

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 5156 - L2 Version 4
Chandra X-Ray Center

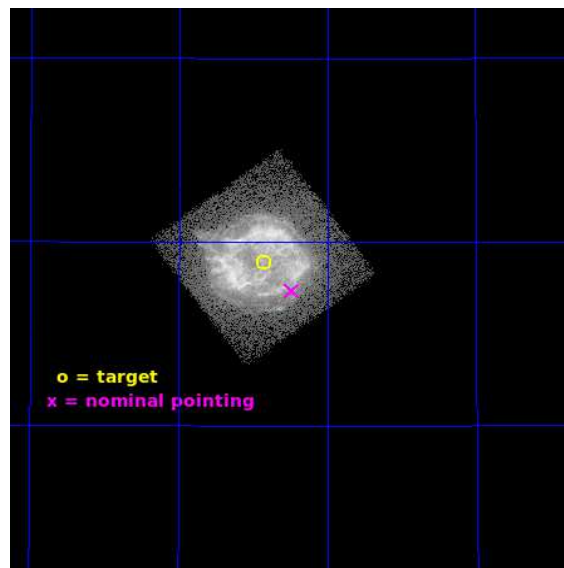
L2 Processing Date : Oct 3 2020

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 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

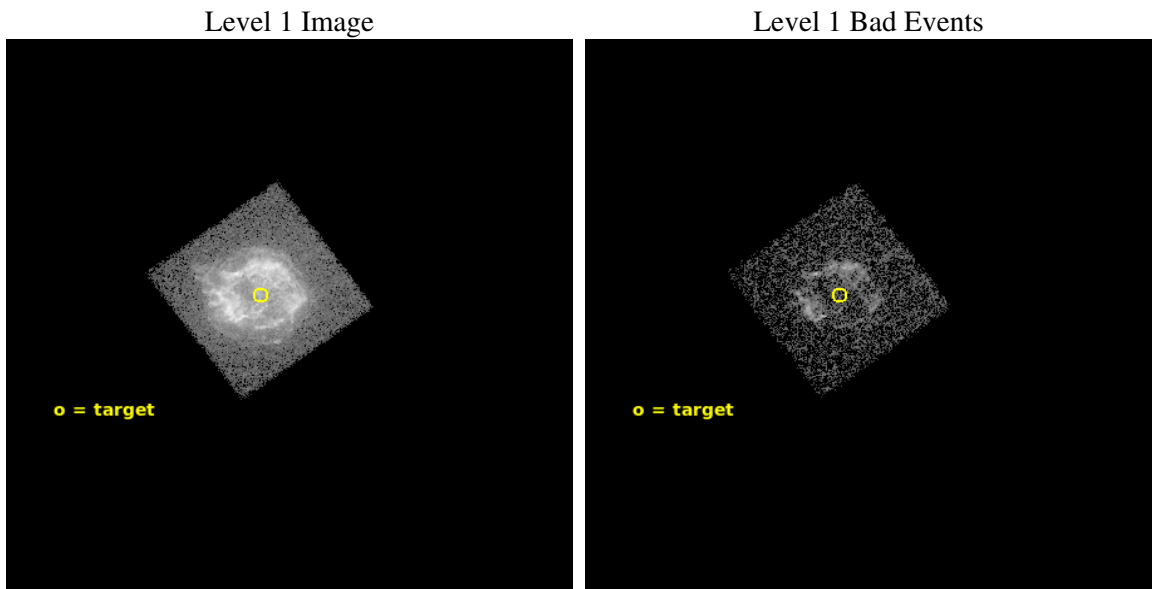
seq_num	590354	Sequence number
obs_id	5156	Observation id
title	AO5B Observations of the Standard Candles Cas A and G21.5-09	Propo
observer	CXC Calibration	Principal investigator
object	Cas A	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	350.8575	Observer's specified target RA [deg]
dec_targ	58.814833	Observer's specified target Dec [deg]
ra_nom	350.80963028014	Nominal RA [deg]
dec_nom	58.789261434481	Nominal Dec [deg]
roll_nom	233.74198527968	Nominal Roll [deg]
revision	4	Processing version of data
ontime	1093.8708495796	Sum of GTIs [s]
livetime	1080.0195982322	Livetime [s]
ontime4	1754.4230459929	Sum of GTIs [s]
ontime5	1942.399992764	Sum of GTIs [s]
ontime6	1935.9180221558	Sum of GTIs [s]
ontime7	1093.8708495796	Sum of GTIs [s]
ontime8	1942.399992764	Sum of GTIs [s]
ontime9	1897.0262186229	Sum of GTIs [s]
l2events	329741	Number of level 2 events



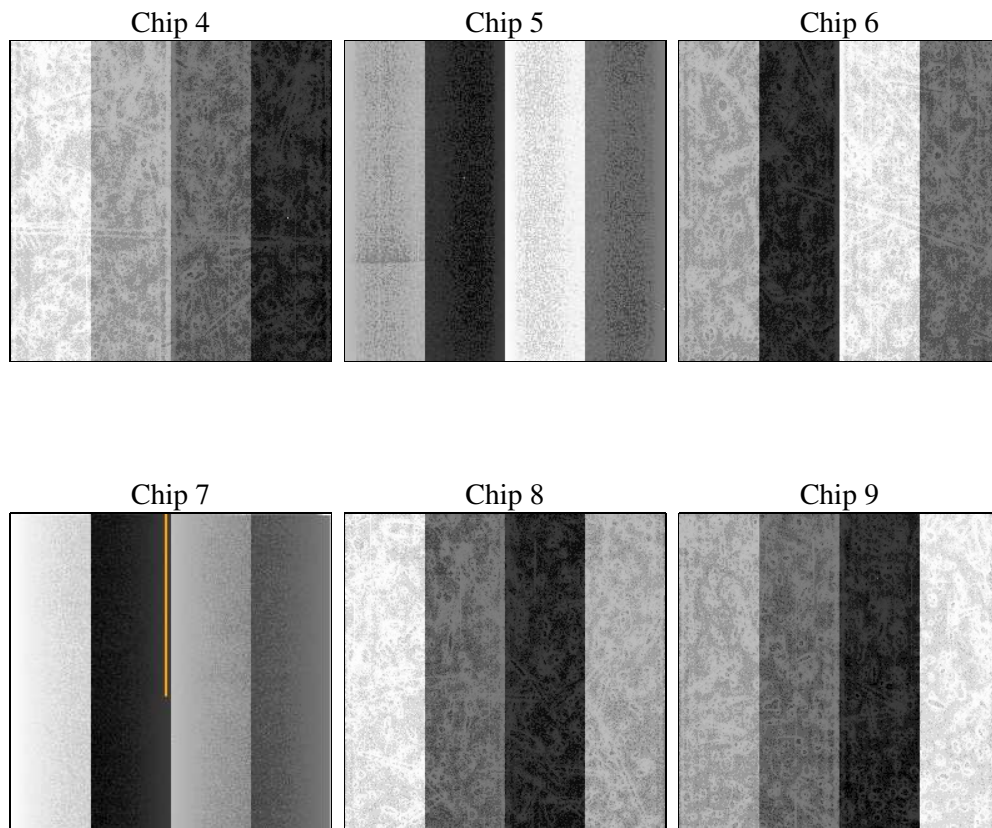
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	1093.8708495796	Sum of GTIs [s]
caldbver	4.9.2	 	ontime4	1754.4230459929	Sum of GTIs [s]
date	2020-10-03T22:14:33	Date and time of file creation	ontime5	1942.399992764	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	1935.9180221558	Sum of GTIs [s]
			ontime7	1093.8708495796	Sum of GTIs [s]
			ontime8	1942.399992764	Sum of GTIs [s]
			ontime9	1897.0262186229	Sum of GTIs [s]
			l1events	376347	Number of level 1 events

2.1.4 Events

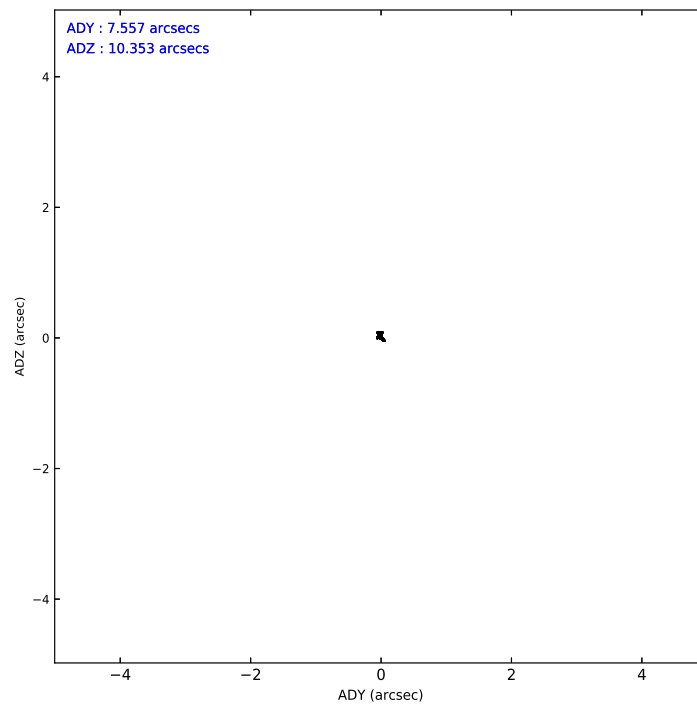
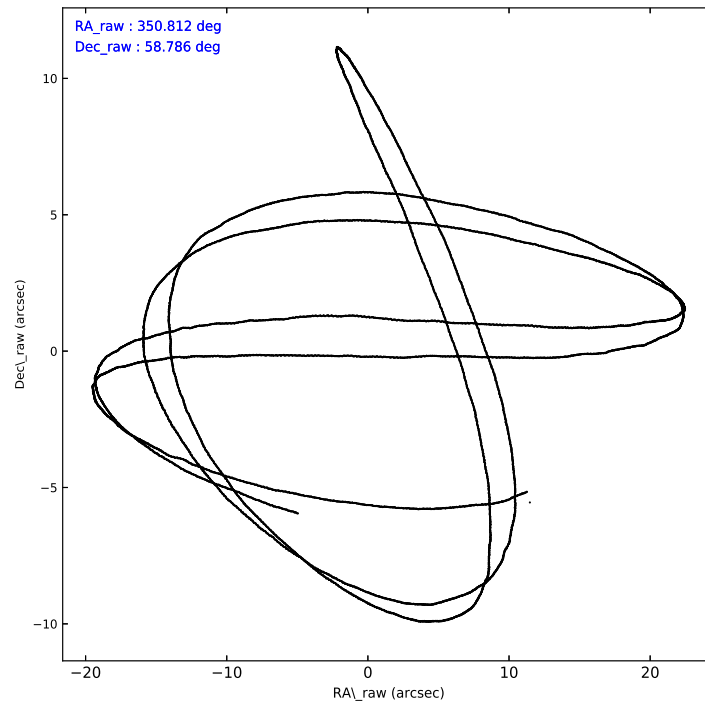
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	0	0	0	376347	0	0
rejected events	0	0	0	42826	0	0
rejected %	0%	0%	0%	11%	0%	0%

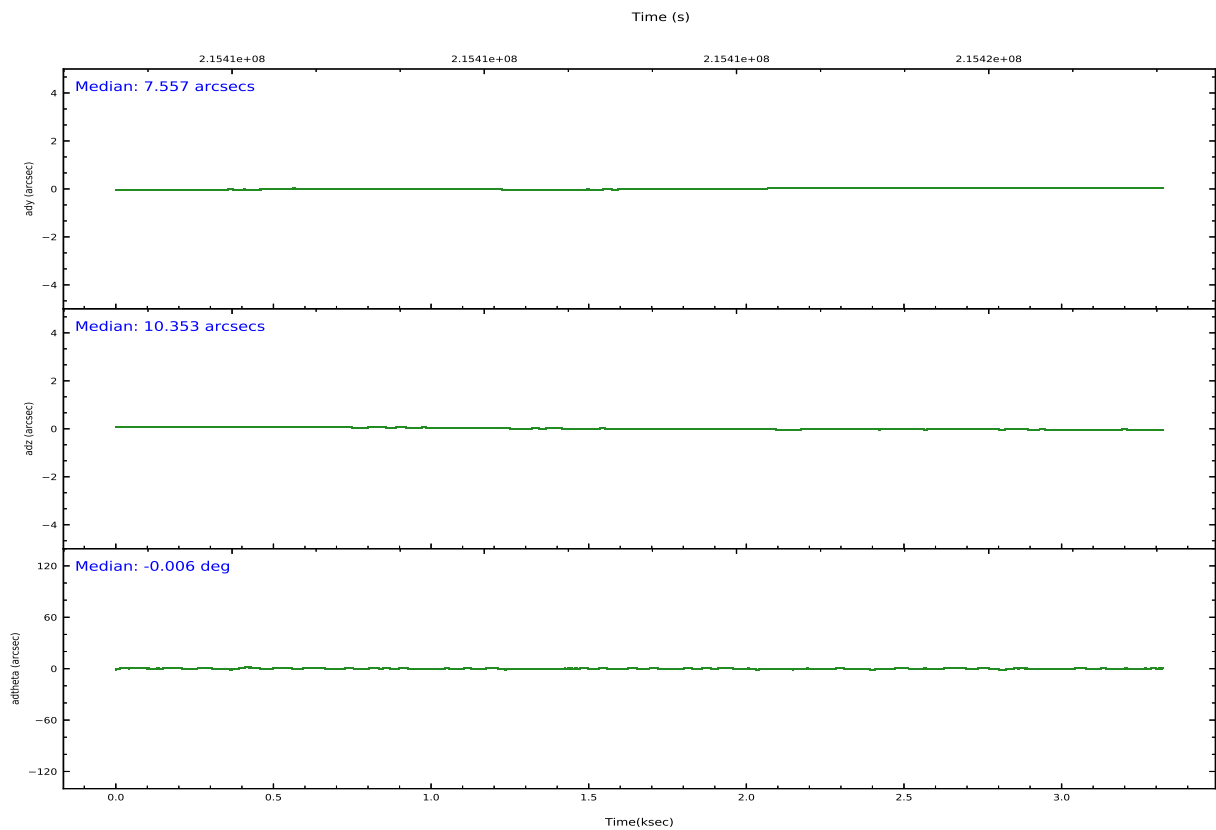
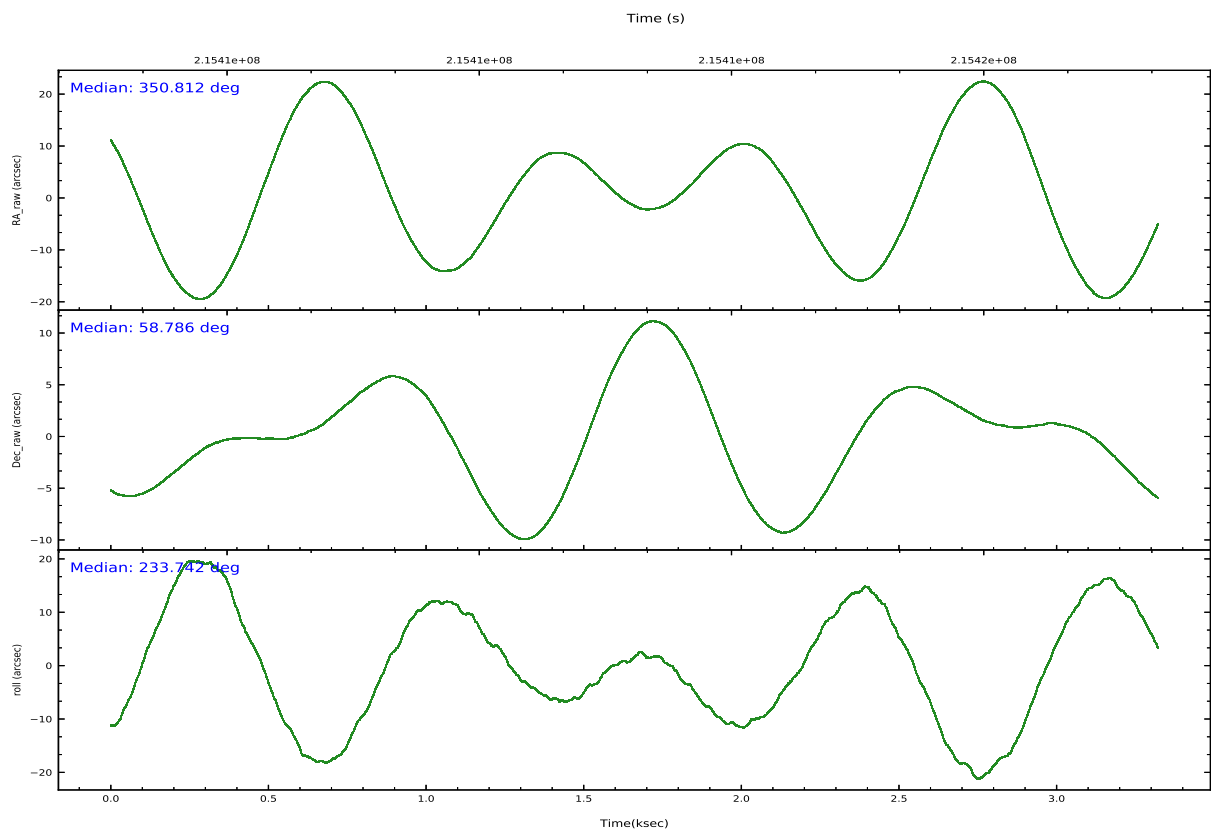
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	0	0	0	83880	0	0
	0%	0%	0%	22%	0%	0%
grade 1 events	0	0	0	1735	0	0
	0%	0%	0%	0%	0%	0%
grade 2 events	0	0	0	90097	0	0
	0%	0%	0%	23%	0%	0%
grade 3 events	0	0	0	38891	0	0
	0%	0%	0%	10%	0%	0%
grade 4 events	0	0	0	38452	0	0
	0%	0%	0%	10%	0%	0%
grade 5 events	0	0	0	7350	0	0
	0%	0%	0%	1%	0%	0%
grade 6 events	0	0	0	83172	0	0
	0%	0%	0%	22%	0%	0%
grade 7 events	0	0	0	32770	0	0
	0%	0%	0%	8%	0%	0%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-235678	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	350.817096	350.80963028014	CCD I2 on	Y	N
[deg] Pointing Dec	58.812877	58.789261434481	CCD I3 on	Y	N
[deg] Pointing Roll	233.574479	233.74198527968	CCD S0 on	N	Y
[s] Window start time (MET)	212976064.184000	212976064.184000	CCD S1 on	Y	Y
[s] Window stop time (MET)	215568064.184000	215568064.184000	CCD S2 on	Y	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S3 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S4 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S5 on	N	Y
[mm] SIM translation stage offset	0	0.01005778216563158	Number of optional ACIS chips dropped	0	0
[s] Observation start time (MET)	215413754.184000	215412224.28926	On-chip summing requested	N	N
Observation start date	2004-10-29T05:08:10	2004-10-29T04:43:44	Subarray requested	NONE	NONE
[s] Observation end time (MET)	215415754.184000	215415949.13943	Alternating exposures requested	N	N
Observation end date	2004-10-29T05:41:30	2004-10-29T05:45:49	[s] Primary exposure time	0.000000	3.2
Read mode	TIMED	TIMED			

2.3 Aspect



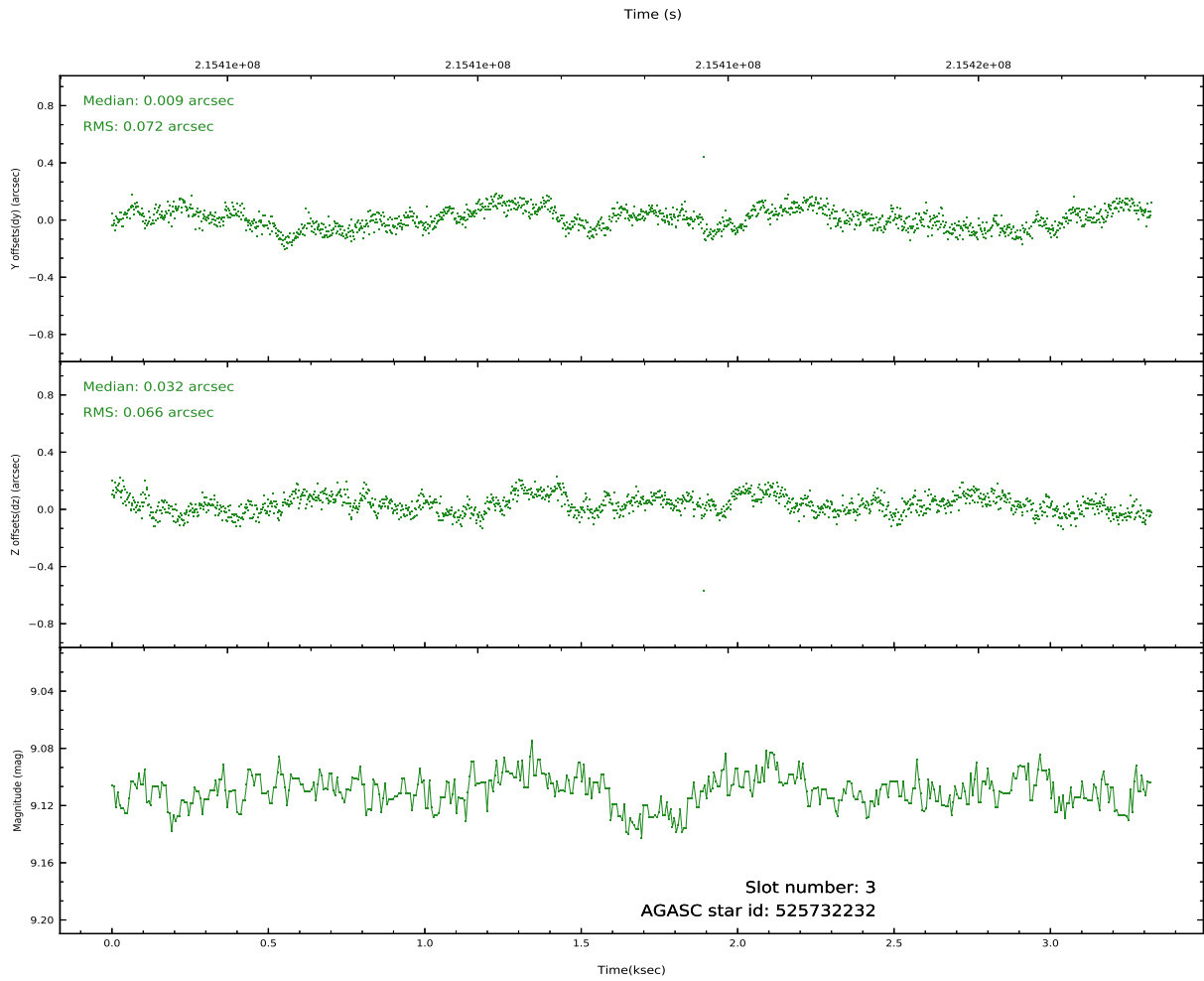
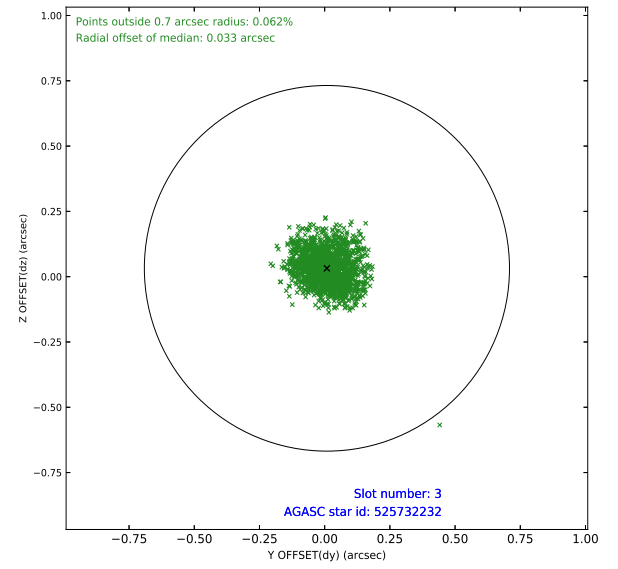
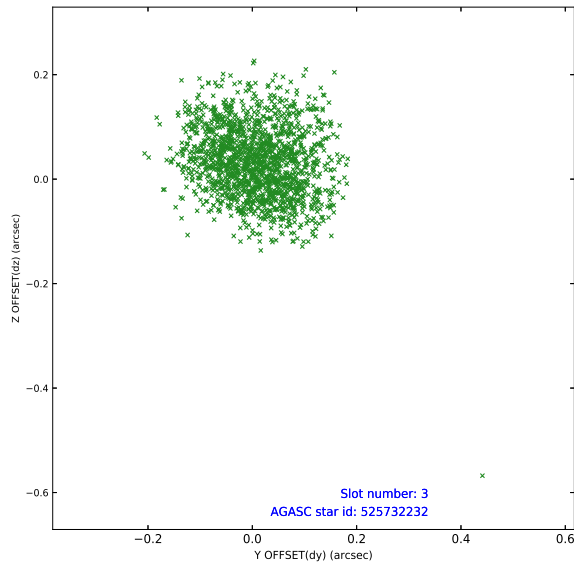


Slot Statistics

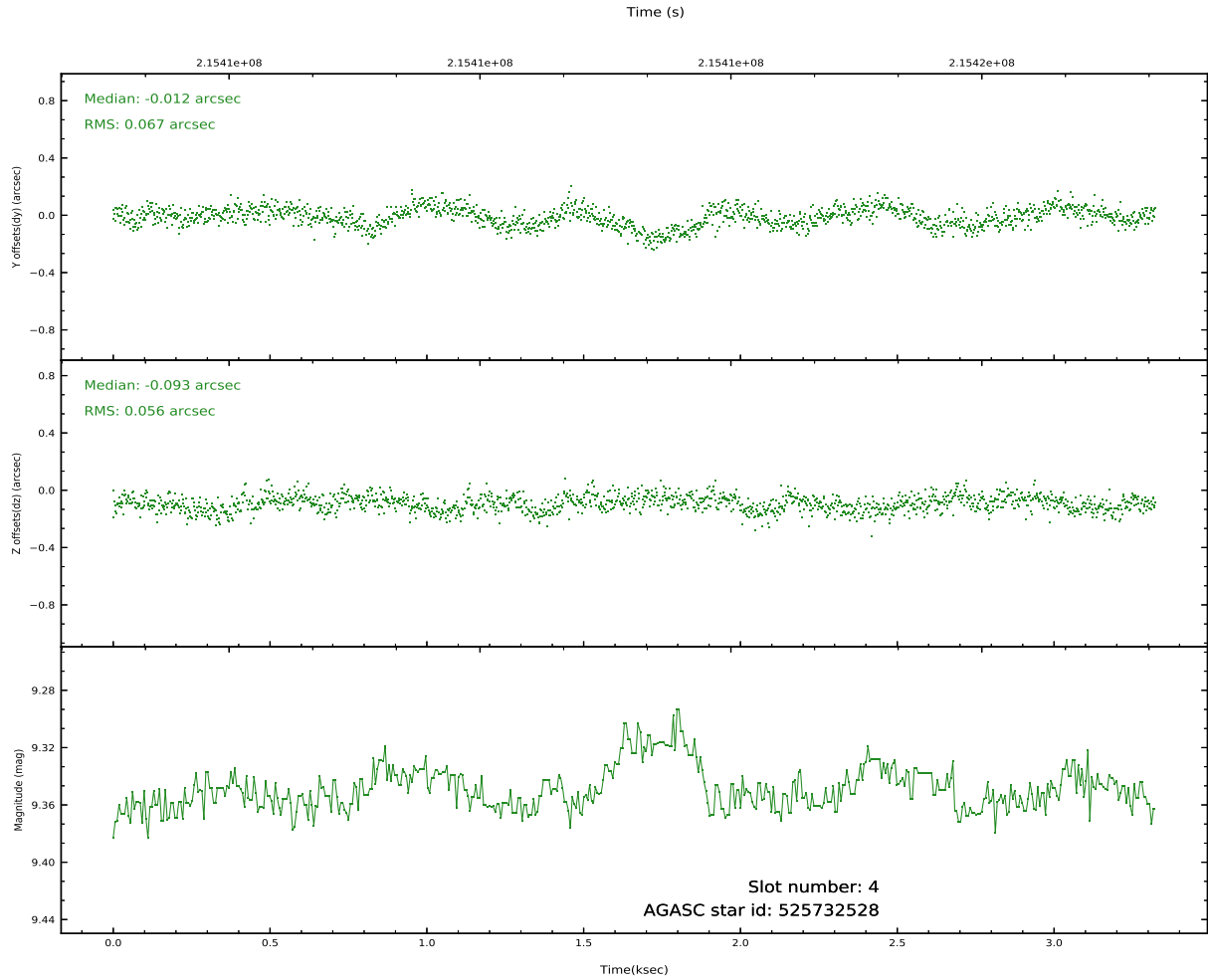
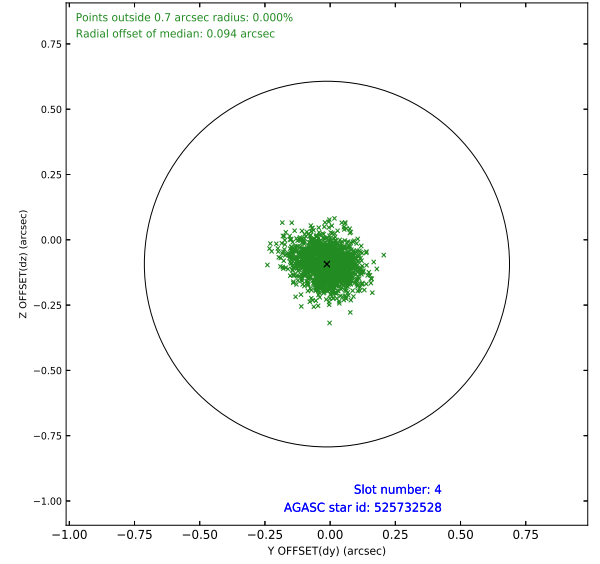
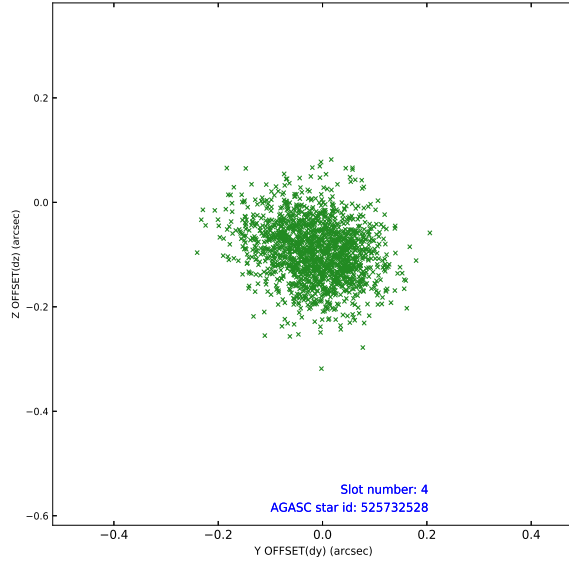
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.19	811	1.000	0.050	-0.081	0.006	0.011	0.000000	0.000000	935.79	-1727
1	FID		ACIS-S-5	7.24	811	1.000	-0.110	0.019	0.006	0.011	0.000000	0.000000	-1812.33	168
2	FID		ACIS-S-6	7.34	811	1.000	0.039	0.072	0.007	0.012	0.000000	0.000000	399.23	814
3	GUIDE	used	525732232	9.11	1618	1.000	0.009	0.032	0.105	0.162	351.669550	58.757012	-791.65	1395
4	GUIDE	used	525732528	9.35	1621	1.000	-0.012	-0.093	0.090	0.152	351.607241	59.298932	-2277.86	125
5	GUIDE	used	525735976	8.85	1619	1.000	0.020	-0.122	0.065	0.104	350.142956	58.277622	2301.35	114
6	GUIDE	used	525736400	9.08	1622	1.000	-0.048	0.065	0.068	0.114	350.974563	59.175145	-1221.05	-540
7	GUIDE	used	525732488	8.43	1621	1.000	0.024	0.114	0.108	0.157	350.087090	58.516915	1665.14	-475

2.4 Star Slots

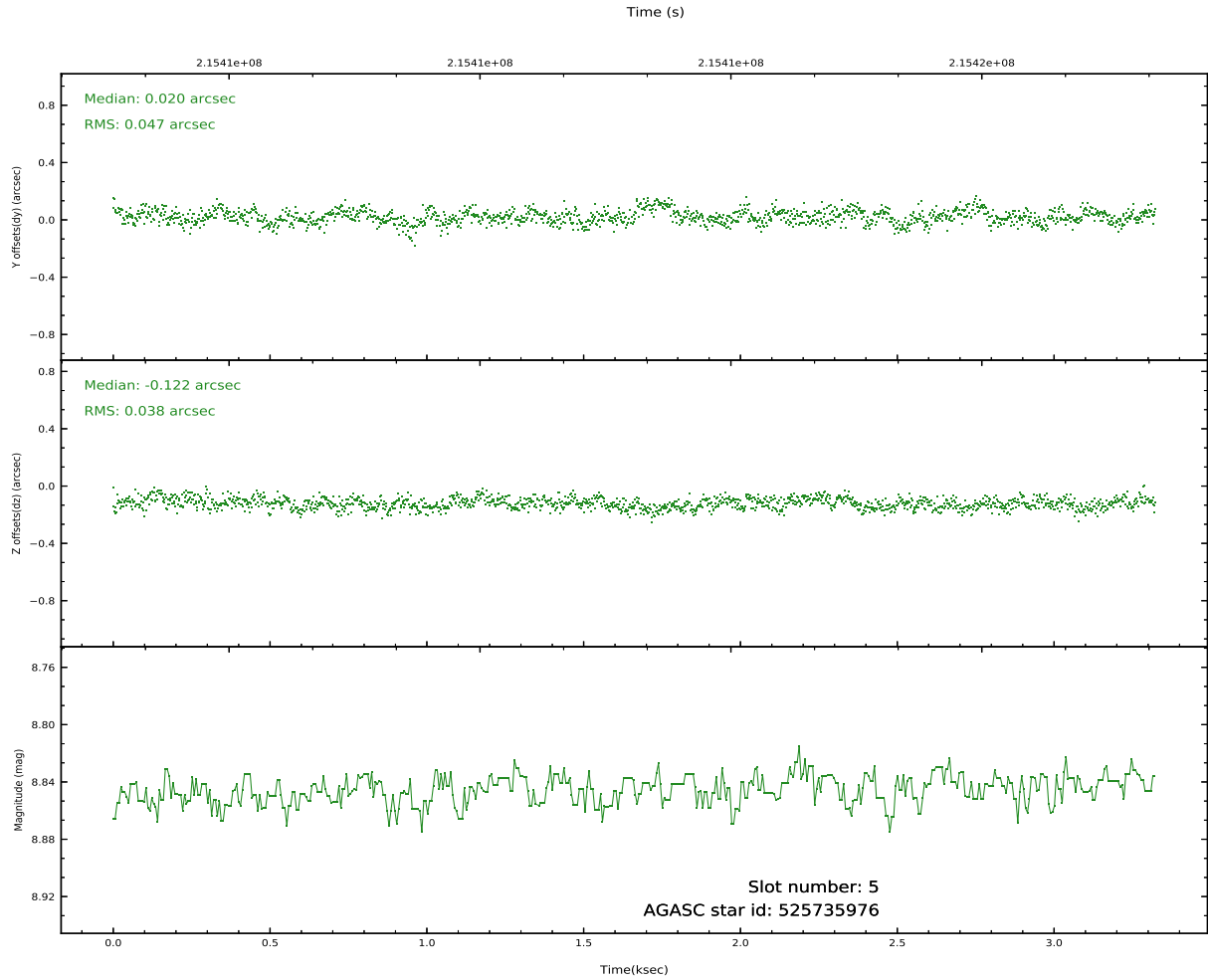
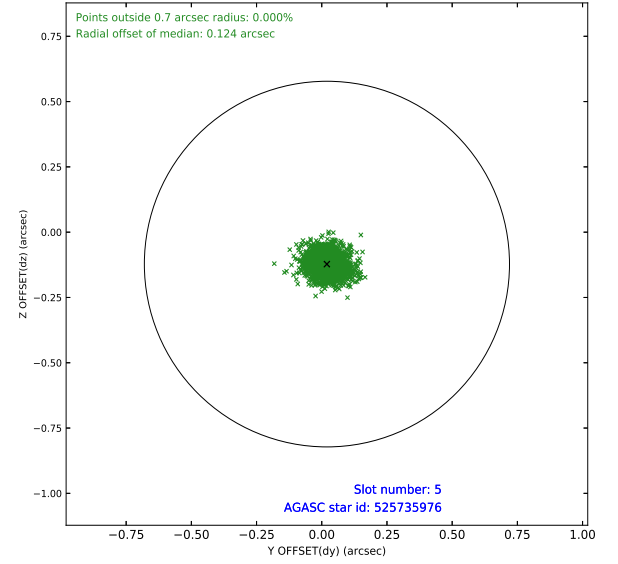
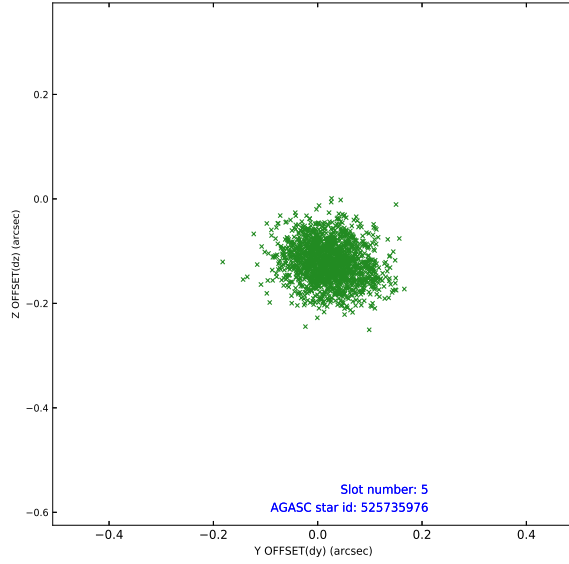
2.4.1 Slot 3



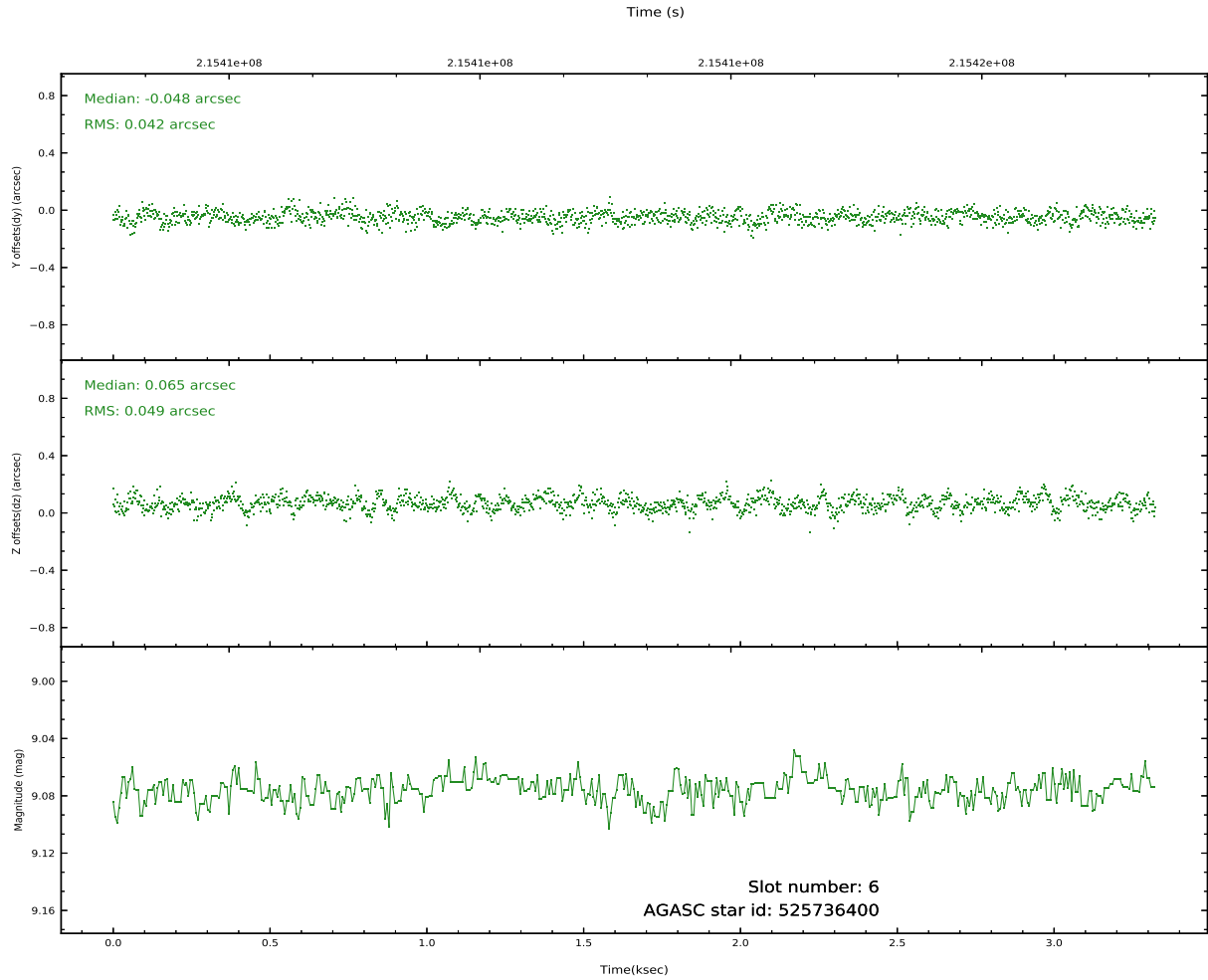
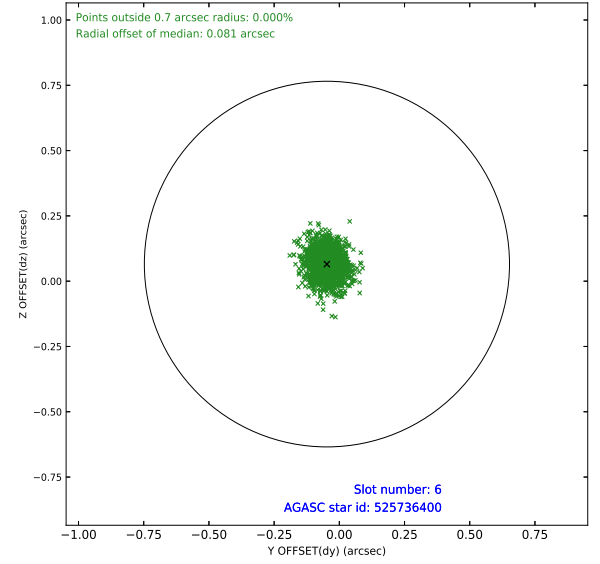
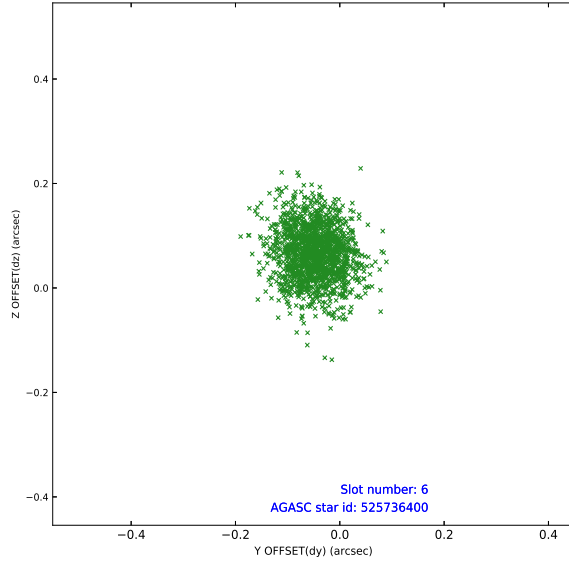
2.4.2 Slot 4



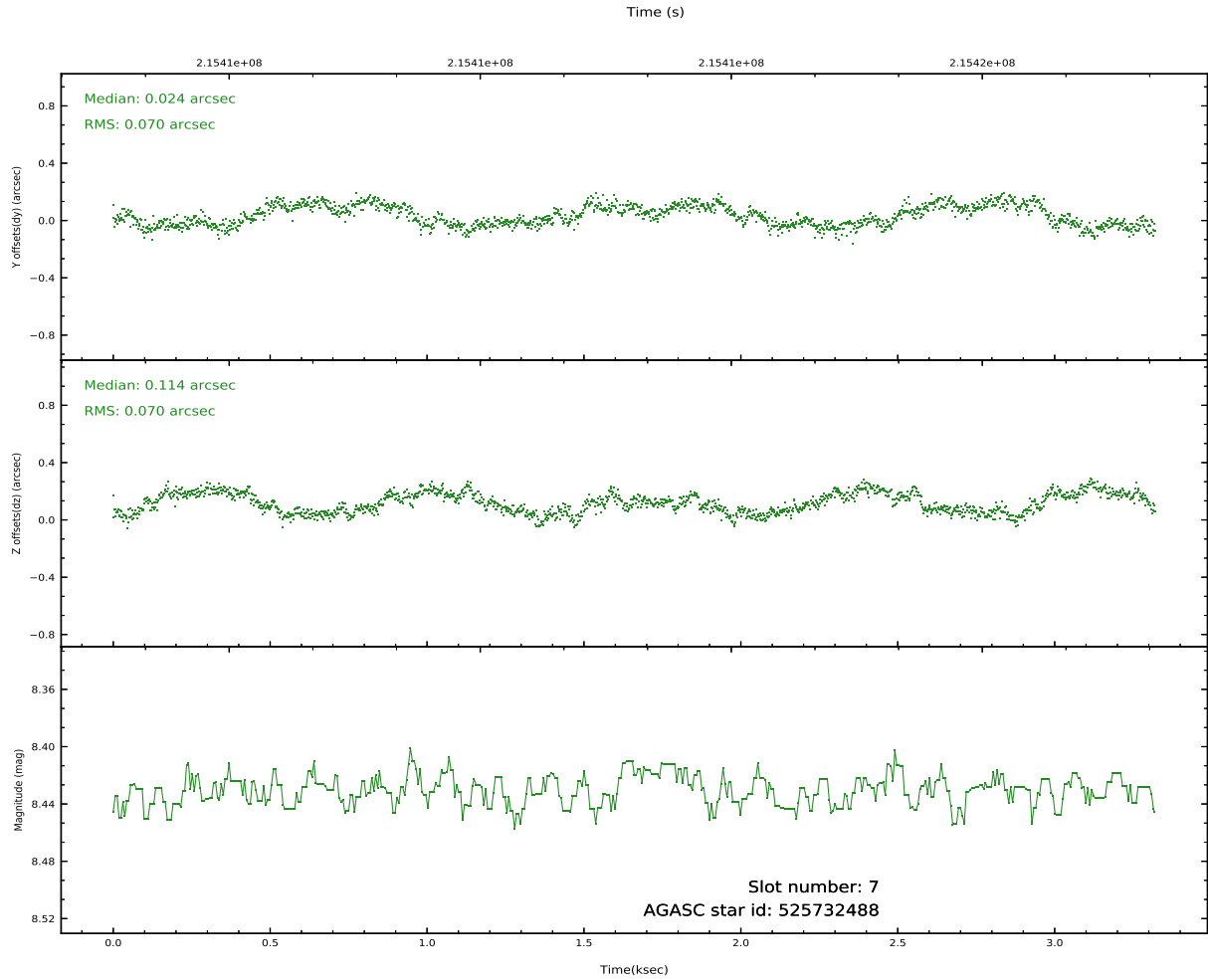
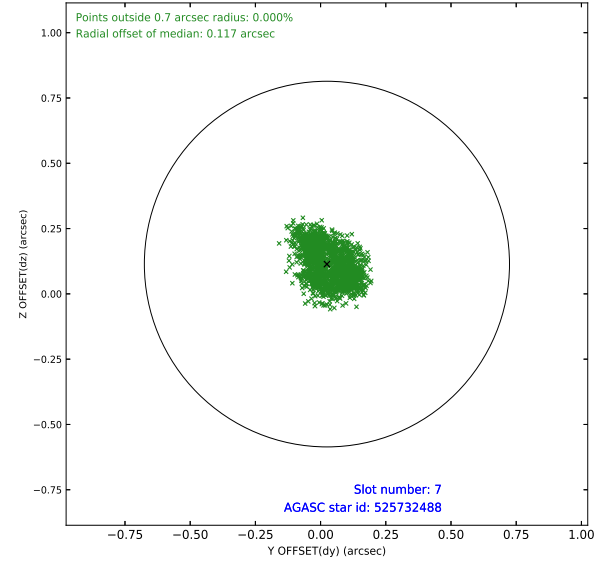
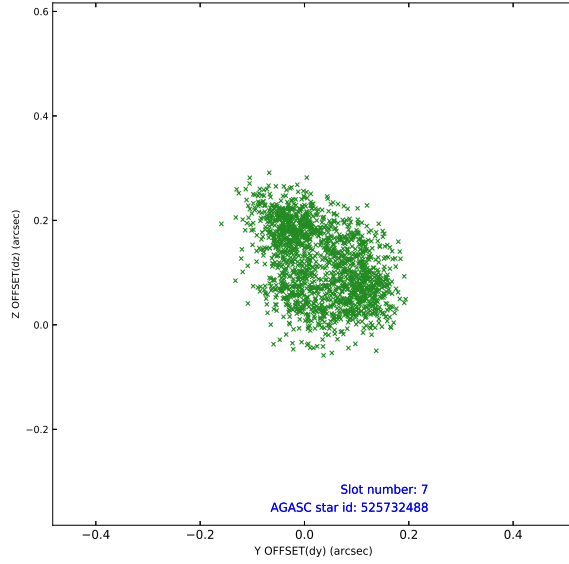
2.4.3 Slot 5



2.4.4 Slot 6

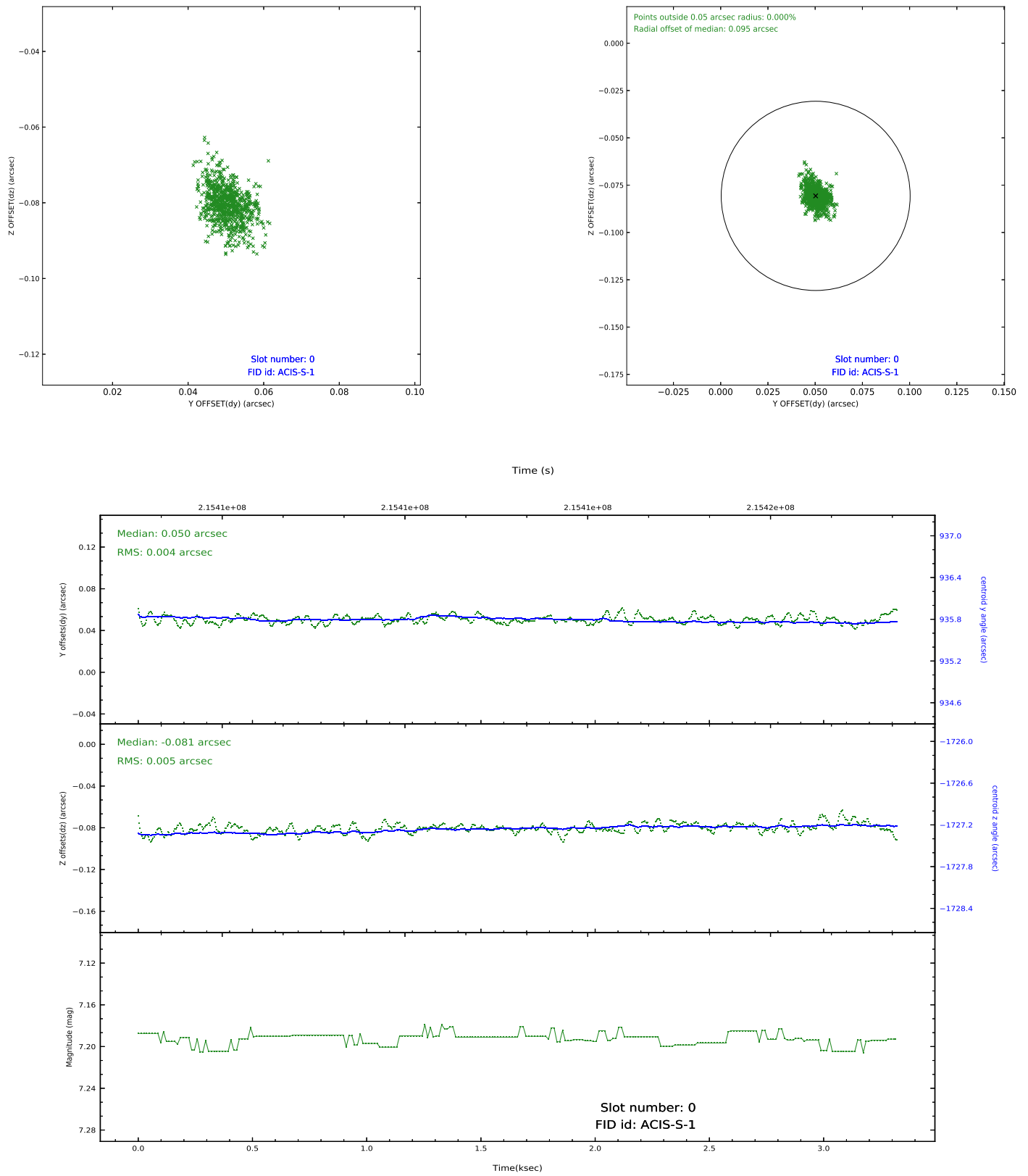


2.4.5 Slot 7

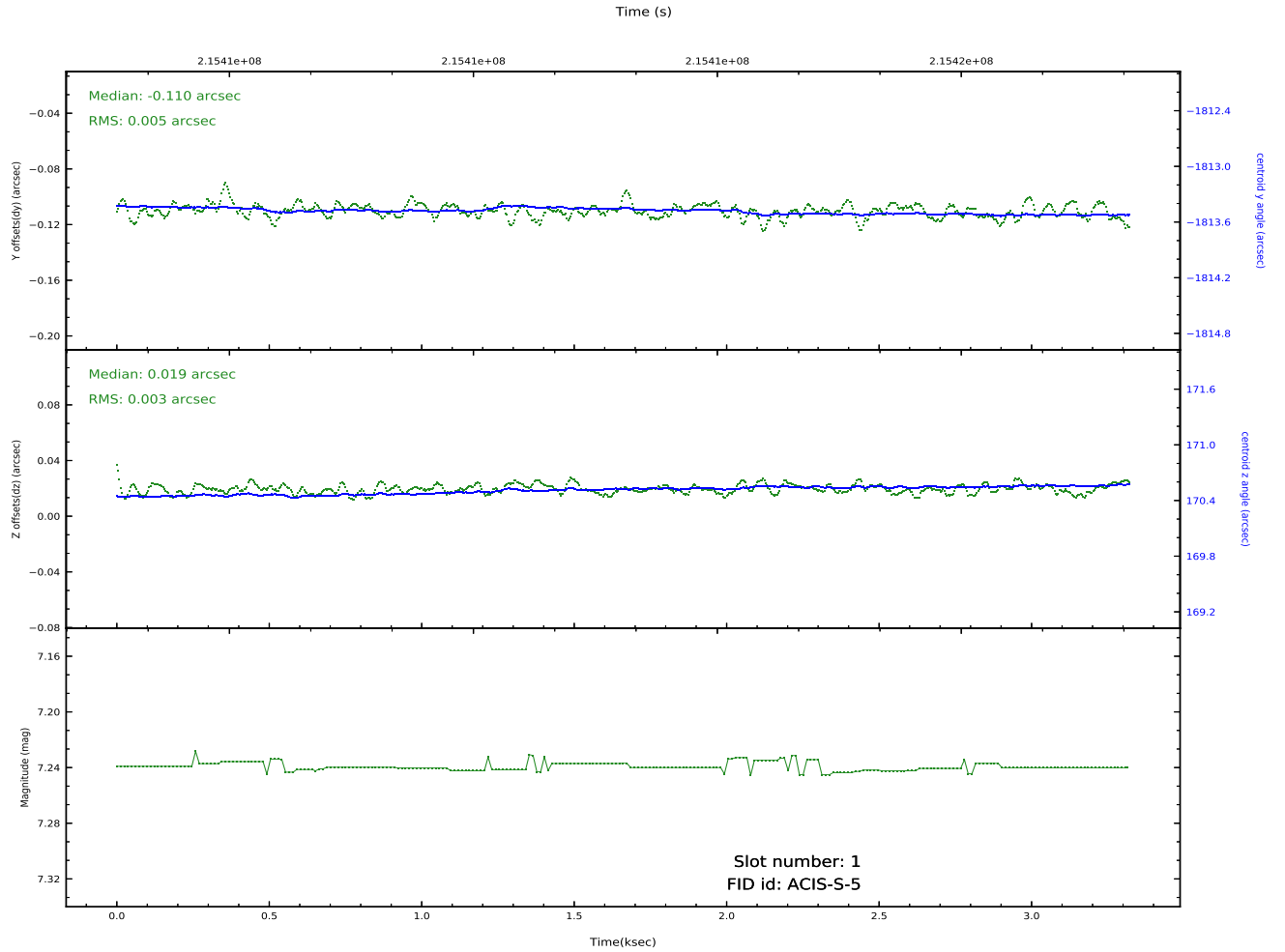
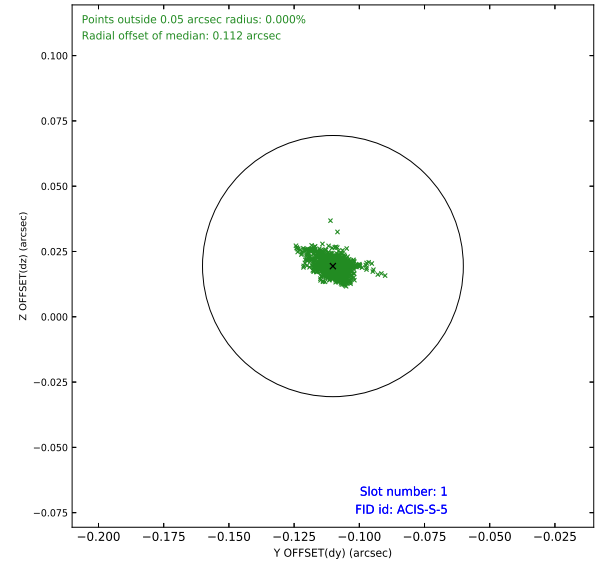
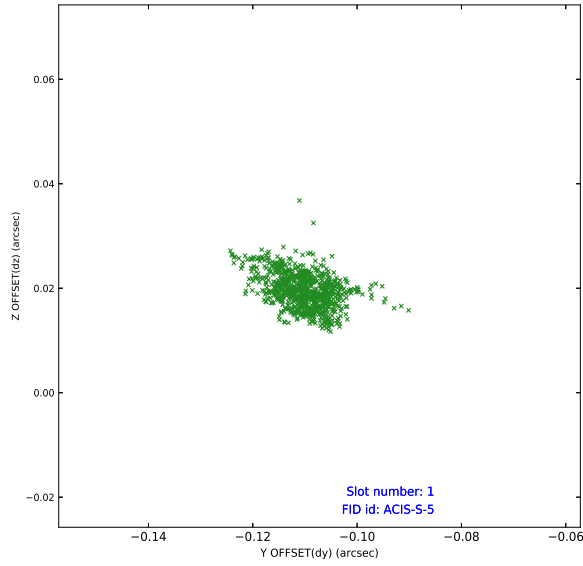


2.5 FID Slots

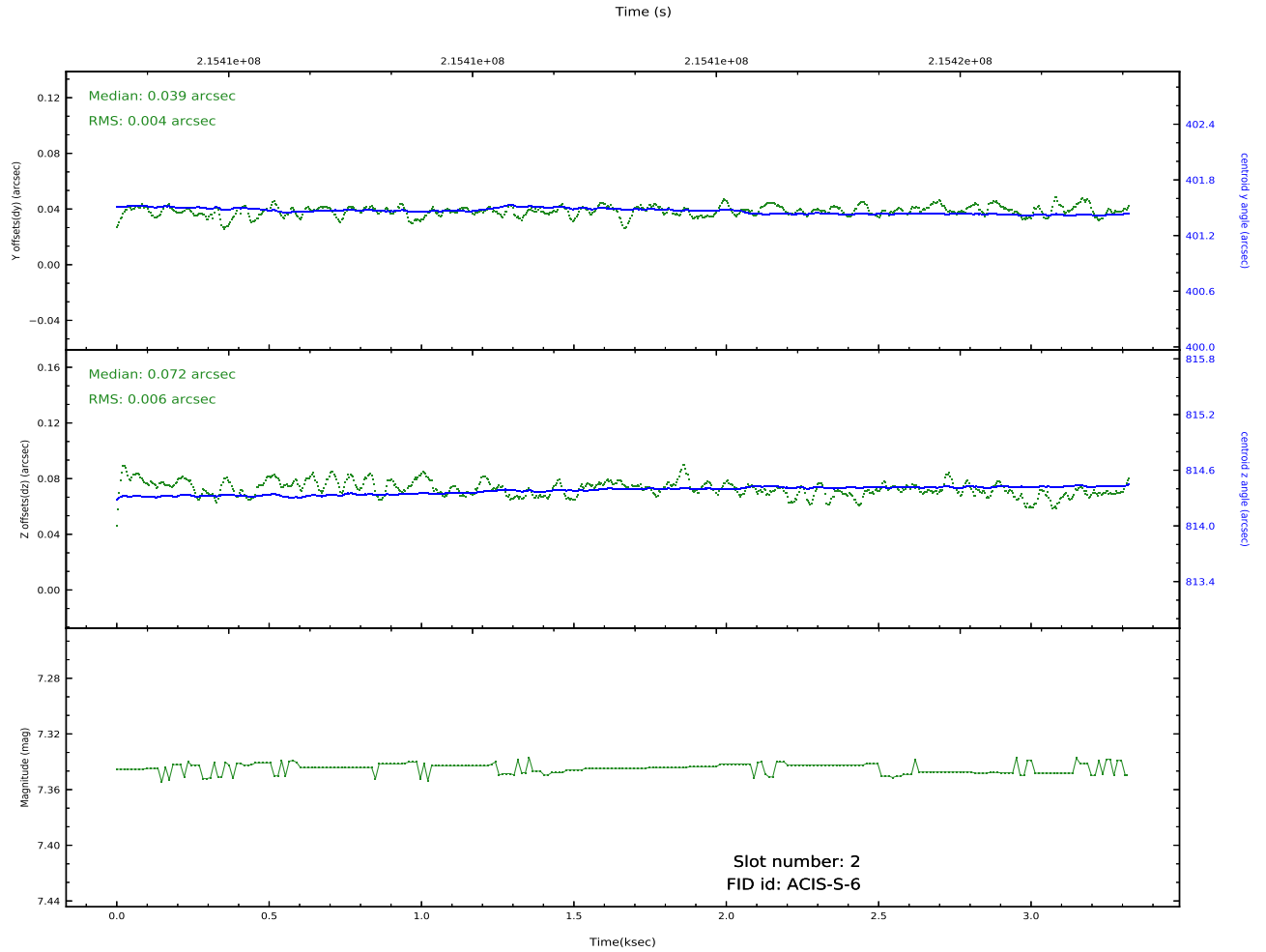
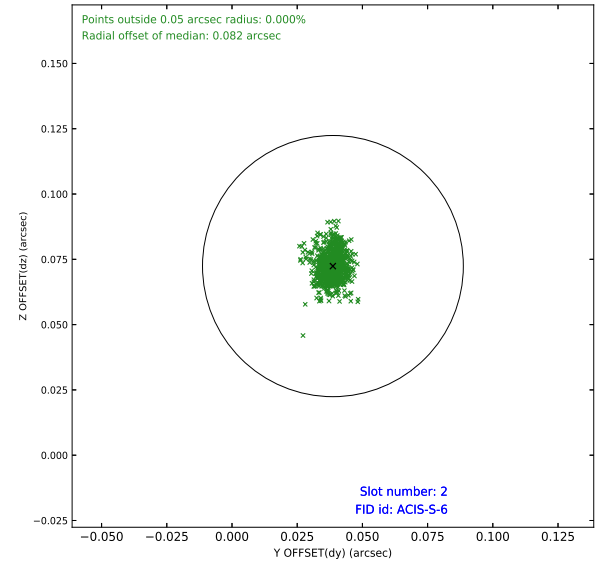
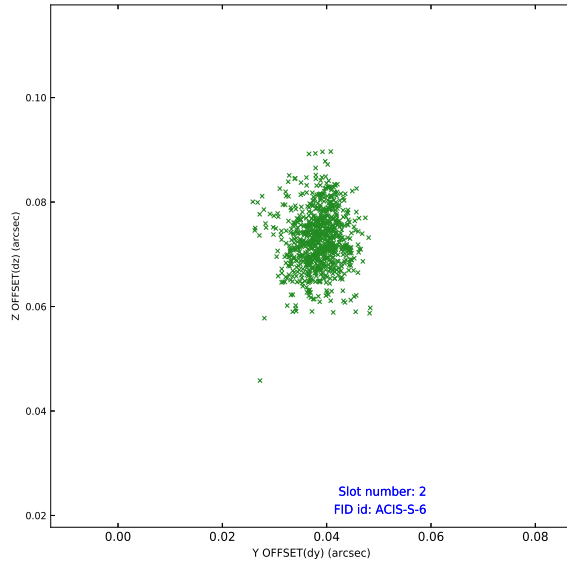
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.093

A.2 Comments

Window constraint met.

There is a difference in planned vs. actual chips used in ACIS; however, since all chips but S3, which is in both the planned and actual configurations, were excluded from the observation by a spatial exclusion window, this has no impact.