

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 20977 - L2 Version 3  
Chandra X-Ray Center

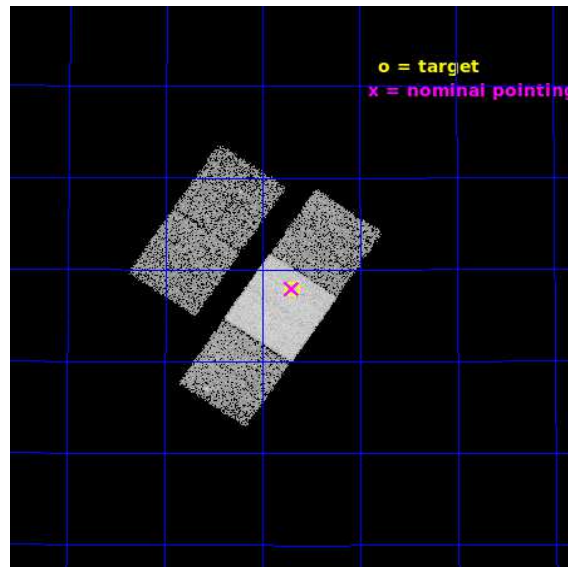
L2 Processing Date : Oct 24 2020

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# 1 Front

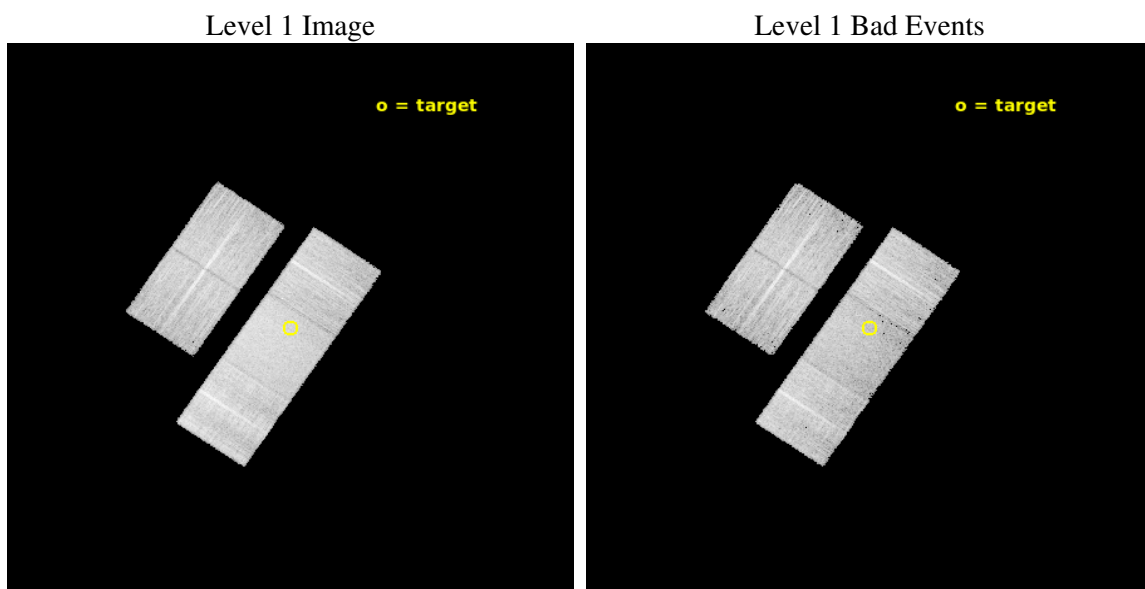
seq_num	502944	Sequence number
obs_id	20977	Observation id
title	Chandra late-time observations of PTF11QCJ: CSM-interacting SN or off-axis GRB?	Proposal title
observer	Alessandra Corsi	Principal investigator
object	PTF11qcj	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	198.422917	Observer's specified target RA [deg]
dec_targ	47.299167	Observer's specified target Dec [deg]
ra_nom	198.42466265274	Nominal RA [deg]
dec_nom	47.299165596265	Nominal Dec [deg]
roll_nom	124.1562359622	Nominal Roll [deg]
revision	3	Processing version of data
ontime	10052.864354253	Sum of GTIs [s]
livetime	9921.5162806534	Livetime [s]
ontime2	10052.70019424	Sum of GTIs [s]
ontime3	10052.782274246	Sum of GTIs [s]
ontime6	10052.823314309	Sum of GTIs [s]
ontime7	10052.864354253	Sum of GTIs [s]
ontime8	10052.741234303	Sum of GTIs [s]
l2events	67392	Number of level 2 events



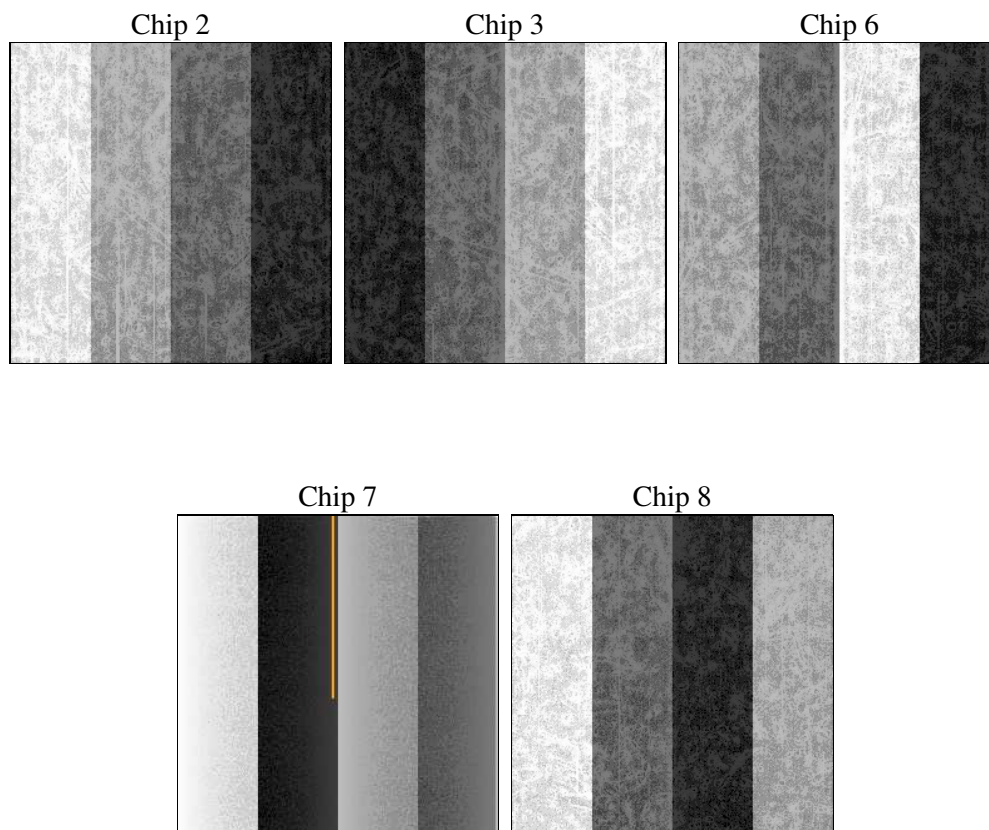
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	10052.864354253	Sum of GTIs [s]
caldsver	4.9.3	&#160	ontime2	10052.70019424	Sum of GTIs [s]
date	2020-10-24T19:04:43	Date and time of file creation	ontime3	10052.782274246	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	10052.823314309	Sum of GTIs [s]
			ontime7	10052.864354253	Sum of GTIs [s]
			ontime8	10052.741234303	Sum of GTIs [s]
			l1events	414562	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	73623	71005	77920	94579	97435
rejected events	66060	63763	69613	54123	73090
rejected %	89%	89%	89%	57%	75%

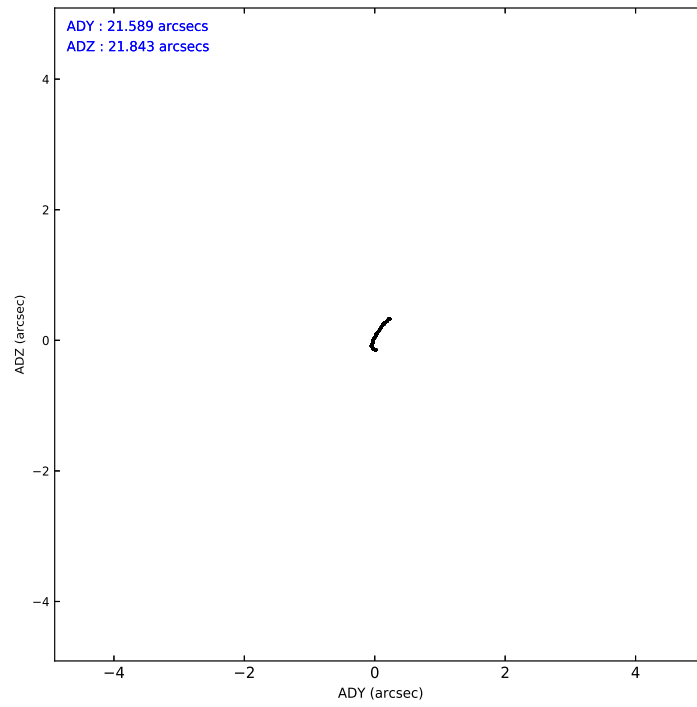
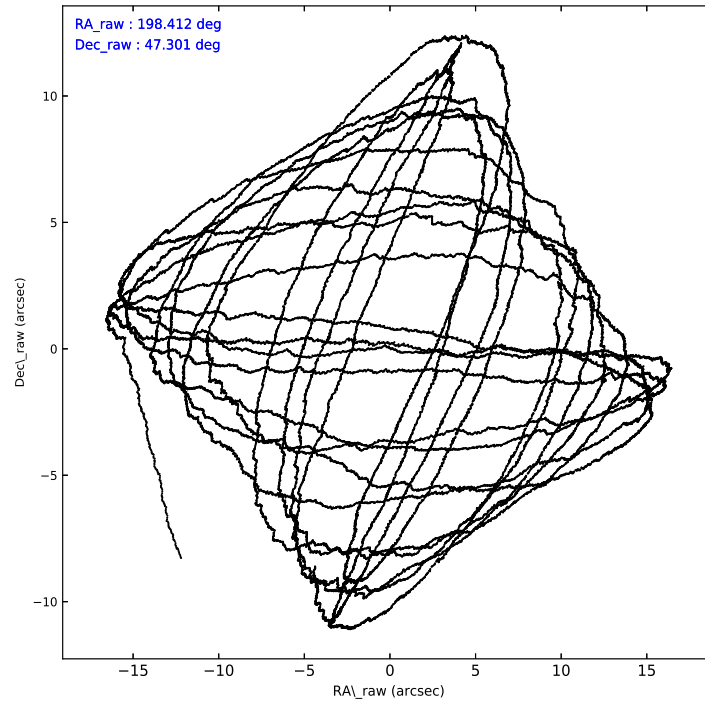
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	2725	2449	2611	3466	6637
	3%	3%	3%	3%	6%
grade 1 events	41	37	27	114	72
	0%	0%	0%	0%	0%
grade 2 events	1791	1610	2106	8550	6000
	2%	2%	2%	9%	6%
grade 3 events	800	794	805	3169	2571
	1%	1%	1%	3%	2%
grade 4 events	759	779	744	3118	2341
	1%	1%	0%	3%	2%
grade 5 events	2765	3323	3433	9377	5221
	3%	4%	4%	9%	5%
grade 6 events	1491	1613	2046	22177	6799
	2%	2%	2%	23%	6%
grade 7 events	63251	60400	66148	44608	67794
	85%	85%	84%	47%	69%

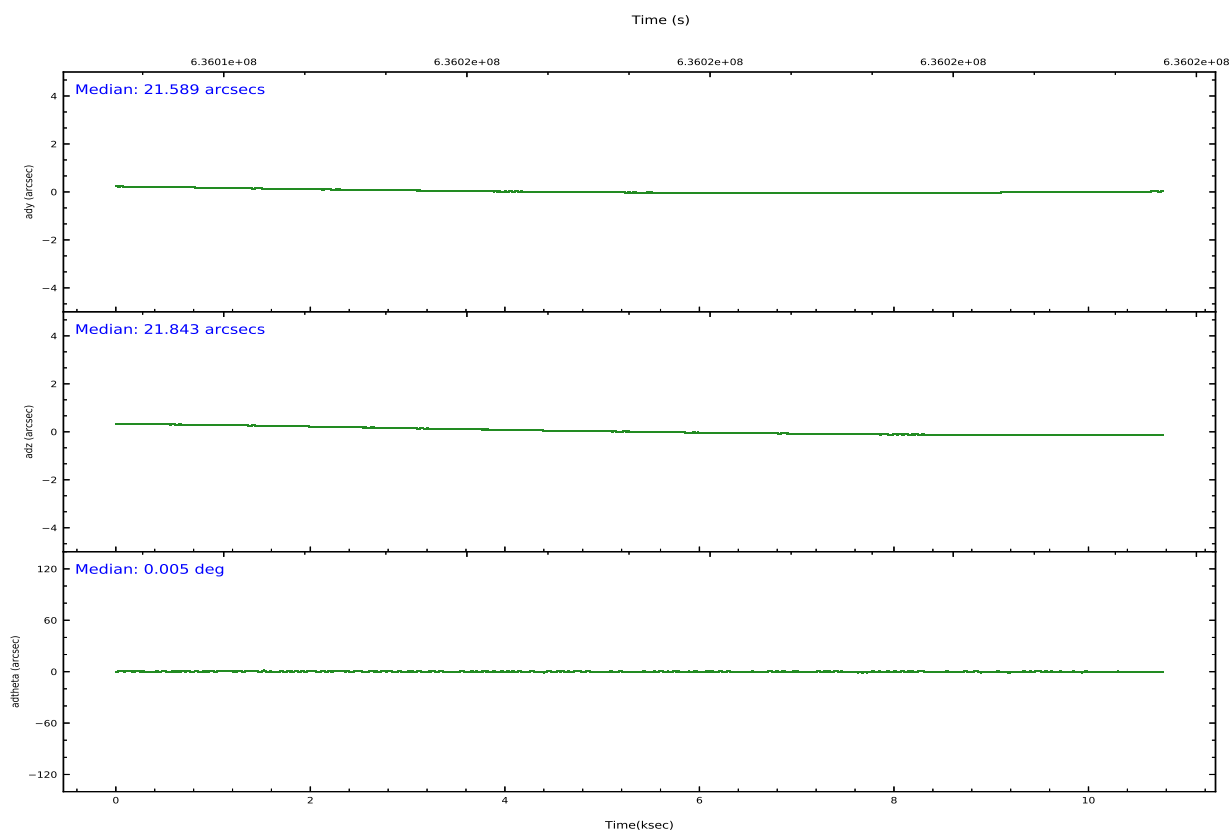
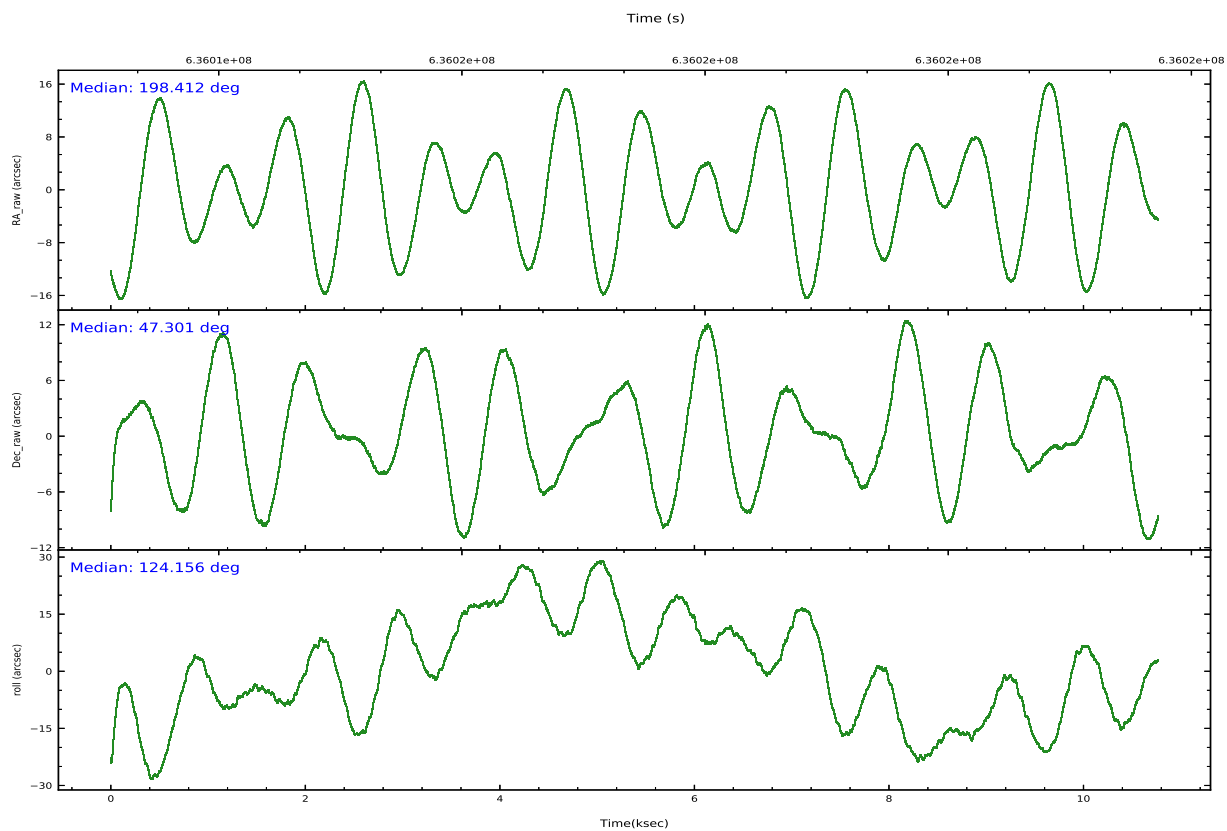


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-23678	ACIS-23678	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	198.448815	198.42466265274	CCD I2 on	O1	Y
[deg] Pointing Dec	47.289124	47.299165596265	CCD I3 on	Y	Y
[deg] Pointing Roll	123.980972	124.1562359622	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	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)	636012158.184000	636010746.62559	CCD S5 on	N	N
Observation start date	2018-02-26T06:01:29	2018-02-26T05:39:06	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	636022158.184000	636022985.12632	On-chip summing requested	N	N
Observation end date	2018-02-26T08:48:09	2018-02-26T09:03:05	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



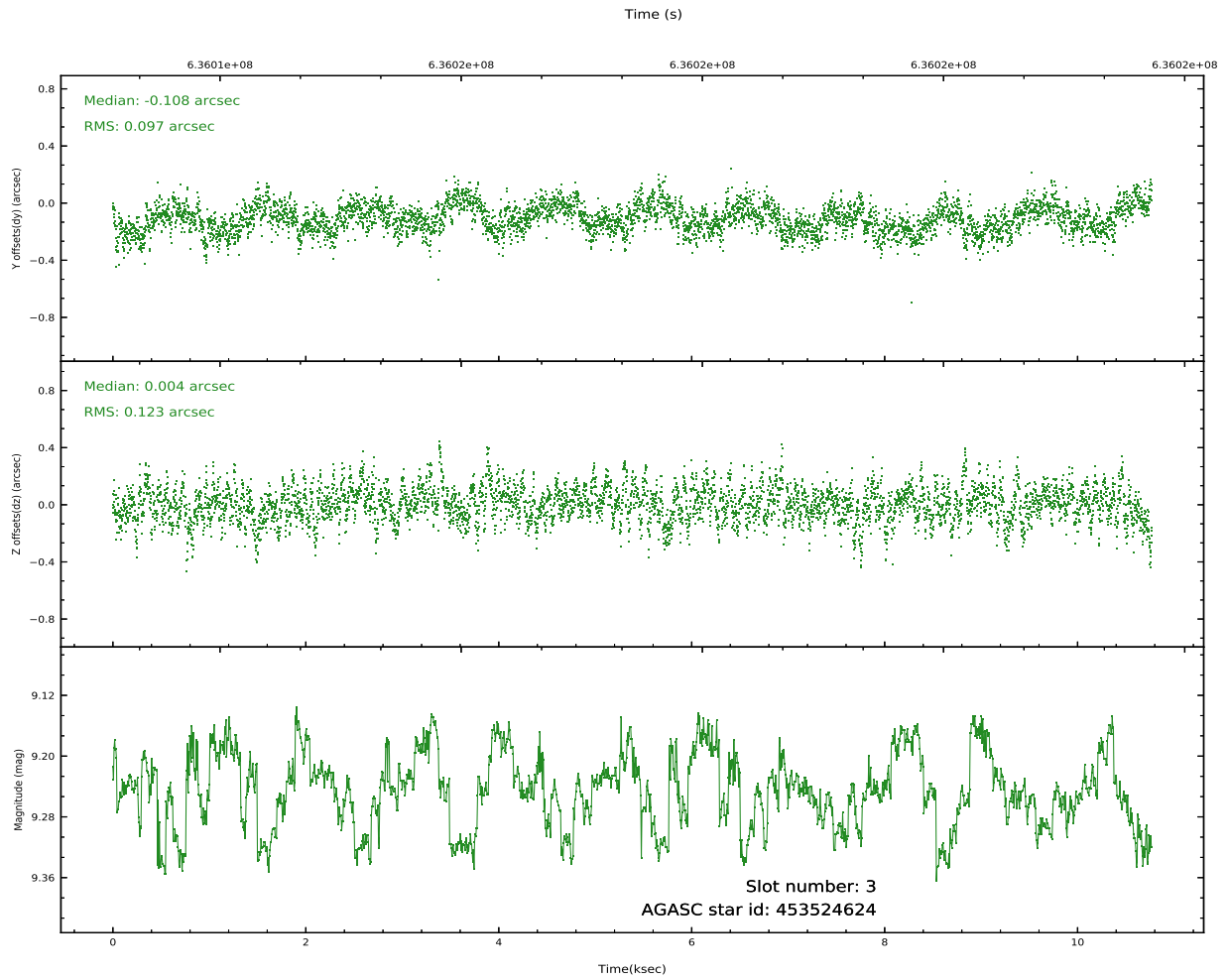
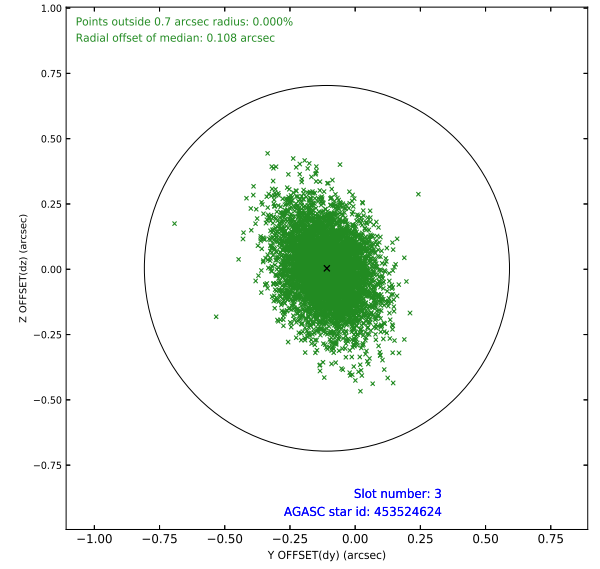
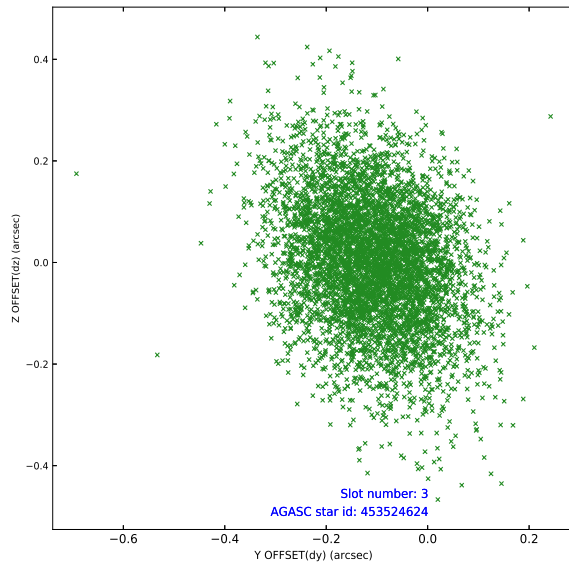


Slot Statistics

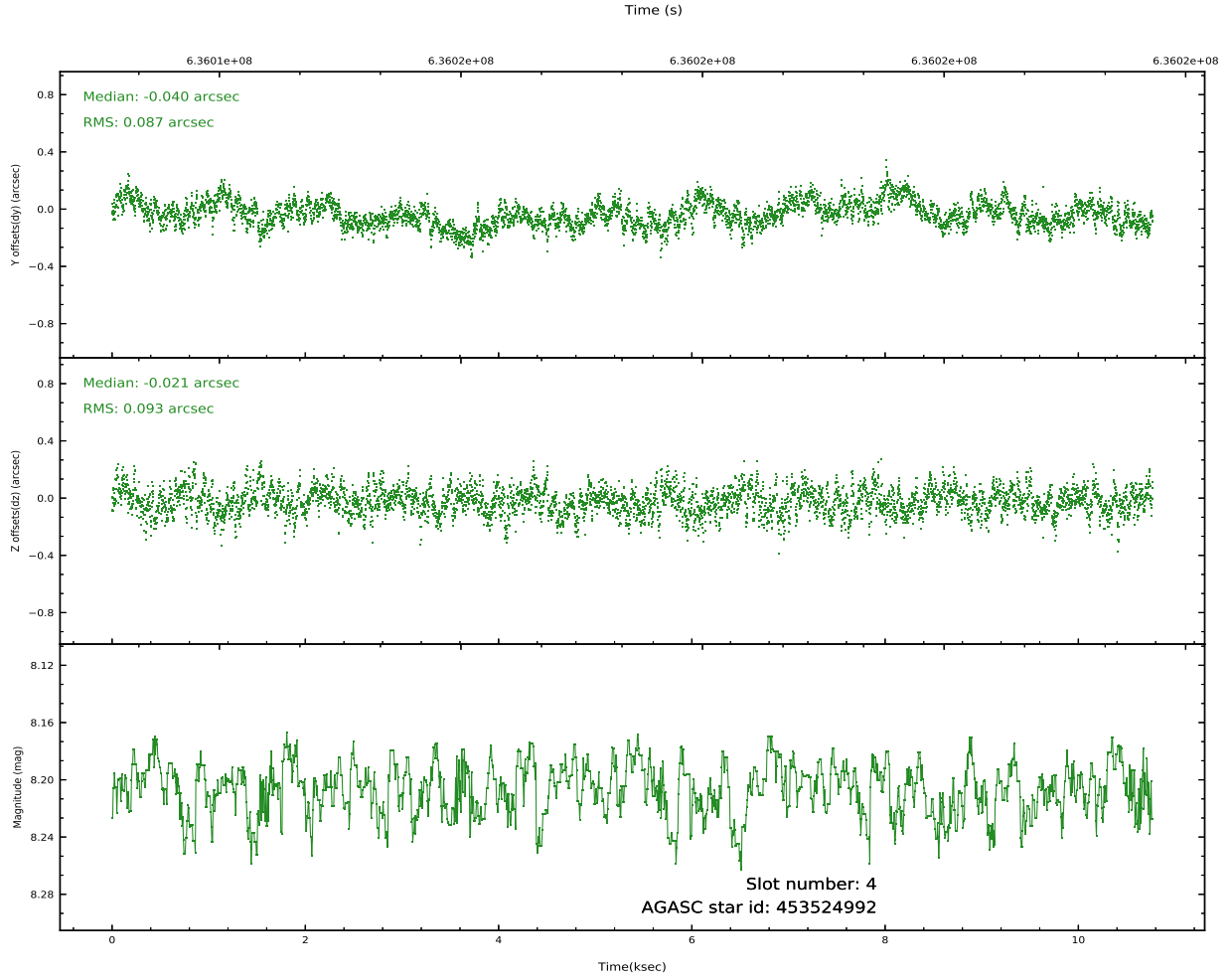
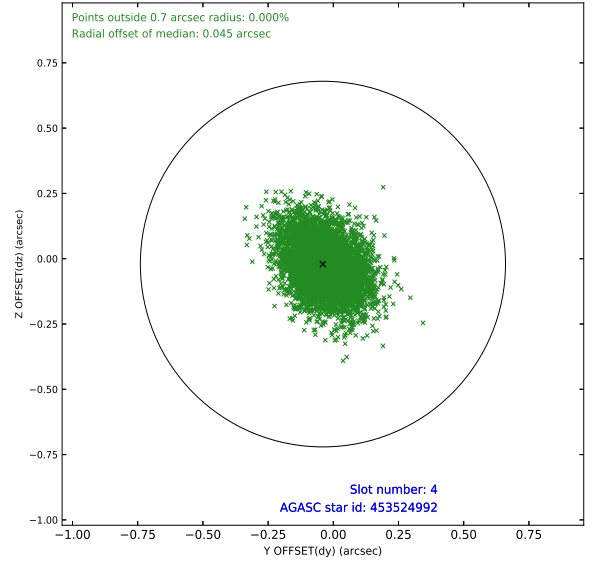
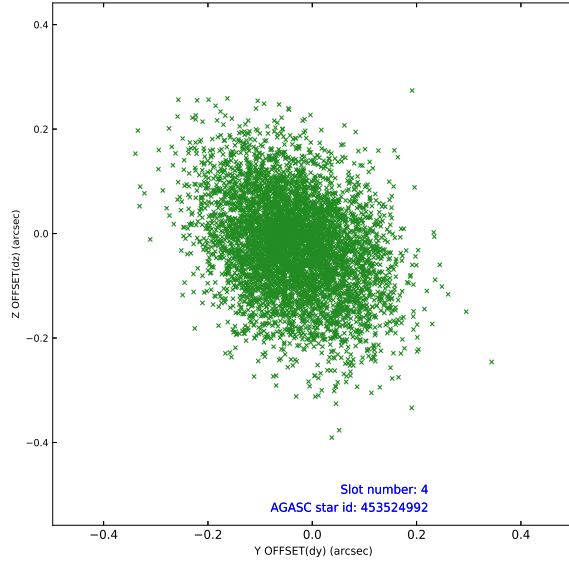
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.09	2627	1.000	0.175	-0.117	0.008	0.013	0.000000	0.000000	-774.88	-1743
1	FID		ACIS-S-4	7.20	2627	1.000	0.048	-0.053	0.006	0.011	0.000000	0.000000	2138.35	164
2	FID		ACIS-S-5	7.20	2627	1.000	-0.254	0.178	0.007	0.013	0.000000	0.000000	-1827.23	159
3	GUIDE	used	453524624	9.24	5250	1.000	-0.108	0.004	0.162	0.277	198.193206	47.313288	422.85	470
4	GUIDE	used	453524992	8.21	5250	1.000	-0.040	-0.021	0.134	0.222	197.874605	46.952147	-213.48	1844
5	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
6	GUIDE	used	453526776	9.17	5247	1.000	0.145	0.020	0.131	0.227	198.324802	47.032178	-596.99	769
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0

## 2.4 Star Slots

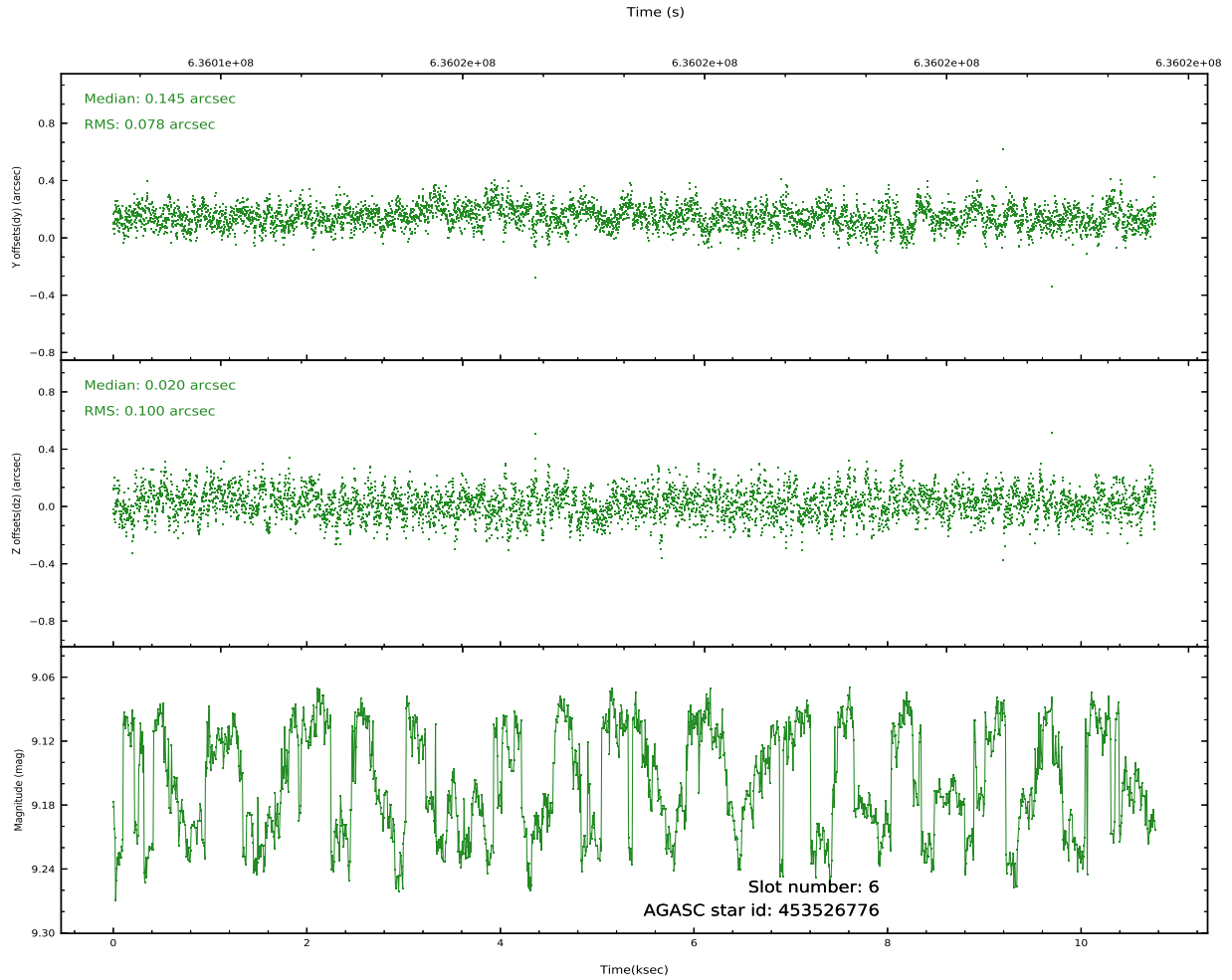
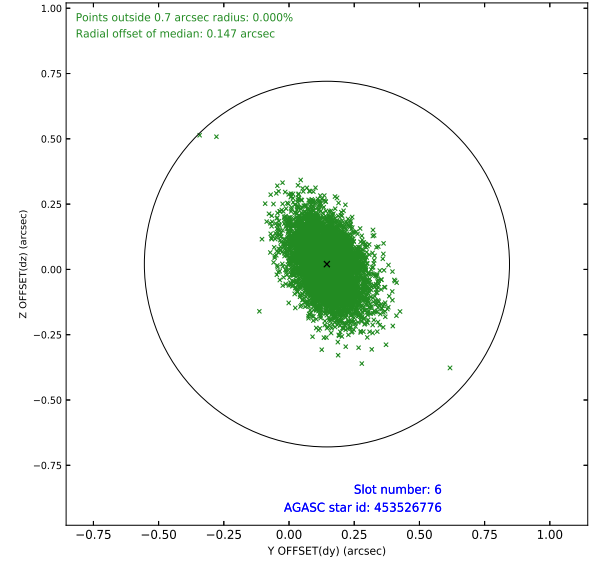
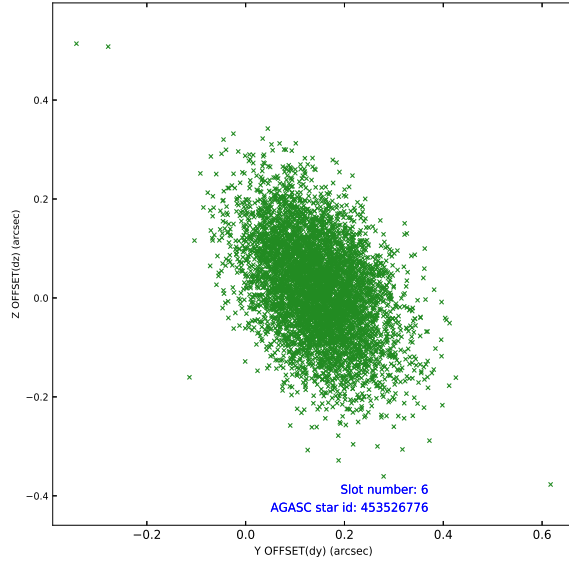
### 2.4.1 Slot 3



## 2.4.2 Slot 4

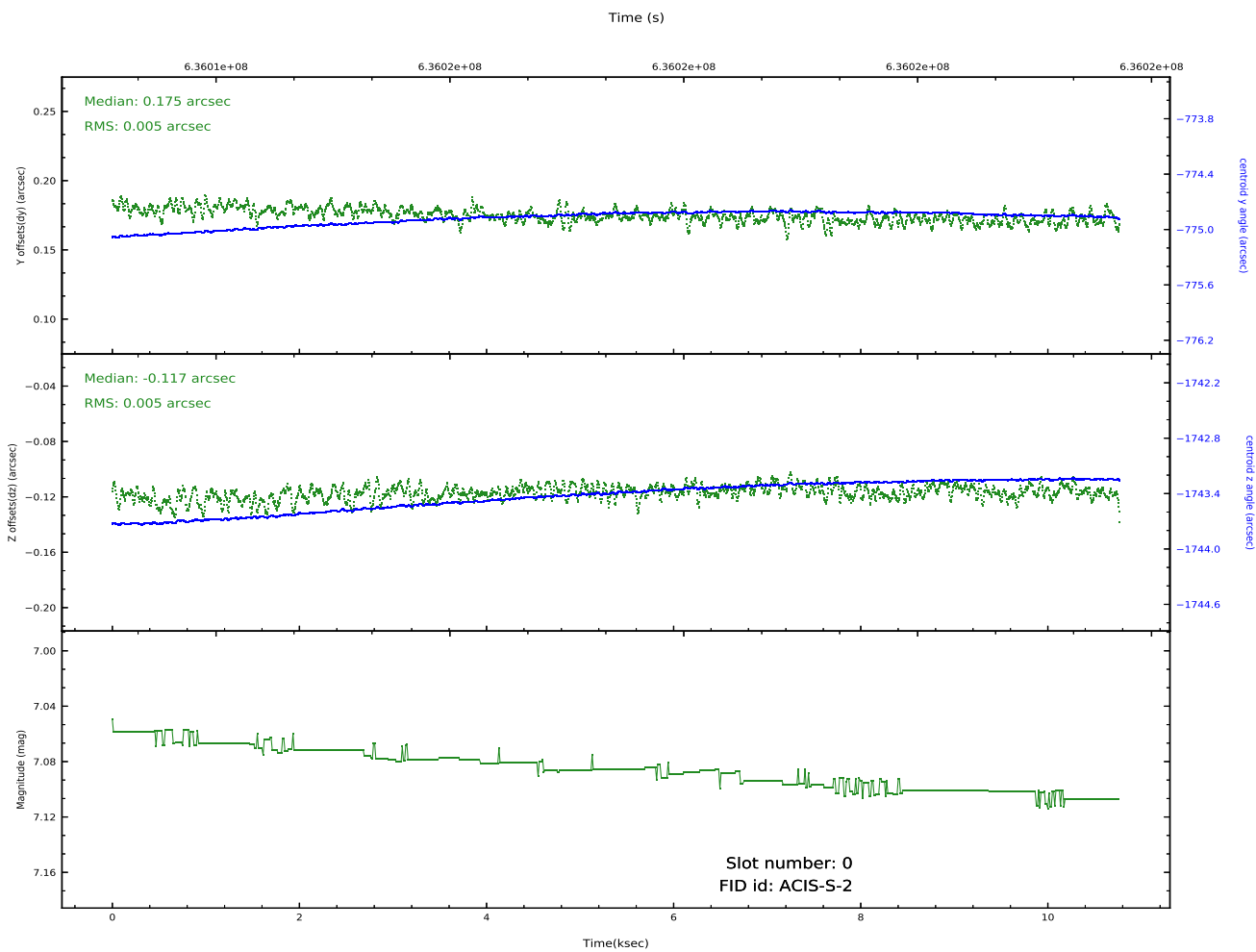
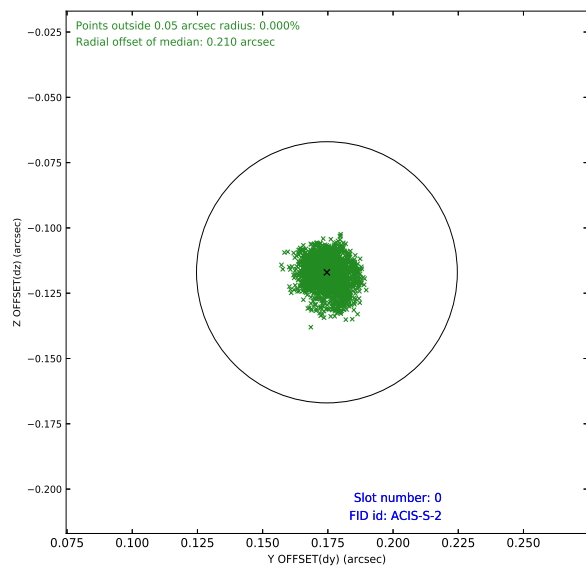
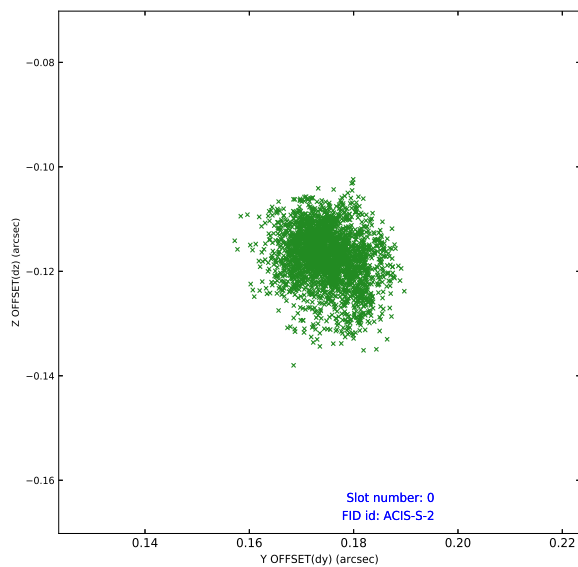


### 2.4.3 Slot 6



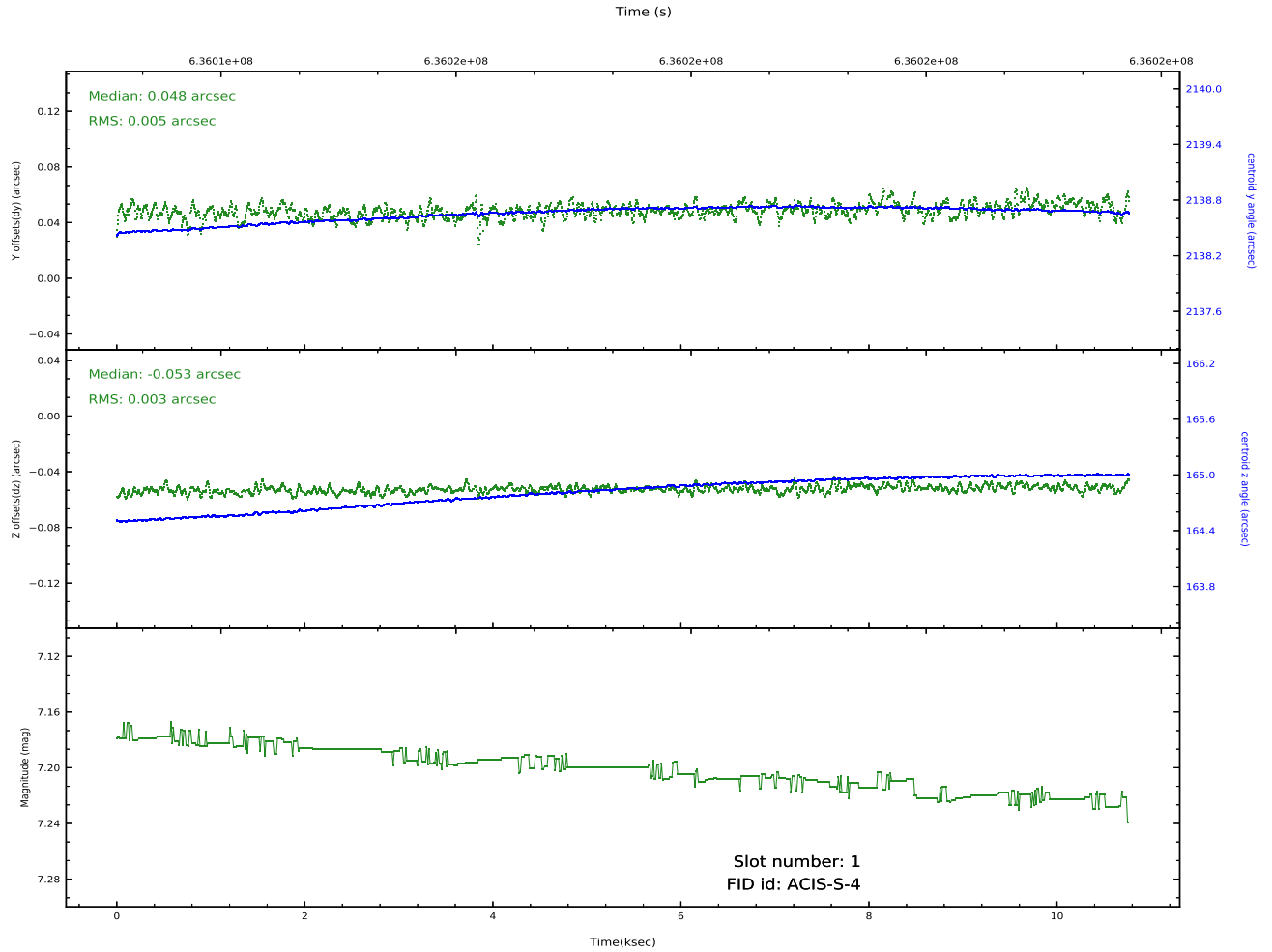
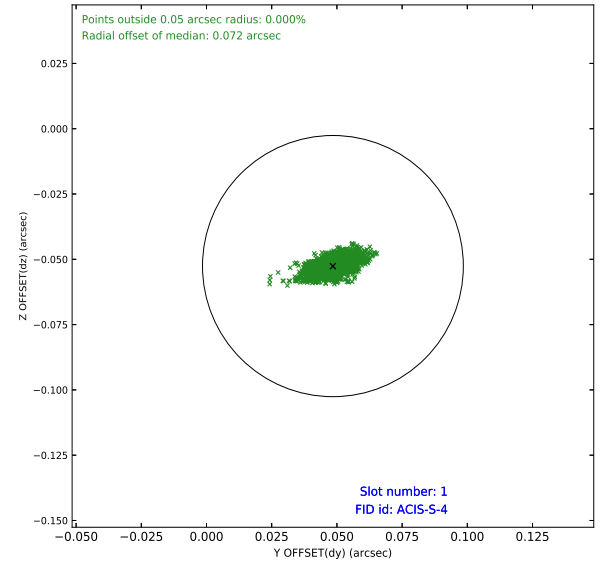
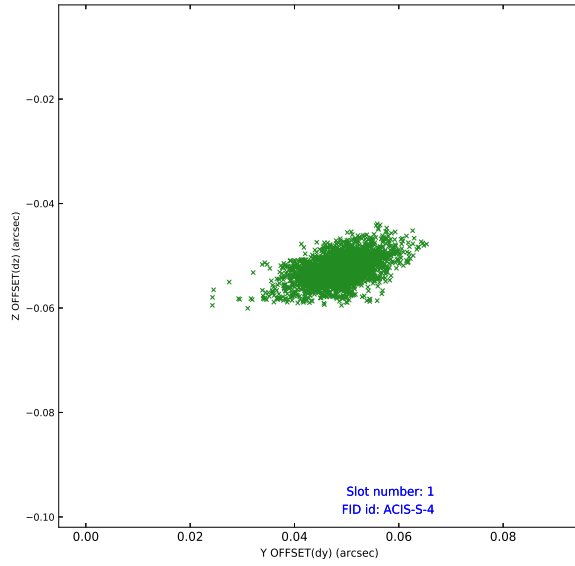
## 2.5 FID Slots

### 2.5.1 Slot 0

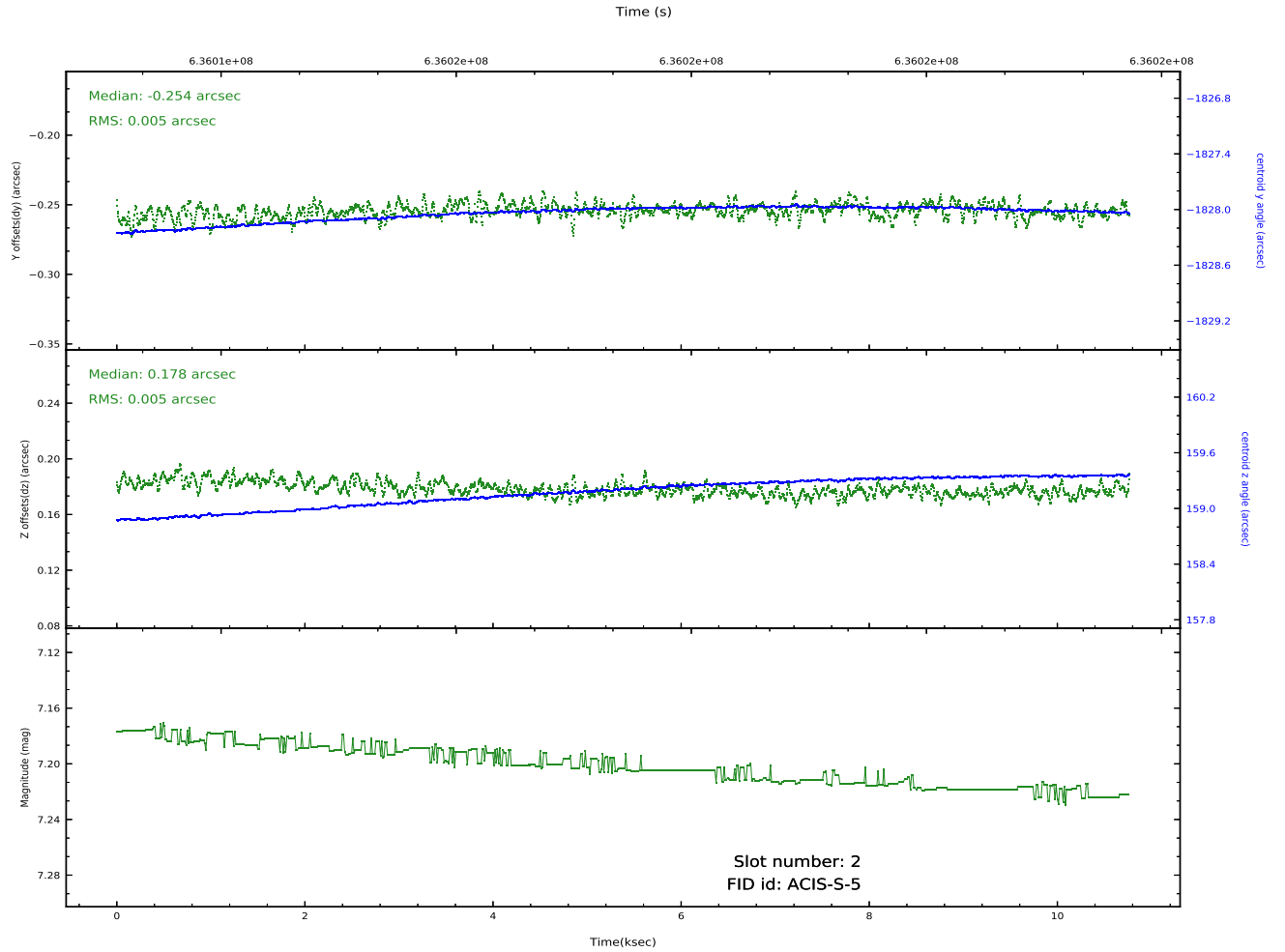
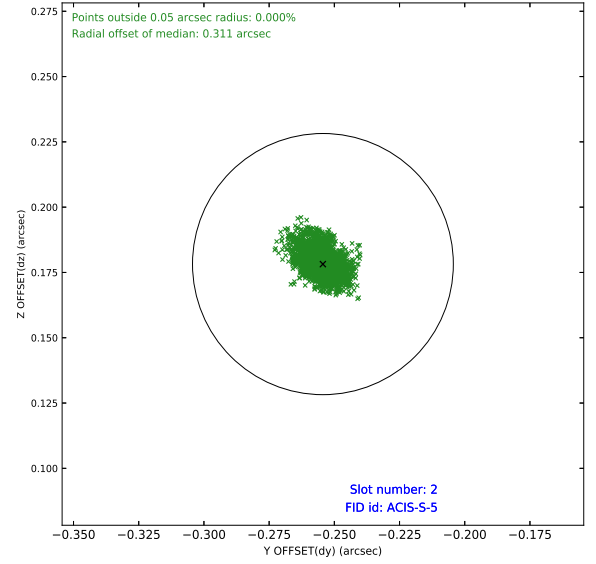
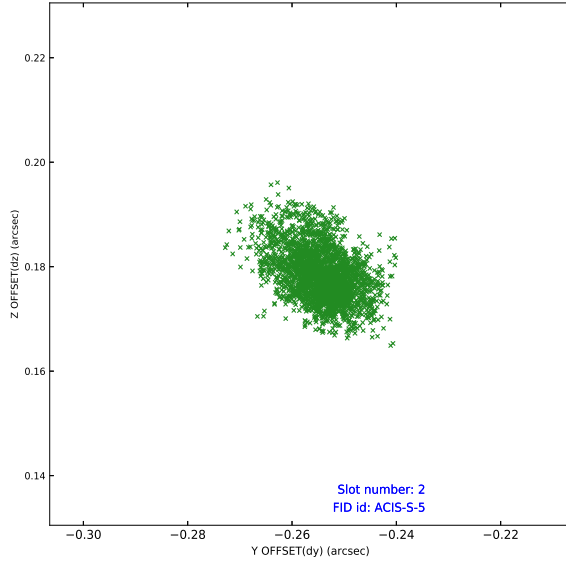




## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.052864361525

## A.2 Comments

The guide stars in slots 5 and 7 were removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of these slots from the solution.