

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5922 - L2 Version 4  
Chandra X-Ray Center

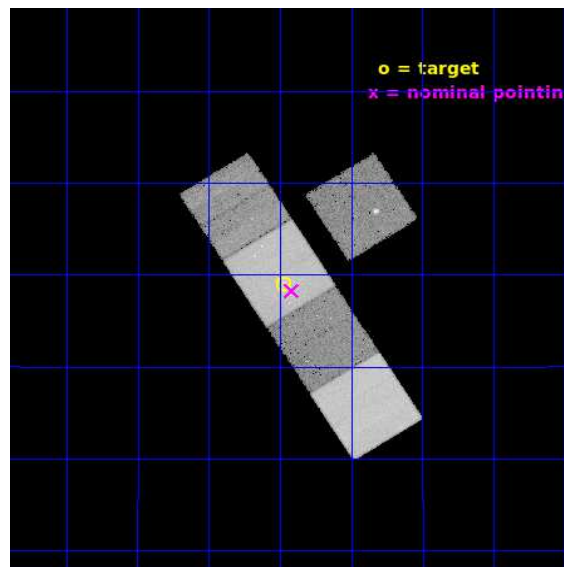
L2 Processing Date : Oct 8 2020

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# 1 Front

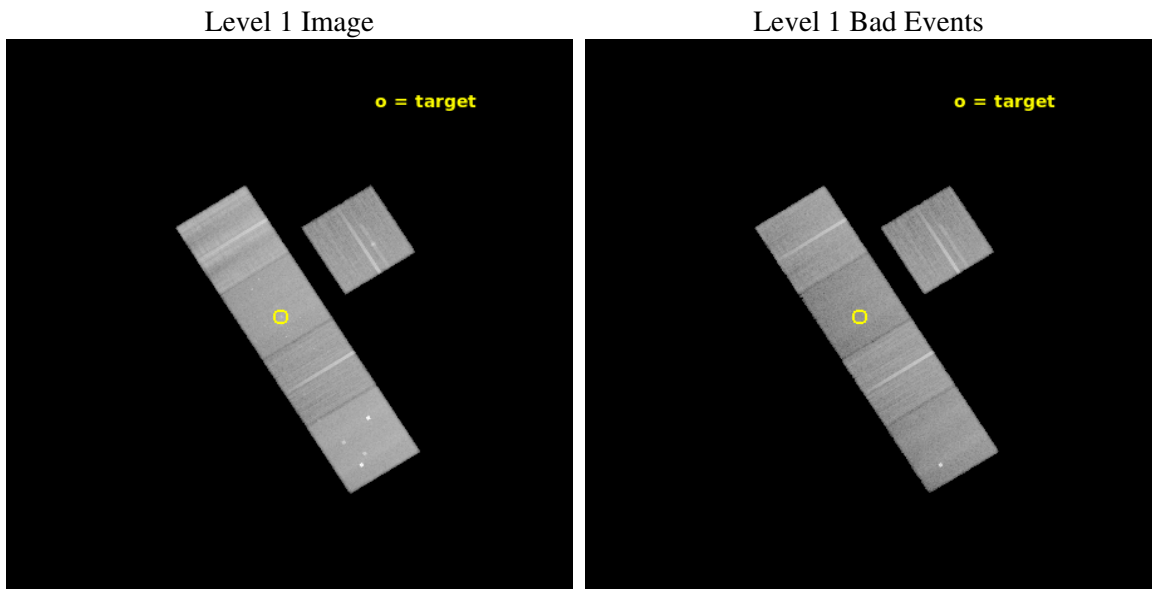
seq_num	600441	Sequence number
obs_id	5922	Observation id
title	Low Mass X-ray Binaries and Globular Clusters in the Early-Type Galaxy NGC 4365	Proposal title
observer	Prof. Gregory Sivakoff	Principal investigator
object	NGC4365	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	186.117917	Observer's specified target RA [deg]
dec_targ	7.317722	Observer's specified target Dec [deg]
ra_nom	186.10404417559	Nominal RA [deg]
dec_nom	7.3046324533048	Nominal Dec [deg]
roll_nom	237.78517738494	Nominal Roll [deg]
revision	4	Processing version of data
ontime	40036.499922991	Sum of GTIs [s]
livetime	39513.393577054	Livetime [s]
ontime3	40033.358932763	Sum of GTIs [s]
ontime5	40036.499922991	Sum of GTIs [s]
ontime6	40036.499922991	Sum of GTIs [s]
ontime7	40036.499922991	Sum of GTIs [s]
ontime8	40030.217992365	Sum of GTIs [s]
l2events	353156	Number of level 2 events



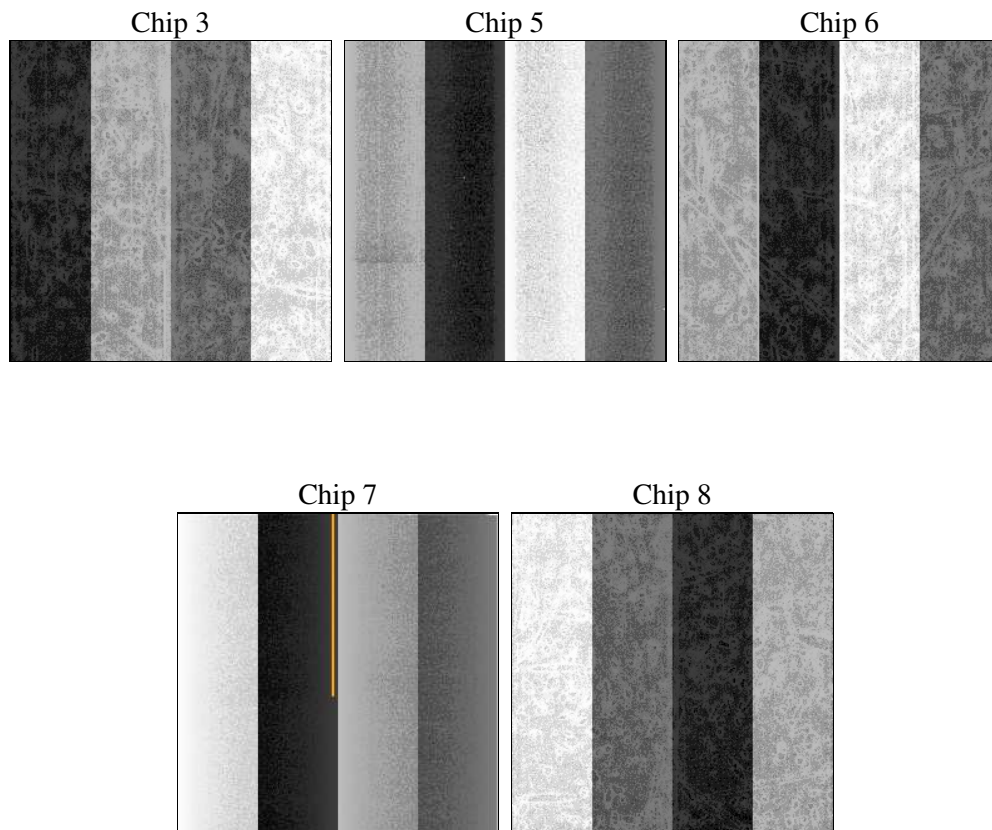
## 2 OBI

### 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	40036.499922991	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime3	40033.358932763	Sum of GTIs [s]
date	2020-10-08T07:33:19	Date and time of file creation	ontime5	40036.499922991	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	40036.499922991	Sum of GTIs [s]
			ontime7	40036.499922991	Sum of GTIs [s]
			ontime8	40030.217992365	Sum of GTIs [s]
			l1events	1433018	Number of level 1 events

### 2.1.4 Events

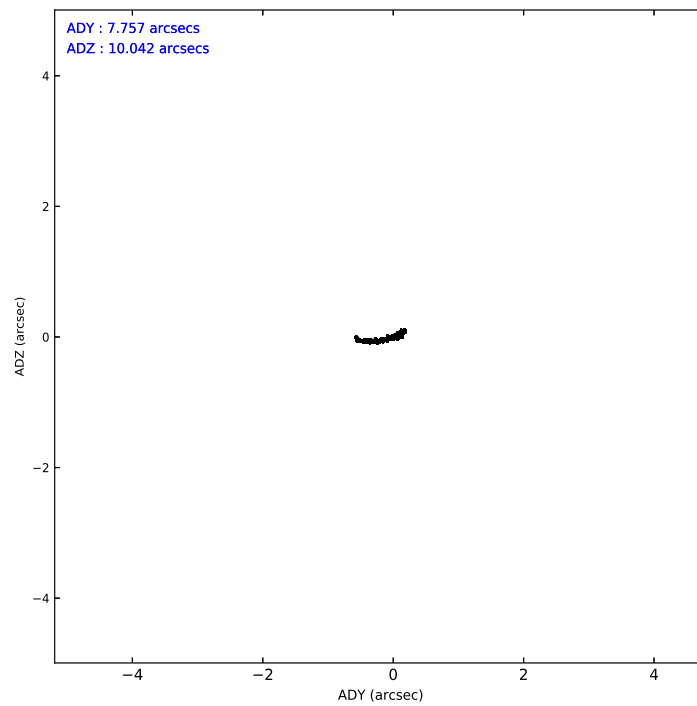
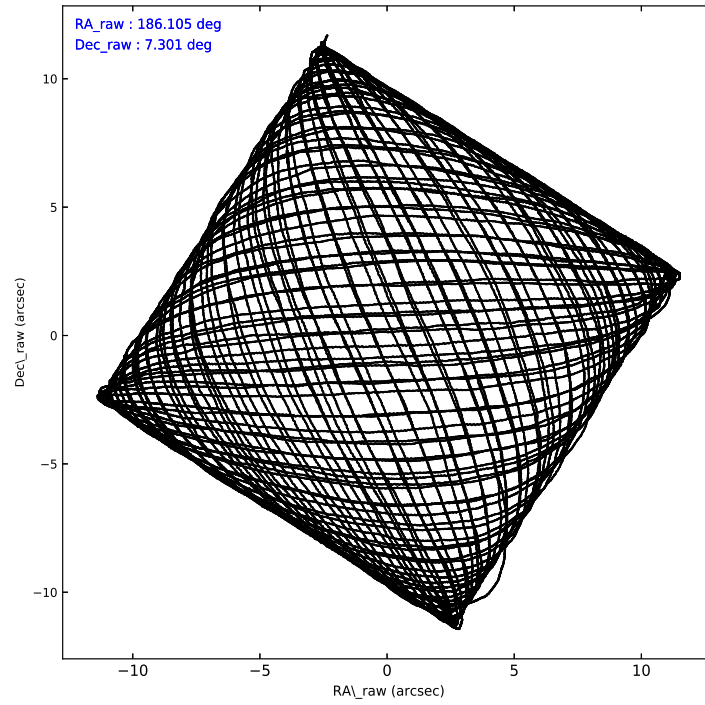
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	223776	338430	243757	268267	358788
rejected events	198738	165223	215268	140529	226062
rejected %	88%	48%	88%	52%	63%

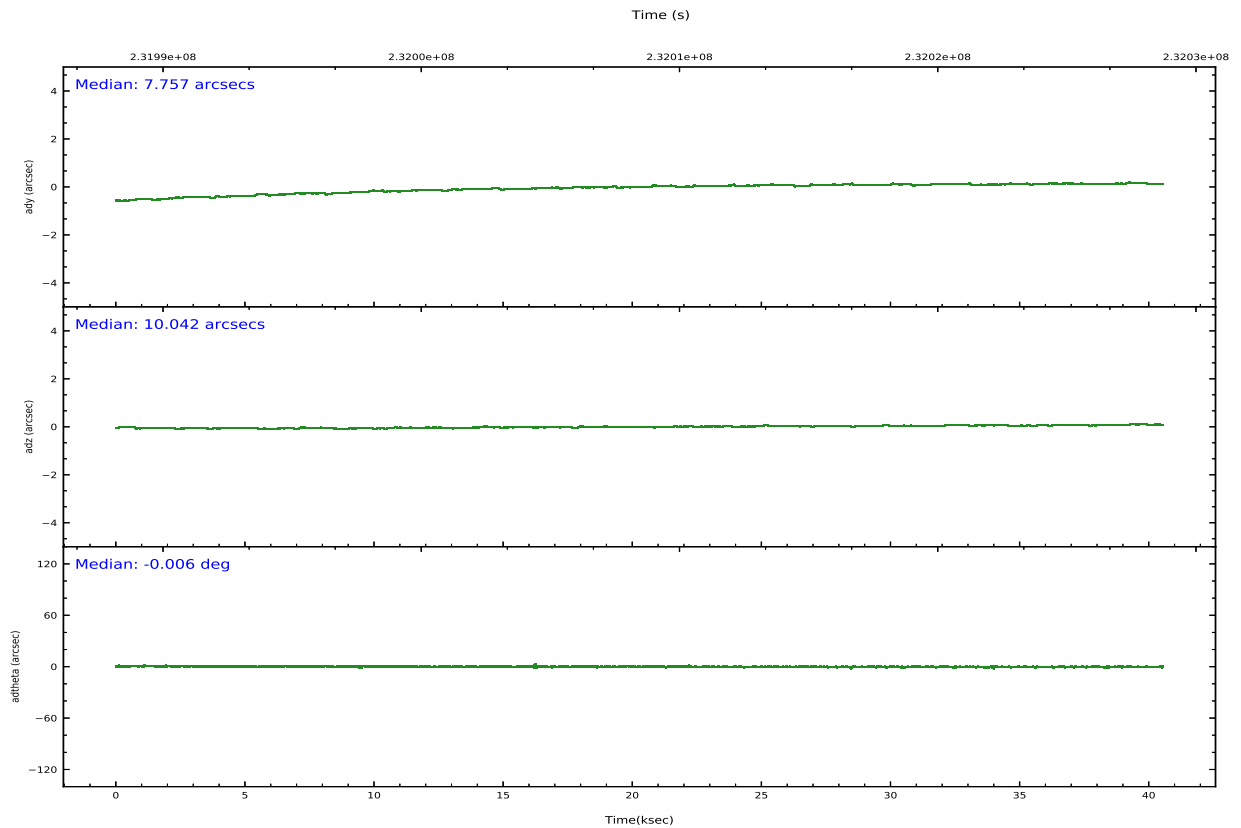
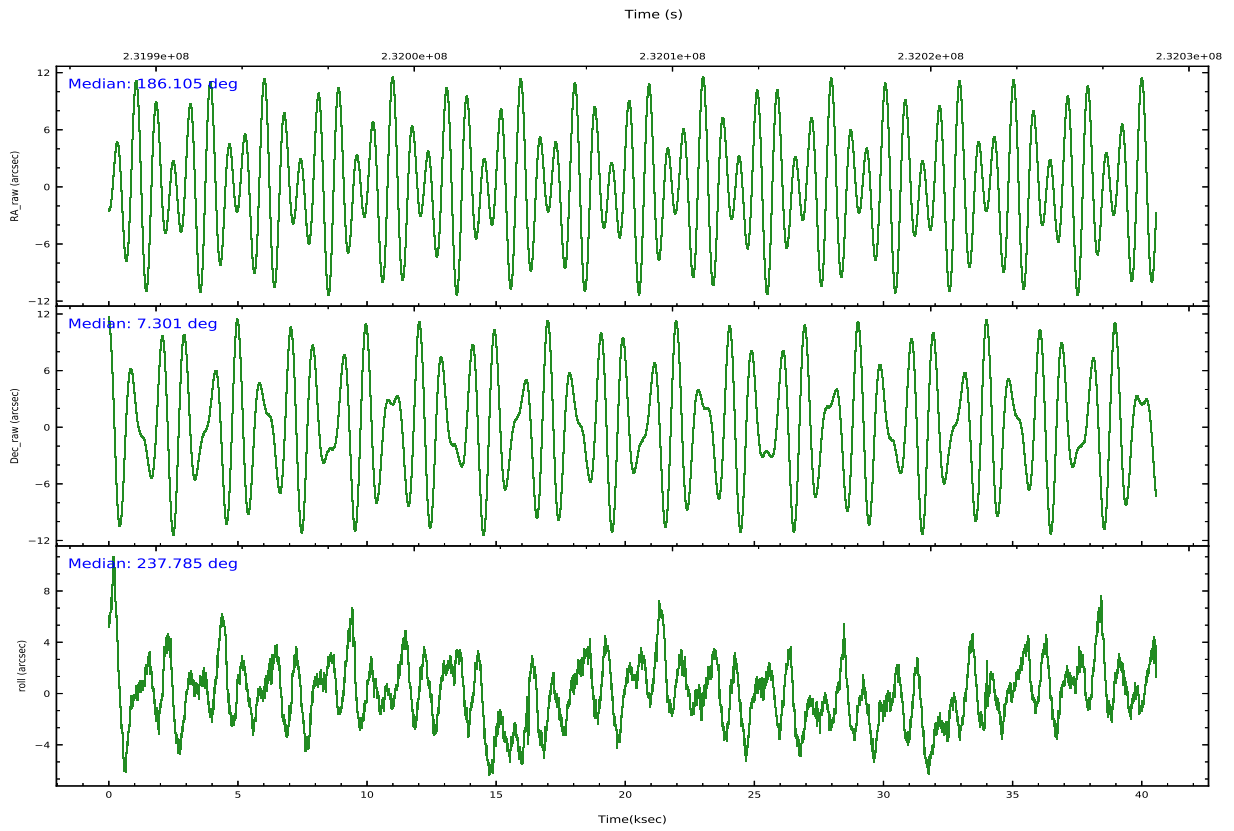
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	10775	26197	12205	13415	52312
	4%	7%	5%	5%	14%
grade 1 events	122	3554	120	275	487
	0%	1%	0%	0%	0%
grade 2 events	4837	49114	5665	26412	18552
	2%	14%	2%	9%	5%
grade 3 events	2631	8254	2720	12065	21176
	1%	2%	1%	4%	5%
grade 4 events	2569	8018	2717	12182	18855
	1%	2%	1%	4%	5%
grade 5 events	9042	25714	9314	27462	13453
	4%	7%	3%	10%	3%
grade 6 events	4226	81636	5187	63675	21833
	1%	24%	2%	23%	6%
grade 7 events	189574	135943	205829	112781	212120
	84%	40%	84%	42%	59%

## 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	186.106016	186.10404417559	Subarray requested	NONE	NONE
[deg] Pointing Dec	7.328359	7.3046324533048	Alternating exposures requested	N	N
[deg] Pointing Roll	237.628920	237.78517738494	[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)	231988729.184000	231987610.73825			
Observation start date	2005-05-09T01:17:45	2005-05-09T01:00:10			
[s] Observation end time (MET)	232028729.184000	232029829.97767			
Observation end date	2005-05-09T12:24:25	2005-05-09T12:43:49			
Read mode	TIMED	TIMED			

## 2.3 Aspect



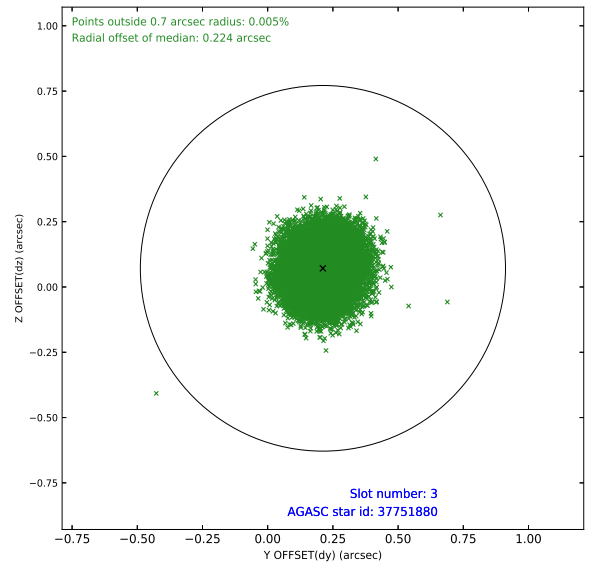
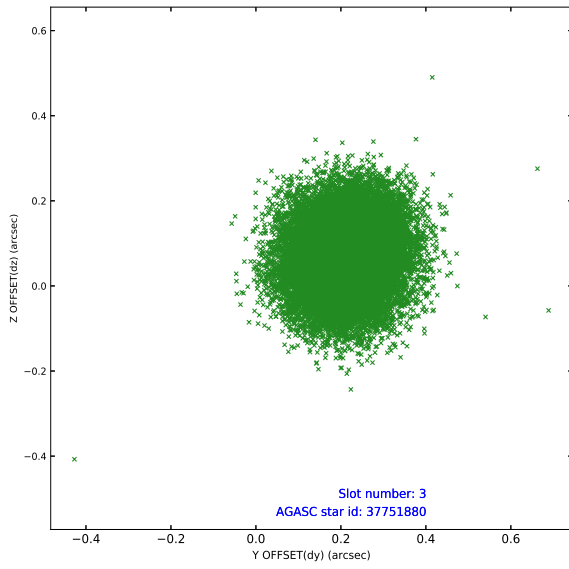


### Slot Statistics

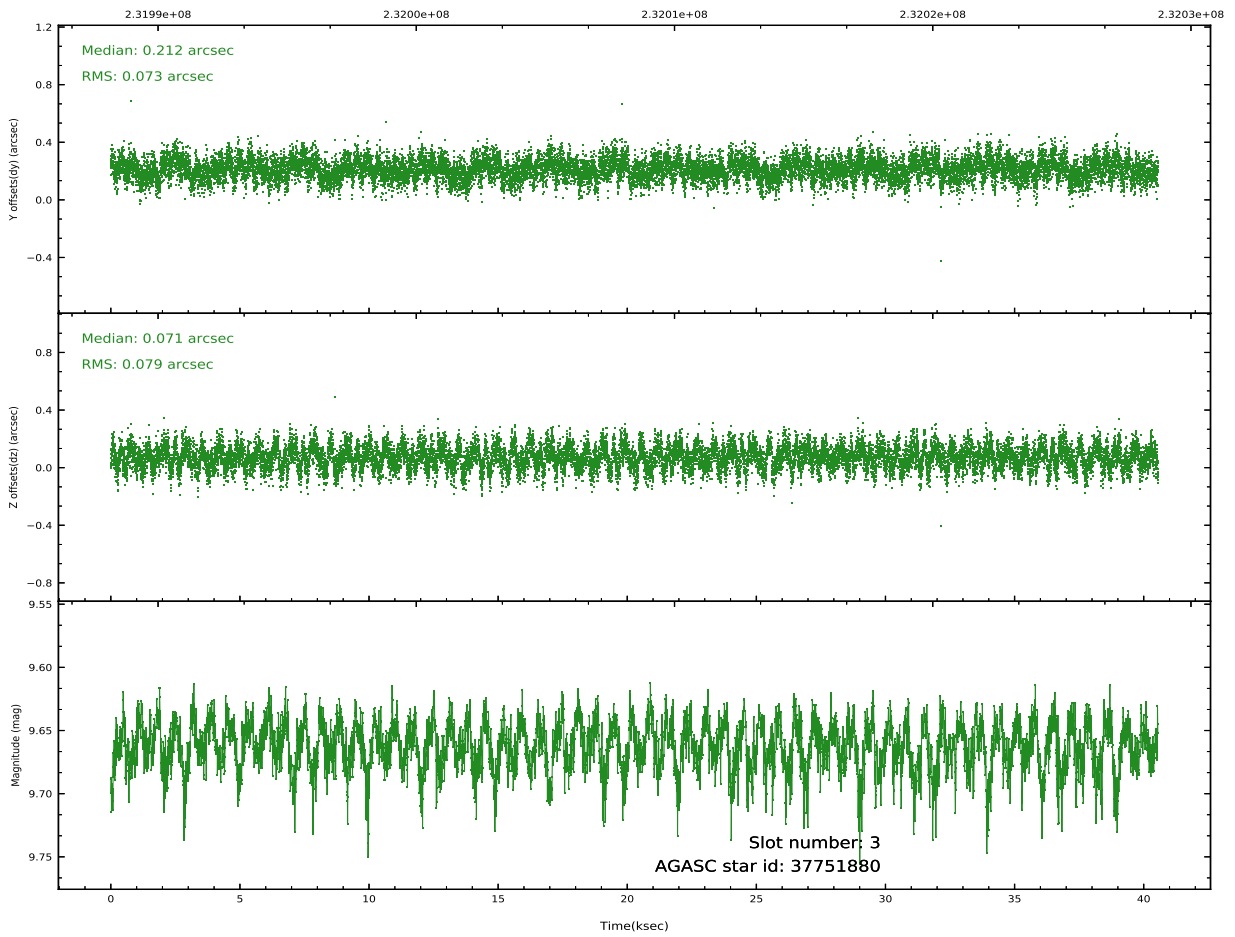
slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	9893	1.000	-0.077	-0.064	0.007	0.012	0.000000	0.000000	-760.47	-1731
1	FID		ACIS-S-4	7.21	9891	1.000	0.168	0.054	0.008	0.014	0.000000	0.000000	2152.97	177
2	FID		ACIS-S-5	7.23	9892	1.000	-0.123	0.019	0.010	0.016	0.000000	0.000000	-1813.41	170
3	GUIDE	used	37751880	9.66	19774	1.000	0.212	0.071	0.116	0.182	185.771871	6.844190	2111.89	-75
4	GUIDE	used	37753024	8.02	19780	1.000	-0.041	-0.091	0.102	0.160	186.830113	7.241612	-1122.36	2350
5	GUIDE	used	114434008	8.76	19778	1.000	-0.058	-0.104	0.104	0.162	185.534773	7.569663	357.27	-2187
6	GUIDE	used	114565080	10.15	19765	1.000	-0.096	0.090	0.250	0.405	186.537681	7.759404	-2135.45	469
7	GUIDE	used	37753088	10.07	19768	1.000	0.003	0.026	0.173	0.274	186.819295	7.254633	-1141.37	2291

## 2.4 Star Slots

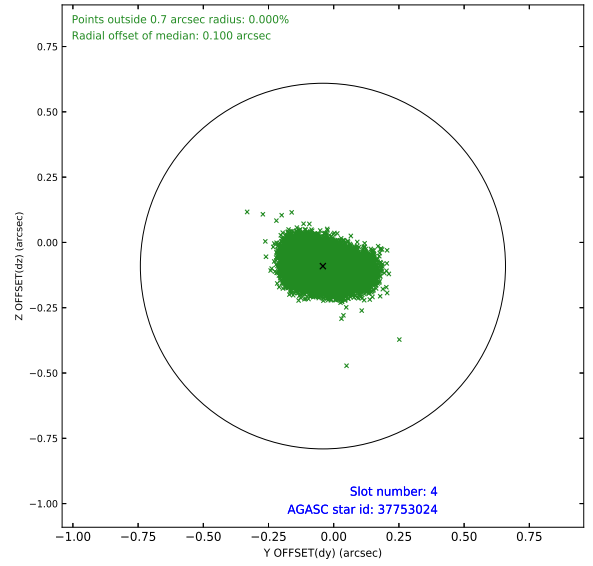
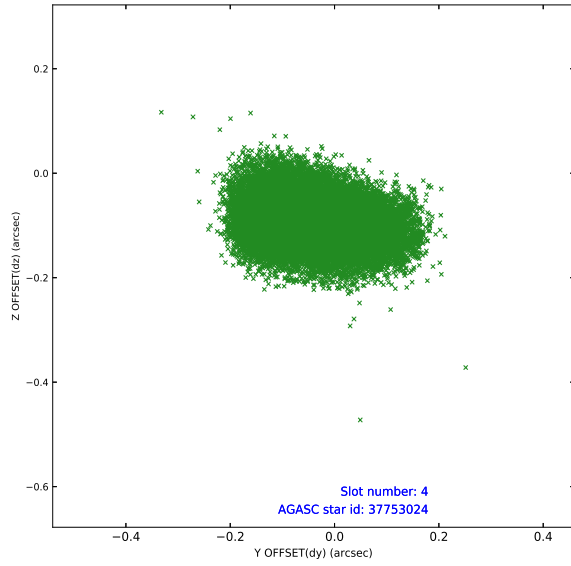
### 2.4.1 Slot 3



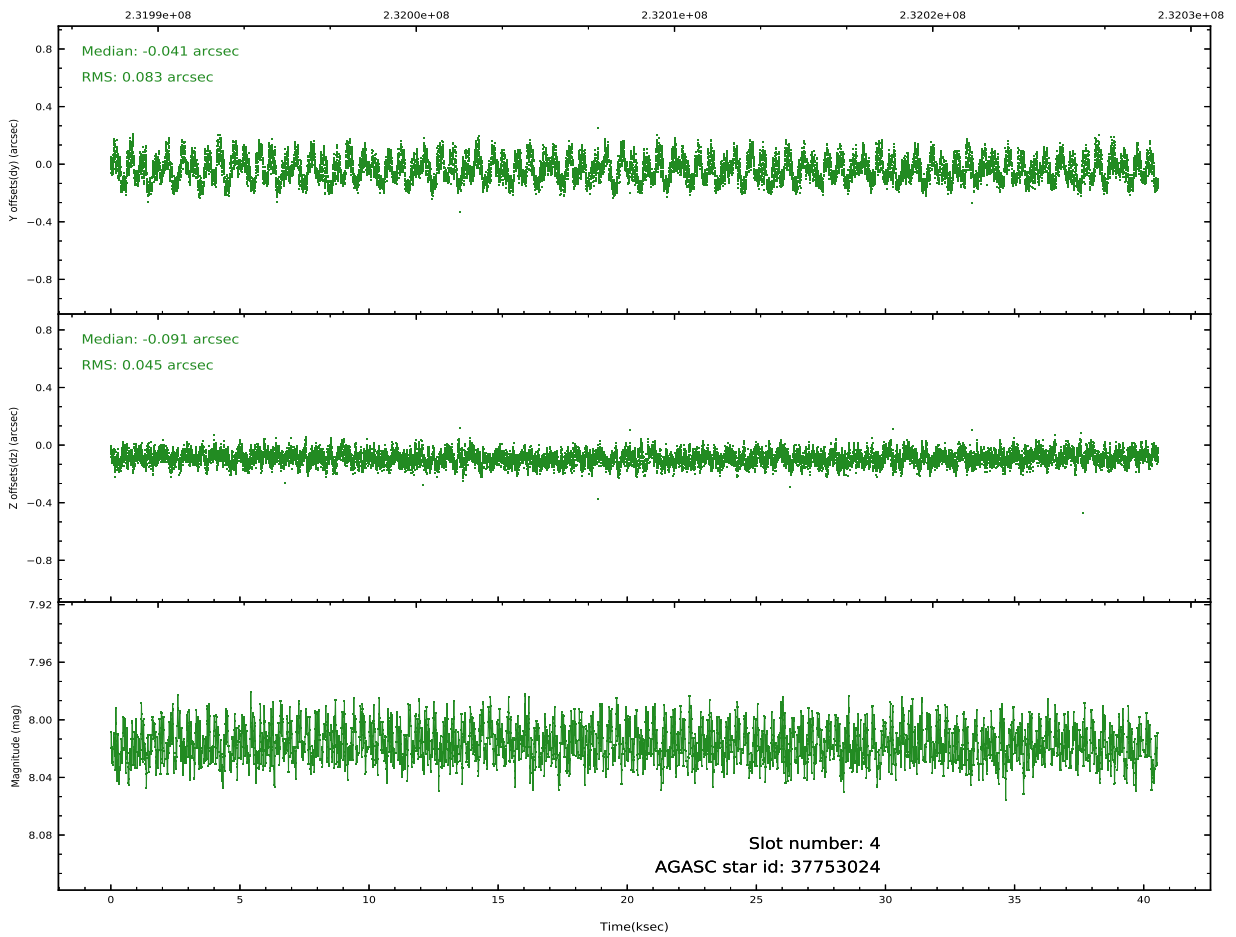
Time (s)



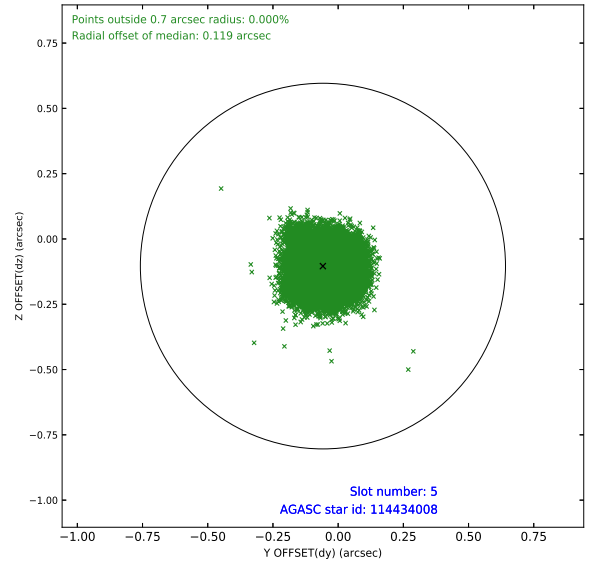
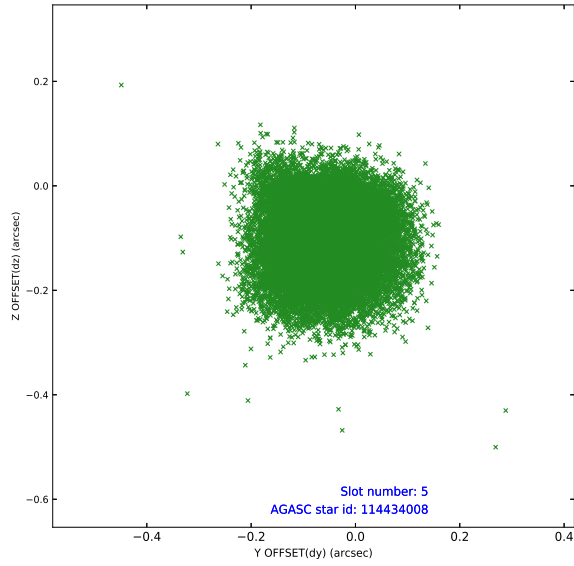
## 2.4.2 Slot 4



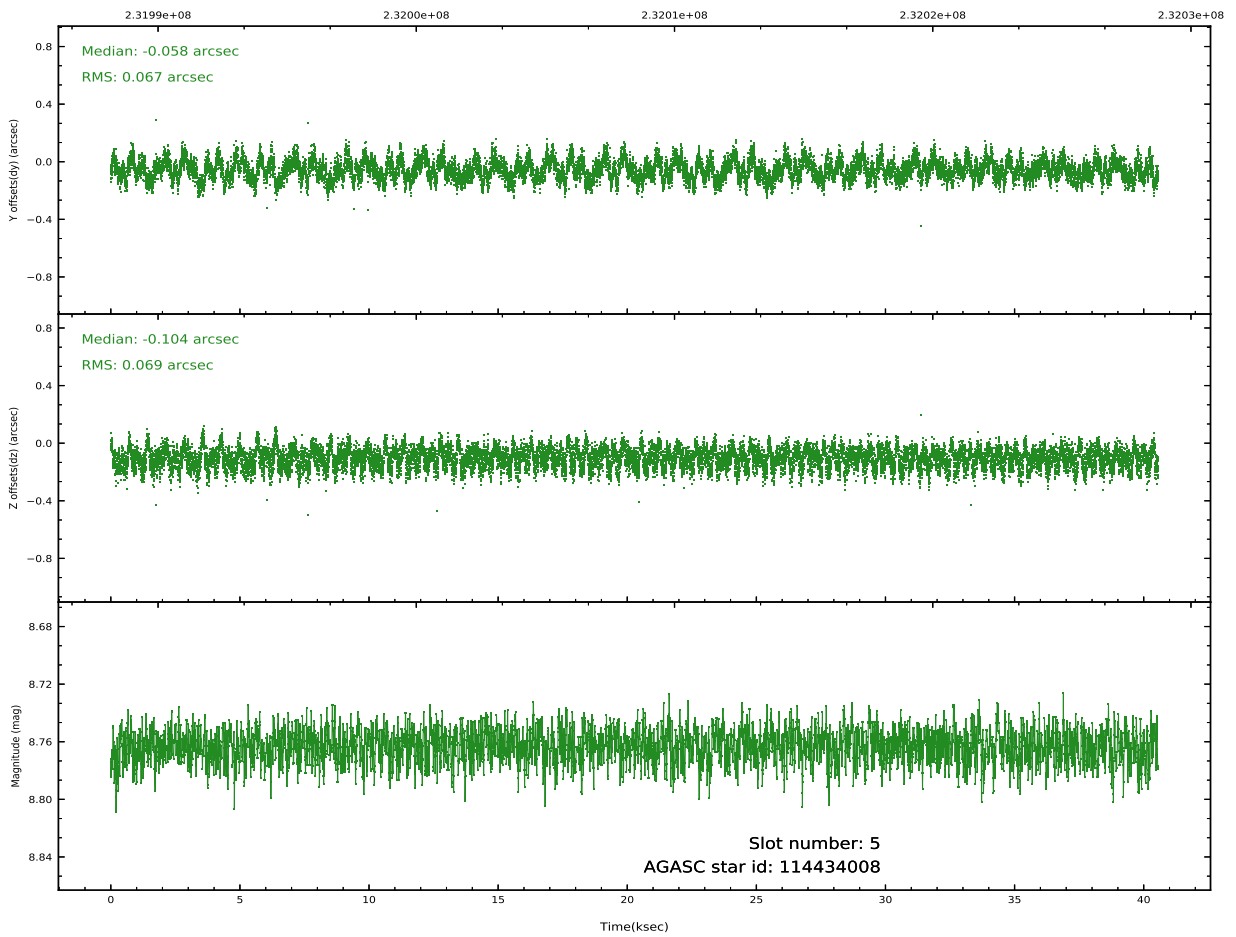
Time (s)



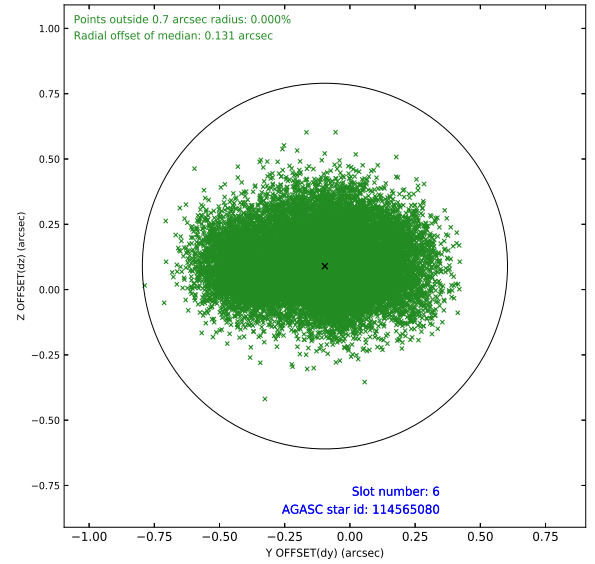
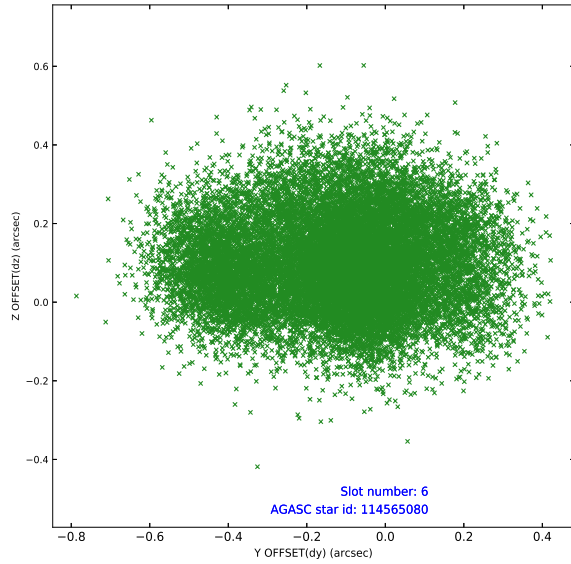
### 2.4.3 Slot 5



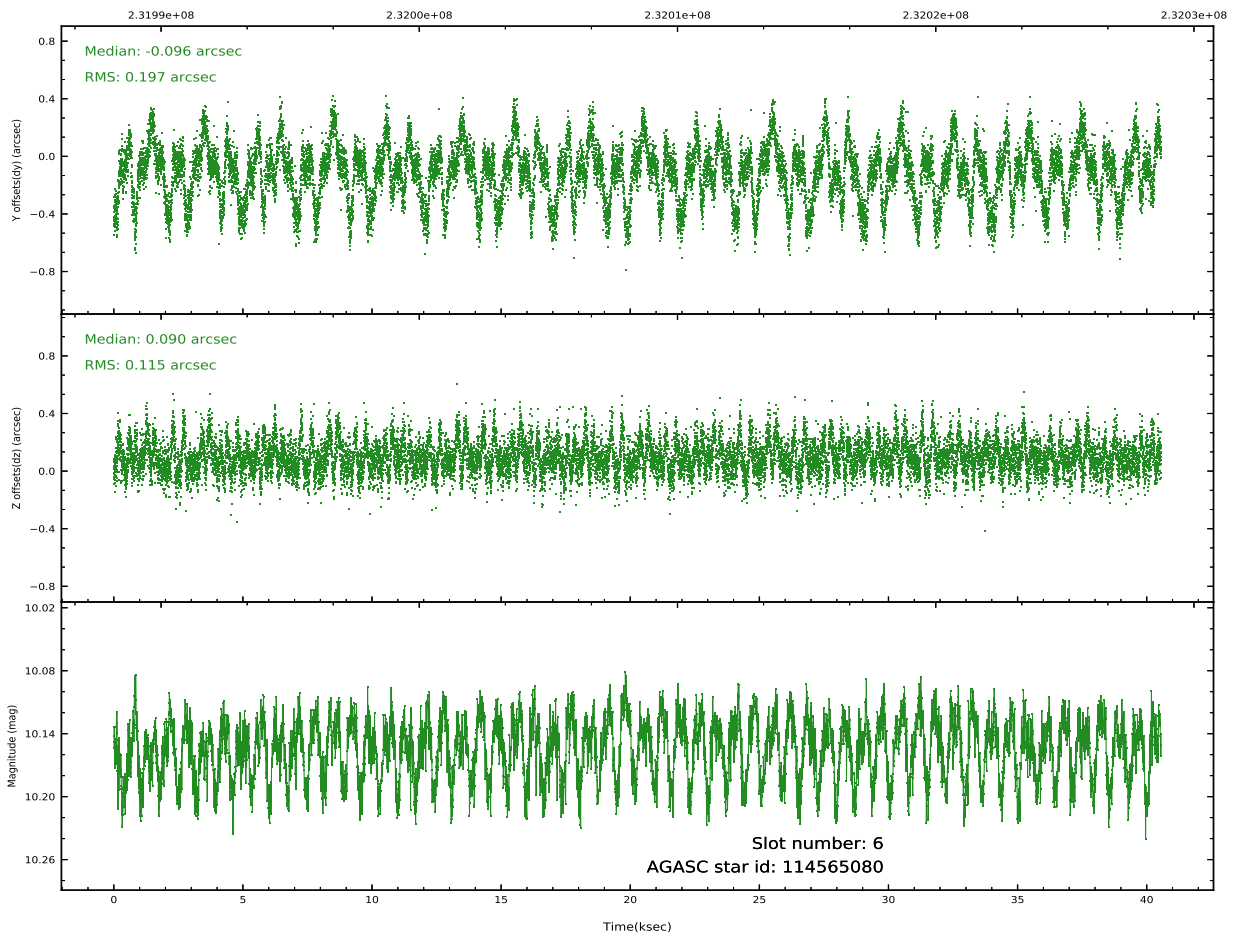
Time (s)



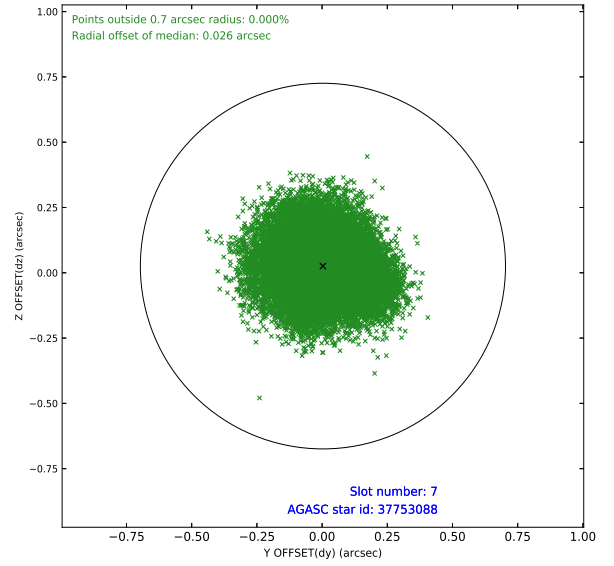
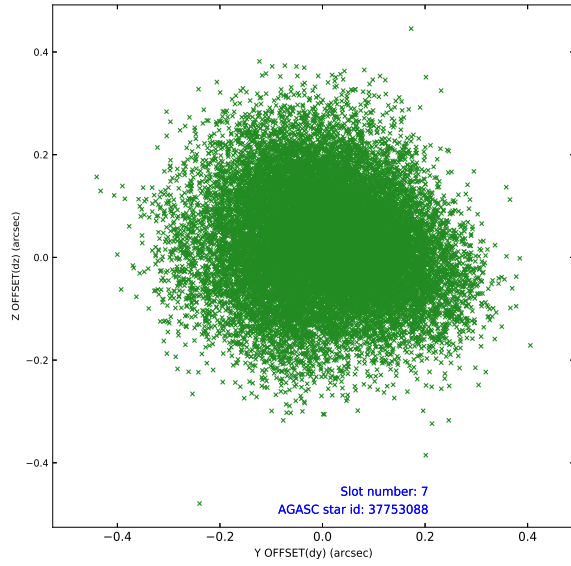
## 2.4.4 Slot 6



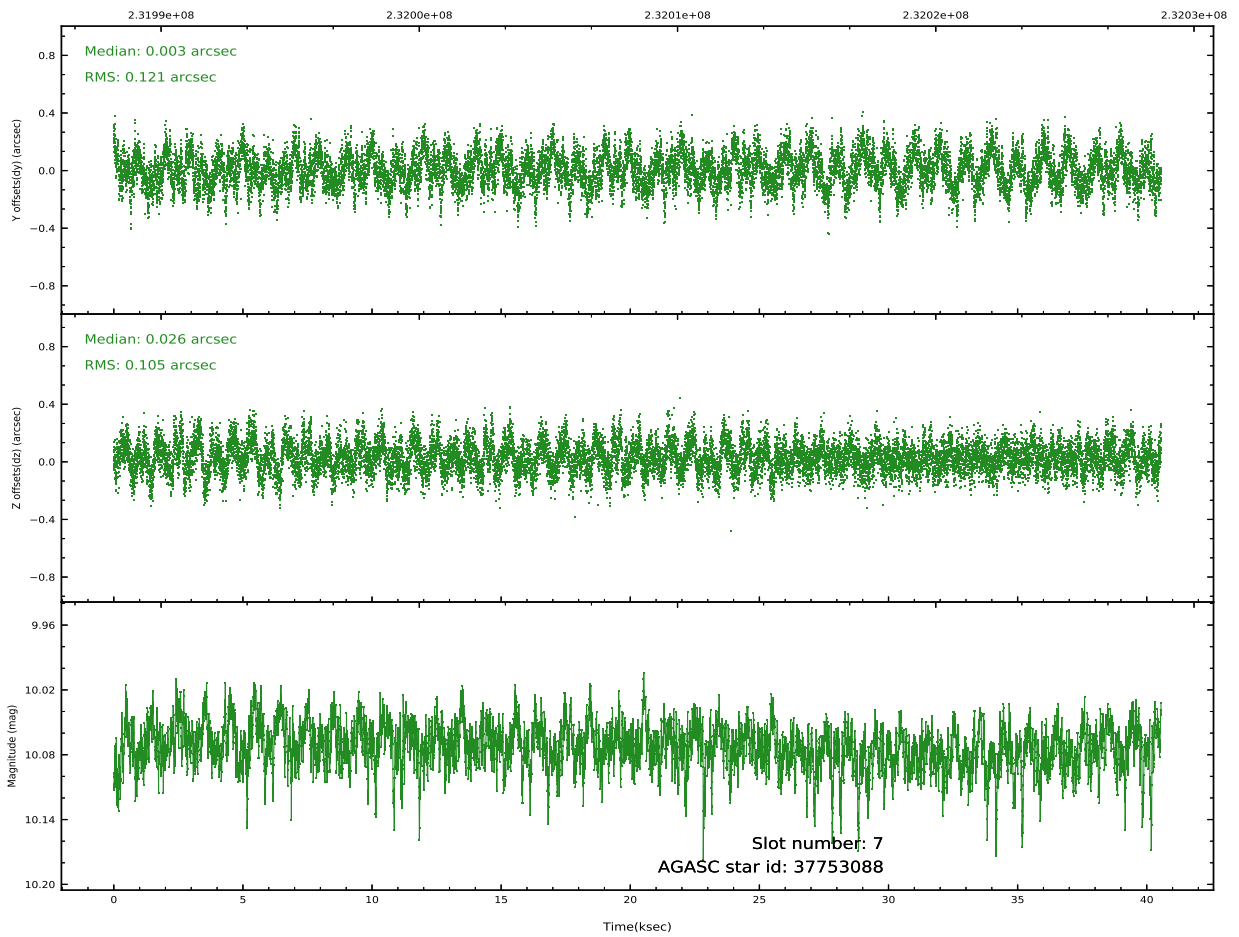
Time (s)



## 2.4.5 Slot 7

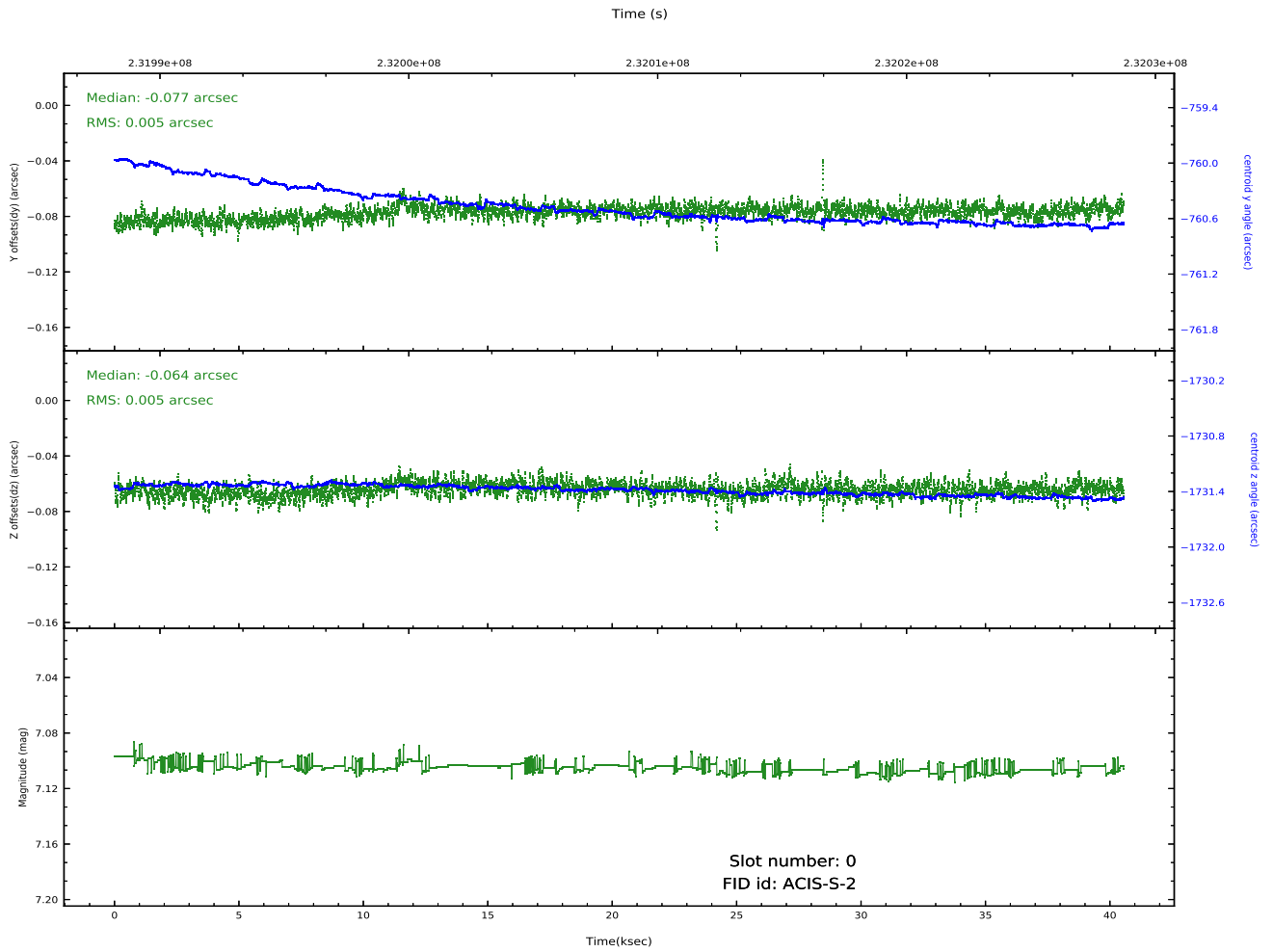
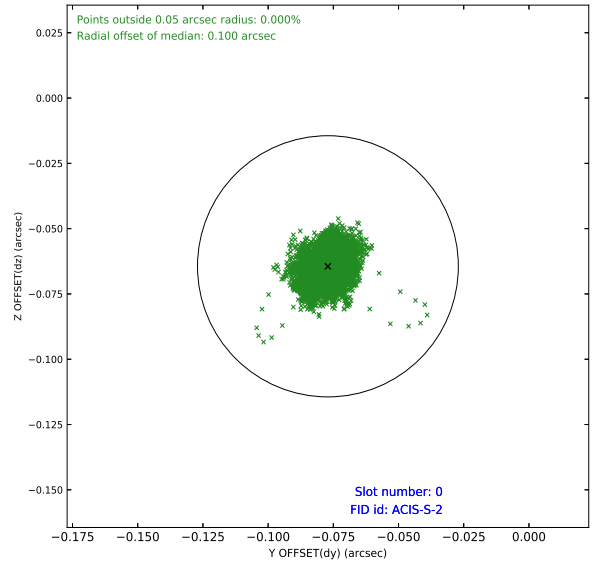
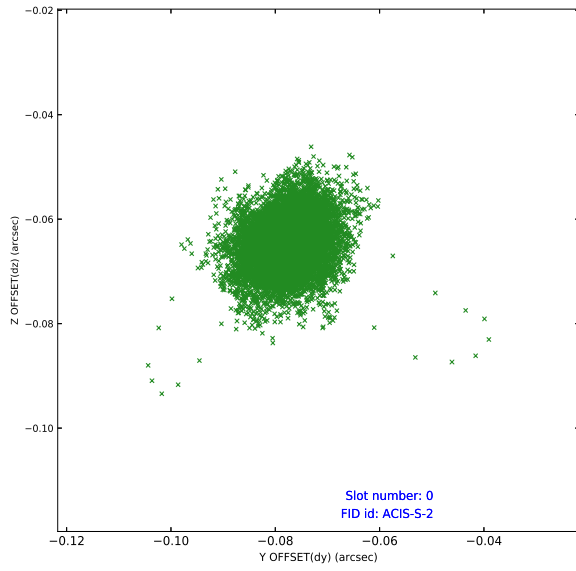


Time (s)

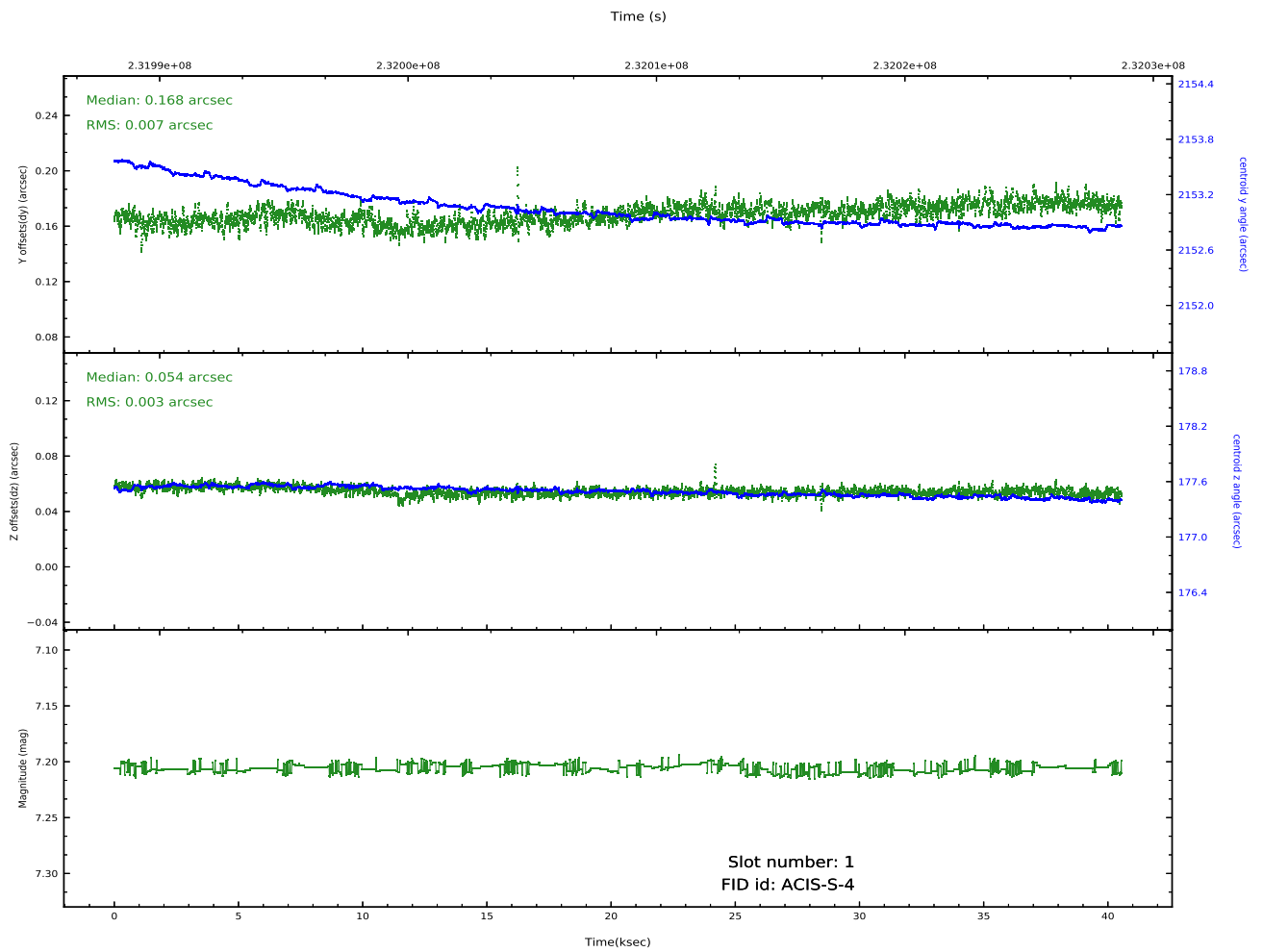
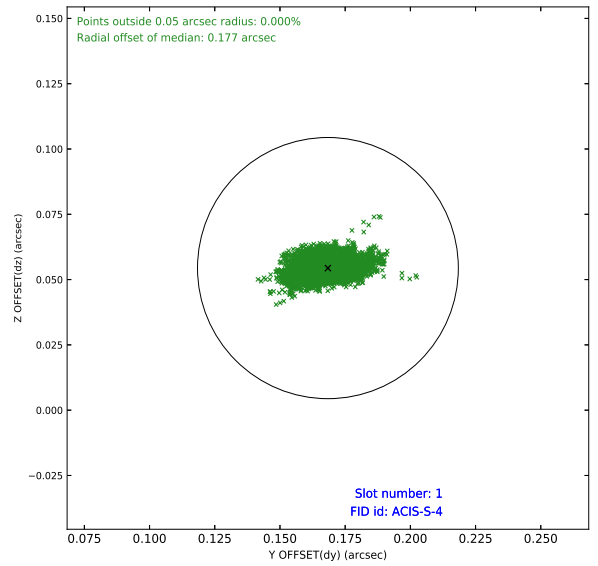
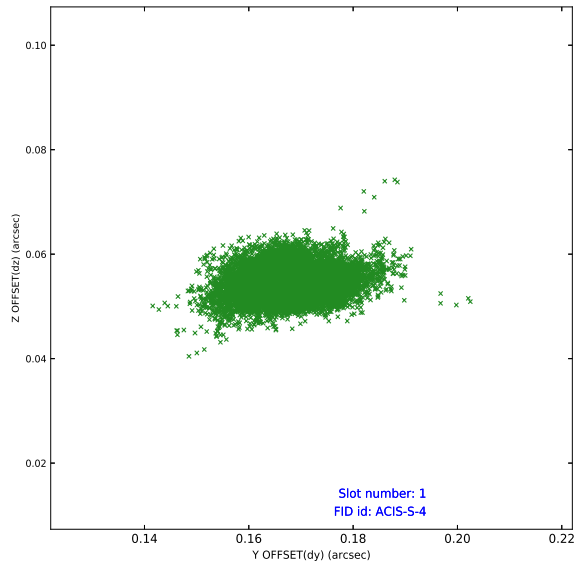


## 2.5 FID Slots

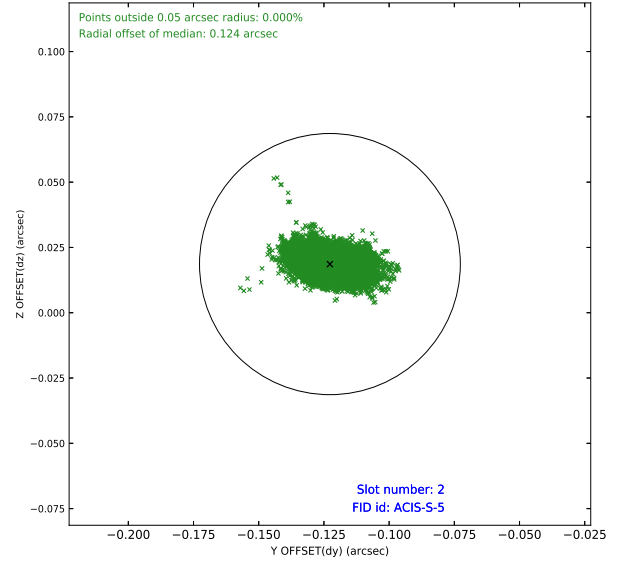
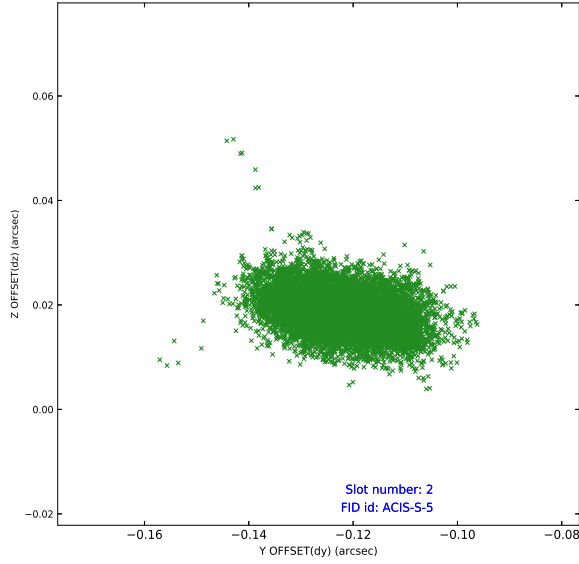
### 2.5.1 Slot 0



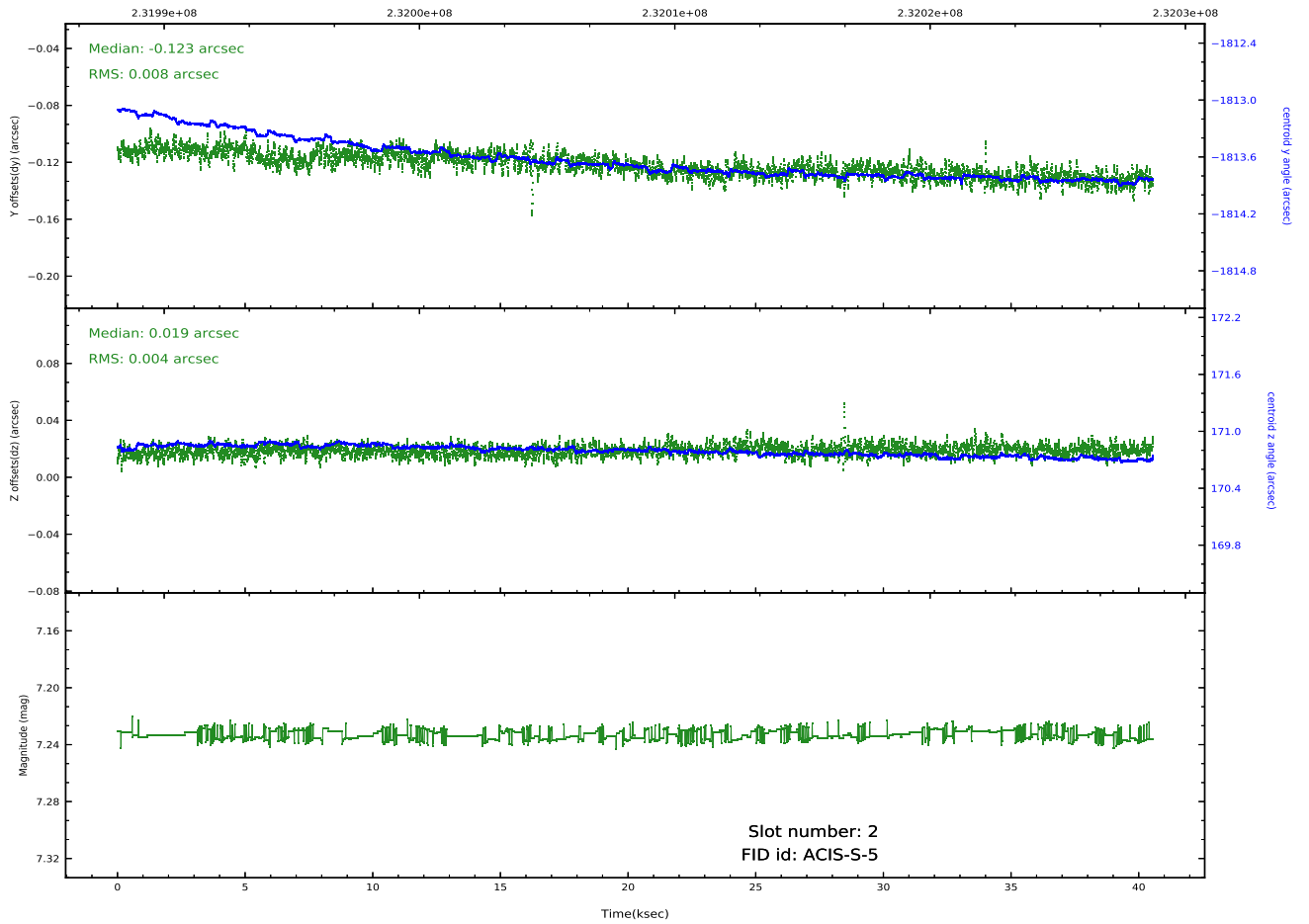
## 2.5.2 Slot 1



### 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	40.03649

## A.2 Comments