

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 20492 - L2 Version 2  
Chandra X-Ray Center

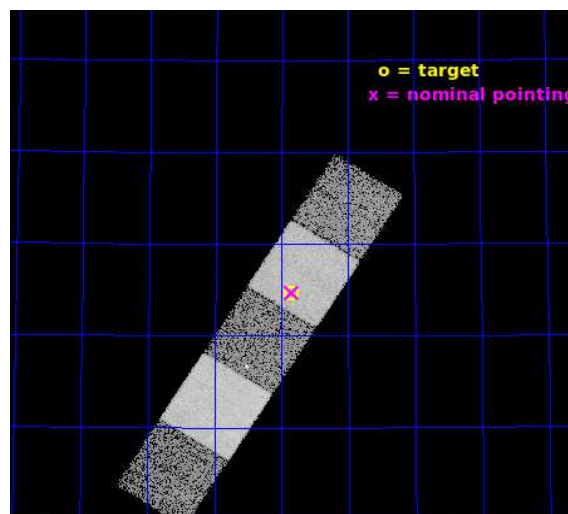
L2 Processing Date : Oct 26 2020

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# 1 Front

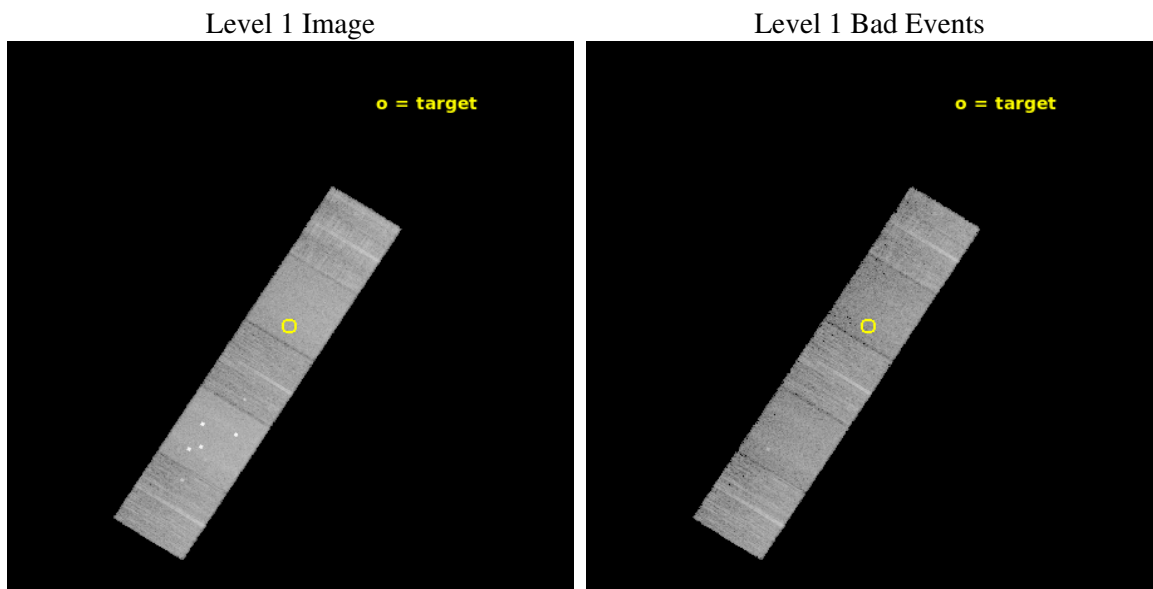
seq_num	703595	Sequence number
obs_id	20492	Observation id
title	Confirming X-ray bright gravitationally lensed quasars identified by Gaia and ROSAT	Proposal title
observer	Cameron Lemon	Principal investigator
object	J0907+6224	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	136.965417	Observer's specified target RA [deg]
dec_targ	62.411889	Observer's specified target Dec [deg]
ra_nom	136.96185765543	Nominal RA [deg]
dec_nom	62.411982186232	Nominal Dec [deg]
roll_nom	302.330876096	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10046.905987501	Sum of GTIs [s]
livetime	9915.6357643499	Livetime [s]
ontime4	10043.600817323	Sum of GTIs [s]
ontime5	10046.864947557	Sum of GTIs [s]
ontime6	10043.682896495	Sum of GTIs [s]
ontime7	10046.905987501	Sum of GTIs [s]
ontime8	10043.641857505	Sum of GTIs [s]
l2events	114335	Number of level 2 events



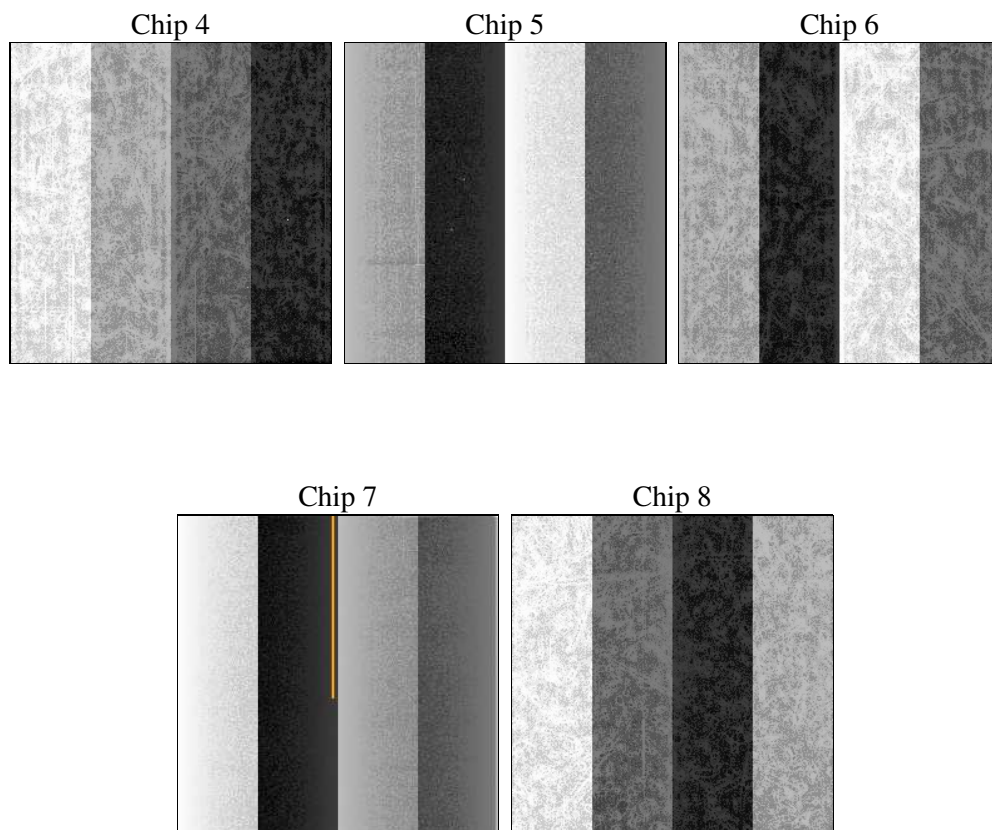
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	10046.905987501	Sum of GTIs [s]
caldsver	4.9.3	&#160	ontime4	10043.600817323	Sum of GTIs [s]
date	2020-10-26T10:18:24	Date and time of file creation	ontime5	10046.864947557	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	10043.682896495	Sum of GTIs [s]
			ontime7	10046.905987501	Sum of GTIs [s]
			ontime8	10043.641857505	Sum of GTIs [s]
			l1events	476364	Number of level 1 events

### 2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	82008	126164	76008	95011	97173
rejected events	73414	60748	67446	53930	71841
rejected %	89%	48%	88%	56%	73%

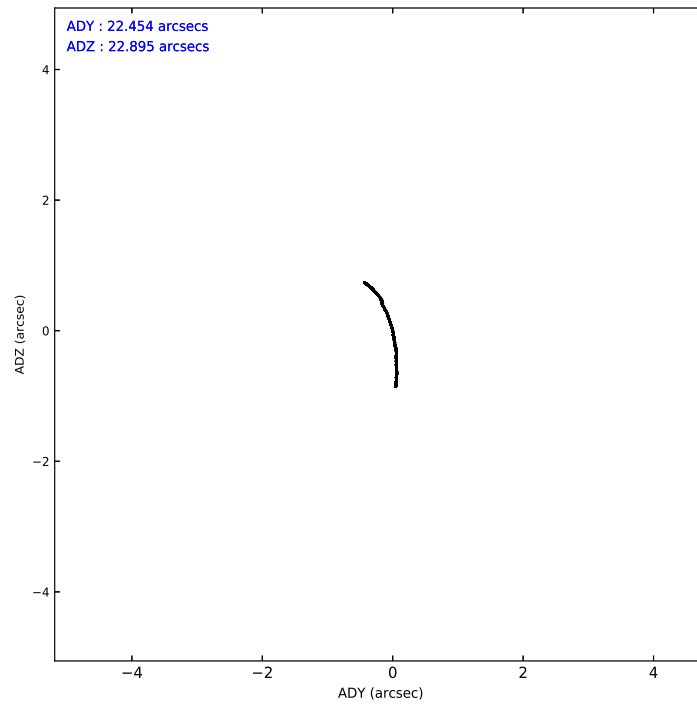
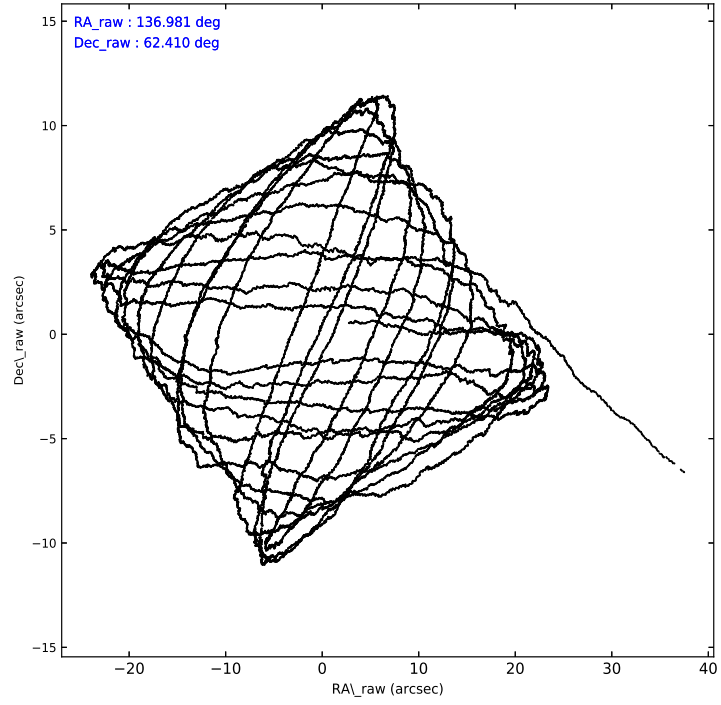
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	3358	12248	2929	3406	7183
	4%	9%	3%	3%	7%
grade 1 events	82	509	30	136	88
	0%	0%	0%	0%	0%
grade 2 events	2005	18713	1992	8641	6305
	2%	14%	2%	9%	6%
grade 3 events	875	1706	816	3244	2645
	1%	1%	1%	3%	2%
grade 4 events	879	1594	832	3125	2543
	1%	1%	1%	3%	2%
grade 5 events	3468	7822	3403	9365	5253
	4%	6%	4%	9%	5%
grade 6 events	1478	31167	1997	22676	6678
	1%	24%	2%	23%	6%
grade 7 events	69863	52405	64009	44418	66478
	85%	41%	84%	46%	68%

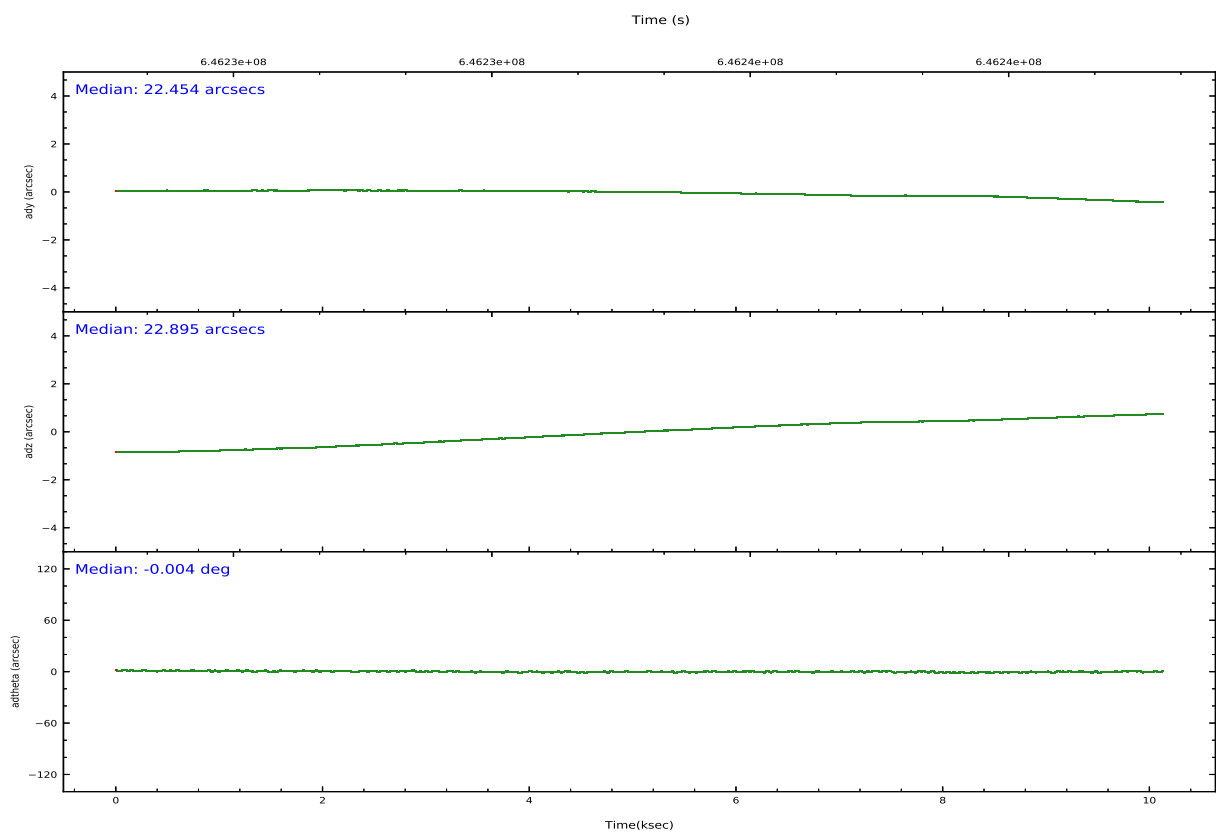
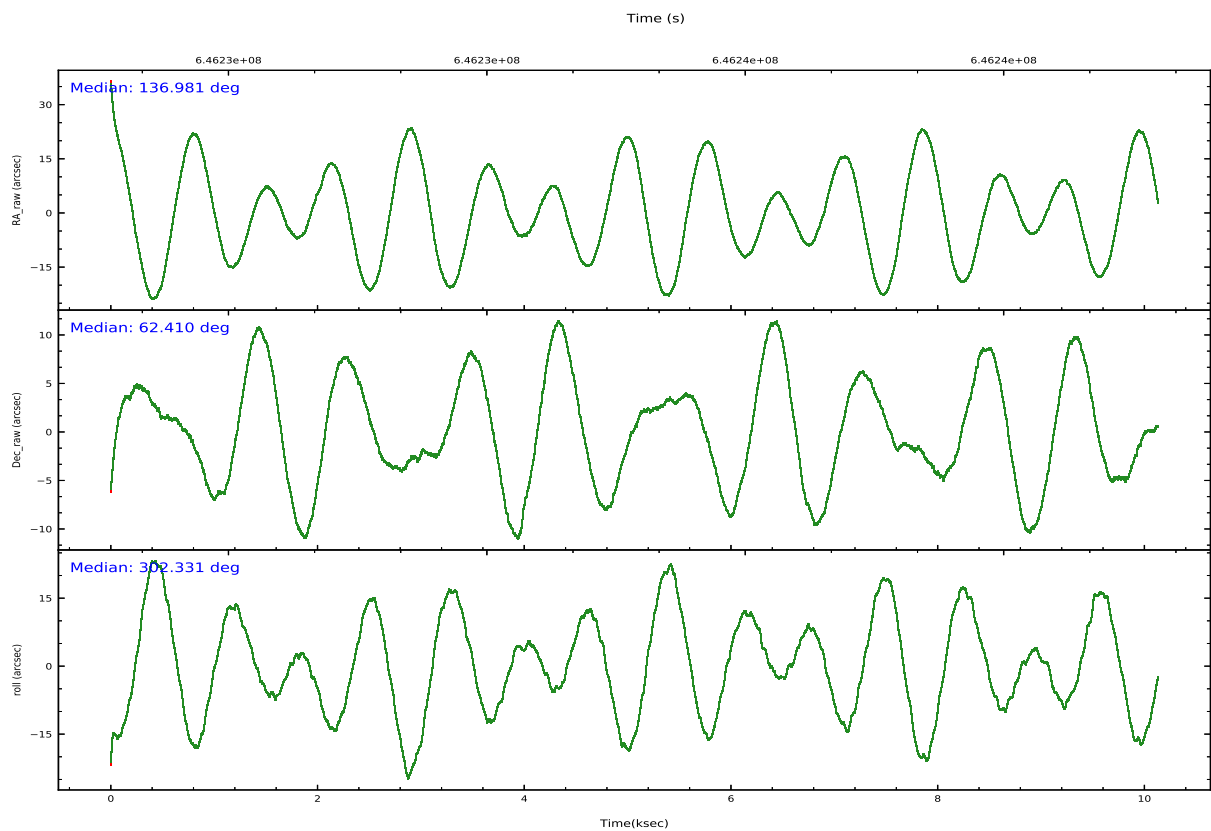


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-45678	ACIS-45678	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	136.928332	136.96185765543	CCD I2 on	N	N
[deg] Pointing Dec	62.422436	62.411982186232	CCD I3 on	N	N
[deg] Pointing Roll	302.223804	302.330876096	CCD S0 on	O2	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	646228994.184000	646227721.2165	CCD S5 on	O1	N
Observation start date	2018-06-24T12:02:05	2018-06-24T11:42:01	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	646238994.184000	646239858.24222	On-chip summing requested	N	N
Observation end date	2018-06-24T14:48:45	2018-06-24T15:04:18	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



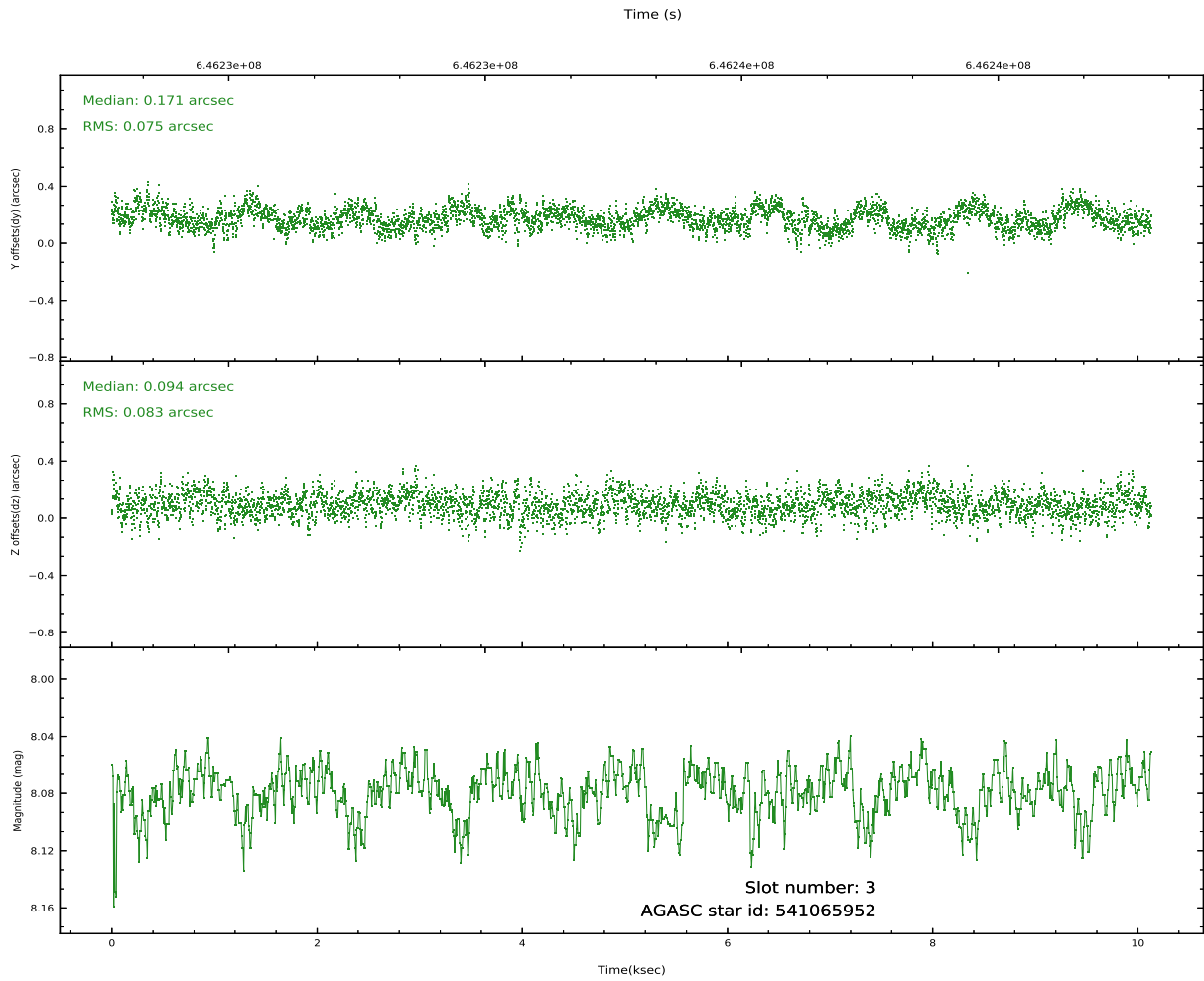
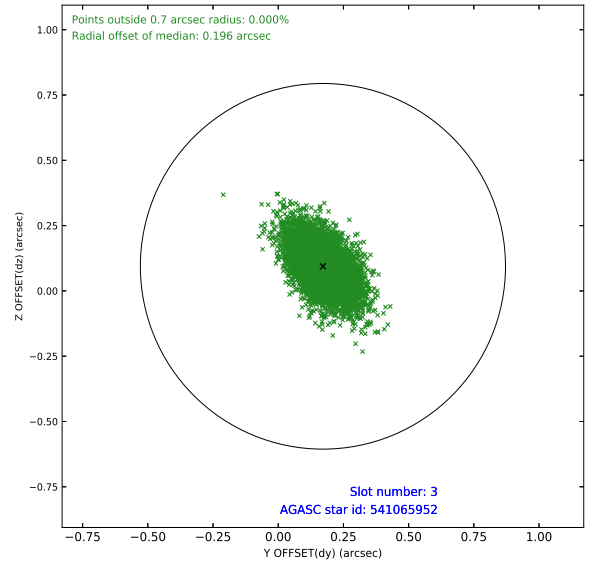
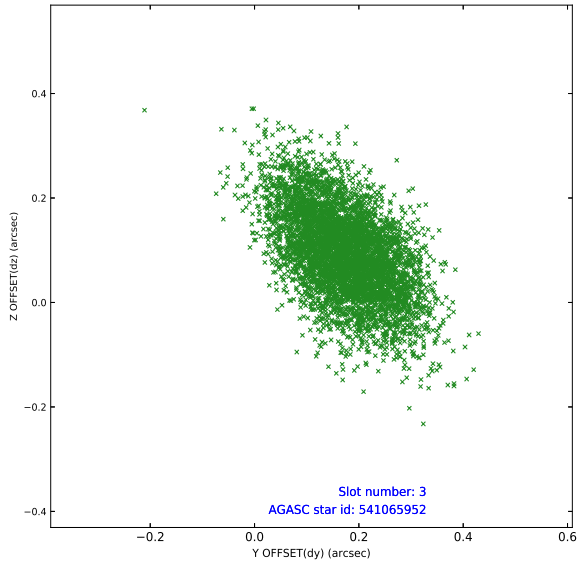


Slot Statistics

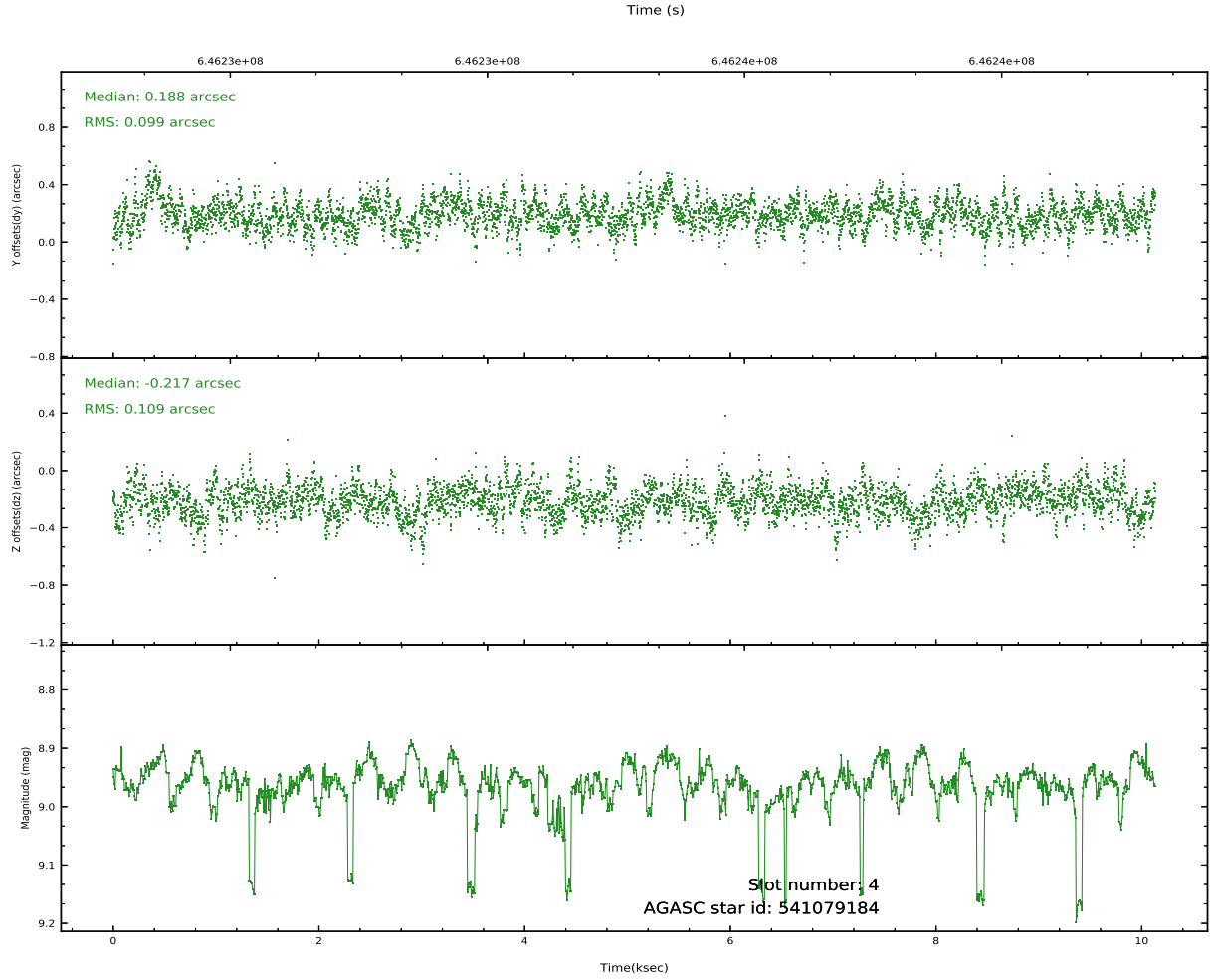
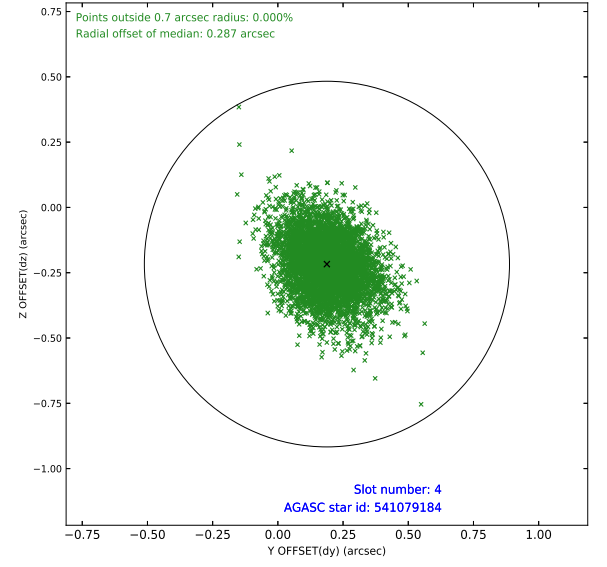
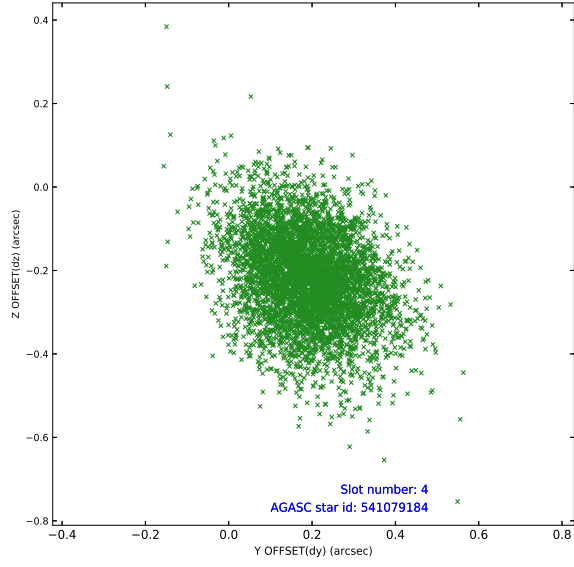
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.15	2472	1.000	0.141	-0.087	0.024	0.048	0.000000	0.000000	920.55	-1740
1	FID		ACIS-S-2	7.06	2472	1.000	-0.091	0.093	0.007	0.012	0.000000	0.000000	-775.30	-1745
2	FID		ACIS-S-6	7.33	2472	1.000	-0.069	0.002	0.023	0.040	0.000000	0.000000	385.84	800
3	GUIDE	used	541065952	8.08	4944	1.000	0.171	0.094	0.116	0.198	135.434066	62.423233	-1353.93	-2089
4	GUIDE	used	541079184	8.96	4937	1.000	0.188	-0.217	0.153	0.260	137.066793	61.834897	1914.61	-929
5	GUIDE	used	541982960	8.64	4941	1.000	-0.170	-0.158	0.128	0.227	137.942284	62.385832	1002.80	1367
6	GUIDE	used	542377944	9.05	4874	1.000	0.094	0.046	0.145	0.254	137.885424	62.740396	-136.39	1951
7	GUIDE	used	542389000	7.61	4943	1.000	-0.279	0.235	0.142	0.260	137.365712	63.267101	-2197.35	2221

## 2.4 Star Slots

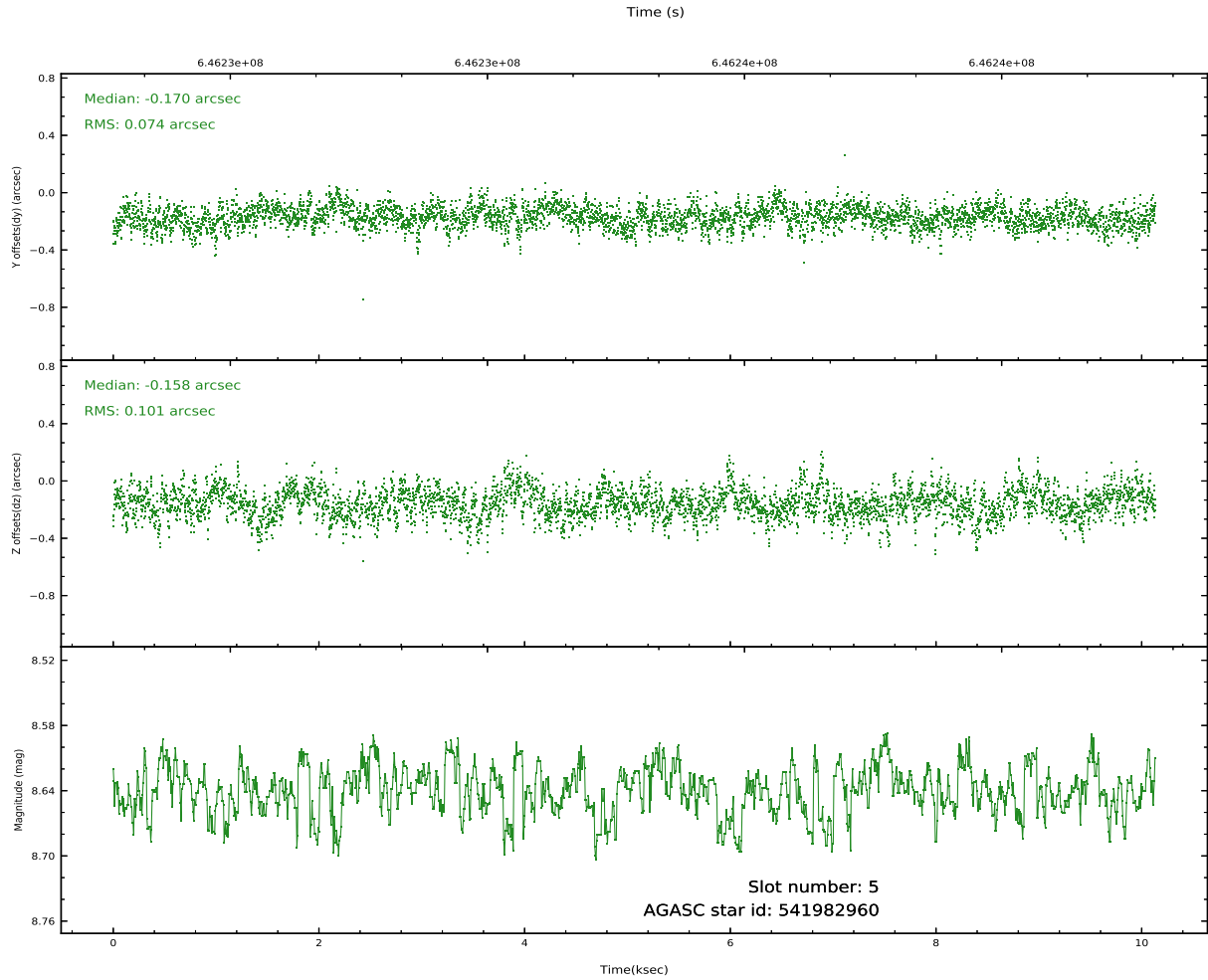
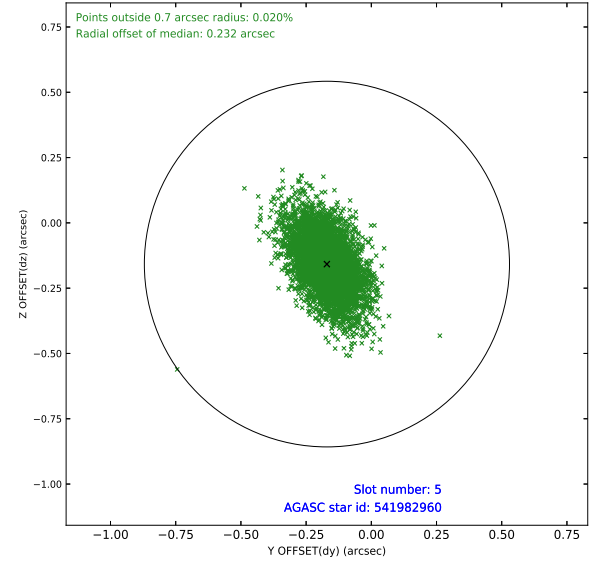
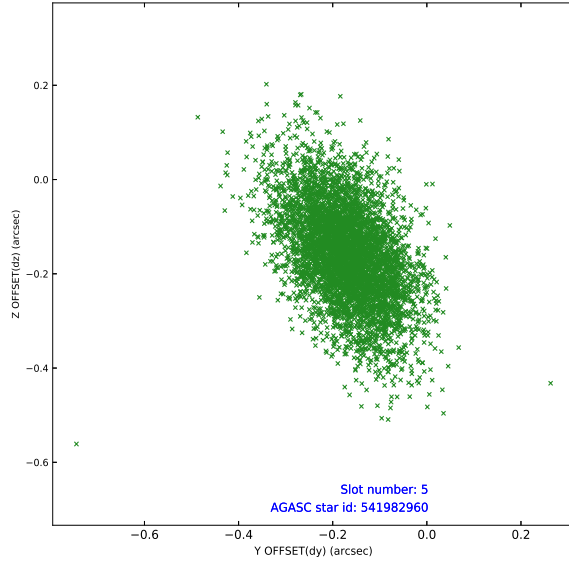
### 2.4.1 Slot 3



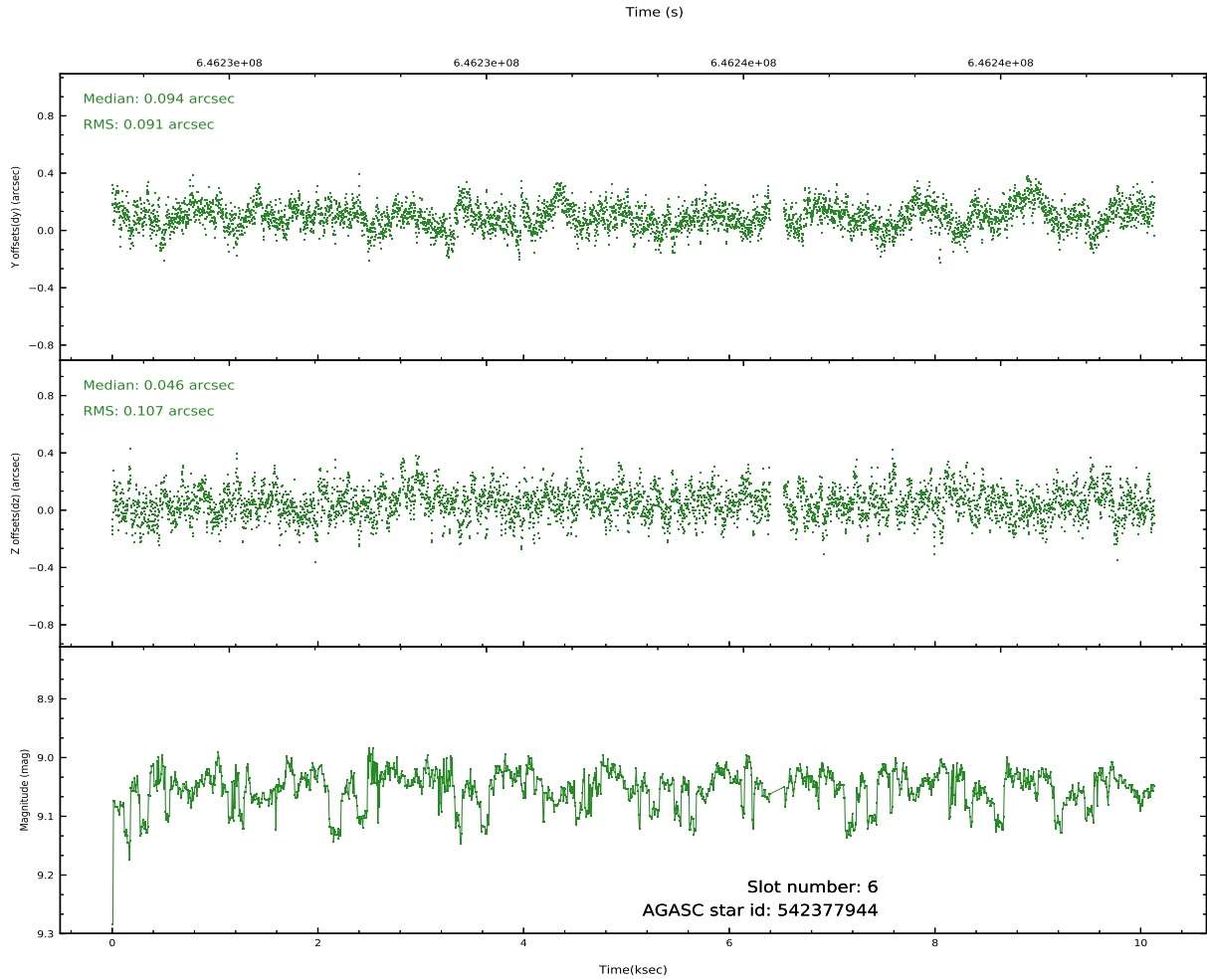
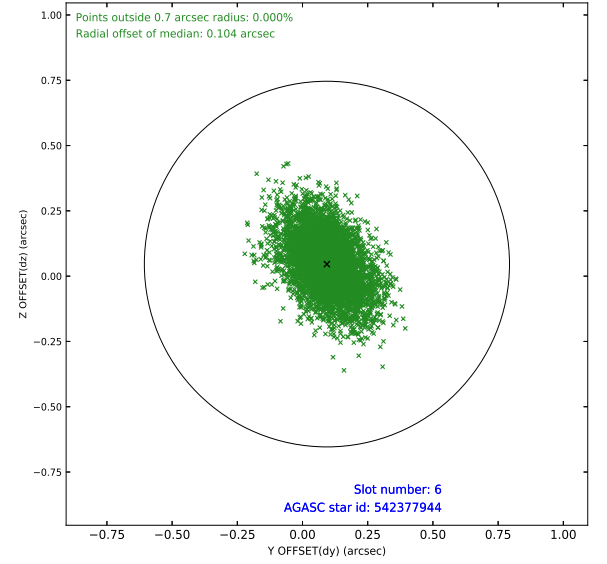
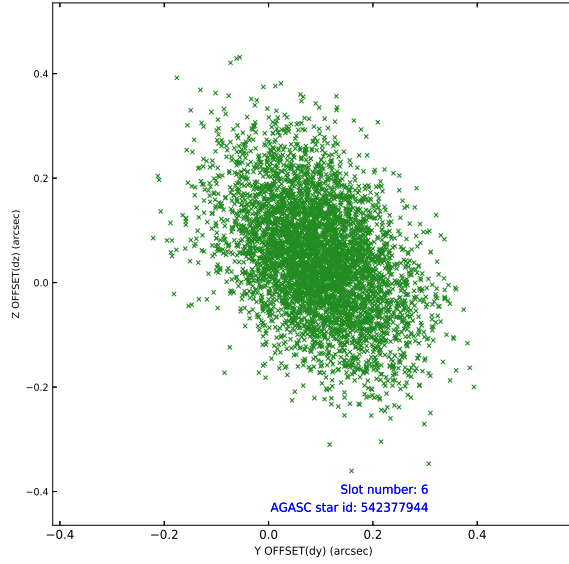
## 2.4.2 Slot 4



### 2.4.3 Slot 5

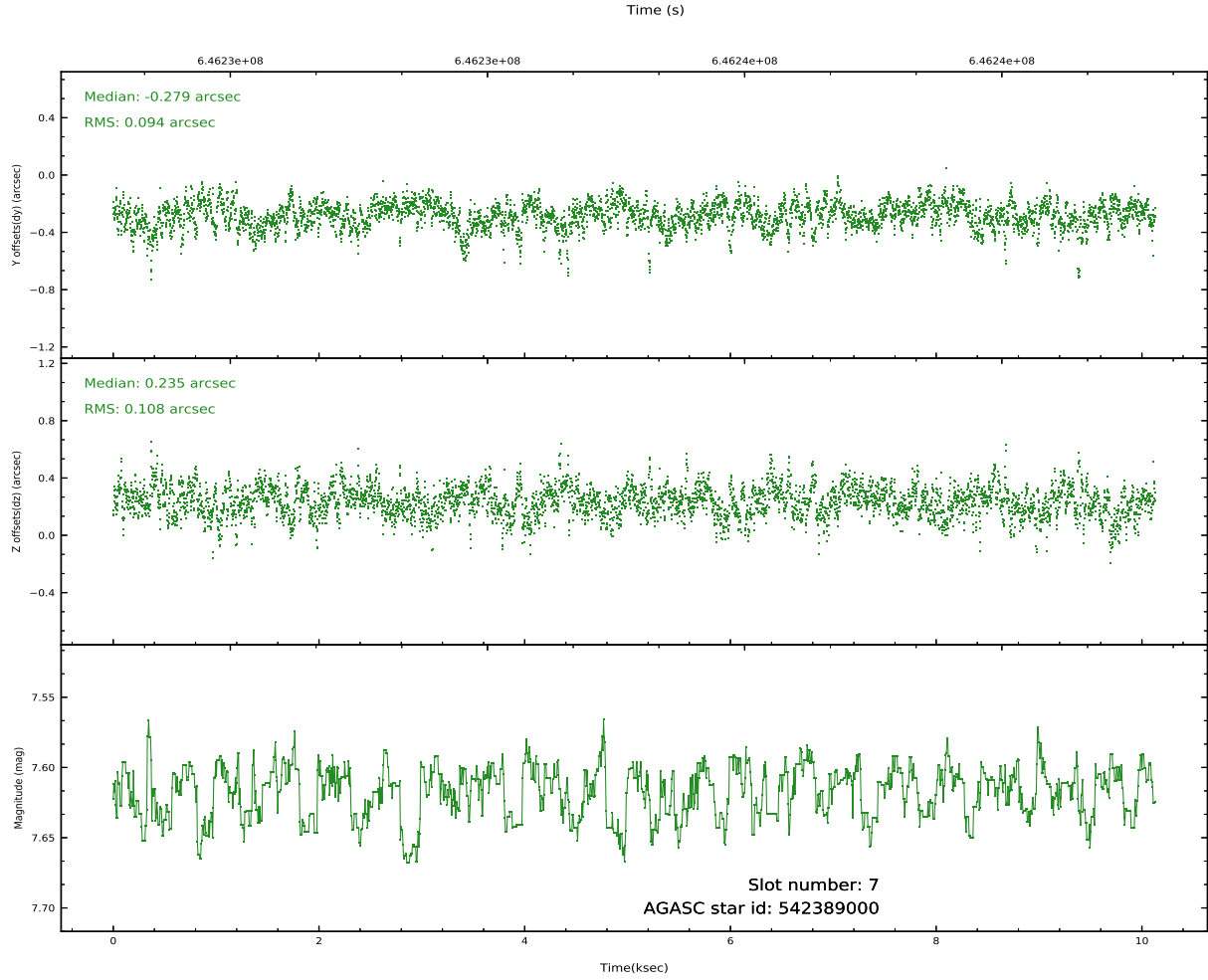
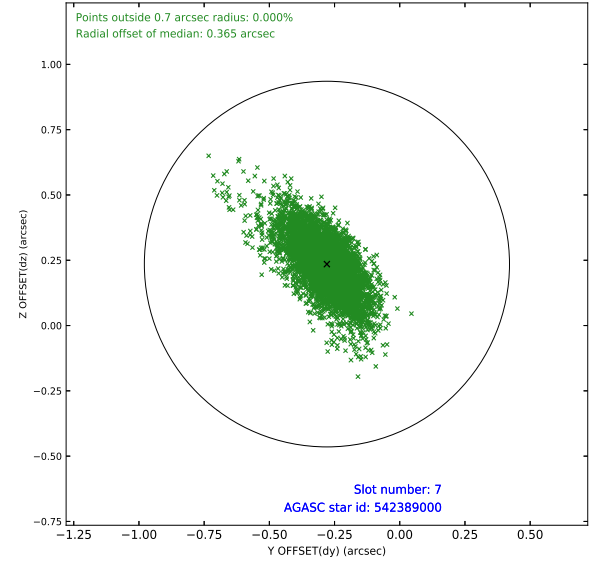
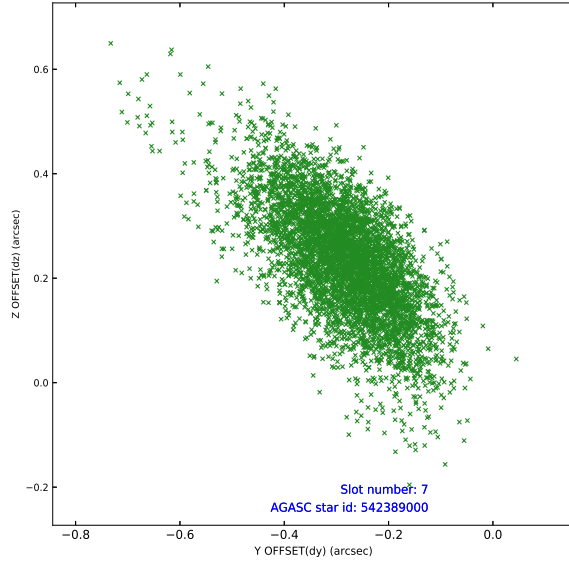


## 2.4.4 Slot 6



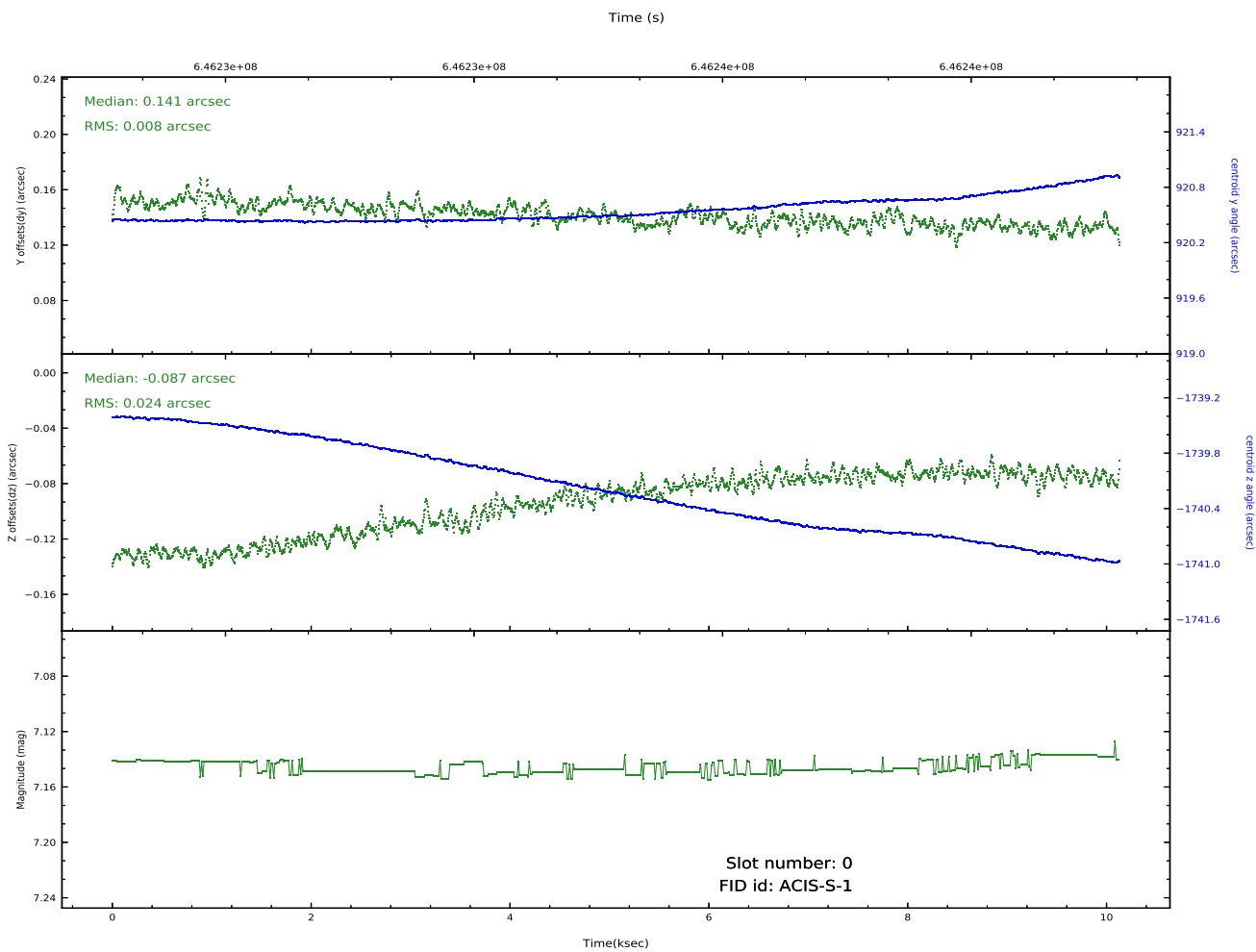
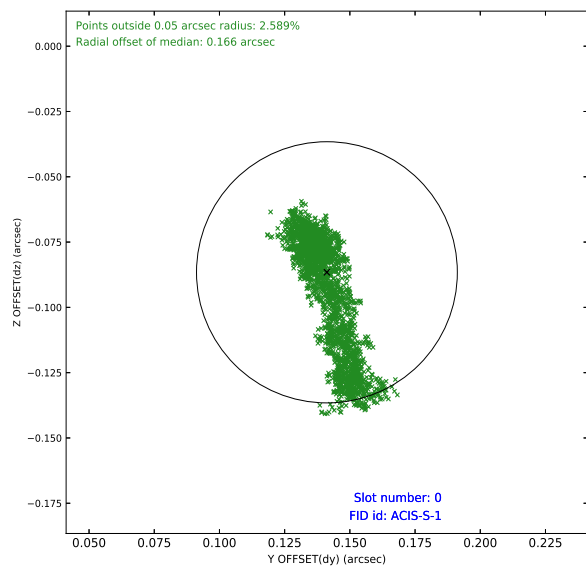
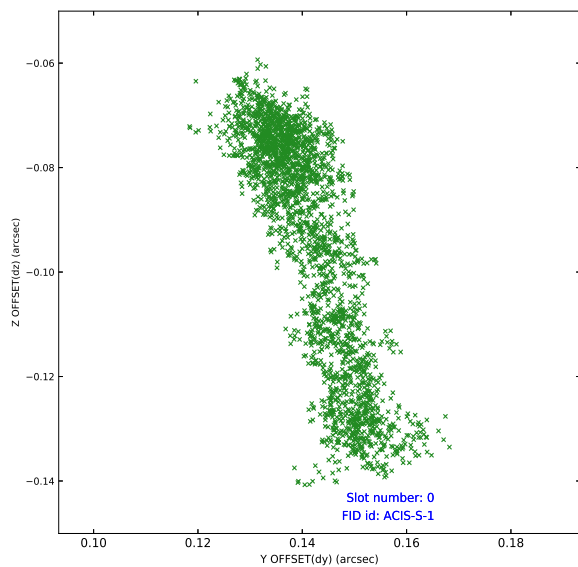


## 2.4.5 Slot 7

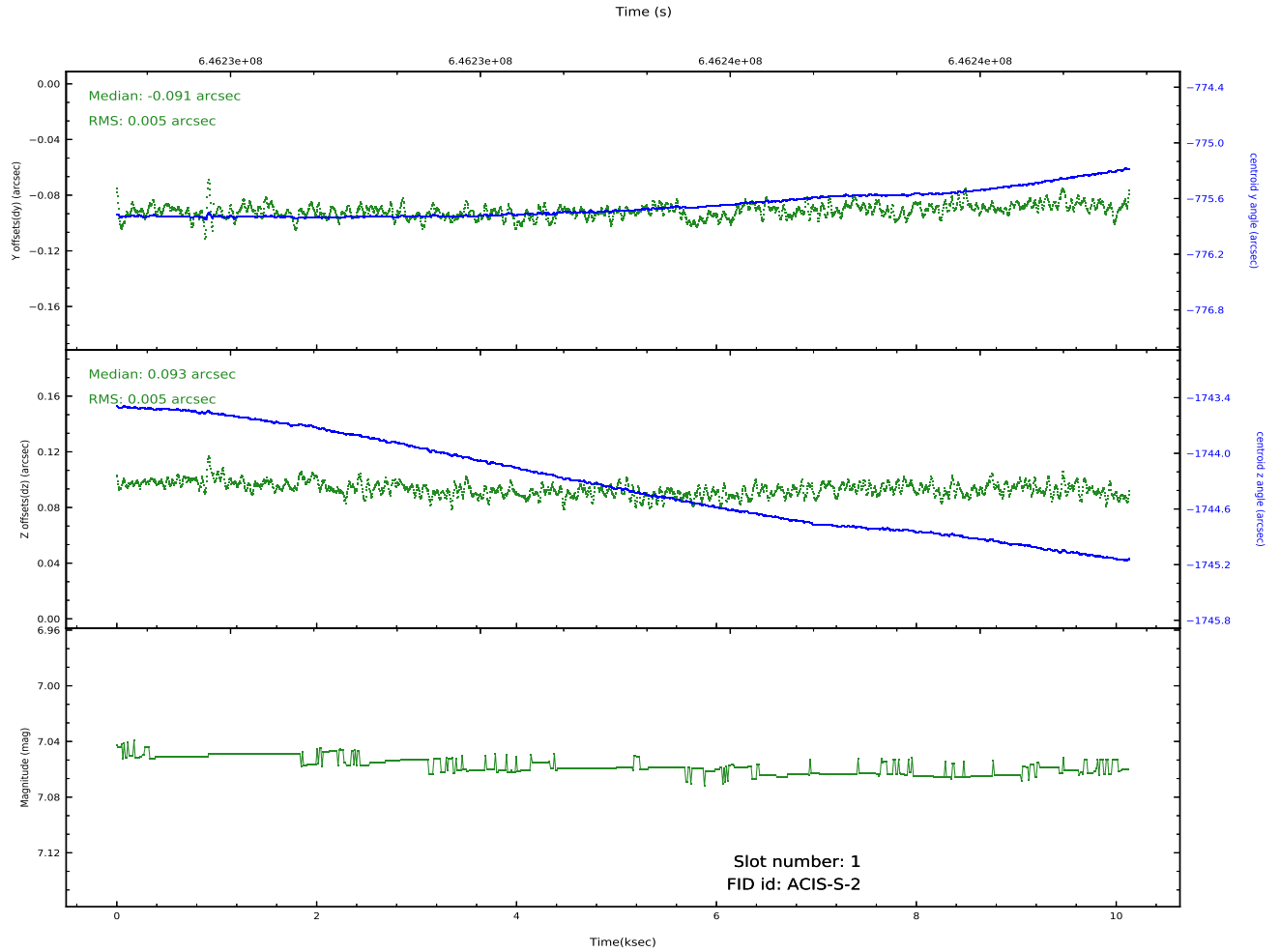
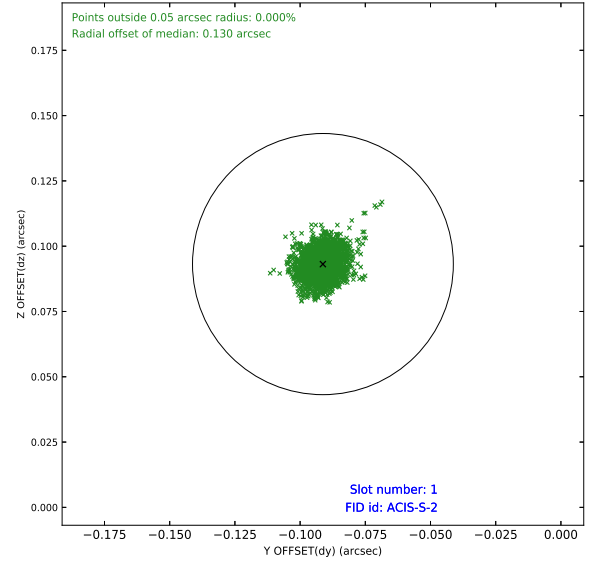
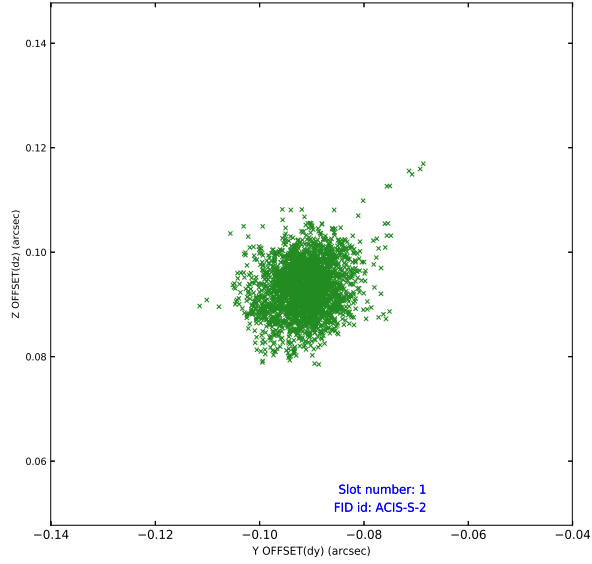


## 2.5 FID Slots

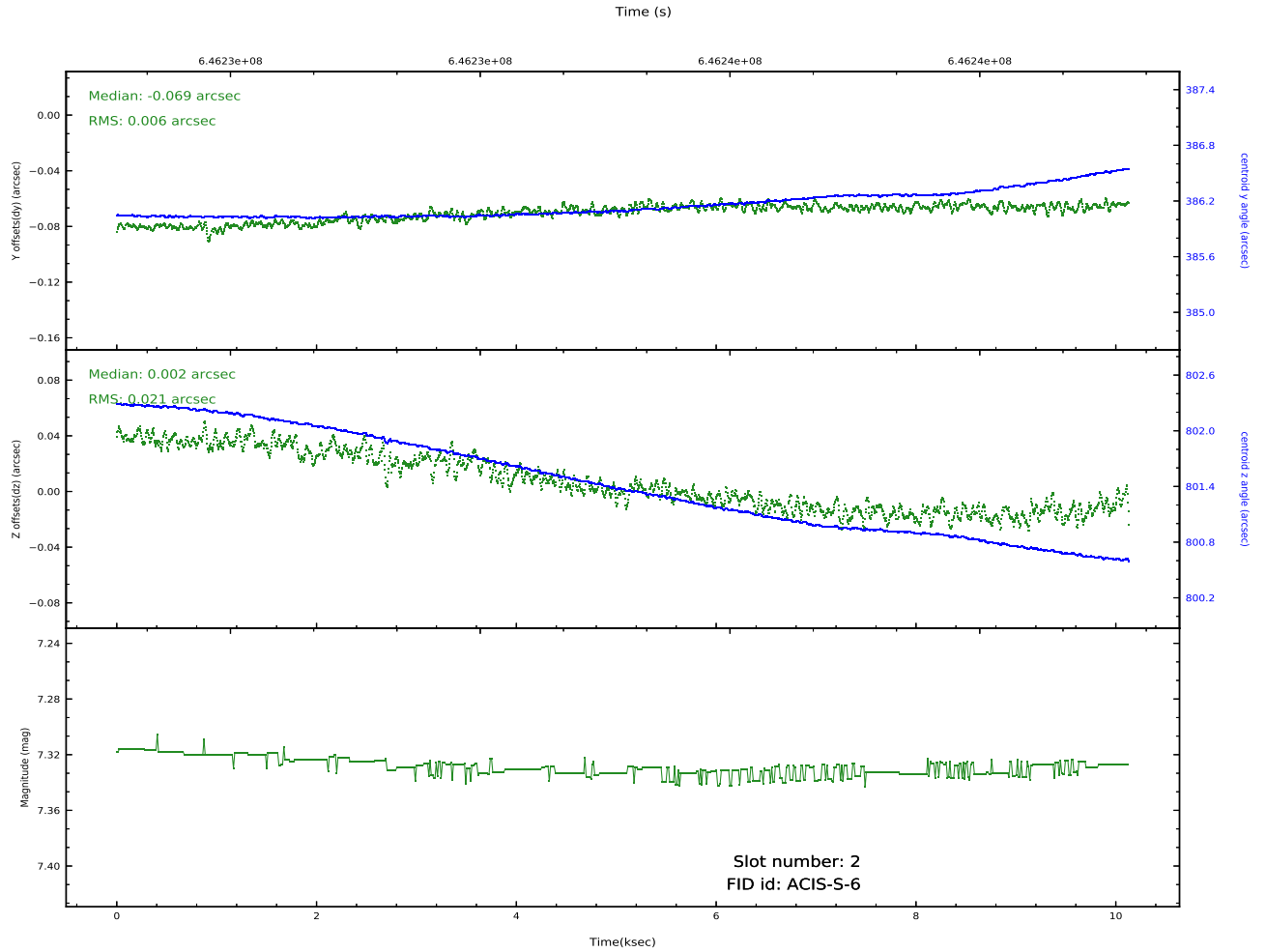
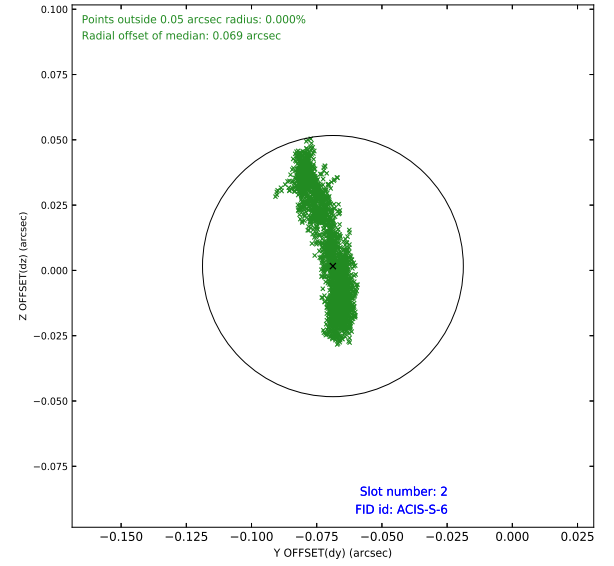
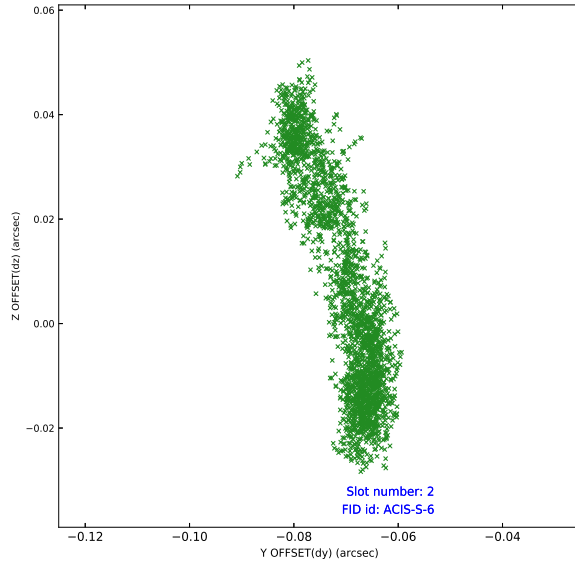
### 2.5.1 Slot 0



## 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)	2020.10.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.046905987978

### A.2 Comments

One optional chip was dropped.