

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 7208 - L2 Version 3  
Chandra X-Ray Center

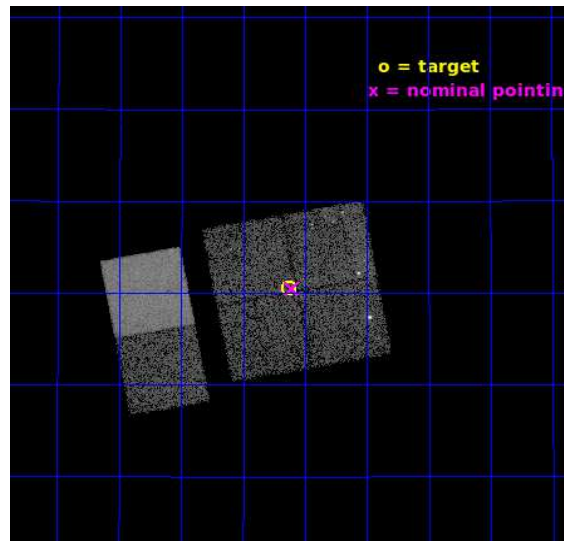
L2 Processing Date : Oct 11 2020

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# 1 Front

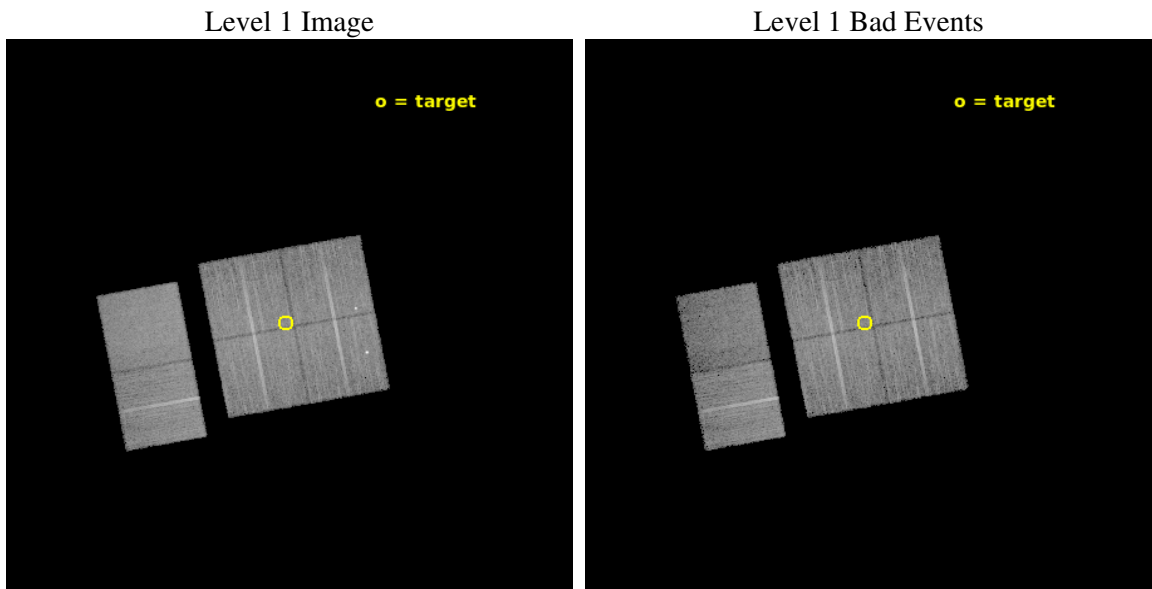
seq_num	600488	Sequence number
obs_id	7208	Observation id
title	The Chandra ACIS Survey of M33 (ChASem33): A Deep Survey of the Nearest Face-on Spiral Galaxy	Proposal title
observer	Manami Sasaki	Principal investigator
object	M33	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	23.532083	Observer's specified target RA [deg]
dec_targ	30.509111	Observer's specified target Dec [deg]
ra_nom	23.526389700831	Nominal RA [deg]
dec_nom	30.507930432635	Nominal Dec [deg]
roll_nom	259.45067597282	Nominal Roll [deg]
revision	3	Processing version of data
ontime	11654.271534234	Sum of GTIs [s]
livetime	11506.698130708	Livetime [s]
ontime0	11657.389424473	Sum of GTIs [s]
ontime1	11657.430464447	Sum of GTIs [s]
ontime2	11657.47150445	Sum of GTIs [s]
ontime3	11654.271534234	Sum of GTIs [s]
ontime6	11657.59462446	Sum of GTIs [s]
ontime7	11657.553584456	Sum of GTIs [s]
l2events	73132	Number of level 2 events



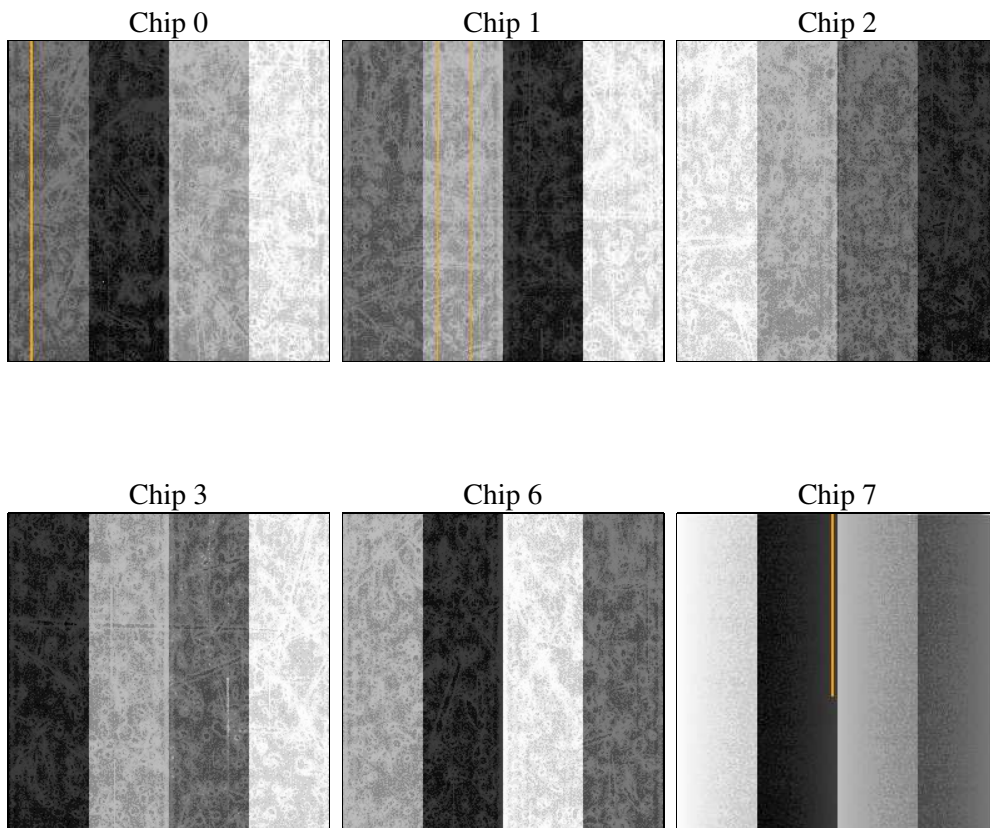
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	11609.457000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	11654.271534234	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime0	11657.389424473	Sum of GTIs [s]
date	2020-10-11T16:04:32	Date and time of file creation	ontime1	11657.430464447	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	11657.471504445	Sum of GTIs [s]
			ontime3	11654.271534234	Sum of GTIs [s]
			ontime6	11657.594624446	Sum of GTIs [s]
			ontime7	11657.553584456	Sum of GTIs [s]
			l1events	484816	Number of level 1 events

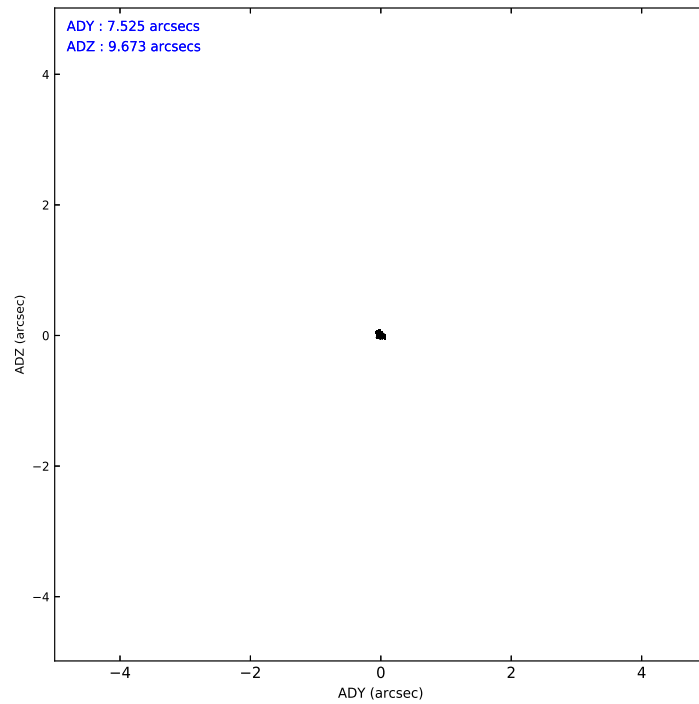
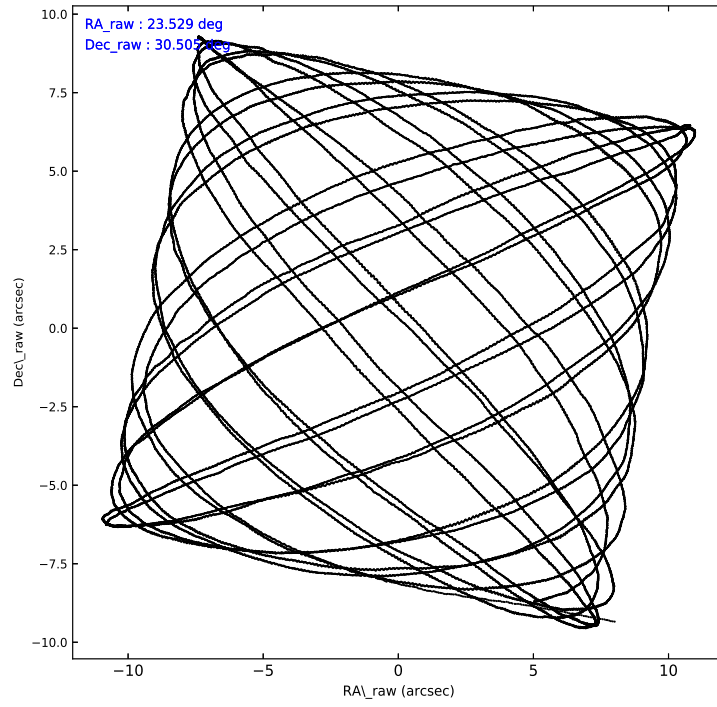
### 2.1.4 Events

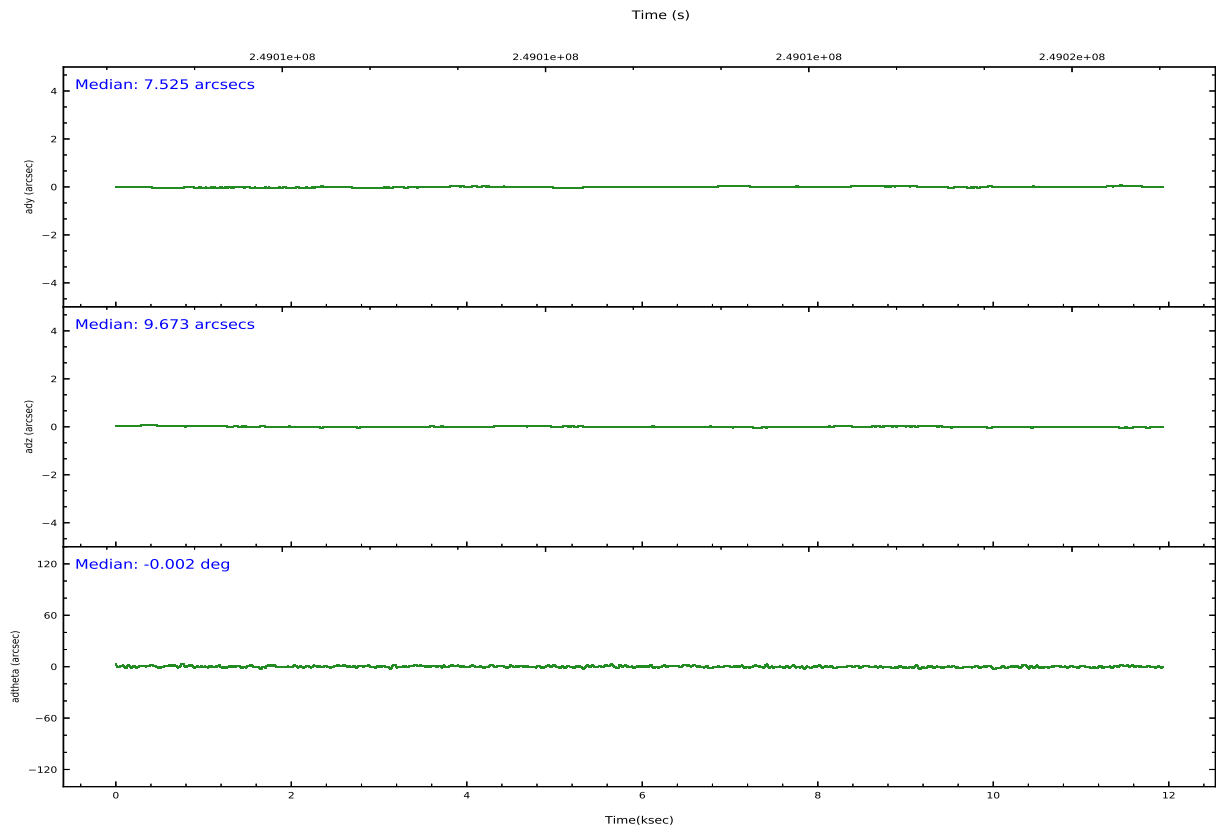
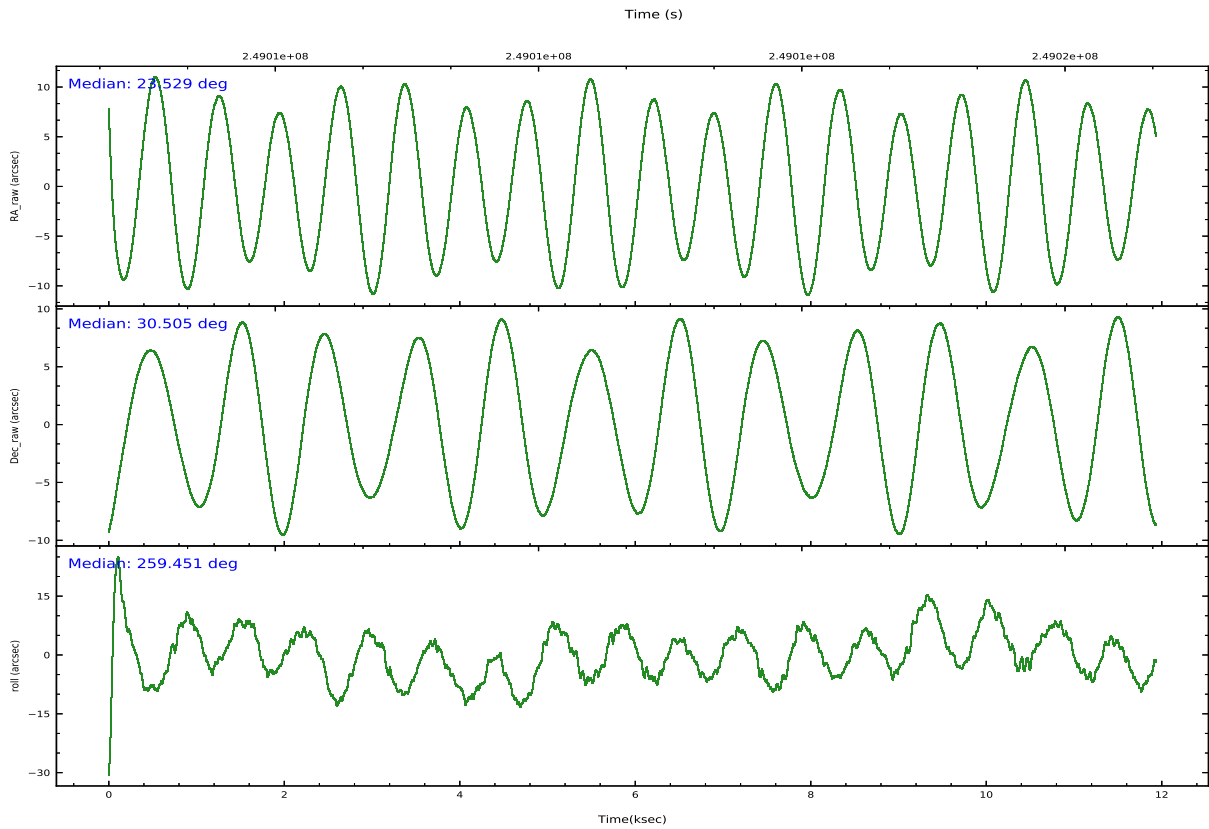
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	80670	73584	82077	78982	83218	86285	grade 0 events	4559	4781	2493	2619	2533	3075
rejected events	70657	62922	74882	71789	75501	48085		5%	6%	3%	3%	3%	3%
rejected %	87%	85%	91%	90%	90%	55%	grade 1 events	38	44	48	43	41	57
								0%	0%	0%	0%	0%	0%
							grade 2 events	2059	2090	1690	1485	1636	7646
								2%	2%	2%	1%	1%	8%
							grade 3 events	990	999	848	854	915	3548
								1%	1%	1%	1%	1%	4%
							grade 4 events	897	1001	847	827	867	3425
								1%	1%	1%	1%	1%	3%
							grade 5 events	2572	2918	2491	3112	3009	9109
								3%	3%	3%	3%	3%	10%
							grade 6 events	1510	1794	1318	1410	1769	20510
								1%	2%	1%	1%	2%	23%
							grade 7 events	68045	59957	72342	68632	72448	38915
								84%	81%	88%	86%	87%	45%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-012367	ACIS-012367	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	23.518412	23.526389700831	Subarray requested	NONE	NONE
[deg] Pointing Dec	30.531029	30.507930432635	Alternating exposures requested	N	N
[deg] Pointing Roll	259.244457	259.45067597282	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	249005429.184000	249004350.43108			
Observation start date	2005-11-22T00:09:25	2005-11-21T23:52:30			
[s] Observation end time (MET)	249017038.184000	249017272.09418			
Observation end date	2005-11-22T03:22:54	2005-11-22T03:27:52			
Read mode	TIMED	TIMED			

## 2.3 Aspect





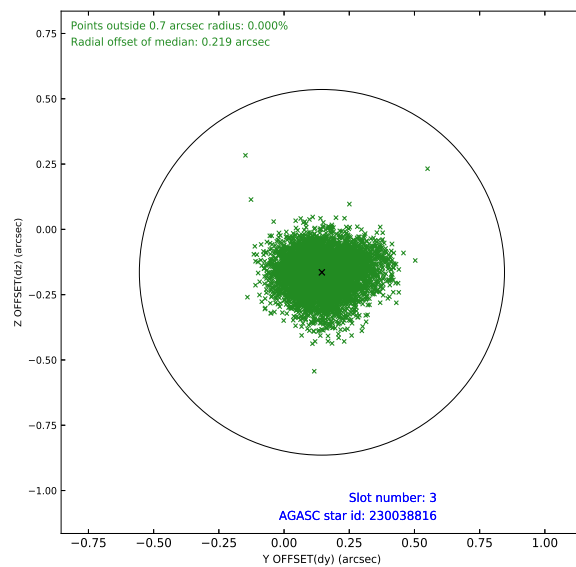
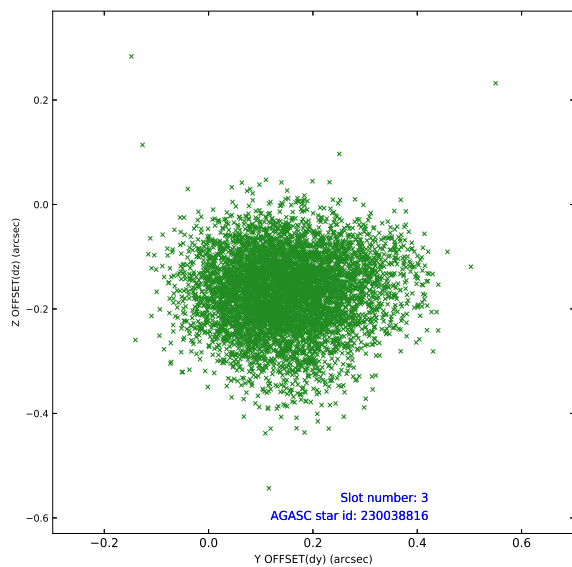
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.25	2912	1.000	-0.077	0.071	0.009	0.015	0.000000	0.000000	932.07	-833
1	FID		ACIS-I-2	7.14	2911	1.000	-0.177	-0.123	0.008	0.013	0.000000	0.000000	-761.89	-839
2	FID		ACIS-I-4	7.18	2912	1.000	0.155	0.119	0.007	0.012	0.000000	0.000000	2152.00	1066
3	GUIDE	used	230038816	9.77	5821	1.000	0.145	-0.164	0.126	0.208	23.414377	29.978866	2013.82	52
4	GUIDE	used	300553080	9.06	5818	1.000	-0.016	0.003	0.070	0.118	23.777101	30.773227	-1006.20	623
5	GUIDE	used	300559160	9.43	5819	1.000	-0.158	0.089	0.093	0.150	24.161026	30.632205	-734.79	1886
6	GUIDE	used	230039080	8.69	5820	1.000	0.122	0.073	0.078	0.124	23.320866	29.887774	2389.92	-173
7	GUIDE	used	300555392	9.46	5798	1.000	-0.100	0.002	0.098	0.160	23.346905	30.948175	-1376.18	-800

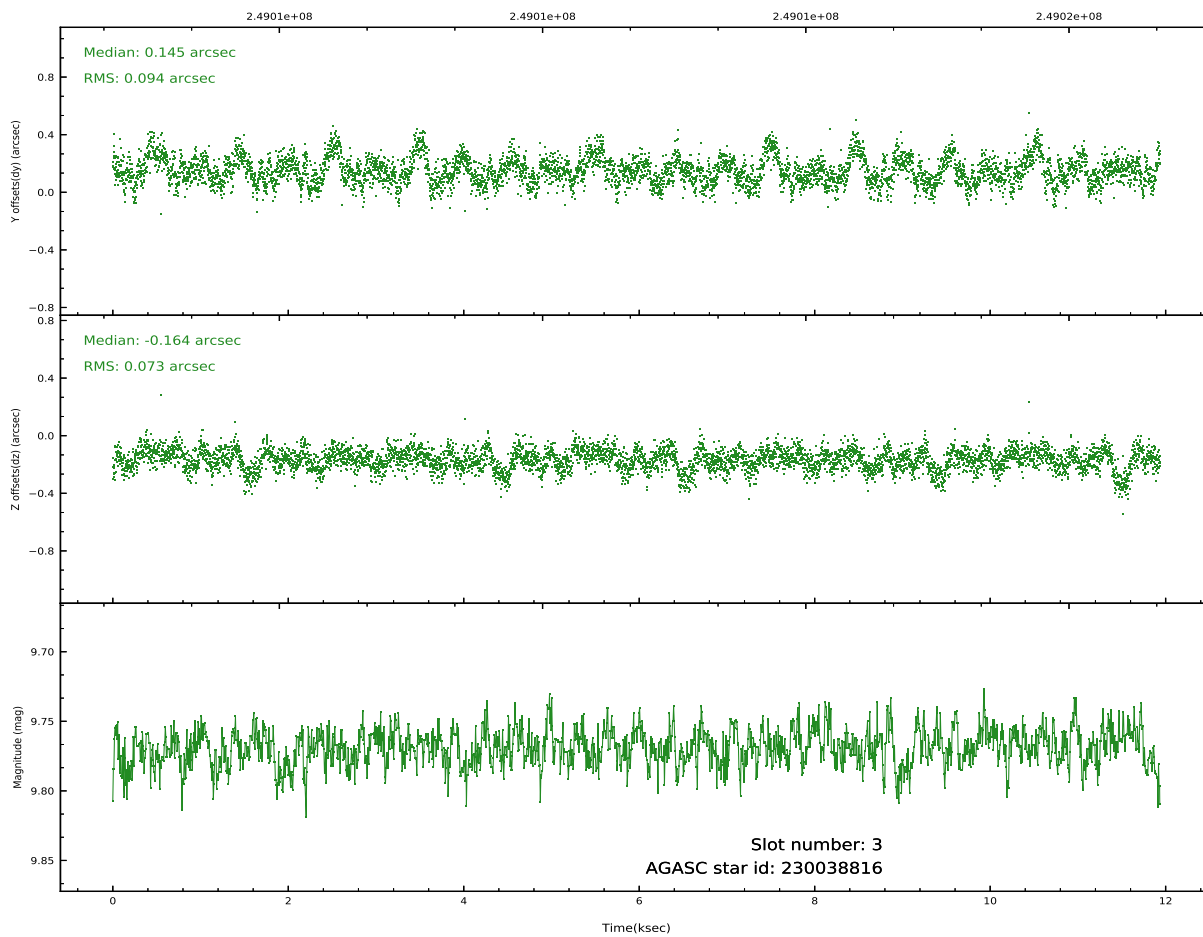
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## 2.4 Star Slots

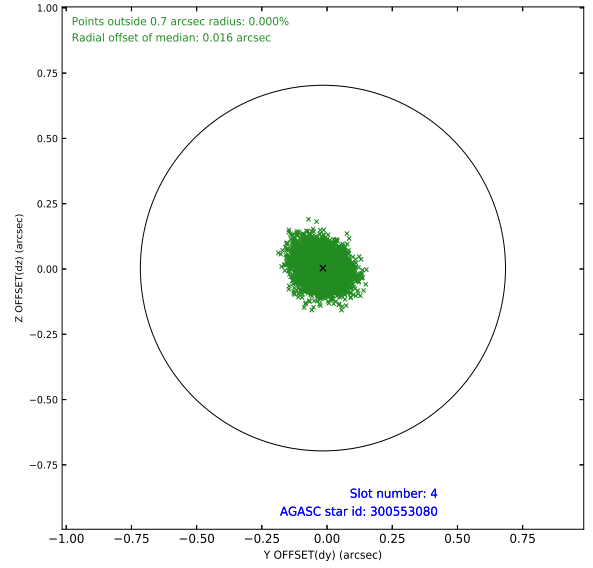
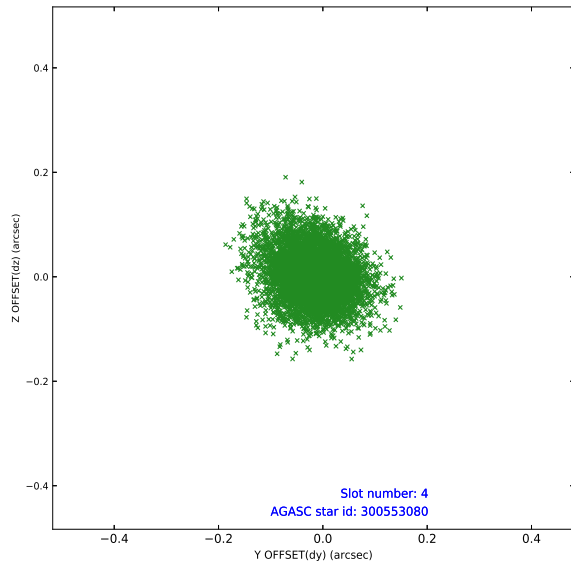
### 2.4.1 Slot 3



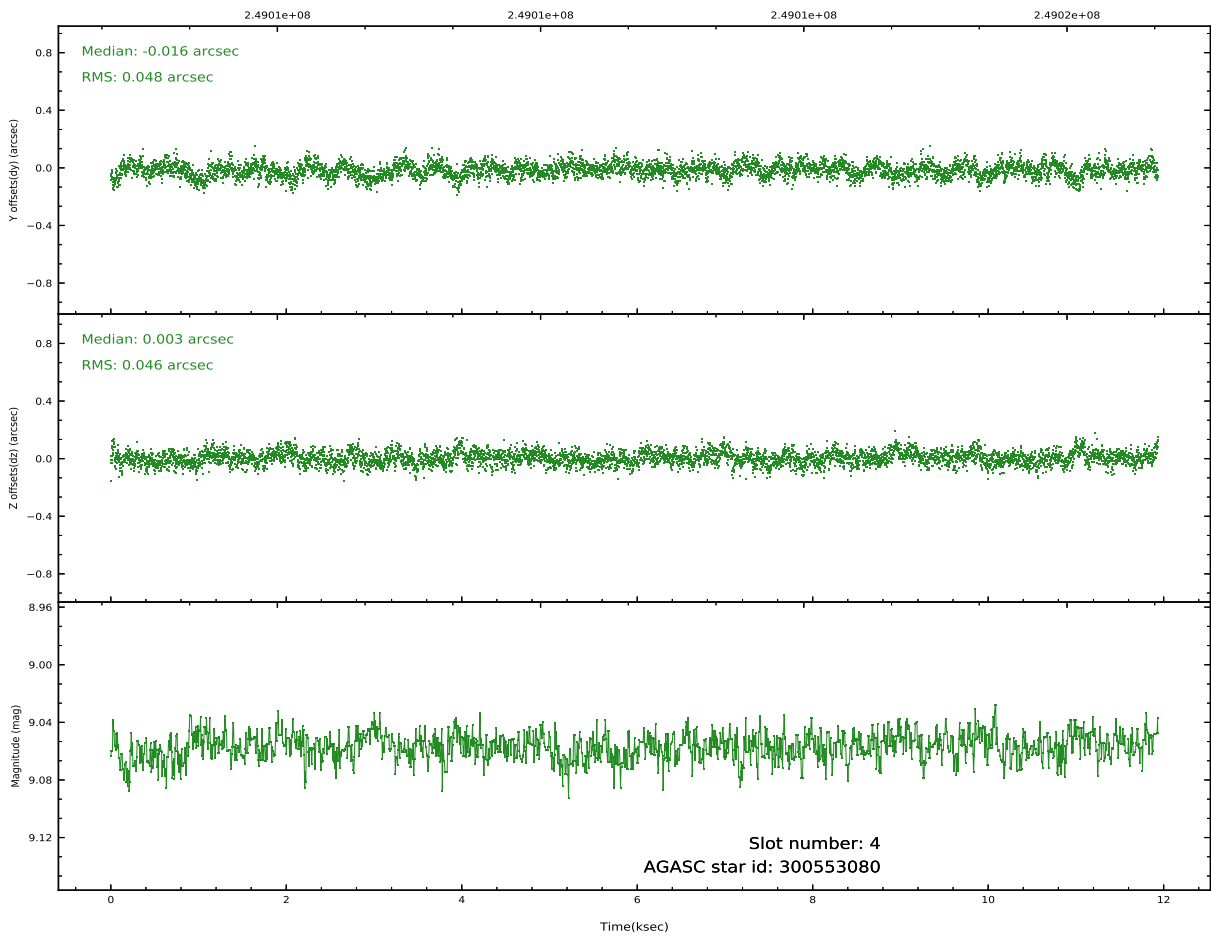
Time (s)



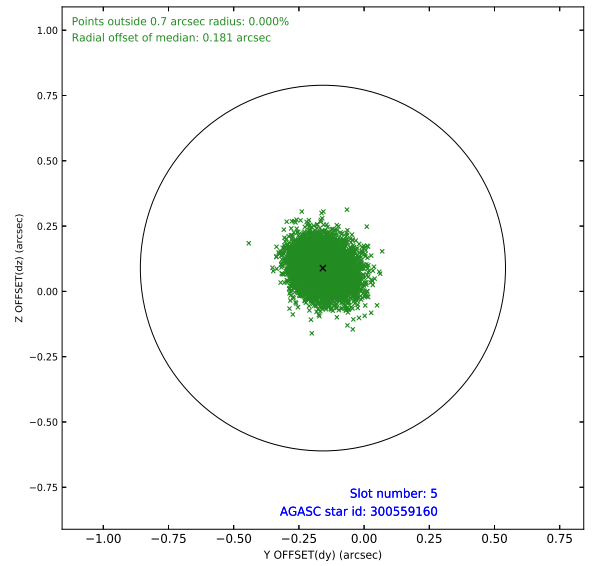
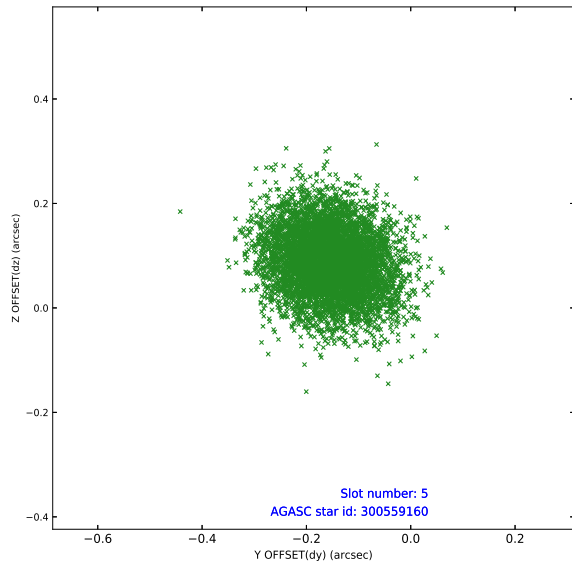
## 2.4.2 Slot 4



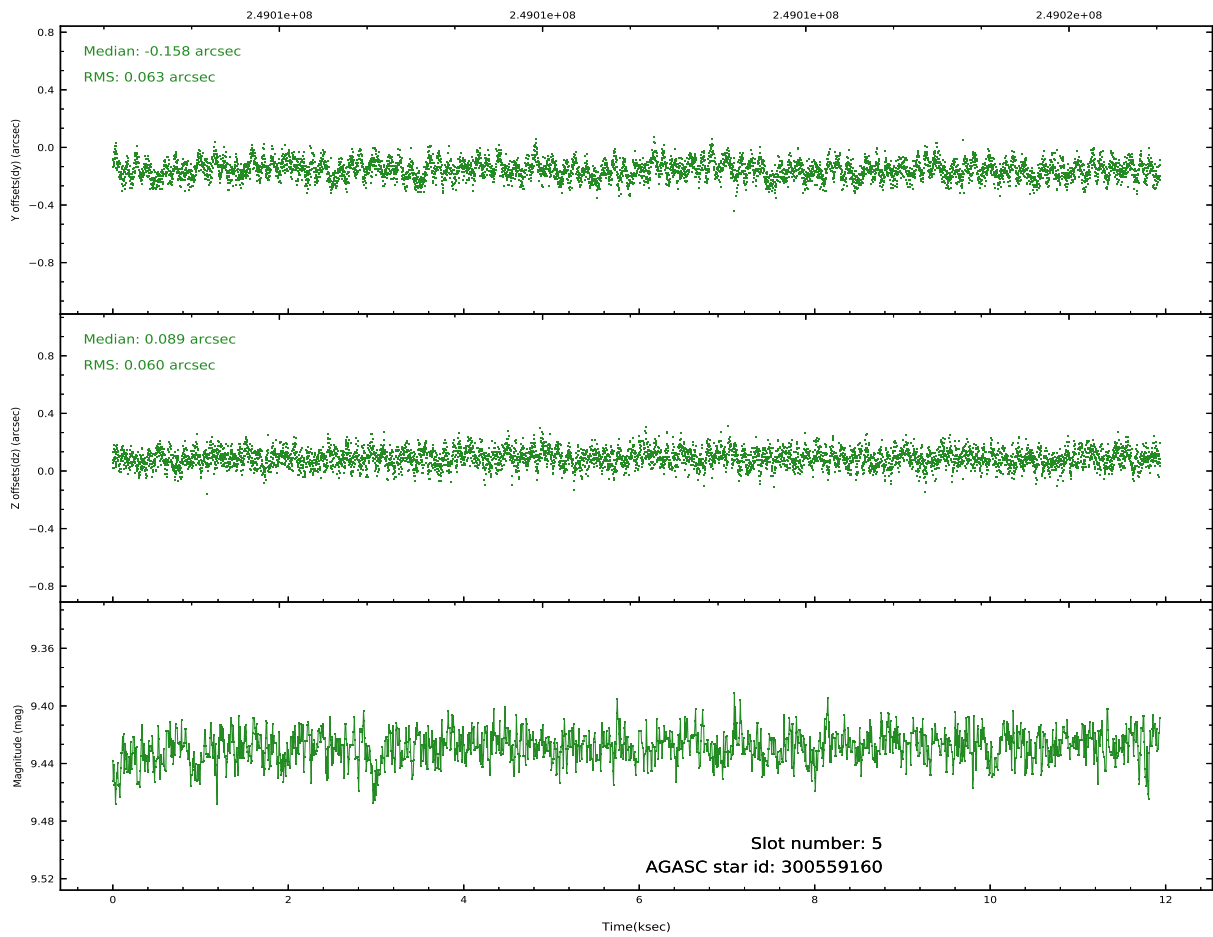
Time (s)



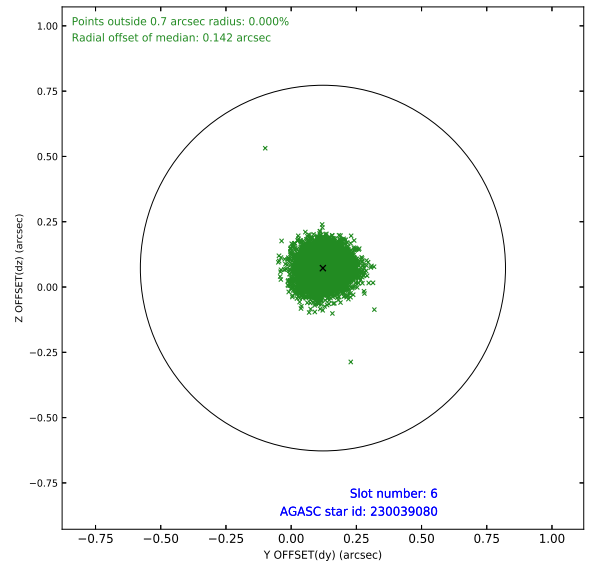
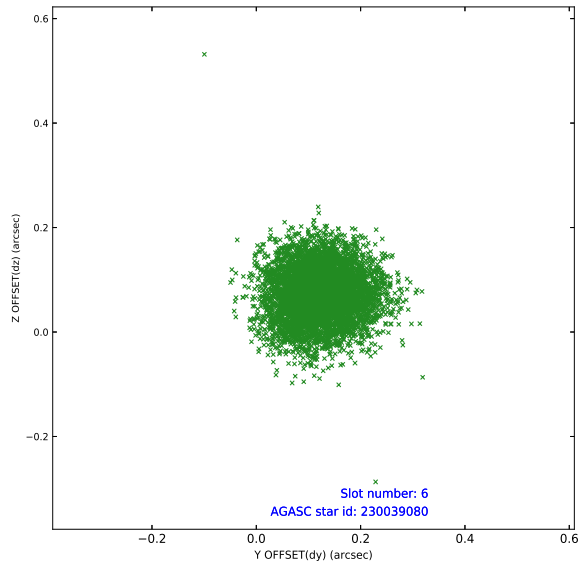
### 2.4.3 Slot 5



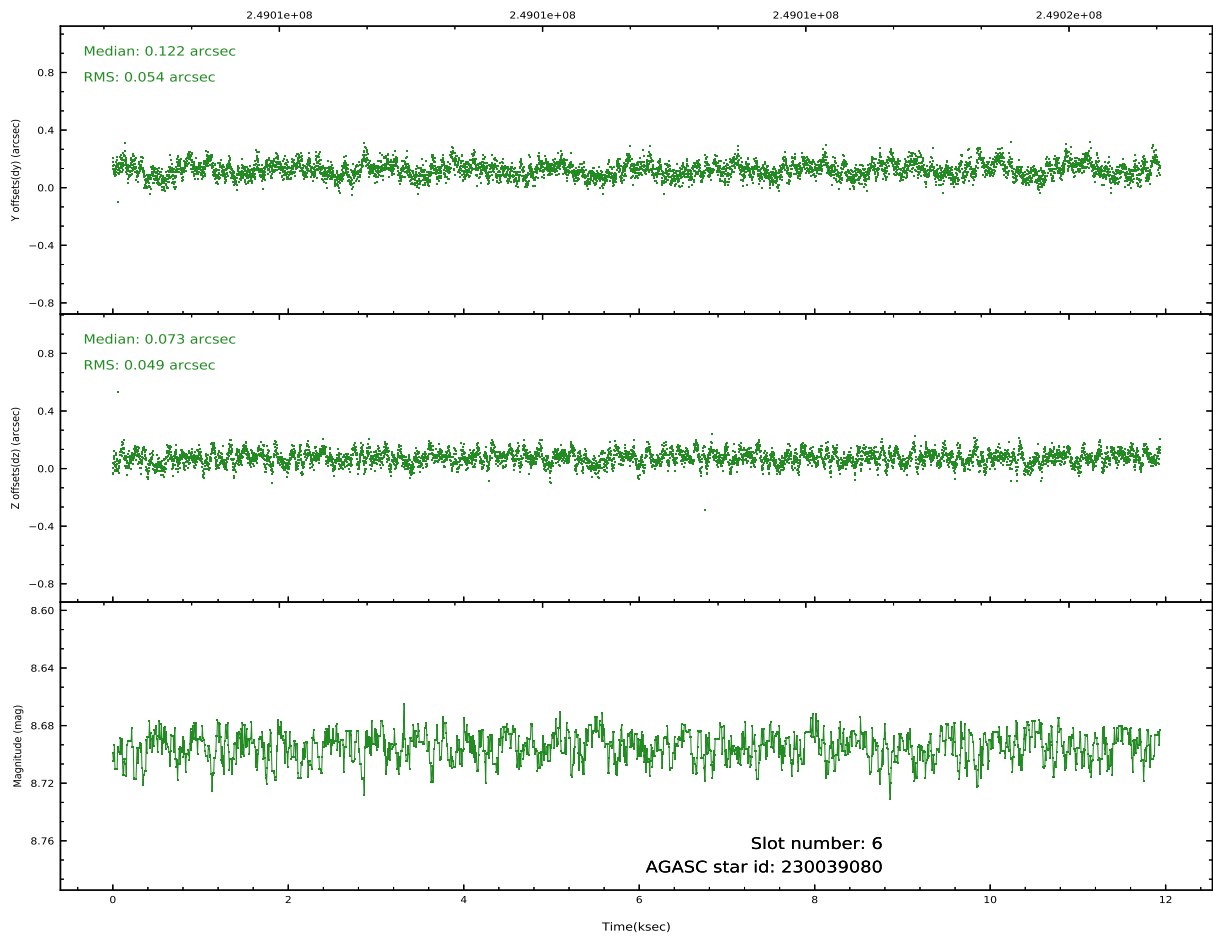
Time (s)



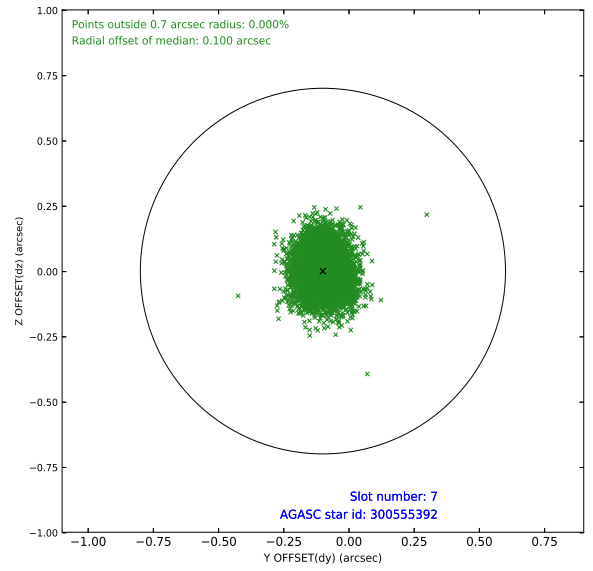
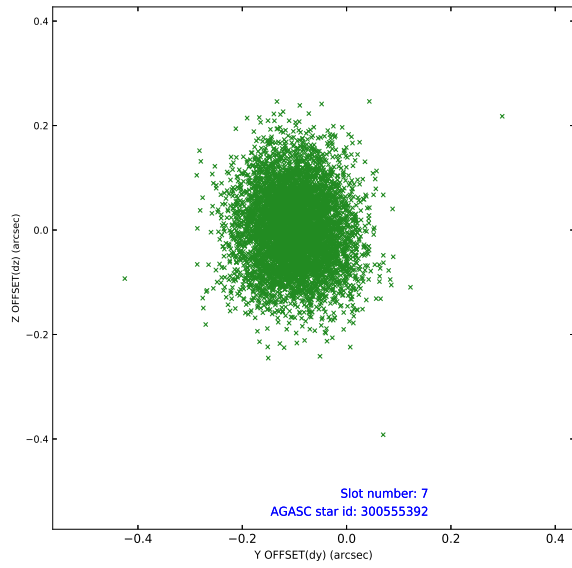
## 2.4.4 Slot 6



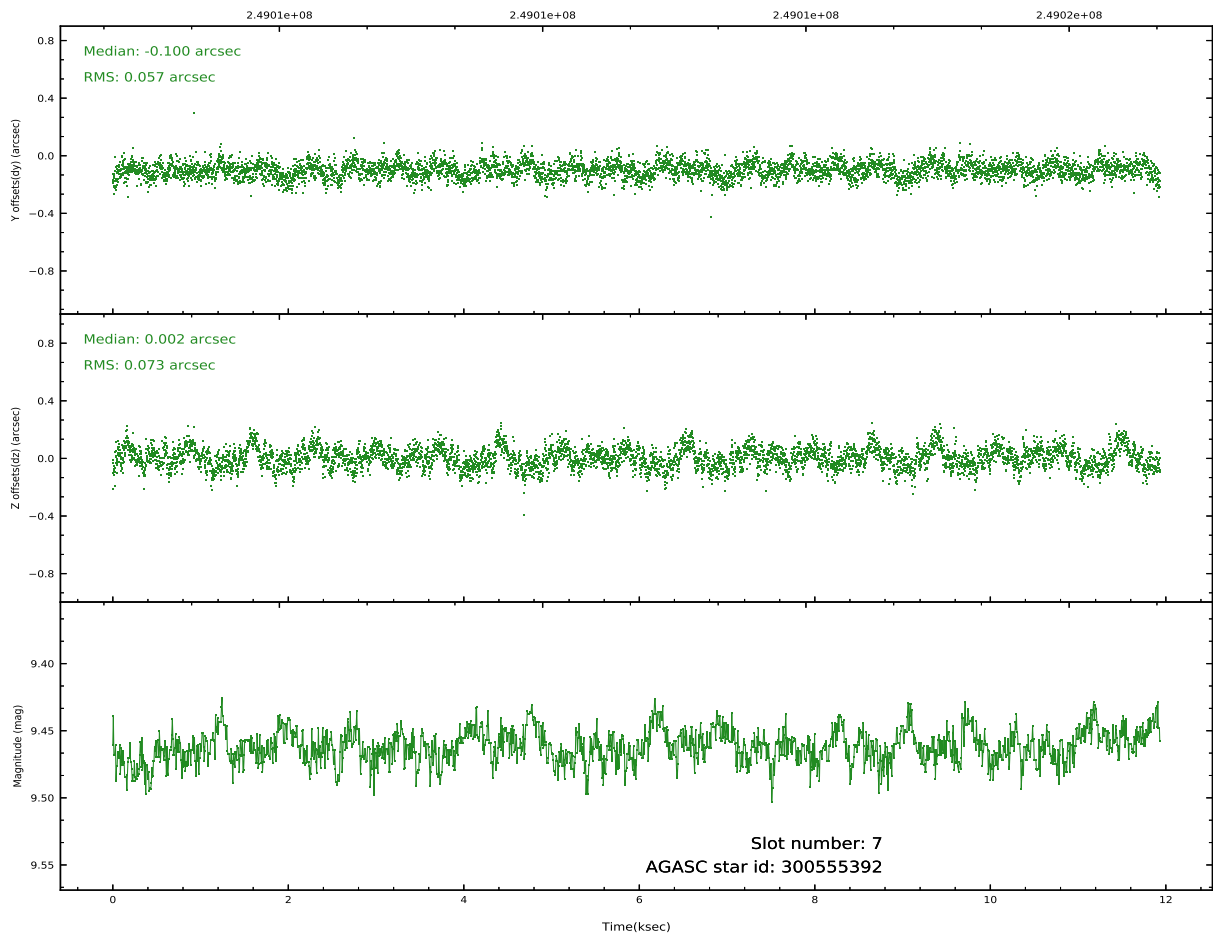
Time (s)



## 2.4.5 Slot 7

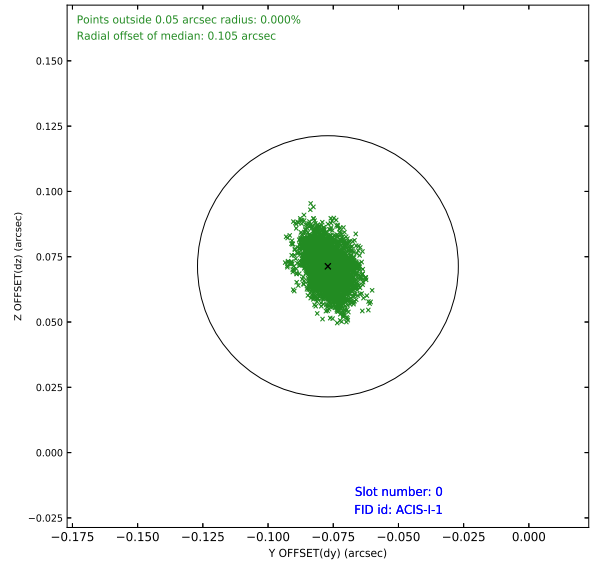
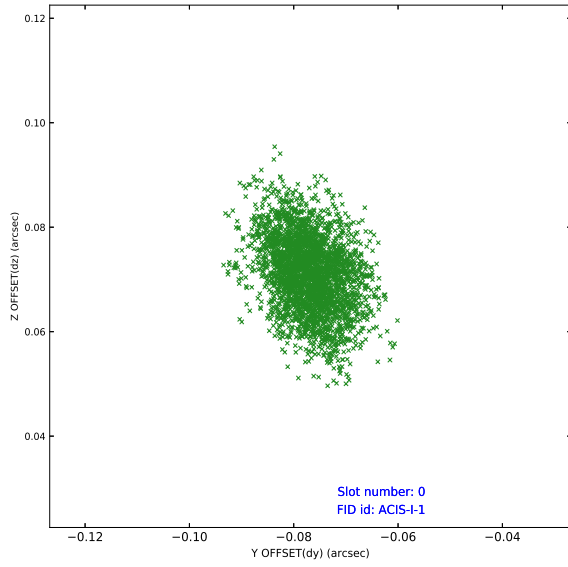


Time (s)

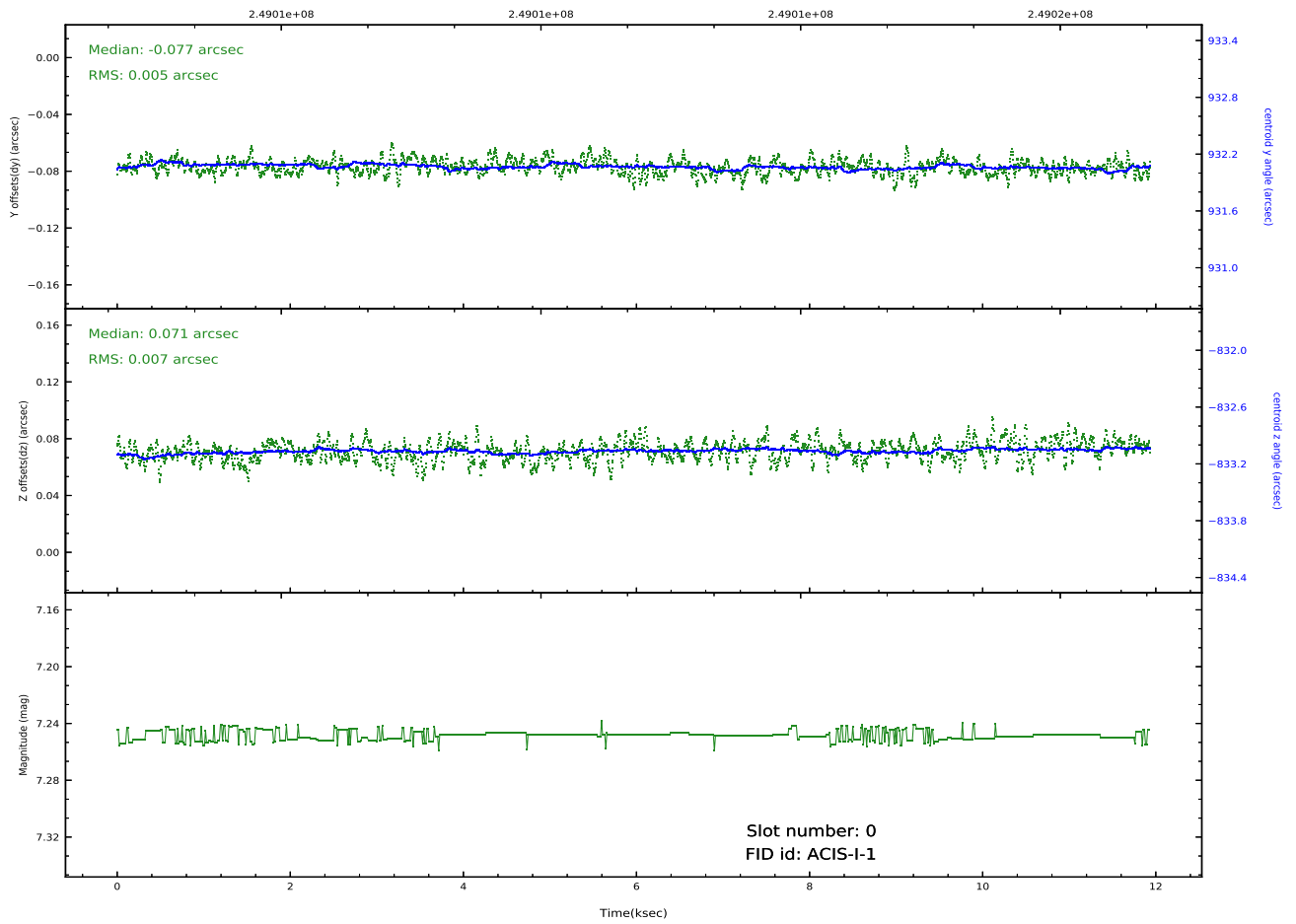


## 2.5 FID Slots

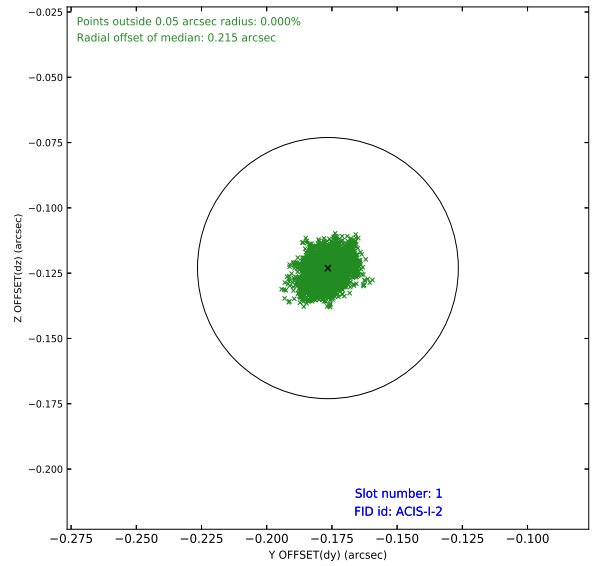
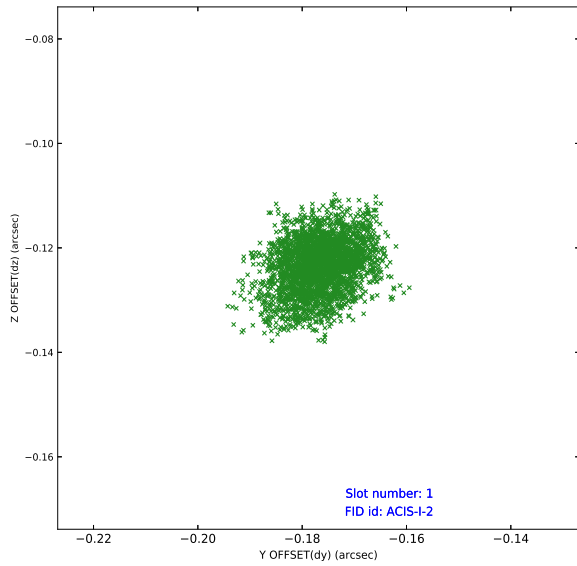
### 2.5.1 Slot 0



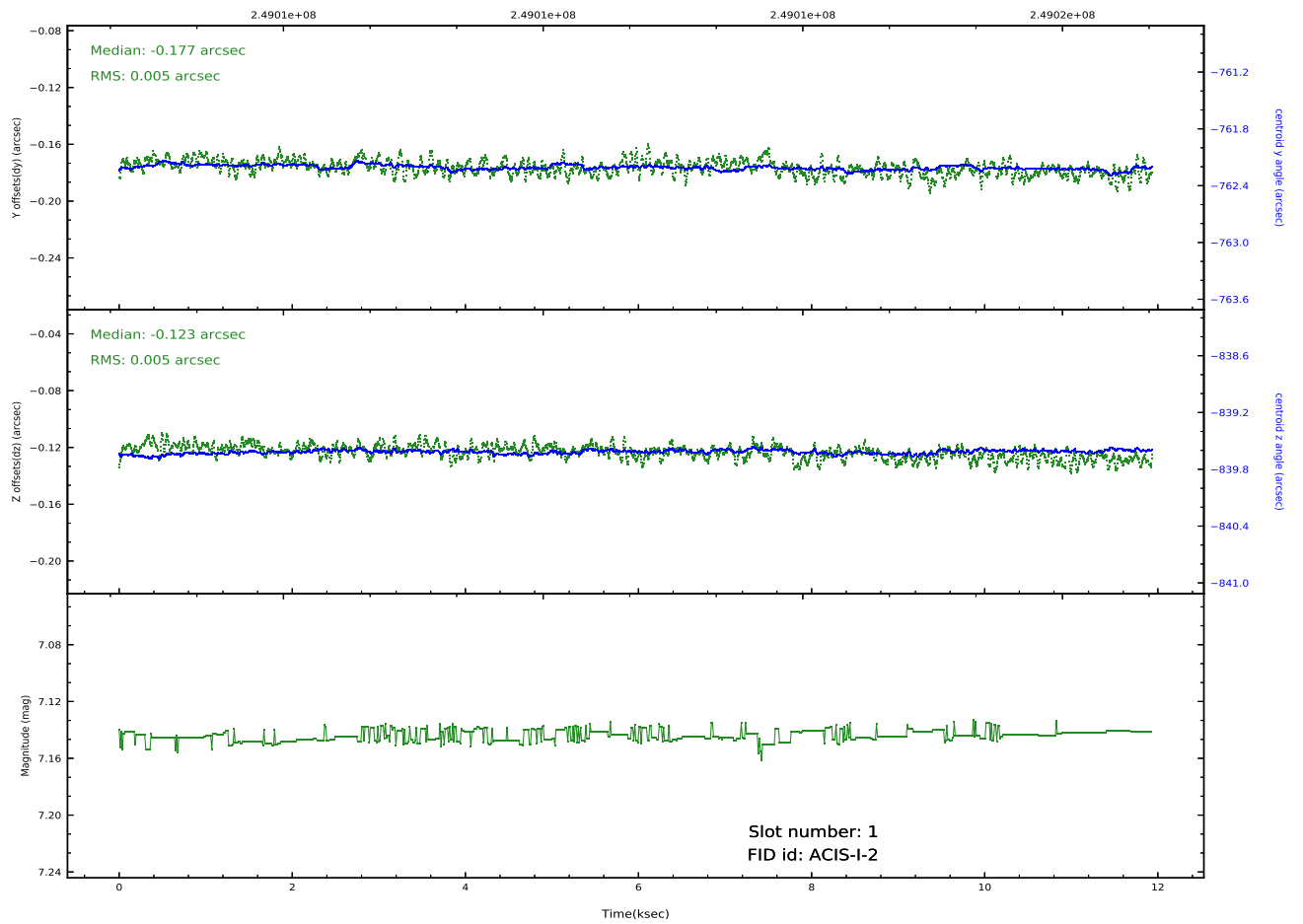
Time (s)



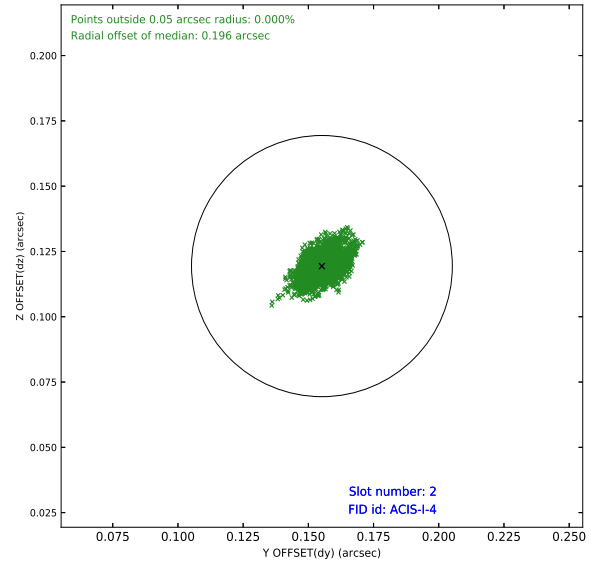
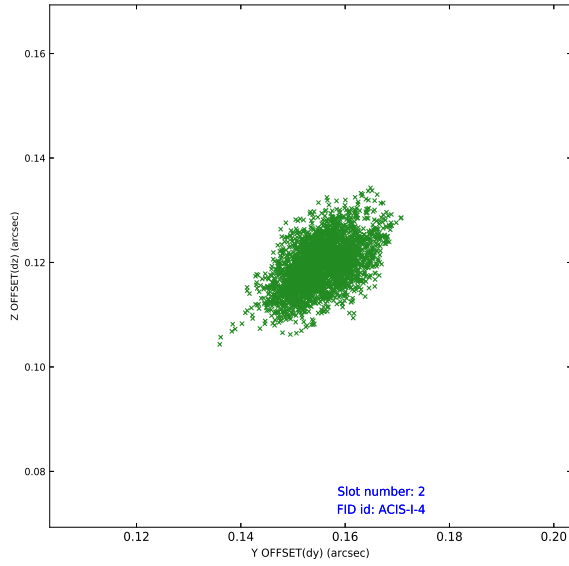
## 2.5.2 Slot 1



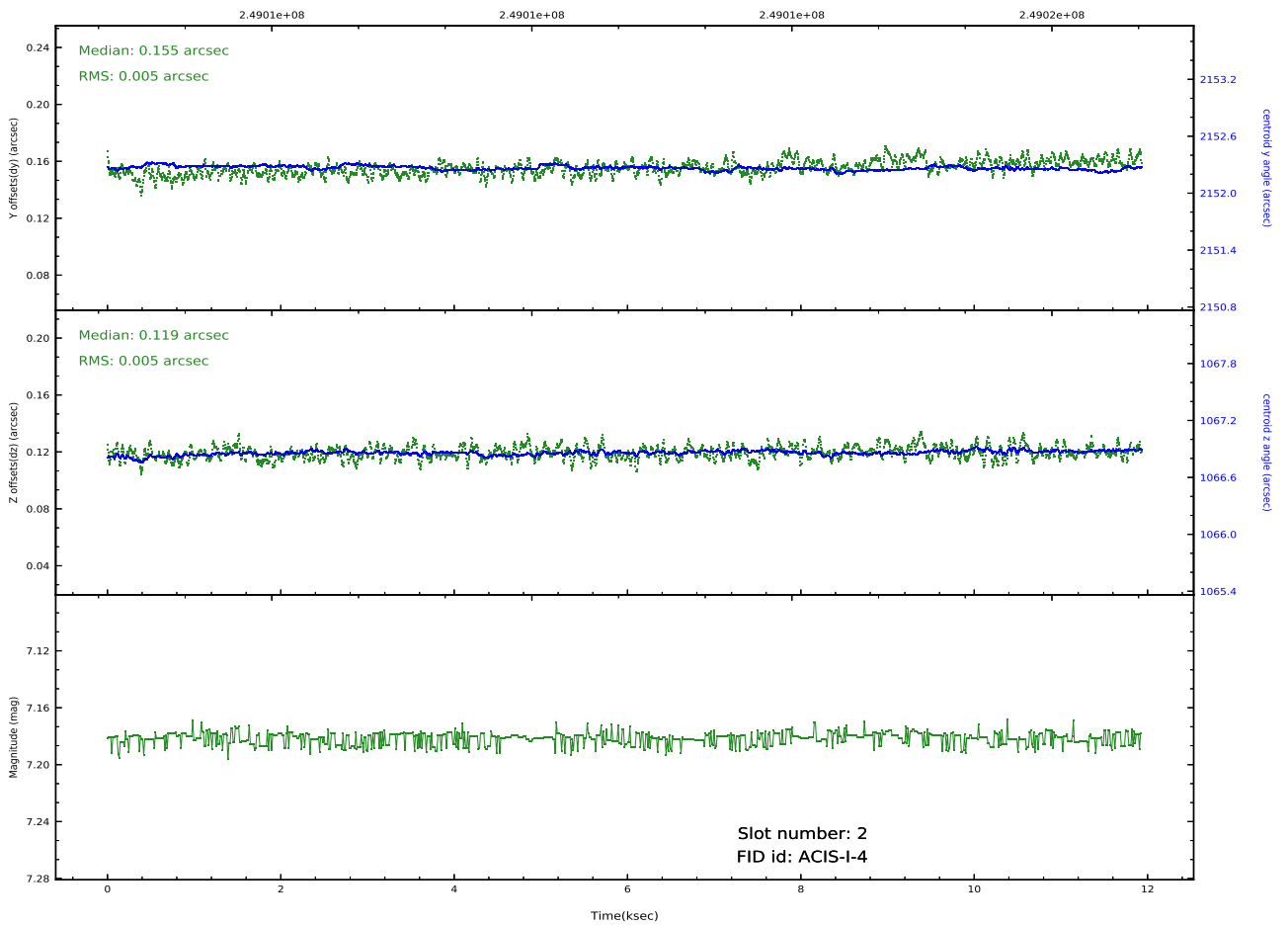
Time (s)



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	11.65435

## A.2 Comments

Roll is at very outside edge of preferred roll range.