

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5734 - L2 Version 4  
Chandra X-Ray Center

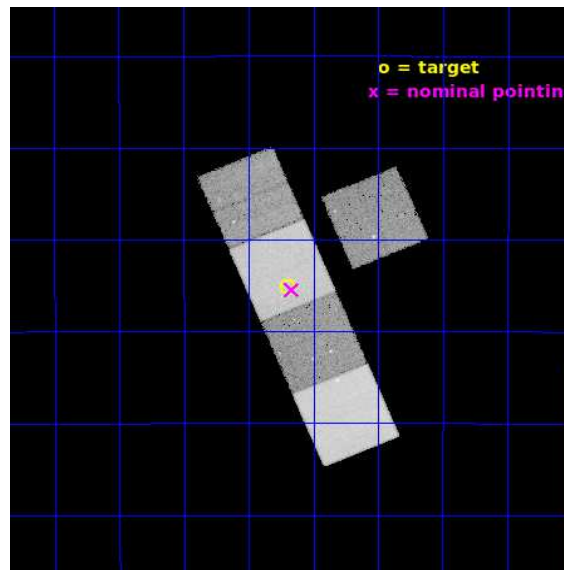
L2 Processing Date : Oct 7 2020

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# 1 Front

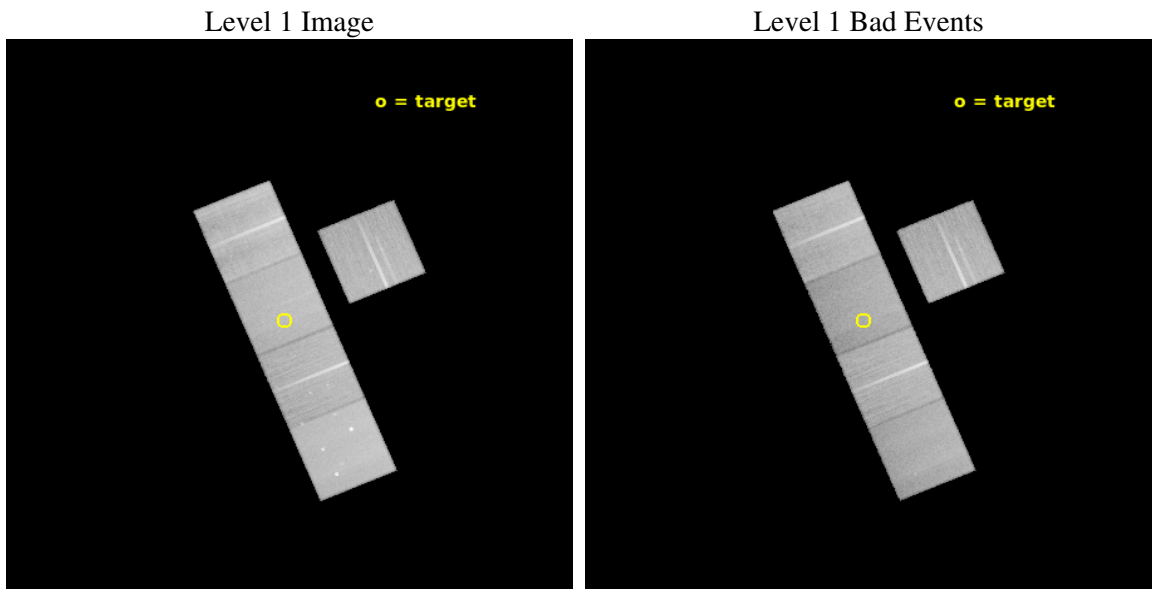
seq_num	701156	Sequence number
obs_id	5734	Observation id
title	The evolution of AGN: Chandra Imaging of protoclusters associated with high redshift radio galaxies	Proposal title
observer	Dr Laura Pentericci	Principal investigator
object	mrc0316-257	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	49.55	Observer's specified target RA [deg]
dec_targ	-25.586389	Observer's specified target Dec [deg]
ra_nom	49.54151658276	Nominal RA [deg]
dec_nom	-25.590982301404	Nominal Dec [deg]
roll_nom	247.12943575168	Nominal Roll [deg]
revision	4	Processing version of data
ontime	43815.399915725	Sum of GTIs [s]
livetime	43242.919459398	Livetime [s]
ontime3	43812.258925557	Sum of GTIs [s]
ontime5	43815.399915725	Sum of GTIs [s]
ontime6	43802.836034775	Sum of GTIs [s]
ontime7	43815.399915725	Sum of GTIs [s]
ontime8	43805.976965159	Sum of GTIs [s]
l2events	390441	Number of level 2 events



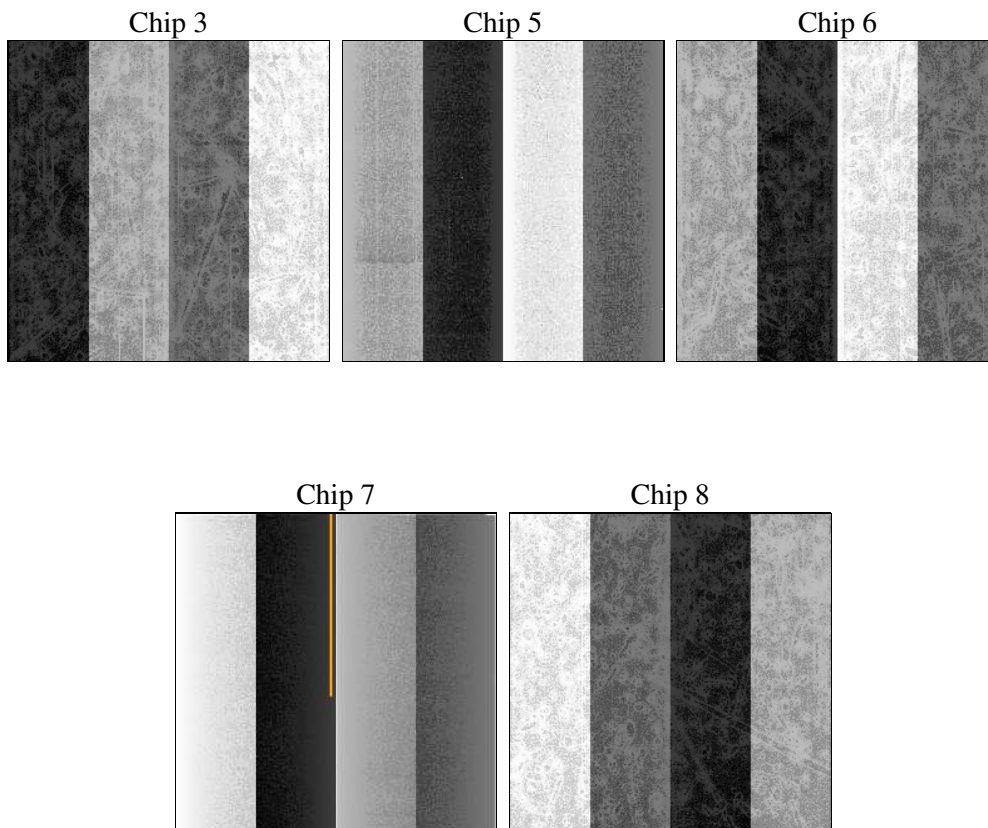
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	43639.756000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	43815.399915725	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime3	43812.258925557	Sum of GTIs [s]
date	2020-10-07T10:38:50	Date and time of file creation	ontime5	43815.399915725	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	43802.836034775	Sum of GTIs [s]
			ontime7	43815.399915725	Sum of GTIs [s]
			ontime8	43805.976965159	Sum of GTIs [s]
			l1events	1614855	Number of level 1 events

### 2.1.4 Events

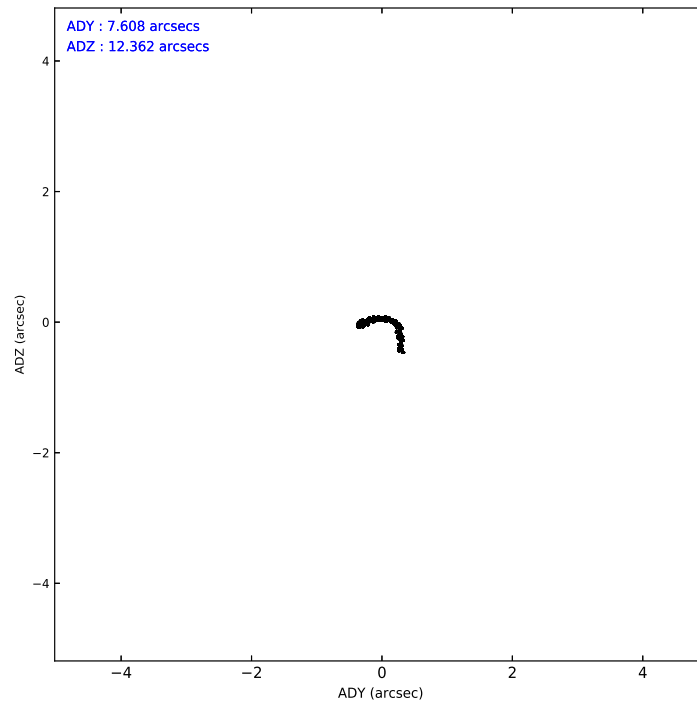
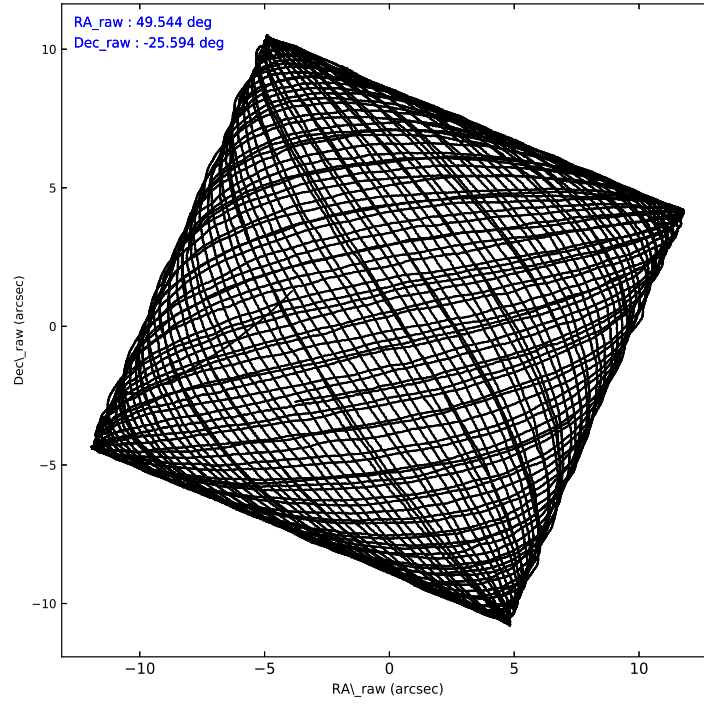
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	275010	382967	285339	313482	358057
rejected events	248452	195696	254966	173757	276227
rejected %	90%	51%	89%	55%	77%

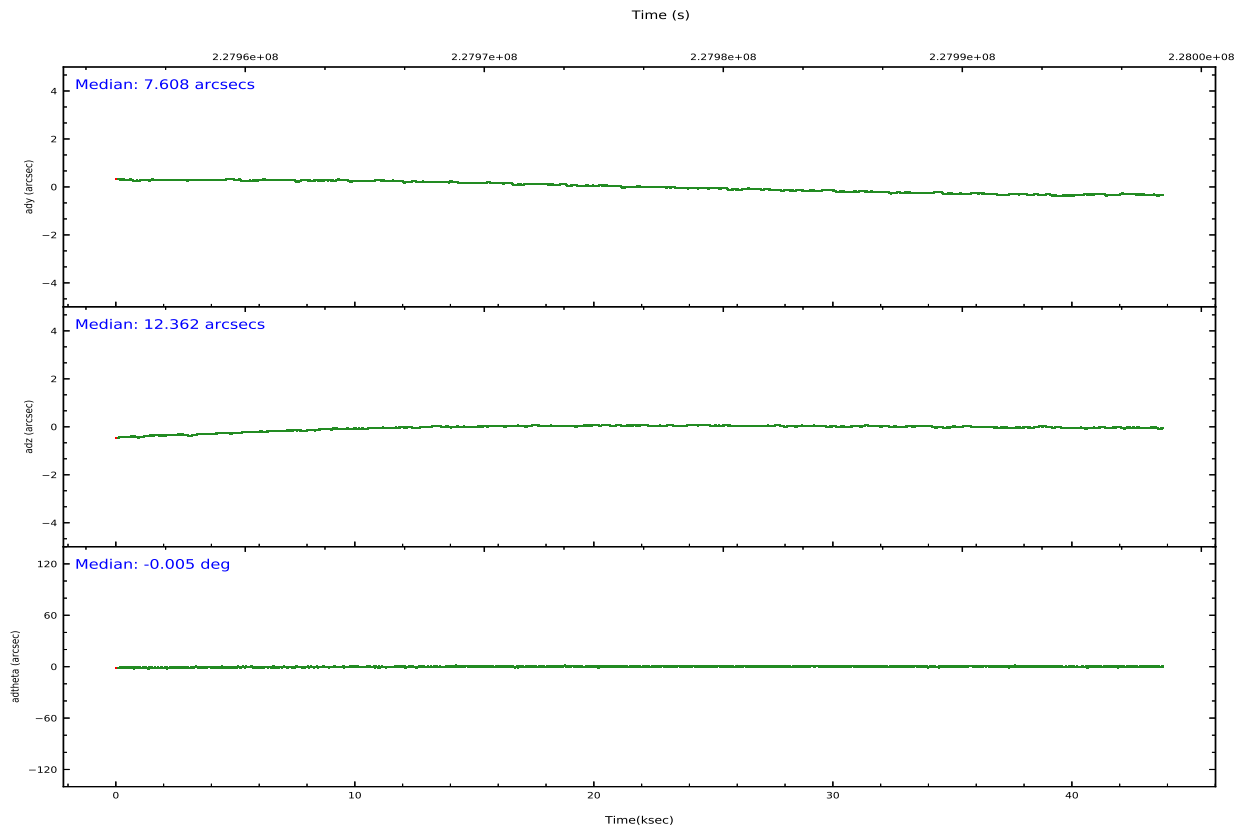
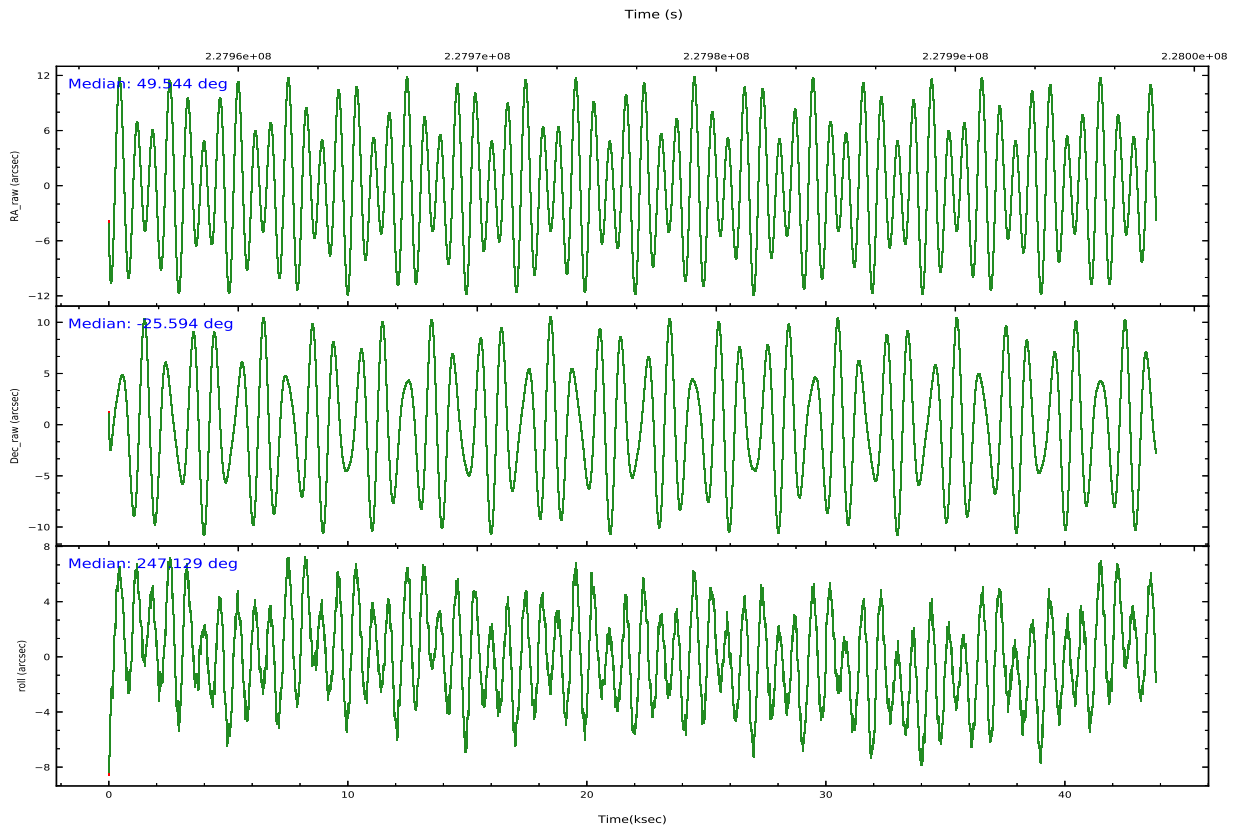
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	10028	21472	11677	13484	26393
	3%	5%	4%	4%	7%
grade 1 events	157	475	144	298	240
	0%	0%	0%	0%	0%
grade 2 events	5782	54508	6448	28509	18370
	2%	14%	2%	9%	5%
grade 3 events	3126	8931	3383	13611	9167
	1%	2%	1%	4%	2%
grade 4 events	2974	8767	3172	13614	8342
	1%	2%	1%	4%	2%
grade 5 events	11005	31393	11307	33219	16001
	4%	8%	3%	10%	4%
grade 6 events	5240	98354	6409	73969	21615
	1%	25%	2%	23%	6%
grade 7 events	236698	159067	242799	136778	257929
	86%	41%	85%	43%	72%

## 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	49.540018	49.54151658276	Subarray requested	NONE	NONE
[deg] Pointing Dec	-25.567532	-25.590982301404	Alternating exposures requested	N	N
[deg] Pointing Roll	246.967312	247.12943575168	[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	-190.145094680475			
[mm] SIM translation stage offset	0	0.01257209746719923			
[s] Observation start time (MET)	227954762.184000	227953207.99235			
Observation start date	2005-03-23T08:44:58	2005-03-23T08:20:07			
[s] Observation end time (MET)	227998402.184000	227998625.74441			
Observation end date	2005-03-23T20:52:18	2005-03-23T20:57:05			
Read mode	TIMED	TIMED			

## 2.3 Aspect





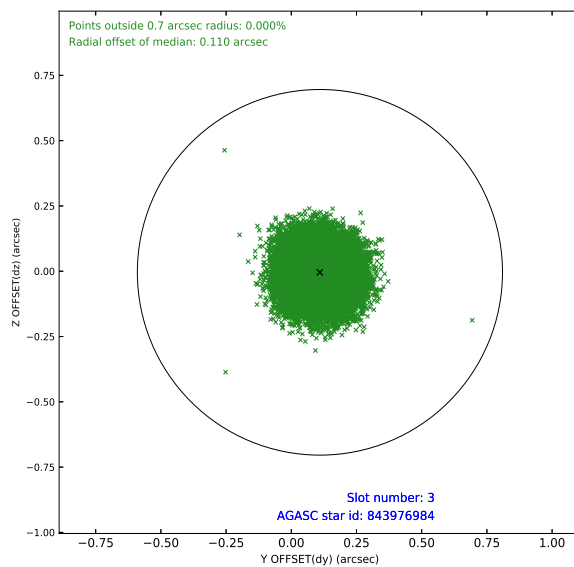
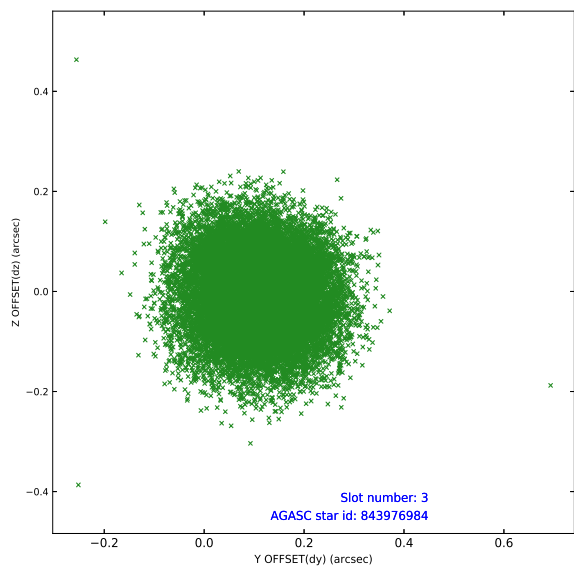
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.19	10688	1.000	0.042	-0.106	0.009	0.014	0.000000	0.000000	935.68	-1729
1	FID		ACIS-S-4	7.20	10688	1.000	0.089	0.058	0.010	0.017	0.000000	0.000000	2153.15	175
2	FID		ACIS-S-5	7.23	10687	1.000	-0.160	0.061	0.009	0.016	0.000000	0.000000	-1813.38	168
3	GUIDE	used	843976984	9.71	21365	1.000	0.110	-0.004	0.113	0.181	49.531574	-24.951274	-2030.40	-893
4	GUIDE	used	843980592	9.45	21362	1.000	-0.146	-0.122	0.118	0.183	49.186444	-24.967636	-1533.89	-1906
5	GUIDE	used	844374360	9.41	21352	1.000	0.148	0.135	0.093	0.146	49.271918	-25.796711	1100.75	-476
6	GUIDE	used	844369528	8.54	21364	1.000	-0.046	-0.018	0.100	0.154	48.944476	-25.161278	-582.04	-2356
7	GUIDE	used	843980336	9.85	21351	1.000	-0.059	0.017	0.159	0.250	49.340720	-24.809112	-2256.82	-1667

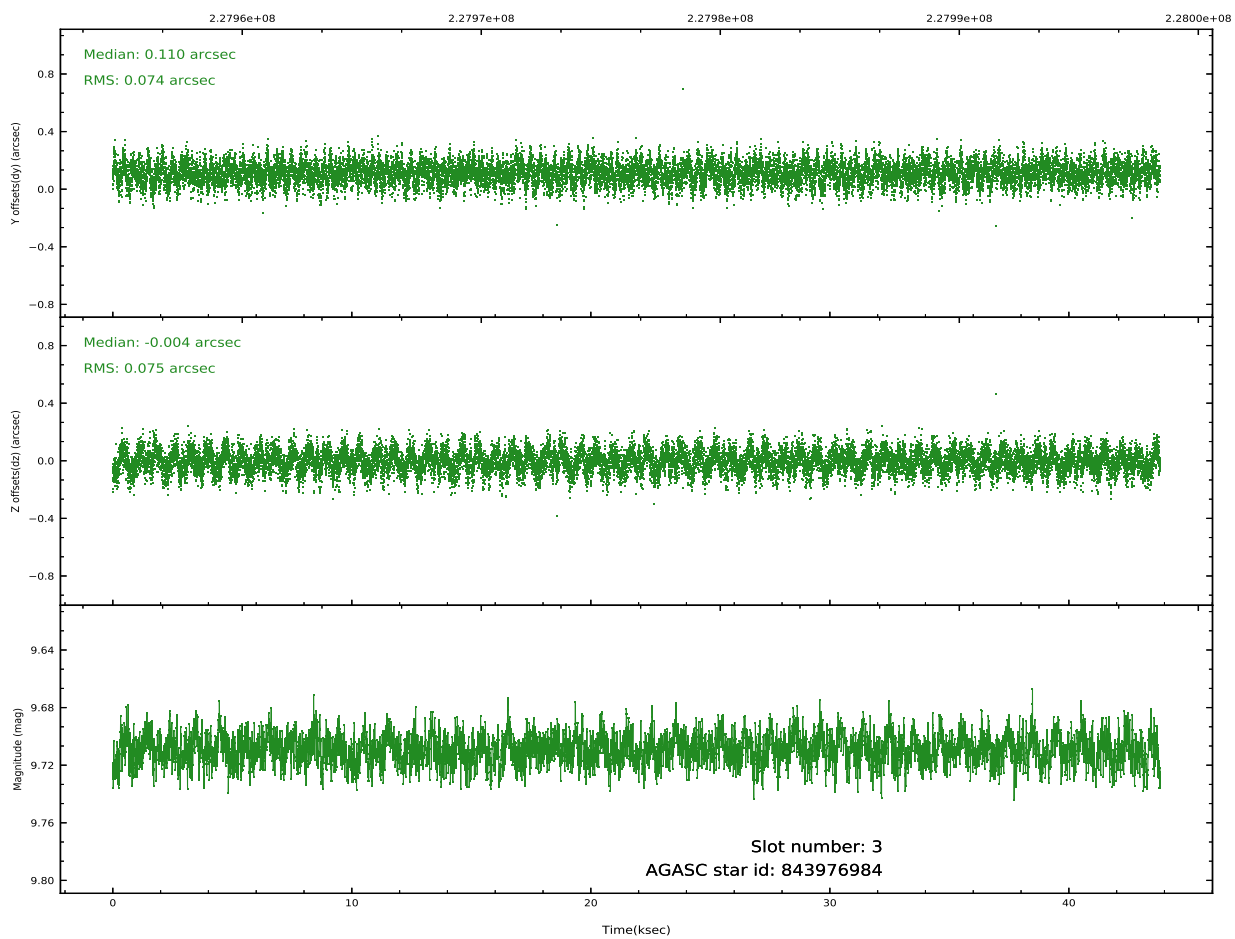
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## 2.4 Star Slots

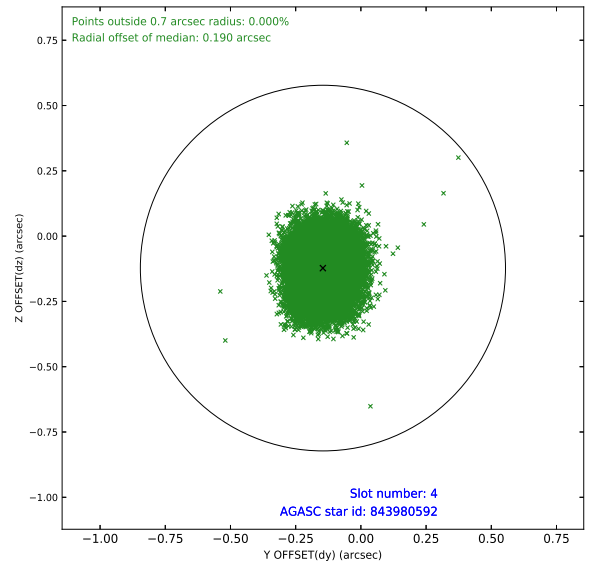
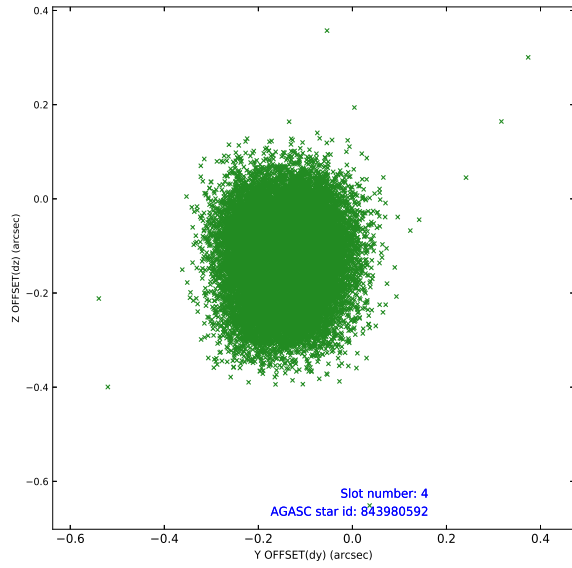
### 2.4.1 Slot 3



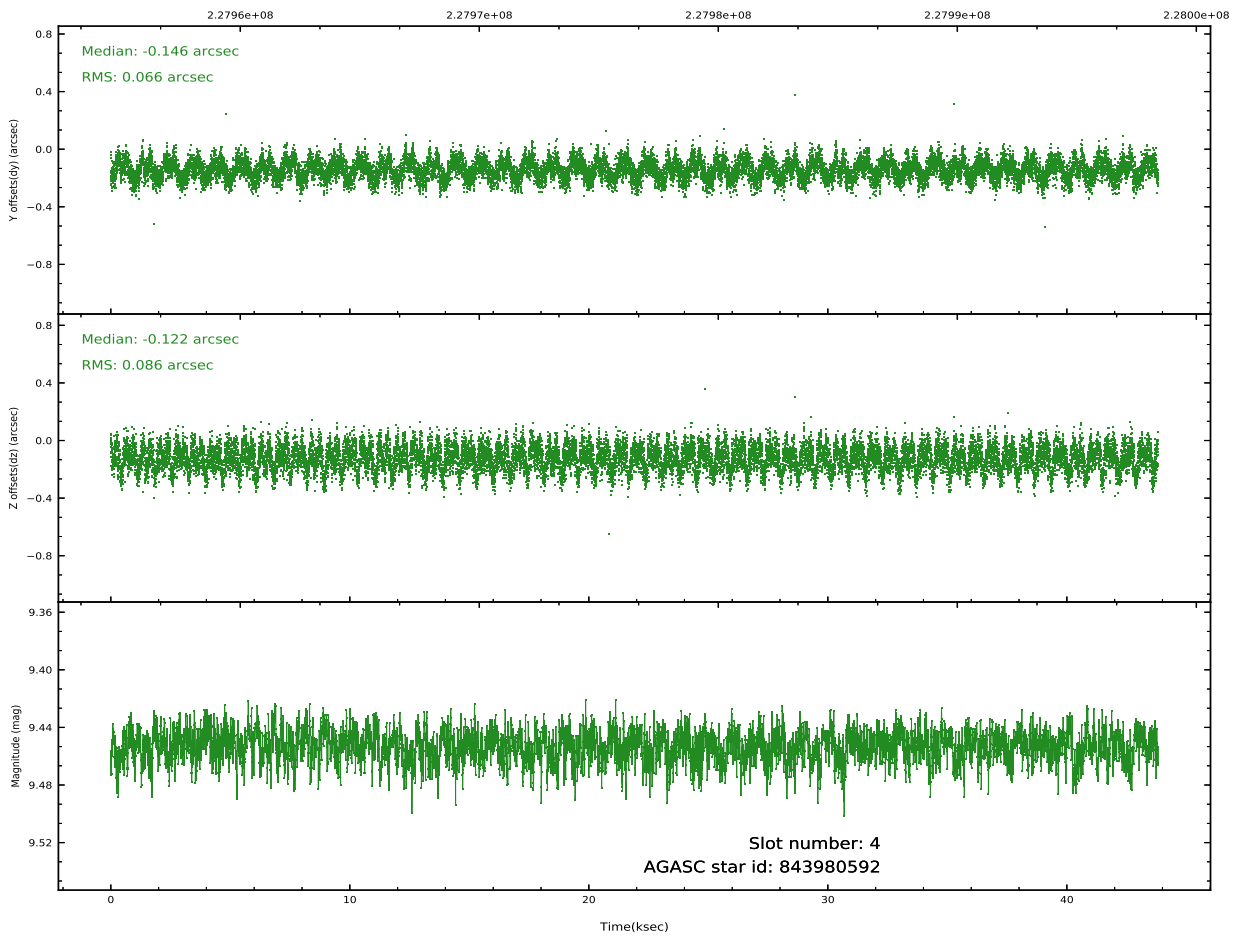
Time (s)



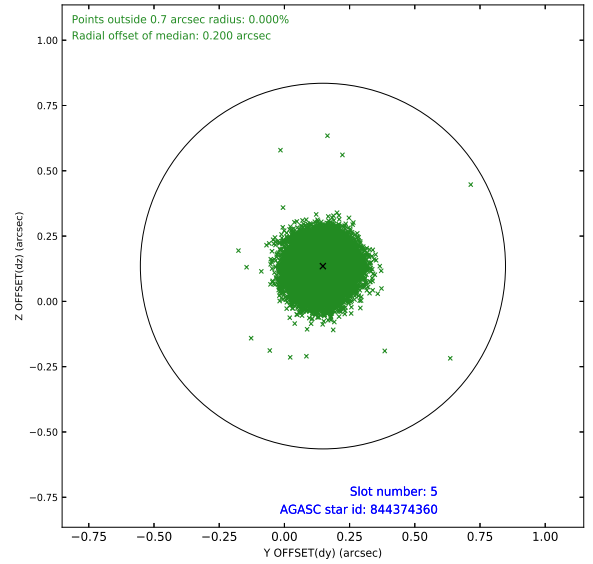
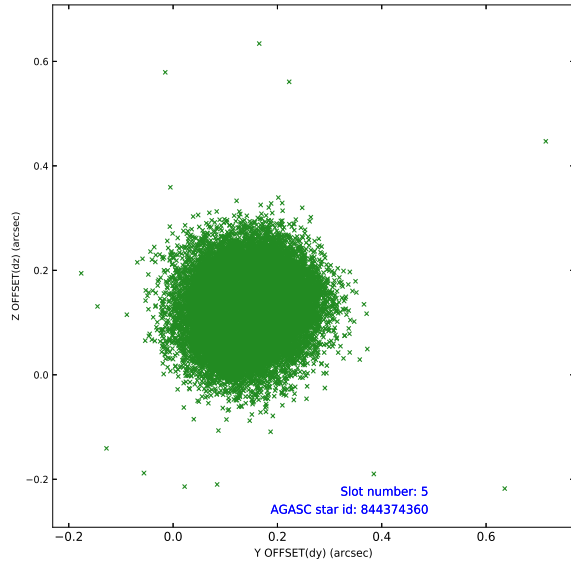
## 2.4.2 Slot 4



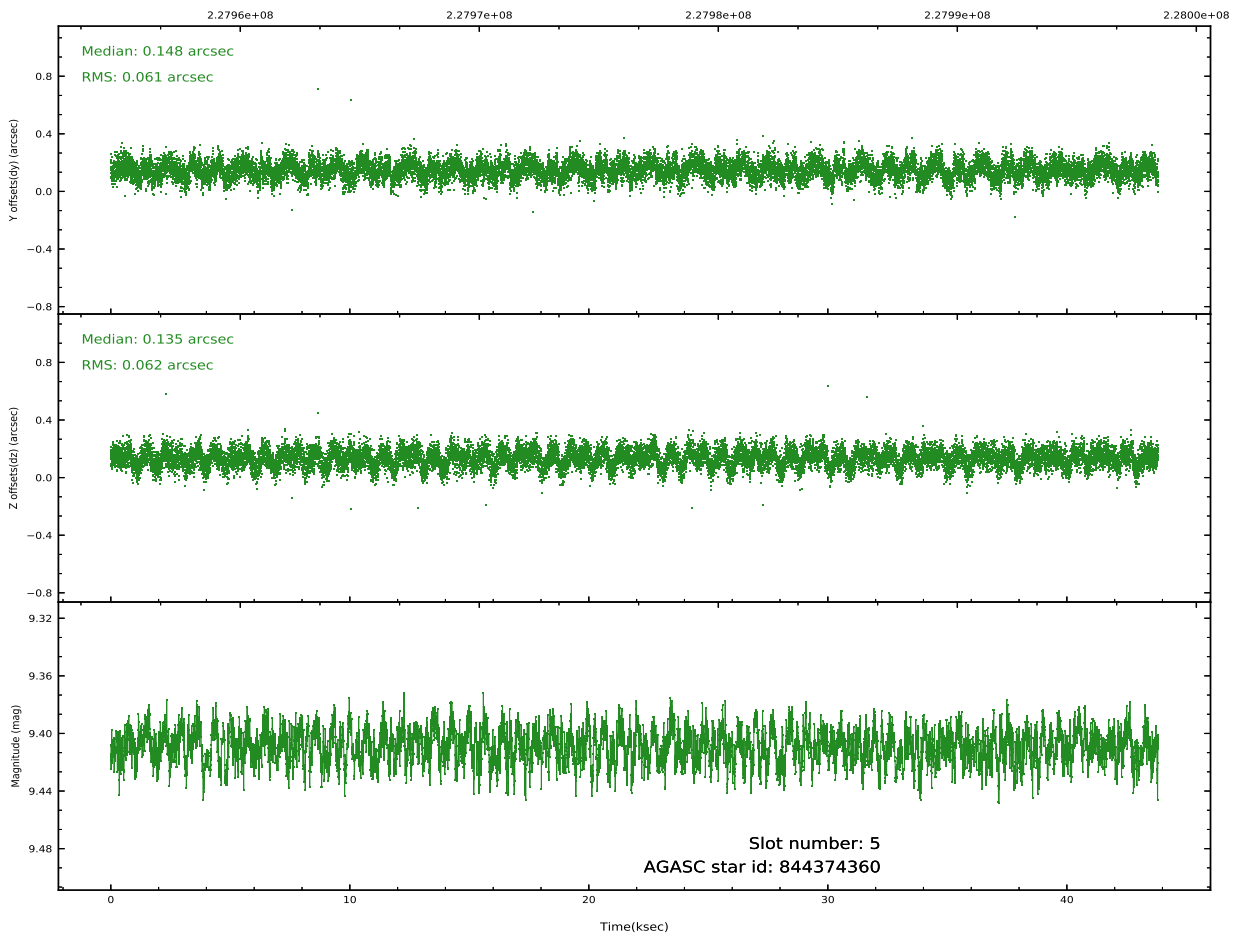
Time (s)



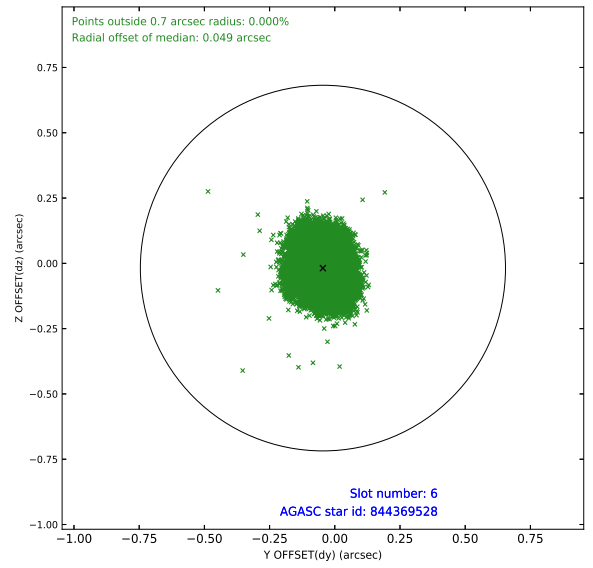
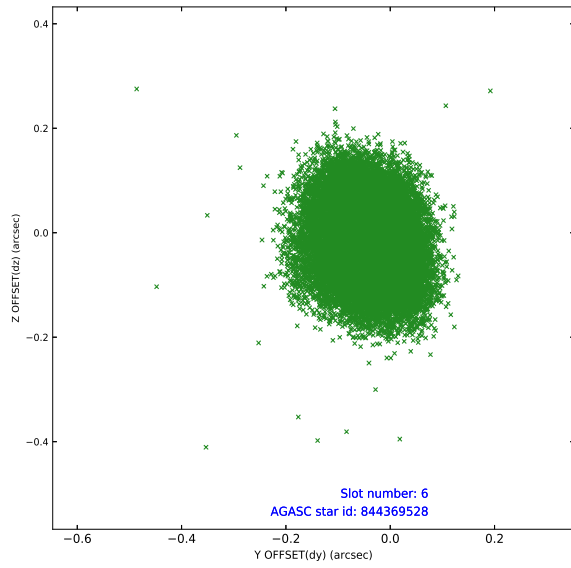
### 2.4.3 Slot 5



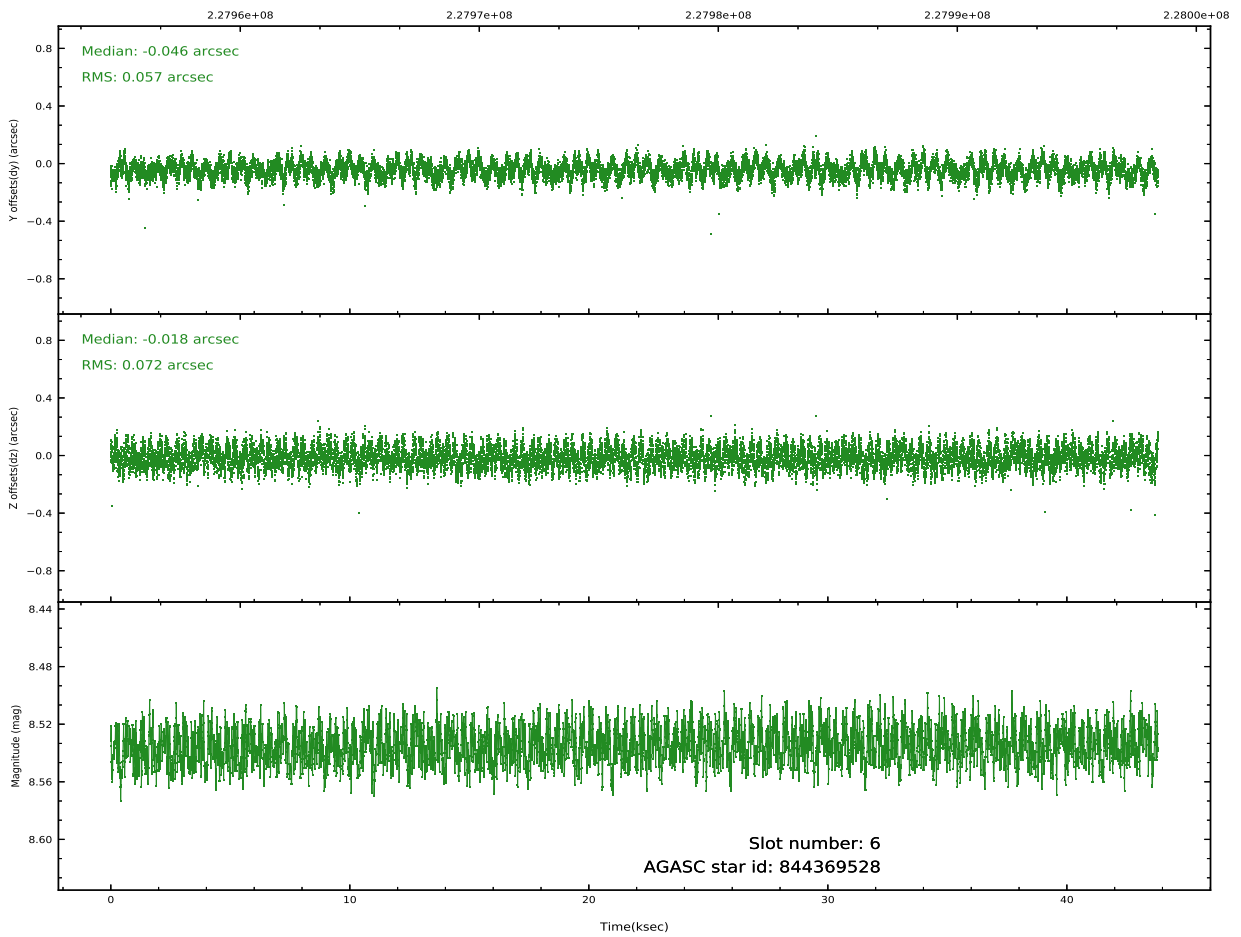
Time (s)



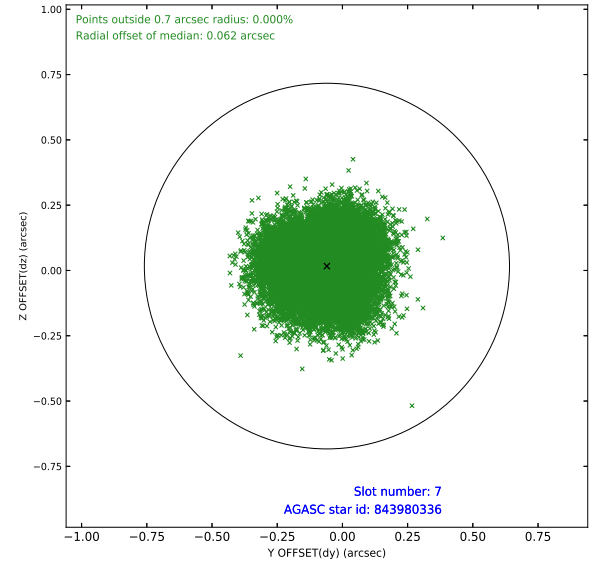
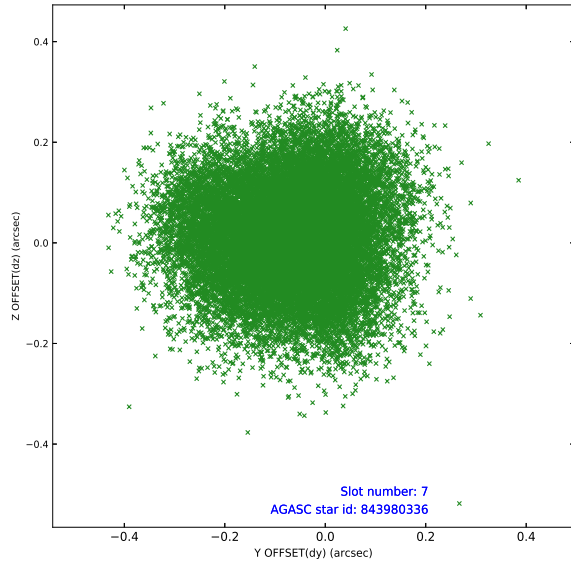
## 2.4.4 Slot 6



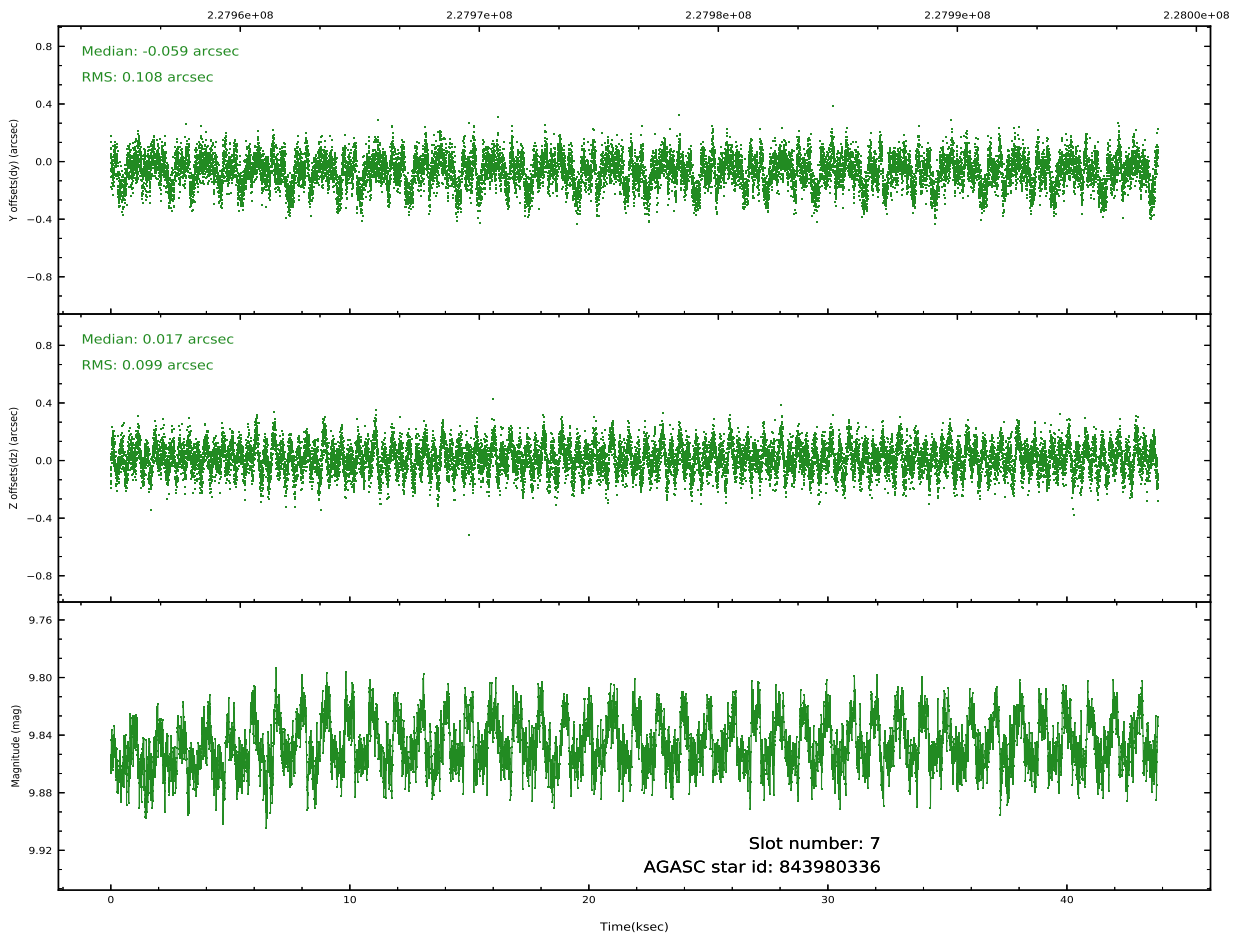
Time (s)



## 2.4.5 Slot 7

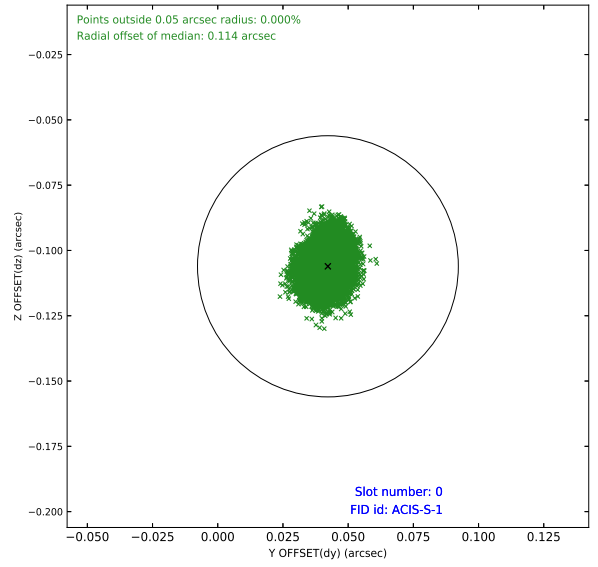
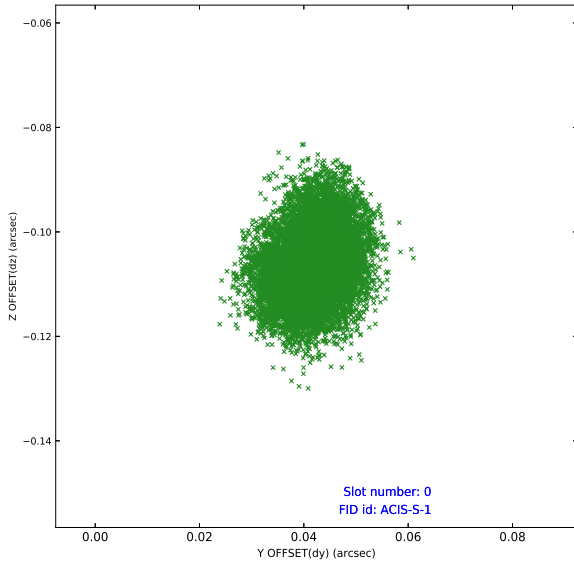


Time (s)

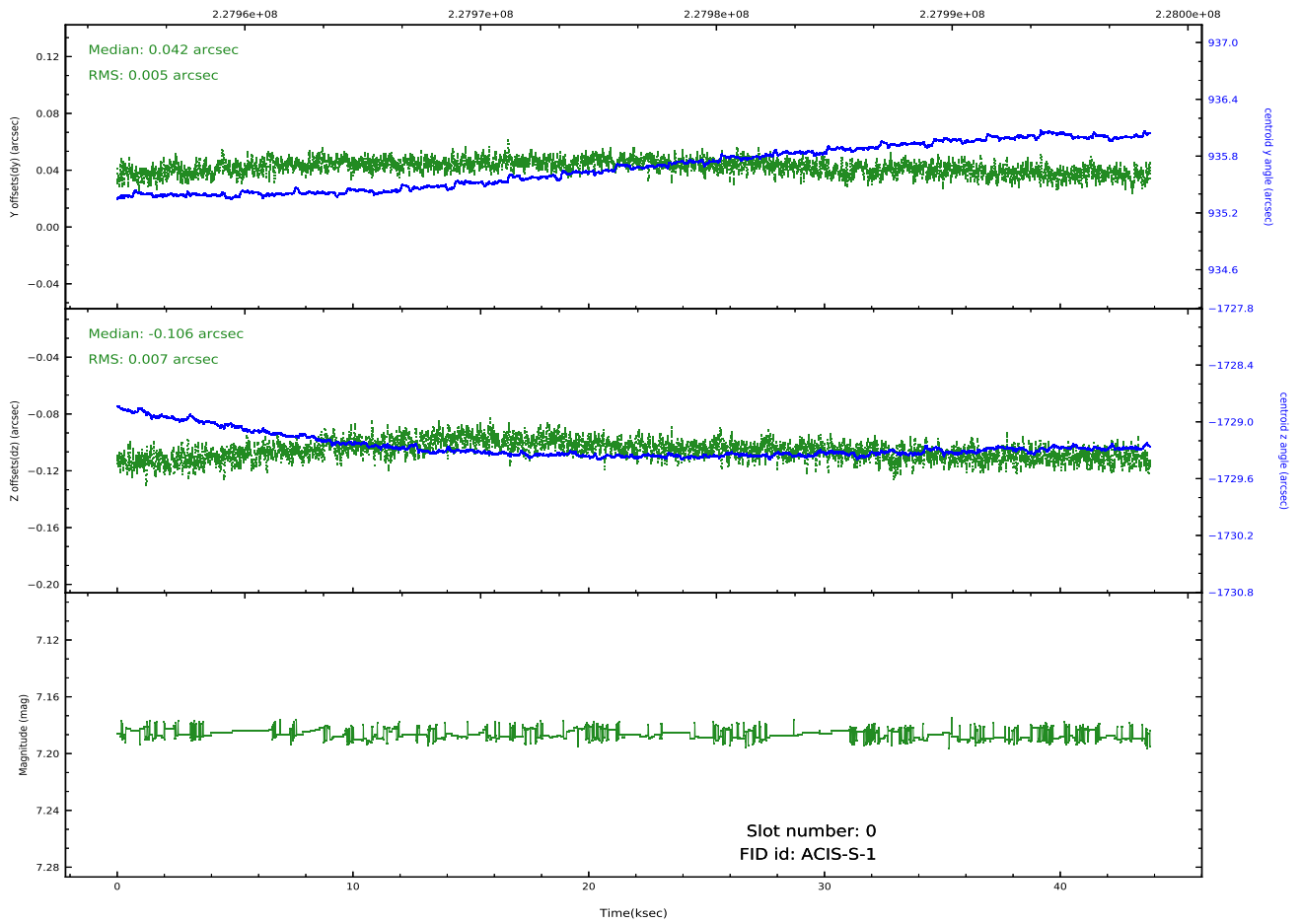


## 2.5 FID Slots

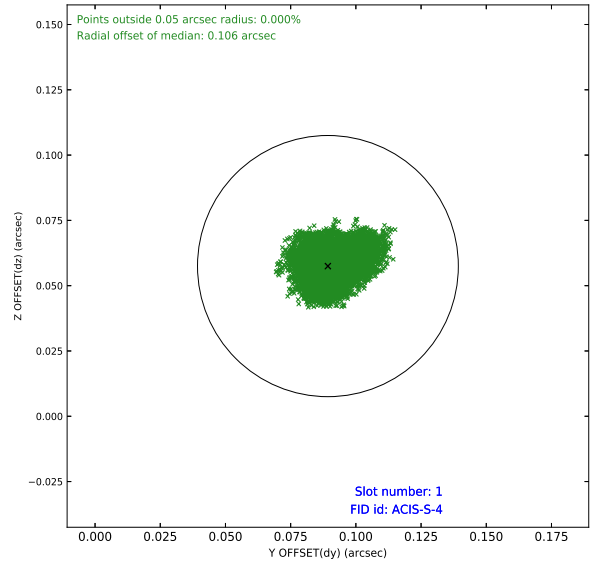
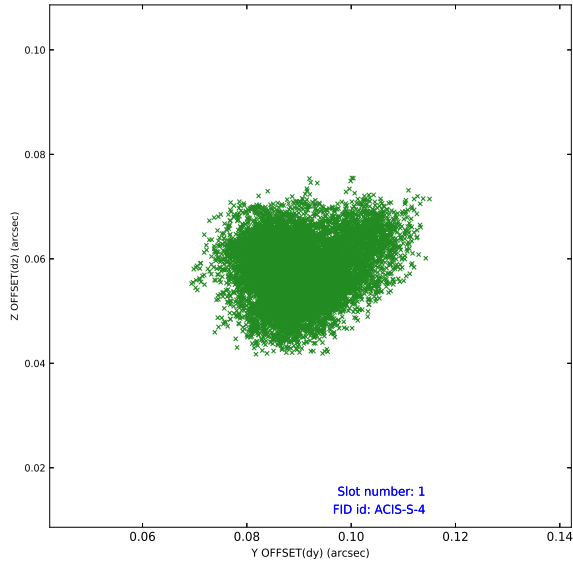
### 2.5.1 Slot 0



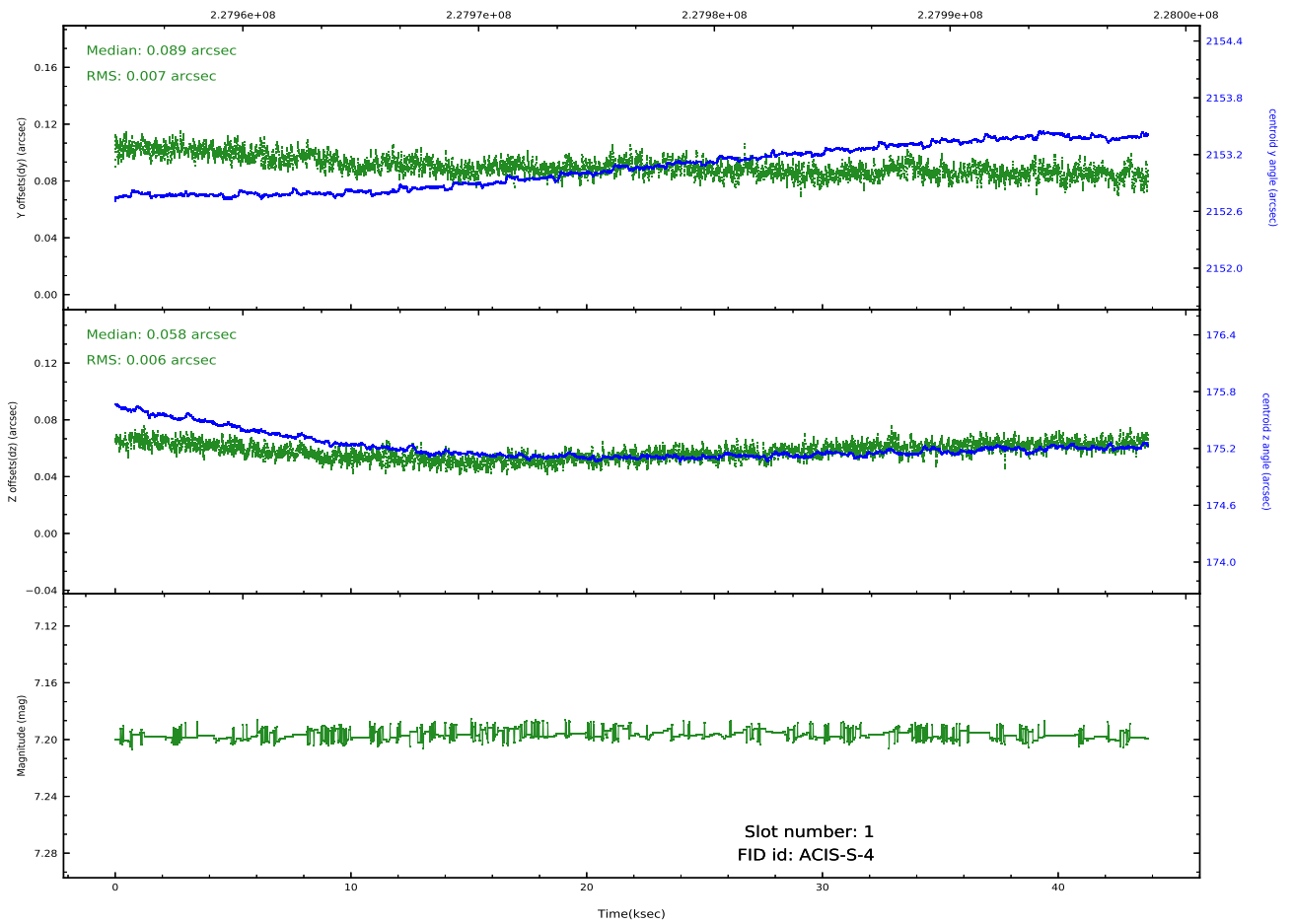
Time (s)



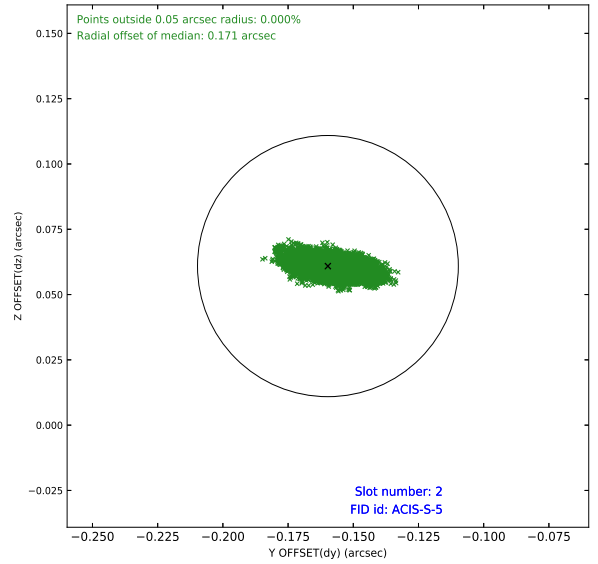
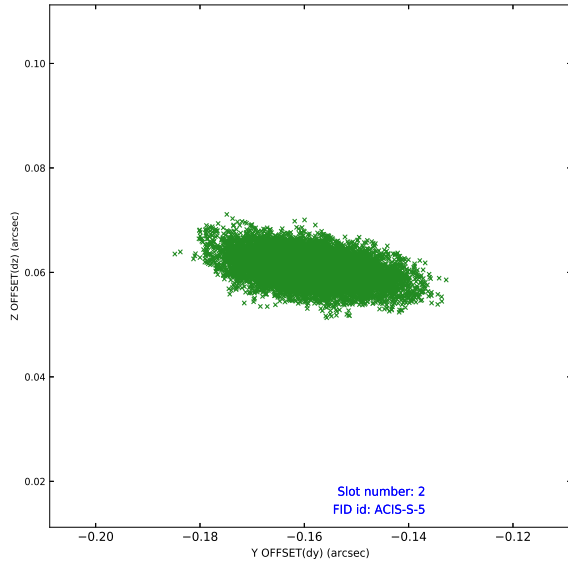
## 2.5.2 Slot 1



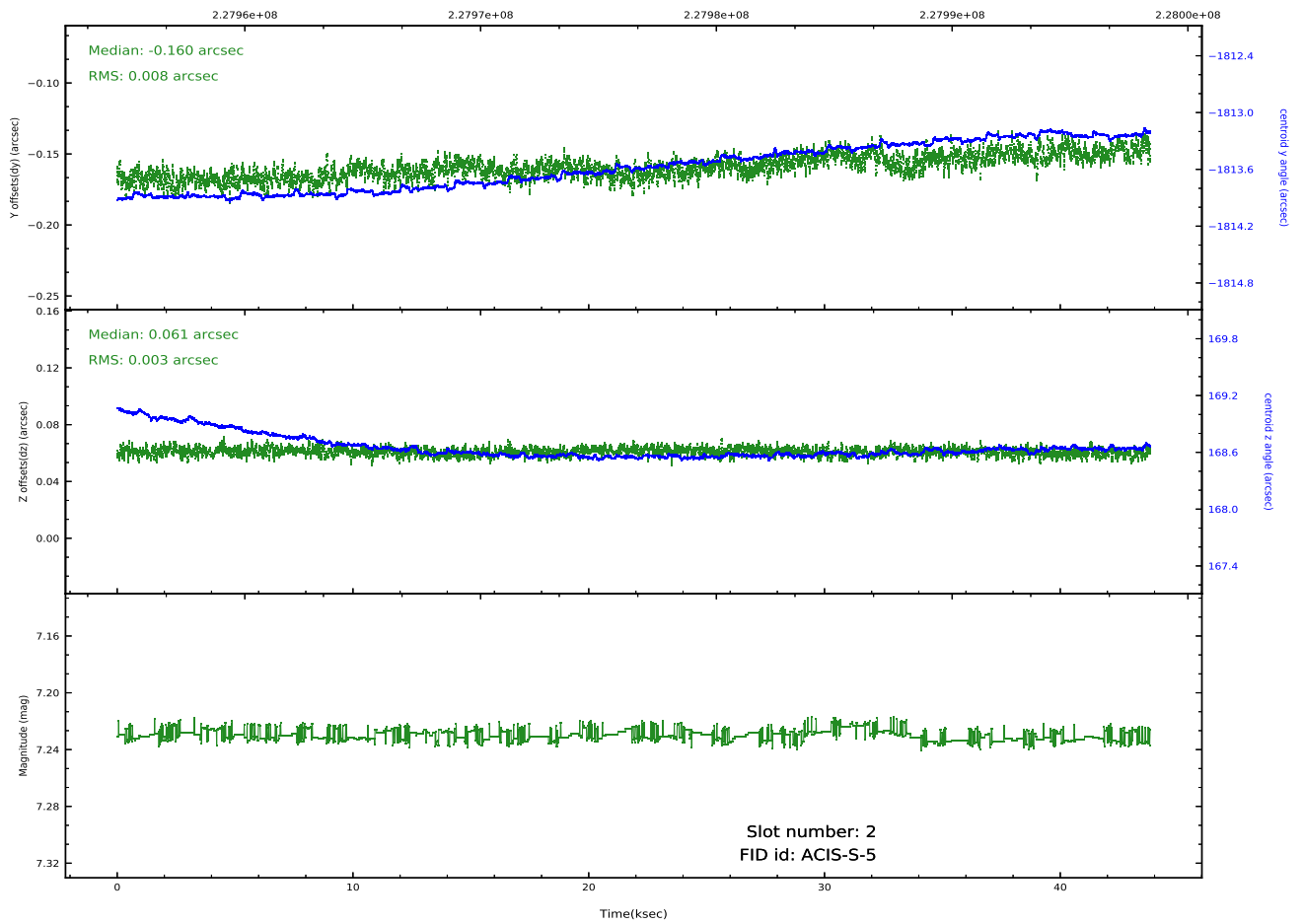
Time (s)



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	43.81539

## A.2 Comments