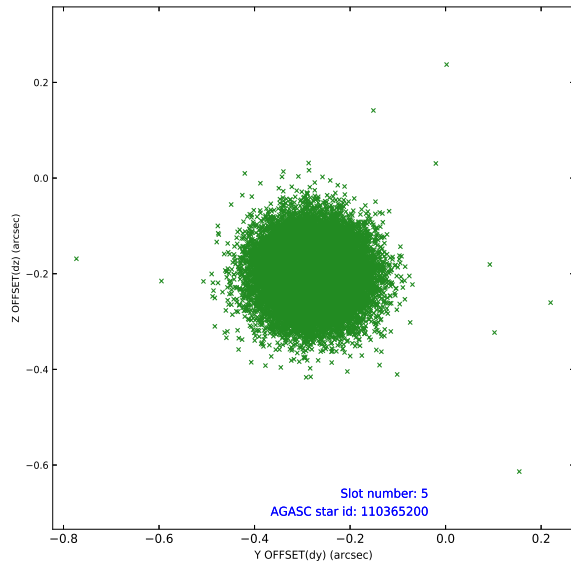
## 2.4.2 Slot 4



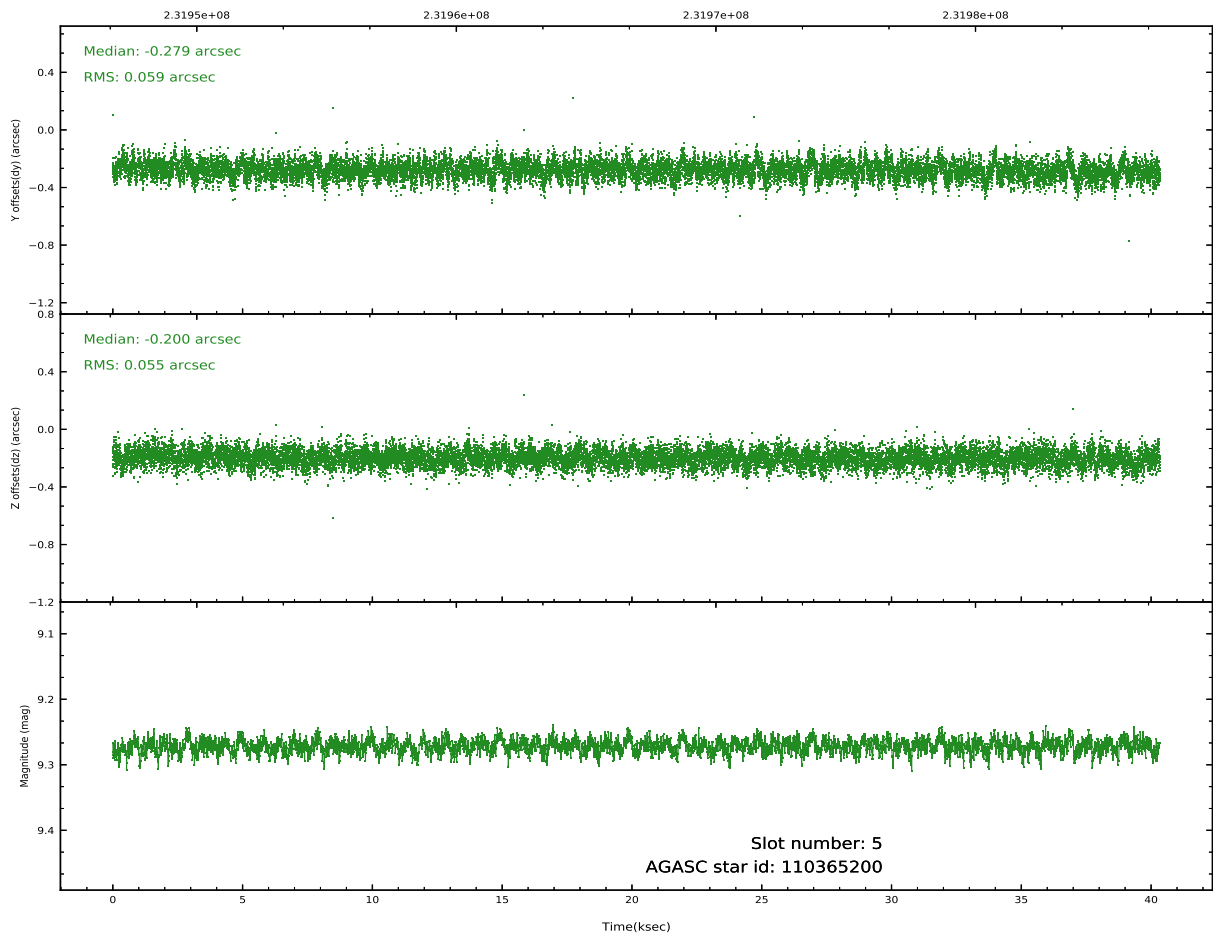
Time (s)



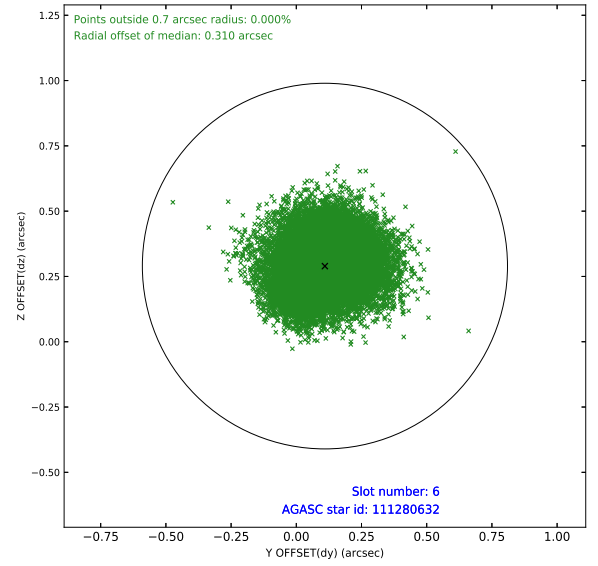
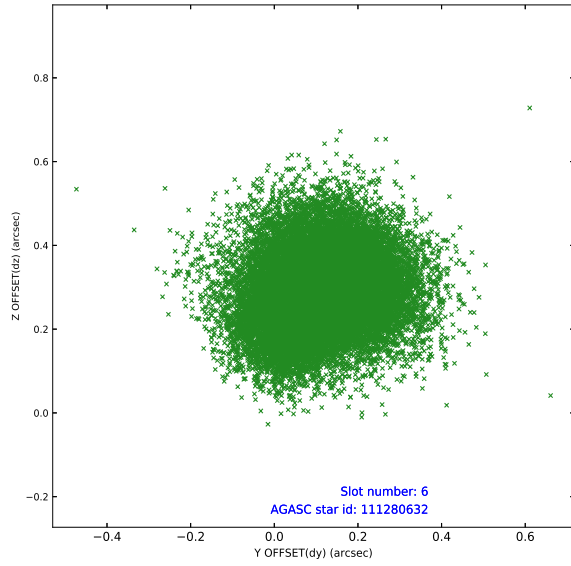
### 2.4.3 Slot 5



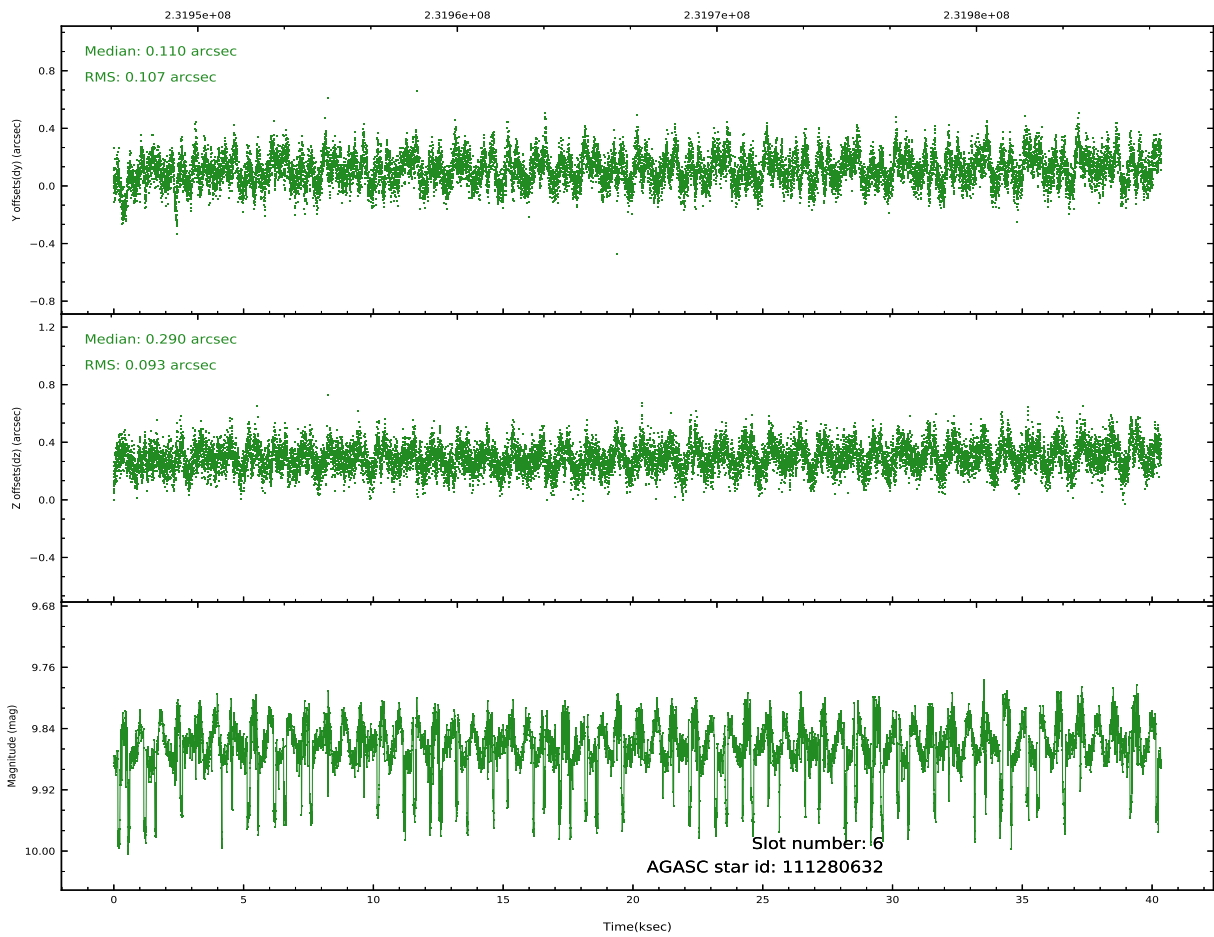
Time (s)



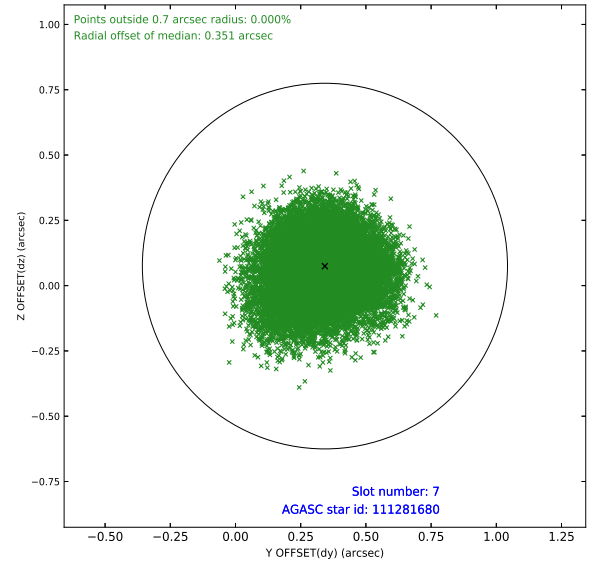
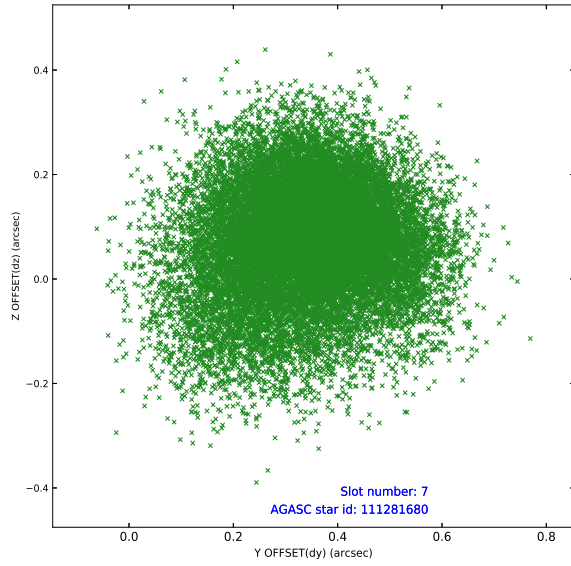
## 2.4.4 Slot 6



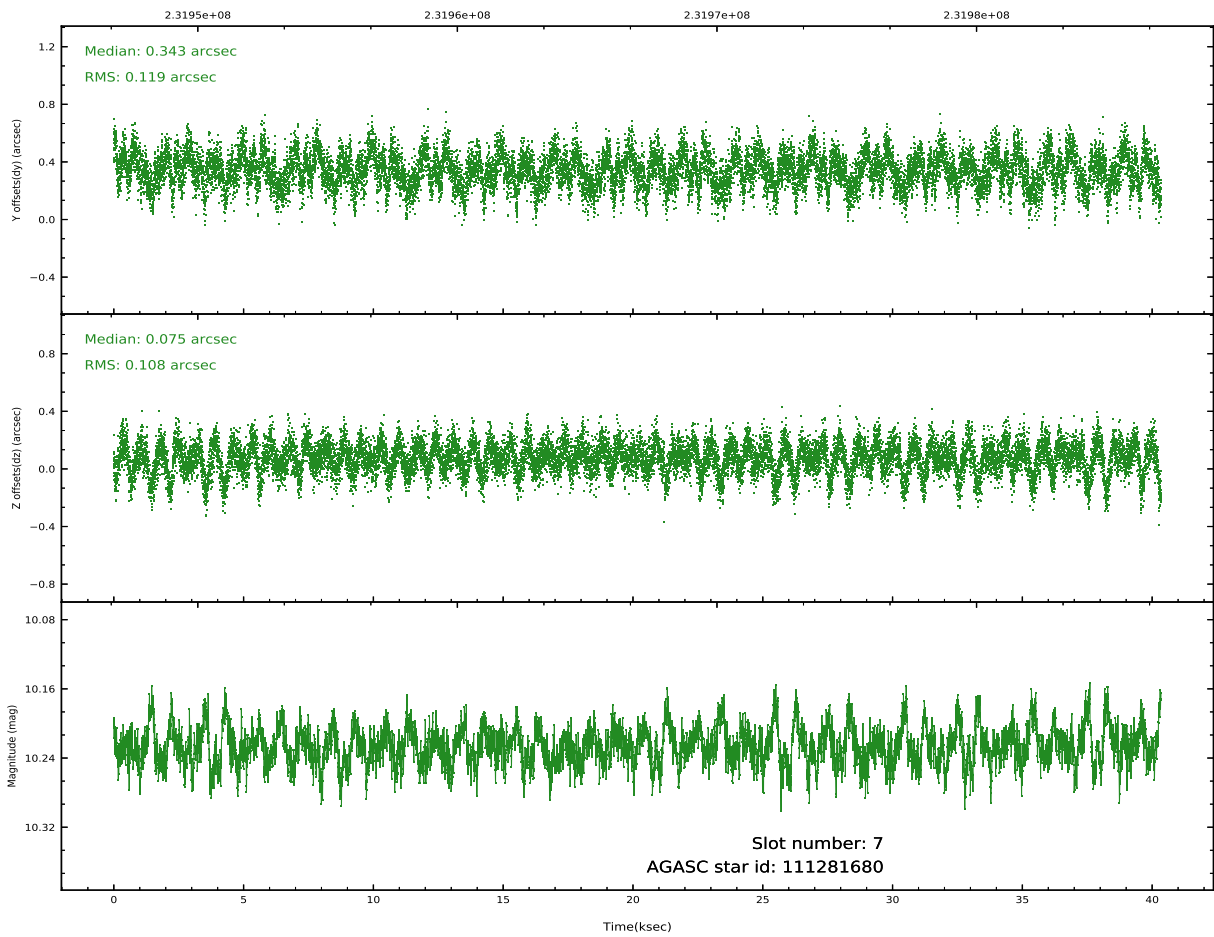
Time (s)



## 2.4.5 Slot 7

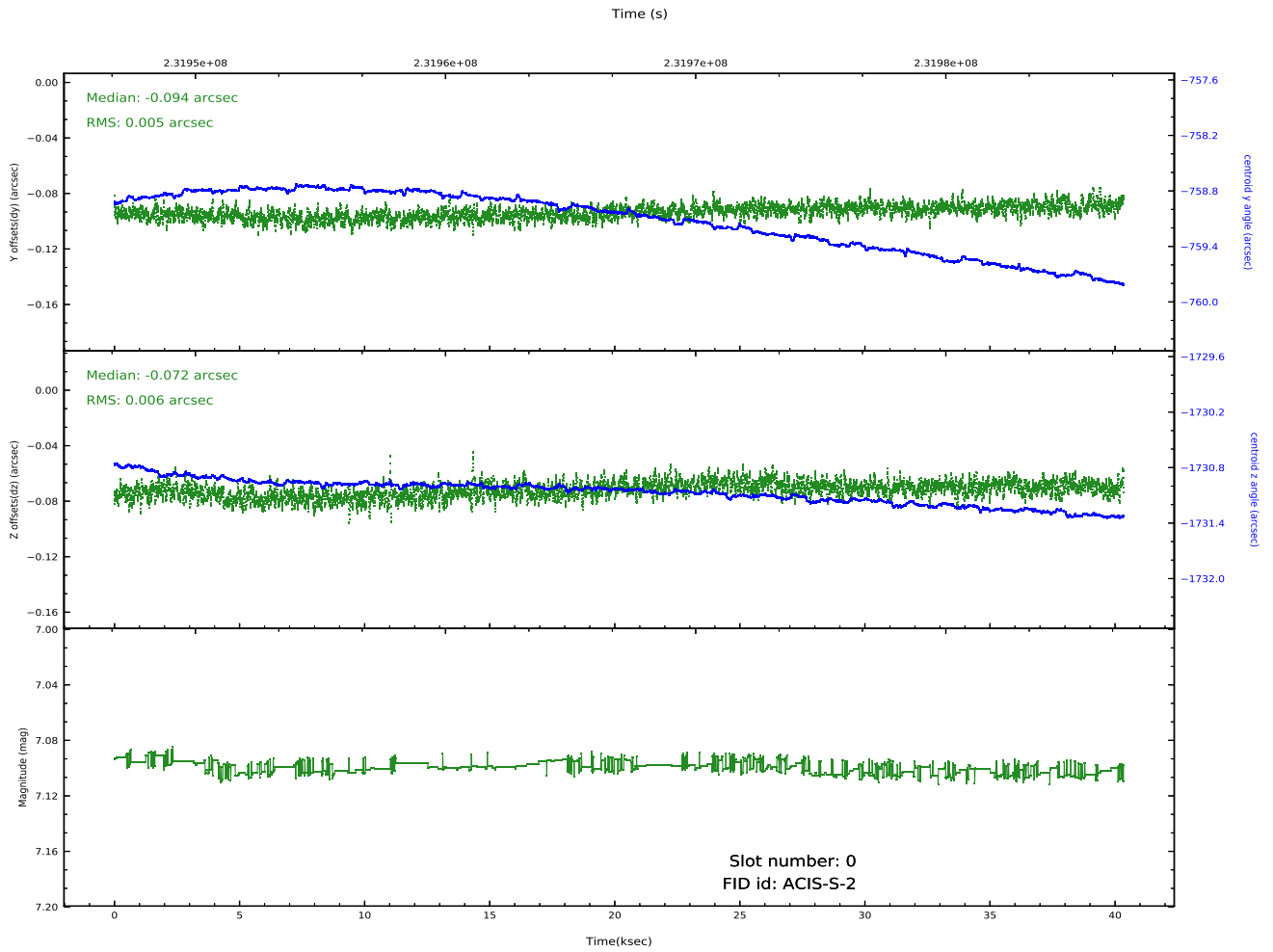
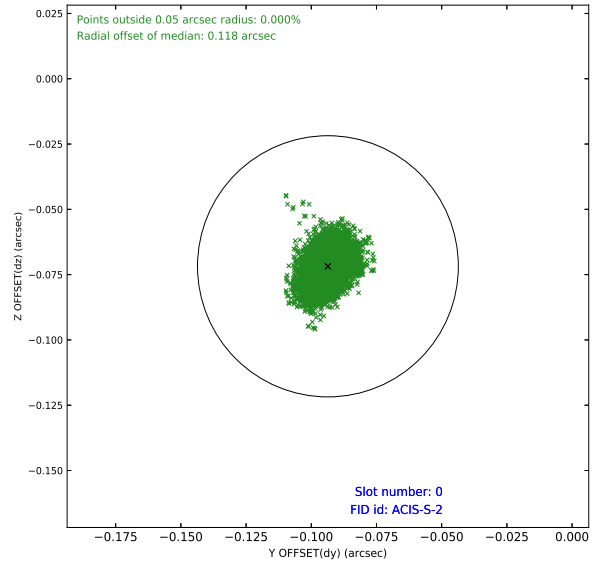
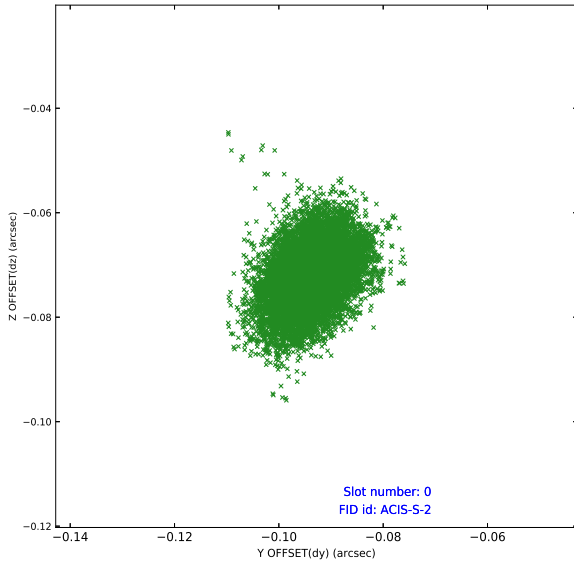


Time (s)

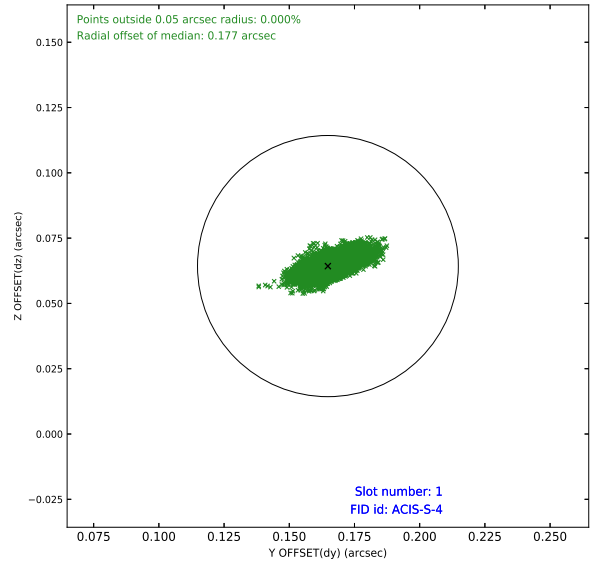
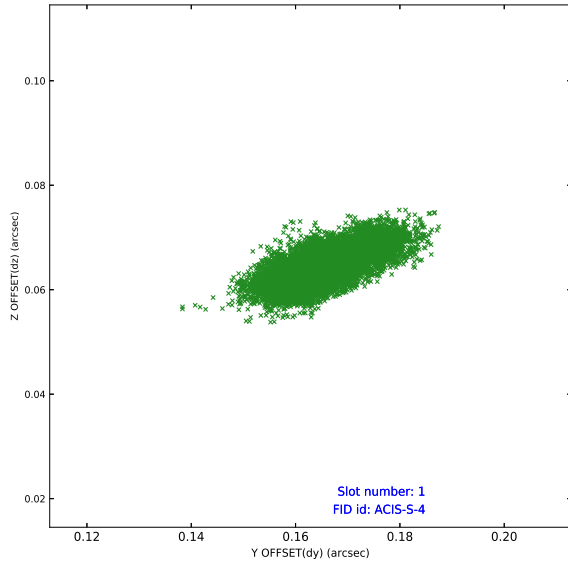


## 2.5 FID Slots

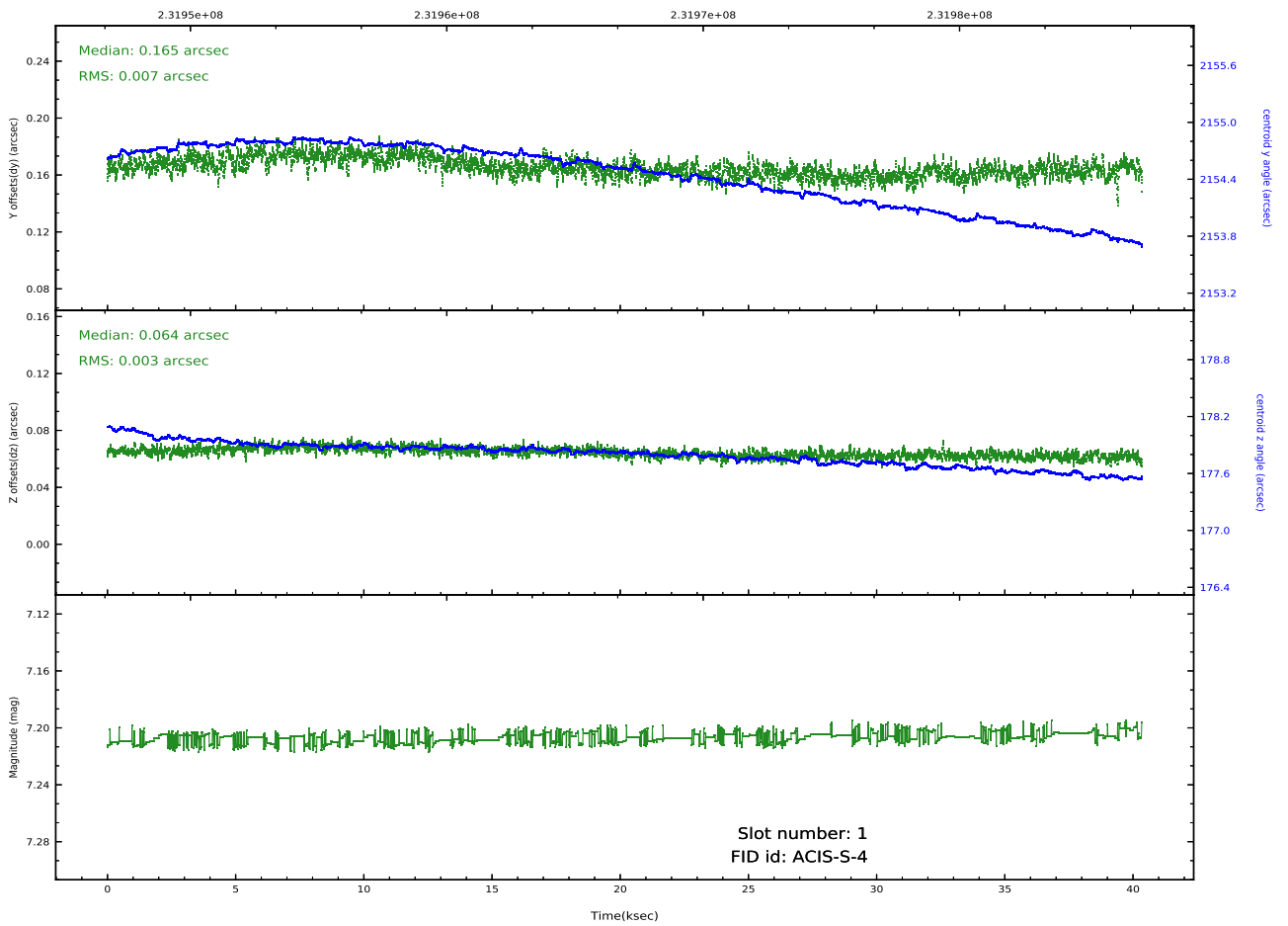
### 2.5.1 Slot 0



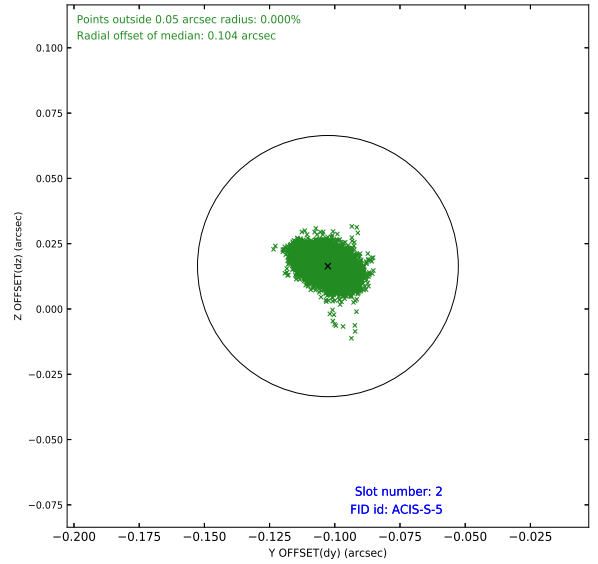
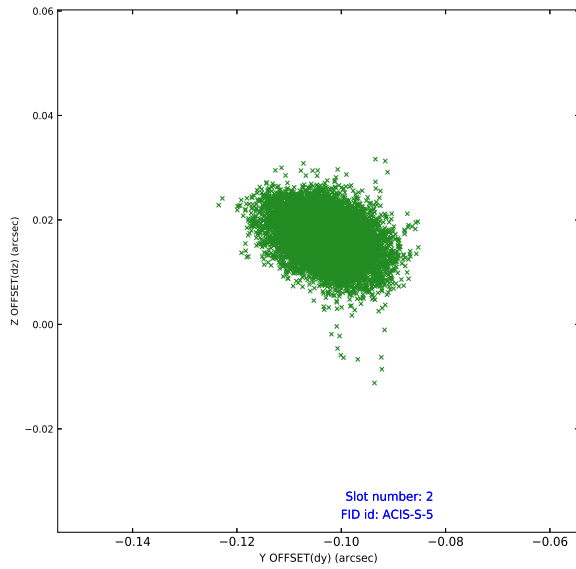
## 2.5.2 Slot 1



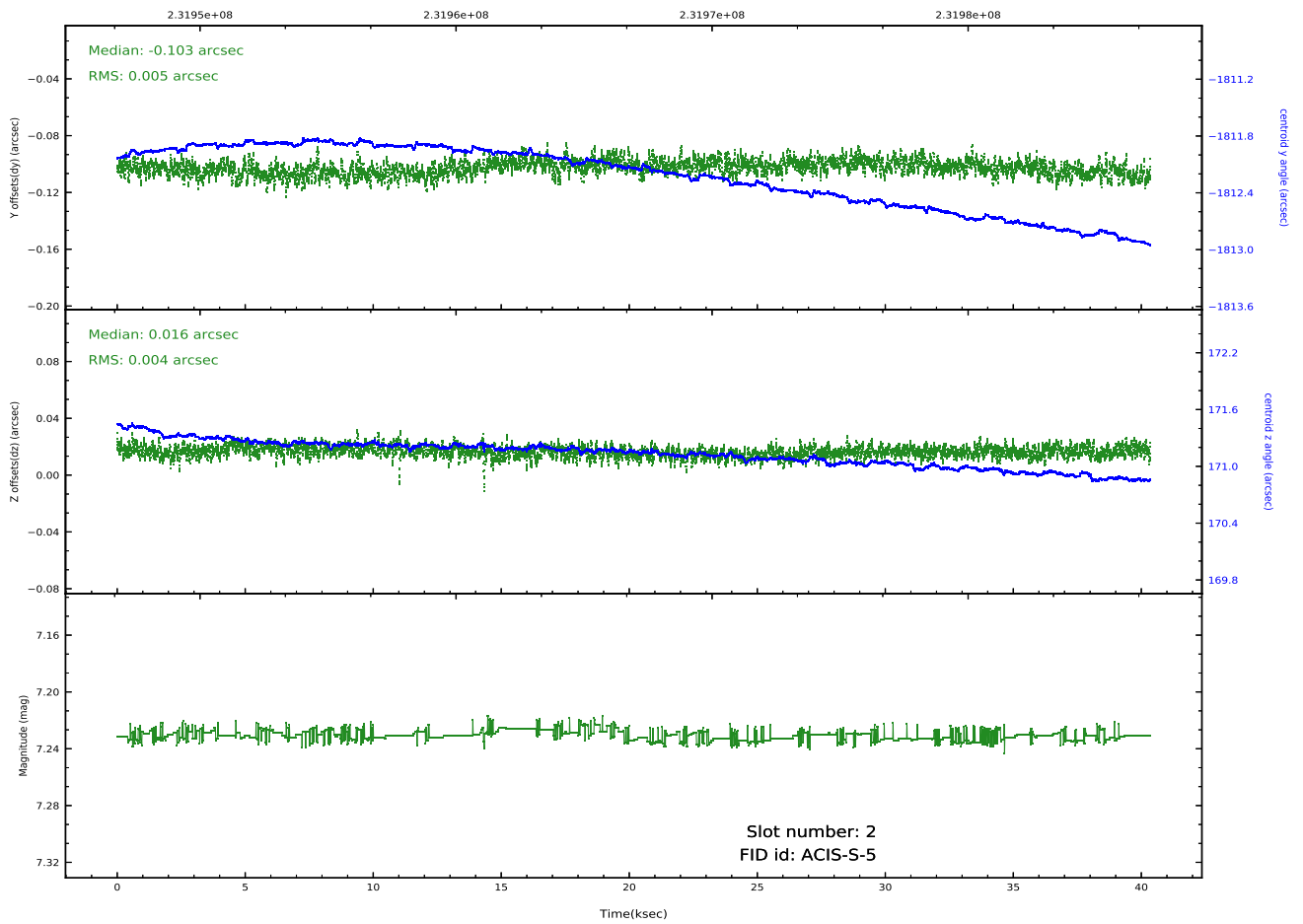
Time (s)



### 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	39.95519

## A.2 Comments