

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4734 - L2 Version 4  
Chandra X-Ray Center

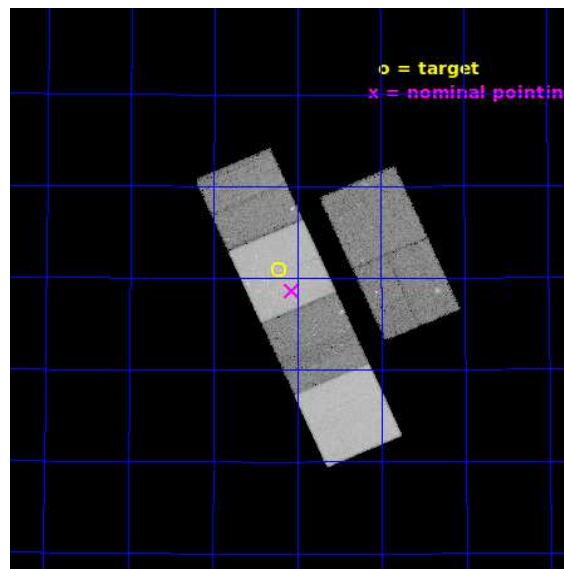
L2 Processing Date : Sep 27 2020

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# 1 Front

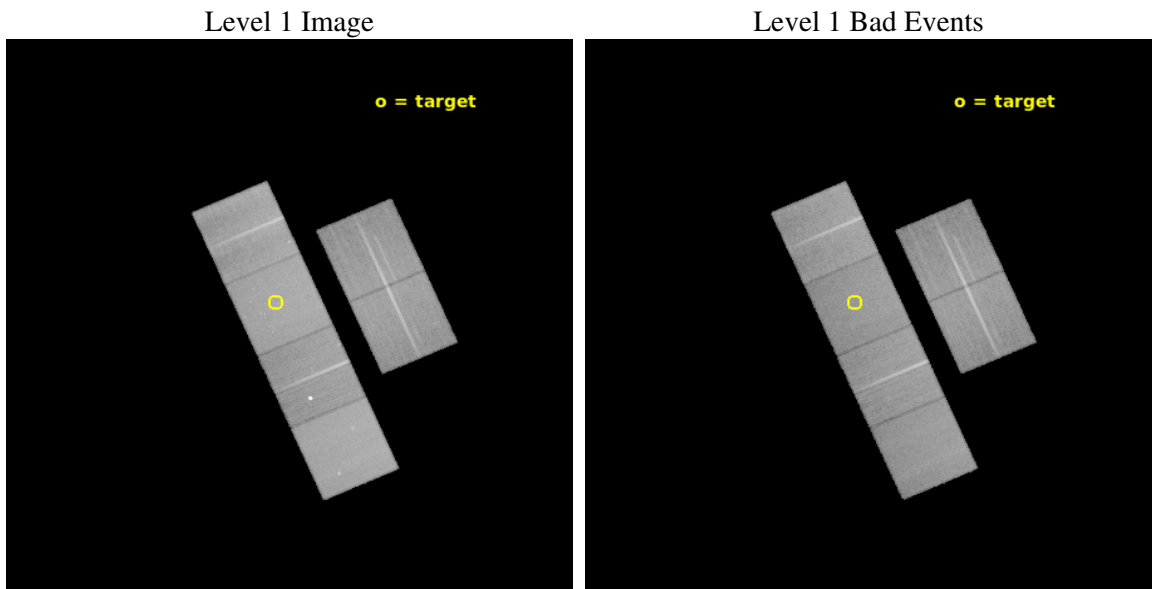
seq_num	600389	Sequence number
obs_id	4734	Observation id
title	An Ultra-Deep Study of M101	Proposal title
observer	Dr. K.D. Kuntz	Principal investigator
object	M101	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	210.80375	Observer's specified target RA [deg]
dec_targ	54.348778	Observer's specified target Dec [deg]
ra_nom	210.76583405398	Nominal RA [deg]
dec_nom	54.31057031059	Nominal Dec [deg]
roll_nom	246.18464490101	Nominal Roll [deg]
revision	4	Processing version of data
ontime	35932.79986614	Sum of GTIs [s]
livetime	35477.7971181	Livetime [s]
ontime2	35929.55890587	Sum of GTIs [s]
ontime3	35929.55890584	Sum of GTIs [s]
ontime5	35932.79986614	Sum of GTIs [s]
ontime6	35932.79986614	Sum of GTIs [s]
ontime7	35932.79986614	Sum of GTIs [s]
ontime8	35926.31799531	Sum of GTIs [s]
l2events	438029	Number of level 2 events



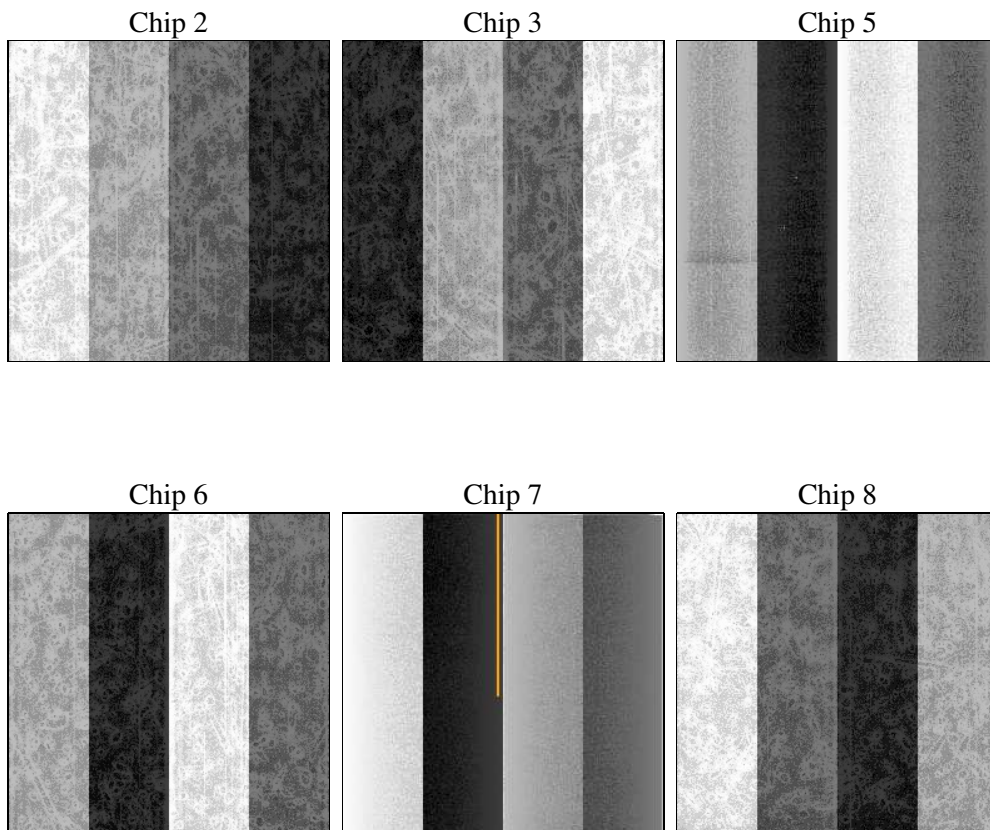
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	35810.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	35932.79986614	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime2	35929.55890587	Sum of GTIs [s]
date	2020-09-27T03:55:44	Date and time of file creation	ontime3	35929.55890584	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	35932.79986614	Sum of GTIs [s]
			ontime6	35932.79986614	Sum of GTIs [s]
			ontime7	35932.79986614	Sum of GTIs [s]
			ontime8	35926.31799531	Sum of GTIs [s]
			l1events	1946689	Number of level 1 events

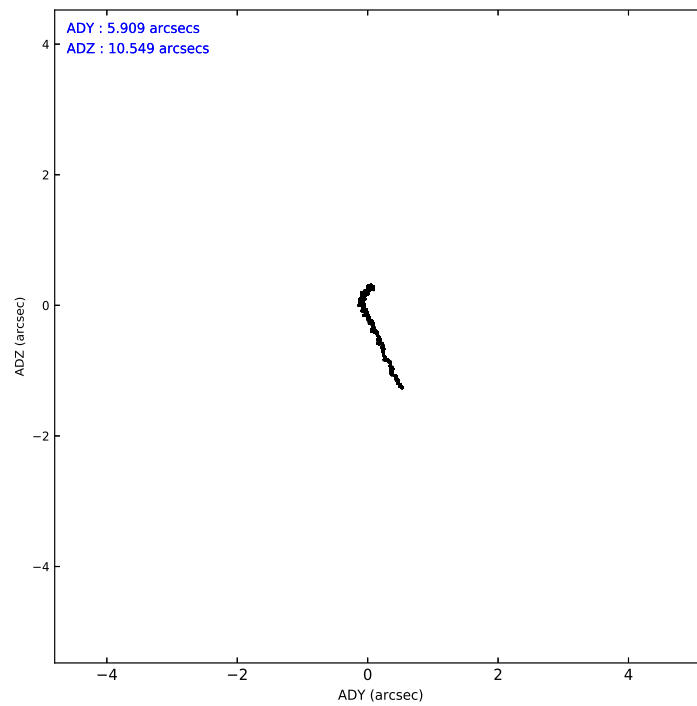
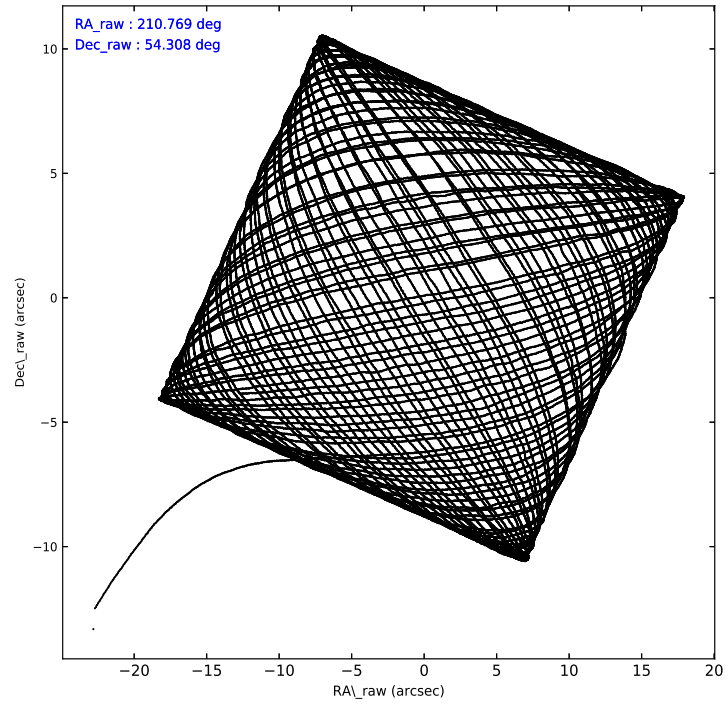
### 2.1.4 Events

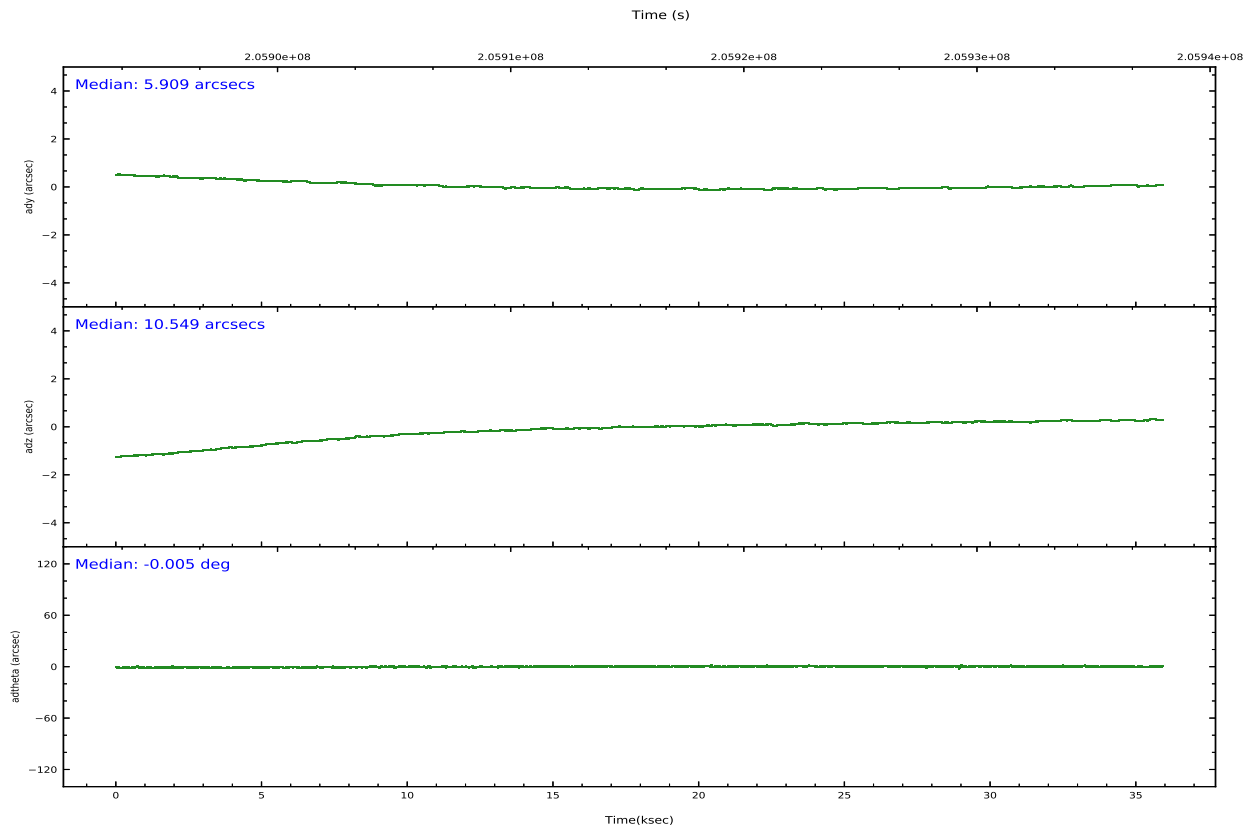
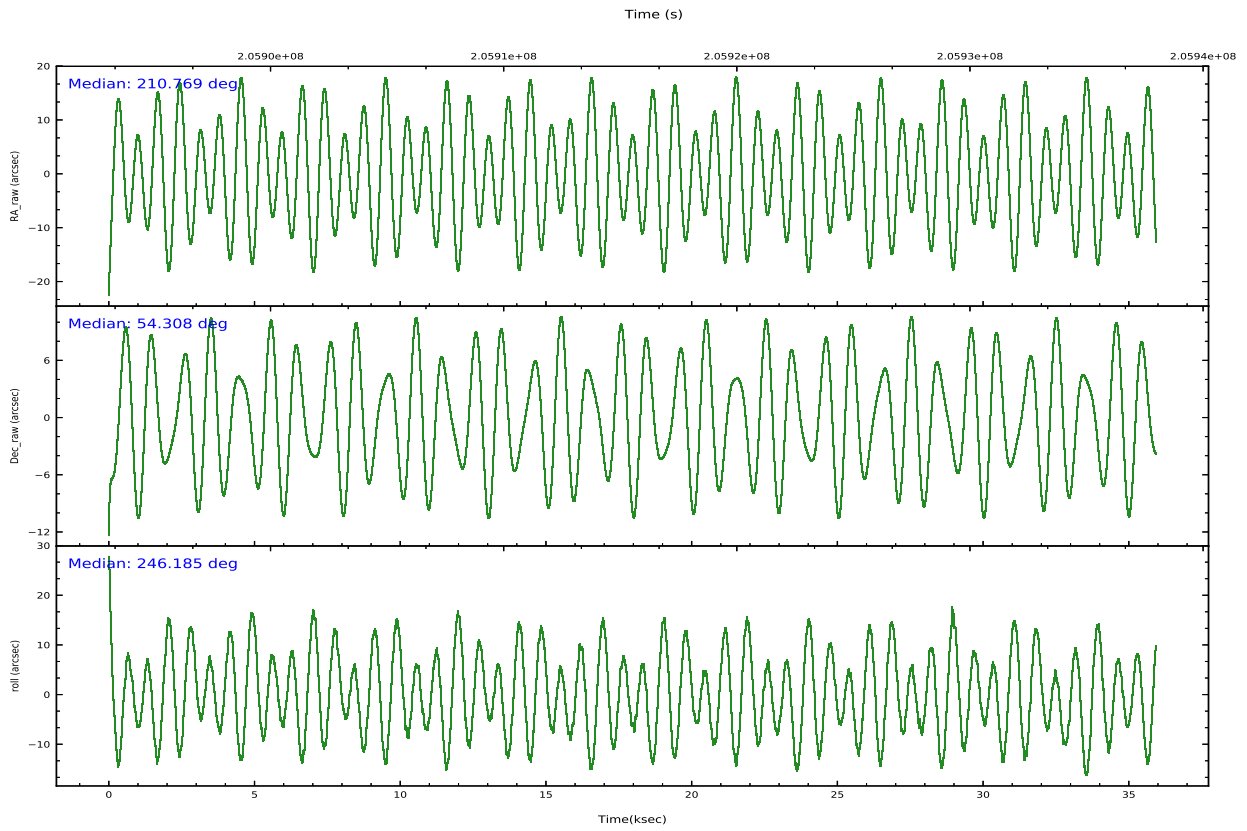
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	278097	261555	398440	289166	372667	346764	grade 0 events	14403	13457	12222	24349	16015	23809
rejected events	246265	230777	221802	245503	216172	273542		5%	5%	3%	8%	4%	6%
rejected %	88%	88%	55%	84%	58%	78%	grade 1 events	183	156	543	173	335	238
								0%	0%	0%	0%	0%	0%
							grade 2 events	6493	5839	54115	6892	31498	16027
								2%	2%	13%	2%	8%	4%
							grade 3 events	2983	3133	7032	3083	14283	7698
								1%	1%	1%	1%	3%	2%
							grade 4 events	2999	3007	6898	3146	13894	7404
								1%	1%	1%	1%	3%	2%
							grade 5 events	10762	11545	29294	12492	35010	16155
								3%	4%	7%	4%	9%	4%
							grade 6 events	5190	5559	97915	6507	81976	18924
								1%	2%	24%	2%	21%	5%
							grade 7 events	235084	218859	190421	232524	179656	256509
								84%	83%	47%	80%	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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	210.763621	210.76583405398	Subarray requested	NONE	NONE
[deg] Pointing Dec	54.334730	54.31057031059	Alternating exposures requested	N	N
[deg] Pointing Roll	246.032598	246.18464490101	[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)	205898578.184000	205897398.45253			
Observation start date	2004-07-11T02:01:54	2004-07-11T01:43:18			
[s] Observation end time (MET)	205934388.184000	205935342.41671			
Observation end date	2004-07-11T11:58:44	2004-07-11T12:15:42			
Read mode	TIMED	TIMED			

## 2.3 Aspect





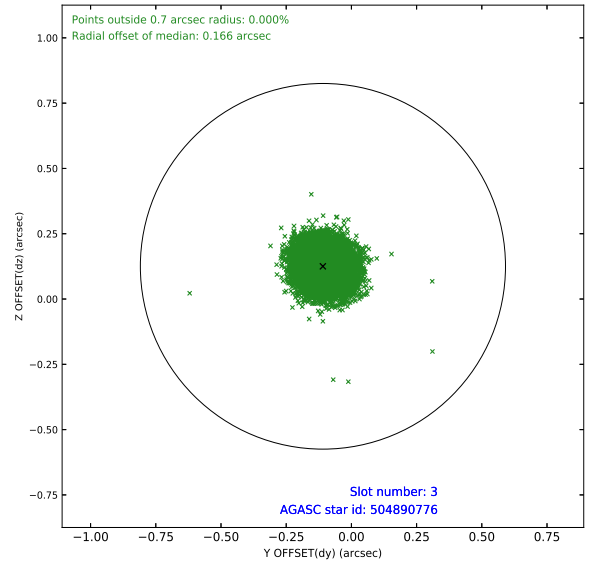
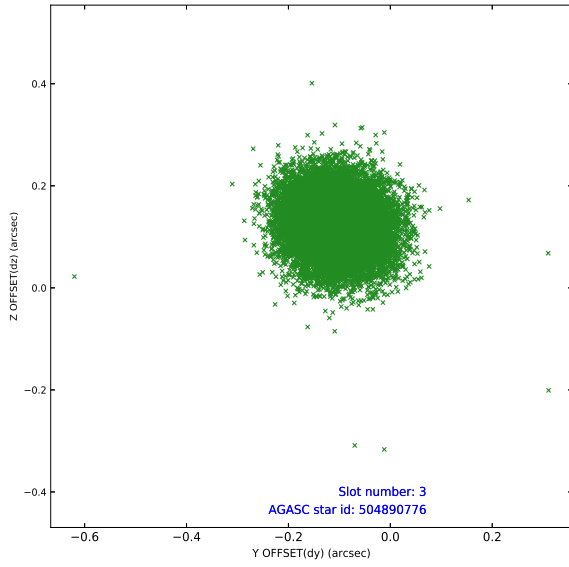
### Slot Statistics

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	8766	1.000	-0.125	-0.105	0.009	0.019	0.000000	0.000000	-758.79	-1731
1	FID		ACIS-S-4	7.21	8766	1.000	0.096	0.066	0.007	0.012	0.000000	0.000000	2154.67	176
2	FID		ACIS-S-6	7.35	8766	1.000	0.001	0.046	0.009	0.019	0.000000	0.000000	403.33	814
3	GUIDE	used	504890776	9.28	17511	1.000	-0.109	0.125	0.075	0.123	211.095934	54.816966	-1867.50	-75
4	GUIDE	used	504891480	8.08	17529	1.000	-0.132	-0.038	0.061	0.096	210.708012	54.666096	-1042.78	-590
5	GUIDE	used	504893088	9.21	17520	1.000	0.064	-0.073	0.078	0.127	210.351715	54.364955	249.79	-834
6	GUIDE	used	504894856	8.98	17525	1.000	0.106	-0.097	0.085	0.138	209.819510	54.132689	1462.11	-1529
7	GUIDE	used	504890480	8.18	17527	1.000	0.071	0.082	0.071	0.111	210.132463	53.768436	2404.17	-401

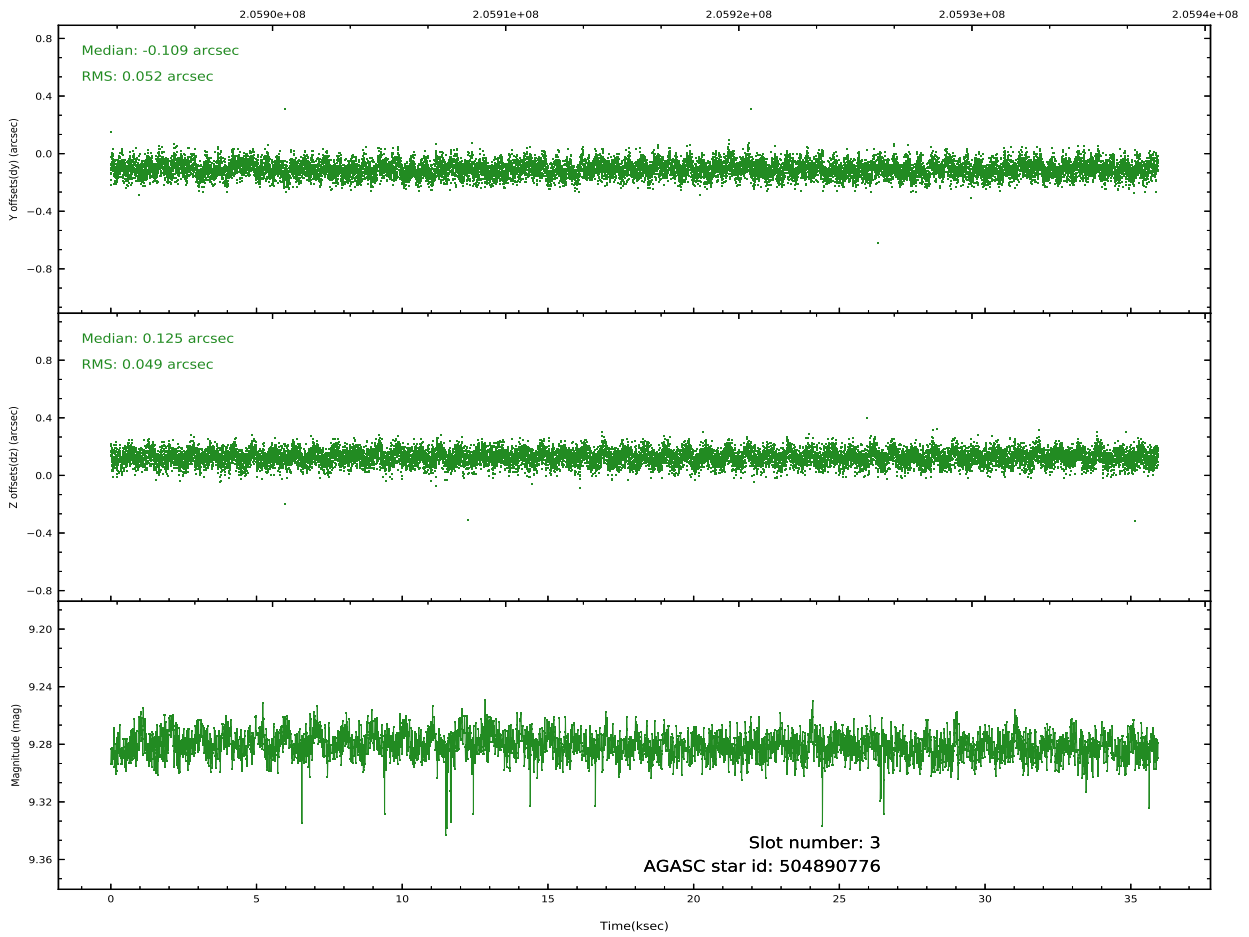
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## 2.4 Star Slots

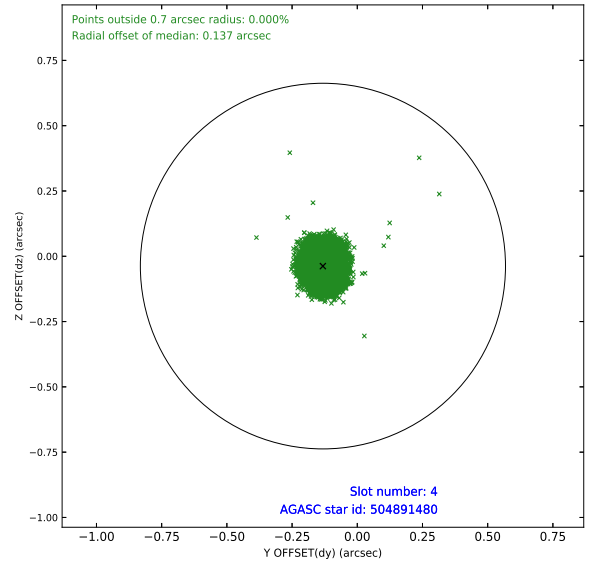
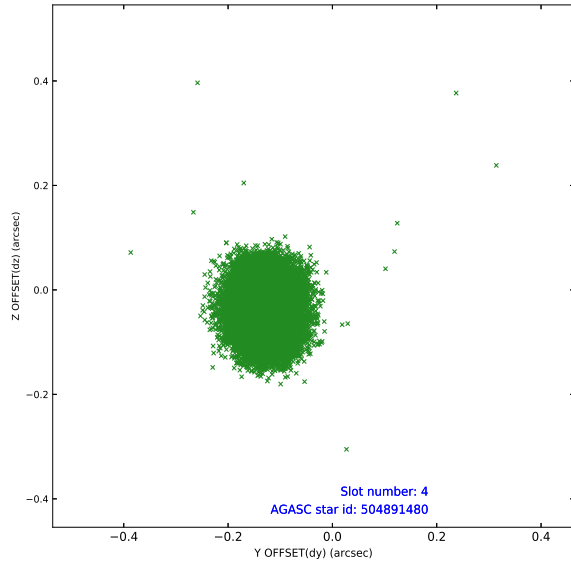
### 2.4.1 Slot 3



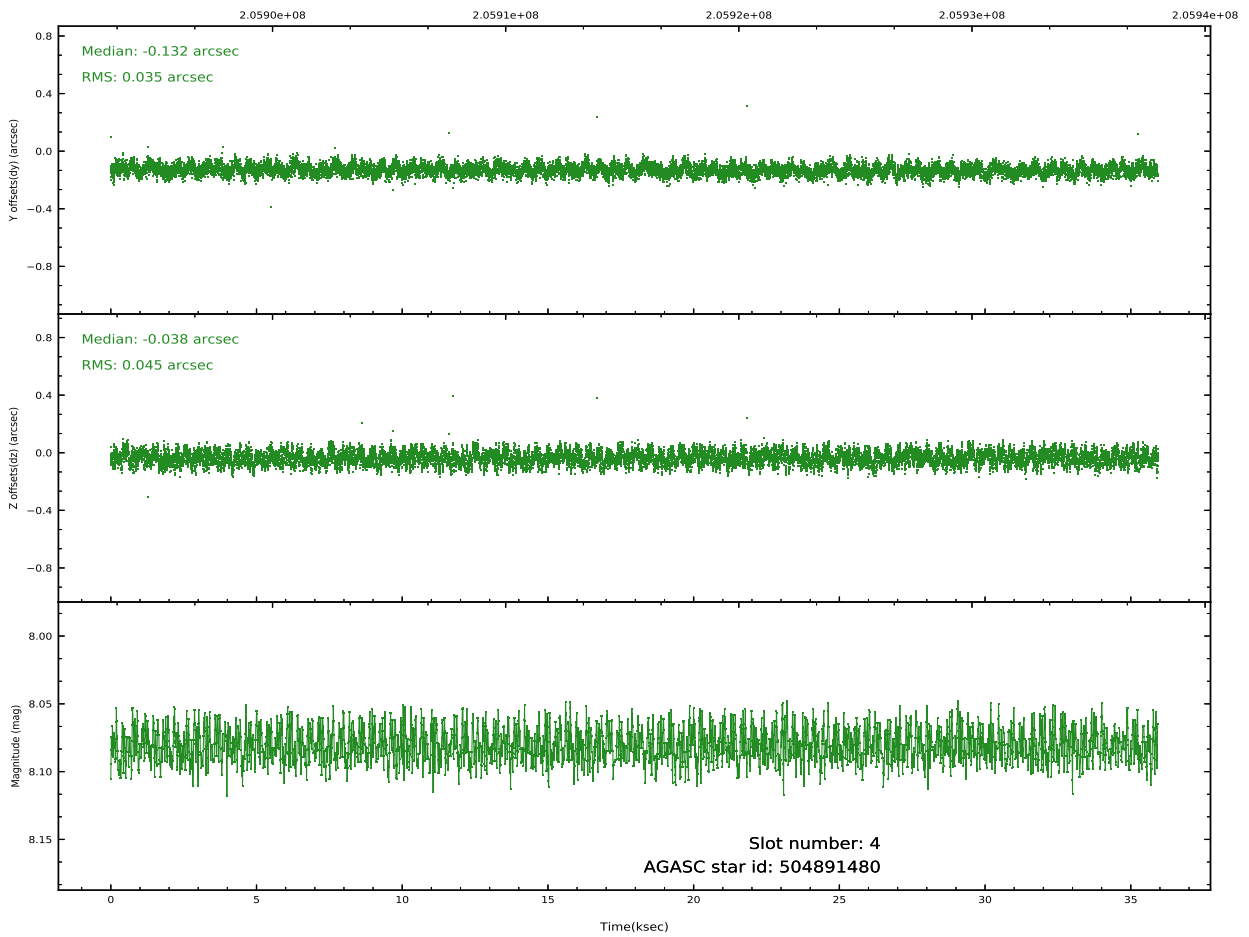
Time (s)



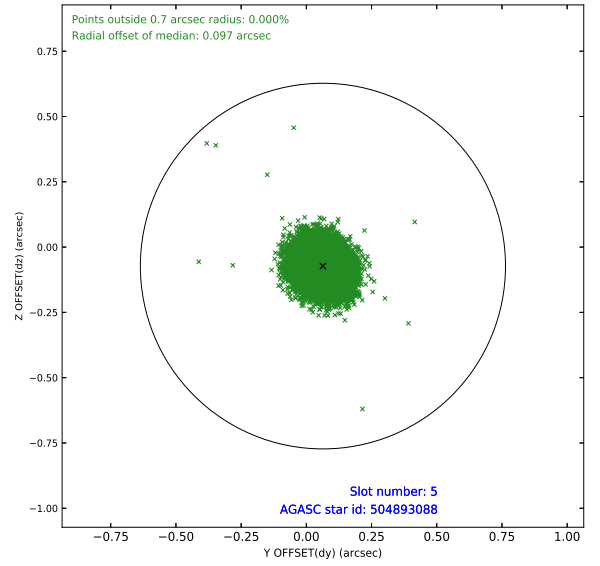
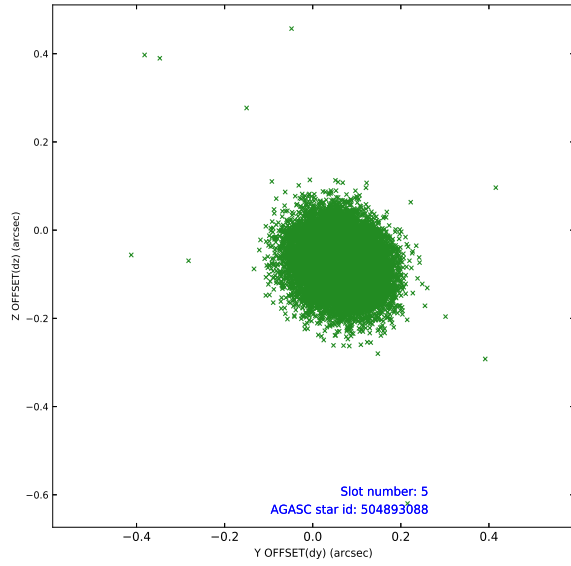
## 2.4.2 Slot 4



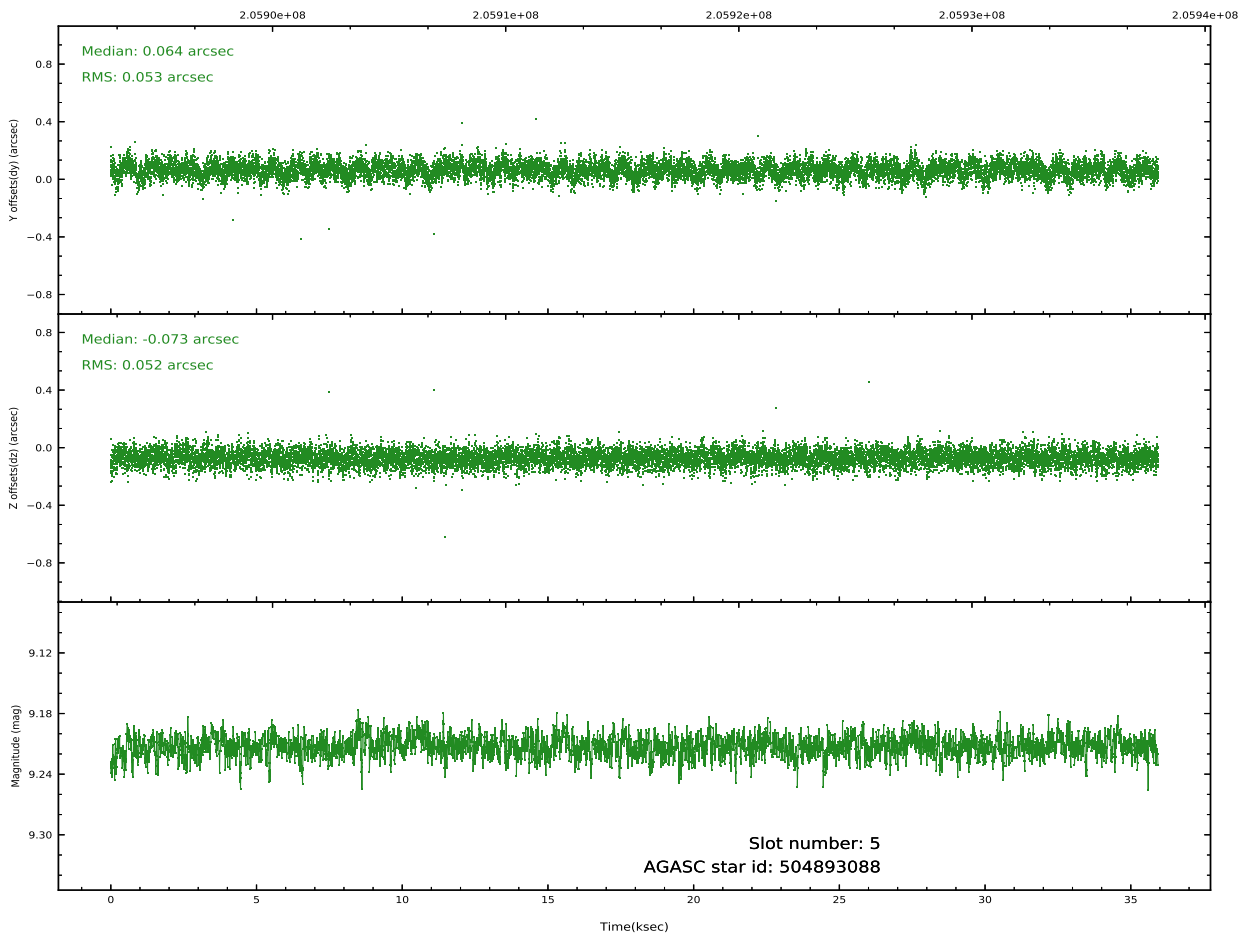
Time (s)



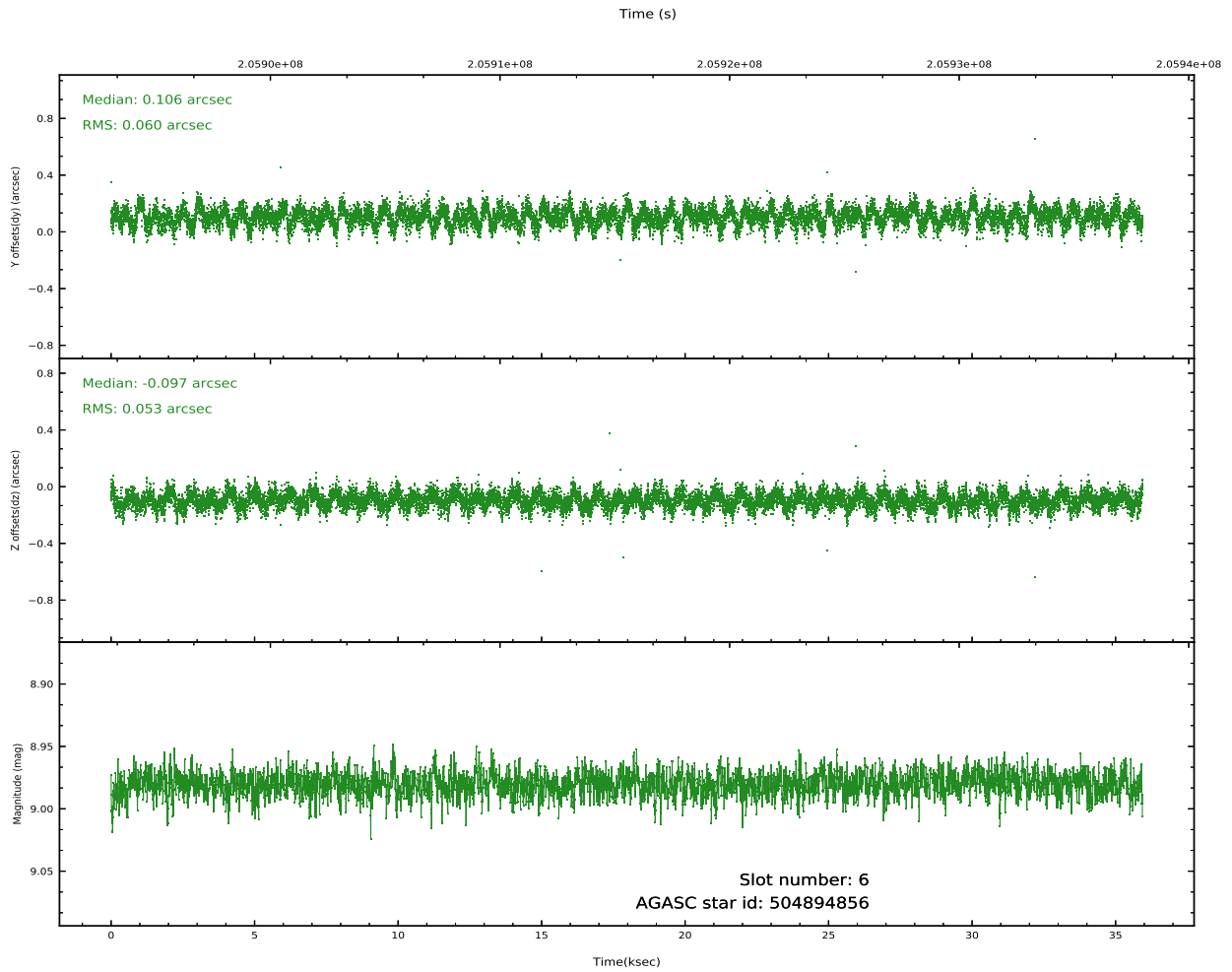
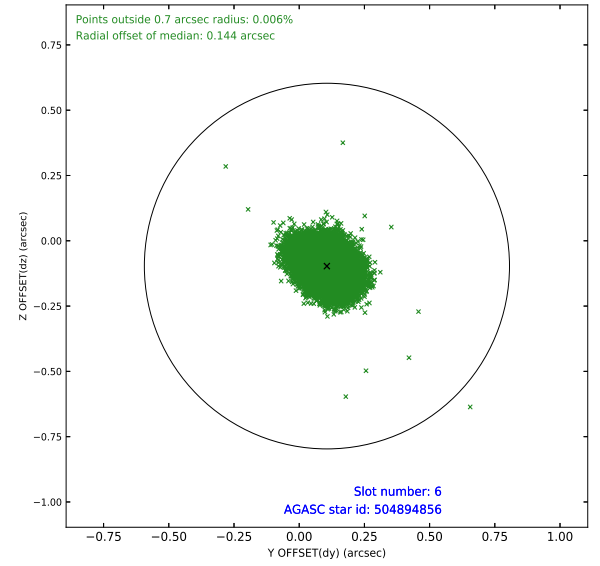
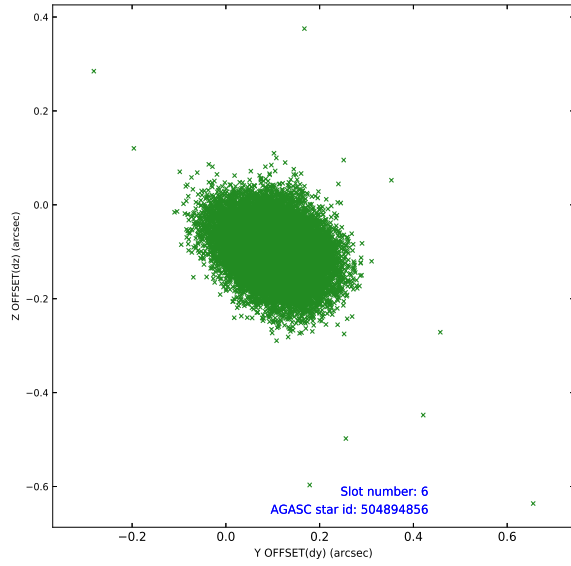
### 2.4.3 Slot 5



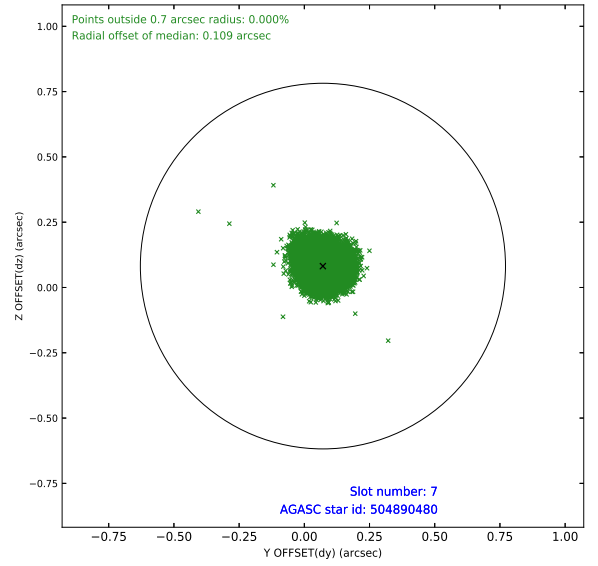
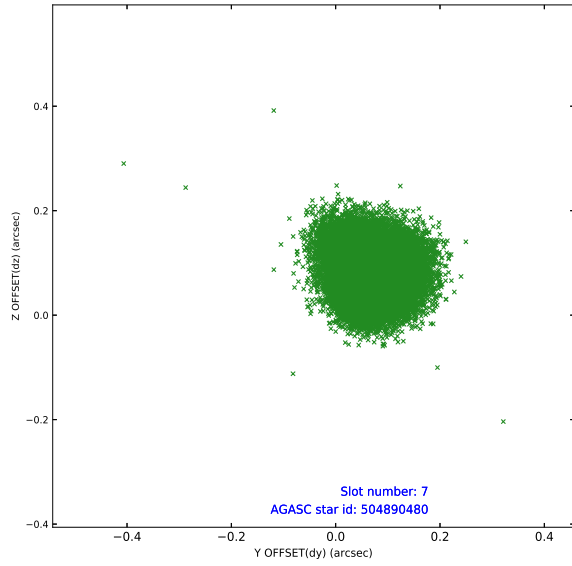
Time (s)



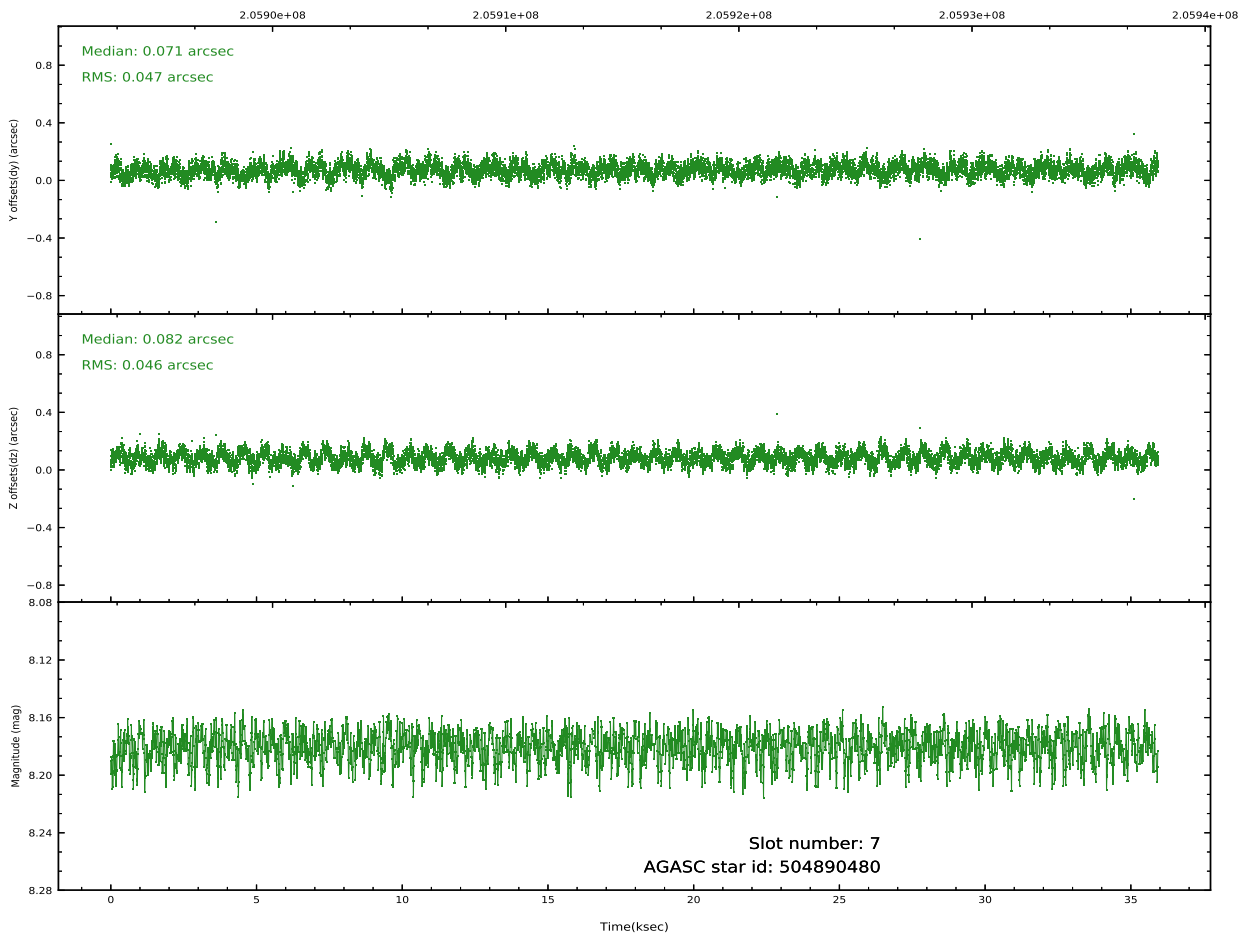
## 2.4.4 Slot 6



## 2.4.5 Slot 7

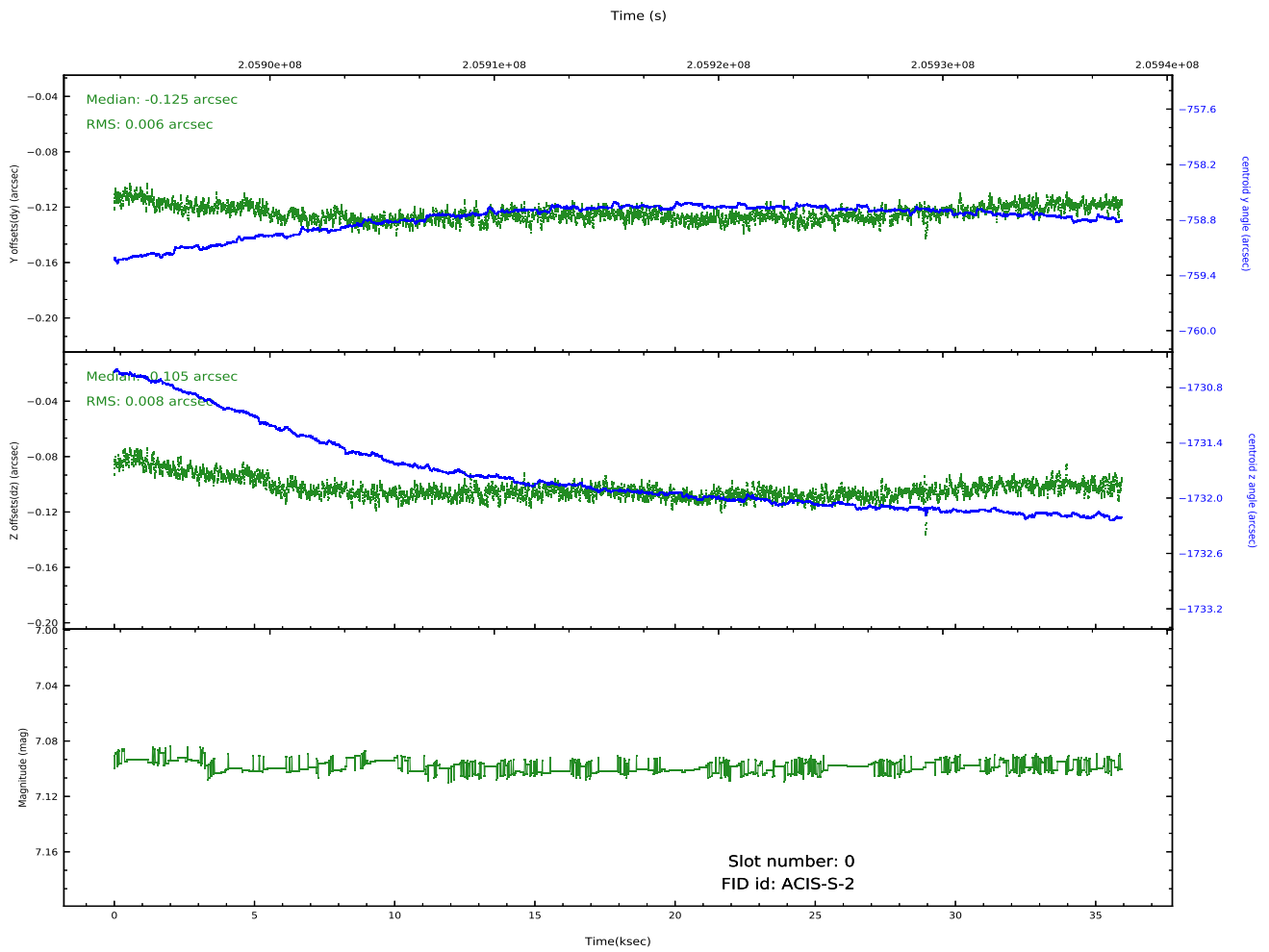
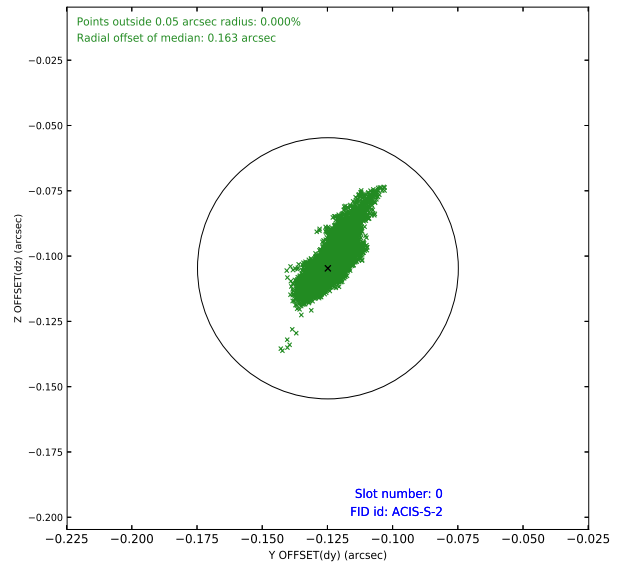
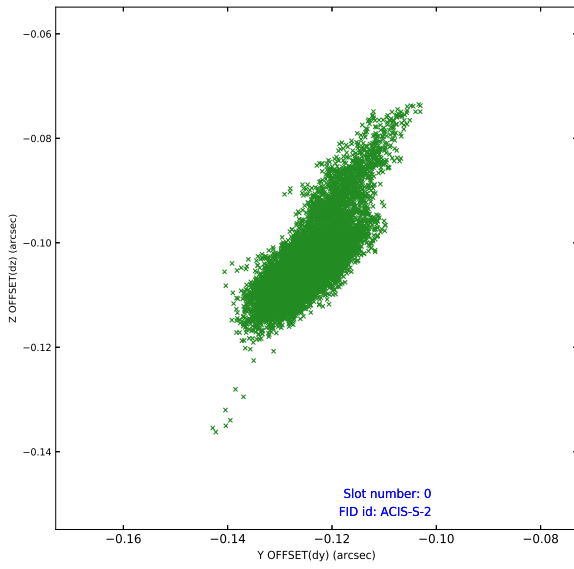


Time (s)

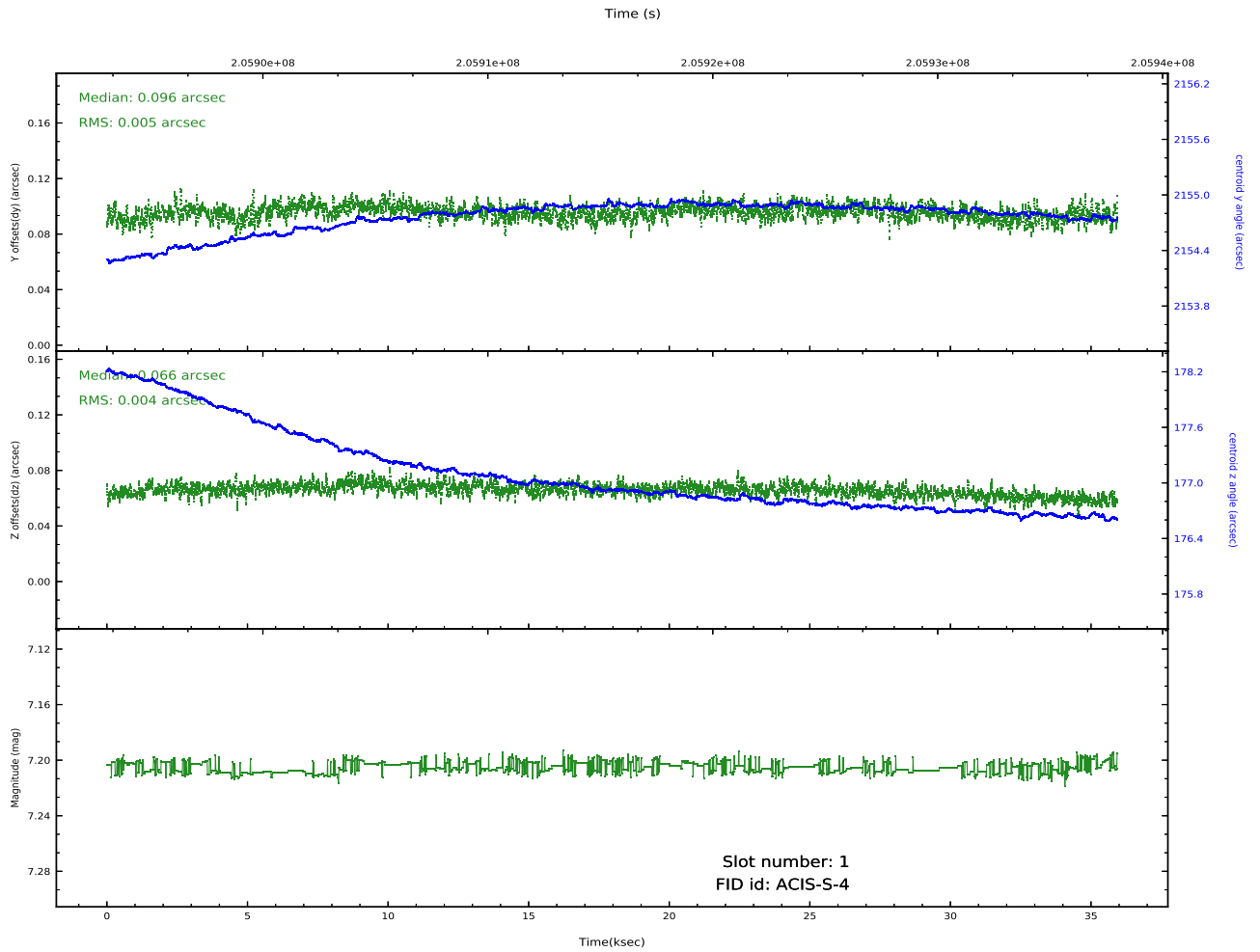
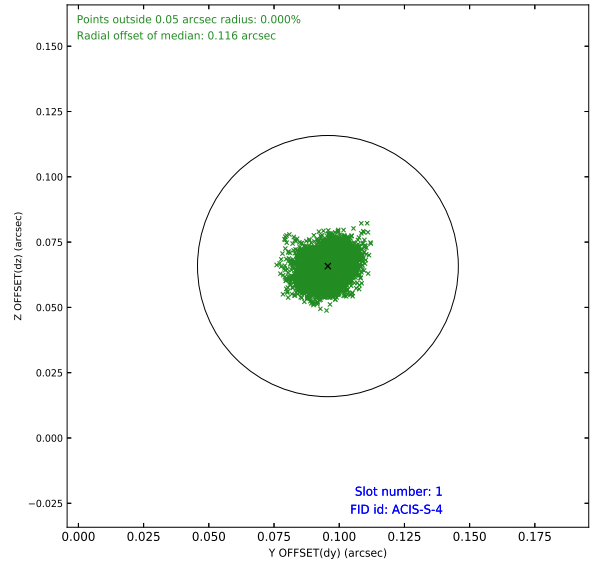
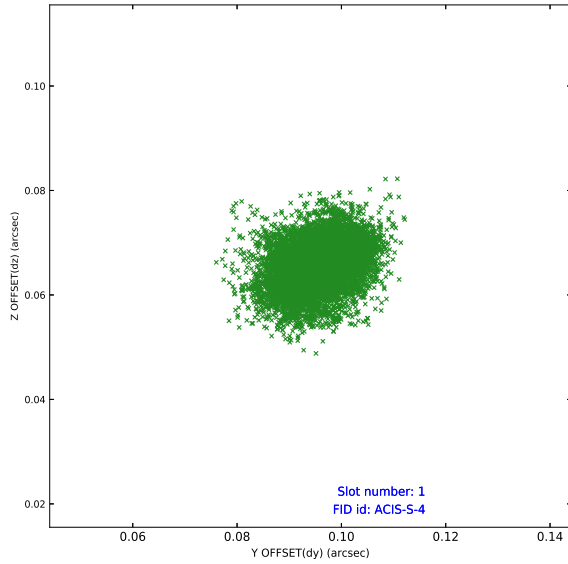


## 2.5 FID Slots

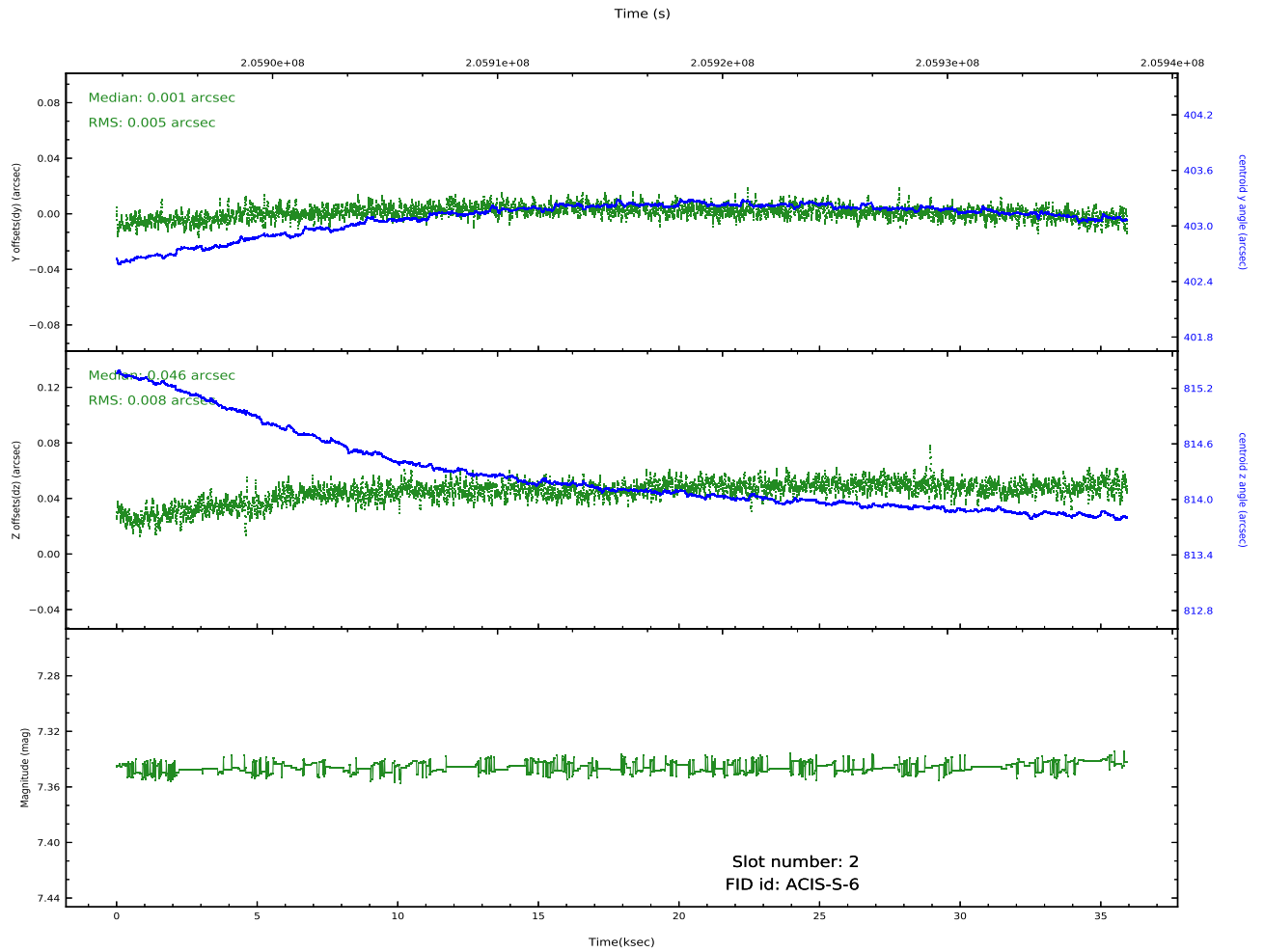
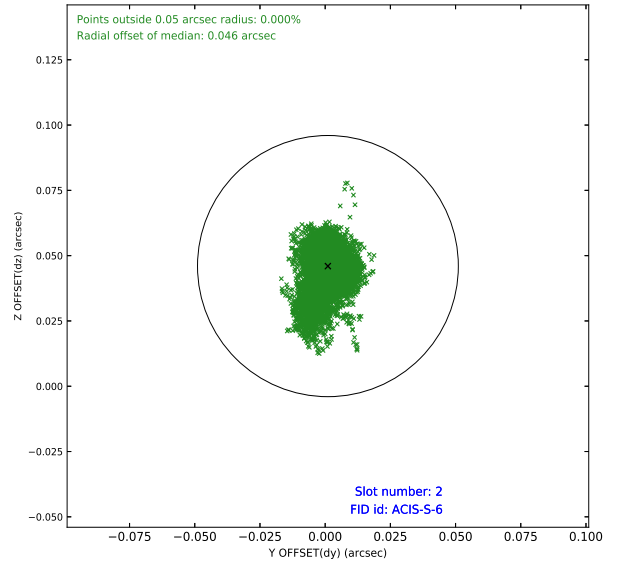
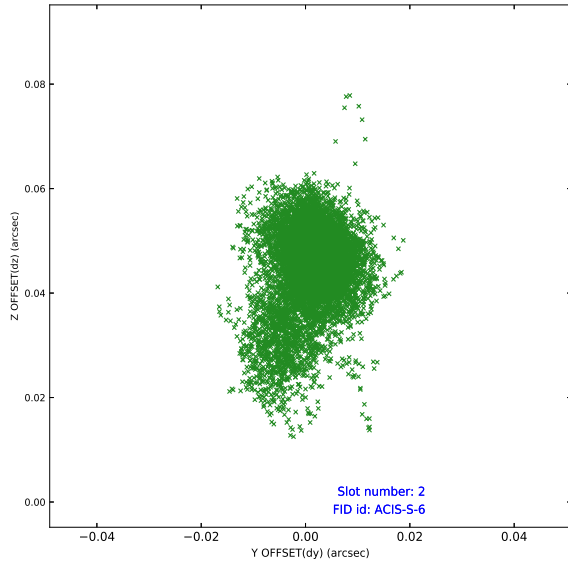
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.09.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	35.932

## A.2 Comments

Monitor constraint met.