

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4943 - L2 Version 6  
Chandra X-Ray Center

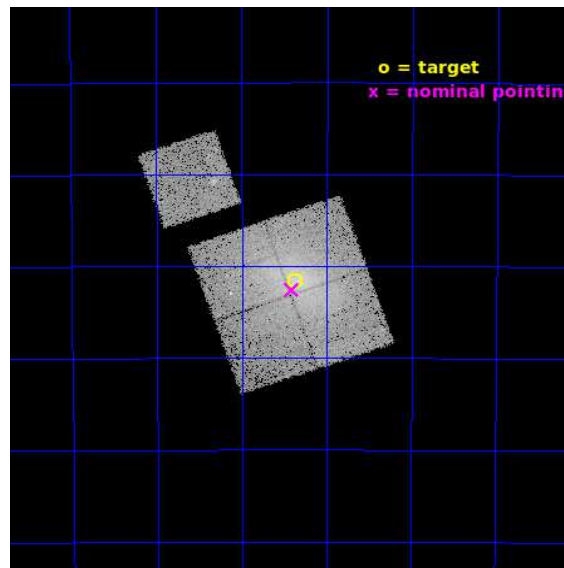
L2 Processing Date : Sep 23 2020

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# 1 Front

seq_num	800394	Sequence number
obs_id	4943	Observation id
title	THE HIFLUGCS CLUSTER SURVEY: A CORNERSTONE FOR COSMOLOGY	Proposal
observer	Dr. Thomas Reiprich	Principal investigator
object	A3391	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	96.5925	Observer's specified target RA [deg]
dec_targ	-53.69375	Observer's specified target Dec [deg]
ra_nom	96.6025876012	Nominal RA [deg]
dec_nom	-53.709476261624	Nominal Dec [deg]
roll_nom	340.70100500101	Nominal Roll [deg]
revision	6	Processing version of data
ontime	18692.999964029	Sum of GTIs [s]
livetime	18448.762157912	Livetime [s]
ontime0	18692.999964029	Sum of GTIs [s]
ontime1	18692.999964029	Sum of GTIs [s]
ontime2	18689.858973891	Sum of GTIs [s]
ontime3	18692.999964029	Sum of GTIs [s]
ontime6	18692.999964029	Sum of GTIs [s]
l2events	92339	Number of level 2 events

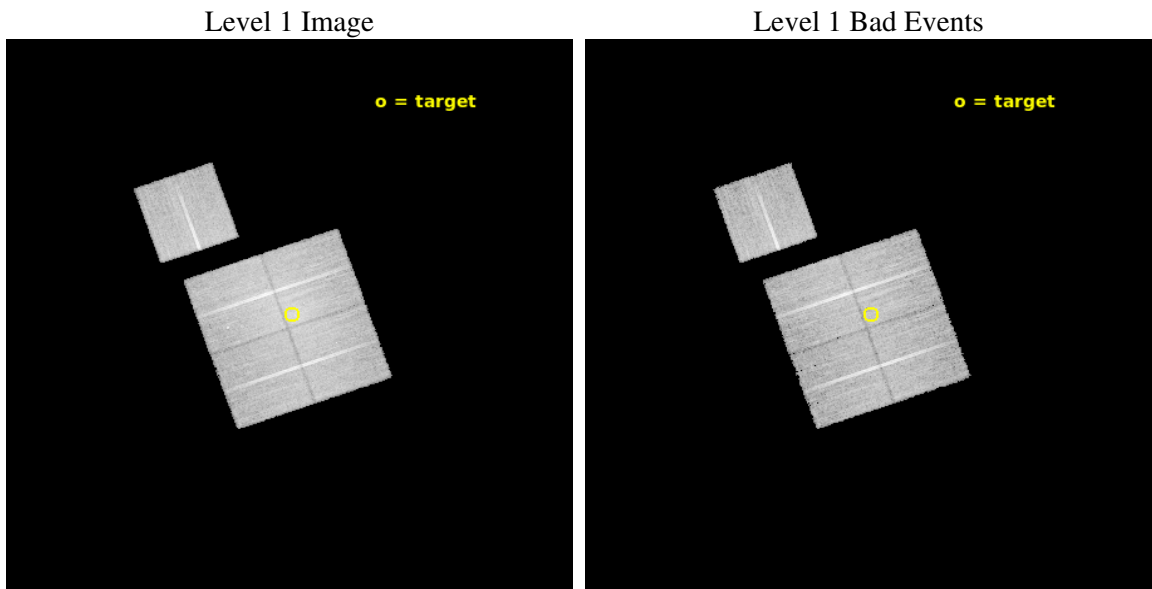




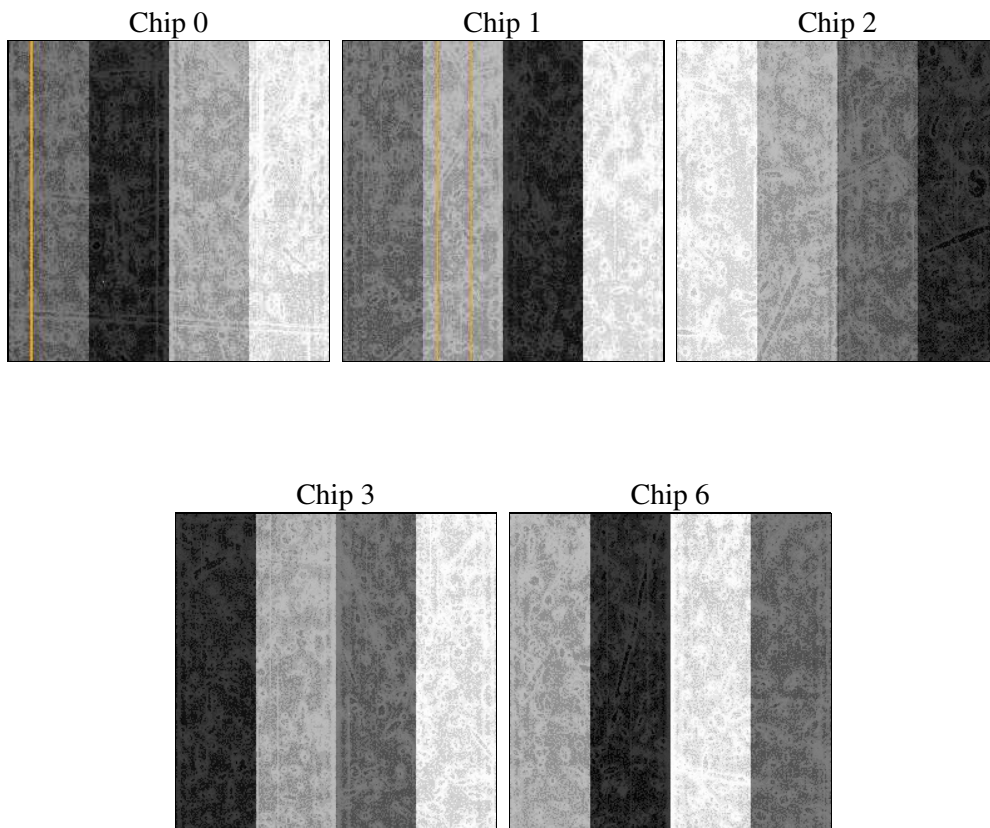
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	18545.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	18692.999964029	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime0	18692.999964029	Sum of GTIs [s]
date	2020-09-23T12:50:55	Date and time of file creation	ontime1	18692.999964029	Sum of GTIs [s]
revision	6	Processing version of data	ontime2	18689.858973891	Sum of GTIs [s]
			ontime3	18692.999964029	Sum of GTIs [s]
			ontime6	18692.999964029	Sum of GTIs [s]
			l1events	534566	Number of level 1 events

### 2.1.4 Events

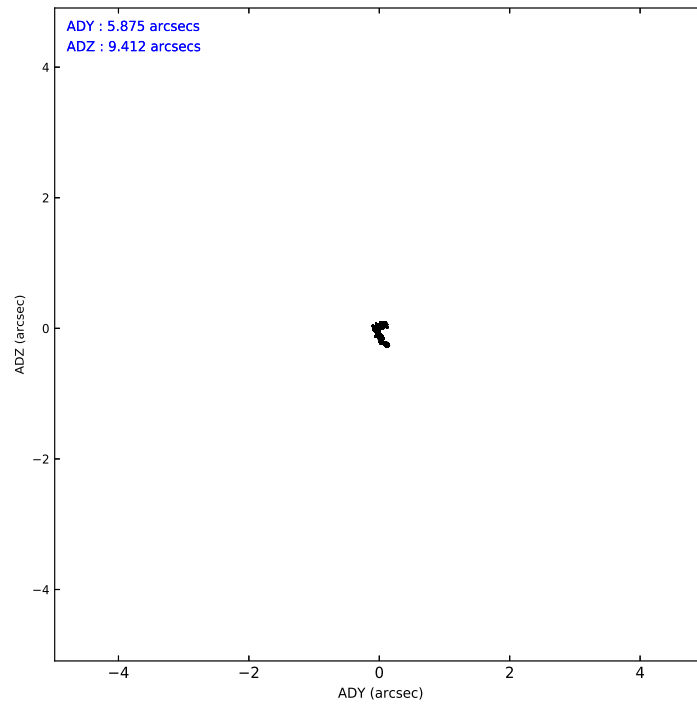
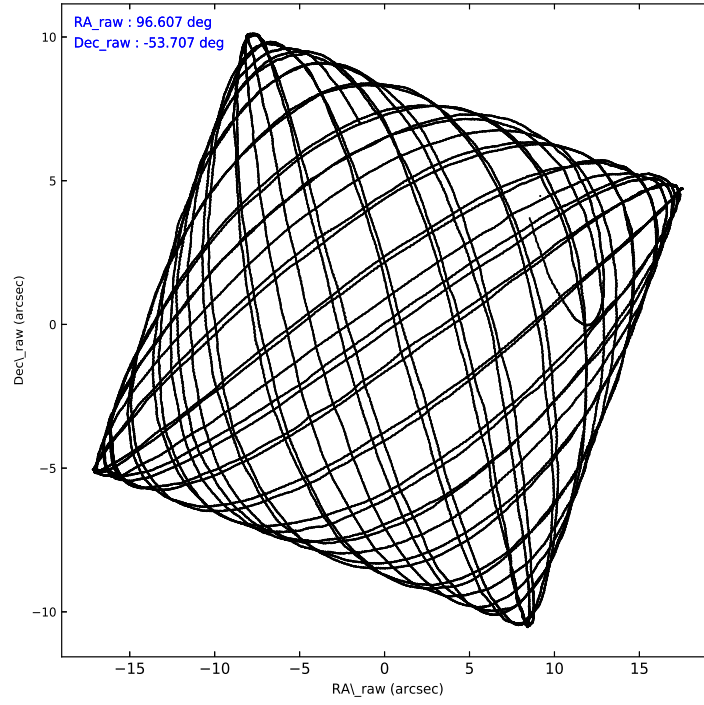
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	94978	103220	117985	117269	101114
rejected events	78873	79637	93735	90337	87895
rejected %	83%	77%	79%	77%	86%

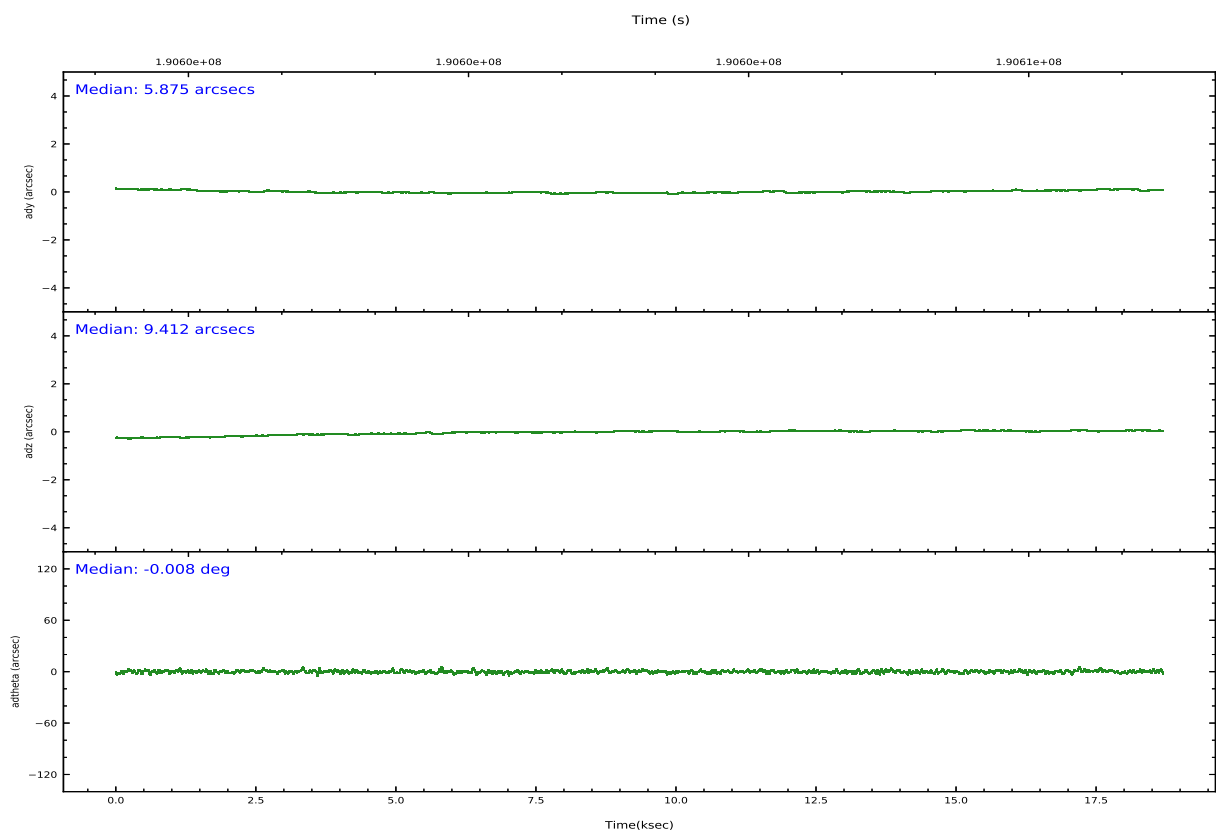
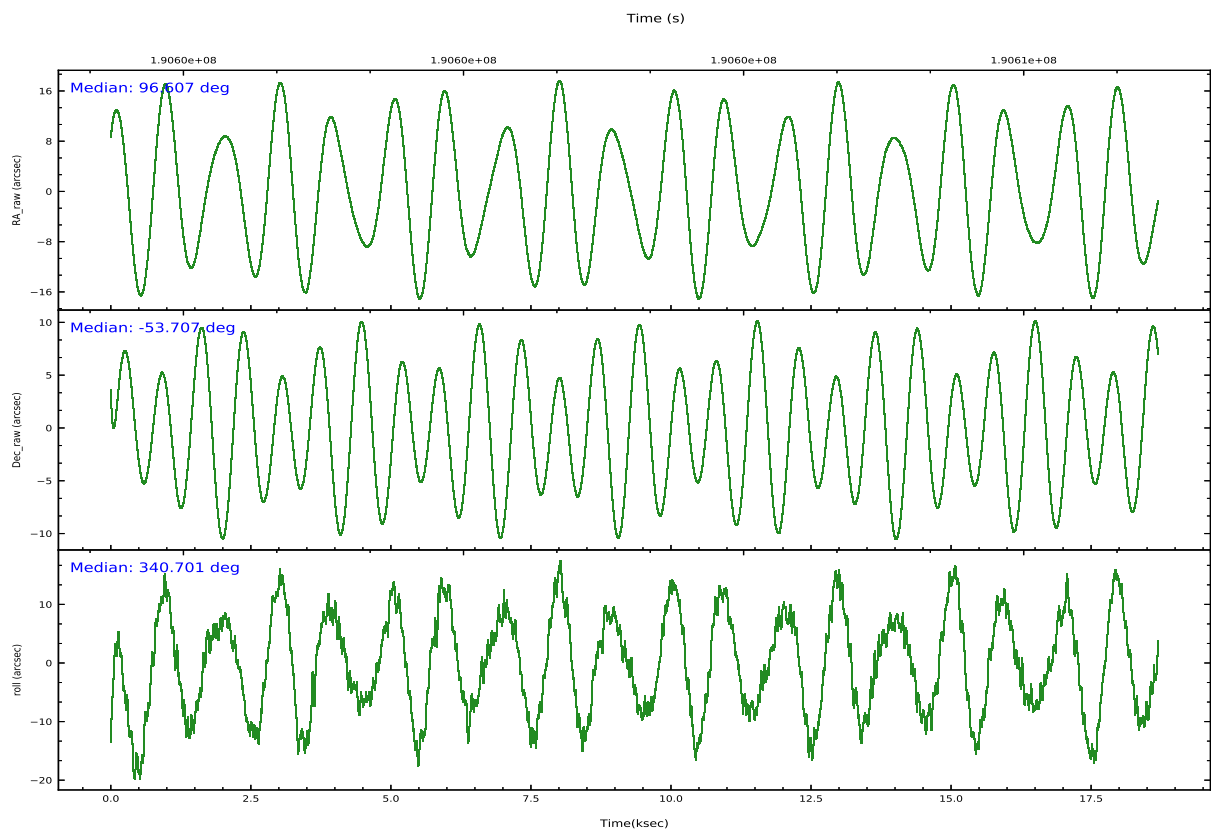
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	8504	14200	15542	17845	6071
	8%	13%	13%	15%	6%
grade 1 events	60	79	98	103	53
	0%	0%	0%	0%	0%
grade 2 events	2963	3736	3650	3701	2466
	3%	3%	3%	3%	2%
grade 3 events	1413	1651	1450	1611	1211
	1%	1%	1%	1%	1%
grade 4 events	1279	1542	1507	1579	1231
	1%	1%	1%	1%	1%
grade 5 events	3582	3782	3319	3973	3844
	3%	3%	2%	3%	3%
grade 6 events	2021	2545	2184	2300	2291
	2%	2%	1%	1%	2%
grade 7 events	75156	75685	90235	86157	83947
	79%	73%	76%	73%	83%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-01236	ACIS-01236	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	96.561426	96.6025876012	Subarray requested	NONE	NONE
[deg] Pointing Dec	-53.712686	-53.709476261624	Alternating exposures requested	N	N
[deg] Pointing Roll	340.451979	340.70100500101	[s] Primary exposure time	0.000000	3.1
[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)	190593856.184000	190592863.96664			
Observation start date	2004-01-15T22:43:12	2004-01-15T22:27:43			
[s] Observation end time (MET)	190612401.184000	190613181.00502			
Observation end date	2004-01-16T03:52:17	2004-01-16T04:06:21			
Read mode	TIMED	TIMED			

## 2.3 Aspect



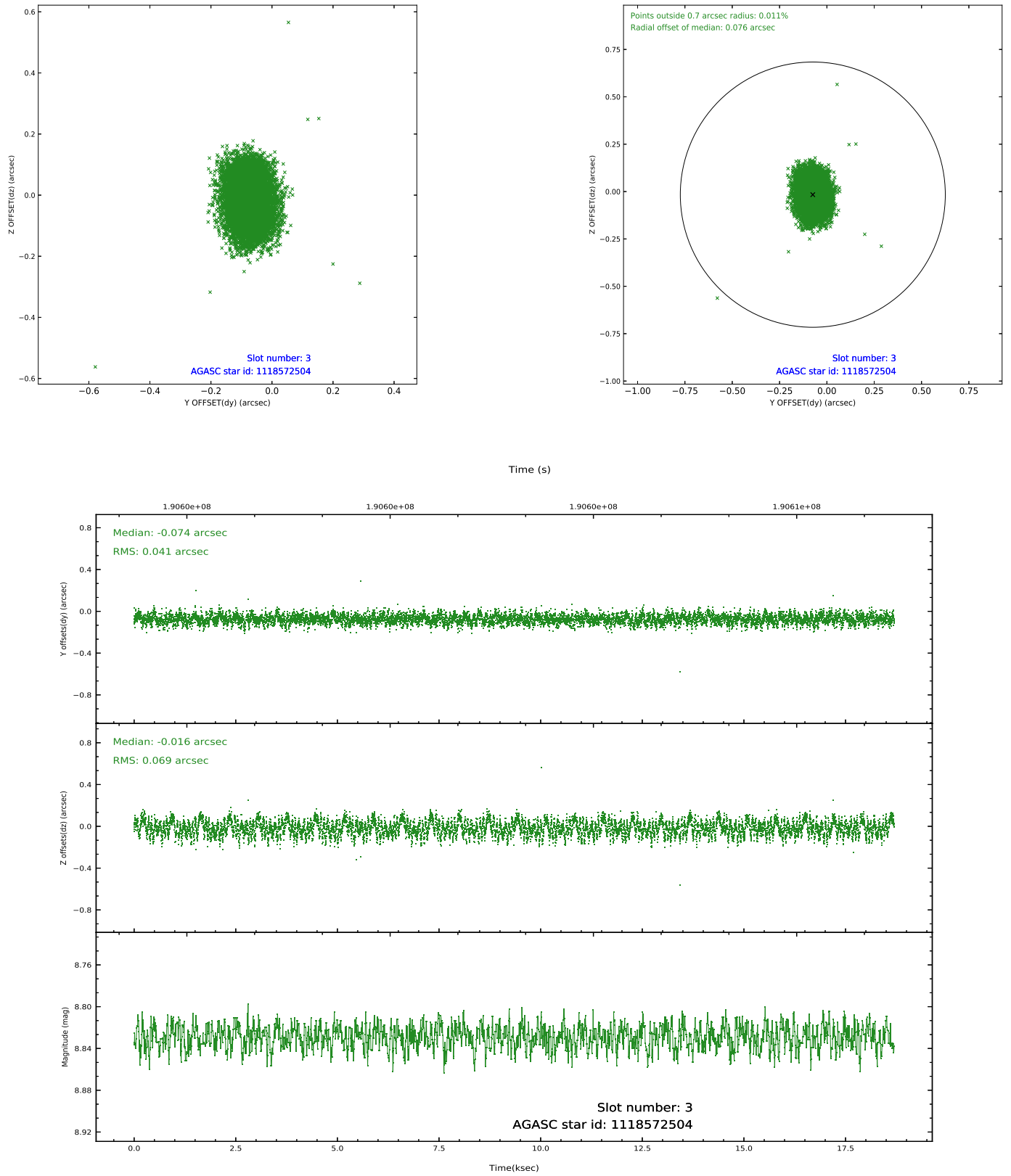


Slot Statistics

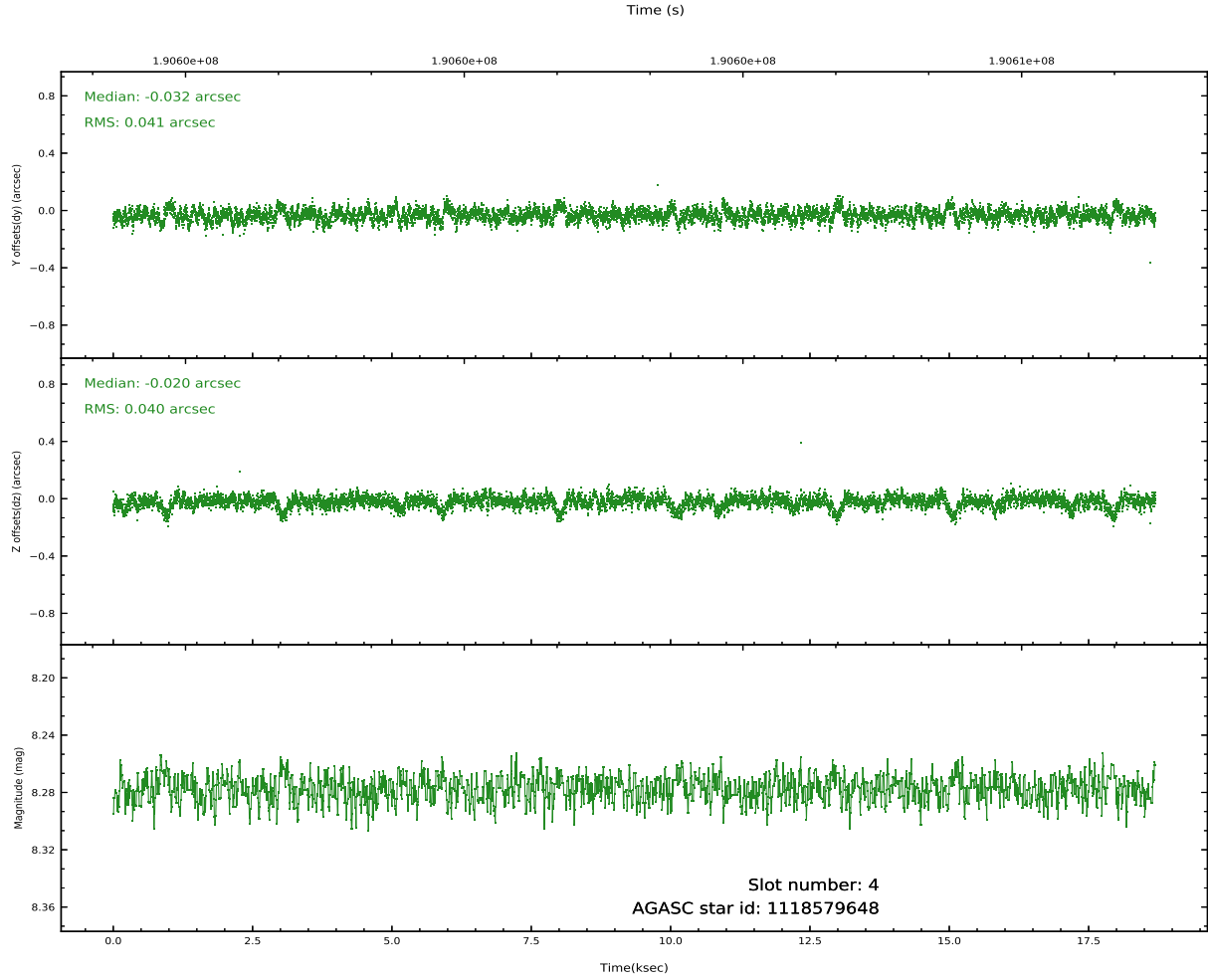
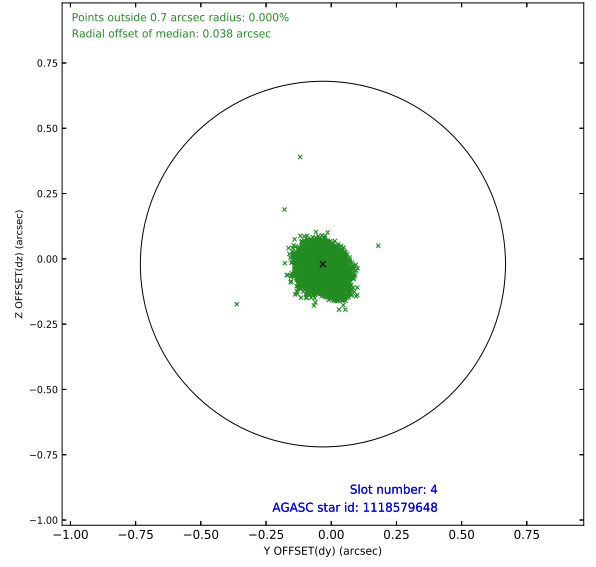
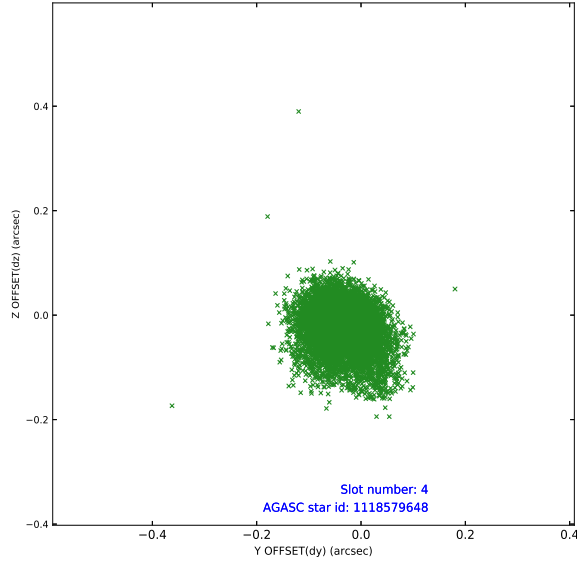
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.24	4561	1.000	0.017	0.024	0.005	0.009	0.000000	0.000000	933.94	-832
1	FID		ACIS-I-2	7.14	4561	1.000	-0.078	0.022	0.005	0.009	0.000000	0.000000	-760.13	-839
2	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
3	GUIDE	used	1118572504	8.83	9118	1.000	-0.074	-0.016	0.085	0.136	95.500559	-53.969973	-1801.12	-1640
4	GUIDE	used	1118579648	8.28	9121	1.000	-0.032	-0.020	0.058	0.104	95.882841	-53.426139	-1714.60	478
5	GUIDE	used	1118709640	8.36	9121	1.000	0.078	-0.003	0.056	0.090	96.832931	-53.566231	371.02	690
6	GUIDE	used	1118585584	9.29	9117	1.000	-0.018	-0.046	0.114	0.178	96.562758	-53.004125	-850.76	2404
7	GUIDE	used	1118708840	9.35	9112	1.000	0.044	0.098	0.120	0.188	97.367547	-53.266037	1100.98	2087

## 2.4 Star Slots

### 2.4.1 Slot 3

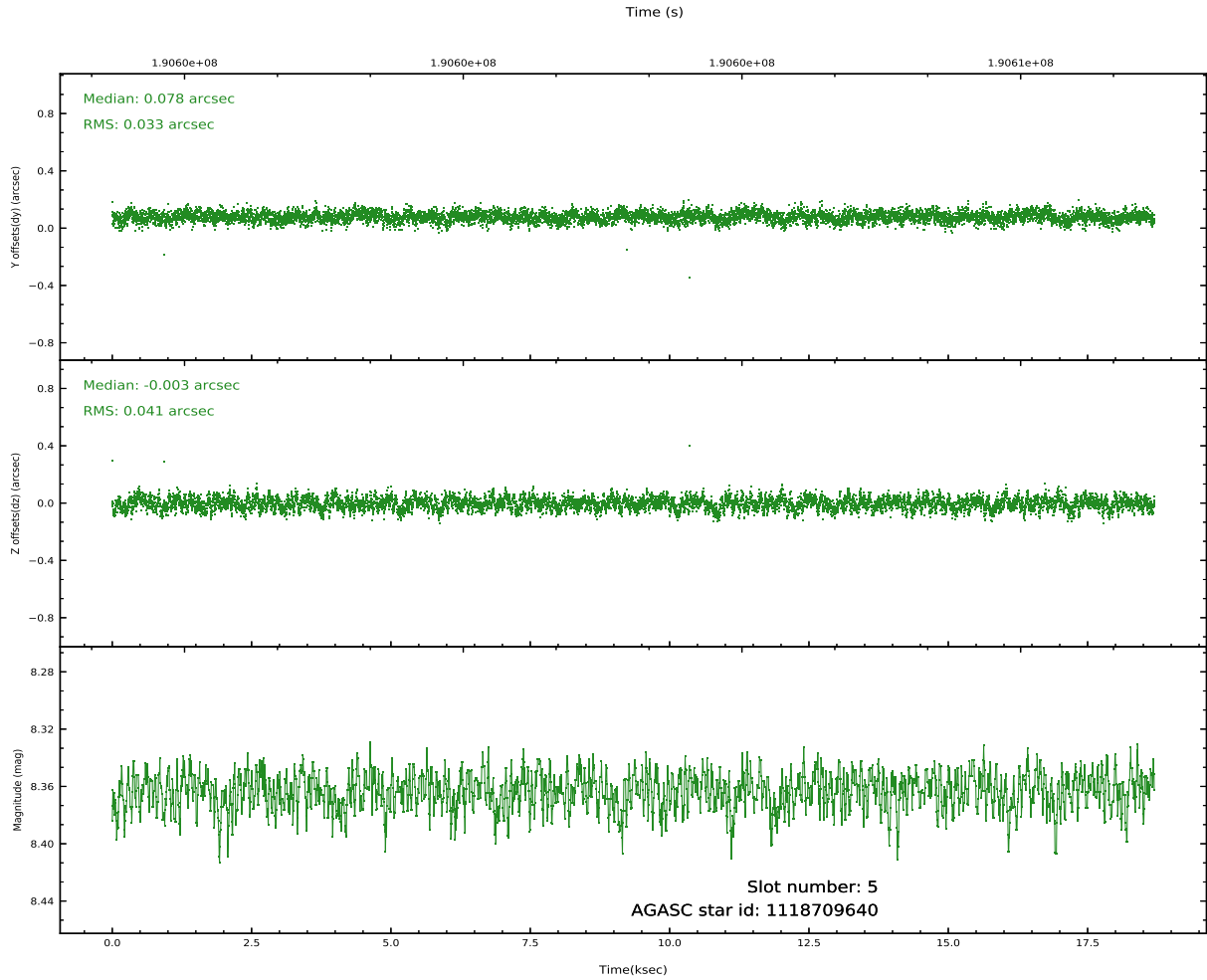
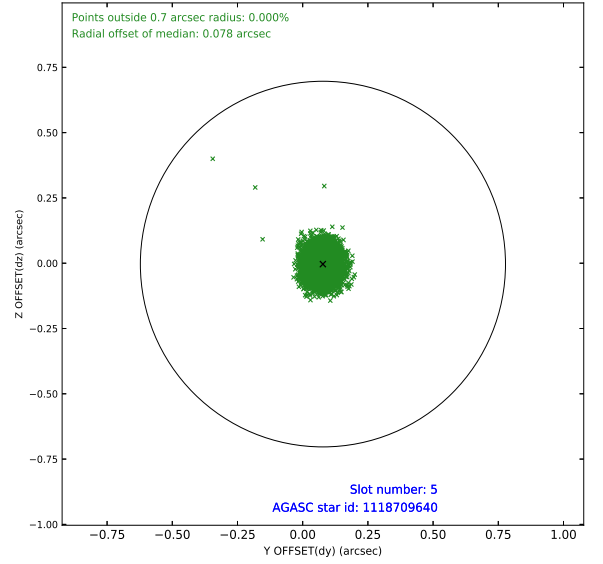
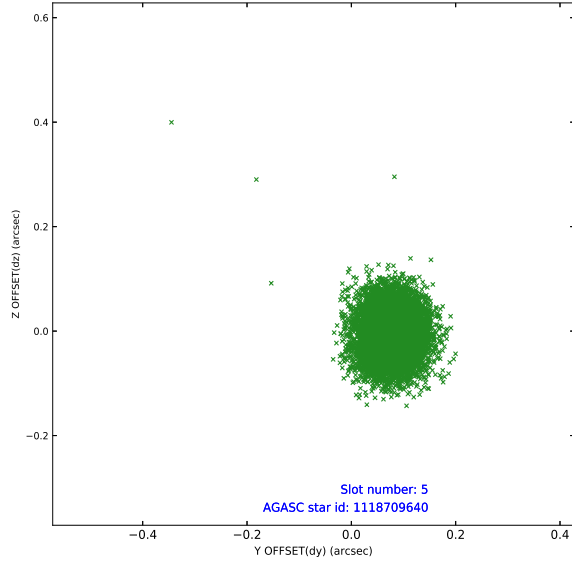


## 2.4.2 Slot 4

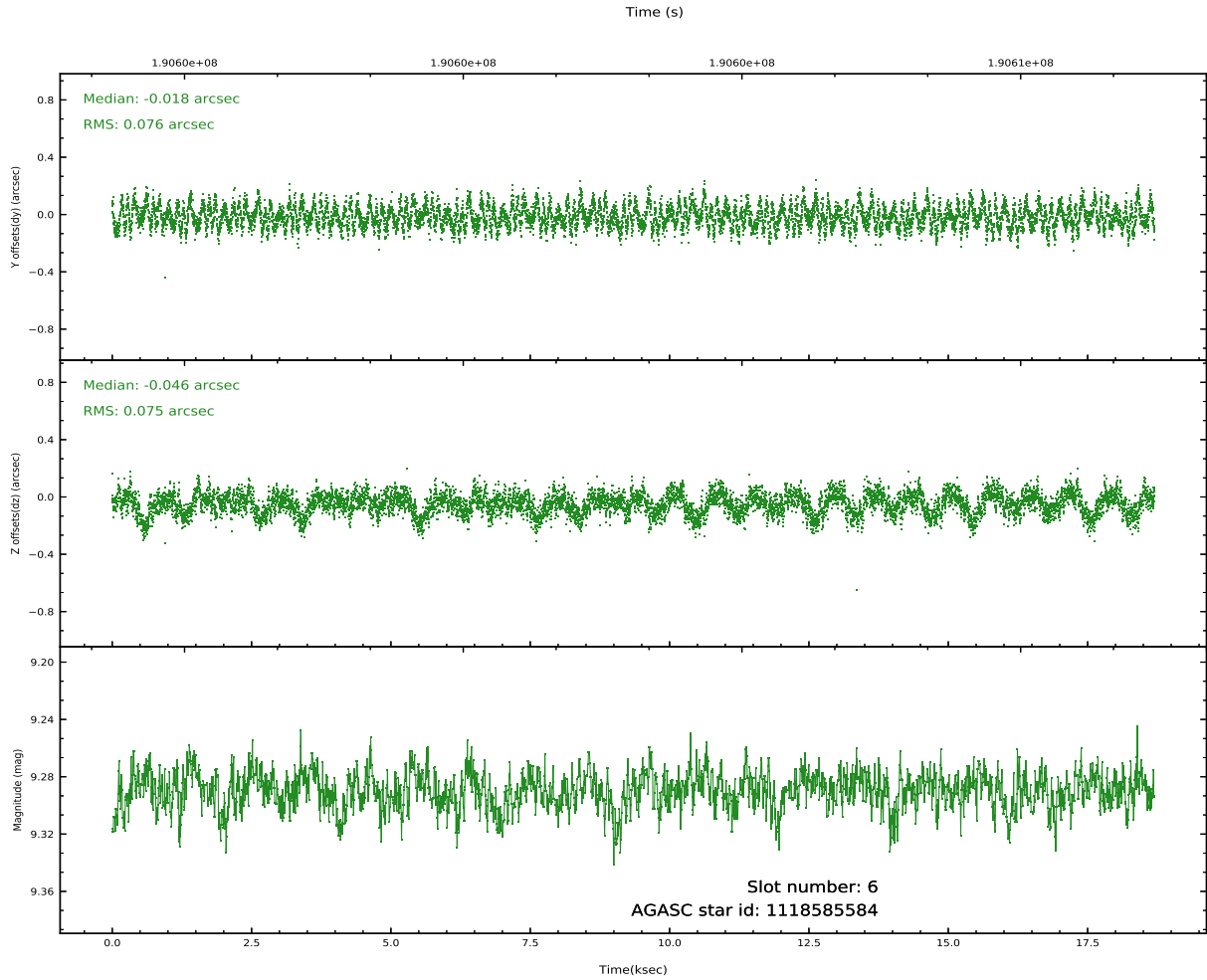
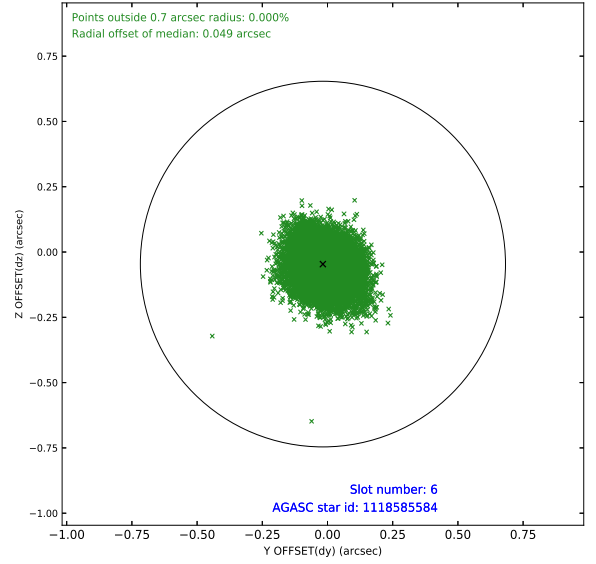
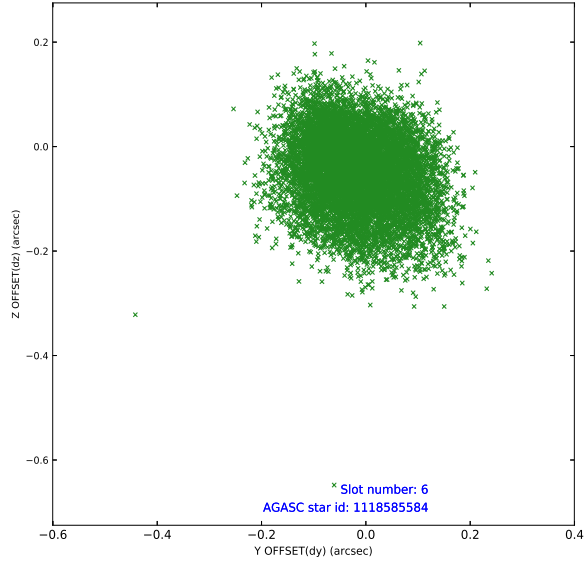




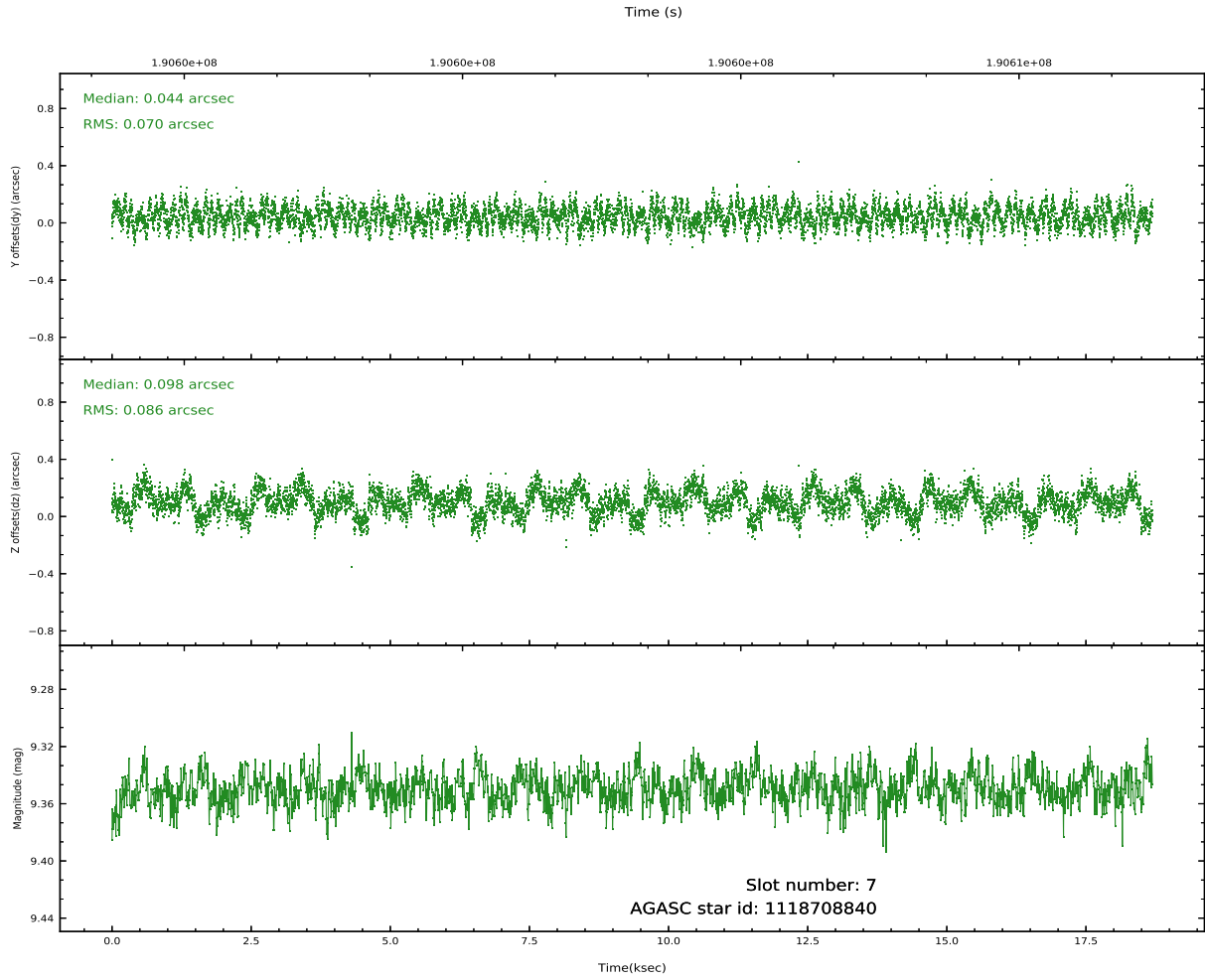
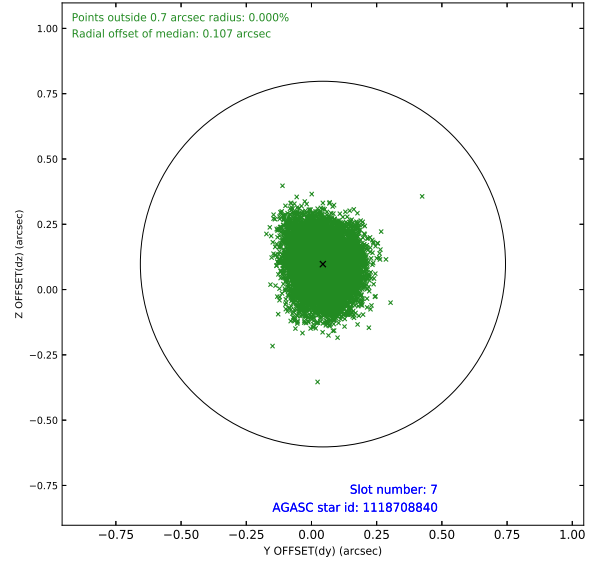
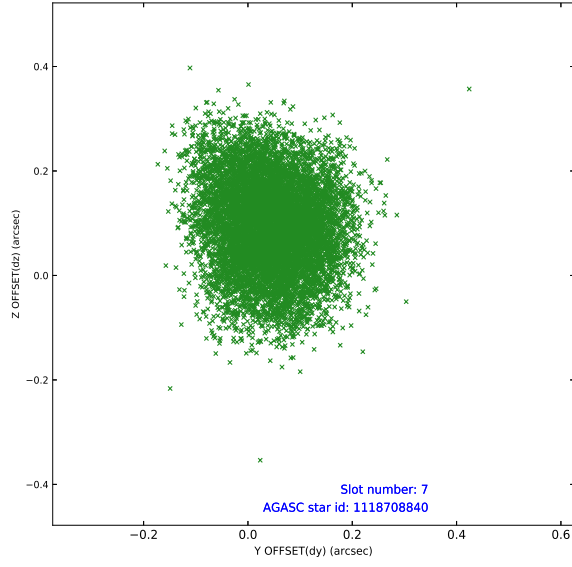
### 2.4.3 Slot 5



## 2.4.4 Slot 6

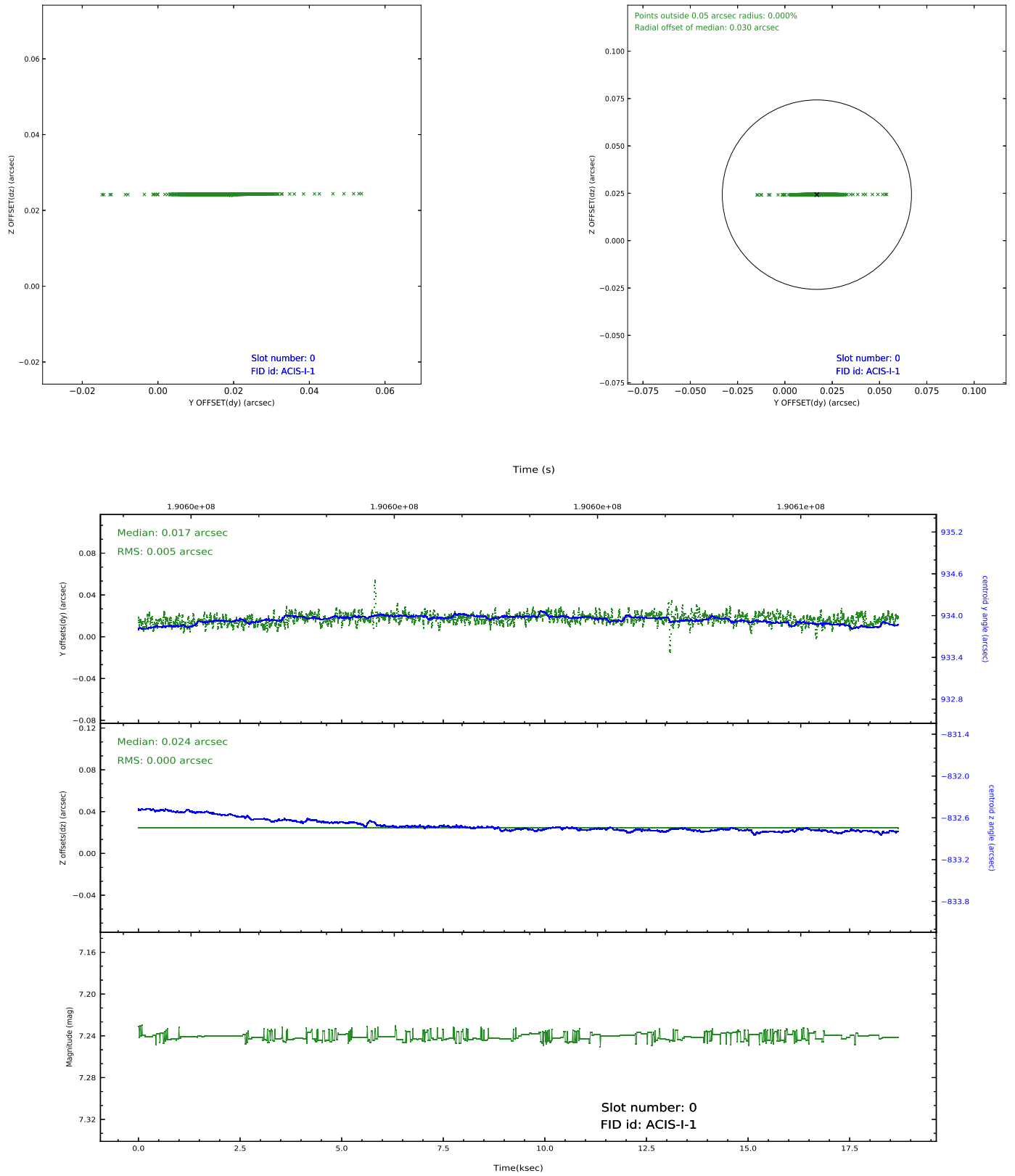


## 2.4.5 Slot 7

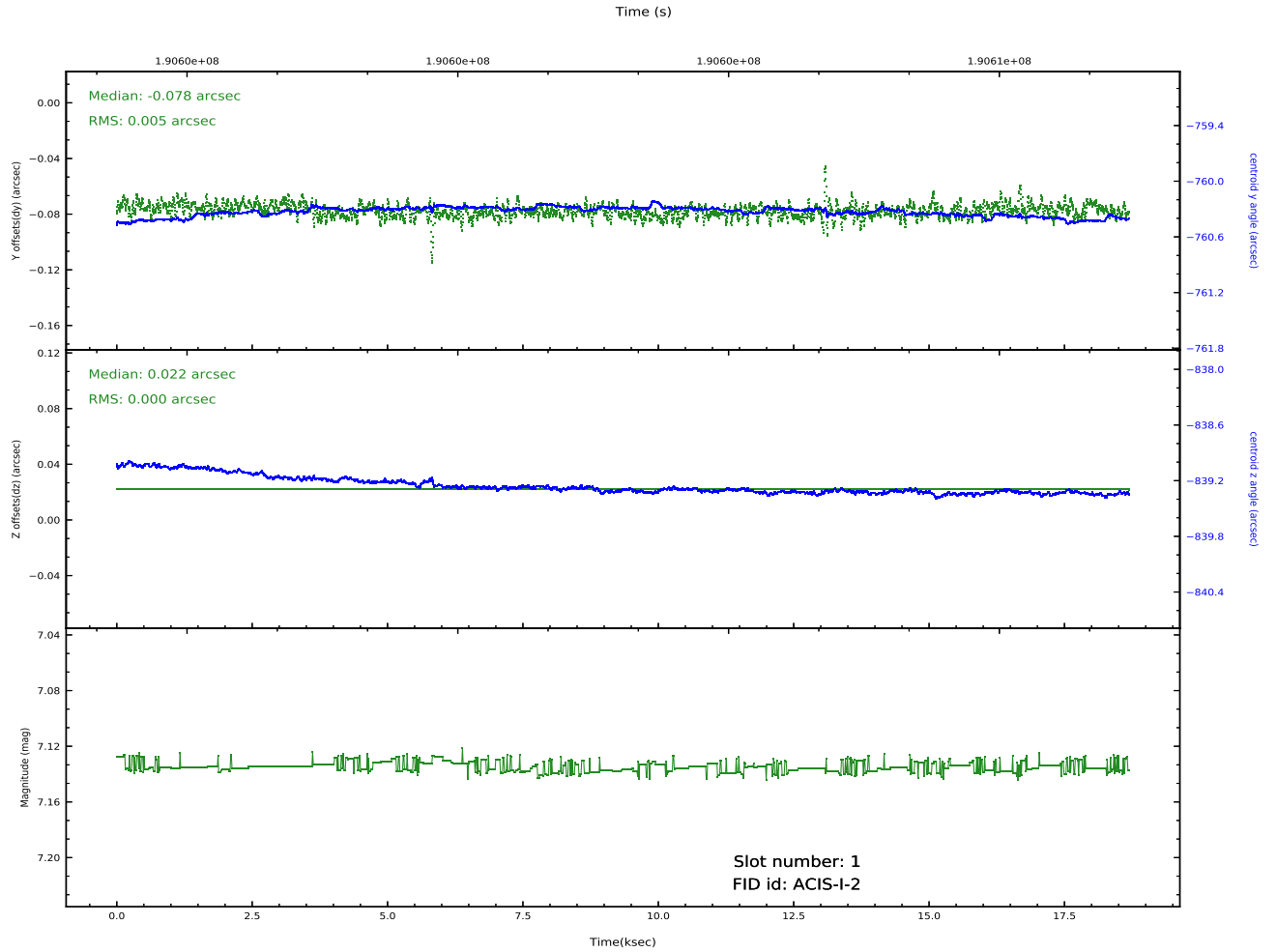
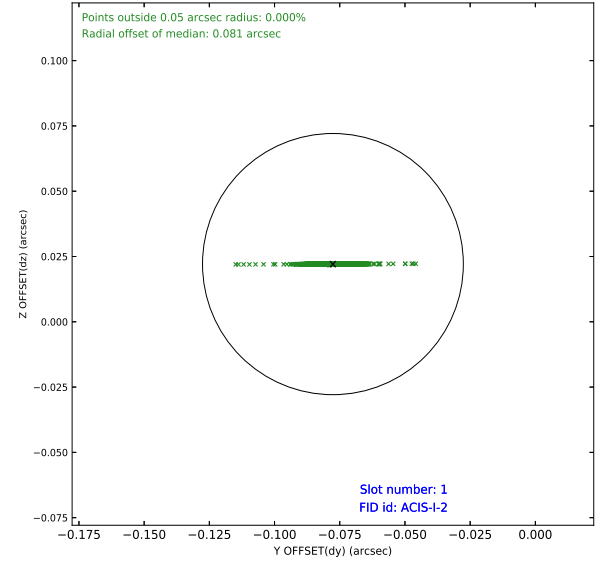
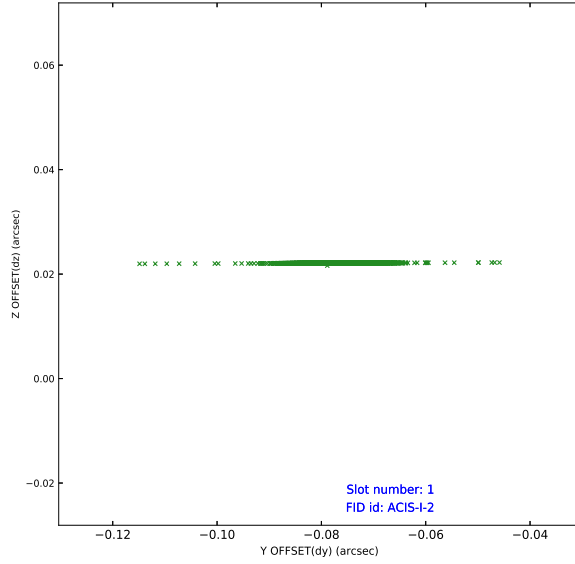


## 2.5 FID Slots

### 2.5.1 Slot 0



## 2.5.2 Slot 1



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.09.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	18.692

## A.2 Comments

The fid light in slot 2 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this fid light from the solution.