

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20945 - L2 Version 3
Chandra X-Ray Center

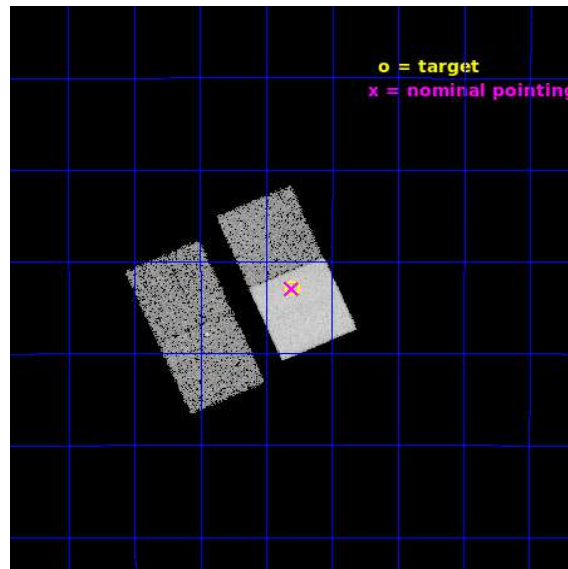
L2 Processing Date : Oct 24 2020

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 3	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

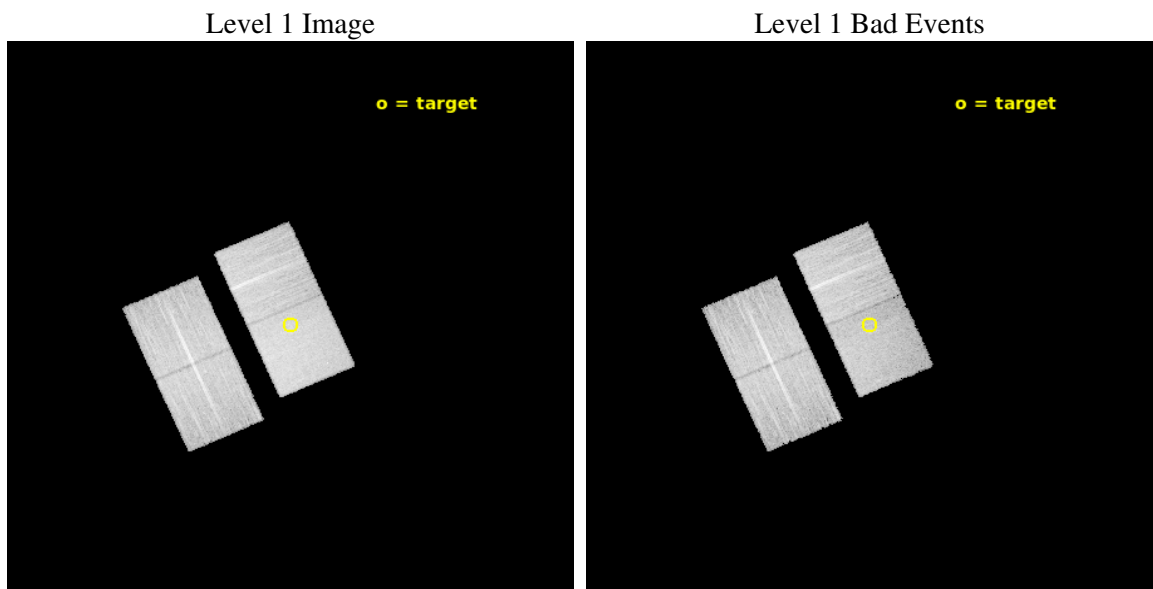
seq_num	402020	Sequence number
obs_id	20945	Observation id
title	GW170817: Tracking the X-ray light curve to study the origin of the emission	Proposal title
observer	Belinda Wilkes	Principal investigator
object	GW170817	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	197.450417	Observer's specified target RA [deg]
dec_targ	-23.381472	Observer's specified target Dec [deg]
ra_nom	197.45112718549	Nominal RA [deg]
dec_nom	-23.382794619864	Nominal Dec [deg]
roll_nom	66.150441786144	Nominal Roll [deg]
revision	3	Processing version of data
ontime	14405.700110912	Sum of GTIs [s]
livetime	14217.479033641	Livetime [s]
ontime2	14405.700110912	Sum of GTIs [s]
ontime3	14402.559060693	Sum of GTIs [s]
ontime6	14405.700110912	Sum of GTIs [s]
ontime7	14405.700110912	Sum of GTIs [s]
l2events	84228	Number of level 2 events



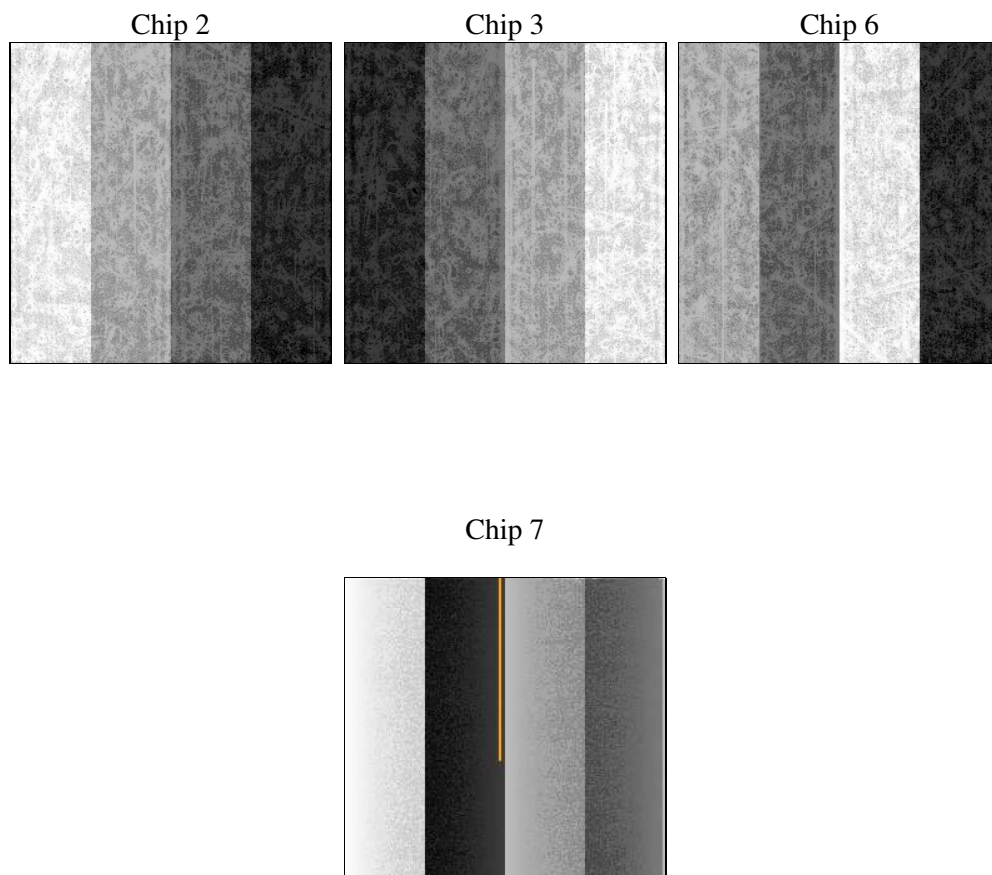
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	14341.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	14405.700110912	Sum of GTIs [s]
caldsver	4.9.3	 	ontime2	14405.700110912	Sum of GTIs [s]
date	2020-10-24T09:40:53	Date and time of file creation	ontime3	14402.559060693	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	14405.700110912	Sum of GTIs [s]
			ontime7	14405.700110912	Sum of GTIs [s]
			l1events	460379	Number of level 1 events

2.1.4 Events

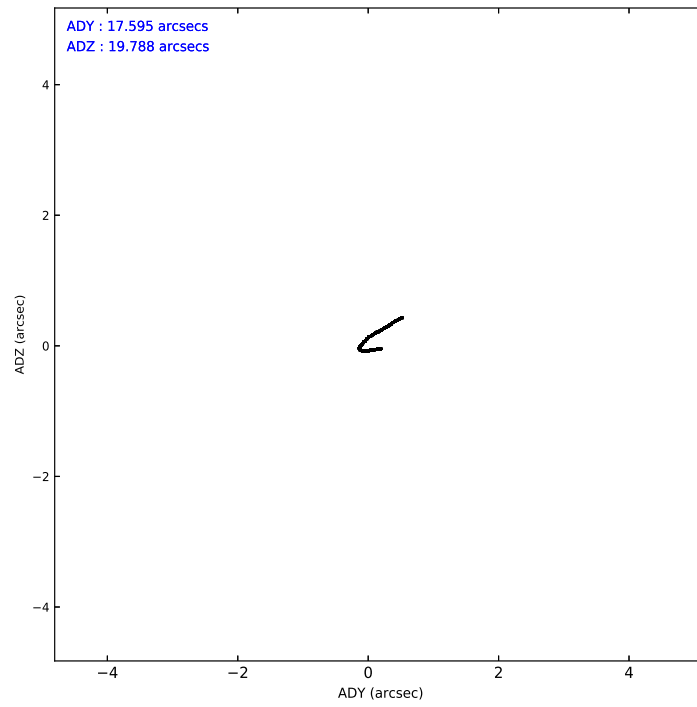
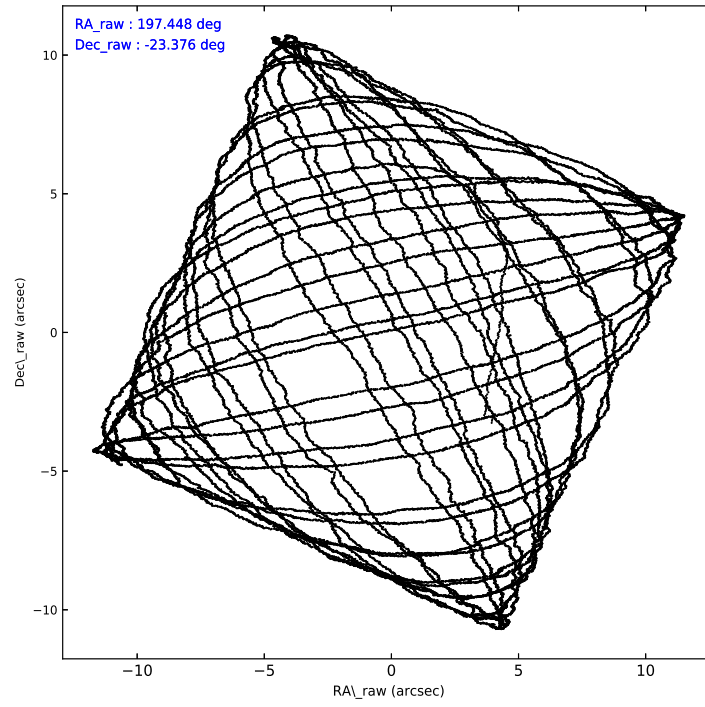
	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	108685	103610	114067	134017
rejected events	98058	93138	102519	76148
rejected %	90%	89%	89%	56%

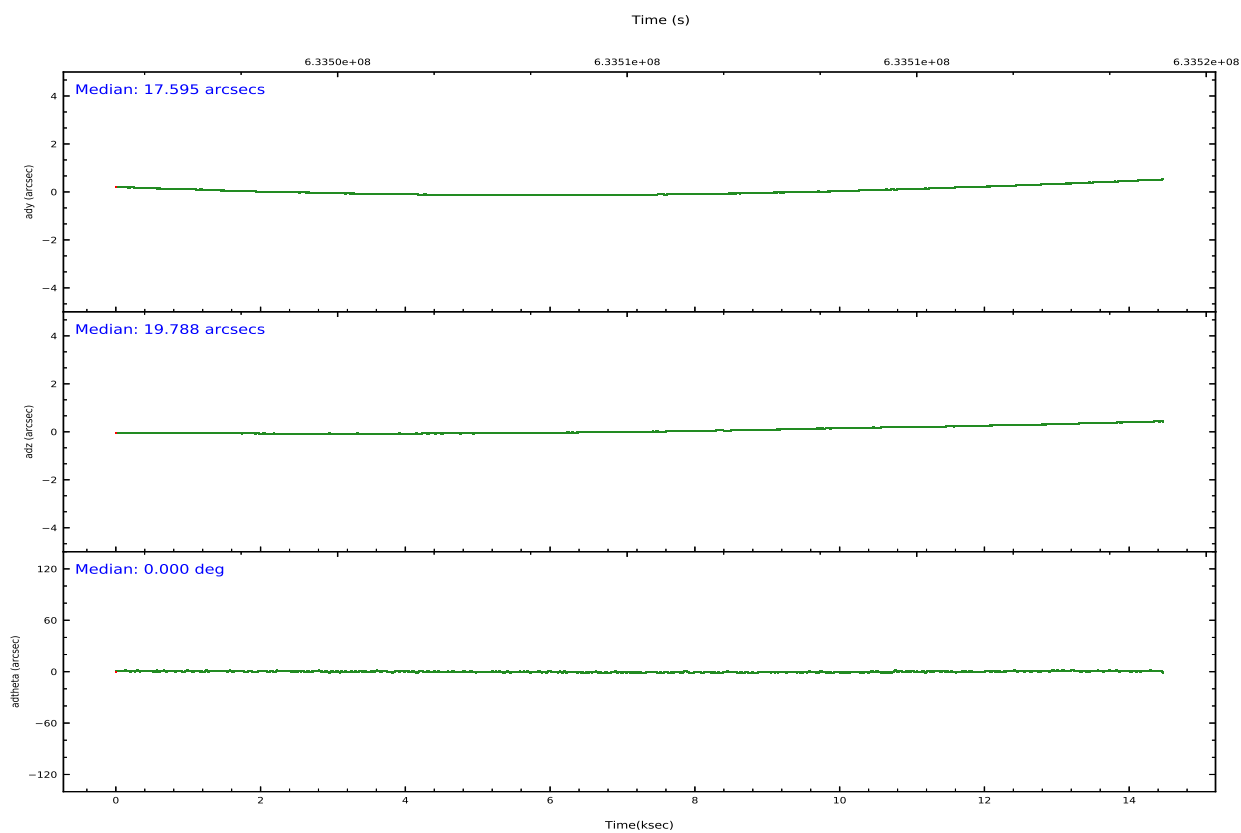
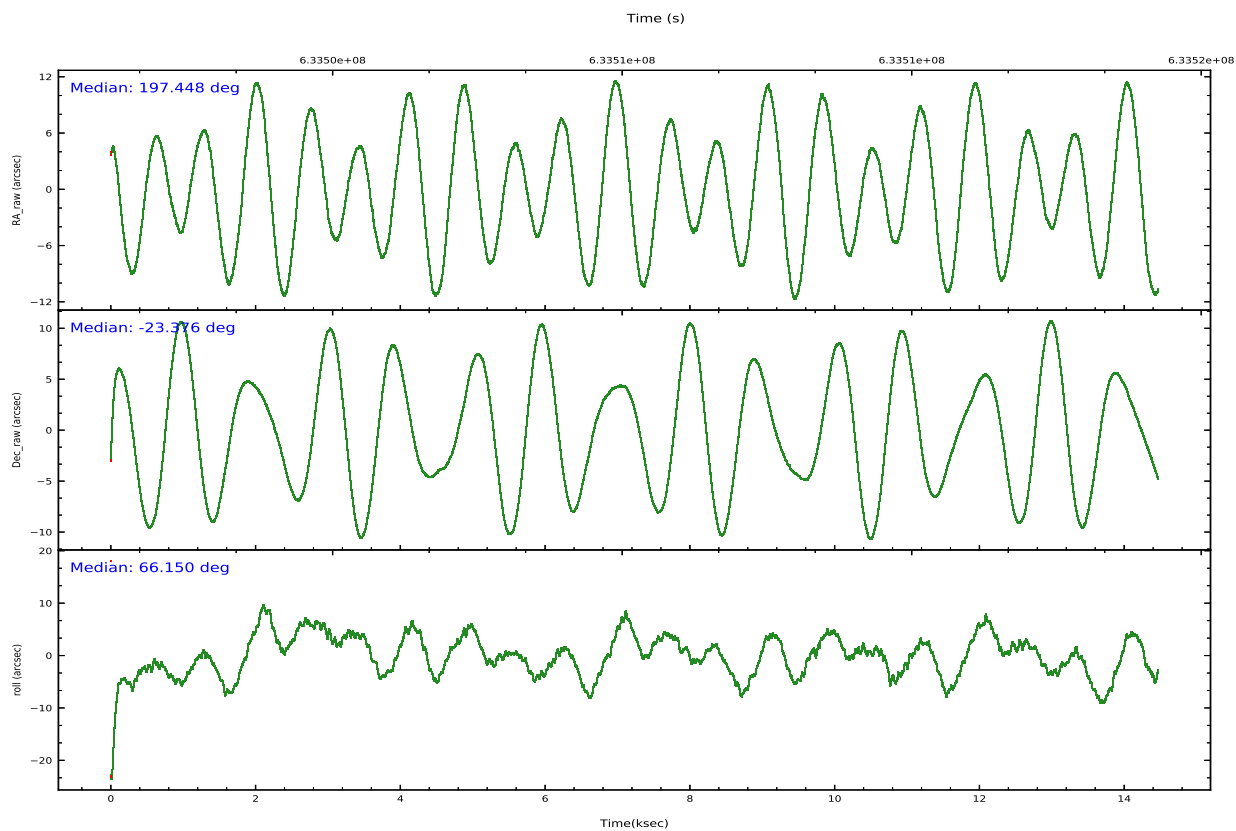
	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	3701	3692	3255	4868
	3%	3%	2%	3%
grade 1 events	63	56	34	186
	0%	0%	0%	0%
grade 2 events	2609	2332	3217	12014
	2%	2%	2%	8%
grade 3 events	1099	1064	976	4556
	1%	1%	0%	3%
grade 4 events	1070	1083	967	4452
	0%	1%	0%	3%
grade 5 events	3778	4499	4432	12897
	3%	4%	3%	9%
grade 6 events	2149	2301	3137	31989
	1%	2%	2%	23%
grade 7 events	94216	88583	98049	63055
	86%	85%	85%	47%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-2367	ACIS-2367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	197.451356	197.45112718549	CCD I2 on	O1	Y
[deg] Pointing Dec	-23.403142	-23.382794619864	CCD I3 on	O2	Y
[deg] Pointing Roll	66.000378	66.150441786144	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O3	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	N	N
[s] Observation start time (MET)	633501064.184000	633500056.12771	CCD S5 on	N	N
Observation start date	2018-01-28T04:29:55	2018-01-28T04:14:16	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	633515405.184000	633516405.39117	On-chip summing requested	N	N
Observation end date	2018-01-28T08:28:56	2018-01-28T08:46:45	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



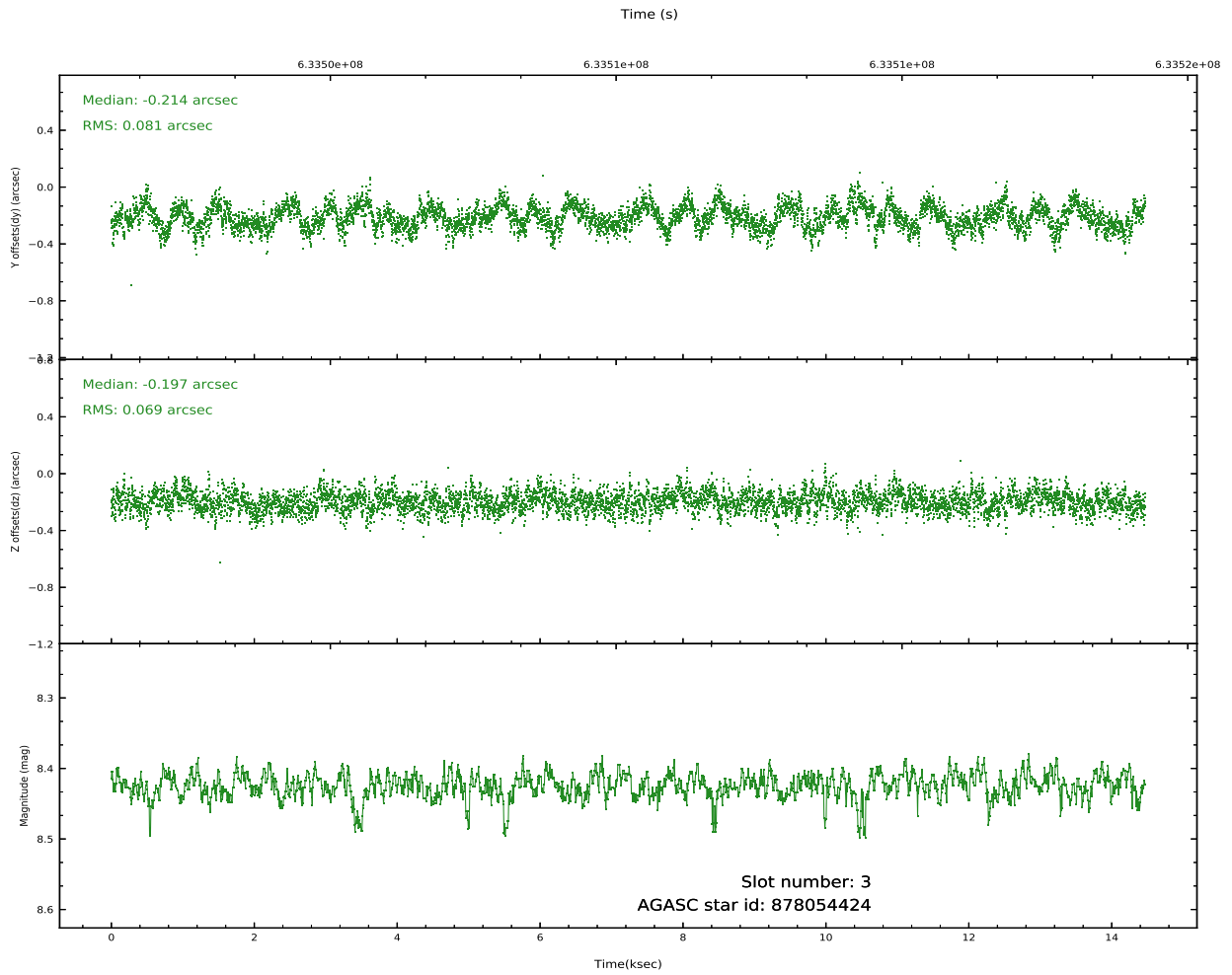
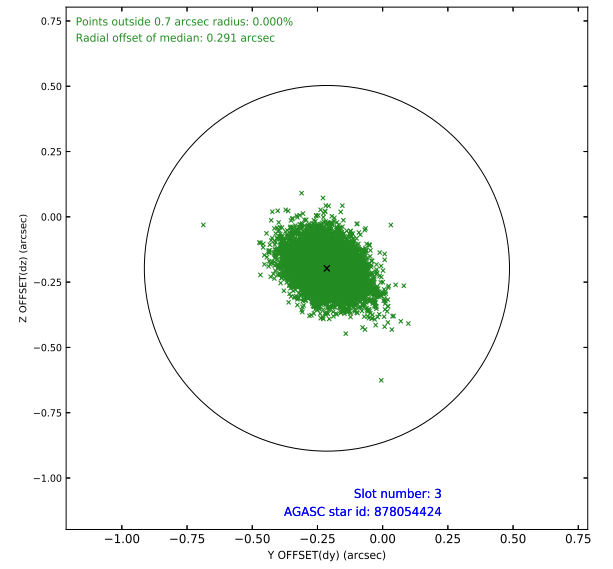
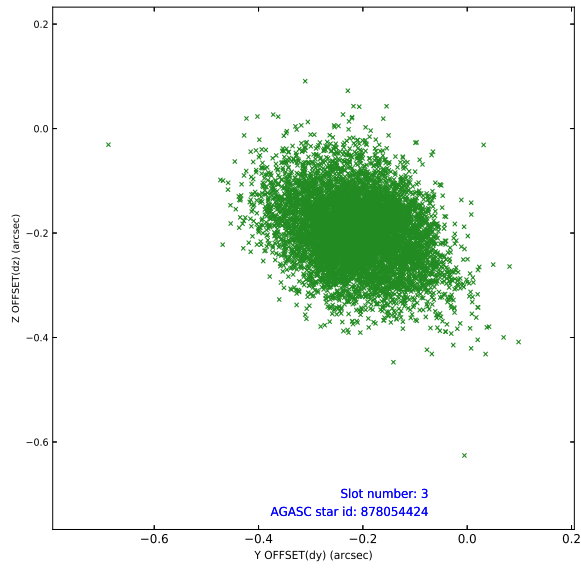


Slot Statistics

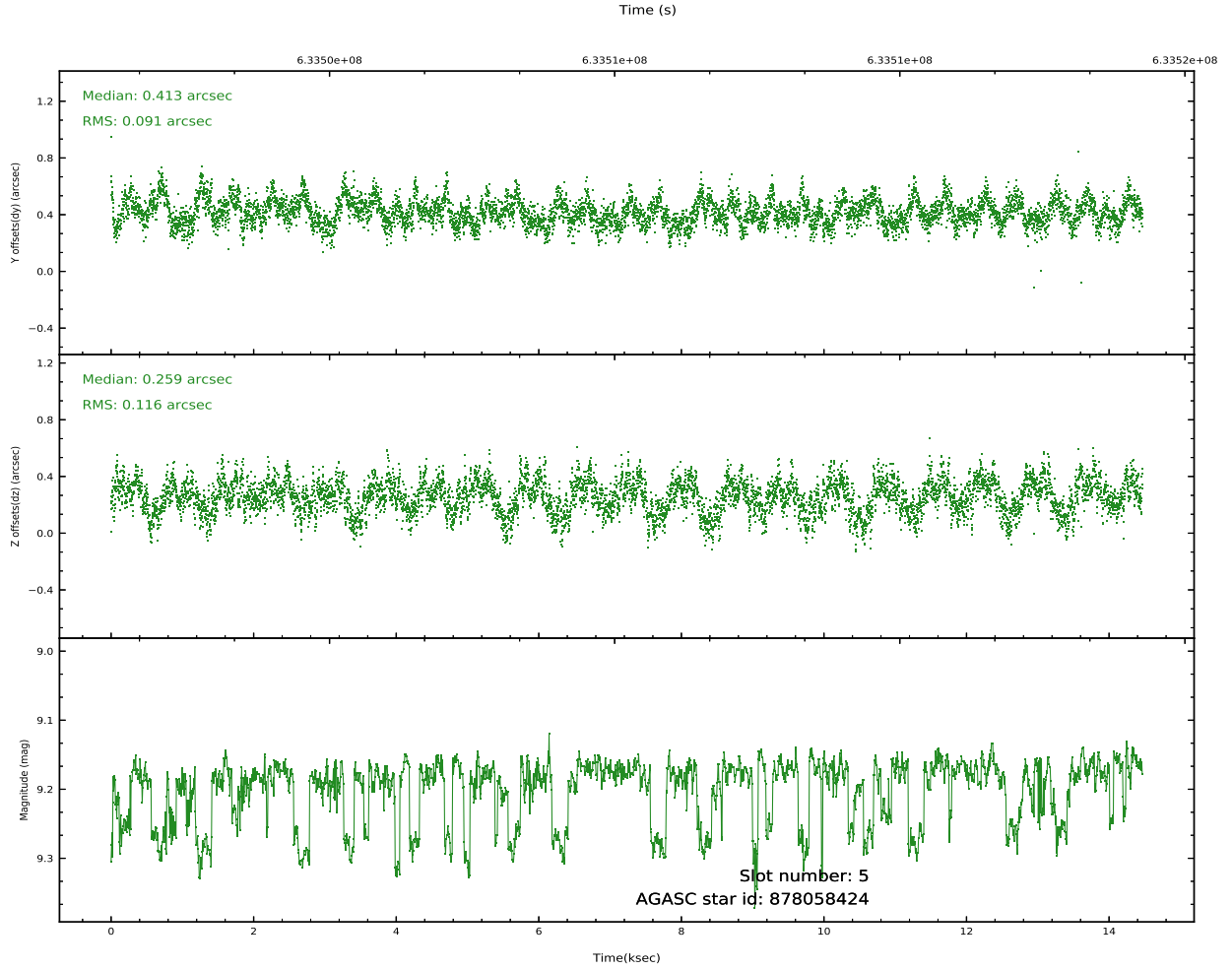
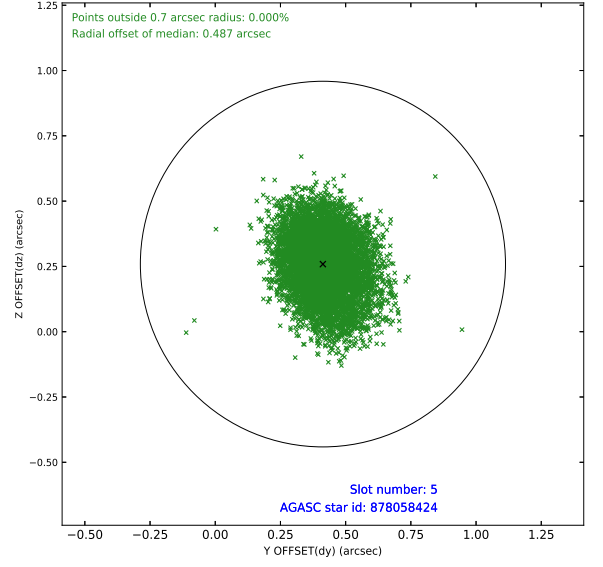
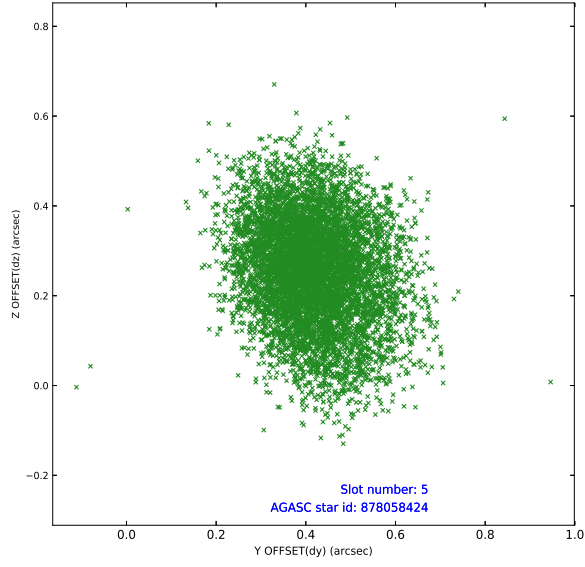
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.24	3530	1.000	0.167	-0.070	0.011	0.018	0.000000	0.000000	925.34	-1737
1	FID		ACIS-S-2	7.15	3530	1.000	-0.154	0.046	0.008	0.014	0.000000	0.000000	-770.71	-1741
2	FID		ACIS-S-4	7.25	3530	1.000	-0.039	0.031	0.009	0.015	0.000000	0.000000	2142.41	166
3	GUIDE	used	878054424	8.42	7053	1.000	-0.214	-0.197	0.113	0.182	197.311680	-23.210058	446.34	704
4	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
5	GUIDE	used	878058424	9.19	7053	1.000	0.413	0.259	0.159	0.255	197.645163	-24.009629	-1735.39	-1469
6	GUIDE	used	878061480	7.95	7054	1.000	-0.398	-0.317	0.112	0.187	197.360027	-22.852260	1687.10	1083
7	GUIDE	used	878056592	8.74	7053	1.000	0.190	0.256	0.132	0.220	197.586702	-23.861101	-1324.73	-1076

2.4 Star Slots

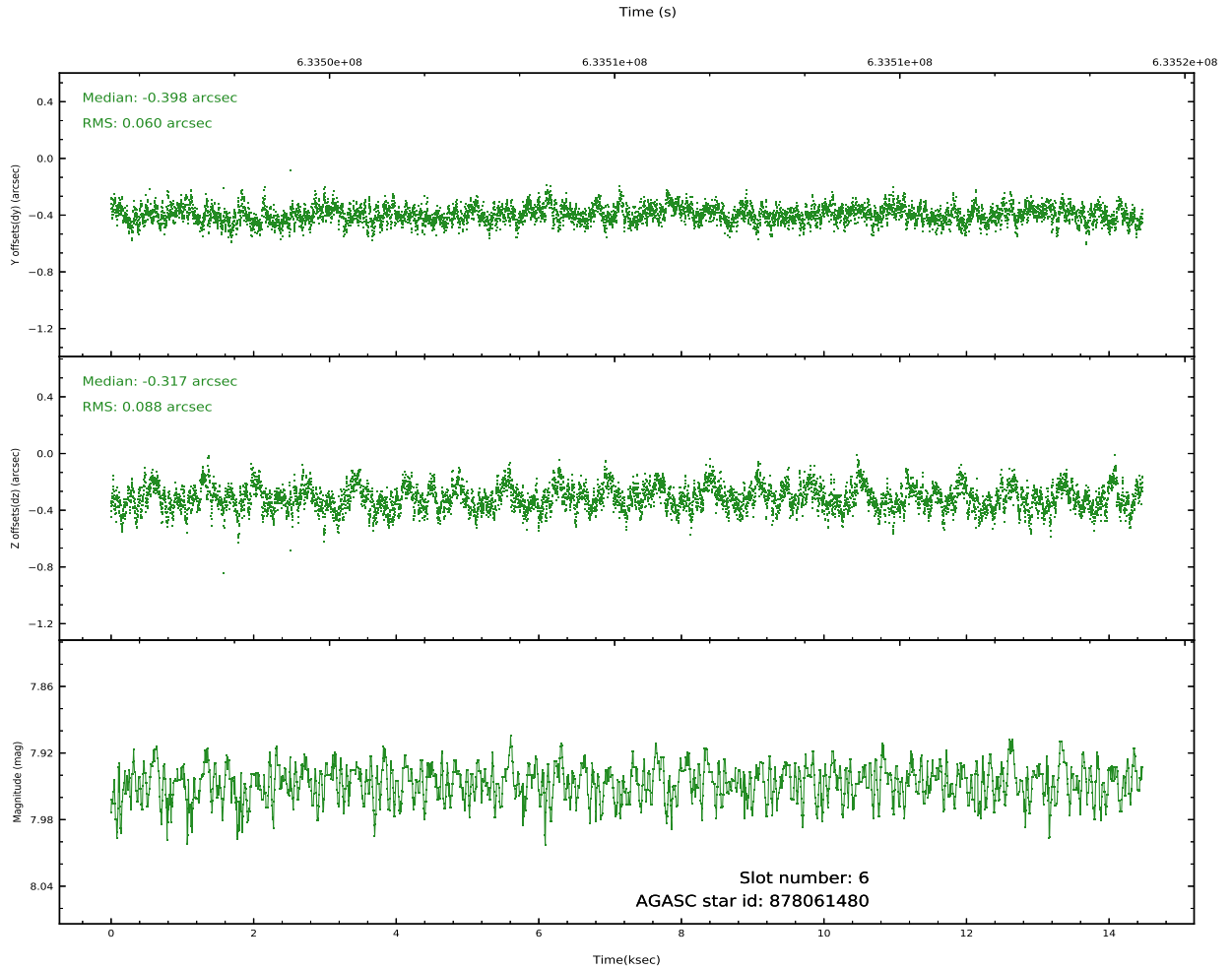
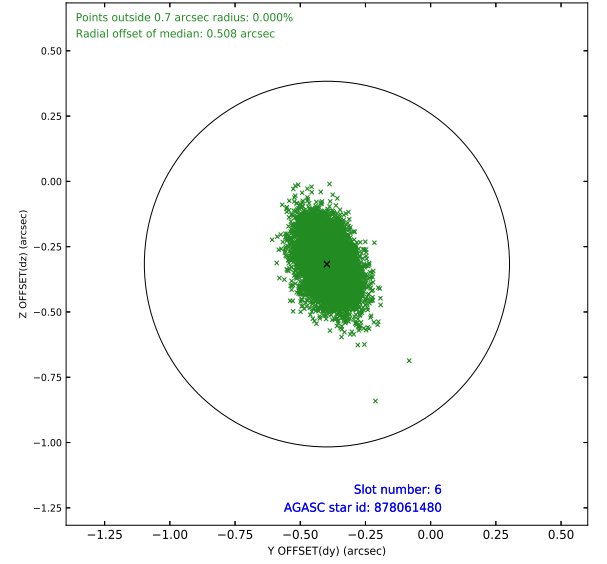
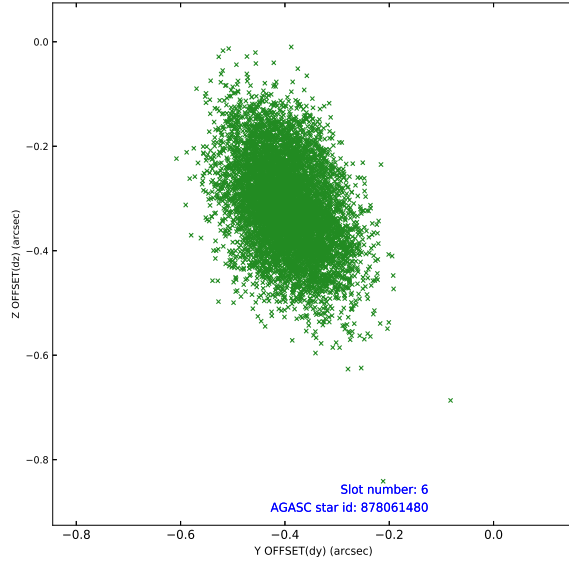
2.4.1 Slot 3



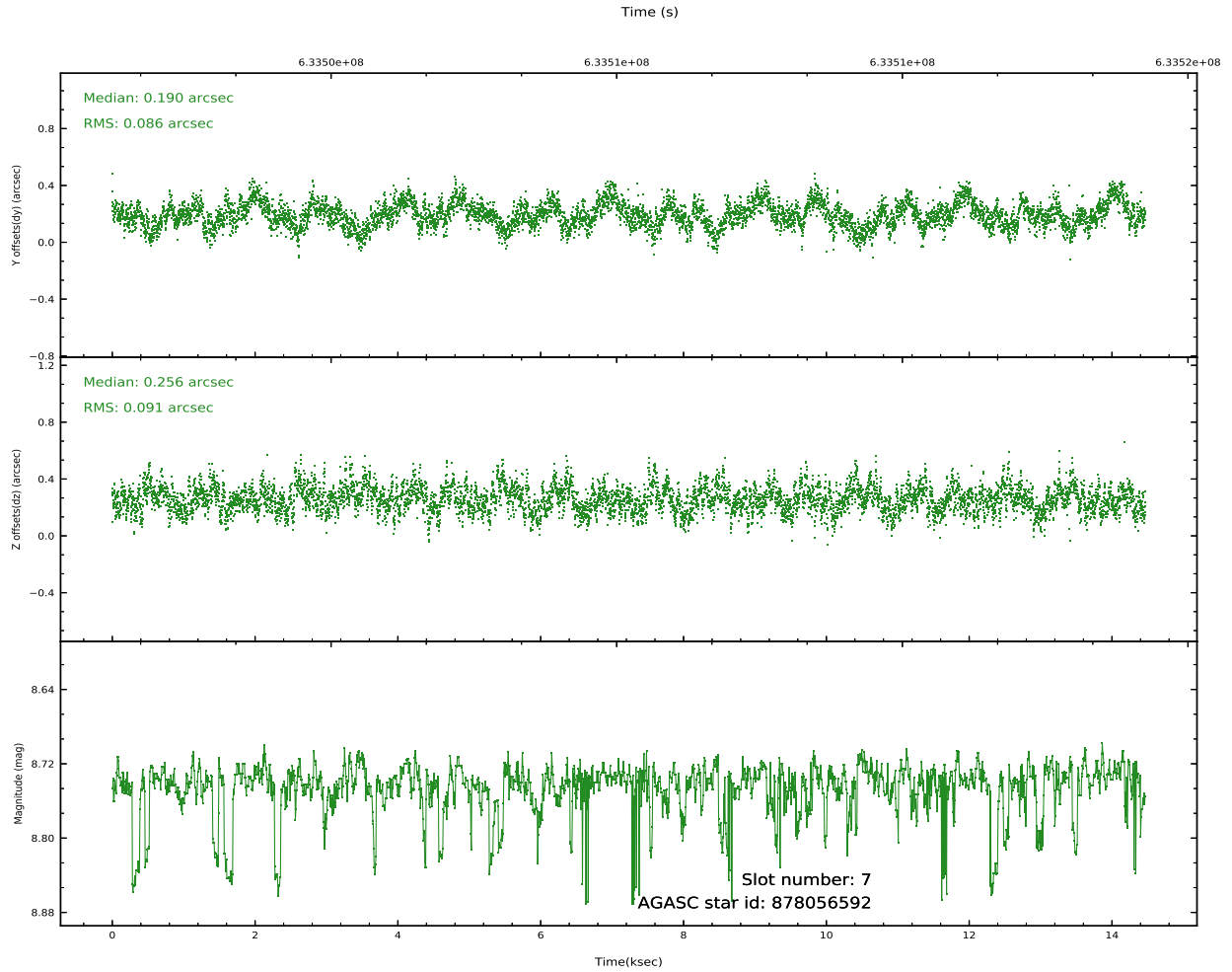
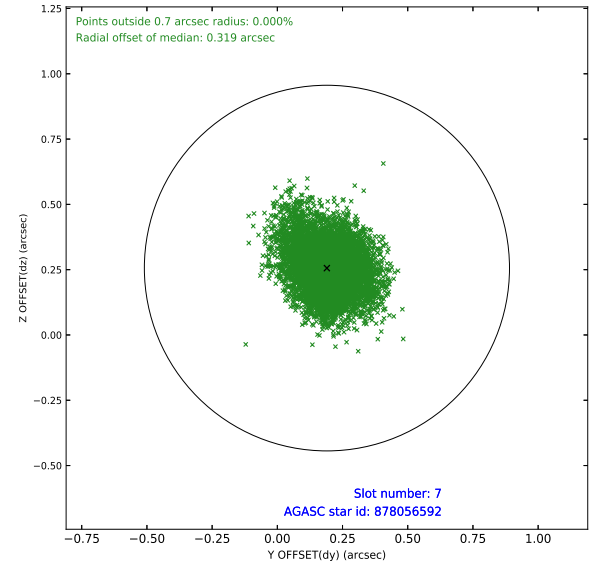
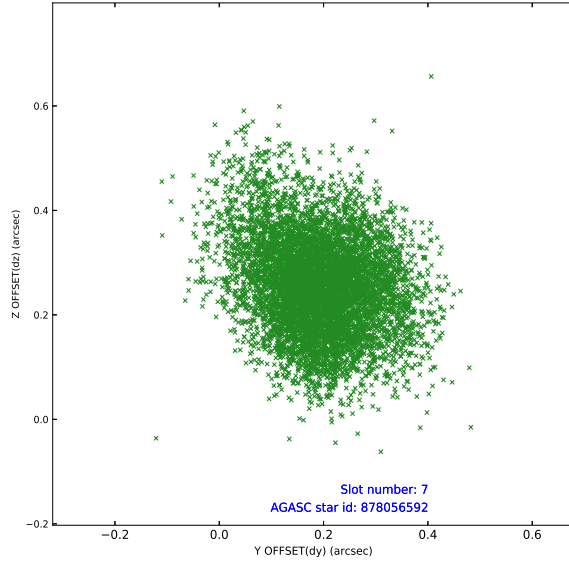
2.4.2 Slot 5



2.4.3 Slot 6

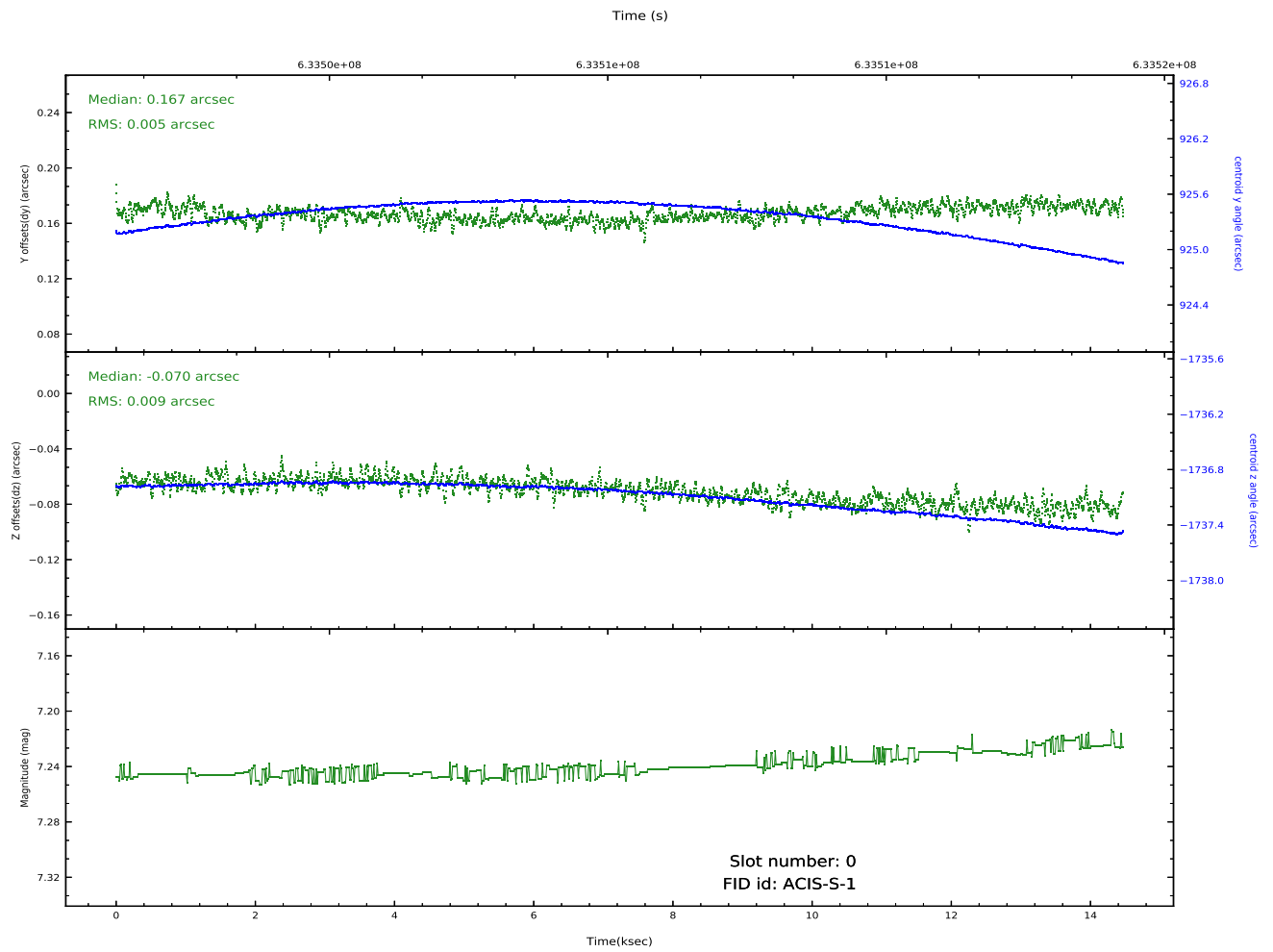
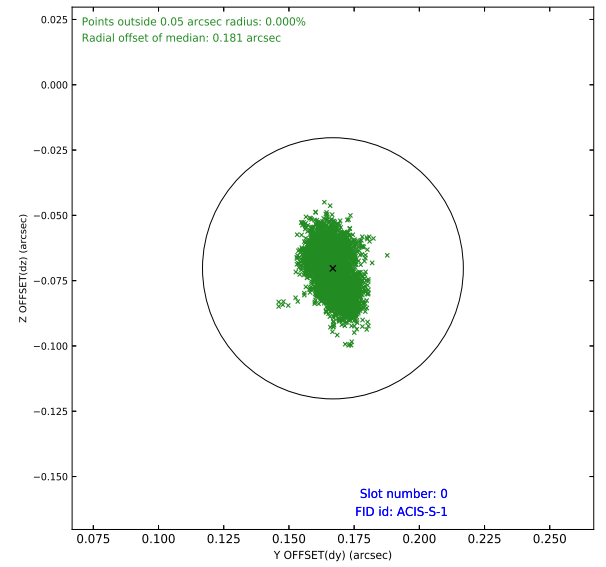
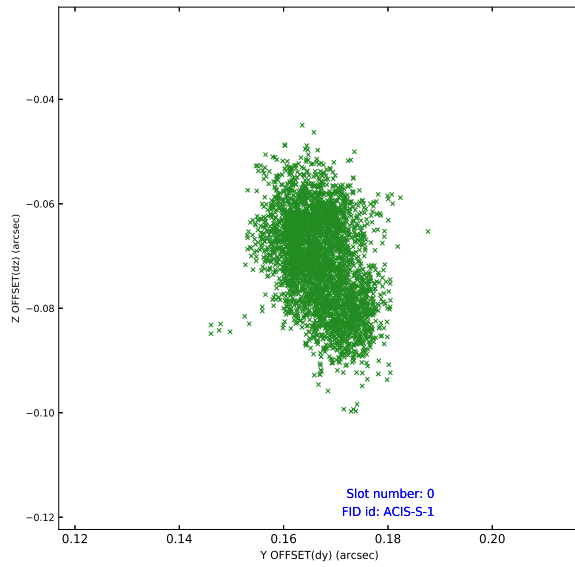


2.4.4 Slot 7

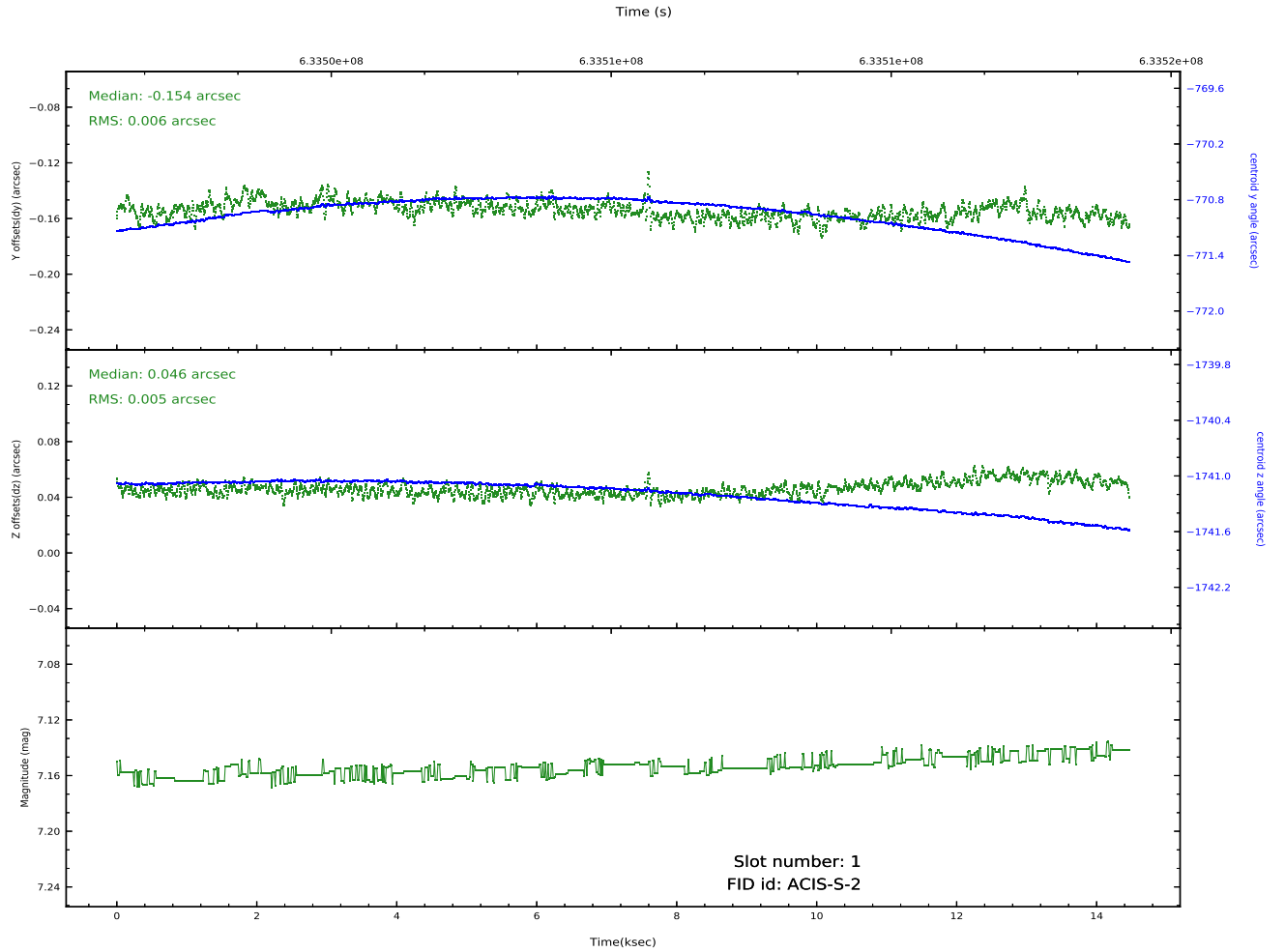
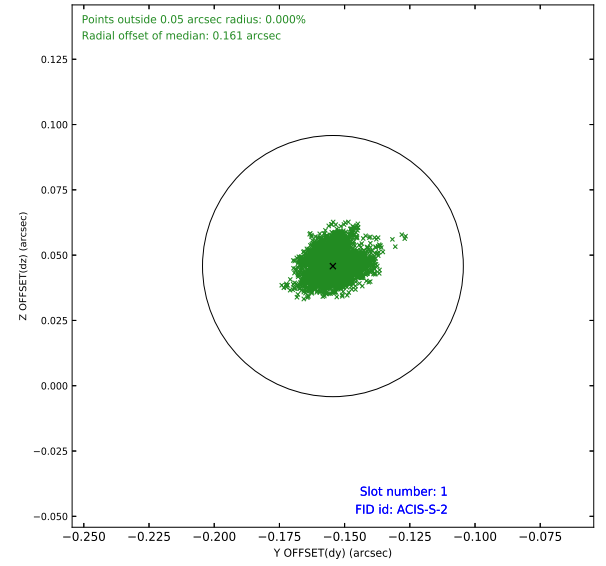
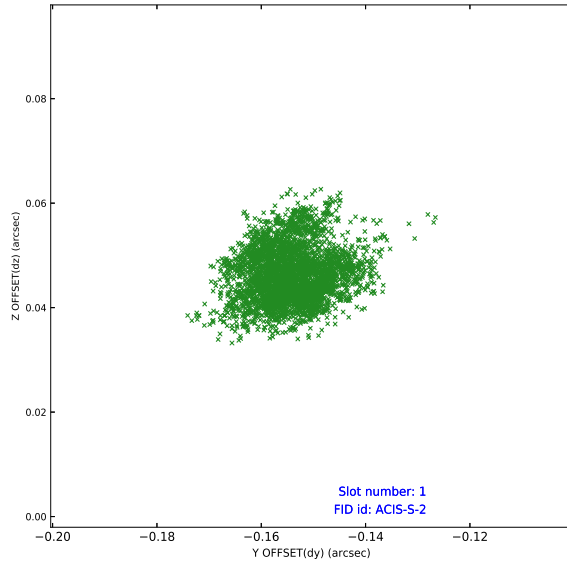


2.5 FID Slots

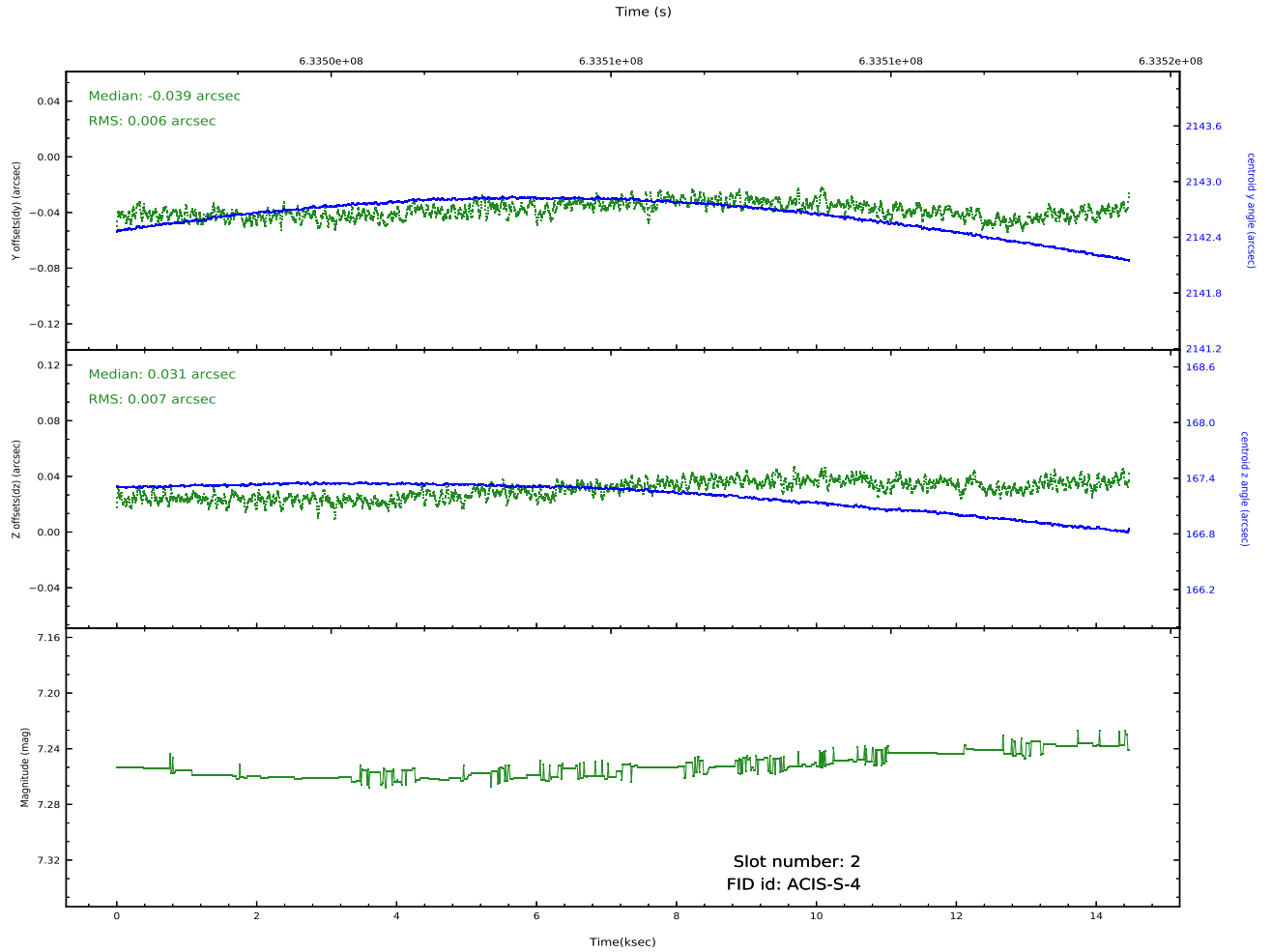
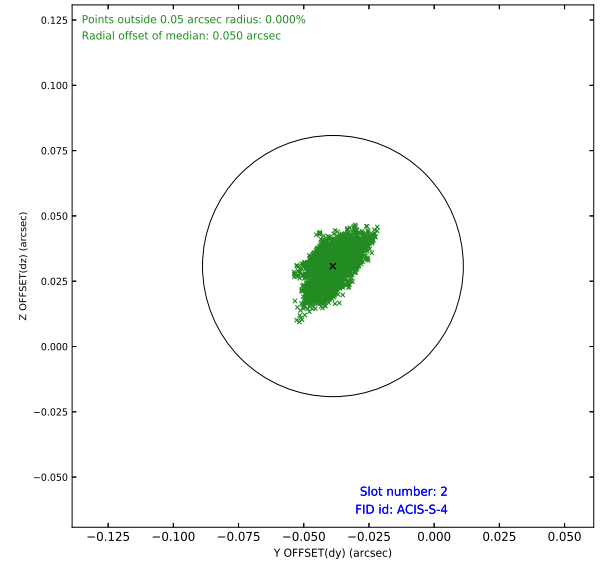
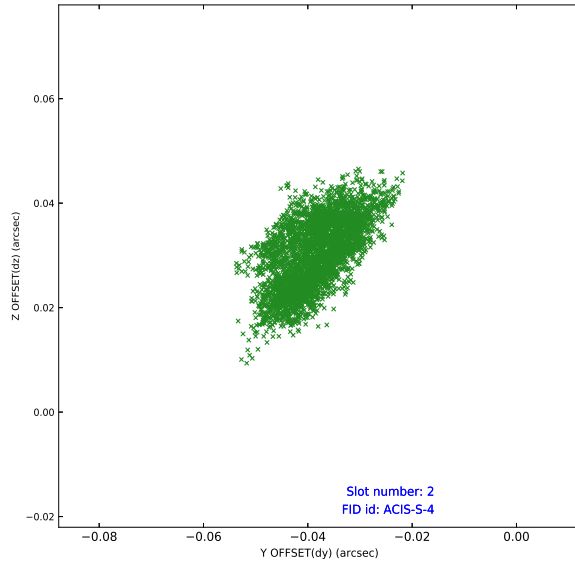
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.405700110912

A.2 Comments

The guide star in slot 4 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.