

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4506 - L2 Version 4  
Chandra X-Ray Center

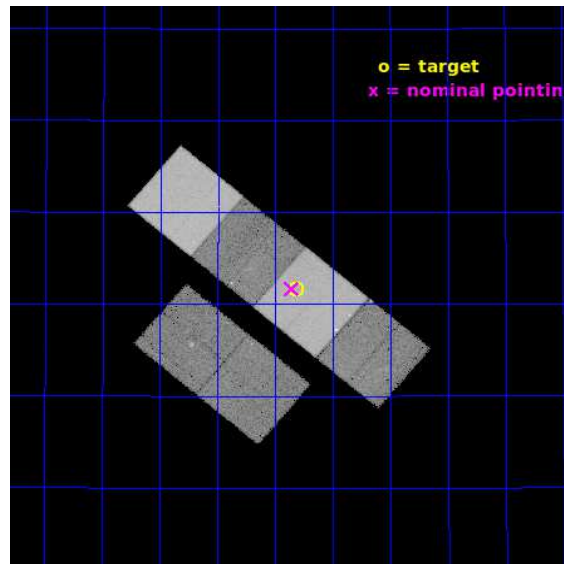
L2 Processing Date : Sep 24 2020

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# 1 Front

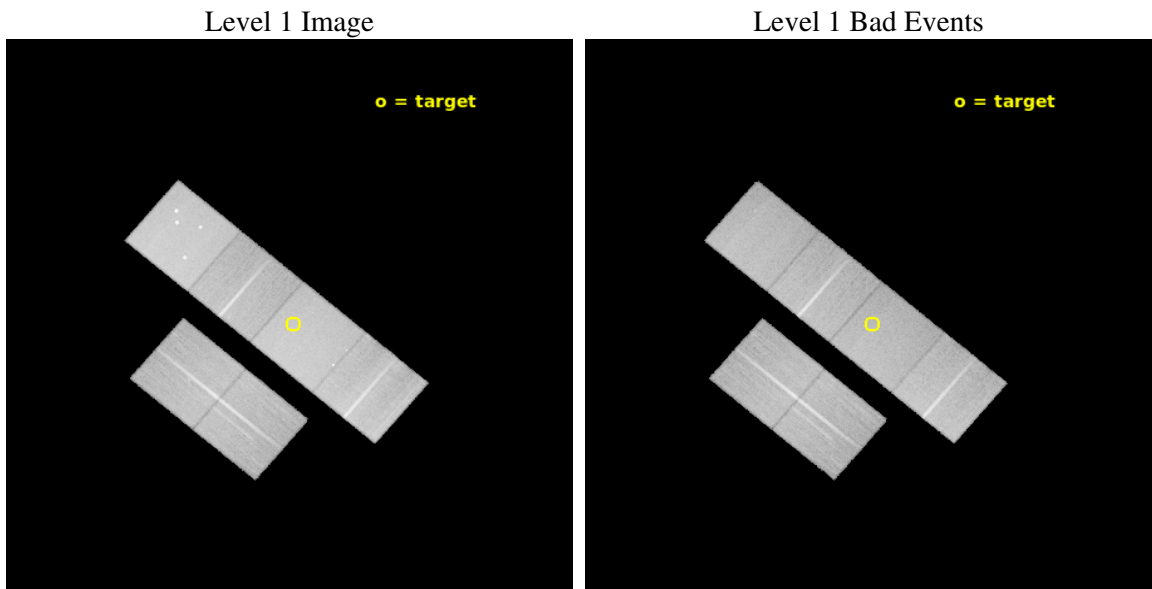
seq_num	200275	Sequence number
obs_id	4506	Observation id
title	Wind-Wind Interactions and Stellar Magnetic Fields in Pre-Planetary Nebulae	Proposal title
observer	Raghvendra Sahai	Principal investigator
object	AFGL 2688	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	315.578333	Observer's specified target RA [deg]
dec_targ	36.693889	Observer's specified target Dec [deg]
ra_nom	315.58900989721	Nominal RA [deg]
dec_nom	36.694903128239	Nominal Dec [deg]
roll_nom	40.180957995125	Nominal Roll [deg]
revision	4	Processing version of data
ontime	37843.158898711	Sum of GTIs [s]
livetime	37363.966034321	Livetime [s]
ontime2	37833.435958058	Sum of GTIs [s]
ontime3	37833.435947925	Sum of GTIs [s]
ontime5	37839.917908579	Sum of GTIs [s]
ontime6	37843.158888727	Sum of GTIs [s]
ontime7	37843.158898711	Sum of GTIs [s]
ontime8	37836.676908314	Sum of GTIs [s]
l2events	405713	Number of level 2 events



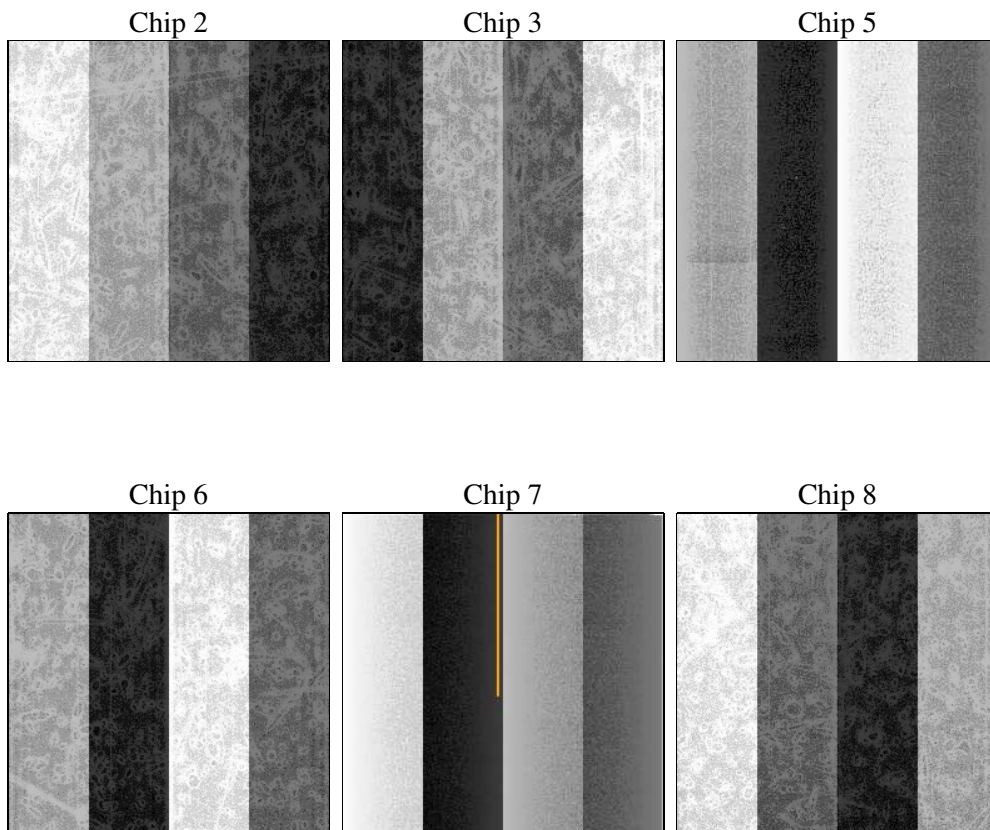
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	37667.953000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	37843.158898711	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime2	37833.435958058	Sum of GTIs [s]
date	2020-09-24T18:35:24	Date and time of file creation	ontime3	37833.435947925	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	37839.917908579	Sum of GTIs [s]
			ontime6	37843.158888727	Sum of GTIs [s]
			ontime7	37843.158898711	Sum of GTIs [s]
			ontime8	37836.676908314	Sum of GTIs [s]
			l1events	1789682	Number of level 1 events

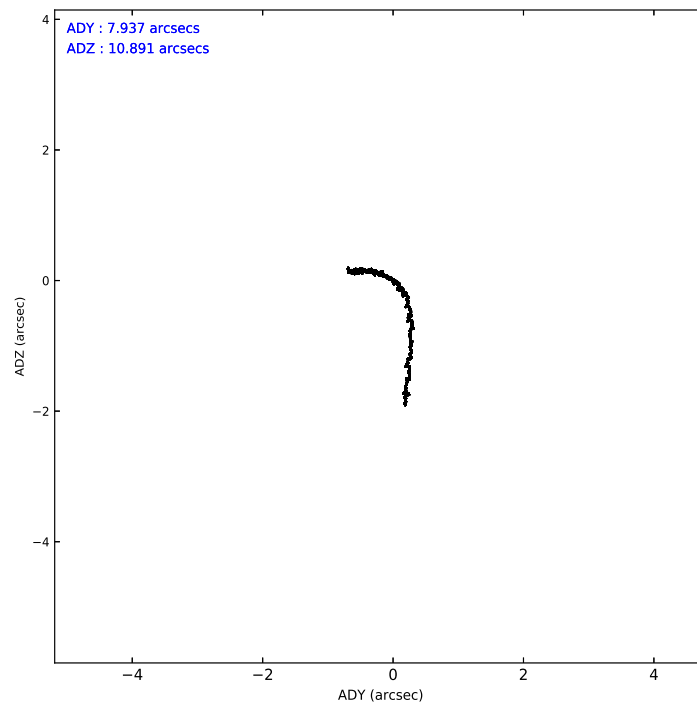
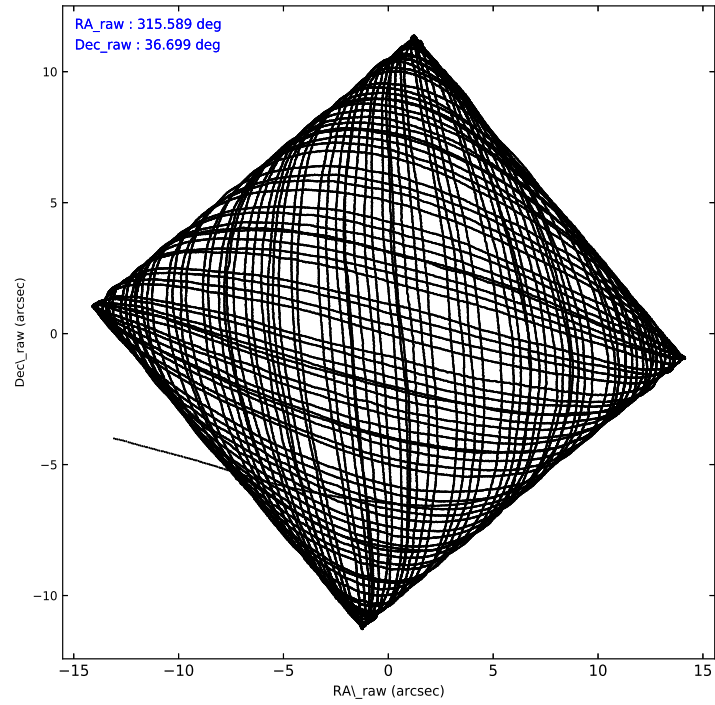
### 2.1.4 Events

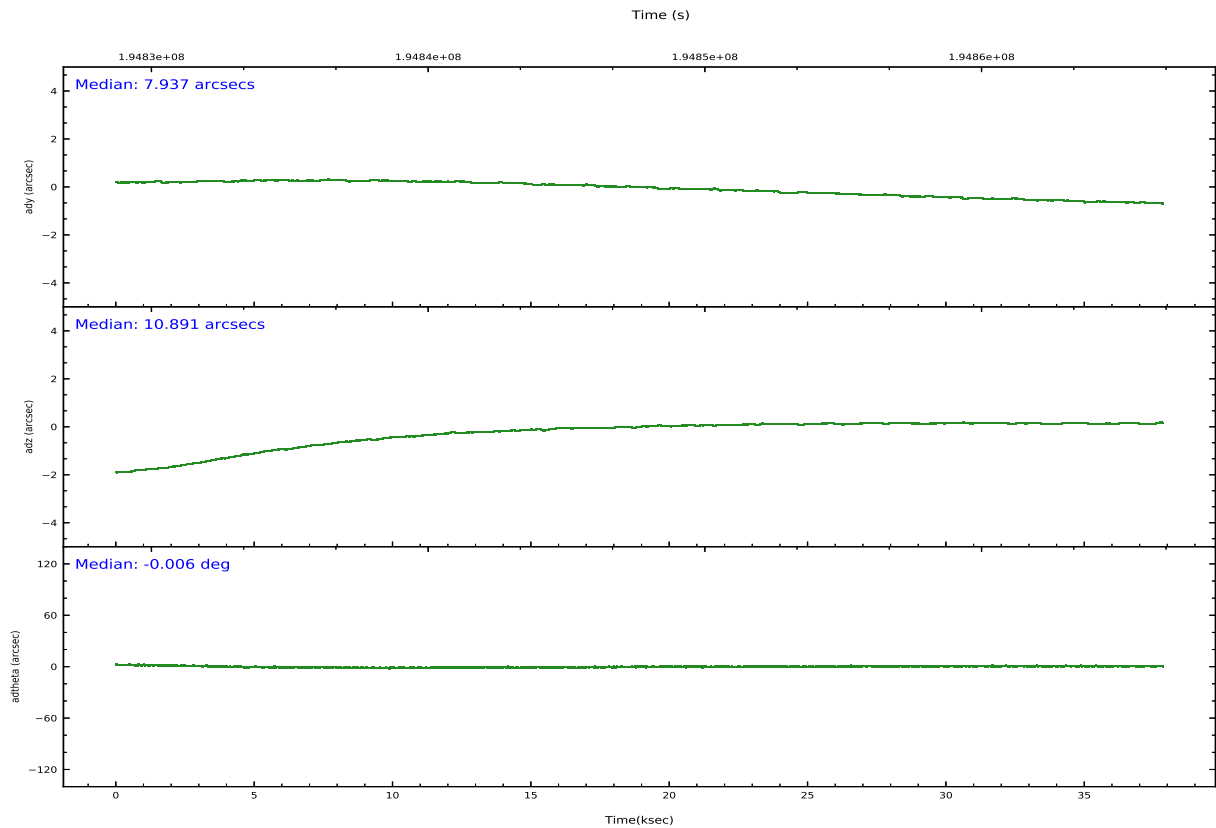
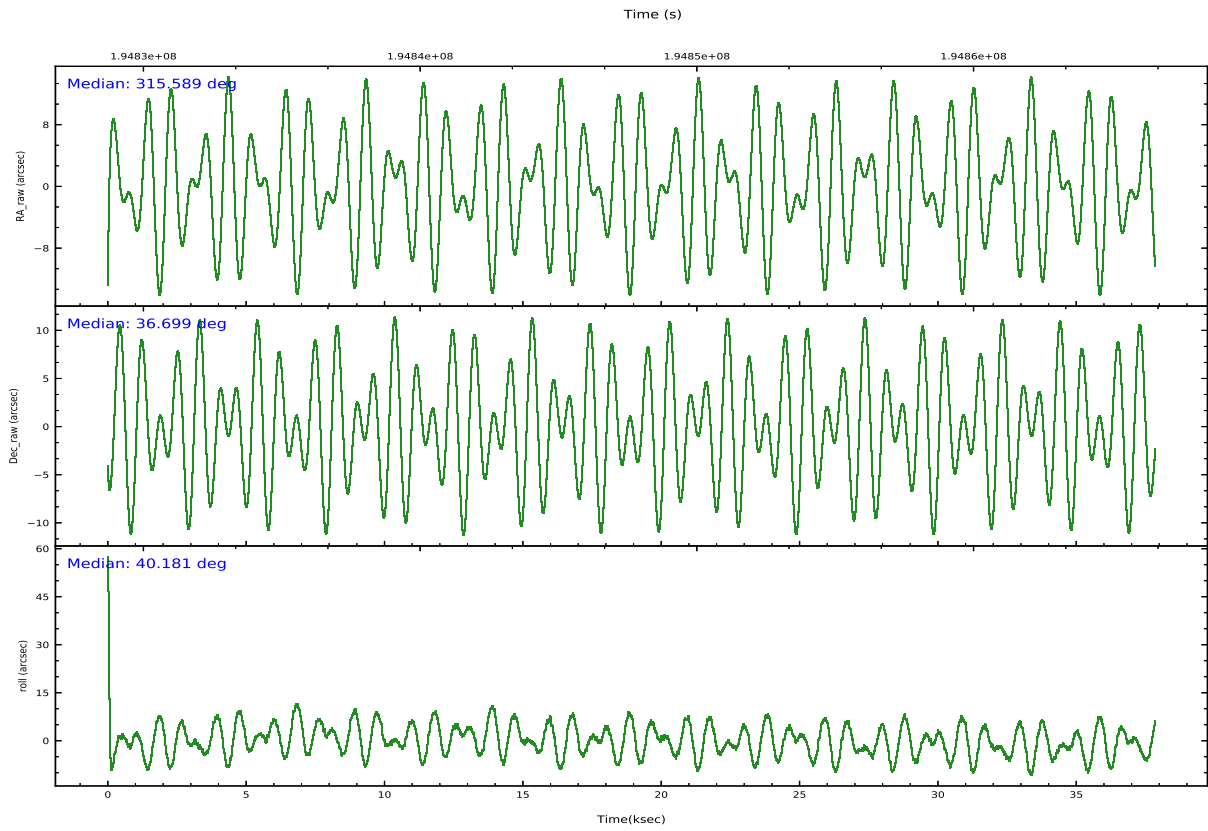
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	255616	246355	375516	251352	343753	317090	grade 0 events	13716	12920	19647	13459	13878	21845
rejected events	225412	217225	204556	219803	201258	250107		5%	5%	5%	5%	4%	6%
rejected %	88%	88%	54%	87%	58%	78%	grade 1 events	156	166	570	132	310	216
								0%	0%	0%	0%	0%	0%
							grade 2 events	6002	5631	49204	6374	28647	14816
								2%	2%	13%	2%	8%	4%
							grade 3 events	2742	2852	7094	2997	12925	7079
								1%	1%	1%	1%	3%	2%
							grade 4 events	2881	2920	6853	2968	12998	6732
								1%	1%	1%	1%	3%	2%
							grade 5 events	10137	11274	27805	11694	32765	15293
								3%	4%	7%	4%	9%	4%
							grade 6 events	5108	5054	89495	5979	75177	17067
								1%	2%	23%	2%	21%	5%
							grade 7 events	214874	205538	174848	207749	167053	234042
								84%	83%	46%	82%	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	315.577694	315.58900989721	Subarray requested	NONE	NONE
[deg] Pointing Dec	36.672995	36.694903128239	Alternating exposures requested	N	N
[deg] Pointing Roll	40.035506	40.180957995125	[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)	194828895.184000	194827681.37678			
Observation start date	2004-03-04T23:07:11	2004-03-04T22:48:01			
[s] Observation end time (MET)	194866563.184000	194866878.4035			
Observation end date	2004-03-05T09:34:59	2004-03-05T09:41:18			
Read mode	TIMED	TIMED			

## 2.3 Aspect





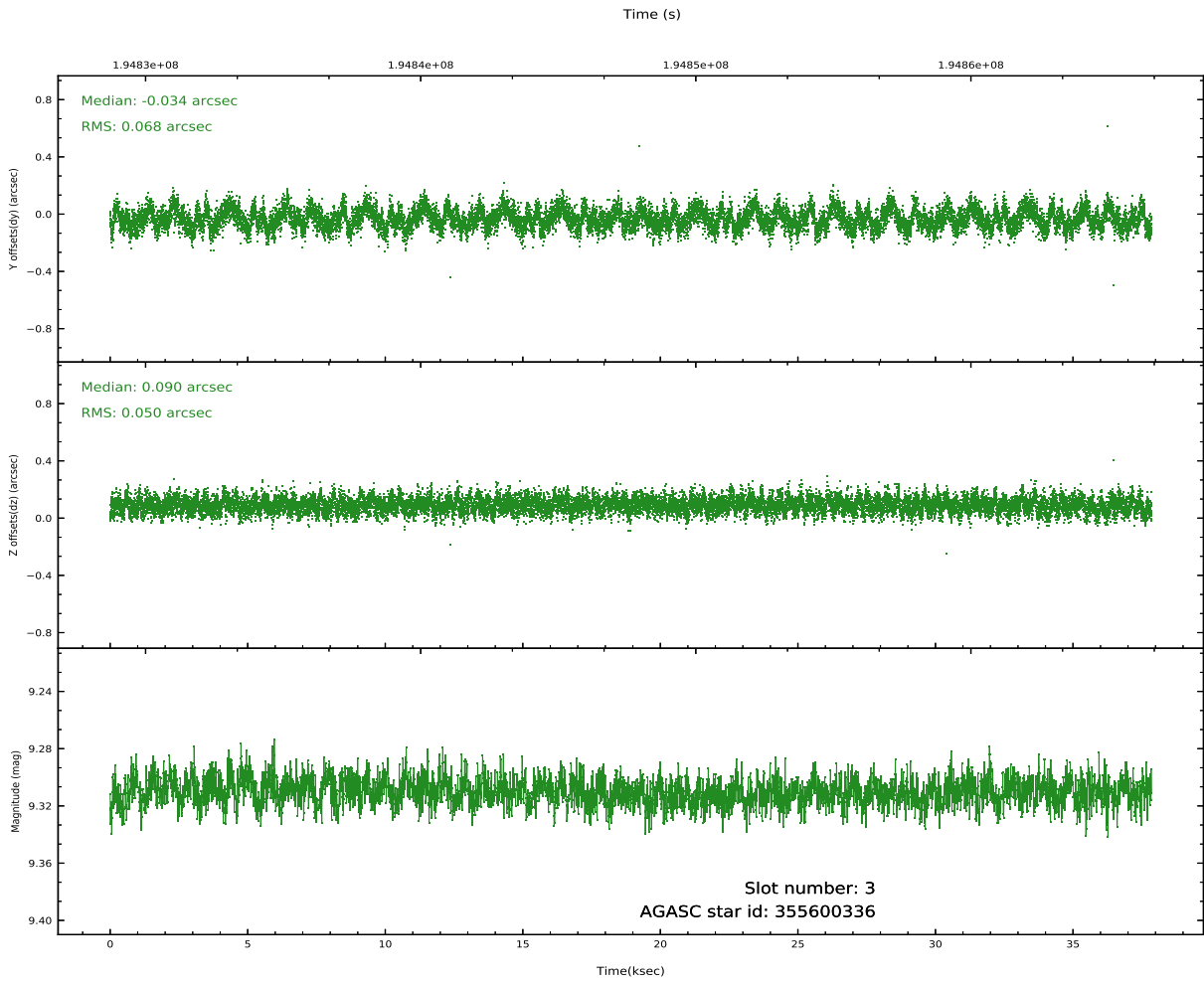
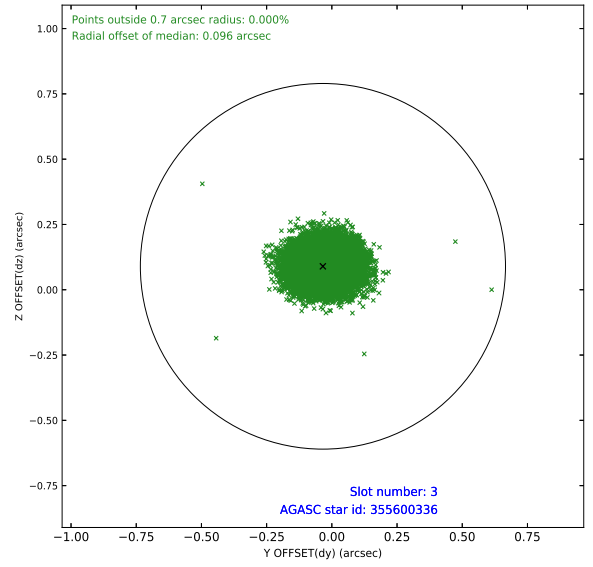
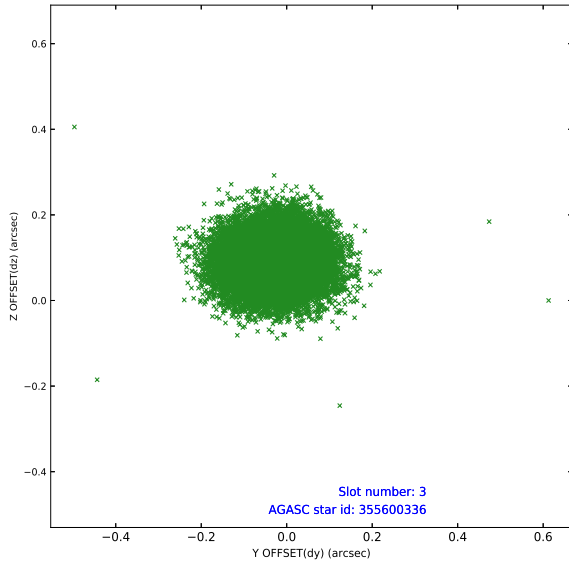
### Slot Statistics

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	9223	1.000	-0.061	-0.046	0.008	0.026	0.000000	0.000000	-760.63	-1731
1	FID		ACIS-S-4	7.20	9223	1.000	0.137	0.042	0.011	0.022	0.000000	0.000000	2152.77	176
2	FID		ACIS-S-5	7.23	9226	1.000	-0.109	0.013	0.016	0.030	0.000000	0.000000	-1813.55	170
3	GUIDE	used	355600336	9.31	18442	1.000	-0.034	0.090	0.091	0.142	315.858636	37.147643	1717.46	791
4	GUIDE	used	355607880	9.45	18442	1.000	0.098	-0.287	0.094	0.150	315.361737	36.532438	-802.78	14
5	GUIDE	used	355616736	8.66	18447	1.000	0.083	0.016	0.066	0.105	315.502535	36.969558	521.49	956
6	GUIDE	used	355620520	9.12	18437	1.000	0.125	0.105	0.079	0.128	316.250047	36.732160	1627.38	-1078
7	GUIDE	used	355617840	9.46	18443	1.000	-0.267	0.081	0.115	0.185	316.079873	36.149261	-92.06	-2379

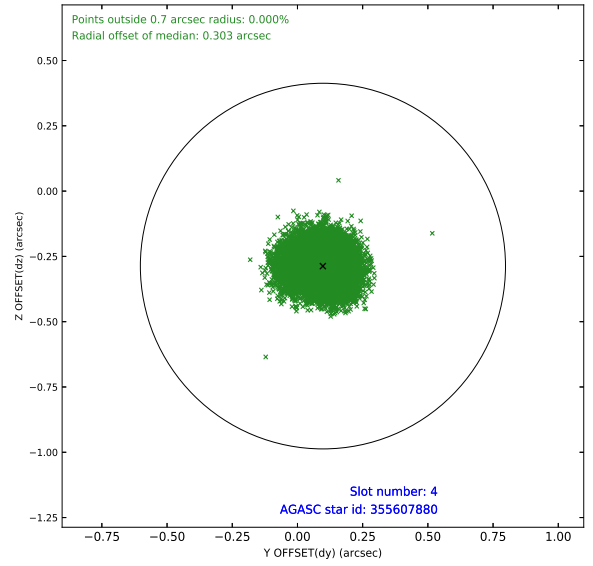
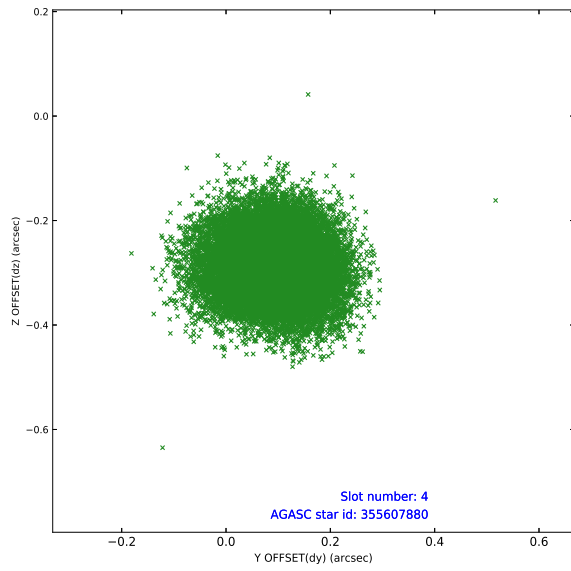
∞

## 2.4 Star Slots

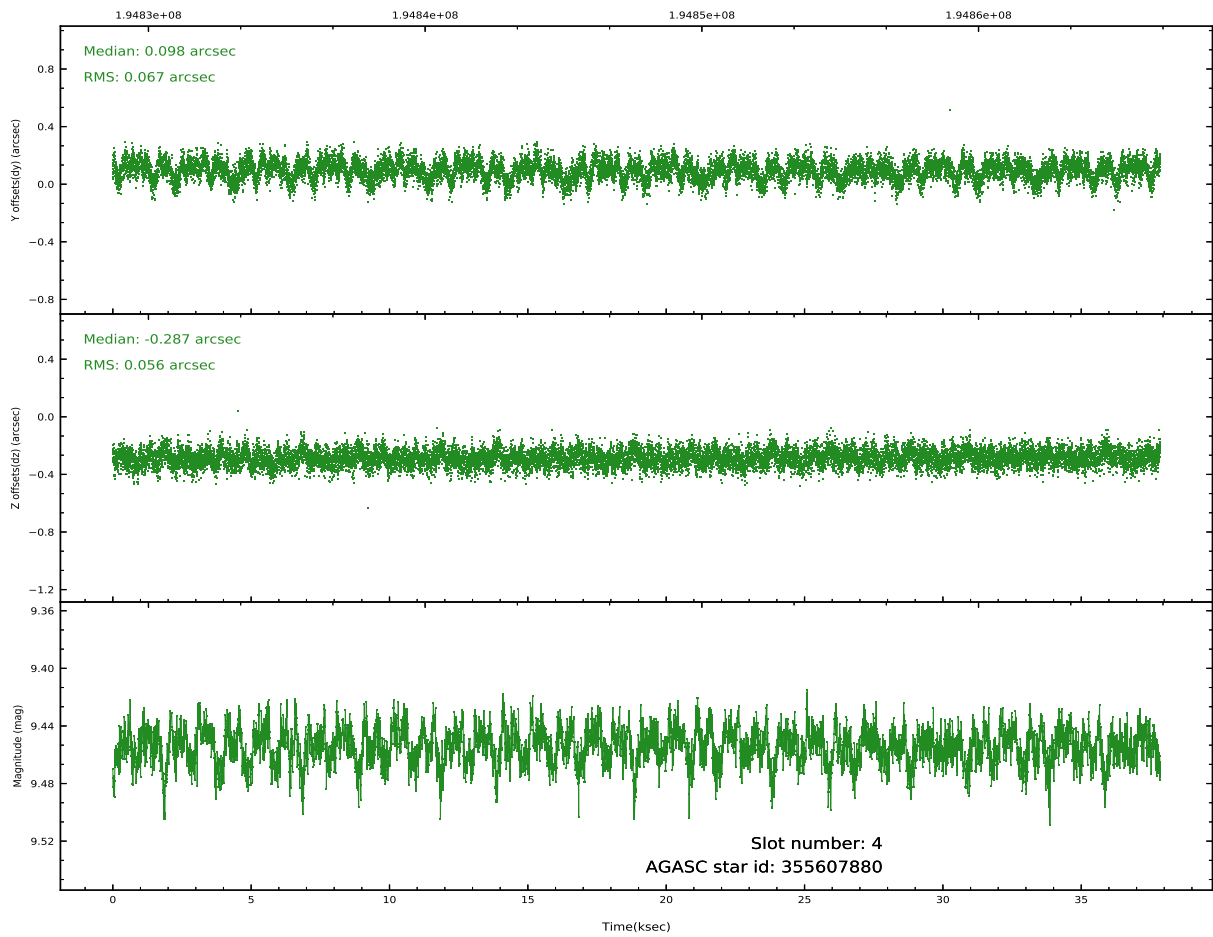
### 2.4.1 Slot 3



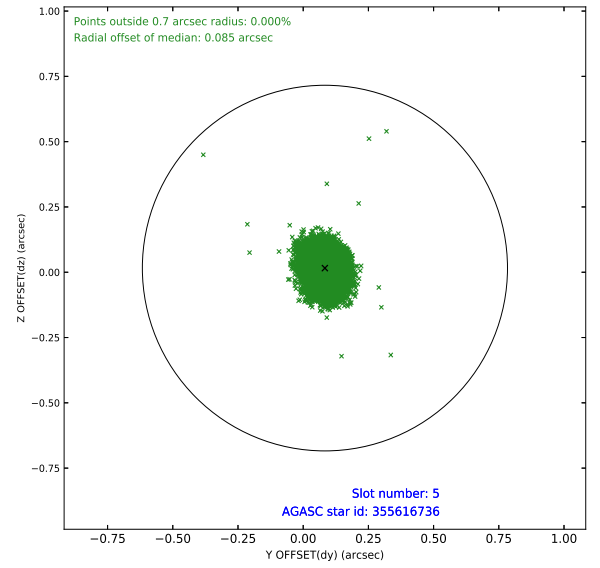
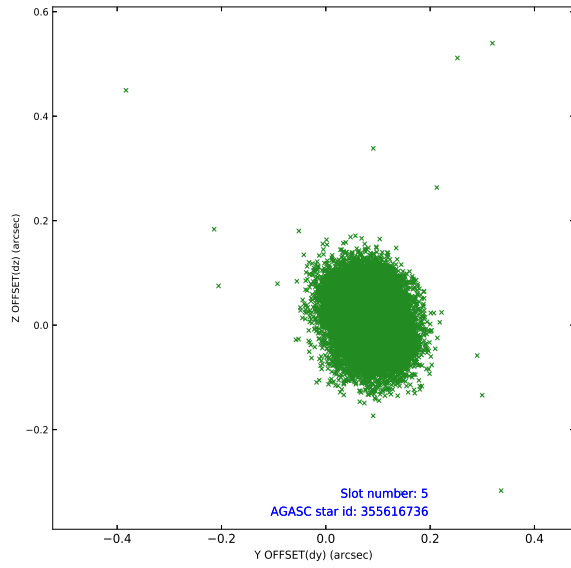
## 2.4.2 Slot 4



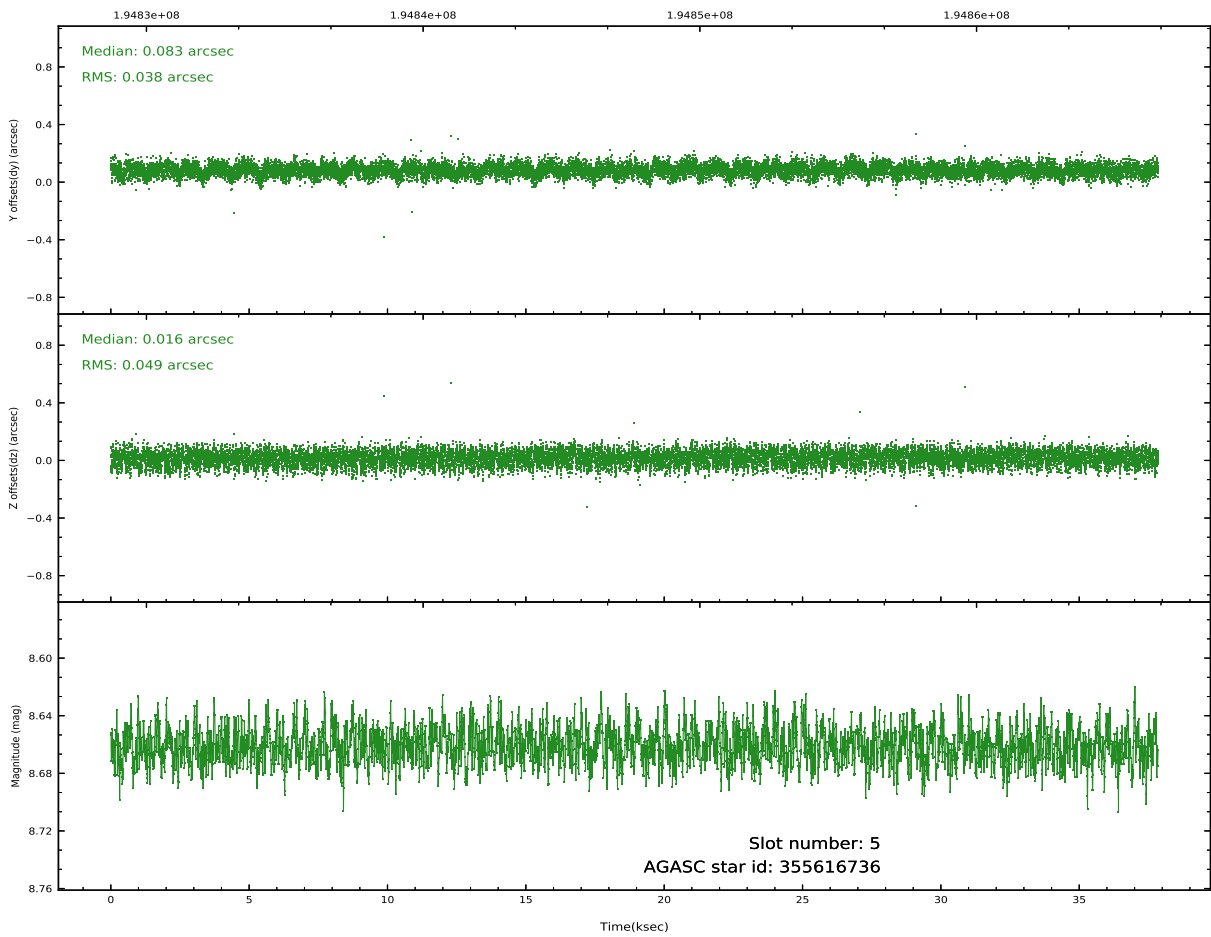
Time (s)



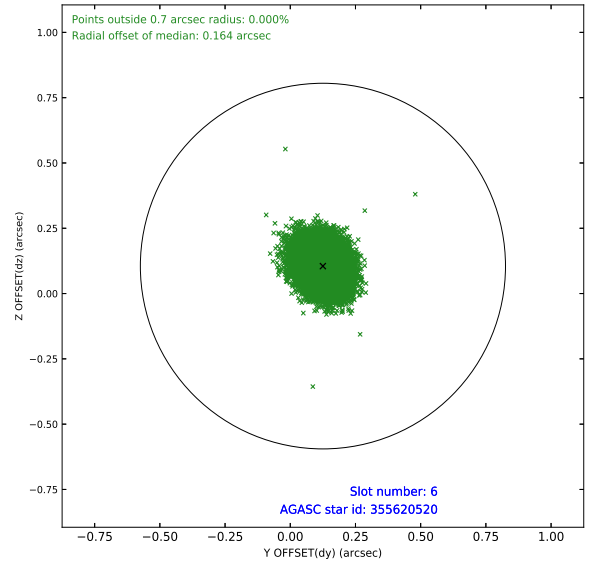
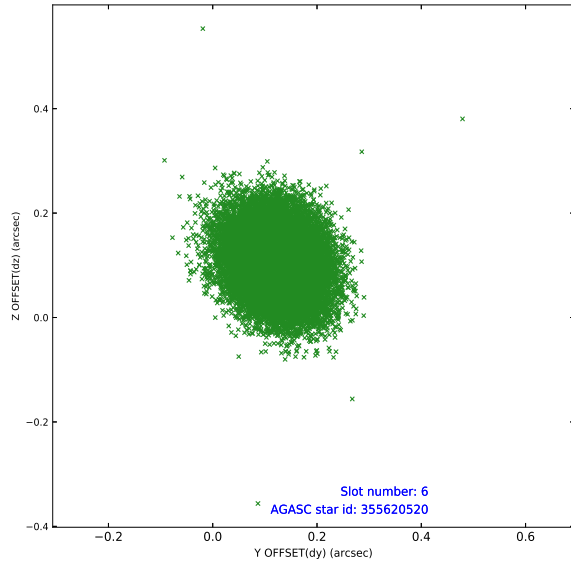
### 2.4.3 Slot 5



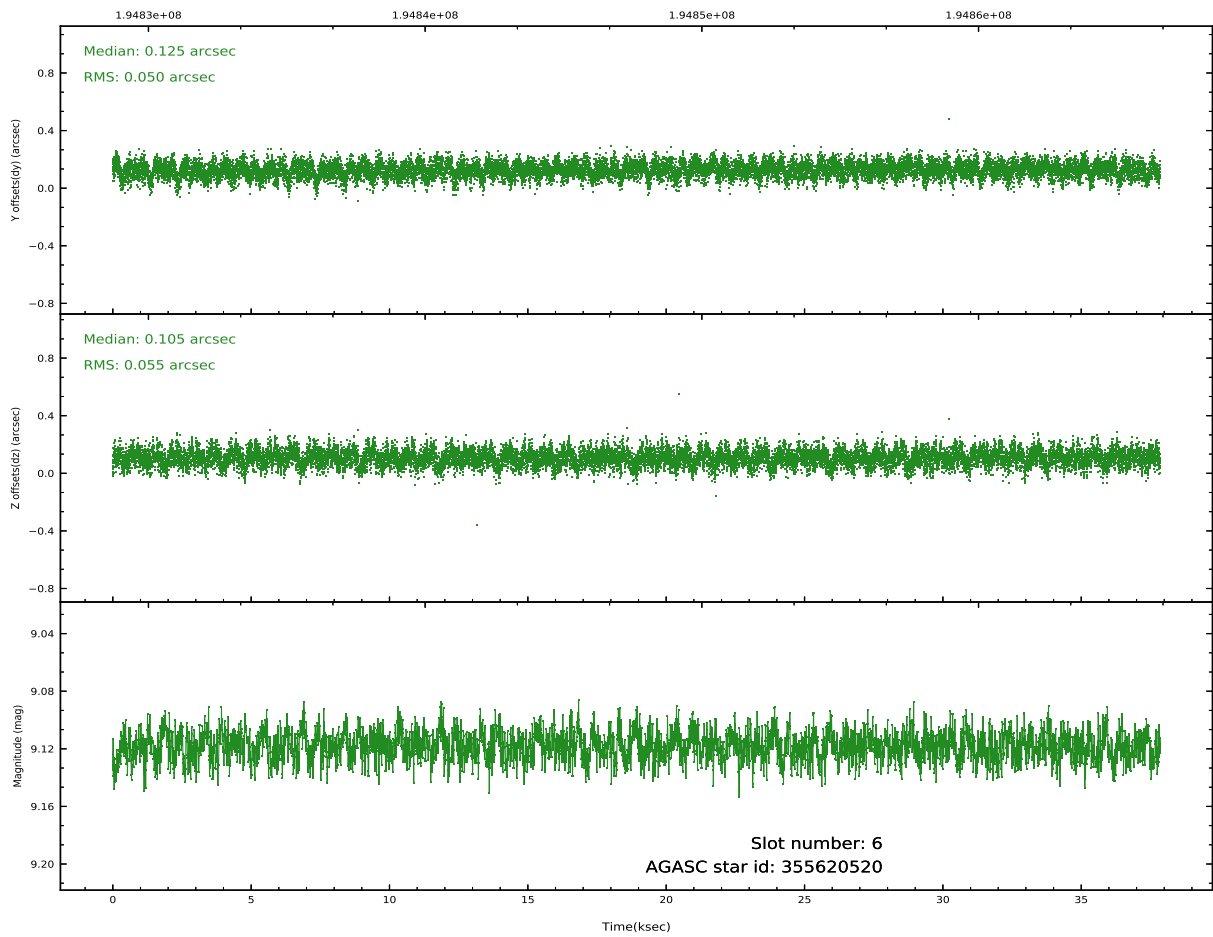
Time (s)



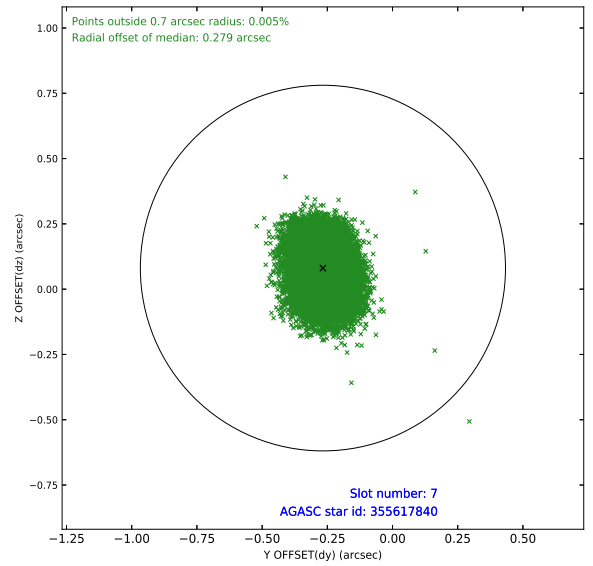
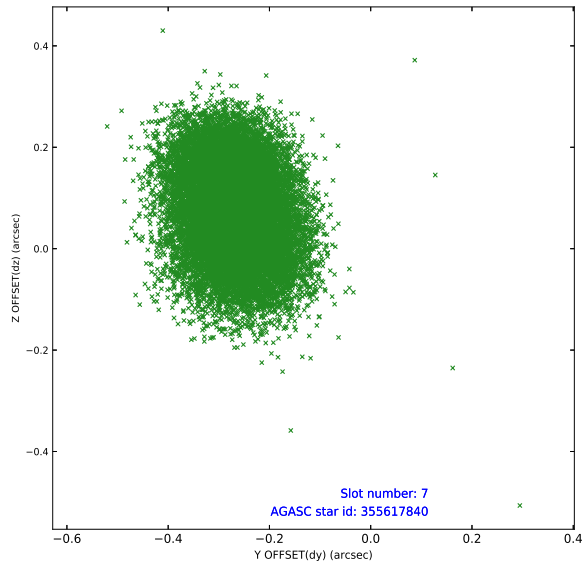
## 2.4.4 Slot 6



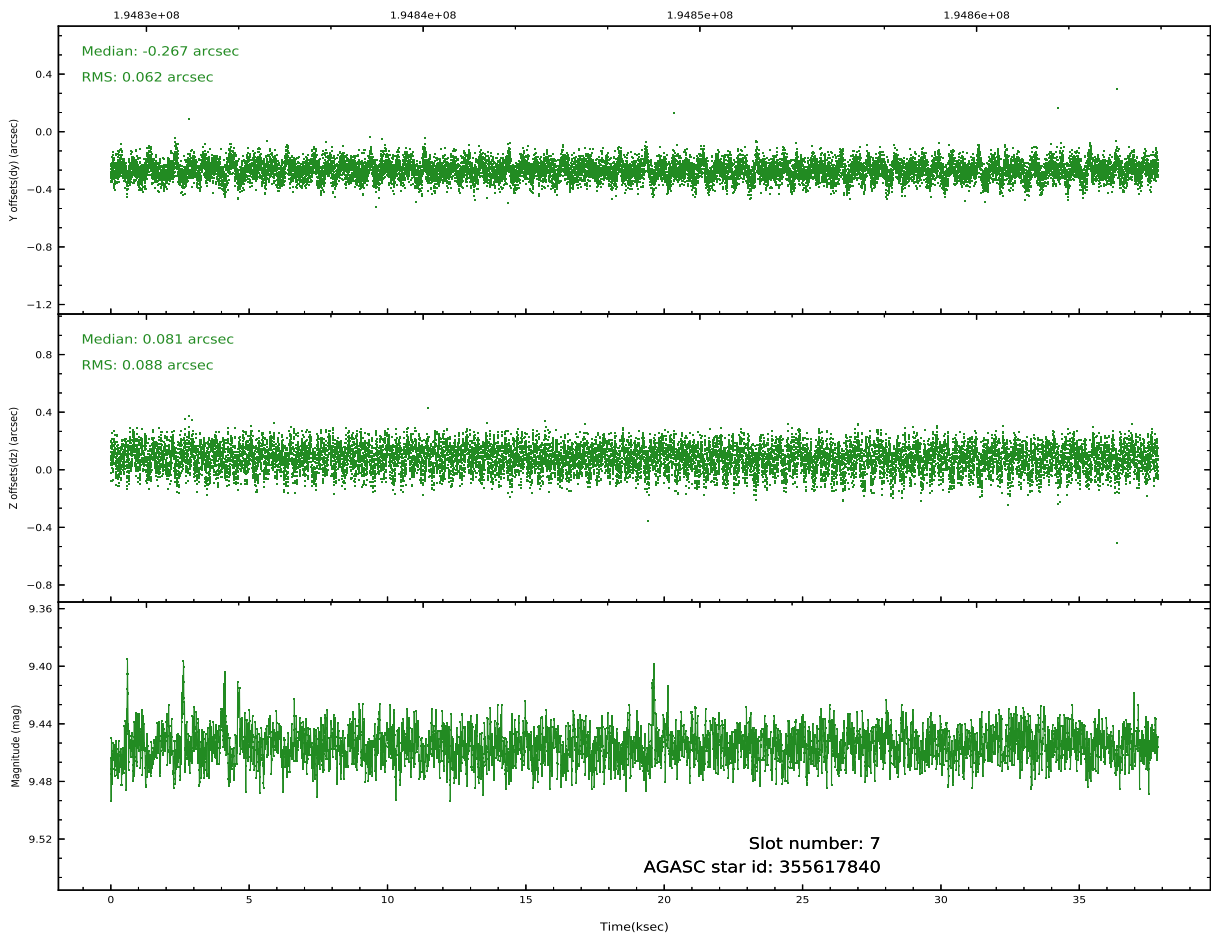
Time (s)



## 2.4.5 Slot 7

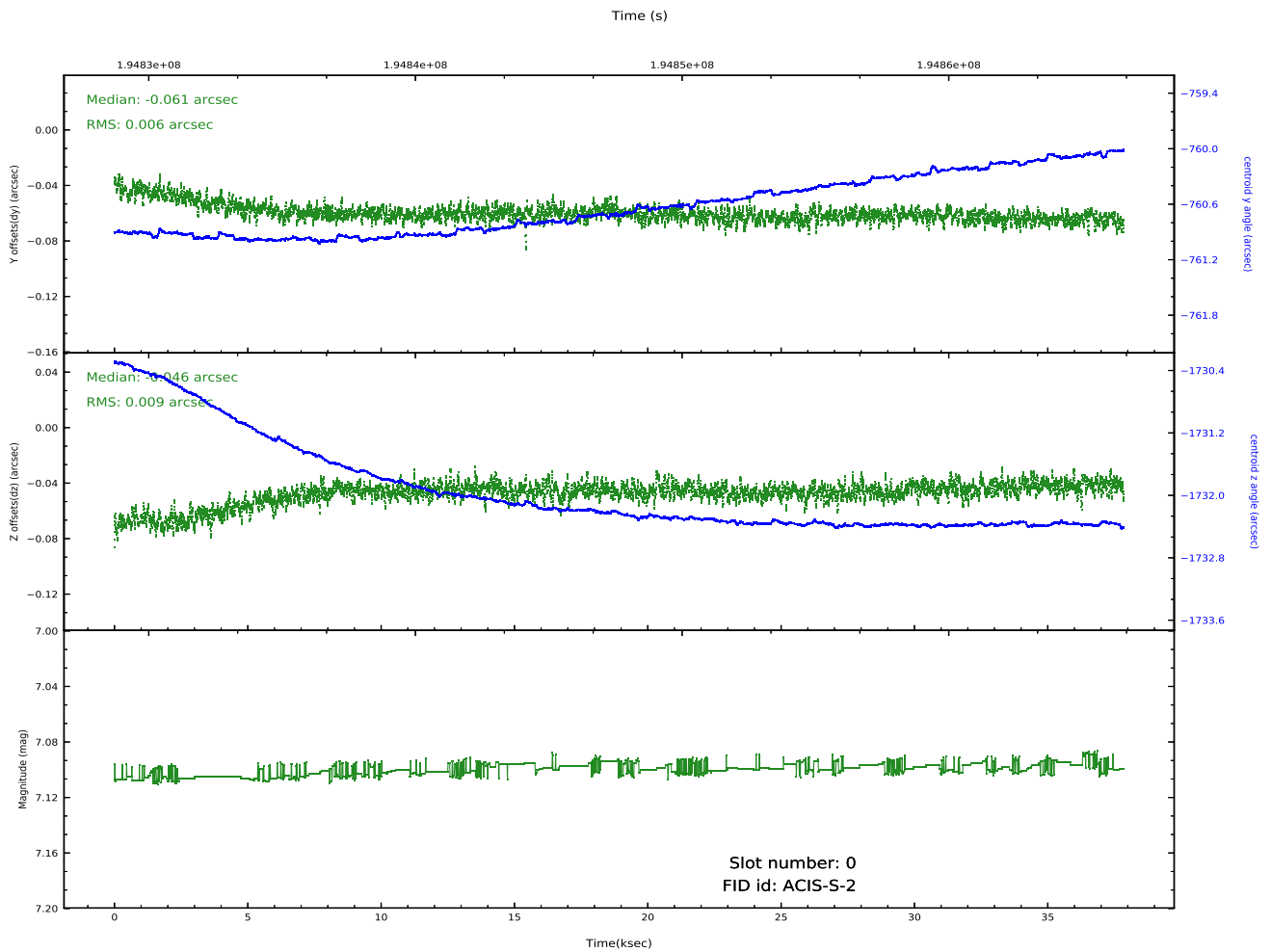
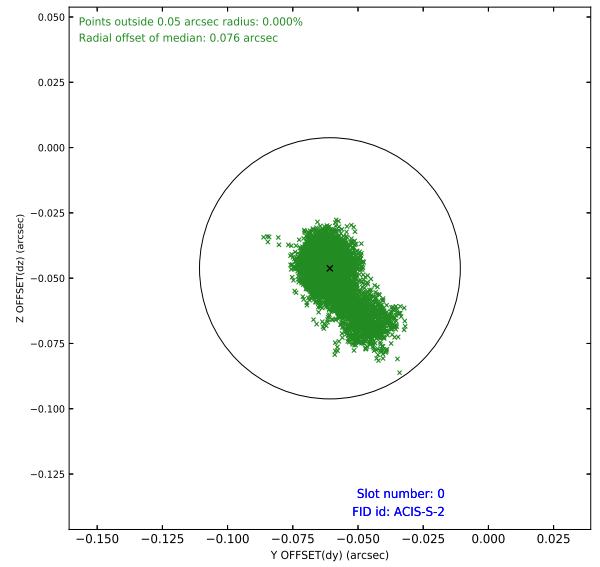
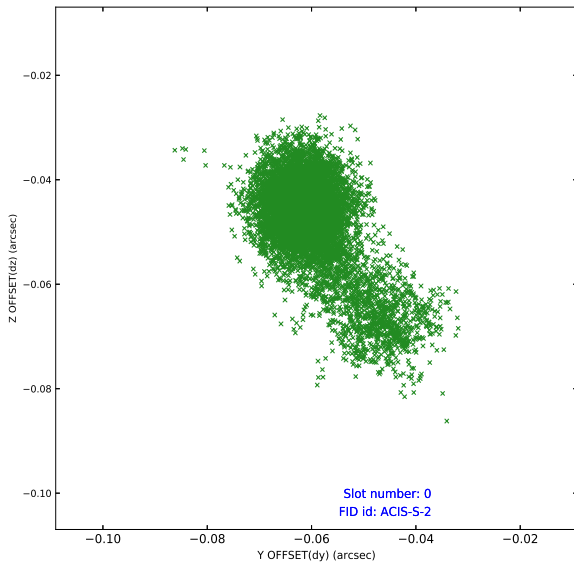


Time (s)

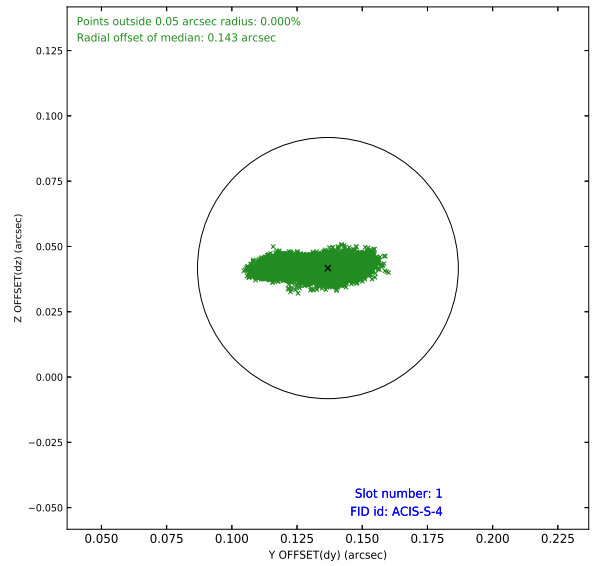
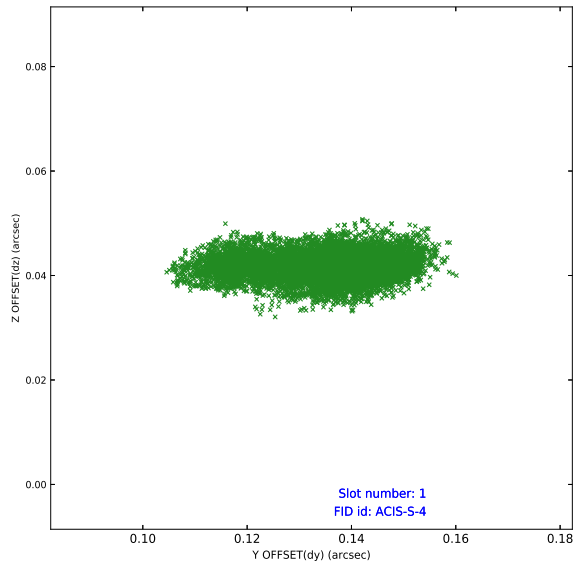


## 2.5 FID Slots

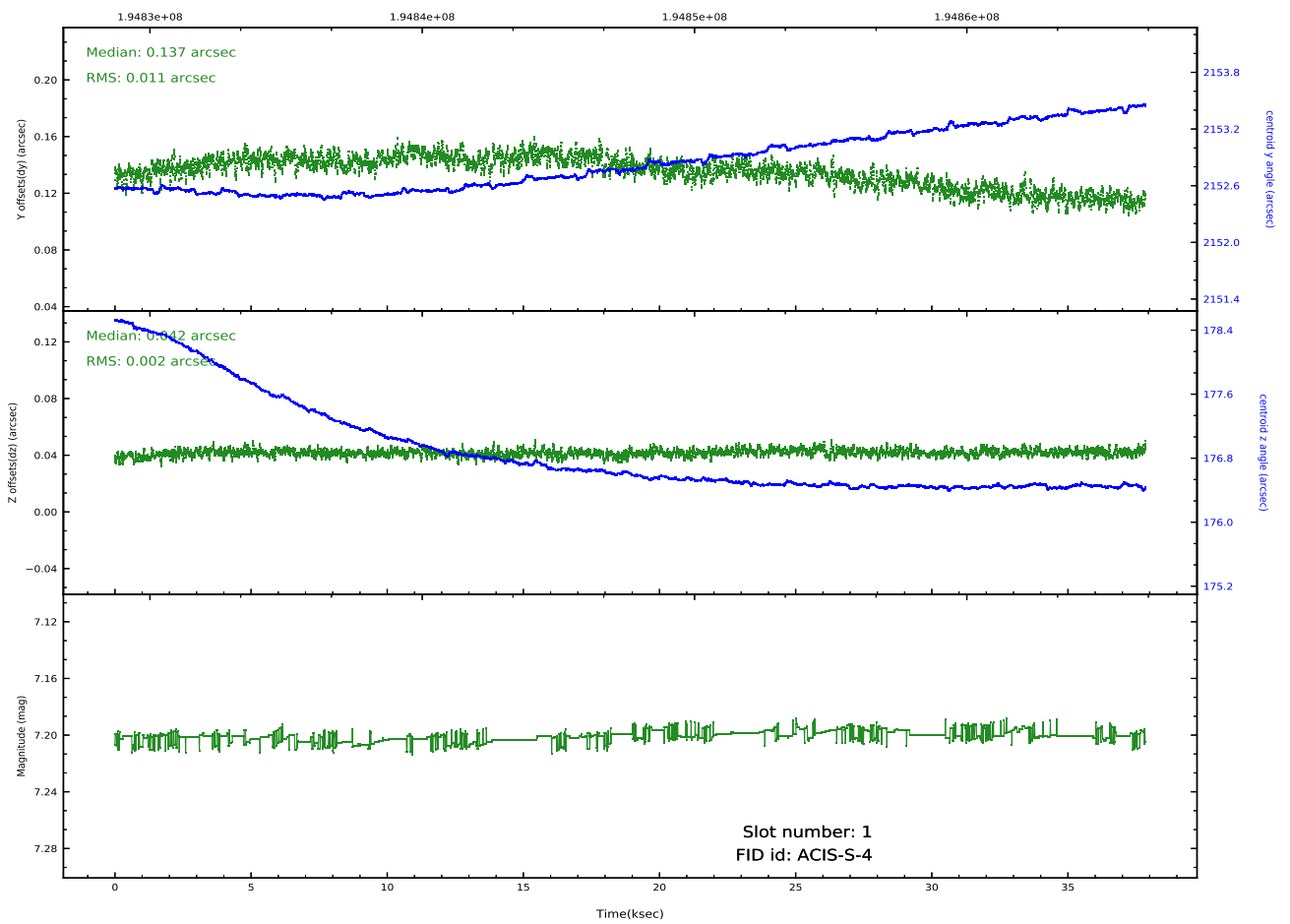
### 2.5.1 Slot 0



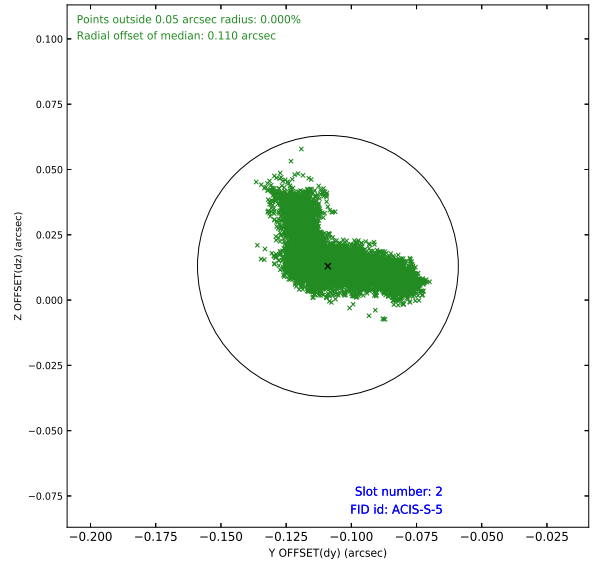
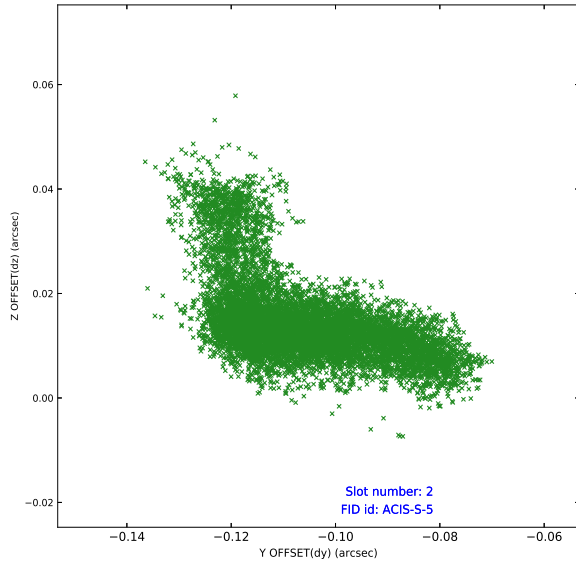
## 2.5.2 Slot 1



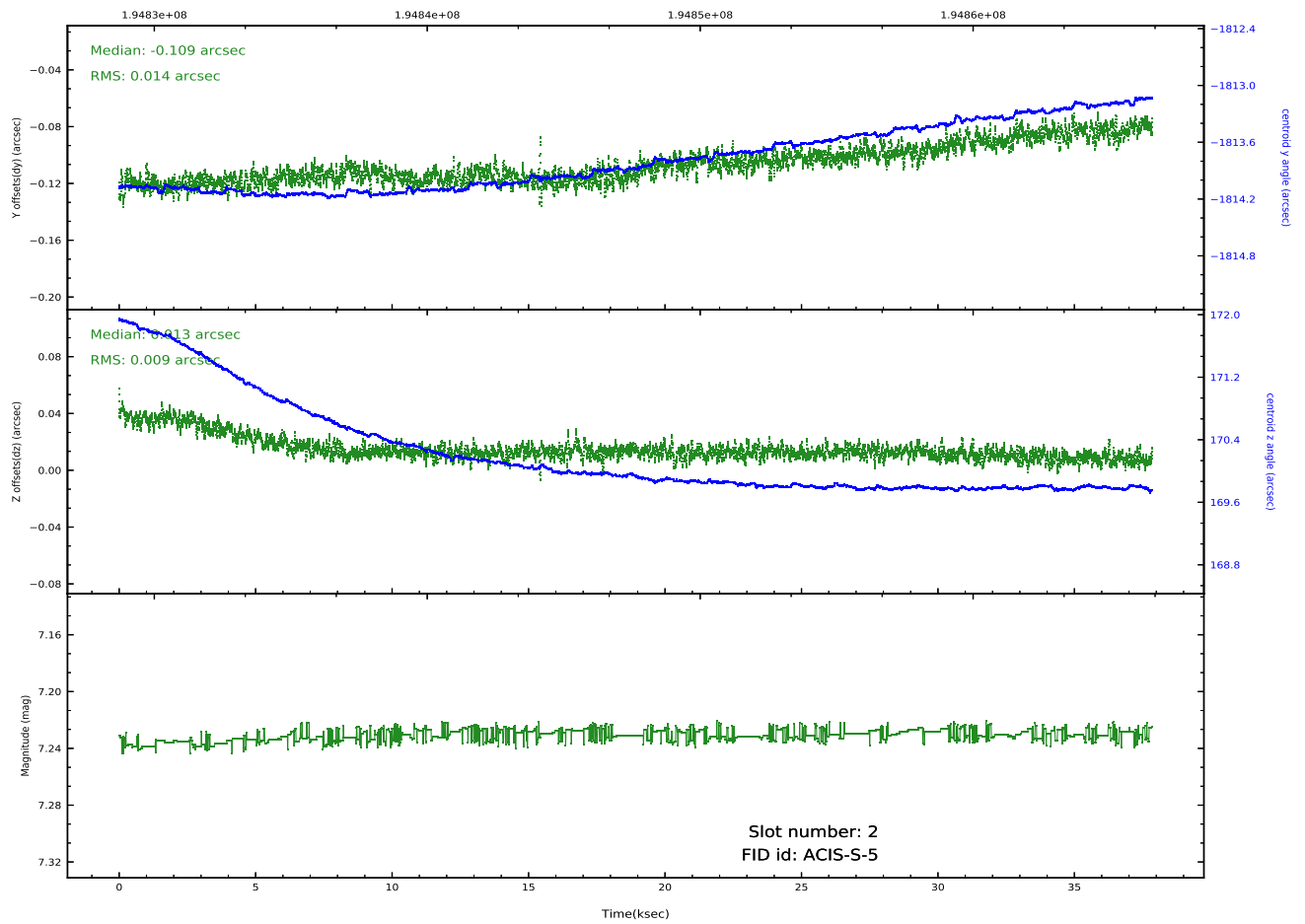
Time (s)



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.09.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	37.843

## A.2 Comments