

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4765 - L2 Version 4  
Chandra X-Ray Center

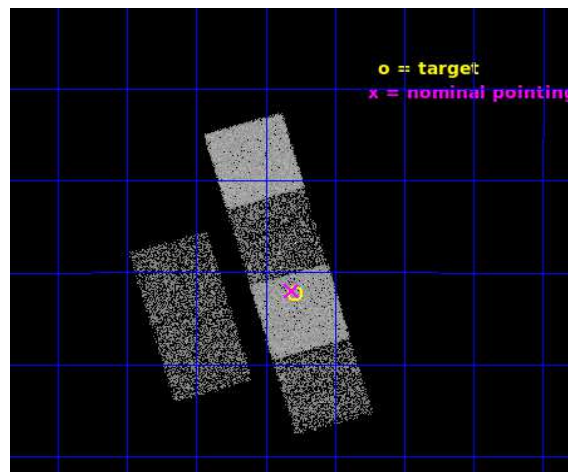
L2 Processing Date : Sep 23 2020

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# 1 Front

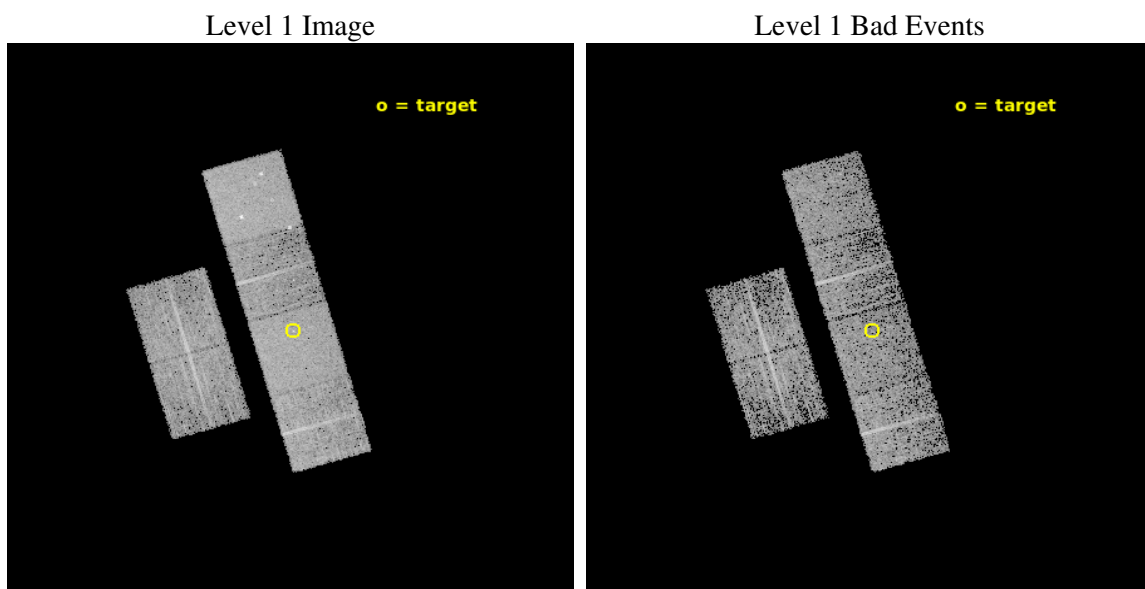
seq_num	700848	Sequence number
obs_id	4765	Observation id
title	A Chandra Survey of Luminous, Radio-Loud Quasars at High Redshift	&#160
observer	Gordon Garmire	Principal investigator
object	PMN J1451-1512	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	222.945833	Observer's specified target RA [deg]
dec_targ	-15.205528	Observer's specified target Dec [deg]
ra_nom	222.95251602943	Nominal RA [deg]
dec_nom	-15.199675998469	Nominal Dec [deg]
roll_nom	73.703558118043	Nominal Roll [deg]
revision	4	Processing version of data
ontime	4143.9999845624	Sum of GTIs [s]
livetime	4091.5261615406	Livetime [s]
ontime2	4143.9999845624	Sum of GTIs [s]
ontime3	4143.9999845624	Sum of GTIs [s]
ontime5	4143.9999845624	Sum of GTIs [s]
ontime6	4143.9999845624	Sum of GTIs [s]
ontime7	4143.9999845624	Sum of GTIs [s]
ontime8	4143.9999845624	Sum of GTIs [s]
l2events	44389	Number of level 2 events



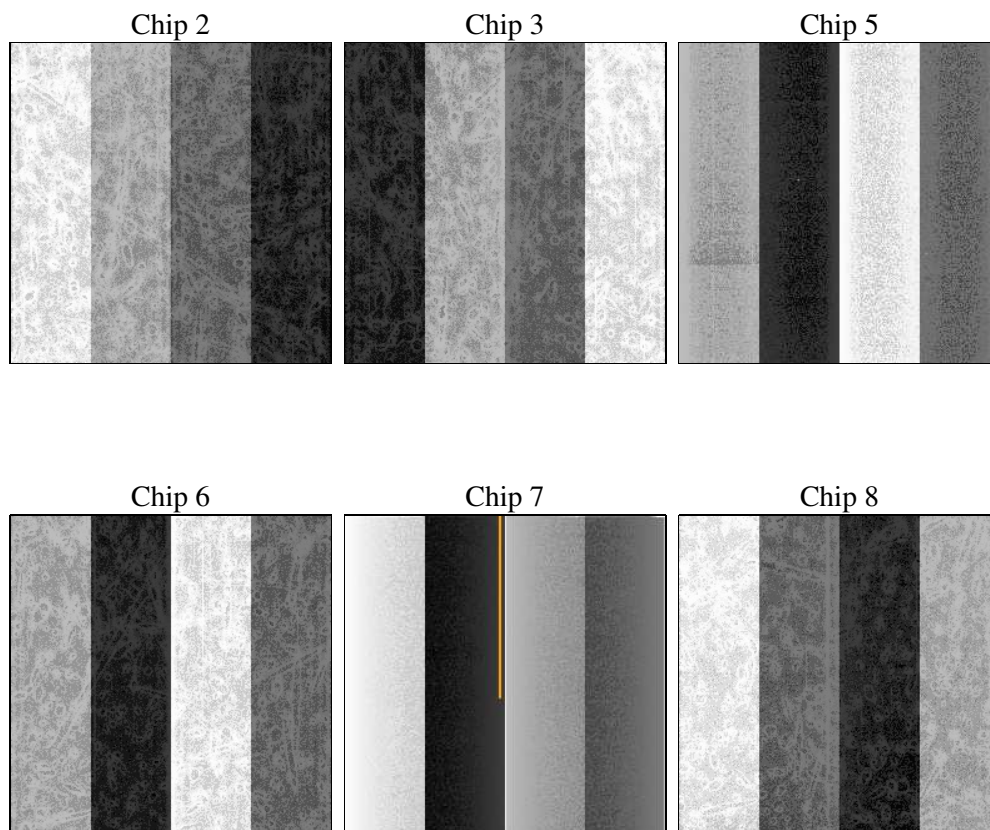
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	4143.9999845624	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime2	4143.9999845624	Sum of GTIs [s]
date	2020-09-24T01:37:46	Date and time of file creation	ontime3	4143.9999845624	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	4143.9999845624	Sum of GTIs [s]
			ontime6	4143.9999845624	Sum of GTIs [s]
			ontime7	4143.9999845624	Sum of GTIs [s]
			ontime8	4143.9999845624	Sum of GTIs [s]
			l1events	228613	Number of level 1 events

### 2.1.4 Events

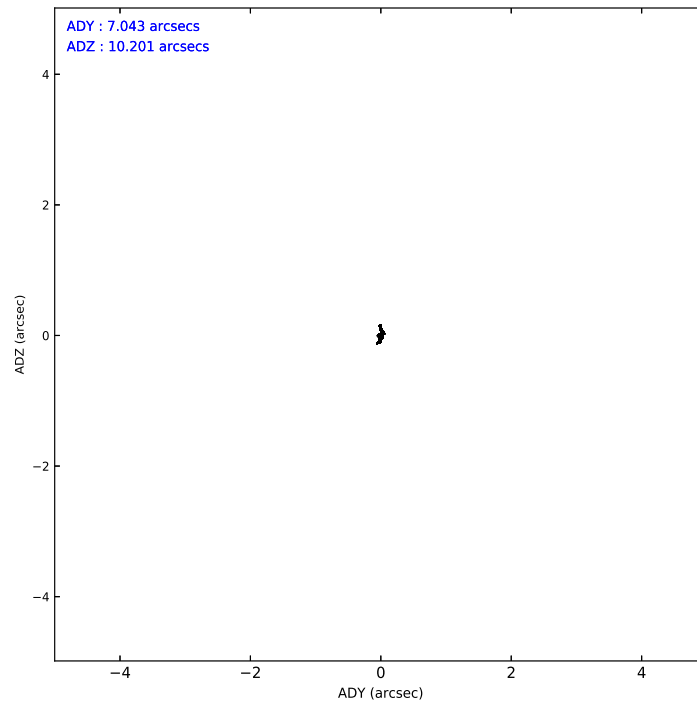
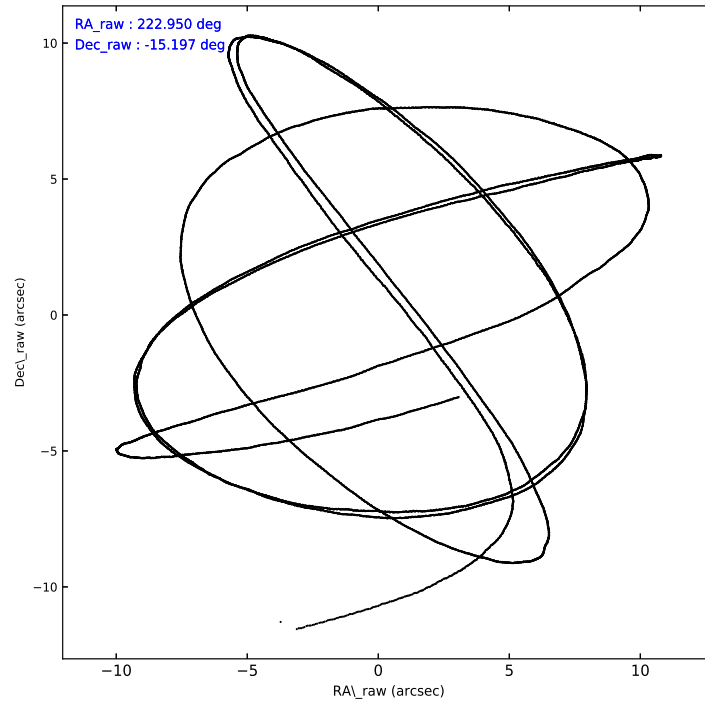
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	32680	31377	49258	31287	43095	40916	grade 0 events	1833	1683	3194	1826	1692	2920
rejected events	29283	28195	29415	27710	27808	33256		5%	5%	6%	5%	3%	7%
rejected %	89%	89%	59%	88%	64%	81%	grade 1 events	22	17	106	17	45	20
								0%	0%	0%	0%	0%	0%
							grade 2 events	794	702	6655	792	3579	1828
								2%	2%	13%	2%	8%	4%
							grade 3 events	365	341	877	374	1567	1008
								1%	1%	1%	1%	3%	2%
							grade 4 events	347	398	962	370	1641	920
								1%	1%	1%	1%	3%	2%
							grade 5 events	1325	1406	3512	1482	4100	1900
								4%	4%	7%	4%	9%	4%
							grade 6 events	623	629	11610	761	9406	2238
								1%	2%	23%	2%	21%	5%
							grade 7 events	27371	26201	22342	25665	21065	30082
								83%	83%	45%	82%	48%	73%

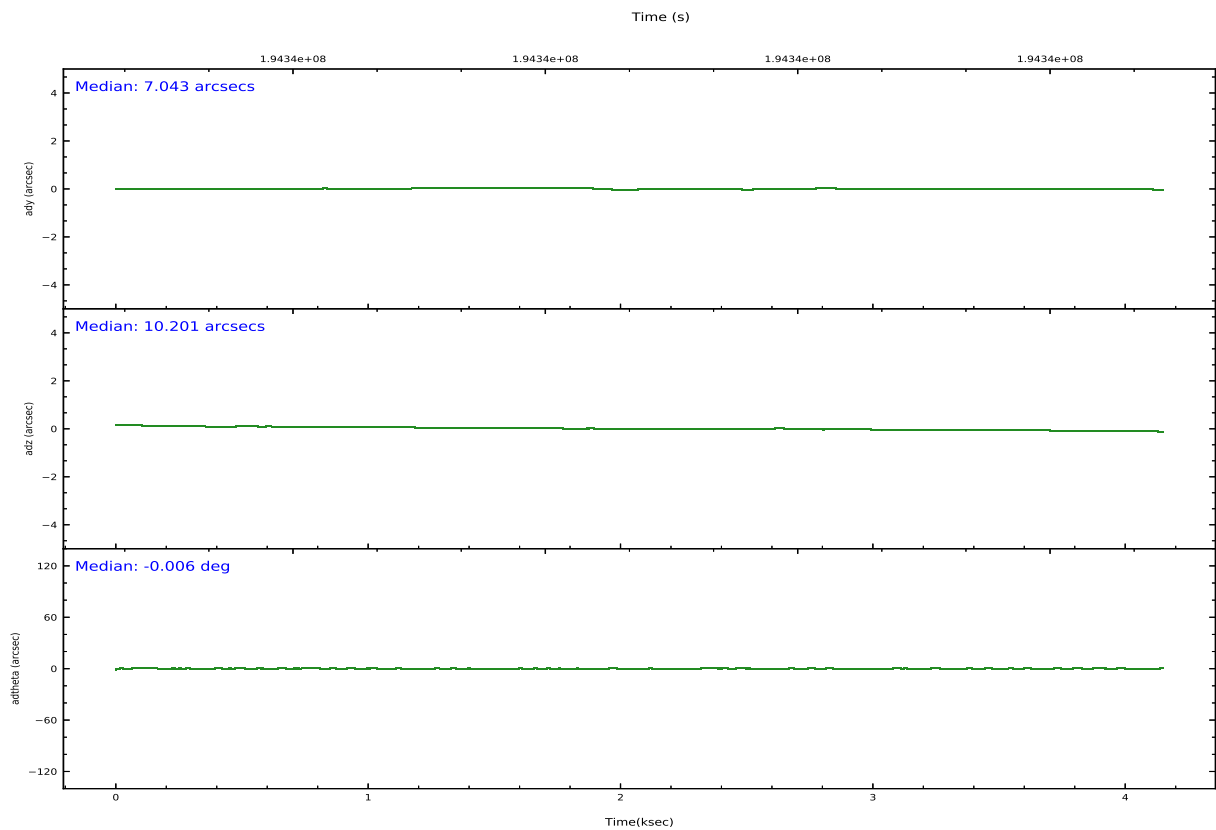
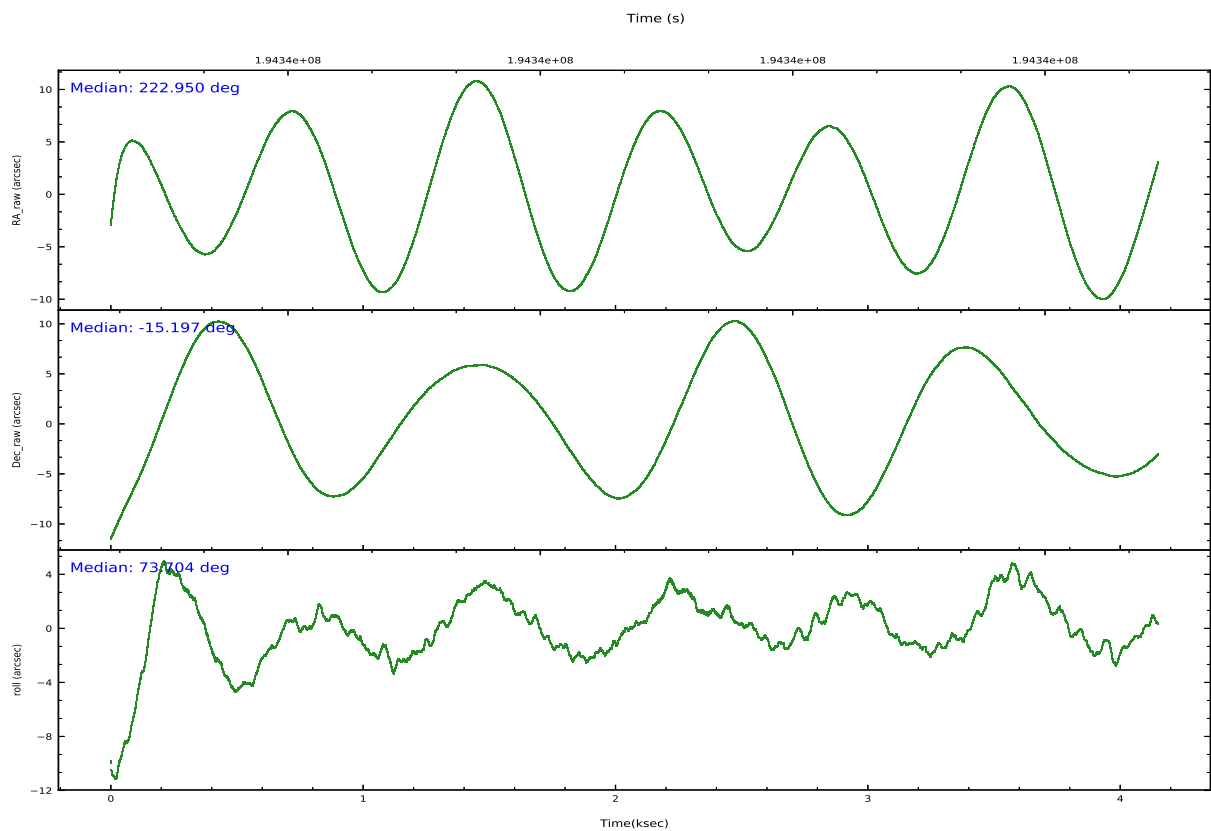


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	222.957340	222.95251602943	Subarray requested	NONE	NONE
[deg] Pointing Dec	-15.223231	-15.199675998469	Alternating exposures requested	N	N
[deg] Pointing Roll	73.547709	73.70355811804301	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	194335448.184000	194332362.40507			
Observation start date	2004-02-28T06:03:04	2004-02-28T05:12:42			
[s] Observation end time (MET)	194339448.184000	194339973.54291			
Observation end date	2004-02-28T07:09:44	2004-02-28T07:19:33			
Read mode	TIMED	TIMED			

## 2.3 Aspect



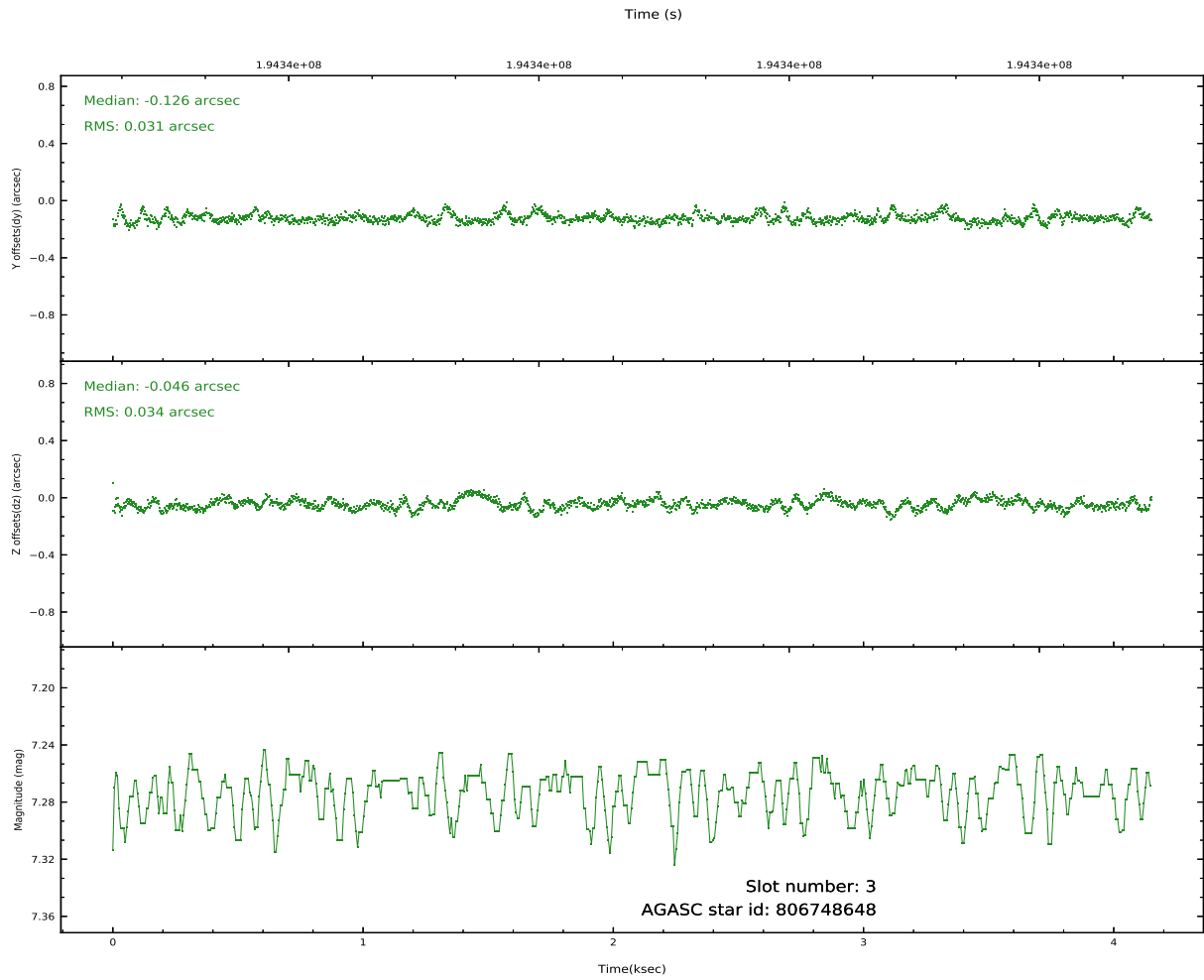
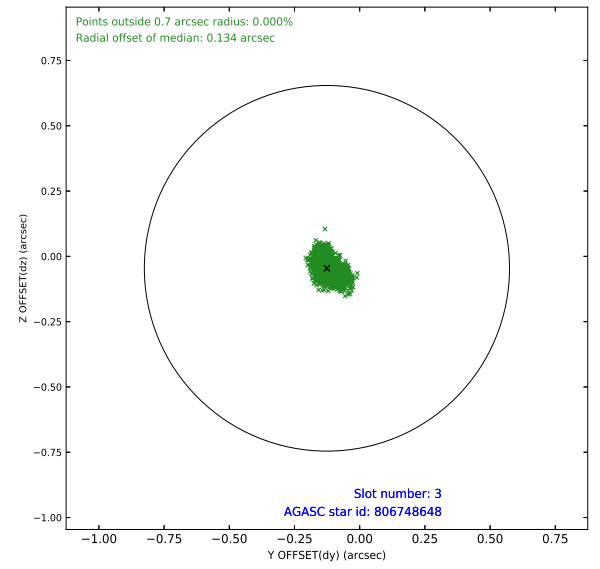
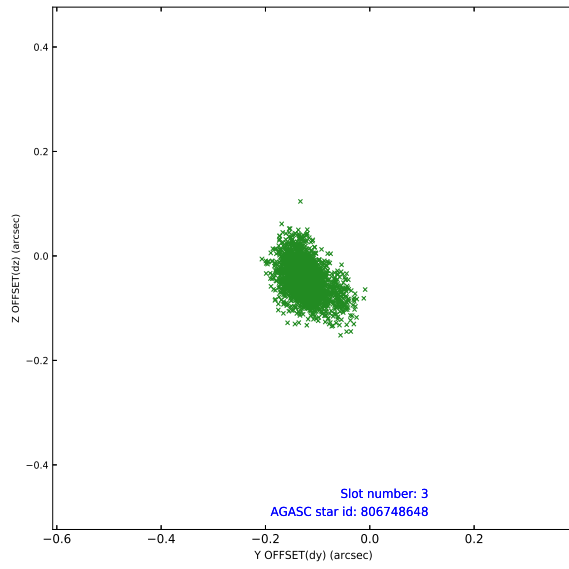


Slot Statistics

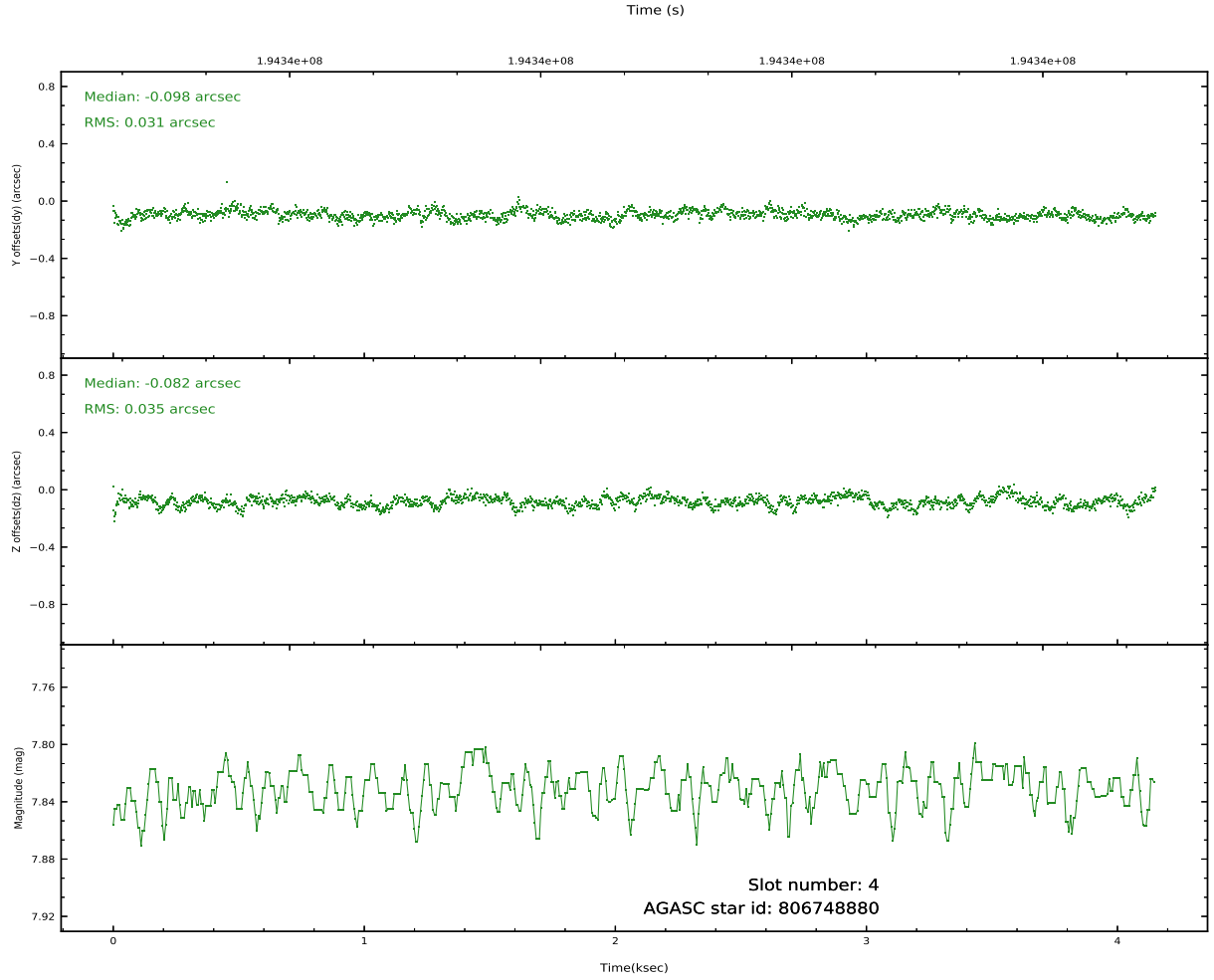
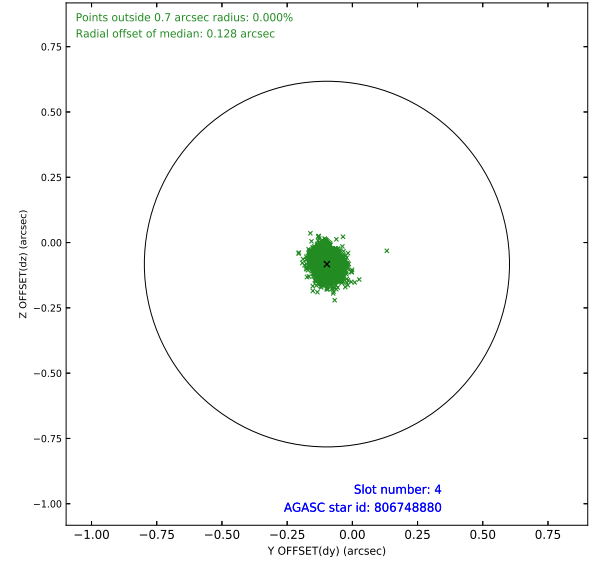
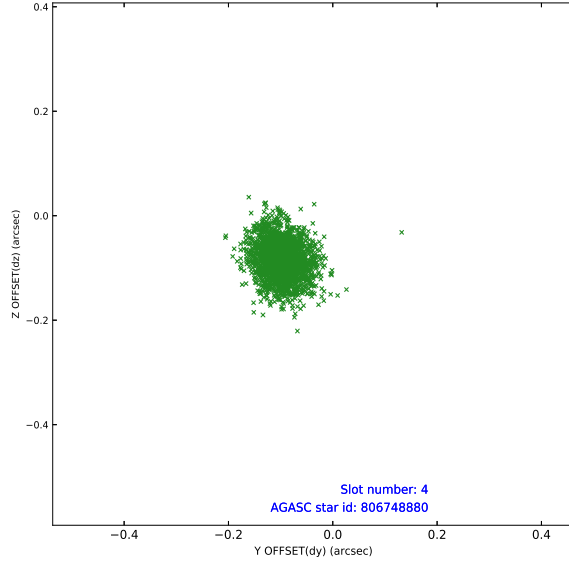
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.09	1013	1.000	-0.074	-0.042	0.007	0.011	0.000000	0.000000	-759.81	-1731
1	FID		ACIS-S-4	7.20	1013	1.000	0.119	0.047	0.005	0.010	0.000000	0.000000	2152.92	175
2	FID		ACIS-S-5	7.23	1013	1.000	-0.076	0.005	0.006	0.010	0.000000	0.000000	-1810.79	170
3	GUIDE	used	806748648	7.27	2026	1.000	-0.126	-0.046	0.047	0.083	222.765284	-15.027473	486.62	839
4	GUIDE	used	806748880	7.83	2026	1.000	-0.098	-0.082	0.050	0.081	222.892175	-15.081810	424.56	361
5	GUIDE	used	806750408	9.85	2024	1.000	0.027	0.358	0.125	0.208	223.579743	-15.424787	-86.34	-2277
6	GUIDE	used	806750912	8.08	2026	1.000	0.043	-0.002	0.066	0.103	222.570262	-15.342513	-793.37	1165
7	GUIDE	used	806755256	9.39	2022	1.000	0.149	-0.233	0.105	0.177	222.323307	-15.344687	-1046.18	1986

## 2.4 Star Slots

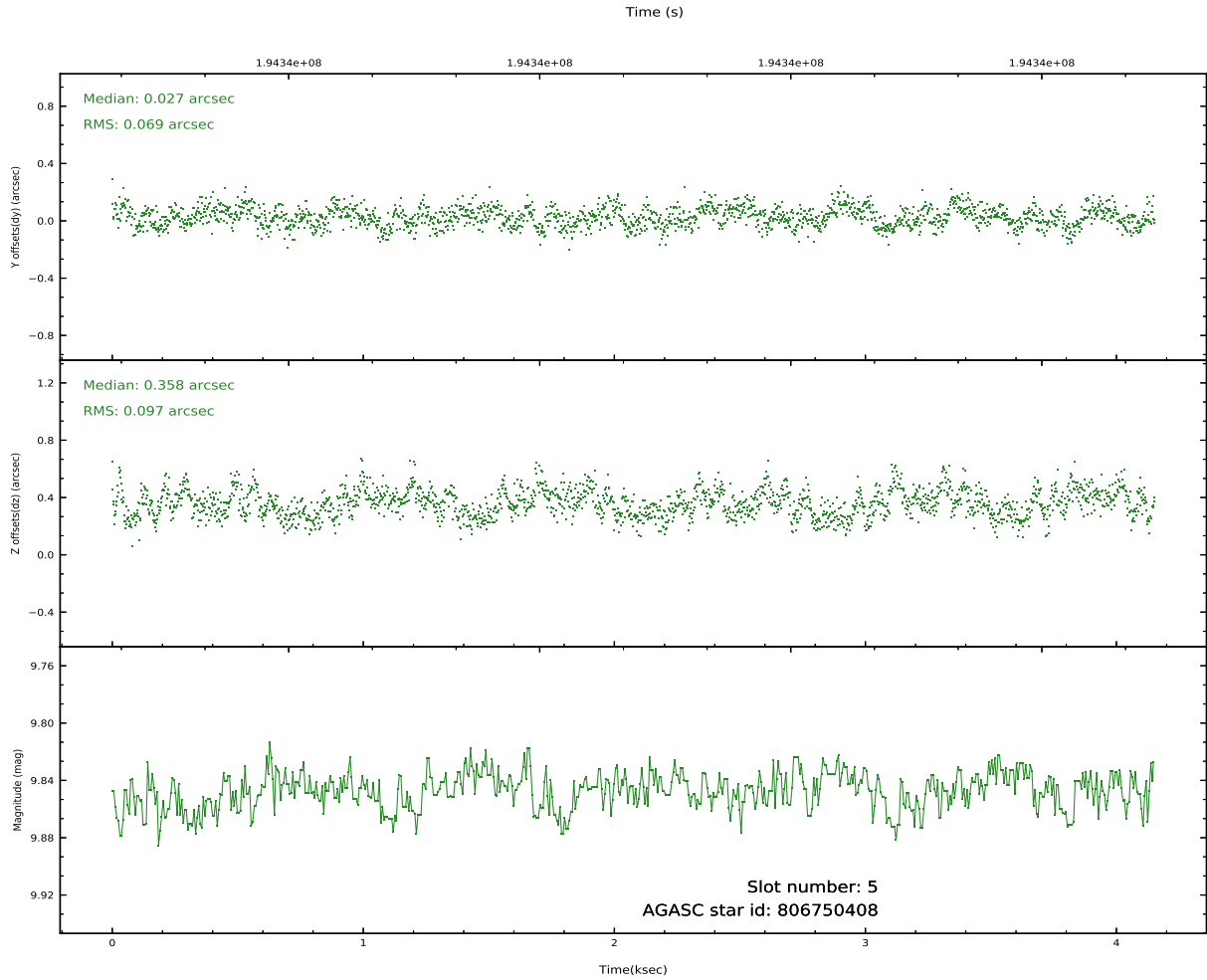
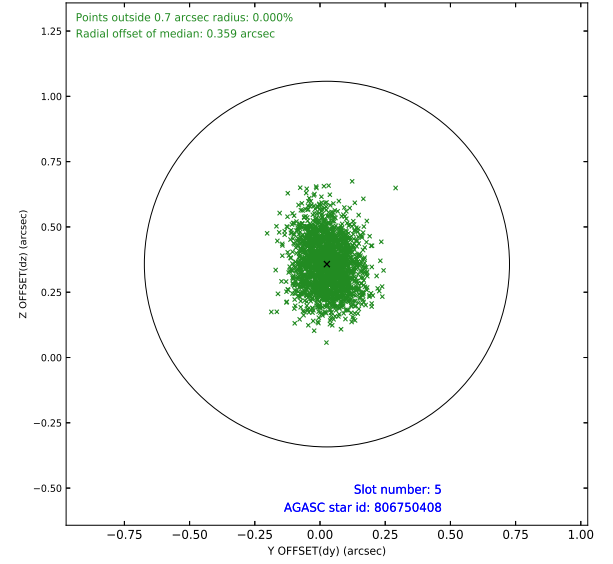
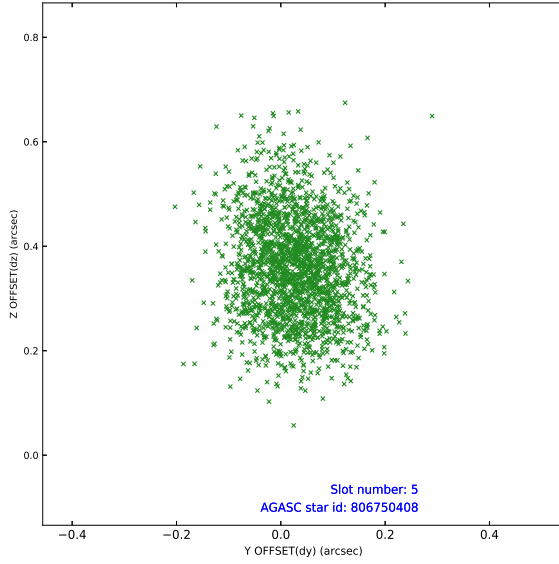
### 2.4.1 Slot 3



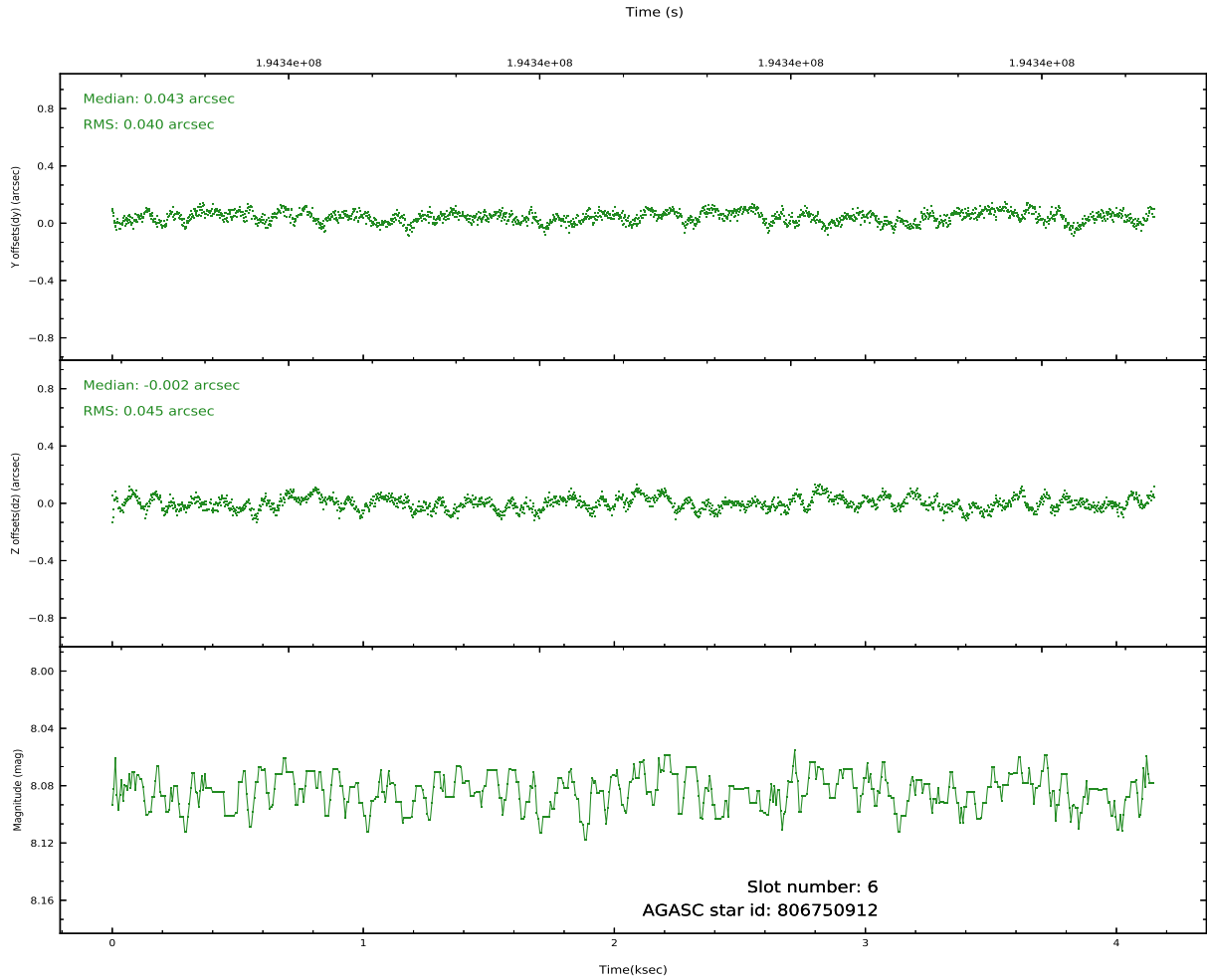
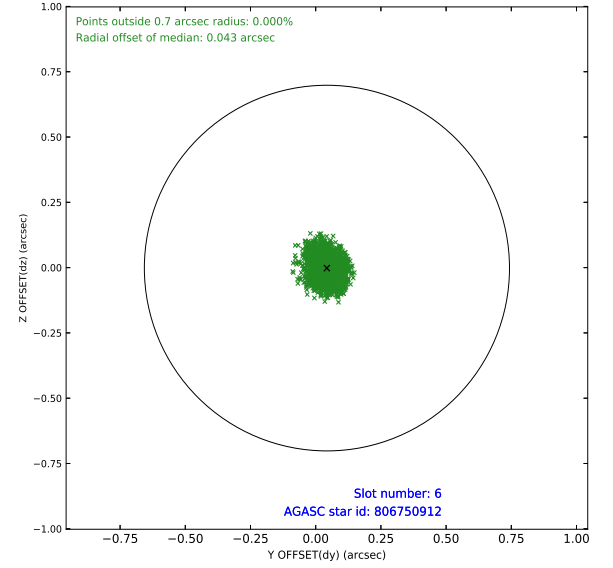
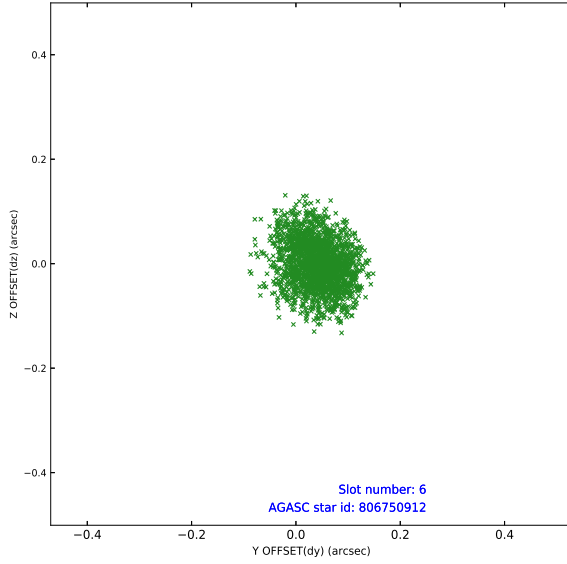
## 2.4.2 Slot 4



## 2.4.3 Slot 5

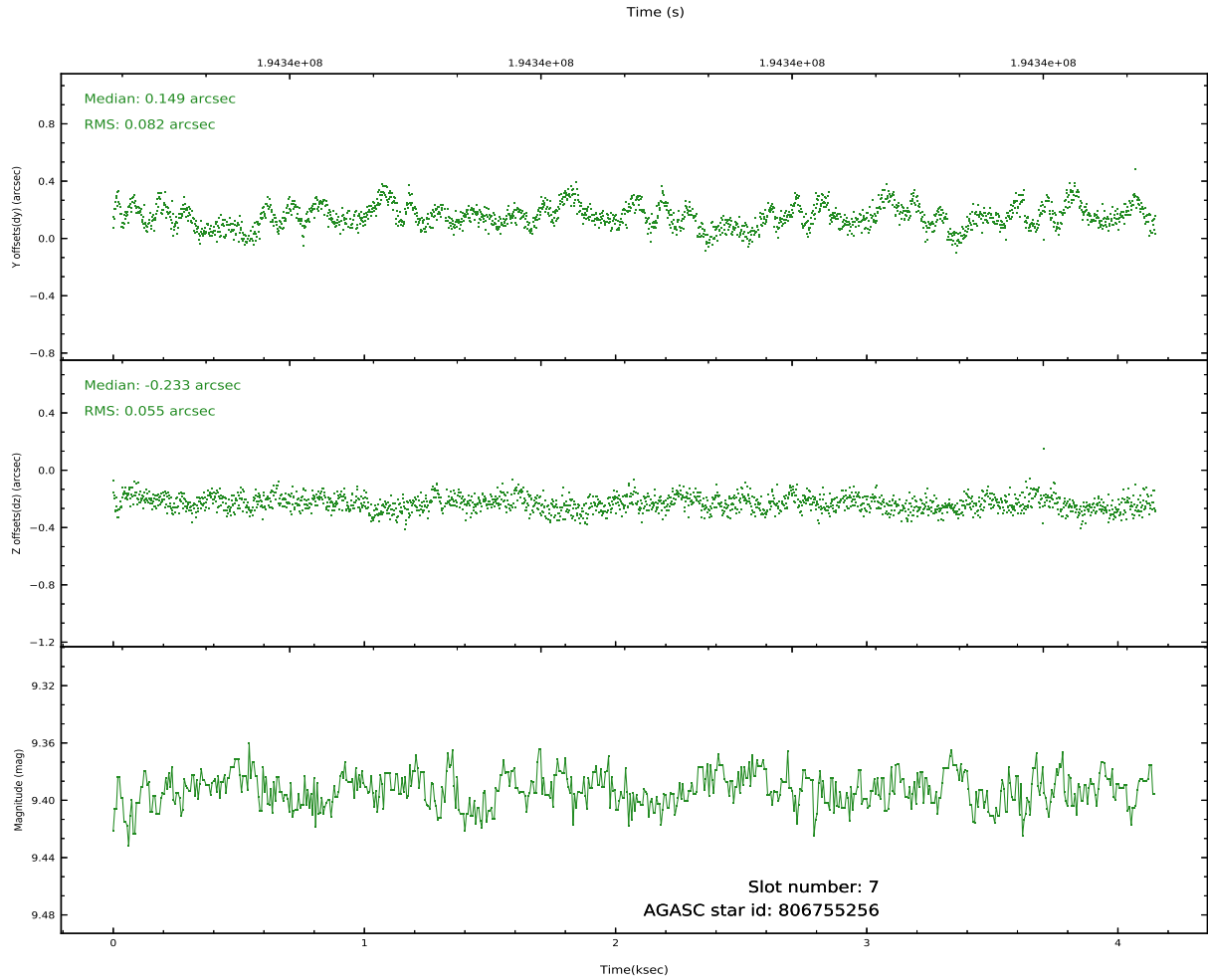
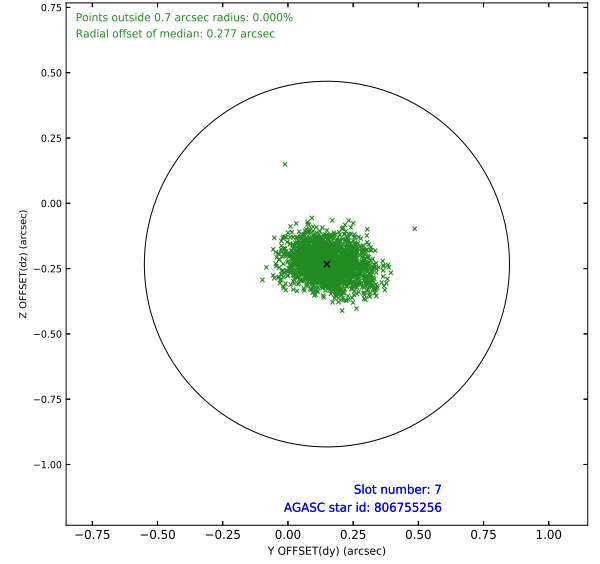
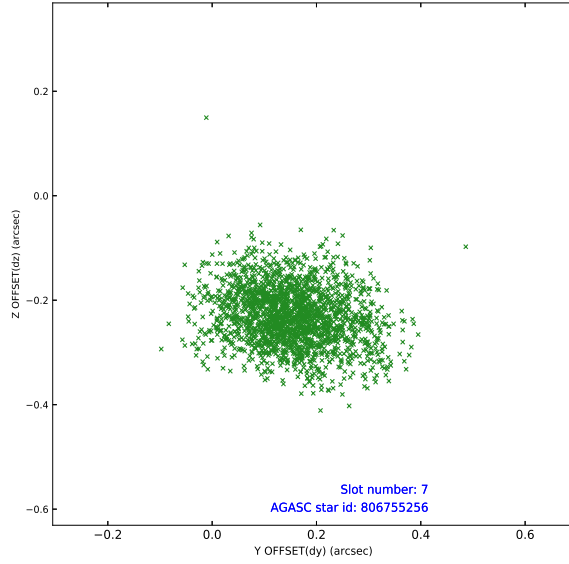


## 2.4.4 Slot 6



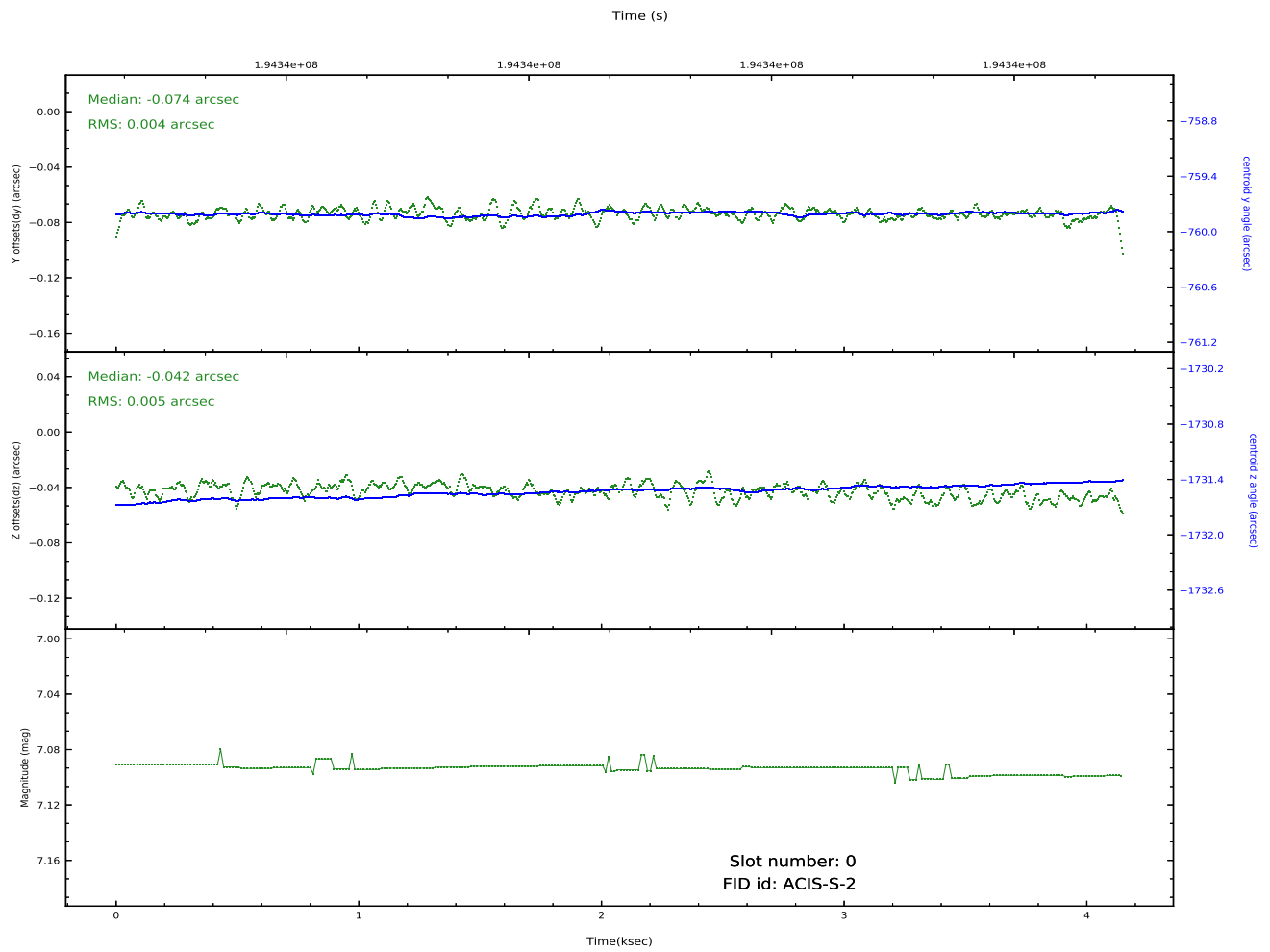
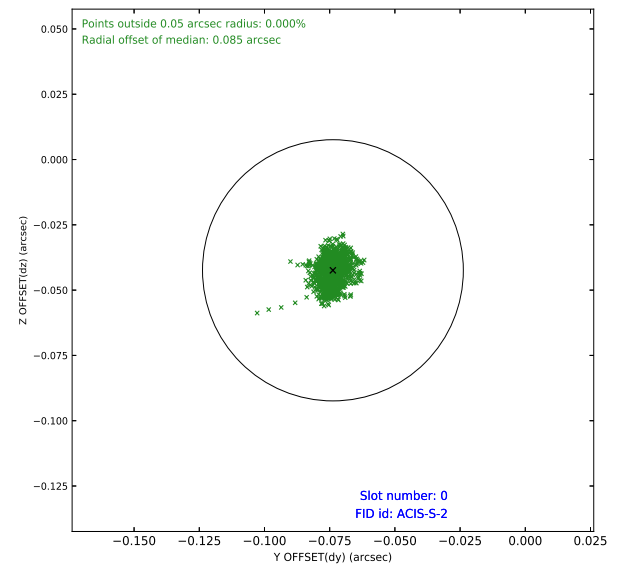
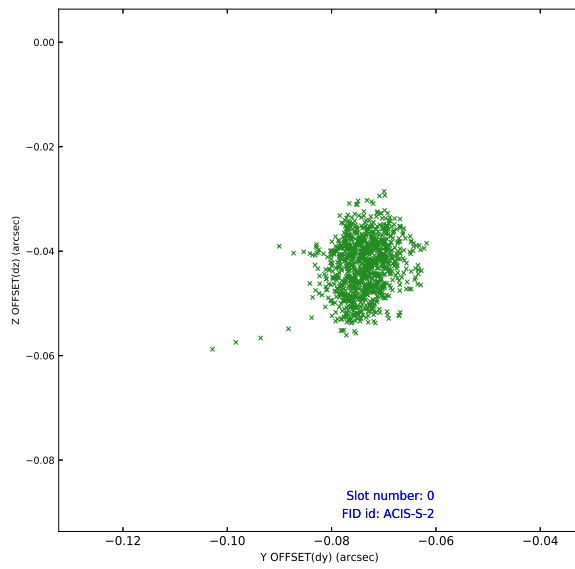


## 2.4.5 Slot 7

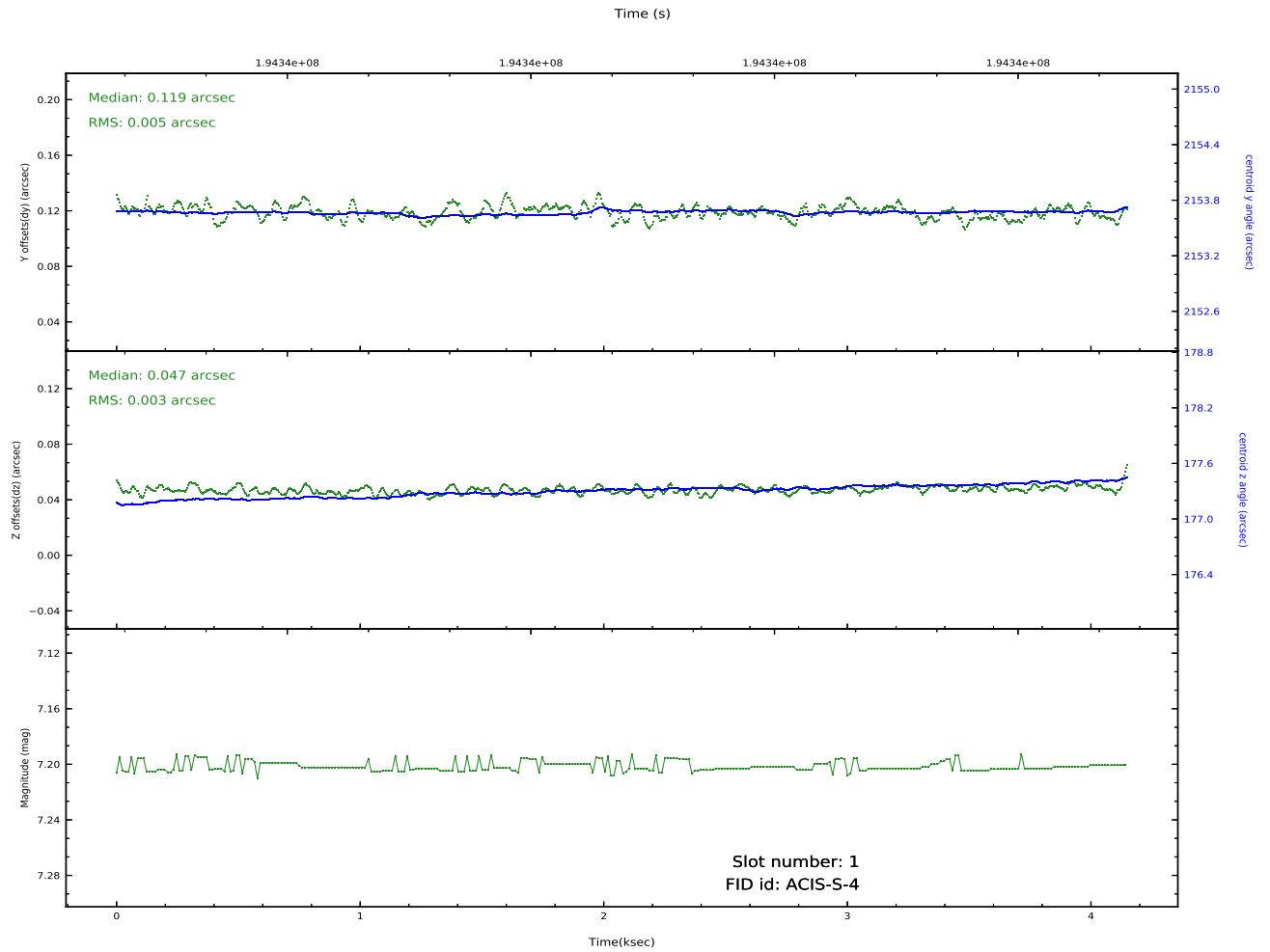
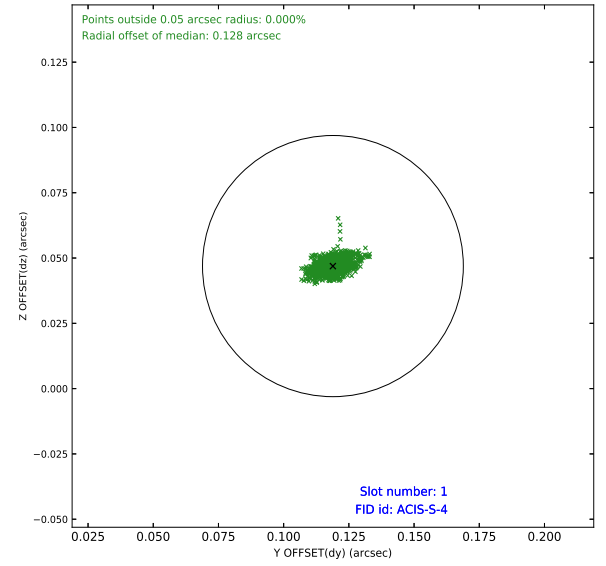
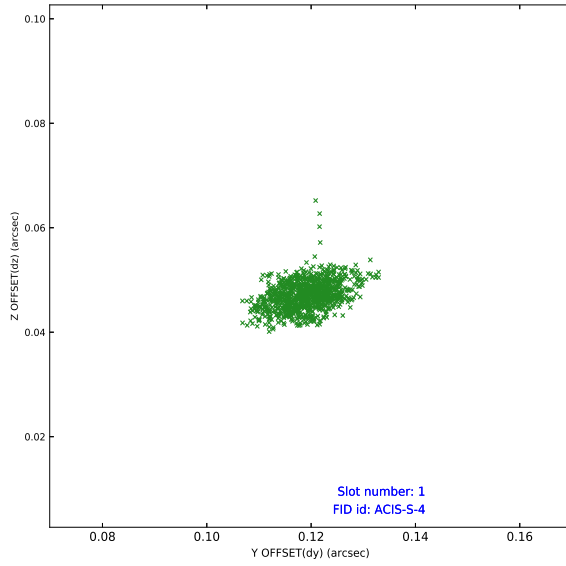


## 2.5 FID Slots

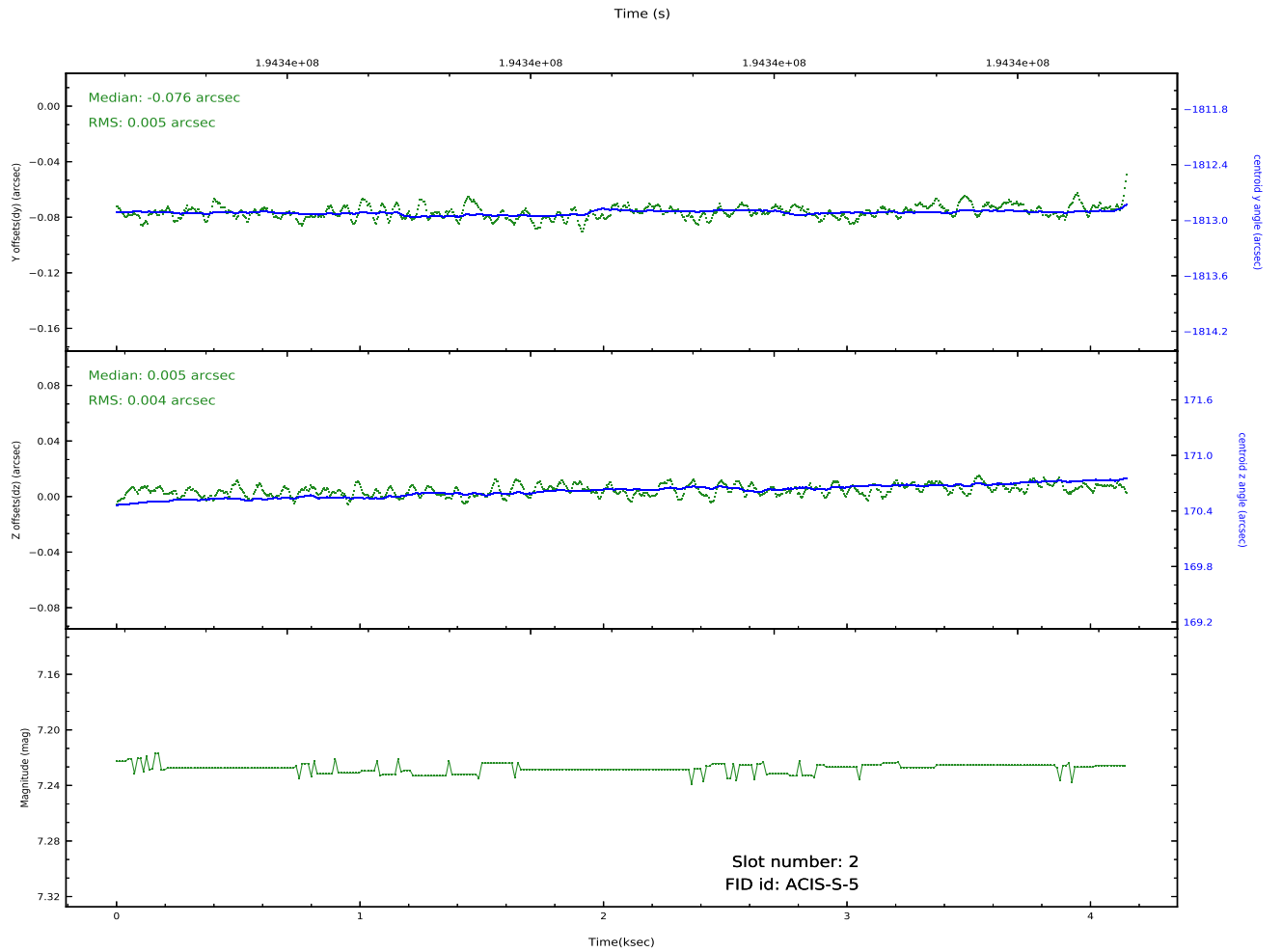
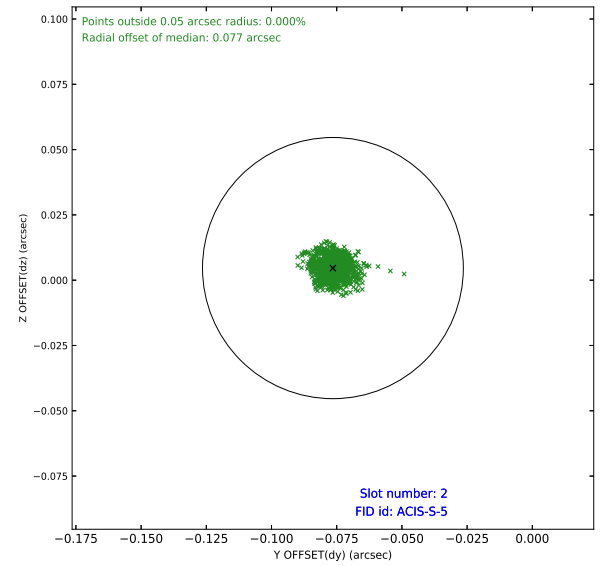
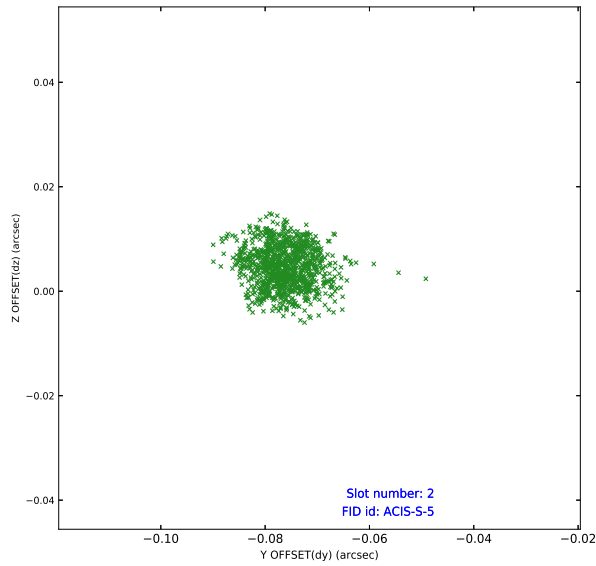
### 2.5.1 Slot 0



## 2.5.2 Slot 1



## 2.5.3 Slot 2



## **A Summary**

### **A.1 Status**

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.09.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.143

### **A.2 Comments**