

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4955 - L2 Version 4  
Chandra X-Ray Center

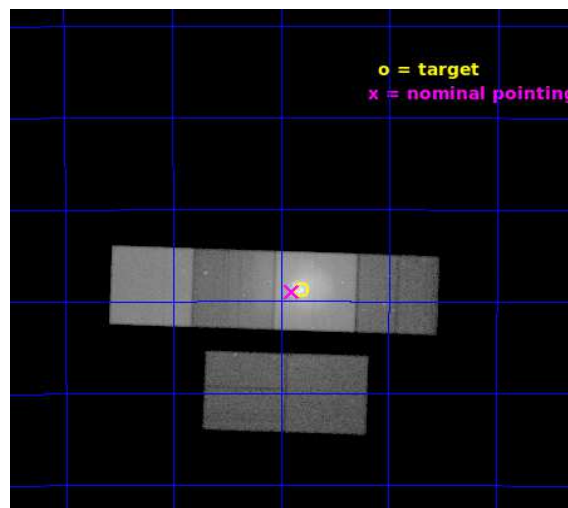
L2 Processing Date : Sep 24 2020

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# 1 Front

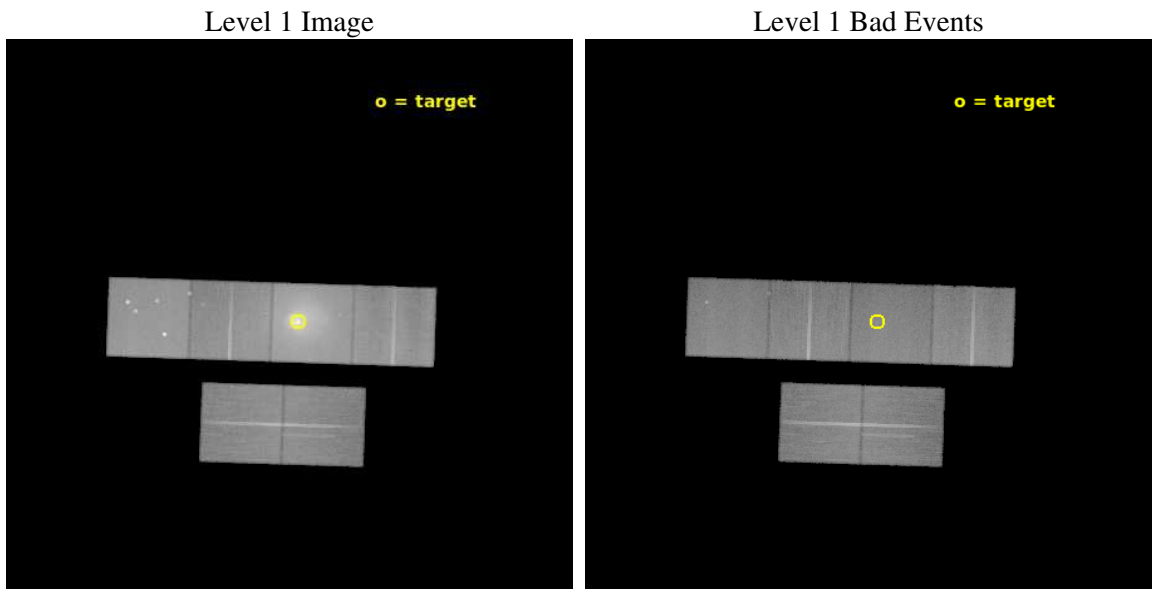
seq_num	800401	Sequence number
obs_id	4955	Observation id
title	A Detailed Look at the Core of the Centaurus Cluster	Proposal titl
observer	Andrew Fabian	Principal investigator
object	Centaurus Cluster	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	192.20375	Observer's specified target RA [deg]
dec_targ	-41.312333	Observer's specified target Dec [deg]
ra_nom	192.22441594372	Nominal RA [deg]
dec_nom	-41.315945590404	Nominal Dec [deg]
roll_nom	1.9689003585729	Nominal Roll [deg]
revision	4	Processing version of data
ontime	45254.399831414	Sum of GTIs [s]
livetime	44681.361371821	Livetime [s]
ontime2	45251.158841163	Sum of GTIs [s]
ontime3	45251.158841133	Sum of GTIs [s]
ontime5	45254.399831414	Sum of GTIs [s]
ontime6	45254.399831414	Sum of GTIs [s]
ontime7	45254.399831414	Sum of GTIs [s]
ontime8	45251.158841133	Sum of GTIs [s]
l2events	1299009	Number of level 2 events



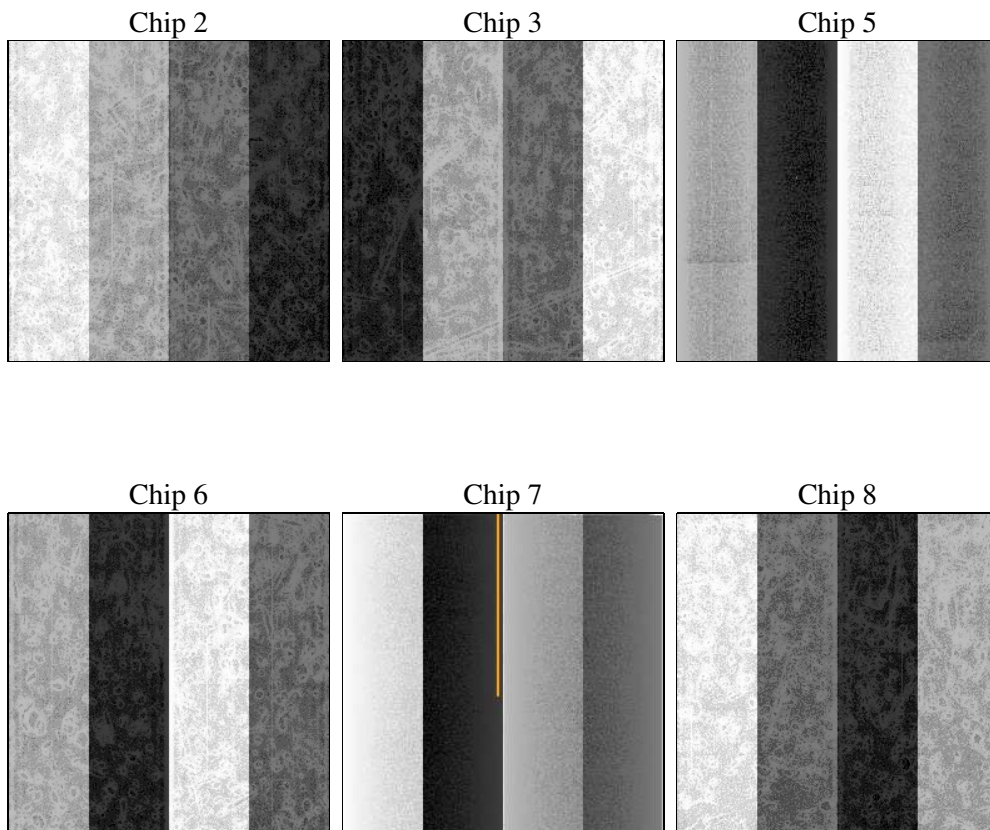
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	45500.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	45254.399831414	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime2	45251.158841163	Sum of GTIs [s]
date	2020-09-25T01:15:45	Date and time of file creation	ontime3	45251.158841133	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	45254.399831414	Sum of GTIs [s]
			ontime6	45254.399831414	Sum of GTIs [s]
			ontime7	45254.399831414	Sum of GTIs [s]
			ontime8	45251.158841133	Sum of GTIs [s]
			l1events	3071648	Number of level 1 events

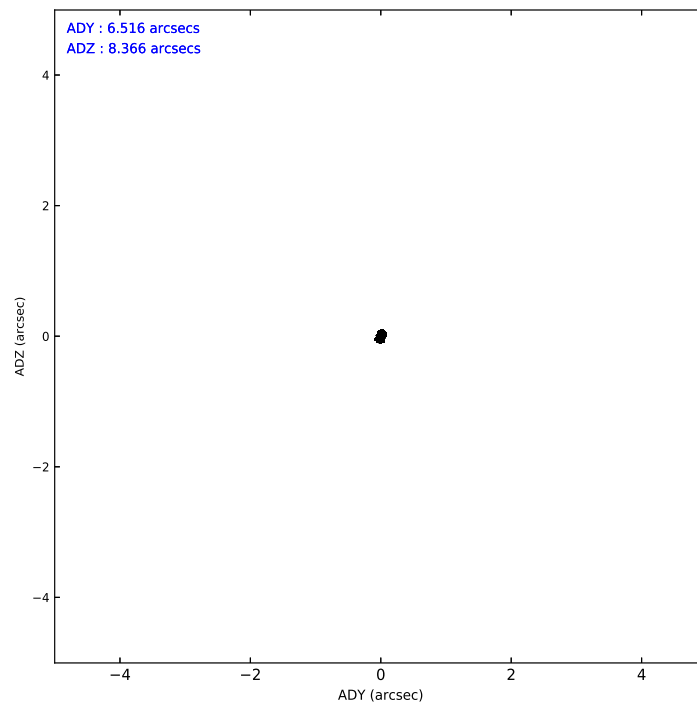
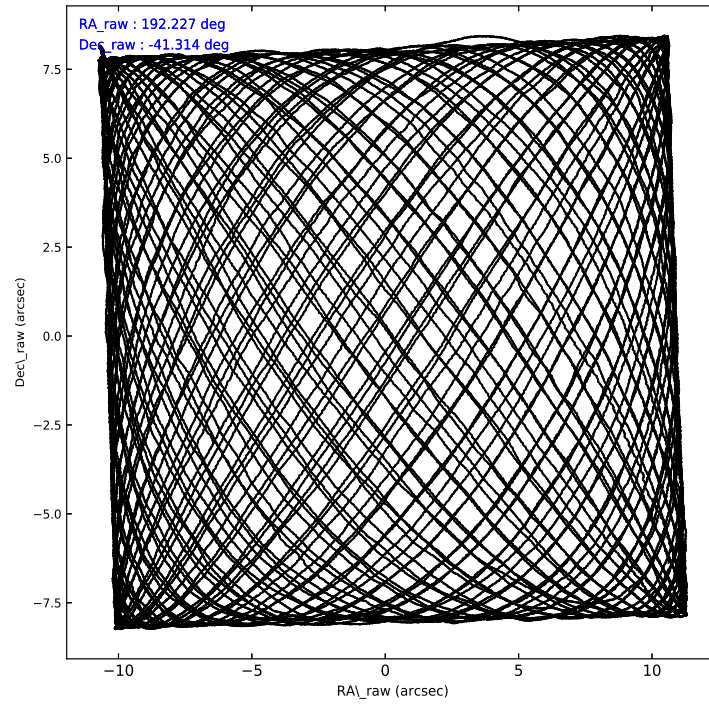
### 2.1.4 Events

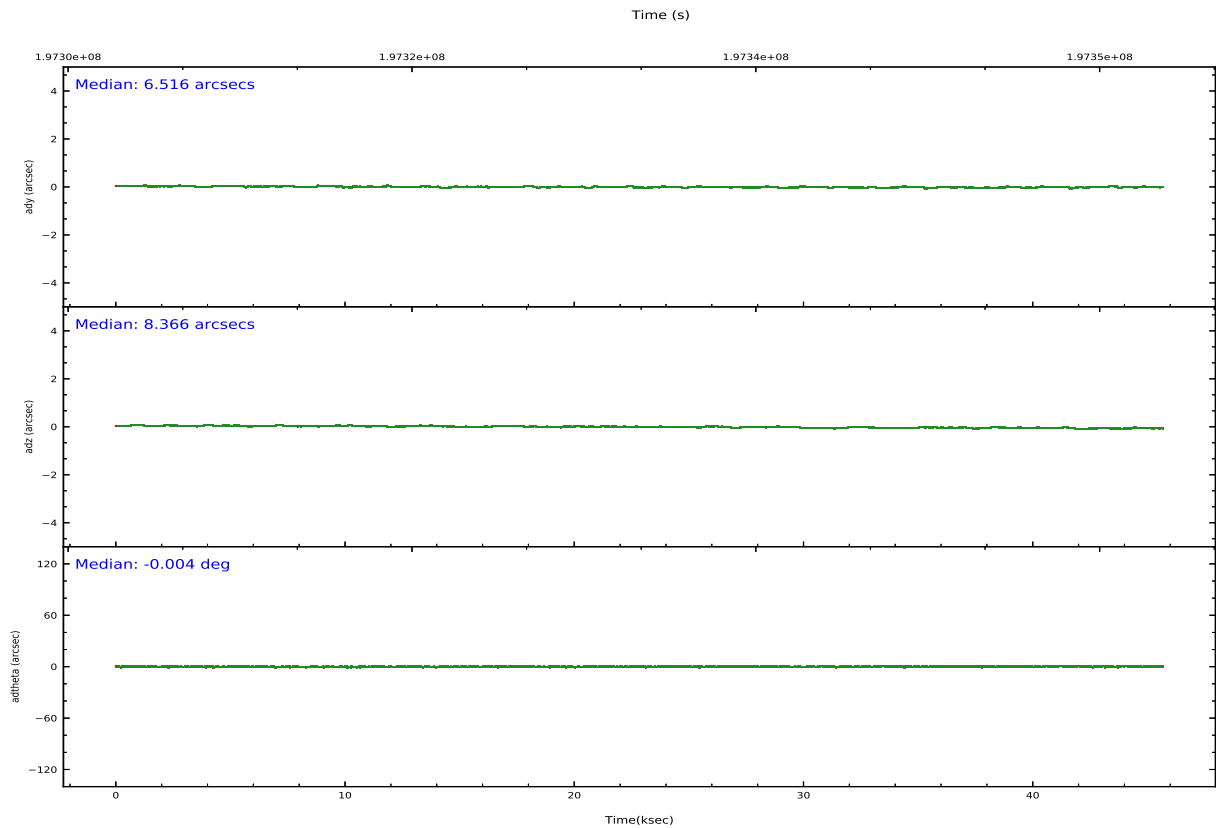
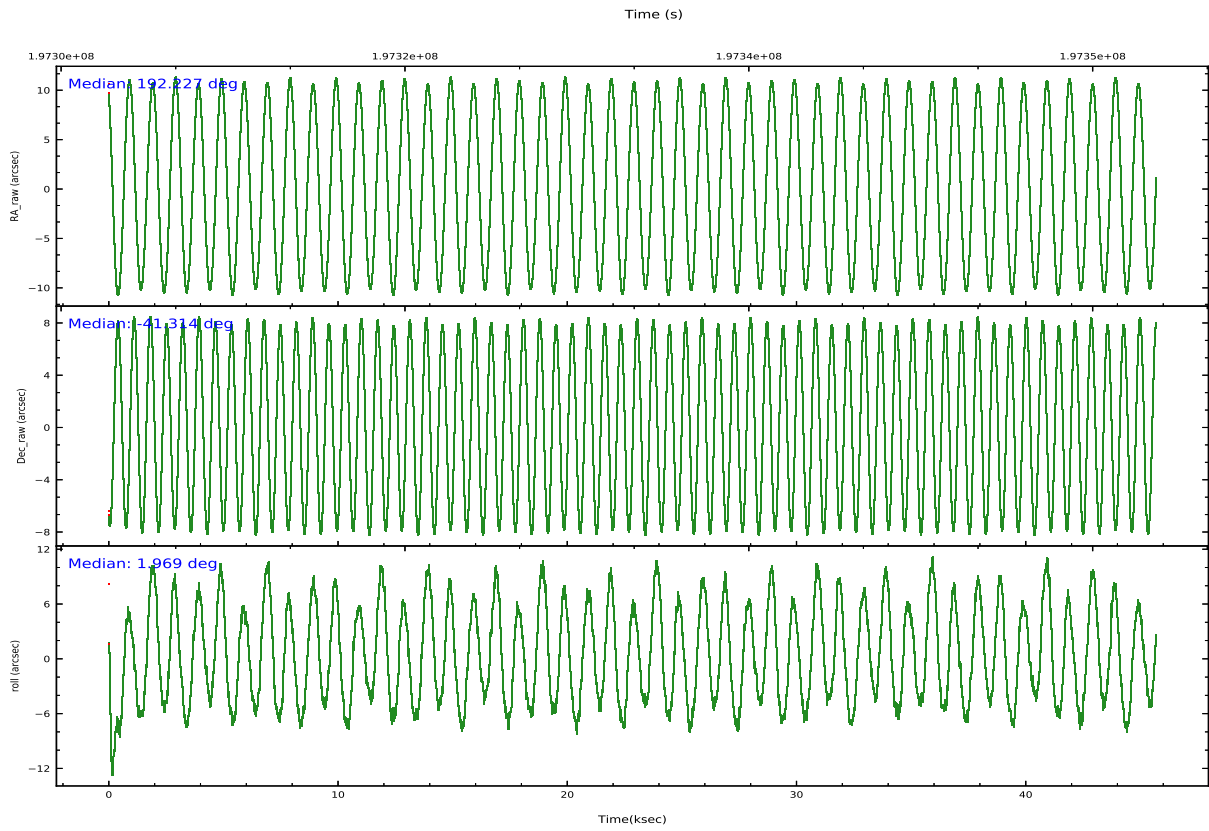
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	345735	320971	531814	439407	988139	445582	grade 0 events	39537	35262	53562	114922	180710	63643
rejected events	280347	261330	257583	280249	254428	317636		11%	10%	10%	26%	18%	14%
rejected %	81%	81%	48%	63%	25%	71%	grade 1 events	327	286	1705	508	560	438
								0%	0%	0%	0%	0%	0%
							grade 2 events	10230	9082	77289	19529	184312	22704
								2%	2%	14%	4%	18%	5%
							grade 3 events	4375	4133	12453	7205	81844	9718
								1%	1%	2%	1%	8%	2%
							grade 4 events	4347	4244	12221	7203	81222	9368
								1%	1%	2%	1%	8%	2%
							grade 5 events	12376	13625	35187	14851	44046	19184
								3%	4%	6%	3%	4%	4%
							grade 6 events	6907	6925	118738	10314	205716	22569
								1%	2%	22%	2%	20%	5%
							grade 7 events	267636	247414	220659	264875	209729	297958
								77%	77%	41%	60%	21%	66%

## 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	192.196412	192.22441594372	Subarray requested	NONE	NONE
[deg] Pointing Dec	-41.328184	-41.315945590404	Alternating exposures requested	N	N
[deg] Pointing Roll	1.788149	1.9689003585729	[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)	197307269.184000	197306893.57312			
Observation start date	2004-04-02T15:33:25	2004-04-02T15:28:13			
[s] Observation end time (MET)	197352769.184000	197354253.7002			
Observation end date	2004-04-03T04:11:45	2004-04-03T04:37:33			
Read mode	TIMED	TIMED			

## 2.3 Aspect





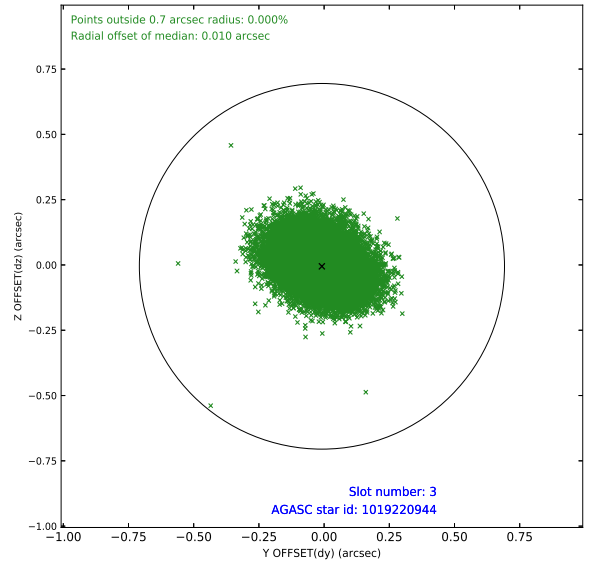
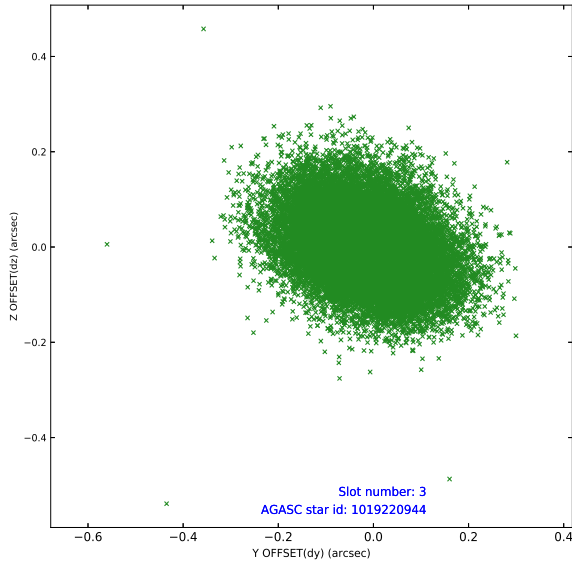
### Slot Statistics

pt	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	11144	1.000	-0.056	-0.078	0.006	0.011	0.000000	0.000000	-759.29	-1729
1	FID		ACIS-S-4	7.21	11144	1.000	0.121	0.048	0.005	0.010	0.000000	0.000000	2154.15	178
2	FID		ACIS-S-5	7.23	11143	1.000	-0.095	0.039	0.006	0.011	0.000000	0.000000	-1812.20	172
3	GUIDE	used	1019220944	9.88	22192	1.000	-0.008	-0.005	0.124	0.207	192.806424	-41.071482	1683.76	866
4	GUIDE	used	1019221952	9.60	22269	1.000	-0.065	0.046	0.104	0.168	192.906873	-41.032646	1961.77	995
5	GUIDE	used	1019615024	8.48	22280	1.000	0.012	0.014	0.061	0.099	191.349086	-41.365736	-2292.20	-74
6	GUIDE	used	1019740808	8.81	22272	1.000	0.069	-0.132	0.060	0.097	192.766173	-41.251253	1550.12	223
7	GUIDE	used	1019743536	8.65	22280	1.000	-0.001	0.075	0.066	0.107	192.632057	-41.696442	1129.54	-1364

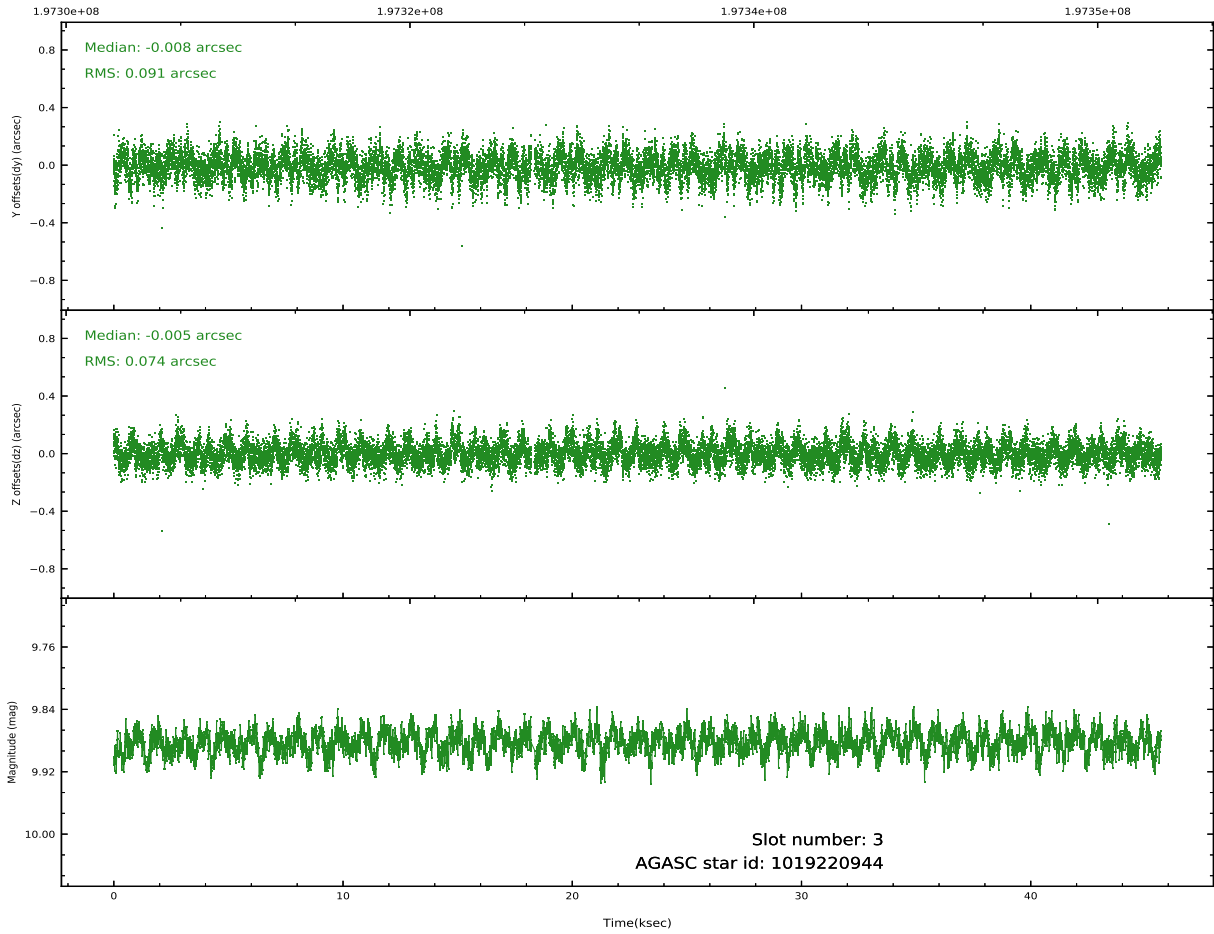
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## 2.4 Star Slots

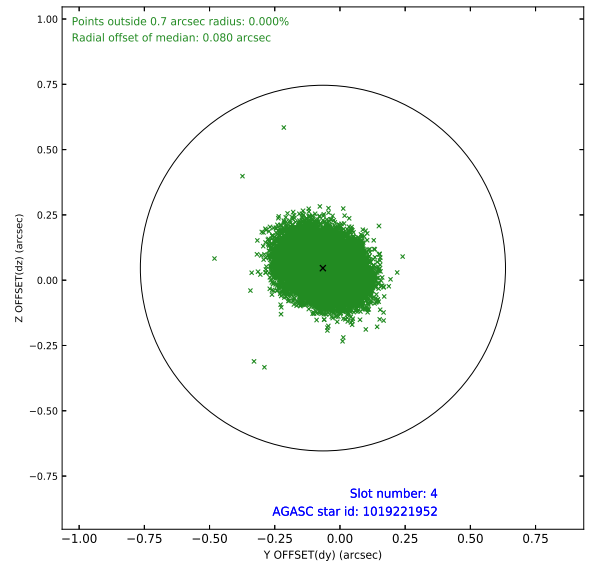
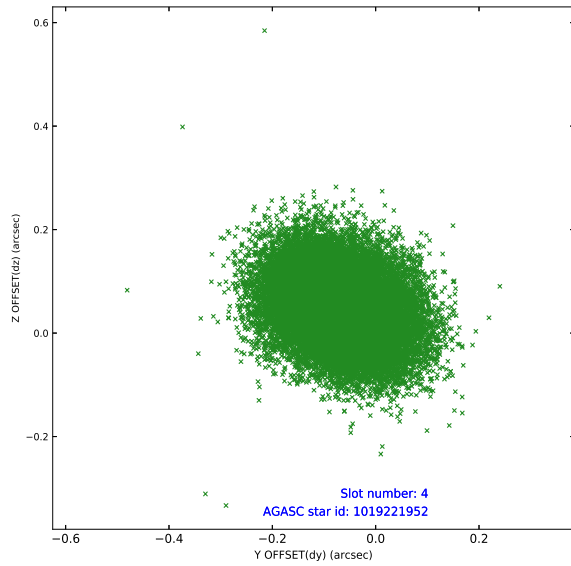
### 2.4.1 Slot 3



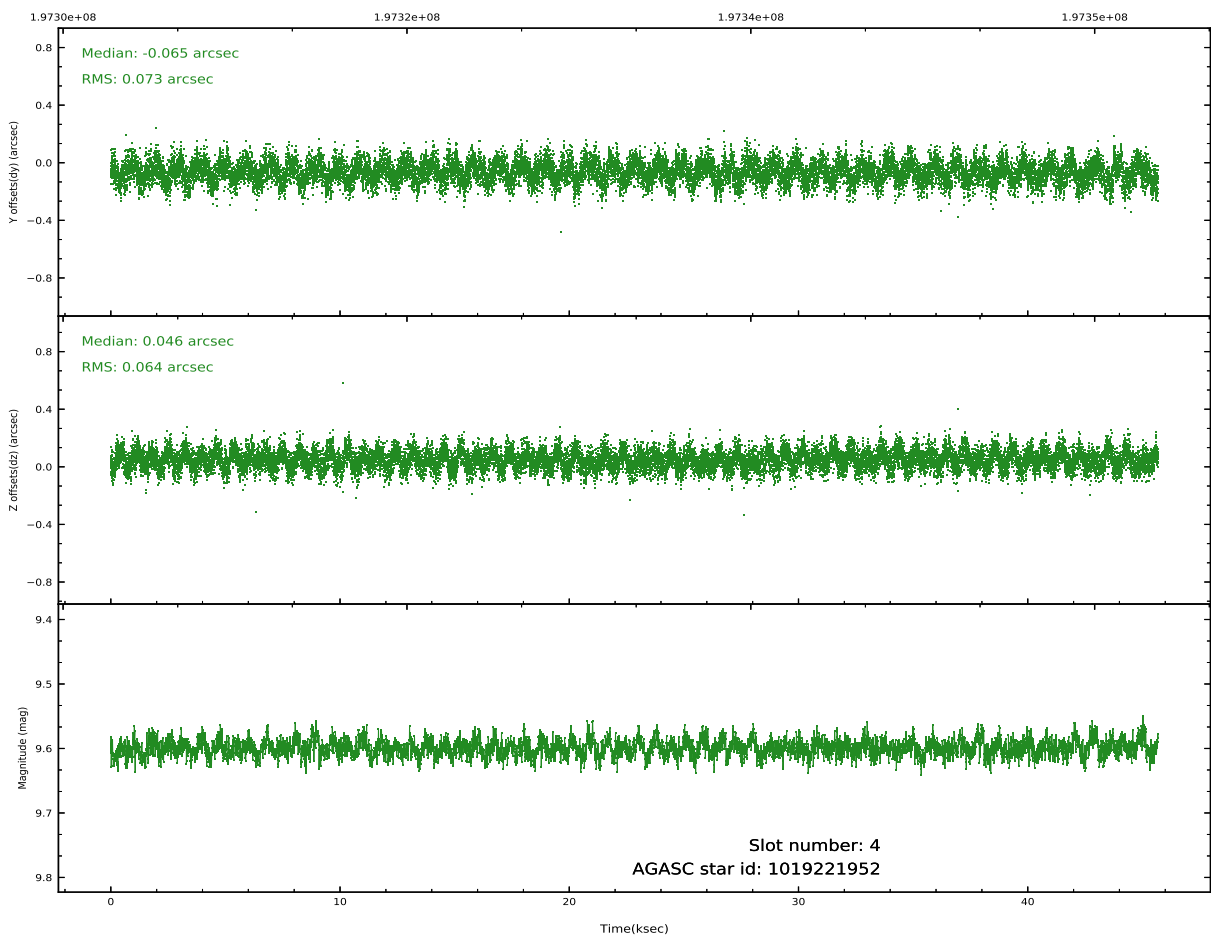
Time (s)



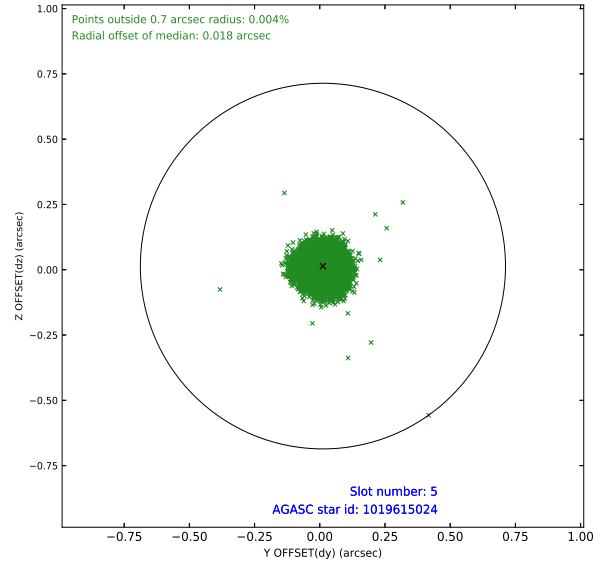
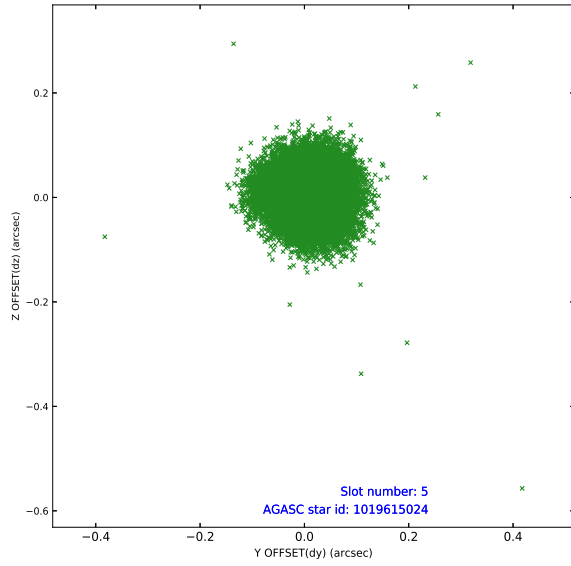
## 2.4.2 Slot 4



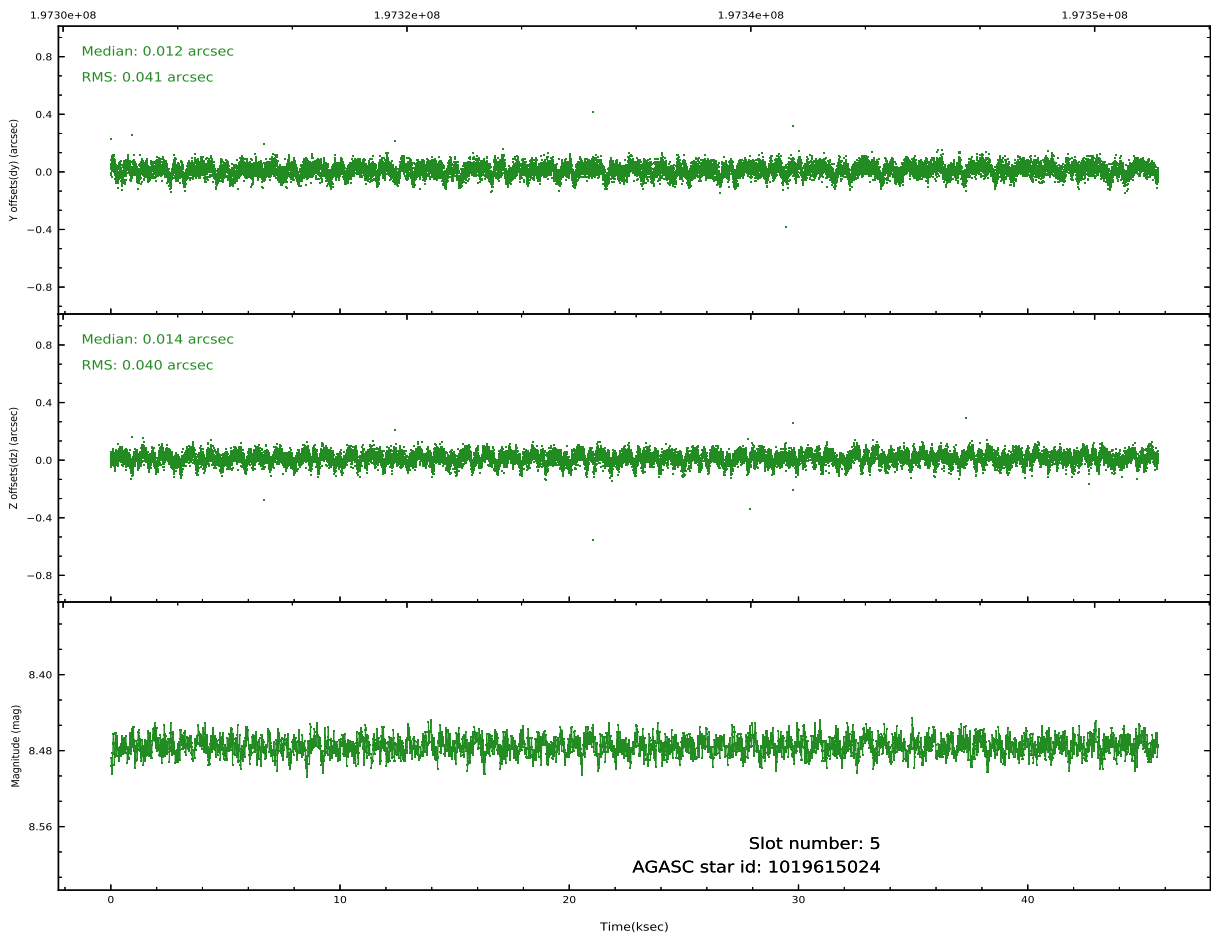
Time (s)



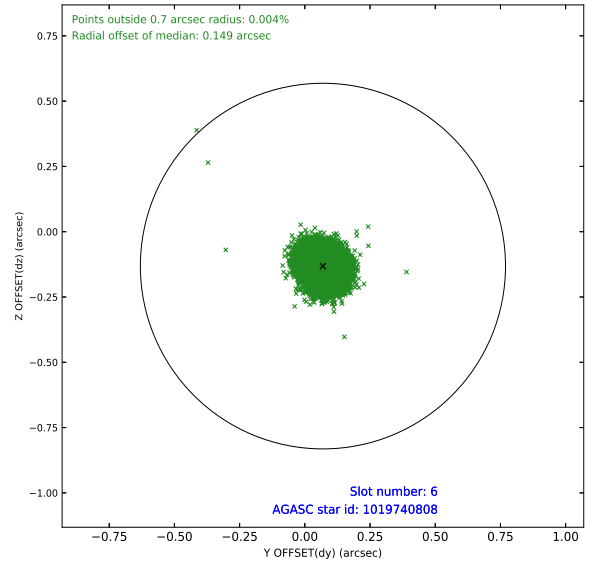
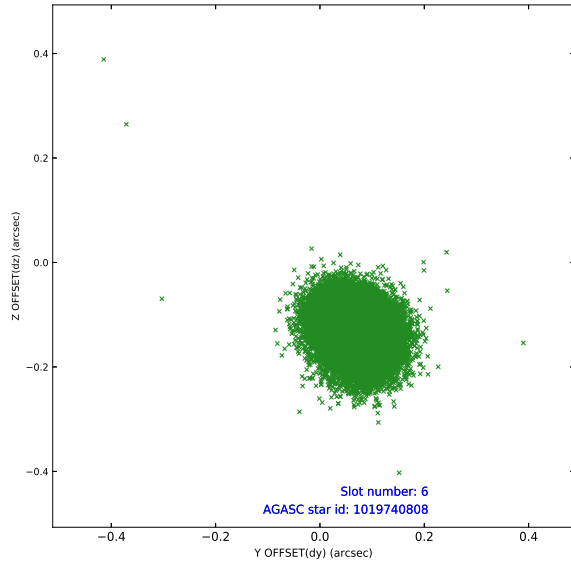
### 2.4.3 Slot 5



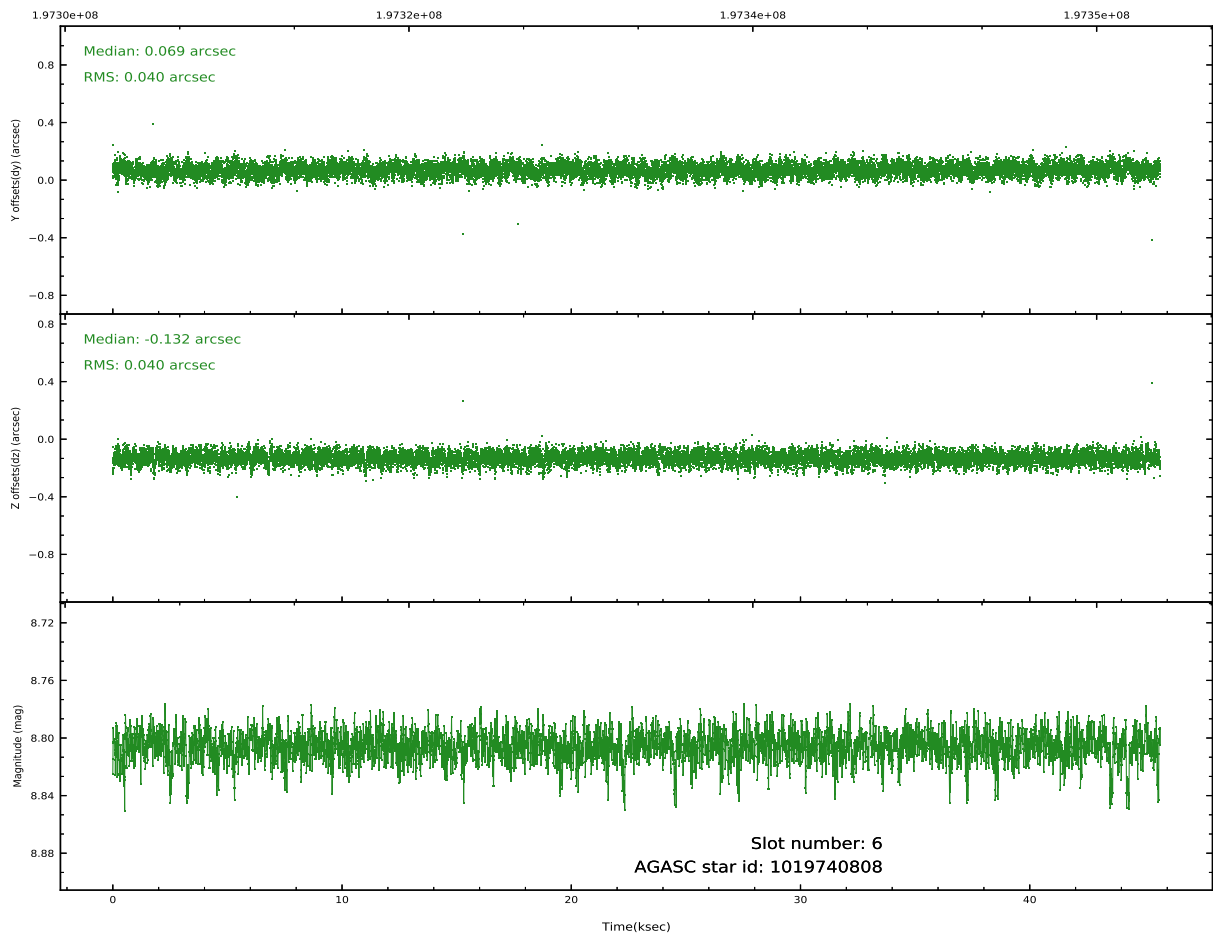
Time (s)



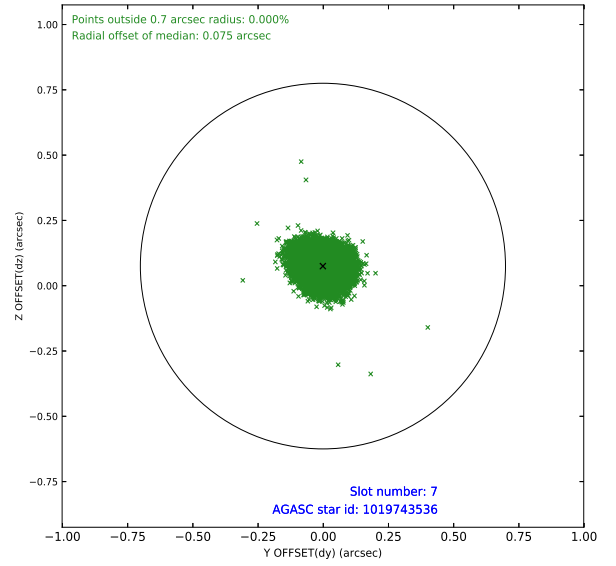
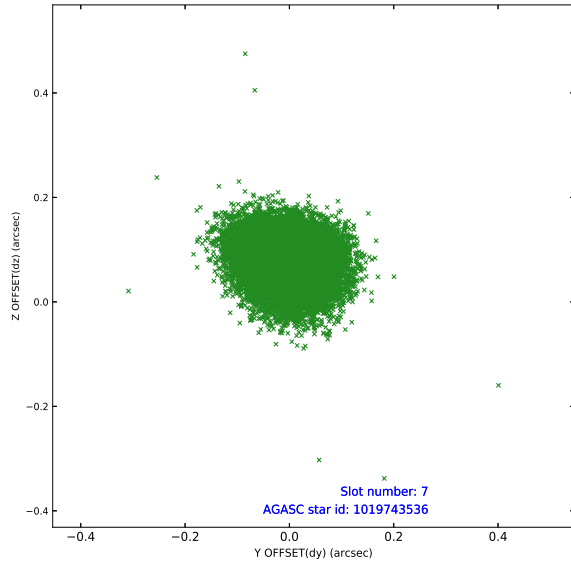
## 2.4.4 Slot 6



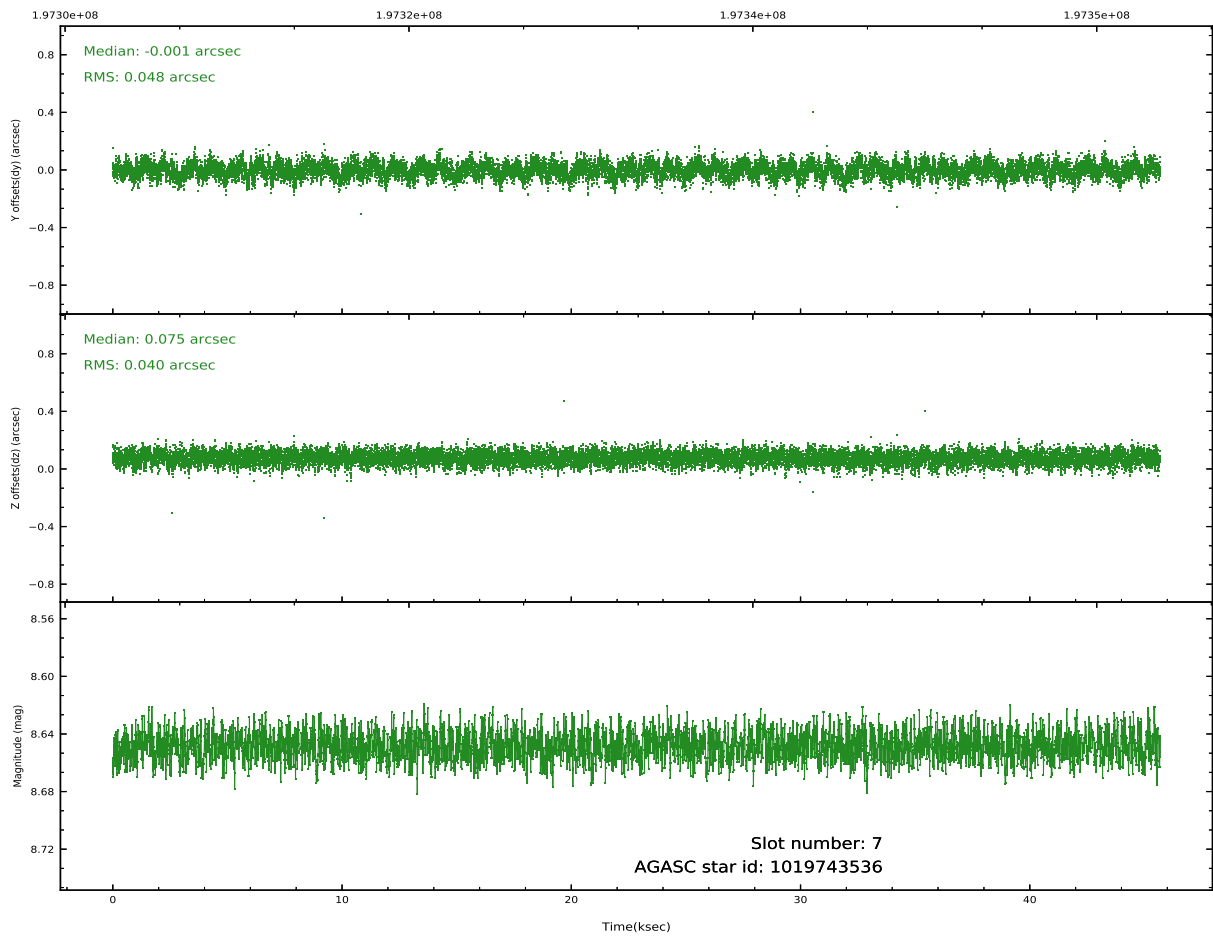
Time (s)



## 2.4.5 Slot 7

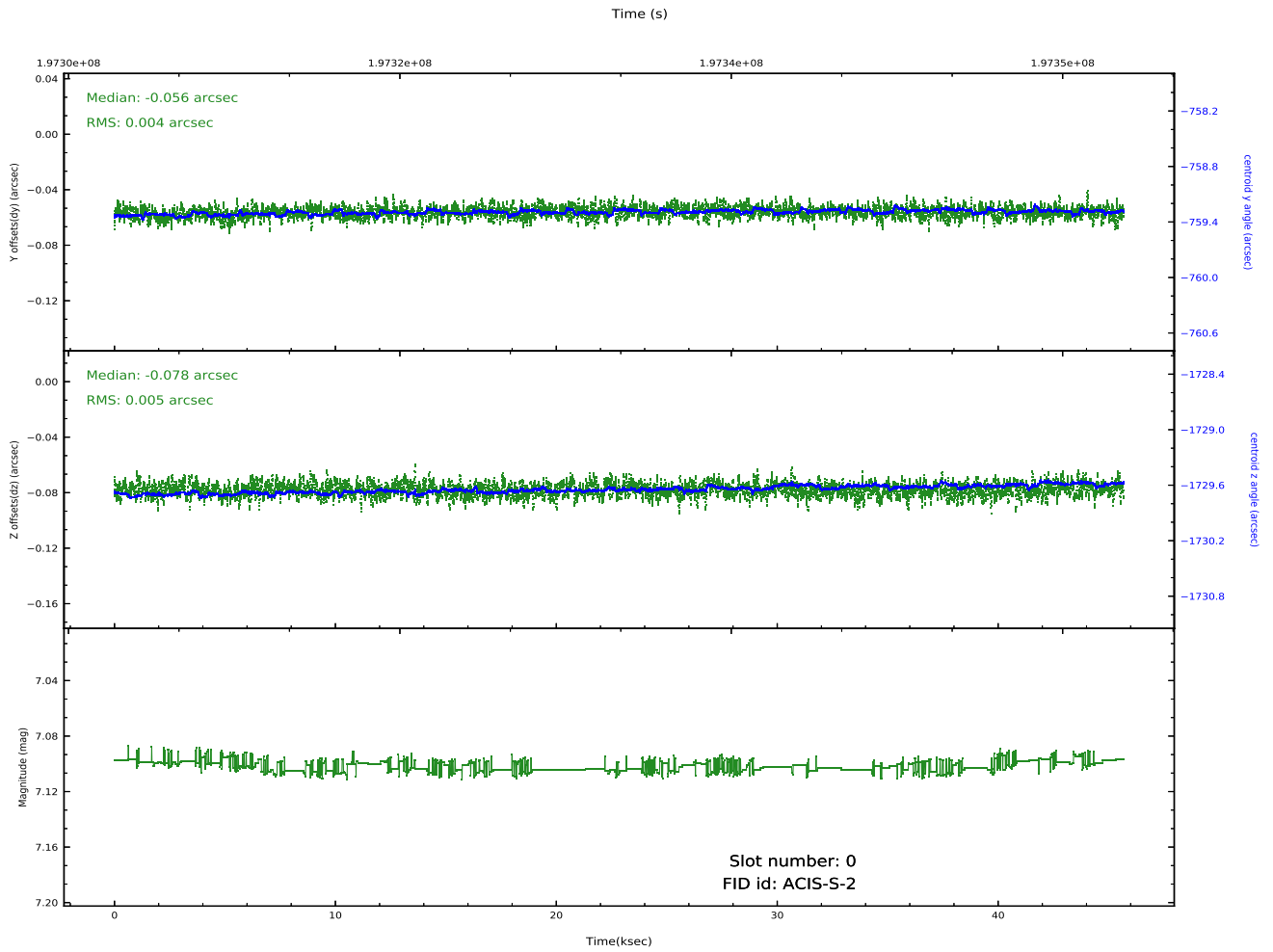
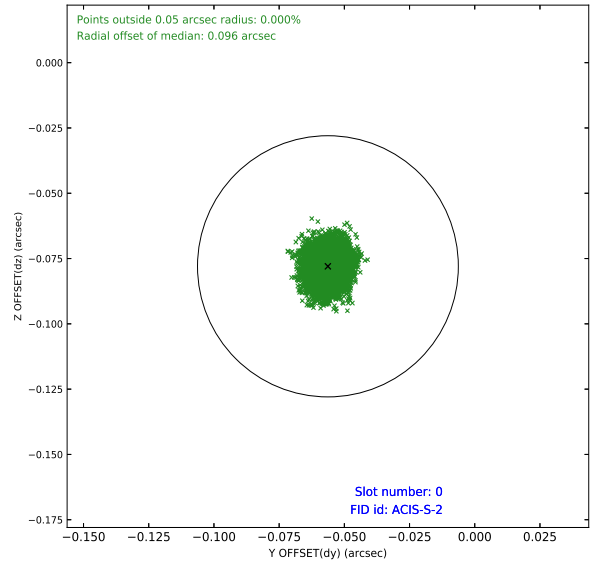
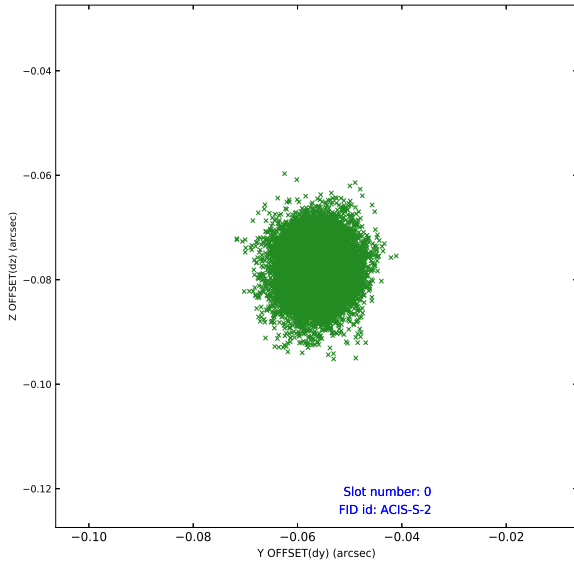


Time (s)

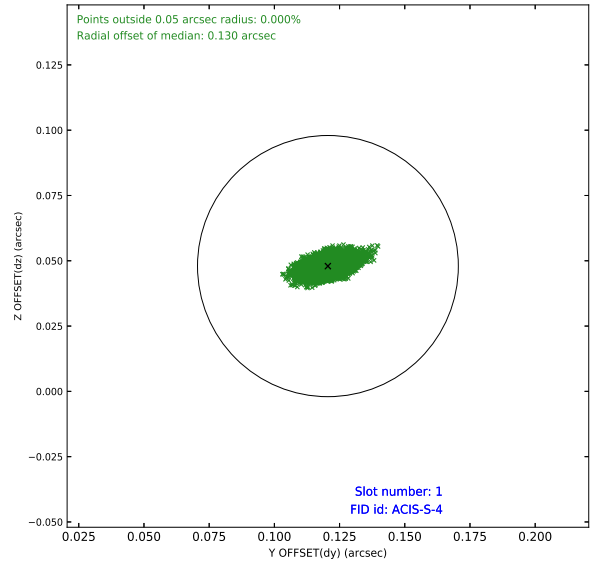
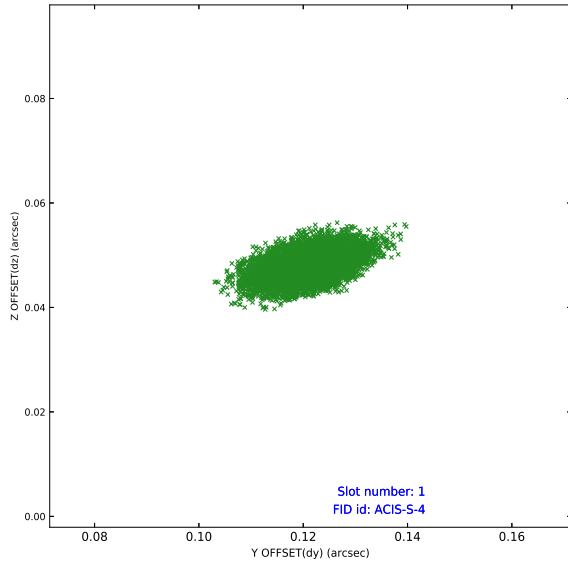


## 2.5 FID Slots

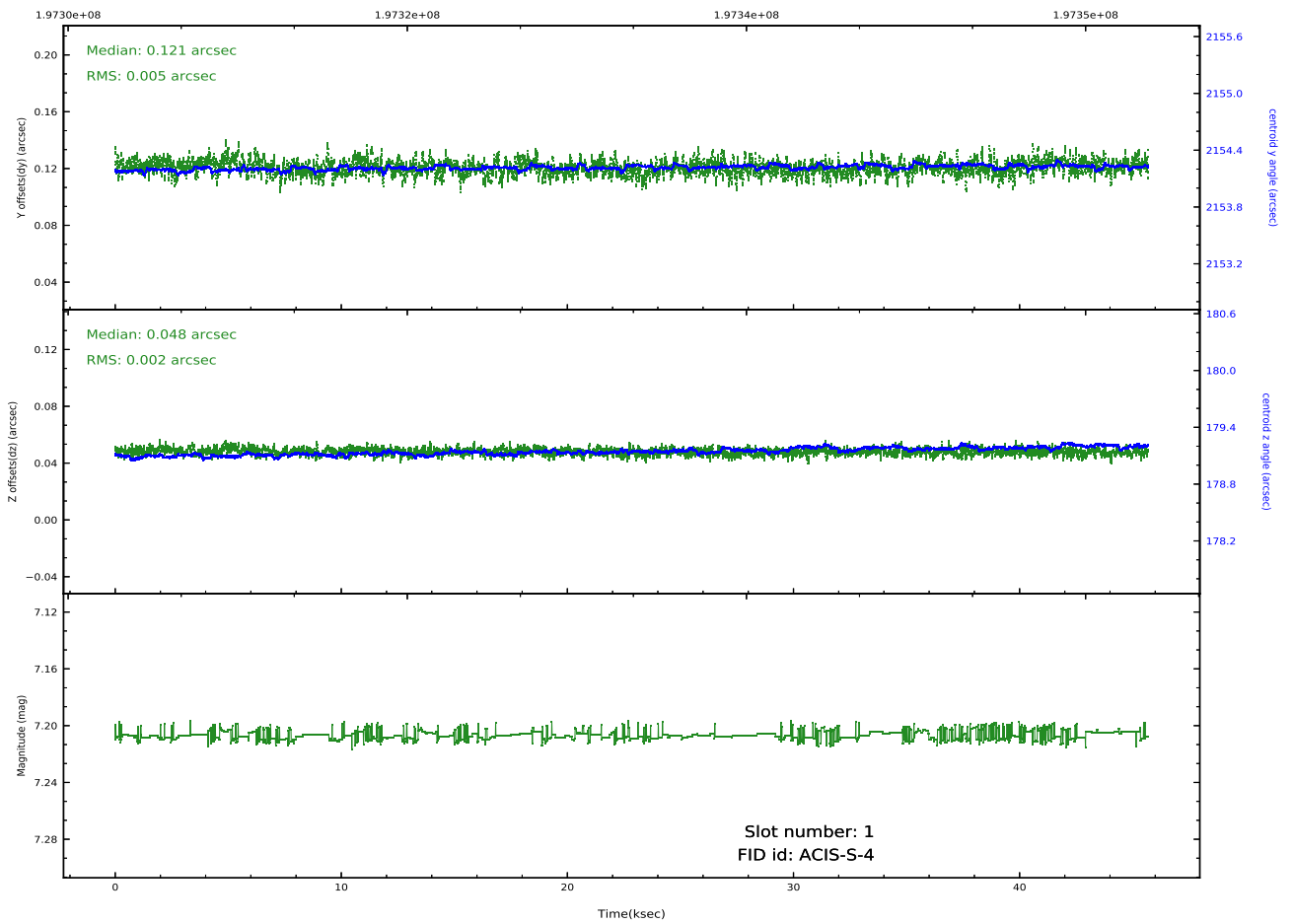
### 2.5.1 Slot 0



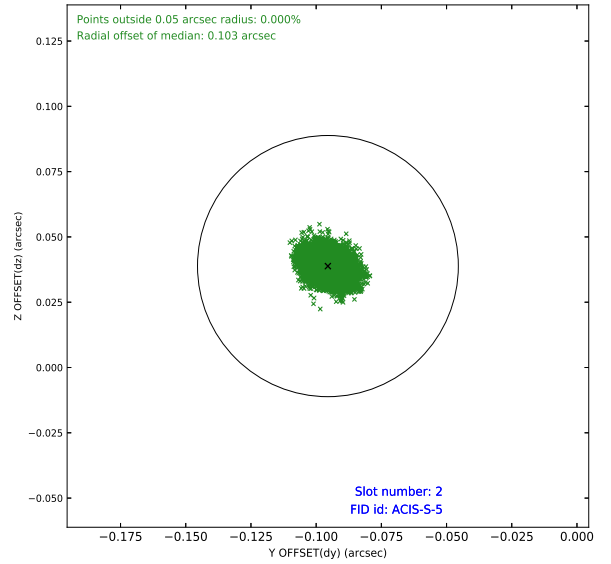
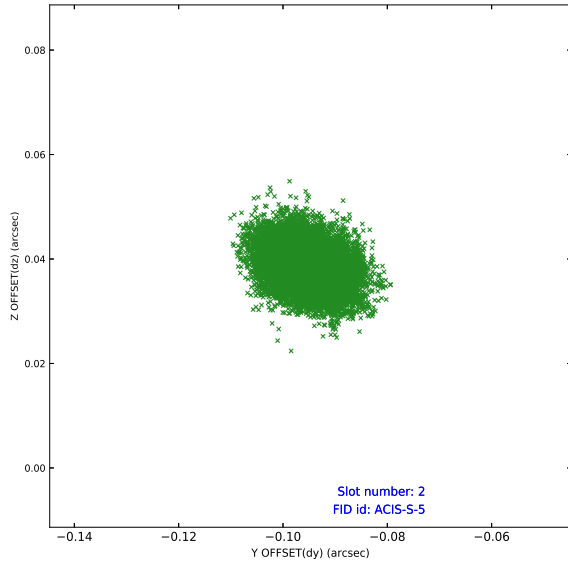
## 2.5.2 Slot 1



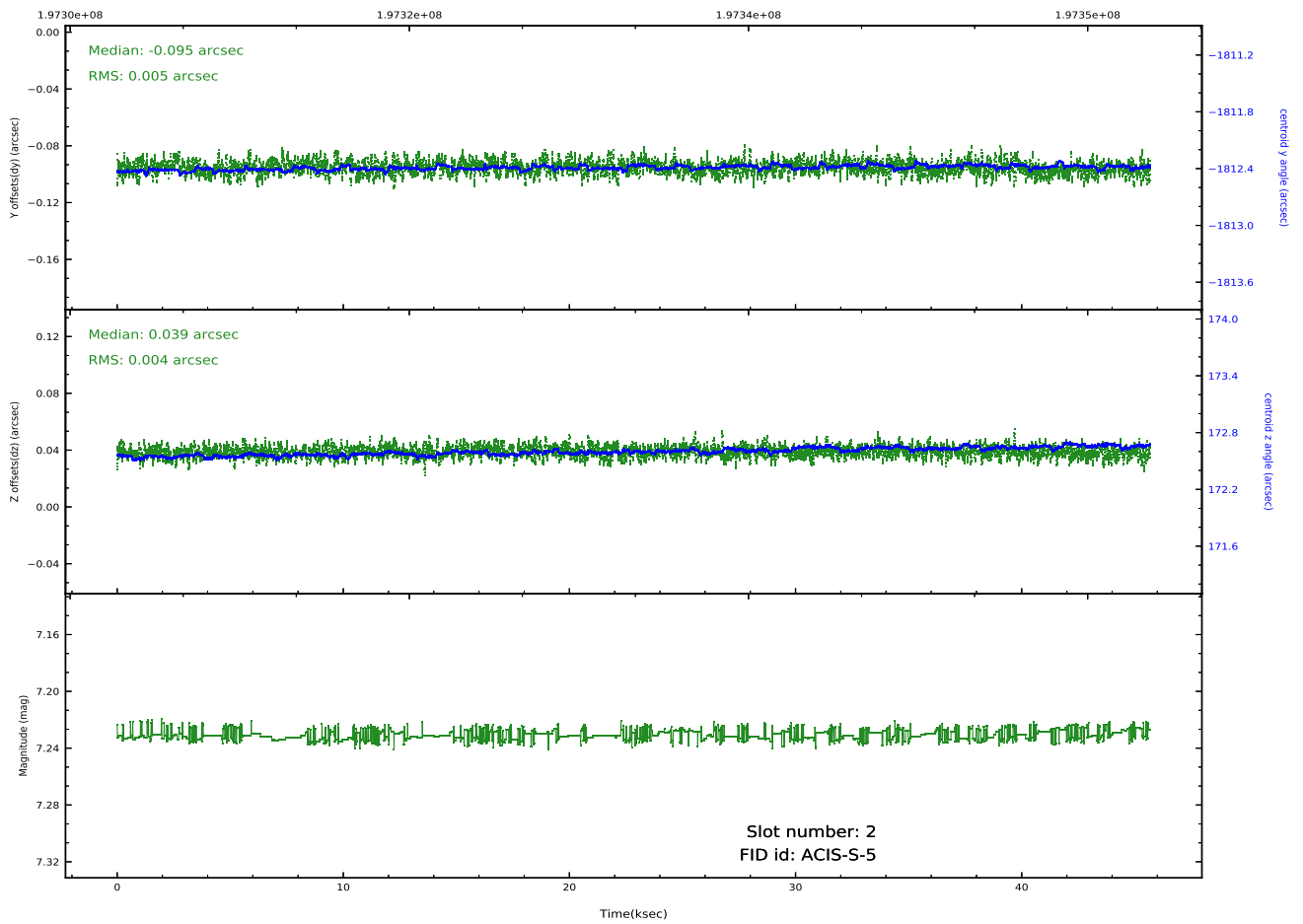
Time (s)



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.09.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.257

## A.2 Comments

Joint proposal with NRAO.