

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 19392 - L2 Version 3
Chandra X-Ray Center

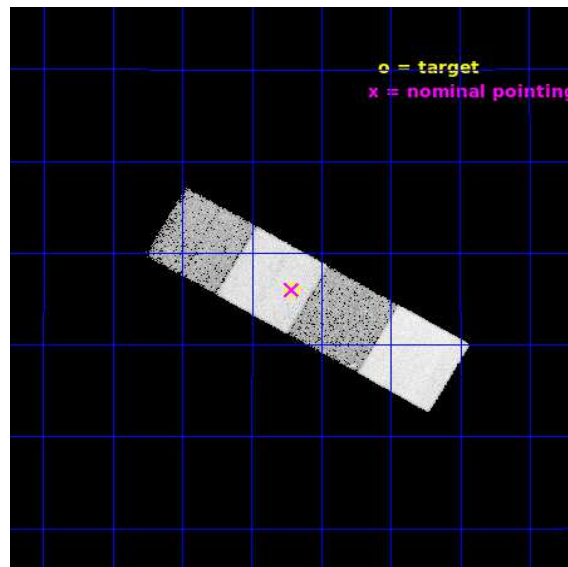
L2 Processing Date : Oct 25 2020

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 4	9
2.4.2	Slot 5	10
2.4.3	Slot 6	11
2.4.4	Slot 7	12
2.5	FID Slots	13
2.5.1	Slot 0	13
2.5.2	Slot 1	14
2.5.3	Slot 2	15
A	Summary	16
A.1	Status	16
A.2	Comments	16

1 Front

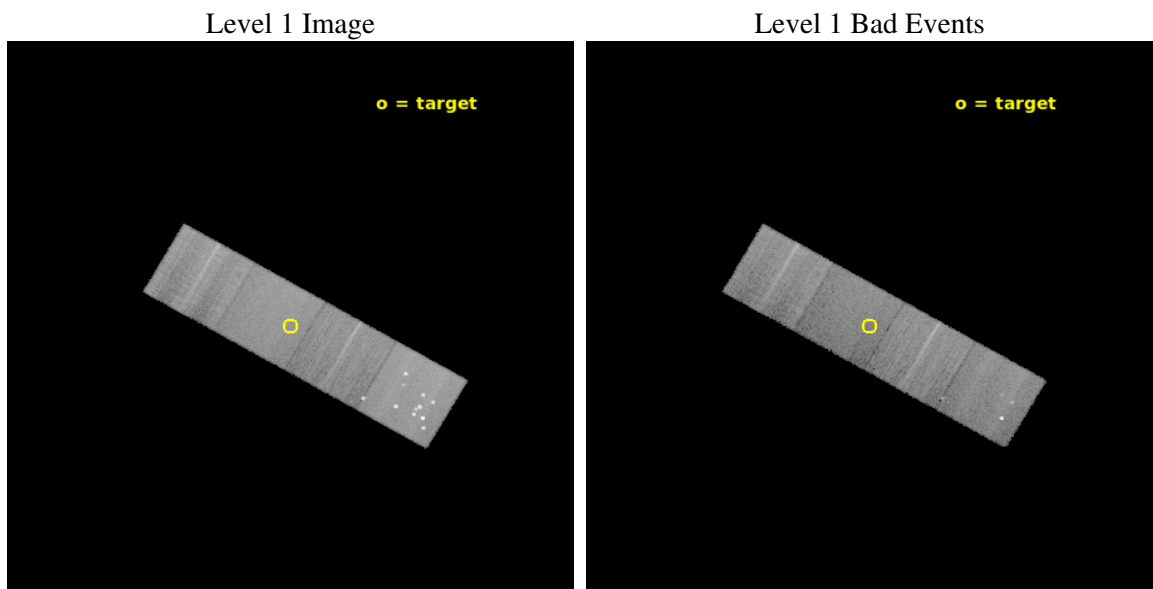
seq_num	601349	Sequence number
obs_id	19392	Observation id
title	Spiral galaxies of the Virgo cluster	Proposal title
observer	Roberto Soria	Principal investigator
object	NGC 4302	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	185.427083	Observer's specified target RA [deg]
dec_targ	14.598306	Observer's specified target Dec [deg]
ra_nom	185.42771763091	Nominal RA [deg]
dec_nom	14.600062450785	Nominal Dec [deg]
roll_nom	209.94927906457	Nominal Roll [deg]
revision	3	Processing version of data
ontime	14408.800110936	Sum of GTIs [s]
livetime	14220.538529882	Livetime [s]
ontime5	14408.800110936	Sum of GTIs [s]
ontime6	14408.800110936	Sum of GTIs [s]
ontime7	14408.800110936	Sum of GTIs [s]
ontime8	14399.376950264	Sum of GTIs [s]
l2events	157754	Number of level 2 events



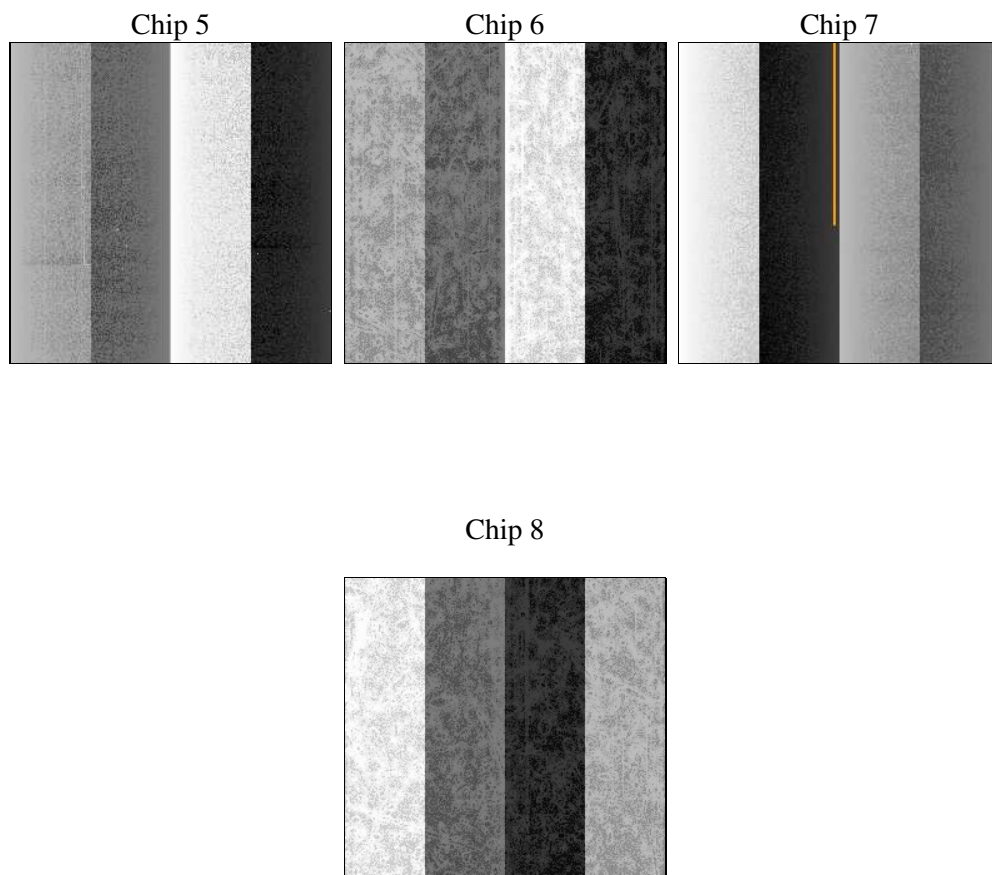
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	14500.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	14408.800110936	Sum of GTIs [s]
caldsver	4.9.3	 	ontime5	14408.800110936	Sum of GTIs [s]
date	2020-10-25T11:31:17	Date and time of file creation	ontime6	14408.800110936	Sum of GTIs [s]
revision	3	Processing version of data	ontime7	14408.800110936	Sum of GTIs [s]
			ontime8	14399.376950264	Sum of GTIs [s]
			l1events	603567	Number of level 1 events

2.1.4 Events

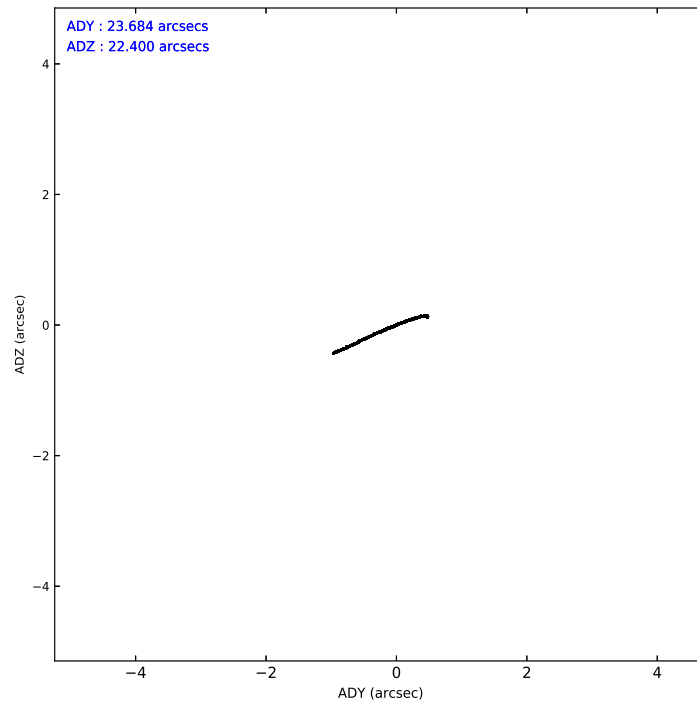
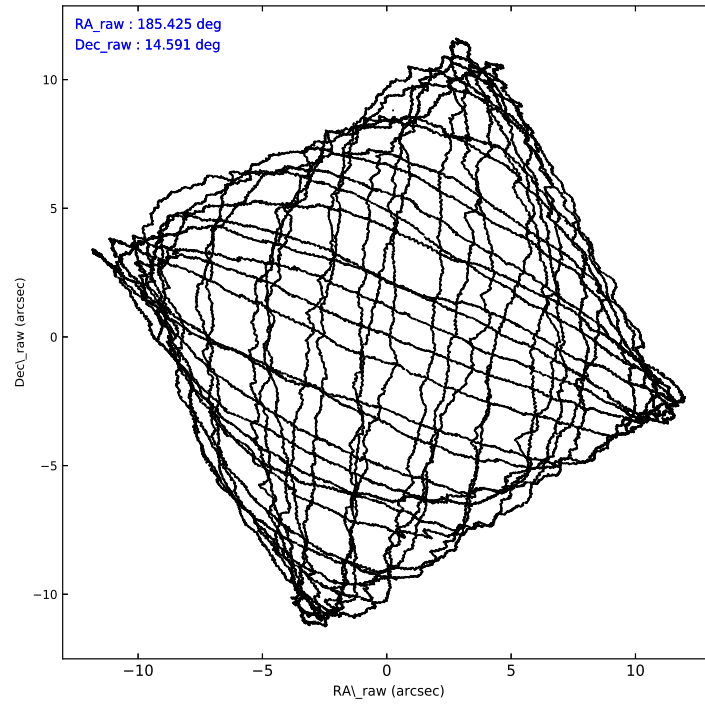
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	206264	115253	139320	142730
rejected events	95730	102931	79175	107156
rejected %	46%	89%	56%	75%

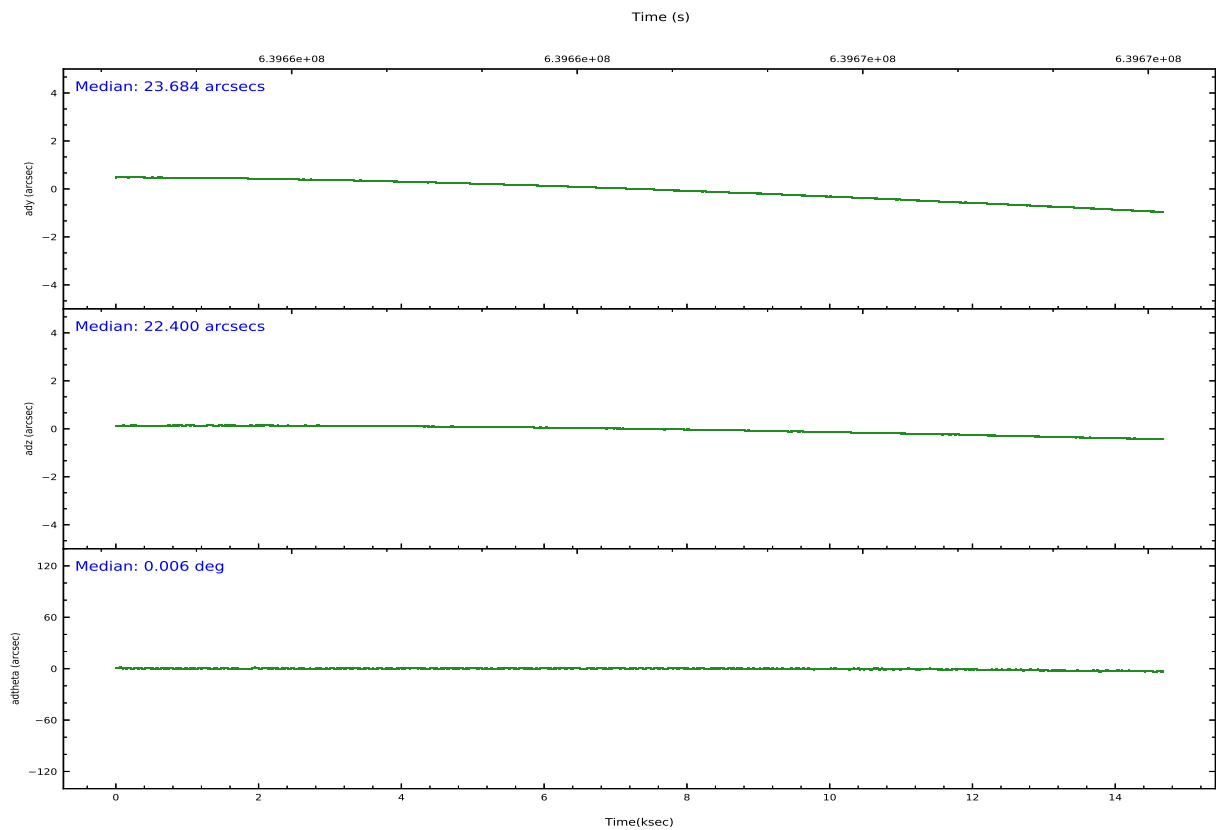
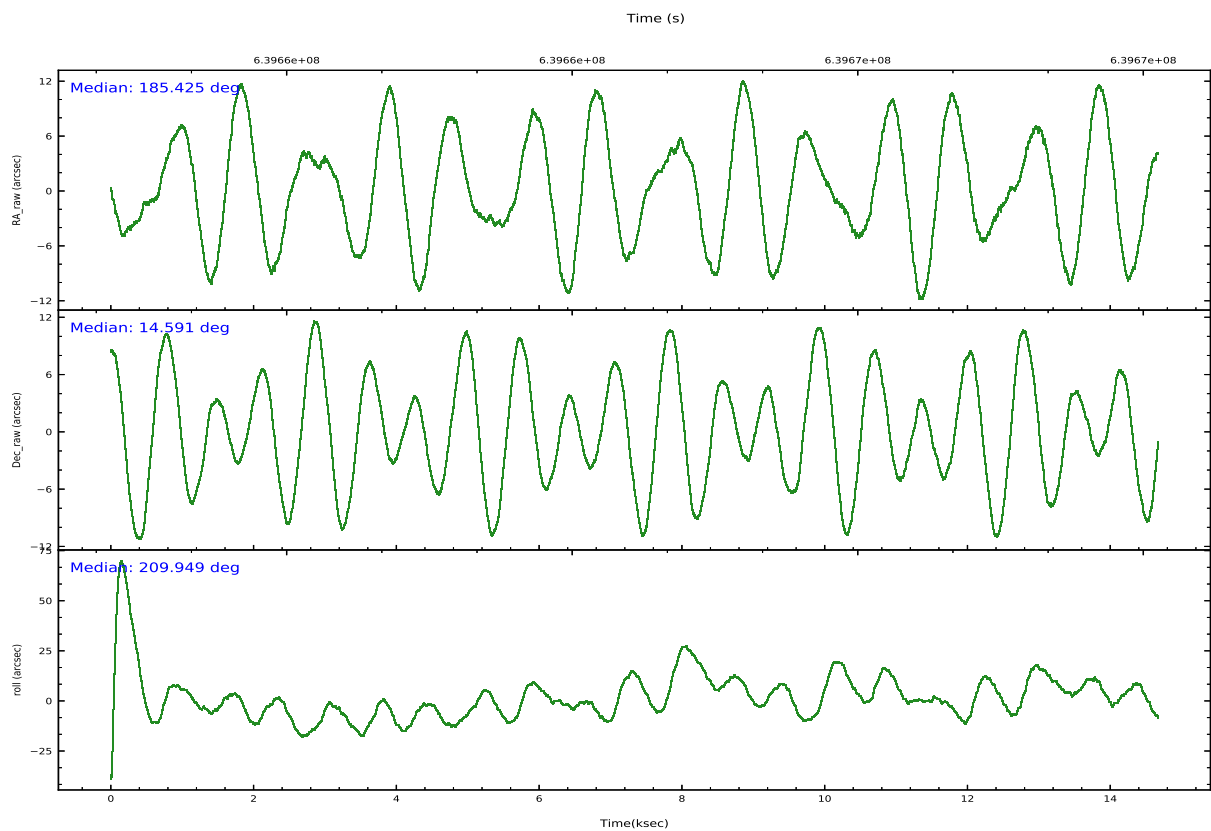
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	26608	3893	4996	9770
	12%	3%	3%	6%
grade 1 events	527	52	184	134
	0%	0%	0%	0%
grade 2 events	31212	3145	12435	8954
	15%	2%	8%	6%
grade 3 events	3324	1085	4800	3488
	1%	0%	3%	2%
grade 4 events	2996	1122	4800	3358
	1%	0%	3%	2%
grade 5 events	11512	4681	13513	7173
	5%	4%	9%	5%
grade 6 events	46418	3078	33125	10022
	22%	2%	23%	7%
grade 7 events	83667	98197	65467	99831
	40%	85%	46%	69%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-5678	ACIS-5678	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	185.438776	185.42771763091	Subarray requested	NONE	NONE
[deg] Pointing Dec	14.615118	14.600062450785	Alternating exposures requested	N	N
[deg] Pointing Roll	209.808202	209.94927906457	[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	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	639657709.184000	639657239.69065			
Observation start date	2018-04-09T10:40:40	2018-04-09T10:33:59			
[s] Observation end time (MET)	639672209.184000	639672343.06654			
Observation end date	2018-04-09T14:42:20	2018-04-09T14:45:43			
Read mode	TIMED	TIMED			

2.3 Aspect



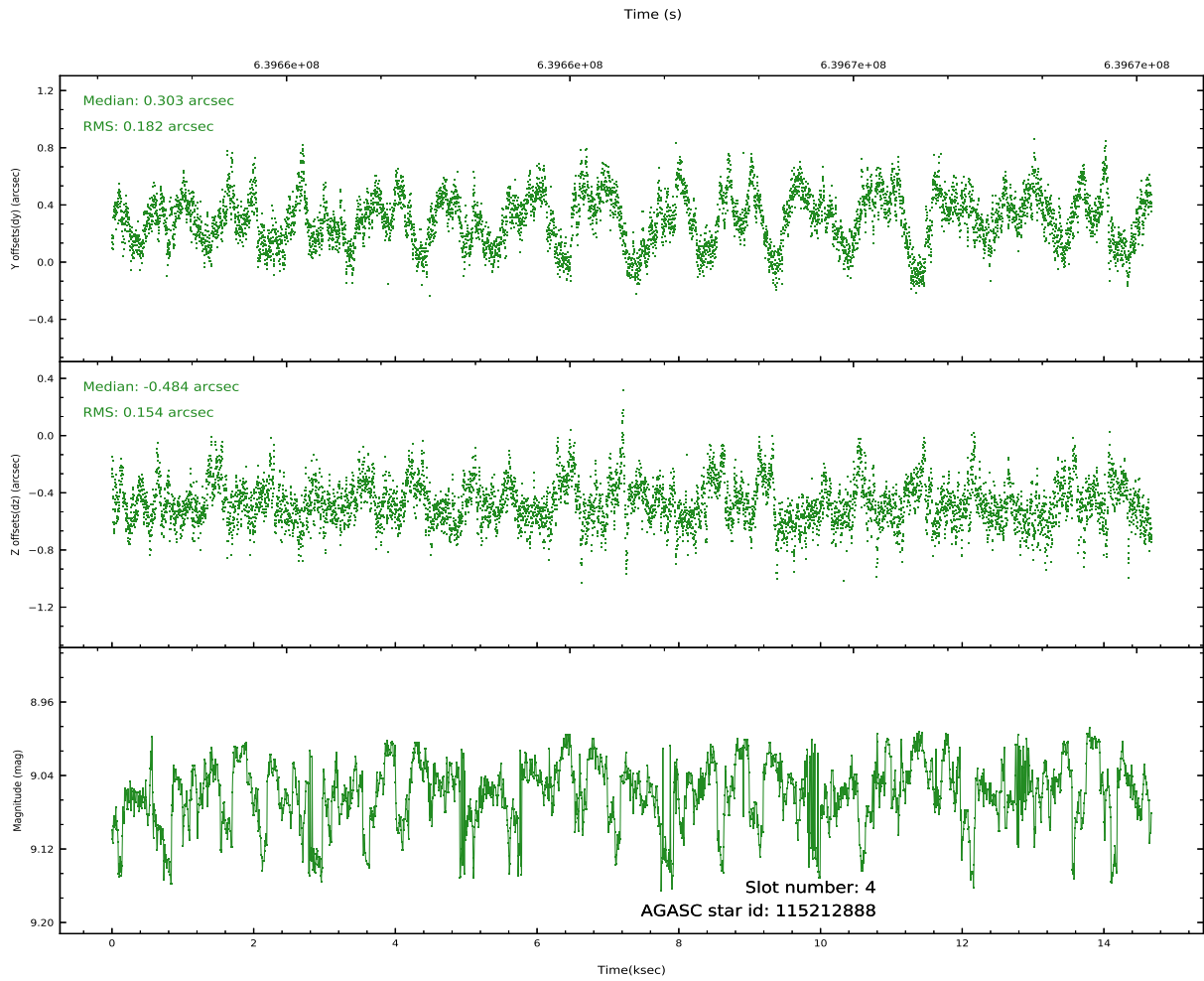
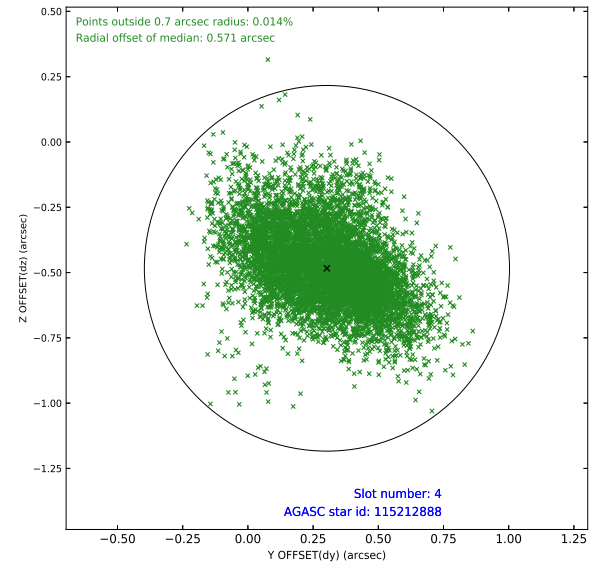
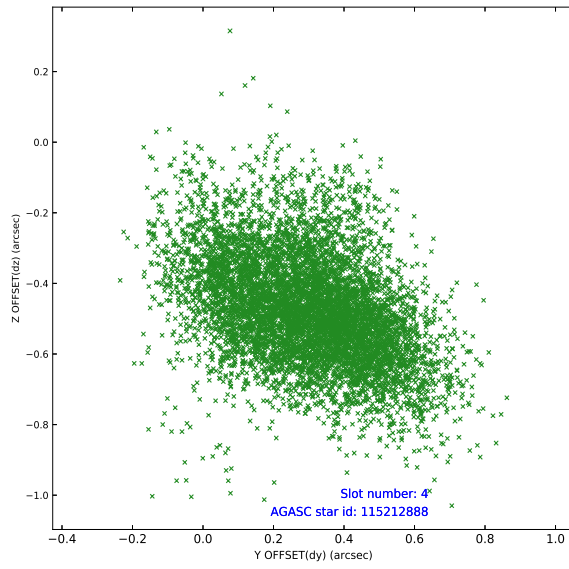


Slot Statistics

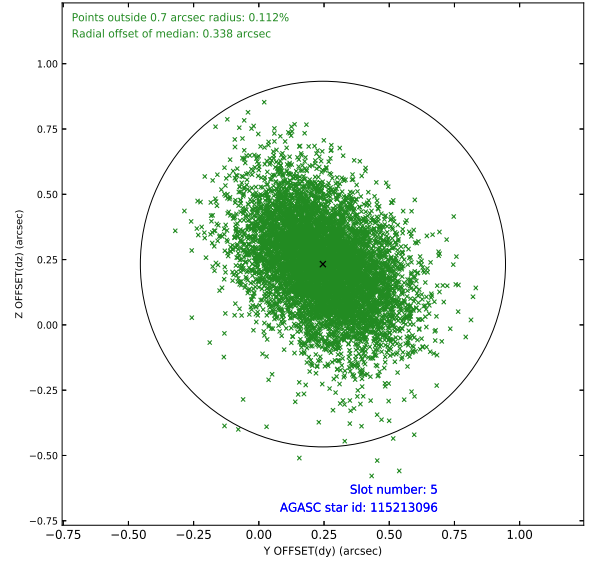
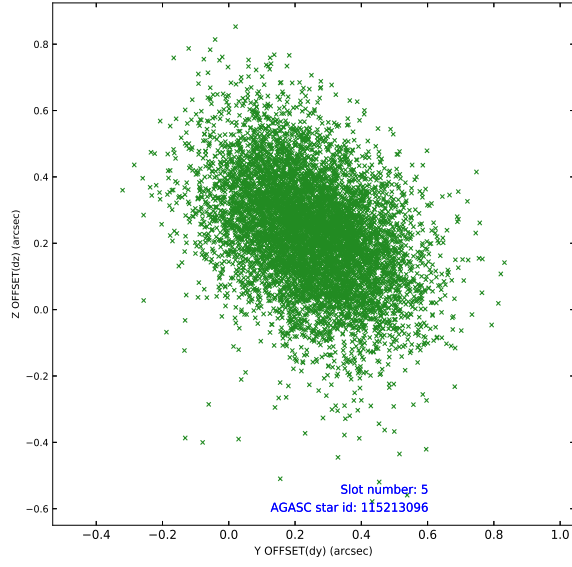
	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	m
	FID		ACIS-S-2	7.11	3577	1.000	0.175	-0.112	0.013	0.019	0.000000	0.000000	-776.95	-17
	FID		ACIS-S-4	7.21	3579	1.000	0.082	-0.053	0.012	0.020	0.000000	0.000000	2136.43	1
	FID		ACIS-S-5	7.22	3579	1.000	-0.286	0.175	0.011	0.016	0.000000	0.000000	-1829.52	1
	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	
	GUIDE	used	115212888	9.06	7146	1.000	0.303	-0.484	0.252	0.420	184.962096	14.383434	1857.37	-1
	GUIDE	used	115213096	9.63	7138	1.000	0.246	0.233	0.239	0.407	185.485027	14.844352	-548.50	-6
	BAD	used	115216168	9.93	6368	0.978	-0.527	0.047	0.394	0.879	185.303483	13.870081	1743.63	20
	GUIDE	used	189403680	8.82	7151	1.000	-0.077	0.212	0.183	0.319	185.171503	15.144043	-140.27	-21

2.4 Star Slots

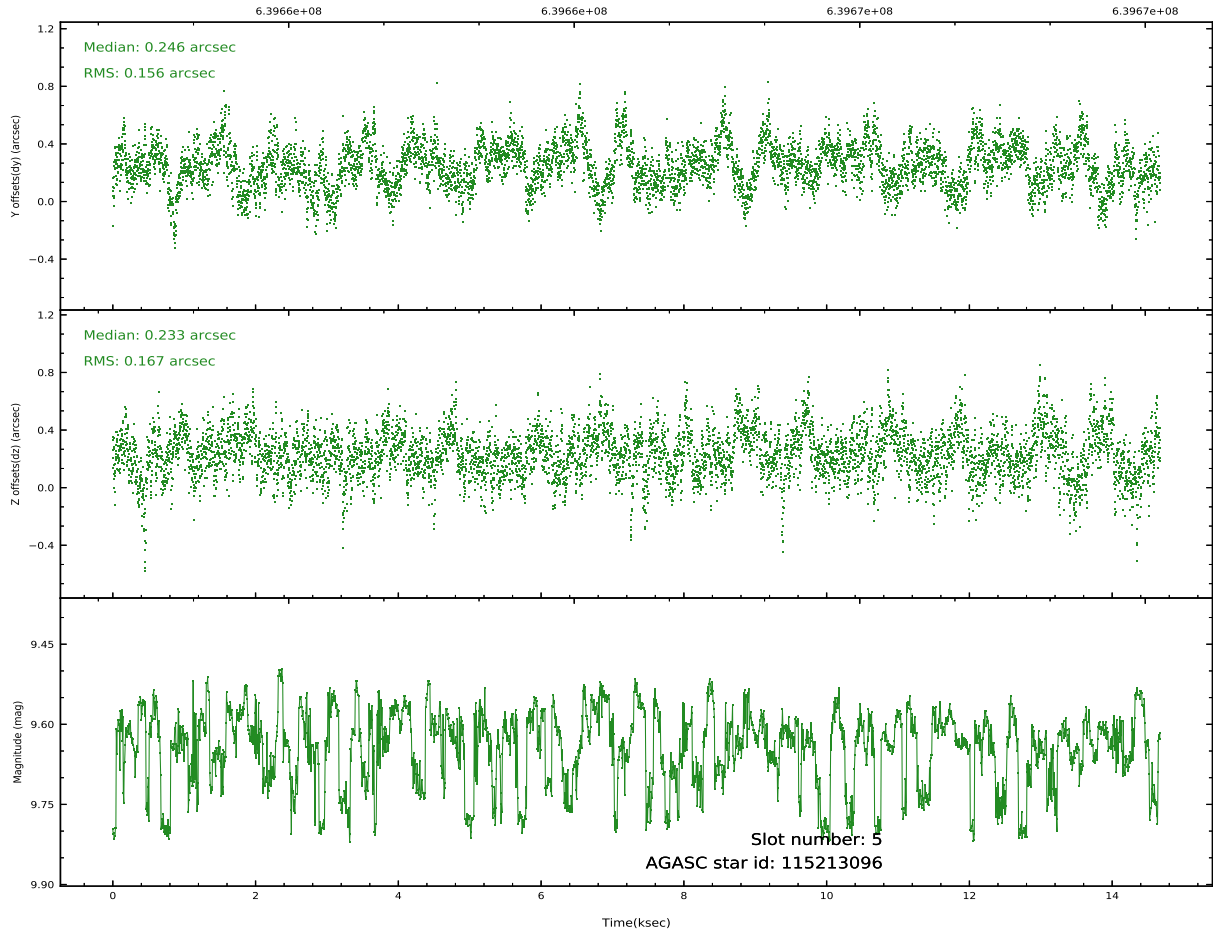
2.4.1 Slot 4



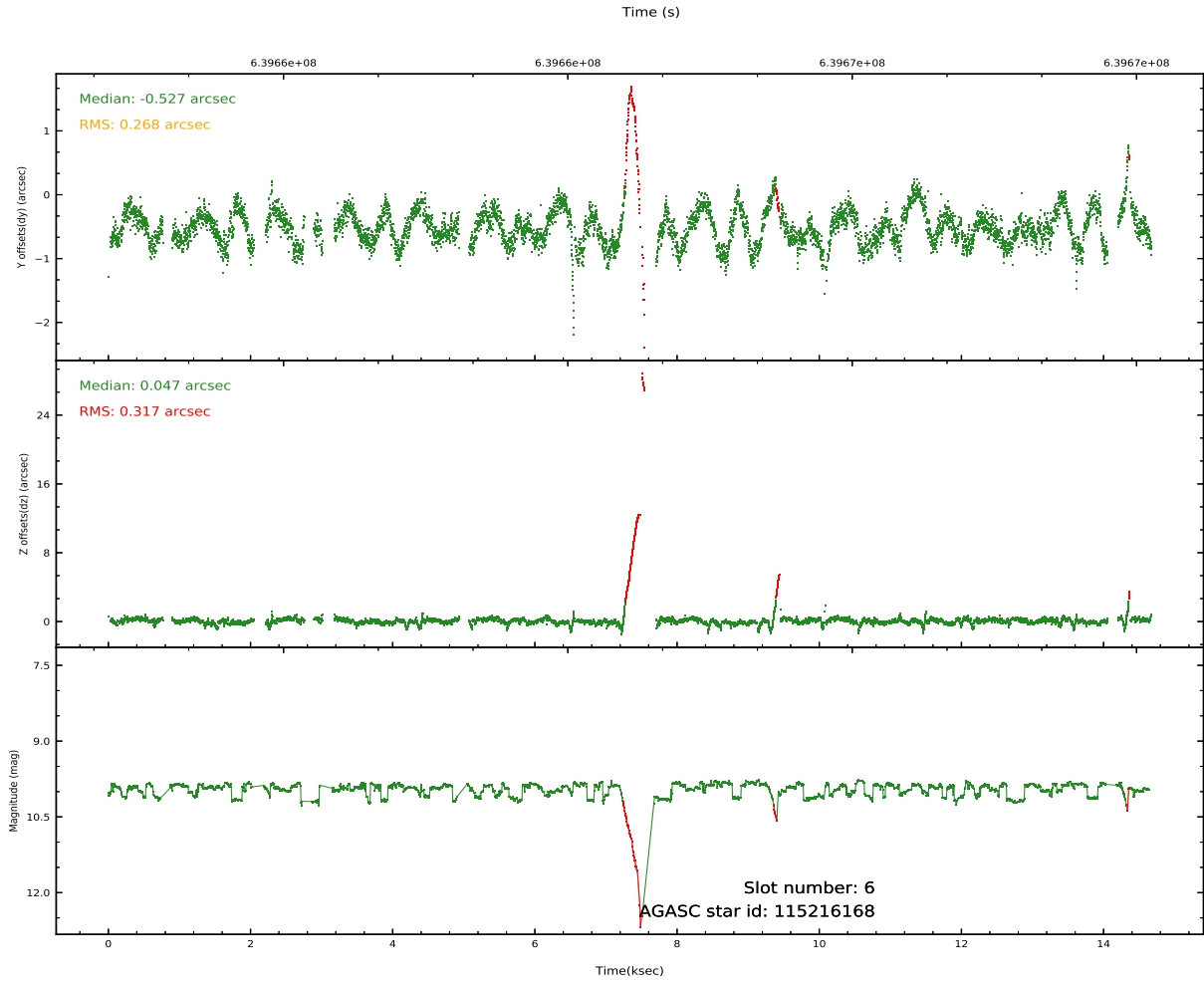
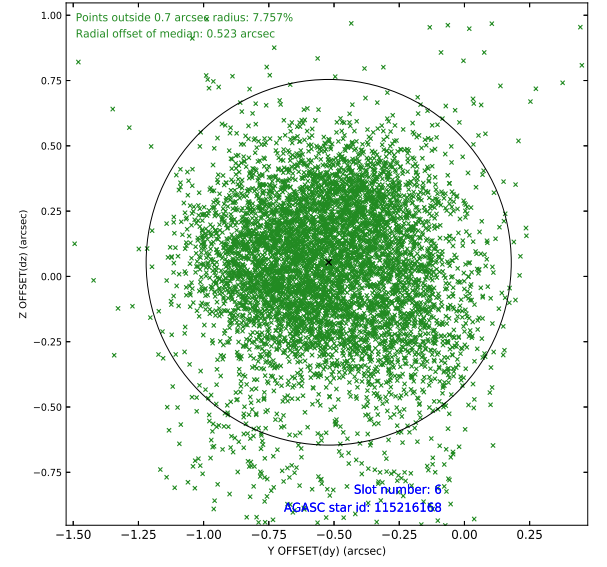
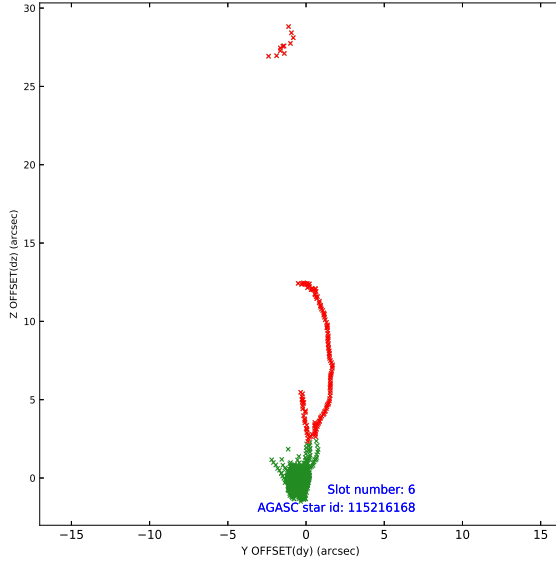
2.4.2 Slot 5



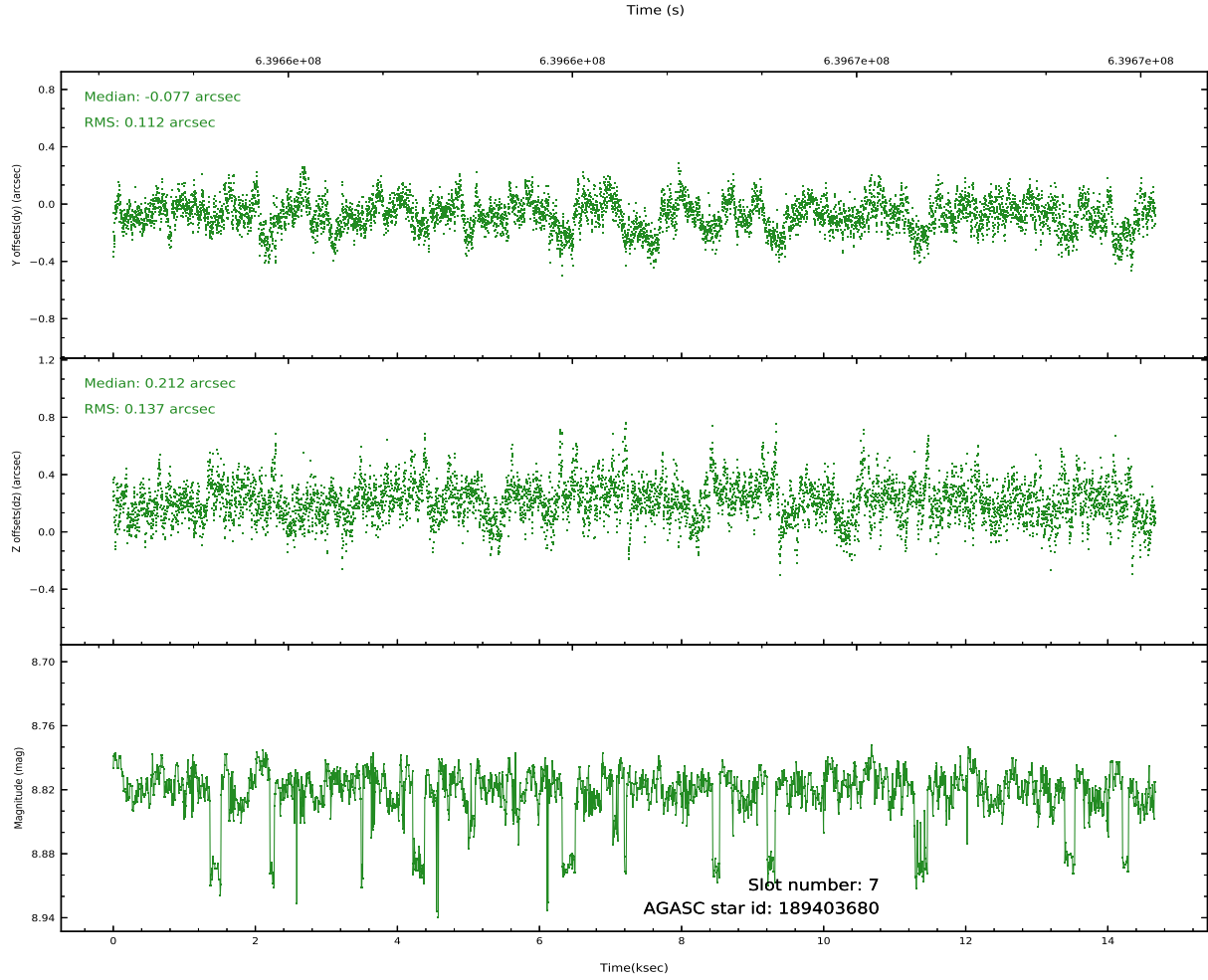
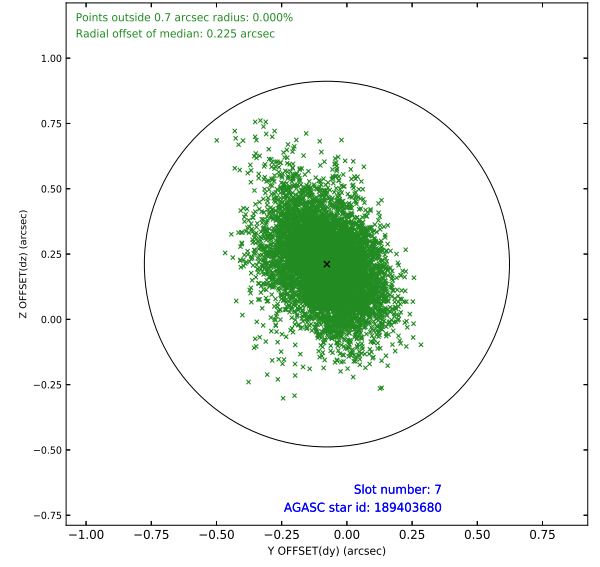
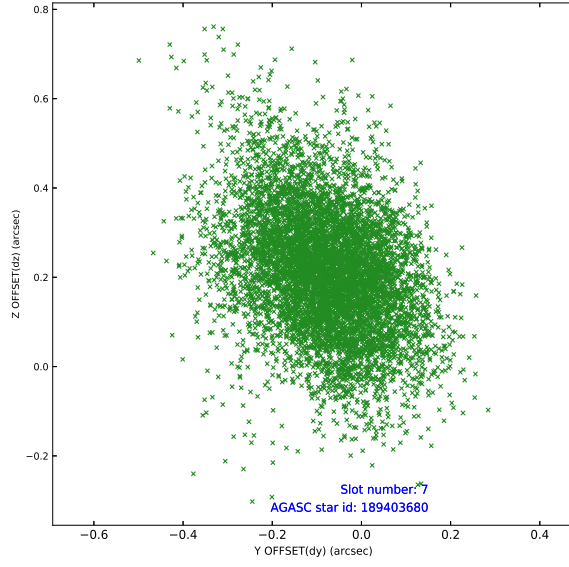
Time (s)



2.4.3 Slot 6

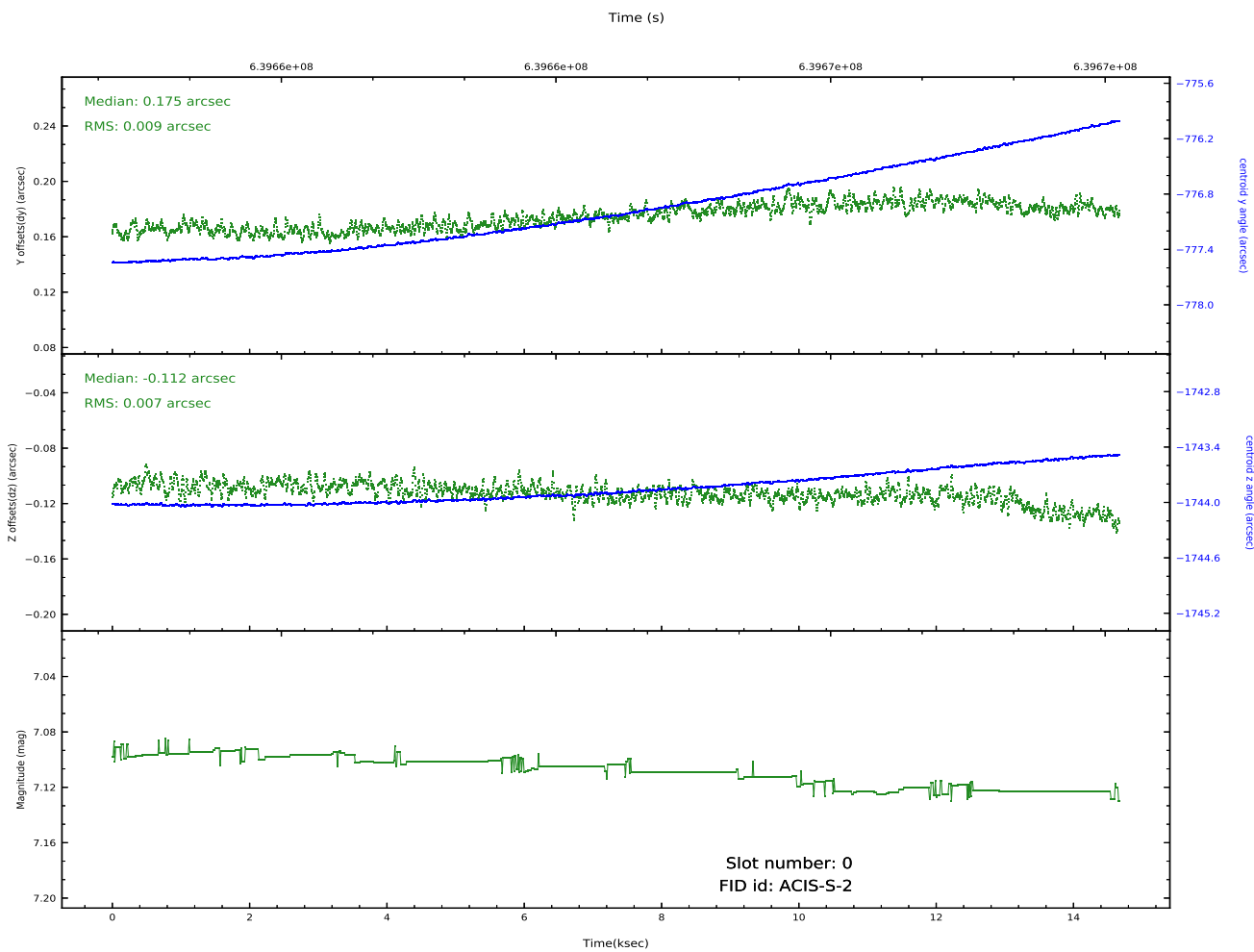
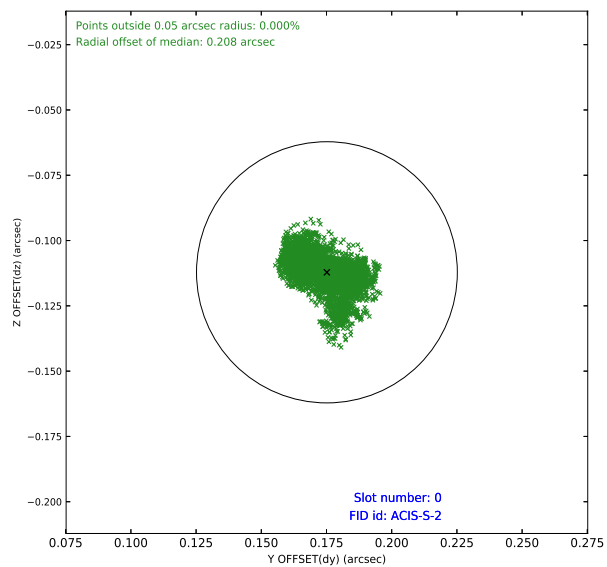
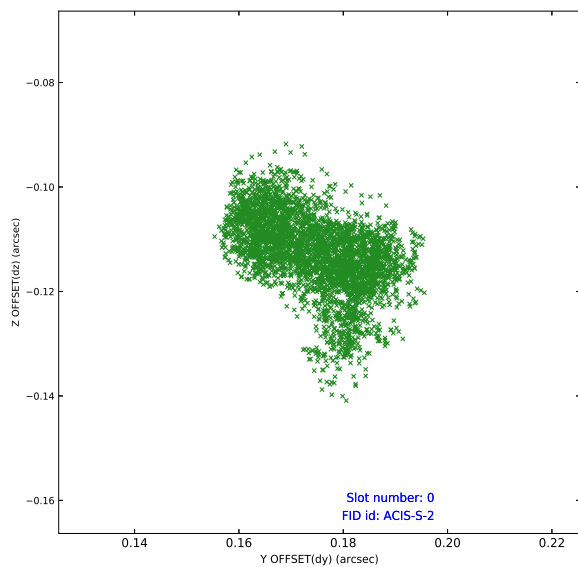


2.4.4 Slot 7

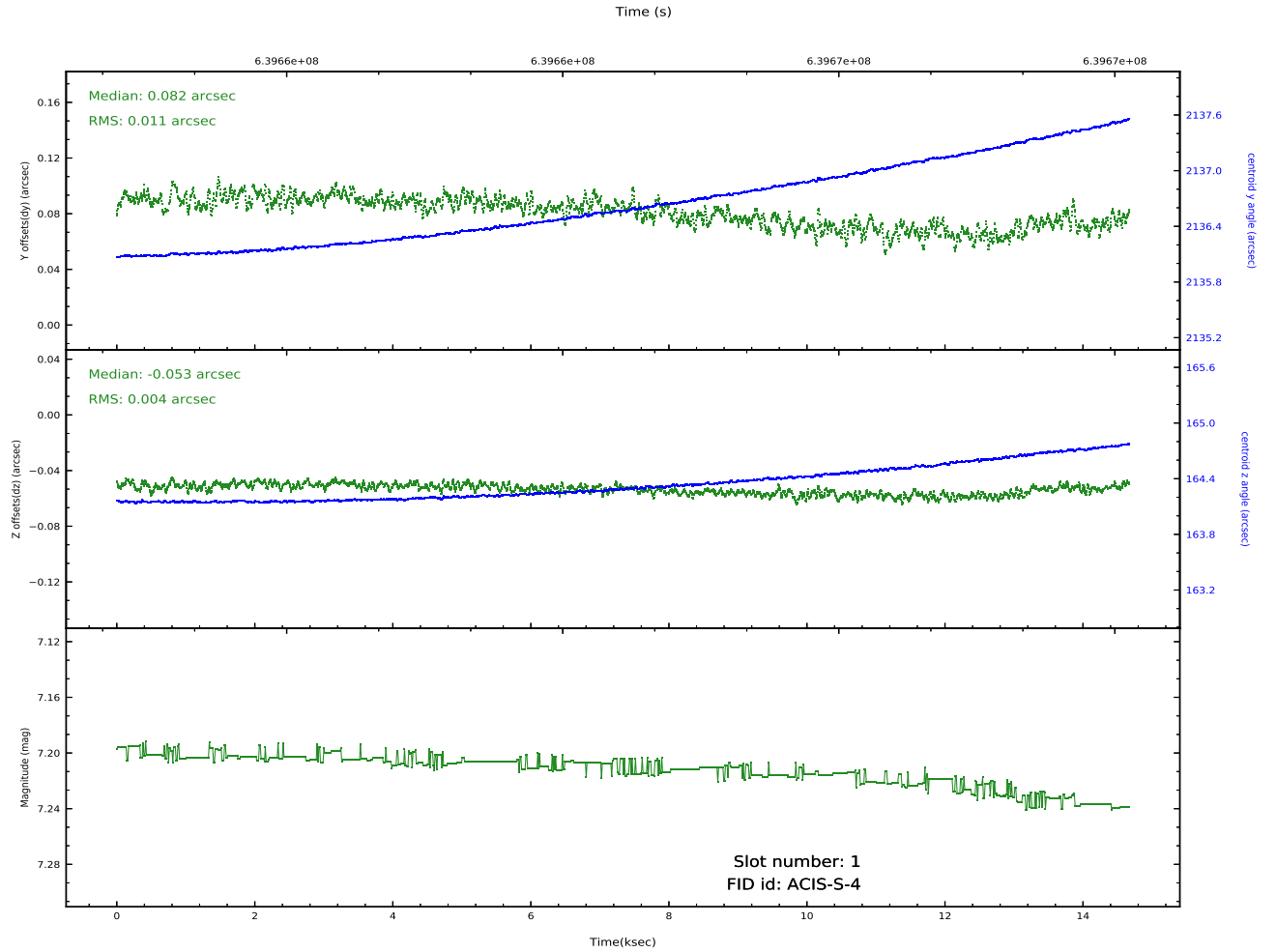
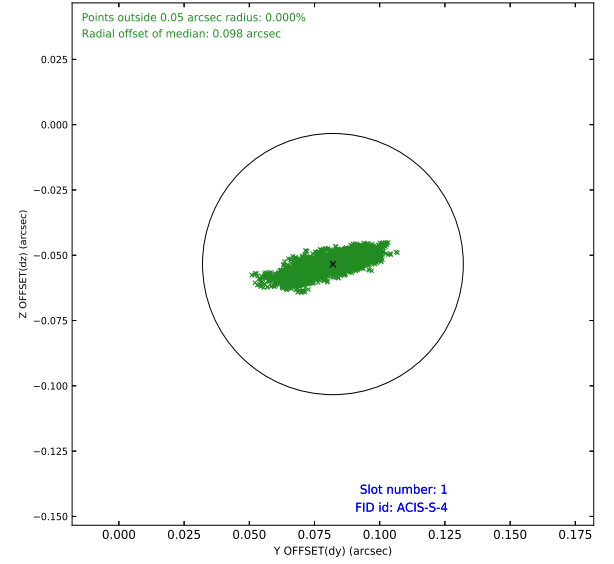
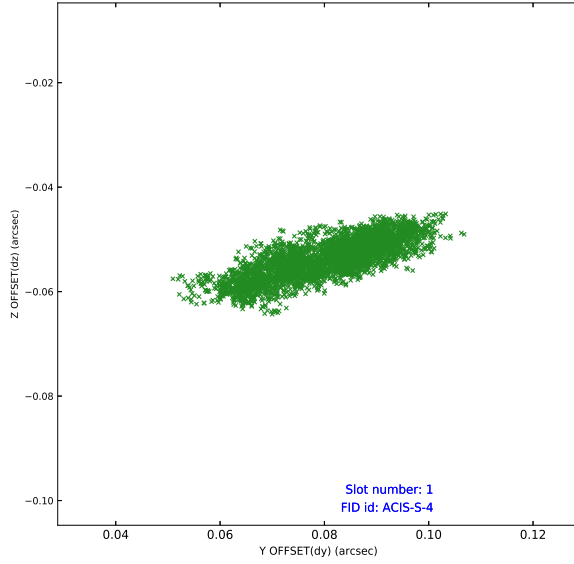


2.5 FID Slots

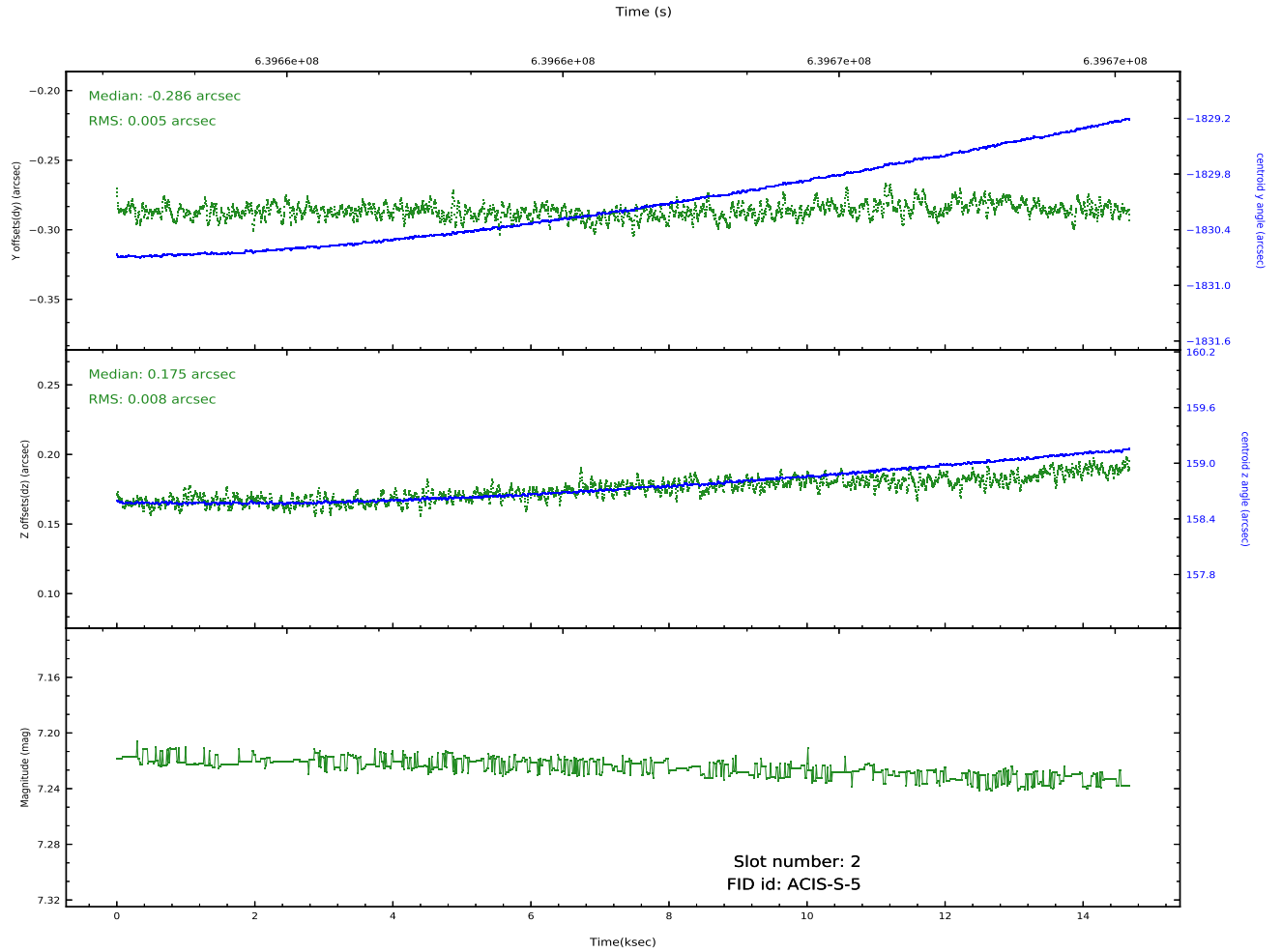
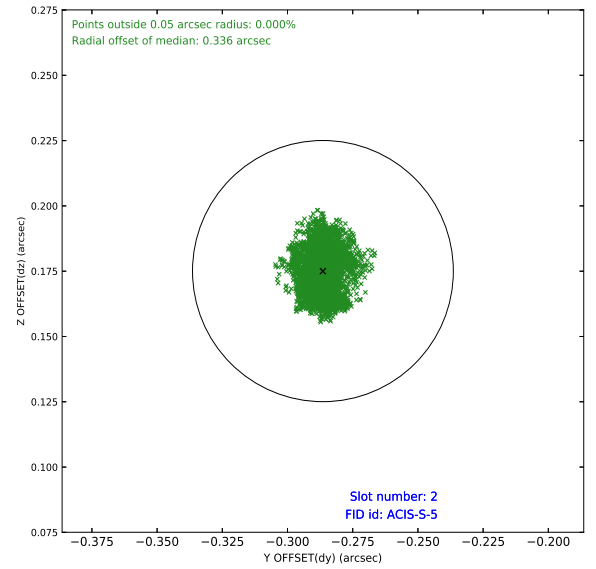
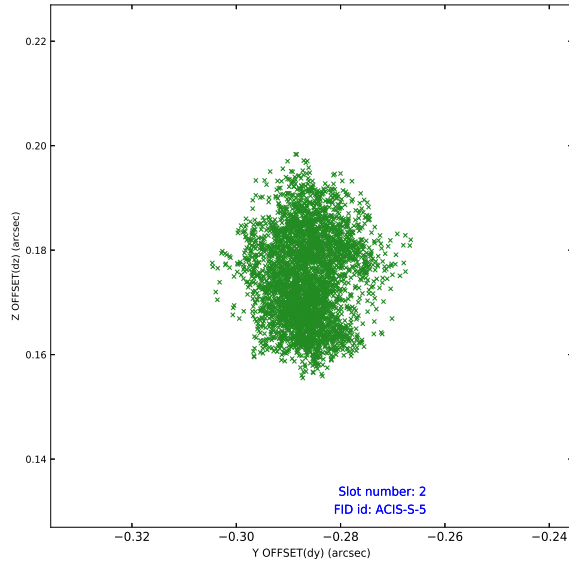
2.5.1 Slot 0



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)	2020.10.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.408800110936

A.2 Comments

The guide star in slot 3 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this slot from the solution.